

Traffic Impact Analysis for:

Dixie Ranch Rd. Development

Slidell, Louisiana

May 2007

Prepared for:

Spartan Building Corporation

Prepared by:



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Project Number: 407-0056

TABLE OF CONTENTS

LIST OF TABLES ii

LIST OF FIGURES iii

LIST OF APPENDICES iv

LIST OF REFERENCES iv

EXECUTIVE SUMMARY v

 I. INTRODUCTION..... 1

 II. SITE MAP 2

 III. EXISTING TRANSPORTATION SYSTEM AND STUDY AREA..... 3

 IV. EXISTING TRAFFIC CONDITIONS 4

 V. PROPOSED DEVELOPMENT 7

 VI. CAPACITY ANALYSIS..... 13

 VII. GAP ANALYSIS 16

 VIII. CONCLUSIONS AND RECOMMENDATIONS 17

LIST OF TABLES

TABLE I – TRIP GENERATION..... 7
TABLE II – LEVEL OF SERVICE CRITERIA FOR TWO-WAY AND ALL-WAY STOP
CONTROL INTERSECTIONS 14
TABLE III – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS
..... 14
TABLE IV – CAPACITY ANALYSIS RESULTS..... 15
TABLE V – GAP ANALYSIS..... 16

LIST OF FIGURES

FIGURE 1	SITE MAP
FIGURE 2	PROJECT LOCATION WITH STUDIED INTERSECTIONS
FIGURE 3	EXISTING CONDITIONS
FIGURE 4	BACKGROUND CONDITIONS
FIGURE 5A	PROJECTED TRIP DISTRIBUTION
FIGURE 5B	PROJECTED SITE TRIP DISTRIBUTION
FIGURE 6	PROJECTED TRIP GENERATION
FIGURE 7	FULL DEVELOPMENT CONDITIONS

LIST OF APPENDICES

- A. TURNING MOVEMENT COUNT DATA
- B. SITE TRAFFIC GENERATION
- C. MISCELLANEOUS TRAFFIC CALCULATIONS
- D. EXISTING CONDITIONS CALCULATIONS
- E. BACKGROUND CONDITIONS CALCULATIONS
- F. FULL DEVELOPMENT CONDITIONS CALCULATIONS

LIST OF REFERENCES

TRIP GENERATION BY MICROTRANS, 7TH Edition, 2003.

SYNCHRO BY TRAFFICWARE, VERSION 6, 2005.

HIGHWAY CAPACITY MANUAL, TRANSPORTATION RESEARCH BOARD,
SPECIAL REPORT 209, WASHINGTON, D.C., 2000.

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to analyze the traffic impact of the Dixie Ranch Road Development in Slidell, St. Tammany Parish, Louisiana. The proposed development consists of a 15,500 sq. ft strip retail mall.

Krebs, LaSalle, LeMieux Consultants, Inc. (KLL) made a comprehensive review of the adjacent roadway network and conducted manual traffic counts at four nearby intersections. KLL calculated and distributed to the network site-generated traffic volumes. KLL used nationally accepted trip generation data for such a retail development in these calculations. A growth rate of 6% and a one-year build-out period were used in these determinations.

Customers will have 2 driveways for ingress and/or egress: One on US 190 and another on Dixie Ranch Rd.

CONCLUSIONS AND RECOMMENDATIONS

The analysis indicates that the transportation network adjacent to the proposed Dixie Ranch Road Development can adequately accommodate trips due to development in addition to those due to population growth. No significant increases in delay are noted.

I. INTRODUCTION

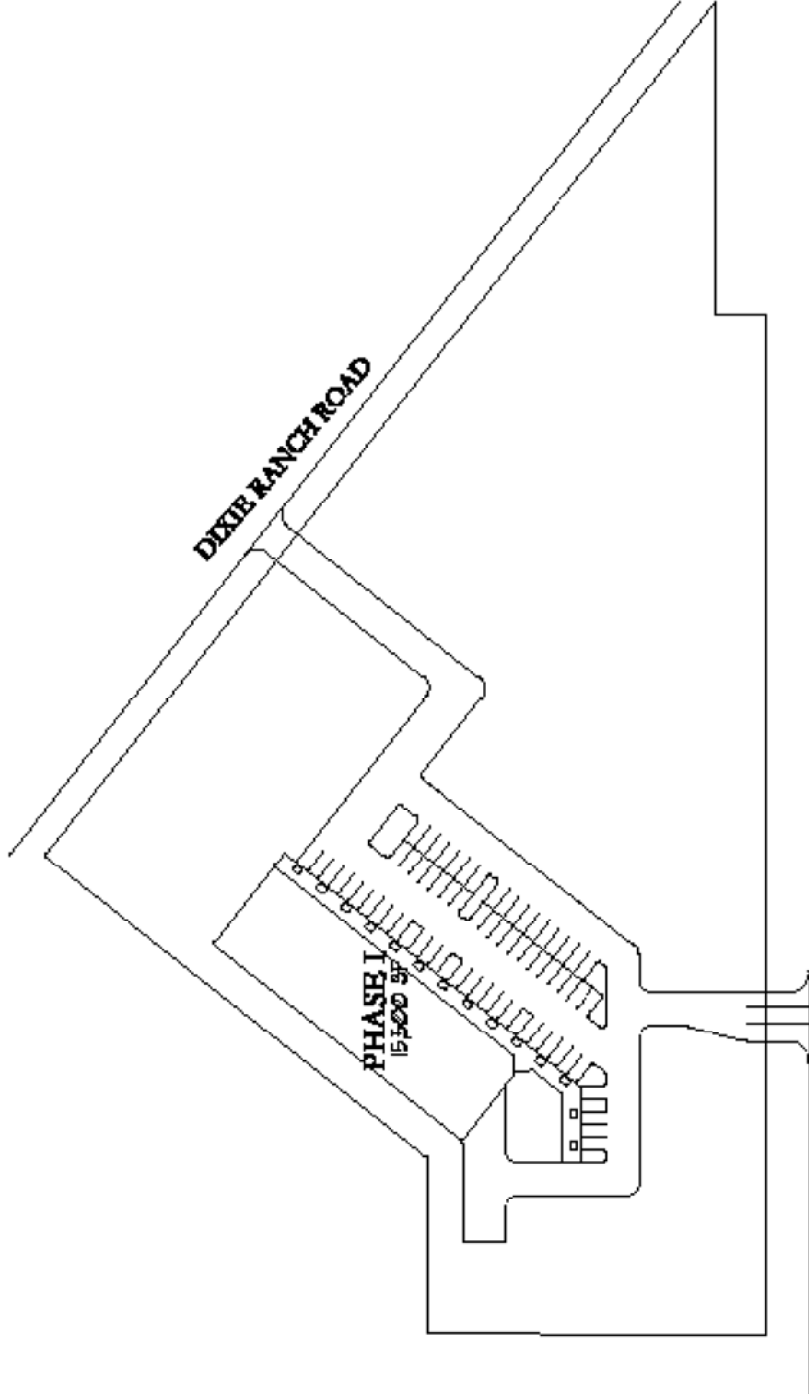
Purpose

The study identifies the potential traffic impact associated with the construction of a retail mall on the corner of US 190 (Gause Rd) and Dixie Ranch Rd.

The objectives of this study are as follows:

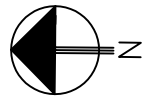
- To adequately assess the traffic impacts associated with the proposed development and identify the level of off-site access and traffic control improvements required to service the project;
- To provide public agencies a comprehensive study which evaluates and documents the traffic impacts and off-site improvements, where warranted;
- To provide a technically sound basis to identify impacts and related mitigation requirements in response to off-site traffic impacts;
- To provide the Site Engineer input on the proposed access plan.

In an effort to define traffic impact, this analysis determines the extent of existing traffic conditions, projects background traffic flow including area growth, and projects changes in traffic flow due to construction of the proposed retail development shown in **figure 1**.



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SITE PLAN
 FIGURE 1
 DIXIE RANCH RD DEVELOPMENT
 Slidell, LA



NOTE: N.T.S.

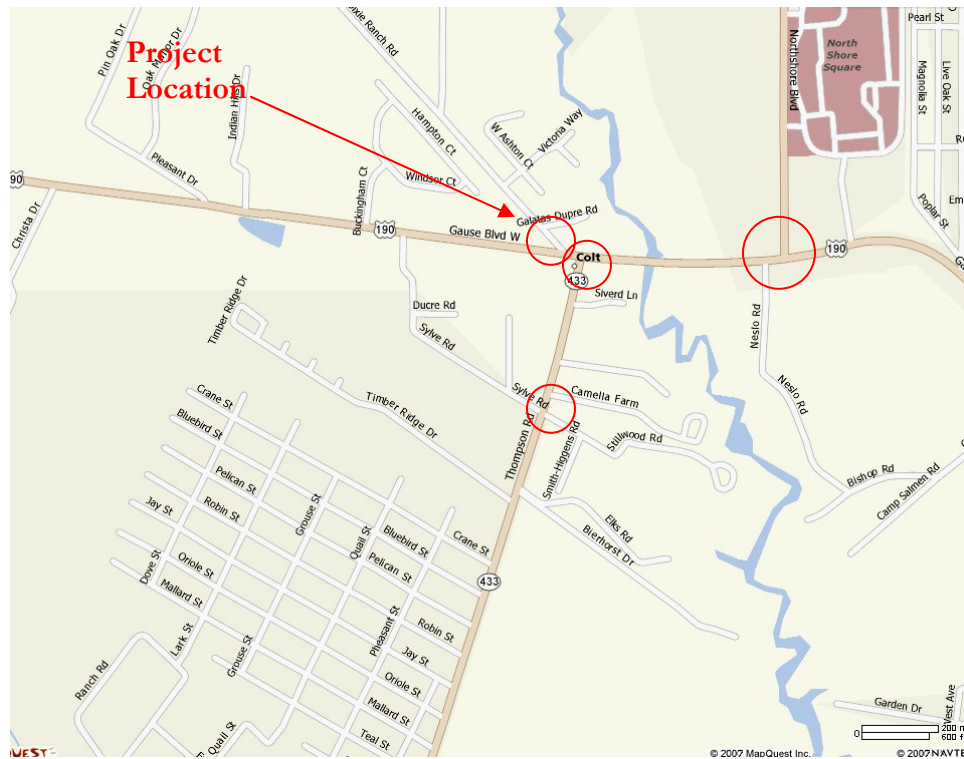
III. EXISTING TRANSPORTATION SYSTEM AND STUDY AREA

Study Area

The study area roadway system identified for investigation includes four intersections near the proposed retail development. Listed below are the four that were studied. **Figure 2** contains the study area, which illustrates both the location of the development and the intersections studied in this analysis.

1. US 190 (Gause Blvd.) and LA 433 (Thompson Rd.)
2. US 190 (Gause Blvd.) and Dixie Ranch Rd.
3. LA 433 (Thompson Rd.) and Sylve Ln.
4. US 190 (Gause Blvd.) and North Shore Blvd.

Figure 2: Project Location with Studied Intersections



IV. EXISTING TRAFFIC CONDITIONS

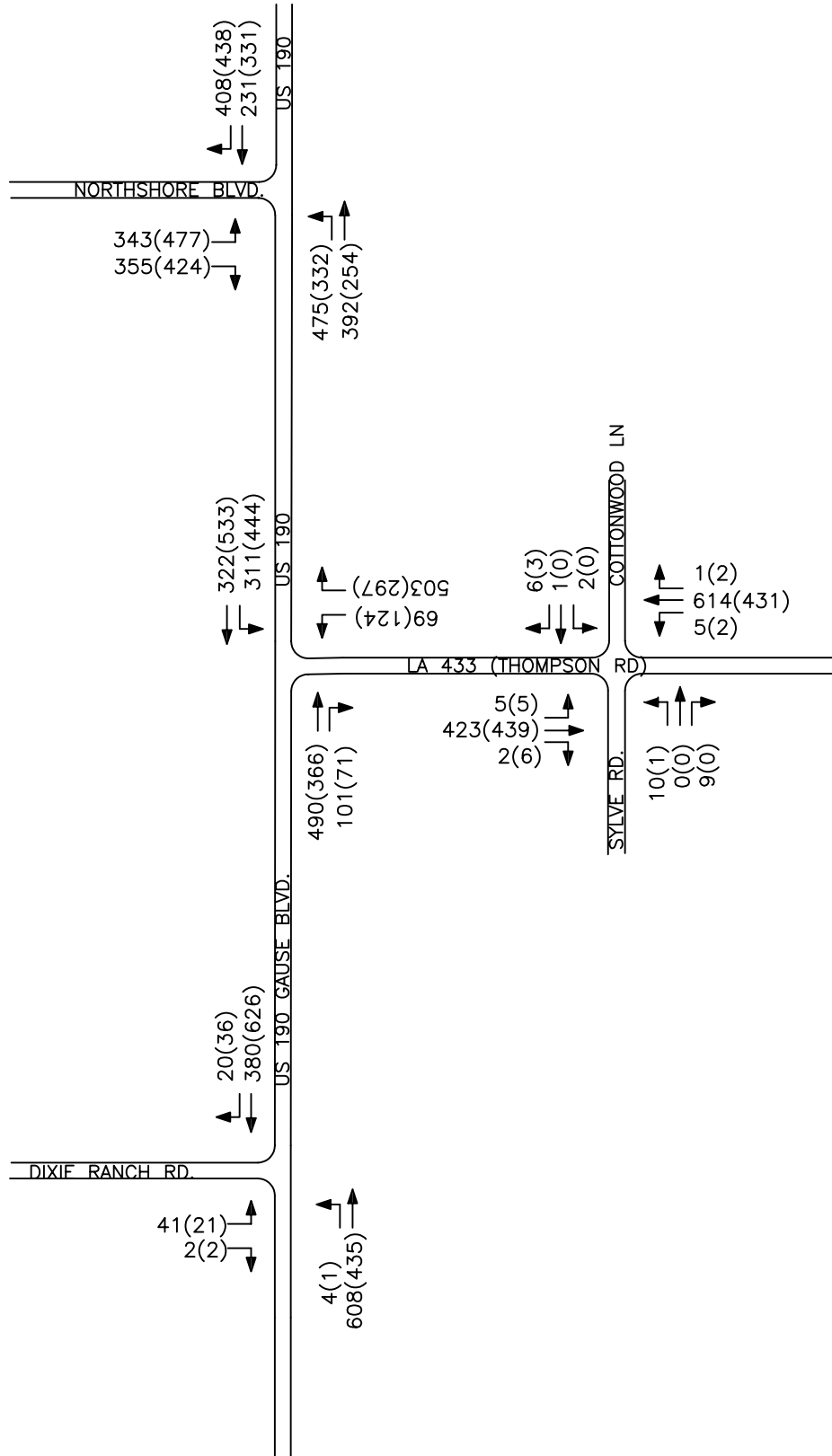
Roadway Network

Figure 2 displays the major intersections in the vicinity of the project site. A brief description of each intersection is listed below.

- **US 190 (Gause Blvd.) and LA 433 (Thompson Rd.)**- This is a signalized T-type intersection with a left turn lane on the WB approach, and right turn lanes on the EB and NB approaches.
- **US 190 (Gause Blvd.) and Dixie Ranch Rd.**- This is an unsignalized T-type with the SB approach entering the roadway at an angle.
- **LA 433 (Thompson Rd.) and Sylve Ln.** - This is a four leg intersection with a school on the southwest corner of the intersection.
- **US 190 (Gause Blvd.) and North Shore Blvd.** - This is a signalized T-type intersection with left turn lanes on the EB and SB approaches, and a right turn lane on the WB approach.

Existing Traffic Volume Data

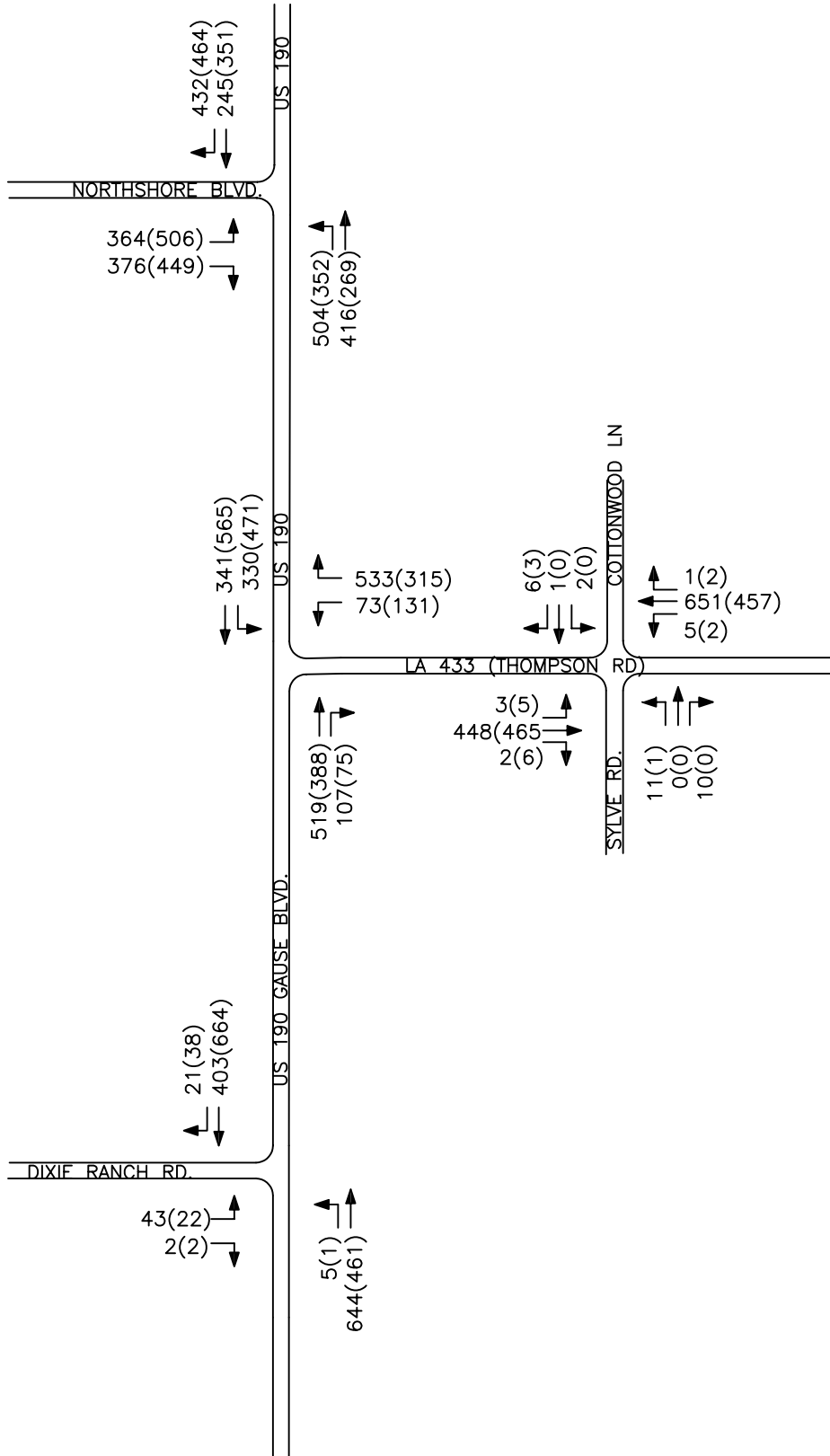
Given the functional characteristics of the study area and the land use proposed for the site, the peak hours selected for analysis were weekday AM and PM peak periods. The combination of site traffic and adjacent thru traffic produces the greatest demand during these time periods. Weekday AM and PM peak traffic counts were obtained by Krebs, LaSalle, LeMieux Consultants, Inc. at the study area intersection previously identified. Data collection occurred between 7:00 to 9:00 AM and 4:00 to 6:00 PM. These time frames were selected because they represent the greatest combination of traffic on the adjacent highways for the type of land use proposed for the site. All turning movement count data was collected between Tuesday April 17 and , Thursday April 19, 2007 during the school year.



EXISTING PEAK HOUR VOLUMES
 DIXIE RANCH RD DEVELOPMENT
 Slidell, LA
 FIGURE 3



NOTE: N.T.S.



BACKGROUND GROWTH VOLUMES
DIXIE RANCH RD DEVELOPMENT
 Slidell, LA
FIGURE 4



NOTE: N.T.S.

V. PROPOSED DEVELOPMENT

Description

The proposed development will consist of a 15, 500 gross leased area retail strip mall. The development will be located on the north east corner of the intersection at US 190 (Gause Blvd.) and Dixie Ranch Rd. Access will be provided via two turnouts; one each on US 190 (Gause Blvd.) and Dixie Ranch Rd, respectively.

Site Traffic Generation

Site traffic generation determines the additional traffic attributable to the development, more specifically vehicle trips entering and exiting the site. Trip Generation, 7th Edition, published by the Institute of Transportation Engineers (ITE), was used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic.

The volume of site-generated traffic at the proposed access drive is illustrated in **Table I**.

TABLE I – TRIP GENERATION

LAND USE	AM PEAK		PM PEAK	
	ENTER	EXIT	ENTER	EXIT
15.5 TGLA Shopping Center	10	6	28	30

**For complete trip generation data, see Appendix B.

C. Site Traffic Distribution

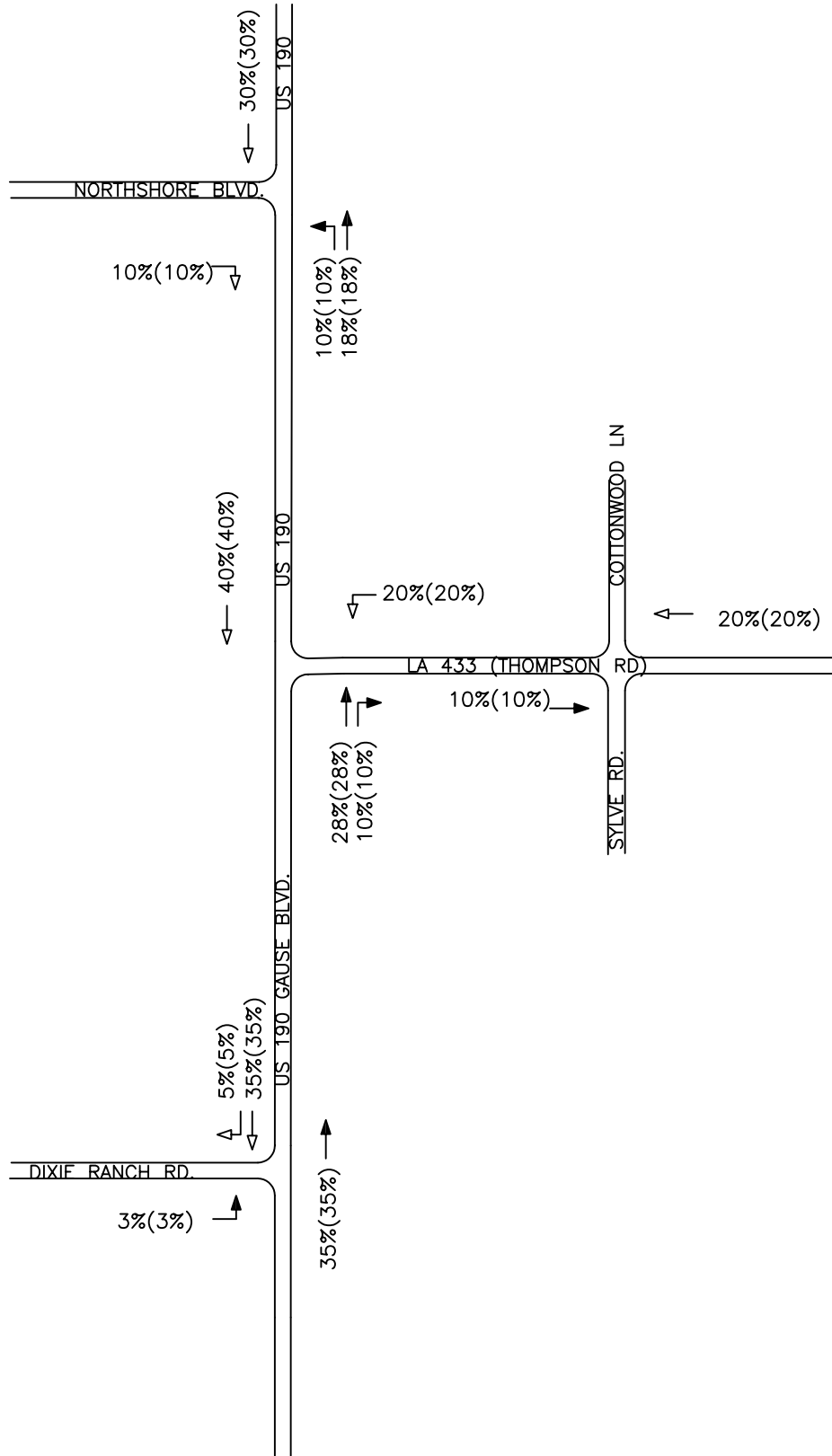
The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Travel patterns at the existing site
- Existing traffic conditions and controls
- Proposed site access drive locations
- Population centers in the area
- Student demographics
- Existing highway network

Figures 5A and 5B portray the anticipated trip distribution pattern percentages for the proposed development and the resulting total site generated traffic as assigned to the site driveway and study area intersections for the AM and PM peak hour periods.

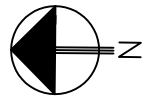
Future Traffic Conditions

The projected full development design hour traffic volumes were developed for the AM and PM peak by combining the background traffic conditions (**Figure 4**) and projected site generated volumes (**Figure 6**) to yield the total traffic conditions expected at full development, seen in **Figure 7**. These calculations are also found in the Traffic Analysis Matrix provided in Appendix C.



ENTERING →
EXITING →

NOTE: N.T.S.

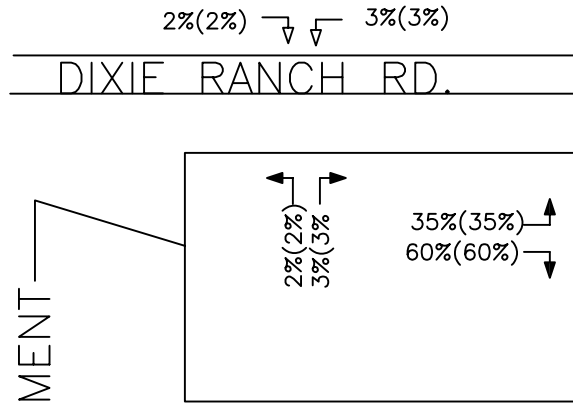


XX = AM
(XX) = PM

TRIP DISTRIBUTION
DIXIE RANCH RD DEVELOPMENT
Slidell, LA
FIGURE 5A

Krebs, LaSalle, LeMieux
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PROPOSED DEVELOPMENT



DIXIE RANCH RD.

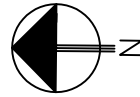
US 190 GAUSE BLVD.

60%(60%) 35%(35%)

ENTERING →
EXITING →

NOTE: N.T.S.

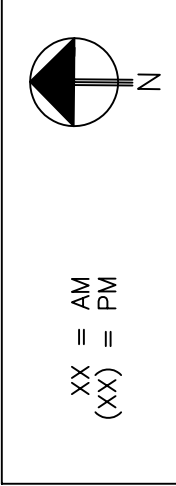
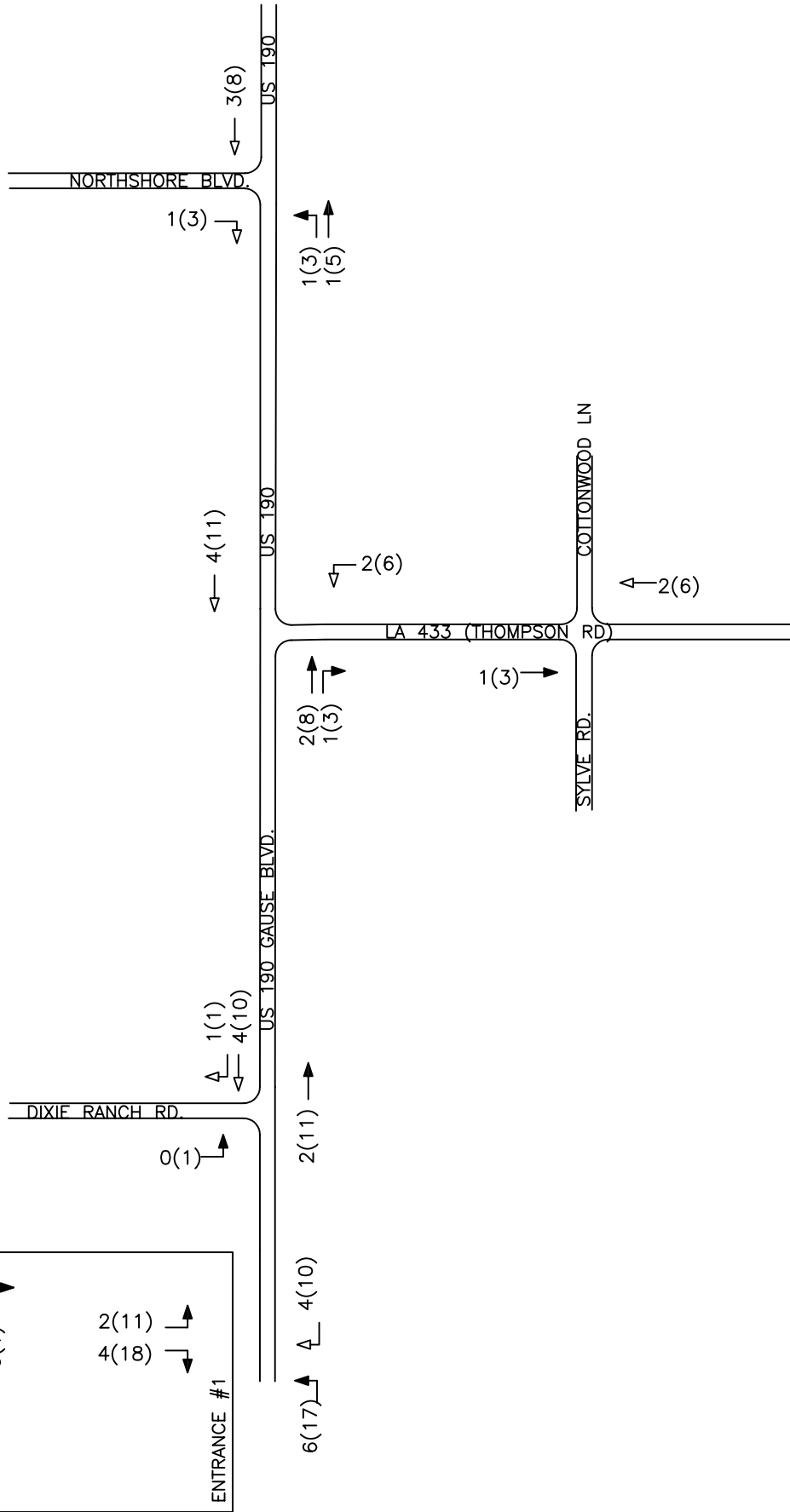
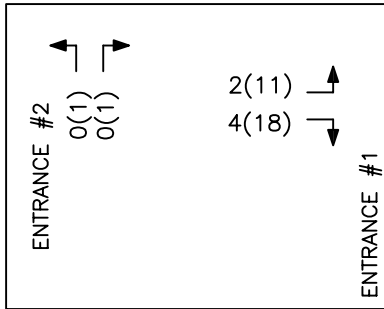
XX = AM
(XX) = PM



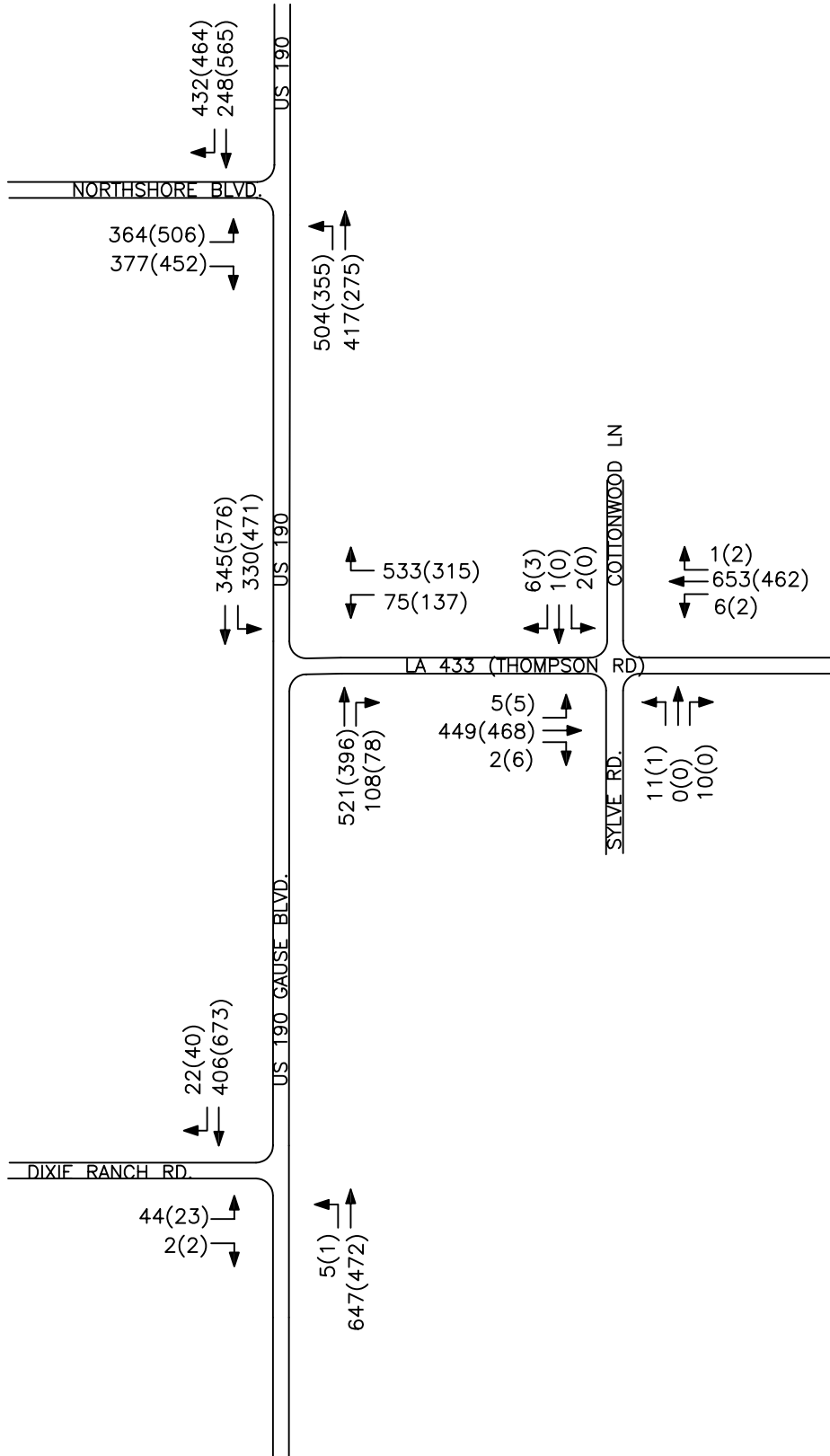
GENERATED TRIPS
DIXIE RANCH RD DEVELOPMENT
Slidell, LA
FIGURE 5B



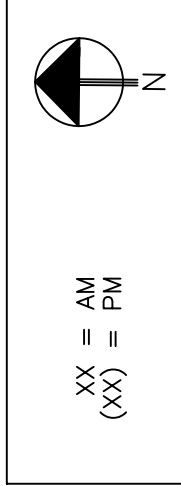
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NOTE: N.T.S.



DEVELOPED
 PEAK HOUR VOLUMES
 DIXIE RANCH RD DEVELOPMENT
 Slidell, LA
 FIGURE 7



NOTE: N.T.S.

VI. CAPACITY ANALYSIS

Analysis Methodology

The capacity of a highway system is predicated by two components: the capacity of the included roadway sections and the capacity of the affected intersections along the route. Intersecting roadways generally provide the initial constraint on a system's capacity. Efficiency at the intersections becomes the critical constraint for capacity. Vehicle interactions at these points must therefore be analyzed to assess the projected operation and capacity levels.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the 2000 Highway Capacity Manual published by the Transportation Research Board. Synchro 6 was used in analyzing operating conditions at study area intersections. The procedure yields a Level of Service (LOS) as an indicator of how well intersections operate.

The concept of Level of Service is defined as a qualitative measurement describing operating conditions within a traffic stream and their perception by motorists and/or passengers. Level of Service is defined in terms of delay which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

Six Levels of Service, with corresponding levels of delay are defined for analysis. They are assigned letter designations, from "A" to "F", with LOS "A" representing the best conditions (little or no delay), LOS "C" average conditions and LOS "F" the worst (excessive delay). Suggested ranges of service capacity, related delay, and an explanation of Levels of Service are included in the Appendix.

The projected traffic volumes, generated by the site and added to the background traffic volumes, are analyzed to assess the capacity potential of the access drives and study area intersections. **Table II** depicts LOS criteria for Two-Way-Stop-Control (TWSC) and All-Way-Stop-Control (AWSC) Intersections. **Table III** depicts LOS criteria for Signalized Intersections. Capacity results of the existing, background, and full development conditions are contained in **Table IV**. All capacity analysis calculations are included in the Appendix.

TABLE II – LEVEL OF SERVICE CRITERIA FOR TWO-WAY AND ALL-WAY STOP CONTROL INTERSECTIONS

LEVEL OF SERVICE CRITERIA FOR TWSC & AWSC INTERSECTIONS	
Level of Service	Control Delay per Vehicle (sec)
A	≤ 10
B	>10 to ≤ 15
C	> 15 to ≤ 25
D	> 25 to ≤ 35
E	> 35 to ≤ 50
F	> 50

TABLE III – LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS	
Level of Service	Control Delay per Vehicle (sec)
A	≤ 10
B	>10 to ≤ 20
C	> 20 to ≤ 35
D	> 35 to ≤ 55
E	> 55 to ≤ 80
F	> 80

TABLE IV – CAPACITY ANALYSIS RESULTS

Intersection		Existing		Background		Full Development	
		AM	PM	AM	PM	AM	PM
Gause Blvd. (US 190) at Thompson Rd. (LA 433).							
Eaststbound: Gause Blvd. (US 190)	Left Turn Movement						
	Thru Movement	C (23.9sec)	C(29.7sec)	C(29.7sec)	D(35.5sec)	C(29.9sec)	D(37.7sec)
	Right Turn Movement	B(13.1sec)	B(16.9sec)	B(14.3sec)	B(17.4sec)	B(14.2sec)	B(17.6sec)
Westbound: Gause Blvd. (US 190)	Left Turn Movement	B(17.7 sec)	C(31.8sec)	C(28.2sec)	D(35.7sec)	C(28.3sec)	D(36.3sec)
	Thru Movement	A (5.9 sec)	A(5.0sec)	A(6.7sec)	A(5.2sec)	A(6.7sec)	A(5.4sec)
	Right Turn Movement						
Northbound: Thompson Rd (LA 433)	Left Turn Movement	C(20.4 sec)	C(25.1sec)	C(20.8sec)	C(25.6sec)	C(20.9sec)	C(25.8sec)
	Thru Movement						
	Right Turn Movement	C(29.0 sec)	C(23.6sec)	C(35.0sec)	C(24.0sec)	D(35.5sec)	C(24.1sec)
Gause Blvd. (US 190) at Dixie Ranch Rd.							
		AM	PM	AM	PM	AM	PM
Eastbound: Gause Blvd. (US 190).	Left Turn Movement	A(0.2 sec)	A(0.1 sec)	A(0.2 sec)	A(0.2 sec)	A(0.2 sec)	A(0.2 sec)
	Thru Movement	A(0.2 sec)	A(0.1 sec)	A(0.2 sec)	A(0.2 sec)	A(0.2 sec)	A(0.2 sec)
	Right Turn Movement						
Westbound: Gause Blvd. (US 190)	Left Turn Movement						
	Thru Movement	A(0sec)	A(0sec)	A(0sec)	A(0sec)	A(0sec)	A(0sec)
	Right Turn Movement	A(0sec)	A(0sec)	A(0sec)	A(0sec)	A(0sec)	A(0sec)
Southbound: Dixie Ranch Rd.	Left Turn Movement	D(31.7sec)	D(31.1sec)	E(38.0sec)	E(37.0sec)	E(39.2sec)	E(39.9sec)
	Thru Movement						
	Right Turn Movement	D(31.7sec)	D(31.1sec)	E(38.0sec)	E(37.0sec)	E(39.2sec)	E(39.9sec)
Thompson Rd (LA 433) at Sylve Rd.							
		AM	PM	AM	PM	AM	PM
Eastbound: Sylve Rd.	Left Turn Movement	D(26.7sec)	C(22.0sec)	D(30.3sec)	C(23.7sec)	D(30.4sec)	C(23.9sec)
	Thru Movement	D(26.7sec)	C(22.0sec)	D(30.3sec)	C(23.7sec)	D(30.4sec)	C(23.9sec)
	Right Turn Movement	D(26.7sec)	C(22.0sec)	D(30.3sec)	C(23.7sec)	D(30.4sec)	C(23.9sec)
Westbound: Cottonwood Ln.	Left Turn Movement	C(23.9sec)	B(11.2sec)	D(26.3sec)	B(11.4sec)	D(26.4sec)	B(11.4sec)
	Thru Movement	C(23.9sec)	B(11.2sec)	D(26.3sec)	B(11.4sec)	D(26.4sec)	B(11.4sec)
	Right Turn Movement	C(23.9sec)	B(11.2sec)	D(26.3sec)	B(11.4sec)	D(26.4sec)	B(11.4sec)
Northbound: Thompson Rd (LA 433)	Left Turn Movement	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)
	Thru Movement	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)
	Right Turn Movement	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)	A(0.3sec)	A(0.1sec)
Southbound: Thompson Rd (LA 433)	Left Turn Movement	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)
	Thru Movement	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)
	Right Turn Movement	A(0sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)	A(0.3sec)
Gause Blvd. (US 190) at North Shore Blvd.							
		AM	PM	AM	PM	AM	PM
Eastbound: Gause Blvd. (US 190)	Left Turn Movement	D(43.8 sec)	B(16.0sec)	D(51.3sec)	B(19.0sec)	D(51.3sec)	B(19.7sec)
	Thru Movement	A(7.3sec)	A(9.4sec)	A(7.5sec)	A(9.7sec)	A(7.6sec)	A(9.7sec)
	Right Turn Movement						
Westbound: Gause Blvd. (US 190)	Left Turn Movement	C(24.7sec)	D(35.0sec)	C(25.9sec)	D(40.4sec)	C(26.1sec)	D(42.0sec)
	Thru Movement	B(11.7sec)	C(21.6sec)	B(12.3sec)	C(22.2sec)	B(12.3sec)	C(22.1sec)
	Right Turn Movement	D(41.2sec)	D(37.9sec)	D(48.1sec)	D(48.0sec)	D(48.1sec)	D(48.8sec)
Southbound: North Shore Blvd.	Left Turn Movement						
	Thru Movement	C(23.1sec)	B(16.3sec)	C(23.3sec)	B(16.8sec)	C(23.3sec)	B(16.9sec)
	Right Turn Movement						
Development Entrance #1							
		AM	PM	AM	PM	AM	PM
Eastbound: Gause Blvd. (US 190)	Left Turn Movement					A (0.2 sec)	A (0.6 sec)
	Thru Movement						
	Right Turn Movement					A (0.2 sec)	A (0.6 sec)
Westbound: Gause Blvd. (US 190)	Left Turn Movement					A (0 sec)	A (0 sec)
	Thru Movement					A (0sec)	A (0 sec)
	Right Turn Movement						
Southbound: Driveway #1	Left Turn Movement						
	Thru Movement					B(12.9sec)	C(17.7sec)
	Right Turn Movement					B(12.9sec)	C(17.7sec)
Development Entrance #2							
		AM	PM	AM	PM	AM	PM
Eastbound: Driveway #2	Left Turn Movement					A (0 sec)	A (8.7sec)
	Thru Movement						
	Right Turn Movement					A (0 sec)	A (8.7sec)
Northbound: Dixie Ranch Rd.	Left Turn Movement					A (0 sec)	A(0.2sec)
	Thru Movement					A (0 sec)	A(0.2sec)
	Right Turn Movement						
Southbound: Dixie Ranch Rd.	Left Turn Movement						
	Thru Movement					A (0 sec)	A (0 sec)
	Right Turn Movement					A (0 sec)	A (0 sec)

US 190 (Gause Blvd.) and LA 433 (Thompson Rd.)- This intersection is expected to operate at LOS D or better under all conditions. According to the TSI provided by LADOTD, the signal operates in free operation mode.

US 190 (Gause Blvd.) and Dixie Ranch Rd.- This intersection operates at LOS D or better under existing conditions. Background growth, however, will likely take the southbound approach to LOS E in the AM peak period. After development, both AM and PM peak periods will likely reach LOS E.

LA 433 (Thompson Rd.) and Sylve Ln. - This intersection is expected to operate at LOS D or better under all conditions.

US 190 (Gause Blvd.) and North Shore Blvd. - This intersection is expected to operate at LOS D or better under all conditions. According to the TSI provided by LADOTD, the signal operates in free operation mode.

VII. GAP ANALYSIS

US 190 (Gause Blvd.) and Dixie Ranch Rd

Due to the excessive delay of the southbound movements on Dixie Ranch Road which results in a LOS E, a gap analysis was performed on the intersection using HCS software. The analysis shows that there is sufficient capacity for the southbound movements.

TABLE V – GAP ANALYSIS

Movement	Acceptable Gap Duration	Shared Lane Capacity	Projected Volume	Theoretical Reserve Capacity
Southbound LT AM Peak - Dixie Ranch Rd.	4.1 sec	171	59	112
Southbound LT AM Peak - Dixie Ranch Rd.	4.1 sec	166	51	115

Gap analysis calculations are included in the appendix.

VIII. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this report is to analyze the traffic impact of the Dixie Ranch Road Development in Slidell; St. Tammany Parish, Louisiana. The proposed development consists of a 15,500 sq. ft strip retail mall.

Krebs, LaSalle, LeMieux Consultants, Inc. (KLL) made a comprehensive review of the adjacent roadway network and conducted manual traffic counts at four nearby intersections. KLL calculated and distributed to the network site-generated traffic volumes. KLL used nationally accepted trip generation data for such a retail development in these calculations. A growth rate of 6% and a one-year build-out period were used in these determinations.

Customers will have 2 driveways for ingress and/or egress: One on US 190 and another on Dixie Ranch Rd.

The analysis indicates that the transportation network adjacent to the proposed Dixie Ranch Road Development can adequately accommodate trips due to development in addition to those due to population growth. No significant increases in delay are noted.

APPENDIX

APPENDIX A

TURNING MOVEMENT COUNT DATA

Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : US190A~1
Site Code : 00000000
Start Date : 4/4/2007
Page No : 1

Groups Printed- Unshifted

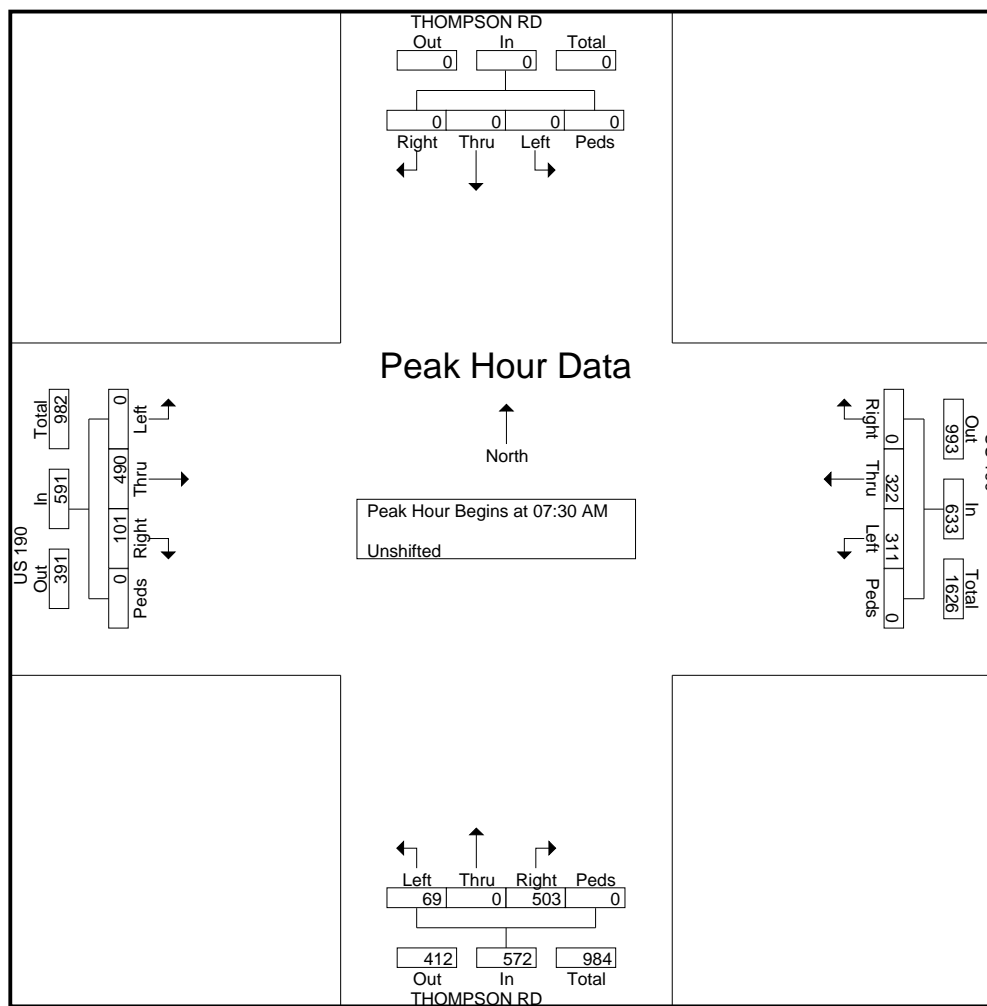
Start Time	THOMPSON RD Southbound				US 190 Westbound				THOMPSON RD Northbound				US 190 Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	0	0	0	40	34	0	87	0	12	0	21	121	0	0	315
07:15 AM	0	0	0	0	0	44	34	0	104	0	14	0	15	128	0	0	339
07:30 AM	0	0	0	0	0	62	45	0	118	0	13	0	23	116	0	0	377
07:45 AM	0	0	0	0	0	68	84	0	118	0	16	0	21	108	0	0	415
Total	0	0	0	0	0	214	197	0	427	0	55	0	80	473	0	0	1446
08:00 AM	0	0	0	0	0	125	94	0	112	0	22	0	30	137	0	0	520
08:15 AM	0	0	0	0	0	67	88	0	155	0	18	0	27	129	0	0	484
08:30 AM	0	0	0	0	0	70	45	0	99	0	22	0	20	114	0	0	370
08:45 AM	0	0	0	0	0	62	60	0	83	0	10	0	6	109	0	0	330
Total	0	0	0	0	0	324	287	0	449	0	72	0	83	489	0	0	1704
04:00 PM	0	0	0	0	0	96	106	0	56	0	18	0	9	77	0	0	362
04:15 PM	0	0	0	0	0	119	88	0	80	0	23	0	20	80	0	0	410
04:30 PM	0	0	0	0	0	121	85	0	59	0	37	0	17	68	0	0	387
04:45 PM	0	0	0	0	0	131	95	0	72	0	31	0	20	100	0	0	449
Total	0	0	0	0	0	467	374	0	267	0	109	0	66	325	0	0	1608
05:00 PM	0	0	0	0	0	149	104	0	55	0	33	0	19	84	0	0	444
05:15 PM	0	0	0	0	0	119	108	0	73	0	20	0	18	77	0	0	415
05:30 PM	0	0	0	0	0	139	125	0	82	0	36	0	20	94	0	0	496
05:45 PM	0	0	0	0	0	126	107	0	87	0	35	0	14	111	0	0	480
Total	0	0	0	0	0	533	444	0	297	0	124	0	71	366	0	0	1835
Grand Total	0	0	0	0	0	1538	1302	0	1440	0	360	0	300	1653	0	0	6593
Apprch %	0	0	0	0	0	54.2	45.8	0	80	0	20	0	15.4	84.6	0	0	
Total %	0	0	0	0	0	23.3	19.7	0	21.8	0	5.5	0	4.6	25.1	0	0	

Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
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File Name : US190A~1
Site Code : 00000000
Start Date : 4/4/2007
Page No : 2

Start Time	THOMPSON RD Southbound					US 190 Westbound					THOMPSON RD Northbound					US 190 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	62	45	0	107	118	0	13	0	131	23	116	0	0	139	377
07:45 AM	0	0	0	0	0	0	68	84	0	152	118	0	16	0	134	21	108	0	0	129	415
08:00 AM	0	0	0	0	0	0	125	94	0	219	112	0	22	0	134	30	137	0	0	167	520
08:15 AM	0	0	0	0	0	0	67	88	0	155	155	0	18	0	173	27	129	0	0	156	484
Total Volume	0	0	0	0	0	0	322	311	0	633	503	0	69	0	572	101	490	0	0	591	1796
% App. Total	0	0	0	0	0	0	50.9	49.1	0		87.9	0	12.1	0		17.1	82.9	0	0		
PHF	.000	.000	.000	.000	.000	.000	.644	.827	.000	.723	.811	.000	.784	.000	.827	.842	.894	.000	.000	.885	.863

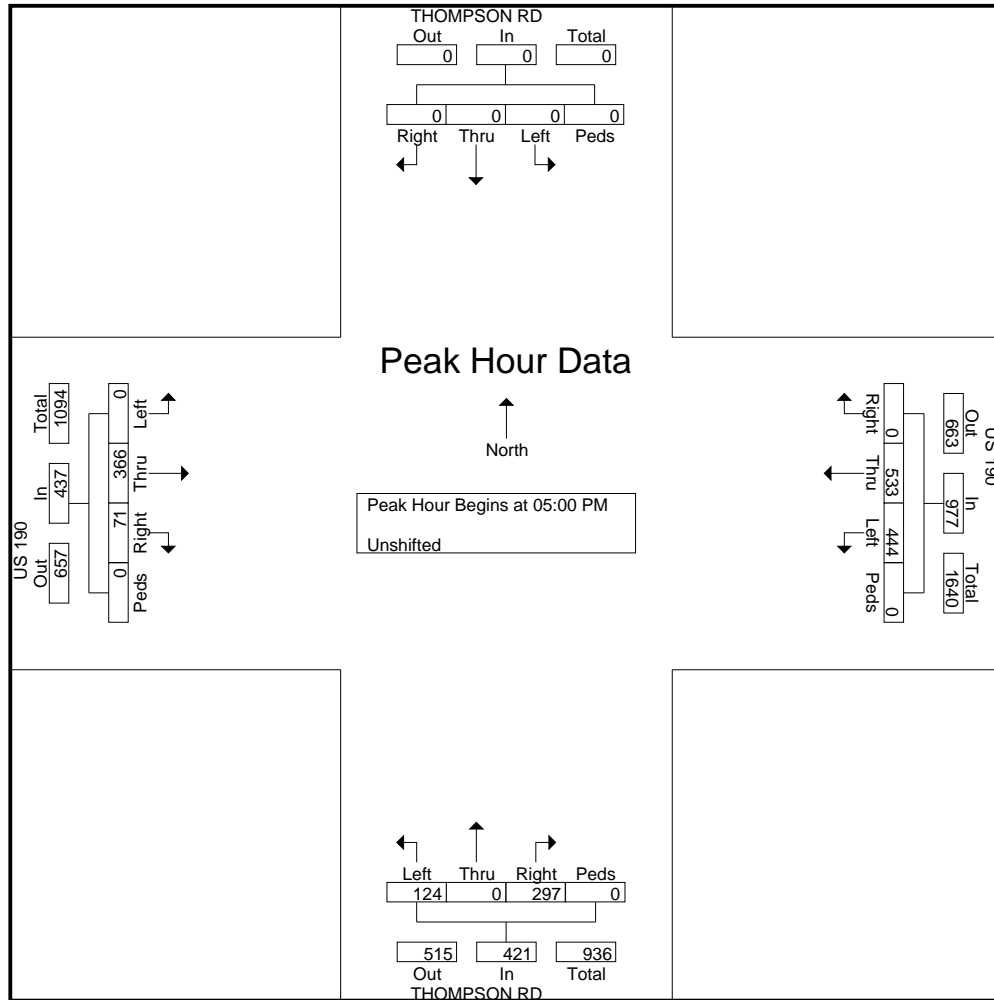


Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : US190A~1
Site Code : 00000000
Start Date : 4/4/2007
Page No : 3

Start Time	THOMPSON RD Southbound					US 190 Westbound					THOMPSON RD Northbound					US 190 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	149	104	0	253	55	0	33	0	88	19	84	0	0	103	444
05:15 PM	0	0	0	0	0	0	119	108	0	227	73	0	20	0	93	18	77	0	0	95	415
05:30 PM	0	0	0	0	0	0	139	125	0	264	82	0	36	0	118	20	94	0	0	114	496
05:45 PM	0	0	0	0	0	0	126	107	0	233	87	0	35	0	122	14	111	0	0	125	480
Total Volume	0	0	0	0	0	0	533	444	0	977	297	0	124	0	421	71	366	0	0	437	1835
% App. Total	0	0	0	0	0	0	54.6	45.4	0		70.5	0	29.5	0		16.2	83.8	0	0		
PHF	.000	.000	.000	.000	.000	.000	.894	.888	.000	.925	.853	.000	.861	.000	.863	.888	.824	.000	.000	.874	.925



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3013 27th Street
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File Name : Not Named 2
Site Code : 00000000
Start Date : 4/19/2007
Page No : 1

Groups Printed- Unshifted

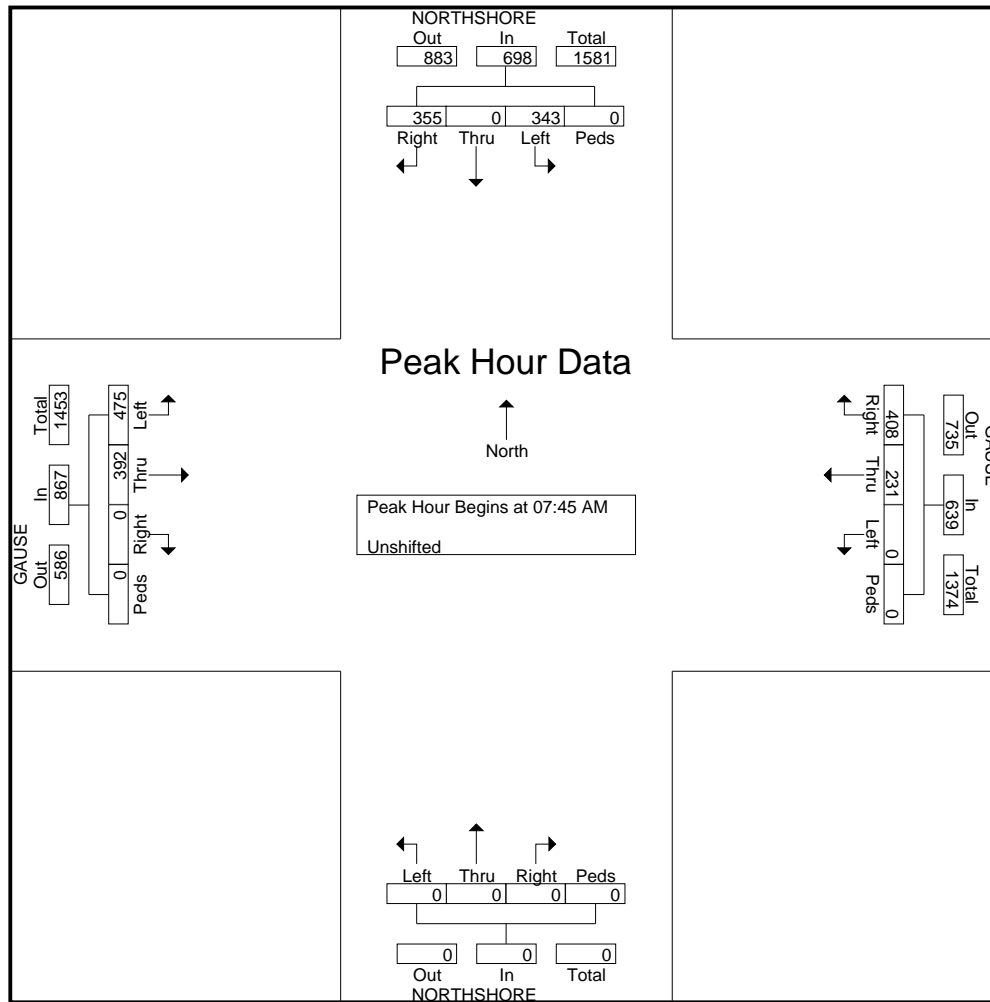
Start Time	NORTHSHORE Southbound				GAUSE Westbound				NORTHSHORE Northbound				GAUSE Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	37	0	56	0	60	35	0	0	0	0	0	0	0	66	123	0	377
07:15 AM	43	0	57	0	66	39	0	0	0	0	0	0	0	82	119	0	406
07:30 AM	62	0	77	0	92	53	0	0	0	0	0	0	0	90	125	0	499
07:45 AM	68	0	82	0	101	53	0	0	0	0	0	0	0	91	94	0	489
Total	210	0	272	0	319	180	0	0	0	0	0	0	0	329	461	0	1771
08:00 AM	105	0	77	0	111	58	0	0	0	0	0	0	0	95	134	0	580
08:15 AM	121	0	89	0	99	63	0	0	0	0	0	0	0	93	113	0	578
08:30 AM	61	0	95	0	97	57	0	0	0	0	0	0	0	113	134	0	557
08:45 AM	51	0	83	0	90	65	0	0	0	0	0	0	0	88	87	0	464
Total	338	0	344	0	397	243	0	0	0	0	0	0	0	389	468	0	2179
04:00 PM	131	0	143	0	116	79	0	0	0	0	0	0	0	77	83	0	629
04:15 PM	85	0	110	0	89	84	0	0	0	0	0	0	0	74	90	0	532
04:30 PM	101	0	111	0	116	91	0	1	0	0	0	0	0	52	73	0	545
04:45 PM	107	0	113	0	117	77	0	0	0	0	0	0	0	51	86	0	551
Total	424	0	477	0	438	331	0	1	0	0	0	0	0	254	332	0	2257
05:00 PM	120	0	104	0	123	77	0	0	0	0	0	0	0	70	83	0	577
05:15 PM	131	0	129	0	105	90	0	0	0	0	0	0	0	67	87	0	609
05:30 PM	136	0	108	0	107	65	0	0	0	0	0	0	0	74	99	0	589
05:45 PM	142	0	125	0	91	79	0	0	0	0	0	0	0	54	78	0	569
Total	529	0	466	0	426	311	0	0	0	0	0	0	0	265	347	0	2344
Grand Total	1501	0	1559	0	1580	1065	0	1	0	0	0	0	0	1237	1608	0	8551
Aprch %	49.1	0	50.9	0	59.7	40.2	0	0	0	0	0	0	0	43.5	56.5	0	
Total %	17.6	0	18.2	0	18.5	12.5	0	0	0	0	0	0	0	14.5	18.8	0	

Krebs, LaSalle, LeMieu Consultants, Inc.

3013 27th Street
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(504) 837-9470

File Name : Not Named 2
Site Code : 00000000
Start Date : 4/19/2007
Page No : 2

Start Time	NORTHSHORE Southbound					GAUSE Westbound					NORTHSHORE Northbound					GAUSE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	68	0	82	0	150	101	53	0	0	154	0	0	0	0	0	0	91	94	0	185	489
08:00 AM	105	0	77	0	182	111	58	0	0	169	0	0	0	0	0	0	95	134	0	229	580
08:15 AM	121	0	89	0	210	99	63	0	0	162	0	0	0	0	0	0	93	113	0	206	578
08:30 AM	61	0	95	0	156	97	57	0	0	154	0	0	0	0	0	0	113	134	0	247	557
Total Volume	355	0	343	0	698	408	231	0	0	639	0	0	0	0	0	0	392	475	0	867	2204
% App. Total	50.9	0	49.1	0		63.8	36.2	0	0		0	0	0	0		0	45.2	54.8	0		
PHF	.733	.000	.903	.000	.831	.919	.917	.000	.000	.945	.000	.000	.000	.000	.000	.000	.867	.886	.000	.878	.950

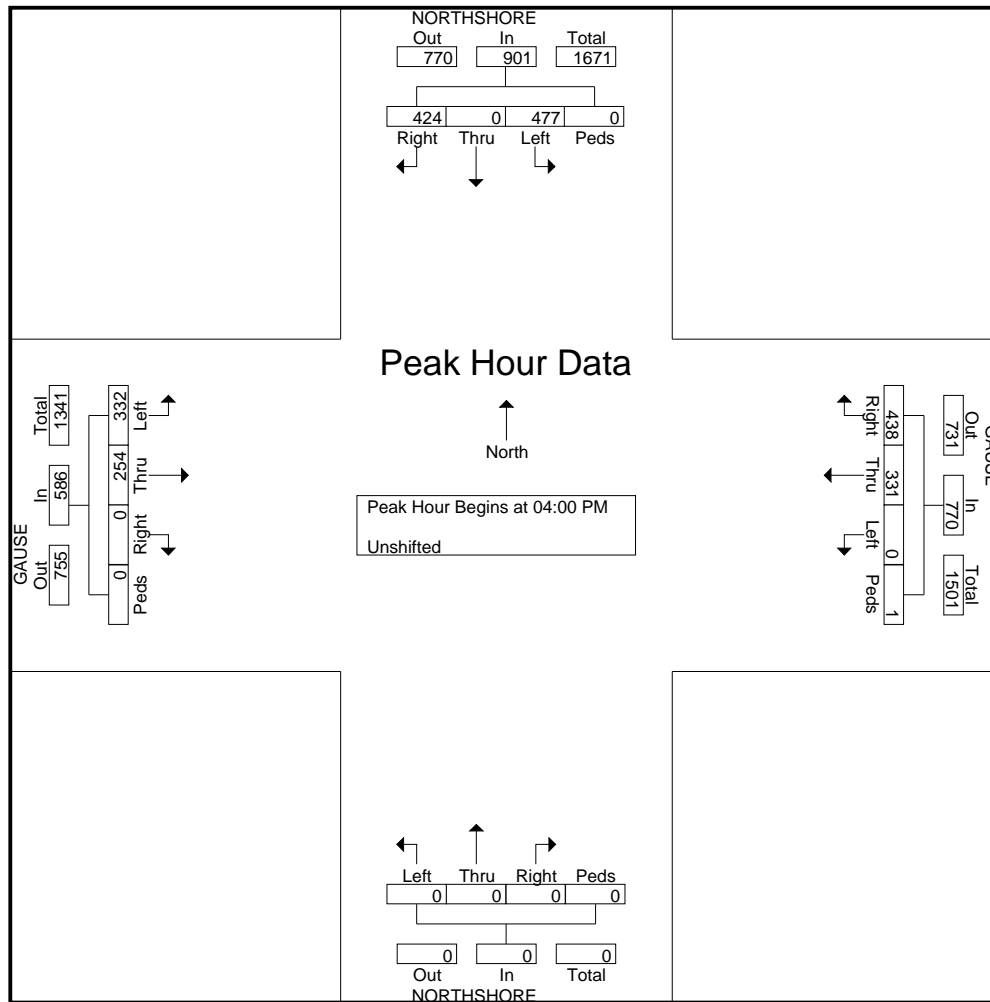


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3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : Not Named 2
Site Code : 00000000
Start Date : 4/19/2007
Page No : 3

Start Time	NORTHSHORE Southbound					GAUSE Westbound					NORTHSHORE Northbound					GAUSE Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	131	0	143	0	274	116	79	0	0	195	0	0	0	0	0	0	77	83	0	160	629
04:15 PM	85	0	110	0	195	89	84	0	0	173	0	0	0	0	0	0	74	90	0	164	532
04:30 PM	101	0	111	0	212	116	91	0	1	208	0	0	0	0	0	0	52	73	0	125	545
04:45 PM	107	0	113	0	220	117	77	0	0	194	0	0	0	0	0	0	51	86	0	137	551
Total Volume	424	0	477	0	901	438	331	0	1	770	0	0	0	0	0	0	254	332	0	586	2257
% App. Total	47.1	0	52.9	0		56.9	43	0	0.1		0	0	0	0		0	43.3	56.7	0		
PHF	.809	.000	.834	.000	.822	.936	.909	.000	.250	.925	.000	.000	.000	.000	.000	.000	.825	.922	.000	.893	.897



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3013 27th Street
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File Name : US190A~2
Site Code : 00000000
Start Date : 4/5/2007
Page No : 1

Groups Printed- Unshifted

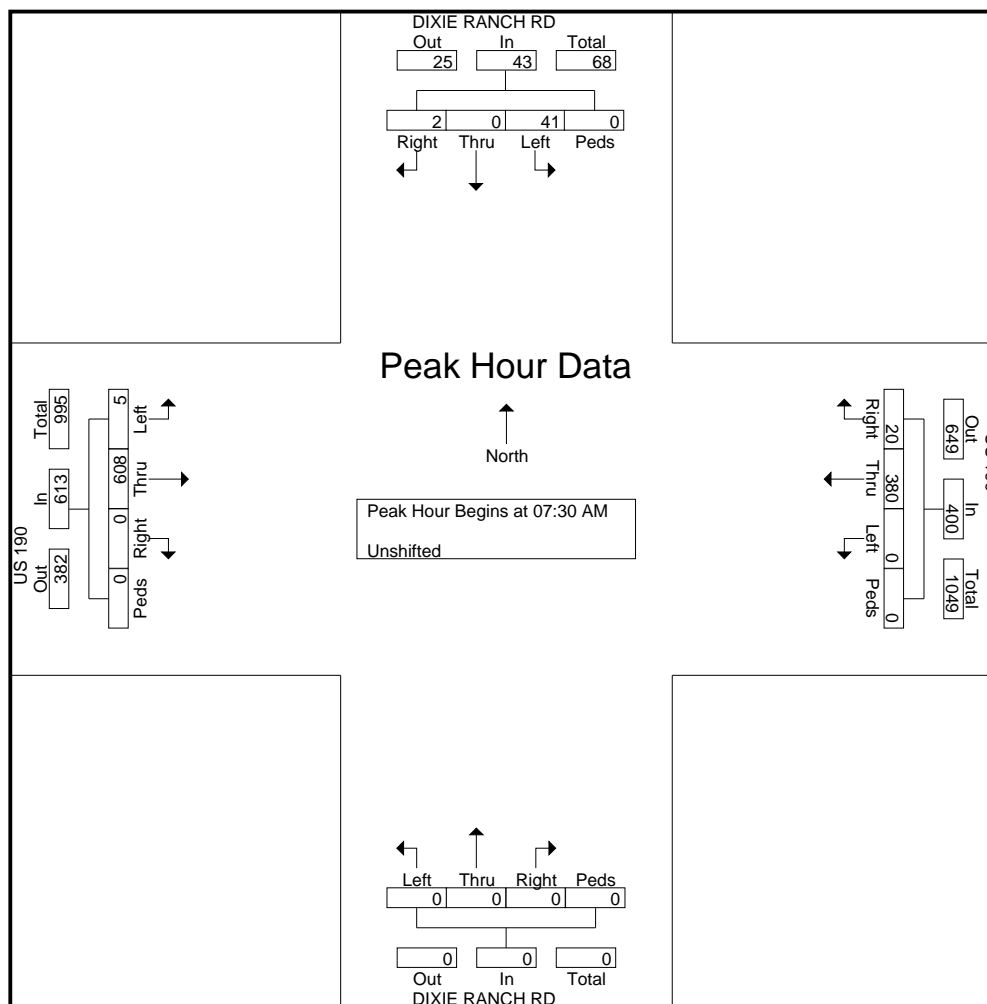
Start Time	DIXIE RANCH RD Southbound				US 190 Westbound				DIXIE RANCH RD Northbound				US 190 Eastbound				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	0	0	3	0	5	46	0	0	0	0	0	0	0	121	1	0	176
07:15 AM	0	0	2	0	4	48	0	0	0	0	0	0	0	125	0	0	179
07:30 AM	0	0	11	0	3	64	0	0	0	0	0	0	0	154	2	0	234
07:45 AM	1	0	9	0	6	85	0	0	0	0	0	0	0	156	1	0	258
Total	1	0	25	0	18	243	0	0	0	0	0	0	0	556	4	0	847
08:00 AM	1	0	13	0	6	107	0	0	0	0	0	0	0	138	1	0	266
08:15 AM	0	0	8	0	5	124	0	0	0	0	0	0	0	160	1	0	298
08:30 AM	2	0	6	0	6	67	0	0	0	0	0	0	0	137	2	0	220
08:45 AM	0	0	9	0	3	65	0	0	0	0	0	0	0	106	0	0	183
Total	3	0	36	0	20	363	0	0	0	0	0	0	0	541	4	0	967
04:00 PM	0	0	1	0	10	118	0	0	0	0	0	0	0	110	1	0	240
04:15 PM	1	0	3	0	4	111	0	0	0	0	0	0	0	120	0	0	239
04:30 PM	3	0	6	0	5	134	0	0	0	0	0	0	0	103	0	0	251
04:45 PM	3	0	6	0	9	140	0	0	0	0	0	0	0	115	0	0	273
Total	7	0	16	0	28	503	0	0	0	0	0	0	0	448	1	0	1003
05:00 PM	1	0	5	0	8	153	0	0	0	0	0	0	0	117	1	0	285
05:15 PM	0	0	11	0	14	153	0	0	0	0	0	0	0	101	0	0	279
05:30 PM	0	0	2	0	7	159	0	0	0	0	0	0	0	98	0	0	266
05:45 PM	1	0	3	0	7	161	0	0	0	0	0	0	0	119	0	0	291
Total	2	0	21	0	36	626	0	0	0	0	0	0	0	435	1	0	1121
Grand Total	13	0	98	0	102	1735	0	0	0	0	0	0	0	1980	10	0	3938
Apprch %	11.7	0	88.3	0	5.6	94.4	0	0	0	0	0	0	0	99.5	0.5	0	
Total %	0.3	0	2.5	0	2.6	44.1	0	0	0	0	0	0	0	50.3	0.3	0	

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3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : US190A~2
Site Code : 00000000
Start Date : 4/5/2007
Page No : 2

Start Time	DIXIE RANCH RD Southbound					US 190 Westbound					DIXIE RANCH RD Northbound					US 190 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	11	0	11	3	64	0	0	67	0	0	0	0	0	0	154	2	0	156	234
07:45 AM	1	0	9	0	10	6	85	0	0	91	0	0	0	0	0	0	156	1	0	157	258
08:00 AM	1	0	13	0	14	6	107	0	0	113	0	0	0	0	0	0	138	1	0	139	266
08:15 AM	0	0	8	0	8	5	124	0	0	129	0	0	0	0	0	0	160	1	0	161	298
Total Volume	2	0	41	0	43	20	380	0	0	400	0	0	0	0	0	0	608	5	0	613	1056
% App. Total	4.7	0	95.3	0		5	95	0	0		0	0	0	0		0	99.2	0.8	0		
PHF	.500	.000	.788	.000	.768	.833	.766	.000	.000	.775	.000	.000	.000	.000	.000	.000	.950	.625	.000	.952	.886

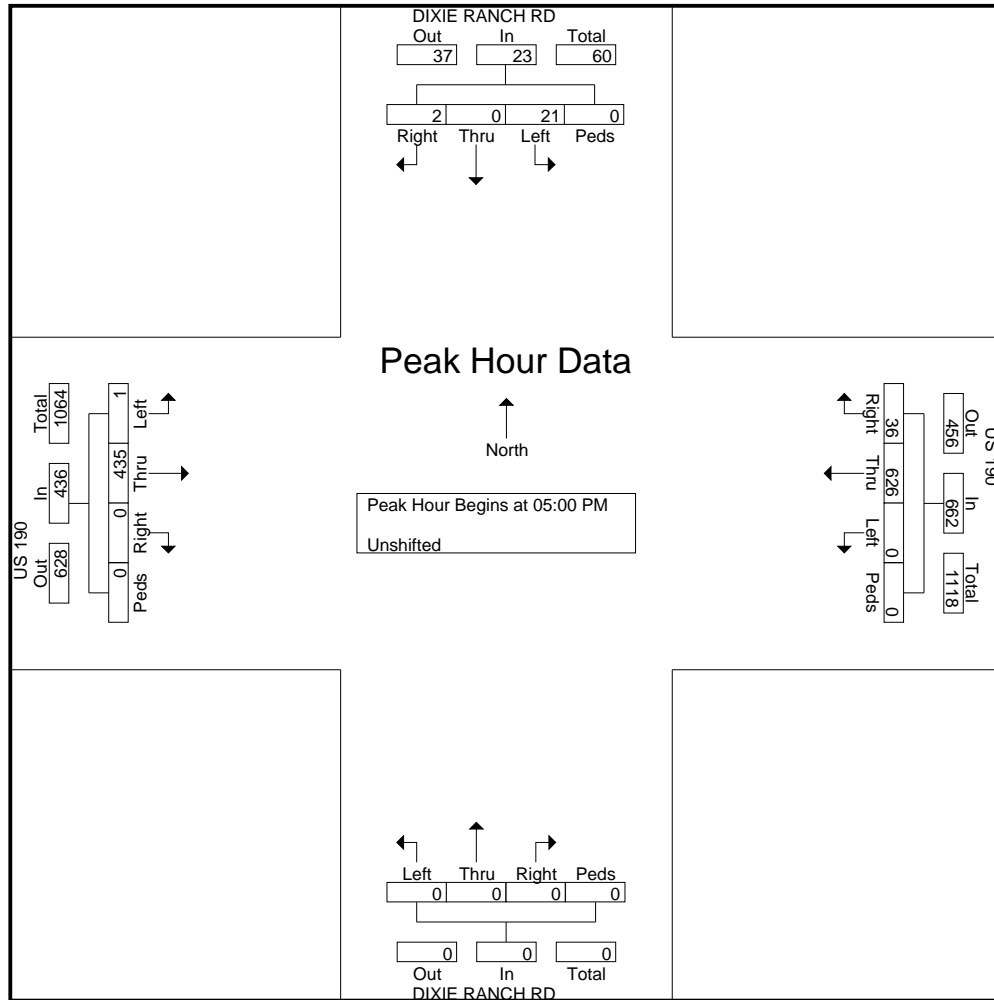


Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : US190A~2
Site Code : 00000000
Start Date : 4/5/2007
Page No : 3

Start Time	DIXIE RANCH RD Southbound					US 190 Westbound					DIXIE RANCH RD Northbound					US 190 Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	0	5	0	6	8	153	0	0	161	0	0	0	0	0	0	117	1	0	118	285
05:15 PM	0	0	11	0	11	14	153	0	0	167	0	0	0	0	0	0	101	0	0	101	279
05:30 PM	0	0	2	0	2	7	159	0	0	166	0	0	0	0	0	0	98	0	0	98	266
05:45 PM	1	0	3	0	4	7	161	0	0	168	0	0	0	0	0	0	119	0	0	119	291
Total Volume	2	0	21	0	23	36	626	0	0	662	0	0	0	0	0	0	435	1	0	436	1121
% App. Total	8.7	0	91.3	0		5.4	94.6	0	0		0	0	0	0		0	99.8	0.2	0		
PHF	.500	.000	.477	.000	.523	.643	.972	.000	.000	.985	.000	.000	.000	.000	.000	.000	.914	.250	.000	.916	.963



Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : Not Named 5
Site Code : 00000000
Start Date : 4/20/2007
Page No : 1

Groups Printed- Class 1

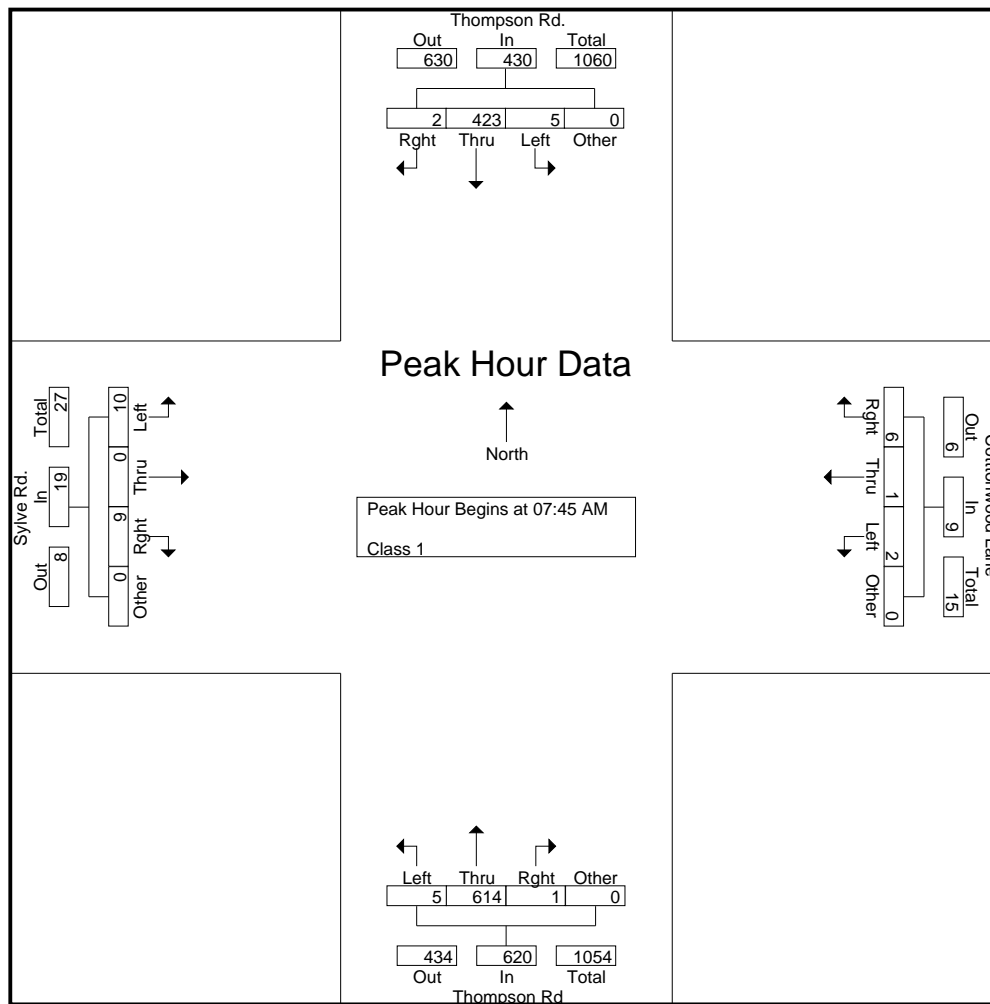
Start Time	Thompson Rd. Southbound				Cottonwood Lane Westbound				Thompson Rd Northbound				Sylve Rd. Eastbound				Int. Total
	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	Rght	Thru	Left	Other	
07:15 AM	0	48	1	0	1	0	0	0	0	134	0	0	1	0	0	0	185
07:30 AM	0	69	1	0	1	0	0	0	0	113	0	0	1	0	2	0	187
07:45 AM	1	89	2	0	2	0	0	0	0	117	0	0	1	0	2	0	214
Total	1	206	4	0	4	0	0	0	0	364	0	0	3	0	4	0	586
08:00 AM	1	86	0	0	1	0	0	0	0	140	1	0	2	0	0	0	231
08:15 AM	0	124	1	0	3	0	0	0	0	174	1	0	4	0	3	0	310
08:30 AM	0	124	2	0	0	1	2	0	1	183	3	0	2	0	5	0	323
08:45 AM	1	80	1	0	3	0	1	0	0	88	0	0	1	0	2	0	177
Total	2	414	4	0	7	1	3	0	1	585	5	0	9	0	10	0	1041
09:00 AM	1	55	0	0	3	0	1	0	1	75	0	0	0	0	2	0	138
Total	1	55	0	0	3	0	1	0	1	75	0	0	0	0	2	0	138
04:00 PM	2	123	0	0	0	0	0	0	2	103	0	0	0	0	0	0	230
04:15 PM	1	109	0	0	1	0	0	0	0	100	1	0	0	0	0	0	212
04:30 PM	1	97	3	0	1	0	0	0	0	110	1	0	0	0	1	0	214
04:45 PM	2	110	2	0	1	0	0	0	0	118	0	0	0	0	0	0	233
Total	6	439	5	0	3	0	0	0	2	431	2	0	0	0	1	0	889
05:00 PM	2	69	1	0	1	0	0	0	0	52	0	0	0	0	2	0	127
05:15 PM	1	119	0	0	1	0	1	0	1	99	0	0	2	0	0	0	224
05:30 PM	1	137	1	0	2	0	2	0	1	107	1	1	1	1	3	0	258
05:45 PM	1	129	0	0	2	0	0	0	0	108	3	0	1	0	4	0	248
Total	5	454	2	0	6	0	3	0	2	366	4	1	4	1	9	0	857
Grand Total	15	1568	15	0	23	1	7	0	6	1821	11	1	16	1	26	0	3511
Apprch %	0.9	98.1	0.9	0	74.2	3.2	22.6	0	0.3	99	0.6	0.1	37.2	2.3	60.5	0	
Total %	0.4	44.7	0.4	0	0.7	0	0.2	0	0.2	51.9	0.3	0	0.5	0	0.7	0	

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3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : Not Named 5
Site Code : 00000000
Start Date : 4/20/2007
Page No : 2

Start Time	Thompson Rd. Southbound					Cottonwood Lane Westbound					Thompson Rd Northbound					Sylve Rd. Eastbound					Int. Total
	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	
Peak Hour Analysis From 06:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	1	89	2	0	92	2	0	0	0	2	0	117	0	0	117	1	0	2	0	3	214
08:00 AM	1	86	0	0	87	1	0	0	0	1	0	140	1	0	141	2	0	0	0	2	231
08:15 AM	0	124	1	0	125	3	0	0	0	3	0	174	1	0	175	4	0	3	0	7	310
08:30 AM	0	124	2	0	126	0	1	2	0	3	1	183	3	0	187	2	0	5	0	7	323
Total Volume	2	423	5	0	430	6	1	2	0	9	1	614	5	0	620	9	0	10	0	19	1078
% App. Total	0.5	98.4	1.2	0		66.7	11.1	22.2	0		0.2	99	0.8	0		47.4	0	52.6	0		
PHF	.500	.853	.625	.000	.853	.500	.250	.250	.000	.750	.250	.839	.417	.000	.829	.563	.000	.500	.000	.679	.834

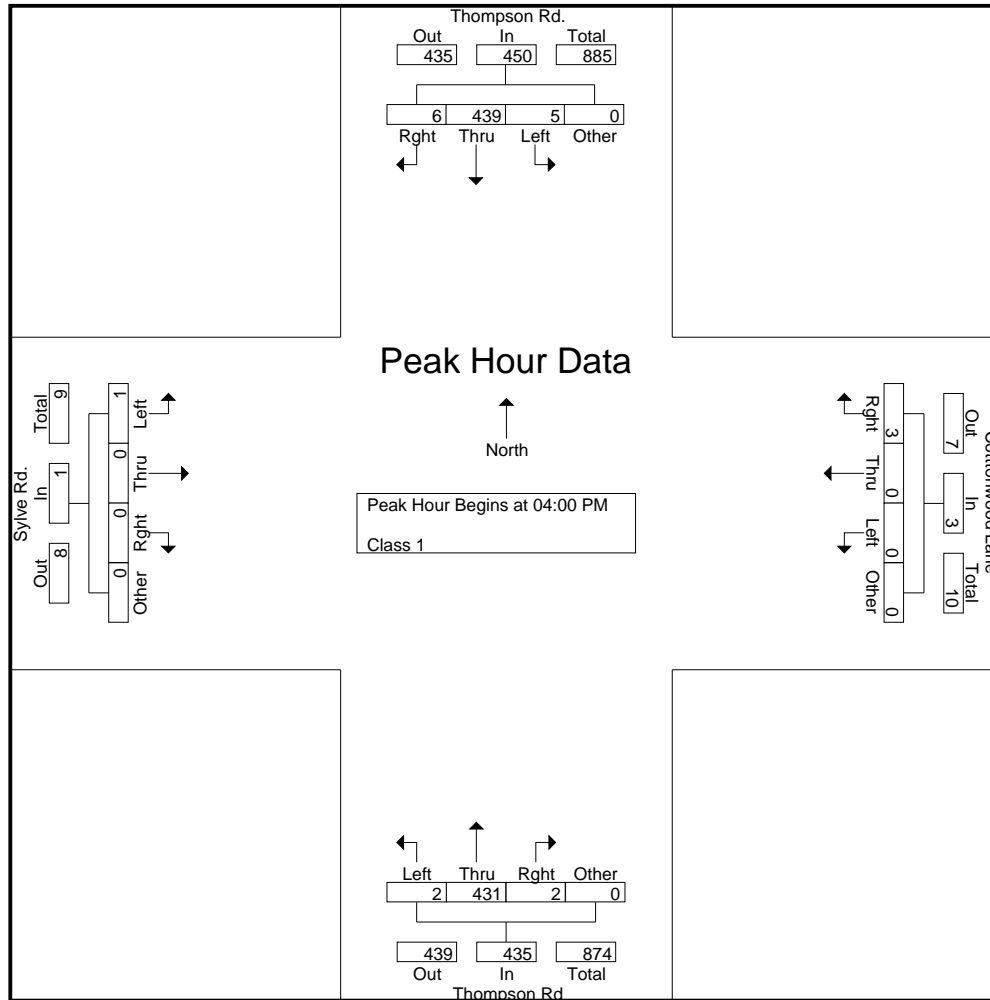


Krebs, LaSalle, LeMieux Consultants, Inc.

3013 27th Street
Metairie, LA 70002
(504) 837-9470

File Name : Not Named 5
Site Code : 00000000
Start Date : 4/20/2007
Page No : 3

Start Time	Thompson Rd. Southbound					Cottonwood Lane Westbound					Thompson Rd Northbound					Sylve Rd. Eastbound					Int. Total
	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	Rght	Thru	Left	Other	App. Total	
Peak Hour Analysis From 12:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	2	123	0	0	125	0	0	0	0	0	2	103	0	0	105	0	0	0	0	0	230
04:15 PM	1	109	0	0	110	1	0	0	0	1	0	100	1	0	101	0	0	0	0	0	212
04:30 PM	1	97	3	0	101	1	0	0	0	1	0	110	1	0	111	0	0	1	0	1	214
04:45 PM	2	110	2	0	114	1	0	0	0	1	0	118	0	0	118	0	0	0	0	0	233
Total Volume	6	439	5	0	450	3	0	0	0	3	2	431	2	0	435	0	0	1	0	1	889
% App. Total	1.3	97.6	1.1	0		100	0	0	0		0.5	99.1	0.5	0		0	0	100	0		
PHF	.750	.892	.417	.000	.900	.750	.000	.000	.000	.750	.250	.913	.500	.000	.922	.000	.000	.250	.000	.250	.954



TRAFFIC SIGNAL INVENTORY

TSI NO. **00288**
SHEET: **1** OF **5**

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT/ TRAFFIC SECTION District 62

INTERSECTION: US 190 @ LA 433 (THOMPSON ROAD)

CITY: SLIDELL

PARISH: ST. TAMMANY

INSTALLATION DATE: 12/18/84

TYPE SIGNAL: VOLUME DENSITY

LAST REVISION DATE: 01/06/04

PHASES INTERVALS	P2 & P6			P4			P1 & P6									FL			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		16	17	18
↑ SIGNAL FACES ↓	1	G	Y	R			R	←G/G	←Y/G	G									Y
	2	G	Y	R			R	G	G	G									Y
	3	G	Y	R			R			R									Y
	4	G	Y	R			R			R									Y
	5			R	G	Y	R			R									R
	6			R	G	Y	R	R/G→	RY→	R									R
	7																		
	8																		
	9																		
	10																		
	11																		
	12																		
	13																		
	14																		
	15																		
	16																		

Hours of Flashing Operation: Emergency

TIME	SEC																		Offset =
FO	SEC																		sec
YP	SEC																		

PLAN = 1 CYCLE LENGTH = TIMES OF OPERATION =

TIME	SEC																		Offset =
FO	SEC																		sec
YP	SEC																		

PLAN = 2 CYCLE LENGTH = TIMES OF OPERATION =

TIME	SEC																		Offset =
FO	SEC																		sec
YP	SEC																		

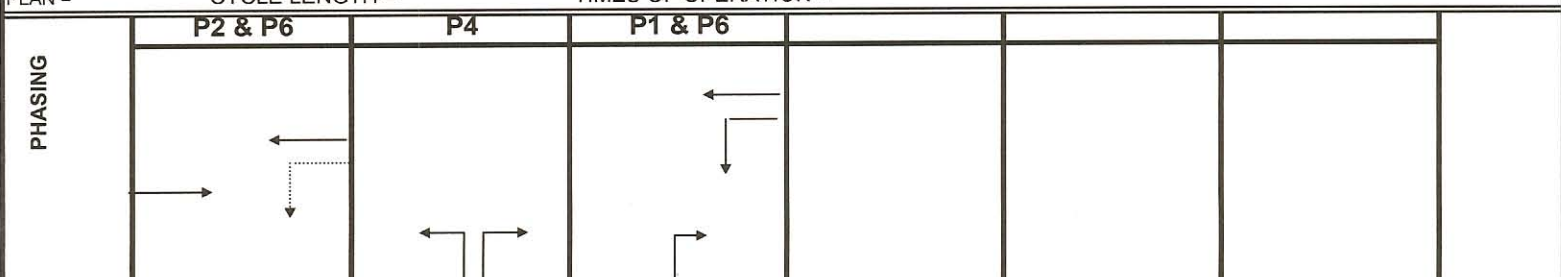
PLAN = 3 CYCLE LENGTH = TIMES OF OPERATION =

TIME	SEC																		Offset =
FO	SEC																		sec
YP	SEC																		

PLAN = CYCLE LENGTH = TIMES OF OPERATION =

TIME	SEC																		Offset =
FO	SEC																		sec
YP	SEC																		

PLAN = CYCLE LENGTH = TIMES OF OPERATION =



SIGNAL WARRANTS: 1 & 2	MAINTAINED BY: DOTD	CONTROLLER MANUF: NAZTEC	SYSTEM #:
MASTER/ SLAVE:	MASTER AT TSI #:	COORDINATED WITH TSI #S:	

TRAFFIC SIGNAL INVENTORY

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT/ TRAFFIC SECTION

TSI NO. 00288

SHEET: OF 5

SUPPLEMENTAL PHASING & TIMING

PHASES																			FL			
INTERVALS >	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
↑ SIGNAL FACES ↓	1																					
	2																					
	3																					
	4																					
	5																					
	6																					
	7																					
	8																					
	9																					
	10																					
	11																					
	12																					
	13																					
	14																					
	15																					
	16																					
TIME	SEC																					Offset =
FO	SEC																					sec
YP	SEC																					
PLAN = 1		CYCLE LENGTH =						TIMES OF OPERATION =														
TIME	SEC																					Offset =
FO	SEC																					sec
YP	SEC																					
PLAN = 2		CYCLE LENGTH =						TIMES OF OPERATION =														
TIME	SEC																					Offset =
FO	SEC																					sec
YP	SEC																					
PLAN = 3		CYCLE LENGTH =						TIMES OF OPERATION =														
TIME	SEC																					Offset =
FO	SEC																					sec
YP	SEC																					
PLAN =		CYCLE LENGTH =						TIMES OF OPERATION =														
TIME	SEC																					Offset =
FO	SEC																					sec
YP	SEC																					
PLAN =		CYCLE LENGTH =						TIMES OF OPERATION =														
PHASING SEQUENCE																						

Hours of Flashing Operation: Emergency

TRAFFIC SIGNAL INVENTORY

TSI NO. 00288





LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT/ TRAFFIC SECTION

SHEET: 3 OF 5

CONTROL SECTION: 013-12 **HIGHWAY:** US 190

PARISH: ST. TAMMANY

Phase Timing Parameters

Phase Designation		1	2	3	4	5	6	7	8
Movement Description									
PARAMETER	RANGE								
MIN GREEN (MIN I)	0 - 99.0	5.0	15.0		5.0		15.0		
PASSAGE TIME	0 - 9.9	2.0	6.0		3.0		6.0		
MAX GREEN I (MAX I)	0 - 99.0	30.0	60.0		40.0		60.0		
MAX GREEN II (MAX II)	0 - 99.0								
YELLOW CLEARANCE (YEL)	3 - 9.9	5.0	5.0		5.0		5.0		
RED CLEARANCE (RED)	0 - 9.9	1.0	1.0		1.0		1.0		
WALK (WALK)	0 - 99.0								
PED CLEARANCE (P CLR)	0 - 99.0								
ADDED INITIAL GREEN	0 - 9.9		3.0				3.0		
TIME TO REDUCE	0 - 99.0		45.0				45.0		
TIME BEFORE REDUCTION	0 - 99.0		15.0				15.0		
MIN GAP	0 - 9.9		2.0				2.0		
MAX INITIAL GREEN	0 - 99								
WALK 2	0 - 99.0								
PED CLEARANCE 2	0 - 99.0								
MAX 3	0 - 99.0								
MAX EXTENSION	0 - 99.0								
RECALL	CODES	MOF	MIN		MOF		MIN		
LOOP # - DELAY (in sec.)	0 - 99.0								
LOOP # - EXTEND (in sec.)	0 - 9.9								

RECALL FUNCTIONS	
MON	MEMORY ON
MOF	MEMORY OFF
MIN	MINIMUM
MAX	MAXIMUM
PMN	PEDESTRIAN AND MINIMUM
PMX	PEDESTRIAN AND MAXIMUM

Note 1:

Note 2:

Note 3:

TRAFFIC SIGNAL INVENTORY

TSI NO. 00288

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT/ TRAFFIC SECTION

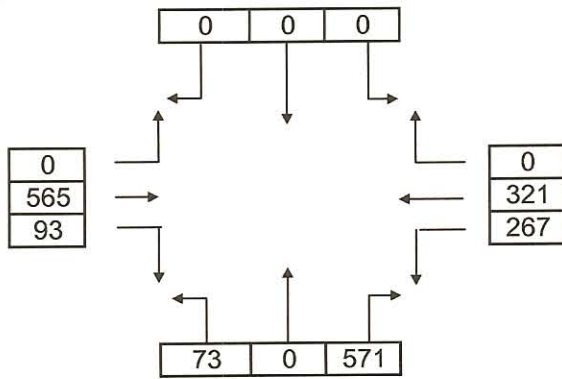
SHEET: 4 OF 5

CONTROL SECTION: 013-12

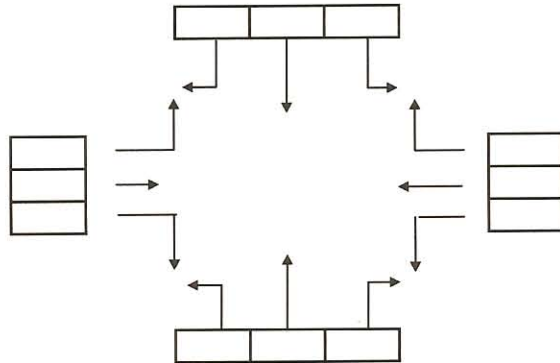
HIGHWAY: US 190

PARISH: ST. TAMMANY

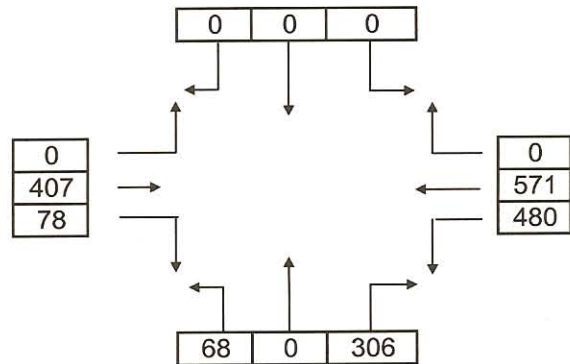
ST. TAMMANY



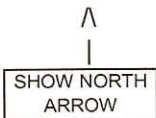
AM PEAK HOUR:



MIDDAY PEAK HOUR:



PM PEAK HOUR:

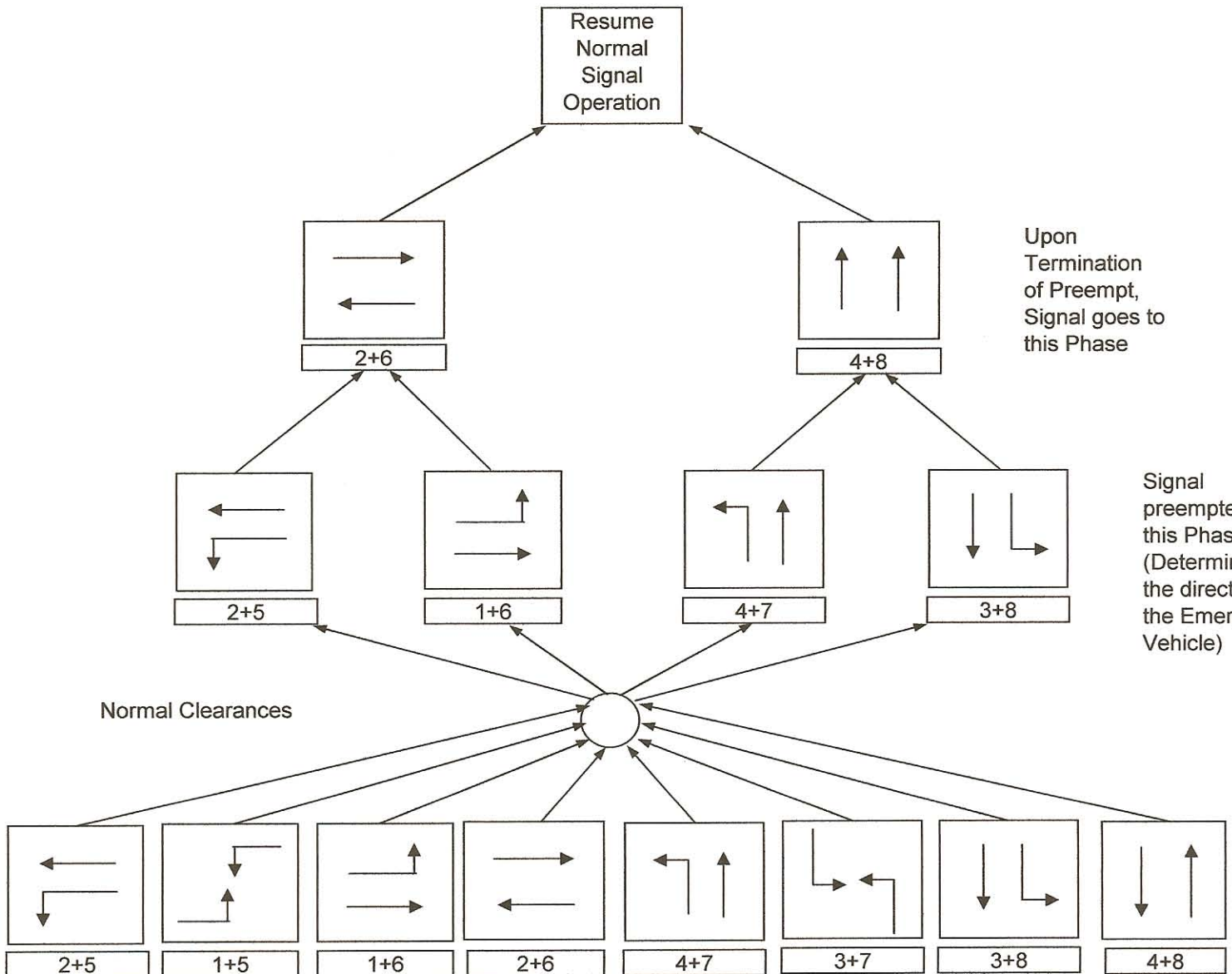


TRAFFIC VOLUMES - VPH

Peak Hour Factor ()

LOOP #	COUNT & SIZE	PHASE #	MOVEMENT DESCRIPTION
1	4 - 6 X 6	1	WB - US 190 - LEFT
2	1 - 6 X 6	2	EB US190 thru
4	4 - 6 X 6	4	NB - LA 433 - LEFT & RIGHT
6	1 - 6 X 6	6	WB US 190 thru

Emergency Preemption Sequence



Upon Termination of Preempt, Signal goes to this Phase

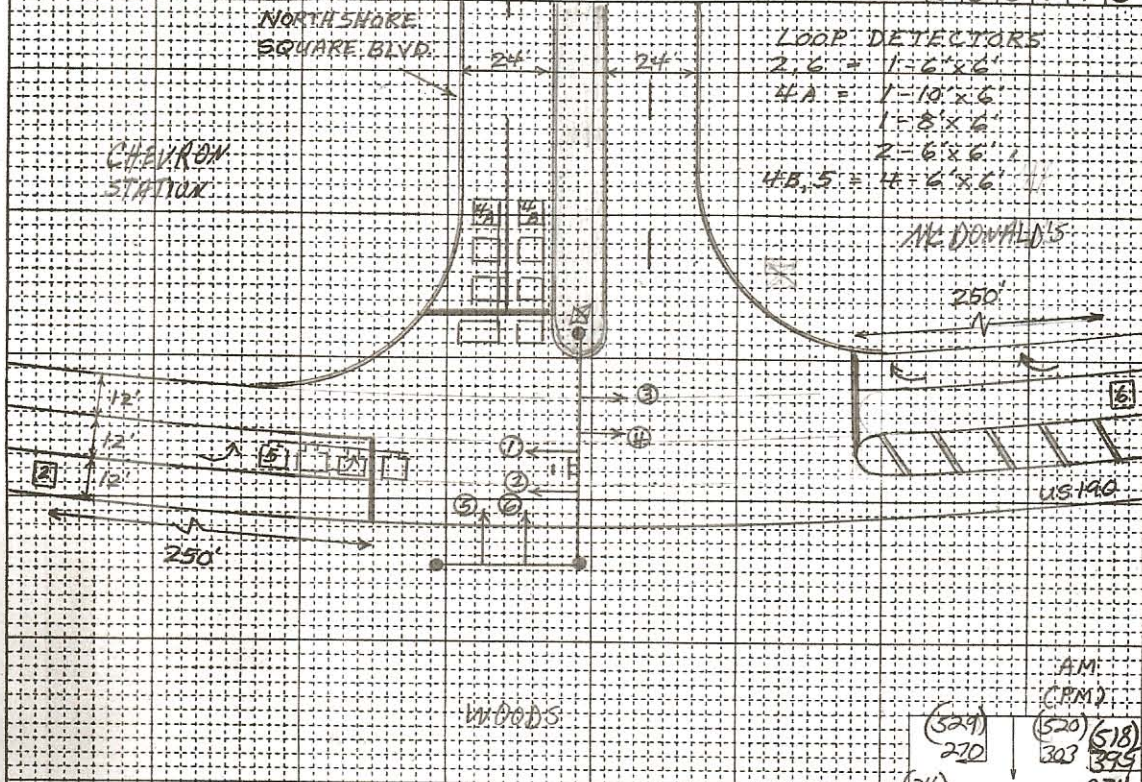
Signal preempted to this Phase (Determined by the direction of the Emergency Vehicle)

Normal Clearances

Signal in this Phase when preemption occurs

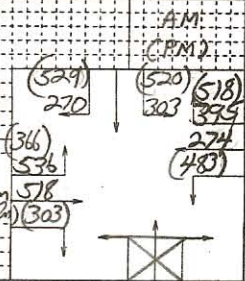
CONTROL SECTION 01312

HIGHWAY NO. 0000190



SKETCH OF INTERSECTION

SHOW TRAFFIC VOLUMES
 DATE: 3-24-03
 TIME: 7:30-8:30 AM
 4:30-5:30 PM



SHOW NORTH ARROW

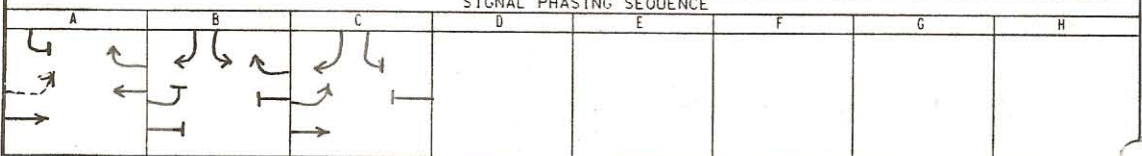
SCALE: 1" = 40'

- WOOD POLE
- METAL POLE
- SPAN WIRE
- ② SIGNAL FACE & NO.
- ② PEDESTRIAN SIGNAL & NO.
- LOOP DETECTOR
- ▭ PARALLEL PARKING STALLS
- ▨ ANGLE PARKING STALLS
- ▬ STOP LINE
- ▬ CROSS WALK
- BUILDING AREA
- ⊠ CONTROLLER
- ⊠ GROUND MOUNTED SIGN & NO.
- OVERHEAD SIGN & NO.
- ⊠ PEDESTAL SIGNAL & NO.

EXISTING SPEED LIMITS

US 190 - 45 MPH

SIGNAL PHASING SEQUENCE



SIGNAL WARRANT: VOLUME (0) MAINTENANCE RESPONSIBILITY: DEPARTMENT CONTROLLER TYPE: NAZTEC

OTHER SIGNALS WITHIN SYSTEM (NOS.): N/A MASTER CONTROLLER LOCATION (NO.): N/A

REMARKS: Sign #1 - LEFT Turn Yield on Green (R10-12) - ity. but all necessary equipment sign #1 (R10-12) (R10-12)

APPENDIX B

SITE TRAFFIC GENERATION

Dixie Ranch Rd.
 Summary of Trip Generation Calculation
 For 15.5 T.G.L.A. of Shopping Center
 April 13, 2007

	Average Rate	Standard Deviation	Adjustment Factor	Driveway Volume
Avg. Weekday 2-Way Volume	42.94	21.38	1.00	666
7-9 AM Peak Hour Enter	0.63	0.00	1.00	10
7-9 AM Peak Hour Exit	0.40	0.00	1.00	6
7-9 AM Peak Hour Total	1.03	1.40	1.00	16
4-6 PM Peak Hour Enter	1.80	0.00	1.00	28
4-6 PM Peak Hour Exit	1.95	0.00	1.00	30
4-6 PM Peak Hour Total	3.75	2.75	1.00	58
Saturday 2-Way Volume	49.97	22.62	1.00	775
Saturday Peak Hour Enter	2.58	0.00	1.00	40
Saturday Peak Hour Exit	2.39	0.00	1.00	37
Saturday Peak Hour Total	4.97	3.11	1.00	77

Note: A zero indicates no data available.
 Source: Institute of Transportation Engineers
 Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

AM PEAK

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Background Growth		Trip Distribution		Site Generated Trips		Full Build Volumes
			Percent # of Years	6.00% 1 1.0600	ENTER %	EXIT %	ENTER	EXIT	
		A	B	C	D	E	F	G	
1	US 190 (GAUSE BLVD) AT LA 433 (THOMPSON RD.)								
	ET	490	519		28.0%	0	2	521	
	ER	101	107		10.0%	0	1	108	
	WL	311	330			0	0	330	
	WT	322	341		40.0%	4	0	345	
	NL	69	73		20.0%	2	0	75	
	NR	503	533			0	0	533	
2	US 190 (GAUSE BLVD) AT DIXIE RANCH RD.								
	EL	5	5			0	0	5	
	ET	608	644		35.0%	0	2	647	
	WT	380	403		35.0%	4	0	406	
	WR	20	21		5.0%	1	0	22	
	SL	41	43		3.0%	0	0	44	
	SR	2	2			0	0	2	
3	LA 433 (THOMPSON RD.) AT SYLVE RD.								
	EL	10	11			0	0	11	
	ET	0	0			0	0	0	
	ER	9	10			0	0	10	
	WL	2	2			0	0	2	
	WT	1	1			0	0	1	
	WR	6	6			0	0	6	
	NL	5	5			0	0	5	
	NT	614	651		20.0%	2	0	653	
	NR	1	1			0	0	1	
	SL	5	5			0	0	5	
	ST	423	448		10.0%	0	1	449	
	SR	2	2			0	0	2	
4	US 190 (GAUSE BLVD) AT NORTSHORE BLVD								
	EL	475	504		10.0%	0	1	504	
	ET	392	416		18.0%	0	1	417	
	WT	231	245		30.0%	3	0	248	
	WR	408	432			0	0	432	
	SL	343	364			0	0	364	
	SR	355	376		10.0%	1	0	377	
4	Entrance #1 AT GAUSE BLVD								
	EL		0		60.0%	6	0	6	
	ET	490	519			0	0	519	
	WT	322	341			0	0	341	
	WR		0		35.0%	4	0	4	
	SL		0		35.0%	0	2	2	
	SR		0		60.0%	0	4	4	
4	Entrance #2 AT Dixie Ranch Rd.								
	EL		0		2.0%	0	0	0	
	ER		0		3.0%	0	0	0	
	NL		0		3.0%	0	0	0	
	NT	25	27			0	0	27	
	ST	43	46			0	0	46	
	SR		0		2.0%	0	0	0	

PM PEAK

LOCATION NUMBER	INTERSECTION DESCRIPTION	Existing Volume	Background Growth		Trip Distribution		Site Generated Trips		Full Build Volumes
			Percent # of Years	6.00% 1 1.0600	ENTER %	EXIT %	ENTER	EXIT	
		A	B	C	D	E	F	G	
1	US 190 (GAUSE BLVD) AT LA 433 (THOMPSON RD.)								
	ET	366	388		28.0%	0	8	396	
	ER	71	75		10.0%	0	3	78	
	WL	444	471			0	0	471	
	WT	533	565		40.0%	11	0	576	
	NL	124	131		20.0%	6	0	137	
	NR	297	315			0	0	315	
2	US 190 (GAUSE BLVD) AT DIXIE RANCH RD.								
	EL	1	1			0	0	1	
	ET	435	461		35.0%	0	11	472	
	WT	626	664		35.0%	10	0	673	
	WR	36	38		5.0%	1	0	40	
	SL	21	22		3.0%	0	1	23	
	SR	2	2			0	0	2	
3	LA 433 (THOMPSON RD.) AT								
	EL	1	1			0	0	1	
	ET	0	0			0	0	0	
	ER	0	0			0	0	0	
	WL	0	0			0	0	0	
	WT	0	0			0	0	0	
	WR	3	3			0	0	3	
	NL	2	2			0	0	2	
	NT	431	457		20.0%	6	0	462	
	NR	2	2			0	0	2	
	SL	5	5			0	0	5	
	ST	439	465		10.0%	0	3	468	
	SR	6	6			0	0	6	
4	US 190 (GAUSE BLVD) AT NORTSHORE BLVD								
	EL	332	352		10.0%	0	3	355	
	ET	254	269		18.0%	0	5	275	
	WT	331	351		30.0%	8	0	359	
	WR	438	464			0	0	464	
	SL	477	506			0	0	506	
	SR	424	449		10.0%	3	0	452	
4	Entrance #1 AT GAUSE BLVD								
	EL		0		60.0%	17	0	17	
	ET	366	388			0	0	388	
	WT	533	565			0	0	565	
	WR		0		35.0%	10	0	10	
	SL		0		35.0%	0	11	11	
	SR		0		60.0%	0	18	18	
4	Entrance #2 AT Dixie Ranch Rd.								
	EL		0		2.0%	0	1	1	
	ER		0		3.0%	0	1	1	
	NL		0		3.0%	1	0	1	
	NT	37	39			0	0	39	
	ST	23	24			0	0	24	
	SR		0		2.0%	1	0	1	

APPENDIX C

MISCELLANEOUS TRAFFIC CALCULATIONS

HCS2000: Unsignalized Intersections Release 4.1f

Phone:
E-Mail:

Fax:

-----TWO-WAY STOP CONTROL(TWSC) ANALYSIS-----

Analyst:
Agency/Co.:
Date Performed: 04/30/2007
Analysis Time Period: 7:00 AM
Intersection: US 190 (Gause Blvd) & Dixie Ra
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2007
Project ID:
East/West Street: US 190 (Gause Blvd)
North/South Street: Dixie Ranch Rd.
Intersection Orientation: EW Study period (hrs): 0.25

-----Vehicle Volumes and Adjustments-----

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	5	655			411	23
Peak-Hour Factor, PHF	0.62	0.95			0.77	0.83
Peak-15 Minute Volume	2	172			133	7
Hourly Flow Rate, HFR	8	689			533	27
Percent Heavy Vehicles	2	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	1	1			1	0
Configuration	L	T				TR
Upstream Signal?		No			Yes	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				44		2
Peak Hour Factor, PHF				0.79		0.50
Peak-15 Minute Volume				14		1
Hourly Flow Rate, HFR				55		4
Percent Heavy Vehicles				2		2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
RT Channelized?						
Lanes				0		0
Configuration					LR	

-----Pedestrian Volumes and Adjustments-----

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0

Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn Through							
S5 Left-Turn	101	1770	3	17	75	45	207
Through	552	1863	3	44	75	45	207

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

Movement 2 Movement 5

Shared ln volume, major th vehicles:
 Shared ln volume, major rt vehicles:
 Sat flow rate, major th vehicles:
 Sat flow rate, major rt vehicles:
 Number of major street through lanes:

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1					7.1		6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2					2		2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00					0.70		0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1					6.4		6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20					3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2					2		2
t(f)	2.2					3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
V prog	V(t)	V(l,prot)	V(t)	V(l,prot)
			552	101

Total Saturation Flow Rate, s (vph)	1863	1770
Arrival Type	3	3
Effective Green, g (sec)	44	17
Cycle Length, C (sec)	75	75
Rp (from Exhibit 16-11)	1.000	1.000
Proportion vehicles arriving on green P	0.587	0.227
g(q1)	9.2	3.3
g(q2)	3.9	0.2
g(q)	13.1	3.5

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha			0.550	
beta			0.645	
Travel time, t(a) (sec)			3.129	
Smoothing Factor, F			0.474	
Proportion of conflicting flow, f	1.000		1.000	
Max platooned flow, V(c,max)	1863		1584	
Min platooned flow, V(c,min)	1000		1000	
Duration of blocked period, t(p)			13.5	3.0
Proportion time blocked, p		0.000		0.220

Computation 3-Platoon Event Periods Result

p(2)	0.000
p(5)	0.220
p(dom)	0.220
p(subo)	0.000
Constrained or unconstrained?	U

Proportion

unblocked for minor movements, p(x)	(1)	(2)	(3)
	Single-stage Process	Two-Stage Process Stage I	Stage II
p(1)	0.780		
p(4)			
p(7)			
p(8)			
p(9)			
p(10)	0.780		
p(11)			
p(12)	0.780		

Computation 4 and 5

Single-Stage Process

Movement	1	4	7	8	9	10	11	12
	L	L	L	T	R	L	T	R
V c,x	560					1251		546
s	1500					1500		1500
Px	0.780					0.780		0.780
V c,u,x	294					1181		277
C r,x	1268					210		762
C plat,x	989					164		594

Two-Stage Process

7	8	10	11
---	---	----	----

V(c,x)		
s	1500	1500
P(x)		
V(c,u,x)		

C(r,x)		
C(plat,x)		

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
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Conflicting Flows		546
Potential Capacity		594
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		594
Probability of Queue free St.	1.00	0.99

Step 2: LT from Major St.	4	1
---------------------------	---	---

Conflicting Flows		560
Potential Capacity		989
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		989
Probability of Queue free St.	1.00	0.99
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
---------------------------	---	----

Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		
Probability of Queue free St.	1.00	1.00

Step 4: LT from Minor St.	7	10
---------------------------	---	----

Conflicting Flows		1251
Potential Capacity		164
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.99	
Maj. L, Min T Adj. Imp Factor.	0.99	
Cap. Adj. factor due to Impeding mvmnt	0.99	0.99
Movement Capacity		163

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
---------------------------	---	----

Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		

Part 2 - Second Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 3 - Single Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor 1.00 1.00
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity

Result for 2 stage process:

a
 Y
 C t
 Probability of Queue free St. 1.00 1.00

Step 4: LT from Minor St. 7 10

Part 1 - First Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 2 - Second Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 3 - Single Stage
 Conflicting Flows 1251
 Potential Capacity 164
 Pedestrian Impedance Factor 1.00 1.00
 Maj. L, Min T Impedance factor 0.99
 Maj. L, Min T Adj. Imp Factor. 0.99
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity 163

Results for Two-stage process:

a
 Y
 C t 163

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)				55		4
Movement Capacity (vph)				163		594
Shared Lane Capacity (vph)					171	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep				163		594
Volume				55		4
Delay						
Q sep						
Q sep +1 round (Qsep +1)						
n max						
C sh					171	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L						LR	
v (vph)	8						59	
C(m) (vph)	989						171	
v/c	0.01						0.35	
95% queue length	0.02						1.43	
Control Delay	8.7						36.8	
LOS	A						E	
Approach Delay							36.8	
Approach LOS							E	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	1.00
v(i1), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(i1), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	8.7	
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS2000: Unsignalized Intersections Release 4.1f

Phone:
E-Mail:

Fax:

-----TWO-WAY STOP CONTROL(TWSC) ANALYSIS-----

Analyst:
Agency/Co.:
Date Performed: 04/30/2007
Analysis Time Period: 5:00 pm
Intersection: US 190 (Gause Blvd) & Dixie Ra
Jurisdiction:
Units: U. S. Customary
Analysis Year:
Project ID:
East/West Street: US 190 Gause Rd
North/South Street: Dixie Ranch Rd.
Intersection Orientation: EW Study period (hrs): 0.25

-----Vehicle Volumes and Adjustments-----

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	1	472			672	40
Peak-Hour Factor, PHF	0.25	0.91			0.97	0.64
Peak-15 Minute Volume	1	130			173	16
Hourly Flow Rate, HFR	4	518			692	62
Percent Heavy Vehicles	2	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT				TR	
Upstream Signal?		No			Yes	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume				23		2
Peak Hour Factor, PHF				0.48		0.50
Peak-15 Minute Volume				12		1
Hourly Flow Rate, HFR				47		4
Percent Heavy Vehicles				2		2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
RT Channelized?						
Lanes				0		0
Configuration					LR	

-----Pedestrian Volumes and Adjustments-----

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0

Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn Through							
S5 Left-Turn	159	1770	3	14	75	45	207
Through	647	1863	3	48	75	45	207

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	518	
Shared ln volume, major rt vehicles:	0	
Sat flow rate, major th vehicles:	1700	
Sat flow rate, major rt vehicles:	1700	
Number of major street through lanes:	1	

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1					7.1		6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	2					2		2
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00					0.70		0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1					6.4		6.2
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20					3.50		3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	2					2		2
t(f)	2.2					3.5		3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
V prog	V(t)	V(l,prot)	V(t)	V(l,prot)
			647	159

Total Saturation Flow Rate, s (vph)	1863	1770
Arrival Type	3	3
Effective Green, g (sec)	48	14
Cycle Length, C (sec)	75	75
Rp (from Exhibit 16-11)	1.000	1.000
Proportion vehicles arriving on green P	0.640	0.187
g(q1)	9.4	5.5
g(q2)	5.0	0.5
g(q)	14.4	6.0

Computation 2-Proportion of TWSC Intersection Time blocked

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha			0.550	
beta			0.645	
Travel time, t(a) (sec)			3.129	
Smoothing Factor, F			0.474	
Proportion of conflicting flow, f	1.000		1.000	
Max platooned flow, V(c,max)	1863		1733	
Min platooned flow, V(c,min)	1000		1000	
Duration of blocked period, t(p)			15.1	5.7
Proportion time blocked, p		0.000		0.277

Computation 3-Platoon Event Periods Result

p(2)	0.000
p(5)	0.277
p(dom)	0.277
p(subo)	0.000
Constrained or unconstrained?	U

Proportion

unblocked for minor movements, p(x)	(1)	(2)	(3)
	Single-stage Process	Two-Stage Process Stage I	Stage II
p(1)	0.723		
p(4)			
p(7)			
p(8)			
p(9)			
p(10)	0.723		
p(11)			
p(12)	0.723		

Computation 4 and 5

Single-Stage Process

Movement	1	4	7	8	9	10	11	12
	L	L	L	T	R	L	T	R
V c,x	754					1249		723
s	1500					1500		1500
Px	0.723					0.723		0.723
V c,u,x	468					1153		425
C r,x	1094					218		629
C plat,x	791					158		455

Two-Stage Process

7	8	10	11
---	---	----	----

V(c,x)
 s 1500 1500
 P(x)
 V(c,u,x)

C(r,x)
 C(plat,x)

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St. 9 12

Conflicting Flows 723
 Potential Capacity 455
 Pedestrian Impedance Factor 1.00 1.00
 Movement Capacity 455
 Probability of Queue free St. 1.00 0.99

Step 2: LT from Major St. 4 1

Conflicting Flows 754
 Potential Capacity 791
 Pedestrian Impedance Factor 1.00 1.00
 Movement Capacity 791
 Probability of Queue free St. 1.00 0.99
 Maj L-Shared Prob Q free St. 0.99

Step 3: TH from Minor St. 8 11

Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor 1.00 1.00
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity
 Probability of Queue free St. 1.00 1.00

Step 4: LT from Minor St. 7 10

Conflicting Flows 1249
 Potential Capacity 158
 Pedestrian Impedance Factor 1.00 1.00
 Maj. L, Min T Impedance factor 0.99
 Maj. L, Min T Adj. Imp Factor. 0.99
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity 157

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St. 8 11

Part 1 - First Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity
 Probability of Queue free St.

Part 2 - Second Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 3 - Single Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor 1.00 1.00
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity

Result for 2 stage process:

a
 Y
 C t
 Probability of Queue free St. 1.00 1.00

Step 4: LT from Minor St. 7 10

Part 1 - First Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 2 - Second Stage
 Conflicting Flows
 Potential Capacity
 Pedestrian Impedance Factor
 Cap. Adj. factor due to Impeding mvmnt
 Movement Capacity

Part 3 - Single Stage
 Conflicting Flows 1249
 Potential Capacity 158
 Pedestrian Impedance Factor 1.00 1.00
 Maj. L, Min T Impedance factor 0.99
 Maj. L, Min T Adj. Imp Factor. 0.99
 Cap. Adj. factor due to Impeding mvmnt 0.99 0.99
 Movement Capacity 157

Results for Two-stage process:

a
 Y
 C t 157

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)				47		4
Movement Capacity (vph)				157		455
Shared Lane Capacity (vph)					166	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep				157		455
Volume				47		4
Delay						
Q sep						
Q sep +1 round (Qsep +1)						
n max						
C sh					166	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	4						51	
C(m) (vph)	791						166	
v/c	0.01						0.31	
95% queue length	0.02						1.23	
Control Delay	9.6						36.0	
LOS	A						E	
Approach Delay							36.0	
Approach LOS							E	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	1.00
v(i1), Volume for stream 2 or 5	518	
v(i2), Volume for stream 3 or 6	0	
s(i1), Saturation flow rate for stream 2 or 5	1700	
s(i2), Saturation flow rate for stream 3 or 6	1700	
P*(oj)	0.99	
d(M,LT), Delay for stream 1 or 4	9.6	
N, Number of major street through lanes	1	
d(rank,1) Delay for stream 2 or 5	0.1	

APPENDIX D

EXISTING CONDITIONS CALCULATIONS

Timings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

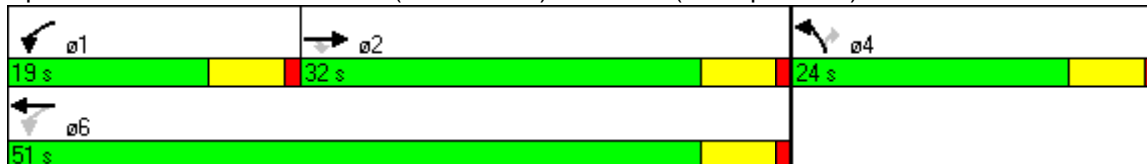
Dixie Ranch Rd AM Existing
 5/7/2007

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑	↓	↑
Volume (vph)	490	101	311	322	69	503
Turn Type	Perm pm+pt			Perm		
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	24.4	24.4	41.9	41.9	15.4	15.4
Actuated g/C Ratio	0.37	0.37	0.64	0.64	0.23	0.23
v/c Ratio	0.80	0.18	0.76	0.42	0.21	0.85
Control Delay	26.6	4.2	21.5	7.7	22.2	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	4.2	21.5	7.7	22.2	15.5
LOS	C	A	C	A	C	B
Approach Delay	22.6			13.6	16.3	
Approach LOS	C			B	B	

Intersection Summary

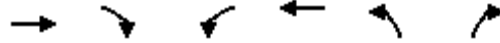
Cycle Length: 75	
Actuated Cycle Length: 65.6	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 63.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



Phasings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd AM Existing
 5/7/2007



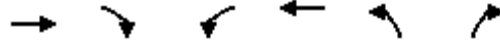
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Maximum Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
70th %ile Term Code	Max	Max	Max	Hold	Max	Max
50th %ile Green (s)	26.0	26.0	13.0	45.0	17.4	17.4
50th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
30th %ile Green (s)	19.1	19.1	10.1	35.2	9.1	9.1
30th %ile Term Code	Gap	Gap	Gap	Hold	Gap	Gap
10th %ile Green (s)	15.0	15.0	7.8	28.8	6.6	6.6
10th %ile Term Code	Min	Min	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 65.6
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 74.4
 30th %ile Actuated Cycle: 56.3
 10th %ile Actuated Cycle: 47.4

HCM Signalized Intersection Capacity Analysis
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd AM Existing
 5/7/2007



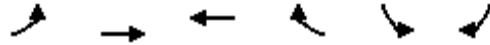
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.17	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	316	1863	1770	1583
Volume (vph)	490	101	311	322	69	503
Peak-hour factor, PHF	0.89	0.84	0.83	0.64	0.78	0.81
Adj. Flow (vph)	551	120	375	503	88	621
RTOR Reduction (vph)	0	75	0	0	0	358
Lane Group Flow (vph)	551	45	375	503	88	263
Turn Type	Perm pm+pt				Perm	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Actuated Green, G (s)	22.5	22.5	39.9	39.9	13.3	13.3
Effective Green, g (s)	24.5	24.5	41.9	41.9	15.3	15.3
Actuated g/C Ratio	0.38	0.38	0.64	0.64	0.23	0.23
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	700	595	502	1197	415	371
v/s Ratio Prot	0.30		c0.15	0.27	0.05	
v/s Ratio Perm		0.03	c0.33			c0.17
v/c Ratio	0.79	0.08	0.75	0.42	0.21	0.71
Uniform Delay, d1	18.0	13.1	11.7	5.7	20.1	22.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.8	0.1	6.0	0.2	0.3	6.1
Delay (s)	23.9	13.1	17.7	5.9	20.4	29.0
Level of Service	C	B	B	A	C	C
Approach Delay (s)	22.0			10.9	27.9	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	65.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd AM Existing
5/7/2007

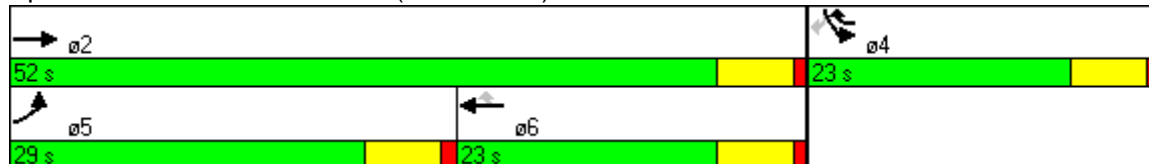


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↶	↷	↶	↷
Volume (vph)	475	392	231	408	343	355
Turn Type	custom			pm+ov		Perm
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Detector Phases	5	2	6	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)	24.6	48.0	19.4	42.3	18.9	18.9
Actuated g/C Ratio	0.33	0.64	0.26	0.56	0.25	0.25
v/c Ratio	0.92	0.38	0.52	0.47	0.85	0.64
Control Delay	46.5	7.5	28.6	8.5	46.7	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	7.5	28.6	8.5	46.7	6.8
LOS	D	A	C	A	D	A
Approach Delay		28.7	15.7		24.3	
Approach LOS		C	B		C	

Intersection Summary

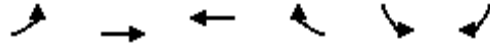
Cycle Length: 75
 Actuated Cycle Length: 74.9
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 23.7
 Intersection LOS: C
 Intersection Capacity Utilization 67.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd



Phasings
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd AM Existing
5/7/2007



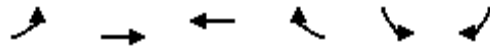
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Maximum Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
90th %ile Term Code	Max	MaxR	Max	Max	Max	Max
70th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
70th %ile Term Code	Max	MaxR	Max	Max	Max	Max
50th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
50th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
30th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
30th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
10th %ile Green (s)	21.1	46.0	18.9	16.4	16.4	16.4
10th %ile Term Code	Gap	MaxR	Hold	Gap	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 74.9
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 75
 30th %ile Actuated Cycle: 75
 10th %ile Actuated Cycle: 74.4

HCM Signalized Intersection Capacity Analysis
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd AM Existing
5/7/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	475	392	231	408	343	355
Peak-hour factor, PHF	0.89	0.87	0.92	0.92	0.90	0.73
Adj. Flow (vph)	534	451	251	443	381	486
RTOR Reduction (vph)	0	0	0	65	0	363
Lane Group Flow (vph)	534	451	251	378	381	123
Turn Type	custom		pm+ov		Perm	
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Actuated Green, G (s)	22.6	46.0	17.4	34.3	16.9	16.9
Effective Green, g (s)	24.6	48.0	19.4	38.3	18.9	18.9
Actuated g/C Ratio	0.33	0.64	0.26	0.51	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	581	1194	483	894	447	399
v/s Ratio Prot	c0.30	0.24	c0.13	0.11	c0.22	
v/s Ratio Perm				0.13		0.08
v/c Ratio	0.92	0.38	0.52	0.42	0.85	0.31
Uniform Delay, d1	24.2	6.4	23.8	11.4	26.7	22.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.6	0.9	0.9	0.3	14.5	0.4
Delay (s)	43.8	7.3	24.7	11.7	41.2	23.1
Level of Service	D	A	C	B	D	C
Approach Delay (s)		27.1	16.4		31.1	
Approach LOS		C	B		C	

Intersection Summary

HCM Average Control Delay	25.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	74.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 4: Sylve Rd & LA 433 (Thompson Rd)

Dixie Ranch Rd AM Existing
 5/7/2007



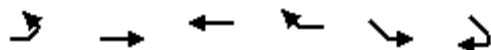
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	10	0	9	2	1	6	5	614	1	5	423	2
Peak Hour Factor	0.50	0.92	0.56	0.25	0.25	0.50	0.42	0.84	0.25	0.62	0.85	0.50
Hourly flow rate (vph)	20	0	16	8	4	12	12	731	4	8	498	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1285	1273	498	1287	1275	733	502			735		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1285	1273	498	1287	1275	733	502			735		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	97	94	98	97	99			99		
cM capacity (veh/h)	133	164	573	135	164	421	1063			870		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	36	24	747	506	4
Volume Left	20	8	12	8	0
Volume Right	16	12	4	0	4
cSH	202	214	1063	870	1700
Volume to Capacity	0.18	0.11	0.01	0.01	0.00
Queue Length 95th (ft)	16	9	1	1	0
Control Delay (s)	26.7	23.9	0.3	0.3	0.0
Lane LOS	D	C	A	A	
Approach Delay (s)	26.7	23.9	0.3	0.3	
Approach LOS	D	C			

Intersection Summary		
Average Delay		1.4
Intersection Capacity Utilization	49.3%	ICU Level of Service
Analysis Period (min)		15
		A

HCM Unsignalized Intersection Capacity Analysis
 7: US 190 (Gause Blvd) & Dixie Ranch Rd.

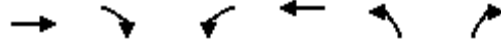
Dixie Ranch Rd AM Existing
 5/7/2007



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	608	380	20	41	2
Peak Hour Factor	0.62	0.95	0.77	0.83	0.79	0.50
Hourly flow rate (vph)	8	640	494	24	52	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	518				1162	506
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	447				1185	433
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				71	99
cM capacity (veh/h)	971				181	543
Direction, Lane #	EB 1	WB 1	SE 1			
Volume Total	648	518	56			
Volume Left	8	0	52			
Volume Right	0	24	4			
cSH	971	1700	190			
Volume to Capacity	0.01	0.30	0.29			
Queue Length 95th (ft)	1	0	29			
Control Delay (s)	0.2	0.0	31.7			
Lane LOS	A		D			
Approach Delay (s)	0.2	0.0	31.7			
Approach LOS			D			
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization		46.0%		ICU Level of Service		A
Analysis Period (min)			15			

Timings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd. PM Existing
 5/7/2007

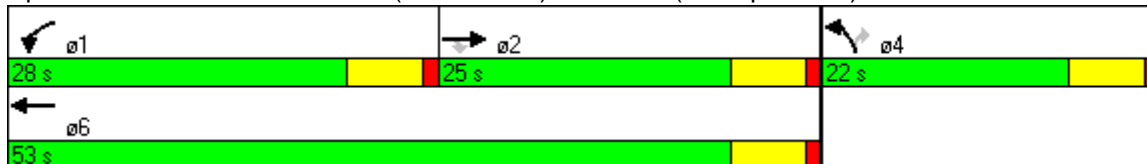


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	366	71	444	533	124	297
Turn Type		Perm	custom			Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	20.3	20.3	22.6	46.9	12.9	12.9
Actuated g/C Ratio	0.30	0.30	0.33	0.69	0.19	0.19
v/c Ratio	0.80	0.15	0.85	0.47	0.43	0.60
Control Delay	35.0	6.2	34.9	6.7	27.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	6.2	34.9	6.7	27.0	6.5
LOS	D	A	C	A	C	A
Approach Delay	30.7			19.5	12.5	
Approach LOS	C			B	B	

Intersection Summary

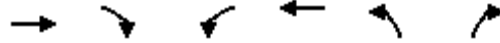
Cycle Length: 75	
Actuated Cycle Length: 68	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



Phasings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd. PM Existing
 5/7/2007



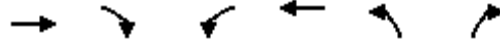
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Maximum Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	19.0	19.0	22.0	47.0	13.8	13.8
70th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
50th %ile Green (s)	19.0	19.0	22.0	47.0	10.9	10.9
50th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
30th %ile Green (s)	19.0	19.0	22.0	47.0	9.1	9.1
30th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
10th %ile Green (s)	15.0	15.0	15.2	36.2	6.0	6.0
10th %ile Term Code	Min	Min	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 68
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 72.8
 50th %ile Actuated Cycle: 69.9
 30th %ile Actuated Cycle: 68.1
 10th %ile Actuated Cycle: 54.2

HCM Signalized Intersection Capacity Analysis
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd. PM Existing
 5/7/2007



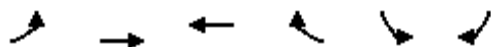
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583
Volume (vph)	366	71	444	533	124	297
Peak-hour factor, PHF	0.82	0.89	0.89	0.89	0.86	0.85
Adj. Flow (vph)	446	80	499	599	144	349
RTOR Reduction (vph)	0	56	0	0	0	283
Lane Group Flow (vph)	446	24	499	599	144	66
Turn Type		Perm custom			Perm	
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Actuated Green, G (s)	18.3	18.3	20.6	44.9	10.9	10.9
Effective Green, g (s)	20.3	20.3	22.6	46.9	12.9	12.9
Actuated g/C Ratio	0.30	0.30	0.33	0.69	0.19	0.19
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	558	474	590	1289	337	301
v/s Ratio Prot	c0.24		c0.28	0.32	c0.08	
v/s Ratio Perm		0.02				0.04
v/c Ratio	0.80	0.05	0.85	0.46	0.43	0.22
Uniform Delay, d1	21.9	16.9	21.0	4.7	24.2	23.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.9	0.0	10.8	0.3	0.9	0.4
Delay (s)	29.7	16.9	31.8	5.0	25.1	23.6
Level of Service	C	B	C	A	C	C
Approach Delay (s)	27.8			17.2	24.0	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	21.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	67.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd. PM Existing
5/7/2007

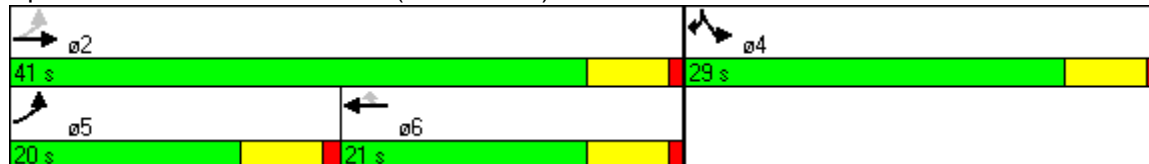


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↖
Volume (vph)	332	254	331	438	477	424
Turn Type	pm+pt			Perm		Prot
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Detector Phases	5	2	6	6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	Min	Min	None	None
Act Effct Green (s)	35.8	35.8	16.4	16.4	24.3	24.3
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
v/c Ratio	0.71	0.32	0.81	0.63	0.91	0.58
Control Delay	20.2	10.4	39.5	6.8	40.9	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	10.4	39.5	6.8	40.9	4.6
LOS	C	B	D	A	D	A
Approach Delay		15.7	21.2		23.6	
Approach LOS		B	C		C	

Intersection Summary

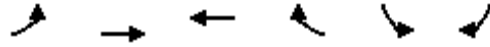
Cycle Length: 70
 Actuated Cycle Length: 68.1
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 20.8
 Intersection LOS: C
 Intersection Capacity Utilization 72.2%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd



Phasings
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd. PM Existing
5/7/2007



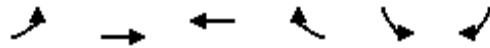
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Maximum Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag		Lag	
Lead-Lag Optimize?	Yes		Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Min	Min	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
90th %ile Term Code	Max	Hold	Max	Max	Max	Max
70th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
70th %ile Term Code	Max	Hold	Max	Max	Max	Max
50th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
50th %ile Term Code	Max	Hold	Max	Max	Max	Max
30th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
30th %ile Term Code	Max	Hold	Max	Max	Max	Max
10th %ile Green (s)	11.3	29.2	11.9	11.9	19.4	19.4
10th %ile Term Code	Gap	Hold	Gap	Gap	Gap	Gap

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 68.1
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 70
 70th %ile Actuated Cycle: 70
 50th %ile Actuated Cycle: 70
 30th %ile Actuated Cycle: 70
 10th %ile Actuated Cycle: 60.6

HCM Signalized Intersection Capacity Analysis
 2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd. PM Existing
 5/7/2007



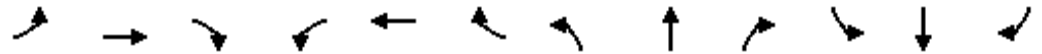
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.20	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	365	1863	1863	1583	1770	1583
Volume (vph)	332	254	331	438	477	424
Peak-hour factor, PHF	0.92	0.82	0.91	0.94	0.83	0.81
Adj. Flow (vph)	361	310	364	466	575	523
RTOR Reduction (vph)	0	0	0	354	0	336
Lane Group Flow (vph)	361	310	364	112	575	187
Turn Type	pm+pt		Perm		Prot	
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Actuated Green, G (s)	33.8	33.8	14.4	14.4	22.3	22.3
Effective Green, g (s)	35.8	35.8	16.4	16.4	24.3	24.3
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	510	979	449	381	632	565
v/s Ratio Prot	c0.16	0.17	0.20		c0.32	0.12
v/s Ratio Perm	c0.21			0.07		
v/c Ratio	0.71	0.32	0.81	0.29	0.91	0.33
Uniform Delay, d1	11.6	9.2	24.4	21.1	20.9	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.5	0.2	10.6	0.4	17.0	0.3
Delay (s)	16.0	9.4	35.0	21.6	37.9	16.3
Level of Service	B	A	D	C	D	B
Approach Delay (s)		13.0	27.5		27.6	
Approach LOS		B	C		C	

Intersection Summary

HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	68.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 4: Sylve Rd & LA 433 (Thompson Rd)

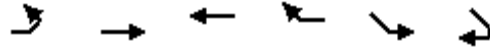
Dixie Ranch Rd. PM Existing
 5/7/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	0	0	0	0	3	2	431	2	5	439	6
Peak Hour Factor	0.25	0.92	0.92	0.92	0.92	0.75	0.50	0.91	0.25	0.42	0.89	0.75
Hourly flow rate (vph)	4	0	0	0	0	4	4	474	8	12	493	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1007	1007	493	1003	1011	478	501			482		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1007	1007	493	1003	1011	478	501			482		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	100	100	99	100			99		
cM capacity (veh/h)	216	237	576	218	236	588	1063			1081		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	4	4	486	505	8							
Volume Left	4	0	4	12	0							
Volume Right	0	4	8	0	8							
cSH	216	588	1063	1081	1700							
Volume to Capacity	0.02	0.01	0.00	0.01	0.00							
Queue Length 95th (ft)	1	1	0	1	0							
Control Delay (s)	22.0	11.2	0.1	0.3	0.0							
Lane LOS	C	B	A	A								
Approach Delay (s)	22.0	11.2	0.1	0.3								
Approach LOS	C	B										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			39.6%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 7: US 190 (Gause Blvd) & Dixie Ranch Rd

Dixie Ranch Rd. PM Existing
 5/7/2007



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	435	626	36	21	2
Peak Hour Factor	0.25	0.91	0.97	0.64	0.48	0.50
Hourly flow rate (vph)	4	478	645	56	44	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.85				0.85	0.85
vC, conflicting volume	702				1160	673
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	649				1188	616
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				75	99
cM capacity (veh/h)	797				176	417

Direction, Lane #	EB 1	WB 1	SE 1
Volume Total	482	702	48
Volume Left	4	0	44
Volume Right	0	56	4
cSH	797	1700	185
Volume to Capacity	0.01	0.41	0.26
Queue Length 95th (ft)	0	0	25
Control Delay (s)	0.1	0.0	31.1
Lane LOS	A		D
Approach Delay (s)	0.1	0.0	31.1
Approach LOS			D

Intersection Summary			
Average Delay		1.3	
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)		15	

APPENDIX E

BACKGROUND CALCULATIONS

Timings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	519	107	330	341	73	533
Turn Type	Perm pm+pt			Perm		
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	25.4	25.4	43.9	43.9	17.2	17.2
Actuated g/C Ratio	0.37	0.37	0.63	0.63	0.25	0.25
v/c Ratio	0.85	0.19	0.84	0.45	0.21	0.89
Control Delay	31.2	4.2	32.0	8.4	22.7	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	4.2	32.0	8.4	22.7	21.1
LOS	C	A	C	A	C	C
Approach Delay	26.3			18.5	21.3	
Approach LOS	C			B	C	

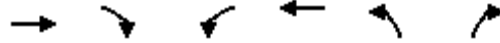
Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 69.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 67.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



Phasings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



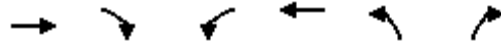
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Maximum Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
70th %ile Term Code	Max	Max	Max	Hold	Max	Max
50th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
50th %ile Term Code	Max	Max	Max	Hold	Max	Max
30th %ile Green (s)	24.5	24.5	13.0	43.5	15.4	15.4
30th %ile Term Code	Gap	Gap	Max	Hold	Gap	Gap
10th %ile Green (s)	15.0	15.0	9.6	30.6	8.0	8.0
10th %ile Term Code	Min	Min	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 69.3
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 75
 30th %ile Actuated Cycle: 70.9
 10th %ile Actuated Cycle: 50.6

HCM Signalized Intersection Capacity Analysis
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

Dixie Ranch Rd AM Background
 5/7/2007

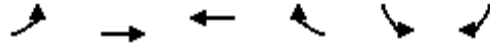


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.14	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	253	1863	1770	1583
Volume (vph)	519	107	330	341	73	533
Peak-hour factor, PHF	0.89	0.84	0.83	0.64	0.78	0.81
Adj. Flow (vph)	583	127	398	533	94	658
RTOR Reduction (vph)	0	80	0	0	0	343
Lane Group Flow (vph)	583	47	398	533	94	315
Turn Type	Perm pm+pt				Perm	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Actuated Green, G (s)	23.4	23.4	41.8	41.8	15.2	15.2
Effective Green, g (s)	25.4	25.4	43.8	43.8	17.2	17.2
Actuated g/C Ratio	0.37	0.37	0.63	0.63	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	686	583	477	1183	441	395
v/s Ratio Prot	0.31		c0.17	0.29	0.05	
v/s Ratio Perm		0.03	c0.35			c0.20
v/c Ratio	0.85	0.08	0.83	0.45	0.21	0.80
Uniform Delay, d1	20.0	14.2	16.3	6.4	20.5	24.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.7	0.1	11.9	0.3	0.2	10.7
Delay (s)	29.7	14.3	28.2	6.7	20.8	35.0
Level of Service	C	B	C	A	C	C
Approach Delay (s)	26.9			15.9	33.2	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: US 190 (Gause Blvd) & North Shore Blvd

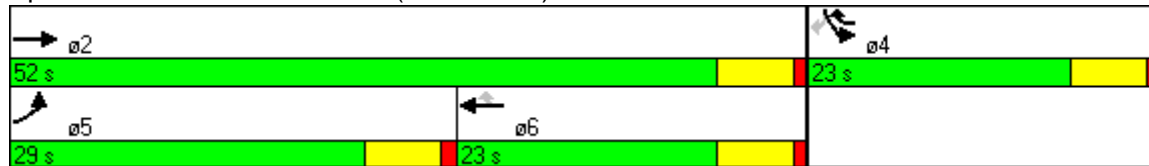


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↖	↗
Volume (vph)	504	416	245	432	364	376
Turn Type	custom		pm+ov		Perm	
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Detector Phases	5	2	6	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)	25.0	48.0	19.0	42.0	19.0	19.0
Actuated g/C Ratio	0.33	0.64	0.25	0.56	0.25	0.25
v/c Ratio	0.96	0.40	0.56	0.50	0.90	0.66
Control Delay	55.4	7.8	29.8	9.5	53.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	7.8	29.8	9.5	53.5	7.0
LOS	E	A	C	A	D	A
Approach Delay		33.6	16.9		27.4	
Approach LOS		C	B		C	

Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 75	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd



Phasings
 2: US 190 (Gause Blvd) & North Shore Blvd



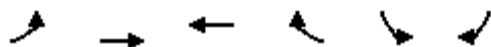
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Maximum Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
90th %ile Term Code	Max	MaxR	Max	Max	Max	Max
70th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
70th %ile Term Code	Max	MaxR	Max	Max	Max	Max
50th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
50th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
30th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
30th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
10th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
10th %ile Term Code	Max	MaxR	Hold	Max	Max	Max

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 75
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 75
 30th %ile Actuated Cycle: 75
 10th %ile Actuated Cycle: 75

HCM Signalized Intersection Capacity Analysis
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd AM Background
5/7/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	504	416	245	432	364	376
Peak-hour factor, PHF	0.89	0.87	0.92	0.92	0.90	0.73
Adj. Flow (vph)	566	478	266	470	404	515
RTOR Reduction (vph)	0	0	0	57	0	385
Lane Group Flow (vph)	566	478	266	413	404	130
Turn Type	custom		pm+ov		Perm	
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Actuated Green, G (s)	23.0	46.0	17.0	34.0	17.0	17.0
Effective Green, g (s)	25.0	48.0	19.0	38.0	19.0	19.0
Actuated g/C Ratio	0.33	0.64	0.25	0.51	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	590	1192	472	886	448	401
v/s Ratio Prot	c0.32	0.26	c0.14	0.12	c0.23	
v/s Ratio Perm				0.14		0.08
v/c Ratio	0.96	0.40	0.56	0.47	0.90	0.33
Uniform Delay, d1	24.5	6.5	24.4	11.9	27.1	22.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	26.8	1.0	1.5	0.4	21.0	0.5
Delay (s)	51.3	7.5	25.9	12.3	48.1	23.3
Level of Service	D	A	C	B	D	C
Approach Delay (s)		31.3	17.2		34.2	
Approach LOS		C	B		C	

Intersection Summary

HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
4: Sylve Rd & LA 433 (Thompson Rd)

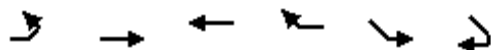
Dixie Ranch Rd AM Background
5/7/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	0	10	2	1	6	5	651	1	5	448	2
Peak Hour Factor	0.50	0.92	0.56	0.25	0.25	0.50	0.42	0.84	0.25	0.62	0.85	0.50
Hourly flow rate (vph)	22	0	18	8	4	12	12	775	4	8	527	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1358	1346	527	1362	1348	777	531			779		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1358	1346	527	1362	1348	777	531			779		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	100	97	93	97	97	99			99		
cM capacity (veh/h)	118	148	551	119	148	397	1036			838		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	40	24	791	535	4
Volume Left	22	8	12	8	0
Volume Right	18	12	4	0	4
cSH	182	193	1036	838	1700
Volume to Capacity	0.22	0.12	0.01	0.01	0.00
Queue Length 95th (ft)	20	10	1	1	0
Control Delay (s)	30.3	26.3	0.3	0.3	0.0
Lane LOS	D	D	A	A	
Approach Delay (s)	30.3	26.3	0.3	0.3	
Approach LOS	D	D			

Intersection Summary		
Average Delay		1.6
Intersection Capacity Utilization	51.3%	ICU Level of Service A
Analysis Period (min)		15



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	644	403	21	43	2
Peak Hour Factor	0.62	0.95	0.77	0.83	0.79	0.50
Hourly flow rate (vph)	8	678	523	25	54	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.86				0.86	0.86
vC, conflicting volume	549				1230	536
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	474				1268	459
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				66	99
cM capacity (veh/h)	933				158	516
Direction, Lane #	EB 1	WB 1	SE 1			
Volume Total	686	549	58			
Volume Left	8	0	54			
Volume Right	0	25	4			
cSH	933	1700	166			
Volume to Capacity	0.01	0.32	0.35			
Queue Length 95th (ft)	1	0	37			
Control Delay (s)	0.2	0.0	38.0			
Lane LOS	A		E			
Approach Delay (s)	0.2	0.0	38.0			
Approach LOS			E			
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization		47.9%		ICU Level of Service		A
Analysis Period (min)			15			

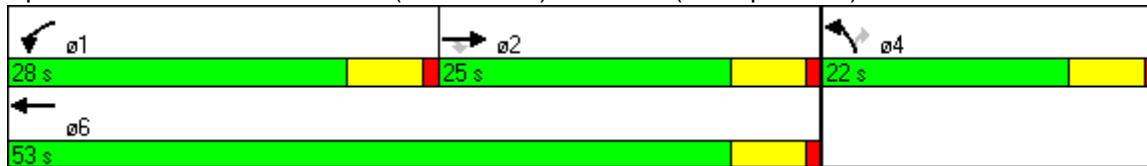
Timings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	388	75	471	565	131	315
Turn Type	Perm custom			Perm		
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	20.4	20.4	23.4	47.8	13.2	13.2
Actuated g/C Ratio	0.30	0.30	0.34	0.69	0.19	0.19
v/c Ratio	0.86	0.16	0.88	0.49	0.45	0.62
Control Delay	40.1	6.2	40.0	7.1	27.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	6.2	40.0	7.1	27.3	6.6
LOS	D	A	D	A	C	A
Approach Delay	35.0			22.1	12.6	
Approach LOS	D			C	B	

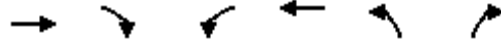
Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 69.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



Phasings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)



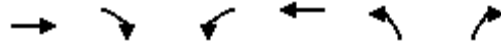
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Maximum Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	19.0	19.0	22.0	47.0	14.2	14.2
70th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
50th %ile Green (s)	19.0	19.0	22.0	47.0	11.2	11.2
50th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
30th %ile Green (s)	19.0	19.0	22.0	47.0	9.3	9.3
30th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
10th %ile Green (s)	15.7	15.7	18.7	40.4	6.4	6.4
10th %ile Term Code	Gap	Gap	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 69.1
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 73.2
 50th %ile Actuated Cycle: 70.2
 30th %ile Actuated Cycle: 68.3
 10th %ile Actuated Cycle: 58.8

HCM Signalized Intersection Capacity Analysis
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

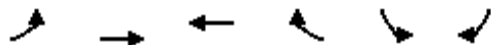
Dixie Ranch Rd. PM Background
 5/7/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583
Volume (vph)	388	75	471	565	131	315
Peak-hour factor, PHF	0.82	0.89	0.89	0.89	0.86	0.85
Adj. Flow (vph)	473	84	529	635	152	371
RTOR Reduction (vph)	0	59	0	0	0	300
Lane Group Flow (vph)	473	25	529	635	152	71
Turn Type	Perm custom			Perm		
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Actuated Green, G (s)	18.4	18.4	21.4	45.8	11.2	11.2
Effective Green, g (s)	20.4	20.4	23.4	47.8	13.2	13.2
Actuated g/C Ratio	0.30	0.30	0.34	0.69	0.19	0.19
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	551	468	600	1291	339	303
v/s Ratio Prot	c0.25		c0.30	0.34	c0.09	
v/s Ratio Perm		0.02				0.04
v/c Ratio	0.86	0.05	0.88	0.49	0.45	0.23
Uniform Delay, d1	22.9	17.4	21.5	4.9	24.7	23.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.6	0.0	14.2	0.3	0.9	0.4
Delay (s)	35.5	17.4	35.7	5.2	25.6	24.0
Level of Service	D	B	D	A	C	C
Approach Delay (s)	32.8			19.1	24.5	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

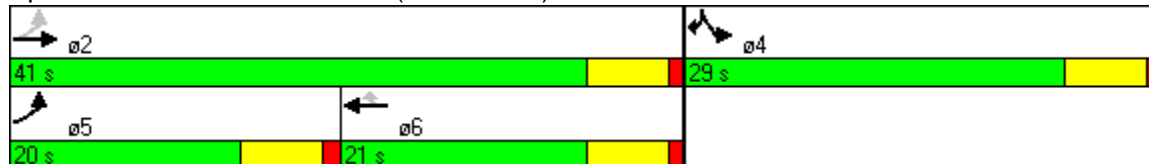


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↖	↗
Volume (vph)	352	269	351	464	506	449
Turn Type	pm+pt			Perm		Prot
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Detector Phases	5	2	6	6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	Min	Min	None	None
Act Effct Green (s)	36.7	36.7	16.8	16.8	25.0	25.0
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
v/c Ratio	0.75	0.33	0.86	0.65	0.96	0.60
Control Delay	23.8	10.7	45.6	7.1	52.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	10.7	45.6	7.1	52.3	4.8
LOS	C	B	D	A	D	A
Approach Delay		17.7	24.0		29.7	
Approach LOS		B	C		C	

Intersection Summary

Cycle Length: 70	
Actuated Cycle Length: 69.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd



Phasings
2: US 190 (Gause Blvd) & North Shore Blvd



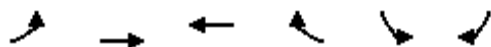
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Maximum Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag		Lag	
Lead-Lag Optimize?	Yes		Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Min	Min	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
90th %ile Term Code	Max	Hold	Max	Max	Max	Max
70th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
70th %ile Term Code	Max	Hold	Max	Max	Max	Max
50th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
50th %ile Term Code	Max	Hold	Max	Max	Max	Max
30th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
30th %ile Term Code	Max	Hold	Max	Max	Max	Max
10th %ile Green (s)	13.5	33.7	14.2	14.2	23.0	23.0
10th %ile Term Code	Gap	Hold	Gap	Gap	Max	Max

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 69.7
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 70
 70th %ile Actuated Cycle: 70
 50th %ile Actuated Cycle: 70
 30th %ile Actuated Cycle: 70
 10th %ile Actuated Cycle: 68.7

HCM Signalized Intersection Capacity Analysis
2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd. PM Background
5/7/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↑	↗	↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.19	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	358	1863	1863	1583	1770	1583
Volume (vph)	352	269	351	464	506	449
Peak-hour factor, PHF	0.92	0.82	0.91	0.94	0.83	0.81
Adj. Flow (vph)	383	328	386	494	610	554
RTOR Reduction (vph)	0	0	0	375	0	355
Lane Group Flow (vph)	383	328	386	119	610	199
Turn Type	pm+pt		Perm		Prot	
Protected Phases	5	2	6		4	4
Permitted Phases	2		6			
Actuated Green, G (s)	34.7	34.7	14.8	14.8	23.0	23.0
Effective Green, g (s)	36.7	36.7	16.8	16.8	25.0	25.0
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	511	981	449	382	635	568
v/s Ratio Prot	c0.17	0.18	0.21		c0.34	0.13
v/s Ratio Perm	c0.22		0.08			
v/c Ratio	0.75	0.33	0.86	0.31	0.96	0.35
Uniform Delay, d1	13.0	9.5	25.3	21.7	21.9	16.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.0	0.2	15.1	0.5	26.1	0.4
Delay (s)	19.0	9.7	40.4	22.2	48.0	16.8
Level of Service	B	A	D	C	D	B
Approach Delay (s)		14.7	30.2		33.1	
Approach LOS		B	C		C	

Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 4: Sylve Rd & LA 433 (Thompson Rd)

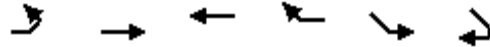
Dixie Ranch Rd. PM Background
 5/7/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	0	0	0	0	3	2	457	2	5	465	6
Peak Hour Factor	0.25	0.92	0.92	0.92	0.92	0.75	0.50	0.91	0.25	0.42	0.89	0.75
Hourly flow rate (vph)	4	0	0	0	0	4	4	502	8	12	522	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1064	1064	522	1060	1068	506	530			510		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1064	1064	522	1060	1068	506	530			510		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	100	100	99	100			99		
cM capacity (veh/h)	197	219	554	199	218	566	1037			1055		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	4	4	514	534	8
Volume Left	4	0	4	12	0
Volume Right	0	4	8	0	8
cSH	197	566	1037	1055	1700
Volume to Capacity	0.02	0.01	0.00	0.01	0.00
Queue Length 95th (ft)	2	1	0	1	0
Control Delay (s)	23.7	11.4	0.1	0.3	0.0
Lane LOS	C	B	A	A	
Approach Delay (s)	23.7	11.4	0.1	0.3	
Approach LOS	C	B			

Intersection Summary		
Average Delay		0.3
Intersection Capacity Utilization	41.0%	ICU Level of Service
Analysis Period (min)		15
		A



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	461	664	38	22	2
Peak Hour Factor	0.25	0.91	0.97	0.64	0.48	0.50
Hourly flow rate (vph)	4	507	685	59	46	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.84				0.84	0.84
vC, conflicting volume	744				1229	714
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	694				1274	658
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				70	99
cM capacity (veh/h)	754				153	388
Direction, Lane #	EB 1	WB 1	SE 1			
Volume Total	511	744	50			
Volume Left	4	0	46			
Volume Right	0	59	4			
cSH	754	1700	161			
Volume to Capacity	0.01	0.44	0.31			
Queue Length 95th (ft)	0	0	31			
Control Delay (s)	0.2	0.0	37.0			
Lane LOS	A		E			
Approach Delay (s)	0.2	0.0	37.0			
Approach LOS			E			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization		47.2%		ICU Level of Service		A
Analysis Period (min)			15			

APPENDIX F

FULL DEVELOPMENT CALCULATIONS

Timings
 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

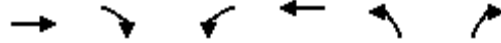
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	521	108	330	345	79	533
Turn Type	Perm pm+pt			Perm		
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	25.4	25.4	43.9	43.9	17.3	17.3
Actuated g/C Ratio	0.37	0.37	0.63	0.63	0.25	0.25
v/c Ratio	0.86	0.20	0.85	0.46	0.23	0.89
Control Delay	31.4	4.1	32.6	8.4	22.8	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	4.1	32.6	8.4	22.8	21.2
LOS	C	A	C	A	C	C
Approach Delay	26.5			18.7	21.4	
Approach LOS	C			B	C	

Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 69.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 21.9	Intersection LOS: C
Intersection Capacity Utilization 67.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

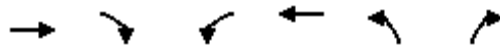




Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	11.0	22.0	22.0	22.0
Total Split (s)	32.0	32.0	19.0	51.0	24.0	24.0
Total Split (%)	42.7%	42.7%	25.3%	68.0%	32.0%	32.0%
Maximum Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
70th %ile Term Code	Max	Max	Max	Hold	Max	Max
50th %ile Green (s)	26.0	26.0	13.0	45.0	18.0	18.0
50th %ile Term Code	Max	Max	Max	Hold	Max	Max
30th %ile Green (s)	24.8	24.8	13.0	43.8	15.7	15.7
30th %ile Term Code	Gap	Gap	Max	Hold	Gap	Gap
10th %ile Green (s)	15.0	15.0	9.6	30.6	8.0	8.0
10th %ile Term Code	Min	Min	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 69.4
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 75
 30th %ile Actuated Cycle: 71.5
 10th %ile Actuated Cycle: 50.6

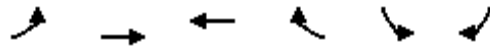


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.14	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	253	1863	1770	1583
Volume (vph)	521	108	330	345	79	533
Peak-hour factor, PHF	0.89	0.84	0.83	0.64	0.78	0.81
Adj. Flow (vph)	585	129	398	539	101	658
RTOR Reduction (vph)	0	81	0	0	0	342
Lane Group Flow (vph)	585	48	398	539	101	316
Turn Type	Perm pm+pt				Perm	
Protected Phases	2		1	6	4	
Permitted Phases		2	6			4
Actuated Green, G (s)	23.5	23.5	41.9	41.9	15.2	15.2
Effective Green, g (s)	25.5	25.5	43.9	43.9	17.2	17.2
Actuated g/C Ratio	0.37	0.37	0.64	0.64	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	688	584	477	1184	441	394
v/s Ratio Prot	0.31		c0.17	0.29	0.06	
v/s Ratio Perm		0.03	c0.36			c0.20
v/c Ratio	0.85	0.08	0.83	0.46	0.23	0.80
Uniform Delay, d1	20.0	14.2	16.4	6.5	20.7	24.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.9	0.1	11.9	0.3	0.3	11.1
Delay (s)	29.9	14.2	28.3	6.7	20.9	35.5
Level of Service	C	B	C	A	C	D
Approach Delay (s)	27.1			15.9	33.5	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	24.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	69.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: US 190 (Gause Blvd) & North Shore Blvd

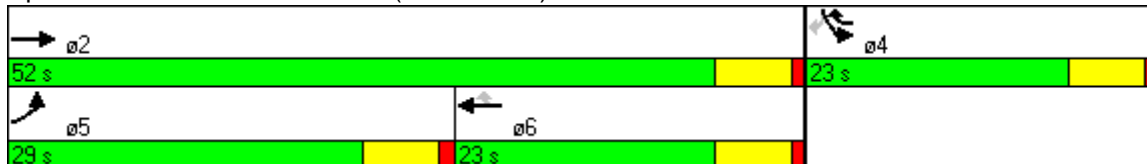


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↖
Volume (vph)	504	417	248	432	364	377
Turn Type	custom		pm+ov		Perm	
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Detector Phases	5	2	6	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)	25.0	48.0	19.0	42.0	19.0	19.0
Actuated g/C Ratio	0.33	0.64	0.25	0.56	0.25	0.25
v/c Ratio	0.96	0.40	0.57	0.50	0.90	0.66
Control Delay	55.4	7.8	30.1	9.5	53.5	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	7.8	30.1	9.5	53.5	7.0
LOS	E	A	C	A	D	A
Approach Delay		33.6	17.0		27.4	
Approach LOS		C	B		C	

Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 75	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 26.9	Intersection LOS: C
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd





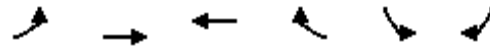
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	29.0	52.0	23.0	23.0	23.0	23.0
Total Split (%)	38.7%	69.3%	30.7%	30.7%	30.7%	30.7%
Maximum Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Max	None	None	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
90th %ile Term Code	Max	MaxR	Max	Max	Max	Max
70th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
70th %ile Term Code	Max	MaxR	Max	Max	Max	Max
50th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
50th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
30th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
30th %ile Term Code	Max	MaxR	Hold	Max	Max	Max
10th %ile Green (s)	23.0	46.0	17.0	17.0	17.0	17.0
10th %ile Term Code	Max	MaxR	Hold	Max	Max	Max

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 75
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 75
 50th %ile Actuated Cycle: 75
 30th %ile Actuated Cycle: 75
 10th %ile Actuated Cycle: 75

HCM Signalized Intersection Capacity Analysis
 2: US 190 (Gause Blvd) & North Shore Blvd

Dixie Ranch Rd AM Full Development
 5/7/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	504	417	248	432	364	377
Peak-hour factor, PHF	0.89	0.87	0.92	0.92	0.90	0.73
Adj. Flow (vph)	566	479	270	470	404	516
RTOR Reduction (vph)	0	0	0	57	0	385
Lane Group Flow (vph)	566	479	270	413	404	131
Turn Type	custom		pm+ov		Perm	
Protected Phases	5	2	6	4	4	
Permitted Phases	5			6	4	4
Actuated Green, G (s)	23.0	46.0	17.0	34.0	17.0	17.0
Effective Green, g (s)	25.0	48.0	19.0	38.0	19.0	19.0
Actuated g/C Ratio	0.33	0.64	0.25	0.51	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	590	1192	472	886	448	401
v/s Ratio Prot	c0.32	0.26	c0.14	0.12	c0.23	
v/s Ratio Perm				0.14		0.08
v/c Ratio	0.96	0.40	0.57	0.47	0.90	0.33
Uniform Delay, d1	24.5	6.5	24.4	11.9	27.1	22.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	26.8	1.0	1.7	0.4	21.0	0.5
Delay (s)	51.3	7.6	26.1	12.3	48.1	23.3
Level of Service	D	A	C	B	D	C
Approach Delay (s)		31.3	17.4		34.2	
Approach LOS		C	B		C	

Intersection Summary			
HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
4: Sylve Rd & LA 433 (Thompson Rd)

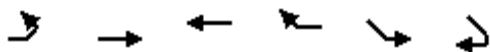
Dixie Ranch Rd AM Full Development
5/7/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	11	0	10	2	1	6	5	653	1	5	449	2
Peak Hour Factor	0.50	0.92	0.56	0.25	0.25	0.50	0.42	0.84	0.25	0.62	0.85	0.50
Hourly flow rate (vph)	22	0	18	8	4	12	12	777	4	8	528	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1362	1350	528	1365	1352	779	532			781		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1362	1350	528	1365	1352	779	532			781		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	100	97	93	97	97	99			99		
cM capacity (veh/h)	117	147	550	119	147	396	1035			836		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	40	24	793	536	4
Volume Left	22	8	12	8	0
Volume Right	18	12	4	0	4
cSH	181	192	1035	836	1700
Volume to Capacity	0.22	0.13	0.01	0.01	0.00
Queue Length 95th (ft)	20	11	1	1	0
Control Delay (s)	30.4	26.4	0.3	0.3	0.0
Lane LOS	D	D	A	A	
Approach Delay (s)	30.4	26.4	0.3	0.3	
Approach LOS	D	D			

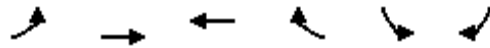
Intersection Summary		
Average Delay		1.6
Intersection Capacity Utilization	51.4%	ICU Level of Service
Analysis Period (min)		15
		A



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations	↶	↷	↷		↷	↶
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	647	406	22	44	2
Peak Hour Factor	0.62	0.95	0.77	0.83	0.79	0.50
Hourly flow rate (vph)	8	681	527	27	56	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.86				0.86	0.86
vC, conflicting volume	554				1238	541
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	479				1278	463
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				64	99
cM capacity (veh/h)	928				156	513

Direction, Lane #	EB 1	EB 2	WB 1	SE 1
Volume Total	8	681	554	60
Volume Left	8	0	0	56
Volume Right	0	0	27	4
cSH	928	1700	1700	163
Volume to Capacity	0.01	0.40	0.33	0.37
Queue Length 95th (ft)	1	0	0	39
Control Delay (s)	8.9	0.0	0.0	39.2
Lane LOS	A			E
Approach Delay (s)	0.1		0.0	39.2
Approach LOS				E

Intersection Summary			
Average Delay		1.9	
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
Analysis Period (min)	15		



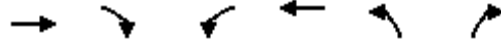
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↷	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	6	519	341	4	2	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	564	371	4	2	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			821			
pX, platoon unblocked						
vC, conflicting volume	375				950	373
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	375				950	373
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	99
cM capacity (veh/h)	1183				287	673

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	571	375	7
Volume Left	7	0	2
Volume Right	0	4	4
cSH	1183	1700	465
Volume to Capacity	0.01	0.22	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.2	0.0	12.9
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	12.9
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↩			↩	↩	↩
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	46	0	0	27	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	50	0	0	29	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			50		79	50
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			50		79	50
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1557		923	1018
Direction, Lane #	SE 1	NW 1	NE 1			
Volume Total	50	29	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1557	1700			
Volume to Capacity	0.03	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			6.7%		ICU Level of Service	A
Analysis Period (min)			15			

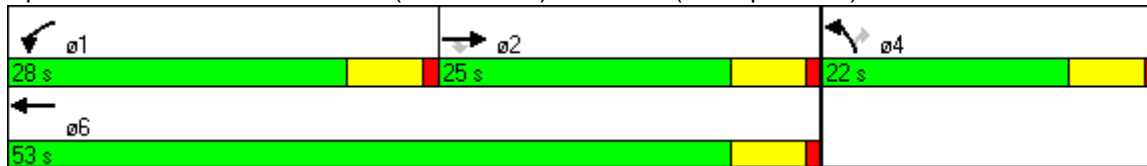


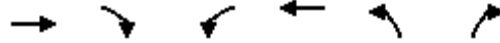
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	395	78	471	576	137	315
Turn Type		Perm	custom			Perm
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Detector Phases	2	2	1	6	4	4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	20.6	20.6	23.5	48.1	13.5	13.5
Actuated g/C Ratio	0.30	0.30	0.34	0.69	0.19	0.19
v/c Ratio	0.87	0.17	0.89	0.50	0.46	0.61
Control Delay	42.3	6.1	40.9	7.3	27.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	6.1	40.9	7.3	27.6	6.6
LOS	D	A	D	A	C	A
Approach Delay	36.7			22.4	12.9	
Approach LOS	D			C	B	

Intersection Summary

Cycle Length: 75	
Actuated Cycle Length: 69.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: US 190 (Gause Blvd) & LA 433 (Thompson Rd)

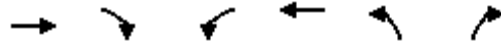




Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	28.0	53.0	22.0	22.0
Total Split (%)	33.3%	33.3%	37.3%	70.7%	29.3%	29.3%
Maximum Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	2.0	2.0	3.0	2.0	3.0	3.0
Time Before Reduce (s)	15.0	15.0	0.0	15.0	0.0	0.0
Time To Reduce (s)	45.0	45.0	0.0	45.0	0.0	0.0
Recall Mode	Min	Min	None	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	19.0	19.0	22.0	47.0	16.0	16.0
90th %ile Term Code	Max	Max	Max	Hold	Max	Max
70th %ile Green (s)	19.0	19.0	22.0	47.0	14.5	14.5
70th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
50th %ile Green (s)	19.0	19.0	22.0	47.0	11.5	11.5
50th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
30th %ile Green (s)	19.0	19.0	22.0	47.0	9.6	9.6
30th %ile Term Code	Max	Max	Max	Hold	Gap	Gap
10th %ile Green (s)	16.9	16.9	19.1	42.0	6.6	6.6
10th %ile Term Code	Gap	Gap	Gap	Hold	Gap	Gap

Intersection Summary

Cycle Length: 75
 Actuated Cycle Length: 69.6
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 75
 70th %ile Actuated Cycle: 73.5
 50th %ile Actuated Cycle: 70.5
 30th %ile Actuated Cycle: 68.6
 10th %ile Actuated Cycle: 60.6

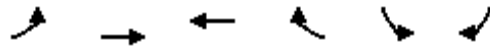


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1863	1583	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1863	1583	1770	1863	1770	1583
Volume (vph)	395	78	471	576	137	315
Peak-hour factor, PHF	0.82	0.89	0.89	0.89	0.86	0.85
Adj. Flow (vph)	482	88	529	647	159	371
RTOR Reduction (vph)	0	62	0	0	0	299
Lane Group Flow (vph)	482	26	529	647	159	72
Turn Type		Perm custom			Perm	
Protected Phases	2		1	6	4	
Permitted Phases		2	1			4
Actuated Green, G (s)	18.6	18.6	21.5	46.1	11.5	11.5
Effective Green, g (s)	20.6	20.6	23.5	48.1	13.5	13.5
Actuated g/C Ratio	0.30	0.30	0.34	0.69	0.19	0.19
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	551	469	598	1288	343	307
v/s Ratio Prot	c0.26		c0.30	0.35	c0.09	
v/s Ratio Perm		0.02				0.05
v/c Ratio	0.87	0.06	0.88	0.50	0.46	0.23
Uniform Delay, d1	23.3	17.5	21.8	5.1	24.8	23.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.4	0.0	14.6	0.3	1.0	0.4
Delay (s)	37.7	17.6	36.3	5.4	25.8	24.1
Level of Service	D	B	D	A	C	C
Approach Delay (s)	34.6			19.3	24.6	
Approach LOS	C			B	C	

Intersection Summary

HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	69.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: US 190 (Gause Blvd) & North Shore Blvd

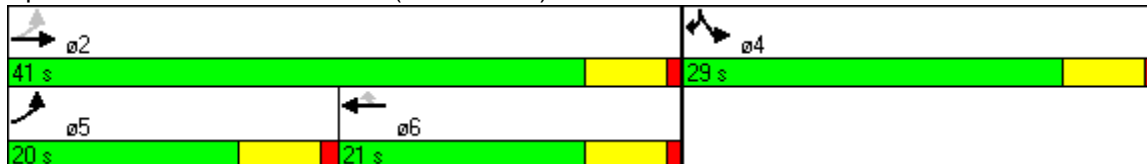


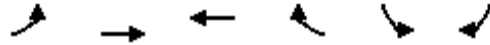
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↗	↖	↖	↖
Volume (vph)	355	275	359	464	506	452
Turn Type	pm+pt			Perm		Prot
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Detector Phases	5	2	6	6	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	Min	Min	Min	None	None
Act Effct Green (s)	36.9	36.9	17.0	17.0	25.0	25.0
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
v/c Ratio	0.76	0.34	0.87	0.65	0.96	0.60
Control Delay	24.2	10.7	48.1	7.1	52.8	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	10.7	48.1	7.1	52.8	4.8
LOS	C	B	D	A	D	A
Approach Delay		17.9	25.3		29.9	
Approach LOS		B	C		C	

Intersection Summary

Cycle Length: 70	
Actuated Cycle Length: 69.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 25.3	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: US 190 (Gause Blvd) & North Shore Blvd

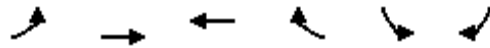




Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	5	2	6		4	4
Permitted Phases	2			6		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	41.0	21.0	21.0	29.0	29.0
Total Split (%)	28.6%	58.6%	30.0%	30.0%	41.4%	41.4%
Maximum Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Min	Min	Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
90th %ile Term Code	Max	Hold	Max	Max	Max	Max
70th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
70th %ile Term Code	Max	Hold	Max	Max	Max	Max
50th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
50th %ile Term Code	Max	Hold	Max	Max	Max	Max
30th %ile Green (s)	14.0	35.0	15.0	15.0	23.0	23.0
30th %ile Term Code	Max	Hold	Max	Max	Max	Max
10th %ile Green (s)	13.7	34.6	14.9	14.9	23.0	23.0
10th %ile Term Code	Gap	Hold	Gap	Gap	Max	Max

Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 69.9
 Control Type: Actuated-Uncoordinated
 90th %ile Actuated Cycle: 70
 70th %ile Actuated Cycle: 70
 50th %ile Actuated Cycle: 70
 30th %ile Actuated Cycle: 70
 10th %ile Actuated Cycle: 69.6



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↶	↷	↶	↷	↶	↷
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.19	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	355	1863	1863	1583	1770	1583
Volume (vph)	355	275	359	464	506	452
Peak-hour factor, PHF	0.92	0.82	0.91	0.94	0.83	0.81
Adj. Flow (vph)	386	335	395	494	610	558
RTOR Reduction (vph)	0	0	0	374	0	358
Lane Group Flow (vph)	386	335	395	120	610	200
Turn Type	pm+pt		Perm		Prot	
Protected Phases	5	2	6		4	4
Permitted Phases	2		6			
Actuated Green, G (s)	34.9	34.9	15.0	15.0	23.0	23.0
Effective Green, g (s)	36.9	36.9	17.0	17.0	25.0	25.0
Actuated g/C Ratio	0.53	0.53	0.24	0.24	0.36	0.36
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	509	983	453	385	633	566
v/s Ratio Prot	c0.17	0.18	c0.21		c0.34	0.13
v/s Ratio Perm	0.23		0.08			
v/c Ratio	0.76	0.34	0.87	0.31	0.96	0.35
Uniform Delay, d1	13.3	9.5	25.4	21.7	22.0	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.4	0.2	16.6	0.5	26.8	0.4
Delay (s)	19.7	9.7	42.0	22.1	48.8	16.9
Level of Service	B	A	D	C	D	B
Approach Delay (s)	15.1		31.0	33.5		
Approach LOS	B		C	C		

Intersection Summary

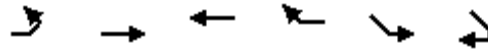
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	69.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 4: Sylve Rd & LA 433 (Thompson Rd)

Dixie Ranch Rd. PM Full Development
 5/7/2007



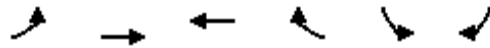
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	↕
Sign Control		Stop			Stop			Free			Free	↕
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	0	0	0	0	3	2	462	2	5	468	6
Peak Hour Factor	0.25	0.92	0.92	0.92	0.92	0.75	0.50	0.91	0.25	0.42	0.89	0.75
Hourly flow rate (vph)	4	0	0	0	0	4	4	508	8	12	526	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1073	1073	526	1069	1077	512	534			516		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1073	1073	526	1069	1077	512	534			516		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	100	100	100	99	100			99		
cM capacity (veh/h)	194	217	552	197	216	562	1034			1050		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2							
Volume Total	4	4	520	538	8							
Volume Left	4	0	4	12	0							
Volume Right	0	4	8	0	8							
cSH	194	562	1034	1050	1700							
Volume to Capacity	0.02	0.01	0.00	0.01	0.00							
Queue Length 95th (ft)	2	1	0	1	0							
Control Delay (s)	23.9	11.4	0.1	0.3	0.0							
Lane LOS	C	B	A	A								
Approach Delay (s)	23.9	11.4	0.1	0.3								
Approach LOS	C	B										
Intersection Summary												
Average Delay			0.3									
Intersection Capacity Utilization			41.2%			ICU Level of Service				A		
Analysis Period (min)			15									



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	472	673	40	23	2
Peak Hour Factor	0.25	0.91	0.97	0.64	0.48	0.50
Hourly flow rate (vph)	4	519	694	62	48	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			207			
pX, platoon unblocked	0.83				0.83	0.83
vC, conflicting volume	756				1252	725
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	707				1303	669
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				67	99
cM capacity (veh/h)	741				146	380

Direction, Lane #	EB 1	WB 1	SE 1
Volume Total	523	756	52
Volume Left	4	0	48
Volume Right	0	62	4
cSH	741	1700	154
Volume to Capacity	0.01	0.44	0.34
Queue Length 95th (ft)	0	0	35
Control Delay (s)	0.2	0.0	39.9
Lane LOS	A		E
Approach Delay (s)	0.2	0.0	39.9
Approach LOS			E

Intersection Summary			
Average Delay		1.6	
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	17	388	565	10	11	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	422	614	11	12	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)			821			
pX, platoon unblocked	0.89				0.89	0.89
vC, conflicting volume	625				1078	620
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	577				1088	571
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				94	96
cM capacity (veh/h)	883				207	461

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	440	625	32
Volume Left	18	0	12
Volume Right	0	11	20
cSH	883	1700	315
Volume to Capacity	0.02	0.37	0.10
Queue Length 95th (ft)	2	0	8
Control Delay (s)	0.6	0.0	17.7
Lane LOS	A		C
Approach Delay (s)	0.6	0.0	17.7
Approach LOS			C

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↩			↩	↩	↩
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	24	1	1	39	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	1	1	42	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			27		71	27
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			27		71	27
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1587		932	1049

Direction, Lane #	SE 1	NW 1	NE 1
Volume Total	27	43	2
Volume Left	0	1	1
Volume Right	1	0	1
cSH	1700	1587	987
Volume to Capacity	0.02	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.2	8.7
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	8.7
Approach LOS			A

Intersection Summary			
Average Delay		0.4	
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)		15	