

# Legacy Church

## *Traffic Impact Assessment*



November 17, 2011

# Traffic Impact Assessment **Legacy Church**

Prepared For:

***City of Albuquerque***

Study Prepared By:

**Harwick Transportation Group, Inc.  
1440 Camino Cerrito SE  
Albuquerque, NM 87123**



11-17-2011

November 17, 2011

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### **Appended Materials**

**Acronyms**

AASHTO	American Association of State Highway and Transportation Officials
AADT	Annual Average Daily Traffic
AAWDT	Annual Average Weekday Traffic
g/C	Green time per signal Cycle length
HCM	Highway Capacity Manual
HTG	Harwick Transportation Group
ITE	Institute of Transportation Engineers
LOS	Level of Service
MRCOG	Mid-Region Council of Governments
mph	Miles per Hour
MTP	Metropolitan Transportation Plan (current document for year 2030)
MUTCD	Manual on Uniform Traffic Control Devices
NMDOT	New Mexico Department of Transportation
pcphpl	Passenger cars per hour per lane
PHF	Peak Hour Factor
v/c	Volume to Capacity ratio
vpd	Vehicles per Day
vph	Vehicles per Hour

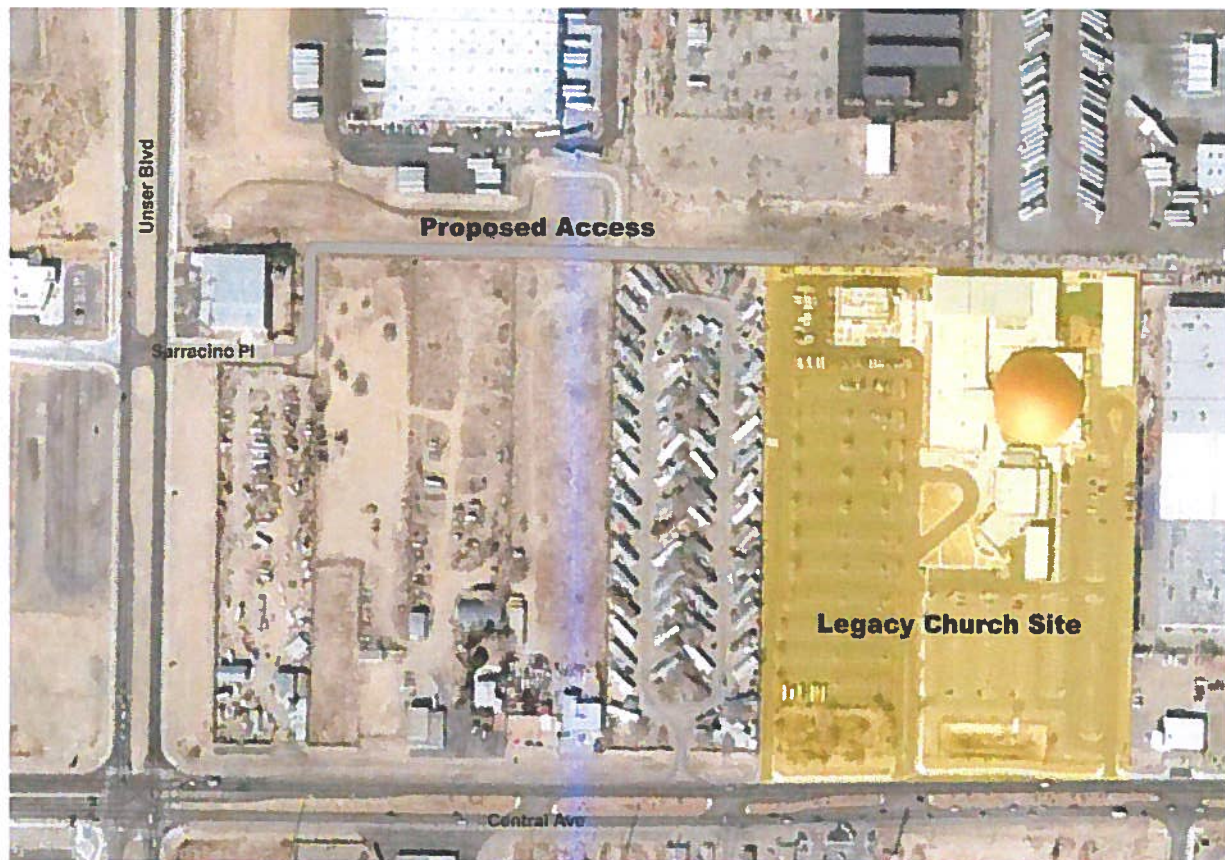
# **Legacy Church**

## **Traffic Impact Assessment**

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### **1.0 INTRODUCTION**

This traffic engineering assessment was prepared for the Legacy Church located at 7201 Central Ave NW, between Coors Blvd and Unser Blvd. The church currently has three driveways along Central Ave, a right-in/right-out (#1), a full access (#2), and right turn exit only driveway (#3). The church proposes to extend a new access to Unser Blvd, intersecting Unser Blvd at the existing Sarracino Pl intersection, shown below. The operation of the new access is to act as a single lane, exit only driveway. It is anticipated that though there is a median opening on Unser Blvd, the majority of traffic from the church will turn right. This right turn assumption is based on the shorter path experienced by exiting onto Central Ave to travel south and west of the Unser Blvd/Central Ave intersection.



Unser Blvd is a 4-lane urban principal arterial roadway where it intersects Sarracino Pl. The west leg of the intersection is the Unser Blvd access to the Unser/Central Transit Center, the west end of the Central Ave transit corridor. The east leg, Sarracino Pl, provides access to a single business which appears to be closed.

Access along Unser Blvd is managed by the City of Albuquerque and the Mid-Region Council of Governments. All new access locations along Unser Blvd require review by a regional



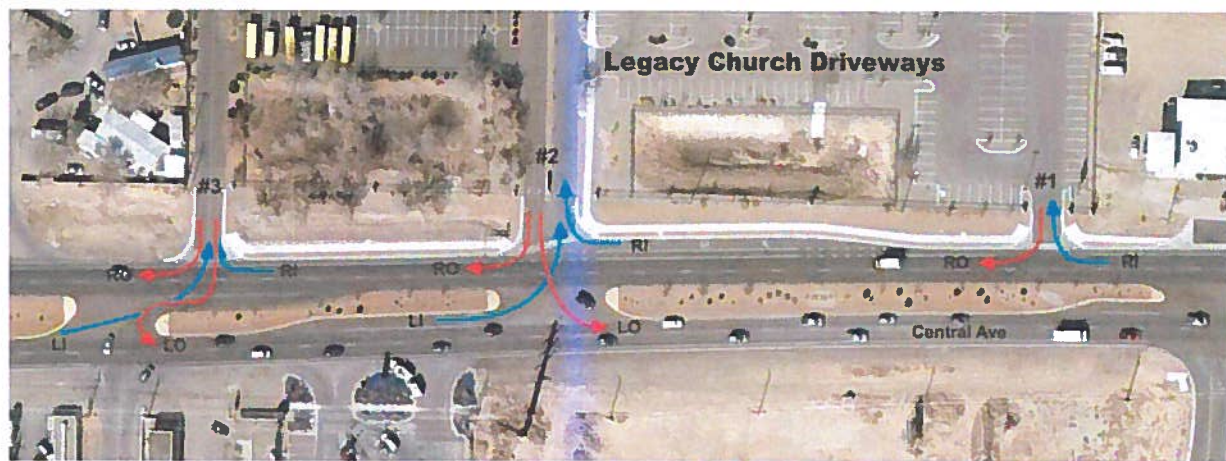
## ***Legacy Church***

### ***Traffic Impact Assessment***

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access committee; however, because Sarracino Pl is an existing intersection, the access does not require an access review. The City of Albuquerque is requiring for this study that volumes for the new church access are forecast, based upon a redistribution of the existing site volumes, and that a traffic signal warrant be evaluated at the Sarracino Pl/Unser Blvd intersection.

The project consisted of the following scope of work. Traffic counts were collected for each driveway (shown below) during each of the worship services, on both Sunday and Wednesday. The data were used to quantify the number of trips, and determine a directional split. Based upon existing right-turn exiting trip percentages, trips were reassigned to the proposed access. These trips, along with the existing intersection trips (Unser Blvd/Sarracino Pl), were evaluated for the PM peak hour. The results of those investigations are contained within this report.



## 2.0 TRAFFIC VOLUMES

Daily traffic volumes for Central Ave and Unser Blvd were obtained from the Mid-Region Council of Governments (MRCOG) 2010 Traffic Flow Map. The 2010 average daily traffic flows on Central Ave at the site driveways was 16,700 vehicles per day (vpd). Unser Blvd had an average of 21,300 vpd in 2010 at Sarracino Pl. Given that these are both 4/5 lane roads, planning level operations are estimated at level of service (LOS) C.

Turning movement counts for the site were collected on October 30, November 9, and November 15, 2011. Sunday data for the church services were collected continuously from 8:30 AM until 2:15 PM. The services began at 9:00, 10:30, and 12:15. Data were also collected for the Wednesday evening service held at 6:30 pm. The Wednesday data collection was from 5:30 until 8:45 PM. In addition to collecting data for the driveways, the Sunday count included tracking vehicles from the western driveway through the Unser Blvd intersection to estimate the directional split at that intersection. The new access will be north of Central Ave on Unser Blvd, and it is believed that vehicles turning right out of the site, and turning right onto Unser Blvd will be most attractive to the new access. Table 1 contains the results of the cumulative driveway counts.

**Table 1**  
**Turning Movement Volumes – Total Each Count Period**

Count Day	Driveway 1		Driveway 2 (Middle)				Driveway 3 (West)				Totals	
	RI	RO	RI	RO	LI	LO	RI	RO	LI	LO	IN	OUT
Sunday	333	216	405	177	744	538	11	607	36	56	1529	1594
Wednesday	342	196	318	264	555	338	2	406	83	42	1300	1246
Total	675	412	723	441	1299	876	13	1013	119	98	2829	2840

RI – Right In, RO – Right Out, LI – Left In, LO – Left Out

These volumes were aggregated into entering and exiting volumes for the church site. The entering and exiting volumes are found in Table 2.

**Table 2**  
**Entering and Exiting Traffic Volumes**

Count Day	ENTER		EXIT		Total		ENTER		EXIT	
	Right	Left	Right	Left	IN	OUT	RT%	LT%	RT%	LT%
Sunday	749	780	1000	594	1529	1594	49%	51%	63%	37%
Wednesday	662	638	866	380	1300	1246	51%	49%	69%	31%
Total	1411	1418	1866	974	2829	2840	50%	50%	66%	34%

## ***Legacy Church***

### ***Traffic Impact Assessment***

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The new access will be a direct connection to Unser Blvd; therefore, an estimate of the site traffic turning movements at Unser Blvd was determined during the Sunday morning counts. The methodology was to track random vehicles turning right from driveway #3 onto Central Ave that travelled through the Unser Blvd intersection. The turning movements at Unser Blvd were recorded, and are summarized in Table 3. Only select, random vehicles could be tracked, most commonly during low flow periods (not immediately after service let out). It is assumed that since the vehicles collected were random, the error in this estimation should be minimal. A total of 190 vehicles were recorded during the 5 hour, 45 minute count. The results were:

**Table 3**  
**Turning Movements at Unser Blvd**

<b>Movement</b>	<b>Volume</b>	<b>Percent</b>
Left Turn	29	15%
Through	51	27%
Right Turn	110	58%

These percentages were applied to the peak period westbound vehicles destined toward Unser Blvd.

Given that a traffic signal warrant was requested for the new access, it is also important to understand when the access would experience its heaviest traffic demand. The demand on Sunday morning and early Sunday afternoon corresponds to low traffic flows on Central Ave and Unser Blvd; therefore, main street traffic was not collected for an evaluation. Wednesday traffic slightly overlaps the PM peak period; therefore, the entering and exiting traffic were collected and summarized in Table 4.

**Table 4**  
**Wednesday Entering/Exiting Traffic by 15 Minute Increment**

<b>Begin Time</b>	<b>Enter</b>	<b>Exit</b>
05:30 PM	70	17
05:45 PM	156	17
06:00 PM	264	43
06:15 PM	368	54
06:30 PM	261	36
06:45 PM	44	12
07:00 PM	11	3
07:15 PM	5	4
07:30 PM	10	7
07:45 PM	19	210
08:00 PM	31	364
08:15 PM	33	336
08:30 PM	28	143
<b>Sum</b>	<b>1300</b>	<b>1246</b>



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The entering and exiting peak hours were highlighted, and Table 4 indicates that the peak hour of exiting traffic begins at 7:45 PM. This occurs well after the end of the peak commute period, traditionally between 4:00 and 6:00 PM. The peak hour of activity at the church driveways occurs in connection with the beginning of the Wednesday service, occurring from 5:45 to 6:45, with 1049 entering vehicles and 150 exiting. Given the directional split from Table 2 (right turn exiting [RT% EXIT]), approximately 69% (104 vehicles) exit toward Unser Blvd during the PM peak. It is estimated that 58% of these vehicles will turn right onto Unser Blvd, representing a total of 60 PM peak hour vehicles. This is the exiting volume anticipated for the site's PM peak hour on the new access road.

A turning movement count was collected at the Unser Blvd/Sarracino Pl intersection from 5:00 to 6:00 PM to quantify a peak hour overlapping with the beginning of the church service. While the two counts overlap by only a half hour, the church peak hour was combined with the Unser Blvd/Sarracino Pl peak hour to provide a peak hour for signal warrant evaluation. This will yield a total slightly higher than measured during each count. The proposed intersection volumes are contained in Table 5.

**Table 5**  
**Turning Movements – Unser Blvd @ Sarracino Pl**

Intersection	Eastbound			Westbound			Northbound			Southbound		
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT
PM Peak Count	30	0	16	0	0	0	5	1029	0	1	1301	14
Legacy Church Driveway Est.						60						
Total Intersection Volume	30	0	16	0	0	60	5	1029	0	1	1301	14

Most of the traffic that will utilize the new access will not occur during peak traffic periods. The heaviest one hour volumes for the new access were estimated for Sunday and Wednesday, corresponding to the peak exiting trips. Those estimated volumes of new access traffic are:

Sunday (11:45 am – 12:45 pm)	153 vph
Wednesday (7:45 – 8:45 pm)	422 vph

It is assumed that all of these trips will be right turns from the access to northbound Unser Blvd. It is also assumed that the Wednesday volume will not occur as estimated above. The stop condition at Unser Blvd will restrict traffic turning onto Unser Blvd, likely leading to long queues from the church parking lot. It is assumed therefore, that approximately half of these trips would remain right turns onto Central Ave on Wednesday evening, balancing the flows from the site. The Sunday traffic volume should experience minimal delay turning onto Unser Blvd.

### **3.0 TRAFFIC SIGNAL WARRANTS**

The Manual on Uniform Traffic Control Devices (MUTCD) has nine (9) traffic signal warrants, of which, at least one must be satisfied before signalization should be considered. Satisfying a warrant does not require that a signal should be installed, only that a possible deficiency exists that could be mitigated through signalization. These warrants are based upon traffic volumes, pedestrian volumes, traffic safety, and corridor operations; and have been developed to assess an 'average' day. Given that a church is not a continuous or daily trip generator, the construction of traffic signal for such a site may not best serve the motoring public, even if a traffic signal warrant is met.

The church generates large volumes of traffic on Sunday from 8:30 AM until 2:30 PM, and from 6:00 until 8:45 PM on Wednesday evening. Based upon the limited hours which could trigger a warrant evaluation, only the Peak Hour warrant, #3, was evaluated. That peak hour is the data found in Table 5, the 'Total Intersection Volume' that includes the projected Legacy Church right turns added to the existing Unser Blvd/Sarracino Pl volume.

The MUTCD provides criteria adjustments based upon location (rural vs. urban) and posted roadway speeds. Unser Blvd has a posted speed limit of 45 mph; therefore, a 70% factor is applicable to the warrant criteria, reducing the traffic volumes required to meet a traffic signal warrant. The MUTCD also differentiates between the number of approach lanes, those with a single lane vs. those with two (2) or more lanes. For this evaluation, Unser Blvd has two (2) lanes and each Sarracino Pl approach is considered to have a single approach lane. Note: the transit center approach has two lanes but will be evaluated conservatively as a single lane for this assessment.

**Warrant 3 – Peak Hour:** This Peak Hour warrant is intended for use at a location where traffic conditions are such that for a minimum of one (1) hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. The standard requires the following criteria in either of the two categories be met:

Category A (All conditions must be met.)

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds 4 vehicle-hours for a one-lane approach, or 5 vehicle-hours for a two-lane approach; and,
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic, or 150 vehicles per hour for two moving lanes; and,
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three (3) approaches or 800 vehicles per hour for intersections with four (4) or more approaches.

Category B

1. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15 minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Given that Unser Blvd has a posted speed limit of 45 mph, the volume criteria are reduced by applying the 70% factor. Per the MUTCD, the volume in criterion A.2 (above) is reduced to 75 vehicles for a single lane approach and 100 vehicles for a multilane approach; and the main street minimum volume (A.3) is reduced to 560 vehicles per hour.

The volumes from Table 5 indicate that Unser Blvd has a major street volume of 2350 vehicles per hour during the PM period. The two cross street approaches total 46 from the transit station and an estimated 60 right turns are forecast from the church parking lot. Given that the cross street will not meet the minimum threshold for a minor street approach (75 vehicles) the peak hour warrant is not satisfied. Signalization of the Unser Blvd/Sarracino Pl intersection should not be considered as a part of this access improvement.

## **4.0 FINDINGS AND RECOMMENDATIONS**

### **4.1 FINDINGS AND CONSIDERATIONS**

The Legacy Church proposes to construct a new access directly to Unser Blvd, using the existing Sarracino Pl approach. This access will be exit only, and it is estimated to have 60 right turns during the PM peak hour. The church will generate larger volumes when worship services have ended, with a Sunday peak hour of 153 vph, and a Wednesday projection of 422 vehicles. The stop condition at Unser Blvd will restrict traffic turning onto Unser Blvd on a Wednesday evening, likely leading to long queues from the church parking lot. It is assumed therefore, that approximately half of these trips would remain right turns onto Central Ave on Wednesday evening, balancing the flows from the site.

### **4.2 RECOMMENDATIONS**

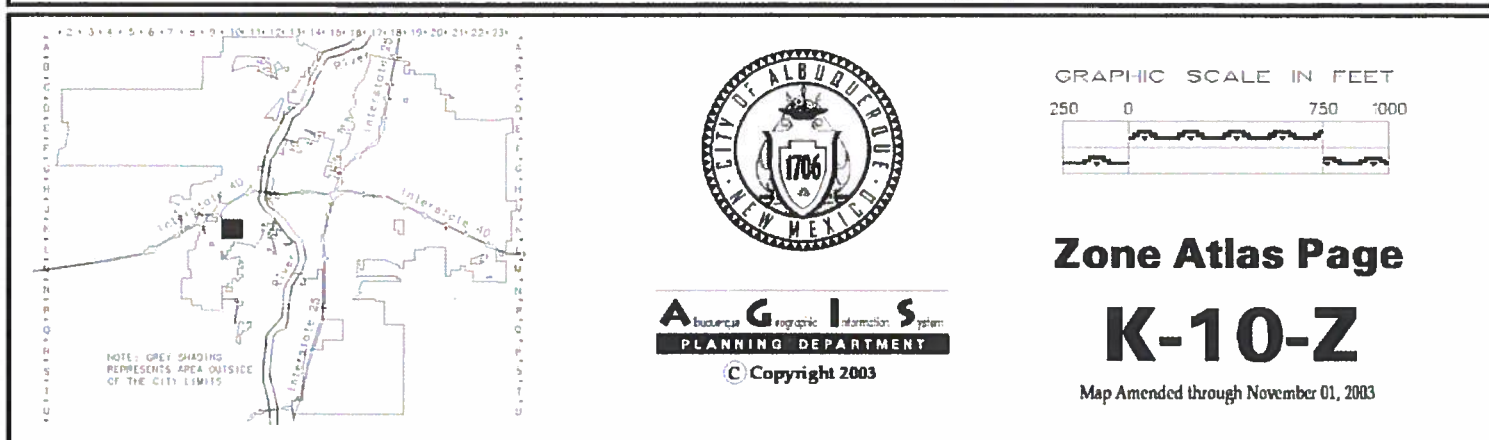
The driveway access is recommended to relieve the traffic flow exiting the site to Central Ave. This should also improve safety at Driveway #3 to Central Ave.

1. The proposed driveway should be constructed with a single lane no more than 16' wide, striped to a travel lane width of 12'.
2. The access to the cul-de-sac at the east end of Sarracino Pl should be designed to minimize delay, i.e., a smooth transition between the driveway and the street.
3. The driveway should be narrowed approaching the cul-de-sac so that traffic enters Sarracino Pl clearly within the westbound lane.
4. A yield sign should be installed on the driveway approach to Sarracino Pl for traffic control.
5. Warning signs should be installed along the driveway approaching each 90° turn, supplemented with edgeline raised pavement markers beginning 50' in advance of each turn.
6. DO NOT ENTER (R5-1) signs should be installed on each side of the driveway approach to Sarracino Pl, facing eastbound traffic.

No signalization improvements should be considered at this time for the Unser Blvd/Sarracino Pl intersection.

# Appended Materials

<b><u>Background Data and Analyses</u></b>	<b><u>Pages</u></b>
Zone Atlas Page – K-10	1
Driveway Counts	4
Driveway Count Summary Worksheet	1
Unser Blvd/Sarracino PI Turning Movement Count	1



## K-10-Z

Map Amended through November 01, 2003

**A** buerch **G** eographic **I** nformation **S** ystem  
**PLANNING DEPARTMENT**

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# Harwick Transportation Group, Inc.

1440 Camino Cerrito SE

Albuquerque, NM 87123

505-228-9776

Counter: RC

File Name : legacy-d1-d2

Site Code : 00103011

Start Date : 10/30/2011

Page No : 1

## Groups Printed- Cars

Start Time	Driveway 1 Westbound			Driveway 2 Southbound					Int. Total
	Right In	Right Out	App. Total	Right In	Left Out	Left In	Right Out	App. Total	
08:30 AM	14	0	14	33	1	38	0	72	86
08:45 AM	32	0	32	48	1	72	2	123	155
Total	46	0	46	81	2	110	2	195	241
09:00 AM	24	0	24	31	1	52	0	84	108
09:15 AM	8	0	8	4	2	8	2	16	24
09:30 AM	2	0	2	4	0	6	0	10	12
09:45 AM	7	0	7	20	1	26	0	47	54
Total	41	0	41	59	4	92	2	157	198
10:00 AM	24	30	54	36	42	76	9	163	217
10:15 AM	83	12	95	60	86	100	9	255	350
10:30 AM	29	9	38	37	17	90	6	150	188
10:45 AM	10	0	10	11	2	14	0	27	37
Total	146	51	197	144	147	280	24	595	792
11:00 AM	2	0	2	2	1	4	3	10	12
11:15 AM	1	0	1	5	0	4	1	10	11
11:30 AM	2	0	2	4	2	14	0	20	22
11:45 AM	20	19	39	27	33	19	16	95	134
Total	25	19	44	38	36	41	20	135	179
12:00 PM	31	39	70	34	95	78	23	230	300
12:15 PM	28	39	67	26	49	88	27	190	257
12:30 PM	4	6	10	11	23	34	11	79	89
12:45 PM	4	5	9	1	13	7	3	24	33
Total	67	89	156	72	180	207	64	523	679
01:00 PM	0	2	2	4	4	1	3	12	14
01:15 PM	0	3	3	1	4	4	1	10	13
01:30 PM	3	8	11	2	9	1	7	19	30
01:45 PM	4	35	39	2	118	5	34	159	198
Total	7	48	55	9	135	11	45	200	255
02:00 PM	1	9	10	2	34	3	20	59	69
Grand Total	333	216	549	405	538	744	177	1864	2413
Apprch %	60.7	39.3		21.7	28.9	39.9	9.5		
Total %	13.8	9	22.8	16.8	22.3	30.8	7.3	77.2	

	Driveway 1 Westbound			Driveway 2 Southbound					
Start Time	Right In	Right Out	App. Total	Right In	Left Out	Left In	Right Out	App. Total	Int. Total
Peak Hour Analysis From 08:30 AM to 02:00 PM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 09:45 AM									
09:45 AM	7	0	7	20	1	26	0	47	54
10:00 AM	24	30	54	36	42	76	9	163	217
10:15 AM	83	12	95	60	86	100	9	255	350
10:30 AM	29	9	38	37	17	90	6	150	188
Total Volume	143	51	194	153	146	292	24	615	809
% App. Total	73.7	26.3		24.9	23.7	47.5	3.9		
PHF	.431	.425	.511	.638	.424	.730	.667	.603	.578

# Harwick Transportation Group, Inc.

1440 Camino Cerrito SE  
Albuquerque, NM 87123  
505-228-9776

Counter: NH

File Name : Legacy-D3

Site Code : 00000000

Start Date : 10/30/2011

Page No : 1

## Groups Printed- Cars

Start Time	Driveway 3 Exit Eastbound					Unser Blvd Movements Westbound				Int. Total
	Left In	Left Out	Right Out	Right In	App. Total	Right	Thru	Left	App. Total	
08:30 AM	3	0	1	1	5	0	0	0	0	5
08:45 AM	11	0	4	1	16	2	0	1	3	19
Total	14	0	5	2	21	2	0	1	3	24
09:00 AM	1	0	1	1	3	0	1	0	1	4
09:15 AM	0	0	5	0	5	4	1	0	5	10
09:30 AM	0	0	1	0	1	1	0	0	1	2
09:45 AM	0	0	1	0	1	0	0	0	0	1
Total	1	0	8	1	10	5	2	0	7	17
10:00 AM	0	10	73	0	83	0	1	0	1	84
10:15 AM	21	6	83	8	118	6	2	3	11	129
10:30 AM	0	2	16	0	18	0	1	0	1	19
10:45 AM	0	0	3	0	3	1	1	0	2	5
Total	21	18	175	8	222	7	5	3	15	237
11:00 AM	0	2	3	0	5	0	0	0	0	5
11:15 AM	0	0	1	0	1	1	1	0	2	3
11:30 AM	0	0	4	0	4	1	2	0	3	7
11:45 AM	0	11	43	0	54	6	4	3	13	67
Total	0	13	51	0	64	8	7	3	18	82
12:00 PM	0	9	157	0	166	16	8	8	32	198
12:15 PM	0	1	44	0	45	30	6	6	42	87
12:30 PM	0	1	15	0	16	9	2	2	13	29
12:45 PM	0	0	2	0	2	1	1	0	2	4
Total	0	11	218	0	229	56	17	16	89	318
01:00 PM	0	0	2	0	2	0	2	0	2	4
01:15 PM	0	0	4	0	4	2	1	0	3	7
01:30 PM	0	0	10	0	10	3	1	0	4	14
01:45 PM	0	12	103	0	115	18	10	3	31	146
Total	0	12	119	0	131	23	14	3	40	171
02:00 PM	0	2	31	0	33	9	6	3	18	51
Grand Total	36	56	607	11	710	110	51	29	190	900
Apprch %	5.1	7.9	85.5	1.5		57.9	26.8	15.3		
Total %	4	6.2	67.4	1.2	78.9	12.2	5.7	3.2	21.1	

	Driveway 3 Exit Eastbound					Unser Blvd Movements Westbound				
Start Time	Left In	Left Out	Right Out	Right In	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 8:30:00 AM to 2:00:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45:00 AM										
11:45:00 AM	0	11	43	0	54	6	4	3	13	67
12:00:00 PM	0	9	157	0	166	16	8	8	32	198
12:15:00 PM	0	1	44	0	45	30	6	6	42	87
12:30:00 PM	0	1	15	0	16	9	2	2	13	29
Total Volume	0	22	259	0	281	61	20	19	100	381
% App. Total	0	7.8	92.2	0		61	20	19		
PHF	.000	.500	.412	.000	.423	.508	.625	.594	.595	.481

# Harwick Transportation Group, Inc.

1440 Camino Cerrito SE

Albuquerque, NM 87123

505-228-9776

File Name : Wed D1-2

Site Code : 11092011

Start Date : 11/9/2011

Page No : 1

## Groups Printed- Unshifted

Start Time	Driveway 2 Southbound					Driveway 1 Westbound			Int. Total
	Right IN	Left OUT	Left IN	Right OUT	App. Total	Right IN	Right OUT	App. Total	
05:30 PM	25	4	30	5	64	14	5	19	83
05:45 PM	60	2	46	8	116	43	5	48	164
Total	85	6	76	13	180	57	10	67	247
06:00 PM	61	5	117	17	200	65	6	71	271
06:15 PM	81	6	150	21	258	101	9	110	368
06:30 PM	40	10	135	9	194	67	8	75	269
06:45 PM	16	3	15	6	40	12	3	15	55
Total	198	24	417	53	692	245	26	271	963
07:00 PM	4	2	2	1	9	5	0	5	14
07:15 PM	1	1	1	3	6	3	0	3	9
07:30 PM	5	3	4	1	13	1	0	1	14
07:45 PM	4	49	8	23	84	7	41	48	132
Total	14	55	15	28	112	16	41	57	169
08:00 PM	9	103	16	58	186	6	53	59	245
08:15 PM	6	90	13	72	181	14	50	64	245
08:30 PM	6	60	18	40	124	4	16	20	144
Grand Total	318	338	555	264	1475	342	196	538	2013
Apprch %	21.6	22.9	37.6	17.9		63.6	36.4		
Total %	15.8	16.8	27.6	13.1	73.3	17	9.7	26.7	

	Driveway 2 Southbound					Driveway 1 Westbound			
Start Time	Right IN	Left OUT	Left IN	Right OUT	App. Total	Right IN	Right OUT	App. Total	Int. Total
Peak Hour Analysis From 05:30 PM to 08:30 PM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 05:45 PM									
05:45 PM	60	2	46	8	116	43	5	48	164
06:00 PM	61	5	117	17	200	65	6	71	271
06:15 PM	81	6	150	21	258	101	9	110	368
06:30 PM	40	10	135	9	194	67	8	75	269
Total Volume	242	23	448	55	768	276	28	304	1072
% App. Total	31.5	3	58.3	7.2		90.8	9.2		
PHF	.747	.575	.747	.655	.744	.683	.778	.691	.728

# Harwick Transportation Group, Inc

1440 Camino Cerrito SE  
Albuquerque, NM 87123  
505-228-9776

File Name : Wed D-3  
Site Code : 01192011  
Start Date : 11/9/2011  
Page No : 1

## Groups Printed- Unshifted

Start Time	Southbound					Westbound	Northbound	Eastbound	Int. Total
	Right IN	Left OUT	Right OUT	Left IN	App. Total	App. Total	App. Total	App. Total	
05:30 PM	1	0	3	0	4	0	0	0	4
05:45 PM	1	0	2	6	9	0	0	0	9
Total	2	0	5	6	13	0	0	0	13
06:00 PM	0	2	13	21	36	0	0	0	36
06:15 PM	0	1	17	36	54	0	0	0	54
06:30 PM	0	0	9	19	28	0	0	0	28
06:45 PM	0	0	0	1	1	0	0	0	1
Total	0	3	39	77	119	0	0	0	119
07:00 PM	0	0	0	0	0	0	0	0	0
07:15 PM	0	0	0	0	0	0	0	0	0
07:30 PM	0	2	1	0	3	0	0	0	3
07:45 PM	0	9	88	0	97	0	0	0	97
Total	0	11	89	0	100	0	0	0	100
08:00 PM	0	18	132	0	150	0	0	0	150
08:15 PM	0	10	114	0	124	0	0	0	124
08:30 PM	0	0	27	0	27	0	0	0	27
Grand Total	2	42	406	83	533	0	0	0	533
Apprch %	0.4	7.9	76.2	15.6					
Total %	0.4	7.9	76.2	15.6	100	0	0	0	

	Southbound					Westbound	Northbound	Eastbound	
Start Time	Right IN	Left OUT	Right OUT	Left IN	App. Total	App. Total	App. Total	App. Total	Int. Total
Peak Hour Analysis From 05:30 PM to 08:30 PM - Peak 1 of 1									
Peak Hour for Entire Intersection Begins at 07:45 PM									
07:45 PM	0	9	88	0	97	0	0	0	97
08:00 PM	0	18	132	0	150	0	0	0	150
08:15 PM	0	10	114	0	124	0	0	0	124
08:30 PM	0	0	27	0	27	0	0	0	27
Total Volume	0	37	361	0	398	0	0	0	398
% App. Total	0	9.3	90.7	0					
PHF	.000	.514	.684	.000	.663	.000	.000	.000	.663

## Legacy Church Traffic Data

Sunday	D1		D2			D3			Total			
	RI	RO	RI	LI	RO	LO	RI	LI	RO	LO	In	Out
Total	333	216	405	744	177	538	11	36	607	56	1529	1594
Pk Hour	143	51	153	292	24	146	0	0	259	22	588	502

**Wednesday**

Worksheet	D1		D2			D3			Total			
	RI	RO	RI	LI	RO	LO	RI	LI	RO	LO	In	Out
Total	342	196	318	555	264	338	2	83	406	42	1300	1246
Pk Hour	276	28	242	448	55	23	0	0	361	37	966	504
	675	412	723	1299	441	876	13	119	1013	98	2829	2840

## Summary

	Right Out	Left Out	Right In	Left In	Total In	Total Out	Total	Rt Out %	Lt Out %	Rt In %	Lt In %
Sunday	1000	594	749	780	1529	1594	3123	62.7%	37.3%	49.0%	51.0%
Wednesday	866	380	662	638	1300	1246	2546	69.5%	30.5%	50.9%	49.1%
Total	1866	974	1411	1418	2829	2840	5669	65.7%	34.3%	49.9%	50.1%

## Unser Blvd Westbound

	LT	Th	RT	Total
Turns	29	51	110	190
Percents	15.3%	26.8%	57.9%	
Sunday Total	153	268	579	1000
Wednesday Total	132	232	501	866

# Harwick Transportation Group, Inc.

1440 Camino Cerrito SE

Albuquerque, NM 87123

505-228-9776

Counter: RC

File Name : Unser

Site Code : 11152011

Start Date : 11/15/2011

Page No : 1

## Groups Printed- Unshifted - Bank 1 - Bank 2

Start Time	Transit Station Eastbound				Sarracino Pl Westbound				Unser Blvd Northbound				Unser Blvd Southbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
05:00 PM	8	0	5	13	0	0	0	0	2	243	0	245	0	310	6	316	574
05:15 PM	11	0	6	17	0	0	0	0	0	252	0	252	0	350	4	354	623
05:30 PM	9	0	3	12	0	0	0	0	0	266	0	266	1	322	1	324	602
05:45 PM	2	0	2	4	0	0	0	0	3	268	0	271	0	319	3	322	597
Total	30	0	16	46	0	0	0	0	5	1029	0	1034	1	1301	14	1316	2396
Grand Total	30	0	16	46	0	0	0	0	5	1029	0	1034	1	1301	14	1316	2396
Apprch %	65.2	0	34.8		0	0	0		0.5	99.5	0		0.1	98.9	1.1		
Total %	1.3	0	0.7	1.9	0	0	0	0	0.2	42.9	0	43.2	0	54.3	0.6	54.9	
Unshifted	28	0	9	37	0	0	0	0	5	1028	0	1033	1	1299	14	1314	2384
% Unshifted	93.3	0	56.2	80.4	0	0	0	0	100	99.9	0	99.9	100	99.8	100	99.8	99.5
Bank 1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
% Bank 1	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.1	0	0.1	0.1
Bank 2	2	0	7	9	0	0	0	0	0	0	0	0	0	1	0	1	10
% Bank 2	6.7	0	43.8	19.6	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0.4

	Transit Station Eastbound				Sarracino Pl Westbound				Unser Blvd Northbound				Unser Blvd Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 5:00:00 PM to 5:45:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 5:00:00 PM																	
5:00:00 PM	8	0	5	13	0	0	0	0	2	243	0	245	0	310	6	316	574
5:15:00 PM	11	0	6	17	0	0	0	0	0	252	0	252	0	350	4	354	623
5:30:00 PM	9	0	3	12	0	0	0	0	0	266	0	266	1	322	1	324	602
5:45:00 PM	2	0	2	4	0	0	0	0	3	268	0	271	0	319	3	322	597
Total Volume	30	0	16	46	0	0	0	0	5	1029	0	1034	1	1301	14	1316	2396
% App. Total	65.2	0	34.8		0	0	0		0.5	99.5	0		0.1	98.9	1.1		
PHF	.682	.000	.667	.676	.000	.000	.000	.000	.417	.960	.000	.954	.250	.929	.583	.929	.961
Unshifted	28	0	9	37	0	0	0	0	5	1028	0	1033	1	1299	14	1314	2384
% Unshifted	93.3	0	56.3	80.4	0	0	0	0	100	99.9	0	99.9	100	99.8	100	99.8	99.5
Bank 1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2
% Bank 1	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0.1	0	0.1	0.1
Bank 2	2	0	7	9	0	0	0	0	0	0	0	0	0	1	0	1	10
% Bank 2	6.7	0	43.8	19.6	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0.4