

TRAFFIC STUDY REPORT

LDS Church Site - Driggs, Idaho Stake

Located in: A portion of the E1/2 SW1/4 of Section 35, Twp. 4N,
Range 45 E., B.M. Teton County, Idaho

TETON COUNTY
PLANNING DEPARTMENT

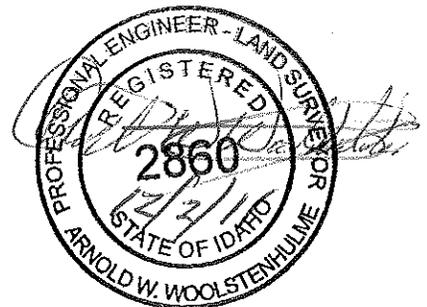
DEC 02 2011

RECEIVED

Prepared For:
NBW Architects
Idaho Falls, Idaho

Owner: Blackfoot Farms
500 Huntsman Way
Salt Lake City, Utah
801-584-5700

Prepared by:
A-W Engineering
Box 139
Victor, ID 83455
208-787-2952



Nov 22, 2011

TABLE OF CONTENTS

	PAGE
I. GENERAL PROJECT INFORMATION	1
II. BACKGROUND AND GUIDELINES	
A. General Data	3
B. Proposed General Improvements	
C. Critical Areas of Concern	
III. TRAFFIC VOLUME & PATTERN	4
A. Project Description	4
B. Definitions	4
C. Trip Generation	5
D. Project design Traffic Generation	6
IV. IMPACT ON OTHER ROADS	7
V. ROADS NEEDING FUTURE IMPROVEMENTS & COSTS	7

APPENDIX INDEX

LOCATION ON COUNTY TRANSPORTATION MAP	M: 1
AW ENGINEERING PEAK TRAFFIC	A: 1
TRIP GENERATION Traffic Study LDS Churches	B: 1-8
DISTRICT 6 Highway Data	D: 1- 2
TRAFFIC COUNT: County Road - 7000 South	T - 1
TYPICAL - Teton County Road 24' Road	T-2

I. GENERAL PROJECT INFORMATION

LOCATION:

Part of SE 1/4 SW 1/4 Sec 35, Twp. 4 N, Rng. 45 E., B.M. Teton County, Idaho.
(see Map A appendix)

DEVELOPER:

LDS Church, Salt Lake City, Utah

PROPERTY OWNER

Blackfoot Farms
500 Huntsman Way
Salt Lake, City Utah 84108

Client

NPW Architects Phone: 208-522 8779 fax: 533- 8785
P.O. Box 2212
990 John Adams Parkway
Idaho Falls, Idaho 83403
email sln@nbwarchitects.com

ENGINEER / SURVEYOR:

Arnold W. Woolstenhulme, A-W Engineering, 255 South Main, Victor, Id. 83455.
208-787-2952 email aweng@ida.net

PROPOSAL: The LDS Church of the Driggs, Idaho Stake is proposing to construct a new two ward chapel in the Victor, Idaho area. The church has proposed developing a 5.5 acre site with building and parking on it. The site is outside of City of Victor limits, but it is situated within the city area of impact. The present plan is to connect into the city of Victor water and sewer system. The water service is about 1 mile away to connect into a new well the city has created. The Victor -Driggs sewer trunk line is about 400 feet east of this building site. The plan at this time is to connect the two entrances from the parking lot onto 7000 South County road. This would place all of the traffic onto on the county road that accesses onto the State Highway 33 at the 7000 South intersection.

This project will consist of two separate wards that meet in overlapping wards' time slots at a three hour block meeting schedule. This means on a typical Sunday two wards will overlap their meeting by one hour. Therefore the peak traffic would be during the period when one ward is meeting and the second ward is starting their meetings.

The data in the Appendix shows a peak 15 minute of traffic of 44 vehicles by using the traffic at the time 2nd ward would start of 21 vehicles per 15 minutes. This graph is the combined traffic of 55 vehicles in 15 minutes. This would give a peak traffic count of 4 vehicles per minute onto the County road and onto State Highway 33.

See Appendix pages A: 1 and B: 1-6.

The trip generation and parking demand at an LDS church facility is directly dependent on the attendance at Sunday worship meetings. Recent attendance data for all LDS Church facilities were studied and reported on by Herfron Transportation in a study for over one hundred wards in western Washington area. In this study the average Sunday attendance at a three ward building was 536 people, (approximately 179 people per meeting) and the 99 th percentile Sunday attendance was 778 persons (260 people per meeting). Victor 3rd during the past three years has had up to 340 people in attendance at a peak summer meeting.

The traffic on county road 7000 South and the estimated ADT and particularly the peak hourly traffic is not as relevant as adding most other traffic uses because of its use being minor on week days and ingduring times on Sunday when other traffic is at a minimum. Weekday activities at an LDS church typically consist of small meetings during the week in the evenings and on Saturdays. These meeting are typically youth meetings, Scout meetings and other small groups. From the Hefron study it showed an average weekday trip generation of 206 vehicles per day with most of these meeting starting after 6:00 pm.

From a traffic study done by Teton County on 7000 South and data from State of Idaho DOT, the following chart was made.

ROAD NAME OR #	ADT	Peak Hr Traffic
700 South County Road peak year 2007	607 ADT	120 PHT
50 West Frontage Road from AW Data	50 ADT	10 PHT
State Highway 33. Near 7000 South 1999 Study	3500 12% Capacity	2000 DHV

* ADT = Average Daily Traffic PHT= Peak Hour Traffic, DHV = Design Hr Traffic

Many concerns and problems that will be addressed as this project proceeds are discussed in this report. Oversights or problems which are not apparent at this time neither negate the interest of the Engineer or the developer in addressing all concerned problems in a professional manner, nor their interest in having a quality project of which they are proud to be a part.

II. BACKGROUND AND GUIDELINES

The 5.5 acres have been used by the owners for farm ground for the last 100 years to raise hay, grain and for horse and cattle pasture land. This property is surrounded on on three sides by farm land and on the east by the Frontage road, Rails for trails and State Highway 33. Then to the east side of State Highway 33 is more farm land.

Easements that cross the property are:

1. The prescriptive rights easement for County Road 7000 South.
2. Power and telephone prescriptive rights easements.

A. PROPOSED PLANNED SITE DEVELOPMENT

Total acres in project::	5.5 acres
Roads in project Count Road R-O-W	0.30 acres
Acres in farm parcel from which the church site was split	80.0 acres

B. PROPOSED ACCESS ONTO 7000 SOUTH

Two accesses are proposed onto County road 7000 South. These accesses will have about the same impact on the county road with equal traffic using them at the same period of time.

C. EXISTING CONDITIONS OF 7000 SOUTH

- 1- Existing road improved surface is 21 feet wide.
- 2- Existing road base of 24 foot wide
- 3- Borrow pits and shoulders various slopes and need work.
- 4- Right of Way - Prescriptive and 60 feet wide.

D. CRITICAL AREAS OF CONCERN

1. Traffic generated by this project onto 700 South County.
2. Traffic ingress and egress to State Hwy 33 at 700 South county road.

III. TRAFFIC VOLUME AND PATTERN

The purpose of a preliminary traffic study is to provide an overview and to develop a data base of current traffic generation that is expected from this project. A ten year design period was used in the analysis of future conditions. This is the estimated time period that corresponds to the project's possible structure expansion.

Based on these findings, assessments of likely future traffic conditions are made. Mitigating measures are then defined to counteract impacts associated with this proposal.

A. PROJECT DESCRIPTION

The project is to evaluate the impact of the traffic that will be generated onto 7000 South if this church facility is constructed at this site. The projected attendance at each of the wards is 340 people during at a peak meeting. This is 30 percent more than was reported in the Heffron Study and therefore the peak and ADT numbers from this report are increased by the 30 percent.

The access will be off County Road "7000 South" and onto State Highway 33.

B. DEFINITIONS

Average Daily Traffic (ADT)

The average number of vehicles that travel over a section of road during a typical 24- hour period.

Classification of Roads

A function designation given to a roadway by the county or others that describes the road's capacity and routing purpose. The five common classifications fro roads are:

Arterial: A highway that provides for high speed inter-city and inter- county travel.

Major Collector: A road that serves to collect and distribute traffic between arterials and major residential or commercial areas. ADT 2,000 - 5000

Minor Collector: A road that serves to collect and distribute traffic between arterials and major collectors to residential and or minor commercial areas. ADT 500 - 5000

Major Local: A street within a residential subdivision or neighborhood intended to carry a small amount of residential traffic to and from the collector street network.
ADT -200-500

Minor Local; A street within a residential subdivision or neighborhood intended to carry the traffic only for that neighborhood. ADT 20-200

VOLUME: The total number of vehicles that pass over a given section of a road during a specific time period.

C. TRIP GENERATION

1. Trip Generation. The trip generation data is based on the Institute of Transportation Engineer's publication "Trip Generation, Fifth Edition".

2. Trip Assignment and Distribution. The destination and origination of this traffic primarily influence the surrounding road system, with the most impact occurring at intersections where conflict due to congestion can occur. The trip assignment and distribution are used to determine and to apply the expected future project traffic to the road system and the primary roadways.

3. Traffic counts received from the Idaho State Highway Department in 1999 on Highway # 33 between Victor and the Wyoming State line are as follow.
Source: District 6 Rigby office, John Becker - 01/20/1999.

1-2000 TRAFFIC REPORT

AW ENGINEERING 3/20/2001

HIGHWAY	ADT	% ADT DHV	CAPACITY DHV
Victor	3500	12.07 - 423	1200
Hwy. # 33 Cedron Road Jct.	3500	11.84 - 415	2000

See appendix "Idaho Transportation Dept " 1999 Traffic Study

TYPICAL YEARLY TRAFFIC - HWY. # 33: VICTOR TO DRIGGS

MONTH	3500 ADT	DHV @ 20%
JANUARY	2610 ADT	522 dhv
FEBRUARY	2610 ADT	522 dhv
MARCH	2834 ADT	567 dhv
APRIL	2517 ADT	504 dhv
MAY	2360 ADT	472 dhv
JUNE	2800 ADT	560 dhv
JULY	3500 ADT	700 dhv
AUGUST	3310 ADT	662 dhv
SEPTEMBER	2710 ADT	542 dhv
OCTOBER	2220 ADT	444 dhv
NOVEMBER	2605 ADT	521 dhv
DECEMBER	2820 ADT	564 dhv

D. Project design traffic volumes

The LDS Church project is planned for 1/2 of the traffic onto each of the two access from the new church parking lot. This traffic will be reviewed as all of it enters onto State Highway 33 from the one access point. This is because as the ward boundaries are determined at least one ward will probable lie east of State Highway 33 and therefore all of the traffic would be heading in that direction.

UNIT	# UNITS	TRIPS/DAY	TOTAL TRIPS
Ward from Heffron Transportation	2 Wards	190 vph	900 VPD
Victor Ward 2011 + 30%	2 Wards	250 vph	1170 VPD
7000 So	Co Road	120 vph	620 Peak VPD
TOTALS	All Traffic	370 vph	1800 VPD
Design Totals		* 270 DHV	* 1350 VPD

VPD (Peak Vehicles per Day) = 1170 + 10% x 620 = 1350
or ADT of 75 vehicles / hour @ 16 hour day

DHV (Design Hourly Vehicles) at 20% of ADT = 266 vehicles per hour

For residential areas, the peak traffic periods typically occur between the hours of 7:00 AM and 9:00 AM every weekday morning and between 4:00 PM and 6:00 PM at week day evenings. The new church building will add very little traffic onto the county road during normal work day peak hour traffic.

ROAD	Am 6:30-8:30	AM-PM 8:30-4:30	Pm 4:30-6:30	PM - AM 6:30-6:30
700 NORTH CO ROAD	120 out 15 in	220 out 120 in	30 out 120 in	160 out 160 in
BASELINE ROAD 700-800 S	50 out 15 in	100 out 50 in	20 out 50 in	53 out 53 in

IV. IMPACT ON THE COUNTY & STATE HIGHWAY ROAD SYSTEM

The proposed LDS Church on 7000 South County Road will have an impact onto County road 7000 South and an impact on State Highway 33 at the intersection with 7000 South.

This study recommends the following improvements be made to 7000 South from the Western access point onto 7000 South East to the State Highway intersection.

- To widen the base road to 30 feet wide base at 3:1 slope shoulder.
- To place 12" of base gravel for 28 feet wide road bed.
- To place 4" of crushed gravel on the the new constructed shoulder or shoulders.
- To place new chip seal on all of new improved road surface of 24 foot wide.

V. ROADS NEEDING FUTURE IMPROVEMENTS

WORK NECESSARY FOR PROJECT

1. 700 SOUTH - MINOR COLLECTOR - Estimate 1800 ADT needs 2500 ADT
The first and most important road to improved is the County road 700 South from State Highway 33 to the entrance into this project. This road is narrower than county standards and has steep borrow pits. The recommendation to bring this work up to county standards and the costs are as follows and *the owner developer may contribute this work to the county.*

Estimated 900 lineal feet of road needs upgraded;	
Base improvement and new gravel costs	\$ 16,000
Double Chip and seal road surface	\$ 14,000

WORK NECESSARY FOR FUTURE AND BUILD OUT TRAFFIC

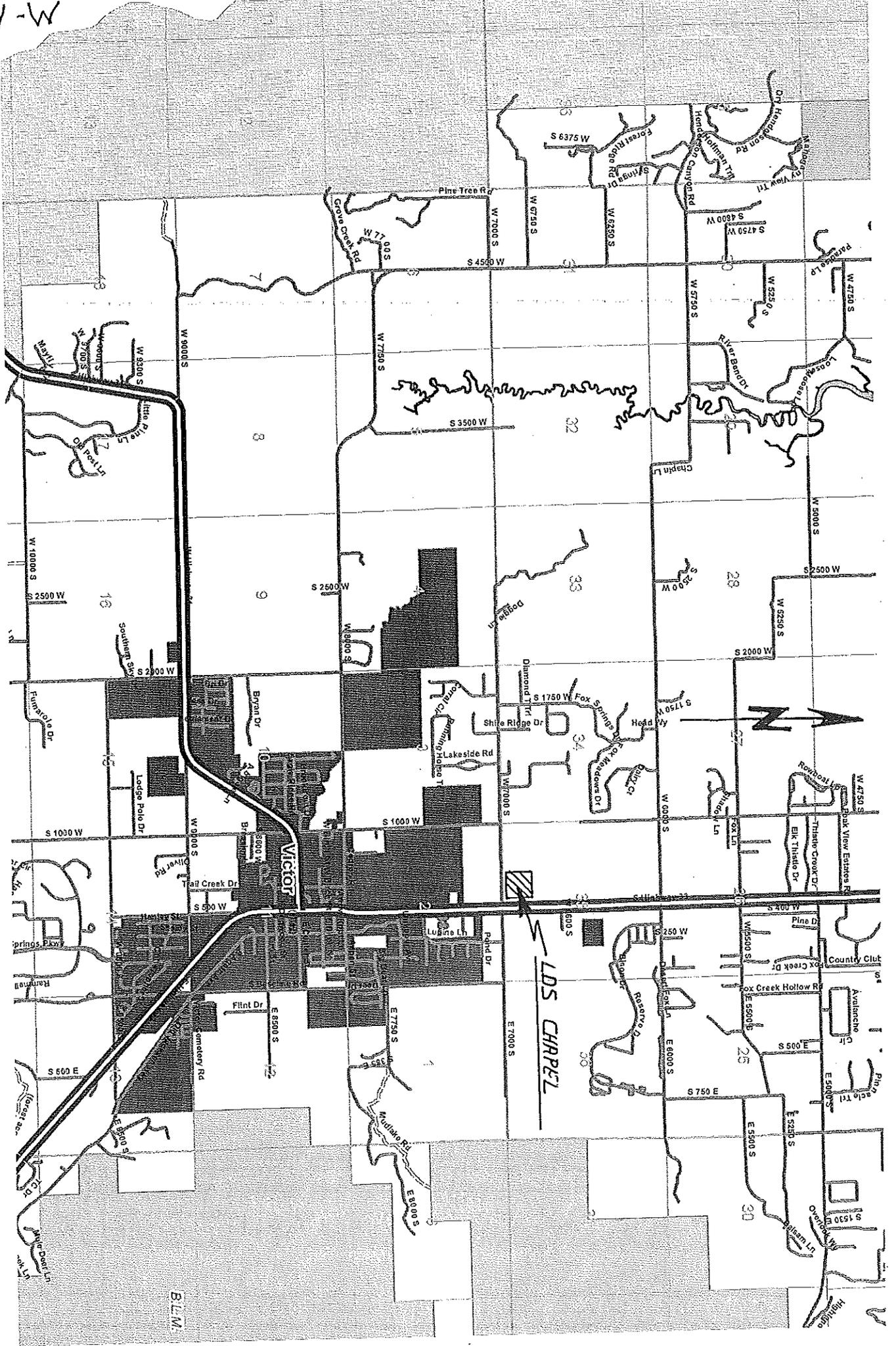
2. CONSTRUCT TURN LANE ONTO STATE HIGHWAY 33
Upgrade County Road Baseline 7000 with South turn Lane form County road 500 west. Work includes new base and widening road minimum 14 feet to South.

Estimated 240 feet at 14' wide	
Base grade and gravel costs	\$ 5,000
Chip & Seal	\$ 5,000

3. CONSTRUCT HIGHWAY TURN LANES
Upgrade State Highway with State Standard Turn lanes North and South Side.

Estimated 2000 linear feet.	
Base grade and gravel road costs;	\$ 25,000
6" Asphalt Pavement	\$ 75,000

1-W



B.L.M.

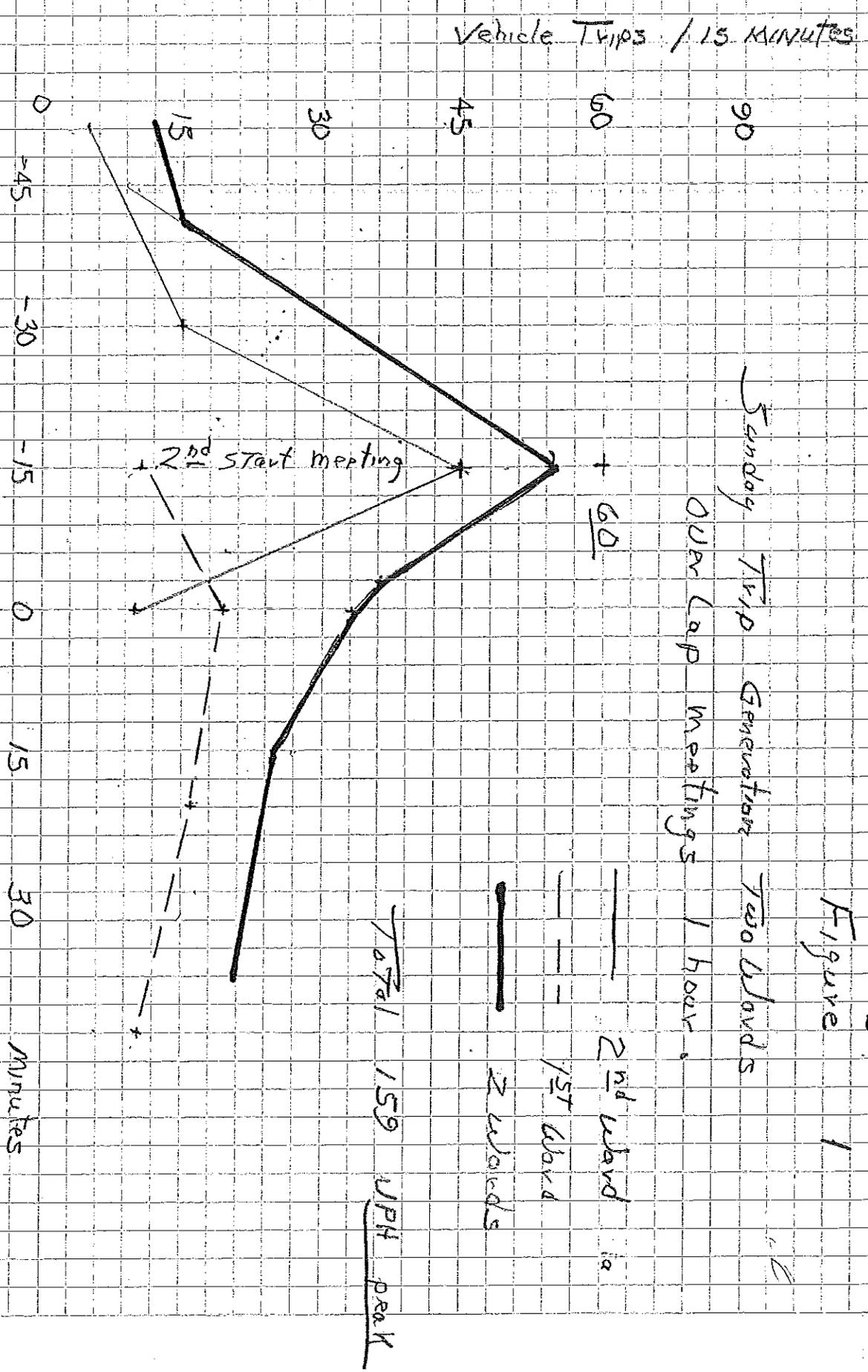
LDS CHAPEL

VICTOR



Map labels and coordinates include:

- Section numbers: 7, 8, 9, 16, 23, 25, 29, 30, 32
- Roads: Pine Tree Rd, W 7000 S, S 4500 W, W 7700 S, W 7200 S, W 7000 S, W 6750 S, W 6500 S, W 6250 S, W 6000 S, W 5750 S, W 5500 S, W 5250 S, W 5000 S, W 4750 S, W 4500 S, W 4250 S, W 4000 S, W 3750 S, W 3500 S, W 3250 S, W 3000 S, W 2750 S, W 2500 S, W 2250 S, W 2000 S, W 1750 S, W 1500 S, W 1250 S, W 1000 S, W 750 S, W 500 S, W 250 S, W 0 S, S 1000 W, S 750 W, S 500 W, S 250 W, S 0 W, S 250 E, S 500 E, S 750 E, S 1000 E, S 1250 E, S 1500 E, S 1750 E, S 2000 E, S 2250 E, S 2500 E, S 2750 E, S 3000 E, S 3250 E, S 3500 E, S 3750 E, S 4000 E, S 4250 E, S 4500 E, S 4750 E, S 5000 E, S 5250 E, S 5500 E, S 5750 E, S 6000 E, S 6250 E, S 6500 E, S 6750 E, S 7000 E, S 7250 E, S 7500 E, S 7750 E, S 8000 E, S 8250 E, S 8500 E, S 8750 E, S 9000 E, S 9250 E, S 9500 E, S 9750 E, S 10000 E
- Other roads: Little Pine Ln, Southern Ave, Funeral Dr, Lodge Pole Dr, Bryan Dr, Central Ave, Lakeside Rd, Shile Ridge Dr, Fox Spring Dr, Fox Meadow Dr, Head Vy, Diamond Trl, Dogleg Ln, Chapin Ln, River Bend Dr, Paradise Ln, W 4750 S, W 4500 S, W 4250 S, W 4000 S, W 3750 S, W 3500 S, W 3250 S, W 3000 S, W 2750 S, W 2500 S, W 2250 S, W 2000 S, W 1750 S, W 1500 S, W 1250 S, W 1000 S, W 750 S, W 500 S, W 250 S, W 0 S, S 1000 W, S 750 W, S 500 W, S 250 W, S 0 W, S 250 E, S 500 E, S 750 E, S 1000 E, S 1250 E, S 1500 E, S 1750 E, S 2000 E, S 2250 E, S 2500 E, S 2750 E, S 3000 E, S 3250 E, S 3500 E, S 3750 E, S 4000 E, S 4250 E, S 4500 E, S 4750 E, S 5000 E, S 5250 E, S 5500 E, S 5750 E, S 6000 E, S 6250 E, S 6500 E, S 6750 E, S 7000 E, S 7250 E, S 7500 E, S 7750 E, S 8000 E, S 8250 E, S 8500 E, S 8750 E, S 9000 E, S 9250 E, S 9500 E, S 9750 E, S 10000 E
- Geographical features: Little Pine Creek, Dogleg Creek, River Bend Creek, Fox Spring Creek, Fox Meadow Creek, Head Vy Creek, Diamond Trl Creek, Dogleg Ln Creek, Chapin Ln Creek, River Bend Creek, Paradise Ln Creek, W 4750 S Creek, W 4500 S Creek, W 4250 S Creek, W 4000 S Creek, W 3750 S Creek, W 3500 S Creek, W 3250 S Creek, W 3000 S Creek, W 2750 S Creek, W 2500 S Creek, W 2250 S Creek, W 2000 S Creek, W 1750 S Creek, W 1500 S Creek, W 1250 S Creek, W 1000 S Creek, W 750 S Creek, W 500 S Creek, W 250 S Creek, W 0 S Creek, S 1000 W Creek, S 750 W Creek, S 500 W Creek, S 250 W Creek, S 0 W Creek, S 250 E Creek, S 500 E Creek, S 750 E Creek, S 1000 E Creek, S 1250 E Creek, S 1500 E Creek, S 1750 E Creek, S 2000 E Creek, S 2250 E Creek, S 2500 E Creek, S 2750 E Creek, S 3000 E Creek, S 3250 E Creek, S 3500 E Creek, S 3750 E Creek, S 4000 E Creek, S 4250 E Creek, S 4500 E Creek, S 4750 E Creek, S 5000 E Creek, S 5250 E Creek, S 5500 E Creek, S 5750 E Creek, S 6000 E Creek, S 6250 E Creek, S 6500 E Creek, S 6750 E Creek, S 7000 E Creek, S 7250 E Creek, S 7500 E Creek, S 7750 E Creek, S 8000 E Creek, S 8250 E Creek, S 8500 E Creek, S 8750 E Creek, S 9000 E Creek, S 9250 E Creek, S 9500 E Creek, S 9750 E Creek, S 10000 E Creek
- Other labels: B.L.M., LDS CHAPEL, VICTOR, Little Pine Ln, Southern Ave, Funeral Dr, Lodge Pole Dr, Bryan Dr, Central Ave, Lakeside Rd, Shile Ridge Dr, Fox Spring Dr, Fox Meadow Dr, Head Vy, Diamond Trl, Dogleg Ln, Chapin Ln, River Bend Dr, Paradise Ln, W 4750 S, W 4500 S, W 4250 S, W 4000 S, W 3750 S, W 3500 S, W 3250 S, W 3000 S, W 2750 S, W 2500 S, W 2250 S, W 2000 S, W 1750 S, W 1500 S, W 1250 S, W 1000 S, W 750 S, W 500 S, W 250 S, W 0 S, S 1000 W, S 750 W, S 500 W, S 250 W, S 0 W, S 250 E, S 500 E, S 750 E, S 1000 E, S 1250 E, S 1500 E, S 1750 E, S 2000 E, S 2250 E, S 2500 E, S 2750 E, S 3000 E, S 3250 E, S 3500 E, S 3750 E, S 4000 E, S 4250 E, S 4500 E, S 4750 E, S 5000 E, S 5250 E, S 5500 E, S 5750 E, S 6000 E, S 6250 E, S 6500 E, S 6750 E, S 7000 E, S 7250 E, S 7500 E, S 7750 E, S 8000 E, S 8250 E, S 8500 E, S 8750 E, S 9000 E, S 9250 E, S 9500 E, S 9750 E, S 10000 E



Sunday Trip Generation Two Wards
Over Lap meetings 1 hour

AUSEng
Figure 1

MEMORANDUM

Date: July 14, 1997

To: File

From: Tod S. McBryan *TM*
Marni C. Heffron, P.E.

Subject: Trip Generation and Parking Demand For
A Typical LDS Facility

The purpose of this memorandum is to document the traffic and parking characteristics of a typical Church of Jesus Christ of Latter Day Saints (LDS) facility. This memorandum updates the previous traffic and parking generation studies dated March 28, 1989 and May 18, 1992. The trip generation and parking demand estimates developed from the survey data are intended to be used for traffic and parking impact analyses of LDS facilities.

Traffic and parking data presented in this report are based on surveys conducted at three ward facilities in King County, Washington:

- 10635 Northup Way in Bellevue, Washington
- 13204 NE 132nd Street near Kirkland, Washington
- 18860 NE Woodinville-Duvall Road north of Woodinville, Washington.

Survey Methodology

Automatic, dual-direction traffic counts were performed at all three facilities to determine the trip generation. Counts of the Bellevue facility were performed from Monday, January 9 through Sunday, January 15, 1989. Counts at the other two locations were performed from Friday, December 13, through Saturday, December 21, 1991.

During the same time periods, a list of activities and attendance was compiled for each facility to correlate trip generation to specific activities. Parking counts were also performed at the Kirkland and Woodinville facilities during the Sunday ward meetings to correlate traffic counts and parking demand data.

Attendance Levels

The trip generation and parking demand at an LDS Church facility is directly dependent on the attendance at Sunday worship meetings. Recent attendance data for all LDS Church facilities in Western Washington were obtained to determine peak analysis attendance conditions. Attendance data for more than 112 LDS Church buildings and 269 active wards were used. Thirty-one (31) wards were identified as newly created or branch wards with less than 100 members attending and were excluded from further analysis. The average attendance of

the remaining 238 established wards is 187 persons per meeting. Of the 112 active LDS Church buildings in Western Washington, 39 currently serve three wards. The remaining 73 buildings either have fewer than three wards (59 buildings) or were designed for and include four wards (14 buildings). Only the established three-ward buildings were included in this evaluation.

The average Sunday daily attendance at the 39 three-ward facilities was 536 persons (approximately 179 persons per meeting). The 99th-percentile daily Sunday attendance was 778 persons (approximately 260 persons per meeting). Figure 1 is a histogram depicting the number of LDS Church buildings with Sunday daily attendance ranges.

Analysis of all 238 established wards in Western Washington, including those that meet in one-, two-, three-, or four-ward facilities, shows that the average meeting attendance is 187 persons per meeting. Therefore, an attendance level of 260 persons per meeting would fall into the 94th-percentile of all wards in Western Washington. Figure 2 is a histogram depicting the number of wards with Sunday meeting attendance ranges.

Based on these analyses and for the purpose of determining trip generation and parking demand, the peak analysis attendance for a three-ward LDS Church facility would be 780 persons on a Sunday or approximately 260 persons per Sunday ward meeting. The average attendance of the nine ward meetings surveyed for this report (three at each facility) was 230 persons. Therefore, the trip generation and parking demand results from those surveys were adjusted upward to represent peak analysis conditions (260 persons attending each Sunday ward meeting).

Trip Generation Analysis

Weekday Trip Generation

Weekday activities at LDS facilities typically consist of a daily seminary meeting in the morning (before 7:00 a.m.) and weekly meetings, such as youth activities and boy scout meetings, in the evening. The average weekday daily trip generation for the three LDS facilities was 206. There is very little traffic generated by these facilities during the AM and PM peak commuter periods (7:00 to 9:00 a.m. and 4:00 to 6:00 p.m., respectively) since most of the morning activities begin at or before 6:00 a.m., and most of the evening activities begin after 6:00 p.m. A schedule of activities at each of the three facilities is included as an attachment.

Daily and peak hour trip generation rates were determined from the seven-day counts performed at each facility. The peak analysis weekday trip rates are summarized in Table 1. These trip rates should be used for traffic impact analysis since they represent the worst-case condition at full occupancy.

Table 1. Weekday Trip Generation for Peak Analysis Conditions¹ at a Typical LDS Facility

Time Period	In	Out	Total
Daily	115	115	230
AM Peak Hour of Street (one hour between 7:00 and 9:00 a.m.)	8	13	21
AM Peak Hour of Facility ²	32	25	57
PM Peak Hour of Street (one hour between 4:00 and 6:00 a.m.)	4	3	7
PM Peak Hour of Facility ³	21	14	35

1. Assumes an average of 260 persons attend each of three Sunday ward meetings.
2. The AM peak hour of the facility generally occurs between 6:00 and 7:00 a.m.
3. The PM peak hour of the facility generally occurs after 6:00 p.m.

Sunday Trip Generation

The highest traffic generation for a LDS facility occurs on Sunday. A typical facility is used by three wards; each ward has a separate Sunday church service. Sunday services are three hours in length. Some facilities have overlapping meetings with 2 or 2½ hours between the start times of consecutive meetings. Other facilities, however, have non-overlapping meeting schedules that typically have ½ hour between the end of one meeting and the beginning of the next meeting (3½ hours between the start times of consecutive meetings). Two typical meeting schedules are as follows:

<u>Typical Schedule With Overlapping Meetings</u>		
First Meeting	-	9:00 a.m. to 12:00 p.m.
Second Meeting	-	11:00 a.m. to 2:00 p.m.
Third Meeting	-	1:00 p.m. to 4:00 p.m.

<u>Typical Schedule Without Overlapping Meetings</u>		
First Meeting	-	9:00 a.m. to 12:00 a.m.
Second Meeting	-	12:30 p.m. to 3:30 p.m.
Third Meeting	-	4:00 p.m. to 7:00 p.m.

Two of the three facilities surveyed for this study had overlapping meeting schedules (Bellevue and Kirkland); the third facility (Woodinville) did not have an overlapping meeting schedule. For either schedule, the Sunday peak hour occurs between meetings as one ward is leaving the facility and another ward is arriving at the facility.

Sunday peak hour trip generation rates were determined by estimating the trip generation characteristics for an individual meeting. Traffic counts for each facility were correlated according to start and end times of the three meetings. The average trip generation for a single meeting was estimated and increased to represent conditions with peak analysis attendance (260 persons). Figure 3 (attached) shows the Sunday trip generation for a single LDS ward meeting with attendance of 260 persons.

The single meeting trip generation estimates were then superimposed onto the meeting schedules described above. Sunday trip generation estimates for three-wards at peak analysis attendance are listed in Table 2.

Table 2. Sunday Trip Generation for Peak Analysis Conditions¹ at a Typical Three Ward LDS Facility

	In	Out	Total
Sunday Daily	450	450	900
Sunday Peak Hour			
With Overlapping Meetings ²	110	80	190
Without Overlapping Meetings ³	90	70	160

1. Assumes an average of 260 persons attend each of three Sunday ward meetings.
2. Assumes 2 hours between the start times of two consecutive meetings.
3. Assumes 3½ hours between the start times of consecutive meetings.

The Sunday trip generation for a three-ward facility with peak analysis attendance is 900 trips. The Sunday peak hour trip generation would be 190 trips with overlapping meeting schedules and would occur from 12:15 to 1:15 p.m.. Without overlapping meetings, the facility would generate 160 trips during its Sunday peak which would occur twice: once from 1:15 a.m. to 12:45 p.m., and also from 3:15 to 4:15 p.m.

Parking Generation Analysis

The on-site parking generation for an LDS facility is greatest on Sundays; therefore, peak parking demand estimates were developed for Sunday only. The parking demand of a facility can be determined from traffic counts by using the accumulation of entering traffic minus exiting traffic. The results of this analysis were checked against actual parking counts performed at the Kirkland and Woodinville facilities on Sunday, December 15, 1991. The actual peak parking demand for the three facilities is summarized in Table 3.

Table 3. Actual Peak Parking Demand

Facility	Peak Parking Demand	Time
Bellevue	154	12:00 p.m.
Kirkland	139	2:30 p.m.
Woodinville	114	3:15 p.m.

* The Bellevue and Kirkland facilities have overlapping Sunday meeting schedules, the Woodinville facility does not have an overlapping meeting schedule.

The cumulative parking demand for individual meetings was determined for the peak analysis attendance condition (260 persons per meeting) using the trip generation data discussed above. Figure 4 shows the parking accumulation for a single meeting. The peak parking demand for a single meeting is 95 vehicles and occurs one hour after the start of the meeting.

The peak parking demand for two consecutive meetings is much higher since parking accumulation for the two meetings would overlap. Figure 5 shows the parking accumulation and peak parking demand for an overlapping meeting schedule with 2 hours between start times of consecutive meetings. The peak parking demand for a three-ward facility with overlapping meeting schedules would be 157 spaces and would occur at 1:00 when the third ward meeting is just beginning. The peak parking demand for conditions without overlapping meetings would be nearly the same as a single ward meeting—96 spaces. Figure 6 shows the parking accumulation and peak parking demand for a non-overlapping meeting schedule (3½ hours between start times).

Summary

The highest trip generation for LDS facilities occurs on Sunday. LDS ward facilities are typically designed to accommodate three wards. At full occupancy and with established wards, the attendance at the facility is expected to peak at 260 persons per Sunday ward meeting. This typical facility would generate 900 trips on Sunday and 190 trips during the Sunday peak hour.

On weekdays, the LDS facility would generate 230 trips per day, 21 trips during the AM commuter peak hour, and 7 trips during the PM commuter peak hour. The majority of weekday trips would occur before 7:00 a.m. or after 6:00 p.m.

A three-ward LDS facility would have a peak parking demand of 157 spaces if meetings overlap by one hour (two hours between the start times of consecutive meetings). The peak parking demand would be 96 spaces if Sunday meetings do not overlap. The peak parking demand values assume a peak analysis attendance of 260 persons per meeting.

Attachments
TSM/tsm
TYPLDSM1

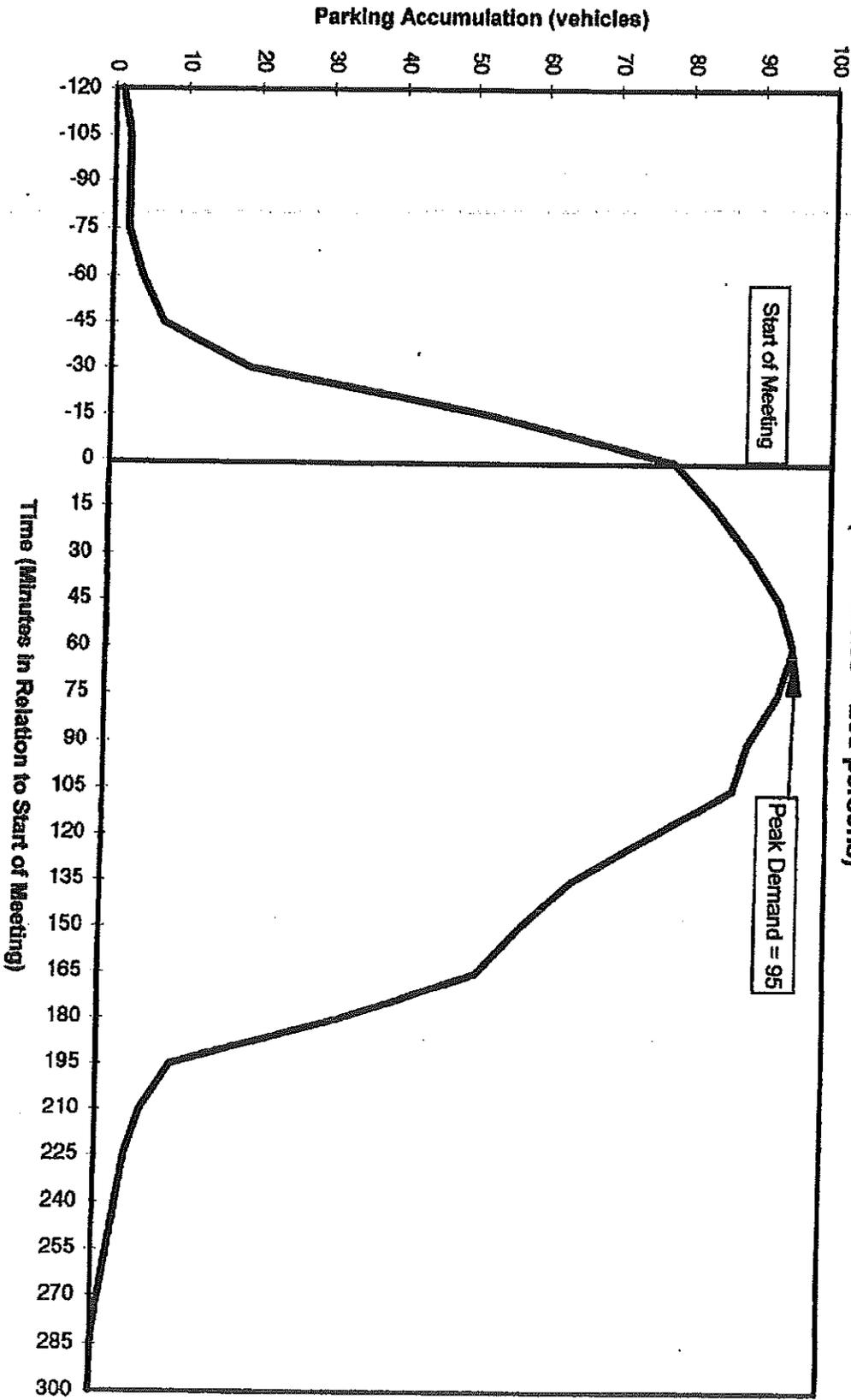
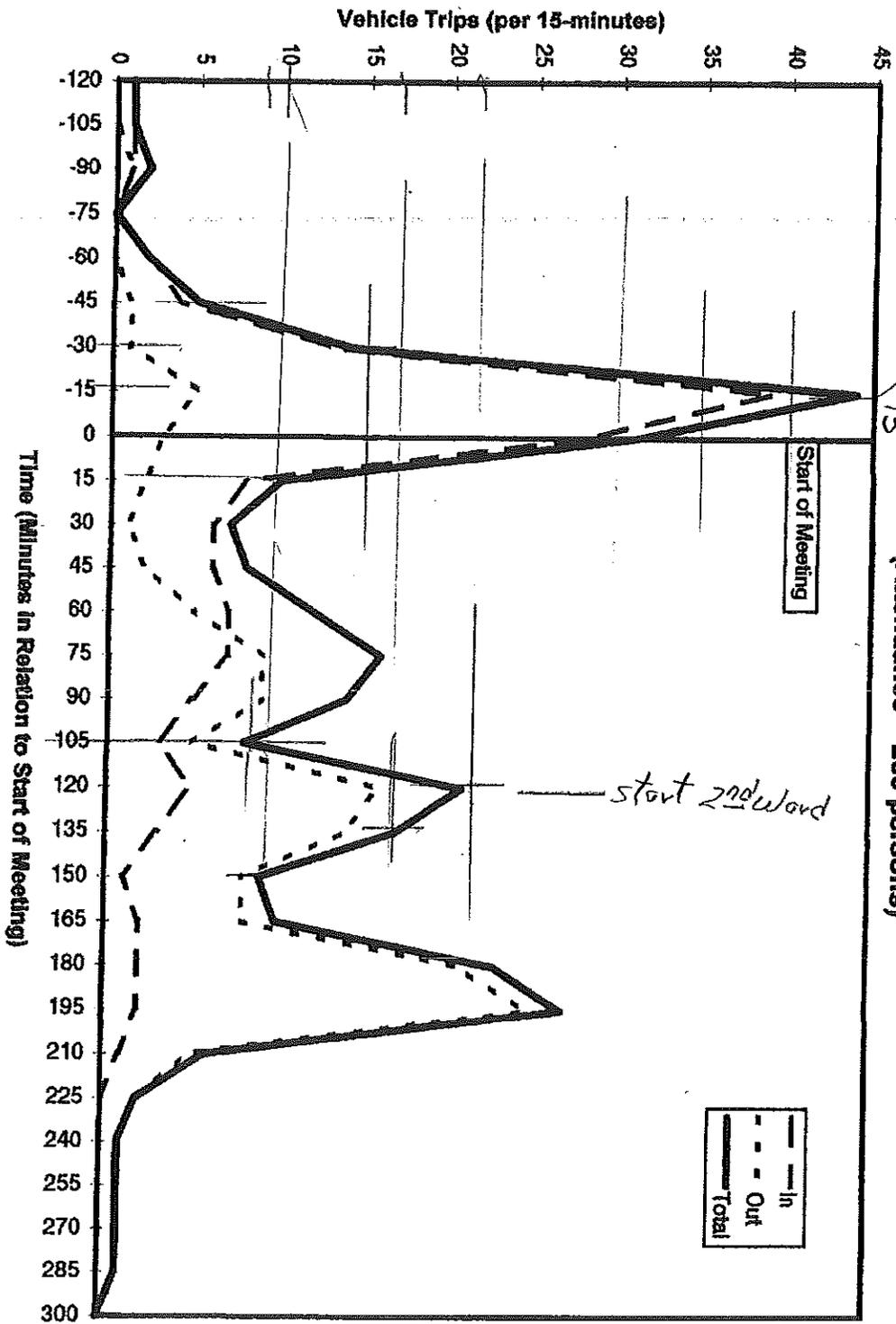


Figure 4
Sunday LDS Parking Demand - Single Meeting
 (Attendance = 260 persons)



1st Ward start

start 2nd Ward

Figure 3
Sunday Trip Generation For a Single Ward
 (Attendance = 260 persons)

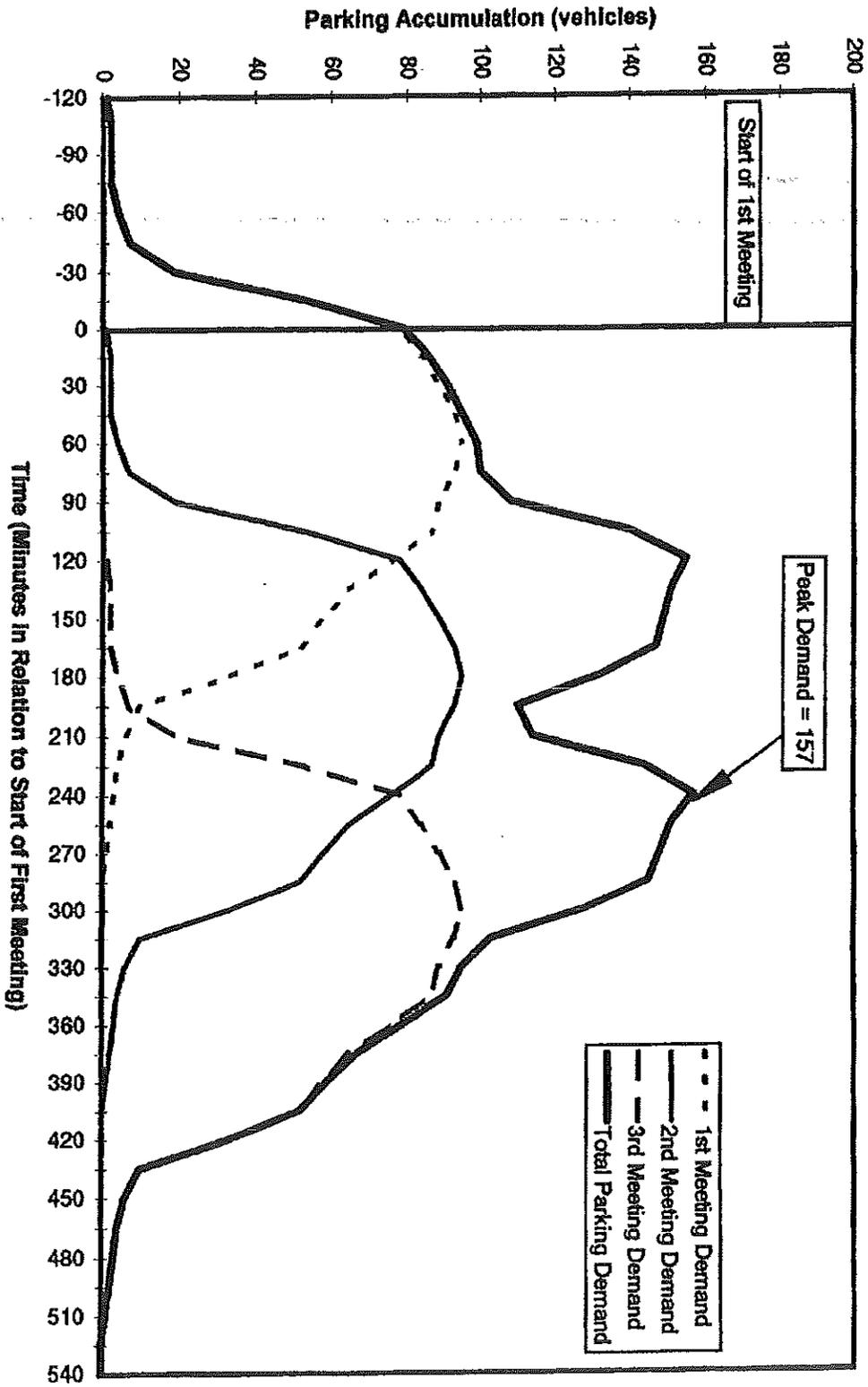


Figure 5
Sunday Parking Demand With Overlapping Meetings
(Attendance = 260 persons per meeting)

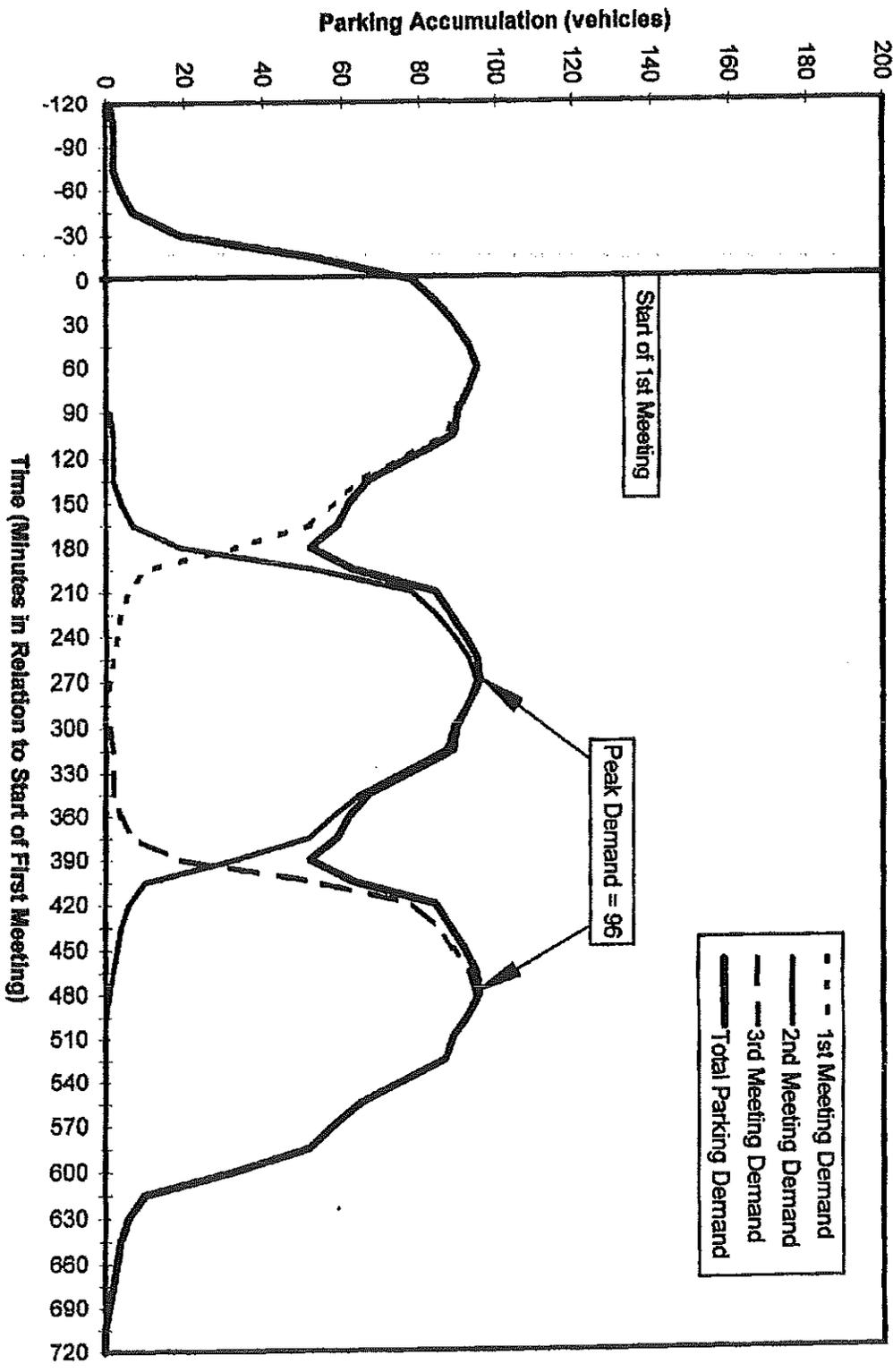


Figure 6
Sunday Parking Demand Without Overlapping Meetings
 (Attendance = 260 persons per meeting)

From: "Jay Mazalewski" <jmaz@co.teton.id.us>
Subject: Standard Approach Manual
Date: Wed, November 16, 2011 09:54
To: "aweng@ida.net" <aweng@ida.net>

Teton County Road Counts

Arnold,

Below is our road count data for 7000S at 900W. If you have any questions, please call.

Thank you,
Jay

Ins_ID
Road_Address
Road_Surface
Count_Method

ADT_2000

ADT_2001

ADT_2002 *332*

ADT_2003 *334*

ADT_2004 *417*

ADT_2005 *460*

ADT_2007 *- 407*

ADT_2009

ADT_2010

85SPD_2010

ADT_2011

85SPD_2011

MAX COUNT

*407 ADT /16 = 38 ~~ADT~~ DMV
Road / 320 /Lane*

44

S

900 W

7000 S

900 W / 7000 S

paved

Jay

T-1

E. APPROACHES FOR NEW DEVELOPMENTS

Before an approach permit is granted, a traffic-impact study may be required of all new developments which will generate over 100 cars per hour (total two-way) during the peak hour, or a lesser volume if requested by the LHJ.

1. The study should include data on the following:
 - a) Existing peak hour traffic volumes and conditions.
 - b) Directional distribution estimates of added traffic.
 - c) Projections of added traffic volumes for all appropriate critical hours.
 - d) Determination of needed improvements, traffic controls, approach locations and their design and the impact on nearby traffic control.
 - e) Identification of any additional highway right-of-way which might be required.
2. The results of the impact study should enable the responsible agencies having jurisdiction to:
 - a) Verify the need for capacity improvements along access streets and critical intersections.
 - b) Consider the effects on the local transportation system.
 - c) Enable the LHJ to check the access design.
 - d) Determine a fair and equitable means of cost-sharing between the developer and the public agencies for needed intersection or access improvements, including added traffic lanes and traffic control devices.

The developer is required to coordinate the study with both the LHJ and the local planning agency and/or building department which controls issuance of building permits for the development if they are separate agencies.

The developer shall provide and pay for the study and the LHJ, or its agent, should review the study. See Section III,F, Application Fees, for details on the Special Traffic Studies Fee.

Arnold,

Below is our road count data for 7000S at 900W. If you have any questions, please call.

Thank you,
Jay

Ins_ID		Road_Address		Road_Surface	Count_Method	ADT_2000
44	<u>S</u>	900 W	7000 S	900 W / 7000 S	paved tubes	332 334 417

Jay T. Mazalewski, PE
County Engineer/Public Works Director
150 Courthouse Way
Driggs, ID 83422
208-354-0245