

# Table of Contents

File SUP-1995-136

Date 9/17/99

P r e s e n t	S c a n n e d	<p><b>A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, not all entries designated to be scanned, are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been included.</b></p> <p><b>Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.</b></p> <p><b>Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.</b></p>
X	X	<b>*Summary Sheet – Table of Contents</b>
X	X	Application form
		Receipts for fees paid for anything
X	X	<b>*Submittal checklist</b>
X	X	<b>*General project report</b>
		Reduced copy of final plans or drawings
		Reduction of assessor's map
		Evidence of title, deeds
X	X	<b>*Mailing list</b>
		Public notice cards
		Record of certified mail
X	X	Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		<b>*Final reports for drainage and soils (geotechnical reports)</b>
		Other bound or nonbound reports
		Traffic studies
		Individual review comments from agencies
X	X	<b>*Consolidated review comments list</b>
		<b>*Petitioner's response to comments</b>
X	x	<b>*Staff Reports</b>
		<b>*Planning Commission staff report and exhibits</b>
		<b>*City Council staff report and exhibits</b>
		<b>*Summary sheet of final conditions</b>
		<b>*Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)</b>

## DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	Review of Traffic Study – 9/8/95	X	Letter from Brian Hart to Kathy Portner – 1/22/96
X		Letter from Kathy Portner to Philip Hart – 11/21/95	X	Letter from Brian Hart to Weldon Allen – 12/19/95
X		Letter to Kathy Portner from Philip Hart – 11/27/95	X	Letter from Daniel Hooper to Weldon Allen – 12/19/95
X		Letter from Philip Romeo to Jeff Crane – 11/22/95	X	CDOT – State Hwy Access Permit
X		Summary of Revised Traffic Study Submittal – 1/30/96	X	X
X		Traffic Study – Latest Version prepared by Landesign – 10/13/95	X	X
X		Memo from Michael Drollinger to Pastor Dan Hooper -9/27/95	X	X
X		Letter from Brian Hart to Greg Trainor – 9/19/95	X	X
X		Letter from Brian Hart to Michael Drollinger – 10/13/95	X	Letter from Janet Terry to Larry Timm – 2/7/96
X		Letter from Phil Hart to Michael Drollinger – 10/13/95	X	Letter from Kathy Portner to Pastor Daniel Hooper – 12/22/95
X		Application for Individual Sewage Disposal System Permit-10/11/94	X	Letter from Brian Hart to Michael Drollinger – 9/23/95
X		Signed Petition	X	Letter from Richard Mason and Appleton residents to Comm. Dev. photos included - (photos not scanned) - 6/1/95
X		Letter from Richard Mason to Commun. Dev. – 8/24/95	X	Memo from Jody Kliska to Planning Commission
X		Letter from Michael Drollinger to Pastor Daniel Hooper – 11/6/95	X	X
X		Handwritten Notes	X	Preliminary Drainage Report – 7/95
X		Memo from Michael Drollinger to Kathy Portner-11/15/95	X	E-mail from Larry Timm to Jim Shanks – 9/26/95
X		E-mail to Kathy Portner from Dan Wilson – 11/14/95	X	X
X		Memo to City Council from Michael Drollinger-11/7/95	X	Letter from Kathy Portner from Pastor Daniel Hooper-5/8/96
X		Letter from Kathy Portner to Pastor Daniel Hooper – 4/22/96	X	X
			X	E-mail from Larry Timm to Kathy Portner – 2/26/96



Michael

Leppitt

COND

9/16/96

# SUBMITTAL CHECKLIST

## SPECIAL CONDITIONAL USE

SUP 95-136

Location: NW Corner I-70 & 24 Rd

Project Name: Fellowship of Excitement

### ITEMS

DISTRIBUTION Outdoor Facilities

#### DESCRIPTION

Due May 1st for  
June 6th Planning  
Commission Hearing  
15' AC + 270'

#### SSID REFERENCE

- City Community Development
- City Dev. Eng.
- City Utility Eng.
- City Property Agent
- City Attorney
- City G.J.P.C. (8 sets)
- City Board of Health, Fire
- City Parks and Rec. Police
- County Planning
- Walker Field
- Ute Water
- County Building
- Drainage
- Irrigation

TOTAL REQ'D.  
20

ITEM NO.	DESCRIPTION	SSID REFERENCE	City Community Development	City Dev. Eng.	City Utility Eng.	City Property Agent	City Attorney	City G.J.P.C. (8 sets)	City Board of Health, Fire	City Parks and Rec. Police	County Planning	Walker Field	Ute Water	County Building	Drainage	Irrigation	TOTAL REQ'D.
1	Application Fee <u>\$350</u>	VII-1	1														
1	Submittal Checklist*	VII-3	1														
13	Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	Application Form*	VII-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8/2x1P	<del>Reduction of Assessor's Map</del>	<del>VII-1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>
2	Evidence of Title	VII-2	1														
	<del>Appraisal of Raw Land</del>	<del>VII-1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>	<del>1</del>
1	Names and Addresses	VII-3	1														
2	Legal Description	VII-2	1	1													
3	Deed	VII-1	1	1	1												
4	Easement	VII-2	1	1	1	1	1										
5	Aviation Easement	VII-1	1	1	1												
5	ROW	VII-3	1	1	1	1	1										
21	General Project Report	X-7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	Location Map (full size assessor)	IX-21	1														
21	Neighborhood site Plan	IX-33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Landscape plan		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Grading & Drainage		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	TRAFFIC CONCEPT																

NOTES: 1) An asterisk in the item description column indicates that a form is supplied by the City.  
 2) Required submittal items and distribution are indicated by filled in circles, some of which may be filled in during the pre-application conference. Additional items or copies may be subsequently requested in the review process.  
 3) Each submitted item must be labeled, named, or otherwise identified as described above in the description column.



**DEVELOPMENT APPLICATION**  
 Community Development Department  
 250 North 5th Street Grand Junction, CO 81501  
 (303) 244-1430

Receipt \_\_\_\_\_  
 Date \_\_\_\_\_  
 Rec'd By \_\_\_\_\_  
 File No. Sup 95-136

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
<input type="checkbox"/> Subdivision Plat/Plan	<input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Resub				
<input type="checkbox"/> Rezone				From: To:	
<input type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Preim <input type="checkbox"/> Final				
<input checked="" type="checkbox"/> Conditional Use			NW Corner I-70 & 24 Rd	RSF-R	Outdoor Recreation Facilities
<input type="checkbox"/> Zone of Annex					
<input type="checkbox"/> Text Amendment					
<input checked="" type="checkbox"/> Special Use					
<input type="checkbox"/> Vacation					<input type="checkbox"/> Right-of-Way <input type="checkbox"/> Easement

PROPERTY OWNER                       DEVELOPER                       REPRESENTATIVE

Grand Jct Baptist Church AKA: Fellowship of Excitement	SAME	Tom Logue - Land Design
Name	Name	Name
2897 North Avenue	same	200 N. 6th
Address	Address	Address
Grand Junction, CO 81501	same	Grand Junction, CO 81501
City/State/Zip	City/State/Zip	City/State/Zip
(970) 243-3321	same	(970) 245-4099
Business Phone No.	Business Phone No.	Business Phone No.

NOTE: Legal property owner is owner of record on date of submittal.

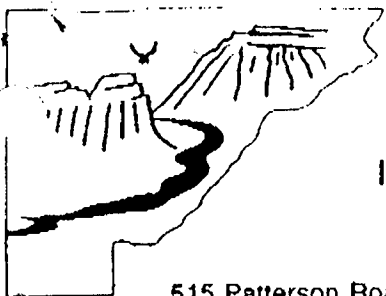
We hereby acknowledge that we have familiarized ourselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing information is true and complete to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We recognize that we or our representative(s) must be present at all hearings. In the event that the petitioner is not represented, the item will be dropped from the agenda, and an additional fee charged to cover rescheduling expenses before it can again be placed on the agenda.

X Daniel C Hooper  
 Signature of Person Completing Application \_\_\_\_\_ Date \_\_\_\_\_

Daniel C Hooper DANIEL C HOOPER, PRESIDENT                      Ronald Terry Baxter RONALD TERRY BAXTER, SECRETARY

X Daniel C Hooper  
 Signature of Property Owner(s) - Attach Additional Sheets if Necessary  
 (SEE ATTACHED CORPORATE DOCUMENTATION SHOWING AUTHORIZED SIGNATORS)

Date Nov 12 94  
PERMIT DENIED DATE \_\_\_\_\_



# APPLICATION

## Individual Sewage Disposal System Permit

### MESA COUNTY HEALTH DEPARTMENT

515 Patterson Road, P.O. Box 20,000-5033, Grand Junction, CO 81502-5033 (303) 248-6960

No individual sewage disposal system shall be installed on less than a 1/2 acre parcel. No permit shall be issued until a plot plan, drawn to scale, and a clearance, if required, have been submitted and approved. No individual sewage disposal system shall be installed in a floodway or natural drainage area.

A. Construction Address # 765 24 RD CO., Zip 81501  
Tax Schedule No. 2701-321-00-006 Parcel Size, Sq. Ft. or Acres 26  
Subdivision N/A Lot N/A Block N/A Filing N/A  
Owner Fellowship of Exciteman Address 2892 NORTH AVE. Phone 248-3321  
(Rusty)  
Applicant FRONTIER PIPELINE Address 3294 1/2 D Phone 250-2288  
434-2210  
Installer SAME Systems Contractors License # 129 Phone \_\_\_\_\_

### B. PLEASE CHECK THE FOLLOWING THAT APPLY

Indicate depth of all wells located within 100 feet of the system NONE  
Is the property within 400 feet of a sewer system? Yes \_\_\_\_\_ No   
Is the property within a municipality or sanitation district? Yes \_\_\_\_\_ No  Name \_\_\_\_\_  
Is the property located in a flood plain? Yes \_\_\_\_\_ No   

<b>SYSTEM</b>	<b>USE</b>	<b>WATER SUPPLY</b>
New <input checked="" type="checkbox"/>	Year-Round <input checked="" type="checkbox"/>	Public <input checked="" type="checkbox"/> Name <u>WTE</u>
Repair _____	Seasonal _____	Well _____, Spring _____, Cistern _____
Modification _____	(Indicate # of _____	Surface _____, Other _____, None _____
Enlargement _____	Days / Year) _____	
Relocation _____		

### C. PROPOSED USE OF PROPERTY

<u>SINGLE FAMILY</u>	<u>MULTI-FAMILY</u>	<u>COMMERCIAL</u>
Frame/Modular _____	# of Units _____	Type of Business _____
Mobile Home <input checked="" type="checkbox"/>	# of Bedrooms/Unit _____	Maximum Sewage Flow Rate _____
# of Bedrooms <u>3</u>	# of Units w/ _____	Number of Employees _____
Clotheswasher <input checked="" type="checkbox"/>	Clotheswasher _____	# of Shifts _____ Washracks _____
Garbage Disposal <input checked="" type="checkbox"/>	# of Units w/Garbage _____	Basement Plumbing _____
Basement Plumbing _____	Disposal _____	
	Basement Plumbing _____	

D. I hereby submit this application for an Individual Sewage Disposal System Permit on the above described property. If an I.S.D.S. is to be installed, I agree to obtain the required permit and to install such system in accordance with the above description, the attached plot plan and the Regulations of Mesa County and the State of Colorado.

BY: Rusty Salazar DATE: 10-11-94

<u>PLOT PLAN ATTACHED:</u>	<u>OFFICE USE ONLY</u>	<u>RECORDS ON FILE: Yes / No</u>
<b>DESIGN CALCULATIONS</b>	Maximum depth to building sewer <u>0-6"</u>	
<u>675</u> Max. Sewage Flow (Q)	Type of system <u>Absorption</u>	
<u>14 min/in</u> Perc Rate (t) (min/inch)	Septic Tank Volume <u>1,000</u> (gallons)	
<u>505</u> Sq. Ft. Absorption Area (A) ( $A = Q/5 \times \sqrt{t}$ )	Septic Tank Material	
<u>808</u> Increase (A) by <u>20</u> % for garbage disposal and <u>40</u> % for clotheswasher	Concrete <input checked="" type="checkbox"/> Fiberglass/Plastic _____	
Divide (A) by width _____ = length of standard trench	Total length (feet) <u>33'</u> Width <u>24'</u>	
<u>1'</u> Indicate depth of gravel	Total depth (feet) <u>1 1/2"</u>	
	Depth of Gravel (feet) <u>1'</u> Cubic Yards <u>30</u>	
	Diversion Valve: Yes (No) <input checked="" type="checkbox"/> Distribution Box: Yes (No) <input checked="" type="checkbox"/>	

## Details and Calculations

Project: 95096.2  
Date: 1/19/96

Page:

FELLOWSHIP OF EXCITEMENT  
SEPTIC DESIGN CALCULATIONSPERC RATE = 37 min/in  
DEPTH TO SEASONAL HIGH WATER = 5 1/2'  
DEPTH TO BEDROCK > 7'FLOW REQUIREMENTS: 5 GPD/SEAT - CHURCH  
1550 SEAT X 5 GPD/SEAT = 7,750 GPD

$$\text{FIELD SIZE (A)} = Q \sqrt{t} / S$$
$$= 7750 \sqrt{37} / 5 = 9429 \text{ SQ. FT.}$$

USE TWO ALTERNATING DOSED FIELDS  
OF 120' X 80'

FOR OFFICE USE ONLY

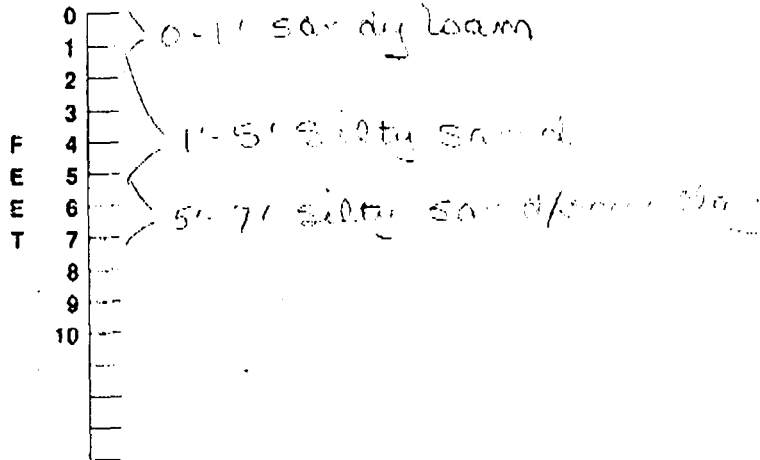
PERCOLATION RATES

Ref. No.	Perc Hole Depth	Hours (Time)			Drop In Inches	Total Min. (Min / In)	Avg. Percolation Rate	<b>SANITARIAN'S CHECK LIST</b> Perc ◀ 60' / " _____ Perc ▶ 5' / " _____ Slope ▶ 30% _____ Water Table ◀ 5' _____ Bedrock ◀ 5' _____ Floodplain _____ On-site Water _____ Repair Area _____ G.W.T. (Feet) _____ H.S.W.T. (Feet) _____
		9:05	9:30	10:10				
	0'	2"	4 1/4"	6 1/2"	4.5"	14 min/in		
	3'	3 3/4"	5 7/8"	8 1/2"	4.75"	17 min/in		
	5 1/2'	3 1/4"	3 3/4"	5"	1.75"	37 min/in		
Ref. No.	Perc Hole Depth	Hours (Time)			Drop In Inches	Total Min. (Min / In)	Avg. Percolation Rate	

Soil Conditions / Horizons

(Indicate: Bedrock, Groundwater Table, Saturated Soil, Fractured / Jointed Pattern)

NOTES



- ① Standby water @ 7'
- ② HSWT @ 5 1/2'
- ③ Rare local well @ 80' south of corner of 94' south of north property line @ west of east prop.

TESTED BY: *[Signature]* DATE: 10-13-94

- 12-15-94 Did final inspection; left note to level one pipe that was marked. Also to stake corners of bed. Permit not signed until final measurements. Straw on site.
- 12-19-94 Pipe cased; OK to backfill. Left message with Rusty (250-28)

GENERAL PROJECT REPORT

FELLOWSHIP OF EXCITEMENT CHURCH

sup-95-136

A. PROJECT DESCRIPTION

We proposed to construct a church and family activity center at the crossroads of I-70, I-70 Frontage Road and County Road 24. The proposed development area is 25.6 acres.

B. PUBLIC BENEFIT

There are several benefits that we feel will be an asset to the public.

As per our proposed plan we will be planting trees and grass that will beautify one of the main traffic corridors thru Mesa County (I-70).

We feel a biblical church should have a positive impact on its community in many ways. Some of the ways fellowship of Excitement has impacted the community in the past, present and future are:

1. Single parents. Over 50% of the families in the valley are single parents. We have specific groups that are encouraging and helping this group of families.
2. Support groups, Our **Road to Recovery** support group helps individuals overcome addiction to alcohol and drugs. **Divorce Recovery** and **Children of Divorce** both provide counseling and training to get past divorce and back to a normal life and relationships.
3. Bible study classes and small groups teach moral and ethical living from the teaching of the bible, that effect how they live and act in the community.
4. Children's ministry. We provide love and care to over 200 children each week. Many of these children come from broken homes. Through bible stories, puppets, and games they are taught good values that will help them in their future.
5. Youth ministry. This ministry works with several hundred middle and high school teens on a weekly basis. Ministering to the community by providing opportunities for students to become involved in drama, music, dance, activities, camps, retreats, sports and various bible learning times. The youth pastor teaches a sex-abstinence course each quarter in three of the valley's middle schools reaching over 1,000 middle school students each year with a message for long life.
6. Senior Citizens. As this community has grown with the number of retirees moving here, we have sought to have programs and activities for them. This includes a **Shut-In Ministry** where church members make daily phone calls and weekly visits to shut in's in the grand valley.

Fellowship of Excitement Church is the largest interdenominational Church in the valley and is



attended by many business and community leaders. We anticipate in our future to be helping more people in this valley.

The purpose of the Fellowship of Excitement is to glorify god by introducing Jesus Christ as Lord to as many people as possible and develop them in Christian living, using the most effective means, to impact the world, making a positive difference in this generation.

### C. PROJECT COMPLIANCE, COMPATIBILITY, AND IMPACT

1. We are applying for a conditional use permit.
2. Within a 1 mile radius from the subject property there are four commercial park developments, an elementary school, the Colorado State Highway Road Dept Maintenance Shop, a proposed park by the City of Grand Junction, vacant commercial facilities and land, residential development and land, as well as agricultural properties. This is a very diverse use area.
3. Access to/from the subject property is excellent. There are two proposed access area. The first is located at the northeast corner which is on County Road 24 and the second located at the southeast corner which access I-70 frontage road.
4. The availability of utilities are as follows:

According to Ute Water Conservancy District there are two options for service to this project. We will be installing a 3/4" water tap utilizing the 3" main line existing in County Road 24 for Phase I to service the outdoor toilets, maintenance shop/on-site housing, concessions, office, and picnic areas. A second tap will be installed during Phase III to service the permanent worship facilities. The second tap will be tied into the 8" service line that exists in the I-70 frontage road/ This 8" line also services the fire hydrant located just west of the southwest corner of this site.

There currently is a new existing septic system approved by Mesa Co Health Dept to service all construction proposed in Phase I. It is our intent to use the City of Grand Junction's proposed sewer system for Phase II & III.

Public Service Co of Colorado will provide both gas and electric service for this project. They have indicated there are no problems they foresee to providing service for all our proposed needs.

5. We do not anticipate any special or unusual utility demands.
6. We should have a minimal effect on public facilities. Our fire protection needs during Phase I will be limited to the maintenance shop/on-site housing. Phase II & III will be built to current building code requirements (i: fire walls, sprinkler systems etc) With on-site security, there should be little demand on police services. Phase I is self-contained for sanitation and as per conversation with Bill Cheney, the sewer service for the permanent structures of Phase II & III present on problems. Road impact we have will be greatest during current non-peak use house



The septic systems is already installed. The restroom facilities will be used by people using the amenities throughout the week. They will be heated and have lighting/electricity.

Project 5

Landscaping. Over 120 trees and plants have already been purchased and will be placed strategically on the property for beautification and privacy for the neighbor to our north/east.

Project 6

BBQ Pits. We currently have 1 BBQ pit placed on the property. Approximately 8 additional pits will be placed around pavilions for recreational use.

Project 7

Outdoor Stage. This outdoor platform will be used at various times for various activities. From bible study classes to Wednesday Evening services, to occasional singing groups, to church-wide picnics. This area would allow an old-fashioned outdoor service kind of feel. The attendance at these functions would range somewhere between 50 and 1,000. The larger crowds would only take place two or three times per year. All sound would be projected away from the neighbors to our north (from the north side of the property toward the south, [freeway]). We will be considerate of neighbors and usage times.

Project 8

Security On-Site Housing and Maintenance Building

This is a 30' x 70' metal building that will house an apartment for our security/maintenance person and family, along with a garage area for landscape and maintenance materials.

PHASE 2

Project 1

Temporary Worship Facility. A structure that would originally seat 1600 people, that could latter be used as a gymnasium or banquet/meeting area for church functions.

Project 2

Offices and Family Life Building. A metal building that would double as Church Offices and an area for small group meetings. Landscaping includes a garden on the east side.

Project 3

Temporary Parking. A low-dust parking area to accommodate all above mentioned projects.

PHASE 3

Project 1

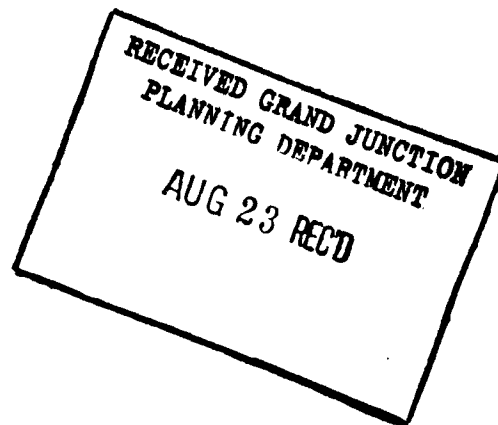
A Permanent Worship Center that we now project to seat 2,200.

Project 2

Landscaping and Parking. The landscaping of islands within the paved parking area and the paving of the parking lot.

August 23, 1995

City of Grand Junction Planning Department  
Attn: Michael Drollinger  
250 North 5th Street  
Grand Junction, CO 81501



Re: Fellowship of Excitement Church.

Dear Mr. Drollinger:

After our meeting with members of the Fellowship of Excitement church, a decision to pull the church project from this month's agenda was made by Pastor Hooper. This letter is to inform your office of that decision.

It is the desire of the Fellowship of Excitement project leaders to move the project to the following month's agenda. This additional time will be used to conduct a more thorough traffic study, and for the church to better inform the surrounding community as to the scope of the project.

If there are any questions regarding the project, please feel free to contact our office.

Sincerely,

Brian C. Hart, E. I.  
LANDesign, LLC

**GENERAL PROJECT REPORT**  
**CONDITIONAL USE PERMIT AND CONCEPT PLAN**  
**FELLOWSHIP OF EXCITEMENT CHURCH**

September, 1995

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**INTRODUCTION** -- The accompanying general project report will provide sufficient data to assess the merits of the requested conditional use permit and concept plan application. Information gained as a result of the review process will be utilized in the preparation of the Preliminary and Final plans.

**LOCATION** -- The Fellowship of Excitement Church project encompasses approximately 25.6 acres. The subject property is located in the City of Grand Junction. The property is located in all of that portion of the SE1/4 NE1/4 of Section 32, Township 1 North, Range 1 West of the Ute Meridian, lying north of the I-70 Frontage Road and west of 24 Road.

**EXISTING LAND USE** -- Currently the site is void of any structures other than a recently constructed irrigation pump house. A softball field and aesthetic irrigation pond are being constructed at the moment. Topography of the site is considered to be "flat" in nature, and slopes towards the southwest at an average rate of less than one percent. The subject property is zoned RSF-R by the City of Grand Junction.

**SURROUNDING LAND USE** -- The surrounding land use in the vicinity of the subject property is considered to be of low intensity. Predominate uses include single family dwellings, agricultural land and non-residential.

**PROPOSED LAND USE** -- The proposal calls for the ultimate development of a 2200 seat worship facility, a family center with church offices, an outdoor stage

and recreational facilities including a softball field and basketball courts. Parking will consist of 983 regular and 32 handicapped stalls. The accompanying Site Plan shows the relationship of the project to the subject property.

The completed project will be constructed in three phases. Phase one will encompass a number of projects. The recreation facilities including the softball field, the volleyball pits, basketball courts and horseshoe pits will be constructed in the first phase. The other facilities that will be constructed in Phase one include the outdoor stage, necessary rest room facilities, barbecue pits, pavilions, preliminary landscaping and an on-site housing and maintenance building.

The softball field and volleyball pits have already started construction and will be used for a church softball league, and volleyball matches throughout the week. The outdoor stage will be used for church gatherings such as bible studies, Wednesday evening services and church-wide picnics. The sound stage and sound system will be directed away from the neighbors to the north and towards the south. The accompanying letter from Dwight Erickson of Back Porch Music, outlines the noise projections of the proposed stage and how they will not affect the neighbors to the north. The church staff will be considerate of the hours that the stage will be used. Pavilions (30' x 50') will be used for bible studies, class picnics, and other fellowship gatherings. The on-site housing and maintenance building will be 30' x 70' and will house an apartment for a security/maintenance staff employee and family. This building will also have a garage area for landscaping and maintenance equipment. Some landscaping has already been placed, including over 120 trees and plants. Additional landscaping is expected for future phases. Required parking for all of the Phase 1 projects will be constructed.

Phase two of the project will consist of a building that will house the Family-Life center and church offices. The Family-Life center will originally seat approximately 1050 people. After the final Worship Center is completed, the Family-Life center will be used for an indoor gymnasium/meeting hall for church functions. Parking requirements associated with Phase two will be constructed along with the building.

Phase three of the project will consist of the final, permanent Worship Center, which will be used primarily for Sunday morning and Wednesday evening services. This facility will seat approximately 2200 people. All the remaining required parking will be constructed along with the Worship Facility. Additional landscaping will also be completed with this final phase, in such areas as the parking islands and near the detention pond.

**PUBLIC BENEFIT** -- There are many ways in which the Fellowship of Excitement Church is and will be a benefit to the community.

The Church sponsors programs such as "Road to Recovery", a support group which helps individuals overcome addictions to alcohol and drugs. "Divorce Recovery" and "Children of Divorce" are two more programs that benefit the community by counseling families and helping them recover from the effects of divorce. Bible study classes and small group gatherings help teach moral and ethical values.

The Church's children ministry provides loving care to over 200 children each week. Some of these children come from broken homes, and through bible stories, puppets and games, these children are taught good values.

The Church also has a youth ministry which serves several hundred middle and high school teens on a weekly basis. This service helps to provide opportunities



for students to become involved in drama, music, dance, activities, camps, retreats, sports and bible lessons.

The "Shut-in Ministry" is a church sponsored program which helps to provide needs for the shut-in senior citizens in the area.

The purpose of the Fellowship of Excitement Church is to glorify God by introducing Jesus Christ as Lord to as many people as possible and help develop them in Christian living.

Worship Services are; Saturday 6:30 p.m., Sunday 9 and 11 a.m. and Wednesday 6 p.m., and office hours are Monday through Friday 8 a.m. to 6 p.m.

**ACCESS** -- Primary access to the new church facility will be from 24 road which is designated as an Urban Collector by the City of Grand Junction. A second access point will be from the I-70 frontage road. Half-street improvements will be constructed along the 24 road frontage and will include a detached bicycle/pedestrian path.

Any other improvements due to the increase in traffic will be described in the traffic study. This would include any additional turn lanes, acceleration and deceleration lanes, and signage.

#### **UTILITY SERVICE**

**DOMESTIC WATER** -- Ute Water has an 8" water line that is located in the I-70 frontage road. This line terminates at the Kenworth trucking facility approximately one-quarter of a mile to the west. It is the desire of Ute Water for this project to extend this 8" line along the I-70 frontage road to the subject property. It is not anticipated that the 8" line will need to be extended to the east side of the property because there is no expected future need at the intersection

of 24 Road and the I-70 frontage road. The water line will be looped , as it is expected to exceed 1000 feet.

**SANITARY SEWER** -- A letter requesting the extension of the sewer boundary has already been submitted to the City for review.

**ELECTRIC, GAS, PHONE & CATV** -- Electric, gas and communications lines will be extended to each building location within the proposed project from existing lines located near the subject property.

**IRRIGATION WATER** -- There is a concrete irrigation ditch located on the east boundary of the site. This ditch will supply the necessary irrigation water for the project's landscaping needs.

**DRAINAGE** -- The future drainage which will be created with the completion of this project is expected to be detained near the southwest corner of the site. From this point, the run-off will be released at historic rates to the Canning Factory Drain which is located along the west boundary line of the site and flow south. The Canning Factory Drain is owned and maintained by the Grand Junction Drainage District.

**DEVELOPMENT SCHEDULE** -- The rate at which the project will be completed depends on the City's review process. At this time it is anticipated that the site development, starting with Phase one, will begin upon the City's acceptance of the Final Plat and Plan.

# Back Porch Music

511 Main Street Grand Junction, Colorado 81501 Phone 970 243-9711 Fax 970 243-6203

To whom it may concern:

After looking at the plans for the proposed Fellowship of Excitement development site it is our opinion that the current location of the outdoor stage and seating area is the best location for minimizing noise levels to the north of the complex outside a one quarter mile distance. With the speakers enclosed in a building and projecting to the south most of the sound will be absorbed by what we understand will be a grass seating surface. There could be minor bass wave reflections from the back of the speakers but most of this should be absorbed because of enclosing the speakers within a building.

Locating the outdoor site to the south of the property and projecting sound to the north would, in our opinion, increase the chance of causing disturbances to property owners to the north of the development.

Sincerely,  
Dwight R. Erickson  
President



417 Main Street, Grand Junction, Colorado 81501 • (303) 242-9282


9-25-95

DEAR BRIAN HART,

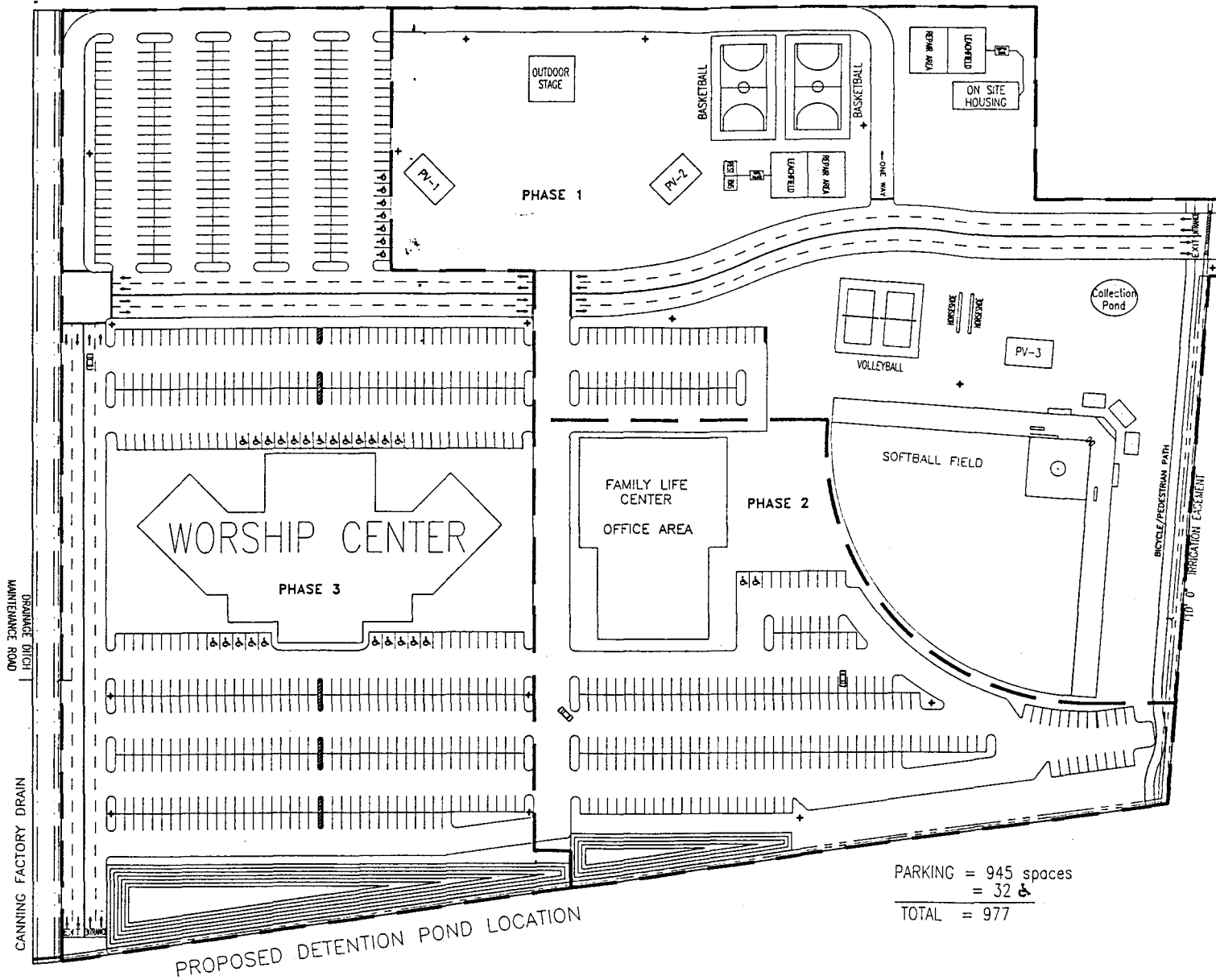
I WAS ASKED BY F.O.E. CHURCH FOR MY OPINION ABOUT THE PROPOSED OUTSIDE SOUND SYSTEM. I AM AN RADIO FREQUENCY AND SOUND ENGINEER. I HAVE DESIGNED MORE PUBLIC ADDRESS SYSTEMS THAN ANY ONE ELSE IN THE GRAND VALLEY.

IT IS MY OPINION THAT THE PROPOSED PLAN (WITH THE SYSTEM POINTED TO THE SOUTH) WOULD BE THE BEST OPTION. IN THIS CONFIGURATION THE OTHER HOMES TO THE NORTH WOULD HEAR THE REMNANT OF BASS. IF IT WERE TURNED AROUND THEY WOULD HEAR THE TREBLE (AS HORNS PROJECT BETTER). THIS WOULD BE THE LEAST OFFENSIVE. THE POWER REQUIREMENTS ARE NOT AS HIGH AS YOU WOULD THINK. AS THE DESIGN OF THE AREA BECOMES A NATURAL THEATER.

THANK YOU.

  
RICK COSBY

Richard Darley 773 24 Road Grand Junction, CO 81505	<del>Grand Junction Baptist Church aka Fellowship of Excitement 2897 North Ave. Grand Junction, CO 81501</del>
Douglas Murphy 768 23 1/2 Road Grand Junction, CO 81505	City of Grand Junction Property Division 250 N 5th St. Grand Junction, CO 81501
William Merkel 2525 N 8th Street Grand Junction, CO 81501	City of Grand Junction Community Development Dept. 250 N 5th Street Grand Junction, CO 81501
WARren Jacobson 342 Deep Creek Rd. Gypsum, CO 81637	Grand Junction Baptist Church aka Fellowship of Excitement 2897 North Avenue Grand Junction, CO 81501
Martin Etcheverry 779 24 Road Grand Junction, CO 81505	Landesign LLC 200 N 6th Street Grand Junction, CO 81501
Kelmine Corp. 822 25 Road Grand Junction, CO 81505	
E.C. Pound 785 24 Road Grand Junction, CO 81505	
Leland Thrailkill 766 24 Road Grand Junction, CO 81505	
R.M. Pennington 2371 H Road Grand Junction, CO 81505	
LaRoche Enterprises Ltd. 3228 Front St. Clifton, CO 81520	



PARKING = 945 spaces  
 = 32 ♿  
 TOTAL = 977



SCALE 1" = 60'  
 0 60 120 180

NO.	REVISION
1	SEPT 21, 1995
2	SEPT 28, 1995
3	OCTOBER 13, 1995

	SITE PLAN
	FELLOWSHIP OF EXCITEMENT
	<small>300 NORTH 4TH STREET SUITE 102        GRAND RAPIDS, MICHIGAN 49503-1203 (616) 451-5100</small>
<small>PHILIP M. HART        REGISTERED PROFESSIONAL ENGINEER        P.E. NO. 1934P</small>	<small>PROJECT NO. 95094    DESIGNED   DRAWN   CHECKED   SHEET   OF        DATE: SEPT 7, 1995    8th    8th</small>

1  
2  
3

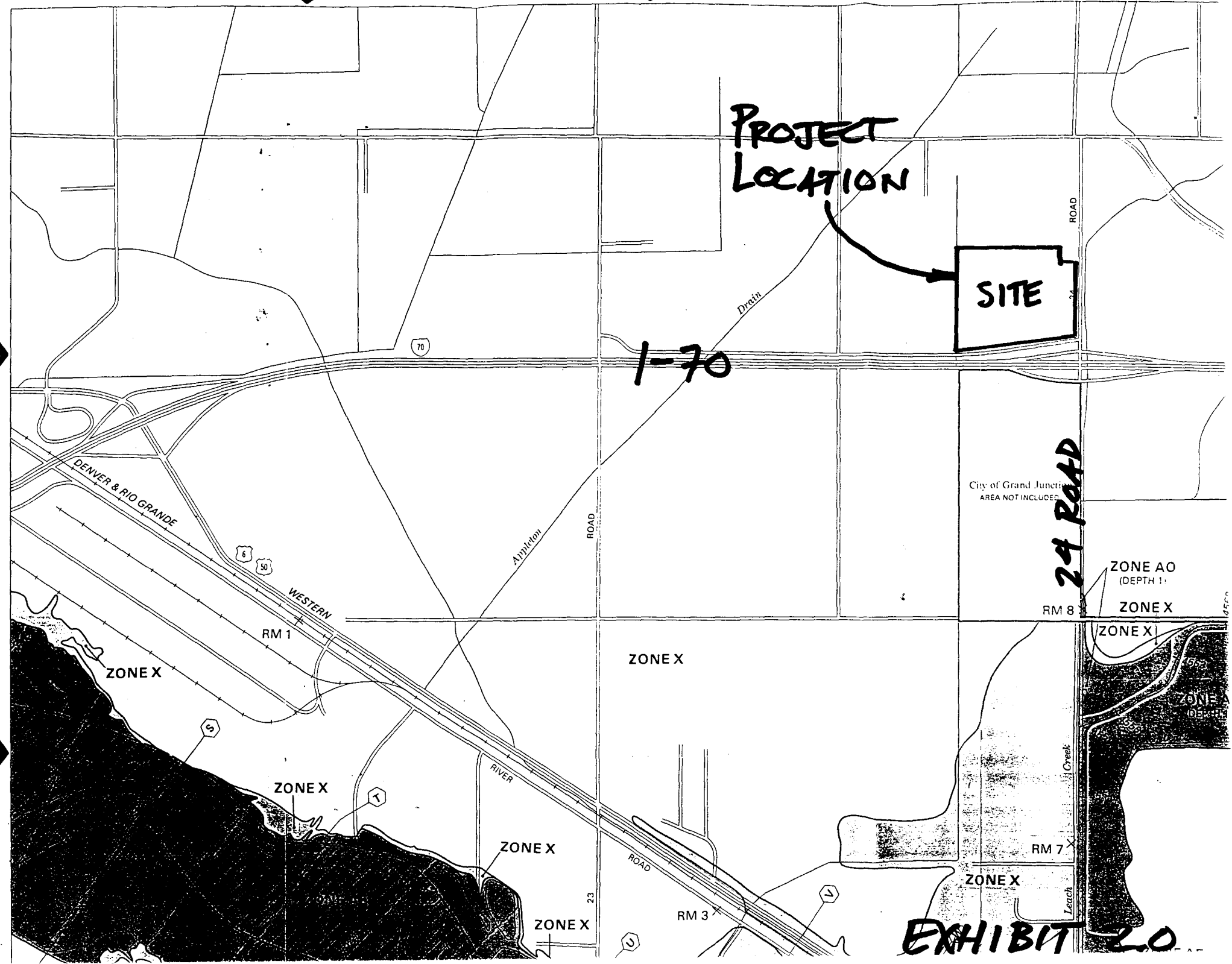
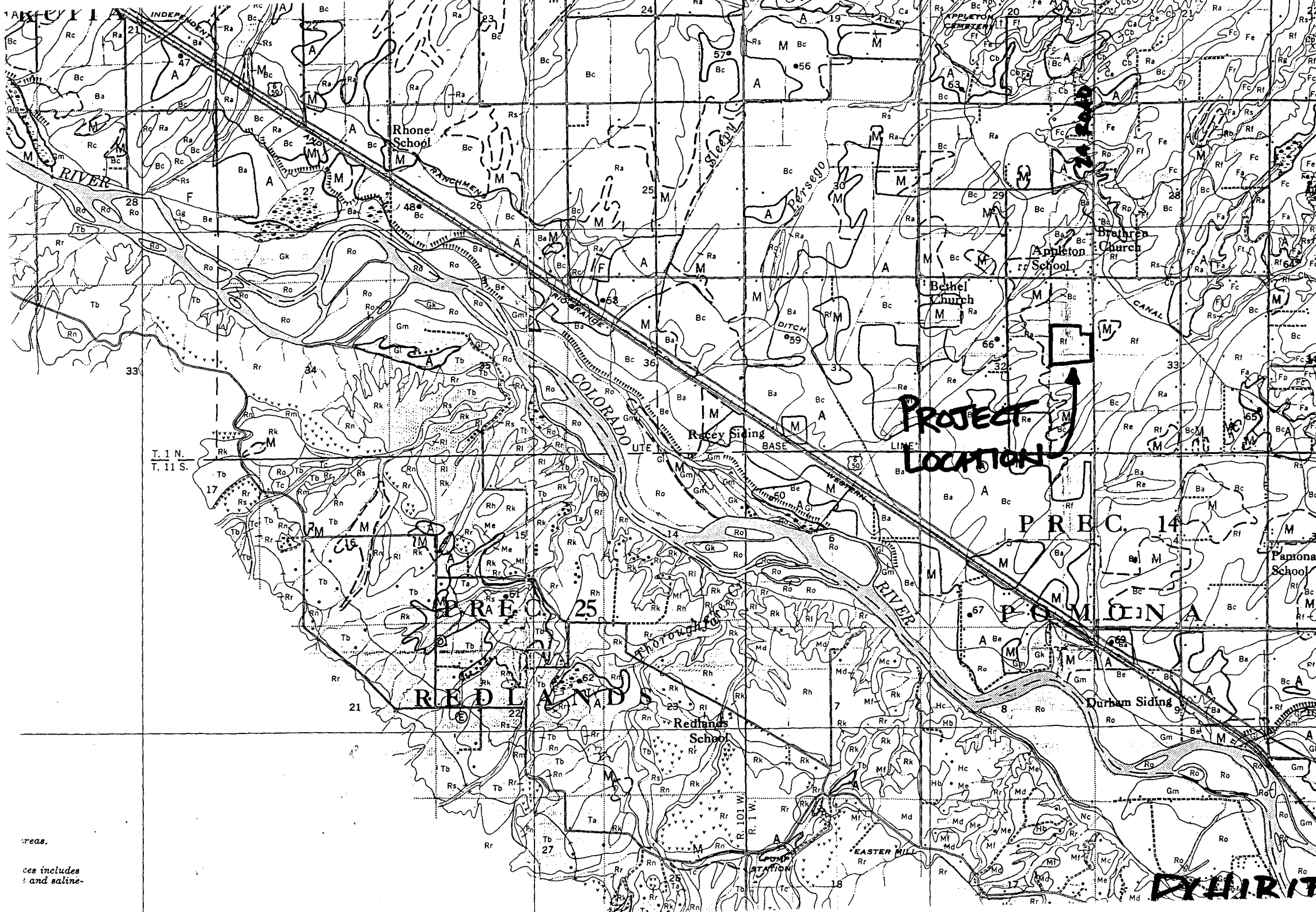


EXHIBIT 2.0



H ROAD

G ROAD

Rf: 0-2%  
SLOPE  
RAVOLT  
VERY FINE  
SANDY LOAM

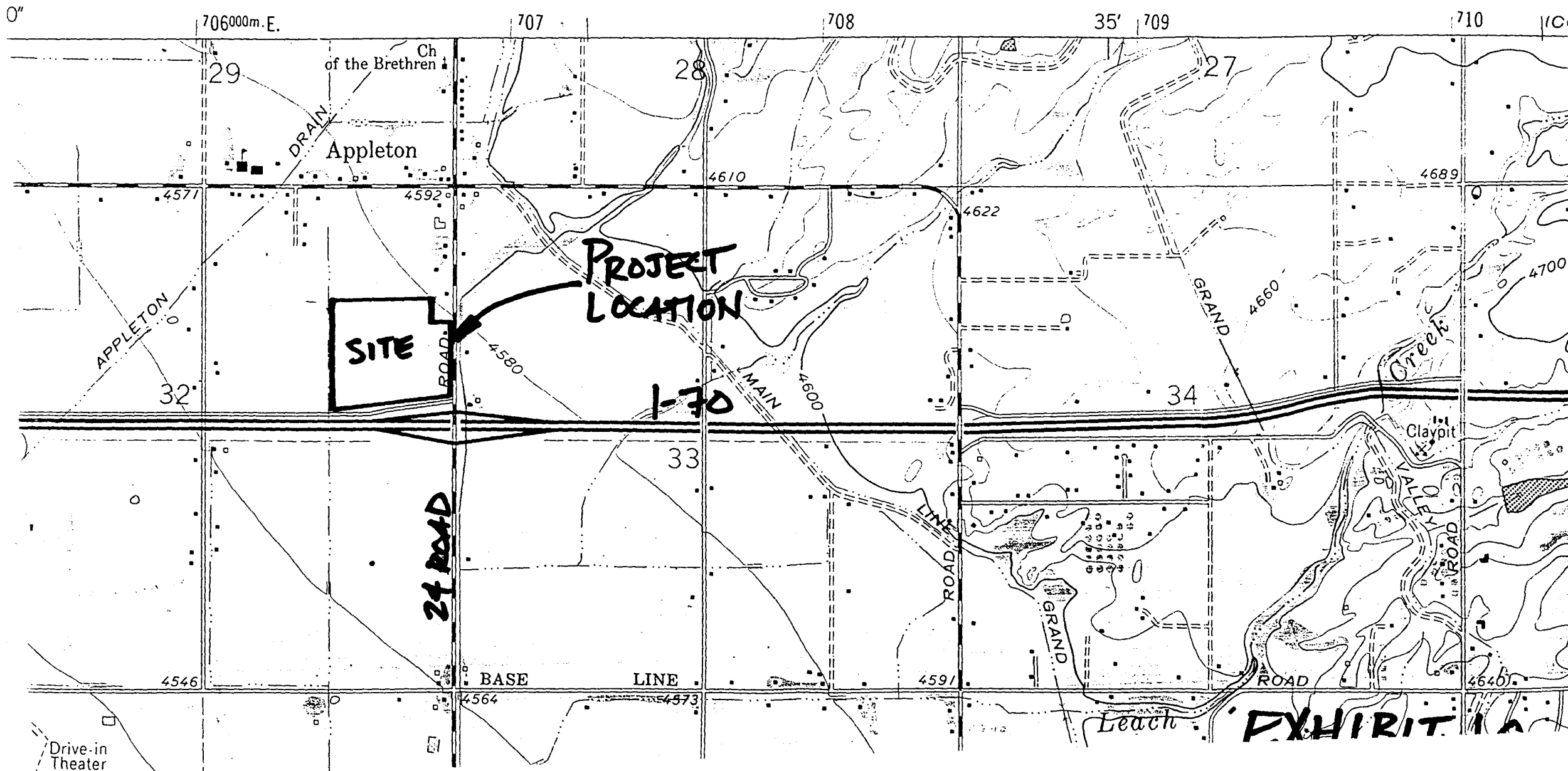
HYDRO-  
GROUP  
"B"

EXHIBIT 2 A

reas.  
ces includes  
and saline-



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY



STORM DRAINAGE SYSTEM DESIGN DATA

(2 YEAR STORM EVENT)

HISTORIC CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH

JOB # 95096

DATE:

27-Jul-9

LANDesign LTD.

LANDesign LTD.													STREET		PIPE		STREET		PIPE		REMARKS		
LOCATION	BASINS	LENGTH	INLET	FLOW	TIME	Tc	COEFF.	INTENSITY	AREA	DIRECT	OTHER	SUM	SLOPE	CAPACITY	SLOPE	SIZE	CAPACITY	DESIGN	VELOC.	DESIGN		VELOC.	
OR		FEET	TIME							RUNOFF	RUNOFF	RUNOFF	%	ALLOWED	%	IN.	ALLOWED	F.P.S.	F.P.S.	F.P.S.		F.P.S.	
NODE			min.	STREET	PIPE	min.	"C"	"I"	"A" AC.	C.F.S.	C.F.S.	C.F.S.		C.F.S.			C.F.S.	F.P.S.	F.P.S.	F.P.S.		F.P.S.	
1	H1					35.03	0.22	0.90	25.60	5.1		5.1											OVERLAND FLOW FROM THE NORTHEAST CORNER OF THE SITE TO THE SOUTHWEST CORNER OF S

STORM DRAINAGE SYSTEM DESIGN DATA

(100 YEAR STORM EVENT)

HISTORIC CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH

JOB # 95096

DATE:

27-Jul-9

LANDesign LTD.

LANDesign LTD.													STREET		PIPE		STREET		PIPE		REMARKS		
LOCATION	BASINS	LENGTH	INLET	FLOW	TIME	Tc	COEFF.	INTENSITY	AREA	DIRECT	OTHER	SUM	SLOPE	CAPACITY	SLOPE	SIZE	CAPACITY	DESIGN	VELOC.	DESIGN		VELOC.	
OR		FEET	TIME							RUNOFF	RUNOFF	RUNOFF	%	ALLOWED	%	IN.	ALLOWED	F.P.S.	F.P.S.	F.P.S.		F.P.S.	
NODE			min.	STREET	PIPE	min.	"C"	"I"	"A" AC.	C.F.S.	C.F.S.	C.F.S.		C.F.S.			C.F.S.	F.P.S.	F.P.S.	F.P.S.		F.P.S.	
1	H1					33.05	0.28	2.00	25.60	14.3		14.3											OVERLAND FLOW FROM THE NORTHEAST CORNER OF THE SITE TO THE SOUTHWEST CORNER OF S

EXHIBIT 13.0

STORM DRAINAGE SYSTEM DESIGN DATA

(2 YEAR STORM EVENT)  
DEVELOPED CONDITION - GRAND JUNCTION, COLORADO

DATE:  
27-Jul-95

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
JOB # 95096

LANDesign LTD.

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW STREET	TIME PIPE	Tc min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC.	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	STREET		PIPE		STREET		PIPE		REMARKS	
													SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.		VELOC. F.P.S.
1	A					27.43																OVERLAND FLOW TO STREET SECTION STREET FLOW TO THE WEST STREET FLOW SOUTH TO DETENTION POND
		1050.0		5.16		5.16							0.86						3.39			
		750.0		4.18		4.18							0.67						2.99			
						36.77	0.93	0.85	25.80	20.2		20.2										

STORM DRAINAGE SYSTEM DESIGN DATA

(100 YEAR STORM EVENT)  
DEVELOPED CONDITION - GRAND JUNCTION, COLORADO

DATE:  
27-Jul-95

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
JOB # 95096

LANDesign LTD.

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW STREET	TIME PIPE	Tc min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC.	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	STREET		PIPE		STREET		PIPE		REMARKS	
													SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.		VELOC. F.P.S.
1	A					25.56																OVERLAND FLOW TO STREET SECTION STREET FLOW TO THE WEST STREET FLOW SOUTH TO DETENTION POND
		1050.0		5.16		5.16							0.86						3.39			
		750.0		4.18		4.18							0.67						2.99			
						34.90	0.95	1.90	25.80	46.2		46.2										

EXHIBIT 14.0

# **TRAFFIC STUDY**

**FOR**

## **FELLOWSHIP of EXCITEMENT CHURCH**

**Prepared for:**

**Pastor Daniel Hooper  
2897 North Avenue  
Grand Junction, CO 81501  
(970) 243-3321**

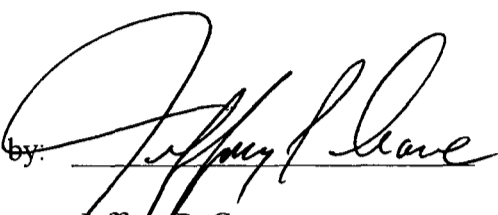
**Prepared by:**

**LANDesign, LLC  
PLANNING ENGINEERING SURVEYING  
200 North 6th Street  
Grand Junction, CO 81501  
(970) 245-4099**

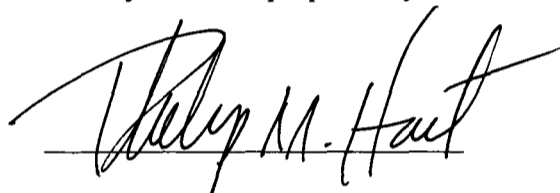
**September 8, 1995**

**Revised October 13, 1995**

**Job No. 95096**

Prepared by:   
Jeffory P. Crane

I certify that this study has been prepared by me or under my direct supervision.

  
Philip M. Hart, P.E.  
State of Colorado, No. 19346

## **TABLE OF CONTENTS**

- A. INTRODUCTION**
- B. TRIP GENERATION and DESIGN HOUR VOLUMES**
- C. TRIP DISTRIBUTION**
- D. TRIP ASSIGNMENT**
- E. TRAFFIC VOLUMES**
- F. CAPACITY ANALYSIS**
- G. CONCLUSIONS and RECOMMENDATIONS**

## **A. INTRODUCTION**

### **1. Location & Land Use**

The subject property is located within a portion of the SE 1/4 of the NE 1/4 of Section 32, Township 1 North, Range 2 West, of the Ute Principal Meridian and contains 25.6 +/- acres. More specifically the site is located on the northwest corner of 24 Road and the north frontage road of I-70.

The site is presently an undeveloped vacant parcel of land, however, recreational facilities including a softball field are currently under construction. The site is relatively flat with slopes slightly to the southwest at approximately 1% and ground cover of native weeds and grasses is sparse.

The property immediately surrounding the proposed development varies considerably. The residential subdivisions of Appleton Acres and Pennington are located northwest of the site while the Kenworth Trucking Facility lies to the southwest along the I-70 Frontage Road. One single family residence borders the proposed development in the northeast corner while the rest of the surrounding property is either vacant, undeveloped land or agricultural property. See Figure 1 for Surrounding Land Use and Zoning Map.

The proposed development will consist of a large worship facility with a seating capacity of 2200, a Family Life Center and Office, softball and volleyball fields, basketball and tennis courts, an outdoor stage, one single family residence to accommodate the maintenance person and family and approximately 950 parking spaces. See figure 2 for Uses and Parking Table.

### **2. Access**

Primary access to the development will be attained through two primary entrances located along the east and south sides of the development on 24 Road and the I-70 Frontage Road respectively. 24 Road is classified as a minor arterial street with a posted speed limit of 45 mph. I-70 Frontage Road is classified as a local commercial street with a posted speed limit of 40 mph. Site distance on both 24 Road and the I-70 Frontage Road at the proposed accesses to the development is in excess of 750' both left and right. The minimum safe sight distance requirements for these intersections are 610' to the left and 570' to the right for speeds of 45 mph.

This study will concentrate on the analysis of the intersection of 24 Road with the I-70 Frontage Road and the relationship of the proposed accesses to this intersection. See figure 3 for proposed site layout.

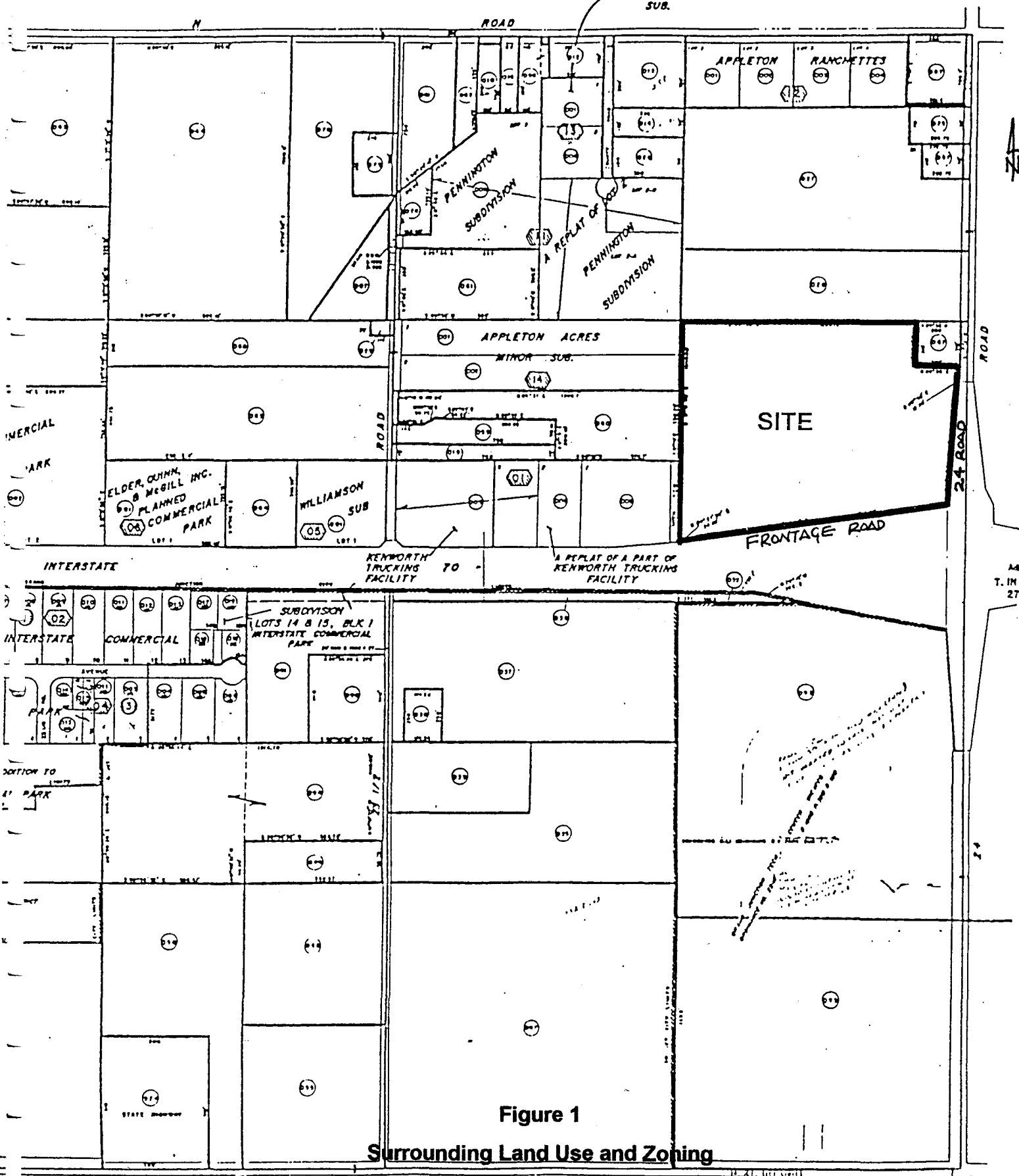


Figure 1

Surrounding Land Use and Zoning

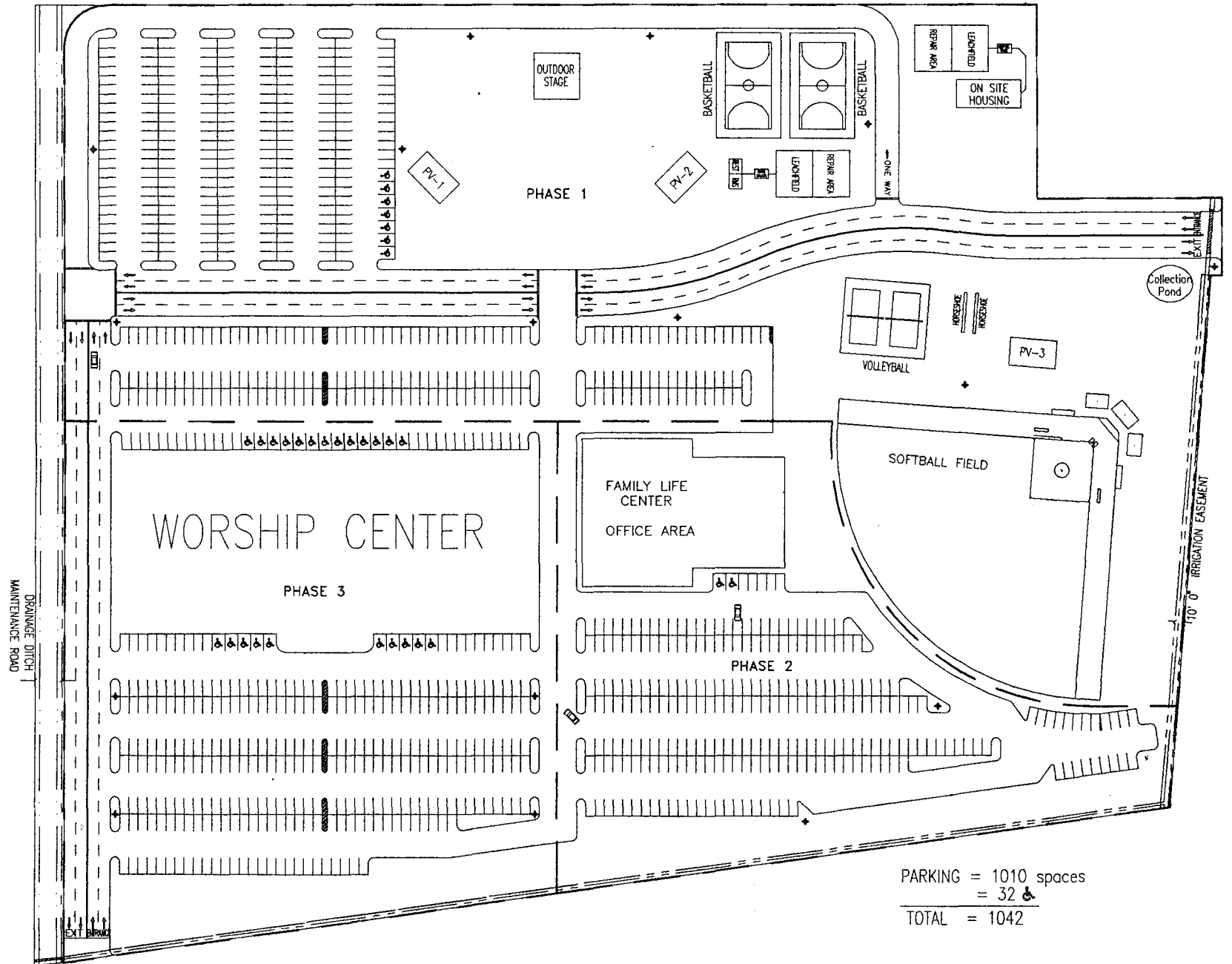


## USES AND PARKING TABLE

USES	CAPACITY	PARKING REQ'D.
WORSHIP CENTER	2200	734
SOFTBALL FIELD		50
OUTDOOR STAGE	1000	334
FAMILY CENTER	75	25

FIGURE 2

FIGURE 3



### 3. Purpose of Report

This report considers the concepts for access and the impacts of this proposed development on the current street transportation system in the general vicinity of the development and determines what improvements should be recommended to compensate for the additional traffic generated by this proposed development. Furthermore, this report may be used to assist Mesa County or City of Grand Junction Planners in determining future improvements of the transportation system in the area due to anticipated growth patterns.

Conditions or combinations of events other than those stated have not been analyzed and are not the responsibility of LANDesign or the engineer. Maintenance and construction of facilities are the responsibility of others.

## B. TRIP GENERATION & DESIGN HOUR VOLUMES

### 1. Trip Generation

USE & TRIP TABLE AT PEAK HOUR

USES	TIME IN SERVICE	CAPACITY	AVERAGE TRIP GENERATION RATES/PERSON	TOTAL TRIP GENERATED
Worship Center	Sun/8:30-12:30 Wed/6:30-7:30 Sat/6:30-7:30	2200-Sunday 1000-weekday	0.262 trips in 0.257 trips out	576 in Sunday 565 out Sunday 262 in weekday 257 out weekday
Family Center	Mon/6:00-9:00 Tu/6:00-9:00 Th/6:00-9:00	75	0.67 trips in	50 in
Office	M-F/9:00-5:00	15	0.2 trips in 1.0 trips out	3 in 15 out
Stage	1 weekday/mo. PM peak hour	1000	0.5 trips in	500 in
Ball Fields	Mon/6:00-9:00 Th/6:00-9:00	75	0.67 trips in	50 in

Trip generation rates were developed for the Worship Center from vehicle and attendance counts of the existing facility located at 2897 North Avenue on Sunday, 8/27/95. Counts at the existing facility indicate an average of 4.4 persons per vehicle and a peak flow between 10:00 and 11:00 AM with 157 vehicles in and 154 vehicles out. Direct line extrapolation from the existing 600 seat facility to the proposed 2200 seat facility generates 576 vehicles in and 565 vehicles out during peak hour Sunday morning. Estimates for the other facilities were derived from Church officials, the ITE manual and current City data obtained from the City Traffic Engineer.

**POSSIBLE MAXIMUM WEEKDAY  
SITE GENERATED TRAFFIC OPTIONS  
AT PM PEAK HOUR**

USE	TRIPS GENERATED		USE	TRIPS GENERATED	
	IN	OUT		IN	OUT
Stage	500		Worship Center	262	257
Office	3	15	Family Center	50	
			Office	3	15
			Ball Fields	50	
<b>Total</b>	<b>503</b>	<b>15</b>		<b>365</b>	<b>272</b>

It is the intent of church officials to restrict other activities when the stage facilities are in use. This study will analyze the trips generated by a weekday stage activity and a Sunday worship activity.

**2. Design Hour Volumes**

The peak rate of flow was estimated from data recorded at permanent counters within the city to be 13.4% of the ADT between the hours of 5:00 and 6:00 PM and obtained from Ken Simms of Mesa County Traffic Services. Furthermore, this data similarly concurs with the traffic count data provided by Dave Tontolli, the City Traffic Engineer on 24 Road north of G Road in May of 1995. The Sunday AM peak hour has been determined to be between the hours of 10:00 and 11:00 and the PM peak between 4:00 and 5:00 from City data on 24 Road in May, 1995.

**C. TRIP DISTRIBUTION**

Trip distribution generated from the site will be assumed as follows:

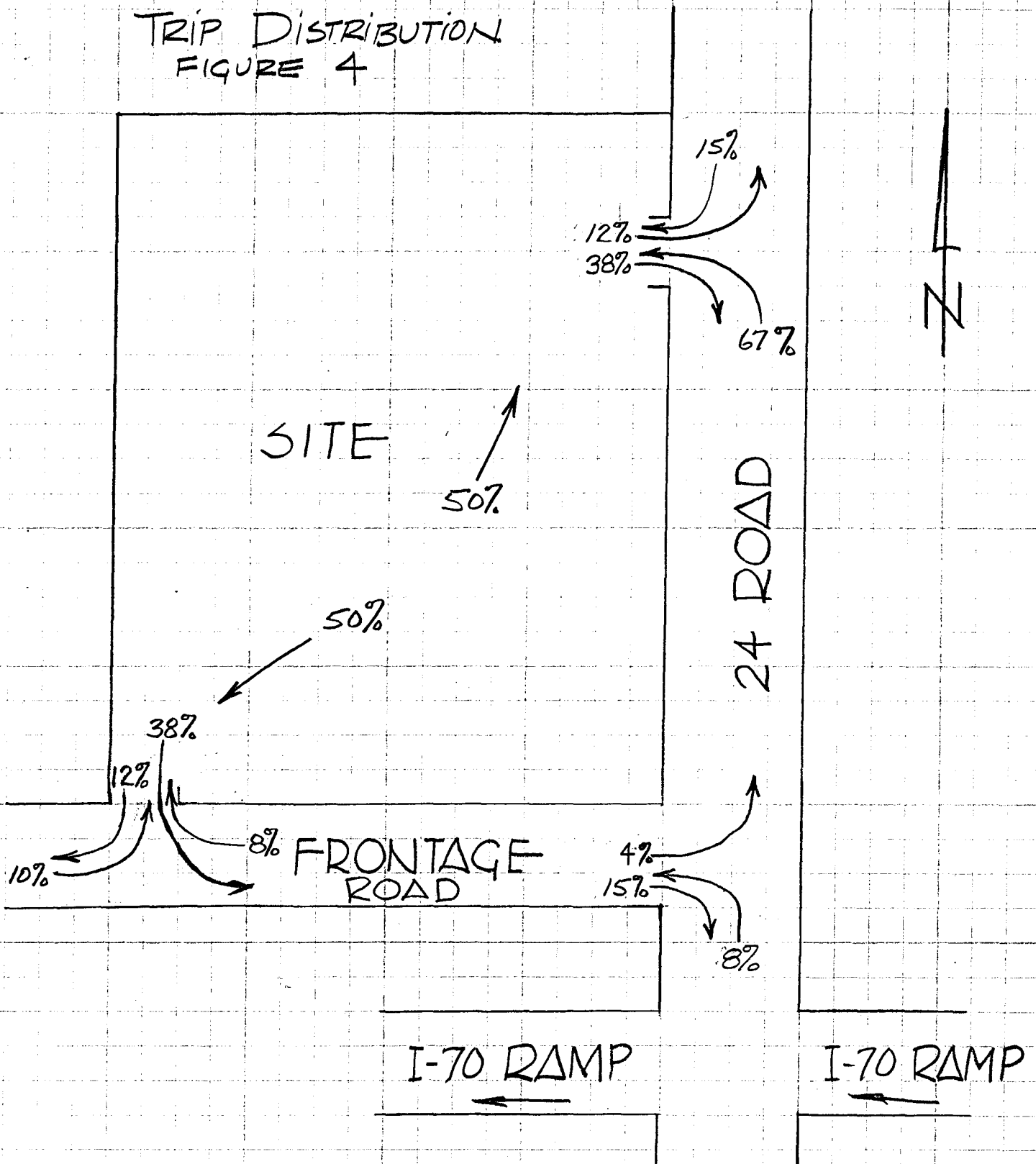
1. 50% of the generated traffic will exit the development from the access off of 24 Road and 50% will exit from the Frontage Road access while 82% of the traffic entering the site will access the 24 Road entrance and only 18% will access from the Frontage Road.
2. 38% of the total generated traffic exiting the site will turn east on the Frontage Road and another 38% will turn south on 24 Road. 12% will travel west on the Frontage Road and 12% will head north on 24 Road. 15% of the total traffic generated by the development will turn south on 24 Road from the intersection with the Frontage Road while 4% turn north.
3. 8% of the total traffic approaching the development will turn left onto the Frontage from 24 Road northbound to enter the site from the Frontage Road access while 10% will approach the site from the west on the Frontage Road. 67% of the total traffic entering the site will access the 24 Road entrance from the south while 15% will enter from the north. See Figure 4.

Details and Calculations

Project: FELLOWSHIP OF EXCITEMENT  
Date: 10/5/95

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TRIP DISTRIBUTION  
FIGURE 4



## **D. TRIP ASSIGNMENT**

Trip assignment figures have been calculated from traffic generated from the development using the trip distribution calculated above. Two different scenarios will be analyzed in this study. One will be for peak Sunday traffic and the other will be for peak weekday traffic. See Figures 5A and 5B respectively.

## **E. TRAFFIC VOLUMES**

### **1. Existing Volumes**

Traffic counts on 24 Road were recorded south of H road and north of G Road in June of 1995 and were obtained for use in this study from Ken Simms of Mesa County Traffic Services. An ADT of 3500 was recorded south of H Road and 5300 north of G Road for traffic in both directions. Using a peak rate of flow of 13.4% of the ADT, the PM peak hour rate would be estimated at 469 south of H Road and 711 north of G Road. Assuming an equal 50-50 split between the northbound and the southbound traffic, the flow would be 235 vehicles per hour southbound from H Road and 355 vehicles per hour northbound from G Road. However, due to the fact that I-70 siphons off a significant percentage of the traffic northbound from G Road before approaching the proposed development, the counts south of H Road will be a better gauge of the existing traffic impacting the site and therefore will be used for this study.

Additional counts were performed by LANDesign at the intersection of the Frontage Road and 24 Road on Tuesday July 25, 1995 and recorded 253 vehicles per hour southbound and 149 vehicles per hour northbound during the PM peak hour. This correlates closely to the figures provided by the County and confirms the accuracy of the numbers to be used in this study.

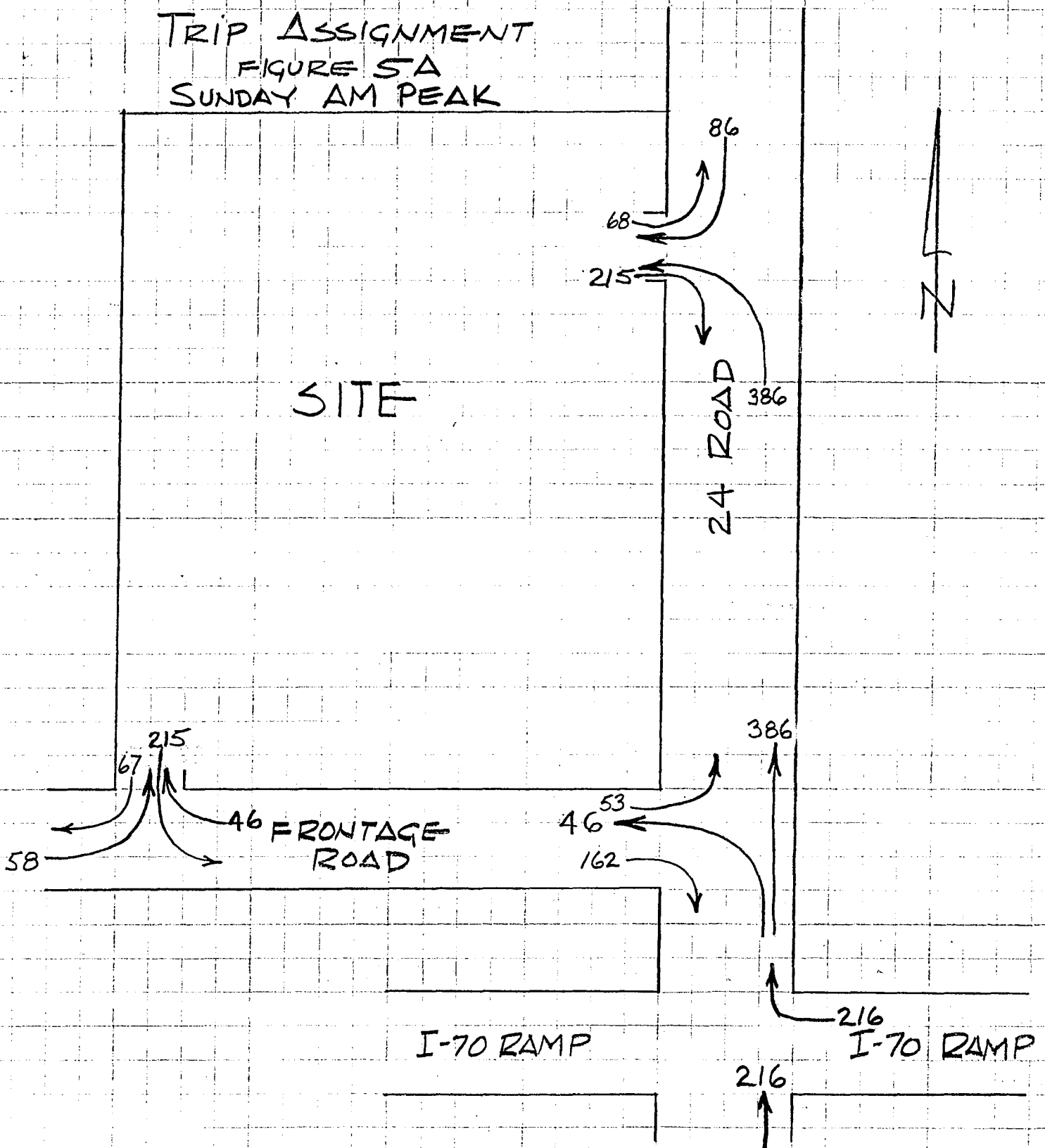
The proposed Church development will have many diverse activities corresponding closely to the PM peak weekday hour, however, the greatest number of generated traffic will come during Sunday morning between 10:00 and 11:00. To accurately determine the impact of this development on the adjacent roads it would be necessary to know the approximate peak flows on a Sunday. Data of this nature has been obtained from Dave Tontolli, Traffic Engineer for the City of Grand Junction. Counts were taken on Sunday May 28, 1995 on 24 Road north of G Road. The Sunday ADT was 3566 vehicles with 52% southbound and 48% northbound. Peak hours were determined to be between 10:00 and 11:00 in the AM and between 4:00 and 5:00 in the PM with an AM peak flow of 117 vph and a PM peak flow of 141 vph. In comparison to the weekday ADT in the same location, the Sunday flow is 67% of the weekday flow. Consequently this study will use 67% of the peak weekday flow rate of 235 vph or 158 vph.

Details and Calculations

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## TRIP ASSIGNMENT FIGURE 5A SUNDAY AM PEAK

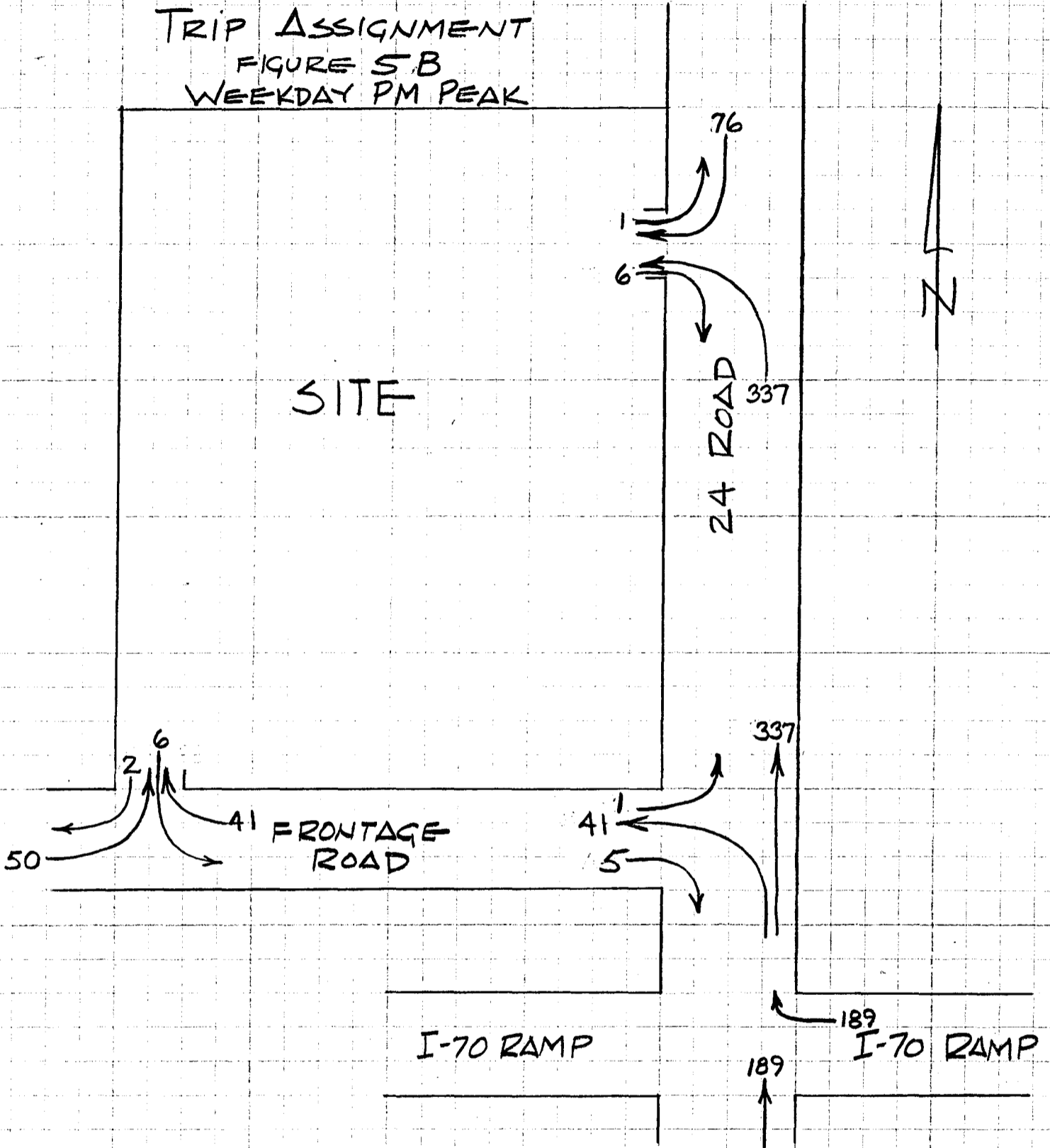


Details and Calculations

Project: FELLOWSHIP OF EXCITEMENT  
Date: 10/5/95

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TRIP ASSIGNMENT  
FIGURE 5.B  
WEEKDAY PM PEAK





According to the counts performed by LANDesign, 26% of all traffic heading north on 24 Road from G Road enters I-70 before arriving at the study site. This corresponds closely to the difference in the ADT's provided by Mesa County Traffic Services. This study assumes that a total 235 vph traveling northbound on 24 Road at the weekday PM peak hour continues beyond the I-70 entrance ramp and impacts the site. Referring to the count performed by LANDesign, of that 235 vehicles, 15% or 36 vehicles turns west on the frontage road, 0.42% or 1 vehicle enters 24 Road northbound from the frontage road and 19% or 45 vehicles enter 24 Road northbound from the I-70 exit ramp. Of the 235 vehicles heading southbound on 24 Road, 1% or 3 vehicles turn west on the frontage road and 11.5% or 27 vehicles enter the westbound entrance ramp to I-70. A peak hourly volume of 69 vehicles entering 24 Road southbound from the frontage road was recorded by LANDesign. These numbers will be reduced to 67% of the weekday PM peak hourly rate for Sunday peak. See Figures 6A and 6B.

## **2. Developed Volumes**

Two different scenarios exist for traffic analysis due to the development of this site. Site generated traffic has been added to the existing flows for both the Sunday AM peak and the weekday PM peak. See figures 7A and 7B respectively for total volumes at the site.

## **F. CAPACITY ANALYSIS**

The Highway Capacity Software (HCS) release 2 was utilized for analysis and determination of the level of service for the intersection of 24 Road and the I-70 Frontage Road and for the intersection of 24 Road and the east access to the site due to the development of the proposed site.

By analyzing the condition of the intersection for both scenarios during the peak hours this study was able to conclude that the worst case situation was a level of service of 'C' experienced by the left turn movements of eastbound traffic on the frontage road. This level of service is regardless of the quantity of traffic attempting a left turn. In fact traffic counts indicate very few vehicles attempting to make that movement, however, this study will assume that 4% of the total generated traffic from the site, which may be up to 68 vehicles per hour, will attempt that movement. The level of service does not change whether there are 70 vehicles or 1 vehicle per hour. All other turning movements experienced a level of service of 'A'.

## **G. CONCLUSIONS and RECOMMENDATIONS**

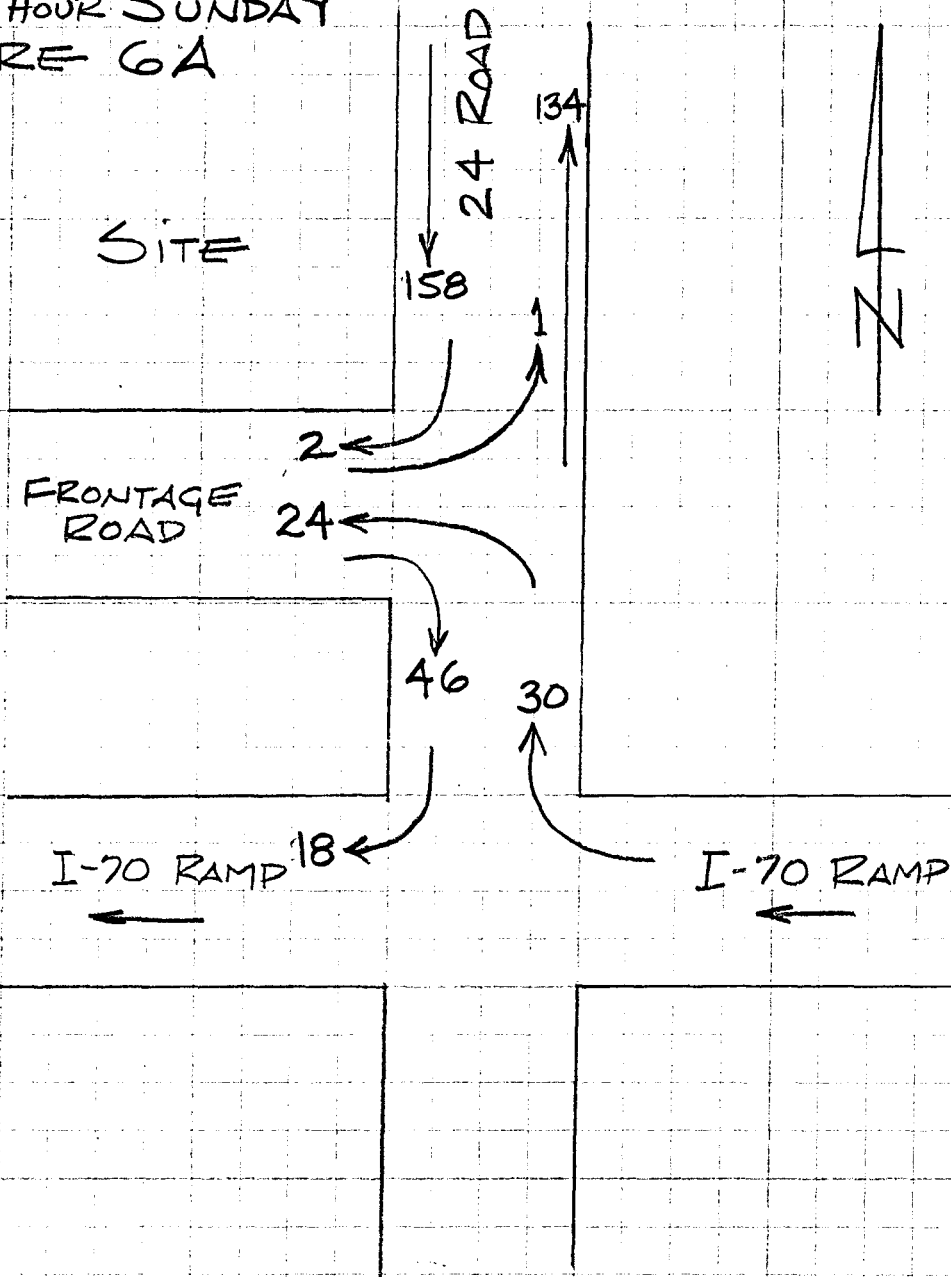
This study concludes that at the intersection of 24 Road and the I-70 Frontage Road an exclusive left turn lane will be necessary to maintain a smooth flow of traffic and a level of service of 'A' to the right turn movement. An exclusive left turn lane into the proposed east access of the development from 24 Road will also be required to maintain minimum delays. See worksheets located in the appendix.

Details and Calculations

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PRE-DEVELOPMENT  
PEAK HOURLY VOLUMES  
AM PEAK HOUR SUNDAY  
FIGURE 6A

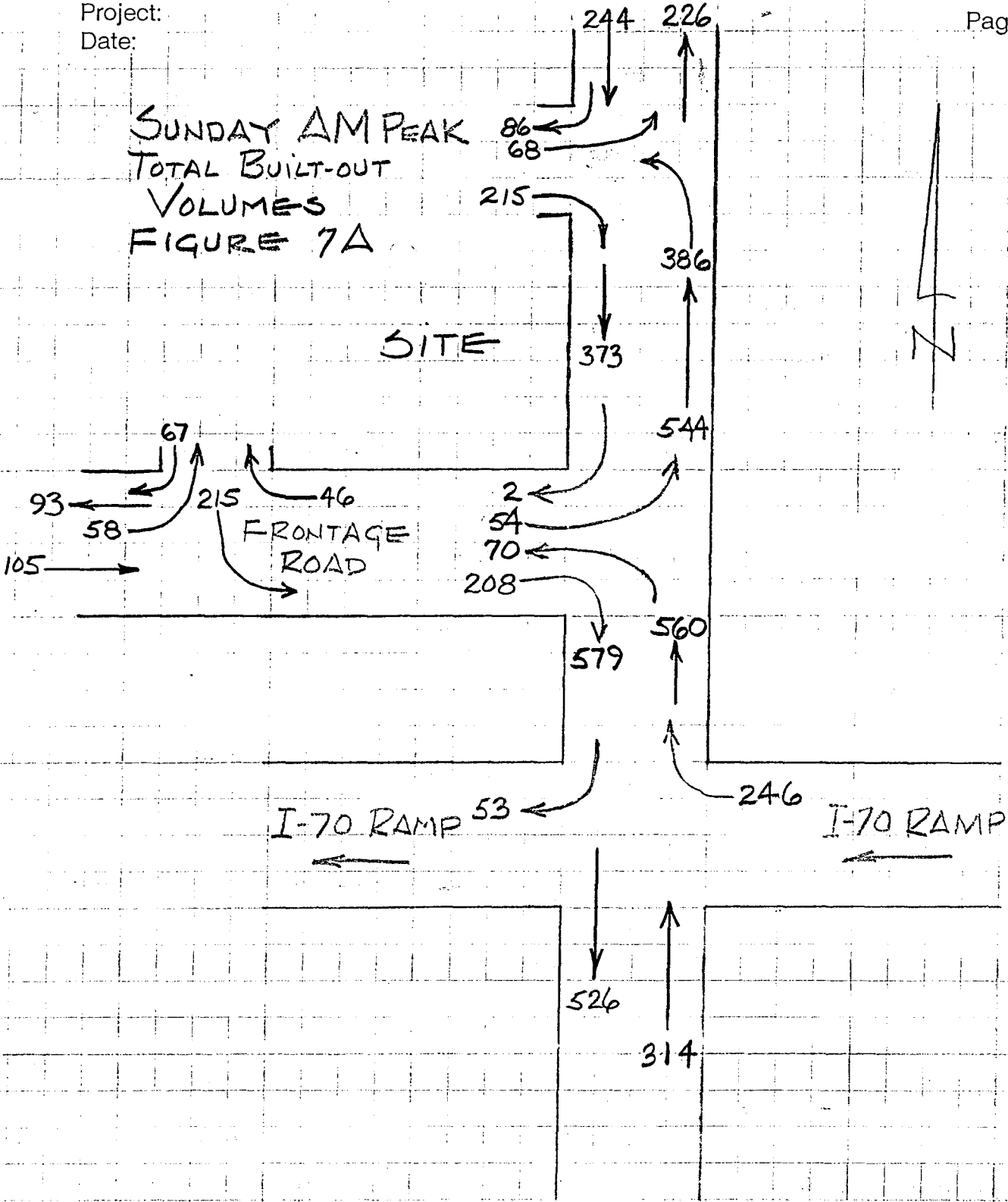


Details and Calculations

Project:  
Date:

Page:

SUNDAY AM PEAK  
TOTAL BUILT-OUT  
VOLUMES  
FIGURE 7A

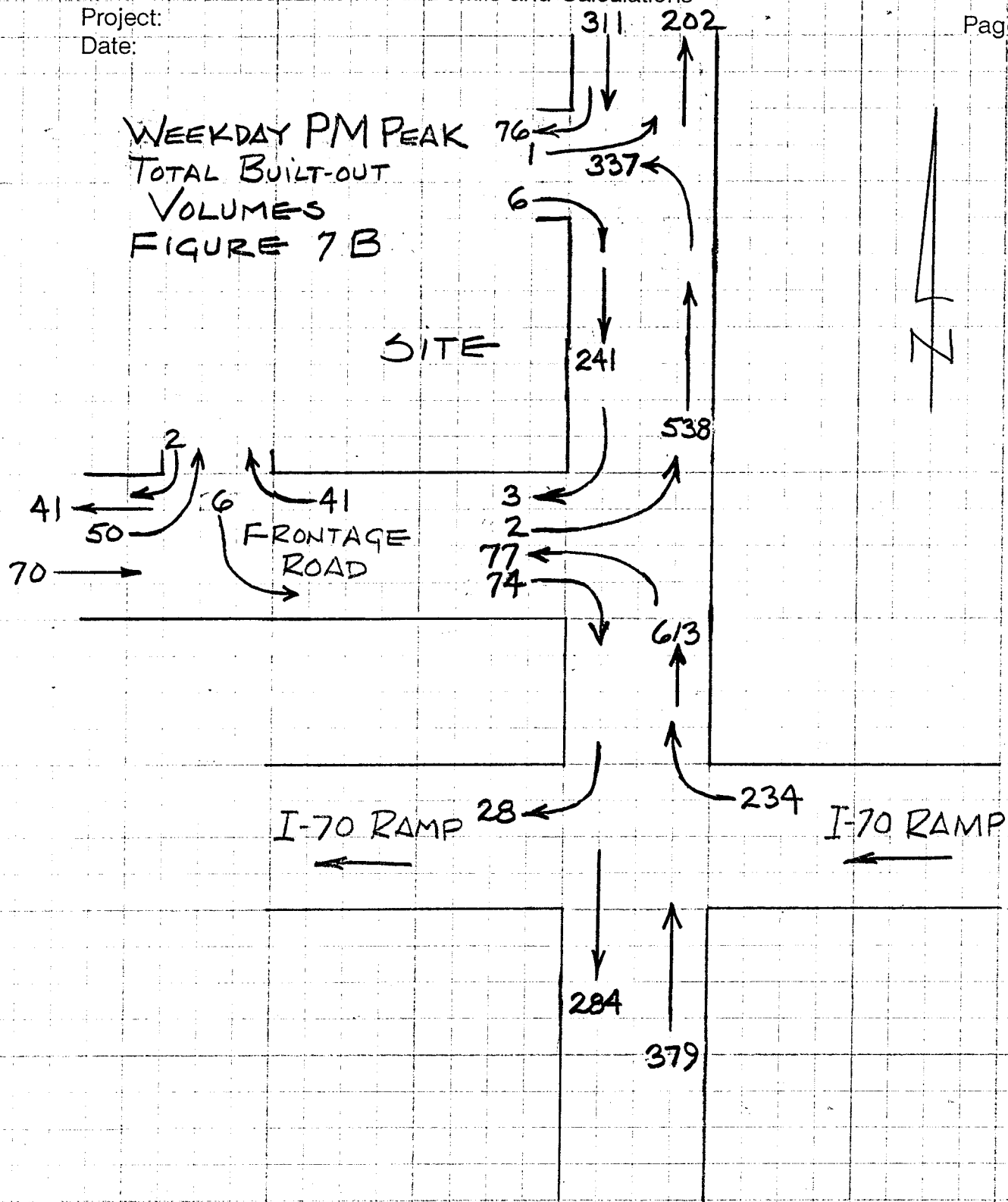


Details and Calculations

Project:  
Date:

Page:

WEEKDAY PM PEAK  
TOTAL BUILT-OUT  
VOLUMES  
FIGURE 7B



**APPENDIX**

File Name ..... SUNDAY1.HC0  
 Streets: (N-S) 24 ROAD (E-W) FRONTAGE ROAD  
 Major Street Direction.... NS  
 Length of Time Analyzed... 60 (min)  
 Analyst..... JPC  
 Date of Analysis..... 10/13/95  
 Other Information..... SUNDAY AM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0>	1	0	0	1<	0	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	70	490		371	2		54		208			
PHF	.95	.95		.95	.95		.95		.95			
Grade		-2		2				4			0	
MC's (%)	0	0		0	0		0		0			
SU/RV's (%)	0	0		0	0		0		0			
CV's (%)	0	0		0	0		0		0			
PCE's	1	1		1.4	1.4		1.7		1.7			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

WorkSheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		372
Potential Capacity: (pcph)		897
Movement Capacity: (pcph)		897
Prob. of Queue-free State:		0.59
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		373
Potential Capacity: (pcph)		1139
Movement Capacity: (pcph)		1139
Prob. of Queue-free State:		0.94
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-free State:		0.91
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		932
Potential Capacity: (pcph)		306
Major LT, Minor TH		
Impedance Factor:		0.91
Adjusted Impedance Factor:		0.91
Capacity Adjustment Factor due to Impeding Movements		0.91
Movement Capacity: (pcph)		277

Intersection Performance Summary

Movement	FlowRate v(pcph)	MoveCap Cm(pcph)	SharedCap Csh(pcph)	Avg.Total Delay	LOS	Delay By App
EB L	97	277		20.0	C	
EB R	372	897		6.8	B	9.6
NB L	74	1139		3.4	A	0.4

Intersection Delay = 2.3



Center For Microcomputers In Transportation

File Name ..... WEEKDAY1.HCO  
 Streets: (N-S) 24 ROAD (E-W) FRONTAGE ROAD  
 Major Street Direction.... NS  
 Length of Time Analyzed... 60 (min)  
 Analyst..... JPC  
 Date of Analysis..... 10/13/95  
 Other Information..... WEEKDAY PM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0>	1	0	0	1<	0	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	77	536		238	3		2		74			
PHF	.95	.95		.95	.95		.95		.95			
Grade		-2		2				4			0	
MC's (%)	0	0		0	0		0		0			
SU/RV's (%)	0	0		0	0		0		0			
CV's (%)	0	0		0	0		0		0			
PCE's	1	1		1.4	1.4		1.7		1.7			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

WorkSheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		240
Potential Capacity: (pcph)		1046
Movement Capacity: (pcph)		1046
Prob. of Queue-free State:		0.87
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		241
Potential Capacity: (pcph)		1316
Movement Capacity: (pcph)		1316
Prob. of Queue-free State:		0.94
TH Saturation Flow Rate: (pcphpl)		1700
RT Saturation Flow Rate: (pcphpl)		
Major LT Shared Lane Prob. of Queue-free State:		0.91
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		852
Potential Capacity: (pcph)		340
Major LT, Minor TH		
Impedance Factor:		0.91
Adjusted Impedance Factor:		0.91
Capacity Adjustment Factor due to Impeding Movements		0.91
Movement Capacity: (pcph)		309

\*\*\*\*\*

Intersection Performance Summary

Movement	FlowRate v(pcph)	MoveCap Cm(pcph)	SharedCap Csh(pcph)	Avg.Total Delay	LOS	Delay By App
EB L	3	309		11.8	C	
EB R	133	1046		3.9	A	4.1
NB L	81	1316		2.9	A	0.4

Intersection Delay = 0.6

Center For Microcomputers In Transportation

File Name ..... SUNDAY2.HC0  
 Streets: (N-S) 24 ROAD (E-W) EAST ENTRANCE  
 Major Street Direction.... NS  
 Length of Time Analyzed... 60 (min)  
 Analyst..... JPC  
 Date of Analysis..... 10/13/95  
 Other Information..... SUNDAY AM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1<	0	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	386	158			158	86	68		215			
PHF	.95	.95			.95	.95	.95		.95			
Grade		0			0			0			0	
MC's (%)	0	0			0	0	0		0			
SU/RV's (%)	0	0			0	0	0		0			
CV's (%)	0	0			0	0	0		0			
PCE's	1.1	1.1			1.1	1.1	1.1		1.1			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

WorkSheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		201
Potential Capacity: (pcph)		1095
Movement Capacity: (pcph)		1095
Prob. of Queue-free State:		0.77
-----		
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		244
Potential Capacity: (pcph)		1312
Movement Capacity: (pcph)		1312
Prob. of Queue-free State:		0.66
-----		
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		745
Potential Capacity: (pcph)		392
Major LT, Minor TH		
Impedance Factor:		0.66
Adjusted Impedance Factor:		0.66
Capacity Adjustment Factor		
due to Impeding Movements		0.66
Movement Capacity: (pcph)		258
-----		

\*\*\*\*\*

File Name ..... WEEKDAY2.HCO  
 Streets: (N-S) 24 ROAD (E-W) EAST ENTRANCE  
 Major Street Direction.... NS  
 Length of Time Analyzed... 60 (min)  
 Analyst..... JPC  
 Date of Analysis..... 10/13/95  
 Other Information..... WEEKDAY PM PEAK

Two-way Stop-controlled Intersection

	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	0	1	0	1	0	0	0
Stop/Yield			N			N						
Volumes	337	201		235	76		1		6			
PHF	.95	.95		.95	.95		.95		.95			
Grade		0		0				0			0	
MC's (%)	0	0		0	0		0		0			
SU/RV's (%)	0	0		0	0		0		0			
CV's (%)	0	0		0	0		0		0			
PCE's	1.1	1.1		1.1	1.1		1.1		1.1			

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

\*\*\*\*\*

WorkSheet for TWSC Intersection

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)		273
Potential Capacity: (pcph)		1007
Movement Capacity: (pcph)		1007
Prob. of Queue-free State:		0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)		311
Potential Capacity: (pcph)		1219
Movement Capacity: (pcph)		1219
Prob. of Queue-free State:		0.68
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)		811
Potential Capacity: (pcph)		359
Major LT, Minor TH		
Impedance Factor:		0.68
Adjusted Impedance Factor:		0.68
Capacity Adjustment Factor		
due to Impeding Movements		0.68
Movement Capacity: (pcph)		244

\*\*\*\*\*

Intersection Performance Summary

Movement	FlowRate v(pcph)	MoveCap Cm(pcph)	SharedCap Csh(pcph)	Avg.Total Delay	LOS	Delay By App
EB L	1	244		14.8	C	
EB R	7	1007		3.6	A	5.2
NB L	391	1219		4.3	A	2.7

Intersection Delay = 1.8



**TRAFFIC COUNTS**

Common Name : 24 ROAD  
 Counter location : SOUTH OF H RD.  
 Comments :  
 Interval : Single  
 Width of roadway : 22  
 Number of lanes : 2  
 Start Date : 06/28/95  
 Start Time : 00:00  
 Days to count : 2  
 Type of count : Vehicle  
 Rural or Urban : Rural  
 District : Residential  
 Road classification : Collector

Date of action	Counter Reading	Daily Total	Daily Factor
Wed June 28, 1995	0		
Thu June 29, 1995	3,672	1,836	
Fri June 30, 1995	6,988	1,658	
	ADT	3,500	
	Adjusted ADT	No daily adjustment factor	
	AADT	No monthly adjustment factor	
	Estimated PHV	180	
	Estimated DHV	260	
	85th Percintile	00.0 MPH	

Common Name : 24 ROAD  
 Counter location : NORTH OF G RD.  
 Comments : Sta: 710 Id: 24000000001 D0411003.PRN.  
 Interval : Single  
 Width of roadway : 22  
 Number of lanes : 2  
 Start Date : 04/10/95  
 Start Time : 00:00  
 Days to count : 3  
 Type of count : Classify  
 Rural or Urban : Rural  
 District : Residential  
 Road classification : Collector

Date of action	Counter Reading	Daily Total	Daily Factor
Mon April 10, 1995	0		
Tue April 11, 1995	5,214	5,214	
Wed April 12, 1995	10,510	5,296	
Thu April 13, 1995	16,042	5,532	
	ADT	5,300	
	Adjusted ADT	No daily adjustment factor	
	AADT	No monthly adjustment factor	
	Estimated PHV	270	
	Estimated DHV	400	
	85th Percintile	00.0 MPH	

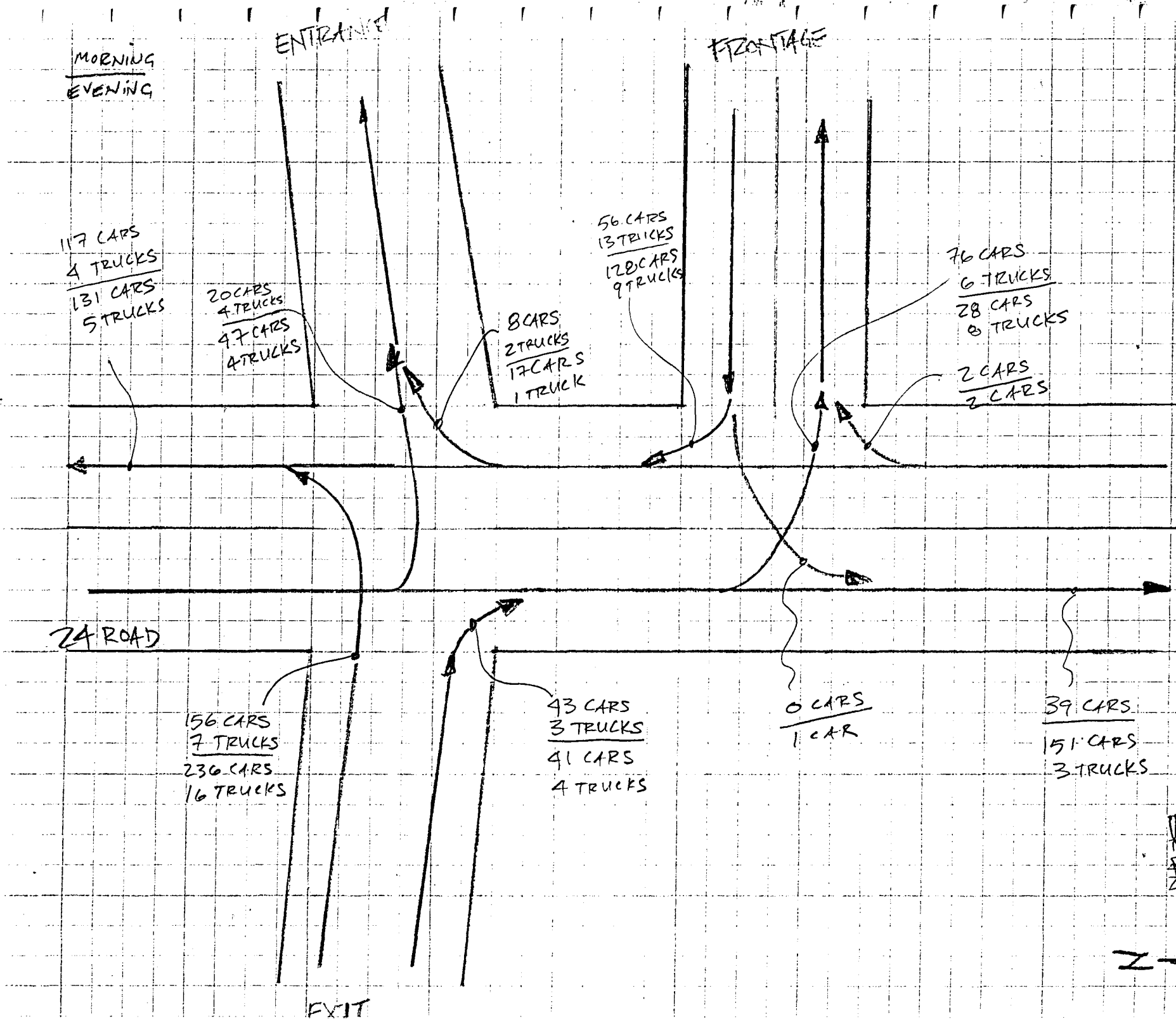
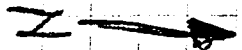
FELLOWSHIP CHURCH

7/25/95

TRAFFIC COUNT

24 1/2 - 1-70, 1-70 FRONTAGE

BRANCH



MORNING  
EVENING

ENTRANCE

FRONTAGE

24 ROAD

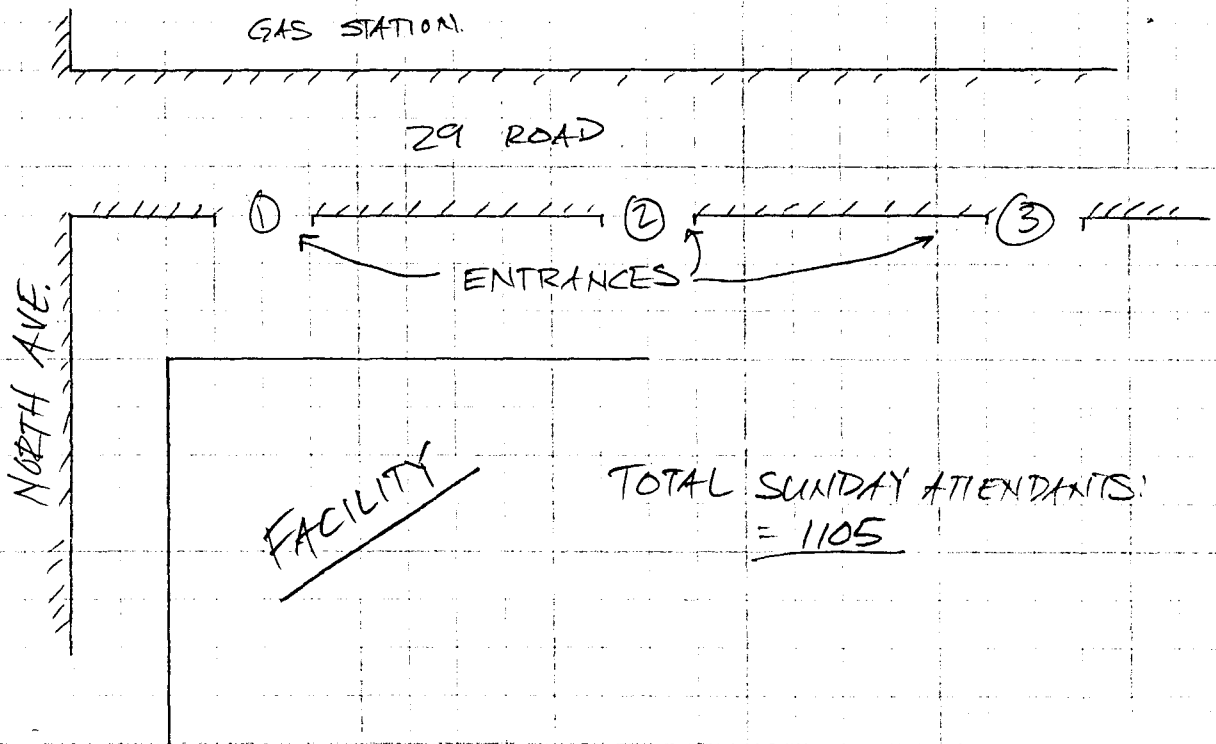
EXIT

1:30

# TRAFFIC COUNTS

N

## EXISTING FACILITY FOR: FELLOWSHIP OF EXCITEMENT



8:30-8:45

① IN = 9  
OUT = 0

② IN = 20  
OUT = 1

③ IN = 7  
OUT = 0

8:45-9:00

① IN = 27  
OUT = 0

② IN = 62  
OUT = 2

③ IN = 49  
OUT = 0

PEAK FLOW IN.  
138 (15min)

9:00-9:15

① IN = 7  
OUT = 0

② IN = 20  
OUT = 2

③ IN = 11  
OUT = 1

9:15-9:30

① IN = 7  
OUT = 2

② IN = 10  
OUT = 4

③ IN = 3  
OUT = 0

IN = 232

OUT = 12

9:30 - 9:45

① IN = 3  
OUT = 0

② IN = 6  
OUT = 5

③ IN = 5  
OUT = 3

9:45 - 10:00

① IN = 2  
OUT = 0

② IN = 2  
OUT = 1

③ IN = 5  
OUT = 2

10:00 - 10:15

① IN = 1  
OUT = 0

② IN = 2  
OUT = 4

③ IN = 5  
OUT = 3

10:15 - 10:30

① IN = 1  
OUT = 11

② IN = 4  
OUT = 15

③ IN = 2  
OUT = 13

10:30 - 10:45

① IN = 15  
OUT = 6

② IN = 28  
OUT = 48

③ IN = 10  
OUT = 40

10-11  
IN = 157 cars/hr  
OUT = 159 cars/hr.

10:45 - 11:00

① IN = 24  
OUT = 1

② IN = 44  
OUT = 7

③ IN = 21  
OUT = 5

11:00 - 11:15

① IN = 5  
OUT = 1

② IN = 20  
OUT = 4

③ IN = 7  
OUT = 5

11:15 - 11:30

① IN = 0  
OUT = 0

② IN = 4  
OUT = 5

③ IN = 0  
OUT = 4

IN = 208

OUT = 183

11:30 - 11:45

① IN = 2  
OUT = 4

② IN = 2  
OUT = 28

③ IN = 0  
OUT = 5

11:45 - 12:00

① IN = 1  
OUT = 0

② IN = 2  
OUT = 3

③ IN = 0  
OUT = 0

12:00 - 12:15

① IN = 0  
OUT = 0

② IN = 1  
OUT = 2

③ IN = 0  
OUT = 0

12:15 - 12:30

① IN = 0  
OUT = 8

② IN = 1  
OUT = 18

③ IN = 0  
OUT = 15

12-1  
IN = 7 cars/hr  
OUT = 252 cars/hr.

12:30 - 12:45

① IN = 2  
OUT = 14

② IN = 1  
OUT = 88

③ IN = 2  
OUT = 90

PEAK FLOW OUT  
192 (15min)

12:45 - 1:00

① IN = 0  
OUT = 5

② IN = 0  
OUT = 10

③ IN = 0  
OUT = 2

IN = 14      OUT = 292

(252/4)

$$PHF = \frac{252}{4(192)} = .33$$

TOTAL IN = 454  
OUT = 487

$$\frac{\text{TOTAL ATTENDANCE}}{\text{TOTAL CARS}} = \frac{1105}{252} = 4.38 \text{ PERSONS/VEHICLE}$$

## MEMO

To: Brian Hart, LANDesign  
Cc: Jody Kliska, City Development Engineer  
From: Michael T. Drollinger, Community Development  
Re: Traffic Study  
Fellowship of Excitement - CUP-95-136  
Date: September 25, 1995

Jody Kliska has reviewed your traffic study for this project and offer the comments listed below. The outstanding issues must be addressed prior to the hearing next week.

1. Please clarify how the trip generation rate was derived from the counts at the existing facility. I would like to see the rate tied to the square footage of the facility rather than the City's parking requirement. Some questions which arise are: how many services are conducted on Sunday presently, how many are anticipated at the new facility, what is the seating capacity and square footage of the existing facility compared to the new one?
2. The Uses and Parking Table is good. Please show when during the week each use is anticipated to occur. It may be possible to share parking, rather than provide excessive parking and paved area.
3. The generated traffic does not appear to be added correctly to the existing traffic in Figure 7. Attached is what I came up with based on the numbers provided. The analysis needs to be done on the corrected numbers and I think will produce very different results.
4. A plan showing the dimensions of the roads and intersections with pavement width and intersection and ramp spacing distances is required.
5. It appears a left turn lane both into the site and onto the frontage road is required. The City TEDS criteria should have been referenced and noted in the study.
6. A table or diagram within the text of the report, rather than as an appendix, shall be provided which would make the report more readable.
7. A copy of this study has been forwarded to CDOT for their review and comment. It appears the frontage road is in the state right of way and access to it is under state jurisdiction.

Please contact this office to discuss a resubmittal timetable.



**PRELIMINARY DRAINAGE REPORT FOR:  
FELLOWSHIP OF EXCITEMENT CHURCH**

July, 1995

**Prepared For:**  
Pastor Daniel Hooper  
2897 North Ave.  
Grand Junction, Colorado 81501  
(970) 243-3321

**Prepared By:**  
**LANDesign LTD.**  
200 North 6th Street, Grand Junction, Colorado 81501  
(303) 245-4099

Prepared By: Brian C. Hart  
Brian C. Hart

"I hereby certify that this report for the preliminary drainage design of the Fellowship of Excitement Church was prepared under my direct supervision."

Reviewed By: Philip M. Hart  
Philip M. Hart, P.E.  
State of Colorado, #19346

## **I. General Location and Description:**

The Fellowship of Excitement Church development contains approximately 25.6 acres. The project site is located just north of the I-70 frontage road and just west of 24 Road. The property is described as, all of that portion of the SE 1/4 NE1/4 of Section 32, Township 1 North, Range 1 West of the Ute Meridian, lying North of I-70 and West of 24 Road.

The site is currently undergoing construction of a softball field. This is part of the overall development plan of the church. Topography of the subject property is considered to be flat in nature and slopes towards the southwest at an average rate of 1 percent.

The surrounding land use in the vicinity of the project is considered to be of low density. Pennington Subdivision and Appleton Acres Minor Subdivision are located to the northwest of the subject property. A Kenworth Trucking facility is located approximately a half mile to the west and vacant land borders the property on the west and north. Vacant land is located east of the property across 24 Road and a single family dwelling is located to the northeast of the property.

The proposal calls for the ultimate development of a church auditorium that will seat 2200 people.

## **II. Drainage Basins and Sub-Basins**

### **A. Major Basin Description:**

The Fellowship of Excitement Church property is bounded to the south by the I-70 frontage road, to the west by vacant land, to the east by 24 Road and to the north by vacant land.

As defined in the detailed drainage study entitled, "Flood Hazard Information, Colorado River and Tributaries" (Reference 3, Exhibit 2.0), no part of the site would be flooded during the 100 and 500 year storm events. The property is described as Zone X and will not be subject to inundation.

Irrigation facilities include a small irrigation ditch that runs along the east and south borders of the site towards the Canning Factory drain which is located on the west border of the site. The small irrigation ditch is currently unused.

### **B. Sub-Basin Description:**

The subject property includes 25.6 acres and historically drains in a sheetflow fashion from the northeast to the southwest at approximately 1 percent slope, discharging into the Canning Factory Drain.

## **III. Development Criteria Reference and Constraints**

#### **A. Regulations:**

The "Stormwater Management Manual, City of Grand Junction, Colorado" (Reference 1) and the "Mesa County Storm Drainage Criteria Manual " (Reference 2) were used as the basis for analysis and facility design.

#### **B. Hydrological Criteria:**

As the project is a single non-profit site development containing approximately 25.6 acres, the "Rational Method" was used to calculate historic and developed flow rates. The minor storm is the 2 year frequency rainfall event and the major storm is the 100 year frequency rainfall event. Preliminary calculations on the size of the detention that will be needed for this project have been based on the major storm event.

Runoff Coefficients to be used in the computations are based on the most recent City of Grand Junction criteria as defined in Reference 1 and shown on Exhibit 5.0. The Soil Conservation Service defines the site soils as being (Rf) Ravola very fine sandy loam, 0 to 2 percent slopes, and falls within Hydrologic Soil Group "B" (Reference 4, Exhibit 3.0). Based on this information, a "C" value of 0.22 was used for the minor event and 0.28 was used for the major event under historic conditions. A "C" value of 0.74 was used for the minor event and 0.77 was used for the major event under developed conditions. Exhibits 5.0 and 6.0 show the basis for these values.

As the project is within the Grand Junction area, the Intensity Duration Frequency Curve shown on Exhibit 7.0 will be used for the design and analysis. Preliminary detention requirement calculations are located on Exhibit 18.0 and the location of the pond on the site is shown on Exhibit 4.0.

Times of Concentration shall be calculated based on the computer program Flowmaster (Reference 5, Exhibit 15.0).

### **IV. Drainage Facility Design**

#### **A. General Concept:**

Based on the proposed land use plan, significant changes to the existing drainage patterns are not anticipated. The proposed grading plan and will direct the runoff flow to the southwest corner of the site. A detention pond will be located at this point to regulate the runoff flow discharging away from the site. Ultimately the flow will discharge into the Canning Factory Drain.

#### **B. Specific Details**

This drainage study outlines the historic flow from the project site (Exhibits 11.0 and 13.0). This study also outlines preliminary calculations for the developed flow and required detention size (Exhibits 12.0 and 14.0). The flow on site will be directed via

parking lot grading and general grading plan towards the southwest corner of the site. Here a detention pond will intercept and collect the flow, and eventually discharge the runoff into the Canning Factory Drain.

#### **V. Conclusion**

The final drainage report will be prepared to address site specific drainage concerns in accordance with the City of Grand Junction. The final report will also show a better representation of the developed conditions, including routing and detention size and design.

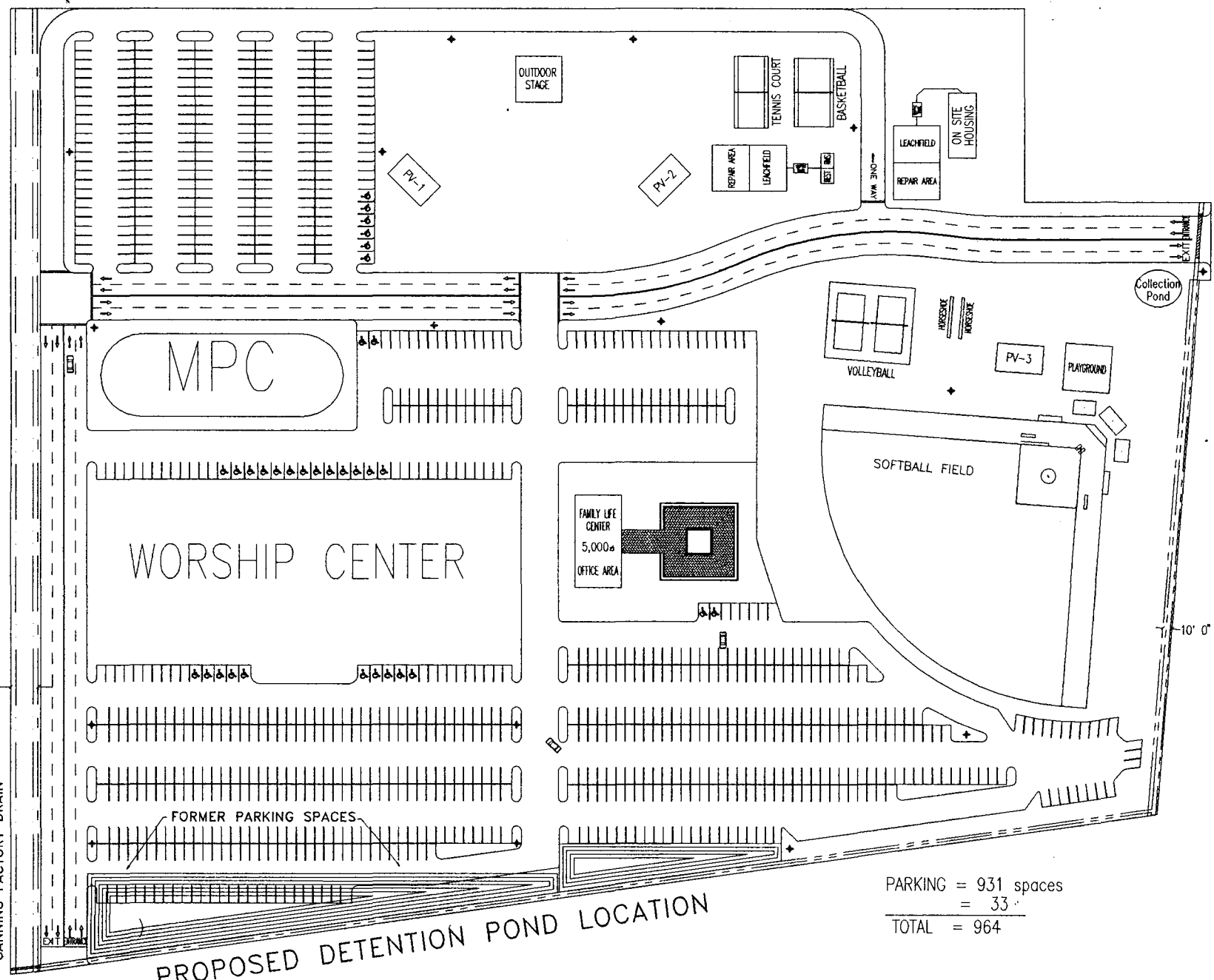
The proposed drainage improvements meet the minimum requirements as defined by the "Stormwater Management Manual, City of Grand Junction".

## **VI. References**

1. Stormwater Management Manual (SWMM), City of Grand Junction, Colorado, Department of Public Works, June 1994.
2. Mesa County Storm Drainage Criteria Manual, Final Draft, Mesa County, Colorado, March 1992.
3. Flood Insurance Rate Map, Mesa County, Colorado, (Unincorporated Areas), Community Panel Number 080115 0460 B, Federal Emergency Management Agency, Map revised July 15th, 1992.
4. Soil Survey, Mesa County Area, Colorado, U.S. Department of Agriculture, issued November, 1955.
5. Flowmaster I, Version 3.16, Haestad Methods, Inc. Copyright 1990.

## APPENDIX

**EXHIBIT  
4.0**



PARKING	=	931 spaces
	=	33
<b>TOTAL</b>	=	<b>964</b>



EXHIBIT 5.0

LAND USE OR SURFACE CHARACTERISTICS	SCS HYDROLOGIC SOIL GROUP (SEE APPENDIX "C" FOR DESCRIPTIONS)											
	A			B			C			D		
	0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+
<b>UNDEVELOPED AREAS</b>												
Bare ground	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .40 - .48	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Cultivated/Agricultural	.08 - .18 .14 - .24	.13 - .23 .18 - .28	.16 - .26 .22 - .32	.11 - .19 .16 - .24	.15 - .23 .21 - .29	.21 - .29 .28 - .36	.14 - .22 .20 - .28	.19 - .27 .25 - .33	.26 - .34 .34 - .42	.18 - .26 .24 - .32	.23 - .31 .29 - .37	.31 - .39 .41 - .49
Pasture	.12 - .22 .15 - .25	.20 - .30 .25 - .35	.30 - .40 .37 - .47	.18 - .26 .23 - .31	.28 - .36 .34 - .42	.37 - .45 .45 - .53	.24 - .32 .30 - .38	.34 - .42 .42 - .50	.44 - .52 .52 - .60	.30 - .38 .37 - .45	.40 - .48 .50 - .58	.50 - .58 .62 - .70
Meadow	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .44 - .52	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Forest	.05 - .15 .08 - .18	.08 - .18 .11 - .21	.11 - .21 .14 - .24	.08 - .16 .10 - .18	.11 - .19 .14 - .22	.14 - .22 .18 - .26	.10 - .18 .12 - .20	.13 - .21 .16 - .24	.16 - .24 .20 - .28	.12 - .20 .15 - .23	.16 - .24 .20 - .28	.20 - .28 .25 - .33
<b>RESIDENTIAL AREAS</b>												
1/8 acre per unit	.40 - .50 .48 - .58	.43 - .53 .52 - .62	.46 - .56 .55 - .65	.42 - .50 .50 - .58	.45 - .53 .54 - .62	.50 - .58 .59 - .67	.45 - .53 .53 - .61	.48 - .56 .57 - .65	.53 - .61 .64 - .72	.48 - .56 .56 - .64	.51 - .59 .60 - .68	.57 - .65 .69 - .77
1/4 acre per unit	.27 - .37 .35 - .45	.31 - .41 .39 - .49	.34 - .44 .42 - .52	.29 - .37 .38 - .46	.34 - .42 .42 - .50	.38 - .46 .47 - .55	.32 - .40 .41 - .49	.36 - .44 .45 - .53	.41 - .49 .52 - .60	.35 - .43 .43 - .51	.39 - .47 .47 - .55	.45 - .53 .57 - .65
1/3 acre per unit	.22 - .32 .31 - .41	.26 - .36 .35 - .45	.29 - .39 .38 - .48	.25 - .33 .33 - .41	.29 - .37 .38 - .46	.33 - .41 .42 - .50	.28 - .36 .36 - .44	.32 - .40 .41 - .49	.37 - .45 .48 - .56	.31 - .39 .39 - .47	.35 - .43 .43 - .51	.42 - .50 .53 - .61
1/2 acre per unit	.16 - .26 .25 - .35	.20 - .30 .29 - .39	.24 - .34 .32 - .42	.19 - .27 .28 - .36	.23 - .31 .32 - .40	.28 - .36 .36 - .44	.22 - .30 .31 - .39	.27 - .35 .35 - .43	.32 - .40 .42 - .50	.26 - .34 .34 - .42	.30 - .38 .38 - .46	.37 - .45 .48 - .56
1 acre per unit	.14 - .24 .22 - .32	.19 - .29 .26 - .36	.22 - .32 .29 - .39	.17 - .25 .24 - .32	.21 - .29 .28 - .36	.26 - .34 .34 - .42	.20 - .28 .28 - .36	.25 - .33 .32 - .40	.31 - .39 .40 - .48	.24 - .32 .31 - .39	.29 - .37 .35 - .43	.35 - .43 .46 - .54
<b>MISC. SURFACES</b>												
Pavement and roofs	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97
Traffic areas (soil and gravel)	.55 - .65 .65 - .70	.60 - .70 .70 - .75	.64 - .74 .74 - .79	.60 - .68 .68 - .76	.64 - .72 .72 - .80	.67 - .75 .75 - .83	.64 - .72 .72 - .80	.67 - .75 .75 - .83	.69 - .77 .77 - .85	.72 - .80 .79 - .87	.75 - .83 .82 - .90	.77 - .85 .84 - .92
Green landscaping (lawns, parks)	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .42 - .52	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Non-green and gravel landscaping	.30 - .40 .34 - .44	.36 - .46 .42 - .52	.45 - .55 .50 - .60	.45 - .55 .50 - .60	.42 - .50 .48 - .56	.50 - .58 .57 - .65	.40 - .48 .46 - .54	.48 - .56 .55 - .63	.56 - .64 .64 - .72	.44 - .52 .50 - .58	.50 - .58 .60 - .68	.60 - .68 .70 - .78
Cemeteries, playgrounds	.20 - .30 .24 - .34	.26 - .36 .32 - .42	.35 - .45 .40 - .50	.35 - .45 .40 - .50	.32 - .40 .38 - .46	.40 - .48 .47 - .55	.30 - .38 .36 - .44	.38 - .44 .45 - .53	.46 - .54 .54 - .62	.34 - .42 .40 - .48	.40 - .48 .50 - .58	.50 - .58 .60 - .68
<b>NOTES:</b>	<p>1. Values above and below pertain to the 2-year and 100-year storms, respectively.</p> <p>2. The range of values provided allows for engineering judgement of site conditions such as basic shape, homogeneity of surface type, surface depression storage, and storm duration. In general, during shorter duration storms (Tc ≤ 10 minutes), infiltration capacity is higher, allowing use of a "C" value in the low range. Conversely, for longer duration storms (Tc &gt; 30 minutes), use a "C" value in the higher range.</p> <p>3. For residential development at less than 1/8 acre per unit or greater than 1 acre per unit, and also for commercial and industrial areas, use values under MISC SURFACES to estimate "C" value ranges for use.</p>											
<b>RATIONAL METHOD RUNOFF COEFFICIENTS</b> (Modified from Table 4, UC-Davis, which appears to be a modification of work done by Rawls)									<b>TABLE "B-1"</b>			

"C" VALUES: RUN-OFF COEFFICIENT

HYDRO-GROUP "B" 0-2%

2 YEAR HISTORIC - - BARE GROUND

100 YEAR HISTORIC - 0.28 - BARE GROUND

2 YEAR DEVELOPED - 0.93 - 18.6 ACRES OF PAVEMENT & ROOFS  
0.22 - 7 ACRES OF LAWN AREA

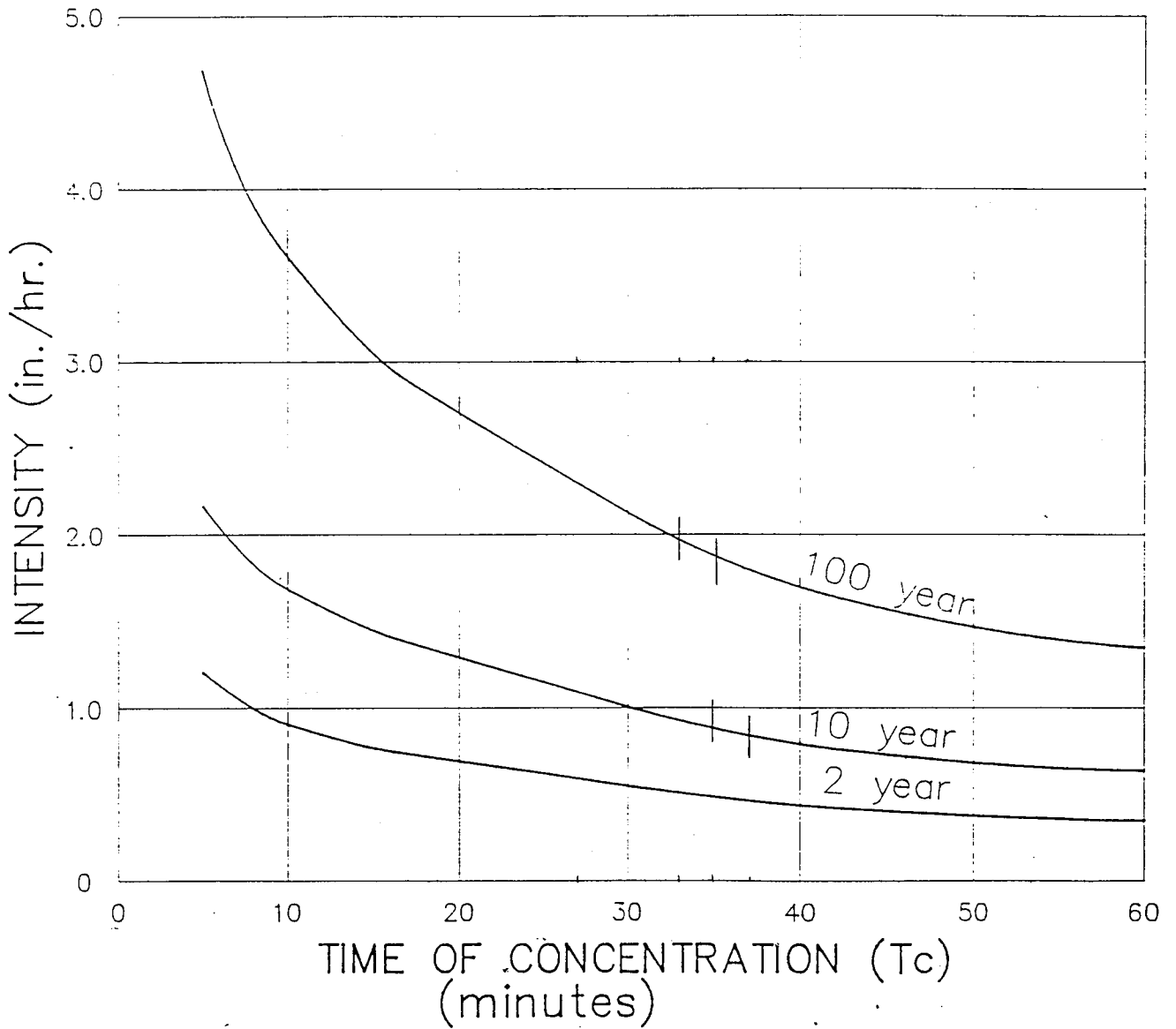
$$\text{WEIGHTED "C" = } \frac{18.6(0.93) + 7.0(0.22)}{25.6} = 0.74$$

100 YEAR DEVELOPED - 0.95 - 18.6 ACRES OF PAVEMENT & ROOFS  
0.28 - 7 ACRES OF LAWN AREA

$$\text{WEIGHTED "C" = } \frac{18.6(0.95) + 7.0(0.28)}{25.6} = 0.77$$

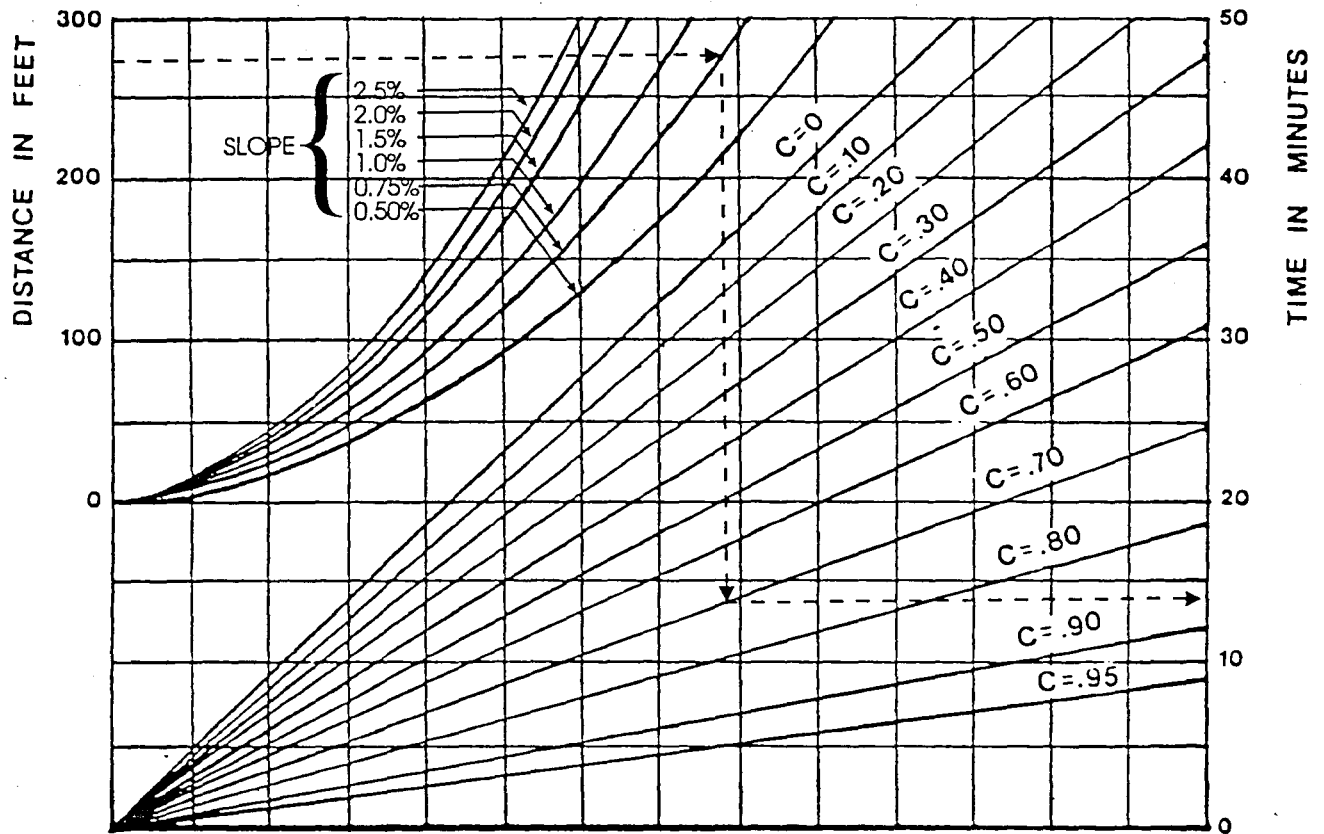
**EXHIBIT 6.0**

INTENSITY DURATION FREQUENCY CURVES  
GRAND JUNCTION, COLORADO



**EXHIBIT 70**

MODIFIED FROM FIGURE 403, MESA COUNTY.



THE ABOVE CURVES ARE A SOLUTION OF THE FOLLOWING EQUATION:

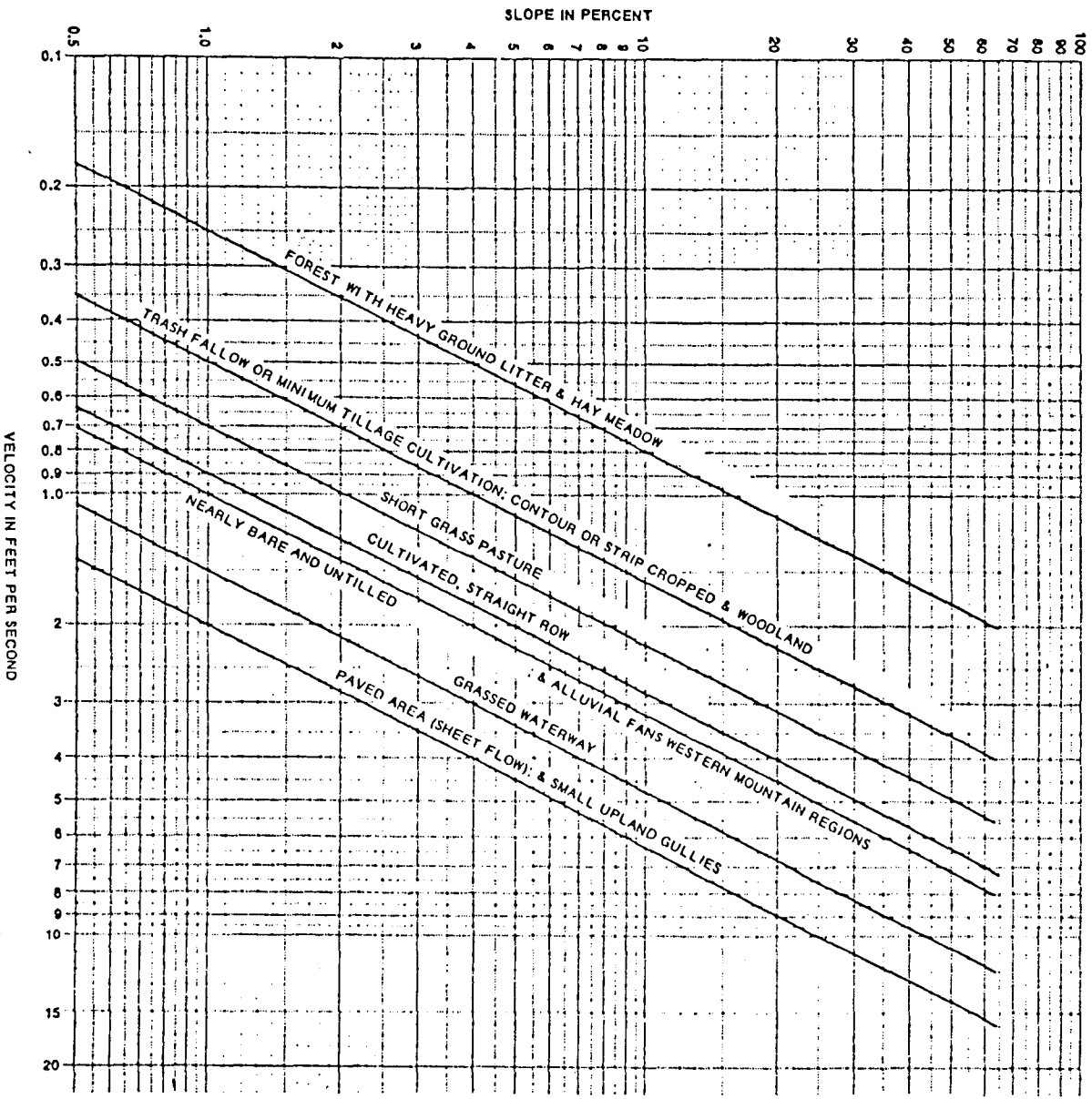
$$T_o = \frac{1.8 (1.1 - C) \sqrt{L}}{\sqrt[3]{S}}$$

WHERE:  $T_o$  = OVERLAND FLOW TIME (MIN.)  
 $S$  = SLOPE OF BASIN (%)  
 $C$  = RUNOFF COEFFICIENT (SEE TABLE "B-1" IN APPENDIX "B")  
 $L$  = LENGTH OF BASIN (ft)

**EXHIBIT 8.0**

GRAPHICAL DETERMINATION OF "To:" FAA METHOD

FIGURE "E-2"



**EXHIBIT 9.0**

DETERMINATION OF "Ts"

FIGURE "E-3"

The ominous looking but simple equations, modified to incorporate Grand Valley IDF data prepared by Henz Meteorological Services (Mesa County 1991), are presented below.

$$T_{d2} = \left( \frac{633.4 C_d A}{Q_r - \frac{Q_r^2 T_{c_d}}{81.2 C_d A}} \right)^{0.5} - 15.6$$

$$T_{d100} = \left( \frac{1832 C_d A}{Q_r - \frac{Q_r^2 T_{c_d}}{213 C_d A}} \right)^{0.5} - 17.2$$

$$I_{d2} = \text{Intensity at } T_{d2} \text{ (approximately } 40.6/T_{d2} + 15.6)$$

$$I_{d100} = \text{Intensity at } T_{d100} \text{ (approximately } 106.5/(T_{d100} + 17.2)$$

$$Q_d = C_d A I_d$$

$$K = T_{c_h}/T_{c_d}$$

$$V = 60 [Q_d T_d - Q_r T_d - Q_r T_{c_d} + K Q_r T_{c_d}/2 + Q_r^2 T_{c_d}/(2Q_d)]$$

Where:

- $T_d$  = Time of critical storm duration, minutes;
- $C$  = Runoff coefficient;
- $A$  = Area in acres;
- $Q_r$  = Detention pond average release rate, cfs (Note that this will not likely be the historic rate  $Q_h$ ; nor even  $Q_{max}$ );
- $T_c$  = Time of concentration, minutes;
- $I_d$  = Intensity at  $T_d$ , inches per hour;
- $Q_d$  = Runoff rate at  $T_d$ , cfs;
- $K$  = Ratio of pre- and post-development  $T_c$ ; and
- $V$  = Storage volume in  $ft^3$ .

The meaning of subscripts used are as follows:

- 2 = 2-year storm condition;
- 100 = 100-year storm condition;
- h = historic condition; and
- d = developed condition.

TIME OF CONCENTRATION CALCULATIONS

(2 YEAR STORM EVENT)

HISTORIC CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH

JOB # 95096

LANDesign LTD.

DATE:

27-Jul-95

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)		FINAL Tc	REMARKS
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+1 MIN.	MIN.	
H1	0.22	25.60	300.0	0.85	28.96									
						1230.00	0.85	3.38	6.07	35.03	730.00	14.06	35.03	OVERLAND FLOW FROM THE NE CORNER OF SITE TO THE SW CORNER OF SITE
--	--	--	--	--	--	--	--	--	--	--	--	--	--	

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{S^{1/3}}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

TIME OF CONCENTRATION CALCULATIONS

(100 YEAR STORM EVENT)

HISTORIC CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH

JOB # 95096

LANDesign LTD.

DATE:

27-Jul-95

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)		FINAL Tc	REMARKS
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+1 MIN.	MIN.	
H1	0.28	25.60	300.0	0.85	26.99									
						1230.00	0.85	3.38	6.07	33.05	730.00	14.06	33.05	OVERLAND FLOW FROM THE NE CORNER OF SITE TO THE SW CORNER OF SITE
--	--	--	--	--	--	--	--	--	--	--	--	--	--	

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{S^{1/3}}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

EXHIBIT 11.2

TIME OF CONCENTRATION CALCULATIONS

(2 YEAR STORM EVENT)  
DEVELOPED CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
JOB # 95096  
LANDesign LTD.

DATE:  
27-Jul-95

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Ti)				TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A	0.22	25.60	225.0	0.65	27.43	0.0	0.00	0.00	0.00	0.00	225.00	11.25	27.43	OVERLAND SHEETFLOW ACROSS TURF AREA TO STREET
-	-	-	-	-	-	-	-	-	-	-	-	-	-	---

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{S^{1/3}}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

EXHIBIT 12.D

TIME OF CONCENTRATION CALCULATIONS

(100 YEAR STORM EVENT)  
DEVELOPED CONDITION - GRAND JUNCTION, COLORADO

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
JOB # 95096  
LANDesign LTD.

DATE:  
27-Jul-95

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Ti)				TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A	0.28	25.60	225.0	0.65	25.56	0.0	0.00	0.00	0.00	0.00	225.00	11.25	25.56	OVERLAND SHEETFLOW ACROSS TURF AREA TO STREET
-	-	-	-	-	-	-	-	-	-	-	-	-	-	---

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{S^{1/3}}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$



Triangular Channel Analysis & Design  
Open Channel - Uniform flow

Worksheet Name: 95096 HISTORIC A

Comment: HISTORIC SWALE (ASSUMED) ON SITE

Solve For Discharge

Given Input Data:

Left Side Slope..	4.00:1 (H:V)
Right Side Slope.	4.00:1 (H:V)
Manning's n.....	0.025
Channel Slope....	0.0085 ft/ft
Depth.....	1.00 ft

Computed Results:

Discharge.....	13.53 cfs
Velocity.....	3.38 fps
Flow Area.....	4.00 sf
Flow Top Width...	8.00 ft
Wetted Perimeter.	8.25 ft
Critical Depth...	0.93 ft
Critical Slope...	0.0122 ft/ft
Froude Number....	0.84 (flow is Subcritical)

Open Channel Flow Module, Version 3.16 (c) 1990  
Haestad Methods, Inc. \* 37 Brookside Rd \* Waterbury, Ct 06708

**EXHIBIT 15.0**

STREET CARRING CAPACITY

(2 YEAR)

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
 LOCATION: GRAND JUNCTION, COLORADO  
 DATE: Jul-95

Street Information: R.O.W. Width = 44.00 FT. Flow Area = 3.76 SF.  
 Flowline Width = 31.00 FT.  
 Classification = URBAN  
 Mannings = 0.015  
 Max. Depth = 0.42 FT. Above Gutter Flowline  
 Str/ X-Slope = 1.00 %  
 Gutter Slope = 8.33 % Drive Over Curb, Gutter and Walk  
 Sidewalk Slope = 2.08 % 1/4" / FT.  
 Roadside Slope = 2.08 % 1/4" / FT.

SLOPE OF STREET %	REDUCTION FACTOR FOR SLOPE	ALLOWABLE CAPACITY C.F.S.	VELOCITY F.P.S.
0.86	1.00	12.75	3.39
0.67	1.00	11.26	2.99

Formula:  $Qa = F \times (1.49/N) \times R^{2/3} \times S^{1/2} \times A$   
 F = Reduction Factor For Slope  
 N = Mannings Coefficient = 0.0150  
 R = Hydraulic Radius = AWP = 0.2234  
 A = Cross Sectional Area Sq.Ft. = 3.760  
 WP = Wetted Perimeter Ft. = 16.83  
 S = Street Slope FT./FT.

**EXHIBIT 16.0**

STREET CARRING CAPACITY

(100 YEAR)

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
 LOCATION: GRAND JUNCTION, COLORADO  
 DATE: Jul-95

Street Information; R.O.W. Width = 44.00 FT. Flow Area = 15.49 SF.  
 Flowline Width = 31.00 FT.  
 Classification = URBAN  
 Mannings = 0.015  
 Max. Depth = 1.00 FT. Above Gutter Flowline  
 Str/ X-Slope = 1.00 %  
 Gutter Slope = 8.33 % Drive Over Curb, Gutter and Walk  
 Sidewalk Slope = 2.08 % 1/4" / FT.  
 Roadside Slope = 2.08 % 1/4" / FT.

SLOPE OF STREET %	REDUCTION FACTOR FOR SLOPE	ALLOWABLE CAPACITY C.F.S.	VELOCITY F.P.S.
0.86	1.00	113.24	7.31
0.67	1.00	99.95	6.45

Formula:  $Qa = F \times (1.49/N)^{2/3} \times R^{1/2} \times S \times A$   
 F = Reduction Factor For Slope  
 N = Mannings Coefficient = 0.0150  
 R = Hydraulic Radius = A/WP = 0.7070  
 A = Cross Sectional Area Sq.Ft. = 15.490  
 WP = Wetted Perimeter Ft. = 21.91  
 S = Street Slope FT./FT.

**EXHIBIT 17.0**

PROJECT: FELLOWSHIP OF EXCITEMENT CHURCH  
 LOCATION: CITY OF GRAND JUNCTION, COLORADO / MESA COUNTY  
 SUBJECT: REQUIRED DETENTION POND VOLUME BASINS: A  
 DATE: 27-Jul-95  
 CALC. BY: HART

FORMULAS PER CITY OF GRAND JUNCTION

WHERE:

2 YEAR RELEASE (ORIFICE ONLY)

Q<sub>max</sub> HISTORIC= 5.1 CFS  
 Q<sub>r</sub> = 0.82Q<sub>max</sub> (ORIFICE ONLY using Q<sub>max</sub> or "h") = 4.182

T<sub>d</sub> = Time of Critical Storm Duration, Minutes;  
 C = Weir Coefficient; OR  
 C = Runoff Coefficient;  
 A = Area in Acres;  
 Q<sub>o</sub> = Detention Pond Average Release Rate, C  
 T<sub>c</sub> = Time of Concentration, Minutes;  
 I<sub>d</sub> = Intensity at T<sub>d</sub>, Inches Per Hour;  
 Q<sub>d</sub> = Runoff Rate at T<sub>d</sub>, CFS;  
 K = Ratio of Pre and Post- Development T<sub>c</sub>;  
 V = Storage Volume in CF;

100 YEAR RELEASE (ORIFICE AND WEIR)

Q<sub>max</sub> HISTORIC= 14.3 CFS  
 Q<sub>r</sub> = 0.65Q<sub>max</sub> (ORIFICE & WEIR using Q<sub>max</sub>) = 9.295

SUBSCRIPTS:

2 = 2 - Year Storm  
 100 = 100 - Year Storm  
 h = Historic Condition  
 d = Developed Condition

DETENTION FORMULAS

$$T_d = \frac{633.4 C_d A^{0.5}}{Q_r - (Q_r T_{c,d} / (81.2 C_d A^{0.5}))} - 15.6$$

$$T_d = \frac{1832 C_d A^{0.5}}{Q_r - (Q_r T_{c,d} / (213 C_d A^{0.5}))} - 17.2$$

$$I_d = \frac{40.6}{T_d + 15.6}$$

$$I_d = \frac{106.5}{T_d + 17.2}$$

$$Q_d = C_d A I_d$$

$$K = T_{c,h} / T_{c,d}$$

$$V = 60(Q_d T_d - Q_r T_d - Q_r T_{c,d} + K Q_r T_{c,d} / 2 + Q_r T_{c,d} / (2 Q_d))$$

REQUIRED 2 YEAR STORAGE VOLUME

T <sub>d</sub> <sub>2</sub>	C <sub>d</sub>	A	Q <sub>r</sub>	T <sub>c</sub> <sub>h</sub>	T <sub>c</sub> <sub>d</sub>	I <sub>d</sub> <sub>2</sub>	Q <sub>d</sub> <sub>2</sub>	K <sub>2</sub>	V <sub>2</sub>
40.08	0.74	25.60	4.1820	35.03	27.43	0.73	13.81	1.2771	21715.44

REQUIRED 100 YEAR STORAGE VOLUME

T <sub>d</sub> <sub>100</sub>	C <sub>d</sub>	A	Q <sub>r</sub>	T <sub>c</sub> <sub>h</sub>	T <sub>c</sub> <sub>d</sub>	I <sub>d</sub> <sub>100</sub>	Q <sub>d</sub> <sub>100</sub>	K <sub>100</sub>	V <sub>100</sub>
46.97	0.77	25.60	9.2950	33.05	25.56	1.66	32.71	1.2930	69287.62

**EXHIBIT 18.0**

# REVIEW COMMENTS

Page 1 of 2

FILE #SUP-95-136

TITLE HEADING: Special Use Permit - Outdoor  
Facilities in RSF-R

LOCATION: 765 24 Road

PETITIONER: Fellowship of Excitement

PETITIONER'S ADDRESS/TELEPHONE: 2897 North Avenue  
Grand Junction, CO 81501  
243-3321

PETITIONER'S REPRESENTATIVE: Landesign

STAFF REPRESENTATIVE: Michael Drollinger

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**NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., AUGUST 25, 1995.**

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CITY FIRE DEPARTMENT  
Hank Masterson

8/4/95  
244-1414

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Water for fire protection is required before construction begins on Projects 1 and 2 of Phase 2.

Minimum water line size is 8" for all buildings other than one or two family dwellings. One and two family dwellings may be served by a 6" line. Water lines must be looped if over 1000' in length. A dead end line greater than 1000' in length may be permitted if the petitioner can demonstrate that a looped line is not practicable and that required fire flows can be met with dead end lines.

In order for the Fire Department to determine the locations, number and spacing of fire hydrants, complete building plans for all proposed buildings must be submitted in order for us to conduct plan reviews and fire flow surveys for these structures.

Contact the Fire Department for more information on these requirements.

Fire Department access is adequate based on the site plan submitted.

UTE WATER DISTRICT  
Gary Mathews

8/7/95  
242-7491

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Ute Water has only a 1 1/2" main in 24 Road not a 3". Fire protection for this project will require an extension of the existing 8" main to the far east property line. Connecting to a building for fire protection or on site fire line requires a back flow prevention device.

POLICIES AND FEES IN EFFECT AT THE TIME OF APPLICATION WILL APPLY....

**MESA COUNTY PLANNING**  
**Linda Dannenberger**

**8/10/95**  
**244-1771**

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1. The landscape plan is not specific enough. Trees and shrubs should be placed "strategically" on both the north and south sides of the parcel. (northwest) Where are the "landscape strips" which are mentioned in the narrative?
2. The outdoor stage and outdoor activity areas are too close to the parcel to the north. It is helpful to orient speakers to the south, but crown noise and music, etc and still be heard at that distance. Perhaps the multi-purpose center location is better.
3. The applicant should present hours of outdoor activity. How late will concerts and services run? How late will the tennis court be lit?

**GRAND JUNCTION DRAINAGE DISTRICT**  
**John Ballagh**

**8/14/95**  
**242-4343**

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There is upstream contributing area to the canning factory drain. The preliminary drainage study should be followed with a final drainage plan. The Drainage District would like to see the final drainage plan, before final conditional use permit approval. The change in use of the land from agriculture to parking will significantly effect the surface runoff.

The proposed entry/exit roads are well placed. Keeping improved traffic lanes east of the drain ditch maintenance road will allow the Fellowship of Excitement and the Drainage District to operate in close proximity with minimal interference to the other.

**CITY POLICE DEPARTMENT**  
**Dave Stassen**

**8/16/95**  
**244-3587**

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There should be good lighting for the project at completion. This will ease the work of the maintenance/security person as well as assist the patrol efforts of the Police Department. I have no other concerns with this specific site or its proposed use.

**CITY DEVELOPMENT ENGINEER**  
**Jody Kliska**

**8/16/95**  
**244-1591**

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See attached comments.

**CITY UTILITY ENGINEER**  
**Trent Prall**

**8/16/95**  
**244-1590**

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WATER - Ute Water

SEWER - Currently not available

1. Future extension of sewer to service the subject property will require expansion of the 201 sewer planning area boundary. Petitioner is requested to submit a letter by August 25, 1995 with the following information:
  - a. Request for sewer service to the site
  - b. projected sewage flows
  - c. Estimated date needed

August 17, 1995

**REVIEW COMMENTS FOR: Fellowship of Excitement SUP-95-136**

**TYPE OF REVIEW: Special Use Permit**

**REVIEWED BY: Jody Kliska**

**Traffic Study**

1. Traffic appears to be the greatest issue with this project, and a more thorough traffic study is required than what was submitted. Please use the SSID checklist and the Transportation Engineering Design Standards for format and report content.
2. The trip rates for a church as shown in ITE are not adequate for this project. The trip rate is derived from only seven observations made the the 1970's and 1980's of churches of a much smaller size than the proposed, with a standard deviation of greater than 7. A trip generation study which projects trip generation based on the existing Fellowship of Excitement site for the church facility will be acceptable. ITE Trip Generation provides guidelines in the beginning of the book on conducting local trip generation studies.
3. The traffic study needs to address trip generation for the various proposed uses on this site. The City recently completed counts at Columbine Park ballfields to predict trip generation for the ballfield use. You may use our trip rates of peak hour ballfield (occurred 6:45 p.m. to 7:45 p.m) of 73 vehicles per field with 49% entering and 51% exiting. We have determined 50 parking spaces per ballfield is required. Dave Tontoli, City Traffic Engineer (244-1567), has the most recent counts done on 24 Road and G Road, as well as projections for 2015 traffic.
4. The study needs to provide an analysis of the need for and design of turn lanes at the site driveway and at the frontage road/24 Road intersection, as well as any other improvements warranted by the site development. The Transportation Engineering Design Standards provide guidance on determining requirements for turn lanes as well as minimum design criteria.
5. Sight distance and the proximity of the frontage road to the I-70 ramps is of concern and needs to be addressed.
6. Detached bicycle/pedestrian facilities along the property's 24 Road frontage will be

required. The City is in the process of compiling a plan for the 24 Road corridor which will identify needs. These facilities must meet City Standards as shown in the standard drawings.

7. Please provide an analysis of how the parking needs for the site were computed.
8. The Transportation Capacity Payment will be based upon trip generation from the entire site.
9. Please provide information on when (time of day, day of week) the existing counts were done for the submitted traffic study.



LATE COMMENTS

WALKER FIELD AIRPORT AUTHORITY  
Marcel Theberge

8/22/95  
244-9100

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This proposal lies 2 miles west of the airport area of influence. No opposition to this proposal.

*Rev'd 8/23/95*

## **Fellowship of Excitement Review of Traffic Study Revised 10-13-95**

As stated previously, traffic appears to be the greatest issue with this project and is still a concern. Initial comments were made on August 17, 1995 and additional comments were given to the petitioner on September 27, 1995 following another submission of the traffic study. Meetings with the petitioner's representative have been held after each set of comments was received. This latest review will detail the previous comments and revisions as well as new comments.

August 17, 1995 Comments:

*1. Traffic appears to be the greatest issue with this project and a more thorough traffic study is required than what was submitted. Please use the SSID checklist and the Transportation Engineering Design Standards for format and report.*

Two revisions to the original submittal have been made and we are getting closer to the required format and information. The purpose of the traffic study is first to determine how much additional traffic will be added to the existing facility, what effect it will have on the traffic flow at the time of development and also at a point in the future if the project is to be phased. Next, the traffic study should provide an analysis of what improvements to the roadway system are needed to mitigate the effects of the proposed development. This analysis should go beyond simply calculating a LOS, but should also determine the need for and the basic design of improvements such as turn lanes. There should be sufficient detail to determine if there are physical limitations or constraints with the proposed improvements.

*2. The trip rates for a church as shown in ITE are not adequate for this project. The trip rate is derived from only seven observations made in the 1970' and 1980' of churches of a much smaller size than the proposed , with a standard deviation of greater than 7. A trip generation study which projects trip generation based on the existing Fellowship of Excitement site for the church facility will be acceptable. ITE Trip Generation provides guidelines in the beginning of the book on conducting local trip generation studies.*

The second submittal of the traffic study included the data collected from the existing site, but did not use it to project traffic for the new site. In the latest submittal, the data was used to project traffic for the new site and is acceptable. Although I know how the data used was derived, it would be helpful to include in the text a little more detail so it is clear how the trip generation rates used were derived. This is important to document, as these rates have recently been applied in another study for a different church submitted to a different review body.

*3. The traffic study needs to address trip generation for the various proposed uses on this site. The City recently completed counts at Columbine Park ballfields to predict trip generation for the ballfield use. You may use our trip rates of peak hour ballfield*

*(occurred 6:45 p.m. to 7:45 p.m.) of 73 vehicles per field with 49% entering and 51% exiting. We have determined 50 parking spaces per ballfield is required. Dave Tontoli, City Traffic Engineer (244-1567), has the most recent counts done on 24 Road and G Road, as well as projections for 2015 traffic.*

The second traffic study did provide a uses and parking table, but used the parking requirement for trip generation. The latest study did provide a table of trip generation for the various uses, however, some of the data is incomplete. The table, for example, shows only trips in for the ballfields and ignores the data provided in comment 3. The table also only accounts for trips in for the Family Center and the Stage, and shows no trips out. The only documentation for these uses is the trip generation was derived from Church officials.

*4. The study needs to provide an analysis of the need for and design of turn lanes at the site driveway and at the frontage road/24 Road intersection, as well as any other improvements warranted by the site development. The Transportation Engineering Design Standards provide guidance on determining requirements for turn lanes as well as minimum design criteria.*

None of the submittals to date have included an analysis of the need for turn lanes, although the conclusions have recommended turn lanes. The TEDS manual has charts for determining the requirement for turn lanes and prescribes a method for determining the needed length of the turn lane as well as appropriate tapers for safe transitions. None of this has been computed and submitted as part of the traffic study analysis. A recommendation for turn lanes without the necessary information for the design is incomplete. This information is necessary to determine if it is physically possible to install the required improvements and to determine the extent of the improvements. For example, the amount of the turning traffic may require a turn lane which exceeds the distance between the frontage road and the interstate bridge. Unless the applicant proposes to either widen the bridge or move the frontage road to provide the separation, the proposed use will likely cause an impediment to the through traffic using 24 Road. At the site driveway on 24 Road, a long turn lane is likely required and will also require improvements to 24 Road north of the driveway to install the appropriate tapers for the speed of the road. No mention of improvements to the frontage road at the site driveway have been addressed in any report. It is interesting to note, however, that the capacity analysis of the frontage road intersection assumes a two lane approach, one for left turns and one for right turns. The frontage road as it exists today is a single lane approach and should be treated as such with the projected traffic. Although the throat of the intersection is wide enough for two cars to sit side by side, a queue of traffic will not be able to operate as though it has two lanes.

*5. Sight distance and the proximity of the frontage road to the I-70 ramps is of concern and needs to be addressed.*

To date, no data has been provided on site distance nor has a condition diagram

showing the dimensions of the road, the ramps, the frontage road, and the proposed site drives.

6. *Detached bicycle/pedestrian facilities along the property's 24 Road frontage will be required. The City is in the process of compiling a plan for the 24 Road Corridor which will identify needs. These facilities must meet City Standards as shown in the standard drawings.*

Since 24 Road is a designated bike route by the Multi-Modal Plan, the traffic study should acknowledge that, and improvement plans need to reflect the required design.

7. *Please provide an analysis of how the parking needs for the site were computed.*

A parking and uses table was provided in the second traffic study.

8. *The Transportation Capacity Payment will be based upon trip generation from the entire site.*

The cost of improvements to 24 Road will be credited to the TCP.

9. *Please provide information on when (time of day, day of week) the existing counts were done for the submitted traffic study.*

This has been provided.

The following comments were sent to the petitioner on September 27, 1995 following the submission of the second traffic study:

1. *Please clarify how the trip generation rate was derived from the counts at the existing facility. I would like to see the rate tied to the square footage of the facility rather than the City's parking requirement. Some questions which arise are: how many services are conducted on Sunday presently, how many are anticipated at the new facility, what is the seating capacity and square footage of the existing facility compared to the new one?*

At a meeting following these comments, we agreed to a trip generation rate based on the seating capacity of the church using an extrapolation of the trip generation of the existing facility to the seating capacity of the new facility. Questions about the number services were answered verbally but not included in a response or in the text of the study. Although we are only requiring a traffic analysis of the peak hour of occurrence, with multiple services the increased traffic will occur over a longer time period than just the peak Sunday hour.

2. *The Uses and Parking Table is good. Please show when during the week each use is anticipated to occur. It may be possible to share parking, rather than provide*

*excessive parking and paved area.*

The latest submittal gives a breakdown of the uses and the anticipated trip generation for each use, as well as a breakdown of the times in use. As noted earlier, however, some of the uses have incomplete trip information and ignored the ballfield trip information provided by the City in the initial comments.

*3. The generated traffic does not appear to be added correctly to the existing traffic in Figure 7. Attached is what I came up with based on the numbers provided. The analysis needs to be done on corrected numbers and I think will produce different results.*

This has been done correctly in the latest submittal.

*4. A plan showing the dimensions of the roads and intersections with pavement width and intersection and ramp spacing distances is required.*

No plan was included as part of the traffic study or the latest submittal. This information is necessary to determine if the required improvements, once determined, will work and iff additional right of way is required.

*5. It appears a left turn lane both into the site and onto the frontage road is required. The City TEDS criteria should have been referenced and noted in the study.*

Again, the conclusion of the study is that turn lanes are required. No analysis or reference to the TEDS was included. The missing information requested in item 4 above would be helpful in looking at the required lane lengths and tapers and how they would fit on the existing conditions.

*6. A table or diagram within the text of the report, rather than as an appendix, shall be provided which would make the report more readable.*

More tables have been provided within the body of the report and it is more reader friendly as a result.

*7. A copy of this study has been forwarded to CDOT for their review and comment. It appears the frontage road is in the state right of way and access to it is under state jurisdiction.*

No response from CDOT to date. It is possible CDOT may deny the access to the frontage road because the facility has an access to 24 Road and because of the possibility of creating additional traffic problems at the intersection with 24 Road because of the limited spacing between the frontage road and the ramps. The petitioner has been advised to talk to CDOT but a phone conversation with Charles Dunn of CDOT on November 1, 1995 indicated neither the petitioner nor his engineer has contacted CDOT.

Mr. Dunn also advised me a portion of 24 Road falls under CDOT's jurisdiction because the right of way was purchased by the state for the interstate construction and was never turned over to the county. This means any proposed improvements to 24 Road will require approval and a permit from CDOT. It also may mean additional traffic analysis and additional roadway improvement could be required by CDOT once they receive an application for an access permit. A copy of the most recent traffic study, along with these comments has been forwarded to CDOT.

#### **SUMMARY**

In summary, the petitioner still needs to provide additional analysis on the adjacent street improvements in sufficient detail so it is clear both to the City and to the petitioner what is required, the extent of the improvements, the anticipated cost of the improvements, and any difficulties foreseen with construction of the improvements.

It is the view of the City Public Works Department that left turning traffic from 24 road onto the frontage road will create a safety concern because of the sight distance and because of the physical limitations due to the close location of the ramps and the frontage road. This restriction may necessitate a redesign of the site driveway on the frontage road as an exit only.

All parties involved need to have a clear understanding of the extent of improvements needed to install a left turn lane on 24 Road. This includes an evaluation of the earthwork, possible guardrail, additional pavement, and tapers beyond the driveway, both for cost and constructibility.

To date, insufficient information has been provided which addresses the concerns listed above.

**Fellowship of Excitement**  
**Review of Traffic Study Revised 10-13-95**  
**Review of Traffic Study Submitted 11-27-95**

Underlined comments represent the latest review of the 11-27-95 Study:

As stated previously, traffic appears to be the greatest issue with this project and is still a concern. Initial comments were made on August 17, 1995 and additional comments were given to the petitioner on September 27, 1995 following another submission of the traffic study. Meetings with the petitioner's representative have been held after each set of comments was received. This latest review will detail the previous comments and revisions as well as new comments.

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Two revisions to the original submittal have been made and we are getting closer to the required format and information. The purpose of the traffic study is first to determine how much additional traffic will be added to the existing facility, what effect it will have on the traffic flow at the time of development and also at a point in the future if the project is to be phased. Next, the traffic study should provide an analysis of what improvements to the roadway system are needed to mitigate the effects of the proposed development. This analysis should go beyond simply calculating a LOS, but should also determine the need for and the basic design of improvements such as turn lanes. There should be sufficient detail to determine if there are physical limitations or constraints with the proposed improvements.

Proposed improvements were submitted. The constraint of the overpass bridge and the proximity of the ramps and frontage road was dealt with by redistributing the inbound traffic to the 24 Road driveway. Please see the conclusions of these comments for CDOT's concerns.

*2. The trip rates for a church as shown in ITE are not adequate for this project. The trip rate is derived from only seven observations made in the 1970' and 1980' of churches of a much smaller size than the proposed , with a standard deviation of greater than 7. A trip generation study which projects trip generation based on the existing Fellowship of Excitement site for the church facility will be acceptable. ITE Trip Generation provides guidelines in the beginning of the book on conducting local trip generation studies.*

The second submittal of the traffic study included the data collected from the existing site, but did not use it to project traffic for the new site. In the latest submittal, the data was used to project traffic for the new site and is acceptable. Although I know how the data used was derived, it would be helpful to include in

the text a little more detail so it is clear how the trip generation rates used were derived. This is important to document, as these rates have recently been applied in another study for a different church submitted to a different review body.

The data has been documented.

3. *The traffic study needs to address trip generation for the various proposed uses on this site. The City recently completed counts at Columbine Park ballfields to predict trip generation for the ballfield use. You may use our trip rates of peak hour ballfield (occurred 6:45 p.m. to 7:45 p.m.) of 73 vehicles per field with 49% entering and 51% exiting. We have determined 50 parking spaces per ballfield is required. Dave Tontoli, City Traffic Engineer (244-1567), has the most recent counts done on 24 Road and G Road, as well as projections for 2015 traffic.*

The second traffic study did provide a uses and parking table, but used the parking requirement for trip generation. The latest study did provide a table of trip generation for the various uses, however, some of the data is incomplete. The table, for example, shows only trips in for the ballfields and ignores the data provided in comment 3. The table also only accounts for trips in for the Family Center and the Stage, and shows no trips out. The only documentation for these uses is the trip generation was derived from Church officials.

Additional trip rate information was provided and documented and is acceptable.

4. *The study needs to provide an analysis of the need for and design of turn lanes at the site driveway and at the frontage road/24 Road intersection, as well as any other improvements warranted by the site development. The Transportation Engineering Design Standards provide guidance on determining requirements for turn lanes as well as minimum design criteria.*

None of the submittals to date have included an analysis of the need for turn lanes, although the conclusions have recommended turn lanes. The TEDS manual has charts for determining the requirement for turn lanes and prescribes a method for determining the needed length of the turn lane as well as appropriate tapers for safe transitions. None of this has been computed and submitted as part of the traffic study analysis. A recommendation for turn lanes without the necessary information for the design is incomplete. This information is necessary to determine if it is physically possible to install the required improvements and to determine the extent of the improvements. For example, the amount of the turning traffic may require a turn lane which exceeds the distance between the frontage road and the interstate bridge. Unless the applicant proposes to either widen the bridge or move the frontage road to provide the separation, the proposed use will likely cause an impediment to the through traffic using 24 Road. At the site driveway on 24 Road, a long turn lane is likely required and will also require improvements to 24 Road north of the driveway to install the appropriate tapers for the speed of the road. No mention of improvements to the frontage road at the site driveway have been



addressed in any report. It is interesting to note, however, that the capacity analysis of the frontage road intersection assumes a two lane approach, one for left turns and one for right turns. The frontage road as it exists today is a single lane approach and should be treated as such with the projected traffic. Although the throat of the intersection is wide enough for two cars to sit side by side, a queue of traffic will not be able to operate as though it has two lanes.

The improvements plan does show a design for turn lanes on 24 Road and on the frontage road at the intersection with 24 Road.

*5. Sight distance and the proximity of the frontage road to the I-70 ramps is of concern and needs to be addressed.*

To date, no data has been provided on sight distance nor has a condition diagram showing the dimensions of the road, the ramps, the frontage road, and the proposed site drives.

A scaled plan has been provided which gives a starting point.

*6. Detached bicycle/pedestrian facilities along the property's 24 Road frontage will be required. The City is in the process of compiling a plan for the 24 Road Corridor which will identify needs. These facilities must meet City Standards as shown in the standard drawings.*

Since 24 Road is a designated bike route by the Multi-Modal Plan, the traffic study should acknowledge that, and improvement plans need to reflect the required design.

The study acknowledges the bicycle/pedestrian path, but does not mention the Multi-Modal Plan. The path is not shown on the improvement plan.

*7. Please provide an analysis of how the parking needs for the site were computed.*

A parking and uses table was provided in the second traffic study.

*8. The Transportation Capacity Payment will be based upon trip generation from the entire site.*

The cost of improvements to 24 Road will be credited to the TCP.

*9. Please provide information on when (time of day, day of week) the existing counts were done for the submitted traffic study.*

This has been provided.

The following comments were sent to the petitioner on September 27, 1995

following the submission of the second traffic study:

*1. Please clarify how the trip generation rate was derived from the counts at the existing facility. I would like to see the rate tied to the square footage of the facility rather than the City's parking requirement. Some questions which arise are: how many services are conducted on Sunday presently, how many are anticipated at the new facility, what is the seating capacity and square footage of the existing facility compared to the new one?*

At a meeting following these comments, we agreed to a trip generation rate based on the seating capacity of the church using an extrapolation of the trip generation of the existing facility to the seating capacity of the new facility. Questions about the number services were answered verbally but not included in a response or in the text of the study. Although we are only requiring a traffic analysis of the peak hour of occurrence, with multiple services the increased traffic will occur over a longer time period than just the peak Sunday hour.

These questions have been addressed in the study.

*2. The Uses and Parking Table is good. Please show when during the week each use is anticipated to occur. It may be possible to share parking, rather than provide excessive parking and paved area.*

The latest submittal gives a breakdown of the uses and the anticipated trip generation for each use, as well as a breakdown of the times in use. As noted earlier, however, some of the uses have incomplete trip information and ignored the ballfield trip information provided by the City in the initial comments.

Complete trip information has been provided, and the number of actual parking spaces can be addressed with site plan review by staff.

*3. The generated traffic does not appear to be added correctly to the existing traffic in Figure 7. Attached is what I came up with based on the numbers provided. The analysis needs to be done on corrected numbers and I think will produce different results.*

This has been done correctly in the latest submittal.

*4. A plan showing the dimensions of the roads and intersections with pavement width and intersection and ramp spacing distances is required.*

No plan was included as part of the traffic study or the latest submittal. This information is necessary to determine if the required improvements, once determined, will work and if additional right of way is required.

An improvement plan has been submitted. However, it has minimal detail for

determining the extents of fill material required.

*5. It appears a left turn lane both into the site and onto the frontage road is required. The City TEDS criteria should have been referenced and noted in the study.*

Again, the conclusion of the study is that turn lanes are required. No analysis or reference to the TEDS was included. The missing information requested in item 4 above would be helpful in looking at the required lane lengths and tapers and how they would fit on the existing conditions.

The TEDS criteria was referenced in this report and used for determining the improvements needed.

*6. A table or diagram within the text of the report, rather than as an appendix, shall be provided which would make the report more readable.*

More tables have been provided within the body of the report and it is more reader friendly as a result.

*7. A copy of this study has been forwarded to CDOT for their review and comment. It appears the frontage road is in the state right of way and access to it is under state jurisdiction.*

No response from CDOT to date. It is possible CDOT may deny the access to the frontage road because the facility has an access to 24 Road and because of the possibility of creating additional traffic problems at the intersection with 24 Road because of the limited spacing between the frontage road and the ramps. The petitioner has been advised to talk to CDOT but a phone conversation with Charles Dunn of CDOT on November 1, 1995 indicated neither the petitioner nor his engineer has contacted CDOT.

Mr. Dunn also advised me a portion of 24 Road falls under CDOT's jurisdiction because the right of way was purchased by the state for the interstate construction and was never turned over to the county. This means any proposed improvements to 24 Road will require approval and a permit from CDOT. It also may mean additional traffic analysis and additional roadway improvement could be required by CDOT once they receive an application for an access permit. A copy of the most recent traffic study, along with these comments has been forwarded to CDOT.

A copy of this most recent submittal has been forwarded to CDOT for their review. I spoke with Chuck Dunn of CDOT on November 29, 1995 and they have begun preliminary review of the last study forwarded to them. They are concerned they study did not take into account all of the proposed development in the area including the new park. Their feeling right now is 24 Road is totally inadequate for the increase in traffic and the interchange will not handle the increased traffic. They believe reconstruction of the interchange and construction of a four lane bridge is

necessary, as well as four lanes on 24 Road from the interstate to Patterson Road.

#### **SUMMARY**

Because most of the right of way involved with this project falls under CDOT's jurisdiction, it appears their concerns will need to be addressed. They have not formally responded to the traffic study, but the conversation detailed above indicates approval to install any improvements in their right of way will not be forthcoming until the larger issues with the interchange, the bridge, and the capacity of 24 Road are addressed.

In summary, the petitioner still needs to provide additional analysis on the adjacent street improvements in sufficient detail so it is clear both to the City and to the petitioner what is required, the extent of the improvements, the anticipated cost of the improvements, and any difficulties foreseen with construction of the improvements.

It is the view of the City Public Works Department that left turning traffic from 24 road onto the frontage road will create a safety concern because of the sight distance and because of the physical limitations due to the close location of the ramps and the frontage road. This restriction may necessitate a redesign of the site driveway on the frontage road as an exit only.

All parties involved need to have a clear understanding of the extent of improvements needed to install a left turn lane on 24 Road. This includes an evaluation of the earthwork, possible guardrail, additional pavement, and tapers beyond the driveway, both for cost and constructibility.

To date, insufficient information has been provided which addresses the concerns listed above.

**Summary of Revised Traffic Study Submittal  
Fellowship of Excitement Church SUP-95-136**

January 30, 1996

The petitioner has submitted an application for a CDOT Access permit, although no response has been received from CDOT to date. As previously stated in the summary of comments for the traffic portion of this review, the 24 Road right of way up to the proposed 24 Road entrance falls within the controlled access portion of I-70 and thus is under the jurisdiction of the Colorado Department of Transportation. The frontage road and proposed access for this project fall within CDOT right of way. The frontage road access and any road improvements must be approved by CDOT and permit for construction obtained from them, in addition to any City requirements.

The latest submittal has generally addressed the previously stated concerns. There are additional details which will be required with the final design, including showing the extent of the fill slopes, the proximity of the irrigation ditch adjacent to 24 Road, the departure taper on 24 Road, pavement design and fill slope design, and any roadside protection such as guardrail or curbing.

At the last hearing I had just received information from CDOT that the westbound offramp intersection with 24 Road was identified as a high accident location with 14 accidents in the last three years. Attached is a collision diagram prepared by Mesa County Traffic showing the accidents which have occurred between March 1993 and April 1995. The prevalent accident type is a broadside or angle type accident which occurs due to the limited sight distance looking south toward the bridge. The City and CDOT are jointly considering signalization of the ramp as a remedy to the accidents. It is possible either the City or CDOT will require participation in the cost of the signal by the church development. No information regarding the cost is available at this date, and participation will probably be based on the percentage of additional traffic the development will add to the intersection.

ONE WAY ←

ONE WAY ←

24 Road

ONC

BS

12-7-94 ; 5:45

4-25-95 ; 0715

BS

12-27-94 ; 1050

BS

9-17-94 ; 4:20

HO 1

7-11-94 ; 4:00

BS 2

6-15-94 ; 7:25

BS

6-7-93 ; 08:40

BS 1

3-16-93 ; 5:10



Westbound I-70



Eastbound I-70



Westbound I-70



Eastbound I-70

OTR

07-03-93 ; 0300

ONE WAY →

ONE WAY →

24 Road



**Fellowship of Excitement**  
**Review of Traffic Study Revised 10-13-95**  
**Review of Traffic Study Submitted 11-27-95**

Underlined comments represent the latest review of the 11-27-95 Study:

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*1. Traffic appears to be the greatest issue with this project and a more thorough traffic study is required than what was submitted. Please use the SSID checklist and the Transportation Engineering Design Standards for format and report.*

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Proposed improvements were submitted. The constraint of the overpass bridge and the proximity of the ramps and frontage road was dealt with by redistributing the inbound traffic to the 24 Road driveway. Please see the conclusions of these comments for CDOT's concerns.

*2. The trip rates for a church as shown in ITE are not adequate for this project. The trip rate is derived from only seven observations made in the 1970' and 1980' of churches of a much smaller size than the proposed , with a standard deviation of greater than 7. A trip generation study which projects trip generation based on the existing Fellowship of Excitement site for the church facility will be acceptable. ITE Trip Generation provides guidelines in the beginning of the book on conducting local trip generation studies.*

The second submittal of the traffic study included the data collected from the existing site, but did not use it to project traffic for the new site. In the latest submittal, the data was used to project traffic for the new site and is acceptable. Although I know how the data used was derived, it would be helpful to include in the text a little more

detail so it is clear how the trip generation rates used were derived. This is important to document, as these rates have recently been applied in another study for a different church submitted to a different review body.

The data has been documented.

*3. The traffic study needs to address trip generation for the various proposed uses on this site. The City recently completed counts at Columbine Park ballfields to predict trip generation for the ballfield use. You may use our trip rates of peak hour ballfield (occurred 6:45 p.m. to 7:45 p.m.) of 73 vehicles per field with 49% entering and 51% exiting. We have determined 50 parking spaces per ballfield is required. Dave Tontoli, City Traffic Engineer (244-1567), has the most recent counts done on 24 Road and G Road, as well as projections for 2015 traffic.*

The second traffic study did provide a uses and parking table, but used the parking requirement for trip generation. The latest study did provide a table of trip generation for the various uses, however, some of the data is incomplete. The table, for example, shows only trips in for the ballfields and ignores the data provided in comment 3. The table also only accounts for trips in for the Family Center and the Stage, and shows no trips out. The only documentation for these uses is the trip generation was derived from Church officials.

Additional trip rate information was provided and documented and is acceptable.

*4. The study needs to provide an analysis of the need for and design of turn lanes at the site driveway and at the frontage road/24 Road intersection, as well as any other improvements warranted by the site development. The Transportation Engineering Design Standards provide guidance on determining requirements for turn lanes as well as minimum design criteria.*

None of the submittals to date have included an analysis of the need for turn lanes, although the conclusions have recommended turn lanes. The TEDS manual has charts for determining the requirement for turn lanes and prescribes a method for determining the needed length of the turn lane as well as appropriate tapers for safe transitions. None of this has been computed and submitted as part of the traffic study analysis. A recommendation for turn lanes without the necessary information for the design is incomplete. This information is necessary to determine if it is physically possible to install the required improvements and to determine the extent of the improvements. For example, the amount of the turning traffic may require a turn lane which exceeds the distance between the frontage road and the interstate bridge. Unless the applicant proposes to either widen the bridge or move the frontage road to provide the separation, the proposed use will likely cause an impediment to the through traffic using 24 Road. At the site driveway on 24 Road, a long turn lane is likely required and will also require improvements to 24 Road north of the driveway to install the appropriate tapers for the speed of the road. No mention of improvements to the frontage road at the site driveway have been addressed in any



report. It is interesting to note, however, that the capacity analysis of the frontage road intersection assumes a two lane approach, one for left turns and one for right turns. The frontage road as it exists today is a single lane approach and should be treated as such with the projected traffic. Although the throat of the intersection is wide enough for two cars to sit side by side, a queue of traffic will not be able to operate as though it has two lanes.

The improvements plan does show a design for turn lanes on 24 Road and on the frontage road at the intersection with 24 Road.

5. *Sight distance and the proximity of the frontage road to the I-70 ramps is of concern and needs to be addressed.*

To date, no data has been provided on sight distance nor has a condition diagram showing the dimensions of the road, the ramps, the frontage road, and the proposed site drives.

A scaled plan has been provided which gives a starting point.

6. *Detached bicycle/pedestrian facilities along the property's 24 Road frontage will be required. The City is in the process of compiling a plan for the 24 Road Corridor which will identify needs. These facilities must meet City Standards as shown in the standard drawings.*

Since 24 Road is a designated bike route by the Multi-Modal Plan, the traffic study should acknowledge that, and improvement plans need to reflect the required design.

The study acknowledges the bicycle/pedestrian path, but does not mention the Multi-Modal Plan. The path is not shown on the improvement plan.

7. *Please provide an analysis of how the parking needs for the site were computed.*

A parking and uses table was provided in the second traffic study.

8. *The Transportation Capacity Payment will be based upon trip generation from the entire site.*

The cost of improvements to 24 Road will be credited to the TCP.

9. *Please provide information on when (time of day, day of week) the existing counts were done for the submitted traffic study.*

This has been provided.

The following comments were sent to the petitioner on September 27, 1995 following

the submission of the second traffic study:

*1. Please clarify how the trip generation rate was derived from the counts at the existing facility. I would like to see the rate tied to the square footage of the facility rather than the City's parking requirement. Some questions which arise are: how many services are conducted on Sunday presently, how many are anticipated at the new facility, what is the seating capacity and square footage of the existing facility compared to the new one?*

At a meeting following these comments, we agreed to a trip generation rate based on the seating capacity of the church using an extrapolation of the trip generation of the existing facility to the seating capacity of the new facility. Questions about the number services were answered verbally but not included in a response or in the text of the study. Although we are only requiring a traffic analysis of the peak hour of occurrence, with multiple services the increased traffic will occur over a longer time period than just the peak Sunday hour.

These questions have been addressed in the study.

*2. The Uses and Parking Table is good. Please show when during the week each use is anticipated to occur. It may be possible to share parking, rather than provide excessive parking and paved area.*

The latest submittal gives a breakdown of the uses and the anticipated trip generation for each use, as well as a breakdown of the times in use. As noted earlier, however, some of the uses have incomplete trip information and ignored the ballfield trip information provided by the City in the initial comments.

Complete trip information has been provided, and the number of actual parking spaces can be addressed with site plan review by staff.

*3. The generated traffic does not appear to be added correctly to the existing traffic in Figure 7. Attached is what I came up with based on the numbers provided. The analysis needs to be done on corrected numbers and I think will produce different results.*

This has been done correctly in the latest submittal.

*4. A plan showing the dimensions of the roads and intersections with pavement width and intersection and ramp spacing distances is required.*

No plan was included as part of the traffic study or the latest submittal. This information is necessary to determine if the required improvements, once determined, will work and if additional right of way is required.

An improvement plan has been submitted. However, it has minimal detail for

determining the extents of fill material required.

5. *It appears a left turn lane both into the site and onto the frontage road is required. The City TEDS criteria should have been referenced and noted in the study.*

Again, the conclusion of the study is that turn lanes are required. No analysis or reference to the TEDS was included. The missing information requested in item 4 above would be helpful in looking at the required lane lengths and tapers and how they would fit on the existing conditions.

The TEDS criteria was referenced in this report and used for determining the improvements needed.

6. *A table or diagram within the text of the report, rather than as an appendix, shall be provided which would make the report more readable.*

More tables have been provided within the body of the report and it is more reader friendly as a result.

7. *A copy of this study has been forwarded to CDOT for their review and comment. It appears the frontage road is in the state right of way and access to it is under state jurisdiction.*

No response from CDOT to date. It is possible CDOT may deny the access to the frontage road because the facility has an access to 24 Road and because of the possibility of creating additional traffic problems at the intersection with 24 Road because of the limited spacing between the frontage road and the ramps. The petitioner has been advised to talk to CDOT but a phone conversation with Charles Dunn of CDOT on November 1, 1995 indicated neither the petitioner nor his engineer has contacted CDOT.

Mr. Dunn also advised me a portion of 24 Road falls under CDOT's jurisdiction because the right of way was purchased by the state for the interstate construction and was never turned over to the county. This means any proposed improvements to 24 Road will require approval and a permit from CDOT. It also may mean additional traffic analysis and additional roadway improvement could be required by CDOT once they receive an application for an access permit. A copy of the most recent traffic study, along with these comments has been forwarded to CDOT.

A copy of this most recent submittal has been forwarded to CDOT for their review. I spoke with Chuck Dunn of CDOT on November 29, 1995 and they have begun preliminary review of the last study forwarded to them. They are concerned they study did not take into account all of the proposed development in the area including the new park. Their feeling right now is 24 Road is totally inadequate for the increase in traffic and the interchange will not handle the increased traffic. They believe reconstruction of the interchange and construction of a four lane bridge is necessary, as well as four lanes on 24 Road from the interstate to Patterson Road.

## **SUMMARY**

Because most of the right of way involved with this project falls under CDOT's jurisdiction, it appears their concerns will need to be addressed. They have not formally responded to the traffic study, but the conversation detailed above indicates approval to install any improvements in their right of way will not be forthcoming until the larger issues with the interchange, the bridge, and the capacity of 24 Road are addressed.

In summary, the petitioner still needs to provide additional analysis on the adjacent street improvements in sufficient detail so it is clear both to the City and to the petitioner what is required, the extent of the improvements, the anticipated cost of the improvements, and any difficulties foreseen with construction of the improvements.

It is the view of the City Public Works Department that left turning traffic from 24 road onto the frontage road will create a safety concern because of the sight distance and because of the physical limitations due to the close location of the ramps and the frontage road. This restriction may necessitate a redesign of the site driveway on the frontage road as an exit only.

All parties involved need to have a clear understanding of the extent of improvements needed to install a left turn lane on 24 Road. This includes an evaluation of the earthwork, possible guardrail, additional pavement, and tapers beyond the driveway, both for cost and constructibility.

To date, insufficient information has been provided which addresses the concerns listed above.

TRAFFIC ANALYSIS SYNOPSIS  
(12/14/95)

Day of week:	Usage Description:	Trips:
MONDAY 8am-9pm	Office personnel. Band rehearsal, staff appointments, ect... - Band rehearsal 6:30 - 8:00 PM (6 to 8 players)	45 In 45 Out
TUESDAY 8am-5pm	Office personnel. Staff appointments.	36 In 36 Out
WEDNESDAY 8am-9pm	Mid-week service. Office personnel, staff appointments, ect... - Evening Service 6:30 - 8:30 PM	177 In 177 Out
THURSDAY 8am-5pm	Office personnel, staff appointments, ect...	40 In 40 Out
FRIDAY 8am-5pm	Office personnel.	19 In 19 Out
SATURDAY	Evening Service, no office staff. - Service Time: 6:30 - 8:00 PM	92 In 92 Out
SUNDAY	Morning Services, no office staff. - Service Times: 9:00 & 11:00 AM 1st Service:  2nd Service:  - Peak Times: 8:40 to 9:05 AM 10:30 to 11:05 AM 12:15 to 12:35 AM	  153 In 153 Out  208 In 208 Out

Note: Service Time counts are based on 3.0 persons per vehicle instead of 4.4 as indicated in 12/95 Traffic study.

Fellowship Mtg.

Traffic Study assumes 3 services on Sun. a.m. - There are only 2.

Traffic & Septic - need to remember the limited usage of the facility.

Eliminate outdoor amphitheater - 1,000 seats

Church - bring down to 1550 seats instead of 2200

Will put on dry line for sewer to corner of property

Wants to know if & when we (staff) would/could recommend approval - "Can we ever get to that point?"  
We will ever get to the pt. of recommending yes on the "policy" issue of this intensity of development?

Statement - City taking "control"

And "fairness" issue - since they started in County

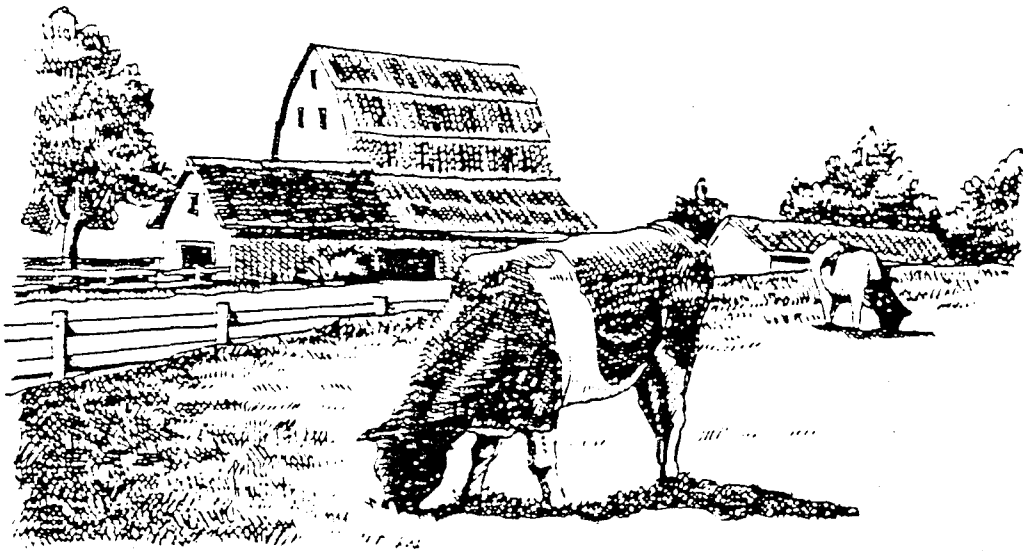
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David Hays  
242-4101

Kathy Portner

# MID-VALLEY APPLETON PLAN

Land Use and Development Policy #33



MESA COUNTY, COLORADO



RESOLUTION NO. MCM 90-106  
Planning Department No. C53-88

ADOPTION OF MESA COUNTY LAND USE AND DEVELOPMENT  
POLICY #33: MID-VALLEY (APPLETON) GOALS AND POLICIES  
AS AN AMENDMENT TO THE MESA COUNTY MASTER PLAN

AND  
CERTIFICATION OF POLICY #33  
TO THE BOARD OF MESA COUNTY COMMISSIONERS

WHEREAS, the Mesa County Planning Commission held five public community workshops on September 28, October 26, November 30, 1989, January 25, and February 22, 1990 at the Appleton Elementary School to obtain public input on the development of land use policies for the area known as the Mid-Valley (Appleton);

WHEREAS, the Mesa County Planning Commission solicited and received comments from numerous agencies on technical constraints and opportunities for development at the second public workshop held October 26, 1989;

WHEREAS, the Mesa County Planning Commission is charged with the duty to prepare and adopt master Plans for the County;

WHEREAS, the Mesa County Planning Commission held public hearings on April 26, 1990, May 22, 1990, and June 28, 1990 on the proposed Mesa County Land Use and Development Policy #33 - Mid-Valley (Appleton) Area Goals and Policies in accordance with C.R.S. 30-28-104;

WHEREAS, the Mesa County Planning Commission held public workshops on June 7, 1990 and June 14, 1990 to consider revisions to the draft policies, and closed public testimony on the draft policies as of June 7, 1990;

NOW THEREFORE, BE IT RESOLVED BY THE MESA COUNTY PLANNING COMMISSION, that Policy #33: Mid-Valley (Appleton) Area Goals and Policies, consisting of twenty-six (26) pages of text and nine (9) maps is adopted as a part of the Mesa County Master Plan in accordance with Section 30-28-108 of the Colorado Revised Statutes; and that the Mesa County Planning Commission hereby certifies Policy #33: Mid-Valley (Appleton) Goals and Policies to the Board of Mesa County Commissioners pursuant to Section 30-28-109 of the Colorado Revised Statutes.

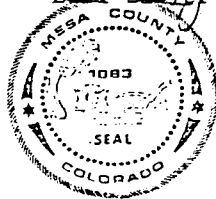
PASSED AND ADOPTED this 28th day of June, 1990.

Martin O'Boyle, Chairman of the  
Mesa County Planning Commission

Doris Butler, Secretary  
Mesa County Planning Commission

ATTEST:

Shirley A. Tucker, Deputy  
Mesa County Clerk





### 33. MID-VALLEY APPLETON PLAN

#### INTRODUCTION

The Appleton area of Mesa County was one of the first settlements in the Grand Valley and was traditionally centered in the four corners area at H and 24 Roads. For the purposes of this planning study the name Appleton was originally chosen as a community center; however, the study area includes a wider area north of Interstate 70, east of 19 Road, south of the Government Highline Canal, and west of Walker Field Airport. The area boundaries were determined by a number of factors: availability of services, physical boundaries (the Highline Canal, Interstate 70), and adjacent planning areas (Lower Valley).

The study area consists of a variety of residential, agricultural, and limited commercial land uses. The 1980 Census counted 2881 people living in the area. The population grew to approximately 3200 in 1988.

During the late 1980's the area experienced renewed "estate" sized residential subdivision development. In response to this trend the Mesa County Board of Commissioners directed the Mesa County Planning Commission to develop and adopt a land development plan for the Appleton area.

In late 1989 and early 1990, the Planning Commission conducted five community workshops at the Appleton Elementary School to discuss issues important to the residents of the study area. The following technical and service agencies made presentations and/or provided comments on their concerns for the area at the second workshop: School District 51, Grand Valley Irrigation Company, Grand Valley Water Users Association, Mesa County Health Department, Lower Valley Fire Department, Grand Junction Rural Fire Department, Grand Junction Public Works, Grand Junction City Administration, Agricultural Stabilization and Conservation Service, Soil Conservation Service, U.S. Bureau of Land Management, Mesa County Road Department, Mesa County Planning Department, and the Grand Junction Drainage District. The identified issues, concerns, and technical and service opportunities and constraints are the basis for this planning document.

The following goals and policies are based on the "Findings" of each topic or issue considered in the planning process. These goals and policies are the foundation for rational decision making and a guideline for future growth and development in the Mid-Valley (Appleton) area.

This policy is a guideline and is subject to an annual review by the Planning Commission.

#### REFERENCES

1. "Persigo 201 Sewer Service Area Map," Grand Junction City Utilities Department.
2. "Mesa County- A 100 Year History," Museum of Western Colorado.
3. "The Fruit Belt Route," William L. McGuire and Charles Teed, National Railway Historical Society, Rio Grande Chapter; November, 1981.
4. "Soil Survey Grand Junction Area, Colorado," U.S.D.A. Soil Conservation Service; November 1955.
5. "Population Projections, Technical Report No. 3.4," Metropolitan Planning Organization, Mesa County; September 1988.
6. "1980 Census," United States Department of Commerce; 1980.
7. "Master Plan of Parks and Recreation," Mesa County Parks and Recreation Department; 1984.
8. "Grand Valley Unit, Stage Two Development of the Colorado River Basin Salinity Control Project, Final Environment Impact Statement," U.S. Bureau of Reclamation; May 1986.
9. "Mesa County Land Use and Development Policies," Mesa County Planning Commission, 1985 and subsequent revisions.

#### GENERAL SERVICES

##### Sewer Service

##### Findings:

The vast majority of the Mid-Valley (Appleton) area is serviced by individual sewage disposal systems (septic systems). Natural constraints and limitations in the area for septic/leach field systems include soils with high clay content and poor permeability and high ground water conditions. High ground water is a potential problem in most irrigated areas. Year around springs surface in the vicinity of the intersection of 24 and H Roads as well as 23-1/2 and

I Roads. The Mesa County Environmental Health Department does not allow holding tanks for sewage collection. Due to the constraints in the area the Health Department often requires engineered sewage disposal systems for new development or repair of existing systems.

The Persigo 201 Sewer Service area extends into the Mid-Valley (Appleton) area in the Paradise Hills development area immediately west of Walker Airport. The only public sewer lines north of Interstate 70 are connected to the Paradise Hills 12 inch interceptor line. This line services the Paradise Hills subdivisions and an area immediately west to approximately 25-3/4 Road. The Paradise Hills interceptor line currently serves approximately 300 residential units and is capable of serving an additional 300 units within 1/4 mile of the interceptor and within the natural drainage basin.

The Persigo wastewater treatment plant, which is owned by Mesa County and operated by the City of Grand Junction, is currently operating at approximately 50% of a total 12 million gallons per day capacity. There are no immediate plans to expand the 201 sewer service area north of Interstate 70. Within the next 10 years the 201 area might be expanded north to H Road. This would result in an extension of an interceptor line along 23 Road to service the commercial and industrial developments along the I-70 Frontage Road and 23 Road.

#### Goals:

To prevent pollution of ground and surface water in the area from sewage disposal systems.

To keep new development served by septic systems at low densities in order to respect natural constraints of area soils.

To utilize the existing capacity of the Paradise Hills interceptor line.

To extend sewer service to the commercial and industrial developments along I-70.

#### Policies:

New development must demonstrate compliance with the Mesa County Health Department Individual Sewage Disposal System Regulations. Engineered systems should be required where adverse soils and ground water conditions occur. In areas of high ground water, hydrologic studies should justify location and design of sewage disposal systems; and alternative systems such as composting toilets are encouraged.

High density residential development should be limited to the Persigo 201 Sewer Service area which is considered the urbanizing area of the Grand Valley per Policy #6, Sewer Standards, of the Mesa County Land-Use and Development Policies.

#### Domestic Water Service and Fire Protection

##### Findings:

The Ute Water Conservancy District provides domestic water to the Mid-Valley (Appleton) area. The Ute water system is designed to meet the domestic needs of the agricultural community in the area and not for fire protection. Ute Water has policies which do not allow new developments to tap directly into the large transmission lines in the area. The majority of the area roads have 2" to 4" lines in the rights-of-way. Ute does not pay to extend water lines to service developments. These extension costs are entirely the responsibility of the developer. Ute has no capital improvement plan for the area. Due to the small water line sizes in the area installation of fire hydrants on the lines for new development results in reduced water pressure throughout the system.

The Lower Valley and Grand Junction Rural Fire Districts each serve approximately half of the Mid-Valley (Appleton) area. The Lower Valley District's nearest station is in Fruita, and the District is currently an entirely volunteer fire department. Lower Valley has 3 pumpers, 1 tanker, and 3 ambulances. The Grand Junction District's nearest station is adjacent to Pomona Elementary School. The District has 2 fire engines, one pumper and one additional truck. Response time for the Grand Junction District is the same in the Mid-Valley (Appleton) area as in most of Grand Junction. Insurance rates are the same for any dwellings within 1000 feet of a fire hydrant and 5 miles of a station. Both districts follow the Uniform Fire Code.

Appleton Elementary School currently has one fire hydrant on a 4 inch water line. If future expansions are made an additional hydrant will be required on a 6 or 8 inch line extended from 24 Road.

The Grand Junction Rural Fire District does not require fire flow for rural minor subdivisions. In high density developments the District requires every residential structure to be within 500 feet of a hydrant on a minimum 6 inch line. Commercial structures must be within 300 feet of a hydrant on a minimum 8 inch line.

Mesa County does not require minimum fire flow for low density

residential developments (single family units with 4 or fewer units per acre) outside of the Persigo and Fruita 201 Sewer Service areas per Section 4.1.2 of the Mesa County Land Development Code.

The requirements of the fire districts and Mesa County and the policies of Ute Water often conflict regarding fire protection.

**Goals:**

To ensure adequate domestic water is provided in terms of quantity and quality to all development in the Mid-Valley (Appleton) area.

To ensure adequate fire protection is provided to all development in the area.

To encourage a capital improvement plan for water service which meets the needs of the Mid-Valley (Appleton) residents for the next 10 years.

**Policies:**

Low density residential development is encouraged in areas serviced by 4 inch and smaller water lines.

Mesa County will coordinate development with Ute Water to ensure adequate water supplies are available.

Roads and Transportation

**Findings:**

The majority of roads located on section lines in the area are classified Collector Roads in the County's Functional Road Classification System. The Lower Valley Policies consider 19, 24, and K Roads to be important corridors which provide continuous access to the area. The remainder of the area roads are local rural roads. Highways 6 & 50 and InterState 70 define the west and south boundaries of the Mid-Valley (Appleton) planning area.

In the early 1900's Mid-Valley (Appleton) was accessed easily for selling produce and moving passengers via the Interurban Railway and the Pikes Peak Ocean-to-Ocean Highway. The Fruita line once offered round trip transportation for students at the Appleton school for 5 cents.

Pedestrian and bicycle trails are generally lacking in the

Mid-Valley (Appleton) area. However, as noted in the Final Environmental Impact Statement for the Grand Valley Unit Stage Two Development of the Colorado River Basin Salinity Control Project (May 1986) the canals and drainage ditches in the area are experiencing recreational use.

... the lack of readily available bicycle and jogging paths have resulted in the canals and their maintenance roads becoming a recreational resource to area residents; however, this use is unauthorized and discouraged. In addition, many canals are constructed on easements only and are not public property.

The Grand Junction Drainage District maintains a large network of ditches in the area which also experience recreational use. The District owns very little property and most of their facilities are on easements over private property as well.

The Mesa County Metropolitan Planning Organization is funding a project to study the feasibility of establishing an off-road pedestrian and bicycle trails system along canals and ditches in 1990.

#### Goals:

To maintain the Mesa County Road system primarily as an efficient farm-to-market system.

To continue to maintain and improve the Road system as needed.

To minimize driveway access points onto collector roads.

To obtain adequate right-of-way for improvements to roads in respect to the Functional Road Classification System.

#### Policies:

Activities and development which significantly increase traffic volumes in the area are discouraged.

County road maintenance and improvement projects should be reviewed each year with the Planning Department and school bus service providers to ensure development trends are considered in the following years road projects.

Dedication of adequate right-of-way needed to meet the Mesa County Road classification standards will continue to be required

for all subdivision, exemption, and planned unit development projects as a condition of approval per the Mesa County Land Development Code.

To encourage a public off-road trail system for pedestrians, horseback riders, and bicycles.

Schools, Parks, and Recreation

**Findings:**

The Appleton planning area includes only one school - Appleton Elementary School.

School aged children in the area attend the following public schools:  
 Elementary - Appleton, Shelledy (Fruita), Pomona (Paradise Hills residents)

Middle School- Fruita, West  
 High School -Grand Junction, Fruita Monument

The Appleton School was established as the first consolidated school district in Colorado in 1911. The original high school burned down in the 1930s. The old school bell is displayed in front of the present Appleton Elementary.

Appleton elementary school has 186 students in attendance in 1989-90 and has a capacity of approximately 250. Appleton has the capacity to handle 2 classes of each grade from Kindergarten to 5th grade and has recently experienced slowly increasing attendance numbers. A recent landscaping, playground, and park improvements project was completed in 1989. The school has plans to add one classroom, a lunchroom and a media center. School District 51 owns approximately 6 acres at the school site.

General planning criteria include the following minimum land areas for average sized school-park facilities:  
 Elementary - 12-14 acres (serves 1500-5000 population)  
 Middle School - 24-26 acres (serves 10,000-16,000 population)  
 High School - 40-42 acres (serves 14,000-24,000 population)

The City of Grand Junction owns two adjacent parcels of land directly north of Appleton Elementary as a future community park known as Berry Park (named for the original owner). These lands include a total of 86 acres. According to the Grand Valley Metropolitan Region Comprehensive Public Parks Study (October 1986) prepared by the Mesa County Parks Department, Berry Park is envisioned to include 4 softball fields, 4 soccer fields, 4 tennis courts, 2 volleyball courts, a playground, picnic area, bike path, and 2 fishing ponds.

Estimated capital costs to make these improvements is listed as \$1,514,202.

Fruita Monument High School includes approximately 35 acres. Central High School includes approximately 20 acres.

Appleton Elementary currently serves the area as a community center for indoor and outdoor recreation activities. Other schools serving the area also serve as recreation centers for area residents.

The projected populations of the Mid-Valley (Appleton) area under the development scenarios studied in the planning process do not justify the development of a community park on the Berry Park site.

Pedestrian and bicycle trails are lacking in the area.

Recreational use of the area canal and ditch maintenance roads is increasing even though it is unauthorized in most areas.

Mesa County is unable and unwilling to provide park and recreation services due to budget constraints and policies against provision of urban services.

Primary access to the area under BLM jurisdiction is via 27-1/4 Road near Walker Airport. Other accesses include 24 and 21 Roads. Public use of these lands is allowed for all legal activities. Activities in the area include recreational vehicle use, hunting, target practice, hiking, mountain biking, and general recreation. Special use permits are required for organized races and oil and gas exploration.

The BLM has one ranger who patrols the area to enforce BLM regulations. On occasion the ranger will patrol the area with a County deputy on weekends to police for littering, resource damage, illegal dumping, underage drinking, and other illegal activities. The BLM works jointly with the Sheriff's Office to respond to complaints in the area.

**Goals:**

To enlarge the Appleton Elementary School grounds to 12-14 acres in order to provide a larger park area for recreational activities allow future expansion of the school in line with recognized school/park planning criteria.

To encourage School District 51 to provide adequate parks and recreation opportunities at school sites.



To encourage an off-road pedestrian/bicycle trail system.

To encourage continued recreational use and access to BLM lands north of the Government Highline Canal.

**Policies:**

The City of Grand Junction should transfer to School District 51 by deed a portion of Berry Park in order to enlarge Appleton Elementary School grounds for future park and school expansion.

The City of Grand Junction should sell or trade the remainder of Berry Park as a means for School District 51 to acquire an additional 5 acres at Fruita Monument High School and an additional 20 acres adjacent to Central High School for community park development.

Develop a trails network.

Mesa County will continue to cooperate with the BLM in patrolling public lands to enforce County and Federal regulations and keep the area safe and attractive for multiple recreational uses.

Irrigation, Drainage, and Open Space

**Findings:**

Irrigation water is supplied to the Mid-Valley (Appleton) planning area by the Grand Valley Irrigation Company (GVIC), a private company, and the Grand Valley Water Users (GVWU), the Government Highline Canal which is a federal project. Unlike the GVWU the irrigation shares from the GVIC are not tied to the land.

The Colorado River Basin Salinity Control Project has two programs available: the on-farm program which is operated through the Agricultural Stabilization and Conservation Service (ASCS) and the Soil Conservation Service (SCS) and the systems improvement program. The ASCS provides financial assistance for on farm projects and the SCS provide technical assistance in the projects. Currently irrigated land (prior to 1986) is available for assistance on a cost share basis. Subdivisions are only eligible if the lateral serving the development extends beyond the subdivision to a farm.

The ASCS, SCS and Bureau of Reclamation have invested significant tax dollars in the Salinity control Project in the area.

Coordination of water use in subdivisions, seepage and lateral

bank failures are all problems which occur in developed areas when a lateral association or homeowner's association fails to properly operate and maintain an irrigation system.

The GVIC includes 188 laterals and has no plans to line any of its canals. The GVIC will assist lateral users form an association or district for operation and maintenance of laterals.

The Grand Junction Drainage District (GJDD) services the Mid-Valley (Appleton) area south of the Grand Valley Highline Canal as a tax supported special district. The District's responsibility is to intercept drainage water and carry it away to the Colorado River.

There is a flood potential for every drain and natural wash in the area. The GJDD does not maintain natural washes. There is no comprehensive drainage plan for the area.

The irrigation companies and drainage district own very little land in the area and operate most of their canals and drains as easements on private property.

Natural drainages, washes, canals, and drainage ditches provide wildlife habitat, open space, natural stormwater drainage channels, greenbelts and breaks in the landscape throughout the Mid-Valley (Appleton) planning area. Wildlife opportunities and open space benefits are enhanced by the preservation of natural vegetation in drainages and water courses.

The SCS will provide assistance in developing alternative wildlife habitat as mitigation for drying up wetlands and other wildlife habitat which is lost by lining canals and laterals in the area as part of the salinity control Project.

#### Goals:

To minimize conflicts in demand and timing of delivery of irrigation water within subdivisions and between farm and residential uses.

To ensure adequate irrigation and drainage plans are in place for all new development.

To preserve natural drainages and vegetation as open space for wildlife habitat and natural buffers between differing land uses and to prevent encroaching development from blocking natural flows and causing property damage.

To support the Salinity Control Project and to mitigate its impacts on wildlife habitat.

**Policies:**

Developments should maintain a minimum setback of 100 feet from the edge of major drainage ways identified as washes, drains, canals and drains on the map entitled Mid-Valley (Appleton) Drainages.

Site specific irrigation and drainage plans will be required for all new developments to ensure irrigation water is supplied and water drained from the sites in a safe and efficient manner.

The Mesa County Stormwater Runoff Management and Drainage Manual will be used in the review of all new development in the Mid-Valley (Appleton) area.

Irrigation water should be stored and delivered to new subdivisions where a homeowner's association is required to be formed to minimize conflicts in timing of delivery of water.

Mesa County should require all new developments to dedicate large areas of open space in perpetuity to protect drainages and wildlife habitat; to provide natural buffers between different land uses; preserve the open, rural character of the area, and protect new development from flood damage and high ground water table conditions.

Mesa County will include the Colorado Division of Wildlife, the SCS, and other appropriate agencies in the review of new developments for recommendations regarding open space dedications.

**Commercial Services****Findings:**

The only retail commercial businesses in the area are agriculturally related.

There are no grocery, gasoline or convenience stores in the Mid-Valley (Appleton) area.

The commercially zoned properties in the area are limited to the area along I-70 and are concentrated in the 20 to 23 Roads area south of H Road. These properties are currently used for industrial, manufacturing, warehouse, and repair businesses.

The Appleton Community at 24 and H Roads once included a gas station, cannery, general store, blacksmith shop, and sugar beet dump. The old Appleton Store at 24 and H roads is zoned Business.

The nearest retail stores are located in the Mesa Mall, Grand

Junction and Fruita.

Isolated tracts of commercially zoned tracts exist along Highway 6 and 50.

**Goals:**

To maintain the rural residential character of the area.

To restrict commercial/business uses to the areas currently zoned for these uses.

**Policies:**

Mesa County encourages the Appleton Store and old gas station sites at 24 and H Roads to redevelop as a general store/ convenience store and service station.

Mesa County discourages commercial/business uses from developing in areas not currently zoned Business, Commercial or Planned Commercial.

Consistent with the Lower Valley Policies commercial, industrial, and high density residential development is discouraged along the Highway 6 and 50/River Road corridor outside of the Fruita and Persigo 201 sewer service areas.

**ANNEXATION**

**Findings:**

The City of Grand Junction adopted an annexation plan in 1989. The annexation plan extends to H Road in the Mid-Valley (Appleton) area. This plan was adopted partially in response to the Mesa County Commissioner's Strategic Plan which states that the County will not provide municipal services. H Road was chosen as the logical northern boundary to the annexation plan, because this area may be included in the Persigo 201 Sewer Service Area within the next 10 years to provide sewer service to the Commercial and Industrial developments along the north side of I-70. The City currently requires property owners connecting onto the sewer system to sign a power of attorney agreeing to annex into the City in the future when the City decides it is the proper time.

Part of Paradise Hills is located within the City limits of Grand Junction. The remainder of Paradise Hills is anticipated to be annexed in the next several years.

The eastern boundary of the Fruita 201 extends to 19 Road.

According to Fruita's comprehensive plan future urban services provided by the City of Fruita will not extend beyond the 201 area boundaries.

**Goals:**

Properties which require municipal services should be annexed into the appropriate municipality.

**Policy:**

Mesa County encourages the Cities of Grand Junction and Fruita to limit future annexations to their respective 201 sewer service areas.

Mesa County should provide comments opposing proposed annexations outside of adopted 201 sewer service areas.

The County should renegotiate the City/County Sewer Agreement to eliminate the required power of attorney for annexation to the City of Grand Junction.

**HISTORIC PRESERVATION**

**Findings:**

The historic Appleton community center at 24 and H Roads was originally the site of Tom Holland's store at the 4 corners. When the Loback, Hunter, and Pomona school districts consolidated into one school district in 1911 the Appleton school was built and the neighborhood adopted the school's name.

The Appleton settlement was based on agriculture, but in the 1920s the major crops of apples and pears declined with a codling moth infestation.

According to the 100 year History of Mesa County, the Appleton corner once included a rail stop for the Interurban Railway and the Pikes Peak Ocean-to-Ocean Highway; a general store and feed mill, a garage, sugar beet dump, blacksmith shop, canning factory, and several churches.

Historic buildings and sites are scattered across the Mid-Valley (Appleton) planning area and include an old log cabin at H and 25 Roads, grange halls, the Pony Express way station, and Crown Point Cemetery.

Historic sites in the Mid-Valley (Appleton) area are an important

component in defining the character of the planning area.

**Goals:**

To identify, protect and preserve historic resources in the area.

**Policies:**

Mesa County should maintain an inventory of all the historic sites and structures in the area in cooperation with the Museum of Western Colorado.

The County should assist in obtaining historic designation for eligible sites in the area.

The residents of Mid-Valley (Appleton) are encouraged to work with the County to develop design guidelines for the development of the historic Appleton settlement. Such guidelines could include fencing, signage, historic features, architectural styles, etc.

Historic markers should be placed at the school sites of Hunter, Star, and Rhone.

Agriculture

Findings

The Mid-Valley (Appleton) Area has large blocks of prime and unique farmland as well as important farmland classified by the Soil Conservation Service. Irrigated agricultural land is found in flat valleys running diagonally from the Highline Canal on the north to I-70 on the south. The agricultural lands are interspersed with strips of non-irrigated hills which tend to have alkaline soils.

The agricultural crops of the Mid-Valley (Appleton) Area include field crops such as corn, alfalfa, barley, soybeans, and oats.

Apples, which were once the predominate crop of the area (hence its name, Appleton), are now confined to several small orchards. The disappearance of fruit growing from the area was due to high salt content of the soils, devastating frosts, and high ground water.

Major livestock operations in the area consist of cattle, dairy operations, sheep, pigs and a major egg producing facility (Grand Mesa Egg Ranch).

There are also several truck farms which grow vegetables for sale in Grand Junction and the urbanized portion of Mesa County.

The proximity of the agricultural operations to the urbanized portion of Grand Junction/Mesa County can lead to direct marketing and better prices for certain crops.

The direct proximity of residential uses to agricultural operations can lead to conflicts due to residential objections to crop dusting, livestock odors, cultivating and other traditional farming practices.

The lack of strong markets for agricultural products on a national and regional level can lead to economic disincentives to farm and a gradual reduction of farming with or without other land use pressures.

The presence of a strong "estate" residential market adjacent to agricultural land can lead to the gradual elimination of agriculture due to the higher profits for land development.

Agriculture is a major industry in Mesa County in terms of sales, employment, and export income.

The presence of agriculture adjacent to a large urban area can have advantages to the urban dweller as well as the farmer by direct marketing agricultural products to the consumer.

The federal government and taxpayer are making a major investment in the future of agriculture in the Valley by lining canals, and installing headgates, turnouts, etc. (total estimated cost of lining canals Grand Valley, Stage Two: \$192,080,000).

The Final Environmental Impact statement of the Colorado River Basin Salinity Control Project; Grand Valley Unit Stage Two Development, prepared by the U. S. Bureau of Reclamation (May 23, 1986) states, (Land Use Impacts, page 50)" ...the current trend for residential areas to encroach onto adjacent irrigated and dry grazing areas would continue. Farming practices would continue much as they are now...None of the alternatives would have significant impact on land use. The tendency for residential development to encroach onto adjacent irrigated and dry grazing areas would continue if favorable economic conditions were present."

The same document states (Agricultural Practices, page 54; No Action Alternative)"...Land leveling and field enlargement would continue, and more modern farming equipment and irrigation practices would be used. The trend towards modern irrigation systems, such as gated pipe and concrete head ditches, would continue." (Alternatives A and B)...The improved systems would have the potential to increase crop production and/or net returns, but this increase has not been quantified...The SCS expects that future on farm irrigation methods in Stage One area will continue to move toward sprinklers and gated pipe irrigation systems."

The retention of productive agricultural land adjacent to urbanizing Grand Junction can help provide alternative productive land uses to further suburban sprawl development.

The retention of prime and unique irrigated farmland in the Mid-Valley (Appleton) Area:

- provides a base industry that is an important part of the County's economy;
- creates an open space buffer between the urban development in and around Grand Junction and Fruita and the desert above the Highline Canal;
- provides wildlife habitat; and
- adds to the value of large lot, "estate" types of development.

Lack of weed control can present major problems in the Mid-Valley (Appleton) Area, as well as elsewhere in the County, and can have a major negative impact on farming.

The rural quality of life in the Mid-Valley (Appleton) Area is special and unique and needs to be protected.

Very large livestock operations such as egg farms, and feed lots can have a negative impact on surrounding residences and farms.

Parcel sizes as regulated by zoning can encourage or discourage farming.

Mesa County maintains 79 miles of roads in the Mid-Valley (Appleton) Area which directly benefit agricultural land uses by allowing easy access from farm to market as well as from field to field. This excellent road system also encourages "sprawl" suburban residential development.

Agricultural/Conservation Easements can be used to protect prime farmland. Private landowners can donate agricultural easements to the Mesa County Land Trust in exchange for federal income tax credits. Agricultural/Conservation Easements can also be placed on farms or portions of farms to redeem bad loans issued by the Farmers Home Loan Administration.

#### Goals

To preserve large blocks of productive farmland especially that designated "prime and unique" by the Soil Conservation Service.

To allow low density residential development, with sufficient buffering adjacent to prime and unique agricultural land that is otherwise unsuitable for agriculture such as dry land hills, alkaline areas and existing small parcels of land.

To encourage more direct marketing for agricultural products from farms to the urbanized portion of Mesa County.

#### Policies



Mesa County will continue to support agriculture in the Mid-Valley (Appleton) Area by:

- maintaining and improving farm-to-market roads and bridges;
- requiring covenants on all new subdivisions which protect and uphold the Right-to-Farm Act of the State of Colorado;
- requiring all new subdivisions in the Mid-Valley (Appleton) Area to have an irrigation plan that shows the headgate, method of delivery of water to each lot, and adequate wastewater ditches;
- require sufficient buffers (minimum of 100') between residential uses and agricultural uses to help avoid immediate conflicts between these uses;
- amend the Mesa County Land Development Code to require conditional use permits for very large scale, intensive agricultural operations so that proper conditions can be placed on these developments to minimize conflicts with surrounding farms and residences ( e.g. large egg farms, feedlots, livestock operations; suggested typical limits when conditional use permits should be required include: more than 100 small animals, such as chickens, and other intensive livestock operations. Traditional, temporary wintering and lambing operations should be exempt from these standards and requirements).
- land use policies which limit suburban sprawl into the farm land (see Land Use Policy Section);
- encourage CSU Extension Service to develop, make available, and publicize "fallow seed mixes" to be made available to farmers and land owners who are not cultivating their land and which will discourage the growth of weeds on such parcels; and
- encourage the voluntary donation of Agricultural/Conservation Easements from prime and unique farmlands to the Mesa County Land Trust.
- requiring new developments to submit detailed irrigation and drainage plans which ensure new development does not interfere with agricultural irrigation systems and operations.

SPECIAL ISSUES

Airport Influence Zone

Findings:

Part of the Walker Field Airport Influence Zone overlaps the Mid-Valley (Appleton)/North Grand Junction Area.

The purpose of the Airport Influence Zone which is identified

on official maps in the Walker Field Master Plan Update (March 1, 1985; Isbill Associates; Exhibit XII), is to protect airport operations from inhibiting or seriously limiting the development of the airport. New developments in the Airport Influence Zone are under Mesa County Land Use and Development Policy #23 required to record Avigation Easements (page 25, Mesa County Land Use and Development Policies).

The Boundary of the Airport Influence Zone extends along I-70 to the south, north on 26 Road to I Road, west on I Road to 25 Road, north on I Road to K Road, and east on K Road across the Highline Canal to BLM land.

The Airport Master Plan Recommends that the Mid-Valley (Appleton)/North Grand Junction Area not develop to more than one dwelling/5 acres within the Airport Influence Zone with the exception of the Paradise Hills area which is already zoned for low/medium density residential development (R-2 & PR 4).

**Goal:**

To allow growth around the airport consistent with Mesa County Walker Field Airport Policy #23 and the Walker Field Master Plan.

**Policy:**

New developments within the Walker Field Airport Influence Zone will be allowed if it is consistent with Policy #23.

Avigation Easements will be required of all new developments that require development permits in the Walker Field Airport Influence Zone.

Old Appleton Signage/Streetscape

**Findings:**

A distinctive signage system can have a positive impact on community image and character.

The historic character of the old Appleton settlement at 24 and H Road could be enhanced by an improves streetscape including painting or staining the general store, filling station, and cleaning up and painting the old packing shed. Appropriate interpretive signage and well designed on-premise signs for the general store and gas station would do a great deal to enhance the entry to the Appleton area.

**Goals:**

To improve the visual and community identity of Old Appleton.

**Policies:**

Promote a community paint-up clean-up day at Old Appleton with the permission of the private property owners. Paint and clean up the old Appleton Store, Filling Station, and Packing Shed.

Continue tree planting at Appleton Elementary School and along the right of way of H Road and 24 Road with private property owner's permission.

Encourage the owners of the properties to install appropriate on premise signs at Old Appleton in accordance with a sign program prepared by the residents and the County and amend the County Sign Code.

Install signs at key entry roads with name "Appleton" and logo.

Maintaining Views

**Findings:**

The Mid-Valley (Appleton) Area has outstanding views of the Bookcliffs, Grand Mesa, and the Colorado National Monument.

The views are part of the quality of life of the area and should be protected.

**Goal:**

To protect views of the surrounding mountain/plateau terrain from residential development.

**Policies:**

Review the height and setback of new development to protect as much as possible, existing residential views.

## LAND USE POLICY

### Background

The first two community planning workshops held in the fall of 1989 with Mid-Valley (Appleton) area residents resulted in identification of issues, concerns, and technical and service opportunities and constraints for development in the study area. Following these meetings seven land use development policy alternatives were presented for public review and discussion at the November 1989 community planning workshop. 1. Current Zoning ("Do Nothing"), 2. Agricultural Zoning Districts, 3. Soils and Prime Farmland, 4. Transfer of Development Rights, 5. Current Average Density, 6. Performance Standards, 7. "Other" (suggestions from the workshop participants). Secret ballots were distributed to the participants and written comments on each alternative were collected. The results of this ballot indicated a preference for Current Zoning, Average Density, and Agricultural Districts/Soils & Prime Farmland.

Based on the public comments and the ballot results, four alternatives were presented at the January 1990 workshop -A. Agricultural Zoning Districts, B. Agricultural Districts/Soils, C. Average Density, D. Current Zoning. Once again the secret ballot and written comments process was used to gauge support for the alternatives. The results indicated strong preference for Alternative B, Agricultural Districts/Soils and Alternate D, Current Zoning. The final workshop included a hand vote which indicated a preference for Alternate D.

The Agricultural Districts/Soils Land Use Policy provides criteria specific to the Mid-Valley (Appleton) area in addition to the current performance standards found in Chapter 4 of the Mesa County Land Development Code. This criteria will be used as a guideline in evaluating development proposals in the area.

### Goals

To encourage development to occur in a logical fashion.

To ensure adequate services are available to handle new

growth.

To encourage moderate growth in the Mid-Valley (Appleton) area with density decreasing with distance from the urban core of the Grand Valley.

To preserve large tracts of productive farmland and encourage low density residential development on land otherwise unsuitable for agriculture (See Agricultural Policies).

Policies

New development in the Mid-Valley (Appleton) area should be consistent with the Agricultural Districts/Soils Land Use Policy Guidelines. (See Land Use Policy Map).

Development proposals should include up-to-date soils information as provided by the U.S. Soil Conservation District to determine appropriate densities and uses on subject tracts of land, consistent with the submittal requirements for development applications in Sections 5.4 and 7.2 of the Mesa County Land Development Code.

**AGRICULTURAL DISTRICTS/SOILS LAND USE POLICY GUIDELINES**

Land use will be based on a combination of traditional agricultural zoning districts and the suitability of the soil for agricultural practices. Areas of important farmlands and good soils within a policy area will be allowed to develop to the density allowed in the next more restrictive policy area as follows:

Policy Area	Average Lot Size	Important Farmland Soil Average Lot Size
1. 20/35	20 acres	35 acres
2. 10/20	10 acres	20 acres
3. 5/10	5 acres	10 acres

Policy area #1 is located south of the Government Highline Canal and north of K Road. Policy area #2 is located south of K Road and North of I Road. Policy area #3 is located south of I Road and north of Interstate 70.

This policy encourages the best agricultural lands to remain in agriculture while recognizing the areas closer to the urban centers will develop at higher density. The I-70 corridor and Paradise Hills area should remain commercial/industrial and higher density residential (4 units per acre maximum) respectively.

The policy for properties over the minimum lot size which include both important farmland soil and other soils will be that development should be clustered on the poorer soils per the Agricultural Policies of the County as follows:

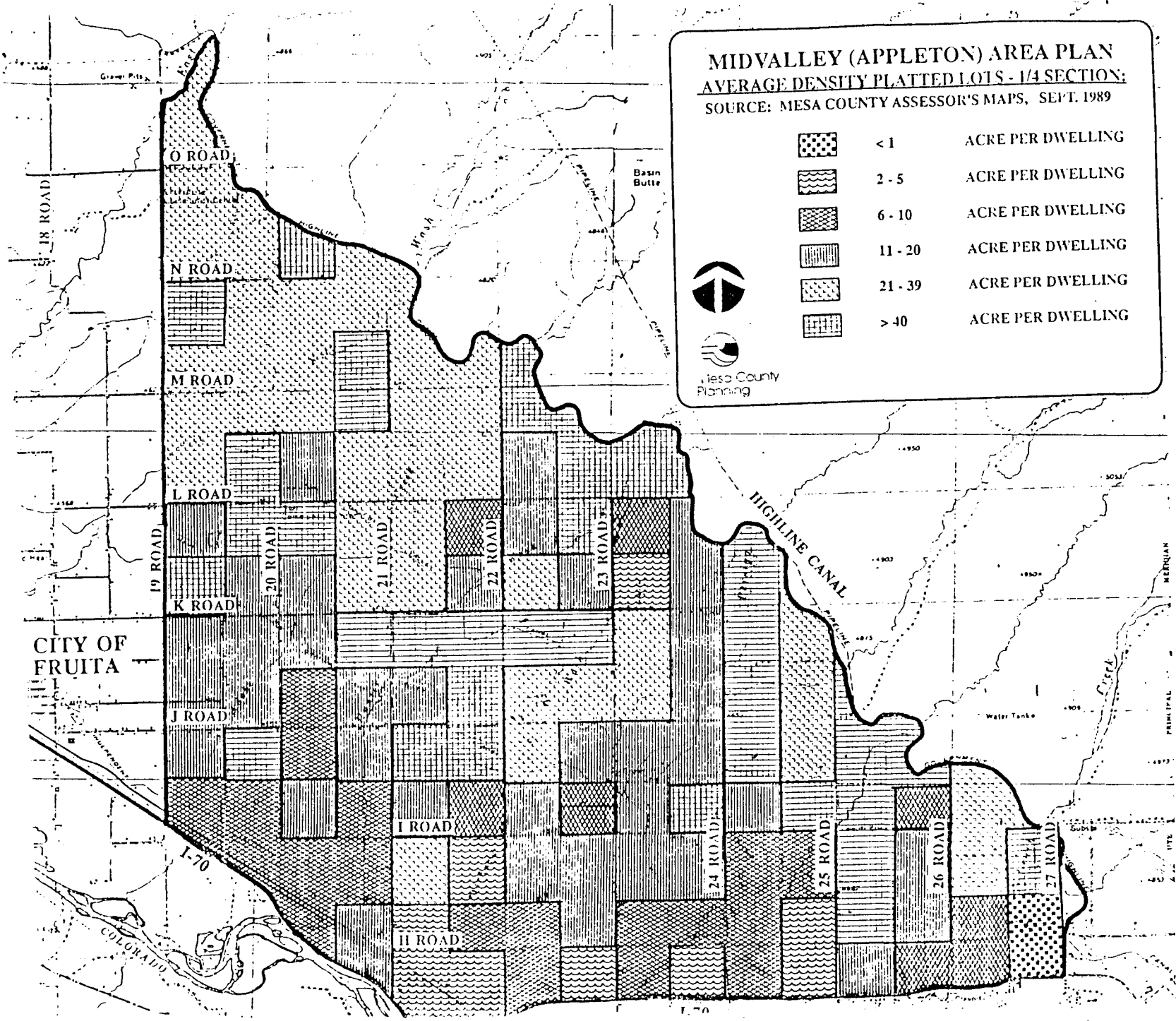
1. If 50% or more of the tract is in the more restrictive

soil category the number of units (lots) allowed will be based on the total acreage of the parcel divided by the minimum lot size allowed on the more restrictive soil category.







2. If 50% or more of the tract is in the less restrictive soil category the number of units (lots) allowed will be based on the total acreage of the parcel divided by the minimum lot size on the less restrictive soil category.



Development proposals will be considered using these guidelines and established performance standards(Chapter 4 of the MCLDC). If a proposal can demonstrate that it will perform in a manner which protects natural resources, has adequate services, and is designed to be compatible with area land uses it can be granted a development permit. An evaluation of a development proposal should include at a minimum the following (Chapter 4 Mesa County Land Development Code):

- Availability of services (water, sewer, power, etc.)
- Area land uses
- Environmental analysis (topography, soils, ag land, etc.)
- Identification of natural and human made hazards.
- Access
- Fire response
- Density
- Public improvements required
- Adequate design to ensure compatibility



**MIDVALLEY (APPLETON) AREA PLAN**  
**AVERAGE DENSITY PLATTED LOTS - 1/4 SECTION:**  
 SOURCE: MESA COUNTY ASSESSOR'S MAPS, SEPT. 1989

	< 1	ACRE PER DWELLING
	2 - 5	ACRE PER DWELLING
	6 - 10	ACRE PER DWELLING
	11 - 20	ACRE PER DWELLING
	21 - 39	ACRE PER DWELLING
	> 40	ACRE PER DWELLING

  
  
 Mesa County  
 Planning

CITY OF FRUITA

O ROAD  
 N ROAD  
 M ROAD  
 L ROAD  
 K ROAD  
 J ROAD  
 I ROAD  
 H ROAD  
 18 ROAD  
 19 ROAD  
 20 ROAD  
 21 ROAD  
 22 ROAD  
 23 ROAD  
 24 ROAD  
 25 ROAD  
 26 ROAD  
 27 ROAD

HIGHLINE CANAL

COLORADO

1-70

1-70



# MIDVALLEY (APPLETON) AREA PLAN

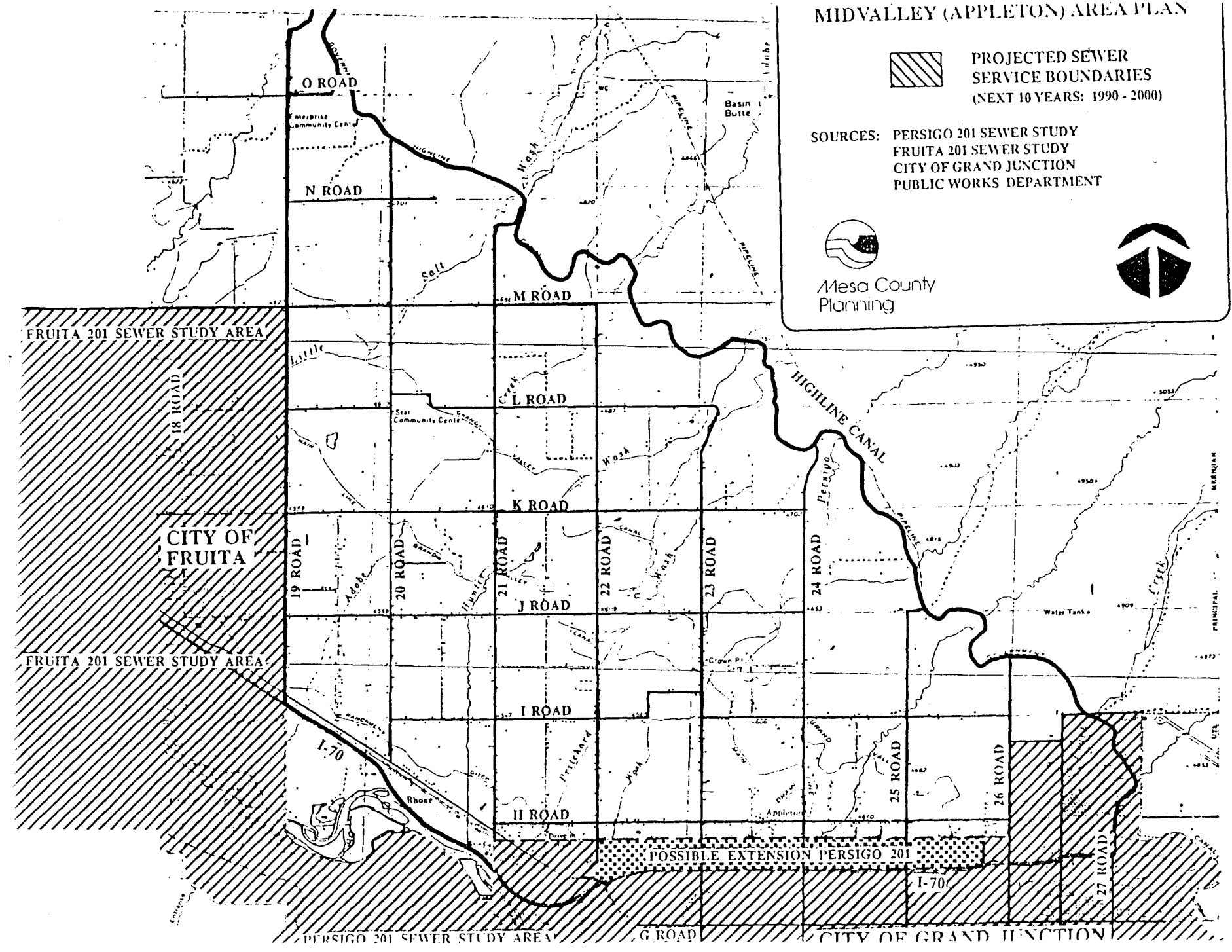


PROJECTED SEWER SERVICE BOUNDARIES  
(NEXT 10 YEARS: 1990 - 2000)







SOURCES: PERSIGO 201 SEWER STUDY  
FRUITA 201 SEWER STUDY  
CITY OF GRAND JUNCTION  
PUBLIC WORKS DEPARTMENT



Mesa County  
Planning

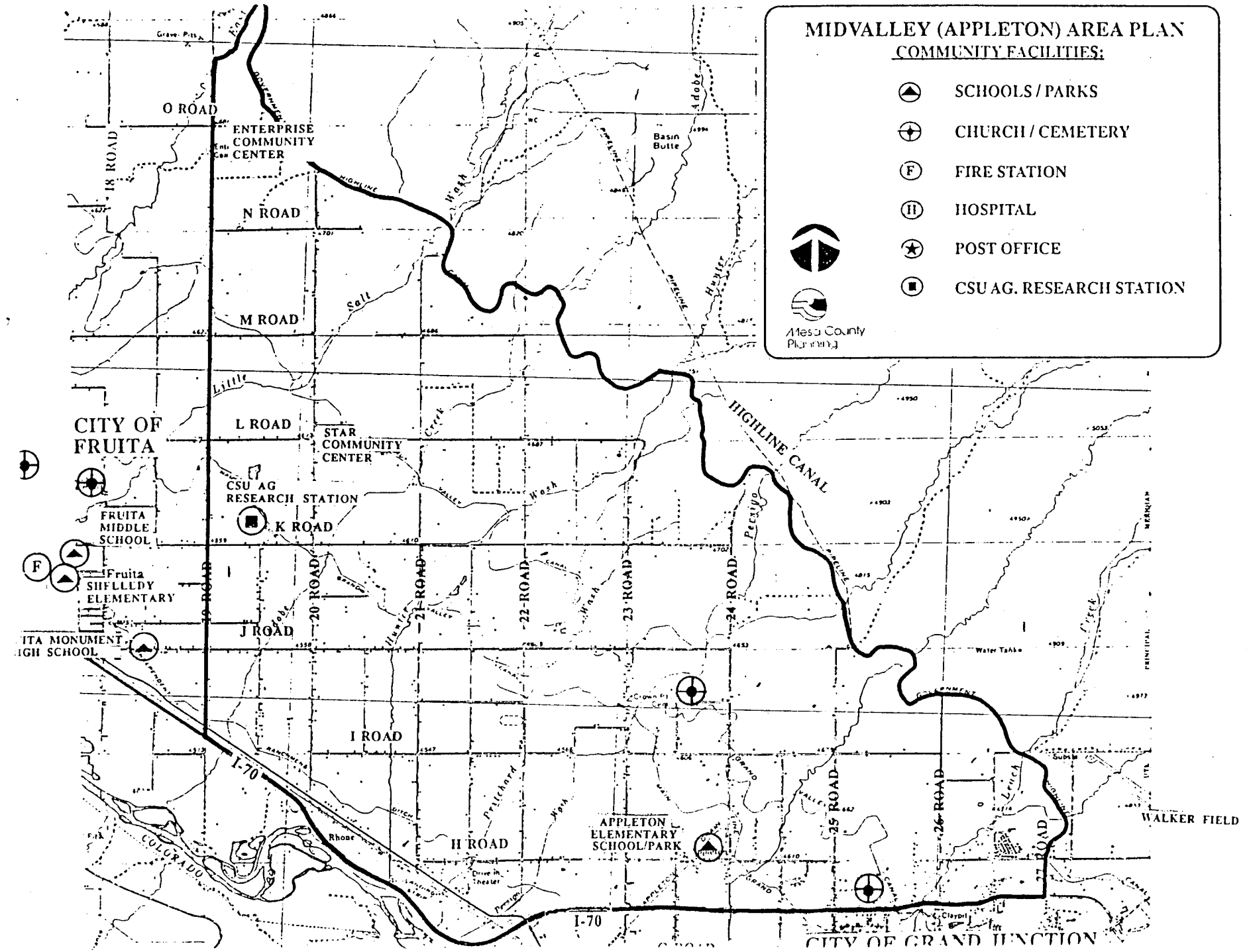


**MIDVALLEY (APPLETON) AREA PLAN  
COMMUNITY FACILITIES:**

-  SCHOOLS / PARKS
-  CHURCH / CEMETERY
-  FIRE STATION
-  HOSPITAL
-  POST OFFICE
-  CSU AG. RESEARCH STATION



Mesa County  
Planning



MIDVALLEY (APPLETON) AREA PLAN

DOMESTIC WATER SERVICE:  
(UTE WATER C.D.)

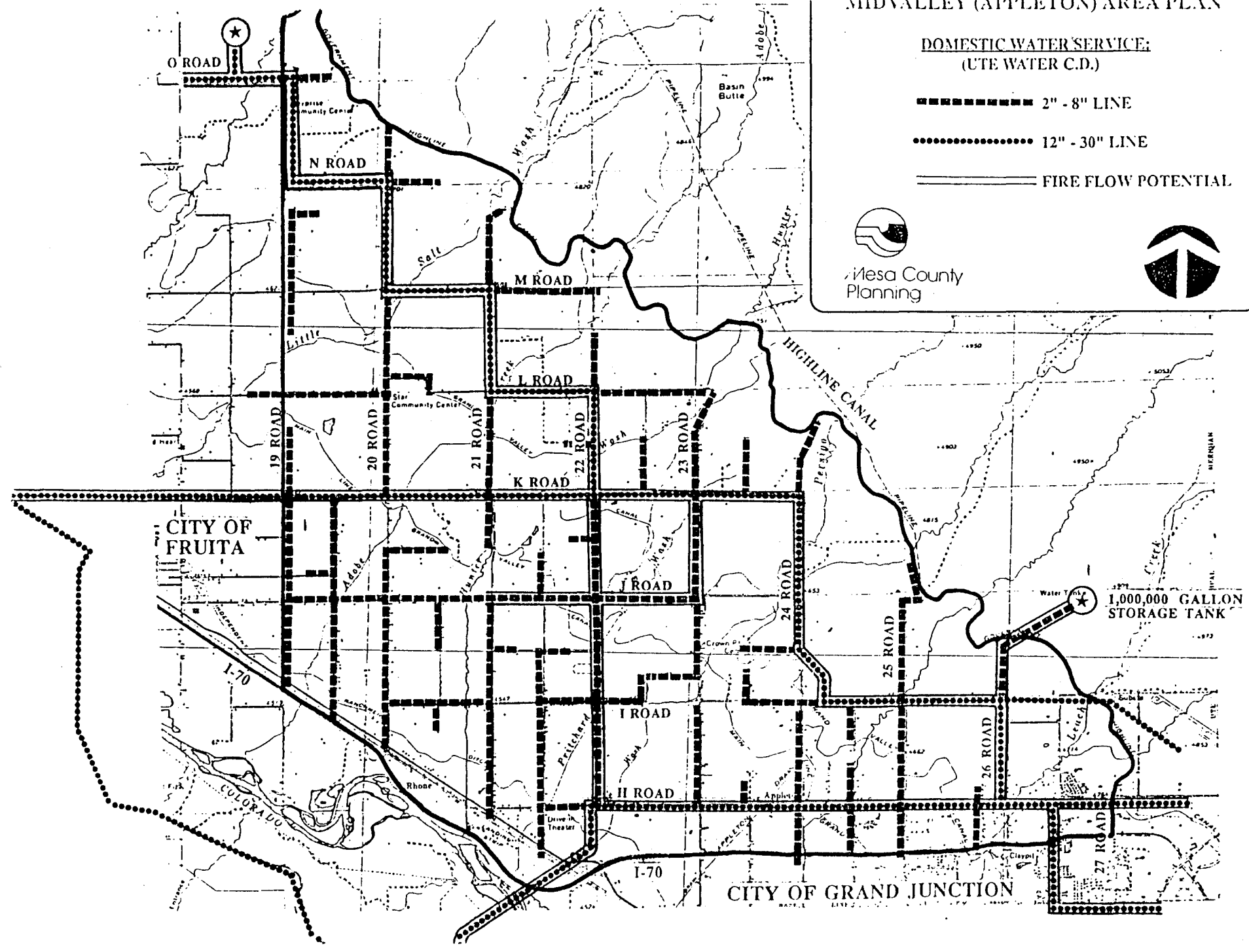
2" - 8" LINE

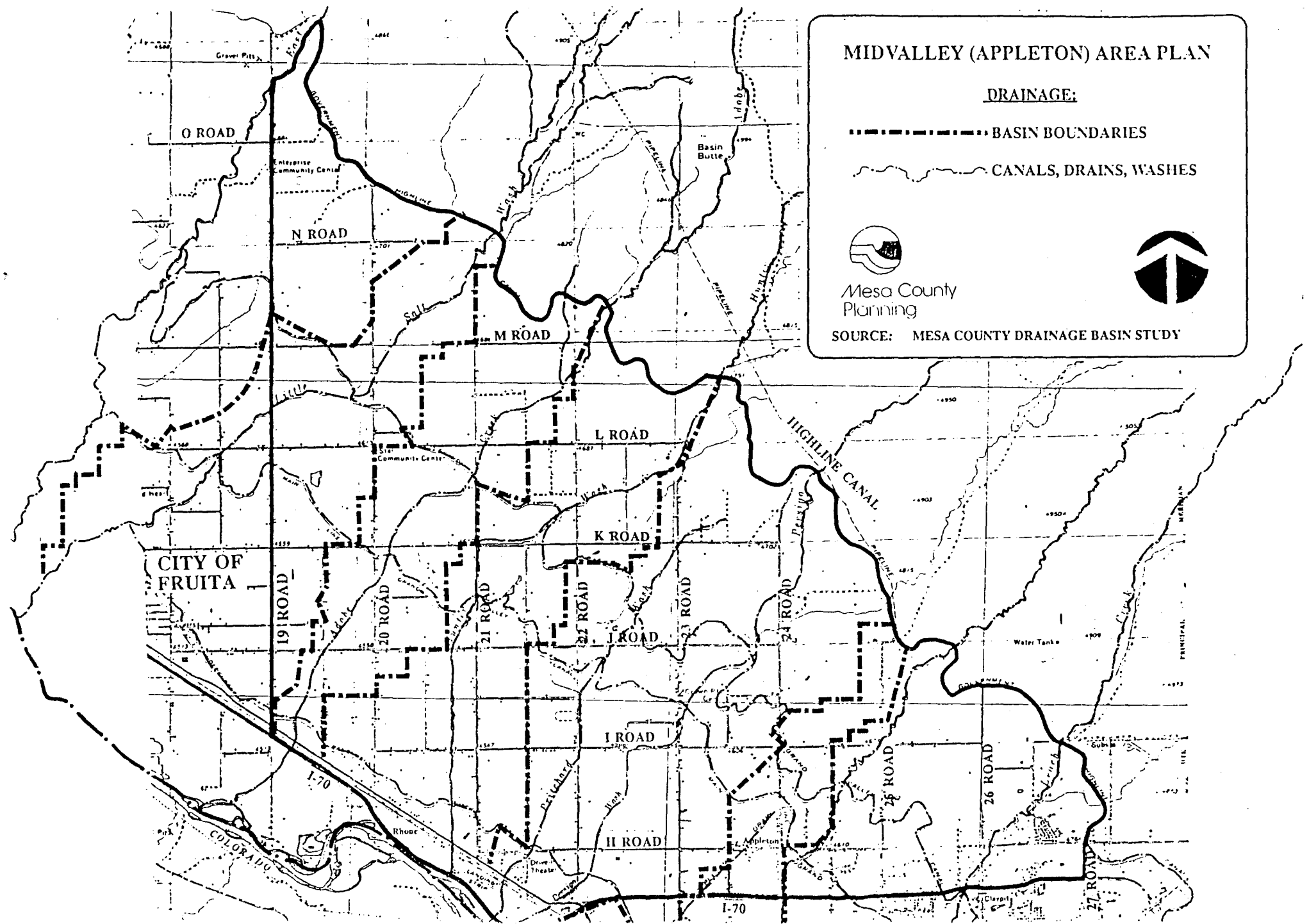
12" - 30" LINE

FIRE FLOW POTENTIAL



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**MIDVALLEY (APPLETON) AREA PLAN**

DRAINAGE:

- BASIN BOUNDARIES
- ~~~~~ CANALS, DRAINS, WASHES



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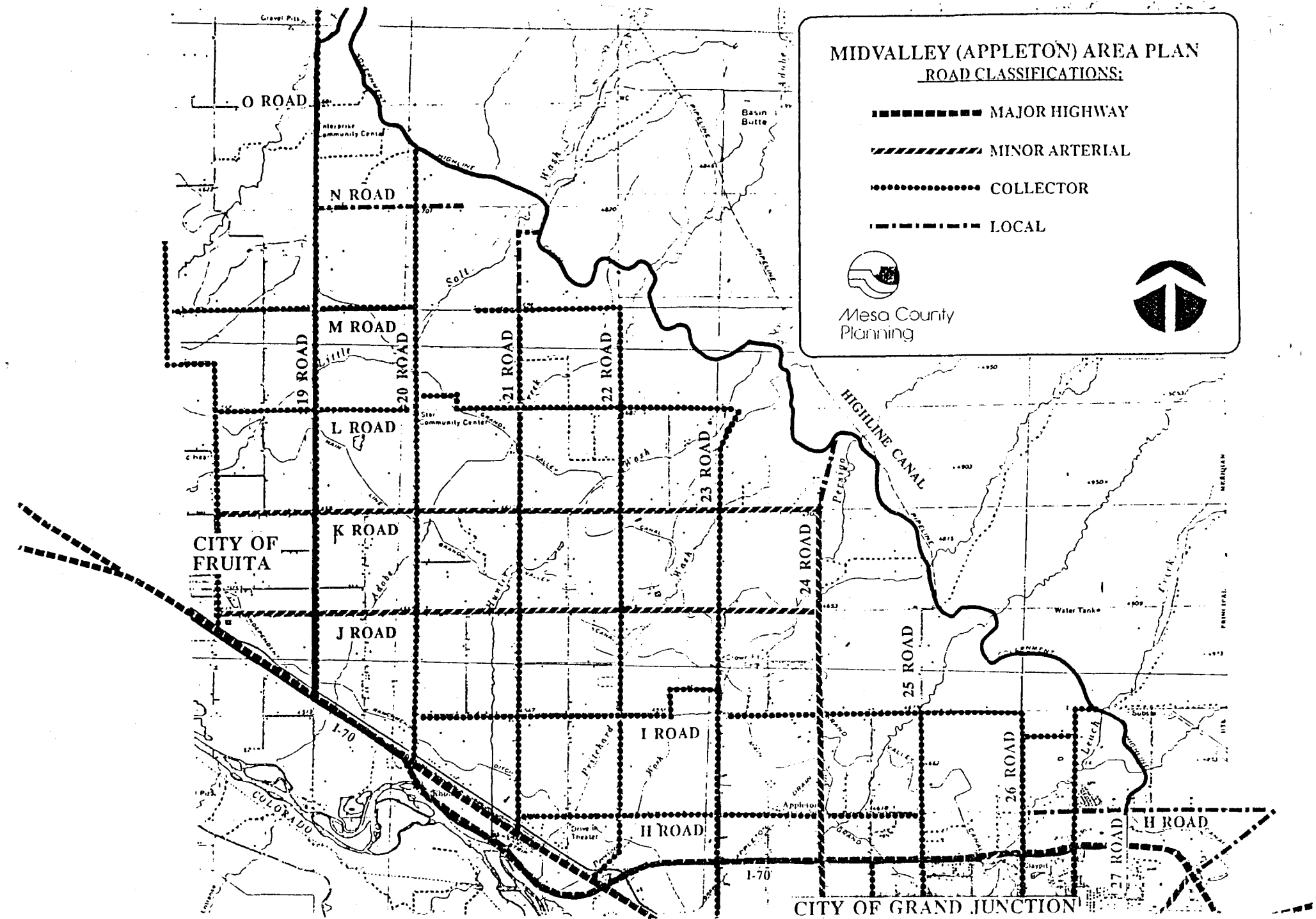
SOURCE: MESA COUNTY DRAINAGE BASIN STUDY

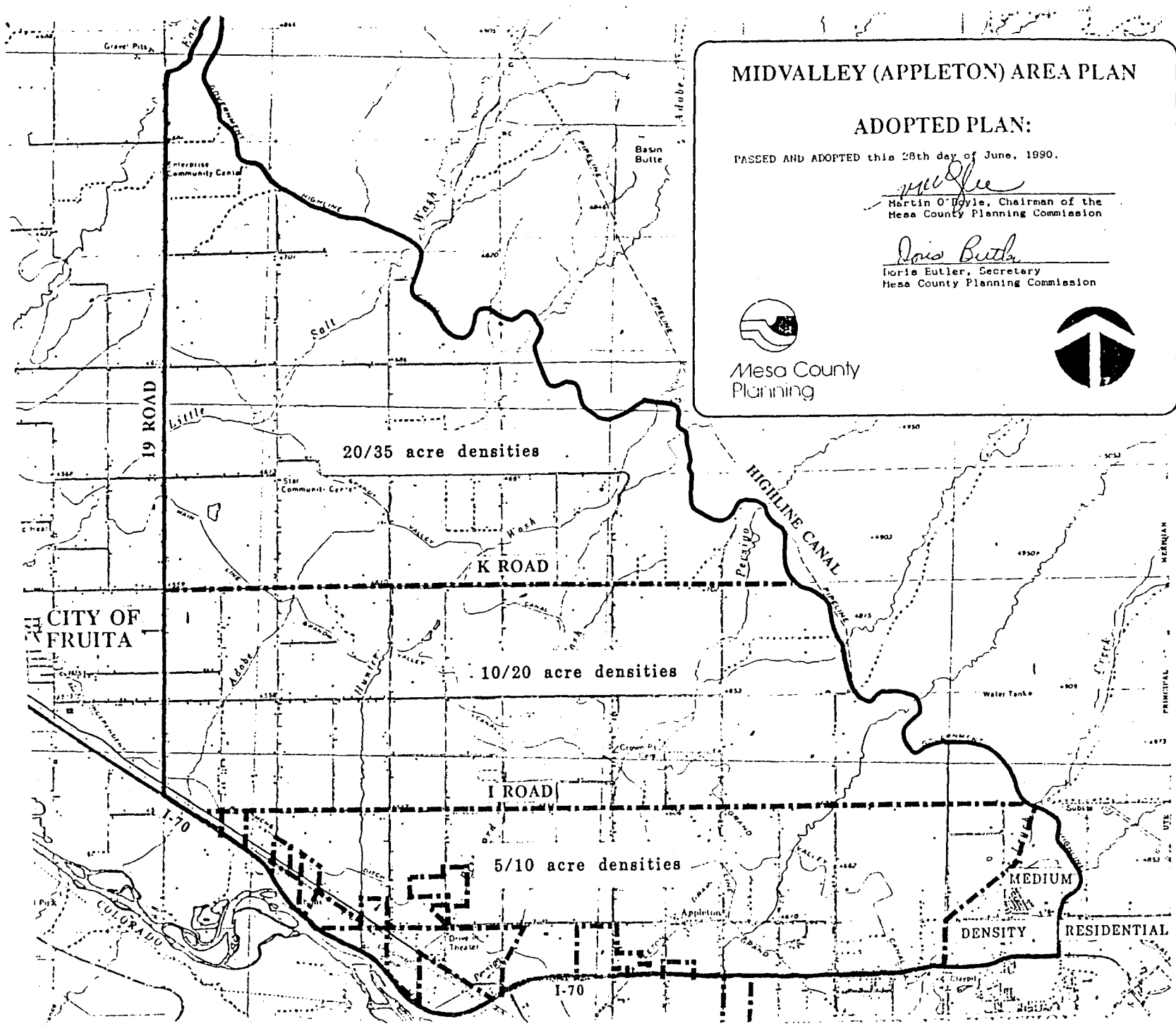
MIDVALLEY (APPLETON) AREA PLAN  
ROAD CLASSIFICATIONS:

- MAJOR HIGHWAY
- MINOR ARTERIAL
- COLLECTOR
- LOCAL



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**MIDVALLEY (APPLETON) AREA PLAN**

**ADOPTED PLAN:**

PASSED AND ADOPTED this 28th day of June, 1990.

*Martin O'Doyle*  
 Martin O'Doyle, Chairman of the  
 Mesa County Planning Commission

*Lois Butts*  
 Lois Butts, Secretary  
 Mesa County Planning Commission



Mesa County  
 Planning



20/35 acre densities

10/20 acre densities







5/10 acre densities

CITY OF  
 FRUITA

MEDIUM  
 DENSITY  
 RESIDENTIAL

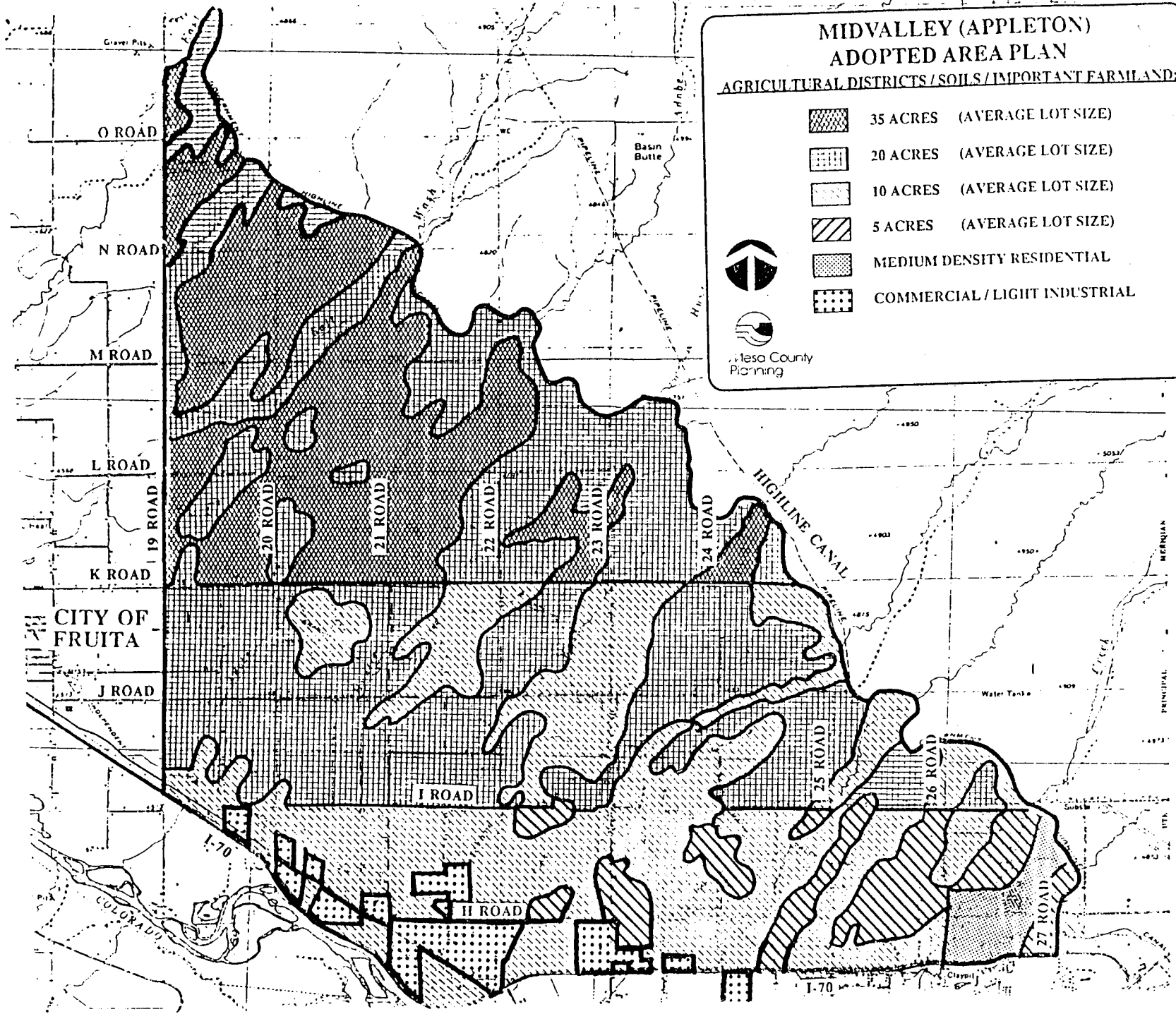
# MIDVALLEY (APPLETON) ADOPTED AREA PLAN

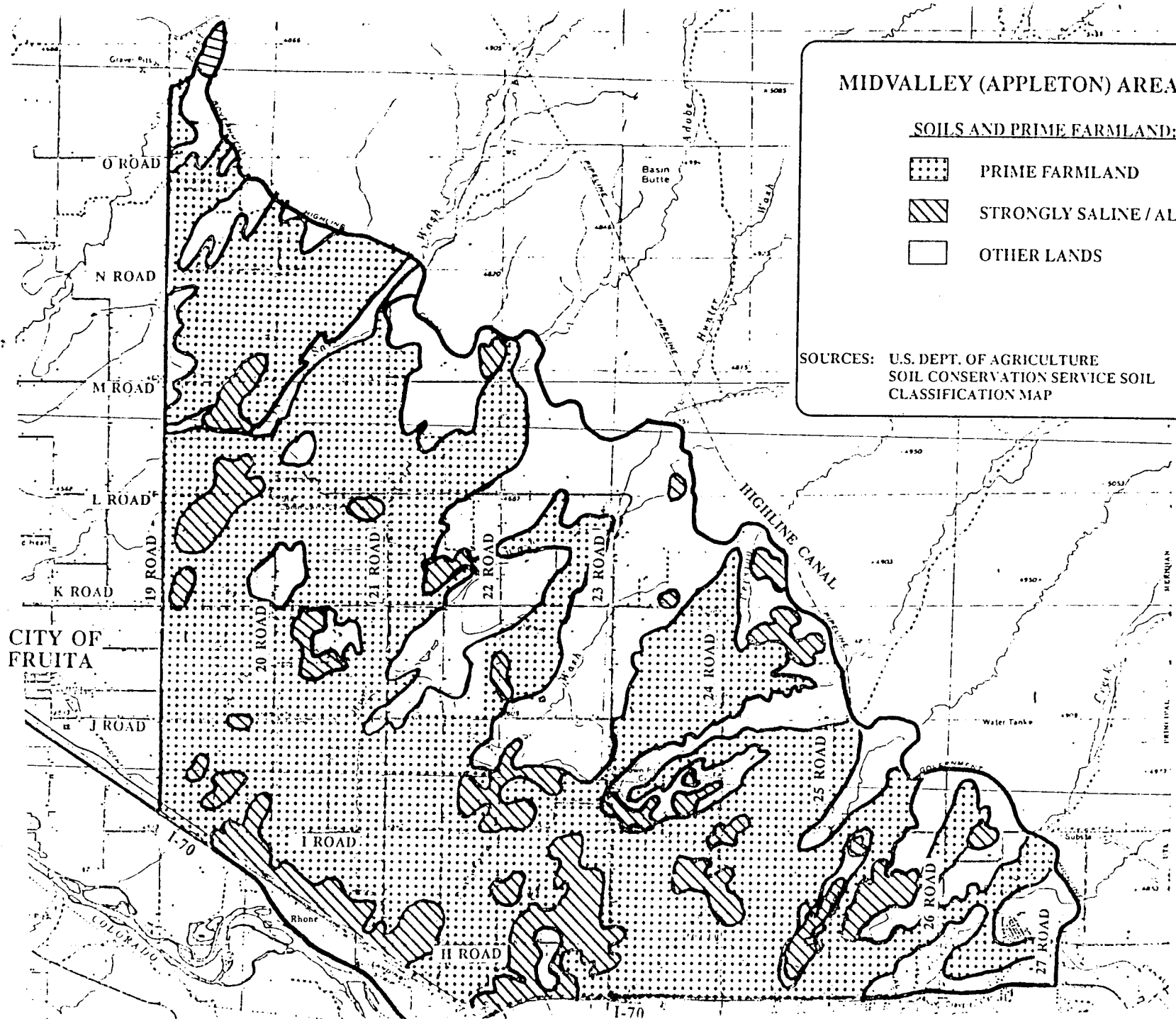
## AGRICULTURAL DISTRICTS / SOILS / IMPORTANT FARMLAND:

-  35 ACRES (AVERAGE LOT SIZE)
-  20 ACRES (AVERAGE LOT SIZE)
-  10 ACRES (AVERAGE LOT SIZE)
-  5 ACRES (AVERAGE LOT SIZE)
-  MEDIUM DENSITY RESIDENTIAL
-  COMMERCIAL / LIGHT INDUSTRIAL






Mesa County  
Planning





MIDVALLEY (APPLETON) AREA PLAN

SOILS AND PRIME FARMLAND:

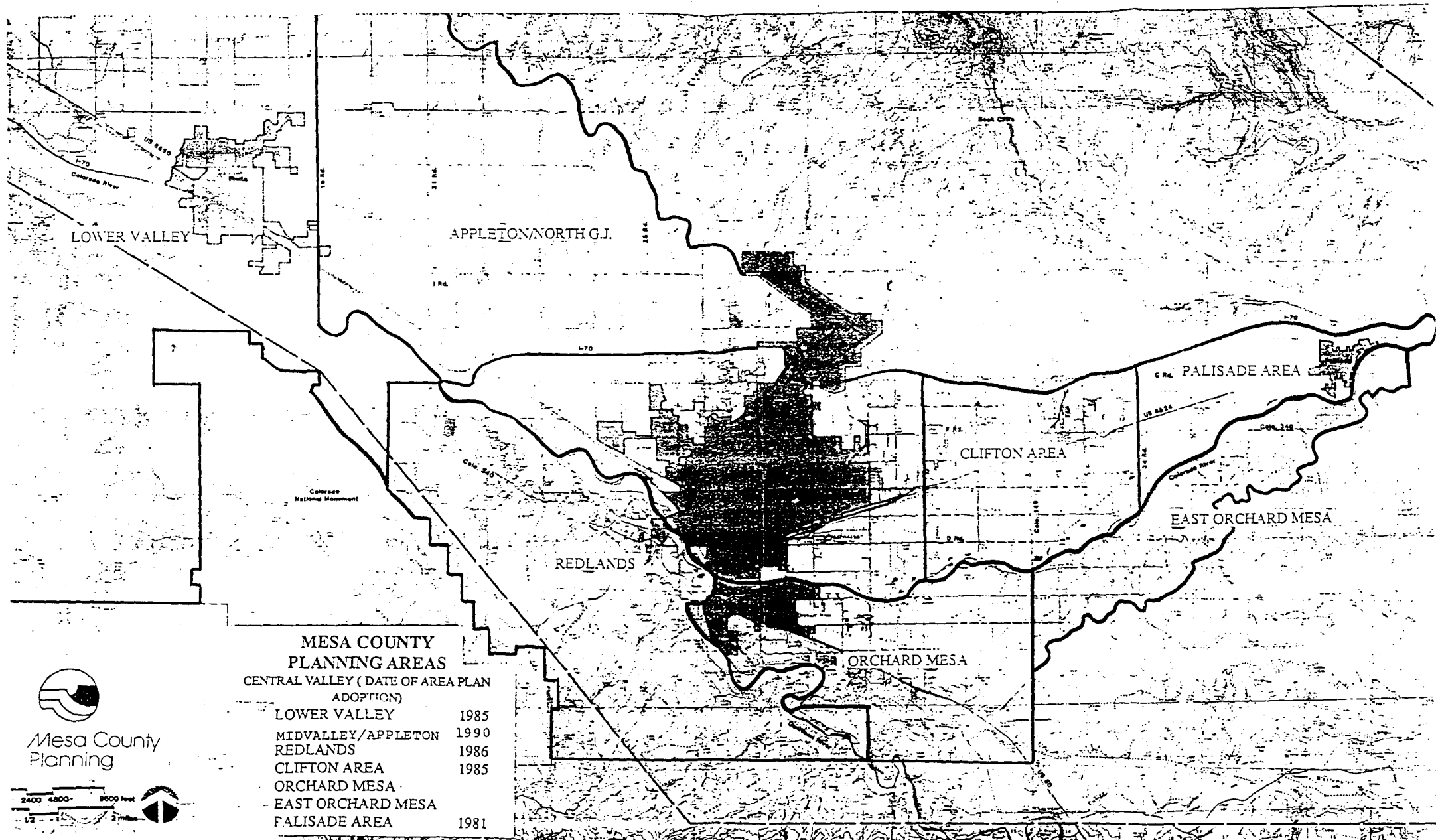
-  PRIME FARMLAND
-  STRONGLY SALINE / ALKALI SOILS
-  OTHER LANDS



SOURCES: U.S. DEPT. OF AGRICULTURE  
SOIL CONSERVATION SERVICE SOIL  
CLASSIFICATION MAP

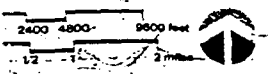


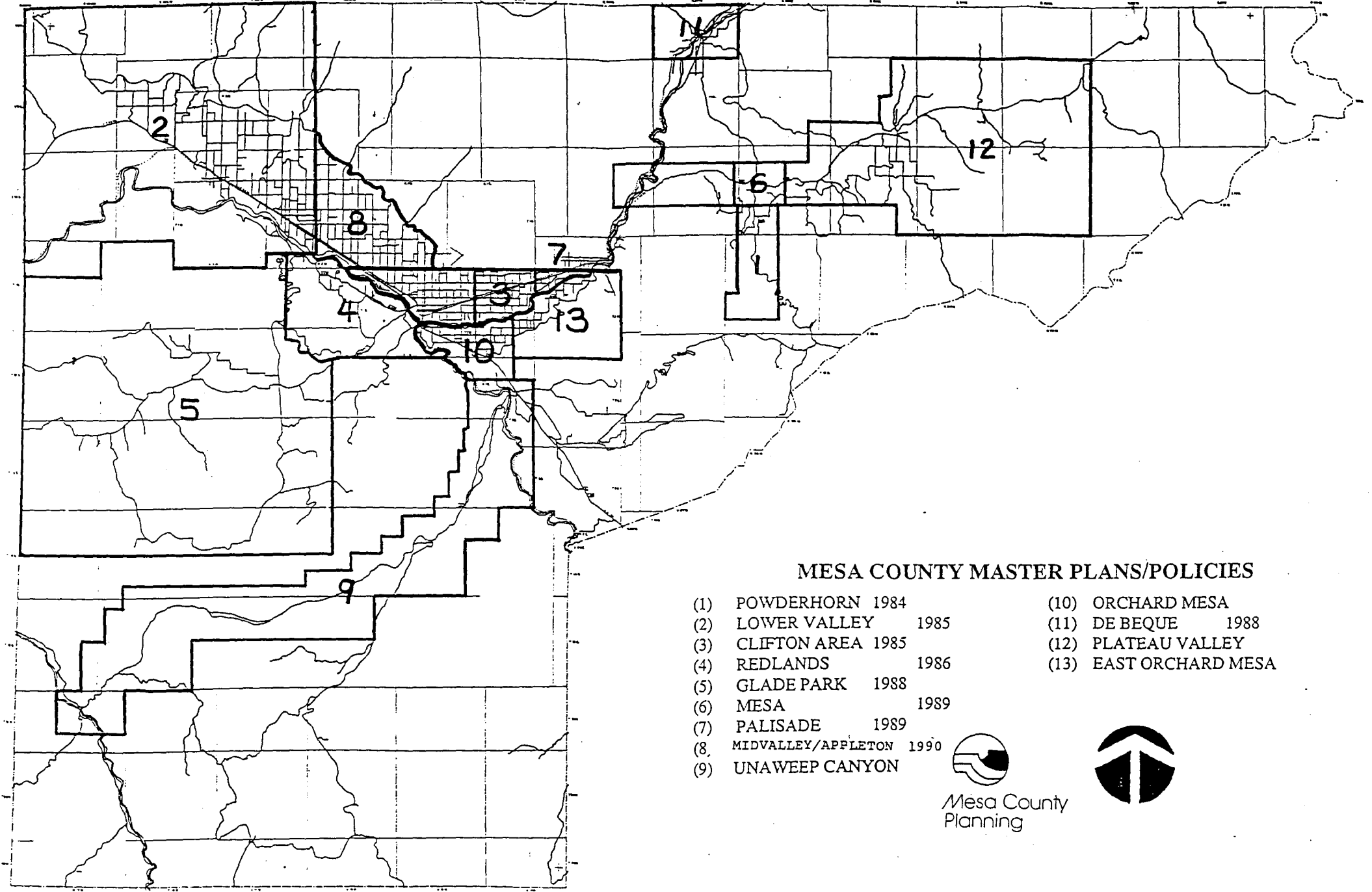




**MESA COUNTY  
PLANNING AREAS**  
CENTRAL VALLEY (DATE OF AREA PLAN  
ADOPTION)

LOWER VALLEY	1985
MIDVALLEY/APPLETON	1990
REDLANDS	1986
CLIFTON AREA	1985
ORCHARD MESA	
EAST ORCHARD MESA	
PALISADE AREA	1981





**MESA COUNTY MASTER PLANS/POLICIES**

- |                             |                        |
|-----------------------------|------------------------|
| (1) POWDERHORN 1984         | (10) ORCHARD MESA      |
| (2) LOWER VALLEY 1985       | (11) DE BEQUE 1988     |
| (3) CLIFTON AREA 1985       | (12) PLATEAU VALLEY    |
| (4) REDLANDS 1986           | (13) EAST ORCHARD MESA |
| (5) GLADE PARK 1988         |                        |
| (6) MESA 1989               |                        |
| (7) PALISADE 1989           |                        |
| (8) MIDVALLEY/APPLETON 1990 |                        |
| (9) UNAWEEP CANYON          |                        |



Mesa County  
Planning



## STAFF REVIEW

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FILE: #SUP 95-136

DATE: November 6, 1995

STAFF: Kathy Portner

REQUEST: Special Use Permit - Fellowship of Excitement Church

LOCATION: NW Corner I-70 and 24 Road

APPLICANT: Grand Junction Baptist Church  
aka Fellowship of Excitement  
2897 North Avenue  
Grand Junction CO 81501

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### EXECUTIVE SUMMARY:

Petitioner is requesting a Special Use Permit for a church and associated facilities on a 25.6 acre parcel located at the northwest corner of 24 Road and G Road zoned RSF-R (Residential Single Family Rural - one dwelling unit per five acres). The preferred Growth Plan alternative as chosen by the Growth Plan Steering Committee designated the subject property as "rural" which calls for development at one dwelling unit per 5-35 acres during the planning horizon to the Year 2010. Staff believes that the development as proposed is more urban in intensity and is not at the scale that would be compatible with low density development as presently zoned or as recommended in existing or developing land use plans. Also, the petitioner has not submitted complete information regarding the feasibility of serving the site with a septic system (as proposed) and the traffic study has also not addressed a number of issues/requirements as detailed by staff. Staff therefore recommends denial of the subject application.

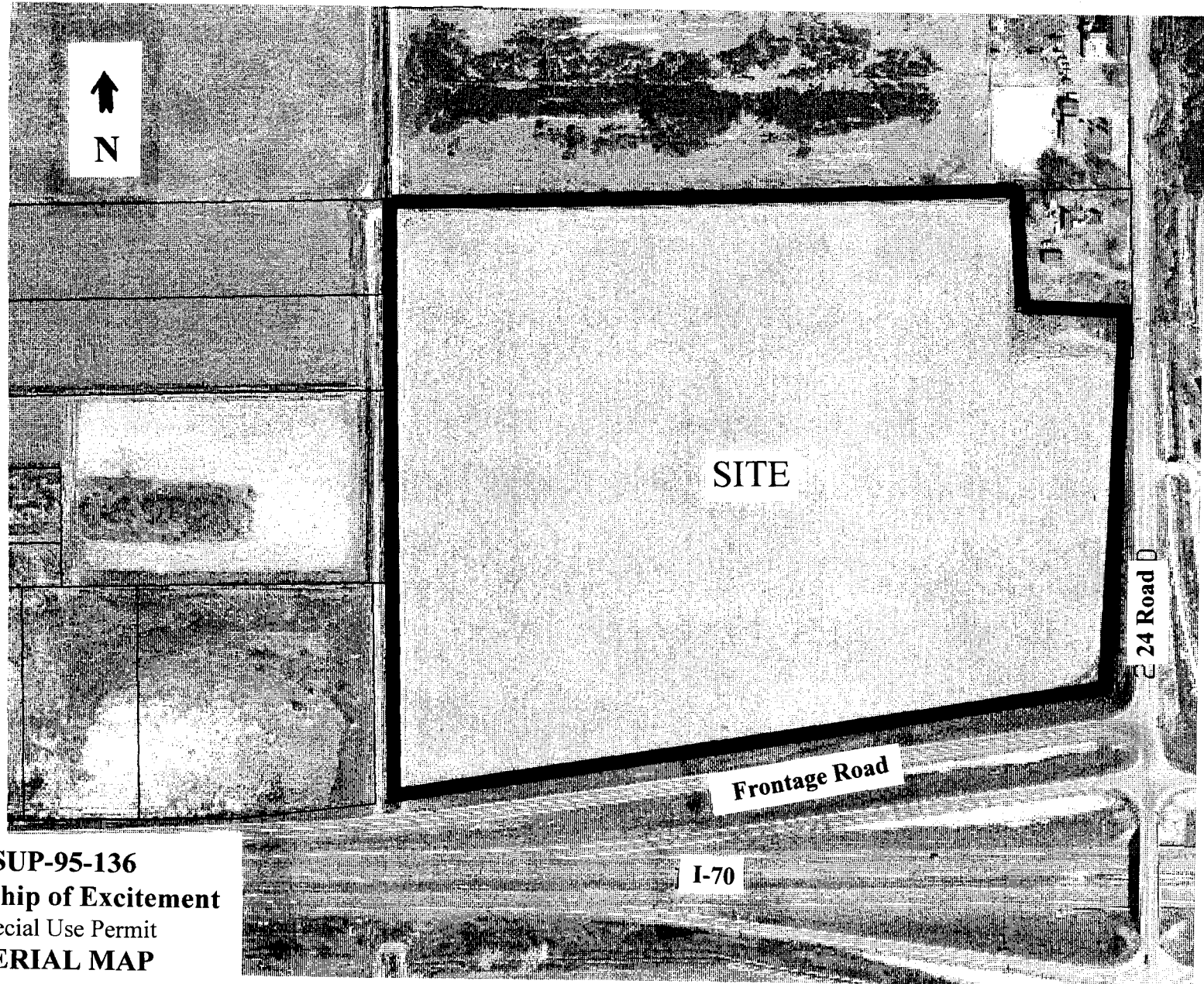
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EXISTING LAND USE: Vacant

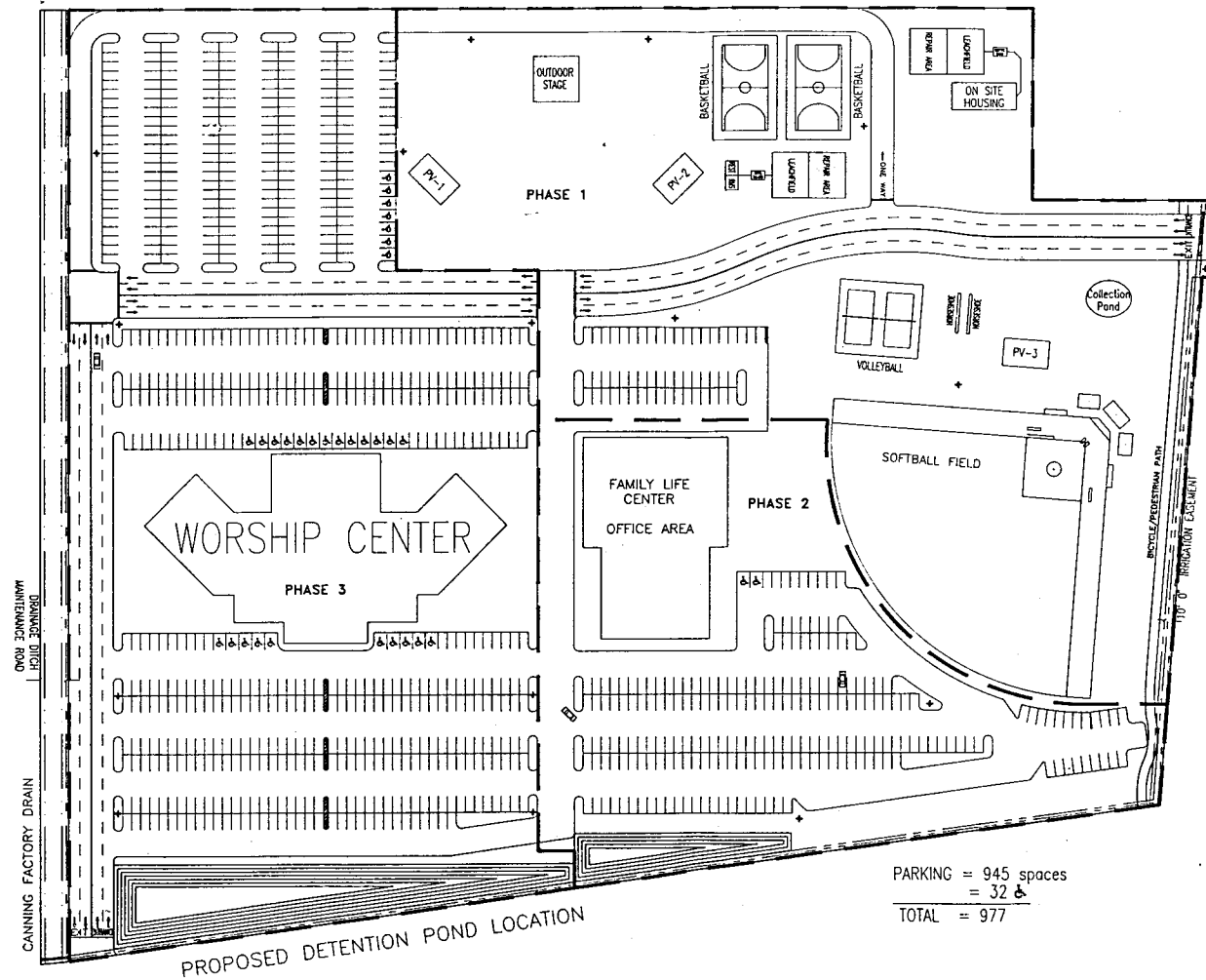
PROPOSED LAND USE: Church with associated facilities

### SURROUNDING LAND USE:

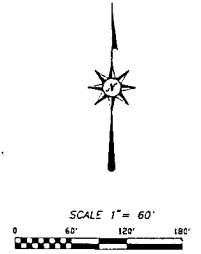
NORTH: Residential - Single Family  
SOUTH: I-70  
EAST: Residential - Single Family/Vacant  
WEST: Commercial



**SUP-95-136**  
**Fellowship of Excitement**  
Special Use Permit  
**AERIAL MAP**



PARKING = 945 spaces  
 = 32 ♿  
 TOTAL = 977



CANNING FACTORY DRAIN  
 MAINTENANCE ROAD

PROPOSED DETENTION POND LOCATION

NO.	REVISIONS	DATE
1	SEPT 15, 1995	
2	SEPT 20, 1995	
3	DECEMBER 15, 1995	

	SITE PLAN
	FELLOWSHIP OF EXCITEMENT
PHILIP M. HART REGISTERED PROFESSIONAL ENGINEER P.E. NO. 18346	PROJECT NO. 8908    DESIGN/DRWING/CONTR.    SHEET 07 DATE SEPT 7, 1995    5m    10m    15m

EXISTING ZONING: RSF-R (Residential Single Family - one unit per five acres)

PROPOSED ZONING: No Change

SURROUNDING ZONING:

NORTH: AFT (Agriculture/Forestry/Transitional - County Zoning)  
SOUTH: PRVR (Planned Recreational Vehicle Resort)  
EAST: RSF-R (Residential Single Family - one unit per five acres)  
WEST: C (Commercial - County Zoning)

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RELATIONSHIP TO COMPREHENSIVE PLAN:

See staff analysis.

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STAFF ANALYSIS:

The staff analysis is divided into five sections: (1) an overview of the proposal; (2) relationship of proposal to current/long-term planning and zoning; (3) staff evaluation of submittal materials; (4) planning analysis of special use permit criteria and (5) staff findings and recommendations:

The Development Proposal

The proposed church and associated facilities are proposed for a 25.6 acre parcel located at the northwest corner of 24 Road and G Road (see attached aerial). The proposal calls for the ultimate development of a 2,200 seat worship facility, a family center with church offices, an outdoor stage, and recreational facilities including a softball field, volleyball courts and basketball courts (see attached site plan).

Project phasing is proposed as follows: Phase I will include the recreational facilities (some of which are existing), the on-site housing and maintenance building and associated parking. Phase II consists of the "Family Life" building and church offices which is initially proposed as the principal church building. Once the worship center is constructed in Phase III, the Family Life building will be used as an indoor gymnasium and meeting hall for church functions. Phase III calls for the construction of the worship center and the remaining parking facilities.

Principal access is proposed from one driveway on 24 Road and a driveway on the I-70 frontage road. Stormwater drainage from the site will be detained in a detention basin near the southwest corner of the site. Water service is presently located about 1/4 mile from the site and is proposed to be extended to service the project. The project does not lie within the 201 sewer service area. The petitioner initially proposed to service the project with a septic system. A letter was later received

by staff requesting that the project be included within the 201 area so that sanitary sewer could be extended to service the site, however soon thereafter the petitioner submitted another letter requesting that the 201 request be withdrawn and that the project be served with septic as originally proposed. The closest sanitary sewer line is located on the south side of I-70 near Interstate Avenue, more than 1/2 mile from the subject property.

Further details concerning the project including the proposed utilization of the facilities is detailed in the materials submitted by the petitioner.

#### Relationship of Proposal to Current/Future Planning and Zoning

There are current and developing land use plans along with the existing zoning which provide some direction regarding the future land use of the subject parcel and the surrounding area.

The Mid Valley Appleton Plan is an adopted County plan (Land Use and Development Policy #33) that contains land use recommendations for the subject site and vicinity. The Plan includes a policy which calls for discouraging "activities and development which significantly increase traffic volumes in the area (pg. 6)." The land use plan calls for the development of the subject site to be no greater than one unit per 5 to 10 acres. The plan does identify the subject parcel in an area of "possible extension" but gives no planning horizon for such an extension.

The Grand Junction Growth Plan is presently under development and includes the subject site and vicinity. Three plan alternatives have been developed to date by the project consultant and the Growth Plan Steering Committee has recommended the "Concentrated Growth" alternative as the preferred plan alternative. The Concentrated Growth alternative identifies lands north of I-70 in the project vicinity as "Rural." A rural designation is defined as a residential development density of one unit per 5-35 acres of land, a density which would not require sewer service. The planning horizon for the Growth Plan is 2010.

Current zoning for the parcel is RSF-R (one dwelling unit per five acres) with the surrounding area primarily being zoned either RSF-R (for lands in the City) or AFT (for lands in the County). The current zoning would permit approximately five single family homes on the subject parcel.

Based on the existing zoning and existing and proposed land use plans for the site and vicinity, the proposed project is out of scale with recommended land use intensities for the area. The recommended land uses for the planning horizon (2010) call for a rural density whereas the subject application represents urbanization. The proposed intensity of use appears to be premature considering that urbanization is not contemplated in the planning horizon. However, if Planning Commission is inclined to approve the request, we believe that the zoning for the parcel and surrounding parcels (particularly the parcel adjacent to the east) should be changed to reflect the intensity of use. Consideration should then also be given to providing the area with urban services (e.g. sanitary sewer).

### Staff Analysis of Submittal Materials

The petitioner was required to submit certain materials in support of the Special Use Permit request which included a preliminary drainage study, traffic study, site plan and other supporting documentation. The materials were reviewed by City staff and affected review agencies and the comments and requirements were forwarded to the petitioner. The principal issues for City staff which emerged after the initial review were (1) noise impacts of the proposal on surrounding properties, particularly from the proposed outdoor stage; (2) traffic impacts of the development and the improvements which would be required to accommodate site-generated traffic; and (3) the feasibility of serving the proposal with a septic system. The petitioner was directed to provide a revised traffic study based on staff concerns and provide additional information on the outdoor stage and septic service feasibility. The application was pulled from the agenda by the petitioner to allow preparation of additional information and studies.

Additional materials were submitted by the petitioner including a revised traffic study. The materials were reviewed by staff and outstanding issues, particularly those associated with the traffic study, which contained the most deficiencies, were again forwarded to the petitioner. A further revised traffic study (copy attached to this staff report) was prepared by the petitioner and was forwarded to staff for review.

It is staff's opinion that there still are significant items in the traffic study that have not been addressed by the petitioner which are critical in evaluating the feasibility of the project. To assist the Commission, the Development Engineer has provided an evaluation of the traffic study which is attached to this staff report. The memo summarizes staff comments, details which issues have been addressed by the traffic study, identifies which issues remain, and describes why the missing information is critical to evaluation of the proposal.

In addition to the traffic study information, no data has been supplied which permits a complete evaluation of the feasibility of the site being served by a septic system. While the petitioner did submit a general evaluation of the noise impacts of the proposal, no supporting data was supplied. The petitioner was advised by staff to have a noise impact professional at the public hearing to address questions related to the design of the proposal and its potential noise impacts.

Generally, staff does not recommend that projects with incomplete information be forwarded to the Planning Commission for consideration, however since the project has been postponed twice and the petitioner has indicated a desire to have this matter heard by the Commission, the project was scheduled for a hearing.

Based on the information supplied, staff is unable to make a recommendation on the application, particularly the traffic impacts and septic service feasibility. If staff were required to make a recommendation based on the incomplete information submitted, staff recommends denial of the subject application until such time that information is provided so that a complete evaluation can be made.



### Planning Analysis of Special Use Permit Criteria

The planning-related documents applicable to this project include the Zoning and Development Code (ZDC), specifically Section 4-5 & 4-8 pertaining to the Special Use criteria.

Section 4-8 of the Zoning and Development Code specifies the criteria used to evaluate all uses requiring a special and conditional use permit. The proposed project falls in the use category of churches which requires a special use permit in the RSF-R zoning district. This section contains staff's evaluation of the special use criteria based on the proposed project. To avoid repetition, reference may be made to the preceding staff analysis.

It is important to note that a special use is *not* a use by right. In general terms, the Planning Commission must evaluate whether the use proposed can function satisfactorily at the subject site without creating significant adverse impacts on surrounding properties or public services. Staff analysis of the specific Code criteria are as follows:

*1. The proposed use must be compatible with adjacent uses.*

As detailed in the preceding staff analysis, it is staff's opinion that the scale and impacts of the proposed use is not compatible with existing zoning and the current long-range planning for the site vicinity.

*2. The use shall be approved only if the design features of the site, such as service areas, pedestrian and vehicular circulation, safety provisions, accessory uses, accessways to and from the site, buffering, etc. are sufficient to protect adjacent uses.*

The information supplied by the petitioner, especially that related to traffic impacts and septic system feasibility is incomplete and does not allow a complete evaluation of the proposal. Based on the information submitted, staff does not believe that the petitioner has shown that the site traffic could be adequately accommodated based on the Development Engineer's evaluation of the proposal.

*3. Proposed accessory uses must demonstrate that they are necessary and desirable.*

The accessory uses, namely the recreational facilities proposed, do add to the site impact.

*4. Adequate public services (e.g. sewage and waste disposal, domestic and irrigation water, gas, electricity, police and fire protection) must be available without the reduction of services to other existing uses.*

The petitioner has not provided adequate technical documentation to show that the site could be served by a septic system. If a decision is made in favor of the project and the subject location, then staff believes that based on the urban intensity of the proposed use sanitary sewer should be extended to serve the site.

5. Other uses complimentary to, and supportive of, the proposed project shall be available including schools, parks, hospitals, business and commercial facilities, transportation facilities, etc.

See #2 above related to the adequacy of the transportation facilities provided.

6. The use shall conform to adopted plans, policies and requirements for parking and loading, signs and all other applicable regulations of this Code.

Staff believes that the scale and intensity of the proposed use is not consistent with the existing or surrounding zoning and is not consistent with the land use recommendations of the Mid-Valley Appleton Plan or the preferred alternative of the Grand Junction Growth Plan. If a decision is made in favor of the proposal at the subject location, then staff recommends that the zoning for the parcel and possibly surrounding parcel be changed to reflect the urbanization of the area.

In addition to the above criteria, the application must also satisfy the criteria in the "Specific Criteria Matrix" (Figure 4-8-2 in the Zoning and Development Code - copy attached). The criteria for a church use are as follows:

- *Does the location of the use benefit existing facilities?*
- *Is the location of the use appropriate to the classification of street or road on which it is located?*
- *Does the proposed use make provisions for regular periodic peak usages?*
- *Is there a multiple use capacity and how might it be utilized?*
- *Is there a need for the facility on a community-wide basis?*

The petitioner needs to address to the Planning Commission how the proposal satisfies these additional criteria.

#### Staff Recommendation

The evaluation of the Special Use Permit for the Fellowship of Excitement has two distinct components: (1) the compatibility of the land use at the subject location considering existing zoning and land use planning documents and (2) whether adequate infrastructure, particularly roads and sanitary waste, can be provided to adequately serve the site and without having adverse impacts on the surrounding area.

As detailed in the staff report, the project appears to be out of scale with both existing zoning and adopted and developing land use policies for the site and vicinity. The size and scale of the project

should be considered urbanization which is not being contemplated in the planning horizon to the Year 2010 for the subject area. To permit this development at the proposed location sooner appears to be premature. However, should the project be considered for the site, then the subject property and possibly surrounding properties should be rezoned to reflect the intensity of the use and adequate infrastructure, particularly sanitary sewer, should be provided to service the urbanized uses.

Based on the information supplied to date by the petitioner, it has not been demonstrated that the use can be developed to adequately service the site and without creating potential adverse impacts on the surrounding area. The two major outstanding issues are (1) traffic impacts, particularly the feasibility of providing the improvements required as a result of the traffic analysis, and (2) the feasibility of servicing the development with septic as proposed by the petitioner.

In conclusion, based on the above items and the lack of technical information to adequately review the proposal, staff recommends denial of the Special Use Permit request.



#### STAFF RECOMMENDATION:

Staff recommends denial of the special use permit for the reasons detailed in the staff report.



#### RECOMMENDED PLANNING COMMISSION MOTION

Mr. Chairman, on item #CUP-95-80 I recommend that we approve the Special Use Permit. (STAFF RECOMMENDS DENIAL).

## MEMO

To: Grand Junction Planning Commission  
From: Jody Kliska, City Development Engineer  
Re: Review of Revised Traffic Study dated 10-13-95  
Fellowship of Excitement - SUP-95-136  
Date: November 3, 1995

As previously stated in the review comments to the petitioner, traffic appears to be the greatest issue with this project and remains a concern. Initial comments to the petitioner were made on August 17, 1995 and additional comments were given to the petitioner on September 27, 1995 following another submission of the traffic study. Meetings with the petitioner's representative have been held after each set of comments was received. This latest review will detail the previous comments and revisions as well as new comments.

I have formatted my comments to include an analysis of which issues have been addressed, what issues/requirements remain outstanding, and a brief discussion of the importance of remaining issues. A summary is provided at the end of these comments.

### **August 17, 1995 Comments:**

*1. Traffic appears to be the greatest issue with this project and a more thorough traffic study is required than what was submitted. Please use the SSID checklist and the Transportation Engineering Design Standards for format and report.*

Two revisions to the original submittal have been made and we are getting closer to the required format and information. The purpose of the traffic study is first to determine how much additional traffic will be added to the existing facility, what effect it will have on the traffic flow at the time of development and also at a point in the future if the project is to be phased. Next, the traffic study should provide an analysis of what improvements to the roadway system are needed to mitigate the effects of the proposed development. This analysis should go beyond simply calculating a LOS, but should also determine the need for and the basic design of improvements such as turn lanes. There should be sufficient detail to determine if there are physical limitations or constraints with the proposed improvements.

*2. The trip rates for a church as shown in ITE are not adequate for this project. The trip rate is derived from only seven observations made in the 1970' and 1980' of churches of a much smaller size than the proposed, with a standard deviation of greater than 7. A trip generation study which projects trip generation based on the existing Fellowship of Excitement site for the church facility will be acceptable. ITE Trip Generation provides guidelines in the beginning of the book on conducting local trip generation studies.*

The second submittal of the traffic study included the data collected from the existing site,

but did not use it to project traffic for the new site. In the latest submittal, the data was used to project traffic for the new site and is acceptable. Although I know how the data used was derived, it would be helpful to include in the text a little more detail so it is clear how the trip generation rates used were derived. This is important to document, as these rates have recently been applied in another study for a different church submitted to a different review body.

*3. The traffic study needs to address trip generation for the various proposed uses on this site. The City recently completed counts at Columbine Park ballfields to predict trip generation for the ballfield use. You may use our trip rates of peak hour ballfield (occurred 6:45 p.m. to 7:45 p.m.) of 73 vehicles per field with 49% entering and 51% exiting. We have determined 50 parking spaces per ballfield is required. Dave Tontoli, City Traffic Engineer (244-1567), has the most recent counts done on 24 Road and G Road, as well as projections for 2015 traffic.*

The second traffic study did provide a uses and parking table, but used the parking requirement for trip generation. The latest study did provide a table of trip generation for the various uses, however, some of the data is incomplete. The table, for example, shows only trips in for the ballfields and ignores the data provided in comment 3. The table also only accounts for trips in for the Family Center and the Stage, and shows no trips out. The only documentation for these uses is the trip generation was derived from Church officials.

*4. The study needs to provide an analysis of the need for and design of turn lanes at the site driveway and at the frontage road/24 Road intersection, as well as any other improvements warranted by the site development. The Transportation Engineering Design Standards provide guidance on determining requirements for turn lanes as well as minimum design criteria.*

None of the submittals to date have included an analysis of the need for turn lanes, although the conclusions have recommended turn lanes. The Transportation Engineering Design Standards (TEDS) manual (prepared by City Engineering for use in the traffic design) has charts for determining the requirement for turn lanes and prescribes a method for determining the needed length of the turn lane as well as appropriate tapers for safe transitions. None of this has been computed and submitted as part of the traffic study analysis. A recommendation for turn lanes without the necessary information for the design is incomplete. This information is necessary to determine if it is physically possible to install the required improvements and to determine the extent of the improvements. For example, the amount of the turning traffic may require a turn lane which exceeds the distance between the frontage road and the interstate bridge. Unless the applicant proposes to either widen the bridge or move the frontage road to provide the separation, the proposed use will likely cause an impediment to the through traffic using 24 Road. At the site driveway on 24 Road, a long turn lane is likely required and will also require

improvements to 24 Road north of the driveway to install the appropriate tapers for the speed of the road. No mention of improvements to the frontage road at the site driveway have been addressed in any report. It is interesting to note, however, that the capacity analysis of the frontage road intersection assumes a two lane approach, one for left turns and one for right turns. The frontage road as it exists today is a single lane approach and should be treated as such with the projected traffic. Although the throat of the intersection is wide enough for two cars to sit side by side, a queue of traffic will not be able to operate as though it has two lanes.

*5. Sight distance and the proximity of the frontage road to the I-70 ramps is of concern and needs to be addressed.*

To date, no data has been provided on site distance nor has a condition diagram showing the dimensions of the road, the ramps, the frontage road, and the proposed site drives.

*6. Detached bicycle/pedestrian facilities along the property's 24 Road frontage will be required. The City is in the process of compiling a plan for the 24 Road Corridor which will identify needs. These facilities must meet City Standards as shown in the standard drawings.*

Since 24 Road is a designated bike route by the Multi-Modal Plan, the traffic study should acknowledge that, and improvement plans need to reflect the required design.

*7. Please provide an analysis of how the parking needs for the site were computed.*

A parking and uses table was provided in the second traffic study.

*8. The Transportation Capacity Payment will be based upon trip generation from the entire site.*

The cost of improvements to 24 Road will be credited to the TCP.

*9. Please provide information on when (time of day, day of week) the existing counts were done for the submitted traffic study.*

This has been provided.

The following comments were sent to the petitioner on **September 27, 1995** following the submission of the second traffic study:

*1. Please clarify how the trip generation rate was derived from the counts at the existing facility. I would like to see the rate tied to the square footage of the facility rather than the City's parking requirement. Some questions which arise are: how many services are*

*conducted on Sunday presently, how many are anticipated at the new facility, what is the seating capacity and square footage of the existing facility compared to the new one?*

At a meeting following these comments, we agreed to a trip generation rate based on the seating capacity of the church using an extrapolation of the trip generation of the existing facility to the seating capacity of the new facility. Questions about the number services were answered verbally but not included in a response or in the text of the study. Although we are only requiring a traffic analysis of the peak hour of occurrence, with multiple services the increased traffic will occur over a longer time period than just the peak Sunday hour.

*2. The Uses and Parking Table is good. Please show when during the week each use is anticipated to occur. It may be possible to share parking, rather than provide excessive parking and paved area.*

The latest submittal gives a breakdown of the uses and the anticipated trip generation for each use, as well as a breakdown of the times in use. As noted earlier, however, some of the uses have incomplete trip information and ignored the ballfield trip information provided by the City in the initial comments.

*3. The generated traffic does not appear to be added correctly to the existing traffic in Figure 7. Attached is what I came up with based on the numbers provided. The analysis needs to be done on corrected numbers and I think will produce different results.*

This has been done correctly in the latest submittal.

*4. A plan showing the dimensions of the roads and intersections with pavement width and intersection and ramp spacing distances is required.*

No plan was included as part of the traffic study or the latest submittal. This information is necessary to determine if the required improvements, once determined, will work and if additional right of way is required.

*5. It appears a left turn lane both into the site and onto the frontage road is required. The City TEDS criteria should have been referenced and noted in the study.*

Again, the conclusion of the study is that turn lanes are required. No analysis or reference to the TEDS was included. The missing information requested in item 4 above is required to look at the required lane lengths and tapers and how they would fit on the existing conditions.

*6. A table or diagram within the text of the report, rather than as an appendix, shall be provided which would make the report more readable.*

More tables have been provided within the body of the report and it is more reader-friendly as a result.

*7. A copy of this study has been forwarded to CDOT for their review and comment. It appears the frontage road is in the state right of way and access to it is under state jurisdiction.*

No response from CDOT to date. It is possible CDOT may deny the access to the frontage road because the facility has an access to 24 Road and because of the possibility of creating additional traffic problems at the intersection with 24 Road because of the limited spacing between the frontage road and the ramps. The petitioner has been advised to talk to CDOT but a phone conversation with Charles Dunn of CDOT on November 1, 1995 indicated neither the petitioner nor his engineer has contacted CDOT. Mr. Dunn also advised me a portion of 24 Road falls under CDOT's jurisdiction because the right of way was purchased by the state for the interstate construction and was never turned over to the county. This means any proposed improvements to 24 Road will require approval and a permit from CDOT. It also may mean additional traffic analysis and additional roadway improvement could be required by CDOT once they receive an application for an access permit. A copy of the most recent traffic study, along with these comments has been forwarded to CDOT.

## **SUMMARY**

In summary, the petitioner still needs to provide additional analysis on the adjacent street improvements in sufficient detail so it is clear both to the City and to the petitioner what is required, the extent of the improvements, the anticipated cost of the improvements, and any difficulties foreseen with construction of the improvements.

It is the view of the City Public Works Department that left turning traffic from 24 Road onto the frontage road will create a safety concern because of the sight distance and because of the physical limitations due to the close location of the ramps and the frontage road. This restriction may necessitate a redesign of the site driveway on the frontage road as an exit only. However, presently there is not sufficient information supplied to complete this evaluation.

All parties involved need to have a clear understanding of the extent of improvements needed to install a left turn lane on 24 Road. This includes an evaluation of the earthwork, possible guardrail, additional pavement, and tapers beyond the driveway, both for cost and constructibility.

To date, insufficient information has been provided which addresses the concerns listed above. Based on the information supplied, I can not recommend approval of the Special Use Permit request.



**STAFF REVIEW**

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FILE: #SUP 95-136

DATE: February 14, 1996

STAFF: Kathy Portner

REQUEST: Special Use Permit - Fellowship of Excitement Church

LOCATION: NW Corner I-70 and 24 Road

APPLICANT: Fellowship Church  
2897 North Avenue  
Grand Junction CO 81501

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**EXECUTIVE SUMMARY:**

Petitioner is requesting a Special Use Permit for a church and associated facilities on a 25.6 acre parcel located at the northwest corner of 24 Road and G Road zoned RSF-R (Residential Single Family Rural - one dwelling unit per five acres). Petitioner is also requesting a variance to section 5-4-5.B to allow for an on-site septic system.

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EXISTING LAND USE: Vacant

PROPOSED LAND USE: Church with associated facilities

**SURROUNDING LAND USE:**

NORTH: Residential - Single Family  
SOUTH: I-70  
EAST: Residential - Single Family/Vacant  
WEST: Commercial

EXISTING ZONING: RSF-R (Residential Single Family - one unit per five acres)

PROPOSED ZONING: No Change

**SURROUNDING ZONING:**

NORTH: AFT (Agriculture/Forestry/Transitional - County Zoning)  
SOUTH: PRVR (Planned Recreational Vehicle Resort)  
EAST: RSF-R (Residential Single Family - one unit per five acres)  
WEST: C (Commercial - County Zoning)

## RELATIONSHIP TO COMPREHENSIVE PLAN:

See staff analysis.

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## STAFF ANALYSIS:

The staff analysis is divided into five sections: (1) an overview of the proposal; (2) relationship of proposal to current/long-term planning and zoning; (3) staff evaluation of submittal materials; (4) planning analysis of special use permit criteria and (5) staff findings and recommendations:

### The Development Proposal

The proposed church and associated facilities are proposed for a 25.6 acre parcel located at the northwest corner of 24 Road and G Road (see attached aerial). The proposal has been revised to include a 1,550 seat worship facility, a family center with church offices, and recreational facilities including a softball field, volleyball courts, basketball courts and a soccer field (see attached site plan). The outdoor stage that was originally proposed has been deleted.

Project phasing is proposed as follows: Phase I will include the recreational facilities (some of which are existing), the on-site housing and maintenance building and associated parking. Phase II consists of the "Family Life" building and church offices which is initially proposed as the principal church building. Once the worship center is constructed in Phase III, the Family Life building will be used as an indoor gymnasium and meeting hall for church functions. Phase III calls for the construction of the worship center and the remaining parking facilities.

Principal access is proposed from one driveway on 24 Road and a driveway on the I-70 frontage road. Stormwater drainage from the site will be detained in a detention basin near the southwest corner of the site. Water service is presently located about 1/4 mile from the site and is proposed to be extended to service the project. The project does not lie within the 201 sewer service area. The petitioner initially proposed to service the project with a septic system. A letter was later received by staff requesting that the project be included within the 201 area so that sanitary sewer could be extended to service the site, however soon thereafter the petitioner submitted another letter requesting that the 201 request be withdrawn and that the project be served with septic as originally proposed. The closest sanitary sewer line is located on the south side of I-70 near Interstate Avenue, more than 1/2 mile from the subject property.

Further details concerning the project including the proposed utilization of the facilities is detailed in the materials submitted by the petitioner.

### Relationship of Proposal to Current/Future Planning and Zoning

The land use policy issue is centered on the question as to what type and intensity of land use is appropriate at this location. Land use policy is generally identified in adopted plans and policies, and then supported by zoning.

There are current and developing land use plans along with the existing zoning which provide some direction regarding the future land use of the subject parcel and the surrounding area.

The Mid Valley Appleton Plan is an adopted County plan (Land Use and Development Policy #33) that contains land use recommendations for the subject site and vicinity. The Plan includes a policy which calls for discouraging "activities and development which significantly increase traffic volumes in the area (pg. 6)." The land use plan calls for the development of the subject site to be no greater than one unit per 5 to 10 acres. The plan does identify the subject parcel in an area of "possible extension" but gives no planning horizon for such an extension.

The City of Grand Junction and Mesa County are working on a Joint Land Use Plan for the City and the urbanizing area around the City. This plan is still in the development stage--completion and adoption is not anticipated until about May, 1996. The Land Use Plan is intended to provide planning guidance to the year 2010, with updates and amendments as needed in the interim. At this point in the planning process, the draft plan suggests that development at an urban level of intensity that requires sanitary sewer not occur on the north side of I-70 in this vicinity. However, until the Land Use Plan is actually completed and adopted, it is not known what the final recommendations for land use type or intensity for the subject site will be.

Current zoning for the parcel is RSF-R (one dwelling unit per five acres) with the surrounding area primarily being zoned either RSF-R (for lands in the City) or AFT (for lands in the County). The current zoning would permit approximately five single family homes on the subject parcel.

An additional consideration is the zoning of the site prior to annexation and at the time of purchase by the Church. Prior to annexation and at the time of purchase, the site was zoned AFT. This County zoning classification allows churches as a use by right, without the need for a Special Use Permit regardless of the intensity of the activity. According to County Planning Staff, the use would have been approved by Mesa County if all the technical concerns were addressed.

A key factor in the land use policy issue is whether the proposed development can in fact be adequately served by an on-site sewage disposal system or whether public sanitary sewer lines need to be extended north of I-70 to serve the project. If the applicant can demonstrate to the City's satisfaction that the project can be adequately served by an on-site sewage disposal system, the land use policy issue is resolved. The provision of sewer service to this area would

impact the existing rural character.

#### Staff Analysis of Submittal Materials

The petitioner was required to submit certain materials in support of the Special Use Permit request which included a preliminary drainage study, traffic study, site plan and other supporting documentation. The materials were reviewed by City staff and affected review agencies and the comments and requirements were forwarded to the petitioner. The principal issues for City staff which emerged after the initial review were (1) noise impacts of the proposal on surrounding properties, particularly from the proposed outdoor stage (the outdoor stage has now been eliminated by the petitioner and is no longer a part of the request); (2) traffic impacts of the development and the improvements which would be required to accommodate site-generated traffic; and (3) the feasibility of serving the proposal with a septic system. The petitioner was directed to provide a revised traffic study based on staff concerns and provide additional information on septic service feasibility. The application was pulled from the agenda by the petitioner to allow preparation of additional information and studies.

Additional materials were submitted by the petitioner including a revised traffic study. The materials were reviewed by staff and outstanding issues, particularly those associated with the traffic study, which contained the most deficiencies, were again forwarded to the petitioner. A further revised traffic study was prepared by the petitioner and was forwarded to staff for review. The Special Use Permit was brought up for hearing before the Planning Commission in December, at which time the petitioner requested it be tabled.

The petitioner has submitted additional information regarding the traffic concerns and septic service feasibility. Analysis of those materials follow.

#### Planning Analysis of Special Use Permit Criteria

The planning-related documents applicable to this project include the Zoning and Development Code (ZDC), specifically Section 4-5 & 4-8 pertaining to the Special Use criteria.

Section 4-8 of the Zoning and Development Code specifies the criteria used to evaluate all uses requiring a special and conditional use permit. The proposed project falls in the use category of churches which requires a special use permit in the RSF-R zoning district. A Special Use Permit can be reviewed at a staff level unless there is an appeal. The City received a petition from the neighboring property owners early in the process, stating their concerns with the proposal, so the request was scheduled for Planning Commission review.

It is important to note that a special use is *not* a use by right. In general terms, the Planning Commission must evaluate whether the use proposed can function satisfactorily at the subject site without creating significant adverse impacts on surrounding properties or public services. Staff analysis of the specific Code criteria are as follows:

*1. The proposed use must be compatible with adjacent uses.*

The petitioner has proposed some major changes to the site to make it more compatible with the surrounding area, such as reducing the seating capacity from 2,200 to 1,550 and eliminating the outdoor stage area. As previously stated, the compatibility of the proposed church facility with the surrounding area is directly related to whether the site can be serviced by an on-site septic system.

Early in the process the City received a petition from the neighborhood listing their concerns with the project. The Church has worked with the neighbors since then, but we do not know if all of their concerns have been alleviated.

*2. The use shall be approved only if the design features of the site, such as service areas, pedestrian and vehicular circulation, safety provisions, accessory uses, accessways to and from the site, buffering, etc. are sufficient to protect adjacent uses.*

The additional information supplied by the petitioner regarding traffic concerns does address all the concerns outlined in earlier reports. Some additional detail would be required with final design in conjunction with approval by CDOT.

*3. Proposed accessory uses must demonstrate that they are necessary and desirable.*

The accessory uses, namely the recreational facilities proposed, do add to the site impact, but the elimination of the outdoor stage reduces that impact.

*4. Adequate public services (e.g. sewage and waste disposal, domestic and irrigation water, gas, electricity, police and fire protection) must be available without the reduction of services to other existing uses.*

The petitioner has provided additional information regarding the provision of an on-site septic system. For the proposal to be approved, the City Council would have to grant a variance to section 5-4-5.B of the Zoning and Development Code, which requires all developments to be connected to the public sanitary sewer collection system and the request would have to be approved by the Mesa County Health Department and the Colorado Department of Health.

*5. Other uses complimentary to, and supportive of, the proposed project shall be available including schools, parks, hospitals, business and commercial facilities, transportation facilities, etc.*

See #2 above related to the adequacy of the transportation facilities provided.

*6. The use shall conform to adopted plans, policies and requirements for parking and loading, signs and all other applicable regulations of this Code.*

The scale and intensity of the proposed use is a concern. However, if it is decided that the proposal can be served by an on-site septic system, and sewer is not extended, the more far-reaching land use implications are eliminated. If the Special Use Permit is approved, the applicant would have to meet all the Code requirements in the final design elements.

In addition to the above criteria, the application must also satisfy the criteria in the "Specific Criteria Matrix" (Figure 4-8-2 in the Zoning and Development Code - copy attached). The criteria for a church use are as follows:

- *Does the location of the use benefit existing facilities?*
- *Is the location of the use appropriate to the classification of street or road on which it is located?*
- *Does the proposed use make provisions for regular periodic peak usages?*
- *Is there a multiple use capacity and how might it be utilized?*
- *Is there a need for the facility on a community-wide basis?*

The petitioner needs to address to the Planning Commission how the proposal satisfies these additional criteria.

#### Planning Analysis of Requested Sewer Variance

Section 5-4-5.B of the Zoning and Development Code requires that all development in the City be connected to the public sanitary sewer collection system. Per Section 5-4-16 of the Code, the City Council may, after study and recommendation by the Planning Commission, authorize variances from this requirement using the following criteria:

- A. *There are exceptional topographic, soil, or other subsurface conditions, or other conditions peculiar to the site (e.g. viaducts, bridges and bluffs); and*
- B. *An undue hardship would be created by the strict application of the provisions of this section; and*
- C. *Such hardship is not created by an action of the applicant; and*
- D. *Such variance would not be detrimental to the public welfare or impair the intent and purpose of this section.*

The applicant has provided additional information concerning the on-site septic system. The revised site plan shows the areas designated for the septic system. Preliminary calculations and

estimated costs were also provided. The applicant contacted the Colorado Department of Health and was advised that they will not review a septic design without a site plan approval from the City.

#### Staff Recommendation

The evaluation of the Special Use Permit for the Fellowship of Excitement has two distinct components: (1) the compatibility of the land use at the subject location considering existing zoning and land use planning documents and (2) whether adequate infrastructure, particularly roads and sanitary waste, can be provided to adequately serve the site and without having adverse impacts on the surrounding area.

The petitioner has adequately addressed the technical concerns related to traffic circulation. Additional detail and approval by the Colorado Department of Transportation would be required with a final site design submittal. The issue of whether the site can be served by an on-site septic system must ultimately be decided by the City Council and the Colorado Department of Health. If it is found that it can be served by an on-site system the larger land use implications for this area are minimized.

#### STAFF RECOMMENDATION:

Staff recommends approval of the Special Use Permit with the following conditions:

1. Final approval by the Colorado Department of Transportation.
2. Council approval of a variance to section 5-4-5.B of the Zoning and Development to waive the public sewer requirement.
3. Approval by Mesa County Health Department and Colorado Department of Health of an on-site septic system.
4. Final site design must meet all requirements of the Zoning and Development Code. Final review will determine the required contribution for a traffic signal.

Planning Commission must also make a recommendation to City Council on the request for a variance to section 5-4-5.B to waive the public sewer requirement.

#### PLANNING COMMISSION DECISION:

At their January 16, 1996 hearing Planning Commission approved the Special Use Permit subject to the staff recommendation and recommended approval of the variance to section 5-4-5.B to waive the public sewer requirement.

As per section 2-2-2.C.4 of the Zoning and Development Code, Council Member Terry has requested that the Special Use Permit request be forwarded onto City Council to be considered with the request to vary section 5-4-5.B to allow the on-site septic system. Therefore, the Council will make the final decision on both the Special Use Permit and the sewer variance request.

To: kathy portner  
From: Larry Timm  
Subject: Fwd: Septic policy  
Date: 2/26/96 Time: 8:58AM

Originated by: MARKA @ CITYHALL on 2/23/96 9:21AM  
Forwarded by: LARRYT @ CITYHALL on 2/26/96 8:58AM (CHANGED)

KP: fyi. LT

\*\*\*\*\* ORIGINAL MESSAGE FOLLOWS \*\*\*\*\*

Based upon CC's Fellowship of Excitement decision, a policy is needed for such cases that might arise in the future. Please work with Community Dvlpmt to draft a recommendation or at least options. The main issue is to protect the areas within City limits but outside the 201 from urban sprawl by disallowing sanitary sewer extensions, but to allow rural density development to occur with septic.





Grand Junction Community Development Department  
Planning • Zoning • Code Enforcement  
250 North Fifth Street  
Grand Junction, Colorado 81501-2668  
(970) 244-1430 FAX (970) 244-1599

April 22, 1996

Pastor Daniel Hooper  
Fellowship Church  
2897 North Avenue  
Grand Junction, CO 81501

RE: Special Use Permit, Fellowship Church (SUP-95-136)

Dear Pastor Hooper:

At their February 21, 1996 hearing, the City Council approved the Special Use Permit for the Fellowship Church, to be located at the northwest corner of 24 Road and I-70. The approval was for a 1,555 seat worship facility, a family center with church offices, recreational facilities, including a soft ball field, volleyball courts, basketball court and a soccer field as shown on the site plan with a last revision date of January 22, 1996. The approval was subject to the following conditions:

1. Final approval by the Colorado Department of Transportation.
2. Council approval of a variance to Section 5-4-5.b of the Zoning and Development Code to waive the public sewer requirement.
3. Approval by Mesa County Health Department and the Colorado Department of Health for an on-site septic system.
4. Final site design must meet all requirements of the Zoning and Development Code, and final review will determine the required contribution toward a traffic signal.

Condition #2 has been satisfied. Council approved the waiver of public sewer to allow for an on-site system. The on-site system must be approved by Mesa County Health and the Colorado Department of Health.

A site plan review process is required for the review and approval of each phase of development. That review is administrative and takes an average of 30 days to complete. The review period may be longer depending on the complexity of the final design issues. Your consultant should contact our office as soon as possible to set up a pre-application conference with one of the planners to go over the submittal requirements.

*file*



Grand Junction Community Development Department  
Planning • Zoning • Code Enforcement  
250 North Fifth Street  
Grand Junction, Colorado 81501-2668  
(970) 244-1430 FAX (970) 244-1599

May 8, 1996

Pastor Daniel Hooper  
Fellowship Church  
2897 North Avenue  
Grand Junction, CO 81501

Dear Pastor Hooper:

I discussed your request for a Planning Clearance to erect one picnic shelter on the Fellowship property at 24 Road and I-70 prior to site plan approval for the entire site with Larry Timm, the Director of Community Development. We agreed to issue the permit for one shelter only at this time. The site plan that was submitted for the Special Use Permit shows three. The risk you assume by putting the shelter up prior to final site plan approval is that required modifications to the site plan could impact the location of the shelter.

A Planning Clearance from our Department and a Building Permit from the Building Department is required to erect the shelter. Please submit a copy of the site plan for the property showing the proposed location. If you have questions, please call me at 244-1446.

Sincerely,

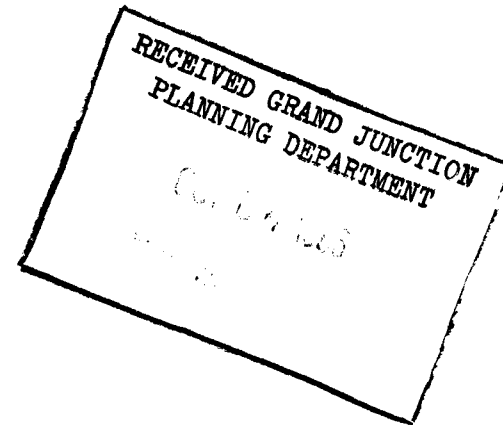
Katherine M. Portner  
Planning Supervisor

xc: Phil Hart, LANDesign

October 1, 1996

Ms. Kathy Portner, Senior Planner  
City of Grand Junction  
Community Development Department  
250 N. 5th Street  
Grand Junction, CO 81501

Re: Fellowship Church  
Job No. 95096.40



Dear Ms. Portner:

This letter is in regards to our conversation on September 27, 1996, on the Fellowship Church project. We discussed the submittal checklist for the site plan review for Fellowship Church as the list did not have the traffic report indicated as a submittal item. I asked you if it was accurate that no traffic report is required to be submitted along with the final plans and plat.

At the end of our conversation you mentioned you would consider the submittal complete without the traffic study, and that if any traffic concerns arise during the application process, we could take care of those concerns in the review comments.

In addition, I mentioned to you my conversation with Jody Kliska, City Development Engineer, concerning the traffic report not being indicated on the submittal checklist. She stated in our conversation that it was not required and the traffic study was completed in the previous step of the application process. She also mentioned the installation of the traffic signals has already been completed on 24 Road & I-70.

If any of the above is inconsistent with your understanding of our conversation, please contact me at our office. If you have any other questions concerning this project, please do not hesitate to call me.

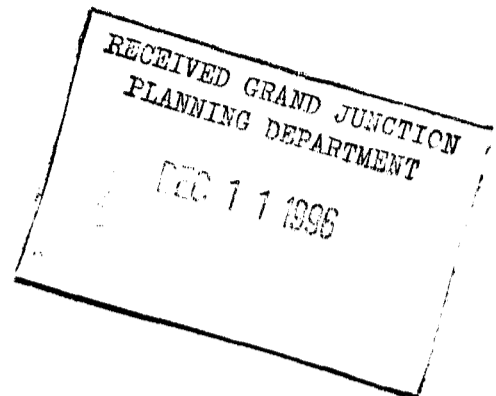
Sincerely,

Brian C. Hart, E.I.  
Project Manager

December 10, 1996

Ms. Jody Kliska, P.E.  
City of Grand Junction  
Engineering Department  
250 N. 5th Avenue  
Grand Junction, CO 81501

Re: Fellowship Church Final  
Job No. 95096.40



Dear Jody:

Pursuant to our conversation Friday, December 6, 1996, this letter is to verify with you our conversation and specific cross section information which needs to be designed for the improvements on 24 Road. If your interpretation of our conversation is not as I have stated below, please contact me immediately so we can be sure we are in agreement as to our options.

We discussed using the collector's status road which is a 60 foot right-of-way. This will create a 12 foot turn lane, a 12 foot south bound lane with a 4 foot south bound bike lane including a 7 foot monolithic curb and gutter. On the west side of the street the existing lane width will be matched. We also discussed the possibility of either using an extended shoulder for pedestrian safety past the sidewalk or a railing. Once the design phase for the roads is finished and it is determined the amount of excess material will be generated from the site, we will search for a pedestrian shoulder extension of not less than 3 to 4 feet. We will use the railing feature as a secondary option if it becomes necessary.

If you have any questions, please contact me at our office.

Sincerely,

A handwritten signature in cursive that reads "Brian C. Hart".

Brian C. Hart, E.I.  
Project Manager

cc: Paster Dan Hooper  
Kathy Portner ✓