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Fil	e	PP-1996-054 Name: Entrada Townhomes - NE Corner Rana Road / Ridge Circle Drive - Preliminary Plan
P r e s e n t	S c a n e d	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, items are found on the list but are not present in the scanned electronic development file because they are already scanned elsewhere on the system. These scanned documents are denoted with (**) and will be found on the ISYS query system in their designated categories. Documents specific to certain files, not found in the standard checklist materials, are listed at the bottom of the page. Remaining items, (not selected for scanning), will be listed and marked present. This index can serve as a quick guide for the contents of each file.
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		*Review Sheet Summary
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		Review Sheets
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X	X	*General project report
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-	77	Evidence of title, deeds, easements
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-	_	Public notice cards
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	^	Legal description Appraisal of raw land
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		*Final reports for drainage and soils (geotechnical reports)
		Other bound or non-bound reports
-	\dashv	Traffic studies
X	x	*Review Comments
X	X	*Petitioner's response to comments
X	X	*Staff Reports
1		*Planning Commission staff report and exhibits
	1	*City Council staff report and exhibits
		*Summary sheet of final conditions
		DOCUMENT DESCRIPTION:
	T	
	<u> </u>	Correspondence
X	4	Power of Attorney – not conveyed to City
X	V	Warranty Deed – Bk 1147 / Pg 466 – not conveyed to City
		Preliminary Drainage Report – 3/1/96
X	X	Spot Speed Studies Planning Commission Minutes – 5/7/96 - **
X	X	City Council Minutes – 6/5/96 - **
X	$\frac{x}{x}$	Grayscale Map
X	- 1	Location Map
	X	Pictures Pictures
X	X	Site Plan
X	X	Boundary and Topographical Survey
7	_	



DEVELOPMEN PPLICATION

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

ceipt		
Late		
Rec'd By_		
File No		

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

				ibed nerein do nereby pe	illon inis.	
PETITION	PHASE	SIZE	LOCATION	ZONE		LAND USE
Subdivision Plat/Plan	☐ Minor ☐ Major ☐ Resub		Rana Road & Ridge Gr Dr	PR-4		Townhome
Rezone				From: To:		
☐ Planned Development	ODP Prelim Final					
☐ Conditional Use						
☐ Zone of Annex						
☐ Variance		1.0%				
☐ Special Use						
☐ Vacation	eragen 22. Vennemass	and the same				☐ Right-of Way ☐ Easement
☐ Revocable Permit						
PROPERTY OWNER		-	DEVELOPER	- (a., M., V.)	, ,	ESENTATIVE
ENTRADA TOU	UNHOUSES	Na:		TER COMPLYNY	Name	TOPHER CAPUSO
ZOO EAST Address	MAIN &		ZOO FAST	MAIN STREET	Zoo El Address	ST MANN STREET
ASPEN, CO	0 816)	AGAM, C y/State/Zip	0 91611	ASPE City/State/7	N, CO 81611
		Cit	(970) 925-	フュフフェ	City/state/2	925-2122
(970) 925 - Business Phone No.		Bu	siness Phone No.		Business Ph	one No.
NOTE: Legal property own	ner is owner of r	ecord on date o	f submittal.			
We hereby acknowledge that information is true and comp comments. We recognize that will be dropped from the age. Signature of Person Completic	plete to the best of it we or our repre inda, and an addit	f our knowledge sentative(s) musi	, and that we assume the r be present at all required	esponsibility to monitor the hearings. In the event that	status of the the the petitioner	application and the review is not represented, the item
July Contract of Decree of	y M.	onal sheets if nec	<i>-</i>	Date .	11/96	

PRE-APPLICATION CONFERENCE

Date: 2/2/96 Conference Attendance: Krister Proposal: Zeplat Entrada T Location: Pana Road	n Ashbeck, Townhome's	Chis Cawso,	Jagusta, Trevor Brown
Tax Parcel Number: Review Fee: \$340 (Fee is due at the time of submittal. N		ole to the City of Gra	nd Junction.)
	d?er Plan of Parks a	nd Recreation?	
Parks and Open Space fees required?			Estimated Amount:
Recording fees required?	. 10		Estimated Amount:
Revocable Permit required?State Highway Access Permit require	d?		Estimated Amount:
Applicable Plans, Policies and Guide	lines		
Located in identified floodplain? FIR Located in other geohazard area?	RM panel #		
Located in established Airport Zone? Avigation Easement required?			nfluence?
	attention as need		ation and design, the following "checked" or consideration. Other items of special
Access/Parking	O Screening/F		O Land Use Compatibility
Drainage	Landscapin	g	O Traffic Generation
O Floodplain/Wetlands Mitigation	O Availability	of Utilities	O Geologic Hazards/Soils
O Other Related Files:			<u> </u>
•			
It is recommended that the applicant public hearing and preferably prior to			ers and tenants of the proposal prior to the

PRE-APPLICATION CONFERENCE

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal and it is our responsibility to know when and where those hearings are.

In the event that the petitioner is not represented, the proposed item will be dropped from the agenda, and an additional fee shall be charged to cover rescheduling expenses. Such fee must be paid before the proposed item can again be placed on the agenda. Any changes to the approved plan will require a re-review and approval by the Community Development Department prior to those changes being accepted.

WE UNDERSTAND that incomplete submittals will not be accepted and submittals with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda.

WE FURTHER UNDERSTAND that failure to meet any deadlines as identified by the Community Development Department for the review process may result in the project not being scheduled for hearing or being pulled from the agenda.

Signature(s) of Petitioner(s)

Signature(s) of Representative(s)

SUBMITTAL CHECKLIST

MAJOR SUBDIVISION: PRELIMINARY

Location: Rana Road & Ridge Cir. Dr. Project Name: Entrada Townhomes **ITEMS** DISTRIBUTION Date Received 3-1-96 TOTAL REG'D. Receipt # File # 42 DESCRIPTION \$690 ◆ Application Fee \$630+ \$15/ac VII-1 Submittal Checklist VII-3 VII-3 Review Agency Cover Sheet Application Form* VII-1 Reduction of Assessor's Map VII-1 Evidence of Title VII-2 Names and Addresses VII-2 Legal Desdription VII-2 General Project Report X-7 · Location Map - Full size assessor IX-21 Preliminary Plan IX-26 IX-26 ♦ 11"x17" Reduction of Prelim. Plan Preliminary Drainage Report X-12

NOTES: • An asterisk in the item description column indicates that a form is supplied by the City,

PRE-APPLICATION CONFERENCE

Date: 2/2/96 Conference Attendance: Krister Proposal: Replat Entrada Location: Pana Road	n Ashbeck, (Mis Can Townhomes	150, John Stown
Tax Parcel Number: Review Fee: \$340 (Fee is due at the time of submittal. N		f Grand Junction.)
Additional ROW required? Adjacent road improvements require Area identified as a need in the Mast	d?	
Parks and Open Space fees required?	·	Estimated Amount:
Recording fees required?		Estimated Amount:
Half street improvement fees/TCP re Revocable Permit required? State Highway Access Permit require	quired?ed?	Estimated Amount:
	• • • • • • • • • • • • • • • • • • • •	
Located in identified floodplain? FII Located in other geohazard area?	RM panel #	
Located in established Airport Zone? Avigation Easement required?	Clear Zone, Critical Zone, Area	of Influence?
	attention as needing special atte	reparation and design, the following "checked" ntion or consideration. Other items of special
Access/Parking	O Screening/Buffering	O Land Use Compatibility
Drainage	X Landscaping	O Traffic Generation
O Prainage O Floodplain/Wetlands Mitigation O Other Related Files:		
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Signature(s) of Representative(s)

EAGLE CREST LLC 759 HORIZON DR GRAND JUNCTION, CO 81506-8737

JAMES D PULSIPHER 526 TIARA DR GRAND JUNCTION, CO 81503-9762 JEAN A WILSON 419 1/2 PROSPECTORS PT GRAND JUNCTION, CO 81503

RICHARD A PROVENZA 1043 ROWLAND AVE CAMARILLO, CA 93010-4568 RONALD E HEDRICK 412 1/2 PROSPECTORS PT GRAND JUNCTION, CO 81503-1580 BARBARA Y COURTNEY 417 PROSPECTORS PT GRAND JUNCTION, CO 81503-1576

BILL MARSH 192 EDLUN RD GRAND JUNCTION, CO 81503-3224 STEVEN L HARKNESS 415 PROSPECTORS PT GRAND JUNCTION, CO 81503-1576 ROBERT J BENNETT 847 GARNET AVE DELTA, CO 81416-2216

CARL G TENPAS 413 PROSPECTORS PT GRAND JUNCTION, CO 81503-1527 HELEN E BOOTHE 411 1/2 PROSPECTORS PT GRAND JUNCTION, CO 81503-1527 MARVIN D STEVENSON 411 PROSPECTORS PT GRAND JUNCTION, CO 81503-1527

DEENA R FIMBRES
1111 HORIZON DR APT 112
GRAND JUNCTION, CO 81506-1452

MARK F REEVES 2369 1/2 RANA RD GRAND JUNCTION, CO 81503-1585 DYNAMIC INVESTMENTS INC 391 1/2 HILLVIEW DR GRAND JUNCTION, CO 81503-4606

THOMAS D ROLLAND 870 GAMBELS RD GRAND JUNCTION, CO 81505-8618 DYNAMIC INVESTINC 391 1/2 HILD VIEW DR GRAND JUNCTION, CO 81503-4606

BRUCE R BEECHWOOD 2373 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1641

CARSON INCE 2371 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1641 DIANA R BIRDASHAW 2369 1/2 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1641 CAROL L SWINGLE 392 1/2 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-4613

JOSE E TREVINO 396 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-4613 RAYMOND A HAAG 393 1/2 VALLEY VIEW WAY GRAND JUNCTION, CO 81503-1656 STEPHEN C WARD 395 VALLEY VIEW WAY GRAND JUNCTION, CO 81503-1656

GREGORY D MONGER 2379 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1641 RANDY J SCHWARTZ 2377 RIDGE CIRCLE DR GRAND JUNCTION. CO 81503-1641 DONALD R CASTLE 396 VALLEY VIEW WAY GRAND JUNCTION, CO 81503-1657

PATRICK WILLIAM HANLEY 2383 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1625 JOHN KORBE 2385 RIDGE CIRCLE DR GRAND JUNCTION, CO 81503-1625 MARK ABBOTT 399 W VALLEY CIR GRAND JUNCTION, CO 81503-4624 TIMOTHY M GRIMSBY 397 W VALLEY CIR GRAND JUNCTION, CO 81503-4624 DENNIS T HEPTING 395 1/2 W VALLEY CIR GRAND JUNCTION, CO 81503-4624 STANLEY E SCHRODER 395 W VALLEY CIR GRAND JUNCTION, CO 81503-4624

JOHN H CRAWFORD 393 W VALLEY CIR GRAND JUNCTION, CO 81503-4624 ROBERT M VAN IDERSTINE 513 TIARA DR GRAND JUNCTION, CO 81503-8735 KARL F TOPPER 394 VALLEY VIEW WAY GRAND JUNCTION, CO 81503-1657

LARRY W CATT 1090 7TH AVE NW APT 5 HICKORY, NC 28601-3471 BARBARA L GADEKEN 398 W VALLEY CIR GRAND JUNCTION, CO 81503-4622 HOLLY EFFAJANE STARBUCK 396 W VALLEY CIR GRAND JUNCTION, CO 81503-4622

DANIEL C MASON 394 W VALLEY CIR GRAND JUNCTION, CO 81503-4622 DALE N SMITH 397 RIDGES BLVD GRAND JUNCTION, CO 81503-4630 DYNAMIC INVESTMENTS INC 391 1/2 HILLYEW DR GRAND JUNCTION, CO 81503-4606

SMITH M MCCUISTION 398 N DALE CT GRAND JUNCTION, CO 81503-1664 DOS PADRES DEVELOPMENT, INC 640 S 12TH ST GRAND JUNCTION, CO 81501-3750

ENTRADA TOWNHOUSES

General Project Report

The Fleisher Company Cristopher Caruso 200 East Main Street Aspen, Colorado 81611 (970) 925-2122

March 1, 1996



Community Development City of Grand Junction 250 North 5th Street Grand Junction, CO 81501

Dear Staff, Agency and Commission Members,

The following information serves as the General Project Report for the Entrada Townhouses Project. Entrada is proposed to be created on a property consisting of approximately 3.6 acres located at Lot 1 in Block 9 of the Ridges Filing Number Two.

The Ridges, being a planned community with a combination of multi-family and single family dwellings, is commonly known for its undulating natural landscapes which feed the foothills to the Grand Mesa. Convenient from town, the location is ideal for those who seek a rural setting but require quick access to the many amenities offered in Grand Junction.

Proposed for the site are twenty-six townhomes in two and three unit configurations. Current zoning regulations allow for thirty units, however we believe that this density compromises the neighborhood quality, given the area available. Sixteen of the units are designed as one story homes and ten have two stories.

In referring to the project site plan, you will find the layout to be community oriented and pedestrian friendly with maximum open space. The architectural designs will be provided for review in the final submittal. Walking paths are proposed to connect the neighborhood to adjacent paths. Strict Covenants, Conditions, and Restrictions will be applied to the neighborhood in line with those in other Ridges developments.

Private driving surfaces will be used to access the homes from three locations off of Ridge Circle Drive. Given the lack of space, the typical city street section is not proposed to be used. Irrigation, water, and sewer facilities are available for access from adjacent streets. The irrigation system will be designed to supply all common areas and will be ready for review in the final submittal.

There will be no unusual demands placed upon public facilities by this project. Please refer to the preliminary drainage report by Rolland Engineering for details of the existing and proposed site conditions.

We look forward to commencing this project in the summer of 1996.

Sincerely,

Cristopher Caruso Project Manager

PRELIMINARY DRAINAGE REPORT

ENTRADA TOWNHOMES (A REPLAT)

Presented to: CITY OF GRAND JUNCTION

Prepared for:

The Fleisher Co. 200 E. Main Aspen, CO 81611

Prepared by:

ROLLAND Engineering 405 Ridges Blvd., Suite A Grand Junction, CO 81503

March 1, 1996

I. GENERAL LOCATION AND DESCRIPTION

The site is located in the Ridges Subdivision of Grand Junction, Colorado. The site consists of approximately 3.6 acres bounded on the south by Ridge Circle Drive, the west by Rana Road, and the north by open space. The east line of the property is approximately 300 feet west of Ridges Blvd. The property to the south and west is developed residential property. The property to the north is City of Grand Junction open space. The approximate 2.5 acres, located between the eastern boundary of the property and Ridges Blvd., consists of developed and undeveloped commercial lots.

The site slopes generally north and east with slopes ranging from 3% to 10%. Vegetation consists of natural grasses, shrubs, and weeds. The soil types are Rr and Me from the "Soil Survey, Grand Junction Area, Colorado; United States Department of Agriculture, Soil Conservation Service". The definition for Rr is rough broken land, Mesa, Chipeta, and Persayo soil materials. The definition for Me soil type is Mesa Gravelly clay loam, 2 to 5 percent slopes. This soil is derived mainly from old alluvium deposits. The Persayo-Chipeta silty clay loams in the Rr complex are derived from weathered Mancos shale.

The site lies in an approximate 650 acre drainage basin that discharges into the Redlands Water & Power spillway channel about 1000 feet downstream from their power plant. This basin is composed of two major sub-basins that confluence just prior to the discharge into the spillway (see enclosed map). Sub-basin B is approximately 175 acres and lies on the east side of the major basin. The subject property lies within Sub-basin A, which is approximately 475 acres, and is almost entirely within the Ridges Subdivision. Sub-basin A includes an approximate 45 acres that is not naturally within this drainage basin but has been diverted by development within the Ridges Subdivision. About 70% of the subject property lies in a 60 acre tributary basin (referred to as Sub-basin A1) within Sub-basin A which is mainly composed of the 45 acre diverted parcel mentioned above.

II. EXISTING DRAINAGE CONDITIONS

Sub-basin A is drained by a large canyon that is the entrance to the Ridges Subdivision and is also the location for Ridges Blvd. Sub-basin A1 is drained by a natural channel that was improved by the development of the Ridges. This channel runs along the northern boundary of the site between Ridges Blvd. (on the east) and Rana Road (on the west). The diversion ditch from the additional 45 acre diversion joins this natural channel at Rana Road (west end of the site). As previously stated, approximately 70% of the site drains into this natural drainage course of Sub-basin A1. The balance (30%) drains to Ridge Circle Drive on the south edge of the site and then into the large drainage course on Ridges Blvd.

The natural topography of the overall drainage basin is that of narrow, steep canyons with vertical relief of 30 to 120 feet. The slopes are generally within the range of 5% to 25% with sparse vegetation and exposed sandstone rock. About half of Sub-basin A has been developed as the Ridges Subdivision. The development can be described as relatively dense on the flatter terrain with large, undisturbed areas on the steeper ground. As expected for this type of terrain, the natural drainage courses are well defined by the steep grades. The natural drainage course for Sub-basin A, from where the subject property discharges into it downstream, is largely undisturbed by development. The natural drainage course for Sub-basin A has been altered for a short distance by Ridges Blvd.; it is then conveyed under Highway 340 with a small pond (origination unknown) at the approximate confluence with Sub-basin B.

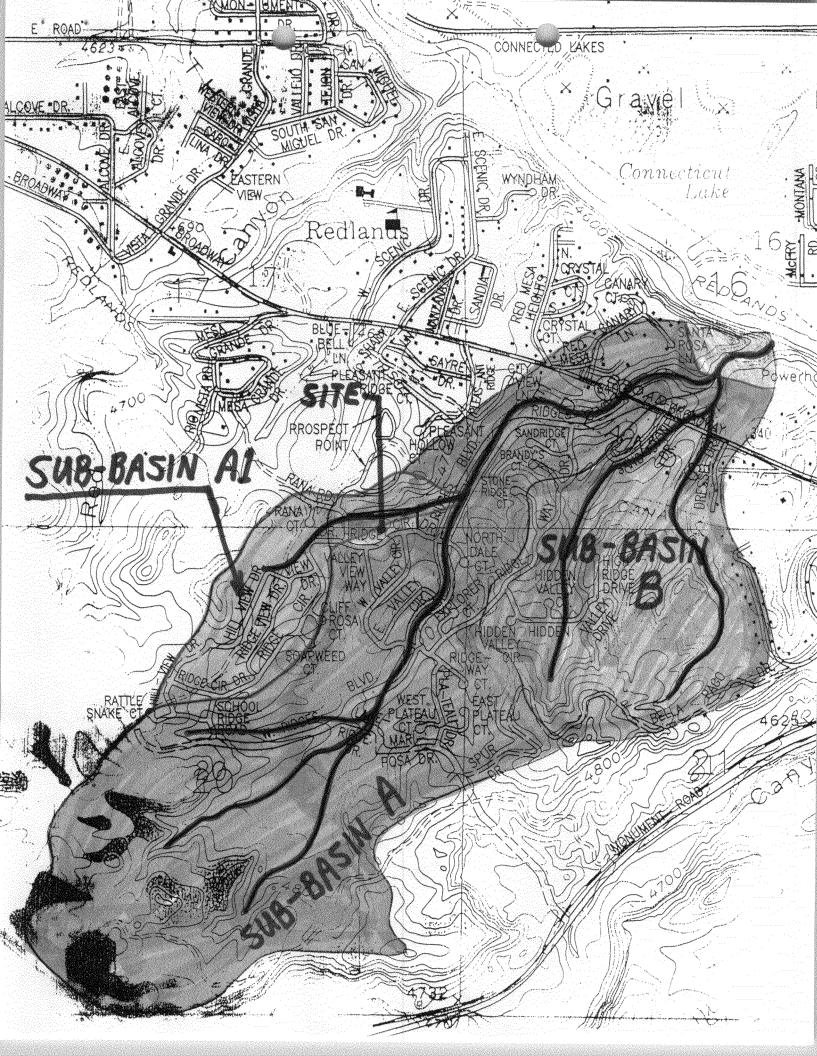
The proposed Entrada Townhome development site has virtually no flows from beyond the property boundaries that are not confined to the natural drainage channel flowing along the northern boundary. There are no outside flows to the property due to Ridge Circle Drive along the southern property boundary, Rana Road on the west property boundary, and the natural channel on the north. Inflow from property within Sub-basin A1, upstream from the property, is conveyed in a man-made ditch originating southwest of the site and discharging into the natural channel at the northwest corner of the site. This diversion ditch has relatively flat grades and is considerably smaller in cross-section than the natural channel into which it flows along the site boundary.

III. PROPOSED DRAINAGE CONDITIONS

No changes to the general drainage patterns are proposed. However, improvements and/or minor alignment modifications to the channel along the north side of the site may be warranted to improve conveyance, prevent erosion, and protect the development. The drainage course will need to be located within an easement where it encroaches on the site. The natural and upstream man-made drainage courses should be owned and maintained by the City of Grand Junction. This is because the drainage course conveys stormwater from an area that is mostly developed upstream from the site and that the upstream area did not historically discharge into this basin.

IV. DESIGN CRITERIA AND APPROACH

We are not aware of any previous drainage studies performed for the area. The final drainage report will be performed according to the design criteria and requirements of the City of Grand Junction. Due to the lack of development downstream from this site and the nature of the drainage courses, developed flows may be able to be released from the site without adverse impact. The final drainage study will explore whether this site meets the criteria established by the City for payment of a drainage fee in lieu of on-site detention.





555 Clark St. / P.O. Box 1409 / Evanston. IL 60204

subject

BASIC TRAFFIC ENGINEERING STUDIES

title

SPOT SPEED STUDIES

- I. Need for Data on Spot Speeds
 - A. A spot speed study is made by measuring the individual speeds of a sample of the vehicles passing a given point (spot) on a street or highway. These individual speeds are used to estimate the speed distribution of the entire traffic stream at that location under the conditions prevailing at the time of the study.
 - B. The speed distributions obtained from such studies have many applications:
 - 1. Speed Trends can be determined by periodic sampling at selected locations.
 - 2. Traffic Control Planning may require speed distribution information. All vehicles do not travel at the same speed at a location. The amount of dispersion or spread in these speeds affects both capacity and safety. If all vehicles traveled at the same speed, capacity would be at a maximum, and accidents caused by overtaking or passing and rear-end collisions would be eliminated. The distributions are used to:
 - a. Establish maximum and minimum speed limits.
 - b. Determine need for posting safe speeds at curves.
 - c. Provide information relative to the proper location of regulatory, warning, and guide signs.
 - d. Establish lengths of no passing zones.
 - e. Analyze school zone protection.
 - f. Timing of signal systems and signal clearance periods.
 - 3. "Before and After" Studies are frequently made to evaluate the effect of some change in controls or conditions.
 - 4. Accident Analyses of problem locations often include spot speed data.
 - 5. <u>Geometric Design</u> utilizes speed distributions in determining the radius and superelevation of curves, lengths of acceleration and deceleration lanes, etc.

- 6. Research Studies frequently utilize speed data. Some examples:
 - a. Study of capacity in relation to average speeds
 - b. Speed vs volume analysis
 - c. Speed differential analysis
 - d. Influence on speed of roadside obstructions or distractions
- 7. <u>Guide for Enforcement</u> based on 85th, 95th, etc. percentile speeds.

II. Spot Speed Studies

A. Study Locations

- 1. Variables which influence speeds should be recognized because of their presence may bias the data. It may or may not be desirable to include this bias, depending on the purpose of the study. These variables include:
 - a. <u>Physical Conditions</u>. Curvature, grade, sight distance, pavement roughness, spacing of intersections, roadside development, etc.
 - b. Environment. Section of country, type of driver, time of day, weather, visibility, enforcement practices, speed limits, etc.
 - Traffic Flow. Volumes, classification, turning movements, pedestrians, etc.
- 2. The selection of a site for a spot speed study is determined as follows:
 - a. Trend stations are usually established on open stretches of straight, rural highways, or at mid-block locations on urban streets away from the influence of stop signs, signals, etc.
 - b. When data are to be used in planning controls, the site must be within the section under study and as far removed from extraneous influences as possible.
 - c. "Before and After" studies are normally made at the same site, which is located so as to measure the influence of the condition that is changed.
 - d. Problem location studies usually require approach speed data. Sites are selected so that the approach speeds are measured before vehicles are affected by the problem under study (curves, intersections, etc.).

B. Time of Study

- The period during which speeds are measured depends on the purpose of the study. Usually off-peak average hours are used.
 It is important that trend studies and "before and after" studies be made during the same hours under comparable conditions. Adverse weather and unusual volume conditions should be avoided.
- 2. Speed limits are established, based on normal road conditions, to advise the motorist of safe speeds during free flow operation. Spot speeds are, therefore, measured during off-peak periods when traffic conditions are closest to free or uninterrupted flow. On most streets or highways these conditions exist throughout most of the daytime hours except for the morning and evening rush hour conditions:
 - a. 9:00 11:30 am
 - b. 1:30 3:30 pm
 - c. 7:00 10:00 pm

C. Size of Sample

- 1. A sample size of 100 randomly selected vehicles per lane is reliable under most circumstances. A technique for determining the required sample size based on desired statistical level of confidence is contained in the Manual on Traffic Engineering Studies (2).
- 2. The observer should select vehicles on a random basis. Desirably, record every vehicle, or if this is impossible due to heavy volumes, select every second, third, fourth or fifth vehicle. Be careful <u>not</u> to select vehicles which are in the same positions in successive platoons.
- 3. The data collection phase of the speed survey is very important and requires considerable care due to many variables involved and the sources of possible bias in sampling. Some common errors that tend to introduce bias and the procedures for eliminating these errors are:
 - a. Selecting the first vehicle in a platoon of traffic. When traffic is constantly platooned, try to select vehicles from varying positions in the platoon. If platoons are densly packed, it may mean that congestion has been reached and that traffic is too heavy to permit a good survey.
 - b. Selecting too large a proportion of trucks. Obtain about the same proportion of trucks in the sample as exists in the traffic stream.

c. Selecting too large a portion of higher speed vehicles. Untrained observers often ignore measuring normal speed vehicles to "catch" a high speed vehicle to find the fastest. Results will be biased toward the upper speed ranges.

D. Data Collection

- 1. There are a number of ways to collect speed data depending upon the equipment available.
 - a. The simplest (equipment) method of collecting speed data is the measurement of the time required for a vehicle to traverse a measured course or "trap". This time may be measured by manual, electro-mechanical, electrical, or electronic means. When manual means (stop watch) are used, the trap length is usually a multiple of 88 ft (depending upon average speed) for convenience in reducing the data.
 - b. Distance vs. measured time procedure is most commonly used in photographic studies where pictures of the traffic stream are taken at precise intervals. The distance a vehicle moves in successive pictures related to the time interval gives the speed.

Photographic speed studies would normally be used only in research projects.

- (1) Advantages: A permanent record with a 100% sample is obtained. Data also include such information as type of vehicles, spacing, etc.
- (2) Disadvantages: Equipment is very expensive and film must be purchased and developed. A great deal of time is required to reduce data from the film into a usable form.
- c. Radar speed meters are probably the most common technique for collecting spot speed data.
 - (1) The radar meter operates on the fundamental principle that a radio wave reflected from a moving target has its frequency changed in proportion to the speed of the target (Doeppler Effect). The transmitter sends a radio wave along the highway. The meter evaluates the difference between transmitted and received frequencies and converts the result into miles per hour.

- (2) The meter is positioned at the edge of the roadway at an angle of approximately 15° with the centerline and approximately 3 ft above the road surface. (See Figure 1.) In this position, the device will measure speeds in either direction or in adjacent lanes.
- (3) It is difficult to avoid bias in radar speed sampling if the equipment is visible to passing motorists:
 - Equipment should be concealed from, or made as inconspicuous as possible to, the approaching driver.
 - Observer should be located so that data are recorded without being obvious to drivers.
 - Observer's vehicle should be concealed or removed from site unless parking is general in the area. An unmarked vehicle should be used.
 - Accumulations of on-lookers should be avoided.
- (4) While one person can normally accomplish the field survey it may be desirable under busy urban conditions, to assign both an observer and a recorder to measure prevailing speeds.
- 2. Field data from a spot speed study may be recorded on a Speed Observation Tally Form such as the one shown in Figure 2.

III. ANALYSIS OF DATA

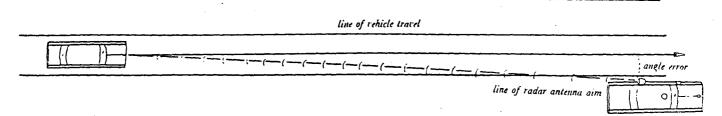
- A. It is difficult, if not impossible, to interpret the meaning of 200 individual vehicle speeds. Therefore, the data must be summarized.
- B. Useful values for interpreting spot speed studies: (Figure 3)
 - 1. Average or mean speed
 - a. Sum all the speeds and divide by the number of speed observations:

$$S_a = \frac{\Sigma S}{n}$$

 $S_a = Average or mean speed$

 ΣS = Sum of the speed observations

n = Number of speed observations



Angle between radar antenna and vehicle must be as small as possible to avoid error reading.

True Vehicle Speed = $\frac{\text{Radar Indicated Speed}}{\text{Correction Factor}}$

Angle	Correction Factor	% error
	1 actor	% e1101
1°	0.999	-0.1
5°	0.996	-0.4
10°	0.984	-1.6
15°	0.965	-3.5
20°	0.939	-6.1
25°	0.906	-9.4
30°	0.866	-13.4
35°	0.819	-18.1
40°	0.776	-22.4
45°	0.707	-29.3

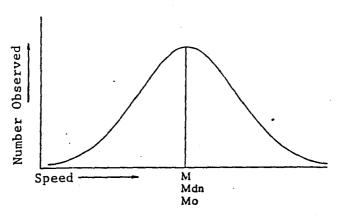
FIGURE 1

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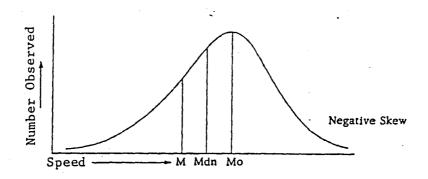
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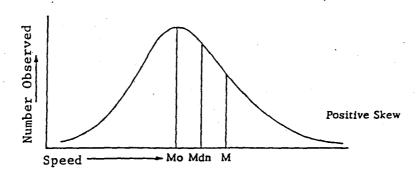
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Recorder		



A Normal Distribution





Skewed Distributions

M = Mean Mdn = Median Mo = Mode or Modal

FIGURE 3
ILLUSTRATION OF
MEAN, MEDIAN, AND MODE

b. Rather than summing all individual speed observations, we may group them into equal speed intervals of 3 mph (or other intervals, as may be appropriate). Then the number of observations in each interval is multiplied by the midpoint speed of that interval and the results summed and divided by the total number of observations:

$$S_a = \frac{\sum f_i x_i}{n}$$

 $S_a = Average or mean speed$

 $\Sigma f_i x_i = \text{Sum of number of observations multiplied by the midpoint for each interval}$

n = Total number of speed observations

- This computation is illustrated in Table 1.
- Median that speed which half the vehicles exceeded and half did not. (If the speed data is normally distributed, that is, not skewed, the mean and the median will be the same.) (Figure 3.)
 - a. The skew of the normal distribution is important because it may indicate if the motorist perceives or does not perceive a potentially dangerous problem on the road.
- Mode that speed for which the largest number of speed observations were recorded. In a normal distribution of speeds, the mode and mean speeds will be the same (Figure 3).
- 4. Pace a 10 mile per hour range which includes the largest number of vehicles checked. This can usually be determined by visual inspection of the vehicle speed tally sheet (Figure 2).
 - a. The pace is a measure of dispersion of vehicle speeds.
 - b. After determining the pace, it is useful to compute the percentage of vehicles in the pace, the percentage over the pace and the percentage under the pace.
 - c. A normal speed distribution will contain approximately 70% of the sample within the pace with 15% above and 15% below.

Date	Location
Time	N S E W (Circle one)
Weather	of
Road Surface Condition	Direction of Travel
	Vehicle Type

Class Limit	Class Midpoint (x)	Number of Vehicles (f)	(fx)	Cumulative Number Vehicles	Cumulative Percent
10-11-12	11				
13-14-15	14				
16-17-18	17	2	34	2	1.0
19-20-21	20	5	100	7	3.5
22-23-24	23	7	161	14	7.0
25-26-27	26	12	312	26	13.0
28-29-30	29	16	464	42	21.0
31-32-33	32	43	1376	85	42.5
34-35-36	35	66	2310	151	75.5
37-38-39	38	18	684	169	84.5
40-41-42	41	12	492	181	90.5
43-44-45	44	5	220	186	93.0
46-47-48	47	5	235	191	95.5
49-50-51	50	6	3 <i>0</i> 0	197	98.5
52-53-54	53	3	159	200	100.0
55-56-57	56				
58-59-60	59				
		200	6847		

Recorder

TABLE 1
SPOT SPEED SUMMARY TABLE

- 5. 85th percentile speed This is the speed at or below which 85% of the traffic is moving. The critical speed can be determined directly from the field tally sheet by counting from the top speed the number of vehicles equaling 15% of the total number of vehicles observed (Figure 2).
 - a. The 85th percentile speed is usually within two miles per hour of the upper limit of the 10 mph pace.
 - b. This comparison presents a measure of the validity of the field data or the presence of an abnormal bias.
- C. Information from the field Speed Observation Tally Form is commonly plotted as a cumulative speed distribution curve (Figure 4). The cumulative percentage of observed speeds, calculated in Table 1, is plotted against the <u>upper limit</u> of each speed interval. A smooth S-shaped curve is drawn through these points.
 - 1. The median speed and 85th percentile speed (or any other percentile speed) can be read from this curve.
- IV. Use of Spot Speed Data in Establishing Speed Limits
 - A. Most motorists can be relied upon to drive at a reasonable speed as they go about their daily activities.
 - The majority of the motorists adjust their speeds based upon the traffic and roadway conditions and, therefore, tend to drive at the speed they consider safe.
 - 2. When speed limit signs are not in accord with this, the majority of motorists ignore the speed signs.
 - B. In order for speed limits to be effective, they must reflect the behavior of the majority of the motorists.
 - 1. Only then can these realistic speed regulations be enforceable because this will mean that the majority of the drivers will conform voluntarily.
 - 2. This will permit the direct enforcement of the minority that violates the speed limits.
 - C. If the majority of the motoring public travel at the speed that they consider safe and proper, then why do engineers have to post speed limit signs?
 - 1. Posted speed limits tend to reduce the spread in speeds.

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FIGURE 4

CUMULATIVE SPEED DISTRIBUTION

CURVE

- 2. Since the posted speed limits tend to reduce the wide range of speeds and therefore influence drivers to operate at or near the same speed.
 - a. This grouping of speeds near the posted speed limit will increase safety of the highway be eliminating the chances of rear end or head on collisions.
 - b. Also, this will tend to improve the capacity of the roadway.
- 3. Motorists driving at speeds less than the average speed or speeds that are way in excess of the average speed have a higher chance of having accidents than those driving near the average speed.
- 4. This implies that variance from the modal speed (or speed that most of the drivers are going) is a potentially hazardous situation.
- D. Selecting the Proper Speed Limit
 - 1. Experience has shown that the 85th percentile speed is the one characteristic of traffic most nearly conforming to a safe and reasonable limit.
 - a. Speed limits set higher than the 85th percentile speed will make very few additional drivers "legal" for each 5 mph increment of speed.
 - b. Speed limits set lower than the 85th percentile speed will make a large number of reasonable drivers "illegal" for each 5 mph increment speed is reduced.
 - c. The 85th percentile speed should be very close to the upper limit of the 10 mph pace.
 - 2. For practical purposes, the speed limit is often set at the nearest 5 mph increment above or below the 85th percentile speed.
 - a. The selected speed limit may be adjusted based on considerations such as:
 - (1) Accident experience
 - (2) Access control
 - (3) Pedestrian activity
 - (4) Parking

- E. Properly established speed limits are reasonable only for the conditions for which they are set.
 - Generally they are set for good weather conditions and off-peak volumes.
 - 2. The properly posted speed limits are unreasonable for differing conditions.
 - a. For bad weather the posted speeds tend to be too high.
 - For high traffic volumes the posted speeds tend to be too high.

REFERENCES

- 1. Transportation and Traffic Engineering Handbook, Institute of Transportation Engineers, 1982.
- 2. Manual of Traffic Engineering Studies, fourth edition, Institute of Transportation Engineers, 1976.
- 3. Fundamentals of Traffic Engineering, 7th Edition, ITTE, University of California, 1969, pp. V-4 to V-9.
- 4. Realistic Speed Zoning, published by Southern California Auto Club.
- 5. Policy on Establishing and Posting Speed Limits, Illinois Department of Transportation, 1977.

REVIEW COMMENTS

Page 1 of 3

FILE #PP-96-54

TITLE HEADING: Entrada Townhomes

LOCATION:

NE corner Rana Road & Ridge Circle Drive

PETITIONER:

Cris Caruso

PETITIONER'S ADDRESS/TELEPHONE:

The Fleisher Company, Inc.

200 East Main Street Aspen, CO 81611

925-2122

PETITIONER'S REPRESENTATIVE:

Rolland Engineering

STAFF REPRESENTATIVE:

Kathy Portner

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., MARCH 22, 1996.

U.S. WEST

3/5/96

Max Ward

244-4721

For timely telephone service, as soon as you have a plat and power drawing for your housing development, please.....

MAIL COPY TO:

AND

CALL THE TOLL-FREE NUMBER FOR:

U.S. West Communications

Developer Contact Group

Developer Contact Group

1-800-526-3557

P.O. Box 1720

Denver, CO 80201

We need to hear from you at least 60 days prior to trenching.

U.S. West communications will need utility easements to each townhome, or a common area described on plat to each group of townhomes. Please contact Max Ward, Field Engineer.

PUBLIC SERVICE COMPANY

3/6/96

Gary Lewis

244-2698

Due to the design of these lots and their location relative to the proposed utility easements, easements as shown on the proposed subdivision plat will **not** be sufficient for installation of gas and electric facilities. Request that all "Open Space Area" and "Paving Area" be designated as utility easement in addition to easements shown.

REDLANDS WATER & POWER

3/7/96

Gregg Strong

243-2173

No impact to Redlands facilities.

PP-96-54 / REVIEW COMMENTS / page 2 of 3

FIRE DEPARTMENT

3/12/96

Hank Masterson

244-1414

- 1. The Fire Department has no problems with this replat.
- 2. Petitioner must submit a complete utility composite showing fire line sizes and hydrant locations. Minimum line size is 8". Hydrants must be located at intersections and be spaced a 300' intervals. Distance from any lot frontage to nearest hydrant must not exceed 150'.

U.S. POSTAL SERVICE

3/11/96

244-3434

Mary Barnett Addressing?

Ridge Circle Drive?

Central Delivery - preferably in a single location. The Postal Service can provide mail receptacle equipment.

CITY PROPERTY AGENT

3/12/96

Steve Pace

256-4003

No final plat to review.

CITY DEVELOPMENT ENGINEER

1 or 3?

3/14/96

Jody Kliska

244-1591

- 1. Sight distance at the three proposed driveways is of concern. Please provide a sight distance study at each proposed drive. The criteria to be used is based upon 85th percentile speeds and data is not available from City Traffic Engineering, thus a speed study needs to be conducted. The Police Department has indicated speeds in this vicinity are above the posted speed limit.
- 2. Although the City has not adopted standards for auto courts or shared driveways, the following criteria has been applied to previous projects similar to this: a) maximum length of a private street shall not exceed 150 feet if it dead-ends and shall not exceed 300 feet if it is looped, measured from the end of the public street; b) a community mailbox and a common trash collection area shall be located on or near the public right-of-way, such that delivery and pick-up can be accomplished without entering the private street; c) the width shall not be less than 20 feet; d) additional off-street parking required at the rate of one per two units located in a parking pod.
- 3. Final drainage report will require an analysis of the channel through the site to Ridges Boulevard and will require determination of capacity to accept additional runoff. Improvements to the existing conveyance facilities at Ridges Boulevard may be required and will be analyzed in the final report.

CITY POLICE DEPARTMENT

3/13/96

Dave Stassen

244-3587

The developer should ensure the common areas between buildings are well lit, especially the parking areas. The developer can contact either a private lighting consultant or public service for advise in this area.

CITY COMMUNITY DEVELOPMENT

3/14/96

Kathy Portner

244-1446

- 1. Show how the pat to the bus shelter will be accommodated through this property and off-site to the shelter.
- 2. There should be a direct access to the existing pathway system from each of the 3 clusters of homes. Show how access will be obtained.
- 3. Redraw Preliminary Plan to meet all requirements of the SSID checklist.

PP-96-54 / REVIEW COMMENTS / page 3 of 3

- 4. An analysis of site distance for each intersection must be provided.
- 5. What is proposed for all of the common open area?

TCI CABLEVISION

3/11/96

Glen Vancil

245-8777

See attached comments.

RIDGES A.C.C.O.

3/12/96

C.Adair

241-5028

- 1. The A.C.C.O. would recommend a paved or asphalt walkway setback from Ridges Drive connecting existing walkway on north side of property and existing walkway on south side of Ridges Drive. This walkway would connect with existing bus stop.
- 2. We would also recommend a 4' fence behind walkway to privatize the yards of townhomes that back up to Ridges Drive. The East Valley Circle apartments that border Ridges Boulevard currently need a fence to give them some privacy.
- 3. Define parking areas for townhomes.

UTE WATER

3/14/96

Gary R. Mathews

242-7491

No objections.

CITY UTILITY ENGINEER

3/15/96

Trent Prall

244-1590

WATER / IRRIGATION - CITY

1. Please resubmit with water and irrigation alignments.

SEWER - CITY

1. Each unit shall have its own sewer service line unless maintenance of joint sewer service lines are addressed in CC&R's and are the sole responsibility of either the residents involved or the Homeowners Association.

MESA COUNTY SCHOOL DISTRICT

3/14/96

Lou Grasso

242-8500

SCHOOL - CURRENT ENROLLMENT / CAPACITY - IMPACT

Scenic Elementary - 298 / 325 - 6

Redlands Middle School - 552 / 650 - 3

Fruita Monument High School - 1337 / 1100 - 4

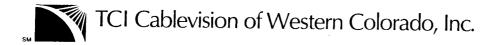
CITY PARKS & RECREATION DEPARTMENT

3/15/96

Shawn Cooper

244-3869

Parks & Open Space Fees - 26 dwelling units @ \$225 = \$5,850.00.



March 14, 1996

Replat Entrada Townhomes
Cris Caruso
% Community Development Department
250 North 5th Street
Grand Junction, CO 81501

Ref. No. CON19608

Dear Mr. Caruso;

We are in receipt of the plat map for your new subdivision, **Replat Entrada Townhomes**. We will be working with the other utilities to provide service to this subdivision in a timely manner.

I would like to take this opportunity to bring to your attention a few details that will help both of us provide the services you wish available to the new home purchasers. These items are as follows:

- 1. We require the developers to provide, at no charge to TCI Cablevision, an open trench for cable service where underground service is needed and when a roadbore is required, that too must be provided by the developer. The trench and/or roadbore may be the same one used by other utilities so long as there is enough room to accommodate all necessary lines.
- 2. We require developers to provide, at no charge to TCI Cablevision, fill-in of the trench once cable has been installed in the trench.
- We require developers to provide, at no charge to TCI Cablevision, a 4" PVC conduit at all utility road crossings where cable TV will be installed. This 4" conduit will be for the sole use of cable TV.
- 4. Should your subdivision contain cul-de-sac's the driveways and property lines (pins) must be clearly marked prior to the installation of underground cable. If this is not done, any need to relocate pedestals or lines will be billed directly back to your company.
- 5. TCI Cablevision will provide service to your subdivision so long as it is within the normal cable TV service area. Any subdivision that is out of the existing cable TV area may require a construction assist charge, paid by the developer, to TCI Cablevision in order to extend the cable TV service to that subdivision.
- 6. TCI will normally not activate cable service in a new subdivision until it is approximately 30% developed. Should you wish cable TV service to be available for the first home in your subdivision it will, in most cases, be necessary to have you provide a construction assist payment to cover the necessary electronics for that subdivision.

Should you have any other questions or concerns please feel free to contact me at any time. If I am out of the office when you call please leave your name and phone number with our office and I will get back in contact with you as soon as I can.

Sincerely,

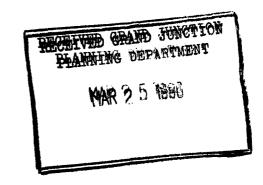
Glen Vancil,

Construction Supervisor 245-8777



March 22, 1996

Kathy Portner Community Development City of Grand Junction 250 North 5th Street Grand Junction, CO 81501



Dear Kathy,

Given the complexity of issues raised in the review comments for the Entrada Townhouses Project's preliminary application, we respectfully request postponement of our presentation to the Planning Commission from April to May 1996.

We believe that the project and City would enjoy great benefit if additional time were available to adequately respond to the City's review comments. Specifically, we have encountered a traffic sight distance issue which will require us to modify the proposed neighborhood entrances and reconfigure the site plan.

Please contact us at your earliest convenience. Tom Rolland and Trevor Brown from Rolland Engineering are also available at 243-8300. Thank you for your guidance to help create this special neighborhood project.

Sincerely,

Cristopher Caruso Project Manager

ent.submit.delay1

RESPONSE TO COMMENTS

Date: April 19, 1996

Title: Entrada Townhomes

File# PP-96-54

TO:

Location: NE Corner Rana Road & Ridge Circle Drive.

City of Grand Junction Community Development 250 North 5th Street

Grand Junction, CO 81501

FROM: The Fleisher Company, Inc.

Mr. Cris Caruso 200 East Main Street Aspen, CO 81611 Phone (970)925-2122

The Fleisher Company, Inc. (The Developer) was to submit responses to comments in March, 1996. Cris Caruso wrote a letter dated March 22, 1996 asking for a postponement of the Entrada Townhome presentation from April, 1996 until May, 1996.

The particular issue that needed to be addressed was sight distance along Ridge Circle Drive for the three proposed entrances for Entrada Townhomes. The City conducted traffic counts and speed counts that were used in the analysis for the entrances to Entrada. Further analysis and sight distance design was completed with the help of Jody Kliska. The Entrada site was redesigned to have only two entrances off of Ridge Circle Drive aligning with Valley View Way and West Valley Circle. The number of units was lowered to 23 units. Additionally, 13 of the units are now designed as completely detached homes with 10 of the units being attached townhomes. See plan for new design.

A meeting was held April 11, 1996 at ROLLAND Engineering with Kathy Portner, Jody Kliska, and the Fleisher Company, Inc. in attendance. Engineering items such as the sight distance issues were discussed at length. The central entrance, as originally proposed was removed. The upper entrance, across from Valley View Way, will be acceptable with Lots 6 & 7 of Block 2 being moved to the north as shown on the revised plan. Additionally the land where Lots 6 & 7 of Block 2 reside will require lowering to allow sight distance for a vehicle turning onto Ridge Circle Drive from the Private Road. Private roads are proposed with the width being 20 feet as required by the City for Fire Protection.

Rolland Engineering met with Hank Masterson, City of Grand Junction Fire Department, April 16, 1996 and discussed the new plan and road lengths. Mr. Masterson stated that he thought the

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new plan was workable for the Fire Department.

Additional off-street parking was discussed at the April 11, 1996 meeting. The plan was revised to allow for additional off-street parking.

Landscaping was discussed with Kathy Portner, Jody Kliska, and the Developer visiting the Summerville Townhome site in the Ridges. The Fleisher Company developed Summerville Townhomes and is proposing similar landscaping for Entrada. Photos have been included to show landscaping styles that will be designed with the final submittal.

One other issue that was brought up at the April 11, 1996 meeting was that of the drainage ditch running along the northern border of the Entrada property. The drainage ditch drains a large area of the Ridges Subdivision and the section of the ditch running along the Entrada property boundary is but a small section of the overall drainage system. The Developer proposes creating a drainage easement with rights to the City of Grand Junction so that the City is able to maintain the entire drainage system through the Ridges Subdivision. A full drainage analysis will be completed at final submittal.

The following responses are sequenced in the order that the review comments were provided:

U.S. WEST

Appropriate construction documents and coordination will be provided as requested.

PUBLIC SERVICE COMPANY

All common and open space areas shall be designated as multi-purpose easements.

REDLANDS WATER & POWER

Comment of "No impact" is noted.

FIRE DEPARTMENT

Trevor Brown, of ROLLAND Engineering, met with Hank Masterson April 16, 1996 regarding the newest site plan with two entrances off of Ridge Circle Drive. The length of the private roads, widths, and parking areas were discussed. Hank believes that the site layout as shown is workable for the Fire Department. All requirements of the Fire Department will be met.

U.S. POSTAL SERVICE

We request recommendation by the U.S. Postal Service on addressing. We anticipate central delivery points for the two main neighborhoods. The Entrada address system is proposed to have two main addresses (the two main entrances) with unit numbers for the individual homes.

CITY PROPERTY AGENT

Comment noted about no final plat to review.

CITY DEVELOPMENT ENGINEER

- 1. ROLLAND Engineering is working closely with the City Development Engineer to design for sight distance requirements. The central entrance, as originally proposed was removed. The upper entrance, across from Valley View Way, will be acceptable with Lots 6 & 7 of Block 2 being moved to the north as shown on the revised plan. Additionally the land where Lots 6 & 7 of Block 2 reside will require lowering to allow sight distance for a vehicle turning onto Ridge Circle Drive from the Private Road. Private roads are proposed with the width being 20 feet as required by the City for Fire Protection.
- a. The design endeavors to adhere to the maximum allowable length for private drives.
 Hank Masterson, City Fire Department, has seen the revised plan and believes that the plan will be workable.
 - b. Common mailbox locations are proposed with this plan. Trash locations will be located in a manner acceptable to the City.
 - c. Minimum width of private streets will be 20 feet.
 - d. Additional off-street parking (parking pods) has been included on revised plan.
- 3. Final drainage report will include all analyses as requested.

CITY POLICE DEPARTMENT

Comments noted. Exterior lighting schemes will be submitted with the final application.

CITY COMMUNITY DEVELOPMENT

- 1. The Fleisher Company, Inc., (The Developer), would like to propose moving the bus shelter to a location beside the existing pedestrian pathway where the pathway meets Ridges Blvd. The pathway is located along the northern boundary of the proposed subdivision. The present location of the bus shelter is at the intersection of Ridges Blvd. and Ridge Circle Drive. This intersection is busy, especially at the time the bus picks up children or drops children off. The parents park in a vacant commercial lot in the area behind the bus shelter. Moving the shelter to where the pathway presently meets Ridges Blvd. redirects foot traffic to the existing pathways and allows the bus to stop in controlled one-lane traffic setting. The Developer is exploring this possibility with the School District. The Developer is proposing new pathways to connect from the townhomes to the path along the northern boundary of the property (shown on plans).
- 2. As stated in item Number 1 above, the Developer is proposing new pathways to connect

from the townhomes to the path along the northern boundary of the property (shown on plans).

- 3. Preliminary Plan has been redrawn using the SSID checklist as guidance.
- 4. Sight distance was the major obstacle against having three entrances to this site. The site has been redesigned with two entrances. Jody Kliska, City Development Engineer, and ROLLAND Engineering have discussed sight distances in detail.
- 5. The Developer is proposing landscaping the common open areas similar to Summerville Townhomes. During a meeting on April 11, 1996, Kathy Portner and Jody Kliska visited Summerville Townhomes to review landscaping. The Developer developed Summerville approximately 20 years ago. Color photos of landscaping are included in this response package. Note: Summerville is in The Ridges Subdivision and therefore the style of landscaping shown (photos) is achievable.

TCI CABLEVISION

Comments noted.

RIDGES ACCO

- 1. Please see revised plan. Pathways will be evaluated.
- 2. Fencing will be evaluated along with landscaping.
- 3. Parking areas have been defined on the revised plan.

UTE WATER

Comments noted.

CITY UTILITY ENGINEER

Water & Irrigation

1. Water and Irrigation lines are proposed to be derived from Ridge Circle Drive. All areas, except for the townhome footprint will be considered multi-purpose easements. Potable water main line will be tapped into the 8" line that runs along the northern edge of Ridge Circle Drive. Each home is proposed to have its own meter. The irrigation water will be taken out of the line in Ridge Circle Drive. The irrigation system will be designed with the landscape design at final submittal. The irrigation system will be owned, maintained, and operated by the Entrada Townhome Homeowners Association.

Sewer

1. Each unit will have its own sewer service line. We are proposing sewer mains placed in

the private roads. The roads are multi-purpose easements, as well as all common open space, and the developer proposes sewer mains and manholes designed to City standards that will be maintained by the City. Initial proposed alignment is shown on the revised plans.

MESA COUNTY SCHOOL DISTRICT Comments noted.

CITY PARKS & RECREATION DEPARTMENT

Parks and Open Space Fees are noted at \$225 per unit.

STAFF REVIEW

FILE:

PP-96-54

DATE:

April 30, 1996

STAFF:

Kathy Portner

REQUEST:

Preliminary Plan--Entrada Townhomes

LOCATION:

NE corner Rana Road and Ridge Circle Drive

APPLICANT:

The Fleisher Company

EXISTING LAND USE:

Undeveloped

PROPOSED LAND USE: 23 townhome units

SURROUNDING LAND USE:

NORTH:

Single Family Residential

SOUTH:

Single Family Residential

EAST:

Undeveloped

WEST:

Single Family Residential

EXISTING ZONING:

PR-4

PROPOSED ZONING:

No Change

SURROUNDING ZONING:

NORTH:

PR-4

SOUTH:

PR-4

EAST:

PR-4

WEST:

PR-4

RELATIONSHIP TO COMPREHENSIVE PLAN:

No Comprehensive Plan exists for this area. The proposal is consistent with the densities established in the Ridges Amended Final Plan.

STAFF ANALYSIS:

This property, located at the north-east corner of Rana Road and Ridge Circle Drive, is currently platted into 30 townhome lots. Access to the townhomes is platted as a 25' road through the property. The proposal is to replat the 3.6 acre site into 23 townhome units with a different configuration.

The units are proposed to be accessed from two private drive off Ridge Circle Drive, one aligned with Valley View Way and one aligned with West Valley Circle. The private drive is 20' wide with parking pods interspersed along the length. Each unit has a double car garage and space for two cars to park in the driveway. Ten additional parking spaces are provided for the 13 units on one private drive, and six additional parking spaces are provided for the 10 units on the other private drive.

Current City street standards do not allow for private drives. The proposal will require a variance to the street standards. The proposed private drives do not meet the City standard for width, but would be expected to meet the construction standards, including curb and gutter. The reduced width precludes any on-street parking. The petitioner is proposing parking pods in lieu of on-street parking. The City does not have specific standards as to the number of additional spaces required, however, if the private drives did allow on-street parking it appears that the drive accessing the 13 units would not provide for more than 10 on-street spaces and the drive accessing the 10 units would not provide for more than 4 spaces. Therefore, the 10 and 4 additional parking spaces provided seem to be adequate. A maintenance agreement, acceptable to the City would have to be provided through the covenants and homeowners association. The private drives should be dedicated as common tracts and public utility and access easements.

Two access points to the existing trail north of the property are proposed. Each will be 8' wide within a 12' wide easement. The proposed connections are in keeping with the Ridges standard of providing linkages to the overall trail system rather than providing sidewalk on all streets. The grade of the trail linkages should be minimized as much as possible and not exceed a maximum of 8%. Alternative drainage crossings should be considered with the final. A direct connection between the housing clusters should be provided. One alternative would be to delete the west trail linkage to the existing trail and run a parallel trail to the east, south of the ditch. Another alternative would be a short trail linkage from the turn-around by lot 5, block 2 to the private drive by lot 1, block 1.

STAFF RECOMMENDATION:

Staff recommends approval of the Preliminary Plan with the conditions that the final plan incorporate a trail connection between the housing clusters and that the trail linkages to the existing trail not exceed a 8% grade. Staff also recommends approval of the request to allow private drives.

RECOMMENDED PLANNING COMMISSION MOTION:

Mr. Chairman, on item #PP-96-54, I move we approve the Preliminary Plan with the staff conditions and recommend approval of the variance to City street standards to allow the private drives.

STAFF COMMENTS - CONCEPT PLAN - ENTRADA TOWNHOMES

Encourage cluster design as proposed vs. existing linear design

Private drives probably will be accepted. Suggest some landscaping within large culde-sac bulbs to minimize "sea of asphalt" in these areas. Increase landscape strips between driveways (width and length) for the same reason.

Buildings seem very close together -- reduce number; particularly on the westerly culde-sac.

City Development Engineer (Jody Kliska) is not opposed to the three access points as long as separation shown is maintained.

Provide a pathway along Rana Road and Ridge Circle Drive in lieu of public streets/sidewalks. Also provide pathway connection(s) to the existing path north of the project site. Examine possibility of pathway connection to bus shelter located at Ridges Boulevard and Ridge Circle Drive.

STAFF REVIEW

FILE:

PP-96-54

DATE:

May 29, 1996

STAFF:

Kathy Portner

REQUEST:

Preliminary Plan--Entrada Townhomes

LOCATION:

NE corner Rana Road and Ridge Circle Drive

APPLICANT:

The Fleisher Company

EXECUTIVE SUMMARY:

A request for a variance to the City street standards to allow private streets in the proposed Entrada Townhome development in the Ridges.

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: 23 townhome units

SURROUNDING LAND USE:

NORTH: SOUTH:

Single Family Residential Single Family Residential

EAST:

Undeveloped

WEST:

Single Family Residential

EXISTING ZONING:

PR-4

PROPOSED ZONING:

No Change

SURROUNDING ZONING:

NORTH:

PR-4

SOUTH:

PR-4

EAST:

WEST:

PR-4

PR-4

RELATIONSHIP TO COMPREHENSIVE PLAN:

No Comprehensive Plan exists for this area. The proposal is consistent with the densities established in the Ridges Amended Final Plan.

STAFF ANALYSIS:

This property, located at the north-east corner of Rana Road and Ridge Circle Drive, is currently platted into 30 townhome lots. Access to the townhomes is platted as a 25' road through the property. The proposal is to replat the 3.6 acre site into 23 townhome units with a different configuration.

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Current City street standards do not allow for private drives. The proposal will require a variance to the street standards. The proposed private drives do not meet the City standard for width, but would be expected to meet the construction standards, including curb and gutter. The reduced width precludes any on-street parking. The petitioner is proposing parking pods in lieu of on-street parking. The City does not have specific standards as to the number of additional spaces required, however, if the private drives did allow on-street parking it appears that the drive accessing the 13 units would not provide for more than 10 on-street spaces and the drive accessing the 10 units would not provide for more than 4 spaces. Therefore, the 10 and 4 additional parking spaces provided seem to be adequate. A maintenance agreement, acceptable to the City would have to be provided through the covenants and homeowners association. The private drives should be dedicated as common tracts and public utility and access easements.

Two access points to the existing trail north of the property are proposed. Each will be 8' wide within a 12' wide easement. The proposed connections are in keeping with the Ridges standard of providing linkages to the overall trail system rather than providing sidewalk on all streets. The grade of the trail linkages should be minimized as much as possible and not exceed a maximum of 8%. Alternative drainage crossings should be considered with the final. A direct connection between the housing clusters should be provided. One alternative would be to delete the west trail linkage to the existing trail and run a parallel trail to the east, south of the ditch. Another alternative would be a short trail linkage from the turn-around by lot 5, block 2 to the private drive by lot 1, block 1.

STAFF RECOMMENDATION:

Staff recommends approval of the Preliminary Plan with the conditions that the final plan incorporate a trail connection between the housing clusters and that the trail linkages to the existing trail not exceed a 8% grade. Staff also recommends approval of the request to allow

private drives.

PLANNING COMMISSION DECISION:

At their May 7, 1996 hearing, Planning Commission approved the Preliminary Plan and recommended approval of the variance to City street standards to allow private drives.

CITY COUNCIL IS BEING ASKED TO CONSIDER THE REQUEST FOR PRIVATE STREETS ONLY. BASED ON THIS DECISION, STAFF IS SEEKING GENERAL DIRECTION FROM COUNCIL ON HOW TO HANDLE SIMILAR REQUESTS IN THE FUTURE.

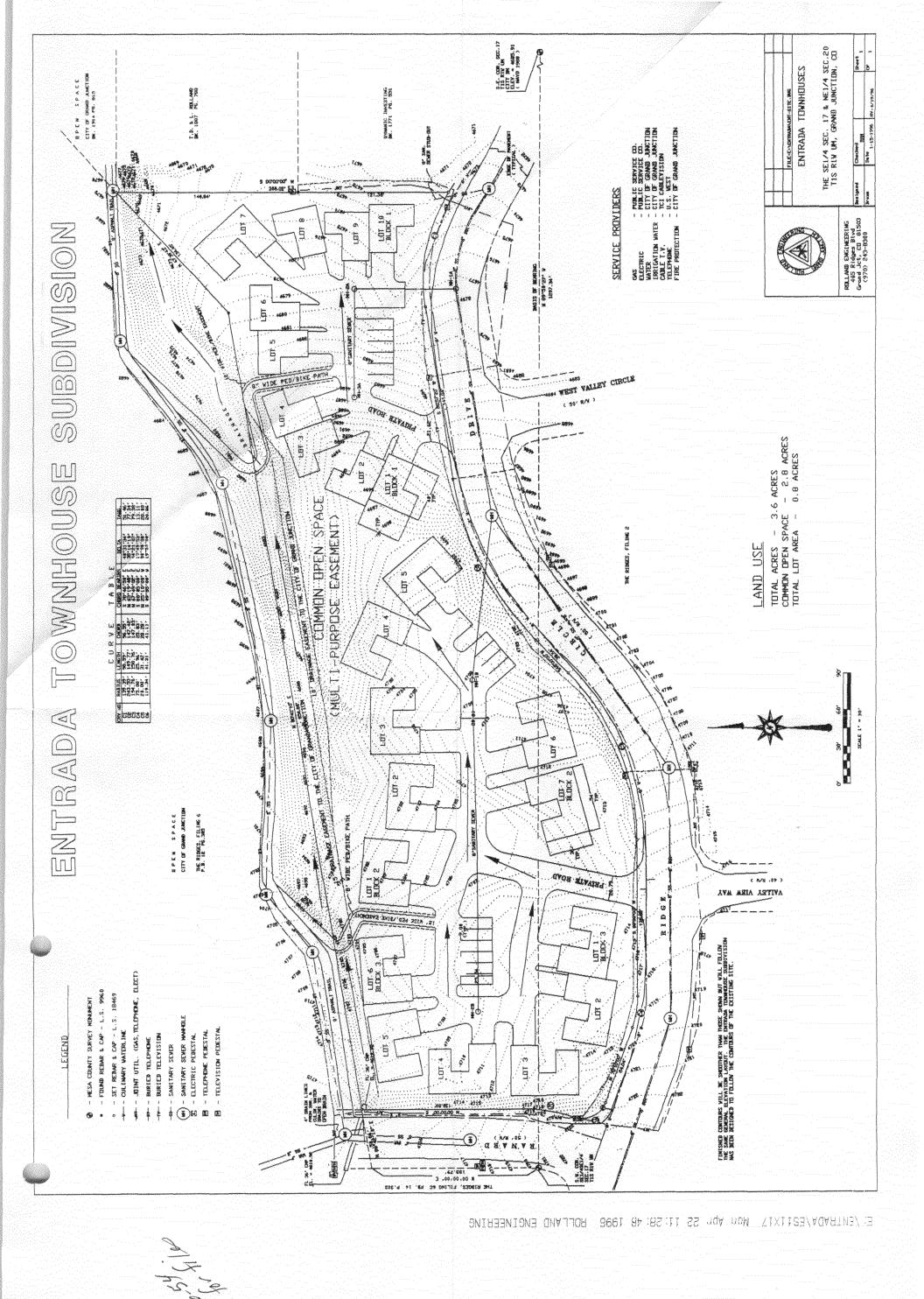
approve PC recommendations up some beway in final design for the Ridge Circle Drive path.





ENTRADA TOWNHOUSE SUBDIVISION COMMON OPEN SPACE (MULTI-PURPOSE EASEMENT) SERVICE PROVIDERS LAND USE TUTAL ACRES - 3.6 ACRES
COMMON DPEN SPACE - 2.8 ACRES
TOTAL LUT AREA - 0.8 ACRES ENTRADA TOVNHOUSES

ROLLAND ENGINEERING 11: 28: 48 ಜ



Conditions of Approval for Private Streets

- 1. Must be a minimum of 20' in width.
- 2. Additional parking must be provided equal to or greater than what could have been provided on-street with a public street section.
- 3. Must be in developments with PR zoning.
- 4. The development must include common ownership of the land surrounding the structures and small patio or garden areas.
- 5. Street construction must include curb, gutter and sidewalk and be of construction of equal or greater quality than City street standards.
- 6. Satisfactory trash pick-up areas shall be provided.
- 7. The final plat shall identify the streets as private tracts dedicated to the homeowners, as well as full-width, multi-purpose easements.
- 8. The homeowners association shall establish an annual maintenance fund for the private streets. The formula and financial mechanisms of this fund shall be submitted by the petitioner for review and approval by the Public Works Department prior to the release of the Development Improvements Agreement.



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

June 24, 1996

Cristopher Caruso 200 East Main Street Aspen, CO 81611

RE: PP-96-54, Entrada Townhomes

Dear Mr. Caruso:

This will summarize the approvals for Entrada Townhomes for 23 townhome units to be accessed by a private drive. On May 7, 1996 the Planning Commission approved the Preliminary Plan with staff conditions that the final plan incorporate a trail connection between the housing clusters and that the trail linkages to the existing trail not exceed an 8% grade, with the addition of requiring a 6' hard surface separated pathway along Ridge Circle Drive and the requirement for stop signs on both private drives.

City Council, at their June 5, 1996 hearing approved the variance to City street standards to allow the proposed private drives and amended the Planning Commission requirement for a 6' path along Ridge Circle Drive to give staff and the applicant some flexibility in providing either the trail or an alternative that is acceptable.

The final plat/plan for the project must reflect the above conditions and all other conditions agreed upon through the review process. I have enclosed a submittal packet with the copy of this letter to Rolland Engineering.

Thank you for your cooperation through the review process. I look forward to seeing your project built.

Sincerely,

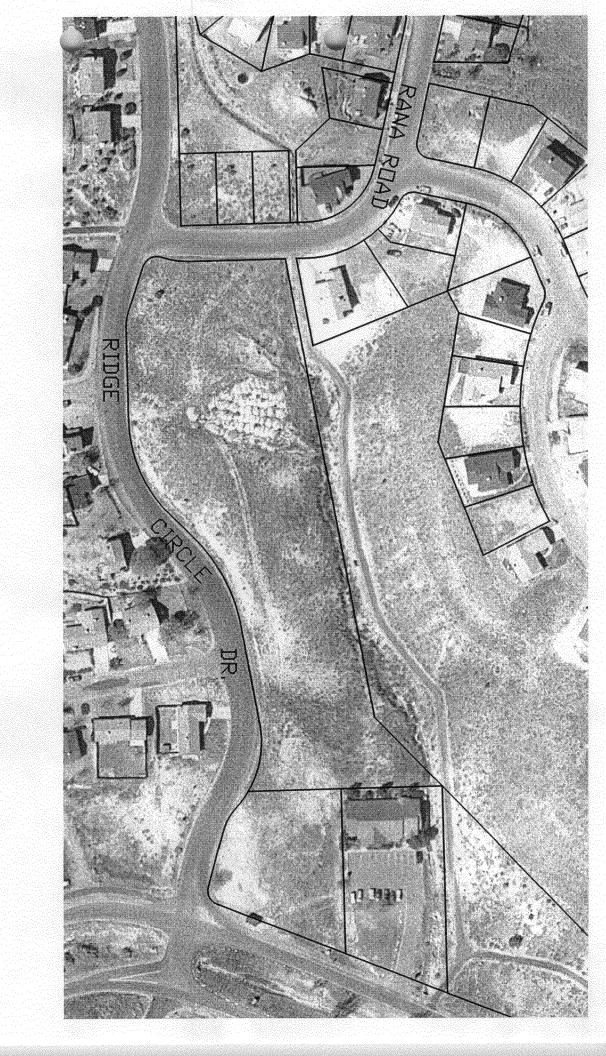
Katherine M. Portner

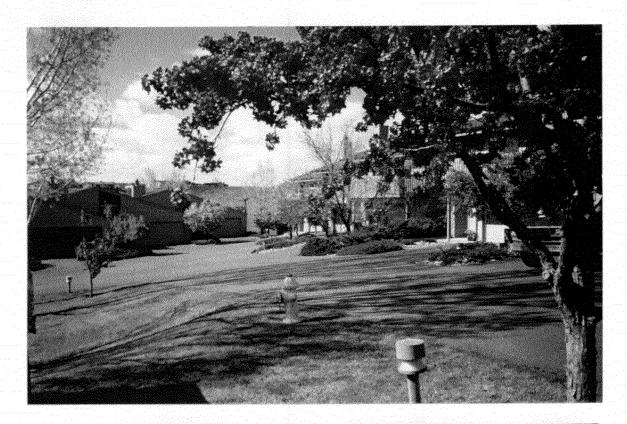
Planning Supervisor

xc: Trevor Brown, Rolland Engineering

Hathum M. Portm

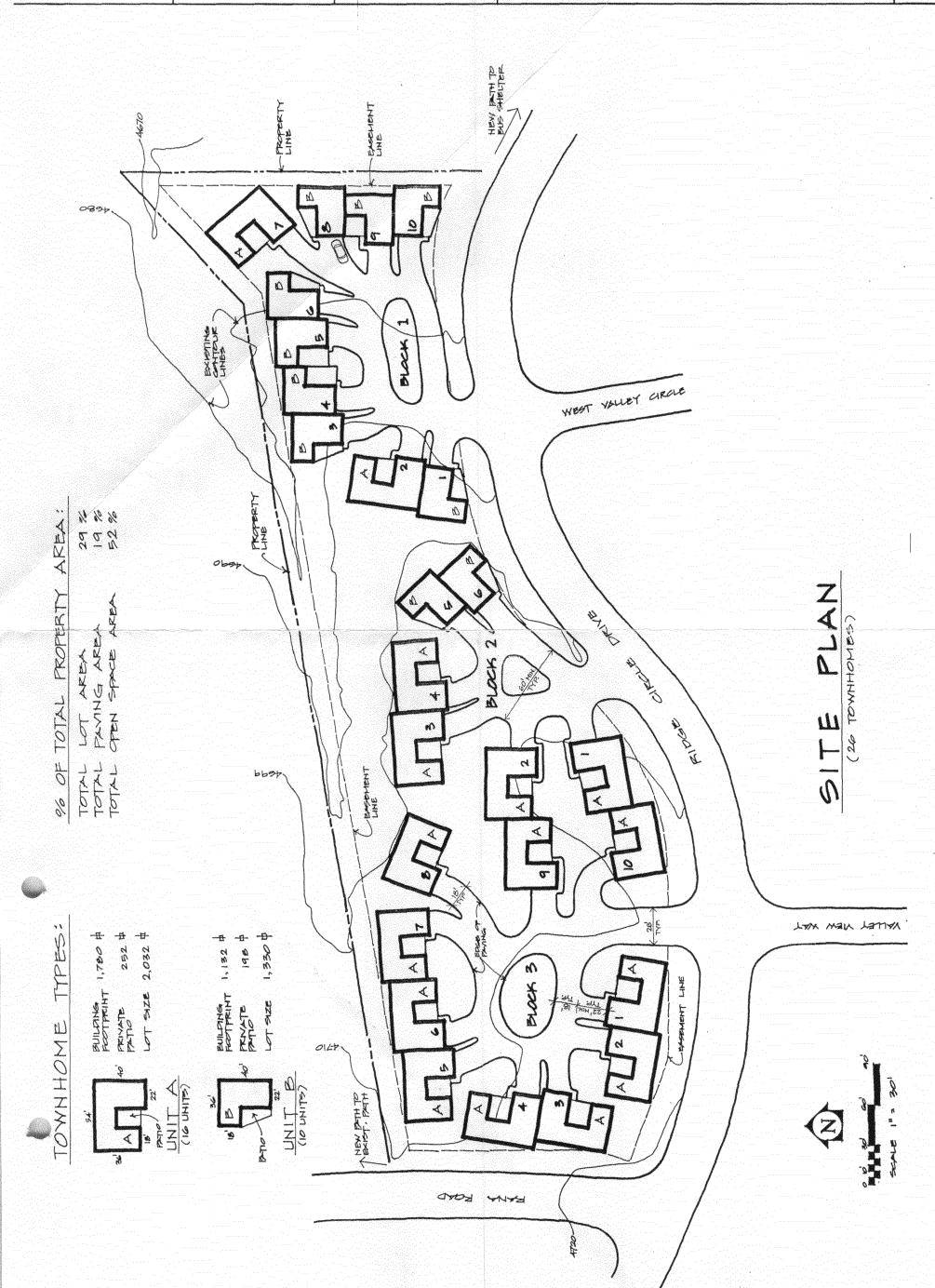
LOT 1 in Block 9, THE RIDGES FILING NO. TWO











SHOWS ARCH 1, IGHIC

GRAND JUHCTION, CO SABOIN AHL ENTRADA TOWNHOMES

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ERMAD JCT, CO BISOS CIVIL ENGINEERS

0058-845-07P TOP PIDES DIND. ROLLAND ENG.

2212-926-076

OWNER:

HAPBN, CO BIGIL

TE HIM THE DOC

THE FLEISHER CO.

