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File 1994-00 20A Name: Eagle Crest Subdivision – Major Subdivision - Final

Present	Scanned	
		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.
X	X	**Table of Contents**
		***Review Sheet Summary**
X	X	***Application form**
		Review Sheets
X		Receipts for fees paid for anything
X		***Submittal checklist**
		***General project report**
		Reduced copy of final plans or drawings
		Reduction of assessor's map.
		Evidence of title, deeds, easements
X	X	***Mailing list to adjacent property owners**
		Public notice cards
		Record of certified mail
		Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or non-bound reports
		Traffic studies
X	X	***Review Comments**
X	X	***Petitioner's response to comments**
X	X	***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**

DOCUMENT DESCRIPTION:

X	X	Resolution No. 110-94 - **	X	X	Certification of plat
X	X	Warranty Deed - ** - Bk 2217 / Pg 966	X	X	Articles OF Incorporation
X	X	City Council Minutes – 11/16/94 - **	X	X	Replat of Lot 17 – Block 9 of Ridges Filing #6
X	X	Planning Commission Minutes – 11/1/94 - **	X	X	Eagle Crest Subdivision – GIS Historical Maps - **
X	X	Soils Report	X		Street Plan and Profile – sent to GIS
X	X	Correspondence	X		Sewer and Water Plan and Profile – sent to GIS
X		Versa-Lok – Retaining Wall systems information	X		Utility Composite – sent to GIS for scanning
X	X	Final Drainage Report – 10/24	X		Water Details – sent to GIS for scanning
X		Posting of public Notice Signs – 10/21/94	X		Sewer Details – sent to GIS for scanning
X	X	Roadway & Drainage Improvements – Exhibit B			
X		Declaration of Covenants, Conditions and Restrictions-not the recorded version			
X	X	DIA – copy – Bk 2219 / Pg 400 – no release present in file-disbursement – not recorded			

DEVELOPMENT APPLICATION

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

Receipt _____
Date _____
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:

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
[X] Subdivision Plat/Plan	[ ] Minor [X] Major [ ] Resub	~3 acres	Prospector Pt. Ridges	PR	Residential
[ ] Rezone				From: To:	
[X] Planned Development	[ ] ODP [ ] Prelim [X] Final	"	"	"	"
[ ] Conditional Use					
[ ] Zone of Annex					
[ ] Text Amendment					
[ ] Special Use					
[ ] Vacation					[ ] Right-of-Way [ ] Easement

[X] PROPERTY OWNER	[X] DEVELOPER	[X] REPRESENTATIVE
Sidney Gottlieb		Landesign Ltd., Thomas A. Logue
Name	Name	Name
447 Elkwood Terrace		200 N. 6th Street
Address	Address	Address
Englewood, NJ 07631		Grand Jct. CO 81501
City/State/Zip	City/State/Zip	City/State/Zip
201-569-0916		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 Thomas A. Logue — 10/1/94
Signature of Person Completing Application — Date

X _____

Signature of Property Owner(s) - Attach Additional Sheets if Necessary

SUBMITTAL CHECKLIST 20- 94(3)

MAJOR SUBDIVISION: FINAL

Original Do NOT Remove Office

Location: Prospector Point - Ridges Project Name: Eagle Crest

Date Received _____

Receipt # _____

File # _____

DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	● City Parks/Recreation	● City Fire Department	● City Attorney	● City G.J.P.C. (8 sets)	○ City Downtown Dev. Auth.	● City Police	● County Planning	○ County Bldg. Dept.	● County Surveyor	○ Walker Field	● School Dist. #51	○ Irrigation District	○ Drainage District	○ Water District	○ Sewer District	● U.S. West	● Public Service	○ GVRP	○ CDOT	○ Corps of Engineers	○ Colorado Geologic Survey	○ U.S. Postal Service	● Persigo WWTF	TOTAL REQ'D.
● Application Fee-$720 + $15/acre	VII-1	1																											
● Submittal Checklist*	VII-3	1																											
● Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
● Application Form*	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
● 11"x17" Reduction of Assessor's Map	VII-1	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
● Evidence of Title	VII-2	1			1			1																					
○ Appraisal of Raw Land	VII-1	1			1	1																							
● Names and Addresses	VII-2	1																											
● Legal Description	VII-2	1			1																								
○ Deeds	VII-1	1			1			1																					
○ Easements	VII-2	1	1	1	1			1													1	1	1						
○ Avigation Easement	VII-1	1			1			1							1														
● ROW	VII-3	1	1	1	1			1													1	1	1						
● Covenants, Conditions, & Restrictions	VII-1	1	1					1																					
○ Common Space Agreements	VII-1	1	1					1																					
● County Treasurer's Tax Cert.	VII-1	1																											
● Improvements Agreement/Guarantee*	VII-2	1	1	1				1																					
○ CDOT Access Permit	VII-3	1	1																										
○ 404 Permit	VII-3	1	1																										
○ Floodplain Permit*	VII-4	1	1																										
● General Project Report	X-7	1	1	1	1	1	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
● Composite Plan	IX-10	1	2	1	1																								
● 11"x17" Reduction Composite Plan	IX-10	1				1	1	1	8	1	1	1	1				1	1	1	1	1	1	1	1	1	1		1	
● Final Plat	IX-15	1	2	1	1			1						1															
● 11"x17" Reduction of Final Plat	IX-15	1							8	1	1	1			1	1	1	1	1	1	1	1	1			1			
● Cover Sheet	IX-11	1	2																										
● Grading & Stormwater Mgmt Plan	IX-17	1	2															1						1	1				
○ Storm Drainage Plan and Profile	IX-30	1	2															1		1	1	1							
● Water and Sewer Plan and Profile	IX-34	1	2	1			1												1	1	1	1	1				1		
● Roadway Plan and Profile	IX-28	1	2															1											
● Road Cross-sections	IX-27	1	2																										
● Detail Sheet	IX-12	1	2																										
○ Landscape Plan	IX-20	2	1	1					8																				
● Geotechnical Report	X-8	1	1										1												1				
○ Phase I & II Environmental Report	X-10,11	1	1																										
● Final Drainage Report	X-5,6	1	2															1											5
○ Stormwater Management Plan	X-14	1	2															1						1					
○ Sewer System Design Report	X-13	1	2	1																1									
○ Water System Design Report	X-16	1	2	1															1										
○ Traffic Impact Study	X-15	1	2																					1					
● Site Plan	IX-29	1	2	1	1		1		8																				

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.

PRE-APPLICATION CONFERENCE

Date: 9/30/94
Conference Attendance: Kathy P. Tom Logue
Proposal: Final - Eagle Crest
Location: Prospector Pk. - Ridges

Tax Parcel Number: _____
Review Fee: $740 + $15/acre
(Fee is due at the time of submittal. Make check payable to the City of Grand Junction.)

Related Files: #20-94 & #20-94(2)

Additional ROW required? 45
Area identified as a need in the Master Plan of Parks and Recreation? _____
Parks and Open Space fees required? _____ Estimated Amount: _____
Recording fees required? _____ Estimated Amount: _____
Adjacent Half street improvements/fees required? _____
Revocable Permit required? _____
State Highway Access Permit required? _____

Applicable Plans, Policies and Guidelines _____

Located in identified floodplain? FIRM panel # _____
Located in other geohazard area? _____

Located in established Airport Zone? Clear Zone, Critical Zone, Area of Influence? _____

Avigation Easement required? _____

While all factors in a development proposal require careful thought, preparation and design, the following "checked" items are brought to the petitioner's attention as needing special attention or consideration. Other items of special concern may be identified during the review process.

○	Access/Parking	○	Screening/Buffering	○	Land Use Compatibility
○	Drainage	○	Landscaping	○	Traffic Generation
○	Floodplain/Wetlands Mitigation	○	Availability of Utilities	○	Geologic Hazards/Soils
○	Other _____				

It is recommended that the applicant inform the neighboring property owners and tenants of the proposal prior to the public hearing and preferably prior to submittal to the City.

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.

_____ Thomas A. Logue
Signature(s) of Petitioner(s) Signature(s) of Representative(s)

#20-94(3) Eagle Crest 36

DYNAMIC INVESTMENT, INC.
391 1/2 Hillview Drive
Grand Junction, CO 81503-4606

RIDGES METROPOLITAN DISTRICE
P.O. Box 3568
Grand Junction, CO 81502-3568

DYNAMIC INVESTMENT, INC.
391 1/2 Hillview Drive
Grand Junction, CO 81503-4606

Thomas & Lynda H. Rolland
2561 H 3/4 Road
Grand Junction, CO 81505-9539

Entrada Townhouse, LTD
c/o The Fleisher Co.
200 E. Main Street
Aspen, CO 81611-1956

Rose Anne Kelley
2395 3/4 Pleasant Ridge Court
Grand Junction, CO 81503-1516

Larry & Alice M. Daniels
6356 N. Ponderosa Way
Parker, CO 80134-5616

James E. & Kimberly A. Short
2395 Pleasant Ridge Court
Grand Junction, CO 81503-1516

John and Susan Lakey
2393 Pleasant Ridge Court
Grand Junction, CO 81503-1516

Christine H. Slade
424 1/2 Pleasant Hollow Court
Grand Junction, CO 81503-1531

Mary Washburn
424 Pleasant Hollow Court
Grand Junction, CO 81503-1531

Dennis & Maureen Walters
422 1/2 Pleasant Hollow Ct.
Grand Junction, CO 8150301531

Mary Washburn
424 Pleasant Hollow Ct
Grd. Jct. CO 8153

John Lakey
424 Pleasant Hollow Ct.
Grd. Jct. Co 81503

Christine Holland
420 1/2 Pleasant Hollow Ct
Grd. Jct. CO 81503

James Short
2390 Pleasant Ridge Ct
Grd. Jct. CO 81503

Larry Daniels
2395 Pleasant Ridge Ct.
Grd. Jct. CO 81503

Joan Dahlen
422 1/4 Pleasant Hollow Ct.
Grand Junction, CO 81503-1531

William & Virginia Sant
374 Ridge View Dr. #2
Grand Junction, CO 81503-1644

Marna Lake
420 1/2 Pleasant Hollow Ct.
Grand Junction, CO 81503-1531

Shirley Wriston
420 1/4 Pleasant Hollow Ct.
Grand Junction, CO 81503-1531

Alice S. Pauley
419 Pleasant Hollow Ct.
Grand Junction, CO 81503-1591

Carol J. Dinges
2520 S. Gray Ct.
Denver, CO 80227-4017

Ronald Oines
418 1/2 Pleasant Hollow Ct.
Grand Junction, CO 81503-1531

Richar McVern
419 1/2 Pleasant Hollow Ct.
Grand Junction, CO 81503-1591

Lee Courtney
P.O. Box 2837
Grand Junction, CO 81502-2837

Rebecca Watson
418 1/2 Prospectors Pt.
Grand Junction, CO 81503-3300

Joyce Stevenson
418 Prospectors Pt.
Grand Junction, CO 81503-3300

Dennis Stark
426 E. Mayfield Dr.
Grand Junction, CO 81503-1520

Renier Company, Inc.
200 Texas AVe.
Grand Junction, CO 81501-2172

James Musgrave
412 1/2 Prospectors Pt.
Grand Junction, CO 81503-1580

Wendell Hines
576 1/2 Placer St.
Grand Junction, CO 81504-4859

Mary Roberts
410 Prospectors Pt.
Grand Junction, CO 81503-1580

Lew Wunderwald
P.O. BOx 952
Grand Junction, CO 81502

City of Grand Junction
Community Development Dept.
250 N. 5th St.
Grand Junction, CO 81501

Tom Logue/Landesign Ltd.
200 N. 6th St., Ste. #102
Grand Junction, CO 81501

REVIEW COMMENTS

FILE # **20-94(3)** **TITLE HEADING:** Final Plan/Plat - Eagle Crest

LOCATION: Lot 17, Block 9, The Ridges Filing #6

PETITIONER: Sidney Gottlieb

PETITIONER'S ADDRESS/TELEPHONE: 477 Elkwood Terrace
Englewood, NJ 07631
201-569-0916

PETITIONER'S REPRESENTATIVE: Thomas Logue/Landesign Ltd.

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., OCTOBER 24, 1994.

PUBLIC SERVICE **10/07/94**
Dale Clawson **244-2695**

Electric and Gas: No objections.

CITY FIRE DEPARTMENT **10/05/94**
Hank Masterson **244-1414**

The hydrant locations and water line sizes are adequate for this single family residential development.

U.S. WEST **10/07/94**
Leon Peach **244-4964**

New or additional telephone facilities necessitated by this project may result in a "contract" and up-front monies required from developer, prior to ordering or placing of said facilities. For more information, please call.

CITY UTILITY ENGINEER **10/11/94**
Bill Cheney **244-1590**

Water: No Comment.
Sewer: Provide for some type of energy dissipater in MH A-1 to reduce flow velocities.

Provide a minimum of 7 1/2' from centerline of sewer to edge of easement. In some places between MH 1-A and MH 3-A there is less than 5'.

CITY PARKS AND RECREATION DEPARTMENT **10/10/94**
Don Hobbs **244-1542**

Open space fees based upon 8 units at $225 = $1,800.00.

All open space excavation to be replaced to match surrounding grades and vegetation.

CITY DEVELOPMENT ENGINEER **10/14/94**
Jody Kliska **244-1591**

See attached comments and bluelines.

SCHOOL DISTRICT #51 **10/12/94**
Lou Grasso **242-8500**

See attached comments.

COMMUNITY DEVELOPMENT DEPARTMENT **10/17/94**
Kathy Portner **244-1446**

See attached comments.

20-94(3)

FINAL DRAINAGE REPORT FOR:

Eagle Crest Subdivision

October, 1994

Prepared For:
Sidney Gottlieb, Eagle Crest, LLC.
477 Elkwood Terrace, Englewood, NJ 07631
201-569-0916

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

Prepared By: _____ 10/03/94
Monty D. Stroup

"I hereby certify that this report for the final drainage design of Eagle Crest Subdivision was prepared under my direct supervision."

Reviewed By: _____ 10/3/94
Philip M. Hart, P.E.
State of Colorado, #19346

I. General Location and Description

A. Site and Major Basin Location:

Eagle Crest Subdivision contains approximately 2.9 acres and is located within the City of Grand Junction on the Redlands. The property is located in part of the SE 1/4 of Section 17, Township One South, Range One West, of the Ute Meridian. The site is also known as Lot 17, The Ridges, Filing Six.

The site is vacant of structures and is in a fallow state. Agricultural production has never occurred on the property. The site is not affected by offsite runoff as it is located on the top of a hill. Topography of the property is flat on the hill top. However, slopes of the hill side within the site approach 40 percent at the steepest areas. The hill top within Eagle Crest slopes towards the east at an average rate of 1.5 percent.

Most of the future drainage will be carried on the ground surface to the proposed street system to a point near the north property line. The proposal calls for the construction of a piped storm sewer which will discharge to the existing major drainage system within The Ridges along Ridges Blvd. Because the site will discharge directly to an existing major drainage system the requirement to detain storm water is considered mitigated.

B. Site and Major Basin Description:

The project site contains approximately 2.9 acres and is planned for 8 single family lots. There are no offsite tributary sub-basins which affect the subject property. The only offsite sub-basin analyzed with this report is "OF1" (4.51 acres) as shown on accompanying Final Drainage Plan. This offsite sub-basin is contiguous with the subject property and contributes run-off in a sheet flow manner to the northeast towards the Ridges Blvd. drainage channel.

Based on the "Soil Survey, Mesa County Area" (Reference 5, Exhibit 1.0) on and off-site soils are defined as (Ba), Badland, hydrological soil group "D".

II. Existing Drainage Conditions

A. Major Basin:

Generally the area wide basin drains from the south to the north via natural swales and gullies ultimately to the Ridges Boulevard drainage channel.

There are no wetlands on the site. Ground cover consists of sparse brush.

The subject site is within Zone X as determined by the FIRM Flood Insurance Rate Map.

B. Site:

Historically the property drains in a sheet flow fashion from the south to the north at approximately 1.0% slope along the hill top to the adjoining ridge lines which slope from 10% to approximately 40%. Most of the storm drainage is intercepted by an existing drainage swale adjacent to Ridges Blvd. and is subsequently conveyed via the Ridges Boulevard drainage channel northeast and ultimately to the Colorado River.

The property is bounded on all sides by Public Open Space. Off-site flows from areas west of and adjacent to the site are directed in a sheet flow fashion across open space towards Block 29 of Ridges, Filing 6.

Offsite runoff from sub-basin "OF1" is directed in a sheet flow fashion to Ridges Blvd. drainage channel. These flows are directed to and intercepted by a existing 12" CMP under Ridges Blvd. and ultimately along Ridges Blvd. via an existing 48" x 72" CMP arch pipe towards the Colorado River.

III. Proposed Drainage Conditions

A. Changes in Drainage Patterns:

Historic offsite drainage patterns will not be altered.

The proposed site plan divides the site into 4 sub-basins labeled as "A1" (0.35 acres), "A2" (1.15 acres), "A3" (0.40 acres) & "A4" (0.95 acres).

Runoff from sub-basin "A1" shall be conveyed via lot grading southeast overland across open space to an existing natural drainage way. This existing drainage way conveys this flow plus other offsite runoff easterly to an existing 42" CMP under Ridges Blvd. The development of lots 1 and 2 which make up the sub-basin will have little affect on the routing and or the quantity of runoff discharged from the sub-basin. The introduction of lawns or other ground cover as a result of development in this basin would tend to reduce the existing "C" values, therefore runoff computations for this sub-basin are not necessary.

Runoff from sub-basin "A2" shall be directed via lot grading and roadway alignments to a single combination curb inlet constructed in Eagle Crest Court adjacent to lot 7 (design point 1). This runoff shall be conveyed via a proposed 8-inch diameter PVC storm sewer, to be located on Public Open Space, easterly towards the Ridges Boulevard Drainage channel. As shown on the Final Drainage Plan (design point #2) an existing 12" diameter CMP, which conveys flows under Ridges Boulevard, is to be removed and replaced with a 18-inch diameter RCP as part of the storm sewer improvements. At design point #2 a C.D.O.T. Type "C" area inlet will be installed. This inlet will serve to

make the transition between PVC and RCP storm pipe and to collect runoff from sub-basins "OF1" and "A4". The area about the proposed inlet and adjacent to Ridges Boulevard is to be regraded to direct runoff conveyed within the roadside ditch directly to the new inlet. A berm is to be constructed to cutoff flows directing them into the inlet. The elevation of the top of this berm is to be set equal to that of the adjoining roadway.

Runoff from sub-basin "A3" shall be conveyed via lot grading west and northwest overland across open space towards various Blocks of The Ridges Filing No. 6. The various drainage patterns which historically convey runoff in these areas will not be changed. The development of lots 7 and 8 which make up the sub-basin will have little affect on the routing and or the quantity of runoff discharged from the sub-basin. The introduction of lawns or other ground cover as a result of development in this basin would tend to reduce the existing "C" values, therefore runoff computations for this sub-basin are not necessary.

B. Maintenance Issues:

Access to and through the site shall be by dedicated public-right-of-way.

Ownership and responsibility for maintenance of the proposed storm sewer shall be that of the City of Grand Junction.

IV. Design Criteria & Approach

A. Hydrology:

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.

As the project is a residential development containing approximately 2.9 acres the "Rational Method" was used to calculate developed flow rates. The major storm is the 100 year frequency rainfall event. Because the site drainage improvements including the proposed storm sewer are designed to control and convey the major storm event, the minor storm event was not analyzed. Detention requirements are considered mitigated.

Runoff Coefficients used in the computations are based on the most recent City of Grand Junction criteria as defined in Reference 1 and shown on Exhibit 4.0.

As the project is located within the Grand Junction Urbanized area, the Intensity Duration Frequency Curves (IDFC) shown on Exhibit 3.0 shall were used for design and analysis.

Times of Concentration are calculated based on the Average Velocities For Overland

Flow and the Overland Flow Curves as provided in Reference 1 and shown on Exhibits 5.0 and 6.0.

Because off-site flows are directed away from the project site, compliance with off-site drainage considerations are mitigated.

B. Hydraulics:

All site facilities and conveyance elements are designed in accordance with the City of Grand Junction guidelines as provided in Reference 1.

V. Conclusions

The construction of each structure should make provisions to direct roof drainage towards the front of the lot and to Eagle Crest Court were it can be collected and conveyed directly to the storm sewer. When this is not possible, runoff from roof drains should be discharged onto lawns, rip-rap or by other means which diffuse the flow.

Because the development of this project will result in the disturbance of less than five acres of land a "Construction Stormwater Discharge Permit" is not required.

This Final Drainage Report has been prepared to address site specific drainage concerns in accordance with the requirements of the City of Grand Junction, Colorado. The Appendix of this report includes criteria, exhibits, tables and design nomograph used in the design and analysis.

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 Hazard Information, Colorado River and Tributaries, Grand Junction, Colorado, prepared for the City of Grand Junction and Mesa County, by The Department Of The Army, Sacramento District, Corps Of Engineers, Sacramento, California, November, 1976.

4. Flood Insurance Rate Map, Mesa County, Colorado, (Unincorporated Areas), Community Panel Number 080115 0460 B, Federal Emergency Management Agency, Map Revised July 15th, 1992.

5. Soil Survey, Mesa County Area, Colorado, , U.S. Department of Agriculture, issued November, 1955.

APPENDIX

Land division corners are approximately positioned on this map.

Photobase from 1954 to 1963 aerial photography. Positions of 10,000-foot grid ticks are approximate and based on the Colorado coordinate system, central zone, 1927 North American datum.

Land division corners are approximately positioned on this map.

470 000 FEET

R. 101 W. | R. 100 W.

MESA COUNTY AREA, COLORADO — SHEET NUMBER 21

1 ¾ ½ ¼ 0 1 2 3 Miles

5 000 4 000 3 000 2 000 1 000 0 5 000 10 000 15 000 Feet

Scale 1:31 680

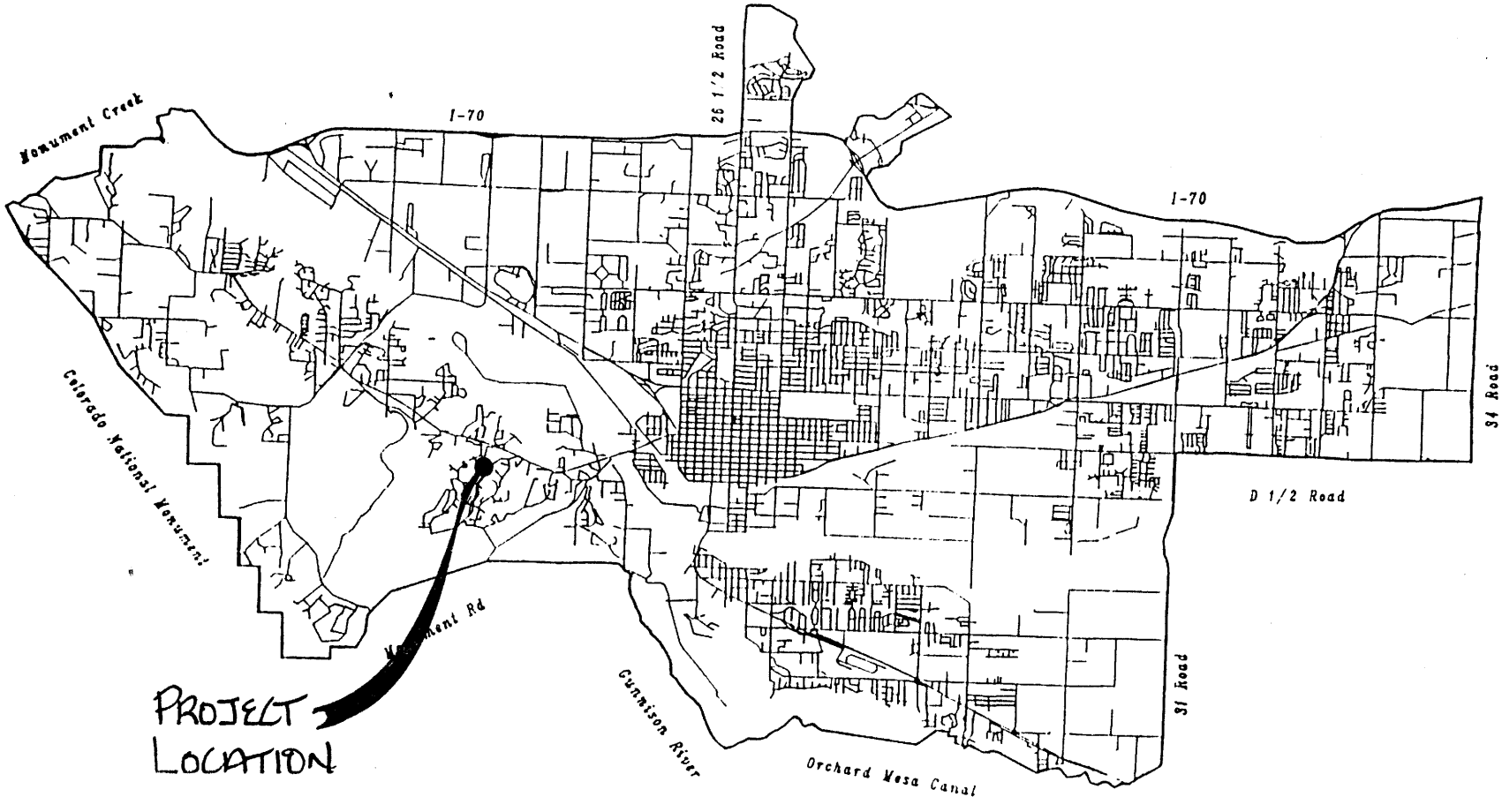
N

21

MCSDOM

EXHIBIT 2.0

447



Mesa County Dept. of Public Works Division of Engineering and Design	1992 Grand Jct - Mesa Co. MPO Boundary			MPO/GIS Project

FIG 404

INTENSITY DURATION FREQUENCY CURVES
GRAND JUNCTION, COLORADO

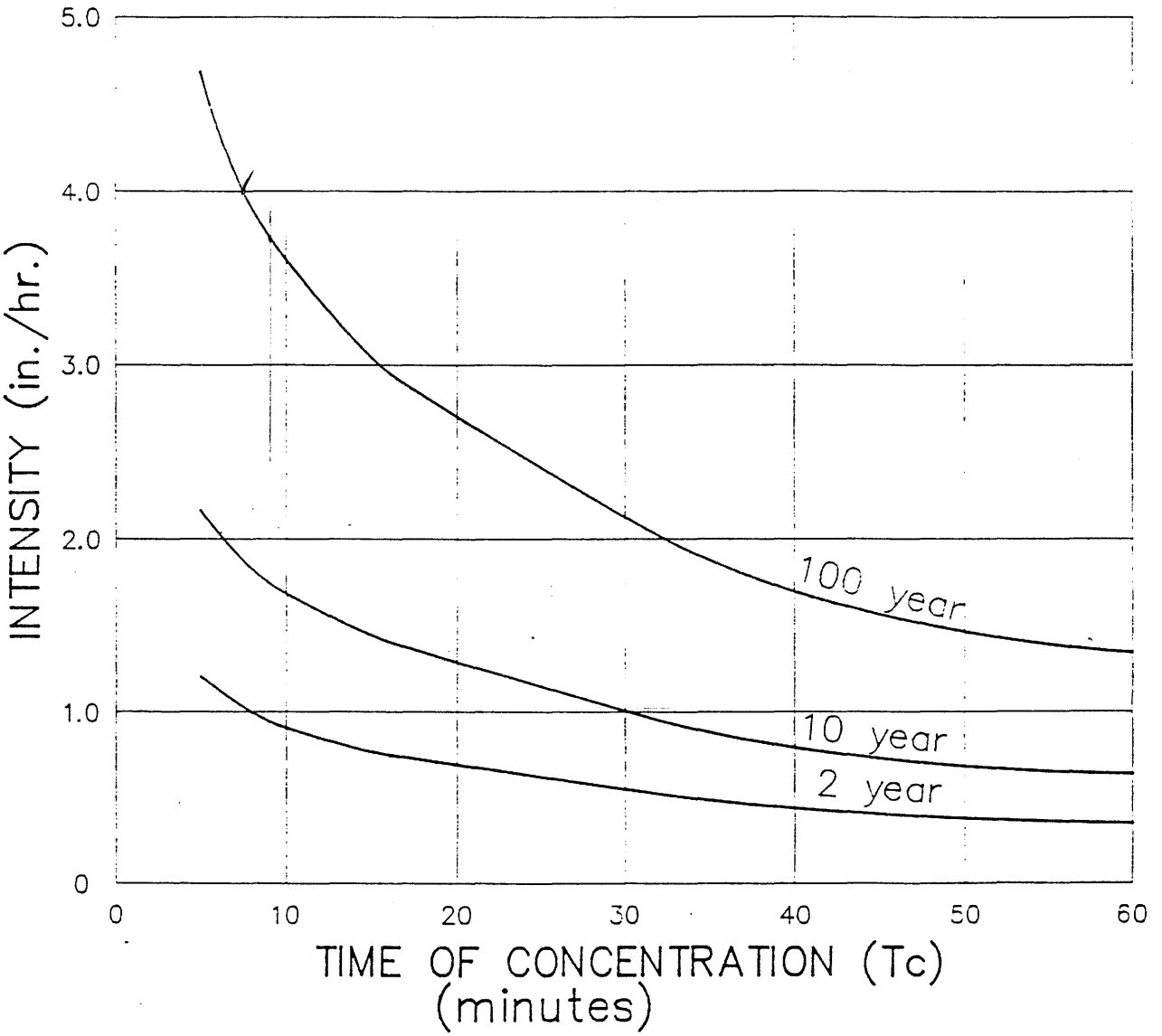


EXHIBIT 3.0

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%+
UNDEVELOPED AREAS 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
RESIDENTIAL AREAS 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
MISC. SURFACES 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

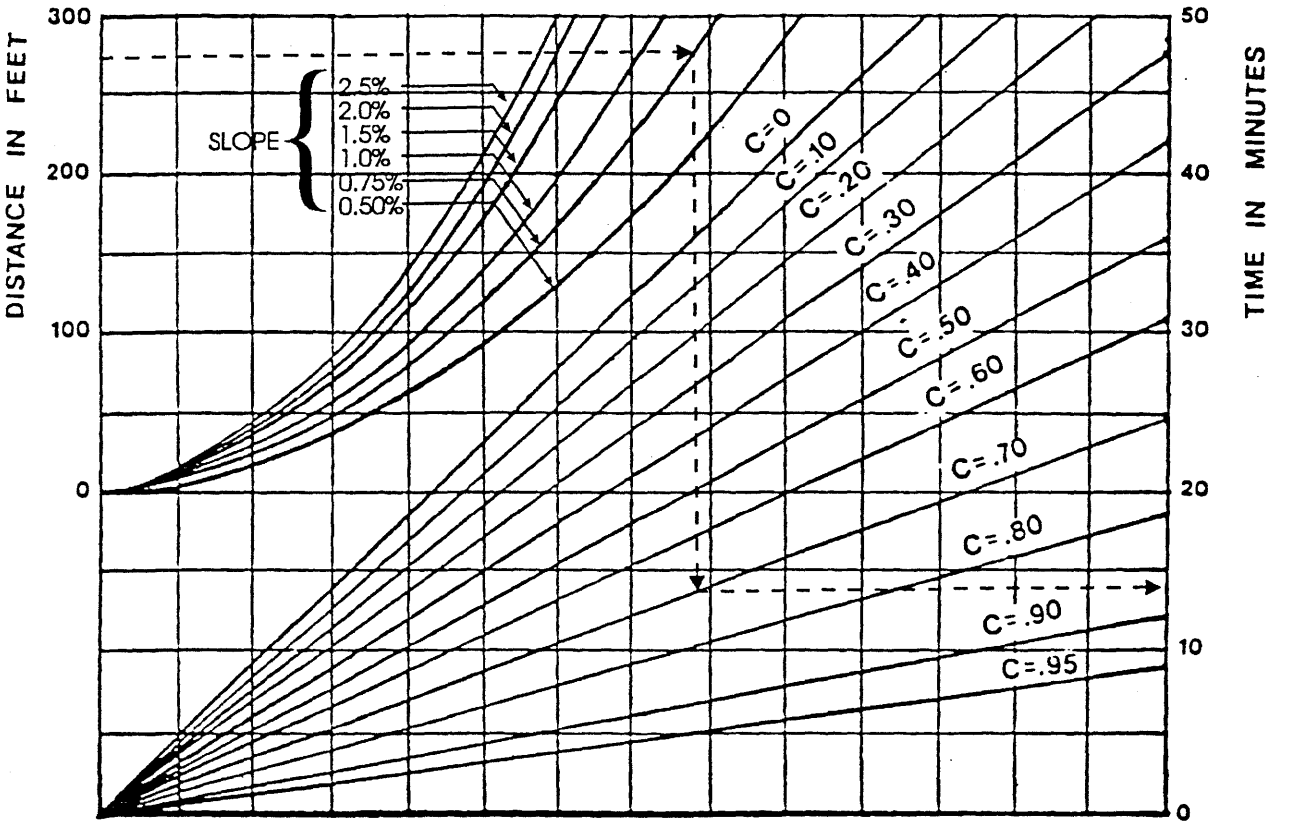
NOTES:
1. Values above and below pertain to the 2-year and 100-year storms, respectively.
2. The range of values provided allows for engineering judgement of site conditions such as basic shape, homogeneity of surface type, surface depression storage, and storm duration. In general, during shorter duration storms (Tc ≤ 10 minutes), infiltration capacity is higher, allowing use of a "C" value in the low range. Conversely, for longer duration storms (Tc) 30 minutes), use a ""C value in the higher range.
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.

RATIONAL METHOD RUNOFF COEFFICIENTS
(Modified from Table 4, UC-Davis, which appears to be a modification of work done by Rawls)

TABLE "B-1"

EXHIBIT 4D

MODIFIED FROM FIGURE 403, MESA COUNTY



THE ABOVE CURVES ARE A SOLUTION OF THE FOLLOWING EQUATION:

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

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

EXHIBIT 5.0

GRAPHICAL DETERMINATION OF "To:" FAA METHOD	FIGURE "E-2"

REPRODUCED FROM FIGURE 15.2, SCS 1972

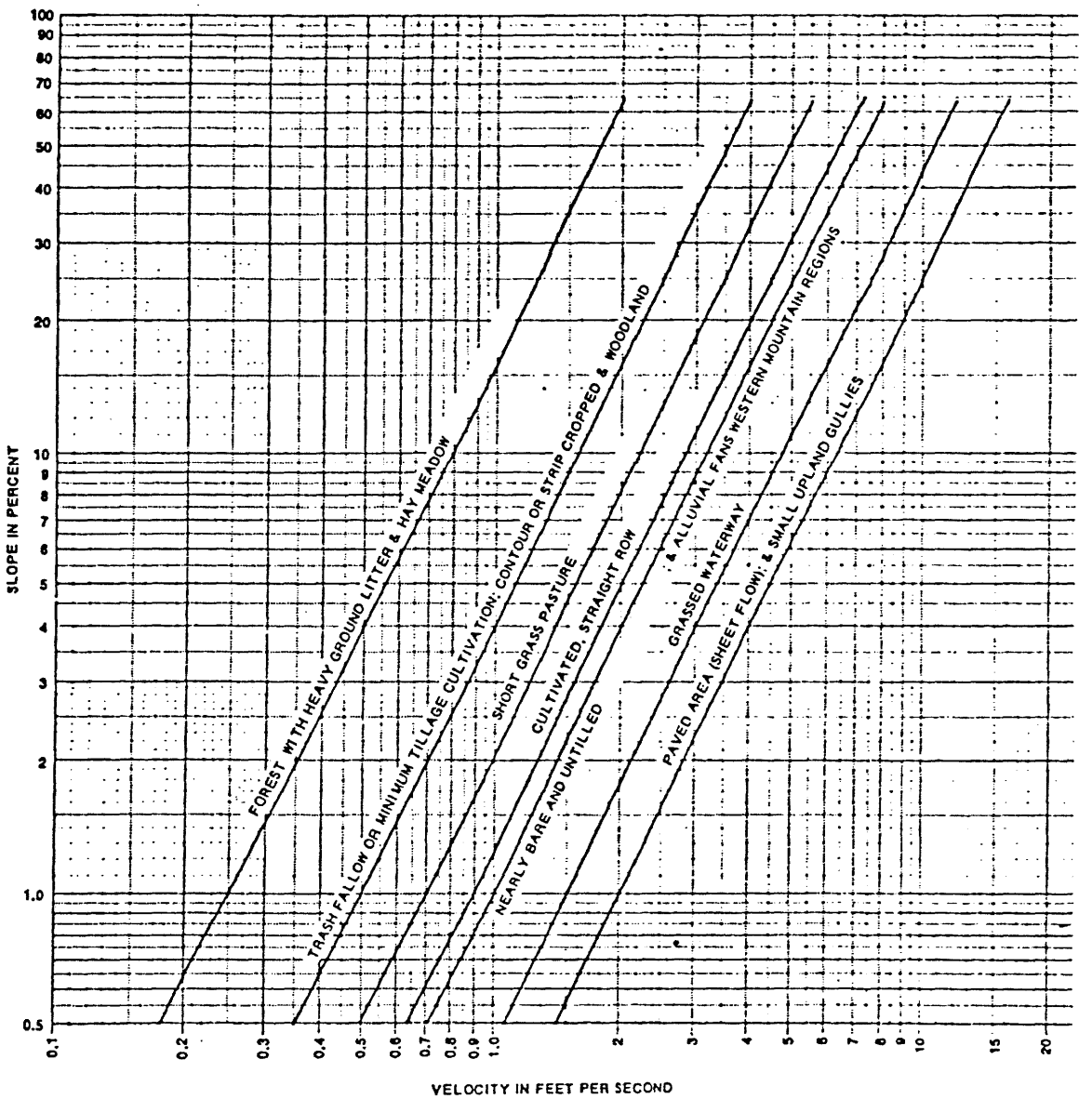


EXHIBIT 6.0

DETERMINATION OF "Ts"	FIGURE "E-3"

NOTE: THIS IS A REPRODUCTION OF TABLE I, APPENDIX A, "DESIGN CHARTS FOR OPEN CHANNEL FLOW", (HDS #3)

	Manning's n range [3]
I. Closed conduits:	
A. Concrete pipe	0.011–0.013
B. Corrugated-metal pipe or pipe-arch:	
1. 2⅔ by ½-in. corrugation (riveted pipe): [5]	
a. Plain or fully coated	0.024
b. Paved invert (range values are for 25 and 50 percent of circumference paved):	
(1) Flow full depth	0.021–0.018
(2) Flow 0.8 depth	0.021–0.016
(3) Flow 0.6 depth	0.019–0.013
2. 6 by 2-in. corrugation (field bolted)	0.03
C. Vitrified clay pipe	0.012–0.014
D. Cast-iron pipe, uncoated	0.013
E. Steel pipe	0.009–0.011
F. Brick	0.014–0.017
G. Monolithic concrete:	
1. Wood forms, rough	0.015–0.017
2. Wood forms, smooth	0.012–0.014
3. Steel forms	0.012–0.013
H. Cemented rubble masonry walls:	
1. Concrete floor and top	0.017–0.022
2. Natural floor	0.019–0.025
I. Laminated treated wood	0.015–0.017
J. Vitrified clay liner plates	0.015
II. Open channels, lined [4] (straight alinement): [5]	
A. Concrete, with surfaces as indicated:	
1. Formed, no finish	0.013–0.017
2. Trowel finish	0.012–0.014
3. Float finish	0.013–0.015
4. Float finish, some gravel on bottom	0.015–0.017
5. Gunite, good section	0.016–0.019
6. Gunite, wavy section	0.018–0.022
B. Concrete, bottom float finished, sides as indicated:	
1. Dressed stone in mortar	0.015–0.017
2. Random stone in mortar	0.017–0.020
3. Cement rubble masonry	0.020–0.025
4. Cement rubble masonry, plastered	0.016–0.020
5. Dry rubble (riprap)	0.020–0.030
C. Gravel bottom, sides as indicated:	
1. Formed concrete	0.017–0.020
2. Random stone in mortar	0.020–0.023
3. Dry rubble (riprap)	0.023–0.033
D. Brick	0.014–0.017
E. Asphalt:	
1. Smooth	0.013
2. Rough	0.016
F. Wood, planed, clean	0.011–0.013
G. Concrete-lined excavated rock:	
1. Good section	0.017–0.020
2. Irregular section	0.022–0.027
III. Open channels, excavated [4] (straight alinement,[5] natural lining):	
A. Earth, uniform section:	
1. Clean, recently completed	0.016–0.018
2. Clean, after weathering	0.018–0.020
3. With short grass, few weeds	0.022–0.027
4. In gravelly soil, uniform section, clean	0.022–0.025
B. Earth, fairly uniform section:	
1. No vegetation	0.022–0.025
2. Grass, some weeds	0.025–0.030
3. Dense weeds or aquatic plants in deep channels	0.030–0.035
4. Sides clean, gravel bottom	0.025–0.030
5. Sides clean, cobble bottom	0.030–0.040
C. Dragline excavated or dredged:	
1. No vegetation	0.028–0.033
2. Light brush on banks	0.035–0.050
D. Rock:	
1. Based on design section	0.035
2. Based on actual mean section:	
a. Smooth and uniform	0.035–0.040
b. Jagged and irregular	0.040–0.045
E. Channels not maintained, weeds and brush uncut:	
1. Dense weeds, high as flow depth	0.08–0.12
2. Clean bottom, brush on sides	0.05–0.08
3. Clean bottom, brush on sides, highest stage of flow	0.07–0.11
4. Dense brush, high stage	0.10–0.14
IV. Highway channels and swales with maintained vegetation [5] [7] (values shown are for velocities of 2 and 6 f.p.s.):	
A. Depth of flow up to 0.7 foot:	
1. Bermudagrass, Kentucky bluegrass, buffalograss:	
a. Mowed to 2 inches	0.07–0.045
b. Length 4–6 inches	0.09–0.05
2. Good stand, any grass:	
a. Length about 12 inches	0.18–0.09
b. Length about 24 inches	0.30–0.15
3. Fair stand, any grass:	
a. Length about 12 inches	0.14–0.08
b. Length about 24 inches	0.25–0.13
B. Depth of flow 0.7–1.5 feet:	
1. Bermudagrass, Kentucky bluegrass, buffalograss:	
a. Mowed to 2 inches	0.05–0.035
b. Length 4 to 6 inches	0.06–0.04
2. Good stand, any grass:	
a. Length about 12 inches	0.12–0.07
b. Length about 24 inches	0.20–0.10
3. Fair stand, any grass:	
a. Length about 12 inches	0.10–0.06
b. Length about 24 inches	0.17–0.09
V. Street and expressway gutters:	
A. Concrete gutter, troweled finish	0.012
B. Asphalt pavement:	
1. Smooth texture	0.013
2. Rough texture	0.016
C. Concrete gutter with asphalt pavement:	
1. Smooth	0.013
2. Rough	0.015
D. Concrete pavement:	
1. Float finish	0.014
2. Broom finish	0.016
E. For gutters with small slope, where sediment may accumulate, increase above values of n by	*0.002*
VI. Natural stream channels: [5]	
A. Minor streams [6] (surface width at flood stage less than 100 ft.):	
1. Fairly regular section:	
a. Some grass and weeds, little or no brush	0.030–0.035
b. Dense growth of weeds, depth of flow materially greater than weed height	0.035–0.05
c. Some weeds, light brush on banks	0.035–0.05
d. Some weeds, heavy brush on banks	0.05–0.07
e. Some weeds, dense willows on banks	0.06–0.08
f. For trees within channel, with branches submerged at high stage, increase all above values by	*0.01–0.02*
2. Irregular sections, with pools, slight channel meander; increase values given in 1a–e about	*0.01–0.02*
3. Mountain streams, no vegetation in channel, banks usually steep, trees and brush along banks submerged at high stage:	
a. Bottom of gravel, cobbles, and few boulders	0.04–0.05
b. Bottom of cobbles, with large boulders	0.05–0.07
B. Flood plains (adjacent to natural streams):	
1. Pasture, no brush:	
a. Short grass	0.030–0.035
b. High grass	0.035–0.05
2. Cultivated areas:	
a. No crop	0.03–0.04
b. Mature row crops	0.035–0.045
c. Mature field crops	0.04–0.05
3. Heavy weeds, scattered brush	0.05–0.07
4. Light brush and trees: [10]	
a. Winter	0.05–0.06
b. Summer	0.06–0.08
5. Medium to dense brush: [10]	
a. Winter	0.07–0.11
b. Summer	0.10–0.16
6. Dense willows, summer, not bent over by current	0.15–0.20
7. Cleared land with tree stumps, 100–150 per acre:	
a. No sprouts	0.04–0.05
b. With heavy growth of sprouts	0.06–0.08
8. Heavy stand of timber, a few down trees, little undergrowth:	
a. Flood depth below branches	0.10–0.12
b. Flood depth reaches branches	0.12–0.16
C. Major streams (surface width at flood stage more than 100 ft.): Roughness coefficient is usually less than for minor streams of similar description on account of less effective resistance offered by irregular banks or vegetation on banks. Values of n may be somewhat reduced. Follow recommendation in publication cited [6] if possible. The value of n for larger streams of most regular section, with no boulders or brush, may be in the range of	0.028–0.033

EXHIBIT 7.0

TYPICAL MANNING "n" VALUES | TABLE "F-1a"

NOTE: THIS IS A REPRODUCTION OF TABLE 2-1 OF METCALFE & EDDY, AND ALSO THE HANDBOOK OF HYDRAULICS, PAGE 7-22.

Surface	Best	Good	Fair	Bad
Uncoated cast-iron pipe	0.012	0.013	0.014	0.015
Coated cast-iron pipe	0.011	0.012[a]	0.013[a]	
Commercial wrought-iron pipe, black	0.012	0.013	0.014	0.015
Commercial wrought-iron pipe, galvanized	0.013	0.014	0.015	0.017
Smooth brass and glass pipe	0.009	0.010	0.011	0.013
Smooth lockbar and welded "OD" pipe	0.010	0.011[a]	0.013[a]	
Riveted and spiral steel pipe	0.013	0.015[a]	0.017[a]	
Vitrified sewer pipe	0.010 0.011	0.013[a]	0.015	0.017
Common clay drainage tile	0.011	0.012[a]	0.014[a]	0.017
Glazed brickwork	0.011	0.012	0.013[a]	0.015
Brick in cement mortar; brick sewers	0.012	0.013	0.015[a]	0.017
Neat cement surfaces	0.010	0.011	0.012	0.013
Cement mortar surfaces	0.011	0.012	0.013[a]	0.015
Concrete pipe	0.012	0.013	0.015[a]	0.016
Wood stave pipe	0.010	0.011	0.012	0.013
Plank flumes				
Planed	0.010	0.012[a]	0.013	0.014
Unplaned	0.011	0.013[a]	0.014	0.015
With battens	0.012	0.015[a]	0.016	
Concrete-lined channels	0.012	0.014[a]	0.016[a]	0.018
Cement-rubble surface	0.017	0.020	0.025	0.030
Dry-rubble surface	0.025	0.030	0.033	0.035
Dressed-ashlar surface	0.013	0.014	0.015	0.017
Semicircular metal flumes, smooth	0.011	0.012	0.013	0.015
Semicircular metal flumes, corrugated	0.0225	0.025	0.0275	0.030
Canals and ditches				
Earth, straight and uniform	0.017	0.020	0.0225[a]	0.025
Rock cuts, smooth and uniform	0.025	0.030	0.033[a]	0.035
Rock cuts, jagged and irregular	0.035	0.040	0.045	
Winding sluggish canals	0.0225	0.025[a]	0.0275	0.030
Dredged-earth channels	0.025	0.0275[a]	0.030	0.033
Canals with rough stony beds, weeds on earth banks	0.025	0.030	0.035[a]	0.040
Earth bottom, rubble sides	0.028	0.030[a]	0.033[a]	0.035
Natural-stream channels				
1. Clean, straight bank, full stage, no rifts or deep pools	0.025	0.0275	0.030	0.033
2. Same as (1), but some weeds and stones	0.030	0.033	0.035	0.040
3. Winding, some pools and shoals, clean	0.033	0.035	0.040	0.045
4. Same as (3), lower stages, more ineffective slope and sections	0.040	0.045	0.050	0.055
5. Same as (3), some weeds and stones	0.035	0.040	0.045	0.050
6. Same as (4), stony sections	0.045	0.050	0.055	0.060
7. Sluggish river reaches, rather weedy or with very deep pools	0.050	0.060	0.070	0.080
8. Very weedy reaches	0.075	0.100	0.125	0.150

[a]Values commonly used in designing.

EXHIBIT 8.0

TYPICAL MANNING "n" VALUES | TABLE "F-1b"

TIME OF CONCENTRATION CALCULATIONS

(100 YEAR STORM EVENT)

DEVELOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO

PROJECT: **EAGLE CREST SUBDIVISION**

JOB #

LANDesign LTD.

DATE: 01-Oct-94

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt				INITIAL	Tc CHECK (URBANIZED BASINS)		FINAL	REMARKS
BASIN	C 100	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.	
OF1	0.70	4.51	290.0	25.90	4.14									OVERLAND SHEET FLOW - OPEN SPACE
						610.0	2.30	4.70	2.16	6.31	900.00	15.00	6.31	ROADSIDE DITCH ALONG RIDGES BLVD.
--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
A1	0.70	0.35	70.0	18.50	2.28									OVERLAND SHEET FLOW - RES. LOT
						----------	----------	----------	------	2.28	70.00	10.39	5.00	Tc MIN. ALLOWABLE
--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
A2	0.55	1.15	35.0	5.71	3.28									OVERLAND SHEET FLOW - RES. LOT
						444.0	2.04	1.80	4.11	7.39	479.00	12.66	7.39	STREET FLOW - EAGLE CREST CT.
--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
A3	0.70	0.40	170.0	19.71	3.48									OVERLAND SHEET FLOW - RES. LOT
						----------	----------	----------	------	3.48	170.00	10.94	5.00	Tc MIN. ALLOWABLE
--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
A4	0.70	0.95	80.0	13.75	2.69									OVERLAND SHEET FLOW - RES. LOT
						----------	----------	----------	------	2.69	80.00	10.44	2.69	TO SUB-BASIN "OF1"
--	--	--	--	--	--	--	--	--	--	--	--	--	--	---

FORMULAS

$$Ti = \frac{1.8(1.1-C)(L)^{1/2}}{1/3} \qquad Tt = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

EXHIBIT 9.0

YEAR STORM EVENT)

LOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO

DATE:
01-Oct-94

					STREET		PIPE			STREET		PIPE		
ENSITY "T"	AREA "A" AC.	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	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.	REMARKS
4.00	1.15	2.5		2.5			3.60	8	2.69			7.09		ONSITE DEVELOPED FLOW TO SUMP INLET
	1.15													FLOW TO PROPOSED STORM SEWER
	0.95													OVERLAND SHEET FLOW TO SUB-BASIN "OF1"
	4.51													OVERLAND & ROADWAY FLOW ALONG RIDGES BLVD.
3.73	6.61	16.5		16.5			3.30	18	17.75			9.34		FLOW TO STORM SEWER UNDER RIDGES BLVD.

VELOPMENT.
ED AND
PROPOSED
MINIMIZED.

EAGLE CREST SUBDIVISION

Triangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name: RIDGES BLVD.

Comment: ROADSIDE SIDE DITCH ALONG RIDGES BLVD.

Solve For Depth

Given Input Data:

Left Side Slope..	3.00:1 (H:V)	
Right Side Slope.	3.00:1 (H:V)	
Manning's n.....	0.020	BARE GROUND
Channel Slope....	0.0230 ft/ft	AVG. SLOPE
Discharge.....	4.55 cfs	EST. 1.0 CFS/AC. OF SUB-BASIN AREA "OF 1"

Computed Results:

Depth.....	0.57 ft	
Velocity.....	4.70 fps	USE FOR TC CALCS.
Flow Area.....	0.97 sf	
Flow Top Width...	3.41 ft	
Wetted Perimeter.	3.59 ft	
Critical Depth...	0.68 ft	
Critical Slope...	0.0090 ft/ft	
Froude Number....	1.55 (flow is Supercritical)	

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

EXHIBIT 11.0

EAGLE CREST SUB.

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: STORM SEWER #1

Comment: STORM SEWER -100 YEAR CAPACITY

Solve For Actual Slope

Given Input Data:

Diameter.....	0.67 ft — 8"
Manning's n.....	0.012 — PVC
Discharge.....	2.50 cfs
Depth.....	0.67 ft

Computed Results:

Channel Slope.....	0.0355 ft/ft — USE 3.60% AS MIN. SLOPE OF PIPE
Velocity.....	7.09 fps
Flow Area.....	0.35 sf
Critical Depth....	0.65 ft
Critical Slope....	0.0314 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	2.50 cfs
QMAX @.94D.....	2.69 cfs
Froude Number.....	FULL

EXHIBIT 12.0

EAGLE CREST SUB.

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: STORM SEWER #2

Comment: STORM SEWER LINE UNDER RIDGES BLVD.

Solve For Actual Slope

Given Input Data:

Diameter.....	1.50 ft — 18" Ø
Manning's n.....	0.015 — RCP
Discharge.....	16.50 cfs
Depth.....	1.50 ft

Computed Results:

Channel Slope.....	0.0328 ft/ft ← MIN. ALLOWABLE SLOP 3.28 %
Velocity.....	9.34 fps
Flow Area.....	1.77 sf
Critical Depth....	1.43 ft
Critical Slope....	0.0285 ft/ft
Percent Full.....	100.00 %
Full Capacity.....	16.50 cfs
QMAX @.94D.....	17.75 cfs
Froude Number.....	FULL

CHECK INLET CONTROL

EDGE OF ROAD EL.: 55.03
INLET GRATE EL. = 53.06
INV. OUT 18"Ø RCP = 50.35

HW DEPTH = 4.68 FT

MIN. HW DEPTH = 3.95' OK

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

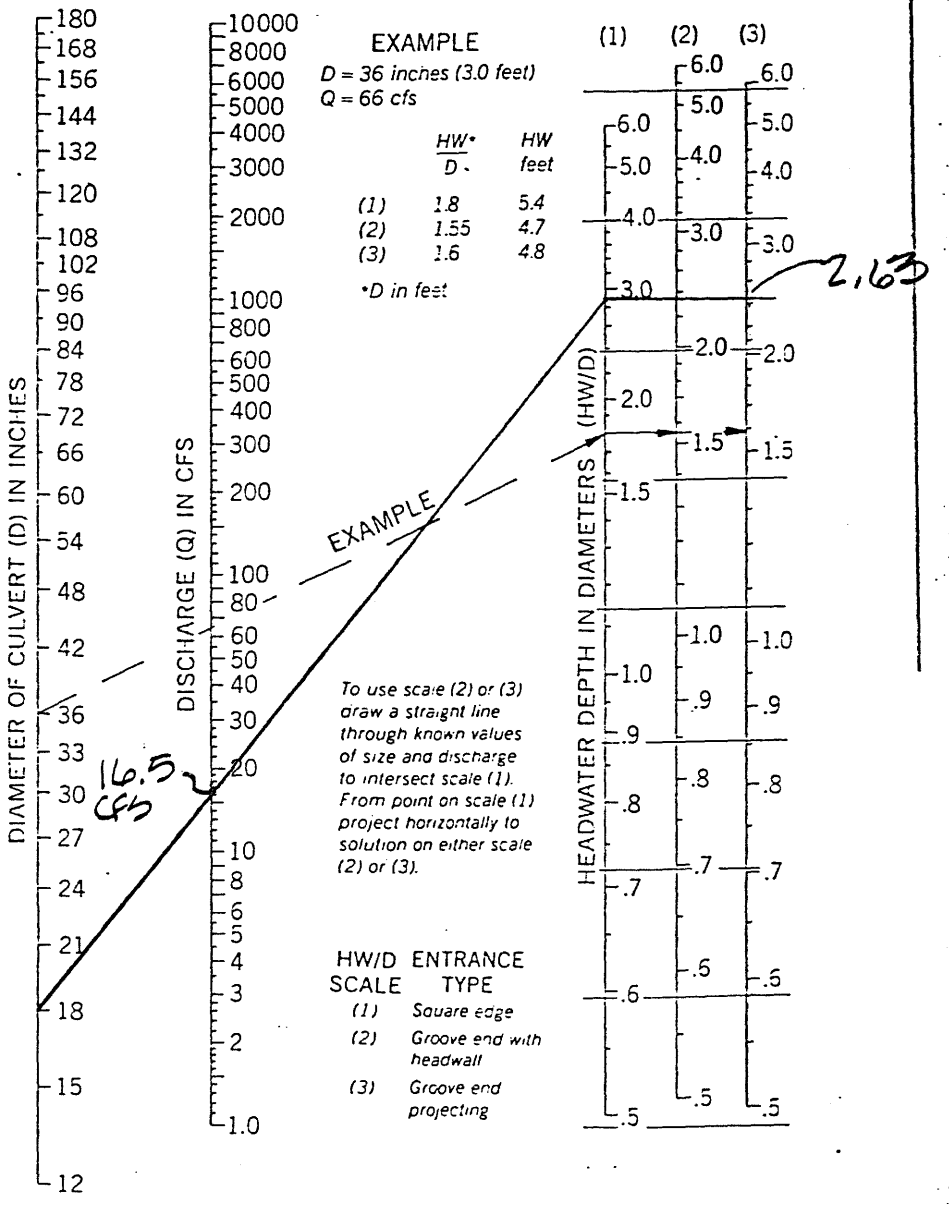
EXHIBIT 13.0

EAGLE CREST SUBDIVISION
STORM SEWER LINE

SIZE	HW/D =	QMAX
18"	HW/1.5 = 2.63	
	HW = 1.5(2.63)	
	HW = 3.95'	16.5
	↑ MIN.	

FIGURE 33

HEADWATER DEPTH FOR CIRCULAR CONCRETE PIPE CULVERTS WITH INLET CONTROL



BUREAU OF PUBLIC ROADS JAN. 1963

HEADWATER SCALES 2&3
REVISED MAY 1964

EXHIBIT 14.0

ROAD TYPE	COMBINATION INLET CAPACITY (CFS)					
	SINGLE		DOUBLE		TRIPLE	
	2-YR	100-YR	2-YR	100-YR	2-YR	100-YR
Urban Residential (local)	6.4	13	9.5	22	12.7	31
Residential Collector, Commercial and Industrial Streets	3.2	13	4.9	22	6.5	31
Collector Streets (3000 - 8000 ADT)	2.7	13	4.0	22	5.3	31
Principal and Minor Arterials	6.0	13	9.0	22	12.0	31

Inlet capacities shown above are based upon: 1) use of non-curved vane grates (similar to HEC-12 P-1⅞-4 grates; 2) HEC-12 procedures; 3) clogging factors per Section VI; and 4) City/County standard inlets with 2-inch radius on curb face and type C grates. Capacities shown for 2-year storms are based upon depths allowed by maximum street inundation per Figure "G-3". The 100-year capacities are based upon a ponded depth of 1.0 foot. Note that only combination inlets are allowed in sag or sump conditions.

MAXIMUM INLET CAPACITIES: SUMP OR SAG CONDITION — **TABLE "G-1"**

Q_{100} INLET = 2.5 CFS OK

EXHIBIT 15.0

October 14, 1994

#20-94(3)

REVIEW COMMENTS FOR: **Eagle Crest**

TYPE OF REVIEW: **Final Plans**

REVIEWED BY: **Jody Kliska**

Soils Report

The original soils report submitted with the preliminary plan did not include a pavement analysis. Please submit an analysis for the proposed pavement design.

Drainage Report

No analysis was included for the pipe at the intersection of Prospectors Point and the Eagle Crest Court. City minimum is a 12" pipe with minimum one foot cover, and it may be that the minimum is sufficient to carry flows. Please provide an analysis for this, as well as a profile showing minimum cover will be met. End sections for the pipe are required.

I am concerned about the maintenance problems at the outflow of the 18" RCP at the termination of the storm sewer, since the City Parks Department mows the grass in this area. Please consider possibly constructing curbing along side the riprap to contain it and allow mowing along the edge, or consider a concrete energy dissipation structure.

Since no stormwater is being detained, a drainage fee is applicable. The fee is calculated as follows: $=10,000(.64-.35)2.85^.7=$6036.56. This fee may be offset by the cost of the improvements at Ridges Boulevard to the existing drainage structure. Please provide documentation of actual costs for this work.

Plat

There is a dedication for a pedestrian easement, but I don't see one indicated on the drawing.

Street Plans

As mentioned above, please provide a profile for the pipe at the entrance to Eagle Crest Court.

Radius on both sides of the intersection needs to be 25'.

Please include a note to backfill the end of the sidewalk and curb and gutter at the intersection with roadbase material and grade to drain.

Add Detail "B" to the drive over curb, gutter and sidewalk detail.

For the [redacted] length of wall and indicate stations for beginning, end of wall.; Please supply me with the manufacturer's specs. as called out on the plans.

For each leg of the storm drainage system, please indicate the bearing and distance.

What happened to the pedestrian path over the storm sewer? Please indicate minimum cover over pipes. Also, need a note for regrading the slope after construction work is complete. Erosion control is a concern on the slope once the pipe has been installed. Please provide an erosion control plan for this.

The storm sewer line offsite will need to be in a dedicated easement.

Please provide an additional detail for the erosion control at the outlet of the storm sewer which indicates the distance between the end of the pipe and the concrete inlet structure. How steep is the slope from the end of the pipe? Also, see comments under drainage report.

Indicate street light locations, sign types and locations.

What happened to centerline profile?

Sewer Plans

Where are sewer and water construction notes?

General

Please add an approval line on each sheet.

Improvements Agreement

Please add in flared end sections for the pipe at the intersection.

Item 6 of Roadway & Drainage Improvements should be clarified for RCP pipe.

Item 7 calls out 8" RCP, plans indicate PVC SDR 35.

No item is shown for the retaining wall.

No item is shown for the rip-rap and cutoff berm.

DRAWING STANDARDS CHECKLIST

ROADWAY PLAN & PROFILE

ITEM		GRAPHIC STANDARDS	OK	NA
SECTION VIII	A	Scale: 1" = 20', 30', 40', or 50' H: 1" = 2', 3', 4' or 5' V		
	B	Drawing size: 24" x 36"		
	C	Primary features consist only of proposed roadway, lighting, and traffic features		
	D	Notation: All non-construction text, and also construction notation for all primary features		
	E	Line weights of existing and proposed (secondary and primary) features per City standards		
	F	Location: All primary facilities are fully located horizontally and vertically		
	G	Horizontal control: Subdivisions and all public utilities (final drawings) tied to Section aliquot corners		
	H	Vertical control: Existing and proposed benchmarks on U.S.G.S. datum		
	I	Orientation and north arrow		
	J	Stamped and sealed drawings by registered professional competent in the work		
	K	Title block with names, titles, preparation and revision dates		
	L	Reference to City Standard Drawings and Specifications		
	M	Legend of symbols used		
	N	List of abbreviations used		
	P	Multiple sheets provided with overall graphical key and match lines		
	Q	Contouring interval and extent		
	R	Neatness and legibility		

ITEM		FEATURES	Plan	Profile	OK	NA
→	1	Use the Composite or Site Plan as a base map or otherwise provide similar information.	X			
	2	Segmentize plan view as required to provide profiles below plan views.	X			
	3	Show all existing and proposed profiles at C_l and right and left F_ls. Provide slopes,				
		with "+" or "-".		X		
	4	Show existing and proposed profiles at edge of pavement if there is no gutter.		X		
	5	Note adjustment of all MH rims and valve covers for final grade.	X			
	6	Elevation of F_l at fillet/valley pan interface.	X			
	7	Station & elevation of F_l at BCRs, ECRs, and handicap ramps.	X			
	8	Station & elevation of pavement C_l and F_l at endpoints, BCRs, ECRs, PCs, PTs,				
		PRCs, and PCCs.		X		
	9	Station & elevation of C_l and F_l, VPIs, VPCs, VPTs, and high & low points.		X		
	10	Station & elevation at all grade changes and C_l pavement warp at valley pans.		X		
	11	Provide pavement, base, and subgrade specifications.				
	12	Barricades, turn-arounds, tapers, delineators, driveways.	X			
	13	Street lights, signals, signing, and other traffic controls.	X			
	14	Show future road extension alignment to support current design, where applicable.	X	X		
	15	Provide all necessary details or reference detail and/or cross-section sheets.				
	16	Show proposed permanent benchmark (for new subdivisions) and all proposed horizontal	X			
		control survey markers at street intersections, offset if required.				
	17	Space for approval signature by City Engineering, with date and title				

COMMENTS

1 For a definition of abbreviations used above, see page VIII-4.

STAFF REVIEW - *PRELIMINARY*

FILE: #20-94(3)

DATE: October 17, 1994

STAFF: Kathy Portner

REQUEST: Preliminary Plan--Eagle Crest

LOCATION: Lot 17, Block 9, Filing 6, The Ridges

APPLICANT: Sidney Gottlieb

EXECUTIVE SUMMARY: Request for approval of a final plan and plat for 8 single family lots.

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: Single Family Residential

SURROUNDING LAND USE:

NORTH:	Open Space and Single Family Residential
SOUTH:	Open Space and Single Family Residential
EAST:	Open Space and Single Family Residential
WEST:	Open Space and Single Family and Multi-family Residential

EXISTING ZONING: PR-4

PROPOSED ZONING: PR-4

SURROUNDING ZONING:

NORTH:	PR-4
SOUTH:	PR-4
EAST:	PR-4
WEST:	PR-4

RELATIONSHIP TO COMPREHENSIVE PLAN:

The Ridges Development Plan identifies this lot as a "Multi-family" site with no specific density assigned. One of the notes on the plat for The Ridges Filing No. Six states "3. All multi-family areas are to be developed through county processes and regulations, number of units per acre is variable". No other guidance is given for the development of the multi-family lots.

The overall density for the Ridges is 4 units per acre.

STAFF ANALYSIS:

The proposal is for the replatting and development of a 2.95 acre multi-family lot in the Ridges, Filing #6. Eight single family lots are proposed for an overall density of 2.7 units per acre. The buildable area of the site is limited by the relatively steep slopes to the east and south. The development potential of the site is further limited by the narrow access of 26' to Prospector Point Drive. The traffic capacity of Prospector Point Drive is greatly limited by its narrow width and awkward geometry.

The developer had originally proposed 20 condominium units and 15 single family lots for the site. Staff comments on that proposal were that the existing constraints of the site would not allow that kind of density and that a lower density should be considered. The developer withdrew that proposed plan and resubmitted a plan for 12 single family lots, which equates to approximately 4 units per acre, which is the overall assigned density for the Ridges. Staff had indicated to the developer that the reduction in units would certainly be more appropriate for the site, but that the proposal would have to be reviewed in the context of the site constraints. Planning Commission and City Council reviewed that plan and approved a total of eight single family lots provided additional ROW was acquired by the developer to widen the narrow access to 34'. The plan was also approved with sidewalk on only one side of the ROW.

1. All building envelopes must maintain a 20' setback from the bluff line and the ROW. Show the building envelopes on the contour map to verify that setback.

2. Utility easements must be provided to Prospector Point Drive in an alignment acceptable to all utility providers.

3. A pathway must be constructed along the drainage way connecting to the existing trail along Ridges Blvd. The path must be paved and not exceed a maximum grade as approved by the City Parks Dept. The applicant must verify with the Parks Dept. the maximum acceptable grade and trail location.

4. An easement for the storm drainage pipe is required. A legal description must be submitted.

5. How is the portion of the ROW without improvements to be used?

LANDdesign Partnership
200 North 6th. Street, Grand Junction, CO 81501
(303) 245-4099

20-94 (3)

Original DO NOT Remove Office

October 2, 1994

Community Development Department
250 North 5th. Street
Grand Junction, CO 81501

RE: EAGLE CREST, FINAL PLAT & PLAN

Dear Members:

Accompanying is a Final Plat and Plan application for Eagle Crest Subdivision, consisting of three acres located within filing six of The Ridges on the Redlands.

The following submittal document which remain unchanged can be found in your existing files and are not included with this submittal package:

1. Evidence of Title
2. Names and addresses of surrounding property owenrs.
3. Legal Description
4. Tax Certificates
5. Geotechnical Report

If any of the above items are not in your files or you require additional copies do not hesitate to contact our office and we will provide them to you.

Respectfully,

Thomas A. Logue

Thomas A. Logue

xc: Sidney Gottlieb

20- 94(3)

Original
Do NOT Remove
From Office

LANDesign Partnership
200 North 6th. Street, Grand Junction, CO 81501
(303) 245-4099

October 2, 1994

Grand Junction Planning Commission
250 North 5th. Street
Grand Junction, CO 81501

RE: EAGLE CREST, FINAL PLAT & PLAN

Dear Members:

Attached is the Final Plat and Plan application for Eagle Crest Subdivision, consisting of three acres located within filing six of The Ridges on the Redlands.

This submittal addresses the conditions of approval during the Preliminary Plan review process.

Changes made to the Preliminary Plan which are incorporated in the Final Plat and Plan include:

1. Reducing the total number of lots from 12 to 8.

2. Elimination of the off-site pedestrian path,

3. Building envelopes with detailed setback requirements are identified on the final plat with a minimum setback of 20 feet from the bluff line.

4. Approximately 400 square feet of right-of-way has been obtained from an adjoining land owner along the "flag" portions of the site. Deeds for this additional public right-of-way will be provided to the City prior to recording of the final plat. The additional right-of-way is of adequate width to accommodate two 12 foot driving lanes, a 6'-6" curbwalk and a 2'-0" vertical curb and gutter. On street parking will not be allowed.

5. Sidewalks are provided along one side of the proposed street adjacent to all lots and connecting with Prospector Point Drive.

6. An underground pipeline for the conveyance of storm water from the site has been located within an existing disturbed area between the site and Ridges Blvd.

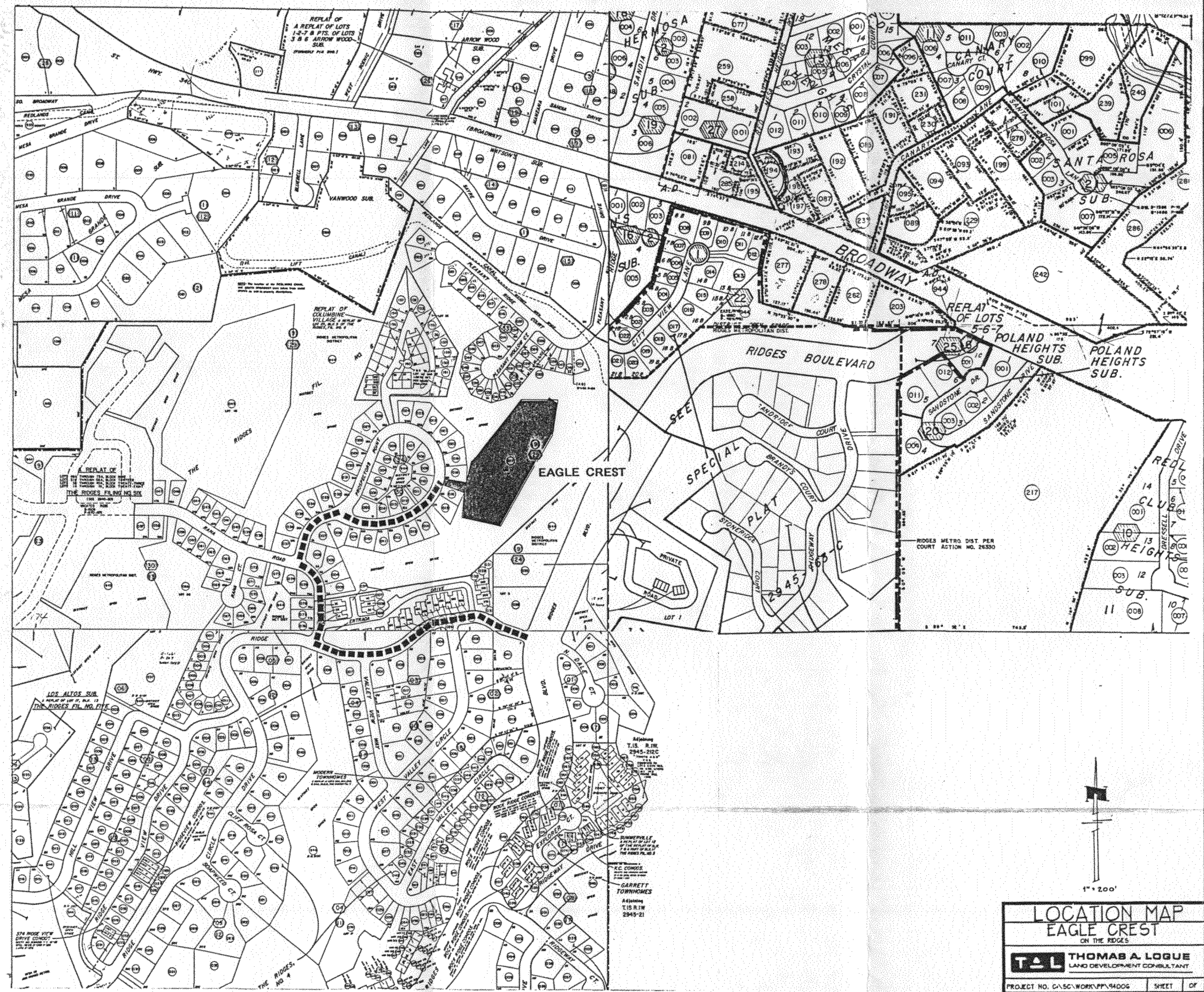
All other elements of the initial Preliminary Plan Application consistent with the above modifications remain unchanged.

The applicant and myself will be present at the scheduled Public Hearing to discuss the application and answer any questions which may arise.

Respectfully,

Thomas A. Logue

xc: Sidney Gottlieb



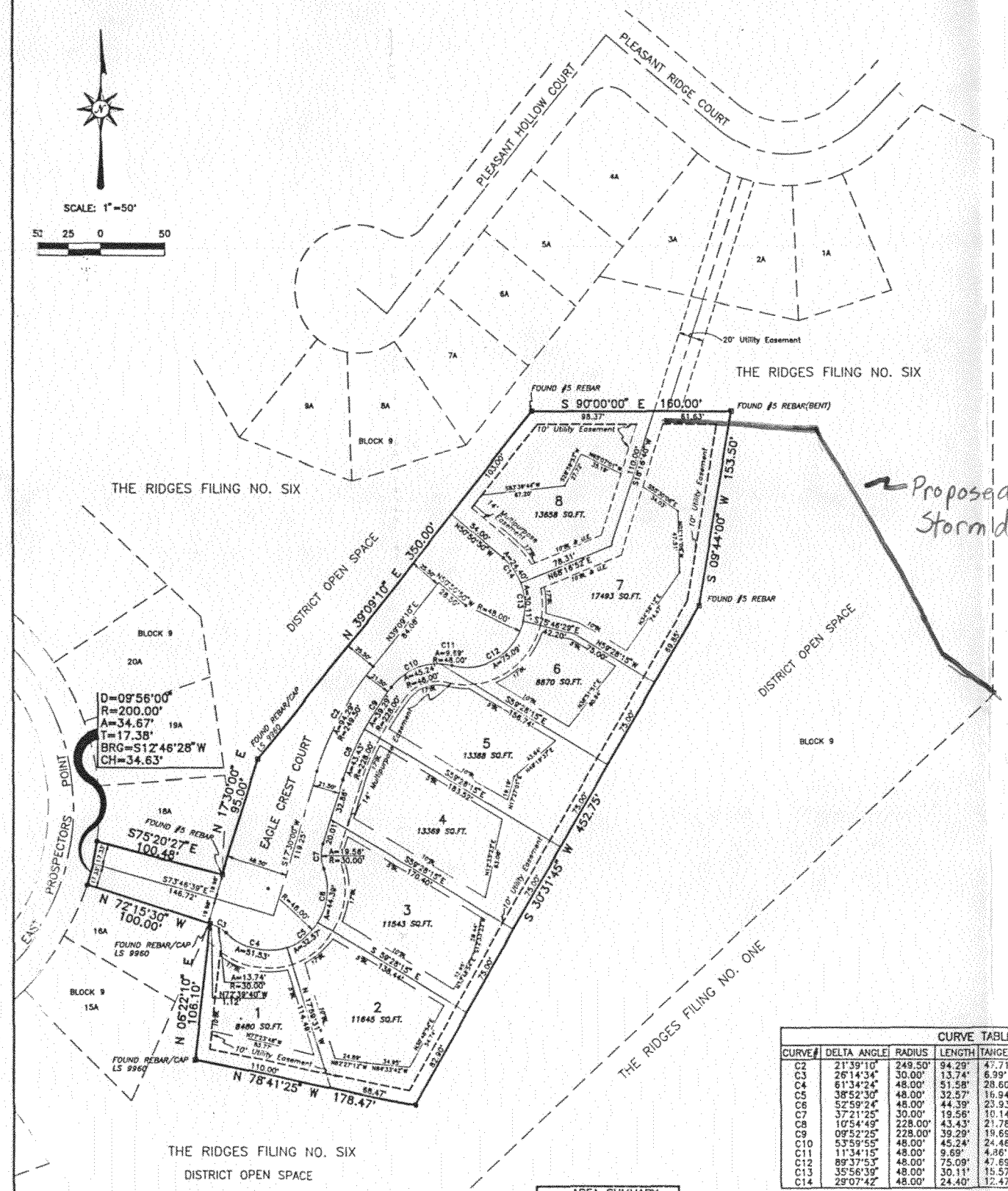
LOCATION MAP
EAGLE CREST
ON THE RIDGES

THOMAS A. LOGUE
LAND DEVELOPMENT CONSULTANT

PROJECT NO. G:\SC\WORK\PP\9400G	SHEET	OF
DATE: JANUARY, 1994	1	5

EAGLE CREST SUBDIVISION

A REPLAT OF LOT 17, BLOCK 9, THE RIDGES, FILING NO. SIX
MESA COUNTY, COLORADO



AREA SUMMARY	
LOTS	98,145 SQ.FT.
R.O.W.	30,793 SQ.FT.
TOTAL	128,939 SQ.FT.

CURVE TABLE						
CURVE #	DELTA ANGLE	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C2	21°39'10"	249.50'	94.29'	47.71'	N28°19'35"E	93.73'
C3	26°14'34"	30.00'	13.74'	6.99'	S59°32'23"E	13.62'
C4	61°34'24"	48.00'	51.58'	28.60'	S77°12'18"E	49.14'
C5	38°52'30"	48.00'	32.57'	16.94'	S52°34'14"W	31.95'
C6	52°59'24"	48.00'	44.39'	23.93'	S06°38'17"W	42.83'
C7	37°21'25"	30.00'	19.56'	10.14'	N01°10'42"W	19.22'
C8	10°54'49"	228.00'	43.43'	21.78'	N22°57'25"E	43.36'
C9	09°52'25"	228.00'	39.29'	19.69'	N33°21'02"E	39.24'
C10	53°59'55"	48.00'	45.24'	24.46'	N65°17'12"E	43.58'
C11	11°34'15"	48.00'	9.69'	4.86'	S81°55'44"E	9.68'
C12	89°37'53"	48.00'	75.09'	47.69'	N59°02'27"E	67.66'
C13	35°56'39"	48.00'	30.11'	15.57'	S03°44'49"E	29.62'
C14	29°07'42"	48.00'	24.40'	12.47'	S36°16'59"E	24.14'

Basis of bearings assume the South line of the SE1/4 SE1/4 of Section 17 to bear S 89°49'34" E, 1297.05 feet. Both monuments on this line are Mesa County Survey Markers.

Note: Property corners located during this survey that were within 0.25± feet of the calculated point were accepted as being "in position".

Per Easement and Title Information provided.

LEGEND

- MESA COUNTY OR BLM SURVEY MARKER
- CALCULATED POSITION (NOT SET)
- SET ALUMINUM CAP ON No. 5 REBAR, PLS 16835 IN CONCRETE
- (R) RECORD MEASUREMENT
- FOUND REBAR, AS NOTED

DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

That Eagle Crest, L.L.C., is the owner of that real property located in part of the SE1/4 SE1/4 of Section 17, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado, being more particularly described as follows:
(Original Warranty Deed Book ____, Page ____)

Lot 17, Block 9, The Ridges Filing No. Six, as recorded in Plat Book 12, Page 385, Official Records of Meso County, Colorado.

That said owners have caused the real property to be laid out and platted as Eagle Crest Subdivision, a subdivision of a part of the City of Grand Junction, Colorado, That said owner does hereby dedicate and set apart real property as shown and labeled as the accompanying plat of Eagle Crest Subdivision as follows:

All Streets and Rights-of-way to the City of Grand Junction for the use of the public forever;

All Multi-Purpose Easements to the City of Grand Junction for the use of the public utilities as perpetual easements for the installation, operation, maintenance and repair of utilities and appurtenances thereto including, but not limited to electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, water lines, telephone lines, and also for the installation and maintenance of traffic control facilities, street lighting, street trees and grade structures;

All Utility Easements to the City of Grand Junction for the use of public utilities as perpetual easements for the installation, operation, maintenance and repair of utilities and appurtenances thereto including, but not limited to electric lines, cable TV lines, natural gas pipelines, sanitary sewer lines, water lines, and telephone lines.

All Pedestrian Easements and rights-of-way to the City of Grand Junction as perpetual easements for ingress and egress use by the general public pedestrian;

All easements include the right of ingress and egress on, along, over, under, and through and across by the beneficiaries, their successors, or assigns, together with the right to trim or remove interfering trees and brush. Provided, however, that the beneficiaries of said easements shall utilize the same in a reasonable and prudent manner. Furthermore, the owners of lots or tracts hereby platted shall not burden nor overburden said easements by erecting or placing any improvements thereon which may prevent reasonable ingress and egress to and from the easement.

IN WITNESS WHEREOF, said owners, Eagle Crest, L.L.C., has caused their names to be hereunto subscribed this _____ day of _____,A.D. 1994.

_____ _____
by: by:

STATE OF COLORADO }
COUNTY OF MESA } ss

The foregoing instrument was acknowledged before me by _____
this _____ day of _____ A.D., 1994.
Witness my hand and official seal:

_____
Notary Public

My Commission Expires _____

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO)ss
COUNTY OF MESA)

I hereby certify that this instrument was filed in my office at _____o'clock __.M.,
_____, A.D., 1994, and was duly recorded in Plat Book No.
_____ Page No._____

_____
Clerk and Recorder

CITY OF GRAND JUNCTION APPROVAL

This plat of EAGLE CREST SUBDIVISION, a subdivision of a part of the City of Grand Junction, County of Mesa, State of Colorado, is approved and accepted this _____ day of _____,A.D., 1994.

_____ _____
City Manager President of City Council

SURVEYOR'S CERTIFICATE

I, DENNIS W. JOHNSON, DO HEREBY CERTIFY THAT THE ACCOMPANYING PLAT OF EAGLE CREST SUBDIVISION, A SUBDIVISION OF A PART OF THE CITY OF GRAND JUNCTION, COLORADO HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION AND REPRESENTS A FIELD SURVEY OF SAME. THIS PLAT CONFORMS TO THE REQUIREMENTS FOR SUBDIVISION PLATS SPECIFIED IN THE CITY OF GRAND JUNCTION DEVELOPMENT CODE AND THE APPLICABLE LAWS OF THE STATE OF COLORADO.

_____
DATE

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

DENNIS W. JOHNSON, PLS
COLORADO PROFESSIONAL LAND SURVEYOR
P.L.S. NO. 16835

Located in the SE1/4 SE1/4 Section 17, T1S, R1W, U.M.

EAGLE CREST SUBDIVISION
A REPLAT OF LOT 17 BLOCK 9
THE RIDGES, FILING NO. SIX
MESA COUNTY, COLORADO

Professional Surveying Services
P.O. BOX 4506, Grand Jct., CO 81502
303-241-3841

SUR. BY: LD/JA	DRAWN BY: RSK
JOB NO. 94006	SHEET 1 OF 1

RESPONSE TO REVIEW COMMENTS

October 24, 1994

Title: EAGLE CREST SUBDIVISION, Final Plat/Plan

File No: 20-94(3)

Location: Lot 17, Block 9, The Ridges Filing 6

The following agency comments were informational in nature, or do not require a response:

PUBLIC SERVICE CO.
FIRE DEPARTMENT
U.S. WEST
PARKS AND RECREATION DEPARTMENT
SCHOOL DIST. 51

RESPONSE TO CITY UTILITY ENGINEER:
A detail for an energy dissipater in MH A-1 has been added to the detail sheet.

The sewer easement on the final plat has been revised to maintain at least 7.5 feet between the sewer main and easement line.

RESPONSE TO DEVELOPMENT ENGINEER:

SOILS REPORT
An analysis for pavement design criteria will be transmitted under separate cover.

DRAINAGE REPORT
Based on field observations on October 20, 1994 by our office and the City Development Engineer, Jody Kliska, the proposed 18-inch R.C.P. culvert at the entrance has been eliminated from the design. The transitions from the proposed entrance road (Eagle Crest Ct.) to the existing roadway section of East Prospector Point will be made by backfilling with base material and graded to provide positive drainage towards East Prospector Point road and away from existing residential lots adjacent to Eagle Crest Ct. A note has been added to sheet ST-1 regarding positive drainage.

The proposed transition from 18-inch R.C.P. storm sewer to the existing concrete drop box in the Ridges Drainage Channel has be reviewed in the field with Ms. Jody Kliska. A detail entitled "Outlet Protection Detail" has been added to the construction drawings to further clarify the transition.

A copy of the subdivision improvements agreement will be provided showing estimated construction costs for the storm sewer improvements. This information may be used to determine a offsetting cost for the drainage impact fee.

PLAT
The pedestrian easement statement has been removed from the Final Plat.

STREET PLANS
The pipe at the entrance to Eagle Crest Court has been eliminated.

The pavement radius at the intersection of Eagle Crest Court and Prospector Point has been dimension to read 25 feet.

A note has been added to the plans requiring the placement of backfill at the ends of the curb and gutter at the intersection with Class 6 ABC and grade to drain. Detail "B" has been added to the plans.

Additional wall details have been added to the plans. Also, a copy of the manufacturer's specifications have been transmitted under separate cover.

A bearing and distance has been added to each leg of the off-site storm sewer.

Due to grades in excess of 20%, in places it would be difficult to safely construct a pedestrian path over the storm sewer route. Maximum grades are suggested to be 8%. In order to maintain a reasonable grade, a considerable amount of disturbance to the face of the hill on which Eagle Crest is located would occur. It is the applicants understanding that it is the City's desire to minimize the amount of disturbance on the hill side. Access to the existing Ridges pedestrian system can be obtained at the south side of Lot 3A on Rana Road.

The plan for erosion control over the storm sewer calls for the compaction of the backfill to 95%. The trench will be monitored for a period of 18 months. If erosion does occur additional rip-rap material will be place in those areas.

PB Tim W.

The off-site portions of the storm sewer route will be dedicated by a separate document recorded with the final plat.

Additional detail has been added to the storm sewer plans at its discharge point.

Street light locations and traffic signs have been added to the street plans.

Centerline spot elevations are [illegible]

SEWER PLANS
Sewer and water construction notes have been added to the plans.

GENERAL
Approval blocks have been added to the construction plans.

IMPROVEMENTS AGREEMENT
The Improvements Agreement has been revised and transmitted under separate cover.

RESPONSE TO COMMUNITY DEVELOPMENT:
The building envelopes have been added to the grading plan.

Utility extensions to the actual lots within Eagle Crest will occur in the public road right-of-way as shown on the Utility Plans.

Due to grades in excess of 20%, it would be difficult to safely construct a pedestrian path over the storm sewer route. Maximum grades for pedestrian paths are suggested to be 8%. In order to maintain a reasonable grade, a considerable amount of disturbance to the face of the hill on which Eagle Crest is located would occur. It is the applicants understanding that it is the City's desire to minimize the amount of disturbance on the hill side. Access to the existing Ridges pedestrian system can be obtained at the south side of Lot 3A on Rana Road.

A legal description will be submitted for the location of the off-site storm sewer for recording with the Final Plat.

The portion of the ROW without improvements will be maintained in its current state and can be used as an open area.

EXHIBIT "B" - EAGLE CREST- October 24, 1994

ROADWAY & DRAINAGE IMPROVEMENTS

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL
1	Excavation	CY	2170	$1.25	$2,712.50
2	Sub-Grade Preperation	SY	2367	$1.95	$4,615.65
3	Class 6 ABC	CY	100	$19.00	$1,900.00
4	Grading C HBP	TON	500	$26.00	$13,000.00
5	18" Storm Sewer w/FES	LF	44	$35.00	$1,540.00
6	8" PVC Strom Sewer	LF	585	$9.00	$5,265.00
7	Strom Sewer Manholes	EA	4	$950.00	$3,800.00
8	Standard Inlet	EA	1	$1,400.00	$1,400.00
9	Type "C" Area Inlet	EA	1	$2,200.00	$2,200.00
10	Pavement Rplacement	LF	24	$25.00	$600.00
11	18" FES	EA	1	$250.00	$250.00
12	9" Rip-Rap w/Fabric	CY	4	$32.00	$128.00
13	"Versa-Loc" Wall	LF	185	$20.00	$3,700.00
14	6'-0" Curbwalk	LF	618	$16.00	$9,888.00
15	2'-0" Curb and Gutter	LF	438	$12.00	$5,256.00
16	Street Light	EA	2	$1,200.00	$2,400.00
17	Traffic Control Signs	EA	6	$125.00	$750.00
18	Adjust MH's & Valves	EA	6	$135.00	$810.00
	TOTAL ROADS				**$60,215.15**

EXHIBIT "B" - EAGLE CREST- October 24, 1994

SANITARY SEWER

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL
1	8" Sanitary Sewer Main	LF	527	$10.00	$5,270.00
2	4" Sanitary Sewer Main	LF	364	$8.25	$3,003.00
3	Standard Manhole	EA	5	$1,250.00	$6,250.00
5	Trench Compaction	LF	891	$3.50	$3,118.50
6	Pipe Bedding	CY	198	$8.00	$1,584.00
7	Join Existing	EA	1	$500.00	$500.00
	TOTAL SANITARY SEWER				**$19,725.50**

DOMESTIC WATER

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL
1	8" PVC Water Main	LF	473	$14.50	$6,858.50
2	8" Gate Valve w/Box	EA	1	$450.00	$450.00
3	Join Existing Water Main	EA	1	$1,250.00	$1,250.00
4	Service Connection	EA	8	$335.00	$2,680.00
5	Trench Compaction	LF	780	$2.00	$1,560.00
6	Pipe Bedding	CY	175	$8.00	$1,400.00
8	Fire Hydrant Assembly	EA	2	$1,400.00	$2,800.00
9	Asphalt Replacement	LF	25	$25.00	$625.00
	TOTAL DOMESTIC WATER				**$17,623.50**

EXHIBIT "B" - EAGLE CREST- October 24, 1994

MISCELLANEOUS

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL
1	Design/Engineering	LS			$5,675.00
2	Surveying	LS			$2,850.00
3	Developer's Inspection Cost	LS			$2,850.00
4	Quality Control Testing	LS			$2,500.00
5	City Inspection Fees	LS			$1,000.00
6	General Const. Supervision	EA			$4,000.00
	TOTAL MISCELLANEOUS				**$18,875.00**
	GRAND TOTAL				**$116,439.15**

SIGNATURE OF DEVELOPER — DATE

(If corporation, to be signed by President and attested to by Secretary together with the corporate seal.)

I have reviewed the estimated costs and time schedule shown above and, based on the plan layouts submitted to date and the current costs of construction, I take no exception to the above.

CITY ENGINEER — DATE

COMMUNITY DEVELOPMENT — DATE

STAFF REVIEW

FILE: #20-94(3)

DATE: November 1, 1994

STAFF: Kathy Portner

REQUEST: Final Plan--Eagle Crest

LOCATION: Lot 17, Block 9, Filing 6, The Ridges

APPLICANT: Sidney Gottlieb

EXECUTIVE SUMMARY: Request for approval of a final plan and plat for 8 single family lots.

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: Single Family Residential

SURROUNDING LAND USE:

NORTH: Open Space and Single Family Residential
SOUTH: Open Space and Single Family Residential
EAST: Open Space and Single Family Residential
WEST: Open Space and Single Family and Multi-family Residential

All surrounding residential development is clustered densities of 8 to 10 units per acre (density excluding the open space).

EXISTING ZONING: PR-4

PROPOSED ZONING: PR-4

SURROUNDING ZONING:

NORTH: PR-4
SOUTH: PR-4
EAST: PR-4
WEST: PR-4

RELATIONSHIP TO COMPREHENSIVE PLAN:

The Ridges Development Plan identifies this lot as a "Multi-family" site with no specific density assigned. One of the notes on the plat for The Ridges Filing No. Six states "3. All

multi-family areas are to be developed through county processes and regulations, number of units per acre is variable". No other guidance is given for the development of the multi-family lots.

The overall density for the Ridges is 4 units per acre.

STAFF ANALYSIS:

The proposal is for the replatting and development of a 2.95 acre multi-family lot in the Ridges, Filing #6. Eight single family lots are proposed for an overall density of 2.7 units per acre. The buildable area of the site is limited by the relatively steep slopes to the east and south. The development potential of the site is further limited by the narrow access of 26' to Prospector Point Drive. The traffic capacity of Prospector Point Drive is greatly limited by its narrow width and awkward geometry.

The developer had originally proposed 20 condominium units and 15 single family lots for the site. Staff comments on that proposal were that the existing constraints of the site would not allow that kind of density and that a lower density should be considered. The developer withdrew that proposed plan and resubmitted a plan for 12 single family lots, which equates to approximately 4 units per acre, which is the overall assigned density for the Ridges. Staff had indicated to the developer that the reduction in units would certainly be more appropriate for the site, but that the proposal would have to be reviewed in the context of the site constraints. Planning Commission and City Council reviewed that plan and approved a total of eight single family lots provided additional ROW was acquired by the developer to widen the narrow access to 34'. The plan was also approved with sidewalk on only one side of the ROW.

The City Council also required that a 8' wide paved pedestrian/bicycle path be provided in conjunction with the storm drainage easement. The slopes along the path of the storm drainage facility approach 24% in some areas which far exceeds standards for maximum slopes of pathway systems. Switch-backing of the trail would be required to maintain safe slopes which would further scar the hillside. The petitioner is asking that the paving requirement be reconsidered.

STAFF RECOMMENDATION:

Staff recommends approval with the following conditions:

1. All building envelopes must maintain a 20' setback from the bluff line and the ROW. The side yard setbacks of 5' on one side and 10' on the other will apply. The building envelopes must be shown on a contour map to be recorded with the plat.

2. Utility easements must be provided to Prospector Point Drive in an alignment acceptable to all utility providers.

3. A pedestrian/bicycle path access must be provided in conjunction with the storm drainage easement to provide access to the open space and existing unimproved and improved trail system. The access must be a minimum of 12' wide and be dedicated as open space "to the City of Grand Junction forever, that real property which is labeled as Open Space for the common use, enjoyment and benefit by the General Public". Because of the steep slopes staff recommends the trail not be paved.

4. An easement for the storm drainage pipe is required. The easement must be recorded with the book and page of the recorded easement shown on the plat.

5. The excess ROW for Eagle Crest Court adjacent to the open space will be retained in its natural state.

6. All final construction drawings and plans, including design and erosion control for the storm sewer, must be submitted for review and approval by the City Development Engineer prior to recording the plat or commencing construction, whichever is first.

7. It appears this property falls under the covenants of the Ridges Filing #6 and the existing Ridges ACC. It is the developers responsibility to show why this property is not govern by those existing covenants and ACC.

RECOMMENDED PLANNING COMMISSION MOTION:

Mr. Chairman, on item #20-94(3), I move we approve the final plat and plan subject to the staff recommendation and recommend to Council that the paving requirement for the pedestrian path be deleted.

STAFF REVIEW

FILE: #20-94(3)

DATE: November 9, 1994

STAFF: Kathy Portner

REQUEST: Final Plan--Eagle Crest

LOCATION: Lot 17, Block 9, Filing 6, The Ridges

APPLICANT: Sidney Gottlieb

EXECUTIVE SUMMARY: Request to delete the requirement for a paved trail connecting the Eagle Crest development with Ridges Blvd and a resolution granting an easement through Ridges Open Space for a storm drain.

EXISTING LAND USE: Undeveloped

PROPOSED LAND USE: Single Family Residential

SURROUNDING LAND USE:

NORTH:	Open Space and Single Family Residential
SOUTH:	Open Space and Single Family Residential
EAST:	Open Space and Single Family Residential
WEST:	Open Space and Single Family and Multi-family Residential

All surrounding residential development is clustered densities of 8 to 10 units per acre (density excluding the open space).

EXISTING ZONING: PR-4

PROPOSED ZONING: PR-4

SURROUNDING ZONING:

NORTH:	PR-4
SOUTH:	PR-4
EAST:	PR-4
WEST:	PR-4

RELATIONSHIP TO COMPREHENSIVE PLAN:

The Ridges Development Plan identifies this lot as a "Multi-family" site with no specific

density assigned. One of the notes on the plat for The Ridges Filing No. Six states "3. All multi-family areas are to be developed through county processes and regulations, number of units per acre is variable". No other guidance is given for the development of the multi-family lots.

The overall density for the Ridges is 4 units per acre.

STAFF ANALYSIS:

The proposal is for the replatting and development of a 2.95 acre multi-family lot in the Ridges, Filing #6. Eight single family lots have been approved for an overall density of 2.7 units per acre. The buildable area of the site is limited by the relatively steep slopes to the east and south. Additional ROW has been acquired by the developer to widen the narrow access onto Prospector Point to 34'. As approved by Planning Commission and City Council, the road section includes curb and gutter on both sides and sidewalk only on the development side.

The City Council also required that a 8' wide paved pedestrian/bicycle path be provided in conjunction with the storm drainage easement. The slopes along the path of the storm drainage facility approach 24% in some areas which far exceeds standards for maximum slopes of pathway systems. Switch-backing of the trail would be required to maintain safe slopes which would further scar the hillside. The petitioner is asking that the paving requirement be reconsidered.

An easement from the City is also required for the storm drain through the Ridges Open Space.

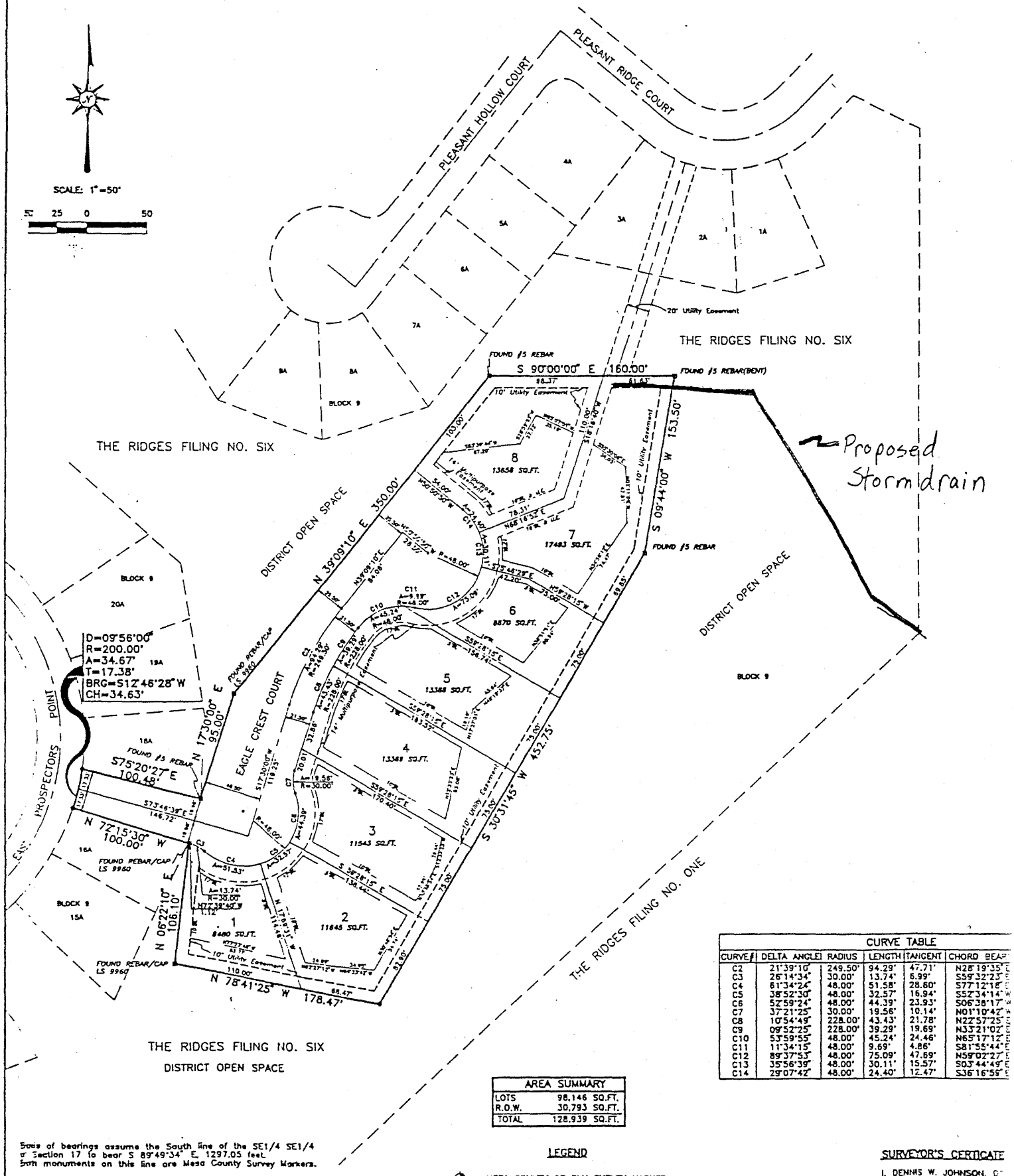
STAFF RECOMMENDATION:

Staff recommends a pedestrian/bicycle path access be provided in conjunction with the storm drainage easement to provide access to the open space and existing unimproved and improved trail system. The access must be a minimum of 12' wide and be dedicated as open space to the City of Grand Junction. Because of the steep slopes staff recommends the trail not be paved. Staff also recommends the resolution granting an easement for the storm drain be approved.

PLANNING COMMISSION RECOMMENDATION:

At their November 1, 1994 hearing Planning Commission recommended the plat and plan be approved subject to the staff recommendation.


REPLAT OF A REPLAT OF LOTS 1-2-7 & PTS. OF LOTS 3 & 6 ARROW WOOD SUB.
(BROADWAY)
BROADWAY
HERMOSA
VANWOOD SUB.
REPLAT OF COLUMBINE VILLAGE
THE RIDGES
A REPLAT OF THE RIDGES FILING NO. SIX
EAGLE CREST
RIDGES BOULEVARD
SEE SPECIAL PLAT
BRANDY'S COURT
STONERIDGE COURT
RIDGEWAY DRIVE
PRIVATE ROAD
LOT 1
RIDGE CIRCLE
VALLEY VIEW WAY
VALLEY CIRCLE
WEST VALLEY CIRCLE
EAST VALLEY CIRCLE
CLIFF ROSA CT.
SOAPWEED CT.
HILL VIEW DRIVE
RIDGE VIEW DRIVE
EXPLORER CT.
GARRETT TOWNHOMES
THE RIDGES NO. 4



CURVE TABLE					
CURVE #	DELTA ANGLE	RADIUS	LENGTH	TANGENT	CHORD BEAR
C2	21°39'10"	249.50'	94.29'	47.71'	N28°19'35" E
C3	26°14'34"	30.00'	13.74'	6.99'	S59°32'23" E
C4	61°34'24"	48.00'	51.58'	28.60'	S77°12'18" E
C5	38°52'30"	48.00'	32.57'	16.94'	S52°34'14" W
C6	52°59'24"	48.00'	44.39'	23.93'	S06°38'17" W
C7	37°21'25"	30.00'	19.56'	10.14'	N01°10'42" W
C8	10°54'49"	228.00'	43.43'	21.78'	N22°57'25" E
C9	09°52'25"	228.00'	39.29'	19.69'	N33°21'02" E
C10	53°59'55"	48.00'	45.24'	24.46'	N65°17'12" E
C11	11°34'15"	48.00'	9.69'	4.86'	S81°55'44" E
C12	89°37'53"	48.00'	75.09'	47.69'	N59°02'27" E
C13	35°56'39"	48.00'	30.11'	15.57'	S03°44'49" E
C14	29°07'42"	48.00'	24.40'	12.47'	S36°16'59" E

AREA SUMMARY	
LOTS	98,146 SQ.FT.
R.O.W.	30,793 SQ.FT.
TOTAL	128,939 SQ.FT.

Basis of bearings assume the South line of the SE1/4 SE1/4 of Section 17 to bear S 89°49'34" E, 1297.05 feet. Both monuments on this line are Mesa County Survey Markers.

Note: Property corners located during this survey that were within 0.25± feet of the calculated point were accepted as being "in position".

** Easement and Title information provided.

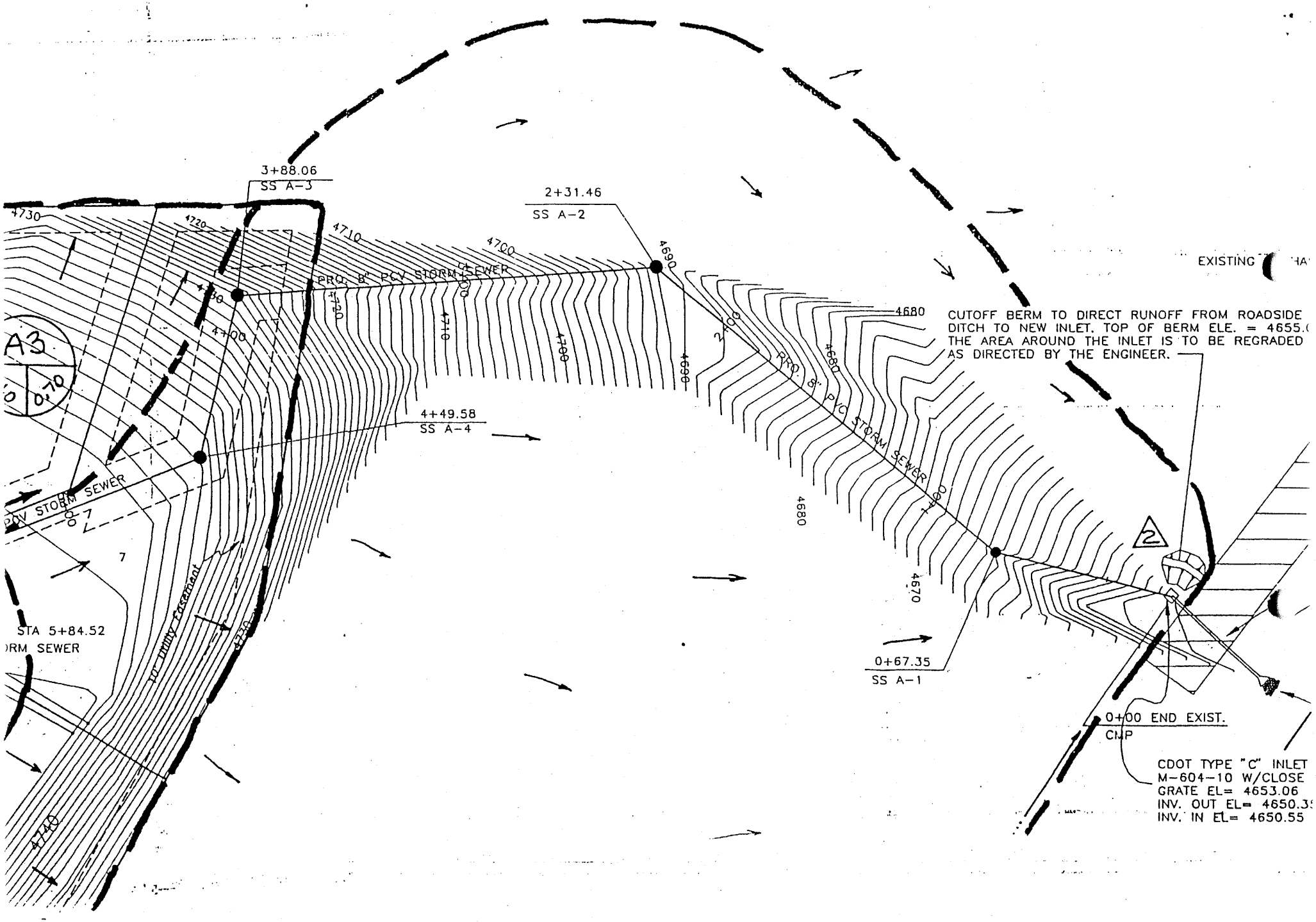
LEGEND

- MESA COUNTY OR BLM SURVEY MARKER
- O CALCULATED POSITION (NOT SET)
- • SET ALUMINUM CAP ON No. 5 REBAR, PLS 16835 IN CONCRETE
- (R) RECORD MEASUREMENT
- ⊡ FOUND REBAR, AS NOTED

SURVEYOR'S CERTIFICATE

I, DENNIS W. JOHNSON, D[illegible] CREST SUBDIVISION, A SUB[illegible] HAS BEEN PREPARED UND[illegible] SAME. THIS PLAT CONFORM[illegible] THE CITY OF GRAND JUNC[illegible] STATE OF COLORADO.

DATE


3+88.06
SS A-3
2+31.46
SS A-2
4+49.58
SS A-4
0+67.35
SS A-1
0+00 END EXIST.
CMP
PRO. 8" PVC STORM SEWER
PRO. 8" PVC STORM SEWER
PVC STORM SEWER
10' Utility Easement
CUTOFF BERM TO DIRECT RUNOFF FROM ROADSIDE DITCH TO NEW INLET. TOP OF BERM ELE. = 4655.(
THE AREA AROUND THE INLET IS TO BE REGRADED AS DIRECTED BY THE ENGINEER.
CDOT TYPE "C" INLET
M-604-10 W/CLOSE
GRATE EL= 4653.06
INV. OUT EL= 4650.3
INV. IN EL= 4650.55
EXISTING
STA 5+84.52
RM SEWER
4730
4720
4710
4700
4690
4680
4670
4740
A3
2

Lincoln DeVore, Inc.
Geotechnical Consultants
1441 Motor St.
Grand Junction, CO 81505

TEL: (303) 242-8968
FAX: (303) 242-1561

December 12, 1995

Sid Gottlieb
477 Elkwood Lane
Englewood, New Jersey

Re: Proposed Pavement Sections, Eagle Crest Subdivision
Grand Junction, Colorado

At the request of Mr. Mike Best of LANDesign, the proposed road section of Eagle Crest Court was sampled by personnel of LINCOLN-DeVORE, INC.. The samples were subjected to Laboratory Testing and appropriate road sections were computed. Following are our findings and recommendations.

Samples of the surficial native soils that may be required to support pavements have been evaluated using the Hveem-Carmany method (ASTM D-2844) to determine their support characteristics. The results of the laboratory testing are as follows:

AASHTO Classification - A-4(0) Unified Classification - ML

R	=	35
Expansion @ 300 psi	=	61 psf
Displacement @ 300 psi	=	3.79

Traffic Counts or volumes have not been provided to Lincoln DeVore. It is assumed the daily EAL of 5 will be appropriate for a normal mixture of passenger vehicles and delivery trucks.

Two methods of design were utilized for this project. First, the 1986 AASHTO procedure, recognized by the Colorado Department of Transportation and second, The Asphalt Institute (MS-1). A design life of 20 years was used, with an annual growth rate of 5%.

Based upon the existing topography, the anticipated final road grades and subsurface soils conditions encountered during the drilling program, a Drainage Factor of 1.0 (1986 AASHTO procedure) and a mean average annual air temperature (MAAT) of 60° Fahrenheit (Asphalt Institute Method) has been utilized for the section analysis.

Calculated Pavement Sections

18K EAL = 5 Soil "R" Value = 35

	1986 AASHTO Drainage Coefficient = 0.7	Asphalt Institute MAAT = 60° F	
AC	3"	3"	AC
ABC	2" use 6" minimum	6"	ABC
Subbase	0"	0"	Subbase
FULL DEPTH AC	3-1/2"	4"	

PAVEMENT SECTION CONSTRUCTION

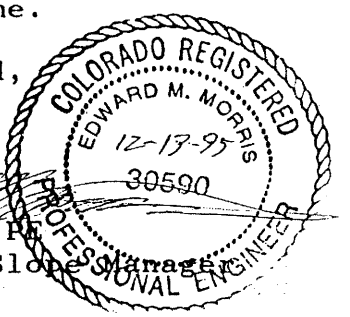
We recommend that the asphaltic concrete pavement meet the State of Colorado requirements for a Grade C mix. In addition, the asphaltic concrete pavement should be compacted to a minimum of 95% of its maximum Hveem density. The aggregate base coarse should meet the requirements of State of Colorado Class 5 or Class 6 material, and have a minimum R value of 78. We recommend that the base coarse be compacted to a minimum of 95% of its maximum Modified Proctor dry density (ASTM D-1557), at a moisture content within + or -2% of optimum moisture. The native subgrade shall be scarified and recompacted to a minimum of 90% of their maximum Modified Proctor day density (ASTM D-1557) at a moisture content within + or -2% of optimum moisture.

All pavement should be protected from moisture migrating beneath the pavement structure. If surface drainage is allowed to pond behind curbs, islands or other areas of the site and allowed to seep beneath pavement, premature deterioration or possibly pavement failure could result.

It is believed that all pertinent points have been addressed. If any further questions arise regarding this project or if we can be of any further assistance, please do not hesitate to contact this office at any time.

Respectfully Submitted,

LINCOLN DeVORE, Inc.



by: Edward M. Morris PE
Engineer/Western Slope Manager

LD Job No.: 84253-J

2/7/96
Review

Brian Hart
LANDesign, LLC
259 Grand Avenue
Grand Junction CO 81501

Re: Eagle Crest Final Plan/Plat - Our File #20-94(3)

Dear Mr. Hart:

The City Development Engineer, Utility Engineer and I have reviewed the final plan/plat for the above project and offer the following comments which are group by plan sheet:

Plat

1. In the dedication statement, the block and lot reference must be followed-up by a metes and bounds description.

2. The pedestrian easement dedication should be removed since there are no pedestrian easements being dedicated.

3. The #5 rebar needs to be reset in concrete as identified on the red-lined plat forwarded under separate cover to your office.

4. The "interior lot corners" shall be included in the legend.

Street Plan and Profile (Sheet 3 of 8)

5. The last response to comments dated October 24, 1994 stated that the 18" RCP at the entrance to the subdivision would be removed; the latest plans show the pipe. Please clarify.

6. The asphalt at the entrance shall be transitioned to the top of sidewalk.

7. The area within the City ROW on the west side of Eagle Crest Court to be disturbed shall be regraded and reseeded. Please note on plans.

8. The sidewalk at the cul-de-sac should not transition down to a curb and must end at full

width with a ramp to the street. Please revise plans accordingly.

9. Will the gray versa-lok block match the existing soil conditions? Please verify and adjust the color if necessary to most closely match the adjacent soil.

10. For the retaining wall, please label the length of wall and indicate stations for beginning and end of wall along with top of wall elevations.

11. Street light locations and traffic signs are missing from the plan.

12. Please provide street centerline spot elevations.

13. A note shall be added to the plans requiring the placement of backfill at the ends of the sidewalk and curb and gutter at the intersection with Class ABC and grade to drain. Detail "B" is missing from the plans (see your response to comments dated October 24, 1994).

Street Plan & Profile (Sheet 4 of 8)

14. In lower left-hand corner of sheet, "seperation" should be spelled "separation."

Utility Composite (Sheet 5 of 8)

15. "Domistic water" shall be corrected to read "domestic water."

Sewer and Water Plan and Profile (Sheet 6 of 8)

16. "Domistic water" shall be corrected to read "domestic water."

17. Manhole MH A-1 shall be apoxy-coated. Please indicate on plans.

18. Provide for some type of energy dissipator in MH A-1 to reduce flow velocities.

Miscellaneous

19. Please resubmit a Geotechnical Report and Pavement Design Report for the project for our review and records.

20. The Planning Commission approval for this project included the requirement for a building envelope map with contours. Please provide this with your resubmittal.

We will also require the following for review and approval prior to platting:

- Development Improvements Agreement (DIA)
- Improvements Guarantee
- Covenants
- Articles of Incorporation for the Homeowner's Association
- Surveyor's Certificate for Plat
- Final Plat for City signatures

In order to preserve the approvals for the subdivision, we have extended the deadline for platting based on your progress, however, the final plat will need to be recorded by February 15, 1996. Failure to record by February 15th will require resubmittal of the project for final plan/plat approval which includes a Planning Commission hearing.

As previously mentioned, a red-lined set of plans has been forwarded to your office under separate cover. Most of the comments contained in this letter are also identified on the drawings. Please return the red-lined drawings to this office with your resubmittal.

Please do not hesitate to contact me should you have any questions or if you require further explanation of any items.

Sincerely yours,

Michael T. Drollinger
Senior Planner

cc: Denny Granum, Monument Homes
Jody Kliska, Development Engineer
Trenton Prall, Utility Engineer
File #20-94(3)

h:\cityfil\1994\20-942.wpd

NORWEST BANKS

Norwest Bank Grand Junction, N.A.
2808 North Avenue
P.O. Box 1568
Grand Junction, Colorado 81502-1568
303/242-8822

February 15, 1996

Michael Darollinger
City of Grand Junction

RE: Eaglecrest Subdivision, Developer Monument Homes Development, Inc. and Sid Gottleib

Mr. Darollinger:

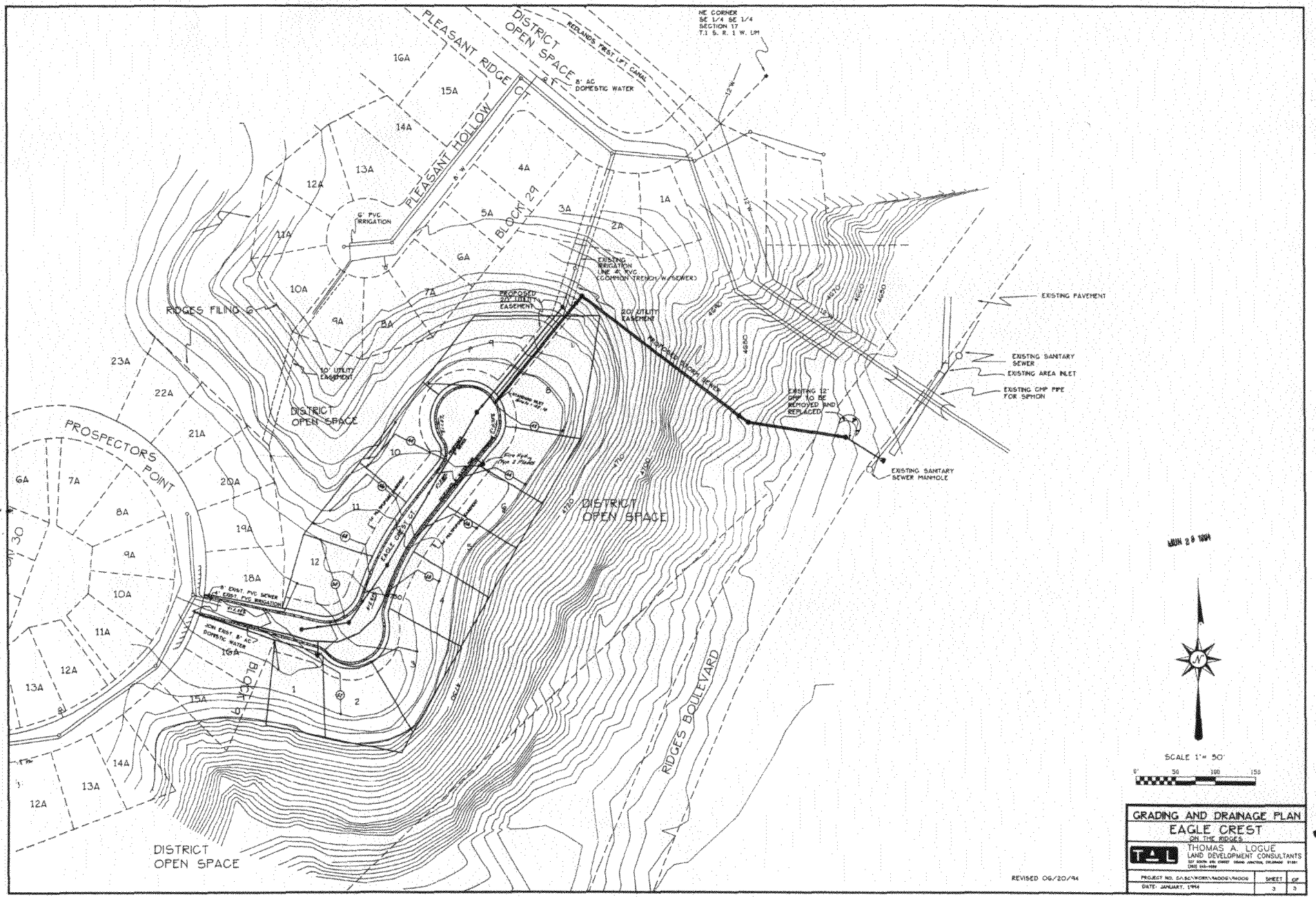
Norwest Bank Colorado, N.A., Grand Junction, has approved a development for the completion of the infrastructure improvements for the Eaglecrest Subdivision, to be located in the Ridges. The loan has been approved in the amount of $161,000.00, with the only contingency being the receipt and review of a conforming appraisal. Per our conversation this appraisal is expected by February 15th or 16th. Further, it is my understanding from our conversation that the City would allow until February 22nd to receive the signed Subdivision Improvements agreement from the bank.

This letter is to serve as verification of the banks intent to lend and to identify the only contingency being the receipt of the conforming appraisal reflecting a value adequate to support commitment according to the Bank's standards.

Should you have any questions feel free to call me at (970) 248-4821.

Regards,

Bruce L. Penny, Vice President


PLEASANT RIDGE CT.
DISTRICT OPEN SPACE
8' AC DOMESTIC WATER
REDLANDS FIRST LAT. CANAL
NE CORNER SE 1/4 SE 1/4 SECTION 17 T.1 S. R. 1 W. UM
PLEASANT HOLLOW
BLOCK 29
6' PVC IRRIGATION
EXISTING IRRIGATION LINE 4" PVC (COMMON TRENCH W/SEWER)
PROPOSED 20' UTILITY EASEMENT
20' UTILITY EASEMENT
PROPOSED 8" PVC SEWER
EXISTING PAVEMENT
EXISTING SANITARY SEWER
EXISTING AREA INLET
EXISTING CMP PIPE FOR SIPHON
EXISTING 12" CMP TO BE REMOVED AND REPLACED
EXISTING SANITARY SEWER MANHOLE
RIDGES FILING 6
10' UTILITY EASEMENT
DISTRICT OPEN SPACE
PROSPECTORS POINT
EAGLE CREST CT.
8" CONST. PVC SEWER
4" CONST. PVC IRRIGATION
20' EAST 8" AC DOMESTIC WATER
BLOCK 30
RIDGES BOULEVARD
DISTRICT OPEN SPACE
DISTRICT OPEN SPACE
REVISED 06/20/94
SCALE 1" = 50'
0' 50 100 150
GRADING AND DRAINAGE PLAN
EAGLE CREST
ON THE RIDGES
THOMAS A. LOGUE
LAND DEVELOPMENT CONSULTANTS
PROJECT NO. GA:\CWORK\WOODS\WOODS
DATE: JANUARY, 1994
SHEET 3 OF 3