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File 1993-0023

Name: Ptarmigan Ridge - Filing 6 - West of 27 1/2 Rd. at Cortland Avenue

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DOCUMENT DESCRIPTION:

X	X	Action Sheet - Approved - 5/19/93	X	X	Improvements Security Agreement - Bk 2019/Pg 865
X		Covenants, Conditions and Restrictions - Bk 2019 / Pg 851	X		Chicago Title Ins. Co. - Commitment for title insurance - 8 26 92
X	X	Development Improvement Agreement with letter of credit - delivered to City Clerk for scanning and retention - Bk 2019 Pg 855 - 10/25/93 - **	X		Avigation Easement - Bk 2019/Pg 870
X	X	Warranty Deed - conveyed to City - ** - Bk 1986 / Pg 655	X	X	Final Plat - GIS Historical Maps - **
X	X	Certification of Plat - 10/27/93	X	X	Site Plan - to be scanned - **
X		Deed - Bk 1876/ Pg 343	X	X	Grading and Drainage Plan - **
X	X	Runoff and Drainage Plan - 1/93, 3/93	X		Utility Plan
X		Legal Ad - 3/30/93	X		Sewer Lines "B" & "C" Plan & Profile
X		Display Ad - 4/5/93	X		Road Plan and Profile
X	X	Planning Commission - Agenda and Minutes - 4/6/93, 5/4/93, 5/19/93 - **	X		Detention Pond Detail
X		E-mails	X		Storm Drain Detail
X	X	Correspondence			



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

A Receipt 5641
 Date 2/1/93
 Rec'd By BP
 File No. 23 93

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

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
<input checked="" type="checkbox"/> Subdivision Plat/Plan	<input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major <input type="checkbox"/> Resub		WEST OF 27 1/2 ROAD AT CORTLAND AVE.	PR-4	SINGLE FAMILY Residential ≠ Multi-family RESIDENTIAL
<input type="checkbox"/> Rezone				From: To:	
<input checked="" type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Prelim <input checked="" type="checkbox"/> Final		WEST OF 27 1/2 ROAD AT CORTLAND AVE.	PR-4	SINGLE FAMILY Residential ≠ Multi-family Residential
<input type="checkbox"/> Conditional Use					
<input type="checkbox"/> Zone of Annex					
<input type="checkbox"/> Text Amendment					
<input type="checkbox"/> Special Use					
<input type="checkbox"/> Vacation					<input type="checkbox"/> Right-of-Way <input type="checkbox"/> Easement

<input checked="" type="checkbox"/> PROPERTY OWNER	<input checked="" type="checkbox"/> DEVELOPER	<input checked="" type="checkbox"/> REPRESENTATIVE
<u>PTARMIGAN INVEST. INC.</u>	<u>SAME</u>	<u>LEWIS HOFFMAN</u>
Name	Name	Name
<u>P.O. BOX 9088</u>	<u>SAME</u>	<u>SAME</u>
Address	Address	Address
<u>GRAND JCT. CO 81501</u>	<u>SAME</u>	<u>SAME</u>
City/State/Zip	City/State/Zip	City/State/Zip
<u>241-7025</u>	<u>SAME</u>	<u>SAME</u>
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 Lewis Hoffman Signature of Person Completing Application
 Date 2/24/93

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

Andrew Christensen Family
Ltd. Partnership
2669 Paradise Dr.
Grand Junction, CO 81506

John A. Siegfried
P.O.Box 9088
Grand Junction, CO 81501

Grigsby Development Inc.
8480 Utica Ave.
Rancho Cucamonga, CA 91730

First Presbyterian Church
622 White Ave.
Grand Junction, CO 81501

Jack Brown
681 27 1/2 Road
Grand Junction, CO 81506

Emanuel Epstien
1900 Quentin Road
Brooklyn, NY 11229

Jimmie Etter
697 1/2 Road
Grand Junction, CO 81501

B

IMPACT STATEMENT AND PROJECT NARRATIVE

PTARMIGAN RIDGE NORTH

PTARMIGAN RIDGE FILING 6

Ptarmigan Ridge North is located on 11.35 acres at the intersection of Cortland and 27 1/2 Road, extending to the west. This will provide access to collector streets while other traffic flows will be internal.

From a design standpoint, Ptarmigan Ridge Filing # 6 is the last filing in the Ptarmigan Ridge subdivision. The filing is divided into two different product types: large SFD lots (16 lots) and a section of two unit townhomes (15 buildings, 30 units). This will provide for a variety of dwelling types which has not previously been available at Ptarmigan Ridge.

Ptarmigan Ridge Filing 6 is scheduled for development spring and summer of 1993.

Ptarmigan Ridge Filing 6 is a development planned for a density of approximately 4 homes per acre, within an area zoned to permit four units per acre. This filing is in the PR-4 zone which allows us to define the setbacks. We will establish the setbacks as designated on the site plan: SFD lots generally will have a 5 ft. side setback, 15 ft. rear setback, and a front setback of 20 ft. from the front property line, and only one front setback will be required (as determined by the direction the house faces) on corner lots; for the Townhomes the side and rear setbacks will be 0 ft. (spacing between buildings shall conform to the Uniform Building Code), front setback of 14 ft. from the front property line, again only one front setback for corner lots.

Ptarmigan can presently be served by Ute water from the intersection of Cortland Ave. and 27 1/2 Road and city sewer is available at No. 15th Court in Ptarmigan Ridge Filing 4. Irrigation water is available from Grand Valley Water User's Association, and should be adequate with a homeowner watering schedule to share this limited resource.

Ptarmigan Ridge Filing 6 lies within the critical zone of Walker Field and an avigation easement will provided as always.

X,Y TRAFFIC ANALYSIS

Ten car trips per day per household, or 460 trips per day will be generated by Filing 6.

Street signage and lighting will be installed to present city standards.

O DEVELOPMENT SCHEDULE

Construction will commence in the spring of 1993 and be completed in the fall of 1993, depending on the demands of the market.

Q SITE PLAN

The site plan shows information for Exhibits R (adjacent land use and zoning), Z(c) (setbacks), and AA (vicinity map.)

R ADJACENT LAND USE AND ZONING

Adjacent land use and zoning is indicated on the site plan.

U LANDSCAPING

Individual landscaping of lots will be done by the lot-owners. There will be no common area landscaping in Filing 6.

Z STRUCTURAL INFORMATION

- a) SFD lots--homes will be 1500 sq. ft. minimum
Townhomes--each unit will be 1400-1600 sq. ft.
- c) refer to site plan and/or project narrative

FILE: PR6OQRUZ

I FLOODPLAIN ANALYSIS

This subdivision does not fall within any Federally established or published floodplain. Refer to drainage report for site specific drainage information.

J, K, L

These exhibits have been previously submitted. They may be found in Related City File Nos. #56-92 and #5-93. A further study is presently being performed by Lincoln DeVore to investigate the stability of slopes in the area of a proposed detention pond. This study is due to be completed not later than March 10, 1993, perhaps as early as March 5, 1993, at which time we will submit it to City Engineering Department for review. We will comply with all recommendations of the report.

File: PR6JKL

FILE: 23-93 Filing 6 of Ptarmigan Ridge (North)

DATE: March 17, 1993

STAFF: David Thornton

REVIEW COMMENTS:

1. Need to include the entire roadway width at the 27 1/2 Road and Cortland Avenue intersection on the Improvements Agreement/Guarantee. Petitioner is responsible for improving the entire roadway which includes the ROW deeded by Mrs. Christensen. This includes curb, gutter, and sidewalk on both sides of the street.

2. The pedestrian path improvements between filings 4 & 6 need to be included on the improvements agreement/guarantee.

3. The site plan will be recorded with the plat. Need to show/label setback distances on site plan.

4. We have determine by a site visit that there appears to be wetlands on this site. The Army Corp of Engineers will need to determine if any wetlands mitigation (404 permit) is required. We have already asked that a review packet be submitted to the Corp by the petitioner.

5. The detention pond area at 27 1/2 Road & Cortland Avenue and the pedestrian path area between Filings 4 & 6 need to be common open space and maintained by the homeowners association.

6. The detention pond needs to be sloped back creating a less steep slope for safety concerns.

7. An Avigation Easement and the Improvements Agreement will be recorded with the plat. All recording fees are the responsibility of the petitioner.

8. The street naming for the townhouse area should be Simpson J Circle or Ren Circle with Simpson Court or Ren Circle being that portion that extends off the circle.

9. The proposed rear yard setback of 0 feet for the townhouses is not acceptable. There needs to be a setback creating a buffer area between the townhouses and the adjoining properties. Since the townhouses are going to be built as duplexes, a sideyard setback between duplex buildings needs to be established.

10. The covenants need to establish whether or not the townhouse area must be built out as townhouses only and not allow a future developer from building them has townhouse apartments and renting them out.

11. If a privacy fence is desired along 27 1/2 Road, it need to be made a part of this final plan and approved with the plan.

12. Staff recommended at preliminary plan that a minimum front setback of 20' be required for garages with the requested 14' setback requirement for the main part of the house only and Planning Commission extended that in their approval of the preliminary plan to require all structures in the front setback be a minimum of 20'.

13. All deficiencies noted in letter dated March 17, 1993 must be addressed by the petitioner.

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

MAR 29 1993

March 29, 1993

RESPONSES TO REVIEW COMMENTS

FILE NO. #23-93

PTARMIGAN RIDGE FILING 6--FINAL PLAT

CITY PROPERTY AGENT

The plat will be corrected as requested.

UTE WATER

The additional valve will be shown on the plans. We were previously advised by Ute Water that we would be doing an 8" x 8" wet tap at 27 1/2 and Cortland Ave. due to the massive quantities of concrete around the 18" water line, making a tap not feasible on that line. We will tap whatever line Ute determines.

CITY UTILITIES ENGINEER

The plans will be revised accordingly. The water mains throughout Filing 6 will be installed at a depth of 67" to avoid conflicts with the sewer. Public Service will need to adjust the depth of their facilities should any conflict with any sewer services arise (they should have stayed on the rear lot line where they belong, rather than on the front where they conflict with everything; gas was never a problem; electric has been a constant problem).

GRAND VALLEY WATER USERS ASSOCIATION

- (1) Plans will be revised to reflect the source made available to us by the Association.
- (2) See attached copy of the letter regarding our agreement with the Association.

POLICE DEPARTMENT

1. This easement will be used for the purpose stated--utilities.
2. Lot lines will be established after foundations have been poured. There will be driveways, as there will be garages. The units on the east side will face east and the units on the west will face west.
3. We will change to a 5' rear setback.
4. & 5. Street names have been revised to respond to both of these concern, with the concurrence of Community Development.
6. We have used the ROW standards as adopted by City Council July 1992 and presently enforced.

CITY DEVELOPMENT ENGINEER

Plans will be revised as required.

COMMUNITY DEVELOPMENT DEPARTMENT

1. We will install all three lanes and curb only on Mrs. Christensen property at the intersection as we mutually agreed.
 2. We will capitulate to the pedestrian path, even though we feel this will be a detriment to our subdivision. We will expect the City to maintain the path, as it is being imposed upon us.
 3. Site plan will be revised.
 4. A package was provided as promised.
 5. Common space is not being proposed anywhere at Ptarmigan Ridge.
 6. A cash bond has already been provided to cover this work, as a result of previous agreements.
 7. As always.
 8. Plat and plans have been revised accordingly.
 9. We propose a 5' rear setback and a 10' building separation in the townhome area.
 10. Townhome lots will be platted as construction occurs, establishing individual lots.
 11. A fence has been added to the site plan.
 12. We are proposing large single family attached dwellings with minimal yards, minimal maintenance. To fit these large units in the limited area to achieve our concept, we still feel that the appropriate front setback is 14' for the structure, with the 20' setback for the garages (side load garages would be 14' setback). We went through the rezoning process many months ago specifically to gain flexibility in setbacks, especially in the townhome area. The PR zone promotes freedom of design, and we feel it is not within the spirit of the rezone to PR to revert back to basically straight zone setbacks. That defeats the whole purpose of the exercise. We would hope that Planning Commission will understand and reconsider, in the spirit of The Zoning and Land Development Code.
 13. Addressed, to the best of our knowledge.
- GENERAL: The improvements agreement will be revised and finalized in conjunction with the approval of the construction plans.

March 29, 1993

Ptarmigan Investments, Inc.
P.O. Box 9088
Grand Junction, CO 81501

Grand Valley Water Users Association
Mr. G. W. Klapwyk, Manager
500 South 10th Street
Grand Junction, CO 81501-3740

Re: Ptarmigan Ridge Filing 6, Final Plat; File No. 23-93

Dear Bill:

This letter shall serve to confirm our agreement regarding the disposition of the open ditch on the southern boundary of the above captioned subdivision.

The terms of the agreement are as follows:

1. Ptarmigan Investments, Inc. or its heirs or assigns shall purchase, at its expense, a sufficient quantity of 15" PVC pipe necessary to pipe the remaining length of the open ditch, approximately 808 LF. This pipe shall connect to pipe work presently occurring at each end of the open ditch.

2. This pipe shall be furnished to the Association at a location and at a future date as mutually agreed upon. The Association shall, at its expense, install the pipe. Per our most recent meeting, the work could take place perhaps Oct. or Nov. of 1993.

If you have any questions or changes regarding this agreement, please contact me at 241-7025.

Sincerely,



Lewis E. Hoffman, III
Land Development Manager
Ptarmigan Investments, Inc.

copies: City of Grand Junction Community Development Dept.

STAFF REVIEW

FILE: 23-93

DATE: March 31, 1993

STAFF: David Thornton

REQUEST: Final Plan/Plat approval for 16 single family units and 30 multi-family townhome units on 11.35 acres to be know as the Filing 6 of Ptarmigan Ridge North. Preliminary approval was given by Planning Commission on February 10, 1993.

LOCATION: Northwest corner of 27 1/2 Road and Cortland Avenu. Access to the site is from 27 1/2 Road via Cortland Avenue.

APPLICANTS: John Siegfried, Ptarmigan Investments, Inc.

EXISTING LAND USE: Vacant.

PROPOSED LAND USE: Single Family Residential and Multi-family Residential -Attached Townhomes.

SURROUNDING LAND USE:

NORTH -- Undeveloped

EAST -- Single Family residential and Church use

SOUTH -- Single Family residential

WEST -- Single Family residential

EXISTING ZONING: Planned Residential with a maximum of 4.0 unit per acre.

PROPOSED ZONING: No Change

SURROUNDING ZONING:

NORTH -- PB (Planned Business)

EAST -- RSF-4, PR (Planned Residential)

SOUTH -- RFS-5

WEST -- RFS-4

RELATIONSHIP TO COMPREHENSIVE PLAN/POLICIES/GUIDELINES:

No Master Plan currently exists for this area.

STAFF ANALYSIS:

Planning Commission approved the preliminary plan on Feb. 10th, 1993. The portion of the preliminary plan that filing 6 includes was approved for 31 total units consisting of 15 single family and 31 multi-family units. This proposal call for 31 total units consisting of 16 single family and 30 multi-family units. The proposed development is compatible with the surrounding area.

Planning Commission's approval of the preliminary plan included the following conditions:

1. A pedestrian access be provided between North 15th Court and Cortland Court.
2. The drainage facilities be located in designated common open space to be maintained by the homeowners rather than in easements.
3. All structures on all lots must meet a minimum of a 20 ft. front yard setback from property line.

All review agency comments have been adequately addressed with the following clarifications and exceptions:

1. Once the pedestrian path between Filings 4 & 6 is constructed to an acceptable city standard by the petitioner, the City will accept the path for future maintenance. This applies only to the pedestrian path and not the entire 44 feet wide easement the path is constructed in. Snow removal on the path will be the responsibility of the property owners (or the homeowners association) as well as maintenance of the 44 ft. easement.

2. Staff supports and mutually agrees with the developer that they are responsible for improvements at the intersection of 27 1/2 Road and Cortland Avenue which will consist of 3 lanes of pavement, curb and gutter. Sidewalk will not be required along the Christensen property.

3. The petitioner has addressed through the restrictive covenants the issue of maintenance, but has not satisfactorily addressed the ownership of the drainage facilities. In the review comments, staff has noted that the drainage facilities should be located in common open space and it should be the responsibility of the homeowners association to maintain. In the covenants the petitioner states that "the association shall maintain drainage facilities in accordance with City policy". In responding to the common open space requirement, the petitioner has stated that "common space is not being proposed anywhere at Ptarmigan Ridge" which is contrary to what the Planning Commission approved through the preliminary plan.

4. The petitioner has responded to the front yard setback requirement of 20 ft. established at the preliminary plan approval with a request to take another look at the requirement and allow the townhouse development to have 14 ft. setbacks instead of 20 ft. in front with the stipulation that garages with a front entry would be required to meet a 20 ft. setback. The request further states that garages built with a side entry would be allowed to build at the 14 ft. setback.

5. The petitioner has agreed to provide detail for the pedestrian path. The location and construction detail/plans will be reviewed by staff and be required to meet all applicable City standards prior to the recording of filing 6 plat/plan.

6. The deed for the additional right-of-way needed from the Christensen property for this filing is in the process of being signed by Ms Christensen. This will be completed prior to recording the final plat/plan.

STAFF RECOMMENDATIONS:

Staff recommends approval with the following conditions:

1. The drainage facilities be located in common open space rather than easements and be maintained by the homeowners association in accordance with City requirements.

2. The setback requirement for the multi-family dwellings be the following:

a. Rear yard setback for all townhouses be 5 ft except that rear yard setback adjacent to the parcel zoned RSF-4 located on 27 1/2 Road which shall be 15 ft. The length at that parcel being 167 ft.

b. The distance between buildings be 10 ft.

3. A pedestrian easement shall be provided on the plat to provide for public access on the pedestrian path located between North 15th Street Court and Cortland Court.

4. All technical requirements by the review agencies be completed or adequately addressed prior to recording the final plat. *which includes an offsite drainage easement NEEDED FROM the adjacent property owner to the Northwest*

c. Front yard setbacks for All townhouses be 14' including eaves except for front entry GARAGES which shall be 20' from property line. GARAGES with a side entry shall be allowed to be built with a 14' setback so long as there is Adequate driveway length to Accomodate A parked vehicle or vehicles on site.

INTRODUCTION

PROJECT DESCRIPTION

This report presents the results of our geotechnical evaluation performed to determine the general subsurface conditions of the site applicable to construction of a small earth embankment for a drainage detention pond. Foundation and embankment fill recommendations are provided for structure construction. A vicinity map is included in the Appendix of this report.

To assist in our exploration, we were provided with a preliminary site location and proposed section diagrams. The Boring Location Plan attached to this report is based on that plan provided to us.

The characteristics of the subsurface materials encountered were evaluated with regard to the type of construction described above. Recommendations are included herein to match the described construction to the soil characteristics found. The information contained herein may or may not be valid for other purposes. If the proposed site use is changed or types of construction proposed, other than noted herein, Lincoln DeVore should be contacted to determine if the information in this report can be used for the new construction. field evaluations.

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT
MAR 22 1993

PROJECT SCOPE

The purpose of our exploration was to evaluate the surface and subsurface soil and geologic conditions of the site and, based on the conditions encountered, to provide

recommendations pertaining to the geotechnical aspects of the site development and construction as previously described. The conclusions and recommendations included herein are based on an analysis of the data obtained from our field explorations, laboratory testing program, and on our experience with similiar soil and geologic conditions in the area.

The scope of our geotechnical exploration consisted of a surface reconnaissance, a geophoto study, subsurface exploration, obtaining representative samples, laboratory testing, analysis of field and laboratory data, and a review of geologic literature.

Specifically, the intent of this study is to:

1. Explore the subsurface conditions to the depth expected to be influenced by the proposed construction.
2. Evaluate by laboratory and field tests the general engineering properties of the various strata which could influence the development.
3. Define the general geology of the site including likely geologic hazards which could have an effect on site development.
4. Develop geotechnical criteria for site grading and earthwork.
5. Identify potential construction difficulties and provide recommendations concerning these problems.

FIELD EXPLORATION AND LABORATORY TESTING

A field evaluation was performed on March 5, 1993, and consisted of a site reconnaissance by our Geotechnical personnel, the drilling of one shallow exploration

boring and the excavation of two shallow exploration pits. This exploration boring was drilled within the proposed east embankment abutment of the Detention Dike. The exploration pits were excavated along the proposed embankment axis and in the pond/soil borrow area. The locations of the exploration hole and pits are indicated on the Boring Location Plan.

The exploration boring was located to obtain a reasonably good profile of the subsurface soil conditions. The exploration boring was drilled using a CME 45-B, truck mounted drill rig with continuous flight auger to a depth of approximately 13 feet. The exploration pits were excavated with a small rubber-tyred backhoe. Samples were taken with thin-walled Shelby Tubes and by bulk methods. Logs describing the subsurface conditions are presented in the attached figures.

Laboratory tests were performed on representative soil samples to determine their relative engineering properties. Tests were performed in accordance with test methods of the American Society for Testing and Materials or other accepted standards. The results of our laboratory tests are included in this report. The in-place moisture content and soil density values are presented on the attached drilling logs.

FINDINGS

SITE DESCRIPTION

The project site is located in the SW Quarter of the NE Quarter of the NW Quarter of Section 1, Township 1 S, Range 1 W of the UTE Principal Meridian, Mesa County, Colorado. More specifically the site is located on the north facing bluff, overlooking Horizon Drive, Grand Junction, Colorado. The project is located within the Ptarmigan Ridge Subdivision, Filing #6.

The topography of the site is that of a moderate hillside, at the top of a small bluff, dropping generally to the north, northwest. The site is located at the head of a small, natural gully, which has been partially filled with soil, agricultural and construction debris. The slope gradient on this site ranges from 6% to in excess of 30% at some locations along the gully side. The direction of surface runoff on this site will be locally controlled by the proposed construction. In general, surface runoff will travel into the proposed Detention Pond from the south and east. Drainage off the north-facing portion of the embankment will travel to the north-northwest, entering the lower portion of the existing gully feature and into the historical drainage toward Horizon Drive. Surface drainage is fair to good; subsurface drainage is fair to poor.

On-site erosion can be a significant problem if drainage and vegetation are not carefully controlled. Vegetation will probably be maintained in the immediate area around the Detention Pond site, but special care should be taken to maintain vegetation on the steeper slopes. We recommend that

runoff from these slopes be carefully controlled to prevent erosion caused by irrigation practices, sheetwash or seepage.

Since the final site grading plan was not available at the time of writing this report, the extent of site grading and the proposed excavation and fill elevations has not been determined. Therefore, these grading recommendations must be considered preliminary until Lincoln DeVore has had the opportunity to review the site grading plans.

GENERAL GEOLOGY AND SUBSURFACE DESCRIPTION

The geologic materials encountered under the site consist of alluvial, fine to medium grained Debris Fan deposits, which overlie the Mancos Shale Formation. The geologic and engineering properties of the materials found in our exploration program will be discussed in the following sections.

The upper alluvial soils encountered in the exploration hole and pits contain some gravel sized fragments of sandstone, siltstone and mudstone. These surface soils are quite stratified and may exhibit some variability across the pond area. This soil is designated Soil Type I.

This Soil Type is classified as a gravelly silty clay (CL), with strata of silty sand and sandy gravel, of fine to medium grain size under the Unified Classification System. This soil type is very moist, of low plasticity and of low to medium density. This soil will have virtually no tendency to expand upon the addition of moisture. Settlement will be minimal under the recommended embankment loads. This soil will undergo elastic settlement upon application of static foundation or embankment pressures. Such settlement is characteristically rapid and should be virtually complete by the end of construction. If the recommended allowable bearing values are not exceeded, and if all other recommendations are followed, differential movement will be within tolerable limits. This soil was found to have an average allowable bearing capacity of 1200 psf. This soil was found to contain sulfates in detrimental quantities. Some strata of the debris fan deposits are known to contain elevated amounts of sulfates (soluble salts), which may

exceed 1% by total soil volume.

The silty clays of the weathered Mancos Shale Formation were encountered during the exploration program and is designated as Soil Type II.

The soils derived from the Mancos Shale were classified as a silty clay (CL) under the Unified Classification System. This soil is plastic and is sensitive to changes in moisture content. With decreased moisture, it will tend to shrink, with some cracking upon dessication. Upon increasing moisture, it will tend to expand. Expansion tests were performed on typical samples of the soil and expansive pressures on the order of 900 psf were found to be typical. The allowable maximum bearing value was found to be on the order of 3500 psf. This soil was found to contain sulfates in detrimental quantities.

The Mancos Shale is described as a thin-bedded, drab, light to dark gray marine shale, with thinly inter-bedded fine grain sandstone and limestone layers. Some portions of the Mancos Shale are bentonitic, and therefore, are highly expansive. The majority of the shale, however, has only a moderate expansion potential. Formational shale was encountered in Test Boring No. 1, at a depth of 11 feet. It is anticipated that this formational shale will affect the construction and the performance of the embankment and Detention Pond on the site.

The Mancos Shale Formation is often highly fractured, with fillings of soluble sulfate salts being very common. The samples obtained in this drilling program indicated virtually all fractured faces and some bedding planes

in the shale contain sulfate salt deposits. Some seams of sulfate salts up to 1/16 inch thick were observed. Many of the fractures in the Mancos Shale Formation are open, allowing the transmission of water to occur. Some sandstone and siltstone strata within the Mancos Shale Formation also exhibit elevated permeability.

The lines defining the change between soil types or rock materials on the attached boring logs and soil profiles are determined by interpolation and therefore are approximations. The transition between soil types may be abrupt or may be gradual.

GROUND WATER:

No free water surface was encountered in the test boring or the exploration pits to the depths drilled. However, very wet conditions were encountered in all exploration locations. In our opinion this wet condition is the result of seepage from irrigation ditches and from irrigation practices in the vicinity.

A perched water table is expected to develop in the alluvial soils above the Mancos Shale Formation. In our opinion the subsurface water conditions shown are a permanent feature on this site. The depth to the very wet soils or any seasonal free water would be subject to fluctuation on this site depending upon external environmental effects.

Because of capillary rise, the soil zone within a few feet above the high soil moisture level and possible

future free water levels identified in the boring and the exploration pit will be quite wet. Pumping and rutting may occur during the excavation process, particularly if the bottom of the excavation is near the capillary fringe. Pumping is a temporary, quick condition caused by vibration of excavating equipment on the site. If pumping occurs, it can often be stopped by removal of the equipment and greater care exercised in the excavation and embankment fill process.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL DISCUSSION

No geologic conditions were apparent during our reconnaissance which would preclude the site development as planned, provided the recommendations contained herein are fully complied with. Based on our investigation to date and the knowledge of the proposed construction, the site condition which would have the greatest effect on the planned development is the soft wet native soils in the embankment area.

EXCAVATION OBSERVATION

Lincoln DeVore should be contacted to observe the embankment foundation soils after the excavation has been completed, and prior to placing the embankment fill. The purpose of this is to observe the condition of the foundation soils through-out the excavation. If the soils are found to differ from those encountered in our exploration borings or appear to be unstable, additional recommendations may be required prior to constructing the embankment fill.

Based on slope stability computations, the maximum stable cut slope which can be constructed in this material is 2:1 (horizontal to vertical). Based on similar calculations, the maximum fill slope which can be constructed using the proposed fill soils is 1-1/2:1 (horizontal to vertical). At points where fill is placed against an existing slope steeper than 20%, we recommend that the existing slope be "benched" and fill placed against the benches in horizontal lifts.

EMBANKMENT GEOMETRY

Based on slope stability computations, the recommended fill slope which may be constructed using the proposed fill soils is 2:1 (horizontal to vertical) for the downstream face. The upstream face may be constructed using a similar slope however, access and safety considerations may dictate a flatter slope. Information available to Lincoln-DeVore suggests that an upstream (interior) slope of 3:1 (horizontal to vertical) may be commonly accepted by area regulatory agencies.

EMBANKMENT FILL SOIL:

It appears that the majority of the non-organic material excavated from the reservoir areas is suitable for reuse as embankment fill. Material to be approved shall be free of deleterious matter and oversized hard rock. We recommend that no predominantly clayey soils or claystones be included in the embankment fill.

The results of our laboratory studies of the available borrow soils and the proposed embankment placement and use indicates the following limitations are required, for Geotechnical considerations.

The borrow soils should have a maximum Plasticity Index (PI) of 7 and a maximum passing the #200 sieve of 70%. It is anticipated that much of the borrow soils will have a gravelly appearance, due to the presence of sandstone, siltstone and shale fragments in the soil deposit. The above size and plasticity limits assume these fragments are properly broken down, in accordance with ASTM Practices.

The borrow soils should have a maximum soluble salt content of 1%, by total volume. Higher salt contents will allow the creation of long-term 'Dispersive-like' soil characteristics.

For purposes of Geotechnical Design, it is assumed the width of the embankment crest will be a minimum of 3 feet. Actual construction processes may require a greater crest width.

A keyway shall be cut into the Mancos Shale formation. The determination of the Mancos Shale Formation, as a competent strata shall be made by the Geotechnical Engineer.

The keyway shall be located directly beneath the crest of the embankment. The keyway shall be a minimum of 3 feet wide and a minimum of 12 inches below the designated top of the Mancos Shale Formation.

The keyway shall be constructed the length of the embankment, minus the construction endslopes, as required by the following EMBANKMENT FILL SPECIFICATIONS.

The embankment is to be limited to a maximum height of 10 feet, as measured from the bottom of the keyway. It is assumed a maximum retained water surface shall not exceed 9 feet above the bottom of the keyway.

The embankment soils are to be placed in strict accordance with the following EMBANKMENT FILL SPECIFICATIONS.

EMBANKMENT FILL SPECIFICATIONS

PREPARATION OF AREAS TO RECEIVE FILL

Areas where excavation or fill is required shall be cleared of trees, stumps, roots, brush, sod, topsoil, vegetation and other objectionable materials to minimum depth of six (6) inches, or sufficient to remove all detrimentally organic material. The cleared materials, other than those materials suitable for topsoil, shall be legally disposed of.

Any abandoned, buried structures encountered during grading operations shall be totally removed or otherwise rendered harmless for the proposed purposes of the fill, unless other specific recommendations have been provided. The resulting depressions from the above described procedures shall be backfilled with soil uniformly compacted in accordance with the recommendations in the body of this report. This includes, but is not limited to, septic tanks, fuel tanks, sewer lines or leach lines, storm drains and water lines. Any buried structures or utilities not to be abandoned shall be investigated by the Geotechnical Engineer to determine if any special recommendation will be necessary.

All water wells which will be abandoned shall be backfilled and capped in accordance with the requirements of the Health Department. The top of the cap should be at least 4 feet below finished grade or 3 feet below the bottom of footing, whichever is greater. The type of cap will depend on the diameter of the well and shall be determined by the Geotechnical Engineer and/or a qualified Structural Engineer

FILL MATERIAL

Materials placed in the fill shall be approved by the Geotechnical Engineer and shall be free of vegetable matter, frozen material, and other deleterious substances. No material over 6 inches in maximum dimension shall be placed in fill unless special recommendations are provided by the Geotechnical Engineer. Granular soil shall contain sufficient fine material to fill enough voids to provide a stable fill. The definition and disposition of oversized rocks, expansive and/or detrimental soils are given in the site soils report. Expansive soils, soils of poor gradation, or soils with low strength characteristics may be thoroughly mixed with other soils only if specific recommendations have been provided by the Geotechnical Engineer. Any import material shall be approved by the Geotechnical Engineer before being brought to the site.

PLACING AND COMPACTING FILL

After clearing or benching, the natural ground in areas to be filled shall be observed by the Geotechnical Engineer to determine the presence of any adverse unanticipated conditions. The areas not excavated to the Mancos Shale Formation shall be scarified to a depth of 6 inches, cleared of oversized material, brought to the proper moisture content, compacted and tested.

The distribution of the material in the embankment fill shall be such as to avoid the formation of lenses, or layers of material differing substantially in charac-

teristics from the surrounding material. The materials shall be delivered to the fill surface at a uniform rate and in such quantity as to permit a satisfactory construction procedure. Unnecessary concentration of travel tending to cause ruts and uneven compaction shall be avoided. Before placing each successive layer, all ruts and other hollows more than six (6) inches in depth shall be regraded and compacted. Fill material shall be spread by approved methods in approximately horizontal lifts. These lifts shall not be greater than eight (8) inches in thickness after compaction. Thicker lifts may be used only if it can be demonstrated adequately in the field, by a test section, that uniform compaction can be achieved. The material in each layer, while being compacted, shall be at approximately optimum moisture content, as determined by the Geotechnical Engineer's field representative.

As moisture is added to the material in each layer, it shall be thoroughly mixed into the layer by suitable equipment prior to compaction. If, in the opinion of the Geotechnical Engineer, the moisture content cannot be uniformly obtained by adding water on the fill surface, the moisture shall be added in the borrow excavation. Water used during earthwork shall be obtained in accordance with the provisions of the regulations of the agency governing the use of water and water meters.

When the moisture content and condition of each spread layer is satisfactory, it shall be compacted by an approved method to the recommended relative compaction based on the appropriate laboratory test.

SLOPE COMPACTION

When the slope of the natural ground receiving fill exceeds 20% (5 horizontal units to 1 vertical unit), the original ground shall be stepped or benched. Benches shall be cut to firm, competent soil. The horizontal portion of each bench shall be compacted prior to receiving fill as previously recommended for compacted natural ground. Ground slopes flatter than 20% shall be benched when considered necessary by the Geotechnical Engineer.

Fill slopes shall be compacted by approved equipment to the relative compaction specified in the Geotechnical Report. Compacting the slope surface may be done progressively in increments of three to five feet in fill height or after the fill is brought to its total height. The interior shall be compacted by the "horizontal" methods previously outlined. Slopes having a horizontal to vertical ratio steeper than 2:1 shall be overfilled by at least 5 feet and then cut back to the desired slope ratio.

CUT SLOPES

The Geotechnical Engineer will observe all cut slopes during the grading operations at intervals determined at his discretion. If any conditions not anticipated in the geotechnical report, including but not limited to; perched water, seepage, lenticular or confined strata of a potentially adverse nature, unfavorably inclined bedding, joints or fault

planes are encountered during grading, these conditions shall be analyzed by the Geotechnical Engineer to determine if mitigating measures are necessary.

DENSITY TESTS

Field density tests shall be made by the representative of the Geotechnical Engineer. The location and frequency of the tests shall be at the Geotechnical Engineer's discretion. In general, the density tests shall be made at an interval not exceeding two feet in vertical rise and/or 500 cubic yards of embankment. If any density test indicates any part of the layer does not meet the required density, that portion of the layer shall be reworked until the required density is obtained. The Geotechnical Engineer will provide a final completion report on the fill work.

SEASONAL LIMITS

No fill shall be placed, spread or rolled while it is frozen or thawing or during other unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until the Geotechnical Engineer indicates that the moisture content and density of the previously placed fill are as specified. Fill surfaces shall be scarified and recompactd after rainfall, if necessary, to obtain the proper moisture content and density within the cover layer at the time of the rain.

LIMITATIONS

This report is issued with the understanding that it is the responsibility of the owner, or his representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and are incorporated into the plans. In addition, it is his responsibility that the necessary steps are taken to see that the contractor and his sub-contractors carry out these recommendations during construction. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in acceptable or appropriate standards may occur or may result from legislation or the broadening of engineering knowledge. Accordingly, the findings of this report may be invalid, wholly or partially, by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 3 years.


The recommendations of this report pertain only to the site investigated and are based on the assumption that the soil conditions do not deviate from those described in this report. If any variations or undesirable conditions are encountered during construction or the proposed construction will differ from that planned on the day of this report, Lincoln DeVore should be notified so that supplemental recommendations can be provided, if appropriate.


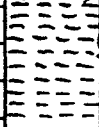
Lincoln DeVore makes no warranty, either

expressed or implied, as to the findings, recommendations, specifications or professional advice, except that they were prepared in accordance with generally accepted professional engineering practice in the field of geotechnical engineering.

DEPTH (FT)	SYMBOL	SAMPLE	BORING NO. 1		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
			ELEVATION: East Abutment 4720'				
			DESCRIPTION				
			Old Soil Fill - Some Debris on Surface Low Density - Some Cobble Sizes				
5			Native SILTY CLAY DEBRIS FAN DEPOSIT Low Density - <u>VERY MOIST</u> Scattered gravels - sulfates		S.T.	102.5	15.3%
10					BULK		17.4%
			Manos Shale @ 12' Expansive T.D. @ 13' High sulfates - <u>Very Moist</u> SILTY CLAY Increasing Density/Hardness w/DEPTH		S.T.	117.5	15.4%
15							
			No FREE WATER DURING DRILLING				
			3-5-93				

LOG OF SUBSURFACE EXPLORATION

 Lincoln DeVore, Inc. Geotechnical Consultants	RETENSION POND EMBANKMENT	
	PARMIGAN RIDGE #6	DATE 5-18-93
	JOB NO. 27495-J	DRAWN EHM

DEPTH (FT)	SYMBOL	SAMPLE	BORING NO. 2 (EXPLORATION PIT)		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
			ELEVATION: MAX EMBANKMENT SEC. 4714'				
			DESCRIPTION				
5			Organic clay-silty clay - soft Some Gravels SILTY CLAY - ALLUVIAL - LOW DENSITY VERY MOIST TO WET VERY PLASTIC - VERY WEATHERED SHALE				
			MANCOS SHALE - WEATHERED - SULFATES FREE WATER ON FRACTURE FACES EXPANSIVE - HARD - SOME SILTY STRATS		S.T. S.T.	108.6 116.3	18.8 18.2
10			FREE WATER ON SHALE FRACTURE PLANES EXCAVATED ON 3-5-93				

LOG OF SUBSURFACE EXPLORATION



Lincoln DeVore, Inc.
Geotechnical Consultants

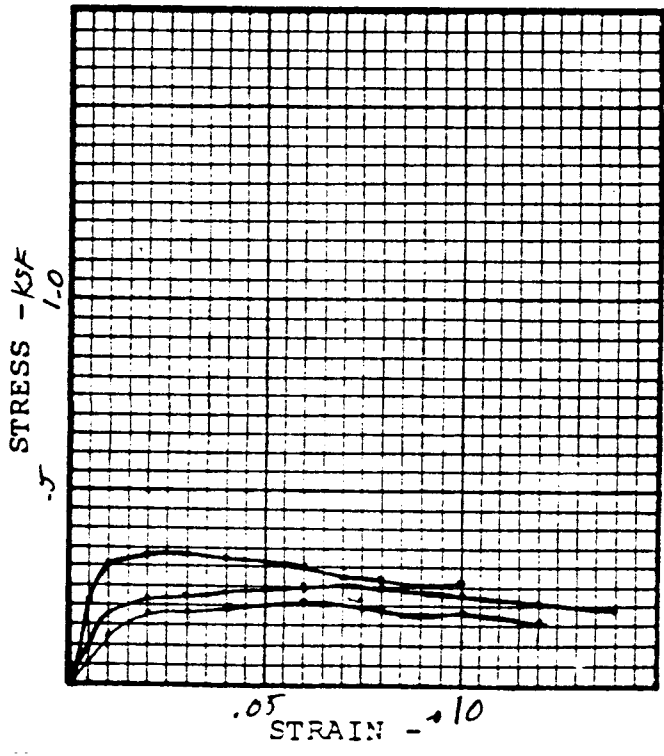
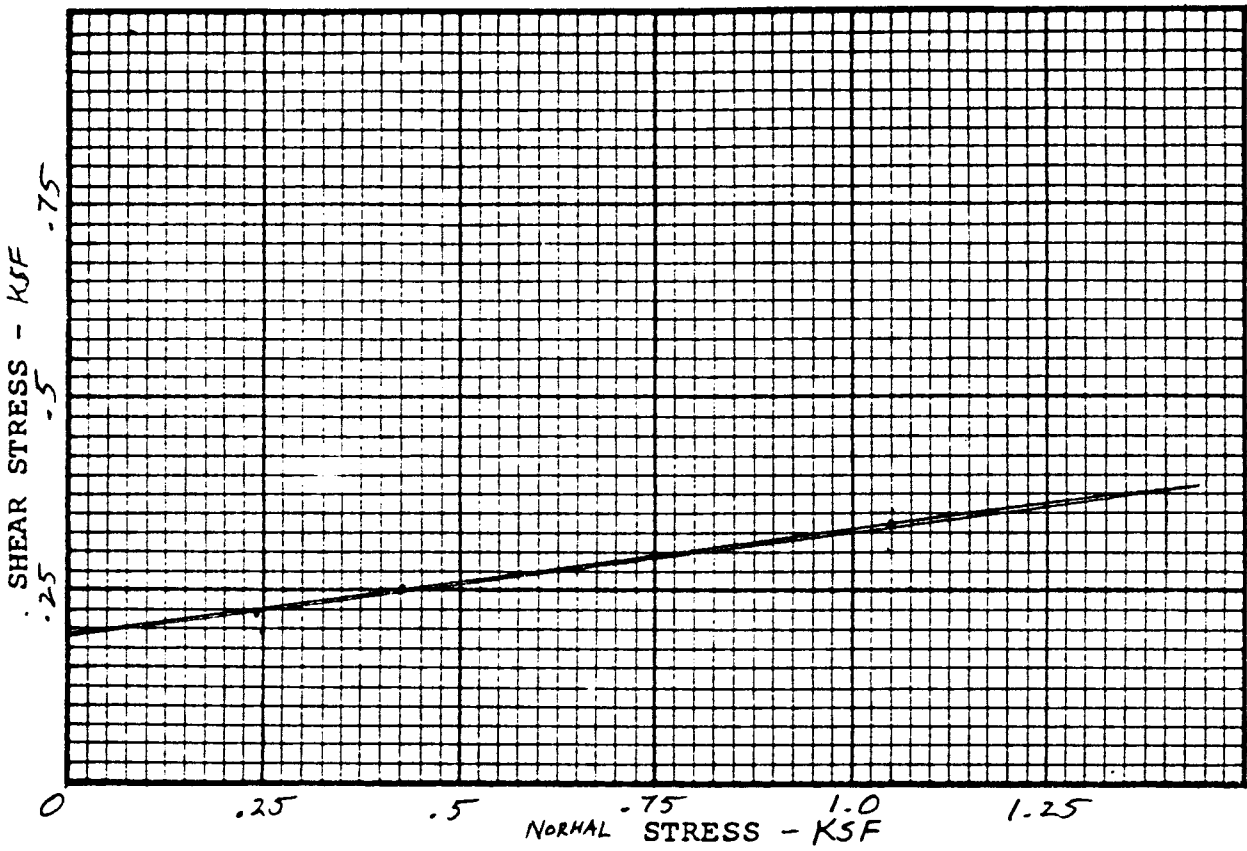
RETENTION POND EMBANKMENT

PTARMIGAN RIDGE # 6

DATE
5-10-93

JOB NO.
77495-J

DRAWN
FMM



Test	1	2	3
NORMAL LOAD PSF	242	425	1058
SHEAR STRESS PSF	220	250	332
Dry Density-pcf	110.4	111.7	111.1
Moisture - %	21.9	21.3	20.5

DENSITY & MOISTURE - AFTER CONSOLIDATION

Type Test Cd
 c 190 psf
 ϕ 7° 40'
 tan ϕ .135
 N ϕ _____

$r = .9989$ $m = .1353$ $b = 190$



Lincoln DeVore, Inc.
 Geotechnical Consultants

BORROW SOILS - RETENTION POND		
PTARMIGAN RIDGE # 6		DATE 3-13-93
JOB NO. 77425-J	DRAWN EHM	

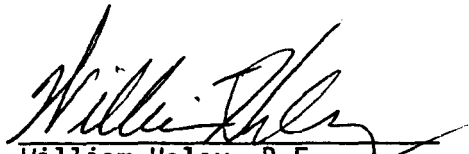
RUNOFF AND DRAINAGE PLAN
FILING 6 SUPPLEMENT

Prepared by
WH ENGINEERING
Grand Junction, Colorado
March, 1993

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

MAR 22 1993

"I hereby certify that this report (plan) for the storm drainage design for Ptarmigan Ridge North Subdivision, Filing 6, was prepared by me."



William Heley, P.E.
Registered Professional Engineer
State of Colorado, Number 12364

March 22, 1993



Runoff Determination

To size the detention pond and determine its outlet characteristics, the historic and developed runoff must be calculated.

Historic:

Historic (present) land use is fallow farm land, grown up in weeds and light brush. One house and related outbuildings, driveway, and lawn occupy approximately one acre adjacent to 27.5 Road. A small pond exists at the southwest edge of this lot which serves as an irrigation reservoir. A ditch runs from this reservoir westward to the bluff where it exits the property and joins a natural drainage channel.

The land has been planed to facilitate row irrigation, and the excess material has been dumped over the edge of the bluff to extend the planed surface. This unconsolidated material shows some signs of sloughing.

Soil types are the same as the rest of Ptarmigan--- B & C.

Overall slope is 1 to 1.5%, steeper on the eastern side. The land drops from the bluff at up to 30%.

Runoff from the north half follows the existing drainage ditch. However, land along the edge of the bluff probably drains toward the steep slope. (No perimeter collection ditch was evident at the time of field inspection, but probably was there when irrigating was done.) Approximately 4.6 acres naturally drain via the ditch. Another 5 acres south of the ditch drains to the west.

Areas included in these calculations do not include the steep slope which are unaffected by development. Figure 1 shows these drainage areas.

I visited the site on Feb. 25, following several days of intermittent precipitation and found signs of recent runoff from the site, although there were about two feet of water in the courtland retention basin from upstream runoff.

Calculations of runoff were made using the HEC-1 simulation program. Input data for the simulation were developed in the appendix to this supplement. Precipitation data were directly input from the storm given in the Drainage Design Criteria guide.

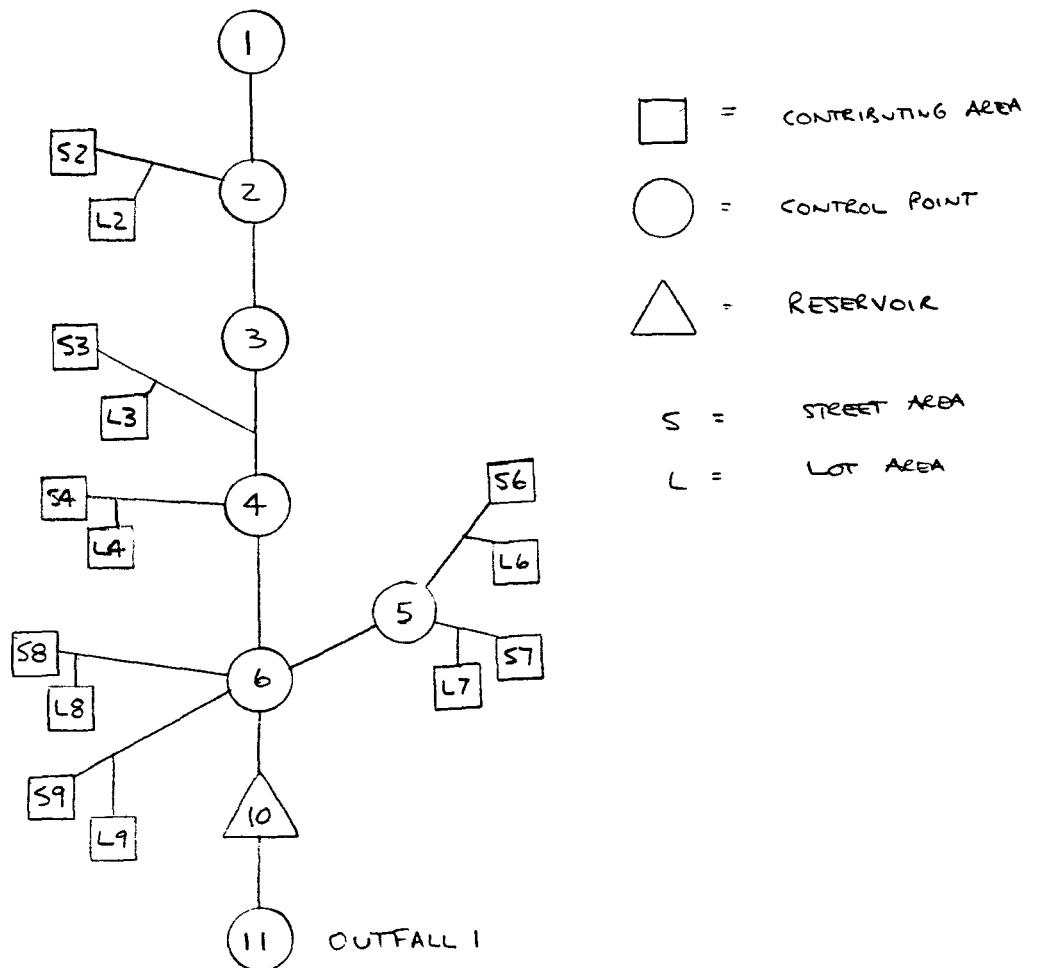
The HEC-1 printouts are included in this report. In summary, the 2 year storm peaked at just over one hour but registered as zero, presumably indicating less than .5 cfs. The 100 year storm peaked at 3 cfs, again at just over one hour.

Developed Runoff:

The developed condition for Filing 6 consists of a major reorganization of runoff. The streets redefine flow paths and construction significantly changes the amount of runoff, as well as runoff time.

Most of the flow will be carried to the same point of discharge as the historic drainage ditch employs. There, flow will be moderated by a detention basin which will regulate the outflow to historic levels. Some development will occur downstream from the collection system, but this will be offset by redirecting flow from 3 upstream acres through the detention pond.

The drainage system is represented in the following schematic network, whose areas and control points are shown on Figure 2 and employed in the HEC-1 analysis. Sub-basin characteristics are developed in the appendix.



In summary, the total flows for the developed 2 year case are 6.6 cfs, and for the developed 100 year case are 15 cfs.

DENTENTION BASIN DESIGN

The detention basin is located at the northern edge of the property as shown on the drawing Figure 3. It consists of a six ft high embankment drained by a combination outlet, with a low level, mid level, and overflow spillway.

The embankment site was investigated by a geotechnical engineer and determined suitable for construction of this facility, with specific construction criteria defined and included as necessary for safety of the embankment structure.

General design of the detention basin and outlet is subject to revision pending review by the Development Engineer, since minimum outlet sizing can lead to plugging, and potential operational problems.

Water enters the basin from street gutter flow as shown on the general grading and drainage plan. A drop inlet and 12 inch under drain carries water from the south side of the street to the detention channel. Most of the water flows on the north side of the street, and will drain directly to the detention channel. It will not join the same pipe as the south side flow conduit.

CALCULATION APPENDIX

TO SIZE THE DETENTION POND AND DETERMINE ITS OUTLET CHARACTERISTICS, THE HISTORIC AND DEVELOPED RUNOFFS MUST BE CALCULATED.

HISTORIC

HISTORIC (PRESENT) LAND USE IS FALLOW FARM LAND, GROWN UP IN WEEDS AND LIGHT BRUSH. ONE HOUSE AND RELATED OUTBUILDING, DRIVEWAY AND LAWN AREA OCCUPY APPROXIMATELY 1 ACRE ADJACENT TO 27½ ROAD. A SMALL POND EXISTS AT THE SOUTHWEST EDGE OF THIS LOT WHICH SERVES AS AN IRRIGATION RESERVOIR. A DITCH RUNS FROM THIS RESERVOIR WESTWARD TO THE BLUFF WHERE IT EXITS THE PROPERTY AND JOINS A NATURAL DRAINAGE CHANNEL.

THE LAND HAS BEEN PLANED TO FACILITATE ROW IRRIGATION, AND THE EXCESS MATERIAL HAS BEEN DUMPED OVER THE EDGE OF THE BLUFF TO EXTEND THE PLANED SURFACE. THIS UNCONSOLIDATED MATERIAL SHOWS SOME SIGNS OF SETTLING, BUT NO INSTABILITY OR SLOUGHING IS EVIDENT.

SOIL TYPES ARE THE SAME AS THE REST OF PTARMIGAN - B&C.

OVERALL SLOPE IS 1 TO 1.5%, STEEPER TOWARD THE EAST, AND THEN DROPPING DOWN ≈ 10% GRADE OFF THE PROPERTY.

RUNOFF FROM THE NORTH FOLLOWS THE EXISTING DITCH. HOWEVER, LAND ALONG THE EDGE OF THE BLUFF PROBABLY DRAINS TOWARD THE STEEP SLOPE. (NO PERIMETER COLLECTION DITCH WAS EVIDENT AT THE TIME OF FIELD INSPECTION, BUT PROBABLY WAS THERE WHEN IRRIGATING WAS DONE). APPROXIMATELY 4.6 ACRES NATURALLY DRAIN VIA THE DITCH. ANOTHER 5 ACRES SOUTH OF THE DITCH DRAINS TO THE WEST.

AREAS INCLUDED IN THESE CALCULATIONS DO NOT INCLUDE THE STEEP SLOPE ZONES WHICH ARE UNAFFECTED BY DEVELOPMENT.

I VISITED THE SITE TODAY FOLLOWING SEVERAL DAYS OF INTERMITTENT PRECIPITATION AND FOUND NO RUNOFF FROM THE SITE ALTHOUGH THERE WERE ~ 2 FT OF WATER IN THE RETENTION BASIN FROM UPSTREAM RUNOFF.

HISTORIC CONT'D

NORTH AREA : 4.65 ACRES CN 70
 SLOPE : DITCH 1.1 %
 UPLAND 2 %
 L = 875'

SOUTH AREA : 5.01 ACRES CN 70
 SLOPE 0.9 %
 L = 900'

TLAG For HEC-1

NORTH $T_{02} = \frac{0.42 (NL)^{0.8}}{S^{0.4}} = (0.42)$

APP. C PL6FS CRIT. MANUAL
 N = 0.07
 L = 300'
 S = .015

$T_{02} = \frac{0.42 (11.42)}{.186} = 25.8 \text{ minutes}$

$T_{ch} = 0.5 \text{ fps} \times 575' = 4.79 \text{ minutes}$

$\therefore T_{c2} = T_{02} + T_{ch2} = 25.8 + 4.8 = 30.6 \text{ min.}$

USING LAG FORMULA $L = .6 T_c$ (TR-55 (1975))

$TLAG = .6 \times 30.6 = 18.36 \text{ min}$
 $= 0.306 \text{ Hrs}$

SOUTH

$T_{02} = \frac{(0.42)(11.42)}{.160} = 30 \text{ min}$

N = 0.07
 L = 300
 S = .009

$T_{ch} = (.5)(600) = 300 \text{ sec} = 5 \text{ min}$

$T_c = 30 + 5 = 35$

$TLAG = (.6)(35) = 21 \text{ min (0.350 hr)}$

FOR THE 100 year Storm

(CRITERIA MANUAL)

$$T_{0_{100}} = \frac{0.26 (NL)^{.8}}{S^{.4}}$$

SINCE THIS IS SIMPLY A FACTOR OF $\frac{26}{42}$ OF THE 2 year case, T_0 is calculated by

$$T_{0_{100}} = .619 T_{0_2}$$

NORTH: $T_{0_{100}} = (.619)(26) + 4.8 = 21 \text{ minutes}$

$$T_{LAG_{100}} = (.6)(21) = 12.6 \text{ minutes}$$

$$(0.21 \text{ hrs})$$

SOUTH

$$T_{0_{100}} = (.619)(30) + 5 = 23.6 \text{ minutes}$$

$$T_{LAG_{100}} = 14.1 \text{ minutes } (0.235 \text{ hrs})$$

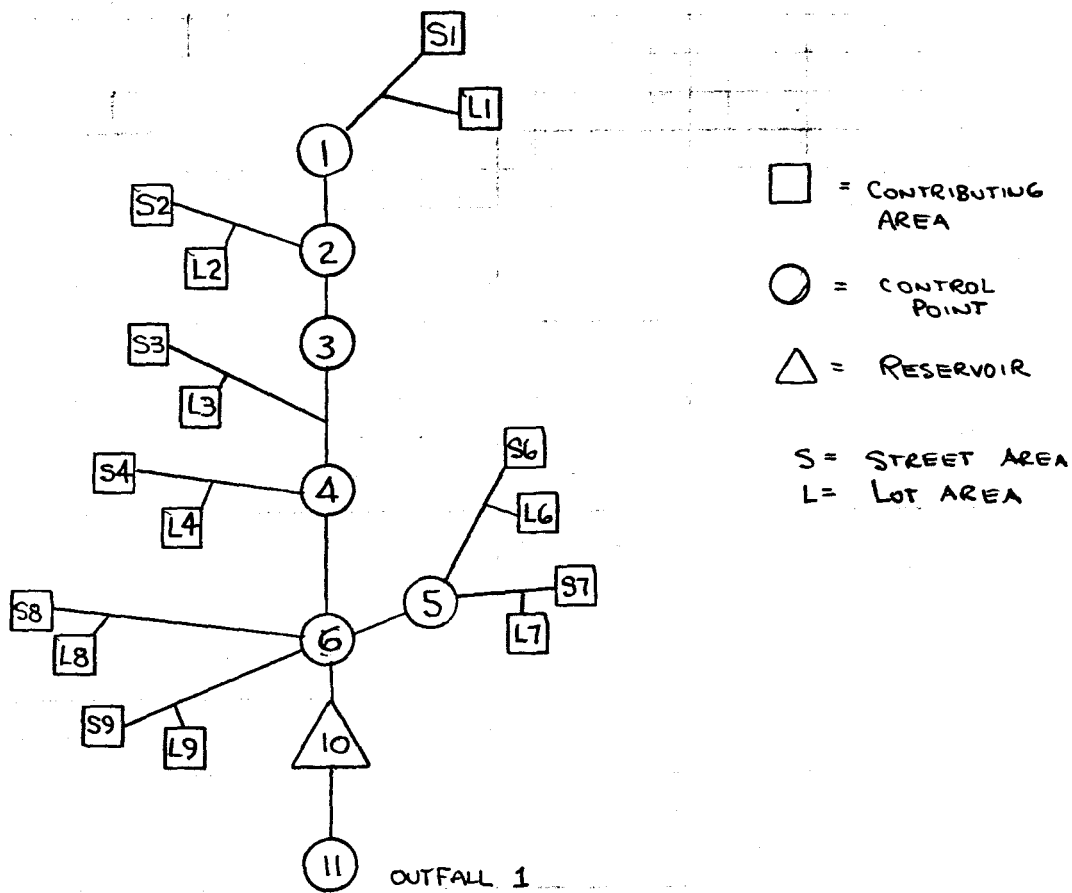
USE THESE TIMES IN HEC-1 DATA.

DEVELOPED CASE

THE DEVELOPED STATE FOR FLING 6 CONSISTS OF A MAJOR REORGANIZATION OF RUNOFF. THE STREETS REDEFINE FLOW PATHS AND THE NEW CONSTRUCTION SIGNIFICANTLY CHANGES THE AMOUNT OF RUNOFF.

MOST OF THE FLOW WILL BE CARRIED TO THE SAME POINT OF DISCHARGE THAT THE PRESENT DITCH EMPLOYS. THERE IT WILL BE MODERATED BY A DETENTION BASIN WHICH WILL REGULATE THE OUTFLOW TO HISTORIC LEVELS. SOME DEVELOPMENT WILL OCCUR DOWNSTREAM FROM THE DRAINAGE SYSTEM, BUT THIS WILL BE OFFSET BY REDIRECTING FLOW FROM 3 UPSTREAM ACRES THROUGH THE DETENTION POND.

THE DRAINAGE SYSTEM IS REPRESENTED IN THE FOLLOWING SCHEMATIC NETWORK



THESE AREAS AND CONTROL POINTS ARE SHOWN ON FIGURE 2.

42,381 50 SHEETS 1 SQUARE
42,382 100 SHEETS 1 SQUARE
42,383 200 SHEETS 1 SQUARE



LH FEB 27, 1993

PARMIGIANI NORTH
FLUID 6

RUNOFF DETERMINATION

5

SUB BASIC CHARACTERISTICS

SI = STREET 1
MAX. LENGTH 475 FT
AREA OF STREET = 0.461 ACRES
(Flow Line) SLOPE: ~ 1.5%
= 0.0007 sq mi.

CROSS SLOPE: 1.5 %
CROSS LENGTH: 15.5'

L1 = LOT AREA 1

SqL. FAM. RES.

13,400
29,488
43,587
1,230
87,105 => 2.01 ACRES
= 0.0031 sq miles

Town House:

~ 23,613 ESIDE RES. LANE
~ 10,000 cu det. Sec
33,600 => 0.771 ACRES
= 0.0012 sq miles

CURVE NUMBER:

SqL. FAM. RES. 2yr Area
Town House: 82 .7
STREET 90 .46
98

Weighted Curve No.

82 x 2 = 164
90 x .7 = 63
98 x .46 = 45
272 ÷ 3.16 = 86

3.76 =
.0049 sq mi

$T_c = T_0 + T_{ch}$

$$T_0 = \frac{.42 (NL)^{.8}}{S^{0.4}} = \frac{(.42) [(1 \times 80)]^{.8}}{.01^{.4}} = \frac{2.21}{.158} = 14$$

N = 675 = 0.1
L = Lot Length = 80' Max
S = 1% → 2%

$T_{ch} = N = 2.5$ ref APC
L = ~ 475' = 190 sec = 3.16 min

$T_{c,100} = .619 T_0 + T_{ch}$
 $T_{c,2} = 17.2$ min
 $T_{c,100} = 11.8$ min
 $T_{c,100} = 6.4$ min

SUB-BASIN CHARACTERISTICS CONT'D

$S_2 =$ STREET 2
 MAX LENGTH = 262'
 Slope = 1.5%
 AREA OF PAVEMENT = .140 ACRES CN 98

$L_2 =$ TOWNHOUSE LOTS 19,900 SF
 = .456 ACRES

LOT WIDTH = 80'
 Slope = 1% CN 90

WEIGHTED CURVE NO :

$$\begin{aligned} (.456)(90) &= 41.11 \\ (.140)(98) &= 13.72 \\ \hline 54.83 &\div .596 \end{aligned}$$

= 92
 TOTAL AREA = .6 ACRES

$T_c = T_o + T_{ch}$

$$T_o = \frac{.42(NL)^{.8}}{S^{.4}} = \frac{(.42)(5.27)^{.8}}{.158} = 14$$

N = 0.1
 L = 80
 S = .01

$T_{ch} = 262' \div 2.5 \text{ fps} = 104.8 \text{ sec or } 1.74 \text{ min}$

$\therefore T_c = 15.74 \text{ min say } 16$

$T_{c100} = 10.4 \text{ min say } 11$

$T_{LAG} = .6 T_c$

$T_{LAG2} = 9.6 \text{ min}$

$T_{LAG100} = 6.6 \text{ min}$

42,381 50 SHEETS 5 SQUARE
 42,382 100 SHEETS 3 SQUARE
 42,383 200 SHEETS 3 SQUARE
 MADE IN U.S.A.



SUB-BASIN CHARACTERISTICS CONT'D

S_3 : STREET
 MAX LENGTH = 420 feet
 STREET & CURB AREA = .321 ACRES
 Slope = 1.5%

L_2 : TOWNHOUSE LOTS 19,900 sf
 = .456 ACRES
 Lot width = 80'
 Slope = 1%

Weighted Curve No.

$$\begin{array}{r} (.456)(90) = 41.04 \\ (.321)(98) = 31.46 \\ \hline .777 \quad \div \quad \hline 72.50 \end{array}$$

$$CN = 93.3 \text{ say } 93$$

$$AREA = .78 \text{ ACRES} = .0012 \text{ sq. mi}$$

T_c

$$T_0 = 14$$

$$T_{ch} = 420' \div 2.5 \text{ fps} = 168 \text{ sec} = 2.8 \text{ minutes}$$

$$\text{So } T_c = 16.8 \text{ minutes}$$

$$T_{c_{100}} = 11.5 \text{ minutes}$$

$$T_{Lag} = .6 T_c$$

$$T_{Lag_2} = 10.1 \text{ min}$$

$$T_{Lag_{100}} = 7 \text{ min.}$$

SUB BASIN CHARACTERISTICS CONT'D

S_4 = STREET 4
 Max LENGTH = 612 ft
 STREET & CURB AREA = .41 ACRES $CN = 98$
 Slope = 1.0% \rightarrow 1.5%
 (380') (232')

Lot₄ = TOWNHOUSE LOTS 82,900 SF \pm
 = 1.90 ACRES
 Lot WIDTH 80'
 Slope = 1% $CN = 88$ (slightly larger lots!)

Weighted Curve No. :

$$\frac{(0.41)(98)}{2.31} = \frac{40.1}{2.31}$$

$$\frac{(1.90)(88)}{2.31} = \frac{167.2}{2.31}$$

$\bar{C}N = 90$
 AREA = 2.31 ACRES
 = .0036 sq. mi.

$T_c =$

$T_{b_2} = 14$

$$T_{ch} = \frac{(380)}{ft} \div \frac{(2.0)}{fps} + \frac{232}{ft} \div \frac{2.5}{fps} =$$

$$190 \qquad\qquad\qquad 92.8 \qquad = \begin{matrix} 282.8 \text{ SEC} \\ 4.71 \text{ MIN} \end{matrix}$$

So $T_{c_2} = 18.7$ or 19 min

$T_{c_{100}} = 13.37$ or 13 min

$T_{Lag} = .6 T_c$

$T_{Lag_2} = 11.4$ min say 11

$T_{Lag_{100}} = 7.8$ say 8

SUB-BASIN CHARACTERISTICS CONT'D

NO BASIN 5 IN SCHEME - ONLY CONTROL POINT.

S6 : STREET 6
 MAX LENGTH 175 FT ±
 STREET & CURB AREA = .128 ACRES CN = 98
 SLOPE = .8%

LG : PLANIMETERED AREA = 1.43
 SINGLE FAMILY $\div .25$
 5.2 sq in \rightarrow 0.3 ACRES CN = 75
 CN IS LOW BECAUSE ONLY 1 HOUSE IS WITHIN
 THIS LOT AREA.

WEIGHTED CURVE NUMBER:

$$\begin{array}{r} (.13)(98) = 12.74 \\ (.30)(75) = 22.50 \\ \hline .43 \qquad \qquad 35.24 \end{array}$$

$$\begin{array}{l} \overline{CN} = 82 \\ \text{AREA} = .43 \text{ ACRES} \\ = .00067 \text{ sq miles} \end{array}$$

$$\begin{aligned} T_c &: T_{c2} = \frac{.42(NL)^{.8}}{S^{.4}} \\ N &= .05 \\ L &= 100 \text{ ft} \\ S &= .5\% \\ &= \frac{.42[(.05)(100)]}{.120} \\ &= \frac{(.42)(3.63)}{.120} \\ &= 12.7 \\ T_{ch} &= 175 \text{ ft} \div 1.7 \text{ fps} = 100 \text{ SEC} = 1.7 \text{ min} \end{aligned}$$

$$\therefore T_{c2} = 12.7 + 1.7 = 14.4 \text{ min}$$

$$T_{c_{100}} = 9.6 \text{ min} \Rightarrow 10$$

$$T_{LAG2} = (.6)(14.4) = 8.6 \text{ min}$$

$$T_{LAG100} = (.6)(10) = 6 \text{ min}$$

Sub-BASIN CHARACTERISTICS CONT'D

S7 : STREET 7 CN = 98
 MAX LENGTH: 740 FT
 STREET & CURB AREA: .51
 Slope = 1%

L7 : 1/4 ACRE LOTS 59,560 SF = 1.37 ACRES
 Lot width = L = 105' CN = 80
 N = 0.05 ?
 Slope = .5% ?

Weighted Curve Number:

$$\frac{(.51)(98)}{1.88} = \frac{50.}{159.6}$$

$$\frac{(1.37)(80)}{1.88} = \frac{109.6}{159.6}$$

$$CN = \frac{159.6}{1.88} = 84.9 \text{ say } 85$$

$$AREA = 1.88 A = .0029 \text{ sq. mi}$$

$T_c:$

$$T_{0.2} = \frac{.42 (NL)^{.8}}{S^4} = \frac{(.42)((.05)(105))^{.8}}{.005^4} = \frac{(.42)(9)}{.12} = 31$$

if use S = 1% $= \frac{(.42)(9)}{.158} = 24$

$T_{ch} = 740 \text{ ft} \div 2 \text{ fps} = 370 \text{ sec.}$
 $= 6.2$

$T_{c_2} = (24)(6.2) \text{ say } 30 \text{ min}$

$T_{c_{100}} = 20.6 \text{ min say } 21 \text{ min}$

$T_{L_{2g_2}} = .6 T_{c_2} = 18 \text{ min.}$

$T_{L_{2g_{100}}} = .6 T_{c_{100}} = 12.6 \text{ min}$

SUB-BASIN CHARACTERISTICS CONT'D

S8 STREET 8
MAX LENGTH: 260 FEET CN = 98
STREET & CURB AREA: .13 ACRES
Slope = .8%

L8 LOT 8
AREA = 1.4 - .25 = .32 ACRES
N = .01
L ≈ 80'
Slope = 1%

THESE LOTS HAVE A GREATER PROPORTION OF IMPERVIOUS AREA SINCE ROOF & DRIVEWAYS ARE INCLUDED BUT BACKYARDS ARE NOT.
∴ CN = 90 I.E. TOWNHOMES.

WEIGHTED CURVE NUMBER :

(.13)(98)	12.74
(.32)(90)	28.80
.45	<u>41.54</u>

(8)

CN = 92
AREA = .45 ACRES
= .0007

$$T_c : T_{02} = \frac{(.42 [L \cdot N]^{.8})}{.01^{.4}} = \frac{(.42)(527)}{.158} = 14.00$$

$$T_{CH} = 260 \div 1.8 \text{ fps} = 144 \text{ SEC} = 2.4 \text{ MINUTES}$$

$$T_c = 14 + 2.4 = 16.4 \text{ min.}$$

$$T_{c100} = 8.66 + 2.4 = 11 \text{ min}$$

$$T_{Lag2} = 9.84 \text{ say } 10 \text{ minutes}$$

$$T_{Lag100} = 6.6 \text{ minutes say } 7.$$

SUB-BASIN CHARACTERISTICS - CONT'D:

S9

STREET 9

MAX. LENGTH 175 FT

STREET & CURB AREA: .122 ACRES CN 98

SLOPE: .8%

L9

LOT 9

SINGLE FAMILY
PLANIMETERED AREA - .34 ACRES

SLOPE = 0.5%

LOT WIDTH (DRAINED WIDTH) \approx 50' CN = .90

N = 0.1

WEIGHTED CURVE NUMBER

$$(.122)(98) = 11.95$$

$$(.34)(90) = 30.6$$

$$\frac{11.95}{.46} = \frac{30.6}{.46} = 42.5$$

$$\overline{CN} = 92$$

$$AREA = .46 ACRES$$

$$= .0007 \text{ sq miles}$$

 T_c :

$$T_o = \frac{.42(NL)^{.8}}{S^{.4}} = \frac{.42(NL)^{.8}}{S^{.4}} = \frac{(.42)(3.63)}{.12} = 12.7 \text{ minutes}$$

$$T_{ch} = 175' \div (1.8) = 97 \text{ SEC} = 1.62 \text{ min}$$

$$\therefore T_{c_2} = 12.7 + 1.6 = 14.3 \text{ min}$$

$$T_{c_{100}} = 9.5 \text{ min}$$

$$T_{LAG_2} = 8.6 \text{ min}$$

$$T_{LAG_{100}} = 5.7 \text{ min say } 6$$

NEED TO DETERMINE C_d (MOD. RATIONAL METHOD)

CALCULATE CN_D and Convert Back.

	AREA (ACRES)	CN	CN A
S1	3.16	86	272
S2	0.60	92	54.8
S3	0.78	93	72.5
S4	2.31	90	207.3
S6	0.43	82	35.2
S7	1.83	85	159.6
S8	0.45	92	41.5
S9	.46	92	42.5
	<u>10.07</u>		<u>885.4</u>

$$\frac{885.4}{10.07} = 87.9 \text{ SAY } 88$$

THIS CONVERSION IS NOT TABULATED IN MY REFERENCES

BUT FOR 100yr STORM $C = .75$
(88)
(D)

[IGNORE THE 2YR STORM SINCE Q 'S ARE SO LOW]

$$T_{D100} = \left[\frac{2925 C_D A}{Q_0 - \frac{Q_0^2 T_{C_D}}{234 C_D A}} \right]^{.5} - 25$$

Where $C_D = .75$

$A = 10.07$

$Q_0 = 6.6 \text{ cfs}$ [FROM HEC1 - F6100Y1H]

$T_{C_D} \cong 12 \text{ min}$ [FROM SUB-BASIN CALCS
10 → 20 min]

$$T_{D100} = \left[\frac{(2925)(.75)(10.07)}{6.6 - \frac{(6.6)(6.6)(12)}{234 (.75)(10.07)}} \right]^{.5} - 25$$

= 34.21 minutes

$$I_{d_{100}} = \frac{417}{59.21} = 1.97$$

$$Q_d = (0.75)(10.07)(1.97)$$

$$= 14.92$$

HEC 1 \Rightarrow 15 OK

$$K = 1$$

$$V = 66 \left[Q_d T_d - Q_o T_d - \frac{Q_o T_{c_o}}{2} + \frac{Q_o^2 T_{c_o}}{2 Q_o} \right]$$

$$= \text{DETENTION STORAGE REQ'D.}$$

$$= 66 \left[(15)(34.2) - (6.6)(34.2) - \frac{(6.6)(12)}{2} + \frac{(6.6)^2(12)}{2(15)} \right]$$

$$= 66 [513 - 226 - 39.6 + 17.4]$$

$$= 66(264) = 17,476 \text{ cf.}$$

$$\left[647 \text{ cubic yds} \right]$$

TO SIZE THE SMALL OUTLET (2 YEAR CRITERIA) SOME STORAGE FOR THE 2 YEAR EVENT MUST BE KNOWN IN ORDER TO DETERMINE THE EFFECTIVE HEAD ON THE DRAIN FOR THIS RESERVOIR.

$$V = 66 \left[Q_{d2} T_{d2} - Q_0 T_{d2} - \frac{Q_0 T_{cd2}}{2} + \frac{Q_0^2 T_{cd2}}{2 Q_{d2}} \right]$$

where $T_{d2} = \left[\frac{(633.4)(.75)(10.07)}{Q_0 - \frac{Q_0^2 T_{cd2}}{(81.2)(.75)(10.07)}} \right]^{\frac{1}{2}} - 15.6$

$T_{cd} = 14.3$

$Q_0 = .5 \text{ cfs (HEC-1)}$

$\boxed{< 1.00 \text{ cfs}} \text{ ? ?}$

$$= \left[\frac{(633.4)(.75)(10.07)}{.5 - \frac{(.25)(14.3)}{(81.2)(.75)(10.07)}} \right]^{\frac{1}{2}} - 15.6$$

$$= \left[\frac{4,783}{.494} \right]^{\frac{1}{2}} - 15.6 = 82.8 \text{ ?}$$

[NOT CORRECT]
Seems High

$I_{d2} = (40.6) / T_{d2} + 15.6$

$= \frac{40.6}{98.4} = .41$

$Q_{d2} = (.75)(10.07)(.41)$

Good #

$= 3.11$

~~HEC SAYS 6.~~
TRY EACH

? $V_2 = 66 \left[(3.11)(82.8) - (.5)(82.8) - (.5)(14.3) + \frac{(1)(.5)(14.3)}{2} + \frac{(.5)^2(14.3)}{(2)(3.11)} \right]$

$= 66 \left[257 - (41.4) - (7.15) + (3.57) + (.57) \right]$

$= 66 [212.6]$

$= 14,031 \text{ ? (High)}$

V_2 USING $Q_d = 6$

$$V_2 = 66 \left[(6)(82.8) - (.5)(82.8) - (.5)(14.3) + \frac{(1)(.5)(14.3)}{2} + \frac{(.5)^2(14.3)}{2(6)} \right]$$

STILL HIGHER—

$$= 29,839$$

OBVIOUSLY — T_{d2} is Much TOO HIGH; AND THIS IS BECAUSE Q_0 IS LESS THAN 1.

IF we use $Q_0 = 1$, $T_{d2} \approx 54$

V_2 is closer to 9000 \dagger which is MORE REASONABLE. BUT PROBABLY STILL TOO HIGH.

IN BOTH THE 2 year case and 100 year case, we are comparing SIGNIFICANT DETENTION OF FLOW RATE BETWEEN DEVELOPED AND HISTORIC FLOW LEVELS BECAUSE HISTORIC IS SO LOW, e.g. FLAT LAND, POROUS, LOW RUNOFF COEFFICIENTS.

W. Heley

PRN-F6

DETENTION POND

MARCH 21, 1993

1

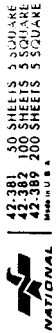
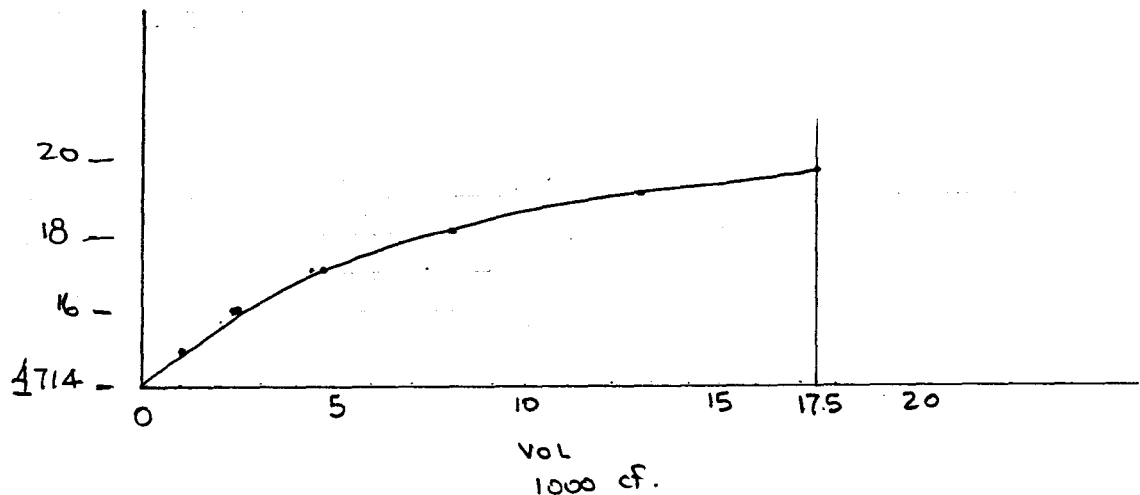
CONTOUR	PLANIMETER	PLANIM. AVE	AVG AREA (SF)	Δ Vol. (cf)	TOTAL Vol.
14	.42				
		.57	904	904	1000
15	.71	.88	1408	1408	2500
16	1.05	1.31	2096	2096	4700
17	1.57	1.89	3024	3024	8000
18	2.28	2.67	4272.	4272	13000
19	3.06	3.45	3588.	3588	17,500
19.65	4.20	3.84			
20				15,300	

short 2000

MOVING EASEMENTS TO 12' ON ADJOINING LOT LINE

AND SETTING THEM BACK 12 ADDITIONAL FEET FROM NORTH PROPERTY LINE / WILL ABOUT DO IT!

THEN THE STAGE / STORAGE CURVE BECOMES



We must next determine the outlet configuration

$$Q_{out \max} \text{ 2 year} = .5 \rightarrow 1 \text{ cfs @ 4' Head. (when } d = d_{max} \text{ @ 9000 cf.)}$$

SINCE THIS IS A SMALL PIPE, use orifice equation to determine size. Slope = 4% > friction so orifice condition controls Q.

$$Q = C A (2gH)^{.5}$$

$$C = 0.59$$

$$H \approx 4.0 \text{ ft} \pm$$

$$2g = 64.4$$

Ref. TABLE 4-3
Handbook of Hydraulics
KING & BRATER

$$A = \frac{Q}{C \sqrt{2gH}}$$

$$A = \frac{.5}{(.59)(16)} = .053 \text{ sf} \quad \text{for } .5 \text{ cfs}$$

$$A = \frac{1}{(.59)(16)} = .106 \text{ sf} \quad \text{for } 1.0 \text{ cfs}$$

$$\text{Dia for } .5 \text{ cfs} \Rightarrow 3''$$

$$\text{Dia for } 1 \text{ cfs} \Rightarrow 4''$$

THIS WILL PLUG!

$$\text{IF WE USE AN 8" PIPE } A = 0.35 \text{ sf.}$$

THE WATER WILL EXIT FASTER SO LESS HEAD WILL DEVELOP! - How MUCH?

$$Q = 1, A = .35$$

$$1 = (.59)(.35)(\sqrt{2gH})$$

$$\frac{1}{(.59)(.35)} = \sqrt{2gH} = 4.84$$

$$2gH = 23.45$$

$$H = \frac{23.45}{64.4} = .36 \text{ ft}$$

OBVIOUSLY — RUNOFF EXCEEDS HISTORIC BECAUSE
MORE INFLOW WILL CAUSE THE DEPTH TO
INCREASE BEYOND THE 8" PIPE ORIFICE.

USING A 6" PIPE, $A = .196$

$$\left(\frac{1}{.59}\right)(.196) = 8.64 = \sqrt{2gh}$$

$$2gh = 74.78$$

$$64.4 h = 74.78$$

$$h = 1.16 \text{ ft.}$$

Storage \approx 1200 cf

USING A 6" PIPE @ $h = 4'$

$$Q = (.59)(.196) \left[(64.4)(4) \right]^{\frac{1}{2}}$$

$$= 1.85 \text{ cfs.}$$

NOT A BIG INCREASE
IN REALITY. (MAYBE 1 cfs)

THE ONLY WAY TO CONTROL THIS IS TO HAVE A LARGE
POND BOTTOM ~~SO~~ DEPTH IS DECREASED AND THIS IS NOT
FEASIBLE ON THE SITE, AS CONFIGURED.

THIS BECOMES A WILLIAMS VS SIGFRIED DILEMMA!

eg: \downarrow Min PIPE SIZE VS \downarrow Min. POND AREA

NEXT CASE ... 100 year outlet.

ASSUME A MORNING GLORY APPROACH AS BEFORE IN
FLING 5.

Max Depth = 5.6 Feet.

Max Outflow = 6.6 cfs

@ 17,500 cf.

(VS INFLOW = 15 cfs)

Max Outflow \Rightarrow say 7 cfs.

MORNING GLORY = WEIR + Low outlet.

For A Circular Deep Inlet

$$Q = C_o (2\pi R_s) H_o^{3/2}$$

KEEPING $\frac{H_o}{R_s} < .45$

$$\text{so } R_s \geq \frac{H_o}{.45}$$

H_o NEEDS TO BE MAX AT .6' or 7 inches IF WE PUT THE OUTLET AT ELEV. 4719.

$$\text{IF SO } R_s \geq \frac{7}{.45} = 15.5''$$

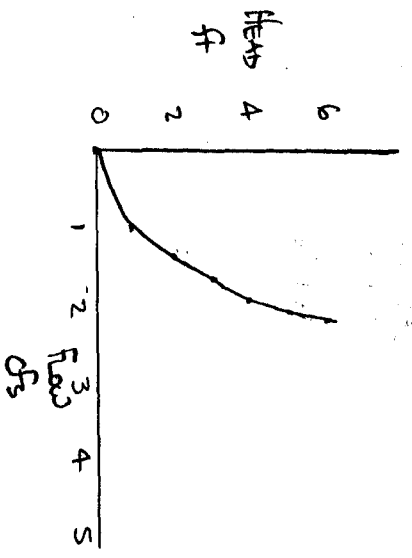
OR A 30" P.P.E. TOO BIG.

Put THE P.P.E LOWER, SAY @ 4718

$$\text{THEN } H_o = 1.6'$$

$$\frac{H_o}{.45} = \frac{1.6}{.45} = 3.5 \quad D = 7' \text{ WORKS WAY.}$$

ASSUMING WE STILL USE A 6" P.P.E FOR LOW OUTLET CONTROL, FIRST PLOT THE CURVE FOR A 6" P.P.E VS HEAD.



$$Q = (.59 \times .196) \sqrt{64.4 H}$$

$$= 0.116 (8) \sqrt{H}$$

$$= .93 \sqrt{H}$$

H = 1	Q = .93
H = 2	Q = 1.31
H = 3	Q = 1.61
H = 4	Q = 1.86
H = 5	Q = 2.07
H = 5.5	Q = 2.20

IT LOOKS AS IF WE HAVE ANOTHER ORIFICE SITUATION INSTEAD OF WEIR.

ASSUME AN ORIFICE AT EL. 4718 WHICH ADDS

$$\frac{6.6}{4.4} \text{ cfs at } 1.6' \text{ of Head.}$$

USING $C = .60$

$$Q_{TOP} = (.60)(A)\sqrt{(64.4)(1.6)}$$

$$4.4 = (.60)(10.15)A$$

$$= 6.1A$$

$$A = .72 \text{ FT}^2$$

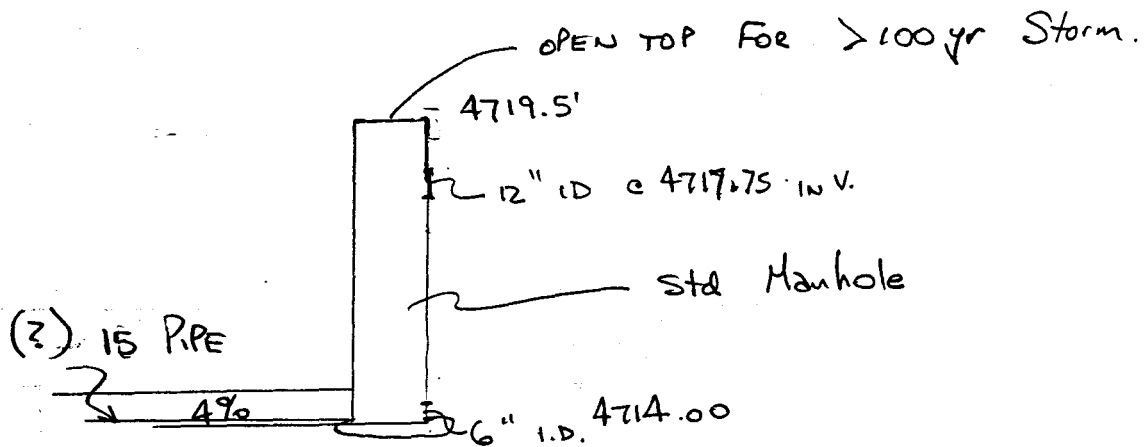
Closest Size is $\phi 12''$
 $A = .785$

USING THIS:

$$Q_{TOP} = (.60)(10.15)(.785)$$

$$= 4.78 + 2.2 = 6.98 \text{ cfs. } \underline{ok}$$

So, our OUTLET LOOKS LIKE THIS



WILL HANDLE ?

15" @ 4% slope W/LET CONTROL

$$H = 5.5' \quad \frac{H_w}{d} = 4.4$$

$$Q = 13 \text{ cfs}$$

18" 4% Slope

$$H = 5.5 \quad \frac{H_w}{d} = 3.67$$

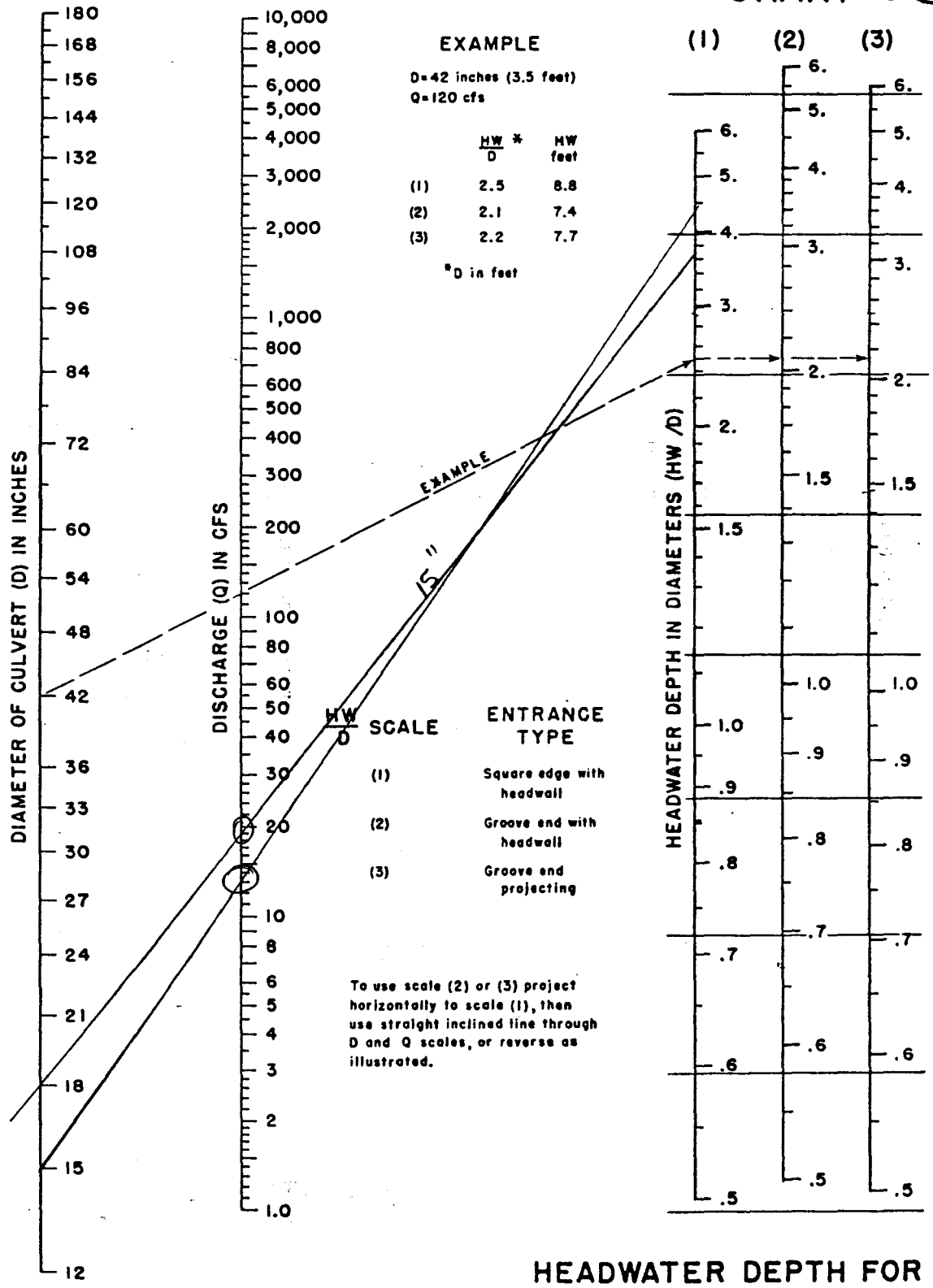
$$Q = 19$$

Use 18"

$H_w/D = 4.4$

Assum n Pvc = n concrete

CHART 1



HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

HEADWATER SCALES 2 & 3
 REVISED MAY 1964

BUREAU OF PUBLIC ROADS JAN. 1963

DETENTION POND DRAIN

CITY OF GRAND JUNCTION

DESIGN STORM

2yr. 1 hr.

Initials	Date
Prepared By	
Approved By	

© WILSON JONES COMPANY G7504 ColumnWrite ®

MADE IN U.S.

Incr.	INTENSITY in/hr	AVE \bar{I}	$\frac{\bar{I}}{60}$
0			
1	0.30	.15	.0025
2	0.70	.50	.0083
3	1.20	.95	.016
4	1.70	1.45	.024
5	1.95	1.82	.030
6	1.83	1.89	.031
7	1.74	1.79	.030
8	1.66	1.70	.028
9	1.59	1.63	.027
10	1.52	1.56	.026
11	1.46	1.49	.025
12	1.41	1.44	.025
13	1.36	1.39	.023
14	1.32	1.34	.022
15	1.28	1.30	.022
16	1.24	1.26	.021
17	1.21	1.23	.020
18	1.17	1.19	.020
19	1.14	1.16	.019
20	1.11	1.13	.019
21	1.08	1.10	.018
22	1.05	1.07	.018
23	1.02	1.04	.017
24	1.00	1.01	.017
25	0.98	.99	.016
26	0.96	.97	.016
27	0.94	.95	.016
28	0.92	.93	.015
29	0.90	.91	.015
30	0.88	.89	.015
31	0.86	.87	.015
32	0.84	.85	.014
33	0.83	.84	.014
34	0.82	.83	.014
35	0.81	.82	.014
36	0.80	.81	.014
37	0.79	.80	.013
38	0.78	.79	.013
39	0.77	.78	.013
40	0.76	.77	.013

Initials	Date
Prepared By	
Approved By	

2yr - 1 hr CONT'D

© WILSON JONES COMPANY G7504 ColumnWrite 3

MADE IN U.S.A.

INCR.	INTENSITY in/hr I	Ave I	$\frac{I}{60}$
41	.75	.76	.013
42	.74	.75	.013
43	.73	.74	.012
44	.72	.73	.012
45	.71	.72	.012
46	.70	.71	.012
47	.69	.70	.012
48	.68	.69	.011
49	.67	.68	.011
50	.66	.67	.011
51	.65	.66	.011
52	.64	.65	.011
53	.63	.64	.011
54	.62	.63	.011
55	.61	.62	.010
56	.60	.61	.010
57	.59	.60	.010
58	.58	.59	.010
59	.57	.58	.010
60	.56	.57	.010
	.50	.53	.090
	.00	.25	.004
7	.00	.00	0.0
120	0.00	.60	0.0

CITY OF GRAND JUNCTION

DESIGN STORM 100 yr - 1hr

	Initials	Date
Prepared By		
Approved By		

JONES COMPANY G7504 ColumnWrite®

MADE IN U.S.A.

INCR	INTENSITY in/hr	AVE I	I 60	
0				
1	1.50	10.750	.012	
2	2.00	1.750	.029	
3	3.00	2.500	.042	
4	4.00	3.500	.058	
5	4.95	4.47	.075	
6	4.65	4.80	.080	
7	4.40	4.52	.075	
8	4.19	4.30	.072	
9	3.99	4.09	.068	
10	3.80	3.89	.065	
11	3.66	3.73	.062	
12	3.54	3.60	.060	
13	3.43	3.48	.058	
14	3.33	3.38	.056	
15	3.24	3.28	.055	
16	3.15	3.19	.053	
17	3.07	3.11	.052	
18	2.99	3.03	.050	
19	2.91	2.95	.049	
20	2.84	2.87	.048	
21	2.77	2.80	.047	
22	2.70	2.73	.046	
23	2.63	2.66	.044	
24	2.57	2.60	.043	
25	2.51	2.54	.042	
26	2.46	2.48	.041	
27	2.41	2.43	.040	
28	2.36	2.38	.040	
29	2.31	2.33	.039	
30	2.27	2.29	.038	
31	2.23	2.25	.037	
32	2.19	2.21	.037	
33	2.15	2.17	.036	
34	2.12	2.13	.035	
35	2.09	2.10	.035	
36	2.06	2.07	.035	
37	2.03	2.04	.034	
38	2.00	2.01	.034	
39	1.97	1.98	.033	
40	1.94	1.95	.032	

CITY OF GRAND JUNCTION

DESIGN STORM

100yr - 1 hr

Initials	Date
Prepared By	
Approved By	

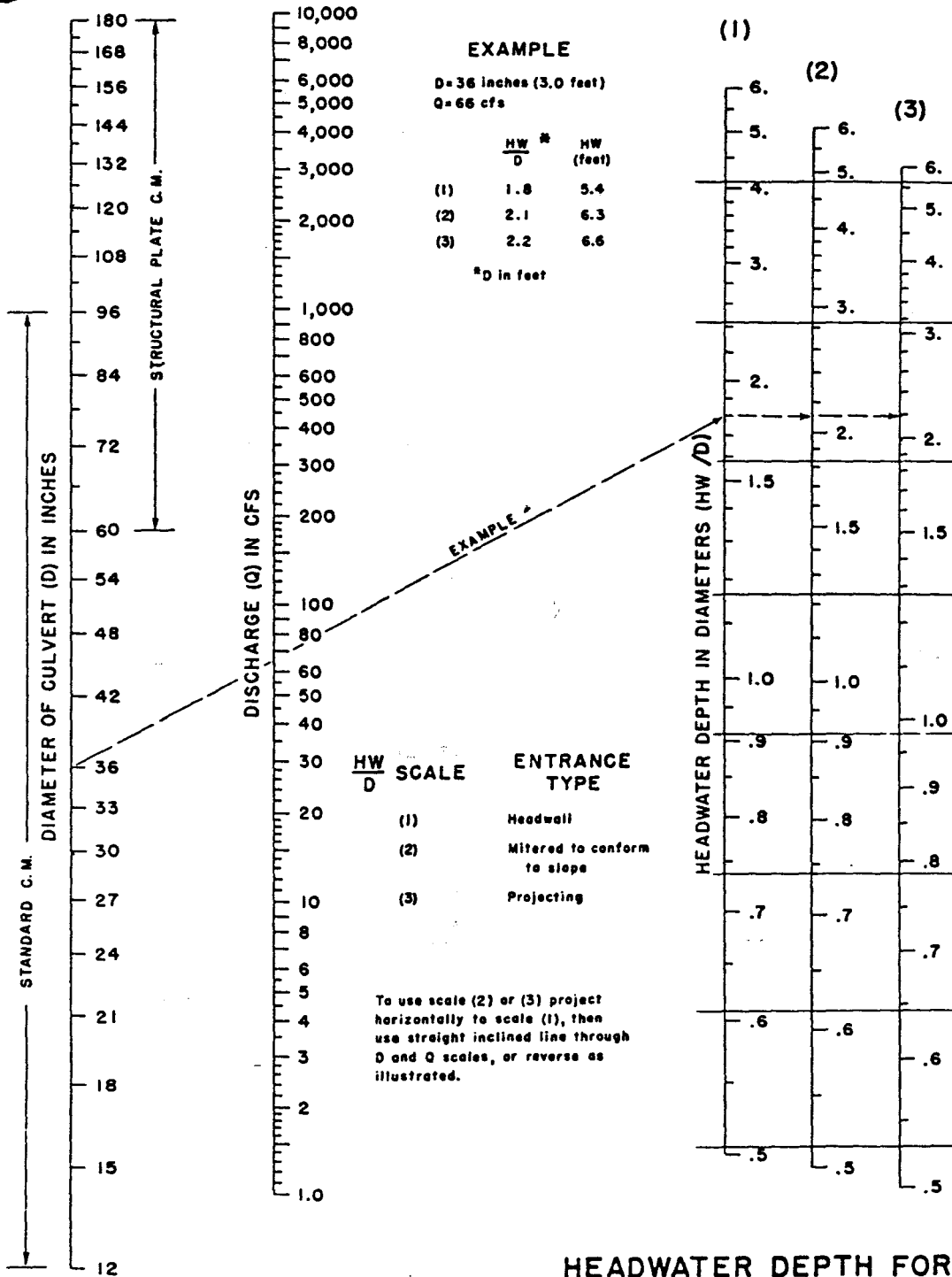
© WILSON JONES COMPANY G7504 ColumnWrite 3

MADE IN U.S.A.

INCE	I		AVE I	I	
	INTENSITY	m/hr		60	INCE. PRECIP
41	1.91		1.92	.032	
42	1.88		1.89	.032	
43	1.85		1.86	.031	
44	1.82		1.83	.030	
45	1.79		1.80	.030	
46	1.76		1.77	.029	
47	1.73		1.74	.029	
48	1.70		1.71	.029	
49	1.67		1.68	.028	
50	1.64		1.63	.027	
51	1.61		1.62	.027	
52	1.59		1.60	.027	
53	1.57		1.58	.026	
54	1.55		1.56	.026	
55	1.53		1.54	.026	
56	1.51		1.52	.025	
57	1.49		1.50	.025	
58	1.47		1.48	.025	
59	1.45		1.46	.024	
60	1.43		1.44	.024	
61	1.0		1.21	.020	
62	.50		0.75	.020	
63	.25		0.37	.006	
64	0		0.12	.002	
120	0		0.06	.000	



CHART 2



HEADWATER DEPTH FOR C. M. PIPE CULVERTS WITH INLET CONTROL



April 26, 1993

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

Mr. William Heley, P.E.
W H Engineering
2257 Fawn Ridge Court
Grand Junction, CO 81503

Dear Mr. Heley:

I am writing in response to your letter to Gerald Williams dated April 16, 1993.

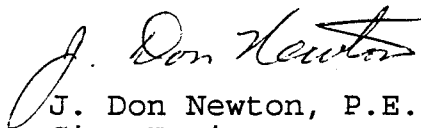
Gerald has reviewed your request to eliminate the retention pond at the Cortland/27.5 Road intersection and informed me that the Filing 5 detention pond has adequate capacity to eliminate the upstream retention pond. Therefore, we have no objections to your proposal.

The existing 15-inch C.M.P. which carries runoff across the proposed extension of Cortland Avenue will meet City specifications for corrosion resistance if it is made of aluminum or aramid fiber bonded corrugated steel pipe. Otherwise, it will have to be replaced with a pipe made from one of the corrosion resistant materials for culverts listed in Section 101.8 of the City's Standard Specifications for Construction of Water Lines, Sanitary Sewers, Storm Drains, Underdrains and Irrigation Systems (copy enclosed). These pipe specifications conform to CDOT CR4 corrosion resistance number.

Corrugated steel pipe typically rusts through in 10 to 15 years when exposed to the soils and water conditions that are prevalent throughout the Grand Valley.

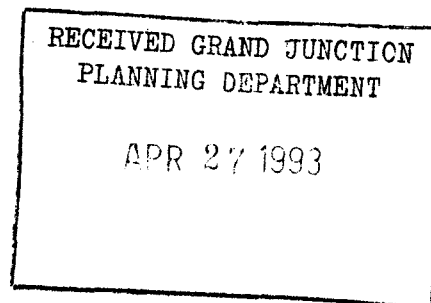
Please call if you have any questions regarding these issues.

Sincerely,

A handwritten signature in cursive script that reads "J. Don Newton".

J. Don Newton, P.E.
City Engineer

xc: Gerald Williams
Dave Thornton
Mark Relph



REVIEW COMMENTS

Page 1 of 2

FILE NO. #23-93

TITLE HEADING:

Final Plan & Plat
Ptarmigan Ridge North, Filing #6

LOCATION:

West of 27 1/2 Road at Cortland Avenue

PETITIONER:

Ptarmigan Investments

PETITIONER'S ADDRESS/TELEPHONE:

P.O. Box 9088
Grand Junction, CO 81502
241-7025

PETITIONER'S REPRESENTATIVE:

Lewis Hoffman

STAFF REPRESENTATIVE:

David Thornton

NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS REQUIRED ON OR BEFORE 5:00 P.M., APRIL 27, 1993.

CITY ENGINEER/COMMUNITY DEVELOPMENT DEPT.

4/8/93

Don Newton/Dave Thornton

244-1559/244-1447

Revised plans for Filing 6 were received on April 5, 1993. After review of these plans, following are the comments:

1. The utility, drainage and irrigation easement between Filings 4 & 6 should also include pedestrian access. Details and typical section of the pedestrian path should be shown on the plans.
2. No irrigation system design calculations or report has been submitted for review. The irrigation plans and details are incomplete. At Lewis Hoffman's request, Mark Relph has investigated the possibility of modifying the Colorado P.E. requirement for the irrigation system. However, it has been determined that it is not possible to deviate from that requirement.

A decision needs to be made as to whether or not there will be a bleed off pipe from the retention pond on 27.5 Road. If so, it should be shown on the plans and installed before the street is built.

3. On the road plans, handicap curb ramps are required and should be shown at street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.

Vertical P.I.'s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5% where possible. The south half of the drainage cross-span at station 9+11.19 is shown to be flat on the street profile (flowline elevation 4719.74).

FILE #23-93 / REVIEW COMMENTS

Page 2 of 2

4. On the drainage plans, the inlet grate and frame specified does not exist. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe is not specified. Reinforcing steel shown in the sidewalk on Section A-A does not agree with that shown on plan view of drainage inlet structure. The sidewalk thickness should be shown on section A-A. Provide details and material specification for installation of "Kerf" grating specified on top of drainage structure. Is the concrete box to be notched to hold the grating in place?
5. The outlet pipe from the storm water detention pond discharges to the north slope of the ridge onto private property. This creates a concentrated point of discharge that does not currently exist. An easement shall be obtained from the property owner for the conveyance of drainage water across the property. Facilities should also be installed, with the approval of the property owner, to prevent erosion or damage to the property as a result of the discharge from the detention pond.
6. A signed deed for the additional right-of-way needed from the Christensen property for this filing is required.
7. All other previous Review Agency Comments shall be adhered to.

STAFF REVIEW

FILE: 23-93

DATE: April 29, 1993

STAFF: David Thornton

REQUEST: Final Plan/Plat approval for 16 single family units and 30 multi-family townhome units on 11.35 acres to be know as Filing 6 of Ptarmigan Ridge North. Preliminary approval was given by Planning Commission on February 10, 1993.

LOCATION: Northwest corner of 27 1/2 Road and Cortland Avenue. Access to the site is from 27 1/2 Road via Cortland Avenue.

APPLICANTS: John Siegfried, Ptarmigan Investments, Inc.

EXISTING LAND USE: Vacant.

PROPOSED LAND USE: Single Family Residential and Multi-family Residential -Attached Townhomes.

SURROUNDING LAND USE:

NORTH -- Undeveloped

EAST -- Single Family residential and Church use

SOUTH -- Single Family residential

WEST -- Single Family residential

EXISTING ZONING: Planned Residential with a maximum of 4.0 unit per acre.

PROPOSED ZONING: No Change

SURROUNDING ZONING:

NORTH -- PB (Planned Business)

EAST -- RSF-4, PR (Planned Residential)

SOUTH -- RSF-5

WEST -- RFS-4

RELATIONSHIP TO COMPREHENSIVE PLAN/POLICIES/GUIDELINES:

No Master Plan currently exists for this area.

STAFF ANALYSIS:

Planning Commission approved the preliminary plan on Feb. 10th, 1993. The portion of the preliminary plan that filing 6 includes was approved for 46 total units consisting of 15 single family and 31 multi-family units. This proposal call for 46 total units consisting of 16 single family and 30 multi-family units. The proposed development is compatible with the surrounding area.

Planning Commission's approval of the preliminary plan included the following conditions:

1. A pedestrian access be provided between North 15th Court and Cortland Court.
2. The drainage facilities be located in designated common open space to be maintained by the homeowners rather than in easements.
3. All structures on all lots must meet a minimum of a 20 ft. front yard setback from property line.

All review agency comments have been adequately addressed with the following clarifications and exceptions:

1. Once the pedestrian path between Filings 4 & 6 is constructed to an acceptable city standard by the petitioner, the City will accept the path for future maintenance. This applies only to the pedestrian path and not the entire 44 feet wide easement the path is constructed in. Snow removal on the path will be the responsibility of the property owners (or the homeowners association) as well as maintenance of the 44 ft. easement. Notation on the plat shall reflect any conditions associated with the easement.

2. Staff supports and mutually agrees with the developer that the developer is responsible for improvements at the intersection of 27 1/2 Road and Cortland Avenue which will consist of 3 lanes of pavement, curb and gutter. Sidewalk will not be required along the Christensen property as part of this development.

3. The petitioner has addressed through the restrictive covenants the issue of maintenance, but has not satisfactorily addressed the ownership of the drainage facilities. In the review comments, staff has noted that the drainage facilities should be located in common open space and it should be the responsibility of the homeowners association to maintain. In the covenants the petitioner states that "the association shall maintain drainage facilities in accordance with City policy". In responding to the common open space requirement, the petitioner has stated that "common space is not being proposed anywhere at Ptarmigan Ridge" which is contrary to what the Planning Commission approved through the preliminary plan.

Staff supports the request of allowing the drainage facility to be located in an easement as along as there is a restriction on the plat that notes the drainage facility is for drainage purposes only and lists things you can and can't do with it and who maintains it.

4. The petitioner has responded to the front yard setback requirement of 20 ft. established at the preliminary plan approval with a request to take another look at the requirement and allow the townhouse development to have 14 ft. setbacks instead of 20 ft. in front with the stipulation that garages with a front entry would be required to meet a 20 ft. setback. The request further states that garages built with a side entry would be allowed to build at the 14 ft. setback.

5. The deed for the additional right-of-way needed from the Christensen property for this filing is in the process of being signed by Ms Christensen. This will be completed prior to recording the final plat/plan.

6. The pedestrian path construction detail as submitted 4/27/93 is **not** acceptable. City standards require this path be made with 4 inches of concrete (not asphalt) with a 4 inch aggregate base. We recommend that it be a minimum of 5 feet wide. The petitioner is proposing a 4 ft. wide asphalt pedestrian path.

7. The existing drainage facility at 27 1/2 Rd. and Cortland Avenue is no longer needed as part of the overall drainage for this subdivision, therefore it may be eliminated.

8. The petitioner is proposing a privacy fence along the rear property line of the townhomes that will be adjacent to the west property line of the existing single family house on 27 1/2 Road to help alleviate some of the impact associated with having only a 5 ft setback which they are requesting.

9. A pedestrian easement has been provided on the plat submitted 4-27-93 that provides for public access on the pedestrian path located between North 15th Street Court and Cortland Court.

STAFF RECOMMENDATIONS:

Staff recommends approval with the following conditions:

1. That notation be required on the plat which includes restrictions of the drainage facilities including a statement of what can or cannot be done with the drainage facility and easement and who is responsible for maintenance.

2. The setback requirement for the multi-family dwellings be the following:

a. Rear yard setback for all townhouses be 5 ft. The rear property line of the townhouses adjacent to the west property line of the existing house on 27 1/2 Road shall be required to have a 6 ft. privacy fence.

b. Front yard setbacks for all townhouses be 14 ft. including eaves except for front entry garages which shall be 20 ft. from property line. Garages with a side entry shall be allowed to be built with a 14 ft. setback so long as there is adequate driveway length to accommodate a parked vehicle or vehicles on site.

c. The distance between buildings be 10 ft.

3. All technical requirements by the review agencies be completed or adequately addressed prior to recording the final plat which includes the escrow or guarantee of 1/2 street improvements for 27 1/2 Road adjacent to Ptarmigan Ridge Subdivision.

4. That notation be required on the final plan which includes restrictions of (1) what can or cannot be done within the easement and (2) who is responsible for maintenance of the 44 ft. utility/irrigation/drainage/pedestrian easement located between North 15 Court and Cortland Court.

5. That the pedestrian path construction be concrete and a minimum of 5 ft. in width.

May 10, 1993

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

MAY 10 1993



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

William Heley
WH Engineering
2257 Fawn Court
Grand Junction, CO 81503

Re: Ptarmigan Ridge Filing #6

Dear Bill:

Your April 27, 1993 letter and drainage calculation submittal has been reviewed. We have the following comments.

1. Our request for an off-site easement for drainage discharge was based upon information that had been submitted to us at the time. The Filing 6 Drainage Report (March 1993) indicated that only 4.6 acres drained to the existing drainage ditch, which exited the site at the proposed discharge location and that the other 5.0 acres drained to the west. This was depicted on the Historic Drainage Map dated February 26, 1993, a portion of which is copied and attached. Shown thereon was a north and south historic watersheds. The south 5.0 acres drains to the southwest corner of Filing 6. Two distinct outfall points are identified.

The proposed plan provides only one outfall point, with a release equal to the historic runoff from both sub-basins. Naturally, we did not assume that the historic runoff from the south basin was zero (which it is not -- see note 9), therefore it appeared to us that the combined basin historic runoff rate of three cfs would exceed the historic outfall rate at the single location. Also, the "Detention Pond Detail" does not show an existing swale or channel at the proposed release point; therefore, we could only assume that it was not at the historic location. Thus, there were two reasons for requesting the easement.

Subsequently, we were told that the discharge point really is at the historic outfall point, and forgetting about the two basins, we apparently misunderstood and thought that what was meant was that essentially the whole ten acres historically drained to the proposed discharge location. A field visit verified that the proposed outfall coincides with a historic outfall, and consequently we thought that an easement may not be required.

We have since been reminded of the two basins. However, we also discovered that the initially proposed release rate of 3 cfs is the historic rate from only the north basin. If this can be maintained, then historic conditions required by Code

are met. However, if the 100-year release exceeds 3 cfs, then the historic runoff rate is exceeded at that location. Releases from Filing 6 greater than historic (probably 6 or 7 cfs -- see note 9) will not be allowed. The latest calculations submitted indicate that 8 cfs will be released per the current design, which violates the Code. A 100-year release in excess of 3 cfs at the proposed location would require an easement or must be resolved with the City Council.

2. The "Detention Pond Detail" shows the 18-inch outlet pipe extending nearly to the property line. It was noted in the field that at the property line, the historic channel was wide and vegetated, and not experiencing erosion. I advised Lewis that pond discharge from the 18-inch pipe must be spread and the velocity slowed to prevent erosion and to simulate historic conditions. Although many options exist, one discussed was shortening the pipe somewhat, and placing rip-rap at the culvert outlet to spread flow and dissipate energy. We request a detail or narrative concerning how this will be resolved. Once the construction is completed, we request that the property line be staked at the outlet for our inspection.
3. Your letter discussed a sewer design report. I am unaware of any City comment that indicated that the report was required. Certainly it is unnecessary for Ptarmigan Ridge. A sewer report (or portions thereof) would not normally be required unless a sewage lift station was required, flat grades are proposed which are normally not accepted, sewage contributions exceed the capacity of 8-inch lines, or interceptors or outfalls are involved.
4. I previously mentioned that an "IN" card would be required to establish the "PI" input data time increment (which is usually different than calculation time interval on the "IT" card). With the one-hour storm that you are using, the default "IT" time of one minute is used, which fits your data. Thus, the "IN" card is not needed as you are aware. My error.
5. A "*" followed by a space is read as a comment, not a command. Consequently, if you want to diagram your file, use "*DIAGRAM" without a space (see HEC-1 manual page A-7, last paragraph).
6. For your file, the "PB" card may not be used more than once because it must be followed by "PI" or "PC" cards. Only use a "PB" of zero in the S1 basin as you have it, and remove all others from the file.
7. In your March 1993 Drainage Report, Appendix dated March 24, 1993, pages 1 and 2, you have presented orifice capacities for

William Heley
May 7, 1993
Page 3

various sizes and heads. These heads pertain to the centerline of the opening. In your HEC-1 input file, it appears that outflow rates on the "SQ" cards match heads on the "SE" cards if and only if the head is measured to the invert instead of the centerline of the vertical orifices. Inasmuch as the head elevation is raised to the 0.5 power, it may not make a lot of difference, but since the file must be run again anyway, this should be corrected. Also, with the 4.0 foot section having a rim at 4719.5, and the high water is at 4720, the opening will act as a weir, thus increasing the 8th value on the "SQ" card.

8. Since the 4.0 foot overflow section is included in the "SQ" information, the "SS" card could be used for dam overtopping - or leave it out entirely. Having it there with no values may be causing a problem.
9. The historic flow from the site previously submitted used a "PB" of zero and no subsequent "PI" cards for the south 5.0 ones, resulting in zero precipitation and runoff. Remove the "PB" card from the south basin data, and rerun. (Other files may have this same problem -- only use the "PB" card once in each file.)

If you have any questions regarding the above, please call.

Sincerely,



Gerald Williams, P.E.
City Development Engineer

xc: Lewis Hoffman, Ptarmigan Investments
Don Newton, City Engineer
Dave Thornton, City Planner
John Shaver, Asst. City Attorney
Dan Wilson, City Attorney

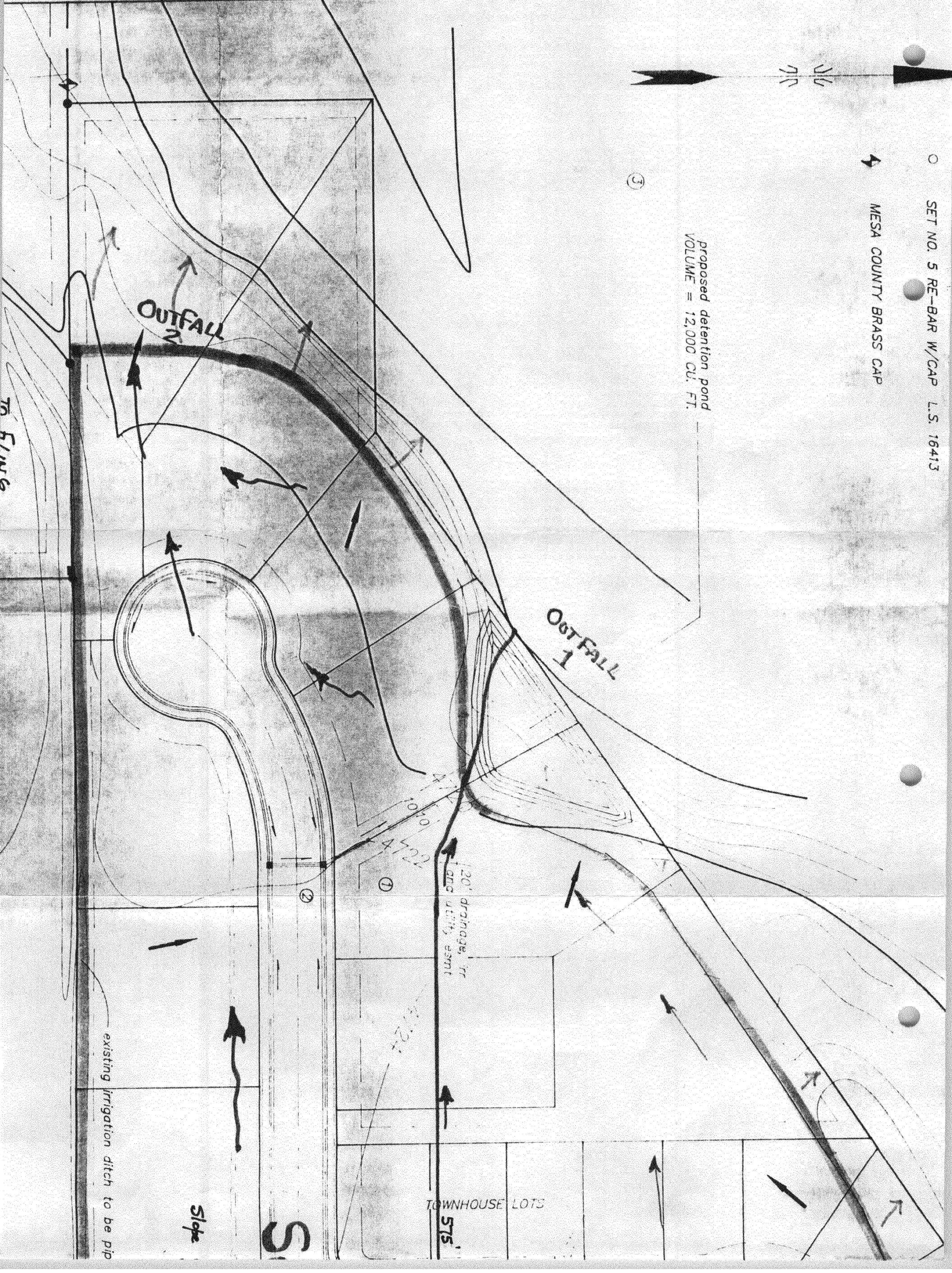
SET NO. 5 RE-BAR W/CAP L.S. 16413

MESA COUNTY BRASS CAP

Proposed detention pond
VOLUME = 12,000 CU. FT.



③



existing irrigation ditch to be pip

Slope

TOWNHOUSE LOTS

575'

20' drainage, tr and utility esmt

OUTFALL 1

OUTFALL 2

to Fluv

S

Ptarmigan Ridge filing #6
Revised 5-18-93

City Council
Approval with
these conditions

STAFF RECOMMENDATIONS:

Staff recommends approval with the following list of conditions:

1. That notation be required on the plat which includes restrictions of the drainage facilities on lots 10 & 11 including the following statements:
 - a. No structures, fences shall be constructed within this drainage easement.
 - b. No activity shall occur that would divert or change the City approved drainage facility.
 - c. The Ptarmigan Ridge filing 6 Homeowners Association shall be responsible for maintenance of the drainage facility.
2. The setback requirement for the multi-family dwellings be the following:
 - a. Rear yard setback for all townhouses be 5 ft. The rear property line of the townhouses adjacent to the west property line of the existing house on 27 1/2 Road shall be required to have a 6 ft. privacy fence.
 - b. Front yard setbacks measured from property line for all townhouses shall be 14 ft. measured from the eaves except for front entry garages which shall be 20 ft. measured from the eaves. Garages with a side entry shall be allowed to be built with a 14 ft. setback measured from the eaves so long as there is adequate driveway length to accommodate a parked vehicle or vehicles on site.
 - c. The distance between buildings shall be 10 ft measured from the foundation.
3. All technical requirements by the review agencies be completed or adequately addressed prior to recording the final plat which includes the escrow or guarantee of 1/2 street improvements for 27 1/2 Road adjacent to Ptarmigan Ridge Subdivision.
4. That notation be required on the final plan which includes restrictions of the 44 ft. utility/irrigation/drainage/pedestrian easement located between North 15 Street Court and Cortland Court including the following statements:
 - a. No structures, fences shall be constructed nor the planting of trees and shrubs shall be allowed within this easement.
 - b. Drainage within this easement shall be constructed and maintained so that all run-off within the easement is contained within the easement.
 - c. Pedestrian access along the 5' pedestrian path shall be maintained. General maintenance of the pedestrian path such as snow removal, sidewalk sweeping and keeping the path clear of obstructions and debris shall be the responsibility of the property owner.
 - d. Maintenance within the entire 44 ft. easement shall be the responsibility of the property owner.
5. That the pedestrian path construction be concrete, meet current City construction standards and be a minimum of 5 ft. in width.

6. Dedication language on the plat for easements must coincide with the easements shown on the plat. For example, easements for irrigation ditches, pipes and ponds should not be dedicated to the City, but to the homeowners association. An irrigation easement shall be dedicated along the west side of lot 1, block 3.
7. The existing 15 inch corrugated steel drainage pipe crossing Cortland Court does not meet City specifications and will need to be replaced with a pipe that meets City specifications.
8. The petitioner shall provide a profile and details for the gravity overflow pipe between the irrigation pond and storm detention basin prior to recording the plat.
9. Handicap curb ramps are required and should be shown at all street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.
10. Vertical P.I.s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5%. The south half of the drainage cross-pan at station 9+11.19 is shown to be flat on the street profile (flowline elev. 4719.74) and will not drain and therefore must be modified.
11. On the drainage plans, the inlet grate and frame specified is incorrect. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe must be specified. The sidewalk thickness shall be shown on section A-A. Provide details/literature for "Kerf" grating specified on top of drainage structure. The concrete box must be notched to hold grating in place.
12. The outlet pipe from the storm water detention pond discharges to the north into an existing channel. The pipe outlet shall be designed so that flows and velocities do not exceed historic conditions.

July 29, 1993



Ptarmigan Investments, Inc.
P.O. Box 9088
Grand Junction, CO 81501

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

Re: Approval of Improvements in Filings 3,4,5, & 6.

Dear Lewis:

This letter is sent in response to your 6/29/93 letter requesting a release of letters of credit. Our response is based upon a 7/27/93 site observation of the asphalt pavement and detention/irrigation basins, and a review of materials received to date.

Filing 3 - We have yet to receive subgrade compaction for Ptarmigan Ridge Court, and base course compaction in Ptarmigan Ridge Court and N. 15th Street, as was requested by Jim Shanks in his 3/23/93 letter to John Siegfried.

Filing 4 - The facilities pertaining to the Filing 4 Letter of Credit are approved. The warranty period will begin as of this date of approval. The letter of credit will be released once we have prepared a bill for inspection costs. Please be informed, however, that in the future, we will require conformance pressure testing of Ute waterlines when they are in the City right-of-way.

Filing 5 - The facilities pertaining to the Filing 5 Letter of Credit are approved. The warranty period will begin as of this date of approval. The Letter of Credit will be released once we have prepared a bill for inspection costs. Please be informed, however, that in the future, we will require conformance pressure testing of Ute waterlines when they are in the City right-of-way.

Drainage Facilities We have yet to receive volume certification for the basins in Filing 4 and 5, and observed that the slopes of the irrigation pond in Filing 6 is still too steep. Therefore, we are not prepared to release the cash bond.

If you have questions regarding the above, please call.

Sincerely,

A handwritten signature in cursive script that reads "Gerald Williams".

Gerald Williams, P.E.
Development Engineer

xc: Don Newton
David Thornton



**Above
the
Crowd!**[®]

August 19, 1993

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

Att: Kathy Portner, Planner

Dear Kathy,

As per a previous phone conversation regarding the names of the two streets located in Ptarmigan Ridge Subdivision, Filing No. 6, I am submitting the following two names for your review and approval:

BRAMBLING CIRCLE
BITTERN COURT

These two streets are in the Patio Home Project and were originally, on the preliminary plat, named as Stimpson J Circle and Ren Court. If approved, the above two choices would need to be used when the final plat is filed and recorded for Ptarmigan Ridge, Filing No. 6.

Just as a note of explanation for the two above names, a Ptarmigan is a bird, the 6 models for the patio homes have been given bird names thus Brambling and Bittern are both birds.

If you have any questions, please call me. I would very much like to have your approval as quickly as possible as I am now beginning to formulate all of my marketing packages and prior to printing need to have approval for

Dave - I don't have a problem with this. Any thoughts? Please contact Kathy Deppe - or I can let me know.

Kathy

*8-26-93
SOUNDS OKAY
TO ME. I
CONTACTED Kathy
Deppe AND TOLD
HER TO GO AHEAD
AND make the
changes
Dave*

RE/MAX The Grand Junction
Real Estate Group, Inc.
1401 N. 1st Street
Grand Junction, Colorado 81501-2105
Phone: (303) 241-4000



Each Office Independently Owned and Operated

the two streets being involved in this project.

Thank you for your attention in this matter,


Kathy Deppé
Sales Associate

October 11, 1993



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

John Siegfried
c/o QED Surveying
1018 Colorado Avenue
Grand Junction, CO 81501

Re: Ptarmigan Ridge 6, Plat Signing and Improvements Agreement

Dear John:

A few days ago we received a mylar of the Ptarmigan Ridge Filing 6 plat with a request for approval and signature. We also received a request last week to approve a revised Improvements Agreement, with quantities reduced to reflect improvements which have already been constructed. We will address both issues in this letter.

Final Plat It is the City's practice to approve and sign plats only after all review comments on the plat have been addressed, and also after construction drawings have been approved. The plat submitted last week appears to remain unchanged from the unapproved plat which was submitted 8/6/93 for which review comments were provided. Furthermore, the recently submitted plat and the latest revision of submitted plans (8/6/93) do not fully address comments which were:

- | | | |
|---------------|----------|------------------------|
| 1) Made | 04/08/93 | (see Exhibit "A"); |
| 2) Reiterated | 05/04/93 | (see Exhibit "B"); |
| 3) Reiterated | 05/19/93 | (see Exhibit "C"); |
| 4) Reiterated | 06/25/93 | (see Exhibit "D"); and |
| 5) Reiterated | 08/20/93 | (see Exhibit "E"). |

(Note that only comments, and not red-lined plans which more specifically detail the concerns, are provided.)

The above referenced review comments and the red-lined plans which accompanied them are deemed to be adequate in expressing our concerns, and no further comment is made.

Revised Improvements Agreement It is the City's practice to release Improvements Guarantees, or portions thereof, only after facilities are approved. Approval consists of the following:

- 1) Construction drawings are approved (which also must precede construction);
- 2) Inspection Diaries, materials, compaction, and all other requirements per SSID page V-3 are approved; and
- 3) A final field inspection by the City is performed, and facilities are found acceptable.

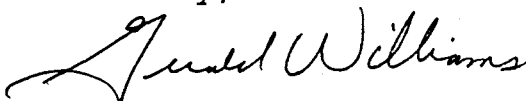
John Siegfried
October 11, 1993
Page 2

As was previously documented above in the discussion regarding plats, the Filing No. 6 construction drawings remain unapproved. However, inasmuch as the waterline through Cortland Court of Filing 6 was made a "looping" requirement of Filing 4, and the waterline plans appeared to be acceptable, we allowed construction of that portion of the waterline prior to full approval of the Filing 6 construction drawings. Subsequently, Bill Cheney granted permission for sewerline construction in the same reach. No other authorization for construction in advance of plan approval has been given.

We note that the directive submitted to you March 23, 1993 from Jim Shanks and Dan Wilson regarding conformance to SSID Section V has not been revoked (see Exhibit "F"), and that the preliminary and now adopted requirements are in full force and must be abided by, which means that drawing approval shall precede construction. We also note that we have left telephone messages at QED for Lewis Hoffman to call so that we may reiterate these requirements, and that when calls were not returned, we informed United that placement of road base and other work was not approved by the City. We now observe that road base has been placed, curb, gutter, and sidewalk has been constructed, and road base placed in the streets, all in violation of City ordinance.

Needless to say, we are not prepared at this time to approve a reduction in the amount of the Improvements Guarantee. Furthermore, we request that you set up a meeting to meet with City staff regarding the above violations as soon as possible. Further construction until these issues are resolved is prohibited.

Sincerely,



Gerald Williams
Development Engineer

cc: Jim Shanks
Mark Relph
Don Newton
Dan Wilson
John Shaver
David Thornton

REVIEW COMMENTS

Page 1 of 2

FILE NO. #23-93

TITLE HEADING:

Final Plan & Plat

Ptarmigan Ridge North, Filing #6

LOCATION:

West of 27 1/2 Road at Cortland Avenue

PETITIONER:

Ptarmigan Investments

PETITIONER'S ADDRESS/TELEPHONE:

P.O. Box 9088

Grand Junction, CO 81502

241-7025

PETITIONER'S REPRESENTATIVE:

Lewis Hoffman

STAFF REPRESENTATIVE:

David Thornton

NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS REQUIRED ON OR BEFORE 5:00 P.M., APRIL 27, 1993.

CITY ENGINEER/COMMUNITY DEVELOPMENT DEPT.

4/8/93

Don Newton/Dave Thornton244-1559/244-1447

Revised plans for Filing 6 were received on April 5, 1993. After review of these plans, following are the comments:

1. The utility, drainage and irrigation easement between Filings 4 & 6 should also include pedestrian access. Details and typical section of the pedestrian path should be shown on the plans.
2. No irrigation system design calculations or report has been submitted for review. The irrigation plans and details are incomplete. At Lewis Hoffman's request, Mark Relph has investigated the possibility of modifying the Colorado P.E. requirement for the irrigation system. However, it has been determined that it is not possible to deviate from that requirement.

A decision needs to be made as to whether or not there will be a bleed off pipe from the retention pond on 27.5 Road. If so, it should be shown on the plans and installed before the street is built.

3. On the road plans, handicap curb ramps are required and should be shown at street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.

Vertical P.I.'s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5% where possible. The south half of the drainage cross-pan at station 9+11.19 is shown to be flat on the street profile (flowline elevation 4719.74).

FILE #23-93 / REVIEW COMMENTS

Page 2 of 2

4. On the drainage plans, the inlet grate and frame specified does not exist. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe is not specified. Reinforcing steel shown in the sidewalk on Section A-A does not agree with that shown on plan view of drainage inlet structure. The sidewalk thickness should be shown on section A-A. Provide details and material specification for installation of "Kerf" grating specified on top of drainage structure. Is the concrete box to be notched to hold the grating in place?
5. The outlet pipe from the storm water detention pond discharges to the north slope of the ridge onto private property. This creates a concentrated point of discharge that does not currently exist. An easement shall be obtained from the property owner for the conveyance of drainage water across the property. Facilities should also be installed, with the approval of the property owner, to prevent erosion or damage to the property as a result of the discharge from the detention pond.
6. A signed deed for the additional right-of-way needed from the Christensen property for this filing is required.
7. All other previous Review Agency Comments shall be adhered to.

To: David T
 Cc: Gerald W, Mark R, Jim S
 From: Don Newton *DN*
 Subject: Ptarmigan Ridge 6
 Date: 5/04/93 Time: 3:31p

✓ - done
 x = not done

Comments:

- X 1. Plat: Dedication language for easements does not coincide with some of the easements shown on the plat. Easements for irrigation ditches, pipes and ponds should not be dedicated to the city. An irrigation easement is needed along the west side of Lot 1, Block 3.
- ✓ 2. The existing 15 inch cmp drainage pipe crossing Cortland Court does not meet City specifications and will need to be replaced.
3. The Petitioner will need to submit a profile and details for the gravity overflow pipe between the irrigation pond and storm detention basin. Was this irrigation water historically routed to the detention pond location? If not how much additional irrigation water will be discharged to the detention pond and onto the property to the north?
- X 4. Final plans and details for the irrigation system should be submitted for our review prior to construction.
- ✓ Previous comments not addressed on revised plans:
4. On the road plans, handicap curb ramps are required and should be shown at street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.
- X 5. Vertical P.I.s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Courtland Court should be increased above 0.5% where possible. The south half of the drainage cross-pan at station 9+11.19 is shown to be flat on the street profile (flowline elev. 4719.74) and will not drain.
- X 6. On the drainage ^{"PRE POND"} plans, the inlet grate and frame specified is incorrect. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe is not specified. The sidewalk thickness should be shown on section A-A. Provide details/literature for "Kerf" grating specified on top of drainage structure. Is the concrete box notched to hold grating in place?
- ✓ 7. The outlet pipe from the storm water detention pond discharges to the north into an existing channel. The pipe outlet shall be designed such that flows and velocities do not exceed historic conditions.

complete, and honest understanding that the exemption which he had obtained from the County had been grandfathered into the City when he came to the City under his annexation agreement, and that he would continue to be exempt from the \$225/lot open space fees.

The original agreement was that the park property would be developed after 50% of the lots in Wilson Ranch were sold. It was developed after the first 15 lots were sold. That 1.4 acres could have been turned into six or seven residential lots under the zoning agreement. The developer did not forego six or seven residential lots in order to get a \$9,000 open space fee exemption. Regardless of what was done in 1980 and 1983, Mr. Garrison developed a park. He had the trees trimmed, privacy fenced the park from neighbors, installed a split rail fence and plantings along G-1/2 Road, etc. Mr. Garrison spent \$20,000 landscaping the park. This work was all done under the assumption that he had been grandfathered in and exempt from the open space fees.

Mr. Garrison requested that Council respect the integrity of an agreement that he made with the City relative to annexation. Mr. Garrison submitted documents supporting his contention that the open space fees should be waived (copies attached). He felt these documents do not refer to Filing #1 only, and give evidence that it was the County's intent to waive the open space fees for Filing #2 and #3 as well.

Mr. Garrison stated that if the open space fees are waived for Filings #2 and #3 he will not ask for a waiver of open space fees on Filing #4.

Upon motion by Councilmember Maupin, seconded by Councilmember Mantlo, and carried by roll call vote with Councilmembers ROSENTHAL, BAUGHMAN, and THEOBOLD voting NO, the request to waive the open space fees on Filing #2 for Garrison Ranch was denied.

PUBLIC HEARING - APPEAL OF PLANNING COMMISSION DECISION OF DENIAL FOR THE FINAL PLAN AND PLAT FOR PTARMIGAN RIDGE SUBDIVISION, FILING #6 - APPROVED

Ptarmigan Investments is appealing a Planning Commission decision of denial for the final plat and plan of Ptarmigan Ridge Subdivision Filing #6. Planning Commission heard the item at the May 4th Planning Commission meeting and denied the proposal because of inadequate front and rear yard setbacks for the proposed townhomes.

This item was reviewed by Dave Thornton, City Community Development Department. This proposal went before Planning Commission on May 4, 1993 and was denied by Planning Commission because of "inadequate setbacks both in front and in the rear of the townhome section of the proposal." The petitioner is now appealing this decision to City Council.

Planning Commission was opposed to the reduction from 20 feet to 14 feet for the front yard setback and discussion also occurred regarding the appropriateness of the proposed 5 foot rear yard setback. In their approval of the preliminary plan, Planning Commission specified a 20 foot front yard setback would be required. At both the preliminary and final plan submittals, staff has recommended that the 14 foot front yard setback would be appropriate as long as eaves are not allowed to overhang into the setback and that for front entry garages a 20 foot setback be the minimum to allow for the parking of a vehicle in the driveway. Staff supports the request for a 5 foot rear yard setback with the condition that a 6 foot privacy fence be provided along the rear property line of those townhomes that are adjacent to the Brown property at 681 27-1/2 Road and currently zoned Residential Single Family - 4 units per acre. Further discussion of the Planning Commission hearing suggested single level townhomes would also be appropriate along this section. The petitioner has agreed to this as a condition.

Through the review process the petitioner has addressed the various review agency comments adequately. In staff's recommendation of approval for this project, additional issues and comments are listed as conditions of approval and the petitioner has stated that they will comply with all those conditions. Conditions are as follows:

1. That notation be required on the plat which includes restrictions of the drainage facilities on Lots 10 and 11 including the following statements:
 - a. No structures, fences shall be constructed within this drainage easement.
 - b. No activity shall occur that would divert or change the City approved drainage facility.
 - c. The Ptarmigan Ridge Filing #6 Homeowners Association shall be responsible for maintenance of the drainage facility.
2. The setback requirement for the multi-family dwellings be the following:
 - a. Rear yard setback for all townhouses be 5 feet. The rear property line of the townhouses adjacent to the west property line of the existing house on 27-1/2 Road shall be required to have a 6 foot privacy fence.
 - b. Front yard setbacks measured from property line for all townhouses shall be 14 feet measured from the eaves except for front entry garages which shall be 20 feet

measured from the eaves. Garages with a side entry shall be allowed to be built with a 14 foot setback measured from the eaves so long as there is adequate driveway length to accommodate a parked vehicle or vehicles on site.

c. The distance between buildings shall be 10 feet measured from the foundation.

3. All technical requirements by the review agencies be completed or adequately addressed prior to recording the final plat which includes the escrow or guarantee of 1/2 street improvements for 27-1/2 Road adjacent to Ptarmigan Ridge Subdivision.

4. That notation be required on the final plan which includes restrictions of the 44 foot utility/irrigation/drainage/pedestrian easement located between North 15th Street Court and Cortland Court including the following statements:

a. No structures, fences shall be constructed nor the planting of trees and shrubs shall be allowed within this casement.

b. Drainage within this easement shall be constructed and maintained so that all run-off within the easement is contained within the easement.

c. Pedestrian access along the 5' pedestrian path shall be maintained. General maintenance of the pedestrian path such as snow removal, sidewalk sweeping and keeping the path clear of obstructions and debris shall be the responsibility of the property owner.

d. Maintenance within the entire 44 foot easement shall be the responsibility of the property owner.

5. That the pedestrian path construction be concrete, meet current City construction standards and be a minimum of 5 feet in width.

6. Dedication language on the plat for easements must coincide with the easement shown on the plat. For example, easements for irrigation ditches, pipes and ponds should not be dedicated to the City, but to the homeowners association. An irrigation easement shall be dedicated along the west side of Lot 1, Block 3.

7. The existing 15" corrugated steel drainage pipe crossing Cortland Court does not meet City specifications and will need to be replaced with a pipe that meets City specifications.

8. The petitioner shall provide a profile and details for the gravity overflow pipe between the irrigation pond and storm detention basin prior to recording the plat.
9. Handicap curb ramps are required and should be shown at all street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.
10. Vertical P.I.s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5%. The south half of the drainage cross-span at station 9+11.19 is shown to be flat on the street profile (flowline elev. 4719.74) and will not drain and therefore must be modified.
11. On the drainage plans, the inlet grate and frame specified is incorrect. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe must be specified. The sidewalk thickness shall be shown on section A-A. Provide details/literature for "Kerf" grating specified on top of drainage structure. The concrete box must be notched to hold grating in place.
12. The outlet pipe from the storm water detention pond discharges to the north into an existing channel. The pipe outlet shall be designed so that flows and velocities do not exceed historic conditions.

Councilmember Bessinger questioned the type of drainage cover used in this area. Public Works Manager Mark Relph addressed this concern.

Lewis Hoffman, Box 9008, Grand Junction and Bently Hamilton were present representing the petitioner John Siegfried. Mr. Hoffman explained that a builder approached Mr. Siegfried late in 1992 and wanted to build large attached patio home units in the duplex form. He wanted large townhomes with very minimal yard. The property was rezoned to Planned Development so Mr. Siegfried could propose his own setbacks. Originally they were proposing 14 foot frontyards for garage and the building, and zero on the rear. The preliminary plan was approved with the 5 foot rear setback, and 20 foot across the whole front of the building. When he came back with the Final Plan to the Planning Commission he was asked what he would do if the Planning Commission were to impose the 20 foot front setback and the 10 foot rear setback (which had never been discussed until that night). He said he would have to appeal to the City Council. It would have a negative impact on the entire concept.

Mr. Hoffman stated that the large units are needed to be consistent with the balance of Ptarmigan Ridge. The proposed units will be 1400 to 1800 square feet with 400 sq ft attached garages. He stated that some units may be multi-level.

There were no others speaking for or against the appeal.

Upon motion by Councilmember Maupin, seconded by Councilmember Mantlo and carried with Councilmember BESSINGER voting NO, the Final Plan and Plat for Ptarmigan Ridge Subdivision, Filing #6 was approved with the revised 5-18-93 staff recommendations.

ADJOURNMENT

Upon motion by Councilmember Afman, seconded by Councilmember Rosenthal and carried, the meeting was adjourned at 10:45 p.m.

Stephanie Nye, CMC
City Clerk

Review Comments
Ptarmigan Ridge Filing No. 6
6/25/93

We have received revised drawings 1, 2, 3, and 9. We have the following comments.

PLAT

- X 1. Dedicatory language regarding easements has not been adequately revised. Please see the attached red-lined plat. — Ignored!
- ✓ 2. Provide book and page information for existing easements and ROW.
- ✓ 3. Only the City Manager and Mayor are now required to sign for the City.
- ✓ 4. Once final drainage calculations are proposed, will the drainage easement for the detention basin be adequate?

OTHER

- X 1. Address notes 4 and 5 on Don Newton's 5/4/93 letter to Dave Thornton.
- ✓ 2. Address Gerald Williams' letter to Bill Heley dated 5/10/93.

Reviewed by Gerald Williams

Review Comments
on
Ptarmigan Ridge Filing Six
#23-93

Reviewed by: Gerald Williams

Date: 8/20/93

Copies of previous comments are attached. We note that while some of the comments have been addressed, others have not. Also, red-lined plans are attached. We reiterate what has already been said regarding plats below. If, after reading the comments and the attached memorandum questions remain regarding the plat, please come in to discuss them.

1. Use the attached memorandum to re-write the dedication as applicable. (plat)
2. Properly delineate between easements of various types where they abut, cross, or overlap one another.
3. Easement labels on the graphic portion of the plat should be specific and match that described in the dedication.
4. The easement for GVWUA must be granted to them - not homeowners.

23 MARCH 1993

EXHIBIT "F"

pg 1 of 2

Gerald Williams



JOHN SIEGFRIED
c/o QED SURVEYING SYSTEMS
1018 COLORADO AVENUE
GRAND JUNCTION, COLORADO 81501

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

Re: Incomplete development submittals
Ptarmigan Ridge, Filings 3-6

Dear John,

This letter is written to you following a conversation that Dan Wilson and I had earlier today. That conversation was about the options that I, as Public Works Director, have available to me, on behalf of the City, to ensure that you submit complete and accurate development designs, engineering data, testing reports and review/inspection reports.

It is my understanding from my staff that you have failed to supply required subgrade and base course compaction tests, pressure tests for water lines and concrete testing for water and sewer lines, and that you have failed to provide necessary inspection reports. You have been advised of these deficiencies before and more recently in a letter from City Engineer Don Newton dated March 4, 1993, (attached). To date, you have seemingly ignored those comments. To date, you have failed to correct the issues raised by Don in his letter to you. Lewis Hoffman was again notified on March 22, 1993, of the deficiencies but indicated you will pave anyway.

When I found out that some of these tests have not been submitted, and others were not timely submitted, even for the early filings of your development, I was forced to write this letter. Based on your prior, and consistent, history of non-compliance, and my legal advice, I am requiring that all tests and reports for filings 3, 4 and 5 of Ptarmigan Subdivision(s) are due in my office, on or before March 26, 1993. Gerald Williams has prepared a list (attached) of what has not been completed or filed. Please feel free to confer directly with him to confirm exactly what is outstanding and what is required.

If you fail to provide the required analytical data and reports, or if the information contained in the reports is insufficient, e.g. it does not evidence that full and complete testing has occurred or that the construction does not meet City specifications, then you will be subject to any or all of the following actions:

The removal, at your cost, of any and all site and surface work which has been constructed or installed in areas in which required testing and reporting requirements have not been performed, or, which subsequently show failed tests.

John Siegfried
page 2

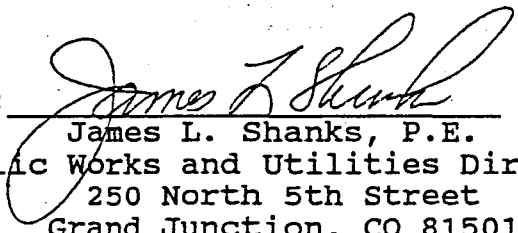
With respect to future filings, including Filing 6, the requirements set forth in the Section V, Construction Phase of "Submittal Standards for Improvements and Development (SSID)" (attached) shall apply until further notice. Please note that the City is in the process of publicly reviewing this document.

Please review this information and respond accordingly. This condition has gone too far and it must be resolved promptly and thoroughly. The situation will not be allowed to continue. The City is currently faced with costs of over \$1 million to repair or replace pavement and concrete that was incorrectly installed by developers. Our system of quality control is designed to assure that the taxpayer does not have to pay for these costly repairs. I believe that our requirement is reasonable and affords you adequate flexibility to develop your project.

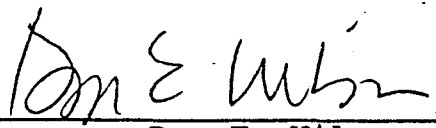
Obviously, this letter is written based on the assumptions that you, and your agents, have not complied with City requirements and that prior requests of you have been to no avail. If you disagree with the assumptions, please call me. The deadline for submission of information will still apply.

If have questions call at your earliest convenience.

CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS

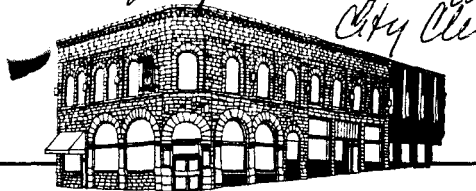
by: 
James L. Shanks, P.E.
Public Works and Utilities Director
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1557

Approved as to form and content


Dan E. Wilson
City Attorney

pc: QED Survey
Bill Healy
Lewis Hoffman

original on file with City Clerk



BURNS NATIONAL BANK

"Part of the Largest Financial Institution in the Four Corners Area"

October 15, 1993

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4275-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of NINETY FOUR THOUSAND NINE HUNDRED SIXTY FOUR AND 70/100s (\$94,964.70), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.

The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on October 15, 1994.

We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

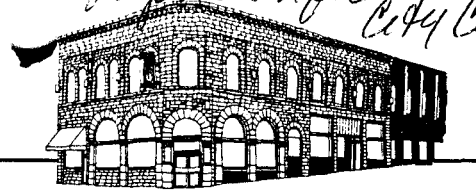
Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,

Bonnie M. Kinney
Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 8/15/94

original on file with City Clerk



BURNS NATIONAL BANK

"Part of the Largest Financial Institution in the Four Corners Area"

October 15, 1993

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4276-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of SEVENTEEN THOUSAND FIVE HUNDRED AND 00/100s (\$17,500.00), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.

The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on October 15, 1994.

We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,

Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 8/15/94



City of Grand Junction, Colorado
250 North Fifth Street
81501-2688
FAX: (303) 244-1599

October 22, 1993

Mr. John Moore
Attorney At Law
P.O. Box 4161
Grand Junction, Colorado 81502

Re: Ptarmigan Filing #6
Road Improvements Agreement and Security

Dear Mr. Moore,

This letter is written to inform you that a decision has been made regarding the security which the City will require from your client, Mr. Siegfried, for the improvement of 27 1/2 Road.

As you are well aware, on and off site improvements are required as a condition of development approval. Specifically, as a condition of approval of Ptarmigan Filing #6, Mr. Siegfried is required to construct infrastructure and facilities in the subdivision and is required to improve 27 1/2 Road to a condition acceptable to and approved by the City, all as more particularly detailed in City development standards and the Zoning and Development Code.

I have received a photocopy of your letter of today's date and have had occasion to consult with legal and public works staff regarding the appropriate form of security for the construction of the required road improvements. The following terms are acceptable to the City for the construction of 27 1/2 Road improvements.

1. An improvements agreement for 27 1/2 Road improvements must be executed by the developer. The agreement shall provide that the 27 1/2 Road improvements be completed to City standards on or before June 15, 1994.
2. An irrevocable letter of credit for the sum of \$17,500.00 dollars must be posted as security for the improvements agreement for the 27 1/2 Road improvements.
3. The irrevocable letter of credit shall have an expiration date of August 15, 1994.

If these terms are acceptable to Mr. Siegfried, please submit on his behalf, a completed improvements agreement and irrevocable letter of credit as specified herein. The agreement and letter of credit will be subject to review and approval by the City Attorney's Office and the City Manger.

Mr. John Moore
page 2

If you have questions or need additional information please do not hesitate to call.

Grand Junction Community Development Department

10/22/93 LT
Larry Timm, Director

SUB NO. SB-17-93

FRED A. WEBER
MESA COUNTY SURVEYOR
544 ROOD AVE
GRAND JUNCTION, COLO. 81501

RESIDENCE
(303) 434-7772

OFFICE
COUNTY COURT HOUSE
(303) 244-1821

To: Monika Todd, Mesa County Clerk & Recorder.

This is to certify that the SUBDIVISION PLAT described below

PTARMIGAN RIDGE FILING SIX

has been reviewed under my direction as Mesa County Surveyor and that to the best of my knowledge it conforms with the necessary requirements pursuant to the Colorado Revised Statute 1973 38-51-102 for the recording of Land Survey Plats in the records of the County Clerk's Office.

This approval does not certify as to the accuracy of Surveys, Drafting, Calculations, nor to the possibility of omissions of easements and other Rights-of-Way or Legal Ownerships.

Dated this 27th day of October, 1993.

Signed: Fred A. Weber by Ken Swearingin
Fred A. Weber, Mesa County Surveyor.

NOTE

The recording of this plat is subject to all Approved Signatures & Dates.
F.W.

RECORDED IN MESA COUNTY RECORDS

DATE: _____

TIME: _____

BOOK: _____ PAGE _____

RECEPTION NO: _____

The Law Offices Of
JOHN MOORE, P.C.
ATTORNEY AT LAW

DALBY, WENDLAND BUILDING SUITE 301
115 NO. 5TH STREET • P.O. BOX 4161
GRAND JUNCTION, COLORADO 81502

PC: *WILLIAM JIMM*
DAN WILSON
MARK KELPH
(303) 241-1717
FAX (303) 243-3746

October 22, 1993

John Shaver, Attorney at Law
Assistant City Attorney
250 N. 5th. Street
Grand Junction, CO 81501

HAND-DELIVERED

Re: Ptarmington Filing #6
Security for off-site improvements

Dear John:

This letter is being sent to you at your request as a follow-up to and memorandum of our telephone conversation late Wednesday evening, October 20.

You will recall that I brought to your attention that, at a meeting with Department of Public Works Officials of the City of Grand Junction at City Hall on October 12, 1993, my client was advised in my presence that certain requirements would have to be met before the City would allow the final plat for the Ptarmington 6 Filing to be recorded.

A check-list was developed after the various items contained in the October 11, 1993, letter from Gerald Williams, Development Engineer, were fully discussed.

At the conclusion of the October 12, meeting Mr. Don Newton, City Engineer, made a point of informing me that Letters of Credit to secure both on-site and off-site improvements would necessarily have to be submitted to the City in order for the City to give any final approval for the Ptarmington 6 Filing. At that time Mr. Siegfried made the representation to the City Officials present that Irrevocable Letters of Credit would be made available to the City to secure both on-site and off-site improvements as per the City Engineer's estimates on or before Monday, October 18.

Accordingly, on Monday, October 18, Mr. Lewis Hoffman presented originals of the Irrevocable Letters of Credit from the Burns National Bank of Durango to the Community Development Office at City Hall. Sometime later that same day, Mr. Hoffman received a call from Dave Thorton of that office wherein Mr. Thorton advised that an Irrevocable Letter of Credit would not be acceptable as security for off-site improvements. The improvements in question have to do with the developer's obligation along 27 1/2 Rd. The

amount of the developer's contribution, as per the City Engineer's Office, is \$17,500. That was the principal amount stated within the Irrevocable Letter of Credit.

For your ready reference I am attaching the subject Irrevocable Letter of Credit. You will note that the Credit expires August 15, 1994.

As I indicated to you, I was surprised to learn that the security requirement for off-site improvements would be acceptable only in the form of cash to be deposited with the City. I was surprised for three reasons: (1) Letters of Credit were solicited by City officials at the October 12th meeting alluded to above; (2) In previous filings with the City this Developer has in fact submitted a similar Irrevocable Letter of Credit to secure off-site improvements which was accepted by the City; (3) at least one other developer that I am aware of was allowed to submit an unsecured Promissory Note without personal guarantees for the majority of their share of the improvements to the same 17 1/2 Rd. For your ready reference I am enclosing a copy of the Development Improvements Agreement and unsecured Promissory Note issued pursuant thereto to which I am referring.

Also, as I mentioned to you, after scouring the City of Grand Junction Zoning and Development Code that was adopted July 5, 1989, and which was in effect on the date that the Ptarmington 6 Filing was initially made, I was unable to find any rule or regulation supporting a requirement for "cash only" to secure off-site improvements.

As I mentioned, I do not care what the City Policy is. My concern is only that whatever the Policy is that it be applied evenly across the board. I certainly do not think that it is appropriate to grant special privileges to certain developers, and to not extend those same privileges to others. The practice is even more objectionable when the developer to which special privilege is extended is an establishment of religion. I am sure you understand my point here.

As I indicated, if you wish to treat Mr. Siegfried the same as you have treated the Presbyterian Church, then I am prepared to immediately tender to you 14% of the \$17,500 developer's share of off-site improvements to 17 1/2 Rd. and to secure the remainder with a Promissory Note in the same fashion as you have done in the recent Development Improvements Agreement with the Presbyterian Church. If you would prefer that in lieu of the Irrevocable Letter of Credit, please advise.

Understand that time is of the essence. I made this same point to the City Engineer and others individuals present at the October 12th meeting. The building season is rapidly coming to a close. There is still a significant amount of work that must be

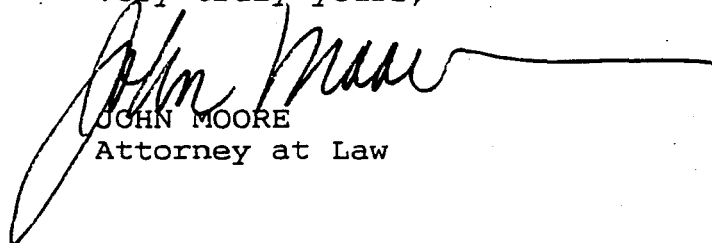
done by this Developer in order to meet certain contractual deadlines that have been imposed upon the developer by financiers and others.

Please understand that if the final plat is not recorded immediately, this Developer will likely incur consequential losses in an amount in excess of \$200,000. I want you to be on Notice of this fact so that you fully and completely understand the extent of the damages which may be suffered in the event that the final plat is not able to be immediately recorded. Of course, we understand that you will not allow the recording of the final plat unless the Improvements Agreement has been entered into and sufficient security made available to secure off-site improvements. I want to urge you to complete that agreement and accept the security that I am offering in this correspondence in either of the two forms mentioned by the close of business this date. Otherwise, losses are sure to be incurred.

If I have not completely and adequately impressed upon you the urgency of this situation, please do not hesitate to contact me by telephone so that I may further explain to you the likely consequences of the City failing to act in this important matter. I fail to understand what the City's objection is to an Irrevocable Letter of Credit. Perhaps there is no one in City Administration who has a clear understanding of these matters and, if that is the case, please have the City Official at the correct decision-making level contact me so that I may offer a clearer explanation. Or, alternatively, perhaps someone in City Finance could go over this most rudimentary of commercial instruments with the appropriate City Official.

I await the City's response and urge you to make no further delay.

Very truly yours,



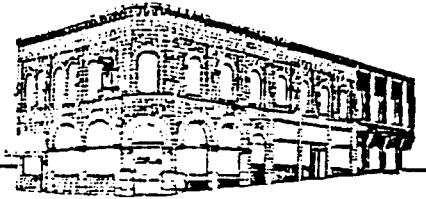
JOHN MOORE
Attorney at Law

JM/tt

cc: John Siegfried

Enc. Irrevocable Letter of Credit/Burns National Bank
Promissory Note/Presbyterian Church
Development Improvements Agreement/Presbyterian Church

BURNS NATIONAL BANK



"Part of the Largest Financial Institution in the Four Corners Area"

October 15, 1993

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4276-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of SEVENTEEN THOUSAND FIVE HUNDRED AND 00/100s (\$17,500.00), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.

The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on October 15, 1994.

We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,

Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 8/15/94

Dave Thornton

PROMISSORY NOTE

U.S. \$51,500.00

Grand Junction, Mesa County, Colorado

BOOK 1276 PAGE 338

January 1, 1992

1591540 03:40 PM 01/24/
MONIKA TODD CLK&REC MESA COUNTY

1. FOR VALUE RECEIVED, the undersigned ~~of Mesa Presbyterian Church~~ (Borrower) promises to pay to The City of Grand Junction, or order, (Note Holder) the principal sum of fifty one thousand five hundred and no/100 U.S. Dollars, with interest thereon from January 1, 1992, until paid, at the rate of nine percent (9%) per annum; Principal and interest shall be payable at 250 North Fifth Street, Grand Junction, Colorado, 81501, or at such other location as Holder may designate, in equal monthly payments of six hundred fifty two dollars and thirty-nine (\$652.39) due on February 1, 1992 and the first of each month thereafter until paid in full. Such payments shall continue until the entire indebtedness evidenced by this Note is fully paid; provided, however, if not sooner paid, the entire principal amount outstanding and accrued interest thereon, shall be due and payable on January 1, 2002.
2. Borrower shall pay to the Note Holder a late charge of TEN PERCENT (10%) of any payment not received by the Note Holder within fifteen days after the payment is due.
3. Payments received for application to this Note shall be applied first to the payment of late charges, if any, second to the payment of accrued interest specified above, and the balance applied in reduction of the principal amount hereof.
4. If any payment required by this Note is not paid when due, the entire principal amount outstanding and accrued interest thereon shall become due and payable at the option of the Note Holder (Acceleration) twenty days after notice of Acceleration has been given. Such notice of Acceleration shall specify the amount of the nonpayment plus any unpaid late charges and other costs, expenses and fees due under this Note. Until the expiration of said twenty-day period, the Borrower may cure all defaults consisting of a failure to make required payments by tendering the amounts of all unpaid sums due at the time of tender, without Acceleration, as specified by the Note Holder in such notice. Cure restores the Borrower to his rights under this Note as though defaults had not occurred. Any defaults under this Note occurring within twelve months after the Note Holder has once given a notice of Acceleration, entitles Borrower to no right to cure, except as otherwise provided by law. The Note Holder shall be entitled to collect all reasonable costs and expense of collection and/or suit, including, but not limited to reasonable attorney's fees.

5. Borrower may prepay the principal amount outstanding under this Note, in whole or in part, at any time without penalty. Any partial prepayment shall be applied against the principal amount outstanding and shall not postpone the due date of any subsequent payments or change the amount of such payments.

6. Borrower and all other makers, sureties, guarantors, and endorsers hereby waive presentment, notice of dishonor and protest, and they hereby agree to any extensions of time of payment and partial payments before, at, or after maturity. This Note shall be the joint and several obligation of Borrower and all other makers, sureties, guarantors and endorsers, and their successors and assigns.

7. Any notice to Borrower provided for in this Note shall be in writing and shall be given and be effective upon (1) delivery to Borrower or (2) mailing such notice by first-class U.S. mail, addressed to Borrower at the Borrower's address stated below, or to such other address as Borrower may designate by notice to the Note Holder. Any notice to the Note Holder shall be in writing and shall be given and be effective upon (1) delivery to Note Holder or (2) by mailing such notice by first-class U.S. mail, to the Note Holder at the address stated in the first paragraph of this Note, or to such other address as Note Holder may designate by notice to Borrower.

Borrower's address is 622 White Avenue, Grand Junction, CO, 81501.

FIRST PRESBYTERIAN CHURCH, a Colorado non-profit Corporation.

BY: John C. Bachelder 12-23-91
President

ATTEST:

Jim F. [Signature] 12/31/91
Secretary

DEVELOPMENT IMPROVEMENTS AGREEMENT

1. **Parties:** The parties to this Development Improvements Agreement ("the Agreement") are [REDACTED] a Colorado non-profit corporation, 622 White Avenue, Grand Junction, Colorado 81501 ("Developer"), and the City of Grand Junction, Colorado ("City").

For valuable consideration, the receipt and adequacy of which is acknowledged, the Parties agree as follows:

2. **Effective Date:** The Effective Date of this Agreement is December 23, 1991.

RECITALS

1591541 03:40 PM 01/24,
MONIKA TODO CLK&REC MESA COUNTY

The Developer seeks permission to develop property in the City to be known as the First Presbyterian Church (the "Project"), which property is more particularly described on Exhibit "A" attached and incorporated by this reference (the "Property"). The City seeks to protect the health, safety and general welfare of the community by requiring that the developer pay for the required improvements. The purpose of this Agreement is to protect the City from the cost of paying for the project improvements itself and is not executed for the benefit of materialmen, laborers, or others providing work, services or material to the Project or for the benefit of buyers in the Project. The mutual promises, covenants, and obligations contained in this Agreement are authorized by state law, the Colorado Constitution and the City's land development ordinances.

DEVELOPER'S OBLIGATION

3. **Improvements:** The Developer agrees to pay, as set forth below for the estimated costs required to design, construct and install, the street improvements on 27 1/2 Road and Cortland Avenue as listed on Exhibit "B" attached and incorporated by this reference. Developer obligation is limited to the amount herein stated regardless of the actual cost.

4. **Security:** To secure the performance of its obligations under this Agreement, the Developer and the City agree as follows:

a. Because construction of the required half street improvements on both Cortland and 27 1/2 Road is not now practicable, the parties agree that Developer will instead pay to the City the estimate of such costs. Such payment shall satisfy Developer's obligation in this regard.

b. Developer shall pay such estimate as follows:

i. \$8,500 upon execution hereof;

ii. based on a ten year term and interest at nine percent per annum, monthly payments of \$652.39 beginning on February 1, 1992 and \$652.39 the first of each month thereafter until the full \$51,500 is paid in full.

iii. in the event Developer receives funds pursuant to that Commercial Contract to Buy and Sell Real Estate dated June 19, 1991, as it may be amended, Developer shall pay such sums forthwith to the City up to the total amount due pursuant hereto. In the event of such additional payment(s), the monthly payments of \$652.39 shall not change, i.e., the monthly payments shall continue to be timely paid until the full \$51,500.00 has been paid in full.

c. Developer shall execute and deliver to the City a note, a copy of which is attached.

5. **Measure of Damages:** The measure of damages for breach of this Agreement by Developer will be the reasonable cost of satisfactorily completing the identified Improvements.

6. **Amendment or Modification:** The parties to this Agreement may amend or modify this Agreement only by written instrument executed on behalf of the City by the City Manager or his designee and by the Developer or his authorized officer. Such amendment or modification will be properly notarized before it may be effective.

7. **Attorney's Fees:** Should the City be required to use the services of an attorney or to resort to litigation to enforce the terms of this Agreement or to collect any sums due hereunder, the City will be entitled to costs, including reasonable attorney's fees and expert witness fees, from the Developer.

8. **Vested Rights:** The City does not warrant by this Agreement that the Developer is entitled to any other approval(s) required by the City, if any, before the Developer is entitled to commence development of the project or to transfer ownership of property in the project.

9. **Third Party Rights:** No person or entity who or which is not a party to this Agreement will have any right of action under this Agreement.

10. **Severability:** If any part, term, or provision of this Agreement is held by the courts to be illegal or otherwise unenforceable, such illegality or unenforceability will not affect the validity of any other part, term, or provision and the rights of the parties will be construed as if the part, term, or provision was never part of the Agreement.

11. **Benefits:** The benefits of this Agreement to the Developer are personal and may not be assigned without the express written approval of the City. Such approval may not be unreasonably withheld, but any unapproved assignment is void. Notwithstanding the foregoing, the burdens of this Agreement are personal obligations of the Developer and also will be binding on the heirs, successors, and assigns of the Developer, and shall be a covenant(s) running with the Property. There is no prohibition on the right of the City to assign its rights under this Agreement.

12. **Notice:** Any notice required or permitted by this Agreement will be deemed effective when personally delivered in writing or three (3) days after notice is deposited with the U.S. Postal Service, postage prepaid, certified, and return receipt requested, and addressed as follows:

If to Developer: 622 White Avenue
Grand Junction, CO 81501

If to City: City of Grand Junction
Finance Director
250 N. 5th Street
Grand Junction, Colorado 81501.

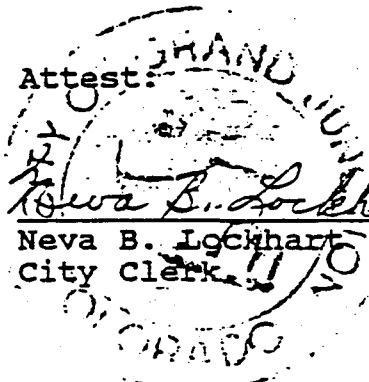
13. **Recordation:** Developer will pay for any costs to record a copy of this Agreement in the Clerk and Recorder's Office of Mesa County, Colorado.

14. **Immunity:** Nothing contained in this Agreement constitutes a waiver of the City's sovereign immunity under any applicable state law.

15. **Personal Jurisdiction and Venue:** Personal jurisdiction and venue for any civil action commenced by either party to this Agreement whether arising out of or relating to the Agreement, letter of credit, project improvements disbursements agreement, or cash escrow agreement will be deemed to be proper only if such action is commenced in District Court for Mesa County. The Developer expressly waives his right to bring such action in or to remove such action to any other court whether state or federal.

16. **The improvements guarantee** required by the City Code to ensure that the required improvements is satisfied by this Agreement.

Attest:


Neva B. Lockhart, CMC
Neva B. Lockhart
City Clerk

City of Grand Junction
250 North Fifth Street
Grand Junction CO 81501

By: Mark K. Achen
Mark K. Achen
City Manager

Attest:

James F. Terlouw
James F. Terlouw
Secretary

First Presbyterian Church,
a Colorado non-profit corporation
By: John C. Bachelidor
John Bachelidor
President



12 AUGUST 1994

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

BONNIE KINNEY
c/o BURNS NATIONAL BANK
900 MAIN AVENUE
POST OFFICE BOX N
DURANGO, COLORADO 81302-2950

Re: Letter of Credit No. 4276-5
Sent Via Federal Express

Dear Ms. Kinney,

Pursuant to our conversation of earlier this afternoon please find enclosed the original letter of credit, number 4276-5 established in favor of John A. Siegfried and E.B. Hamilton in the amount of seventeen thousand five hundred dollars (\$17,500.00) and the demand letter signed by the City Engineer drawing against said credit.


Mr. Hamilton met with City staff today and authorized that the credit may be negotiated by facsimile and mail transactions. Pursuant to that authorization I called you and arranged this transaction. Upon receipt of the enclosed demand and the original letter please issue a bank draft in the amount of \$17,500.00 payable to the City of Grand Junction. The draft should be sent to the attention of Mr. Don Newton, City Engineer, at the address below.

If you have questions or problems arise with the transaction please call me at your earliest convenience.

Thank you for your cooperation and assistance in this matter.

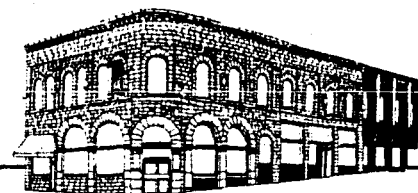
OFFICE OF THE CITY ATTORNEY
DAN E. WILSON, CITY ATTORNEY

by:


John P. Shaver
Assistant City Attorney
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1501

pc: Don Newton, City Engineer
Larry Timm, Director of Community Development





BURNS NATIONAL BANK

"Part of the Largest Financial Institution in the Four Corners Area"

October 15, 1993

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4276-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of SEVENTEEN THOUSAND FIVE HUNDRED AND 00/100s (\$17,500.00), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.

The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on October 15, 1994.

We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,

Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 8/15/94



15 AUGUST 1994

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

BONNIE KINNEY
c/o BURNS NATIONAL BANK
900 MAIN AVENUE
POST OFFICE BOX N
DURANGO, COLORADO 81302-2950

Re: Letter of Credit No. 4276-5

Dear Ms. Kinney,

Pursuant to the terms of an irrevocable letter of credit established in favor of John A. Siegfried and E.B. Hamilton Jr. in the amount of seventeen thousand five hundred dollars (\$17,500.00), the City of Grand Junction hereby makes demand for payment of said sum.

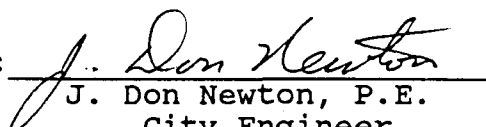
This demand is made and drawn under Credit No. 4276-5.

As the City Engineer for the City of Grand Junction, I am authorized by the terms of credit number 4276-5 to make demand for payment and by my signature on this letter do present the letter of credit for payment.

Please mail a bank draft in the amount of \$17,500.00 to my attention at the address found below.

If have questions please call me or Assistant City Attorney John Shaver.

CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

by: 
J. Don Newton, P.E.
City Engineer
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1559

pc: Larry Timm, Director of Community Development
John Shaver, Assistant City Attorney



*Kathy
Pictur*

NOTICE TO CUSTOMER
AS A CONDITION TO THIS INSTITUTION'S ISSUANCE OF THIS CHECK,
PURCHASER AGREES TO PROVIDE AN INDEMNITY BOND PRIOR TO THE
REFUND OR REPLACEMENT OF THIS CHECK IN THE EVENT IT IS LOST,
MISPLACED, OR STOLEN.



L 14320

82-57/1021

LETTER OF CREDIT 4276-5

REMITTER: HAMILTON
BMK/gs

August 15 1994

PAY TO THE ORDER OF **CITY OF GRAND JUNCTION**

17,500.00

◀ BURNS ▶ 7 5 0 0 D O L S 0 0 C T.
NAT'L BANK

DOLLARS

CASHIER'S CHECK
LOANS

AUTHORIZED SIGNATURE

Bonnie M. Kinney

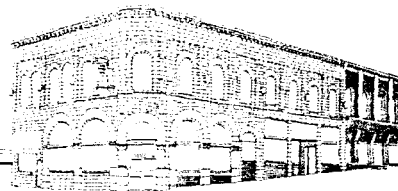
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HARLAND - FORM 701

ORIGINAL TO RANDY BOOTH 10/16/94

BURNS NATIONAL BANK

"Part of the Largest Financial Institution in the Four Corners Area"



August 15, 1994

John Shaver, Assistant City Attorney
City of Grand Junction
250 North 5th Street
Grand Junction, CO 81501

RE: Letter of Credit #4275-5, Hamilton & Siegfried

Dear Mr. Shaver:

Please accept this letter as guarantee that the above referenced Letter of Credit was issued on October 15, 1993 with an expiration date of August 15, 1994. This expiration date should have been October 15, 1994. This Letter of Credit should have been in place for a period of one year from the date of the letter.

If you need any further information please contact me.

Sincerely,

Handwritten signature of Bonnie M. Kinney

Bonnie M. Kinney
Vice President

NOTICE TO CUSTOMER
AS A CONDITION TO THIS INSTITUTION'S ISSUANCE OF THIS CHECK,
PURCHASER AGREES TO PROVIDE AN INDEMNITY BOND PRIOR TO THE
REFUND OR REPLACEMENT OF THIS CHECK IN THE EVENT IT IS LOST,
MISPLACED, OR STOLEN.



L 14320

82-57/1021

LETTER OF CREDIT 4276-5
REMITTER: HAMILTON
BMK/gs

August 15 1994

PAY TO THE ORDER OF **CITY OF GRAND JUNCTION** **17,500.00**

◀ BURNS ▶ I 7 5 0 0 D O L L S 0 0 C T
NAT'L BANK

DOLLARS

CASHIER'S CHECK
LOANS

AUTHORIZED SIGNATURE

Bonnie M. Kinney

⑈014320⑈ ⑆102100578⑆ 090 0772⑈



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

August 18, 1994

John Siegfried
P.O. Box 9088
Grand Junction, CO 81502

Re: Ptarmigan Ridge Filing 6

Dear Mr. Siegfried,

A final inspection of the street and drainage facilities in Ptarmigan Ridge, Filing 6 was scheduled and held at 8:00 a.m. on Monday, August 15, 1994. As a result of this inspection, the following items were observed which you must correct at your expense:

1. Remove the dirt and gravel from the sidewalks, gutters and street pavement.
2. Expansion joint material needs to be trimmed to the surface of the concrete sidewalk at the NE corner of the intersection of Brambling Lane and Courtland Ct., at the SE corner of Brittern Ct. and Brambling Lane and at all other locations where the joint filler extends above the concrete surface.
3. Asphalt pavement is cracking along the edge of gutter at the north end of the Brittern Ct. cul-de-sac. The cracked pavement shall be cut, removed and replaced.
4. The concrete sidewalk at both ends of the path connecting Filings 6 and 4 is broken (by trucks or construction equipment?). The broken sidewalks must be replaced with new sidewalk of 6" of thickness if continued vehicular traffic is possible.
5. The ground on both sides of the concrete path needs to be final graded to match the surface of the path and tops of manholes within the easement. All rocks and debris shall be removed from the ground surface.

mylar drawings not included in \$5,000

Siegfried
Page Two
August 18, 1994

6. To complete the detention pond work, you must:
 - Fill the voids in the surface of the concrete outlet structure so that the surface is smooth and uniform.
 - Cut off the PVC pipes that protrude beyond the surface of the outlet structure.
 - Remove the unfinished concrete from between the inlet pipe and the pond outlet structure and replace with riprap (per plan) or concrete slope paving so that the finished surface is neat and uniform.
 - Regrade the ground around the base of the outlet structure and place concrete slope paving around the inlet side of the base to cover the PVC pipe that has been filled with concrete and to provide a neat and uniform surface around the manhole base.
 - Regrade the bottom of the entire detention pond so that it will drain. The minimum bottom slope must be 2%.
7. As discussed in the meeting held on August 12, you must submit documentation that the irrigation system for Filing 6 has been professionally designed, tested and successfully operated prior to release of the improvements agreement for the irrigation system.

We have received "As Built" mylar drawings for the sanitary sewers but none for the streets and drainage facilities. Please submit complete "As Built" drawings (per SSID Manual) for the streets and drainage facilities. You need to submit a complete copy of tests results for the street construction so that I can verify that the required testing was performed.

In review of our files I have noticed that we have not received "As Built" mylar drawings on the follow phases of Ptarmigan Ridge Subdivision:

Filings 1,3 and 6-----Streets and Drainage
Filing 5-----Sewer

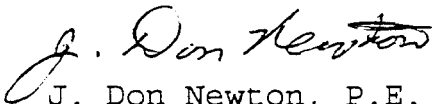
"As Built" drawings for the above Filings were submitted on paper prints which cannot be incorporated into our drawing files. Please submit the mylar drawings and, if available, the drawing files on computer disks for our records.

Siegfried
Page Three
August 18, 1994

Upon satisfactory completion of the above items and upon receipt of required drawings and test results, the improvements agreement will be ready to be released and the streets will be ready for final inspection for acceptance for future maintenance by the City. It is my understanding that the improvements guarantee for Filing 6 has been extended to October 15, 1994. All remaining work must be completed and submittals received by October 3 so that we can inspect before that date.

Please call if you have any questions regarding this Inspection or these requirements.

Sincerely,



J. Don Newton, P.E.
City Engineer

xc: Mark Relph
Jody Kliska
John Shaver
Dan Wilson
Kathy Portner
Kathy Deppe
Dan Miller, President, Homeowners Assoc.

Ptarmigan Ridge filing to fill

#23 R



7 OCTOBER 1994

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

JOHN SIEGFRIED
P.O. BOX 9088
GRAND JUNCTION, COLORADO 81502

Re: Letter of credit

Dear John,

This letter is written to you pursuant to an improvement agreement recorded at Book 2019, Page 855 et. seq. of the Mesa County land records.

The improvement agreement and the irrevocable letter of credit, in the principal sum of \$94,964.70, issued on Burns National Bank of Durango, Colorado, to secure design and installation of on-site improvements in Ptarmigan Ridge subdivision filing 6 was required as a condition of approval of subdivision.

By the terms of the letter of credit and the agreement, the City may make demand against the issuing bank at any time on or before October 15, 1994.

Pursuant to a meeting that we had in August, it was the City's understanding that you would be issuing a replacement letter of credit (for a sum determined by the City Engineer) which reflected the work that had yet not been completed in the subdivision. To date the City has yet to receive a replacement for the letter of credit currently held.

The purpose of this letter is to notify you that if an acceptable letter of credit in an acceptable amount is not posted with the City on or before October 14, 1994, the City will collect against the outstanding credit in the amount of \$94,964.70.

If you have questions please call at your earliest convenience.

OFFICE OF THE CITY ATTORNEY

by: _____

John P. Shaver
John P. Shaver

Assistant City Attorney
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1501

pc: Don Newton
Kathy Portner

FYI
Ow

LARRY ✓
Kathy ✗
Dave ✓



October 11, 1993

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

John Siegfried
c/o QED Surveying
1018 Colorado Avenue
Grand Junction, CO 81501

Re: Ptarmigan Ridge 6, Plat Signing and Improvements Agreement

Dear John:

A few days ago we received a mylar of the Ptarmigan Ridge Filing 6 plat with a request for approval and signature. We also received a request last week to approve a revised Improvements Agreement, with quantities reduced to reflect improvements which have already been constructed. We will address both issues in this letter.

Final Plat It is the City's practice to approve and sign plats only after all review comments on the plat have been addressed, and also after construction drawings have been approved. The plat submitted last week appears to remain unchanged from the unapproved plat which was submitted 8/6/93 for which review comments were provided. Furthermore, the recently submitted plat and the latest revision of submitted plans (8/6/93) do not fully address comments which were:

- 1) Made 04/08/93 (see Exhibit "A");
- 2) Reiterated 05/04/93 (see Exhibit "B");
- 3) Reiterated 05/19/93 (see Exhibit "C");
- 4) Reiterated 06/25/93 (see Exhibit "D"); and
- 5) Reiterated 08/20/93 (see Exhibit "E").

(Note that only comments, and not red-lined plans which more specifically detail the concerns, are provided.)

The above referenced review comments and the red-lined plans which accompanied them are deemed to be adequate in expressing our concerns, and no further comment is made.

Revised Improvements Agreement It is the City's practice to release Improvements Guarantees, or portions thereof, only after facilities are approved. Approval consists of the following:

- 1) Construction drawings are approved (which also must precede construction);
- 2) Inspection Diaries, materials, compaction, and all other requirements per SSID page V-3 are approved; and
- 3) A final field inspection by the City is performed, and facilities are found acceptable.

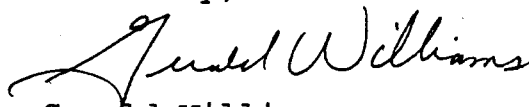
John Siegfried
October 11, 1993
Page 2

As was previously documented above in the discussion regarding plats, the Filing No. 6 construction drawings remain unapproved. However, inasmuch as the waterline through Cortland Court of Filing 6 was made a "looping" requirement of Filing 4, and the waterline plans appeared to be acceptable, we allowed construction of that portion of the waterline prior to full approval of the Filing 6 construction drawings. Subsequently, Bill Cheney granted permission for sewerline construction in the same reach. No other authorization for construction in advance of plan approval has been given.

We note that the directive submitted to you March 23, 1993 from Jim Shanks and Dan Wilson regarding conformance to SSID Section V has not been revoked (see Exhibit "F"), and that the preliminary and now adopted requirements are in full force and must be abided by, which means that drawing approval shall precede construction. We also note that we have left telephone messages at QED for Lewis Hoffman to call so that we may reiterate these requirements, and that when calls were not returned, we informed United that placement of road base and other work was not approved by the City. We now observe that road base has been placed, curb, gutter, and sidewalk has been constructed, and road base placed in the streets, all in violation of City ordinance.

Needless to say, we are not prepared at this time to approve a reduction in the amount of the Improvements Guarantee. Furthermore, we request that you set up a meeting to meet with City staff regarding the above violations as soon as possible. Further construction until these issues are resolved is prohibited.

Sincerely,



Gerald Williams
Development Engineer

cc: Jim Shanks
Mark Relph
Don Newton
Dan Wilson
John Shaver
David Thornton

REVIEW COMMENTS

Page 1 of 2

FILE NO. #23-93

TITLE HEADING:

Final Plan & Plat
Ptarmigan Ridge North, Filing #6

LOCATION:

West of 27 1/2 Road at Cortland Avenue

PETITIONER:

Ptarmigan Investments

PETITIONER'S ADDRESS/TELEPHONE:

P.O. Box 9088
Grand Junction, CO 81502
241-7025

PETITIONER'S REPRESENTATIVE:

Lewis Hoffman

STAFF REPRESENTATIVE:

David Thornton

NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS REQUIRED ON OR BEFORE 5:00 P.M., APRIL 27, 1993.

CITY ENGINEER/COMMUNITY DEVELOPMENT DEPT.

4/8/93

Don Newton/Dave Thornton

244-1559/244-1447

Revised plans for Filing 6 were received on April 5, 1993. After review of these plans, following are the comments:

1. The utility, drainage and irrigation easement between Filings 4 & 6 should also include pedestrian access. Details and typical section of the pedestrian path should be shown on the plans.
2. No irrigation system design calculations or report has been submitted for review. The irrigation plans and details are incomplete. At Lewis Hoffman's request, Mark Relph has investigated the possibility of modifying the Colorado P.E. requirement for the irrigation system. However, it has been determined that it is not possible to deviate from that requirement.

A decision needs to be made as to whether or not there will be a bleed off pipe from the retention pond on 27.5 Road. If so, it should be shown on the plans and installed before the street is built.

3. On the road plans, handicap curb ramps are required and should be shown at street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.

Vertical P.I.'s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5% where possible. The south half of the drainage cross-span at station 9+11.19 is shown to be flat on the street profile (flowline elevation 4719.74).

FILE #23-93 / REVIEW COMMENTS

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pg. 2 of 2

4. On the drainage plans, the inlet grate and frame specified does not exist. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe is not specified. Reinforcing steel shown in the sidewalk on Section A-A does not agree with that shown on plan view of drainage inlet structure. The sidewalk thickness should be shown on section A-A. Provide details and material specification for installation of "Kerf" grating specified on top of drainage structure. Is the concrete box to be notched to hold the grating in place?
5. The outlet pipe from the storm water detention pond discharges to the north slope of the ridge onto private property. This creates a concentrated point of discharge that does not currently exist. An easement shall be obtained from the property owner for the conveyance of drainage water across the property. Facilities should also be installed, with the approval of the property owner, to prevent erosion or damage to the property as a result of the discharge from the detention pond.
6. A signed deed for the additional right-of-way needed from the Christensen property for this filing is required.
7. All other previous Review Agency Comments shall be adhered to.

To: David T
 Cc: Gerald W, Mark R, Jim S
 From: Don Newton *Don*
 Subject: Ptarmigan Ridge 6
 Date: 5/04/93 Time: 3:31p

✓ = done
 x = not done

Comments:

- X 1. Plat: Dedication language for easements does not coincide with some of the easements shown on the plat. Easements for irrigation ditches, pipes and ponds should not be dedicated to the city. An irrigation easement is needed along the west side of Lot 1, Block 3.
- ✓ 2. The existing 15 inch cmp drainage pipe crossing Cortland Court does not meet City specifications and will need to be replaced.
3. The Petitioner will need to submit a profile and details for the gravity overflow pipe between the irrigation pond and storm detention basin. Was this irrigation water historically routed to the detention pond location? If not how much additional irrigation water will be discharged to the detention pond and onto the property to the north?
- X Final plans and details for the irrigation system should be submitted for our review prior to construction.
- ✓ Previous comments not addressed on revised plans:
4. On the road plans, handicap curb ramps are required and should be shown at street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.
- X 5. Vertical P.I.s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Courtland Court should be increased above 0.5% where possible. The south half of the drainage cross-pan at station 9+11.19 is shown to be flat on the street profile (flowline elev. 4719.74) and will not drain.
- X 6. On the drainage ^{"PVC PIPES"} plans, the inlet grate and frame specified is incorrect. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe is not specified. The sidewalk thickness should be shown on section A-A. Provide details/literature for "Kerf" grating specified on top of drainage structure. Is the concrete box notched to hold grating in place?
- ✓ 7. The outlet pipe from the storm water detention pond discharges to the north into an existing channel. The pipe outlet shall be designed such that flows and velocities do not exceed historic conditions.

complete, and honest understanding that the exemption which he had obtained from the County had been grandfathered into the City when he came to the City under his annexation agreement, and that he would continue to be exempt from the \$225/lot open space fees.

The original agreement was that the park property would be developed after 50% of the lots in Wilson Ranch were sold. It was developed after the first 15 lots were sold. That 1.4 acres could have been turned into six or seven residential lots under the zoning agreement. The developer did not forego six or seven residential lots in order to get a \$9,000 open space fee exemption. Regardless of what was done in 1980 and 1983, Mr. Garrison developed a park. He had the trees trimmed, privacy fenced the park from neighbors, installed a split rail fence and plantings along G-1/2 Road, etc. Mr. Garrison spent \$20,000 landscaping the park. This work was all done under the assumption that he had been grandfathered in and exempt from the open space fees.

Mr. Garrison requested that Council respect the integrity of an agreement that he made with the City relative to annexation. Mr. Garrison submitted documents supporting his contention that the open space fees should be waived (copies attached). He felt these documents do not refer to Filing #1 only, and give evidence that it was the County's intent to waive the open space fees for Filing #2 and #3 as well.

Mr. Garrison stated that if the open space fees are waived for Filings #2 and #3 he will not ask for a waiver of open space fees on Filing #4.

Upon motion by Councilmember Maupin, seconded by Councilmember Mantlo, and carried by roll call vote with Councilmembers ROSENTHAL, BAUGHMAN, and THEOBOLD voting NO, the request to waive the open space fees on Filing #2 for Garrison Ranch was denied.

PUBLIC HEARING - APPEAL OF PLANNING COMMISSION DECISION OF DENIAL FOR THE FINAL PLAN AND PLAT FOR PTARMIGAN RIDGE SUBDIVISION, FILING #6 - APPROVED

Ptarmigan Investments is appealing a Planning Commission decision of denial for the final plat and plan of Ptarmigan Ridge Subdivision Filing #6. Planning Commission heard the item at the May 4th Planning Commission meeting and denied the proposal because of inadequate front and rear yard setbacks for the proposed townhomes.

This item was reviewed by Dave Thornton, City Community Development Department. This proposal went before Planning Commission on May 4, 1993 and was denied by Planning Commission because of "inadequate setbacks both in front and in the rear of the townhome section of the proposal." The petitioner is now appealing this decision to City Council.

Planning Commission was opposed to the reduction from 20 feet to 14 feet for the front yard setback and discussion also occurred regarding the appropriateness of the proposed 5 foot rear yard setback. In their approval of the preliminary plan, Planning Commission specified a 20 foot front yard setback would be required. At both the preliminary and final plan submittals, staff has recommended that the 14 foot front yard setback would be appropriate as long as eaves are not allowed to overhang into the setback and that for front entry garages a 20 foot setback be the minimum to allow for the parking of a vehicle in the driveway. Staff supports the request for a 5 foot rear yard setback with the condition that a 6 foot privacy fence be provided along the rear property line of those townhomes that are adjacent to the Brown property at 681 27-1/2 Road and currently zoned Residential Single Family - 4 units per acre. Further discussion of the Planning Commission hearing suggested single level townhomes would also be appropriate along this section. The petitioner has agreed to this as a condition.

Through the review process the petitioner has addressed the various review agency comments adequately. In staff's recommendation of approval for this project, additional issues and comments are listed as conditions of approval and the petitioner has stated that they will comply with all those conditions. Conditions are as follows:

1. That notation be required on the plat which includes restrictions of the drainage facilities on Lots 10 and 11 including the following statements:
 - a. No structures, fences shall be constructed within this drainage easement.
 - b. No activity shall occur that would divert or change the City approved drainage facility.
 - c. The Ptarmigan Ridge Filing #6 Homeowners Association shall be responsible for maintenance of the drainage facility.
2. The setback requirement for the multi-family dwellings be the following:
 - a. Rear yard setback for all townhouses be 5 feet. The rear property line of the townhouses adjacent to the west property line of the existing house on 27-1/2 Road shall be required to have a 6 foot privacy fence.
 - b. Front yard setbacks measured from property line for all townhouses shall be 14 feet measured from the eaves except for front entry garages which shall be 20 feet

measured from the eaves. Garages with a side entry shall be allowed to be built with a 14 foot setback measured from the eaves so long as there is adequate driveway length to accommodate a parked vehicle or vehicles on site.

- c. The distance between buildings shall be 10 feet measured from the foundation.
3. All technical requirements by the review agencies be completed or adequately addressed prior to recording the final plat which includes the escrow or guarantee of 1/2 street improvements for 27-1/2 Road adjacent to Ptarmigan Ridge Subdivision.
 4. That notation be required on the final plan which includes restrictions of the 44 foot utility/irrigation/drainage/pedestrian easement located between North 15th Street Court and Cortland Court including the following statements:
 - a. No structures, fences shall be constructed nor the planting of trees and shrubs shall be allowed within this easement.
 - b. Drainage within this easement shall be constructed and maintained so that all run-off within the easement is contained within the easement.
 - c. Pedestrian access along the 5' pedestrian path shall be maintained. General maintenance of the pedestrian path such as snow removal, sidewalk sweeping and keeping the path clear of obstructions and debris shall be the responsibility of the property owner.
 - d. Maintenance within the entire 44 foot easement shall be the responsibility of the property owner.
 5. That the pedestrian path construction be concrete, meet current City construction standards and be a minimum of 5 feet in width.
 6. Dedication language on the plat for easements must coincide with the easement shown on the plat. For example, easements for irrigation ditches, pipes and ponds should not be dedicated to the City, but to the homeowners association. An irrigation easement shall be dedicated along the west side of Lot 1, Block 3.
 7. The existing 15" corrugated steel drainage pipe crossing Cortland Court does not meet City specifications and will need to be replaced with a pipe that meets City specifications.

- 8. The petitioner shall provide a profile and details for the gravity overflow pipe between the irrigation pond and storm detention basin prior to recording the plat.
- 9. Handicap curb ramps are required and should be shown at all street intersections. Horizontal curve data, including the beginning and ending stations and offsets (or coordinates), are required on the plans for all curves along the perimeter of the streets, including cul-de-sacs and intersection radii. This information is needed for layout and staking of the street improvements.
- 10. Vertical P.I.s and other points shown on the street profiles need to be labeled or otherwise identified. Gutter grades on Ren Court and Cortland Court should be increased above 0.5%. The south half of the drainage cross-span at station 9+11.19 is shown to be flat on the street profile (flowline elev. 4719.74) and will not drain and therefore must be modified.
- 11. On the drainage plans, the inlet grate and frame specified is incorrect. The number should be Castings IFG-3246-CI. The type and class of PVC drainage pipe must be specified. The sidewalk thickness shall be shown on section A-A. Provide details/literature for "Kerf" grating specified on top of drainage structure. The concrete box must be notched to hold grating in place.
- 12. The outlet pipe from the storm water detention pond discharges to the north into an existing channel. The pipe outlet shall be designed so that flows and velocities do not exceed historic conditions.

Councilmember Bessinger questioned the type of drainage cover used in this area. Public Works Manager Mark Relph addressed this concern.

Lewis Hoffman, Box 9008, Grand Junction and Bently Hamilton were present representing the petitioner John Siegfried. Mr. Hoffman explained that a builder approached Mr. Siegfried late in 1992 and wanted to build large attached patio home units in the duplex form. He wanted large townhomes with very minimal yard. The property was rezoned to Planned Development so Mr. Siegfried could propose his own setbacks. Originally they were proposing 14 foot frontyards for garage and the building, and zero on the rear. The preliminary plan was approved with the 5 foot rear setback, and 20 foot across the whole front of the building. When he came back with the Final Plan to the Planning Commission he was asked what he would do if the Planning Commission were to impose the 20 foot front setback and the 10 foot rear setback (which had never been discussed until that night). He said he would have to appeal to the City Council. It would have a negative impact on the entire concept.

Mr. Hoffman stated that the large units are needed to be consistent with the balance of Ptarmigan Ridge. The proposed units will be 1400 to 1800 square feet with 400 sq ft attached garages. He stated that some units may be multi-level.

There were no others speaking for or against the appeal.

Upon motion by Councilmember Maupin, seconded by Councilmember Mantlo and carried with Councilmember BESSINGER voting NO, the Final Plan and Plat for Ptarmigan Ridge Subdivision, Filing #6 was approved with the revised 5-18-93 staff recommendations.

ADJOURNMENT

Upon motion by Councilmember Afman, seconded by Councilmember Rosenthal and carried, the meeting was adjourned at 10:45 p.m.

Stephanie Nye, CMC
City Clerk

Review Comments
Ptarmigan Ridge Filing No. 6
6/25/93

We have received revised drawings 1, 2, 3, and 9. We have the following comments.

PLAT

- X 1. Dedicatory language regarding easements has not been adequately revised. Please see the attached red-lined plat. — *Ignored!*
- ✓ 2. Provide book and page information for existing easements and ROW.
- ✓ 3. Only the City Manager and Mayor are now required to sign for the City.
- ✓ 4. Once final drainage calculations are proposed, will the drainage easement for the detention basin be adequate?

OTHER

- X 1. Address notes 4 and 5 on Don Newton's 5/4/93 letter to Dave Thornton.
- ✓ 2. Address Gerald Williams' letter to Bill Heley dated 5/10/93.

Reviewed by Gerald Williams

Review Comments
on
Ptarmigan Ridge Filing Six
#23-93

Reviewed by: Gerald Williams

Date: 8/20/93

Copies of previous comments are attached. We note that while some of the comments have been addressed, others have not. Also, red-lined plans are attached. We reiterate what has already been said regarding plats below. If, after reading the comments and the attached memorandum questions remain regarding the plat, please come in to discuss them.

1. Use the attached memorandum to re-write the dedication as applicable. (plat)
2. Properly delineate between easements of various types where they abut, cross, or overlap one another.
3. Easement labels on the graphic portion of the plat should be specific and match that described in the dedication.
4. The easement for Gvwua must be granted to them - not homeowners.

Gerald Williams



23 MARCH 1993

JOHN SIEGFRIED
c/o QED SURVEYING SYSTEMS
1018 COLORADO AVENUE
GRAND JUNCTION, COLORADO 81501

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

Re: Incomplete development submittals
Ptarmigan Ridge, Filings 3-6

Dear John,

This letter is written to you following a conversation that Dan Wilson and I had earlier today. That conversation was about the options that I, as Public Works Director, have available to me, on behalf of the City, to ensure that you submit complete and accurate development designs, engineering data, testing reports and review/inspection reports.

It is my understanding from my staff that you have failed to supply required subgrade and base course compaction tests, pressure tests for water lines and concrete testing for water and sewer lines, and that you have failed to provide necessary inspection reports. You have been advised of these deficiencies before and more recently in a letter from City Engineer Don Newton dated March 4, 1993, (attached). To date, you have seemingly ignored those comments. To date, you have failed to correct the issues raised by Don in his letter to you. Lewis Hoffman was again notified on March 22, 1993, of the deficiencies but indicated you will pave anyway.

When I found out that some of these tests have not been submitted, and others were not timely submitted, even for the early filings of your development, I was forced to write this letter. Based on your prior, and consistent, history of non-compliance, and my legal advice, I am requiring that all tests and reports for filings 3, 4 and 5 of Ptarmigan Subdivision(s) are due in my office, on or before March 26, 1993. Gerald Williams has prepared a list (attached) of what has not been completed or filed. Please feel free to confer directly with him to confirm exactly what is outstanding and what is required.

If you fail to provide the required analytical data and reports, or if the information contained in the reports is insufficient, e.g. it does not evidence that full and complete testing has occurred or that the construction does not meet City specifications, then you will be subject to any or all of the following actions:

The removal, at your cost, of any and all site and surface work which has been constructed or installed in areas in which required testing and reporting requirements have not been performed, or, which subsequently show failed tests.

John Siegfried
page 2

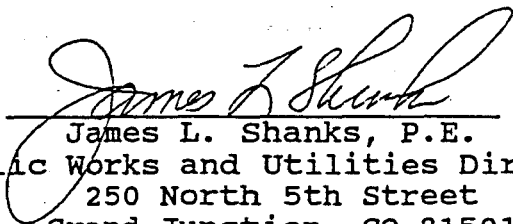
With respect to future filings, including Filing 6, the requirements set forth in the Section V, Construction Phase of "Submittal Standards for Improvements and Development (SSID)" (attached) shall apply until further notice. Please note that the City is in the process of publicly reviewing this document.

Please review this information and respond accordingly. This condition has gone too far and it must be resolved promptly and thoroughly. The situation will not be allowed to continue. The City is currently faced with costs of over \$1 million to repair or replace pavement and concrete that was incorrectly installed by developers. Our system of quality control is designed to assure that the taxpayer does not have to pay for these costly repairs. I believe that our requirement is reasonable and affords you adequate flexibility to develop your project.

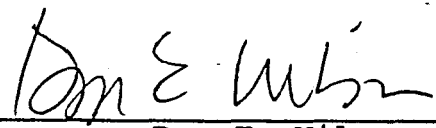
Obviously, this letter is written based on the assumptions that you, and your agents, have not complied with City requirements and that prior requests of you have been to no avail. If you disagree with the assumptions, please call me. The deadline for submission of information will still apply.

If have questions call at your earliest convenience.

CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS

by: 
James L. Shanks, P.E.
Public Works and Utilities Director
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1557

Approved as to form and content


Dan E. Wilson
City Attorney

pc: QED Survey
Bill Healy
Lewis Hoffman

The Law Offices Of
JOHN MOORE, P.C.
ATTORNEY AT LAW

DALBY, WENDLAND BUILDING SUITE 301
115 NO. 5TH STREET • P.O. BOX 4161
GRAND JUNCTION, COLORADO 81502

(303) 241-1717
FAX (303) 243-3746

pc. LARRY TIMM
DAN WILSON
MARK RELPH

October 22, 1993

John Shaver, Attorney at Law
Assistant City Attorney
250 N. 5th. Street
Grand Junction, CO 81501

HAND-DELIVERED

Re: Ptarmington Filing #6
Security for off-site improvements

Dear John:

This letter is being sent to you at your request as a follow-up to and memorandum of our telephone conversation late Wednesday evening, October 20.

You will recall that I brought to your attention that, at a meeting with Department of Public Works Officials of the City of Grand Junction at City Hall on October 12, 1993, my client was advised in my presence that certain requirements would have to be met before the City would allow the final plat for the Ptarmington 6 Filing to be recorded.

A check-list was developed after the various items contained in the October 11, 1993, letter from Gerald Williams, Development Engineer, were fully discussed.

At the conclusion of the October 12, meeting Mr. Don Newton, City Engineer, made a point of informing me that Letters of Credit to secure both on-site and off-site improvements would necessarily have to be submitted to the City in order for the City to give any final approval for the Ptarmington 6 Filing. At that time Mr. Siegfried made the representation to the City Officials present that Irrevocable Letters of Credit would be made available to the City to secure both on-site and off-site improvements as per the City Engineer's estimates on or before Monday, October 18.

Accordingly, on Monday, October 18, Mr. Lewis Hoffman presented originals of the Irrevocable Letters of Credit from the Burns National Bank of Durango to the Community Development Office at City Hall. Sometime later that same day, Mr. Hoffman received a call from Dave Thorton of that office wherein Mr. Thorton advised that an Irrevocable Letter of Credit would not be acceptable as security for off-site improvements. The improvements in question have to do with the developer's obligation along 27 1/2 Rd. The



amount of the developer's contribution, as per the City Engineer's Office, is \$17,500. That was the principal amount stated within the Irrevocable Letter of Credit.

For your ready reference I am attaching the subject Irrevocable Letter of Credit. You will note that the Credit expires August 15, 1994.

As I indicated to you, I was surprised to learn that the security requirement for off-site improvements would be acceptable only in the form of cash to be deposited with the City. I was surprised for three reasons: (1) Letters of Credit were solicited by City officials at the October 12th meeting alluded to above; (2) In previous filings with the City this Developer has in fact submitted a similar Irrevocable Letter of Credit to secure off-site improvements which was accepted by the City; (3) at least one other developer that I am aware of was allowed to submit an unsecured Promissory Note without personal guarantees for the majority of their share of the improvements to the same 17 1/2 Rd. For your ready reference I am enclosing a copy of the Development Improvements Agreement and unsecured Promissory Note issued pursuant thereto to which I am referring.

Also, as I mentioned to you, after scouring the City of Grand Junction Zoning and Development Code that was adopted July 5, 1989, and which was in effect on the date that the Pfarmington 6 Filing was initially made, I was unable to find any rule or regulation supporting a requirement for "cash only" to secure off-site improvements.

As I mentioned, I do not care what the City Policy is. My concern is only that whatever the Policy is that it be applied evenly across the board. I certainly do not think that it is appropriate to grant special privileges to certain developers, and to not extend those same privileges to others. The practice is even more objectionable when the developer to which special privilege is extended is an establishment of religion. I am sure you understand my point here.

As I indicated, if you wish to treat Mr. Siegfried the same as you have treated the Presbyterian Church, then I am prepared to immediately tender to you 14% of the \$17,500 developer's share of off-site improvements to 17 1/2 Rd. and to secure the remainder with a Promissory Note in the same fashion as you have done in the recent Development Improvements Agreement with the Presbyterian Church. If you would prefer that in lieu of the Irrevocable Letter of Credit, please advise.

Understand that time is of the essence. I made this same point to the City Engineer and others individuals present at the October 12th meeting. The building season is rapidly coming to a close. There is still a significant amount of work that must be

done by this Developer in order to meet certain contractual deadlines that have been imposed upon the developer by financiers and others.

Please understand that if the final plat is not recorded immediately, this Developer will likely incur consequential losses in an amount in excess of \$200,000. I want you to be on Notice of this fact so that you fully and completely understand the extent of the damages which may be suffered in the event that the final plat is not able to be immediately recorded. Of course, we understand that you will not allow the recording of the final plat unless the Improvements Agreement has been entered into and sufficient security made available to secure off-site improvements. I want to urge you to complete that agreement and accept the security that I am offering in this correspondence in either of the two forms mentioned by the close of business this date. Otherwise, losses are sure to be incurred.

If I have not completely and adequately impressed upon you the urgency of this situation, please do not hesitate to contact me by telephone so that I may further explain to you the likely consequences of the City failing to act in this important matter. I fail to understand what the City's objection is to an Irrevocable Letter of Credit. Perhaps there is no one in City Administration who has a clear understanding of these matters and, if that is the case, please have the City Official at the correct decision-making level contact me so that I may offer a clearer explanation. Or, alternatively, perhaps someone in City Finance could go over this most rudimentary of commercial instruments with the appropriate City Official.

I await the City's response and urge you to make no further delay.

Very truly yours,

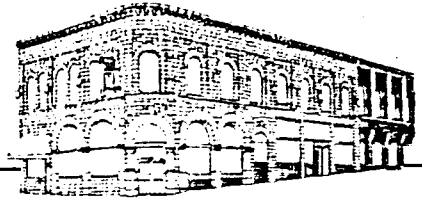

JOHN MOORE
Attorney at Law

JM/tt

cc: John Siegfried

Enc. Irrevocable Letter of Credit/Burns National Bank
Promissory Note/Presbyterian Church
Development Improvements Agreement/Presbyterian Church

BURNS NATIONAL BANK



"Part of the Largest Financial Institution in the Four Corners Area"

October 15, 1993

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4276-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of SEVENTEEN THOUSAND FIVE HUNDRED AND 00/100s (\$17,500.00), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.

The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on October 15, 1994.

We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,

Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 8/15/94

Dave Thornton

PROMISSORY NOTE

U.S. \$51,500.00
Grand Junction, Mesa County, Colorado

BOOK 1276 PAGE 338

January 1, 1992

1591540 03:40 PM 01/24/92
MONIKA TODD CLK&REC MESA COUNTY C

1. FOR VALUE RECEIVED, the undersigned ~~First Presbyterian Church~~ (Borrower) promises to pay to The City of Grand Junction, or order, (Note Holder) the principal sum of fifty one thousand five hundred and no/100 U.S. Dollars, with interest thereon from January 1, 1992, until paid, at the rate of nine percent (9%) per annum; Principal and interest shall be payable at 250 North Fifth Street, Grand Junction, Colorado, 81501, or at such other location as Holder may designate, in equal monthly payments of six hundred fifty two dollars and thirty-nine (\$652.39) due on February 1, 1992 and the first of each month thereafter until paid in full. Such payments shall continue until the entire indebtedness evidenced by this Note is fully paid; provided, however, if not sooner paid, the entire principal amount outstanding and accrued interest thereon, shall be due and payable on January 1, 2002.

2. Borrower shall pay to the Note Holder a late charge of TEN PERCENT (10%) of any payment not received by the Note Holder within fifteen days after the payment is due.

3. Payments received for application to this Note shall be applied first to the payment of late charges, if any, second to the payment of accrued interest specified above, and the balance applied in reduction of the principal amount hereof.

4. If any payment required by this Note is not paid when due, the entire principal amount outstanding and accrued interest thereon shall become due and payable at the option of the Note Holder (Acceleration) twenty days after notice of Acceleration has been given. Such notice of Acceleration shall specify the amount of the nonpayment plus any unpaid late charges and other costs, expenses and fees due under this Note. Until the expiration of said twenty-day period, the Borrower may cure all defaults consisting of a failure to make required payments by tendering the amounts of all unpaid sums due at the time of tender, without Acceleration, as specified by the Note Holder in such notice. Cure restores the Borrower to his rights under this Note as though defaults had not occurred. Any defaults under this Note occurring within twelve months after the Note Holder has once given a notice of Acceleration, entitles Borrower to no right to cure, except as otherwise provided by law. The Note Holder shall be entitled to collect all reasonable costs and expense of collection and/or suit, including, but not limited to reasonable attorney's fees.

5. Borrower may prepay the principal amount outstanding under this Note, in whole or in part, at any time without penalty. Any partial prepayment shall be applied against the principal amount outstanding and shall not postpone the due date of any subsequent payments or change the amount of such payments.

6. Borrower and all other makers, sureties, guarantors, and endorsers hereby waive presentment, notice of dishonor and protest, and they hereby agree to any extensions of time of payment and partial payments before, at, or after maturity. This Note shall be the joint and several obligation of Borrower and all other makers, sureties, guarantors and endorsers, and their successors and assigns.

7. Any notice to Borrower provided for in this Note shall be in writing and shall be given and be effective upon (1) delivery to Borrower or (2) mailing such notice by first-class U.S. mail, addressed to Borrower at the Borrower's address stated below, or to such other address as Borrower may designate by notice to the Note Holder. Any notice to the Note Holder shall be in writing and shall be given and be effective upon (1) delivery to Note Holder or (2) by mailing such notice by first-class U.S. mail, to the Note Holder at the address stated in the first paragraph of this Note, or to such other address as Note Holder may designate by notice to Borrower.

Borrower's address is 622 White Avenue, Grand Junction, CO, 81501.

FIRST PRESBYTERIAN CHURCH, a Colorado non-profit Corporation.

BY: John C. Bachelder 12-23-91
President

ATTEST:

Jim [Signature] 12/31/91
Secretary

DEVELOPMENT IMPROVEMENTS AGREEMENT

1. **Parties:** The parties to this Development Improvements Agreement ("the Agreement") are [REDACTED] a Colorado non-profit corporation, 622 White Avenue, Grand Junction, Colorado 81501 ("Developer"), and the City of Grand Junction, Colorado ("City").

For valuable consideration, the receipt and adequacy of which is acknowledged, the Parties agree as follows:

2. **Effective Date:** The Effective Date of this Agreement is December 23, 1991.

RECITALS

1591541 03:40 PM 01/24/92
MONIKA TODO CLK&REC MESA COUNTY CO

The Developer seeks permission to develop property in the City to be known as the First Presbyterian Church (the "Project"), which property is more particularly described on Exhibit "A" attached and incorporated by this reference (the "Property"). The City seeks to protect the health, safety and general welfare of the community by requiring that the developer pay for the required improvements. The purpose of this Agreement is to protect the City from the cost of paying for the project improvements itself and is not executed for the benefit of materialmen, laborers, or others providing work, services or material to the Project or for the benefit of buyers in the Project. The mutual promises, covenants, and obligations contained in this Agreement are authorized by state law, the Colorado Constitution and the City's land development ordinances.

DEVELOPER'S OBLIGATION

3. **Improvements:** The Developer agrees to pay, as set forth below for the estimated costs required to design, construct and install, the street improvements on 27 1/2 Road and Cortland Avenue as listed on Exhibit "B" attached and incorporated by this reference. Developer obligation is limited to the amount herein stated regardless of the actual cost.

4. **Security:** To secure the performance of its obligations under this Agreement, the Developer and the City agree as follows:

a. Because construction of the required half street improvements on both Cortland and 27 1/2 Road is not now practicable, the parties agree that Developer will instead pay to the City the estimate of such costs. Such payment shall satisfy Developer's obligation in this regard.

b. Developer shall pay such estimate as follows:

i. \$8,500 upon execution hereof;

ii. based on a ten year term and interest at nine percent per annum, monthly payments of \$652.39 beginning on February 1, 1992 and \$652.39 the first of each month thereafter until the full \$51,500 is paid in full.

iii. in the event Developer receives funds pursuant to that Commercial Contract to Buy and Sell Real Estate dated June 19, 1991, as it may be amended, Developer shall pay such sums forthwith to the City up to the total amount due pursuant hereto. In the event of such additional payment(s), the monthly payments of \$652.39 shall not change, i.e., the monthly payments shall continue to be timely paid until the full \$51,500.00 has been paid in full.

c. Developer shall execute and deliver to the City a note, a copy of which is attached.

5. **Measure of Damages:** The measure of damages for breach of this Agreement by Developer will be the reasonable cost of satisfactorily completing the identified Improvements.

6. **Amendment or Modification:** The parties to this Agreement may amend or modify this Agreement only by written instrument executed on behalf of the City by the City Manager or his designee and by the Developer or his authorized officer. Such amendment or modification will be properly notarized before it may be effective.

7. **Attorney's Fees:** Should the City be required to use the services of an attorney or to resort to litigation to enforce the terms of this Agreement or to collect any sums due hereunder, the City will be entitled to costs, including reasonable attorney's fees and expert witness fees, from the Developer.

8. **Vested Rights:** The City does not warrant by this Agreement that the Developer is entitled to any other approval(s) required by the City, if any, before the Developer is entitled to commence development of the project or to transfer ownership of property in the project.

9. **Third Party Rights:** No person or entity who or which is not a party to this Agreement will have any right of action under this Agreement.

10. **Severability:** If any part, term, or provision of this Agreement is held by the courts to be illegal or otherwise unenforceable, such illegality or unenforceability will not affect the validity of any other part, term, or provision and the rights of the parties will be construed as if the part, term, or provision was never part of the Agreement.

11. **Benefits:** The benefits of this Agreement to the Developer are personal and may not be assigned without the express written approval of the City. Such approval may not be unreasonably withheld, but any unapproved assignment is void. Notwithstanding the foregoing, the burdens of this Agreement are personal obligations of the Developer and also will be binding on the heirs, successors, and assigns of the Developer, and shall be a covenant(s) running with the Property. There is no prohibition on the right of the City to assign its rights under this Agreement.

12. **Notice:** Any notice required or permitted by this Agreement will be deemed effective when personally delivered in writing or three (3) days after notice is deposited with the U.S. Postal Service, postage prepaid, certified, and return receipt requested, and addressed as follows:

If to Developer: 622 White Avenue
Grand Junction, CO 81501

If to City: City of Grand Junction
Finance Director
250 N. 5th Street
Grand Junction, Colorado 81501.

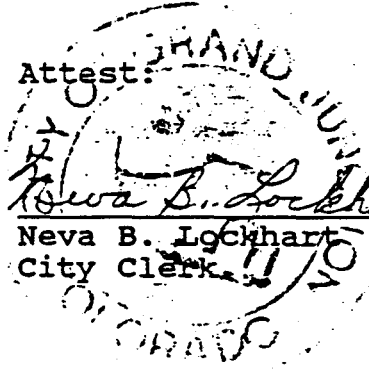
13. **Recordation:** Developer will pay for any costs to record a copy of this Agreement in the Clerk and Recorder's Office of Mesa County, Colorado.

14. **Immunity:** Nothing contained in this Agreement constitutes a waiver of the City's sovereign immunity under any applicable state law.

15. **Personal Jurisdiction and Venue:** Personal jurisdiction and venue for any civil action commenced by either party to this Agreement whether arising out of or relating to the Agreement, letter of credit, project improvements disbursements agreement, or cash escrow agreement will be deemed to be proper only if such action is commenced in District Court for Mesa County. The Developer expressly waives his right to bring such action in or to remove such action to any other court whether state or federal.

16. The improvements guarantee required by the City Code to ensure that the required improvements is satisfied by this Agreement.

Attest:


Neva B. Lockhart, CMC
Neva B. Lockhart
City Clerk

City of Grand Junction
250 North Fifth Street
Grand Junction CO 81501

By: Mark K. Achen
Mark K. Achen
City Manager

Attest:

James F. Terlouw
James F. Terlouw
Secretary

First Presbyterian Church,
a Colorado non-profit corporation

By: John C. Bachelidor
John Bachelidor
President

EXHIBIT

Recorded at _____
 Subscribed by _____
 The DEED, Made this 8th day of April 1917
 between The First State Bank of Hotchkiss
 and One Thousand and 00/100 (\$101,000.00) Dollars
 in consideration duly organized and existing under and by virtue of the laws of the State of Colorado of the first part, and
 The First United Presbyterian Church, a Non-Profit Corporation duly organized and existing under and by virtue of the laws of the State of Colorado of the second part, whose legal address is 422 White Avenue
 Grand Junction, Colorado 81501


RECORDED AT
 MARCH 20 1917 10:54 AM
 REC'D BY J. W. BENTLEY
 BOOK 1889 PAGE 113

WITNESSETH That the said party of the first part, for and in consideration of the sum of One Hundred and One Thousand and 00/100 (\$101,000.00) Dollars to the said party of the first part in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged and acknowledged, both granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm, unto the said party of the second part, its successors and assigns forever, all the following described or parcel of land, situate, lying and being in the County of Mesa and State of Colorado to-wit:
 A tract of land located in the Northwest Quarter of the Northeast Quarter of Section 1, Township 1 South, Range 1 West of the Ute Meridian, being more particularly described as follows: Beginning at the SW corner of said NW 1/4 of said Section 1; thence North 80°03'10" East 739.70 feet; thence South 89°38'46" East 511.16 feet; thence South 00°03'10" East 203.20 feet; thence South 89°38'41" East 9.00 feet; thence South 00°03'10" West 99.99 feet; thence South 10°27'14" East 55.94 feet; thence South 00°03'10" West 86.00 feet; thence South 89°55'41" East 14.80 feet; thence South 00°03'10" West 86.00 feet; thence South 00°09'10" East 55.00 feet; thence South 00°03'10" West 152.00 feet; thence North 89°55'41" West 545.74 feet to the point of beginning, together with water of Grand Valley Water Users' Association appurtenant to the above-described property.

TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances unto the said party of the second part, its successors and assigns forever. And the said party of the first part, for itself, its successors and assigns, both covenant, grant, bargain and agree to and with the said party of the second part, its successors and assigns, that at the time of the executing and delivery of these presents it is well known of the premises above conveyed, or of good, sure, perfect, absolute and indefeasible estate of inheritance, in law, in fee simple, and hath good right, full power and lawful authority to grant, bargain, sell and convey the same in manner and form aforesaid, and that the same are free and clear from all taxes and other debts, liens, claims, taxes, assessments and incumbrances of whatever kind or nature known or unknown, except all rights-of-way, reservations, restrictions, easements, covenants and conditions, visible and of record, and except 1986 taxes payable in 1987.

and the above bargained premises to the quiet and peaceable possession of the said party of the second part, its successors and assigns against all and every person or persons lawfully claiming or to claim the whole or any part thereof, the said party of the first part shall and will WARRANT AND FOREVER DEFEND.

IN WITNESS WHEREOF, the said party of the first part hath caused its corporate name to be lawfully subscribed, and its seal hereunto set, to be lawfully attested, subscribed by its president, and its seal hereunto set, to be lawfully attested, subscribed by its president.



 Cashier
 THE FIRST STATE BANK OF HOTCHKISS, COLORADO

THE FIRST STATE BANK OF HOTCHKISS

 John R. McCallister

The foregoing instrument was acknowledged before me this 8th day of April 1917
 by John R. McCallister
 D.D. Stinson, Jr.
 The First State Bank of Hotchkiss, Colorado

 Notary Public

Recorder's Note: Poor Legibility On Document Provided For Recording.

Church - Courtland Ave.

Road Improvements Opinion of Cost Estimate:

BOOK 1876 PAGE 345

(Removal to existing &)

Item	Quantity	Unit Cost	Total
① Clearing	LS	\$1,000 ⁰⁰	\$1,000 ⁰⁰
② Excavation	553 CY	\$1 ²⁵	\$690 ⁰⁰
③ Subgrade Prep.	1,244 SY	\$0 ⁸⁰	\$1,000 ⁰⁰
④ Furnish, place & Comp. 6" Thick class (6) under SW	Incl. in ⑥		
⑤ Furnish, place & Comp. 12" ^{8"} Thick class (6) under H.B.P.	875 SY	\$3 ⁰⁰	\$2,630 ⁰⁰
⑥ Furnish & Install 6' wide mono. conc. C.G. & SW (INCL. BASE Drive-Over)	440 LF	\$17 ⁰⁰	\$7,480 ⁰⁰
⑦ Furnish & Install 8" Thick Conc. Fillets & Pans	N/A		
⑧ Furnish & Install 8" Thick Conc. Driveway Sections	216 SF	\$4 ⁰⁰	\$860 ⁰⁰
⑨ Furnish, place & Comp. 4" ^{3"} Thick H.B.P.	875 SY	\$4 ⁵⁰	\$3,940 ⁰⁰
⑩ Furnish Traffic Control	LS	\$1,000 ⁰⁰	\$1,000 ⁰⁰
⑪ Furnish Compliance Testing	LS	\$500 ⁰⁰	\$500 ⁰⁰
⑫ Furnish Const. Staking	LS	\$700 ⁰⁰	\$700 ⁰⁰
⑬ Drainage Inlet	LS	\$1,000 ⁰⁰	\$1,000 ⁰⁰
⑭ Street Lights	1 EA	\$2,000 ⁰⁰	\$2,000 ⁰⁰
TOTAL CONST. COST			\$22,000 ⁰⁰

Recorder's Note: Poor Legibility On Document Provided For Recording.

Say \$23,000⁰⁰



October 22, 1993

City of Grand Junction, Colorado
250 North Fifth Street
31501-2668
FAX: (303) 244-1599

Mr. John Moore
Attorney At Law
P.O. Box 4161
Grand Junction, Colorado 81502

Re: Ptarmigan Filing #6
Road Improvements Agreement and Security

Dear Mr. Moore,

This letter is written to inform you that a decision has been made regarding the security which the City will require from your client, Mr. Siegfried, for the improvement of 27 1/2 Road.

As you are well aware, on and off site improvements are required as a condition of development approval. Specifically, as a condition of approval of Ptarmigan Filing #6, Mr. Siegfried is required to construct infrastructure and facilities in the subdivision and is required to improve 27 1/2 Road to a condition acceptable to and approved by the City, all as more particularly detailed in City development standards and the Zoning and Development Code.

I have received a photocopy of your letter of today's date and have had occasion to consult with legal and public works staff regarding the appropriate form of security for the construction of the required road improvements. The following terms are acceptable to the City for the construction of 27 1/2 Road improvements.

1. An improvements agreement for 27 1/2 Road improvements must be executed by the developer. The agreement shall provide that the 27 1/2 Road improvements be completed to City standards on or before June 15, 1994.
2. An irrevocable letter of credit for the sum of \$17,500.00 dollars must be posted as security for the improvements agreement for the 27 1/2 Road improvements.
3. The irrevocable letter of credit shall have an expiration date of August 15, 1994.

If these terms are acceptable to Mr. Siegfried, please submit on his behalf, a completed improvements agreement and irrevocable letter of credit as specified herein. The agreement and letter of credit will be subject to review and approval by the City Attorney's Office and the City Manager.

Mr. John Moore
page 2

If you have questions or need additional information please do not hesitate to call.

Grand Junction Community Development Department

151 10/22/93 LT
Larry Timm, Director



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

October 22, 1993

Mr. John Moore
Attorney At Law
P.O. Box 4161
Grand Junction, Colorado 81502

Re: Ptarmigan 6

Dear John,

This letter will confirm my receipt of your hand delivered letter of today regarding the improvement guarantee for road improvements to 27 1/2 Road.

As I mentioned to you, I will attempt to meet with Larry Timm, the Community Development Director, yet today to discuss the problem.

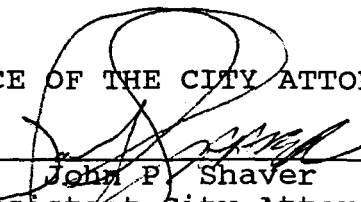
As to the comment in your letter regarding the posting of a cash improvement guarantee, I refer you to 5-4-1H. of the Zoning and Development Code. That section expressly refers to the payment of "...money equal to the City Engineer's estimate of the half-road improvements."

My advice has been and will continue to be that cash is required. Mr. Timm has been provided a photocopy of your letter and I am certain that he will duly consider Mr. Siegfried's position prior to rendering a final decision.

Either Mr. Timm or I will call or write as additional information becomes available.

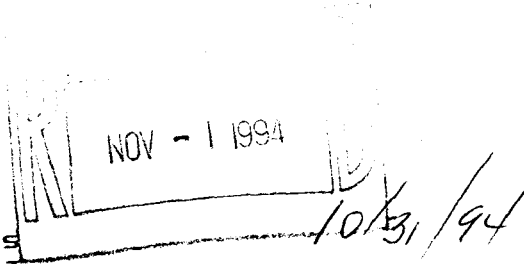
OFFICE OF THE CITY ATTORNEY

by:


John P. Shaver
Assistant City Attorney
250 N. 5th Street
Grand Junction, CO 81501
(303) 244-1501

cc: Larry Timm

file



Larry Simon
@ Larry T
Jims
file
11/28/94
CR

Ptarmigan Investments
c/o E. B. Hamilton, Jr.
P. O. Box 292
Durango, Co.-81302

Re: William C. Mutter
1601 Cortland Ct.-Lot #6

Dear Mr. Hamilton

I purchased the above lot and home on April 5th, 1994 and was apprised of the covenants, which stated, each owner would be required to plant grass and shrubbery on no less than 60% of the property that did not include the home.

My lot is exceptionally large (12,500 Sq. Ft.) and would call for a minimum of 6000 sq. ft. of planting according to your covenant. I exceeded your minimum and have spent \$12,000.00 to landscape the entire area, I even had a landscape designer make a master plan and designate what shrubbery would enhance the open area the best.

We started immediately on April 5th to prepare the ground and install the sprinkler system, on May 19th, Environmental & Reclamation Service proceeded to hydroseed the grass area, this required four waterings per day for three weeks, my gardener then began planting the shrubbery according to the landscape plan, all this required daily watering to establish the growing.

At this point I was told to contact Mr. Louis Hoffman, your foreman in charge. After many calls he finally contacted me and I told him of my predicament, I was using city water at an astounding rate and pleaded for him to turn our irrigation system on which had been in place even prior to my purchase. He advised me that the pumps were not connected to the Public Service wiring nor had a meter been installed. This took place in late June or early July, I constantly called Mr. Hoffman and he continued to ignore us until we finally came before the City Council on July 18th to plead our case.

After that date some action was taking place and the pumps were wired by an unauthorized person and Public Service refused to turn on the electricity until an authorized licensed electrician completed the work.

We are now looking at late August or early September, when finally the pumps were turned on by the factory representative, about four leaks were discovered and had to be repaired, following this we enjoyed a few days of irrigation water and then no water again, I called Mr. Hoffman who checked and found the pumps had lost their prime, in addition I also advised him that the pressure was insufficient to cover the surface designed for the nozzles, he then corrected this and I think finally in middle

September and October we finally received the service we were entitled to when we made our purchase.

Listed below are my monthly water bill amounts.

04-05 to 4-08-007.67
04-08 to-5-06-008.00
05-06 to-6-07-127.49*
06-07 to-7-08-106.97*
07-08 to-8-04-112.90*
08-04 to-9-08-117.16*
09-08 to-10-07-13.29

The amounts from May 6th Through Sept. 8th amount to \$464.52, I believe that subtracting \$40.00, leaving a balance of \$424.52 is your responsibility due to neglect and I request that you reimburse me that amount in the next thirty days. If that is not forthcoming I will take further action in this regard.

Very truly yours,



William C. Mutter
1601 Cortland Ct.
Grand Junction, Co.-81506
Phone-303-243-4114

cc: Dan Wilson
cc: Bruce Phillips
cc: Kathy Deppe
cc; Herb Mayberry
cc: David Valentine
cc: Dwight Guthrie
cc: Beth Littleton
cc; Dean Patterson
cc; David Girrard
cc; Felimon F. Herrera
cc; Arliss Indergard

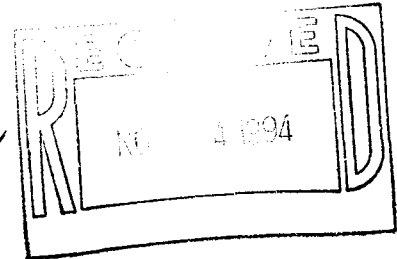
Larry Simon



Above
the
Crowd![®]

C MKA
Jims
Larry T
John S
11/28/94
ck

Fuji



November 10, 1994

City of Grand Junction, Colorado
Att: Dan Wilson, Attorney
250 North 5th Street
Grand Junction, CO 81501-2668

Ref: Ptarmigan Ridge Subdivision, Filing No. 6

Dear Dan,

As per our last phone conversation regarding the above referenced subdivision, I have contacted Dan Miller, President, Ptarmigan Ridge Homeowners Association, Filings ONE to FIVE. As per my conversation with Mr. Miller, at this time, nothing has been resolved with the current irrigation system for filings ONE to FIVE. According to Mr. Miller, the Association is still waiting for Monroe Pumps to complete an estimate for a new system or enhancements, (repairs) to the existing system. It appears this estimate will not be finished until December. Mr. Miller indicates there will be a meeting of all Homeowners sometime in December.

Mr. Miller is still hoping that Hamilton and Seigfried will be receptive to helping resolve the irrigation system problems as Hamilton had indicated this summer when we met with him at the pumping station. However, Mr. Miller is realistic in that there will probably be no assistance from Ptarmigan Investments.

At this time, due to the time of year and the current weather conditions, I am strongly urging the City to take action with regard to the items listed on your letter to John Siegfried dated August 18, 1994. At this time, absolutely none of the items have been completed or even started.

The Homeowners in Filing No. 6 are anxious to get all of these matters resolved and are more than willing to complete the formation of the association and take over the duties of same.

Please respond at your very earliest convenience.

Sincerely yours,
Kathy Deppe, Sales Associate

RE/MAX 4000, Inc.
1401 North 1st Street
Grand Junction, Colorado 81501
Phone: (303) 241-4000
Fax: (303) 241-4015



Each Office Independently Owned and Operated



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

March 17, 1994

William Heley
Q.E.D. Surveying Systems, Inc.
1018 Colorado Ave.
Grand Junction, CO 81501

Re: Ptarmigan Ridge - Filing #6

Dear Mr. Heley:

"As Built" sewer and water plans for the above referenced subdivision have been reviewed with the following comments:

1. All sewer services shall be located referencing property corners or other monumentation that could be easily found in the future. Services around cul-de-sacs are especially difficult to locate because the center line stationing of the sewer line has no bearing on where the end of the service is located. Services that are perpendicular to the main line can be left as shown. Services there are not perpendicular will require additional referencing.

All other items on the "As Built" drawings appear to be complete per City Specifications. Please make the above corrections and resubmit the plans for final approval.

Thank you for your assistance and cooperation.

Sincerely,
FOR THE CITY OF GRAND JUNCTION

A handwritten signature in cursive script that reads "Bill Cheney".

Bill Cheney
Utility Engineer

cc: Jody Kliska, Development Engineer
Kathy Portner, Community Development

IRRIGATION SYSTEMS COMPANY

OF WESTERN COLORADO
2098 HWY. 6 & 50 FRUITA, COLORADO 81521
(303) 242-2900 FAX (303) 242-8205

Hoffman Development Corporation
815 Glenwood Ave.
Grand Junction, CO 81501-1105

March 13, 1995

SUBJECT: Filing Six Irrigation System
Corner of 27 road & Cortland
C/O Louis Hoffman / John Siegfried

To Whom it may Concern,

This company installed two professionally designed State-of-the-art HITACHI Adjustable Frequency Control HFC-VWS series Irrigation pump stations at the above address, in Sept 1994.

Each station can be independently operated. There are 2-5 H.P. BMLS 500 H Pumps set at (138') 60 P.S.I. and 90 G.P.M. with variable Q and constant pressure. (139 G.P.M. allotment) cut-off pump pressure 69 P.S.I. 50 P.S.I. = 120 G.P.M. if desired.

Both stations are in the same enclosed building.

This is the most energy efficient type of irrigation system available. Enclosed is a Energy Savings Calculation sheet depicting projected annual savings, over conventional throttling valve constant speed systems at \$203.30 each assuming 2,000 hours annual operation.

Also enclosed is an Operating Cost Comparison For Constant Speed vs Variable Speed with 5 H.P. pumps. Note that the cost per hour goes to .01 cents when the system is used at 30 % of flow, still holding the pressure constant.

The system tested out as designed. If there is any questions concerning this very efficient irrigation system, please give me a call.

Sincerely,



Ed Oest Ph.D.
Irrigation Engineer P.E. #020 Cal.

PERCENT FLOW:	100	80	60	40	30	20	10
PERCENT TIME:	30	10	10	30	10	5	5

ENERGY SAVING CALCULATIONS PREPARED ON: 04/26/94
 FOR: Irrigation System

OPERATING COST COMPARISON FOR CONSTANT SPEED vs VARIABLE SPEED WITH PUMPS
 SPECIFIED PROFILE - ANNUAL OPERATING COSTS - ZERO HEAD @ ZERO FLOW
 THROTTLING VALVE vs AC DRIVES

HORSEPOWER	PWR FACTOR	MTR EFFICIENCY	DRV EFFICIENCY	ANNUAL HOURS
5	87	93	94	2000

THROTTLING VALVE

ANNUAL COST OF OPERATION FOR SPECIFIED PROFILE \$463.00

AC DRIVES

ANNUAL COST OF OPERATION FOR SPECIFIED PROFILE \$259.70

PROJECTED ANNUAL SAVINGS USING AC DRIVE

DRIVE vs THROTTLING VALVE \$203.30

PROFILE

PERCENT FLOW:	100	80	60	40	30	20	10
PERCENT TIME:	30	10	10	30	10	5	5

E. E. Bert Ph.D.
Irrigation Engineer #AE020

ENERGY SAVING CALCULATIONS PREPARED ON: 04/26/94
 FOR: Irrigation System

OPERATING COST COMPARISON FOR CONSTANT SPEED vs VARIABLE SPEED WITH PUMPS

HORSEPOWER	PWR FACTOR	MTR EFFICIENCY	DRV EFFICIENCY	ANNUAL HOURS
5	87	93	94	2000

----- VALVE -----

FLOW PERCENT	100	80	60	40	30	20	10
PERCENT HEAD	100.00	110.30	121.20	133.50	140.90	150.40	167.10
ACTUAL HP	5.00	4.47	3.87	3.16	2.74	2.24	1.58
KILOWATTS	4.01	3.59	3.11	2.54	2.20	1.79	1.27
COST/HOUR \$.31	.28	.24	.20	.17	.14	.10

----- AC DRIVES -----

FLOW PERCENT	100	80	60	40	30	20	10
PERCENT HEAD	100.00	64.00	36.00	16.00	9.00	4.00	1.00
ACTUAL HP	5.00	2.56	1.08	.32	.14	.04	.01
KILOWATTS	4.27	2.19	.92	.27	.12	.03	.00
COST/HOUR \$.33	.17	.07	.02	.01	.00	.00

7 1/2 4

PROFILE

PERCENT FLOW:	100	80	60	40	30	20	10
PERCENT TIME:	30	10	10	30	10	5	5

ENERGY SAVING CALCULATIONS PREPARED ON: 04/26/94
 FOR: Irrigation System

OPERATING COST COMPARISON FOR CONSTANT SPEED vs VARIABLE SPEED WITH PUMPS

SPECIFIED FLOW RATE - ANNUAL OPERATING COSTS - ZERO HEAD @ ZERO FLOW

VALVE vs AC DRIVES

HORSEPOWER	PWR FACTOR	MTR EFFICIENCY	DRV EFFICIENCY	ANNUAL HOURS
5	87	93	94	2000

FLOW PERCENT	100	80	60	40	30	20	10
VALVE \$	618	552	478	391	338	276	195
AC DRIVE \$	657	336	142	42	18	5	1

E.E. Best PhD
Singh Engine # A.E. 020

PROFILE

Ptarmigan, Filing #6



City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

March 20, 1995

Mr. John Siegfried
P.O. Box 9088
Grand Junction, CO 81502

Re: Ptarmigan Ridge Subdivision, Filing 6

Dear John:

I met with Lewis Hoffman on Friday, March 20 to re-inspect the storm water detention pond in Ptarmigan Ridge Filing 6. As a result of this inspection the following items, identified in previous inspections, were found to be incomplete:

1. Side Slopes: The slopes of the detention pond must be constructed as shown on sheet 9 of the approved construction drawings. Please note that the 4720 contour, which is 0.75 feet above the high water line, is designed to be located on the easement line along lots 11 and 13. The sides are to be at a uniform slope of 4:1.

The grading plan shown on Sheet 3 of the drawings shows the 4722 and 4724 contours outside of the drainage easement on lots 11, 12 and 13. Therefore the slopes of the detention pond extend beyond the easement boundary in order to intersect the ground surface. Where the slopes extend beyond the easement line, they must be uniformly graded to match the 4:1 slopes located inside the easement. The grading plan is available in my office and should be shown and explained to the lot owners. I would encourage you to explain to them why the slopes must extend outside of the easement.

2. Voids and air pockets in the surface of the concrete outlet structure need to be filled so that the surface is smooth and uniform.

3. The concrete slope paving located between the inlet pipe and the outlet structure must be removed and replaced with rip-rap (per plan) or with concrete slope paving neatly and uniformly placed. If the concrete slope paving is replaced, the minimum thickness shall be 4 inches.

4. The overflow drainage channel between lots 10 and 11 needs to be moved east approximately 2' to the location shown on sheet 3 of the approved drawings. The plan shows the channel centered within the easement; the channel needs to be constructed as shown. Due to site conditions the ends of the channel cannot be relocated but the balance of the drain way must be constructed per plan.

5. A section of the concrete sidewalk connecting Filing 6 with Filing 4 has been broken and must be replaced.

6. I have received a copy of a letter signed by Mr. Ed Oest stating that the Irrigation pumping system was constructed and tested as designed. It is required that the homeowners be provided a manual for operation and maintenance of the system including any restrictions such as the maximum number of lots that can use the system at one time. Please send me a copy of the O & M Manual for the project file.

7. Revise and resubmit the appropriate "As Built" drawings and drawing files on computer disks showing the changes that have been made.

You must have all of the above items complete by 5:00 p.m., March 27, 1995 to avoid a demand request on the irrevocable letter of credit which expires on March 29, 1995.

Please call if you have any questions regarding the remaining items of work. I would recommend that we meet at the detention pond site to go over these items so that there is no misunderstanding about what is required for final acceptance of the drainage facilities.

Sincerely,

J. Don Newton, P.E.



City Engineer

xc: John Shaver
Mark Relph
Jim Shanks

Larry
file in Hamilton #6

#93-93



29 MARCH 1995

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

BONNIE KINNEY
c/o BURNS NATIONAL BANK
900 MAIN AVENUE
POST OFFICE BOX N
DURANGO, COLORADO 81302-2950

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT
APR 13 RECD

Re: Letter of Credit No. 4953-5
Sent Via Federal Express

Dear Ms. Kinney,

Pursuant to our conversation of earlier this morning, please find enclosed the original letter of credit, number 4953-5 established in favor of John A. Siegfried and E.B. Hamilton Jr. in the amount of five thousand dollars (\$5000.00) and the demand letter signed by the City Engineer drawing against said credit.

City Engineer Newton inspected the project and found that certain required improvements have not been completed. Pursuant to that inspection, demand is hereby made for payment of the above referred to credit. Upon receipt of the enclosed demand and the original letter, please issue a bank draft in the amount of \$5000.00 payable to the City of Grand Junction. The draft should be sent to the attention of Mr. Don Newton, City Engineer, at the address below.

If you have questions or problems arise with the transaction, please call me at your earliest convenience.

Thank you for your cooperation and assistance in this matter.

OFFICE OF THE CITY ATTORNEY
DAN E. WILSON, CITY ATTORNEY

by:

[Signature]
John P. Shaver
Assistant City Attorney
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1501

pc: Don Newton, City Engineer
✓ Larry Timm, Director of Community Development



29 MARCH 1994

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

BONNIE KINNEY
c/o BURNS NATIONAL BANK
900 MAIN AVENUE
POST OFFICE BOX N
DURANGO, COLORADO 81302-2950

Re: Letter of Credit No. 4953-5

Dear Ms. Kinney,

Pursuant to the terms of an irrevocable letter of credit established in favor of John A. Siegfried and E.B. Hamilton Jr. in the amount of five thousand dollars (\$5000.00), the City of Grand Junction hereby makes demand for payment of said sum.

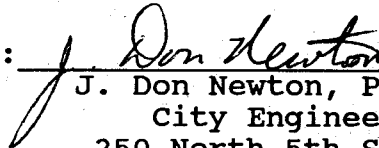
This demand is made and drawn under Credit No. 4953-5.

As the City Engineer for the City of Grand Junction, I am authorized by the terms of credit number 4953-5 to make demand for payment and by my signature on this letter do present the letter of credit for payment.

Please send the funds to my attention at the address found below.

If have questions please call me at your earliest convenience.

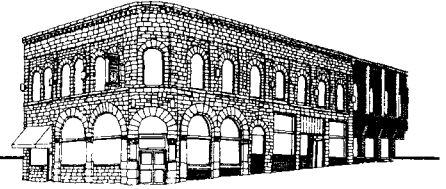
CITY OF GRAND JUNCTION
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

by: 
J. Don Newton, P.E.
City Engineer
250 North 5th Street
Grand Junction, CO 81501
(303) 244-1559

pc: Larry Timm, Director of Community Development
Dan Wilson, City Attorney

BURNS NATIONAL BANK

"Part of the Largest Financial Institution in the Four Corners Area"



September 29, 1994

IRREVOCABLE LETTER OF CREDIT

All drafts must be marked:
Drawn under Credit No. 4953-5

City of Grand Junction,

We hereby establish our Irrevocable Letter of Credit in your favor for the account of: JOHNNIE A. SIEGFRIED and E. B. HAMILTON, JR.

up to the aggregate amount of FIVE THOUSAND AND 00/100s (\$5,000.00), available by your draft drawn at sight on The Burns National Bank, Durango, Colorado.

This Letter of Credit is effective immediately for an amount not to exceed the sum shown hereon.

The amount and date of negotiation must be endorsed on the back thereof by the negotiator.


The draft drawn under this Letter of Credit must be accompanied by the following:

A demand request by the City Engineer at any time prior to midnight on March 29, 1995.

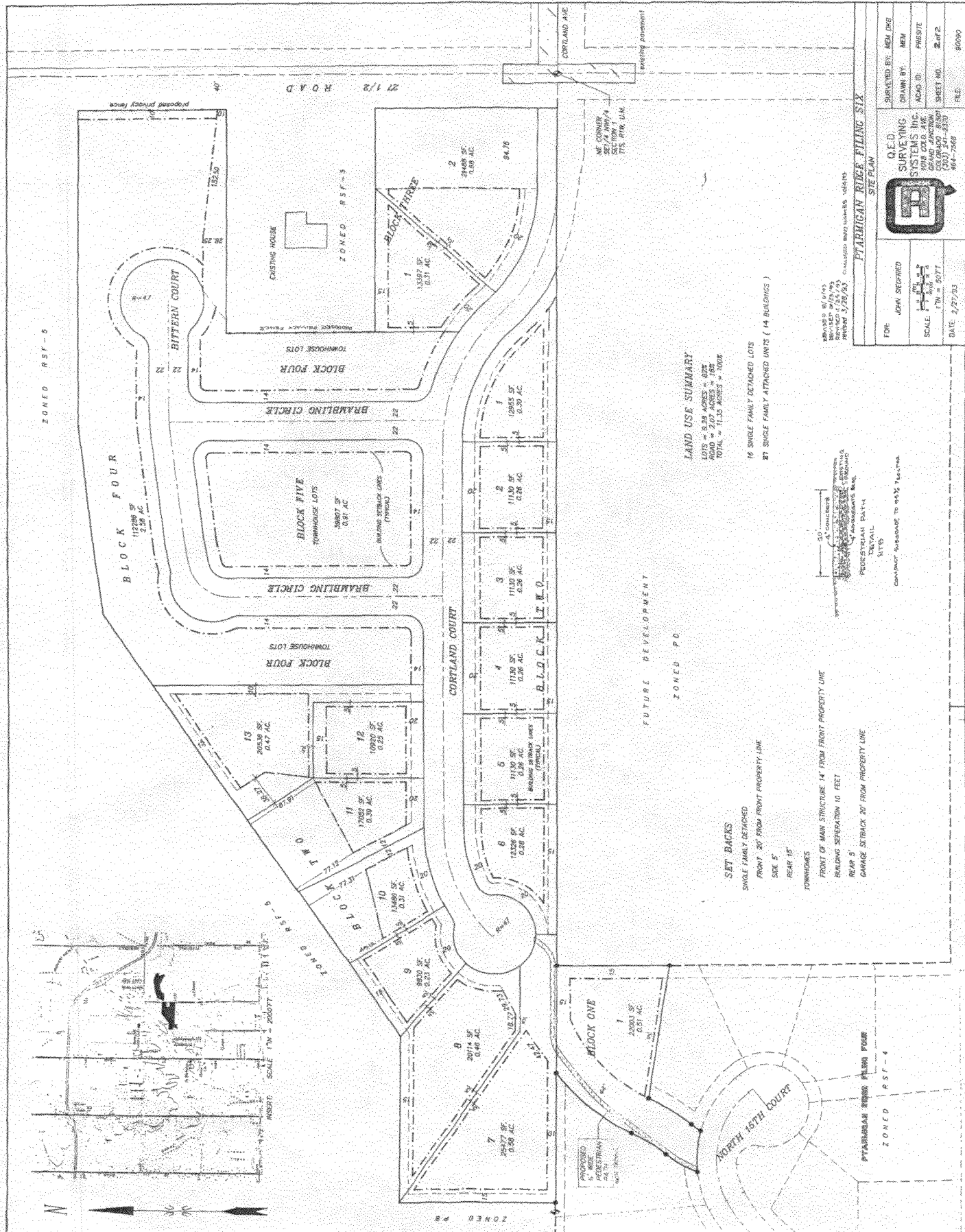
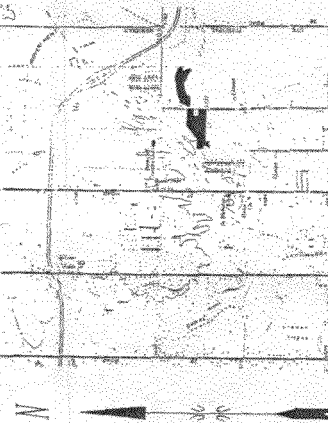
We hereby agree with the drawers, endorsers and bona fide holder of drafts drawn under and in compliance with the terms of this credit that such credit will be duly honored upon presentation of the drawee.

Except as otherwise expressly stated therein, this credit is subject to Article V of the Colorado Uniform Commercial Code.

Sincerely,


Bonnie M. Kinney
Vice President

THIS CREDIT EXPIRES: 3/29/95



ZONED RSF-5

ZONED RSF-5

ZONED RSF-4

BLOCK FOUR
13,200 SF
0.30 AC

BLOCK FIVE
10,807 SF
0.25 AC

BLOCK FOUR
11,130 SF
0.26 AC

BLOCK FOUR
11,130 SF
0.26 AC

BLOCK FOUR
12,226 SF
0.28 AC

BLOCK ONE
22,003 SF
0.51 AC

BLOCK FOUR
12,965 SF
0.30 AC

BLOCK THREE
13,597 SF
0.31 AC

BLOCK TWO
21,468 SF
0.49 AC

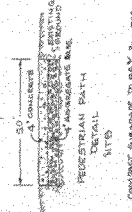
BLOCK TWO
19,832 SF
0.45 AC

BLOCK TWO
17,983 SF
0.41 AC

BLOCK TWO
12,226 SF
0.28 AC

LAND USE SUMMARY
10 SINGLE FAMILY DETACHED LOTS
21 SINGLE FAMILY ATTACHED UNITS (14 BUILDINGS)
TOTAL = 11.35 ACRES = 100K

SET BACKS
SINGLE FAMILY DETACHED
FRONT 20' FROM FRONT PROPERTY LINE
SIDE 5'
REAR 15'
TOWNHOMES
FRONT OF MAIN STRUCTURE 14' FROM FRONT PROPERTY LINE
BUILDING SEPARATION 10 FEET
REAR 5'
GARAGE SETBACK 20' FROM PROPERTY LINE



COMPACT AGGREGATE TO 4 1/2" DEPTH
NTS

REVISION 01/10/03
REVISION 02/12/03
REVISION 03/26/03
REVISION 04/25/03

FOR: JONAS SECURED
SCALE: 1" = 40'
DATE: 2/27/03

Q.E.D. SURVEYING SYSTEMS, INC.
1710 N. 15TH AVE., SUITE 200
DENVER, COLORADO 80202
PHONE: 303.733.1600
FAX: 303.733.1601
EMAIL: info@qed-surveying.com

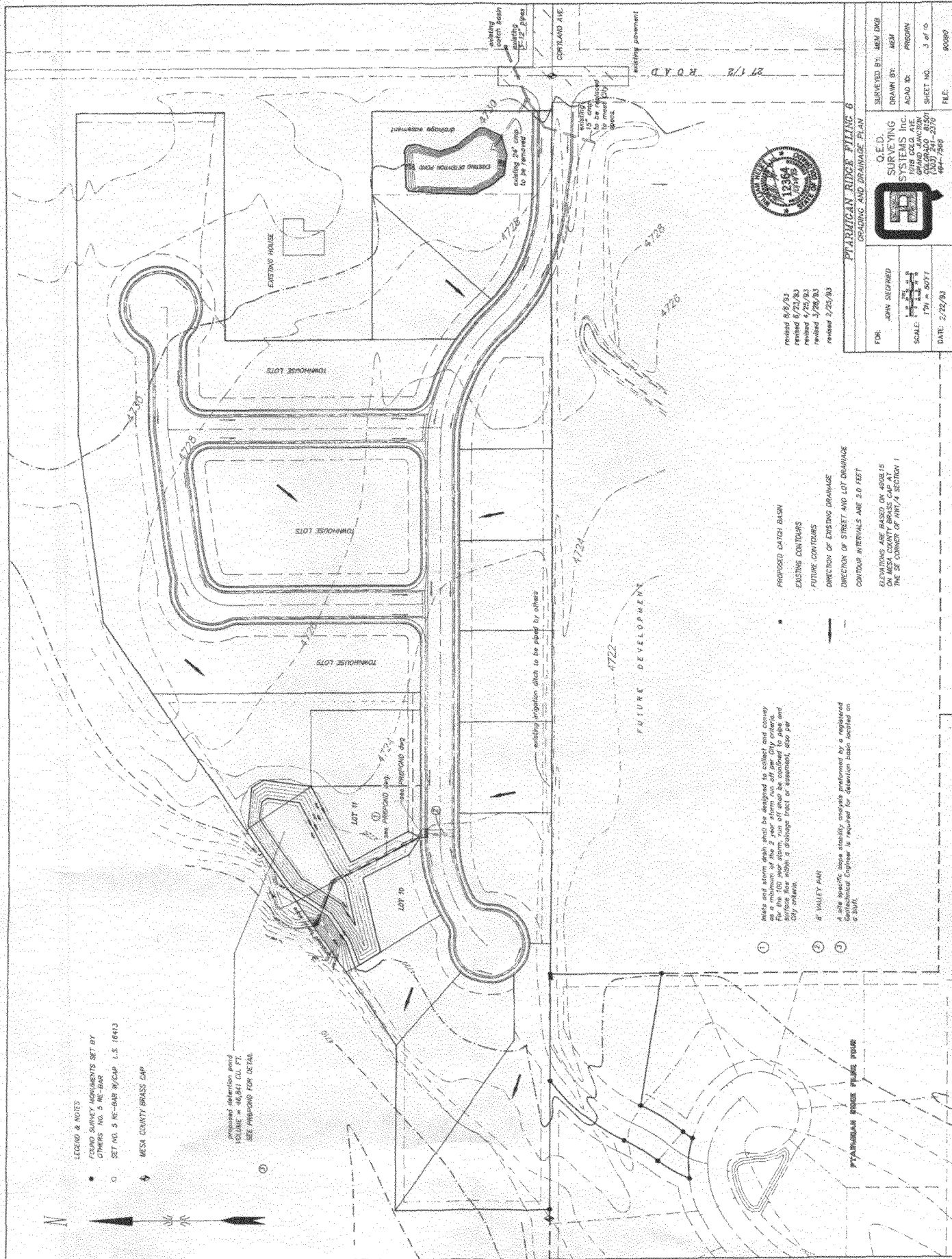
SURVEYED BY: MEN PWE	FILE: 80090
DRAWN BY: MEN	
ACAD ID: PWS/STE	
SHEET NO. 2 OF 2	

PTABURDAK SURVEYING FIRM FOUR
ZONED RSF-4

LEGEND & NOTES

- FOUND SURVEY MONUMENTS SET BY OTHERS NO. 5 RE-BAR
- SET NO. 3 RE-BAR W/2" CAP L.S. 16413
- ▲ MESA COUNTY BRASS CAP

Proposed detention pond
VOLUME = 46,841 CU. FT.
SEE IMPROVED FOR DETAIL



revised 8/9/93
revised 8/22/93
revised 9/2/93
revised 9/29/93

PARAGUAN RIDGE PILING 6 CRACKING AND DRAINAGE PLAN	
FOR: JOHN SIEDFRED	Q.E.D. SURVEYING SYSTEMS, INC.
SCALE: 1" = 40' HORIZONTAL 1" = 50' VERTICAL	12364 STATE OF ARIZONA LICENSED PROFESSIONAL ENGINEER 1000 N. GILBERT AVE. SUITE 201 TUCSON, AZ 85719 404-7869
DATE: 2/22/93	SURVEYED BY: MEM/DMB DRAWN BY: MEM ACAD ID: PHROPH SHEET NO. 3 of 10 FILE: 80690

PROPOSED CATCH BASIN
EXISTING CONTOURS
FUTURE CONTOURS
DIRECTION OF EXISTING DRAINAGE
DIRECTION OF STREET AND LOT DRAINAGE
CONTOUR INTERVALS ARE 2.0 FEET
ESTIMATIONS ARE BASED ON 4098.15 ON MESA COUNTY BRASS CAP AT THE SE CORNER OF MH/A SECTION 1

1. Inlets and storm main shall be designed to collect and convey for the 100 year storm, run off and be confined to pipe and surface flow within a drainage tract or easement, also per city criteria.
2. 8" VALLEY PAN
3. All inlets shall be stably anchored by a registered Geotechnical Engineer. It is required for detention basins located on a bluff.

PARAGUAN RIDGE PILING FOUR

AVIGATION EASEMENT1658696 10:22 AM 10/29/93
MONIKA TODD CLK&REC MESA COUNTY CO
DOC EXEMPT

THIS EASEMENT is made and entered into by and between the WALKER FIELD, COLORADO, PUBLIC AIRPORT AUTHORITY, a body corporate and politic and constituting a political subdivision of the State of Colorado, hereinafter called GRANTEE, and _____ Ptarmigan Estates, a partnership, hereinafter, GRANTOR;

WHEREAS, Grantee is the owner and operator of Walker Field Airport situated in the County of Mesa, State of Colorado, and in close proximity to the land of Grantor, and Grantee desires to obtain and preserve for the use and benefit of the public a right of free and unobstructed flight for aircraft landing upon, taking off from, or maneuvering about said airport; and

WHEREAS, Grantor is the owner in fee simple of that certain parcel of land situated in the County of Mesa, State of Colorado, to wit:

Ptarmigan Ridge -- Filing #6

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the Grantor, for himself, his heirs, administrators, executors, successors and assigns, does hereby grant, bargain, sell and convey unto the Grantee, its successors and assigns, for the use and benefit of the public, an easement and right of way appurtenant to Walker Field Airport, for the passage of all aircraft ("aircraft" being defined for the purposes of this instrument as any device known or hereafter invented, used or designed for navigation or flight in the air) by whomsoever owned and operated, in the navigable airspace above the surface of Grantor's Property to an infinite height above said Grantor's property, together with the right to cause in said airspace such noise and vibrations, smoke, fumes, glare, dust, fuel particles and all other effects that may be caused by the normal operation of aircraft landing at or taking off from or operating at or on said Walker Field Airport, and Grantor hereby waives, remises and releases any right or cause of action which Grantor now has or which Grantor may have in the future against Grantee, its successors and assigns, due to such noise, vibrations, smoke, fumes, glare, dust, fuel particles and all other effects caused by the normal operation of such aircraft.

FURTHER, Grantor hereby covenants, for and during the life of this easement, that Grantor:

(a) shall not hereafter construct, permit or suffer to maintain upon said land any obstruction that extends into navigable airspace required for use of said airport runway surfaces; (Navigable airspace is defined for the purpose of this instrument

as airspace at and above the minimum flight altitudes, including take off and landing, as prescribed in Federal Aviation Administration Federal Air Regulations Part 91, and as such regulations are amended.)

(b) shall not hereafter use or permit or suffer use of said land in such a manner as to create electrical or electronic interference with radio communication or radar operation between the installation upon Walker Field Airport and aircraft, or to make it difficult for flyers to distinguish between airport lights and others or to result in glare in the eyes of flyers using the said airport, or to impair visibility in the vicinity of the airport, or otherwise to endanger the landing, taking off or maneuvering of aircraft.

Grantor agrees the aforesaid covenants and agreements shall run with the land for the benefit of Grantee, its successors and assigns, until said airport shall be abandoned and shall cease to be used for public airport purposes.

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal on this 25 day of Oct, A.D. 1993

[Handwritten Signature]

(Title)

STATE OF COLORADO)
) ss.
COUNTY OF MESA)

The foregoing instrument was acknowledged before me this 25th day of October, A.D. 1993, by John ~~Sig~~ Siegfried

My Commission expires: March 5, 1997

Sharon Brownlee
Notary Public

