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File 1981-0035
Date 11/7/01

Project Name: The Park at Horizon Drive – PD & PR and ROW & Easement

P r e s e n t	S	<p>A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the in some instances, not all entries designated to be scanned by the department are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been provided.</p> <p>Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.</p> <p>Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.</p>	
X	X	*Summary Sheet – Table of Contents	
		Application form	
X		Receipts for fees paid for anything	
		*Submittal checklist	
		*General project report	
		Reduced copy of final plans or drawings	
		Reduction of assessor's map	
		Evidence of title, deeds	
X	X	*Mailing list to adjacent property owners	
		Public notice cards	
		Record of certified mail	
X		Legal description	
		Appraisal of raw land	
		Reduction of any maps – final copy	
		*Final reports for drainage and soils (geotechnical reports)	
		Other bound or nonbound reports	
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		Individual review comments from agencies	
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X	X	*Petitioner's response to comments	
		*Staff Reports	
		*Planning Commission staff report and exhibits	
		*City Council staff report and exhibits	
		*Summary sheet of final conditions	
		*Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)	
<u>DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:</u>			
X	X	Action Sheet	X Letter from James Fitzpatrick to Ron Rish re: plan revisions to be reviewed-1/11/82
X	X	Review Sheet Summary	X X Letter from Ron Rish to James Fitzpatrick re: comments to detailed construction – 2/12/82
X		Review Sheets	X X Letter from James Fitzpatrick to Ron Rish re: modifications concerning review comments – 12/15/81
X		Specifications for Horizon Drive Channel Construction	X X Private Streets Problems by Ron Rish – 12/13/78
X	X	Preliminary Plat	X X Letter from Ron Rish to Charles Brannan re: issues to resolve from response letter – 9/21/82
X		Flood Plain Permit Application	X X Letter from Ron Rish to James Fitzpatrick re: unresolved or unanswered answers to review questions – 11/6/81
X	X	Memo from City Planning to Horizon Partnership Ltd. Re: extension with stipulations – 7/1/85	X X Traffic Impact and Accessibility Analysis – 5/6/81
		Grading Plan – 3/2/81	X X Memo from Ron Rish to Bob Golden re: review of flood plain Permit Study – 4/21/81
X		Utility Plan	X Memo for Bob Goldin to Victorio Investment re: floodplain analysis reviewed and found to be satisfactory – 8/7/81
X		Map of Horizon Road and Ditch Channel	X X Planning Commission Minutes - ** - 4/28/81

SPECIFICATIONS
FOR THE
HORIZON DRIVE CHANNEL CONSTRUCTION

I. GENERAL

The preparation of the bed and the construction of the slope mattress shall be performed in accordance with the manufacturers recommendations for the construction of the slope mattress and the specifications that follow. The mattress shall be heavy duty galvanized revet mattress 9 inches thick as manufactured by the Maccaferri Gabions, Inc. or equivalent.

II. EXCAVATION

The Contractor shall be responsible to excavate the material in the proposed channel in accordance with the proposed bottom grade and the banks at the 1.5 feet horizontal to 1.0 foot vertical slopes. The Contractor shall take great care to insure that the channel is constructed to the grade and slope, as shown. This is essential in order to protect the integrity of the ditch after construction. The Engineer shall establish proposed grades by use of wooden stakes set at a minimum of 100 foot intervals along the top of the bank. The Contractor shall take all necessary precautions to preserve these grade stakes. If stakes are lost, due to the actions of the Contractor, the Engineer shall re-establish these stakes at the expense of the Contractor.

All excavated materials shall be stockpiled in an area as close to the proposed ditch as practical. The excavation material shall be stockpiled in an area where it will remain clean and will not be subject to flooding. The material excavated shall be sorted into three general types. The first type shall be muck, the second shall be material which is considered to be radioactive, and the third being suitable material for embankment.

The quantities of these various types of materials have been calculated from the findings of the Preliminary Soils Investigation, prepared by Chen and Associates, which has been included as part of these specifications. The Contractor shall remove all areas determined to contain radioactive material. As discussed above, this material will be stockpiled and will be disposed of by others.

III. BED PREPARATION

This work shall consist of the preparation of the excavated and embankment area, as shown on the plans for the placement of the plastic filter blanket and slope mattress. The area shall be smooth and free of all irregular or sharp objects prior to the placement of the bed course material. The bed course material shall be 4 inches thick and shall comply with the requirements of Section 506 of the latest edition of Standard Specifications for Road and Bridge Construction by the State Department of Highways, State of Colorado and all other applicable section of said specifications. The Contractor shall be responsible to fill and compact the area over excavated at his expense.

SPECIFICATIONS
FOR THE
HORIZON DRIVE CHANNEL CONSTRUCTION

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IV. PLASTIC FILTER BLANKET

This work shall consist of the furnishing and installing of plastic filter blanket beneath the slope mattresses to be constructed as a portion of this project. This work shall be performed in accordance with Section 506.11-506.15 of the latest edition of Standard Specifications for Road and Bridge Constructions, State Department of Highways, State of Colorado and all other applicable portions of said specifications.

V. SLOPE MATTRESSES

Slope mattresses shall be placed to conform with the plans and details and be filled with rip-rap materials in close contact in the unit so that maximum fill is obtained. The slope mattresses shall be constructed in accordance with Section 506.06-506.10 of the latest edition of Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado and all other applicable sections of said specifications.

VI. RIP-RAP MATERIAL

Rip-rap material shall be used to fill the slope mattress in accordance with Section 506.01-506.05 of the latest edition of Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado and all other applicable sections of said specifications with the exception that the maximum size stones shall be two-thirds of the depth of the slope mattress or six inches.

VII. EMBANKMENT

All embankment shall be constructed in accordance with Section 203.10 and 203.11 and all other applicable sections of the latest edition of Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado. The embankment to be constructed in the channel shall be considered the same as the roadway embankment discussed in said specifications.

VIII. STRUCTURAL PLATE PIPE ARCHES

The structural plate pipe arches shall be constructed in accordance with Section 510.01-510.08 of the latest edition of the Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado and all other applicable sections of said specifications. The Contractor shall construct the pipe to the grade and at the location shown on the plans.

SPECIFICATIONS
FOR THE
HORIZON DRIVE CHANNEL CONSTRUCTION

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IX. CONCRETE SLOPEWALL AND DITCH PAVING

All slopewall and ditch paving shall be constructed in accordance with applicable portions of Section 507 and all other applicable sections of the latest edition of Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado. The slopewall and ditch paving shall be constructed to the line and grade as shown on the plans. The Contractor will be responsible to grade the areas to be covered with the slopewall and ditch paving to the correct depth. Any areas which are over-excavated shall be filled with compacted granular material which meets the approval of the Owner or his representative prior to the placement of concrete or the Contractor may elect to pour an additional depth of concrete in these areas at his own expense. No concrete shall be placed in a wet environment which in the opinion of the Owner or his representative would be detrimental to the integrity of the slopewall or ditch paving.

X. CONCRETE STRUCTURES

All concrete structures shall be constructed in accordance with Sections 601.01-601.15 of the latest edition of Standard Specifications for Road and Bridge Construction, State Department of Highways, State of Colorado and other applicable sections of those specifications. All concrete shall be Class A and constructed as shown on the plans and details for this project.

IMPACT STATEMENT
FOR
"THE PARK AT HORIZON DRIVE"

I. INTRODUCTION

"THE PARK AT HORIZON DRIVE" is a proposed mixed use development on a 28[±] acre site located at the northeast corner of 12th Street and Horizon Drive. The development will be zoned a Planned Development as set forth under the City of Grand Junction Zoning Ordinance. It will contain the following zone classifications and uses:

A. PR (Planned Residential)

1. Apartments - 3.13[±] acres, 80 residential units.
2. Condominiums - 1.61[±] acres, 28 residential units.
3. Townhomes - 8.84[±] acres, 54 residential units.

All residential areas are separated from the other proposed uses of the development by restricting vehicular access and landscape screening. The residential open spaces are planned as "common" areas to be maintained by a homeowner's association. Adequate parking, as required by the City of Grand Junction Development Standards will be provided within each residential zone type.

B. PD (Planned Commercial)

1. Retail Commercial - 4.81[±] acres, 39,800 square feet.

The retail commercial area is intended primarily for specialty shops to serve the neighborhood and the immediate northeast section of Grand Junction. The proposed parking will be in excess of the zoning requirements for "high volume retail", although the intended uses are "low volume retail" to "service business". All buildings will be 1 floor in height.

C. PD (Planned Business)

1. Showroom Offices 3.45[±] acres, 61,875 square feet of gross floor area (25% will be 2 floors).
2. Offices - 6.08[±] acres, 112,500 square feet of gross floor area.

The office uses are planned as two distinct use types surrounding the retail commercial zone. Each use type will have its own identifying architectural character, site arrangement, and commensurate uses. The showroom offices are primarily intended for wholesale business, showroom displays of large and/or specialty products with general sales and offices in conjunction with the showrooms, plus limited warehousing of the display items. The offices are planned as general clinics, government offices and other similar uses. The offices are planned as a four building group cluster, ranging from 2, 3, and 4

IMPACT STATEMENT
FOR
"THE PARK AT HORIZON DRIVE"

Page 2

floors all surrounding a common open space area at the center. There will be 375 parking spaces surrounding this 4 building office cluster.

A major drainage basin traverses the site parallel to Horizon Drive. This drainage basin is designated in part a 100 year flood zone. This drainage basin is proposed to be relocated in a 50 foot wide drainage easement parallel to Horizon Drive. This easement is designed to accomodate a 100 year flood. Please refer to the engineering plans, Preliminary Drainage Study and Flood Hazard Study for more details.

II. RESIDENTIAL ZONE CHANGES

A. Need for Such Additional Zone Change

The need for the residential zone change is to provide an orderly and transitional type of uses from the higher-intensity type uses along Horizon and 27 Road and the existing residential uses north of G Road. The residential uses will be more compatible with both areas along Horizon Drive and G Road with respect to building massing, traffic patterns, density and uses. Design of the residential units and all density uses is being marketed toward quality housing to attract any energy related employees coming to Grand Junction.

B. Impact (Present and Future) On Surrounding Area, Developed and Undeveloped

Residential impact on the neighborhood area and the City of Grand Junction is to relieve the burgeoning pressure for more housing as the region grows. The location and type of residential areas will help toward the transitional uses as stated in Item #1 above.

C. Distance to:

1. Business Centers - within 1 mile to Commercial and Business Areas along Horizon Drive and the Airport Business Area; and within 2.5 miles to the Central Business District.
2. Employment Centers - the same Business and Commercial Areas as mentioned above, plus within 3-4 miles of the Industrial Areas south of Grand Junction and along U.S. #50 east of Grand Junction.
3. Community Facilities - within 2-3 miles of most schools, parks and churches of the main City Center Area of Grand Junction.

IMPACT STATEMENT
FOR
"THE PARK AT HORIZON DRIVE"

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D. Access to Area

Traffic Patterns - please refer to the "Traffic Impact and Accessibility Analysis, 12th and Horizon Mixed - Use Development", as prepared by Leigh, Scott and Clearly, Inc., and dated February 4, 1981.

E. Accessibility to Utilities

The Public Service Company and Mountain Bell were contacted concerning this project. At the present time, they are supplying gas, water, and telephone services to the area surrounding this site. During the initial contact, they expressed that service will be available to the project.

F. Impact on City Facilities

Sewer, water sanitation, fire, police, traffic, parks and schools.

The residential portion of this project will require approximately 57,000 gallons of water per day and produce the same amount of sewerage. The Ute Water District has initially indicated that sufficient water is available to serve this site. As part of this project, an existing 8 inch water will be replaced which is in bad condition. Also, a 8 inch loop will be constructed as shown on the accompanying plans. With both of these improvements, the overall water system in this area should be improved.

The sewerage will be placed in the existing sanitary sewer along Horizon Drive by use of a lift station. It was estimated by Grand Junction officials that the existing main is presently at 50% capacity. Therefore, it should be able to serve this project adequately.

Fire hydrant locations are shown on the accompanying plans. At the same time the plans were submitted, the desired fire hydrant location were received from Wes Painter of the Grand Junction Fire Department, Mr. Painter's recommendations will be incorporated into the plans.

IV. BUSINESS, COMMERCIAL, INDUSTRIAL ZONE CHANGES

A. Need for Such Additional Zone Change

As the entire Grand Junction Regional continues to grow rapidly, good retail and office related spaces will be required to support the population. The retail commercial area will be primarily specialty

IMPACT STATEMENT
FOR
"THE PARK AT HORIZON DRIVE"

Page 4

oriented shops, such as a delicatessen, dry cleaners, haberdashery store, and a bakery; and which are not presently served in the northeast section of Grand Junction. Offices will also be in short supply, especially in the transportation area of the airport and Interstate #70. The prime access points along Horizon Drive and 27 Road also make these areas desirable from an economic standpoint and overall land use pattern within the vicinity. The offices will be marketed specifically to attracting energy related companies.

B. Neighborhood to be Served

The retail commercial will primarily serve the project and the northeast vicinity of Grand Junction's residential area. The office areas will serve the Airport Business Area, the hospital and the other northeast vicinity Business and Commercial Areas.

C. IMPACT, PRESENT AND FUTURE, ON SURROUNDING AREA, DEVELOPED AND UNDEVELOPED

The overall impact of the proposed development will be to serve the growth of the northeast vicinity of Grand Junction as outlined in Items #1 and 2 above. The physical impacts of the development will be compatible with the surrounding land uses, building types and density. Landscape screening/buffer areas will be established, and controller traffic access will be designed as further explained in the traffic impact report and as shown on the sketch plan.

D. Access to Area

Traffic patterns - please refer to the "Traffic Impact and Accessibility Analysis, 12th and Horizon Mixed - Use Development", as prepared by Leigh, Scott and Cleary, Inc., and dated February 4, 1981.

E. Accessibility to Utilities

The Public Service Company and Mountain Bell were contacted concerning this project. At the present time, they are supplying gas, water, and telephone services to the area surrounding this site. During the initial contact, they expressed that service will be available to the project.

F. Impact on City Facilities

Sewer, water sanitation, fire, police, traffic, parks and schools.

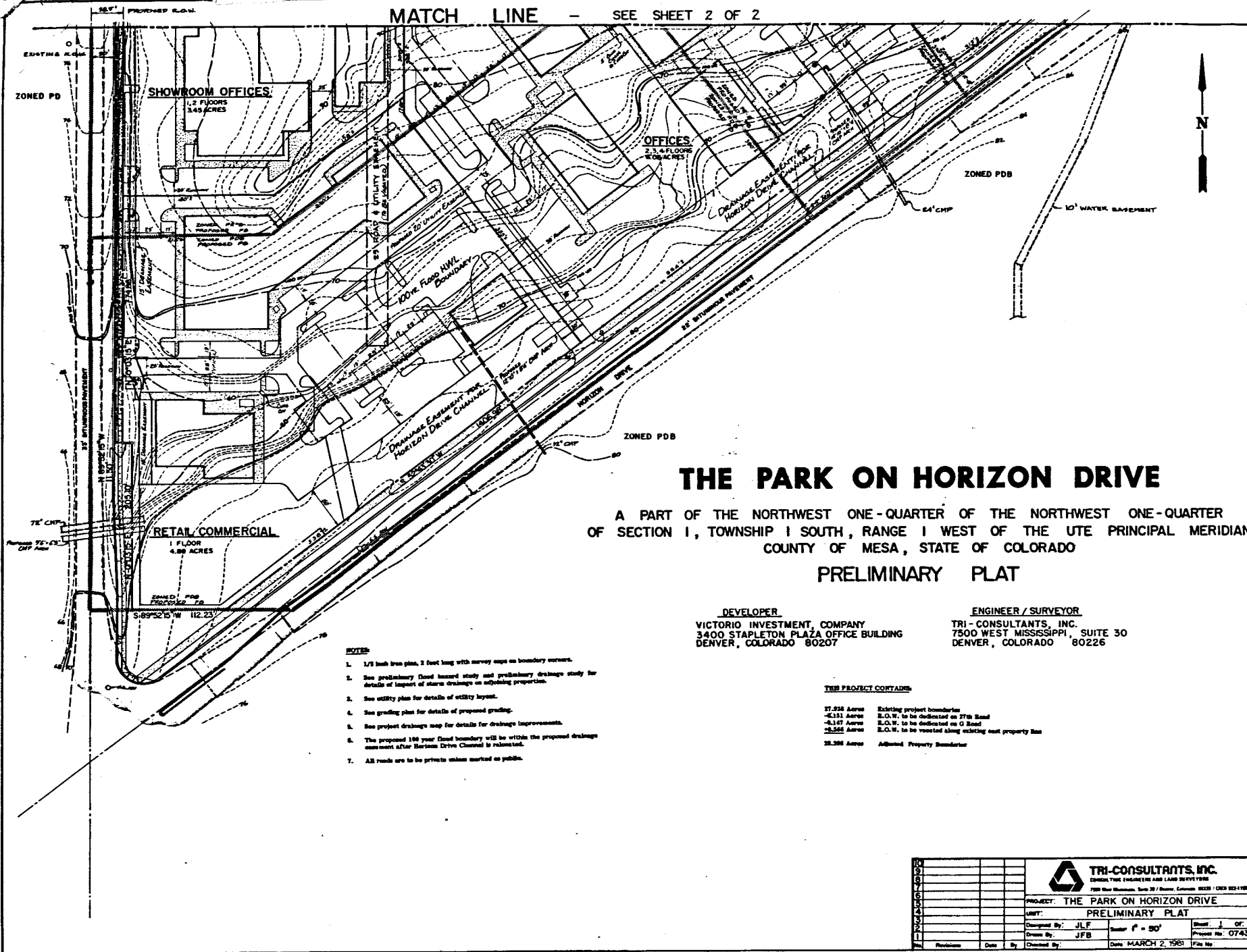
IMPACT STATEMENT
FOR
"THE PARK AT HORIZON DRIVE"

Page 5

The commercial portion of this project will require approximately 25,000 gallons of water per day and produce the same amount of sewerage. The Ute Water District has initially indicated that sufficient water is available to serve this site. As part of this project, an existing 8 inch water will be replaced which is in bad condition. Also, a 8 inch loop will be constructed as shown on the accompanying plans. With both of these improvements, the overall water system in this area should be improved.

The sewerage will be placed in the existing sanitary sewer along Horizon Drive by use of a lift station. It was estimated by Grand Junction officials that the existing main is presently at 50% capacity. Therefore, it should be able to serve this project adequately.

Fire hydrant locations are shown on the accompanying plans. At the same time the plans were submitted, the desired fire hydrant location were received from Wes Painter of the Grand Junction Fire Department, Mr. Painter's recommendations will be incorporated into the plans.



THE PARK ON HORIZON DRIVE

A PART OF THE NORTHWEST ONE-QUARTER OF THE NORTHWEST ONE-QUARTER OF SECTION 1, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE UTE PRINCIPAL MERIDIAN COUNTY OF MESA, STATE OF COLORADO

PRELIMINARY PLAT

DEVELOPER
 VICTORIO INVESTMENT COMPANY
 3400 STAPLETON PLAZA OFFICE BUILDING
 DENVER, COLORADO 80207

ENGINEER / SURVEYOR
 TRI-CONSULTANTS, INC.
 7500 WEST MISSISSIPPI, SUITE 30
 DENVER, COLORADO 80226

NOTES

1. 1/2 inch iron pins, 2 feet long with survey caps on boundary corners.
2. See preliminary flood hazard study and preliminary drainage study for details of impact of storm drainage on adjoining properties.
3. See utility plan for details of utility layout.
4. See grading plan for details of proposed grading.
5. See project drainage map for details for drainage improvements.
6. The proposed 100 year flood boundary will be within the proposed drainage easement after Horizon Drive Channel is relocated.
7. All roads are to be private unless marked as public.

THIS PROJECT CONTAINS:

27.524 Acres	Existing project boundaries
4.351 Acres	E.O.W. to be dedicated on 37th Road
4.147 Acres	E.O.W. to be dedicated on G Road
2.565 Acres	E.O.W. to be vacated along existing east property line
28.286 Acres	Adjoined Property Boundary

<p>TRI-CONSULTANTS, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 7500 West Mississippi, Suite 30 / Denver, Colorado 80226 / (303) 924-1100</p>		PROJECT: THE PARK ON HORIZON DRIVE	
		PRELIMINARY PLAT	
Designed By: JLF	Scale: 1" = 50'	Sheet: 1 of 2	Project No: 07430
Drawn By: JFB	Checked By:	Date: MARCH 2, 1981	
Revisions:	Date:	By:	Checked By:

VINTAGE 70's

BOOKCLIFF COUNTRY CL

ZONED R1
(MESA CO.)

ZONED R3
(MESA CO.)

ZONED R3
(MESA CO.)

ZONED PDB
(MESA CO.)

ZONED R1B
(MESA CO.)

ZONED R1B
(MESA CO.)

ZONED R1
(MESA CO.)

ZONED PDB

WATER LINE LOCATED BY FIELD MEASUREMENT

12' WATER EASEMENT (S. TO BE VACATED)

0.57 ACRES OF DEDICATED R.O.W. TO BE VACATED

ZONED PDB

DEDICATED R.O.W. TO BE VACATED

ZONED PDB

ZONED R1
(MESA CO.)

ZONED PD

SW COR. SEC. 1
T11S, R17W
E1 - 4882.68

0.099 ACRES TO BE DEDICATED AS R.O.W.

0.098 ACRES TO BE DEDICATED AS R.O.W.

0.181 ACRES TO BE DEDICATED AS R.O.W.

ZONED R1
(MESA CO.)

ZONED PD

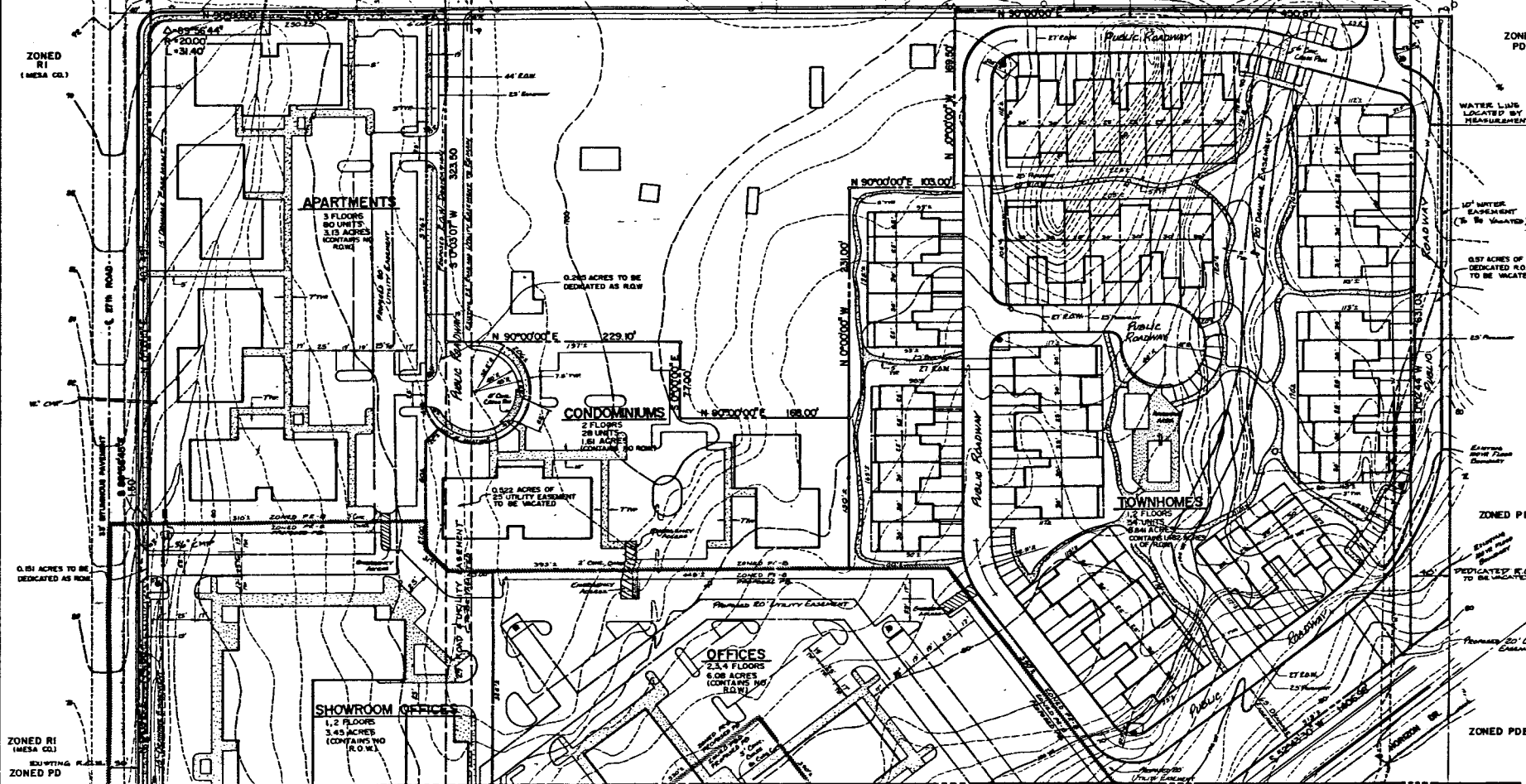
LEGEND

- MANHOLE (EXISTING)
- ▽ FIRE HYDRANT (EXISTING)
- WATER METER (EXISTING)
- ◆ POWER POLE (EXISTING)
- ◇ TELEPHONE PEDestal (EXISTING)

OFFICE COPY
#35-81

PROJECT: THE PARK ON HORIZON DRIVE PRELIMINARY PLAN	
Drawn By: JLF Checked By: JFB	Date: MARCH 2, 1991

MATCH LINE - SEE SHEET 1 OF 2



TRAFFIC IMPACT AND ACCESSIBILITY ANALYSIS

THE PARK AT HORIZON DRIVE

Grand Junciton, Colorado

#35-81 (2 of 3)

Prepared for

Victorio Investment Company
3400 Stapleton Plaza Office Building
Denver, Colorado 80207

Prepared by

Leigh, Scott & Cleary, Inc.
1615 Downing Street
Denver, Colorado 80218

Revised May 6, 1981
(As per April 24, 1981 POM Plan)

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TRAFFIC IMPACT AND ACCESSIBILITY ANALYSIS

THE PARK AT HORIZON DRIVE

Grand Junction, Colorado

I. INTRODUCTION

The Park at Horizon Drive is an important new mixed-use development planned for a site northeast of the intersection of 12th Street and Horizon Drive in Grand Junction, Colorado. The approximate 27-acre site is proposed to contain two separate groupings of multi-family residences with a total of 114 dwelling units, about 159,300 square feet of multi-tenant general office floor area, and 39,800 square feet of retail commercial floor area.

The owners of the site, Victorio Investment Company, have retained Pouw, Outland and Murata, Inc., architects/planners, to prepare the overall site plan. Leigh, Scott & Cleary, Inc. has been retained to evaluate the access requirements of the proposed development and to determine its traffic impact on the adjacent roadway system.

This report summarizes the results of the traffic analysis based on the April 24, 1981 revised preliminary site plan. It first examines the existing roadways and traffic situation in the vicinity of the proposed development, then estimates the amount of generated vehicular traffic and its directional distribution on the surrounding roadway system. Finally, an evaluation is made of the ability of the roadway system to accommodate the future traffic volumes. Where appropriate, recommendations are made for future roadway improvements and access controls.

B. EXISTING ROADWAYS AND TRAFFIC CONDITIONS

The location of the Park at Horizon Drive is shown on Figure 1. It is located on an approximate 27-acre site northeast of the intersection of 12th Street and Horizon Drive, in the northeast portion of the City of Grand Junction. The site will have approximately 1,400 feet of frontage along Horizon Drive which is a two-lane major, diagonal arterial roadway extending from 7th Street to Walker Field, a distance of nearly three miles. An interchange with Interstate-70 and Horizon Drive is located about three-quarters of a mile northeast of the site.

Several important roadway improvements are planned by the City of Grand Junction in order to improve this important roadway to modern major arterial standards. The most significant of these is the planned widening and reconstruction of Horizon Drive from 7th Street to Walker Field. The planned roadway cross-section will include four 11-foot through travel lanes, a 16 foot center median incorporating left-turn lanes, a bikeway or bike-lane on one or both sides of the roadway, and curb and gutters. Signalization of the G Road/Horizon Drive, 12th Street/Horizon Drive and 7th Street/Horizon Drive intersections is planned after the roadway widening is completed and traffic signal warrants are met. An additional important roadway improvement to Horizon Drive is its planned future extension from 7th Street southwesterly to Patterson Avenue at about First Street. This extension of Horizon Drive

will provide for direct access from the site to the developing areas in the vicinity of the Mesa Mall at Patterson Avenue and 24 Road.

In addition to its frontage along Horizon Drive, the site will have approximately 1500 feet of frontage along 12th Street (27 Road in Mesa County), and over 700 feet of frontage along G Road. 12th Street, along the western boundary of the site, is a two-lane, north-south minor arterial roadway extending from Pitkin Avenue (about 2½ miles south of the site) to H Road (one mile north of the site), a distance of nearly four miles. Presently, the intersection of 12th Street and Horizon Drive is controlled by Stop signs for north and southbound 12th Street traffic.

Along the northern site boundary, G Road is a two-lane, east-west minor arterial roadway with nearly five miles of continuity to the west from its beginning just east of Horizon Drive. Presently, the intersection of G Road and Horizon Drive is controlled by Stop signs for east and westbound G Road traffic. The 12th Street and G Road intersection is controlled by Stop signs and overhead red flashing beacons for east-west traffic and yellow flashing beacons for north-south traffic.

Figure 1 shows 1977 average weekday traffic volumes in the vicinity of the Park at Horizon Drive. These volumes were obtained from the Colorado Highway Department's 1977 traffic counts. As shown, about 7,300 vehicles per day traveled Horizon Drive between 12th Street and G Road in 1977. A recent traffic volume count conducted by the City of Grand Junction indicates that the

traffic volume on this roadway has increased to about 11,700 vehicles per day in 1980. This significant increase in traffic volume can be mainly attributed to the major developments occurring along Horizon Drive between G Road and Walker Field and the increase in travel to and from Walker Field.

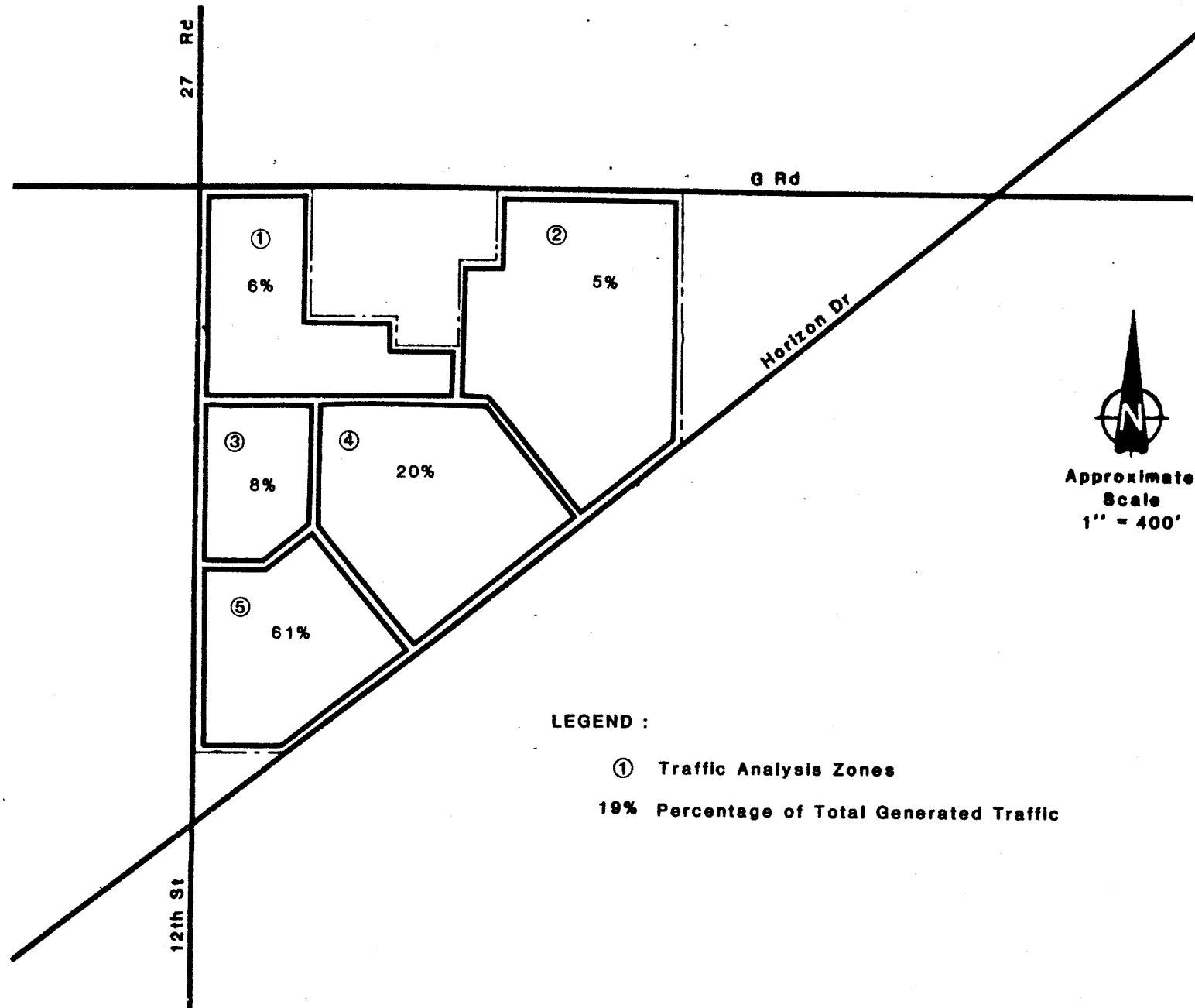
C. ESTIMATED TRAFFIC GENERATION

To assist in analyzing the traffic to be generated by the proposed development, the site has been divided into five analysis areas, or "zones", each of which has its own traffic generating characteristics. These analysis zones are illustrated on Figure 2. Table 1 shows the estimated generation of vehicular traffic based on the proposed land uses, estimated floor area quantities, number of dwelling units and nationally published vehicle-trip generation rates from the Institute of Transportation Engineers. Figure 2 also indicates each analysis zone's expected contribution to the total number of generated vehicle trips.

The proposed mixed-use development is estimated to generate a total of approximately 6,968 vehicle-trips per day (about 3,484 vehicles entering and 3,484 vehicles exiting per 24-hour period). During the morning peak-hour, about 375 vehicles will enter and 143 vehicles will exit the site while during the evening peak-hour, about 344 vehicles will enter and 531 vehicles will exit the site.

D. DISTRIBUTION OF GENERATED TRAFFIC

The distribution of generated vehicular travel on the roadways providing access to the Park at Horizon Drive is one



LEGEND :

- ① Traffic Analysis Zones
- 19% Percentage of Total Generated Traffic

Figure 2
Traffic Analysis Zones
 The Park at Horizon Drive

Table 1

ESTIMATED TRAFFIC GENERATION

THE PARK AT HORIZON DRIVE

Grand Junction, Colorado

Analysis Zone	Proposed Land Use	Size	Daily Trip Generation Rate (1)	Vehicle-Trips Per Day	Peak Hour Trips			
					AM		PM	
					Enter	Exit	Enter	Exit
1	Condominiums	67 d.u.	6.1 trips per d. u.	408	10	30	33	20
2	Townhouses	47 d.u.	7.9 trips per d. u.	371	9	23	28	20
3	Office	46,800 s.f.	12.3 trips per 1000 s.f.	575	87	16	16	86
4	Office	112,500 s.f.	12.3 trips per 1000 s.f.	1,383	209	39	40	207
5	Retail Commercial	26,200 s.f.	115.8 trips per 1000 s.f.	3,034	29	23	162	162
5	Quality Restaurant	9,600 s.f.	56.3 trips per 1000 s.f.	540	8	4	26	16
5	High Turn-over Sit Down Restaurant	4,000 s.f.	164.4 trips per 1000 s.f.	657	23	18	39	20
	Totals			6,968	375	143	344	531

(1) Source: Trip Generation Rates from: "Trip Generation: An Informational Report",
Institute of Transportation Engineers, Second Edition, 1979,
and estimates by Leigh, Scott & Cleary, Inc.

of the most important elements in planning its specific access requirements and in determining its traffic impacts. Major factors which influence the travel distribution pattern include:

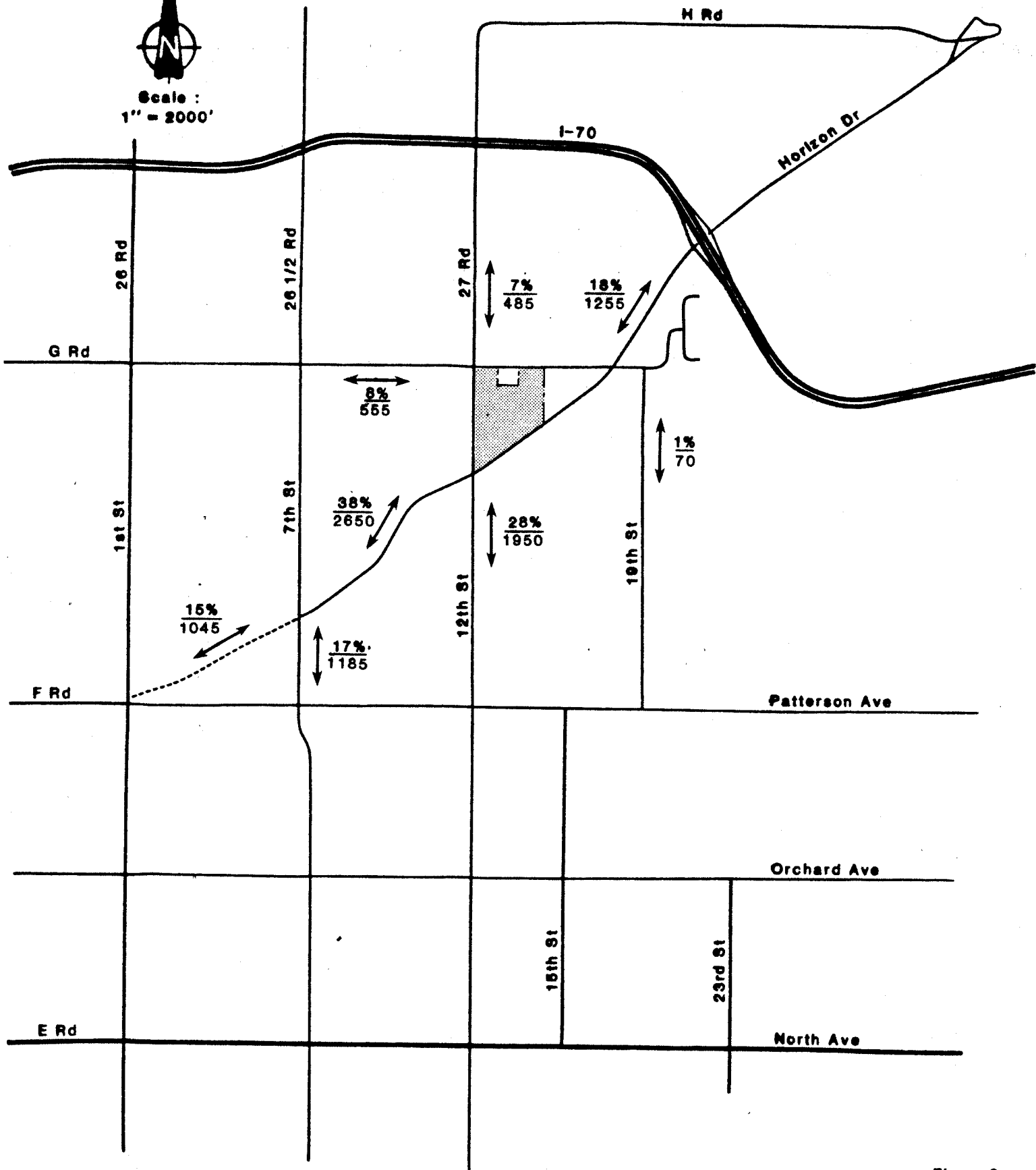
1. The location of the development with respect to the balance of the Grand Junction metropolitan area which will be the origin or destination of trips generated by the development
2. The location of the site in a rapidly developing area along Horizon Drive between Walker Field and the Grand Junction Central Business District (CBD).
3. The existing and future characteristics of the roadways providing access to the site.

Figure 3 illustrates the estimated distribution of travel along the adjacent major roadways providing access to the site. As shown, the overall distribution of travel is expected to be predominantly oriented to and from areas south and southwest of the site. Considering the extension of Horizon Drive southwesterly to Patterson Avenue, it has been estimated that approximately 38 percent of development related traffic will travel Horizon Drive southwest of 12th Street. About 15 percent of the generated traffic will travel the Horizon Drive extension while 17 percent will travel 7th Street for access to and from the CBD. Additional access to and from the CBD and areas south of the site will be provided by 12th Street where 28 percent of the generated traffic is expected to travel south of Horizon Drive.

Approximately 18 percent of the development generated



Scale :
1" = 2000'



LEGEND :

$\frac{15\%}{1285}$ Percent of Approaching and Departing Traffic
Generated Average Weekday Traffic

Figure 3

Distribution of Generated Traffic

The Park at Horizon Drive

traffic is estimated to travel Horizon Drive northeast of the site for access to and from Walker Field and the developing business areas along Horizon Drive. Traffic to and from areas north and west of the site is expected to result in eight percent of the generated traffic on G Road west of 12th Street and seven percent on 27 Road north of G Road.

E. GENERATED TRAFFIC VOLUMES AND SITE ACCESS RECOMMENDATIONS

When the total number of external trips expected to be generated, given in Table 1, is applied to the estimated trip distribution pattern of Figure 3, daily and peak-hour traffic volumes can be calculated for the surrounding roadway system. Figure 3 illustrates average weekday traffic volumes expected to be generated at full development of the site, while Figure 4 indicates estimated morning and evening peak-hour traffic volumes on the adjacent roadways and at the site's proposed access drives.

As shown on Figure 3, it is estimated that about 2,650 vehicles per day will travel Horizon Drive southwest of 12th Street with about 1,045 vehicles per day on the future extension of Horizon Drive and 1,185 vehicles per day on 7th Street south of Horizon Drive. Development related traffic will contribute about 1,950 vehicles per day to 12th Street south of Horizon Drive, 1,255 vehicles per day to Horizon Drive northeast of G Road, 555 vehicles per day to G Road west of 12th Street and 485 vehicles per day to 27 Road north of G Road.

The morning and afternoon peak-hour volumes shown on Figure 4 generally amount to about 12 to 20 percent of the

average weekday volumes. As illustrated, the peak-hour turning volumes at the two residential access points--one along G Road and one along 12th Street just south of G Road--are relatively minor and will be adequately handled with Stop sign control. The two access points along Horizon Drive are well located with respect to adjacent intersections and help distribute the peak-hour turning volumes entering and exiting the office and retail portions of the development. Similarly, the two office/retail related access points along 12th Street are also well located with respect to adjacent intersections and with respect to the development itself. The anticipated distribution of peak-hour turning volumes indicates that Stop sign control of all four office/retail related access points should allow for relatively uncongested traffic flows.

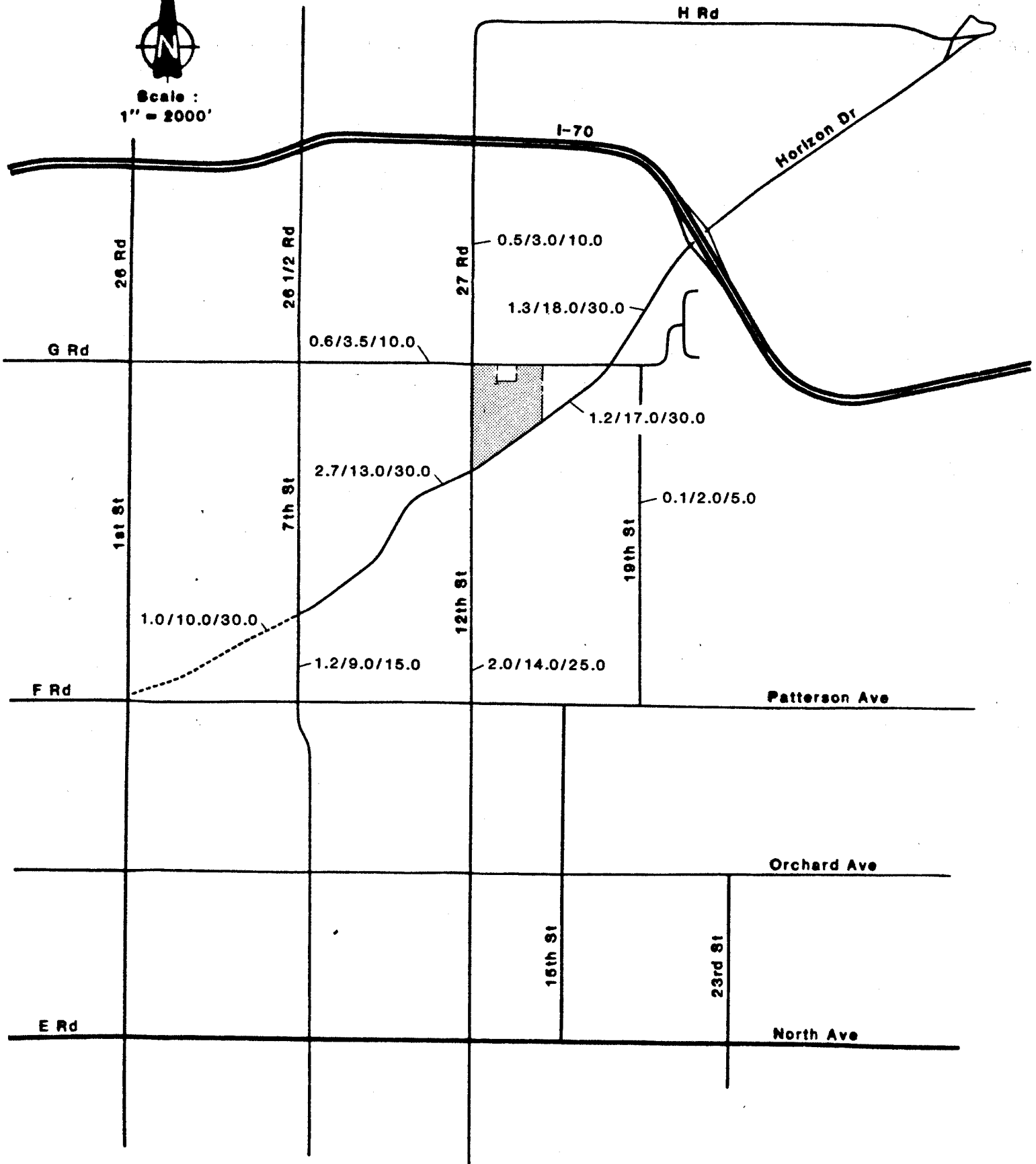
As street widening occurs on 12th Street adjacent to the site, left-turn lanes approximately 80 to 100 feet long should be provided at the development's three access points. As the planned widening occurs along Horizon Drive, left-turn lanes at the two development access points a minimum of 100 feet in length should be planned as part of the raised median design. In addition, Cliff Drive should be realigned to intersect Horizon Drive at right-angles directly opposite the westernmost development access drive in order to provide a properly designed, combined median opening along Horizon Drive.

F. TRAFFIC IMPACT

The traffic impact of the Park at Horizon Drive is illustrated on Figure 5 in which generated average weekday traffic at full development is shown as an increment of total 1985 estimated



Scale :
1" = 2000'



NOTE : Volumes Shown in Thousands of Vehicles

LEGEND :

1.5/10.0/15.0

Generated Average
Weekday Traffic

1985
Estimated Total
Average Weekday Traffic

1985
Daily Roadway
Capacity

Figure 5

Traffic Impact

The Park at Horizon Drive

average weekday traffic. In addition, a comparison is made to projected roadway capacities considering roadway improvements expected to occur by 1985. The year 1985 is estimated to be the time when full development of the site will have occurred and major planned roadway improvements will have been completed.

In terms of the development's traffic as a percentage of total traffic, the greatest impact will be on Horizon Drive between 12th Street and 7th Street. On this section of roadway, development related traffic is expected to constitute about 20 percent of the projected total traffic on the street by 1985. The next greatest impacts would be on G Road west of 12th Street and on 27 Road north of G Road where the traffic impact of the development would constitute about 15 to 20 percent of the total 1985 projected traffic on both roadways.

Although development related traffic will constitute a significant portion of the future traffic on Horizon Drive, the additional traffic will constitute only a minimal impact when compared with the capacity of this roadway after it has been fully improved to its planned design. In addition, the impacts on 27 Road and G Road north and west of the site will be minor considering the small amount of additional traffic, the existing low traffic volumes, and the capacity of these minor arterial roadways.

G. CONCLUSIONS

The following conclusions and recommendations have been made concerning traffic access requirements and traffic impacts of the Park at Horizon Drive mixed-use development.

1. The site is well served by Horizon Drive, a diagonal arterial roadway planned for widening by the City of Grand Junction to major arterial standards. Horizon Drive provides direct access northeasterly to I-70 and Walker Field. Secondary access will be from two adjacent minor arterial roadways, 12th Street and G Road.
2. The proposed mixed-use development will result in the generation of approximately 6,968 vehicle trips per day with about 520 morning and 875 evening peak-hour vehicle trips.
3. The expected distribution of travel to and from the proposed development is predominantly to the south and west. About 38 percent of the generated traffic will travel Horizon Drive southwest of 12th Street while 28 percent will use 12th Street south of Horizon Drive.
4. The anticipated distribution of peak-hour turning volumes at the development's major access points indicates that Stop sign control should allow for relatively uncongested traffic flows.
5. As widening occurs along 12th Street adjacent to the site, left-turn lanes of adequate storage length should be provided at the development's three access points.
6. At the time that Horizon Drive is widened to its planned major arterial standards, adequate left-turn lanes at the two development access points

should be planned as part of the raised median design. In addition, it is recommended that the existing intersection of Cliff Drive with Horizon Drive be realigned to intersect Horizon Drive at right-angles, directly opposite the western-most access point to the development, in order to provide a properly designed, combined median opening along Horizon Drive.

Here are some of my thoughts on something I perceive as a potential issue soon. 12-13-78
RPR

"Private" Streets"-(Problems)

1. All streets should conform to same design and construction standards.
2. Police (traffic) enforcement problems, authority?
3. Fire access.
4. Refuse collection access.
5. Need "right-of-way" for sewer & water and system maintenance access.
6. Street cleaning (sweepers), patching, snow & ice removal.
7. Street preventative maintenance (Sealcoat & overlay on 10yr. cycles)
8. Traffic control devices - authority & maintenance
9. Liability for accidents - Private vs municipal "immunity"? - impacts on homeowners insurance & potential lawsuits?
10. Right of public access ??
11. Negative impact on HUT revenues which are based on open & maintained public street mileage
12. Public Service Co. franchise for street lighting applies to public streets. Interpretation of eligibility for street lighting? Who pays the power bill? How to distinguish between "private" street & private parking lots?
13. Residents are taxpayers & are entitled to public streets with maintenance. Their taxes pay for this and also the historic precedence of this legitimate government service is strong.
14. Why do developers want "private" streets?
Many desirable objectives can be obtained with good physical design using standards with some flexibility and still have public dedicated streets.

cc: Beaver
McKee
Newton
Patterson

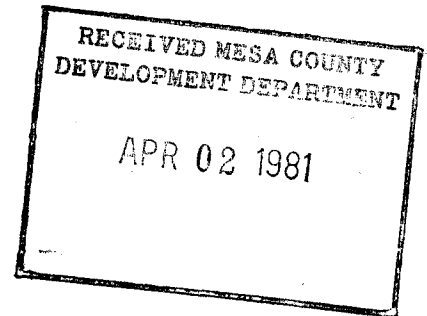
Ron Rush

VICTORIO INVESTMENT COMPANY
An Affiliate of The Victorio Company

File 35-91

April 1, 1981

Mr. Bob Bright
Senior City Planner
City County Development Department
559 White Avenue, Room 60
Grand Junction, CO 81501



Dear Bob:

The following responses are offered to the comments developed by the various agencies reviewing our proposed project on Horizon Drive:

1. Grand Junction Drainage
No response necessary
2. Public Service Gas and Electric
(See also item no. 9)
We have had several discussions with Mr. Price Hatcher of Public Service and anticipate no problems on this project.
3. City Park and Recreation
Plant material categories are intentionally general at this time. Detailed species and sizes will be developed and submitted with the final plans.
4. Grand Valley Water Users
Discussed comments with Mr. Bill Klapwyk, who works for the District. Occasionally, a small amount of irrigation water flows across the project site, therefore we will need to provide a system to continue this flow. It will be handled by either the proposed drainage system or a separate pipeline. It will be necessary to field check the existing irrigation system on the adjoining land to determine which method to use.
5. Mountain Bell
We have no problem providing the necessary easements.
6. UTE Water District
During several discussions with Mr. C.E. Stockton, of Ute Water, he indicated that the replacement of the existing main along the east side of the project would be approved by his office, but that the replacement is not totally necessary. Also, the use of a

dual domestic and fire flow system would be appropriate for use in the easement areas. All lines will be designed in accordance with Ute standards.

7. Grand Junction Department of Energy
The bicycle path is a part of the Horizon Drive improvements planned under the energy impact program and will be incorporated at the time this is implemented.
8. City Utilities
Sewer lines will be designed in accordance with city standards. Mr. Ralph Sterry is reviewing the sewer lift station design with our engineers.
Trash removal will be coordinated as a part of the final plan for each area. Adequate access and screens will be provided. Bicycle racks and handicapped parking will be incorporated into each area in the final plans. Recreation vehicles will be specifically prohibited from the residential areas by covenant.
9. Public Service Gas and Electric
(See item no. 3)
10. Transportation Engineering
The traffic study submitted indicates that the use of the north entrance on 27 Road will not generate enough traffic to create a conflict with the proposed parking. The south entrance will be restudied to incorporate this concern while retaining an adequate parking ratio. Guest parking in the townhouse area should be allowed to back onto the street due to the very low traffic volume present. We will restudy the location of these spaces to try to move them away from the curves. This street is to be private rather than public as indicated on the submittal. We are working out the details for this with the City Engineer and planning staff.
We are coordinating our entrance locations on Horizon Drive with the City Engineer. It is anticipated that Lexington Place will be aligned with our entrance when Horizon Drive is improved, and Lexington Place is made perpendicular to it.
11. Staff Comments
We will restructure the apartment complex to try to reduce the apparent massiveness of the parking area. In a meeting we held with the Vintage 70 homeowners,

Mr. Bob Bright
April 1, 1981
Page 3.

we agreed to reduce the height of the most northerly structure to help preserve the scale of development along G Road. Recreational areas for the apartment and condominium users will be provided as a part of the final plans. Landscape buffering will be provided along 12th Street and Horizon Drive, and be incorporated on the final plans. We will provide a complete internal pedestrian system linking the residential office and retail areas. This will also be shown on the final plans.

12. City Engineer

We will work with the city to provide adequate financial security for the proposed public improvements.

Concerning the widening of 27 Road and G Road, we have designed the improvement of 27 Road to provide a half width of roadway which should meet the requirements of minor arterial street classification. Our initial discussion with Mr. Ron Rish, City Engineer, indicated that the design of G Road would be performed by the city. This construction will be incorporated in our development of the areas.

We intend to construct a standard court section of the cul-de-sac from G Road. The right-of-way on the east side of the cul-de-sac utilizes the existing roadway easement.

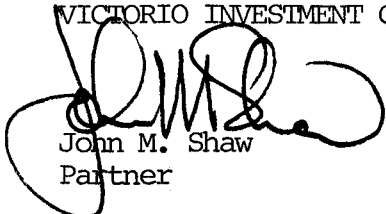
All sanitary sewers will be designed to meet city standards.

The Floodplain Permit Application have been submitted to Mr. Bob Bright, Floodplain Administration, for his review and approval.

We are extremely excited about this project, and look forward to working with the city on it.

Cordially,

VICTORIO INVESTMENT COMPANY



John M. Shaw
Partner

JMS/srm

cc: Ralph Snyder, Pow Outland Murata, Inc.
Jim Fitzpatrick, Tri-Consultants, Inc.
Ken Mundt

CITY OF GRAND JUNCTION, COLORADO

MEMORANDUM

Reply Requested
Yes No

Date

April 21, 1981

To: (From:) Bob Golden

From: (To:) Ron Rish *RRR*

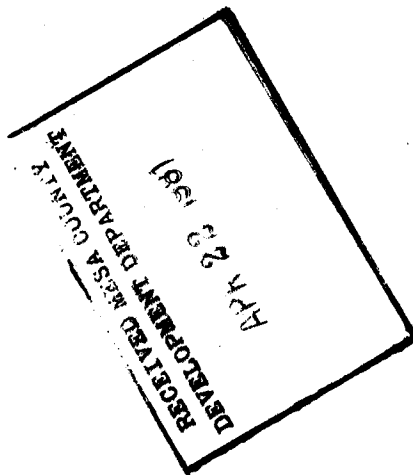
Subject: Floodplain Permit Study of "The Park on Horizon Drive"

As requested, I have reviewed the above as received on April 3, 1981, and have the following comments:

1. I take no exception to the "Specifications for the Horizon Drive Channel Construction" which are heavily based on Colorado Division of Highways Standard Specifications as are our City Specifications. The structural plate pipe arches must be fully bituminous coated as required by our City Specifications because of alkaline soil and all cement must be Type II. These details and others can be addressed when detailed construction plans for the storm drainage system improvements are submitted for my required review and approval prior to construction.
2. The "Floodplain Permit Study" is very comprehensive and their proposed solution is acceptable to this office. They have done an excellent job of quantifying all factors and have gone to considerable trouble to insure that both upstream and downstream properties should not be adversely affected during flood conditions due to the proposed development of this property. This report should be accepted as the basis for design and I commend their engineers on a job well done.

cc - Karl Metzner
Jim Patterson

BJ 4/22



April 21, 1981

RE: REZONING OF 12TH & G ROAD

At a meeting held on Monday, April 20, 1981, between interested residents of the area and the Victorio Corporation, the following six points were agreed upon by all parties:

1. A reduction of four housing units will be made on the 2.1 acres on the northwest corner of the proposed development --- these four units can be located elsewhere on the development.
2. Either a 16 foot ridge-height of new buildings above the center line of G Road will be adhered to on those buildings abutting G Road, or, increased set-backs from G Road will be allowed to have additional ridge-height.
3. The proposed office buildings abutting 27 Road will be changed from one-story to two-story without increasing total proposed building square footage. The increased land derived from this will be converted into landscaping, mainly along the east side of 27 Road, hopefully to 30 feet in width.
4. A bicycle and pedestrian way will be provided through the development from G Road to Horizon Drive, somewhat parallel to 27 Road.
5. The proposed development will not be built with any increases in square footage of office building and commercial area as shown on the proposed plan.
6. The area residents still reserve a right to architectural review of final building design and approval will not be unreasonably withheld.

ADJACENT PROPERTY
OWNERS

2945-012-01-900	Mesa County Road Department, Grand Junction
2945-012-01-006	Horizon Ventures Corp. 2709 Midway Grand Junction, Colorado 81501
011	Same as above
010	Same as above
02-006	Same as above
007	Same as above
008	Same as above
00-014	Allison, Clifford 2711 G Road Grand Junction, Colorado 81501
013	Berg, Florence M. 2715 G Road Grand Junction, Colorado 81501
021	Jensen, Ladee C. 2713 G Road Grand Junction, Colorado 81501
020	Allison, Clifford 2711 G Road Grand Junction, Colorado 81501
019	Cato, Owen, et al. Box 651 Grand Junction, Colorado 81502
018	Roberts, Chester 11 Penna Avenue Mt. Union, Pennsylvania 17066
022	Tyre, Donald Edward and Sharon Marie 694 Westcliff Drive Grand Junction, Colorado 81501
075	Epstein, Emanuel 1900 Quenton Road Brooklyn, New York 11229
076	Etter, K. L. and J. L. Box 924 Grand Junction, Colorado 81502
071	Epstein, Emanuel 1900 Quenton Road Brooklyn, New York 11229
072	Etter, K. L. and J. L. Box 924 Grand Junction, Colorado 81502
2945-021-01-002	Bishop, Tilman M. and W. L. 2697 G Road Grand Junction, Colorado 81501
00-010	Romero, John & E. 679 27 Road Grand Junction, Colorado 81501
037	Saghatoleslami, Sirous P.O. Box 8080 Aspen, Colorado 81611

2945-021-00-020 Saghatoleslami, Sirous
P.O. Box 8080
Aspen, Colorado 81611

2701-363-16-015 Maxfield, Francis S. and Reta R.
2700 G Road, 11A
Grand Junction, Colorado 81501

016 Thompson, Richard D. and Marilee J.
2700 G Road, 11B
Grand Junction, Colorado 81501

017 Reed, Wm. L. and Mary L.
2700 G Road, 11C
Grand Junction, Colorado 81501

018 Hume, Ray C. and Frieda A.
2700 G Road, 11D
Grand Junction, Colorado 81501

035 Patsantaras Land & Livestock Co.
3112 A $\frac{1}{2}$ Road
Grand Junction, Colorado 81503

036 Everhart, Donald L. and Dorothy L.
2700 G Road, 10B
Grand Junction, Colorado 81501

037 Hockensmith, Ruth L. and Frank M.
2700 G Road, 10C
Grand Junction, Colorado 81501

038 Dykstra, D. S. and Mildred
2700 G Road
Grand Junction, Colorado 81501

28-001 Porter, John M.
P.O. Box 806
Grand Junction, Colorado 81502

2945-012-00-015 Cato, Rowland L. and P. M.
1223 North Second Street
Grants, New Mexico 87020

REVIEW SHEET SUMMARY

FILE# 35-81

ITEM PDB to PR8 & The Park at Horizon Dr.
Preliminary Plan

DATE SENT TO REVIEW DEPT. _____

DATE DUE 3/16/81

PETITIONER John Shaw, Victorio Investment, 3400 Stapleton Plaza Office Bldg.,
Denver, CO (POUW Outland Murata, Inc.)

LOCATION NE corner of 12th & Horizon Dr. & SE corner of G Rd. & 12th St.

<u>DATE REC.</u>	<u>AGENCY</u>	<u>COMMENTS</u>
3/11/81	G.J. Drainage	Out of District.
3/12/81	Public Serv. Gas & Elect.	Public Service Co. may have objections to this application. Due to the volume of applications being received for review from both Mesa County and the City of Grand Junction, we will not be able to complete our review of this project by the deadline shown. Our detailed comments will be forwarded as soon as possible.
3/13/81	City Park & Recreation	The plant material categories are very general and vague. Terms such as ash, poplars, flowering crabs and pines are used when each have probably at least 10 and maybe 20 different varieties. I think more specific names should be used and the landscape aspect should not be only a beautification process, but an integral part of the design process. Plant materials should be evaluated for their form, size, shadow, seasonal change and other characteristics as well as if they will grow or not.
3/16/81	Grand Valley Water Users	For the record, it should be noted that just west from the intersection of Golfmore Dr. & G Road, an irrigation pipeline crosses southerly under G Road & has for more than 40 years provided yard water to certain users south of G Road or when the water is not used it has flowed ultimately to the main drainage channel that passes through the area proposed for development. Since this is the end of a lengthy irrigation line that must continue to have an outlet from G Road southerly to said main channel for any unused water, the G.V. Water User's Association requests assurance that development planning recognize and appropriately provide for this historical practice.
3/16/81	Mt. Bell	Please provide 10' easements as shown on the attached Utility Composit.
3/16/81	Ute Water	Ute Water has not been approached or consulted regarding the vacation of the water line easement along the East edge of the property, nor about relocating or replacing the line. The 10' line proposed in 27 Rd. will more likely be an 8" x 12' and will require cost participation by this development. Water lines located in easements will be isolated from the Ute District water lines by detector checks and domestic meters. Policies and fees in effect at this time of application will apply.
3/16/81	G.J. Dept. of Energy	Couldn't tell if the paths were paved so as to be of use to bicyclist. Easy access points are very important here. Horizon is a very dangerous area to bicycle. This development, if done well, could solve much of that problem. For further information see Energy Criteria attached to Review Sheet.

- 3/16/81 City Utilities All sewer mains should be 8" minimum. I assume the existing sewer main in 27 Road is too shallow to serve this development. Townhomes should have individual sewer service lines for each unit. Type and design of sewer lift station must be approved by City. Consideration should be given to location of trash containers - must be accessible by large trash trucks. Consideration should be given to bicycle facilities in office and commercial areas. I assume handicapped parking areas will be designated. Is a recreational vehicle parking area needed or designed?
- 3/19/81 Public Serv. Gas & Elect. Gas: Plat #837-849. Request that all roadways be designated as utility easements. May require additional exhibit type easements. KF 3/13/81 Electric: Same as gas. THI 3/14/81
- 3/19/81 Trans. Eng. The Developers/Architects-Planners should be commended for providing such a detailed traffic impact study for this project. If this was a requirement, then the Development Dept. should be commended. It is much easier to address projects impacts when they have been analyzed by Professional Traffic Engineers. Traffic impact studies should be required on all major projects. The South and North access points on 27 Road have parking stalls that are too close to the entrances. Also these entrance/aisles have immediate conflicts with backing vehicles from parking spaces (contrast this with the entrance treatment at Cliff Dr.). At a minimum, 4 or 5 parking spaces should be removed. Adjacent to the North and South entrances on 27 Road. Town Homes Area - Guest Parking spaces, with the exception of that on the cul-de-sac is located either too close to the entrance or on curves. They also back out into a narrow public street. This parking should all be relocated and oriented away from the street. The two access points on Horizon Drive should be coordinated with access plans for "Cexington Place" in order to reduce possible problems with median cuts.
- 3/19/81 Staff Comments: This dev. involves a rezone, a preliminary development plan and a road vacation. This proposal seems to fit with the 12th St. and Horizon Drive Corridor Plans. Mixed use proposal is good. Business uses are separated from residential uses but appropriate emergency accesses have been provided. Town home area has provided off street parking bays, good! Horizon Drive channel seems to have been treated well. Staff supports on site retention areas. Parking for apartment complex in the N.W. corner is massive. Would prefer to see some redesign to break up the massiveness & provide some larger usable recreation/open space area. The townhouse area has a really well done recreation area. Something should be provided for the renters.

Retail Commercial Area should be for neighborhood service businesses.

A visual landscape strip should be provided along 12th Street in front of the Showroom Offices & Retail Commercial.

Additional screening of parking areas from Horizon Drive should be increased.

Individual pedestrian systems are good but they aren't linked together. How do the townhome people get to the retail area? They shouldn't have to drive. Like to see some linkages at final.

3/23/81

City Engineer

Power of Attorney for full street improvements on Horizon Drive should be obtained. 38½ Ft. half right-of-way is appropriate for 27 Road and for G Road. Curb and gutter and sidewalk and pavement widening in accordance with City Standard for Minor Arterial Street should be constructed on 27 Road and on G Road by the petitioner. City Standard Court section should be constructed on the cul-de-sac from G Road by the petitioner. A minimum of 22 Ft. of mat is required for initial access. Who will furnish the right-of-way on the east side of that cul-de-sac which appears to be outside the property? 22 Ft. mat with vertical curb & gutter and off-street sidewalks is acceptable for the loop road and interior cul-de-sac on the east end of the property. I recommend those "guest parking stalls on the north side of the loop road just west of the entrance to G Road be eliminated due to potential traffic conflicts and hazard. I really don't care for any of those "guest parking" stalls which require backing into the street right at the street curves. Entrances to G Road, 27 Road and Horizon Drive all seem reasonable to me. I do think the entrance on Horizon Drive which is closest to proposed Lexington Court (from the south) should be opposite it if at all possible. All sanitary sewers must be a minimum of 8 inch diameter and located in 20 Ft. wide easements as shown on their plans. The sewer required in 27 Road will be constructed by the petitioner as well as all those shown on the site. Location of all sanitary sewers seems reasonable. The lift station type must be as approved by the City Engineer.

Horizon Channel is a designated 100 year Floodplain. Therefore a Floodplain Permit will be required. I will respond to the Floodplain Administrator about the detail hydrologic and hydraulic calculations when I am asked to review the Floodplain Permit Application. I take no exception to the proposed concept of relocating and reconstructing a channel adequate to convey the 100 year flood with detention ponding near 27 Road. I reserve any comment on the storm facilities sizing until the "more detailed study" mentioned in the Preliminary Flood Hazard Study is prepared and submitted for review. The proposed method of handling the on-site drainage seems reasonable to me. Final design may alter some storm facilities locations and/or sizing and these will be considered at that time based on the best information available. A financial guarantee in accordance with Development Regulations Section 27-2.3 should be obtained for all public improvements.

4/28/81

SIMONETTI/RINKER PASSED (KAMICAR AND DUNIVENT ABSTAINING) A MOTION TO RECOMMEND APPROVAL TO CITY COUNCIL OF #35-81, REZONE PD-8 TO PB.

SIMONETTI/RINKER PASSED (KAMICAR AND DUNIVENT ABSTAINING) A MOTION TO RECOMMEND APPROVAL TO CITY COUNCIL OF #35-81, PRELIMINARY PLAN FOR THE PARK AT HORIZON DRIVE, SUBJECT TO STAFF COMMENTS AND WITH THE RECOMMENDATION THAT THE ENTIRE PLAN BE REVIEWED BY ALL REVIEWING AGENCIES BEFORE HEARING BEFORE CITY COUNCIL AND FINAL PLAN STAGE: AND FURTHER, SUBJECT TO INPUT FROM THE RESIDENTS IN THE NEIGHBORHOOD.

SIMONETTI/PRICE PASSED (KAMICAR AND DUNIVENT ABSTAINING) A MOTION TO RECOMMEND APPROVAL TO CITY COUNCIL OF #35-81, ROAD VACATION, OF THE 25 FOOT UTILITY EASEMENT FOR THE PARK AT HORIZON DRIVE.

REVIEW SHEET SUMMARY

FILE NO. 35-81 DUE DATE 5/18/81
ACTIVITY PD & PR and ROW & Easement
PHASE Preliminary
LOCATION NE Corner 12th/Horizon Drive.
PETITIONER John Shaw
PETITIONER ADDRESS 3400 Stapleton Plaza
ENGINEER Victorio Investments

<u>DATE REC.</u>	<u>AGENCY</u>	<u>COMMENTS</u>
5/18/81	City Utilities	The existing 40' right-of-way on the east boundary of the development is being proposed to be vacated. This existing right-of-way provides access to Horizon Drive and G Road for both this property and the property to the east. If the circular road in the east part of this development was a public street it would eliminate the homeowners from being in the street maintenance business and would reduce the amount of utilities in easements.
5/19/81	Transportation Engineer	My comments on the previous submittal concerning the guest parking for the townhomes and the parking at the south entrance on 27 Rd. still apply. The "emergency access" points for the residential areas should be designed to be able to handle the daily traffic in the event that the single access points onto G Rd. and 27 Rd. might be temporarily closed.
5/19/81	City Engineer	These comments supersede those of March 19, 1981, since a revised plan was received in my office on May 8, 1981. If the sidewalk is going to meander along 27 Road as shown, the right-of-way should also meander to provide a minimum of 6 inches behind the sidewalk. All storm sewers and sanitary sewers not located in dedicated street rights of way should have 20 Ft. wide easements as shown on the plans. The cast iron pipe shown for part of the sanitary sewer is not acceptable due to alkaline soil corrosion potential. Ductile iron pipe with polyethylene encasement wrap may be used in the shallow cover area instead. A revised grading plan was submitted however, the preliminary drainage map and related revised hydraulic and hydrologic calculations were not submitted. Power of attorney for full street improvements on Horizon Drive must be submitted prior to recording the plat. 38½ Ft. half right-of-way is appropriate for 27 Road and G Road as shown. Curb and gutter, sidewalks and pavement widening in accordance with City standard for Minor Arterial Street should be constructed on 27 Road and G Road frontages by the petitioner. City Standard Court section should be constructed on the cul-de-sac from 27 Road by the petitioner. 22 Ft. mat with vertical curb & gutter and off-street sidewalks as shown is acceptable for the loop road and interior cul-de-sac on the north-east section of the property. Since my review of March 19, 1981, which showed these streets as dedicated public streets the petitioner has revised the plan to "private streets" including a stated intent to post a guard at the intersection at G Road. The physical design of the streets is exactly the same. Enclosed is a checklist of factors which

the City Council should consider as input into any decision concerning "private streets". I prepared this checklist on December 13, 1978, in anticipation of this issue and after careful research. I respectfully submit these matters for the City Councils' deliberation. I recommend those "guest" parking stalls on the north side of the loop road just west of the entrance to G Road be eliminated due to potential traffic conflicts and hazard. I really advise against any of those "guest parking" stalls which are located at the street curves and require backing into the street. The traffic report states that Cliff Drive from the south side of Horizon Drive should be realigned to match their entrance. I can't tell from these plans what aligns and what doesn't but it is important that the entrances to Horizon Drive be directly across from one another. The sewer lift station must be a type approved by the City. Horizon Channel is a designated 100 year floodplain. I have reviewed their floodplain permit and related data and found it to be very complete and acceptable. The proposed method of handling the on-site drainage seems reasonable although the drainage calculations do need to be revised to fit this latest plan. Final design may alter some storm drainage facilities locations and/or sizes and these will be considered at that time based on the best information available. All detailed plans for street improvements, storm drainage improvements, and sanitary sewers (including lift station) must be submitted for my review and approval prior to construction. A financial guarantee in accordance with Development Regulations Section 27-2.3 should be obtained for all public improvements.

RPR 12/13/78

Here are some of my thoughts on something I perceive as a potential issue soon.

"Private Streets" - (Problems)

1. All streets should conform to same design and construction standards.
2. Policy (traffic) enforcement problems.
authority?
3. Fire access.
4. Refuse collection access.
5. Need "right-of-way" for sewer & water and system maintenance access.
6. Street cleaning (sweepers), patching, snow & ice removal.
7. Street preventative maintenance (Sealcoat & overlay on 10 yr. cycles).
8. Traffic control devices-authority & maintenance.
9. Liability for accidents - Private vs municipal "immunity"? - impacts on homeowners insurance & potential lawsuits?
10. Right of public access??
11. Negative impact on HUT revenues which are based on open & maintained public street mileage.
12. Public Service Co. franchise for street lighting applies to public streets. Interpretation of eligibility for street lighting? Who pays the power bill? How to distinguish between "private" street & private parking lots?
13. Residents are tax payers & are entitled to public streets with maintenance. Their taxes pay for this and also the historic precedent of this legitimate government service is strong.

14. Why do developers want "private" streets? Many desirable objectives can be obtained with good physical design using standards with some flexibility and still have public dedicated streets.

Ron Rish

SIC

Acres _____

File No. # 35-8

Units _____

rezone & preliminary plan

Zone _____

Density _____

Tax Parcel Number _____

Activity THE PARK AT HORIZON DRIVE

Phase REZONE PDB-PDB to PDB / PRELIMINARY PLAN / ROW VARIATION

Common Location NE COR OF 12th & HORIZON DR & SE COR OF B RD & 12th ST.

Date Submitted 3-2-81 Date Mailed Out 3-6-81 Date Posted 3-20-81
10 day Review Period Return by 3-16-81 MCC Information Sent _____

Date Adjacent Property Owners Notified of MCPC/GJPC _____ Date Adjacent Property Owners Notified of MCC/CIC _____

review agencies

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG
Development Dept.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
County Road	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
County Health	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
County Surveyor	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
County Parks/Recreation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
County Engineer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Transportation Engineer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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City Parks/Recreation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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County Sheriff	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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Comprehensive Planning	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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Sewer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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Mountain Bell	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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Soil Conservation	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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State Geological	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
State Health Dept.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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Water & Power Resources	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Mack, Mesa, Colibrán, Palisade, Fruitá, DeBeque, G.J., Mesa Cnty.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
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totals

BOARDS	DATE	DESCRIPTION
GJPC	3/31/81	Petitioner pulled item from agenda
GJPC	4/28/81	Agenda-sub to staff & reviewed.com
CC	5/20/81	Petitioner withdrew 40' ROW var
		Appl. CA

STAFF Handwritten notes for ROW Variation
Met ROW Variation Work out

Open Space Dedication (acreage) _____ 5% O. S. Fee Required \$ _____ Paid Res
Recording Fee Required \$ _____ Paid (Date) _____ Date Recorded _____
Date Resolution Mailed _____

City
County
Development
Department



CITY OF GRAND JUNCTION, COLORADO
MEMORANDUM

#35-81

Reply Requested
Yes No

Date

April 21, 1981

To: (From:) Bob Golden

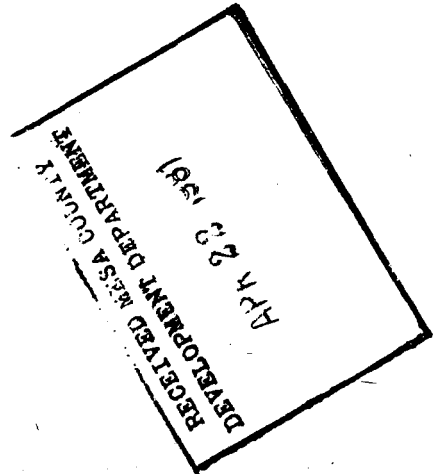
From: (To:) Ron Rish *RRR*

Subject: Floodplain Permit Study of "The Park on Horizon Drive"

As requested, I have reviewed the above as received on April 3, 1981, and have the following comments:

1. I take no exception to the "Specifications for the Horizon Drive Channel Construction" which are heavily based on Colorado Division of Highways Standard Specifications as are our City Specifications. The structural plate pipe arches must be fully bituminous coated as required by our City Specifications because of alkaline soil and all cement must be Type II. These details and others can be addressed when detailed construction plans for the storm drainage system improvements are submitted for my required review and approval prior to construction.
2. The "Floodplain Permit Study" is very comprehensive and their proposed solution is acceptable to this office. They have done an excellent job of quantifying all factors and have gone to considerable trouble to insure that both upstream and downstream properties should not be adversely affected during flood conditions due to the proposed development of this property. This report should be accepted as the basis for design and I commend their engineers on a job well done.

cc - Karl Metzner
Jim Patterson



6/13 TO Steve B: whether etc is ok?

Do you know ~~anything about this~~ if ok
sign and return to me so that
we can complete and return to
City



~~Sharon's add our address
after Horizon Partnership, Ltd and
complete the signature block
before going to Steve~~

Grand Junction Planning Department
559 White Ave. Room 60
Grand Junction, Colorado 81501-2643

pick says 0,12.

To: Horizon Partnership Ltd. #35-81 The Park at Horizon Drive

From: City Planning Department

Re: ROW dedication and extension requests.

The Grand Junction Planning Commission granted an extension with the stipulation that certain right of way dedication would be required. Enclosed is the quit claim deed we have drawn up indicating the right of way required from your development.

If you could sign and notarize the deed, return it in the enclosed self addressed, stamped envelope, we would appreciate it.

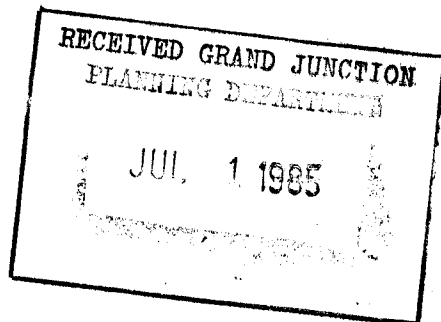
Upon receipt of the quit claim deed, your extension will be official and valid for 1 year till May of 1986.

The City staff, Planning Commission, and City Council extend our thanks for your cooperation.

If you have questions please call me at 244-1648.

Thanks

Bob Goldin
Sr. City Planner.



The Park at Horizon Dr.



City of Grand Junction, Colorado 81501

250 North Fifth St., 303 243-2633

November 6, 1981

Mr. James Fitzpatrick
Tri-Consultants, Inc.
7500 West Mississippi Avenue
Suite 30
Denver, CO 80226

Dear Jim:

Re: Horizon Channel Through "The Park at Horizon Drive"

As requested, I have reviewed the detailed construction plans for "Grading and Channel" for the above as submitted October 28, 1981, and I have the following comments:

1. On May 18, 1981, I prepared review comments on the Preliminary Plat submittal for the project. Several review comments are to-date apparently unresolved or at least unanswered. A copy of my May 18, 1981, review comments is enclosed. Some of those comments which would affect the proposed channel relocation work are:
 - (a) The southwesterly drive entrance from Horizon Drive should align with Cliff Drive. Any proposed realignment of Cliff Drive must be approved by the City and who will construct the realignment and when? The drive entrance location will dictate where the 12'-10" x 8'-4" culvert is to be located.
 - (b) The proposed channel crossings of sanitary sewer and waterline must fit the overall utility plan as to location and size. If later it is determined they do not, then they will of course have to be reconstructed.
 - (c) Since Final Plat and Plan has not yet been submitted, any approval of construction plans by this office at this time is subject to being superseded by Planning Commission, and/or City Staff, and/or City Council revisions to the overall plan at Final Plat review time.
2. All construction on the channel and appurtenances, storm sewer, sanitary sewers and public street improvements must be in accordance with City Specifications and Standards and as you know the detailed construction plans must be submitted to the City Engineer for review and approval prior to construction.

#35-81

I am enclosing for your use the following:

- (a) Standard Specifications for Construction of Waterlines, Sanitary Sewers, Storm Drainage and Irrigation Systems.
 - (b) Detailed Street Construction Specifications.
 - (c) Standard Pavement Details Drawing ST-1.
 - (d) Standard Drainage Details Drawing ST-2.
 - (e) Standard Sanitary Sewer Details Drawing SS-1.
 - (f) Standard Waterline Details Drawing W-1.
 - (g) General Contract Conditions GC-37, GC-50 and GC-65.
3. The sanitary sewer and waterline crossings of the channel should be encased either in concrete or a pipe. Ute Water approval should be obtained for the waterline crossing.
 4. The following Note should appear on the plan "General Notes" and a similar appropriate note should appear on all construction plans for Public Works and Utilities facilities:

All construction shall be in accordance with City of Grand Junction Standard Drainage Details Drawing ST-2 and shall conform to City of Grand Junction "Standard Specifications for Construction of Waterlines, Sanitary Sewers, Storm Drainage and Irrigation System", 1981, and City of Grand Junction General Contract Conditions for Public Works and Utilities Construction GC-37, GC-50 and GC-65.

5. We will have a preliminary design for Horizon Drive including the 12th Street intersection by February, 1982. This will be available to you to assist in the street design efforts for 12th Street (27 Road).
6. The proposed initial channel construction is not approved. The 100 year Flood Plain permit is based on not filling the existing flood plain until the relocated channel is complete in accordance with the permit. The "Flood Plain Permit Study" submitted in March, 1981, proposes a channel which is fully protected by riprap and which has a capacity sufficient to handle the 100 year flood. The current proposal to construct the channel and the riprap protection in phases is unacceptable. The channel should be constructed in its final configuration, initially.
7. I did a cursory check of the hydraulics of the channel and culverts based on the current plan details. A copy of my calculations is enclosed. Of course, your analysis as documented in the "Flood Plain Permit Study" is much more sophisticated and comprehensive but my check was only to satisfy myself as to the reasonableness of the proposed improvements.

8. The length of the culverts proposed under 27 Road must be sufficient to accommodate the proposed minor-arterial street section on both sides of the street. Sheet 7 should include a detail for the west side culvert ends also.
9. The small pad of riprap protection (20 ft. x 32 ft.) proposed at the west end of the culverts under 27 Road seems inadequate. The "Flood Plain Permit Study" states the Developer has agreed to provide erosion protection at this location. You should submit calculations and/or other justification for the mitigation proposed.
10. This review does not include any of the storm drains or other improvements outside of the relocated channel area. Your plans show most of these as "future construction".
11. Extension of the channel bankslopes at 7+40 and 7+85 result in the future PI being 5 ft. and 7 ft. inside the Horizon Drive right-of-way. Therefore, the channel must be shifted to the northwest at these locations and any others where the future slope PI will result inside the street right-of-way.
12. The plans show riprap consisting of 6" to 8" stones on the southeast bank of the channel all the way up the slope to the existing ground. This results in an irregular top limit of riprap. I wonder what is planned for erosion protection on the future fill slope above this riprap and how the entire slope will look then? The City will not landscape outside of the street right-of-way.

I also question the stability of the 6" to 8" stone riprap on $1\frac{1}{2}$ to 1 slopes and with anticipated flood velocities of up to 10 feet-per-second. Enclosed are several pages from two references concerning riprap, (1) "Urban Storm Drainage Criteria Manual", 1969, and (2) "Design Guidelines and Criteria for Channels and Hydraulic Structures on Sandy Soils", 1981, both sponsored by Urban Drainage and Flood Control District. These references indicate that.

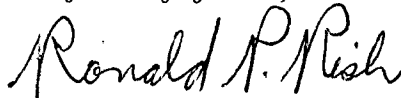
- (a) Loose riprap should not be used on slopes steeper than 2 to 1.
- (b) A filter blanket under the riprap is essential.
- (c) The 6" to 8" stones will wash away at the 52.10 feet-per-second velocities predicted in your "Flood Plain Permit Study".

In light of the above and comment number 6, you should revise the following for the proposed Horizon Channel:

- (a) Bank slopes and/or erosion protection.
- (b) Provide a properly designed filter blanket under riprap
- (c) Reconsider limits of riprap and address erosion protection/landscaping for the area above the 100 year flood depth.

In summary, based on the 100 year Flood Plain Permit, I expect the relocated channel to be adequately sized and erosion-protected to handle the 100-year flood. The riprap proposed must be properly sized, with appropriate filter blanket, and on a bank slope that will insure that the rock doesn't end up in the stream bed and/or the culverts and/or downstream. Your calculations and hydraulic references are welcomed.

Very truly yours,



Ronald P. Rish, P.E.
City Engineer

RPR/hm

Enclosures

cc - John Shaw, Victorio Investments
Bob Goldin, Flood Plain Administrator
John Kenney
Don Newton
Jim Patterson



TRI-CONSULTANTS, INC.

RECEIVED MESA COUNTY
DEVELOPMENT DEPARTMENT

DEC 17 1981

December 15, 1981
JN: 07430

Mr. Ronald P. Rish, P.E.
City Engineer
250 N. 5th Street
Grand Junction, CO 81501

RE: *File*
The Park on Horizon Drive

Dear Ron:

This letter has been written in response to your letter of November 6, 1981, which raised concerns about the above mentioned project. In this letter we will discuss you comments and make recommendations concerning modifications of the proposed construction of this project.

Comment No. 12 of your letter, has the greatest impact on the proposed construction. We are aware that the Urban Drainage and Flood Control District recommends that loose rip-rap not be placed upon slopes greater than 2 to 1. Several engineers in our office have discussed this matter with Urban Drainage and Flood Control District personnel in the past and have found that this is not a hard-and-fast rule with that agency. It has been my experience that rip-rap slopes will function properly when constructed on 1 1/2 to 1 slopes. When I was acting as public works engineer for Winnebago County in Illinois, the Corps of Engineers had several projects proposed for providing flood control and channel reconstruction which utilized slopes up to 1 1/2 to 1.

Although you desire to hold to 2 to 1 side slopes, instead we propose to make use of a plastic filter blanket under all rip-rap. The use of this product will help to prevent failure of the rip-rap protection system. The following is a summary of the velocity anticipated within the proposed channel:

CONSULTING ENGINEERS AND LAND SURVEYORS

7500 West Mississippi, Suite 30

□

Denver, Colorado 80226

□

(303) 922-1156

Mr. Ronald P. Rish, P.E.
City of Grand Junction
December 15, 1981
Page 2

<u>Station</u>	<u>Velocity (fps)</u>	<u>Slope of Channel (%)</u>	<u>Depths of Water (feet)</u>
1+50	0.56		
2+30	0.71		
3+30	2.65	3.2	
4+05	10.00	6.4	4.45
4+50	7.47	1.4	5.43
5+50	6.39		
6+85	8.94		5.89
6+95	9.44		
7+85	9.14		
7+95	4.51		
9+00	5.09		
10+00	5.36		
11+40	8.48		6.18
11+50	9.11		
12+40	9.01		
12+50	4.40		
13+50	4.53		
14+50	5.02		
15+50	5.17		
16+50	4.70		
16+75	3.25		
17+00	2.55		
17+25	2.01		
17+50	1.68		

The above chart shows that with the exception of the areas within and immediately downstream from and the area between station 3+30 to 4+50, which has steeper slopes than the remaining portions of the channel, velocities vary from 0.56 to 6.39 feet per second. Figure V-1 from the Urban Drainage criteria manual which you had sent with your previous letter shows that 6-inch stone diameter should withstand bottom velocities of less than 6.5 feet per second. It is realized that this figure was developed for slopes less than 1 1/2 to 1. Therefore, we recommend to increase the size of rip-rap to 8 to 10 inches from the previously proposed 6 to 8 inches. According to Figure V-1 the 8-inch size rip-rap should be able to withstand velocities of 7.5 feet per second, therefore, it should be sufficient in all areas except the ones excluded above.

Mr. Ronald P. Rish, P.E.
City of Grand Junction
December 15, 1981
Page 3

We agree that additional protection needs to be provided in the area between station 3+30 to 4+50. We will provide grouted rip-rap in these areas up to 6 feet above the flow line of the channel. This should provide the necessary protection below the water line for the proposed channel. Pipes will be constructed between stations 6+95 and 7+85 and station 11+50 to 12+40. At stations 6+85 and 11+40 an erosive velocity is also shown on the computer printout. These velocities are located 10 feet downstream from the proposed pipes. It is doubtful that the velocities at the discharge into these pipes will be as high as computed, since the HEC-II computer program requires that the first cross section immediately downstream from a culvert have an effective area of flow equal to the size of the discharging culvert. It is felt that actually the water will spread out over a greater area, thereby lowering the velocity at these locations. However, we recommend to provide grouted rip-rap in the bottom as well as both sides of the channel for 10 feet downstream from the end of the culvert. The grout will be placed across the bottom and 6-feet vertically up the side of the channel which should contain all the water passing through these locations in the channel.

Concerning the landscaping of the fill to be placed during construction of Horizon Drive; we have recommended that the Developer agree to provide rip-rap to construct the 1 1/2 to 1 slope, as well as, all necessary easements and rights-of-way necessary to construct the proposed improvements of Horizon Drive. Of course, this work will have to be done after the fill has been placed by the City in this area.

Concerning Item No. 6. in your letter, we offer the following comments. Although the previously submitted Flood Permit Study showed both banks of the channel to be constructed at this time, it is anticipated that the northern bank may be constructed at less than 1 1/2 to 1 slopes which would provide a more attractive and more easily maintained bank. We have enclosed a drawing which has been recently submitted to us by the architect designing the first phase of construction of "The Park on Horizon Drive." As you can see the slope on this northern bank has been varied and flattened considerably. We would like to maintain this flexibility concerning the northern bank, therefore, we are requesting that the north bank of the channel be constructed with a 2 to 1 slope and seeded at the present time. Of course, we will recommend providing grouted rip-rap on the north bank at the outlet of the two culverts and along the section of ditch from station 3+30 to 4+50 on the proposed 2 to 1 side slope. We feel that this approach will be sufficient for construction at the present time and will allow us flexibility to design a more desirable channel during the final design phases of this project.

Mr. Ronald P. Rish, P.E.
City of Grand Junction
December 15, 1981
Page 4

Regarding item 1.(a); it was our understanding that the architect/planner for the project had discussed the alignment of Cliff Drive with the Grand Junction planning staff and had agreed that the location shown on the plans would be the best alternative. This was based on the fact that the project which I believe was called "Lexington Place" was currently in the planning process and this project was planning to relocate the Cliff Drive location in accordance with our project as a portion of their project.

Concerning items 1.(b) & (c); we realize this situation but we need to construct this work at this time, and the Developer will have to take the risk involved.

Concerning item 2; we will utilize the enclosed standards in our final construction drawings.

Regarding item 3; we will recommend to utilize casings for the sanitary sewer and water lines to be constructed under the channel. It should be pointed out that Ute Water have received copies of our final utility drawings and have agreed with our proposed construction.

Regarding item 4, we will add the note as shown.

Concerning item 5; we look forward to utilizing this information.

Concerning item 7; we welcome your review and we are pleased that you are satisfied with our mathematic results.

Concerning item 8; the requirement that the Developer should construct culverts, extending beyond the present west right-of-way of 27-Road to accommodate the improvement of the west side of 27-Road does not seem appropriate. It was our understanding that the Developer would be responsible to design the improvements on 27-Road but he would only be responsible for the construction of his half of the roadway. Developer does not have any mechanism to obtain right-of-way on behalf of the City.

Concerning item 9; we are contacting Mr. Richard W. Ferrell with the Inter-West, Inc., who is in the process of planning for development immediately downstream of the culverts under 27-Road, to discuss erosion protection downstream of the culverts. It would appear to us that we should not provide extensive erosion protection for the property which could be removed in the near future. We will keep you advised of Mr. Ferrell's comments on the matter. Again, rights-of-way or easements for this improvement will be necessary, and could take some time to acquire.

Mr. Ronald P. Rish, P.E.
City of Grand Junction
December 15, 1981
Page 5

Regarding item 10; it is realized that all interior storm drains will need to be reviewed prior to construction.

Regarding item 11; it is our opinion that the channel does not need to be relocated at the 7+40 and 11+85 stations as indicated. The reason is that these are at the locations of a proposed culvert which will act as a bridge from the project to Horizon Drive.

It is our opinion that the changes in the proposed construction, as discussed in this letter, will protect the integrity of proposed channel along Horizon Drive. As you realize, Ron, we are presently under earthmoving operations on-site. Therefore, this matter needs to be handled as quickly as possible, but we realize you need to review the proposed changes which we have outlined in this letter and comment on them. If you require or desire a meeting in Grand Junction to examine the site, as well as, the proposed changes, we will be more than happy to do that in the near future. We are anxious to resolve this problem in a manner satisfactory to you and as quickly as possible. Your cooperation in this matter is greatly appreciated.

Sincerely,

TRI-CONSULTANTS, INC.



James L. Fitzpatrick, P.E.
Project Engineer

JF/bas

Enclosure

cc: John Shaw, Victorio
Kenneth Mundt, Victorio, Grand Junction
Jim Patterson, City of Grand Junction
Bob Goldin, City of Grand Junction
John Kenney, City of Grand Junction
Don Newton, City of Grand Junction



City of Grand Junction, Colorado 81501

250 North Fifth St., 303 243-2633

February 12, 1982

Mr. James Fitzpatrick
Tri-Consultants, Inc.
7500 West Mississippi Avenue
Suite 30
Denver, CO 80226

Dear Jim:

Re: Horizon Channel through "The Park at Horizon Drive"

As requested, I have reviewed the revised detailed construction plans for "Grading and Channel" for the above as submitted January 11, 1982, and I have the following comments. Most of the review comments contained in my letter of November 6, 1981, have been addressed but some issues raised then still remain. I also will document in this letter some of my concerns as stated in the November 6, 1981, letter in order to have all my comments in one current letter.

The issues which remain are:

1. As stated in my May 18, 1981, review comments and in my November 6, 1981, letter, the southwesterly drive entrance from Horizon Drive should be aligned with the Cliff Drive and Budlong Drive intersection. The marked-up preliminary plat you sent me is not acceptable. Enclosed is a print of topographic mapping showing the existing and proposed future intersection. The drive entrance into The Park should be moved to fit the centerline shown on that print. This will determine the culvert location and will also require revisions to the site plan: One factor which creates the need for the intersection as shown is the grade on Cliff Drive. It is better to have the Horizon Drive intersection from Budlong Street which is significantly flatter. Budlong Street also is more of a through street which will serve significant parcels of undeveloped land to the southwest.

I raised this question on May 18, 1981, and received no response from anyone until your submittal of the marked-up plat on January 11, 1982.

2. As stated in my November 6, 1981, letter, the small pad of riprap protection (20 ft. x 32 ft.) proposed at the west end of the culverts under 27 Road seems inadequate. The "Flood Plain Permit Study" states the Developer has agreed to provide erosion protection at this location. You should submit calculations and/or other justification for the mitigation proposed.

You stated in your January 11, 1982, letter that a Mr. Ferrell is making a decision concerning this. The City's position is that regardless of Mr. Ferrell's feelings, our responsibilities and potential liabilities are in jeopardy unless adequate erosion protection is provided as you committed your client to do through The Flood Plain Permit process.

The following comments are not perceived by me as issues, but I would appreciate it if they were addressed and/or acknowledged:

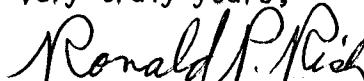
1. The proposed channel crossings of sanitary sewer and waterline must fit the overall utility plan as to location and size. If later it is determined they do not, then they will of course have to be reconstructed.
2. Since Final Plat and Plan has not yet been submitted, any approval of construction plans by this office at this time is subject to being superseded by Planning Commission, and/or City Staff, and/or City Council revisions to the overall plan at Final Plat review time.
3. This review does not include any of the storm drains or other improvements outside of the relocated channel area. Your plans show most of these as "future construction".
4. We have exchanged opinions about the stability of the proposed riprap on $1\frac{1}{2}:1$ slopes. I still question how well the rock will stay on a slope that steep. If problems are encountered, I assume your client will correct them since it will affect the property owners adjacent to the channel more than anyone else.
5. As discussed with you on the telephone, it is critical that tight field control be maintained to insure the channel location is far enough north that the future P.I. of the $1\frac{1}{2}:1$ slope will not encroach into the Horizon Drive right-of-way. The entire right-of-way will be needed when Horizon Drive is improved to a four-lane parkway. Field control on placement of the riprap will also be very important if the finished product is to look and function as planned.
6. I agree that your client's responsibility for the 27 Road culverts is to insure sufficient length on the east side only, to accommodate the minor arterial street standard. However, I do think the plans should show a detail for the west ends of the culverts including end treatment and erosion protection.

7. The revised channel study states that grouted riprap will be provided on the channel slopes from 3+30 to 4+50 but the plans do not show it.
8. The plans should show a structure bedding and backfill detail for the large culverts. The trench detail shown on our standard drawing is basically for pipes much smaller than those proposed. I recommend you use appropriate Colorado Division of Highways Standards as a guide for your detail.
9. I assume it is understood and will be communicated to the Contractor that the 100 year capacity of the Horizon Channel must be maintained somehow during construction. Grading should be phased to accommodate this since nobody can predict when a flood might occur.
10. Specifications should be referenced on the plans or furnished to the Contractor for the riprap, grouted riprap, and plastic filter blanket since the City Standard Specifications referenced on the plans do not contain these items. I recommend you use Colorado Division of Highways Specifications Sections 506 and 507 for these items.
11. I have reviewed the "Revisions to the Proposed Horizon Channel Study for The Park on Horizon Drive" dated January, 1982. I take no exception to the contents and it is accepted as the basis for the Flood Plain Permit.

When the above comments have been addressed, submit revised plans for approval prior to construction.

Your cooperation in these matters and the professional manner in which you have handled this project is appreciated.

Very truly yours,


Ronald P. Rish, P.E.
City Engineer

RPR/hm

Enclosure

cc - John Shaw, Victoria Investments
Bob Goldin, Flood Plain Administrator ✓
John Kenney
Don Newton
Jim Patterson



City of Grand Junction, Colorado 81501

250 North Fifth St.,

September 21, 1982

Charles E. Brannan, P.E.
Project Manager
Tri Consultants, Inc.
7500 West Mississippi
Suite 30
Denver, CO 80226

Dear Chuck:

Re: "The Park" on Horizon Drive

Filing #1 Encl

Thanks for your detailed response to my letters. I have reviewed all the materials submitted with your June 28, 1982, letter and have the following comments:

1. The detailed responses in your letter are acceptable to this office and are appreciated.
2. The sanitary sewers layout for Filing 1 are revised from previous submittals. The easements on the Filing 1 plat should be revised to fit the new layout and the "offsite" sewer easements should also be revised. Mr. Darrel Lowder, City Right-of-Way Agent (244-1565) should be furnished executed copies of the easements to be recorded.
3. Executed copies of the drainage easements should be furnished to Mr. Lowder for recording.
4. The utility plan (sheets 8 and 9 of 9) of the "Grading and Channel" plans should be revised to reflect the revised location of sanitary sewers.
5. Add the following notes to sheet 7 of 12 of "Phase 1 and Offsite Utility" plans:

"All construction shall be in accordance with City of Grand Junction Standard Sanitary Sewer Details Drawing SS-1 and shall conform to City of Grand Junction Standard Specifications for Construction of Waterlines, Sanitary Sewers, Storm Drainage and Irrigation Systems", 1981, and City of Grand Junction General Contract Conditions for Public Works and Utilities Construction GC-37, GC-50 and GC-65."

Charles E. Brannan, P.E.

September 21, 1982

Page 2

"The contractor shall contact the City Utilities Superintendent, Mr. Ralph Sterry, (244-1568) prior to any disturbance of existing sanitary sewers including tie-ins and/or taps. Existing sanitary sewer flows shall be maintained at all times."

6. The "Sewer Trench Detail" shown on sheet 12 of 12 of "Phase 1 and Off-site Utility" plans should be revised to conform with the "Typical Trench Detail for All Underground Conduit" shown on City of Grand Junction Standard Sanitary Sewer Details Drawing SS-1.

When the above comments have been addressed, consider the plans submitted on June 28, 1982, to be approved by this office for construction.

Please notify us as soon as construction is complete and you are assured the City standards for such construction have been met. At that time our personnel will inspect the improvements. We would appreciate being contacted for the final inspection prior to the utility lines being activated for service.

Prior to acceptance of the constructed facilities, it is necessary for you to submit to the City Engineer "as-built" mylar plans for those facilities bearing a professional engineer's seal and a certification by the engineer that the sanitary sewer lines have been tested for infiltration and that infiltration does not exceed 200 gallons per inch diameter per mile per day. Satisfactory construction test results must also be submitted for the storm drainage system improvements as required by City specifications.

Thanks for your cooperation in these matters.

Very truly yours,



Ronald P. Rish, P.E.
City Engineer

RPR/hm

cc - John Shaw-Victorrio Investment Co.
Bob Goldin ✓
John Kenney
Darrel Lowder
Jim Patterson
Ralph Sterry
File

To file # 35-81

3/3/81

Conversation with John Shaw -
he requested that item be withdrawn
from April 6 mtg. and rescheduled
for April 28th.

Don Warner - discovered density
is 11.9 (12) instead of 8.
Will require a new rezoning form
& advertising fee but will not
need a new review.

Advise Shaw that density should
be discussed at the citizens mtg.

Pat Miller

Citizens mtg w. Victorio at 4:00 pm.
Monday - April 6 at City Council Chambers.

KCM

Need to show limitations of floodplain way
Need Floodp. permit process before any blq. or modification