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File 1992-0054

Name: Trolley Park Subdivision in C-2 Zone - Final Plan

P r e s e n t	S c a n n e d	<p>A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, items are found on the list but are not present in the scanned electronic development file because they are already scanned elsewhere on the system. These scanned documents are denoted with (**) and will be found on the ISYS query system in their designated categories.</p> <p>Documents specific to certain files, not found in the standard checklist materials, are listed at the bottom of the page.</p> <p>Remaining items, (not selected for scanning), will be listed and marked present. This index can serve as a quick guide for the contents of each file.</p>
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X	X	Table of Contents
		*Review Sheet Summary
X	X	*Application form
		Review Sheets
		Receipts for fees paid for anything
		*Submittal checklist
		*General project report
		Reduced copy of final plans or drawings
X	X	Reduction of assessor's map.
		Evidence of title, deeds, easements
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X	X	*Review Comments
		*Petitioner's response to comments
		*Staff Reports
		*Planning Commission staff report and exhibits
		*City Council staff report and exhibits
		*Summary sheet of final conditions

DOCUMENT DESCRIPTION:

X	X	Action Sheet	X	X	Plan and profile Sanitary Sewer - to be scanned
X	X	Staff Review - 10/14/92	X	X	Grading and Drainage Plan
X	X	Notice of Public Hearing for 11/3/92	X		Street Plan and Profile
X	X	Planning Commission Minutes - 8/4/92 - **			
X	X	Improvements List / Detail			
X	X	Correspondence			
X	X	Drainage Report - 9/2/92			
X		Development Schedule			
X	X	Drainage Easement - legal			
X	X	Ordinance No. 2513 - Amending Section 31-94 of Ordinance 2497 - **			
X	X	Project Location Map			
X	X	Utility Composite and Landscaping Plan			
X	X	Plat			



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

A Receipt _____
 Date _____
 Rec'd By _____
 File No. 54 92

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

PETITION	PHASE	SIZE	LOCATION	ZONE	LAND USE
<input checked="" type="checkbox"/> Subdivision Plat/Plan FINAL	<input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Resub	2.69 AC	25 & E 1/2 552 25 Road	Commercial	Commercial
<input type="checkbox"/> Rezone				From: To:	
<input type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Prelim <input type="checkbox"/> Final				
<input type="checkbox"/> Conditional Use					
<input type="checkbox"/> Zone of Annex					
<input type="checkbox"/> Text Amendment					
<input type="checkbox"/> Special Use					
<input type="checkbox"/> Vacation					<input type="checkbox"/> Right-of-Way <input type="checkbox"/> Easement

<input type="checkbox"/> PROPERTY OWNER	<input type="checkbox"/> DEVELOPER	<input type="checkbox"/> REPRESENTATIVE
Stephen D & Bobette D McCallum		Wayne H Lizer/W H Lizer & Associates
Name	Name	Name
552 25 Road		576 25 Road Unit #8
Address	Address	Address
Grand Junction, CO 81505		Grand Junction, CO 81505
City/State/Zip	City/State/Zip	City/State/Zip
243-4642		241-1129
Business Phone No.	Business Phone No.	Business Phone No.

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

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

Wayne H. Lizer Signature of Person Completing Application 7/2/92 Date
Stephen D. McCallum
Bobette D. McCallum
 Signature of Property Owner(s) - Attach Additional Sheets if Necessary

Ute Water Conservancy District
P O Box 460
Grand Junction, CO 81502

Harry L & Shirley McCrary
1946 N 20th St
Grand Junction, CO 81501

Gary C Binkley etal
dba Binkley & Sons Painting
2957 North Ave.
Grand Junction, CO 81504

Bob's Mobile Homes, Inc
DBA Bob's Quality Housing Inc
900 N. Townsend
Montrose, CO 81401

W R Hall
2522 B Hwy 6 & 50
Grand Junction, CO 81505

Dwight D Guthrie
632 Americana Dr
Grand Junction, CO 81504

Sorgen Partners
326 Main St Suite 205
Grand Junction, CO 81501

Louis & Josephine C Pavetti DVM
2480 Hwy 6 & 50
Grand Junction, CO 81505

Stephen D & Bobette D McCallum
1885 Broadway
Grand Junction, CO 81503

Wayne H Lizer
W H Lizer & Associates
576 25 Road, Unit #8
Grand Junction, CO 81505

#54-92

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MEMORANDUM

DRAFT

*Kathy!
See any problems?
GWW*

DATE: August 24, 1998
TO: Don Newton, City Engineer
FROM: Gerald Williams
SUBJECT: Trolley Park 8/23/93 Site Visit
=====

Since the last review of the proposed Trolley Park Subdivision, several changes have occurred or are proposed. They are enumerated as follows:

- 1) Parcel 5 will become a part of the common tract;
- 2) The cul-de-sac will be moved west which will allow the existing fire hydrant to remain, and also allow grading the roadway so that all drainage will flow west, and lot 4 will be revised accordingly;
- 3) Permission to drain the north side of buildings directly to the irrigation ditch without detention has apparently been obtained; and
- 4) The proposed common tract may drain to 25 Road as per current conditions.

The following comments pertain to things which must be done or revised on previous drawings in addition to changes directly required due to the above four changes.

Plat

1. Provide all utility easements, remove drainage easements, and provide full information on the slope maintenance easement and common tract.
2. Add a note which prohibits access to lots from 25 Road except at the designated common tract.
3. The common tract should be dedicated to the owners of lots created by the plat for ingress, egress, drainage, and parking, and also to the City on behalf of public utilities for utility installation and maintenance.

Street Plan and Profile

The valley pan and stop sign remain a requirement, along with the note that the roadway in the common tract is private, and maintenance responsibility lies with the tract owners.

Grading and Drainage Plan

Revise to show changed conditions and requirements.

Utility Composite and Landscaping

1. The existing sign is in the additional ROW area. It must be moved out or be reduced to 30" maximum height.
2. Provide a manhole at the "tee" of sewer services.

Plan and Profile - Sanitary Sewer

Not necessary.

General Comments:

We recommend submitting only two drawings; the revised plat and a site plan with all required improvements shown. Currently, too many sheets show information that must be changed to show the revised proposed development.

The above comments pertain only to engineering issues, and should not be taken to be all-inclusive of review agency comments.

xc: Steve McCallum
Bob Engleke
Kathy Portner

IMPROVEMENTS LIST/DETAIL

(Page 1 of 2)

DATE: September 1, 1992
NAME OF DEVELOPMENT: TROLLEY PARK
LOCATION: 552 1/2 Road
PRINTED NAME OF PERSON PREPARING: Wayne H. Lizer, P.E., P.L.S.

	UNITS	TOTAL QTY.	UNIT PRICE	TOTAL AMOUNT
I. SANITARY SEWER				
1. Clearing and grubbing	_____	_____	_____	_____
2. Cut and remove asphalt	_____	_____	_____	_____
3. PVC sanitary sewer main (incl. trenching, bedding & backfill)	_____	_____	_____	_____
4. Sewer Services (incl. trenching, bedding, & backfill)	_____	_____	_____	_____
5. Sanitary sewer manhole(s)	Ea.	3	1000.00	3000.00
6. Connection to existing manhole(s)	_____	_____	_____	_____
7. Aggregate Base Course	_____	_____	_____	_____
8. Pavement replacement	_____	_____	_____	_____
9. Driveway restoration	_____	_____	_____	_____
10. Utility adjustments	_____	_____	_____	_____
II. DOMESTIC WATER				
1. Clearing and grubbing	_____	_____	_____	_____
2. Cut and remove asphalt	_____	_____	_____	_____
3. Water Main (incl. excavation, bedding, backfill, valves and appurtenances)	_____	_____	_____	_____
4. Water services (incl. excavation, bedding, backfill, valves, and appurtenances)	_____	_____	_____	_____
5. Connect to existing water line	_____	_____	_____	_____
6. Aggregate Base Course	_____	_____	_____	_____
7. Pavement Replacement	_____	_____	_____	_____
8. Utility adjustments	_____	_____	_____	_____
III. STREETS				
1. Clearing and grubbing	_____	_____	_____	_____
2. Earthwork, including excavation and embankment construction	_____	_____	_____	_____
3. Utility relocations	_____	_____	_____	_____
4. Aggregate sub-base course (square yard)	Yd ³	257	13.00	3341.00
5. Aggregate base course (square yard)	_____	_____	_____	_____
6. Sub-grade stabilization	_____	_____	_____	_____
7. Asphalt or concrete pavement (square yard)	Ton	156	40.00	6240.00
8. Curb, gutter & sidewalk (linear feet)	Valley Pan LF	390	15.00	5850.00
	Gutter LF	365	7.00	2555.00
9. Driveway sections (square yard)	_____	_____	_____	_____
10. Crosspans & fillets	LS	1	400.00	400.00
11. Retaining walls/structures	_____	_____	_____	_____
12. Storm drainage system 10" PVC	LF	480	10.00	4800.00

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 #54 92

(M)

13. Signs and other traffic control devices	LS	1	100.00	100.00
14. Construction staking	LS	1	600.00	600.00
15. Dust control				
16. Street lights (each)				
IV. LANDSCAPING				
1. Design/Architecture				
2. Earthwork (includes top soil, fine grading, & berming)				
3. Hardscape features (includes walls, fencing, and paving)				
4. Plant material and planting				
5. Irrigation system				
6. Other features (incl. statues, water displays, park equipment, and outdoor furniture)				
7. Curbing				
8. Retaing walls and structures				
9. One year maintenance agreement				
V. MISCELLANEOUS				
1. Design/Engineering	LS	1	3000.00	3000.00
2. Surveying				
3. Developer's inspection costs				
4. Quality control testing				
5. Construction traffic control				
6. Rights-of-way/Easements				
7. City inspection fees				
8. Permit fees				
9. Recording costs				
10. Bonds				
11. Newsletters				
12. General Construction Supervision				
13. Other _____				
14. Other _____				

TOTAL ESTIMATED COST OF IMPROVEMENTS: \$ 29, 866.00

SIGNATURE OF DEVELOPER

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

DATE

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

CITY ENGINEER

DATE

COMMUNITY DEVELOPMENT

DATE

#54 92

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3. THE COMPLETED STREET PLAN & PROFILE WAS NOT RECEIVED UNTIL 9/4/92, AND A GRADING & DRAINAGE PLAN & REPORT WAS NOT EVEN SUBMITTED UNTIL THEN. THE DRAINAGE REPORT IS INCOMPLETE, DOES NOT ADDRESS CRITERIA, AND IS UNACCEPTABLE. CONSEQUENTLY, DRAINAGE AND STREET FACILITIES ARE UNACCEPTABLE.

CONSIDERING THE ABOVE, WE RECOMMEND THAT THE PROJECT BE TABLED UNTIL A COMPLETE APPLICATION IS SUBMITTED. HOWEVER, FOR THE BENEFIT OF THE ENGINEER, THE ~~ATTACHED~~ REPORT, DRAWINGS, AND IMPROVEMENT AGREEMENT ARE ATTACHED WITH COMMENTS BASED UPON A QUICK PERUSAL OF THE INCOMPLETE APPLICATION. THESE MUST BE RETURNED WITH A RESUBMITTAL.

NOTE: ALL SUBMITTALS SHALL BE THROUGH COMMUNITY DEVELOPMENT,

REVIEW COMMENTS

Page 1 of 3

FILE NO. #54-92 **TITLE HEADING: Final Plan/Plat**

ACTIVITY: Trolley Park

LOCATION: 552 25 Road

PHASE: **ACRES:**

PETITIONER: Stephen D. & Bobette D. McCallum

PETITIONER'S ADDRESS/TELEPHONE: 552 25 Road
Grand Junction, CO
(303) 243-4642

ENGINEER/REPRESENTATIVE: Wayne H. Lizer

STAFF REPRESENTATIVE: Kathy Portner

**NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS
IS REQUIRED ON OR BEFORE 5:00 P.M., SEPTEMBER 28, 1992**

CITY POLICE DEPT. **09/04/92**
Martie Currie **244-3563**

No problems noted.

CITY UTILITIES ENGINEER **9/09/92**
Bill Cheney **244-1590**

SEWER - Second manhole on east/west line to be placed at junction of 6" and 4" lines; not at end of 4" line as shown. Sewer services should not be installed with 90° bands as shown.
WATER - Water line is shown under proposed valley pan. I don't believe this is acceptable to Ute Water.

DRAINAGE - No easement is shown for the valley pan that runs from the road to the 10" P.V.C. storm drain.

PUBLIC SERVICE COMPANY **9/9/92**
Harold Ball **244-2693**

Gas & Electric: No objections.

FILE #54-92
page 2 of 3

U.S. WEST 9/09/92
Leon Peach 244-4964

No comments

UTE WATER 9/09/92
Gary R. Mathews 242-7491

Ute water objects to the plans of laying a Valley Pan over the 6" water line. If done so as planned, the water line would need to be moved from under the V-pan. Policies and fees in effect at the time of application will apply.

CITY FIRE DEPARTMENT 9/14/92
George Bennett 244-1400

No problem.

PARKS & RECREATION 9/14/92
Don Hobbs 244-1542

We will need an appraisal to calculate open space fee requirements.

CITY ENGINEER 9/09/92
Gerald Williams 244-1591

1. The plat shows tracts and identifies them as easements, does not define between existing and proposed easements and existing and proposed right-of-way, and does not provide the 40' required 1/2 street right-of-way for 25 Road.
2. Utilities are shown which are not in an easement.
3. The completed street plan and profile was not received until 9/4/92, and a grading and drainage plan and report was not even submitted until then. The drainage report is incomplete, does not address criteria, and is unacceptable. Consequently, drainage and street facilities are unacceptable.

Considering the above, we recommend that the project be tabled until a complete application is submitted. However, for the benefit of the engineer, the report, drawings and improvement agreement are attached with comments based upon a quick perusal of the incomplete application. THESE MUST BE RETURNED WITH A RESUBMITTAL.

FILE #54-92
page 3 of 3

GRAND JUNCTION DRAINAGE **9/16/92**
John Ballagh **242-4343**

The site plan, along with the previously submitted grading and drainage plan were reviewed.

The proposed PVC pipe to be stabbed into the open portion of the Buthorn Drain must be shielded with corrugated metal pipe or AC transite in order to withstand the burning of debris in the open drain as well as long term sunlight deterioration.

IMPROVEMENTS LIST/DETAIL

(Page 1 of 2)

DATE: October 1, 1992
NAME OF DEVELOPMENT: TROLLEY PARK
LOCATION: 552 25 Road
PRINTED NAME OF PERSON PREPARING: Wayne H. Lizer, P.E., P.L.S.

	UNITS	TOTAL QTY.	UNIT PRICE	TOTAL AMOUNT
<u>I. SANITARY SEWER</u>				
1. Clearing and grubbing	_____	_____	_____	_____
2. Cut and remove asphalt	_____	_____	_____	_____
3. PVC sanitary sewer main (incl. trenching, bedding & backfill)	_____	_____	_____	_____
4. Sewer Services (incl. trenching, bedding, & backfill)	_____	_____	_____	_____
5. Sanitary sewer manhole(s)	Ea.	3	1200.00	3600.00
6. Connection to existing manhole(s)	_____	_____	_____	_____
7. Aggregate Base Course	_____	_____	_____	_____
8. Pavement replacement	_____	_____	_____	_____
9. Driveway restoration	_____	_____	_____	_____
10. Utility adjustments	_____	_____	_____	_____
<u>II. DOMESTIC WATER</u>				
1. Clearing and grubbing	_____	_____	_____	_____
2. Cut and remove asphalt	_____	_____	_____	_____
3. Water Main (incl. excavation, bedding, backfill, valves and appurtenances)	_____	_____	_____	_____
4. Water services (incl. excavation, bedding, backfill, valves, and appurtenances)	_____	_____	_____	_____
5. Connect to existing water line	_____	_____	_____	_____
6. Aggregate Base Course	_____	_____	_____	_____
7. Pavement Replacement	_____	_____	_____	_____
8. Utility adjustments	_____	_____	_____	_____
<u>III. STREETS</u>				
1. Clearing and grubbing	_____	_____	_____	_____
2. Earthwork, including excavation and embankment construction	_____	_____	_____	_____
3. Utility relocations	_____	_____	_____	_____
4. Aggregate sub-base course (square yard)	Yd3	257	13.00	3341.00
5. Aggregate base course (square yard)	_____	_____	_____	_____
6. Sub-grade stabilization	_____	_____	_____	_____
7. Asphalt or concrete pavement (square yard)	Ton	156	40.00	6240.00
Valley Pan	LF	390	15.00	5850.00
8. Curb, gutter & sidewalk (linear feet)	LF	365	8.00	2920.00
Gutter	_____	_____	_____	_____
9. Driveway sections (square yard)	_____	_____	_____	_____
10. Crosspans & fillets	LS	1	400.00	400.00
11. Retaining walls/structures	_____	_____	_____	_____
12. Storm drainage system 10" PVC	LF	480	12.00	5760.00
Storm drainage Manholes	_____	_____	_____	_____
2 drop inlets	_____	2	1000.00	2000.00
2 manholes	_____	2	500.00	1000.00
1 grease oil trap	_____	1	1000.00	1000.00

13. Signs and other traffic control devices	LS	1	100.00	100.00
14. Construction staking	LS	1	600.00	600.00
15. Dust control				
16. Street lights (each)				
IV. LANDSCAPING				
1. Design/Architecture				
2. Earthwork (includes top soil, fine grading, & berming)				
3. Hardscape features (includes walls, fencing, and paving)				
4. Plant material and planting				
5. Irrigation system				
6. Other features (incl. statues, water displays, park equipment, and outdoor furniture)				
7. Curbing				
8. Retaing walls and structures				
9. One year maintenance agreement				
V. MISCELLANEOUS				
1. Design/Engineering	LS	1	3000.00	3000.00
2. Surveying				
3. Developer's inspection costs				
4. Quality control testing				
5. Construction traffic control				
6. Rights-of-way/Easements				
7. City inspection fees 4% total const. costs				1800.00
8. Permit fees				
9. Recording costs				
10. Bonds				
11. Newsletters				
12. General Construction Supervision				
13. Other 25 Road 7' C&G Section	LF	172	25.00	4300.00
14. Other 18 ft half road - 4" asphalt	Ton	79	40.00	3160.00
12" base	Yd3	133	13.00	1729.00

TOTAL ESTIMATED COST OF IMPROVEMENTS: \$ 46,800.00

SIGNATURE OF DEVELOPER
(If corporation, to be signed by President and attested to by Secretary together with the corporate seals.)

DATE

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

CITY ENGINEER

DATE

COMMUNITY DEVELOPMENT

DATE

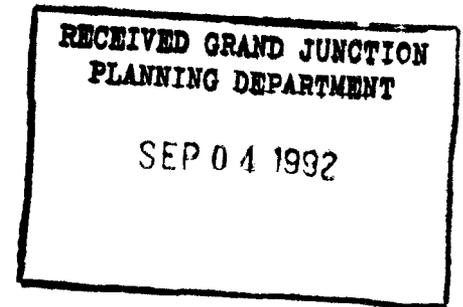
W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

DRAINAGE EASEMENT
TROLLEY PARK

Beginning at a point which bears S89°56'00"E 418.00 feet and S00°04'00"W 100.00 feet from the West Quarter Corner of Section 10, T1S, R1W, U.M. in Mesa County, Colorado; thence S89°56'00"E 232.00 feet; thence S46°44'00"W 28.28 feet; thence N89°56'00"W 212.00 feet; thence N00°04'00"E 20.00 feet to the terminus of this easement.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129



September 2, 1992

DRAINAGE REPORT FOR TROLLEY PARK
CITY OF GRAND JUNCTION, COLORADO

GENERAL

Trolley Park is located on the East side of 25 Road on the E 1/2 line. The site has been developed as a single parcel with four buildings which includes paved parking lots and street. The owner is proposing to divide the development into 5 parcels.

HISTORICAL RUNOFF

The site contains 2.89 Acres. Historically, (according to the 1975 orthophoto maps), the site drained to the West and to the South.

Attached is a drainage map showing the pre-existing conditions. A summary of storm runoff, including both historic and post development runoff, is included within this report.

POST DEVELOPMENT RUNOFF

Due to the site already having been developed at this time, four drainage sub-basins have been created, as follows:

Sub-basin 1 drains to the West along the North side of the parcel.

Sub-basin 2 drains to the South side of Trolley Court and then West to 25 Road.

Sub-basin 3 on the North side of Trolley Court drains South to Trolley Park where part of the flow is diverted West along the South side of Trolley Court to 25 Road, and part ends up as sheet flow to the property to the South and ultimately ends up in the Buckhorn Drain.

Sub-basin 4 drains as sheet flow to the South which ultimately ends up in the Buckhorn Drain.

SUMMARY OF HISTORIC AND POST DEVELOPMENT FLOWS

HISTORICAL

Sub-basin	2 year (CFS)	100 year (CFS)
Q-West	0.18	1.20
Q-South	0.16	0.40
TOTALS	0.34	1.60

DRAINAGE REPORT FOR TROLLEY PARK
PAGE 2

September 2, 1992

POST DEVELOPMENT

Sub-basin	2 year (CFS)	100 year (CFS)
1	0.33	0.42
2	0.56	0.71
3	1.20	1.47
4	0.50	0.71
TOTALS	2.49	3.31

DRAINAGE MANAGEMENT PLAN

The existing street has no curb and gutter or valley pans to control drainage after coming on to the street. The street will be completed with curb and gutter or valley pans to control the drainage out of the development.

A storm drain has been designed to convey storm water from sub-basin 3 directly to the Buckhorn Drain with no detention basin. The Buckhorn Drain is at the low end of the drainage area discharging into Buckhorn Drain. The concept is to get runoff to the drain as quickly as possible to be carried downstream before storm drainage from upstream reaches reaches the site. A sand and grease trap will be installed in line with the storm drain before reaching the Buckhorn Drain at the request of the Grand Junction Drainage District.

Runoff from sub-basin 4 will discharge into Buckhorn Drain as sheet flow with the same concept as sub-basin 3.

A storm Detention basin is designed at the West end of sub-basin 1 for a two year storm which will discharge into the 25 Road drainage system at equal to or less than the historic rate. This area has already been landscaped which will require relandscaping in order to put in the detention basin.

Sub-basin 2 will drain directly into 25 road without any detention. This basin has been made as small as possible through the street and storm drain design in order to minimize flow into 25 Road.

CONCLUSIONS

At the present time, the subject parcel has been developed but drainage problems exist. The addition of the completed street, storm sewer with a sand a grease trap, and the storm retention area for sub-basin 1 will help mitigate existing drainage conditions, which would remain if the parcel was not being subdivided.

DRAINAGE REPORT FOR TROLLEY PARK
SEPTEMBER 2, 1992

Page 3

Attached are plans for the street design, drainage basins,
and report supporting data.

Respectfully submitted,



Wayne H. Lizer P.E., P.L.S

cc John Ballagh, Grand Junction Drainage District
Gerald Williams, P.E., City of Grand Junction, 2 sets.
Don Newton, P.E., City of Grand Junction



September 2, 1992

DRAINAGE REPORT FOR TROLLEY PARK
CITY OF GRAND JUNCTION, COLORADO

GENERAL

Trolley Park is located on the East side of 25 Road on the E 1/2 line. The site has been developed as a single parcel with four buildings which includes paved parking lots and street. The owner is proposing to divide the development into 5 parcels.

HISTORICAL RUNOFF

The site contains 2.89 Acres. Historically, (according to the 1975 orthophoto maps), the site drained to the West and to the South.

Attached is a drainage map showing the pre-existing conditions. A summary of storm runoff, including both historic and post development runoff, is included within this report.

POST DEVELOPMENT RUNOFF

Due to the site already having been developed at this time, four drainage sub-basins have been created, as follows:

Sub-basin 1 drains to the West along the North side of the parcel.

Sub-basin 2 drains to the South side of Trolley Court and then West to 25 Road.

Sub-basin 3 on the North side of Trolley Court drains South to Trolley Court where part of the flow is diverted West along the South side of Trolley Court to 25 Road, and part ends up as sheet flow to the property to the South and ultimately ends up in the Buthorn Drain. This is the area which is North of and where the cul-de-sac is located. This area is approximately 0.5 acre so approximately half the flow from sub-basin 3 either goes West along Trolley Court or South as sheet flow to the Buthorn Drain.

Sub-basin 4 drains as sheet flow to the South which ultimately ends up in the Buthorn Drain.

SUMMARY OF HISTORIC AND POST DEVELOPMENT FLOWS

HISTORICAL

Sub-basin	2 year (CFS)	100 year (CFS)
Q-West	0.18	1.20
Q-South	0.12	0.32
TOTALS	0.34	1.60

POST DEVELOPMENT

Sub-basin	2 year (CFS)	100 year (CFS)
1	0.33	0.42
2	0.56	0.71
3	1.20	1.47
4	0.50	0.71
TOTALS	2.49	3.31

DRAINAGE MANAGEMENT PLAN

The existing street has no curb and gutter or valley pans to control drainage after coming on to the street. The street will be completed with curb and gutter or valley pans to control the drainage out of the development.

A storm drain has been designed to convey storm water from sub-basin 3 directly to the Buckhorn Drain with no detention basin. The Buckhorn Drain is at the low end of the drainage area discharging into Buckhorn Drain. The concept is to get runoff to the drain as quickly as possible to be carried downstream before storm drainage from upstream reaches reaches the site. A sand and grease trap will be installed in line with the storm drain before reaching the Buthorn Drain at the request of the Grand Junction Drainage District. This sand and grease trap will have to be monitored and cleaned and waste disposed of as required.

Runoff from sub-basin 4 will discharge into Euthorn Drain as sheet flow with the same concept as sub-basin 3.

A storm Detention basin is designed at the West end of sub-basin 1 for a two year storm which will discharge into the 25 Road drainage system at equal to or less than the historic rate. This area has already been landscaped which will require relandscaping in order to put in the detention basin.

Page 3

Sub-basin 2 will drain directly into 25 road without any detention. This basin has been made as small as possible through the street and storm drain design in order to minimize flow into 25 Road.

CONCLUSIONS

At the present time, the subject parcel has been developed but drainage problems exist. The addition of the completed street, storm sewer with a sand and grease trap, and the storm retention area for sub-basin 1 will help mitigate existing drainage conditions, which would remain if the parcel was not being subdivided.

As shown on the attached calculations, a 100 year storm detention area will either require a substantial area of the existing lawn area, or due to existing topographical restraints, and grades, will require the planned detention area to be 3.77 feet deep which will require pumping out to 25 road after a storm has passed.

Attached are plans for the street design, drainage basins, and report supporting data.

Respectfully submitted,

Wayne H. Lizer

Wayne H. Lizer P.E., P.L.S

cc John Ballagh, Grand Junction Drainage District
Gerald Williams, P.E., City of Grand Junction, 2 sets.
Don Newton, P.E., City of Grand Junction



Composite $C = 0.90$ 2Yr, 0.95 100;

gravel & Soil Traffic Area 0.70, 0.85

gravel & run Green $C = 0.45, 0.6$
 green 15.30

SUB-BASIN 1 (0.22) ^{100 Yr TYP} (0.60) ^{24r TYP} (0.95)

$$\Sigma \frac{(0.11)(0.15) + (0.19)(0.45) + (0.20)(0.90)}{0.50}$$

$= 0.56$
 $(= 0.65)$

SUB-BASIN 2 (0.60) (0.55)

$$\Sigma \frac{(0.16)(0.45) + (0.06)(0.70) + (0.31)(0.90)}{0.53}$$

$= 0.74$
 $(= 0.83)$

SUB-BASIN 3 (0.60) (0.95)

$$\Sigma \frac{(0.48)(0.45) + (0.63)(0.90)}{1.11}$$

$= 0.71$
 $(= 0.80)$

SUB-BASIN 4 (0.60) (0.95)

$$\Sigma \frac{(0.60)(0.45) + (0.08)(0.90)}{0.68}$$

$= 0.50$
 $(= 0.64)$

$$T_c = \frac{1.87(1.1 - C) D^{1/2}}{S^{1/3}}$$

DEVELOPED
SUB-BASIN 1

MAY ADD FOR
SHALLOW CONC. FLOW OR
UNTUNNELED FLOW.

$$T_{c2} = \frac{1.87(1.1 - 0.56)(300)^{1/2}}{(1)^{1/3}} = 17.5 \text{ min}$$

$$I = 1.19$$

APP A

$$Q_2 = C I A$$

$$Q_2 = (0.56)(1.19)(0.50) = 0.33 \text{ CFS} \leftarrow$$

$$T_{c100} = \frac{1.87(1.1 - 0.65)(300)^{1/2}}{1^{1/3}} = 14.6 \text{ min}$$

$$I_{100} = 1.3$$

$$Q_{100} = (0.65)(1.3)(0.50) = 0.42 \text{ CFS}$$

SUB-BASIN 2

$$T_{c2} = \frac{1.87(1.1 - 0.74)(155)^{1/2}}{(0.38)^{1/3}} = 11.6 \text{ min}$$

$$I_2 = 1.44$$

$$Q = (0.74)(1.44)(0.53) = 0.56 \text{ CFS} \leftarrow$$

$$T_{c100} = \frac{1.87(1.1 - 0.83)(155)^{1/2}}{(0.38)^{1/3}} = 8.7 \text{ min}$$

$$I_{100} = 1.61$$

$$Q_{100} = (0.83)(1.61)(0.53) = 0.71 \text{ CFS}$$

SUB BASIN 3

$$T_{C_2} = \frac{1.87(1.1 - 0.71)(180)^{1/2}}{(0.83)^{1/3}} = 10.4 \text{ min}$$

$$I_2 = 1.50$$

$$Q_2 = (0.71)(1.50)(1.11) = 1.2 \text{ CFS}$$

$$T_{C_{100}} = \frac{1.87(1.1 - 0.80)(180)^{1/2}}{(0.83)^{1/3}} = 8 \text{ min}$$

$$I_{100} = 1.66$$

$$Q_{100} = (0.80)(1.66)(1.11) = 1.47 \text{ CFS}$$

SUB-BASIN 4

$$T_{C_2} = \frac{1.87(1.1 - 0.5)(170)^{1/2}}{(2.35)^{1/3}} = 11 \text{ min}$$

$$I_2 = 1.46$$

$$Q_2 = (0.50)(1.46)(0.68) = 0.50 \text{ CFS}$$

$$T_{C_{100}} = \frac{1.87(1.1 - 0.64)(170)^{1/2}}{(2.35)^{1/3}} = 8.4 \text{ min}$$

$$I_{100} = 1.63$$

$$Q_{100} = (0.64)(1.63)(0.68) = 0.71 \text{ CFS}$$

Summary

HISTORICAL

SUB-BASIN	2 year (CFS)	100 year (CFS)
Q WEST	0.18	1.20
Q SOUTH	0.16	0.40
total	0.34	1.60

WHERE
CRCCO

AFTER DEVELOPMENT

1 (WEST)	0.33	0.42
2 (WEST)	0.56	0.71
3	1.20	1.47
4	0.50	0.71
total	2.49	3.31
SUB-TOTAL WEST	0.89	1.13

ASSUMES ALL OF SUB-AREA
3 GOES SOUTH INSTEAD OF INTO
SUB-BASIN #2, CONTRARY TO DESIGN
AND STATEMENT ON PAGE 1.

BASIN 1 Storm Retention Area - 2 year

Q0 = 0.75 Qh max = (0.75)(0.18) = 0.14 CFS

Cd = 0.56

A = 0.50 AC

Td2 = [633.4 Cd A / (Q0 - Q0 Tcd / (0.12 Cd A))]^1/2 - 15.6

=

633.4(0.56)(0.5) / (0.14 - 0.14 x 4.6 / (0.12 x 0.56 x 0.5)) ^ 1/2 - 15.6

= 38.44 - 15.6 ≈ 23 min.

Id2 = 40.6 / (23 + 15.6) = 1.05

Qd = Cd A Id = 0.56(0.5)(1.05) = 0.29 CFS

? Time of conc Historical,

k = Tcdh / Tcd = 35 / 17 = 2

V = 66 [Qd Td - Q0 Td - Q0 Tcd + k Q0 Tcd + Q0^2 Tcd / 2Q]

= 66 [(0.29)(23) - (0.14)(23) - (0.14)(17.5) + 2 (0.14)(23) + (0.14)^2 (23) / 2(0.29)]

= 4.04 x 66 = 266 / 330 x 1.2

Use nominal basin 6" deep x 20' x 33'

MUST REMAIN FULL Q2. 100-YR ANALYSIS LIMITED TO QA = 1.20 CFS - 0.71 (BASIN 2) = 0.49 CFS TOTAL

100-YR ANALYSIS? PROVIDE CALCS FOR OUTLET.

SUB-BASIN 1

$$I_{D_{100}} = \frac{117}{57.4 + 25} = 1.4$$

$$Q_d = C_d A I_d = (0.65)(0.5)(1.4) = 0.46 \text{ cfs}$$

$$K = \frac{T_{ch}}{T_{cd}} = \frac{33}{14.6} = 2.24$$

$$V = 66 \left[Q_d T_d - Q_0 T_0 - Q_0 T_{cd} + \frac{k Q_0 T_{cd}}{2} + \frac{Q_0^2 T_d}{2 Q_d} \right]$$
$$= 66 \left[0.46(57.4) - (0.14)(57.4) - (0.14)(14.6) + \frac{2.26(0.14)(14.6)}{2} + \frac{(0.14)^2(14.6)}{(2)(0.46)} \right]$$

$$= 18.94 \times 66 = 1250 \text{ ft}^3$$

Historical $A = 2.3 \text{ Ac}$

$$S = 0.5676$$

$$L_{\text{max}} = 300'$$

WEST 2 Year

$$T_c = \frac{1.87(1.1 - C) D^{1/2}}{S^{1/3}}$$

$$= \frac{1.87(1.1 - 0.1)(300)^{1/2}}{(0.56)^{1/3}} = 39 \text{ min}$$

from Graph

$$I_2 = 0.8$$

$$Q = CIA = (0.1)(0.8)(2.3) = 0.18 \text{ CFS}$$

100 year

$$T_c = \frac{1.87(1.1 - 0.25) D^{1/2}}{(0.56)^{1/3}} = 33 \text{ min}$$

From Graph

$$I_{100} = 2.2$$

$$Q = CIA = (0.25)(2.1)(2.3) = 1.20 \text{ CFS}$$

Historical

South

$$A = 0.60 \text{ AC}$$

$$S \approx 15\%$$

$$D = 65'$$

$$T_{c_2} = 1.87 \frac{(1.1 - 0.1)(65)^{1/2}}{(15)^{1/3}} = 6 \text{ min}$$

From Graph, $I_2 = 2$

$$Q_2 = C I A = (0.1)(2)(0.6) = 0.12$$

$$T_{c_{100}} = 1.87 \frac{(1.1 - 0.25)(65)^{1/2}}{(15)^{1/3}} = 5.2$$

I_{100} From Graph = 2.1

$$Q_{100} = C I A = (0.25)(2.1)(0.6) = 0.32 \text{ cfs}$$

9/

Minimum Flow 10" pipe at 0.30% Grade

$$Q = \frac{1.49}{n} R^{2/3} S^{1/2} A$$

$$R = \frac{A}{P}$$

$$A = \frac{\pi D^2}{4} = \frac{\pi (0.83)^2}{4} = 0.54 \text{ ft}^2$$

$$P = \pi D = 2.61$$

$$R = \frac{0.54}{2.61} = 0.21 \quad (0.21)^{2/3} = 0.35$$

$$Q = \frac{1.49}{0.011} (0.35) (0.003)^{1/2} (0.54) = 1.4 \text{ cfs}$$

Flowing full $\approx 0.928 \times 1.4 = 1.3 \text{ cfs}$
Actual capacity

$$4'' \quad Q = CA (2gH)^{1/2}$$

$$0.6 \left(\frac{\pi (33)^2}{4} \right) \sqrt{2(32.2) 0.33}$$

$$= 0.39 \text{ CFS}$$

$$= 0.24 \text{ CFS}$$

$$3'' \quad Q = CA (2gH)^{1/2}$$

$$= 0.6 \left(\frac{\pi (32)^2}{4} \right) \sqrt{2(32.2)(0.37)}$$

$$= 0.14 \text{ CFS}$$

DEVELOPMENT SCHEDULE

The proposed improvements will be completed within one year from date of recording plat.

Original
Do NOT Remove
From Office
#54 92

TROLLEY PARK - FINAL

0



City of Grand Junction
Community Development Department
1000 Grand Avenue
Grand Junction, CO 81505
Phone: 244-1446
Fax: 244-1447

September 16, 1992

Stephen and Bobette McCallum
552 25 Road
Grand Junction, CO 81505

Dear Mr. and Ms. McCallum:

In the review of your proposal for a minor subdivision at 552 25 Road (City development file #54-92) it has been noted that the submittal is incomplete (see attached Review Comments, specifically City Development Engineer comments). Section 6-7-4 of the Zoning and Development Code states that "a submittal with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda by the Administrator". Therefore, your proposal will not be scheduled for the October 6, 1992 Planning Commission hearing. For the item to be scheduled for the November Planning Commission hearing all deficiencies as outlined by the City Development Engineer must be rectified and resubmitted to the Community Development Department by October 1, 1992.

If you have any questions please contact me at 244-1446.

Sincerely,

A handwritten signature in cursive script, which appears to read "Katherine M. Portner", is written over a horizontal line.

Katherine M. Portner
Senior Planner

xc: Wayne Lizer
Gerald Williams

FILE #54-92
page 2 of 2

U.S. WEST 9/09/92
Leon Peach 244-4964

No comments

UTE WATER 9/09/92
Gary R. Mathews 242-7491

Ute water objects to the plans of laying a Valley Pan over the 6" water line. If done so as planned, the water line would need to be moved from under the V-pan. Policies and fees in effect at the time of application will apply.

CITY FIRE DEPARTMENT 9/14/92
George Bennett 244-1400

No problem.

PARKS & RECREATION 9/14/92
Don Hobbs 244-1542

We will need an appraisal to calculate open space fee requirements.

CITY ENGINEER 9/09/92
Gerald Williams 244-1591

1. The plat shows tracts and identifies them as easements, does not define between existing and proposed easements and existing and proposed right-of-way, and does not provide the 40' required 1/2 street right-of-way for 25 Road.
2. Utilities are shown which are not in an easement.
3. The completed street plan and profile was not received until 9/4/92, and a grading and drainage plan and report was not even submitted until then. The drainage report is incomplete, does not address criteria, and is unacceptable. Consequently, drainage and street facilities are unacceptable.

Considering the above, we recommend that the project be tabled until a complete application is submitted. However, for the benefit of the engineer, the report, drawings and improvement agreement are attached with comments based upon a quick perusal of the incomplete application. THESE MUST BE RETURNED WITH A RESUBMITTAL.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

Gary R. Mathews
Ute Water

RE: Trolley Park - Response to Review Comments

Dear Mr. Mathews:

The street has been widened to place the Ute Water line under the pavement rather than under the concrete pan.

Sincerely yours,



Wayne H. Lizer, P.E., P.L.S.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

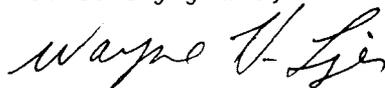
Bill Cheney
City Utilities Engineer

RE: Trolley Park - Response to Review Comments

Dear Mr. Cheney:

1. Sewer - The manhole has been moved to the end of the existing 6" sewer line as requested.
2. Water - The street has been widened to allow placing the Ute Water line under the pavement rather than under the concrete pan.
3. Drainage - All required easements have been added to the final plat.

Sincerely yours,



Wayne H. Lizer, P.E., P.L.S.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

Don Hobbs
Grand Junction Parks and Recreation

RE: Trolley Park - Response to Review Comments

Dear Mr. Hobbs:

An appraisal was submitted with the Preliminary Submittal and should be on file with City Planning.

Sincerely yours,



Wayne H. Lizer, P.E., P.L.S.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

Don Hobbs
Grand Junction Parks and Recreation

RE: Trolley Park - Response to Review Comments

Dear Mr. Hobbs:

An appraisal was submitted with the Preliminary Submittal and should be on file with City Planning.

Sincerely yours,



Wayne H. Lizer, P.E., P.L.S.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

Gerald Williams
City Engineer

RE: Trolley Park - Response to Review Comments

Dear Mr. Williams:

1. The final plat dedicates all easements shown. Ten feet has been added to 25 Road right-of-way.

The title policy does not show any recorded irrigation easements at the Southeast corner of the parcel.

2. All utilities have had easements provided for them.
3. Attached are the revised street and drainage plans and your review comments on same.

The water from Sub-base 3 will be intercepted by a drop inlet in the valley pan. No storm water will go to the South as sheet flow.

Sincerely yours,



Wayne H. Lizer, P.E., P.L.S.

Attachment

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

Katherine M. Portner, Sr. Planner
City of Grand Junction
Planning Department

RE: Trolley Park

Dear Kathy,

Attached is a copy of the drainage easement Mr McCallum is obtaining from the adjacent land owner to the Southwest of Trolley Park which will be required to transport drainage off-site to the Buthorn Drain.

Sincerely yours,


Wayne H. Lizer, P.E., P.L.S.

W.H. LIZER & ASSOCIATES
Engineering Consulting and Land Surveying
576 25 Road, Unit #8
Grand Junction, Colorado 81505
241-1129

October 1, 1992

DRAINAGE EASEMENT
TROLLEY PARK

Beginning at a point which bears S89°56'00"E 418.00 feet and S00°04'00"W 100.00 feet from the West Quarter Corner of Section 10, T1S, R1W, U.M. in Mesa County, Colorado; thence S89°56'00"E 232.00 feet; thence S46°44'00"W 28.28 feet; thence N89°56'00"W 212.00 feet; thence N00°04'00"E 20.00 feet to the terminus of this easement.

*borrow funds for
25 1/2 Rd
open space fees*

STAFF REVIEW

FILE #54-92

DATE: October 14, 1992

REQUEST: A request to subdivide a parcel to create five separate lots so that existing structures may retain individual ownership.

LOCATION: 552 25 Road

APPLICANT: Stephen and Bobette McCallum

EXISTING LAND USE: Car repair and service, and office

PROPOSED LAND USE: No change

SURROUNDING LAND USE:

NORTH-- Retail/Service

EAST -- Commercial

SOUTH-- Car sales

WEST -- Boat sales

EXISTING ZONING: Heavy Commercial (C-2)

PROPOSED ZONING: No change

SURROUNDING ZONING:

NORTH-- Heavy Commercial (C-2)

EAST -- Heavy Commercial (C-2)

SOUTH-- Heavy Commercial (C-2)

WEST -- Heavy Commercial (C-2)

RELATIONSHIP TO COMPREHENSIVE PLAN/POLICIES/GUIDELINES:

The proposed subdivision and existing uses is in conformance with the 25 Road Corridor Guideline.

STAFF ANALYSIS:

The proposal is to subdivide a three acre commercially zoned parcel into 5 lots. Four of the proposed lots are developed; two are automobile repair shops, one is an office in a trolley car and one is an assembly plant and repair shop for snow transportation equipment. The proposal received preliminary approval from Planning Commission on 8/4/92 (File #41-92).

Background

The same subdivision was proposed in 1989 (File #19-89) prior to any improvements being completed on the property. At that time the City was going to require the roadway be a public road built to City standards and that all utilities also meet City standards. The owner chose not to pursue the subdivision and, instead, developed the parcel with all buildings to be leased and accessing off of a private driveway.

In the preliminary review of the current submittal staff allowed the developer to designate the roadway as a private drive because it was already built and did not meet City standards.

Parking

The staff review of the preliminary plan incorrectly stated that the parking as existing met the requirements of the Code. The Community Development staff review, dated July 15, 1992, stated the parking requirement for "Car Care Establishments" to be one space per 1,000 square feet of building. The requirement as per section 5-5-1.I.23 of the Zoning and Development Code is 5 spaces per 1,000 square feet of gross floor area. The approved Planning Clearance issued for Building #1 (permit #32268) required 21 spaces be provided with the service stalls counting toward that requirement (based on the parking requirement for Service Business which is 1 space per 300 square feet of gross floor area). The approved site plan showed 9 spaces provided outside the building and 16 spaces provided in the interior bays. The existing 6 spaces as shown on the most recent site plan do not meet the requirement. The Planning Clearance issued for Building #2 (permit #34544) was for a warehouse use requiring 7 spaces for employee parking. The building is now being used for auto/truck repair and sales which would require 16 spaces based on the Service Business calculation used for Building #1. Only 5 space are provided now. The Planning Clearance issued for Building #4 (permit #35242) was for office/warehouse use and required 5 parking spaces. The current site plan does not indicate the number of spaces currently existing for that building. The building is now being used for an assembly plant and repair for snow transportation equipment. The parking requirement would be employee parking plus 10% of total for visitor parking (section 5-5-1.I.26 of the Code). We need those calculations from the petitioner. The trolley car, shown as Building #4, would require 2 parking spaces based on the requirement for offices. The site plan approved with the Planning Clearance (permit #39846) showed 6 spaces being provided.

A revised site plan must be provided showing how the required parking spaces can be provided for each building on the proposed lots. The requirements are as follows:

Building #1--21 spaces

Building #2--17 spaces

Building #3-- 2 spaces

Building #4--employee parking plus 10% of total for visitor parking

Upon a site inspection of the property on 10/15/92 at 2 p.m. it was noted that most of the existing spaces in front of Buildings 1 and 2 were full and 10 cars were parked across the driveway on the proposed lot 5. That would seem to indicate that there is currently a parking problem that would impact the existing businesses when lot 5 was developed.

Landscaping

The preliminary approval noted that the existing landscaping along 25 Road exceeded the square footage required and would be allowed as a substitute to further landscaping on the lot frontages on the private drive. The landscaped area must be shown as common open space or an easement on the plat to assure that area continues to be in landscaping. The covenants must require the participation of all lot owners in the maintenance and irrigation of the entry landscaping.

Access

The lots will only be allowed access onto the private drive to minimize curb cuts on 25 Road.

Utilities/Roadway/Drainage/Improvements Agreement

See City Development Engineer's comments.

The covenants should provide for the maintenance of the private roadway.

Parks and Open Space Fee

The developer must pay into the City's Parks and Open Space fund 5% of the appraised raw land value of the proposed undeveloped lot (lot 5). The appraised value of lot 5 is \$9,750 as appraised by Bryan D. Emerson on July 24, 1992. The fee due to the Parks Department upon recording of the plat is \$487.50.

Final Plat

The plat certification must include a statement that the plat conforms to all applicable requirements of the Zoning and Development Code of the City of Grand Junction and all applicable state laws and regulations (section 6-8-2.A.b).

Areas of irregularly shaped lots must be indicated, which would apply to lots 2, 4 and 5 (section 6-8-2.A.l).

The dedication statement must dedicate all easements to the City on behalf of the public and public utilities (section 6-8-2.A.p), and all public roadways to the City of Grand Junction (section 6-8-2.A.o).

The "Drainage Easement by Others" must indicate a Book and Page for the recording of the easement since it is on land not included on this plat.

STAFF RECOMMENDATION:

Staff recommends the item be pulled from the November Planning Commission agenda because deficiencies noted last month in the drainage plan have still not been adequately addressed. All review agency comments must be satisfactorily addressed in a resubmittal by November 2, 1992 for it to be scheduled for the December Planning Commission agenda.



Grand Junction Community Development Department
Planning • Zoning • Code Enforcement
250 North Fifth Street
Grand Junction, Colorado 81501-2688
(303) 244-1400 FAX (303) 244-5991

October 16, 1992

Stephen and Bobette McCallum
552 25 Road
Grand Junction, CO 81505

Dear Mr. and Ms. McCallum:

City staff has reviewed the materials resubmitted for the proposed minor subdivision at 552 25 Road (File #54-92). Deficiencies in the drainage report and plans as previously noted have still not been adequately addressed (see attached comments). Scheduling for the review and required processing of development requests is on a very tight timeline so that applicants can get to a public hearing as soon as possible. There would not be adequate time for us to review revised plans now and still meet all of the required advertising and notification requirements for the November hearing. Submittals with insufficient information identified in the review process may be withdrawn from the agenda. Therefore, we cannot schedule your proposal for the November agenda. For the item to be scheduled for the December Planning Commission hearing, all deficiencies as outlined by the City Development Engineer (attached copy titled "Review Comments for Trolley Park") must be rectified and all other review comments (attached copy titled "Staff Review") responded to and a resubmittal made by November 2, 1992 to the Community Development Department.

We encourage your representative to meet with myself and Gerald Williams prior to November to discuss the resubmittal in more detail. If the revised plans are submitted by October 26th we would have an opportunity to review them for completeness prior to the November submittal deadline to assure all concerns have been addressed.

Sincerely,

A handwritten signature in cursive script that reads "Katherine M. Portner".

Katherine M. Portner
Senior Planner

xc: Wayne Lizer
Gerald Williams, City Development Engineer

150.00 resubmittal

STAFF REVIEW

FILE #54-92

DATE: October 14, 1992

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The proposed subdivision and existing uses is in conformance with the 25 Road Corridor Guideline.

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The proposal is to subdivide a three acre commercially zoned parcel into 5 lots. Four of the proposed lots are developed; two are automobile repair shops, one is an office in a trolley car and one is an assembly plant and repair shop for snow transportation equipment. The proposal received preliminary approval from Planning Commission on 8/4/92 (File #41-92).

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The same subdivision was proposed in 1989 (File #19-89) prior to any improvements being completed on the property. At that time the City was going to require the roadway be a public road built to City standards and that all utilities also meet City standards. The owner chose not to pursue the subdivision and, instead, developed the parcel with all buildings to be leased and accessing off of a private driveway.

In the preliminary review of the current submittal staff allowed the developer to designate the roadway as a private drive because it was already built and did not meet City standards.

Parking

The staff review of the preliminary plan incorrectly stated that the parking as existing met the requirements of the Code. The Community Development staff review, dated July 15, 1992, stated the parking requirement for "Car Care Establishments" to be one space per 1,000 square feet of building. The requirement as per section 5-5-1.I.23 of the Zoning and Development Code is 5 spaces per 1,000 square feet of gross floor area. The approved Planning Clearance issued for Building #1 (permit #32268) required 21 spaces be provided with the service stalls counting toward that requirement (based on the parking requirement for Service Business which is 1 space per 300 square feet of gross floor area). The approved site plan showed 9 spaces provided outside the building and 16 spaces provided in the interior bays. The existing 6 spaces as shown on the most recent site plan do not meet the requirement. The Planning Clearance issued for Building #2 (permit #34544) was for a warehouse use requiring 7 spaces for employee parking. The building is now being used for auto/truck repair and sales which would require 16 spaces based on the Service Business calculation used for Building #1. Only 5 space are provided now. The Planning Clearance issued for Building #4 (permit #35242) was for office/warehouse use and required 5 parking spaces. The current site plan does not indicate the number of spaces currently existing for that building. The building is now being used for an assembly plant and repair for snow transportation equipment. The parking requirement would be employee parking plus 10% of total for visitor parking (section 5-5-1.I.26 of the Code). We need those calculations from the petitioner. The trolley car, shown as Building #4, would require 2 parking spaces based on the requirement for offices. The site plan approved with the Planning Clearance (permit #39846) showed 6 spaces being provided.

A revised site plan must be provided showing how the required parking spaces can be provided for each building on the proposed lots. The requirements are as follows:

Building #1--21 spaces

Building #2--17 spaces

Building #3-- 2 spaces

Building #4--employee parking plus 10% of total for visitor parking

Upon a site inspection of the property on 10/15/92 at 2 p.m. it was noted that most of the existing spaces in front of Buildings 1 and 2 were full and 10 cars were parked across the driveway on the proposed lot 5. That would seem to indicate that there is currently a parking problem that would impact the existing businesses when lot 5 was developed.

Landscaping

The preliminary approval noted that the existing landscaping along 25 Road exceeded the square footage required and would be allowed as a substitute to further landscaping on the lot frontages on the private drive. The landscaped area must be shown as common open space or an easement on the plat to assure that area continues to be in landscaping. The covenants must require the participation of all lot owners in the maintenance and irrigation of the entry landscaping.

Access

The lots will only be allowed access onto the private drive to minimize curb cuts on 25 Road.

Utilities/Roadway/Drainage/Improvements Agreement

See City Development Engineer's comments.

The covenants should provide for the maintenance of the private roadway.

Parks and Open Space Fee

The developer must pay into the City's Parks and Open Space fund 5% of the appraised raw land value of the proposed undeveloped lot (lot 5). The appraised value of lot 5 is \$9,750 as appraised by Bryan D. Emerson on July 24, 1992. The fee due to the Parks Department upon recording of the plat is \$487.50.

Final Plat

The plat certification must include a statement that the plat conforms to all applicable requirements of the Zoning and Development Code of the City of Grand Junction and all applicable state laws and regulations (section 6-8-2.A.b).

Areas of irregularly shaped lots must be indicated, which would apply to lots 2, 4 and 5 (section 6-8-2.A.1).

The dedication statement must dedicate all easements to the City on behalf of the public and public utilities (section 6-8-2.A.p), and all public roadways to the City of Grand Junction (section 6-8-2.A.o).

The "Drainage Easement by Others" must indicate a Book and Page for the recording of the easement since it is on land not included on this plat.

STAFF RECOMMENDATION:

Staff recommends the item be pulled from the November Planning Commission agenda because deficiencies noted last month in the drainage plan have still not been adequately addressed. All review agency comments must be satisfactorily addressed in a resubmittal by November 2, 1992 for it to be scheduled for the December Planning Commission agenda.

REVIEW COMMENTS
FOR
TROLLEY PARK
10/15/92

The final plans and report for the Trolley Park Subdivision were first submitted the first of September. The submittal did not address all comments made in the review process of the preliminary application, nor did they meet submittal requirements. The application was therefore pulled from being presented to the Planning Commission for further review. Despite the September submittal being inadequate, the benefit of a brief review was given. Previous review comments are summarized as follows:

- (i) The plat must properly show all easements, tracts, and right-of-ways;
- (ii) All proposed and existing utilities require an easement;
- (iii) Plans were red-lined based upon a brief review, providing a help in plan revision to meet minimum submittal and criteria requirements;
- (iv) The drainage report was red-lined to indicate deficiencies, required information and procedures, and an allowed partial waiver of criteria; and
- (v) The requirement to resubmit the red-lined plans and report with a resubmittal.

For the most part, items (i), (ii), and (iii) were addressed. However upon review of the grading and drainage plan and drainage report, it was apparent that previous comments regarding them were mostly ignored or misunderstood. The following red-lined comments were provided on the September submittal plan and report.

- (1) Calculations (corrected using proper 100-year storm intensities) showed that development has resulted in nearly 5 times as much runoff to 25 Road in the 2-year storm, and 2.4 times the runoff in the 100-year storm. The developed sub-basin #2 alone contributes more runoff than historically flowed to 25 Road. Notwithstanding, we allowed a waiver of criteria to allow an increase so that retention/detention would not be required in sub-basin #2. Sub-basin #1, on the other hand, also drained directly to 25 Road, for which a runoff storage basin would be required. Based upon incorrect calculations provided, we indicated that the full sub-basin #1 2-year runoff must be retained, and detention would be required up to the 100-year event. However, using corrected values, it is apparent that the full 100-year runoff from sub-basin #1 must be retained, otherwise, detention would be required as well on sub-basin #2.

Unfortunately, rather than adhere to the reduced requirement allowed, the 100-year event was totally ignored in the design process.

- (2) An inlet was requested in the valley gutter between sub-basins 2 and 3. Although the criteria manual requires that inlet capacity calculations be provided in the report, the request was repeated in the review comments. No

calculations were provided, and it is questionable whether the on-grade capacity is adequate for the 100-year event. Criteria indicates that collection/conveyance systems need only be designed for the 2-year event, but in this case, failure to design for the 100-year event (inlet and pipe system) will result in inlet flow-by to sub-basin #2, which is already by waiver allowed a 47% increase over historic flow to 25 Road. Design the inlet per the criteria manual for the 100-year runoff event, and provide calculations.

- (3) Pipe calculation capacities were requested and submitted. However, per (2) above, it is apparent that the system must be designed for the 100-year event, requiring a larger pipe size. Hydraulic gradeline calculations are required "if pipelines are...at or near full flow capacity" (see the criteria manual).
- (4) A detention/retention basin was required, with design per the criteria manual. The procedure was partially followed, but with errors. However, with corrected runoff values, it appears that a retention basin is required; therefore, use a "Q₀" of zero per the criteria manual.
- (5) A summary chart was requested for flow leaving the site to 25 Road after retention, with comparison to historic conditions. This was not done.
- (6) An off-site drainage easement was required. This was shown on the plat, but no document was received for review.
- (7) Detention facility outlet calculations were requested and provided, but not correctly. However, if a retention basin is used (as probable), then outlet calculations are not required.

Red-lined plans are attached for your benefit. Another red-lined copy of the drainage report was prepared, but is not attached. We strongly urge the engineer to come in and visit about these and previous comments, criteria manual procedures, and the red-lined report, prior to proceeding.

Reviewed by: Gerald Williams, Development Engineer
Copy to: Don Newton, City Engineer



Grand Junction Fire Department
330 South Sixth Street
Grand Junction, Colorado
81501-7784

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

OCT 19 1992

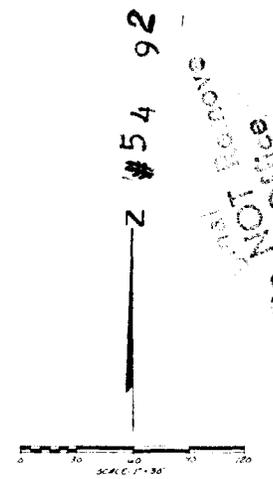
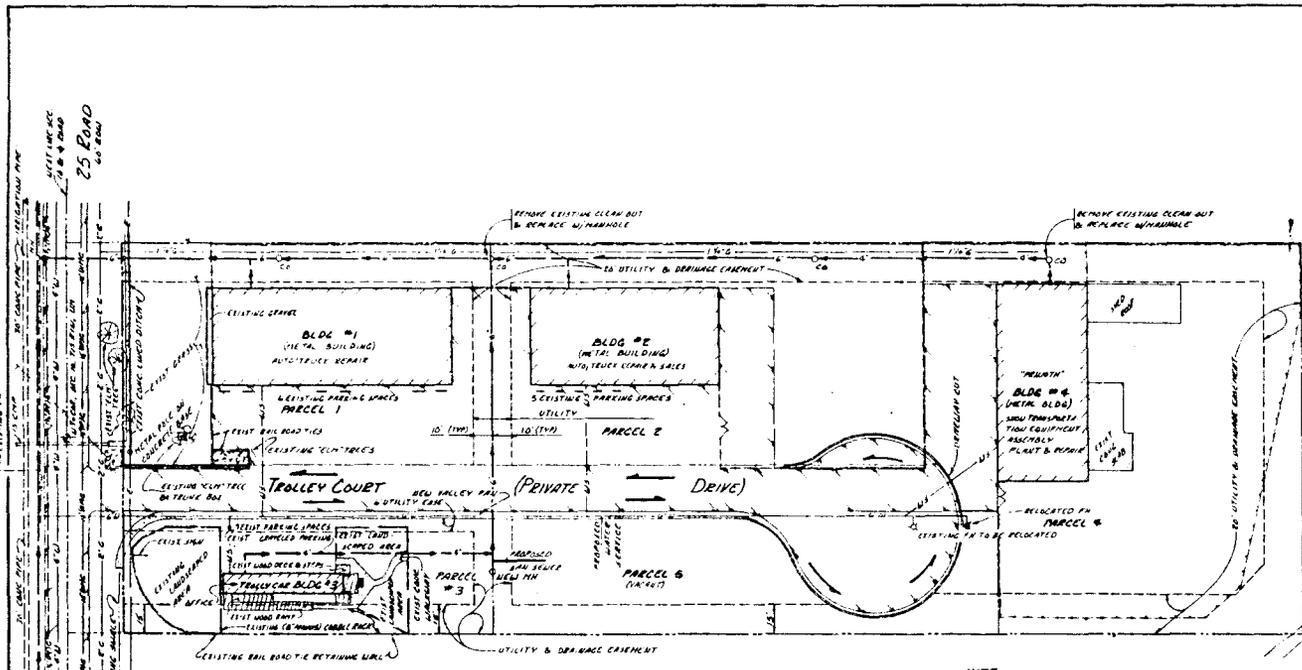
October 19, 1992

Kathy Portner
Community Development Dept.
250 N. 5th Street
Grand Junction, CO 81501

RE: ADDENDUM TO TROLLEY PARK, 552 25RD. #54-92

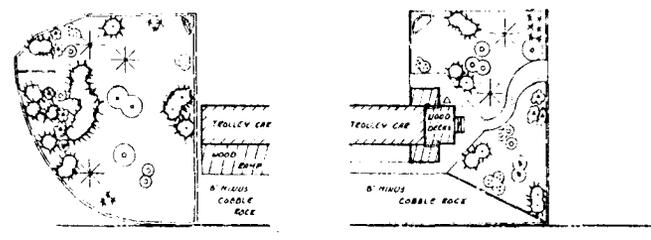
It is my understanding that according to Ute Water's review that the water line extended into Trolley Park is only a Four (4) inch line. This did not meet the required line size at the time this subdivision was developed. Water line sizes in commercial subdivisions and developments are required to be an eight (8) inch line supplied by a looped system or on a dead end line not to exceed one thousand (1,000) feet. The existing line does not meet the standard and therefore will have to be upgraded.

George Bennett
George Bennett
Fire Prevention Officer
244-1400



Do NOT Remove From Office
 #54 92

- LEGEND**
- (W)— EXISTING SANITARY SEWER W/FRAM (PIPE OR NOTED)
 - (W)— EXISTING 8\"/>



EXISTING LANDSCAPE DETAIL
 20.10.10.10

LAND USE (EXISTING)

LANDSCAPED	6.75 AC	18.7%
BUILDINGS	0.80 AC	18.8%
PARKING & DRIVEWAY	0.80 AC	18.8%
STREET	0.28 AC	6.5%
TOTAL	7.93 AC	100%

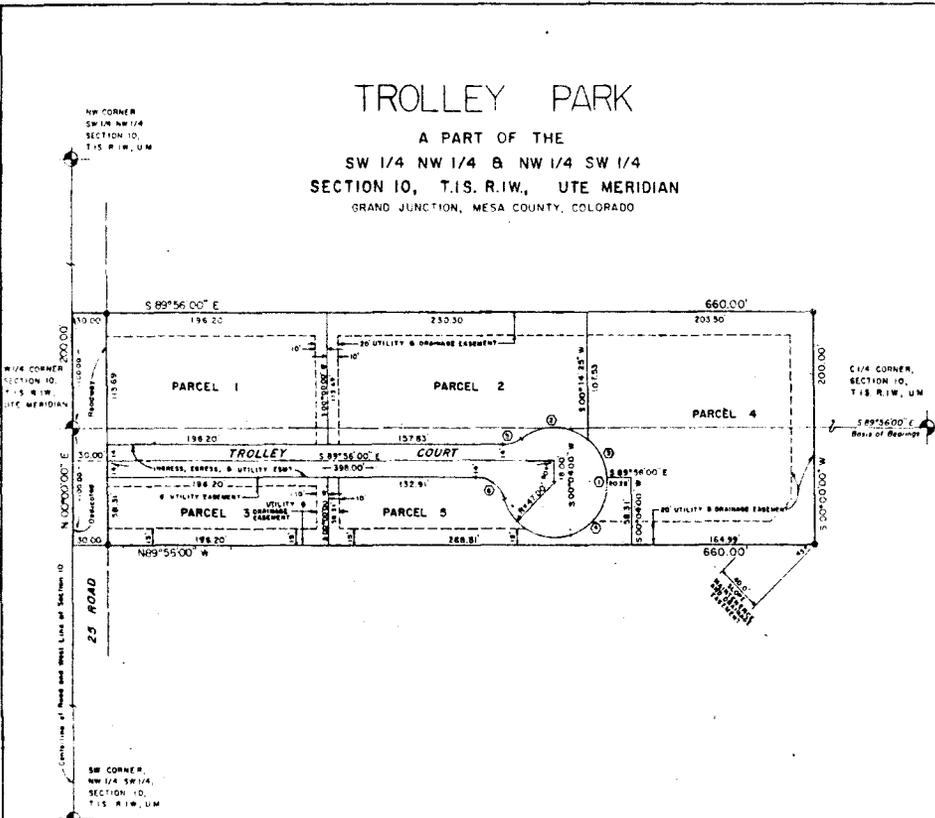
NOTE:
 ALL #2 SOIL CLASSIFICATION: SANDY SILTY FINE SANDY CLAY LOAM

PLANT LIST	QUANTITY	DATE
TREES:		
PINYON PINE	1	1992
SHRUBS:		
SIBIRIAN PEA SHRUB	5 GAL	1992
"SEA GREEN" JUNIPER	5 GAL	1992
"BLUEFRUIT" JUNIPER	1 GAL	1992
CISTENA PLUM	5 GAL	1992
THORN LEAF SHRUB	1 GAL	1992
GARDEN CURRANT	1 GAL	1992
AUSTRIAN LUPIN BEAN	2 GAL	1992
THEMATIC BUCKLE BRUSH	2 GAL	1992
YUCCA	1 GAL	1992
VINES:		
SILVER CREEK VINE	1 GAL	1992
GROUNDCOVERS & FLOWERS:		
SUNNY-DAY LILY, GALLAGHERIA, PENSIVORA, SILVER MOUND SAGE, SEDUM, & YARROW	1 GAL	1992
NATIVE SEED MIX FOR GRASSES AND SMALL SHRUBS		

UTILITY COMPOSITE AND LANDSCAPING PLANS
TROLLEY PARK
 GRAND JUNCTION, COLORADO
W.H. LIZER & ASSOCIATES
 ENGINEERING & SURVEYING
 576 25 ROAD UNIT 8 241-1128
 GRAND JUNCTION, COLORADO 81505

54 92
 MESA COUNTY RECORDS
 MESA COUNTY OFFICE

TROLLEY PARK
 A PART OF THE
 SW 1/4 NW 1/4 & NW 1/4 SW 1/4
 SECTION 10, T.1S. R.1W., UTE MERIDIAN
 GRAND JUNCTION, MESA COUNTY, COLORADO



CURVE TABLE						
NUMBER	RADIUS	DELTA	LENGTH	TANGENT	CHORD BEARING	CHORD LENGTH
1	4700	290°42'53"	236.47	32.48	N17°49'30" E	53.44
2	4700	124°35'51"	60.91	35.58	N89°31'39" E	34.23
3	4700	48°11'34"	29.81	31.19	S29°04'43" E	39.63
4	4700	167°55'28"	137.75	444.26	S79°04'48" W	93.48
5	2500	37°39'31"	16.43	8.52	N71°14'16" E	18.47
6	2500	73°02'32"	31.87	18.51	N55°24'44" E	29.74

LEGEND		LAND USE SUMMARY	
⊕	MESA COUNTY SURVEY MARKER 18100 Coal	PARCELS	2.66 ac. 87.8%
⊙	PIN WITH CAP (PE PLS No. 14113) SET IN CONCRETE	DEDICATED ROADWAY	0.14 4.6
⊙	PIN WITH CAP (PE PLS No. 14113) SET AT PROPERTY CORNERS	PRIVATE DRIVE	0.23 7.6
		TOTAL	3.03 ac. 100.0%

KNOW ALL MEN BY THESE PRESENTS:
 That the undersigned are the owners of that real property located in the SW 1/4 NW 1/4 and NW 1/4 SW 1/4 of Section 10, Township 1 South, Range 1 West of the Ute Meridian, in Mesa County, Colorado, being more particularly described as follows:
 Beginning at the West One-Quarter (1/4) Corner of said Section 10, thence North 89°56'00" East 660.00 feet; thence South 16°55'00" West 660.00 feet; thence South 89°56'00" East 660.00 feet; thence North 16°55'00" West 660.00 feet; thence North 89°56'00" East 660.00 feet to the West One-Quarter (1/4) Corner of said Section 10, and the Point of Beginning, containing 3.030 acres, more or less.
 That said owners have caused the real property to be laid out and surveyed as TROLLEY PARK, a subdivision of a part of the City of Grand Junction, Mesa County, Colorado.
 That said owners do hereby dedicate and set apart 25 Road as shown on the accompanying plat to the public forever and said owners do hereby dedicate to the PUBLIC UTILITIES those portions of said real property which are labeled as utility easements on the accompanying plat as perpetual easements for the installation and maintenance of utilities, irrigation and drainage facilities, including but not limited to electric lines, gas lines, telephone lines, together with the right to trim interfering trees and brush; with perpetual right of ingress and egress for installation and maintenance of such lines. Such easements and rights shall be utilized in a reasonable and prudent manner. The area shown as Ingress/Egress and Utility Easement is dedicated to the owners of the property within TROLLEY PARK for perpetual ingress and egress for themselves and their invitees, including postal service, trash, fire, police, and emergency vehicles.
 That all easements for installation of utilities or ditches referred to above, for grading or landscaping, and for street paving or improvements, shall be financed by the seller or purchaser, not the City of Grand Junction.
 IN WITNESS WHEREOF, said owners have caused their names to be hereunto subscribed this _____ day of _____ A.D. 19____.

STATE OF COLORADO
 COUNTY OF MESA
 The foregoing instrument was acknowledged before me this _____ day of _____ A.D. 19____ by Stephen E. McCallum and Bellette E. McCallum.
 My commission expires _____
 Witness my hand and official seal. _____ Notary Public

CITY APPROVAL
 This plat of TROLLEY PARK, a subdivision of the City of Grand Junction, County of Mesa, and State of Colorado was approved and accepted this _____ day of _____ A.D. 19____.

CITY MANAGER _____
 DIRECTOR OF DEVELOPMENT _____
 GRAND JUNCTION CITY ENGINEER _____

STATE OF COLORADO
 COUNTY OF MESA
 I hereby certify that this instrument was filed in my office at _____ o'clock _____ M. this _____ day of _____ A.D. 19____ and is duly recorded in Plat Book _____ Page _____
 Reception No. _____

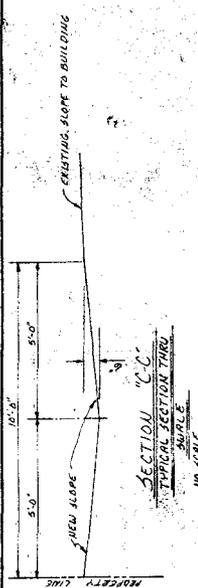
CLERK AND RECORDER'S CERTIFICATE
 Clerk and Recorder _____ Deputy

SURVEYOR'S CERTIFICATE
 I, Wayne M. Lizer, a Registered Professional Land Surveyor in the State of Colorado, hereby certify that this plat was prepared from notes taken in the field by me or under my direction during January, 1995, and during 1981 and 1992, and that this plat represents said survey.

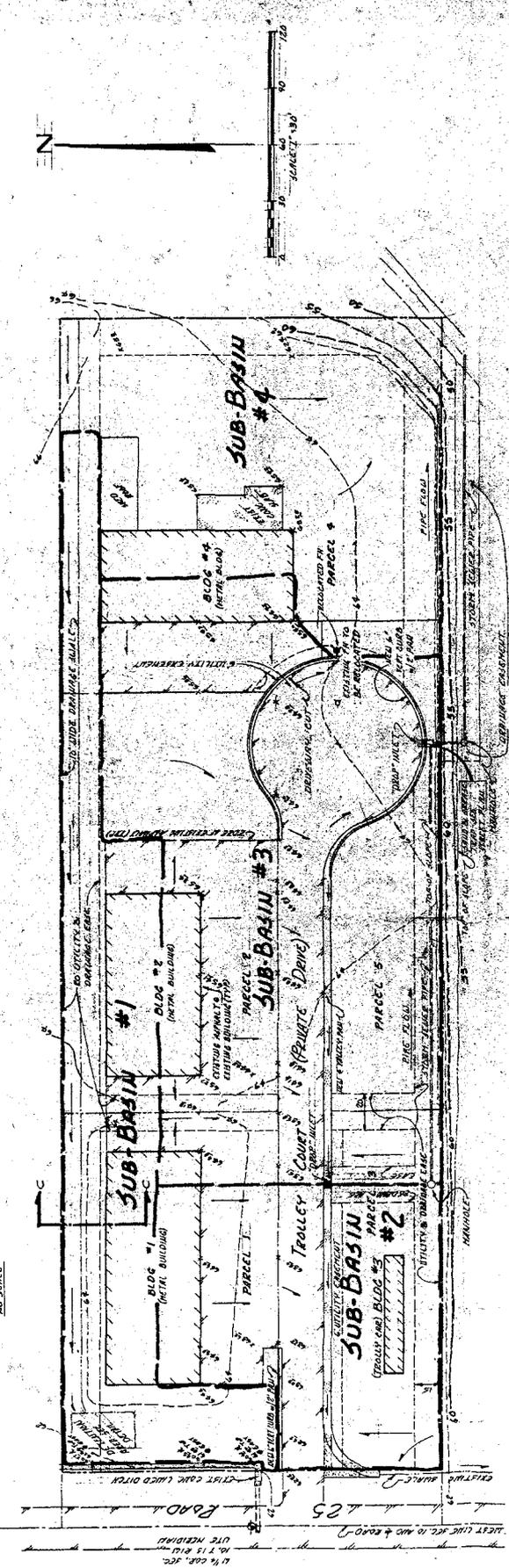
Wayne M. Lizer, P.L.S., P.C.S., No. 12111

TROLLEY PARK
 A PART OF THE
 SW 1/4 NW 1/4 & NW 1/4 SW 1/4
 SECTION 10, T.1S. R.1W., UTE MERIDIAN
 GRAND JUNCTION, MESA COUNTY, COLORADO

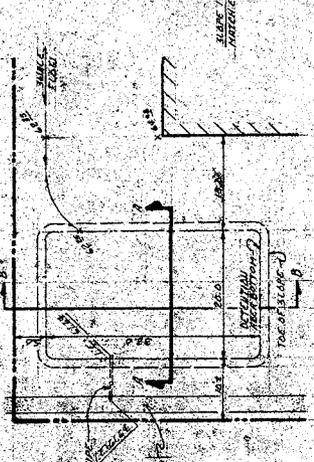
W.H. LIZER & ASSOCIATES
 ENGINEERING & SURVEYING
 576 25 ROAD, UNIT B - 241-1129
 GRAND JUNCTION, COLORADO 81505



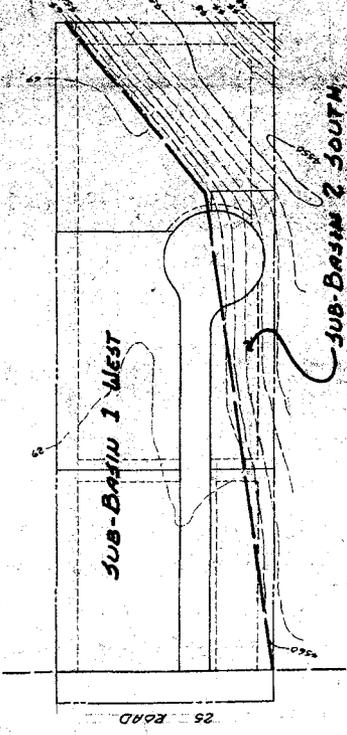
SECTION "C-C"
TYPICAL SECTION THROUGH SLOPE
NO SCALE



- LEGEND
- - - - - EXISTING CONTOUR
 - - - - - EDGE OF EXISTING ASPHALT
 - - - - - EXISTING SIDEWALK
 - - - - - DRAINAGE FLOW DIRECTION
 - - - - - SPOT ELEVATION



SECTION "A-A"
DETENTION AREA DETAIL
NO SCALE



ORIGINAL ORTHOPHOTO CONTOURS DATED APRIL 13, 1975
SCALE 1" = 40'



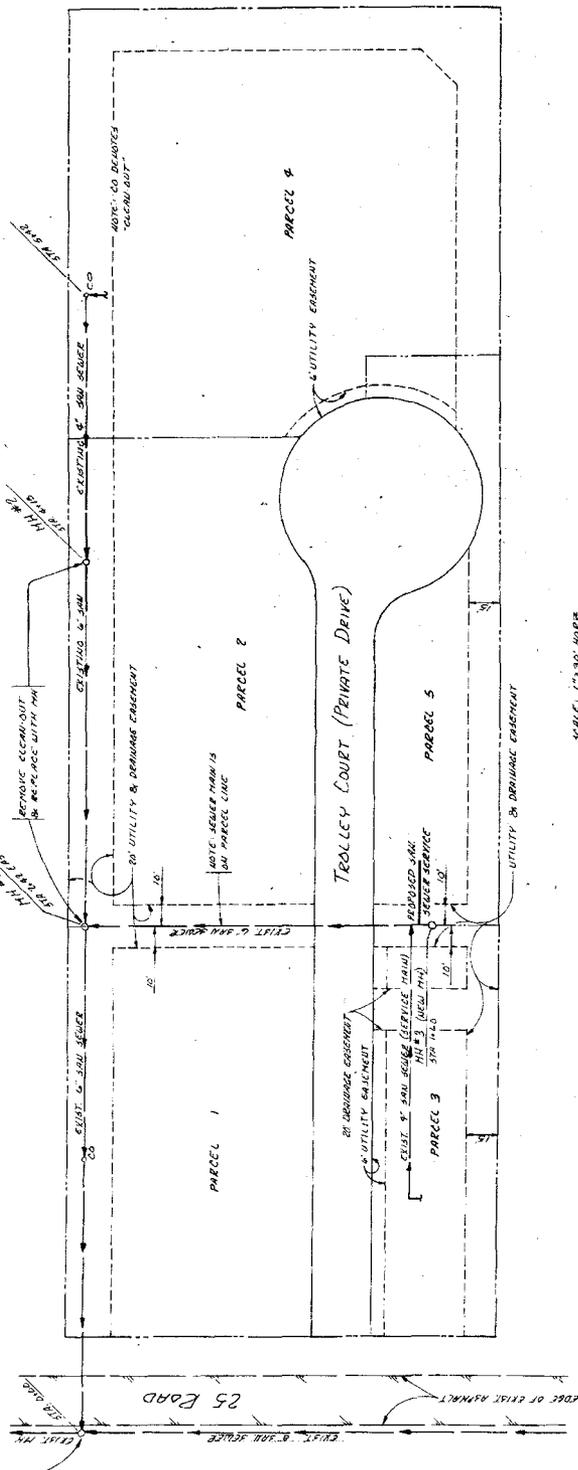
GRADING AND DRAINAGE PLANS
TROLLEY PARK
GRAND JUNCTION, COLORADO
#5 A, 92

W.H. LIZER & ASSOCIATES
ENGINEERING & SURVEYING
576 25 ROAD - UNIT 8, 241-1129
GRAND JUNCTION, COLORADO 81505

Notes:

1. ALL CITY OF DENVER UNIFORM STANDARDS SHALL APPLY FOR THE CONSTRUCTION OF SEWER MANHOLES.
2. THE SEWER MAINS AND THE SIGHTING SEWER LINES SHALL BE SHOWN ON THE SEWER PLAN. ADJUSTMENTS ARE SHOWN AT THIS DATE.

RECONSTRUCT NORTH 8TH ST MANHOLE (ELEV. 852.50) 1047 FIELD (VERTICAL) 8/28/92 WFL



SCALE: 1"=30' HORIZ. 1"=3' VERT.

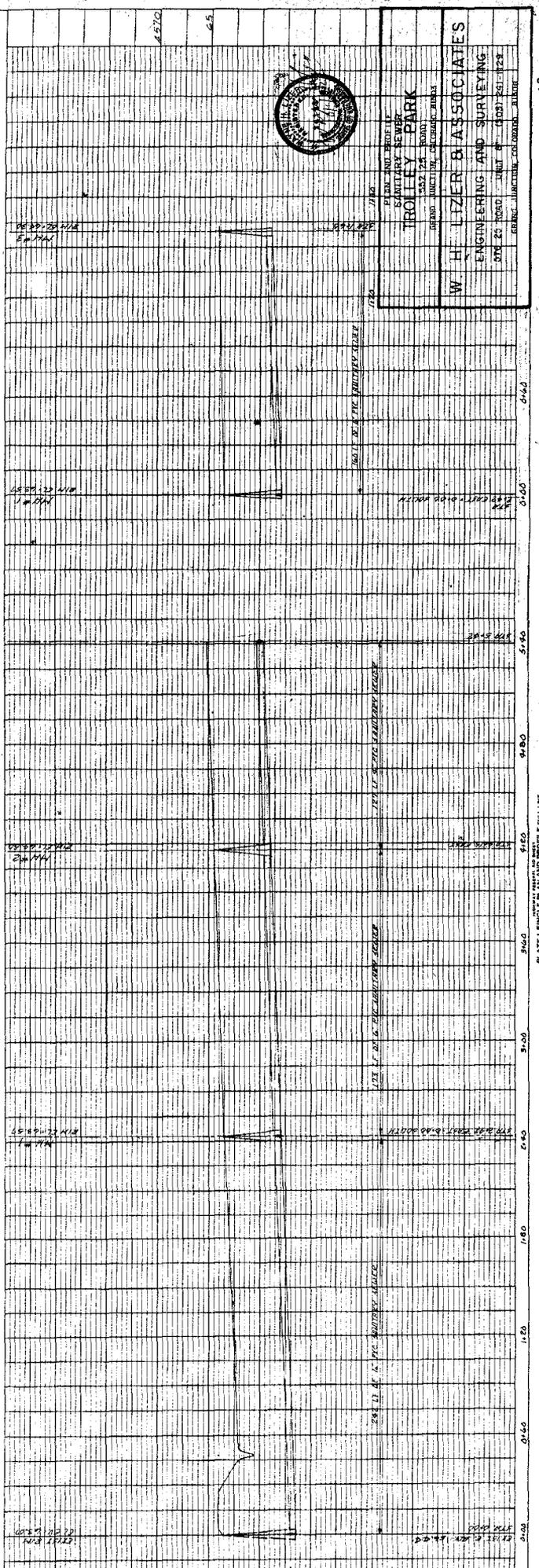


PLATE (SINGLE MAIN AND PROFILE FULL LINE)



W. H. LIZER B. ASSOCIATES
 ENGINEERING AND SURVEYING
 1500 17TH AVENUE, DENVER, COLORADO 80202
 TROLEY PARK
 1500 17TH AVENUE, DENVER, COLORADO 80202
 DATE: 8/28/92
 DRAWN BY: WFL
 CHECKED BY: WFL