



DEVELOPMENT APPLICATION

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

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From Office

A

Receipt _____

Date _____

Rec'd By _____

File No. 12094

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 type="checkbox"/> Subdivision Plat/Plan	<input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Resub				
<input checked="" type="checkbox"/> Rezone		approx 3.07 acre	2892 North Ave	From: RSF-8 To: PC.	
<input checked="" type="checkbox"/> Planned Development	<input type="checkbox"/> ODP <input type="checkbox"/> Prelim <input checked="" type="checkbox"/> Final				MINI STORAGE
<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

PROPERTY OWNER

DEVELOPER

REPRESENTATIVE

Emory Cantrell

Name

Mike Davis, Mays Construction

Name

Thomas A. Logue

Name

PO Box 1292

Address

2399 River Road

Address

227 So. 9th Street

Address

Dalton, GA 30722

City/State/Zip

Grand Jct., CO. 81501

City/State/Zip

Grand Jct. CO. 81501

City/State/Zip

Business Phone No.

243-5669
Business Phone No.

245-4099
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.

Thomas A. Logue
Signature of Person Completing Application

6/12/94
Date

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

Original
Do NOT Remove
From Office

120 94

George Fults
511 29 Road
Grand Junction, CO 81501

Barry Patten
505 1/2 29 Road
Grand Junction, CO 81501

Scott Stone
2894 North Ave.
Grand Junction, CO 81501

Dennis Svaldi
219 Main St.
Collbran, CO 81624

Clayton Hilbish
515 Melody Lane
Grand Junction, CO 81501

Kathleen Trout
513 Melody Lane
Grand Junction, CO 81501

Philip Roskowski
728 - 35 8/10 Road
Palisade, CO 81526

Jeanie Voong
3043 E Road
Grand Junction, CO 81504

Stanley Seligman
3026 Patterson Road
Grand Junction, CO 81504

Cale Dickenson
205 Epps Drive
Grand Junction, CO 81501

Terrance Hammer
203 Epps Drive
Grand Junction, CO 81501

CD Williams
133 Epps Drive
Grand Junction, CO 81501

Robert Shorten
523 Centennial Road
Grand Junction, CO 81504

David Elliott
515 29 Road
Grand Junction, CO 81501

Viola O'Grady
112 Epps Drive
Grand Junction, CO 81501

Todd Miracle
116 Epps Drive
Grand Junction, CO 81501

Ida Cummings
130 Epps Drive
Grand Junction, CO 81501

Paul Parker
509 29 Road
Grand Junction, CO 81501

Great Homes, LTD
3026 Patterson Road
Grand Junction, CO 81504

Joe Salazar
556 Ashley Lane
Grand Junction, CO 81501

Gerald Griffin
6780 W. 31st Ave.
Denver, CO 80214

Thomas Mingus
610 Rushmore Drive
Grand Junction, CO 81503

Peerless Tyre Co.
4705 Paris St.
Denver, CO 80239

George Metz
#2 Cognac Court
Grand Junction, CO 81503

WAL-MART Properties, Inc.
702 SW Eight Street #1280
Bentonville, AR 71716

Payless Shoe Source, Inc
3231 E. 6th Street
Topeka, KS 66601

WArburton & Buttner Dev. Co.
2990 Jamacha Road, Suite 250
El Cajon, CA 92019

Grand Junction Baptist Church
2897 North Ave.
Grand Junction, CO 81501

Garry Collard
466 Greenleaf
Grand Junction, CO 81504

Dale Baughman
514 Melody Lane
Grand Junction, CO 81501

Carolyn Hill
512 Melody Lane
Grand Junction, CO 81501

Ronald Berry
603 Hudson Bay Drive
Grand Junction, CO 81504

Mike Davis/Mays Constr. Co.
2399 River Road
Grand Junction, CO 81501

Tom Logue
227 S. 9th St.
Grand Junction, CO 81501

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

Emory Cantrell
P.O. Box 1292
Dalton, GA 30722

PROJECT NARRATIVE

120 94

ZONE CHANGE REQUEST AND

DEVELOPMENT PLAN FOR

2892 NORTH AVENUE

June, 1994

INTRODUCTION - The accompanying narrative statement and maps will provide sufficient data to assess the merits of the requested Zone Change Request. Information gained as a result of the review process will be utilized in the preparation of the Final Construction Documents.

LOCATION - The 1.15 acre site is located in the Northeast Grand Junction area, North of North Avenue, approximately 100 feet East of Melody Lane. The property is located in part of the SE 1/4 of Section 7, Township One South, Range One East, of the Ute Meridian.

EXISTING LAND USE - The site is vacant of any structures and is in a fallow state. Topography of the property is considered to be "flat" in nature and slopes towards the South at a rate less than one percent. The subject property is zoned RSF-8 by the City of Grand Junction.

SURROUNDING LAND USE -The surrounding land use in the vicinity of the subject property is considered to be of high intensity. The most predominate use consists of a warehouse/retail sales facility, which was developed by the applicant, and adjoins the South boundary of the subject property. Other uses in the vicinity include auto related activities and retail sales such as the Wal-Mart facility.

Residential uses are located on large lots to the North, West, and East. The accompanying Site Plan depicts the Surrounding Land use Zones.

PROPOSED LAND USE - The proposal calls for the 11,700 square foot expansion of an existing warehouse and the development of 121 mini-storage units, ranging in size from 50 square feet to 200 square feet. The accompanying Development Plan depicts the relationship of the proposed warehouse expansion and mini-storage units to the property boundary, parking areas, and other features of the proposed development.

ACCESS - Primary access to the site will be from North Avenue designated as major arterial by the City of Grand Junction. 29 Road located several hundred feet East of the site serves as a major north/south arterial.

UTILITY SERVICE

DOMESTIC WATER - An existing 8 inch water main is located along the South boundary of the site. Other than fire protection, the warehouse and storage units do not require any domestic water service.

SANITARY SEWER - Due to the nature of the development, sanitary sewer service is not required.

ELECTRIC, GAS, PHONE & CATV - Gas and communication lines will not be required. Electric lines will be extended into the property to provide area lighting. Electricity will not be provided for the units.

DEVELOPMENT SCHEDULE - At this point in time it is anticipated that construction will begin on the warehouse expansion this year. Construction of the mini-storage units will most likely occur during 1995.

REZONE CRITERIA

The City of Grand Junction has established seven criteria for evaluation of zone change requests. A response to each follows:

A. Since the underlying zone was established, an error in the existing zone could be considered to have occurred. Two separate zones have been established for a single parcel of land.

B. Substantial changes in the character of the surrounding area have occurred. Most of which is the "re-development" of out of date commercial uses. Additionally the applicant has developed a new commercial use on his property during the last 2 years.

C. It is widely accepted fact that any community that does not have some new development activity will wither and die economically. It is important for any community to encourage development of new commercial uses which help maintains its economic stability.

D. Other than economic impacts to the City of Grand Junction, the proposed site in its present state does not present major adverse impact on the adjoining areas. However, once development of the subject property is completed, some impact of the adjoining properties would most likely be realized. Utilizing the "Planned Unit Development" (PUD) zone concept, any such negative impacts can be minimized. The PUD zone allows for specific site plan reviews of the proposed development plans by the general public and various governmental agencies.

E. Revenues generated by the proposed use should than off-set costs incurred by the City and other public entities which provide services. Revenues generated will be from the following:

1. Property Taxes
2. Sales Taxes
3. Special Use and Tap Fees

In addition to monetary benefits to the City, the proposal will provide modern commercial uses in a market which currently has a shortage of available warehouse and storage units.

F. The City of Grand Junction has adopted numerous land use policies. If the adopted policies, the *North Avenue Corridor Guidelines* are the most applicable to the request. According the guideline:

"1) Any new development of vacant land or redevelopment of large parcels is encouraged to consider the use of planned development concepts to help improve the appearance of this corridor."

"3)...New development is encouraged to use alternative accesses that do not encroach on the existing residential areas adjacent to the corridor."

G. All public utilities required for the development of the subject property exists within the adjoining roadway and have the available capacity to serve the proposed use. The proposed use requires low useage of existing public utilities.



120 94

June 29, 1994

City of Grand Junction
City Council
Planning Commissions
250 North 5th. Street
Grand Junction, CO 81501

Dear Members:

Accompanying is a Zone Change Request and Development Plan for 1.15 acres located at 2892 North Avenue. The requested change in zoning is from RSF-8 to PC (planned commercial).

The enclosed information is intended to provide sufficient data to assess the merits of the requested change in zoning and development plans.

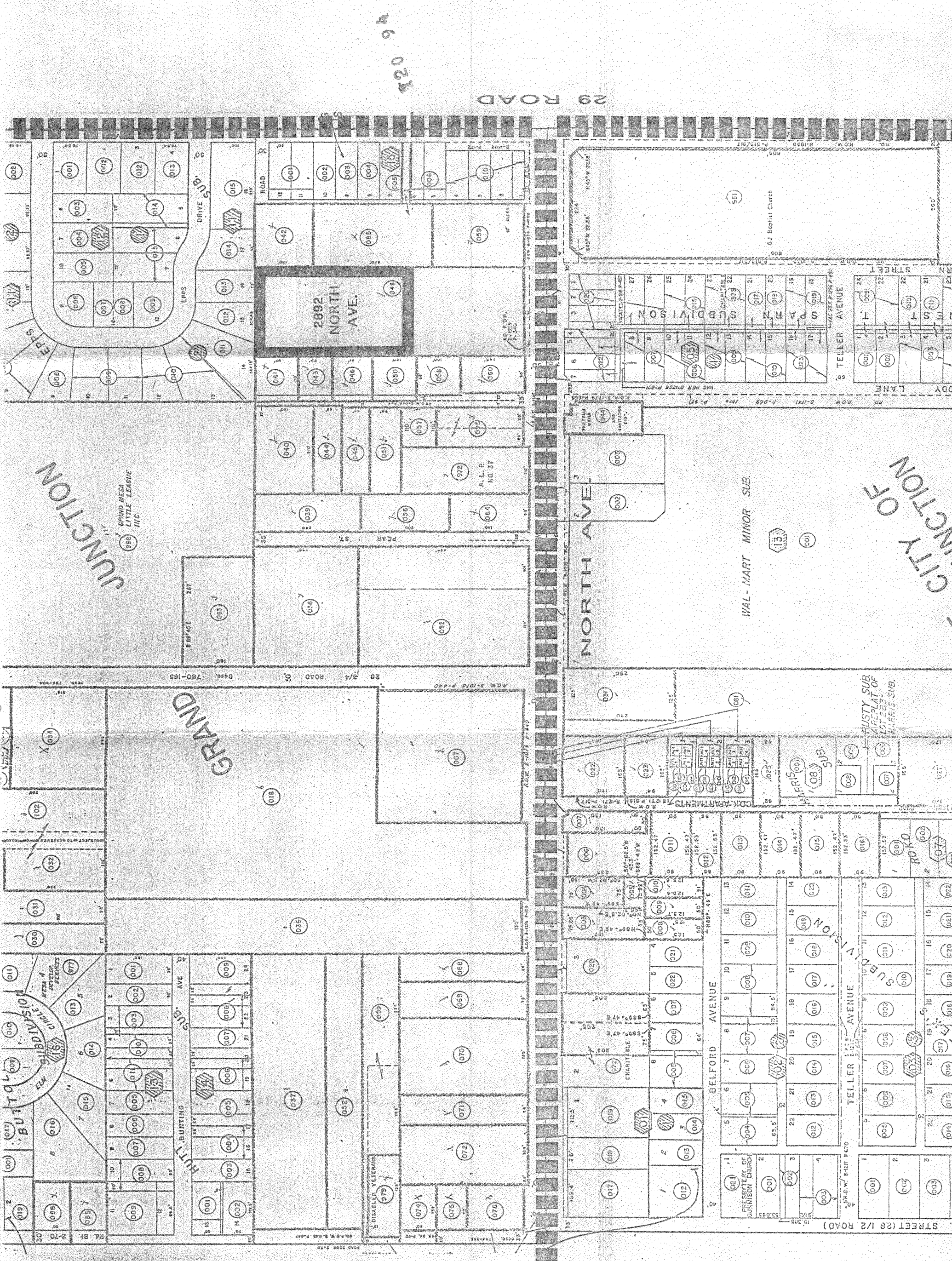
Given the opportunity, the proposal demonstrates that a quality commercial development coupled with a plan that is sensitive to the existing neighborhood, can be desirable for Grand Junction.

To proceed further with the development of property requires a great deal of investment and risk to the petitioner. The owner and developers believe they will be introducing new commercial use which will prove to be profitable and desirable to the City of Grand Junction. They request that you, the City Council and Planning Commission give the request your best consideration, and trust you will make a knowledgeable and wise decision in this matter.

The petitioner and myself will be present at the scheduled public hearings to discuss the project and answer any questions which may arise.

Respectfully,


Thomas A. Logue



29 ROAD

120 9A

JUNCTION
GRAND MESA
LITTLE LEAGUE
INC.

GRAND

NORTH AVE

WAL-MART MINOR SUB.

JUNCTION
CITY OF

BUITON
SUBDIVISION

HITTL
SUBDIVISION

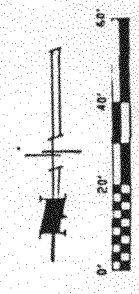
BELFORD AVENUE

TELLETT AVENUE

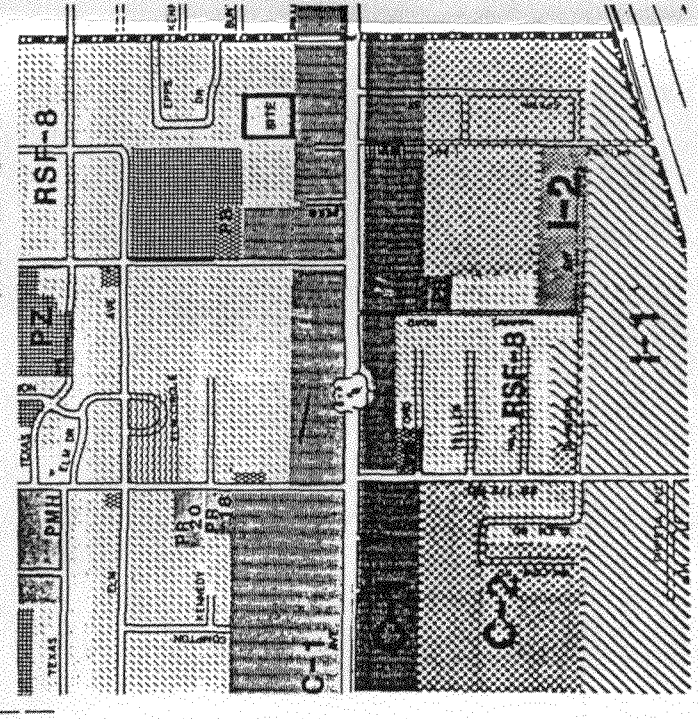
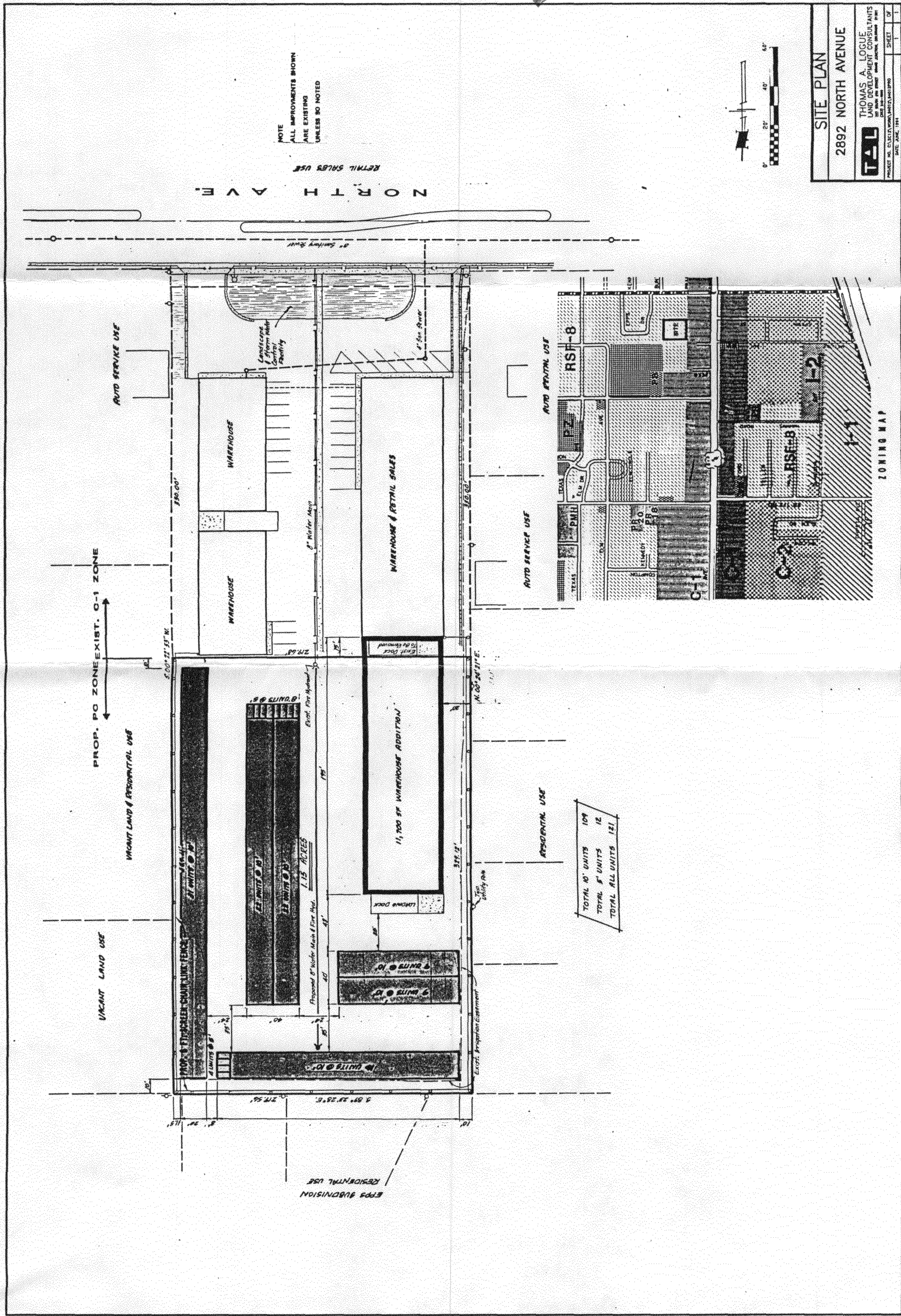
H. STREET (26 1/2 ROAD)

2020 6 9

NOTE
ALL IMPROVEMENTS SHOWN
ARE EXISTING
UNLESS SO NOTED



SITE PLAN
2892 NORTH AVENUE
TAL
THOMAS A. LOGUE
LAND DEVELOPMENT CONSULTANTS
PROJECT NO. 2019-0001
DATE: JUNE, 2019



ZONING MAP

PROP. PG ZONE EXIST. C-1 ZONE

VACANT LAND & RESIDENTIAL USE

VACANT LAND USE

AUTO SERVICE USE

AUTO SERVICE USE

AUTO RETAIL USE

RESIDENTIAL USE

EPDS SUBDIVISION
RESIDENTIAL USE

TOTAL 10' UNITS	109
TOTAL 5' UNITS	12
TOTAL ALL UNITS	121

RETAIL SALES USE

NORTH AVE.

8" Sanitary Sewer

8" Water Main

11,700 SF WAREHOUSE ADDITION

Proposed 8" Water Main & Fire Main

1.15 ACRES

EXIST. FIRE HYDRANT

5.00' X 21.53' W

5.00' X 21.53' E

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To: Marcia Petering
Cc: Michael Drollinger
From: Jody Kliska
Subject: #120-94 2892 North Ave.
Date: 7/06/94 Time: 4:04p

Drainage needs to be addressed. The proposed warehouse addition and part of the storage units appear to be located in the detention pond approved and constructed in 1993 for the Carpet Warehouse.

Access to the proposed development is an issue which must be addressed, as well as the on-site circulation for the different uses. It appears there may be difficulty and conflicts in maneuvering for large trucks.

CDOT will probably want to review a site plan for access for the change in traffic and usage.

The plan has the wrong scale marked. It is drawn to a 30, not 20.

- Need TCP estimate
- Templates for Truck maneuvering
- Send copy of appl. to CDOT

Comments
A/W
7/19/94

REVIEW COMMENTS

file
copy

Page 1 of 2

FILE #120-94

TITLE HEADING: Rezone/Final from RSF-8 to PC
(Mini-Storage)

LOCATION: 2892 North Avenue

PETITIONER: Mike Davis - Mays Construction Co.

PETITIONER'S ADDRESS/TELEPHONE: 2399 River Road
Grand Junction, CO 81501
243-5669

PETITIONER'S REPRESENTATIVE: Tom Logue

STAFF REPRESENTATIVE: Michael Drollinger

**NOTE: WRITTEN RESPONSE BY THE PETITIONER TO THE REVIEW COMMENTS IS
REQUIRED ON OR BEFORE 5:00 P.M., July 25, 1994.**

CITY PARKS & RECREATION DEPT. 7/06/94
Don Hobbs 244-1542

We will need a property appraisal for determining open space fees.

CITY FIRE DEPARTMENT 7/07/94
Hank Masterson 244-1400

The proposed fire hydrant shown at the north end of the lot will not be necessary. The existing hydrant on the property should be adequate.

CITY UTILITY ENGINEER 7/08/94
Bill Cheney 244-1590

Sewer: No comment.
Water: The existing 8" line and hydrant and the proposed 8" line and hydrant will be private lines unless a 15' easement is granted for operation and maintenance of the line by the City.

U.S. WEST 7/11/94
Leon Peach 244-4964

No comments at this time.

CITY DEVELOPMENT ENGINEER
Jody Kliska

7/06/94
244-1591

Drainage needs to be addressed. The proposed warehouse addition and part of the storage units appear to be located in the detention pond approved and constructed in 1993 for the Carpet Warehouse.

Access to the proposed development is an issue which must be addressed, as well as the on-site circulation for the different uses. It appears there may be difficulty and conflicts in maneuvering for large trucks.

CDOT will probably want to review a site plan for access for the change in traffic and usage.

The plan has the wrong scale marked. It is drawn to a 30, not 20.

UTE WATER
C.E. Stockton

7/06/94
242-7491

No objections. Municipal water services by the City of Grand Junction.

FRUITVALE LATERAL & WASTE DITCH CO.
Gerald L. Hill

7/06/94
243-6402

This agency has no objection to this proposal other than the requirement to ensure that "0" drainage enters this Association's irrigation ditch. The initial development of this site side-stepped this issue by draining the parking lot effluent into the street (North Ave.), then "dumping" the whole mess into the Association ditch. You (the City) has yet to remedy this situation. If you (the City) do not remedy the drainage into our ditch from North Ave., we reserve the right to disapprove this proposal. Call me ASAP.

CITY POLICE DEPARTMENT
Dave Stassen

7/13/94
244-3586

As already stated in the narrative, my only concern is that good lighting be provided in between the storage units and the warehouses; especially the northern most units that are farthest away from North Ave.

PUBLIC SERVICE CO.
Dale Clawson

7/18/94
244-2695

Electric and gas: No objections.

COMMUNITY DEVELOPMENT DEPARTMENT
Michael Drollinger

7/18/94
244-1439

See attached comments.

#120-94 REZONE 2892 NORTH AVENUE
COMMUNITY DEVELOPMENT COMMENTS

1. The petitioner is requesting a rezoning of a 1.5 acre parcel at 2892 North Avenue to PC (Planned Commercial). The subject parcel is presently zoned RSF-8. The proposed uses on the property are warehousing and mini-storage. The property is bounded on the west, north and east by residential zones and uses. Access to the back portion of the site is presently limited to North Avenue, however, it may be possible that additional access could be secured through purchase of vacant or developed parcels to the north or east. Thus, development of the parcel under current zoning may be possible.

2. Any nonresidential development of the subject parcel must be designed to minimize impacts on the surrounding residential area, thus a Planned Development concept for the property is appropriate. Since the development on both the front and back portions of the site are integral, the entire parcel should be the subject of this rezoning application. The Planned Commercial (PC) zone for this parcel will specify a maximum development density for the parcel, a list of permitted uses, and design standards. Subsequent to approval by Planning Commission and City Council of the PC zoning, the petitioner will need only site plan review (administrative process) for all site development as long as the development conforms to the densities and standards set forth in the PC zoning. Therefore, we recommend that no final plan approval be given in conjunction with this application at this time.

3. Staff supports a rezone of the subject parcel expanded to include both the existing developed area along North Avenue and the undeveloped area to PC (Planned Commercial) only if the zoning includes the permitted uses, densities and design standards set forth below:

- a. **Permitted Uses:** uses permitted in the PC zone shall be limited to the following:
 - (1) warehousing
 - (2) retail showrooms not to exceed 10% of the gross square footage of site development permitted.
 - (3) mini-storage with the restrictions as set forth in (f).
- b. **Density:** the maximum FAR (Floor Area Ratio) permitted in the PC zone shall be 0.35. Given the existing site development (21,400 sq. ft.), the proposed FAR would permit an additional 29,420 sq. ft. of development.
- c. **Setbacks:** all setbacks shall be as follows
 - (1) minimum setback of all structures from residential uses or zones - 10 ft.
 - (2) minimum distance between rows of mini-storage buildings - 25 ft.
- d. **Screening and Buffering:** screening and buffering from adjacent residential uses and zones shall at minimum consist of both of the following:
 - (1) a minimum eight (8) foot planted screen along the property line consisting of evergreen trees (min. height 5 feet) planted in offset rows. All landscaping must be provided with a pressurized, underground irrigation system.

(2) a six (6) foot high solid wood or slatted chain-link fence.

e. **Parking:** parking shall be provided for the mini-storage facility at a minimum of one (1) stall per 50 storage units or fraction thereof. Parking for the warehouse and retail uses shall be as per City Code.

f. **Additional Restrictions**

- (1) the following uses shall be prohibited in the mini-storage facility:
- (a) Auctions, commercial, wholesale or retail sales, or garage sales;
 - (b) the servicing, repair or fabrication of motor vehicles, boats, trailers, lawn mowers, appliances, or other similar equipment;
 - (c) the operation of power tools, spray-painting equipment, table saws, lathes, compressors, welding equipment, kilns or other similar equipment;
 - (d) the establishment of a transfer and storage business;
 - (e) any use which is noxious or offensive because of odors, dust, noise, fumes or vibrations;
 - (f) no boats, vacant trailers and recreation vehicles may be stored on site.

g. **Signage:** The sign regulations of Section 5-7-7 pertaining to commercial zones shall apply.

SITE PLAN REVIEW REQUIREMENTS

1. Site circulation shall be clearly identified. The eastern driveway shall function as an "enter only" driveway. The western driveway shall function as an "exit only" driveway. Both driveways shall have pavement markings and appropriate signage.
2. A lighting plan will be required. Lighting shall be designed such that no glare or "spill-over" shall occur to adjacent residential properties.
3. Asphalt or concrete paving will be required for all vehicular circulation areas.
4. Elevations of all proposed structures shall be supplied. Corrugated metal facades facing residences are discouraged.

RESPONSE TO REVIEW COMMENTS

July 21, 1994

Title: 2892 NORTH AVENUE, Rezone from RSF-8 to PC

File No: 120-94

Location: 2892 North Avenue

RESPONSE TO CITY PARKS:

A property appraisal will be transmitted to the City Parks and Recreation Department prior to any building activity occurring on the site.

RESPONSE TO FIRE DEPARTMENT:

The proposed fire hydrant at the north end of the site will be eliminated on the final site plan application.

RESPONSE TO UTILITY ENGINEER:

WATER: The 8 inch water main will not be required due to the Fire Department's review comments.

SEWER: Comments do not require a response.

RESPONSE TO US WEST:

Comments do not require a response.

RESPONSE TO DEVELOPMENT ENGINEER:

Additional drainage information has been transmitted to the department under separate cover.

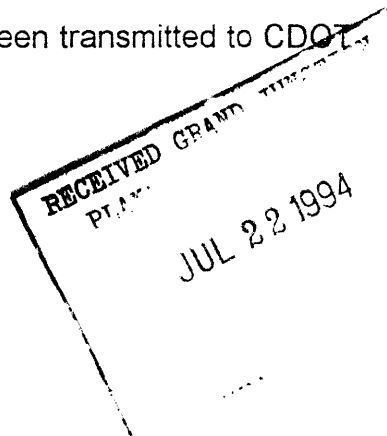
Turning radius for large trucks have been provided to the department. The Site Development Plan has been revised to accommodate additional space for proper movements of large trucks.

A copy of the proposed development plan has been transmitted to CDO along with a request for review comments.

The plan scale has been corrected.

RESPONSE TO UTE WATER:

Comments do not require a response.



RESPONSE TO FRUITVALE LATERAL & WASTE DITCH CO.

All storm run-off from the subject site discharges directly into the curb and gutter along North Avenue. According to the City of Grand Junction's Engineering Department, measures will be taken to block any storm drainage entering the companies ditch from an existing outlet from North Avenue west of the subject site. Future plans call for reconstruction of a portion of the north side of North Avenue east of Melody Lane. The reconstruction will allow for drainage to flow into an existing storm sewer in Melody Lane.

RESPONSE TO POLICE DEPARTMENT:

Area security lighting will be provided on the face of the mini-storage units facing inward towards the driving lanes.

RESPONSE TO PUBLIC SERVICE CO:

Comments do not require a response.

RESPONSE TO COMMUNITY DEVELOPMENT:

1. A revised Site Development Plan has been transmitted to the department depicting additional traffic circulation information. The two existing driveways on North Avenue will be marked and signed as requested during the construction phase of the proposed warehouse building.
2. Detailed lighting plans will be submitted with the Final Construction Site Plan. Lighting will be mounted on the building face and directed towards the interior driveways.
3. Asphalt Pavement will be placed on all drive and parking areas.
4. Detailed building elevations will be provided with the Final Development Plan phase.

STAFF REVIEW

FILE: #120-94

DATE: July 25, 1994

REQUEST: Rezone RSF-8/C-1 to PC

LOCATION: 2892 North Avenue

APPLICANT: Emory Cantrell

EXISTING LAND USE: Vacant

PROPOSED LAND USE: Warehouse/Mini-storage

SURROUNDING LAND USE:

NORTH: Single Family Residential

SOUTH: Commercial (Vacant Store & Subway)

EAST: Commercial (Big-O Tires)/Single Family Residential

WEST: Commercial (Rent-a-Car & Berry's Garage)/Single Family Residential

EXISTING ZONING: C-1; RSF-8

PROPOSED ZONING: PC (Planned Commercial)

SURROUNDING ZONING:

NORTH: RSF-8

SOUTH: C-1

EAST: RSF-8/C-1

WEST: RSF-8/C-1

RELATIONSHIP TO COMPREHENSIVE PLAN:

No comprehensive plan exists for this area.

STAFF ANALYSIS:

The petitioner is requesting a rezoning of a 1.5 acre parcel at 2892 North Avenue to PC (Planned Commercial). The subject parcel is presently zoned RSF-8. The proposed uses on the property are warehousing and mini-storage. The property is bounded on the west, north and east by residential zones and uses. Access to the back portion of the site is presently limited to North Avenue, however, it may be possible that additional access could be secured through purchase of vacant or developed parcels to the north or east. Thus,

development of the parcel under current zoning may be possible.

Any nonresidential development of the subject parcel must be designed to minimize impacts on the surrounding residential area, thus a Planned Development concept for the property is appropriate. Since the development on both the front and back portions of the site are integral, the entire parcel should be the subject of this rezoning application. The Planned Commercial (PC) zone for this parcel will specify a maximum development density for the parcel, a list of permitted uses, and design standards. Subsequent to approval by Planning Commission and City Council of the PC zoning, the petitioner will need only site plan review (administrative process) for all site development as long as the development conforms to the densities and standards set forth in the PC zoning. Therefore, we recommend that no final plan approval be given in conjunction with this application at this time.

Staff supports a rezone of the subject parcel expanded to include both the existing developed area along North Avenue and the undeveloped area to PC (Planned Commercial) only if the zoning includes the permitted uses, densities and design standards set forth below:

- a. **Permitted Uses:** uses permitted in the PC zone shall be limited to the following:
 - (1) warehousing
 - (2) retail showrooms not to exceed 10% of the gross square footage of site development permitted.
 - (3) mini-storage with the restrictions as set forth in (f).

- b. **Density:** the maximum FAR (Floor Area Ratio) permitted in the PC zone shall be 0.35. Given the existing site development (21,400 sq. ft.), the proposed FAR would permit an additional 29,420 sq. ft. of development.

- c. **Setbacks:** all setbacks shall be as follows
 - (1) minimum setback of all structures from residential uses or zones - 10 ft.
 - (2) minimum distance between rows of mini-storage buildings - 25 ft.

- d. **Screening and Buffering:** screening and buffering from adjacent residential uses and zones shall at minimum consist of both of the following:
 - (1) a minimum eight (8) foot planted screen along the property line consisting of evergreen trees (min. height 5 feet) planted in offset rows. All landscaping must be provided with a pressurized, underground irrigation system.
 - (2) a six (6) foot high solid wood or slatted chain-link fence.

- e. **Parking:** parking shall be provided for the mini-storage facility at a minimum of one (1) stall per 50 storage units or fraction thereof. Parking for the warehouse and retail uses shall be as per City Code.

f. Additional Restrictions

- (1) the following uses shall be prohibited in the mini-storage facility:
- (a) Auctions, commercial, wholesale or retail sales, or garage sales;
 - (b) the servicing, repair or fabrication of motor vehicles, boats, trailers, lawn mowers, appliances, or other similar equipment;
 - (c) the operation of power tools, spray-painting equipment, table saws, lathes, compressors, welding equipment, kilns or other similar equipment;
 - (d) the establishment of a transfer and storage business;
 - (e) any use which is noxious or offensive because of odors, dust, noise, fumes or vibrations;
 - (f) no boats, vacant trailers and recreation vehicles may be stored on site.

g. **Signage:** The sign regulations of Section 5-7-7 pertaining to commercial zones shall apply.

h. **Site Plan Review:** Subsequent development proposals shall be subject to Site Plan Review provided that all the above criteria are met.

In the July 21, 1994 response to review comments, the petitioner agreed to incorporate the Community Development comments regarding driveway marking, lighting, pavement and building elevations into the final site design.

Other relevant site plan review considerations include site drainage. Also, the warehouse loading dock must be designed to accommodate a WB-50 truck.

STAFF RECOMMENDATION:

Staff recommends approval of the rezone of the entire tract and ODP approval with the conditions detailed in the staff analysis.

SUGGESTED PLANNING COMMISSION MOTION:

Mr. Chairman, on item #120-94, I move that we approve the rezone from RSF-8 and C-1 to PC with the conditions as detailed in the staff report.

STAFF REVIEW

FILE: #120-94
DATE: August 10, 1994
REQUEST: Rezone RSF-8/C-1 to PC
LOCATION: 2892 North Avenue
APPLICANT: Emory Cantrell

EXECUTIVE SUMMARY:

A proposed rezone from C-1 and RSF-8 to PC (Planned Commercial) at 2892 North Avenue to permit the future expansion of a warehouse and the construction of mini-storage units. The rear half of the 1.5 acre site is presently vacant while the front half along North Avenue is developed as a retail/warehouse use.

EXISTING LAND USE: Vacant

PROPOSED LAND USE: Warehouse/Mini-storage

SURROUNDING LAND USE:

NORTH: Single Family Residential
SOUTH: Commercial (Vacant Store & Subway)
EAST: Commercial (Big-O Tires)/Single Family Residential
WEST: Commercial (Rent-a-Car & Berry's Garage)/Single Family Residential

EXISTING ZONING: C-1; RSF-8

PROPOSED ZONING: PC (Planned Commercial)

SURROUNDING ZONING:

NORTH: RSF-8
SOUTH: C-1
EAST: RSF-8/C-1
WEST: RSF-8/C-1

RELATIONSHIP TO COMPREHENSIVE PLAN:

No comprehensive plan exists for this area.

STAFF ANALYSIS:

The petitioner is requesting a rezoning of a 1.5 acre parcel at 2892 North Avenue to PC (Planned Commercial). The subject parcel is presently zoned RSF-8. The proposed uses on the property are warehousing and mini-storage. The property is bounded on the west, north and east by residential zones and uses. Access to the back portion of the site is presently limited to North Avenue, however, it may be possible that additional access could be secured through purchase of vacant or developed parcels to the north or east. Thus, development of the parcel under current zoning may be possible.

Any nonresidential development of the subject parcel must be designed to minimize impacts on the surrounding residential area, thus a Planned Development concept for the property is appropriate. Since the development on both the front and back portions of the site are integral, the entire parcel should be the subject of this rezoning application. The Planned Commercial (PC) zone for this parcel will specify a maximum development density for the parcel, a list of permitted uses, and design standards. Subsequent to approval by Planning Commission and City Council of the PC zoning, the petitioner will need only site plan review (administrative process) for all site development as long as the development conforms to the densities and standards set forth in the PC zoning. Therefore, we recommend that no final plan approval be given in conjunction with this application at this time.

Staff supports a rezone of the subject parcel expanded to include both the existing developed area along North Avenue and the undeveloped area to PC (Planned Commercial) only if the zoning includes the permitted uses, densities and design standards set forth below:

- a. **Permitted Uses:** uses permitted in the PC zone shall be limited to the following:
 - (1) warehousing
 - (2) retail showrooms not to exceed 10% of the gross square footage of site development permitted.
 - (3) mini-storage with the restrictions as set forth in (f).
- b. **Density:** the maximum FAR (Floor Area Ratio) permitted in the PC zone shall be 0.35. Given the existing site development (21,400 sq. ft.), the proposed FAR would permit an additional 29,420 sq. ft. of development.
- c. **Setbacks:** all setbacks shall be as follows
 - (1) minimum setback of all structures from residential uses or zones - 10 ft.
 - (2) minimum distance between rows of mini-storage buildings - 25 ft.
- d. **Screening and Buffering:** screening and buffering from adjacent residential uses and zones shall at minimum consist of both of the following:
 - (1) a minimum eight (8) foot planted screen along the property line consisting of evergreen trees (min. height 5 feet) planted in offset rows. All landscaping must be provided with a pressurized, underground irrigation system.
 - (2) a six (6) foot high solid wood or slatted chain-link fence.

e. **Parking:** parking shall be provided for the mini-storage facility at a minimum of one (1) stall per 50 storage units or fraction thereof. Parking for the warehouse and retail uses shall be as per City Code.

f. **Additional Restrictions**

- (1) the following uses shall be prohibited in the mini-storage facility:
- (a) Auctions, commercial, wholesale or retail sales, or garage sales;
 - (b) the servicing, repair or fabrication of motor vehicles, boats, trailers, lawn mowers, appliances, or other similar equipment;
 - (c) the operation of power tools, spray-painting equipment, table saws, lathes, compressors, welding equipment, kilns or other similar equipment;
 - (d) the establishment of a transfer and storage business;
 - (e) any use which is noxious or offensive because of odors, dust, noise, fumes or vibrations;
 - (f) no boats, vacant trailers and recreation vehicles may be stored on site.

g. **Signage:** The sign regulations of Section 5-7-7 pertaining to commercial zones shall apply.

h. **Site Plan Review:** Subsequent development proposals shall be subject to Site Plan Review provided that all the above criteria are met.

In the July 21, 1994 response to review comments, the petitioner agreed to incorporate the Community Development comments regarding driveway marking, lighting, pavement and building elevations into the final site design.

Other relevant site plan review considerations include site drainage. Also, the warehouse loading dock must be designed to accommodate a WB-50 truck.

STAFF RECOMMENDATION:

Staff recommends approval of the rezone of the entire tract with the conditions detailed in the staff analysis.

PLANNING COMMISSION RECOMMENDATION:

Planning Commission recommends approval of the rezone with the conditions in the staff report.

I HEREBY CERTIFY that the foregoing ordinance, being Ordinance No. 2770, was introduced, read, and ordered published by the City Council of the City of Grand Junction, Colorado, at a regular meeting of said body held on the 17th day of August, 1994, and that the same was published in The Daily Sentinel, a newspaper published and in general circulation in said City, at least ten days before its final passage.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said City this 9th day of September, 1994.

Stephanie Nye
Stephanie Nye
City Clerk

Published: 8/19/94

9/9/94

Effective: 10/9/94

SUBMITTAL LEGEND

GENERAL REQUIREMENTS

- *A Application Form
- B Impact Statement or Project Narrative
- ~~X~~ Summary Form
- D Appraisal of Application for Open Space ?
- E Evidence of Title/Title Commitment
- ~~X~~ Draft of Covenants/Restrictions
- *G Legal Description
- *H Names and Addresses of Adjacent Property Owners Within 200 feet
- ~~X~~ Floodplain Analysis
- ~~X~~ Geology Report/Soils Report
- ~~X~~ Gamma Radiation Report
- ~~X~~ Subsurface Soils Investigation
- *M Improvements Agreement } **TO BE DETERMINED**
- *N Improvements Guarantee } **BY REVIEW**
- O Development Schedule } **2 NARRATIVE**

OTHER REQUIREMENTS

- ~~X~~ Location and Vicinity Map
- BB Assessor's Map with Subject Property Outlined in Red
- CC Xerox Portion of Assessor's Map (Not Larger Than 8 1/2" x 14") **11x17?**
- DD Reduction of Plan (not larger than 11 1/2" x 17")
- EE Reduction of Plat (not larger than 11 1/2" x 14") ?
- FF Action Sheet
- GG County Treasurer Tax Certification ?

SITE PLAN REQUIREMENTS

- ? P Plat (including easements at 24" x 32")
- Q Site Plan (24" x 36")
- R Adjacent Land Use and Zoning - **NARRATIVE**
- S Drainage/Grading Plan
- T Utilities Composite
- U Landscaping/Screening/Buffering **SITE PLAN**
 - a) Types of Open Space (existing/proposed)
 - b) Percent and Open Space
 - c) Maintenance, Irrigation Rights
- V Parking **SITE PLAN**
 - a) Total Number Proposed/Required
 - b) Dimensions, Striped, Handicapped
- ~~X~~ Roadway Plan/Profile
- X Traffic Circulation Patterns
 - a) Pedestrian/Bikeways/Crosswalks
 - b) Dimensions of Curb Cuts, Driveways
 - c) Internal Circulation Detail
- Y Traffic Analysis - **NARRATIVE**
- Z Structural Information
 - a) Heights, Elevations, Sq. Footage
 - b) Percent Building Coverage
 - c) Setbacks (centerline/property line)
 - d) Lighting and Signage Detail

* Form Provided by Community Development Dept

PREAPPLICATION CONFERENCE

DATE 5/21/93 CONFERENCE ATTENDANCE Karl Metzger 244-1439

R.O.W. REQUIRED ABUTTING PROPERTY _____

	EXISTING	PROPOSED	
CURB CUTS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
PARKING	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
LANDSCAPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IRRIGATION	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
PEDESTRIAN ACCESS	<input type="checkbox"/>	<input type="checkbox"/>	<u>N/A</u>
YES NO			
OPEN SPACE FEES REQUIRED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>5% appraised value</u>
NEIGHBORHOOD MEETINGS/CONTACT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
RECORDING FEES REQUIRED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

- | | | |
|--|--|--|
| <input type="checkbox"/> ACCESS/PARKING | <input checked="" type="checkbox"/> SCREENING/BUFFERING | <input type="checkbox"/> COMPATIBILITY WITH SURROUNDING USES |
| <input type="checkbox"/> DRAINAGE | <input type="checkbox"/> LANDSCAPING | <input type="checkbox"/> TRAFFIC GENERATION |
| <input type="checkbox"/> FLOODPLAIN/WETLAND MITIGATION | <input type="checkbox"/> AVAILABILITY OF UTILITIES | <input type="checkbox"/> GEOLOGIC HAZARDS/SOILS |
| <input type="checkbox"/> OTHER _____ | APPLICABLE POLICIES/GUIDELINES/REQUIREMENTS | |
| | <input checked="" type="checkbox"/> CORRIDOR GUIDELINES <u>North Ave</u> | |
| RELATED FILES _____ | <input type="checkbox"/> AIRPORT | |
| | <input type="checkbox"/> OTHER _____ | |

WE HEREBY ACKNOWLEDGE that we have familiarized ourselves with the rules and regulations as they apply 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 of monitoring the status of this application and review sheet summary comments.

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal.

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

SIGNATURE(S) OF PETITIONER(S) [Signature]

SIGNATURE(S) OF REPRESENTATIVE(S) _____

DRAINAGE REPORT FOR:
DALTON PROPERTY, 2892 NORTH AVENUE
PHASE IV
December, 1994

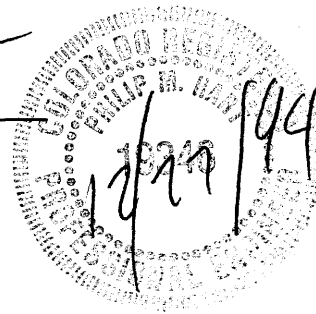
Prepared For:
MAYS CONCRETE INC.
2399 River Road
Grand Junction, Colorado 81505
(303) 243-5669

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

Prepared By: Monty D. Stroup 12/27/94
Monty D. Stroup

"I hereby certify that this report for the drainage design of the Dalton Property, 2892 North Avenue, Phase IV was prepared under my direct supervision."

Reviewed By: Philip M. Hart
Philip M. Hart, P.E.
State of Colorado, #19346



I. General Location and Description

A. Site and Major Basin Location:

The Dalton Property, 2892 North Avenue contains approximately 3.07 acres and is located within the City of Grand Junction. The property is located in part of the SE 1/4 of Section 7, Township One South, Range One East, of the Ute Meridian.

Streets in the vicinity include North Avenue which defines the south boundary line of the site. Located several hundred feet east of the site is 29 Road. Several hundred feet west of the site is Melody Lane.

Surrounding land use in the vicinity of the subject property is considered to be of high intensity. The most predominate use adjacent to the property is "Big O Tire Stores" located immediately east of and adjacent to the south 1/2 of the site. Remaining areas to the east, north and west are used primarily for single family residences on large lots. Areas south and southwest of North Avenue are commercial in nature and include the "Wal-Mart" facilities at Melody Lane and North Avenue.

B. Site and Major Basin Description:

The project site contains approximately 3.07 acres and is planned for a 9000 square foot building addition to the Phase III building located on the west portion of the site.

The entire site is currently void of vegetation.

Based on the "Soil Survey, Mesa County Area" (Reference 4, Exhibit 1.0) onsite soils are defined as (Ba), Billings silty clay, 0 to 2 percent slopes, hydrological soil group "C".

II. Existing Drainage Conditions

A. Major Basin:

The site is not affected by offsite runoff as it is bounded to the north and west by an existing irrigation system and offsite swales which direct flow away from the site. Land to the east is partially developed and directs runoff south to North Avenue away from the subject property. Topography of the property is flat in nature and slopes from the north to the south at approximately 1.07 percent.

There are no wetlands on the site.

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

B. Site:

The south 1/2 of the site is fully improved and is occupied by 2 commercial/retail structures, (Phases I, II and III), approximately 22,510 square feet and an associated asphalt parking lot. This area generates developed runoff which is conveyed and attenuated by existing Detention Pond I adjacent to North Avenue (Reference 5). This area defined as "Basin III" by previous report has no impact on the hydrologic and hydraulic calculations for the remainder of the site or the proposed improvements.

The north 1/2 of the site is vacant of structures and is in a fallow state. Agricultural production has not occurred on the north 1/2 of the property. This area currently generates undeveloped runoff which is collected and conveyed via Phase I, II and III improvements directly to North Avenue.

III. Proposed Drainage Conditions

A. Changes in Drainage Patterns:

Historic offsite drainage patterns within the north 1/2 of the site will be altered. All of the future drainage from the north 1/2 of the site will continue to be directed south by site improvements to North Avenue. The proposal (Phase IV) calls for the construction of a 9000 square foot building addition, associated parking lot and drain pans which will collect, convey and discharge developed runoff to two proposed onsite detention ponds and subsequently to North Avenue. The proposed site plan divides the site into 2 sub-basins labeled as "A1" (1.60 acres) and "B1" (0.43 acres).

The runoff from sub-basin "A1" shall be collected and redirected via building roof drains, parking lot grading and drain pans towards the northeast corner of the existing Phase III building at design point #1. The area between the east line of the building and the east property line shall be excavated, regraded and resurfaced with shotcrete to form Detention Pond II. This detention pond is sized to attenuate the 2 year and 100 year storm events. The outlet from the pond shall be a dual stage combination weir (Exhibit 10.0) sized to release the 2 year and 100 year historic flow rates. Runoff released from the pond shall be conveyed south along the east property line via existing curb and gutter and a proposed curb drain through directly to North Avenue.

The runoff from sub-basin "B1" shall be collected and redirected via building roof drains, parking lot grading and drain pans towards the northwest corner of the existing Phase II building at design point #2. The area between the west line of the building and the west property line shall be excavated, regraded and resurfaced with shotcrete to form Detention Pond III. This detention pond is sized to attenuate the 2 year and 100 year storm events. The outlet from the pond shall be a dual stage combination weir (Exhibit

13.0) sized to release the 2 year and 100 year historic flow rates. Runoff released from the pond shall be conveyed south along the west property line via an existing drainage catch and an existing curb drain through directly to North Avenue.

B. Maintenance Issues:

Access to and through the site shall be by private driveway.

Ownership and responsibility for maintenance of the proposed onsite improvements shall be that of the building owner and or the building tenants.

Ownership and responsibility for maintenance of the proposed offsite improvements shall be that of the City of Grand Junction.

IV. Design Criteria & Approach

A. Hydrology:

The "Stormwater Management Manual, City of Grand Junction, Colorado" (Reference 1) and the "Mesa County Storm Drainage Criteria Manual" (Reference 2) were used as the basis for analysis and facility design.

Since the project is a commercial development containing approximately 3.07 acres the "Rational Method" is used to calculate historic and developed flow rates. The minor storm is the 2 year frequency rainfall event and the major storm is the 100 year frequency rainfall event.

Runoff Coefficients used in the computations are based on the most recent City of Grand Junction criteria as defined in Reference 1 and shown on Exhibit 2.0. These coefficients were assigned based on land use and hydrological soils group "C"

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

Times of Concentration were calculated based on the Determination of Overland Flow Time and Average Velocities for Overland Flow Curves as provided in Reference 1 and shown on Exhibits 5.0 and 5.1.

Calculation of the required minimum detention pond storage volumes and the size of outlet control elements was based on the most recent City of Grand Junction criteria as defined in Reference 1.

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

B. Hydraulics:

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

V. Conclusions

Detention Ponds II and III will serve the Phase IV building addition and all future Phases through and including final buildout of the site. Additional detention requirements for future Phases or additions is not needed. The total detention storage volume required and provided with the construction of ponds II and III are as summarized as follows:

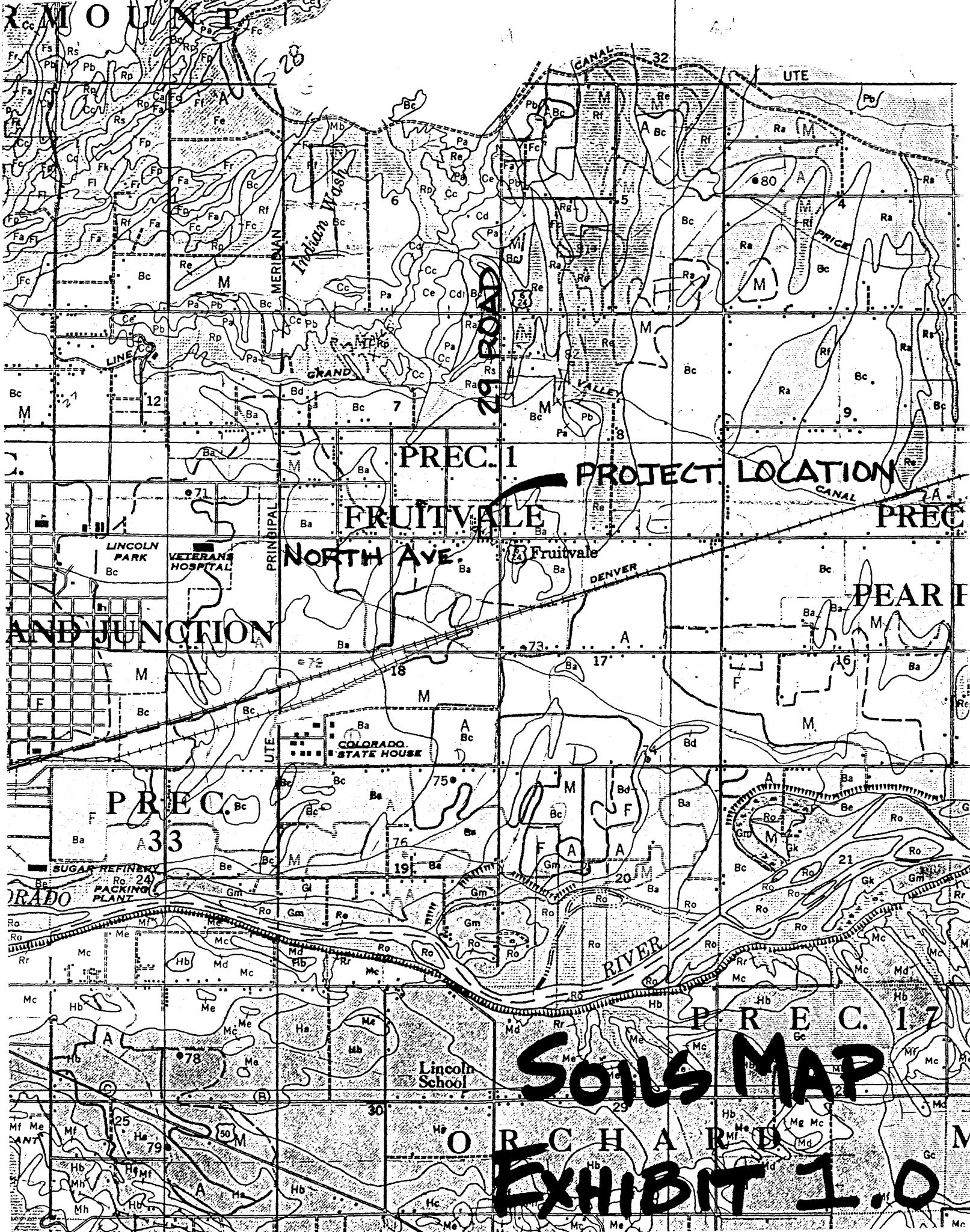
<u>POND</u>	<u>2 YEAR REQUIRED</u>	<u>2 YEAR PROVIDED</u>	<u>100 YEAR REQUIRED</u>	<u>100 YEAR PROVIDED</u>
II	2,382 CF	3,640 CF	5,377 CF	6,103 CF
III	650 CF	990 CF	1,473 CF	1,546 CF

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

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

VI. References

1. Stormwater Management Manual (SWMM), City of Grand Junction, Colorado, Department of Public Works, June 1994.
2. Mesa County Storm Drainage Criteria Manual, Final Draft, Mesa County, Colorado, March, 1992.
3. Flood Insurance Rate Map, Mesa County, Colorado, (Unincorporated Areas), Community Panel Number 080115 0460 B, Federal Emergency Management Agency, Map Revised July 15th, 1992.
4. Soil Survey, Mesa County Area, Colorado, , U.S. Department of Agriculture, issued November, 1955.
5. Drainage Study Prepared For Mr. Emory Cantrell, Western Engineers, Inc., Grand Junction, Colorado, January, 1993.



**SOILS MAP
EXHIBIT 1.0**

MOUNTAIN

PREC. 1 PROJECT LOCATION PREC.

FRUITVALE

NORTH AVE.

DENVER

PEAR I

AND JUNCTION

PREC. 33

PREC. 17

Lincoln School

ORCHARD

COLORADO SUGAR REFINERY

VETERANS HOSPITAL

PACKING PLANT

APPENDIX

LAND USE OR SURFACE CHARACTERISTICS	SCS HYDROLOGIC SOIL GROUP (SEE APPENDIX "C" FOR DESCRIPTIONS)											
	A			B			C			D		
	0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+	0-2%	2-6%	6%+
UNDEVELOPED AREAS												
Bare ground	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .40 - .48	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Cultivated/Agricultural	.08 - .18 .14 - .24	.13 - .23 .18 - .28	.16 - .26 .22 - .32	.11 - .19 .16 - .24	.15 - .23 .21 - .29	.21 - .29 .28 - .36	.14 - .22 .20 - .28	.19 - .27 .25 - .33	.26 - .34 .34 - .42	.18 - .26 .24 - .32	.23 - .31 .29 - .37	.31 - .39 .41 - .49
Pasture	.12 - .22 .15 - .25	.20 - .30 .25 - .35	.30 - .40 .37 - .47	.18 - .26 .23 - .31	.28 - .36 .34 - .42	.37 - .45 .45 - .53	.24 - .32 .30 - .38	.34 - .42 .42 - .50	.44 - .52 .52 - .60	.30 - .38 .37 - .45	.40 - .48 .50 - .58	.50 - .58 .62 - .70
Meadow	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .44 - .52	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Forest	.05 - .15 .08 - .18	.08 - .18 .11 - .21	.11 - .21 .14 - .24	.08 - .16 .10 - .18	.11 - .19 .14 - .22	.14 - .22 .18 - .26	.10 - .18 .12 - .20	.13 - .21 .16 - .24	.16 - .24 .20 - .28	.12 - .20 .15 - .23	.16 - .24 .20 - .28	.20 - .28 .25 - .33
RESIDENTIAL AREAS												
1/8 acre per unit	.40 - .50 .48 - .58	.43 - .53 .52 - .62	.46 - .56 .55 - .65	.42 - .50 .50 - .58	.45 - .53 .54 - .62	.50 - .58 .59 - .67	.45 - .53 .53 - .61	.48 - .56 .57 - .65	.53 - .61 .64 - .72	.48 - .56 .56 - .64	.51 - .59 .60 - .68	.57 - .65 .69 - .77
1/4 acre per unit	.27 - .37 .35 - .45	.31 - .41 .39 - .49	.34 - .44 .42 - .52	.29 - .37 .38 - .46	.34 - .42 .42 - .50	.38 - .46 .47 - .55	.32 - .40 .41 - .49	.36 - .44 .45 - .53	.41 - .49 .52 - .60	.35 - .43 .43 - .51	.39 - .47 .47 - .55	.45 - .53 .57 - .65
1/3 acre per unit	.22 - .32 .31 - .41	.26 - .36 .35 - .45	.29 - .39 .38 - .48	.25 - .33 .33 - .41	.29 - .37 .38 - .46	.33 - .41 .42 - .50	.28 - .36 .36 - .44	.32 - .40 .41 - .49	.37 - .45 .48 - .56	.31 - .39 .39 - .47	.35 - .43 .43 - .51	.42 - .50 .53 - .61
1/2 acre per unit	.16 - .26 .25 - .35	.20 - .30 .29 - .39	.24 - .34 .32 - .42	.19 - .27 .28 - .36	.23 - .31 .32 - .40	.28 - .36 .36 - .44	.22 - .30 .31 - .39	.27 - .35 .35 - .43	.32 - .40 .42 - .50	.26 - .34 .34 - .42	.30 - .38 .38 - .46	.37 - .45 .48 - .56
1 acre per unit	.14 - .24 .22 - .32	.19 - .29 .26 - .36	.22 - .32 .29 - .39	.17 - .25 .24 - .32	.21 - .29 .28 - .36	.26 - .34 .34 - .42	.20 - .28 .28 - .36	.25 - .33 .32 - .40	.31 - .39 .40 - .48	.24 - .32 .31 - .39	.29 - .37 .35 - .43	.35 - .43 .46 - .54
MISC. SURFACES												
Pavement and roofs	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97	.93 .95	.94 .96	.95 .97
Traffic areas (soil and gravel)	.55 - .65 .65 - .70	.60 - .70 .70 - .75	.64 - .74 .74 - .79	.60 - .68 .68 - .76	.64 - .72 .72 - .80	.67 - .75 .75 - .83	.64 - .72 .72 - .80	.67 - .75 .75 - .83	.69 - .77 .77 - .85	.72 - .80 .79 - .87	.75 - .83 .82 - .90	.77 - .85 .84 - .92
Green landscaping (lawns, parks)	.10 - .20 .14 - .24	.16 - .26 .22 - .32	.25 - .35 .30 - .40	.14 - .22 .20 - .28	.22 - .30 .28 - .36	.30 - .38 .37 - .45	.20 - .28 .26 - .34	.28 - .36 .35 - .43	.36 - .44 .42 - .52	.24 - .32 .30 - .38	.30 - .38 .40 - .48	.40 - .48 .50 - .58
Non-green and gravel landscaping	.30 - .40 .34 - .44	.36 - .46 .42 - .52	.45 - .55 .50 - .60	.45 - .55 .50 - .60	.42 - .50 .48 - .56	.50 - .58 .57 - .65	.40 - .48 .46 - .54	.48 - .56 .55 - .63	.56 - .64 .64 - .72	.44 - .52 .50 - .58	.50 - .58 .60 - .68	.60 - .68 .70 - .78
Cemeteries, playgrounds	.20 - .30 .24 - .34	.26 - .36 .32 - .42	.35 - .45 .40 - .50	.35 - .45 .40 - .50	.32 - .40 .38 - .46	.40 - .48 .47 - .55	.30 - .38 .36 - .44	.38 - .44 .45 - .53	.46 - .54 .54 - .62	.34 - .42 .40 - .48	.40 - .48 .50 - .58	.50 - .58 .60 - .68
<p>NOTES: 1. Values above and below pertain to the 2-year and 100-year storms, respectively. 2. The range of values provided allows for engineering judgement of site conditions such as basic shape, homogeneity of surface type, surface depression storage, and storm duration. In general, during shorter duration storms (Tc < 10 minutes), infiltration capacity is higher, allowing use of a "C" value in the low range. Conversely, for longer duration storms (Tc > 30 minutes), use a "C" value in the higher range. 3. For residential development at less than 1/8 acre per unit or greater than 1 acre per unit, and also for commercial and industrial areas, use values under MISC SURFACES to estimate "C" value ranges for use.</p>												
<p>RATIONAL METHOD RUNOFF COEFFICIENTS (Modified from Table 4, UC-Davis, which appears to be a modification of work done by Rawls)</p>										<p>TABLE "B-1"</p>		

INTENSITY DURATION FREQUENCY CURVES
GRAND JUNCTION, COLORADO

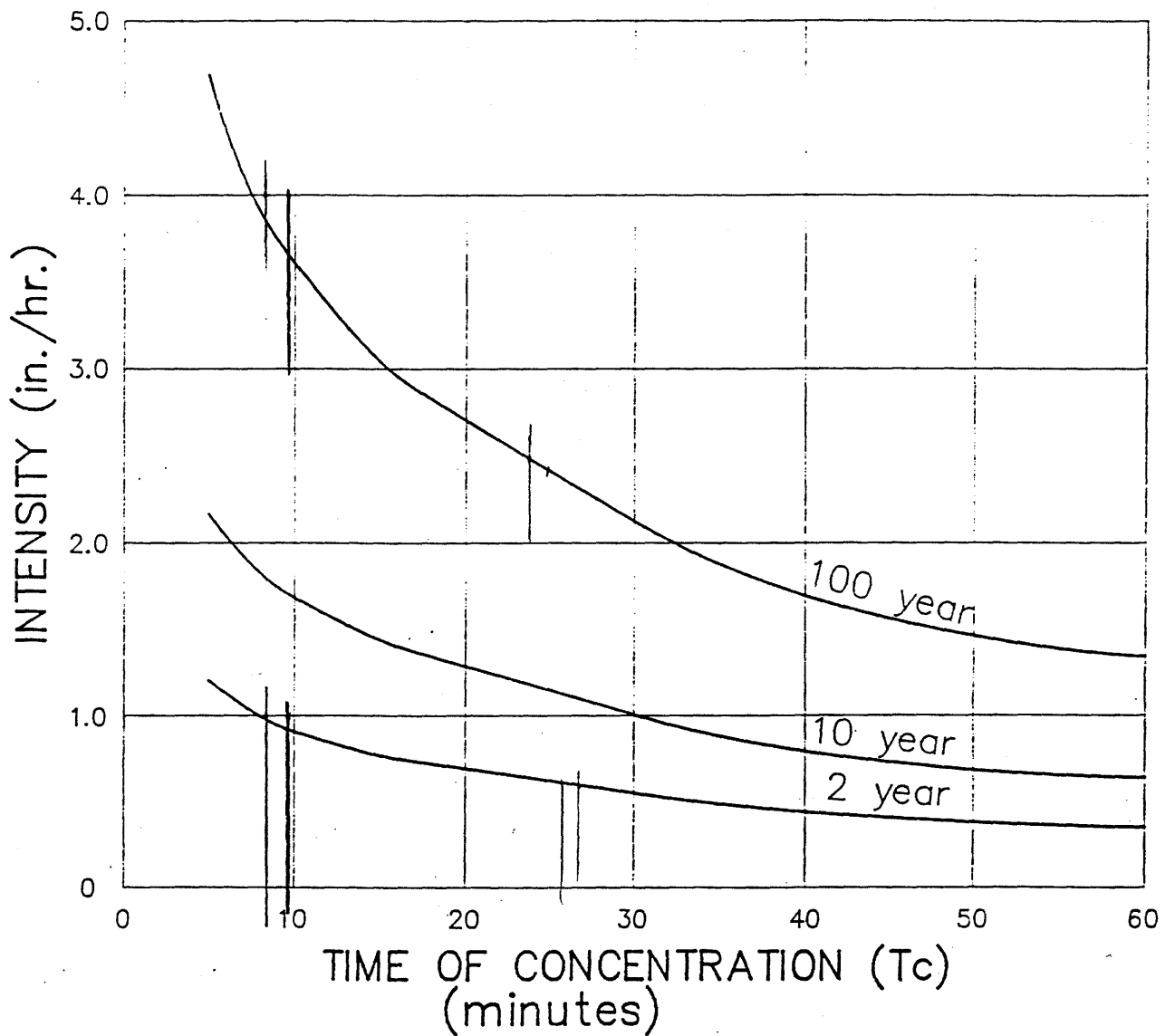


EXHIBIT 3.0

Triangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name: DALTON PROPERTY

Comment: 4' V-PAN CAPACITY CHECK

Solve For Discharge

Given Input Data:

Left Side Slope..	16.00:1 (H:V)
Right Side Slope.	16.00:1 (H:V)
Manning's n.....	0.013 CONCRETE
Channel Slope....	0.0050 ft/ft 0.50%
Depth.....	0.13 ft

Computed Results:

Discharge.....	0.32 cfs
Velocity.....	1.27 fps
Flow Area.....	0.25 sf
Flow Top Width...	4.00 ft
Wetted Perimeter.	4.01 ft
Critical Depth...	0.12 ft
Critical Slope...	0.0063 ft/ft
Froude Number....	0.90 (flow is Subcritical)

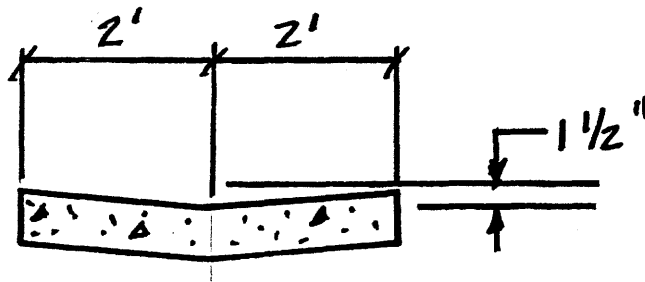
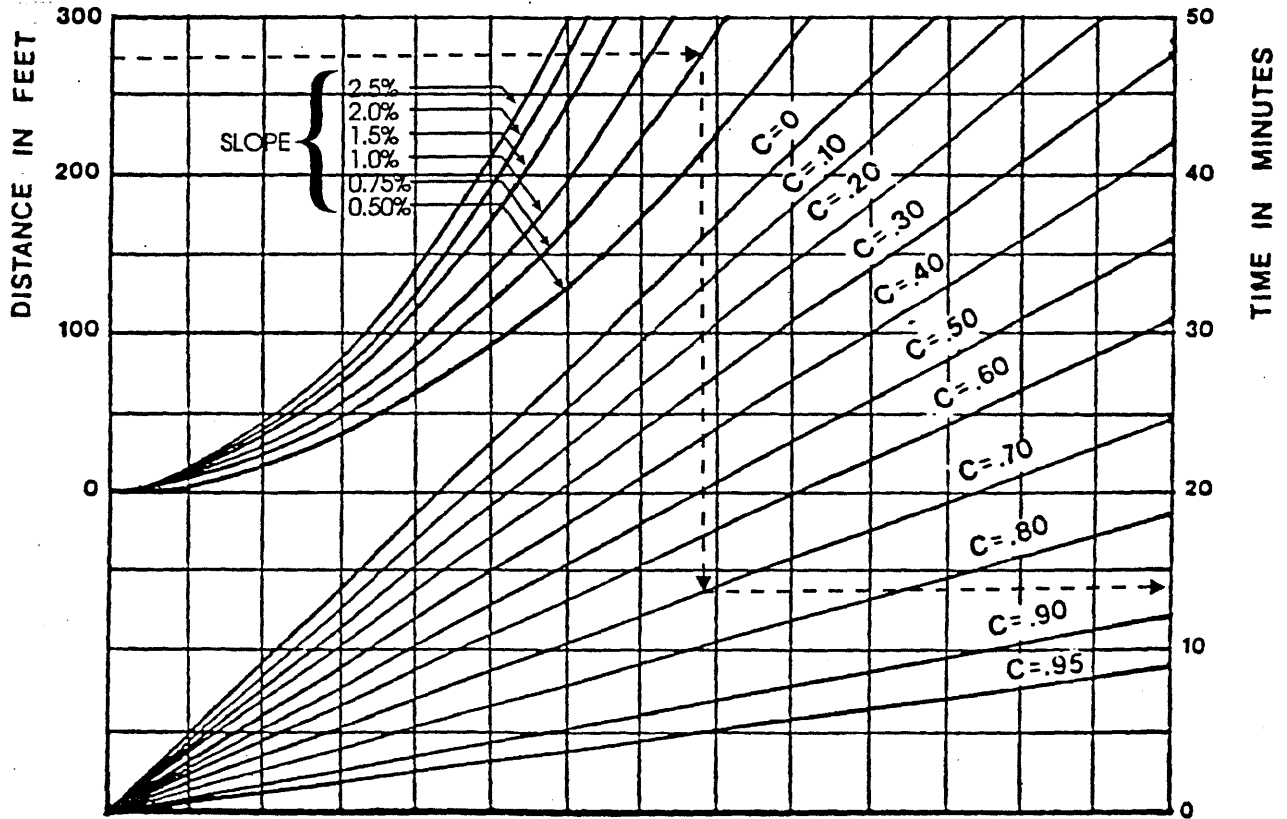


EXHIBIT 4.0

MODIFIED FROM FIGURE 403, MESA COUNTY.



THE ABOVE CURVES ARE A SOLUTION OF THE FOLLOWING EQUATION:

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

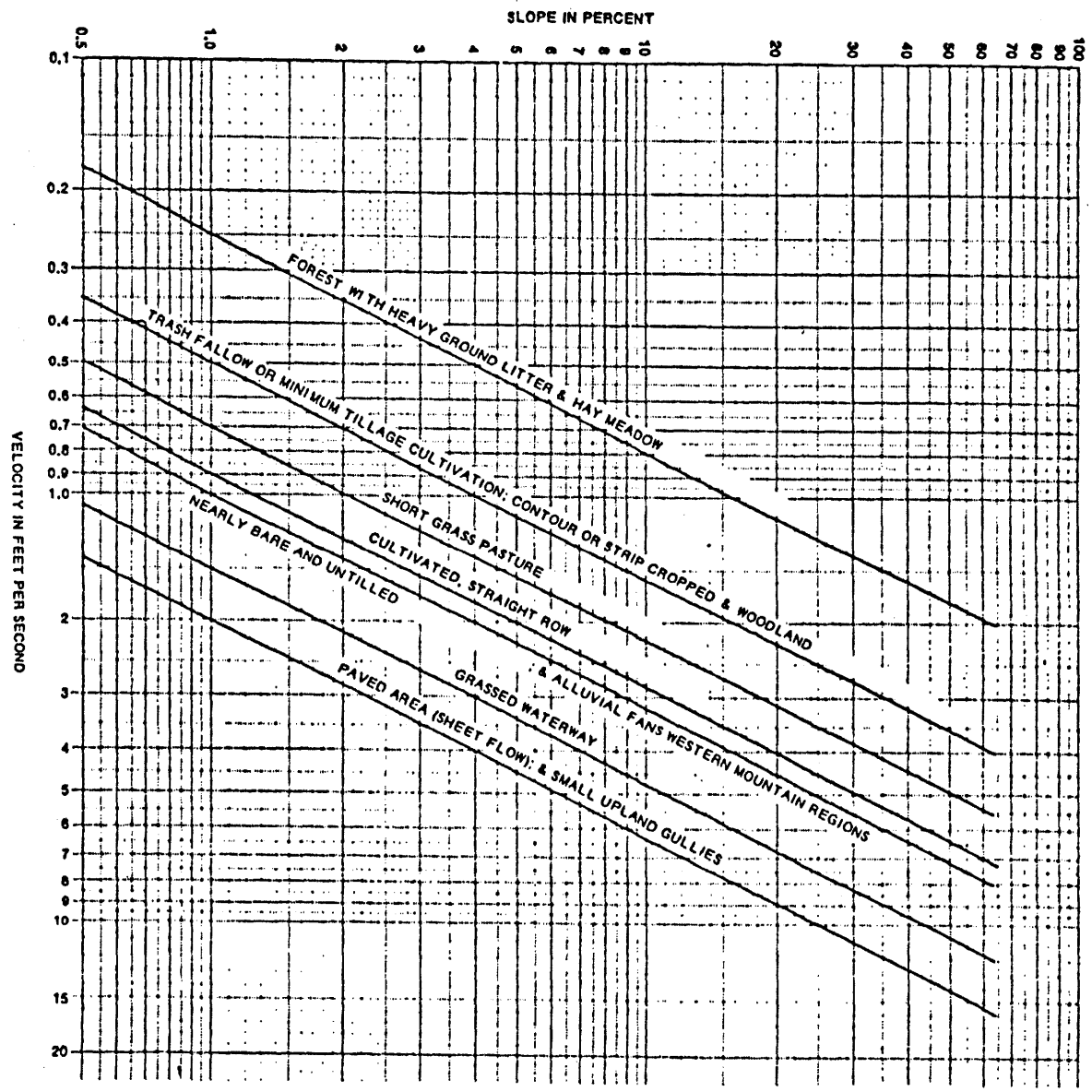
WHERE: T_o = OVERLAND FLOW TIME (MIN.)
 S = SLOPE OF BASIN (%)
 C = RUNOFF COEFFICIENT (SEE TABLE "B-1" IN APPENDIX "B")
 L = LENGTH OF BASIN (ft)

EXHIBIT 5.0

GRAPHICAL DETERMINATION OF "To:" FAA METHOD

FIGURE "E-2"

REPRODUCED FROM FIGURE 15.2, SCS 1972



DETERMINATION OF "TS"

FIGURE "E-3"

EXHIBIT 5.7

TIME OF CONCENTRATION CALCULATIONS

**(2 YEAR STORM EVENT)
HISTORIC CONDITION - CITY OF GRAND JUNCTION, COLORADO**

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

SUB-BASIN DATA			INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS	
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A1	0.28	1.60	315.0	1.07	25.61					25.61	315.00	11.75	25.61	OVERLAND SHEET FLOW - SOUTH TOWARDS NORTH AVENUE
B1	0.28	0.43	345.0	1.07	26.80					26.80	345.00	11.92	26.80	OVERLAND SHEET FLOW - SOUTH TOWARDS NORTH AVENUE

FORMULAS

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

EXHIBIT - 6.0

TIME OF CONCENTRATION CALCULATIONS

**(100 YEAR STORM EVENT)
HISTORIC CONDITION - CITY OF GRAND JUNCTION, COLORADO**

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

SUB-BASIN DATA			INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS	
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A1	0.34	1.60	315.0	1.07	23.74					23.74	315.00	11.75	23.74	OVERLAND SHEET FLOW - SOUTH TOWARDS NORTH AVENUE
B1	0.34	0.43	345.0	1.07	24.84					24.84	345.00	11.92	24.84	OVERLAND SHEET FLOW - SOUTH TOWARDS NORTH AVENUE

FORMULAS

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

TIME OF CONCENTRATION CALCULATIONS

**(2 YEAR STORM EVENT)
DEVELOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO**

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

SUB-BASIN DATA			INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS	
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A1	0.93	1.60	10.0	1.00	0.97	651.0	0.50	1.27	8.54	9.51	661.00	13.67	9.51	SHEET FLOW - ROOFTOP FLOW IN V-PAN TO DETENTION POND II
B1	0.93	0.43	10.0	1.00	0.97	550.0	0.50	1.27	7.22	8.19	560.00	13.11	8.19	SHEET FLOW - ROOFTOP FLOW IN V-PAN TO DETENTION POND III

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{1/3}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

EXHIBIT 6.1

TIME OF CONCENTRATION CALCULATIONS

**(100 YEAR STORM EVENT)
DEVELOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO**

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

SUB-BASIN DATA			INITIAL / OVERLAND TIME (Ti)			TRAVEL TIME TIME (Tt)				INITIAL	Tc CHECK (URBANIZED BASINS)	FINAL Tc	REMARKS	
BASIN	C	AREA AC.	LENGTH FT.	SLOPE %	Ti MIN.	LENGTH FT.	SLOPE %	VEL F.P.S.	Tt MIN.	Tc MIN.	TOTAL LENGTH FT.	Tc = (L/180)+10 MIN.	MIN.	
A1	0.95	1.60	10.0	1.00	0.85	651.0	0.50	1.27	8.54	9.40	661.00	13.67	9.40	SHEET FLOW - ROOFTOP FLOW IN V-PAN TO DETENTION POND II
B1	0.95	0.43	10.0	1.00	0.85	550.0	0.50	1.27	7.22	8.07	560.00	13.11	8.07	SHEET FLOW - ROOFTOP FLOW IN V-PAN TO DETENTION POND III

FORMULAS

$$T_i = \frac{1.8(1.1-C)(L)^{1/2}}{1/3}$$

$$T_t = \frac{(L)}{60 \text{ SEC/MIN. (V F.P.S.)}}$$

STORM DRAINAGE SYSTEM DESIGN DATA

(2 YEAR STORM EVENT)
HISTORIC CONDITION - CITY OF GRAND JUNCTION, COLORADO

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW STREET	TIME PIPE	Tc min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.	VELOC. F.P.S.	REMARKS
1	A1					25.61	0.28	0.61	1.60	0.27		<u>0.27</u>										OVERLAND SHEET FLOW SOUTH TOWARDS N. AVE.
2	B1					26.80	0.28	0.60	0.43	0.07		<u>0.07</u>										OVERLAND SHEET FLOW SOUTH TOWARDS N. AVE.

STORM DRAINAGE SYSTEM DESIGN DATA

(100 YEAR STORM EVENT)
HISTORIC CONDITION - CITY OF GRAND JUNCTION, COLORADO

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW STREET	TIME PIPE	Tc min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.	VELOC. F.P.S.	REMARKS
1	A1					23.74	0.34	2.48	1.60	1.35		<u>1.35</u>										OVERLAND SHEET FLOW SOUTH TOWARDS N. AVE.
2	B1					24.84	0.34	2.43	0.43	0.36		<u>0.36</u>										OVERLAND SHEET FLOW SOUTH TOWARDS N. AVE.

EXHIBIT 7.0

STORM DRAINAGE SYSTEM DESIGN DATA

(2 YEAR STORM EVENT)
DEVELOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW TIME		T _c min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.	VELOC. F.P.S.	REMARKS
				STREET	PIPE																	
1	A1					9.51	0.93	0.93	1.60	1.38		<u>1.38</u>										FLOW INTO DETENTION POND II
2	B1					8.19	0.93	0.98	0.43	0.39		<u>0.39</u>										FLOW INTO DETENTION POND III

STORM DRAINAGE SYSTEM DESIGN DATA

(100 YEAR STORM EVENT)
DEVELOPED CONDITION - CITY OF GRAND JUNCTION, COLORADO

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
JOB # 94113.40
LANDesign LTD.

DATE:
06-Dec-94

LOCATION OR NODE	BASINS	LENGTH FEET	INLET TIME min.	FLOW TIME		T _c min.	COEFF. "C"	INTENSITY "I"	AREA "A" AC	DIRECT RUNOFF C.F.S.	OTHER RUNOFF C.F.S.	SUM RUNOFF C.F.S.	SLOPE %	CAPACITY ALLOWED C.F.S.	SLOPE %	SIZE IN.	CAPACITY ALLOWED C.F.S.	DESIGN F.P.S.	VELOC. F.P.S.	DESIGN F.P.S.	VELOC. F.P.S.	REMARKS
				STREET	PIPE																	
1	A1					9.40	0.95	3.65	1.60	5.55		<u>5.55</u>										FLOW INTO DETENTION POND II
2	B1					8.07	0.95	3.85	0.43	1.57		<u>1.57</u>										FLOW INTO DETENTION POND III

EXHIBIT 8.0

K-10

EXHIBIT 9.0

JUNE 1994

TABLE K-2 VALUES OF C IN THE BROAD CRESTED WEIR EQUATION (Table 5-3 in <i>Handbook of Hydraulics</i> , Brater and King, 6th Edition)											
Measured head in feet, H	Breadth of Crest of Weir in Feet										
	0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	15.00
0.2	2.80	2.75	2.69	2.62	2.54	2.48	2.44	2.38	2.34	2.49	2.68
0.4	2.92	2.80	2.72	2.64	2.61	2.60	2.58	2.54	2.50	2.56	2.70
0.6	3.08	2.89	2.75	2.64	2.61	2.60	2.68	2.69	2.70	2.70	2.70
0.8	3.30	3.04	2.85	2.68	2.60	2.60	2.67	2.68	2.68	2.69	2.64
1.0	3.32	3.14	2.98	2.75	2.66	2.64	2.65	2.67	2.68	2.68	2.63
1.2	3.32	3.20	3.09	2.86	2.70	2.65	2.64	2.67	2.66	2.69	2.64
1.4	3.32	3.26	3.20	2.92	2.77	2.68	2.64	2.65	2.65	2.67	2.64
1.6	3.32	3.29	3.28	3.07	2.89	2.75	2.68	2.66	2.65	2.64	2.63
1.8	3.32	3.32	3.31	3.07	2.88	2.74	2.68	2.66	2.65	2.64	2.63
2.0	3.32	3.31	3.30	3.03	2.85	2.76	2.72	2.68	2.65	2.64	2.63
2.5	3.32	3.32	3.31	3.28	3.07	2.89	2.81	2.72	2.67	2.64	2.63
3.0	3.32	3.32	3.32	3.32	3.20	3.05	2.92	2.73	2.66	2.64	2.63
3.5	3.32	3.32	3.32	3.32	3.32	3.19	2.97	2.76	2.68	2.64	2.63
4.0	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.70	2.64	2.63
4.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.74	2.64	2.63
5.0	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.64	2.63
5.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.64	2.63

For "C" values and/or roadway overtopping conditions, reference is made to HDS-5 or Appendix "L", Section B-2.

PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
 LOCATION: CITY OF GRAND JUNCTION, COLORADO
 SUBJECT: REQUIRED DETENTION POND VOLUME POND II
 DATE: 07-Dec-94
 CALC. BY: STROUP

BASINS: A1

FORMULAS PER CITY OF GRAND JUNCTION

WHERE:

$D_{avg} = 0.67D_{max}$

2 YEAR RELEASE (WEIR ONLY)

$Q_w = C L (H)^{1.5} = 0.2699 \text{ CFS}$
 $C = 3.19$
 $L = 1.5000 \text{ inches} \quad 0.1250 \text{ feet}$
 $H = 9.2500 \text{ inches} \quad 0.7708 \text{ feet}$

$Q_r = 0.55Q_{max} \text{ (Weir using } Q_{max} \text{ or "h")} = 0.1484$

100 YEAR RELEASE (COMPOND WEIR)

$Q_{max} = C L (H_t)^{1.5} + C (L - L') (H_t - H')^{1.5} = 1.3408 \text{ CFS}$
 $C = 3.32 \quad H_t = 12.8400 \text{ inches} \quad 1.0700 \text{ feet}$
 $C = 2.56 \quad H = 9.2500 \text{ inches} \quad 0.7708 \text{ feet}$
 $L = 26.7500 \text{ inches} \quad 2.2292 \text{ feet}$

$H_u = H_t - H = 0.2992$

$Q_r = C L (H_t - (H_u/3))^{1.5} + C (L - L') (0.67H_u)^{1.5}$
 $= 0.3966 + 0.4834 = 0.8800$

DETENTION FORMULAS

$T_d = (633.4 C_d A / (Q_r - (Q_r T_{cd} / (81.2 C_d A))))^{0.5} - 15.6$

$T_d = (1832 C_d A / (Q_r - (Q_r T_{cd} / (213 C_d A))))^{0.5} - 17.2$

$I_d = \text{Intensity at } T_d = 40.6 / (T_d + 15.6)$

$I_d = \text{Intensity at } T_d = 106.5 / (T_d + 17.2)$

$Q_d = C_d A I_d$

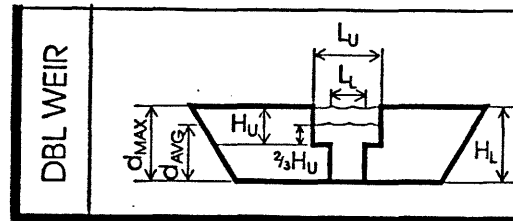
$K = T_{ch} / T_{cd}$

$V = 60(Q_d T_d - Q_r T_d - Q_r T_{cd} + K Q_r T_{cd} / 2 + Q_r T_{cd} / (2 Q_d))$

T_d = Time of Critical Storm Duration,
 C = Weir Coefficient; OR
 C = Runoff Coefficient;
 A = Area in Acres;
 Q_o = Detention Pond Average Release
 T_c = Time of Concentration, Minutes;
 I_d = Intensity at T_d , Inches Per Hour;
 Q_d = Runoff Rate at T_d , CFS;
 K = Ratio of Pre and Post- Developm
 V = Storage Volume in CF;

SUBSCRIPTS:

2 = 2 - Year Storm
 100 = 100 - Year Storm
 h = Historic Condition
 d = Developed Condition



$Q_{MAX} = Q_{WL} + Q_{WU} = C L_L H_L^{1.5} + C (L_U - L_L) H_U^{1.5}$
 $Q_r = Q_{WL} + Q_{WU} = C L_L (H_L - H_U)^{1.5} + C (L_U - L_L) (.67 H_U)^{1.5}$

REQUIRED 2 YEAR STORAGE VOLUME

T_d 2	C_d	A	Q_r	T_c h	T_c d	I_d 2	Q_d 2	K	V 2
64.56	0.93	1.60	0.1484	25.61	9.51	0.51	0.75	2.6930	2382.18

REQUIRED 100 YEAR STORAGE VOLUME

T_d 100	C_d	A	Q_r	T_c h	T_c d	I_d 100	Q_d 100	K	V 100
39.79	0.95	1.60	0.8800	23.74	9.40	1.87	2.84	2.5255	5376.57

EXHIBIT 10.0

TABLE K-2
VALUES OF C IN THE BROAD CRESTED WEIR EQUATION
 (Table 5-3 in *Handbook of Hydraulics*, Brater and King, 6th Edition)

Measured head in feet, H	Breadth of Crest of Weir in Feet										
	0.50	0.75	1.00	1.50	2.00	2.50	3.00	4.00	5.00	10.00	15.00
0.2	2.80	2.75	2.69	2.62	2.54	2.48	2.44	2.38	2.34	2.49	2.68
0.4	2.92	2.80	2.72	2.64	2.61	2.60	2.58	2.54	2.50	2.56	2.70
0.6	3.08	2.89	2.75	2.64	2.61	2.60	2.68	2.69	2.70	2.70	2.70
0.8	3.30	3.04	2.85	2.68	2.60	2.60	2.67	2.68	2.68	2.69	2.64
1.0	3.32	3.14	2.98	2.75	2.66	2.64	2.65	2.67	2.68	2.68	2.63
1.2	3.32	3.20	3.09	2.86	2.70	2.65	2.64	2.67	2.66	2.69	2.64
1.4	3.32	3.26	3.20	2.92	2.77	2.68	2.64	2.65	2.65	2.67	2.64
1.6	3.32	3.29	3.28	3.07	2.89	2.75	2.68	2.66	2.65	2.64	2.63
1.8	3.32	3.32	3.31	3.07	2.88	2.74	2.68	2.66	2.65	2.64	2.63
2.0	3.32	3.31	3.30	3.03	2.85	2.76	2.72	2.68	2.65	2.64	2.63
2.5	3.32	3.32	3.31	3.28	3.07	2.89	2.81	2.72	2.67	2.64	2.63
3.0	3.32	3.32	3.32	3.32	3.20	3.05	2.92	2.73	2.66	2.64	2.63
3.5	3.32	3.32	3.32	3.32	3.32	3.19	2.97	2.76	2.68	2.64	2.63
4.0	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.70	2.64	2.63
4.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.74	2.64	2.63
5.0	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.07	2.79	2.64	2.63
5.5	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	2.88	2.64	2.63

For "C" values and/or roadway overtopping conditions, reference is made to HDS-5 or Appendix "L", Section B-2.

DALTON PROPERTY

RESERVOIR No = 2. 2. RESERVOIR NAME = POND II.....
 $S = K_s * Z^b$
 $K_s = 0$ $b = 0$
 START ELEV = 0..... INCREMENT = 0...

STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
0.00	33.27.	3312....	0	0
0.23	33.50.	3711....	807	807
0.73	34.00.	6214....	2481	3288
1.07	34.34.	10347...	2815	6103
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0
0.00	0.00.	0.....	0	0

[á] to cont [PgUp] [PgDn] [Esc] to exit

Reservoir No. 2 STAGE / STORAGE / DISCHARGE POND II.....

Storage values were input manually
 Discharge values: Culvert struct A. $Q = .6 * A * [2gh/k]^{.5} * 0$
 Culvert struct B. $Q = .6 * A * [2gh/k]^{.5} * 0$
 Weir struct A. $Q = 3 * 0 * H^{1.5}$
 Weir struct B. $Q = 3 * 0 * H^{1.5}$

STAGE	ELEVATION	INC STOR cu ft	TOT STOR cu ft	OUTFLOW cfs
0.23	33.50	81	807	0.00
0.28	33.55	248	1055	0.00
0.33	33.60	248	1303	0.00
0.38	33.65	248	1551	0.00
0.43	33.70	248	1799	0.00
0.48	33.75	248	2047	0.00
0.53	33.80	248	2296	0.00
0.58	33.85	248	2544	0.00
0.63	33.90	248	2792	0.00
0.68	33.95	248	3040	0.00
0.73	34.00	248	3288	0.00
0.76	34.03 <u>34.0A</u>	282	3570 <u>3640</u>	0.00
0.80	34.07 <u>2 YEAR</u>	282	3851	0.00
0.83	34.10	282	4133	0.00
0.87	34.14	282	4414	0.00
0.90	34.17	282	4696	0.00
0.93	34.20	282	4977	0.00
0.97	34.24	282	5259	0.00
1.00	34.27	282	5540	0.00
1.04	34.31	282	5822	0.00
1.07	34.34	282	6103	0.00

100 YEAR

EXHIBIT 11.0

Rectangular Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name: CURB FLOW THROUGH

Comment: DRAIN THROUGH SIDEWALK AT NORTH AVENUE

Solve For Depth

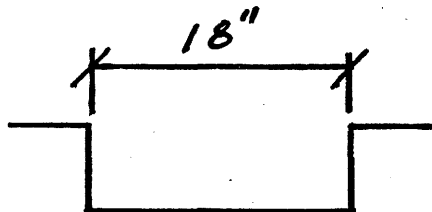
Given Input Data:

Bottom Width.....	1.50 ft
Manning's n.....	0.015
Channel Slope....	0.0050 ft/ft
Discharge.....	1.35 cfs

Z 100 YEAR RELEASE
FROM POND II

Computed Results:

Depth.....	0.34 ft
Velocity.....	2.66 fps
Flow Area.....	0.51 sf
Flow Top Width...	1.50 ft
Wetted Perimeter.	2.18 ft
Critical Depth...	0.29 ft
Critical Slope...	0.0077 ft/ft
Froude Number....	0.80 (flow is Subcritical)



PROJECT: DALTON PROPERTY @ 2892 N. AVENUE
 LOCATION: CITY OF GRAND JUNCTION, COLORADO
 SUBJECT: REQUIRED DETENTION POND VOLUME POND III
 DATE: 15-Dec-94
 CALC. BY: STROUP

BASINS: B1

FORMULAS PER CITY OF GRAND JUNCTION

Davg. = 0.67Dmax

2 YEAR RELEASE (WEIR ONLY)

$$Q_w = C L (H)^{1.5} = 0.0696 \text{ CFS}$$

C = 3.14
 L = 0.5000 inches 0.0417 feet
 H = 7.8750 inches 0.6563 feet

Qr = 0.55Qmax. (Weir using Qmax. or "h") = 0.0383

100 YEAR RELEASE (COMPOUND WEIR)

$$Q_{max} = C_1 L_1 (H_1)^{1.5} + C_2 (L_2 - L_1) (H_2 - H_1)^{1.5} = 0.3579 \text{ CFS}$$

C₁ = 3.32 H₁ = 12.0000 inches 1.0000 feet
 C₂ = 3.32 H₂ = 7.8750 inches 0.6563 feet
 L₁ = 4.4375 inches 0.3698 feet
 L₂ = 4.4375 inches 0.3698 feet
 H_u = H₂ - H₁ = 0.3438

$$Q_r = C_1 L_1 (H_1 - (H_u/3))^{1.5} + C_2 (L_2 - L_1) (0.67 H_u)^{1.5}$$

= 0.1153 + 0.1204 = 0.2357

DETENTION FORMULAS

$$T_d = (633.4 C_d A / (Q_r - (Q_r T_{cd} / (81.2 C_d A))))^{0.5} - 15.6$$

$$T_d = (1832 C_d A / (Q_r - (Q_r T_{cd} / (213 C_d A))))^{0.5} - 17.2$$

Id = Intensity at Td = 40.6 / (Td + 15.6)

Id = Intensity at Td = 106.5 / (Td + 17.2)

Qd = Cd Ald

K = Tch / Tcd

$$V = 60(Q_d T_d - Q_r T_d - Q_r T_{cd} + K Q_r T_{cd} / 2 + Q_r T_{cd} / (2 Q_d))$$

REQUIRED 2 YEAR STORAGE VOLUME

Td ₂	Cd	A	Qr	Tc _h	Tc _d	Id ₂	Qd ₂	K	V ₂
66.12	0.93	0.43	0.0383	26.80	8.19	0.50	0.20	3.2723	650.04

REQUIRED 100 YEAR STORAGE VOLUME

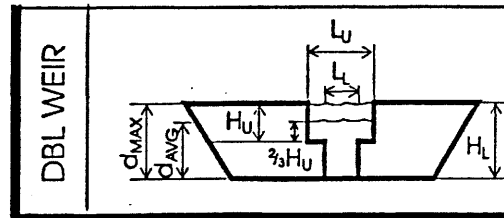
Td ₁₀₀	Cd	A	Qr	Tc _h	Tc _d	Id ₁₀₀	Qd ₁₀₀	K	V ₁₀₀
39.77	0.95	0.43	0.2357	24.84	8.07	1.87	0.76	3.0781	1472.82

WHERE:

Td = Time of Critical Storm Duration,
 C = Weir Coefficient; OR
 C = Runoff Coefficient;
 A = Area in Acres;
 Qo = Detention Pond Average Release
 Tc = Time of Concentration, Minutes;
 Id = Intensity at Td, Inches Per Hour;
 Qd = Runoff Rate at Td, CFS;
 K = Ratio of Pre and Post- Development
 V = Storage Volume in CF;

SUBSCRIPTS:

2 = 2 - Year Storm
 100 = 100 - Year Storm
 h = Historic Condition
 d = Developed Condition



$$Q_{MAX} = Q_{wL} + Q_{wU} = C L_1 H_1^{1.5} + C (L_2 - L_1) H_u^{1.5}$$

$$Q_r = Q_{wL} + Q_{wU} = C L_1 (H_1 - H_u/3)^{1.5} + C (L_2 - L_1) (0.67 H_u)^{1.5}$$

EXHIBIT 13.0

STAGE / STORAGE TABLE

- 1. RESERVOIR No = 3.
- 2. RESERVOIR NAME = POND III....
- 3. $S = K_s * Z^b$
- $K_s = 0$
- $b = 0$
- START ELEV = 0.....
- INCREMENT = 0...

STAGE ft	ELEVATION ft	CO AREA sq ft	INC STORAGE cu ft	TOT STORAGE cu ft
4	0.00	1384....	0	0
5	0.54	1560....	794	794
6	1.00	1713....	752	1546
7	0.00	0.....	0	0

Reservoir No. 3

STAGE / STORAGE / DISCHARGE

POND III....

Storage values were input manually

- Discharge values:
- Culvert struct A. $Q = .6 * A * [2gh/k]^{.5} * 0$
 - Culvert struct B. $Q = .6 * A * [2gh/k]^{.5} * 0$
 - Weir struct A. $Q = 3 * 0 * H^{1.5}$
 - Weir struct B. $Q = 3 * 0 * H^{1.5}$

STAGE	ELEVATION	INC STOR cu ft	TOT STOR cu ft	OUTFLOW cfs
0.00	33.46	0	0	0.00
0.05	33.51	79	79	0.00
0.11	33.57	79	159	0.00
0.16	33.62	79	238	0.00
0.22	33.68	79	318	0.00
0.27	33.73	79	397	0.00
0.32	33.78	79	476	0.00
0.38	33.84	79	556	0.00
0.43	33.89	79	635	0.00
0.49	33.95	79	715	0.00
0.54	34.00	79	794	0.00
0.59	34.05	75	869	0.00
0.63	34.09	75	944	0.00
0.68	34.14	75	1020	0.00
0.72	34.18	75	1095	0.00
0.77	34.23	75	1170	0.00
0.82	34.28	75	1245	0.00
0.86	34.32	75	1320	0.00
0.91	34.37	75	1396	0.00
0.95	34.41	75	1471	0.00
1.00	34.46	75	1546	0.00

34.12
2 YEAR

990

100 YEAR

G

TYPE LEGAL DESCRIPTION (S) BELOW, USING ADDITIONAL SHEETS AS NECESSARY. USE SINGLE SPACING WITH A ONE INCH MARGIN ON EACH SIDE.

Original
Do NOT Remove
From Office

120 94

LEGAL DESCRIPTION
2892 NORTH AVENUE

The West 1/2 of the SE1/4 SE1/4 SE1/4 of Section 7, Township One South, Range One East, Ute Meridian.

EXCEPT: The West 110 feet and the South 330 feet.



Grand Junction Community Development Department
Planning • Zoning • Code Enforcement
250 North Fifth Street
Grand Junction, Colorado 81501-2668
(303) 244-1430 FAX (303) 244-1599

December 1, 1995

Larry Filener
Coldwell Banker
2499 Highway 6 & 50
Grand Junction, CO 81505

RE: 2892 North Avenue

Dear Mr. Filener:


This is in follow-up to our conversation concerning 2892 North Avenue (2945-074-00-048). As we discussed, the property is zoned PC (Planned Commercial). City Development File #120-94 describes the allowed uses approved with the zone to be warehousing, retail showrooms not to exceed 10% of the gross square footage of site development permitted and mini-storage with the following restrictions:

The following uses shall be prohibited in the mini-storage facility:

- (a) Auctions, commercial, wholesale or retail sales, or garage sales;
- (b) the servicing, repair or fabrication of motor vehicles, boats, trailers, lawn mowers, appliances, or other similar equipment;
- (c) the operation of power tools, spray-painting equipment, table saws, lathes, compressors, welding equipment, kilns or other similar equipment;
- (d) the establishment of a transfer and storage business;
- (e) any use which is noxious or offensive because of odors, dust, noise, fumes or vibrations;
- (f) no boats, vacant trailers and recreation vehicles may be stored on site.

The proposed use of this property by DT Swiss Bike Tech., USA would not be allowed. The light fabrication use proposed by DT Swiss would also not be allowed in the surrounding C-1 (light commercial) zone. That type of use would require a C-2 (heavy commercial), I-1 (light industrial) or I-2 (heavy industrial) zone. We would be happy to assist you in locating the areas of the City that are appropriately zoned. If you have other questions, please call me at 244-1446.

Sincerely,


Katherine M. Portner
Planning Supervisor

DT SWISS BIKE TECH. USA

Facsimile

To: Community Development Dept. of Grand
Junction c/o Kathy Portner
@ Fax: (970) 244-1599
From: Jeff Chillag
Date: Monday, November 27, 1995 @ 9:17 AM
Re: Description of DT production process.
Pages: 1, including this

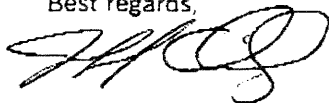
Hello Kathy,

This is the description of the production and packaging process that will take place @ 2892 North Ave. #B in Grand Junction, as per your request.

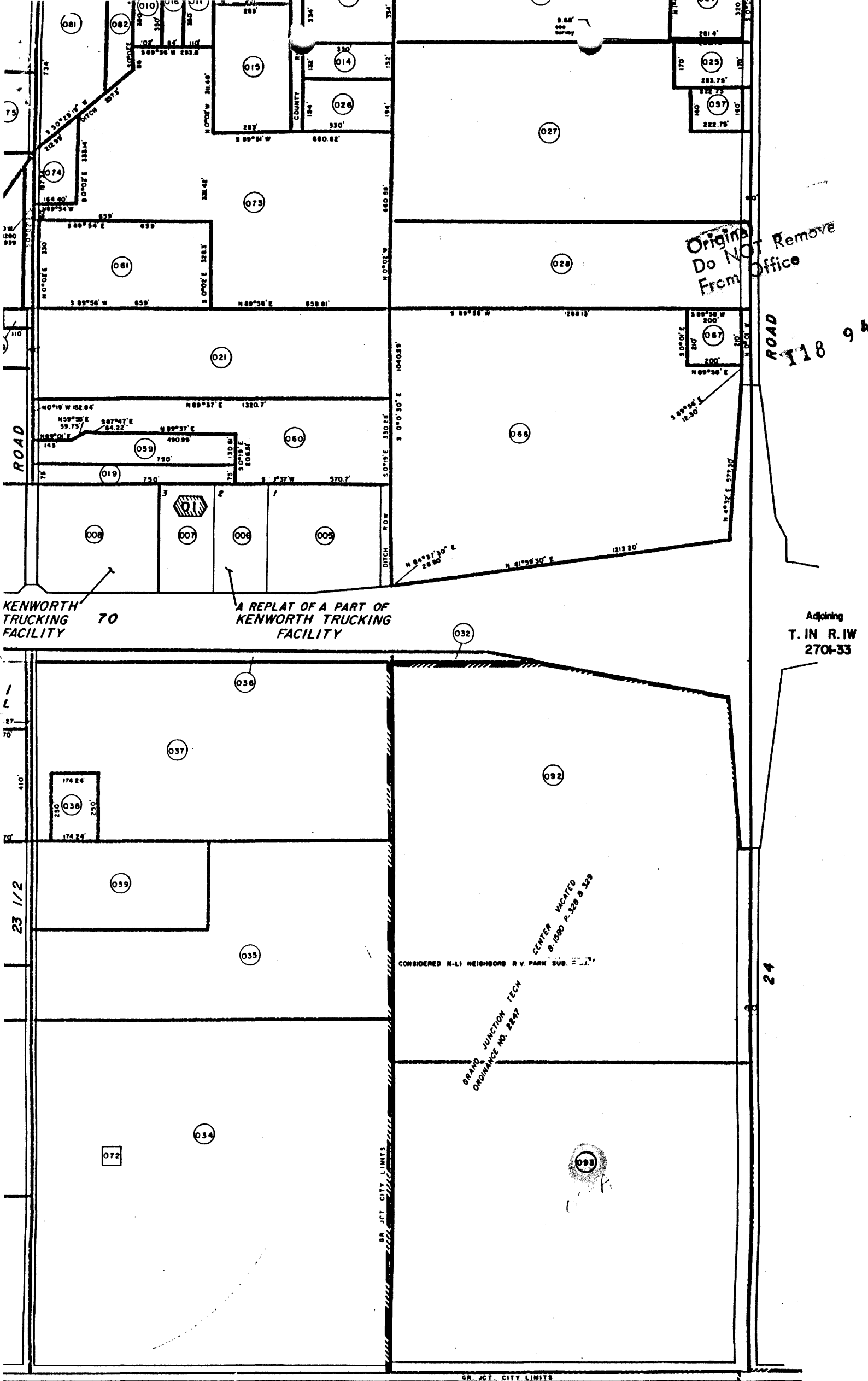
- 1) Spools of 18/8 stainless steel wire are warehoused @ a weight of 500kg each.
- 2) Spools are loaded on machine.
- 3) Wire is straightened, threaded, cut to desired length, bent, and headed to DT's exacting specifications.
- 4) A light oil that is used in the production process is then removed from the spokes by the use of a solvent.
- 5) Product is then packaged into various sized cardboard boxes. Sizes ranging from the 100 size to the 3000 size.
- 6) Product for the most part will be shipped to the U.S.A., Canada, and South America.
- 7) Other DT products, Hugi hubs, Shine-it, Clean-it, Degrease-it, and a variety of tools will be warehoused. DT will possibly increase it's product line in the near future.

If there is any problem with DT conducting these activities at this proposed location or if you need further information please contact me ASAP. This is very important because we plan to sign our agreements for this property 11/29/95.

Best regards,



Jeff Chillag
DT USA



Original
Do NOT Remove
From Office

ROAD
T18 9A

KENWORTH TRUCKING FACILITY 70

A REPLAT OF A PART OF KENWORTH TRUCKING FACILITY

Adjoining
T. IN R. IW
2701-33

Adjoining
IS R. IW
2945-05

ROAD

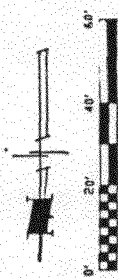
GR. JCT. CITY LIMITS

GRAND JUNCTION TECH
ORDINANCE NO. 22297
CENTER VACATED
8-1580 P. 328 & 329
CONSIDERED N-LI NEIGHBORS R.V. PARK SUB.

24

2094

NOTE
ALL IMPROVEMENTS SHOWN
ARE EXISTING
UNLESS SO NOTED



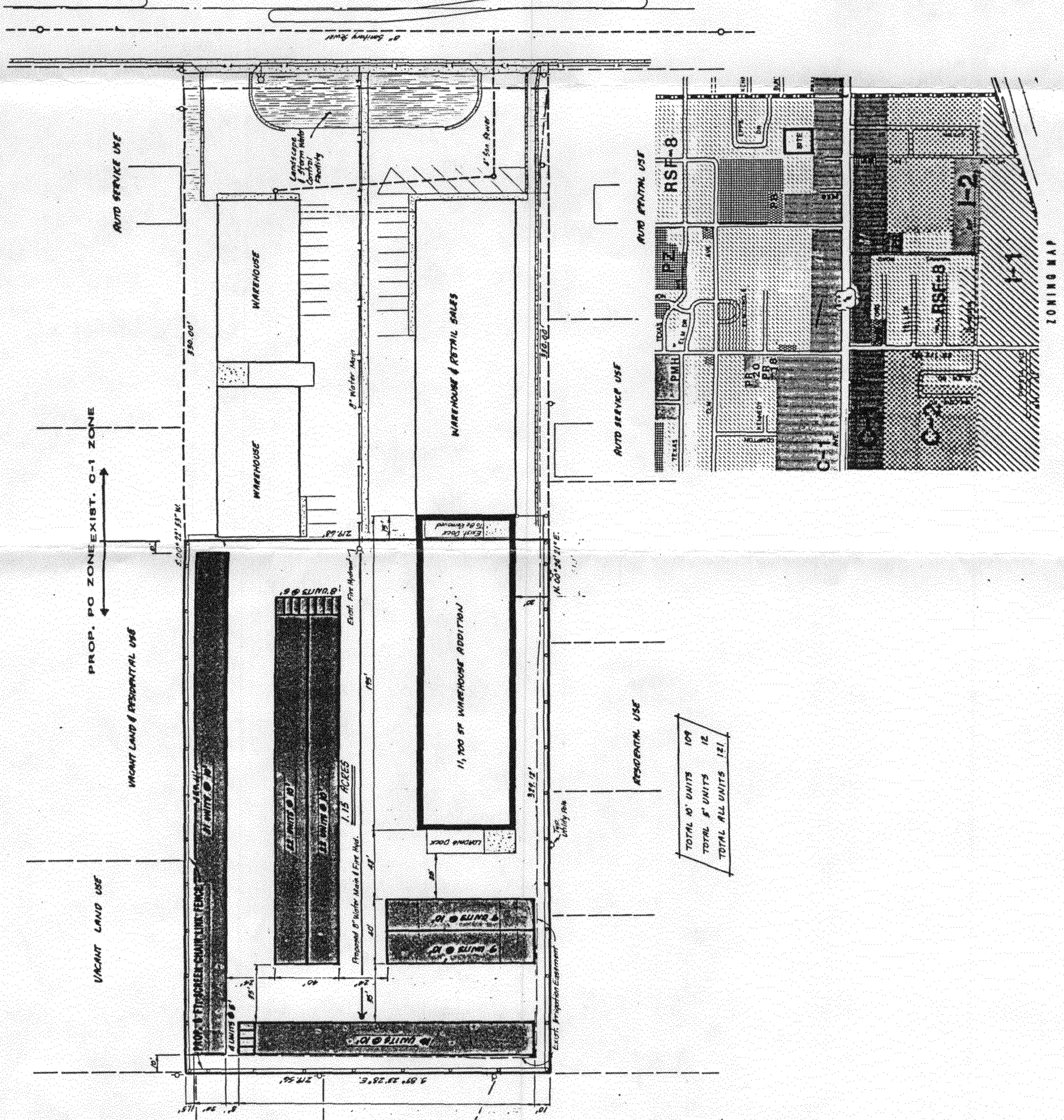
SITE PLAN
2892 NORTH AVENUE

TAD THOMAS A. LOGUE
LAND DEVELOPMENT CONSULTANTS
2001 10TH STREET, SUITE 100, DENVER, CO 80202
PHONE: 303.733.1100
FAX: 303.733.1101
WWW.TADLAND.COM

PROJECT NO. 233215
DATE: JUNE, 1994

SHEET 1 OF 1

NORTH AVE.
RETAIL SALES USE



PROP. PG ZONE EXIST. C-1 ZONE

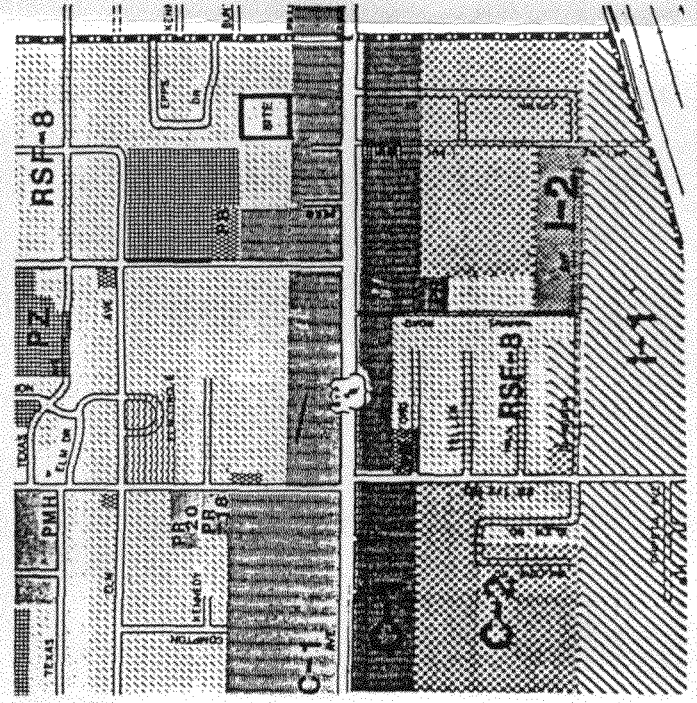
VACANT LAND & RESIDENTIAL USE

VACANT LAND USE

AUTO SERVICE USE

AUTO SERVICE USE

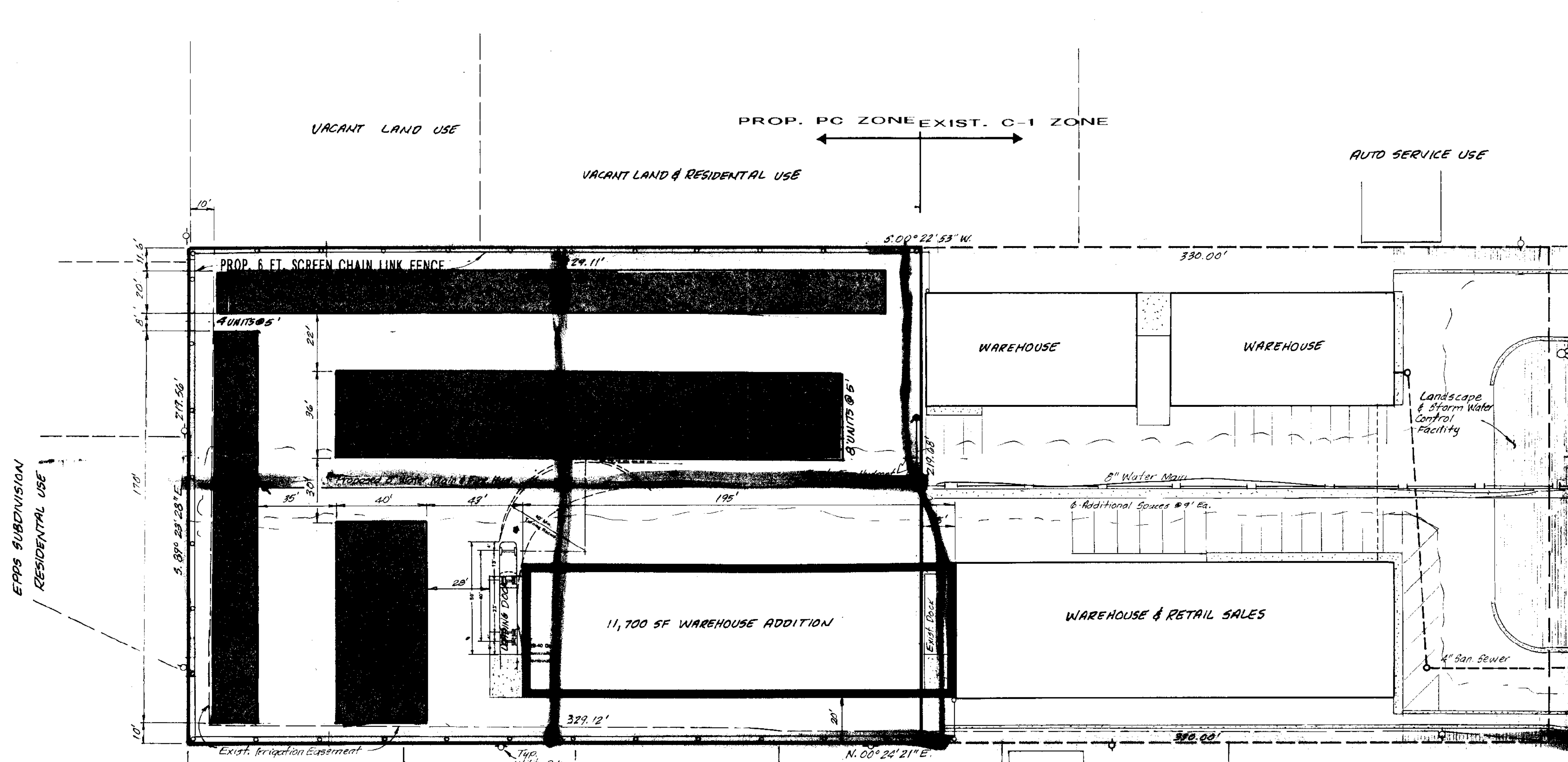
RESIDENTIAL USE



ZONING MAP

TOTAL 40' UNITS	109
TOTAL 5' UNITS	12
TOTAL ALL UNITS	121

EP99 SUBDIVISION
RESIDENTIAL USE



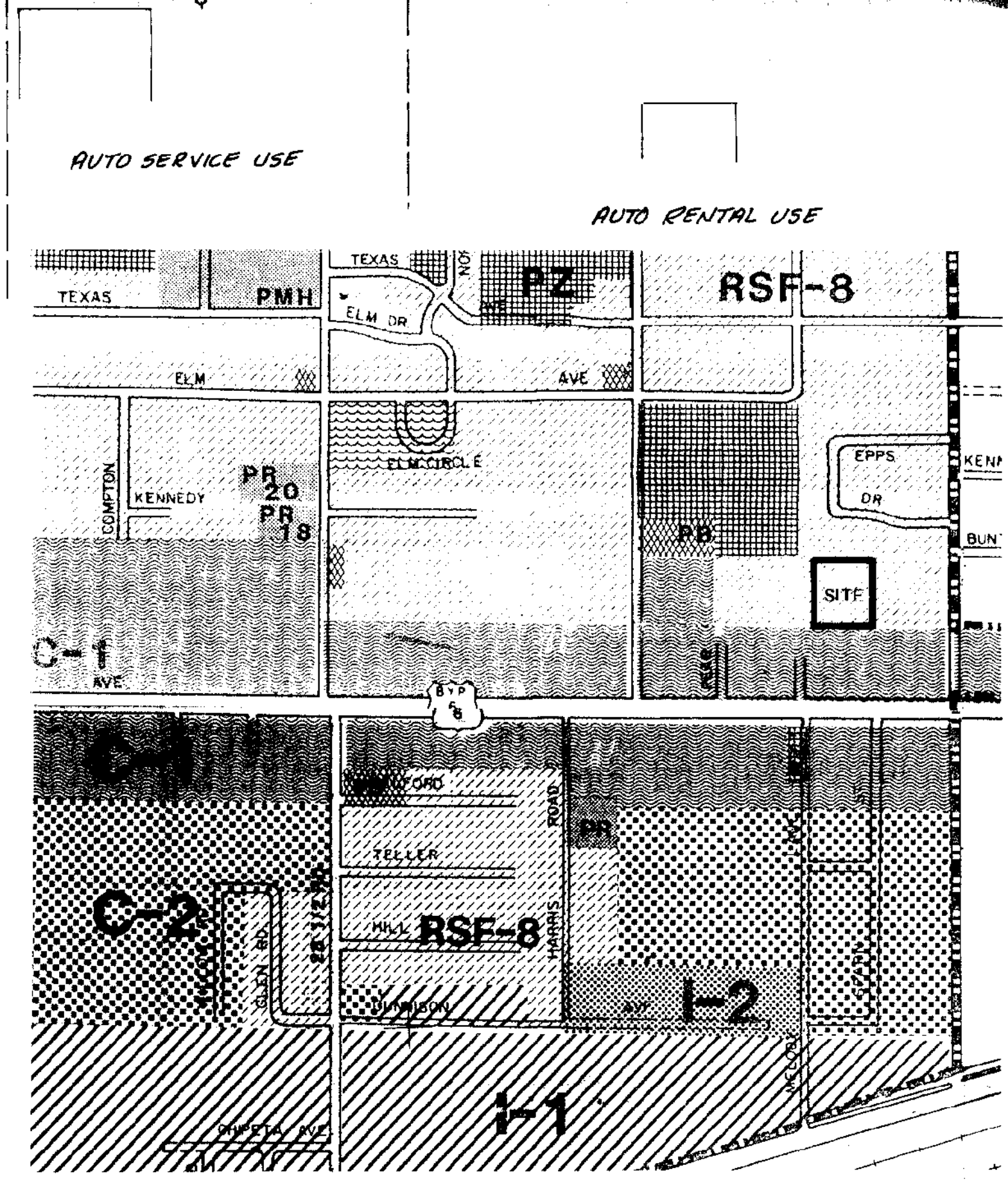
VACANT LAND USE
 VACANT LAND & RESIDENTIAL USE
 PROP. PC ZONE EXIST. C-1 ZONE
 AUTO SERVICE USE

EPPS SUBDIVISION
 RESIDENTIAL USE

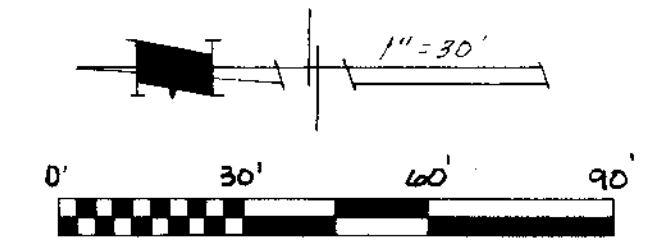
NORTH AVE.
 RETAIL SALES USE

NOTE
 ALL IMPROVMENTS SHOWN
 ARE EXISTING
 UNLESS SO NOTED

TOTAL 10' UNITS	109
TOTAL 5' UNITS	12
TOTAL ALL UNITS	121



ZONING MAP



REV. 7/12/194 Per Staff Comments

SITE PLAN
2892 NORTH AVENUE

TAL THOMAS A. LOGUE
 LAND DEVELOPMENT CONSULTANTS
 227 SOUTH 9TH STREET GRAND JUNCTION, COLORADO 81501
 (970) 245-8099

PROJECT NO. C:\SC12\WORK\94012\94012PR0	SHEET	OF
DATE: JUNE, 1994	1	1

JUL 13 1994

1141-1210