

# ***City of Albuquerque***

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

2 February, 1999

Jackie McDowell  
McDowell Engineering, Inc.  
7820 Beverly Hills Ave. NE  
Albuquerque, New Mexico 87122

RE: ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY  
APPROVAL, MECHENBIER LOT 5 (F22-D11A6), ENGINEER'S STAMP  
DATED 1-22-99

Dear Ms. McDowell:

Based upon the information contained in our 1-25-99 submittal, Certificate of Occupancy approval for the referenced project is granted.

If I can be of further assistance, please feel free to contact me at 924-3986.

Sincerely,

Scott Davis  
PWD, Hydrology Div.

c: Andrew Garcia  
file

# DRAINAGE INFORMATION SHEET

PROJECT TITLE: MECHENBIER LOT 5 ZONE ATLAS/DRNG. FILE #: F22-D11A6  
DRB #: \_\_\_\_\_ EPC #: \_\_\_\_\_ WORK ORDER #: \_\_\_\_\_  
LEGAL DESCRIPTION: LOT #5, TRAMWAY RIDGE SUBDIVISION  
CITY ADDRESS: 4800 TRAMWAY RIDGE  
ENGINEERING FIRM: MCDOWELL ENGINEERING, INC. CONTACT: JACKIE MCDOWELL  
ADDRESS: 7820 BEVERLY HILLS AVE. NE, 87122 PHONE: 828-2430  
OWNER: MECHENBIER CONSTRSUCTION CONTACT: JOHN MECHENBIER  
ADDRESS: 8804 WASHINGTON ST. NE PHONE: 828-1676  
ARCHITECT: \_\_\_\_\_ CONTACT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
SURVEYOR: PRECISION SURVEYS CONTACT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_  
CONTRACTOR: \_\_\_\_\_ CONTACT: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

## TYPE OF SUBMITTAL:

## CHECK TYPE OF APPROVAL SOUGHT:

☐ DRAINAGE REPORT  
☐ DRAINAGE PLAN  
☐ CONCEPTUAL GRADING & DRAIN. PLAN  
☐ GRADING PLAN  
☐ EROSION CONTROL PLAN  
☒ ENGINEER'S CERTIFICATION  
☐ OTHER \_\_\_\_\_

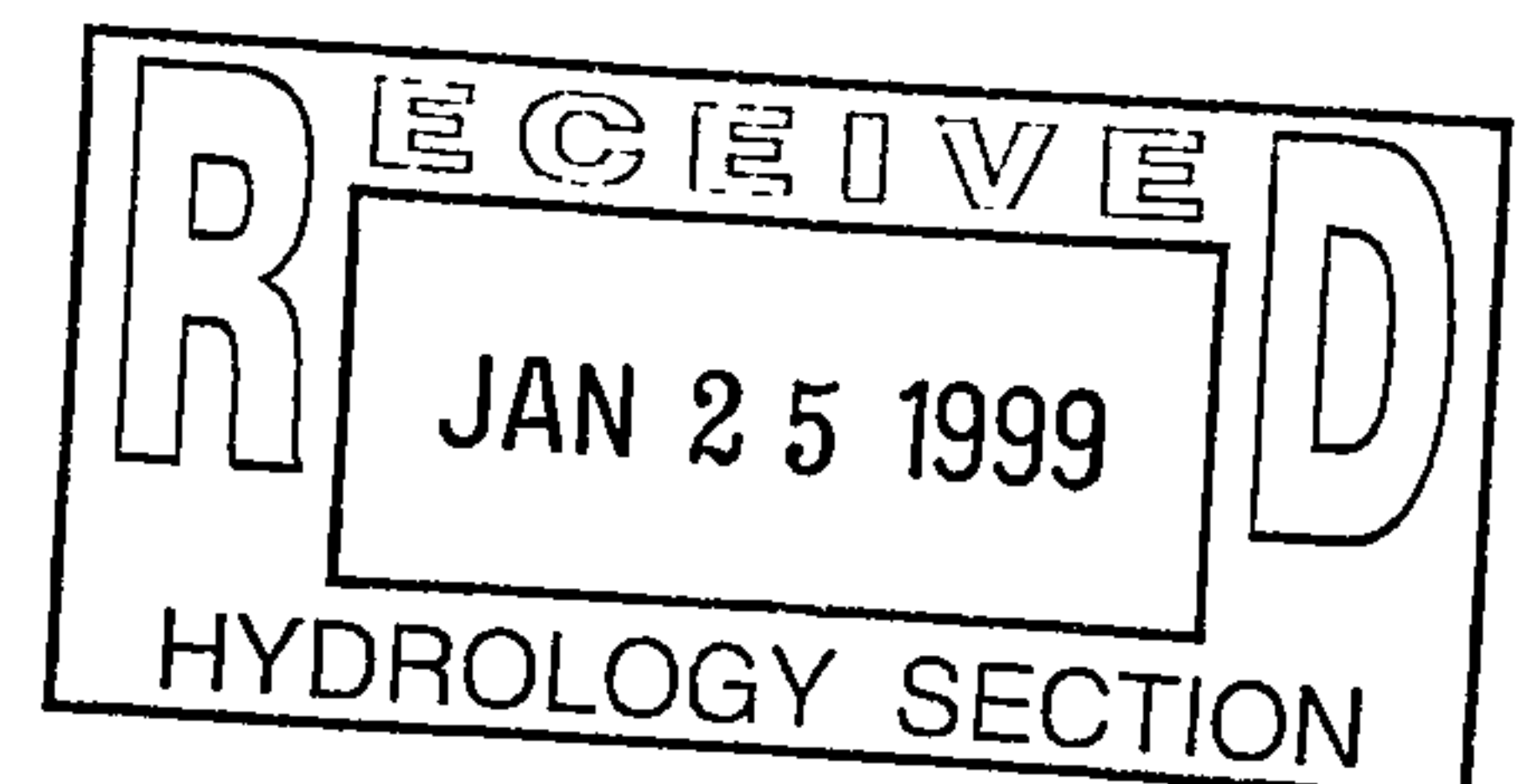
☐ SKETCH PLAT APPROVAL  
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☐ PAVING PERMIT APPROVAL  
☐ S.A.D. DRAINAGE REPORT  
☐ DRAINAGE REQUIREMENTS  
☐ OTHER \_\_\_\_\_ (SPECIFY)

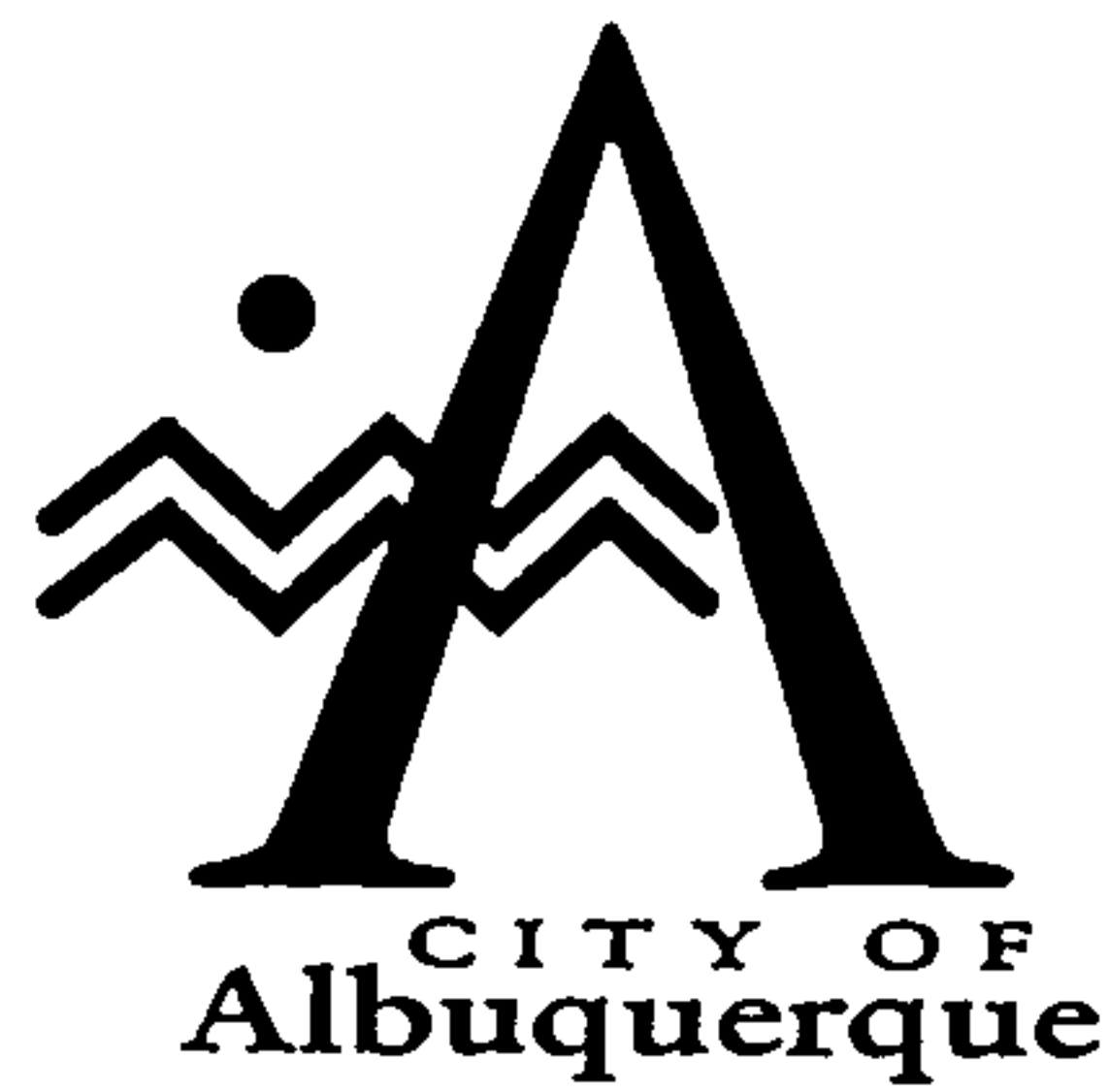
## PRE-DESIGN MEETING:

☐ YES  
☒ NO  
☐ COPY PROVIDED

DATE SUBMITTED: JANUARY 22, 1999

BY: JACKIE S. MCDOWELL, P.E.





November 9, 1998

Jackie McDowell  
McDowell Engineering, Inc.  
7820 Beverly Hills Ave. NE  
Albuquerque, New Mexico 87122

RE: REVISED DRAINAGE PLAN FOR MECHENBIER LOT 5 (F22-D11A6) REVISION  
DATED 9/21/98

Dear Ms. McDowell:

Based on the information provided on your October 14, 1998 resubmittal, the above referenced site is approved for Site Development Plan for Building Permit and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Please be advised that all the roof run-off must be routed to the asphalt from the landscape areas thru a curb notch or other means.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia  
File ✓

Sincerely

Bernie J. Montoya CE  
Associate Engineer

Good for You, Albuquerque!



# DRAINAGE INFORMATION SHEET

11/5/98 Susan

PROJECT TITLE: MECHENBIER LOT 5 ZONE ATLAS/DRNG. FILE #: F22-D11A6  
DRB #: \_\_\_\_\_ EPC #: \_\_\_\_\_ WORK ORDER #: \_\_\_\_\_  
LEGAL DESCRIPTION: LOT #5, TRAMWAY RIDGE SUBDIVISION  
CITY ADDRESS: 4800 TRAMWAY RIDGE  
ENGINEERING FIRM: MCDOWELL ENGINEERING, INC. CONTACT: JACKIE MCDOWELL  
ADDRESS: 7820 BEVERLY HILLS AVE. NE, 87122 PHONE: 828-2430  
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ARCHITECT: \_\_\_\_\_ CONTACT: \_\_\_\_\_  
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☐ ENGINEER'S CERTIFICATION  
☐ OTHER \_\_\_\_\_

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☐ S.A.D. DRAINAGE REPORT  
☐ DRAINAGE REQUIREMENTS  
☐ OTHER \_\_\_\_\_ (SPECIFY)

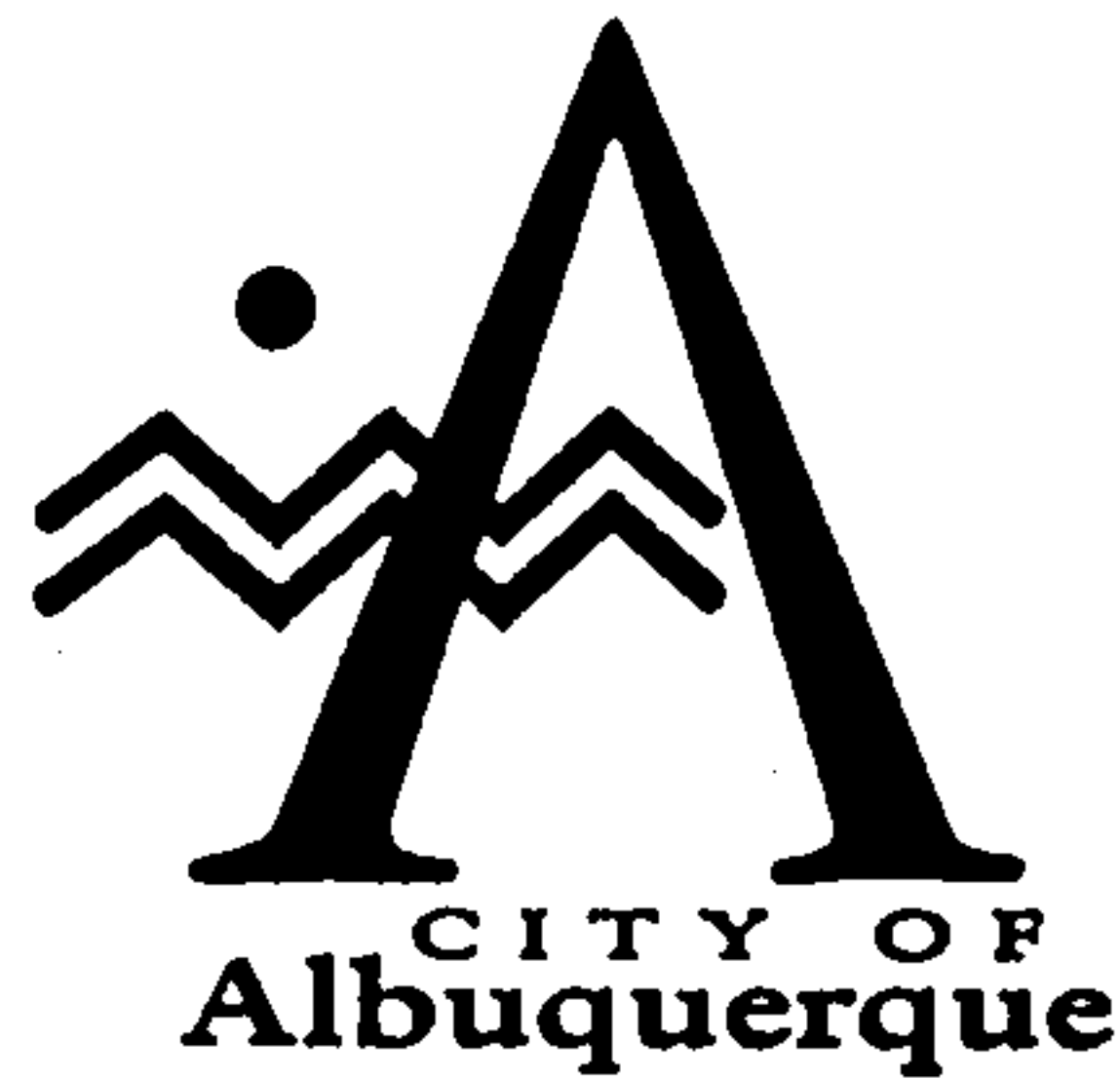
## PRE-DESIGN MEETING:

☐ YES  
☒ NO  
☐ COPY PROVIDED

DATE SUBMITTED: 10-7-98  
SEPTEMBER 22, 1998

BY: JACKIE S. MCDOWELL, P.E.

RECEIVED  
OCT 14 1998  
HYDROLOGY SECTION



July 13, 1998

Jackie McDowell  
McDowell Engineering, Inc.  
7820 Beverly Hills Ave. NE  
Albuquerque, New Mexico 87122

RE: REVISED DRAINAGE PLAN FOR MECHENBIER LOT 5 (F22-D11A6) REVISION  
DATED 6/11/98

Dear Ms. McDowell:

Based on the information provided on your June 12, 1998 resubmittal, the above referenced site is approved for Site Development Plan for Building Permit and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

Please be advised that all the roof run-off must be routed to the asphalt from the landscape areas thru a curb notch or other means.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

File

Sincerely

*Bernie J. Montoya*  
Bernie J. Montoya CE  
Associate Engineer

Good for You, Albuquerque!





# DRAINAGE INFORMATION SHEET

PROJECT TITLE: MECHENBIER LOT 5 ZONE ATLAS/DRNG. FILE #: F22-D11A6  
DRB #: \_\_\_\_\_ EPC #: \_\_\_\_\_ WORK ORDER #: \_\_\_\_\_  
LEGAL DESCRIPTION: LOT #5, TRAMWAY RIDGE SUBDIVISION  
CITY ADDRESS: 4800 TRAMWAY RIDGE  
ENGINEERING FIRM: MCDOWELL ENGINEERING, INC. CONTACT: JACKIE MCDOWELL  
ADDRESS: 7820 BEVERLY HILLS AVE. NE, 87122 PHONE: 828-2430  
OWNER: MECHENBIER CONSTRSUCTION CONTACT: JOHN MECHENBIER  
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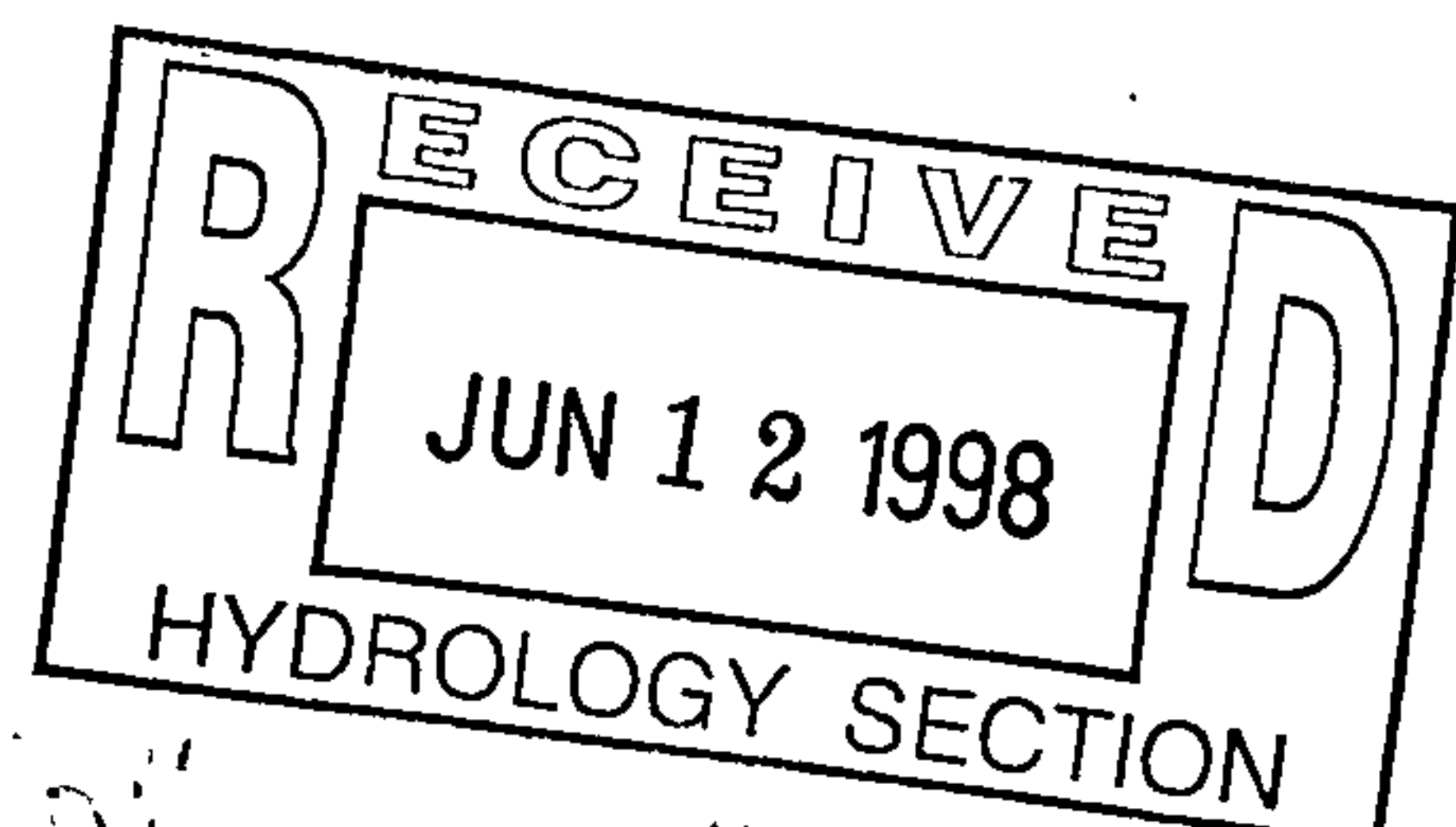
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☐ DRAINAGE REQUIREMENTS  
☐ OTHER \_\_\_\_\_ (SPECIFY)

## PRE-DESIGN MEETING:

☐ YES  
☒ NO  
☐ COPY PROVIDED

DATE SUBMITTED: JUNE 12, 1998

BY: JACKIE S. MCDOWELL, P.E.



# McDowell Engineering, Inc.

Jackie Sedillo McDowell, P.E.  
Civil Engineering Consultant

June 11, 1998

Mr. Bernie J. Montoya, CE  
Associate Engineer  
City of Albuquerque Hydrology Dept.  
P.O. Box 1293  
Albuquerque, NM 87103

RE: MECHENBIER LOT 5 (F22-D11A6)

Dear Mr. Montoya:

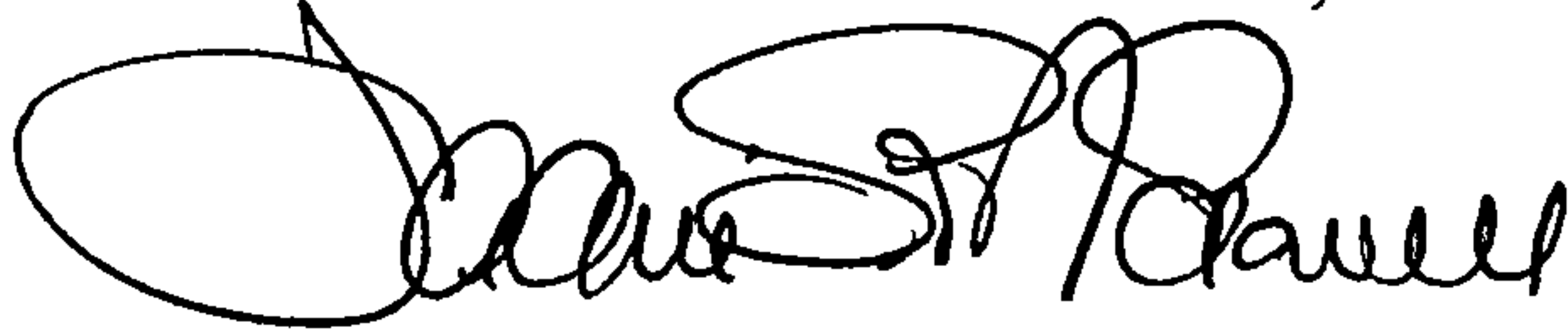
We received your comments for the referenced project dated May 26, 1998 and offer the following response and modifications to the plan in the same numerical order listed.

1. We have modified the plan to route the roof area towards the asphalt.
2. The top of curb and flowline elevations have been added to the plat at the survey points shot. The curb is a COA standard curb, therefore, the flowline at the top of curb is 8" below the top of curb elevations shown on the plan.
3. We have added flowline elevations on the street near the driveways (see response #2 above). We have noted the water blocks provided at the driveways. The eastern driveway does not receive any offsite runoff, since it is located at the high point of the street, but a 0.6' water block has been provided. A 1' water block was not necessary and it would have made the entry even steeper than designed.
4. Slopes have been added to the plan at the asphalt swales.

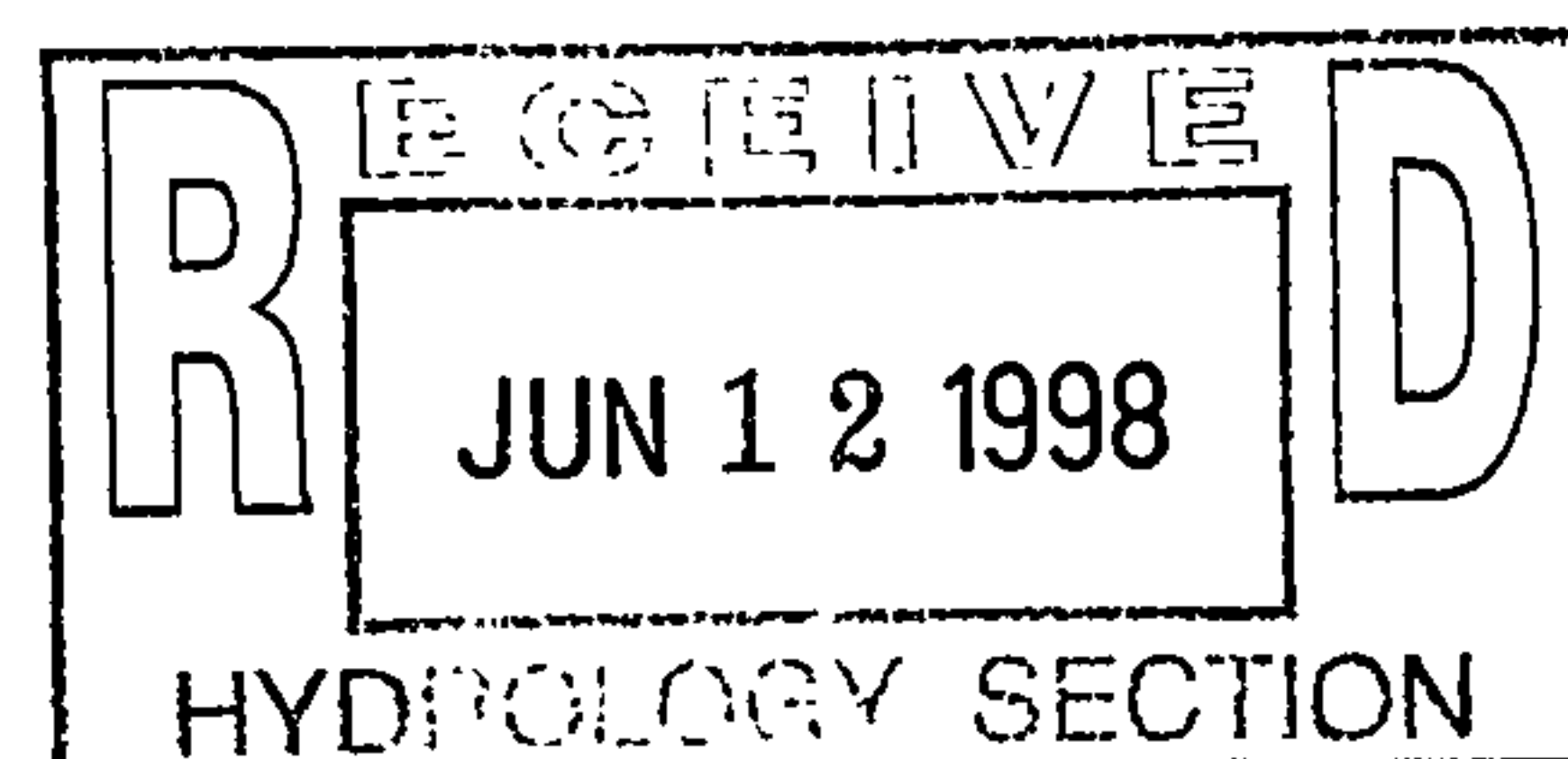
Your timely approval of this plan is appreciated.

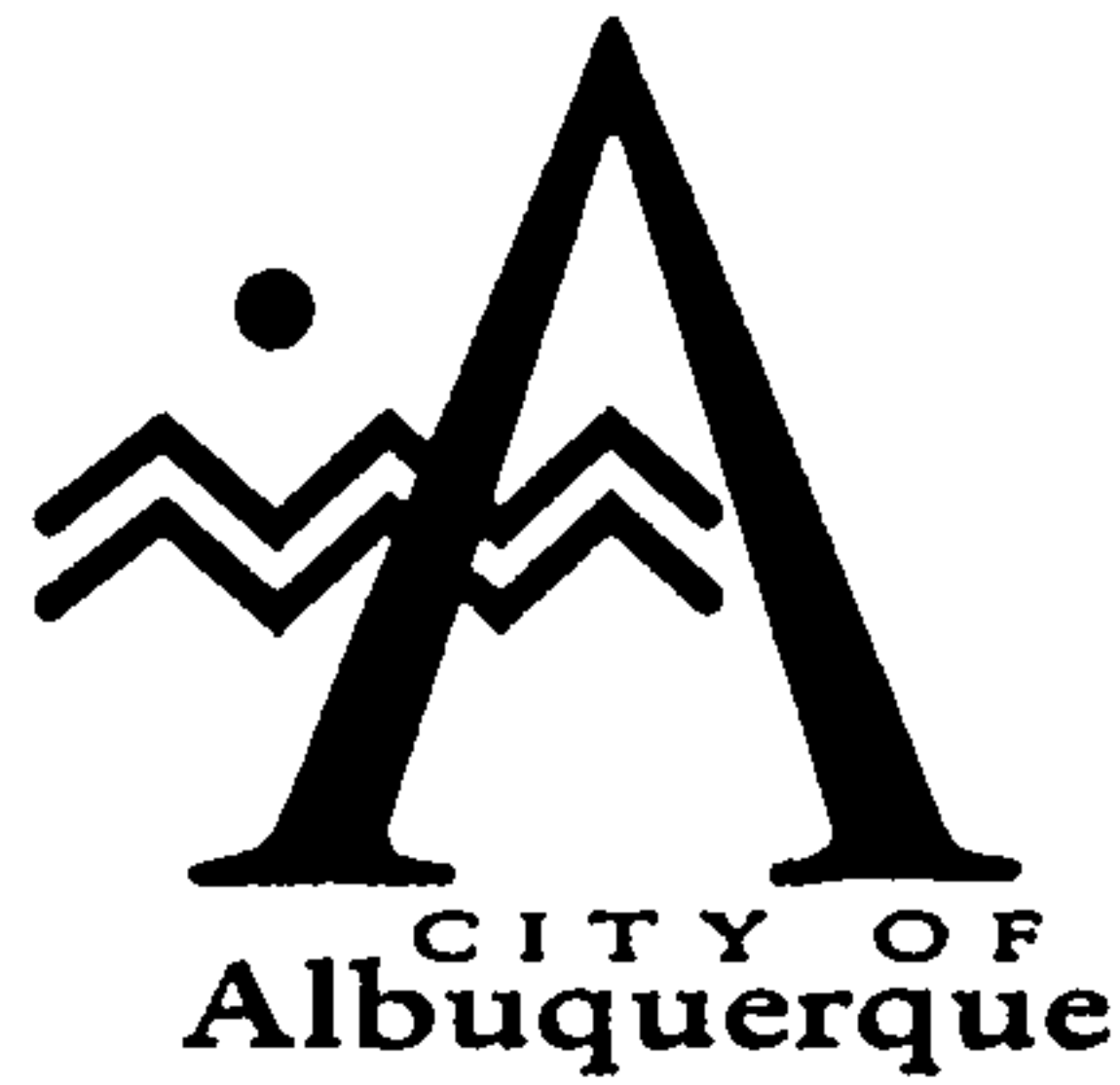
Sincerely,

MCDOWELL ENGINEERING, INC.



Jackie S. McDowell, P.E.





May 26, 1998

Jackie McDowell  
McDowell Engineering, Inc.  
7820 Beverly hills Ave. NE  
Albuquerque, New Mexico 87122

RE: DRAINAGE PLAN FOR MECHENBIER LOT 5 (F22-D11A6) ENGINEER'S STAMP  
DATED 4/24/98

Dear Ms. McDowell:

Based on the information provided on your April 27, 1998 submittal, listed are some concerns that will need to be addressed prior to final approval:

1. All the developed run-off from the roof area must be routed towards the asphalt. Your plan drawing does not indicate these.
2. Top of curb and flowline elevations must be shown on all the streets.
3. Without the flowline elevations, I can not determine if you have allowed for the one foot water block at the drivepads.
4. Please identify the slopes on the proposed asphalt swales.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

**File**

Sincerely

Bernie J. Montoya CE  
Associate Engineer

Good for You, Albuquerque!





# DRAINAGE INFORMATION SHEET

PROJECT TITLE: MECHENBIER LOT 5 ZONE ATLAS/DRNG. FILE #: F 22-0038  
DRB #: \_\_\_\_\_ EPC #: \_\_\_\_\_ WORK ORDER #: F22.D11A6  
LEGAL DESCRIPTION: LOT #5, TRAMWAY RIDGE SUBDIVISION  
CITY ADDRESS: 4800 TRAMWAY RIDGE  
ENGINEERING FIRM: MCDOWELL ENGINEERING, INC. CONTACT: JACKIE MCDOWELL  
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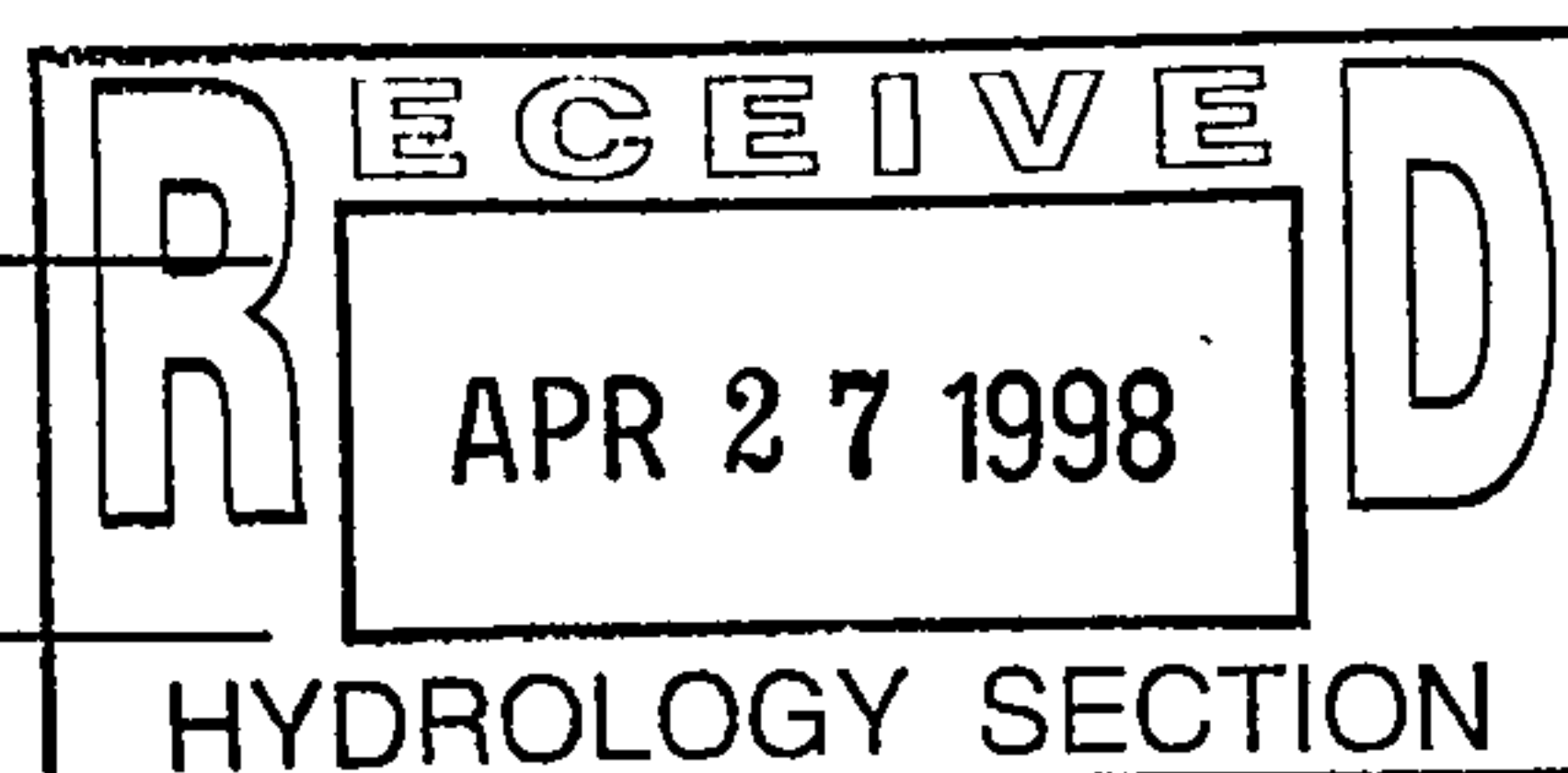
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☐ S.A.D. DRAINAGE REPORT  
☐ DRAINAGE REQUIREMENTS  
☐ OTHER \_\_\_\_\_ (SPECIFY)

PRE-DESIGN MEETING:

☐ YES  
☒ NO  
☐ COPY PROVIDED

DATE SUBMITTED: APRIL 27, 1998

BY: JACKIE S. MCDOWELL, P.E.



**ATTACHMENT NO. 1**

**SUPPLEMENTAL CALCULATIONS TO**

**MECHENBIER**  
**TRAMWAY RIDGE SUBDIVISION**  
**LOT #5**

**GRADING & DRAINAGE PLAN**

I, Jackie S. McDowell, Registered Professional Engineer, No. 10903, hereby certify that I have prepared the attached calculations.

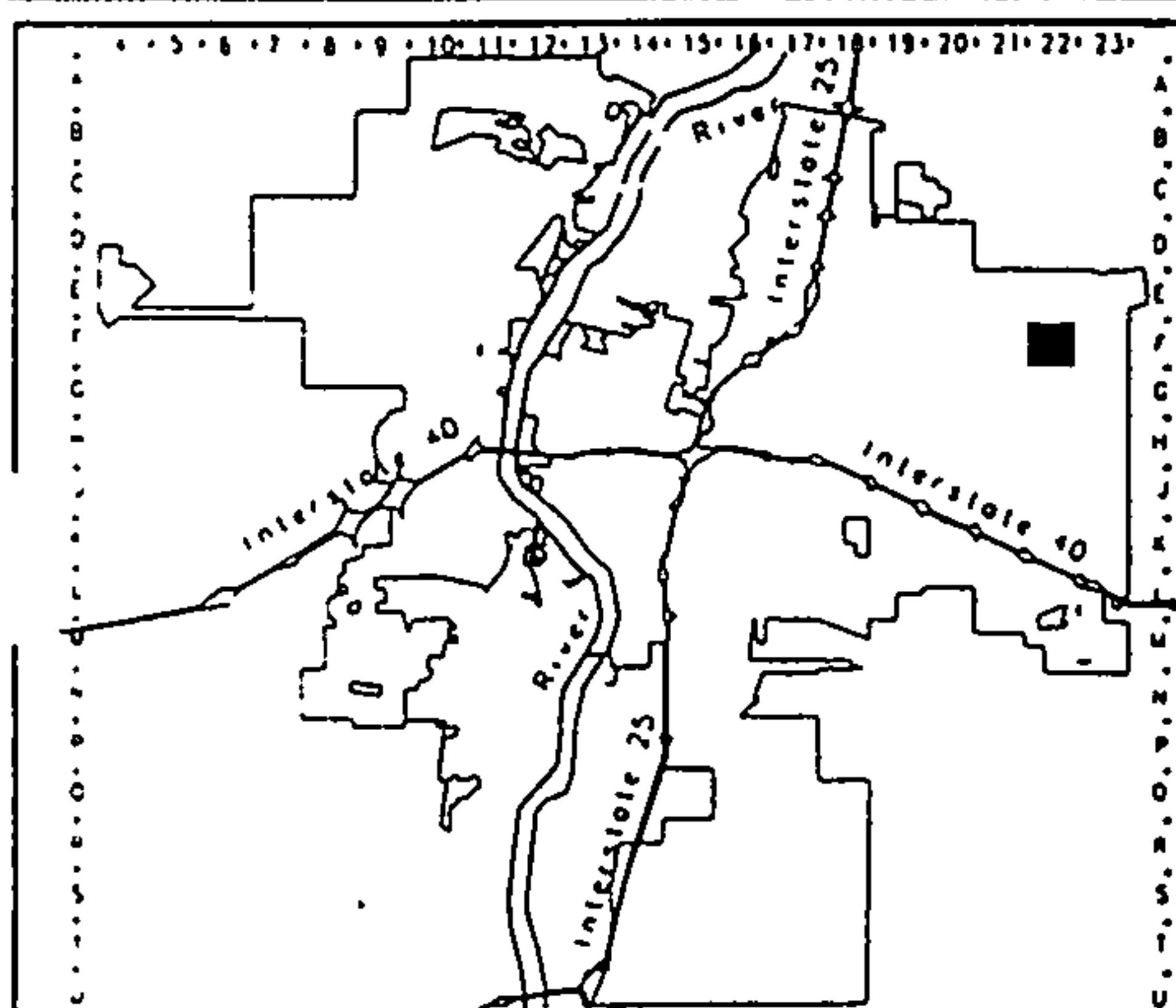
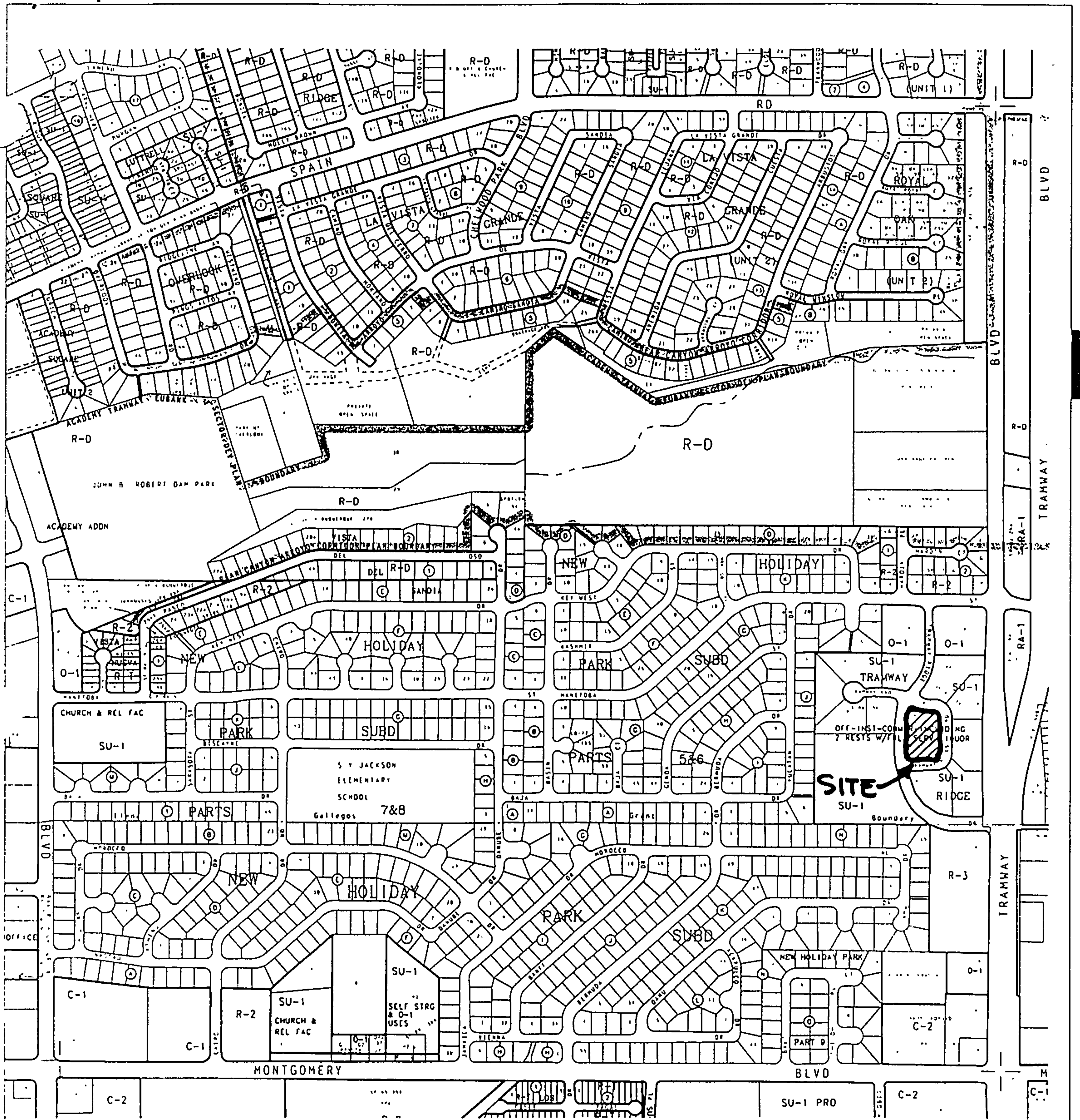
  
Jackie S. McDowell, P.E.

 4-24-98  
No. 10903

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Onsite Basin Calculations	9





750 375 0 750  
Scale 1" = 750'

**A**buquerque **G**eographic **I**nformation **S**ystem  
**City of Albuquerque**

© Planning Department July 02, 1993

LEGAL DESCRIPTION

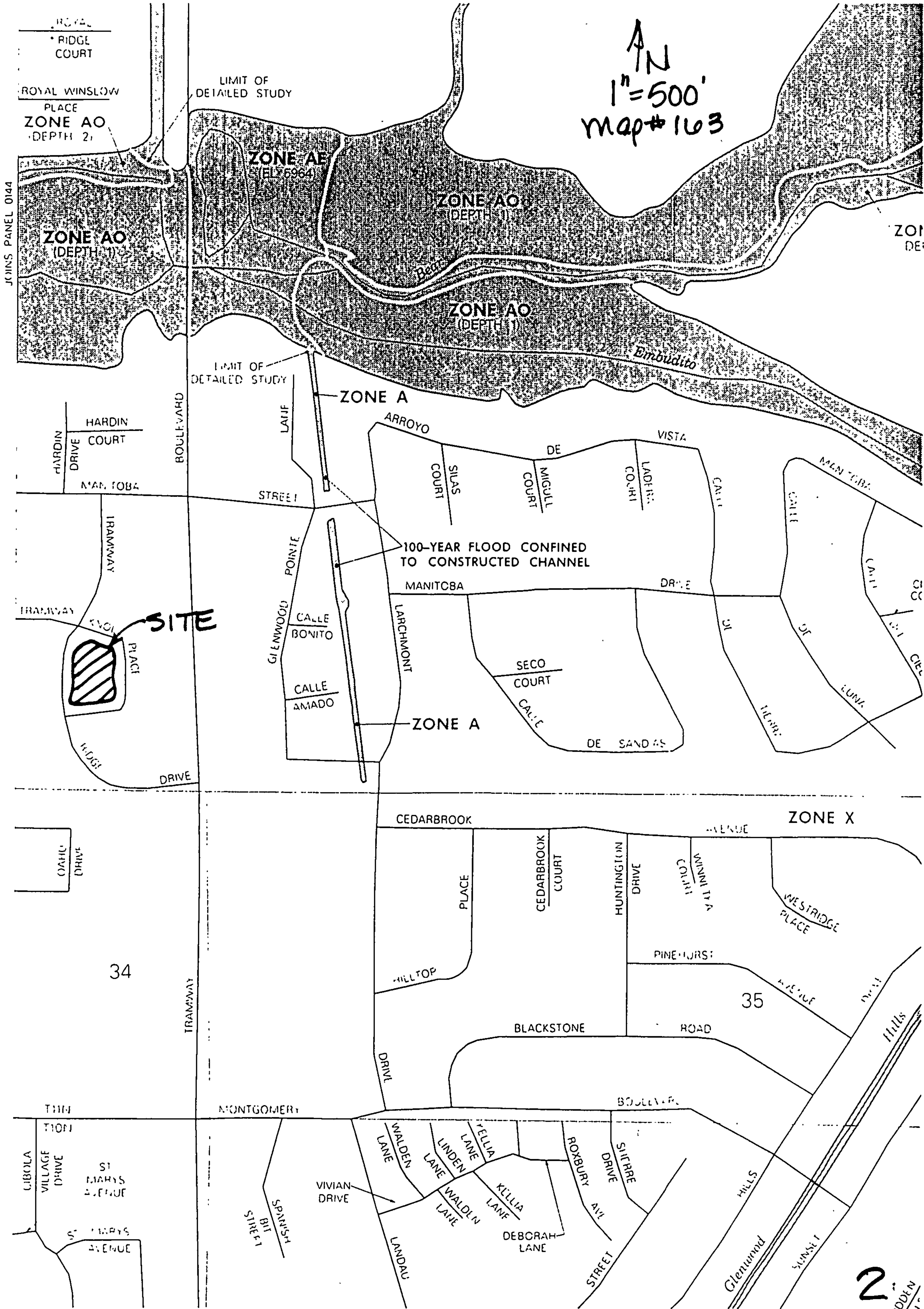
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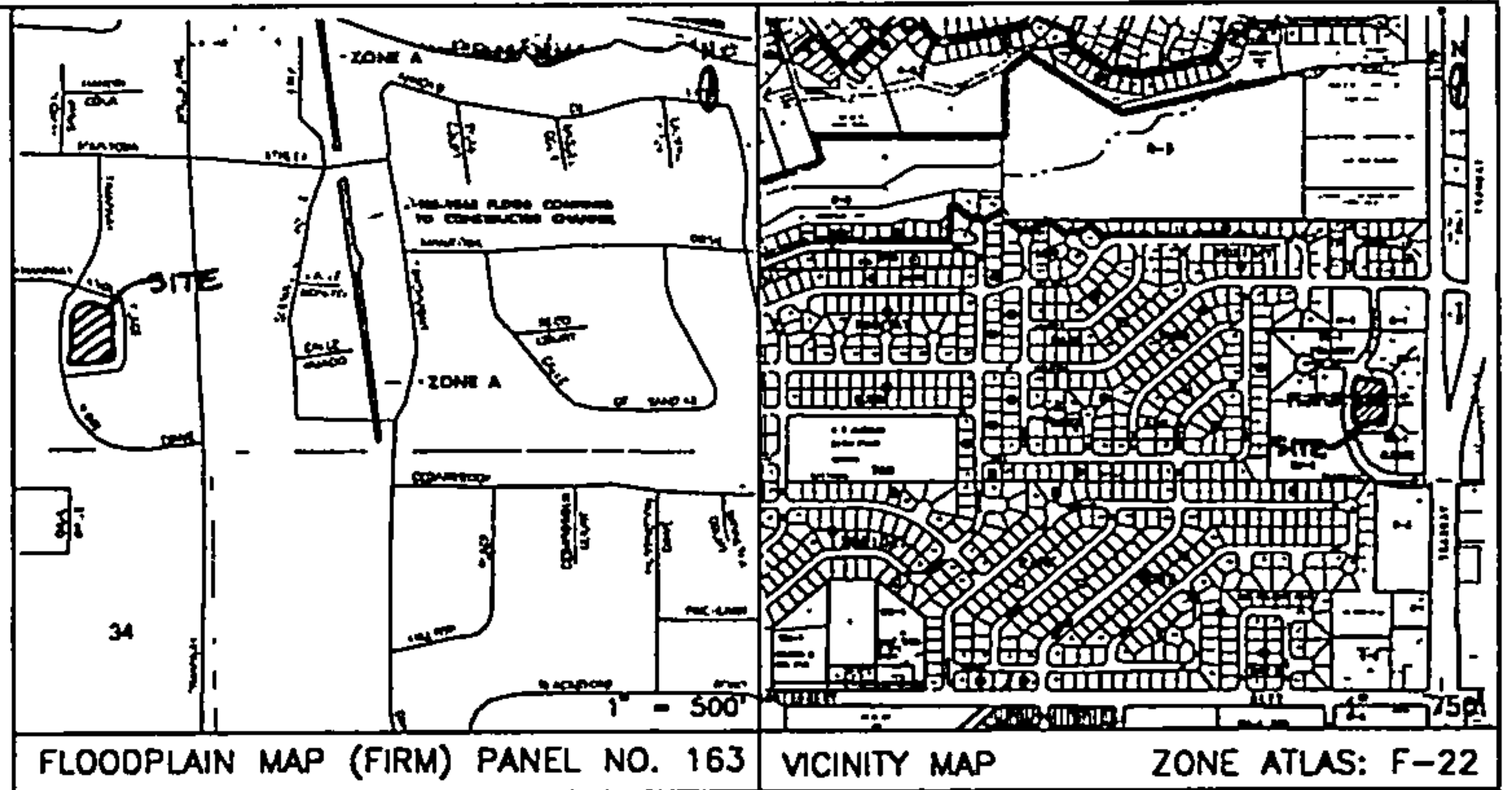
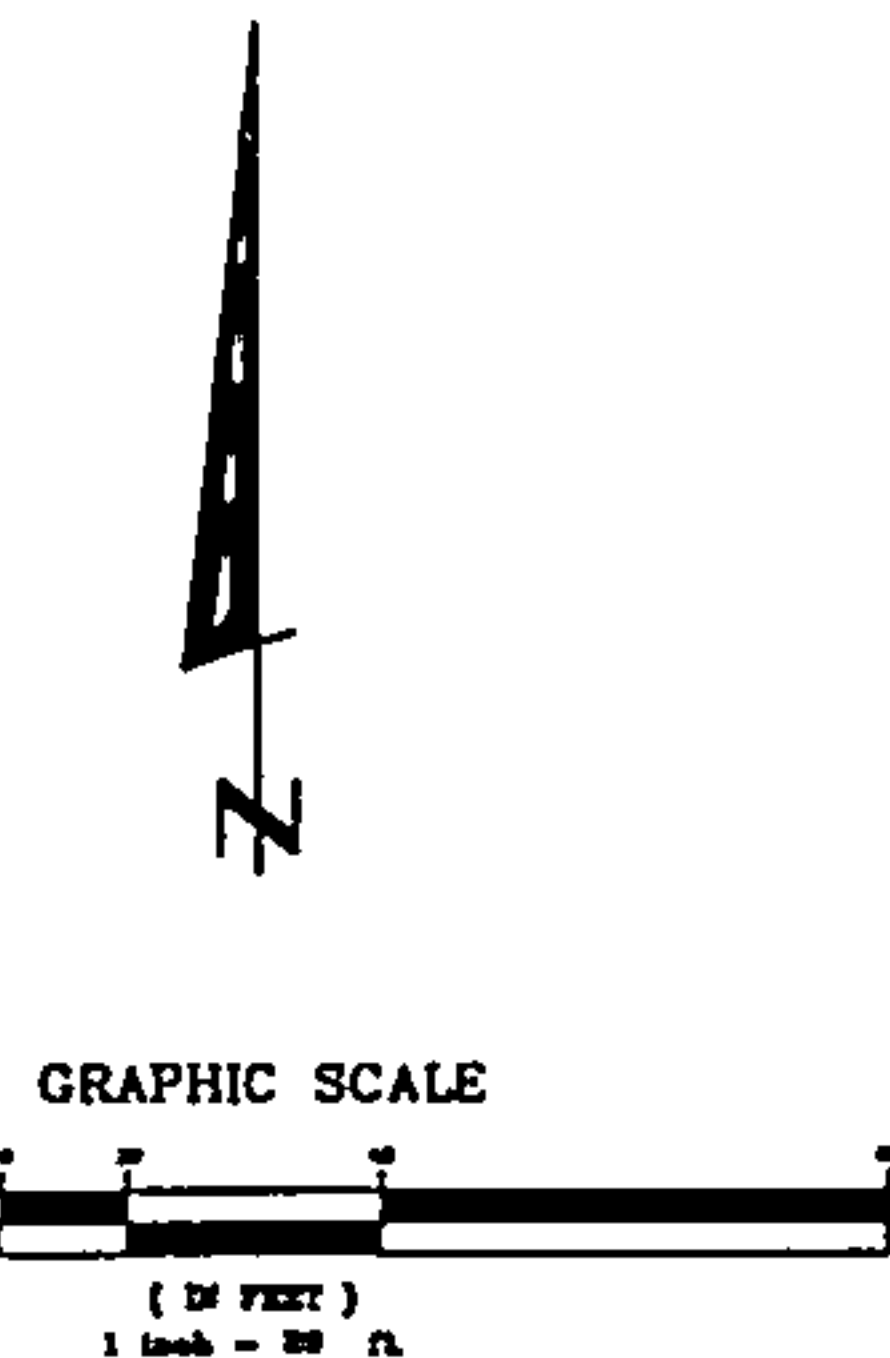
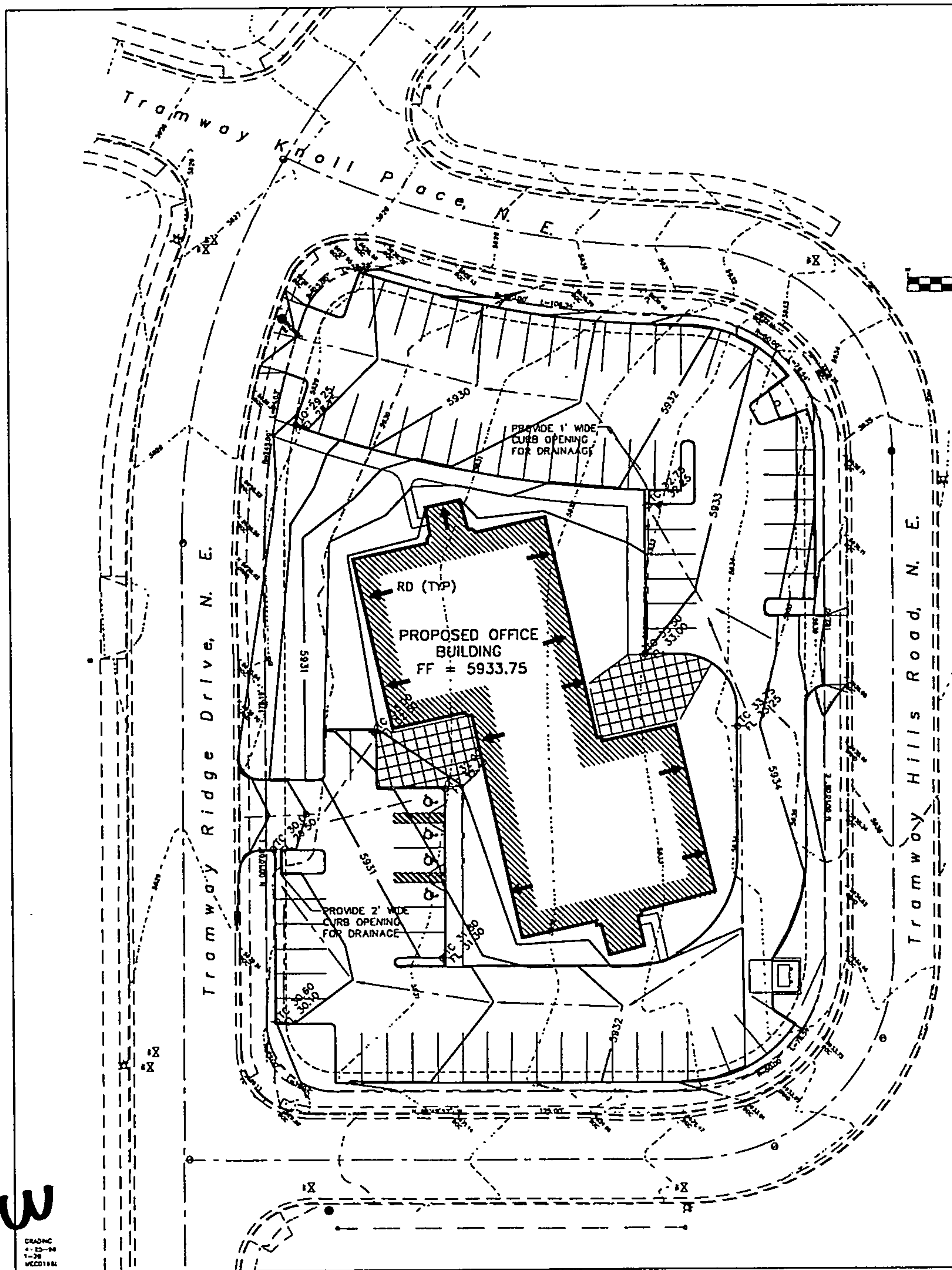
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**F-22-Z**









**DRAINAGE PLAN**  
**SCOPE:**

Pursuant to the latest City of Albuquerque Drainage, the Drainage Plan shows herein outlines the drainage management criteria for controlling developed runoff on and exiting the project site. A building is proposed for the subject property, with associated access, parking and landscaping.

**EXISTING CONDITIONS:**

Presently the 1.28 acre site is undeveloped. The site is surrounded by public streets. The site slopes from the east to the west at approximately 30 percent. The lot is currently surrounded by existing sidewalks and utilities. As shown by the FEMA Map Panel No. 163, dated 1994, the site is not located in a 100-year floodplain. No offsite runoff enters the property.

In 1994, a Drainage Report was submitted to the COA for the lots west and downstream of this site. The owner/developer is Mecham Construction. At that time a detention pond was constructed to handle all of the residential development west of the subject site along with the developed flow from the subject site. The pond was oversized and will easily handle the developed flow from this site. Calculations are attached.

**PROPOSED CONDITIONS:**

As shown by the plan, the building is located within the center of the lot. On site flows will drain around the structure and flow to the west to the detention pond at the end of the residential development. All roof drainage will discharge from the roof to the lot and be directed around the structure to the west. Access will be taken from Tramway Ridge Drive and Tramway Hills Road, N. E.

Supplemental calculation have been provided to the City of Albuquerque Hydrology Department.

**CALCULATIONS:**

The calculations shown herein define the 100 year-8 hour design storm falling within the project area under existing and developed conditions. The Hydrology is per "Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque, New Mexico in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Area Flood Control Authority.

**PROPERTY ADDRESS:**

4800 Tramway Ridge

**TOPOGRAPHY:**

Topographic information provided by Precision Surveys, Inc.

	LEGEND	
	EXISTING	PROPOSED
CONTOUR	---	---
PROPERTY LINE	---	---
ROAD	---	---
SETBACK	---	---
WALL	---	---
SPOT ELEVATION	---	---

**LOT 5**  
OF  
**TRAMWAY RIDGE SUBDIVISION**  
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO  
4800 TRAMWAY RIDGE

*Handwritten signature and date: 4-24-98*

CITY OF ALBUQUERQUE, BERNALILLO COUNTY		NEW MEXICO	
LOT #5 TRAMWAY RIDGE			
MECHANICAL LOT #5 GRADING & DRAINAGE PLAN			
<b>McDowell Engineering Inc</b>			
Designed JSU	Drawn STAFF	Checked JSU	Sheet 1 of 1
Date APRIL 1998			

**W**  
DRAWING  
4-23-98  
1-28  
MCD198L

# F-22/D11A-3 - APPROVED DRAINAGE REPORT

Storm water runoff from the site within Basin II (existing Lots 10, 11, & 13) currently sheet flows across the site to Tramway Knoll Place, where the runoff is intercepted by an existing concrete lined drainage channel. Storm water runoff from the site within Basin I (existing Lots 8 & 9) currently sheet flows to the southwest where it is intercepted by an existing 10' private drainage easement located within the existing church property to the south. Storm water runoff from both Basins I & II flows through existing public concrete drainage channels until the flows are released onto Yucutan Drive. The downstream analysis from the site has already been evaluated by the Espey-Huston Drainage Report referenced and dated July, 1986.

The only other offsite flows entering the site, and flowing through the site, are the flows from the remainder of Basin II.

### III. Proposed Condition

Proposed development of the site includes the removal of the end of the cul-de-sac of Tramway Knoll Place, the construction of two new streets (Skyline View Court and Skyline Ridge Court), and 36 residential lots with associated utilities and detention pond. Most of the flows from the site, Basin "B", will be routed through the new detention pond. A small portion of the site, Basin "A", will continue to drain to the southwest into the existing 10' private drainage easement at the church and another small portion of the site, Basin "C", will continue to drain into the existing public drainage channel.

The owner of this development is anticipating the future residential development of Lot 5 of Tramway Ridge Subdivision, therefore, the detention pond has not only been designed to control storm water runoff from the proposed development of



# F-22/D11A3-APPROVED DRAINAGE REPORT

Lots 8-11 & 13, but also the predicted storm water runoff (residential development) from Lot 5. Storm water runoff will sheet flow through the proposed streets and be collected at the northwest corner of Skyline Ridge Court where the runoff will enter the detention pond. The detention pond has been designed to City standards with a concrete bottom, concrete walls, a spillway for the release of offsite runoff, and a fence around the pond, since the depth exceeds 18".

Specific drainage outfalls for this development are as follows:

Basin "A" free discharge to the existing 10' private drainage easement.

Basin "B" and Lot 5 (Future) will be routed to the detention pond.

Basin "C" will free discharge to the existing public drainage channel.

See Appendix A - Calculations

The detention pond will be drained in less than 6 hours in accordance with the City of Albuquerque Drainage Ordinance. The emergency spillway is the top of the northwest wall of the pond.

## IV. Flood Zone

The project site is not located in a 100 year flood zone. See Exhibit D - AMDS Flood Map.

03-Jun-94

Calculations: Total Basin

Calculations are based on "Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque, New Mexico, January 1993 - basins < 40 acres".

Precipitation Zone = 4

Depth at 100-year, 6-hour storm: (Table A-2)

P = 2.90 inches

Land Treatments:

From Table 5 - Percent Treatment D

Single Family Residential =

$$7 * \text{SQR}((N * N) + (5 * N))$$

where N = units/acre

N = ----- = -----, ok < 6

N = 5.64

Therefore Percent Treatment D = 54.23%

(includes local streets)

ORIGINALLY  
APPROVED  
CALCS  
FOR LOT #5  
(+ streets)

Areas: (acres)	Existing	Proposed
Treatment A	1.92	0.00
Treatment B	0.00	0.88
Treatment C	0.00	0.00
Treatment D	0.00	1.04
Total (acres) =	1.92	1.92

45.7 %

54.3 %

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.13	0.31	0.04	0.18	0.00	0.10
Volume (cubic feet) =	5,576	13,416	1,951	7,850	139	4,164

Total Q(p), cfs:	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	4.22	0.00	1.67	0.00	0.10	0.00
Treatment B	0.00	2.57	0.00	1.28	0.00	0.33
Treatment C	0.00	0.00	0.00	0.00	0.00	0.00
Treatment D	0.00	5.46	0.00	3.71	0.00	2.26
Total Q (cfs) =	4.22	8.03	1.67	4.99	0.10	2.59

Well Engineering, Inc.

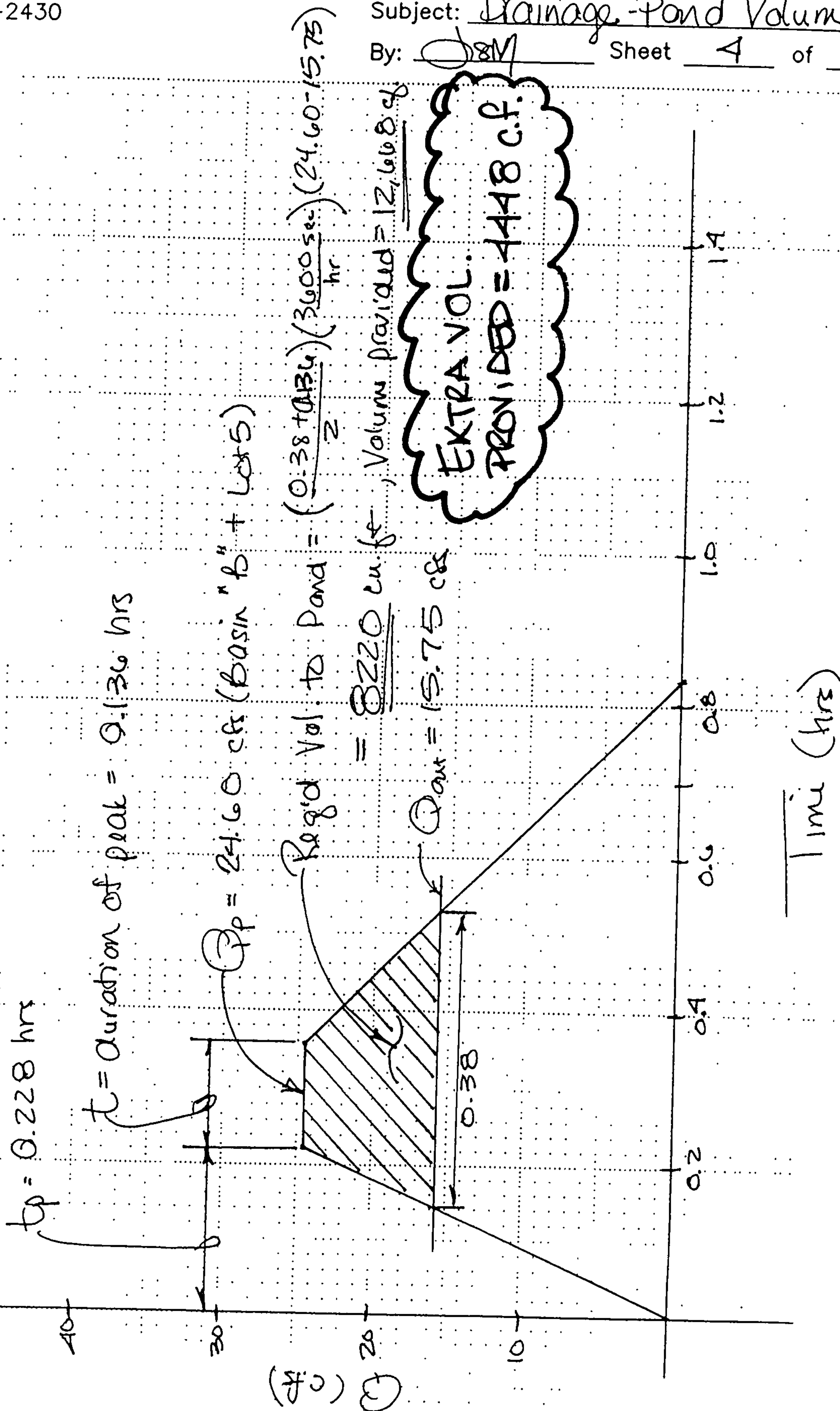
10 Valley Forge Pl. NE  
Albuquerque, New Mexico 87109  
Tele: (505)828-2430

Project: Skyline View Subd

Project No.: MEC0393L Date: 9-10-94

Subject: Drainage - Pond Volume

By: JSM Sheet 4 of 6





Project: MECHENBIE  
LOT #5

Project No.:

22-Apr-98

W/STREETS

Calculations: Total Basin

Calculations are based on "Section 22.2 Hydrology of the Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque, New Mexico, January 1993 - basins < 40 acres".

Precipitation Zone = 4

Depth at 100-year, 6-hour storm: (Table A-2)

P = 2.90 inches

Land Treatments:

From Table 5 - Percent Treatment D

Single Family Residential =

$7 * \text{SQR}((N * N) + (5 * N))$

where N = units/acre

N = ----- = -----, ok < 6

N = 0.00

Therefore Percent Treatment D = 0.00%

(includes local streets)

Areas: (acres)	Existing	Proposed
Treatment A	1.92	0.00
Treatment B	0.00	0.42
Treatment C	0.00	0.00
Treatment D	0.00	1.50
Total (acres) =	1.92	1.92

22%

78%

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.13	0.37	0.04	0.23	0.00	0.13
Volume (cubic feet) =	5,576	16,021	1,951	9,903	139	5,667

MAX. ADD'L VOL. FROM DEV. = 16021 - 13416 = 2605 cu. ft.

Total Q(p), cfs:	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	4.22	0.00	1.67	0.00	0.10	0.00
Treatment B	0.00	1.23	0.00	0.61	0.00	0.16
Treatment C	0.00	0.00	0.00	0.00	0.00	0.00
Treatment D	0.00	7.88	0.00	5.36	0.00	3.26
Total Q (cfs) =	4.22	9.10	1.67	5.96	0.10	3.41

Extra Pond Volume Constructed w/ First Phase of Development = 4448 c.f.  $\underline{\underline{V}} > 2605 \text{ c.f.}$

OK

Project: METENBIE

Project No.:

LOT #5 - ON-SITE CALCS

21-Apr-98

Calculations: Total Basin

Calculations are based on "Section 22.2 Hydrology of the  
Development Process Manual, Volume 2, Design Criteria for the  
City of Albuquerque, New Mexico, January 1993 - basins < 40 acres".

Precipitation Zone = 4

Depth at 100-year, 6-hour storm: (Table A-2)

P = 2.90 inches

Land Treatments:

From Table 5 - Percent Treatment D

Single Family Residential =

$$7 * \text{SQR}((N * N) + (5 * N))$$

where N = units/acre

N = ----- = -----, ok &lt; 6

N = 0.00

Therefore Percent Treatment D = 0.00%

(includes local streets)

Areas: (acres)	Existing	Proposed
Treatment A	1.28	0.00
Treatment B	0.00	0.28
Treatment C	0.00	0.00
Treatment D	0.00	1.00
Total (acres) =	1.28	1.28

22%

78%

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.09	0.25	0.03	0.15	0.00	0.09
Volume (cubic feet) =	3,717	10,681	1,301	6,602	93	3,778

Total Q(p), cfs:	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A	2 year Existing Q(p)*A	2 year Proposed Q(p)*A
Treatment A	2.82	0.00	1.11	0.00	0.06	0.00
Treatment B	0.00	0.82	0.00	0.41	0.00	0.11
Treatment C	0.00	0.00	0.00	0.00	0.00	0.00
Treatment D	0.00	5.25	0.00	3.57	0.00	2.17
Total Q (cfs) =	2.82	6.07	1.11	3.98	0.06	2.28