

DRAINAGE INFORMATION SHEET

PROJECT TITLE: RUTLEDGE LOT 1023 ZONE ATLAS/DRNG. FILE #: D-23001F
DRB #: _____ EPC #: _____ WORK ORDER #: _____
LEGAL DESCRIPTION: LOT 1023, UNIT 10, SANDIA HEIGHTS SOUTH
CITY ADDRESS: 1023 TRAMWAY LANE NE
ENGINEERING FIRM: MCDOWELL ENGINEERING, INC. CONTACT: JACKIE MCDOWELL
ADDRESS: 7820 BEVERLY HILLS NE PHONE: 828-2430
OWNER: ROSEMARY RUTLEDGE CONTACT: ROSEMARY RUTLEDGE
ADDRESS: 6128 PADRE CT. NE PHONE: 828-9644
ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
☒ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAIN. PLAN
☒ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERTIFICATION
____ OTHER _____

PRE-DESIGN MEETING:

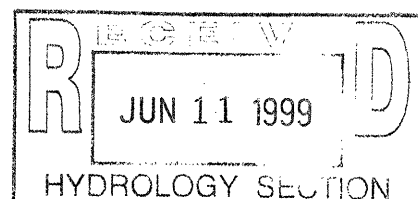
____ YES
☒ NO
____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ S.DEV PLAN FOR SUB'D APPROVAL
____ S.DEV PLAN FOR BLDG PMT APPR.
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
____ CERT. OF OCCUPANCY APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER _____ (SPECIFY)

DATE SUBMITTED: JUNE 9, 1999

BY: JACKIE S. MCDOWELL, P.E.



County of Bernalillo

State of New Mexico



BOARD OF COUNTY COMMISSIONERS

TOM RUTHERFORD, CHAIR
DISTRICT 3
BARBARA J. SEWARD, VICE CHAIR
DISTRICT 4
KEN SANCHEZ, MEMBER
DISTRICT 1
STEVE D. GALLEGOS, MEMBER
DISTRICT 2
LES HOUSTON, MEMBER
DISTRICT 5
JUAN R. VIGIL, COUNTY MANAGER

MARK J. CARRILLO, ASSESSOR
JUDY D. WOODWARD, CLERK
IRA ROBINSON, PROBATE JUDGE
JOE BOWDICH, SHERIFF
ORLANDO VIGIL, TREASURER

2400 BROADWAY, S.E.
ALBUQUERQUE, NEW MEXICO 87102
PUBLIC WORKS (505) 848-1500

June 17, 1999

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

RE: Grading and Drainage Plan for Lot 1023, Sandia Heights South, (D23/D1F) (PWDN-990124) Engineer's Stamp Dated 6/9/99.

Dear Jackie:

This letter is a compilation of comments from my office as well as from County Public Works and AMAFCA. Prior to approval for Grading Permit release for the above referenced Lot, the plan must be revised to address the following comments:

1. The center portion of this Lot that is in the existing FEMA floodplain must be within an AMAFCA easement. No structures will be allowed within this easement without AMAFCA Board approval. Therefore, it is recommended that the residence be moved outside of the AMAFCA easement, or wait until the new FEMA maps are adopted for the floodplain to be removed.
2. Please use the more recent mapping for the off-site drainage basin map.

For your information, the March 31, 1999 preliminary flood maps referenced on the plan will not be adopted by the Community at this time. We have prepared comments and will request that FEMA reissue the preliminary maps. If FEMA agrees, it appears that new flood maps will not be adopted for at least eight months.

If you have any questions regarding these comments, please call me at 924-3982, or contact Brad Catanach at the County.

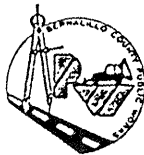
Sincerely,

A handwritten signature in cursive script, reading "Susan Calongne".

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Lisa Ann Manwill, P.E., Albuquerque Metropolitan Arroyo Flood Control Authority
Brad Catanach, P.E., Bernalillo County Public Works Division
File

BERNALILLO COUNTY



SUSAN

FP

PWD SUBMITTAL

Use for all PWD applications EXCEPT Street Excavation

☒ NEW SUBMITTAL

☐ RESUBMITTAL

☐ FINAL SIGNOFF

TODAY'S DATE: 6-9-99

CASE NO: PWDN 990124

OWNER

OWNER	Rosemary Rutledge	PHONE	828-9644
MAILING ADDRESS	6128 Padre Ct. NE	CITY	Alb ZIP 87111

AGENT

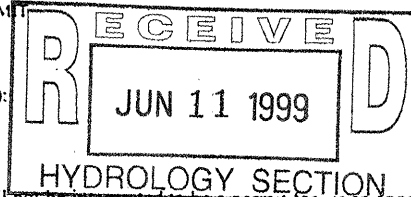
AGENT / CONTRA	McDowell Engineering, Inc.
MAILING ADDRESS:	7820 Beverly Hills Avenue NE Albuquerque, NM 87122
STATE LICENSE	CLASS
ARCHITECT/ENGINEER	LICENSE NO. PHONE 828-2430

SITE INFORMATION

SITE ADDRESS / DIRECTIONS	1023 Tramway Lane. - Sandia Hts.	ZONE ATLAS NO.	D-23
LEGAL DESCRIPTION	Lot # 1023, Unit 10, Sandia Heights South	LOT SIZE:	0.91 ac.
EXISTING BUILDING(S) AND USE:	PROPOSED BUILDING(S):		
UPC #	1-023-063-375-332-101-14		

TYPE OF SUBMITTAL

- | | |
|---|--|
| <input type="checkbox"/> REPLAT | <input type="checkbox"/> TRAFFIC IMPACT ANALYSIS / TRAFFIC STUDY |
| <input type="checkbox"/> MINOR SUBDIVISION | <input type="checkbox"/> INFRASTRUCTURE LIST / DESIGN REVIEW |
| <input type="checkbox"/> MAJOR SUBDIVISION | <input type="checkbox"/> SPECIAL USE PERMIT |
| <input type="checkbox"/> CONSTRUCTION DRAWINGS | <input type="checkbox"/> BARRICADING PERMIT |
| <input checked="" type="checkbox"/> GRADING & DRAINAGE PLAN | <input type="checkbox"/> BUILDING PERMIT |
| <input type="checkbox"/> AS-CONSTRUCTED GRADING & DRAINAGE PLAN | <input type="checkbox"/> INSPECTION |
| <input type="checkbox"/> VARIANCE REQUEST | <input type="checkbox"/> OTHER (Specify): |
| <input type="checkbox"/> LAND DIVISION | |



The issuance of a permit or a review or approval of plan specifications, computations, and shop drawings, shall not be interpreted to be a permit for, or an approval of any variance or violation of any of the provisions of any COUNTY or STATE codes, ordinances, standards, or policies. Nor shall such issuance of a permit or approval of plans, specifications, computations, and shop drawings prevent any authorized COUNTY representative or COUNTY inspector from thereafter requiring the correction of errors in said plans, specifications, computations, or shop drawings or from stopping construction operations which are being carried on thereunder when in violation of any COUNTY or STATE codes, ordinances, standards, or policies.

☐ Owner ☒ Agent ☐ Contractor

Signature

[Signature]

Date 6-9-99

COUNTY

BERNALILLO COUNTY USE ONLY

C/R's	TOTAL FEE
	Receipt No
	Received By

ATTACHMENT NO. 1

SUPPLEMENTAL CALCULATIONS TO

**SANDIA HEIGHTS SOUTH
LOT 1023
UNIT 10**

GRADING & DRAINAGE PLAN

June 9, 1999

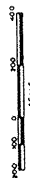
I, Jackie S. McDowell, Registered Professional Engineer, No. 10903, hereby certify that I have prepared the attached calculations.

  6-9-99

Jackie S. McDowell, P.E. Date

TABLE OF CONTENTS

	Page No.
Vicinity Map - Zone Atlas D-23	1
FEMA Floodway Map ID (1983)	2
FEMA Floodway Map (1983	3
FEMA FIRM Map ID (1996)	4
FEMA FIRM Map (1996)	5
AGIS Flood Zone Plot	6
FEMA FIRM Map ID (1999)	7
FEMA FIRM Map (1999)	8
Reduced Grading & Drainage Plan	9
Onsite Basin Calculations	10
Offsite Basin Calculations	11



LEGAL	DESCRIPTION
1	15
2	1
3	23

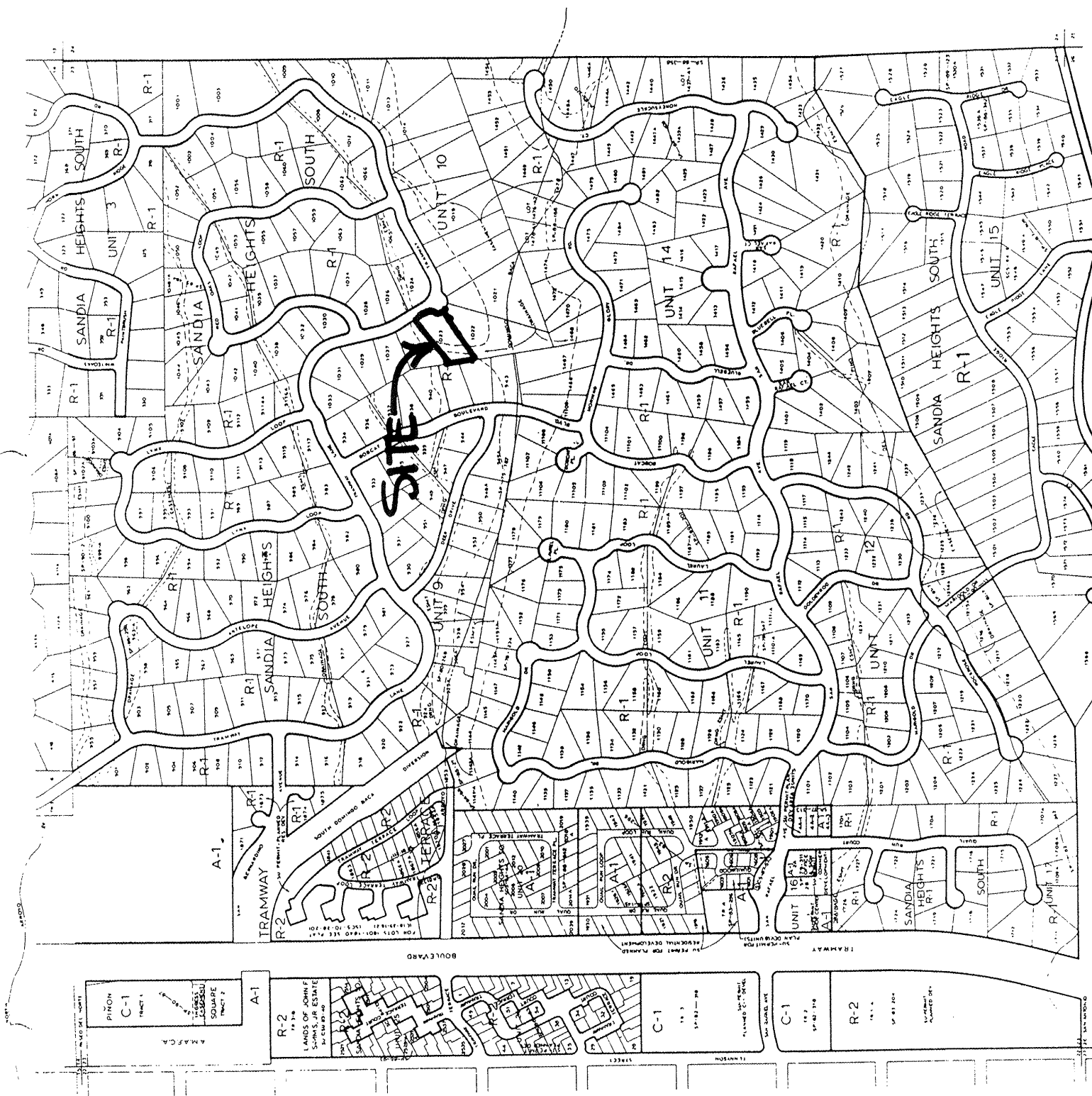
UNIFORM REPORT COOL
1-023-042

Country 2000000000

RECEIVED 4 17 73
James E. Baker
 CONFIDENTIAL - ON CHARTER

DEC 12 1960

D-23-Z



NATIONAL FLOOD INSURANCE PROGRAM

FLOODWAY

**FLOOD BOUNDARY AND
FLOODWAY MAP**

CITY OF

**ALBUQUERQUE,
NEW MEXICO**

BERNALILLO COUNTY

PANEL 11 OF 50

COMMUNITY-PANEL NUMBER

350002 0011

EFFECTIVE DATE:

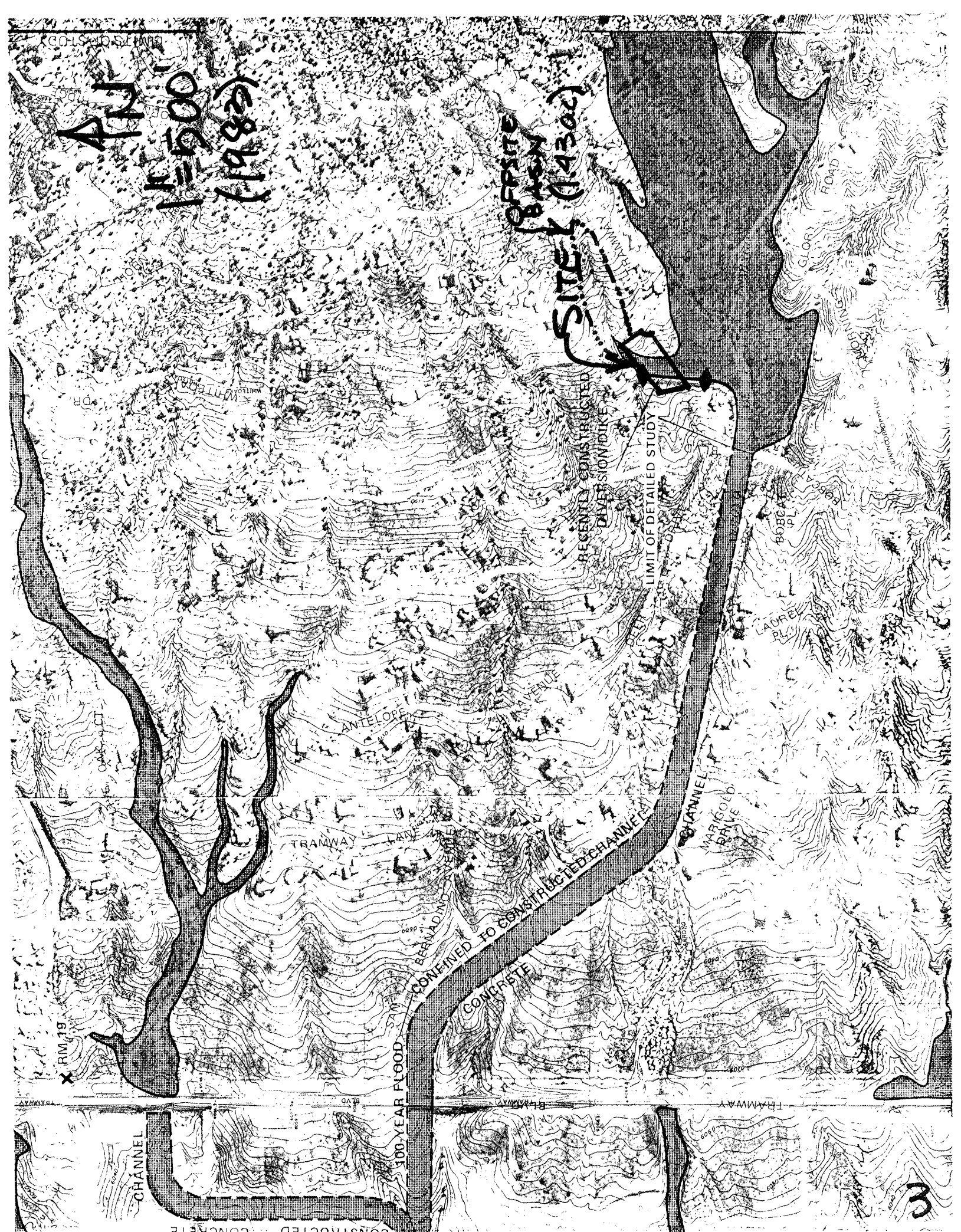
OCTOBER 14, 1983



Federal Emergency Management Agency

APR 11 1982

OFFICE
BROWN
SITE 1 (14302)
SITE 2 (14302)



X RM 19

3

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY,
NEW MEXICO AND
INCORPORATED AREAS

PANEL 161 OF 825

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:
COMMUNITY

NUMBER PANEL SUFFIX

ALBUQUERQUE CITY OF
BERNALILLO COUNTY
UNINCORPORATED AREAS

350002	0161	D
350001	0161	D

MAP NUMBER
35001C0161 D

EFFECTIVE DATE:
SEPTEMBER 20, 1996



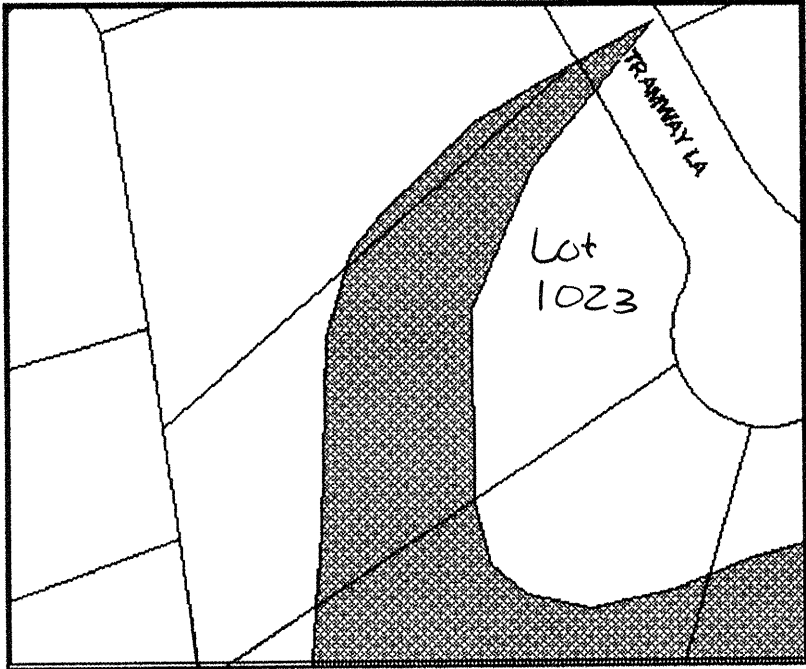
Federal Emergency Management Agency

UNIT OF STUDY



Activate By 'Clicking' on the Map


☐ Zoom In ☐ Id Parcel ☒ Pan ☐ Zoom Out



Flood Zones

Zone A Zone AO Zone AH Zone AE

CITYWIDE VIEW



LAYER LEGEND

- ☒ STREET NAMES
- ☐ PARKS
- ☐ WATER LINES
- ☐ CITY LIMITS
- ☐ ZONE MAP GRID
- ☒ FLOOD ZONES

ZOOM SCALE

MEDIUM ▼

TEXT SCALE

MEDIUM ▼

ReDraw Screen

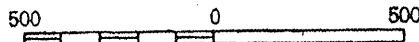
FULL VIEW QUICK ADDRESS QUERY NEW QUERY

ALBUQUERQUE GIS

1996 FEMA MAP
(as digitized on G & D Plan)



APPROXIMATE SCALE IN FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS

PANEL 161 OF 825

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:
COMMUNITY

NUMBER PANEL SUFFIX

ALBUQUERQUE, CITY OF
BERNALILLO COUNTY,
UNINCORPORATED AREAS

350002	0161	E
350001	0161	E

MAP NUMBER
35001C0161 E

MAP REVISED:
PRELIMINARY
MICHAEL BAKER, JR., INC.

MAR 29 1999



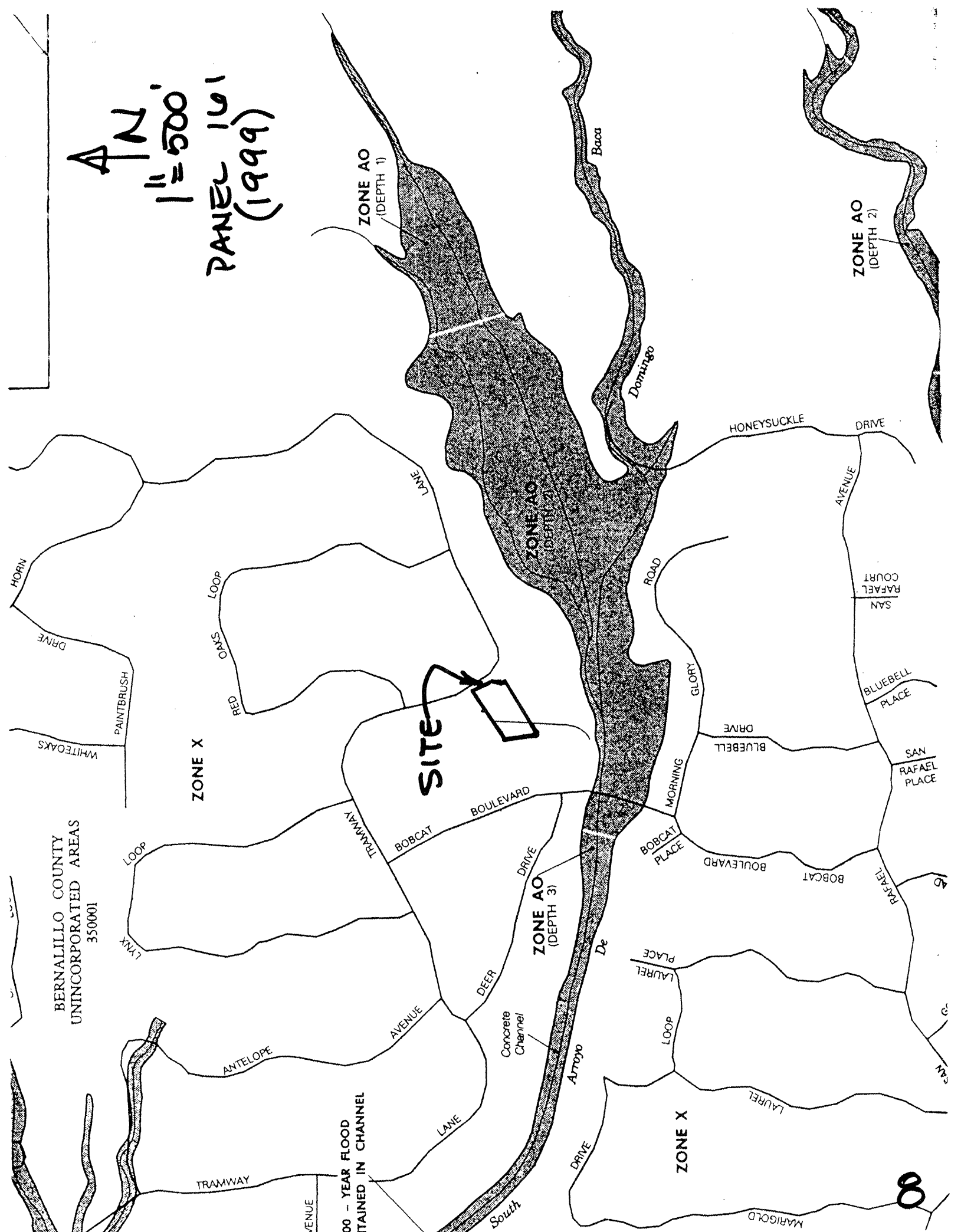
Federal Emergency Management Agency

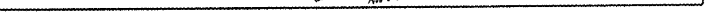
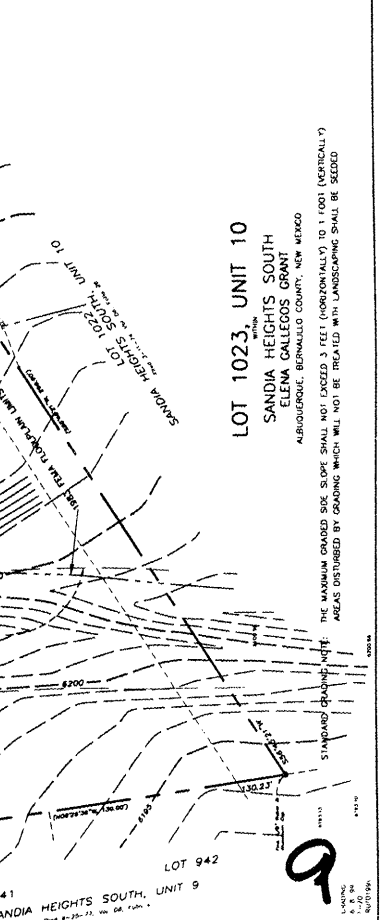
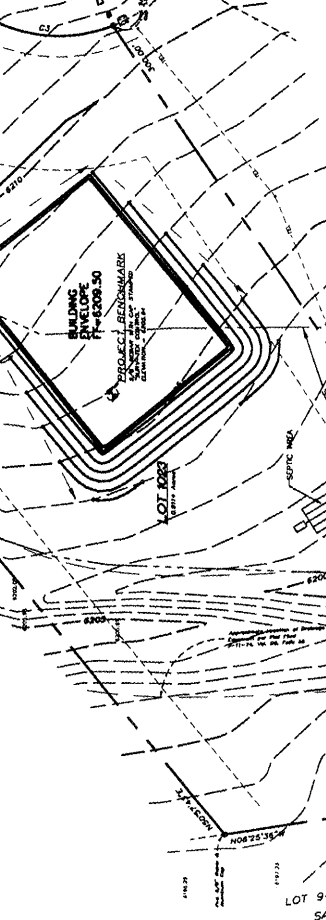
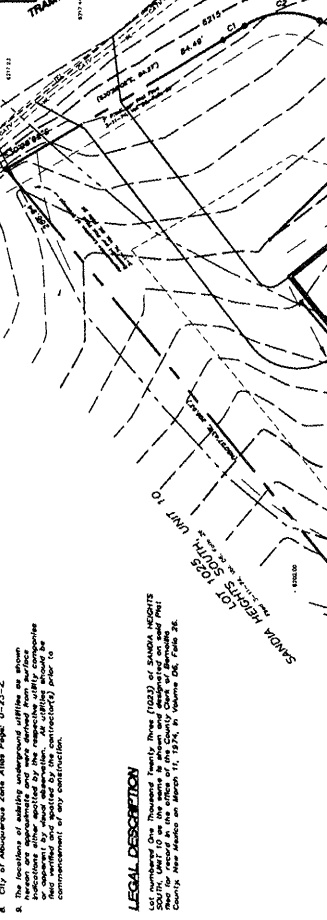
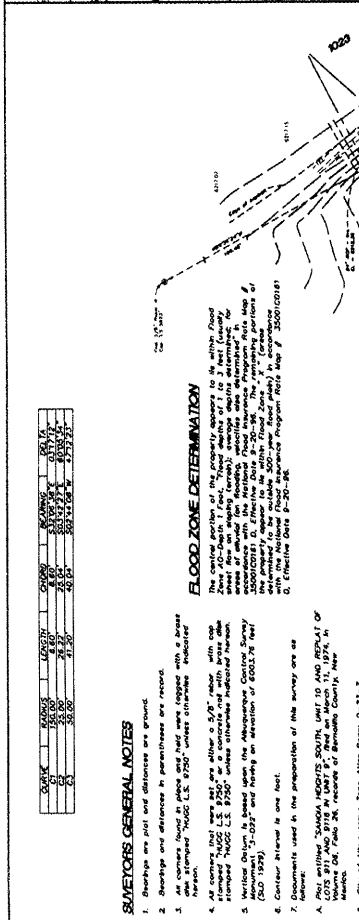
ZONE AO
(DEPTH 1)

35°09'22"

106°28'07"

AN
1" = 500'
PANEL 101
(1999)





Project: RUTLEDGE/NEUMANN LOT 1023 ON-SITE CALCULATIONS

08-Jun-99

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	0.91	0.40
Treatment B	0.00	0.18
Treatment C	0.00	0.18
Treatment D	0.00	0.15
Total (acres) =	0.91	0.91

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.06	0.10	0.02	0.05	0.00	0.02
Volume (cubic feet) =	2,643	4,259	925	2,104	66	827

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	2.00	0.88	0.79	0.35	0.05	0.02
Treatment B	0.00	0.53	0.00	0.26	0.00	0.07
Treatment C	0.00	0.67	0.00	0.41	0.00	0.18
Treatment D	0.00	0.79	0.00	0.54	0.00	0.33
Total Q (cfs) =	2.00	2.86	0.79	1.55	0.05	0.59

Project: RUTLEDGE/NEUMANN LOT 1023 OFF-SITE CALCULATIONS

08-Jun-99

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 =

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

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	1.43	0.61
Treatment B	0.00	0.29
Treatment C	0.00	0.29
Treatment D	0.00	0.24
Total (acres) =	1.43	1.43

Volume	100 year Existing	100 year Proposed	10 year Existing	10 year Proposed	2 year Existing	2 year Proposed
Volume (acre-feet) =	0.10	0.15	0.03	0.08	0.00	0.03
Volume (cubic feet) =	4,153	6,745	1,453	3,345	104	1,324

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	3.15	1.34	1.24	0.53	0.07	0.03
Treatment B	0.00	0.85	0.00	0.42	0.00	0.11
Treatment C	0.00	1.08	0.00	0.66	0.00	0.29
Treatment D	0.00	1.26	0.00	0.86	0.00	0.52
Total Q (cfs) =	3.15	4.53	1.24	2.46	0.07	0.95

CURVE	RADIUS	LENGTH	CHORD	BEARING	DELTA
C1	150.00'	8.60'	8.60'	S32°06'38"E	0.31712"
C2	25.00'	26.22'	25.04'	S03°42'27"E	60°05'34"
C3	50.00'	41.20'	40.04'	S02°44'08"W	47°12'23"

SURVEYORS GENERAL NOTES

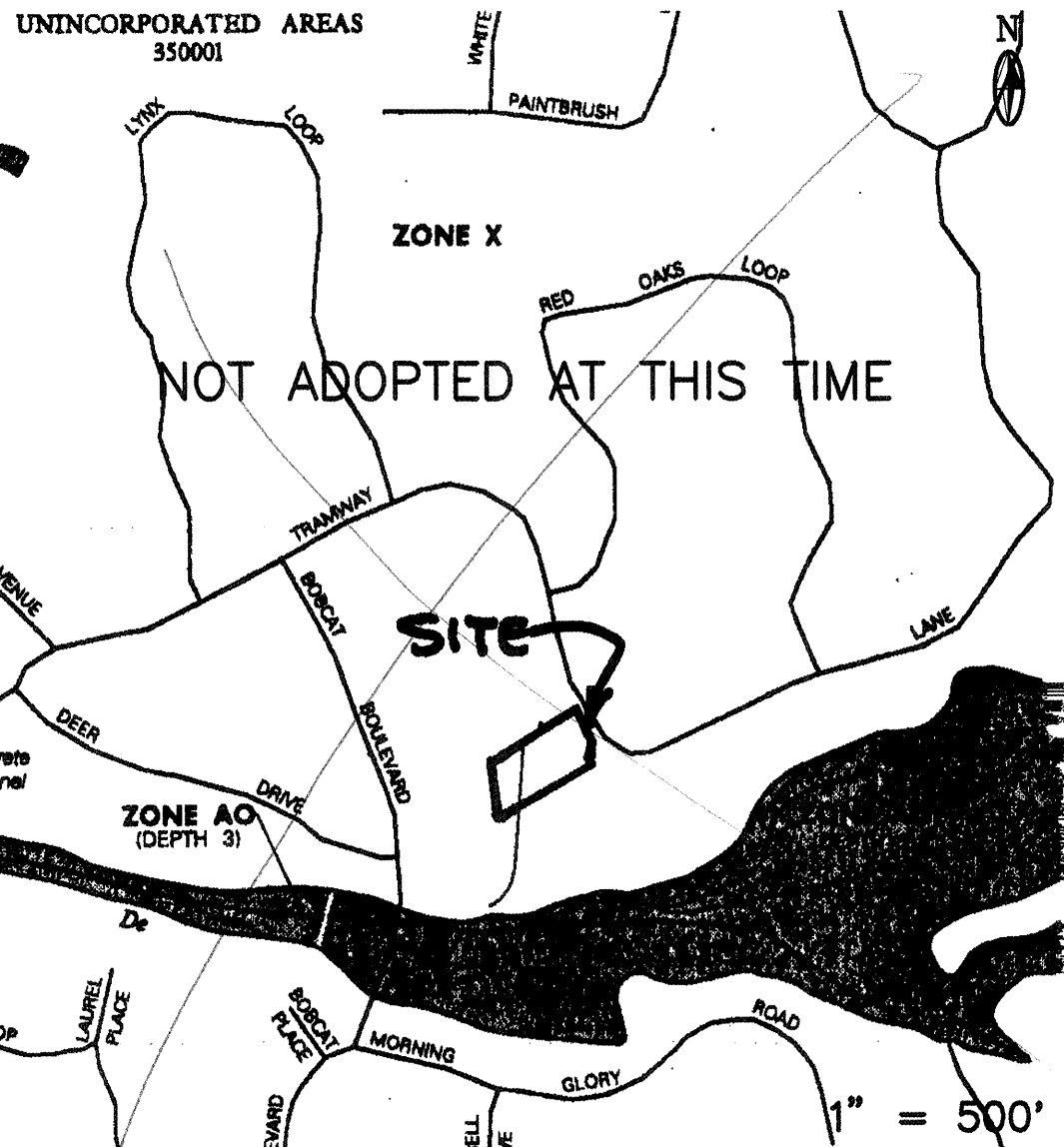
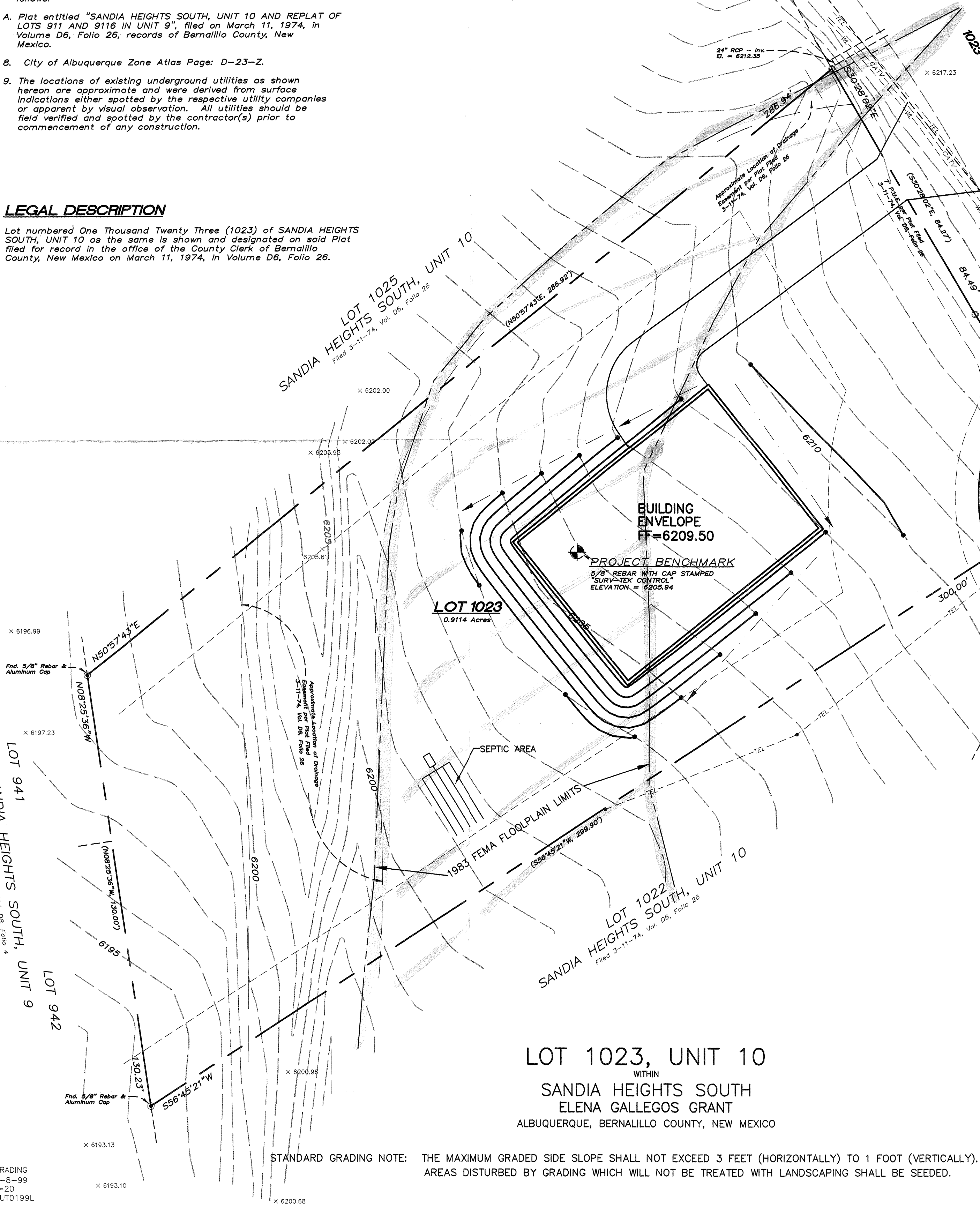
- Bearings are plat and distances are ground.
- Bearings and distances in parentheses are record.
- All corners found in place and held were tagged with a brass disk stamped "HUGG L.S. 9750" unless otherwise indicated hereon.
- All corners that were set are either a 5/8" rebar with cap stamped "HUGG L.S. 9750" or a concrete nail with brass disk stamped "HUGG L.S. 9750" unless otherwise indicated hereon.
- Vertical Datum is based upon the Albuquerque Control Survey Monument "3-D22" and having an elevation of 6003.76 feet (SLD 1929).
- Contour Interval is one foot.
- Documents used in the preparation of this survey are as follows:
 - Plat entitled "SANDIA HEIGHTS SOUTH, UNIT 10 AND REPLAT OF LOTS 911 AND 916 IN UNIT 9", filed on March 11, 1974, in Volume D6, Folio 26, records of Bernalillo County, New Mexico.
 - City of Albuquerque Zone Atlas Page: D-23-Z.
 - The locations of existing underground utilities as shown hereon are approximate and were derived from surface indications either spotted by the respective utility companies or apparent by visual observation. All utilities should be field verified and spotted by the contractor(s) prior to commencement of any construction.

LEGAL DESCRIPTION

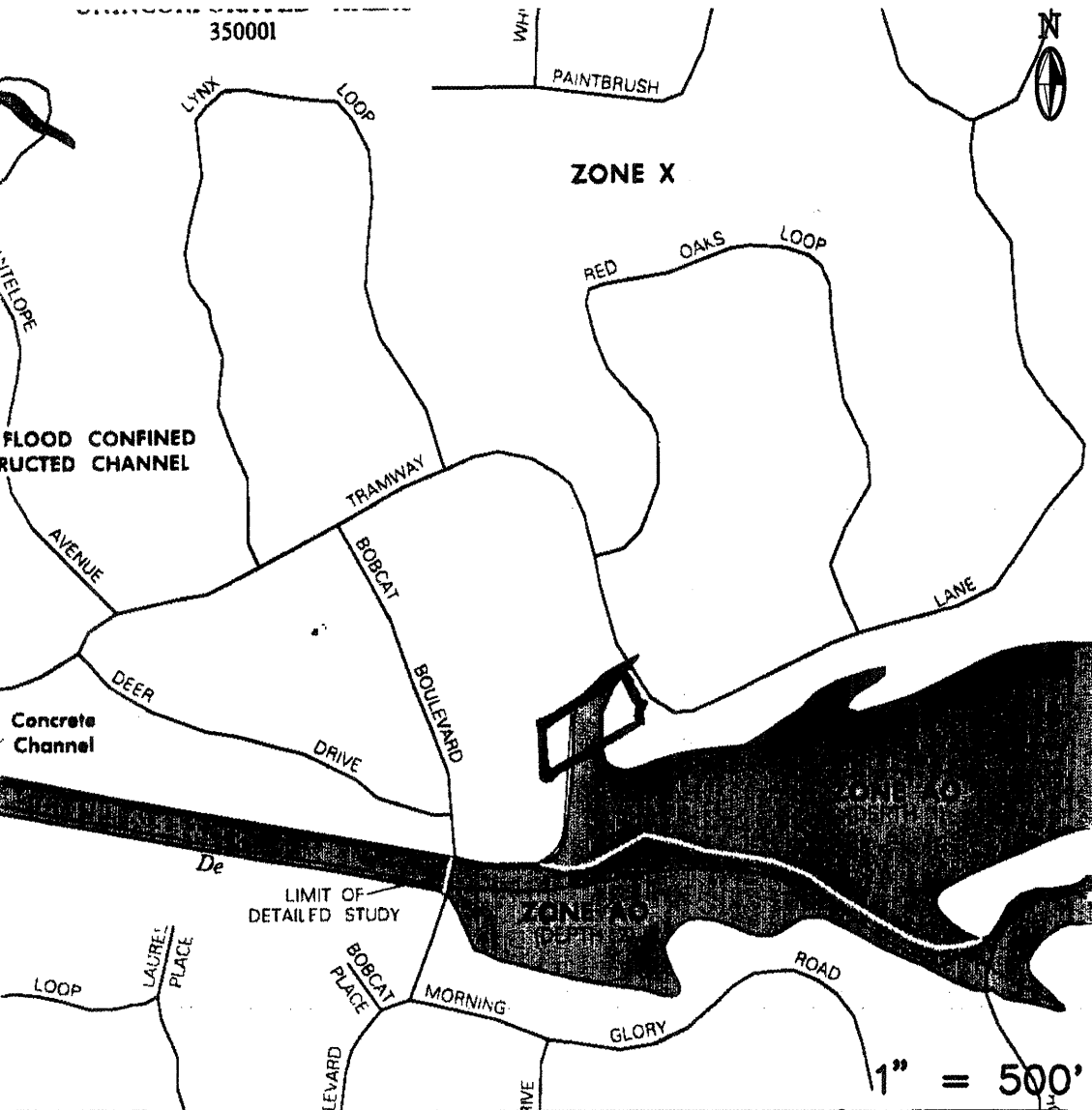
Lot numbered One Thousand Twenty Three (1023) of SANDIA HEIGHTS SOUTH, UNIT 10 as the same is shown and designated on said Plat filed for record in the office of the County Clerk of Bernalillo County, New Mexico on March 11, 1974, in Volume D6, Folio 26.

FLOOD ZONE DETERMINATION

The central portion of the property appears to lie within Flood Zone AO-Depth 1 Foot. Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined; for areas of alluvial fan flooding, velocities also determined" in accordance with the National Flood Insurance Program Rate Map # 35001C0161 D, Effective Date 9-20-96. The remaining portions of the property appear to lie within Flood Zone " X " (areas determined to be outside 500-year flood plain) in accordance with the National Flood Insurance Program Rate Map # 35001C0161 D, Effective Date 9-20-96.



FEMA FLOODWAY MAP NO. 161 (1999)



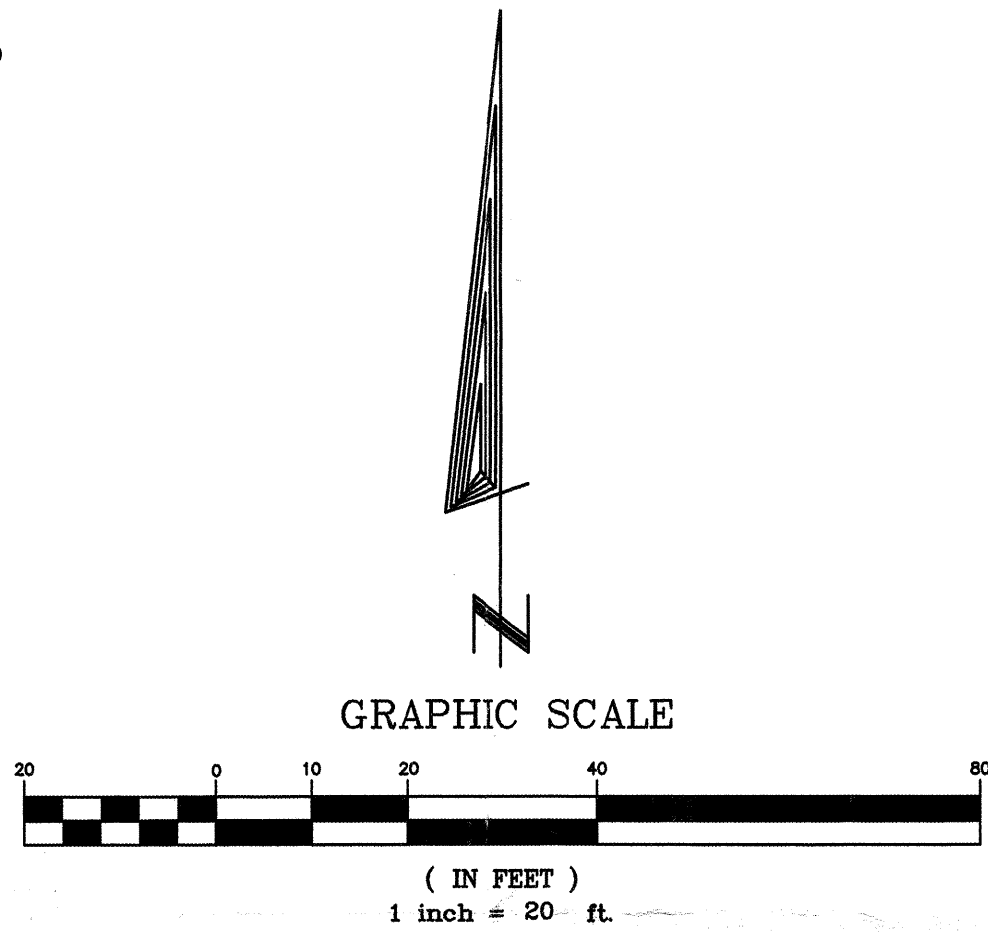
FEMA FLOODWAY MAP NO. 161 (1996)



VICINITY MAP ZONE ATLAS: D-23

SURVEYORS LEGEND

- Find Corner =
- Set Corner =
- Underground Utility =
- Pedestal =
- Transformer =
- Water Meter =
- Telephone Pin Flag =
- Underground Telephone = ---TEL---
- Underground Cable Television = ---CATV---
- Underground Water Line = ---WL---



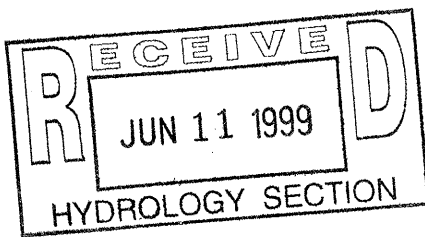
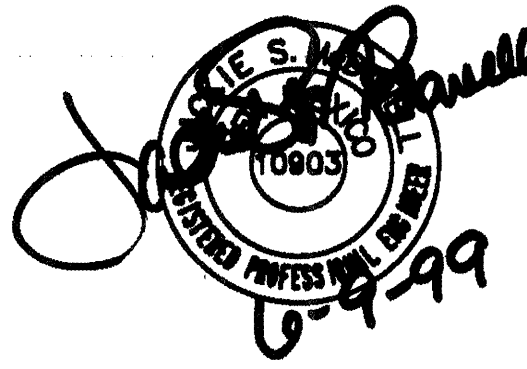
STANDARD SEPTIC TANK NOTES:

- THE SEPTIC TANK AND DRAIN FIELD SHALL NOT BE LOCATED WITHIN 100 FEET OF THE WELL.
- THE SEPTIC TANK AND DRAIN FIELD SHALL NOT BE LOCATED WITHIN 26 FEET OF THE DRAINAGE EASEMENT.

STANDARD FENCE NOTES:

- NO FENCING SHALL BE CONSTRUCTED WITHIN ANY DRAINAGE EASEMENT AREA UNLESS SPECIFICALLY APPROVED BY THE BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT.
- ANY FUTURE FENCING ALONG THE PERIMETER PROPERTY LINES MUST ADDRESS HOW OFFSITE FLOWS ARE CONVEYED THROUGH THE SITE AND BE APPROVED BY THE BERNALILLO COUNTY PUBLIC WORKS DEPARTMENT.

	LEGEND	
	EXISTING	PROPOSED
CONTOUR	--- 5820 ---	--- 5850 ---
PROPERTY LINE	---	---
ROAD	---	---
SETBACK	---	---
EROSION PROTECTION WALL		=====



ENGINEER'S CERTIFICATION:

I, Jackie S. McDowell, hereby certify that I personally inspected the site shown on this plan on June 2, 1999, and as of that date it appeared that no filling, grading, or excavation had occurred thereon since completion of the topographic survey used to prepare this plan.

EXISTING CONDITIONS:

Presently the 0.91 acre site is undeveloped. The site is bounded on the south, west and north by residential lots, and on the east by Tramway Lane. The site is well vegetated with native grasses and shrubs. Site topography slopes from the northeast to the southwest at approximately 6 percent. Offsite flows currently enter the property from the northeast. The offsite basin is minimal and contains approximately 1.43 acres.

As shown by Floodway Map No. 161, dated 1996, the site is located partially in a 100-year flood plain. A restudy has been prepared by Resource Technology, Inc. (RTI) and is currently being reviewed by the authorities. Discussions with engineers from the Michael Baker, Jr. Company and Ms. Susan Calongne, City-County Floodplain Administrator, indicate that reviews are under way and public hearings will be held in the near future to adopt most of the dozen or so revised/updated floodway maps. It is obvious that this particular area will not be disputed, since the floodplain has been reduced in size due to development and errors in the 1983 maps. We are hereby requesting that this grading and drainage plan be approved with the condition that the Owner is aware that his property is technically still in a floodplain, but the floodplain should be removed in the future. Any other stipulations the City/County Floodplain Administrator requires will be adhered to, if reasonable.

PROPOSED CONDITIONS:

As shown by the plan, the building footprint is located along the easterly portion of the lot. Flows from the offsite basin will continue to cross the site as are presently doing so. On site flows will drain around the home via swales, and flow to the west. All roof drainage will discharge from the roof to the lot and be directed around the structure to existing drainage paths. Access will be taken from Tramway Lane. This road is currently paved and maintained by Bernalillo County or Sandia Heights Association.

Supplemental calculations have been provided to the Bernalillo County Public Works Department identified as Attachment No. 1.

The plan shows the proposed location of the septic drain field. Water will be taken from the existing Sandia Heights private water system.

CALCULATIONS:

The calculations shown hereon define the 100 year-6 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 Arroyo Flood Control Authority.

PROPERTY ADDRESS:

Tramway Lane NE

SURVEY:

Topographic survey provided by Surv-Tek, Inc. dated May, 1999.

*area not subject to flooding
w/o fence flood zone*

BERNALILLO COUNTY			NEW MEXICO	
LOT 1023, UNIT 10 SANDIA HEIGHTS SOUTH				
RUTLEDGE/NEUMANN GRADING & DRAINAGE PLAN				
McDowell Engineering Inc.				
Designed JSM		Drawn STAFF		Checked JSM
File RUTO199L		Date JUNE, 1999		Sheet 1 of 1