

## TABLE OF CONTENTS

PURPOSE AND SCOPE	1
LOCATION AND DESCRIPTION OF PROJECT	1
DESIGN CRITERIA	2
EXISTING DRAINAGE CONDITIONS	3
PROPOSED DRAINAGE CONDITIONS	3
CONCLUSIONS	4

### Purpose and Scope

The purpose of this drainage plan is to establish the criteria for controlling surface runoff from a particular development in a manner that is acceptable to the City of Albuquerque and to the Albuquerque Metropolitan Arroyo Flood Control Authority.

This plan will determine the runoff resulting from a 100-year frequency storm falling on the site of the Coronado Savings and Loan Branch Bank under existing and developed conditions.

The scope of this plan is to insure that the proposed facility will be protected from storm runoff and that the construction of this project will not increase the flooding potential of the adjacent properties.

### Location and Description of Project

The Coronado Savings & Loan Branch Bank site is located within the corporate limits of the City of Albuquerque in the Northeast Heights. The parcel is part of the Elena Gallegos Grant and the legal description is Township 11 North, Range 4 East, Section 31. The site fronts on the west side of Wyoming Boulevard N.E. between Spain Road N.E. and Academy Road N.E.

This parcel is approximately 0.8 acres and is part of a larger office and shopping complex that is being

developed by Home Planning Development Company, Inc. At this time the project calls for the construction of a temporary/modular type structure.

The natural topography in the area slopes from northeast to southwest at approximately 3.3 percent. The vegetation is sparse and the soils are composed of decomposed granite.

#### Design Criteria

In analyzing the storm runoff, the Rational Formula,  $Q = CIA C_f$  is used.

Where:

$Q$  = Runoff quantity in cubic feet/second.

$A$  = Contributing area in acres.

$C_f$  = Frequency factor for Rational Formula.

$I$  = Intensity in inches/hour for a duration equal to the time of accumulation (duration) measured in minutes and obtained from Figure 2, Intensity Duration Frequency Curves, Albuquerque Area 1961.

(Note: Where a Time of Concentration [TC] is less than ten minutes, the intensity value derived from a Tc of ten minutes is employed.)

C = Runoff Coefficient (No Units). This coefficient represents the integrated effects of infiltration, detention storage, evaporation, retention, flow routing, and interception which all affect the time distribution and peak rate of runoff.

#### Existing Drainage Conditions

The Bear Canyon Tributary Arroyo is north of the parcel. However, the recent construction of Wyoming Blvd. N.E. cut off the overland flow from the east and defined the point at which the arroyo crosses Wyoming Blvd. There is another minor arroyo north of the parcel that stops most of the overland flow from the north. As a result, we feel that the site flows are not significant.

#### Proposed Drainage Conditions

As shown on the attached grading plan, the water will flow from east to west and into a retention pond. The lot contains approximately 34,600 square feet and the pond contains in excess of 4100 cubic feet. All flows will be directed into the pond.

The volume of the pond was determined as follows:

Required Storage = Area of Lot x 0.1

(continued)

$$\begin{aligned}\text{Required Storage} &= 34,600 \times 0.1 \\ &= 3460 \text{ cubic feet.}\end{aligned}$$

$$\begin{aligned}\text{Actual Storage} &= \frac{(60 \times 60) + (68 \times 68)}{2} \times 1 \\ &= 4112 \text{ cubic feet.}\end{aligned}$$

### Conclusions

1. Off-site flows are negligible.
2. All flows from the site must be directed into the ponding area.
3. The pond must retain in excess of 3600 cubic feet.

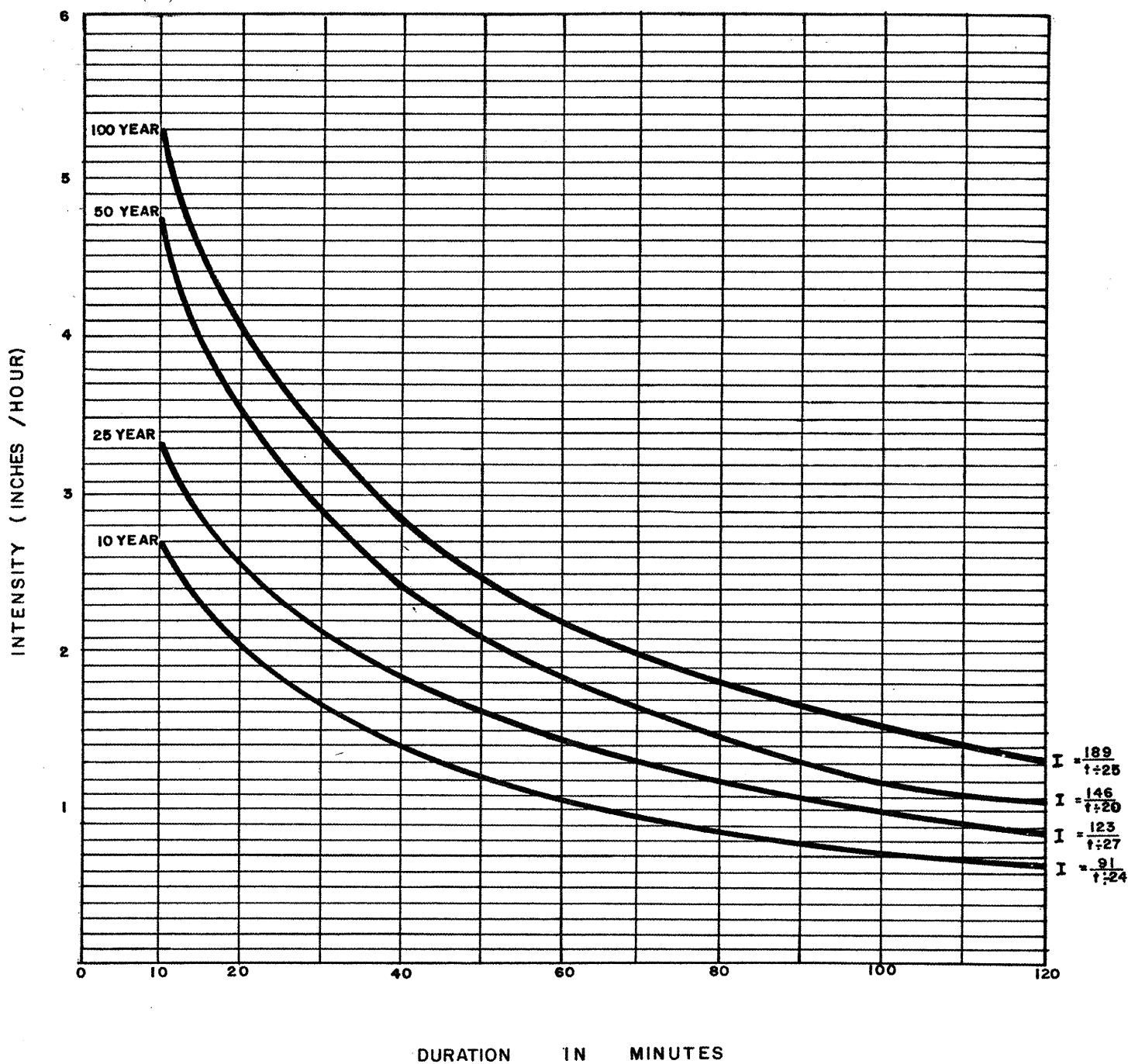


FIGURE 2

MASTER PLAN OF DRAINAGE  
CITY OF ALBUQUERQUE, NEW MEXICO  
AND ENVIRONS

INTENSITY DURATION  
FREQUENCY CURVES

DRAINAGE REPORT

FOR

CORONADO SAVINGS AND LOAN BRANCH BANK

SEPTEMBER 1977



Goldberg · Mann & Associates

Engineers · Planners

2329 Wisconsin N.E.

Albuquerque, New Mexico 87110



# Goldberg · Mann & Associates

Engineers · Planners

2329 Wisconsin N.E., Suite E

Albuquerque, New Mexico 87110

(505) 292-1092

Burns & Peters  
Architects and Planners  
8100 Mountain Road Place NE  
Albuquerque, New Mexico 87110

Dear Sirs:

Re: Coronado Savings & Loan Branch Bank Project

We are herewith transmitting the drainage plan for the  
Coronado Savings & Loan Branch Bank.

This plan is in compliance with the requirements of the  
City of Albuquerque and resolution no. 1972-2, Albuquerque  
Metropolitan Arroyo Flood Control Authority.

We have enjoyed working with your firm on this plan and  
look forward to future opportunities to assist you.

Sincerely,

Thomas T. Mann, Jr., P.E.  
President

TTM:sj

Enclosures



FIGURE 1. LOCATION MAP



APPLICANT

LOCATION OF PARCEL

NAME: Burns & Peters, Architects PHONE: 265-3646  
ADDRESS: 8100 Mountain Road Place N.E.  
Albuquerque, New Mexico

LOT NO: Tract B BLOCK NO: \_\_\_\_\_  
SUBDIVISION: Alb. Brd. of Ed.  
STREET ADDRESS: Wyoming Blvd.  
and Spain Rd. N.E.  
CURRENT ZONING: SU-1

SIGNATURE:



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

October 18, 1985

Thomas Isaacson  
Isaacson & Arfman PA  
128 Monroe NE,  
Albuquerque, NM 87108

REF: TRACT B, BLOCK 1, AMERICAN HERITAGE NORTH, UNIT 3, DRAINAGE PLAN  
DATED 9/27/85 (F19-D30)

Dear Mr. Isaacson:

The referenced plan dated 9/27/85 is approved in concept and will allow sign-off of the Site Development Plan.

If you have any questions or comments regarding this project, Please call me at 766-7644.

Cordially,

Billy J. Goolsby  
CE/Design Hydrology

BJG/cl

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER

# DRAINAGE INFORMATION SHEET

PROJECT TITLE: The 5315 Building ZONE ATLAS/DRAINAGE FILE # F19/030  
 LEGAL DESCRIPTION: Tract B, Block 1, American Heritage North, Unit 3  
 CITY ADDRESS: 5315 Wyoming NE 87109  
 ENGINEERING FIRM: Isaacson & Artman, PA CONTACT: T. Isaacson  
 ADDRESS: 128 Monroe NE, City 87108 PHONE: 768-8828  
 OWNER: Fielder & Associates CONTACT: Kent Trauernicht  
 ADDRESS: Box 31290, City 87176 PHONE: 821-0000  
 ARCHITECT: Hutchinson Brown Burton & Partners CONTACT: R. Brown  
 ADDRESS: 202 Central SE, City 87102 PHONE: 842-5630  
 SURVEYOR: — CONTACT: —  
 ADDRESS: — PHONE: —  
 CONTRACTOR: — CONTACT: —  
 ADDRESS: — PHONE: —

## PRE-DESIGN MEETING:

☒

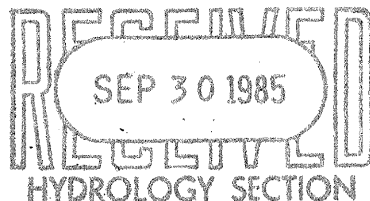
YES

☐

NO

☒

COPY OF CONFERENCE  
RECAP SHEET PROVIDED



DRB NO. 85-550 (8/20/85)

EPC NO. 2-76-172-3 5/10/85

PROJECT NO. \_\_\_\_\_

## TYPE OF SUBMITTAL:

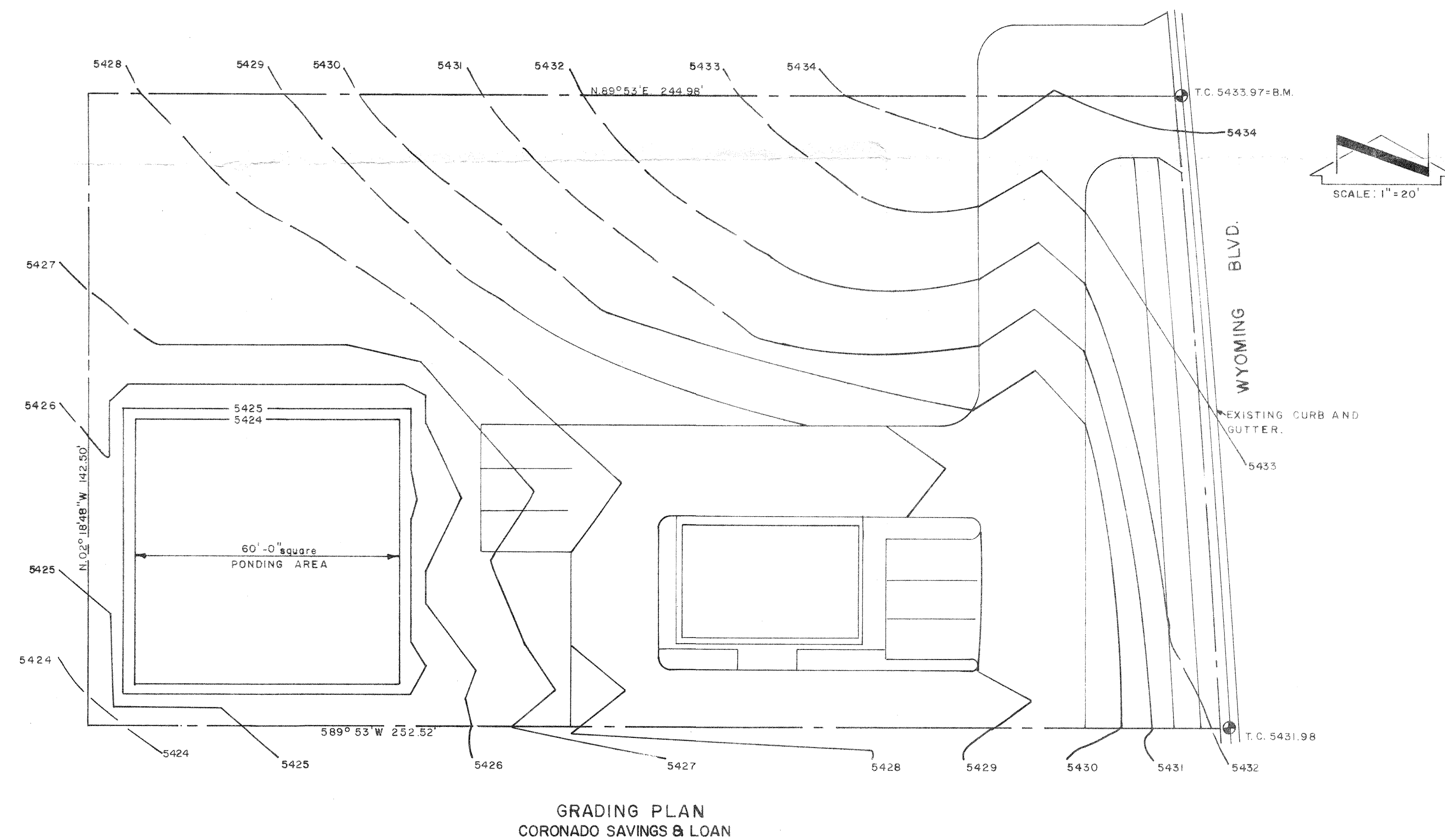
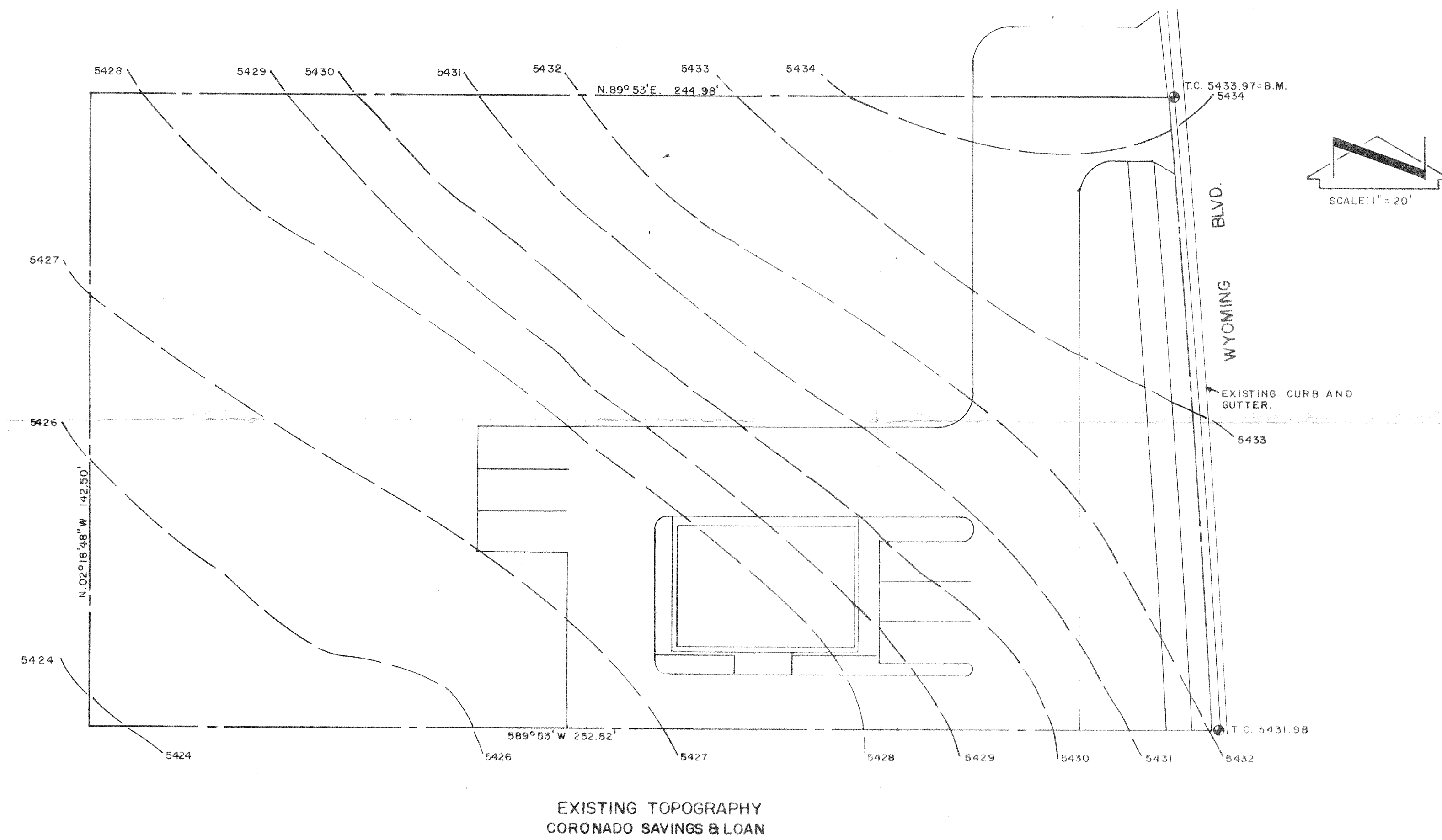
☐ DRAINAGE REPORT  
☐ DRAINAGE PLAN  
☒ CONCEPTUAL GRADING & DRAIN PLAN  
☐ GRADING PLAN  
☐ EROSION CONTROL PLAN  
☐ ENGINEER'S CERTIFICATION

## CHECK TYPE OF APPROVAL SOUGHT:

☐ SECTOR PLAN APPROVAL  
☐ SKETCH PLAT APPROVAL  
☐ PRELIMINARY PLAT APPROVAL  
☒ SITE DEVELOPMENT PLAN APPROVAL  
☐ FINAL PLAT APPROVAL  
☐ BUILDING PERMIT APPROVAL  
☐ FOUNDATION PERMIT APPROVAL  
☐ CERTIFICATE OF OCCUPANCY APPROVAL  
☐ ROUGH GRADING PERMIT APPROVAL  
☐ GRADING/PAVING PERMIT APPROVAL  
☐ OTHER \_\_\_\_\_ (SPECIFY)

DATE SUBMITTED: 9/30/85

BY: Tom Francis



# LEGEND

- PROPERTY LINE
- EXISTING TOPOGRAPHY
- PROPOSED TOPOGRAPHY
- SPOT ELEVATION

CORONADO SAVINGS & LOAN  
ALBUQUERQUE, NEW MEXICO

## DRAINAGE STUDY

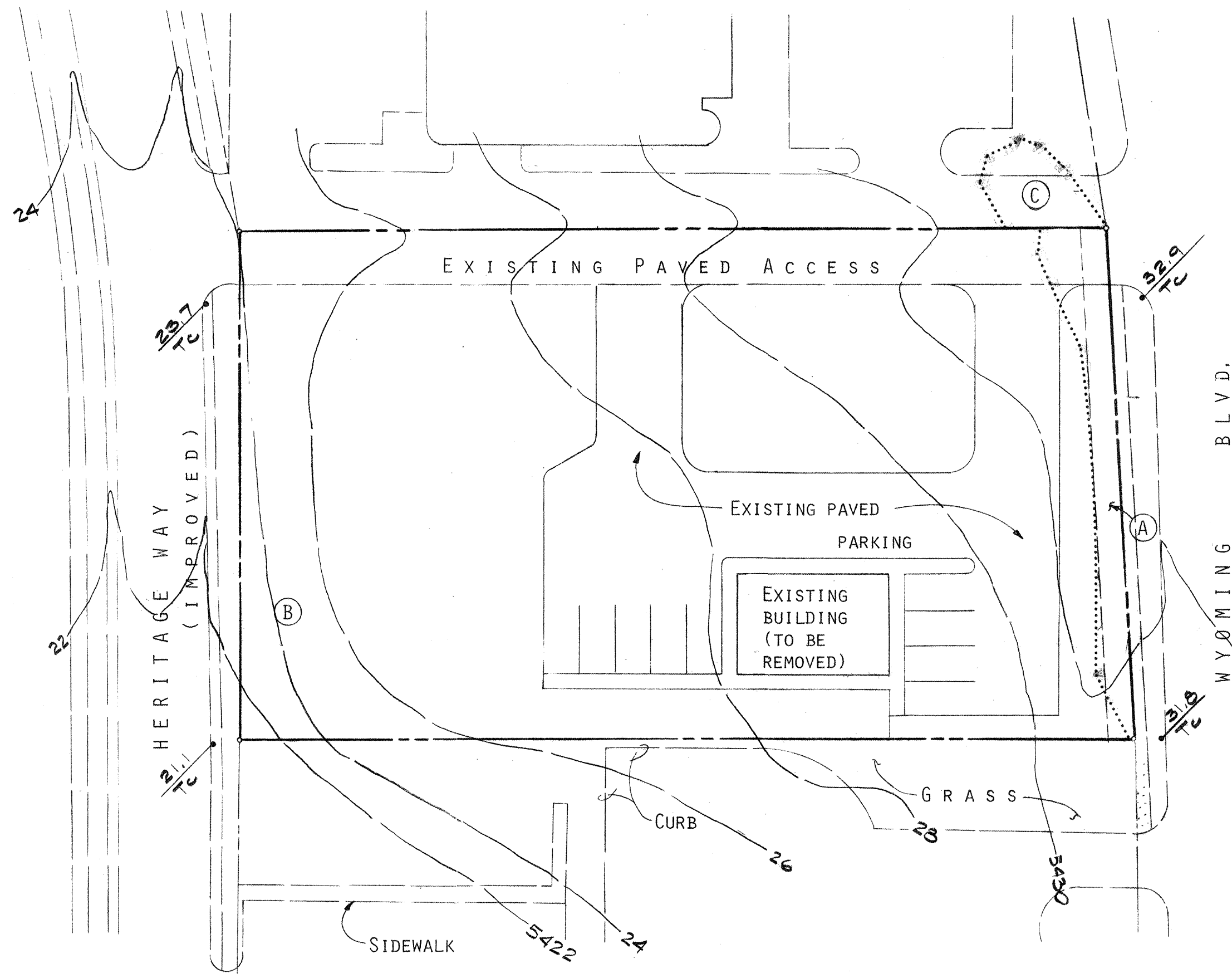
DATE	JOB NUMBER	DESIGNED T.M.	SHEET 1
9-77	7-20	DRAWN D.H.J.	OF 1
		CHECKED T.M.	



Goldberg Mann & Associates

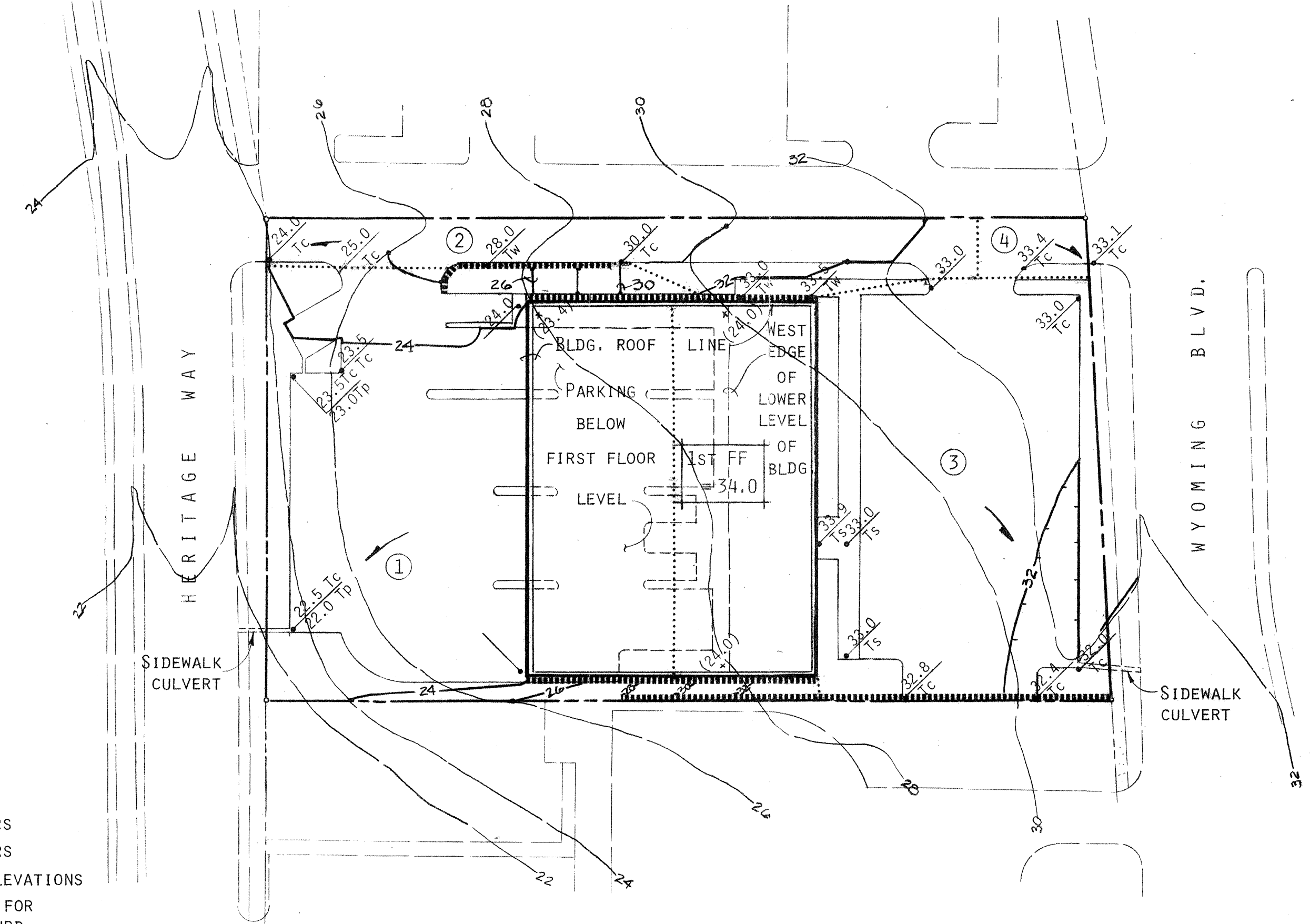
Engineers - Planners  
2329 Wisconsin N.E., Suite E Albuquerque, New Mexico 87110





**EXISTING SITE**  
1" = 30'

- LEGEND**
- EXISTING CONTOURS
  - FINISHED CONTOURS
  - EXISTING SPOT ELEVATIONS
  - SPOT ELEVATIONS FOR
    - TC - TOP OF CURB
    - TP - TOP OF PVM'T
    - TW - TOP OF RET. WL.
    - TS - TOP OF SDWK.
  - SPOT ELEV. AT PKNG. AREA UNDER BLDG.
  - RETAINING WALL
  - DRAINAGE BASIN NO.
  - DRAINAGE BASIN BOUNDARY

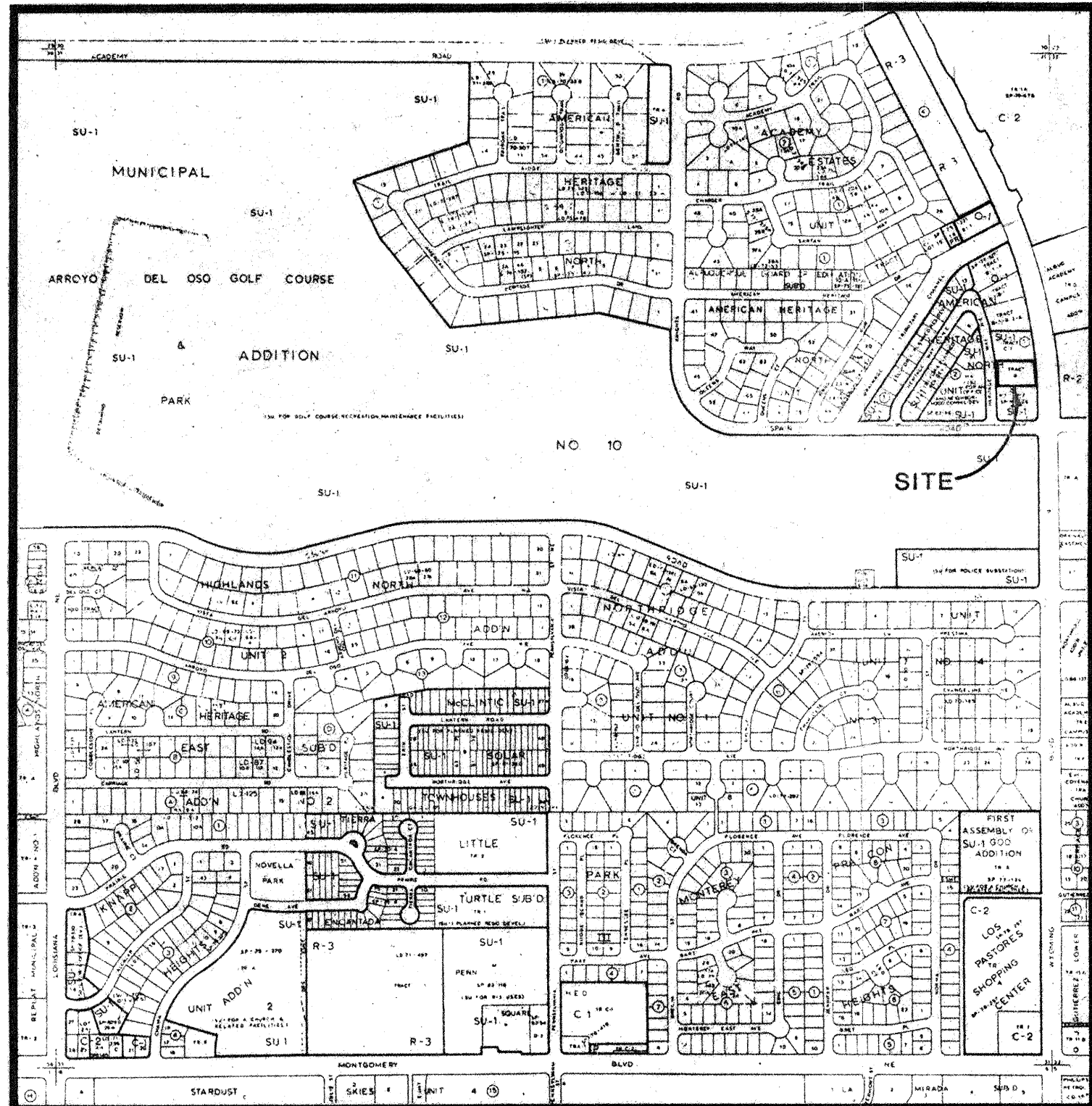


**PROPOSED SITE**  
1" = 30'

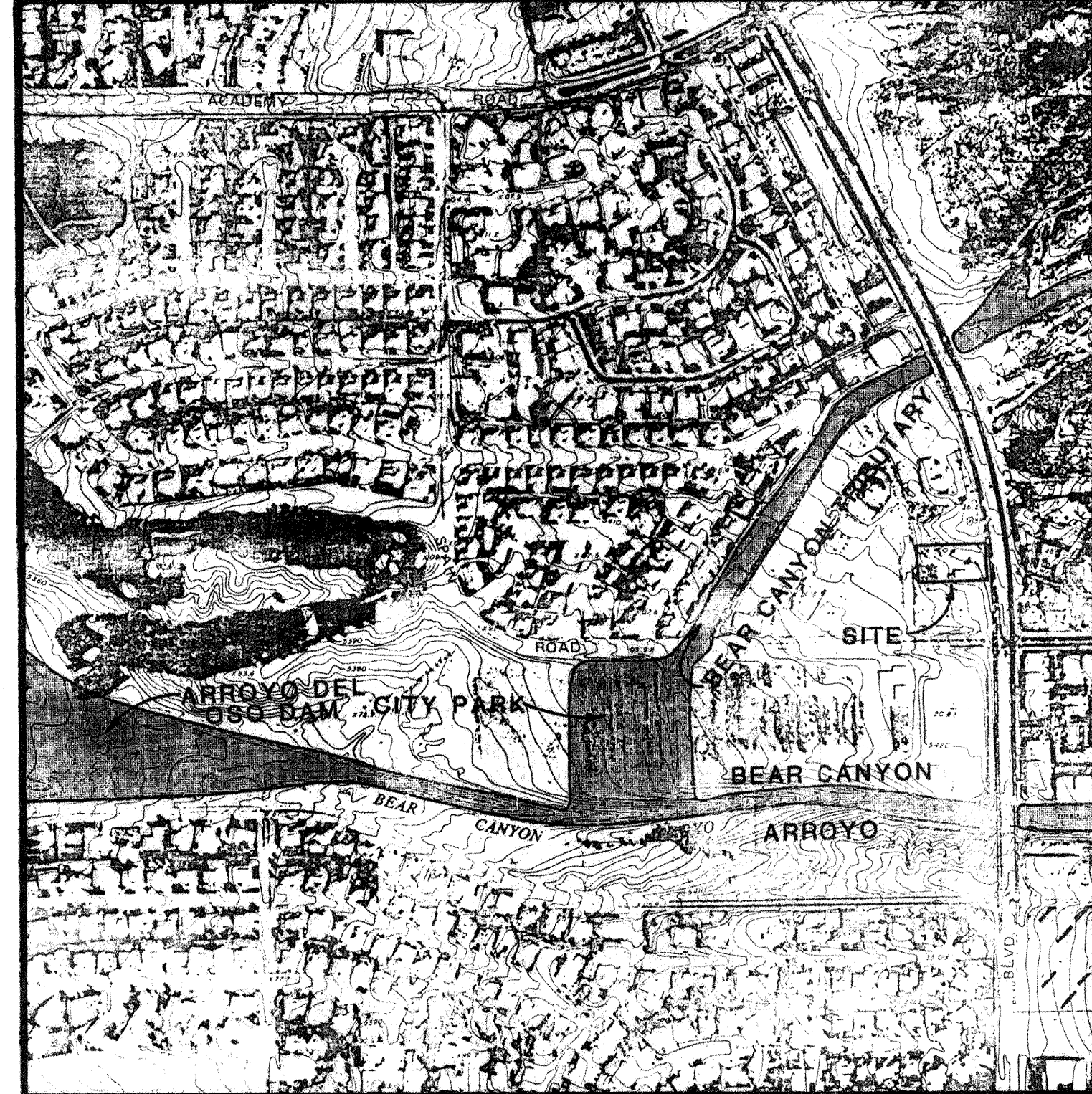
**DRAINAGE INFORMATION & CALCULATIONS**

- A. LEGAL DESCRIPTION: TRACT 'B', BLOCK 1, AMERICAN HERITAGE NORTH UNIT 3 SUBDIVISION, FILED 5/30/78, BOOK D-8, FOLIO 138.
- B. BENCH MARK: ACS CONTROL STATION 3-F19AB, B.C. MONUMENT @ NW CORNER OF WYOMING & OSUNA. ELEV= 5440.56.
- C. FLOOD HAZARD: THE SITE IS NOT LOCATED WITHIN ANY FLOOD HAZARD ZONE.
- D. DOWNSTREAM CAPACITY: RUNOFF FROM THE PROPERTY PROCEEDS SOUTH ON WYOMING AND HERITAGE WAY TO SPAIN ROAD, WEST ON SPAIN ROAD TO THE "BEAR CANYON TRIBUTARY" (AN IMPROVED SOFT-BOTTOMED CHANNEL) AND THENCE INTO THE "BEAR CANYON ARROYO" AT A POINT JUST UPSTREAM FROM THE "ARROYO DEL OSO FLOOD CONTROL DAM". ALL SAID STREETS AND DRAINAGE CHANNELS HAVE ADEQUATE DRAINAGE CAPACITY.
- E. DRAINAGE CONCEPT: THE SITE WILL BE GRADED, AS SHOWN ON THE PLAN, SO THAT RUNOFF WILL FLOW INTO BOTH WYOMING BLVD. AND HERITAGE WAY STREETS, FREE DISCHARGE FROM THE SITE IS JUSTIFIED SINCE 1) THERE IS NO DOWNSTREAM FLOODING, 2) INCREASED FLOW FROM THE SITE IS SMALL (1.2 CFS INCREASE), 3) THE IMPACT ON DOWNSTREAM FACILITIES WILL BE MINIMAL, 4) PROPERTY IS PRESENTLY PARTIALLY DEVELOPED AND HAS BEEN ALLOWED FREE DISCHARGE, 5) PROPERTY IS LOCATED NEAR THE "BOTTOM" OF THE WATERSHED AND ENTERS THE DOWNSTREAM SYSTEM FIRST, 6) DOWNSTREAM DRAINAGE SYSTEMS HAVE BEEN DEVELOPED.
- F. WATERSHED SOILS: SCS SOIL ETC, HYDRO GROUP B.
- G. RAINFALL DATA:  
P = 6 HOUR RAINFALL DEPTH = 2.36 (DPM, 22.2 D-1)  
I = 2.36 x 2.11 = 4.98"/HR. (DPM, 22.2 D-2)
- H.

RUNOFF CALCULATION TABLE								
SITE DEVELOPMENT STAGE	DRNG. AREA NO.	% IMPER.	C FACTOR	P (FT)	I (" /HR)	AREA (SF)	Q <sub>100</sub> (CFS)	V <sub>100</sub> (CUFT)
EXT. ONSITE	A	25	0.45	0.20	4.98	1,485	0.1	134
" "	B	50	0.58	"	"	34,020	2.3	3,946
TOTALS							Q = 2.4	4,080
EXT. OFFSITE	C	75	0.72	"	"	540	0.4	78
DEVELOPED	1	90	0.86	"	"	15,930	1.6	2,740
	2	95	0.92	"	"	3,780	0.4	695
	3	90	0.86	"	"	15,095	1.5	2,596
	4	100	1.00	"	"	700	0.1	140
TOTALS							Q = 3.6	6,171



**LOCATION MAP**  
ZONE ATLAS MAP NO. F-19  
SCALE: 1" = 750'±



**FLOODWAY MAP**  
SCALE: 1" = 500'

