

BLOCK 20 UNIT A
NORTH ALBUQUERQUE ACRESCONCEPTUAL DRAINAGE MANAGEMENT PLAN
PROJECT LOCATION AND DESCRIPTION

The site is located at the northwest corner of Louisiana Boulevard and San Antonio Road. The site consists of approximately 9.66 acres total, of which approximately 4.5 acres are to be developed as a commercial retail shopping center. Future development of the remaining acreage is anticipated to extend the shopping center to the west.

Existing soils on the site are classified as Tijeras Gravelly Fine Sandy Loam by the SCS Soil Survey of Bernalillo County, which are suitable for community development, with moderate runoff and erosion potential. The soils are hydrologically classified as type B soils. The vegetation on the site consists primarily of native grasses.

CONCEPTUAL STORM DRAINAGE MANAGEMENT

The San Antonio Corridor Improvements Project has been designed to construct San Antonio Road and the Pino Arroyo Channel from Louisiana to I-25. Also included in this project is a storm sewer and inlets to intercept flows conveyed by San Antonio at San Pedro, and deliver this runoff into the Pino Channel. As of September 30, 1988, the project has been funded but not yet scheduled. Therefore it is anticipated that free discharge will be allowed at the time the project is constructed, however, interim ponding will be required to release the existing undeveloped discharge rate into San Antonio.

Basin B, the majority of the site, has been designed to drain from east to west into an interim pond, which will discharge a maximum of 5.8 CFS, which is equal to the existing undeveloped flow rate generated by the basin during the 100 year storm. The pond has been designed to contain the volume of runoff generated within the 10 year event, in anticipation of completion of the San Antonio Corridor Improvements Project. A 6" temporary pipe will convey runoff from the pond to the existing curb line on San Antonio.

Basin A, along the north side of the project, will discharge freely into Santa Monica Avenue. It is anticipated that the south half of Santa Monica will be constructed with this development. The north half of Santa Monica with a concrete curb and gutter on the north side and an extruded curb on the south side is existing adjacent to the site. Runoff conveyed by Santa Monica eventually makes its way west to San Pedro and north to the existing channel constructed within the North Pino Arroyo. The developed discharge from the site to Santa Monica has been minimized by the site grading.

HYDROLOGIC DATA							
BASIN	AREA	UNDEVELOPED C OR	% IMP	DEVELOPED C	Q(100) Q(10)	VOL (10)	
A	1.14	0.4 2.2	95	0.93	5.2	1.6	3310
B	3.00	0.4 5.8	90	0.87	12.7	3.9	8712

NOTES:

1. TC for all basins is less than 10 minutes; therefore use 10 minutes.

2. Rational Method Data:

P (6 hour, 100 year storm) = 2.3" ✓

$I = (P)(6.84)(TC)^{-0.51} = (2.3)(6.84)(10)^{-0.51} = 4.86$ ✓

3. SCS Method Data:

P (10-year) = 1.5" (100-year) = 2.3"

Undeveloped CN = 70

S = $\frac{1000}{CN} - 10 = 4.3$

$(P - 0.2 S)^2 = 0.36$

$I = \frac{1000}{(P + 0.8 S)} = 0.08$

$(P + 0.8 S)$

Developed CN = 92

S = $\frac{1000}{CN} - 10 = 0.9$

$(P - 0.2 S)^2 = 1.51$ (100 yr)

$I = \frac{1000}{(P + 0.8 S)} = 0.8$

$(P + 0.8 S)$

POND VOLUME DATA

POND A

Top 88' x 32' = 2816 s.f.

Bot 70' x 14' = 980 s.f.

$3796 / 2 \times 3 = 5694 \text{ c.f.}$

POND B

Top 72' x 24' = 1728 s.f.

Bot 50' x 6' = 300 s.f.

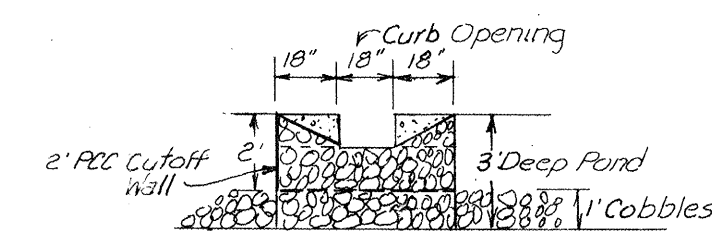
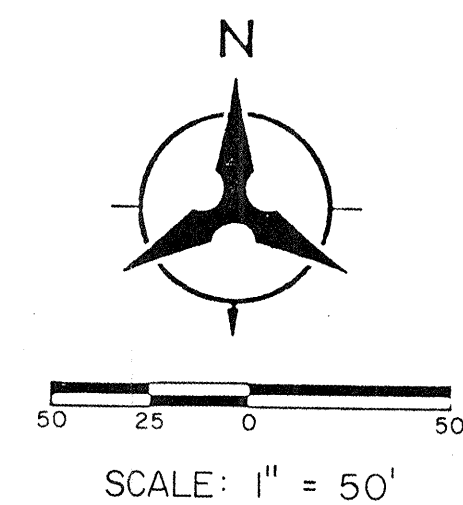
$2028 / 2 \times 3 = 3042 \text{ c.f.}$

Total Pond Volume Provided = 8736 c.f.

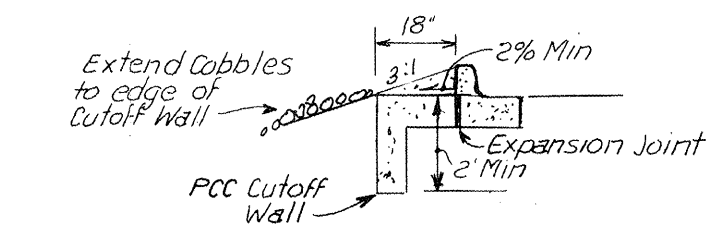
Total Pond Volume Required = 8712 c.f.

LEGEND

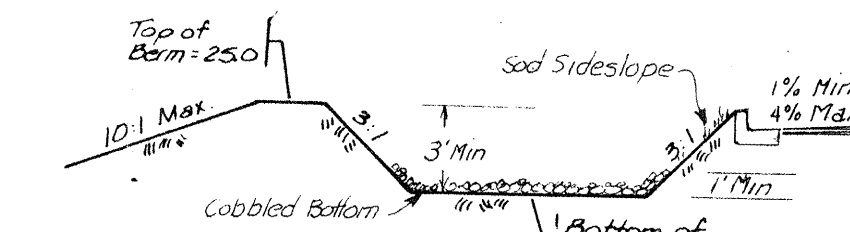
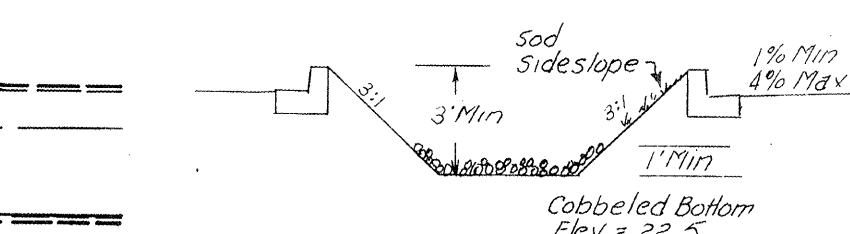
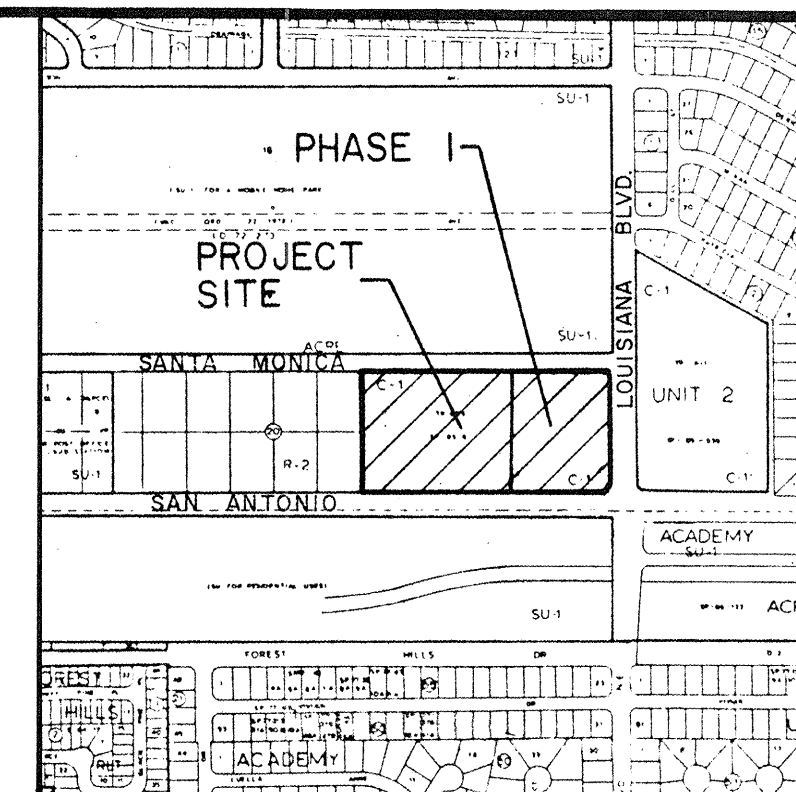
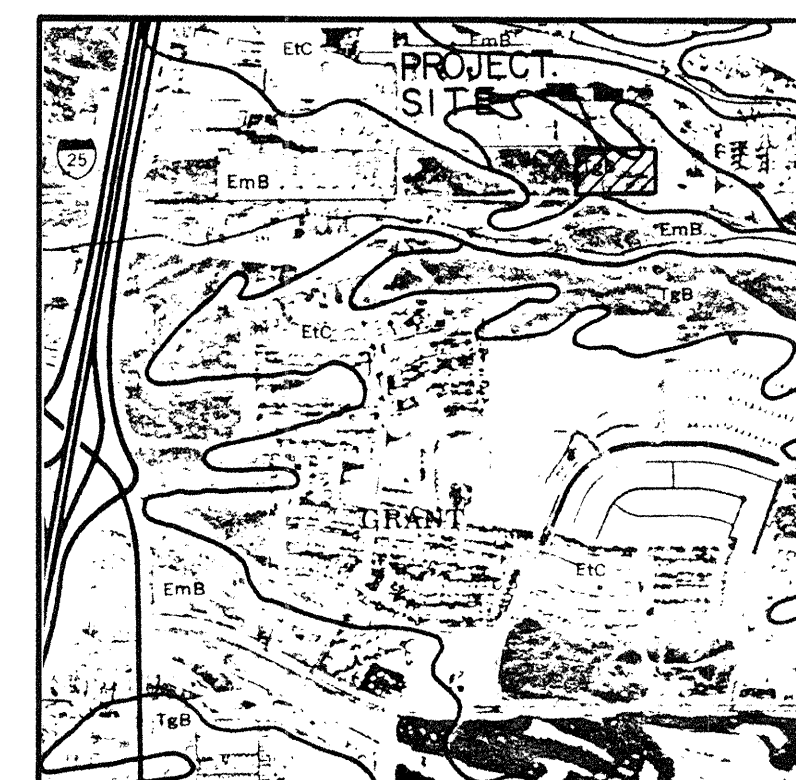
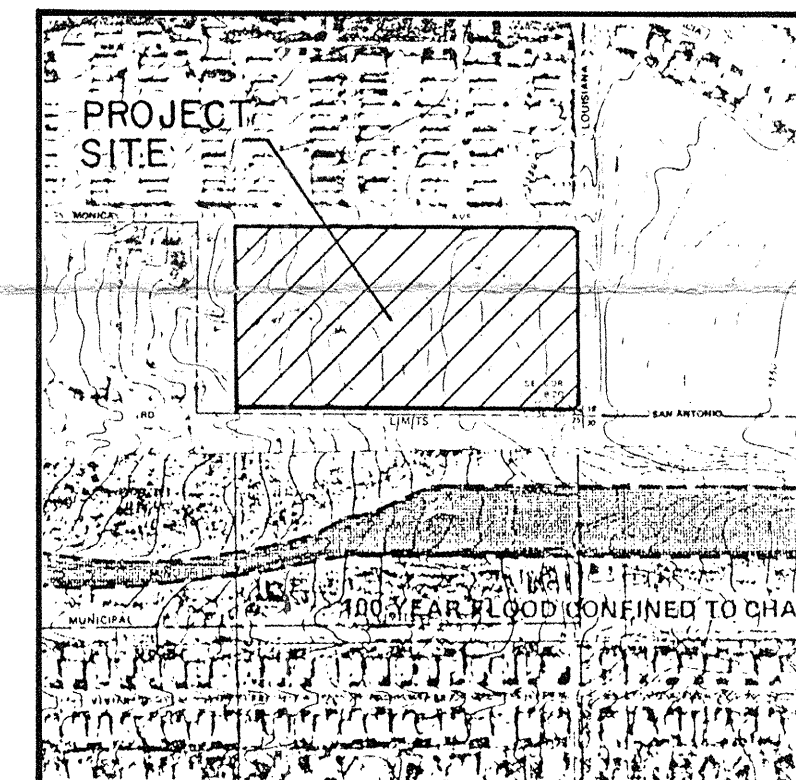
---	PROJECT BOUNDARY
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING SPOT ELEVATION
---	PROPOSED SPOT ELEVATION
---	EXISTING CURB & GUTTER
---	EXISTING CURB
---	FUTURE CURB & GUTTER
---	PHASE BOUNDARY
---	DIRECTION OF FLOW
---	PROPOSED RETAINING WALL
---	BASIN BOUNDARY



ELEVATION



SECTION

CURB OPENING DETAIL (TYP)
NO SCALEPOND A (Vol. 5694 cf)
SECTION A-A
NO SCALEPOND B (Vol. 3042 cf)
SECTION B-B
NO SCALELOCATION MAP
ZONE ATLAS MAP NO. D-18SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY (SHEET NO. 21)FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY (SHEET NO. 10)

BENCHMARK

"12-E18" LOCATED ON THE S.W. CORNER OF LOUISIANA BLVD. & SAN ANTONIO DRIVE. ELEV. = 5337.039

LEGAL DESCRIPTION

TRACT CDS OF NORTH ALBUQUERQUE ACRES, BERNALILLO COUNTY, ALBUQUERQUE, NEW MEXICO.

SAN ANTONIO / LOUISIANA
SHOPPING CENTERCONCEPTUAL DRAINAGE
MANAGEMENT PLAN

Project No.	88305.01	Sheet	1 of 1
Drawn By:	TG	Date:	9/88
Checked By:	KD	Scale:	1" = 50'