

FEMA MAP

SCALE: 1"=500'
REF. PANEL 29

GRADING & DRAINAGE PLAN

SITE DATA: THE EXISTING SITE IS BEING UTILIZED AS OFF STREET PARKING. VACANT LOT 5 BOUNDS THE SITE ON THE WEST, AND DEGRADED ASPHALT EXISTS ON THE WEST PORTION OF LOT 2 (TO BE REMOVED). THE EXISTING PROPERTY OF THE SORORITY GROUNDS TO THE EAST IS DEVELOPED AND WELL LANDSCAPED. MESA VISTA ROAD ON THE NORTH IS A PAVED, CURB AND GUTTER RESIDENTIAL STREET SITUATE W/IN A 60' PUBLIC R.O.W.

EXISTING DRAINAGE CONDITIONS: HISTORIC RUN-OFF HAS ESSENTIALLY SHEET FLOWED ACROSS THE SITE WITH A PORTION EXITING THRU EXISTING DRIVE CUT. DOWNSTREAM CAPACITY VIA MESA VISTA TO THE EAST, AND NORTH VIA UNIVERSITY (WITH STORM DRAIN SYSTEM) EXISTS.

PROPOSED DRAINAGE CONDITIONS: FREE DISCHARGE OF RUN-OFF THROUGH THE TWO PROPOSED CITY STANDARD DRIVEPADS.

SCALE: 1"=20'

LEGEND

EXIST. SPOT ELEV. + 99.6

EXIST. CONTOUR 08

NEW SPOT ELEV. 10.10

NEW CONTOUR 10

NEW CONCRETE

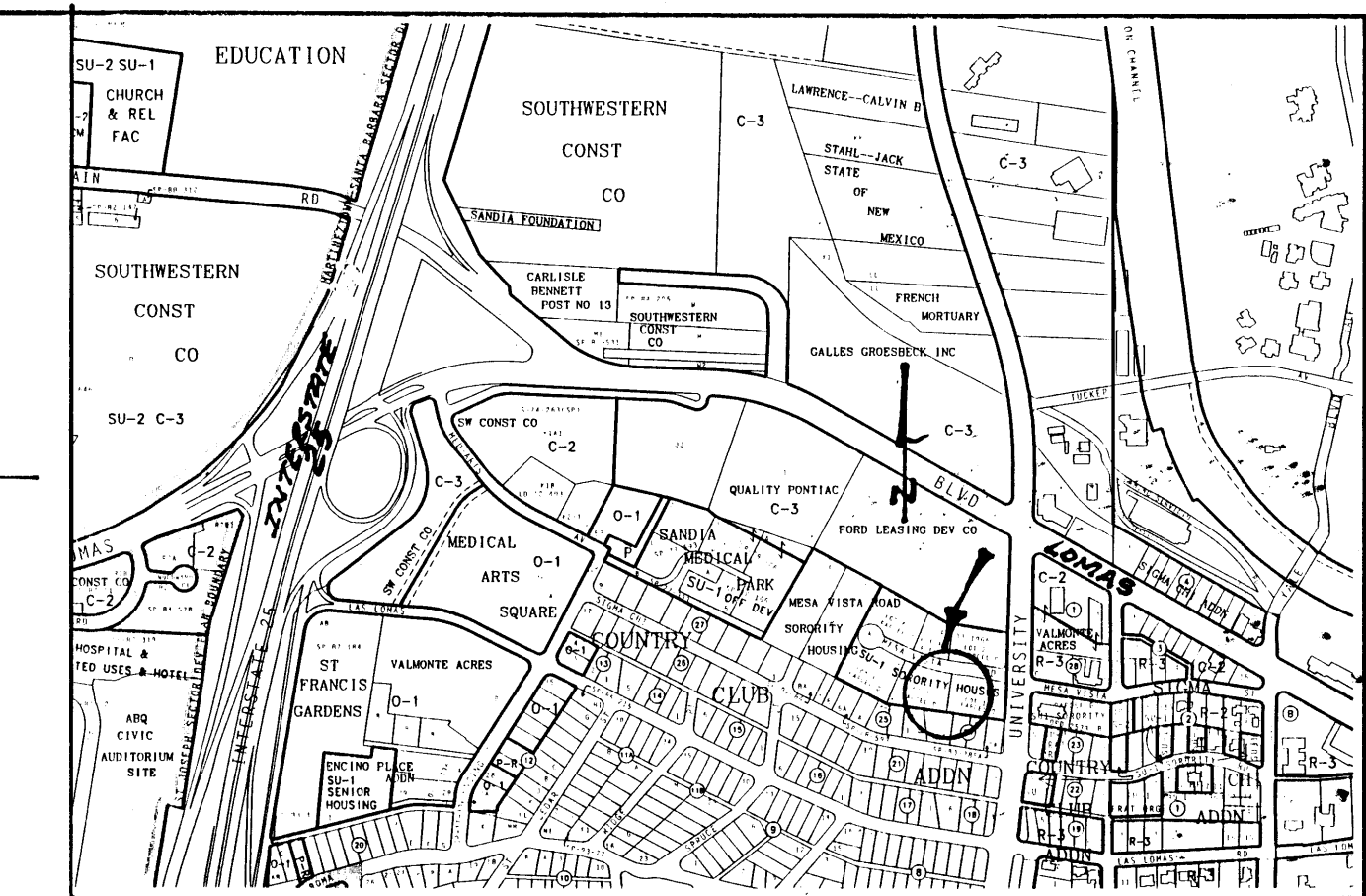
HEADER CURB
(P.C.C. OR R.R. TIE,
0.5' CURB HEIGHT)

TOP OF ASPHALT

FLOW LINE

UNLESS NOTED OTHERWISE

TOP OF WALL



VICINITY MAP ZONE J-15

SCALE: 1"=750'

CALCULATIONS

City Hydrology, Ref. File #J-15/D

I. DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY, OF THE DEVELOPMENT PROCESS MANUAL (DPM), REVISED JANUARY 1993 FOR THE CITY OF ALBUQUERQUE AND ADOPTED BY THE COUNTY OF BERNILLO.
DISCHARGE RATE: $Q = Q_{peak} \times AREA$. PEAK DISCHARGE RATES FOR SMALL WATERSHEDS*
VOLUMETRIC DISCHARGE: $VOLUME = E_{weighted} \times AREA$
SOIL TYPE: 'B', ETC. EMBUDO SERIES, A GRAVELLY FINE SANDY LOAM AS CLASSIFIED BY THE SCS SOIL SURVEY
P100 = 2.35 INCHES, ZONE 2
DESIGN STORM: 100-year/6-hour, 10-year/6-hour WHERE [] = 10 year VALUES

II. EXISTING CONDITIONS (LOT 3)

PROJECT AREA = 0.73 ACRES WHERE EXCESS PRECIPITATION 'C' = 1.13 IN. [0.82]
PEAK DISCHARGE, Q100 = 2.4 CFS [1.3] WHERE UNIT PEAK DISCHARGE 'C' = 3.14 CFS/ACRE [1.71]
THEREFORE: $VOLUME_{100} = 3117 \text{ C.F.} [1435 \text{ C.F.}]$

III. DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE & WEIGHTED EXCESS PRECIPITATION

| AREA | LAND TREATMENT | UNIT PEAK DISCHARGE | 'C' |
|-----------------------------------|----------------|---------------------|------------|
| UNDEVELOPED, 0.00 AC. | A | 1.56[0.38] | 0.53[0.13] |
| LANDSCAPING, 0.02 AC. | B | 2.28[0.95] | 0.78[0.28] |
| GRAVEL & COMPACTED SOIL, 0.51 AC. | C | 3.14[1.71] | 1.13[0.52] |
| ROOF/PAVEMENT, 0.23 AC. | D | 4.70[3.14] | 2.12[1.34] |
| 0.78 ACRES | | | |

$E_{weighted} = 1.4 \text{ IN.} [0.8]$
Q100 = 2.7 CUBIC FEET PER SECOND (CFS) Q10 = 1.6 CFS; VOL.100 = 3862 CUBIC FEET (CF),
VOL.10 = 2207 C.F.

IV. QUANTIFY UP-STREAM RUNOFF IMPACTING THE PROPERTY

THE NORTHWEST PROPERTY CORNER (STREET FLOW) AND REFERENCE FEMA MAP, 1" = 500'

THEREFORE: AREA OF TOTAL DRAINAGE BASIN IMPACTING THE PROJECT NW CORNER = 1 ACRES
FOR THE DEVELOPED CONDITION, BASED ON A UNIT DISCHARGE DETERMINED IN III.
WHERE: Q100 = 1 Ac. x 3.6 CFS/AC. = 4 CFS (Total Southside in Street)

per DPM PLATE 22.3 D-1, $DEPTH_{100} = 0.35 \text{ FEET}$ @ $S = 1.4\%$
VEL. = 2.4 FPS

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK
NMPE #10265

PROJECT INFORMATION

LEGAL DESCRIPTION: LOTS 3 & 1, PARCEL D
MESA VISTA ROAD SORORITY HOUSES
ALBUQUERQUE, NM

PROPERTY ADDRESS: 1620 MESA VISTA RD., NE
ALBUQUERQUE, NM 87106

PROJECT SURVEY: TOPOGRAPHIC INFORMATION COMPILED
FROM FIELD SURVEY PERFORMED BY PHILIP W.
TURNER, PLS #10204, APRIL 1996.

PROJECT BENCHMARK: TOP OF CURB, SET NAIL, SEE PLAN, AS TIED FROM
ACS MONUMENT, STAMPED 10J-15, AN ALUM. CAP FOUND AT THE
ESE CURB RETURN OF UNIVERSITY AND LOMAS BLVD. MSL
ELEV. = 5102.05



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| DATE | REVISION | LOTS 1 & 3, SORORITY HOUSING UNM KAPPA KAPPA GAMMA PARKING LOT |
|------------------|---------------|---|
| | | Grading & Drainage Plan |
| DESIGNED BY: PWC | DRAWN BY: CCE | JOB No: KAPPA GD |
| CHECKED BY: PWC | DATE: 4/7/96 | FILE No: 1 of 1 |