

DRAINAGE INFORMATION SHEET

NATIONAL FOREST SERVICE SERVICE
PROJECT TITLE: & ANIMAL DAMAGE CONTROL ZONE ATLAS/DRNG. FILE #: E-16 / 18.30

LEGAL DESCRIPTION: LOT 4-A, SEGO-COX SUBDIVISION

CITY ADDRESS:

ENGINEERING FIRM: Lovelady & Associates CONTACT: Frank Lovelady

ADDRESS: 7408 Morrow Ave. NE 87110 PHONE: 883-7973

OWNER: U.S. FOREST SERVICE CONTACT: JEFF FOSS

ADDRESS 4808 Jefferson, N.E. PHONE: 882-9100

ARCHITECT: DURA-BILT PRODUCTS, INC. CONTACT: JEFF FOSS

ADDRESS: 4808 JERRERSON, N.E. PHONE: 883-9100

SURVEYOR: LOVELADY & ASSOCIATES CONTACT: FRANK LOVELADY

ADDRESS: 7408 MORROW AVE. N.E. PHONE: 883-7973

CONTRACTOR: DURA BILT PRODUCTS, INC. CONTACT: JEFF FOSS

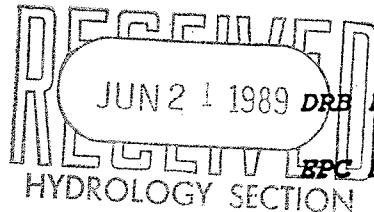
ADDRESS: 4808 JEFFERSON, N.E. PHONE: 883-9100

PRE-DESIGN MEETING:

☒ YES

☐ NO

☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED



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:

☐ 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: JUNE 21, 1989

BY: Frank D. Lovelady
Frank D. Lovelady, P.E.

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

CLARENCE V. LITHGOW
CHIEF
ADMINISTRATIVE OFFICER

DAN WEAKS
DEPUTY CAO
PUBLIC SERVICES

FRED E. MONDRAGON
DEPUTY CAO
DEVELOPMENT & ENTERPRISE SERVICES

RAY R. BACA
DEPUTY CAO
PUBLIC SAFETY

June 29, 1989

Frank Lovelady, P.E.
Lovelady & Associates
7408 Morrow, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR NATIONAL FOREST SERVICE
& ANIMAL DAMAGE CONTROL (E-16/D3C)
ENGINEER'S STAMP DATED JUNE 21, 1989

Dear Mr. Lovelady:

Based on the information provided on your submittal of June 21, 1989, the above referenced plan is approved for Building Permit.

Your submittal indicates that there will be some off-site grading done on the south side of the site. Before the building permit is released, we will need concurrence from the adjacent property owner

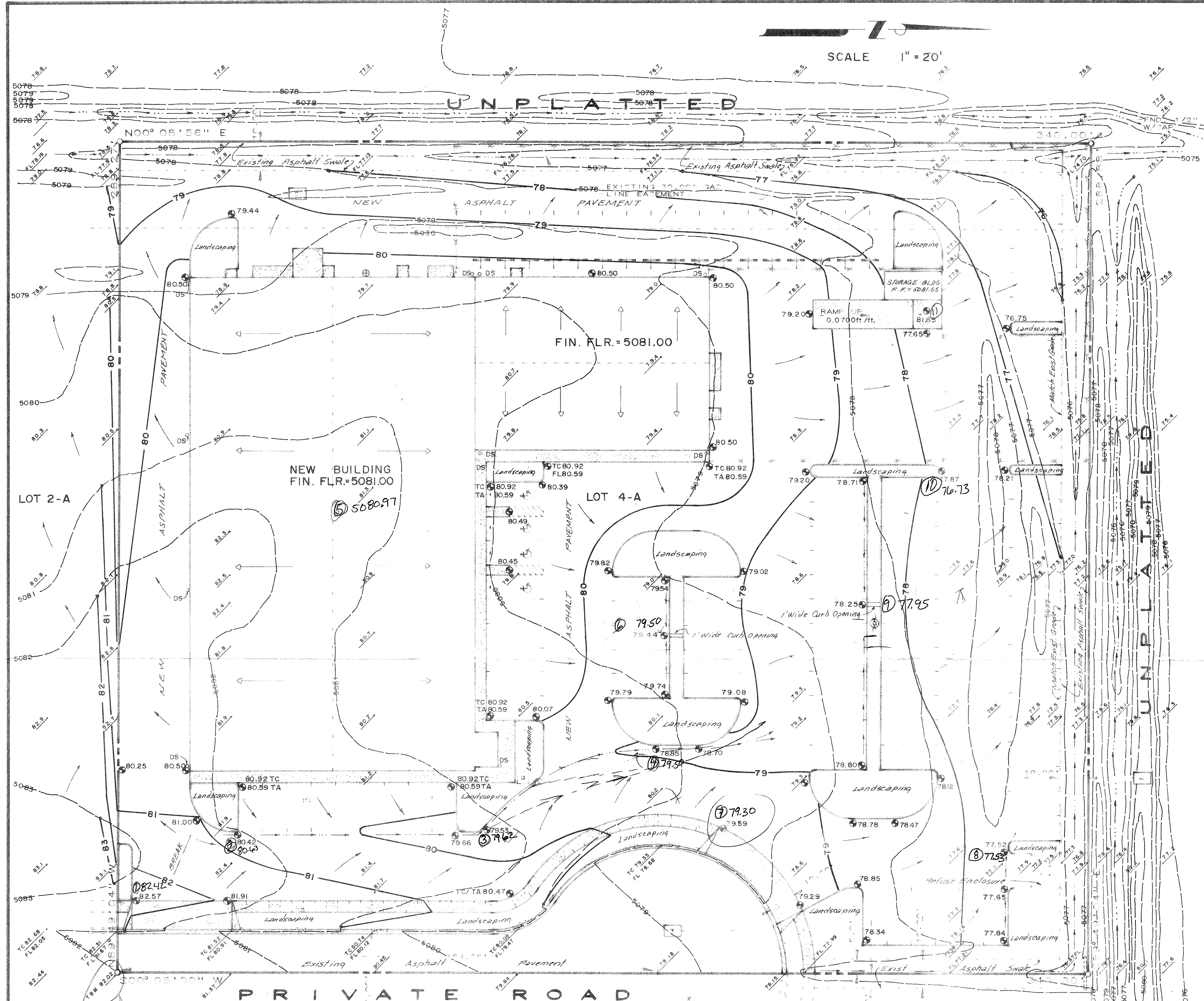
Please attach a copy of this plan to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at 768-2650.

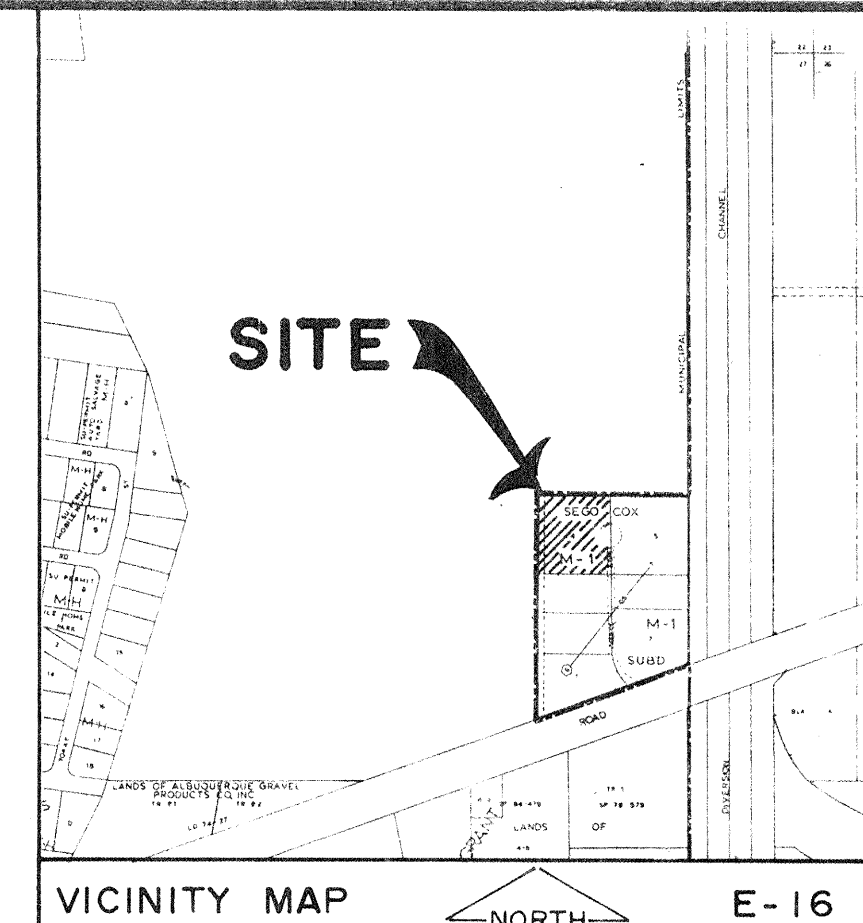
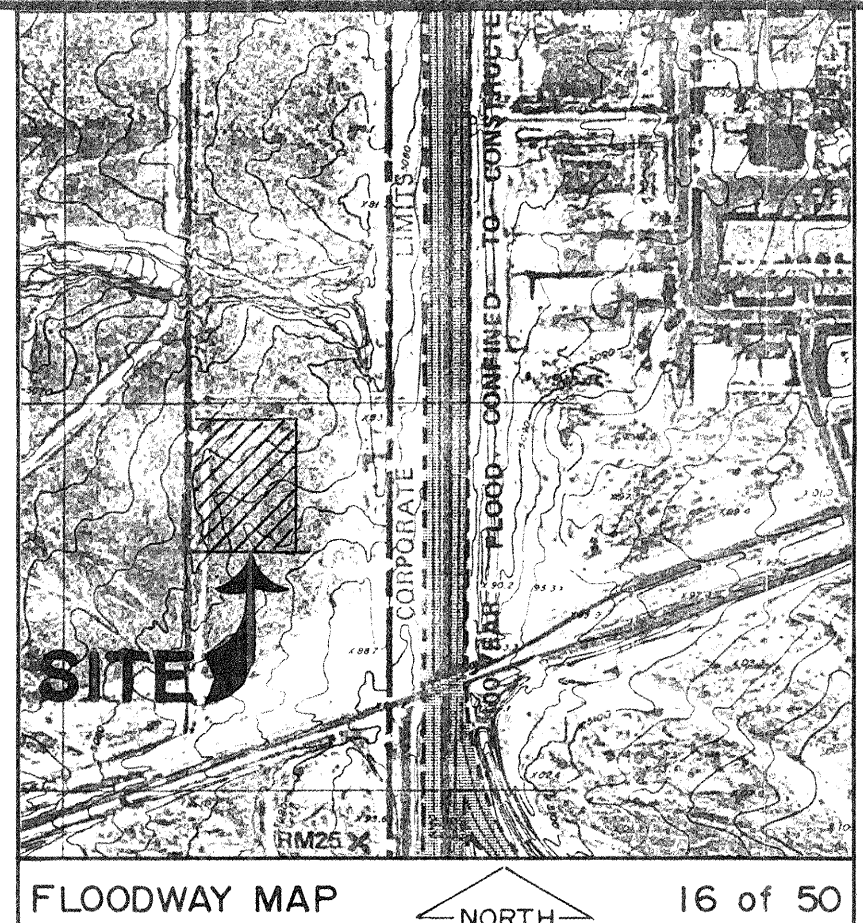
Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+1140)



SCALE 1" = 20'



DURA BILT
PRODUCTS, INC.
4808 JEFFERSON N.E.
ALBUQUERQUE N.M. 87109
(505) 883-9100
DESIGN/BUILDERS
LICENSE NO. 3044

JOB NO.: 89-119
DATE:
CONTRACT DATE:
DRAWN BY:
REVISIONS:

**NATIONAL FOREST SERVICE
AND
ANIMAL DAMAGE CONTROL**
2113 OSUNA ROAD N.E.
ALBUQUERQUE, NEW MEXICO 87113

FRANK D. LOVELAND
NEW MEXICO
6-21-89
REGISTERED PROFESSIONAL ENGINEER

DRAINAGE PLAN
SHEET NO. 3
JOB NO.: 89-119 OF 15

SOIL INFORMATION:
(REFER TO SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, ISSUED JUNE, 1977.) SOIL IS EMB, EMBUDO GRAVELLY FINE SAND LOAM, 0 TO 5 PERCENT SLOPES, HYDROLOGIC SOIL GROUP "B".

RAINFALL, 100-YEAR, 6-HOUR:
(REFER TO D.P.M., PLATE 22.2 D-1)
 $R_6 = 2.2$ INCHES

TIME OF CONCENTRATION:
(REFER TO D.P.M. SECTION 22.2, PAGE 33) USE KIRPICH EQUATION.
 $T_c = 0.0078(1.77/0.385)^{0.77} L = 445' S = (83-75)/445 = 0.0179$ FT./FT.
 $T_c = 0.0078(445)^{0.77}/0.0179 = 4.01$ USE MINIMUM $T_c = 10$ MINUTES.

RAINFALL INTENSITY:
REFER TO PLATE 22.2 D-2) $I = R_6 \times 6.84 \times (T_c)^{-0.51}$
 $I = 2.2 \times 6.84 \times (10)^{-0.51} = 4.65$ INCHES PER HOUR.

CURVE NUMBERS:
(REFER TO PLATE 22.2 C-2, FOR TYPE "B" SOIL.)
EXISTING PVIOUS (PASTURE OR RANGE LAND, POOR) $CN = 74$
BUILDINGS AND PAVEMENT $CN = 98$
LANDSCAPING $CN = 61$

DIRECT RUNOFF VALUES:
EXISTING PVIOUS $Q_b = 0.65$
BUILDINGS AND PAVEMENT $Q_b = 2.00$
LANDSCAPING $Q_b = 0.18$

COMPONENT AREAS:	EXISTING	DEVELOPED
EXISTING PVIOUS	86661	21890
BUILDING		70172
PAVEMENT	11599	5196
LANDSCAPING		
TOTALS	98260	98260

RUNOFF COEFFICIENTS:
(REFER TO "NOTICE OF EMERGENCY RULE", CITY OF ALBUQUERQUE, JANUARY 14, 1986).
"C" VALUES ARE AS FOLLOWS:
UNDEVELOPED, $C = 0.40$; LAWNS AND LANDSCAPING, $C = 0.25$; ROOFS, $C = 0.90$;
STREETS, DRIVES, WALKS, $C = 0.95$.

WEIGHTED "C" FACTORS:
UNDEVELOPED:
 $C = (86661 \times 0.40 + 11599 \times 0.95) / 98260 = 0.46$
DEVELOPED:
 $C = (21890 \times 0.90 + 70172 \times 0.95 + 6198 \times 0.25) / 98260 = 0.89$

100-YEAR PEAK RUNOFF:
USE RATIONAL EQUATION, $Q_{100} = CIA$ $Q_{10} = 0.657(Q_{100})$
EXISTING CONDITIONS:
 $Q_{100} = 0.46 \times 4.65 \times 2.256 = 4.83$ CFS $Q_{10} = 0.657 \times 4.83 = 3.17$ CFS
DEVELOPED CONDITIONS:
 $Q_{100} = 0.89 \times 4.65 \times 2.256 = 9.34$ CFS $Q_{10} = 0.657 \times 9.34 = 6.14$ CFS

100-YEAR RUNOFF VOLUME:
EXISTING CONDITIONS:
 $V_{100} = (86661 \times 0.65) + (11599 \times 2.00) / 12 = 6627$ CF
 $V_{10} = 6627 \times 0.657 = 4334$ CF
DEVELOPED CONDITIONS:
 $V_{100} = (21890 + 70172) \times 0.89 + (6198 \times 0.18) / 12 = 15437$ CF
 $V_{10} = 15437 \times 0.657 = 10142$ CF

LEGEND:

EXISTING	NEW	DESCRIPTION
80.07	80.07	CONTOUR
		SPOT ELEVATION
		SHEET FLOW
		SWALE
		PROPERTY LINE
	TC	TOP OF CONCRETE
	TA	TOP OF ASPHALT
	FL	FLOW LINE
		ROOF FLOW
	DS	DOWN SPOUTS

- PRIVATE ADDRESS, DRAINAGE & SANITARY TOWER, PUBLIC WATER & GAS LINE EASEMENT.
- PRIVATE DRAINAGE EASEMENT.
- UTILITY & WALKWAY EASEMENT.

BENCH MARK:
STATION 500+00, LOCATED 0.1 MILES NORTH OF THE OSUNA BRIDGE OVER THE AMAFCA NORTH DIVERSION CHANNEL. THE STATION IS AMAFCA BRASS TABLE STAMPED "NO. 1149" SET ON A CONCRETE POST PROJECTING 0.4 FEET ABOVE THE GROUND. ELEVATION = 5082.0.

TEMPORARY BENCH MARK:
LOCATED AT THE CENTERLINE OF THE ACCESS STREET AT THE SOUTHEAST CORNER OF THE SITE. THE TM IS THE TOP OF EXISTING YELLOW PLASTIC SURVEY MARKER. ELEVATION = 5082.02 FEET.

EROSION CONTROL PLAN
DURING CONSTRUCTION OF THE BUILDING, ALL EROSION FROM THE SITE SHALL BE CONTAINED BY THE USE OF A FOND, BERM, OR OTHER SUITABLE CONTAINMENT FACILITIES FROM WHICH SURFACED WATER SHALL BE RELEASED AT A CONTROLLED RATE. ALL SEDIMENT SHALL BE FILTERED OR FILTERED OUT BEFORE RELEASING THE WATER TO THE ACCESS EASEMENT. WATER MAY BE RELEASED DIRECTLY TO THE DRAINAGE EASEMENT PROVIDED THAT THE EASEMENTS MAINTAINED IN A CLEAN CONDITION AND THE OUTFALL IS FREE OF SEDIMENT.

HYDROLOGY SURVEY
Survey Date: 12-13-87
Hydrology Book No./Page No. 89-1 pg. 50
Surveyed by: A. MARTINEZ
A. GARCIA

- PRE-DESIGN CONFERENCE FINDINGS:**
- DRAINAGE PLAN PER CITY OF ALBUQUERQUE D.P.M. GUIDELINES PRIOR TO BUILDING PERMIT RELEASE.
 - MASTER DRAINAGE PLAN (SEGO-COX ADDITION) MUST BE FOLLOWED.
 - ALL FLOWS MUST BE DIRECTED TO THE IMPROVED CHANNEL ON THE WEST OR NORTH PROPERTY LINES.

- DRAINAGE COMMENTS:**
- THE SITE DOES NOT LIE WITHIN OR ADJACENT TO A DESIGNATED FLOOD HAZARD AREA.
 - THERE IS MINIMAL OFF-SITE FLOW ENTERING THE SITE ALONG THE SOUTH BOUNDARY FROM THE UNDEVELOPED LOT TO THE SOUTH. THIS OFF-SITE FLOW IS ACCEPTED AS LONG AS THAT LOT REMAINS UNDEVELOPED.
 - ALL RUNOFF FROM THE SITE IS TO BE DIRECTED TO THE EXISTING PAVED SWALES IN 10-FOOT DRAINAGE EASEMENTS ALONG THE WEST AND NORTH BOUNDARIES.

LEGAL DESCRIPTION:
LOT 4-A, SEGO-COX SUBDIVISION, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

RECEIVED
JUN 2 1989
HYDROLOGY SECTION