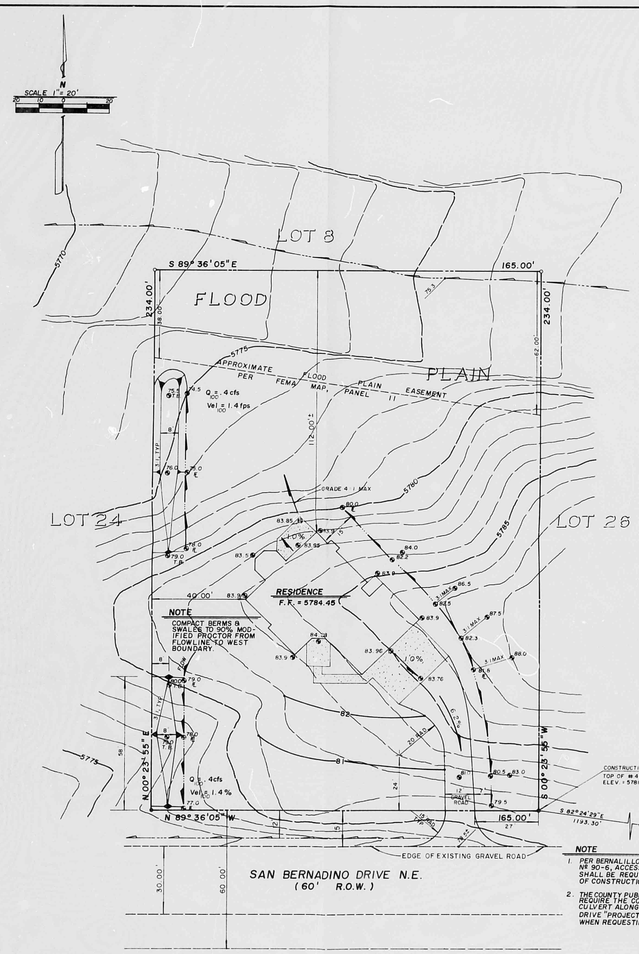


CONSTRUCTION BENCHMARK
TOP OF #4 REBAR
ELEV. = 5781.27

S 82°24'25" E
1193.30'

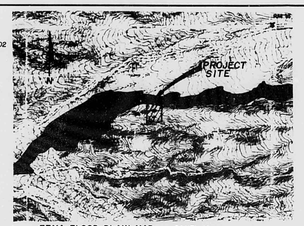
ACS 4-D22 1978
ELEV 5835.088

NOTE

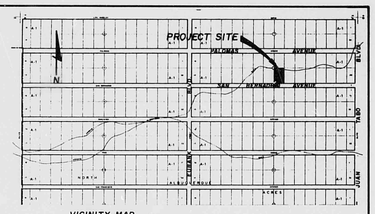
1. PER BERNALILLO COUNTY ORDINANCE NR 90-6, ACCESS AND PAVING PERMITS SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION.
2. THE COUNTY PUBLIC WORKS DEPT MAY REQUIRE THE CONSTRUCTION OF A CULVERT ALONG THE SAN BERNADINO DRIVE "PROJECT DESIGN SWALE" WHEN REQUESTING THE ACCESS PERMIT.

LEGEND

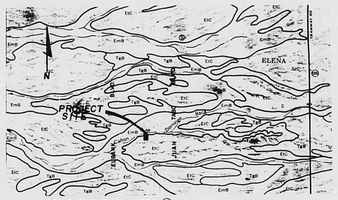
○	FOUND REBAR W/CAP
●	SET REBAR W/CAP NO. 7002
⊗	NEW SPOT ELEVATION
T.B.	TOP OF BERM
E	FLOWLINE
5784.5	EXISTING SPOT ELEVATION
F.F.	FINISH FLOOR ELEVATION
	NEW CONCRETE
5000	EXISTING CONTOURS
	BOUNDARY LINE
	NEW SWALE
	EXIST. FLOWLINE
82	NEW CONTOUR



FEMA FLOOD PLAIN MAP PANEL 11
SCALE: 1" = 500'



VICINITY MAP
ZONE MAP NO. D-21-Z



SOILS SURVEY - SHEET 12
SCALE: 1" = 2,000'

CALCULATIONS

I. DESIGN CRITERIA

HYDROLOGIC METHODS PER INTERIM DRAINAGE DESIGN CRITERIA FOR BERNALILLO COUNTY, APRIL, 1990.
DISCHARGE RATE: $Q = Q_o \times A$..."PEAK DISCHARGE RATES FOR SMALL WATERSHEDS"
VOLUMETRIC DISCHARGE: VOL. = $E_{WEIGHTED} \times A$

SOIL TYPE, 'B' - EMBUDO TIJERAS COMPLEX, E.C.; ZONE 4
P_{100} = 2.9 IN.
TC = 10 MIN.
DESIGN STORM: 100 YR. - 6 HR., 10 YR. - 6 HR., [ ] = 10 YR. VALUES

II. EXISTING CONDITIONS

A = 0.89 AC. EXCESS PRESCIP = 0.66 IN., [0.27]
I AND TREATMENT 'A' TC = 10 MIN.
PEAK DISCHARGE = 2.26 CFS/ACRE [0.99]
Q_{100} = 2.01 CFS Q_{10} = 0.88 CFS
$VOL._{100}$ = 2132 C.F. $VOL._{10}$ = 872 C.F.

QUANTIFY EXISTING UPSTREAM OFF-SITE FLOWS:
A = 0.20 ACRES; BASIN DETERMINED FROM FEMA MAP, $LAND_{TREATMENT}$ 'A'
L =80'; S = 5.0% .. TC = 10 MIN.
$'E'_{100\ YR.}$ = 0.66 IN.
Q_{100} = 0.45 CFS Q_{10} = 0.2 CFS
$VOL._{100}$ = 479 C.F. $VOL._{10}$ = 196 C.F.

III. DEVELOPED CONDITIONS

A = 0.89 AC.
DET. LAND TREATMENTS / PEAK DISCHARGE / WEIGHTED EXCESS PRECIP.

		LAND TREATMENT	PEAK DISCHARGE, CFS/ACRE	'E'
GRAVEL	= 0.03 AC.	C	3.94 [2.29]	1.13 IN. [0.55]
PAVEMENT	= 0.02 AC.	D	5.74 [3.91]	2.57 IN. [1.6]
ROOF	= 0.05 AC.	D	5.74 [3.91]	2.57 IN. [1.6]
L.S.	= 0.06 AC.	B	3.05 [1.61]	0.85 IN. [0.38]
UNDEV.	= 0.73 AC.	A	2.26 [0.99]	0.66 IN. [0.27]
	0.89 AC.			

$E_{WEIGHTED}$ = 0.84 IN. [0.39]
Q_{100} = 2.35 CFS Q_{10} = 1.2 CFS
$VOL._{100}$ = 2714 C.F. $VOL._{10}$ = 1260 C.F.

GENERAL INFORMATION

LEGAL DESCRIPTION: LOT 25, BLOCK 3, TR. 3, UNIT 2, NORTH ALBUQUERQUE ACRES, BERNALILLO COUNTY, NEW MEXICO.
PROJECT BENCHMARK: A STANDARD ACS BRASS TABLE T, STAMPED "4-D22 1978", LOCATED AT THE S.E. QUADRANT OF SAN BERNADINO AND JUAN TABO. MSL ELEV. 5835.09.
PROPERTY ADDRESS: SAN BERNADINO AVE. ALBUQUERQUE, NEW MEXICO.
TOPOGRAPHIC SURVEY: TOPOGRAPHIC INFORMATION SHOWN WAS COMPILED FROM SURVEY PERFORMED BY A&E ENGINEERING, INC. DATED APRIL 24, 1990.

GRADING AND DRAINAGE PLAN

THE PROPOSED RESIDENTIAL HOME IS LOCATED IN NORTH ALBUQUERQUE ACRES, APPROXIMATELY 11 MILES NORTHEAST OF THE DOWNTOWN CORE OF ALBUQUERQUE, NEW MEXICO. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE NO. 88-46, AND STORM DRAINAGE ORDINANCE NO. 90-6. THE PLAN IS REQUIRED TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PROPOSED PLAN SHOWS:

1.) EXISTING AND NEW CONTOURS WITH EXISTING AND NEW SPOT ELEVATIONS.
2.) PROPOSED IMPROVEMENTS; DWELLING, DRIVEPAD AND GRAVEL DRIVEWAY.
3.) CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4.) QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

THE PURPOSE OF THE PLAN IS TO FLOOD PROOF THE RESIDENTIAL DWELLING AND TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUN OFF GENERATED BY THE PROPOSED IMPROVEMENTS. THE PLAN DETERMINES THE RUNOFF RESULTING FROM THE 100 YEAR/6HR. DURATION AND 10 YEAR/6HR. STORMS FOR BOTH THE EXISTING AND DEVELOPED CONDITIONS.

THE SITE IS BOUNDED ON THE SOUTH BY A GRAVEL RESIDENTIAL STREET, SAN BERNADINO AVE. THE ADJACENT TRACTS ARE ALL RESIDENTIAL AND PRESENTLY UNDEVELOPED. THE SITE GENERALLY FALLS FROM EAST TO WEST AT 4-5 PERCENT. OFFSITE FLOWS ENTER THE SITE FROM THE EAST. THE LOT IS ENCUMBERED ON THE NORTH PORTION BY A DESIGNATED FEMA FLOODPLAIN AS DEPICTED ON PLAN. (AO2 ZONE)

THE PROPOSED PLAN IS TO SET THE FINISH FLOOR OF THE RESIDENCE A MINIMUM OF 2 FOOT ABOVE THE HIGHEST DESIGNATED LOT ELEVATION ASSOCIATED WITH THE FLOWLINE OF THE FLOOD PLAIN THAT IS NORMAL TO THE AFFECTED RESIDENCE CORNER, AS A SOLUTION TO POTENTIAL FLOODING. HISTORICAL SITE RUN-OFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED AND DIRECTED TO THE ARROYO DE DOMINGO BACA AND PUBLIC RIGHT-OF-WAY BY THE USE OF A COMPACTED EARTHEN SWALE. DEVELOPED VELOCITIES ARE SHOWN ON THE PLAN. PER THE COUNTY DRAINAGE ENGINEER, FREE DISCHARGE OF STORM RUN OFF IS GRANTED FOR THIS SITE SINCE THE PROJECT LAND USE INTENSITY IS APPROXIMATELY (1) DWELLING UNIT PER ACRE AND LOCATED WITHIN NORTH ALBUQUERQUE ACRES. HYDROLOGIC PROCEDURES AND CALCULATIONS ARE IN ACCORDANCE WITH THE INTERIM DRAINAGE DESIGN CRITERIA FOR BERNALILLO COUNTY, DATED APRIL 1990.

ENGINEER'S CERTIFICATION

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 OTHER DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK N.M.P.E. #10265 DATE

I, PHILIP W. CLARK, P.E., DO HEREBY CERTIFY THAT THE FINISH FLOOR ELEVATIONS WERE CONSTRUCTED TO THE GRADES SHOWN HEREON, AND FURTHER ATTEST THAT THE GRADING AND DRAINAGE IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN.

PHILIP W. CLARK N.M.P.E. #10265

RECEIVED AUG 31 1990 HYDROLOGY SECTION

TECHNICAL MANAGEMENT SERVICES CO.
3900 SAN MATEO BLVD. NE, SUITE 1-A2
ALBUQUERQUE, N.M. 87110
PHONE (505) 881-1750

DATE	REVISION
11/8/90	Added Check Dam, etc.
8/31/90	Entitled, etc.

LOT 25, BL. 3, TR. 3, UNIT 2
NORTH ALBUQUERQUE ACRES

GRADING & DRAINAGE PLAN

DRAWN BY: P.L.C. | APPROVED BY: | DATE: 4/24/90 | SHEET NO. 1 of 1
CHECKED BY: P.L.C. | DATE: 4/90

D-21/D004

REF. 21 DATE 2/24/92 BY 8
CITY OF ALBUQUERQUE
This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (MS115-1977).
CITY CLERK RECORDER
OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO
My Commission Expires: May 8, 1996

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

PLANS/PLATS ON FILE

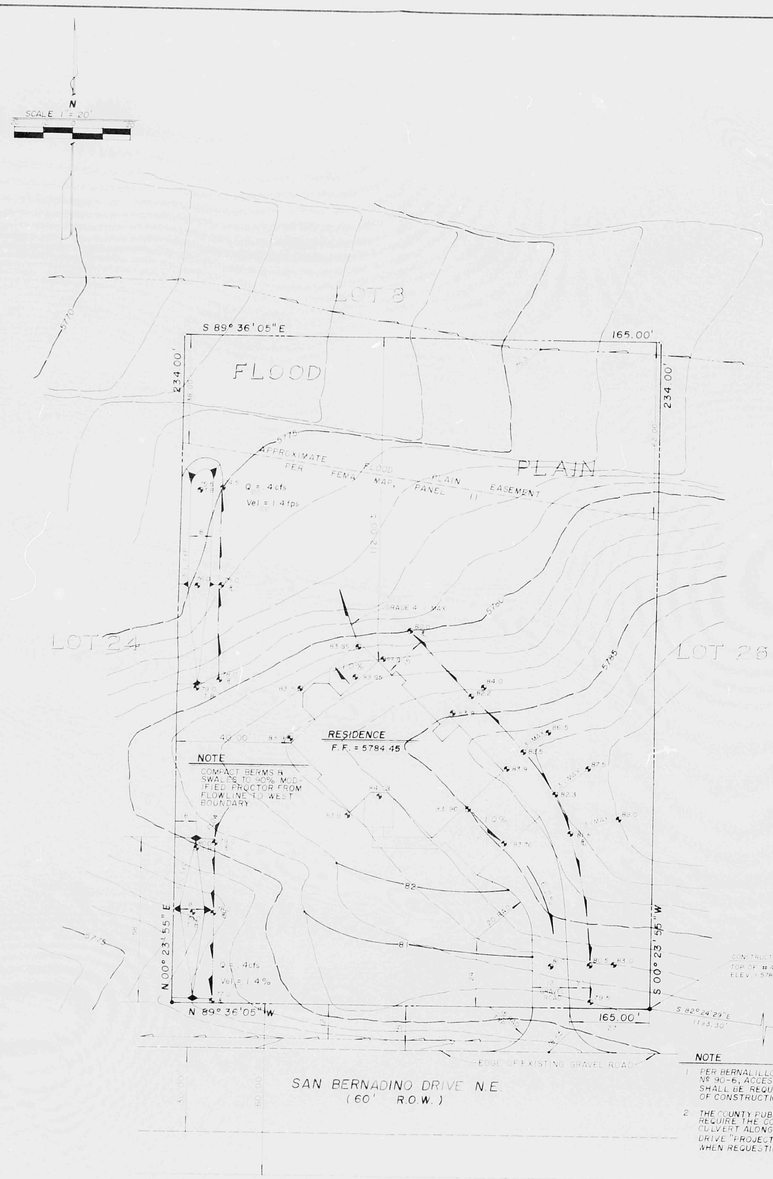
FILE DESC: D-21 /D004

PLANS/PLATS 1

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F

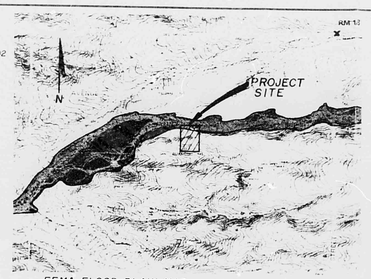


NOTE

1. PER BERNALILLO COUNTY ORDINANCE Nº 90-6, ACCESS AND PAVING PERMITS SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION.
2. THE COUNTY PUBLIC WORKS DEPT. MAY REQUIRE THE CONSTRUCTION OF A CULVERT ALONG THE SAN BERNADINO DRIVE PROJECT DESIGN SWALE WHEN REQUESTING THE ACCESS PERMIT.

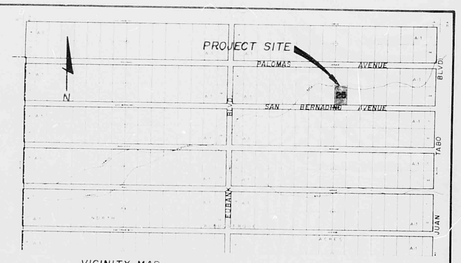
LEGEND

	FOUND REBAR W/CAP
	SET REBAR W/CAP NO.7002
	NEW SPOT ELEVATION
T.B.	TOP OF BERM
F.	FLOWLINE
	EXISTING SPOT ELEVATION
F.F.	FINISH FLOOR ELEVATION
	NEW CONCRETE
5030	EXISTING CONTOURS
	BOUNDARY LINE
	NEW SWALE
	EXIST. FLOWLINE
82	NEW CONTOUR



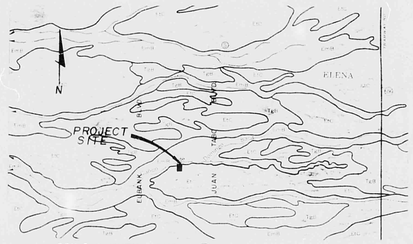
FEMA FLOOD PLAIN MAP PANEL 11

SCALE 1"=500'



VICINITY MAP

ZONE MAP NO. D-21-Z



SOILS SURVEY - SHEET 12

SCALE 1"=2,000'

CALCULATIONS

I. DESIGN CRITERIA

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VOLUMETRIC DISCHARGE: VOL. = $E_{weighted} \times A$

SOIL TYPE, 'B' - EMBUDO TIJERAS COMPLEX, E.C.; ZONE 4
$P_{6/10}$ = 2.9 IN.
TC = 10 MIN.
DESIGN STORM: 100 YR. - 6 HR., 10 YR. - 6 HR., [ ] = 10 YR. VALUES

II. EXISTING CONDITIONS

A = 0.89 AC. EXCESS PRECIP = 0.66 IN., [0.27]
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A = 0.89 AC.
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GENERAL INFORMATION

LEGAL DESCRIPTION: LOT 25, BLOCK 3, TR. 3, UNIT 2, NORTH ALBUQUERQUE ACRES, BERNALILLO COUNTY, NEW MEXICO.
PROJECT BENCHMARK: A STANDARD ACS BRASS TABLE T, STAMPED "4-D22 1978", LOCATED AT THE S.E. QUADRANT OF SAN BERNADINO AND JUAN TABO. MSL ELEV. 5835.09.
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PHILIP W. CLARK N.M.P.E. #10265 DATE

GRADING AND DRAINAGE PLAN

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PHILIP W. CLARK N.M.P.E.

REVISED AUG 31 1990

TVS
TECHNICAL MANAGEMENT SERVICES CO.
5905 MARBLE AVE. NE, SUITES 1/B2
ALBUQUERQUE, N.M. 87110
PHONE (505) 262-1755

DATE	REVISION
11-15-90	REDO/Comp Grad. - N.P.

DESIGNED BY	DRAWN BY
CHECKED BY	DATE

LOT 25, BL. 3, TR. 3, UNIT 2
NORTH ALBUQUERQUE ACRES

GRADING & DRAINAGE PLAN

SHEET NO. 1 of 1

D-21/Z004

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

Rf: 21 DATE: 12-4-92 OP: 10P

CITY OF ALBUQUERQUE

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The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (MS115-1977).

Karen Aiuvo
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 6/14/ 8 1995
Norberta Sanchez

D 24 C 20 B 16 A 12 | CITY OF ALBUQUERQUE C D