

**BOARD OF COUNTY COMMISSIONERS** 

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# County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA N.W. ALBUQUERQUE, NEW MEXICO 87102 RAY GALLAGHER, SHERIFF PATRICK J. PADILLA. TREASURER GLADYS M. DAVIS, CLERK MARK. J. CARRILLO, ASSESSOR THOMAS J. MESCALL, PROBATE JUDGE

October 16, 1991

Phil Clark, P.E. Technical Management Services Co. 5905 Marble Avenue, NE Suite #3 Albuquerque, New Mexico 87110

> REVISED DRAINAGE PLAN FOR LOT 26, BLOCK 10, TRACT 2, UNIT 1, N.A.A., REVISIONS DATED OCTOBER 3, 1991 RELEASE, (C-22/D25)

Dear Mr. Clark:

Based on the information provided on your resubmittal of October 9, 1991, listed are some concerns that will need to be addressed prior to final approval.

The historical runoff that enters Lot 26 from Lot 27 cannot be blocked. The historical runoff from the depressed section within Lot 27 must be accepted and passed through. I recommend that you either design a culvert or depress the access road in order to accept the flow.

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

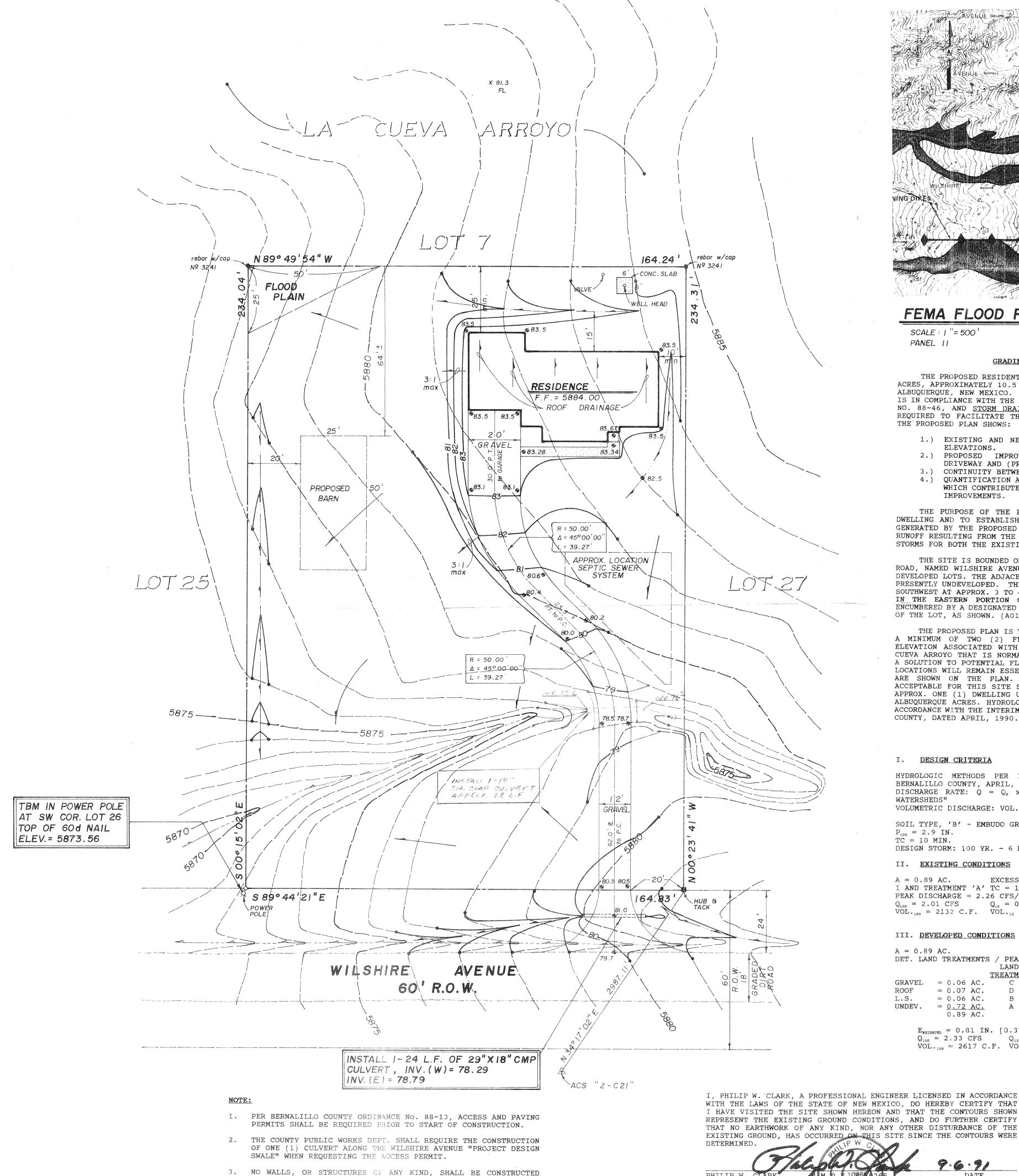
Cordially.

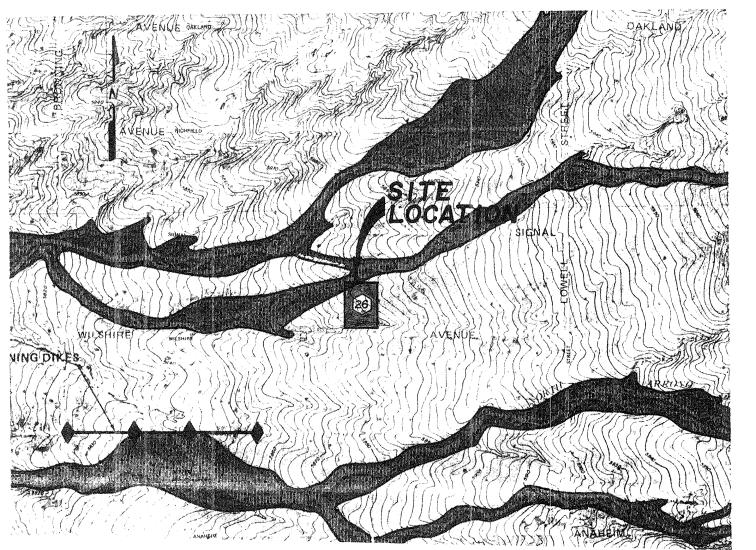
Bernie J. Montoya, C.E. Engineering Assistant

Servie J. Montoja

Bob Foglesong

BJM/bsj (WP + 2927)





# FEMA FLOOD PLAIN MAP

SCALE : | "= 500" PANEL II

#### GRADING AND DRAINAGE PLAN

THE PROPOSED RESIDENTIAL HOME IS LOCATED IN NORTH ALBUQUERQUE ACRES, APPROXIMATELY 10.5 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
- 2.) PROPOSED IMPROVEMENTS; DWELLING, DRIVEPAD, GRAVEL DRIVEWAY AND (PRIVATE) CMP CULVERT PIPES.
- CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- 4.) QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE

THE PURPOSE OF THE PLAN IS TO FLOOD PROOF THE RESIDENTIAL DWELLING AND TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF 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 RESIDENTIAL GRADED DIRT ROAD, NAMED WILSHIRE AVENUE, N.E., AND ON THE NORTH AND WEST BY DEVELOPED LOTS. THE ADJACENT TRACT TO THE EAST IS RESIDENTIAL AND PRESENTLY UNDEVELOPED. THE SITE GENERALLY FALLS FROM NORTHEAST TO SOUTHWEST AT APPROX. 3 TO 4 PERCENT. OFFSITE FLOWS ENTER THE SITE IN THE EASTERN PORTION OF THE LOT AND THE LOT IS PARTIALLY ENCUMBERED BY A DESIGNATED FEMA FLOODPLAIN ON THE NORTHWEST PORTION OF THE LOT, AS SHOWN. (A01 ZONE)

THE PROPOSED PLAN IS TO SET THE FINISH FLOOR OF THE RESIDENCE A MINIMUM OF TWO (2) FEET ABOVE THE HIGHEST DESIGNATED LOT ELEVATION ASSOCIATED WITH THE FLOWLINE OF THE FLOODPLAIN OF LA CUEVA ARROYO THAT IS NORMAL TO THE AFFECTED RESIDENCE CORNER, AS A SOLUTION TO POTENTIAL FLOODING. HISTORICAL SITE RUN-OFF OUTFALL LOCATIONS WILL REMAIN ESSENTIALLY UNCHANGED. DEVELOPED VELOCITIES ARE SHOWN ON THE PLAN. FREE DISCHARGE OF STORM RUN OFF IS ACCEPTABLE FOR THIS SITE SINCE THE PROJECT LAND USE INTENSITY IS APPROX. ONE (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.

# CALCULATIONS

# I. DESIGN CRITERIA

HYDROLOGIC METHODS PER INTERIM DRAINAGE DESIGN CRITERIA FOR BERNALILLO COUNTY, APRIL, 1990. DISCHARGE RATE: Q = Q, x A... PEAK DISCHARGE RATES FOR SMALL WATERSHEDS"

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

SOIL TYPE, 'B' - EMBUDO GRAVELLY FINE SAND LOAM, EmB; ZONE 4  $P_{100} = 2.9 \text{ IN}.$ 

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]I AND TREATMENT 'A' TC = 10 MIN. PEAK DISCHARGE = 2.26 CFS/ACRE [0.99]  $Q_{100} = 2.01 \text{ CFS}$   $Q_{10} = 0.88 \text{ CFS}$   $VOL_{100} = 2132 \text{ C.F.}$   $VOL_{10} = 872 \text{ C.F.}$ 

## III. DEVELOPED CONDITIONS

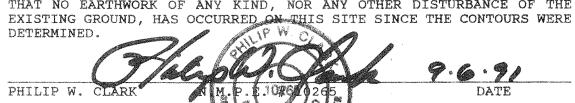
A = 0.89 AC.DET. LAND TREATMENTS / PEAK DISCHARGE / WEIGHTED EXCESS PRECIP.

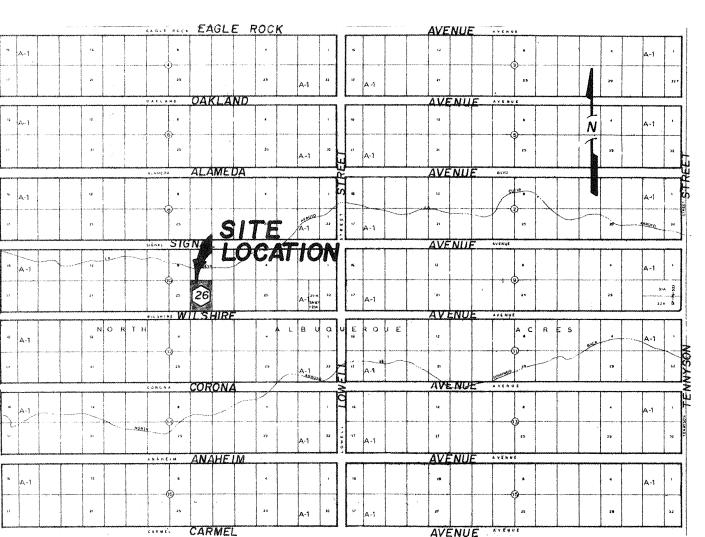
		LAND	PEAR DISCHARGE,	<u> </u>
		TREATMENT	CFS/ACRE	
GRAVEL	= 0.06 AC.	C	3.94 [2.29]	1.13 IN. [0.55]
ROOF	= 0.07 AC.	D	5.74 [3.91]	2.57 IN. [1.60]
L.S.	= 0.06 AC.	В	3.05 [1.61]	0.85 IN. [0.38]
UNDEV.	= 0.72 AC.	A	2.26 [0.99]	0.66 IN. [0.27]
	0.89 AC.			

 $E_{\text{WEIGHTED}} = 0.81 \text{ IN. } [0.37]$  $Q_{100} = 2.33 \text{ CFS}$   $Q_{10} = 1.14 \text{ CFS}$  $VOL_{100} = 2617 \text{ C.F. } VOL_{10} = 1195 \text{ C.F.}$ 

#### 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

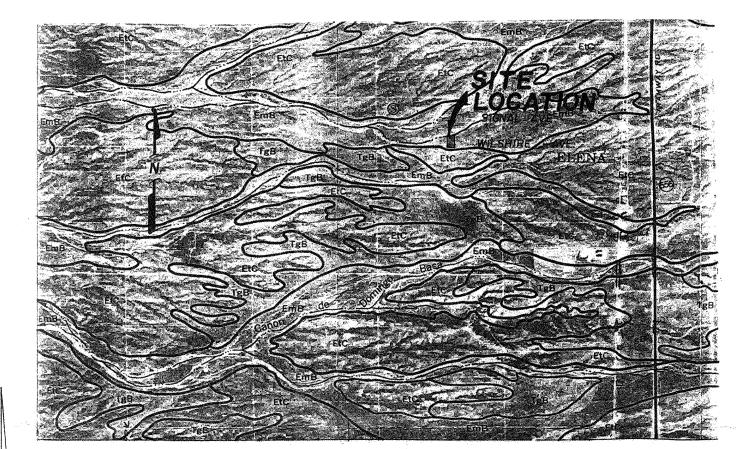
3. NO WALLS, OR STRUCTURES OF ANY KIND, SHALL BE CONSTRUCTED WITHIN THE FLOOD PLAIN EASEMENT.





# VICINITY MAP

ZONE MAP C-22 N.T.S.



# SOILS SURVEY

SCALE: 1 "= 2000" SHEET (12)

# GENERAL INFORMATION

LEGAL DESCRIPTION:

LOT 26, BLOCK 10, TRACT 2, UNIT 1, NORTH ALBUQUERQUE ACRES, BERNALILLO COUNTY, NEW MEXICO.

## PROJECT BENCHMARK:

A STANDARD ACS BRASS TABLET STAMPED "2-C21, 1985", LOCATED IN THE NORTHWEST QUADRANT OF THE INTERSECTION OF PASEO DEL NORTE, N.E., AND BROWNING AVENUE, N.E. TRIGONEMETRIC ELEVATION = 5834.10.

# PROPERTY ADDRESS:

WILSHIRE AVENUE, N.E., ALBUQUERQUE, NEW MEXICO.

## TOPOGRAPHIC SURVEY:

TOPOGRAPHIC INFORMATION COMPILED FROM SURVEY PERFORMED ON AUGUST 26, 1991, BY TECHNICAL MANAGEMENT SERVICES COMPANY, (R.L.S. # 10204).

## LEGEND

SCALE: | "= 20"

- FOUND REBAR W/CAP FOUND HUB & TACK NEW SPOT ELEVATION
- X 77.4 EXISTING SPOT ELEVATION FINISH FLOOR ELEVATION

NEW CONCRETE NEW SWALE --- EXISTING FLOWLINE ---- 80 --- NEW CONTOUR --- 5875 -- EXISTING CONTOUR

BOUNDARY LINE

# AMAFCA

DATE

PROFIN BERNALILLO DATE COUNTY NOV 2 1 1991 PUBLIC WORKS DEPT.

Technical Management Services Co. Professional Engineering and Surveying Services Indian Owned Economic Enterprise

5905 Marble NE Suite 3 - Albuquerque, New Mexico 87110



(505) 262-1755 Fax (505) 262-1757 LOT 26, BLK 10, TRACT 2, UNIT 1 NORTH ALBUQUERQUE ACRES - BERN. CO. 10/3/91 FCY. drive way culv. per Hydrol. commen 10/3/91

edded off-site Contours@Arrayo Per Hydrol. Comment GRADING & DRAINAGE PLAN

DATE: 09-05-91

DESIGNED BY: CHECKED BY PUR FILE Nº FB-011-91 SHEET



County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA N.W.

**BOARD OF COUNTY COMMISSIONERS** 

PATRICK J. BACA, CHAIRMAN DISTRICT 1

PATRICIA "PAT" CASSIDY, VICE CHAIR

ALBERT "AL" VALDEZ, MEMBER

EUGENE M. GILBERT, MEMBER DISTRICT 3

JACQUELYN SCHAEFER, MEMBER DISTRICT 5

JUAN R. VIGIL, COUNTY MANAGER

ALBUQUERQUE, NEW MEXICO 87102

RAY GALLAGHER, SHERIFF PATRICK J. PADILLA, TREASURER GLADYS M. DAVIS, CLERK MARK J. CARRILLO, ASSESSOR THOMAS J. MESCALL, PROBATE JUDGE

December 10, 1991

Phil Clark, P.E. Technical Management Services Co. 5905 Marble Avenue, NE Suite #3 Albuquerque, New Mexico 87110

> RE: REVISED DRAINAGE PLAN FOR LOT 26, BLOCK 10, TRACT 2 UNIT 1, N.A.A. (C-22/D25) ENGINEER'S STAMP DATED NOVEMBER 11, 1991

Dear Mr. Clark:

Based on the information provided on your resubmittal of November 21, 1991, the drainage plan is approved for building permit. However, prior to release of the permit, please secure AMAFCA's and Bernalillo County's signature on the plan and resubmit.

Please be advised that prior to Final Inspection by the County Building Department, an Engineer's Certification must be approved by this office.

ldaz, P.E & P.S.

City/County Floodplain Administrator

Bob Foglesong, Bernalillo County Clifford E. Anderson, AMAFCA

GA

(WP + 2927)