

BOARD OF COUNTY COMMISSIONERS

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DISTRICT 1

PATRICIA "PAT" CASSIDY, VICE CHAIR
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ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA N.W.

ALBUQUERQUE, NEW MEXICO 87102

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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

RE: 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.

1. 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

xc: Bob Foglesong

BJM/bsj
(WP+2927)



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 BERNALLILLO 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, GRAVEL DRIVEWAY AND (PRIVATE) CMP CULVERT PIPES.
- 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 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 ENCOMBERED BY A DESIGNATED FEM 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 SHOWN ON THE ATTACHED HISTORICAL CENSUS STREET RUN-OFF UTILITY MAP. THE PROPOSED ELEVATION OF THE FINISH FLOOR OF THE LOT LOCATIONS WILL REMAIN ESSENTIALLY UNCHANGED. ELEVATION LOT LOCATIONS 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 COUNTY, CALIFORNIA. THE PROPOSED ELEVATION CALCULATIONS ARE IN ACCORDANCE WITH THE INTERIM DRAINAGE DESIGN CRITERIA FOR BERNALLIO COUNTY, DATED APRIL, 1990.

CALCULATIONS

I. DESIGN CRITERIA

HYDROLOGIC METHODS PER INTERIM DRAINAGE DESIGN CRITERIA FOR
BERNALILLO COUNTY, APRIL, 1990.

DISCHARGE RATE: $Q = Q_p \times A \dots$ "PEAK DISCHARGE RATES FOR SMALL WATERSHEDS"
VOLUMETRIC DISCHARGE: $VOL. = E_{\text{WATERSHED}} \times A$

SOIL TYPE, 'B' - EMBUDO GRAVELLY FINE SAND LOAM, EmB; ZONE 4
P₁₀₀ = 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]
I AND TREATMENT 'A' TC = 10 MIN.
PEAK DISCHARGE = 2.26 CFS/ACRE [0.99]
Q₁₀₀ = 2.01 CFS Q₁₀ = 0.88 CFS
VOL.₁₀₀ = 2132 C.F. VOL.₁₀ = 872 C.F.

III. DEVELOPED CONDITIONS

A = 0.89 AC.		DET. LAND TREATMENTS	PEAK DISCHARGE	WEIGHTED EXCESS PRECIP.
		LAND	PEAK DISCHARGE,	'E'
		TREATMENT	CFS/ACRE	
GRAVEL	= 0.06 AC.	C	3.94 [2.29]	1.13 IN. [0.55]
ROOF	= 0.07 AC.	D	5.74 [3.21]	2.57 IN. [1.66]
UNDEV.	= 0.06 AC.	B	3.08 [1.61]	0.85 IN. [0.38]
UNDEV.	= 0.72 AC.	A	2.26 [0.99]	0.66 IN. [0.27]
	0.89 AC.			

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

LEGEND

- | | |
|---|-------------------------|
|  | FOUND REBAR W/CAP |
|  | FOUND HUB & TACK |
|  | NEW SPOT ELEVATION |
| X 77.4 | EXISTING SPOT ELEVATION |
| F.F. | FINISH FLOOR ELEVATION |
|  | NEW CONCRETE |
|  | NEW SWALE |
|  | EXISTING FLOWLINE |
|  | NEW CONTOUR |
|  | EXISTING CONTOUR |
|  | BOUNDARY LINE |

[illegible]

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.
TRIGONOMETRIC 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).



1. PER BERNALILLO COUNTY ORDINANCE NO. 88-13, ACCESS AND PAVING PERMITS SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION.
2. THE COUNTY PUBLIC WORKS DEPT. SHALL REQUIRE THE CONSTRUCTION OF ONE (1) CULVERT ALONG THE WILSHIRE AVENUE "PROJECT DESIGN SWALS" WHEN REQUESTING THE ACCESS PERMIT.
3. NO WALLS, OR STRUCTURES OF ANY KIND, SHALL BE CONSTRUCTED WITHIN THE FLOOD PLAIN EASEMENT.

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

DATE _____

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

5505 Marble NE Suite 3 - Albuquerque, New Mexico 87110
(505) 262-1755 Fax (505) 262-1757

DATE	REVISION	LOT 26, BLK 10, TRACT 2, UNIT 1 NORTH ALBUQUERQUE ACRES- BERN. CO.
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GRADING & DRAINAGE PLAN

DESIGNED BY: <i>SL</i>	DRAWN BY: <i>NS</i>	TMS JOB N° <i>91-149</i>	SHEET <i>1</i> OF <i>1</i>
CHECKED BY: <i>RUC</i>	DATE: <i>09-05-91</i>	FILE N° <i>FB-011-91</i>	



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JUAN R. VIGIL, COUNTY MANAGER

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THOMAS J. MESSALL, 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.

Cordially,

Gilbert Aldaz, P.E. & P.S.
City/County Floodplain Administrator

xc: Bob Foglesong, Bernalillo County
Clifford E. Anderson, AMAFCA

GA
(WP+2927)