



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR

KEN SCHULTZ

CHIEF
ADMINISTRATIVE OFFICER

GENE ROMO

DEPUTY CAO
PUBLIC SERVICES

FRANK MARTINEZ

DEPUTY CAO
PLANNING/DEVELOPMENT

BILL MUELLER

January 27, 1988

Ricardo Sanchez
Chavez-Grievess Consulting Engineers
4600-C Montgomery Boulevard, NE
Albuquerque, New Mexico 87109

RE: GRADING & DRAINAGE PLAN OF ARROYO DEL OSO GOLF COURSE, CLUB
HOUSE & RESTAURANT, RECEIVED JANUARY 21, 1988 FOR BUILDING
PERMIT APPROVAL (F-18/D29)

Dear Mr. Sanchez:

Based on the information provided on your submittal dated December 31,
1987, the above referenced plan is approved for Building Permit.

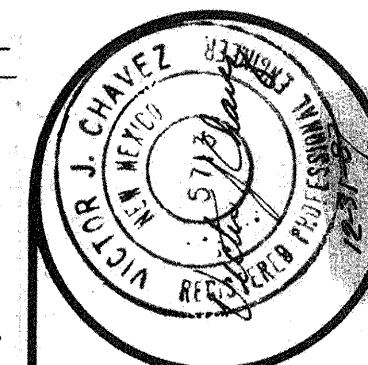
Please attach a copy of this plan to the construction sets prior to
sign-off by Hydrology. If the building permit has already been released,
it is your responsibility to see that the contractor has this approved
copy.

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

Cordially,

Roger A. Green, P.E.
C.E./Hydrology Section

RAG/bsj



GREGORY T. Hicks & ASSOC., P.C.
The Sunshine Building
112 Second St. S.W.
Albuquerque, New Mexico 87102
(505) 243-7492

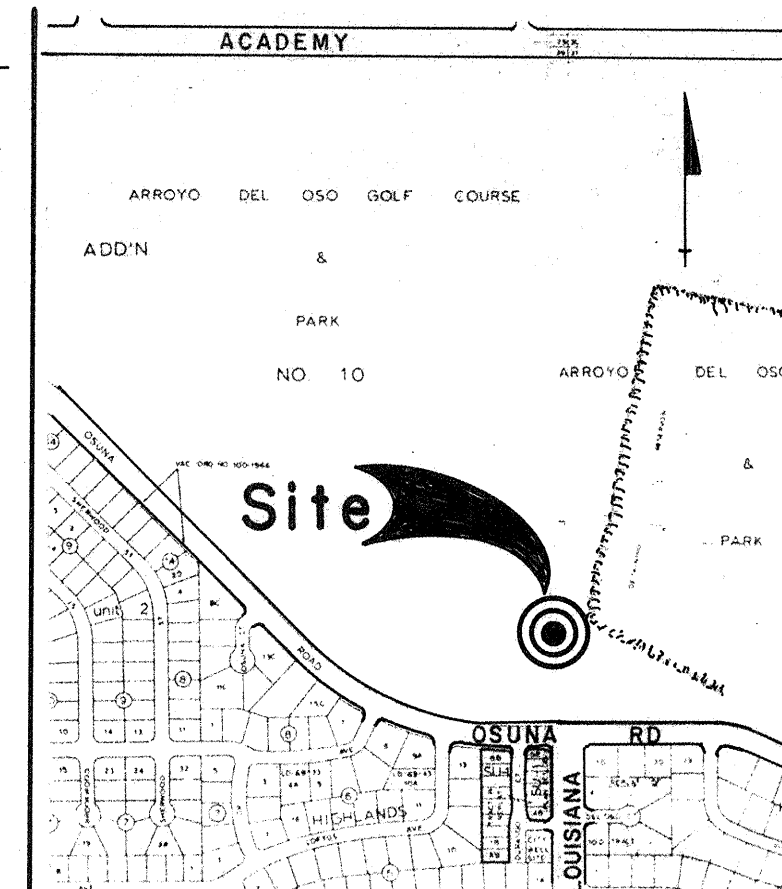
Arroyo Del Oso Golf Course Club House Remodel & Addition

C1

10-19-87

NOTICE TO CONTRACTOR

- THE CONTRACTOR WILL NOT WILLFULLY INSTALL ITEMS AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT CONDITIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE DESIGN. SUCH CONDITIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER. IN THE EVENT THE CONTRACTOR DOES NOT NOTIFY THE ENGINEER, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE "CITY OF ALBUQUERQUE, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986" (COA STD).
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL WATER VALVE BOXES AND SEWER MANHOLES IN THE CONSTRUCTION AREA ARE TO BE ADJUSTED TO FINISH GRADE.



VICINITY MAP F-18/19-Z
FLOOD HAZARD BDY. MAP / Panel No.17

LEGAL DESCRIPTION:

ARROYO DEL OSO GOLF COURSE & PARK
MUNICIPAL ADDITION NO. 10.

BENCH MARK

ACS BRASS CAP "6-F19A" LOCATED 25' NORTH OF THE CENTERLINE ON OSUNA RD N.E. AND 238' EAST OF THE CENTER LINE OF VISTA DEL ARROYO N.E. ELEVATION IN FEET = 5346.22.

SURVEY DATA

TOPOGRAPHIC DATA PROVIDED BY VERLON E. HALL, N.M.L.S. NO. 3241 ALBUQUERQUE, NEW MEXICO ON JULY, 1987.

LEGEND

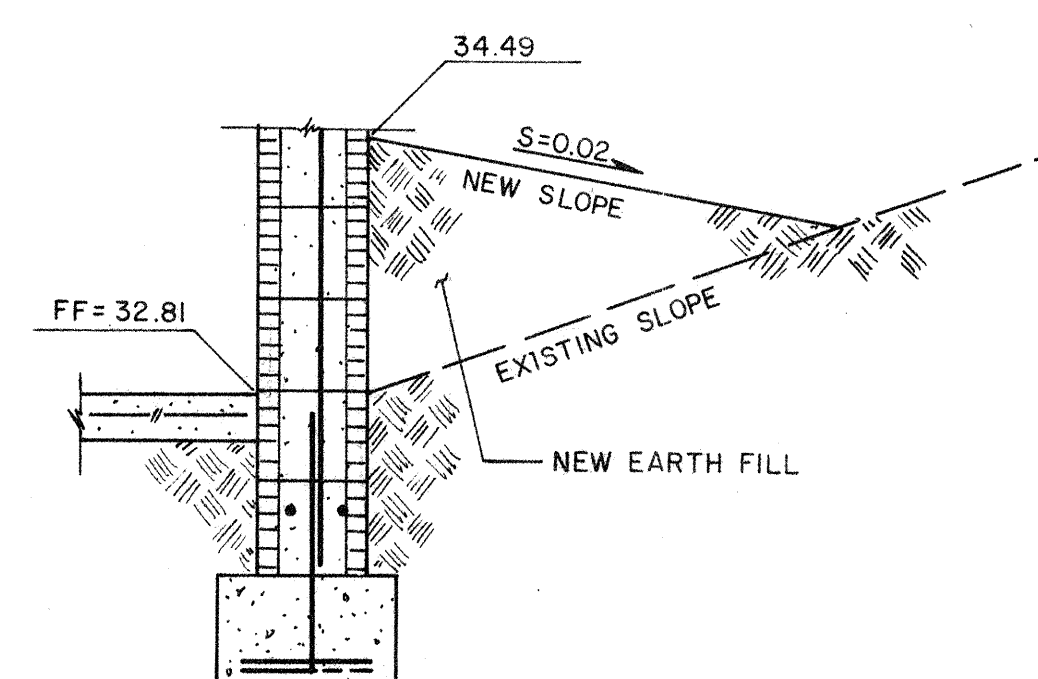
CONTOUR (NEW)	---
CONTOUR (EXIST)	---
SPOT ELEVATION (NEW)	+
SPOT ELEVATION (EXIST)	+
BUILDING (EXIST)	[Symbol]
BUILDING (NEW)	[Symbol]
CONCRETE (NEW)	[Symbol]
CONCRETE (EXIST)	[Symbol]

NOTE

ALL NEW PUBLISHED SPOT ELEVATIONS SHOWN ON DWG. ARE TOP OF FINISHED CONCRETE. TO FIND TOP OF NEW CURB ELEVATION ADD 6" TO PUBLISHED ELEVATION UNLESS OTHERWISE NOTED.

KEYED NOTES

- ADJUST EXISTING WATER METER TO NEW ELEVATION.
- ADJUST EXISTING MANHOLE TO NEW ELEVATION.
- FUTURE SERVICE DRIVE BY OTHERS.
- CONSTRUCT DRIVEPAD IN ACCORDANCE WITH CITY STD. DWG. 2425 OR APPROVED EQUAL. MATCH EXISTING ELEVATIONS.
- CONSTRUCT EARTH RAMP SLOPE 2% AWAY FROM BUILDING. COMPACT TO 95% AS DETERMINED BY ASTM D1557-78. (NO EARTH IS TO BE REMOVED FROM DAM AREA)
- SWALES TO BE LINED WITH 3/4" - 1 1/2" STONES OVER FILTER MATERIAL. NOW WOVEN POLYESTER GEO-TEXTILE.



SECTION A-A

DRAINAGE PLAN
FOR
ARROYO DEL OSO GOLF COURSE CLUB HOUSE REMODEL
AND ADDITION
ALBUQUERQUE, NEW MEXICO

CALCULATIONS:

Area = 0.9914 acres
I = 2.2 in./hr. Plate 22.2 D-2
6-hour, 100-year rainfall = 2.3 in. Plate 22.2 D-1
I = (2.2)(2.3) = 5.06 in./hr.

EXISTING ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.0639	0.0607	
Roofs	0.90	0.1732	0.1559	
Lawns & Landscaping	0.25	0.6166	0.1542	
Pond	0.00	0.1377	0.0000	
TOTAL		0.9914	0.3708	0.3740

$Q(100) = (0.3740)(5.06)(0.9914) = 1.8462$ cfs
 $Q(10) = (0.657)(1.8762) = 1.2326$ cfs
CN = 75 Plate 22.2 C-2
Direct Runoff = 0.5 in. Plate 22.2 C-4
 $V(100) = (0.5)(0.9914)(43560)/12 = 1799.39$ cu. ft.
 $V(10) = (0.657)(1799.39) = 1182.20$ cu. ft.

PROPOSED ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.2574	0.2445	
Roofs	0.90	0.2783	0.2505	
Lawns & Landscaping	0.25	0.4557	0.1139	
Undeveloped	0.40	0	0	
Pond	0	0	0	
TOTAL		0.9914	0.6089	0.6142

$Q(100) = (0.6142)(5.06)(0.9914) = 3.0610$ cfs
 $Q(10) = (0.657)(3.0810) = 2.0242$ cfs
CN = 80 Plate 22.2 C-3
Direct Runoff = 0.8 in. Plate 22.2 C-4
 $V(100) = (0.8)(0.9914)(43560)/12 = 2879.03$ cu. ft.
 $V(10) = (0.657)(2879.03) = 1891.52$ cu. ft.

BASIN CALCULATIONS

SURFACE TYPE	"C" VALUE	A (ACRES)
Streets, Drives, Walks	0.95	0.1652
Roofs	0.90	0.0996
Lawns & Landscaping	0.25	0.0303

$Q(100) = (0.25)(5.06)(0.0303) = 0.0383$ cfs
 $Q(10) = (0.657)(0.0383) = 0.0252$ cfs
CN = 40 Plate 22.2 C-2
Direct Runoff = 0.05 in. Plate 22.2 C-4
 $V(100) = (0.05)(0.0303)(43560)/12 = 5.50$ cu. ft.
 $V(10) = (0.657)(5.50) = 3.61$ cu. ft.



1"=20'-0"

BASE BID ENTRY STRUCTURE

1:20

FILL SOILS WILL BE PROVIDED BY OWNER TO CONTRACTOR FOR PLACEMENT & COMPACTION.

OWNER WILL DELIVER AND STOCK FILL SOILS IN THIS AREA.

LOCATION AND DESCRIPTION:

Site is located near the corner of Osuna Road and Louisiana Boulevard in Albuquerque, New Mexico. The limits of construction comprise an area of approximately 0.9914 acres. Existing slopes near the existing building are approximately 2%. While existing slopes at the golf course north of the clubhouse are approximately 6%. This site is not located within a flood plane.

EXISTING CONDITIONS:

Presently, runoff generated within the limits of construction discharges to Osuna Road and to the Arroyo Del Oso Open Channel.

PROPOSED CONDITIONS:

Proposed development of the site includes a new restaurant to be built over a man-made pond, an addition to an existing building, and additional sidewalk and landscaping. Due to the proposed development, flow from within the limits of construction will increase from 1.88 cfs to 3.08 cfs. These flows will be routed as in the past towards Osuna Road and towards the Arroyo Del Oso Open Channel. Flows from outside the limits of construction (flows developed on the east side of the dam) will be routed around the new pro shop/cart storage via an earthen berm/road and swale.

GRADING & DRAINAGE PLAN