



P.O. Box 1293 Albuquerque, NM 87103

November 18, 1996

Martin J. Chávez, Mayor

Tamara K. Morgan, PE
Bohannon-Huston Inc.
7500 Jefferson NE
Albuquerque, NM 87109

RE: ENGINEER'S CERTIFICATION FOR VENTANA RANCH TRACT 2 (B-9/D1)
RECEIVED NOVEMBER 8, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 10/7/96

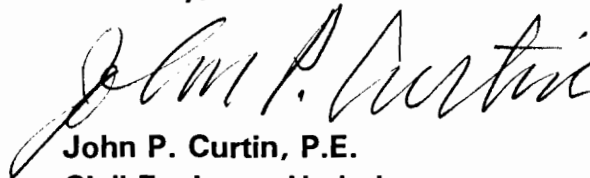
Dear Ms. Morgan:

Based on the information included in the submittal referenced above, City Hydrology accepts the engineer's certification of Tract 2 for financial guaranty release.

Contact Terri Martin to obtain the Financial Guaranty Release for City Project Number 5316.90.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,



John P. Curtin, P.E.
Civil Engineer, Hydrology

c: Andrew Garcia
Terri Martin, CPN 5316.90
Tony Sciarrillo, Las Ventanas Limited Partnership, #10 Tramway Loop NE 87122

Good for You, Albuquerque!



VENTANA RANCH - PHASE I - PLAYA STORAGE

"LOOP ROAD PLAYA"			
ELEVATION	AREA (ACRE)	VOLUME (ACRE-FEET)	CUMULATIVE VOLUME (ACRE-FEET)
5416	0.0227		
5417	0.0853	0.051	0.051
5418	0.1666	0.124	0.174
5419	0.264	0.213	0.388
5420	6.3559	2.638	3.026
5421	8.898	7.591	10.618
5422	11.098	9.978	20.595
5423	13.0781	12.075	32.670
5424	15.5798	14.311	46.981
5425	19.4131	17.461	64.442

"MAIN PLAYA"			
ELEVATION	AREA (ACRE)	VOLUME (ACRE-FEET)	CUMULATIVE VOLUME (ACRE-FEET)
5395	0.361		
5396	1.9627	1.055	1.055
5397	4.4778	3.135	4.190
5398	9.3113	6.749	10.939
5399	14.8889	11.992	22.930
5400	19.4444	17.116	40.046

$$VOLUME = (H/3) * [At + Ab + (At * Ab)^{(1/2)}]$$

At = AREA OF TOP CONTOUR IN ACRES

Ab = AREA OF BOTTOM CONTOUR IN ACRES

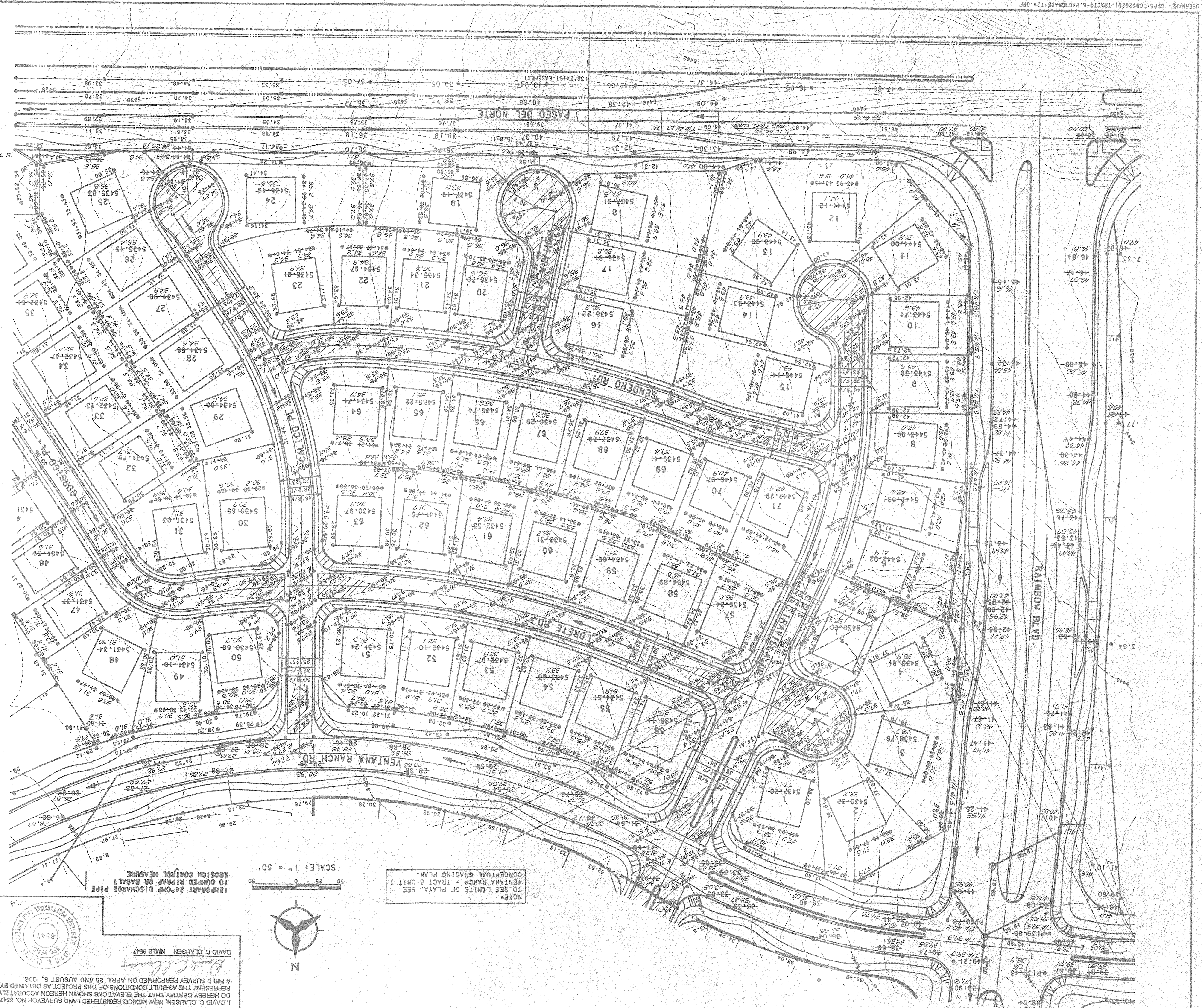
H = ELEVATION DIFFERENCE IN FEET

NOTE: CONTOURS GENERATED FROM BOHANNAN-HUSTON INC., PHOTOGRAMMETRY

PHOTO DATE: 8/10/94

FLIGHT HEIGHT: 1800 FEET

PHOTO SCALE: 1"=3600"



NOTE:
TO SEE LIMITS OF PLAYS, SEE
VENTANA RANCH - TRACT 6-UNIT 1
CONCEPTUAL GRADING PLAN.

TEMPORARY 24" CIP DISCHARGE PIPE
TO DUMPED RIPRAP OR BASALT
EROSION CONTROL MEASURE

DAVID C. CLAUSEN NMLS 6547
Professional Engineer
6547

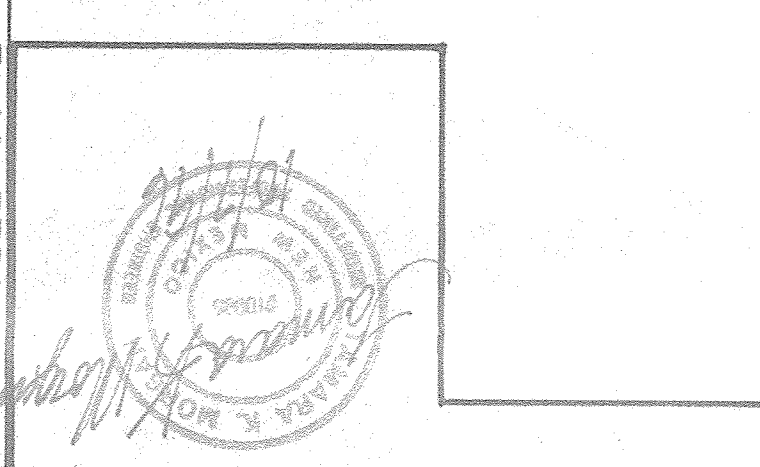
SCALE: 1" = 50'

GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARL THORNTON SPECIFICATION AS NOTED IN THE SOILS REPORT PREPARED BY GEO-TEST, INC. DATED OCT. 13, 1994 AND APRIL 13, 1994.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TERRACE FORAYS BERM AS PER DETAIL THIS SHEET AND WEETING THE SOIL TO KEEP IT FROM BLOWING.
5. ALL SPOT ELEVATIONS ARE TO TOP OF PROJECTED TOP OF CURB ELEVATION. GUTTER ELEVATIONS ARE NOTED. VALLEY CUBS UNLESS OTHERWISE NOTED. VALLEY CUBS SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
6. BOUNDERS, GREATER THAN 3 FEET IN DIAMETER, EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.

GRADING CERTIFICATION

I, Tamarac K. Morgan, P.E., #10955, hereby certify that grading at this site is constructed in substantial compliance with this plan, to allow the implementation of the drainage patterns and requirements identified herein, side yard drainage swales were noted during field visit prior to home construction, swales will need to be reconstructed by the builder upon completion of the home construction. As-built pad and grade elevations were verified by field survey; pad and grade elevations of David C. Clausen, P.E., #5547 on 4-25-96 & 8-6-96, after completion of infrastructure construction. This statement does not represent certification of contractor's construction methods or materials.



ENGINEER'S SEAL

Δ	4/23/96	Revised 200-200-21-25-29-30, 31A	P.L.
		4/24	
NO.	DATE	REMARKS	BY
REVISIONS			
DESIGN			
DESIGNED BY	PL/TKH	DATE	7/95
DRAWN BY	PL/TSK	DATE	7/95
CHECKED BY	TKH	DATE	7/95

APPROVED FOR ROUGH GRADING (1:1)

HYDROLOGY ENGINEER

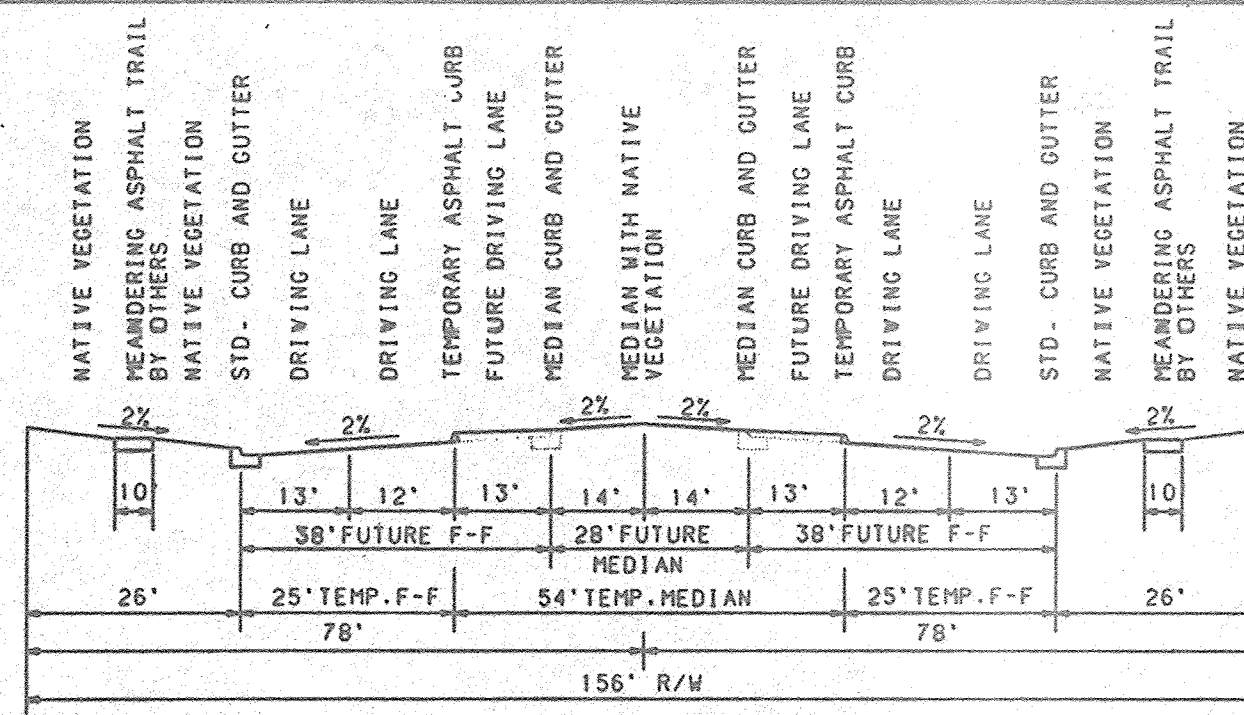
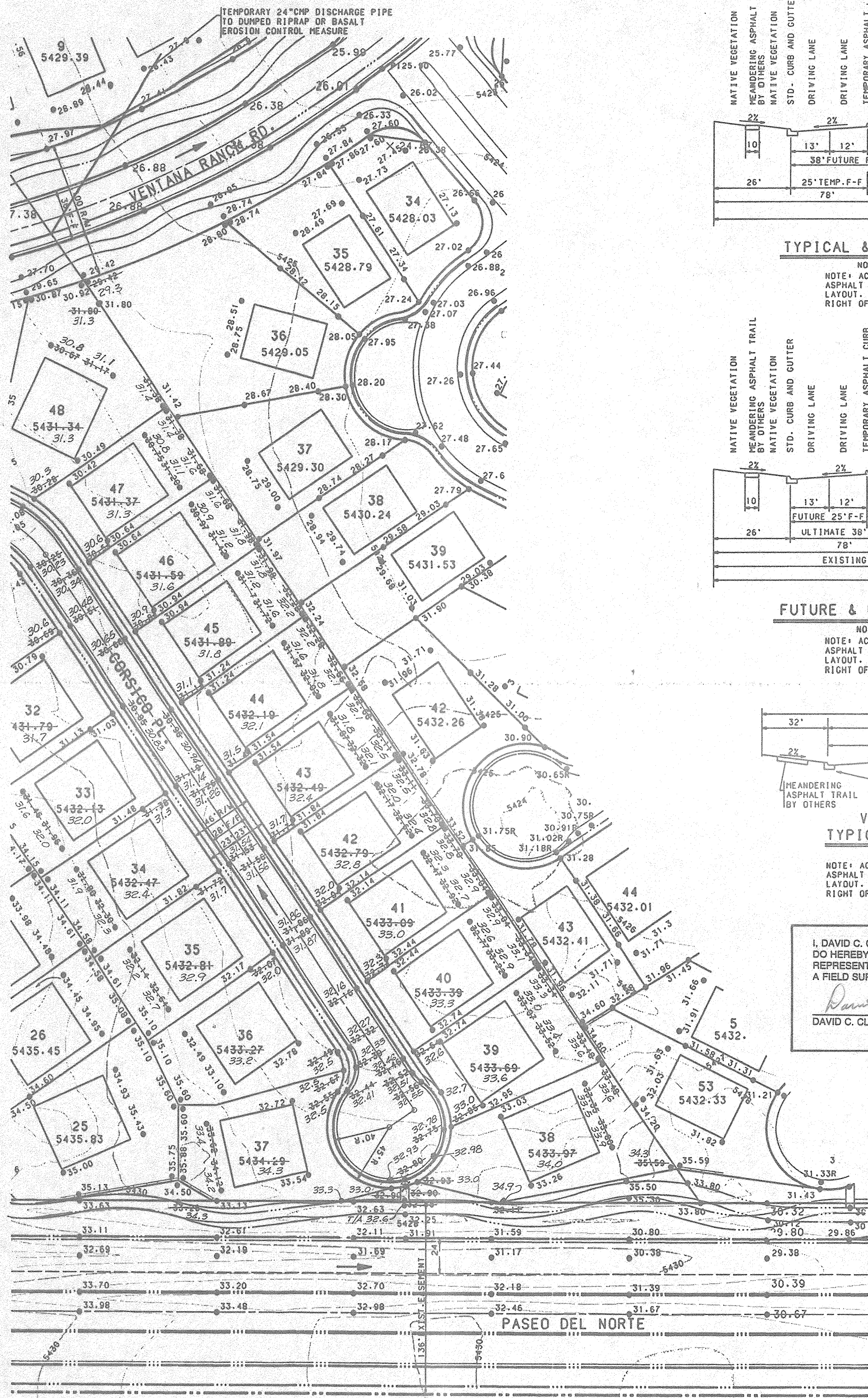
DATE

APPROVALS	DATE	ENGINEER	DATE	ENGINEER
DRC CHAIRMAN				
TRANSPORTATION				
HYDROLOGY				
NMJI				

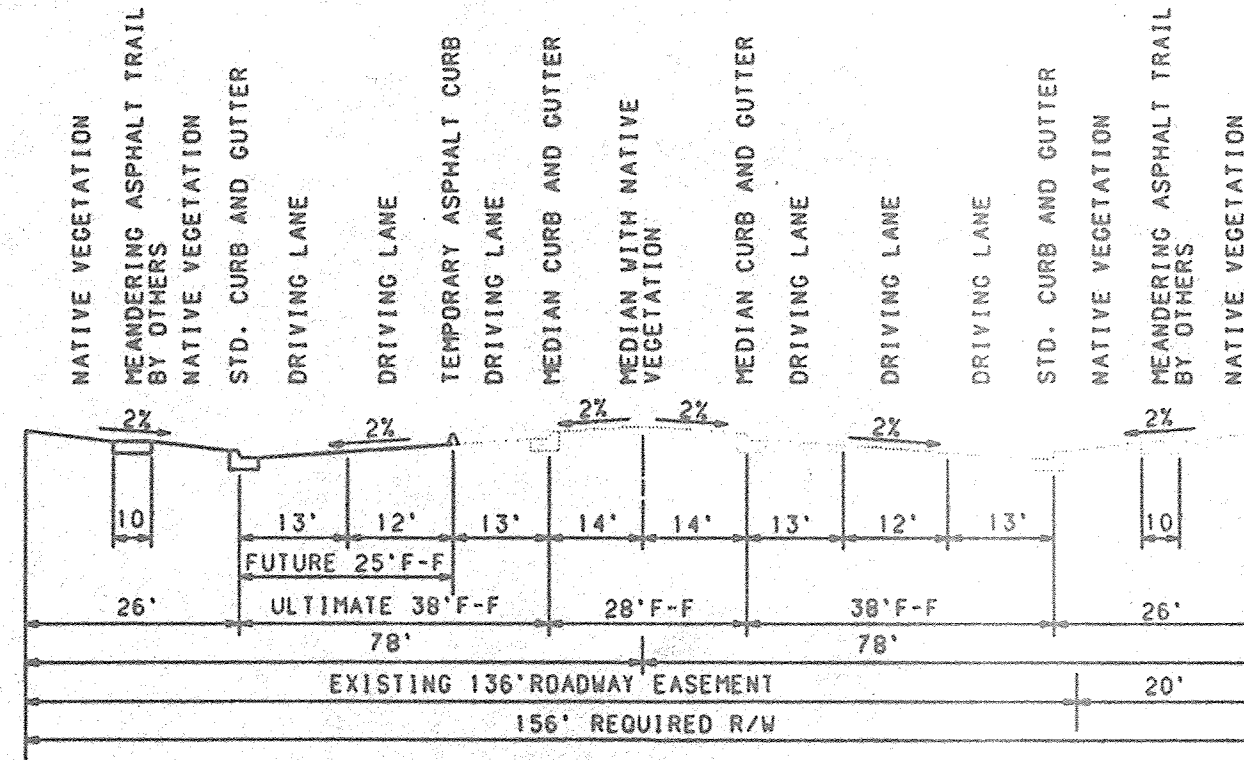
DRAWING NO. 5316.90

SHEET 48 OF 38

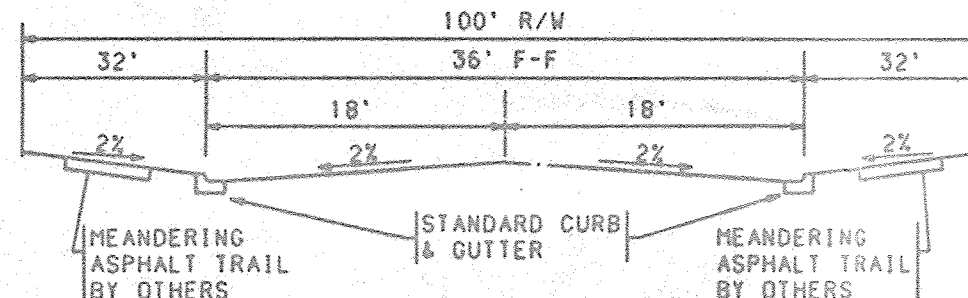
DATE: NOVEMBER 1995



RAINBOW BLVD.
TYPICAL & FUTURE STREET SECTION



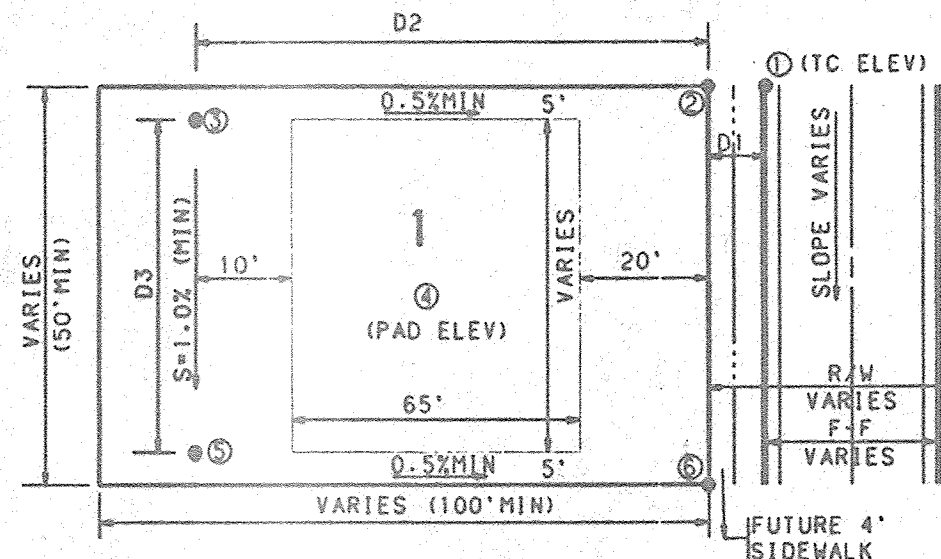
PASEO DEL NORTE
FUTURE & ULTIMATE STREET SECTION



VENTANA RANCH RD.
TYPICAL STREET SECTION

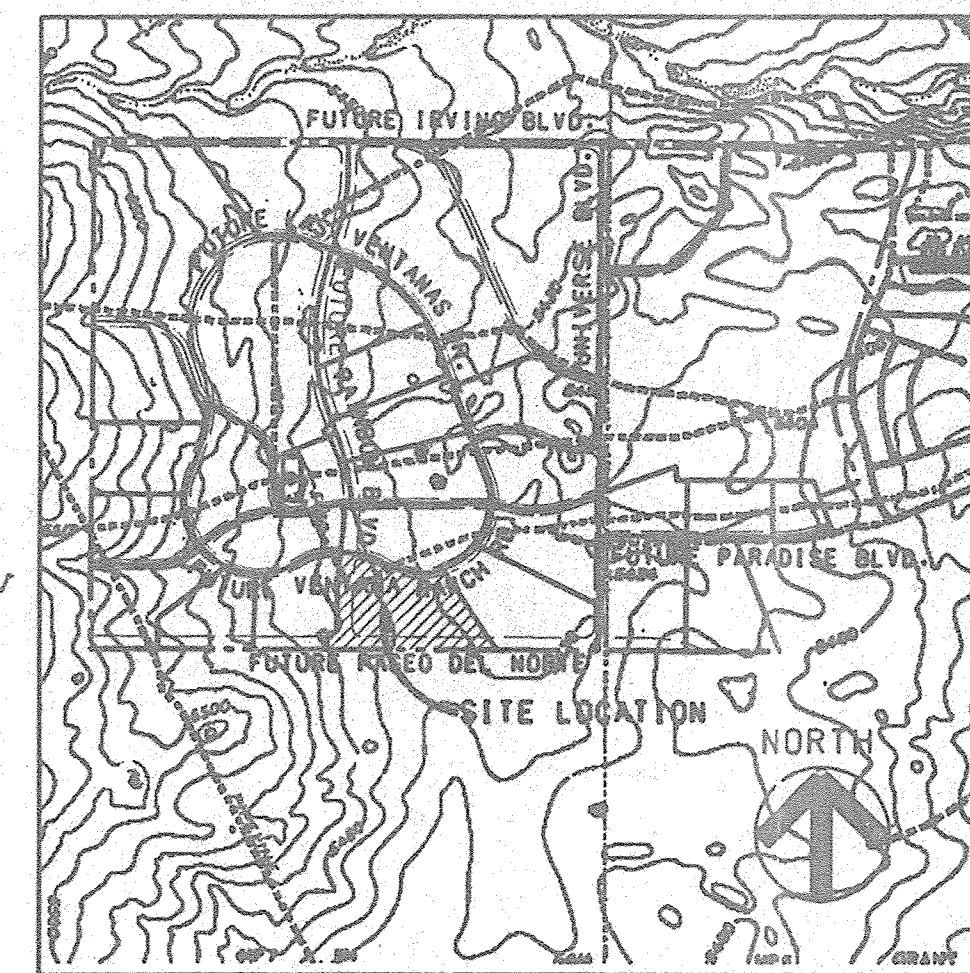
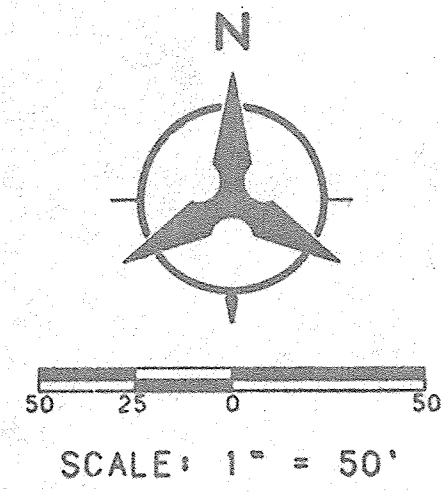
I, DAVID C. CLAUSEN, NEW MEXICO REGISTERED LAND SURVEYOR NO. 6547, DO HEREBY CERTIFY THAT THE ELEVATIONS SHOWN HEREON ACCURATELY REPRESENT THE AS-BUILT CONDITIONS OF THIS PROJECT AS OBTAINED BY A FIELD SURVEY PERFORMED ON APRIL 25 AND AUGUST 6, 1996.

David C. Clausen
DAVID C. CLAUSEN NMLS 6547

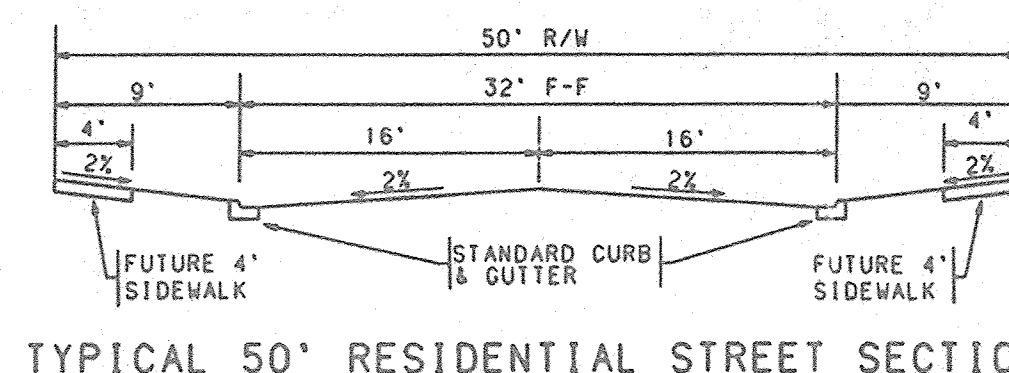


TYPICAL LOT GRADING PLAN

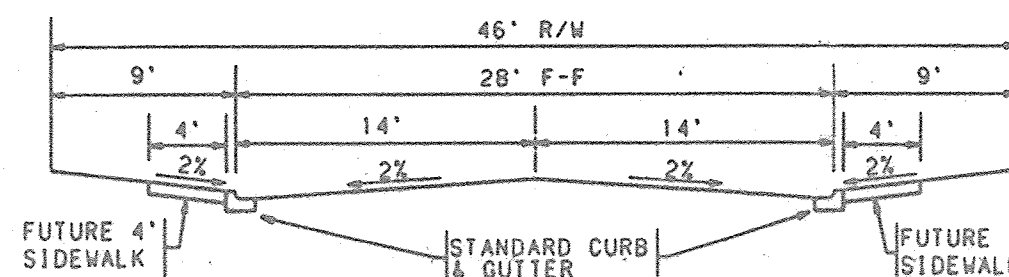
NO SCALE
TO SET SPOT ② - MULTIPLY D1 BY 2% AND ADD TO SPOT ① ON HIGH SIDE OF STREET
TO SET SPOT ③ - MULTIPLY D2 BY 0.5% AND ADD TO SPOT ②
TO SET SPOT ④ - ADD 0.17' TO SPOT ③
TO SET SPOT ⑤ - MULTIPLY D3 BY 1% AND SUBTRACT FROM SPOT ④
(CHECK SLOPE FF.M 5.0% TO SPOT ⑤ TO BE MIN 0.5%)
(NOTE: IF STREET SLOPE IS LESS THAN 1% THEN START FROM LOW SIDE OF STREET)



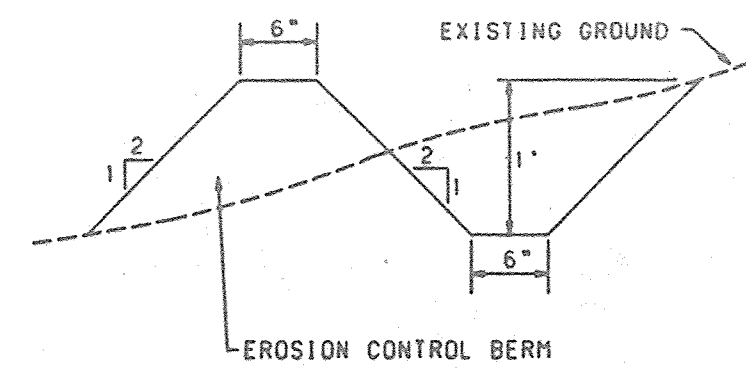
LOCATION MAP



TYPICAL 50' RESIDENTIAL STREET SECTION

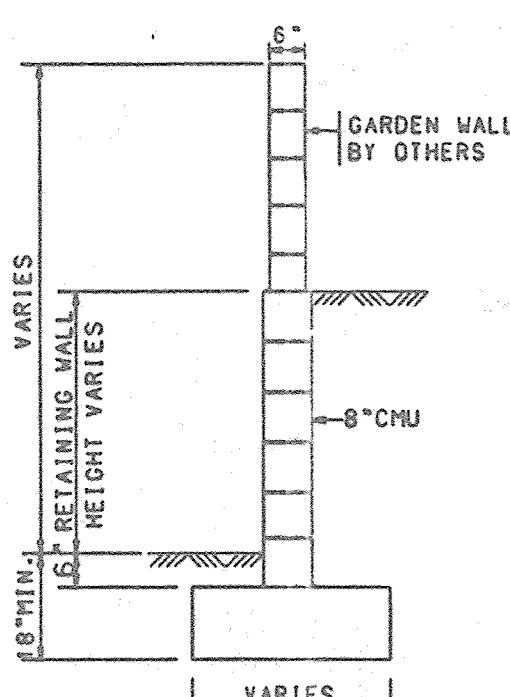


TYPICAL 46' RESIDENTIAL STREET SECTION



EROSION CONTROL PLAN

A BERM WITH THE DIMENSIONS SHOWN SHALL BE MAINTAINED DURING CONSTRUCTION UNTIL COMPLETION OF INDIVIDUAL HOMES WITHIN THE PROJECT.



TYPICAL RETAINING WALL NOMENCLATURE

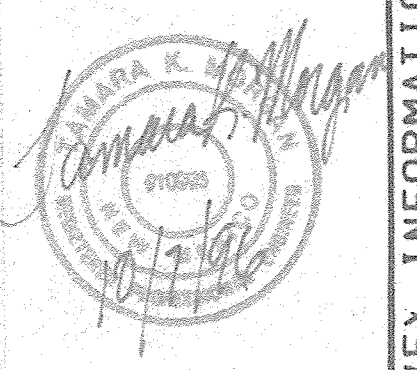
NO SCALE
FINISHED GRADE ELEVATION AT TOP OF RETAINING WALL
FINISHED GRADE ELEVATION AT BOTTOM OF RETAINING WALL

GENERAL NOTES

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- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL THIS SHEET AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
- ALL SPOT ELEVATIONS ARE TO TOP OF CURB UNLESS OTHERWISE NOTED. VALLEY CUTTER ELEVATIONS ARE SHOWN AT PROJECTED TOP OF CURB ELEVATION.
- BOULDERS, GREATER THAN 3 FEET IN DIAMETER, EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.

GRADING CERTIFICATION

I, Tamara K. Morgan, P.E. #10995, hereby certify that grading at this site is constructed in substantial compliance with this plan, to allow the implementation of the drainage patterns and requirements identified herein. Side yard drainage swales were noted during field visit prior to home construction. Swales will need to be reconstructed by the builder upon completion of the home construction. As-built pad and grade elevations were verified by field survey performed under direction of David C. Clausen, P.L.S. # 6547 on 4-25-96 & 8-6-96, after completion of infrastructure construction. This statement does not represent certification of contractor's construction methods or materials.



LEGEND

- PROJECT BOUNDARY
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- BASIN BOUNDARY
- SUB-BASIN BOUNDARY
- PROPOSED RETAINING WALL
- PROPOSED GARDEN WALL
- EXISTING STORM DRAIN LINE
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN INLET
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET

APPROVED FOR ROUGH GRADING (± 1')

HYDROLOGY ENGINEER DATE

BOHANNAN-HUSTON INC.
ENGINEERS • PLANNERS • PHOTOGRAMMETRISTS • SURVEYORS • LANDSCAPE ARCHITECTS
ALBUQUERQUE LAS CRUCES SANTA FE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

VENTANA RANCH - TRACT 2
CONCEPTUAL GRADING PLAN

APPROVALS	ENGINEER	DATE	REVISIONS	DATE
DRG CHAIRMAN	WATER	WASTE W/TER	TRAFFIC	
TRANSPORTATION				
HYDROLOGY				
NO. 1				
DRAWING NO.	5316.90	MFP NO. 69.810	SHEET 4C	OF 38