HYDROLOGY N12/D3 1 PLAN

N12/D3

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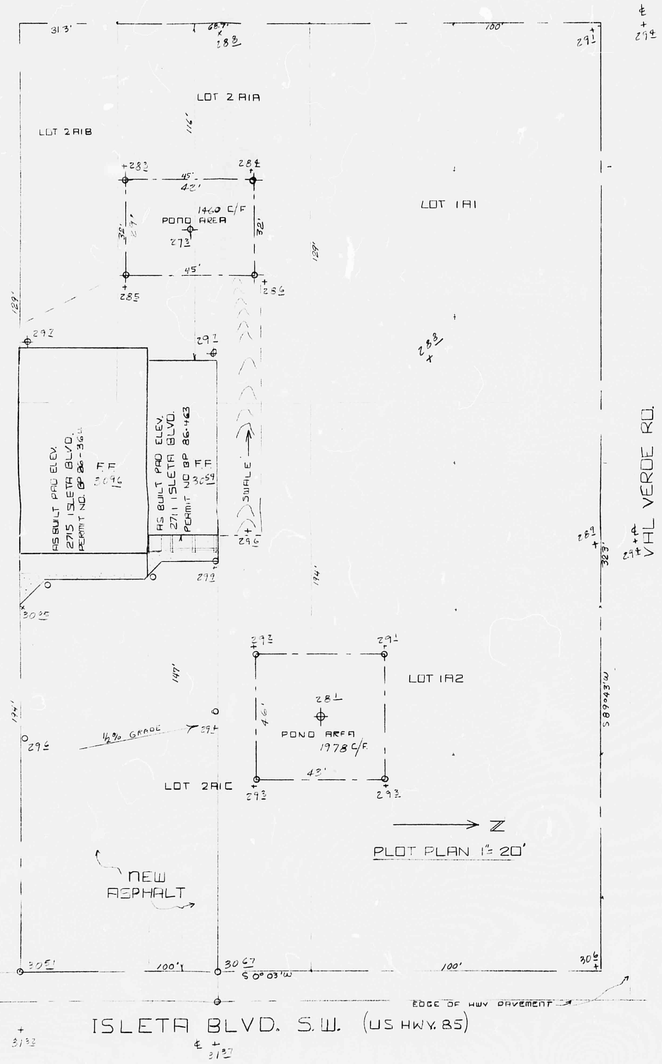
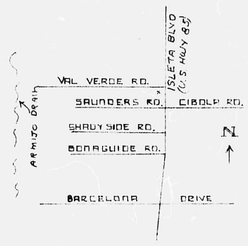
1 Plan

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

AS BUILT
GRADING & DRAINAGE PLAN





VICINITY MAP

N T S

LEGEND

EXIST CONTOUR		29.35
DESIGNER CONTOUR		29
EXISTING SPOT ELEV.		29.35
DESIGNED SPOT ELEV.		29.3
POND LIMIT		
TOP SIDEWALK	TSW	
TOP OF CURB	TC	
TOP OF ASPHALT	TA	
FINISH GRADE	FG	

TOTAL VOLUME OF PONDS CREATED
3380 CU. FT.
As built = 3438 cu. FT

ENGINEER'S CERTIFICATE

I, Richard E. Morton, P.E. No. 5059, do hereby certify that this is an As-built drawing of the improvements to 2711 and 2715 Isleta SW. built pursuant to Permit No. BP-86-364 and BP 86-463. The improvements are in substantial compliance with the design shown on the drawing by Morris Dickerson. The finish floor elevations are 4930.96 and 4930.59 verses a minimum flood plain elevation of 4929.

Richard E. Morton
N.M.P.E. No. 5059
June 8, 1987

TYPICAL POND SECTION

DESIGN DATA
FIRE ZONE 2
SEISMIC ZONE 2
TYPE OF CONST. 2B
OCCUPANCY GROUP B-DIV 2
WIND LOAD 25 PSF
ROOF LOAD 30 PSF

SUBSTANTIAL COMPLIANCE WITH APPROVED DRAINAGE PLAN

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HYDROLOGY SECTION

LEGAL DESCRIPTION
LOT 2A1C, 2A1A of Val Verde Tracts

OWNER
GENE SANCHEZ

BENCH MARK
P-12 Stm 500-3 Elevation 4930.501

CITY ADDRESS
2715 ISLETA BLVD.

COUNTY ZONE ATLAS
M-12

Drainage Calculations

I References
- A. City of Albuquerque Development Manual (DPM) Vol.2, Design Criteria Chapter 22, Drainage, Flood Control And Erosion Control.
- B. Soil survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico.
- C. Flood Insurance Rate Map, City of Albuquerque, Bernalillo County, New Mexico Panel 40 of 50

II. General Information

A. soil Type (Ref B)
soil series Va, Vinton
Hycrologic group B

B. Runoff Coefficient "C" Factor (Ref.A,C-1)
Undeveloped------ 0.34 curve B, plate C-1
Developed --assume the folling values
Bldg 1.00
Concrete 1.00
Asphalt 0.90
Landscape 0.34 (natural soil)

Weighted "C" Factor

Existing Conditions

Type of surface	"C"	area	"C"x area
Bldg (roof area)	1.00	sq.ft.	sq.ft.
Natural soil	0.34	17,560 sq. ft	5970 sq.ft.
	total	sq.ft.	5970 sq.ft.

Developed Conditions

Bldg (roof area)	1.00	5,496 sq.ft.	5,496 sq.ft
Asphalt Paving	0.90	3216 sq.ft.	sq.ft.
Landscape	0.34	8,848 sq.ft.	3,008 sq.ft.
	total	17,560 sq.ft.	sq.ft.

Weighted "C" Factor = Σ "C" x area/ area
Existing 5970/17,560 = 0.34
Proposed 14,783/17,560 = 0.83

C. 6-Hour, 100-year Rain, P_6=2.25 inches (Ref. A, Plate D-1)
D. Time of concentration, use 10 minutes
E. Rainfall Intensity (Ref. A, Plate D-2)

$I=R_6 x 6.84 x T_c^{exp. -0.51}$

$=2.25 x 6.84 x 10^{exp. -0.51}$

$=4.76$

F. Peak Discharged (Rational Method)

Existing Conditions
$Q=0.47 x 4.76 x 17560/43560$
$= .90$ cfs

Proposed Conditions
$Q=0.83 x 4.76 x 17560/43560$
$= 1.59$ cfs

G. Volume $V=CxIxA$ (cu. ft.)

Existing Condition = 0.34 x 2.25/12 x 17,560 = 1119
Proposed Condition = 0.83 x 2.25/12 x 17,560 = 2783

note: 1664 cu. ft. increase

Displacement Volume
Bldg cor. elev. 87.7, 88 and 88.4
average = (87.7, 88, 88.4)/4
= 88.7
(4928.7)
Flood Base Elevation 4929.00 (Ref. C)
Volume = 29.00 - 2870 x Bldg area (5496 sq.ft.)
ft.

III Ponding Calculations

Total Displacement	1559 cu.ft.
+ Total Increase Due To Development	1614 cu.ft.
Ponding Required	3173 cu.ft.

IV Flood Proofing

Finished Floor Elev	4931.15
100- year Flood Base Elev.	4929.

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HYDROLOGY SECTION

AS BUILT DRAINAGE PLAN FOR
2715 & 2711 ISLETA S.W.
PERMIT NOS BP 86-364 & BP 86-463

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

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D