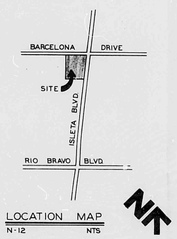
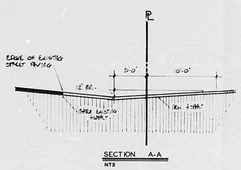
Hydrology File No. N-12/D006 1 of 1

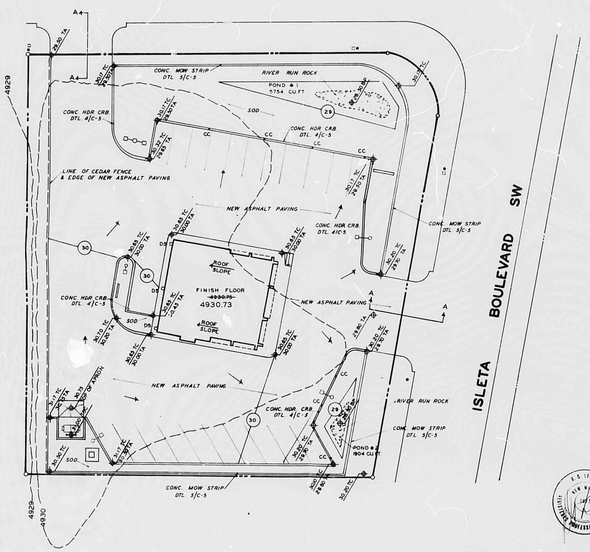
TOTAL POND VOLUME		
POND # 1	=	5754 CU FT
POND # 2	=	1904 CU FT
TOTAL		7658 CU FT



LOCATION MAP
N-12 NTS



BARCELONA DRIVE SW



I HEREBY CERTIFY THAT I AM A LICENSED ENGINEER, # 1872, AND HAVE CHECKED THE FINISH FLOOR ELEVATION AND FOUND IT TO BE IN SUBSTANTIAL COMPLIANCE AS SHOWN HEREON.

5/7/87

GRADING & DRAINAGE PLAN

1" = 20.00'

LEGAL DESCRIPTION:
LOTS 1-A, 2-A
BLOCK A
WILSON SUBDIVISION

NOTE:
UPON COMPLETION OF CONSTRUCTION, CERTIFICATION BY THE ENGINEER IS REQUIRED

DRAINAGE CALCULATIONS

I. REFERENCES:

A. City of Albuquerque Development Process 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, United States Department of Agriculture, Soil Conservation Service.
C. Floodway, Flood Boundary and Floodway map, City of Albuquerque, New Mexico, Panel 40 of 50.

II. GENERAL INFORMATION:

A. Soil Type (Ref. B, Page 40) Soil type is Vinton sandy loam, 7a, Hydrologic Soil Group "B".

B. Imperviousness:

Type of Surface	Existing sq. ft.	Area Acres	Proposed sq. ft.	Area Acres
Building Roof	1683	0.0386	2250	0.0517
Concrete Surfaces	640	0.0152	1050	0.0241
Asphalt Surfaces	-0-	-0-	21705	0.4983
Landscaping	-0-	-0-	8658	0.1990
Undeveloped Surface	34142	0.7838	2812	0.0645
Site Total	36485	0.8376	36485	0.8376
Percent Impervious	6.4		69.5	

C. "C" Factor (See Ref. A, Plate 22.2 D-1)
1. Undeveloped "C" Factor = 0.36
2. Developed "C" Factor = 0.65

D. Rainfall, 100-year, 6-hour, P(6), (See Ref. A, Plate 22.2 D-1): P(6) = 2.25 inches.

E. Time of Concentration, Tc: Tc 10 minutes, use 10 minutes (minimum value) for calculations.

F. Rainfall Intensity, I: (See Ref. A, Plate 22.2 D-2)
I = P(6) x 0.24 x exp (-0.61)
= 2.25 x 0.24 x 10 exp (-0.61)
= 4.76 in/hr

III. PEAK DISCHARGE:

A. Existing Conditions: (Use Rational Equation:
Q(100) = C x I x A = 0.36 x 4.44 cfs
Q(10) = 0.257 x 1.44 = 0.35 (ref. A, Plate 22.2 D-1)
B. Developed Conditions:
Q(100) = 0.65 x 4.76 x 0.84 = 2.60 cfs
Q(10) = 0.65 x 2.00 = 1.71 cfs

IV. RETENTION POND SIZE - All runoff generated shall be ponded on site as shown. Total runoff generated by proposed development computes as follows: (SCS method)
Direct runoff (ref. A Plate 22.2 C-4
Q = (P-0.2S)^2/(P+0.8S) S=1000/CN-10
= .96 - 2.29
CN = 92 (see ref. A Plate 22.2 C-2)
Q= 1.45
NOTE: Transmission losses are negated.
Total pond volume required
V = Q x area x 43560 cf
1.45 x 0.838 x 43560 cf
4641 cu. ft.

V. CONCLUSIONS:

A. There is no positive outfall to this site into the existing right-of-way, thus all generated runoff will be discharged into two (2) retention ponds as shown on the plan.
B. There are no offsite flows onto the site.
C. This property does not lie within a designated floodplain per reference C.

VI. CONSTRUCTION NOTES:

1. Two (2) working days prior to any excavation, contractor must contact line locating service at 765-1214 for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
3. 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.
4. All construction within City Right-of-Way shall be performed in accordance with applicable City of Albuquerque standards and procedures.

SYMBOL LEGEND

- Existing contour
- Proposed contour
- Proposed spot elevation
- Direction of flow
- CC 6" cut in curb
- TA Top of asphalt
- TC Top of curb
- DS Downspout
- TOC Top of concrete
- BF Bottom of pond

Benchmark Information: All elevations are reference to City Benchmark 13-N12 located at the intersection of Barcelona Drive and Isleta Boulevard SW, Basic elevation 4929.17 (MSL).

GRADING & DRAINAGE PLAN

B.L.A.K.E.'S LOTABURGER
3201 ISLETA BOULEVARD SW
ALBUQUERQUE, NEW MEXICO

RECEIVED APR 17 1989 HYDROLOGY SECTION

C-2

BK 22 DATE 6/23/93 CP

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Bas.e Microfilm Standards of the National Micrographics Association (MS115-1977).

CITY CLERK RECORDER

OFFICIAL SEAL NORMERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO
My Commission Expires May 8, 1995

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

PLANS/PLATS ON FILE

FILE DESC: N-12/D006

PLANS/PLATS 1

F 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F