HYDROLOGY E16/D3b 1 PLAN

E16/D3b

1 Plan

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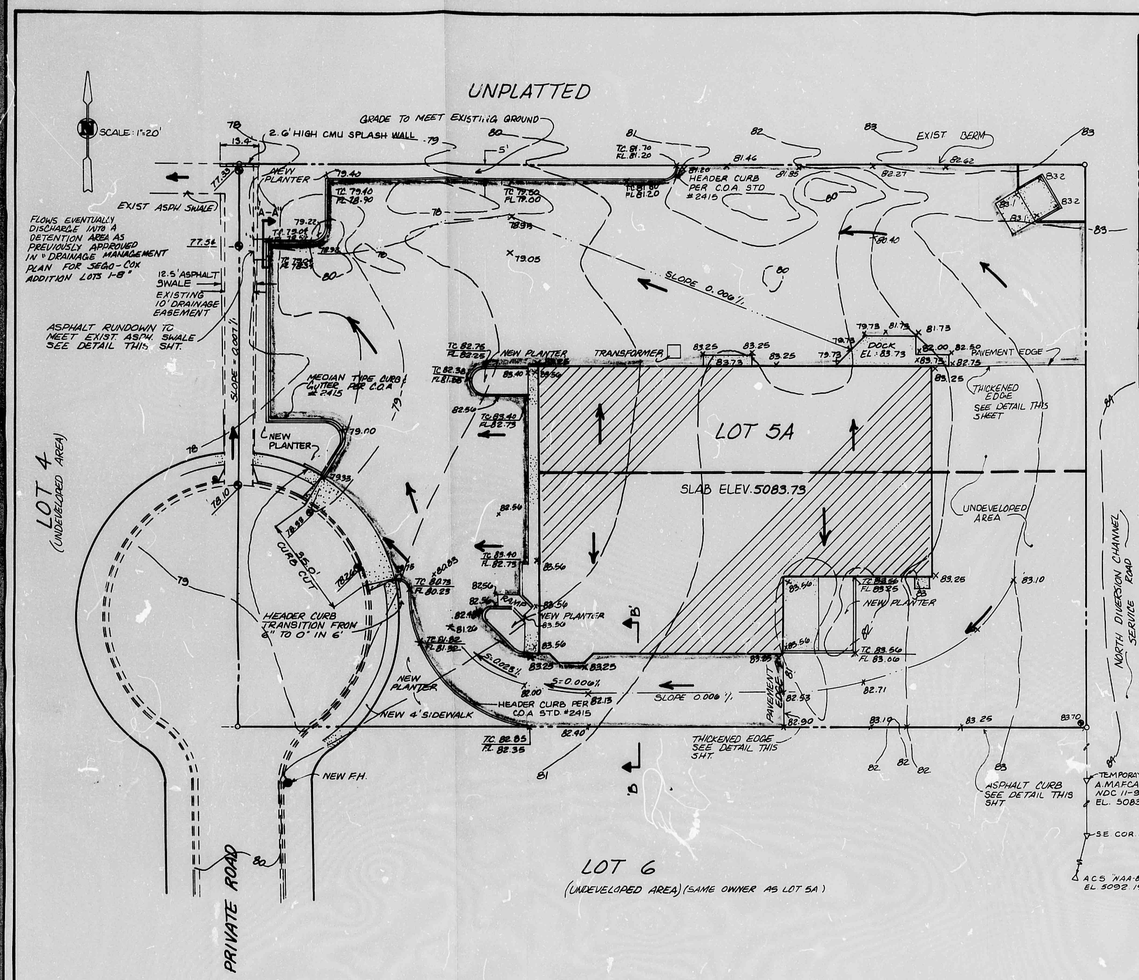
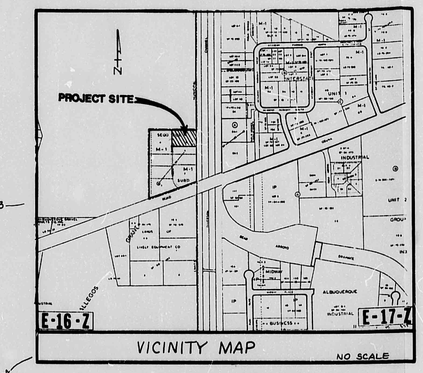




VICINITY MAP
NO SCALE

LEGAL DESCRIPTION
LOT 5A, SEGO-COX SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY
NEW MEXICO

LEGEND	
	PROPOSED BUILDING
	EXISTING SPOT ELEVATION
	NEW CONCRETE
	FLOW DIRECTION
x52.30	NEW SPOT ELEVATION
	~~TRANSITIONAL AREA~~
	SWALE CENTERLINE
	DRAINAGE DIVIDE

GENERAL

Zone Atlas Page E-16

FLOOD HAZARD ZONE C (areas of minimal flooding)

LAND USE

Present- Undeveloped lot with natural prairie vegetation; however, approximately 0.0993 acres of the southwest corner of the lot is a portion of a paved cul-de-sac with curb and gutter. The site is accessible by an existing paved private road. The site has a 5-ft. wide drainage easement along the northwest corner of the lot which is half of the existing 10-ft. wide drainage easement.

Proposed- Commercial development (print shop).

SOIL TYPE - Embudo (EmB) gravelly fine sandy loam.

Hydrologic Soil Group B.

LOT SIZE - 289 ft. X 431.9[illegible] ft. 54,3[illegible]4 sq. ft.
= 1.24[illegible]3 ac.

OFF-SITE DRAINAG.

The only off-site flow entering the site is from Lot 6A which is located adjacent and south of the proposed site (Lot 5A). However, the developed condition flow from Lot 6A will drain into the private road as shown in "Drainage Management Plan for Sego-Cox Addition Lots 1 - 8". Therefore, an asphalt curb will be located along the south property line of the site to direct Lot 6A flows to the private road until Lot 6A is developed.

ON-SITE HYDROLOGY

TIME OF CONCENTRATION

Flow Length	= 370 ft.
Slope	= 0.0121 ft. ft.
Tc	= 4.05 min.
Velocity	= 1.52 ft./sec.
Adjusted Velocity	= 1.45 ft./sec.
Adjusted Tc	= 4.3 min.
Assume Tc	= 10 min.

6-HOUR RAINFALL DEPTH

10-year = 1.44 in.
100-year = 2.20 in.

PEAK RAINFALL INTENSITY

10-year = 3.04 in./hr.
100-year = 4.65 in./hr.

RUNOFF COEFFICIENTS (per land use acreage)

Existing undeveloped area = 1.148 ac.; C = 0.40

Proposed undeveloped area	= 0.1920 ac.;	C = 0.40
Proposed landscaped area	= 0.0836 ac.;	C = 0.25
Proposed roof area	= 0.2655 ac.;	C = 0.90
Proposed asphalt, walks area	= 0.6069 ac.;	C = 0.95
Proposed condition weighted		C = 0.91

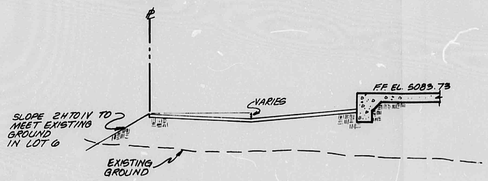
RUNOFF CURVE NUMBERS

Existing condition CN = 70

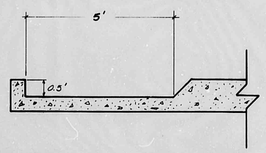
Proposed condition imperviousness = 76 %
Proposed condition CN = 92

RESULTS

	Return Period	Existing Conditon	Proposed Condition
PEAK DISCHARGE (cfs)	10-year	1.4	3.2
	100-year	2.1	4.9
RUNOFF VOLUME (cu/ft)	10-year	417	2,917
	100-year	2,500	5,834

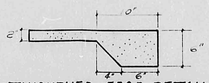


SECTION 'B-B'
NO SCALE



SECTION A-A CURB-CUT
SCALE 1"=2'

ASPHALT CURB
AS PER C.O.A. #2415



THICKENED EDGE DETAIL
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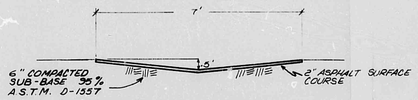

ASPHALT RUNDOWN
NO SCALE

RECEIVED
SEP 3 1987
HYDROLOGY SECTION

DESIGNED BY: B.T.	COTTONWOOD PRINTING CO. GRADING AND DRAINAGE PLAN
DRAWN BY: M.S. & C.S.	
CHECKED BY: E.D.	
AUG. 1987	PREPARED BY: Resource Technology, Inc.

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