HYDROLOGY

F22/D16a

THREE PLANS

ENCHANTMENT ENGINEERING Inc.
1517 EUBANK BLVD. N.E.
ALBUQUERQUE, N.M. Ph. 294-6559

DRAINAGE CALCULATIONS LOT "M"

EXISTING

AREA	8454 FT²
SLOPE	7%
RUNOFF COEFFICIENT	.40
TIME OF CONCENTRATION	>10 MIN.
INTENSITY	5.4 IN./HR.
100 YR. - 6 HR. PRECIP.	2.6 IN.
RUNOFF RATE	.419 CFS.
RUNOFF VOLUME	733 FT³

DEVELOPED

	A	C	A x C	RATE	VOLUME
ROOF	1967	.87	1537.3	.191	333 FT³
PAVED	2168	.92	1994.7	.247	432 FT³
OPEN	4519	.40	1807.6	.224	391 FT³
				.662	1156 FT³

REQUIRED RETENTION

1156 - 733 = 423 FT³

POND DATA

POND A

SURFACE AREA	739 FT²
BOTTOM AREA	430 FT²
DEPTH	.9 FT

$V = \frac{.9}{3} \times 739 + 430 + \sqrt{739 \times 430} = 520.1\ FT^3$

POND B

SURFACE AREA	979 FT²
BOTTOM AREA	767 FT²
DEPTH	.5 FT

$V = \frac{.5}{3} \times 979 + 767 + \sqrt{979 \times 767} = 435\ FT^3$

DRAINAGE TO POND A

	AREA	VOL.
ROOF	883.5 FT²	166 FT³
PAVING	840 FT²	167 FT³
OPEN	2025 FT²	175 FT³
		508 FT³

POND B

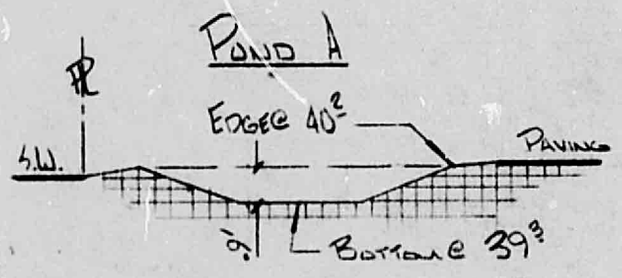
AREA	VOL.
883.5 FT²	166 FT³
-	-
2373.2 FT²	205.7 FT³
	371.7 FT³

AREA DISCHARGED TO STREET

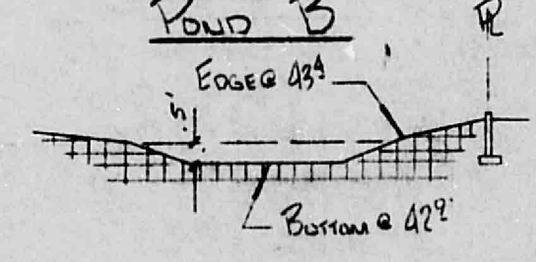
PAVING	1328 FT²	264.7 FT³
OPEN	120.8 FT²	10.7 FT³
		275.4 FT³

POND SECTIONS

POND A



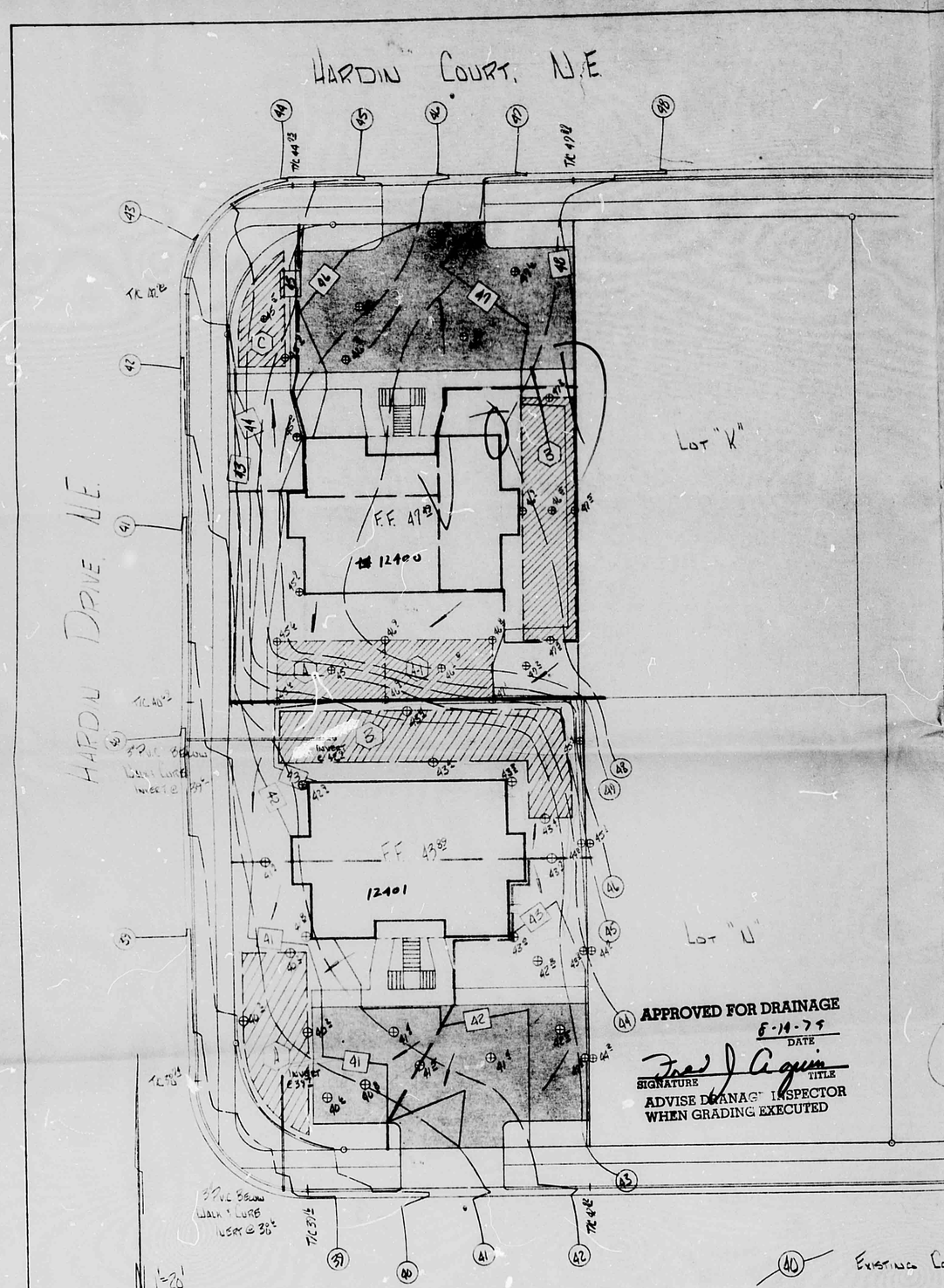
POND B



Jim Betts
76-9833

F22/D16A (3)

ENCHANTMENT ENGINEERING Inc.
1517 EUBANK BLVD. N. E.
ALBUQUERQUE, N. M. PH.294-8859



DRAINAGE PLAN

SHOWING LOTS K, L, M, N IN BLOCK 2
NEW HOLIDAY PARK PARTS 5 & 6
ALBUQUERQUE, NEW MEXICO

(40) EXISTING CONTOURS
40 PROPOSED CONTOURS
⊕ 40.0 PROPOSED SPOT ELEVATIONS
PONDING AREAS

DRAINAGE CALCULATIONS - LOT "L"

EXISTING

AREA	8776 FT²
SLOPE	7% ±
RUNOFF COEFF.	.40
TIME OF CONCENTRATION	> 10 MIN.
INTENSITY	5.4 IN/HR
100 YEAR - 6 HR. PRECIP.	2.6 IN
RUNOFF RATE	.435 CFS
RUNOFF VOLUME	761 FT³

DEVELOPED

	A	C	A·C	RATE	VOLUME
ROOF	1767	.87	1537.3	.191	333
PAVED	2168	.92	1994.7	.247	432
OPEN	4821	.40	1926.4	.240	419
				.678 CFS	1184 FT³

REQUIRED RETENTION

1184 - 761 = 423 FT³

POND DATA

	POND "A"	POND "A-1"	POND "B"	POND "C"
SURFACE AREA	350 FT²	350 FT²	672 FT²	959 FT²
BOTTOM AREA	242 FT²	198 FT²	515 FT²	361 FT²
DEPTH	.5 FT	.7 FT	.4 FT.	.4 FT
VOLUME =	147.17 FT³	189.20 FT³	236.7 FT³	131.83 FT³

DRAINAGE TO PONDS A & A-1

	A	V
ROOF	748.75 FT²	141.13 FT³
OPEN	2228.75 FT²	193.16 FT³
		334.29 FT³

DRAINAGE TO POND "B"

	A	V
ROOF	595 FT²	112.15 FT³
OPEN	1093 FT²	94.73 FT³
		206.88 FT³

(EXCEEDS REQUIREMENT)

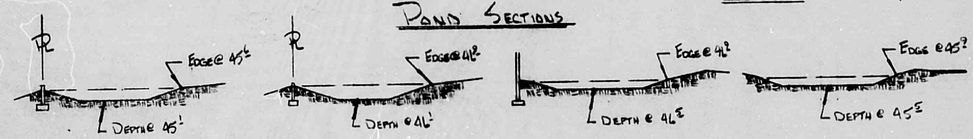
DRAINAGE TO POND "C"

	A	V
OPEN	1080.2 FT²	93.6 FT³
PAVING	524 FT²	10.3 FT³
		103.9 FT³

DRAINAGE TO STREET

ROOF	423.25 FT²	79.8 FT³
PAVING	2116 FT²	421.8 FT³
OPEN	439.1 FT²	38.1 FT³
		539.7 FT³

POND SECTIONS



POND "A" POND "A-1" POND "B" POND "C"

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1529-F EUBANK BLVD. N.E
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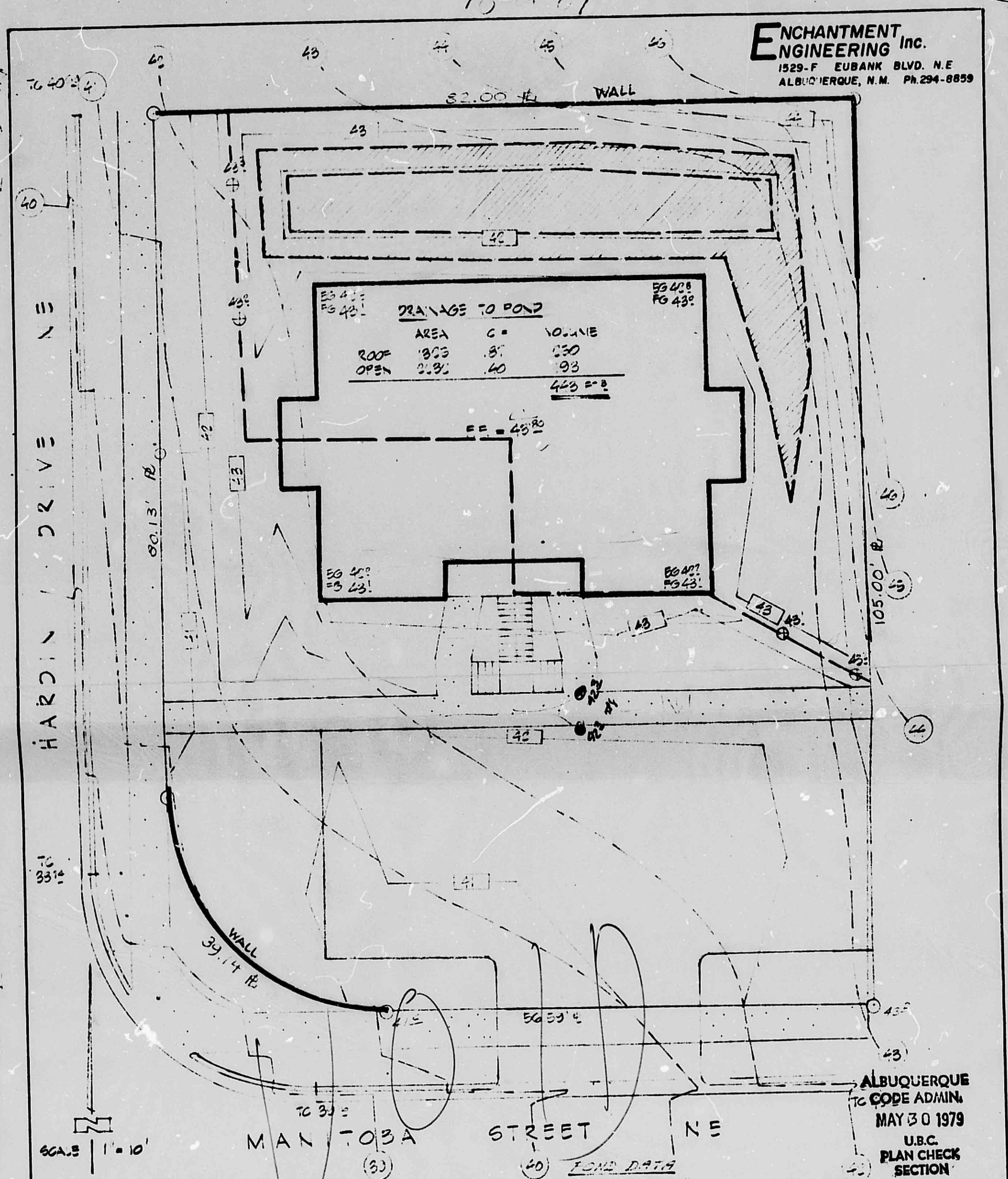


ALBUQUERQUE
CODE ADMIN.
MAY 30 1979
U.B.C.
PLAN CHECK
SECTION

EXISTING

AREA	5954 FT.²
SLOPE	
RUNOFF COEFFICIENT	.40
TIME OF CONCENTRATION	< 10 MIN
INTENSITY	5.4 IN/HR
100 YEAR STORM	2.0 IN
RUNOFF RATE	.207 CFS
RUNOFF VOLUME	793 FT³

DEVELOPED

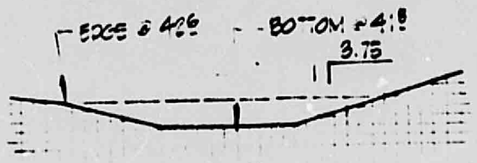
	AREA	C	RATE	VOLUME
ROOF	1767	.87	.101	3[illegible]
PAVED	2168	.92	.247	4[illegible]
OPEN	4519	.40	.199	3[illegible]
			.627 CFS	1187 FT.³

REQUIRED RETENTION
1187 - 793 = 394 FT.³

POND DATA

SURFACE AREA 866 ft.²
BOTTOM AREA 336 ft.²
DEPTH .8 FT.

VOL. = $\frac{.8}{3} \times 856 + 336 + \sqrt{856 \cdot 336}$
= 460 ft.³



POND SECTION (TYPICAL)
1" = 5'

DRAINAGE PLAN

LOT - N.
BLOCK - C
REVISED NEW HOLIDAY PARK
PARTS 5 & 6

FOR JIM HARDIN CONST.