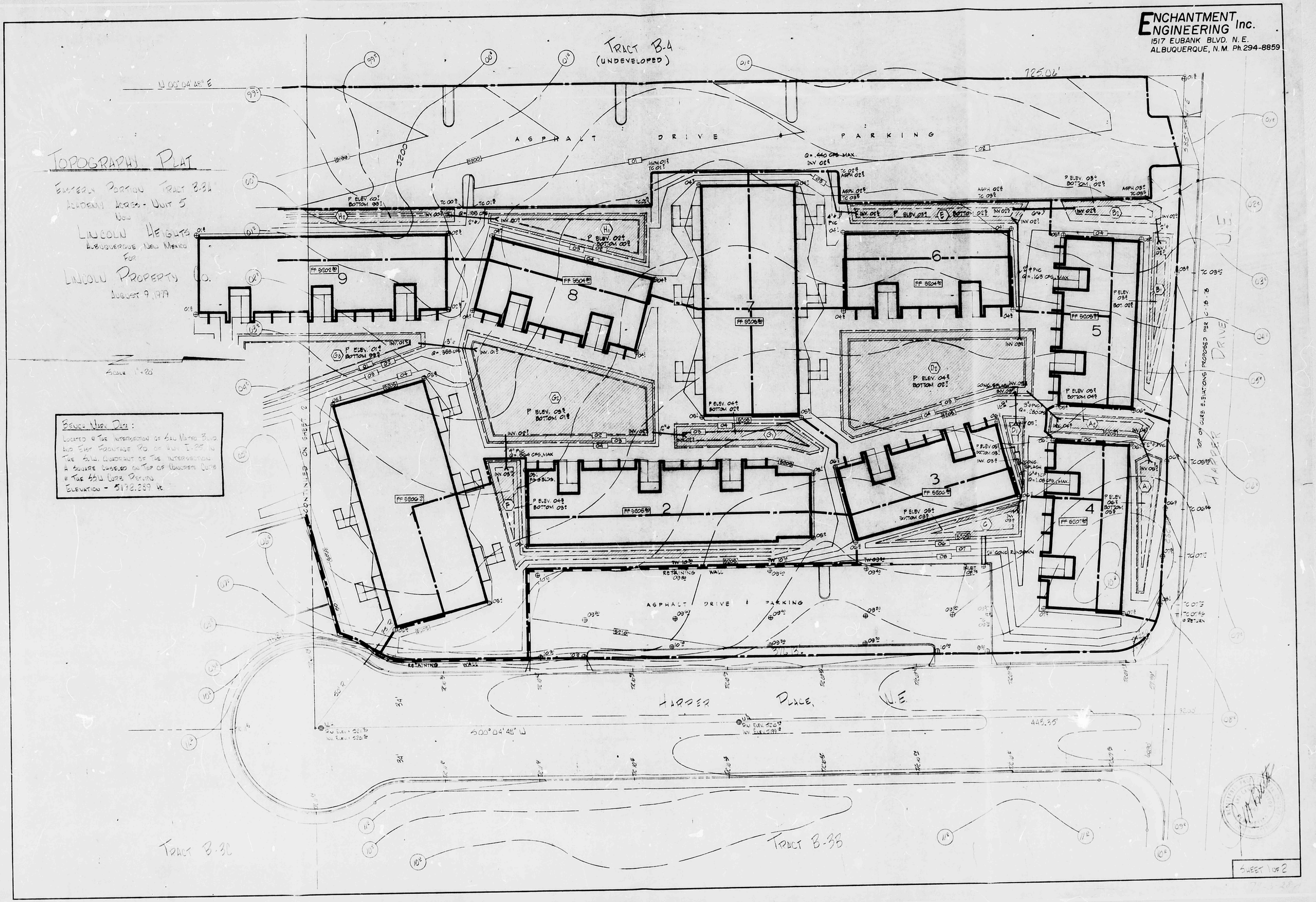
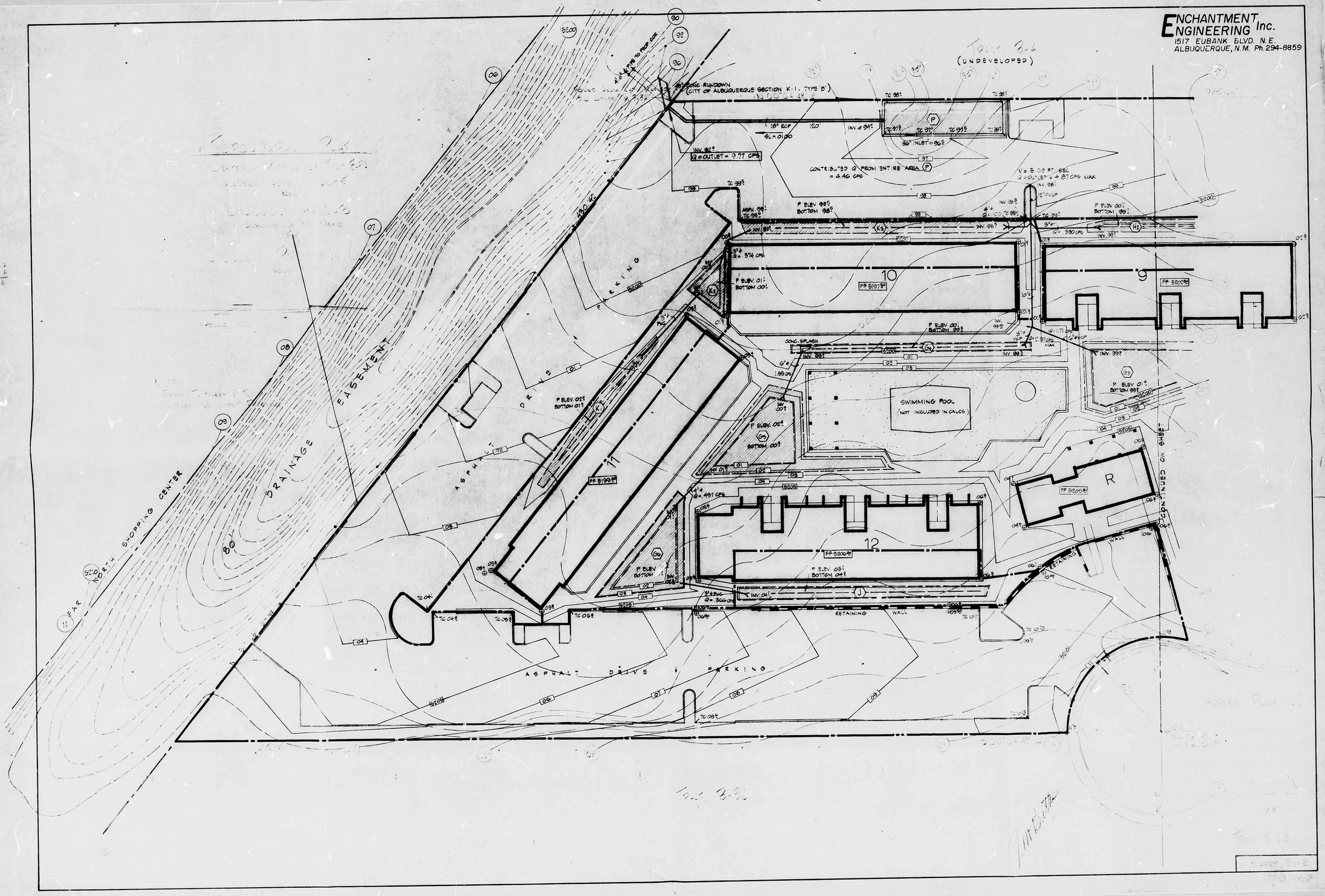
HYDROLOGY

E18/D20
THREE PLANS

E 18/D 20

3 PLANS


ENCHANTMENT ENGINEERING Inc.
1517 EUBANK BLVD. N.E.
ALBUQUERQUE, N.M. Ph.294-8859
TOPOGRAPHY PLAT
EASTERN PORTION TRACT B-3A
ALBANY ACRES - UNIT 5
AND
LINCOLN HEIGHTS
ALBUQUERQUE, NEW MEXICO
FOR
LINCOLN PROPERTY CO.
AUGUST 9, 1979
SCALE 1" = 20'
BENCH MARK DATA:
LOCATED @ THE INTERSECTION OF SAN MATEO BLVD AND EAST GOURLAND RD OF NOW I-25 IN THE S.W. QUADRANT OF THE INTERSECTION A SQUARE CHISELED ON TOP OF CONCRETE CURB @ THE SSW CURB RETURN
ELEVATION - 5172.289 ft
TRACT B-4
(UNDEVELOPED)
ASPHALT DRIVE & PARKING
725.06'
N 00°04'48" E
5200
RETAINING WALL
HARPER PLACE, N.E.
S 00°04'48" W
449.35'
TRACT B-3C
TRACT B-3B
TOP OF CURB ELEVATIONS PROPOSED PER C.I.B. 18
HARPER DRIVE
SHEET 1 OF 2


ENCHANTMENT ENGINEERING Inc.
1517 EUBANK BLVD. N.E.
ALBUQUERQUE, N.M. Ph. 294-8859
(UNDEVELOPED)
CONC. RUNDOWN (CITY OF ALBUQUERQUE SECTION K-1, TYPE 'B')
CONTRIBUTED Q FROM ENTIRE AREA = 4.46 CFS
SWIMMING POOL (NOT INCLUDED IN CALCS)
EASEMENT
DRAINAGE
ASPHALT DRIVE & PARKING
RETAINING WALL
FAR NORTH SHOPPING CENTER
CONTINUED ON SHEET 2
10
9
11
12
R

DRAINAGE DATA

WITHIN THE BOUNDARIES OF LINCOLN HEIGHTS

EXISTING CONDITIONS

TOTAL AREA UNDER CONSIDERATION	267 762 SQ FT.
SLOPE :	5% MAX., 4% TYPICAL
SURFACE CHARACTER	SPARSE VEGETATION
LENGTH OF RUN	350' MAX., S-W
TIME OF CONCENTRATION	14 MINUTES
INLET INTENSITY ($1.00 \frac{80}{70+25}$)	4.85 IN/HR
100-YEAR PRECIPITATION	2.3 IN
NATURAL RUNOFF COEFFICIENT	.40
NAT. RATE OF RUNOFF	11.98 CFS
NAT. VOLUME OF RUNOFF	22314 FT³

DEVELOPED CONDITIONS

	A	C	RATE	VOLUME
OPEN AREA*	101443	.40	4.82	8454
IMPERVIOUS AREA CREATED	166333	1.00	18.41	34449
			22.23 CFS	42903 FT³

UNRESTRICTED RUNOFF RATE & VOLUME

REQUIRED RETENTION

42903 − 22314 = 20589 FT³

OPEN AREA SHOWN DOES NOT INCLUDE SWIMMING POOL

INTERNAL DRAINAGE AREAS

⬡	AREA DRAINED	NAT. VOL. @ C = .40	DEVELOPED CONDITIONS IMPERVIOUS	VOLUME	OPEN	VOLUME	DEV. VOL. PER AREA
A	4846	362	1232	257	3114	260	517
B	4709	332	1292	257	3477	290	547
C	18073	1506	13845	2780	4228	324	3174
D	17684	1470	9595	1933	8089	670	2603
E	8778	732	4344	847	4234	358	1300
F	10288	858	3889	810	6409	534	1344
G	86431	7208	34863	7263	50662*	4222	11485
H	11706	976	5223	1088	6483	540	1628
J	4240	353	1850	385	2390	199	584
K	11519	960	4644	968	6875	573	1541
P	89268	7407	84936	17685	5032	419	18114
TOTALS	267762	22314	166333	34449	101443	8454	42903

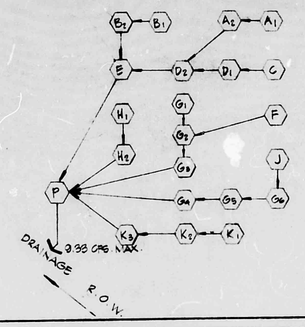
POND	SURFACE-A₁	BOTTOM-A₂	DEPTH - h	CAPACITY	DISCH RATE	TO	SIDE SLOPE	
A₁	657	232	0.7	298			4	
A₂	530	180	0.7	238	.208 CFS	D₂	4	
B₁	570	168	1.0	349			3	
B₂	548	100	0.9	268		E	5	
C	760	180	1.5	655	1.08 CFS	D₁	3	
D₁	240	15	1.5	157			3	
D₂	4581	3727	1.5	6184	.168 CFS	E	3	
E	1023	350	0.9	591	.440 CFS	P	5	
F	1137	182	1.5	828	.364 CFS	G₂	3	
G₁	861	242	1.5	780			3	DEV FIGURES DO NOT INCL POOL
G₂	4831	3169	1.5	5602			3	
G₃	2350	1248	1.5	2653	1.710 CFS	P	3	
G₄	516	—	0.8	137	2.370 CFS	P	3	
G₅	1973	980	1.5	2172			3	
G₆	1224	741	1.5	1453			3	
H₁	1260	510	1.5	1286			3	
H₂	690	—	1.0	224	.390 CFS	P	3	
J	738	—	1.0	256	.326 CFS	G₆	3	
K₁	500	—	1.0	133	.400 CFS		3	
K₂	332	138	1.0	228			3	
K₃	888	—	1.0	279		P	3	
P					9.77 CFS	DRAINAGE R.O.W.		COLLECT ON BASIN ONLY
TOTALS				24800 ①	9.77 CFS ②			

① TOTAL MAXIMUM RETENTION VOLUME EXCEEDS REQUIREMENTS. 4211 FT³ EXCESS

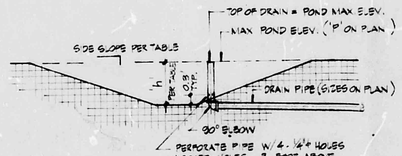
② THE RATE OF RELEASE OF 9.62 CUBIC FEET PER SECOND 'PEAK' IS 2.31 CFS LESS THAN THE EXPECTED NATURAL DISCHARGE

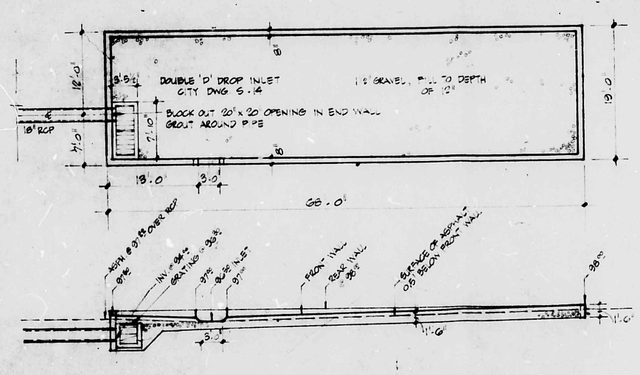
FLOW SCHEMATIC

HARPER DRIVE, NE



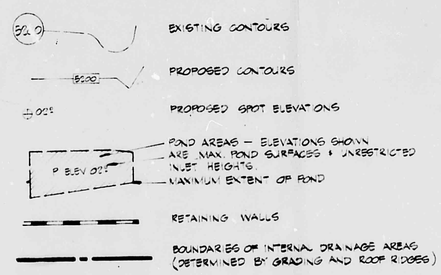
TYPICAL POND SECTION





CATCH BASIN DETAILS

SCALE 1" = 10'



KEY TO SYMBOLS ON PLAN SHEETS

79-3-29