

NOTE: Brad Bingham approved water harvesting
due to problems w/gravity flow

VOLUME CALCULATIONS

DETENTION POND

ACTUAL ELEV.	H (FT)	VOLUME* (AC-FT)	Q (CFS)
5021.40	0.00	0.0000	0.00
5022.00	0.60	0.0398	4.78
5022.50	1.10	0.0829	11.72
5023.00	1.60	0.2401	15.87

* SEE PONDING CALCULATIONS (PONDING PROVIDED/DETENTION ONLY)

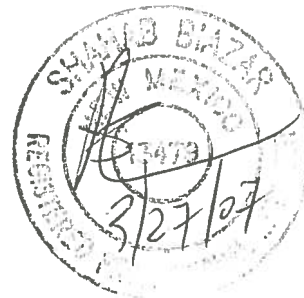
Orifice Equation

$$Q = CA \text{ SQRT}(2gH)$$

C = 0.6
Diameter (in) = 12
Area (ft²) = 0.7854
g = 32.2
H (Ft) = Depth of water above center of orifice
Q (CFS) = Flow

CONTRIBUTING BASIN AREA FOR THE ON-SITE PONDING

AREA (SF)	AREA (AC)	AREA (MI ²)
102133.48	2.3447	0.003664
21781.91	0.5000	0.000781



PONDING CALCULATIONS

(PONDING PROVIDED/DETENTION ONLY)

ELEV. (FT)	TOTAL SURFACE AREA (SF)	VOLUME (CF)	VOLUME (AC-CF)
5021.40	2485.20	0.00	0.0000
5022.00	3300.06	1735.58	0.0398
5022.50	4210.15	3613.13	0.0829
5023.00	23168.68	10457.84	0.2401



PONDING CALCULATIONS

(PONDING PROVIDED/RETENTION + DETENTION)

ELEV. (FT)	TOTAL SURFACE AREA (SF)	VOLUME (CF)	VOLUME (AC-CF)
5019.00	318.14	0.00	0.0000
5020.00	1058.24	688.19	0.0158
5021.00	2058.94	2246.78	0.0516
5021.40	2485.20	3155.61	0.0724
5022.00	3300.06	4891.19	0.1123
5022.50	4210.15	6768.74	0.1554
5023.00	23168.68	13613.45	0.3125



SUMMARY OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -
INPUT FILE = 653PD

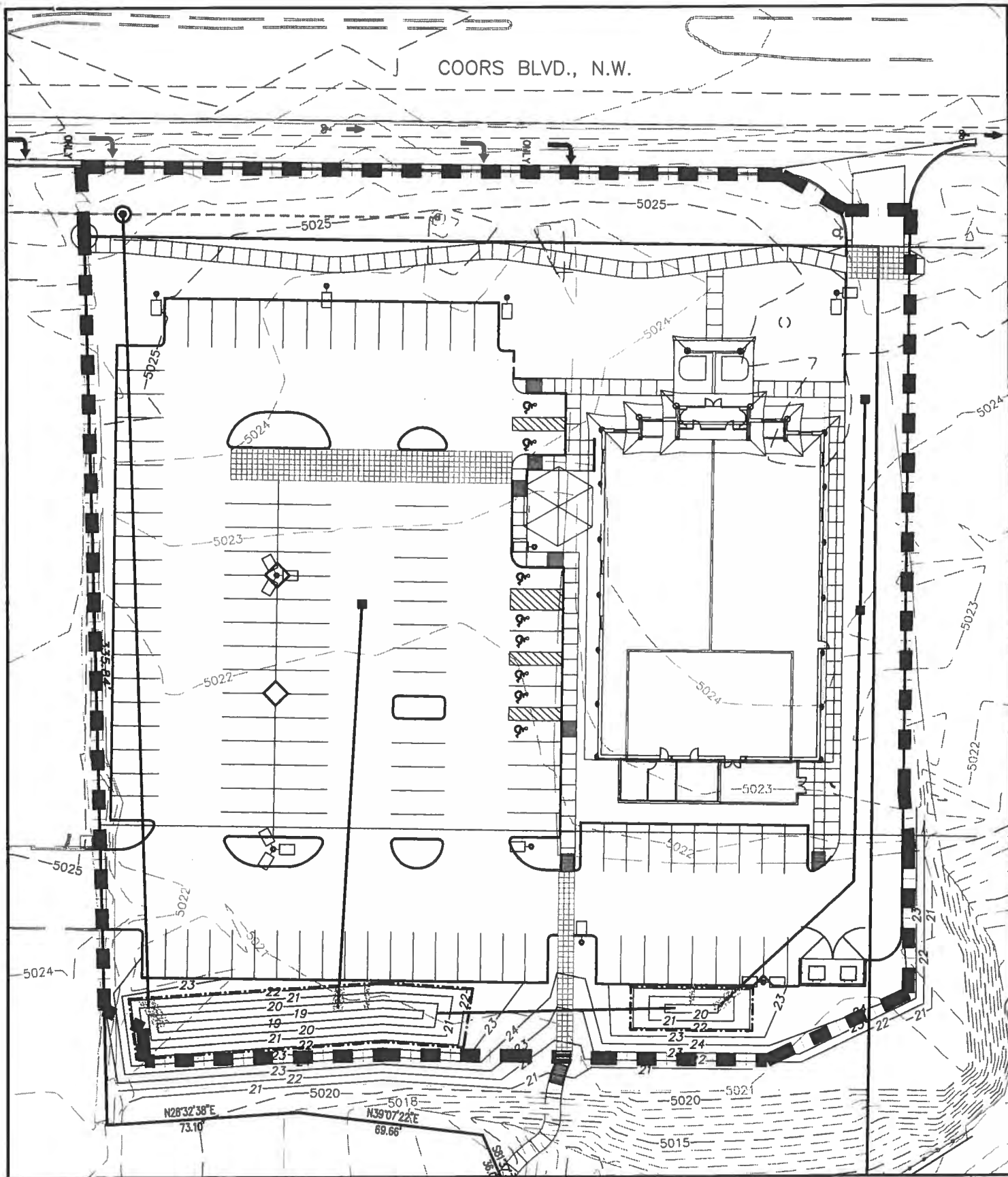
RUN DATE (MON/DAY/YR) = 03/12/2007
USER NO. = AHYMO-I-9702C01000R31-AH

- VERSION: 1997.02d

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE =	NOTATION
START											
RAINFALL	TYPE= 1										
COMPUTE NM HYD	101.00	-	1	.00366	9.29	.338	1.73008	1.500	3.962	PER IMP=	81.00
ROUTE RESERVOIR	501.10	1	20	.00366	7.60	.338	1.73001	1.567	3.243	AC-FT=	.057
FINISH											

TIME=.00
RAIN6= 2.200
PER IMP= 81.00
AC-FT= .057





(CONTRIBUTING BASIN AREA FOR THE ON-SITE PODNING)

BASIN LAYOUT

NTS

