

DRAINAGE TABLE

DRAINAGE AREA NO.	ACRES	T.C.	C	I 100 YR.	Q 100 YR.	SUM Q 100 YR.
1	0.75	20	0.35	8.3	2.18	
2	2.35	10	0.8	9.8	18.42	20.60
3	0.75	"	"	"	5.88	26.48
4	0.36	"	"	"	2.82	29.30
5	1.56	"	"	"	12.23	

**DETENTION POND CALCULATIONS
R. V. STORAGE FACILITY**

LOT 1: 5.02 ACRES + OFF SITE 0.75 ACRES
 DEVELOPED: $Q = (0.80)(9.8)(5.02) + (0.35)(8.3)(0.75) = 41.54 \text{ CFS}$
 UNDEVELOPED: $Q = (0.35)(8.3)(5.77) = 16.76 \text{ CFS}$

RETENTION REQUIRED 24.78 CFS
 ALLOWED DISCHARGE 16.76

CHECK VARIOUS STORMS:

15 min $I = 9.1$ $Q = (0.80)(9.1)(5.02) + (.35)(8.3)(.75) = 38.73 \text{ CFS}$
 20 min $I = 8.3$ $Q = (0.80)(8.3)(5.02) + (.35)(8.3)(.75) = 35.51 \text{ CFS}$
 25 min $I = 7.5$ $Q = (0.80)(7.5)(5.02) + (.35)(7.5)(.75) = 32.09 \text{ CFS}$
 30 min $I = 6.9$ $Q = (0.80)(6.9)(5.02) + (.35)(6.9)(.75) = 29.52 \text{ CFS}$
 40 min $I = 5.7$ $Q = (0.80)(5.7)(5.02) + (.35)(5.7)(.75) = 24.39 \text{ CFS}$
 50 min $I = 5.0$ $Q = (0.80)(5.0)(5.02) + (.35)(5.0)(.75) = 21.39 \text{ CFS}$
 60 min $I = 4.4$ $Q = (0.80)(4.4)(5.02) + (.35)(4.4)(.75) = 18.82 \text{ CFS}$
 70 min $I = 4.0$ $Q = (0.80)(4.0)(5.02) + (.35)(4.0)(.75) = 17.11 \text{ CFS}$

CHECK VARIOUS STORMS:

15 min Inflow (15) (38.73) (60) = 34,857 cf
 Outflow (0.5)(25)(16.76)(60) = 12,570 cf

 22,287 cf

20 min Inflow (20) (35.51) (60) = 42,612 cf
 Outflow (0.5)(30)(16.76)(60) = 15,084 cf

 27,528 cf

30 min Inflow (30) (29.52) (60) = 53,136 cf
 Outflow (0.5)(40)(16.76)(60) = 20,112 cf

 33,024 cf

40 min Inflow (40) (24.39) (60) = 58,536 cf
 Outflow (0.5)(50)(16.76)(60) = 25,140 cf

 33,396 cf

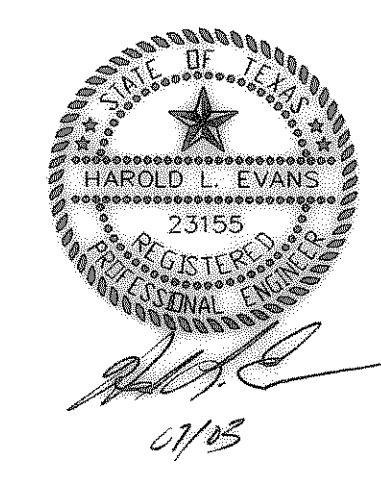
50 min Inflow (50) (21.39) (60) = 64,170 cf
 Outflow (0.5)(60)(16.76)(60) = 30,168 cf

 34,002 cf

60 min Inflow (60) (18.82) (60) = 67,752 cf
 Outflow (0.5)(70)(16.76)(60) = 35,196 cf

 32,556 cf

Maximum Storage Volume required is 34,002 CF at the 50 minute storm duration.



AS BUILT

		HAROLD L. EVANS CONSULTING ENGINEER P.O. BOX 570355 2331 GUS THOMASSON ROAD, SUITE 102 DALLAS, TEXAS 75370, (214) 328-8133	DRAINAGE AREA MAP R.V. PARKIT PLACE LOT 1 BLOCK A, REPLAT/FINALPLAT McKEOWN-BELAUSTEGUI ADDITION CITY OF ROCKWALL	SHEET NO. 3 <hr/> 6 JOB NO. 020444
REV 6/25/03 REV 2/25/03 REV 12/7/02	DATE 10/7/02 SCALE 1" = 40' DESIGN H.L.E. DRAWN			