

COMPUTATION SHEET FOR DETERMINING  
CAPACITY OF INLETS

TYPE	D.A.	Qp	CARRYOVER	TOTAL	So	Yo	Q	CARRYOVER	REMARKS
B	No.	(cfs)	FLOW	FLOW	(ft/ft)	(ft)	(cfs)	FLOW	
No.		q (cfs)	qo (cfs)	qo (cfs)				q (cfs)	
1	A-1	16.27	0.00	16.27	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	16.27	0.00	10' Sump Inlet
2	A-2 & 4	21.95	0.00	21.95	3.54	0.5	15.10	6.85	2.64 Over-flow crown to inlet 3, 15' inlet
3	A-6	6.71	4.01	10.72	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	10.72	0.00	10' Sump Inlet
4	A-3, 5 & 7	6.37	2.84	9.21	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	9.21	0.00	10' Sump Inlet
5	B-1	11.91	0.00	11.91	2.56	0.45	13.1	2.63	10' Recessed Inlet
6	B-2	7.35	0.00	7.35	2.56	0.38	11.2	0.22	10' Recessed Inlet
7	B-3	6.66	0.00	6.66	6.80	0.20	9.6	1.09	10' Recessed Inlet
8	B-4	5.54	*6.98	5.54	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	12.52	0.00	10' Sump Inlet
9	B-5	3.28	0.00	3.28	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	3.28	0.00	10' Sump Inlet
10	D-1	14.4	0.00	14.4	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	14.4	0.00	10' Sump Inlet
11	E-1	8.17	0.00	8.17	5' Sump Comb	Inlet Capacity = 2 cfs / L.F.	8.17	0.00	5' Sump Inlet
12	F-1	5.59	0.00	5.59	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	5.59	0.00	10' Sump Inlet
13	F-2	8.04	0.00	8.04	10' Sump Comb	Inlet Capacity = 2 cfs / L.F.	16.27	0.00	10' Sump Inlet

\* CARRY OVER INCLUDES BYPASS FROM PHASE I SYSTEM ALONG BAY HILL DRIVE  
AREA ORIGINAL DESIGN TO SYSTEM AREAS 9, 11 & 12 = 6.62 ACRES  
AREA FINAL DESIGN AREAS C-2, C-3 & C-4 = 7.24 ACRES  
I 100 = 9.8, C = 0.5, Q 100 BYPASS = 3.04 CFS, TOTAL BYPASS = 6.98 CFS

CONFIRMATION OF 100-YEAR CAPACITY

DESIGN POINT	TOTAL ACRES	CxA	tc	I100	Q100	GRADE	T/C	ROW	Q=
		C = 0.50	(min.)	(in./hr.)	(cfs)	%			
A	3.1	1.55	10	9.8	15.19	1.00	20.32	64.33	0.00
B - U.S.	5.06	2.83	10	9.8	27.73	3.54	38.22	121.0	0.00
B - D.S.	5.06	2.83	10	9.8	27.73	3.54	38.22	121.0	15.10

LAKE RAY HUBBARD DESIGN FLOWS

DESIGN POINT	AREAS	AREA (ACRES)	C	CxA	*tc	I100	Q100
			0.50				
1	A-1, 2, 3, 4, 5, 6 & 7	10.46	0.50	5.23	10	9.80	51.25
2	B-1, 2, 3, 4 & 5	7.09	0.50	3.55	10	9.80	34.74
3	C-1, 2, 3 & 4	25.48	0.50	12.74	10	9.80	124.85

\* tc UTILIZED IS 10 MINUTES IN LIEU OF MINIMUM REQUIRED 15 MINUTES FOR CONSERVATIVE DESIGN AND TO REFLECT STEEP TOPOGRAPHY

PREPARED BY:  
**WIER & ASSOCIATES, INC.**  
ENGINEERS SURVEYORS LAND PLANNERS  
4300 BELTWAY PLACE SUITE 130 ARLINGTON TEXAS 76018 METRO (817) 467-7700  
3908 SOUTH FREEDWAY FORT WORTH, TEXAS 76110 (817) 826-0212

HILLCREST SHORES  
PHASE II  
CITY OF ROCKWALL,  
ROCKWALL COUNTY, TEXAS

DRAINAGE  
CALCULATIONS



COPYRIGHT ©  
WIER & ASSOCIATES, INC.  
LAST SHEET EDIT  
DATE 02-10-96  
FILE CAC  
WA# 93065