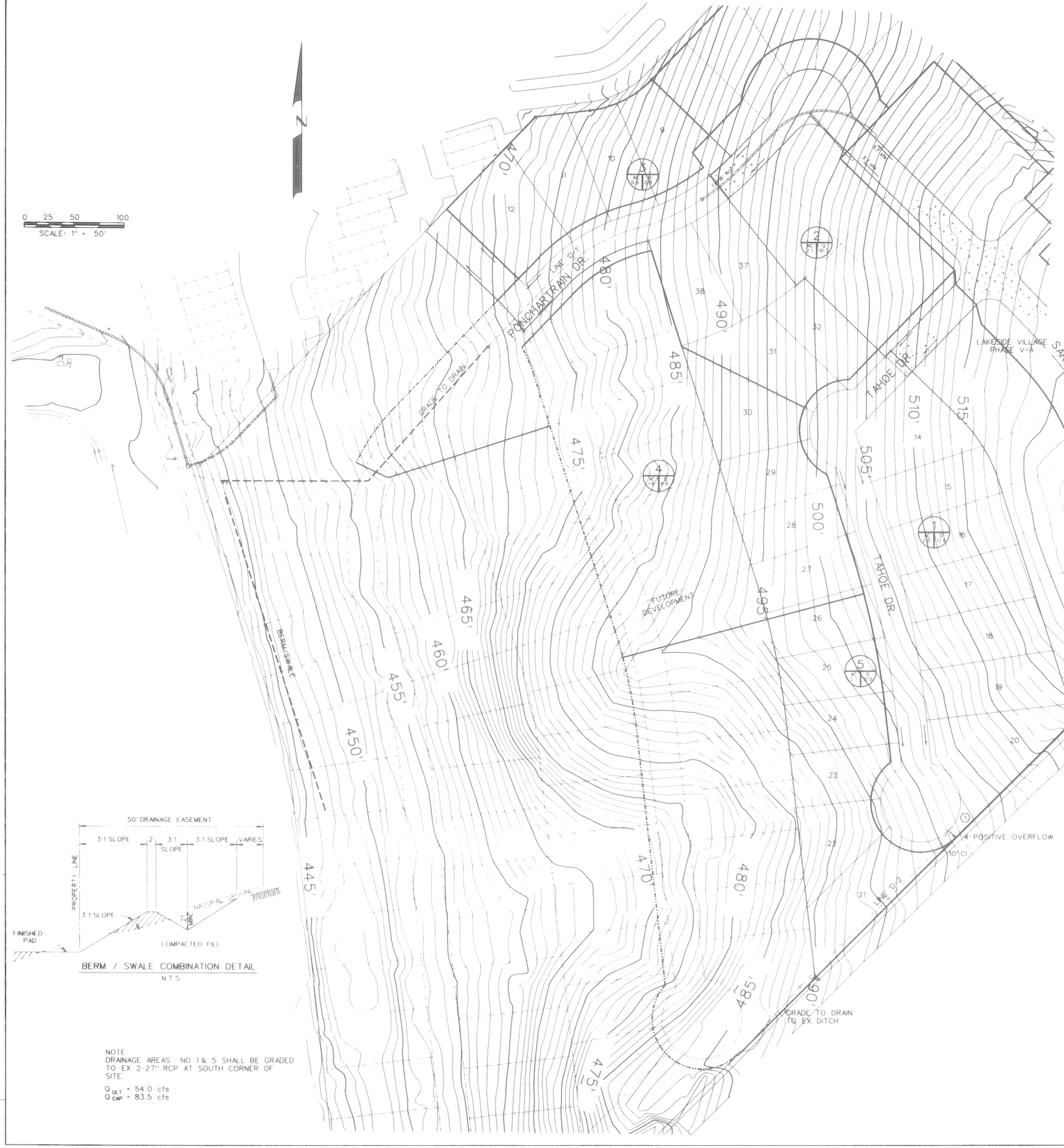
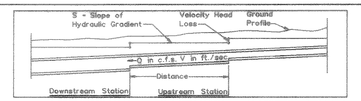


STORM SEWER CALCULATIONS



RUNOFF COLLECTION POINT (INLET OR MANHOLE) UPSTREAM STATION	RUNOFF COLLECTION POINT (INLET OR MANHOLE) DOWNSTREAM STATION	Distance Between Collection Points	INCREMENTAL DRAINAGE AREA Area No.	Drainage Area (Acres)	Runoff Coeff. "C"	Incremental "CA"	Accumulated "CA"	Time at Upstream Station (minutes)	Design Storm Frequency (yrs)	Intensity "I" (inches/hr.)	Storm Water Runoff "Q" (c.f.s.)	Slope of Hydraulic Gradient "S" (%)	Selected Storm Sewer Size	Velocity In Sewer Between Collection Points "V" (f.p.s.)	Head Loss Coeff. Kj	Velocity Head Loss at Upstream Station $Kj\frac{V^2}{2g}$ (feet)	Flow Time in Sewer Distance V x 60 (minutes)	Time at Downstream Station (minutes)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LINE 'D-1'																			
3+66	1+31	234		1.7	0.5	0.85	0.85	10.00	100	9.8	7.4	0.49	18"	3.5	0.1	0.27	0.30	10.30	
1+31	1+00	31		1.8	0.5	0.90	1.75	10.30	100	9.8	16.2	2.37	18"	9.4	0.5	0.68	0.03	10.33	
1+00	0+85	15		1.8	0.5	0.90	1.75	10.33	100	9.8	16.2	0.51	24"	5.2	0.1	0.10	0.04	10.37	
LINE 'D-2'																			
3+10	1+00	210		2.5	0.5	1.25	1.25	10.00	100	9.8	12.6	1.43	18"	7.1	1.25	0.30	0.25	10.25	
1+00	0+75	25		2.5	0.5	1.25	1.25	10.25	100	9.8	12.6	0.31	24"	4.0	0.1	0.10	0.10	10.35	
LINE 'D-3'																			
5+22	5+07	15		5.4	0.5	2.7	2.7	10.00	100	9.8	26.5	0.40	30"	5.4	0.1	0.89	0.01	10.01	
5+07	2+30	277		5.4	0.5	2.7	2.7	10.01	100	9.8	26.5	0.40	30"	5.4	0.1	0.83	0.33	10.34	

INLET DESIGN CALCULATIONS

INLET NO	INLET Location	AREA RUNOFF Design Storm Frequency	Time of Conc. (min.)	Intensity "I" (in/hr.)	Runoff Coeff. "C"	Area (ac.)	"Q" (c.f.s.)	Carry-Over from Upstream	Total Gutter Flow (c.f.s.)	Gutter Capacity (c.f.s.)	Gutter Slope (ft./100 ft.)	SELECTED INLET Crown Type	Length "LP" (ft.)	Type	Inlet Capacity (c.f.s.)
1	PVG. STA 4+16	100	10	9.80	0.50	2.6	12.6		12.6	30.0	-	Lw Pt	10'	STD	21.0

RUNOFF COMPUTATIONS

DRAINAGE AREA NO	AC	RUNOFF COEFF. (C)	TOTAL C x A	Tc min.	I(100) in/hr	Q (100) cfs
1	2.5	0.50	1.25	10	9.80	12.6
2	2.1	0.50	1.05	10	9.80	10.3
3	0.6	0.50	0.30	10	9.80	2.8
4	1.8	0.50	0.90	10	9.80	8.8
5	2.1	0.50	1.55	10	9.80	10.5

NOTE:
RUNOFF FROM DRAINAGE AREAS #2, #4 & #5 TO BE PICKED UP WITH FUTURE PHASES.

LEGEND

- PROP. STORM SEWER
- PROP. CURB INLETS
- PROP. CONC. HEADWALL
- EXIST. STORM SEWER
- DRAINAGE AREA DIVIDE
- FLOW ARROW
- DRAINAGE AREA NO.
- INLET NO.

BERM / SWALE COMBINATION DETAIL
N.T.S.

NOTE:
DRAINAGE AREAS NO. 1 & 5 SHALL BE GRADED TO EX 2-27" RCP AT SOUTH CORNER OF SITE.
Q_{ULT} = 54.0 cfs
Q_{CAP} = 83.5 cfs

AS-BUILT JUNE 2000
INFORMATION PROVIDED BY CONTRACTORS (NOT FIELD VERIFIED)

STATE OF TEXAS
WARREN L. CORWIN
57875
REGISTERED
PROFESSIONAL ENGINEER
7-9-99
The seal appearing on this document was authorized by Warren L. Corwin, P.E. 57875, on July 9, 1999

NO.	REVISIONS	BY	DATE
1	PER CITY COMMENTS	RDS	4-6-99

CORWIN ENGINEERING, INC.
8131 LBJ FREEWAY, SUTIE 333
DALLAS, TEXAS 75251 (972) 480-0305

DEVELOPMENT PLANS FOR
LAKESIDE VILLAGE
PHASE V-B
CORINTH, TEXAS

DRAINAGE AREA MAP

DRAWN BY	DESIGNED BY	CHECKED BY	SHEET NO.
RDS	CEI	WLC	3 OF 10
JOB NUMBER	DATE	SCALE:	
9853	OCTOBER 1998	1"=50'	

FILE
REF. FILE
VIEW
DATE