

AREA NO.	AREA (acres)	RUNOFF COEFF	CA	Tc (min)	I2 (in/hr)	Q2 (cfs)	I5 (in/hr)	Q5 (cfs)	I10 (in/hr)	Q10 (cfs)	I25 (in/hr)	Q25 (cfs)	I50 (in/hr)	Q50 (cfs)	I100 (in/hr)	Q100 (cfs)	COLLECTION POINT
A26	1.00	0.90	0.90	10.0	5.2	4.7	5.9	5.3	6.5	5.8	7.4	6.7	8.2	7.3	8.9	8.0	FUTURE STORM DRAIN
A28	0.50	0.90	0.45	10.0	5.2	2.4	5.9	2.6	6.5	2.9	7.4	3.3	8.2	3.7	8.9	4.0	FUTURE STORM DRAIN
1.5							7.9				8.8		10.0		11.0		12.0
C1	0.60	0.90	0.54	10.0	5.2	2.8	5.9	3.2	6.5	3.5	7.4	4.0	8.2	4.4	8.9	4.8	FUTURE STORM DRAIN
C2	0.40	0.90	0.36	10.0	5.2	1.9	5.9	2.1	6.5	2.3	7.4	2.7	8.2	2.9	8.9	3.2	FUTURE STORM DRAIN
C3	0.30	0.90	0.27	10.0	5.2	1.4	5.9	1.6	6.5	1.8	7.4	2.0	8.2	2.2	8.9	2.4	FUTURE STORM DRAIN
C4	0.10	0.90	0.09	10.0	5.2	0.5	5.9	0.5	6.5	0.6	7.4	0.7	8.2	0.7	8.9	0.8	FUTURE STORM DRAIN
C5	0.10	0.40	0.04	10.0	5.2	0.2	5.9	0.2	6.5	0.3	7.4	0.3	8.2	0.3	8.9	0.4	OVERLAND FLOW TO FBC
C6	0.10	0.40	0.04	10.0	5.2	0.2	5.9	0.2	6.5	0.3	7.4	0.3	8.2	0.3	8.9	0.4	OVERLAND FLOW TO FBC
C7	0.80	0.95	0.76	10.0	5.2	4.0	5.9	4.5	6.5	4.9	7.4	5.7	8.2	6.2	8.9	6.7	CURB INLETS
C11	0.30	0.40	0.12	10.0	5.2	0.6	5.9	0.7	6.5	0.8	7.4	0.9	8.2	1.0	8.9	1.1	OVERLAND FLOW TO FBC
C12	0.80	0.90	0.72	10.0	5.2	3.8	5.9	4.2	6.5	4.7	7.4	5.4	8.2	5.9	8.9	6.4	FUTURE STORM DRAIN
C13	0.70	0.95	0.67	10.0	5.2	3.5	5.9	3.9	6.5	4.3	7.4	4.9	8.2	5.4	8.9	5.9	CURB INLETS
C19	0.30	0.95	0.29	10.0	5.2	1.5	5.9	1.7	6.5	1.8	7.4	2.1	8.2	2.3	8.9	2.5	FUTURE STORM DRAIN
C20	0.30	0.95	0.29	10.0	5.2	1.5	5.9	1.7	6.5	1.8	7.4	2.1	8.2	2.3	8.9	2.5	FUTURE STORM DRAIN
C21	0.70	0.95	0.67	10.0	5.2	3.5	5.9	3.9	6.5	4.3	7.4	4.9	8.2	5.4	8.9	5.9	FUTURE STORM DRAIN
0.0							25.3		28.5		31.4		36.0		39.5		43.0

MH or INLET DESIGN POINT	DISTANCE Between Points	Peak Flow in Pipe "Q"	PIPE SIZE	FRICTIONAL SLOPE "S"	HYDRAULIC ELEVATIONS		HEAD LOSS AT CHANGE IN SECTION										Elev Difference TC/FG - HGL at Des Pt		REMARKS
					UPSTRM (ft MSL)	DNSTRM (ft MSL)	V1 Flow IN (fps)	V2 Flow OUT (fps)	V2(2) 2g (ft)	V1(2) 2g (ft)	Kj Of Loss (const)	Kv(1/2) 2g (ft)	Hd Upstream (ft)	Elev of Hyd Grade (ft MSL)	TC/FG	TC/FG - HGL DIFF.			
LINE A4																			
145.17	145.17	0.00	8.0	18	0.0061	561.99	561.99	---	4.53	0.32	---	0.00	---	0.00	561.99	569.20	7.21		
145.17	100.17	45.00	12.0	24	0.0028	561.86	561.73	4.53	3.82	0.23	0.32	0.00	0.23	0.00	561.86	569.20	7.34	END & PLUG	
100.17	55.00	45.17	12.0	24	0.0028	560.77	560.64	3.82	3.82	0.23	0.23	0.50	0.11	0.11	560.88	568.40	7.52	MANHOLE W / 60" BRANCH	
LINE C7																			
455.00	455.00	0.00	4.8	18	0.0061	565.37	565.37	---	2.72	0.11	---	0.00	---	0.00	565.37	568.50	3.13		
455.00	411.56	43.44	10.4	18	0.0098	565.23	564.80	2.72	5.89	0.54	0.11	1.25	0.39	0.14	565.37	568.50	3.13	CURB INLET	
411.56	188.32	223.24	11.2	18	0.0114	560.90	558.36	5.89	6.34	0.62	0.54	0.25	0.49	0.13	561.03	567.84	6.81	MANHOLE W / 90" BEND	
188.32	152.61	35.71	14.6	18	0.0193	556.88	556.19	6.34	8.26	1.06	0.62	0.75	0.59	0.47	557.35	565.39	8.04	60" WYE	
152.61	140.44	12.17	17.9	30	0.0019	555.92	555.90	8.26	3.65	0.21	1.06	0.25	-0.06	0.26	556.19	564.75	8.56	MANHOLE W / 60" BRANCH	
140.44	61.44	79.00	17.9	30	0.0019	555.42	555.27	3.65	3.65	0.21	0.21	0.75	0.05	0.15	555.58	564.64	9.06	45" WYE	
LINE C13																			
226.22	226.22	0.00	14.1	30	0.0061	556.01	556.01	---	2.87	0.13	---	0.00	---	0.00	556.01	560.87	4.86		
226.22	197.27	28.95	14.1	30	0.0012	556.01	555.98	2.87	2.87	0.13	0.13	0.00	0.13	0.00	556.01	560.87	4.86	END & PLUG	
197.27	175.59	21.68	17.1	30	0.0017	555.88	555.84	2.87	3.48	0.19	0.13	0.75	0.09	0.10	555.98	560.78	4.80	60" WYE	
175.59	98.13	77.46	21.6	30	0.0028	555.80	555.58	3.48	4.40	0.30	0.19	0.25	0.25	0.05	555.84	560.94	5.10	MANHOLE W / 60" BRANCH	
98.13	71.22	26.91	23.2	30	0.0032	555.36	555.27	4.40	4.73	0.35	0.30	0.75	0.12	0.23	555.58	561.58	6.00	60" WYE	

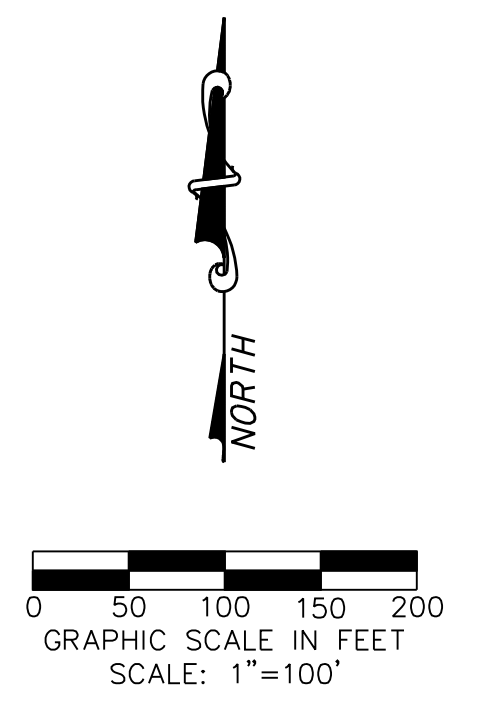
INLET NO.	STATION	TYPE	DRAINAGE CALCS 100 YR			ROADWAY SECTION						INLET FLOW (CFS)	CARRY OVER (CFS)	COMMENTS
			AREA (AC)	PEAK FLOW (CFS)	CARRY OVER (CFS)	TOTAL FLOW (CFS)	CROSS SLOPE (FT/FT)	LONG. SLOPE (FT/FT)	MAX DEPTH (FT)	SPREAD OF FLOW (FT)	LENGTH PROV. (FT)			
1	27+45.00, 11' LT	CO-D	C7/2	3.35	0.00	3.35	0.0208	0.0124	0.20	9.8	10.0	2.92	0.43	
2	27+45.00, 11' RT	CO-D	C7/2	3.35	0.00	3.35	0.0208	0.0124	0.20	9.8	10.0	2.92	0.43	
3	31+64.00, 11' LT	CO-S	C13/2	2.95	0.43	3.38	0.0208	0.0080	0.23	10.9	10.0	3.38	0.00	
4	31+64.00, 11' RT	CO-S	C13/2	2.95	0.43	3.38	0.0208	0.0080	0.23	10.9	10.0	3.38	0.00	

WARNING
 CONTRACTOR IS TO CONTACT TEXAS ONE-CALL SYSTEM (1-800-245-4545) OR OTHER UTILITY LOCATING SERVICES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION ACTIVITIES. ICON CONSULTING ENGINEERS, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA NOR FOR DEPICTING THE EXACT LOCATIONS OF UTILITIES ON THESE DRAWINGS.

BM #1 REF. ELEVATION = 559.47
 SQUARE CUT IN TOP OF CURB, SOUTH MEDIAN END NOSE, MARSH LANE 1127' NORTH OF VITRUVIAN WAY.
 BM #2 REF. ELEVATION = 547.84
 SQUARE CUT IN TOP OF CURB, NORTH MEDIAN END NOSE, AT INTERSECTION OF VITRUVIAN WAY AND MARSH LANE.



- LEGEND**
- A17 DRAINAGE AREA DESIGNATION
 - MAJOR DRAINAGE AREA DIVIDE
 - MINOR DRAINAGE AREA DIVIDE
 - DIRECTION OF FLOW
 - INLET NUMBER



NO.	REVISION	BY	DATE
TOWN OF ADDISON DALLAS COUNTY, TEXAS			
PAVING, DRAINAGE & UTILITY IMPROVEMENTS BELLA LANE			
DRAINAGE AREA MAP & CALCULATIONS			
Consulting Engineers, Inc. Civil Engineers - Designers - Planners 250 W. Southlake Blvd., Suite 117 Southlake, TX 76092 (817) 552-8210			
PROJECT	DESIGN	DRAWN	DATE
5029-03	ICE	ICE	FEB 01, 2011
FILE	DATE	SHEET	
PW # 2010-08		13	