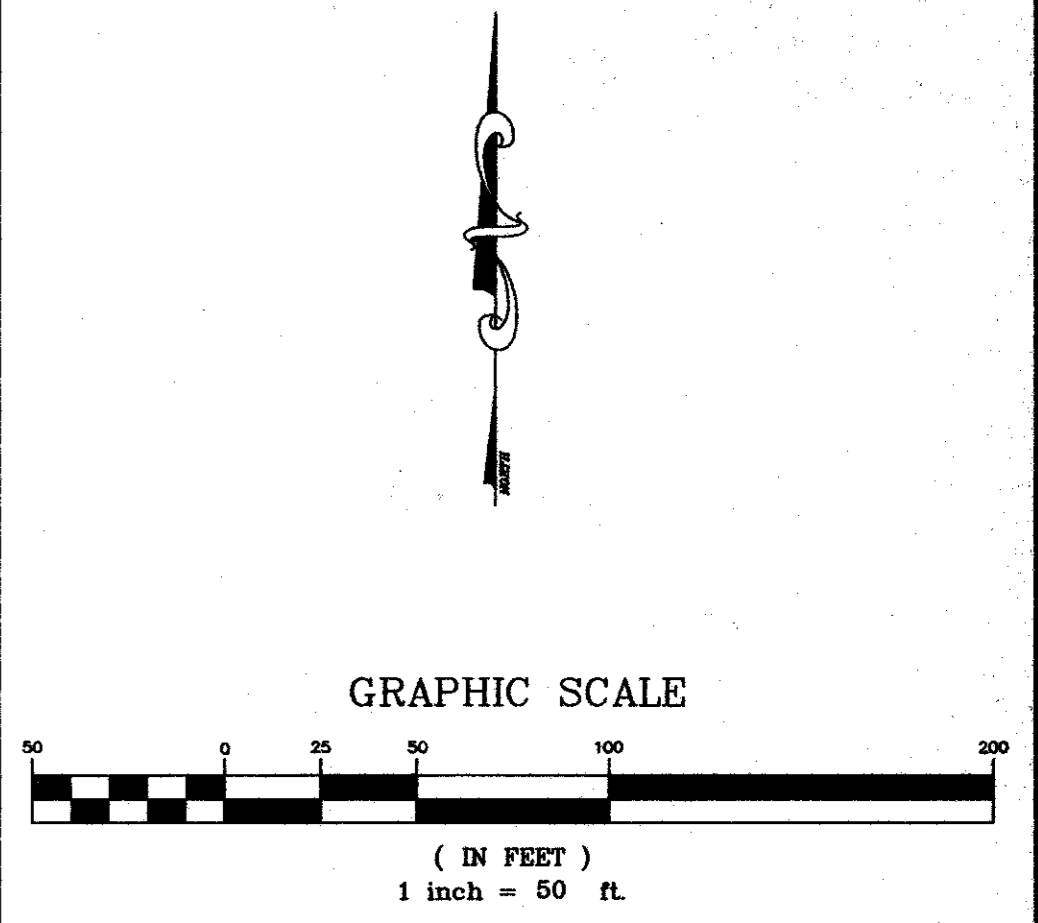


Delta=07'18"58"  
 Radius=1223.09'  
 Arc=156.18'  
 Tangent=78.20'  
 Chd.156.07'  
 C.B.=N 11°03'01" E



**DRAINAGE AREA MAP**  
 SCALE: 1" = 50'

**LEGEND**

**Drainage Design Theory**

Rational Method  
 Q = CIA  
 Q ~ Flow in c.f.s.  
 I ~ Intensity (8.74 in./hr. for T=10 Min.)  
 A ~ Area in Acres  
 C ~ Coefficient of runoff (0.90)

0.313  
2.46  
 DRAINAGE AREA IN ACRES  
 FLOW (c.f.s.)  
 DRAINAGE AREA DIVIDE  
 PROPOSED EASEMENT

UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES	
Line "A"																			
50.42	47.42	3		0	0.90	0.00	0.00	10.00	100	8.74	0.0	0.0000	21	0.00	0.00		1.00	0.46	0.00
47.42	32.24	15		1.658	0.90	1.49	1.49	10.00	100	8.74	13.0	0.0067	21	5.42	0.10		1.00	-0.17	0.46
32.24	29.24	3		0.00	0.90	0.00	1.49	10.05	100	8.73	13.0	0.0010	30	2.85	0.00		1.00	0.39	0.11
29.24	0.00	29		1.89	0.90	1.70	3.19	10.07	100	8.73	27.8	0.0046	30	5.67	0.13		1.00	-0.25	0.50

UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES
Line "B" <b>LINE "B" NOT USED</b>																		

UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES	
Line "C"																			
331.93	192.51	139		0.183	0.90	0.16	0.16	10.00	100	8.74	1.4	0.0002	18	0.81	0.03		1.00	0.00	0.01
192.51	189.51	3		0	0.90	0.00	0.16	12.85	100	8.10	1.3	0.0001	21	0.55	0.00		1.00	0.03	0.00
189.51	129.26	60		0.31	0.90	0.28	0.44	12.94	100	8.08	3.6	0.0005	21	1.49	0.03		1.00	-0.0	0.03
129.26	126.26	3		0	0.90	0.00	0.44	13.62	100	7.93	3.5	0.0002	24	1.12	0.00		1.00	0.09	0.02
126.26	39.39	87		0.67	0.90	0.60	1.05	13.66	100	7.92	8.3	0.0013	24	2.64	0.12		1.00	-0.07	0.11
39.39	36.39	3		0	0.90	0.00	1.05	14.21	100	7.80	8.2	0.0007	27	2.05	0.00		1.00	0.11	0.07
36.39	0	36		0.719	0.90	0.65	1.69	14.23	100	7.79	13.2	0.0018	27	3.32	0.07		1.00	-0.07	0.17

UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES	
Line "D"																			
287.86	256	32		0.259	0.90	0.23	0.23	10.00	100	8.74	2.0	0.0004	18	1.15	0.01		1.00	0.03	0.02
256	159.5	97	ROOF	0.159	0.90	0.14	0.38	10.46	100	8.64	3.2	0.0010	18	1.84	0.09		1.00	0.02	0.05
159.5	66.56	93		0.096	0.90	0.09	0.46	11.34	100	8.44	3.9	0.0014	18	2.21	0.13		1.00	-0.02	0.08
66.56	63.56	3		0	0.90	0.00	0.46	12.04	100	8.28	3.8	0.0006	21	1.59	0.00		1.00	0.03	0.04
63.56	53.38	10		0.152	0.90	0.14	0.60	12.07	100	8.28	5.0	0.0010	21	2.06	0.01		1.00	-0.03	0.07
53.38	0	53	ROOF	0.053	0.90	0.05	0.65	12.15	100	8.26	5.3	0.0011	21	2.22	0.06		1.00	-0.04	0.08

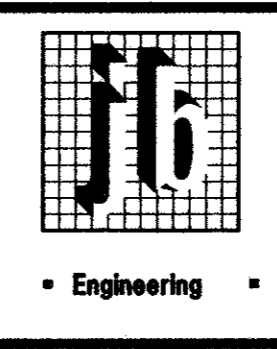
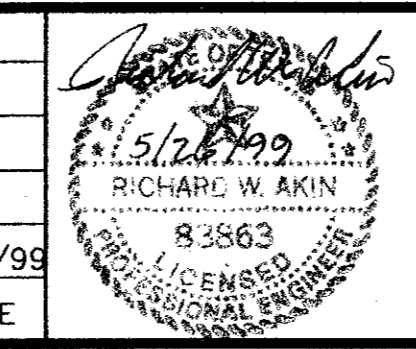
UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES	
Line "E"																			
65.05	0	65		0.674	0.90	0.61	0.61	10.00	100	8.74	5.3	0.0011	21	2.20	0.07		1.00	-0.04	0.08

UPSTREAM STATION	DNSTREAM STATION	DISTANCE "L"	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INCREM. "CA"	ACCUM. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	VELOCITY "V" (FPS)	"L" x "S"	Kj	PIPE CHANGE & BEND LOSSES	INLET LOSSES
Line "F" <b>LINE "F" NOT USED</b>																		

RECORD DRAWING  
 THIS DRAWING HAS BEEN REVISED TO REFLECT THE ACTUAL CONSTRUCTION DETAILS AS CONTAINED IN THE RECORDS OF THE CONTRACTOR. ELEVATIONS SHOWN ON THIS PLAN WERE NOT FIELD VERIFIED.  
 JONES  
 BY: [Signature]  
 DATE: 2/11/00

- BENCHMARK :**
- SQUARE CUT ON TOP OF CURB INLET AT NORTHEAST CORNER OF INTERSECTION OF BUSINESS AVE. AND BELTLINE ROAD. ELEVATION = 577.59'
  - "X" AT INLET ON TOP OF CURB WEST SIDE OF BUSINESS AVE. 200' +/- NORTH OF BELTLINE ROAD. ELEVATION = 578.57'

NO.	REVISIONS DURING CONSTRUCTION	BY	DATE	NO.	REVISIONS DURING PLAN REVIEW	BY	DATE
				1	ADDED MAINTENANCE BLDG.	RWA	5/25/99



**Jones & Boyd, Inc.**  
 16800 Dallas Parkway, Suite 240  
 Dallas, Texas 75248  
 Tel: 972-248-7878  
 Fax: 972-248-1414  
 • Engineering • Planning • Landscape Architecture • Surveying

**DRAINAGE PLAN**  
 SUITES OF AMERICA  
 TOWN OF ADDISON,  
 DALLAS COUNTY, TEXAS

PROJECT NO.  
**BG403**  
 SHEET NO.  
**C4**