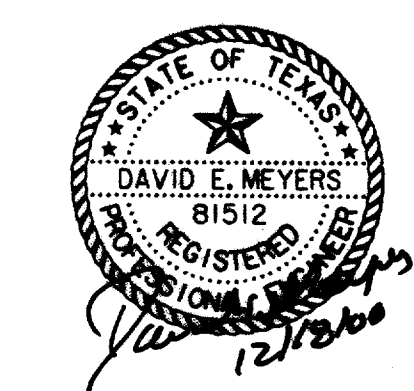


HYDRAULIC CALCULATIONS

COLLECTION POINT INLETS OR MANHOLES		DISTANCE BETWEEN COLLECTION POINTS	INCREMENTAL DRAINAGE AREA					TIME @ UPSTREAM STATION (MIN.)	INTENSITY "I-100" (IN./HR.)	100 YR. STORM RUNOFF "Q" (CFS.)	SLOPE OF HYDRAULIC GRADIENT (FT./FT.)	STORM SEWER SIZE	VELOCITY "V" (F.P.S.)	FLOW TIME IN SEWER (MIN.)	TIME @ DOWNSTREAM STATION (MIN.)	VELOCITY HEAD (FEET)	HYDRAULIC GRADE AT UPSTREAM STATION	HYDRAULIC GRADE AT DOWNSTREAM STATION	HYDRAULIC GRADE AT INLETS	COMMENTS
UPSTREAM STATION	DOWNSTREAM STATION		INCREM. AREA NO.	AREA "A" (AC.)	RUNOFF COEFF. "C"	INCREM. "CA"	ACCUM. "CA"													
LINE 'Q'																				
955.00	880.00	75.00	L-10	1.19	0.90	1.07	1.07	10.00	8.74	9.4	0.0035	21	3.89	0.32	10.32	0.24	604.14	603.87		FUT. LATERAL
880.00	875.00	5.00	L-8	0.30	0.90	0.27	1.34	10.32	8.66	11.6	0.0054	21	4.83	0.02	10.34	0.36	603.75	603.72		
875.00	870.00	5.00	Q-7	0.19	0.90	0.17	1.51	10.34	8.65	13.1	0.0068	21	5.44	0.02	10.35	0.46	603.62	603.59		
870.00	715.00	155.00	Q-6	0.19	0.90	0.17	1.68	10.35	8.65	14.6	0.0084	21	6.05	0.43	10.78	0.57	603.48	602.17		
715.00	710.00	5.00	Q-5	0.14	0.90	0.13	1.81	10.78	8.54	15.5	0.0095	21	6.43	0.01	10.79	0.64	602.10	602.05		
710.00	705.00	5.00	Q-4	0.12	0.90	0.11	1.92	10.79	8.54	16.4	0.0107	21	6.81	0.01	10.81	0.72	601.97	601.92		
705.00	350.00	355.00	Q-3	0.61	0.90	0.55	2.47	10.81	8.54	21.1	0.0087	24	6.70	0.88	11.69	0.70	601.93	598.86		
350.00	160.00	190.00	Q-2	1.79	0.90	1.61	4.08	11.69	8.33	33.9	0.0069	30	6.92	0.46	12.15	0.74	598.81	597.51		
160.00	100.00	60.00	Q-1	1.62	0.90	1.46	5.54	12.15	8.22	45.5	0.0047	36	6.44	0.16	12.30	0.64	597.56	597.28		
LAT. 'Q-1'																				
31.47	0.00	31.47	F-1	0.11	0.90	0.10	0.10	10.00	8.74	0.9	0.0001	18	0.49	1.07	11.07	0.00	*REF!	*REF!	*REF!	
LAT. 'Q-2'																				
14.87	0.00	14.87	F-2	0.31	0.90	0.28	0.28	10.00	8.74	2.4	0.0005	18	1.38	0.18	10.18	0.03	*REF!	*REF!	*REF!	
LAT. 'Q-3'																				
26.89	0.00	26.89	F-3	0.64	0.90	0.58	0.58	10.00	8.74	5.0	0.0010	21	2.09	0.21	10.21	0.07	*REF!	*REF!		
LAT. 'Q-4'																				
44.14	0.00	44.14	F-4	1.15	0.90	1.04	1.04	10.00	8.74	9.0	0.0033	21	3.76	0.20	10.20	0.22	598.13	597.98		
LAT. 'Q-5'																				
26.89	0.00	26.89	F-11	0.63	0.90	0.57	0.57	10.00	8.74	5.0	0.0022	18	2.81	0.16	10.16	0.12	602.57	602.51		
LAT. 'Q-6'																				
31.78	0.00	31.78	F-5	0.51	0.90	0.46	0.46	10.00	8.74	4.0	0.0015	18	2.27	0.23	10.23	0.08	602.66	602.61	602.78	
LAT. 'Q-7'																				
43.71	0.00	43.71	F-6 & K-7	2.54	0.79	2.01	2.01	10.00	8.74	17.5	0.0060	24	5.58	0.13	10.13	0.48	602.52	602.26		
LINE 'R'																				
1815.42	1467.59	347.83	OFFSITE	55.21	0.90	49.69	49.69	16.13	7.47	371.0	0.0050	78	11.18	0.52	16.65	1.94	610.20	608.45		PARTIAL FLOW
1467.59	1340.93	126.66	R-8	0.17	0.90	0.15	49.84	16.65	7.38	368.0	0.0049	78	11.09	0.19	16.84	1.91	608.47	607.85		PARTIAL FLOW
1340.93	1305.77	35.16	R-7	0.24	0.90	0.22	50.06	16.84	7.35	368.0	0.0049	78	11.09	0.05	16.89	1.91	607.85	607.67		PARTIAL FLOW
1305.77	965.42	340.35	R-6	0.13	0.90	0.12	50.18	16.89	7.34	368.5	0.0049	78	11.10	0.51	17.40	1.91	607.67	605.99		PARTIAL FLOW
965.42	667.74	297.68	R-5	1.26	0.90	1.13	51.31	17.40	7.26	372.7	0.0051	78	11.23	0.44	17.84	1.96	605.94	604.44		
667.74	599.23	68.51	R-4	1.80	0.90	1.62	52.93	17.84	7.20	381.0	0.0053	78	11.48	0.10	17.94	2.05	604.35	603.99		
599.23	515.42	83.81	OFFSITE	53.33	0.90	48.00	100.93	17.94	7.18	724.9	0.0040	9'X7'	11.72	0.12	18.06	2.13	603.90	603.56		
515.42	458.47	56.95	R-3	0.38	0.90	0.34	101.27	18.06	7.17	725.6	0.0041	9'X7'	11.73	0.08	18.14	2.14	603.56	603.33		
458.47	426.67	31.80	BEND	NA	0.90	0.00	101.27	18.14	7.15	724.4	0.0040	9'X7'	11.71	0.05	18.19	2.13	601.95	601.82		
426.67	159.96	266.71	BEND	NA	0.90	0.00	101.27	18.19	7.15	723.7	0.0040	9'X7'	11.70	0.38	18.57	2.12	600.44	599.37		
159.96	135.86	24.10	R-2	1.73	0.90	1.56	102.83	18.57	7.09	729.2	0.0041	9'X7'	11.78	0.03	18.60	2.16	599.33	599.24		
135.86	130.00	5.86	R-1	0.38	0.90	0.34	103.17	18.60	7.09	731.1	0.0041	9'X7'	11.82	0.01	18.61	2.17	599.22	599.20		F.L. BC 590.34
LAT. 'R-1'																				
44.56	0.00	44.56	R-1	0.11	0.90	0.10	0.10	10.00	8.74	0.9	0.0001	18	0.49	1.52	11.52	0.00	601.39	601.39	601.40	
LAT. 'R-2'																				
11.05	0.00	11.05	R-2	0.31	0.90	0.28	0.28	10.00	8.74	2.4	0.0001	24	0.78	0.24	10.24	0.01	601.48	601.48		
LAT. 'R-3'																				
0.00	0.00	0.00	R-3	0.38	0.90	0.34	0.34	10.00	8.74	3.0	0.0008	18	1.69	0.00	10.00	0.04	605.65	605.65	605.71	
LAT. 'R-4'																				
29.17	0.00	29.17	R-4	1.15	0.90	1.04	1.04	10.00	8.74	9.0	0.0016	24	2.88	0.17	10.17	0.13	*REF!	*REF!		
LAT. 'R-5'																				
0.00	0.00	0.00	R-5	1.26	0.90	1.13	1.13	10.00	8.74	9.9	0.0089	18	5.61	0.00	10.00	0.49	609.27	609.27	609.88	
LAT. 'R-6'																				
38.88	0.00	38.88	R-6	0.51	0.90	0.46	0.46	10.00	8.74	4.0	0.0015	18	2.27	0.29	10.29	0.08	606.37	606.32	606.47	
LAT. 'R-7'																				
12.31	0.00	12.31	R-7	2.54	0.79	2.01	2.01	10.00	8.74	17.5	0.0279	18	9.93	0.02	10.02	1.53	608.40	608.05	610.31	
LAT. 'R-8'																				
38.85	0.00	38.85	R-8	2.54	0.79	2.01	2.01	10.00	8.74	17.5	0.0279	18	9.93	0.07	10.07	1.53	609.93	608.85	611.85	

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID E. MEYERS, P.E. 81512



RECORD DRAWING

DATE	DESCRIPTION	REF NO.				
10/3/97	ISSUED FOR CONSTRUCTION	N/A				
7/14/97	ISSUED FOR BID	N/A				
STORM WATER CALCULATIONS						
HYDRAULIC CALCULATIONS						
ADDISON CIRCLE						
PHASE II PUBLIC INFRASTRUCTURE						
TOWN OF ADDISON, TEXAS						
Hui11-Zollars, Inc./Engineering/Architecture Dallas, Fort Worth, Houston, El Paso, Phoenix, Austin, Ontario						
DESIGN	DRAWN	APPR.	SCALE	DATE	PROJECT NO.	NO.
HZI	HZI	DEM	N.T.S.	OCT. 97	01-1822-21	SW8