RUNOFF COLLECTION POINT		Distance Between Collection Points	DRAINAGE AREA						STORMWATER RUNOFF		PROPOSED STORM SEWER																		
Downstream Station	Upstream Station	"L" (feet)	Drainage Area Name	Increm. "A" (acres)	Accum. "A" (acres)	Runoff Coeff. "C"	Incr. "CA" (acres)	Intensity "I" (in./hr.)	Increm. "Q" (c.f.s.) k=1.15	Accum. "Q" (c.f.s.)	Pipe or Box	Round Pipe Diameter "d" (in.)	Rectangular Box Width "w" (ft.)	Rectangular Box Height "h" (ft.)	Proposed Storm Sewer Slope "S_p" (ft/ft.)	Slope of Hydraulic Gradient Based on Pipe Size "S" (ft/ft.)	Full Flow Capacity "C" (c.f.s.)	Depth of Flow "y" (ft.)	Actual Flow Velocity "V_a" (f.p.s.)	Q100 Flow Velocity "V_c" (f.p.s.)	Head Loss Coeff. K_j	Velocity Head Loss at Upstream Station $\frac{V_a^2 - K_j V_c^2}{2g}$ (feet)	Pipe Flowline Elev. Downstream (feet)	Pipe Flowline Elev. Upstream (feet)	Top of Pipe Elev. Downstream (feet)	Top of Pipe Elev. Upstream (feet)	Hg Elev. Downstream (feet)	Hg Elev. Upstream (feet)	Full/Partial Flow
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	27	28	30	29	32	31	34	33	35
Storm Sewer Line A																													
7+73.00																							543.13		545.13		543.44		PARTIAL
	7+73.00	31.00	D.I.	8.70	8.70	0.35	3.05	8.30	25.27	25.27	Pipe	24	-	-	0.0250	0.0125	35.77	1.22	12.41	8.04	1.25	0.21		543.13		545.13		543.23	
7+42.00																							542.35		545.85		542.84		PARTIAL
	7+42.00	642.00	45 Wye	12.50	21.20	0.35	7.42	8.30	36.31	61.59	Pipe	42	-	-	0.0060	0.0037	77.93	2.88	8.54	6.40	0.40	0.23		540.85		544.35		542.61	
1+00.00																							537.00		540.50		540.20		PARTIAL
Storm Sewer Line B																													
9+00.00																							545.31		547.31		546.38		PARTIAL
	9+00.00	377.00	D.I.	5.06	5.06	0.35	1.77	8.30	14.70	14.70	Pipe	24	-	-	0.0048	0.0042	15.67	1.43	5.84	4.68	1.25	0.42		545.31		547.31		545.96	
5+23.00																							543.50		546.50		544.37		PARTIAL
	5+23.00	423.00	45 Wye	7.44	12.50	0.35	4.38	8.30	21.61	36.31	Pipe	36	-	-	0.0033	0.0030	38.32	2.56	6.10	5.14	0.40	0.27		542.50		545.50		544.09	
1+00.00																							541.10		544.10		542.84		PARTIAL
Storm Sewer Lat. B-1																													
1+12.00																							543.54		545.54		545.21		PARTIAL
	1+12.00	12.00	PVI	7.44	7.44	0.35	2.60	8.30	21.61	21.61	Pipe	24	-	-	0.0450	0.0091	47.99	0.94	14.88	6.88	1.00	0.73		543.54		545.54		544.48	
1+00.00																							543.00		545.00		544.37		PARTIAL
Storm Sewer Line D																													
10+55.00																							545.68		547.18		546.40		PARTIAL
	10+55.00	129.00	Inlet	0.24	0.24	0.75	0.18	9.80	1.76	1.76	Pipe	18	-	-	0.0024	0.0003	5.17	0.47	2.78	1.00	1.25	0.02		545.68		547.18		546.39	
9+26.00																							545.37		546.87		546.35		PARTIAL
	9+26.00	152.00	60 Wye	0.23	0.47	0.75	0.35	9.80	1.69	3.45	Pipe	18	-	-	0.0024	0.0011	5.17	0.74	3.30	1.95	0.50	0.05		545.37		546.87		546.30	
7+74.00																							545.00		546.50		546.13		PARTIAL
	7+74.00	119.00	60 Wye	0.20	0.67	0.75	0.50	9.80	1.47	4.92	Pipe	18	-	-	0.0024	0.0022	5.17	0.91	3.59	2.79	0.50	0.09		545.00		546.50		546.04	
6+55.00																							544.72		546.72		545.78		PARTIAL
	6+55.00	71.00	60 Wye	0.20	0.87	0.75	0.65	9.80	1.47	6.39	Pipe	24	-	-	0.0024	0.0008	11.13	1.08	3.67	2.04	0.50	0.00		544.22		546.22		545.78	
5+84.00																							544.04		546.54		545.72		PARTIAL
	5+84.00	44.44	60 Wye	0.73	1.60	0.75	1.20	9.80	5.37	11.76	Pipe	30	-	-	0.0024	0.0008	20.09	1.55	4.12	2.40	0.50	0.06		543.54		546.04		545.66	
5+39.56																							543.44		545.94		545.63		PARTIAL
	5+39.56	88.95	45 Bend	0.00	1.60	0.75	1.20	9.80	0.00	11.76	Pipe	30	-	-	0.0024	0.0008	20.09	1.55	4.12	2.40	0.50	0.04		543.44		545.94		545.58	
4+50.61																							543.22		546.22		545.51		PARTIAL
	4+50.61	350.61	60 Wye	2.21	3.81	0.75	2.86	9.80	16.24	28.00	Pipe	36	-	-	0.0062	0.0018	52.52	1.92	7.14	3.96	0.60	0.19		542.72		545.72		545.32	
1+00.00																							540.55		543.55		544.70		FULL
Storm Sewer Lat "D-1"																													
1+44.77																							547.18		548.68		546.02		PARTIAL
	1+44.77	44.77	Inlet	0.73	0.73	0.75	0.55	9.80	5.37	5.37	Pipe	18	-	-	0.0700	0.0026	27.79	0.30	12.83	3.04	1.25	0.18		547.18		548.68		545.84	
1+00.00																							544.04		545.54		545.72		FULL
Storm Sewer Lat "D-2"																													
1+13.64																							544.67		546.17		545.80		PARTIAL
	1+13.64	13.64	Inlet	0.20	0.20	0.75	0.15	9.80	1.47	1.47	Pipe	18	-	-	0.0150	0.0002	12.87	0.06	5.36	0.83	1.25	0.01		544.67		546.17		545.78	
1+00.00																							544.47		545.97		545.78		PARTIAL
Storm Sewer Lat "D-3"																													
1+13.85																							545.21		546.71		546.15		PARTIAL
	1+13.85	13.85	Inlet	0.20	0.20	0.75	0.15	9.80	1.47	1.47	Pipe	18	-	-	0.0150	0.0002	12.87	0.06	5.36	0.83	1.25	0.01		545.21		546.71		546.14	
1+00.00																							545.00		546.50		546.13		PARTIAL
Storm Sewer Lat "D-4"																													
1+13.76																							545.58		547.08		546.37		PARTIAL
	1+13.76	13.76	Inlet	0.23	0.23	0.75	0.17	9.80	1.69	1.69	Pipe	18	-	-	0.0150	0.0003	12.87	0.03	5.73	0.96	1.25	0.02		545.58		547.08		546.35	
1+00.00																							545.37		546.87		546.35		PARTIAL

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STATE OF TEXAS
ROBERT K. MANOIS
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PROFESSIONAL ENGINEER

REV.	DATE	REMARKS	BY

STORM SEWER CALCULATIONS

MANSIONS SENIOR

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