RUNOFF COLLECTION POINT		Distance Between Collection Points	DRAINAGE AREA			Runoff Coeff.	Incr.	Intensity	STORMWATER RUNOFF		PROPOSED STORM SEWER				Proposed Storm Sewer Slope	Slope of Hydraulic Gradient Based on Pipe Size	Full Flow Capacity	Depth of Flow	Actual Flow Velocity	Q100 Flow Velocity	Head Loss Coeff.	Velocity Head Loss at Upstream Station	Pipe Flowline Elev.	Pipe Flowline Elev.	Top of Pipe Elev.	Top of Pipe Elev.	Hg Elev.	Hg Elev.	Full/Partial Flow
Downstream Station	Upstream Station	"L" (feet)	Drainage Area Name	Increm. "A" (acres)	Accum. "A" (acres)	"C"	"CA" (acres)	"I" (in./hr.)	Increm. "Q" (c.f.s.)	Accum. "Q" (c.f.s.)	Pipe or Box	Round Pipe Diameter "d" (in.)	Rectangular Box Width "w" (ft.)	Rectangular Box Height "h" (ft.)	"S_p" (ft/ft.)	"S" (ft/ft.)	"C" (c.f.s.)	"y" (ft.)	"V_a" (f.p.s.)	"V_s" (f.p.s.)	K_j	$\frac{V_2^2-K_jV_1^2}{2g}$ (feet)	Downstream (feet)	Upstream (feet)	Downstream (feet)	Upstream (feet)	Downstream (feet)	Upstream (feet)	
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																													
2+38.88																							547.51		549.01		545.59		PARTIAL
	2+38.88	13.88	A-2	1.06	1.06	0.75	0.80	9.80	7.79	7.79	Pipe	18	-	-	0.0475	0.0055	22.89	0.47	12.32	4.41	1.25	0.38		547.51		549.01		545.21	
2+25.00																							546.85		548.85		545.13		PARTIAL
	2+25.00	65.00	MH	1.43	2.49	0.75	1.87	9.80	10.51	18.30	Pipe	24	-	-	0.0315	0.0065	40.15	0.95	12.49	5.83	0.25	0.45		545.35		547.35		544.68	
1+60.00																							543.30		545.30		544.26		PARTIAL
	1+60.00	60.00	MH	0.00	2.49	0.75	1.87	9.80	0.00	18.30	Pipe	24	-	-	0.0800	0.0065	63.99	0.71	17.66	5.83	0.25	0.40		541.80		543.80		543.86	
1+00.00																							537.00		539.00		543.47		FULL
Storm Sewer Lateral A-1																													
2+30.91																							547.50		549.00		545.40		PARTIAL
	2+30.91	16.97	A-1	0.48	0.48	0.75	0.36	9.80	3.53	3.53	Pipe	18	-	-	0.0050	0.0011	7.43	0.59	4.36	2.00	1.25	0.08		547.50		549.00		545.32	
2+13.94																							547.42		548.92		545.30		PARTIAL
	2+13.94	113.94	45 Bend	0.00	0.48	0.75	0.36	9.80	0.00	3.53	Pipe	18	-	-	0.0050	0.0011	7.43	0.59	4.36	2.00	0.35	0.04		547.42		548.92		545.26	
1+00.00																							546.85		546.85		545.13		PARTIAL
Storm Sewer Lateral A-2																													
3+90.00																							560.00		561.50		546.20		PARTIAL
	3+90.00	50.33	A-2	0.52	0.52	0.75	0.39	9.80	3.82	3.82	Pipe	18	-	-	0.0454	0.0013	22.37	0.01	11.17	2.16	1.25	0.09		560.00		561.50		546.11	
3+39.67																							557.72		559.22		546.04		PARTIAL
	3+39.67	167.33	45 Bend	0.00	0.52	0.75	0.39	9.80	0.00	3.82	Pipe	18	-	-	0.0454	0.0013	22.37	0.01	11.17	2.16	0.75	0.02		557.72		559.22		546.02	
1+72.34																							550.13		551.63		545.80		PARTIAL
	1+72.34	61.41	45 Wye	0.43	0.95	0.75	0.71	9.80	3.16	6.98	Pipe	18	-	-	0.0454	0.0044	22.37	0.45	11.77	3.95	0.75	0.19		550.13		551.63		545.61	
1+10.93																							547.34		548.84		545.34		PARTIAL
	1+10.93	10.93	45 Bend	0.00	0.95	0.75	0.71	9.80	0.00	6.98	Pipe	18	-	-	0.0454	0.0044	22.37	0.45	11.77	3.95	0.35	0.16		547.34		548.84		545.18	
1+00.00																							546.85		546.85		545.13		PARTIAL
Storm Sewer Line B																													
5+13.02																							542.81		544.81		545.22		FULL
	5+13.02	16.97	Inlet	0.20	0.20	0.75	0.15	9.80	1.47	1.47	Pipe	24	-	-	0.0140	0.0000	26.77	2.00	12.50	0.47	1.25	0.00		542.81		544.81		545.22	
4+96.05																							542.57		544.57		545.22		FULL
	4+96.05	4.97	45 Bend	0.00	0.20	0.75	0.15	9.80	0.00	1.47	Pipe	24	-	-	0.0140	0.0000	26.77	2.00	12.50	0.47	0.50	0.00		542.57		544.57		545.22	
4+91.08																							542.50		544.50		545.22		FULL
	4+91.08	45.68	45 Wye	1.19	1.39	0.75	1.04	9.80	8.75	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.35	0.16		542.50		544.50		545.05	
4+45.40																							541.86		543.86		544.96		FULL
	4+45.40	14.14	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		541.86		543.86		544.88	
4+31.26																							541.67		543.67		544.85		FULL
	4+31.26	76.58	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		541.67		543.67		544.77	
3+54.68																							540.59		542.59		544.61		FULL
	3+54.68	18.74	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		540.59		542.59		544.53	
3+35.94																							540.33		542.33		544.49		FULL
	3+35.94	19.00	45 Bend	0.00	1.39	0.75	1.04	9.80	0.00	10.22	Pipe	24	-	-	0.0140	0.0020	26.77	0.85	7.96	3.25	0.50	0.08		540.33		542.33		544.41	
3+16.94																							540.06		542.06		544.37		FULL
	3+16.94	218.90	45 Wye	0.35	1.74	0.75	1.31	9.80	2.57	12.79	Pipe	24	-	-	0.0140	0.0032	26.77	0.97	8.42	4.07	0.35	0.20		540.06		542.06		544.17	
0+98.04																							537.00		539.00		543.47		FULL
Storm Sewer Lateral B-1																													
1+24.40																							542.78		544.28		544.43		FULL
	1+24.40	24.40	Inlet	0.35	0.35	0.75	0.26	9.80	2.57	2.57	Pipe	18	-	-	0.1010	0.0006	33.38	1.11	9.23	1.46	1.25	0.04		542.78		544.28		544.38	
1+00.00																							540.31		541.81		544.37		FULL
Storm Sewer Line C																													
2+52.28																							544.37		545.87		545.65		PARTIAL
	2+52.28	32.06	C-1	0.23	0.23	0.75	0.17	9.80	1.69	1.69	Pipe	18	-	-	0.0090	0.0003	9.97	0.01	4.97	0.96	1.25	0.02		544.37		545.87		545.63	
2+20.22																							544.08		546.08		545.62		PARTIAL
	2+20.22	96.22	C-2	0.96	1.19	0.75	0.89	9.80	7.06	8.75	Pipe	24	-	-	0.0090	0.0015	21.46	0.88	6.49	2.78	0.75	0.11		543.58		545.58		545.51	
1+24.00																							542.72		544.72		545.37		PARTIAL
	1+24.00	24.00	45 Bend	0.00	1.19	0.75	0.89	9.80	0.00	8.75	Pipe	24	-	-	0.0090	0.0015	21.46	0.88	6.49	2.78	0.35	0.12		542.72		544.72		545.25	
1+00.00																							542.50		542.50		545.22		FULL
Storm Sewer Lateral C-1																													
1+50.00																							544.33		545.83		546.16		FULL
	1+50.00	50.00	C-1	0.96	0.96	0.75	0.72	9.80	7.06	7.06	Pipe	18	-	-	0.0100	0.0045	10.50	0.74	6.72	3.99	1.25	0.31		544.33		545.83		545.85	
1+00.00																							543.83		545.33		545.62		FULL
Storm Sewer Line D																													
6+11.46																							546.35		547.85		547.62		PARTIAL
	6+11.46	150.21	D-2	0.21	0.21	0.75	0.16	9.80	1.54	1.54	Pipe	18	-	-	0.0085	0.0002	9.68	0.01	4.70	0.87	1.25	0.01		546.35		547.85		547.60	
4+61.25																							545.05		547.05		547.57		PARTIAL
	4+61.25	12.07	-3/H-1,2,3	2.60	2.81	0.75	2.11	9.80	19.11	20.65	Pipe	24	-	-	0.0160	0.0083	28.62	1.24	9.98	6.57	0.75	0.66		544.55		546.55		546.91	
4+49.18																							544.36		546.36		546.81		FULL
	4+49.18	151.01	N/A	0.00	2.81	0.75	2.11	9.80	0.00	20.65	Pipe	24	-	-	0.0160	0.0083	28.62	1.24	9.98	6.57	1.00	0.00		544.36		546.36		546.81	
2+98.17																							541.94		544.44		545.55		FULL
	2+98.17	116.89	D-1	0.77	3.58	0.75	2.69	9.80	5.66	26.31	Pipe	30	-	-	0.0160	0.0041	51.88	1.43	10.26	5.36	0.75	0.00		541.44		543.94		545.55	
1+81.28																							539.57		543.07		545.07		FULL
	1+81.28	70.17	Line E/MH	8.16	11.74	0.75	8.81	9.80	59.98	86.29	Pipe	42	-	-	0.0220	0.0074	149.23	2.48	14.99	8.97	0.25	1.08		538.54		542.04		543.99	
1+11.11																							537.00		540.50		543.47		FULL
Storm Sewer Lateral D-1																													
1+08.59																							544.66		546.16		545.84		PARTIAL
	1+08.59	8.59	D-1	0.77	0.77	0.75	0.58	9.80	5.66	5.66	Pipe	18	-	-	0.3160	0.0029	59.05	0.74	6.72	3.20	1.25	0.20		544.66		546.16		545.65	
1+00.00																							541.94		543.44		545.62		PARTIAL

MANSIONS FAMILY - ROCKWALL, RKMCE PROJECT # 1026-005

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REV.	DATE	REMARKS	BY

STORM SEWER CALCULATIONS

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