STORM SEWER SYSTEM

PID : 110922 **Date :** 08/31/2021 **Project :** DEL-605-0.31 **Location :** SR 605 at Fancher Rd

Description : Storm Sewer system prior to culvert calc checks **Designer :** DES

Rainfall Area: C **Just Full Capacity Frequency (yrs.) :** 25 **Hydraulic Gradient Frequency (yrs.) :** 25

Minimum Pipe Size : 12.00 **Tailwater Elevation (ft.):** 0.00

JUNCTION From	JUNCTION To	STATION From To	ΔAREA ΣAREA (acres)	ΔCA ΣCA	BEGIN TIME (min.)	RAINFALL INTENSITY (25 yrs.)	RAINFALL INTENSITY (25 yrs.)	DISCHARGE (cfs.) (25 yrs.)	DISCHARGE (cfs.) (25 yrs.)	PIPE DIAM. (in.)	PIPE LENGTH (ft.)	PIPE SLOPE (ft./ft.)	F/L PIPE IN / OUT (ft.)	MEAN VEL (fps.)	JUST FULL CAPACITY (cfs.)	FRICT SLOPE (ft./ft.)	HYGR EL. IN / OUT (ft.)	COVER IN / OUT (ft.)	COVER MINUS HY GR	COVER MINUS CROWN	INLET TYPE MANNING'S 'n'
1	3		7.73	3.07	47.80	2.64	2.63	8.1	8.1	18	84.0	0.0151	1038.95	6.90	12.04	0.0078	1039.89	0.00	-	-	HW Half He
			7.73	3.07									1037.68				1038.98	1041.20			0.015
2	3		22.43	7.43	51.70	2.50	2.49	18.6	18.5	24	75.0	0.0104	1035.93	7.23	21.51	0.0089	1037.59	0.00	-	-	HW Half He
			30.16	10.50									1035.15				1036.92	1041.20			0.015
3	5		0.00	0.00	51.87	2.49	2.49	26.2	26.1	30	56.0	0.0100	1034.53	7.92	38.24	0.0054	1036.39	1041.20	4.81	4.17	MH 3
			30.16	10.50									1033.97				1036.09	1040.82			0.015
10	5		0.11	0.09	10.00	6.01	6.00	0.5	0.5	12	9.0	0.0100	1036.87	2.98	3.32	0.0003	1037.44	1040.21	2.77	2.34	CB 3A
			30.27	10.59									1036.78				1037.43	1040.82			0.015
4	9		4.48	1.68	25.90	3.86	3.84	6.5	6.5	18	72.0	0.0101	1036.02	5.63	9.86	0.0050	1036.95	0.00	-	-	HW Half He
			34.75	12.27									1035.29				1036.53	1040.40			0.015
8	8A		0.00	0.00	10.00	6.01	6.01	0.0	0.0	12	71.0	0.0068	1035.39	0.00	2.73	0.0000	1035.41	1038.73	3.32	2.34	MH 3
			34.75	12.27									1034.91				1035.41	1039.79			0.015
8A	9		0.12	0.10	10.00	6.01	3.79	0.6	0.4	12	32.0	0.0394	1034.16	4.95	6.59	0.0002	1034.96	1039.79	4.83	4.63	CB 3A
			34.87	12.37									1032.90				1034.95	1040.40			0.015
9	5		0.00	0.00	26.11	3.84	3.79	6.8	6.7	24	155.0	0.0040	1033.90	4.05	13.34	0.0012	1034.95	1040.40	5.45	4.50	MH 3
			34.87	12.37									1033.28				1034.74	1040.82			0.015

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JUNCTION From	JUNCTION To	STATION From To	ΔAREA ΣAREA (acres)	ΔCA ΣCA	BEGIN TIME (min.)	RAINFALL INTENSITY (25 yrs.)	RAINFALL INTENSITY (25 yrs.)	DISCHARGE (cfs.) (25 yrs.)	DISCHARGE (cfs.) (25 yrs.)	PIPE DIAM. (in.)	PIPE LENGTH (ft.)	PIPE SLOPE (ft./ft.)	F/L PIPE IN / OUT (ft.)	MEAN VEL (fps.)	JUST FULL CAPACITY (cfs.)	FRICT SLOPE (ft./ft.)	HYGR EL. IN / OUT (ft.)	COVER IN / OUT (ft.)	COVER MINUS HY GR	COVER MINUS CROWN	INLET TYPE MANNING'S 'n'
5	6		0.00 34.87	0.00 12.37	51.99	2.49	2.48	30.8	30.7	36	86.0	0.0040	1032.28 1031.94	5.77	39.10	0.0028	1034.58 1034.34	1040.82 1040.11	6.24	5.54	MH 3 0.015
17	7		0.00 34.87	0.00 12.37	10.00	6.01	6.01	0.0	0.0	12	41.0	0.0076	1035.00 1034.69	0.00	2.89	0.0000	1035.19 1035.19	1038.09 1038.64	2.90	2.09	CB 3A 0.015
6	7		0.00 34.87	0.00 12.37	52.24	2.48	2.47	30.7	30.5	36	145.0	0.0040	1031.94 1031.36	5.80	39.33	0.0028	1034.16 1033.76	1040.11 1038.64	5.95	5.17	MH 3 0.015
7	18		0.00 34.87	0.00 12.37	52.66	2.47	2.47	30.5	30.5	36	33.0	0.0039	1031.36 1031.23	5.75	39.03	0.0028	1033.72 1033.62	1038.64 0.00	4.92	4.28	MH 3 0.015