COSTCO STONEY CREEK FORUM LANDS
STORM SEWER DESIGN
WITH
10 Yr. STORM

Q = CIA/K
K = Constant = 360
C = Runoff Coef.
i = Rainfall Intensity
A = Area (ha)

CONSULTANT WSP Canada Inc.
PROJECT Costco Stoney Creek Forum Lands
PROJECT NO. CA0059190.9392

FILE NO.
Date 15-Apr-26

Rainfall Intensity Constants

	10 YR
a	1343.7
b	9.000
c	0.814

Notes	U/S MH	D/S MH	LENGTH (m)	AREA ID	AREA (ha)	CUMUL AREA (ha)	RUN OFF COEF.	CA	CUMUL CA	INT. (I 10) (mm/hr)	FLOW (Q10) (m^3/s)	CONTROLLED FLOW (QC) (m^3/s)	TOTAL FLOW (m^3/s)	PIPE DIA. (mm)	ACTUAL PIPE DIA. (mm)	SLOPE (%)	CAPACITY (m^3/s)	VELOCITY (m/s)	SECTION TIME (min)	ACCUM TIME (min)	INLET TIME (min)
	CB1	CBMH2	39.1	1	0.12	0.12	0.90	0.11	0.11	122.292	0.037	-	0.037	300.00	304.80	0.5	0.071	0.978	0.67	10.67	10.00
	CBMH2	CBMH3	39.1	2	0.16	0.28	0.90	0.14	0.25	118.903	0.083	-	0.083	375.00	381.00	0.5	0.129	1.134	0.57	11.24	10.67
	CBMH3	CBMH4	38.6	3	0.16	0.44	0.90	0.14	0.40	116.151	0.128	-	0.128	450.00	457.20	0.5	0.210	1.281	0.50	11.74	11.24
	CB5	CB4	39.6	5	0.03	0.03	0.59	0.02	0.02	122.292	0.006	-	0.006	200.00	203.20	0.5	0.024	0.746	0.88	10.88	10.00
	CB4	CB3	39.1	6	0.04	0.07	0.72	0.03	0.05	117.846	0.015	-	0.015	200.00	203.20	0.5	0.024	0.746	0.87	11.76	10.88
	CB3	CB2	38.7	7	0.04	0.11	0.72	0.03	0.08	113.797	0.024	-	0.024	250.00	254.00	0.4	0.039	0.774	0.83	12.59	11.76
	CB2	CBMH4	26.0	8	0.06	0.17	0.61	0.04	0.11	110.211	0.034	-	0.034	300.00	304.80	0.3	0.055	0.757	0.57	13.16	12.59
	CBMH4	OGS	4.8	4	0.22	0.83	0.90	0.20	0.71	107.888	0.212	-	0.212	525.00	533.40	0.5	0.317	1.420	0.06	13.22	13.16
	OGS	STM TANK INLET	4.3		0.00	0.83	0.00	0.00	0.71	107.663	0.211	-	0.211	525.00	533.40	0.5	0.317	1.420	0.05	13.27	13.22
**Controlled release rate from Stormwater Storage Tank. The 150mm DIA. Pipe has been designed using PCSWMM see SWM report for additional details.	STM TANK OUTLET	STMH1	15.9		0.00		0.00	0.00	0.00	122.292	0.000	0.020	0.020	150.00	152.40	1.9	0.022	1.201	0.22	10.22	10.00
	STMH1	EX. STM MH29	21.2		0.00		0.00	0.00	0.00	121.150	0.000	0.020	0.020	150.00	152.40	0.6	0.012	0.675	0.52	10.74	10.22
**Design flows as per Costco Stoney Creek design sheet dated April 17, 2014	EXISTING COSTCO FLOWS	EX. STM MH29	30.5		6.38				5.29	98.730	1.453		1.453	600.00	609.60	0.5	0.453	1.552	0.33	16.44	16.11
** Existing 375mm dia. Orifice pipe to limit total flow to allowable release rate as per original design conditions.	EX. STM MH29	EX. STM MH8	56.5									0.325	0.325	375.00	381.00	0.6	0.142	1.243	0.76	17.19	16.44