MISSISSAUGA Transportation and Works

STORM DRAINAGE DESIGN CHART FOR OPEN CHANNELS

DEVELOPMENT _____

CONSULTANT _____

MAJOR DRAINAGE AREA _____

SHEET No. ____ OF ____

DESIGNED BY _____

CHECKED BY _____

DATE _____

Units	Symbol	Description
	LOCATION OF SITE	
ha	A_A	CONTRIBUTARY AREA
	C_A	RUNOFF COEFFICIENT
	$A_A \times C_A$	AREA TIMES RUNOFF COEFFICIENT
ha	$A = \sum A_A$	ACCUMULATIVE AREA DRAINED BY SECTION
	$A \times C = \sum A_A \times C_A$	ACCUMULATIVE AREA TIMES RUNOFF COEFFICIENT FOR SECTION
min	tc_F	FLOW TIMES TO SECTION FROM EXTREME UPSTREAM INLET
min	tc_i	INTIAL TIME OF CONCENTRATION AT EXTREME UPSTREAM INL.
min	$tc = tc_F + tc_i$	TIME OF CONCENTRATION UPSTREAM END OF SECTION
$\frac{mm}{hr}$	I	INTENSITY OF RAINFALL
$\frac{m^3}{sec}$	$Q = \frac{IAC}{360}$	QUANITY OF FLOW TO BE ACCOMMODATED IN SECTION
		DESCRIPTION OF CHANNEL
$\frac{m}{m}$	n	MANNINGS ROUGHNESS COEFFICIENT
	s	SLOPE
m	d	DEPTH
m^2	a	AREA OF FLOW
m	P	WETTED PERIMETER
m	$R = \frac{a}{P}$	HYDRAULIC RADIUS
$\frac{m}{sec}$	$V = \frac{1}{n} \times R^{\frac{2}{3}} S^{\frac{1}{2}}$	VELOCITY OF FLOW
$\frac{m^3}{s}$	Q	CAPACITY
m	L	LENGTH OF SECTION
m		INVERT OF CHANNEL AT UPSTREAM END OF SECTION
m		INVERT OF CHANNEL AT DOWNSTREAM END OF SECTION
min	$t = \frac{L}{v \times 60}$	TIME OF FLOW IN SECTION

STANDARD No. 2112.020