

Stormwater Detention Calculations

I. GENERAL SITE DATA

A. Contributing Watershed: A= **0.0533517** acres
or 2,324 SF

B. Existing Site Conditions

Existing Roof:	1,203 SF	C=	0.95
Existing Pavement:	160 SF	C=	0.95
Lawn/Rain Garden Area:	961 SF	C=	0.15

C. Proposed Average Coefficient of Imperviousness (C)

Existing Building Footprint:	1,203	x	0.95	=	1142.85	
Existing Pavement:	160	x	0.95	=	152	
Lawn/Rain Garden Area	961	x	0.15	=	<u>144.15</u>	
					1,439	/ 2324 0.62

(Soils: FOX < 4% slope, Type B)

D. Allowable Outflow (Qa) (for detention sizing- 100 yr. Storm event)

Qa=.15 cfs x 0.0533517 acres = 0.0080028 cfs

III FIRST FLUSH COMPUTATIONS(.5 " over site) (to satisfy Washtenaw County Drain Commissioner's req.)

V= 1815.0 x **0.053351699** x 0.62 = **59.9583333 cu.ft.**

V VOLUME CALCULATIONS:

Elevation	Surface Area	(Surface Area + Surface Area) x Depth 2	Accum. Volume
0.00 bottom el (0")	43 SF		
		20 CF	20 CF
0.00 top el (3")	115 SF		
		42 CF	61 CF
0.00 limit of disturbance (6")	218 SF		