

Stormwater Detention Calculations

I. GENERAL SITE DATA

A. Contributing Watershed: A= **0.06030762** acres
or 2,627 SF

B. Existing Site Conditions

Existing Roof:	744 SF	C=	0.95
Existing Pavement:	1,150 SF	C=	0.95
Lawn/Rain Garden Area:	733 SF	C=	0.15

C. Proposed Average Coefficient of Imperviousness (C)

Existing Building Footprint:	744	x	0.95	=	706.8
Existing Pavement:	1,150	x	0.95	=	1092.5
Lawn/Rain Garden Area	733	x	0.15	=	<u>109.95</u>
(Soils: FOX < 4% slope, Type B)					<u>1,909</u> / 2627
					0.73

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

Qa=.15 cfs x 0.06030762 acres = 0.0090461 cfs

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

V= 1815.0 x **0.060307622** x 0.73 = **79.5520833 cu.ft.**

V VOLUME CALCULATIONS:

Elevation	Surface Area	(Surface Area + Surface Area) x Depth 2	Accum. Volume
792.00 bottom el (0")	3 SF	10 CF	10 CF
792.25 bottom el (0")	74 SF	28 CF	38 CF
792.50 top el (3")	153 SF	43 CF	81 CF
792.75 limit of disturbance (6")	189 SF		