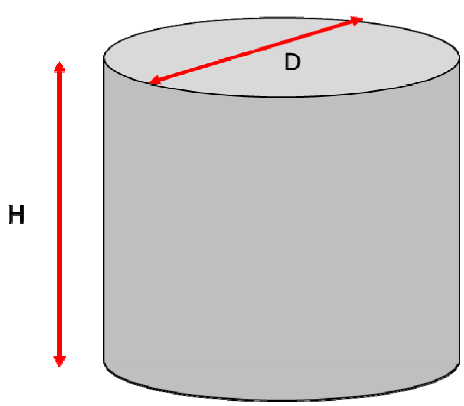
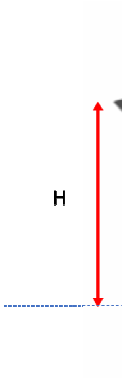
Stormwater Claculations - 90 Walnut Road, Bickley

Date of Calculation			
Design Storm Event	5%		
Suburb	Bickley		
	Area		C
Roof area	580	m^2	0.85
Connected paved area	300	m^2	0.9
Pervious and unconnected paved area	156445	m^2	0.15
Soil Type (from SSE)	Custom		
Permission to connect to council drainage?	No		
Soakwell or open drain or basin	Basin		

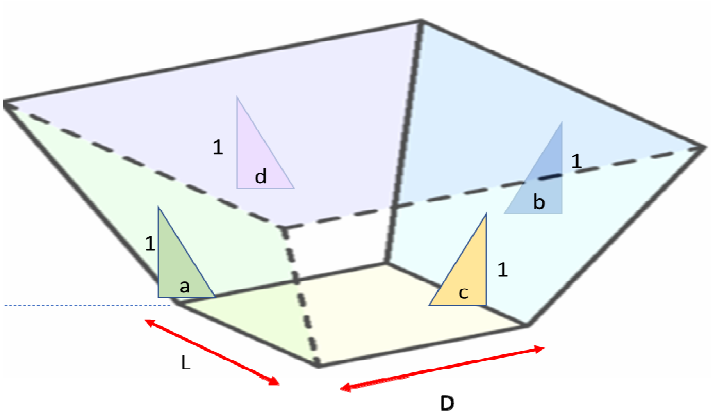
Length	L	12	
Batter slope a	a	2	
Batter slope b	b	2	
Batter slope c	c	2	
Batter slope d	d	2	
Height	H	0.3	
Base Width	D	4.5	
kh (m/s)	kh	3.1713E-05	
Modification Factor	U	1	
Overland flow path length	L	396.64	
Manning's roughness value	n	0.09	
Slope of overland flow path	S	0.1	
	$t_c I^{0.4}$	118.29	
Time of Concentration	t_c	26	
Emptying time - infiltration only		4.11	hrs
Emptying time - orifice only		#DIV/0!	hrs
Volume to be retained/detained		18.22	
Number of Soakwells		0.94	
Critical storm duration		120.0	

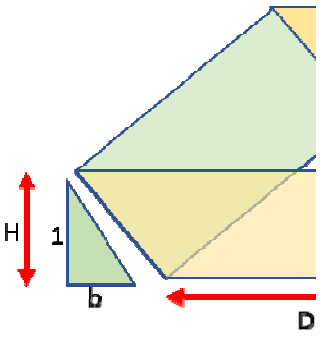

D
H


H

Hydraulic conductivity and Moderation Factor

	kh	U
Sandy soil	0.00005	0.5
Sandy clay	1.00E-05	1
Medium Clay and some rock	1.00E-06	2
Heavy clay	1.00E-08	2
Constructed clay	1.00E-08	2
No Infiltration	0.00E+00	2
Custom	3.1713E-05	1

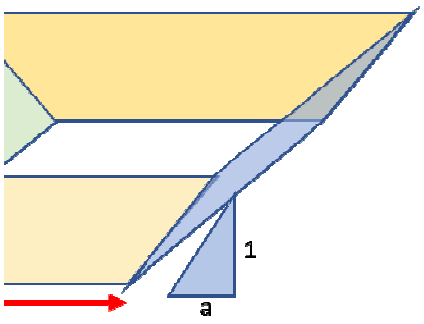




Emptying time

- "leaky" wells :

$$T = -\frac{4.6D}{4k_h}\log_{10}\left[\frac{\frac{D}{4}}{H+\frac{D}{4}}\right], s$$



(3.30)