REF : E10914-26449-calcs.XLS

STORMWATER DESIGN CALCULATIONS

16 MELWOOD AVENUE

FORESTVILLE

1.0 Detention System Requirements

Proposed Residence
16 MELWOOD AVENUE
FORESTVILLE

REF : E10914-26449-calcs.XLS

1.1 Storage-Area calcs. 11064

DATA:

Site Area Assessed due to easements
Site Area = **0.0921** ha 921 sq.m
OSD exemption if less than 450sqm or less than 40% site coverage
40% of site area = 368.4 sq.m

Impervious Area Pre Development = 307.69 sqm
Percentage Impervious Pre Development = 33%
Impervious Area POST Development = 464.51 sqm
Percentage Impervious POST Development = 50%
OSD Exemption Not Applicable

Catchment directed through OSD = 657 sqm OK 71.3 %

OSD Bypass Areas :			
	Impervious	92 sqm	34.8 %
	Pervious	172 sqm	65.2 %
	Total	264 sqm	29 %

Impervious area bypass 19.8 % OK
Bypass - discharge - 13.2 L/s

Detention A

Volume Required 18.42 cu.m 200cum/ha
Total Area 333.33 sq.m

Twin Orifice Dia. = 86 mm Q=d^2*sqrt(h)/0.48
Invert of pit = 127.21 m d=sqrt((0.48*Q)/sqrt(h))
Max. Water Level achieved = 127.81 m
Storage achieved 2852 L

Minimum Storage **18420** L - SSR with no modelling.
Maximum Discharge **23.6** L/s - PSD 400L/s/ha
Proposed Discharge 22.7 L/s - PSD **OK**

Basix Allowance

Raintank Basix = 9200 L
Raintank Provided = 9200 L
50% of OSD = 9210 L
Basin Type Above Ground Basin
Net OSD required **11064 L**