ISC

STORMWATER DESIGN CALCULATIONS

29 CURRONG CIRCUIT

TERREY HILLS

1.0 Detention System Requirements

Proposed Residence
29 CURRONG CIRCUIT
TERREY HILLS

REF : C10162-14901-calcs-A.xls
Rev. B

1.1 Storage-Area calcs.

DATA:

Site Area Assessed due to easements

Site Area =	**0.0763** ha	763 sq.m	

OSD exemption if less than 450sqm or less than 40% site coverage

40% of site area = 305.2 sq.m

Impervious Area Pre Development =	477.1	sqm
Percentage Impervious Pre Development =	63%	
Impervious Area POST Development =	448.26	sqm
Percentage Impervious POST Development =	59%	

OSD Exemption Not Applicable

Catchment directed through OSD =	339.02	sqm	44.4 %

OSD Bypass Areas :	Impervious	109.24 sqm	25.8 %
	Pervious	314.74 sqm	74.2 %
	Total	423.98 sqm	56 %

Impervious area bypass   24.4 % Not OK

Bypass - discharge -   20.5 L/s

Exemption sought due to exisiting pool retained.

Detention A

Volume Required	15.26 cu.m	200cum/ha
Total Area	45.28 sq.m	

Orifice Dia. =	80 mm	Q=d^2*sqrt(h)/0.48
Invert of pit =	203.45 m	d=sqrt((0.48*Q)/sqrt(h))
Max. Water Level achieved =	204.00 m	
Storage achieved	10195 L	

Minimum Storage	**15260** L - SSR with no modelling.	
Maximum Discharge	**10.0** L/s - PSD	400L/s/ha
Proposed Discharge	9.6 L/s - PSD **OK**	

Basix Allowance

Raintank Basix =	5075 L	
Raintank Provided =	5075 L	
50% of OSD =	7630 L	
Basin Type	Below Ground Tank	
Net OSD required	**10185 L**	