REF : C11695-16934-calcs.XLS

STORMWATER DESIGN CALCULATIONS

22 BIRRONG AVENUE

BELROSE

1.0 Detention System Requirements

Proposed Residence   REF : C11695-16934-calcs.XLS
22 BIRRONG AVENUE
BELROSE

1.1 Storage-Area calcs.   7709

DATA:

Site Area Assessed due to easements

Site Area =	**0.0703** ha	702.9 sq.m	

OSD exemption if less than 450sqm or less than 40% site coverage
40% of site area =   281.16 sq.m

Impervious Area Pre Development =	232.4	sqm
Percentage Impervious Pre Development =	33%	
Impervious Area POST Development =	347.14	sqm
Percentage Impervious POST Development =	49%	

OSD Exemption Not Applicable

Catchment directed through OSD =   282.15 sqm   OK 40.1 %

OSD Bypass Areas :	Impervious	64.99 sqm	15.4 %
	Pervious	355.76 sqm	84.6 %
	Total	420.75 sqm	60 %

Impervious area bypass   18.7 % OK
Bypass - discharge -   19.6 L/s

Detention A

Volume Required	14.06 cu.m	200cum/ha
Total Area	8.12 sq.m	

Orifice Dia. =	65 mm	Q=d^2*sqrt(h)/0.48
Invert of pit =	137.03 m	d=sqrt((0.48*Q)/sqrt(h))
Max. Water Level achieved =	137.99 m	
Storage achieved	957 L	

Minimum Storage	**14058** L - SSR with no modelling.	
Maximum Discharge	**8.6** L/s - PSD	400L/s/ha
Proposed Discharge	8.4 L/s - PSD **OK**	

Basix Allowance

Raintank Basix =	6349 L	
Raintank Provided =	6349 L	
50% of OSD =	7029 L	
Basin Type	Inside Raintank	
Net OSD required	**7709 L**	