



REF : C11165-16047-calcs.XLS

STORMWATER DESIGN CALCULATIONS

11 GREENDALE AVENUE

FRENCHS FOREST

1.0 Detention System Requirements

Proposed Residence
11 GREENDALE AVENUE
FRENCHS FOREST

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1.1 Storage-Area calcs.

7750

DATA:

Site Area Assessed due to easements

Site Area = 0.0720 ha 720 sq.m

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

40% of site area = 288 sq.m

Impervious Area Pre Development = 294.15 sqm

Percentage Impervious Pre Development = 41%

Impervious Area POST Development = 312.6 sqm

Percentage Impervious POST Development = 43%

OSD Exemption Not Applicable

Catchment directed through OSD = 256 sqm OK 35.6 %

OSD Bypass Areas :	Impervious	56.6 sqm	12.2 %
	Pervious	407.4 sqm	87.8 %
	Total	464 sqm	64 %

Impervious area bypass 18.1 % OK

Bypass - discharge - 21.3 L/s

Detention A

Volume Required 14.40 cu.m 200cum/ha

Total Area 8.46 sq.m

Orifice Dia. = 61 mm $Q = d^2 \cdot \sqrt{h} / 0.48$

Invert of pit = 157.10 m $d = \sqrt{0.48 \cdot Q / \sqrt{h}}$

Max. Water Level achieved = 158.05 m

Storage achieved 954 L

Minimum Storage 14400 L - SSR with no modelling.

Maximum Discharge 7.5 L/s - PSD 400L/s/ha

Proposed Discharge 7.4 L/s - PSD **OK**

Basix Allowance

Raintank Basix = 6650 L

Raintank Provided = 6650 L

50% of OSD = 7200 L

Basin Type Inside Raintank

Net OSD required 7750 L