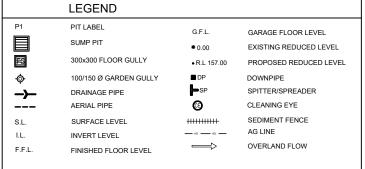


STORMWATER LAYOUT NOTES

- 1) PITS DEEPER THAN 600mm TO BE 600 X 900 W, ELSE
- 2) ALL PIPES TO HAVE 1% MIN. GRADE U.N.O.
- 3) ALL DOWNPIPES TO BE 100 X 50 BOX or 90 Ø.
- 4) PIPES TO BE U.P.V.C. OR STORMWATER PIPE TO A.S.1254.
 5) PITS TO BE STANDARD PRECAST CONCRETE PITS OR BRICK RENDERED WITH CONCRETE HEAVY DUTY GRATES SIZED AS PITS PER PLAN.
- 6) NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS.
- 7) PERSONS UTILISING THIS PLAN FOR ANY PURPOSES SHALL VERIEY THE DATUM & RESPECTIVE LEVELS PRIOR TO

- COMMENCING ANY WORKS & NOTIFY THE ENGINEER OF
- 8) DRIVEWAY LEVELS PROVIDED FOR DRAINAGE DESIGN
 PURPOSES ONLY. LEVELS MAY BE ADJUSTED TO SUIT FINAL
 HOUSE CUT/FILL CONDITIONS BUT NEED TO MAINTAIN
 INTENT OF DRAINAGE SYSTEM. ENGINEER TO BE CONSULTED
- PRIOR TO CONSTRUCTION TO ENSURE INTENT MAINTAINED.

 9) END OF EXISTING DRAINAGE LINE TO BE EXPOSED & LEVELS CONFIRMED BY BUILDER PRIOR TO COMMENCEMENT
- 10) BUILDERS TO ENSURE SERVICES CONNECTIONS TO HOUSE DO NOT CONFLICT WITH DRAINAGE DESIGN REQUIREMENTS.
- 11) ALL WORKS TO BE CONSTRUCTED TO GOOD BUILDING PRACTICE & MATERIALS TO MEET ACCEPTED SPECIFICATIONS.
- PRACTICE & WATERIALS TO WEET ACCEPTED SPECIFICATION





RAINWATER TANK AS SHOWN ON PLAN

PROVIDE A RAINWATER TANK 3000L IN CAPACITY TO SUIT ALL BASIX REQUIREMENTS. TANK TO BE CONNECTED AS SPECIFIED IN BASIX REPORT. ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEM ARE SOLVENT WELDED

ALL DOWNPIPES ARE TO BE ENTIRELY PVC. PIPES ARE TO BE SEALED UPTO U/S OF ROOF GUTTERS

ROOF GUTTERS I.L. 149.79 TANK INLET I.L. 148.71 HEAD PRESSURE - 1080mm



PIPE SCHEDULE

TAG	SIZE	MATERIAL	GRADE	DESCRIPTION
'A'	100 Ø	P.V.C	1% MIN	REGULAR GRAVITY PIPE
'B'	150 Ø	P.V.C	1% MIN	REGULAR GRAVITY PIPE
'X'	100 Ø	P.V.C	CHARGED	TO FEED RAINWATER TANK
'F'	100 Ø	P.V.C	1% MIN	FLUSHING LINE - CAPPED END
'R'	150x100	GALV RHS	1% MIN	DISCHARGE PIPE TO KERB

ON SITE DETENTION IS NOT REQUIRED AS THE SITE COVERAGE AREA IS LESS THAN 40%



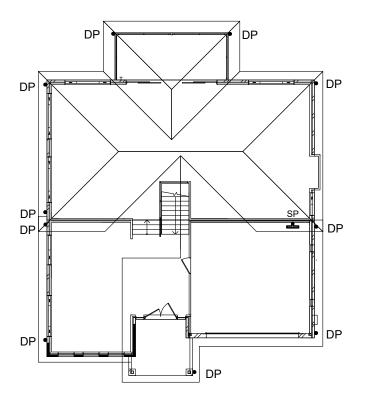
CIVIL ENGINEERING CONSULTANTS

P: 02 9802 5509
M: 0413 763 432

E: admin@alwdesign.com.au
69 DELANGE ROAD, PUTNEY NSW 2112

PROJECT: PROPOSED RESIDENTIAL DWELLING AT
LOT 8, # 45 THE ESPLANADE, FRENCHS FOREST NSW
DRAWING: SITE STORMWATER MANAGEMENT LAYOUT

DESIGNED DRAWN CHECKED: ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG
A.W N.W DRAWINGS NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY DESIGNING ENGINEER
A ISSUED FOR DEVELOPMENT APPLICATION 08/12/21

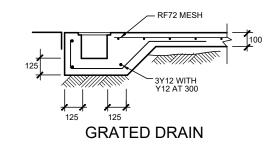


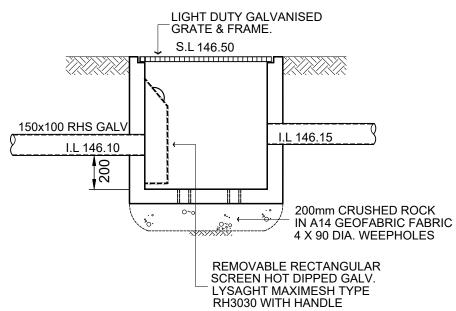
ENSURE ALL CONNECTIONS WITHIN CHARGED SYSTEM ARE SOLVENT WELDED

ALL DOWNPIPES ARE TO BE ENTIRELY PVC. PIPES ARE TO BE SEALED UPTO U/S OF **ROOF GUTTERS**

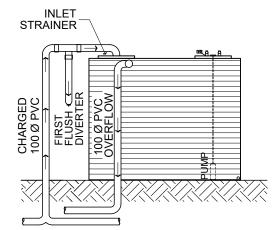
ROOF GUTTERS I.L. 149.79 TANK INLET I.L. 148.71 HEAD PRESSURE - 1080mm

ROOF & FIRST FLOOR LAYOUT

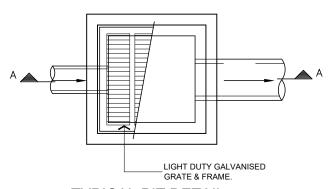




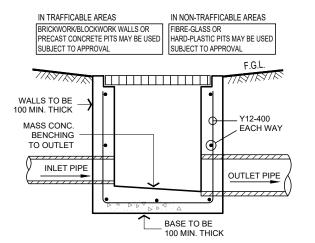
PIT P1 - 450x450



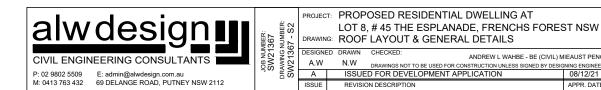
EVOLUTION MKIII RAINWATER TANK CONFIGURATION BY KINGSPAN



TYPICAL PIT DETAIL



TYPICAL SECTION A



08/12/21



On-site Stormwater Detention (OSD) Checklist For Single Dwelling Residential Developments

This form is to be used to determine if OSD will be required for demolition and reconstruction, or construction of new single dwelling residential developments and must be completed and included with the submission of any development application for these works. Please read both sides of this form carefully for its applications, guidelines and definitions.

For assistance and support, please contact Council's Customer Service Centre on (02) 9942 2111.

Address of Proposed Development					
Address of proposed development	Lot 8 DP (if applicable) No. 45 Street THE ESPLANADE Suburb FRENCHS FOREST				
PART 1 Exemption for properties that drain naturally away from the street					
Tick one only	Does the site fall naturally away from the street? Yes No No If yes, stormwater drainage must be in accordance with Council's Policy No. PDS-POL 136 'Stormwater Drainage from Low Level Properties'. If no, proceed to the next part.				
PART 2 Is the site area less than 450m ²					
Tick one only	Yes No If yes, OSD is not required. If no, proceed to next part.				
PART 3 Exemption for Direct Discharge to Ocean					
Tick one only	Does the site of the development drain directly to the ocean without the need to pass through a drainage control structure such as a pipe, bridge, culvert, kerb and gutter or natural drainage system? Yes No No If yes, OSD is not required. If no, proceed to the next part.				



PART 4 Exemption for Flood Affected Areas					
Tick one only	Is the site of the development located within an established Flood Prone Land as referred to in the Warringah Local Environmental Plan?				
	Refer to section 2.6 of Council's OSD Technical Specification.				
	Yes No No				
	If yes, OSD is not required.				
	If no, proceed to the next part.				
PART 5 Determination of OSD Requirements					
3.1 Calculations	(a) Site area 699 m² x 0.40 = 280 m²				
	(b) Proposed and remaining impervious area <u>280</u> m²				
Please view below	OSD will not be required when (a) is greater than (b)				
examples	Is OSD required for this development (tick one only) Yes No				
	If yes, then a design in accordance with the Streamlined Method in Council's OSD Technical Specification is to be provided with the Development Application (refer to Clause 3.1.1)				
	If no, OSD is not required.				
3.2 Example	If the proposed combined impervious area is greater than 40% of the site area, then OSD is required.				
	Example 1: Site Area = 600m ² Total proposed & remaining impervious area = 290m ²				
	600 x 0.4 = 240m ² (290 > 240) OSD required				
	Example 2: Site Area = 800m ² Total proposed & remaining impervious area = 290m ²				
	800 x 0.4 = 320m ² (290 < 320) OSD is not required				
DEFINITIONS					
Designed to help you fill out this application	Site area: This refers to the area of the land bounded by its existing or proposed boundaries.				
	Impervious areas: This refers to driveways, pathways, paved areas, hardstand areas, roofed areas, garages and outbuildings that are proposed and to be retained.				
	Where an existing structure is to be demolished to make way for a new dwelling, only the proposed impervious areas and remaining impervious areas are to be used in the calculations. No credit is given for existing impervious areas that are not retained.				
NOTES					
Please read before filling out this form	 Other works, ancillary buildings, commercial, industrial, subdivisions and multiple occupancy developments are to comply with Council's OSD Technical Specification. 				
	 A reduction in the OSD volume required may be permitted. Refer to Council's "OSD Rainwater Re-use Policy for Single Residential Dwellings". If OSD is required, then a design for OSD in accordance with Council's "OSD Technical Specifications" is to be provided with the development application. 				