

SITE STORMWATER
MANAGEMENT LAYOUT
SCALE 1:150/A3

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

NOTE: ALL PIT & PIPELINE LOCATIONS SHOWN ON PLAN ARE INDICATIVE. BUILDER TO DETERMINE
BEST POSITION FOR PLACEMENT WITHIN A 1m TOLERANCE OF WHAT IS SHOWN ON PLAN

DRAINAGE REQUIREMENT TO NBC POLICY

SITE AREA	= 243 m ²
MINIMUM STORAGE	= 368 m ³ /ha
MAXIMUM DISCHARGE	= 138 l/s/ha
REQUIRED STORAGE	= 8.94 m ³
PERMITTED DISCHARGE	= 3.35 l/s

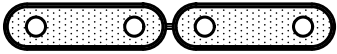
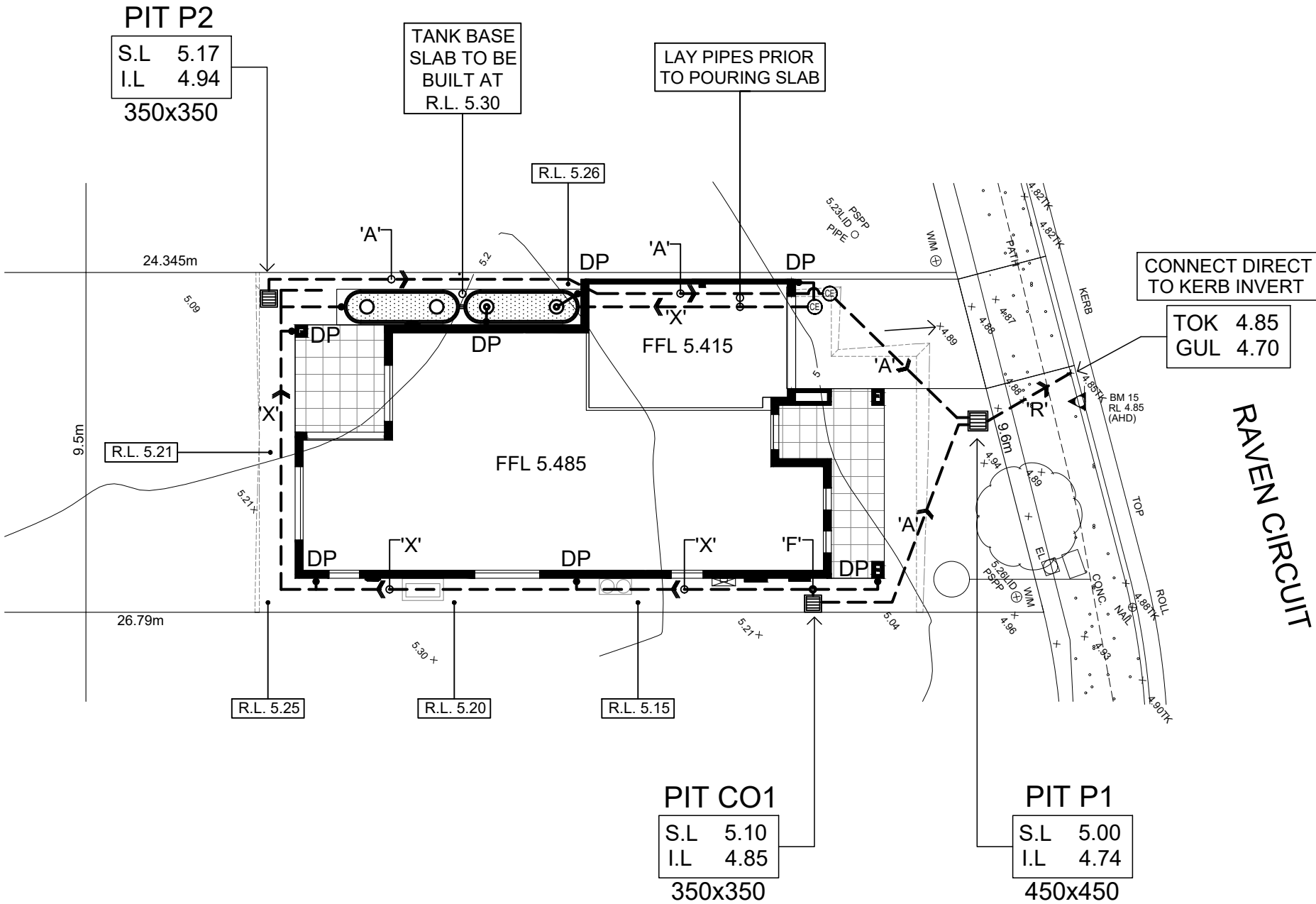
RAINWATER TANK	= 1.066 m ³
ON SITE DETENTION STORAGE	= 9.00 m ³
PROVIDED STORAGE	= 10.066 m ³
PROPOSED ORIFICE	= 36mm Ø
CONTROLLED DISCHARGE	= 3.35 l/s

STORMWATER LAYOUT NOTES

- 1) PITS DEEPER THAN 600mm TO BE 600 X 900 W, ELSE 375 SQ U.N.O.
- 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 VERIFY THE DATUM & RESPECTIVE LEVELS PRIOR TO COMMENCING ANY WORKS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 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 OF WORKS.
- 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.

LEGEND

P1	PIT LABEL	G.F.L.	GARAGE FLOOR LEVEL
	SUMP PIT	• 0.00	EXISTING REDUCED LEVEL
	300x300 FLOOR GULLY	• R.L. 157.00	PROPOSED REDUCED LEVEL
	100/150 Ø GARDEN GULLY	■ DP	DOWNPIPE
	DRAINAGE PIPE	■ SP	SPITTER/SPREADER
	AERIAL PIPE	⊙	CLEANING EYE
S.L.	SURFACE LEVEL	—	SEDIMENT FENCE
I.L.	INVERT LEVEL	— AS —	AG LINE
F.F.L.	FINISHED FLOOR LEVEL	⇒	OVERLAND FLOW



RAINWATER TANKS
AS SHOWN ON PLAN

5033L TANK DIMENSIONS (1860MM H X 3200MM L X 900MM W)

PROVIDE 2x5033L RAINWATER TANKS
CONNECTED IN ACCORDANCE
WITH THE BASIX REQUIREMENTS.

1,066L DEDICATED TO BASIX RE-USE;
9,000L DEDICATED TO OSD STORAGE

DETAILS SHOWN ON SW25347 - S2.
PROVIDE OVERFLOW TO PIT P1.

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. 8.07
TANK INLET I.L. 7.16
HEAD PRESSURE - 910mm

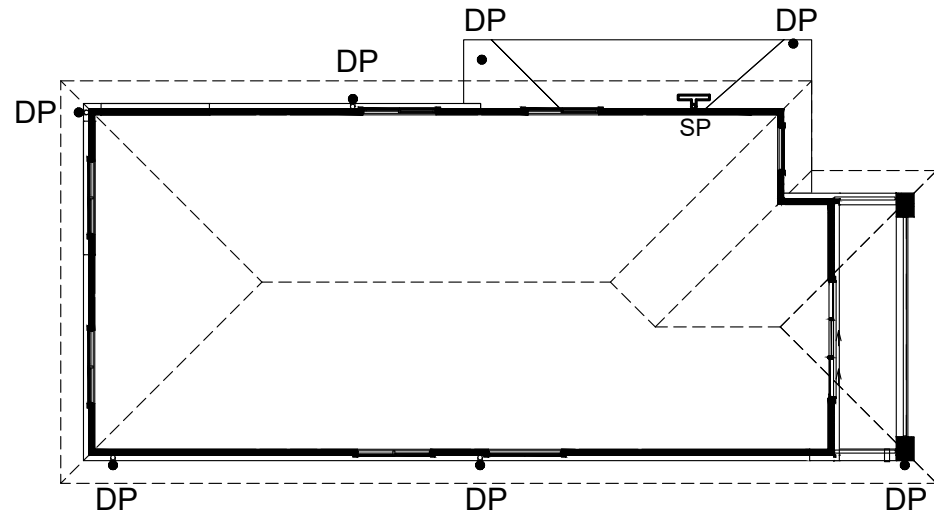
alwdesign
CIVIL ENGINEERING CONSULTANTS

P: 02 9802 5509 E: admin@alwdesign.com.au
M: 0413 763 432 69 DELANGE ROAD, PUTNEY NSW 2112

JOB NUMBER:
SW25347
DRAWING NUMBER:
SW25347 - S1

PROJECT: PROPOSED RESIDENTIAL DWELLING AT
LOT 15, # 15 RAVEN CIRCUIT, WARRIEWOOD 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	
B	ISSUED FOR DA		18/09/25
ISSUE	REVISION DESCRIPTION		APPR. DATE



GUTTER SELECTED: STRAMIT INFINITILINE QUAD GUTTER - SLOTTED;
AREA = 5200 SQ.MM

ALL DOWNPIPES TO BE 90 Ø MIN

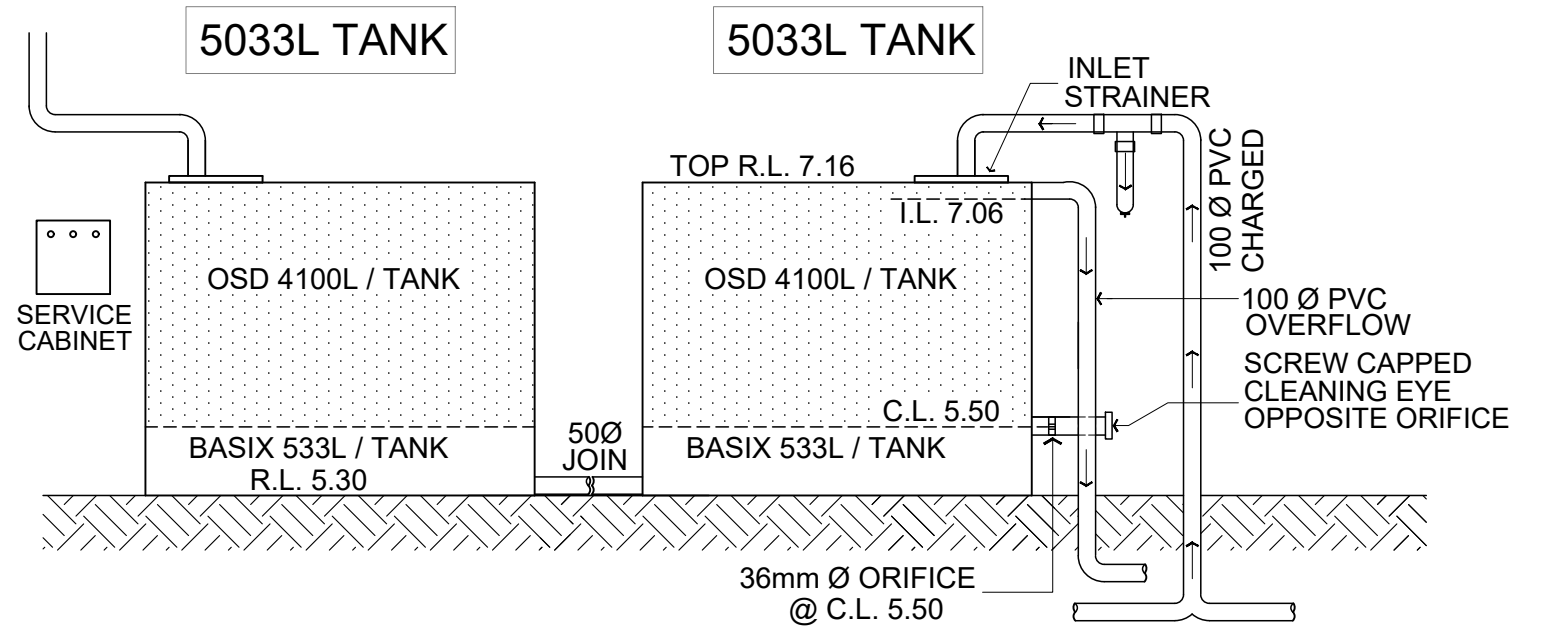
ROOF & FIRST FLOOR LAYOUT

SCALE 1:150/A3

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OSD / RAINWATER TANK CONFIGURATION

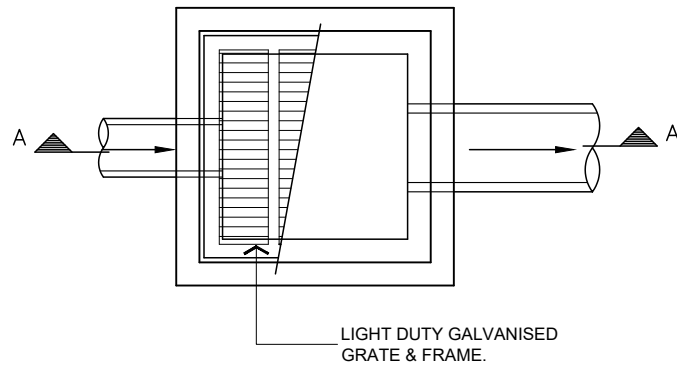
5033L TANK DIMENSIONS (1860MM H X 3200MM L X 900MM W)

ORIFICE CALCULATION

Calculate orifice diameter in 100 year event

Diameter, $d = (0.48 \times Q / h^{0.5})^{0.5}$	$Q = \text{P.S.D. (m}^3/\text{sec)}$
$d = 0.0359 \text{ m}$	$Q = 0.00335 \text{ m}^3/\text{sec}$
36 mm	$h = \text{Maximum height above orifice (m) (not HED)}$
	$= 1.56 \text{ m}$

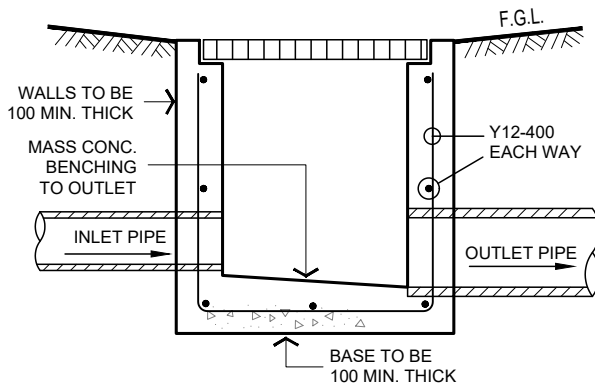
NOTE, ALL PIT SIZES SHOWN ON PLAN
REFLECT THE REQUIRED GRATE DIMENSION



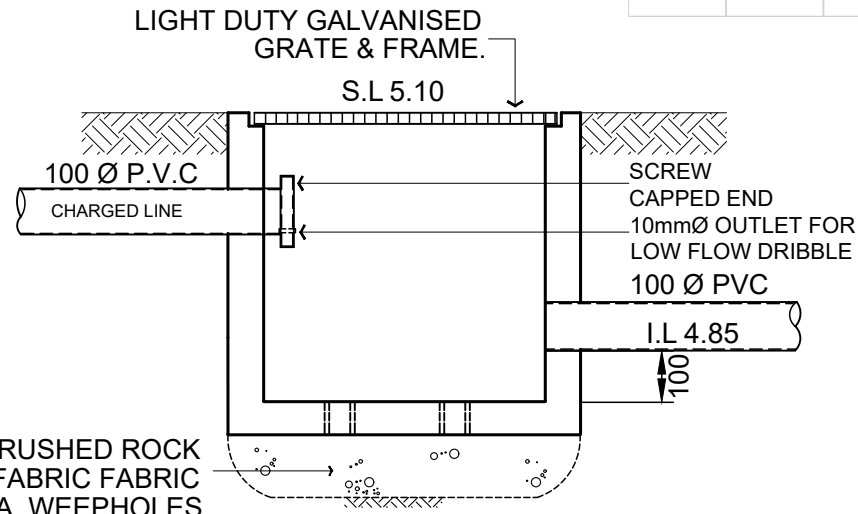
TYPICAL PIT DETAIL

IN TRAFFICABLE AREAS
BRICKWORK/BLOCKWORK WALLS OR
PRECAST CONCRETE PITS MAY BE USED
SUBJECT TO APPROVAL

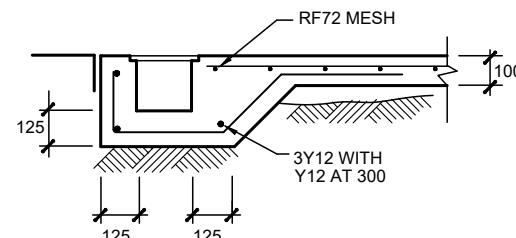
IN NON-TRAFFICABLE AREAS
FIBRE-GLASS OR
HARD-PLASTIC PITS MAY BE USED
SUBJECT TO APPROVAL



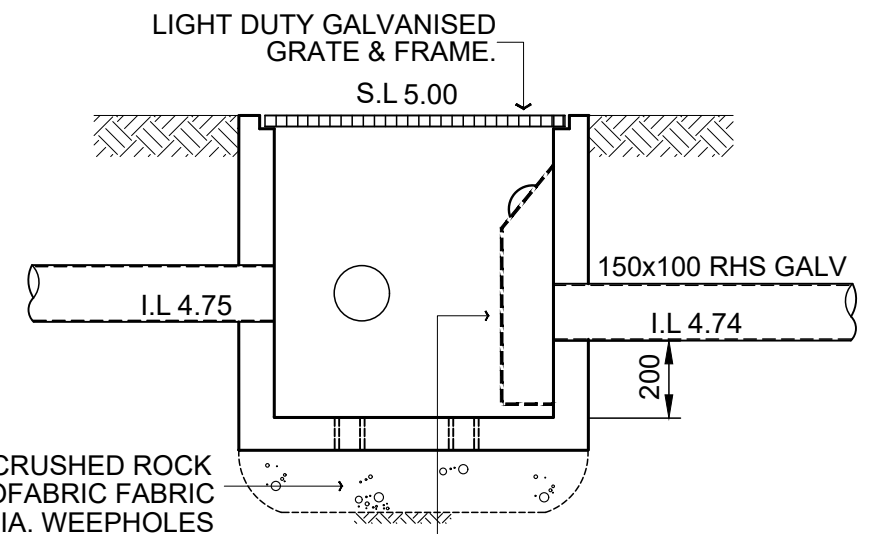
TYPICAL SECTION A



PIT CO1 - 350x350 CLEAN-OUT PIT FOR CHARGED LINE SYSTEMS



GRATED DRAIN



PIT P1 - 450x450

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LOT 15, # 15 RAVEN CIRCUIT, WARRIEWOOD NSW
DRAWING: ROOF LAYOUT & GENERAL DETAILS
DESIGNED: A.W. DRAWN: N.W. CHECKED: ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG
ISSUE: B. ISSUED FOR DA. 18/09/25
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