

DRAINAGE REQUIREMENT TO NBC POLICY	
SITE AREA	= 220 m2
MINIMUM STORAGE	= 368 m3/ha
MAXIMUM DISCHARGE	= 138 l/s/ha
REQUIRED STORAGE	= 8.10 m3
PERMITTED DISCHARGE	= 3.04 l/s
RAINWATER TANK	= 2.00 m3
ON SITE DETENTION STORAGE	= 8.18 m3
PROVIDED STORAGE	= 10.18 m3
PROPOSED ORIFICE	= 36mm Ø
CONTROLLED DISCHARGE	= 3.04 l/s

STORMWATER LAYOUT NOTES	
1) PITS DEEPER THAN 600mm TO BE 600 X 900 W, ELSE 375 SQ U.N.O.	COMMENCING ANY WORKS & NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2) ALL PIPES TO HAVE 1% MIN. GRADE U.N.O.	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.
3) ALL DOWNPIPES TO BE 100 X 50 BOX OR 90 Ø.	9) END OF EXISTING DRAINAGE LINE TO BE EXPOSED & LEVELS CONFIRMED BY BUILDER PRIOR TO COMMENCEMENT OF WORKS.
4) PIPES TO BE U.P.V.C. OR STORMWATER PIPE TO A.S.1254.	10) BUILDERS TO ENSURE SERVICES CONNECTIONS TO HOUSE DO NOT CONFLICT WITH DRAINAGE DESIGN REQUIREMENTS.
5) PITS TO BE STANDARD PRECAST CONCRETE PITS OR BRICK RENDERED WITH CONCRETE HEAVY DUTY GRATES SIZED AS PITS PER PLAN.	11) ALL WORKS TO BE CONSTRUCTED TO GOOD BUILDING PRACTICE & MATERIALS TO MEET ACCEPTED SPECIFICATIONS.
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	

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**

5092L TANK DIMENSIONS: 1150W X 2600L X 1785H

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. 6.95  
HEAD PRESSURE - 1120mm

PROVIDE 2x5092L RAINWATER TANKS  
CONNECTED IN ACCORDANCE  
WITH THE BASIX REQUIREMENTS.

2,000L DEDICATED TO BASIX RE-USE;  
8,184L DEDICATED TO OSD STORAGE

DETAILS SHOWN ON SW25086 - S2.  
PROVIDE OVERFLOW TO PIT P2.

# 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

CIVIL ENGINEERING CONSULTANTS

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69 DELANGE ROAD, PUTNEY NSW 2112

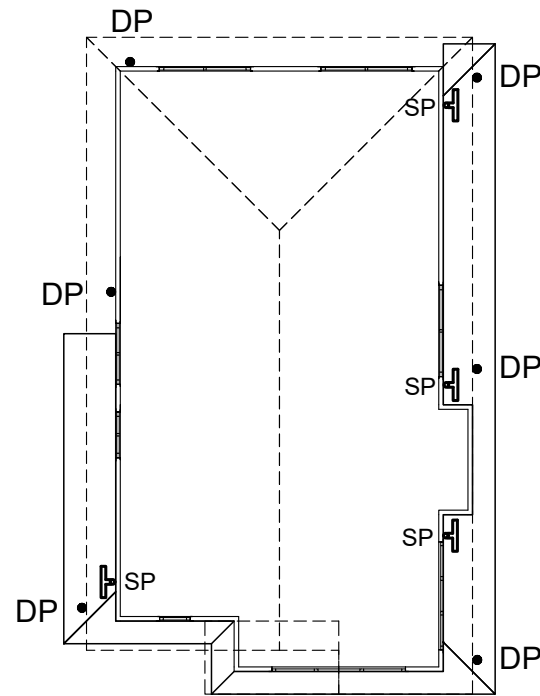
JOB NUMBER:  
SW25086

DRAWING NUMBER:  
SW25086 - S1

PROJECT: PROPOSED RESIDENTIAL DWELLING AT  
LOT 14, # 14 RAVEN CIRCUIT, WARRIEWOOD NSW

DRAWING: SITE STORMWATER MANAGEMENT LAYOUT

DESIGNED	DRAWN	CHECKED:	ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG
A.W	N.W		
ISSUED FOR DEVELOPMENT APPLICATION			14/03/25
ISSUE	REVISION DESCRIPTION		APPR. DATE



ENSURE ALL CONNECTIONS  
WITHIN CHARGED SYSTEM  
ARE SOLVENT WELDED

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

ROOF GUTTERS I.L. 8.07  
TANK INLET I.L. 6.95  
HEAD PRESSURE - 1120mm

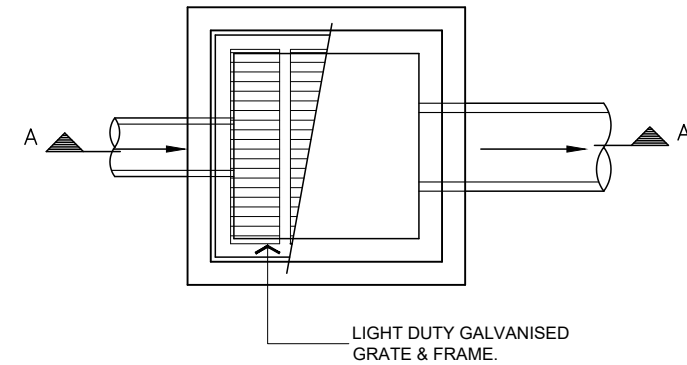
GUTTER SELECTED: LYSAGHT QUAD 115 HI FRONT NSW SLOTTED;  
AREA = 5225 SQ.MM

ALL DOWNPIPES TO BE 90 Ø MIN

# ROOF & FIRST FLOOR LAYOUT

SCALE 1:150/A3

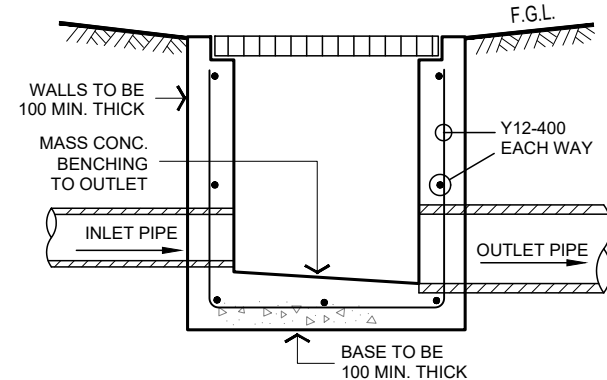
NOTE, ALL PIT SIZES SHOWN ON PLAN  
REFLECT THE REQUIRED GRATE DIMENSION



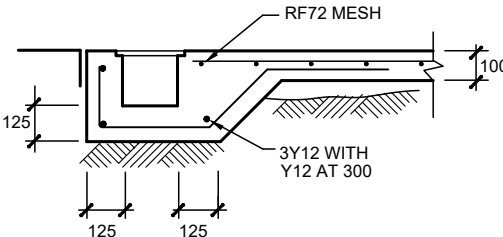
TYPICAL PIT DETAIL

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

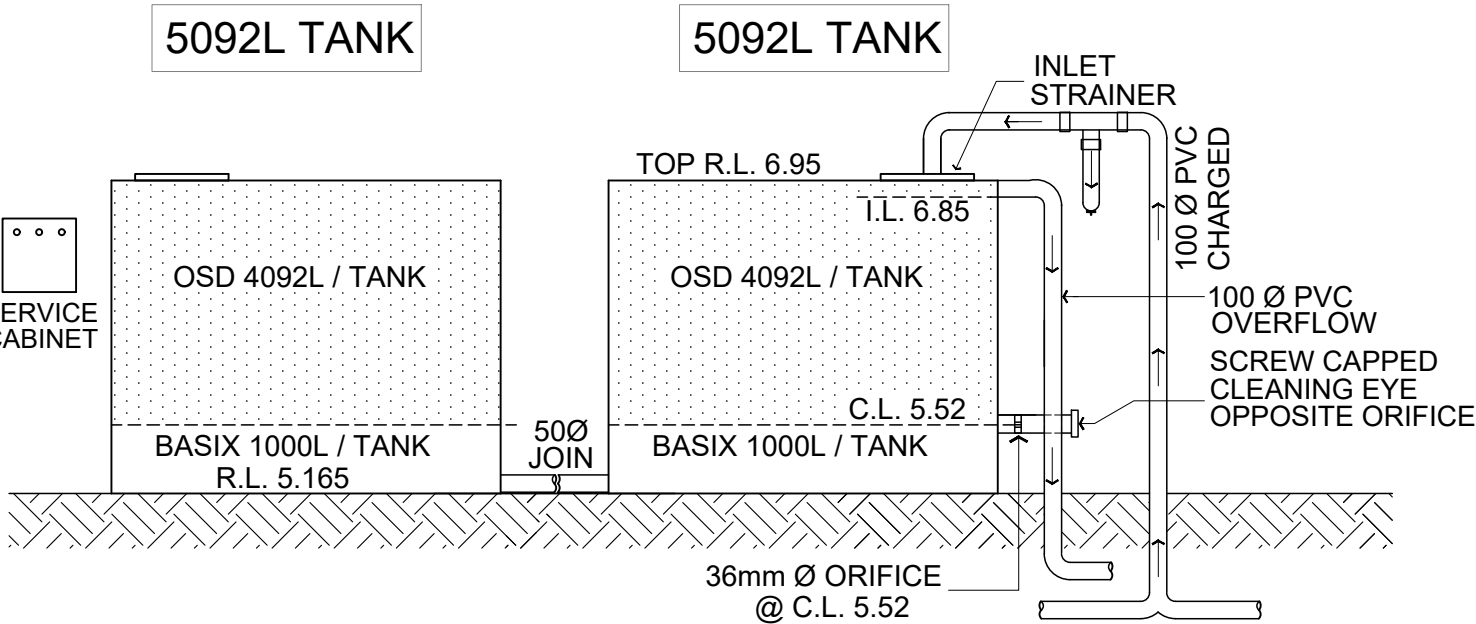
IN NON-TRAFFICABLE AREAS  
FIBRE-GLASS OR  
HARD-PLASTIC PITS MAY BE USED  
SUBJECT TO APPROVAL



TYPICAL SECTION A



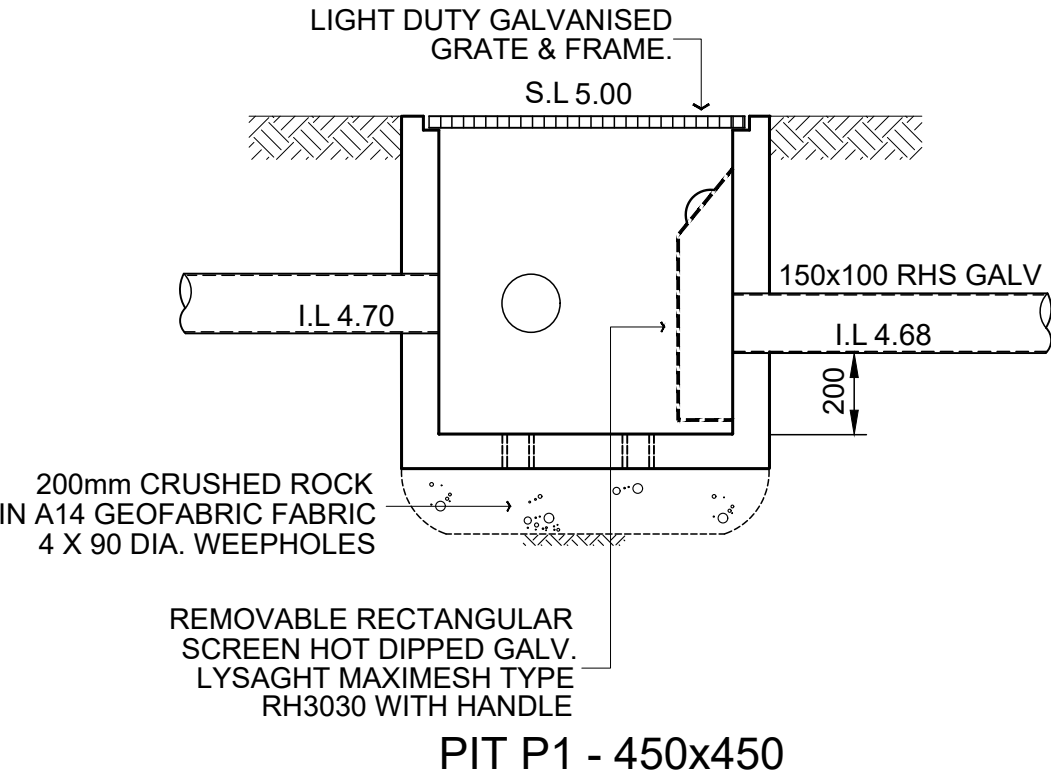
GRATED DRAIN



# OSD / RAINWATER TANK CONFIGURATION

5092L TANK DIMENSIONS: 1150W X 2600L X 1785H

ORIFICE CALCULATION			
Calculate orifice diameter in 100 year event			
Diameter, $d = (0.48 \times Q / h^{0.5})^{0.5}$	Q = P.S.D. (m3/sec)		
d= 0.0356 m	Q = 0.00304 m3/sec		
36 mm	h= Maximum height above orifice (m) (not HED)		
	= 1.33 m		



PIT P1 - 450x450

**alwdesign**  
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JOB NUMBER:  
SW25086  
DRAWING NUMBER:  
SW25086 - S2

PROJECT: PROPOSED RESIDENTIAL DWELLING AT  
LOT 14, # 14 RAVEN CIRCUIT, WARRIEWOOD NSW  
DRAWING: ROOF LAYOUT & GENERAL DETAILS

DESIGNED	DRAWN	CHECKED	DATE
A.W	N.W	ANDREW L WAHBE - BE (CIVIL) MIEAUST PENG	14/03/25
DRAWINGS NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY DESIGNING ENGINEER			
A	ISSUED FOR DEVELOPMENT APPLICATION		14/03/25
ISSUE	REVISION DESCRIPTION		APPR. DATE