

PROPOSED NEW DWELLING HOUSE

12 HUBERT STREET, FRESHWATER NSW 2096

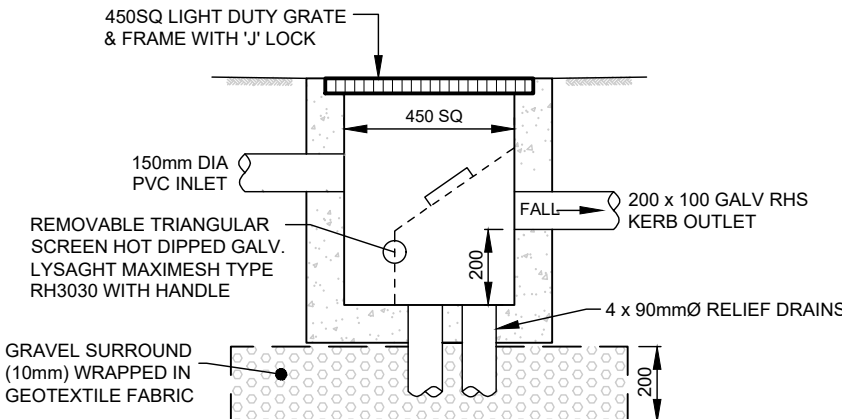
STORMWATER MANAGEMENT DESIGN

GENERAL DRAINAGE NOTES

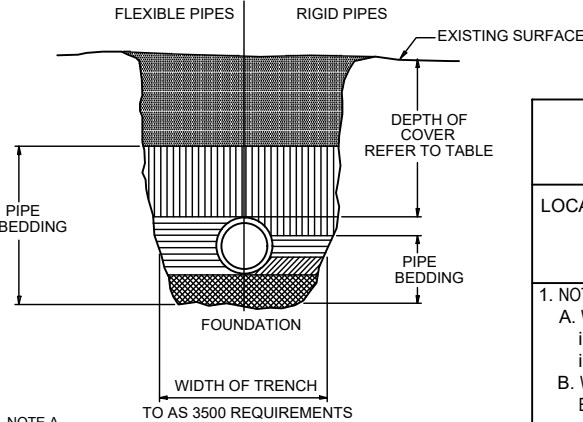
1. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL'S RELEVANT SPECIFICATIONS AND/OR STORMWATER CODE. ANY DISCREPANCY VARIATION OR ADDITIONAL WORK SHALL BE APPROVED BY THE PRINCIPAL CERTIFIER.
2. ALL SERVICES SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. DIAL BEFORE YOU DIG SHALL BE CONTACTED PRIOR TO COMMENCEMENT.
4. ALL DRAINAGE PIPEWORK AND PLUMBING SHALL BE INSTALLED BY A CERTIFIED PLUMBER IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS3500 AND COUNCIL REQUIREMENTS.
5. ALL DRAINAGE PIPES ARE TO BE SEWER GRADE UNLESS NOTED OTHERWISE.
6. ALL COVERS, GRATES AND FRAMES ARE TO BE CLASS C HEAVY DUTY WHERE SUBJECT TO VEHICULAR TRAFFIC.
7. ALL COVERS, GRATES AND FRAMES ARE TO BE CLASS A MEDIUM DUTY WHERE SUBJECT TO PEDESTRIAN TRAFFIC OR IN LANDSCAPE AREAS.
8. COUNCIL PERMIT/APPROVAL SHALL BE OBTAINED PRIOR TO WORKS ON COUNCIL LAND AND CONNECTION TO COUNCIL SYSTEM.
9. ALL PIPE BENDS TO BE FITTED WITH AN INSPECTION OPENING.

RAINWATER TANK NOTES

1. THE TANK SHALL NOT BE LOCATED OVER A WATER OR SEWER MAIN UNLESS IT IS INSTALLED IN ACCORDANCE WITH THE REGULATORY AUTHORITY REQUIREMENTS
2. ABOVE GROUND TANKS SHALL BE LOCATED AT LEAST 100 MM FROM ANY POTABLE WATER SUPPLY PIPE AND AT LEAST 300 MM FOR BELOW GROUND TANKS.
3. ALL PLUMBING WORK SHALL BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER REQUIREMENTS AND COUNCIL REGULATIONS.
4. ALL INLETS SHALL BE SCREENED OR FILTERED TO PREVENT THE ENTRY OF FOREIGN MATTER OR CREATURES.
5. REUSE PUMP TO BE INSTALLED BY A LICENSED PLUMBER AND ELECTRICIAN TO SYDNEY WATER REQUIREMENTS
6. A SIGN SHALL BE AFFIXED TO THE RAINWATER TANK AND ALL APERTURES CLEARLY STATING THAT THE WATER IN THE TANK IS RAINWATER
7. NOISE EMISSIONS FROM ANY PUMP SHALL MEET COUNCIL'S REQUIREMENTS.
8. WATER RETAINED FOR INDOOR HOUSEHOLD USE SHALL BE AUGMENTED BY MAINS WATER SUPPLY AND APPROVAL OBTAINED BY SYDNEY WATER.
9. WHERE RETAINED WATER IS AUGMENTED BY MAINS WATER SUPPLY A BACKFLOW PREVENTION DEVICE AND FLOW RESTRICTOR SHALL BE INSTALLED IN ACCORDANCE WITH AS 3500 AND SYDNEY WATER REQUIREMENTS.
10. ALL INLETS SHALL BE FITTED WITH A FIRST FLUSH DEVICE PRIOR TO DISCHARGING TO THE RAINWATER TANK.
11. THE INDIRECT CONNECTION TO MAINS WATER SUPPLY SHALL HAVE A VISIBLE AIR GAP IN ACCORDANCE WITH AS 3500.



POLLUTION CONTROL PIT DETAIL
NOT TO SCALE



NOTE A
STORMWATER DRAINS CONSTRUCTED OF OTHER THAN CAST IRON, DUCTILE IRON OR GALVANISED STEEL HAVING COVER LESS THAN THAT SPECIFIED IN TABLE SHALL BE COVERED WITH AT LEAST 50mm OVERLAY AND SHALL BE PAVED WITH AT LEAST 100mm THICKNESS OF REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICULAR LOADING

LEGEND - TRENCH BACKFILL

SYMBOL	FLEXIBLE PIPES	RIGID PIPES
	BACKFILL	
	PIPE OVERLAY	
	PIPE SIDE SUPPORT	SIDE ZONE
	PIPE UNDERLAY	HAUNCH ZONE
		BED ZONE

MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)

LOCATION	MINIMUM COVER (mm)	
	CAST / DUCTILE IRON OR GALV STEEL	AUTHORISED PRODUCTS (*)
1. NOT SUBJECT TO VEHICULAR LOADING: A. WITHOUT PAVEMENT: i. FOR SINGLE DWELLINGS - ii. OTHER THAN SINGLE DWELLINGS - B. WITH PAVEMENT OF BRICK/UNREINFORCED CONCRETE -	0 0 0 (**)	100 300 50 (**)
2. SUBJECT TO VEHICULAR LOADING: A. OTHER THAN ROADS: i. WITHOUT PAVEMENT - ii. WITH PAVEMENT OF: - REINF. CONC. FOR HEAVY VEHICLES - - BRICK/UNREINF. CONC LIGHT VEHICLES - B. ROADS i. SEALED ii. UNSEALED	300 0 (** #) 0 (** #) 300 300	450 100 (** #) 75 (** #) 500 (#) 500 (#)
3. SUBJECT TO CONSTRUCTION VEHICLES OR IN EMBANKMENT CONDITIONS	300	500 (#)

(*) INCLUDES OVERLAY ABOVE THE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK
(**) BELOW THE UNDERSIDE OF THE PAVEMENT
(#) SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS 2566.1, AS3725 OR AS 4060

NORTHERN BEACHES COUNCIL REQUIREMENTS

THE STORMWATER DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY REGION 2 - CENTRAL CATCHMENT AND AUSTRALIAN STANDARDS AS3500.3

ON-SITE DETENTION

SITE AREA	562.7 m2
POST-DEVELOPMENT IMPERVIOUS AREA	335 m2 (>40%)
MINIMUM OSD SITE STORAGE REQUIRED (200m3/ha)	11.3 m3
MAXIMUM PERMISSIBLE SITE DISCHARGE (400l/s/ha)	22.5 l/s
RAINWATER REUSE STORAGE PROVIDED	3.6 m3
REVISED OSD STORAGE REQUIRED	7.8 m3
ORIFICE PLATE DIAMETER	117 mm

BASIX CERTIFICATE REQUIREMENTS

MINIMUM STORAGE REQUIRED	3.5 m3
MINIMUM ROOF AREA TO BE CONNECTED	180 m2
NOTE: RAINWATER TANK SHALL BE CONNECTED TO ALL TOILETS, A TAP LOCATED WITHIN 10 METRES OF THE POOL AND AT LEAST ONE OUTDOOR TAP FOR IRRIGATION PURPOSES	

LEGEND

	DENOTES RAINWATER REUSE TANK
	DENOTES BELOW GROUND ON-SITE DETENTION TANK
	DENOTES 100mm DIA. STORMWATER PIPE AT 1% MIN. GRADE U.N.O
	DENOTES 100mm DIA. STORMWATER PIPE TO RAINWATER TANK
	DENOTES DOWNPIPE
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN

SHEET INDEX

COVER SHEET AND NOTES	SHEET SW1
STORMWATER MANAGEMENT PLAN	SHEET SW2
SECTIONS AND DETAILS	SHEET SW3

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CIVIL ENGINEERS

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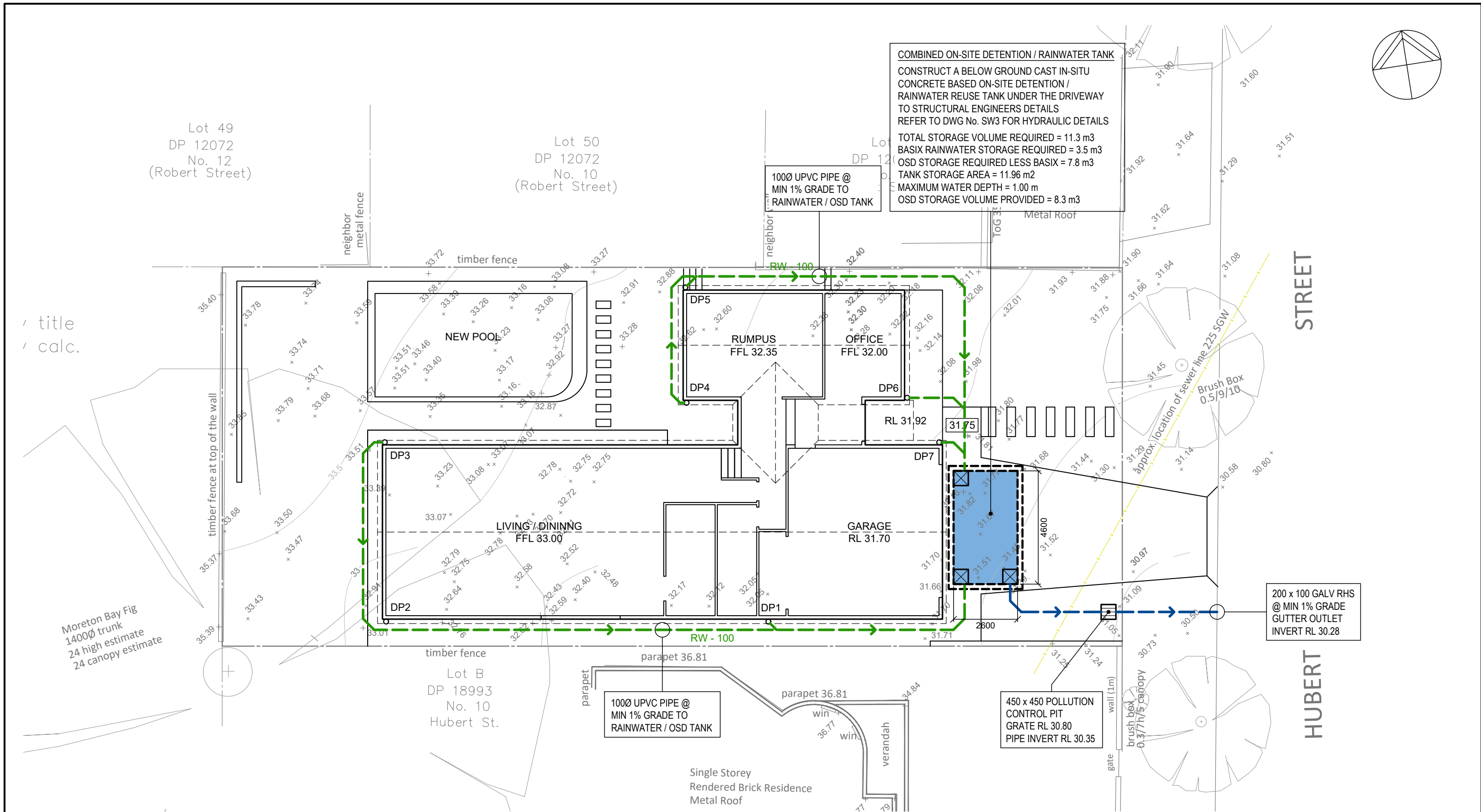
PROJECT TITLE:
**PROPOSED NEW DWELLING
12 HUBERT STREET
FRESHWATER NSW 2096**

DRAWING TITLE:
COVER SHEET AND NOTES

DRAWN: A.L.
DATE: 10.10.2022
JOB No: 2022-057

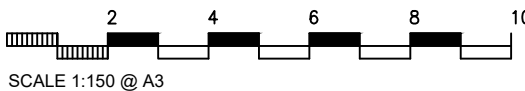
APPROVED BY:			
ANDREW LAM MIEAust B.E. Civil (Hons)			
DWG NO: SW1	no. IN SET: 3	A	ON-SITE DETENTION TANK RELOCATED
No.			REVISION / ISSUE DESCRIPTION
			DATE

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/ title
/ calc.

Moreton Bay Fig
1400Ø trunk
24 high estimate
24 canopy estimate

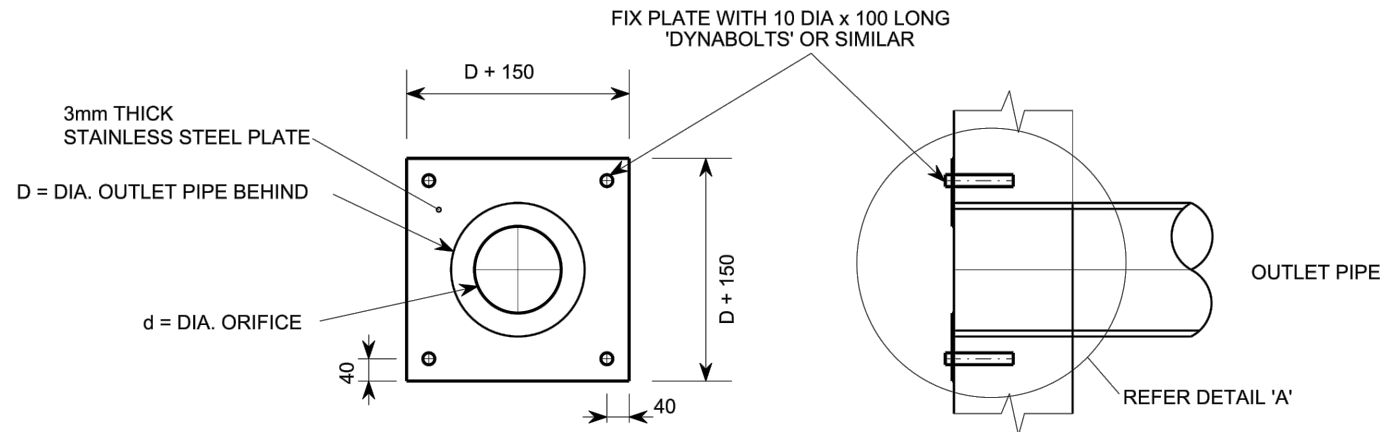


NOTE:
THIS DESIGN MANAGES STORMWATER RUNOFF FROM ROOF WATER AND DRIVEWAY SURFACES ONLY AS SHOWN ON THE ARCHITECTURAL DRAWINGS
ALL ROOF GUTTER TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3.

NOTE:
ROAD OPENING PERMIT TO BE OBTAINED FROM COUNCIL PRIOR TO COMMENCEMENT OF ANY WORK IN THE ROAD RESERVE

NOTE:- TREE PRESERVATION
IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ANY APPROVALS NECESSARY FROM LOCAL COUNCIL PRIOR TO ANY WORKS COMMENCING WITH RESPECT TO THE POTENTIAL IMPACT ON ANY TREES FOR ANY WORKS SHOWN ON THIS DRAWING

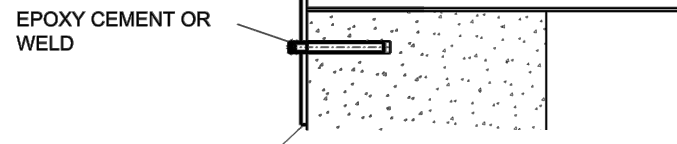
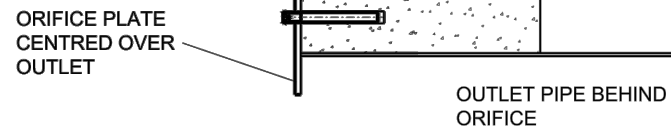
WATERDESIGN CIVIL ENGINEERS © All design and drawings are the property of Waterdesign Civil Engineers. This drawing must not be used, reproduced or copied without the written approval of Waterdesign Civil Engineers.	1 FLAME TREE PLACE CHERRYBROOK NSW 2126 MOBILE: 0417 671646 EMAIL: waterdes@bigpond.net.au ABN: 77 928 166 729	CLIENT NAME: CAMERON McDONALD	PROJECT TITLE: PROPOSED NEW DWELLING 12 HUBERT STREET FRESHWATER NSW 2096	DRAWING TITLE: STORMWATER MANAGEMENT PLAN	DRAWN: A.L.		APPROVED BY: ANDREW LAM MIE Aust B.E. Civil (Hons)	A	ON-SITE DETENTION TANK RELOCATED	09.01.22
					DATE: 10.10.2022					
					JOB No: 2022-057	DWG NO: SW2	no. IN SET 3	No.	REVISION / ISSUE DESCRIPTION	DATE



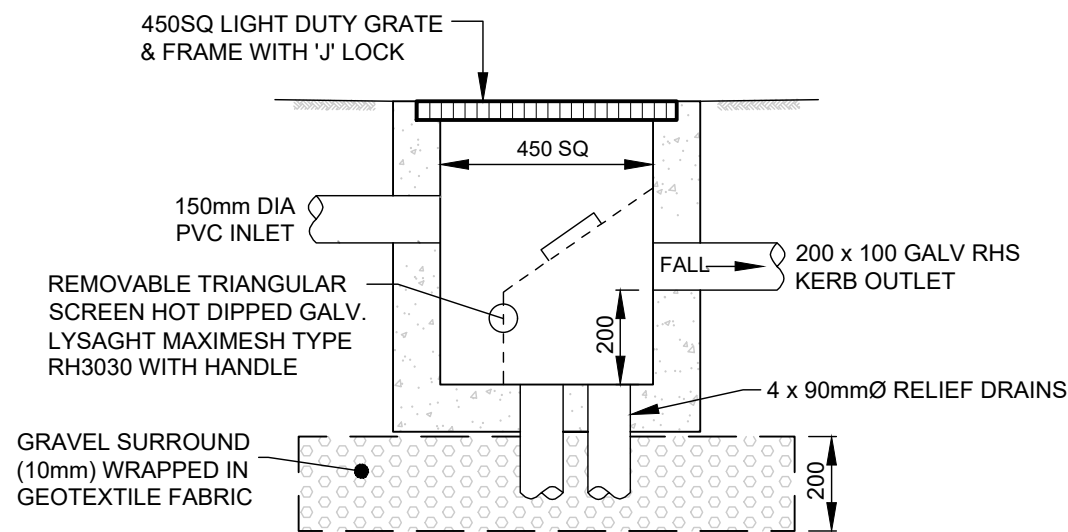
ORIFICE PLATE DETAIL
NOT TO SCALE

ORIFICE PLATE NOTES

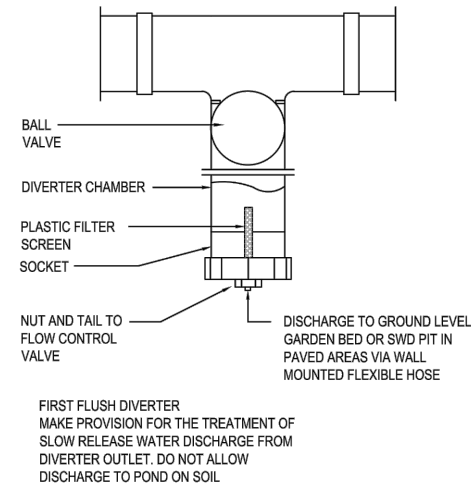
1. HOLE IN ORIFICE PLATE TO BE PRECISION CUT WITH SHARP EDGES TO THE SPECIFIED DIAMETER.
2. ORIFICE PLATE TO BE PLACED CENTRALLY OVER THE OUTLET PIPE.
3. PLATE TO BE MADE FROM STAINLESS STEEL. HOT DIPPED GALVANISED OR OTHERS NOT ACCEPTABLE.
4. OUTLET PIPE TO BE CAST INTO THE WALL OF THE PIT.
5. HOLE IN PLATE TO BE CENTRALLY PLACED.



DETAIL 'A'
NOT TO SCALE



POLLUTION CONTROL PIT DETAIL
NOT TO SCALE



FIRST FLUSH DIVERTER
MAKE PROVISION FOR THE TREATMENT OF SLOW RELEASE WATER DISCHARGE FROM DIVERTER OUTLET. DO NOT ALLOW DISCHARGE TO POND ON SOIL

NOTE: FIRST FLUSH DIVERTER SHOWN.
ALTERNATE APPROVED FIRST FLUSHING SYSTEM MAY BE INSTALLED

FIRST FLUSH DIVERTER DETAIL
NOT TO SCALE

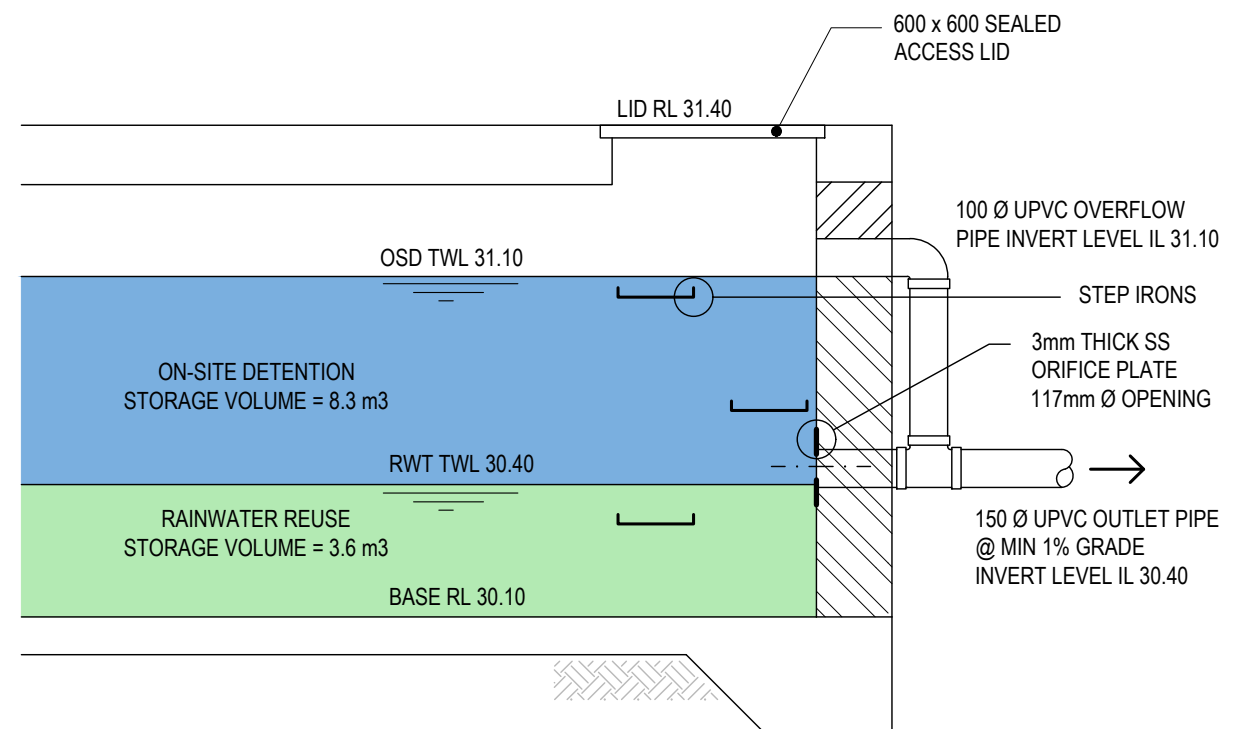


TYPICAL OSD AND RAINWATER TANK WARNING SIGN
A DURABLE METAL PLATE OR SIMILAR SIGN SHALL BE FIXED TO THE TANK

"WARNING"
THIS IS AN ON-SITE DETENTION BASIN FOR RAINWATER WHICH IS DESIGNED TO OVERFLOW DURING HEAVY STORMS WITH THE MAXIMUM DEPTH OF WATER BEING 400mm
IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW
THIS PLATE MUST NOT BE REMOVED



TYPICAL CONFINED SPACE WARNING SIGN
A DURABLE METAL PLATE OR SIMILAR SIGN SHALL BE FIXED TO THE TANK



SECTION A - ON-SITE DETENTION TANK
SCALE 1:25

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