

# PROPOSED SINGLE DWELLING

## AT LOT 20 RAVEN CIRCUIT, WARRIEWOOD NSW 2102

### GENERAL NOTES

- G1 ALL WORKS SHALL BE IN ACCORDANCE WITH B.C.A AND AS3500.3.
- G2 ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- G3 THE BUILDER SHALL ENSURE THAT THE STORMWATER ENGINEERS DRAWINGS CORRESPOND TO THE ARCHITECTURAL, STRUCTURAL, AND LANDSCAPING DRAWINGS. IF THERE EXISTS ANY DISCREPANCIES BETWEEN THE DRAWINGS, THE BUILDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS.
- G4 PRIOR TO COMMENCING ANY WORKS, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTS INTO THE COUNCILS KERB/DRAINAGE SYSTEM MATCHED THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER.
- G5 THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.
- G6 ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN HEIGHT DATUM (AHD).
- G7 ALL DOWNPIPES TO BE 100MM DIAMETER UNLESS NOTED OTHERWISE.
- G8 ALL DOWN PIPES TO HAVE LEAF GUARDS.
- G9 ALL LINES ARE TO BE 100MM DIAMETER uPVC AT A MINIMUM 1.0% SLOPE UNLESS NOTED OTHERWISE. LINES ARE TO BE SEWER-GRADE AND SEALED.
- G10 ALL PIPES TO HAVE MINIMUM 150MM COVER IF LOCATED WITHIN PROPERTY.
- G11 ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES.
- G12 ALL SUB-SOIL DRAINAGE SHALL BE OF A MINIMUM 100MM DIAMETER AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE ARCHITECT OR STORMWATER ENGINEER.
- G13 ALL RETAINING WALLS SHALL BE CONSTRUCTED COMPLETELY WITHIN THE PROPERTY BOUNDARY LIMITS TO DETAILS PREPARED BY THE STRUCTURAL ENGINEER. WALLS FORMING THE ON-SITE DETENTION SYSTEM SHALL BE OF MASONARY/BRICK/CONCRETE CONSTRUCTION AND WATER TIGHT.
- G14 ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON-SITE DETENTION STORAGE SHALL BE OF A NON-FLOTABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. PINE PARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.
- G15 ALL DRAINAGE WORKS ARE TO AVOID TREE ROOTS. ROOT BARRIER TO BE INSTALLED ADJACENT TO TREE ZONES WHERE DRAINAGE MAY BE AT RISK.
- G16 ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
- G17 COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.

### RAINWATER TANKS

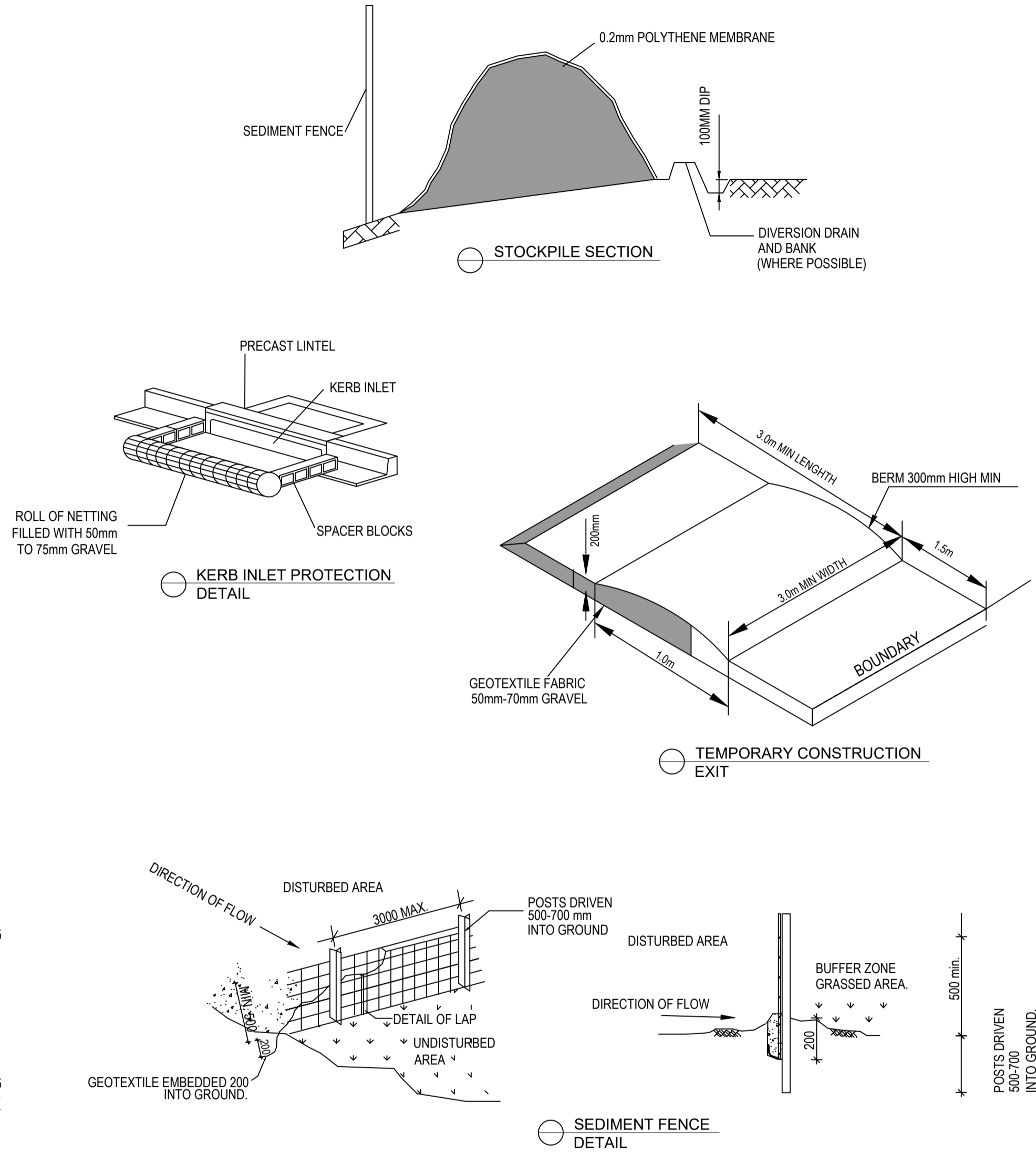
- R1 RAINWATER TANK, DRAINED ROOF AREAS AND REUSE PLUMBING TO COMPLY WITH BASIX REQUIREMENTS AND CERTIFICATE.
- R2 ADEQUATE SCREENING TO PREVENT MOSQUITO BREEDING AND ENTRY OF ANIMAL OR FLOATING MATTER.
- R3 A 'FIRST FLUSH' DIVERSION TO REMOVE ROOF CONTAMINANTS MUST BE PROVIDED.
- R4 TANKS TO BE PUMPED TO TOP-UP FROM THE POTABLE WATER SUPPLY DURING DRY PERIOD WHEN THE TANK IS 80% EMPTY.
- R5 PUMP TO BE SUITABLY SOUNDPROOFED.
- R6 A SIGN IS TO BE INSTALLED NEAR THE RAINWATER TANK HIGHLIGHTING "NOT FOR HUMAN CONSUMPTION".

### LEGEND

PRESSURE PIPE (CHARGED LINE)	
GRAVITY PIPE AT MIN. 1% SLOPE U.N.O.	
AG. LINE AT MIN. 1% SLOPE	
DOWNPIPE MIN. Ø100 U.N.O.	
GRATED PIT SL: SURFACE LEVEL IL: INVERT LEVEL	
CLEANING EYE (INSPECTION EYE)	
OVERLAND FLOW PATH	
GRATED TRENCH	
EXISTING RL	+RL 00.000
DESIGN RL	+ <u>RL 00.000</u>

### SEDIMENT & EROSION CONTROL

- S1 PLANS ARE MINIMUM REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTORS WORKS.
- S2 IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURE TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
- S3 IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE, THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
- S4 PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
- S5 PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
- S6 ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
- S7 ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
- S8 WASH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICKED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
- S9 NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
- S10 APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGHOUT CONSTRUCTION.
- S11 IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
- S12 TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON SITE BY THE SUPERINTENDENT.



### SEDIMENT FENCE

- F1 FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
- F2 WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150MM AND FOLDED.
- F3 POSTS SHALL NOT BE SPACED MORE THAN 3.0 METRES APART.
- F4 FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14MM GAUGE, 150MM MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES
- F5 INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, SPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE  
SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 40M ON FLAT TERRAIN DECREASING TO 20M SPACINGS ON STEEP TERRAIN

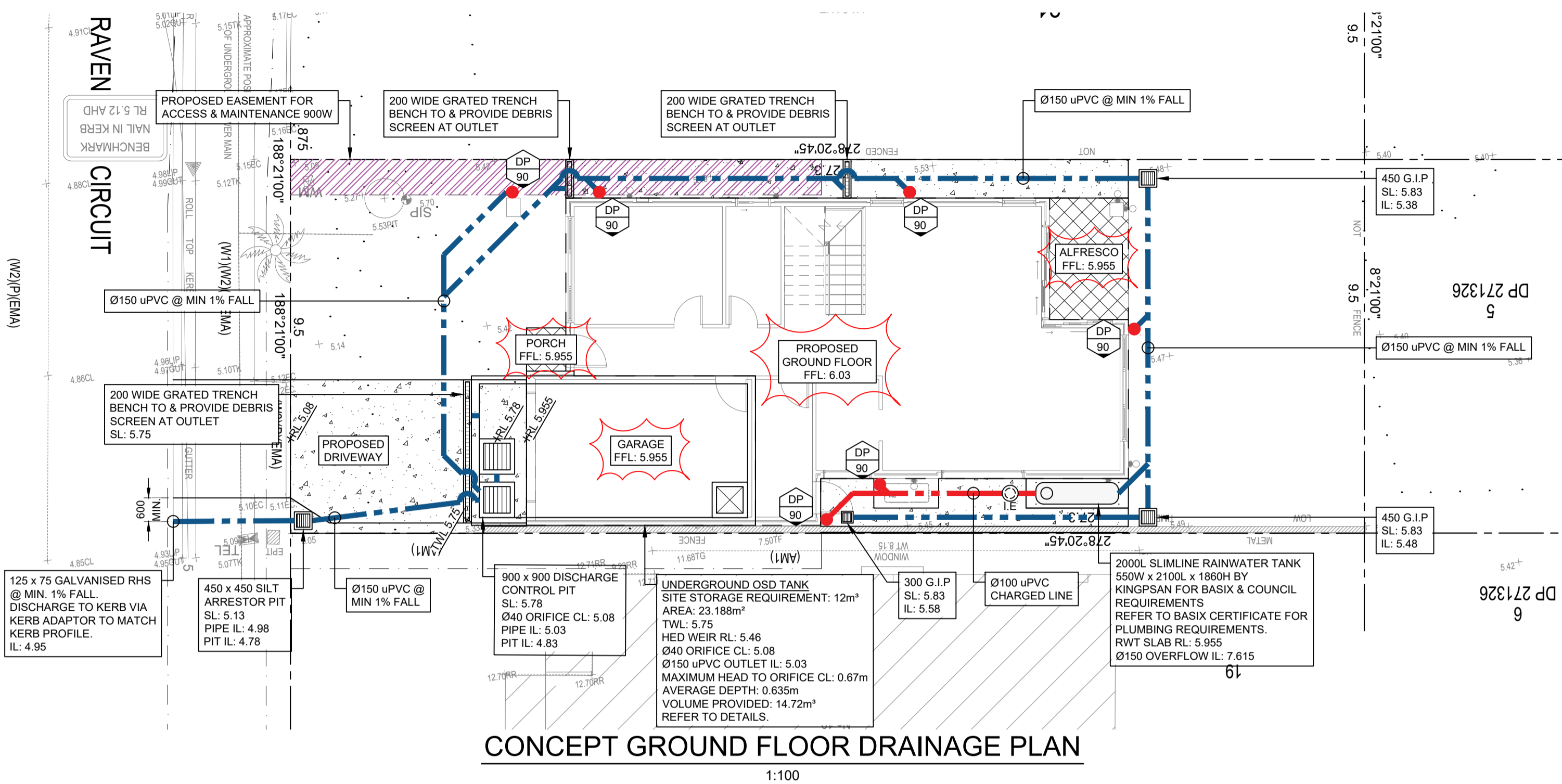
**NOTE**  
DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS FOR LEVELS, STEPS, DIMENSIONS AND SETOUT. VERIFY DIMENSIONS ON SITE. THE ENGINEER SHALL BE NOTIFIED OF ANY VARIATIONS TO THAT SHOWN ON STRUCTURAL PLANS BEFORE COMMENCEMENT OF WORKS

A	22.01.2025	ISSUED FOR DA		J.L
REV	DATE	DESCRIPTION		BY

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<b>PROPOSED SINGLE DWELLING</b> AT: LOT 20 RAVEN CIRCUIT, WARRIEWOOD NSW 2102 FOR: NEEV HOMES	JOB NUMBER: 250018	DWG NUMBER: C000	ORIGINAL SIZE: A1
<b>COVER SHEET</b>	DESIGNED BY: J.L	DATE: 22/01/2025	
	DRAWN BY: J.L	SCALE: AS SHOWN	

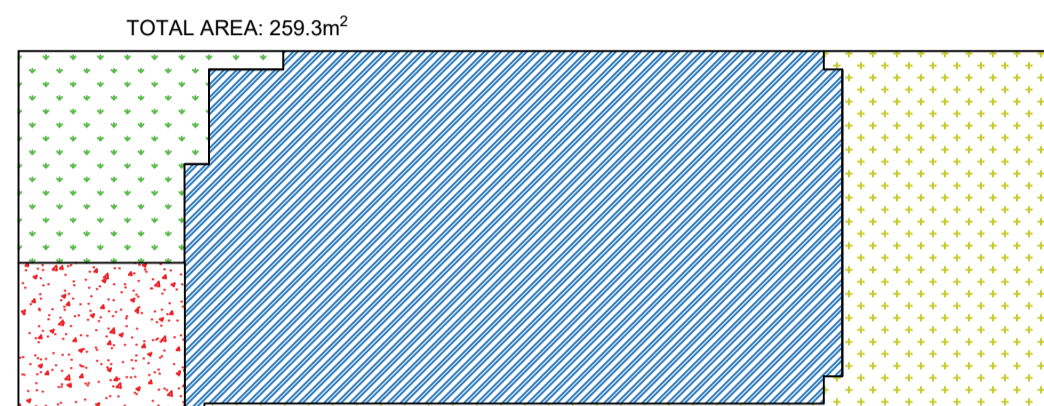
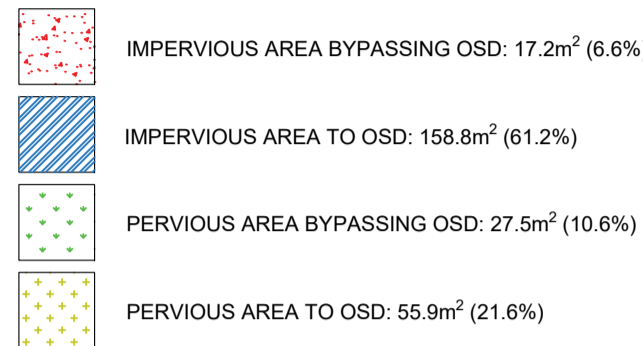


### NORTHERN BEACHES COUNCIL - REGION 1 ON-SITE DETENTION (OSD) WARRANT

SITE AREA: 259.3m<sup>2</sup>  
PROPOSED INCREASE IN IMPERVIOUS AREA: 176.0m<sup>2</sup>

OSD TANK REQUIREMENTS FROM TABLE 7  
SSR: 12,000L  
PSD: 6L/s

REFER TO ON-SITE DETENTION CALCULATION FOR DISCHARGE  
CONTROL AND STORAGE CALCULATIONS.



STORMWATER CATCHMENT PLAN  
1:200

## ON-SITE DETENTION CALCULATION:

PROPOSED SITE AREA = 259.3m<sup>2</sup>

PRE-DEVELOPMENT CONDITIONS:

ASSUMED PERVIOUS AREA = 259.3m<sup>2</sup> (100%)

POST-DEVELOPMENT CONDITIONS:

IMPERVIOUS AREA BYPASSING OSD = 17.2m<sup>2</sup> (6.6%)

IMPERVIOUS AREA TO OSD = 158.8m<sup>2</sup> (61.2%)

PERVIOUS AREA BYPASSING OSD = 27.5m<sup>2</sup> (10.6%)

PERVIOUS AREA TO OSD = 55.9m<sup>2</sup> (21.6%)

VOLUME CALCULATED USING DRAINS SOFTWARE:

LIMIT POST-DEVELOPMENT PEAK TO 6L/s FOR ALL STORM  
EVENTS UP TO THE 1% AEP AS PER COUNCIL  
REQUIREMENTS.

OUTPUTS

ORIFICE DIAMETER = 40mm

OSD VOLUME REQUIRED = 12m<sup>3</sup>

OSD VOLUME PROVIDED = 14.72m<sup>3</sup>

STORM EVENT	PRE DEVELOPMENT	POST DEVELOPMENT
	TOTAL FLOW L/S	TOTAL FLOW L/S
20% AEP	7	3
5% AEP	11	4
1% AEP	15	5

CONCEPT ONLY  
NOT FOR CONSTRUCTION

#### NOTE

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ARCHITECTURAL PLANS FOR LEVELS,  
STEPS, DIMENSIONS AND SETOUT. VERIFY  
DIMENSIONS ON SITE. THE ENGINEER  
SHALL BE NOTIFIED OF ANY VARIATIONS  
TO THAT SHOWN ON STRUCTURAL PLANS  
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REV	DATE	DESCRIPTION	BY
A	22.01.2025	ISSUED FOR DA	J.L

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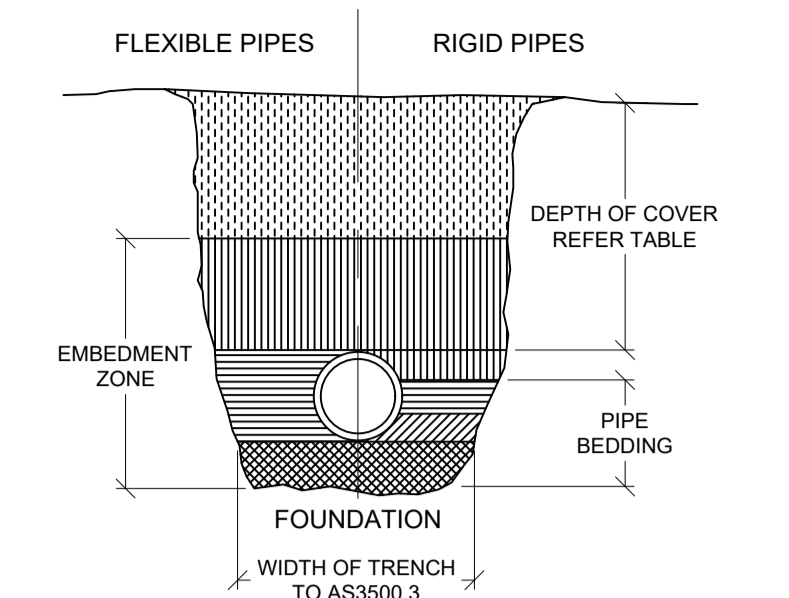
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**PROPOSED  
SINGLE DWELLING**  
AT: LOT 20 RAVEN CIRCUIT, WARRIWOOD NSW 2102  
FOR: NEEV HOMES

**CONCEPT STORMWATER DRAINAGE  
PLAN / NOTES**

JOB NUMBER: 250018	DWG NUMBER: C001	ORIGINAL SIZE: A1
DESIGNED BY: J.L	DATE: 22/01/2025	
DRAWN BY: J.L	SCALE: AS SHOWN	



**LEGEND: TRENCH BACKFILL**

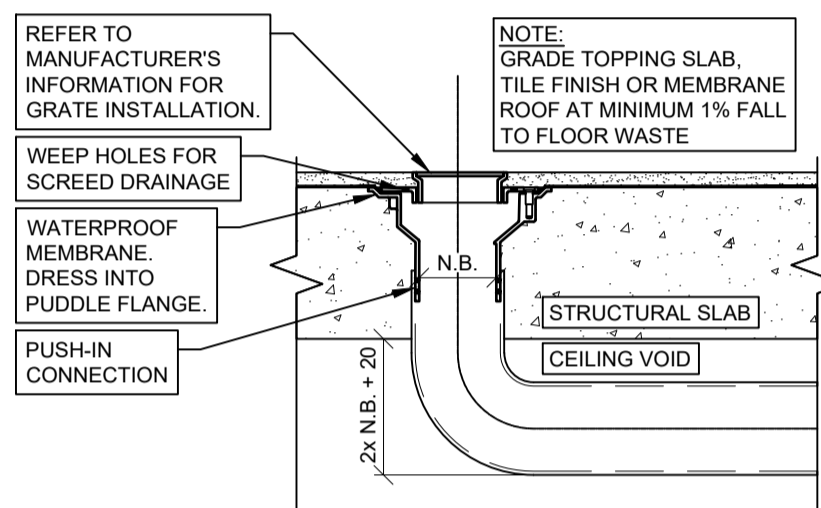
SYMBOL	FLEXIBLE PIPES	RIGID PIPES
[Pattern]	BACKFILL	
[Pattern]	OVERLAY	
[Pattern]	SIDE SUPPORT	
[Pattern]	HAUNCH	
[Pattern]	UNDERLAY	BEDDING

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

MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)		
LOCATION	MINIMUM COVER (mm)	
	CAST/DUCTILE IRON, GALV. STEEL	OTHER AUTHORISED PRODUCTS
1. NOT SUBJECT TO VEHICULAR LOADING: 1.A. WITHOUT PAVEMENT: 1.A.1. FOR SINGLE DWELLINGS 1.A.2. OTHER THAN SINGLE DWELLINGS 1.B. WITH PAVEMENT OF BRICK / UNREINFORCED CONCRETE	100 100 100	100 300 100*
2. SUBJECT TO VEHICULAR LOADING: 2.A. OTHER THAN ROADS: 2.A.1. WITHOUT PAVEMENT 2.A.2. WITH PAVEMENT OF: 2.A.2.1. REINFORCED CONCRETE FOR HEAVY VEHICLES 2.A.2.2. BRICK/UNREINFORCED CONCRETE FOR LIGHT VEHICLES 2.B. ROADS: 2.B.1. SEALED ROADS 2.B.2. UNSEALED ROADS	300 0* 0* 600 600	450 100* 75* 600 750
3. SUBJECT TO CONSTRUCTION VEHICLES OR EMBANKMENT CONDITIONS	600#	750#
* BELOW THE UNDERSIDE OF PAVEMENT # SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS 2566.1, AS3725 OR AS 4060		

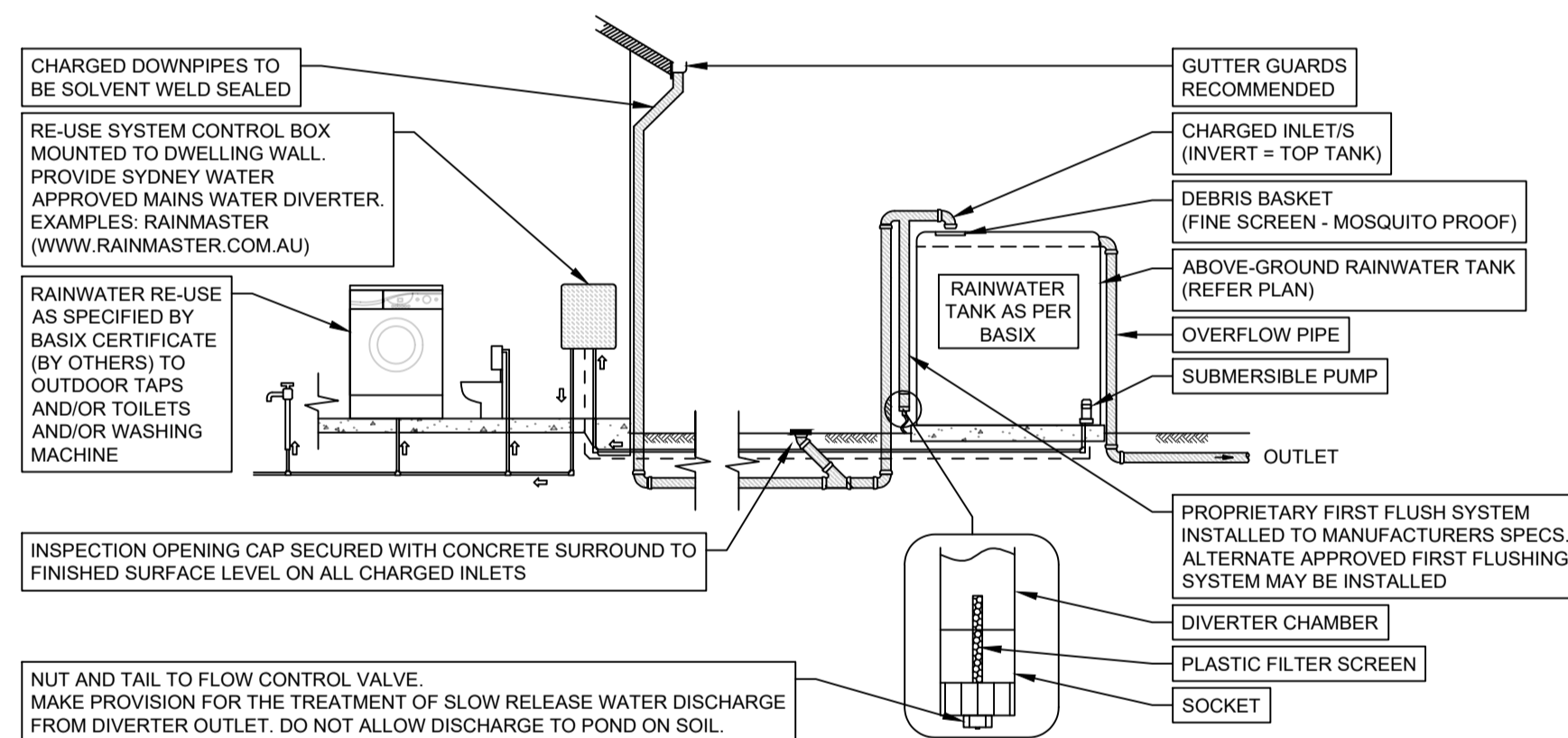
### TYPICAL PIPE LAYING DETAIL

NTS



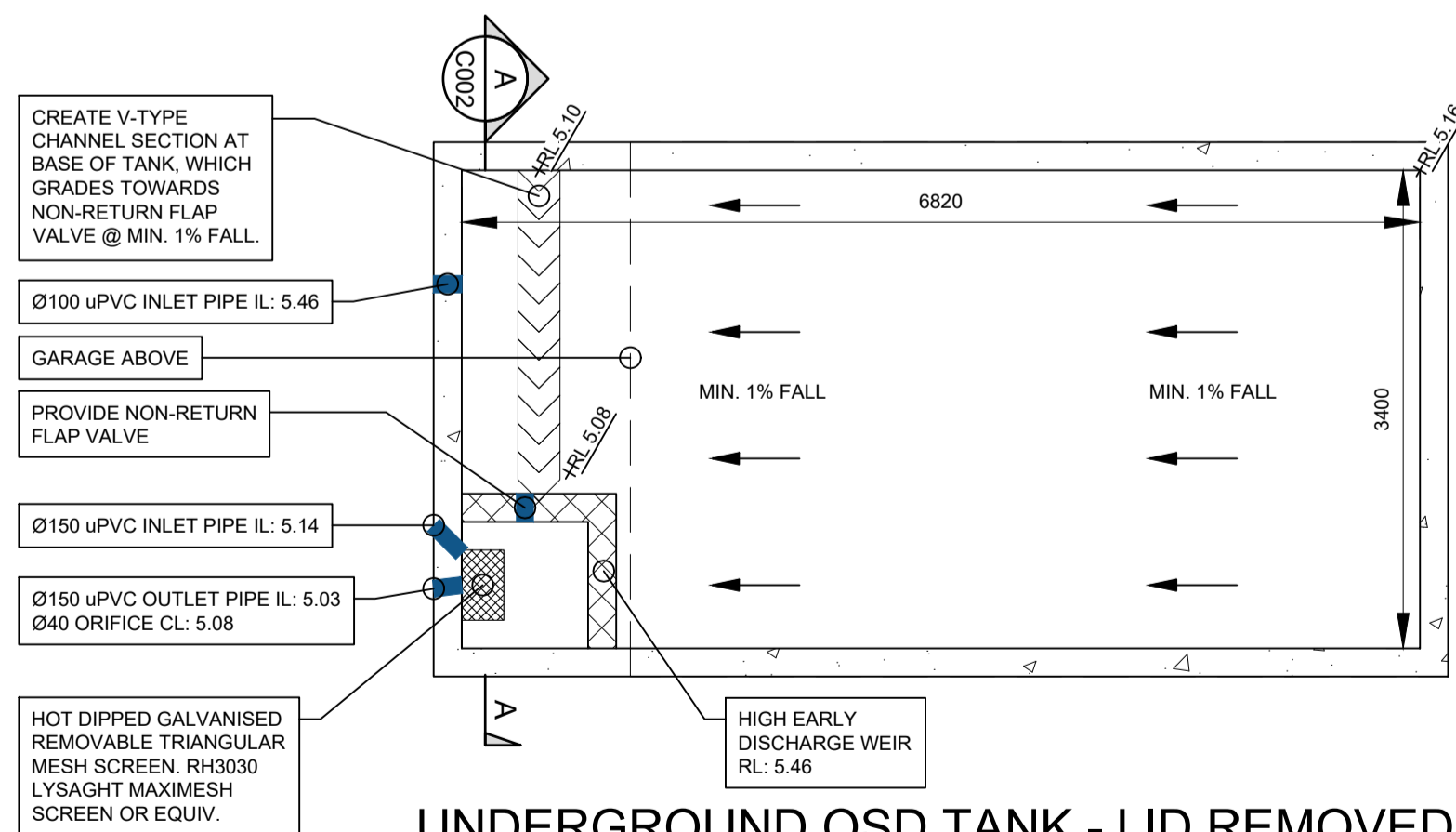
### TYPICAL FLOOR WASTE DETAIL

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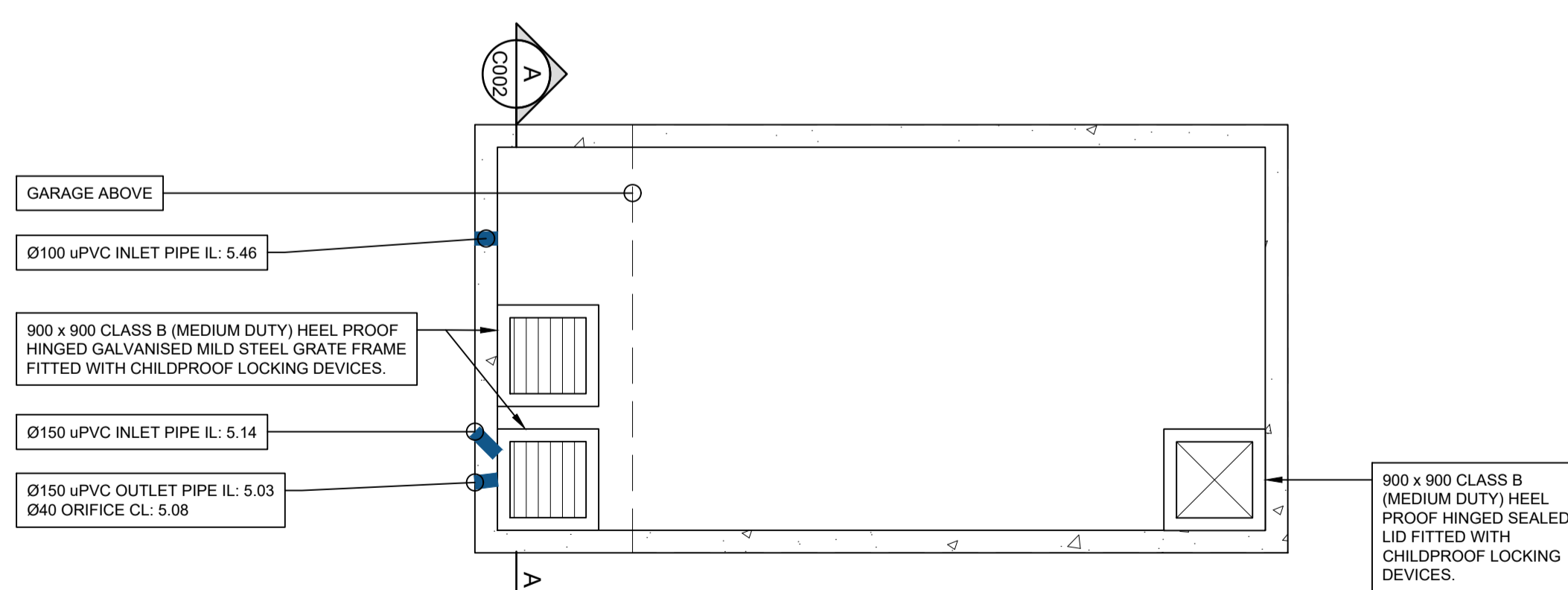
### TYPICAL ABOVE-GROUND RAINWATER RE-USE TANK DETAIL

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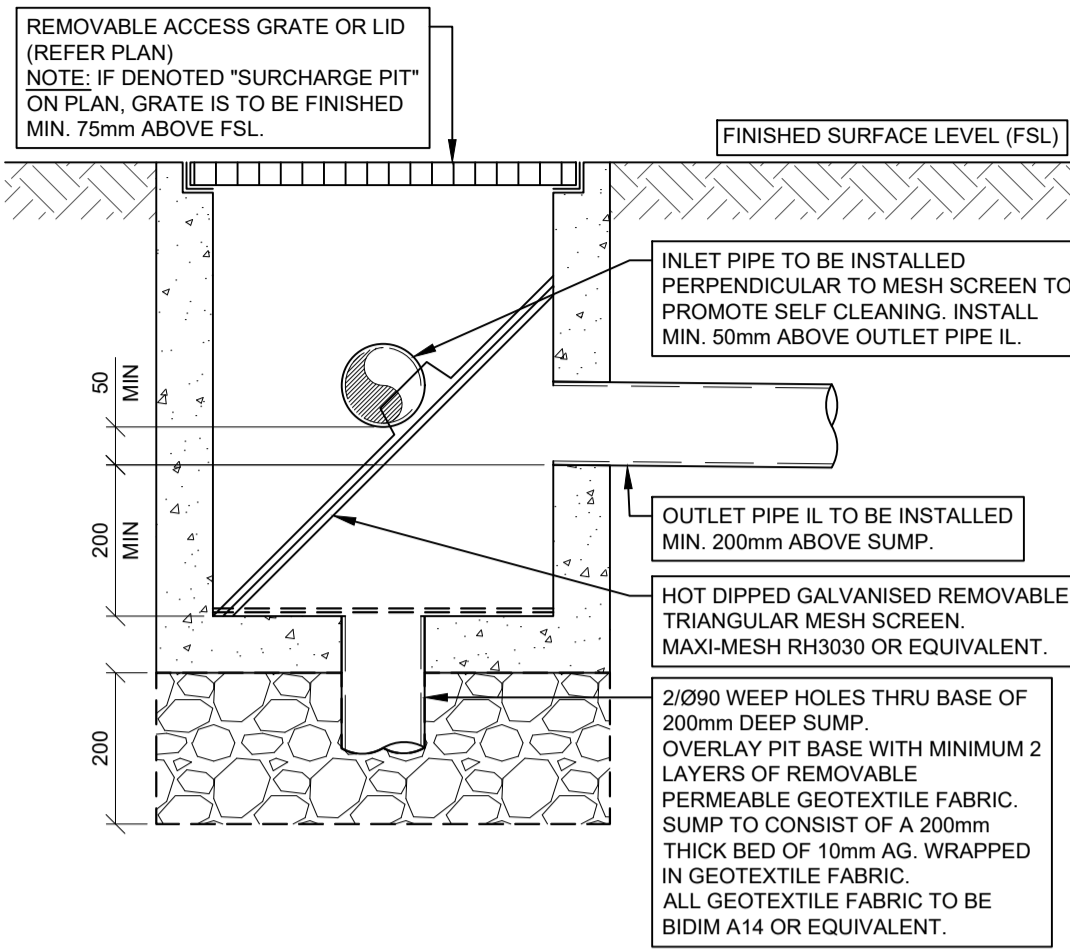
### UNDERGROUND OSD TANK - LID REMOVED

1:50



### UNDERGROUND OSD TANK - LID ON

1:50



### TYPICAL SILT ARRESTOR PIT DETAIL

NTS



EVERY EXTERNAL SUPPLY OUTLET FROM RAINWATER RE-USE TANK TO BE LABELED WITH METALLIC WARNING SIGN

### NON-POTABLE WARNING SIGN

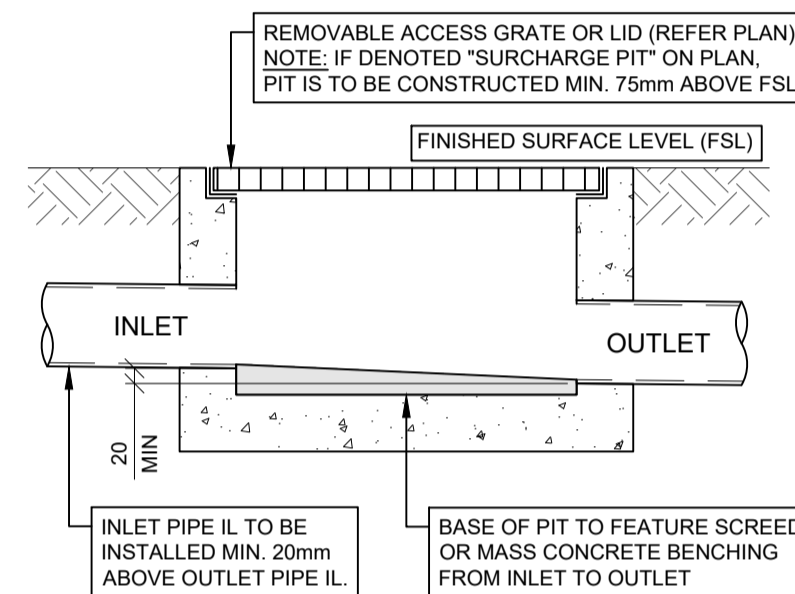
THE ON-SITE STORMWATER DETENTION SYSTEM SHALL BE INDICATED ON THE SITE BY FIXING A MARKER PLATE IN A PROMINENT POSITION. THIS PLATE IS TO BE OF MINIMUM SIZE 150mm x 100mm AND IS TO BE MADE FROM NON-CORROSIVE METAL OR 4mm THICK LAMINATED PLASTIC. IT IS TO BE FIXED TO THE NEAREST CONCRETE OR PERMANENT SURFACE IN A PROMINENT POSITION. THE WORDING ON THE MARKER PLATE IS TO BE:

#### THIS IS AN ON-SITE STORMWATER DETENTION SYSTEM

REQUIRED BY COUNCIL  
IT IS AN OFFENCE TO REDUCE THE VOLUME OF THE TANK OR BASIN OR TO INTERFERE WITH THE ORIFICE PLATE THAT CONTROLS THE OUTFLOW THE BASE OF THE OUTLET CONTROL PIT AND THE DEBRIS SCREEN MUST BE CLEANED OF DEBRIS AND SEDIMENT ON A REGULAR BASIS BY ON THE OWNER

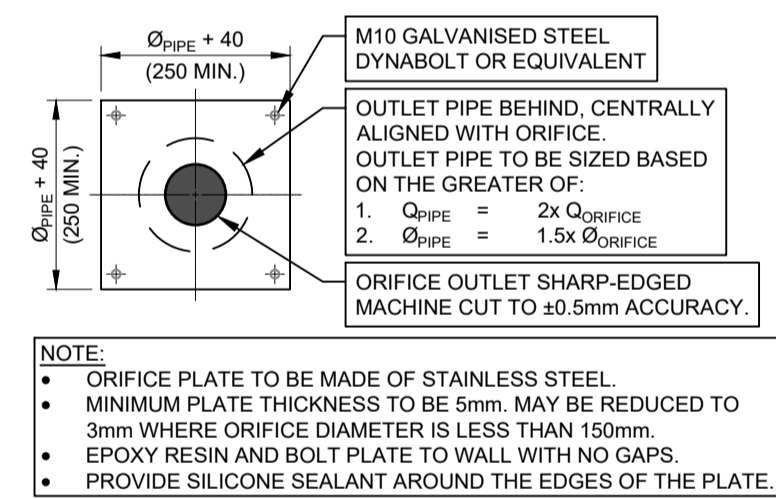
THIS PLATE MUST NOT BE REMOVED

### TYPICAL OSD SIGN



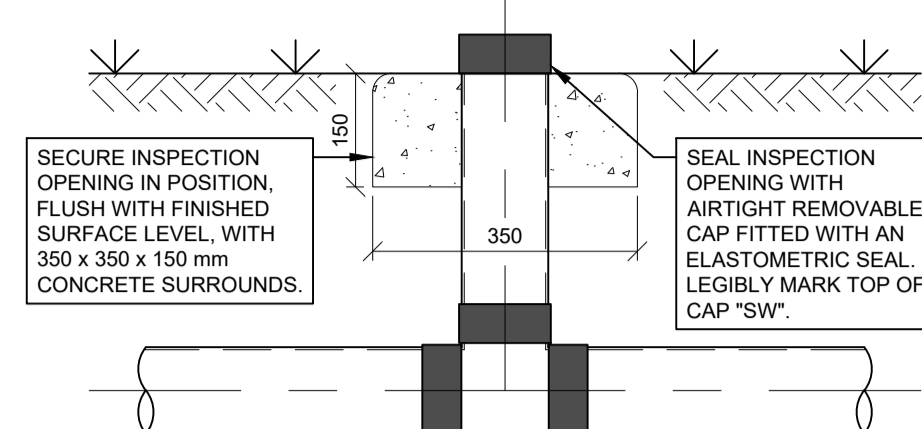
### TYPICAL JUNCTION PIT DETAIL

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### TYPICAL ORIFICE PLATE DETAIL

NTS



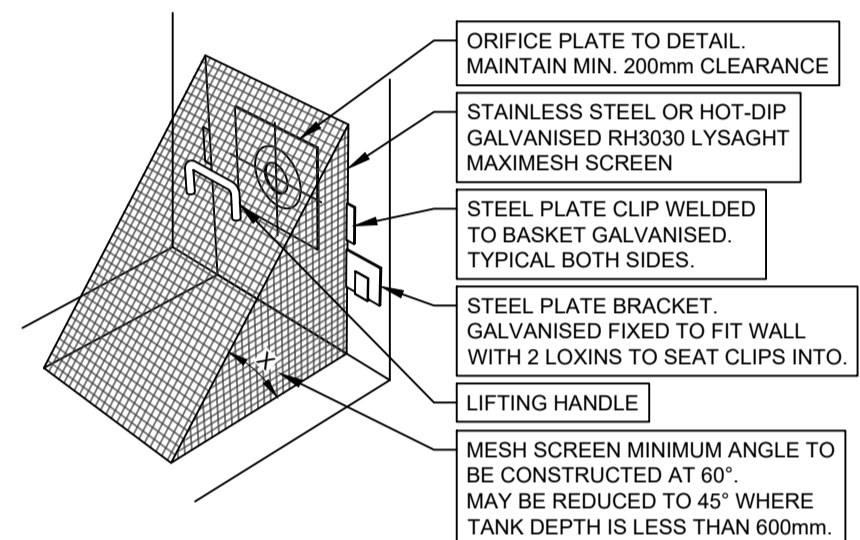
**LOCATION**  
INSPECTION EYES SHALL BE LOCATED AT:  
• EACH POINT OF CONNECTION.  
• EVEN SPACINGS OF NOT MORE THAN 30m.  
• EACH END OF ANY INCLINED JUMP UP THAT EXCEEDS 6m IN LENGTH.  
• EACH CONNECTION TO AN EXISTING SITE STORMWATER DRAIN.  
• AT ANY CHANGE OF DIRECTION GREATER THAN 45°.

**SIZE**  
• FOR SIZES LESS THAN DN150, THE RISER SHALL BE THE SAME SIZE AS THE STORMWATER DRAIN.  
• OTHERWISE NOT LESS THAN DN150.

**NOTE:** AN INLET OR STORMWATER PIT MAY BE USED IN LIEU OF AN INSPECTION EYE.

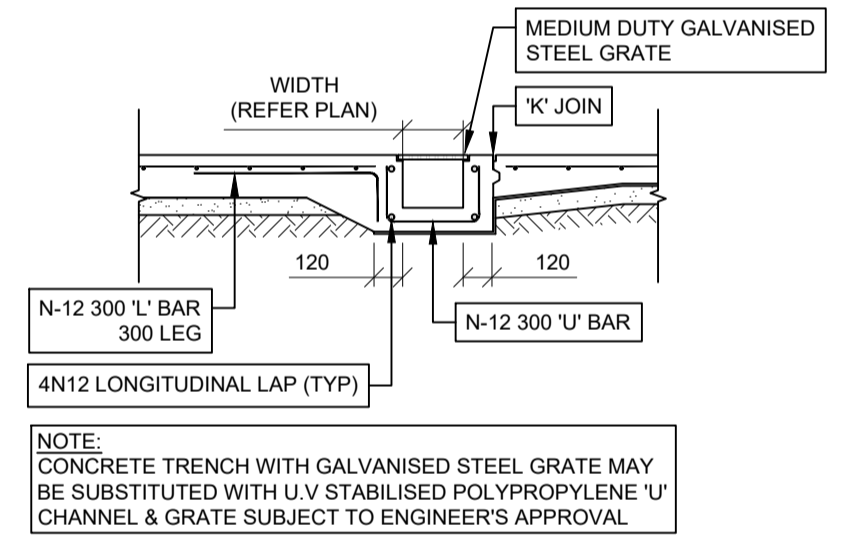
### TYPICAL INSPECTION EYE DETAIL

NTS



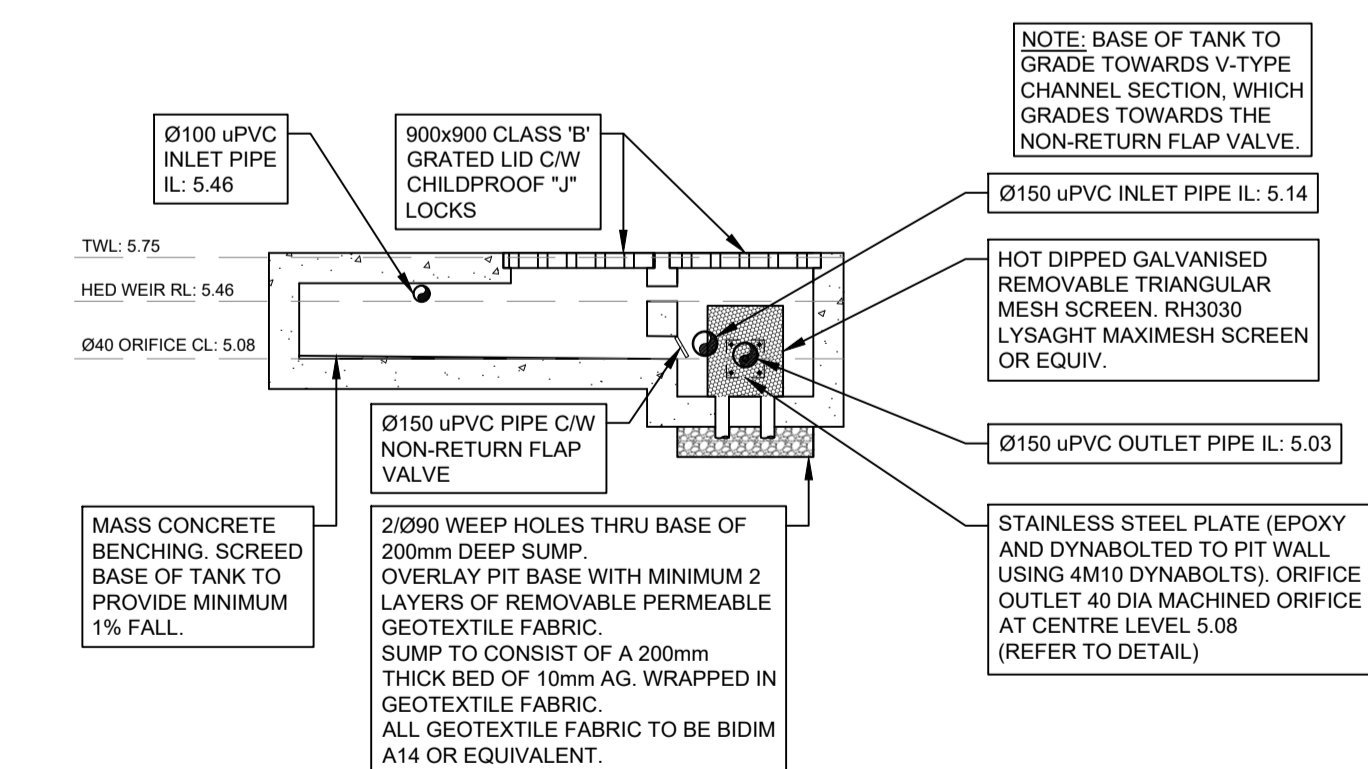
### TYPICAL OSD FILTER SCREEN DETAIL

NTS



### TYPICAL GRATED TRENCH DETAIL

NTS



### UNDERGORUND OSD TANK SECTION

1:50

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<b>CONCEPT STORMWATER DRAINAGE OSD SECTIONS / DETAILS</b>		DESIGNED BY: J.L	DATE: 22/01/2025	
		DRAWN BY: J.L	SCALE: AS SHOWN	