

WANDA BEACH ESTATE

FLEET STREET, SALAMANDER BAY NSW 2317
CIVIL ENGINEERING PACKAGE



LOCALITY PLAN

IMAGE SOURCE : NEARMAPS

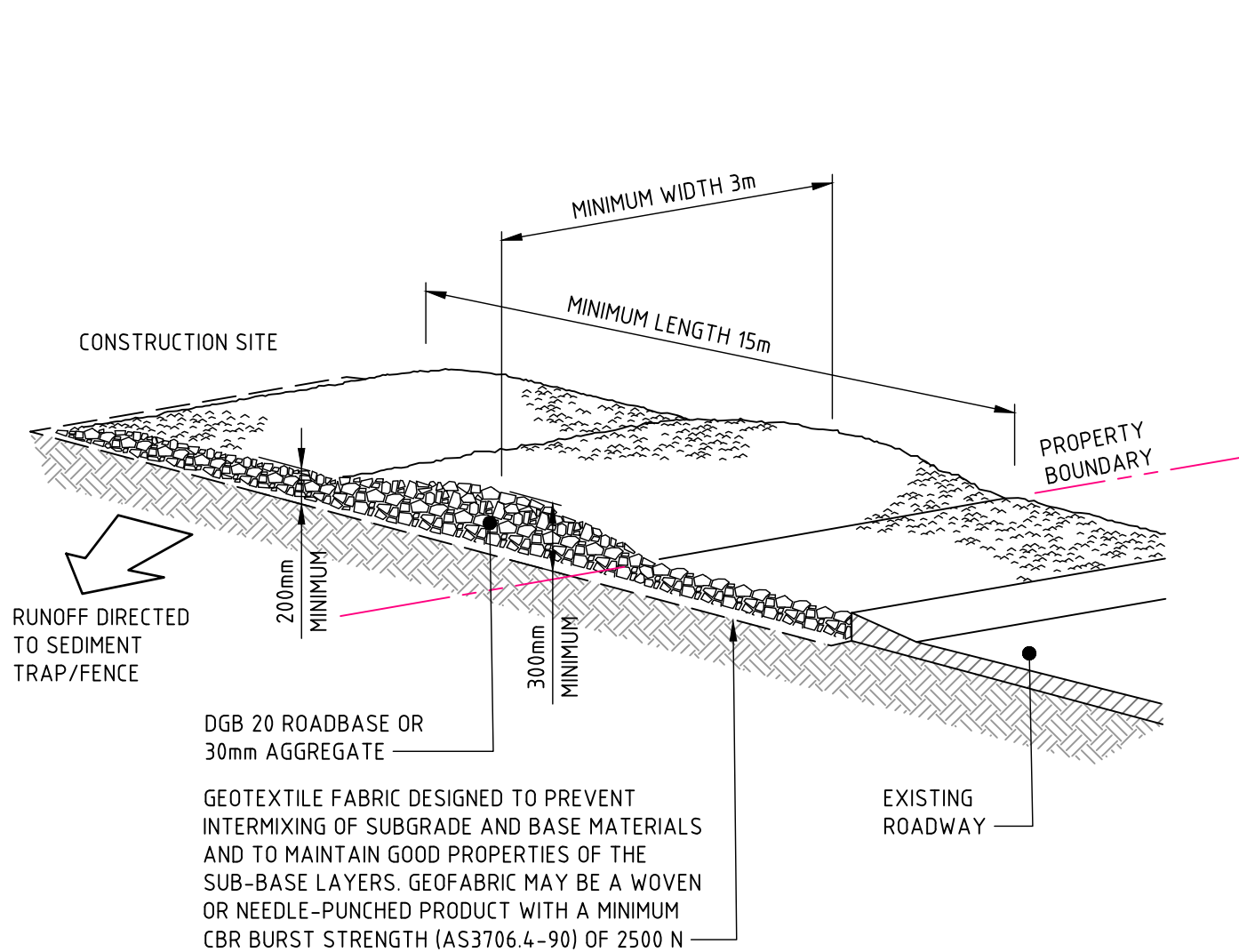
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DA-C02.01	EROSION AND SEDIMENT CONTROL PLAN
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DA-C05.01	ROAD LONGITUDINAL SECTIONS
DA-C09.01	CIVIL DETAILS

DRAWN: J.KNIGHT
DESIGNED: T. VAN KOEVEDEVEN / B. WARD
JOB MANAGER: T. VAN KOEVEDEVEN
VERIFIER: K. SINCLAIR

NOT FOR CONSTRUCTION

REVISION		DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	SCALE 1:2000 @ A1		PROJECT	DRAWING TITLE	JOB NUMBER	
1		ISSUED FOR CLIENT REVIEW	RG		JG	15.07.22	WANDA BEACH ESTATE PTY LTD				WANDA BEACH ESTATE FLEET STREET, SALAMANDER BAY NSW 2317	CIVIL ENGINEERING PACKAGE	NL221140	
2		ISSUED FOR INFORMATION	JK		BW	05.09.24								
3		ISSUED FOR DA APPROVAL	JK		BW	16.09.24								
4		ISSUED FOR INFORMATION	RDU		TVK	04.04.25								
5		ISSUED FOR DA APPROVAL	JK	KS	TVK	07.04.25								
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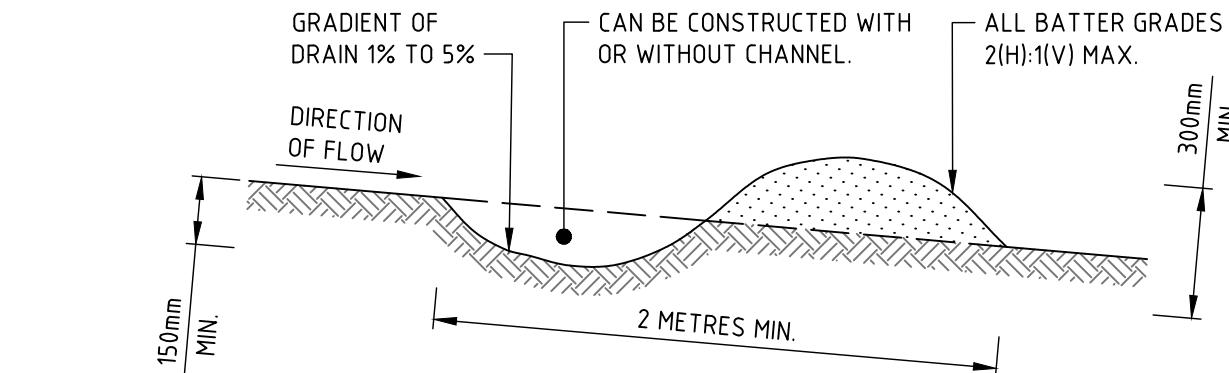
DESIGNED: J. KNIGHT
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CONSTRUCTION NOTES

- STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
- COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
- CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
- ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
- WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

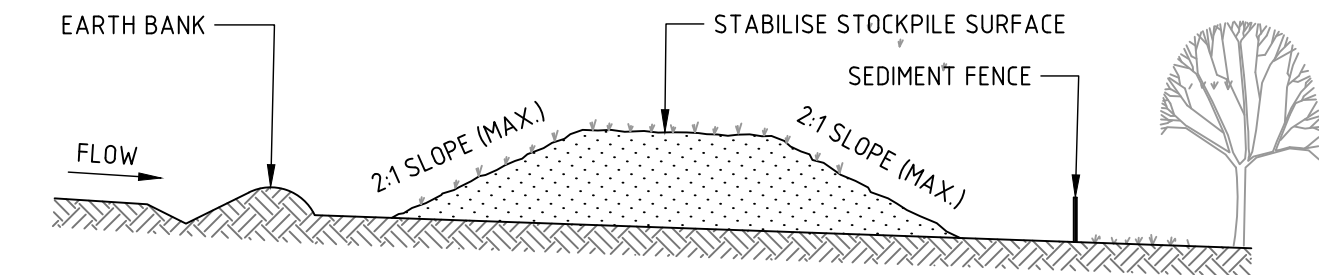
STABILISED SITE ACCESS (SD 6-14)



CONSTRUCTION NOTES

- BUILD WITH GRADIENTS BETWEEN 1 AND 5 PERCENT.
- AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
- ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
- BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPE.
- ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
- COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

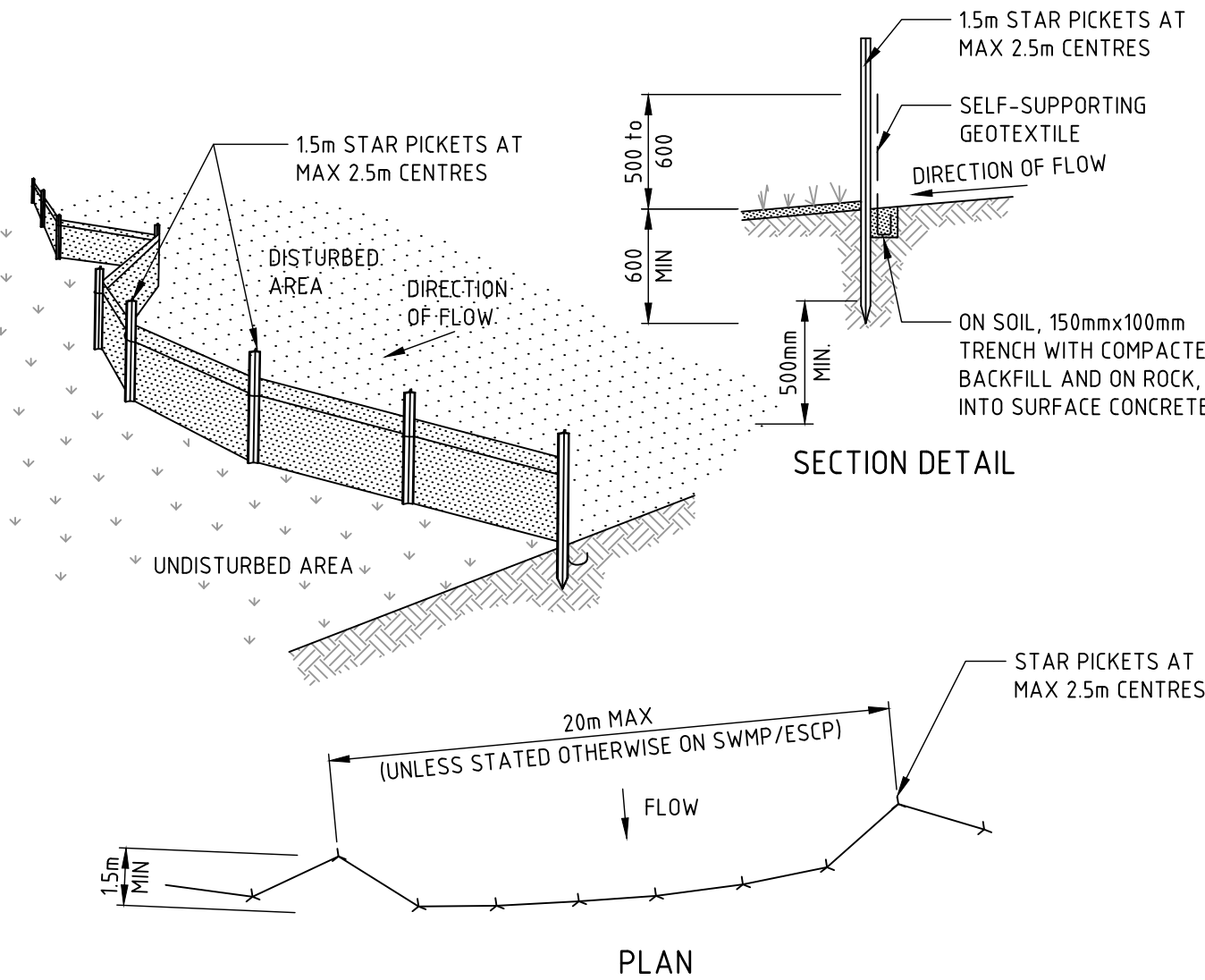
EARTH BANK - LOW FLOW (SD 5-5)



CONSTRUCTION NOTES

- PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
- WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
- WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
- CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

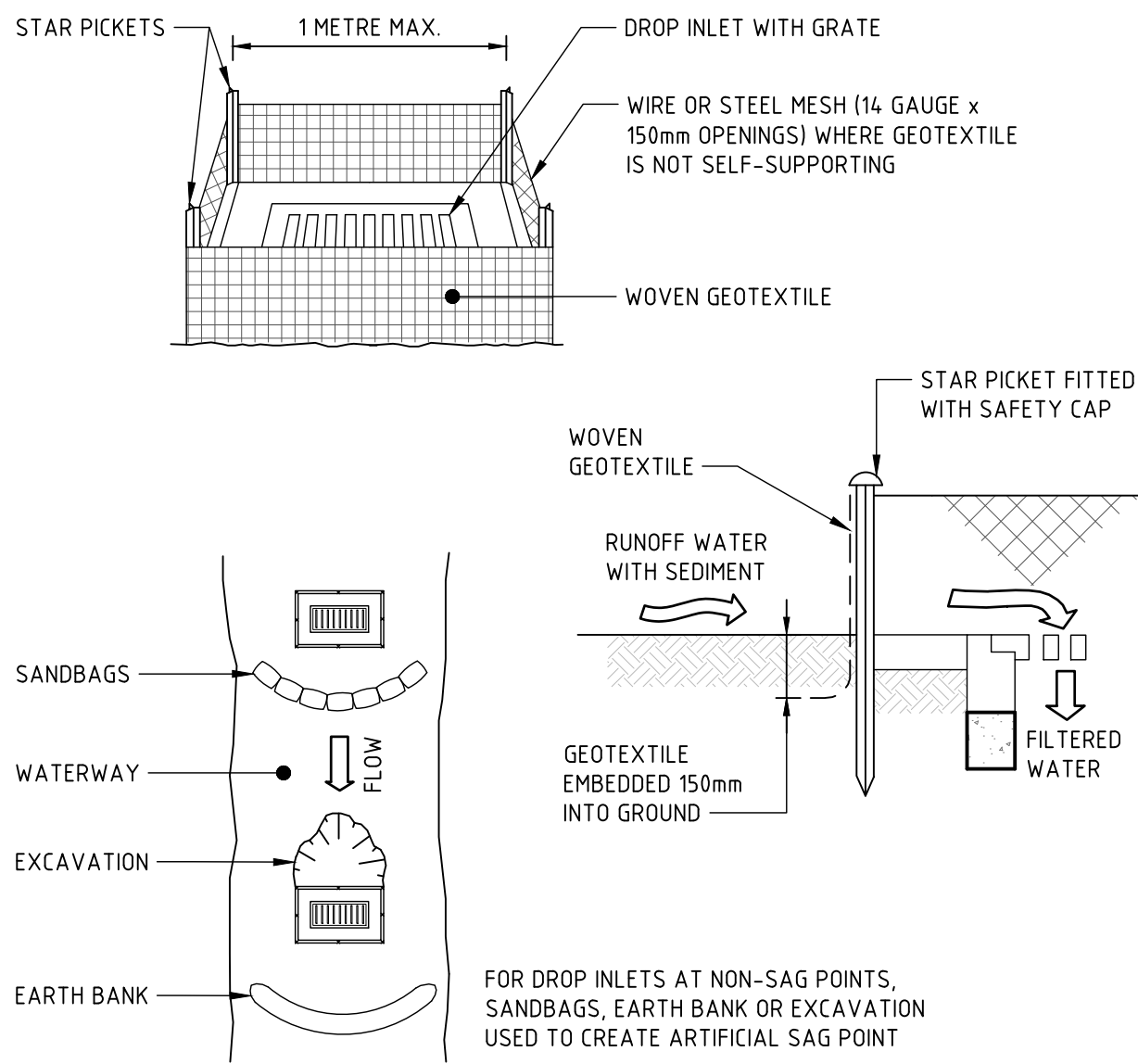
STOCKPILES (SD 4-1)



CONSTRUCTION NOTES

- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
- CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

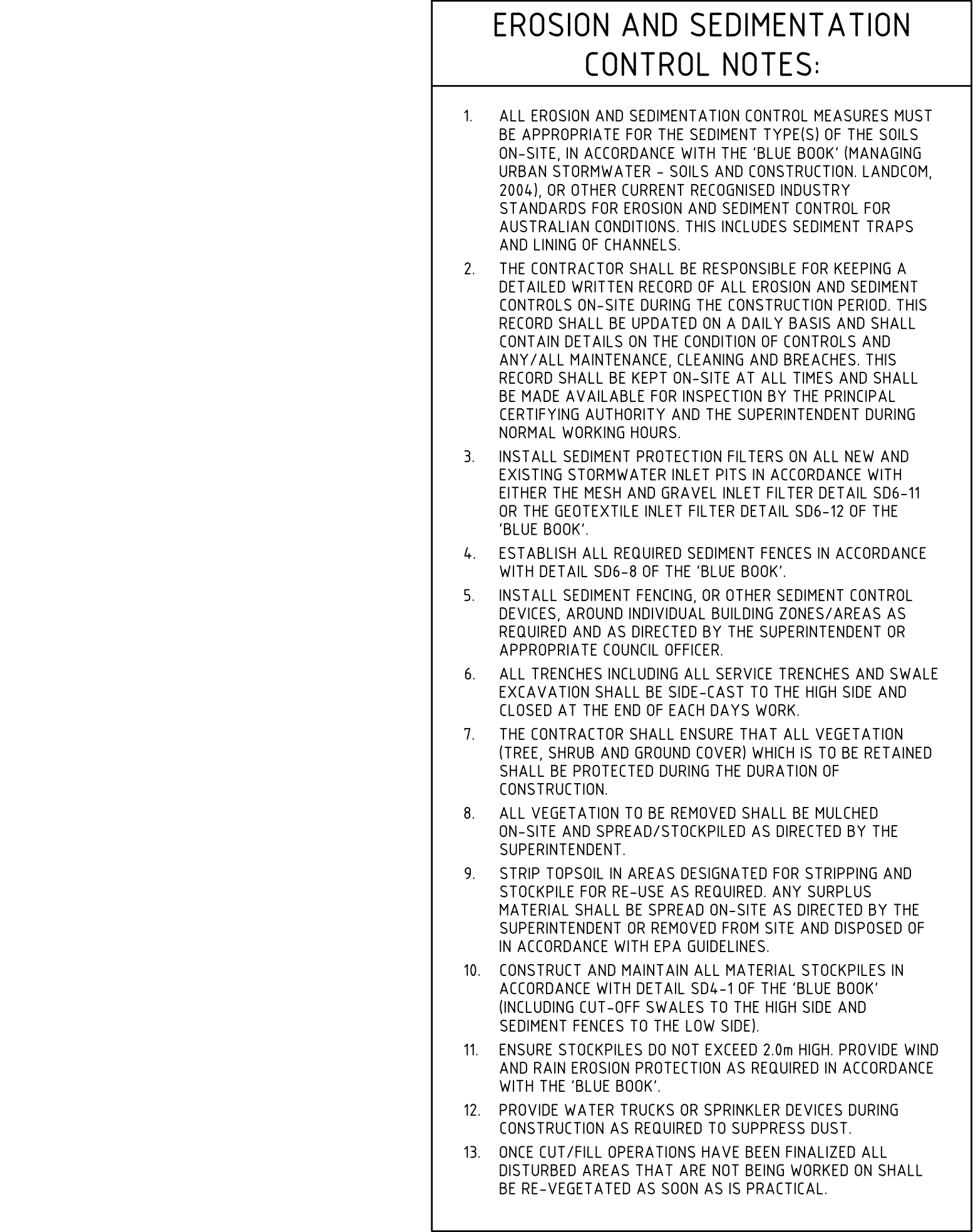
SEDIMENT FENCE (SD 6-8)



CONSTRUCTION NOTES

- FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
- FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
- IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
- DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)



CONSTRUCTION NOTES

- REMOVE ALL VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
- CONSTRUCT A CUT-OFF TRENCH 500mm DEEP AND 1200mm WIDE ALONG THE CENTRELINE OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
- MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95 PER CENT STANDARD PROCTOR DENSITY.
- SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
- PREPARE THE SITE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100mm TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
- SPREAD THE FILL IN 100mm TO 150mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.
- CONSTRUCT THE EMERGENCY SPILLWAY.
- REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.

EARTH SEDIMENT BASIN - WET (SD 6-4)



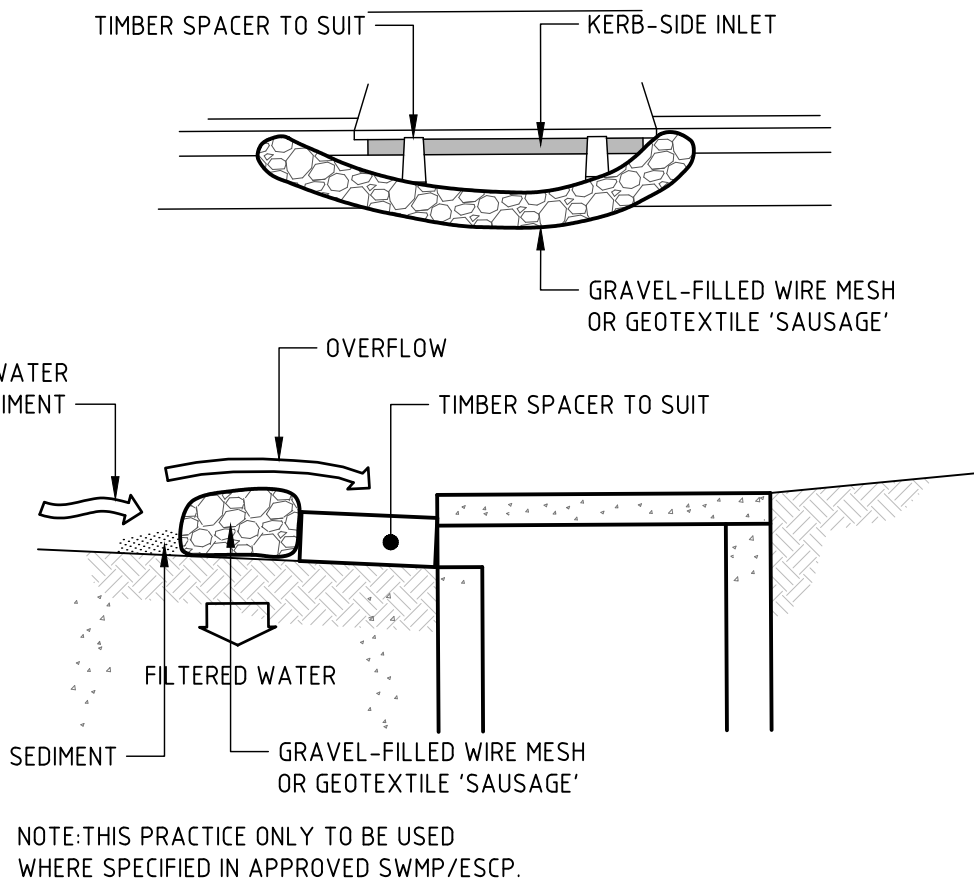
PROJECT
WANDA BEACH ESTATE
FLEET STREET, SALAMANDER BAY
NSW 2317

SANDBAG SEDIMENT FILTER (SD 6-11)

NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

- INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
- FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
- FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
- PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
- FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
- SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.



EROSION AND SEDIMENTATION CONTROL NOTES:

- ALL EROSION AND SEDIMENTATION CONTROL MEASURES MUST BE APPROPRIATE FOR THE SEDIMENT TYPE(S) OF THE SOILS ON-SITE, IN ACCORDANCE WITH THE 'BLUE BOOK' (MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION, LANDCOM, 2004), OR OTHER CURRENT RECOGNISED INDUSTRY STANDARDS FOR EROSION AND SEDIMENT CONTROL FOR AUSTRALIAN CONDITIONS. THIS INCLUDES SEDIMENT TRAPS AND LINING OF CHANNELS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING A DETAILED WRITTEN RECORD OF ALL EROSION AND SEDIMENT CONTROLS ON-SITE DURING THE CONSTRUCTION PERIOD. THIS RECORD SHALL BE UPDATED ON A DAILY BASIS AND SHALL CONTAIN DETAILS ON THE CONDITION OF CONTROLS AND ANY/ALL MAINTENANCE, CLEANING AND BREACHES. THIS RECORD SHALL BE KEPT ON-SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE FOR INSPECTION BY THE PRINCIPAL CERTIFYING AUTHORITY AND THE SUPERINTENDENT DURING NORMAL WORKING HOURS.
- INSTALL SEDIMENT PROTECTION FILTERS ON ALL NEW AND EXISTING STORMWATER INLET PITS IN ACCORDANCE WITH EITHER THE MESH AND GRAVEL INLET FILTER DETAIL SD6-11 OR THE GEOTEXTILE INLET FILTER DETAIL SD6-12 OF THE 'BLUE BOOK'.
- ESTABLISH ALL REQUIRED SEDIMENT FENCES IN ACCORDANCE WITH DETAIL SD6-8 OF THE 'BLUE BOOK'.
- INSTALL SEDIMENT FENCING, OR OTHER SEDIMENT CONTROL DEVICES, AROUND INDIVIDUAL BUILDING ZONES/AREAS AS REQUIRED AND AS DIRECTED BY THE SUPERINTENDENT OR APPROPRIATE COUNCIL OFFICER.
- ALL TRENCHES INCLUDING ALL SERVICE TRENCHES AND SWALE EXCAVATION SHALL BE SIDE-CAST TO THE HIGH SIDE AND CLOSED AT THE END OF EACH DAY'S WORK.
- THE CONTRACTOR SHALL ENSURE THAT ALL VEGETATION (TREE, SHRUB AND GROUND COVER) WHICH IS TO BE RETAINED SHALL BE PROTECTED DURING THE DURATION OF CONSTRUCTION.
- ALL VEGETATION TO BE REMOVED SHALL BE MULCHED ON-SITE AND SPREAD/STOCKPILED AS DIRECTED BY THE SUPERINTENDENT.
- STRIP TOPSOIL IN AREAS DESIGNATED FOR STRIPPING AND STOCKPILE FOR RE-USE AS REQUIRED. ANY SURPLUS MATERIAL SHALL BE SPREAD ON-SITE AS DIRECTED BY THE SUPERINTENDENT OR REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH EPA GUIDELINES.
- CONSTRUCT AND MAINTAIN ALL MATERIAL STOCKPILES IN ACCORDANCE WITH DETAIL SD4-1 OF THE 'BLUE BOOK' (INCLUDING CUT-OFF SWALES TO THE HIGH SIDE AND SEDIMENT FENCES TO THE LOW SIDE).
- ENSURE STOCKPILES DO NOT EXCEED 2.0m HIGH. PROVIDE WIND AND RAIN EROSION PROTECTION AS REQUIRED IN ACCORDANCE WITH THE 'BLUE BOOK'.
- PROVIDE WATER TRUCKS OR SPRINKLER DEVICES DURING CONSTRUCTION AS REQUIRED TO SUPPRESS DUST.
- ONCE CUT/FILL OPERATIONS HAVE BEEN FINALIZED ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE RE-VEGETATED AS SOON AS IS PRACTICAL.

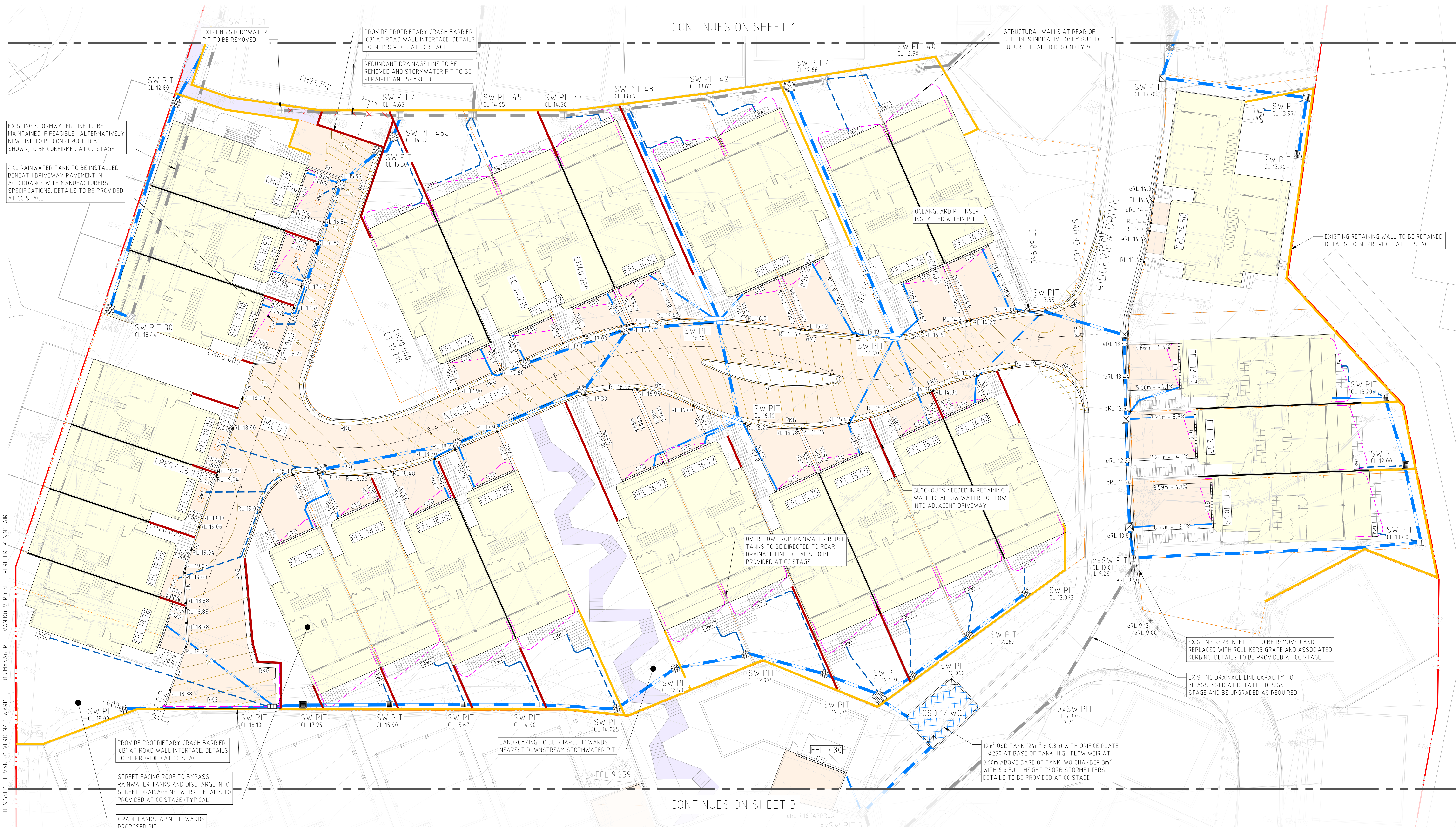
SEDIMENT BASIN SIZING CALCULATION:

THE SITE IS LOCATED WITHIN THE SHOAL BAY SOIL LANDSCAPE AND PRIMARILY CONSISTS OF CLAYEY SANDS (PENDING A SITE SPECIFIC GEOTECHNICAL INVESTIGATION), WHICH HAS THE FOLLOWING PROPERTIES:

CENTRAL SEDIMENT BASIN SIZING		
CONSTRAINT	VALUE	UNITS
SEDIMENT TYPE	C (COARSE)	
SOIL HYDROLOGY GROUP	A	
A = CATCHMENT AREA	0.34	ha
FLOW (4EY)	53	L/s
PARTICLE SIZE	0.05	mm
AREA FACTOR	635	
SEDIMENT BASIN AREA	33.7	m²
SETTLING ZONE HEIGHT	0.6	m
VOLUME SETTLING ZONE	20.2	m³
VOLUME SEDIMENT STORAGE	20.2	m³
TOTAL BASIN VOLUME REQUIRED	40.4	m³

NORTHERN SEDIMENT BASIN SIZING		
CONSTRAINT	VALUE	UNITS
SEDIMENT TYPE	C (COARSE)	
SOIL HYDROLOGY GROUP	A	
A = CATCHMENT AREA	0.38	ha
FLOW (4EY)	60	L/s
PARTICLE SIZE	0.05	mm
AREA FACTOR	635	
SEDIMENT BASIN AREA	38.1	m²
SETTLING ZONE HEIGHT	0.6	m
VOLUME SETTLING ZONE	22.9	m³
VOLUME SEDIMENT STORAGE	22.9	m³
TOTAL BASIN VOLUME REQUIRED	45.7	m³

SOUTHERN SEDIMENT BASIN SIZING		
CONSTRAINT	VALUE	UNITS
SEDIMENT TYPE	C (COARSE)	
SOIL HYDROLOGY GROUP	A	
A = CATCHMENT AREA	0.20	ha
FLOW (4EY)	32	L/s
PARTICLE SIZE	0.05	mm
AREA FACTOR	635	
SEDIMENT BASIN AREA	20	m²
SETTLING ZONE HEIGHT	0.6	m
VOLUME SETTLING ZONE	12.2	m³
VOLUME SEDIMENT STORAGE	12.2	m³
TOTAL BASIN VOLUME REQUIRED	24.4	m³



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1	ISSUED FOR INFORMATION	JK		BW	05.09.24	WANDA BEACH ESTATE PTY LTD	EJE architecture	SCALE 1:200 @ A1	WANDA BEACH ESTATE FLEET STREET, SALAMANDER BAY NSW 2317	CIVIL ENGINEERING PACKAGE	NL221140
2	ISSUED FOR DA APPROVAL	JK		BW	16.09.24						
3	ISSUED FOR INFORMATION	RDU		TVK	04.04.25						
4	ISSUED FOR DA APPROVAL	JK	KS	TVK	07.04.25						
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									REVISION 4		
									DRAWING SHEET SIZE = A1		

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**WANDA BEACH ESTATE
FLEET STREET, SALAMANDER BAY
NSW 2317**

JOB NUMBER		NL221140	
DRAWING NUMBER		REVISION	
DA-C04.03		4	
DRAWING SHEET SIZE = A1			

DRAWN: J.KNIGHT
DESIGNED: T. VAN KOEVEDEVEN / B. WARD
JOB MANAGER: T. VAN KOEVEDEVEN
VERIFIER: K. SINCLAIR



PROPOSED DEVELOPMENT SITE

FLEET STREET

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1	ISSUED FOR CLIENT REVIEW	JK		KS	22.04.25
2	ISSUED FOR CLIENT REVIEW	JR		TVK	13.05.25

CLIENT
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SCALE 1:250 @ A1
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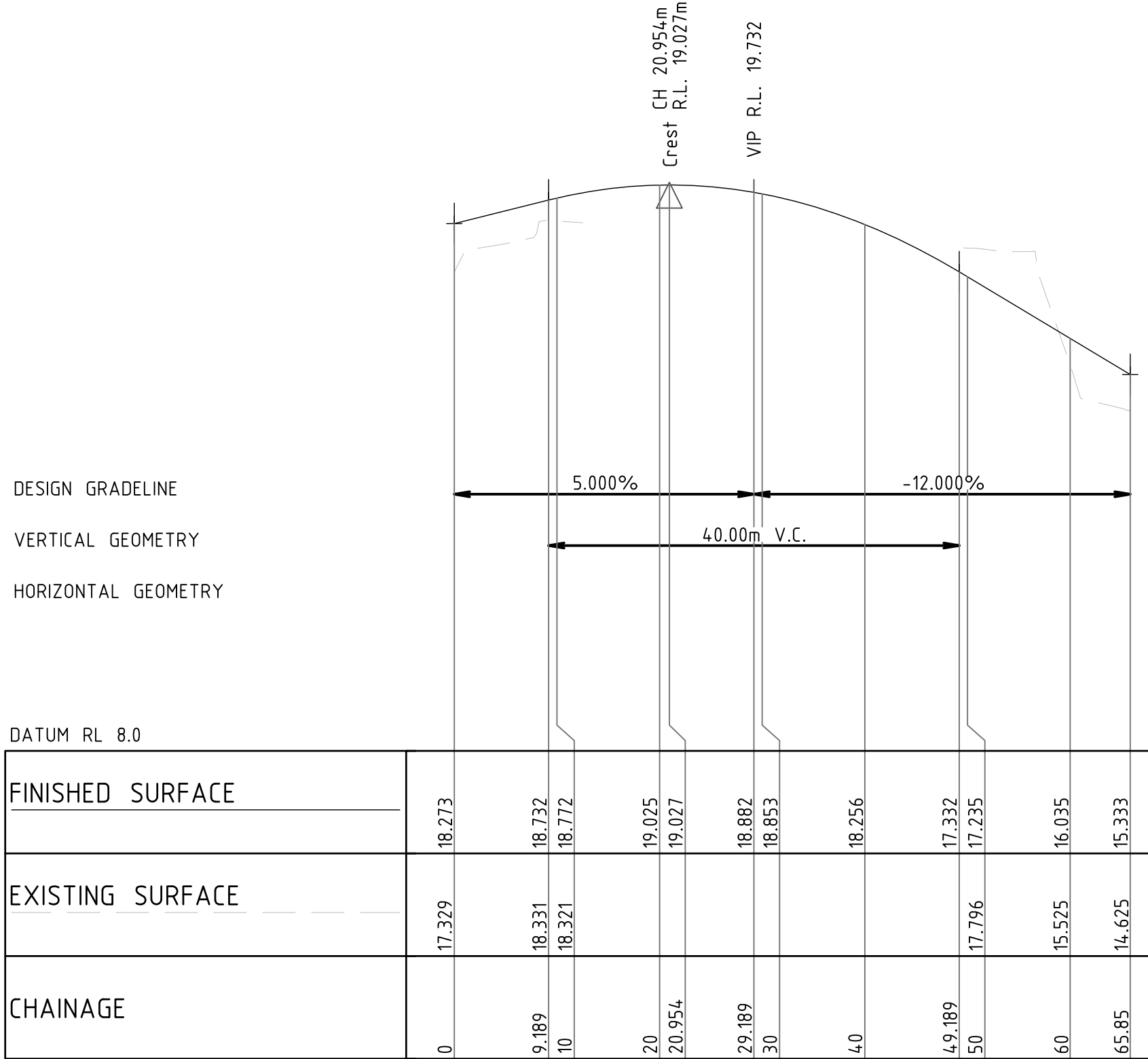
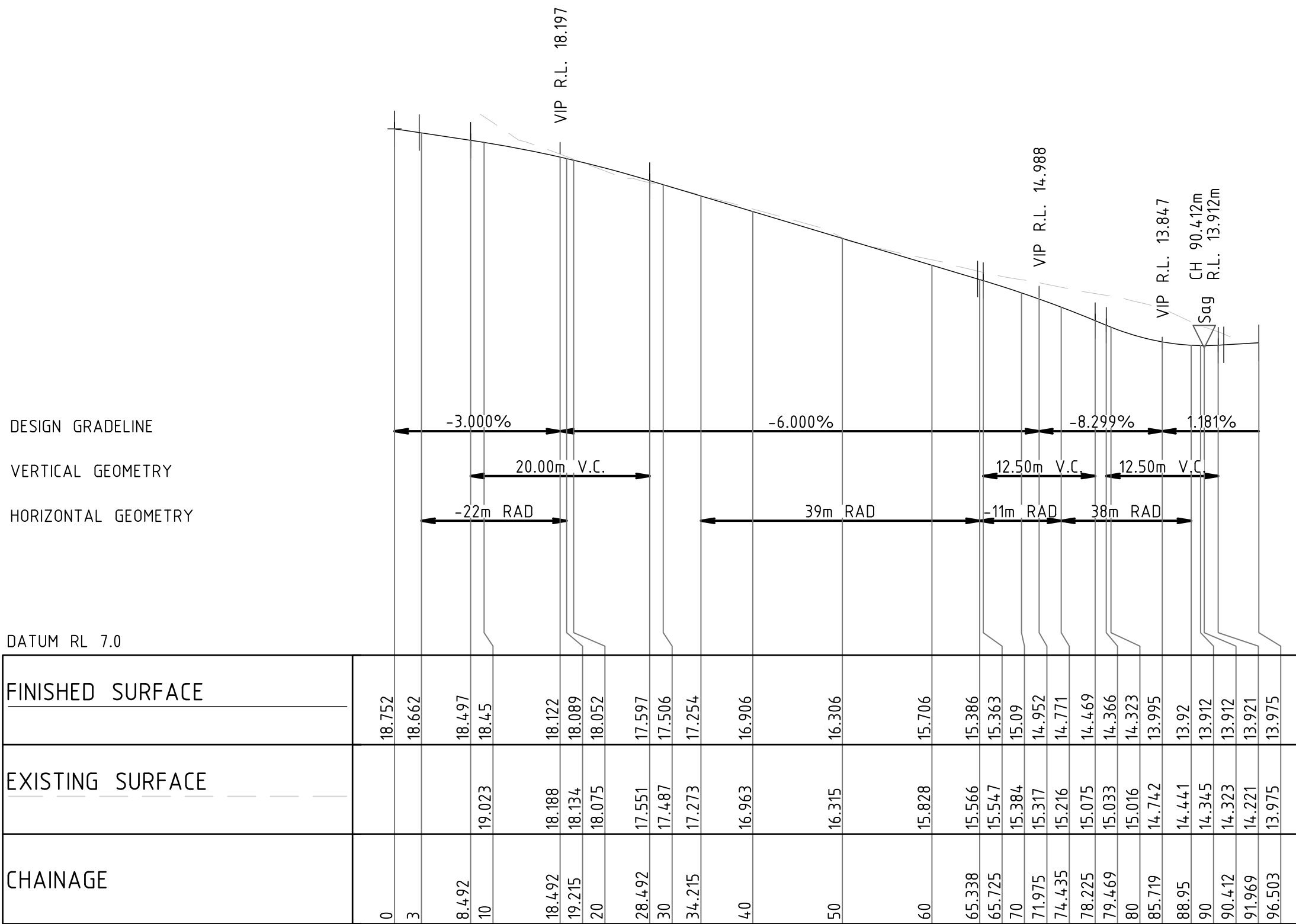
NORTHROP
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ABN 81 094 433 100

PROJECT
WANDA BEACH ESTATE FLEET STREET, SALAMANDER BAY NSW 2317

DRAWING TITLE
CIVIL ENGINEERING PACKAGE
FIRE TRAIL PLAN

JOB NUMBER
NL221140
DRAWING NUMBER
DA-C04.11
REVISION
2
DRAWING SHEET SIZE = A1

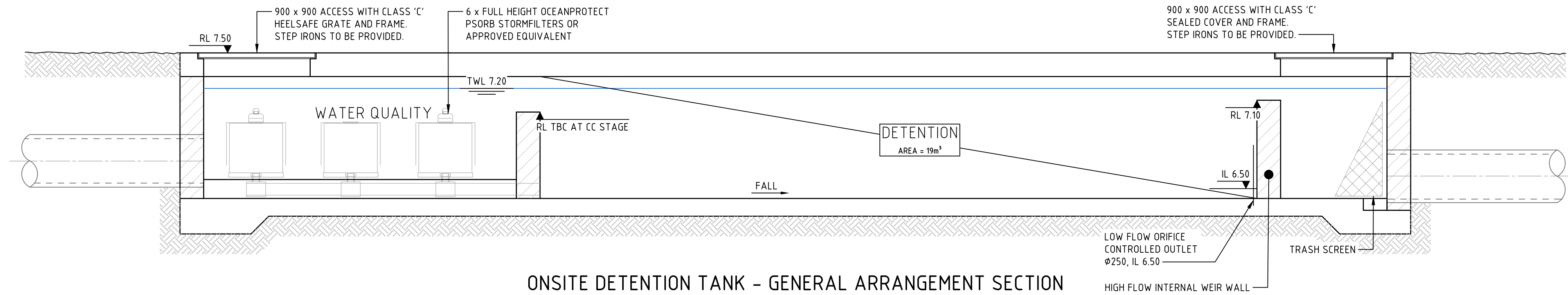
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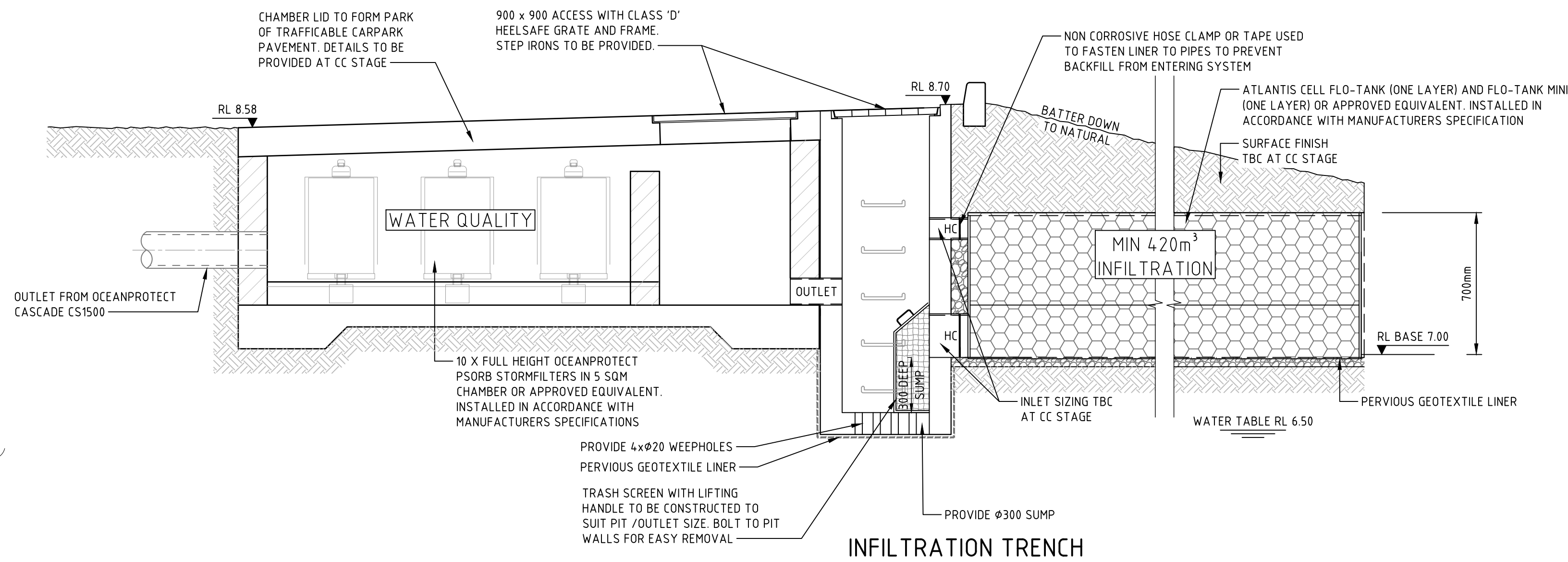
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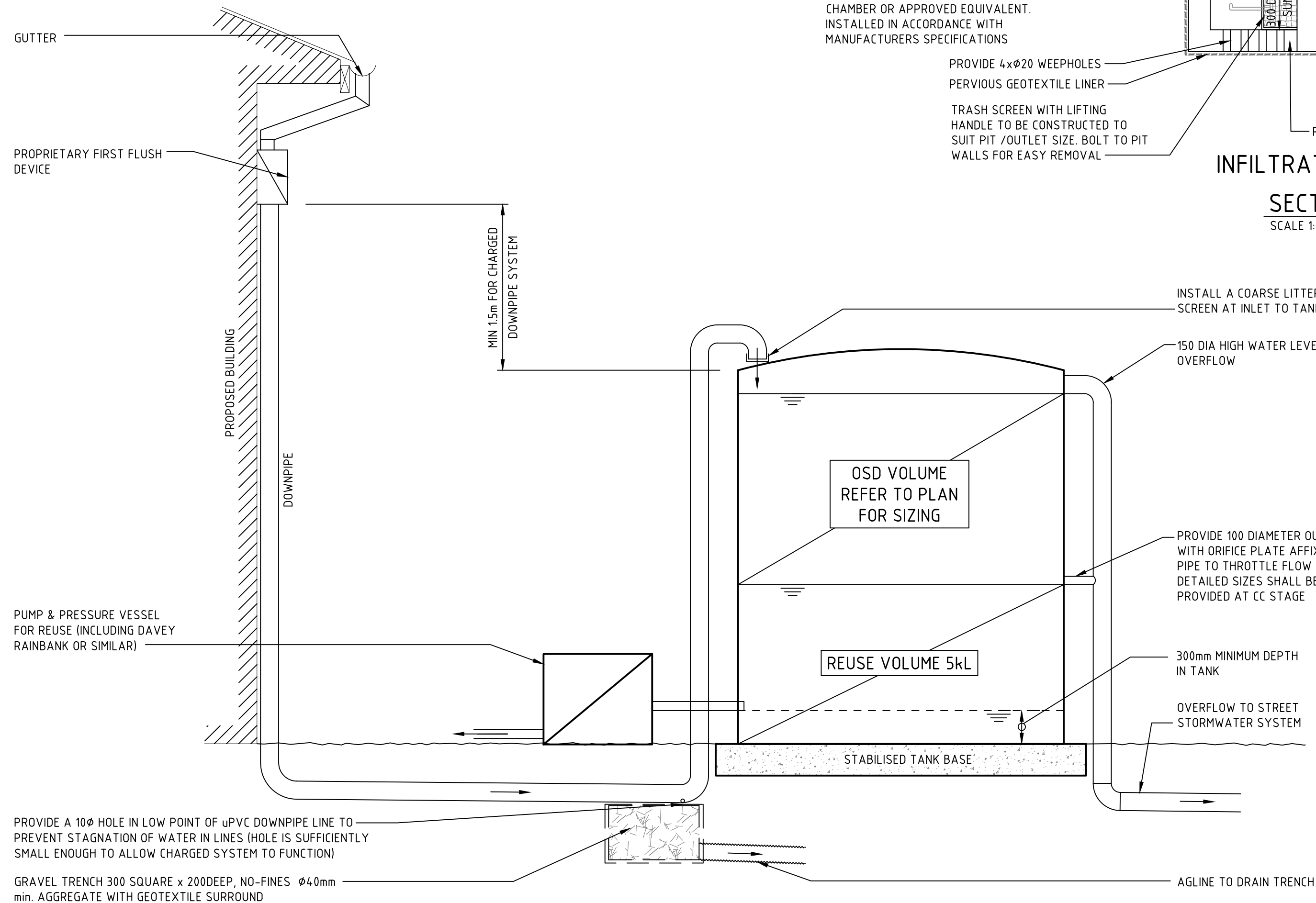


ONSITE DETENTION TANK - GENERAL ARRANGEMENT SECTION

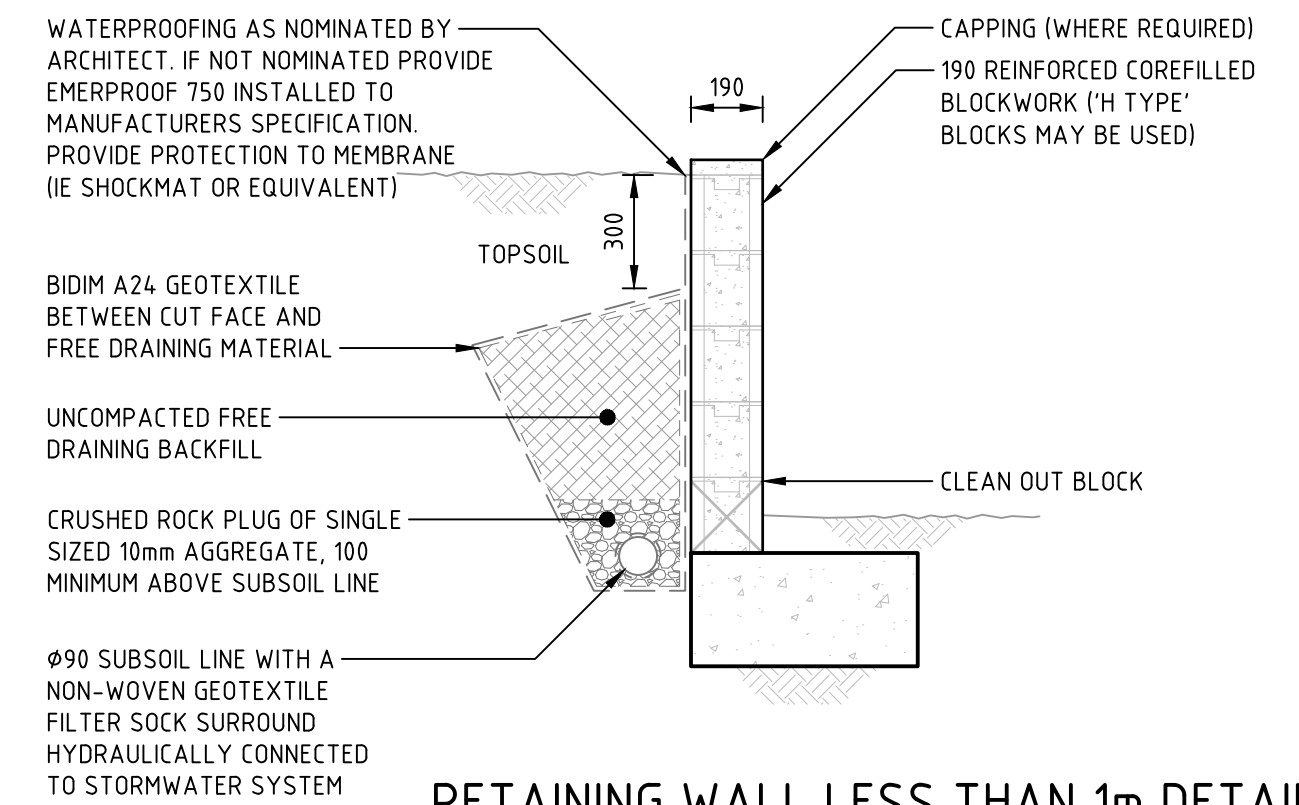


INFILTRATION TRENCH

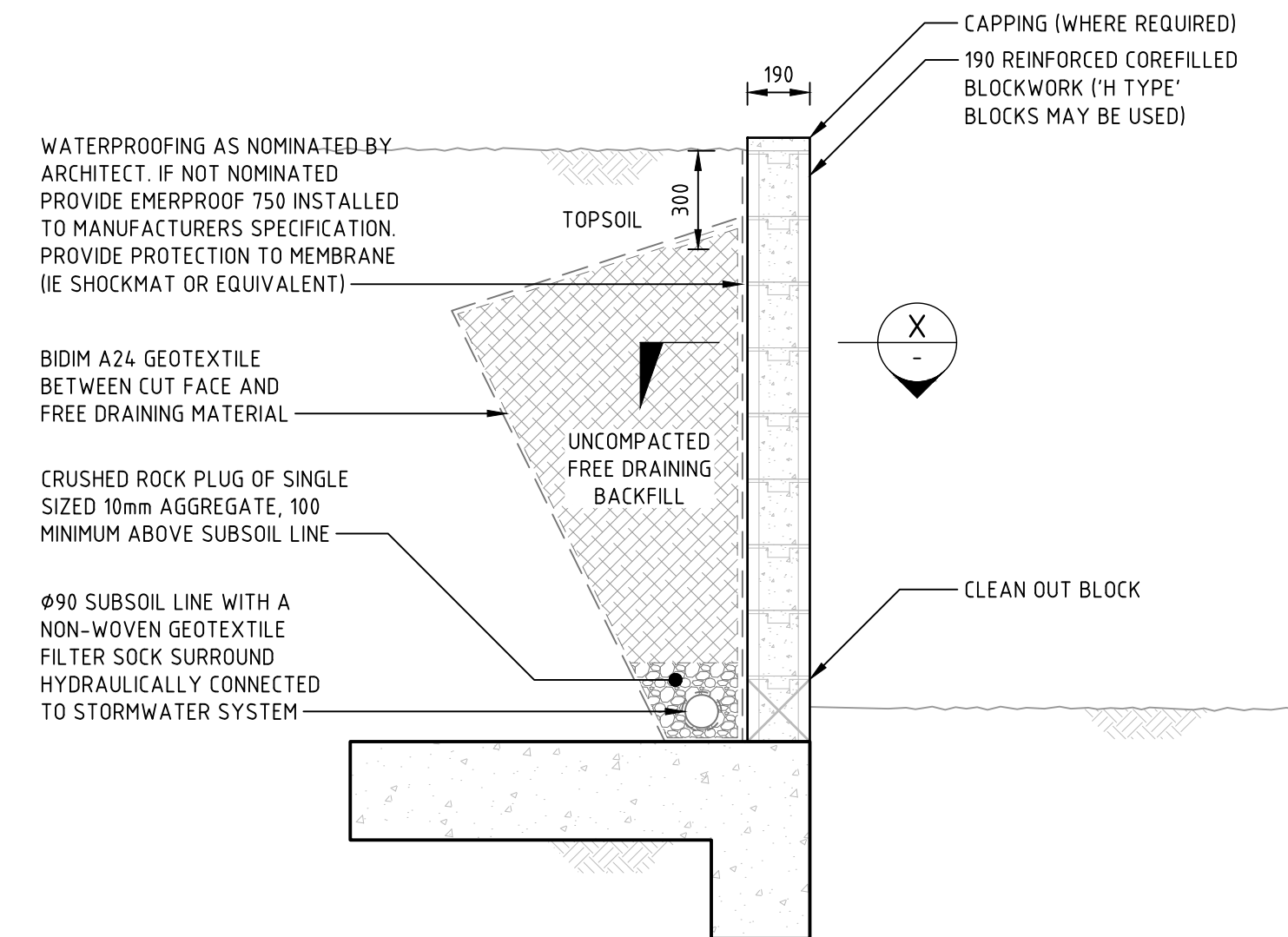
SECTION A-C04.01
SCALE 1:25



TYPICAL REUSE/OSD ABOVE GROUND TANK DETAIL

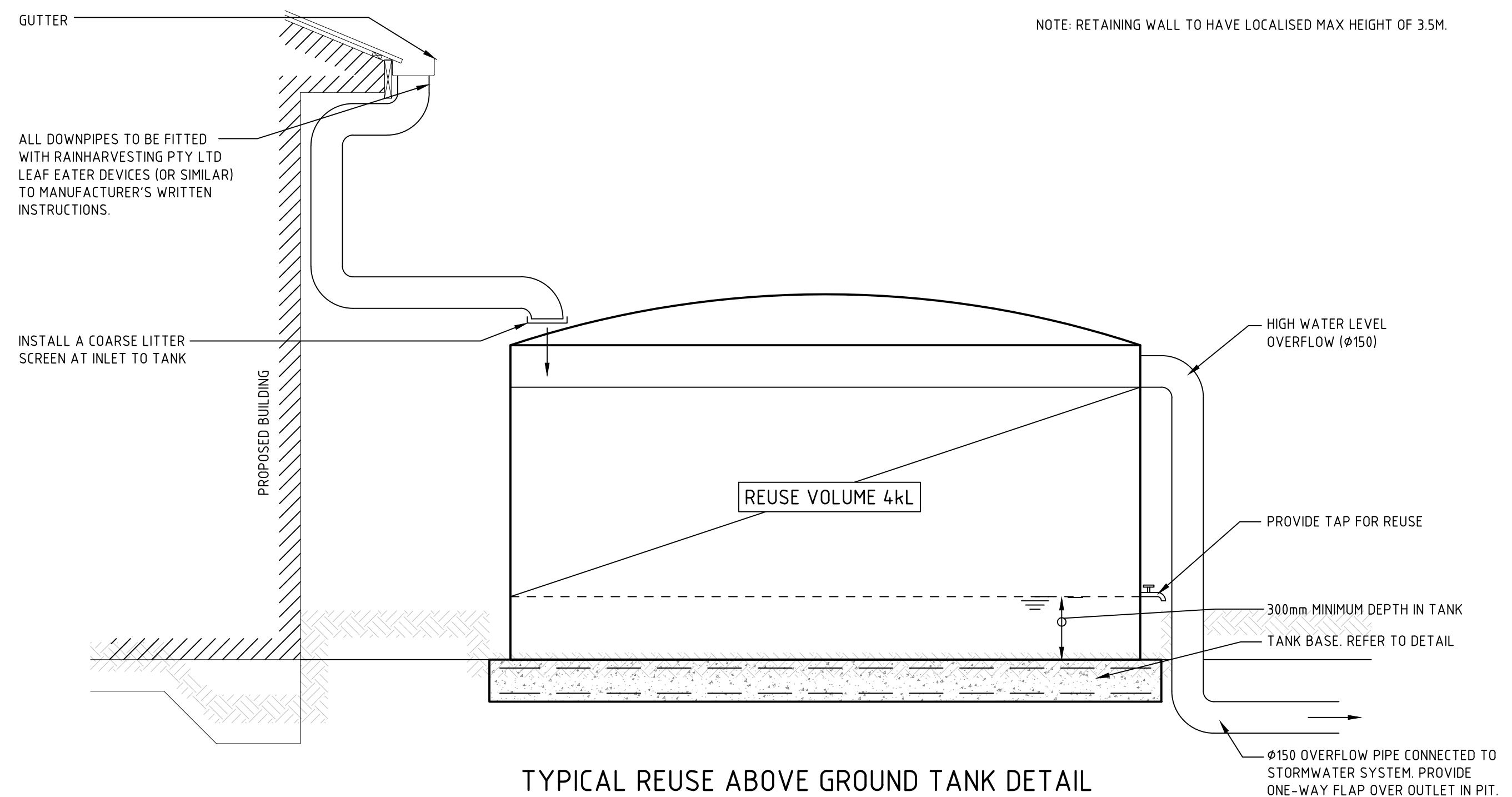


RETAINING WALL LESS THAN 1m DETAIL



RETAINING WALL LARGER THAN 1m DETAIL

NOTE: RETAINING WALL TO HAVE LOCALISED MAX HEIGHT OF 3.5M.



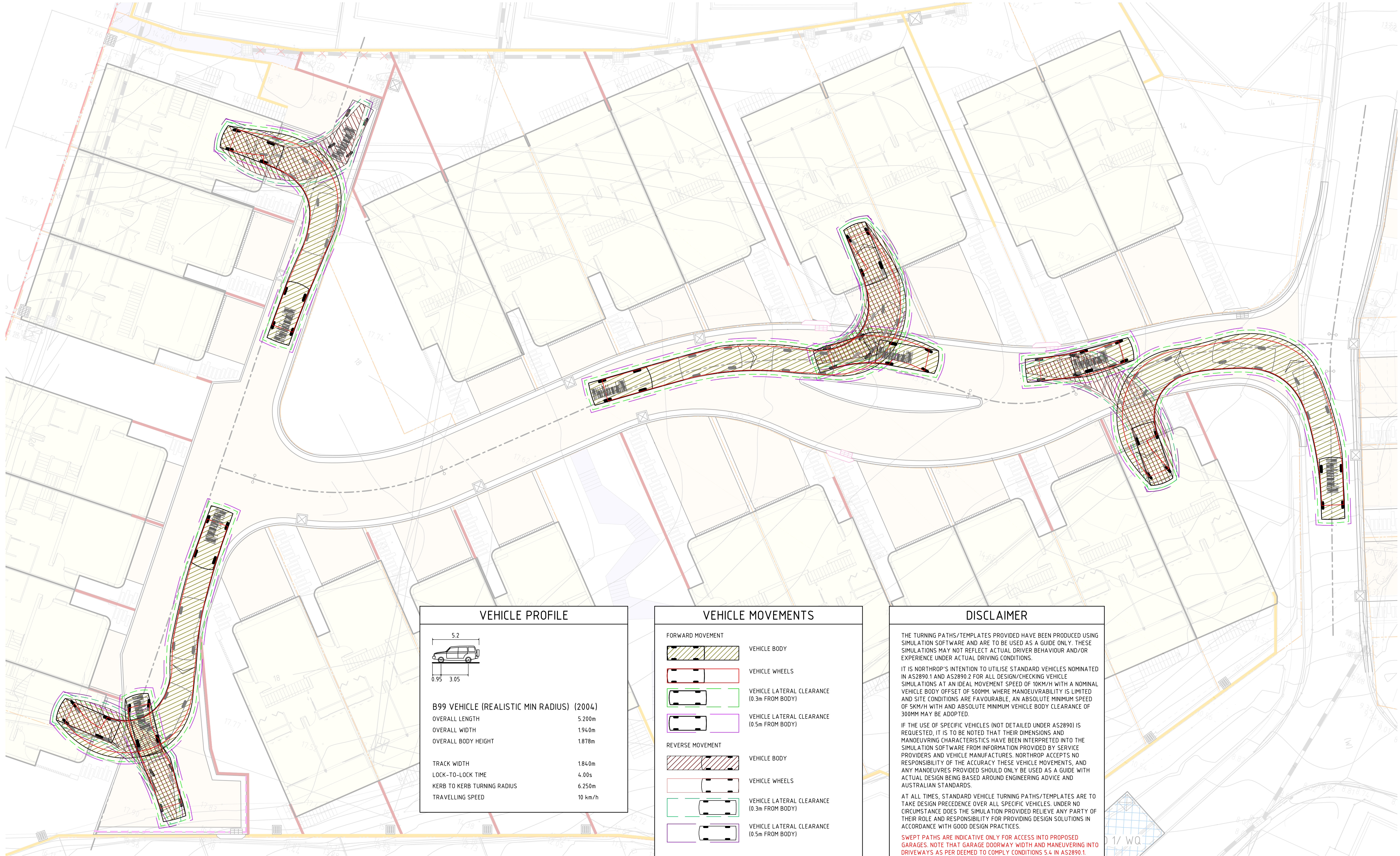
TYPICAL REUSE ABOVE GROUND TANK DETAIL

NOTE: THE ENTIRE PRESSURISED DOWNPIPE SYSTEM SHALL BE AIR TIGHT AND BE ABLE TO WITHSTAND ATMOSPHERIC PRESSURE. THE PIPING SYSTEM SHALL BE MINIMUM SN6 AND FITTINGS WITH INTERNAL ULTRA VIOLET STABILISING (OR APPROVED EQUIVALENT).

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DRAWING SHEET SIZE = A1											

DESIGNED: T. VAN KOEVEDEVEN / B. WARD JOB MANAGER: T. VAN KOEVEDEVEN VERIFIER: K. SINCLAIR
DRAWN: J. KNIGHT



VEHICLE PROFILE

B99 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	5.200m
OVERALL WIDTH	1.940m
OVERALL BODY HEIGHT	1.878m
TRACK WIDTH	1.840m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	6.250m
TRAVELLING SPEED	10 km/h

VEHICLE MOVEMENTS

FORWARD MOVEMENT

VEHICLE BODY

VEHICLE WHEELS

VEHICLE LATERAL CLEARANCE (0.3m FROM BODY)

VEHICLE LATERAL CLEARANCE (0.5m FROM BODY)

REVERSE MOVEMENT

VEHICLE BODY

VEHICLE WHEELS

VEHICLE LATERAL CLEARANCE (0.3m FROM BODY)

VEHICLE LATERAL CLEARANCE (0.5m FROM BODY)

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SWEEP PATHS ARE INDICATIVE ONLY FOR ACCESS INTO PROPOSED GARAGES. NOTE THAT GARAGE DOORWAY WIDTH AND MANEUVERING INTO DRIVEWAYS AS PER DEEMED TO COMPLY CONDITIONS 5.4 IN AS2890.1.

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR CLIENT REVIEW	JK		TVK	17.04.25

CLIENT

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PROJECT

**WANDA BEACH ESTATE
FLEET STREET, SALAMANDER BAY
NSW 2317**

DRAWING TITLE

CIVIL ENGINEERING PACKAGE

SWEPT PATH ANALYSIS PLAN

DRAWING NUMBER

DA-C10.01

DRAWING SHEET SIZE = A1

JOB NUMBER

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REVISION

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