

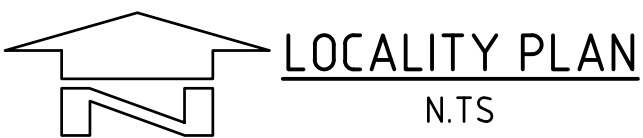
HUNTINGWOOD EAST ESTATE
AUGUSTA STREET, HUNTINGWOOD EAST, NSW, 2148
CIVIL EARLY WORKS PACKAGE
SSD - 36138263

DRAWING LIST

DRAWING NO.	DRAWING TITLE
CO13904.07-EW 100	DRAWING LIST & GENERAL NOTES
CO13904.07-EW 150	EXISTING SERVICES KEY PLAN
CO13904.07-EW 155	EASEMENTS KEY PLAN
CO13904.07-EW 156	TREE RETENTION PLAN
CO13904.07-EW 200	EROSION AND SEDIMENT CONTROL - ENGINEERING NOTES
CO13904.07-EW 201	EROSION AND SEDIMENT CONTROL PLAN - STAGE 0
CO13904.07-EW 202	EROSION AND SEDIMENT CONTROL PLAN - STAGE 1
CO13904.07-EW 250	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 1
CO13904.07-EW 251	EROSION AND SEDIMENT CONTROL DETAILS - SHEET 2
CO13904.07-EW 300	BULK EARTHWORKS KEY PLAN
CO13904.07-EW 301	BULK EARTHWORKS PLAN - WAREHOUSE 1, 2 & WESTERN SWALE
CO13904.07-EW 302	BULK EARTHWORKS PLAN - WAREHOUSE 3 & WESTERN SWALE
CO13904.07-EW 303	BULK EARTHWORKS PLAN - WAREHOUSE 4 & BLACKTOWN CREEK
CO13904.07-EW 304	BULK EARTHWORKS PLAN - WAREHOUSE 5 & BLACKTOWN CREEK
CO13904.07-EW 310	CUT & FILL PLAN
CO13904.07-EW 350	BULK EARTHWORKS SECTIONS - SHEET 1
CO13904.07-EW 351	BULK EARTHWORKS SECTIONS - SHEET 2
CO13904.07-EW 352	BULK EARTHWORKS SECTIONS - SHEET 3
CO13904.07-EW 353	BULK EARTHWORKS SECTIONS - SHEET 4
CO13904.07-EW 354	BULK EARTHWORKS SECTIONS - SHEET 5
CO13904.07-EW 355	BULK EARTHWORKS SECTIONS - SHEET 6
CO13904.07-EW 400	STORMWATER DRAINAGE KEY PLAN
CO13904.07-EW 410	BLACKTOWN CREEK REALIGNMENT PLAN
CO13904.07-EW 415	WESTERN SWALE PLAN
CO13904.07-EW 450	STORMWATER DRAINAGE DETAILS - SHEET 1
CO13904.07-EW 451	STORMWATER DRAINAGE DETAILS - SHEET 2
CO13904.07-EW 452	STORMWATER DRAINAGE DETAILS - SHEET 3
CO13904.07-EW 453	STORMWATER DRAINAGE DETAILS - SHEET 4
CO13904.07-EW 454	STORMWATER DRAINAGE DETAILS - SHEET 5
CO13904.07-EW 455	STORMWATER DRAINAGE DETAILS - SHEET 6
CO13904.07-EW 470	STORMWATER LONG SECTIONS

DRAWING LIST

DRAWING NO.	DRAWING TITLE
CO13904.07-EW 550	KEY SECTIONS PLAN
CO13904.07-EW 551	TYPICAL SECTIONS - SHEET 1
CO13904.07-EW 552	TYPICAL SECTIONS - SHEET 2
CO13904.07-EW 553	TYPICAL SECTIONS - SHEET 3
CO13904.07-EW 554	TYPICAL SECTIONS - SHEET 4
CO13904.07-EW 555	TYPICAL SECTIONS - SHEET 5
CO13904.07-EW 556	TYPICAL SECTIONS - SHEET 6
CO13904.07-EW 557	TYPICAL SECTIONS - SHEET 7
CO13904.07-EW 558	TYPICAL SECTIONS - SHEET 8
CO13904.07-EW 560	TYPICAL SECTIONS - SHEET 9 (SUPERSEDED - NOT IN USE)
CO13904.07-EW 561	TYPICAL SECTIONS - SHEET 10 (SUPERSEDED - NOT IN USE)
CO13904.07-EW 562	LONG SECTION - TRANSMISSION TOWERS (NORTH)
CO13904.07-EW 563	LONG SECTION - TRANSMISSION TOWERS (SOUTH)
CO13904.07-EW 564	TYPICAL CROSS SECTIONS - TRANSMISSION TOWERS - SHEET 1
CO13904.07-EW 565	TYPICAL CROSS SECTIONS - TRANSMISSION TOWERS - SHEET 2
CO13904.07-EW 600	RETAINING WALL KEY PLAN
CO13904.07-EW 601	RETAINING WALL PLAN - WAREHOUSE 1, 2 & WESTERN SWALE
CO13904.07-EW 602	RETAINING WALL PLAN - WAREHOUSE 3 & WESTERN SWALE
CO13904.07-EW 603	RETAINING WALL PLAN - WAREHOUSE 4 & BLACKTOWN CREEK
CO13904.07-EW 604	RETAINING WALL PLAN - WAREHOUSE 5 & BLACKTOWN CREEK
CO13904.07-EW 611	RETAINING WALL ELEVATIONS SHEET 1
CO13904.07-EW 612	RETAINING WALL ELEVATIONS SHEET 2
CO13904.07-EW 613	RETAINING WALL ELEVATIONS SHEET 3
CO13904.07-EW 614	RETAINING WALL ELEVATIONS SHEET 4
CO13904.07-EW 615	RETAINING WALL ELEVATIONS SHEET 5
CO13904.07-EW 616	RETAINING WALL ELEVATIONS SHEET 6 (SUPERSEDED - NOT IN USE)
CO13904.07-EW 650	RETAINING WALL DETAILS - SHEET 1
CO13904.07-EW 651	RETAINING WALL DETAILS - SHEET 2



GENERAL NOTES:

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS. ENGINEER'S DRAWINGS ISSUED IN ANY ELECTRONIC FORMAT MUST NOT BE USED FOR DIMENSIONAL SETOUT. REFER TO THE ARCHITECT'S DRAWINGS FOR ALL DIMENSIONAL SETOUT INFORMATION.
- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE PROVIDED BY THE BUILDER TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.

ELECTRONIC INFORMATION NOTES:

- THE ISSUED DRAWINGS IN HARD COPY OR PDF FORMAT TAKE PRECEDENCE OVER ANY ELECTRONICALLY ISSUED INFORMATION, LAYOUTS OR DESIGN MODELS.
- THE CONTRACTOR'S DIRECT AMENDMENT OR MANIPULATION OF THE DATA OR INFORMATION THAT MIGHT BE CONTAINED WITHIN AN ENGINEER-SUPPLIED DIGITAL TERRAIN MODEL AND ITS SUBSEQUENT USE TO UNDERTAKE THE WORKS WILL BE SOLELY AT THE DISCRETION OF AND THE RISK OF THE CONTRACTOR.
- THE CONTRACTOR IS REQUIRED TO HIGHLIGHT ANY DISCREPANCIES BETWEEN THE DIGITAL TERRAIN MODEL AND INFORMATION PROVIDED IN THE CONTRACT AND/OR DRAWINGS AND IS REQUIRED TO SEEK CLARIFICATION FROM THE SUPERINTENDENT.
- THE ENGINEER WILL NOT BE LIABLE OR RESPONSIBLE FOR THE POSSIBLE ON-GOING NEED TO UPDATE THE DIGITAL TERRAIN MODEL, SHOULD THERE BE ANY AMENDMENTS OR CHANGES TO THE DRAWINGS OR CONTRACT INITIATED BY THE CONTRACTOR.

Compliance Certificate

Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

Registration Number: BDC05310

These plans/specifications form part of the certificate issued: 01/05/2026



This Design Compliance Certificate relates to the items listed below.

1. Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

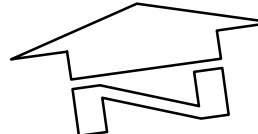
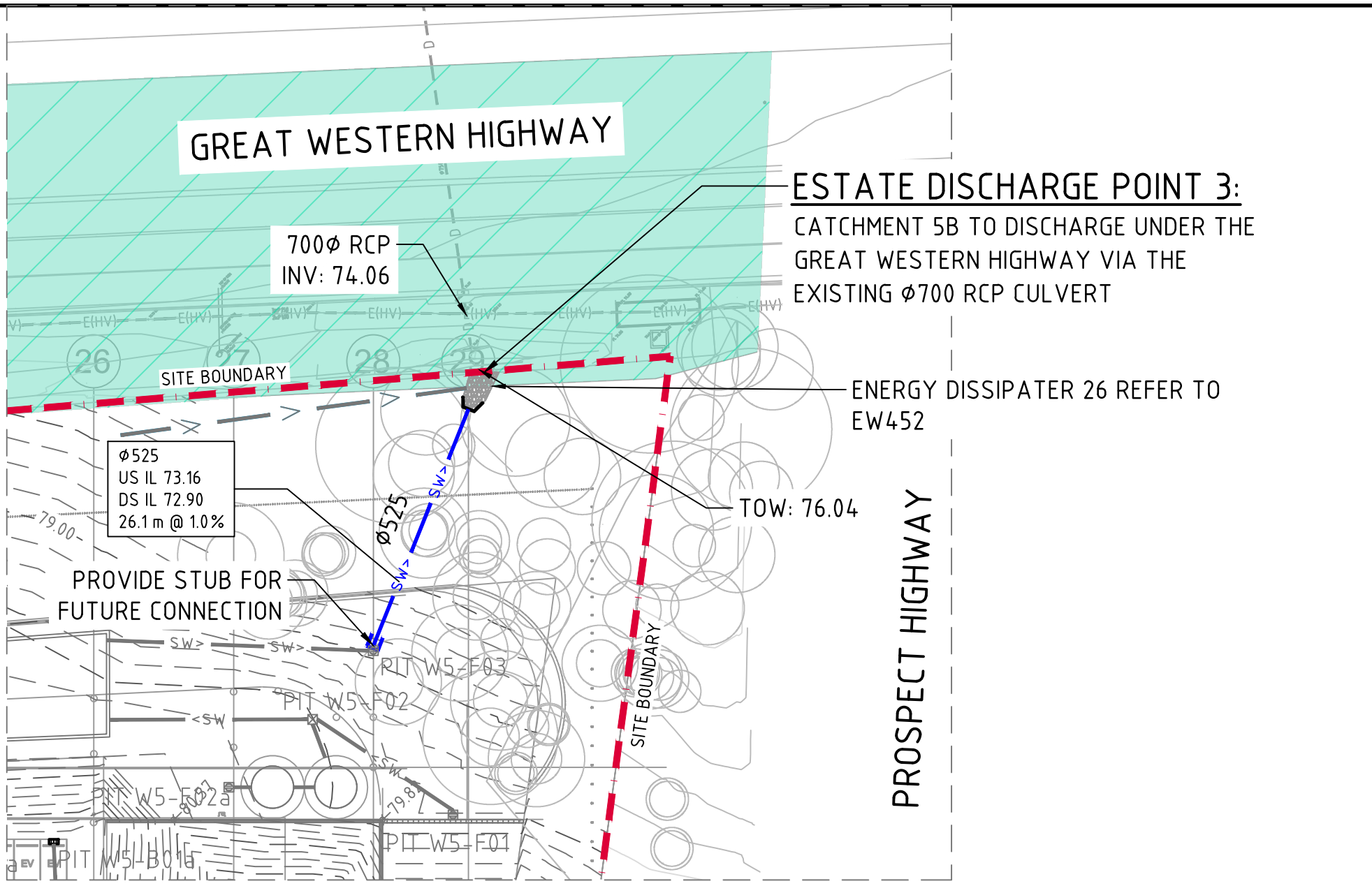
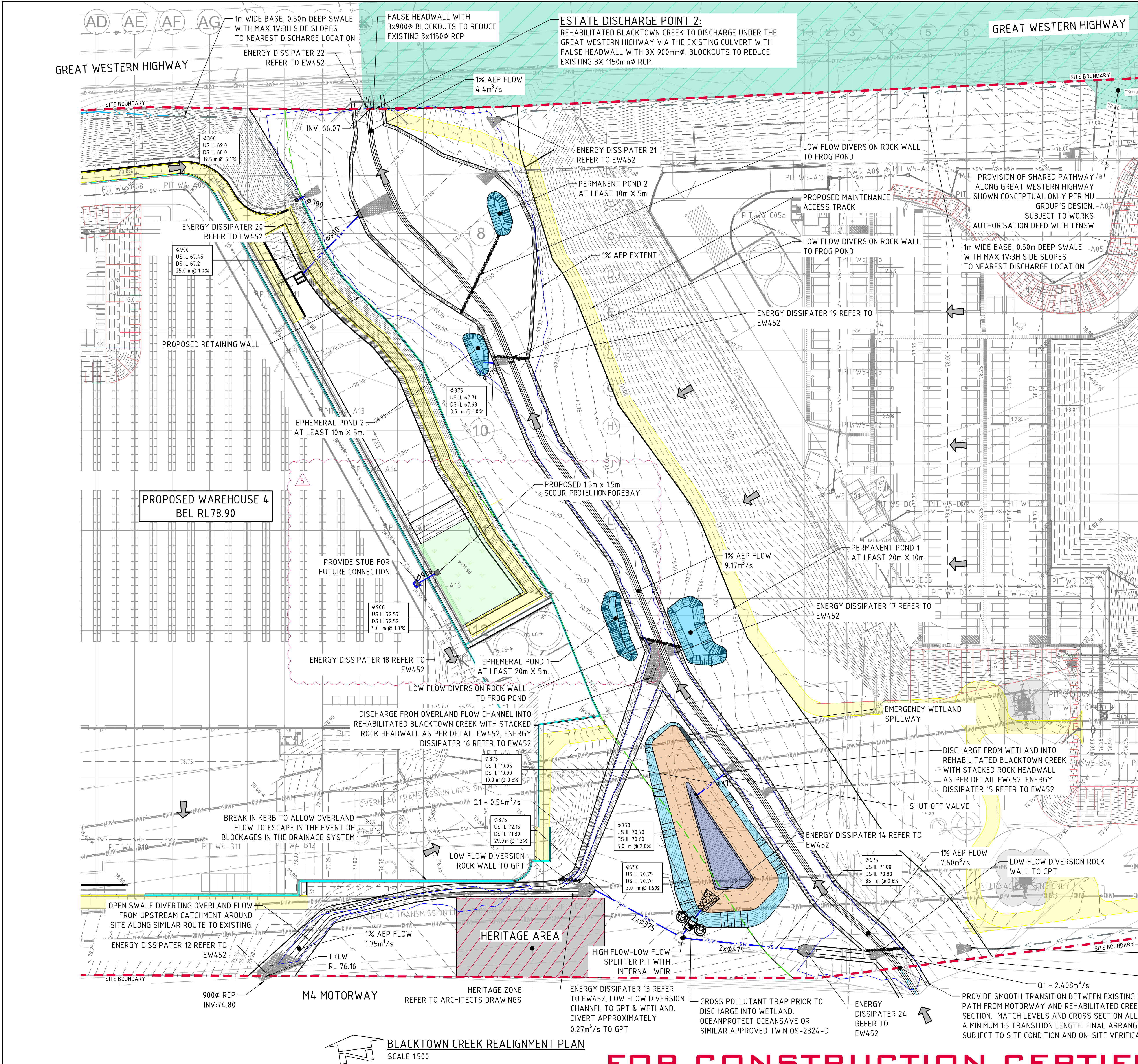
No other works are included as part of this Design Compliance certificate

FOR CONSTRUCTION CERTIFICATE

REVISED AS CLOUDED			28.01.26	3	ARCHITECT PACEARCHITECTS			CLIENT AWJ			PROJECT PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148				CONSULT AUSTRALIA		Costin Roe Consulting Pty Ltd. ABN 50 003 696 446		CRC COSTIN ROE CONSULTING CIVIL & STRUCTURAL ENGINEERS		DRAWING TITLE DRAWING LIST & GENERAL NOTES			
ISSUED FOR CONSTRUCTION CERTIFICATE			11.09.25	2																				
FOR CONSTRUCTION CERTIFICATE			26.05.25	1																				
FOR CONSTRUCTION CERTIFICATE			23.05.25	0																				
FOR PRELIMINARY			25.03.25	A																				
AMENDMENTS		DATE	ISSUE	AMENDMENTS		DATE	ISSUE																	

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
LDV	JB	MAR '25	MS	B1	AS SHOWN	CO13904.07-EW100

DRAWING No.		ISSUE
CO13904.07-EW100		3



INSET PLAN - ESTATE DISCHARGE POINT 3
SCALE 1:500

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022.

- SW — - PROPOSED DRAINAGE LINE
- SW — - FUTURE ESTATE DRAINAGE LINE
- — - OPEN SWALE
- 50.00 — - EXISTING CONTOUR (0.20m INTERVAL)
- 50.00 — - EARLY WORKS B.E.L. CONTOUR (MAJOR) 1.0m INTERVALS
- 50.25 — - EARLY WORKS B.E.L. CONTOUR (MINOR) 0.25m INTERVALS
- 50.00 — - B.E.L. SPOT LEVEL
- — - 1% AEP EXTENT
- — - FRESHWATER WETLAND
- — - EMERGENT ZONE
- — - DEEP WATER ZONE
- — - PROPOSED BIO-RETENTION ZONE
- — - PROPOSED MAINTENANCE TRACK
- — - SITE BOUNDARY
- — - OVERLAND FLOW PATH

FUTURE GWH WORKS INTERFACE NOTE:

PROVIDE SMOOTH INTERFACE BETWEEN THE PROPOSED DEVELOPMENT'S FINISHED SURFACE LEVELS AT THE BOUNDARY AND THE PROPOSED FINISHED SURFACE LEVELS OF THE SHARED PATHWAY ALONG THE GREAT WESTERN HIGHWAY DESIGNED BY MU GROUP. PROVIDE OPEN SWALE AT INTERFACE AS SHOWN TO DIRECT SURFACE RUNOFF TO THE NEAREST DISCHARGE POINT. NOT PART OF THE EARLY WORKS SCOPE OF WORKS

NOTES:

- PROPOSED TREES TO BE RETAINED ARE IDENTIFIED IN ACCORDANCE WITH THE ECOLOGIST'S REPORT (REF: E-001759-23). REFER TO DRAWING EW156 FOR VISUAL GUIDANCE. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THIS DRAWING AND THE ECOLOGIST'S REPORT, THE REPORT SHALL TAKE PRECEDENCE.

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No other works are included as part of this Design Compliance certificate

Compliance Certificate

Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

Registration Number: BDC05310

These plans/specifications form part of the certificate issued: 01/05/2026



5m 0 10 20 30 40 50m
SCALE 1:500 AT B1 SIZE SHEET

FOR CONSTRUCTION CERTIFICATE

REVISED SITE BNDRY AND LOT 3 & 4 REVISED TO MOD LEVELS	28.01.26	4	
ISSUED FOR CONSTRUCTION CERTIFICATE	07.11.25	3	
SWC/WAD AREAS CLOUDED	25.07.25	2	
BLACKTOWN CREEK FFL REVISIONS	27.05.25	1	
FOR CONSTRUCTION CERTIFICATE	23.05.25	0	
FOR PRELIMINARY AMENDMENTS	25.03.25	A	
DATE	ISSUE	REVISED AS CLOUDED	29.04.26
		AMENDMENTS	5

ARCHITECT
PACearchitects



PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
LDV	JB	MAR '25	MS	B1	AS SHOWN	C013904.07-EW410



Costin Roe Consulting Pty Ltd.

ABN 50 003 096 446

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Level 4, 8 Windmill Street, Millers Point NSW 2000
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e: mail@costinroe.com.au w: costinroe.com.au

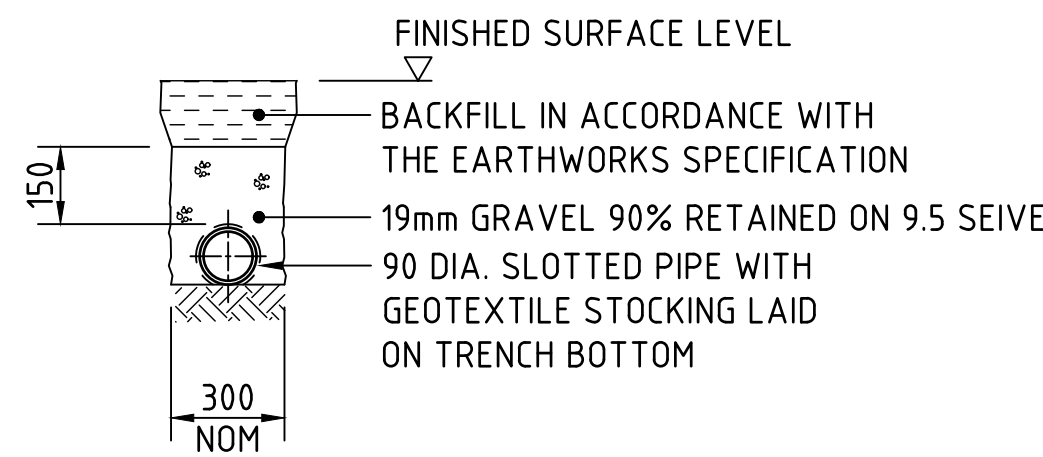


CIVIL & STRUCTURAL ENGINEERS

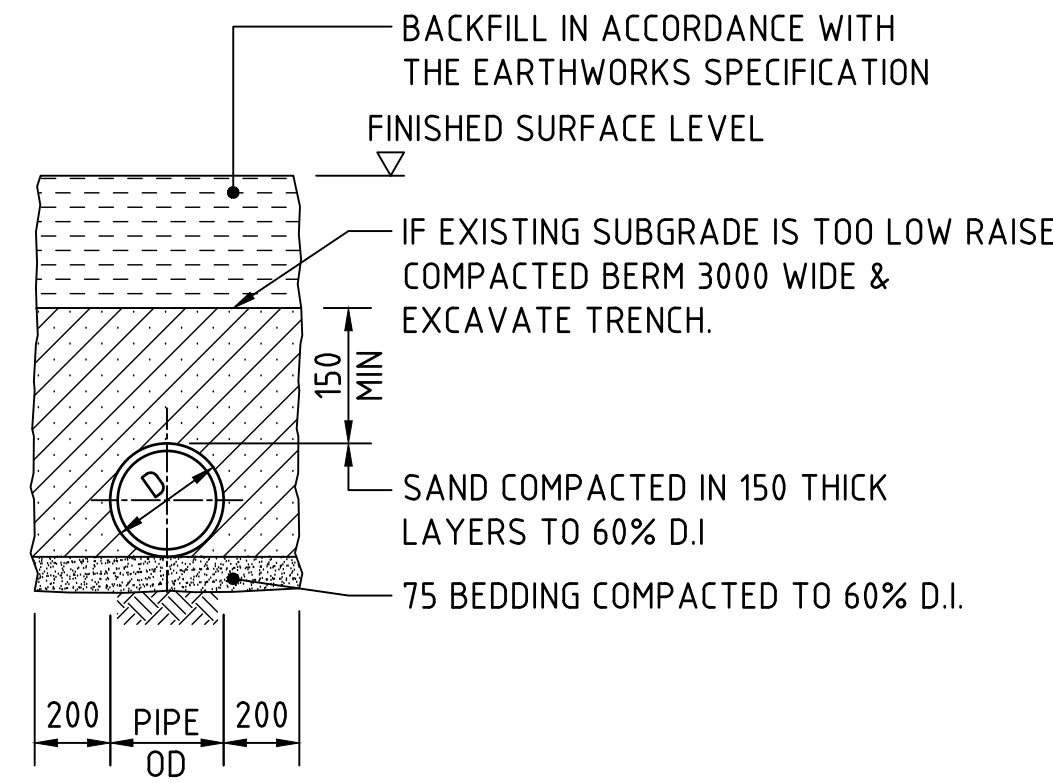
DRAWING TITLE
BLACKTOWN CREEK REALIGNMENT PLAN

DRAWING No.
C013904.07-EW410

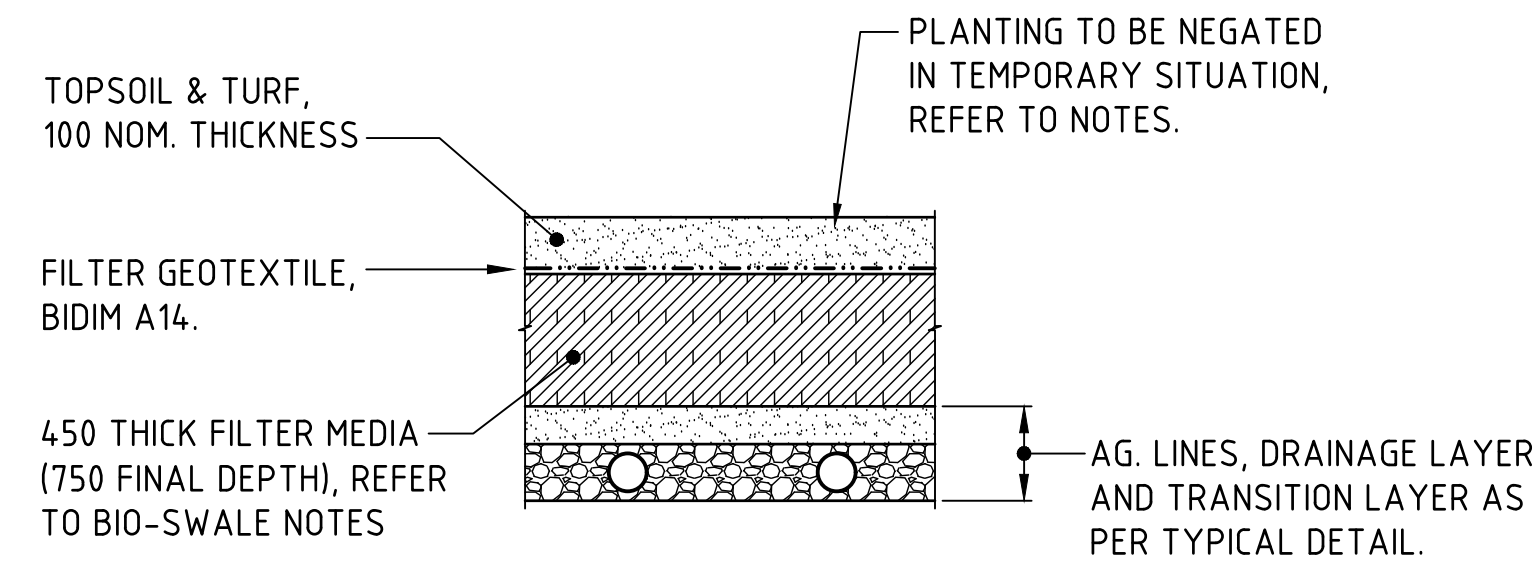
ISSUE
5



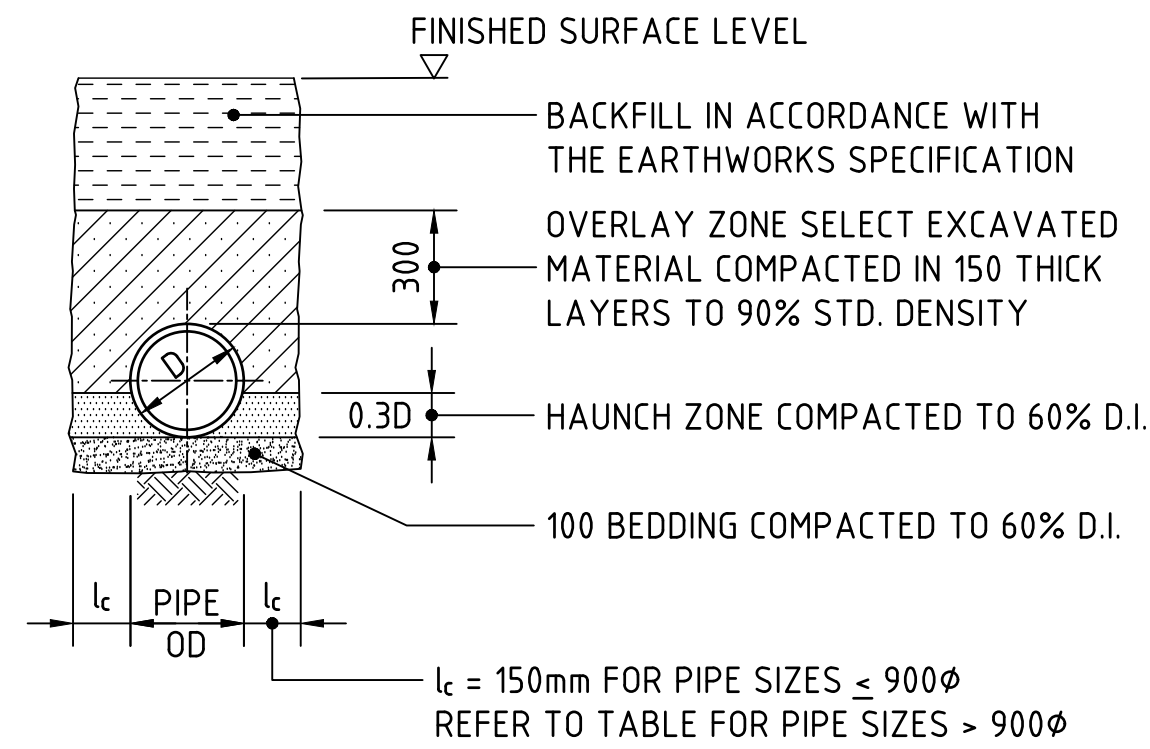
SUPPORT TO AGRICULTURAL DRAIN
SCALE 1:20



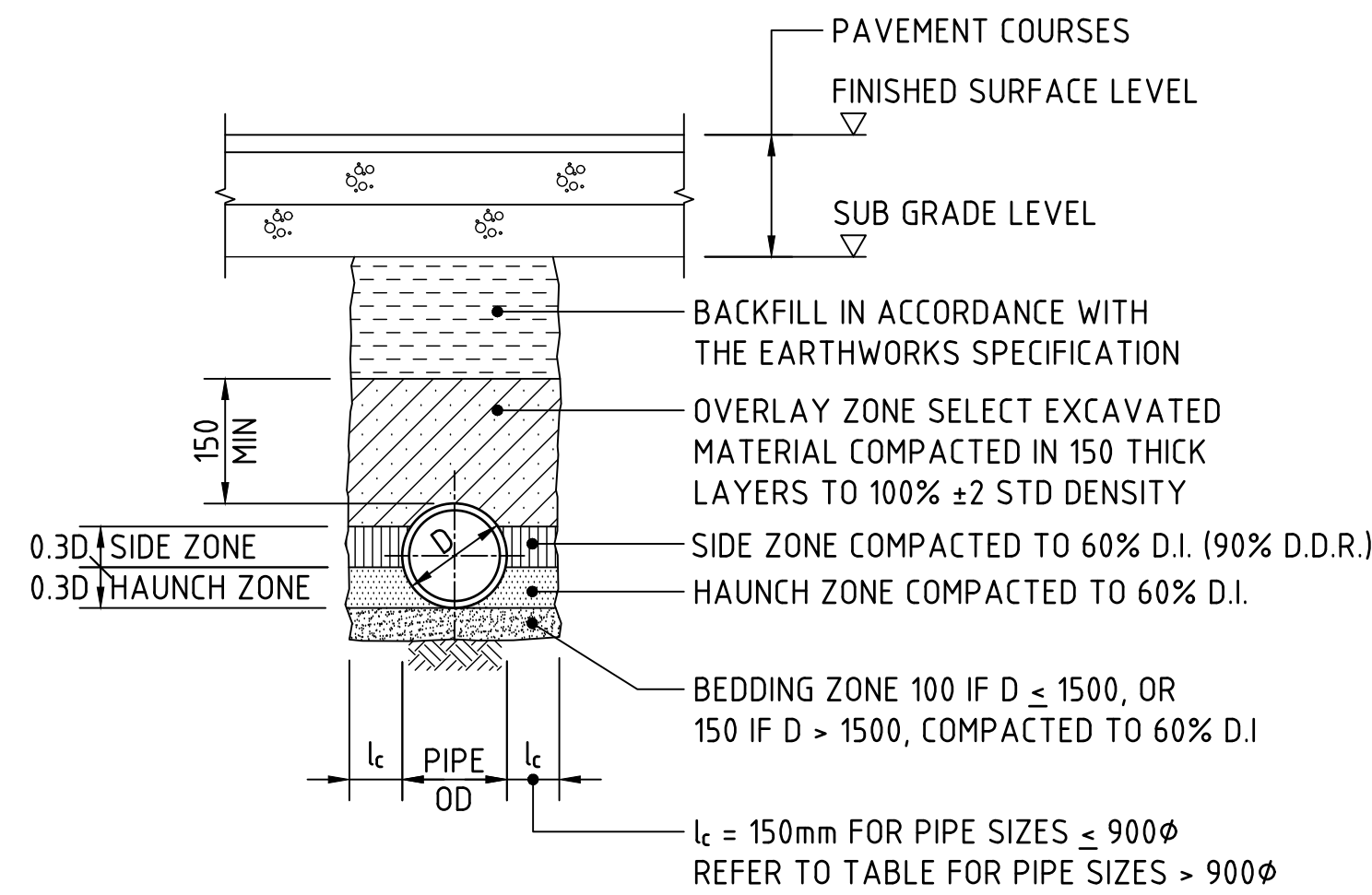
SUPPORT TO uPVC PIPES
SCALE 1:20



TEMPORARY BIO-RETENTION PROTECTION DETAIL
SCALE 1:20
TEMPORARY CONSTRUCTION REQUIREMENT DETAIL - REFER TO NOTES FOR IMPLEMENTATION PERIODS.

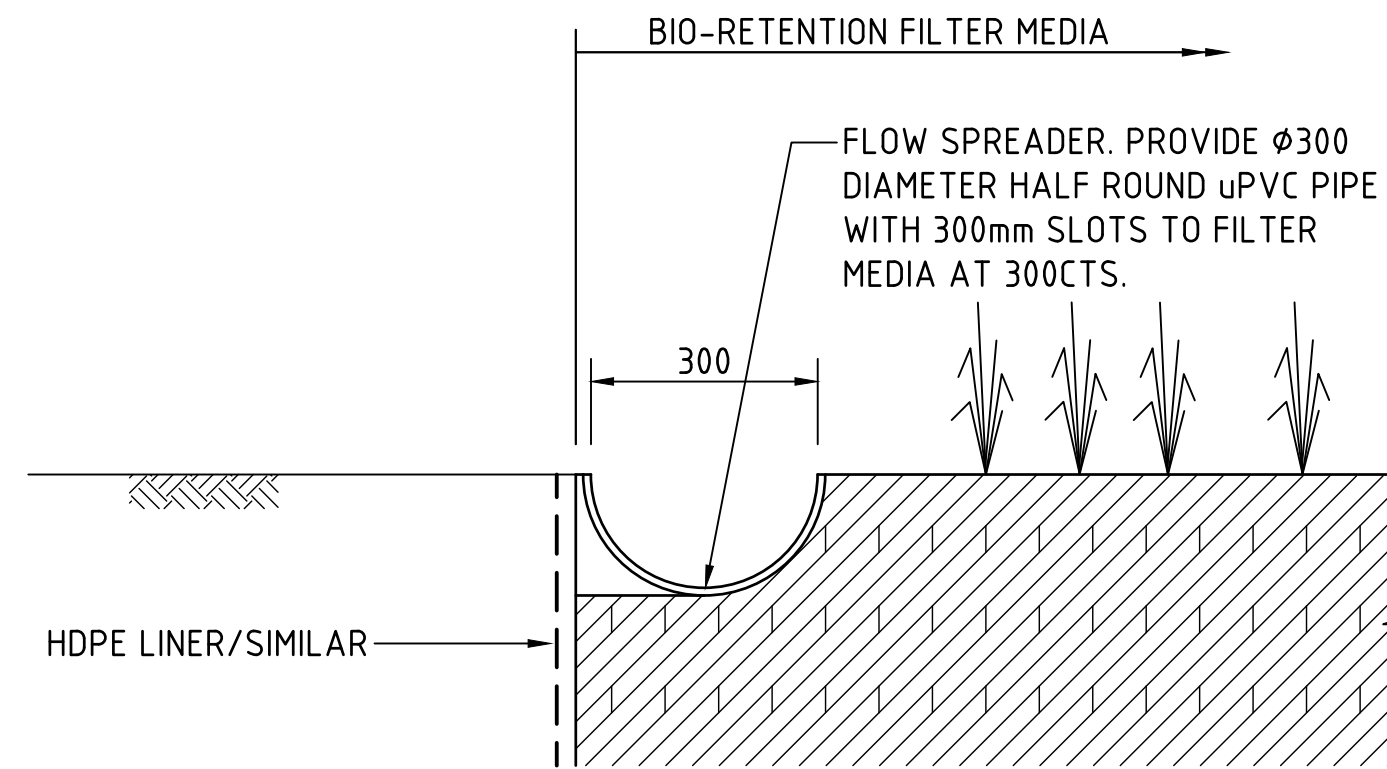


TYPE H1 SUPPORT TO CONCRETE PIPES AT LANDSCAPED AREAS
SCALE 1:20

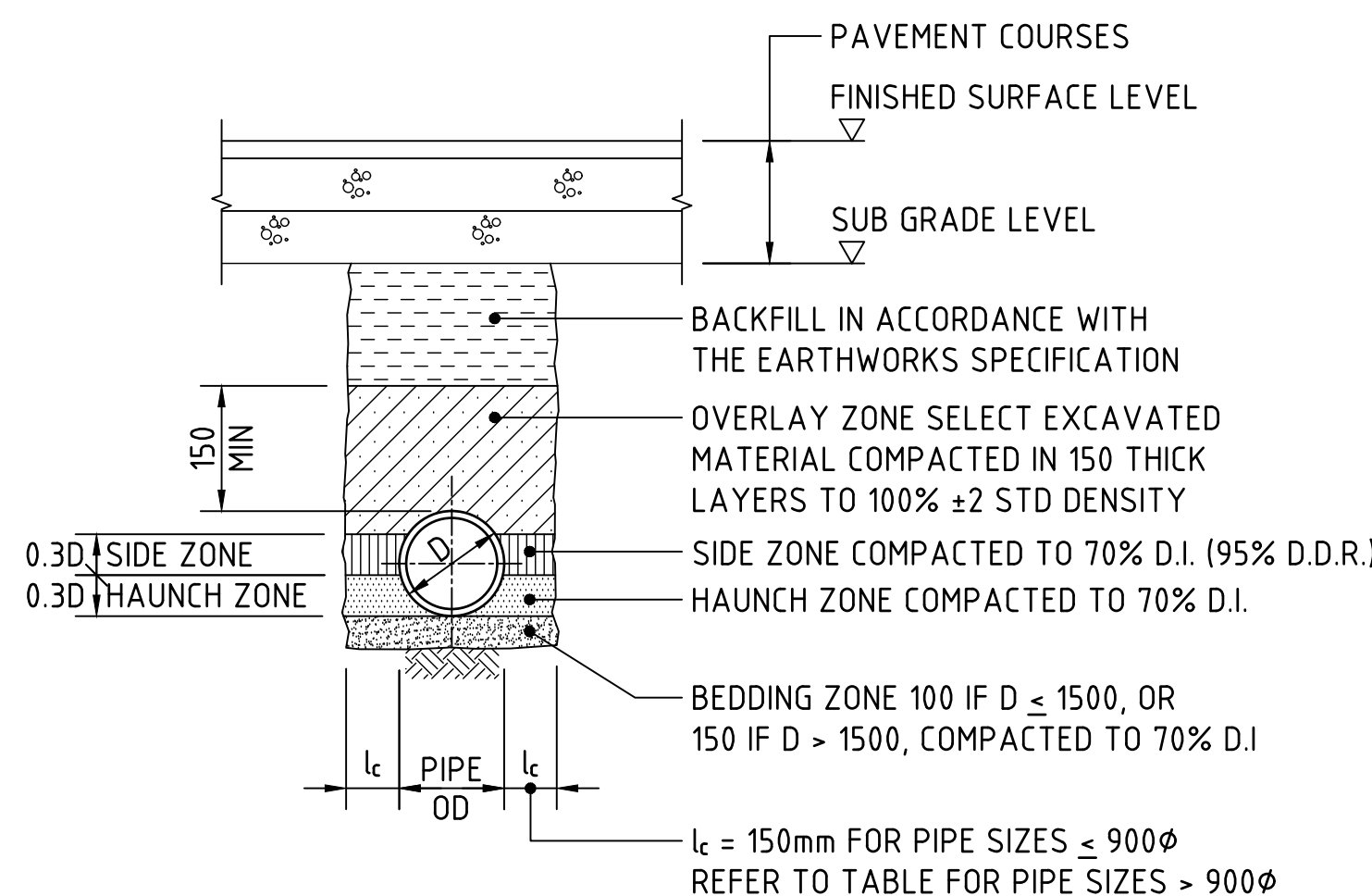


TYPE HS2 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20

D ≤ 1350, MAX FILL = 4.0m
D > 1350, MAX FILL = 3.0m



TYPICAL HALF-ROUND FLOW SPREADER DETAIL
SCALE 1:10



TYPE HS3 SUPPORT TO CONCRETE PIPES UNDER PAVEMENT
SCALE 1:20

D ≤ 1050, MAX FILL = 6.0m
D > 1050, MAX FILL = 4.8m

BEDDING & HAUNCH MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
2.36	100 TO 50
0.60	90 TO 20
0.30	60 TO 10
0.15	25 TO 0
0.075	10 TO 0

SIDE ZONE MATERIAL GRADING	
SIEVE SIZE (mm)	WEIGHT PASSING (%)
19.0	100
9.5	100 TO 50
2.6	100 TO 30
0.60	50 TO 15
0.075	25 TO 0

SIDE ZONE WIDTH	
PIPE SIZE (mm)	lc (mm)
≤ 900φ	150
1050φ	175
1200φ	200
1350φ	225
1500φ	250
1650φ	275
1800φ	300

ENGINEER TO SPECIFY TRENCH WIDTHS FOR PIPE SIZES GREATER THAN 1800φ

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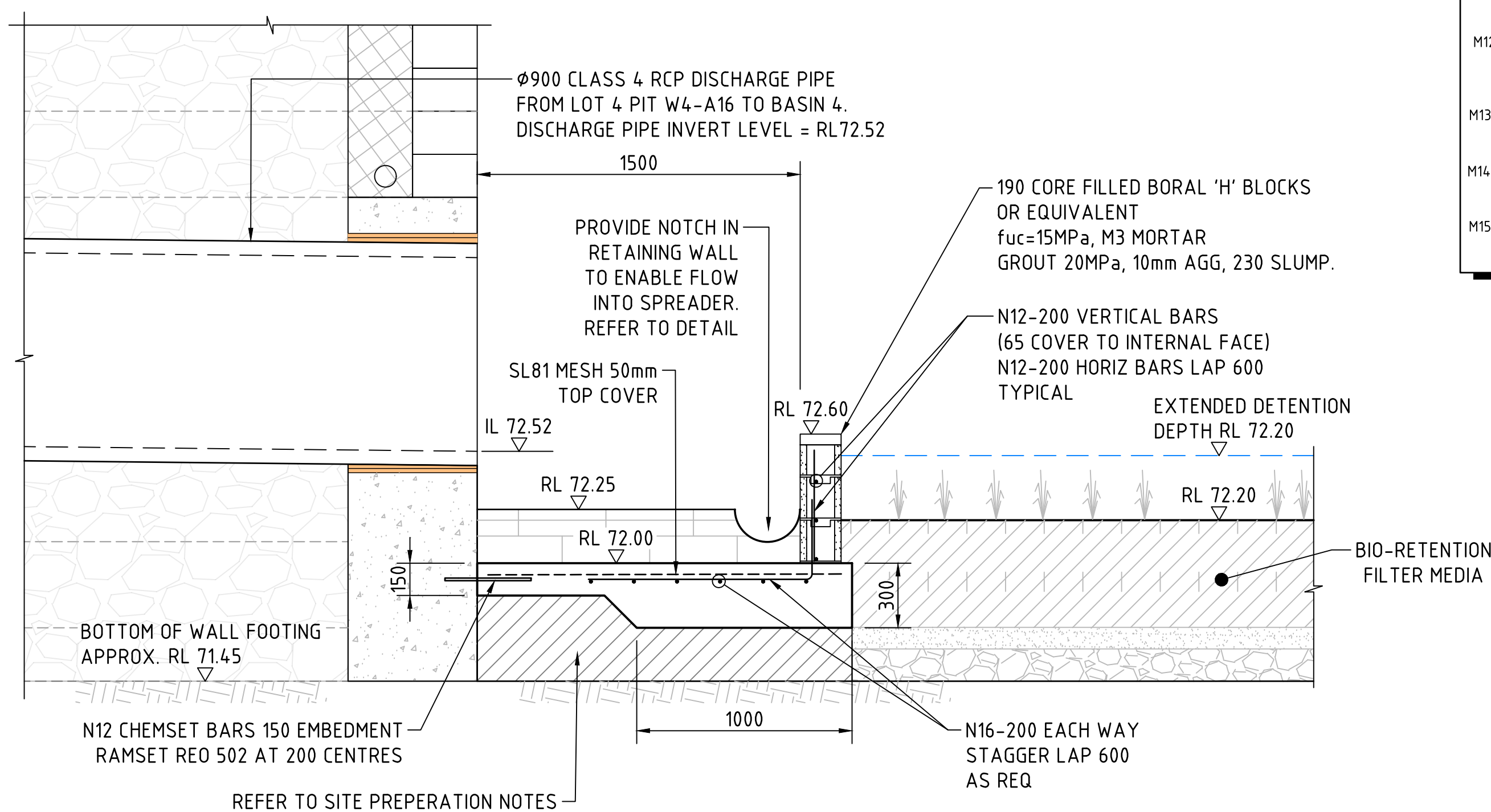
Issuing Officer: Sammy Gazal

Registration Number: BDC05310

These plans/specifications form part of the certificate issued: 01/05/2026



FOR CONSTRUCTION CERTIFICATE



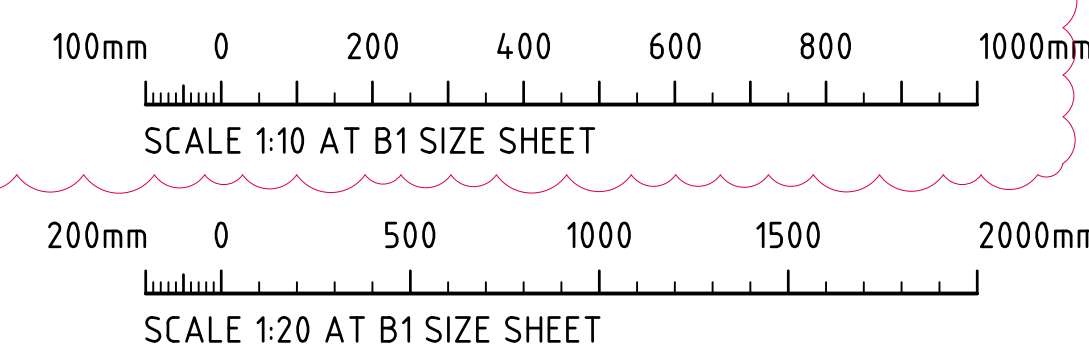
PROPOSED SCOUR PROTECTION FOREBAY DETAIL
SCALE 1:20

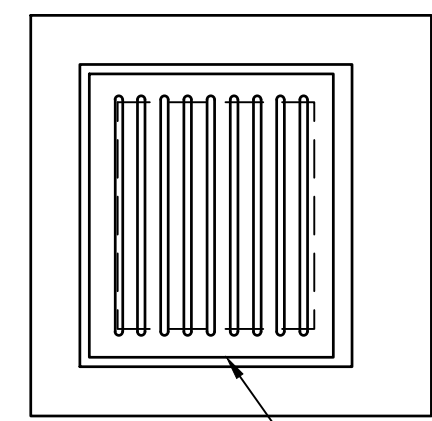
MASONRY BLOCKWORK		
M1	ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3700.	
M2	STRENGTH OF BRICKS, CLASS OF BLOCKS AND TYPE OF MORTAR SHALL BE AS LISTED BELOW:	
MATERIAL:	CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH, F _{uc}	MORTAR CLASSIFICATION:
CONCRETE BLOCKS	15 MPa	M3
M3	MORTAR ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT	
M4	ALL MASONRY WALLS AND PIERS SUPPORTING SLABS AND BEAMS SHALL HAVE A PRE-GREASED GALVANISED STEEL SLIP JOINT BETWEEN CONCRETE SOFFIT AND THE TOP OF THE MASONRY ELEMENT U.N.O.	
M5	ALL MASONRY SUPPORTING OR SUPPORTED BY CONCRETE FLOORS SHALL BE PROVIDED WITH VERTICAL JOINTS TO MATCH ALL CONTROL JOINTS IN THE CONCRETE.	
M6	NON LOAD BEARING WALLS SHALL BE SEPARATED FROM CONCRETE ABOVE BY A 12mm THICK CLOSED CELL POLYETHYLENE STRIP.	
M7	NO CHASES OR RECESSES ARE PERMITTED IN LOAD BEARING MASONRY WITHOUT THE APPROVAL OF THE ENGINEER.	
M8	PROVIDE CLEANOUT HOLES AT BASE OF ALL WALLS. ROD CORE HOLES TO REMOVE PROTRUDING MORTAR FOLLOWING APPROVAL FROM THE ENGINEER.	
M9	CORE FILLING GROUT TO HAVE A CHARACTERISTIC STRENGTH OF 20 MPa, 10mm AGGREGATE, 230mm SLUMP. GROUT FILL ALL BLOCK CORES.	
M10	PROVIDE 65mm COVER TO REINFORCING BARS FROM THE OUTSIDE FACE OF THE BLOCKWORK IF REINFORCEMENT IS NOT TO BE PLACED CENTRALLY.	
M11	PROVIDE VERTICAL CONTROL JOINTS AT 10 METRE MAX CENTRES, AND AT 5 METRE MAXIMUM FROM CORNERS IN ALL BRICKWORK WALLS.	
M12	PROVIDE VERTICAL CONTROL JOINTS AT 8 METRE MAX CENTRES, AND AT 4 METRE MAXIMUM FROM CORNERS IN ALL CONCRETE BLOCK WALLS.	
M13	BACKFILL TO RETAINING WALLS TO BE FREE DRAINING GRANULAR MATERIAL U.N.O. PROVIDE SUBSOIL DRAIN BEHIND WEEP HOLES.	
M14	DO NOT CONSTRUCT MASONRY WALLS ON SUSPENDED CONCRETE UNTIL SLAB HAS BEEN STRIPPED AND DE-PROPPED.	
M15	ALL CAVITY CONSTRUCTION TO HAVE GALVANISED OR STAINLESS STEEL WALL TIES INSTALLED AS PER AS 3700	

NOTE:
ALL BLOCK CORES TO BE FULLY GROUTED. NOTES SHOWN ARE TYPICAL FOR ALL WALLS. ALL BASE KEYS TO BE POURED AGAINST UNDISTURBED NATURAL GROUND.

NOTE:
COVER TO ALL BASE REINFORCEMENT TO BE MINIMUM 50mm

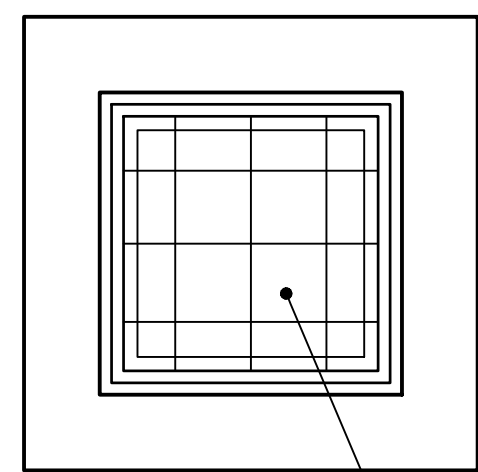
CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F _c (MPa)
CORE FILL	230	10	GP	NIL	20
FOOTING	80	20	GP	NIL	32





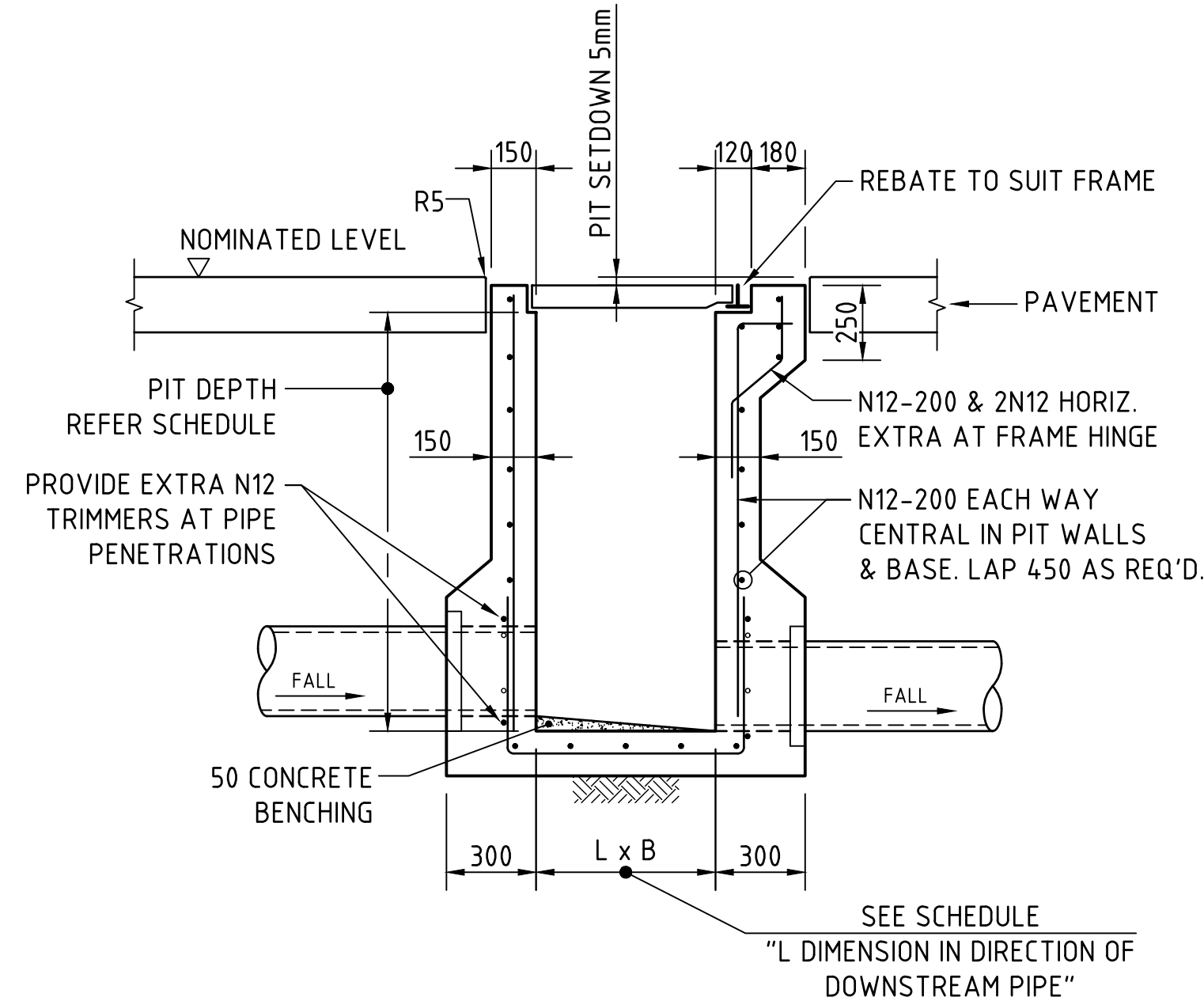
H.D. CAST IRON GRATE & TEE BAR FRAME (HINGED) 'GATIC' OR EQUAL. SEE SCHEDULE

PLAN
SCALE 1:20

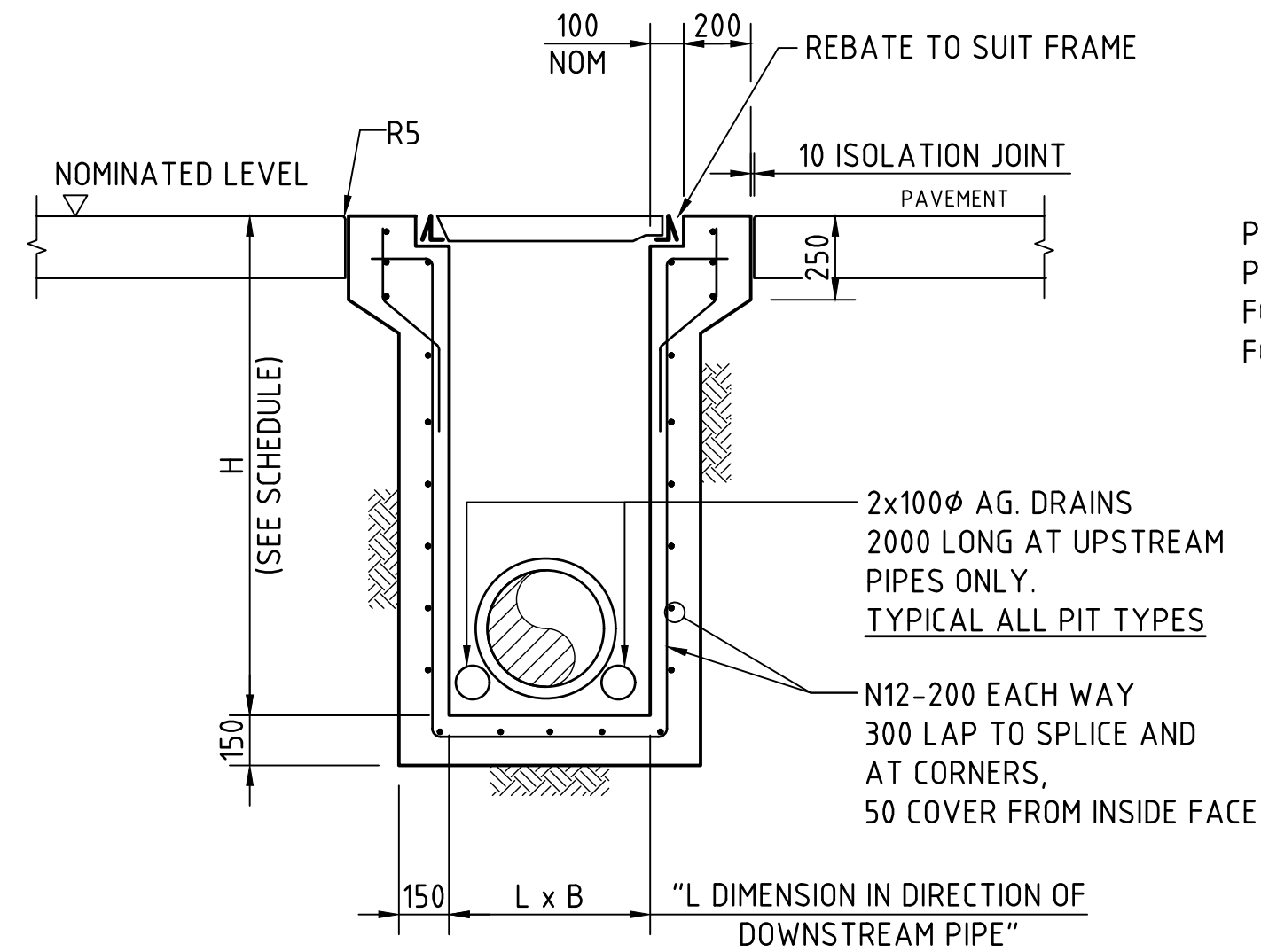


CONCRETE FILLED CAST IRON COVER & FRAME (GATIC OR EQUAL) SEE SCHEDULE

PLAN
SCALE 1:20



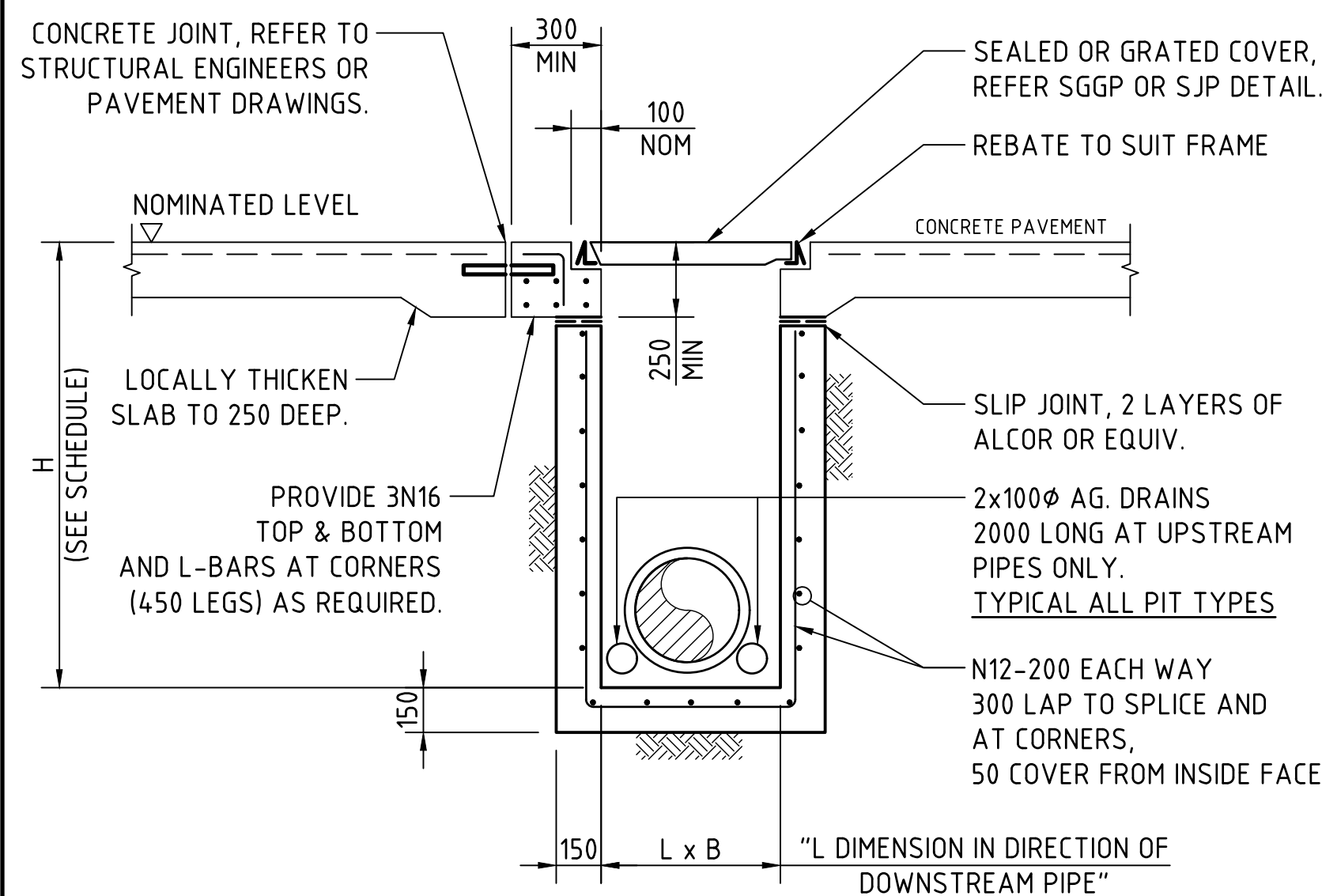
SECTION
SCALE 1:20



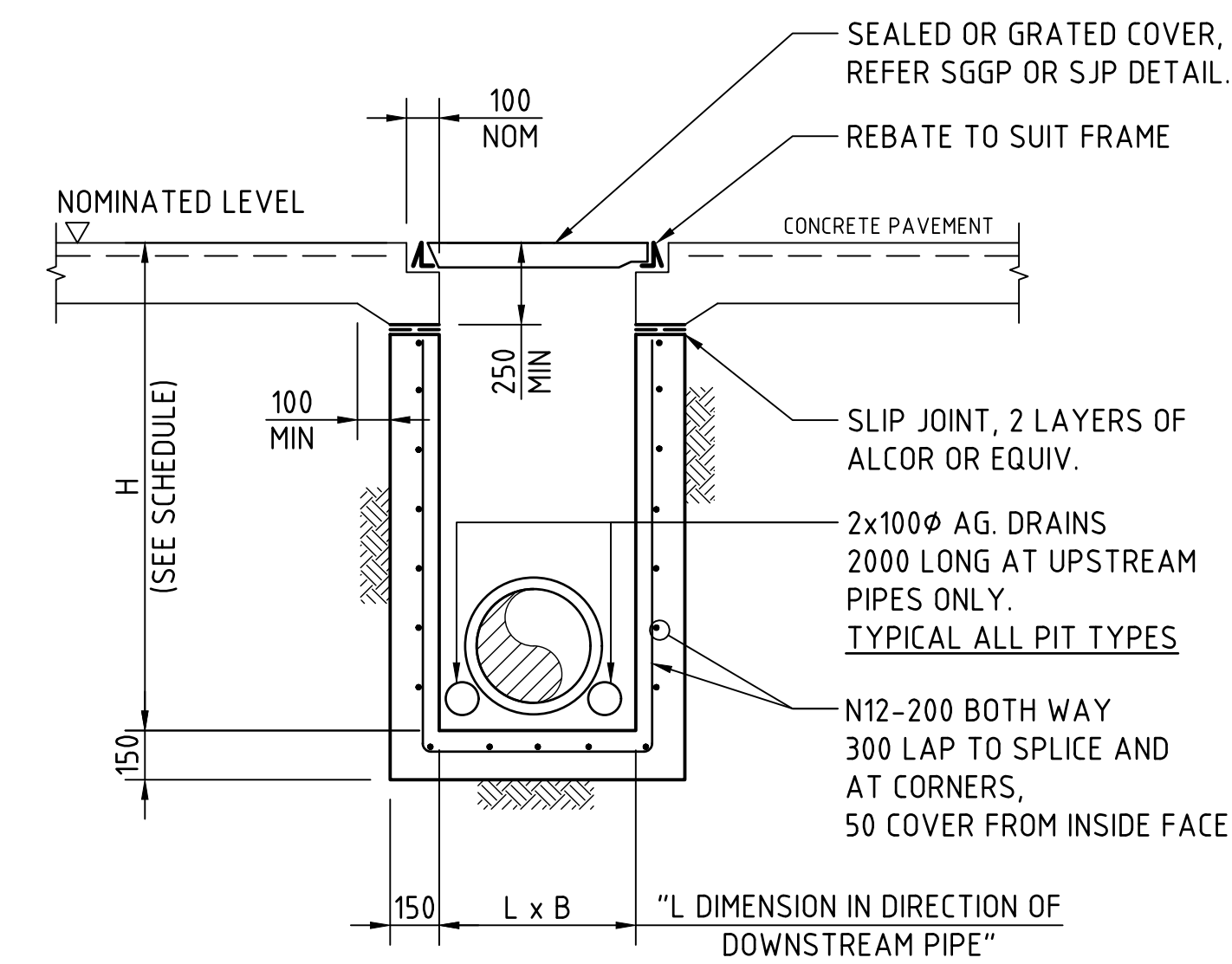
SECTION
SCALE 1:20

SINGLE GRATED GULLY PIT - SGGP

SEALED JUNCTION PIT - SJP



SECTION
SCALE 1:20



SECTION
SCALE 1:20

SJP/CIS & SGGP/CIS (CAST IN SLAB) PIT DETAIL

GRATE/COVER SUPPORT

CAST-INTO PAVEMENT SLAB

(ADOPT IN CONCRETE PAVEMENTS FOR SGGP's & SJP's, WHERE JOINTS ARE NOT LOCATED WITHIN PROXIMITY OF THE GRATE)

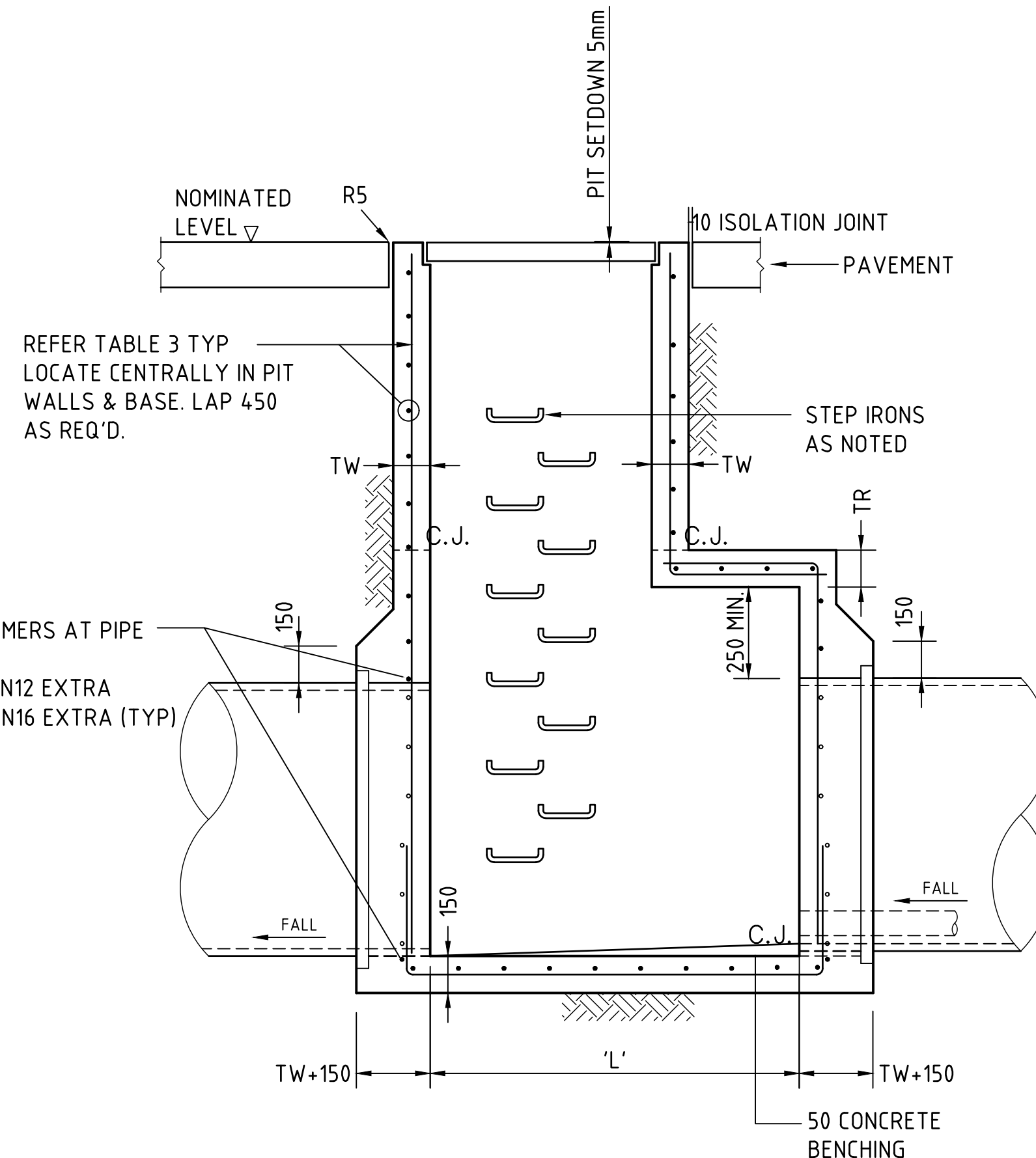
SJP/CIS & SGGP/CIS (CAST IN SLAB) PIT DETAIL

GRATE/COVER SUPPORT

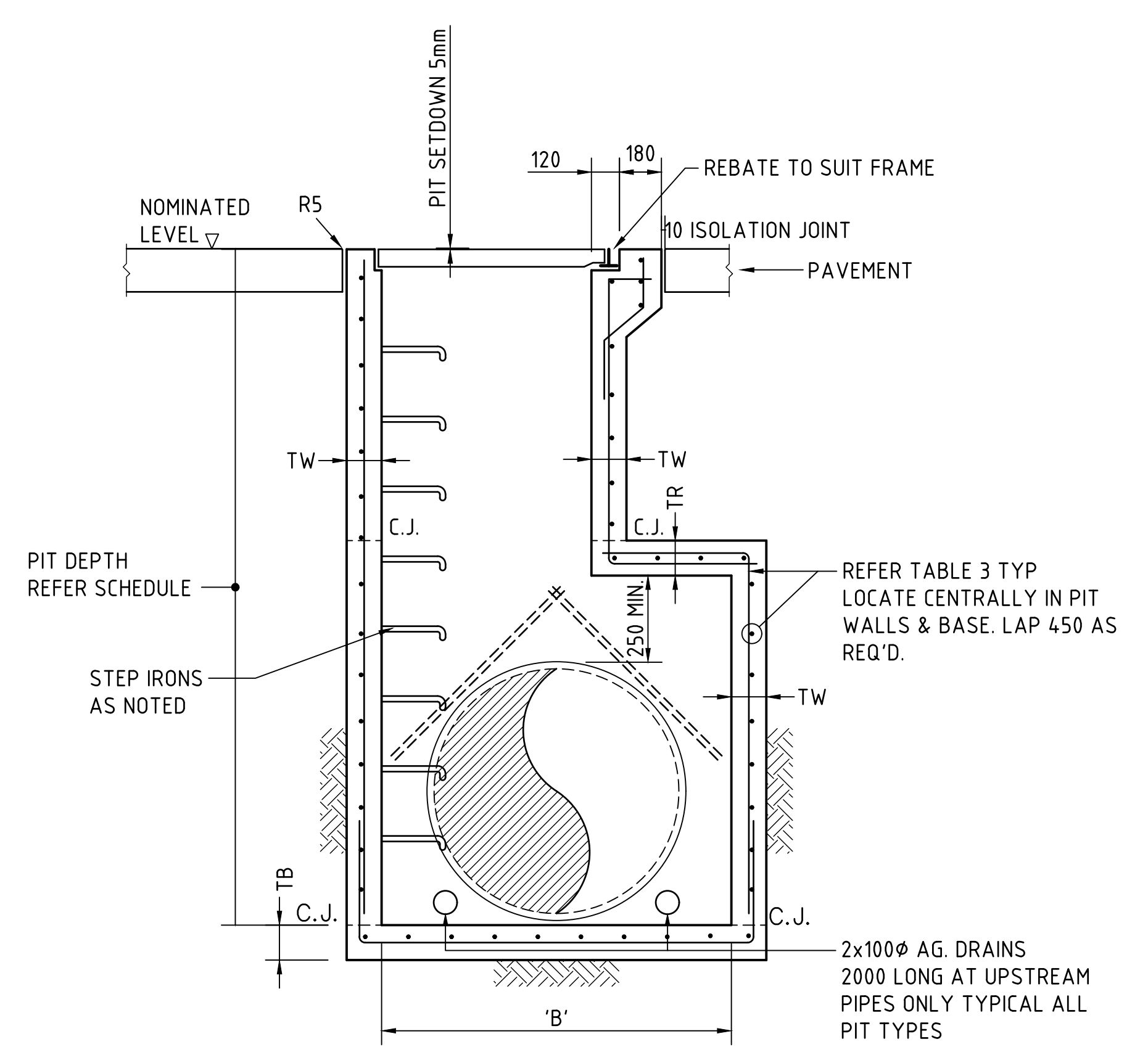
CAST-INTO PAVEMENT SLAB

(ADOPT IN CONCRETE PAVEMENT FOR SGGP's & SJP's, WHERE PITS ARE LOCATED IN THE CORNER OF SLAB PANELS OR ADJACENT TO SLAB PANEL JOINTS)

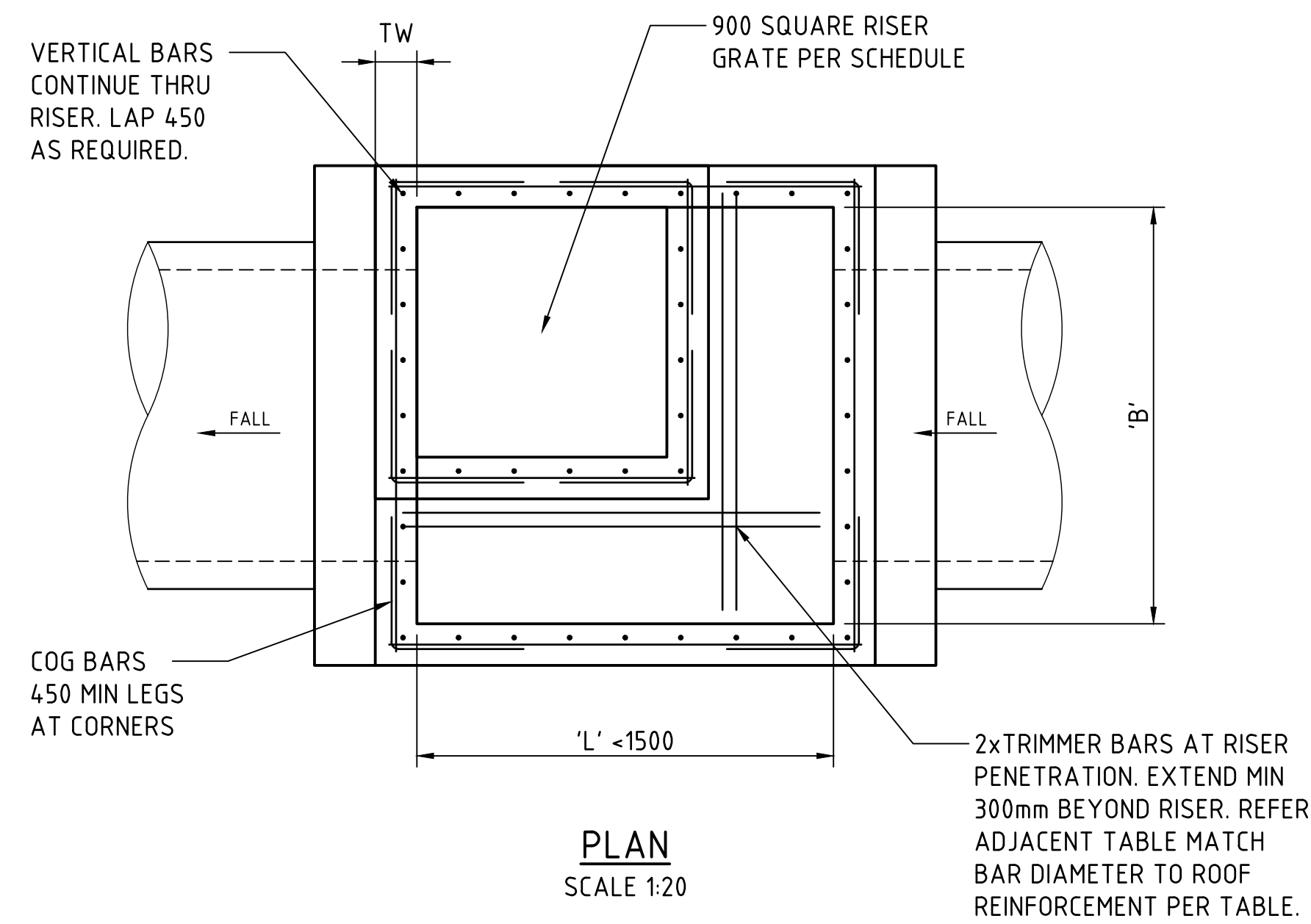
REFER TABLE 3 TYP
LOCATE CENTRALLY IN PIT
WALLS & BASE. LAP 450
AS REQ'D.



SECTION
SCALE 1:20



SECTION
SCALE 1:20



PLAN
SCALE 1:20

TAPERED SINGLE GRATED GULLY PIT - SGGP

SUBSOIL NOT SHOWN
FOR CLARITY.

TABLE 3 - TAPERED CLASS D PIT REINFORCEMENT & WALL THICKNESS					
DEPTH 'H'	WALL THICKNESS 'TW'	WALL REINFORCEMENT	ROOF THICKNESS 'TR'	ROOF REINFORCEMENT	BASE THICKNESS 'TB'
<1.5m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY	150mm
1.5m-3.0m	150mm	N12-200 EACH WAY	150mm	N12-200 EACH WAY	150mm
3.0m-4.5m	200mm	N16-200 EACH WAY	200mm	N16-200 EACH WAY	200mm
4.5-6.0	250mm	N16-200 EACH WAY	250mm	N16-200 EACH WAY	250mm

Compliance Certificate

Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

Registration Number: BDC05310

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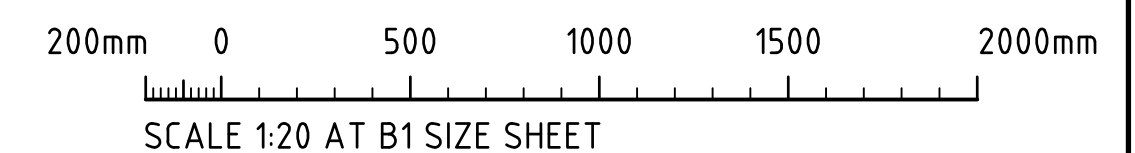


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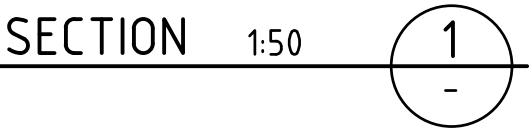
1. Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

No other works are included as part of this Design Compliance certificate

FOR CONSTRUCTION CERTIFICATE



FOR CONSTRUCTION CERTIFICATE		23.05.25		0			ARCHITECT		CLIENT		PROJECT		Costin Roe Consulting Pty Ltd.		CIVIL & STRUCTURAL ENGINEERS		DRAWING TITLE	
FOR PRELIMINARY		25.03.25		A			PACearchitects		AWJ		PROPOSED WAREHOUSE DISTRIBUTION		PO Box N419 Sydney NSW 1220		COSTIN ROE CONSULTING		STORMWATER DRAINAGE DETAILS	
AMENDMENTS		DATE		ISSUE	AMENDMENTS		DATE		DATE		AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148		Level 4, 8 Windmill Street, Millers Point NSW 2000		E: +61 2 9241 3731		SHEET 2	
													e: mail@costinroe.com.au		w: costinroe.com.au		DRAWING No	
																	C013904.07-EW451	
																	ISSUE	
																	0	



1. ALIGN STRUCTURE EVENLY WITH BANK.
2. LOCATE STRUCTURE AT INVERT LEVEL OF STREAM AND POINT IN A DOWNSTREAM DIRECTION.
3. PIPE TO REST ON, AND BE PACKED IN, BY RIP-RAP (SIZE AS NOTED).
4. DISCHARGE INTO STREAM WHERE BEDROCK IS PRESENT, OTHERWISE SCOUR PROTECT AS REQUIRED.
5. SCOUR PROTECT THE OPPOSITE BANK AS REQUIRED. SCOUR PROTECTION TO BE PROVIDED WHERE OPPOSITE BANK IS WITHIN 12-14 TIMES THE PIPE DIAMETER.
6. RIP-RAP TO CONSIST OF ANGULAR RUN-OF-QUARRY ROCK (d50= 150mm MINIMUM) AS NOTED IN THE SCHEDULE. RIP-RAP TO BE MINIMUM THICKNESS OF RIP-RAP LAYER TO BE 1.6x AVERAGE ROCK SIZE (d50).
7. RIP-RAP IS TO BE PLACED OVER A 200mm LAYER OF 140mm COBBLES OVER NEEDLE-PUNCHED GEOFAB A44.
8. PLACE ROCK SO THAT IT FORMS A DENSE, WELL-GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE FINISHED RIP-RAP SURFACE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS.
9. GAPS IN RIP-RAP TO BE HAND PACKED WITH TOPSOIL & PLANTED WITH NATIVE SEDGES & RUSHES TO PROVIDE. THE INTENT IS FOR THERE TO BE NO VOIDS BETWEEN RIP-RAP BOULDERS.
10. ENSURE THE FINISHED ROCK SURFACE BLENDS WITH THE SURROUNDING GROUND LEVELS. NO OVERFALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
11. ENSURE THAT STORMWATER FROM SURROUNDING GROUND IS FREE TO ENTER THE STRUCTURE WITHOUT CAUSING UNDESIRABLE PONDING OR SCOUR.

DISSIPATER SCHEDULE					
ENERGY DISSIPATER	DIAMETER(mm)/DIMENSIONS	LENGTH La (mm)	WIDTH 1 (mm)	WIDTH 2 (mm)	RIP-RAP (d50)
1	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
2	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
3	450ø	1800	1100	1200	200
4	600ø	4500	1400	2600	100
5	4x825ø	3000	4000	4000	200
6	OVERLAND FLOW	3000	4000	4000	200
7	825ø	3300	1500	2200	100
8	825ø	5000	1500	2900	200
9	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
10	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
11	600ø	3600	1200	2100	200
12	900ø	3600	1500	2400	100
13	OVERLAND FLOW	2700	5600	6100	200
14	750ø	7500	1400	3800	500
15	375ø	7500	1400	3800	500
16	OVERLAND FLOW	5600	5200	6800	200
17	OVERLAND FLOW	2700	4000	4500	200
18	900ø	7200	1500	3800	300
19	OVERLAND FLOW	2700	4000	4500	200
20	300ø AND 900ø	7200	1800	4100	200
21	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
22	OVERLAND FLOW	2700	10600	11100	400
23	OVERLAND FLOW	2700	5600	6100	200
24	OVERLAND FLOW	2700	4000	4500	200
25	WIDTH 4m, DEPTH 0.5m	2000	4600	4800	200
26	525ø AND WIDTH 4m, DEPTH 0.5m	5600	5200	6800	100

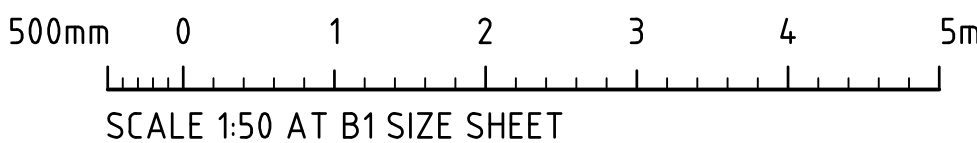
- 1) THE MATERIAL SHALL BE FREE OF ROCK GREATER THAN 50mm IN ANY DIRECTION.
- 2) THE MATERIAL SHALL BE GENERALLY FREE OF TOPSOIL, ORGANIC AND ROOT MATTER.
- 3) THE MATERIAL SHALL HAVE NO MORE THAN 10% EXCEEDING 19mm PARTICLE SIZE.
- 4) THE MATERIAL SHALL HAVE THE PERCENTAGE FINE (PASSING 0.075mm SIEVE) MORE THAN 50 % (IN ACCORDANCE WITH AS1289)
- 5) THE PLASTICITY INDEX >20%, IN ACCORDANCE WITH AS1289
- 6) LIQUID LIMIT >40%, IN ACCORDANCE WITH AS1289
- 7) MAXIMUM PERMEABILITY SHALL BE 1×10^{-9} m/s WITH THE SAMPLE REMOLDED TO A STANDARD MAXIMUM DRY DENSITY OF 95% IN ACCORDANCE WITH AS1289.5.11 AT STANDARD OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH AS1289.6.7.3



- 1) TREES, FALLEN TIMBER & OTHER DEBRIS ARE TO BE CLEARED AND REMOVED FROM UNDER THE BASIN EMBANKMENT.
- 2) ALL TOPSOIL FROM UNDER THE EMBANKMENT IS TO BE REMOVED AND STOCKPILED FOR LATER REUSE.
- 3) OVERBURDEN FROM UNDER THE EMBANKMENT IS TO BE REMOVED UNTIL FIRM CLAY OR BEDROCK IS HAS BEEN EXPOSED.
- 4) A CORE TRENCH OF AT LEAST 900mm DEEP IS TO BE EXCAVATED INTO IMPERMEABLE, STABLE FOUNDATION MATERIAL CONSISTING OF EITHER CLAY OR BEDROCK.
- 5) THE STRIPPED AREA BELOW THE EMBANKMENT IS TO BE SLIGHTLY SCARIFIED TO A DEPTH NOT EXCEEDING 100mm.
- 6) THE CLAY CORE MUST BE CENTRALLY PLACED AND EXTEND FOR THE FULL LENGTH AND HEIGHT OF THE BANK.
- 7) CLAY CORE TO BE LAYED IN LIFTS OF NO MORE THAN 250mm, EACH LAYER IS TO BE COMPACTED WITH A SHEEPS FOOT ROLLER, TO ACHIEVE A MIN DRY DENSITY RATIO OF AT LEAST 95% STANDARD (IN ACCORDANCE WITH AS1289.5.1.1 AND 5.4.1) OR MINIMUM FLH DENSITY RATIO OF 95% (IN ACCORDANCE WITH AS1289.5.1.1) AT MOISTURE CONTENT WITHIN THE RANGE OF 0-35% (WET) OF THE STANDARD OPTIMUM MOISTURE CONTENT.
- 8) THE COMPLETED CORE AND EMBANKMENT SHOULD BE BUILT 5% HIGHER THAN SPECIFIED, ALLOW FOR SETTLEMENT.
- 9) UPON COMPLETION OF EACH STAGE OF THE CLAY CORE CONSTRUCTION, THE EXPOSED CLAY SURFACE IF THE CORE SHALL BE LIMITED FROM TRAFFIC MOVEMENTS AND MAINTAINED IN MOIST CONDITION UNTIL IT IS FULLY COVERED BY THE NEXT LAYER. IF THE SURFACE OF THE PREVIOUS PLACED LAYER HAS DRIED OUT OR WETTED UP EXCESSIVELY, THE MATERIAL IN THE AFFECTED AREA SHALL BE EXCAVATED AND CONDITIONED TO MOISTURE WITHIN THE SPECIFIED TOLERANCE OR DISCARDED.



No other works are included as part of this Design Compliance certificate



FOR CONSTRUCTION CERTIFICATE

[illegible]

Compliance Certificate

Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

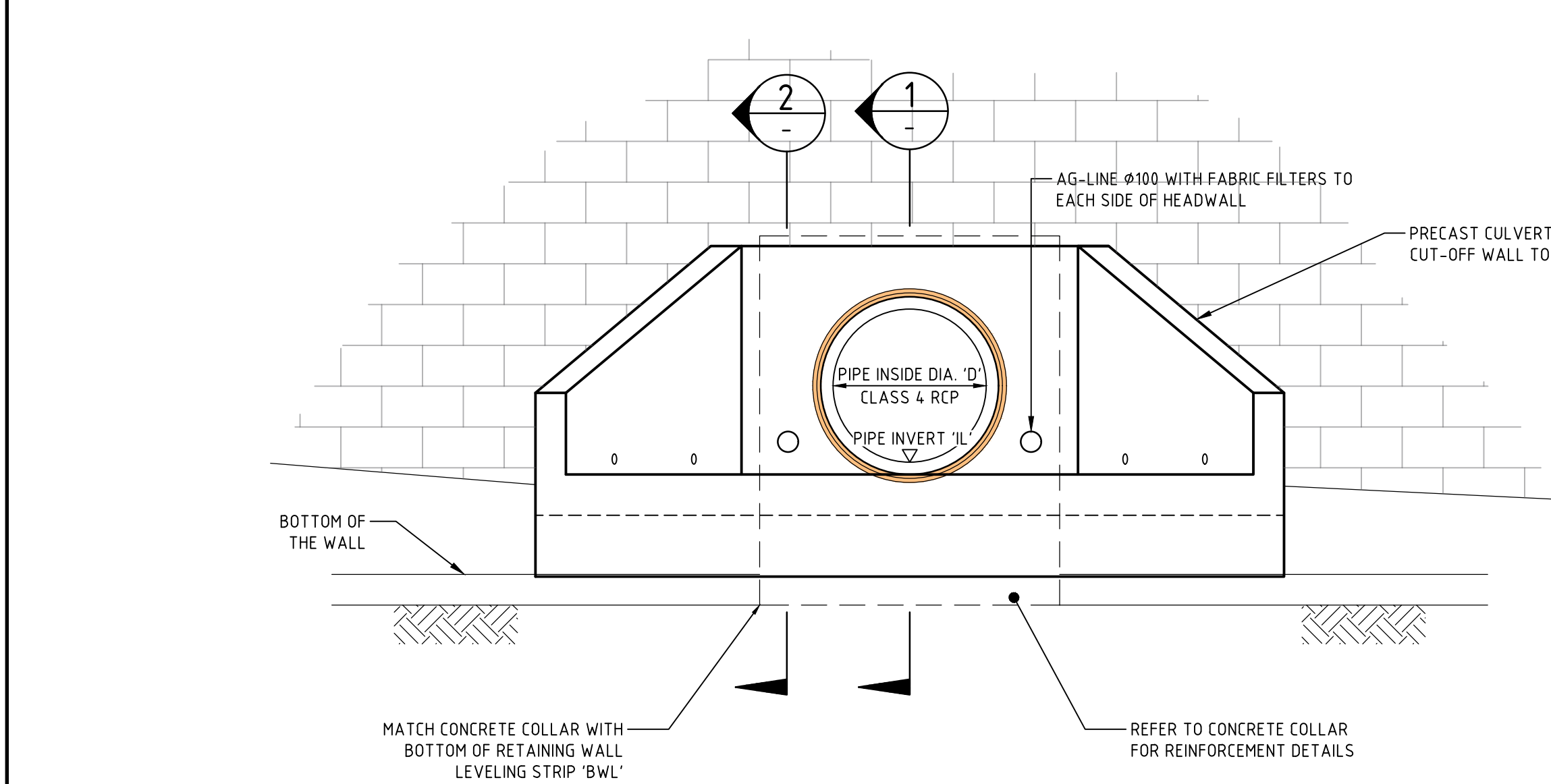
Registration Number: BDC05310

These plans/specifications form part of the certificate issued: 01/05/2026

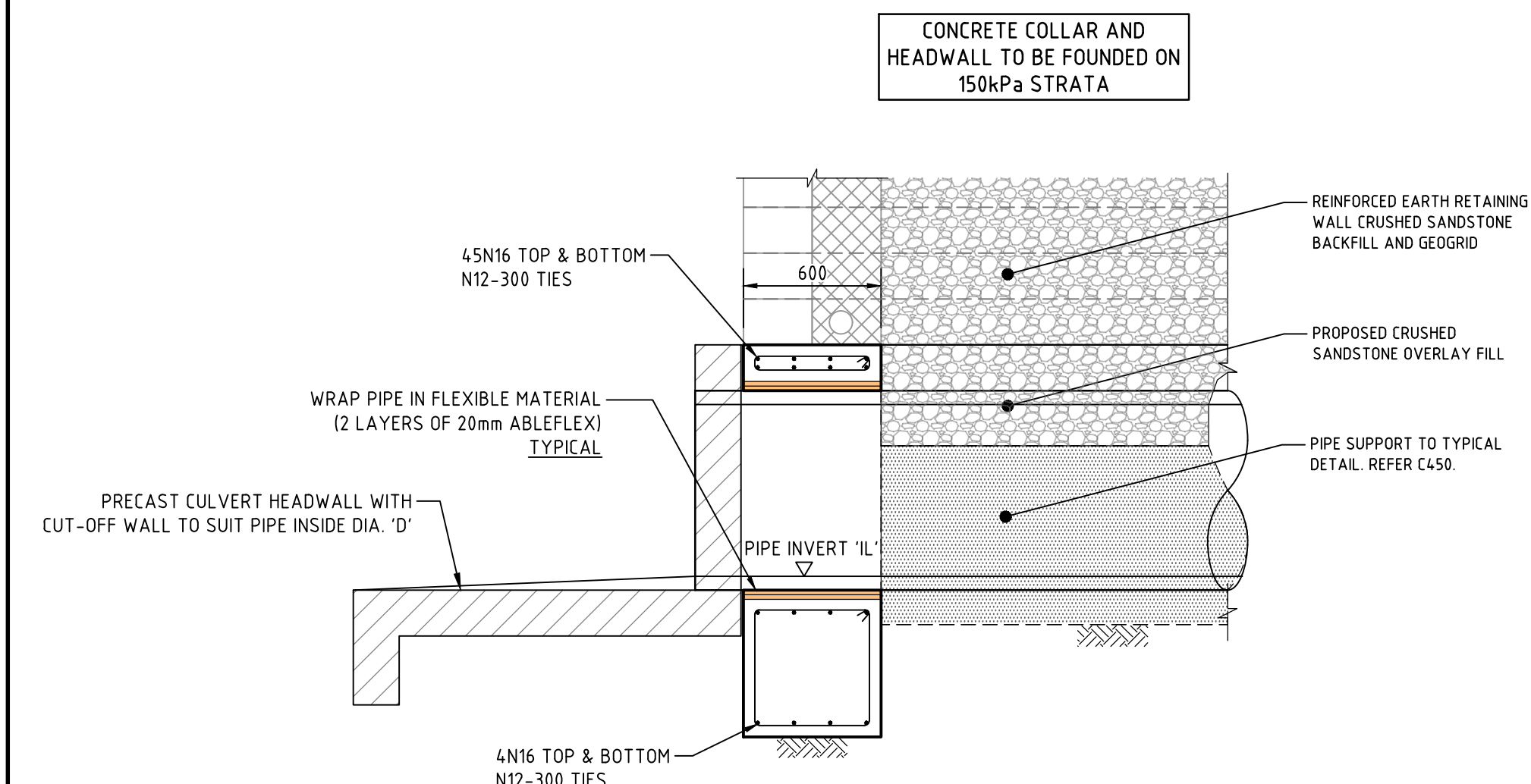
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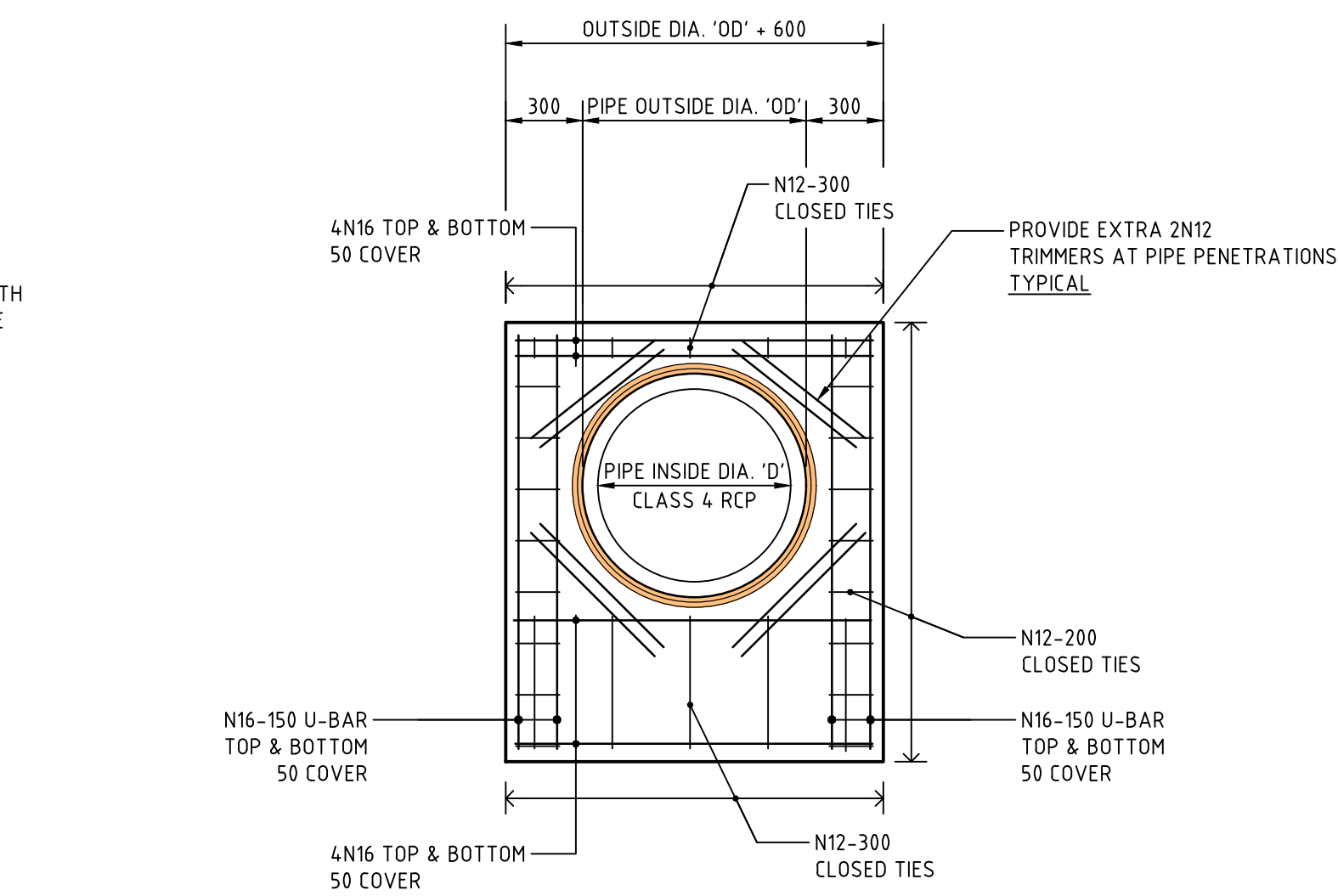
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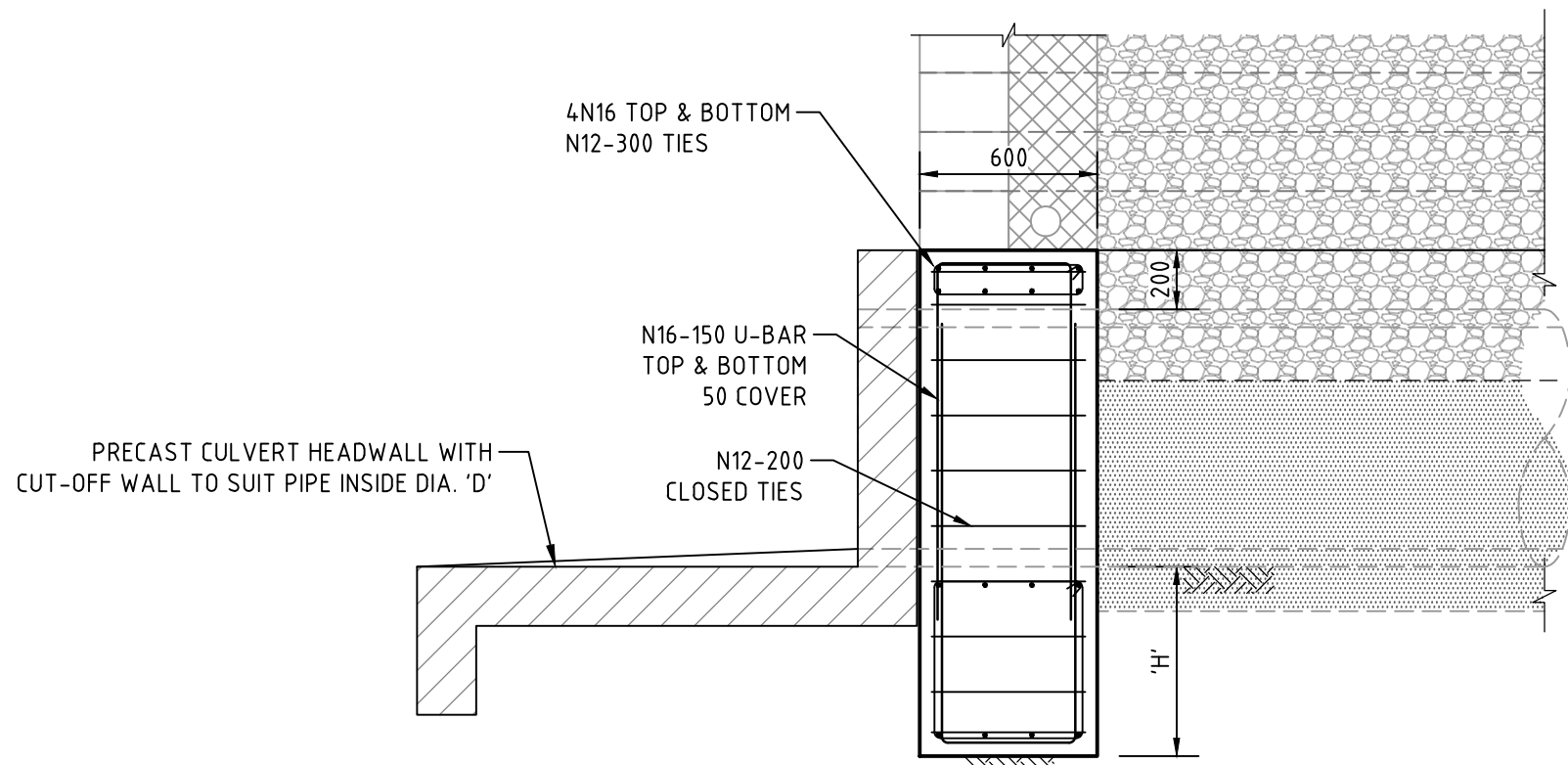
HEADWALL ELEVATION
SCALE 1:25



SECTION 1:25



CONCRETE COLLAR REINFORCEMENT
SCALE 1:25



SECTION 2:25

PIPE DESCRIPTION	PIPE INSIDE DIA. 'D'	DEPTH OF COLLAR BELOW BOTTOM OF PIPE 'H'	PIPE INVERT 'IL'	BOTTOM OF WALL FOOTING RL 'BWL'
LOT 3 FROM PIT W3-E11 TO WATERCOURSE	750mm	640mm	RL 72.00	RL 71.36
LOT 2 FROM OSD TO WATERCOURSE	825mm	400mm	RL 72.26	RL 71.80
LOT 4 FROM PIT W4-A16 TO BLACKTOWN CREEK	900mm	854mm	RL 72.52	RL 71.60*

NOTE: 'OD' WILL BE AS PER THE SUPPLIER'S TECHNICAL DOCUMENTATION.

*NOTE: BOTTOM OF WALL TO BE LOCATED BELOW THE BIORETENTION FILTER MEDIA

This Design Compliance Certificate relates to the items listed below.

1.Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

No other works are included as part of this Design Compliance certificate

CONCRETE NOTES:

- C1 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- C2 READYMIX CONCRETE SUPPLY SHALL COMPLY WITH AS1379.
- C3 CONCRETE QUALITY
ALL THE REQUIREMENTS OF THE ACSE SPECIFICATION DOCUMENT 1 (EDITION 6) SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	STRENGTH GRADE (MPa)	SLUMP	MAX AGG SIZE	CEMENT TYPE
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REFER TO PLANS

- C4 PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE AS1379.
- C5 NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING.
- C6 CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE AS FOLLOWS UNLESS SHOWN OTHERWISE.

EXPOSURE CLASSIFICATION TO AS3600:	CONCRETE GRADE:	CAST AGAINST GROUND:	CAST IN FORMS EXPOSED:	CAST IN FORMS NOT EXPOSED:
A1&A2	25	50mm	30mm	20mm(A1)
B1	32	60mm	40mm	-
B2	40	65mm	45mm	-

COVER REQUIREMENTS MAY NEED TO BE INCREASED TO SUIT FIRE RATING. EXPOSURE CLASSIFICATION SHALL BE AS INDICATED ON THE DRAWING.

DURABILITY REQUIREMENTS FOR CONCRETE.

EXPOSURE CLASSIFICATION TO AS3600:	MINIMUM CEMENT CONTENT:	W/C RATIO:
A1&A2	280	0.56
B1	320	0.56
B2	390	0.46
C	450	0.40

CONCRETE NOTES (CONTINUED):

- C7 ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT 1 METRE CENTRES MAXIMUM BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS. USE PLASTIC CHAIRS IN EXPOSURE CONDITION GREATER THAN B1.
- C8 CONCRETE SIZES DO NOT INCLUDE THICKNESSES OF APPLIED FINISHES.
- C9 DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.
- C10 REFER TO ARCHITECT'S DETAILS, FOR CHAMFERS, DRIP GROOVES, REGLETS, ETC., MAINTAIN COVER TO REINFORCEMENT AT THESE DETAILS.
- C11 NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

- C12 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER.
- C13 ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.

- C14 USE ALIPHATIC ALCOHOLS SPRAYED OVER THE SURFACE PRIOR TO AND AFTER FINISHING TO REDUCE RATE OF EVAPORATION FROM THE SURFACE AND HELP CONTROL PLASTIC SHRINKAGE CRACKING. NOTE THAT THE USE OF ALIPHATIC ALCOHOLS IS NOT A SUBSTITUTE FOR CURING.

- C15 COMMENCE CURING OPERATIONS PROMPTLY AFTER SURFACE FINISHING IS COMPLETE. CURING COMPOUNDS ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND ARE TO BE CHECKED FOR COMPATIBILITY WITH PROPOSED FLOOR FINISHES. SOME COMPOUNDS MAY REQUIRE REMOVAL FOR GLUED DOWN FLOOR COVERINGS OR WET CURING AS DESCRIBED BELOW.

CONCRETE IS TO BE CURED BY KEEPING THE SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS, AND PREVENTING THE LOSS OF MOISTURE FOR A FURTHER 7 DAYS FOLLOWED BY A GRADUAL DRYING OUT.

- C16 PROPPING WHICH SUPPORTS CONSTRUCTION OVER IS TO BE LEFT IN PLACE AS REQUIRED TO AVOID OVER STRESSING THE STRUCTURE DUE TO CONSTRUCTION LOADING.

- C17 THE ENGINEER SHALL BE GIVEN 48 HOURS NOTICE FOR REINFORCEMENT INSPECTIONS AND CONCRETE SHALL NOT BE DELIVERED UNTIL ENGINEERS APPROVAL IS OBTAINED.

CONCRETE NOTES (CONTINUED):

- C18 CONDUITS, PIPES ETC. SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH AND SPACED AT NOT LESS THAN 3 DIAMETERS OF THE CONDUIT, PIPES ETC. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE COVER TO REINFORCEMENT.
- C19 REINFORCEMENT SYMBOLS:
N DENOTES DEFORMED GRADE 500 NORMAL DUCTILITY CLASS BARS TO AS4671
R DENOTES PLAIN ROUND GRADE 250 NORMAL DUCTILITY CLASS BARS TO AS4671
RL DENOTES RECTANGULAR MESH GRADE 500 LOW DUCTILITY CLASS TO AS4671
SL DENOTES SQUARE MESH GRADE 500 LOW DUCTILITY CLASS TO AS4671
TM DENOTES TRENCH MESH GRADE 500 LOW DUCTILITY CLASS TO AS4671
THE MEMBER IMMEDIATELY FOLLOWING THE BAR GRADE SYMBOL REPRESENTS THE NOMINAL BAR DIAMETER IN MILLIMETERS. THE FIGURES FOLLOWING THE MESH SYMBOL SL & RL IS THE REFERENCE NUMBER FOR MESH TO AS4671.
- C20 REINFORCEMENT IS REPRESENTED DIAGMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- C21 SLAB REINFORCEMENT SHALL EXTEND AT LEAST 65mm ONTO MASONRY SUPPORT WALLS AND 50 PERCENT OF THE BOTTOM REINFORCEMENT SHALL BE COGGED TO ACHIEVE ANCHORAGE AT SIMPLY SUPPORTED ENDS.
- C22 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE ENGINEER. LAPS SHALL BE IN ACCORDANCE WITH AS3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR.

- C23 WHERE TRANSVERSE TIE BARS ARE NOT SHOWN PROVIDE N12-400 SPLICED WHERE NECESSARY AND LAPPED 500mm WITH MAIN BARS.

- C24 UPWARD CAMBER TO FORMWORK OF REINFORCED CONCRETE CANTILEVERS SHALL BE L/120, WHERE L IS THE PROJECTION BEYOND FACE OF COLUMN OR WALL. CAMBER TO SUSPENDED SLABS AND BEAMS SHALL BE 5 FOR EVERY 2500 OF SPAN. MAINTAIN THE SLAB AND BEAM DEPTHS SHOWN.

- C25 SLABS AND BEAMS SHALL BE CONSTRUCTED TO BEAR ONLY ON THE BEAMS, WALLS, COLUMNS, ETC SHOWN ON THE DRAWINGS. TOPS OF LOAD BEARING MASONRY WALLS ARE TO BE TROWELED SMOOTH AND 2 LAYERS OF ALGOR PROVIDED BETWEEN WALL AND SLAB. ALL OTHER BUILDING ELEMENTS SHALL BE KEPT 15mm MINIMUM CLEAR FROM SOFFITS OF THE STRUCTURE.

CONCRETE NOTES (CONTINUED):

- C26 FORMWORK STRIPPING TIMES: RECOMMENDED MINIMUM STRIPPING TIMES IN THE ABSENCE OF CALCULATION AND STRENGTH TESTING SHALL BE:

MEMBER TYPE	MEMBER	EFFECTIVE SPAN (m)	MINIMUM STRIPPING TIME (DAYS) FOR AVERAGE AIR TEMPERATURE DURING PERIOD PRIOR TO STRIPPING			
			20° AND OVER	10° TO 20°	5° TO 10°	UNDER 5°
VERTICAL UNLOADED	WALL, COLUMN, BEAM SIDE	0	2	3	5	7
VERTICAL LOADING	WALL, COLUMN OR LOADING STRUCTURE	0	5	6	7	9
HORIZONTAL	SLAB	UNDER 3	7	10	14	21
		3 - 6	10	14	21	28
		OVER 6	14	21	28	28
HORIZONTAL	BEAM	UNDER 3	10	14	21	28
		3 - 6	14	21	28	28
		OVER 6	21	28	28	28

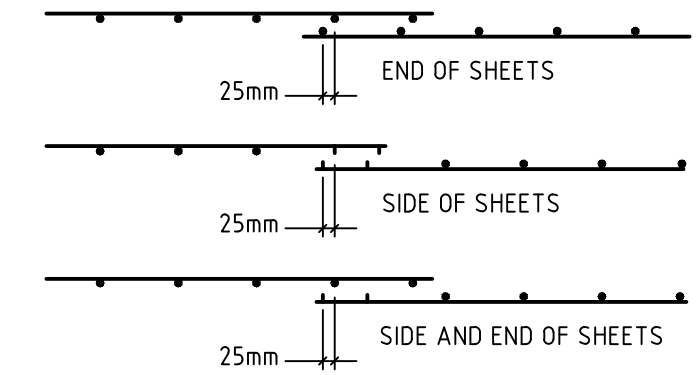
EFFECTIVE SPAN IS THE MAXIMUM DISTANCE BETWEEN SUPPORTS (EITHER TEMPORARY OR PERMANENT).

- C27 STANDARD LAP AND COG LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.

BAR DIAMETER	MIN LAP LENGTH (mm)	MIN COG LENGTH (mm)
N12	500	180
N16	750	210
N20	1000	260
N24	1375	310
N28	1560	360
N32	1810	400

CONCRETE NOTES (CONTINUED):

- C28 MINIMUM MESH LAPS



FOUNDATIONS

- F1 FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING CAPACITY OF 150kPa ON ENGINEERED FILL. THE FOUNDATION MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR THIS BEARING CAPACITY BEFORE PLACING MEMBRANE, REINFORCEMENT OR CONCRETE.
- F2 REFER TO GEOTECHNICAL INVESTIGATIONS REPORT No. PSM636-006L REV6 PREPARED BY: BRYAN TAM - PSM 17 APRIL 2024.
- F3 FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALL AND COLUMNS UNLESS NOTED OTHERWISE.
- F4 DO NOT EXCEED A RISE OF: 1:1N A RUN OF: 2 FOR THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS.
- F5 DO NOT BACKFILL RETAINING WALLS (OTHER THAN CANTILEVER WALLS) UNTIL FLOOR CONSTRUCTION AT TOP AND BOTTOM IS COMPLETED. ENSURE FREE DRAINING BACKFILL AND DRAINAGE IS IN PLACE.
- F6 FOOTINGS TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE.

SITE PREPARATION

- SP1 STRIP EXISTING AREA OF TOPSOIL AND OTHER DELETERIOUS MATERIAL AS REQUIRED TO CONSTRUCT NEW WORKS.
- SP2 PRIOR TO PLACING THE FLOORS OR PAVEMENT THE CONTRACTOR SHALL CONFIRM THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED, IS SOUND, AT THE CORRECT MOISTURE CONTENT & HAS BEEN VERIFIED BY THE EARTHWORKS OR CIVIL CONTRACTOR WITH RESPECT TO SPECIFICATION COMPLIANCE.
- SP3 REFER TO CIVIL ENGINEERS DRAWINGS FOR DETAILS OF SITE PREPARATION.
- SP4 IF THE EARTHWORKS CAPPING LAYER CONSISTS OF A MINIMUM THICKNESS OF 600mm MATERIAL & THE CONSTRUCTED LEVELS ARE SUITABLE IT MAY BE POSSIBLE TO UTILISE THIS CAPPING MATERIAL AS PAVEMENT SUB-BASE.
- SP5 REMOVE ANY ORGANIC OR SOFT MATERIAL FROM SITE.
- SP6 REFER TO GEOTECHNICAL REPORT PSM636-006L REV6 PREPARED BY BRYAN TAM DATED 17 APRIL 2024 FOR INFORMATION PERTAINING TO EXISTING GROUND CONDITIONS & SPECIFIC FILL PLACEMENT & COMPACTION REQUIREMENTS.
- SP7 PROOF ROLL THE EXPOSED SUBGRADE A MINIMUM OF 8 PASSES WITH A 10 TONNE STATIC WEIGHT SMOOTH DRUM NON-VIBRATORY ROLLER. AREAS IN THE VICINITY OF UNDERGROUND SERVICES SHALL BE COMPACTED WITH HAND OPERATED PLATE COMPACTOR.
- SP8 WHERE SOFT, YIELDING OR UNSTABLE MATERIAL IS IDENTIFIED, DEEPEN EXCAVATION AS REQUIRED TO REMOVE ANY SOFT SPOTS AND EXPOSE SUITABLE FOUNDATION STRATA. THIS MATERIAL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.

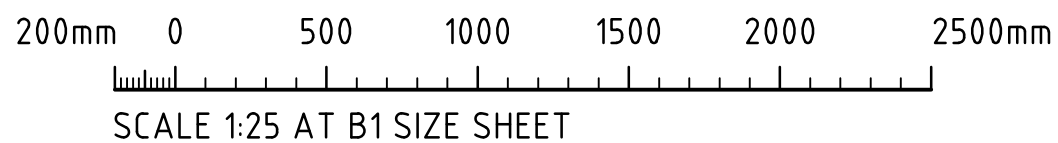
- SP9 SITE REGRADED OR ENGINEERED FILL SHALL BE CLEAN MATERIAL COMPACTED TO 100% SMOO WITHIN +2% OF OPTIMUM MOISTURE CONTENT IN LAYERS OF 250mm LOOSE THICKNESS.
- SP10 MAXIMUM PARTICLE SIZE OF FILL TO BE HALF THE LOOSE LAYER THICKNESS OR TWO-THIRDS THE COMPACTED LAYER THICKNESS.
- SP11 SERVICE TRENCH BACK FILL AND FILL OVER UNDERGROUND SERVICES SHALL BE COMPACTED WITH HAND OPERATED PLATE COMPACTOR IN LAYERS OF 100mm LOOSE THICKNESS.
- SP12 FILLING TO EXTEND 1 METRE BEYOND THE EDGE OF THE SLAB.
- SP13 EARTHWORKS SHALL BE COMPLETED UNDER LEVEL 1 CONTROL IN ACCORDANCE WITH AS3798 GUIDELINES ON EARTHWORKS FOR COMMERCIAL & RESIDENTIAL DEVELOPMENTS.

REINFORCEMENT

- R1 ALL REINFORCEMENT BARS ARE TO BE D500N U.N.O.
- R2 ALL REINFORCEMENT WELDED MESHERS TO BE GRADE 500L U.N.O.
- R3 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY ENGINEER.
- R4 COVER TO ALL BASE REINFORCEMENT TO BE MINIMUM 50mm U.N.O.
- R5 MESH LAPS SHALL BE MADE SO THAT THE TWO OUTERMOST WIRES OF ONE FABRIC OVERLAP THE TWO OUTERMOST WIRES OF THE SHEET BEING LAPPED.
- R6 REFER TO DRG C100 NOTE 27 FOR TABLE OF REINFORCING BAR LAP & COG LENGTHS. TABLED DIMENSIONS TO APPLY UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.

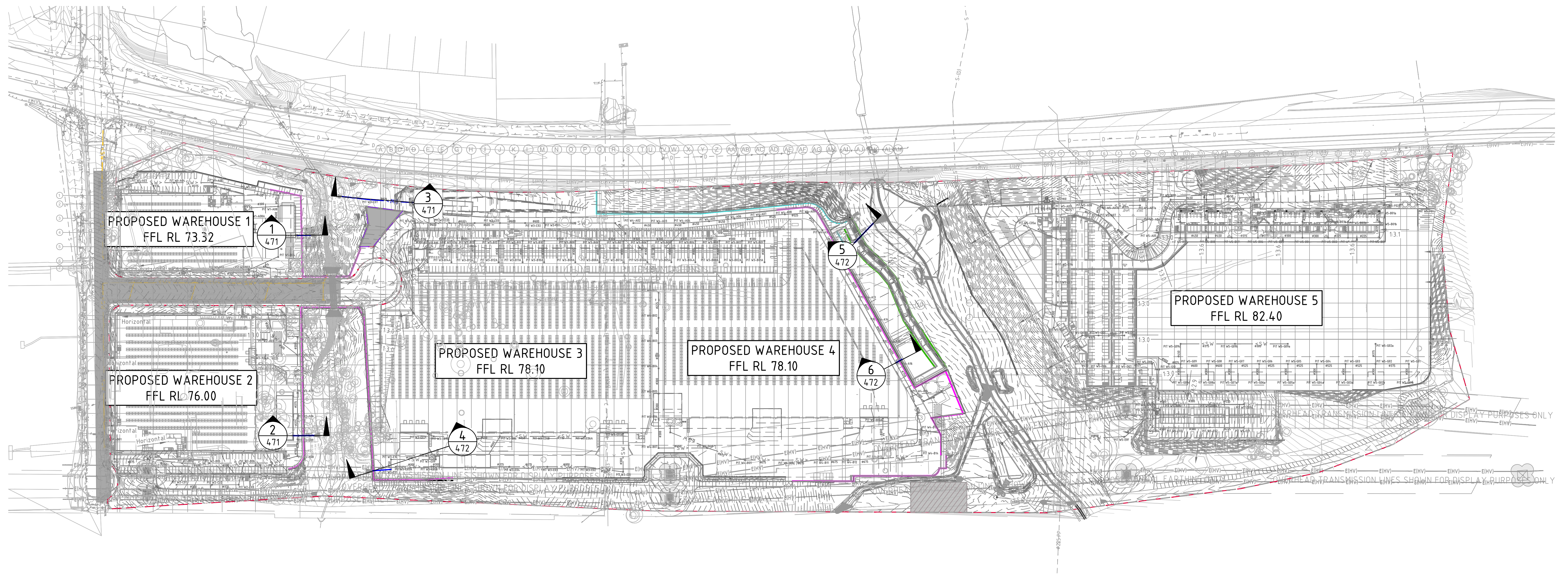
CONCRETE COLLAR AND HEADWALL TO BE FOUND ON 150kPa STRATA

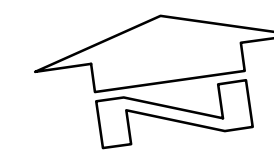
CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX. SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
CONCRETE COLLAR	80	20	GP	NIL	32



FOR CONSTRUCTION CERTIFICATE

						ARCHITECT			CLIENT			PROJECT						Costin Roe Consulting Pty Ltd. ABN 50 003 696 446						DRAWING TITLE					
						PACEARCHITECTS						PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148												STORMWATER DRAINAGE DETAILS - SHEET 6					
ISSUED FOR CONSTRUCTION CERTIFICATE			16.04.25			1																							
ISSUED FOR CONSTRUCTION CERTIFICATE			11.11.25			0																							
AMENDMENTS			DATE			ISSUE			AMENDMENTS			DATE			ISSUE												DRAWING No.		
																											C013904.07-EW455		
																											1		



 **STORMWATER DISCHARGE SECTIONS
KEY PLAN**
SCALE 1:1500

This Design Compliance Certificate relates to the items listed below.

1.Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

No other works are included as part of this Design Compliance certificate

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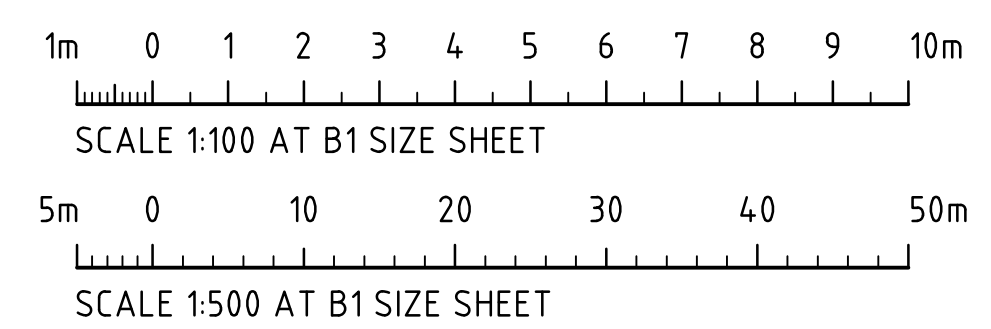
Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

Registration Number: BDC05310

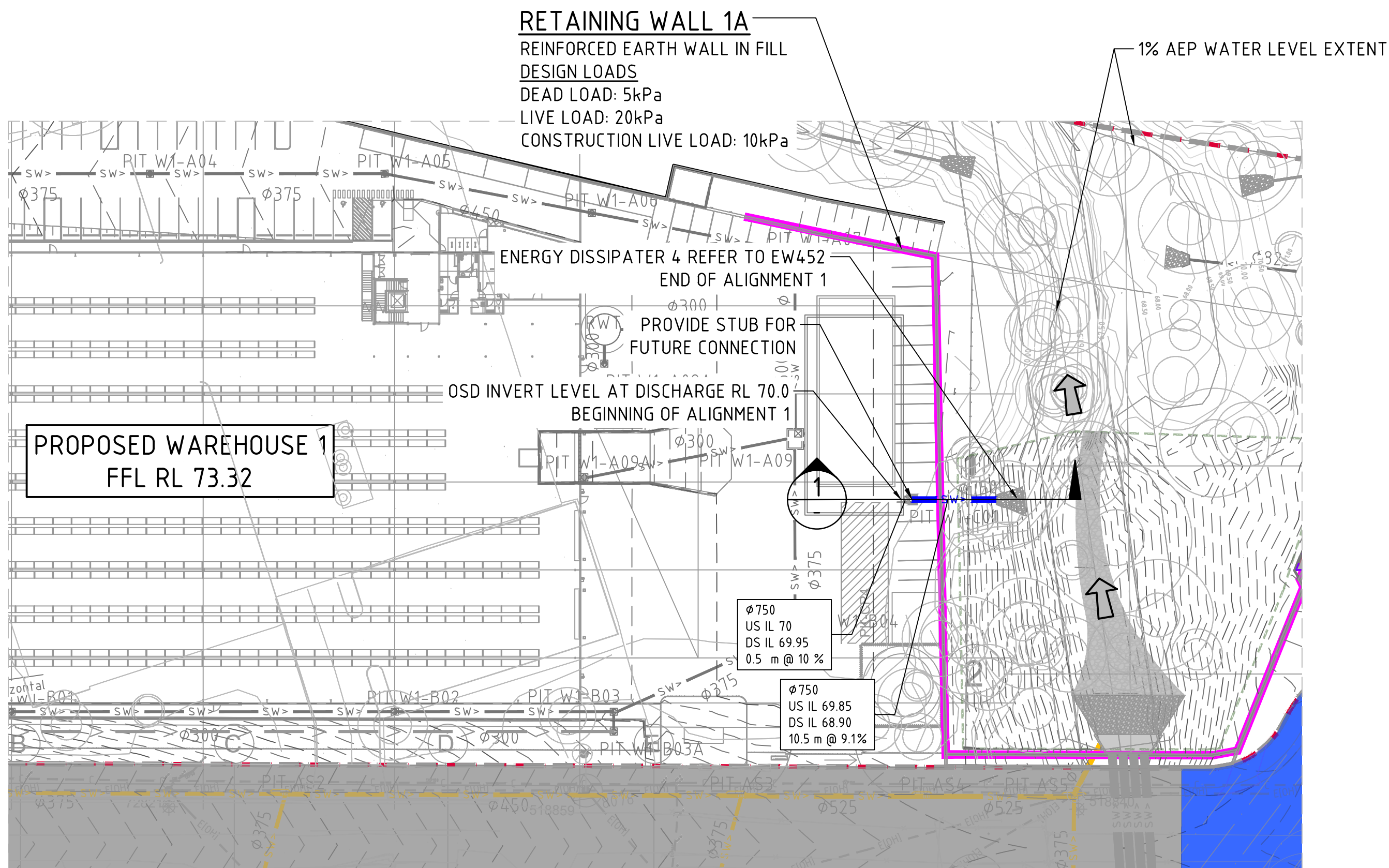
These plans/specifications form part of the certificate issued: 01/05/2026



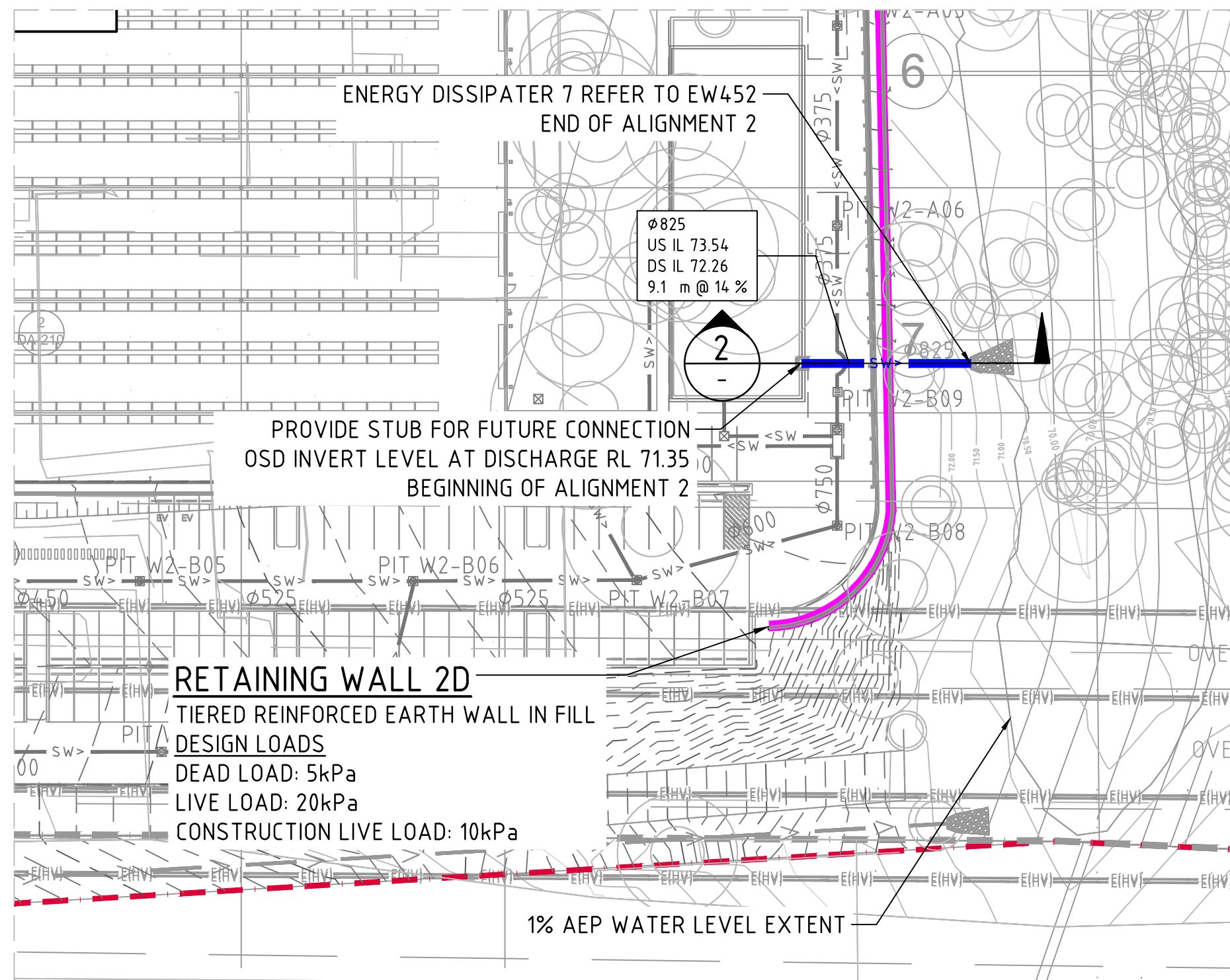


FOR CONSTRUCTION CERTIFICATE

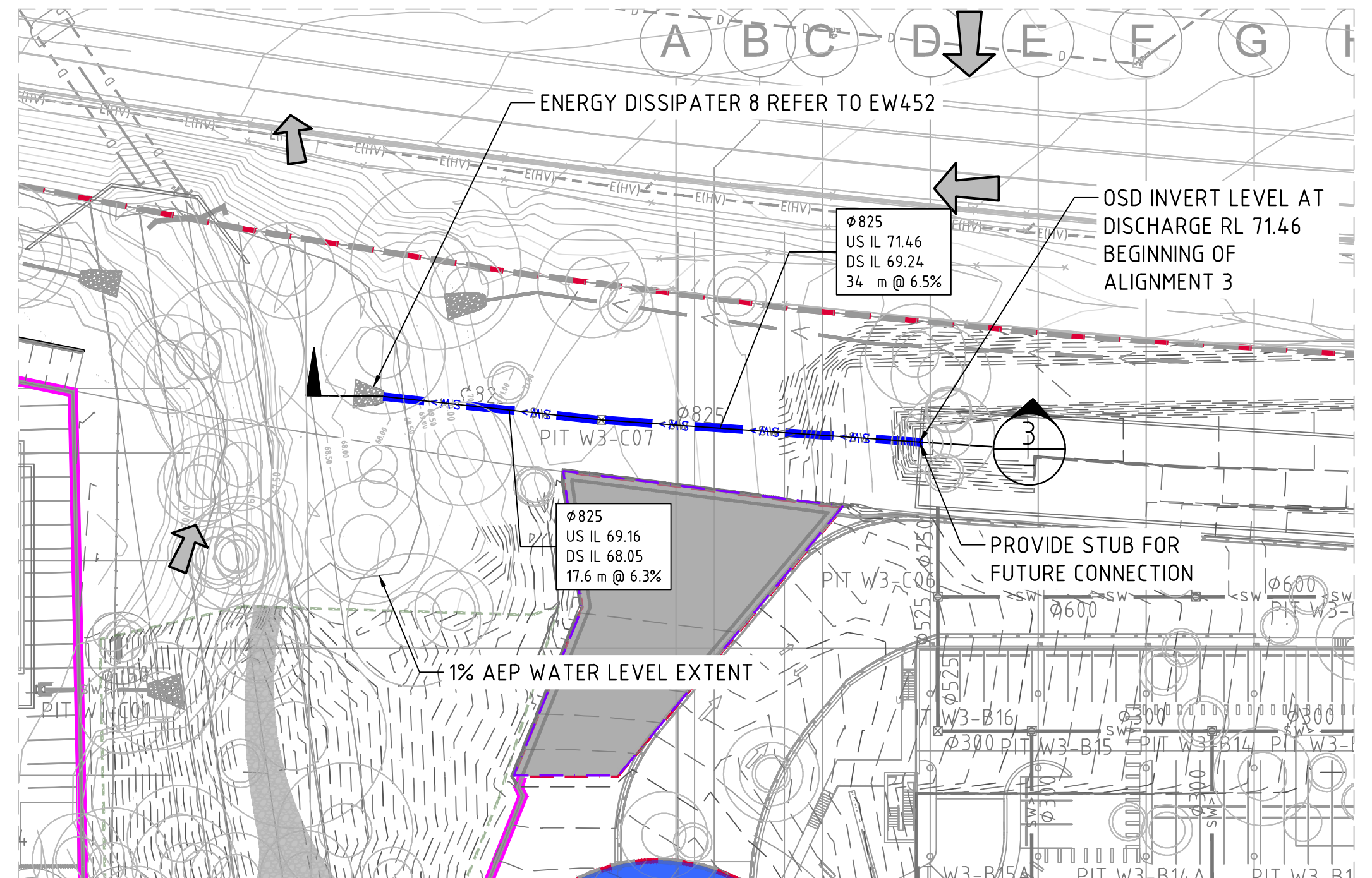
				ARCHITECT		CLIENT		PROJECT				Costin Roe Consulting Pty Ltd. ABN 50 003 696 446 PO Box N419 Sydney NSW 1220 Level 4, 8 Windmill Street, Millers Point NSW 2000 p: +61 2 9251 7699 f: +61 2 9241 3731 e: mail@costinroe.com.au w: costinroe.com.au				DRAWING TITLE	
				PACEARCHITECTS				PROPOSED WAREHOUSE DISTRIBUTION AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148								STORMWATER LONGSECTION KEYPLAN	
FOR CONSTRUCTION CERTIFICATE				10.04.26	0											DRAWING No	
AMENDMENTS				DATE	ISSUE	AMENDMENTS		DATE		ISSUE						C013904.07-EW470	
																ISSUE	
																0	



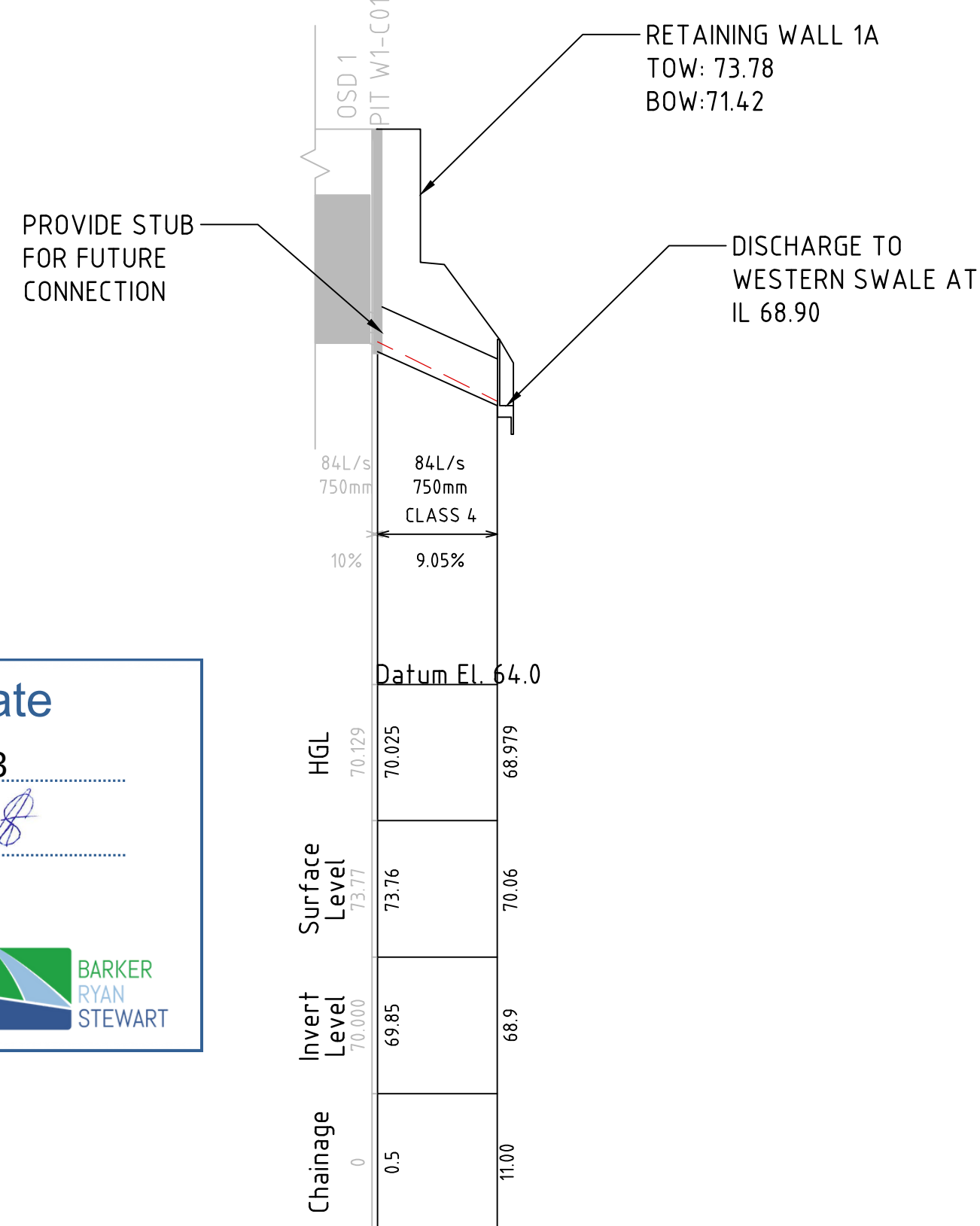
WAREHOUSE 1 OSD TO OUTLET PLAN
SCALE 1:500



WAREHOUSE 2 OSD TO OUTLET PLAN
SCALE 1:500

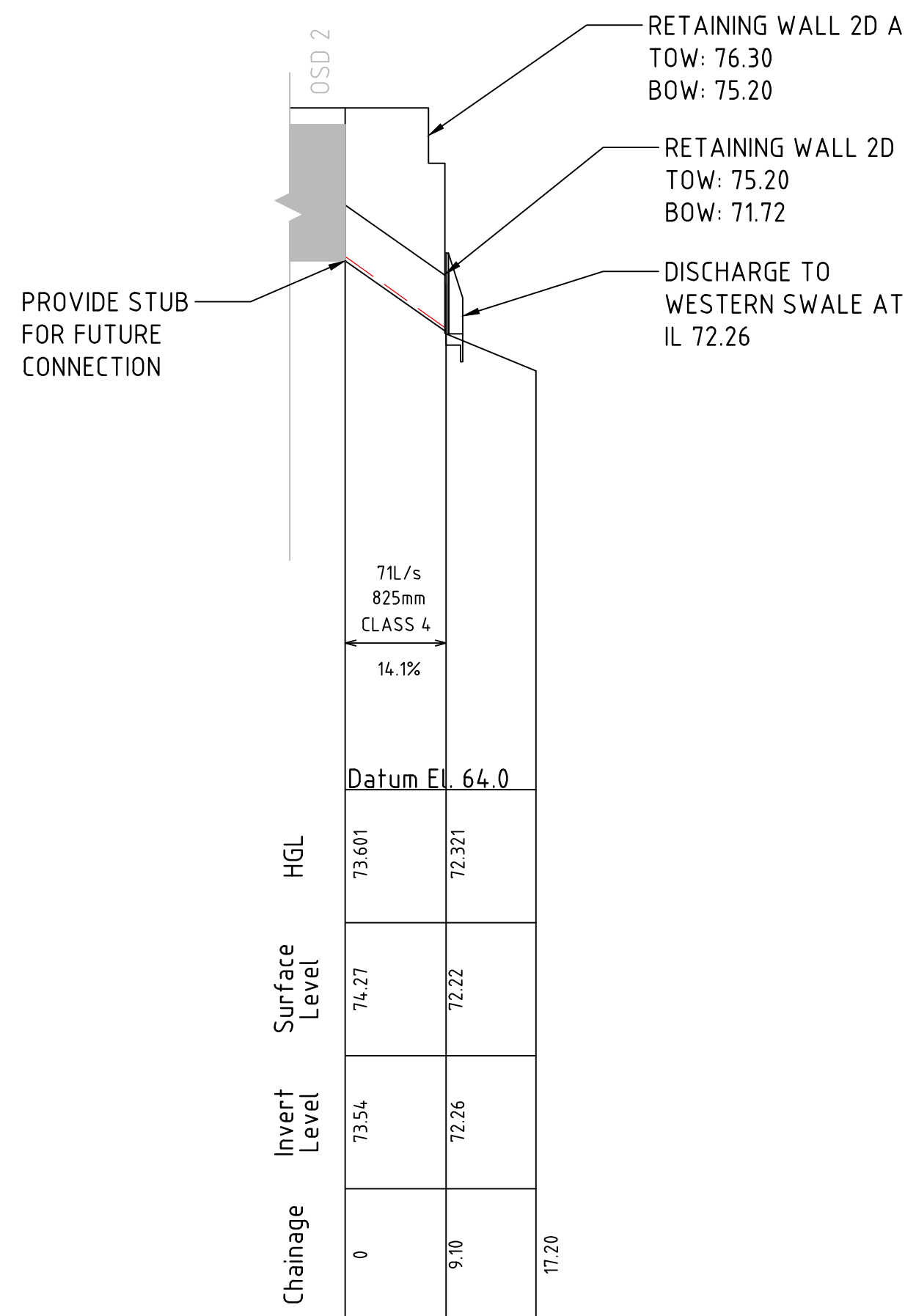


WAREHOUSE 3 OSD A TO OUTLET PLAN
SCALE 1:500



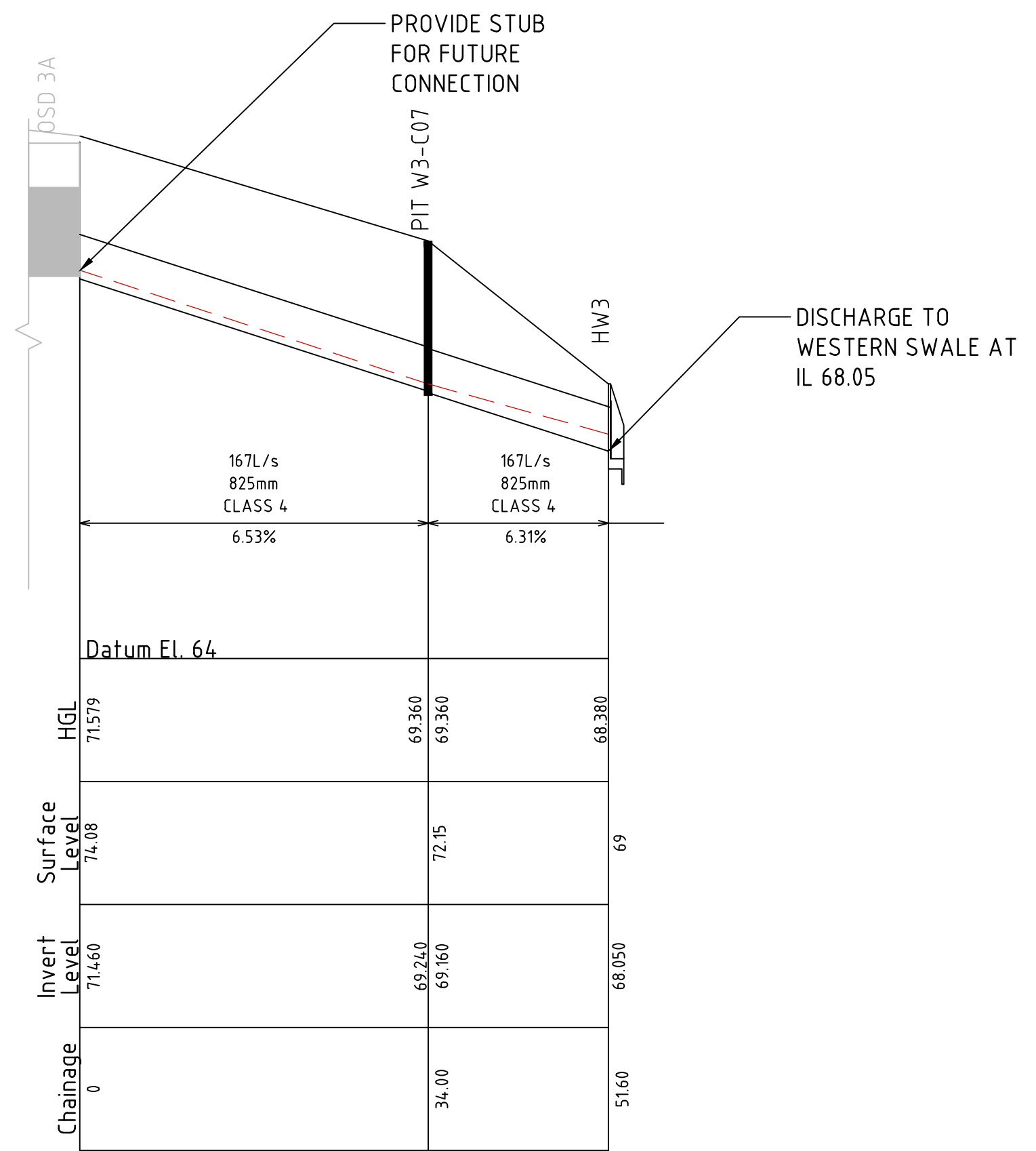
WH1 OSD TO DISCHARGE AT WESTERN SWALE
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 1D ON DRAWING EW551 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE



WH2 OSD TO DISCHARGE AT WESTERN SWALE
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 2C ON DRAWING EW552 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE



WH3 OSD A TO DISCHARGE AT WESTERN SWALE
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 3C ON DRAWING EW551 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE

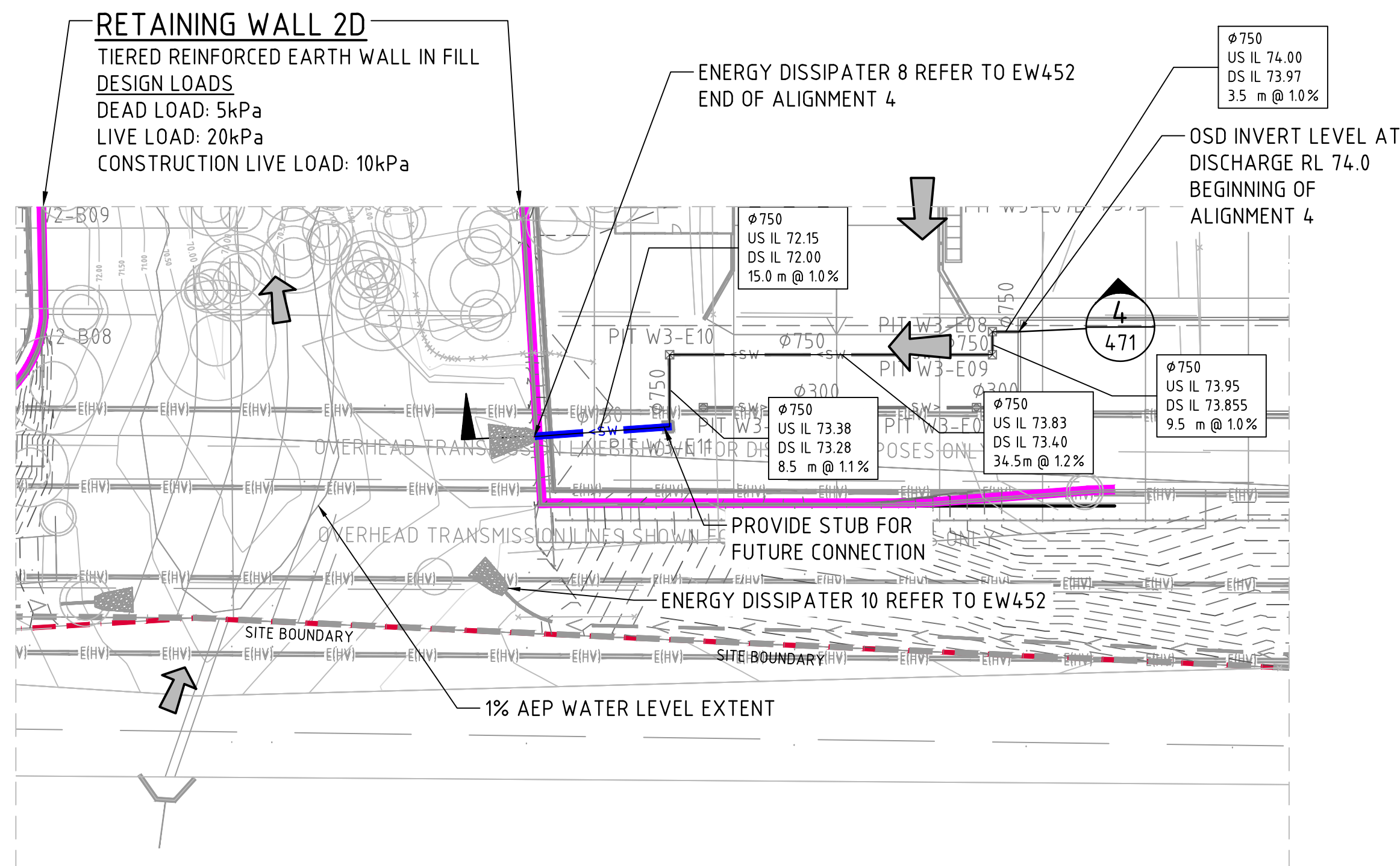
This Design Compliance Certificate relates to the items listed below.

1. Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

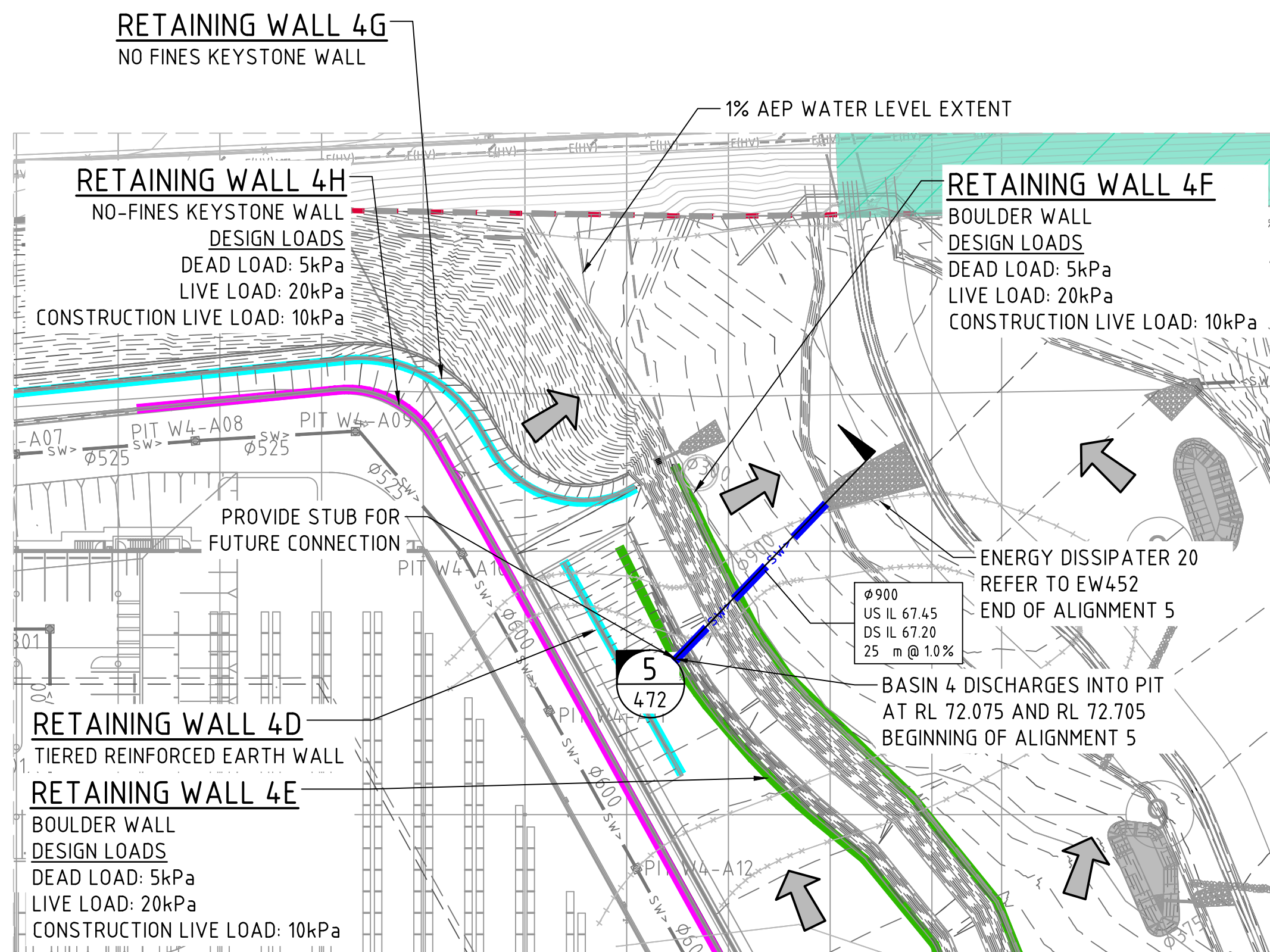
No other works are included as part of this Design Compliance certificate

FOR CONSTRUCTION CERTIFICATE

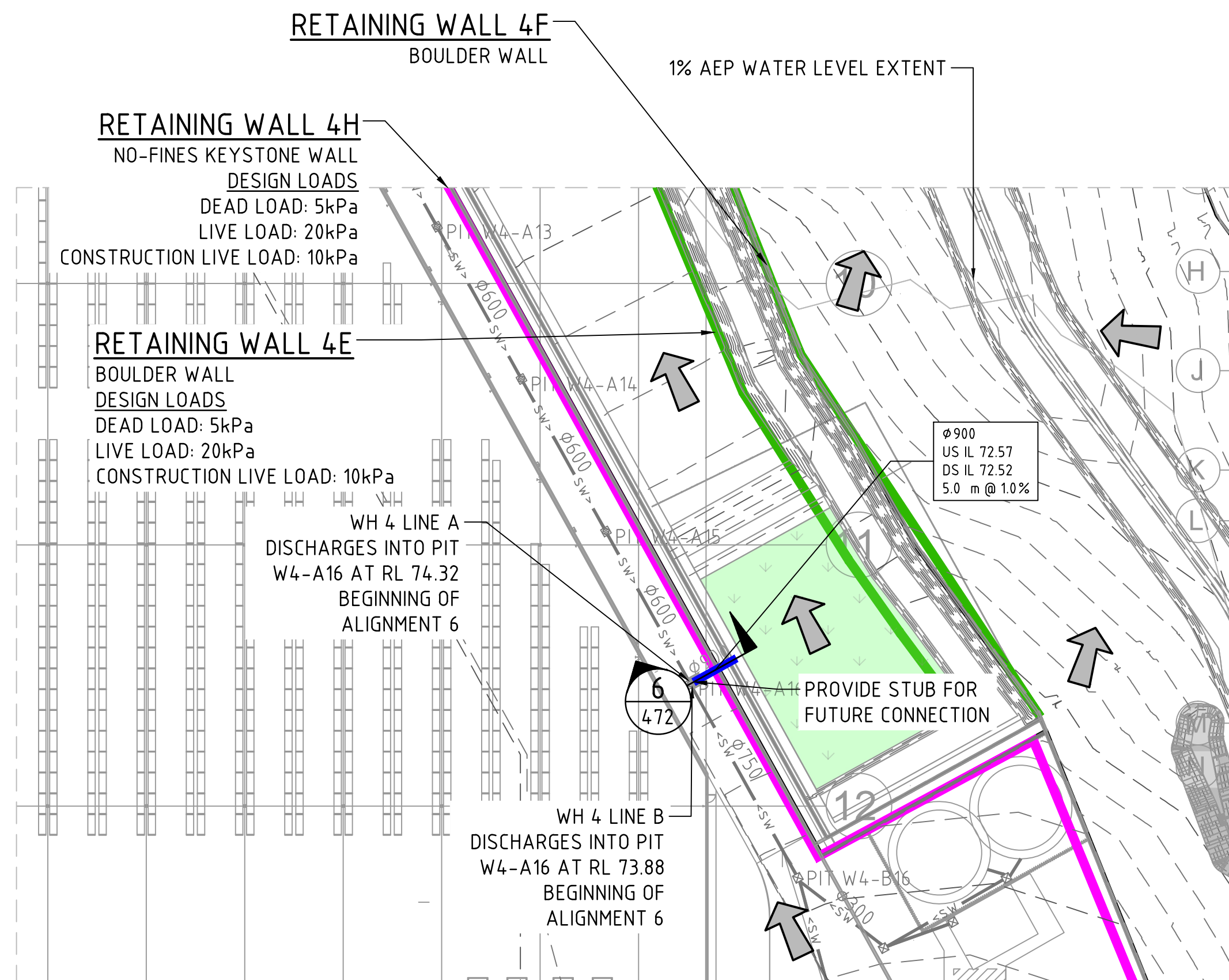




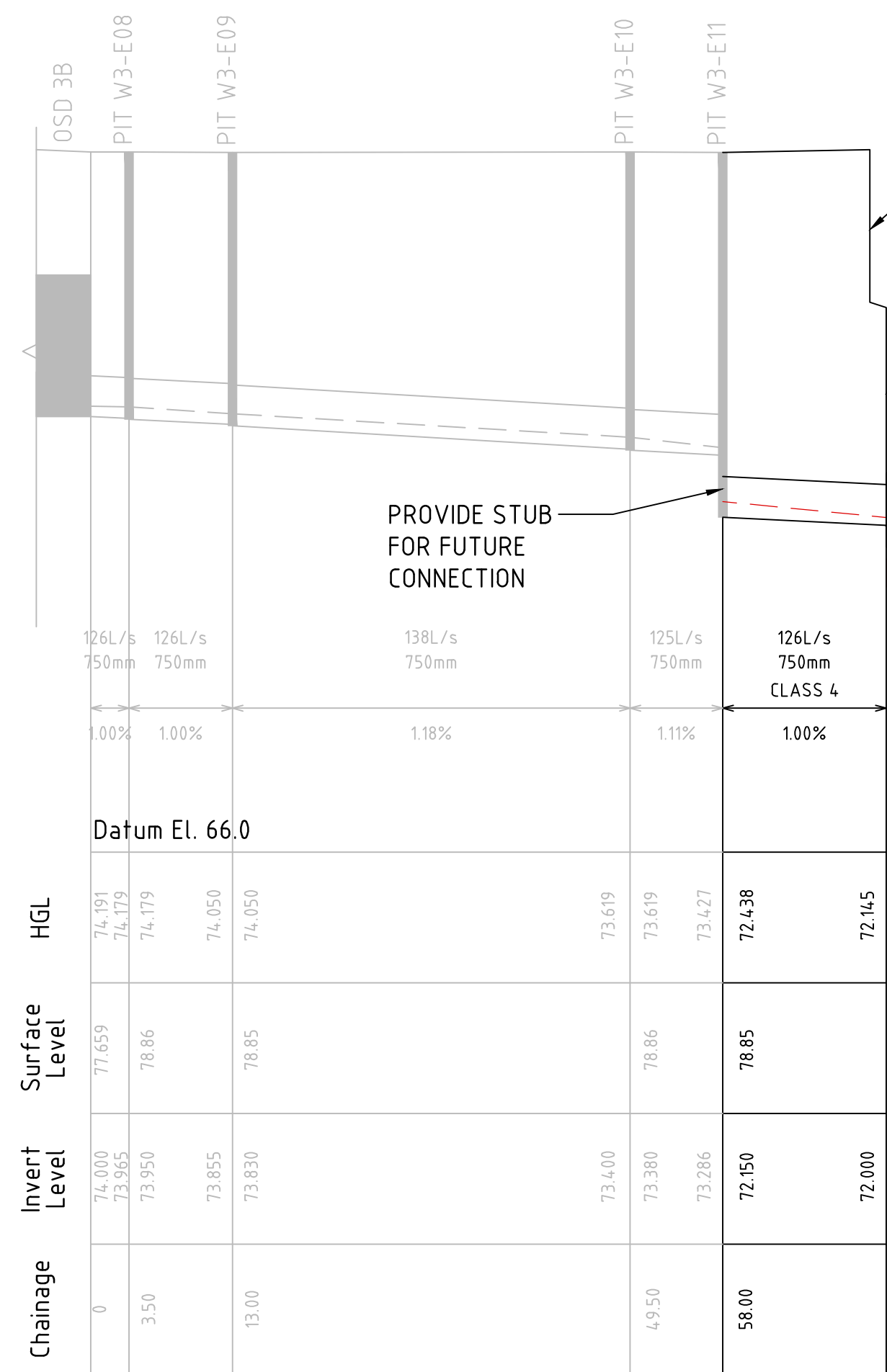
WAREHOUSE 4 OSD B TO OUTLET PLAN
SCALE 1:500



WAREHOUSE 4 BASIN 4 TO OUTLET PLAN
SCALE 1:500



WAREHOUSE 4 TO BASIN 4
SCALE 1:500



WH4 OSD B TO DISCHARGE AT WESTERN SWALE
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 3E ON DRAWING EW552 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE

This Design Compliance Certificate relates to the items listed below.

1. Stormwater outlets – WH1, WH2 and WH3 discharging into the western swale, and WH4 discharging into the western swale, eastern swale and the biobasin, as shown on Drawings EW471 Rev 3 and EW472 Rev 2, both dated 29.04.2026, including headwalls and energy dissipation only

No other works are included as part of this Design Compliance certificate

Compliance Certificate

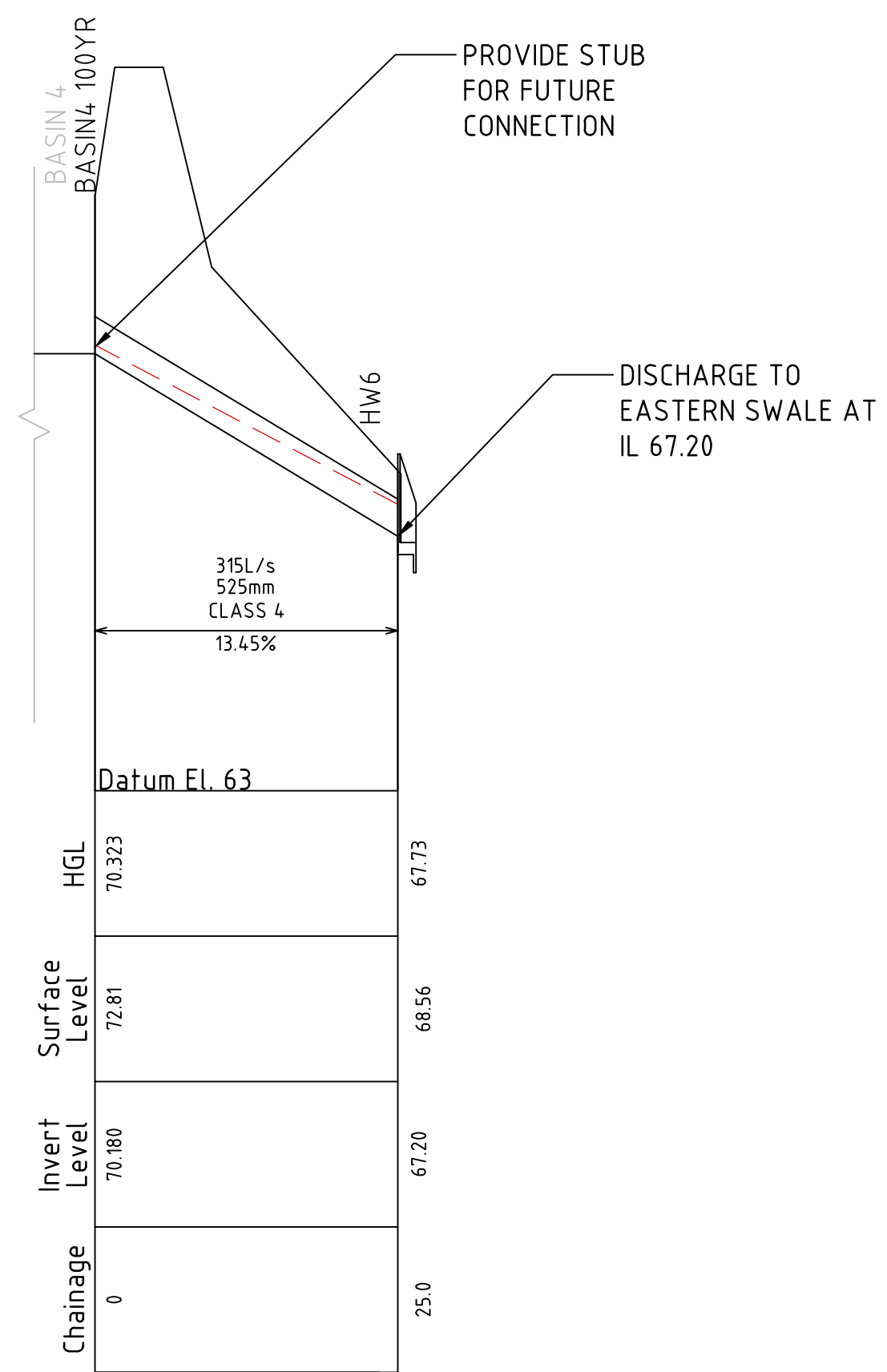
Certificate Number: 250062CC03

Issuing Officer: Sammy Gazal

Registration Number: BDC05310

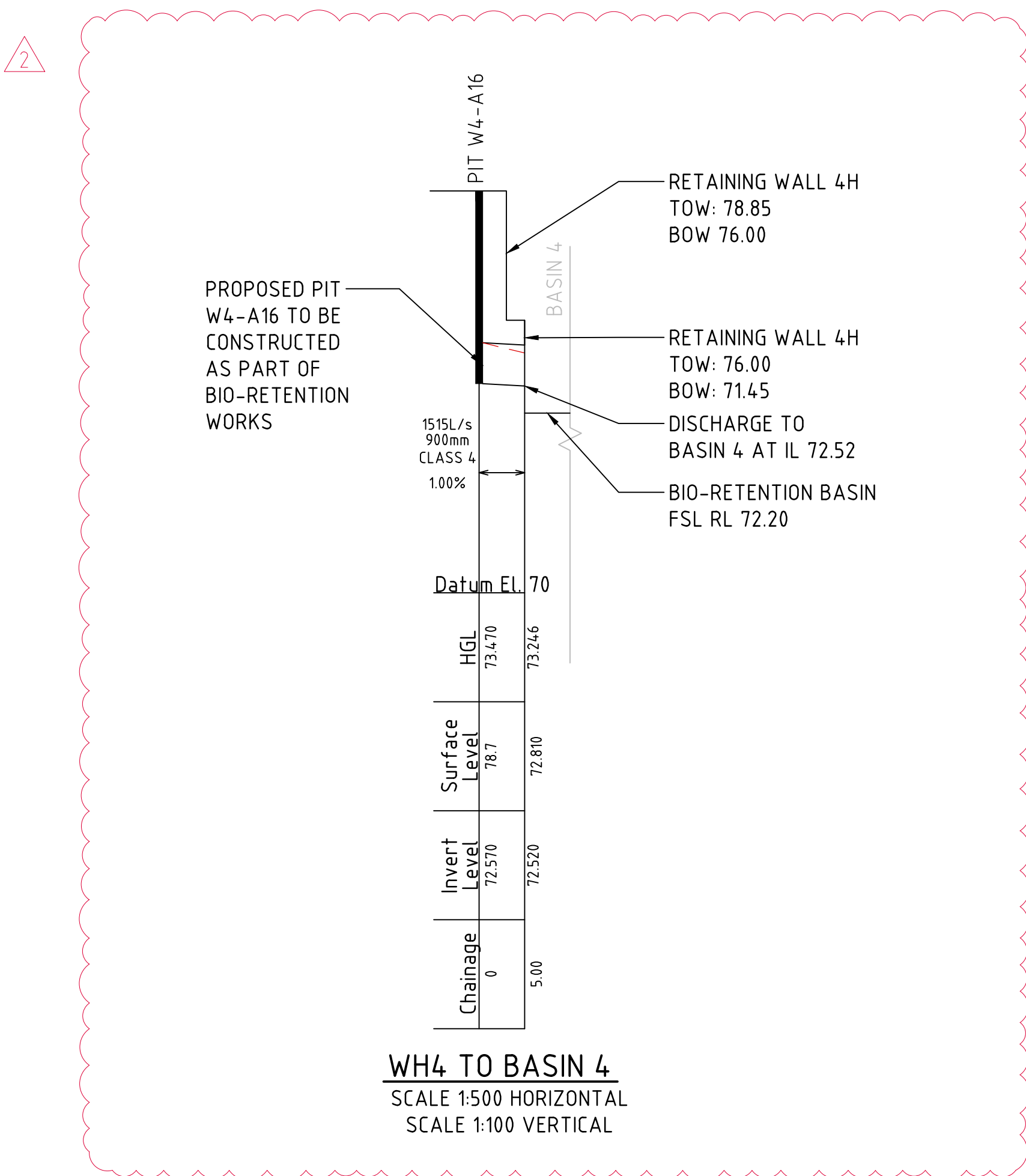
These plans/specifications form part of the certificate issued: 01/05/2026

BARKER
BYRON
STEWART



WH4 BASIN 4 TO DISCHARGE AT EASTERN SWALE
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 4B ON DRAWING EW554 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE



WH4 TO BASIN 4
SCALE 1:500 HORIZONTAL
SCALE 1:100 VERTICAL

NOTE:
REFER TO SECTION 4E ON DRAWING EW555 FOR A DETAILED SECTION
ALONG THIS DISCHARGE PIPE

FOR CONSTRUCTION CERTIFICATE

