

DRAWING INDEX

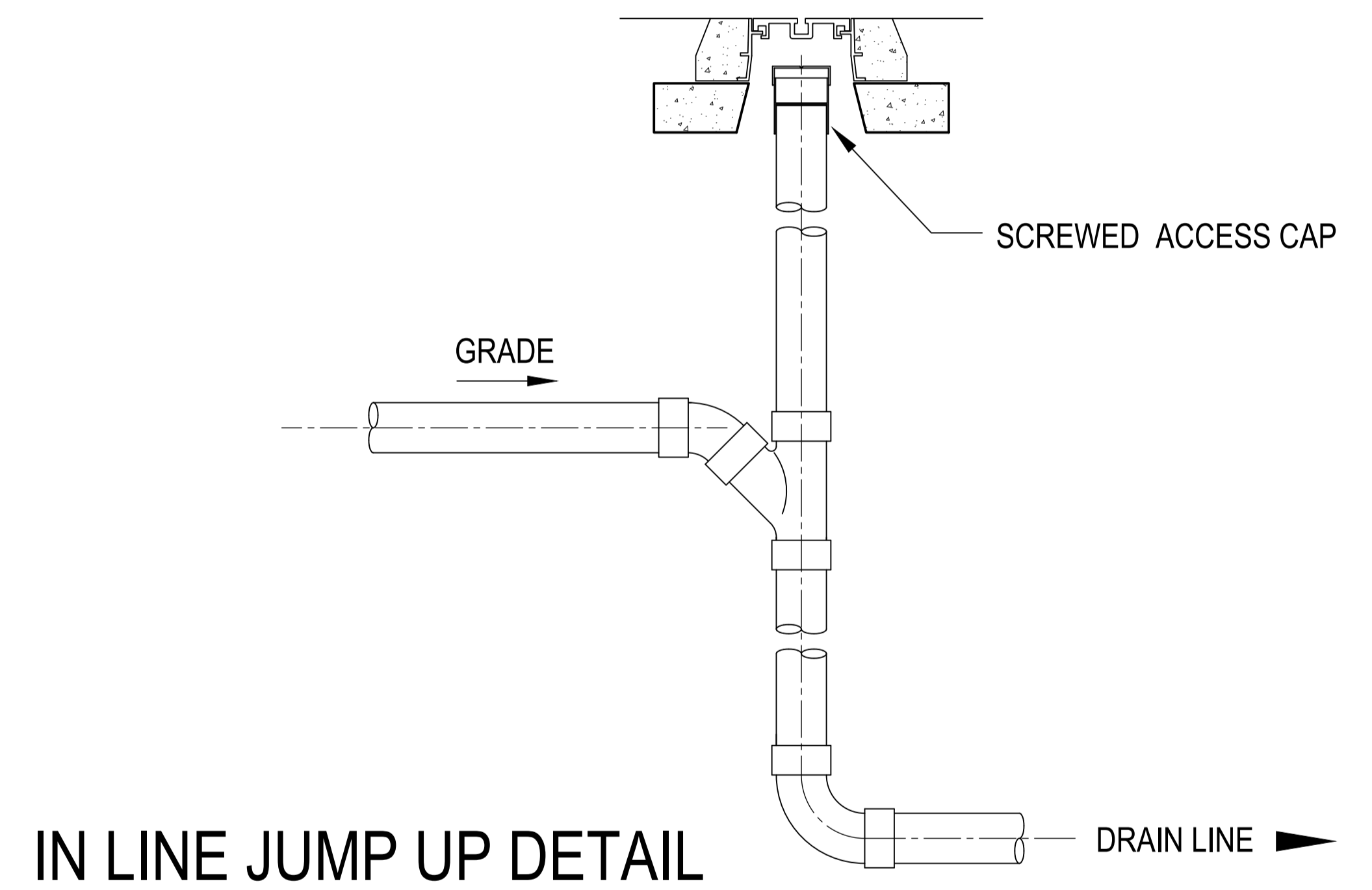
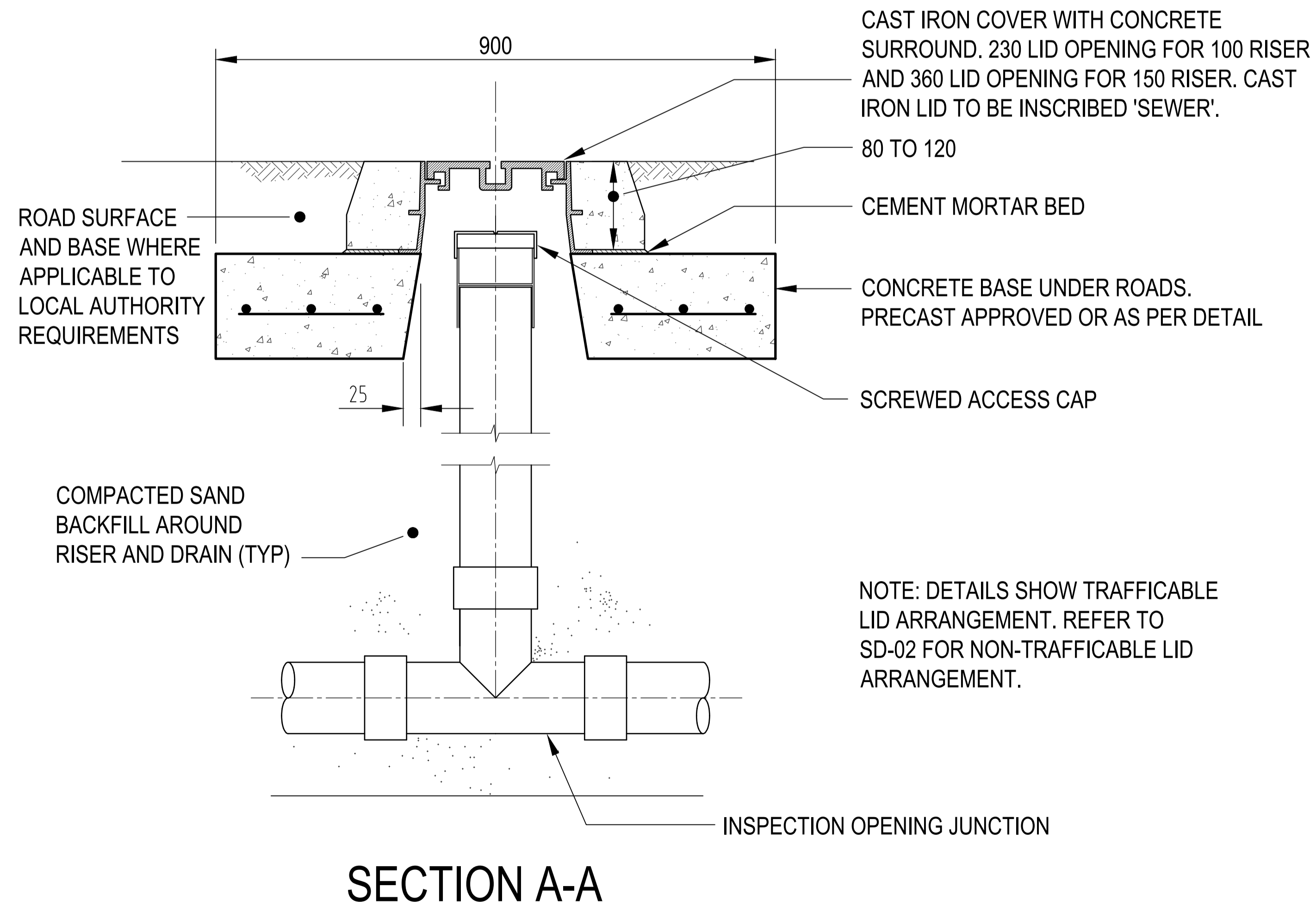
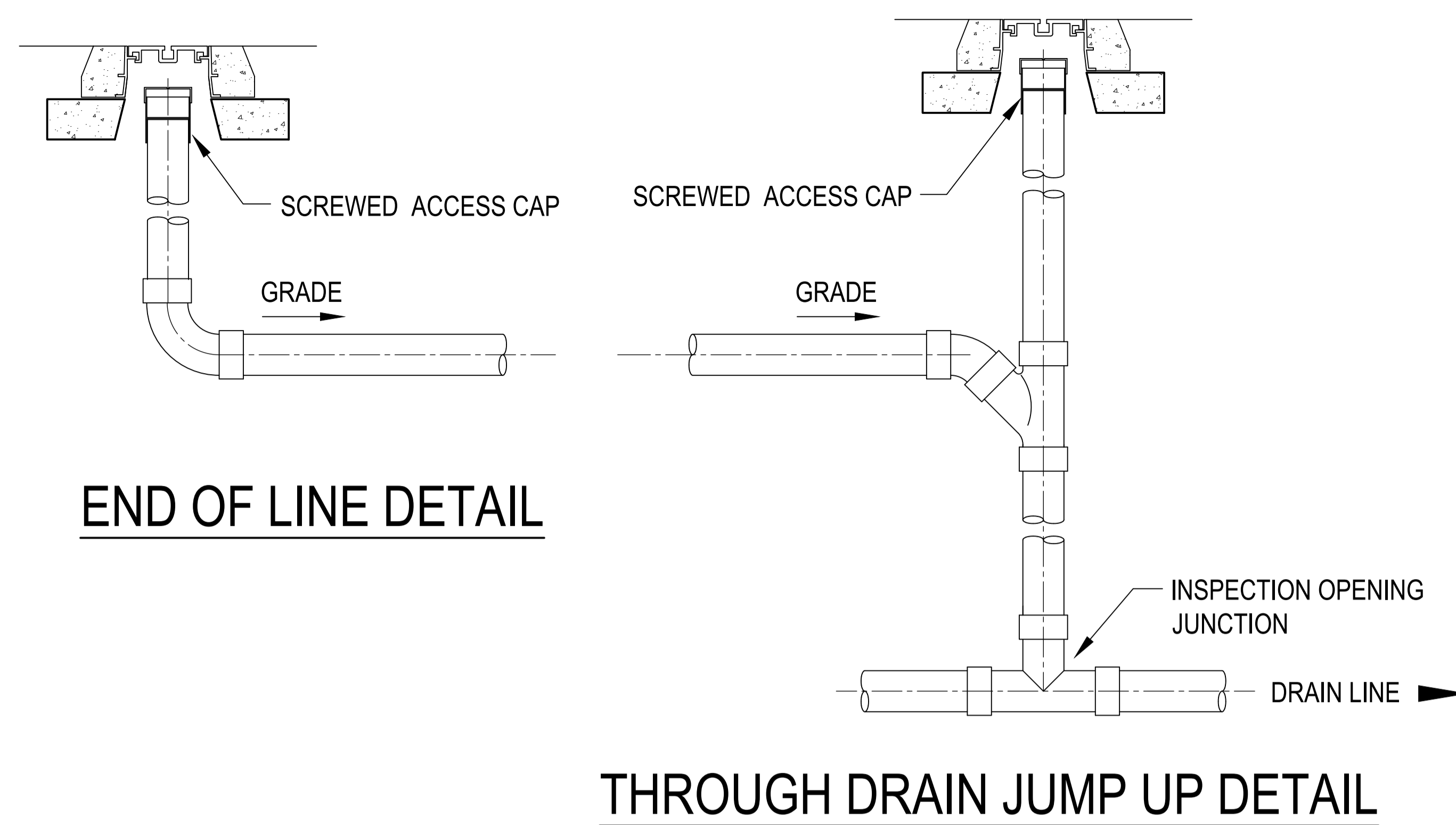
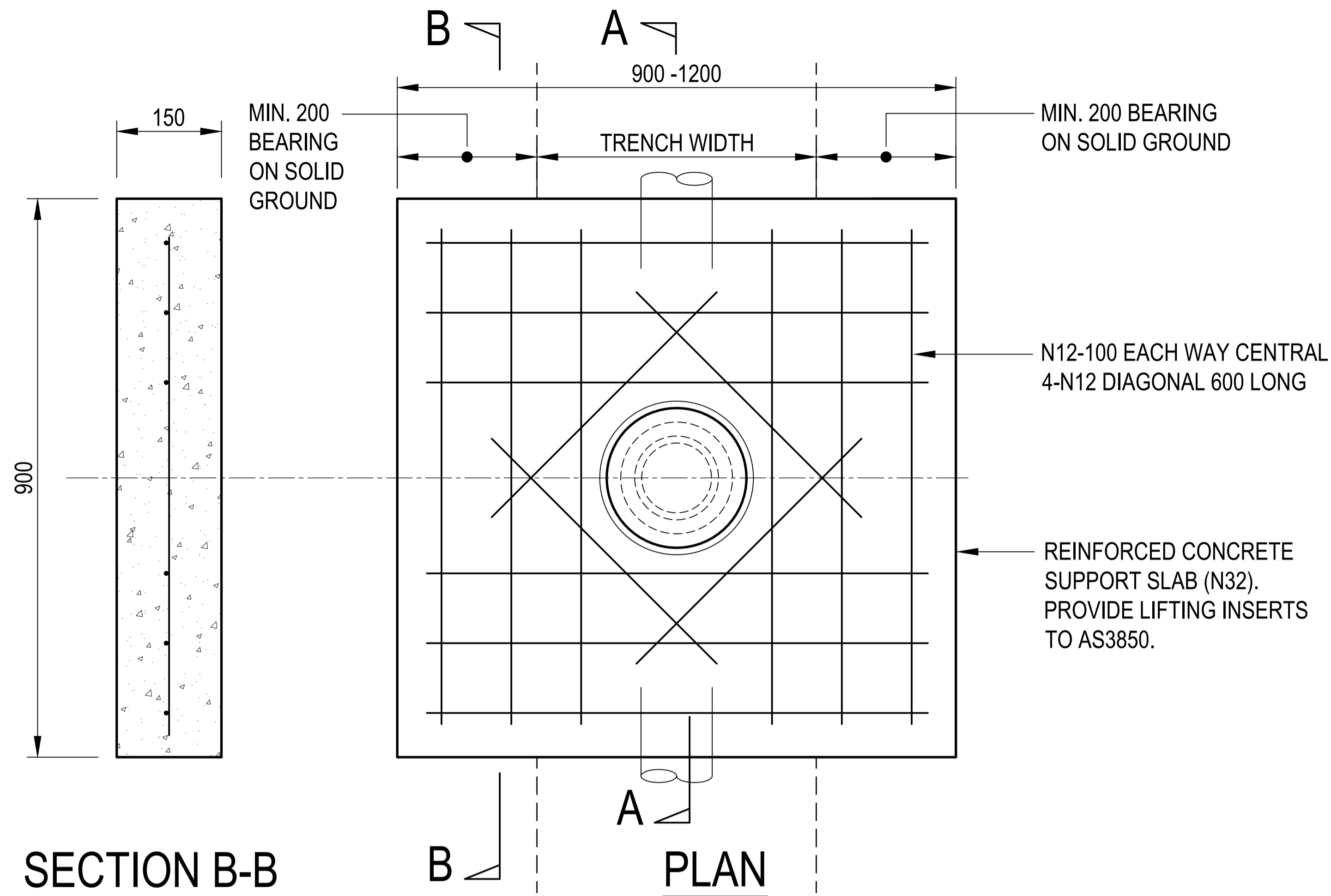
AC-CWMS-SD-00	DRAWING INDEX AND NOTES
AC-CWMS-SD-01	FLUSHING POINT AND INSPECTION OPENING DETAILS
AC-CWMS-SD-02	PROPERTY CONNECTION DETAILS
AC-CWMS-SD-03	FLUSHING POINT AND PROPERTY CONNECTION DETAILS
AC-CWMS-SD-04	MAINTENANCE HOLE DN1050 TO DN1500
AC-CWMS-SD-05	DROP MAINTENANCE HOLE DETAILS
AC-CWMS-SD-06	MAINTENANCE HOLE JUNCTION DETAILS
AC-CWMS-SD-07	SUBMERSIBLE PUMPING STATION PLAN AND SECTION
AC-CWMS-SD-08	PUMP STATION LID DETAIL
AC-CWMS-SD-09	PUMP STATION SWITCHBOARD
AC-CWMS-SD-10	VENT AND BASE DETAIL
AC-CWMS-SD-11	LAGOON TRANSFER PIPE DETAIL
AC-CWMS-SD-12	STORAGE LAGOON OVERFLOW DETAIL
AC-CWMS-SD-13	WWTP SCREEN DETAIL
AC-CWMS-SD-14	LAGOON FENCE
AC-CWMS-SD-15	MARKER POST AND WARNING SIGN DETAIL
AC-CWMS-SD-16	VALVE DETAILS
AC-CWMS-SD-17	EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS
AC-CWMS-SD-18	FLOATING INTAKE DETAIL
AC-CWMS-SD-19	TYPICAL VACUUM COLLECTION PIT
AC-CWMS-SD-20	TYPICAL VACUUM PUMP STATION

NOTES:

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- THE ALEXANDRINA COUNCIL DOES NOT ACCEPT PRIVATE PUMPING SYSTEMS AS A METHOD OF DISCHARGE INTO THE GREATER SEWERAGE NETWORK. ALLOTMENT CONNECTION INTO SEWERAGE NETWORK SHALL BE VIA GRAVITY CONNECTION ONLY.

Filename: V:\2021\21500 - 21539\21531 - AC - Technical Drawing Suite\Drafting\AC-CWMS-SD-00.dwg

		APP'D S.RATCLIFF	DATE -	ALEXANDRINA COUNCIL  Ph: (08) 8555 7000 11 Cadell Street PO Box 21 6000 WA SA 5214 ABN: 20 785 445 351		PROJECT CWMS TYPICAL DRAWINGS	PLAN # AC-CWMS-SD
		TEAM LEADER WATER INFRASTRUCTURE				TITLE DRAWING INDEX AND NOTES	SHEET 00



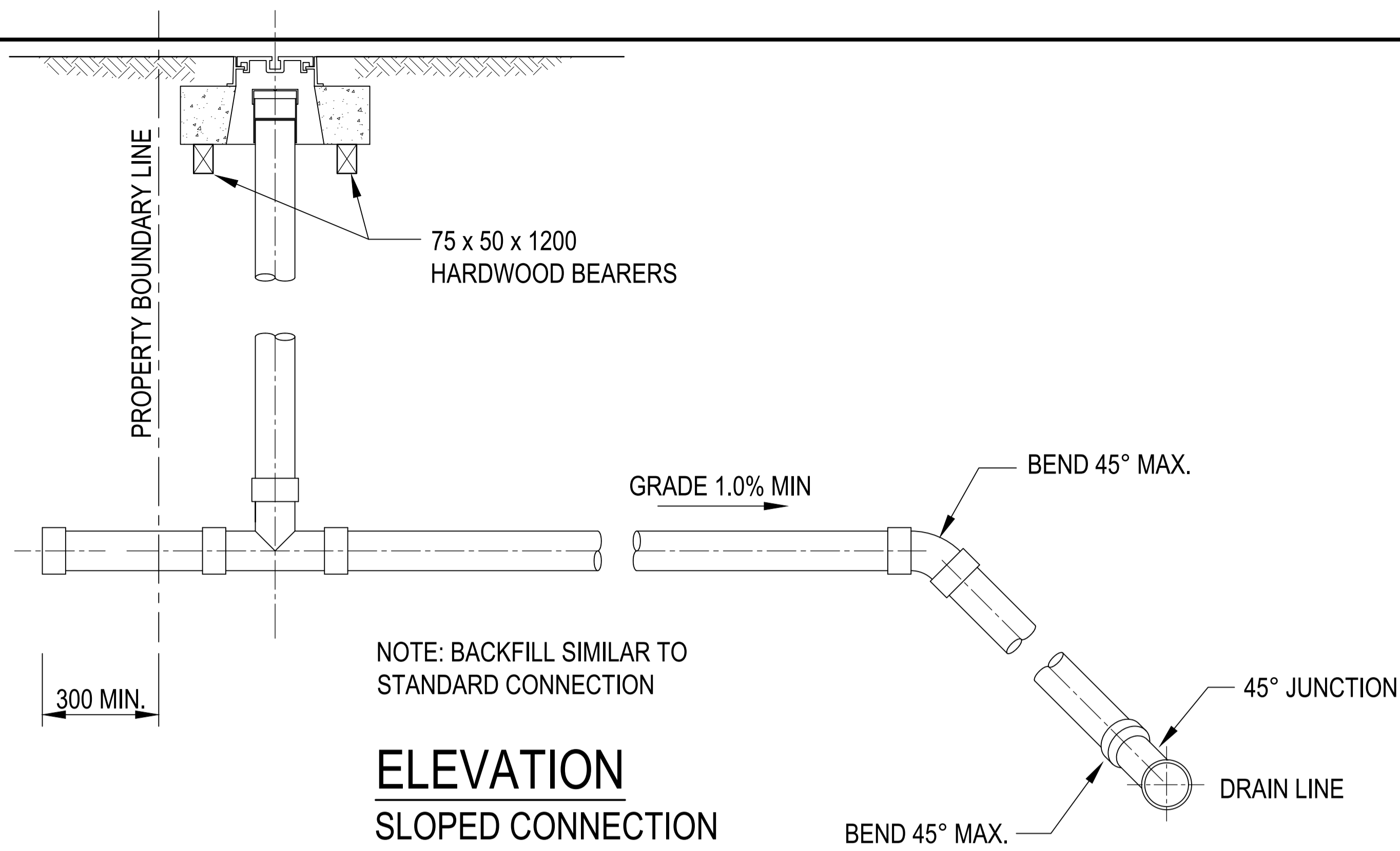
TYPICAL FLUSHING POINT DETAILS

1:20

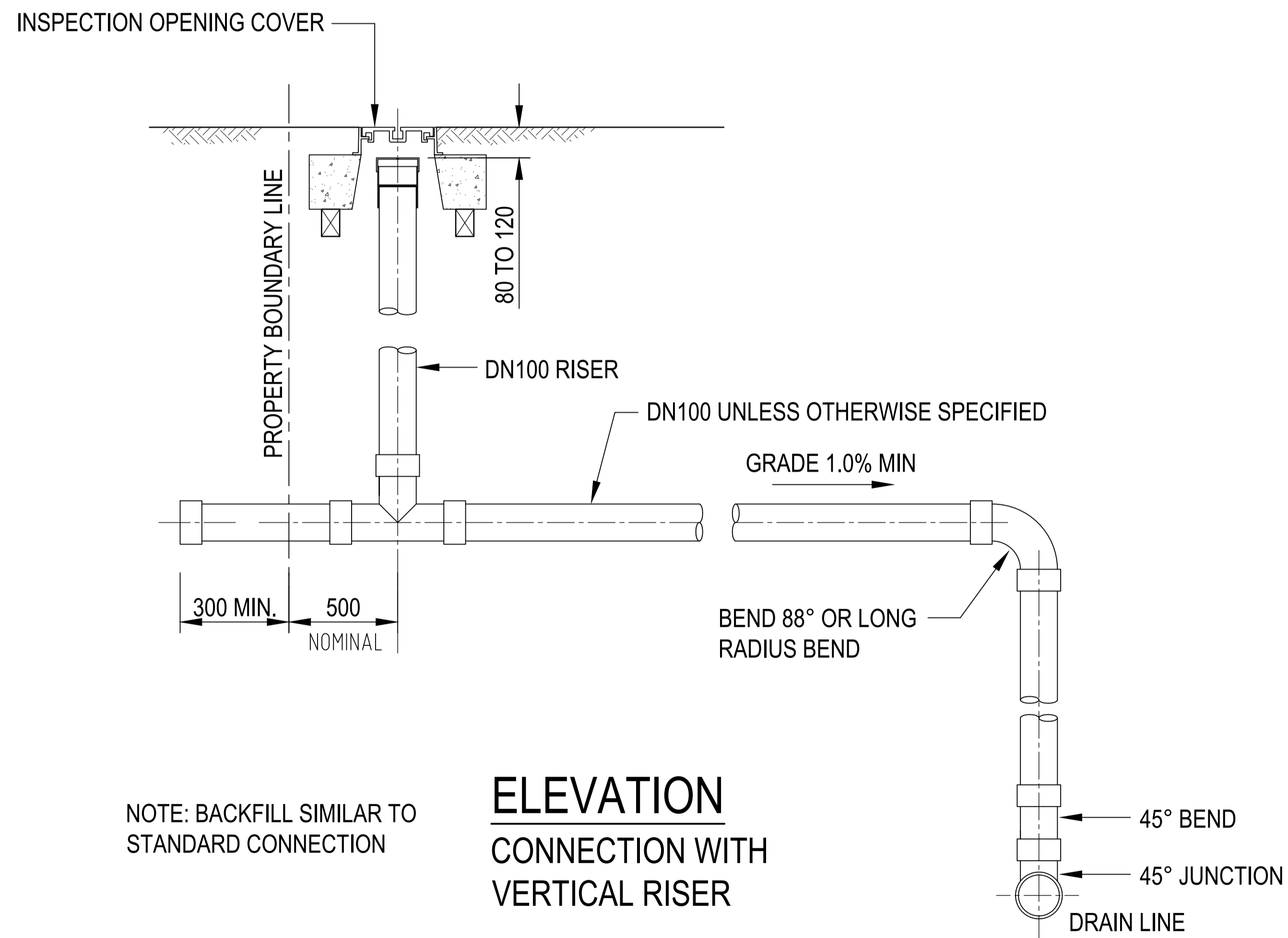
Note: The Alexandrina Council does not accept private pumping systems as a method of discharge into the greater sewerage network. Allotment connection into sewerage network shall be via gravity connection only.

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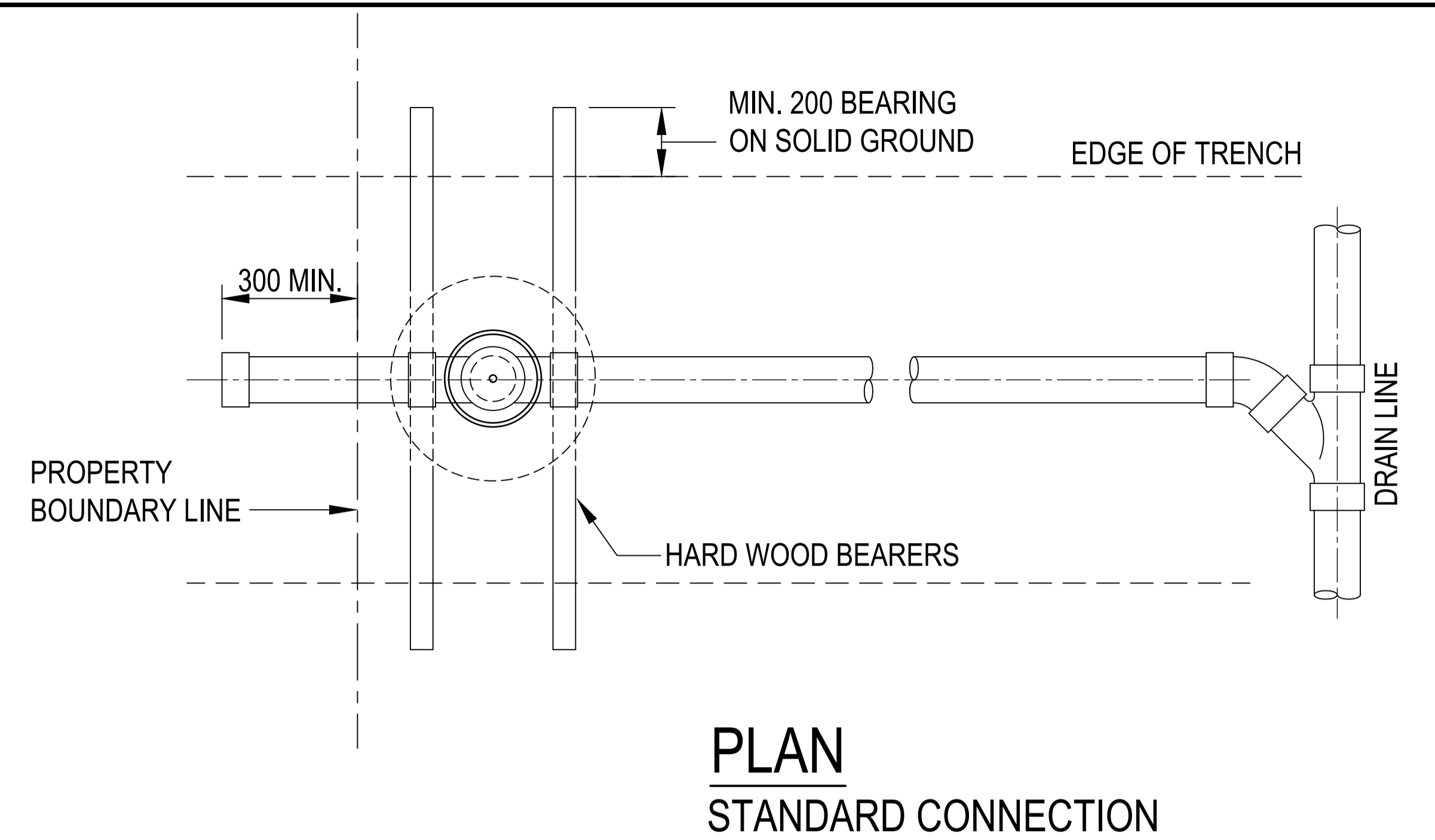
APP'D S.RATCLIFF	DATE -	ALEXANDRINA COUNCIL	PROJECT CWMS TYPICAL DRAWINGS	PLAN # AC-CWMS-SD
TEAM LEADER WATER INFRASTRUCTURE		Ph: (08) 8555 7000 11 Cadell Street PO Box 21 6006 WA SA 5214 ABN: 20 785 445 351	TITLE FLUSHING POINT AND INSPECTION OPENING DETAILS	SHEET 01
				REV A



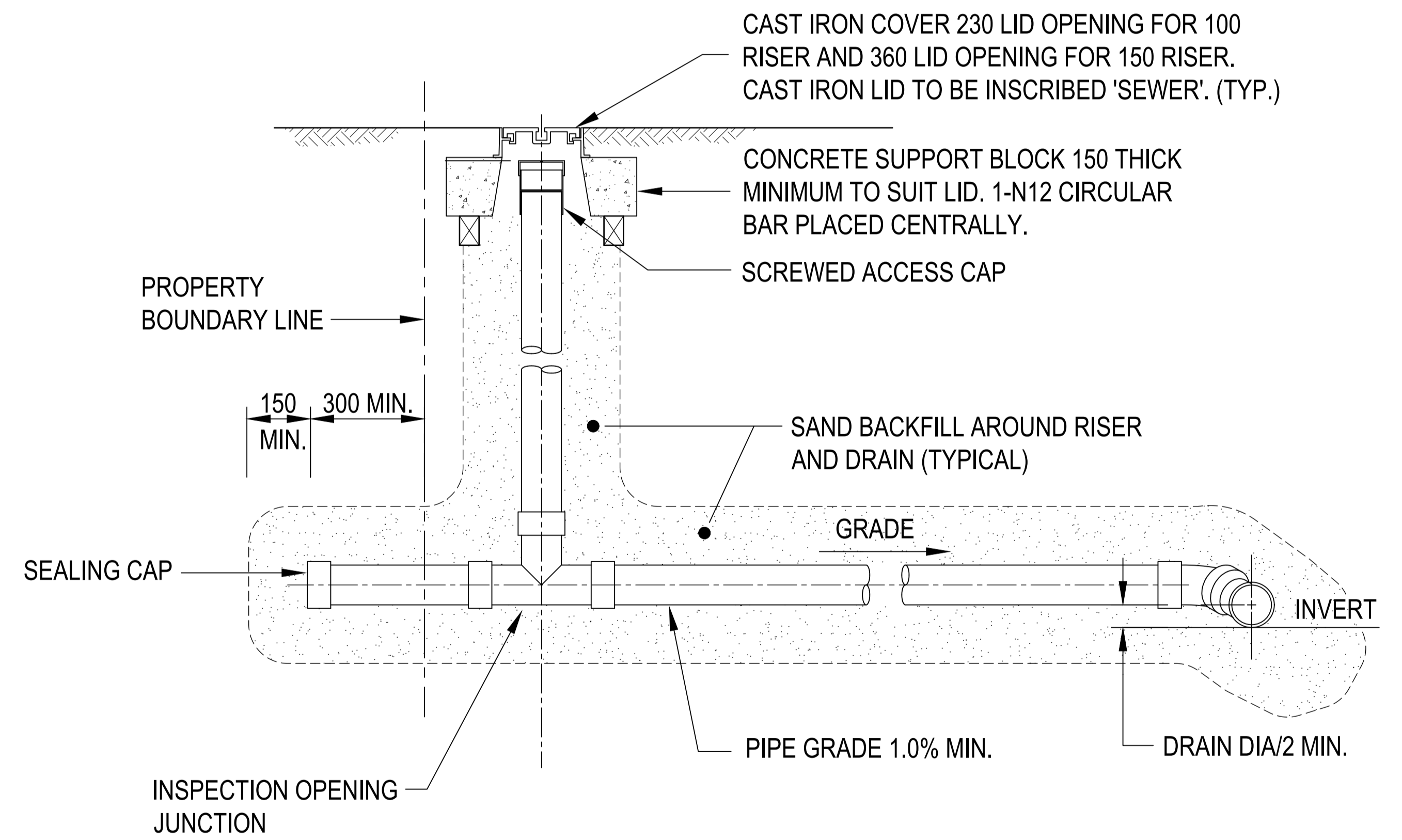
ELEVATION
SLOPED CONNECTION



ELEVATION
CONNECTION WITH
VERTICAL RISER



PLAN
STANDARD CONNECTION



ELEVATION
STANDARD CONNECTION

Note: The Alexandrina Council does not accept private pumping systems as a method of discharge into the greater sewerage network. Allotment connection into sewerage network shall be via gravity connection only.

TYPICAL PROPERTY CONNECTION DETAILS

1:20

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APP'D	S.RATCLIFF	DATE	-
TEAM LEADER WATER INFRASTRUCTURE			

ALEXANDRINA COUNCIL
Ph:080 8555 7000
11 Cadell Street
PO Box 21
GOOLWA SA 5214
ABN: 20 785 405 351

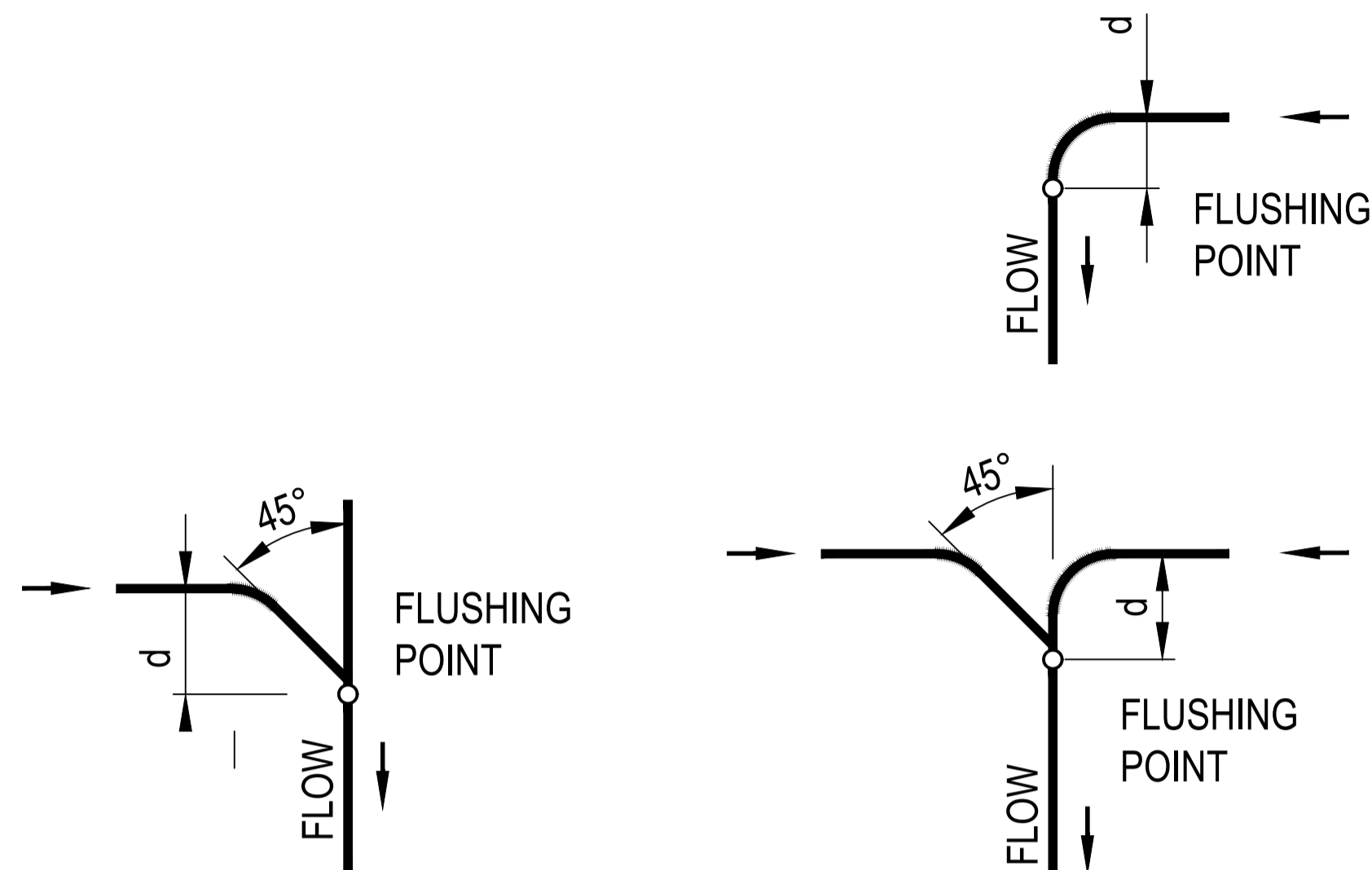


PROJECT CWMS TYPICAL DRAWINGS

TITLE PROPERTY CONNECTIONS DETAILS

PLAN # AC-CWMS-SD

SHEET 02 REV A

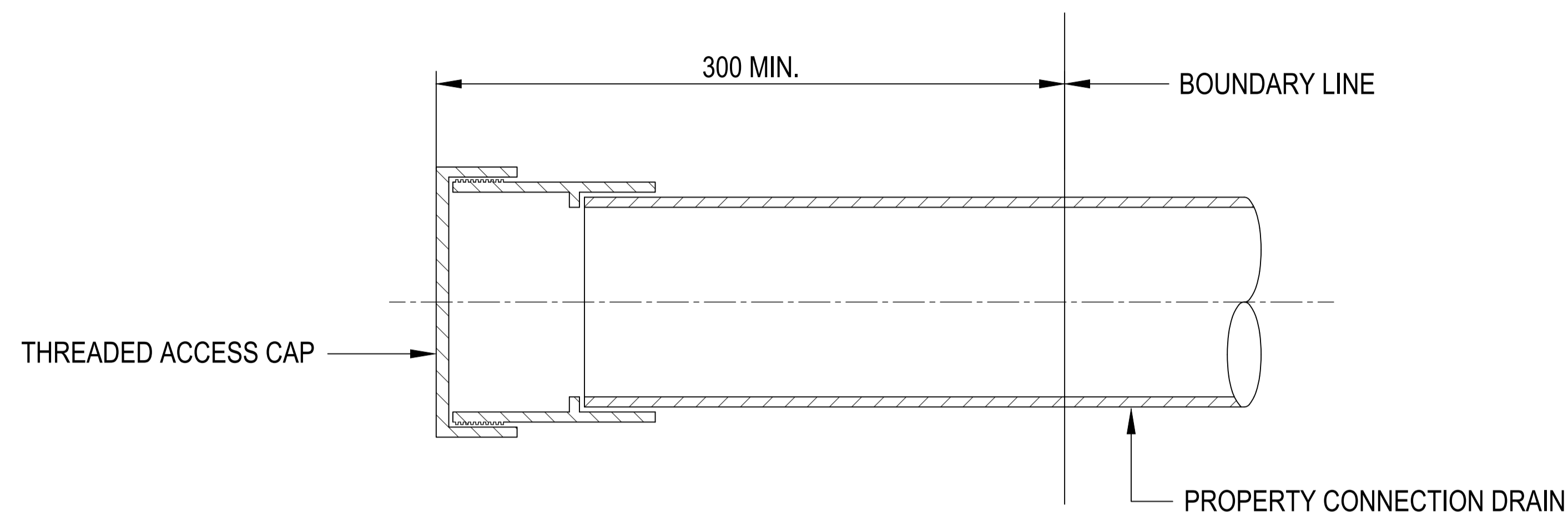


ON-LINE FLUSHING POINT LOCATION

N.T.S.

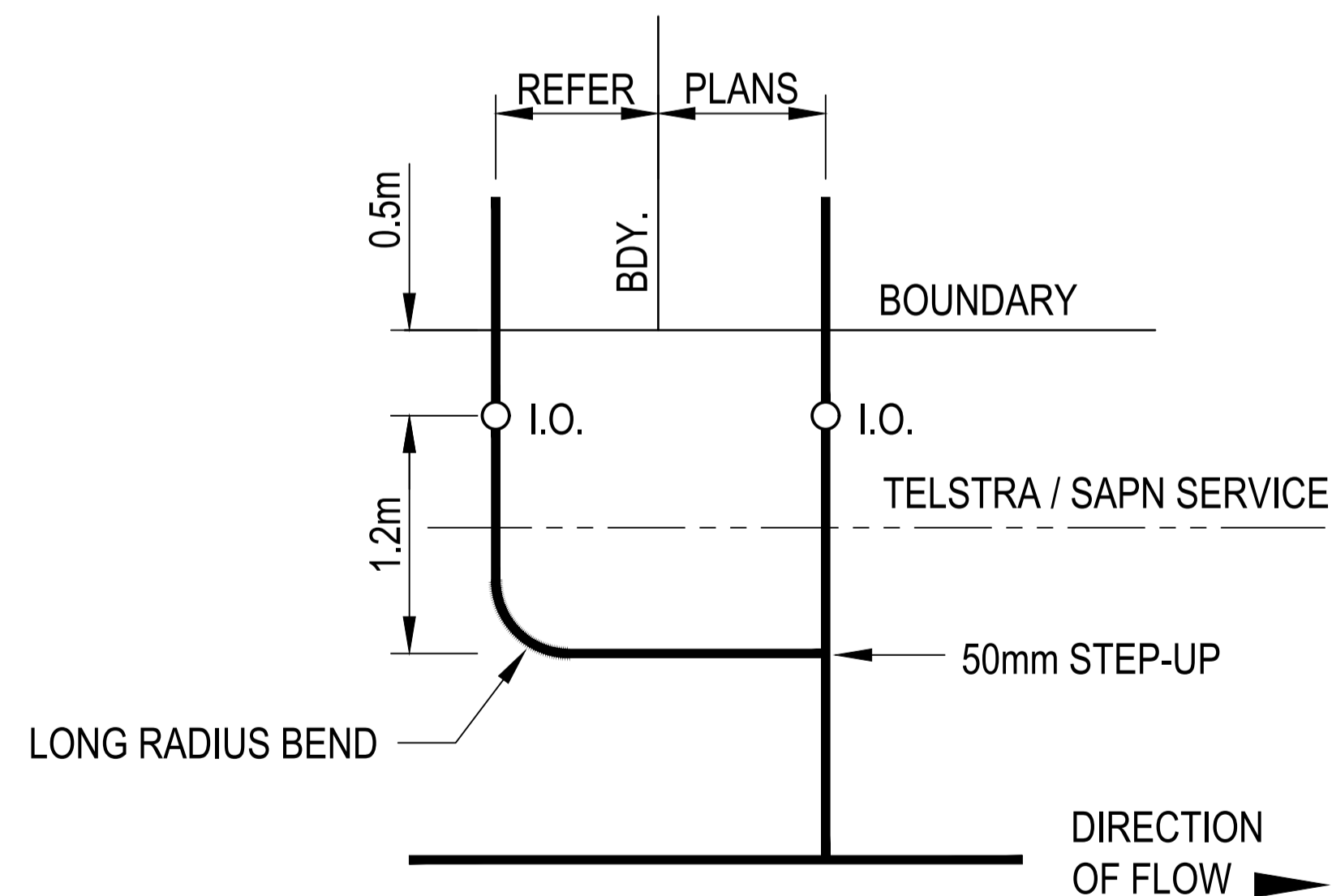
d = 500mm FOR DN100, 600mm FOR DN150 AND 800mm FOR DN225 LINES.

NOTE: CHAINAGES ON PLAN ARE TYPICALLY SHOWN AS THE JUNCTION / BRANCH CHAINAGE. FLUSHING POINT TO BE LOCATED AS ABOVE.

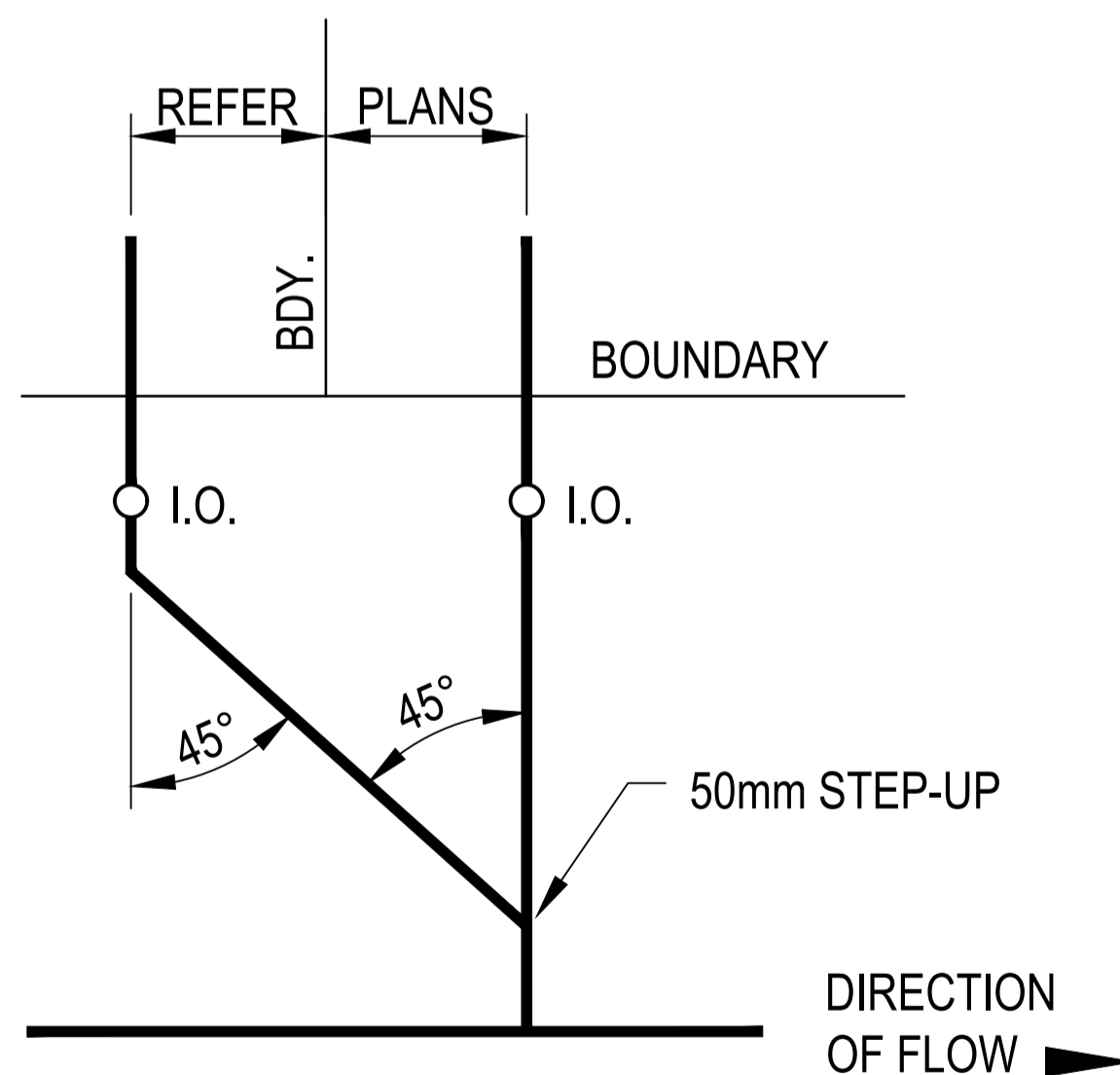


TYPICAL THREADED CAP FOR PROPERTY CONNECTIONS

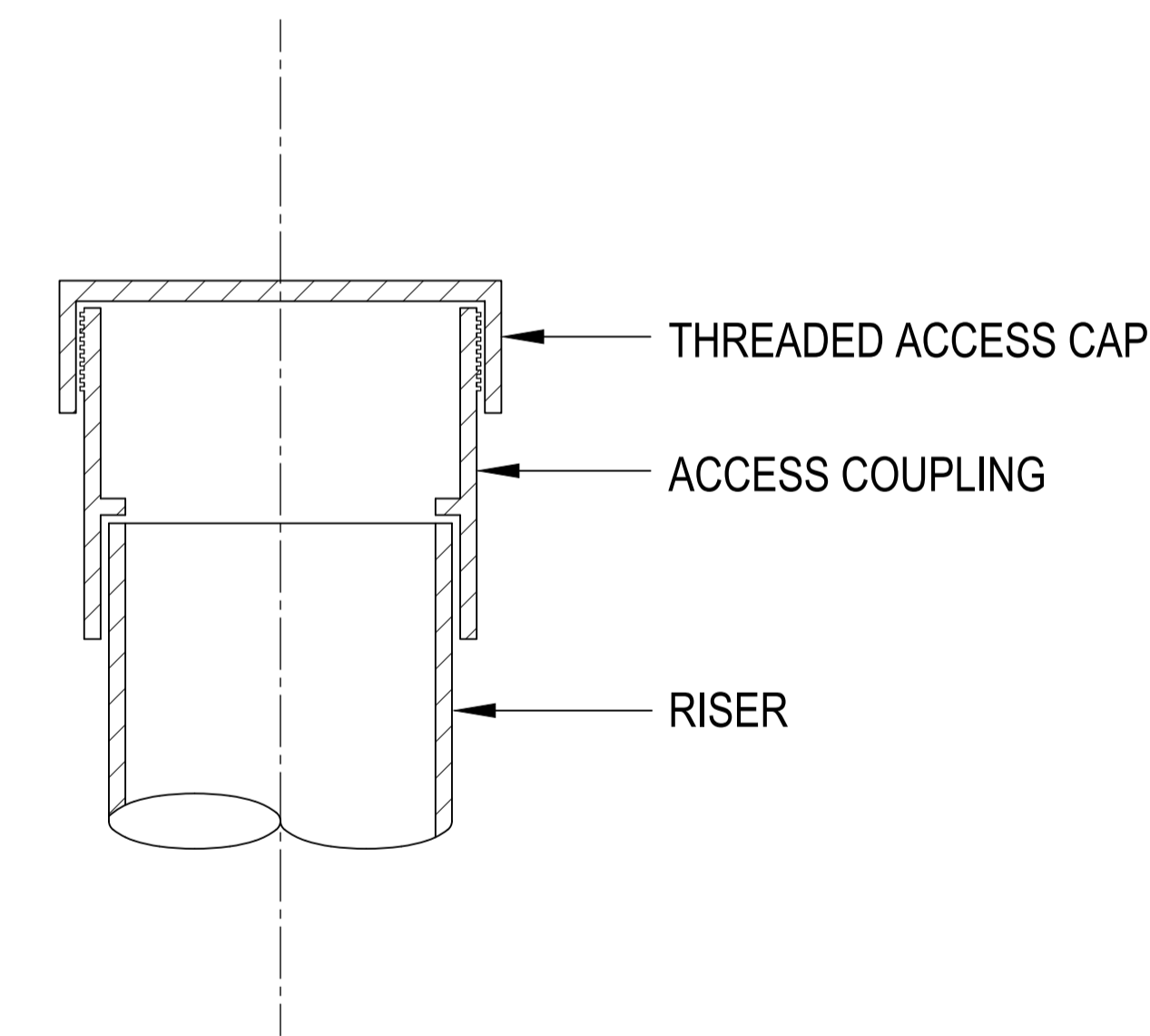
N.T.S.



TYPICAL 'Y' JUNCTION CONNECTION - TYPE 1



TYPICAL 'Y' JUNCTION CONNECTION - TYPE 2



TYPICAL SCREWED ACCESS CAP FOR FLUSHING POINT AND PROPERTY CONNECTION RISERS

N.T.S.

Note: The Alexandrina Council does not accept private pumping systems as a method of discharge into the greater sewerage network. Allotment connection into sewerage network shall be via gravity connection only.

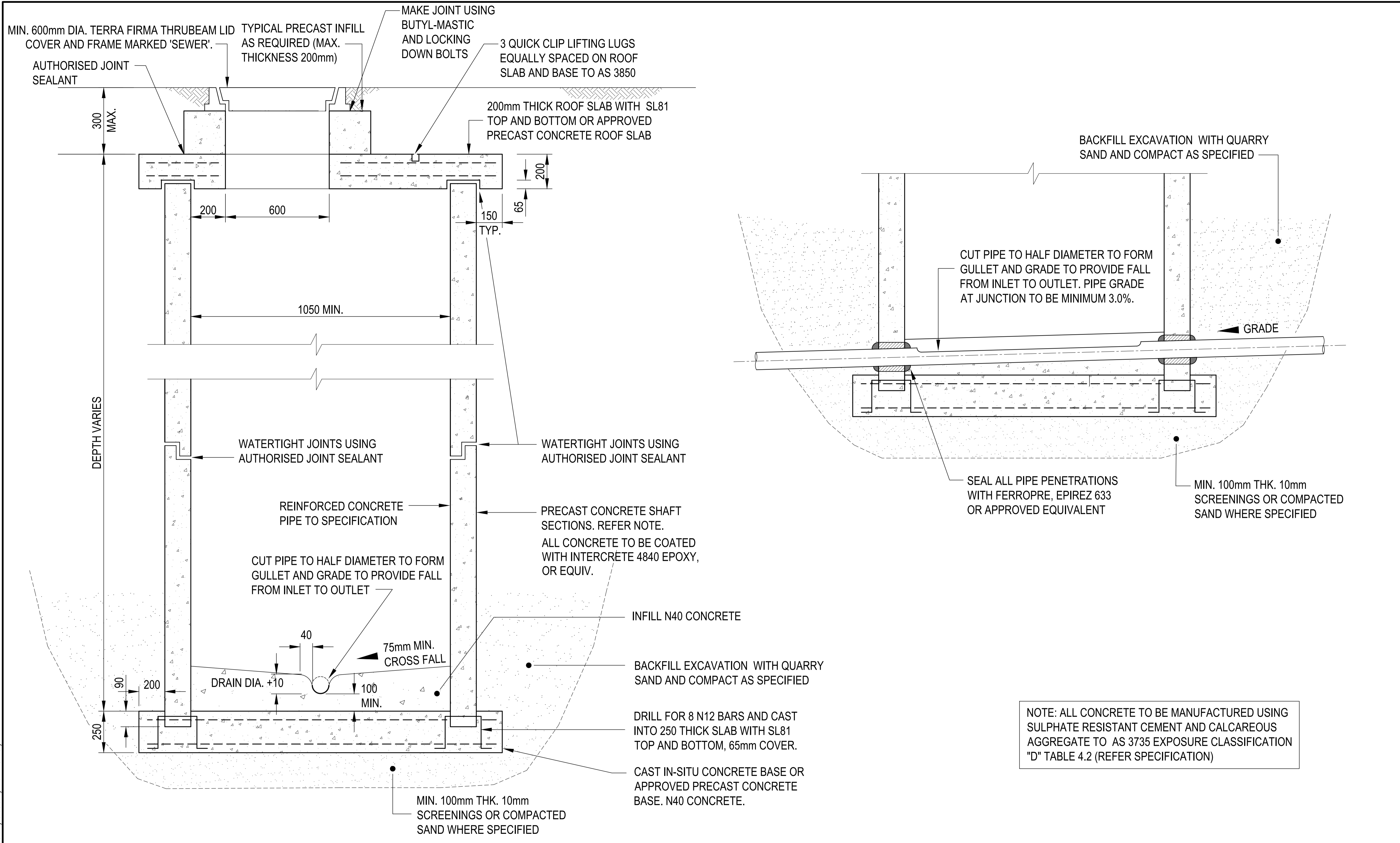
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TEAM LEADER WATER INFRASTRUCTURE			

ALEXANDRINA COUNCIL
Ph: (08) 8555 7000
11 Cadell Street
PO Box 21
6000 WA SA 5214
ABN: 20 785 445 351



PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	FLUSHING POINT AND PROPERTY CONNECTION DETAILS		SHEET	03	REV A



TYPICAL MAINTENANCE HOLE DETAIL FOR DN1050 TO DN1500

1:20

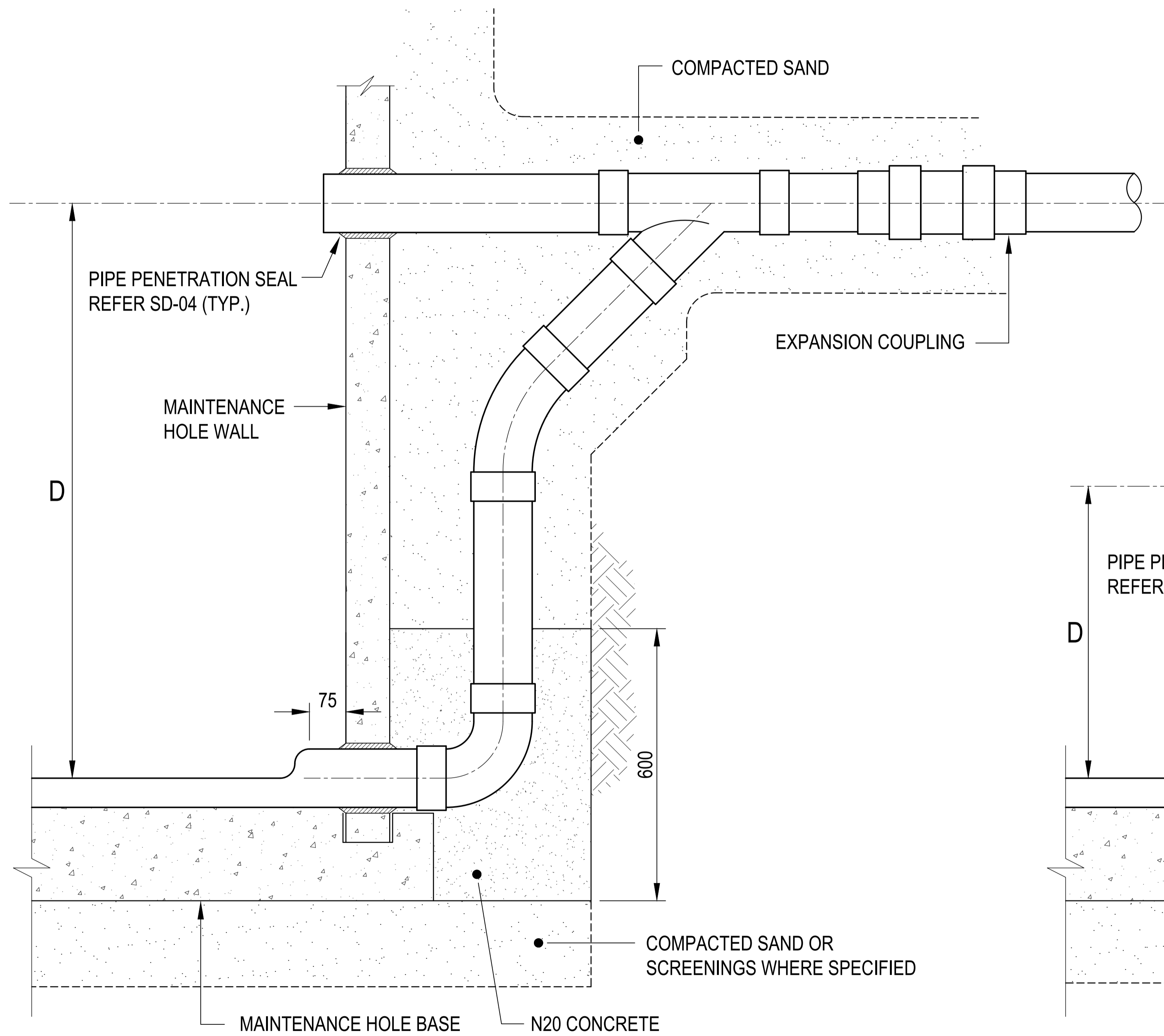
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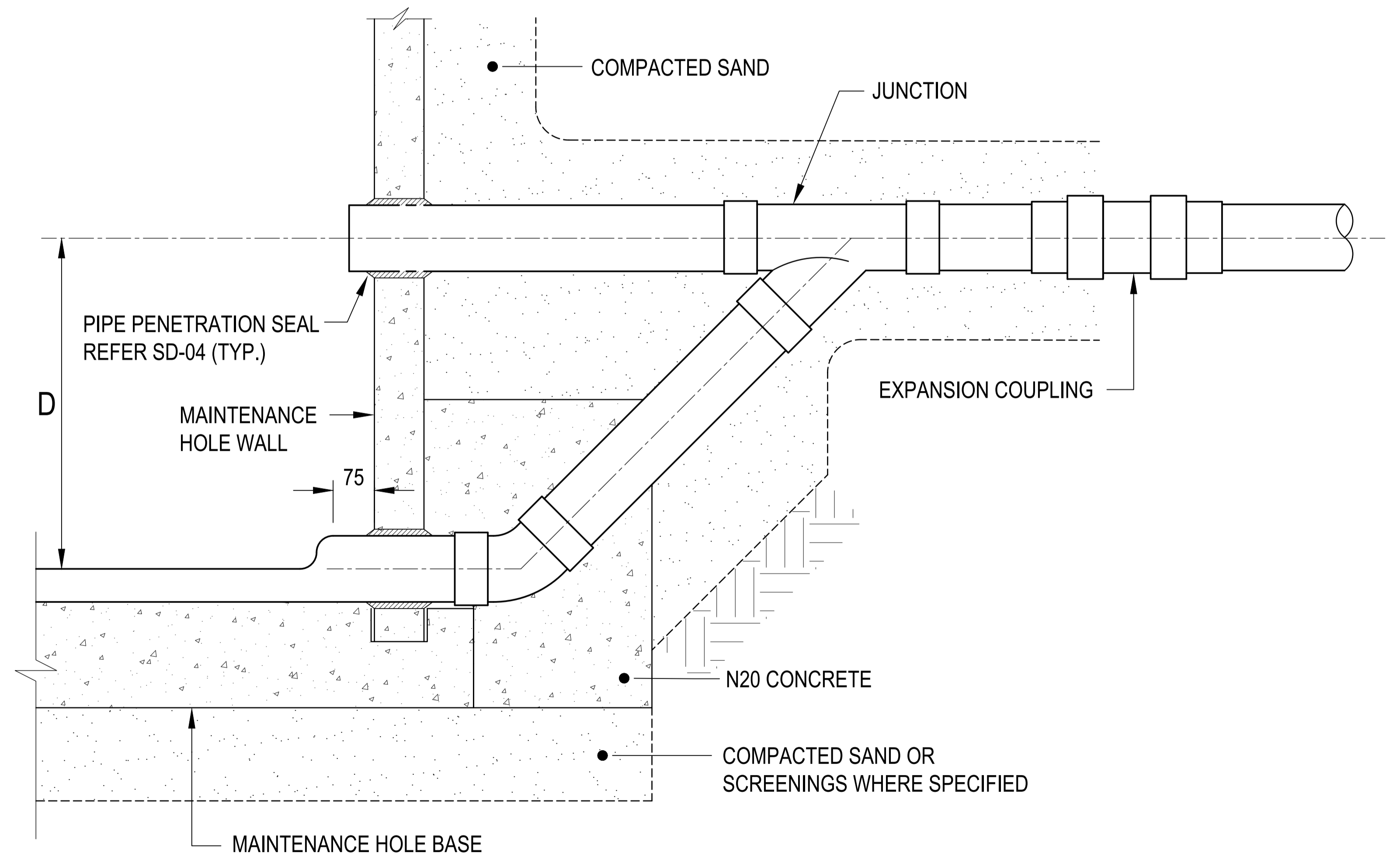
ALEXANDRINA COUNCIL
 Ph: (08) 9555 7000
 11 Cabell Street
 PO Box 21
 GOOLWA SA 5214
 ABN: 20 785 445 351



PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	MAINTENANCE HOLE DN1050 TO DN1500		SHEET	04	REV
					B



DROP MAINTENANCE HOLE DETAIL WHEN D > 600



DROP MAINTENANCE HOLE DETAIL WHEN D < 600

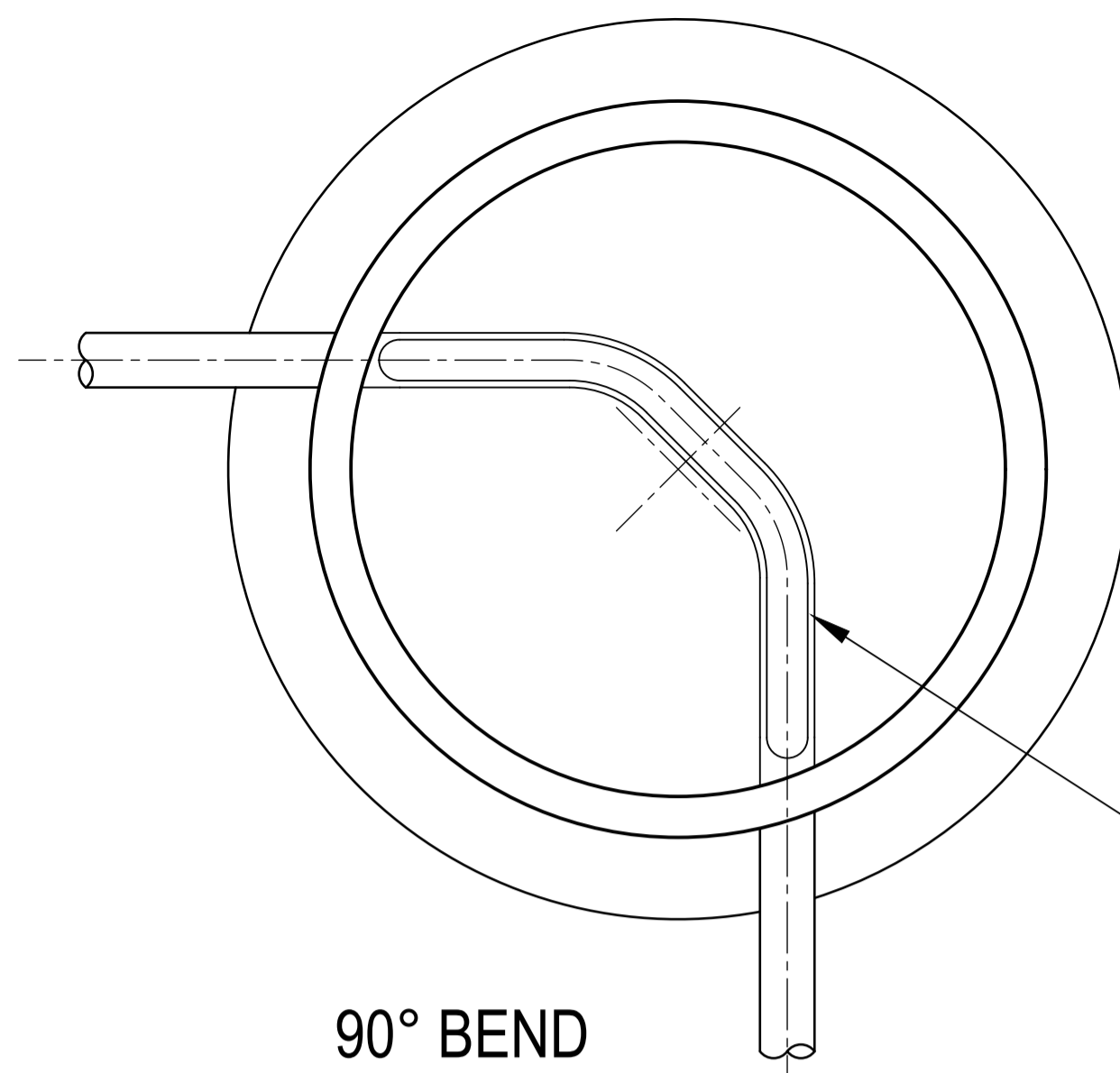
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TEAM LEADER WATER INFRASTRUCTURE			

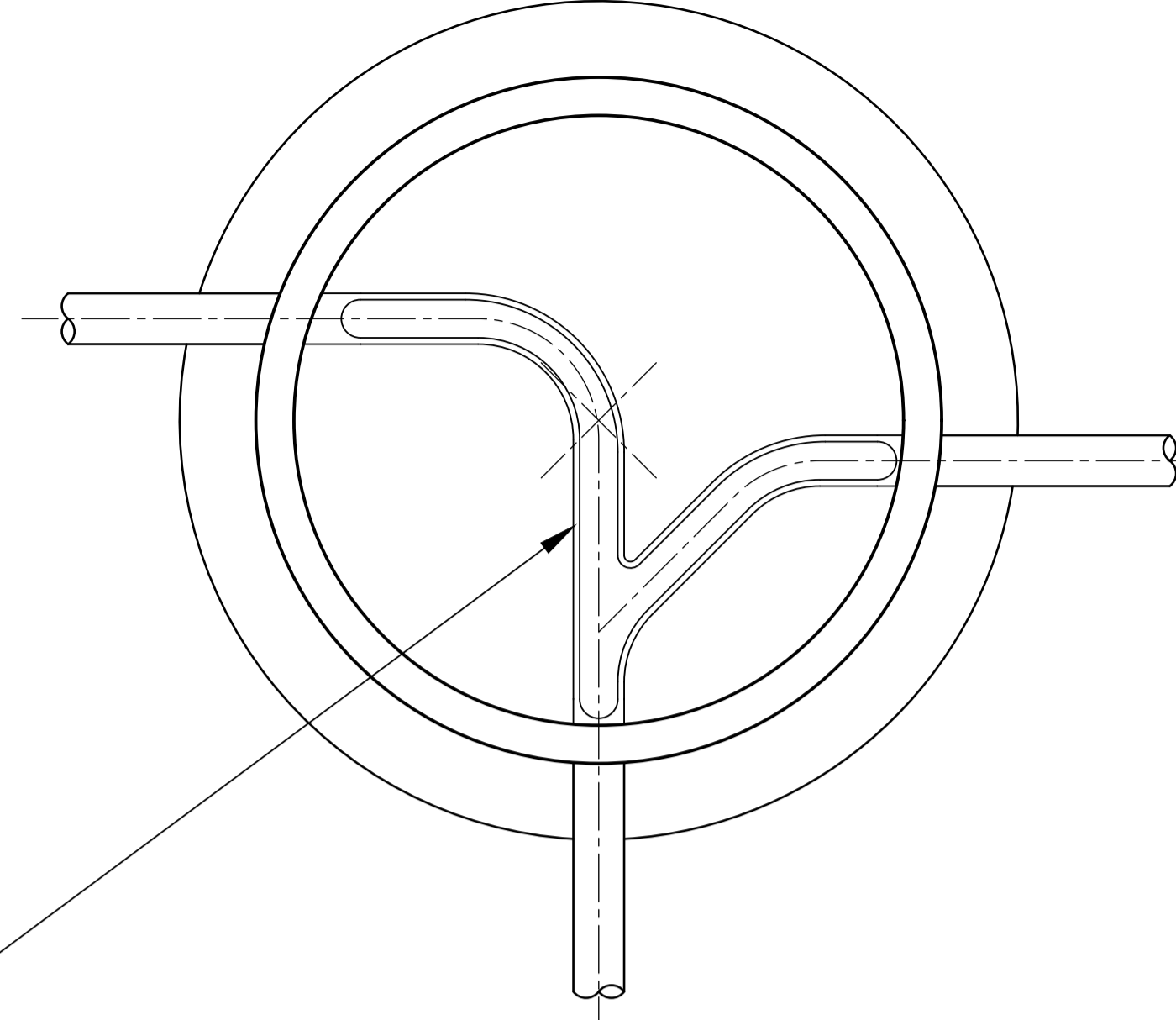
ALEXANDRINA COUNCIL
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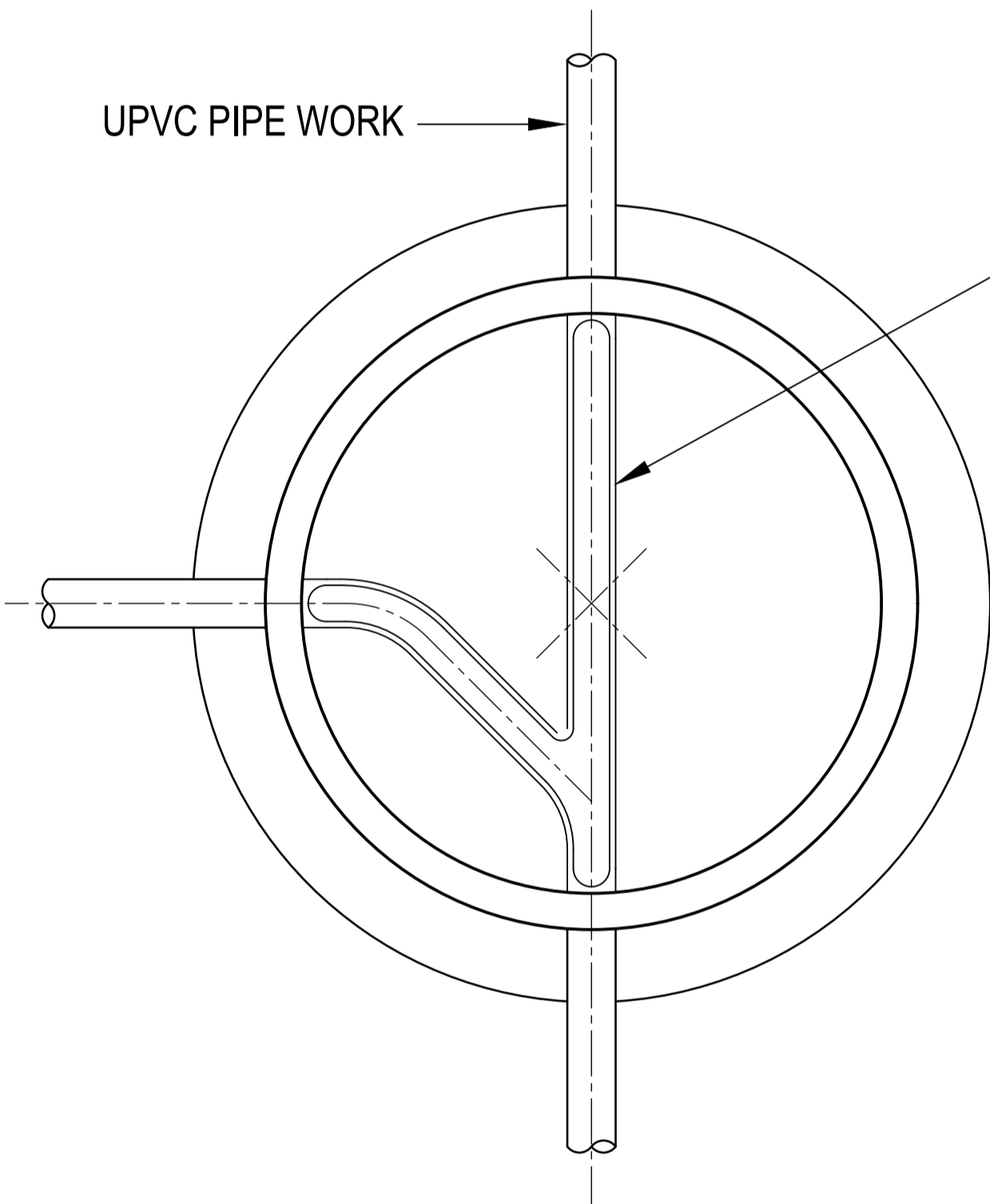
PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	DROP MAINTENANCE HOLE DETAILS		SHEET	05	REV
					A



90° BEND

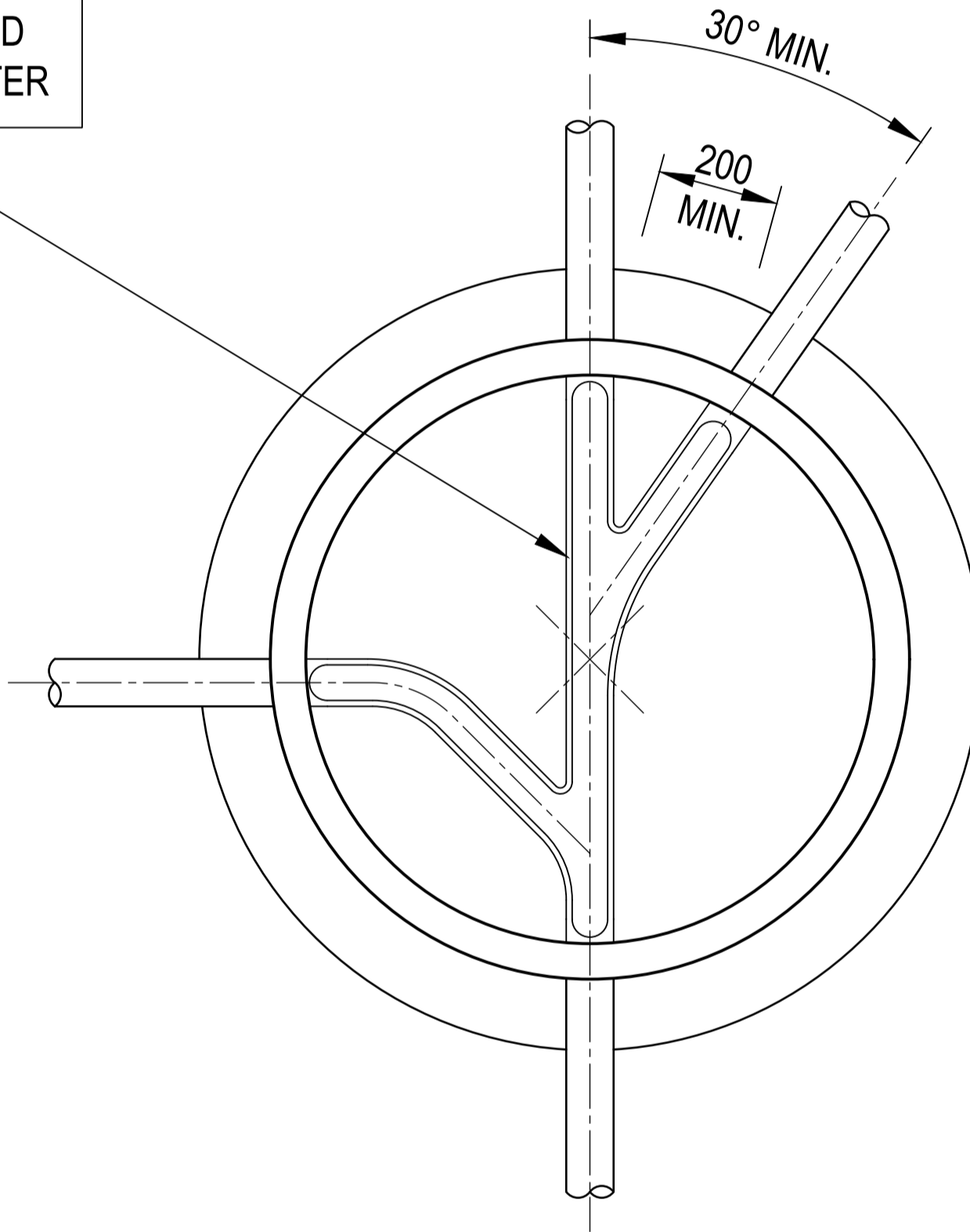


TYPICAL PLAN VIEWS OF MAINTENANCE HOLE JUNCTIONS WITH GULLETS FORMED USING UPVC PIPES CUT TO HALF DIAMETER



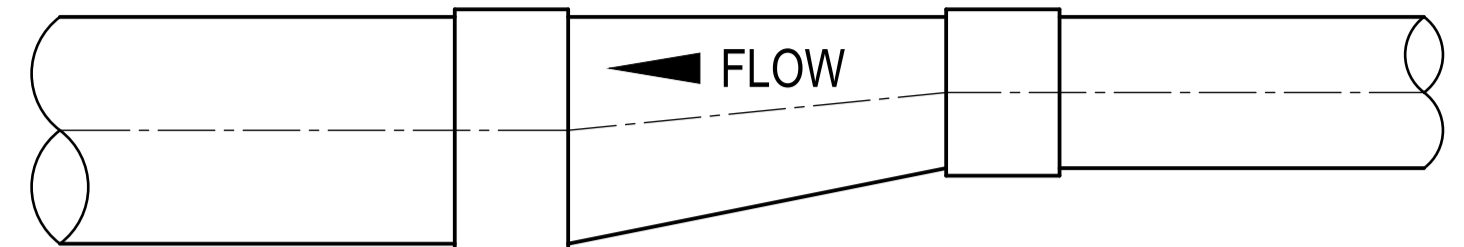
UPVC PIPE WORK

JUNCTION & BEND



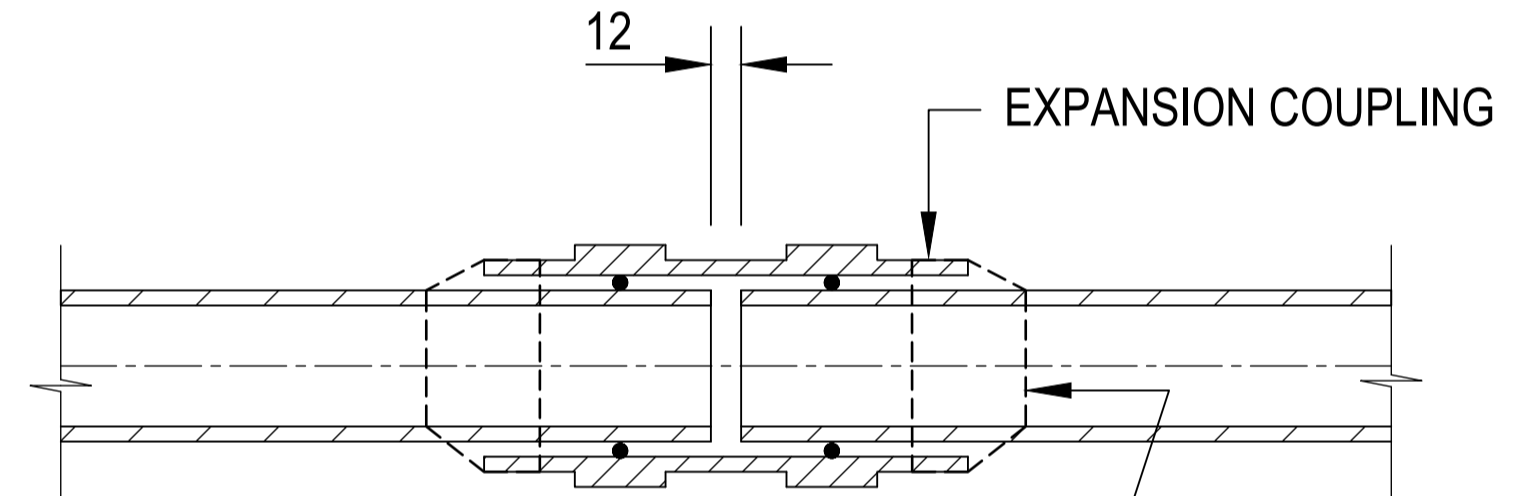
MULTIPLE ENTRY DETAILS

NOTE: APPROVED PRECAST CONCRETE BASES WITH PRE-BENCHED GULLIES TO SUIT PIPE CONFIGURATION CAN BE USED



NOTE: ALL PIPES TO JOIN SOFFIT TO SOFFIT

TYPICAL PIPE REDUCTION OUTSIDE MAINTENANCE HOLE



NOTE: EXPANSION COUPLINGS TO BE FITTED WITHIN 450mm OF ALL MAINTENANCE HOLE AND PUMP SUMP ENTRY AND MAINTENANCE HOLE EXITS. TO BE WRAPPED IN DENSO TAPE.

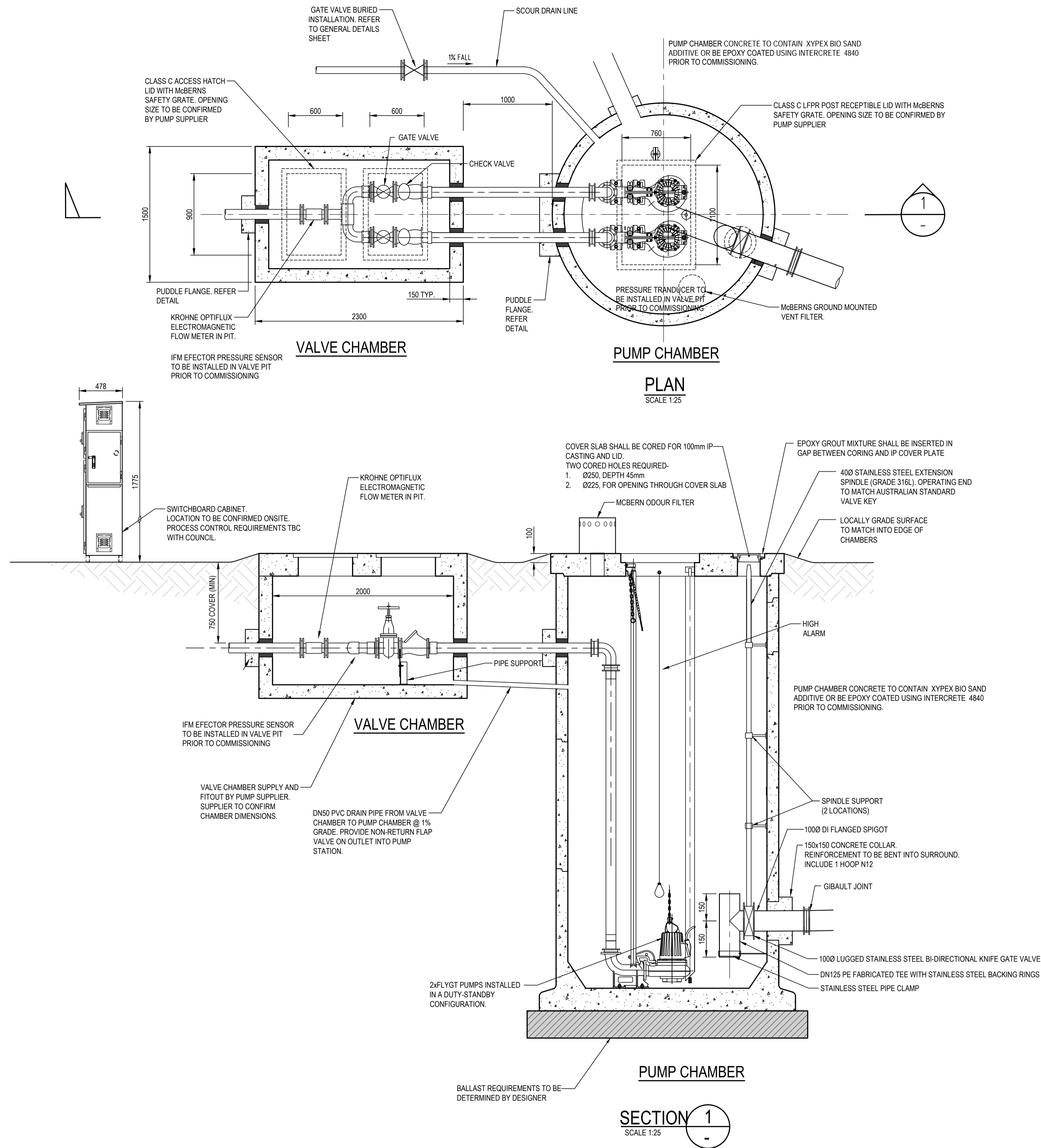
EXPANSION JOINT DETAIL

1:10

TYPICAL MAINTENANCE HOLE PIPE CONFIGURATIONS

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				TITLE MAINTENANCE HOLE JUNCTION DETAILS	SHEET 06



PUMP CHAMBER DIMENSIONS, PIPE SIZES AND VALVE SIZES ARE SHOWN INDICATIVELY ONLY. IT IS THE DESIGNER'S RESPONSIBILITY TO DETERMINE SPECIFIC DIMENSIONS. THE SELECTED PUMP DUTY FLOW AND HEAD SHALL BE CLEARLY STATED ON THE DESIGN DRAWINGS.

NOTES:

1. ALL FITTINGS AND FIXTURES TO BE 316 GRADE STAINLESS STEEL.
2. ALL PUMP STATION ANCILLARY ITEMS SHALL BE PROVIDED AS PART OF THE PUMP STATION COMMISSIONING
3. BIO-SANS ADDITIVE OF CONCRETE MIX

NOTE: ALL CONCRETE TO BE MANUFACTURED USING SULPHATE RESISTANT CEMENT AND CALCAREOUS AGGREGATE TO AS 3735 EXPOSURE CLASSIFICATION "D" TABLE 4.2 (REFER SPECIFICATION)

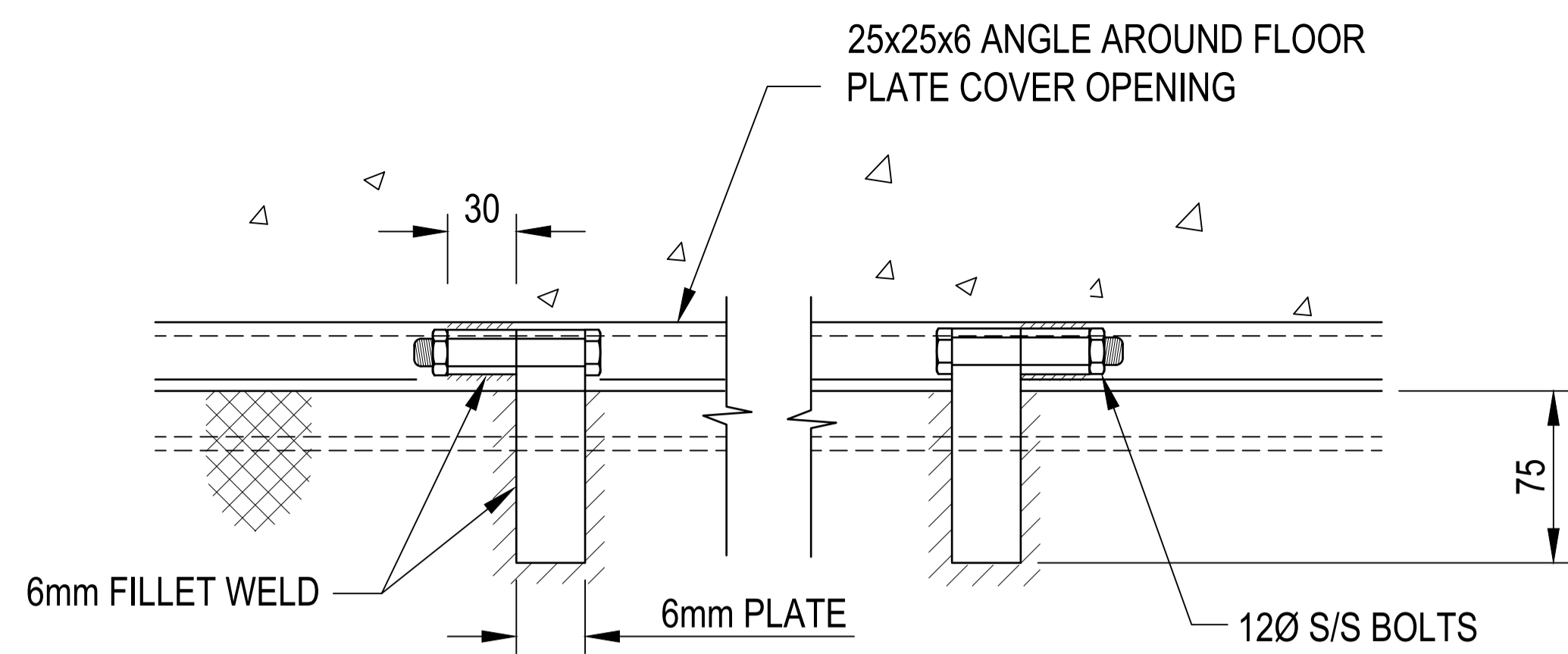
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TEAM LEADER WATER INFRASTRUCTURE			

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 11 Cadell Street
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 ABN: 20 785 495 351

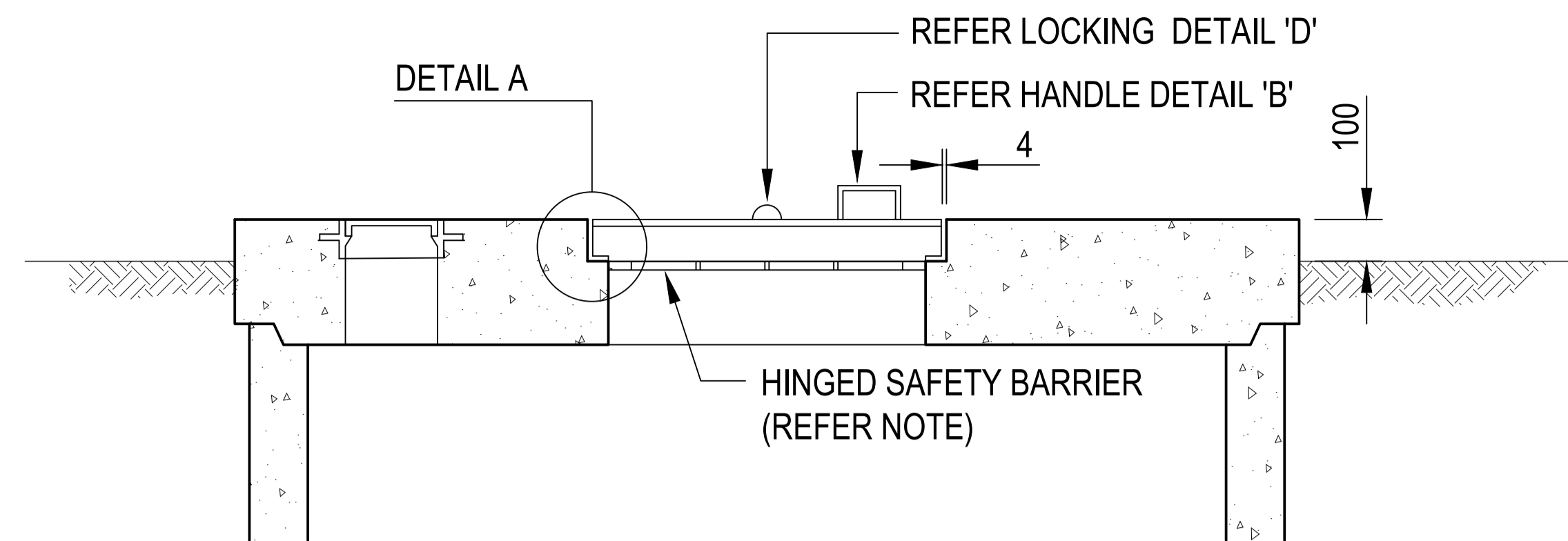


PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	SUBMERSIBLE PUMPING STATION PLAN AND SECTION		SHEET	07	REV B



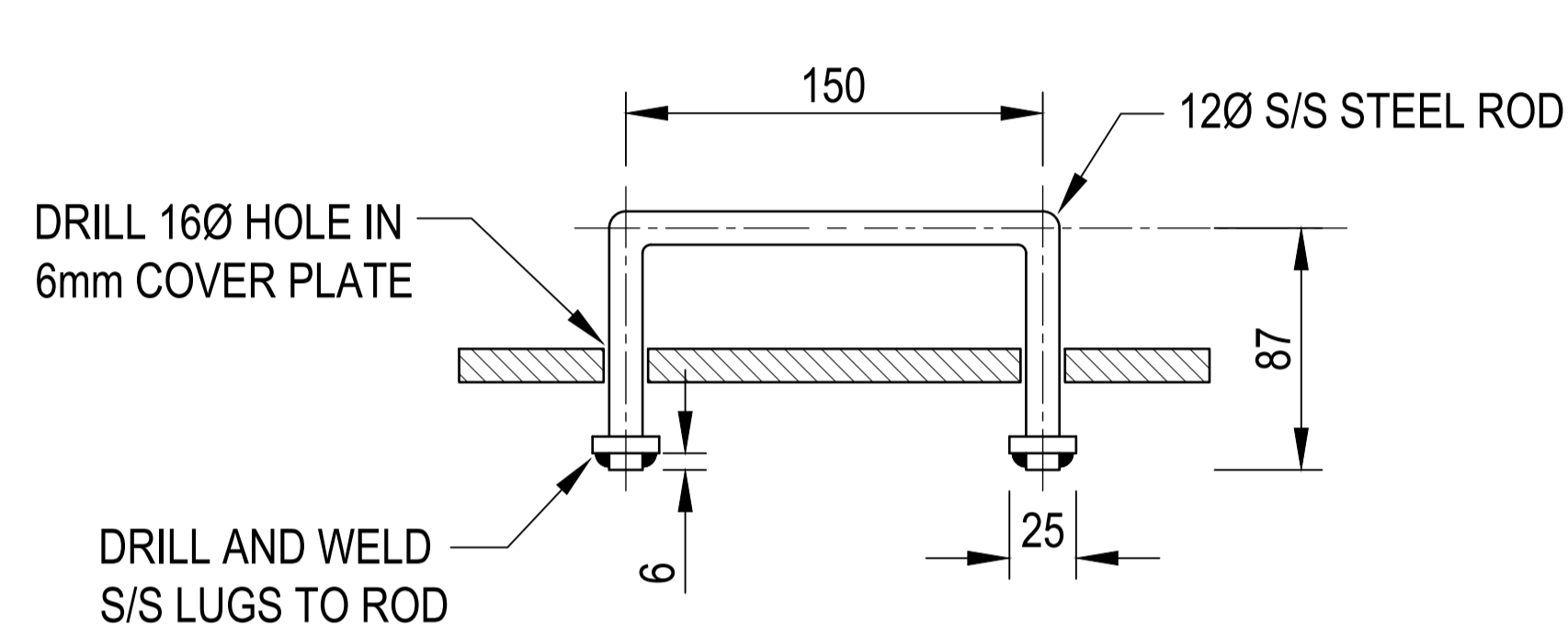
HINGE DETAIL C

MESH SAFETY BARRIER MANUFACTURED FROM 6Ø S/S BARS AT 75mm CTS WITH ALL BARS RESISTANCE WELDED. MESH WELDED TO 50mm S/S ANGLE FRAME. THE SAFETY BARRIER SHALL BE HINGED TO THE COVER FRAME TO SWING UP FOR ACCESS TO PUMP SUMP. BRACKETS SHALL BE PROVIDED TO SUPPORT BARRIER IN OPEN POSITION.

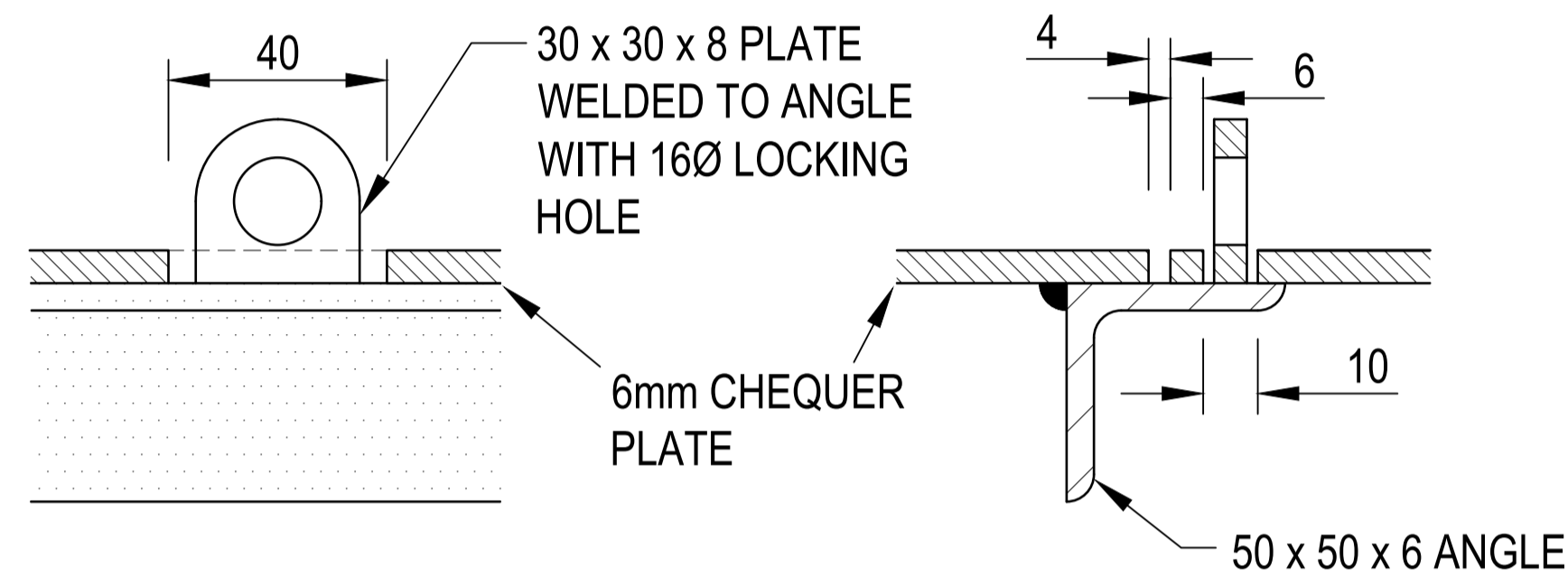


SECTION

1:20



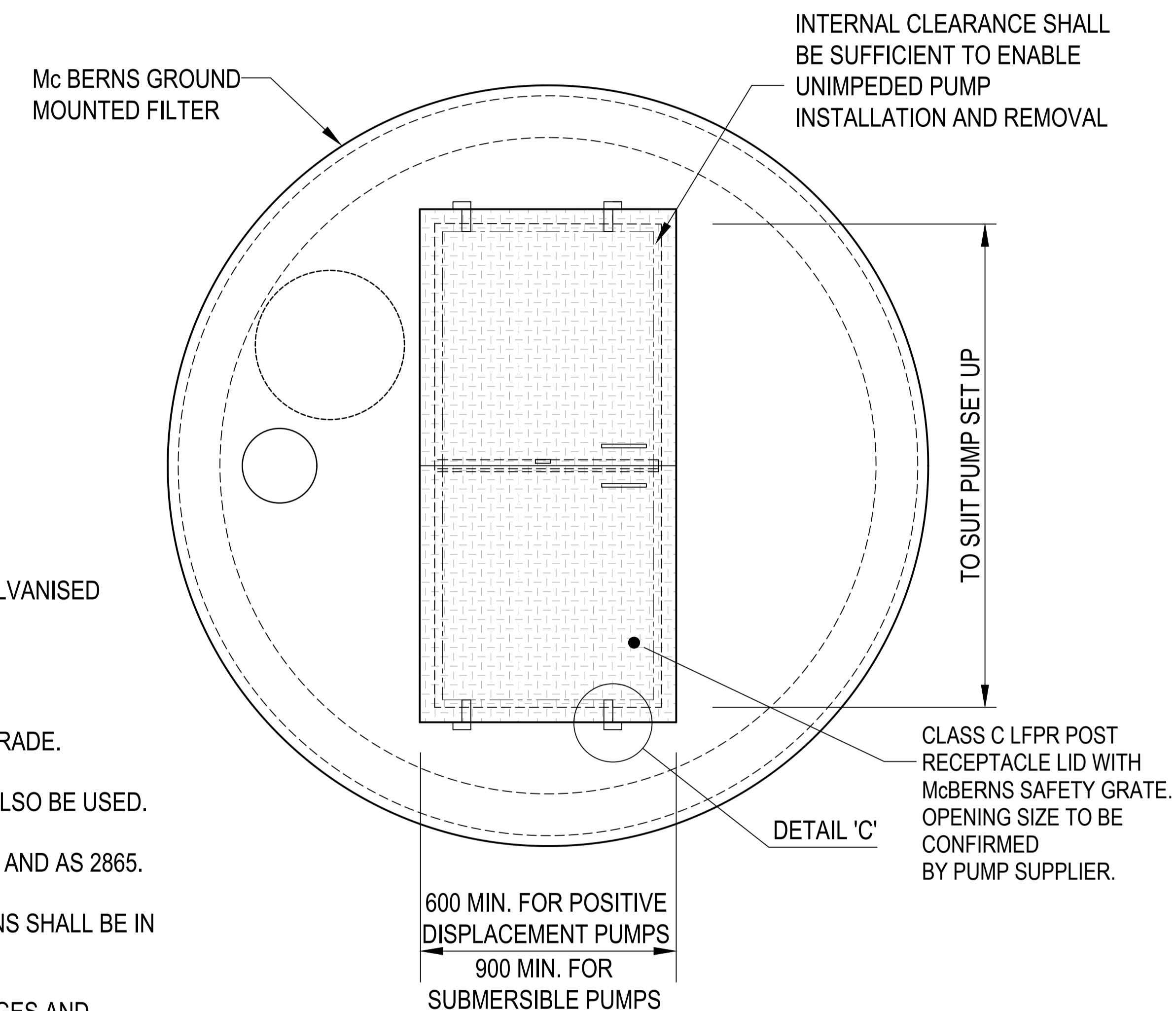
HANDLE DETAIL B



LOCKING DETAIL D

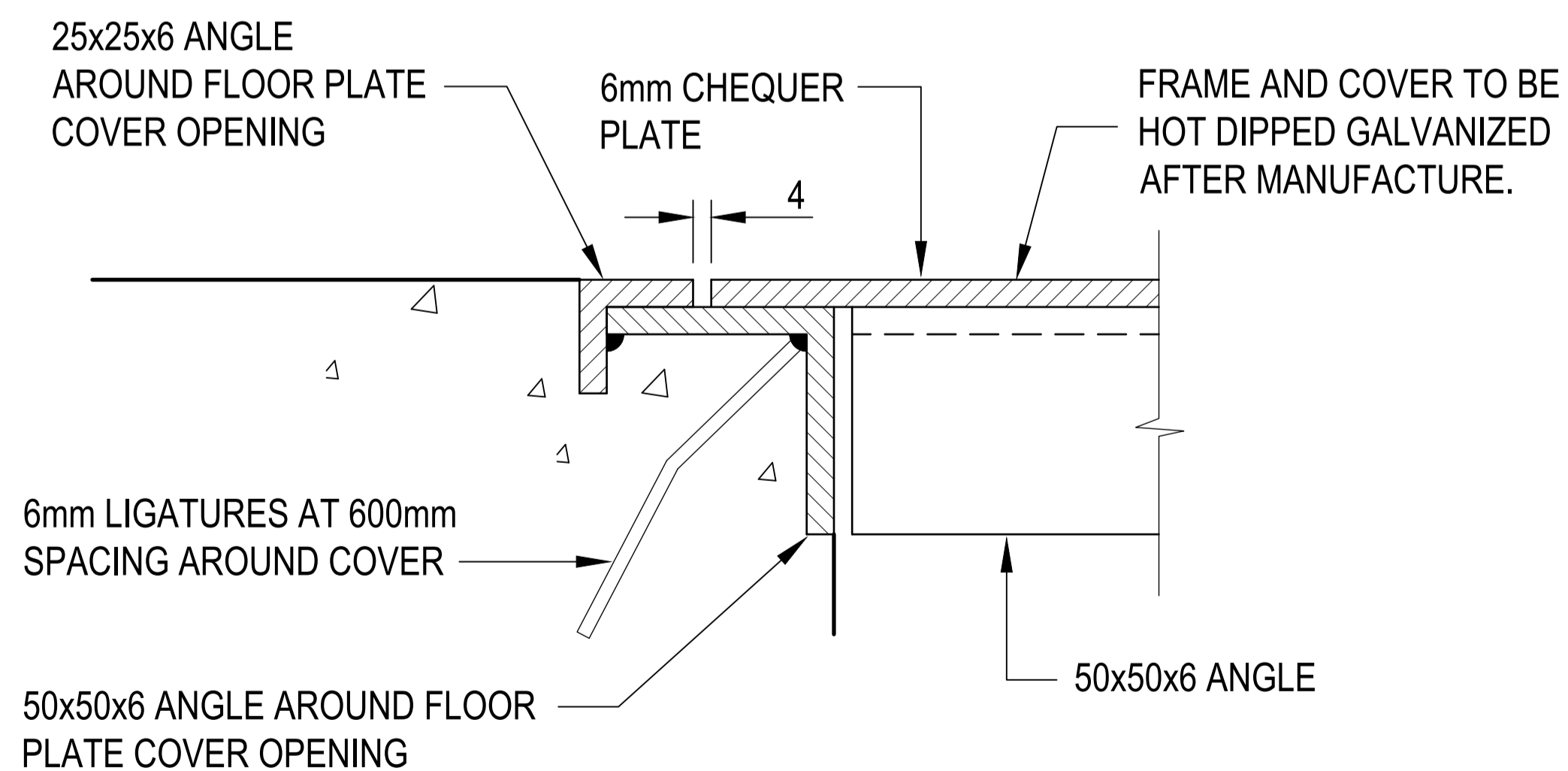
NOTES:

1. ALL MILD STEEL ELEMENTS SHALL BE HOT DIP GALVANISED AFTER FABRICATION.
2. ALL WELDS SHALL BE CONTINUOUS WELDS.
3. ALL STAINLESS STEEL ELEMENTS SHALL BE 316 GRADE.
4. ALTERNATIVE APPROVED ACCESS COVERS CAN ALSO BE USED.
5. COVER SHALL CONFORM TO AS/NZS 3996, AS 1657 AND AS 2865.
6. SAFETY SIGNS AND CONFINED SPACE ENTRY SIGNS SHALL BE IN ACCORDANCE WITH AS 1319.
7. ALTERNATIVE DESIGN COMPRISING FLUSHED HINGES AND FLUSHED HANDLES SHALL BE USED WHERE PUMP STATION IS LOCATED IN PUBLIC FOOTWAYS TO AVOID TRIPPING HAZARDS.
8. COVER DETAILS ARE TO BE CONFIRMED WITH THE APPROPRIATE W.I.E. ASSET OWNER AND/OR OPERATOR.



PLAN

1:20



DETAIL A

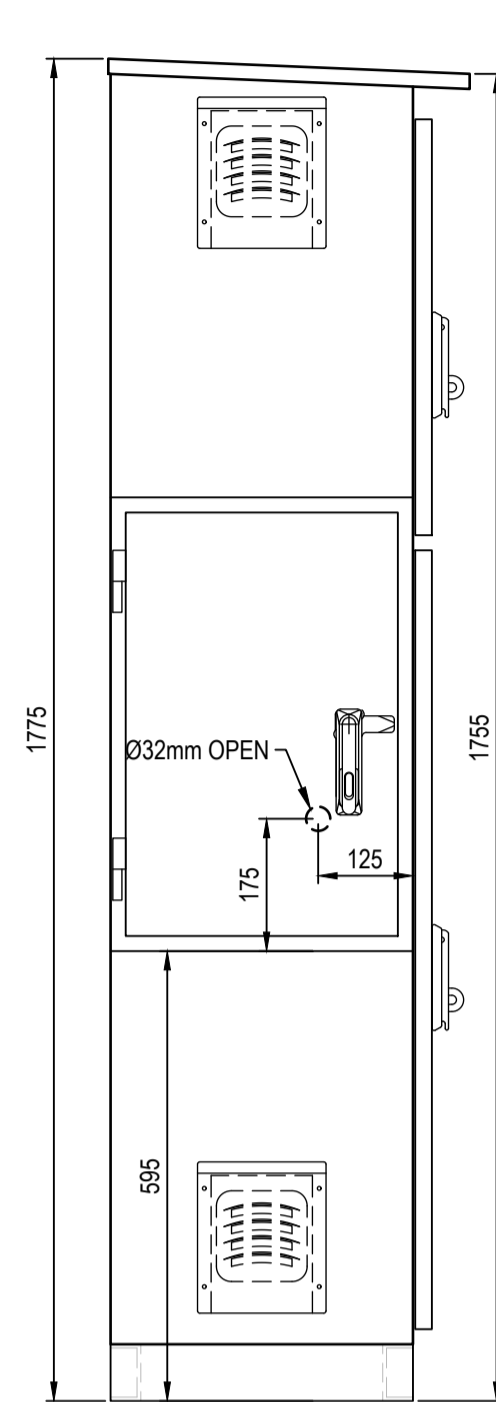
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TEAM LEADER WATER INFRASTRUCTURE			

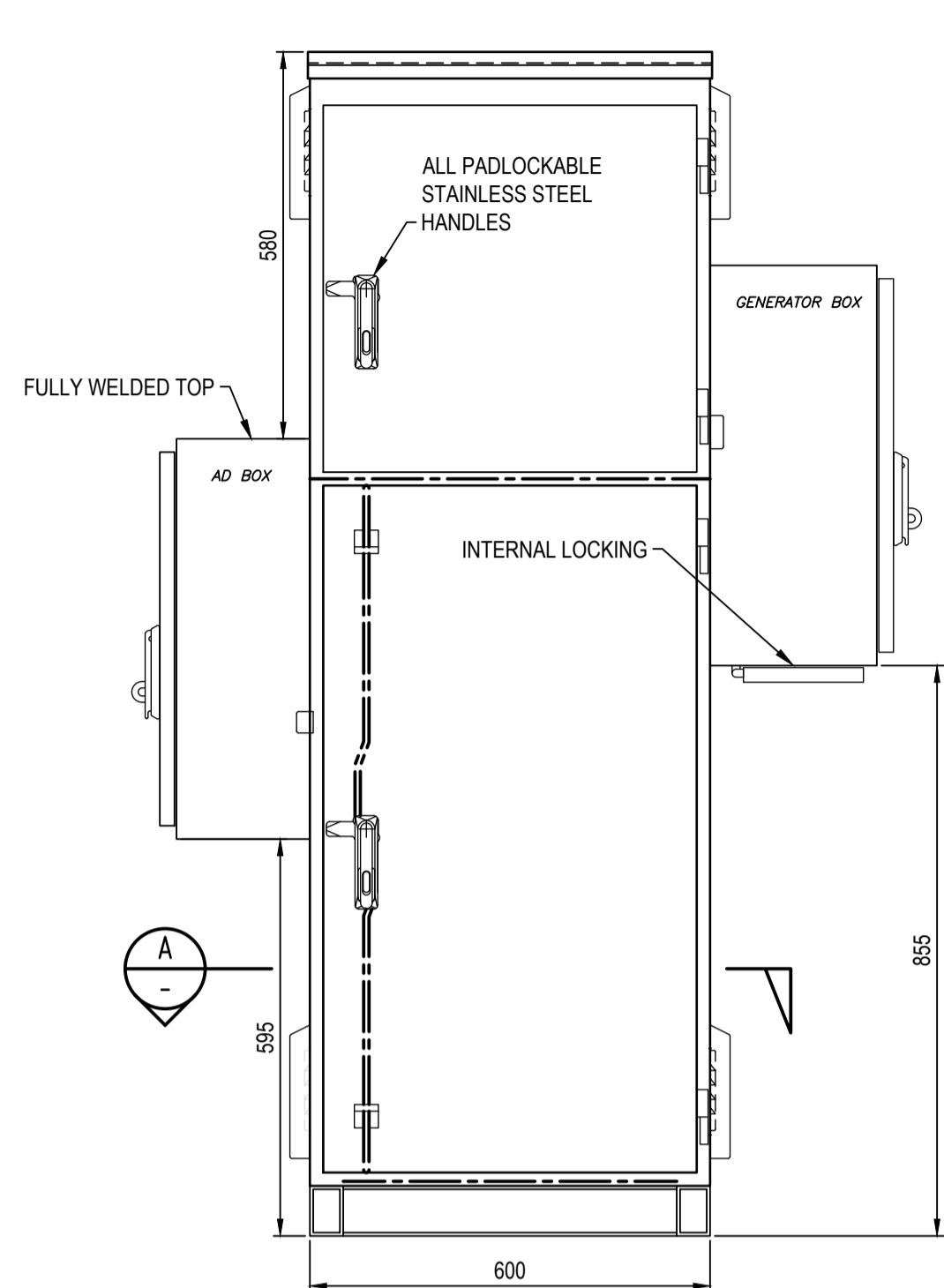
ALEXANDRINA COUNCIL
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 11 Cabell Street
 PO Box 21
 GOOLWA SA 5214
 ABN: 20 785 485 351



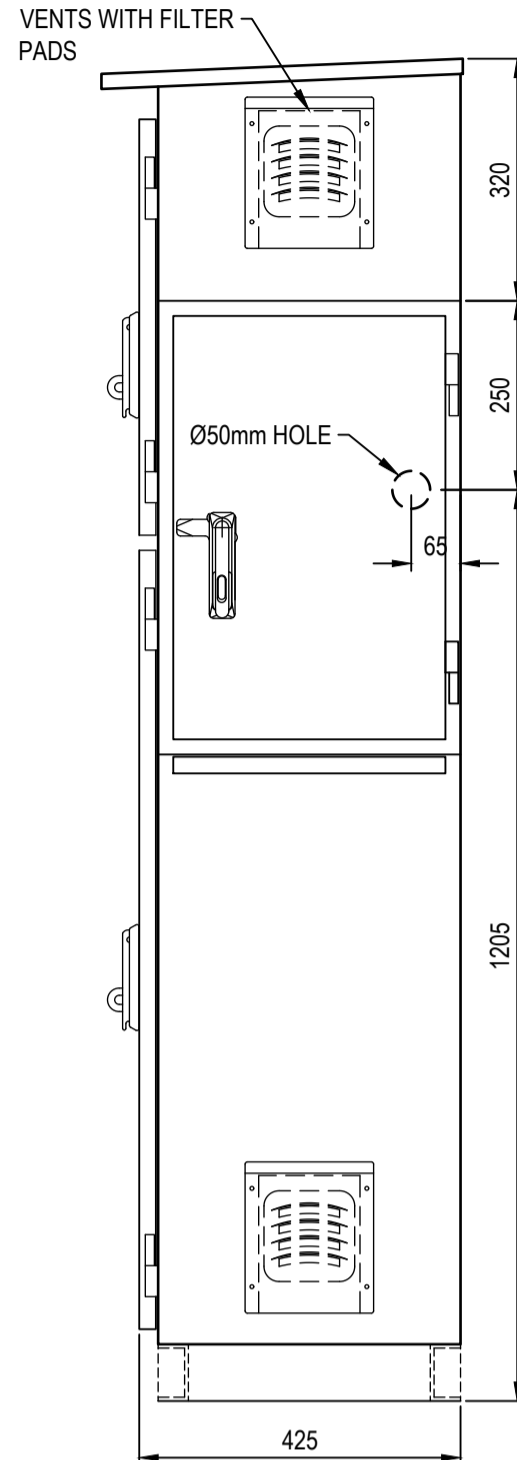
PROJECT	CWMS TYPICAL DRAWINGS	PLAN #	AC-CWMS-SD
TITLE	PUMP STATION LID DETAIL	SHEET	08
		REV	A



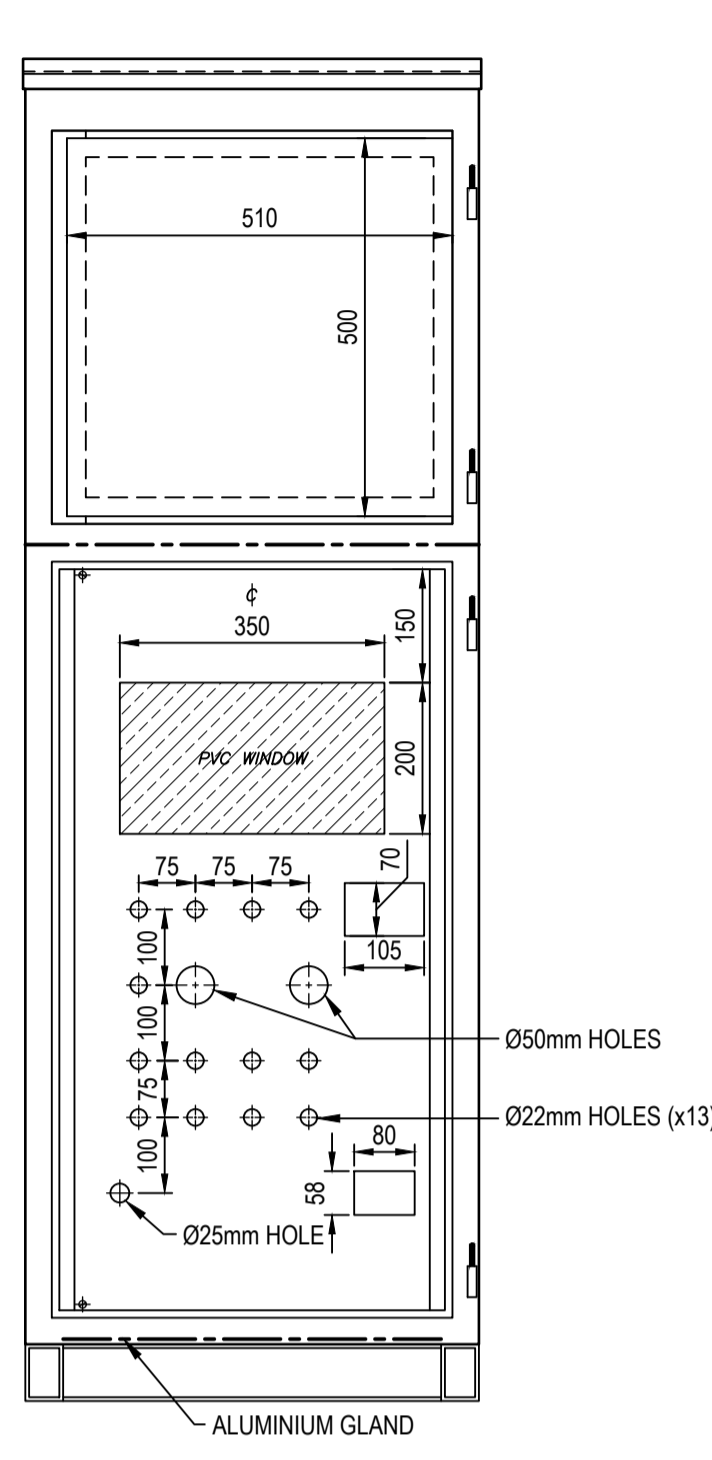
SIDE ELEV.



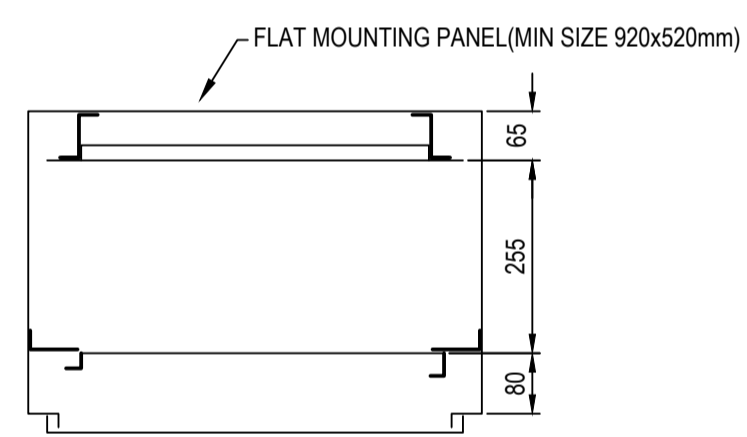
FRONT ELEVATION
MAIN SWITCHBOARD RIVERSIDE DRIVE
TYPICAL FOR MAIN SWITCHBOARD
GARDEN RESERVE



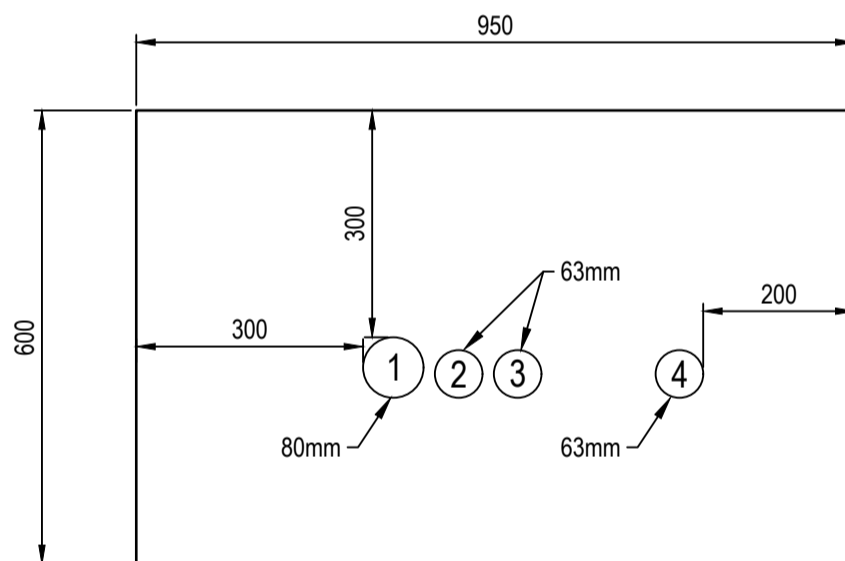
SIDE ELEV.



FRONT ELEVATION
DOOR REMOVED



SECTION A
SCALE 1:10



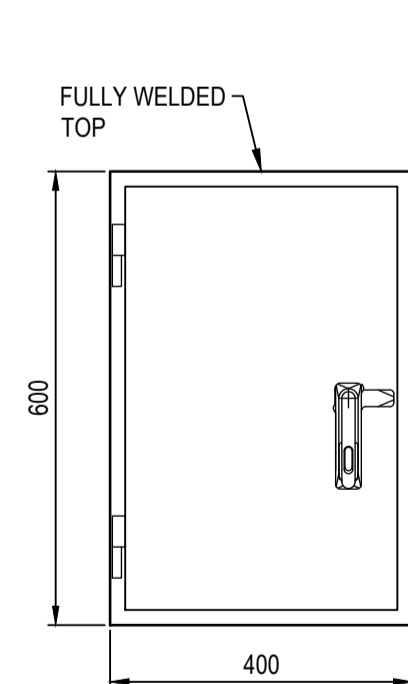
FRONT SIDE OF CONCRETE
PLINTH

ALEXANDRINA COUNCIL
PLINTH

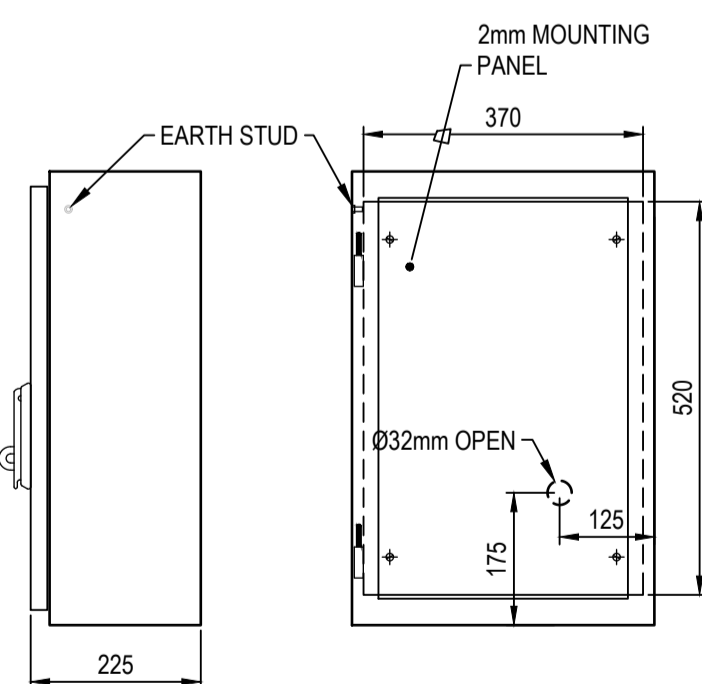
COND UIT	TYPE	DESTINATION
1	1x 80mm	POWER TO PUMP CHAMBER
2	1x 63mm	POWER TO PUMP CHAMBER
3	1x 63mm	POWER TO VALVE PIT
4	1x 63mm	POWER FROM MAINS SUPPLY

PLINTH NOTES

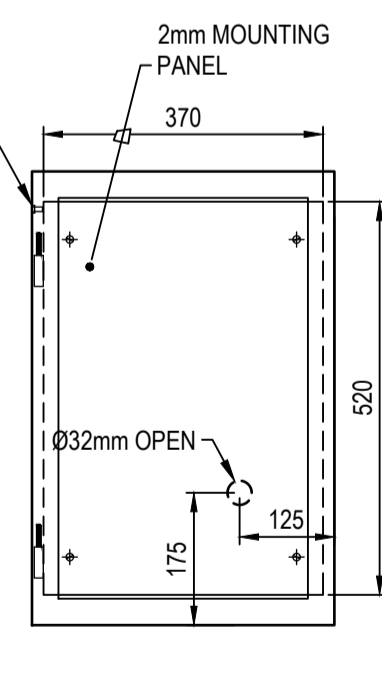
- CONDUIT 1 TO BE TERMINATED INTO PUMP CHAMBER.
- CONDUIT 2 TO BE TERMINATED INTO PUMP CHAMBER.
- CONDUIT 3 TO BE TERMINATED INTO VALVE PIT.
- CONDUIT 4 TO BE TERMINATED OUTSIDE OF PLINTH PER
- ALL CONDUIT BENDS TO BE SWEEP BENDS.
- CONCRETE PLINTH DEPTH TO BE NO LESS THAN 600mm



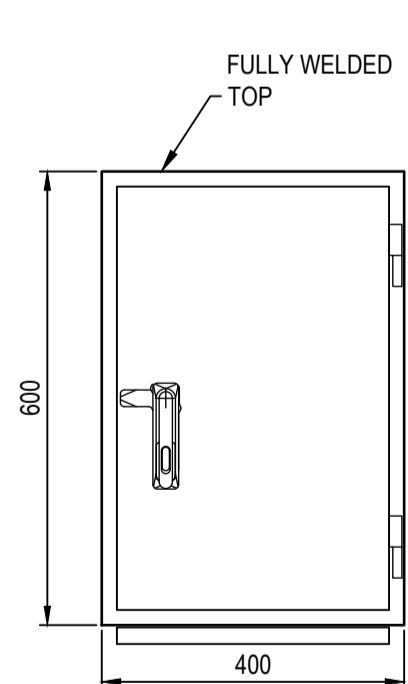
FRONT ELEVATION
AD BOXES (x2)



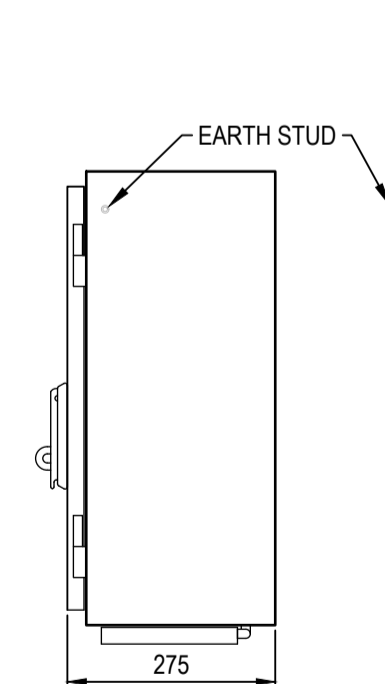
SIDE ELEV.



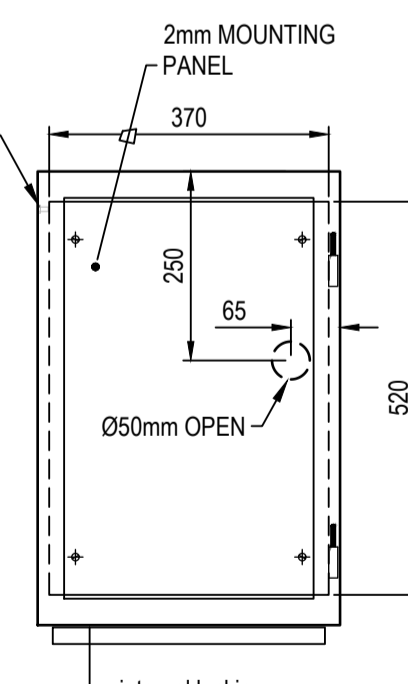
FRONT ELEVATION
DOOR REMOVED



FRONT ELEVATION
GENERATOR BOXES (x2)



SIDE ELEV.



FRONT ELEVATION
DOOR REMOVED

CABINET AND PLINTH DETAIL SUBJECT
TO CHANGE BASE ON PUMP KW SIZING

TECHNICAL REQUIREMENTS - MAIN SWITCHBOARDS

- PLACE OF INSTALLATION: OUTDOORS
- TYPE OF INSTALLATION: STATIONARY
- EXTERNAL DESIGN: ENCLOSED, FRONT CONNECTED, FLOOR MOUNTED
- FORM OF SEPARATION: 1
- ELECTRICAL CHARACTERISTICS: AS PER 'SINGLE LINE DIAGRAM'
 - AUXILIARY CIRCUIT VOLTAGE: AC 230 V
 - DIVERSITY FACTOR: AS PER AS3439, 1-2002, TABLE 1
- DEGREE OF PROTECTION:
 - IP56 TO AS/NZS 60529-2004 (AGAINST SOLID BODIES AND LIQUIDS)
 - IK08 TO EN50-102 (AGAINST MECHANICAL)
- PROTECTION AGAINST ELECTRIC SHOCK: AS PER AS3439, 1-2002, CL.7.4.2.2.3.a)
- CUBICLE MATERIAL: 1.6 mm MARINE GRADE '316' STAINLESS STEEL
- PAINT COLOURS: INTERNAL ESCUTCHEONS/PANELS - WHITE
CUBICLE & DOORS - POWDERCOATS
COLOUR - WILDERNESS
- SERVICE CONDITION: NORMAL
(AMBIENT AIR TEMPERATURE DOES NOT EXCEED +40° AND ITS AVERAGE OVER 24hrs. DOES NOT EXCEED +35°)
- POLLUTION DEGREE: AS SHOWN IN 'SINGLE LINE DIAGRAM'
- ESTIMATED CUBICLE WEIGHT: 200kg PER BOARD

MATERIAL SCHEDULE

- CABLE DUCT, SLOTTED PVC TYPE, SIZED TO SUIT
- GLAND PLATES, ALUMINIUM, THICKNESS TO SUIT, CAT. NO.:
- EARTH BARS-BRASS EXTRUSION, SELECTRIX INDUSTRIES CAT. NO.'B120'-SERIES.2
SCREWS PER TUNNEL, WAYS TO SUIT
- NEUTRAL BARS-BRASS EXTRUSION, SELECTRIX INDUSTRIES CAT. NO.'B120'-SERIES, 2
SCREWS PER TUNNEL, WAYS TO SUIT
- FASTENERS, M6, CHROME PLATED & CAPTIVE
- LOCKING HANDLE FLUSH/SWING TYPE WITH LONG SPINDLE, LOCK FOCUS, BASE: CAT. NO. IHSS-2/ASS; FINISH: STAINLESS STEEL
 - x STAINLESS STEEL ADAPTOR PLATES & GASKET, CAT. NO. A/KIT-HSS/PLATE
 - x LOCK FOCUS, HANDLE INSERT-PADLOCKING, CAT. NO.: IF 743-CP
- BLOCK HINGES, CAT. NO. KIROO CAT. NO. A/D81 (O/A LENGTH: 82MM) BRASS, CHROME PLATED
- MOUNTING PANELS, MIN. 2mm, WELDED OR REMOVABLE
- PLINTH, CHANNEL SECTION, 75MM HIGH (OUTDOOR STAINLESS STEEL), C/W MOUNTING HOLES
- ESCUTCHEONS, HINGED AND/OR REMOVABLE
- LEGEND CARD & LOGBOOK HOLDERS, 150h x 100w,

GENERAL STANDARD CONSTRUCTION NOTES:

NB: FOLLOWING NOTES ARE APPLICABLE, UNLESS STATED OTHERWISE.

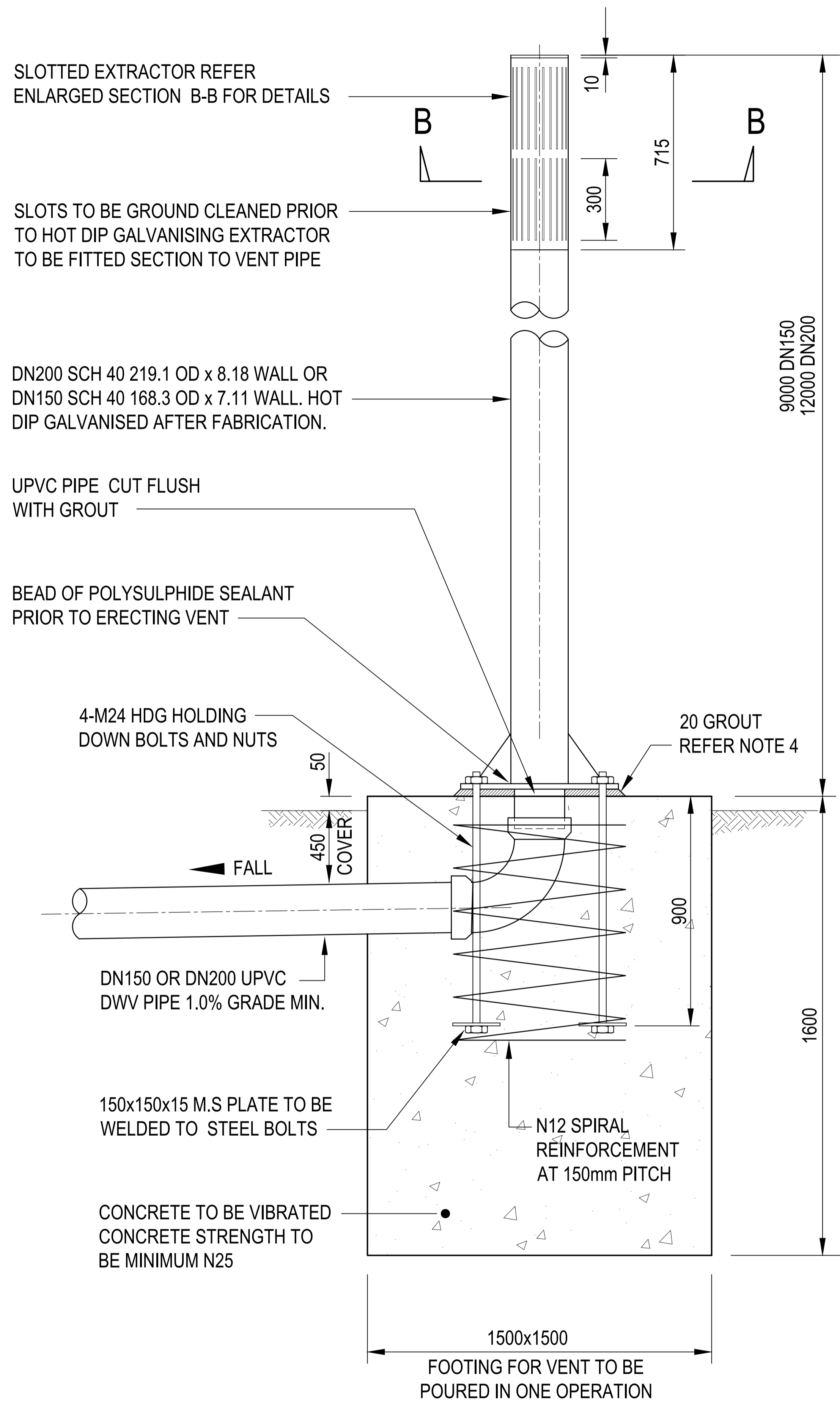
- FOLDED AND WELDED CONSTRUCTION, STIFFENED TO PREVENT DISTORTION MATERIAL AND SEPARATION AS STATED. SEE 'TECHNICAL REQUIREMENTS'.
- NEOPRENE SEALS TO SUIT 'DEGREE OF PROTECTION'. AS60529-2004.
- DISTRIBUTION SECTIONS/BOARDS EQUIPPED WITH 'LEGEND CARD' AND HOLDERS.
- SPARE FUSES, IF REQUIRED, PROVIDED IN FUSE RACKS, MIN. THREE ONLY, OF EACH TYPE AND RATING.
- DOORS OVER 900MM. HIGH TO BE FITTED WITH 3-POINT LOCKING PROVISION.
- CIRCUIT AND PHASE IDENTIFICATION PROVIDED ON ESCUTCHEONS AS REQUIRED.
- APERTURES FOR CABLE PASSAGE FITTED WITH GROMMET OR BUSHES, AND FOR BUSBARS FITTED WITH INSULATING DIAPHRAGMS.
- MAINBUSBARS CONSTRUCTED AND SUPPORTED TO 'TEST REPORT' AS STATED.
 - JOINTS BOLTED, USING HIGH-TENSILE FASTENERS AND SPRING AND FLAT WASHERS.
 - COLOUR CODED TO AS2067-1984 BY MEANS OF PAINT
 - SIZED AS PER AS 60890-2009, UNLESS OTHERWISE STATED.
- BLANKING-OFF PROVISIONS FOR ALL 'SPAREWAYS'.
 - BAKELITE STRIPS IN RUNNERS FOR DISTRIBUTION SECTIONS.
 - METAL COVERS TO MATCH EQUIPMENT.
- LABEL POSITIONS IF SHOWN ARE APPROXIMATE ONLY. MAINTAIN 'STRAIGHT' LINE IN CASE OF MULTIPLES. FIXED BY MEANS OF METAL THREADS.
- BARE TERMINALS IN DISTRIBUTION BOARDS ARE TO BE TAPED OR SHROUDED. OUTGOING SUB-MAIN TERMINALS ARE TO BE INDIVIDUALLY SHROUDED AGAINST ACCIDENTAL CONTACT.
- HINGED EQUIPMENT PANELS FITTED WITH FLEXIBLE EARTHING CABLE AND ANCHORING BRACKET, TO SUIT.
- INTERNAL AND OUTGOING SUBMANS ANCHORED ON CABLE TRAYS TO SUIT RATINGS SHOWN.
- INTERNAL AND FINAL SUB-CIRCUIT WIRING TO BE CONCEALED IN SLOTTED PVC-DUCTING.
- FUSE RAILS AND MOUNTING PANELS TO BE REMOVABLE FOR EASE OF PAINTING.
- SEE 'TECHNICAL REQUIREMENTS' FOR SPECIFIC PROJECT AND SWITCHBOARD DETAILS.
- ALL SWITCHBOARDS TO COMPLY WITH: AS/NZS 3439, 1-2002, AS/NZS 60529-2004, EN 50-102, AS 60890-2009 (BUSBARRATINGS), AS/NZS 3000-2007 PROJECT SPECIFICATION.
- EQUIPMENT DETAILS, LAY-OUT AND POSITION MAY VARY SLIGHTLY DURING MANUFACTURE.
- INTERNAL CABLING: POWER CIRCUITS-CABLING SHALL BE SIZED ACCORDING TO AS3008, 1.1-2009, TABLE 8, COLUMNS 9, UNENCLOSED, TOUCHING.
- PROPOSED CABLE-ROUTES SHOWN IN 'ELEVATIONS' BY MEANS OF (CENTRE LINE)
- CONNECT ALL CONTROL ACTIVES TO THE RED PHASE, UNLESS SHOWN OTHERWISE.
- PHASE ARRANGEMENTS OF BUSBARS AND CONNECTIONS:
 - THE ORDER OF THE BUSBARS AND CONNECTIONS SHALL BE PHASE 1, PHASE 2, PHASE 3, TOP-TO-BOTTOM * LEFT-TO-RIGHT * BACK TO FRONT *
 - * ALL RELATIVE TO THE FRONT OF THE SWITCHGEAR.
- WHERE THE SYSTEM HAS A NEUTRAL CONNECTION, THE NEUTRAL CONNECTION SHALL OCCUPY AN OUTER POSITION.

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APP'D	S. RATCLIFF	DATE	-
TEAM LEADER WATER INFRASTRUCTURE			

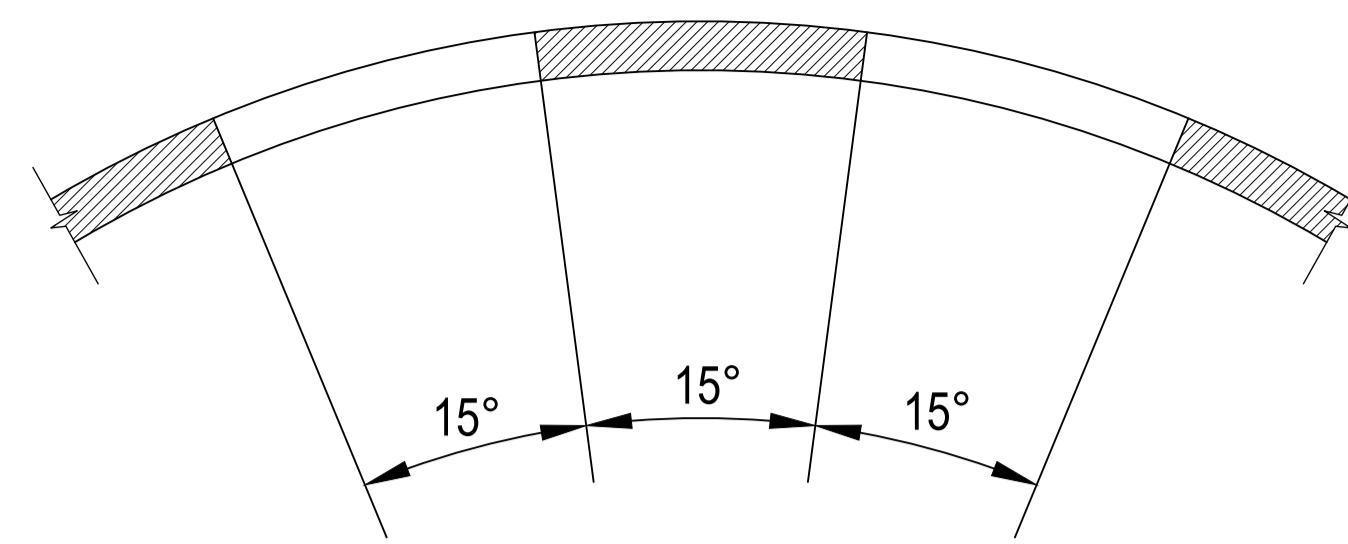
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PROJECT	CWMS TYPICAL DRAWINGS	PLAN #	AC-CWMS-SD
TITLE	PUMP STATION SWITCHBOARD	SHEET	09
		REV	A

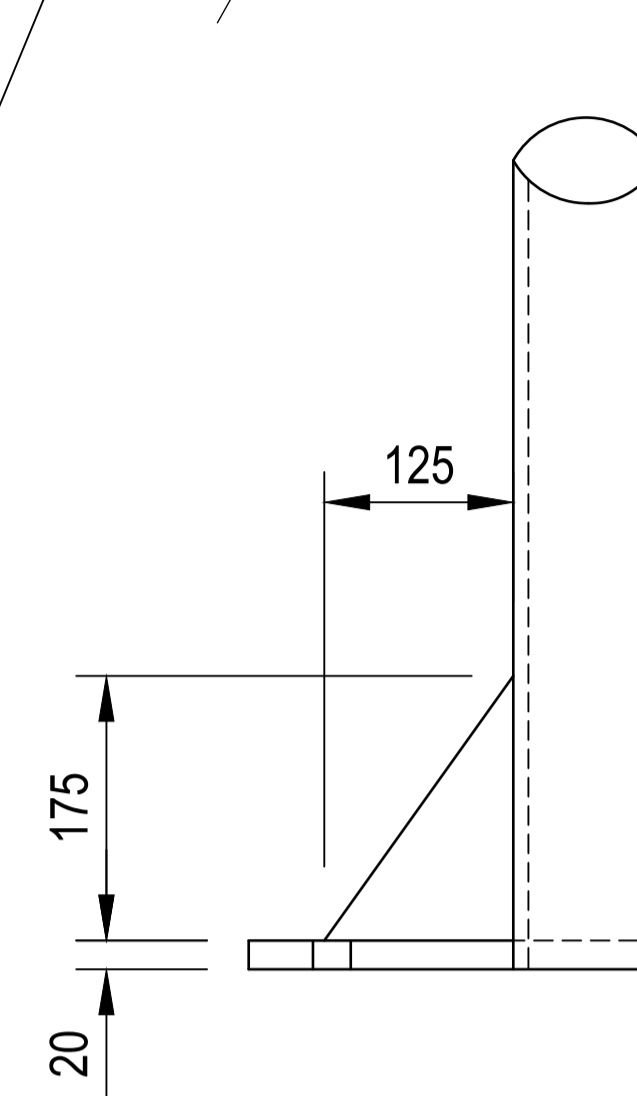


TYPICAL VENT AND BASE DETAIL

1:20

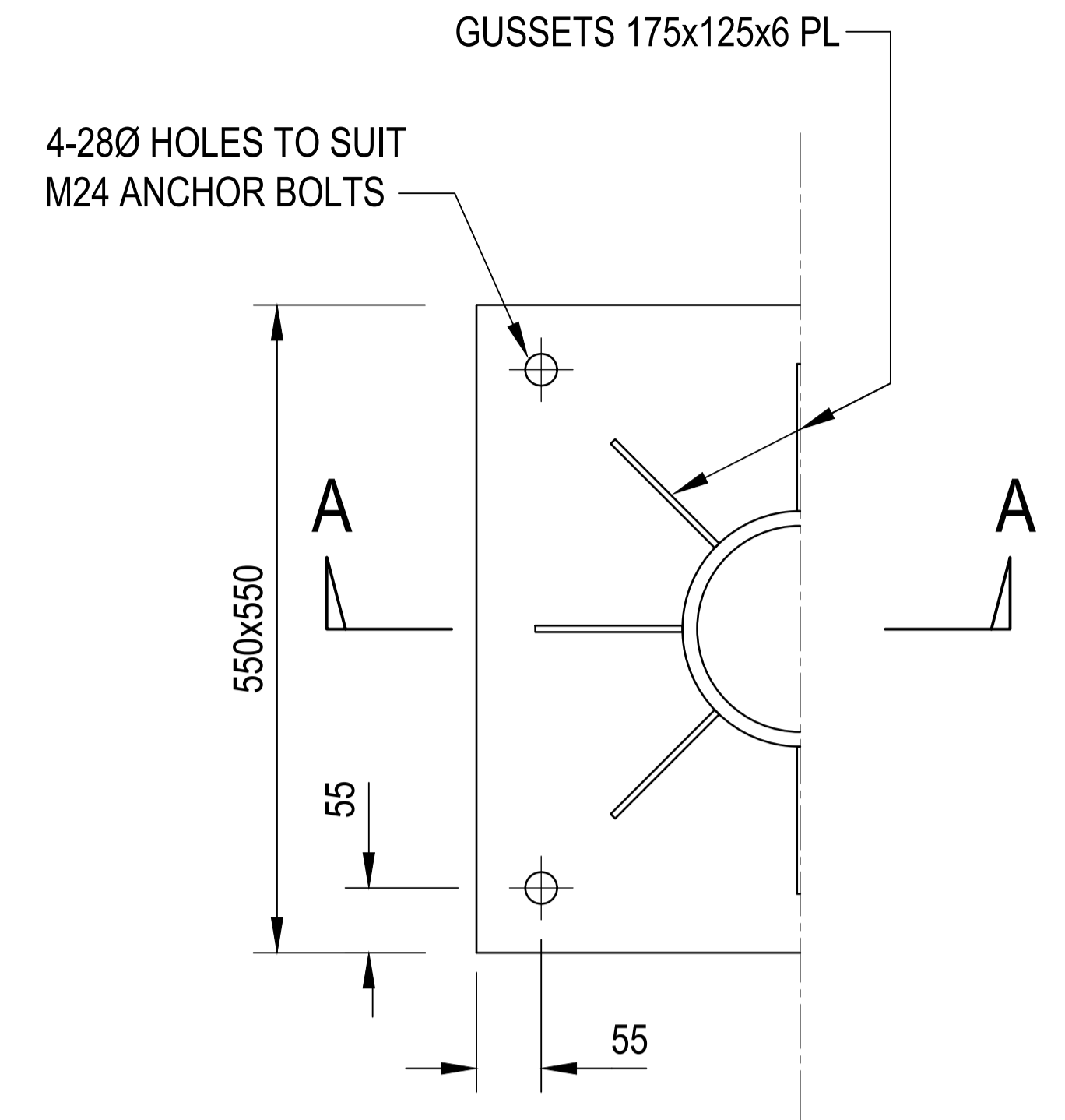


SECTION B-B



SECTION A-A

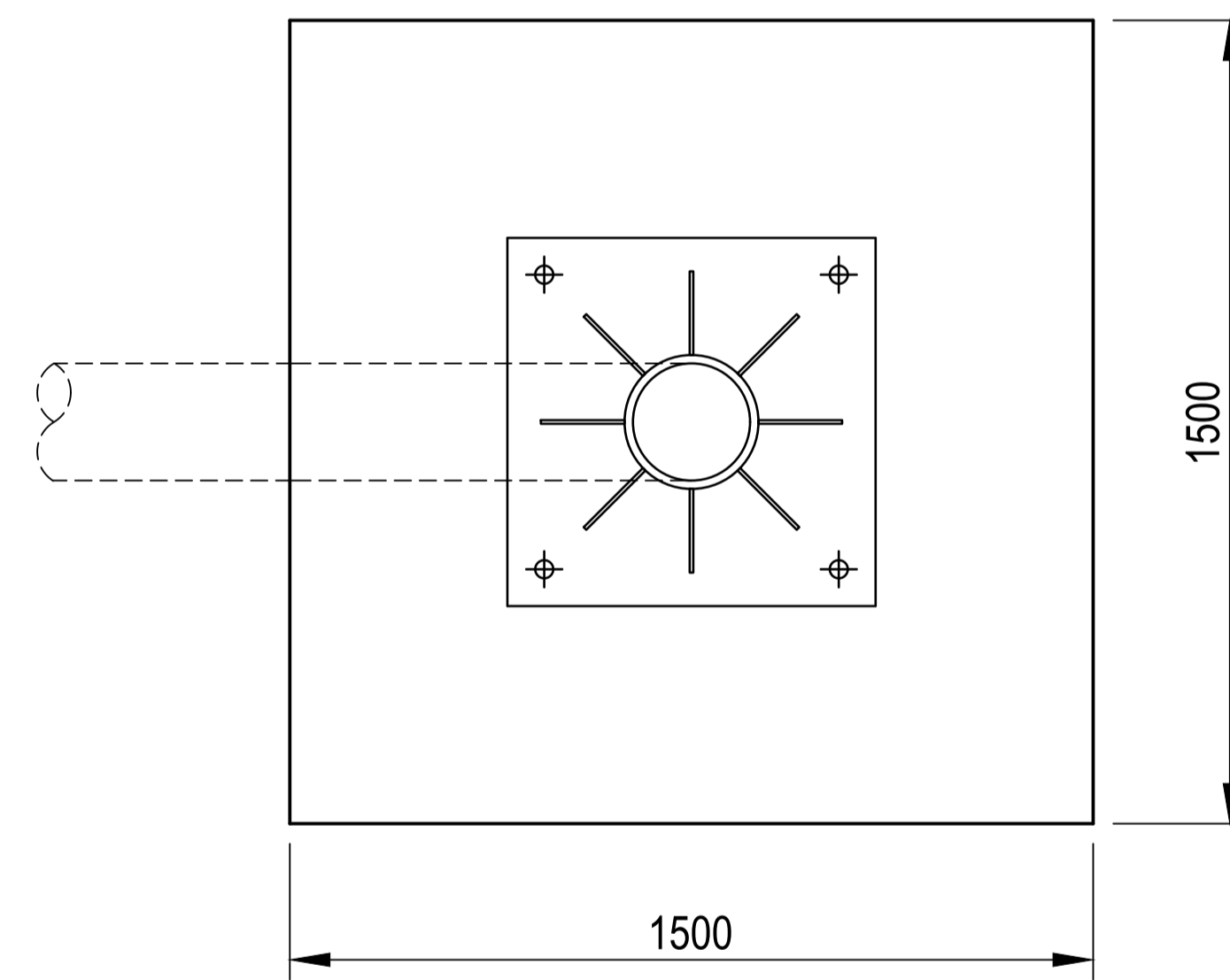
N.T.S.



PART PLAN

N.T.S.

NOTE: ALL WELDS TO BE CONTINUOUS
EFFECTIVE LEG LENGTH TO BE 5mm



PLAN

1:20

NOTES:

1. THE DEVIATION OF ANY POINT ON THE PIPE FROM IT'S CORRECT POSITION SHALL NOT EXCEED 25mm FROM BASE.
2. BASE MATERIAL TO BE 150 kPa MIN. BEARING PRESSURE.
3. COMPACTION AROUND CONCRETE FOOTING SHALL BE MIN. 95% SMDD.
4. BEDDING UNDER BASE PLATE SHALL BE CARRIED OUT WITH NON SHRINK CEMENT MORTAR. MORTAR SHOULD BE OF ADEQUATE STRENGTH AND SHALL COMPLETELY FILL THE SPACE TO BE GROUTED AND SHALL EITHER BE PLACED UNDER PRESSURE OR PLACED BY RAMMING AGAINST FIXED SUPPORTS.
5. GROUND MOUNTED VENT WITH ODOUR CONTROL CARTRIDGE, WITH OR WITHOUT FAN, IN LIEU OF VENT STACK CAN BE CONSIDERED IN SOME CONDITIONS.

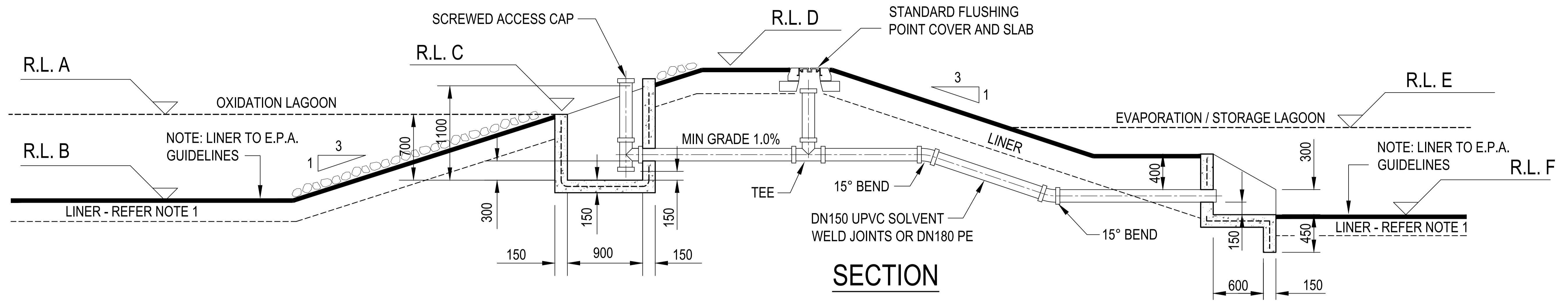
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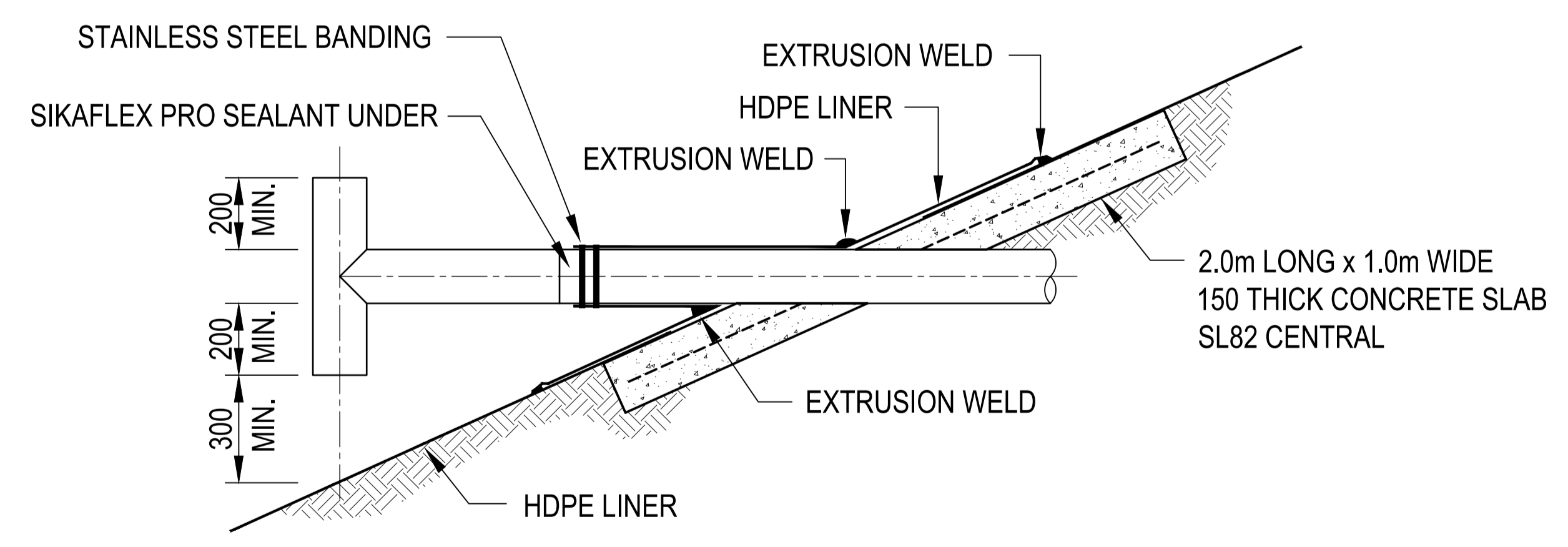
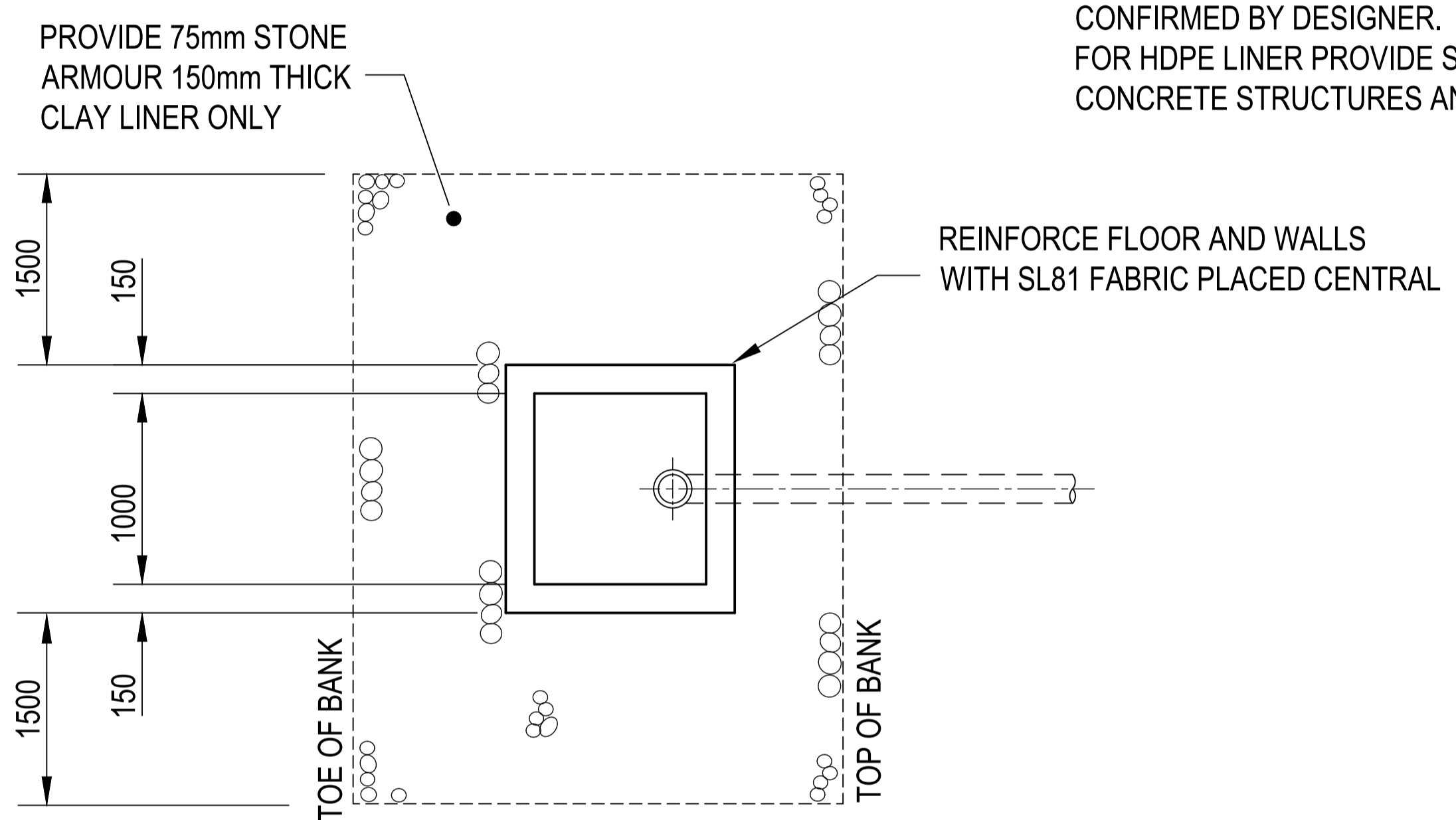


PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD
TITLE	VENT AND BASE DETAIL		SHEET	10
			REV	A



NOTES

1. REFER TO EPA 509/14 WASTEWATER LAGOON CONSTRUCTION GUIDELINE TO ASSIST IN SELECTION OF LAGOON LINER. USE THE EPA RISK ASSESSMENT MATRIX IN CONJUNCTION WITH THE TABLE OF SUGGESTED CONSTRUCTION AND LINING CATEGORIES TO DETERMINE LAGOON LINING AND CONSTRUCTION DETAILS.
2. REFER SCHEDULE OF LEVELS FOR SPECIFIED LEVEL DATA.
3. CONCRETE TO BE N32 SULPHATE RESISTANT.
4. DESIGNER TO PROVIDE LEVELS A, B, C, D, E & F.



TYPICAL LAGOON TRANSFER PIPE
N.T.S.

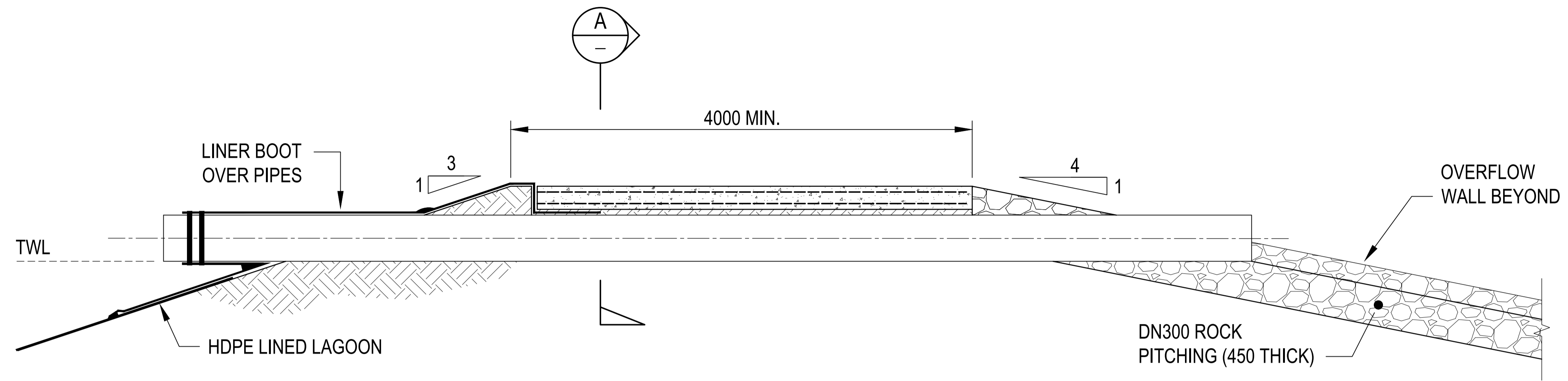
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TEAM LEADER WATER INFRASTRUCTURE			

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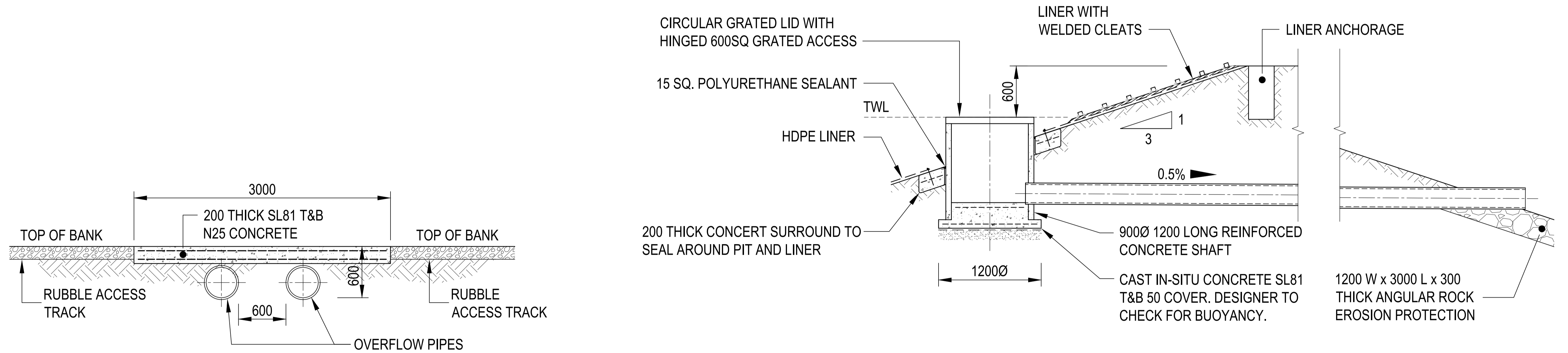


PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	LAGOON TRANSFER PIPE DETAIL		SHEET	11	REV A



OVERFLOW WEIR DETAIL

1:50



SECTION A-A

1:50

ALTERNATE OVERFLOW DETAIL

1:50

NOTE: OVERFLOW PIPE SIZE TO BE DETERMINED BY DESIGNER

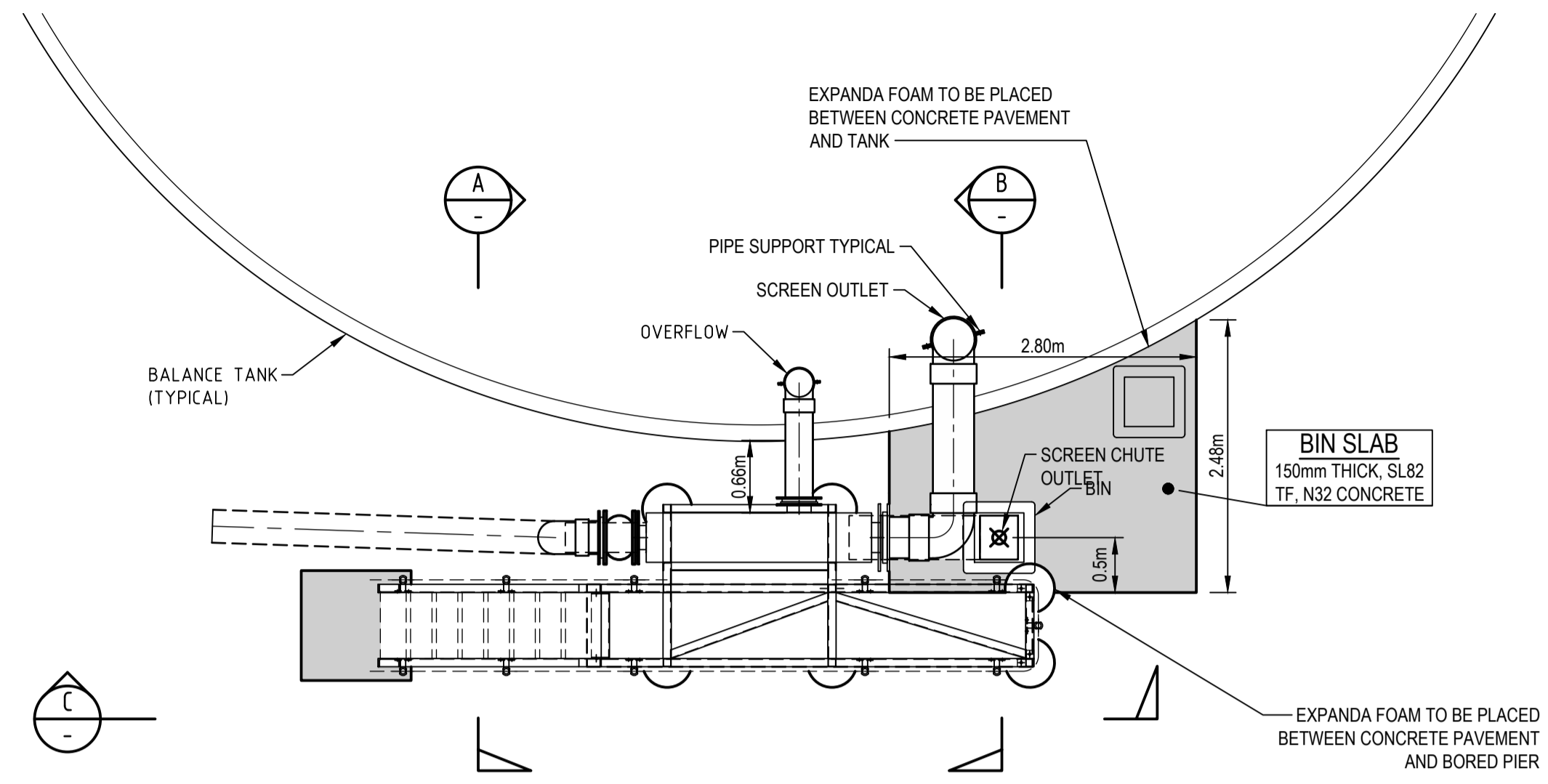
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TEAM LEADER WATER INFRASTRUCTURE			

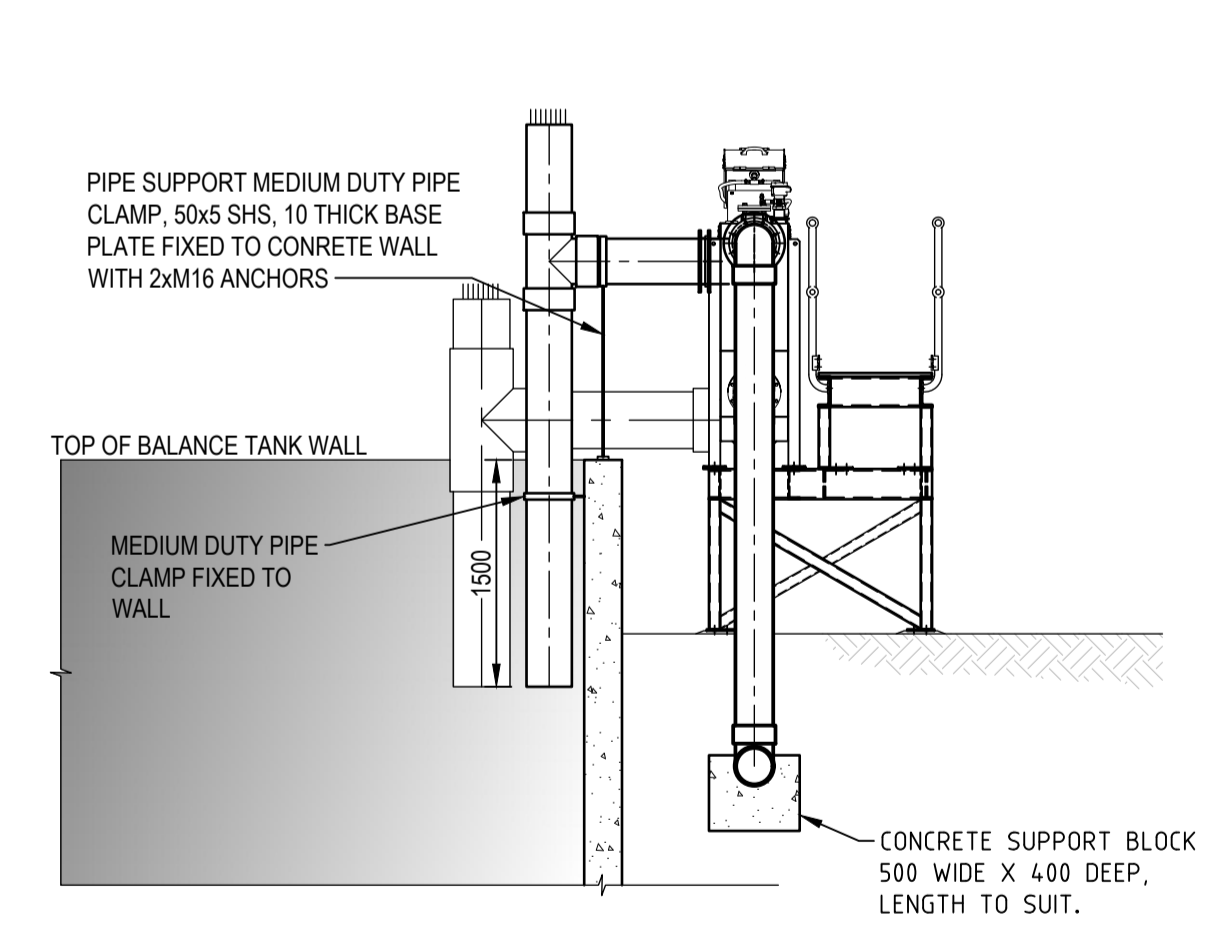
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 6006 WA SA 5014
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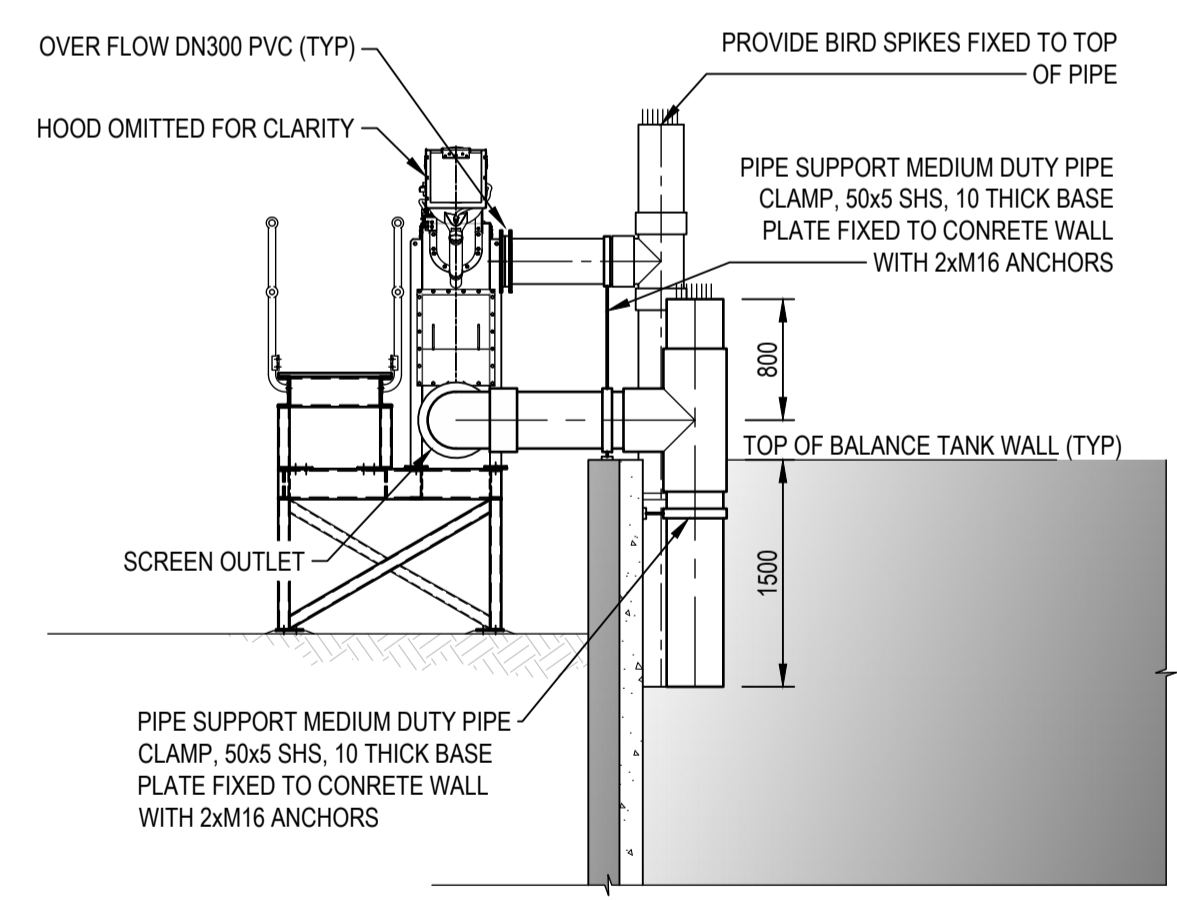
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TITLE	STORAGE LAGOON OVERFLOW DETAIL	SHEET	12
		REV	A



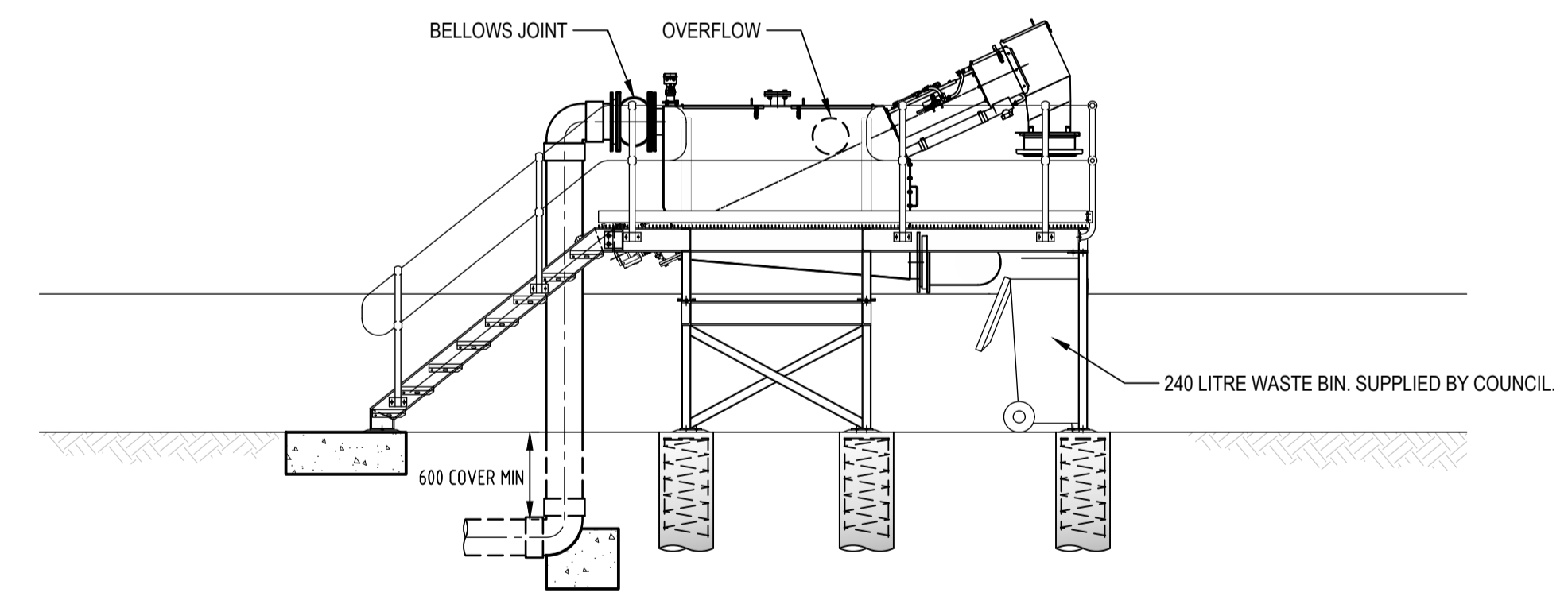
SEWAGE SCREEN DETAIL PLAN
SCALE 1:50



SECTION A
SCALE 1:50



SECTION B
SCALE 1:50



SECTION C
SCALE 1:50

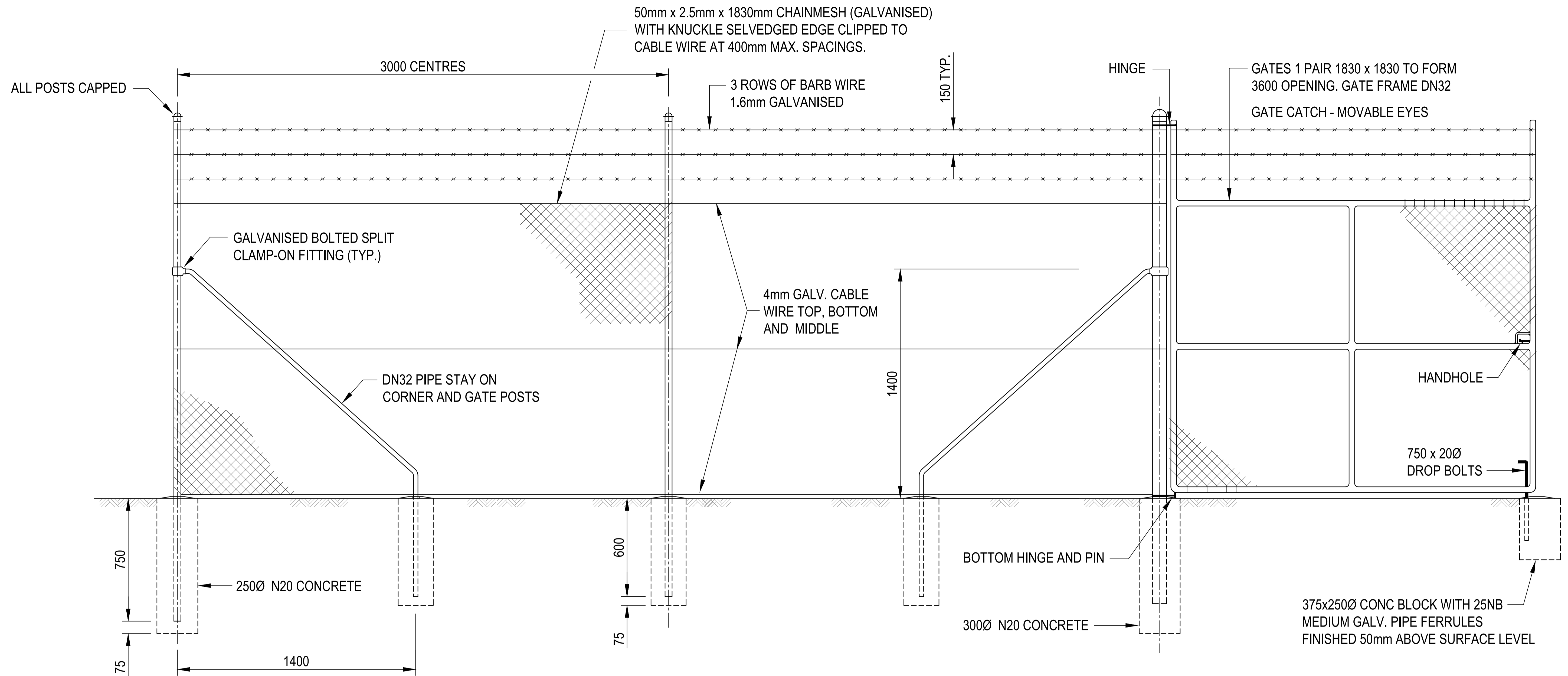
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TEAM LEADER WATER INFRASTRUCTURE			

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PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	WWTP SCREEN DETAIL		SHEET	13	REV A



TYPICAL FENCE

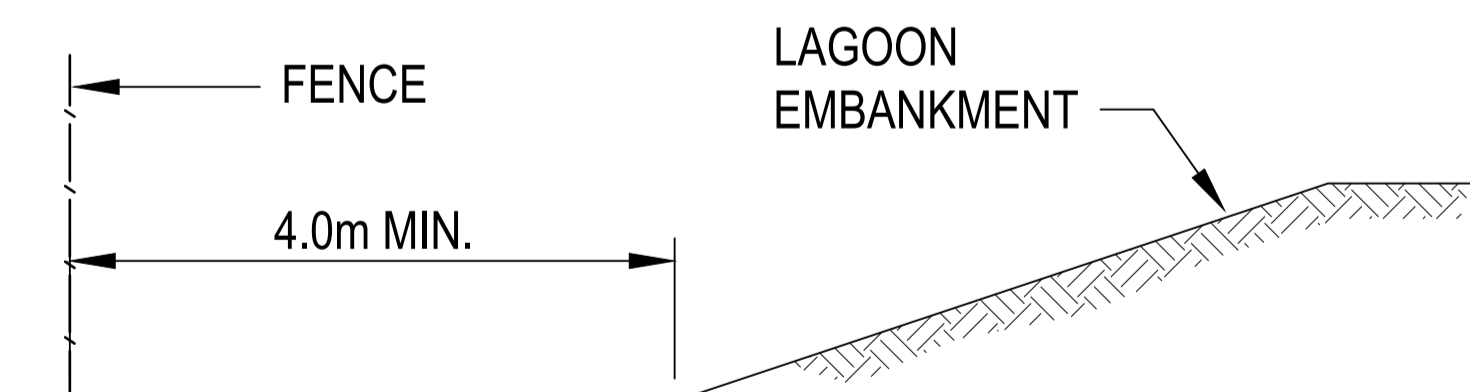
1:25

NOTES

- CHAIN MESH FENCES AND GATES SHALL COMPLY WITH AS 1725.
- MEDIUM GRADE PIPE SHALL COMPLY WITH AS/NZS 1163 GRADE C250, CLASS1.
- GALVANISED COATING ON STEEL TUBES SHALL COMPLY WITH AS/NZS 4792 WITH A COATING CLASS OF HDG 300.
- ALL CLAMPS AND FASTENERS SHALL BE HOT DIP GALVANISED TO AS/NZS 4680.
- THERE SHALL BE NO MORE THAN A 50mm GAP BETWEEN CHAIN MESH AND GROUND TO MINIMISE ANIMAL INTRUSION.

TABLE OF POSTS

POST TYPE	NOMINAL SIZE	OUTSIDE DIAMETER mm
CORNER POST	DN50	60.3
INTERMEDIATE POST	DN40	48.3
GATE POST	DN80	88.9
PIPE STAY	DN32	42.4



MINIMUM CLEAR DISTANCE TO LAGOON TOE OF EMBANKMENT

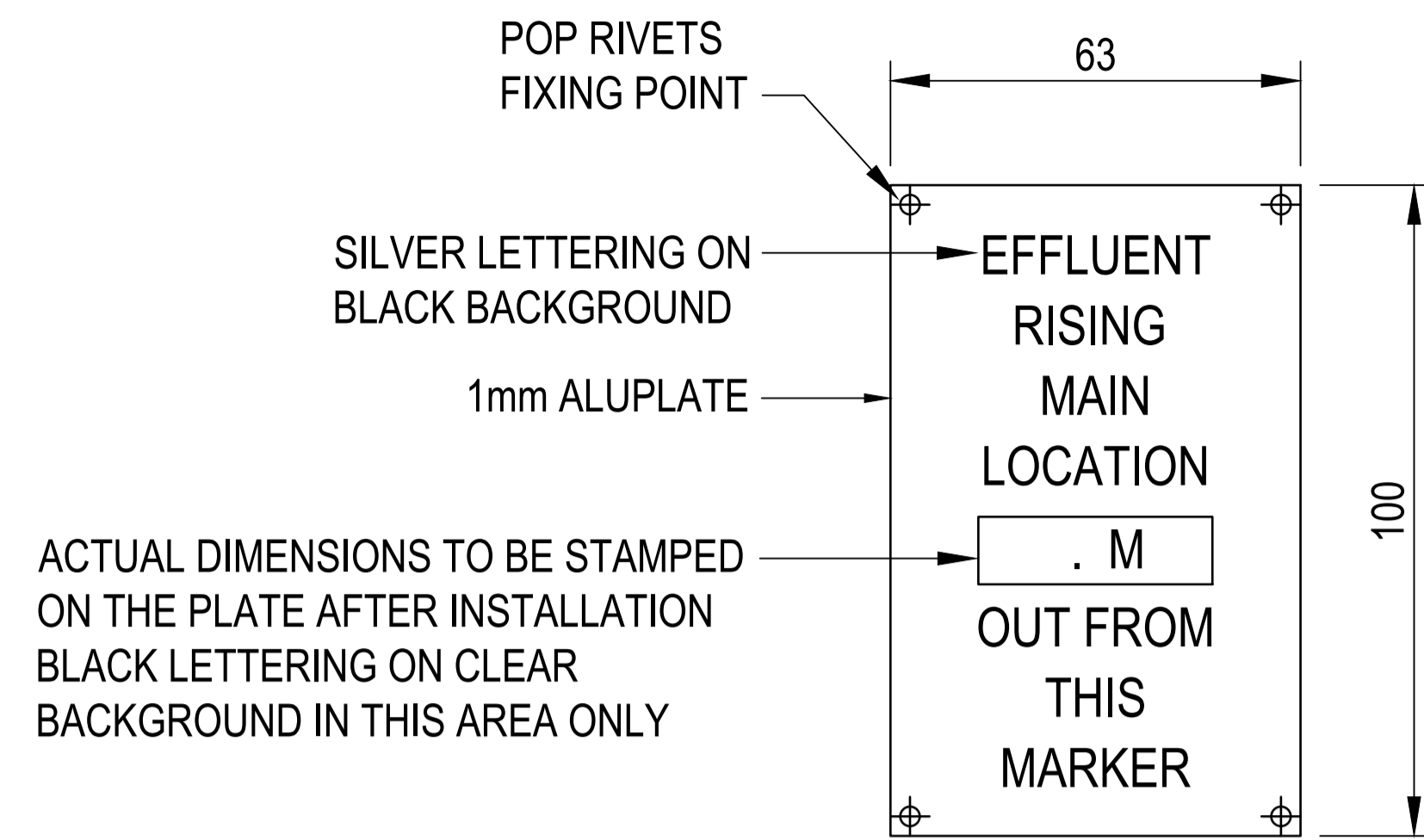
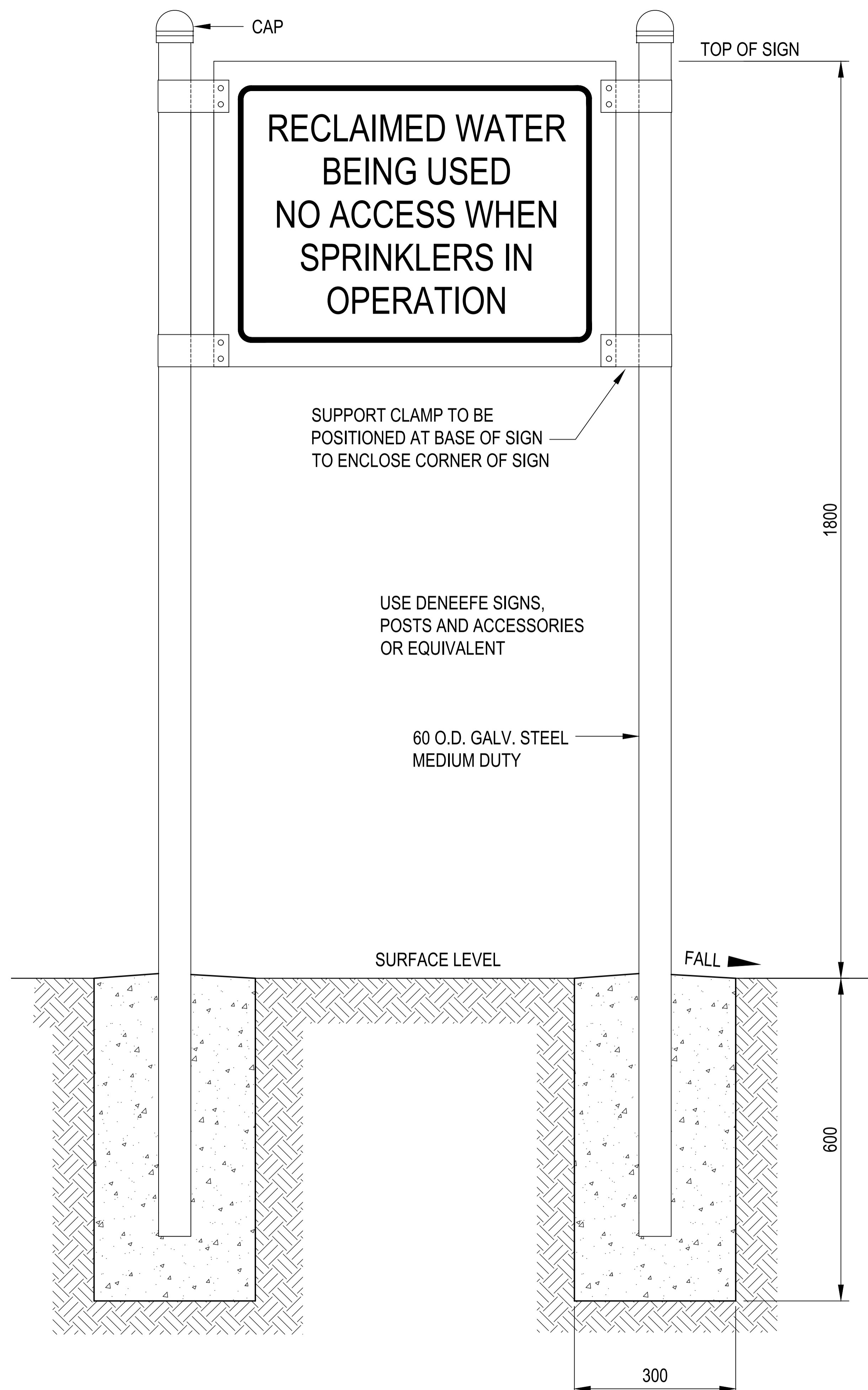
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TEAM LEADER WATER INFRASTRUCTURE			

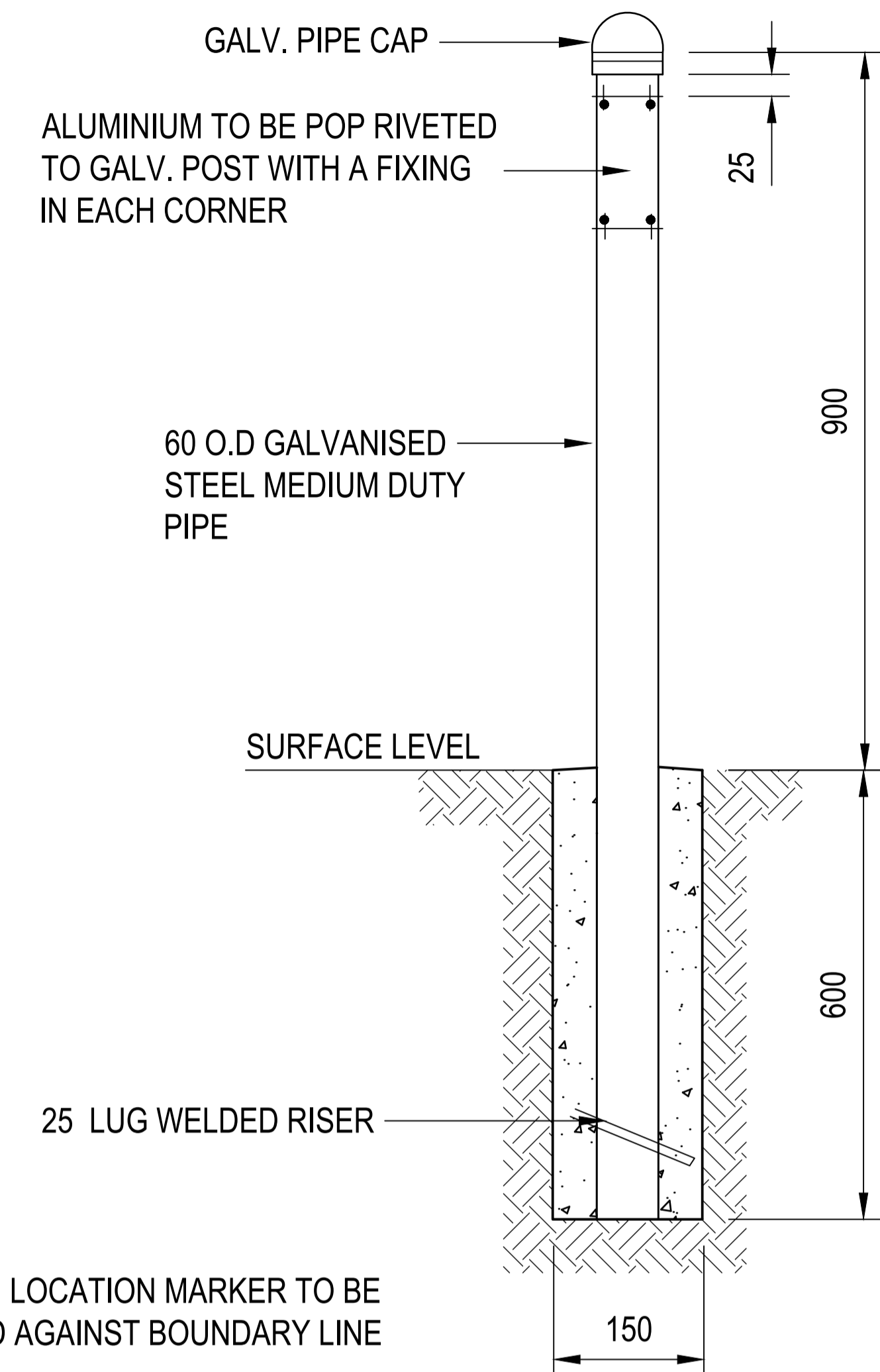
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PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD
TITLE	LAGOON FENCE		SHEET	14
			REV	A



DETAIL OF PHOTO ANODISED ALUMINIUM LOCATION PLATE



TYPICAL RISING MAIN LOCATION MARKER

NOTE

1. GALVANISED COATING ON STEEL TUBES SHALL COMPLY WITH AS/NZS 4792, COATING CLASS HDG 300.
2. REFERENCE TO BE MADE TO GUIDELINES FOR NON-DRINKING WATER IN SOUTH AUSTRALIA AND RECLAIMED WATER GUIDELINES.

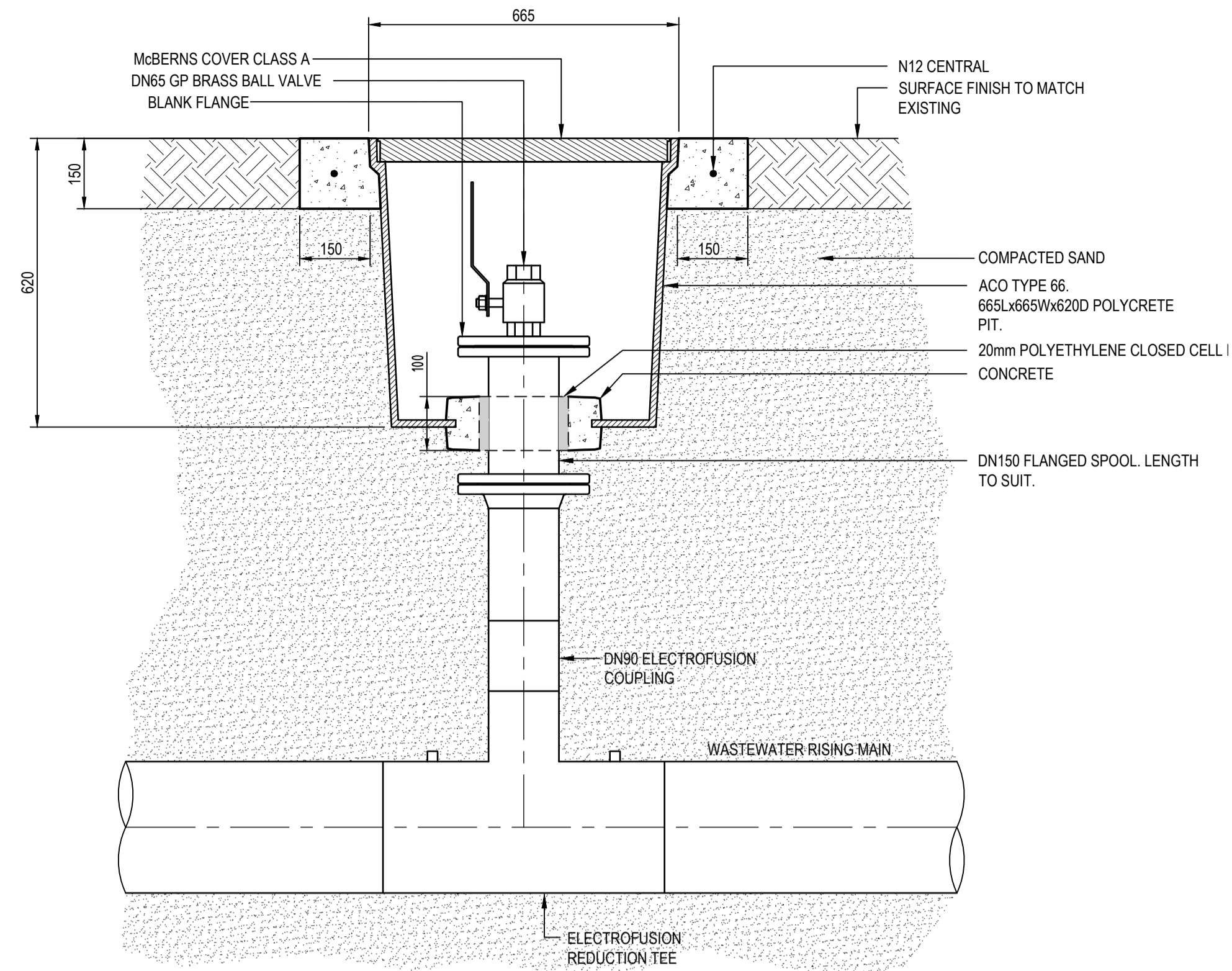
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TEAM LEADER WATER INFRASTRUCTURE			

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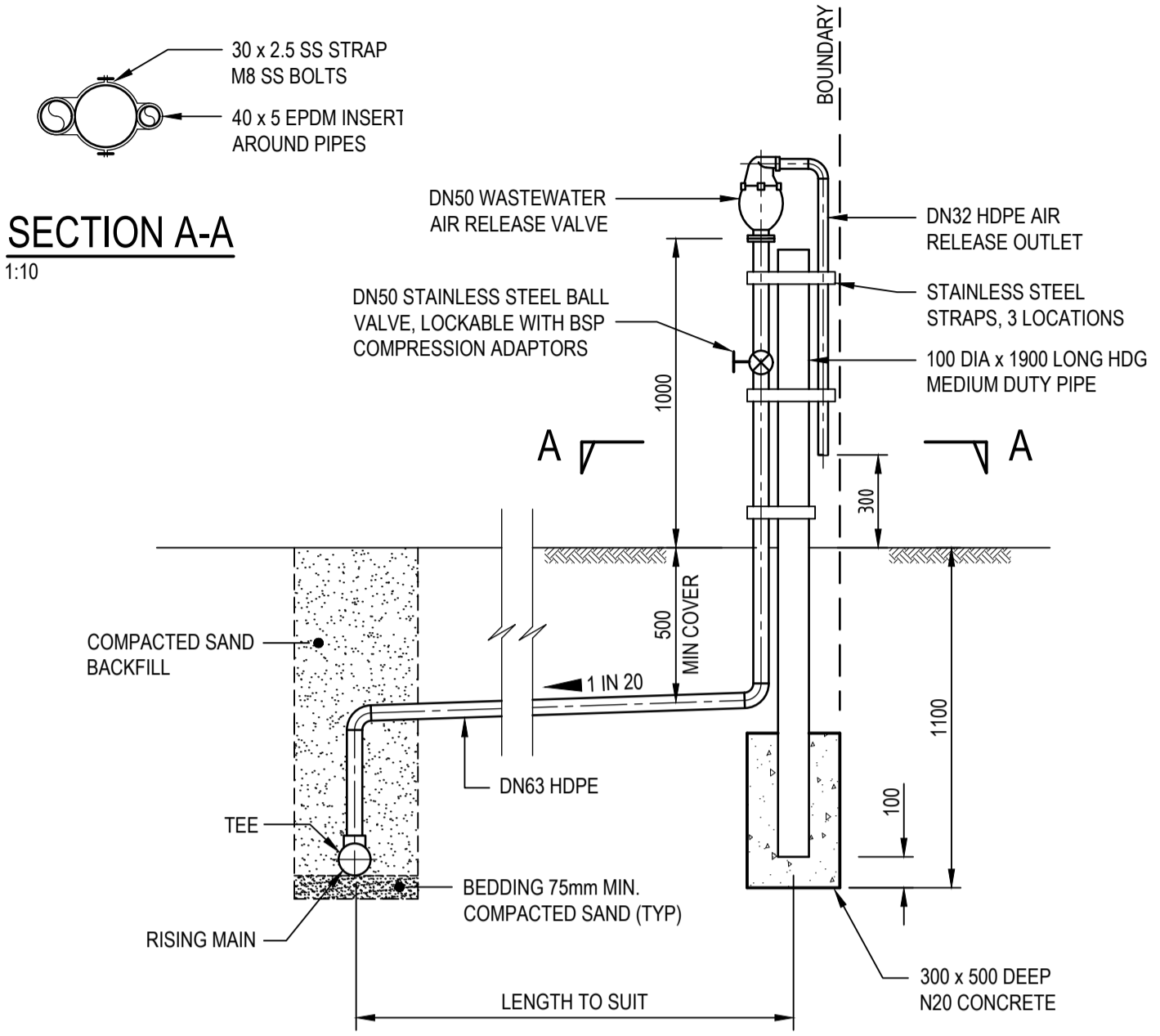
PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	MARKER POST AND WARNING SIGN DETAIL		SHEET	15	REV A



INSPECTION POINT / SCOUR VALVE- DETAIL

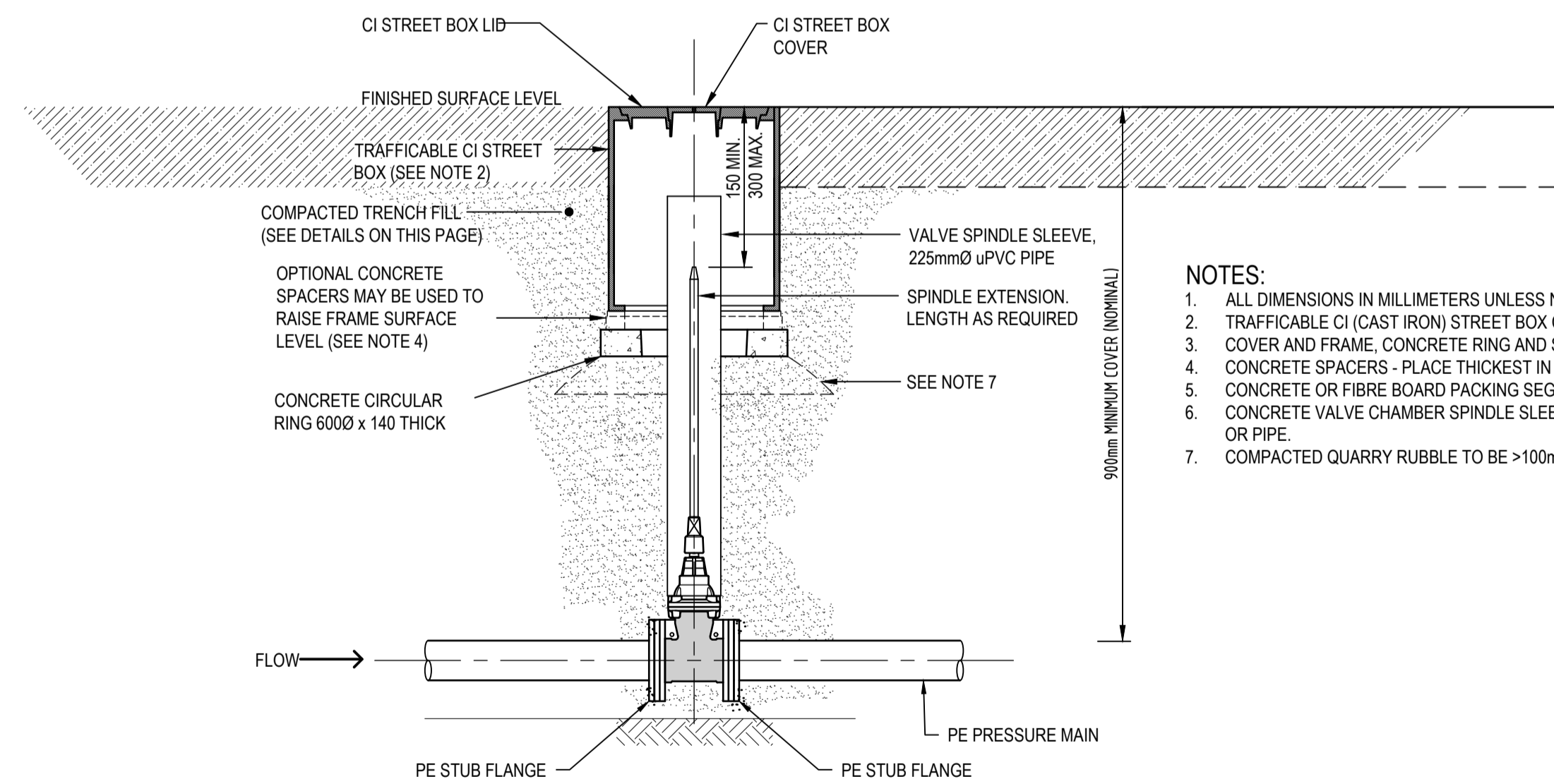
SCALE 1:10

SECTION A-A
1:10



TYPICAL AIR VALVE DETAILS

1:20

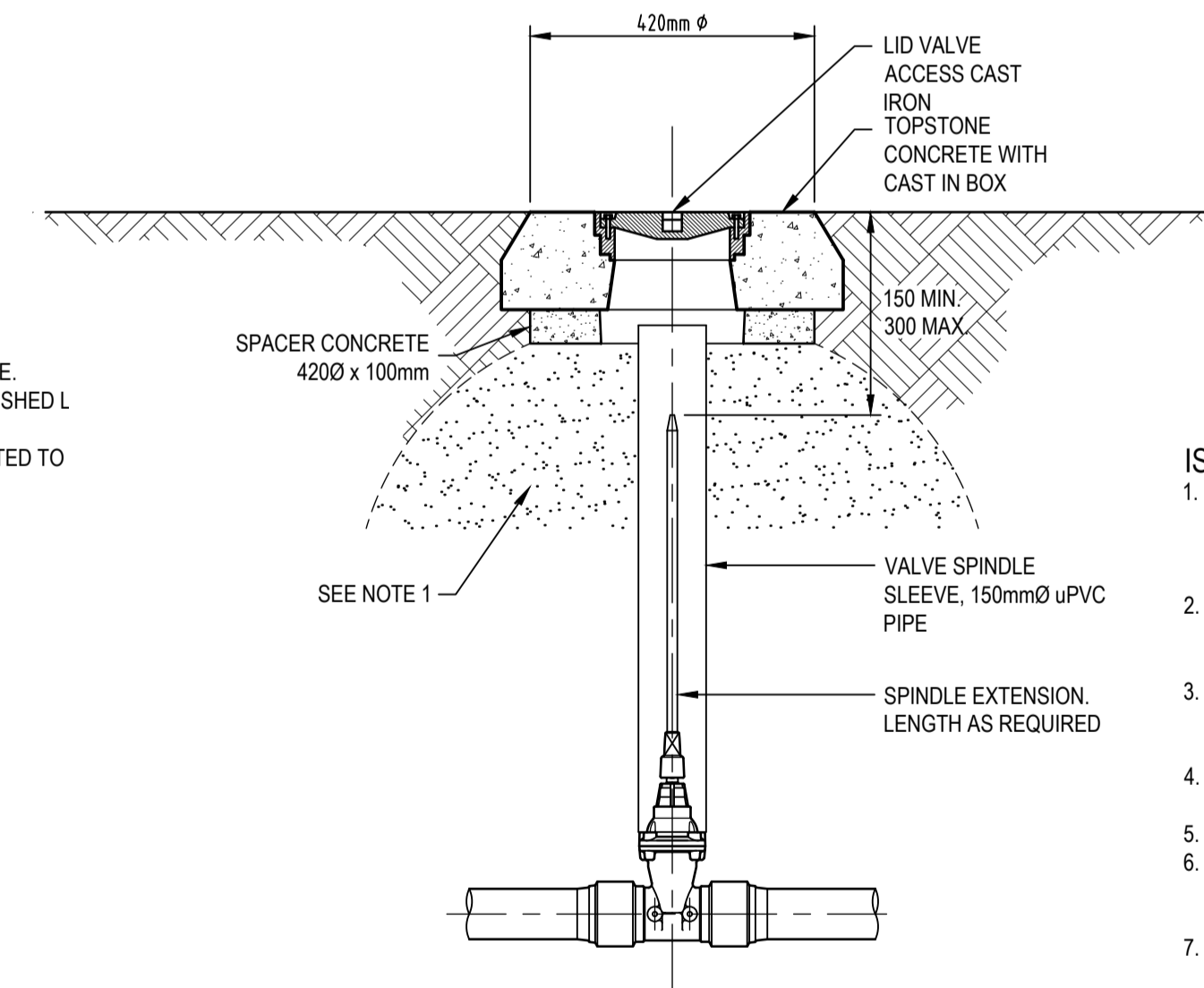


ISOLATION VALVE DETAIL

SCALE N.T.S.

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. TRAFFICABLE CI (CAST IRON) STREET BOX COVERS AND FRAMES TO BE IN ACCORDANCE WITH AS 3996, CLASS D LOADING.
3. COVER AND FRAME, CONCRETE RING AND SPACERS TO BE INSTALLED SO THAT NO LOADING IS TRANSMITTED TO THE VALVE OR PIPE.
4. CONCRETE SPACERS - PLACE THICKEST IN BOTTOM POSITION. EXTRA SPACERS (THICK OR THIN) ARE THEN ADDED TO GIVE THE FINISHED LEVEL.
5. CONCRETE OR FIBRE BOARD PACKING SEGMENTS SHALL NOT BE USED FOR HEIGHT ADJUSTMENTS.
6. CONCRETE VALVE CHAMBER SPINDLE SLEEVE AND BOTTOM CONCRETE SPACER BEDDED SO THAT NO ROAD LOADING IS TRANSMITTED TO OR PIPE.
7. COMPACTED QUARRY RUBBLE TO BE >100mm BELOW VALVE GLAND AND >100 ABOVE PIPE.



ISOLATION VALVE DETAIL (TYPE 2)

SCALE N.T.S.

VALVE SPINDLE AND SLEEVE SHALL NOT PROTRUDE INTO TOP STONE CHAMBER

ISOLATING STOP VALVE NOTES:

1. COMPACTED QUARRY RUBBLE FOR LIGHT TRAFFIC AREAS AND CEMENT TREATED CRUSHED ROCK FOR HEAVY TRAFFIC ROADS. TO BE >100mm BELOW VALVE GLAND AND >100 ABOVE PIPE.
2. CONCRETE VALVE CHAMBER, SPINDLE SLEEVE, AND BOTTOM CONCRETE SPACER BEDDED SO THAT NO ROAD LOADING IS TRANSMITTED TO VALVE OR PIPE.
3. CONCRETE SPACERS - PLACE THICKEST IN BOTTOM POSITION. EXTRA SPACERS (THICK OR THIN) ARE THEN ADDED TO GIVE THE FINISHED LEVEL.
4. CONCRETE OR FIBRE BOARD PACKING SEGMENTS SHALL NOT BE USED FOR HEIGHT ADJUSTMENTS.
5. TOPSTONES ARE NOT DESIGNED FOR JACKING.
6. TOPSTONES TO BE SET TO FINISHED LEVEL OR SLOPE OF GROUND IN EASEMENTS OR SURFACE OF UNSEALED ROADS AND TRACKS.
7. TOPSTONES TO BE POSITIONED SO THAT THE STANDARD VALVE KEY CAN BE USED AND ALSO FOR BELOW GROUND FIRE HYDRANTS A HYDRANT AND KEY CAN BE CONNECTED THROUGH THE OPENING WITHOUT FOULING.
8. ALL LID COVERS TO BE PAINTED YELLOW AND LABELLED TO DENOTE STOP VALVE CHAMBERS.

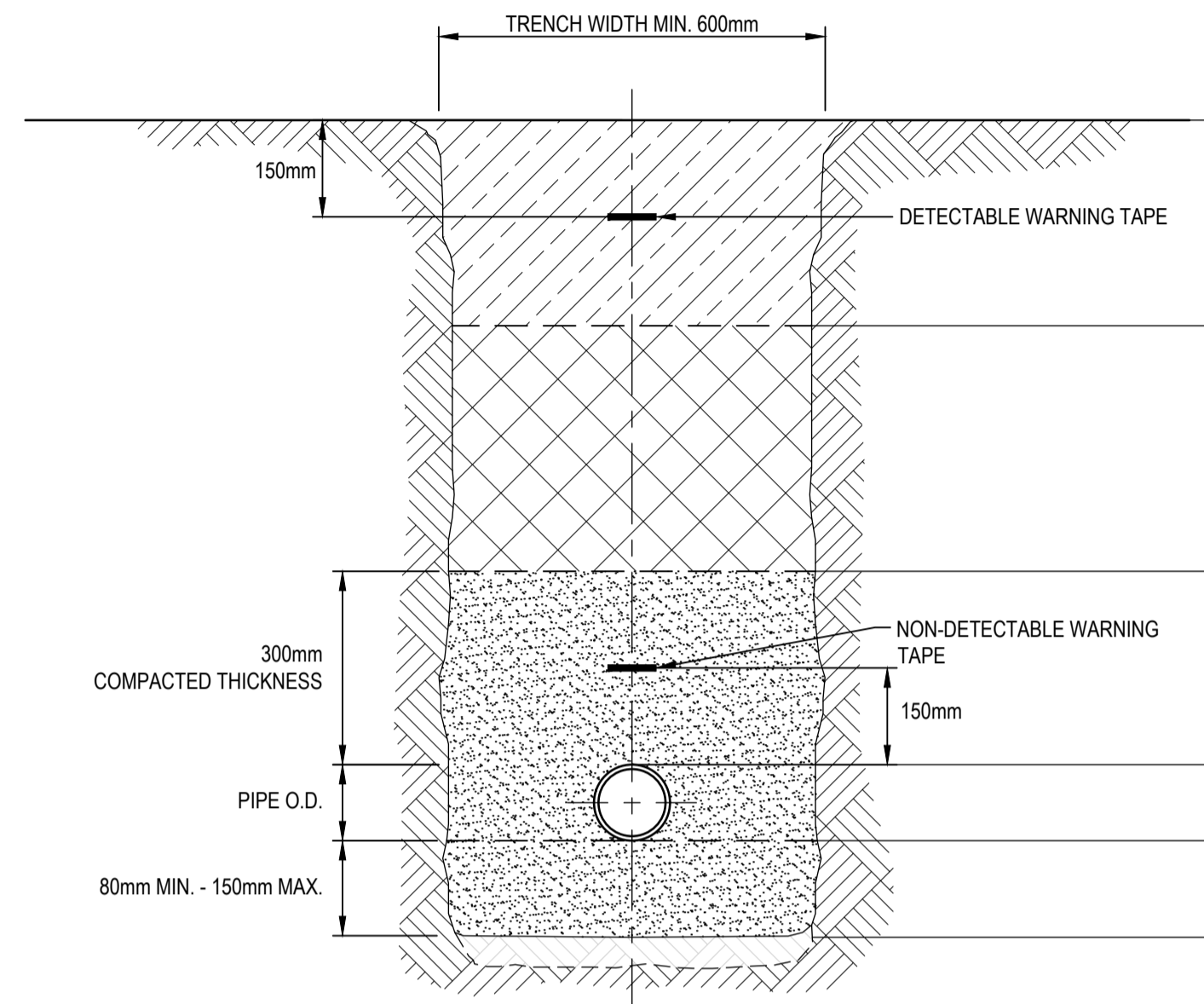
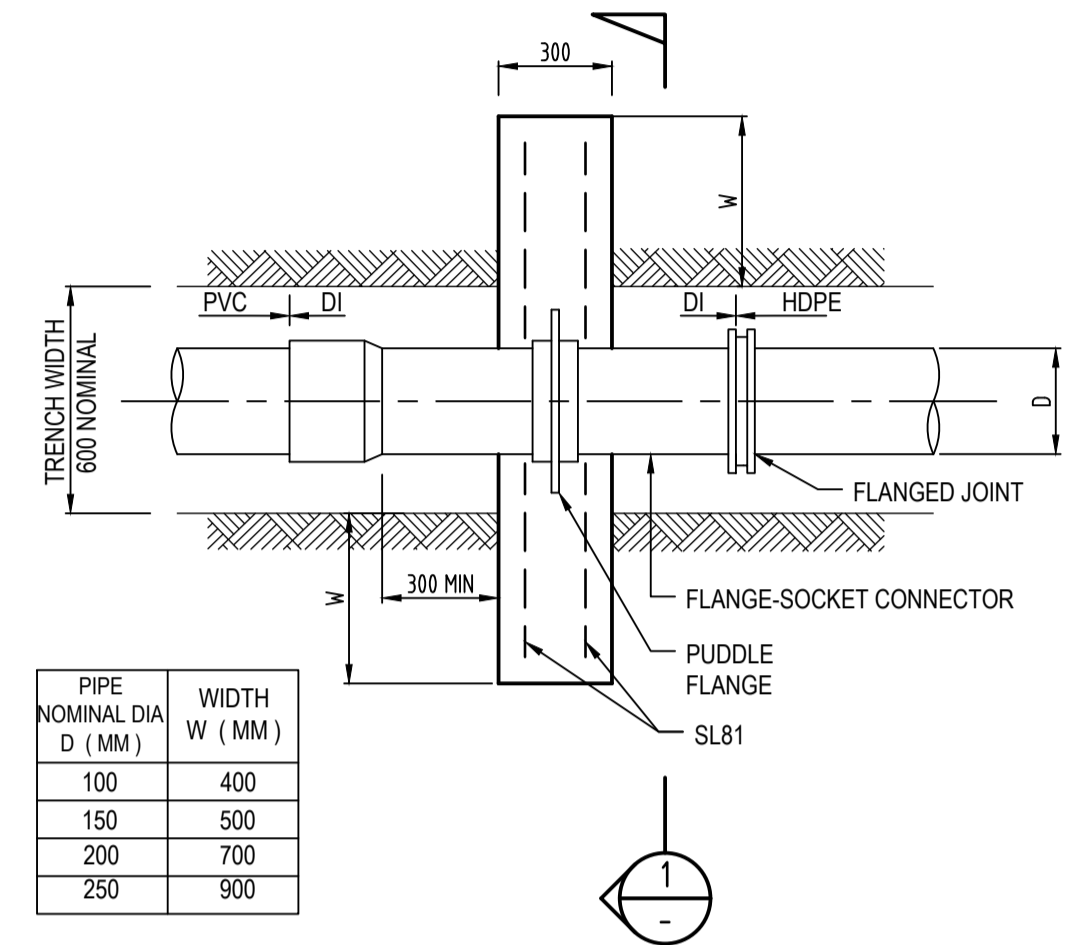


TABLE 1

ZONE	MATERIAL
TRENCH REINSTATEMENT REFER TO LONGITUDINAL SECTION FOR LOCATION AND TYPE	TYPE 1 - 200mm PM 1/20 COMPACTED TO 98% OF MMDD TYPE 2 - 30mm AC ON 150mm PM 1/20 ON 150mm PM 2/20 SUB BASE COMPACTED TO 98% OF MMDD. REFER NOTE AND DETAIL TYPE 3 - 150mm GOOD QUALITY TOPSOIL
TRENCH FILL	TYPE 1 & 2 TS 4 SAND COMPACTED TO NOT LESS THAN 100% OF SMDD (NOTE 5 & 7). PLACE ALL MATERIALS IN LAYERS PARALLEL TO THE SURFACE WITH A LOOSE THICKNESS NOT GREATER THAN 200mm. EACH LAYER TO BE COMPACTED SEPARATELY. TYPE 3 INORGANIC FILL WITH A MAXIMUM STONE SIZE OF 75MM, COMPACTED TO NOT LESS THAN 95% OF SMDD (NOTE 5).
EMBEDMENT	OVERLAY SIDE SUPPORT BEDDING
OVER-EXCAVATION IN SOIL OR ROCK	REFER NOTE 7



PVC/PE TRANSITION THRUST BLOCK DETAIL
SCALE: NTS

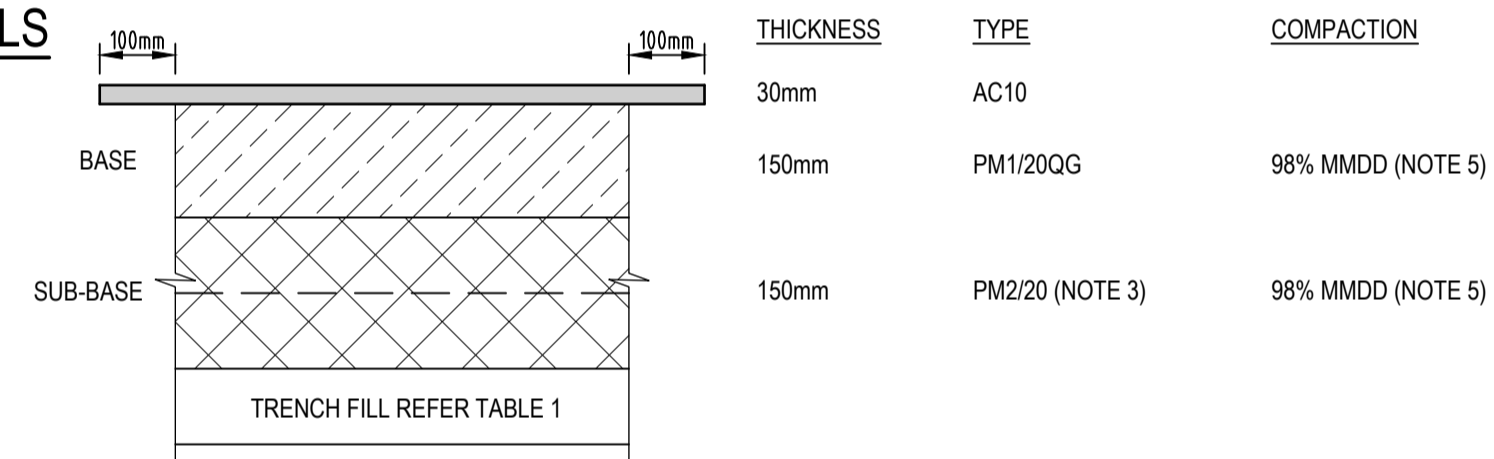
EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS
SCALE N.T.S.

NOTES:

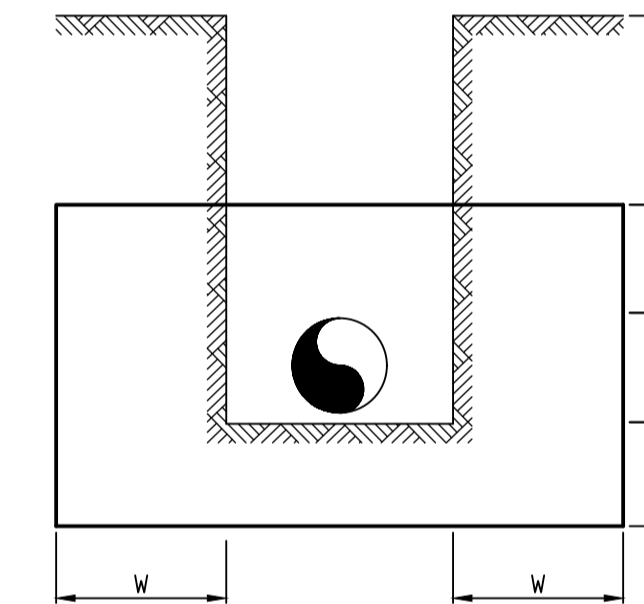
- ALL PIPE RISERS SHALL BE SURROUNDED BY A MINIMUM 300mm OF COMPACTED EMBEDMENT MATERIAL EXTENDING UP TO CONCRETE SPACER RING.
- PM1/20 = 20mm CLASS 1 QUARRIED PAVEMENT MATERIAL (PM1/20QG)
- PM2/20 = 20mm CLASS 2 PAVEMENT MATERIAL.
- SMDD = STANDARD MAXIMUM DRY DENSITY (AS 1289.5.1.1).
- MMDD = MODIFIED MAXIMUM DRY DENSITY (AS 1289.5.2.1).
- IF THE TS 4 SAND DOES NOT DISPLAY A DEFINED MOISTURE-DENSITY CURVE (SEE NOTE 1. OF AS 1289.5.5.1) THEN THE DENSITY INDEX (DI) METHOD (AS 1289.5.6.1) SHALL BE USED FOR COMPACTION CONTROL - AN ID OF 90% SHALL BE TAKEN AS EQUIVALENT TO 100% OF SMDD.
- AC - ASPHALIC CONCRETE SURFACE TO MATCH THE EXISTING. THE AC SHALL EXTEND 100mm EITHER SIDE OF THE EXCAVATED TRENCH AND THE OUTER EDGE SHALL BE SAW CUT.
- DIT ROAD REINSTATEMENT SHALL BE TO DTEI STANDARD SPECIFICATION PART 208. MINIMUM PIPE COVER FOR DTEI ROAD SHALL BE 1000mm UNLESS SHOWN OTHERWISE ON DRAWINGS

TRENCH FLOOR PREPARATION

- ENSURE THAT THE TRENCH FLOOR IS SMOOTH AND FIRM, AND WITHIN THE DESIGN TRENCH FLOOR LEVEL LIMITS OF 80mm MINIMUM TO 150mm MAXIMUM BELOW THE BOTTOM OF THE PIPE, BEFORE PLACING ANY BEDDING.
- IF THE TRENCH FLOOR IS IN FIRM NATURAL SOIL AND AN EXCAVATOR IS BEING USED, IT WILL NORMALLY BE SUFFICIENT TO TRIM IT SMOOTH WITH THE EXCAVATOR BUCKET.
- IF THE TRENCH FLOOR IS IN ROCK, BACKFILL BETWEEN PEAKS OVER 30mm HIGH WITH SAND COMPACTED TO 100% OF SMDD BEFORE PLACING ANY BEDDING
- IF THE TRENCH FLOOR HAS BEEN OVER EXCAVATED BELOW DESIGN TRENCH FLOOR LEVEL, BACKFILL WITH SAND COMPACTED TO 100% OF SMDD TO BRING IT BACK UP TO DESIGN TRENCH FLOOR LEVEL BEFORE PLACING ANY BEDDING.
- REMOVE LOOSE SOIL OR ROCK RUBBLE FROM THE FLOOR OF THE TRENCH.
- IF THE TRENCH FLOOR WHOLLY OR PARTIALLY CONSISTS OF: VERY SOFT CLAY, LOOSE SAND, OLD OR NON-ENGINEERED FILL, OR REFUSE, OR HAS ISOLATED OUTCROPS OF ROCK IN IT, OR HAS BEEN DISTURBED BY GROUNDWATER INFLOW, CONSULT THE SUPERINTENDENT OR REFER TO TECHNICAL SPECIFICATIONS.



TYPE 2 REINSTATEMENT
LIGHT TRAFFIC



SECTION 1
SCALE: NTS

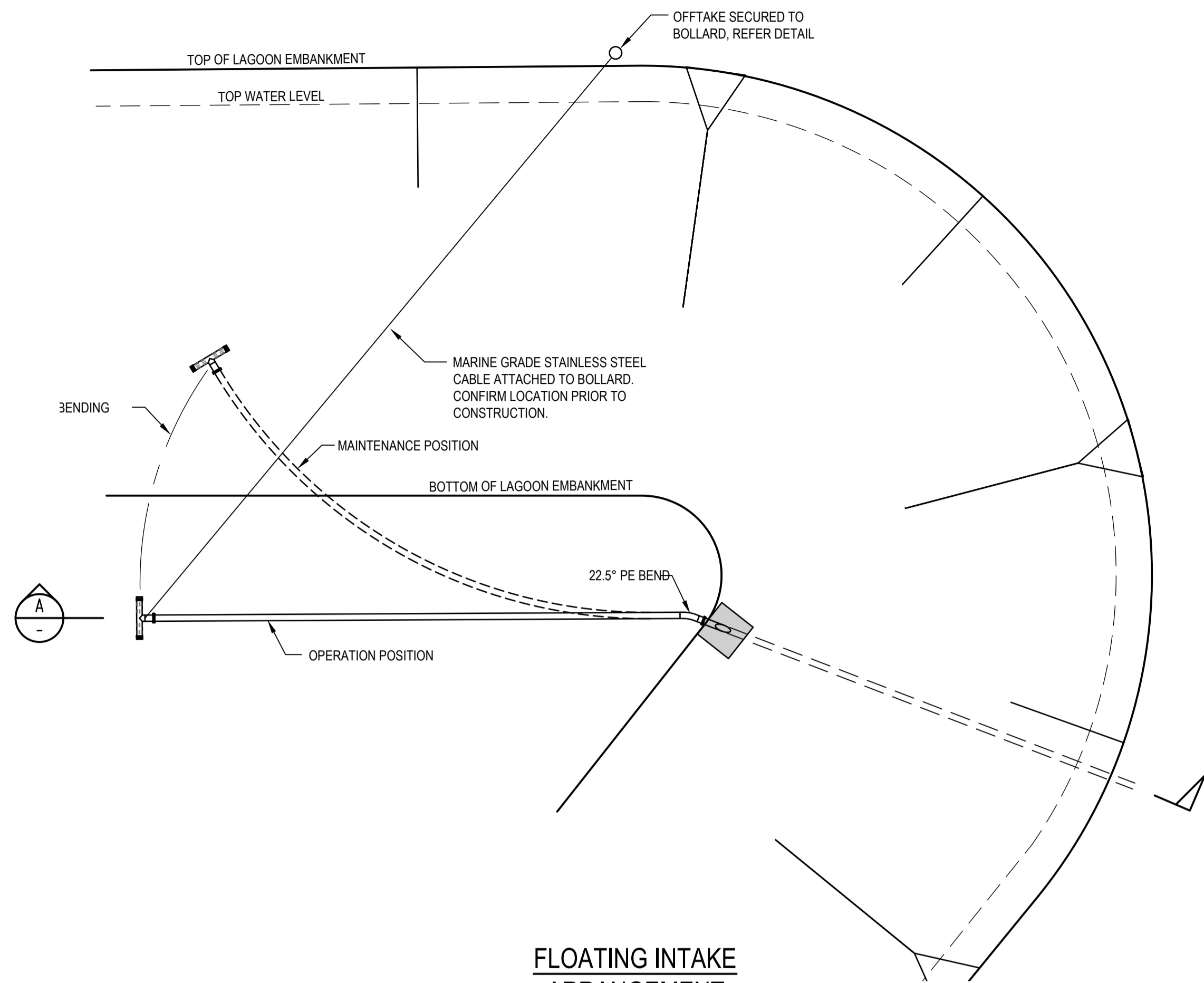
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APPD	S.RATCLIFF	DATE	-
TEAM LEADER WATER INFRASTRUCTURE			

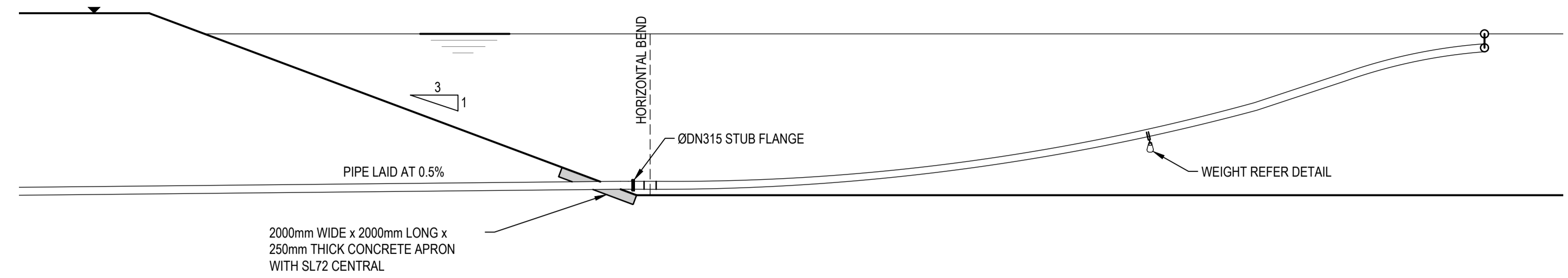
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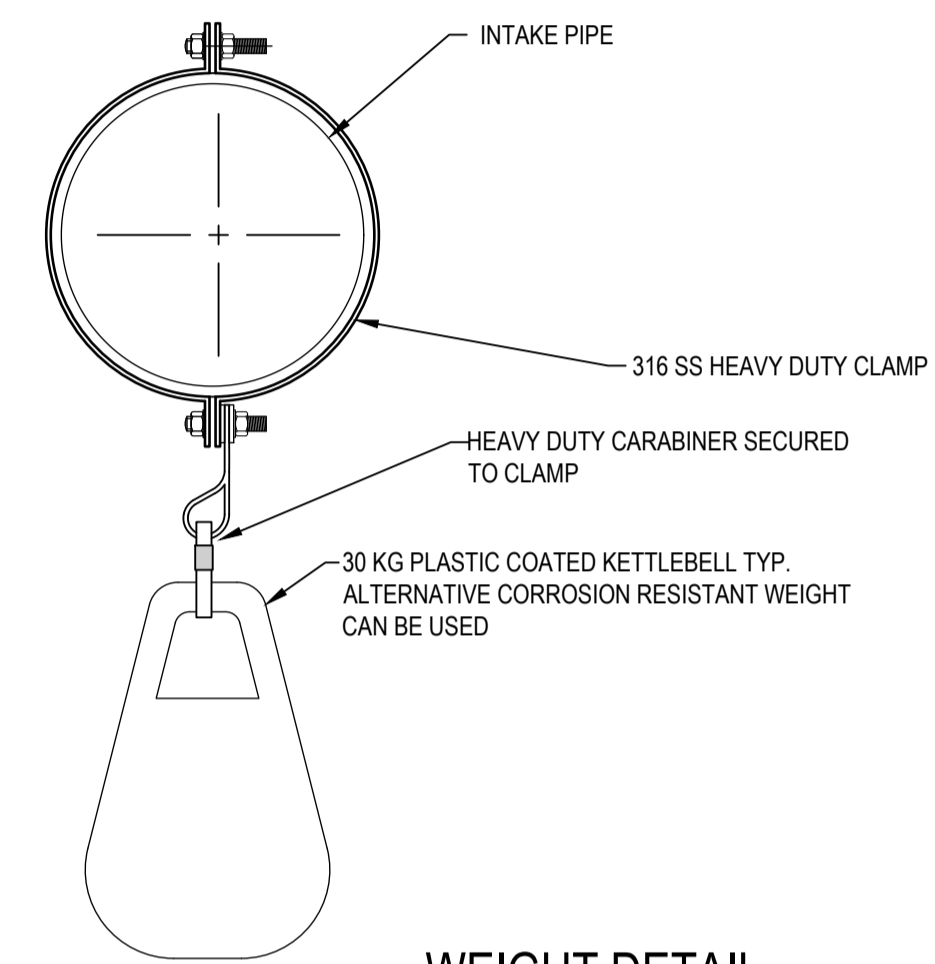
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TITLE	EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS		SHEET	17	REV
					A



FLOATING INTAKE ARRANGEMENT
SCALE 1:200



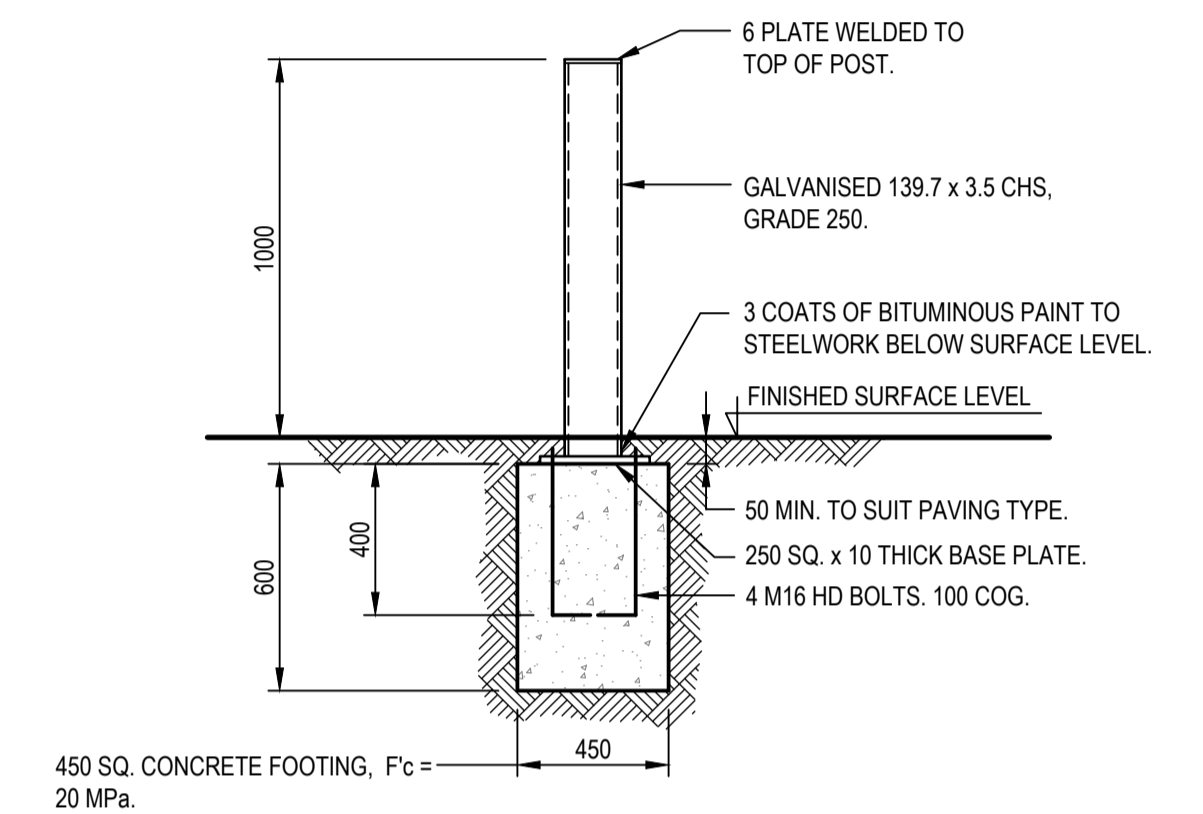
SECTION A-A
SCALE 1:100



WEIGHT DETAIL
SCALE 1:5

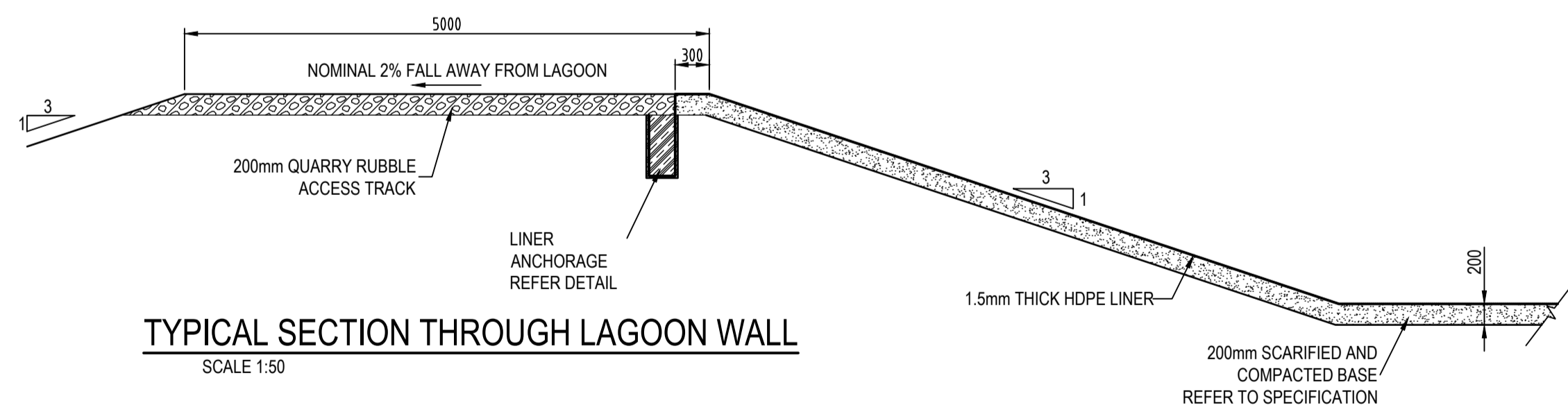
NOTE: WEIGHT USED AND LONGITUDINAL FIXED LOCATION TO BE DETERMINED BY CONTRACTOR TO ENSURE FULL SUBMERGENCE OF INTAKE AND CONTINUOUS INTAKE GRADE.

SCALE 1:5

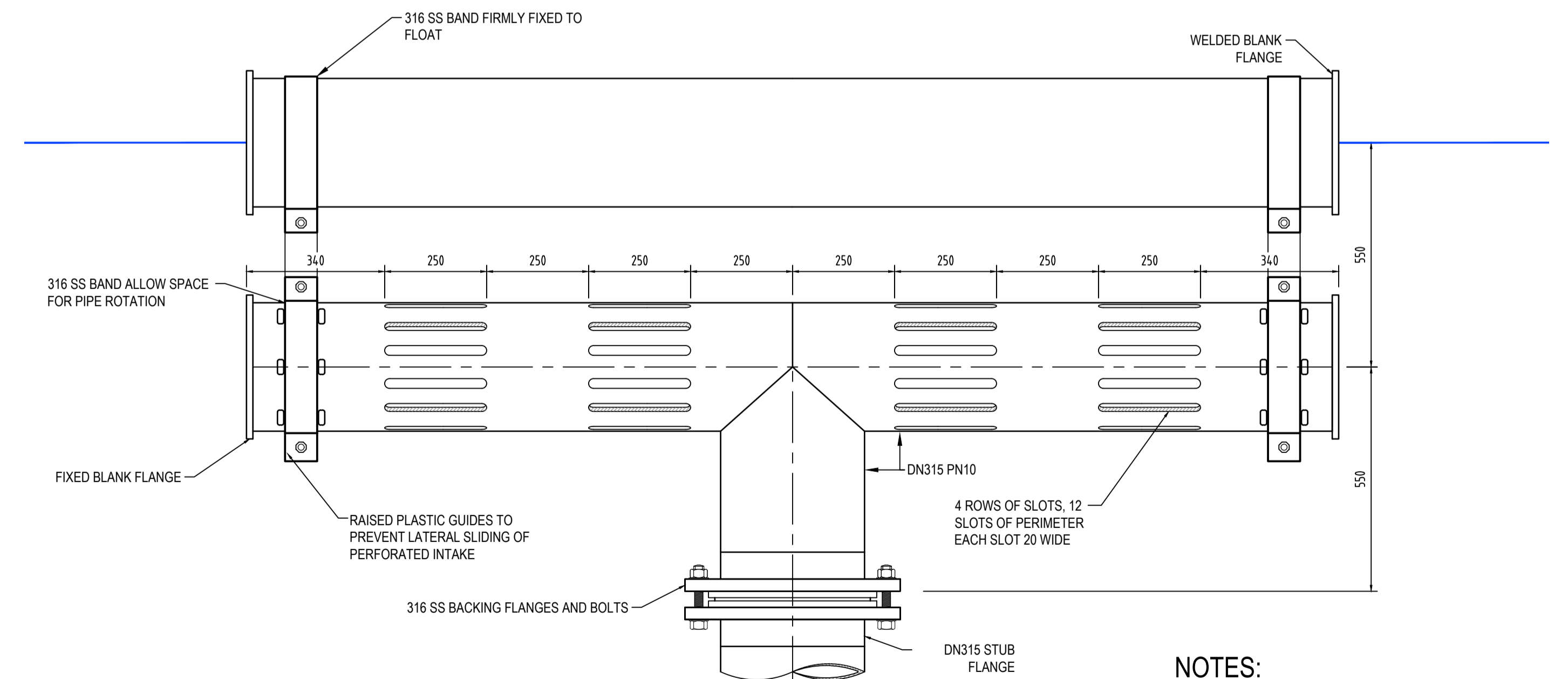


FIXED BOLLARD DETAIL
SCALE 1:20

SCALE 1:20



TYPICAL SECTION THROUGH LAGOON WALL
SCALE 1:50



INTAKE DETAIL
SCALE 1:10

NOTES:
1. ALL STEEL TO BE GRADE 316 STAINLESS STEEL
2. POSITION OF WEIGHT SHALL BE ADJUSTED ON SITE TO ENSURE CONTINUOUS INTAKE GRADE OF PIPE AND FULL SUBMERGENCE OF INTAKE ARRANGEMENT.

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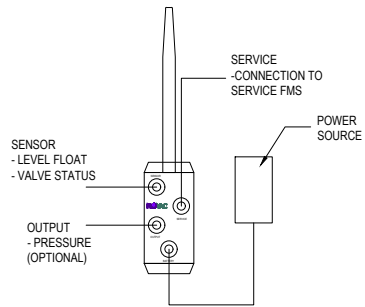
APP'D	S.RATCLIFF	DATE	-
TEAM LEADER WATER INFRASTRUCTURE			

ALEXANDRINA COUNCIL
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11 Cadell Street
PO Box 21
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ABN: 20 785 445 351

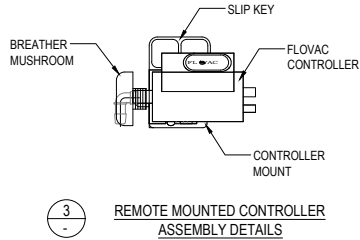


PROJECT CWMS TYPICAL DRAWINGS
TITLE FLOATING INTAKE DETAIL

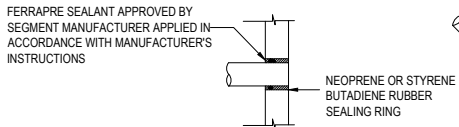
PLAN #	AC-CWMS-SD
SHEET	18
REV	A



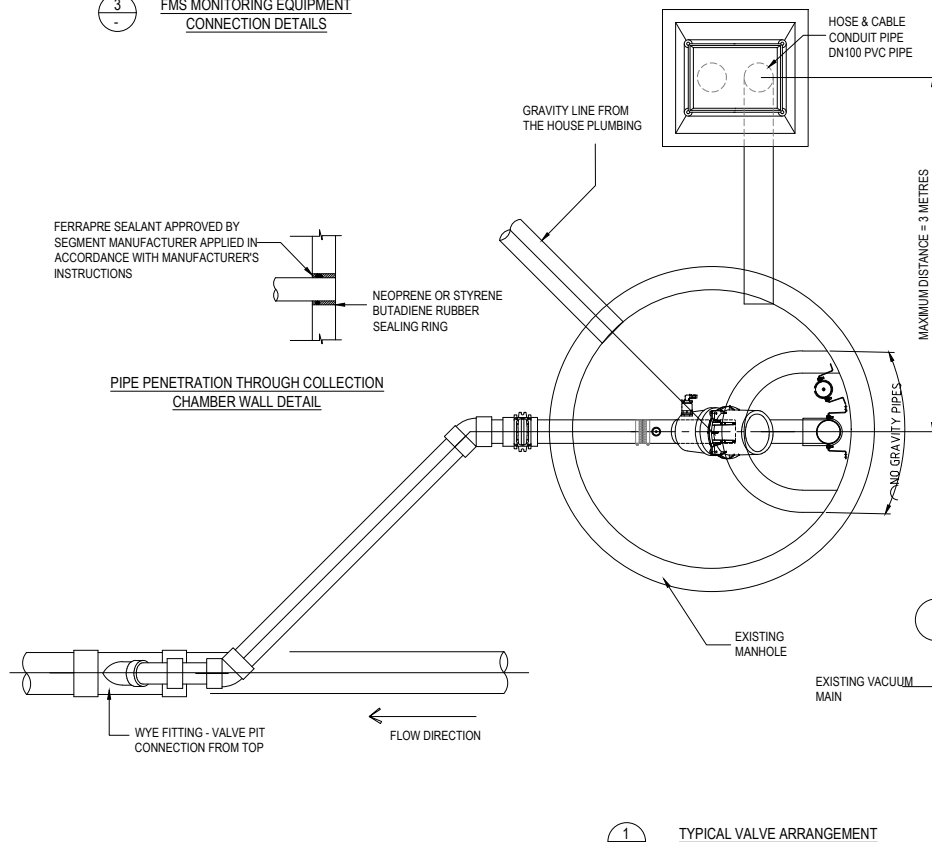
3 FMS MONITORING EQUIPMENT CONNECTION DETAILS



3 REMOTE MOUNTED CONTROLLER ASSEMBLY DETAILS

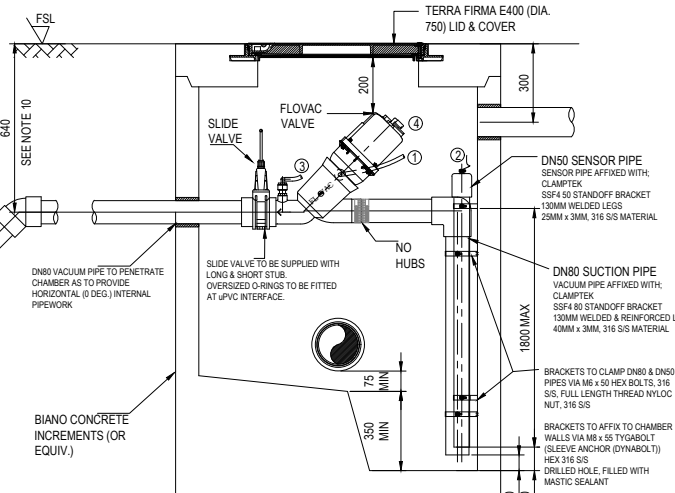


PIPE PENETRATION THROUGH COLLECTION CHAMBER WALL DETAIL

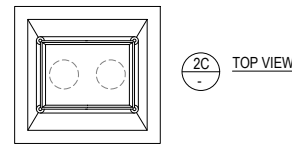


1A PLAN VIEW

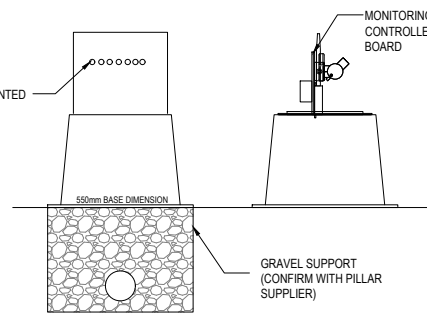
1 TYPICAL VALVE ARRANGEMENT



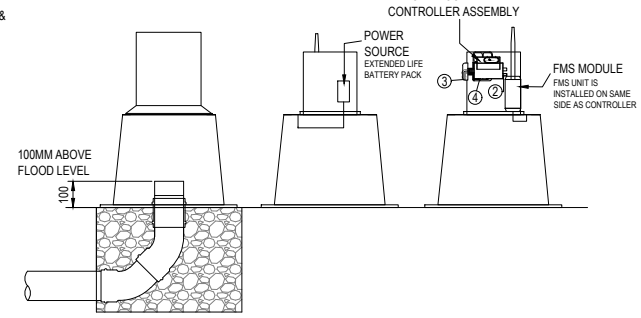
1B EXISTING CONCRETE MANHOLE CUT-OUT VIEW



CABAC BOX INSTALLED AS TO PROVIDE BASE OF UNIT WITH MIN. 250MM CLEARANCE TO BOTH PROPERTY BOUNDARY (SURVEY PEG) & EDGE FOOTPATH.



2 EXTERNAL CONTROLLER & MONITORING EQUIPMENT - CABAC PILLAR



- NOTES:
- DIMENSIONS ARE IN MILLIMETRE UNLESS OTHERWISE INDICATED.
 - CONSULT FLOVAC FOR ANY DISCREPANCY IN THE DRAWINGS
 - MOUNTING SCREWS NOT INCLUDED (FOR JB & REMOTE MOUNT)
 - ALL EMBEDMENT DETAILS SHOWN ARE INDICATIVE ONLY, TO BE CONFIRMED BY OTHERS
 - CIVIL, STRUCTURAL & EMBEDMENT DESIGN, ASSEMBLY AND CONSTRUCTION BY OTHERS
 - ENSURE ALL HOSES ARE NOT KINKED & NO DEAD LEGS
 - 10MM (3/8") HOSE BETWEEN CONTROLLER AND SENSOR PIPE TO HAVE 200MM SLACK FOR OPERATION AND MAINTENANCE
 - HOSE CLAMPS MUST BE SECURELY FITTED ON BOTH ENDS OF THE GREY SENSOR HOSE AND ON BARBS OF THE BREATHER HOSE
 - MAXIMUM ALLOWABLE HOSE LENGTH IS 5M, HENCE MAXIMUM DISTANCE BETWEEN MANHOLE EXTERNAL WALL TO CENTRELINE OF PILLAR APPROXIMATELY 3M.
 - VALVE TO BE AS SHALLOW AS POSSIBLE, HOWEVER TO ENSURE THAT THE TOP OF THE VALVE / VALVE BONNET WITH THE PLUNGER CAN STILL BE REMOVED. THE FLEXIBILITY IS MOVING THE SLIDE VALVE CLOSER TO THE WALL.
 - PROVIDE ADEQUATE WALL SUPPORT/ CLAMP FOR BOTH SENSOR AND SUCTION PIPES PREFERABLY EVERY 500MM.
 - ENSURE THERE ARE NOT KINKING OF HOSES ON THE CABAC PILLAR.

FLOVAC SUPPLY ITEMS		
QTY	DESCRIPTION	REMARKS
1	FLOVAC VALVE	
1	FLOVAC CONTROLLER	
1	FLOVAC DN80 SLIDE VALVE (VACUUM RATED)	
2	FLOVAC NO HUB COUPLING	
1 LOT	5/8" CLEAR HOSE FOR BREATHER	5M MAXIMUM
1 LOT	3/8" GREY HOSE - SENSOR CAP TO CONTROLLER	5M MAXIMUM
1 LOT	3/8" GREEN HOSE - VALVE TO CONTROLLER	5M MAXIMUM
1 LOT	3/8" YELLOW HOSE - VALVE TO CONTROLLER	5M MAXIMUM
1	CABAC PILLAR	BY OTHERS
1	FLOVAC REMOTE MOUNT ASSEMBLY WITH SLIP KEY	
1	FMS EQUIPMENT	

File name: Z:\FLOVAC PROJECTS\CA Alexandria Council\PMU Design\Output\AC_CWMS_Sb-19-REV 7.Dwg

FOR APPROVAL	
APPD	S.RATCLIFF
DATE	-
TEAM LEADER WATER INFRASTRUCTURE	

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PROJECT	CWMS TYPICAL DRAWINGS	PLAN #	AC-CWMS-SD
TITLE	TYPICAL VACUUM COLLECTION PIT	SHEET	19
		REV	D