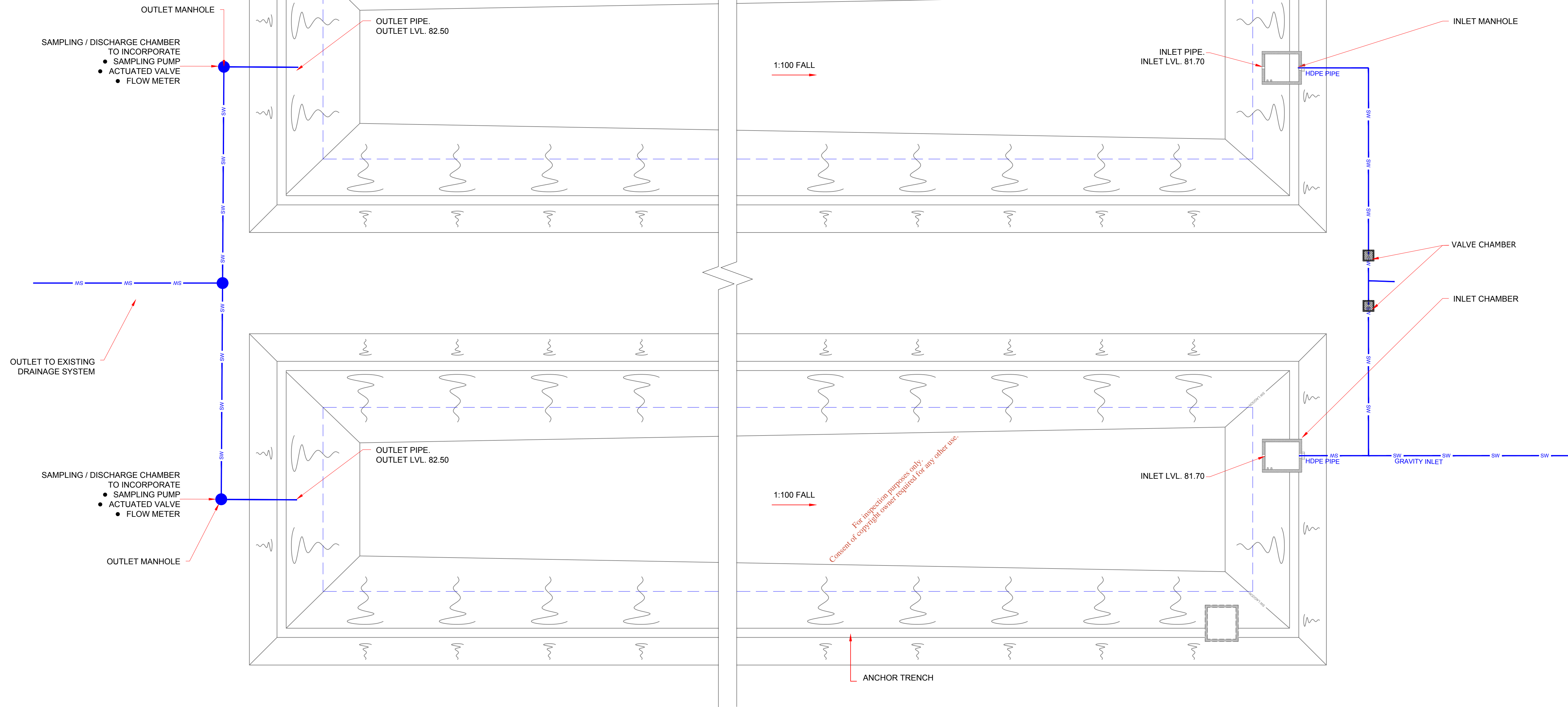


SURFACE WATER SETTLEMENT LAGOON DETAILS					
Lagoon No.	Length (m)	Width (m)	Depth (m)	Inlet Lvl.	Outfall Lvl.
SWL 5	120	30	2.5	81.70 mOD	82.50 mOD
SWL 6	120	30	2.5	81.70 mOD	82.50 mOD
SWL 7	80	20	2.5	81.70 mOD	82.50 mOD
SWL 8	80	20	2.5	81.70 mOD	82.50 mOD
SWL 9	40	10	2.5	81.70 mOD	82.50 mOD
SWL 10	60	15	2.5	81.70 mOD	82.50 mOD
SWL 11	120	30	2.5	81.70 mOD	82.50 mOD



TYPICAL PLAN ON SURFACE WATER LAGOON

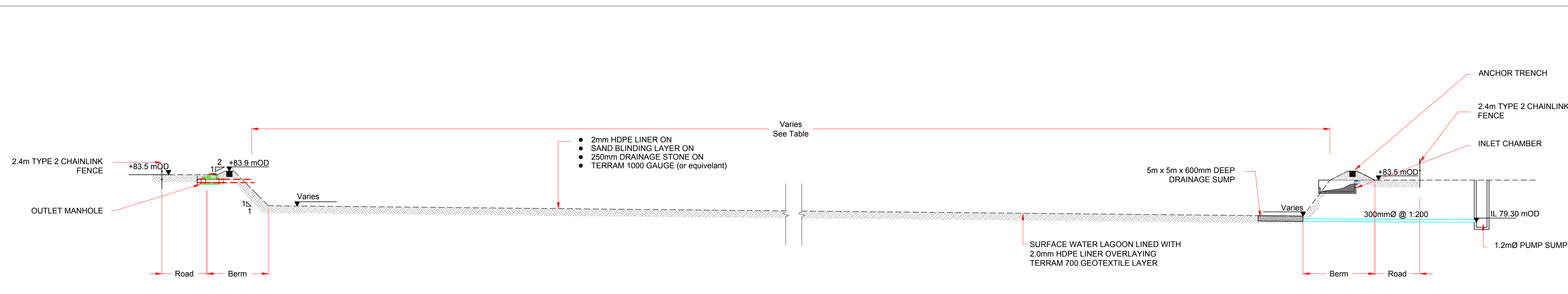
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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
Naturally Driven

Project: **DREHID WASTE MANAGEMENT FACILITY**

Title: **ATTENUATION LAGOONS TYPICAL PLAN & SECTION**



TYPICAL SECTION THROUGH SURFACE WATER LAGOON

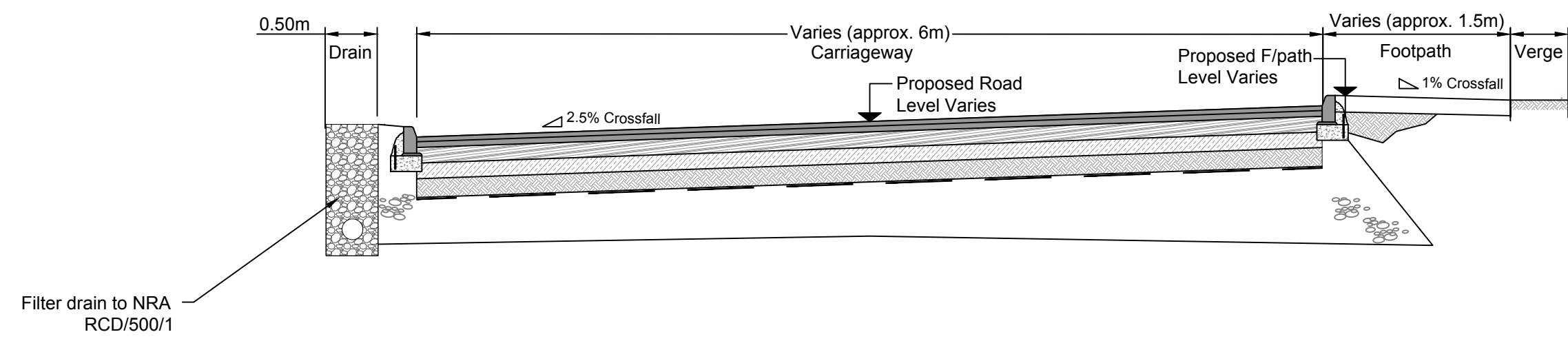
Scale @ A1: 1:250

Prepared by: M. Nolan	Checked: A. Austin	December 2017
Project Director: D. Grehan	Drawing Status: Planning	

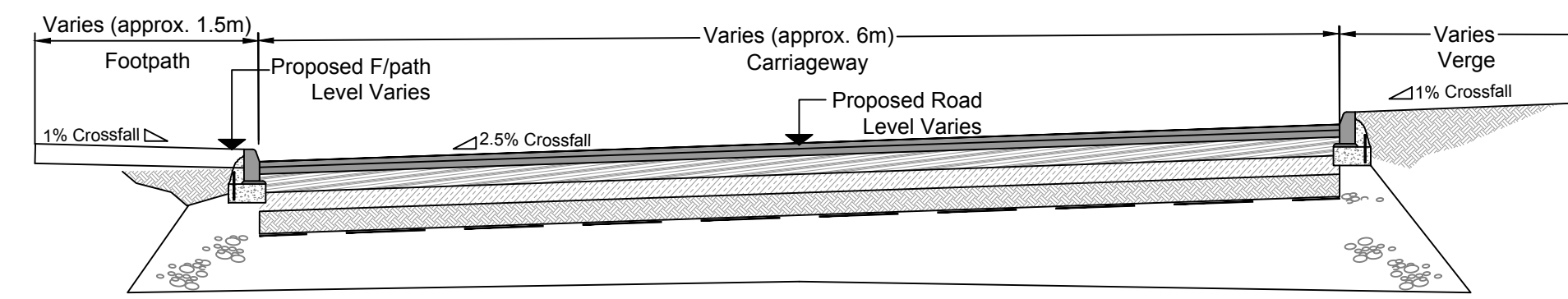
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fax: +353-(0)1-8030409
e-mail: dublin@tobin.ie
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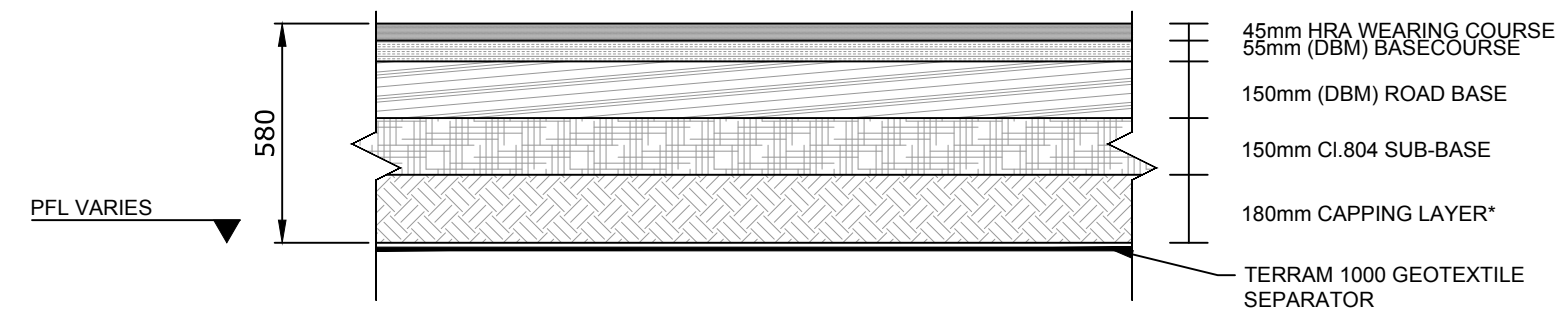
Drawing No.: 8108-2050	Revision: A
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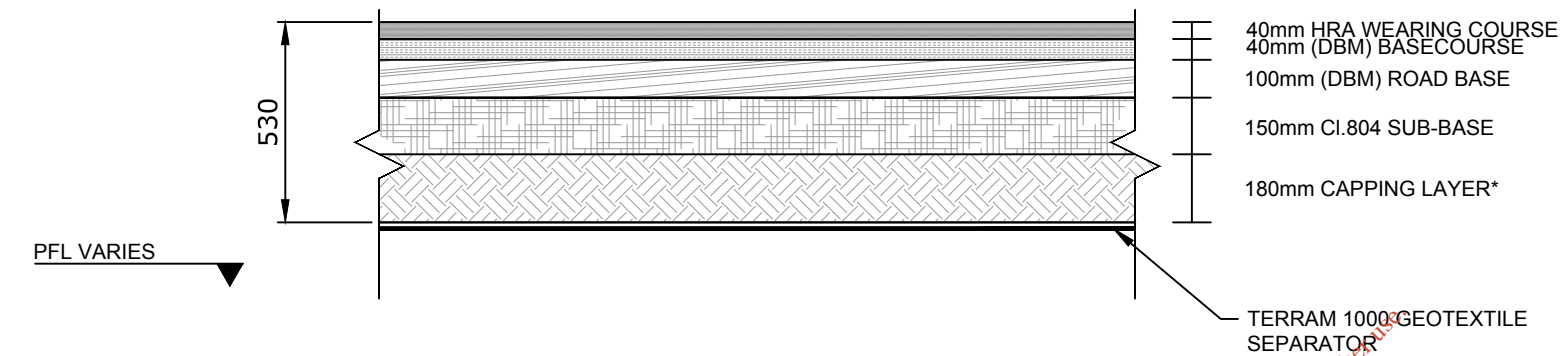
TYPICAL ROAD CROSS SECTION WITH FILTER DRAIN
SCALE 1:50



TYPICAL ROAD CROSS-SECTION
SCALE 1:50



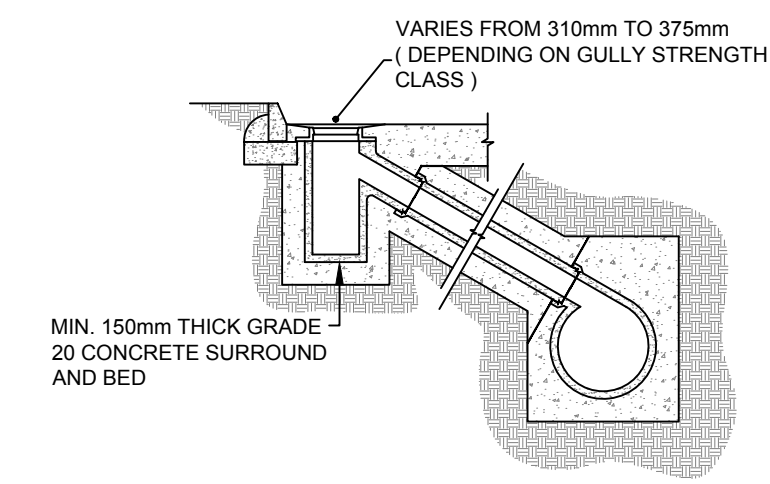
A TYPICAL ROAD CONSTRUCTION
SCALE 1:20



B TYPICAL CARPARK CONSTRUCTION
SCALE 1:20

*NOTE: CAPPING LAYER IS DEPENDENT ON CBR TESTS.

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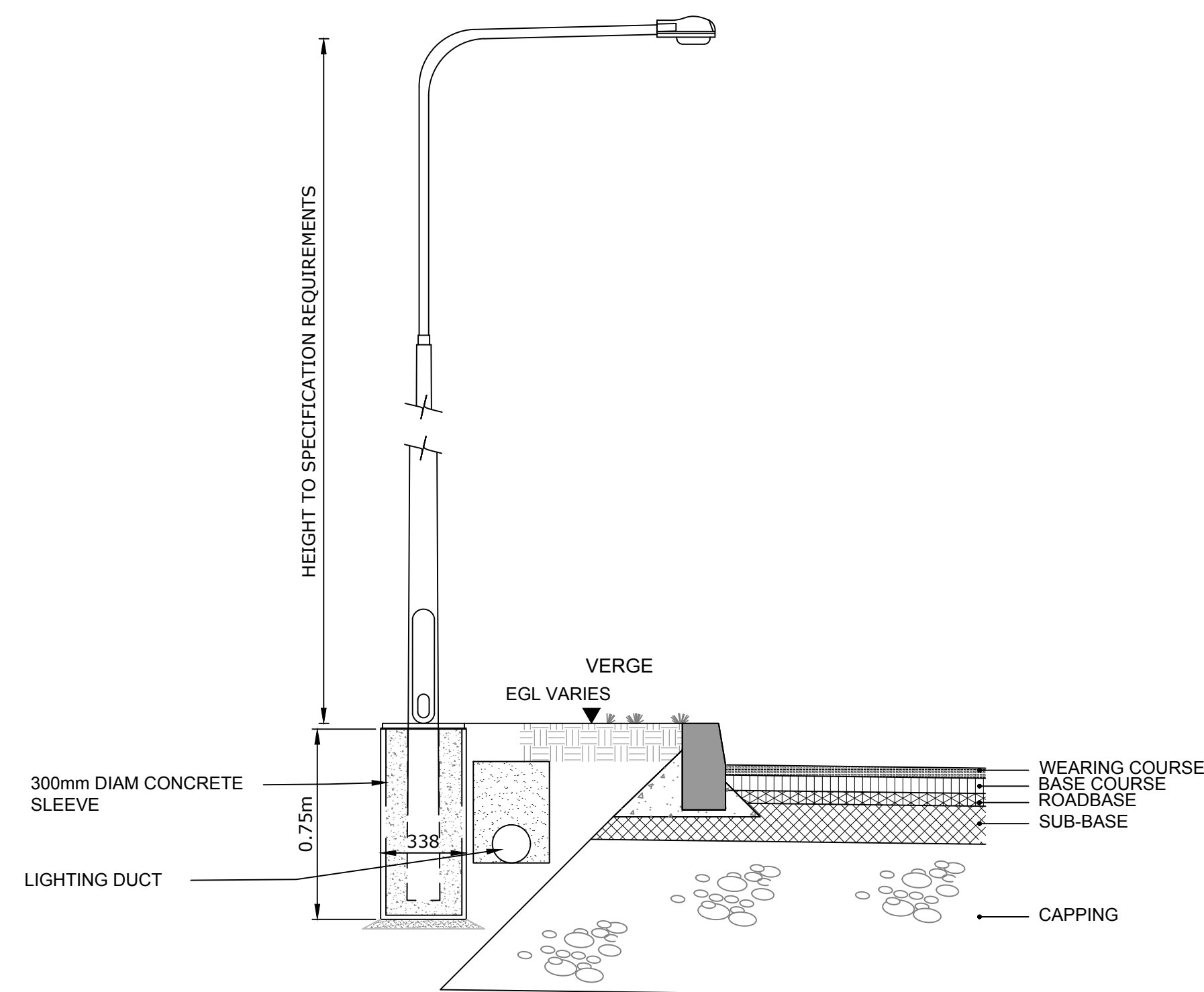
NOTE 1 : TRAPPED GULLIES TO BE USED WHERE CONNECTED TO A COMBINED SEWER
NOTE 2 : FOR STRENGTH CLASS OF GULLY REFER TO EN 124 : 1994, CLAUSE 5

C TYPICAL GULLY CONSTRUCTION
SCALE 1:20

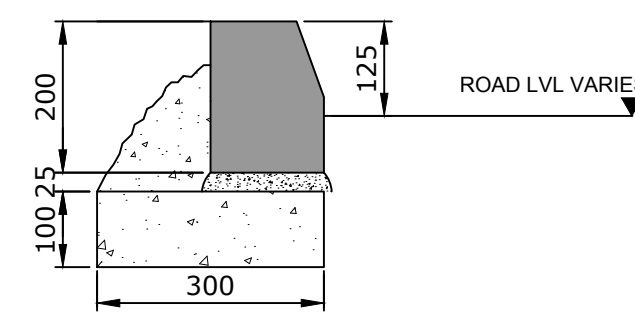
NOTES :

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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

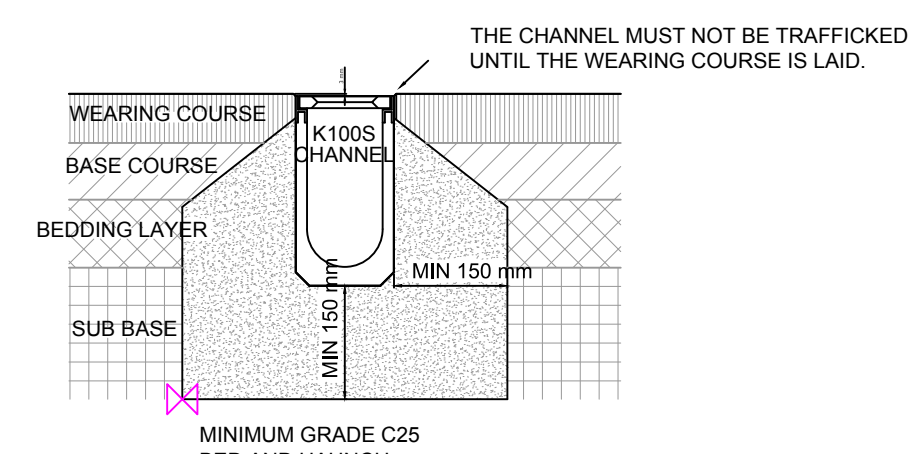


TYPICAL LIGHTING COLUMN
SCALE 1:20

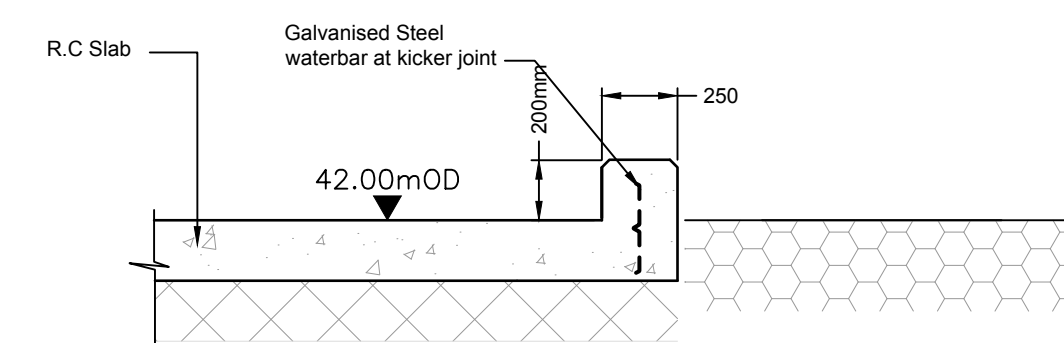


TYPE 2 - EDGE RESTRAINT
CARPARK/LIGHT VEHICLES

TYPICAL EDGE RESTRAINT DETAILS
SCALE 1:10



INSTALLATION EXAMPLE
FLEXIBLE PAVEMENT
SCALE 1:10



BUND WALL DETAIL SURROUNDING
HARDSTAND & SRF STORAGE AREA
Scale 1:25

Client: **BORD NA MÓNA**
Naturally Driven

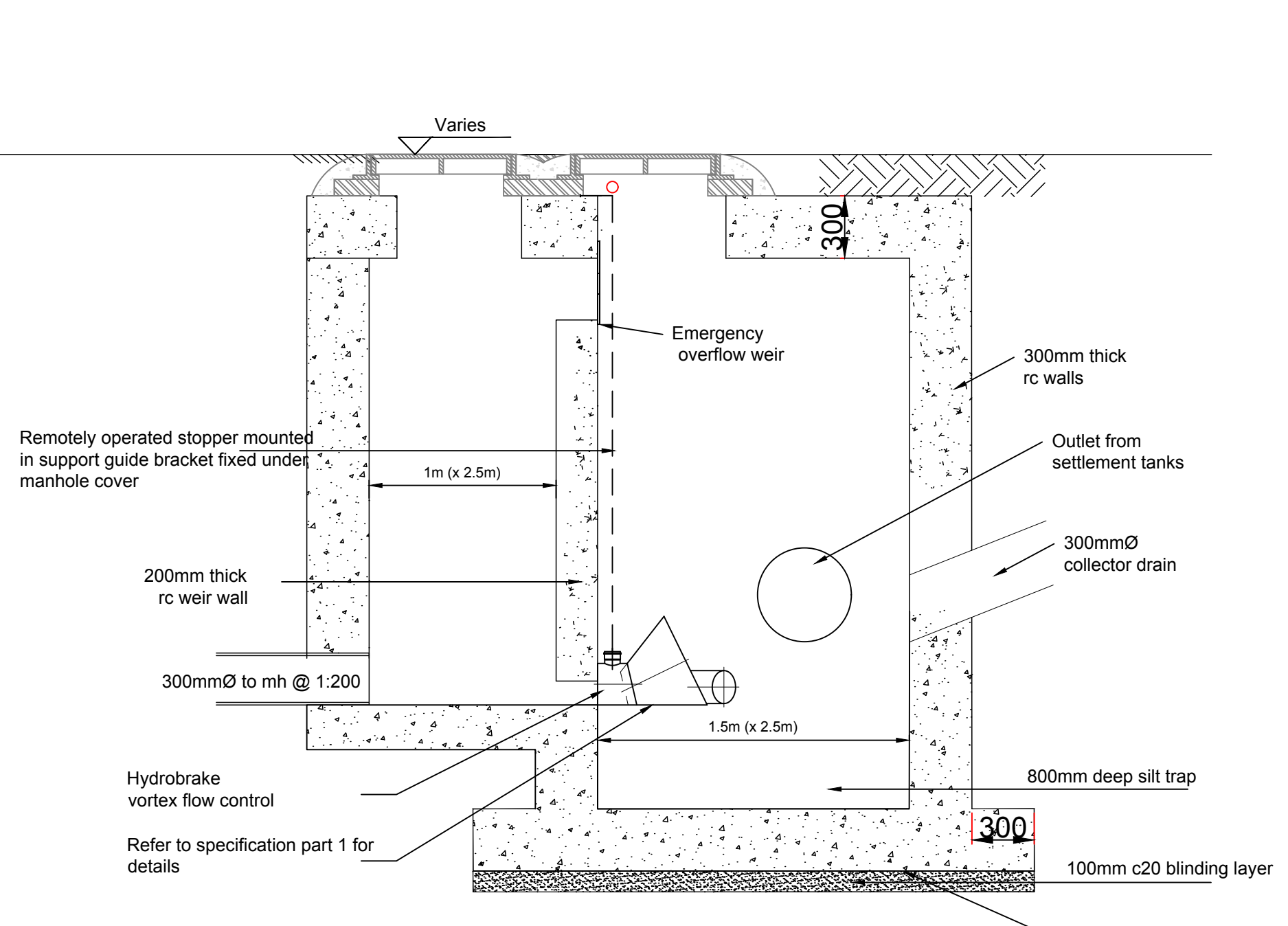
Project:
PROPOSED DEVELOPMENT AT
DREHID WASTE
MANAGEMENT FACILITY

Title:
TYPICAL CAR PARK & ROAD
CONSTRUCTION DETAILS

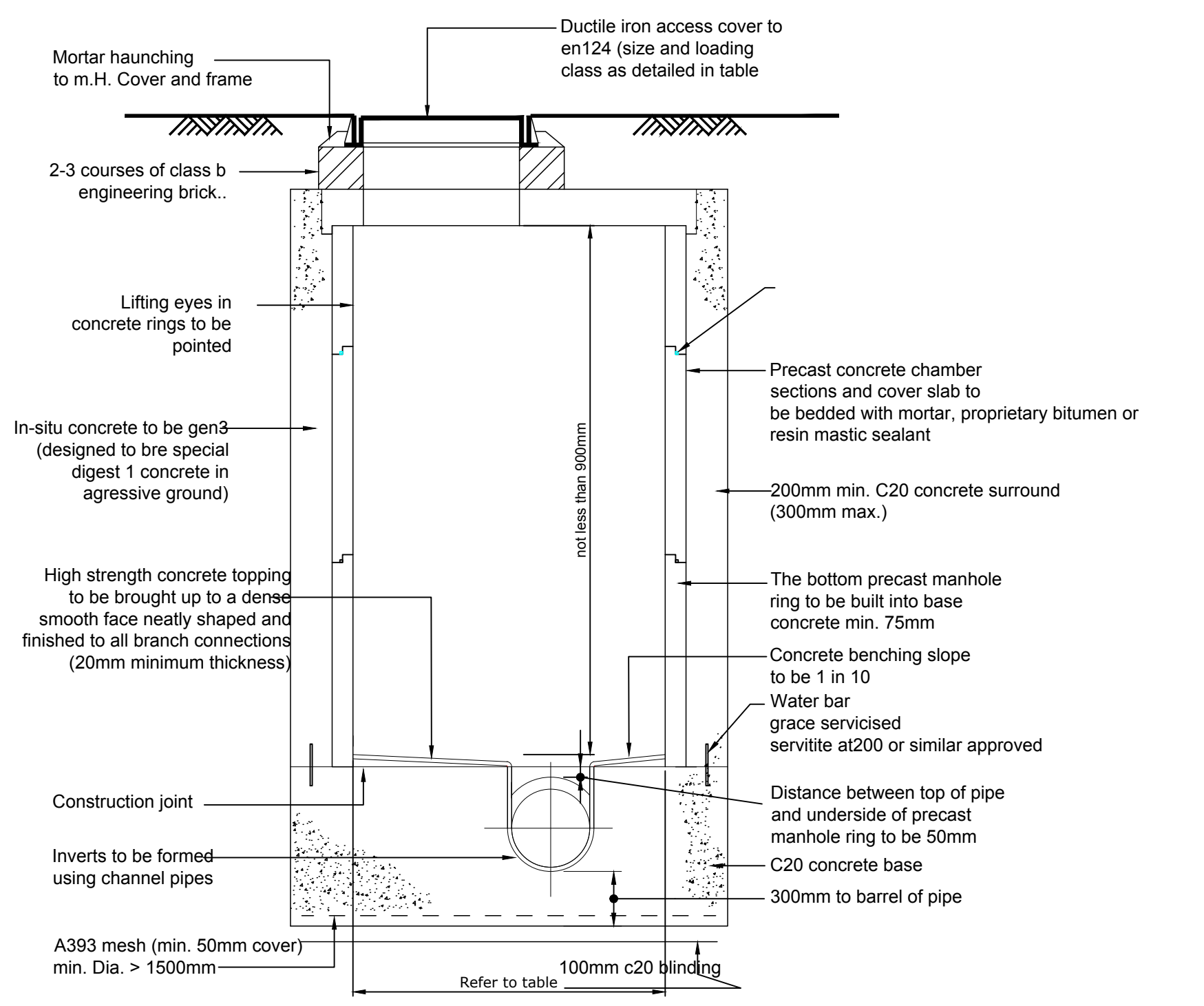
Scale @ A1: **As Shown**
Prepared by: M. Nolan
Checked: A. Austin
Date: December 2017
Project Director: D. Grehan
Drawing Status: **Planning**

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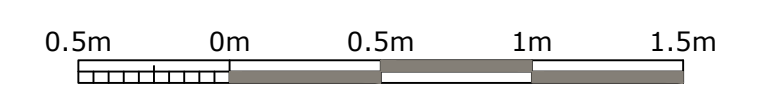
Surface water flow control chamber
sw 1 - manhole type f



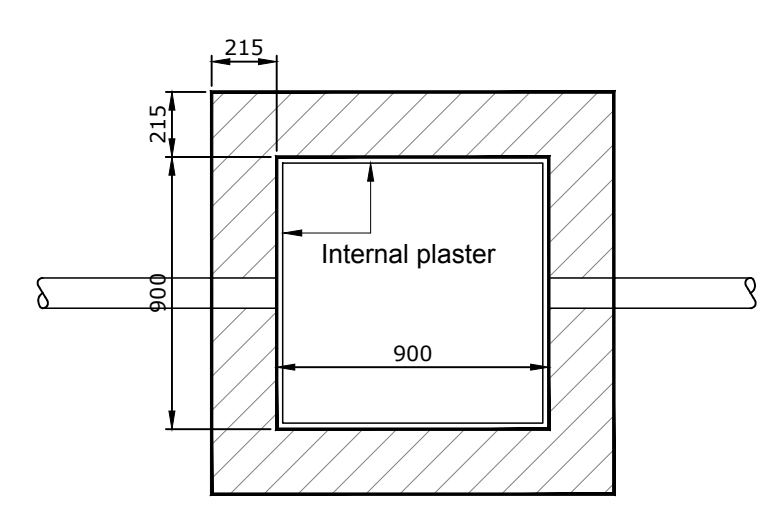
Typical precast manhole detail - type b
maximum depth from cover level to soffit of pipe 3.0m

Type of access	Depth from soffit to cover level (m)	Dn largest pipe in manhole / means of descent into shaft	Minimum internal dimensions	Minimum access size		Remarks
				Rectangular	Circular	
Manhole c	1.0 - 1.5	≤ 150mmØ	1000mmØ	750 x 750 c	600Ø	Generally in accordance with safe work in confined spaces - health and safety commission Larger opening size is required for manholes at shallower depths to permit standing / crouching Cover loading class c250 in fields and d400 in roads / road margins
		225mmØ	1200mmØ	750 x 600 e	750Ø	
		300mmØ	1200mmØ	750 x 600 e		
		375mmØ to 450mmØ	1350mmØ	1200 x 675 c		
		500mmØ to 700mmØ	1500mmØ	1200 x 675 c		
Manhole b	1.5 - 3.0	≥ 225mmØ	1200mmØ	750 x 600 e	700Ø	Where a ladder is provided, a larger size may be needed Cover loading class c250 in fields and d400 in roads / road margins & footpaths
		300mmØ	1200mmØ	750 x 600 e		
		375mmØ to 450mmØ	1350mmØ	750 x 600 e		
		500mmØ to 700mmØ	1500mmØ	750 x 600 e		
I. These sizes apply to straight-through pipes; larger sizes may be required for turning chambers or chambers with several side branches or where specific maintenance requirements are necessary, e.G. Disconnecting traps. II. Minimum height of chamber in shafted manhole 2m from benching to underside of reducing slab. III. May be reduced to 600 x 600 or 600Ø where the configuration of the manhole chamber permits a safe system of work. IV. C denotes central. V. E denotes eccentric. VI. All manholes / chambers to include ladder / rung access as per details.						

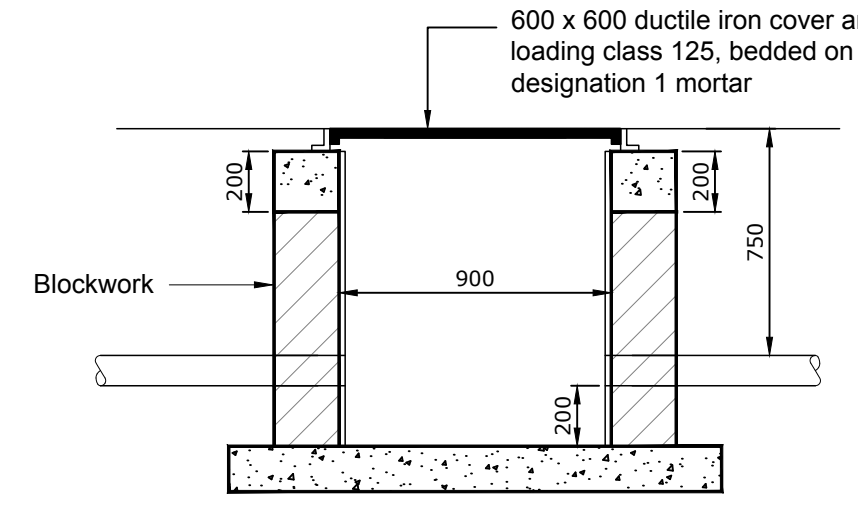
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Rev	Date	Description	By	Chkd.
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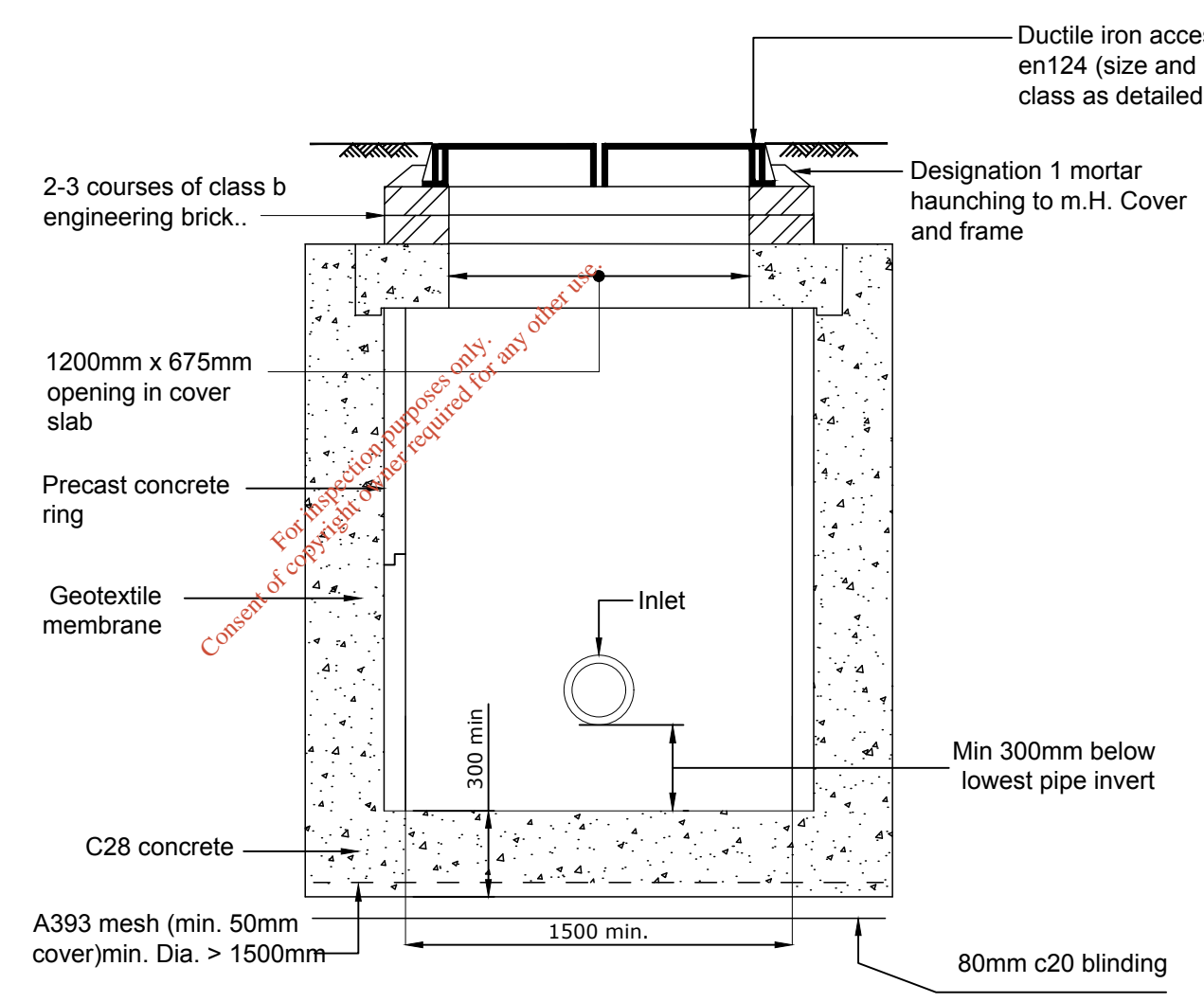
Plan



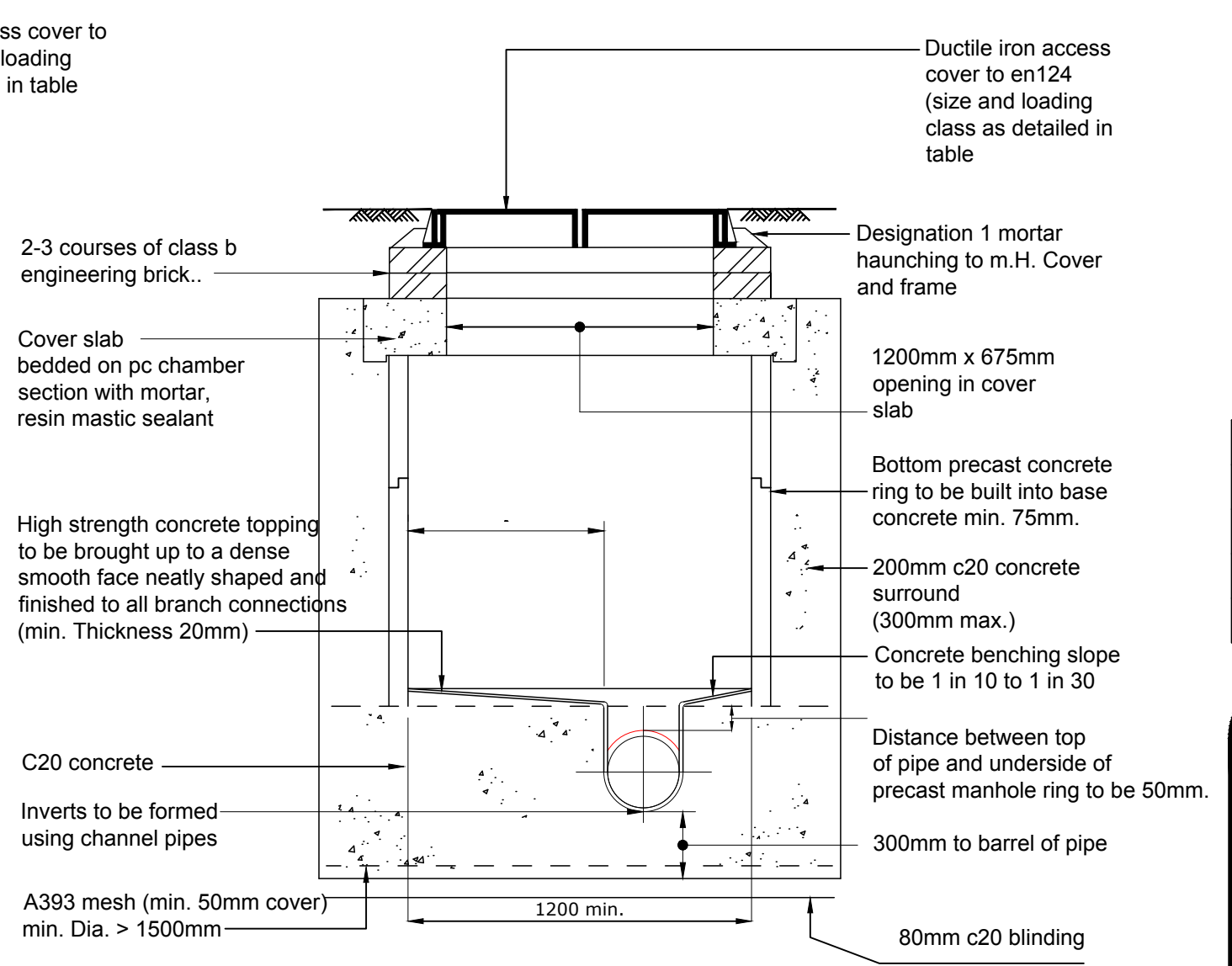
Section

Note:
duct chamber consisting of grade 25:20 base and roof slab 200mm thick, 215mm thick blockwork walls and heavy duty ductile iron cover as specified.

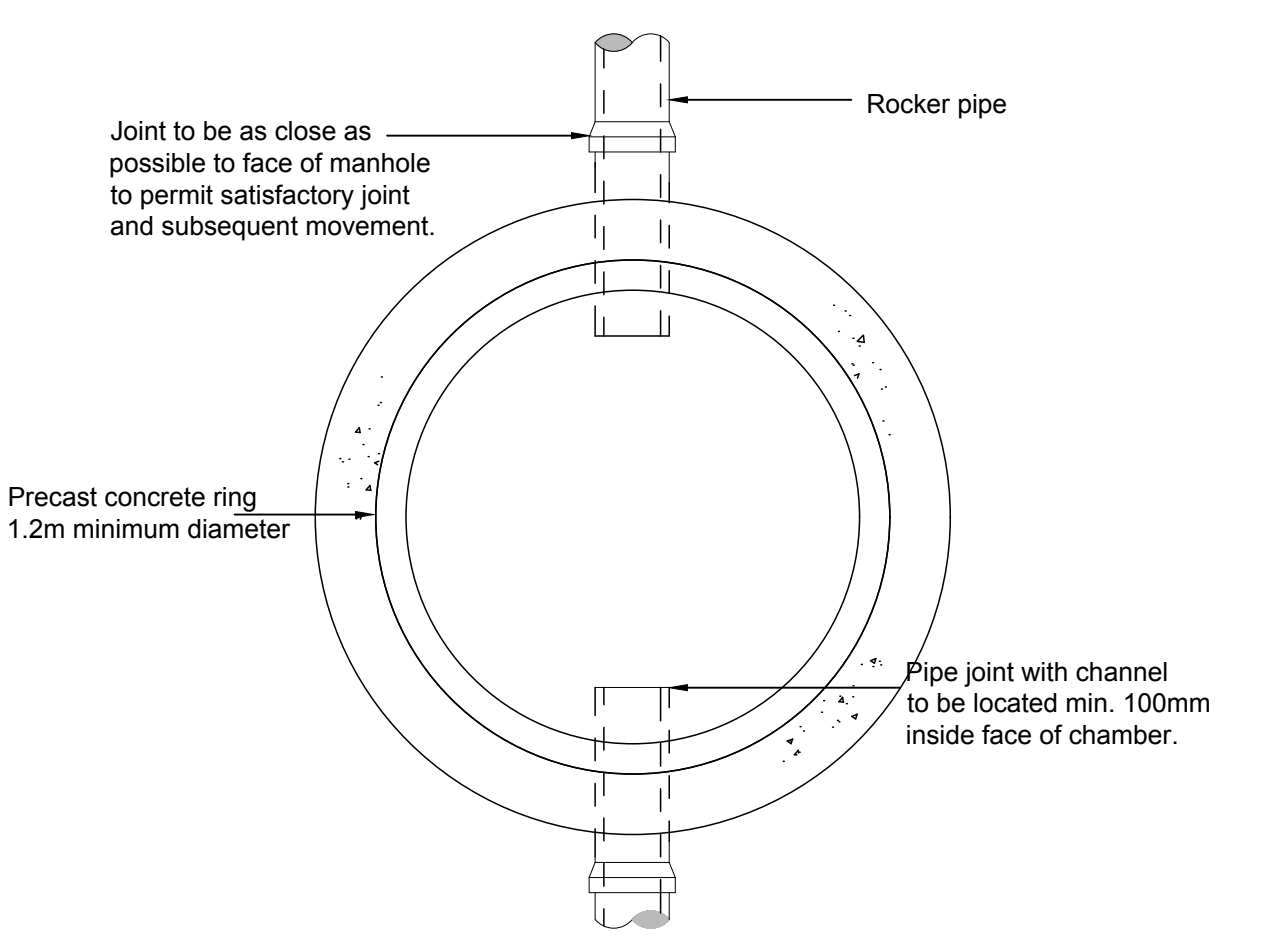
Typical duct chamber detail



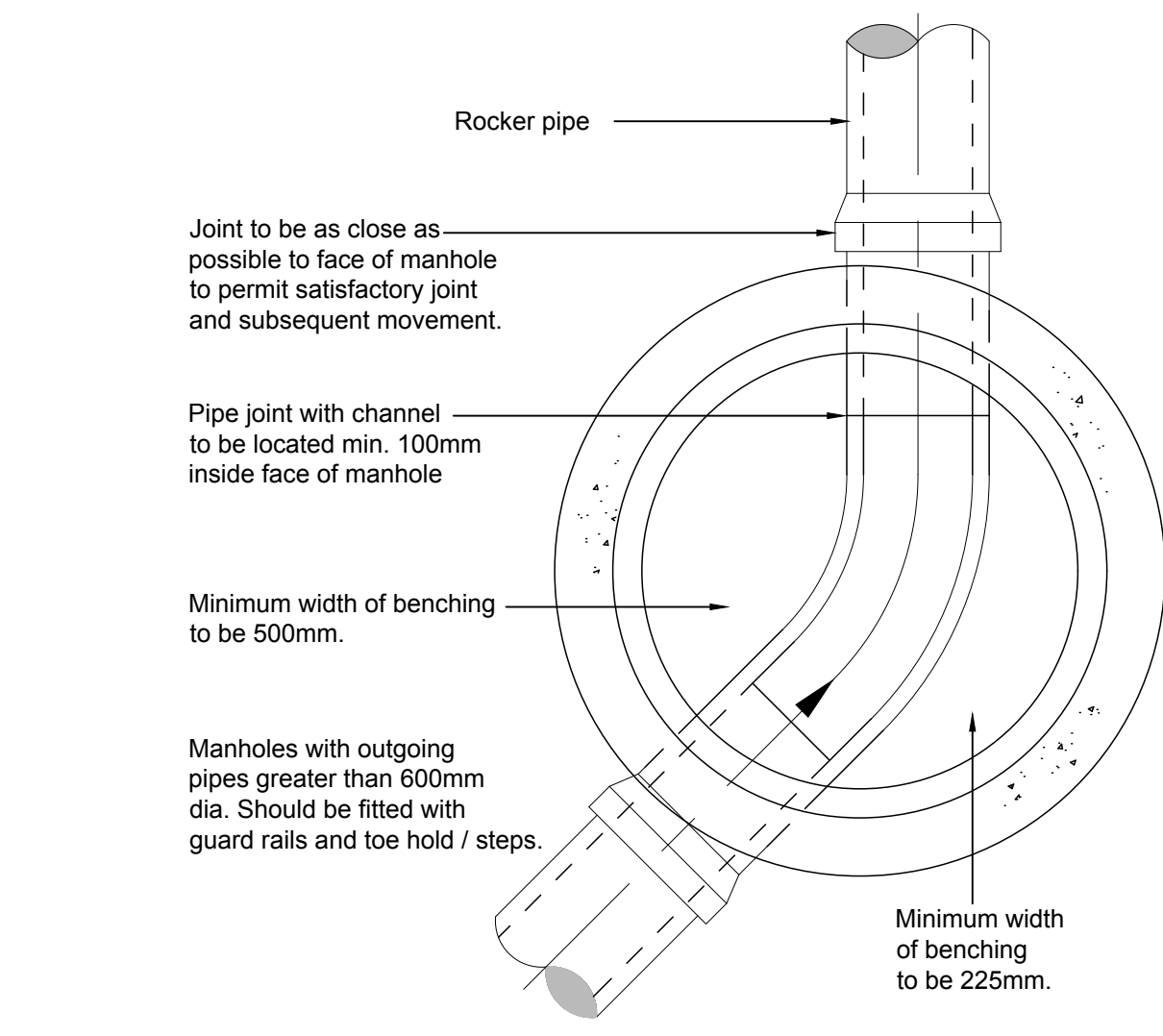
Typical precast manhole detail - type e
depth from ground level to soffit of pipe 1 - 1.5m



Typical precast manhole detail - type c
depth from ground level to soffit of pipe 1.0 - 1.45m



Plan on manhole type e



Plan on manhole type b



Client: **BORD NA MÓNA**
Naturally Driven

Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

Title: **TYPICAL MANHOLE DETAILS**

Scale @ A1: **1:25**

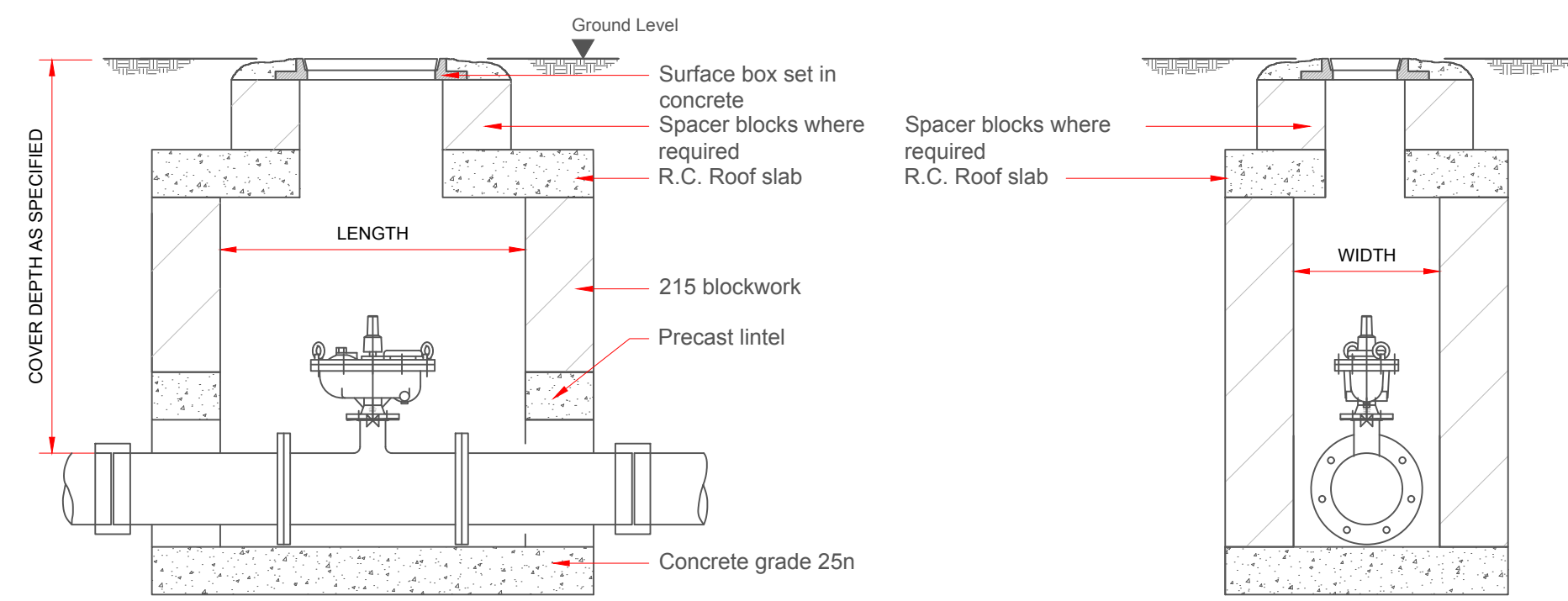
Prepared by: **M. Nolan** Checked: **A. Austin** Date: **December 2017**

Project Director: **D. Grehan**

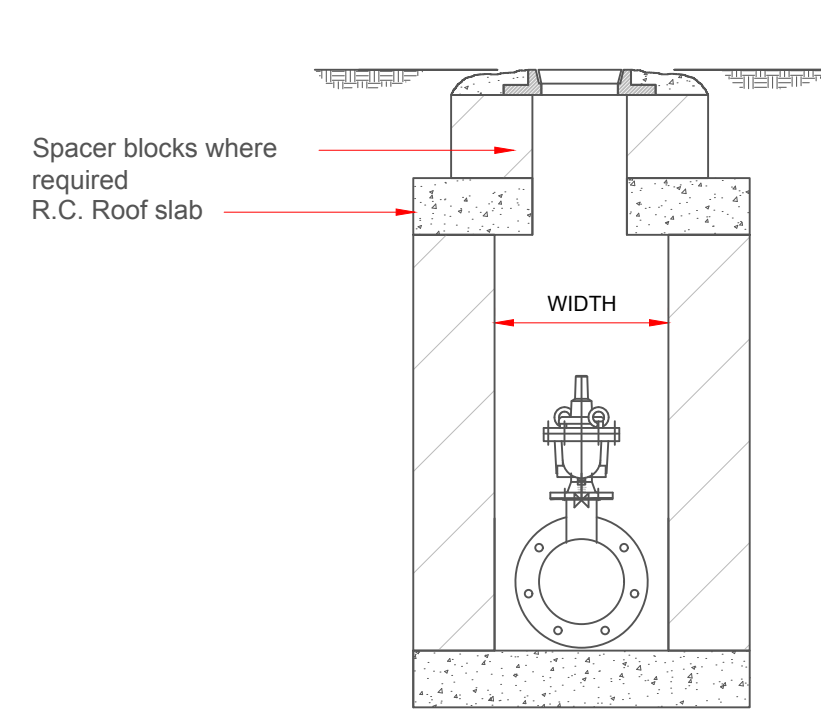
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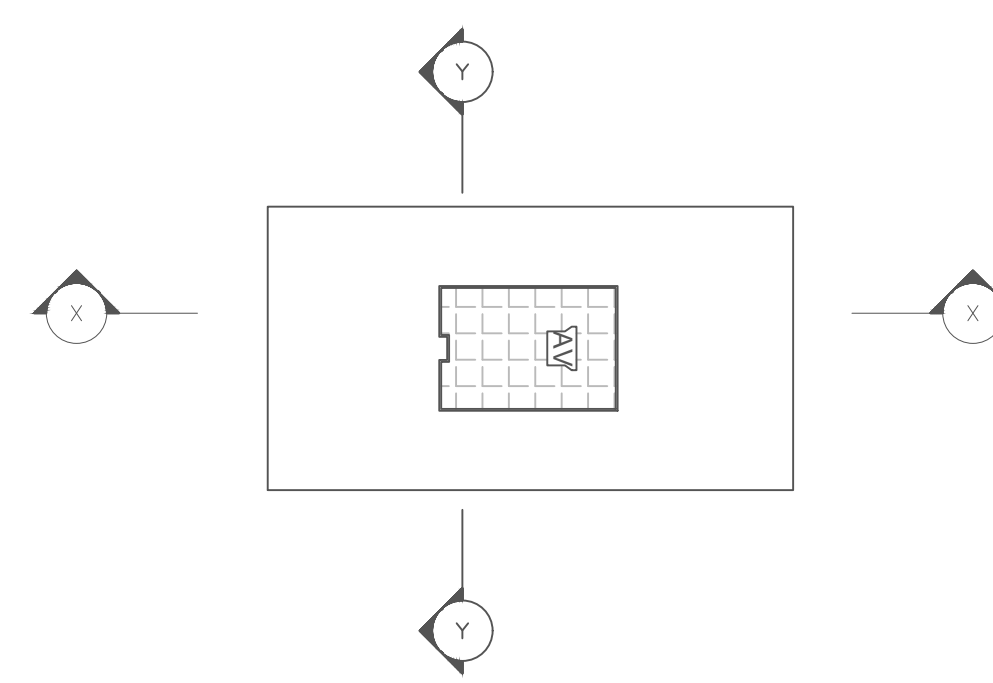
Drawing No.: **8108-2052** Revision: **A**



SECTION X-X



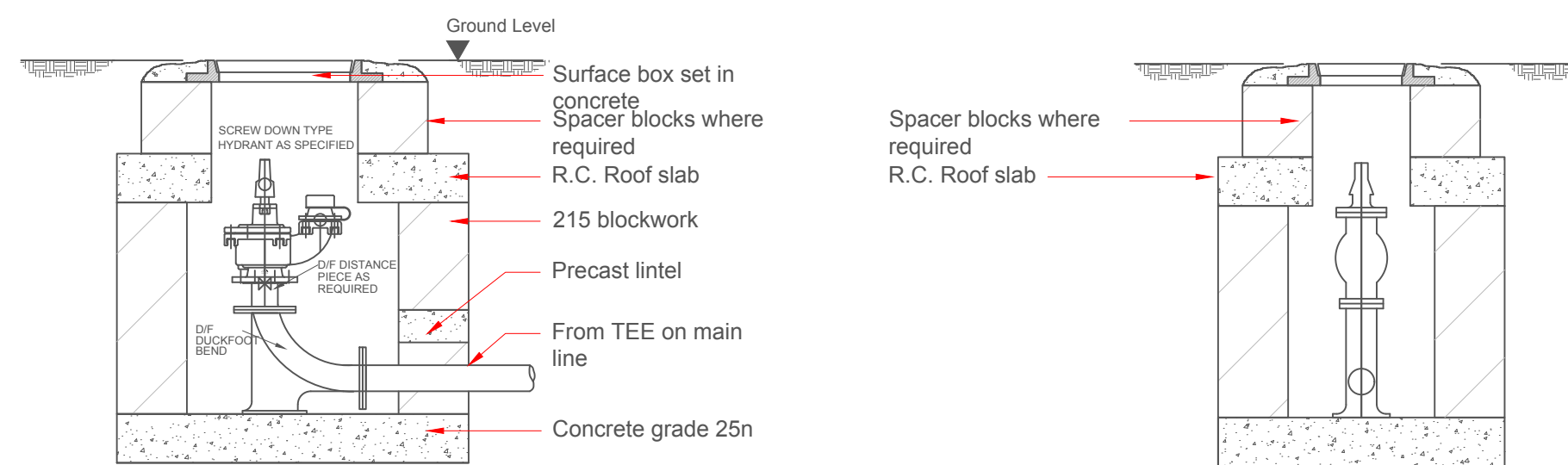
SECTION Y-Y



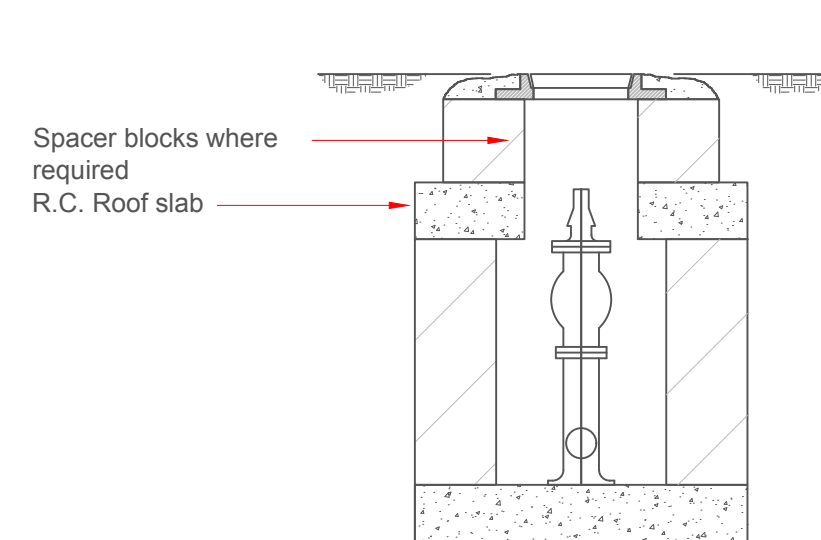
PLAN ON COVER SLAB

AIR VALVE CHAMBER DIMENSIONS			
PIPE DIA (mm)	CHAMBER WIDTH (W)	CHAMBER LENGTH (L)	DEPTH OF COVER TO PIPE (H)
150	510	690	900
250	510	690	900
300	600	720	1050
400	800	800	1050
450	800	800	1050
500	1000	1000	1050
600	1200	1200	1300

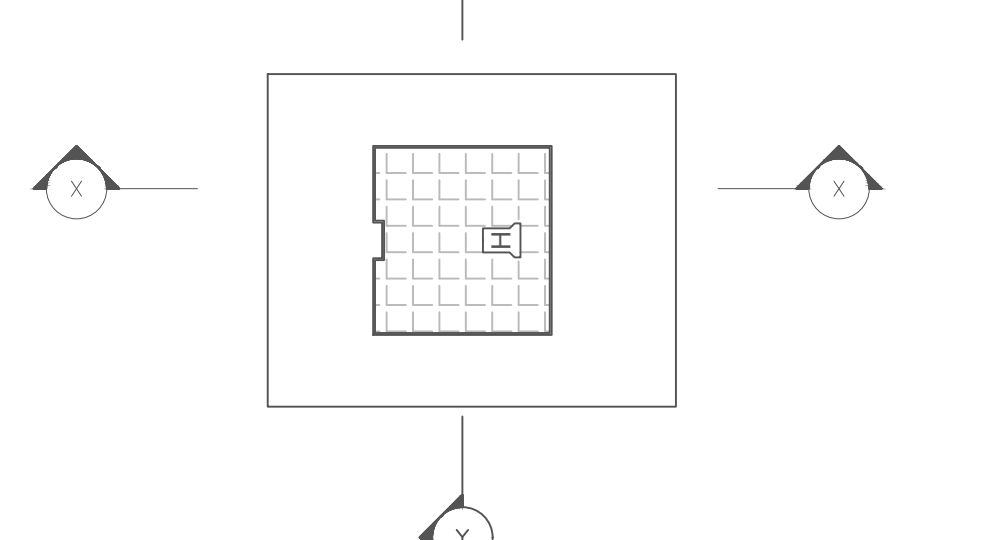
AIR VALVE CHAMBER



SECTION X-X



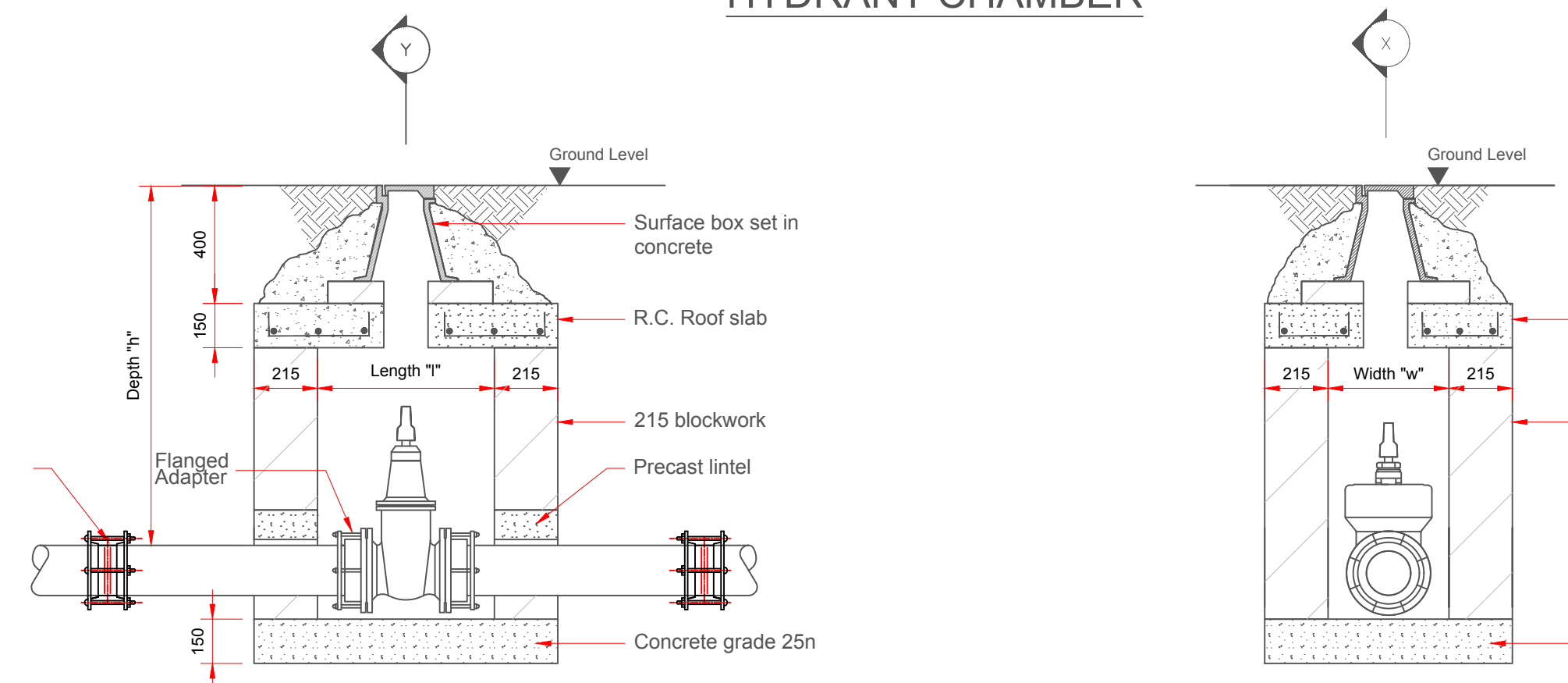
SECTION Y-Y



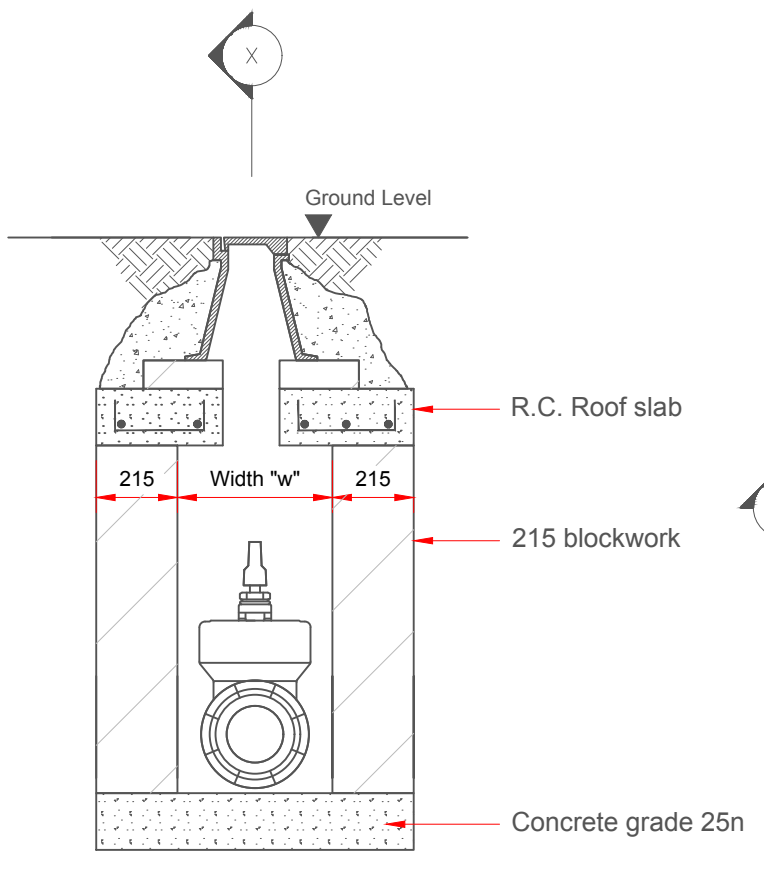
PLAN ON COVER SLAB

HYDRANT CHAMBER DIMENSIONS				
VALVE DIA. (mm)	CHAMBER WIDTH (W)	CHAMBER LENGTH (L)	DEPTH OF COVER TO PIPE (H)	CLEAR OPE. SURFACE BOX (mm)
50	390	720	900	375x225
80	460	960	900	575x300
100	460	960	900	575x300
150	920	1500	900	900x600

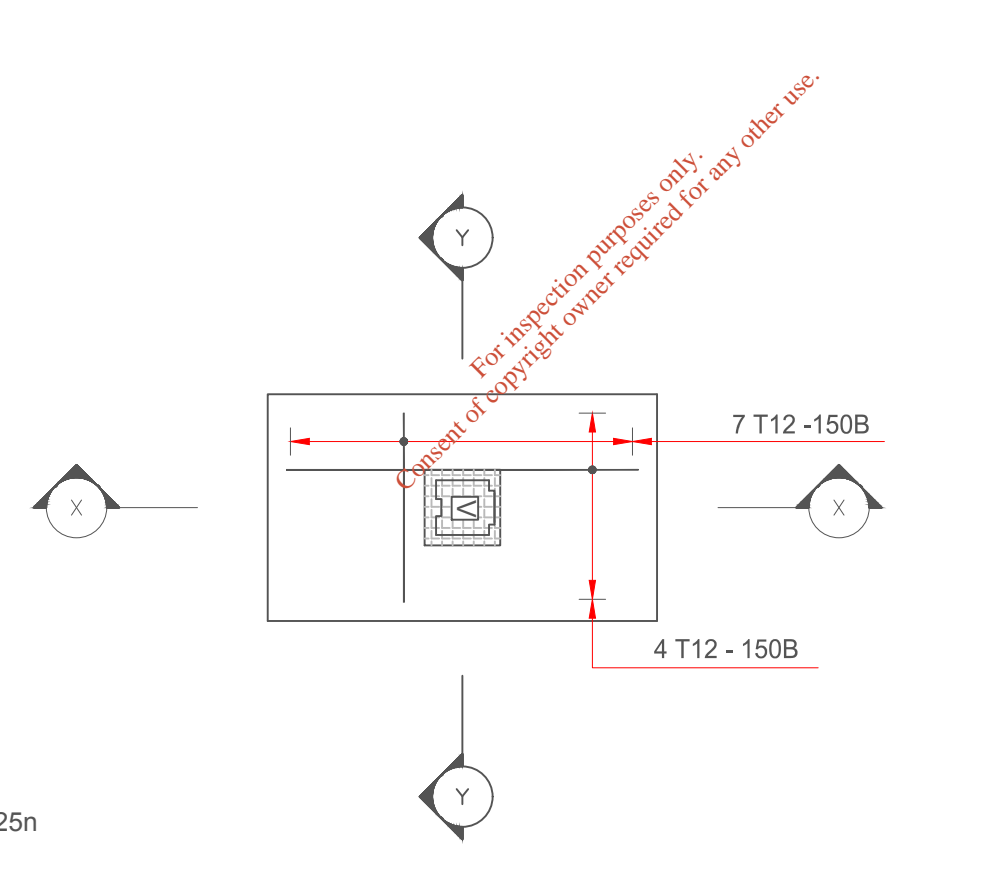
HYDRANT CHAMBER



SECTION X-X



SECTION Y-Y

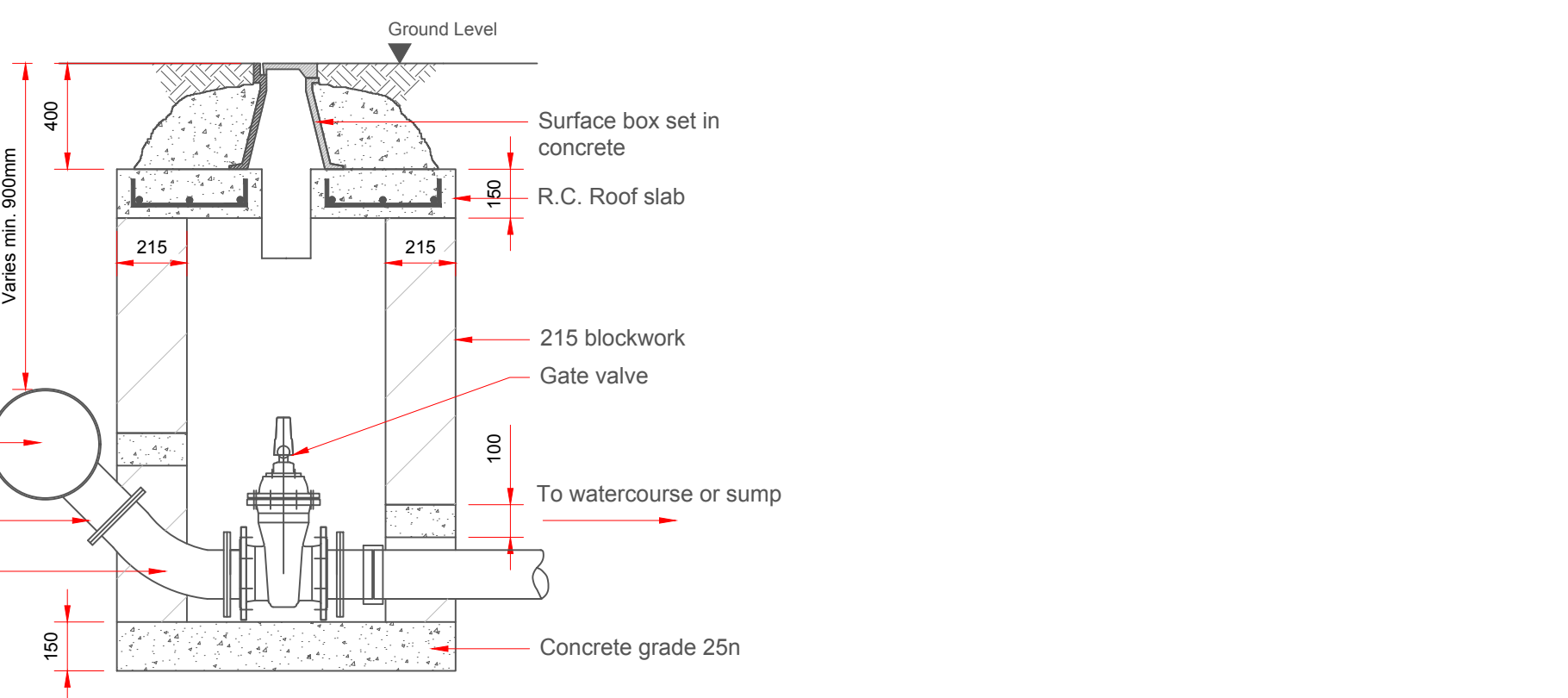


PLAN ON COVER SLAB

SLUICE VALVE CHAMBER DIMENSIONS			
VALVE DIA. (mm)	CHAMBER WIDTH (W)	CHAMBER LENGTH (L)	DEPTH OF COVER TO PIPE (H)
80	280	560	900
100	310	560	900
150	410	610	900
200	460	610	900
250	510	690	900
300	600	720	1060
400	800	800	1060

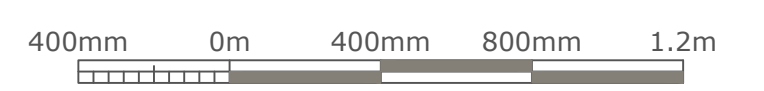
Note
Concrete floor to chamber not to be provided when Class 1 watermains are used.

PLAN ON SLUICE VALVE CHAMBER



TYPE 1 SCOUR CHAMBER
(TO BE USED WHERE THERE IS A NEARBY LOW LEVEL STREAM/DRAIN)

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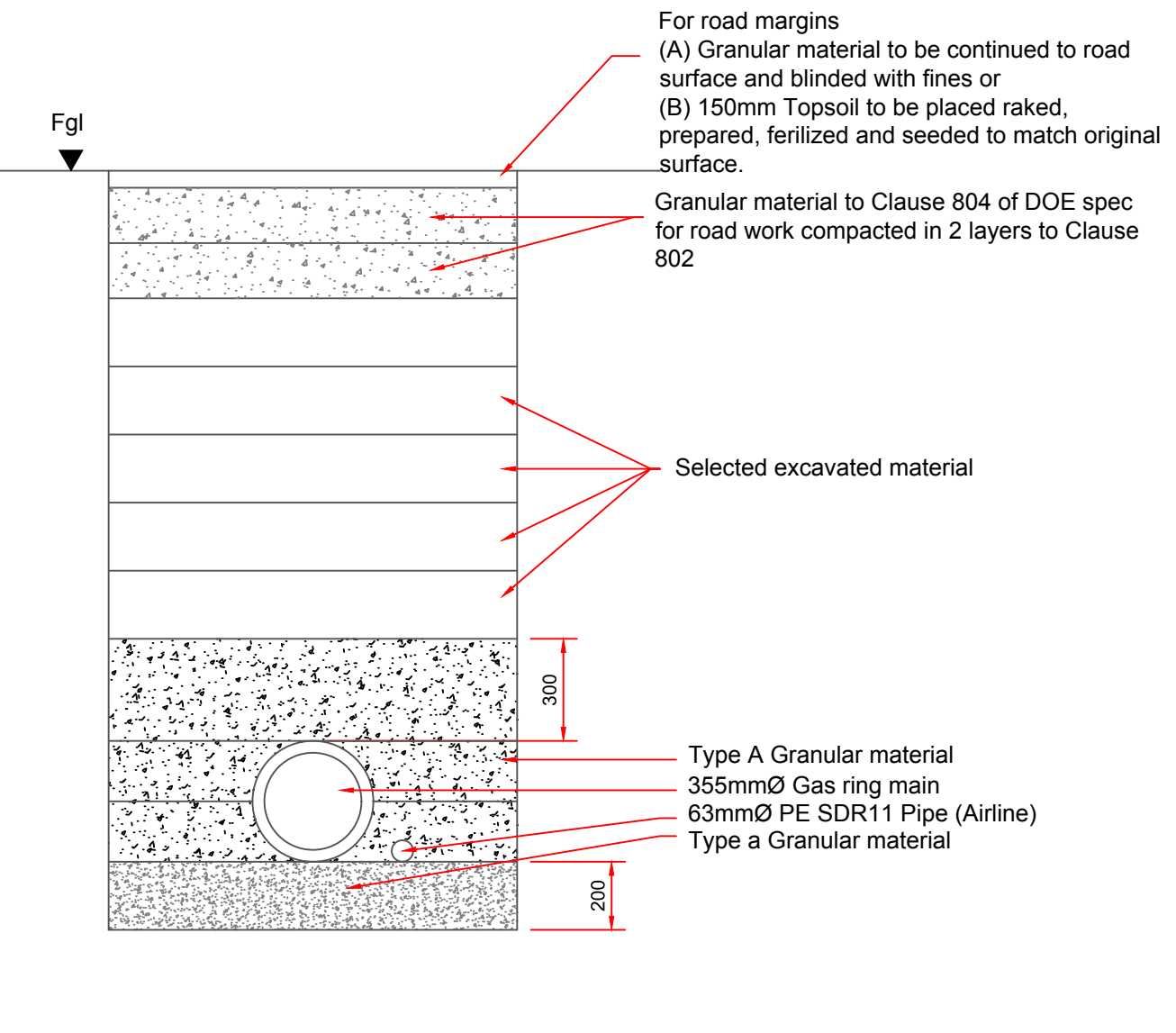
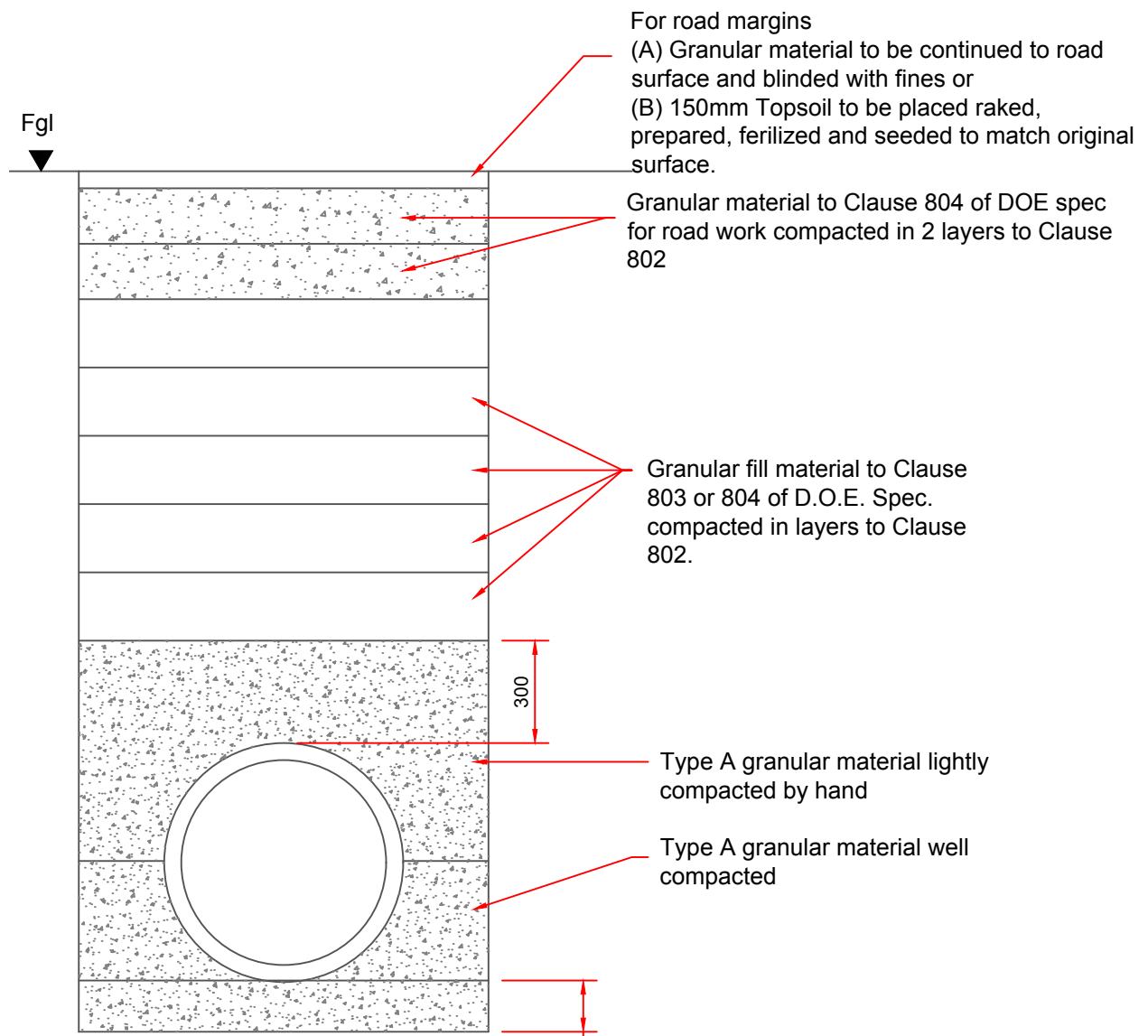
Project:
PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY

Title:
TYPICAL WATERMAIN DETAILS

Scale @ A1: **1:20**
Prepared by: M. Nolan
Checked: A. Austin
Date: December 2017
Project Director: D. Grehan
Drawing Status: **Planning**

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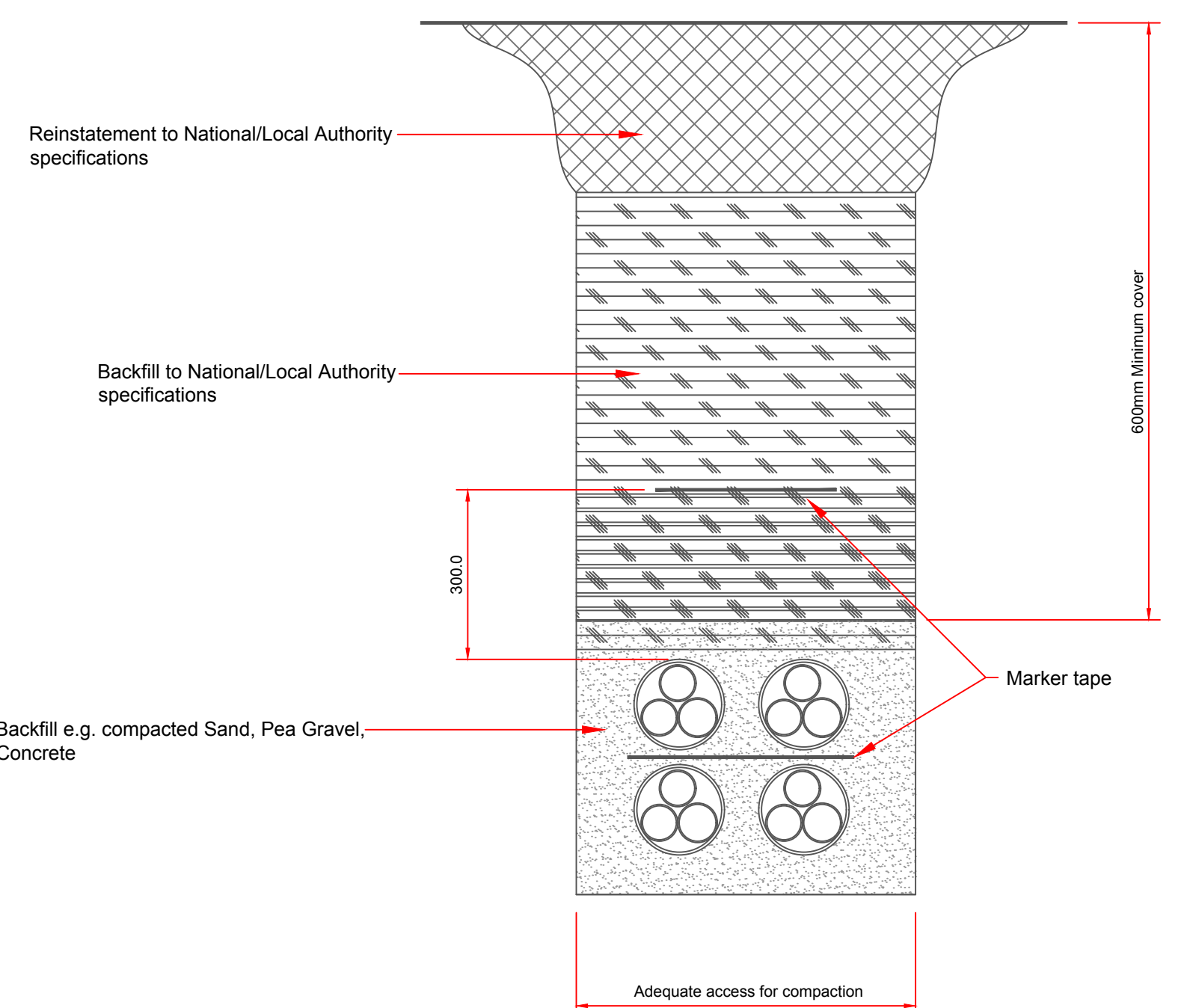
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Drawing No.: **8108-2053**
Revision: **A**



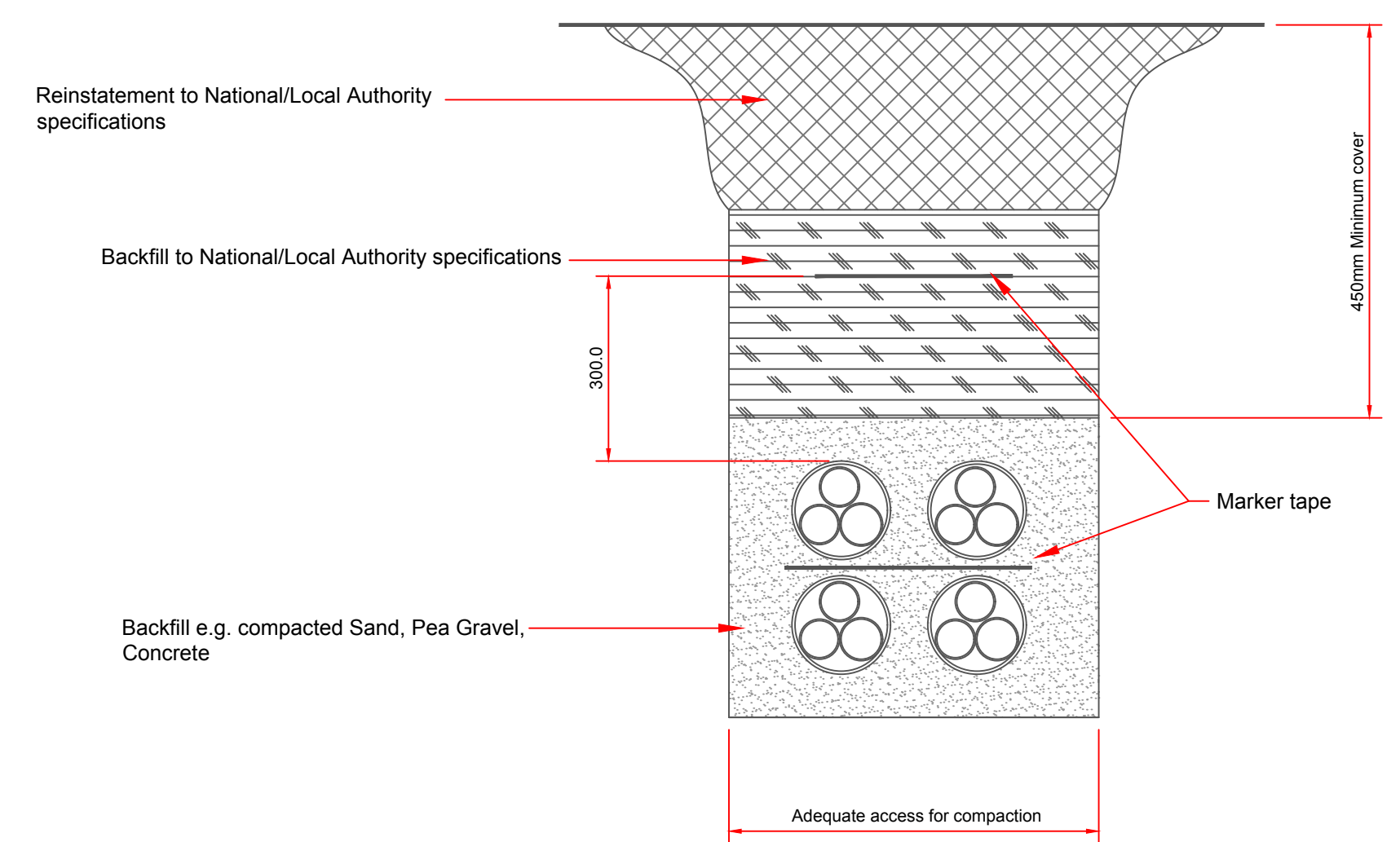
TRENCH FOR GAS RING MAIN

NOTE
 Y=150 for pipes up to 300Ø
 Y=200 for pipes from 375Ø to 1200Ø
 In rock or mixed soils containing boulders or hard spots dimension 'Y' shall be increased by 100

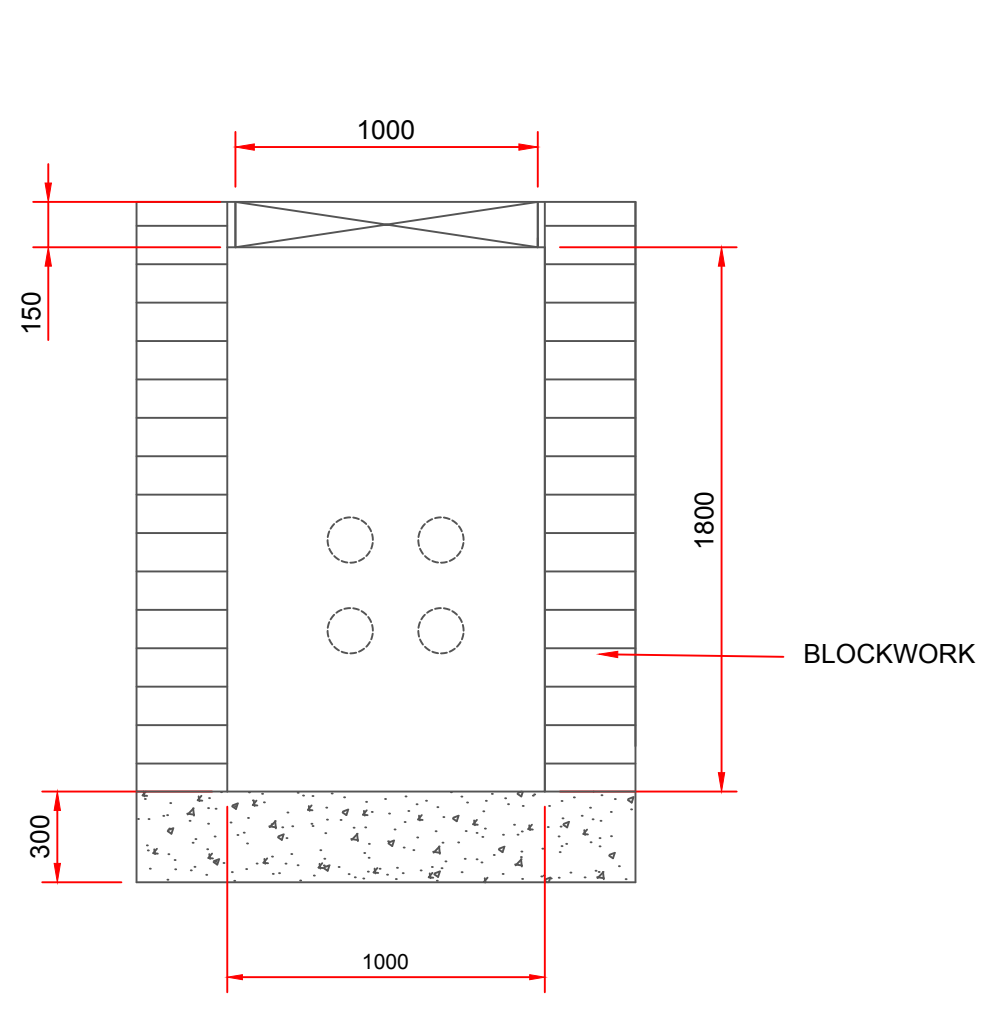
TRENCH IN ROAD AND ROAD MARGINS
 1:20



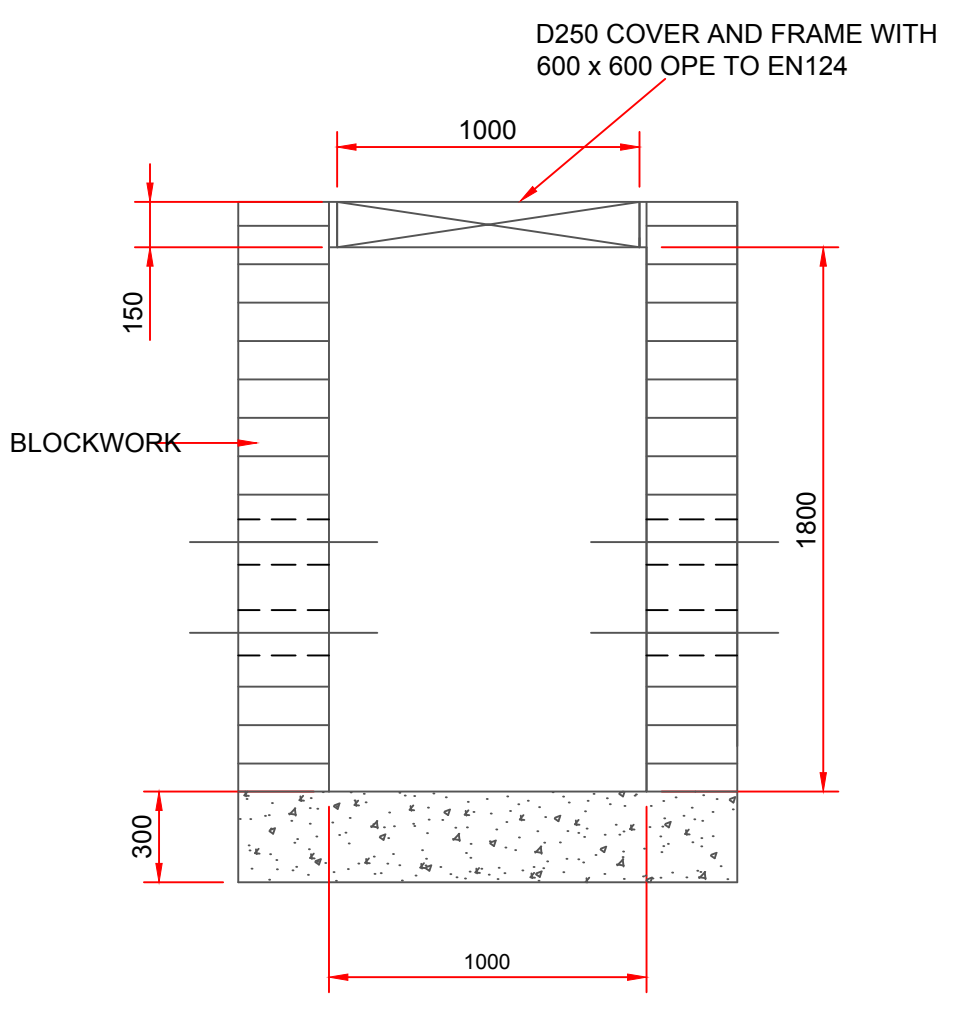
TYPICAL TRENCH IN ACCESS ROAD/ADMINISTRATION AREA
 SCALE 1:10



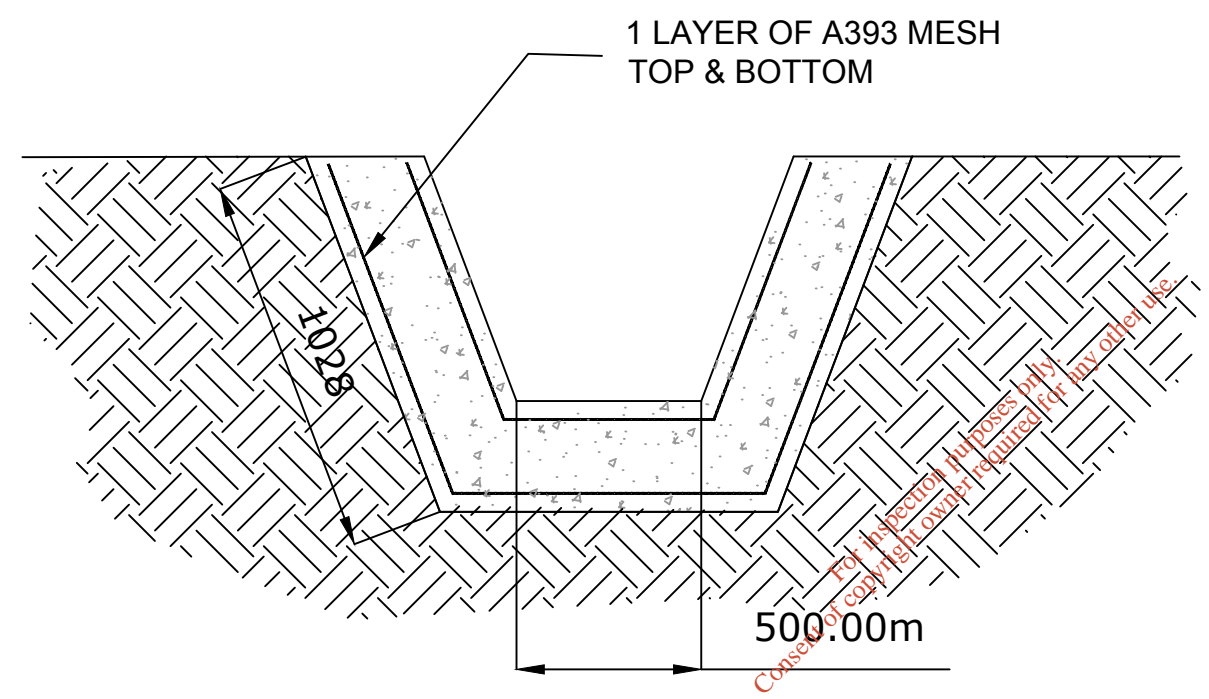
TRENCH IN FOOTWAYS, PAVEMENTS, VERGES
 SCALE 1:10



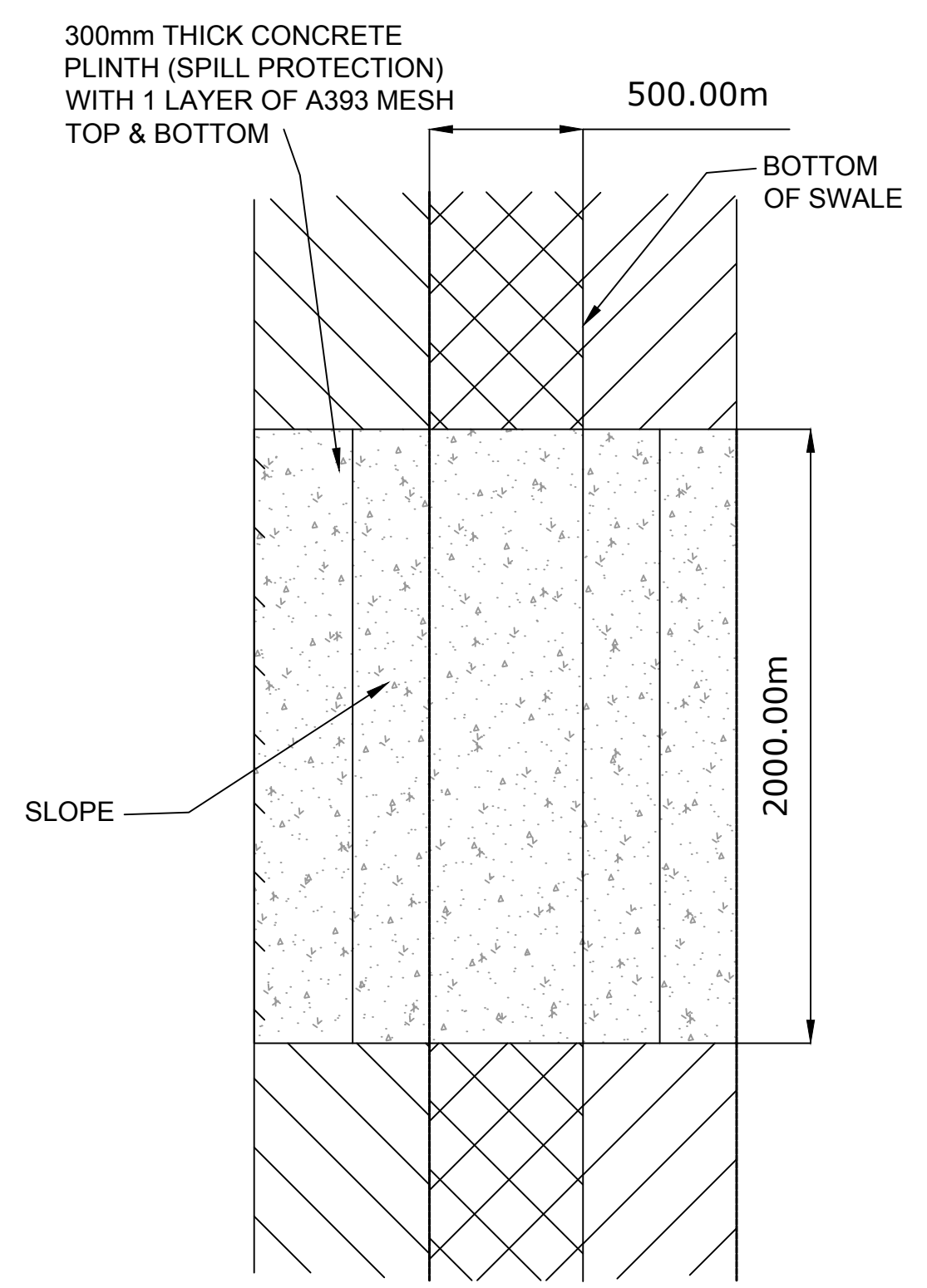
SECTION 1-1 THROUGH BLOCKWORK DUCT CHAMBER
 SCALE 1:25



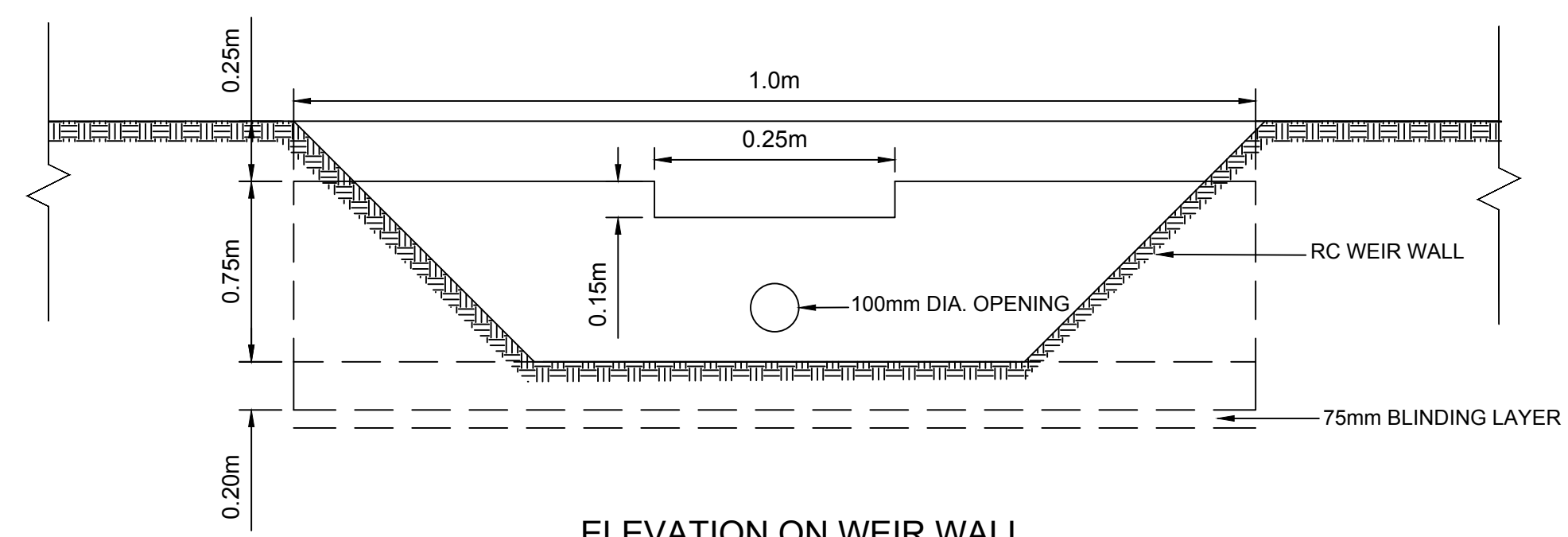
SECTION 2-2 THROUGH BLOCKWORK DUCT CHAMBER
 SCALE 1:25



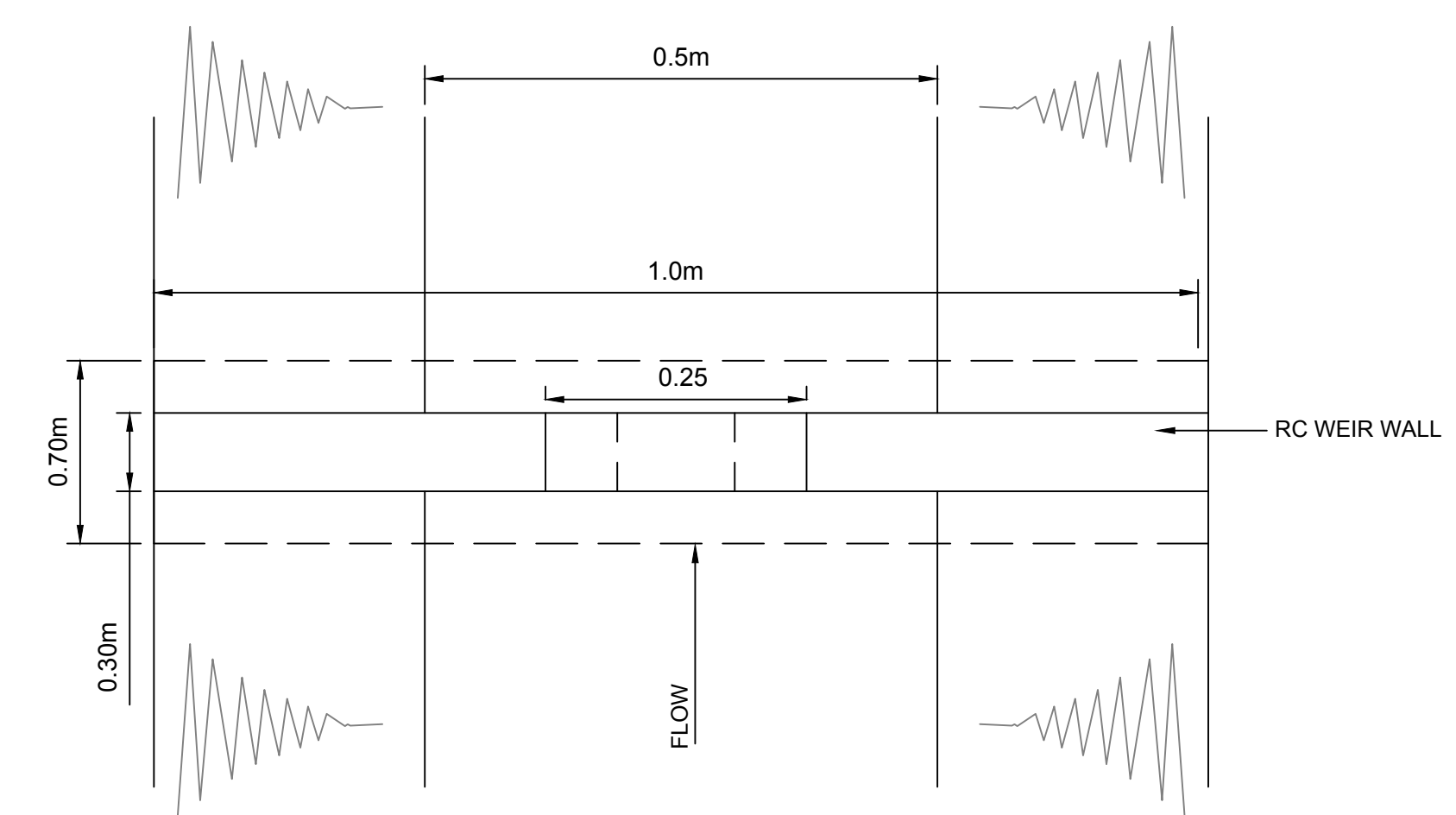
SECTION THROUGH SWALE CONCRETE PLINTH



PLAN OF SWALE CONCRETE PLINTH
 SCALE 1:20



ELEVATION ON WEIR WALL



PLAN ON WEIR WALL
 RECTANGULAR WEIR DETAIL
 NTS

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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
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Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

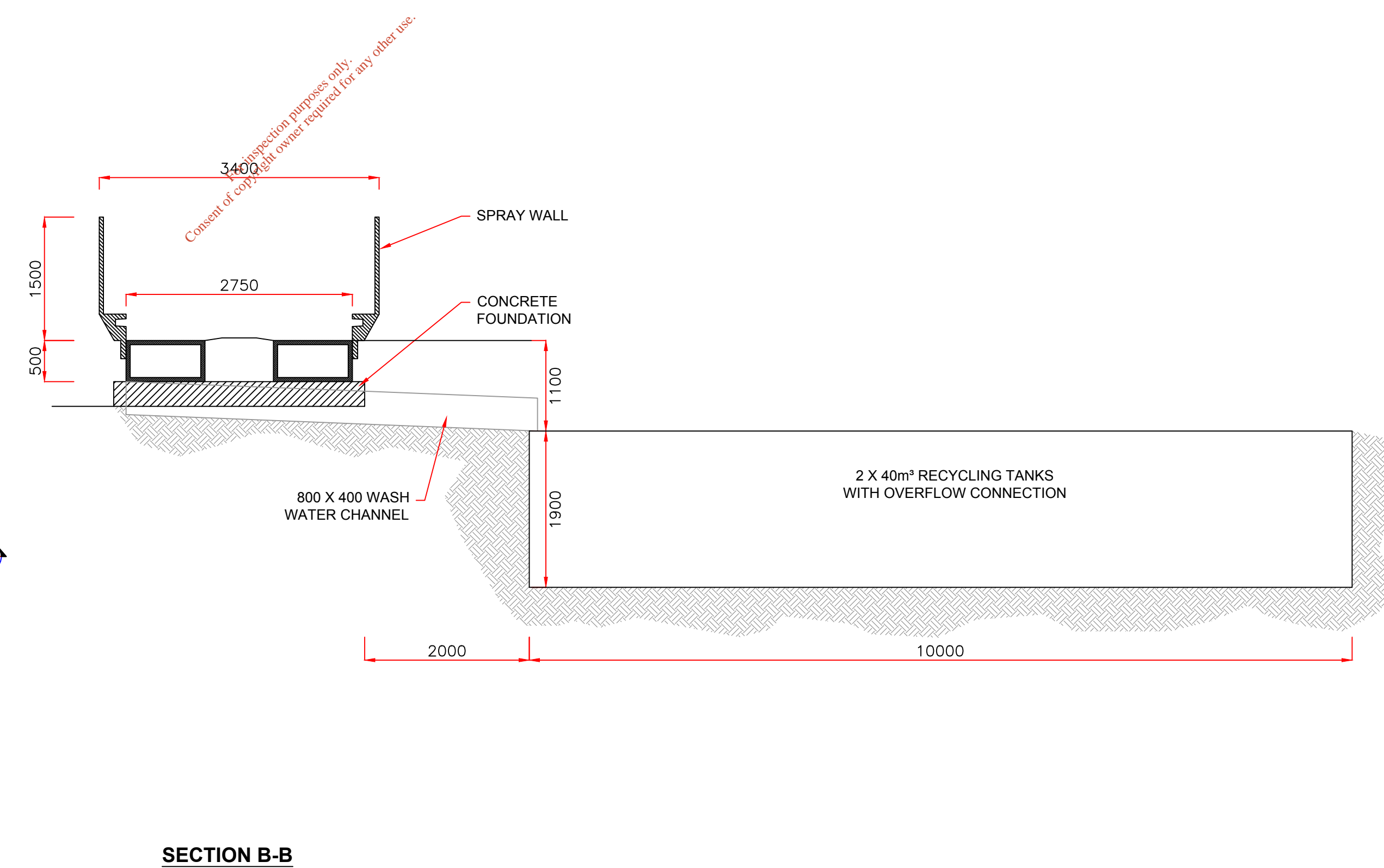
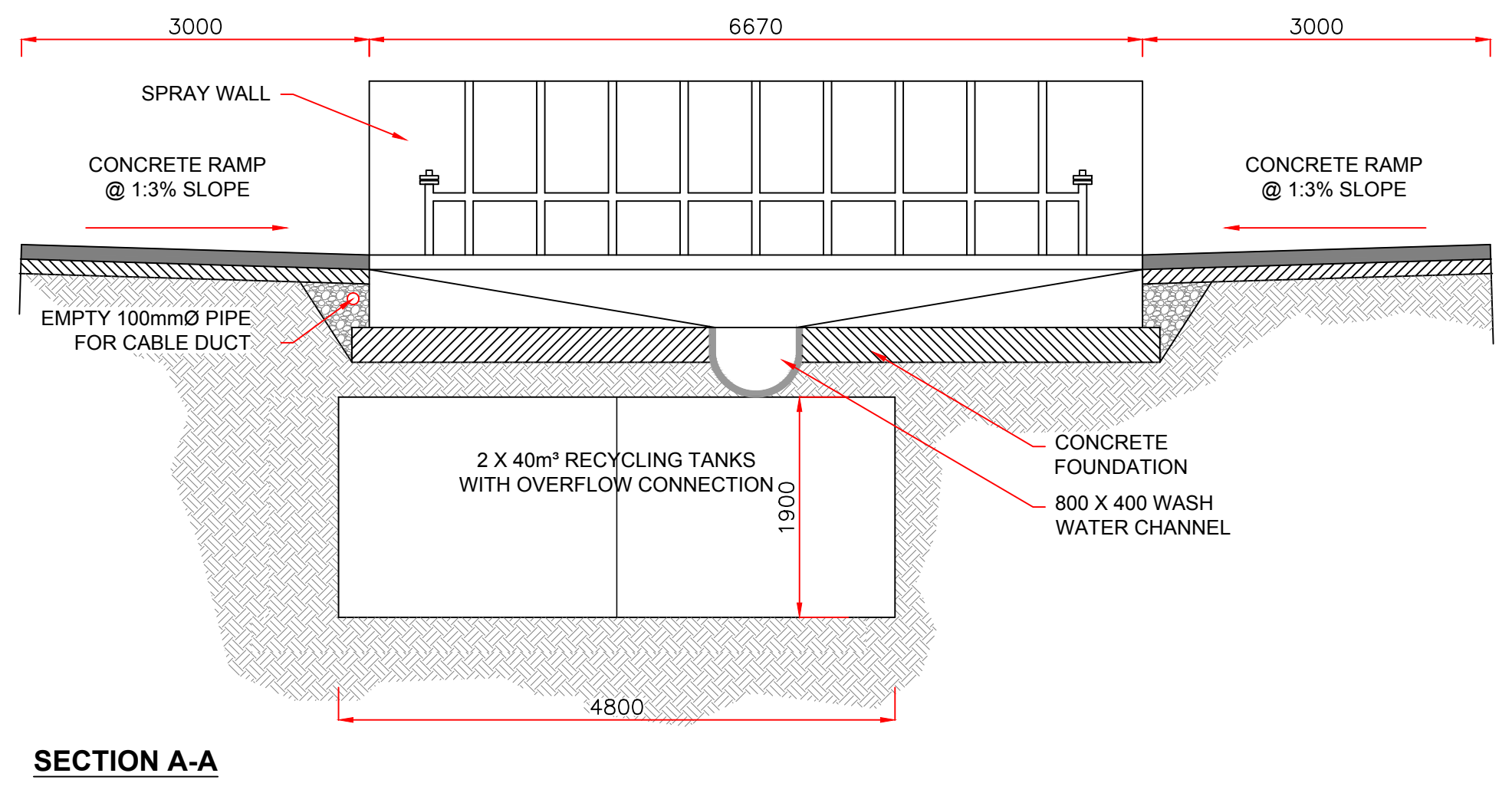
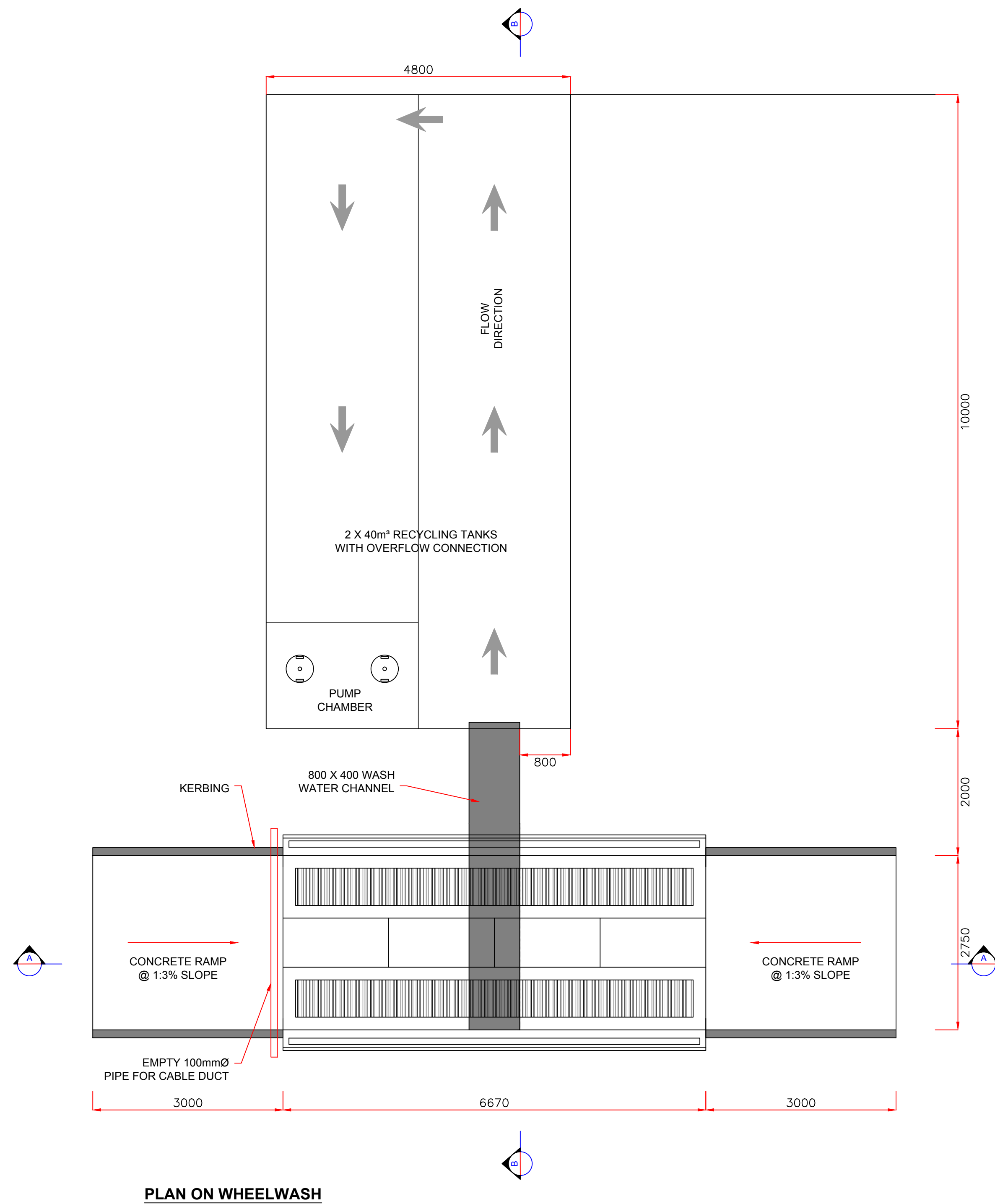
Title: **TYPICAL TRENCH BEDDING & SWALE DETAILS**

Scale @ A1:	As Shown		
Prepared by:	Checked:	Date:	
M. Nolan	A. Austin	December 2017	
Project Director:	D. Grehan		
Drawing Status:	Planning		

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Drawing No.: **8108-2054** Revision: **A**



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1m 0m 1m 2m 3m

Issue	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
Naturally Driven

Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

Title: **WHEELWASH STANDARD DETAILS**

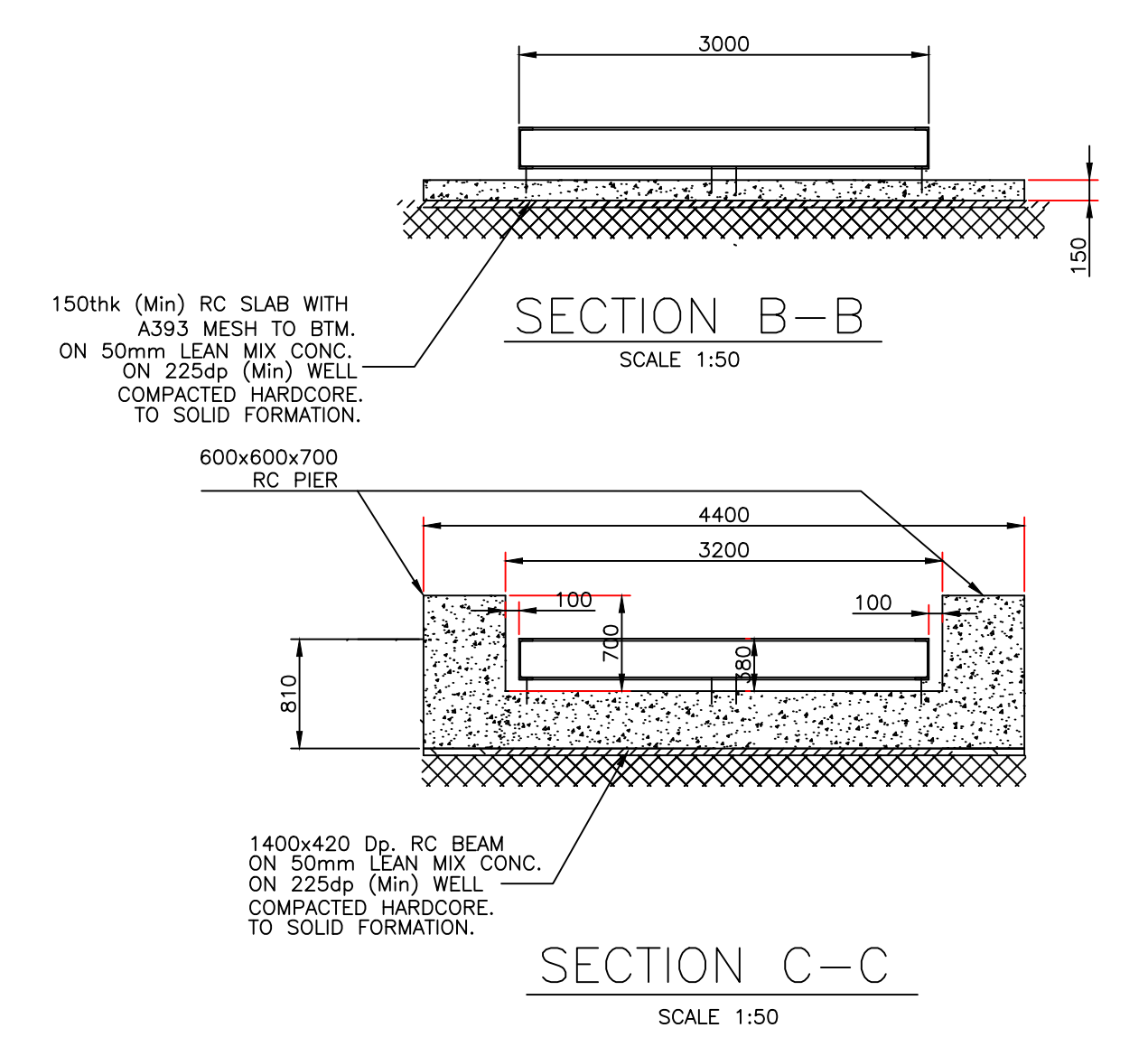
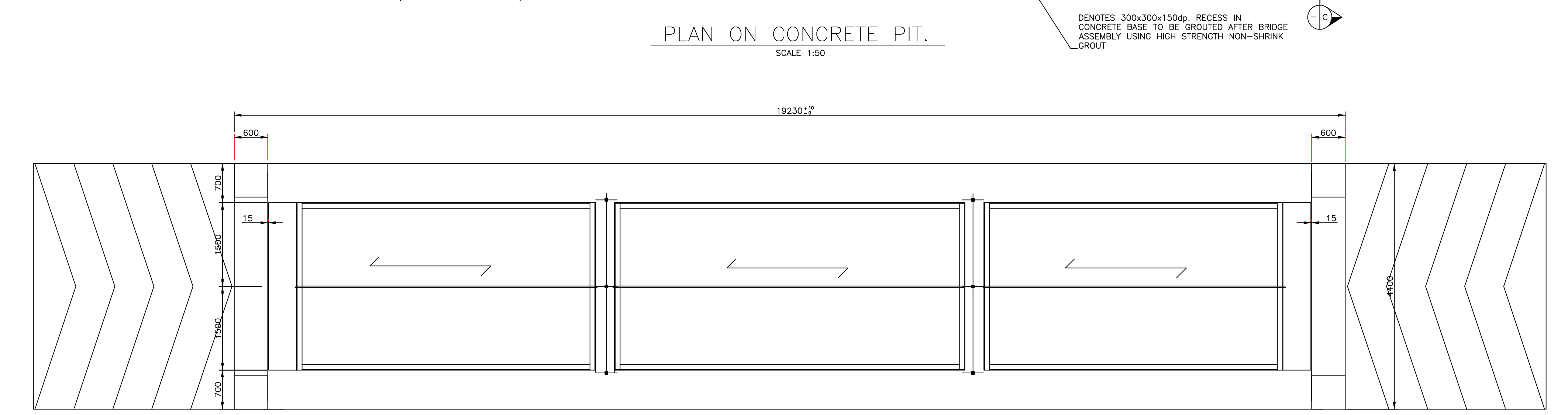
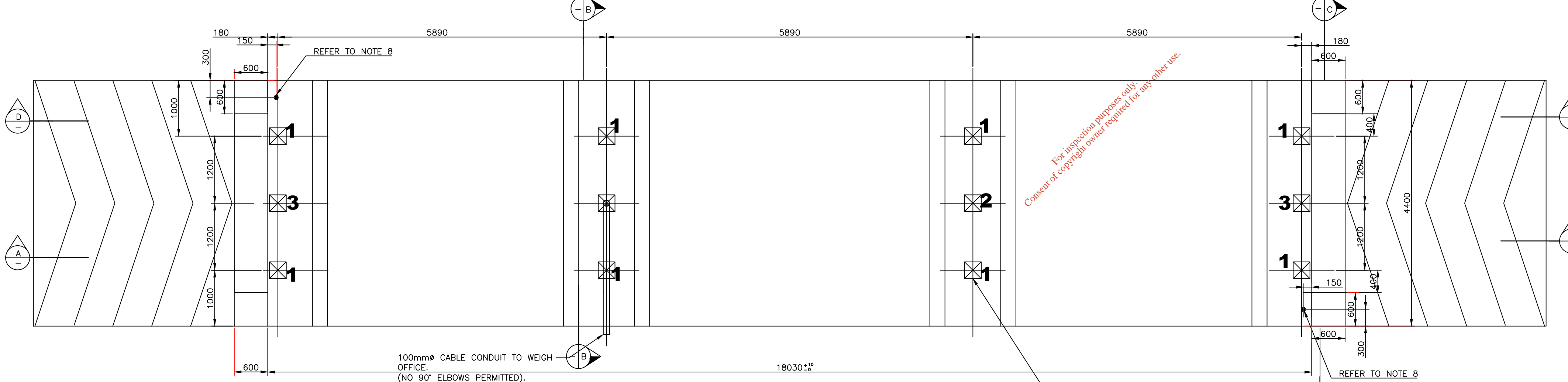
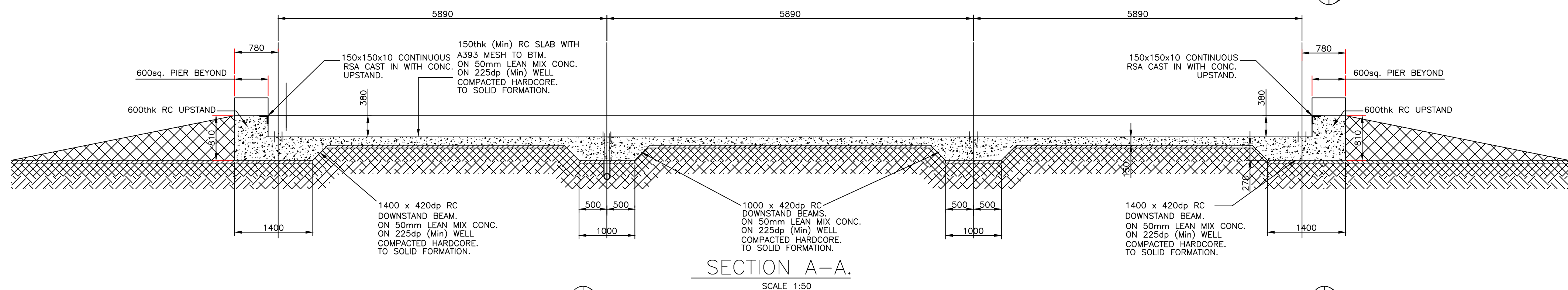
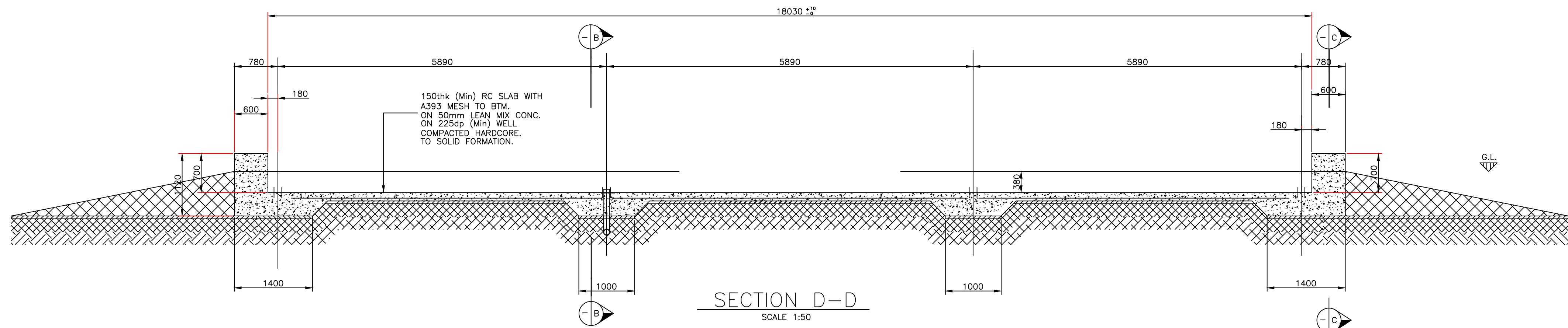
Scale @ A1: 1:50

Prepared by: M. Nolan	Checked: A. Austin	Date: December 2017
Project Director: D. Grehan		

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Drawing No.: **8108-2055** Issue: **A**



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Issue	Date	Description	By	Chkd.

Client: **BORD NA MÓNA**
Naturally Driven

Project: **DREHID WASTE MANAGEMENT FACILITY**

Title: **WEIGHBRIDGE GENERAL ARRANGEMENT PLAN & SECTIONS**

Scale @ A1: AS SHOWN

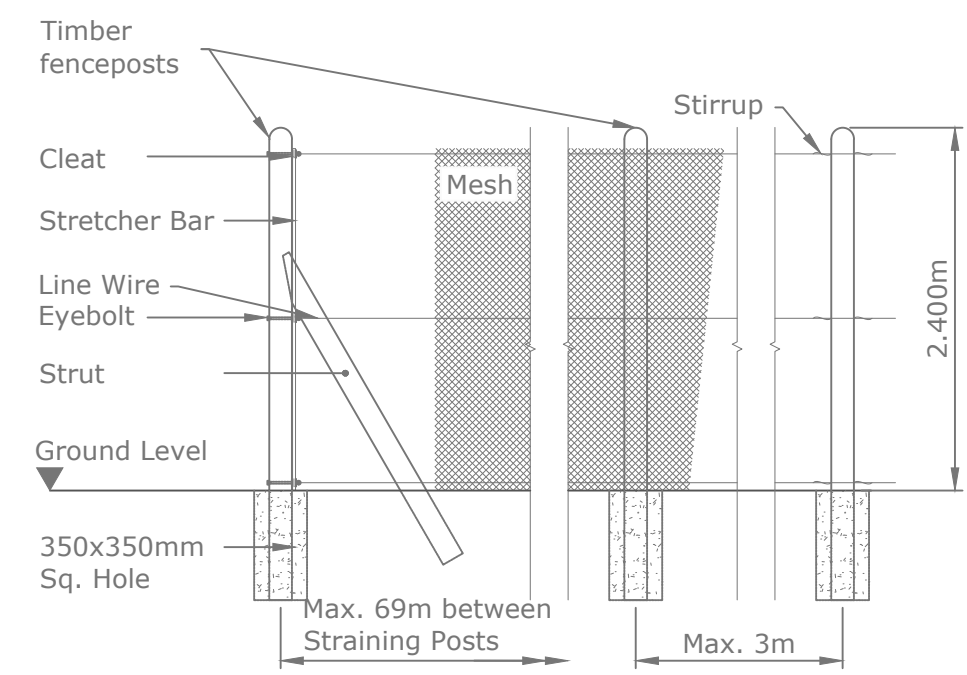
Prepared by: M. Nolan Checked: A. Austin Date: December 2017

Project Director: D. Grehan

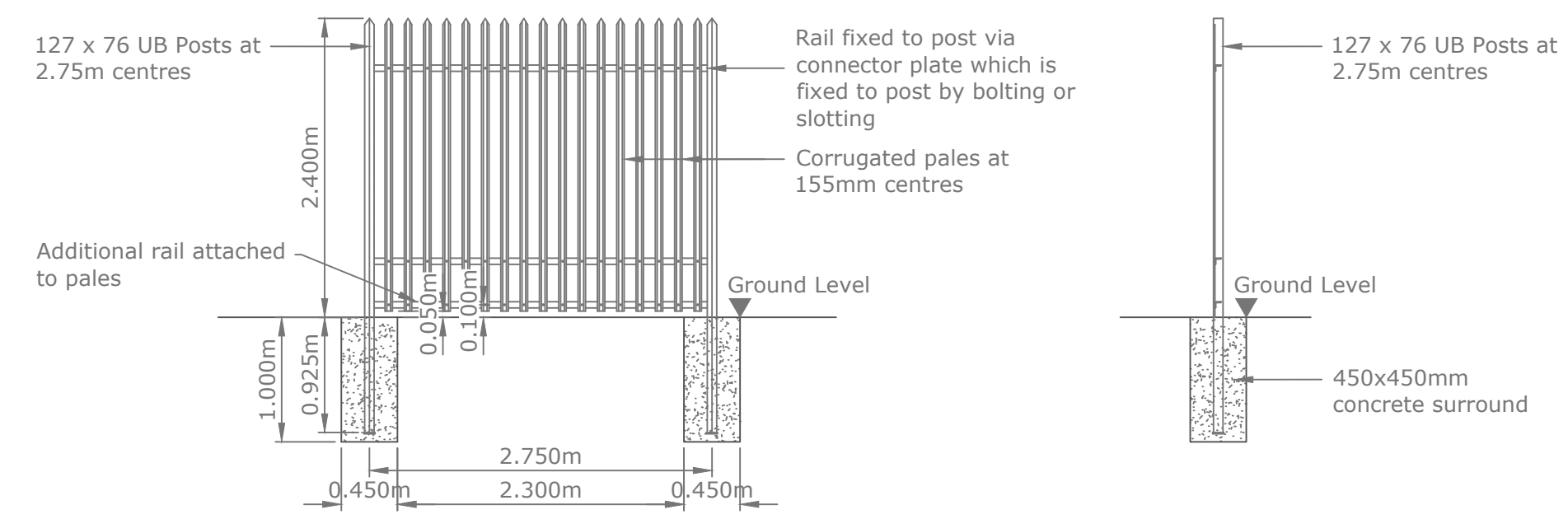
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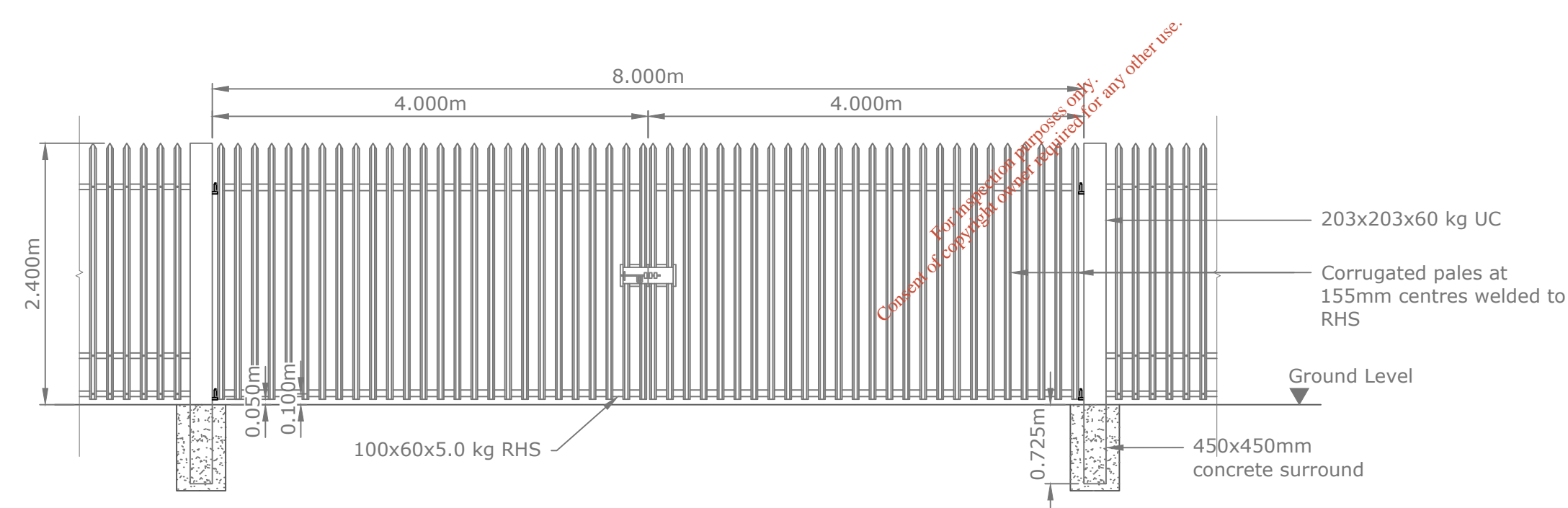
Drawing No.: **8108-2056** Issue: **A**



CHAINLINK TIMBER POST FENCE



TYPICAL ARRANGEMENT FOR STEEL PALISADE/PALLIDINE FENCE



TYPICAL ARRANGEMENT FOR STEEL PALISADE/PALLIDINE GATE

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Issue	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
Naturally Driven

Project:
PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY

Title:
TYPICAL FENCING DETAILS

Scale @ A1: **1:50**

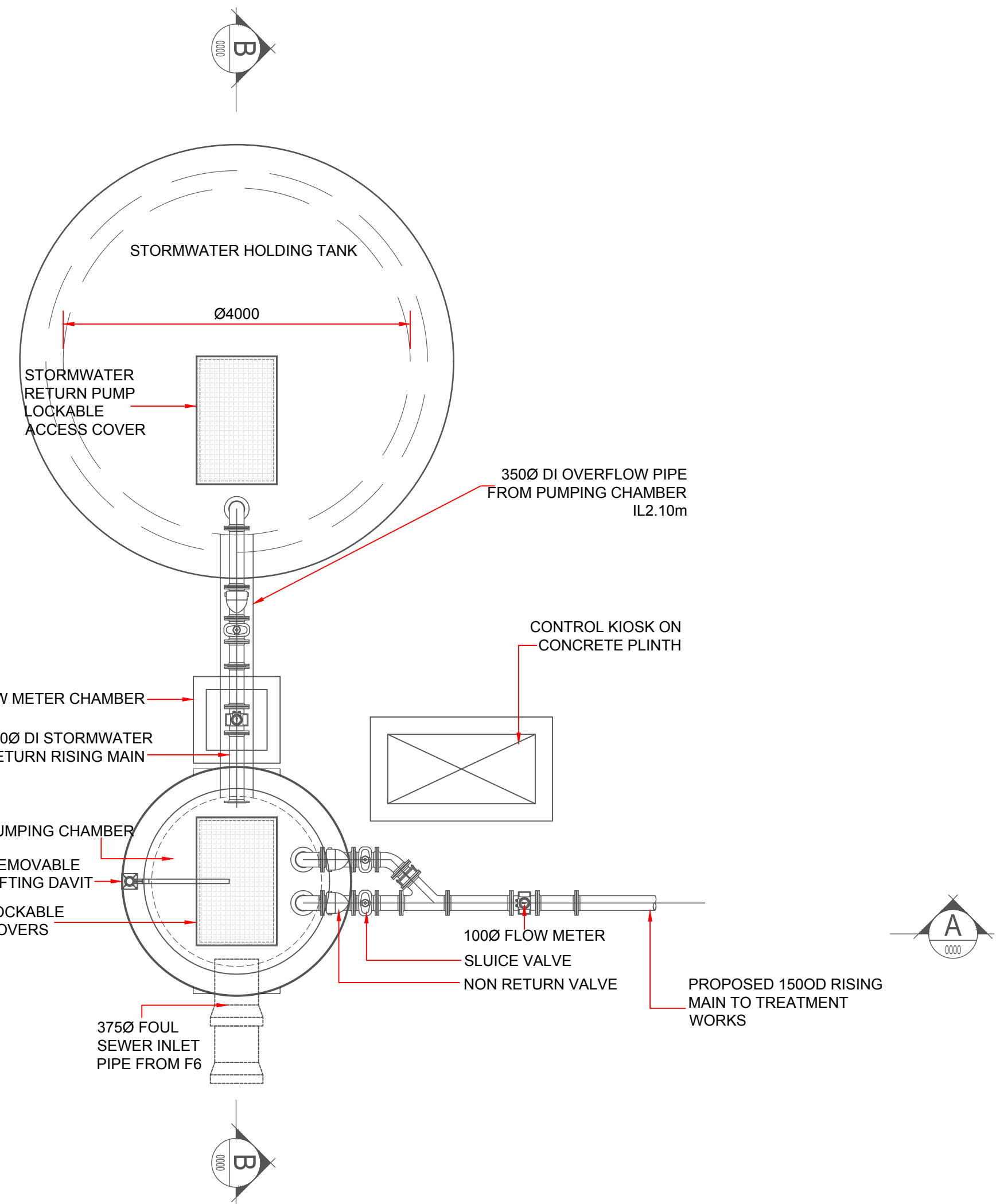
Prepared by: M. Nolan Checked: A. Austin Date: December 2017

Project Director: D. Grehan

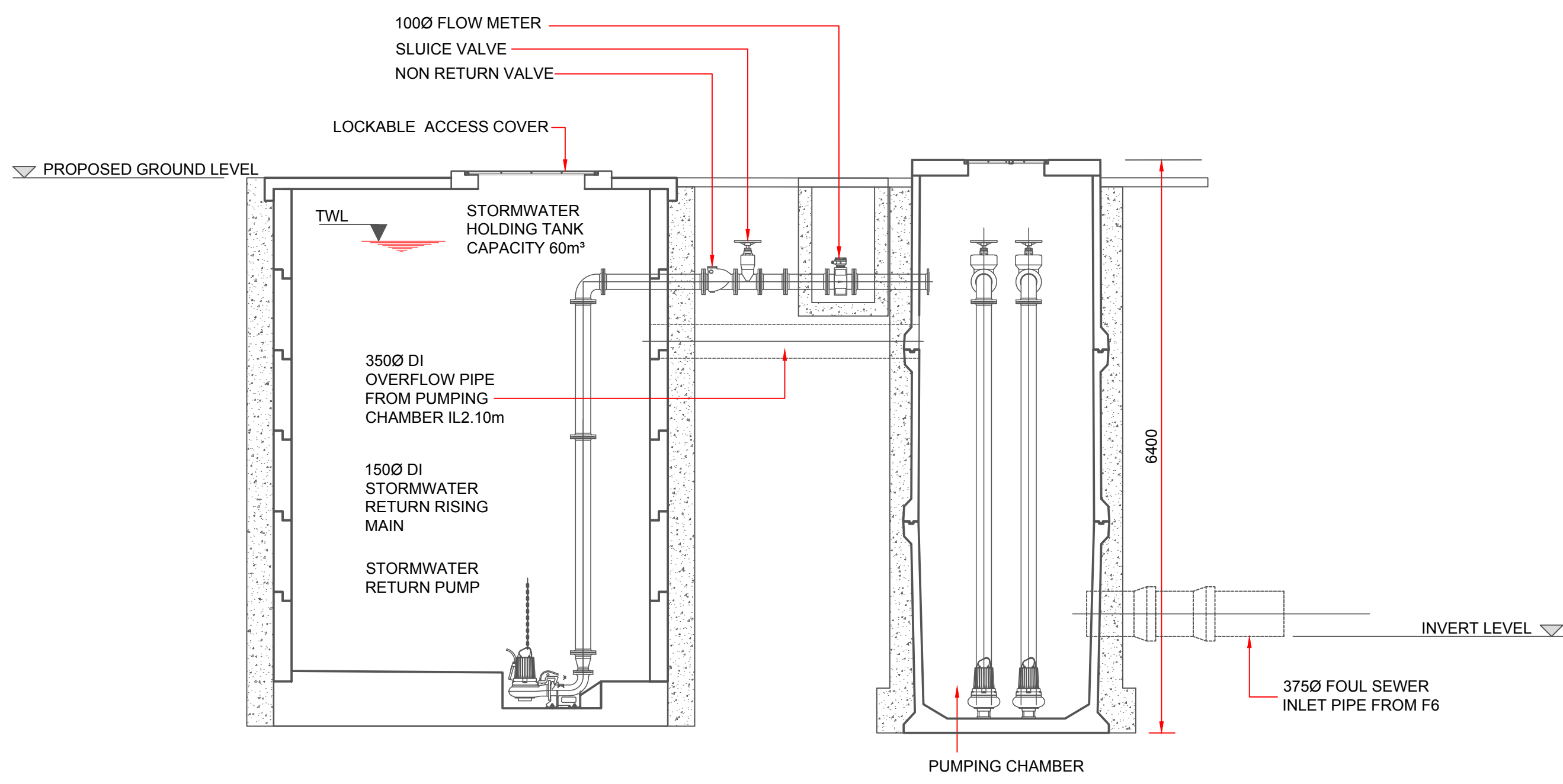
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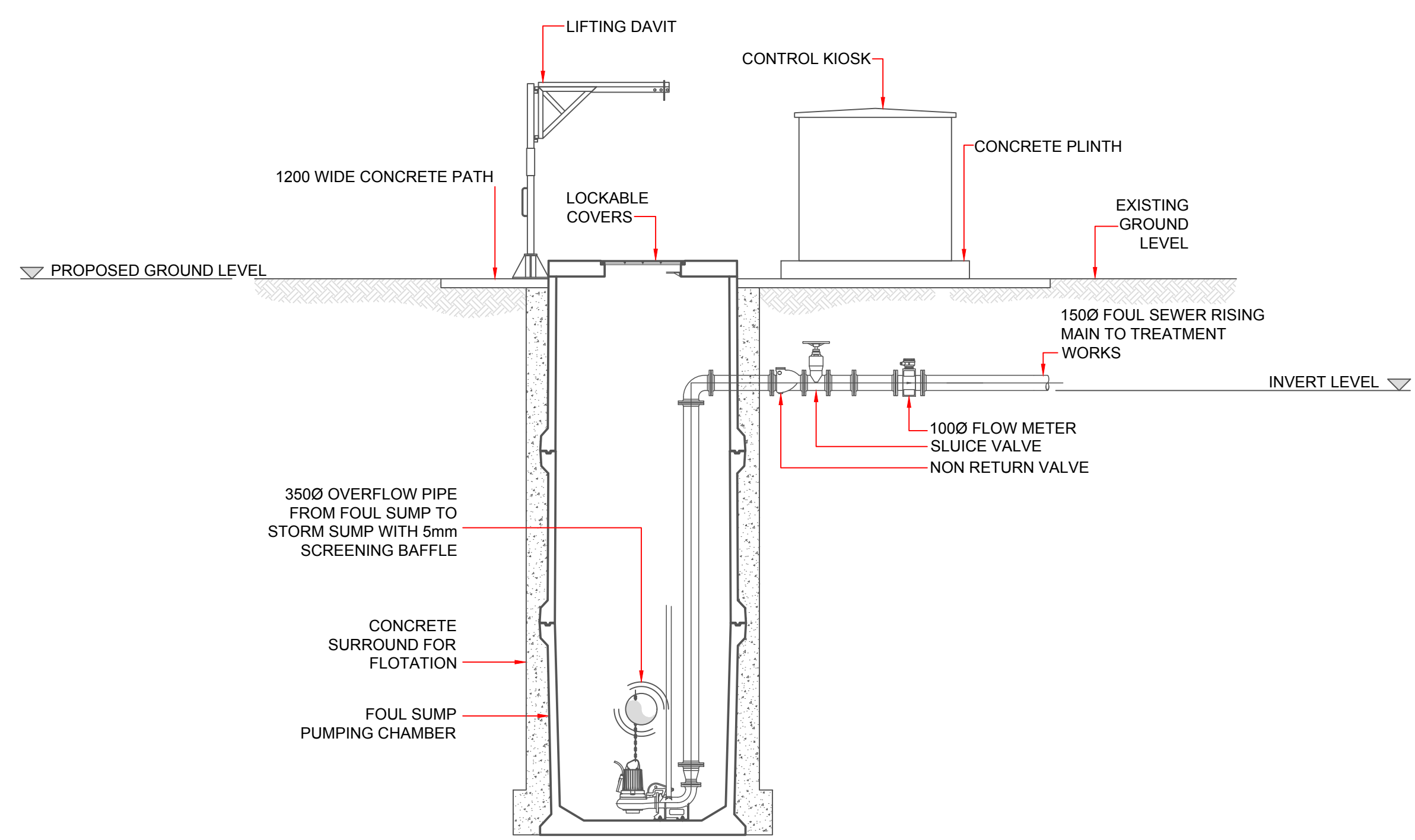
Drawing No.: **8108-2057** Issue: **A**



LAYOUT PLAN OF PROPOSED PUMPING STATION
SCALE 1:50



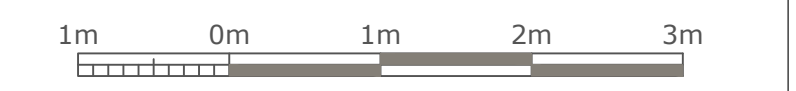
CROSS SECTION 'B'
SCALE 1:50



CROSS SECTION 'A'
SCALE 1:50

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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
Naturally Driven

Project: **DREHID WASTE MANAGEMENT FACILITY**

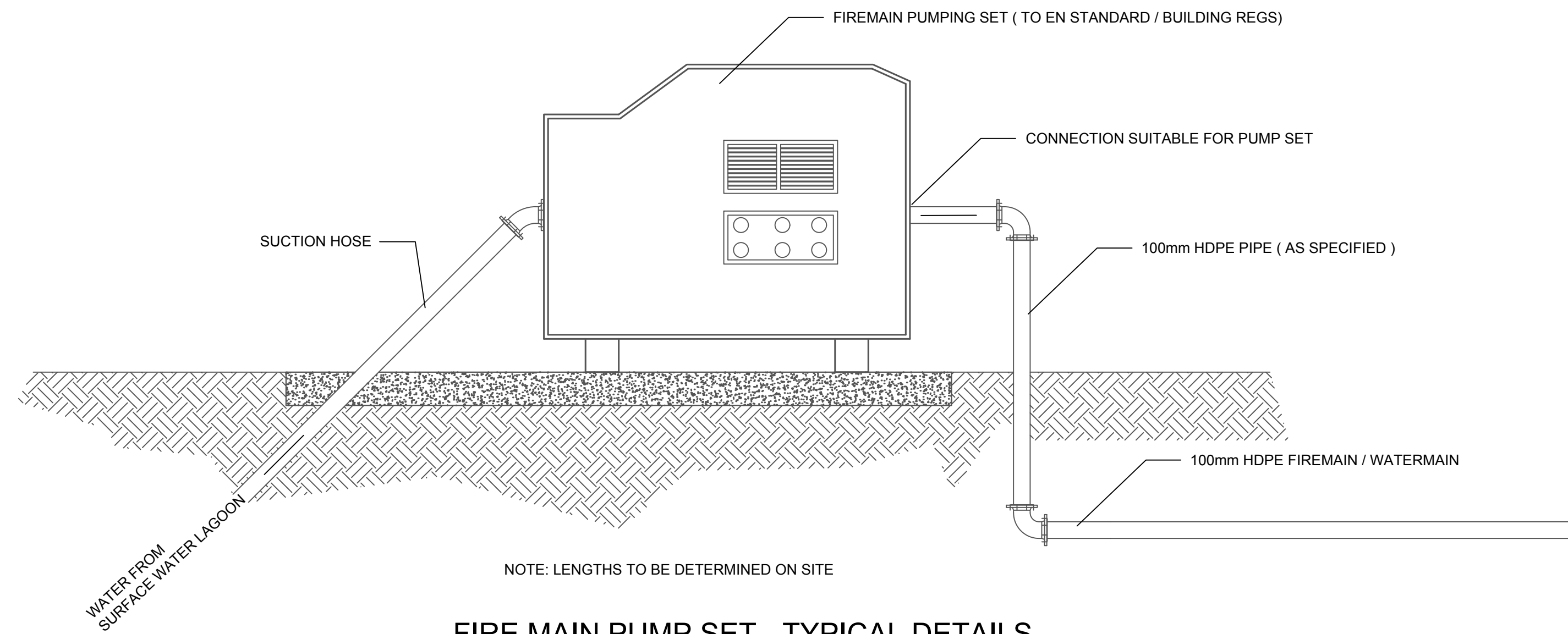
Title: **SURFACE & PROCESS WATER PUMP STATION PLAN & SECTIONS**

Scale @ A1: 1:50

Prepared by: M. Nolan	Checked: A. Austin	Date:
Project Director: D. Grehan	Drawing Status: Planning	

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Drawing No.: **8108-2058** Revision: **A**

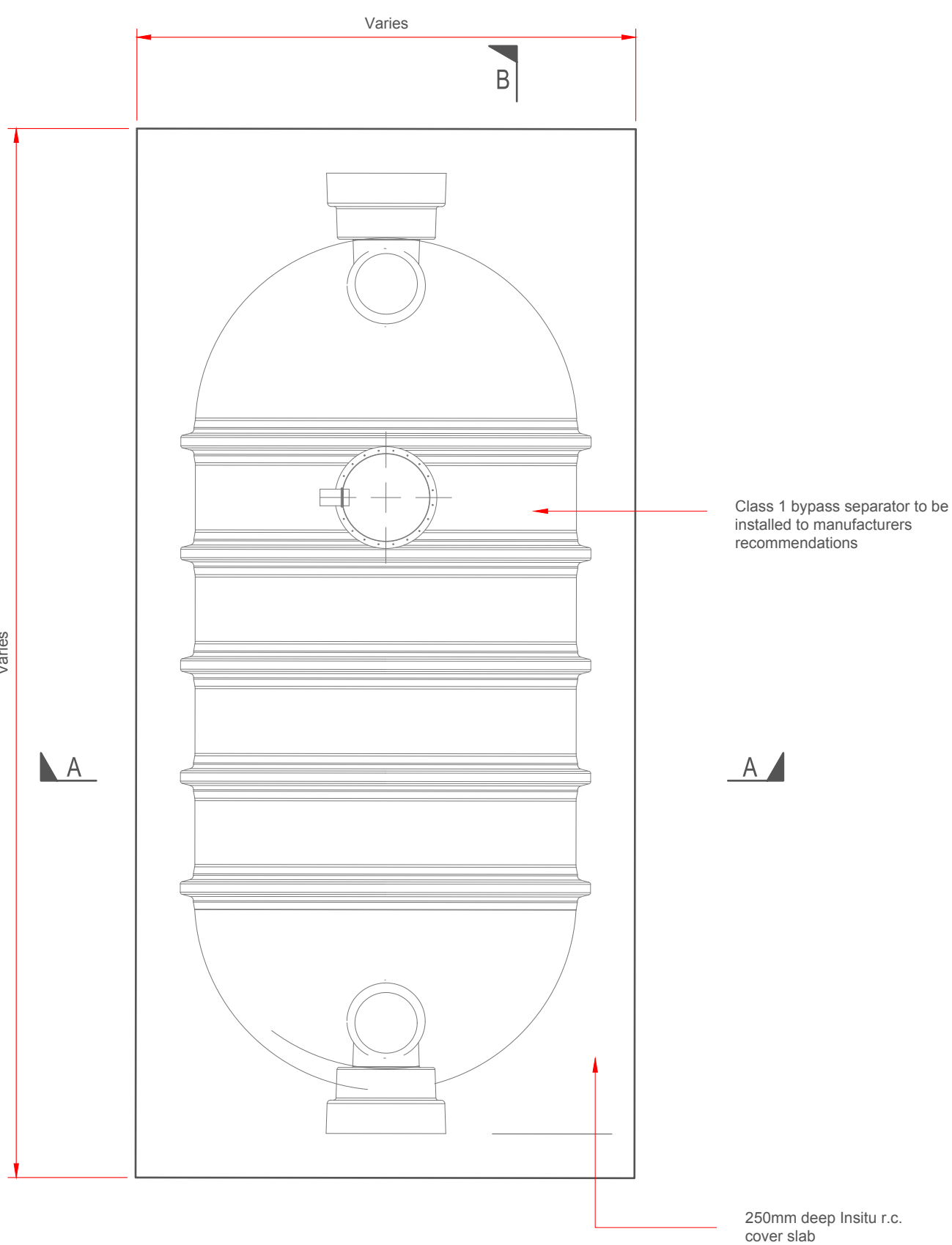


FIRE MAIN PUMP SET - TYPICAL DETAILS
Scale 1:25

- NOTES:**
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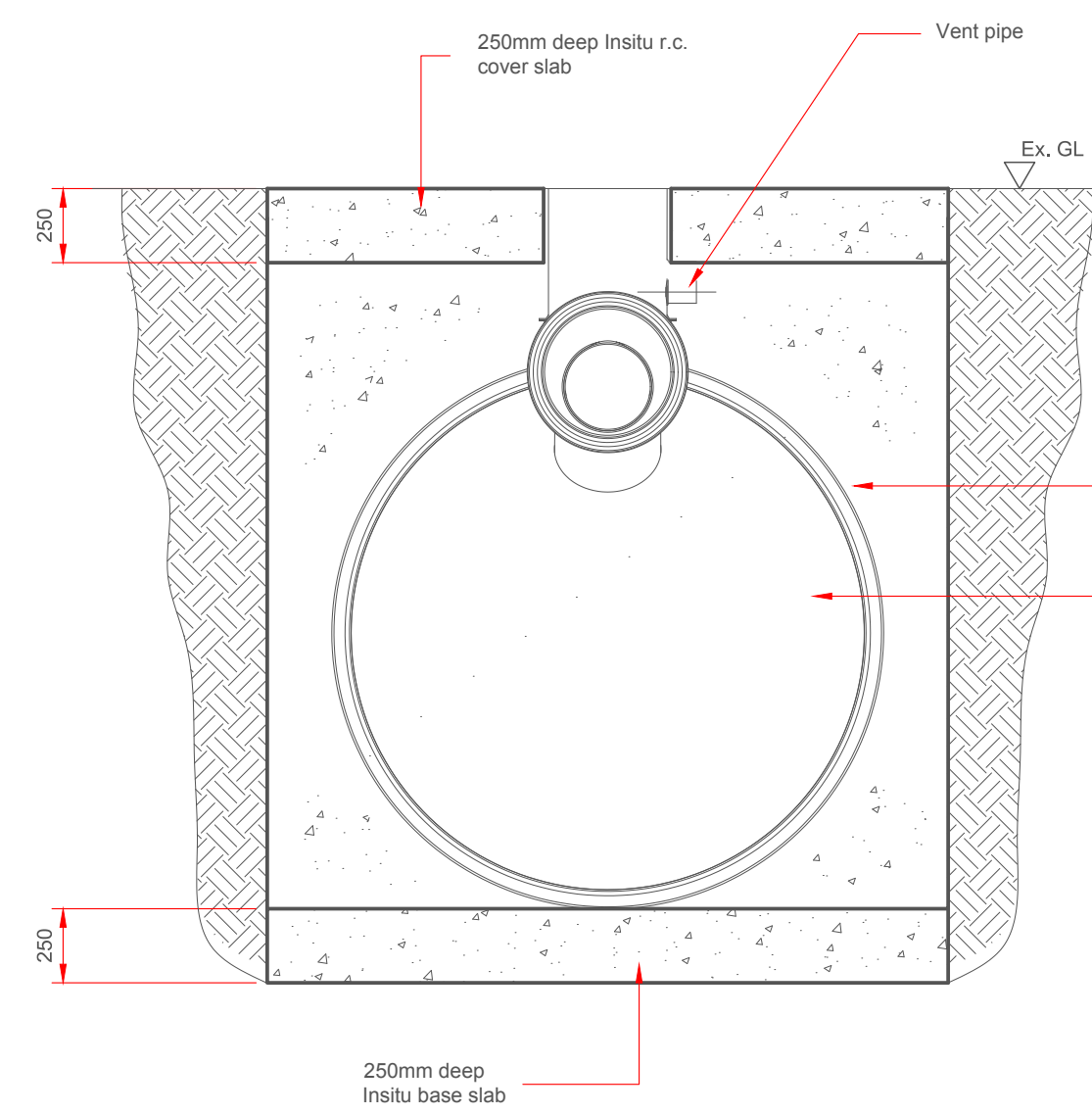


Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

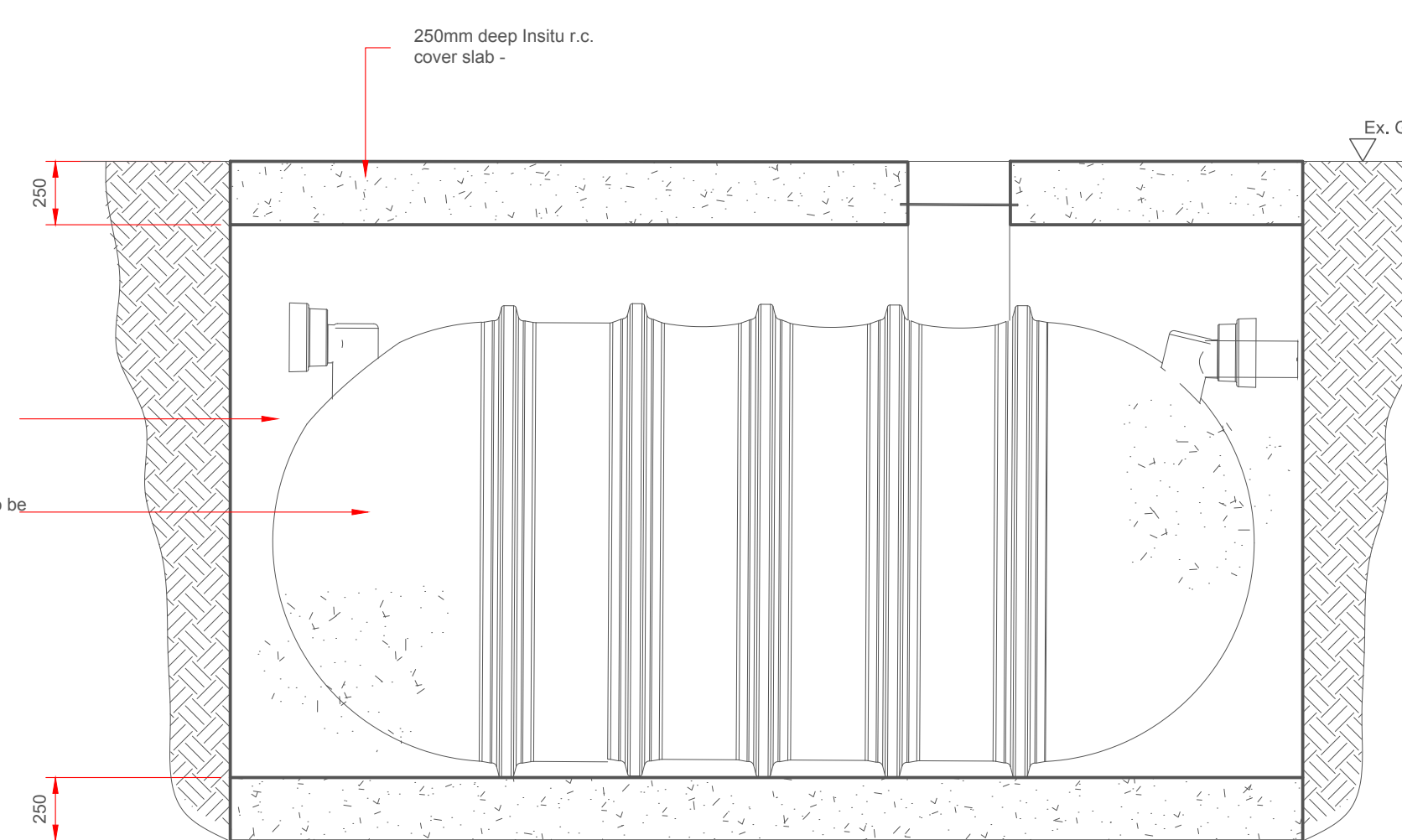


TYPICAL OIL INTERCEPTOR - PLAN
Scale 1:25

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SECTION A-A
Scale 1:25



SECTION B-B
Scale 1:25

Client: **BORD NA MÓNA**
Naturally Driven

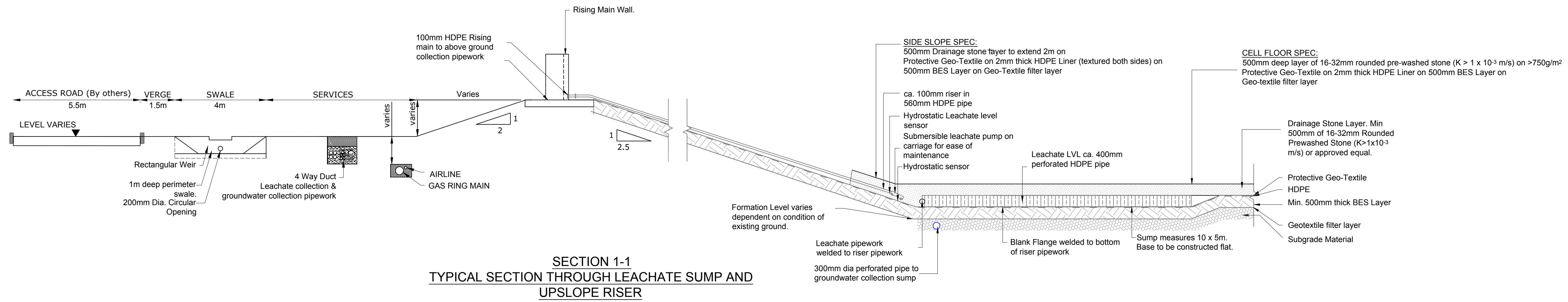
Project:
PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY

Title:
TYPICAL FIRE MAIN PUMP SET AND OIL INTERCEPTOR DETAILS

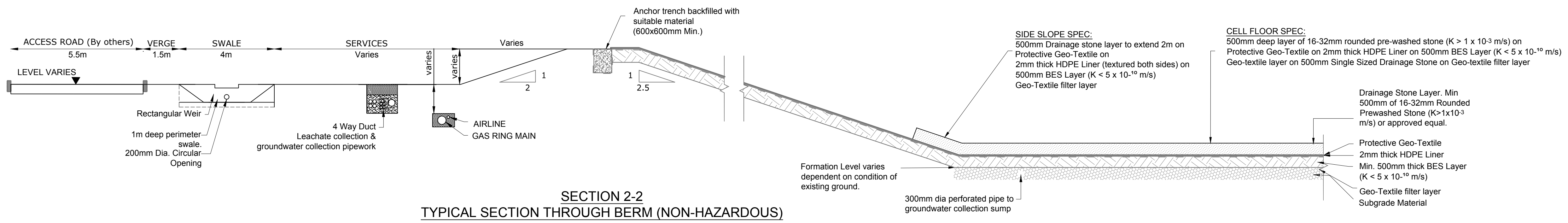
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Prepared by: **M. Nolan** Checked: **A. Austin** Date: **December 2017**
Project Director: **D. Grehan**
Drawing Status: **Planning**

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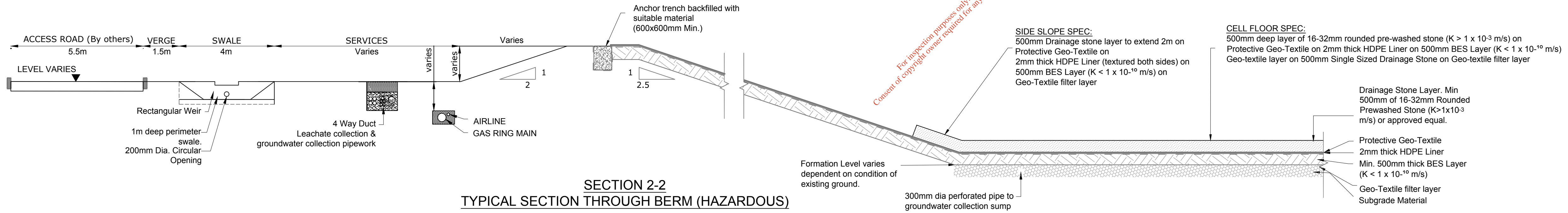
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Drawing No.: **8108-2059** Revision: **A**



SECTION 1-1
TYPICAL SECTION THROUGH LEACHATE SUMP AND
UPSLOPE RISER



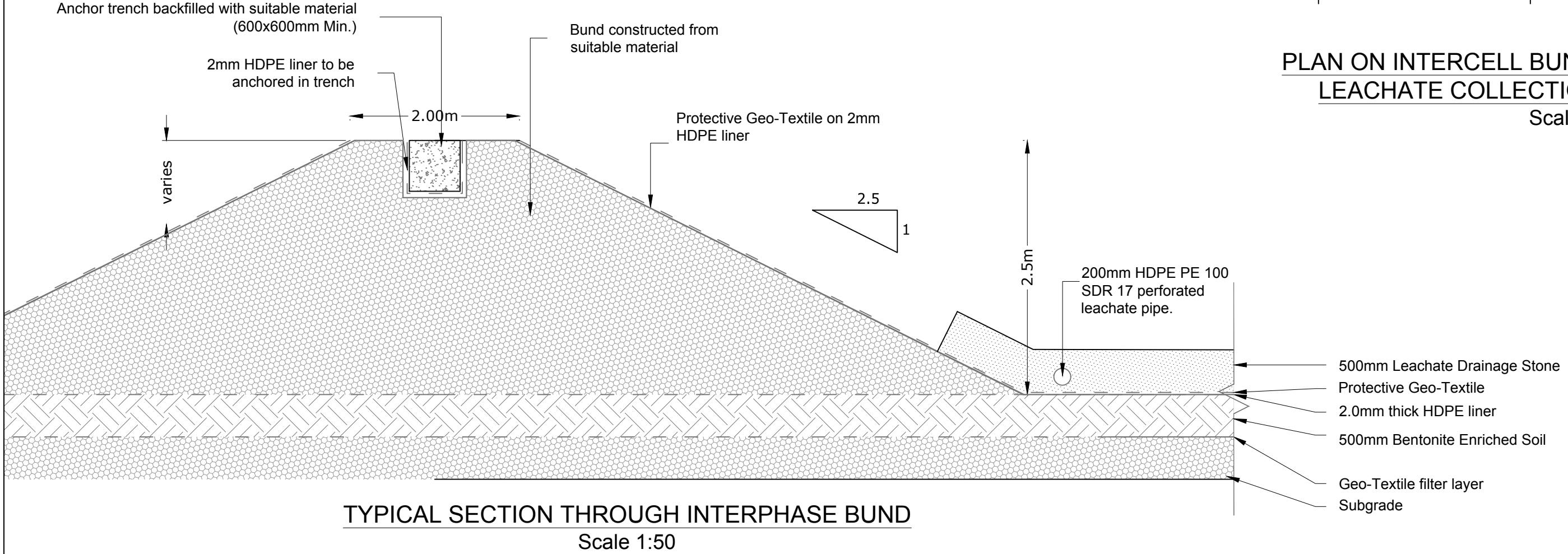
SECTION 2-2
TYPICAL SECTION THROUGH BERM (NON-HAZARDOUS)



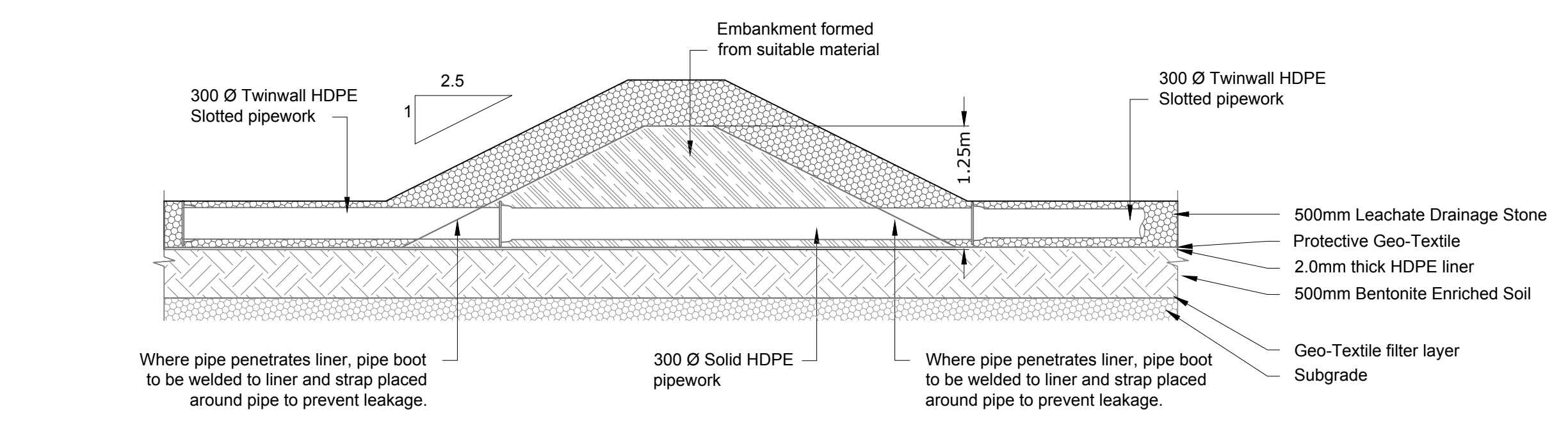
SECTION 2-2
TYPICAL SECTION THROUGH BERM (HAZARDOUS)



PLAN ON INTERCELL BUND AT LOCATIONS WHERE
LEACHATE COLLECTION PIPEWORK PASSES
Scale 1:50

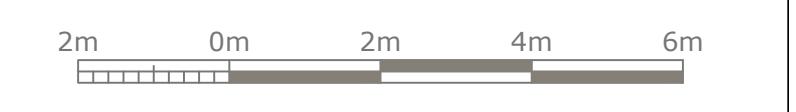


TYPICAL SECTION THROUGH INTERPHASE BUND
Scale 1:50



TYPICAL SECTION THROUGH INTERCELL BUND AT LOCATIONS WHERE LEACHATE COLLECTION PIPEWORK PASSES
Scale 1:50

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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
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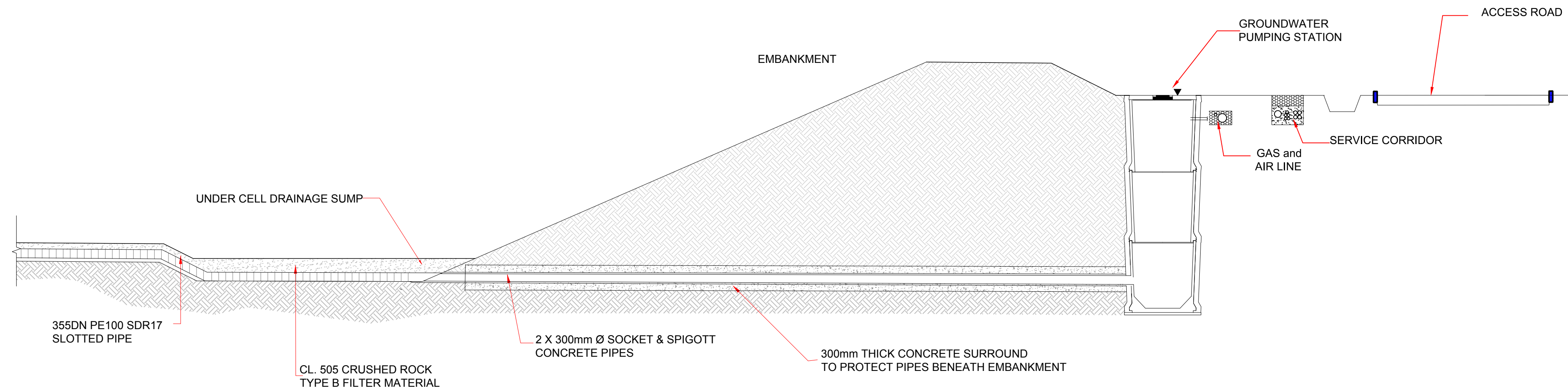
Project:
PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY

Title:
TYPICAL EMBANKMENT & LINER DETAILS

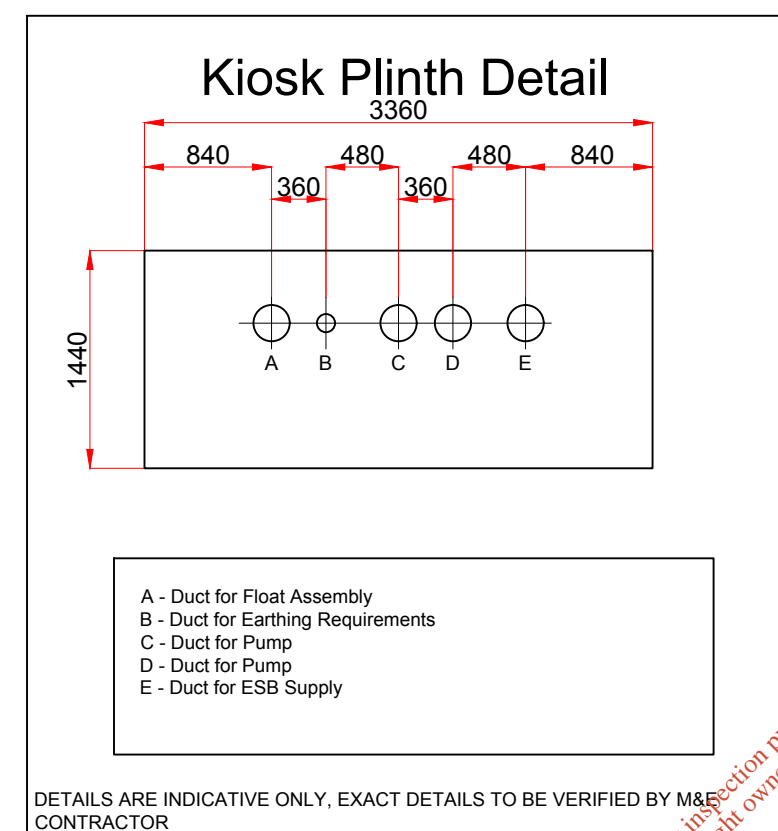
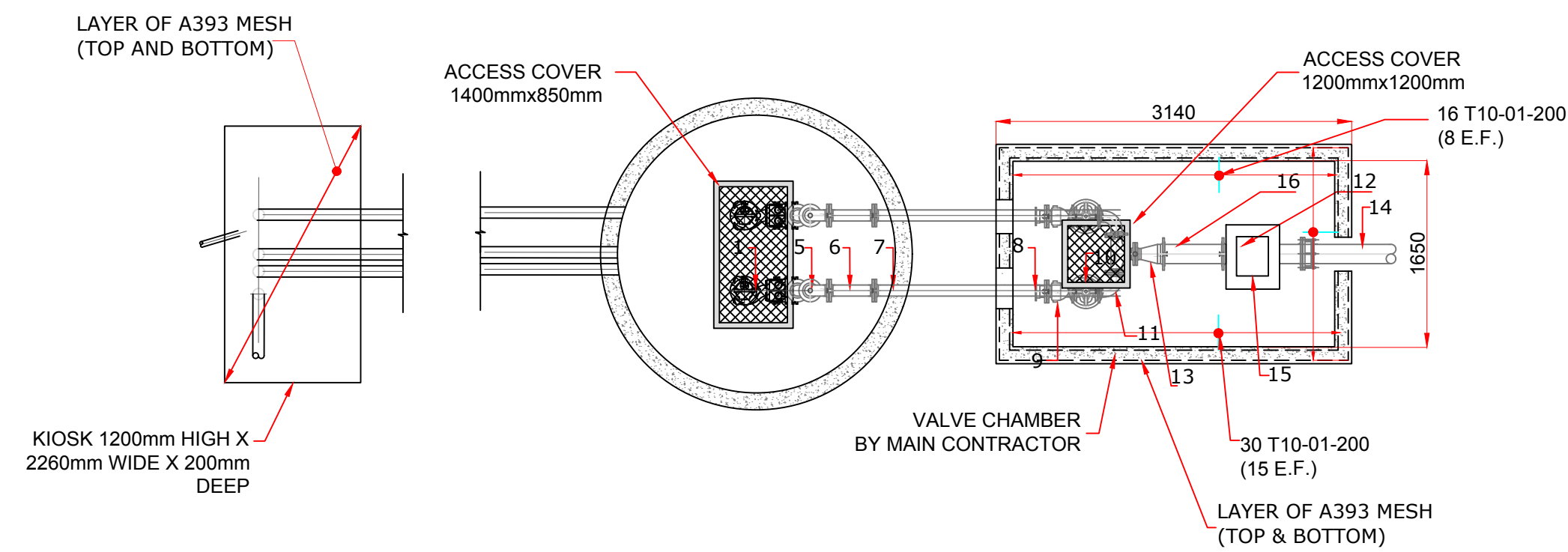
Scale @ A1: 1:100 or as Shown
Prepared by: M. Nolan
Checked: A. Austin
Date: December 2017
Project Director: D. Grehan
Drawing Status: Planning

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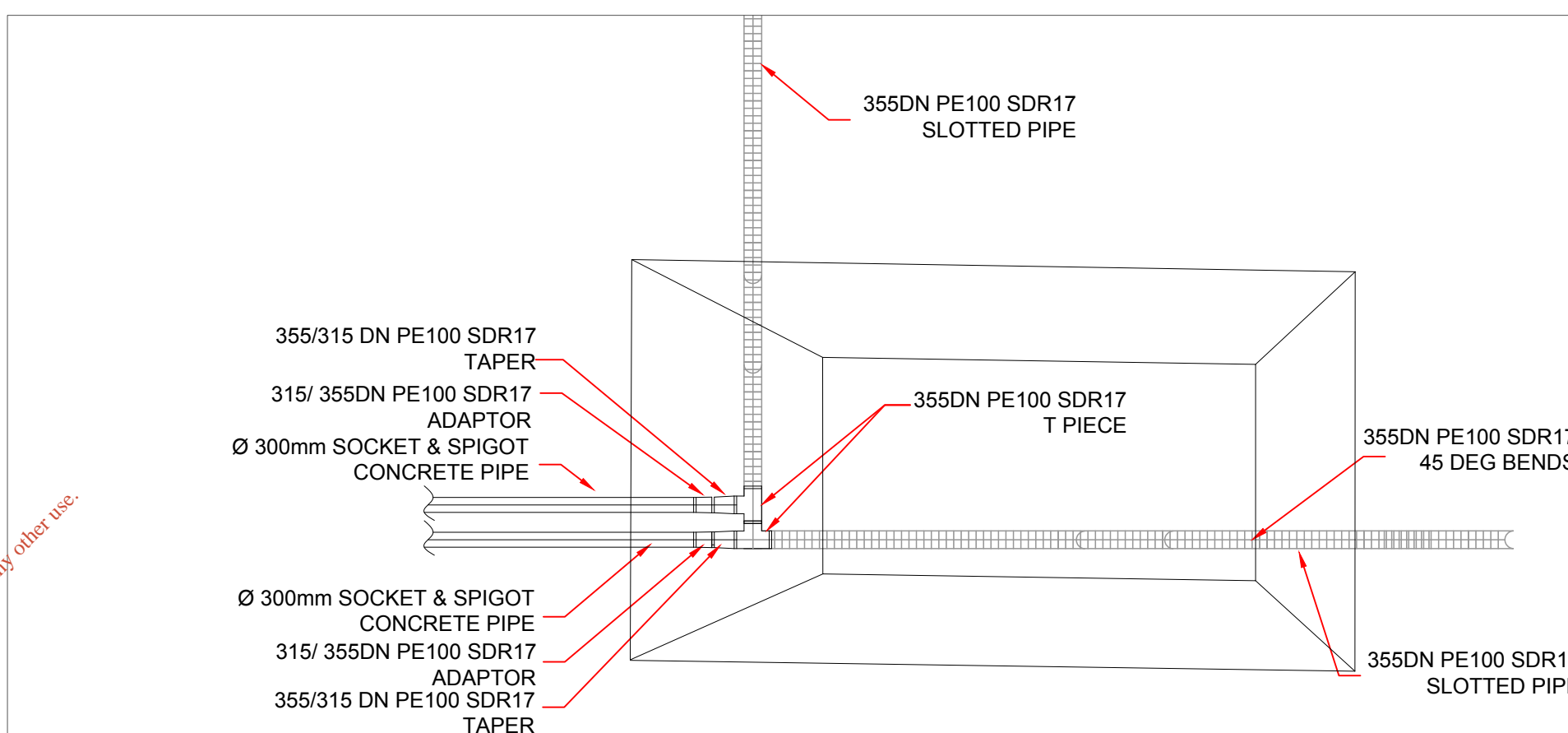
Drawing No.: **8108-2060**
Revision: **A**



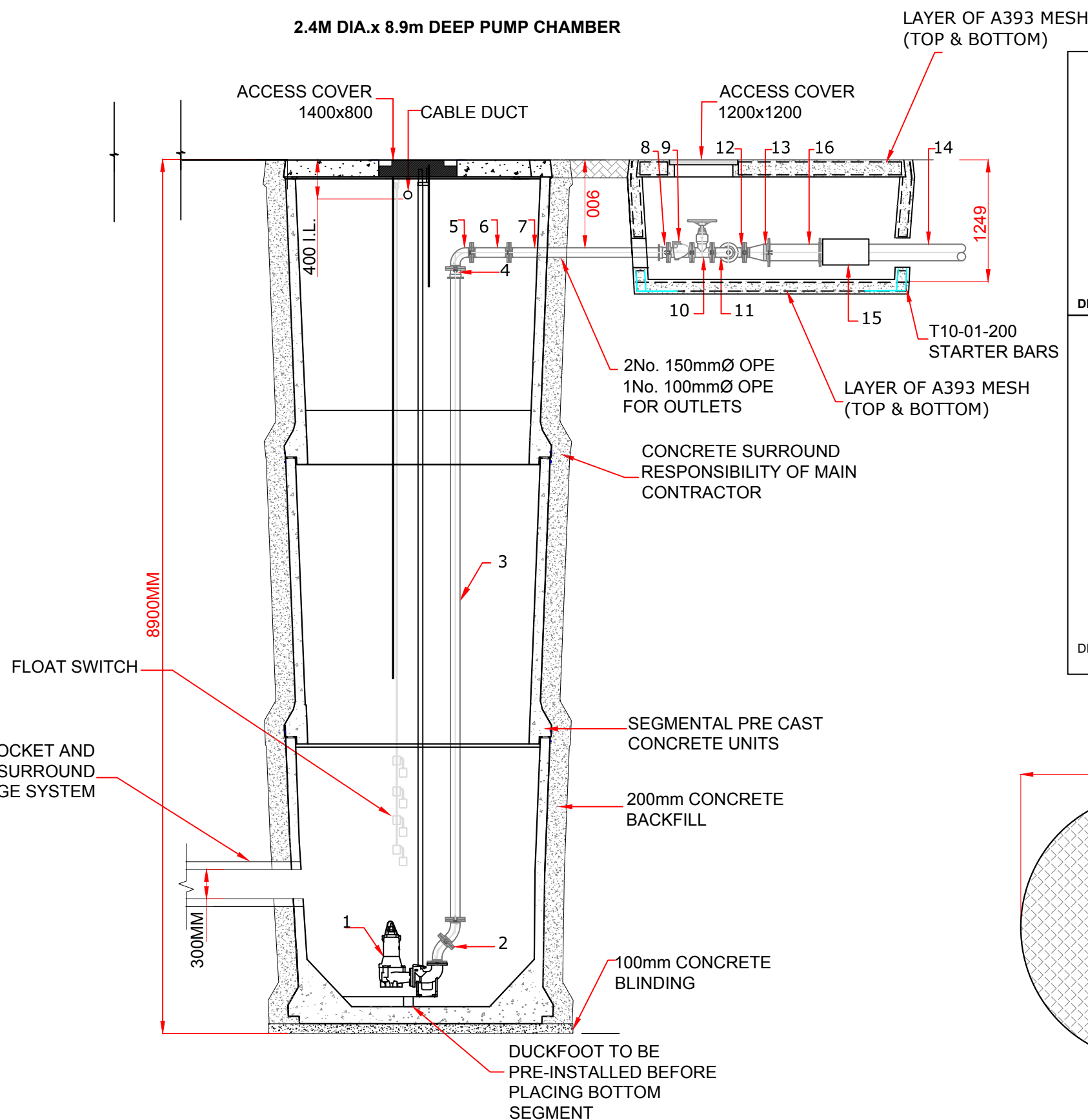
TYPICAL SECTION THROUGH GROUNDWATER PUMPING STATION
SCALE 1:125



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UNDERCELL DRAINAGE CONNECTION DETAIL
SCALE 1:125



Material List - Internal Pipe Work

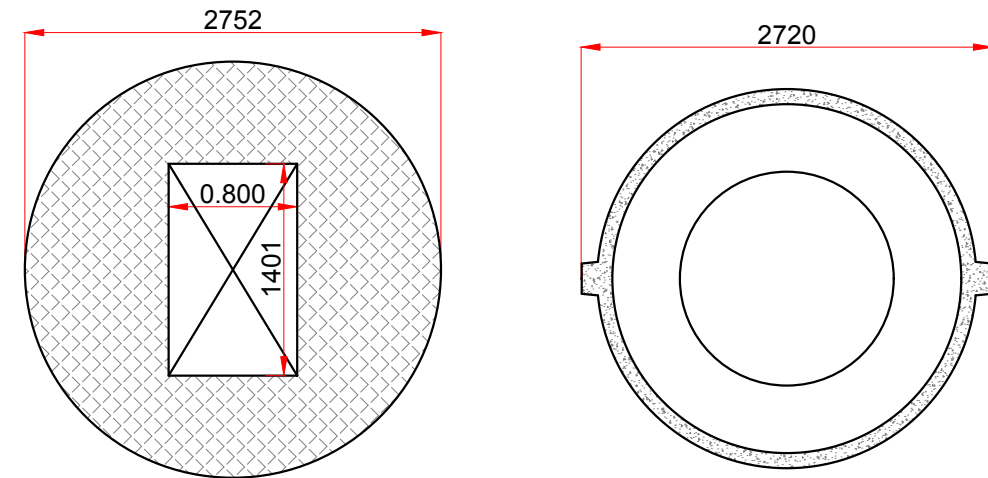
Item	Description
1	Submersible Pump
2	Flanged 45° Bend
3	Flanged pipe one end x 6670mm Long
4	Flange Adapter
5	Flanged 90° S.R. Elbow
6	Flanged Pipe x 400mm Long

DIMENSIONS TO BE VERIFIED BY M&E CONTRACTOR

Material List - External Pipe Work

Item	Description
7	Flanged pipe one end x 1310mm long
8	Flange Adapter
9	Non Return Valve
10	Gate Valve
11	Flanged 90° S.R. Elbow
12	Equal Tee
13	Concentric Taper
14	Flanged Pipe one end x 1000mm Long
15	Flow Meter
16	Flanged Pipe x 500mm Long

DIMENSIONS TO BE VERIFIED BY M&E CONTRACTOR



PUMP STATION DETAILS
SCALE 1:50

NOTES:

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A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
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Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

Title: **GROUNDWATER PUMP STATION TYPICAL DETAILS**

Scale @ A1: **As Shown**

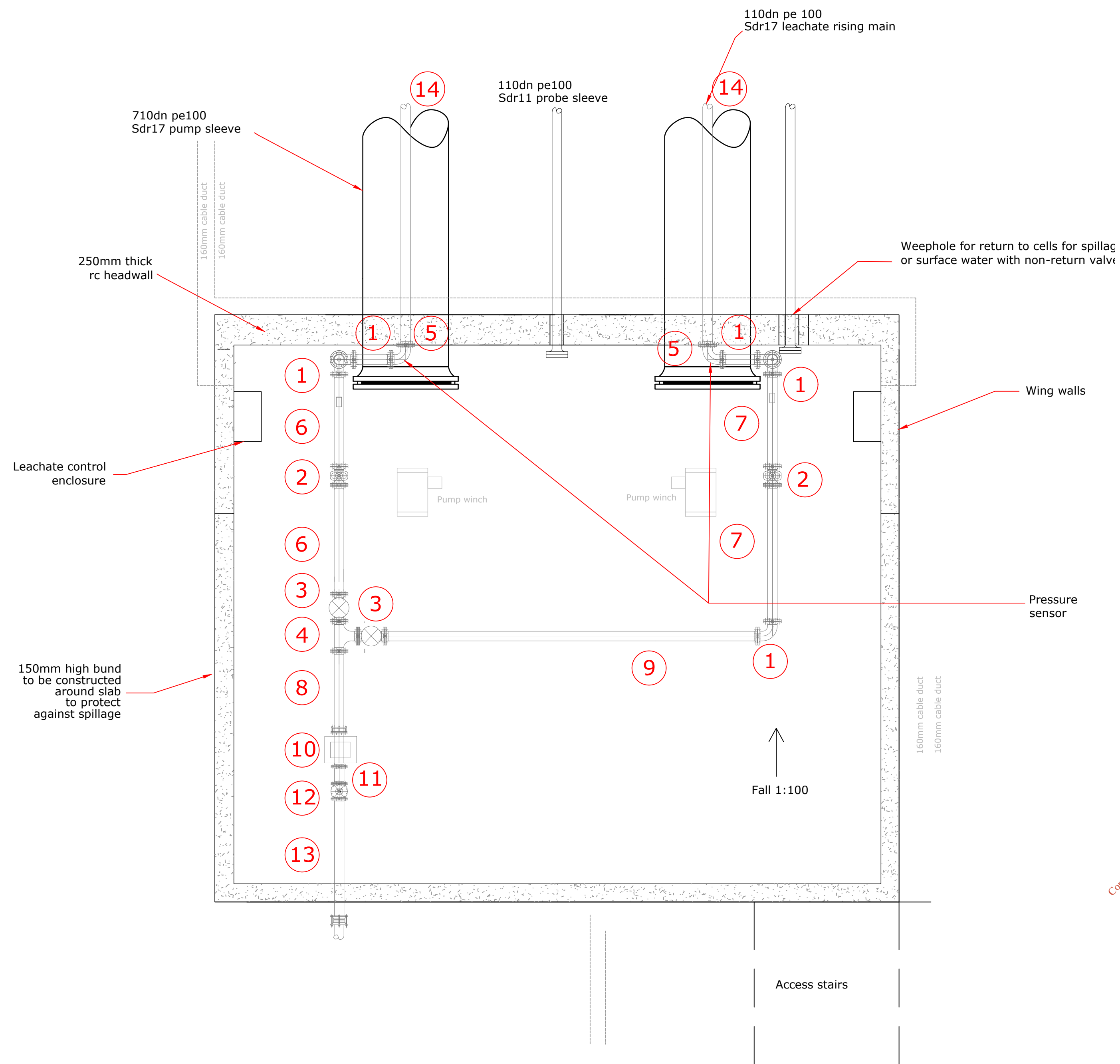
Prepared by: M. Nolan	Checked: A. Austin	Date: December 2017
Project Director: D. Grehan	Drawing Status: Planning	

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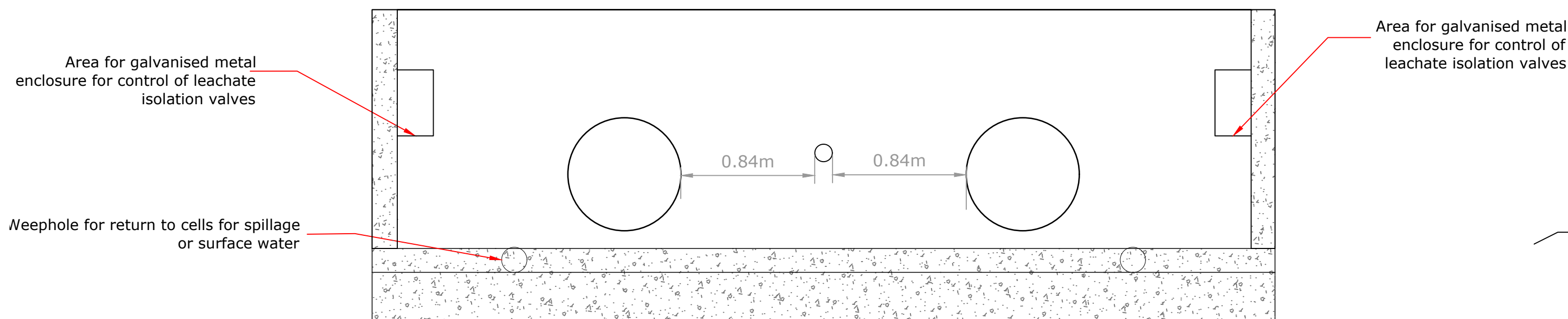
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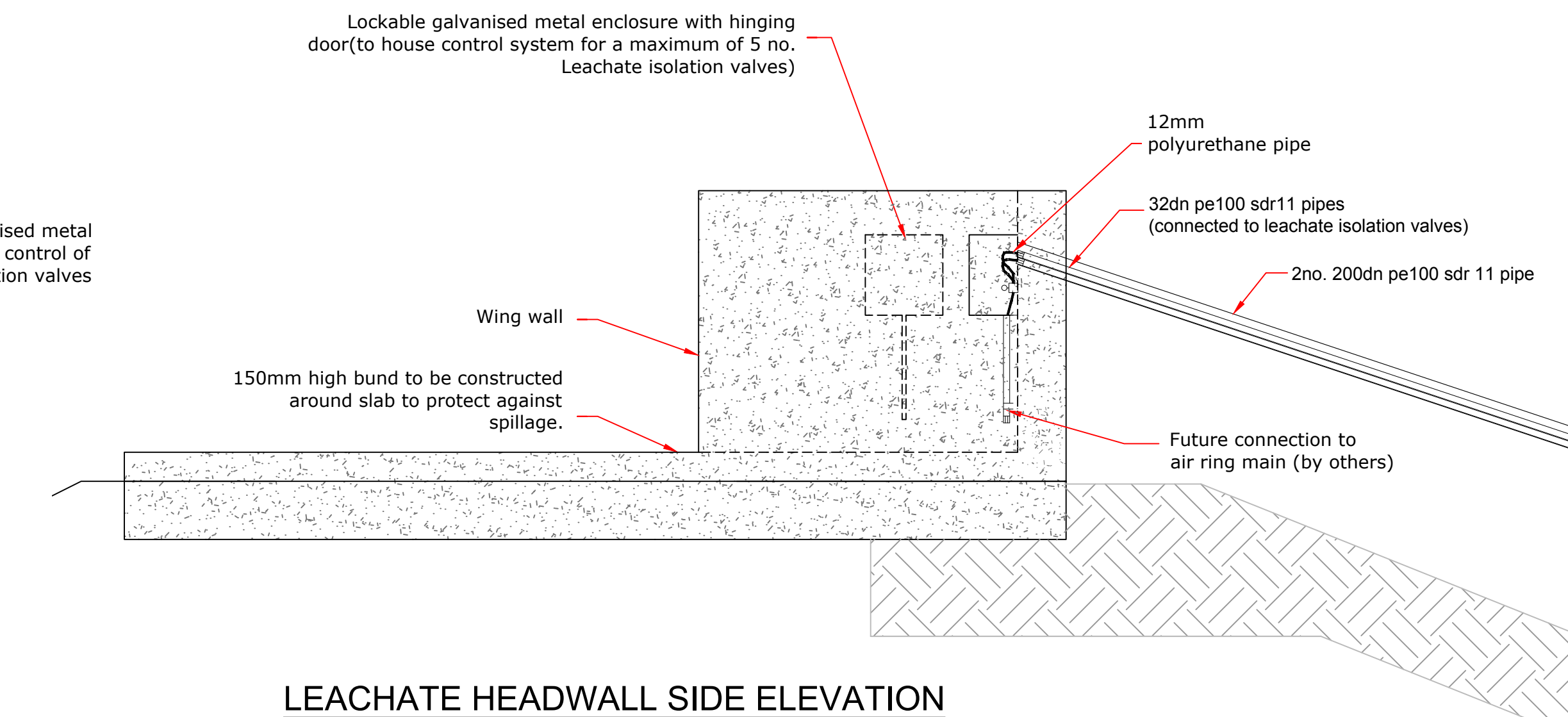
Drawing No.: **8108-2061** Revision: **A**



LEACHATE HEADWALL PLAN



LEACHATE HEADWALL FRONT ELEVATION

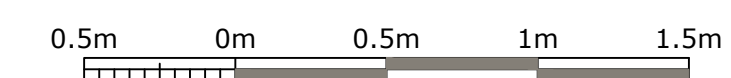


LEACHATE HEADWALL SIDE ELEVATION

ID	DESCRIPTION
1	90° FLANGED BEND
2	SLUICE VALVE
3	NON-RETURN VALVE
4	ALL FLANGED TEE
5	300mm of HDPE PIPE (WELDED TO SIDE SLOPE RISER) C/W STUB FLANGES, GASKETS AND BACKING RINGS
6	1700mm of FLANGED PIPE
7	2000mm of FLANGED PIPE
8	650mm of FLANGED PIPE
9	3000mm of FLANGED PIPE
10	FLOWMETER
11	300mm of FLANGED PIPE
12	GATE VALVE
13	1000mm of FLANGED SPIGOT PIPE
14	21,000mm of 110DN PE100 SDR11

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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC

Client: **BORD NA MÓNA**
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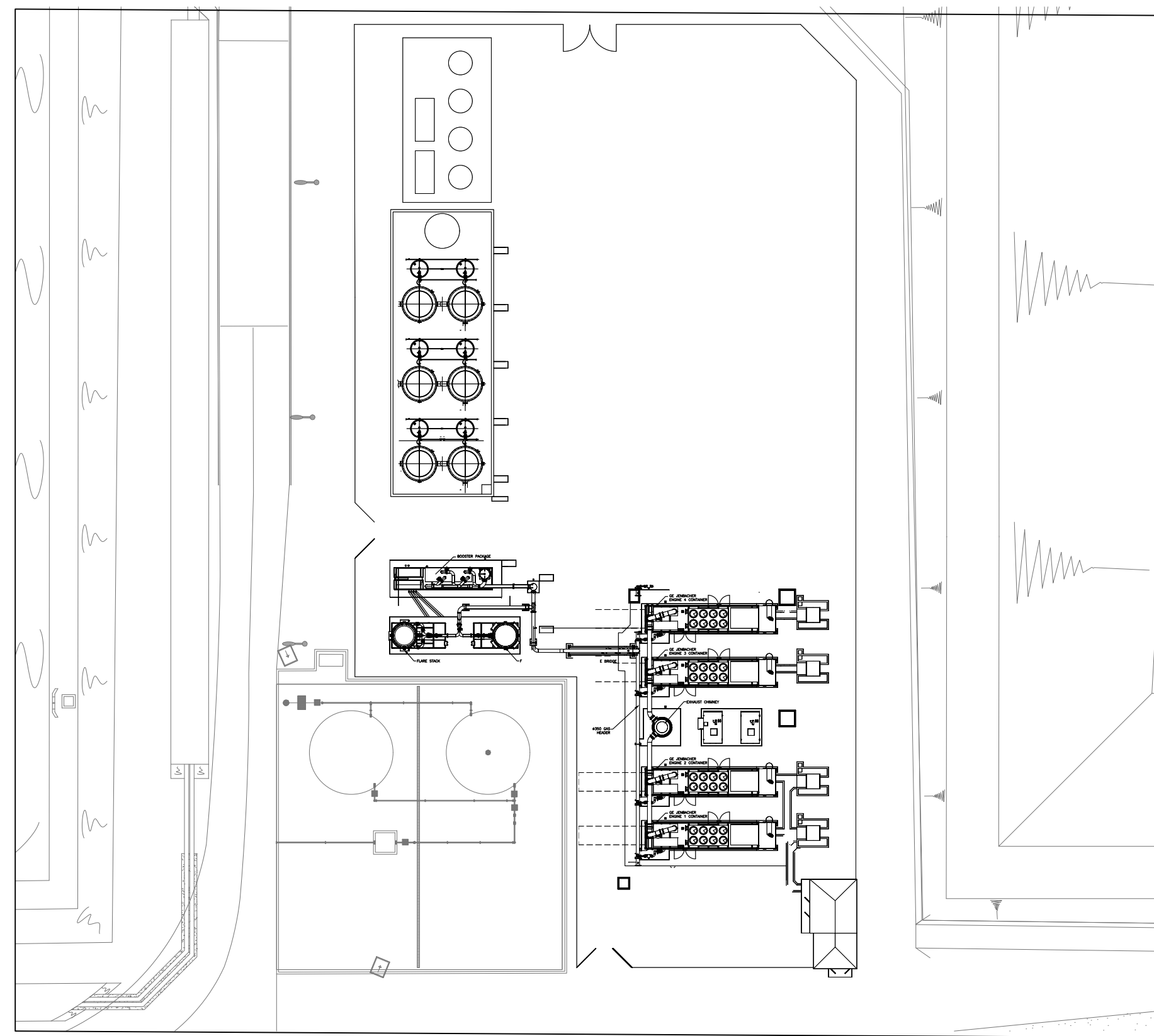
Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

Title: **LEACHATE HEADWALL TYPICAL DETAILS**

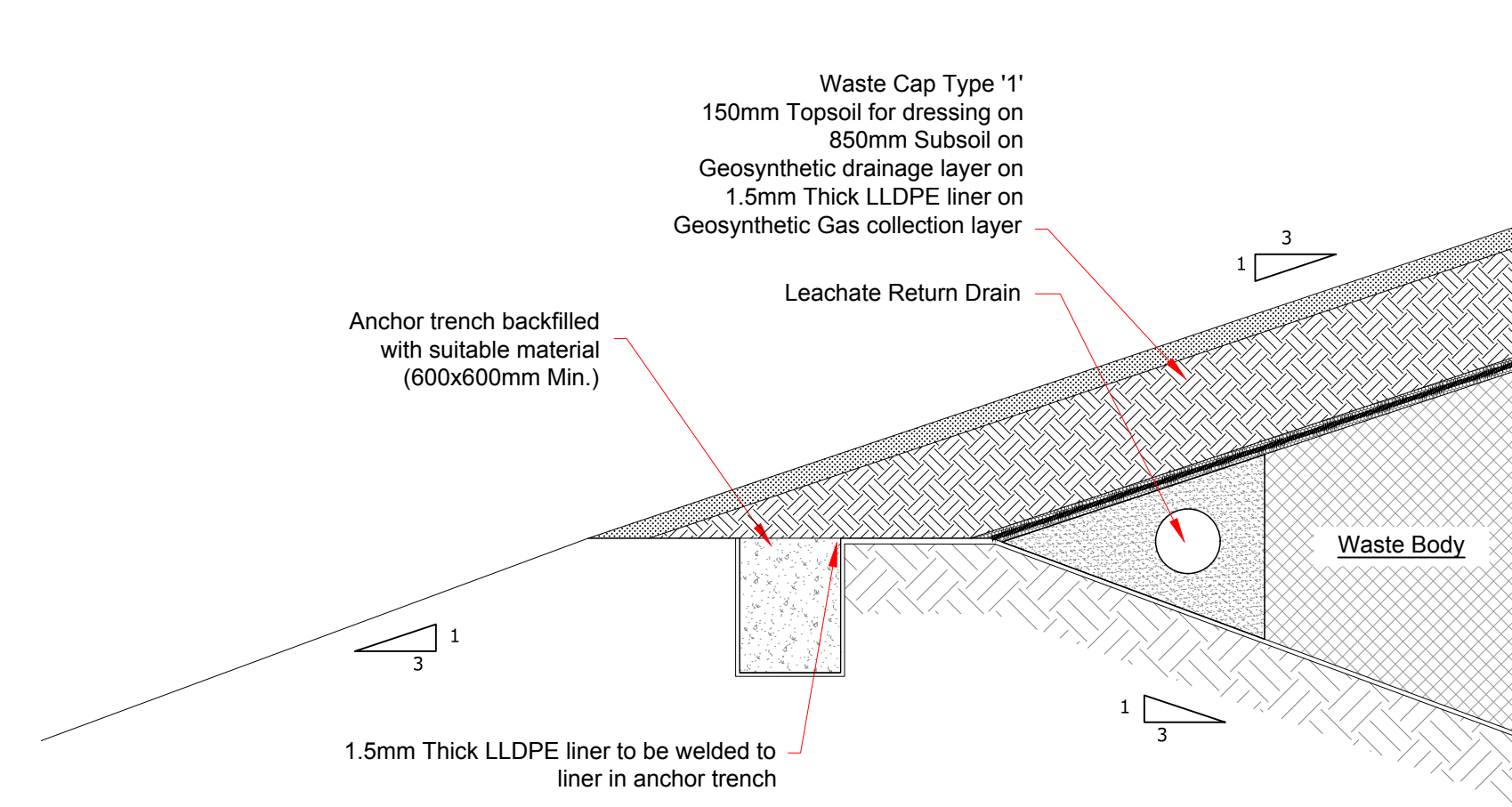
Scale @ A1: **1:25**
 Prepared by: M. Nolan | Checked: A. Austin | Date: December 2017
 Project Director: D. Grehan
 Drawing Status: Planning

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LANDFILL GAS UTILISATION COMPOUND
- Scale 1:500

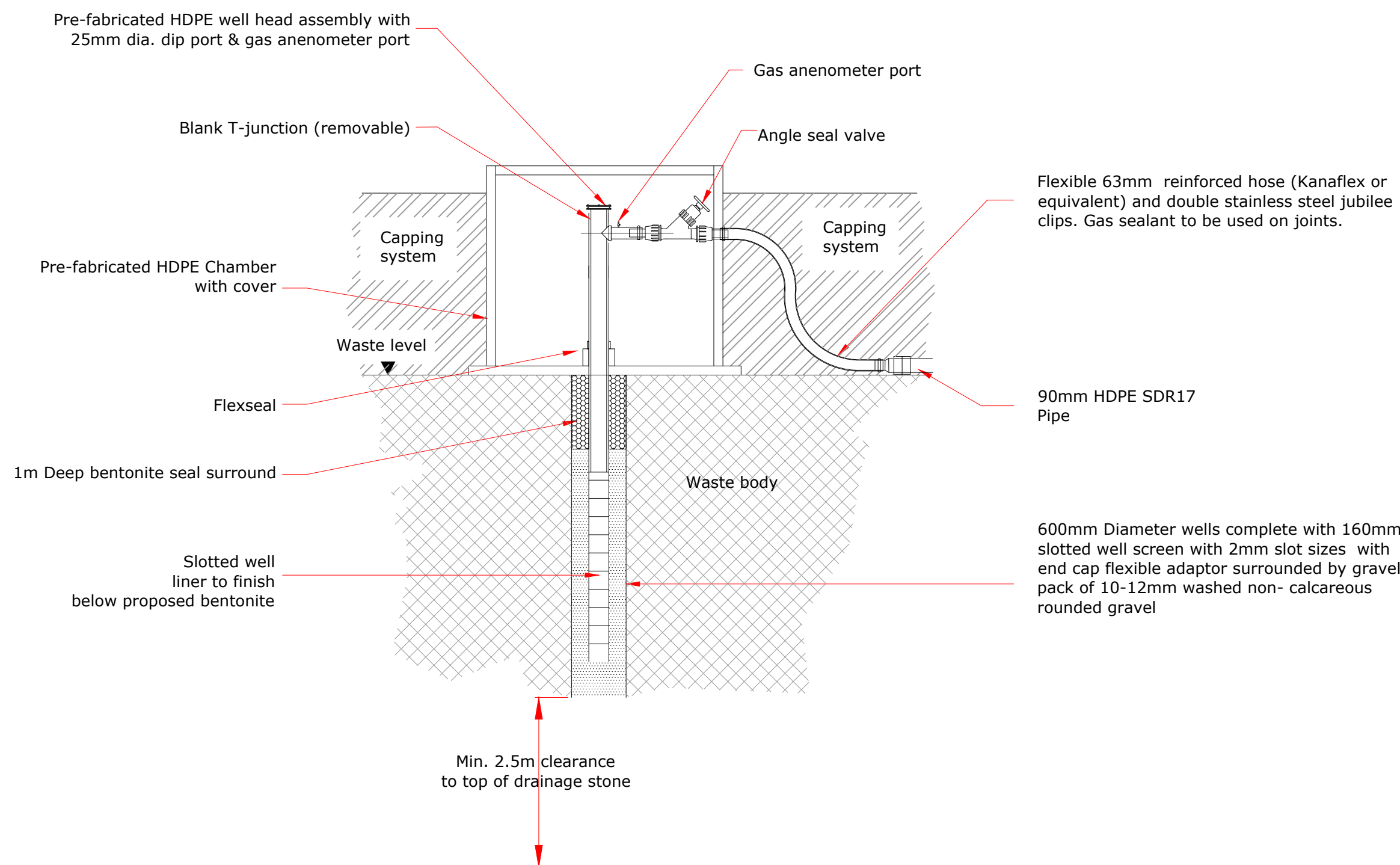


TYPICAL WASTE CAP DETAIL - Scale 1:50

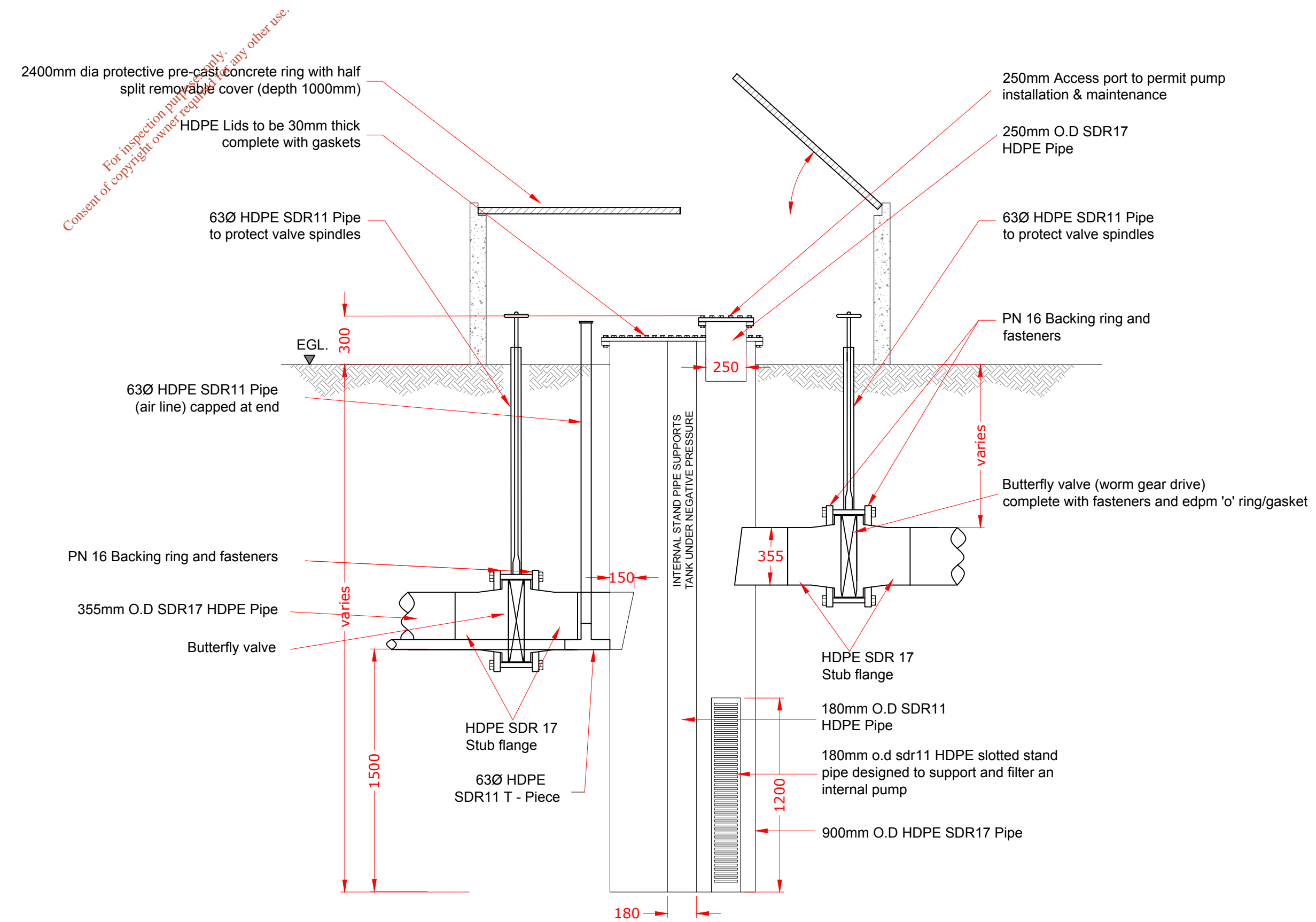
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Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC



SCHEMATIC DETAIL OF TYPICAL LANDFILL GAS EXTRACTION WELL (NTS)



SCHEMATIC DETAIL OF LANDFILL GAS CONDENSATE TRAP (NTS)

Client: **BORD NA MÓNA**
Naturally Driven

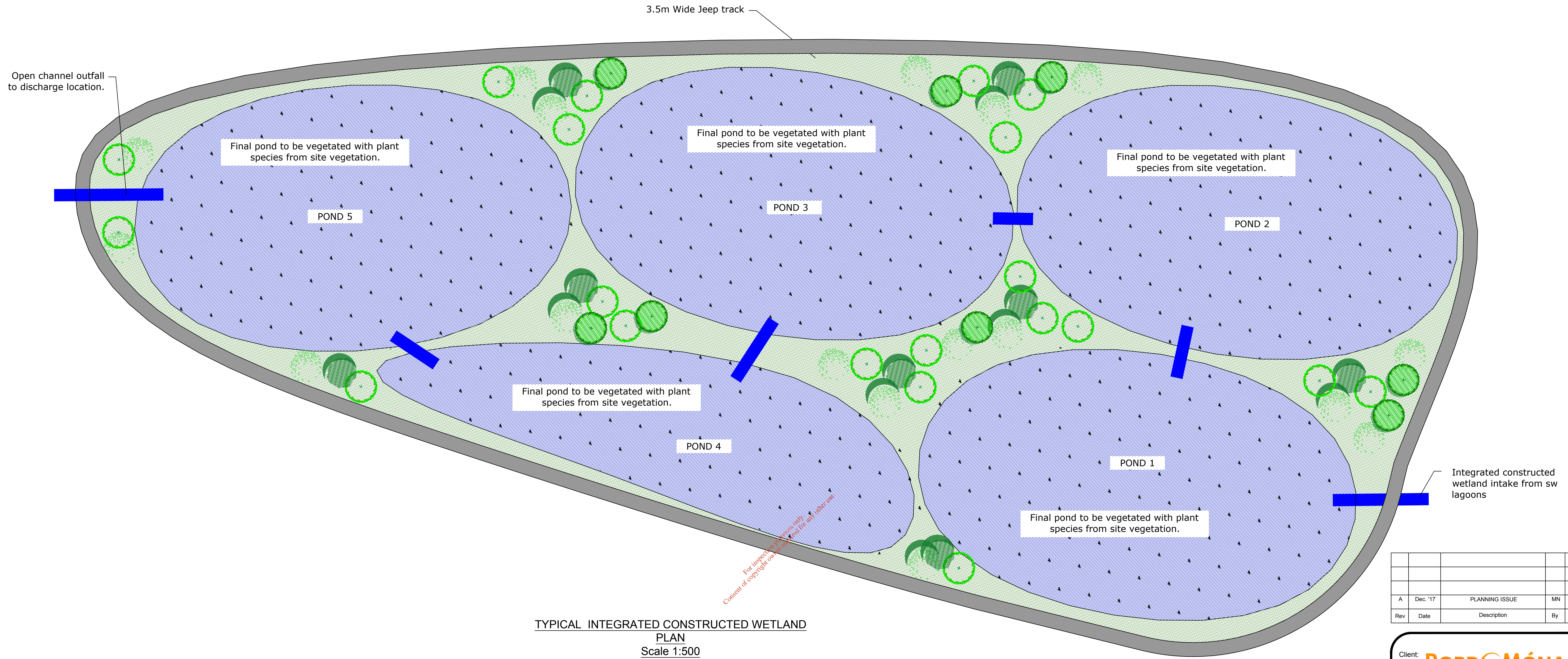
Project: **PROPOSED DEVELOPMENT AT DREHID WASTE MANAGEMENT FACILITY**

Title: **LANDFILL GAS MANAGEMENT & CAPPING DETAILS**

Scale @ A1: **AS SHOWN**
Prepared by: M. Nolan, Checked: A. Austin, Date: December 2017
Project Director: D. Grehan
Drawing Status: **Planning**

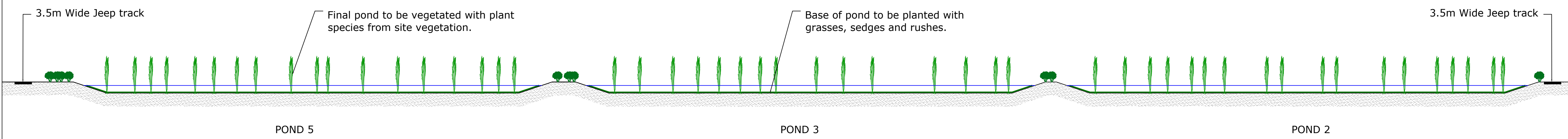
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Drawing No.: **8108-2063** Revision: **A**



TYPICAL INTEGRATED CONSTRUCTED WETLAND
PLAN
Scale 1:500

Rev	Date	Description	By	Chkd.
A	Dec. '17	PLANNING ISSUE	MN	DC



TYPICAL INTEGRATED CONSTRUCTED WETLAND
TYPICAL LONGSECTION
Scale 1:500

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Client: **BORD NA MÓNA**
Naturally Driven

Project:
DREHID WASTE MANAGEMENT FACILITY

Title:
INTEGRATED CONSTRUCTED WETLAND DETAILS

Scale @ A1: **As Shown**

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Drawing Status:	Planning

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