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GROUP**
DUBLIN - LONDON - LIMERICK

An Bord Pleanála
64 Marlborough Street
Dublin 1
D01 V902

Sent By: Post

Job Ref: R089

A - GL

Date: 28-Apr-21

Proposed Strategic Housing Development

at Stapolin, Growth Area 1, Baldoyle,

Co. Dublin

Dear Sir/Madam,

Please find attached a copy of the Statement of Design Acceptance from Irish Water for the proposed watermain and foul sewer network design layouts for the proposed residential development at Stapolin Growth Area 1, Baldoyle, Co. Dublin.

Yours sincerely,

Gary Lindsay
Associate
Chartered Civil Engineer
B.E, CEng, M.I.E.I

Sean McCallion
Embassy House
Ballsbridge, Dublin 4
Dublin D04H6Y0

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

16 April 2021

**Re: Design Submission for The Coast, Balboyle, Dublin 13, Co. Dublin (the “Development”)
(the “Design Submission”) / Connection Reference No: CDS19008452**

Dear Sean McCallion,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU) (https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water's network(s) (the “Self-Lay Works”), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:

Name: Alvaro Garcia

Email: agarcia@water.ie

Yours sincerely,



Yvonne Harris
Head of Customer Operations

Appendix A

Document Title & Revision

BD-CSC-ZZ-XX-DR-C-0003_Drainage Plan Layout-SHEET 1
BD-CSC-ZZ-XX-DR-C-0004_Drainage Plan Layout-SHEET 2
BD-CSC-ZZ-XX-DR-C-0005_Watermain layout
BD-CSC-ZZ-XX-DR-C-0006_Drainage Details Sheet 1 of 3
BD-CSC-ZZ-XX-DR-C-0007_Drainage Details Sheet 2 of 3
BD-CSC-ZZ-XX-DR-C-0008_Drainage Details Sheet 3 of 3
BD-CSC-ZZ-XX-DR-C-0010_Watermain Details Sheet 1 of 2
BD-CSC-ZZ-XX-DR-C-0011_Watermain Details Sheet 2 of 2
BD-CSC-ZZ-XX-DR-C-0039_Foul Long Sections-SHEET 1
BD-CSC-ZZ-XX-DR-C-0040_Foul Long Sections-SHEET 2

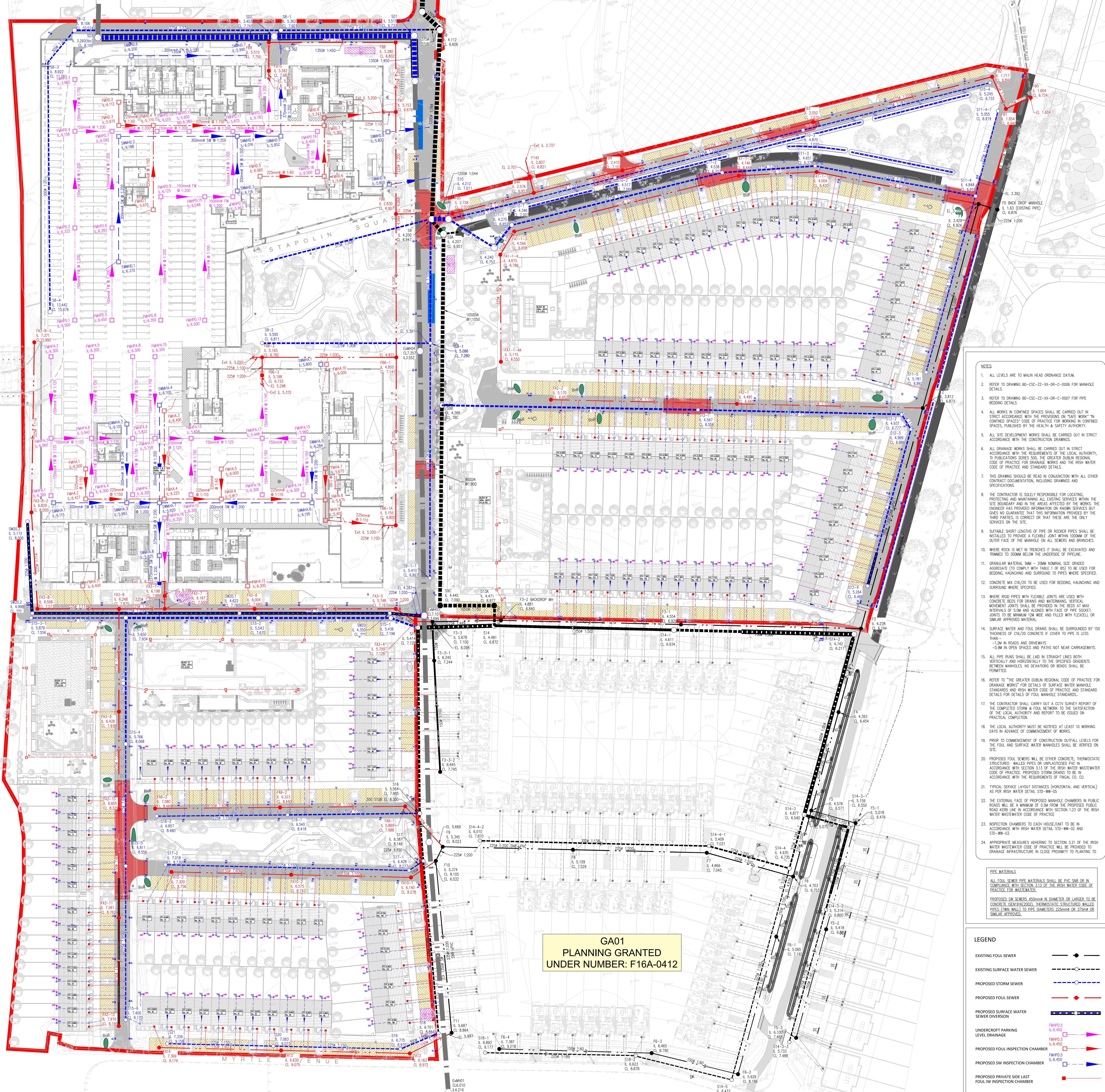
For further information, visit www.water.ie/connections

Notwithstanding any matters listed above, the Customer (including any appointed designers/contractors, etc.) is entirely responsible for the design and construction of the Self-Lay Works. Acceptance of the Design Submission by Irish Water will not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

GA03
SUBJECT TO SEPARATE
PLANNING APPLICATION

MATCH LINE

MATCH LINE



GA01
PLANNING GRANTED
UNDER NUMBER: F16A-0412

- NOTES:
- ALL LEVELS ARE TO MAIN HEAD ORDNANCE DATUM.
 - REFER TO DRAWING BD-CSC-ZZ-XX-DR-C-0006 FOR MANHOLE DETAILS.
 - REFER TO DRAWING BD-CSC-ZZ-XX-DR-C-0007 FOR PIPE BEDDING DETAILS.
 - ALL WORKS IN CONFINED SPACES SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE PROVISIONS ON "SAFE WORK" IN CONFINED SPACES CODE OF PRACTICE FOR WORKING IN CONFINED SPACES, PUBLISHED BY THE HEALTH & SAFETY AUTHORITY.
 - ALL SITE DEVELOPMENT WORKS SHALL BE CARRIED OUT IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.
 - IN PUBLICATIONS SERIES 500, THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND THE RISH WATER CODE OF PRACTICE AND STANDARD DETAILS.
 - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTATION, INCLUDING DRAWINGS AND SPECIFICATIONS.
 - THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING, PROTECTING AND MAINTAINING ALL EXISTING SERVICES WITHIN THE SITE BOUNDARY AND IN THE AREAS AFFECTED BY THE WORKS. THE ENGINEER HAS PROVIDED INFORMATION ON KNOWN SERVICES BUT DOES NOT GUARANTEE THAT THIS INFORMATION PROVIDED BY THE THIRD PARTIES IS CORRECT OR THAT THESE ARE THE ONLY SERVICES ON THE SITE.
 - SUITABLE SHORT LENGTHS OF PIPE OR RIGID JOINT SHALL BE INSTALLED TO PROVIDE A FLEXIBLE JOINT WITHIN 100MM OF THE OUTER FACE OF THE MANHOLE OR ALL SEWERS AND BRANCHES.
 - WHERE RIGID IS MET IN TRENCHES IT SHALL BE EXCAVATED AND REINFORCED TO 300mm BELOW THE UNDERFACE OF PIPELINE.
 - CRANIAL MATERIAL SHALL BE 100mm NOMINAL SIZE GRADED AGGREGATE TO COMPLY WITH TABLE 1 OF BS 595 TO BE USED FOR BEDDING, HAUNCHING AND SURROUND TO PIPES WHERE SPECIFIED.
 - CONCRETE MAX C35/50 TO BE USED FOR BEDDING, HAUNCHING AND SURROUND WHERE SPECIFIED.
 - WHERE RIGID PIPES WITH FLEXIBLE JOINTS ARE USED WITH CONCRETE BEDS FOR DRAINS AND WATERMANS, VERTICAL MOVEMENT JOINTS SHALL BE PROVIDED IN THE BEDS AT MAX INTERVALS OF 50M AND ALIGNED WITH FACE OF PIPE SOCKET. JOINTS TO BE MINIMUM 100mm WIDE AND FILLED WITH FLEXIBLE OR SIMILAR APPROVED MATERIAL.
 - SURFACE WATER AND FOUL DRAINS SHALL BE SURROUNDED BY 150mm DEPTH OF CH20/20 CONCRETE OF OTHER TO PIPE IS LESS THAN 150mm IN ROADS AND DRIVEWAYS.
-50mm IN OPEN SPACES AND PATHS NOT NEAR CARRIAGEWAYS.
 - ALL PIPE RUNS SHALL BE LAID IN STRAIGHT LINES BOTH VERTICALLY AND HORIZONTALLY TO THE SPECIFIED GRADIENTS BETWEEN MANHOLES. NO ELEVATIONS OR BENDS SHALL BE PERMITTED.
 - REFER TO THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS FOR DETAILS OF SURFACE WATER MANHOLE STANDARDS AND RISH WATER CODE OF PRACTICE AND STANDARD DETAILS FOR DETAILS OF FOUL MANHOLE STANDARDS.
 - THE CONTRACTOR SHALL CARRY OUT A CITY SURVEY REPORT OF THE COMPLETED STORM & FOUL NETWORK TO THE SATISFACTION OF THE LOCAL AUTHORITY AND REPORT TO BE ISSUED ON PRACTICAL COMPLETION.
 - THE LOCAL AUTHORITY MUST BE NOTIFIED AT LEAST 10 WORKING DAYS IN ADVANCE OF COMMENCEMENT OF WORKS.
 - PRIOR TO COMMENCEMENT OF CONSTRUCTION OUTFALL LEVELS FOR THE FOUL AND SURFACE WATER MANHOLES SHALL BE VERIFIED ON SITE.
 - PROPOSED FOUL SEWERS WILL BE EITHER CONCRETE, THERMOSTATIC STRUCTURED WALLD PIPES OR UNREINFORCED PVC IN ACCORDANCE WITH SECTION 3.13 OF THE RISH WATER WASTEWATER CODE OF PRACTICE. PROPOSED STORM DRAINS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF FINGAL CO. DO.
 - TYPICAL SERVICE LAYOUT DISTANCES (HORIZONTAL AND VERTICAL) AS PER RISH WATER DETAIL STD-WM-05.
 - THE EXTERNAL FACE OF PROPOSED MANHOLE CHAMBERS IN PUBLIC ROADS WILL BE A MINIMUM OF 0.5M FROM THE PROPOSED PUBLIC ROAD ROAD LINE IN ACCORDANCE WITH SECTION 1.13 OF THE RISH WATER WASTEWATER CODE OF PRACTICE.
 - INSPECTION CHAMBERS TO EACH HOUSE/JUNT TO BE IN ACCORDANCE WITH RISH WATER DETAIL STD-WM-02 AND STD-WM-05.
 - APPROPRIATE MEASURES ADHERING TO SECTION 3.21 OF THE RISH WATER WASTEWATER CODE OF PRACTICE WILL BE PROVIDED TO DRAINAGE INFRASTRUCTURE IN CLOSE PROXIMITY TO PLANTING TO

PIPE MATERIALS
ALL FOUL SEWER PIPE MATERIALS SHALL BE PVC-SH OR IN COMPLIANCE WITH SECTION 3.13 OF THE RISH WATER CODE OF PRACTICE FOR UNREINFORCED PVC.
UNREINFORCED PVC SHALL BE PROVIDED IN THE BEDS AT MAX INTERVALS OF 50M AND ALIGNED WITH FACE OF PIPE SOCKET. JOINTS TO BE MINIMUM 100mm WIDE AND FILLED WITH FLEXIBLE OR SIMILAR APPROVED MATERIAL.

LEGEND

- EXISTING FOUL SEWER
- EXISTING SURFACE WATER SEWER
- PROPOSED STORM SEWER
- PROPOSED FOUL SEWER
- PROPOSED SURFACE WATER SEWER DIVERSION
- UNDERCROFT PARKING LEVEL DRAINAGE
- PROPOSED FOUL INSPECTION CHAMBER
- PROPOSED SW INSPECTION CHAMBER
- PROPOSED PRIVATE SIDE LIFT FOUL INSPECTION CHAMBER
- PIPE DIAMETER AND GRADIENT
- PROPOSED MANHOLE NUMBER, COVER AND INVERT LEVELS
- BACKDROP INVERT LEVEL
- PROPOSED SWALE
- PROPOSED BIO RETENTION
- KERB GULLY
- ROAD GULLY
- PROPOSED GREEN ROOF
- PROPOSED PERMEABLE PAVING
- PROPOSED 100L RAINWATER BUTTS
- PROPOSED TREE PIT
- SITE BOUNDARY EXTENTS

NOTE: LOCATIONS AND LEVELS OF ALL EXISTING SERVICES ON SITE TO BE SURVEYED AND VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS.

DRAFT

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ALL LEVELS GIVEN ARE
RELATIVE TO ORDNANCE DATUM.
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- NOTES
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 - This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and Specifications.
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Rev No	Date	REVISION NOTE
P1	09.10.2020	PLANNING SUBMISSION STAGE 3

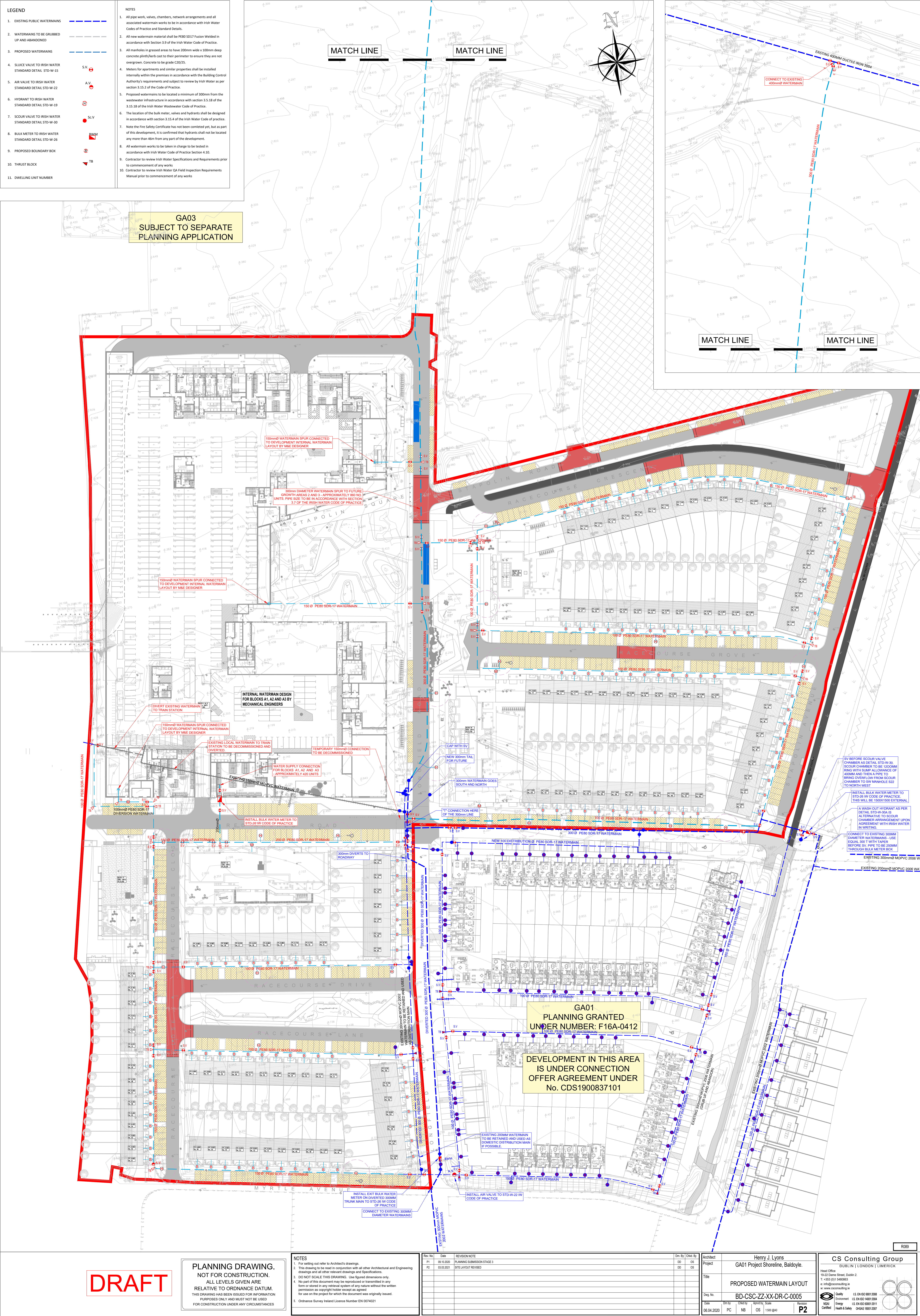
Drn By	Chg By	Architect	Henry J. Lyons
DO	OS	Project	GA01 Project Shoreline, Baldoye.
Title			PROPOSED DRAINAGE LAYOUT SEET 1 OF 2
Dwg No.			BD-CSC-ZZ-XX-DR-C-0003
Date	06.04.2020	Drn By	PC
Chg By	INB	Chg By	OS
Scale	1:500 (A4)	Revision	P1

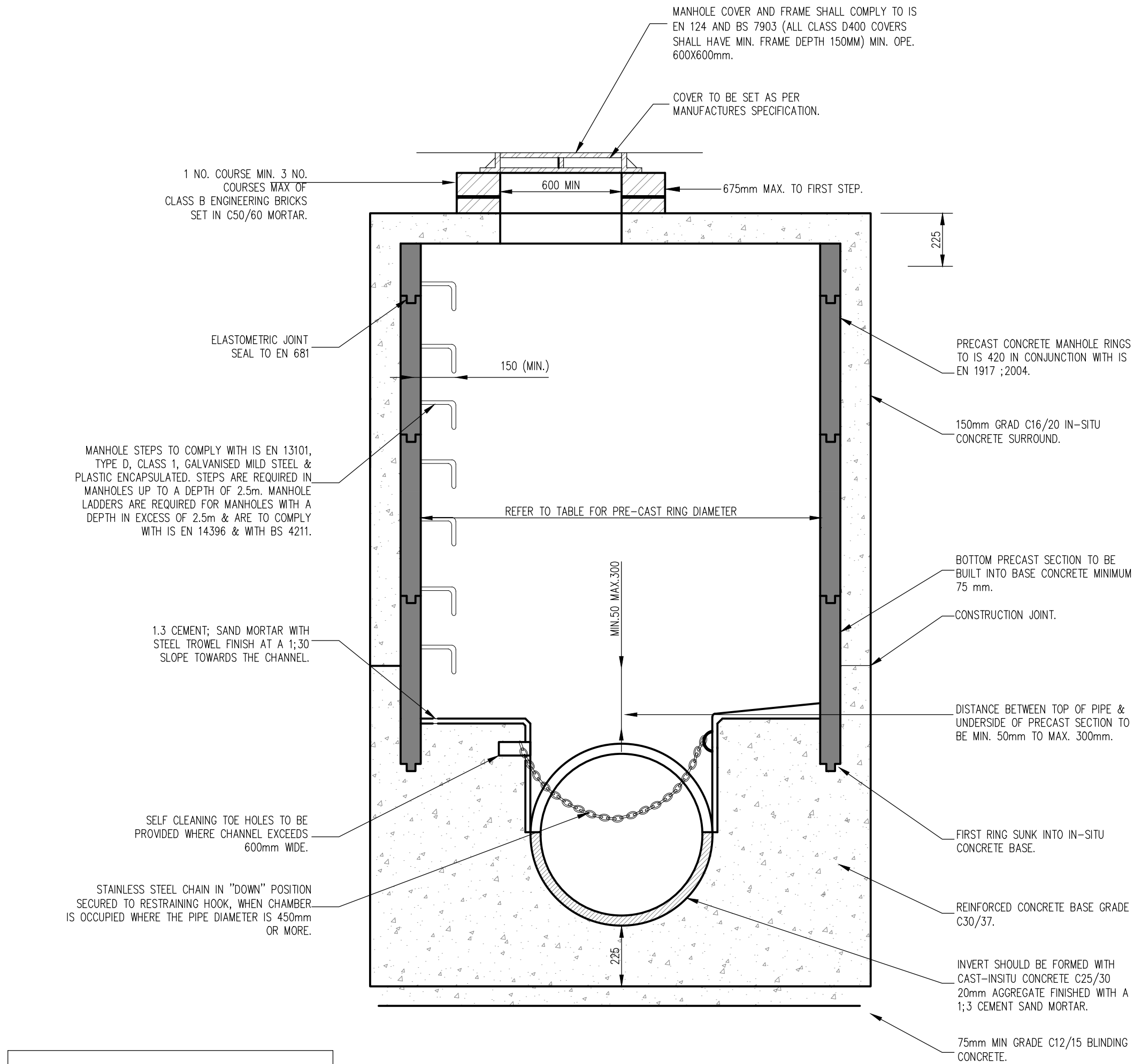
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Environment
Energy
Health & Safety

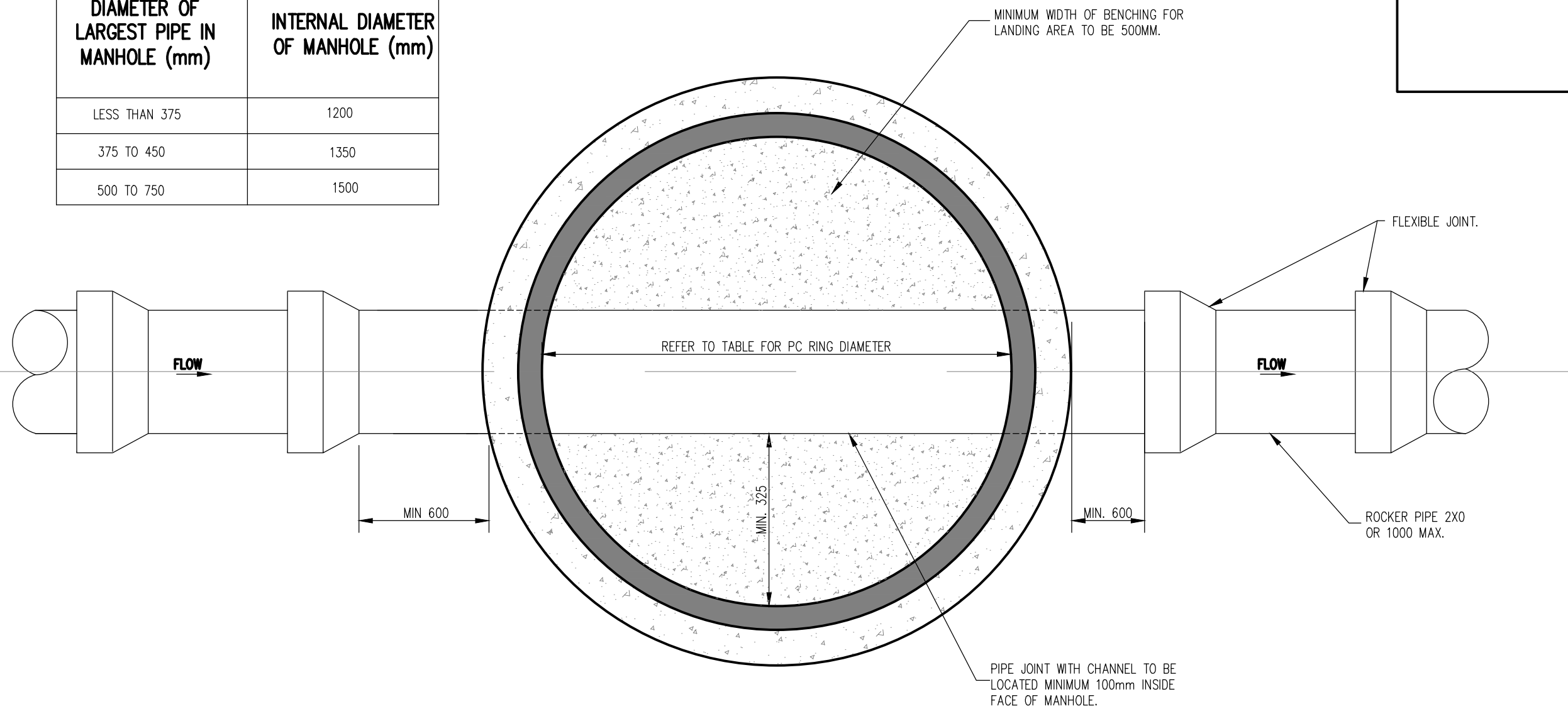
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
NSAI
GSAI 1001:2017





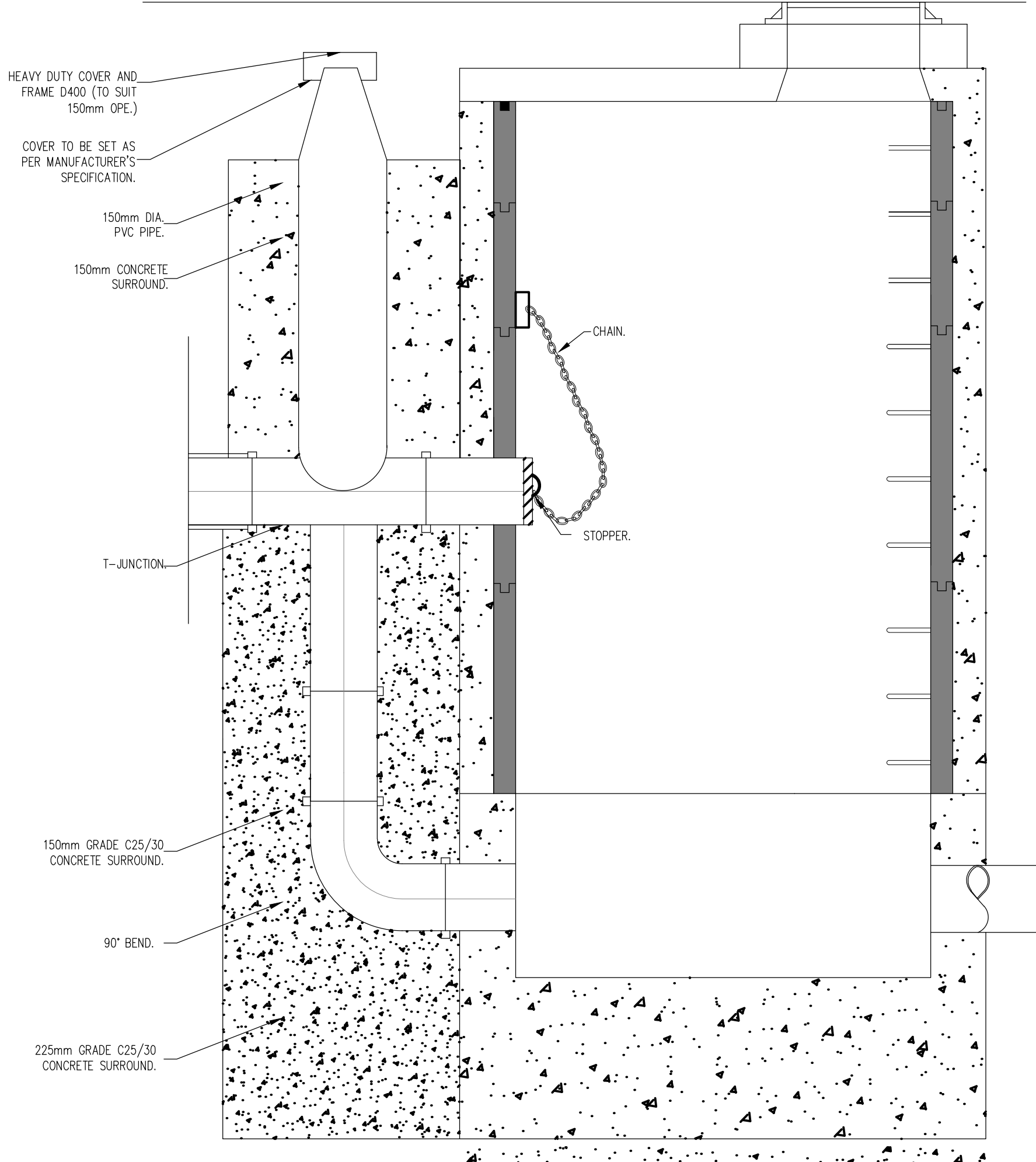
MINIMUM MANHOLE DIAMETERS "D"	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

SECTION A-A

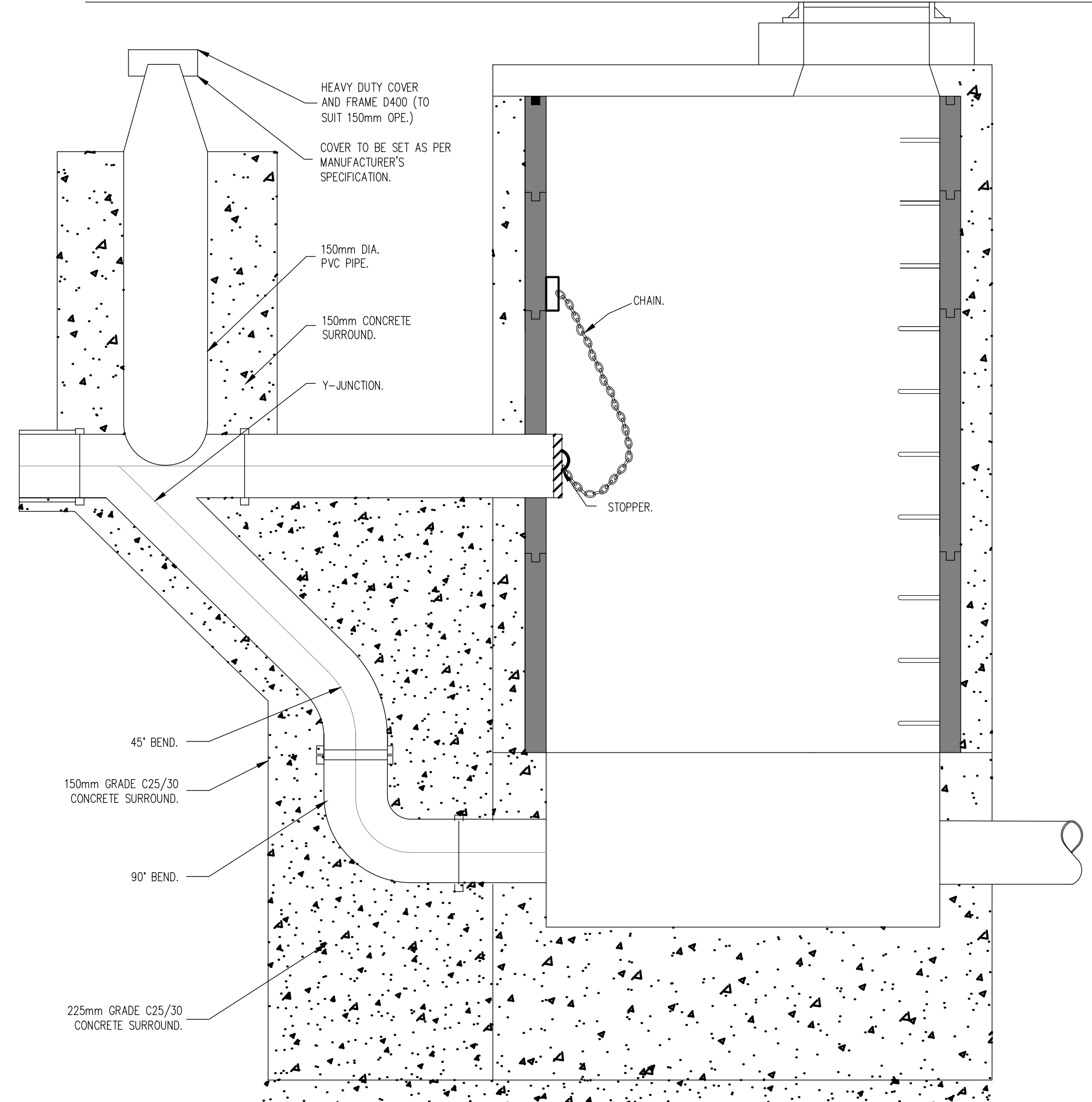


PLAN

MANHOLE TYPE 3
PRECAST CONCRETE FOUL MANHOLE
(STD-WW-10)
SCALE 1:20



MANHOLE TYPE 4
150mm - 450mm (NCL) DROP GREATER THAN 900mm AND LESS THAN 1700mm.
500mm - 900mm (NCL) DROP GREATER THAN 1300mm AND LESS THAN 2300mm.



MANHOLE TYPE 5
150mm - 450mm (NCL) DROP GREATER THAN 1700mm.
500mm - 900mm (NCL) DROP GREATER THAN 2300mm.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. RODDING EYE CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 AND BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.
3. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOTATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO APPROVAL FROM IRISH WATER.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.
5. MANHOLE DETAILS TO BE IN ACCORDANCE WITH STD-WW-09, 10 AND 11.

FOUL BACKDROP MANHOLES
(STD-WW-12)
SCALE 1:20

NOTES:

- PRECAST CONCRETE MANHOLE (<450mm DIA)
STD-WW-10
1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
 2. PRECAST MANHOLES UNITS, COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND BS 5911-PART 3.
 3. THICKER MANHOLE BASE REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
 4. APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO IRISH WATER APPROVAL AND COMPLYING WITH BS 5911-PART 42002.
 5. STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.
 6. MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER APPROVAL.
 7. MANHOLE ROOF SHALL CONSIST OF RE-INFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS, ALTERNATIVELY APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO IRISH WATER APPROVAL AND COMPLIANCE WITH BS 5911 PART 4; 2002.
 8. COVER AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO APPROVAL FROM IRISH WATER.
 9. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROJECTIVE STAINLESS STEEL METAL BAND AROUND COVERS IN GREEN AREAS.
 10. ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOTATION MEASURES BE REQUIRED THEY SHALL BE SUBMITTED TO APPROVAL FROM IRISH WATER.
 11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206; 2013.
 12. ANY SPECIAL ROAD REINSTATEMENT AROUND COVER AND FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
 13. NEW ROAD CONSTRUCTION AND SURFACE FINISH TO BE TO ROAD AUTHORITY'S REQUIREMENTS.
 14. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT INFRASTRUCTURE, IRELAND REQUIREMENTS.
 15. IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
 16. PROPRIETARY WATERTIGHT POC MANHOLE RING SYSTEMS WITH A WALL THICKNESS>120mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUNDWATER LEVEL AT THE MANHOLE BEING LOW AND SUBJECT TO REVIEW BY IRISH WATER.

NOTES

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2. This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and Specifications.
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Rev. No.	Date	REVISION NOTE	Dim. By	Chkd. By
P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	OS

Architect	Henry J. Lyons
Project	GA01 Project Shoreline, Baldoye.
Title	DRAINAGE DETAILS SHEET 1 OF 3
Dwg. No.	BD-CSC-ZZ-XX-DR-C-0006
Date	06.04.2020
Dim by	JS
Chkd by	PC
App'd by	OS
Scale	AS SHOWN @ A1
Revision	P1

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Quality Environment Energy Health & Safety	ISO 9001:2008 ISO 14001:2004 ISO 50001:2011 OHSAS 18001:2007

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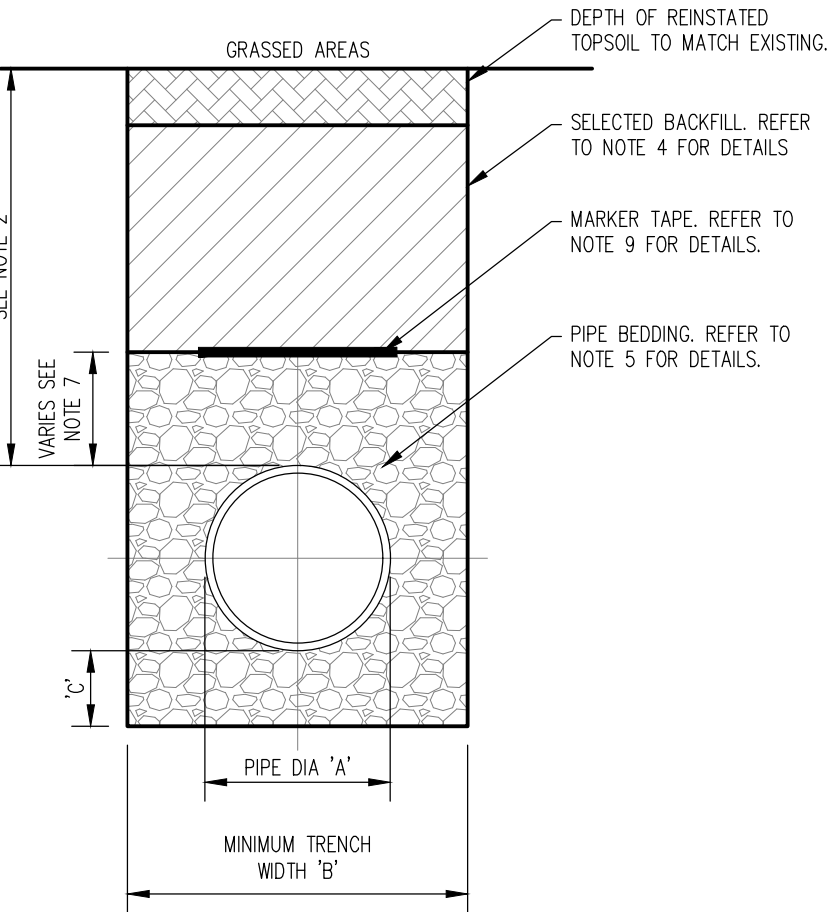
NOTES:

- 1 ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- 2 THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:
- A. GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS – DEPTH NOT LESS THAN 0.5M (THIS WOULD NORMALLY RELATE TO GRANS IN PRIVATE PROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).
- B. DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 0.75m.
- C. DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (EG MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 0.9m.
- D. DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
- E. AGRICULTURAL LAND AND PUBLIC OPEN SPACE – DEPTH NOT LESS THAN 0.9m.
- F. OTHER HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH NOT LESS THAN 1.2m.
- 3 CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE SEWER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 10m OF THE PAVED EDGE OF THE ROADWAY, CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS.
- 4 SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER.
- 5 PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm GRADED AGGREGATE OR 10MM SINGLE SIZED AGGREGATE IS EN 13242, CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE TO STD-WW-08.

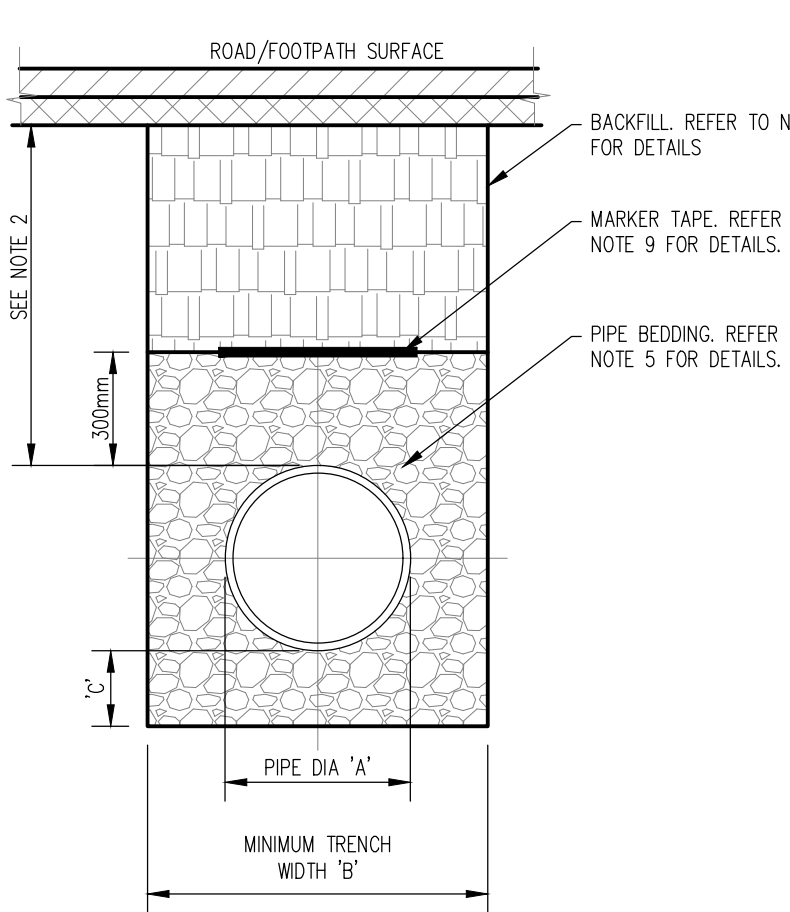
- 6 IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING, ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.
- 7 IN GREEN FIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES. A GRANULAR SURROUND OF A MINIMUM DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES, AND TYPE B MATERIAL MAY BE USED AS BACKFILL ABOVE THIS. ALL RISING MAINS IN GREENFIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
- 8 PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECTS AT ANY POINT ALONG THE TRENCH, ROCK SHALL BE EXCAVATED TO A DEPTH OF 150mm BELOW THE ACTUAL DEPTH OF THE TRENCH WITH THE VOID FILLED WITH CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.
- 9 NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT TOP OF PIPE BEDDING LAYER. IN THE CASE OF NON-METAL PIPE MATERIAL, THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION AND THE DISCHARGE MANHOLE.
- 10 TRENCH WIDTHS FOR PIPE SIZES ≤80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 80 RISING MAIN	< SEE NOTE 10.
< 100	100
150 – 450	200

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80 RISING MAIN	< SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900

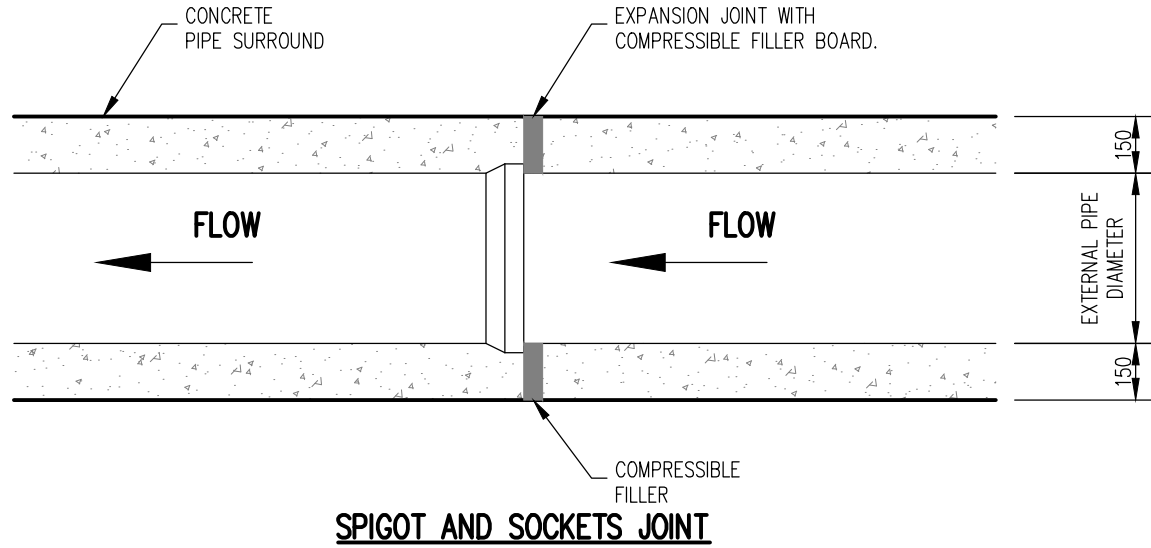
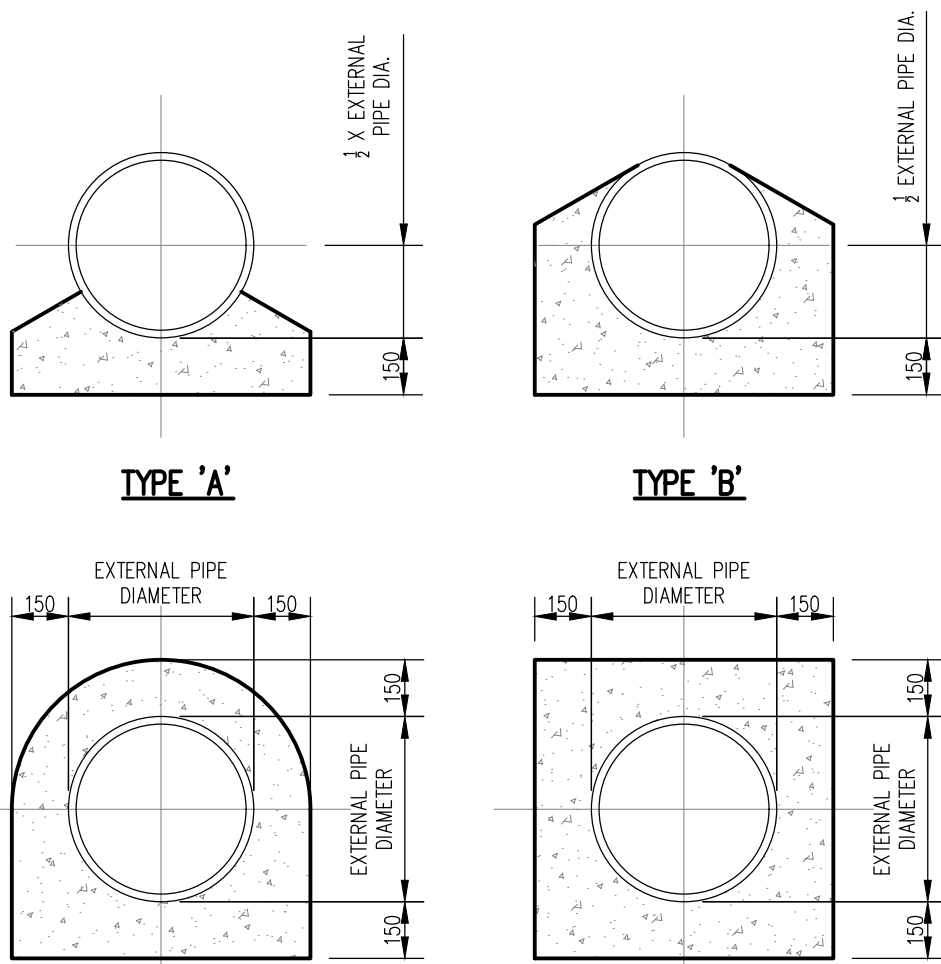


CROSS SECTION IN GRASSED AREAS



CROSS SECTION IN ROADS

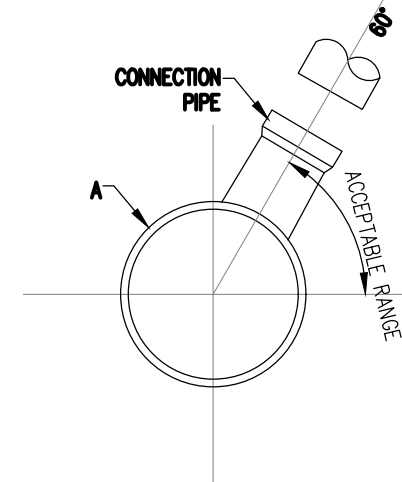
TRENCH BACKFILL AND BEDDING
(STD – WW – 07)
SCALE 1:20



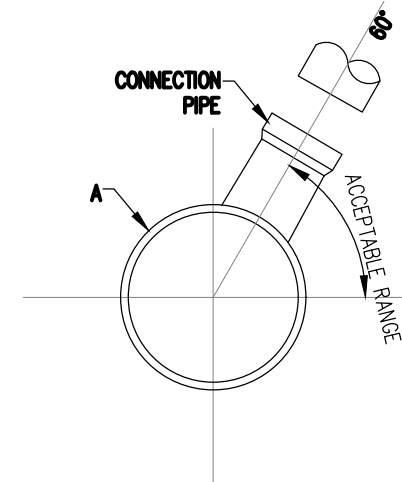
CONCRETE BED, HAUNCH AND SURROUND TO WASTEWATER PIPES.
(STD-WW-08)
SCALE 1:20

NOTES:

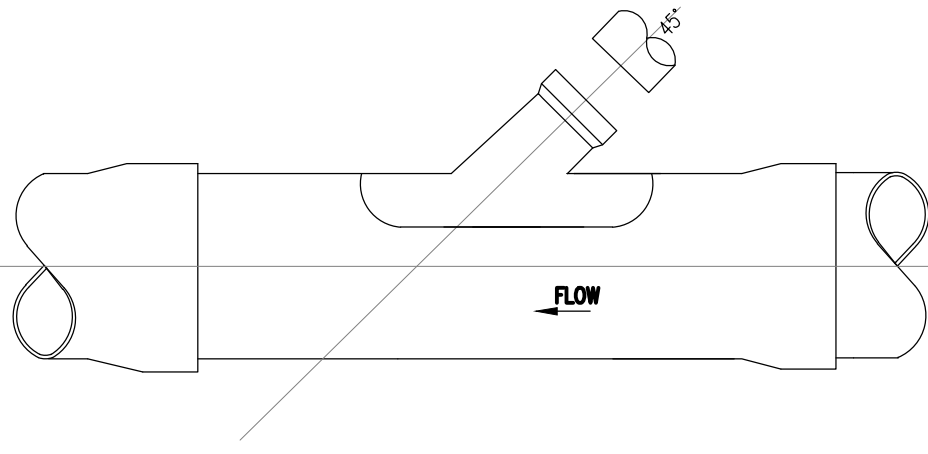
1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE PIPELINE BEDS AND HAUNCHES MAY BE REQUIRED TO ADDRESS MINIMUM COVER SITUATIONS AND SHALL BE SUBJECT TO SUBMISSION AND ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORKS.
3. CONCRETE PIPE BEDS AND HAUNCHES SHALL HAVE A MINIMUM THICKNESS OF 150mm WITH AN ABSOLUTE MINIM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750MM.
4. CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 AND TO BE CLASSED C16/20.
5. THE HAUNCHES AND SURROUNDINGS TO BE FORMED USING FORM WORK TO PROVIDE A ROUGH CAST FINISH.
6. EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW FOR PIPE FLEXIBILITY, COMPRESSIBILITY FILLER BOARD TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4, AND TO BE 18mm THICK.
7. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPETITION WITH ACCORDANCE WITH BS6076 BEFORE BEING CAST INTO CONCRETE.
8. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OR PVC PIPES.



CROSS-SECTIONAL VIEW OF SEWER

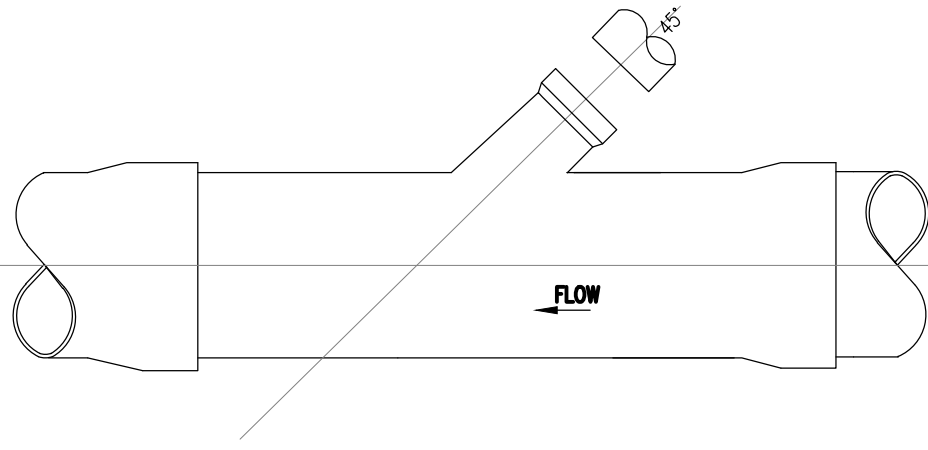


CROSS-SECTIONAL VIEW OF SEWER



VIEW IN DIRECTION OF ARROW A

APPROVED 45° SADDLE CONNECTION



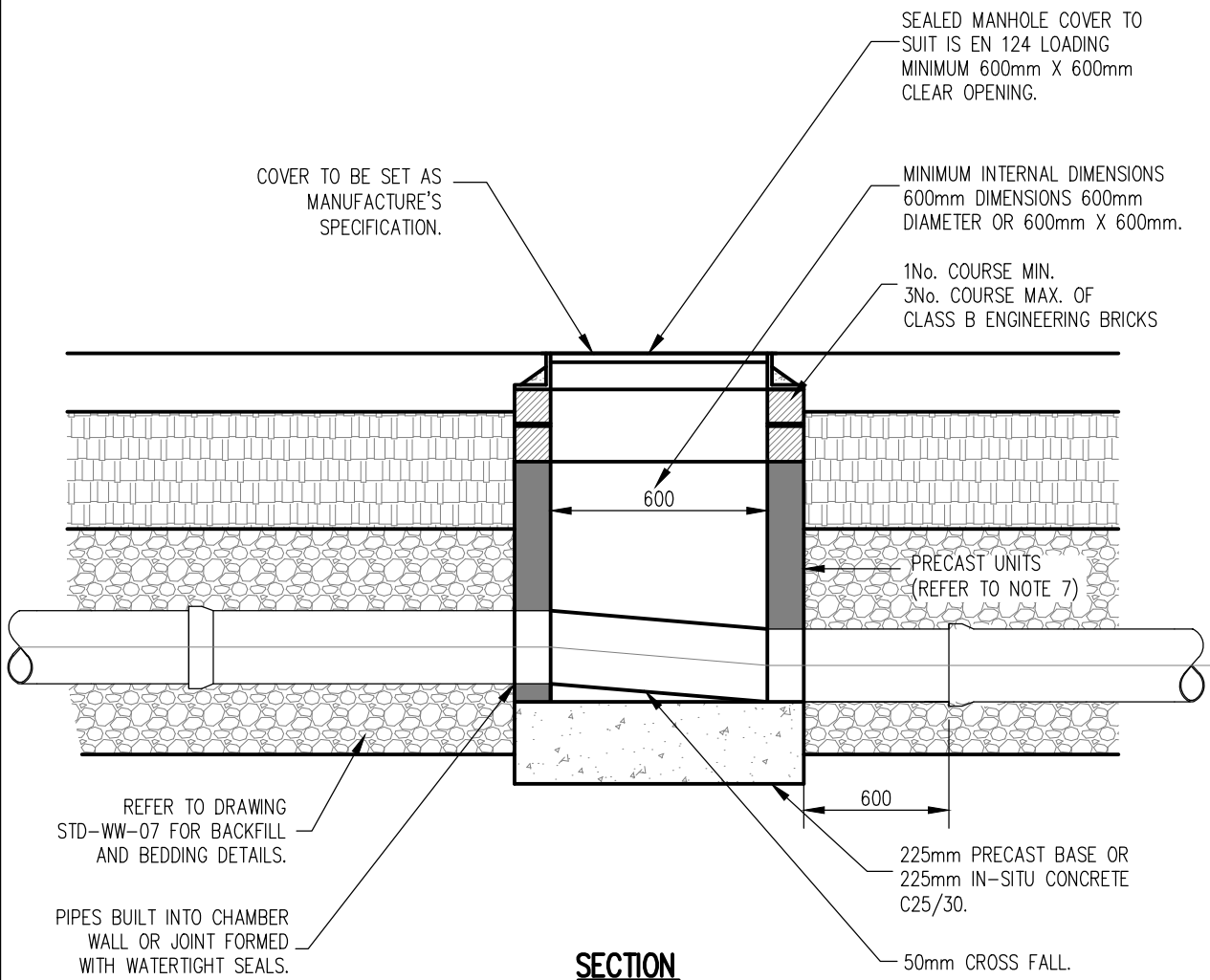
VIEW IN DIRECTION OF ARROW A

APPROVED 45° SADDLE CONNECTION

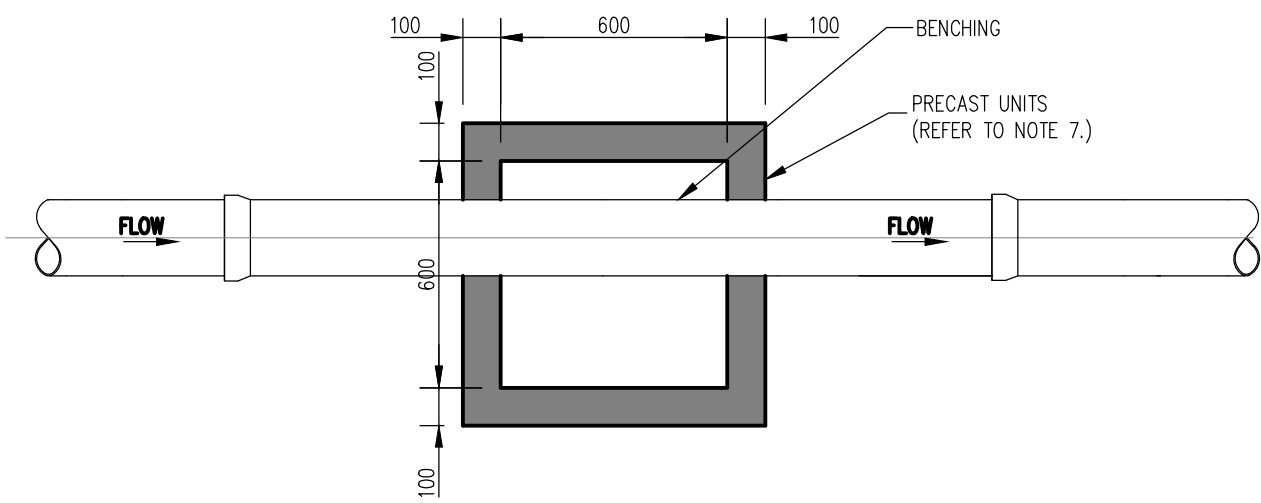
TYPICAL SEWER/SERVICE PIPE
(STD-WW-04)
SCALE 1:20

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.
2. AS FAR AS PERFECTIBLE, JUNCTION AND SERVICE CONNECTION SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHETHER IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SEWER TO THE INSPECTION CHAMBER, INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE CONNECTION IS REQUIRED.
3. THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE GREATER THAN 0° AND NOT MORE THAN 60°.
4. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NORMAL INTERNAL DIAMETER OF 300mm DIAMETER OF LESS, CONNECTIONS SHALL BE MADE USING 45° ANGLE JUNCTION.
5. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH NORMAL INTERNAL DIAMETER GREATER THAN 300mm:
- A) IF THE DIAMETER OF THE CONNECTION PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR
- B) IF THE DIAMETER OF THE CONNECTION PIPE IS LESS THAN OR EQUAL TO HALF DIAMETER OF THE SEWER, THE CONNECTION SHALL BE MADE USING A PERFORMED SADDLE FITTING WITH A SLOW BEND BETWEEN THE SADDLE AND THE CONNECTION SEWER/DRAIN.
6. CONNECTIONS MADE WITH THE SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND JOINING THE SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATER TIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS.



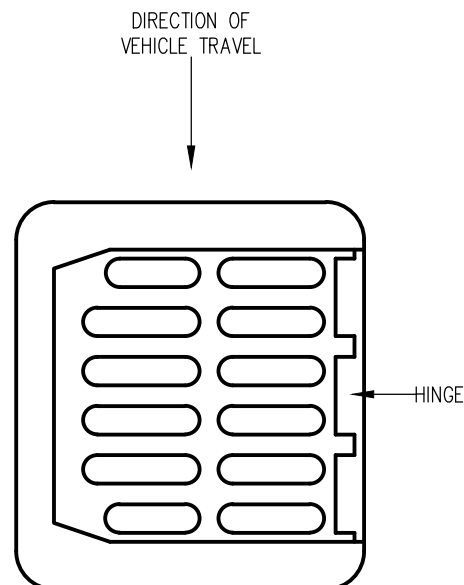
SECTION



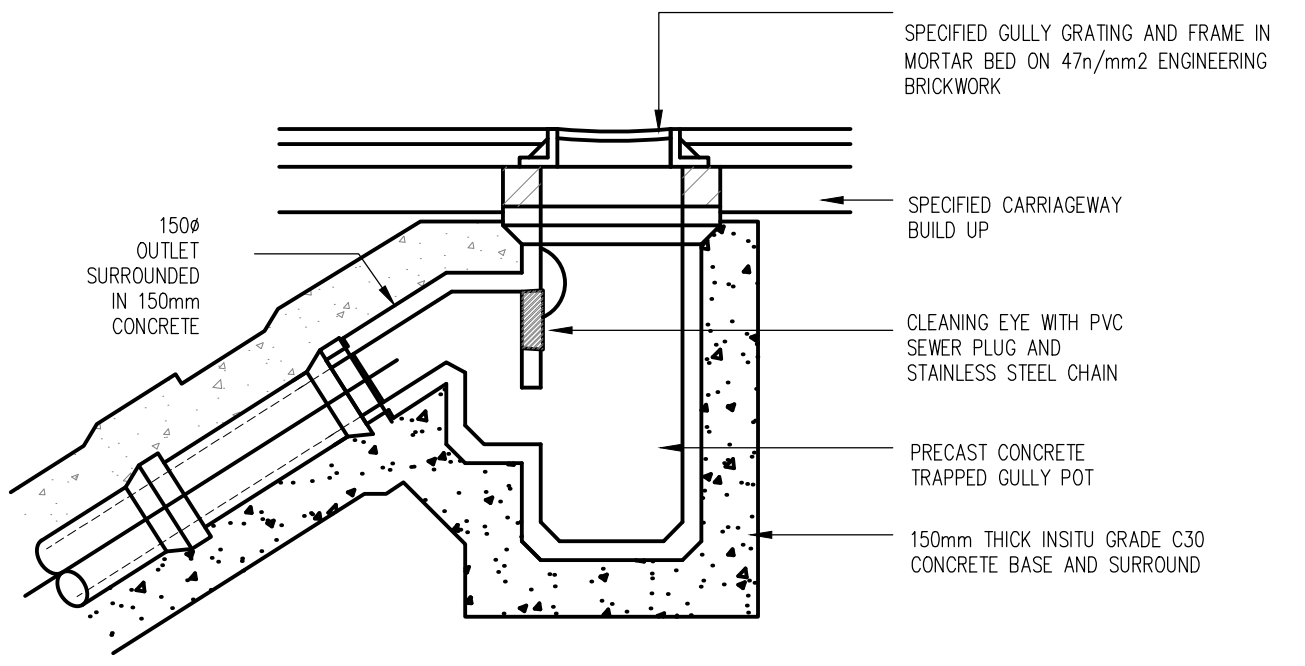
PLAN
INSPECTION CHAMBER
(PRECAST CONCRETE CONSTRUCTION)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTLAGE, IF PRACTICABLE.
3. ANY PIPE AND ASSOCIATED ACCESS UPSTREAM OF THE POINT OF CONNECTION TO A PUBLIC SEWER IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE BUILDING REGULATIONS.
4. ACCESS POINTS SHOULD BE LOCATED SO THAT THEY ARE ACCESSIBLE AND APPARENT TO THE MAINTAINER AT ALL TIMES FOR USE. THEY SHOULD AVOID REAR GARDENS OR ENCLOSED LOCATIONS AND THEY SHOULD NEVER BE OVERLAIN WITH SURFACE DRESSING, TOPSOIL, ETC.
5. COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO APPROVAL FROM IRISH WATER.
6. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVERS IN GREEN AREAS.
7. PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.
8. CONCRETE CHAMBER SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 804 OR CLAUSE 808 MATERIAL AS PER STD-WW-07.



GULLY GRATE



PRECAST CONCRETE TRAPPED GULLY POT

DRAFT

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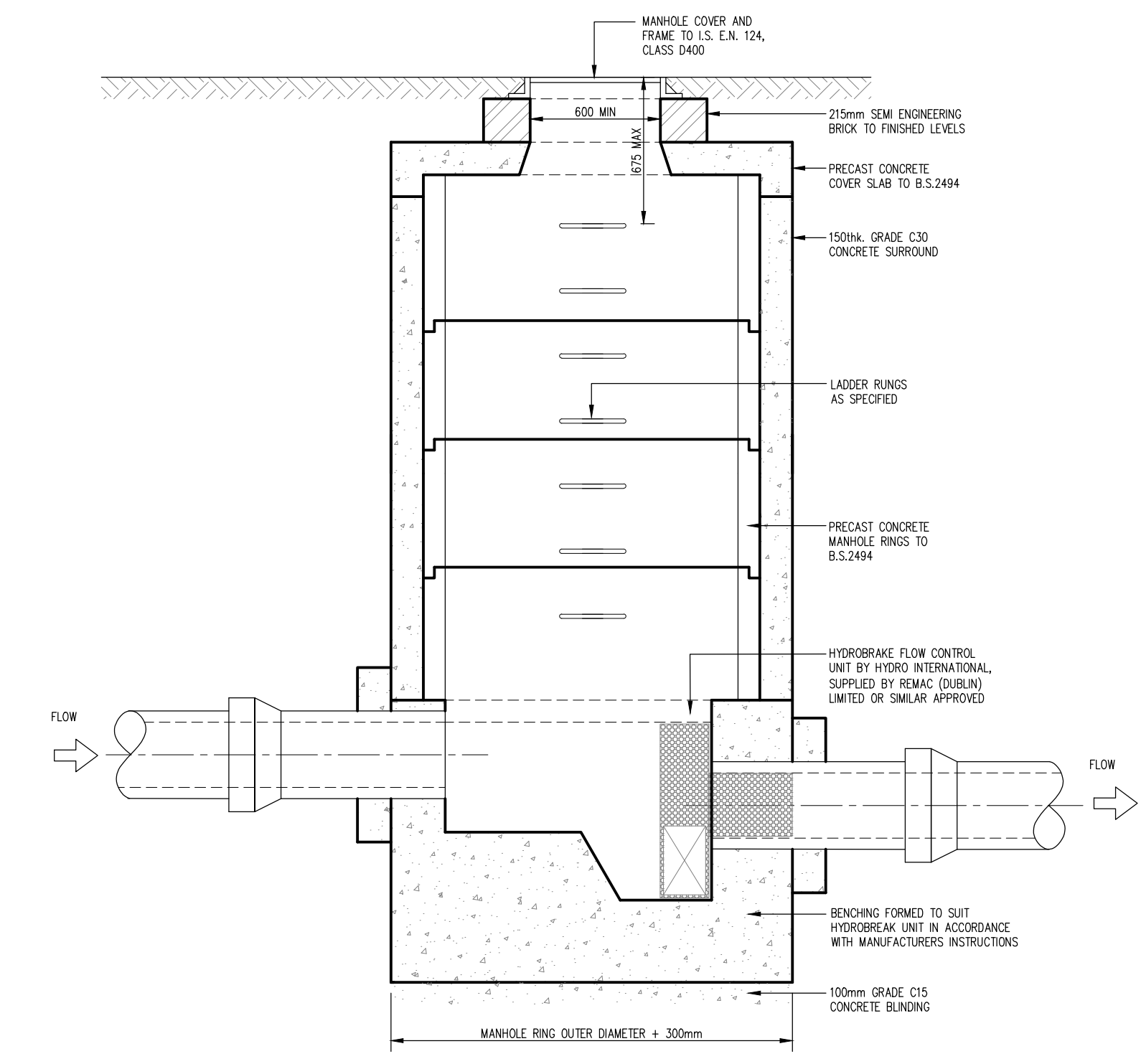
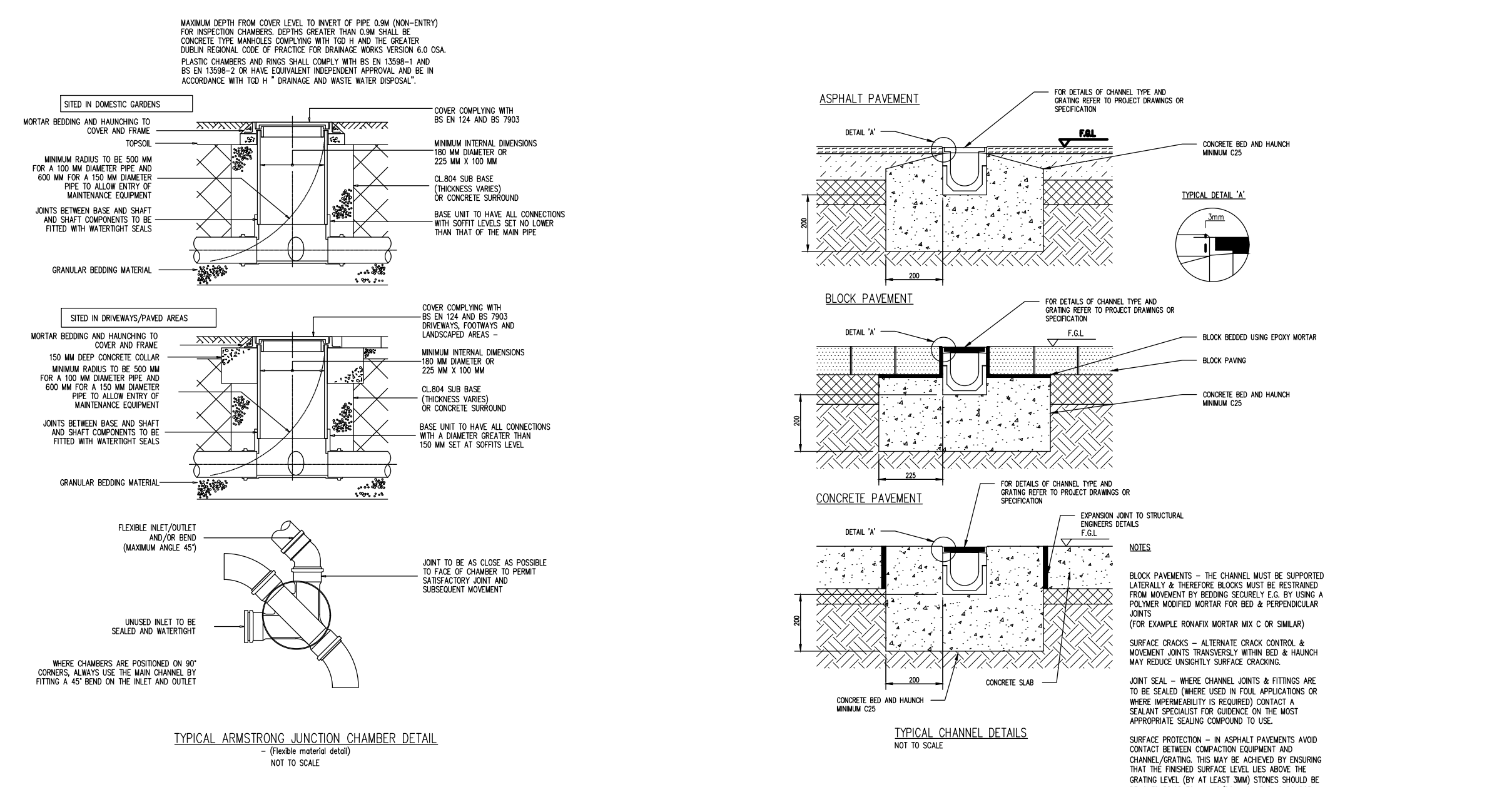
NOTES

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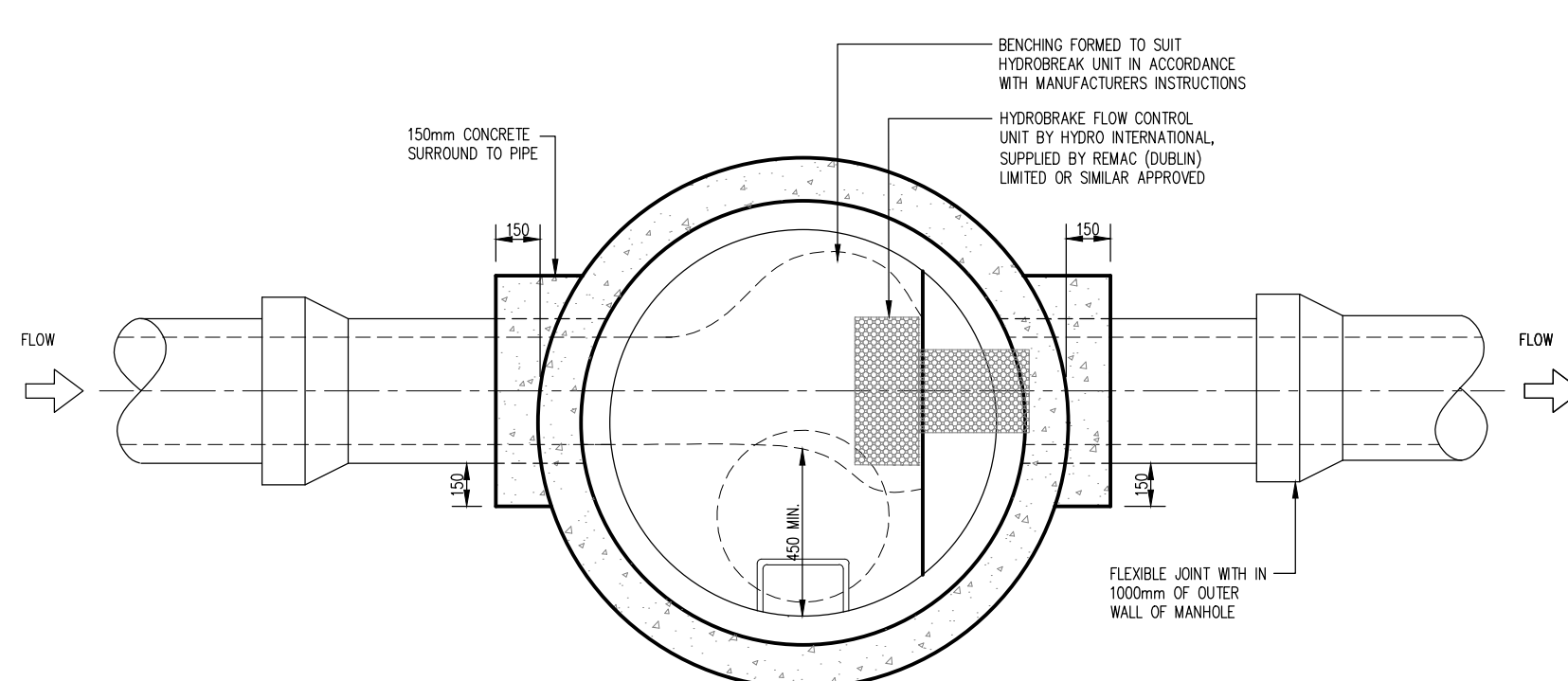
Rev No.	Date	REVISION NOTE	Dm By	Chkd By
P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	OS

Architect	Henry J. Lyons	CS Consulting Group DUBLIN LONDON LIMERICK
Project	GA01 Project Shoreline, Baldoye.	
Title	DRAINAGE DETAILS SHEET 2 OF 3	
Dwg No.	BD-CSC-ZZ-XX-DR-C-0007	
Date	Dm by	Chkd by
06.04.2020	JS	PC
	OS	AS SHOWN @ A1
		Revision
		P1

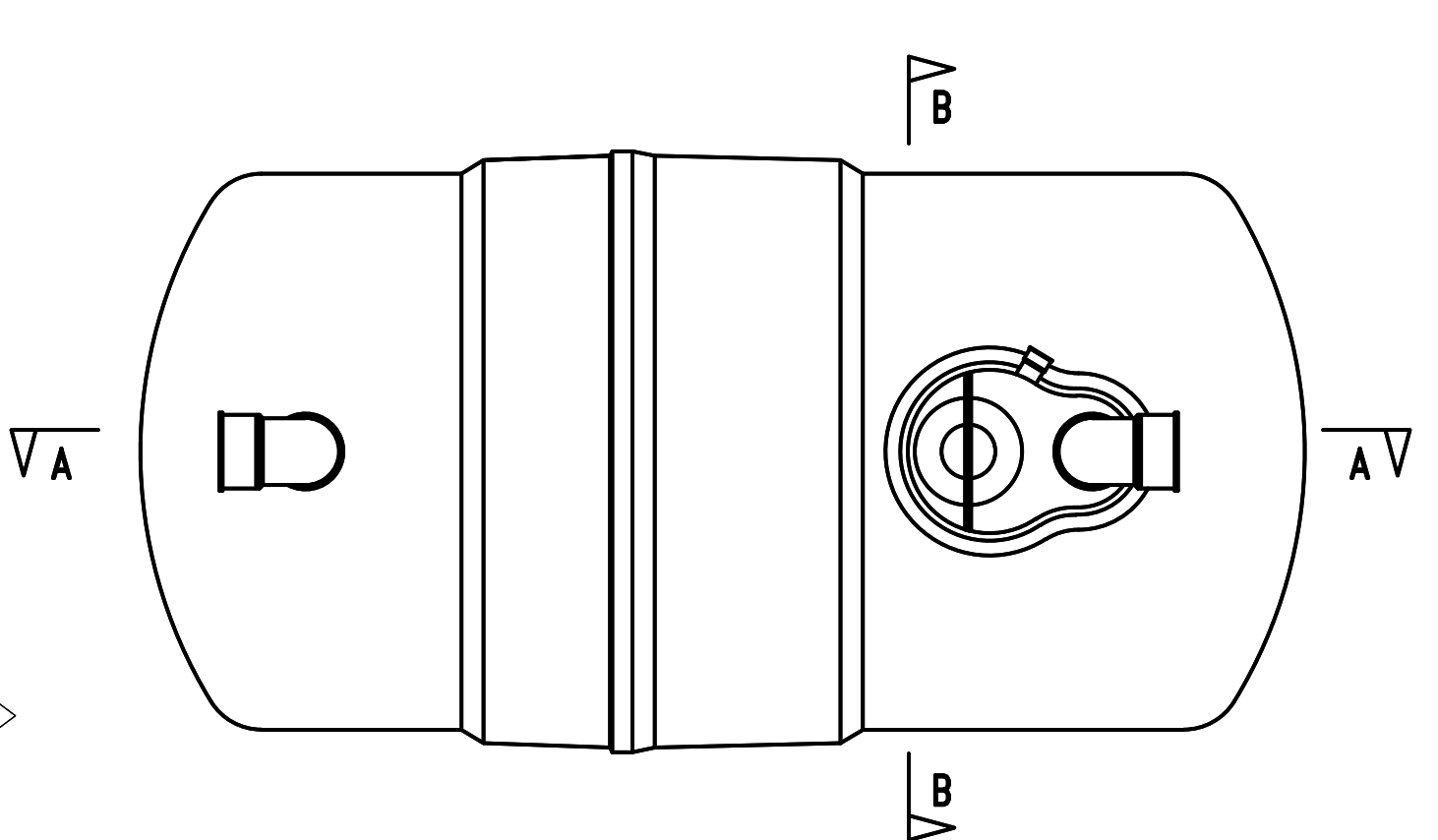
Head Office 19-22 Dame Street, Dublin 2 T: +353 (0)1 5480863 e: info@csconsulting.ie w: www.csconsulting.ie	Quality Environment Energy Health & Safety	I.S. EN ISO 9001:2008 I.S. EN ISO 14001:2004 I.S. EN ISO 50001:2011 OHSAS 18001:2007
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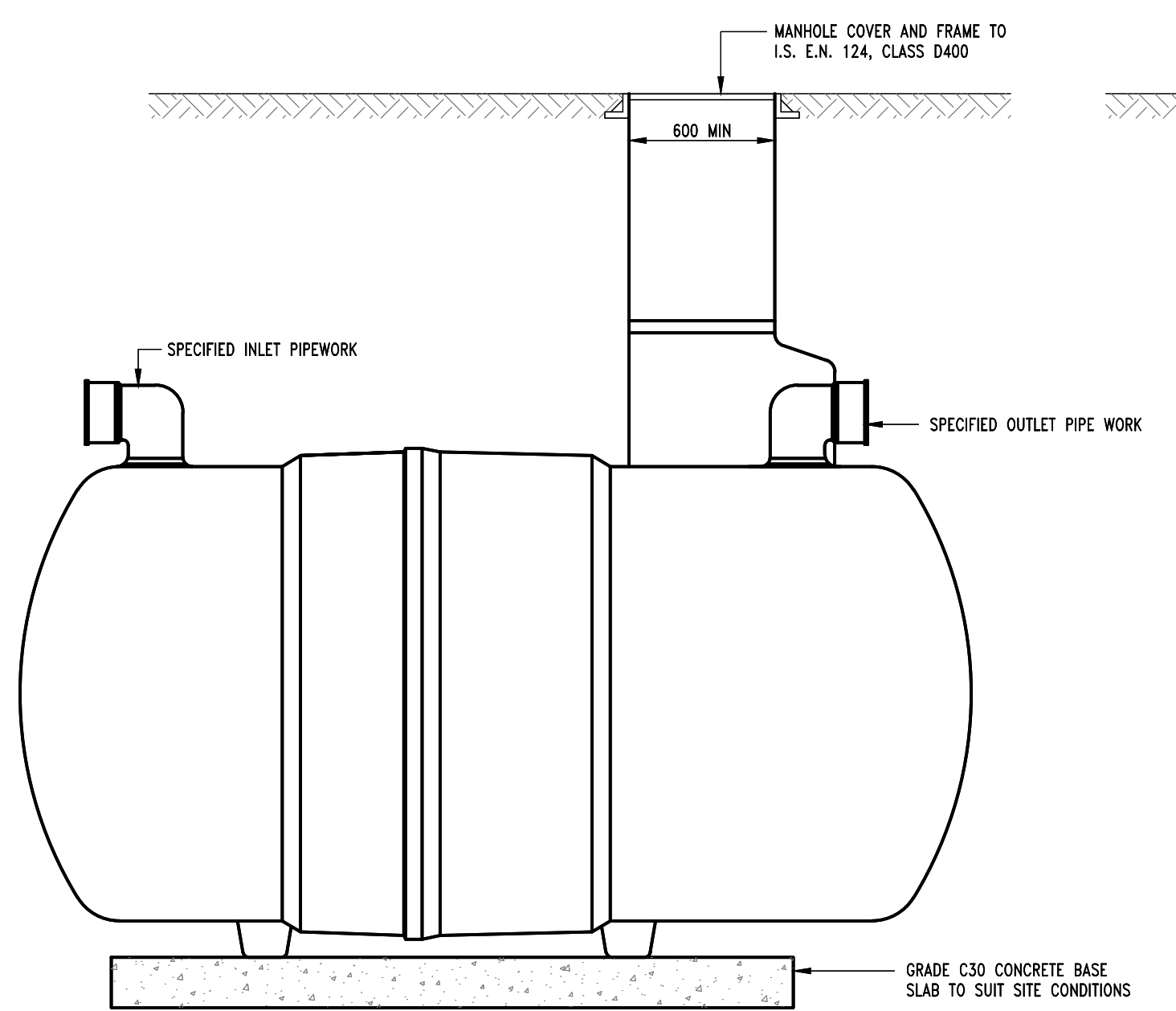
HYDROBRAKE CHAMBER
MAX. DEPTH G.L. TO I.L. - 3.0m
SCALE 1:25



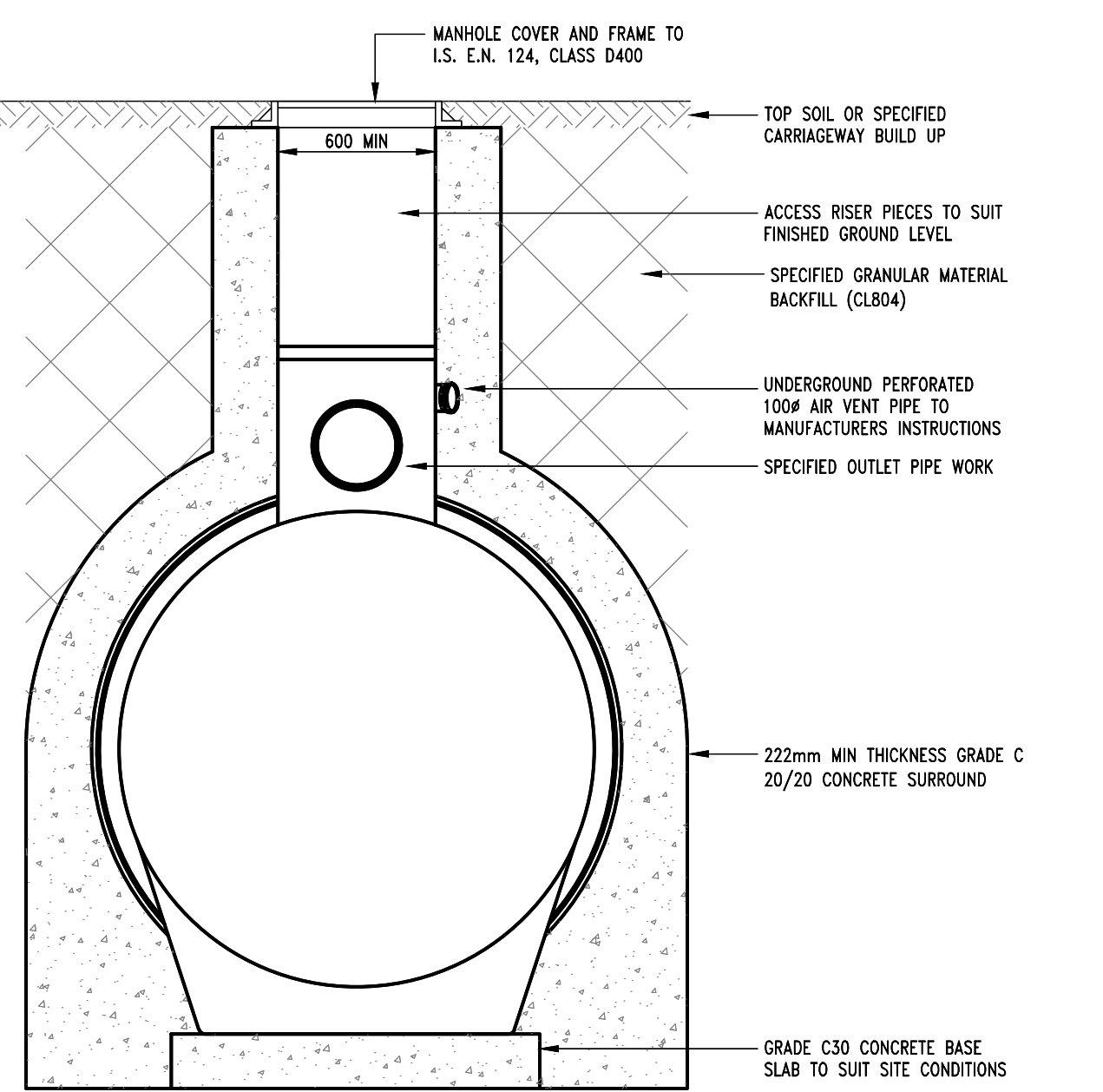
PLAN ON HYDROBRAKE CHAMBER
MAX. DEPTH G.L. TO I.L. - 3.0m
SCALE 1:25



KLARGESTER CLASS 1 INTERCEPTOR (O.S.A.)
PLAN VIEW
SCALE 1:25



KLARGESTER CLASS 1 INTERCEPTOR (O.S.A.)
SECTION A-A
SCALE 1:25



KLARGESTER CLASS 1 INTERCEPTOR (O.S.A.)
SECTION B-B
SCALE 1:25

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Rev. No.	Date	REVISION NOTE	Dm. By	Chkd. By
P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	OS

Architect	Henry J. Lyons	CS Consulting Group DUBLIN LONDON LIMERICK
Project	GA01 Project Shoreline, Baldoye.	
Title	DRAINAGE DETAILS SHEET 3 OF 3	
Dwg. No.	BD-CSC-ZZ-XX-DR-C-0008	
Date	06.04.2020	
Drawn by	JS	
Checked by	PC	
Approved by	OS	
Scale	AS SHOWN @ A1	
Revision	P1	
Quality	NSAI Certified	
Environment		
Health & Safety		
I.S. EN ISO 9001:2008		
I.S. EN ISO 14001:2004		
I.S. EN ISO 50001:2011		
OHSAS 18001:2007		

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2 THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE EXTERNAL CROWN OF THE PIPE SHALL BE 750mm FOR SERVICE CONNECTIONS, 900mm FOR WATER MAINS. GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR A HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED. THE MAXIMUM COVER SHOULD NOT EXCEED 1.2M WHERE PRACTICABLE.

3 CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHEN THE NEAREST PART OF THE TRENCH IS WITHIN 1M OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 808 IS TO BE COMPACTED AS PER CLAUSE 802 OF THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS.

4 SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR PIPE SURROUND MATERIAL SUBJECT TO THE APPROVAL OF IRISH WATER.

5 PIPE BEDDING SHALL COMPLY WITH WS 4-08-02 AND IGN 4-08-01 GRANULAR MATERIAL SHALL BE 14mm TO 5mm graded AGGREGATE OR 10mm SINGLE SIZED AGGREGATE IS IN 13242.

6 IN SOFT GROUND CONDITIONS (CBR < 5) THE MATERIAL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT AND CLAUSE 808 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS SHALL REPLACE THE EXCAVATED MATERIAL, WRAPPED IN GEO-TEXTILE WRAPPING, ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS, INCLUDING PILING ETC. MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.

7 PIPES SHALL NOT BE SUPPORTED ON STONES OR ROCKS, OR ANY HARD OBJECT AT ANY POINT ALONG THE TRENCH. ROCK SHALL BE VOID FILLED WITH CLAUSE 804 MATERIAL IN ACCORDANCE WITH THE TRANSPORT INFRASTRUCTURE IRELAND SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL.

8 SHOULD MINIMUM COVER NOT BE ACHIEVABLE, CONCRETE GRADE C8/10 SHALL BE USED AS BACKFILL MATERIAL.

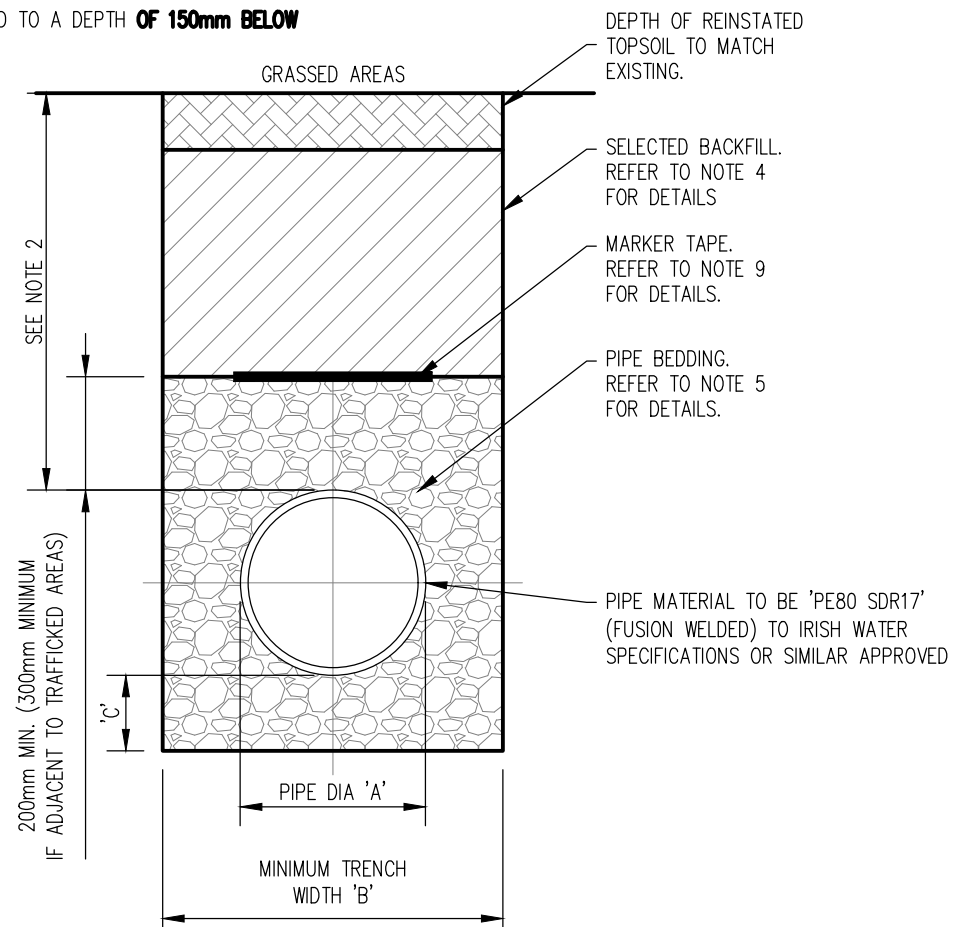
9 MARKER TAPE TO BE 400mm WIDE BLUE POLYETHYLENE MATERIAL IN ACCORDANCE WITH EN 12163, PLASTIC PIPES SHALL HAVE WARNING TAPE INCORPORATED A REINFORCED BAND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE LAID AT TOP OF PIPE BEDDING LAYER.

10 TRENCH WIDTHS FOR PIPE SIZES ≤800mm MAY BE ≤900mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.

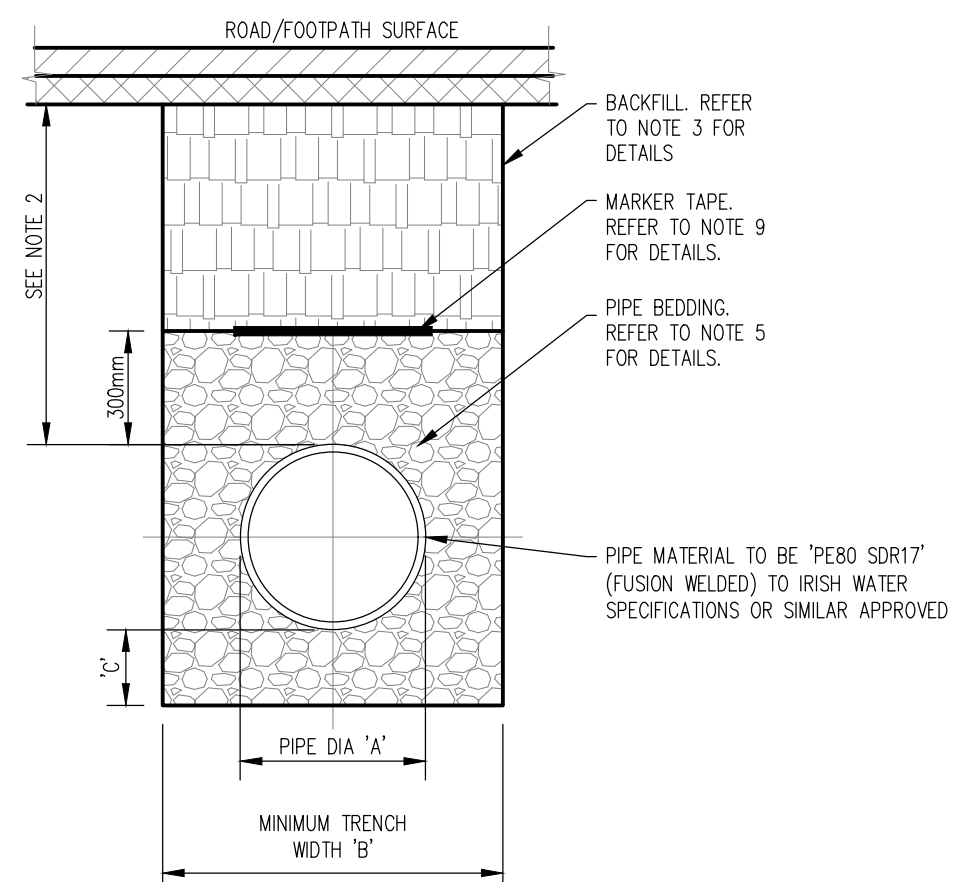
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 200	150
> 250	200
PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80	< SEE NOTE 10.
100	
150	600
200	600
250	750
300	750
350	900
400	900
450	900

PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
< 200	150
> 250	200

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)
< 80	< SEE NOTE 10.
100	500
150	600
200	600
250	750
300	750
350	750
400	900
450	900



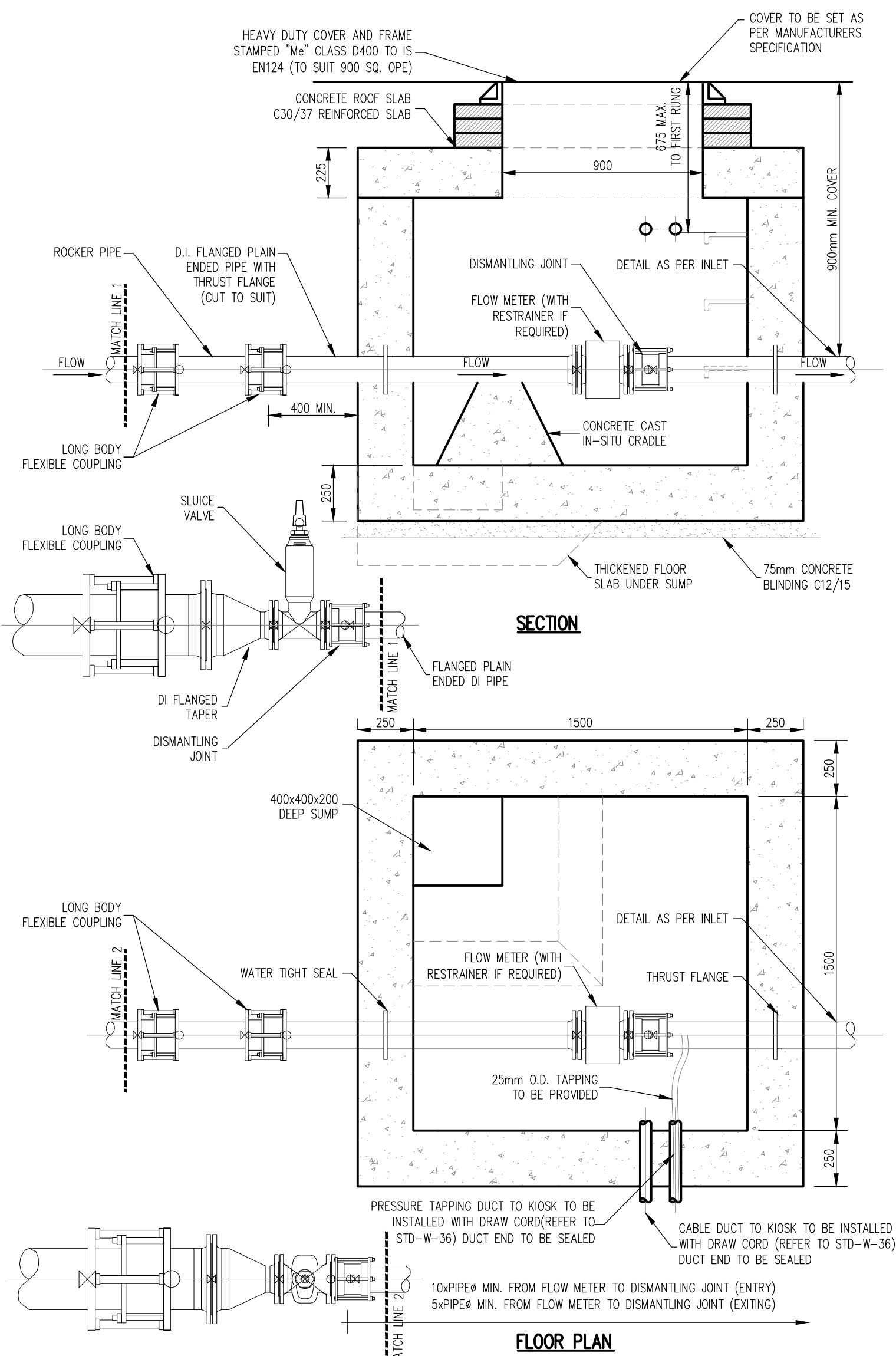
CROSS SECTION IN GRASSED AREAS



CROSS SECTION IN ROADS

TRENCH BACKFILL AND BEDDING
(STD - W - 13)
SCALE 1:20

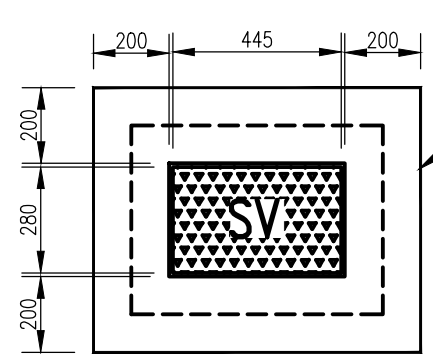
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.	SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.	CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO APPROVAL FROM IRISH WATER.
2. STRUCTURAL DESIGN AND REINFORCEMENT DETAIL TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.	6. 200mm ALL ROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STAINLESS STEEL METAL BAND AROUND COVER IN GRASS AREAS.	10. PIPEWORK TO BE DOWNSIZED TO ACCOMMODATE THE REQUIRED RANGE OF THE FLOW METER. STRAIGHT PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF THE METER TO BE PROVIDED. IF THE METER IS NOT CAPABLE OF ACCURATE NIGHT FLOW MEASUREMENTS, A BY-PASS FLOW METER SHALL BE PROVIDED WITH APPROPRIATE VALVES, FITTINGS AND PIPEWORK.
3. CONCRETE FOR FLOW METER CHAMBER TO BE C30/37	7. ANTI CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.	11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN206.
4. PRECAST METER CHAMBER(WITH CONCRETE SURROUND) MAY BE USED SUBJECT TO IRISH WATER APPROVAL.	8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN545. PE PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 12201:2001.	
5. METER CHAMBER SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO	9. ALL CHAMBERS TO BE CHECKED FOR UPLIFT	



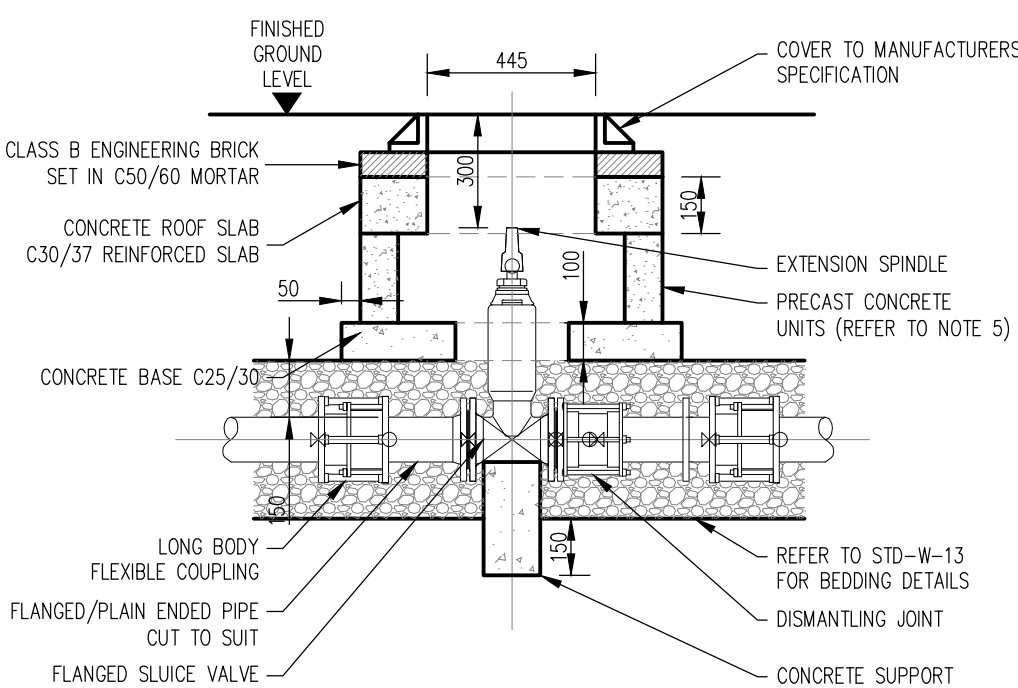
METER CHAMBER (<300mmØ)
(STD - W - 26)
SCALE 1:20

ROOF PLAN

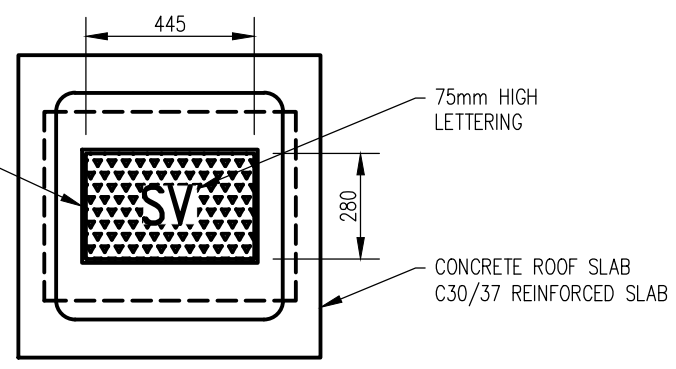
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. SUICIDE VALVE CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER
3. SUICIDE VALVES SHALL BE RESILIENT SEATED AND SHALL COMPLY WITH BS 5163-1, BS 5163-2, IS EN 1074-1, IS EN 1074-2, OR EQUIVALENT QC SPECIFICATIONS.
4. ALL SUICIDE VALVES SHALL BE ANTI-CLOCKWISE CLOSING.
5. VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.
6. CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLASS 8/8 MATERIAL AS PER STD-W-13.
7. ACCORDANCE WITH IS EN 545.
8. 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH WITH PROTECTIVE STEEL METAL BAND AROUND COVER IN GREEN AREAS.
9. THRUST BLOCKS (NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRASING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
10. ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206
12. ALL THRUST FLANGES TO BE ADEQUATELY RESTRAINED BY THRUST BLOCKS AS PER DRAWING No. STD-W-28. THRUST BLOCKS NOT SHOWN FOR CLARITY



PLINTH IN GRASSED AREAS



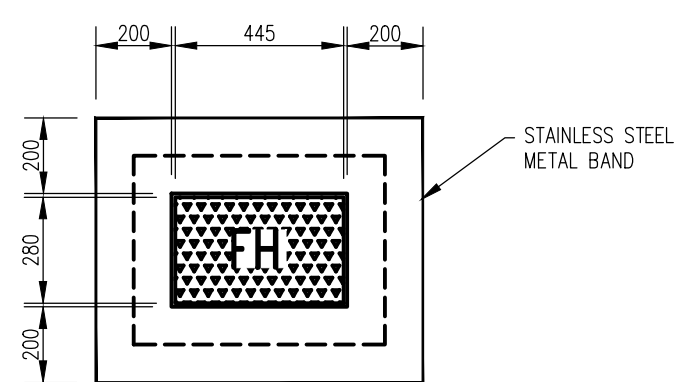
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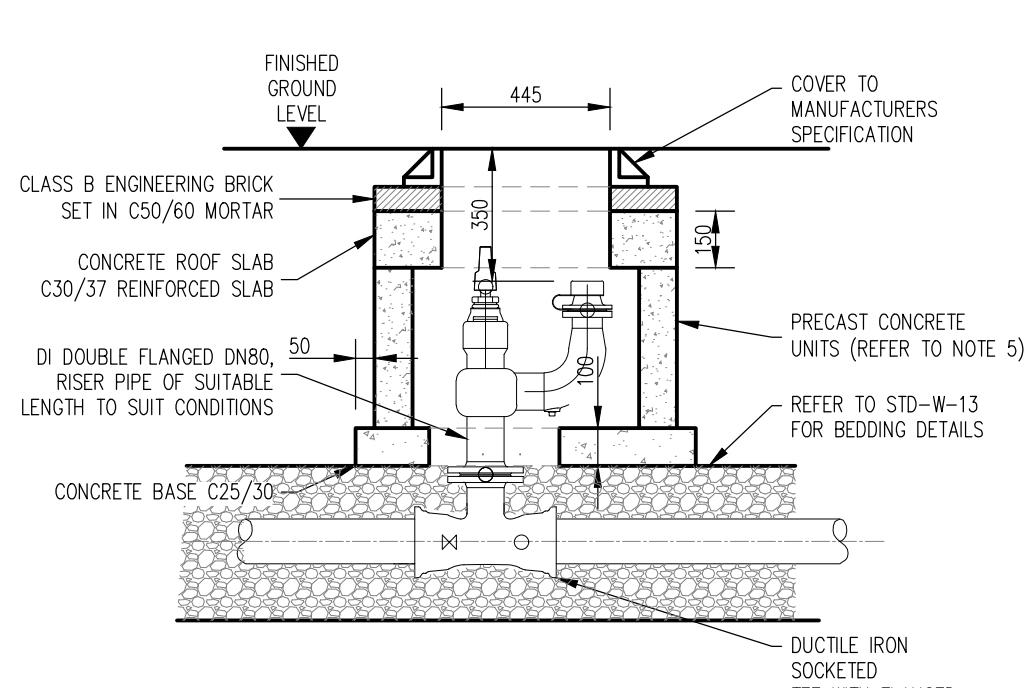
ROOF PLAN

SLUICE VALVE CHAMBER
(PRECAST CONCRETE CONSTRUCTION)
(STD - W - 14)
SCALE 1:20

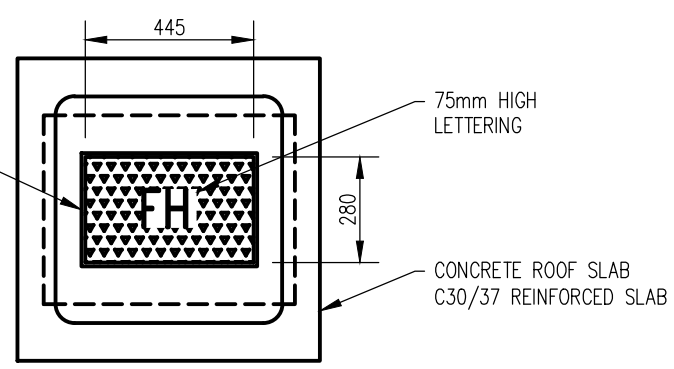
1.	ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.	SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-W-13.
2.	HYDRANT CHAMBERS SHALL BE COVERED WITH APPROVED HEAVY DUTY METAL COVERS TO IS 261 OR BS 5834. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.	7. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
3.	ALL HYDRANTS, SURFACE BOX FRAMES AND COVERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF IS EN 14339, IS EN 1074-6 & BS 750. FIRE HYDRANTS SHALL BE TYPE 2. THE HYDRANT INLET SHALL BE 80mm DIAMETER WITH PN16.	8. 200mm ALGROUND, 100mm DEEP CONCRETE PLUMB WITH PROTECTIVE STEEL METAL BAND AROUND COVER IN GREEN AREAS.
4.	ALL HYDRANTS SHALL BE CLOCKWISE CLOSING.	9. THRUST BLOCKS (NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
5.	VALVE CHAMBER TO BE CONSTRUCTED OF PRECAST CONCRETE UNITS OR HIGH DENSITY BLOCKWORK. ALTERNATIVELY PROPRIETARY PREFABRICATED CHAMBER UNITS MAY ALSO BE USED SUBJECT TO APPROVAL FROM IRISH WATER.	10. ANTICORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
		11. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206



PLINTH IN GRASSED AREAS



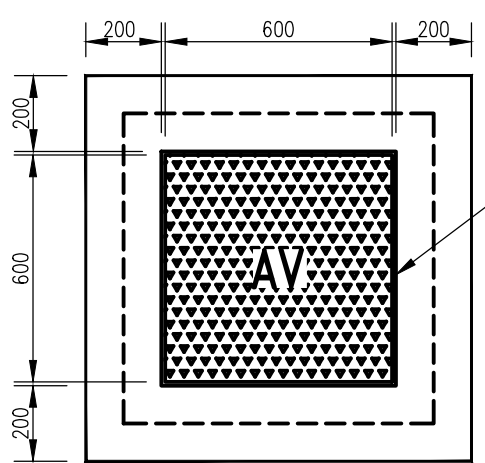
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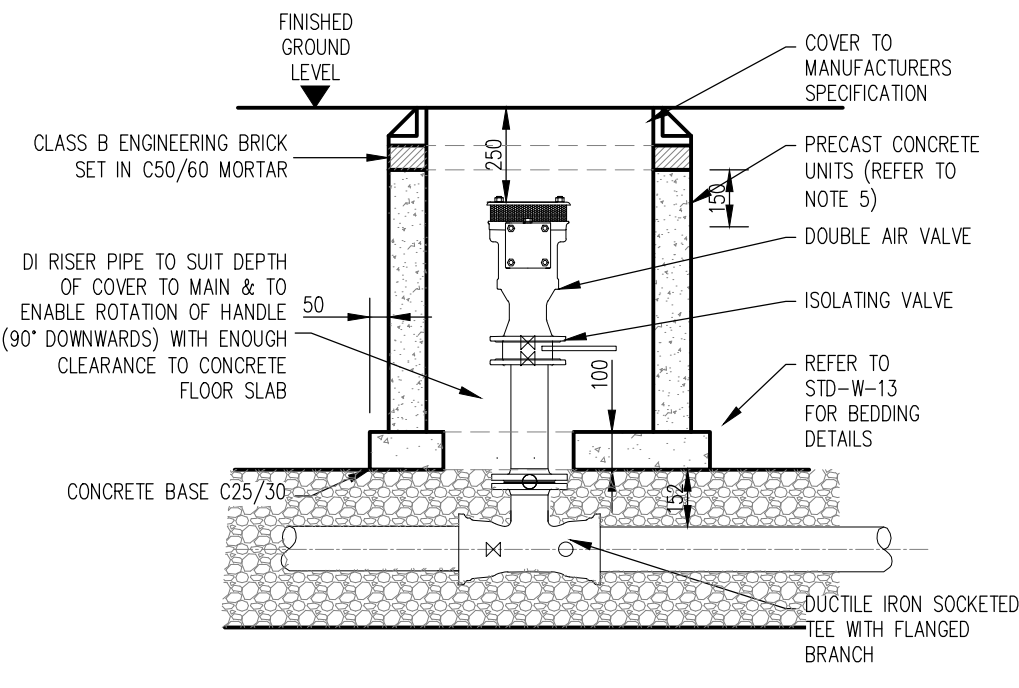
ROOF PLAN

FIRE HYDRANT CHAMBER
(PRECAST CONCRETE CONSTRUCTION)
(STD - W - 16)
SCALE 1:20

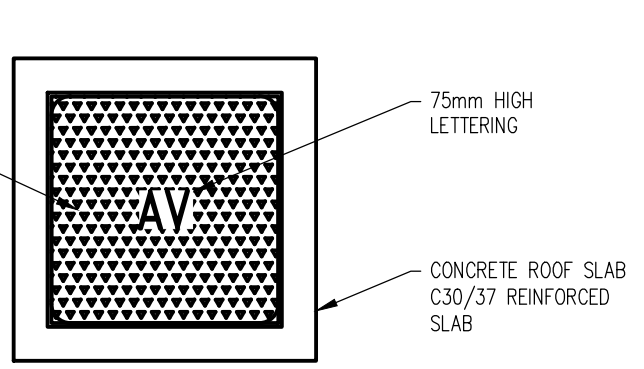
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.	PREFABRICATED CHAMBER UNITS MAY ALSO BE USED, SUBJECT TO APPROVAL FROM IRISH WATER.
2. AIR VALVE CHAMBERS SHALL BE COVERED WITH APPROVED VENTILATED HEAVY DUTY METAL COVERS TO IS EN 124 RATING D400. COVER AND FRAME SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS AND IS SUBJECT TO THE APPROVAL OF IRISH WATER.	7. PRECAST CONCRETE CHAMBERS SHALL BE SURROUNDED BY A MINIMUM OF 150mm COMPACTED CLAUSE 808 MATERIAL AS PER STD-WM-13.
3. AIR VALVES SHALL COMPLY WITH THE REQUIREMENTS OF IS EN 1074-4. AIR VALVES SHALL BE DOUBLE ORIFICE TYPE AND SHALL INCLUDE AN ISOLATING VALVE. THE ISOLATING VALVE SHALL BE A GATE VALVE CONFORMING TO IS EN 1074-2 AND SHALL BE OF A BOLLTLESS BONNET DESIGN	8. DUCTILE IRON PIPES AND FITTINGS TO BE IN ACCORDANCE WITH IS EN 545.
4. THE AIR VALVES SHALL OF BODIES AND COVERS OF CAST IRON TO BS EN 1563 WITH FLANGES DRILLED TO PN 16 IN ACCORDANCE WITH BS EN 1092. EACH VALVE SHALL HAVE A LARGE AND A SMALL AIR ESCAPE ORIFICE WITH AN ISOLATING VALVE.	9. 200mm ALL AROUND, 100mm DEEP CONCRETE CURB WITH PROTECTIVE STEEL METAL BAND AROUND COVER GREEN AREAS.
5. SERVICE CONNECTIONS SHALL NOT BE PROVIDED WITHIN 2m OF THE AIR VALVE LOCATION.	10. THRUST BLOCKS (NOT SHOWN ON DRAWING) TO BE PROVIDED AS PER STANDARD DRAWING STD-W-28 AT ALL TEES AND BENDS, TAPERS, DEAD ENDS AND PIPES AT STEEP SLOPES.
6. AIR VALVE CHAMBERS SHALL BE OF PRECAST CONCRETE UNITS OR HIGH DENSITY.	11. ANTI-CORROSION TAPE TO BE PROVIDED AROUND BURIED FLANGES.
	12. THE LOCATION OF THE AIR VALVE SHALL BE THE SUBJECT OF PARTICULAR AGREEMENT WITH IRISH WATER TO ENSURE THAT THE RISK OF CONTAMINATION DURING THE VALVE IS ELIMINATED.
	13. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206



PLINTH IN GRASSED AREAS



SECTION



ROOF PLAN

AIR VALVE CHAMBER
(PRECAST CONCRETE CONSTRUCTION)
(STD - W - 20)
SCALE 1:20

R089

DRAFT

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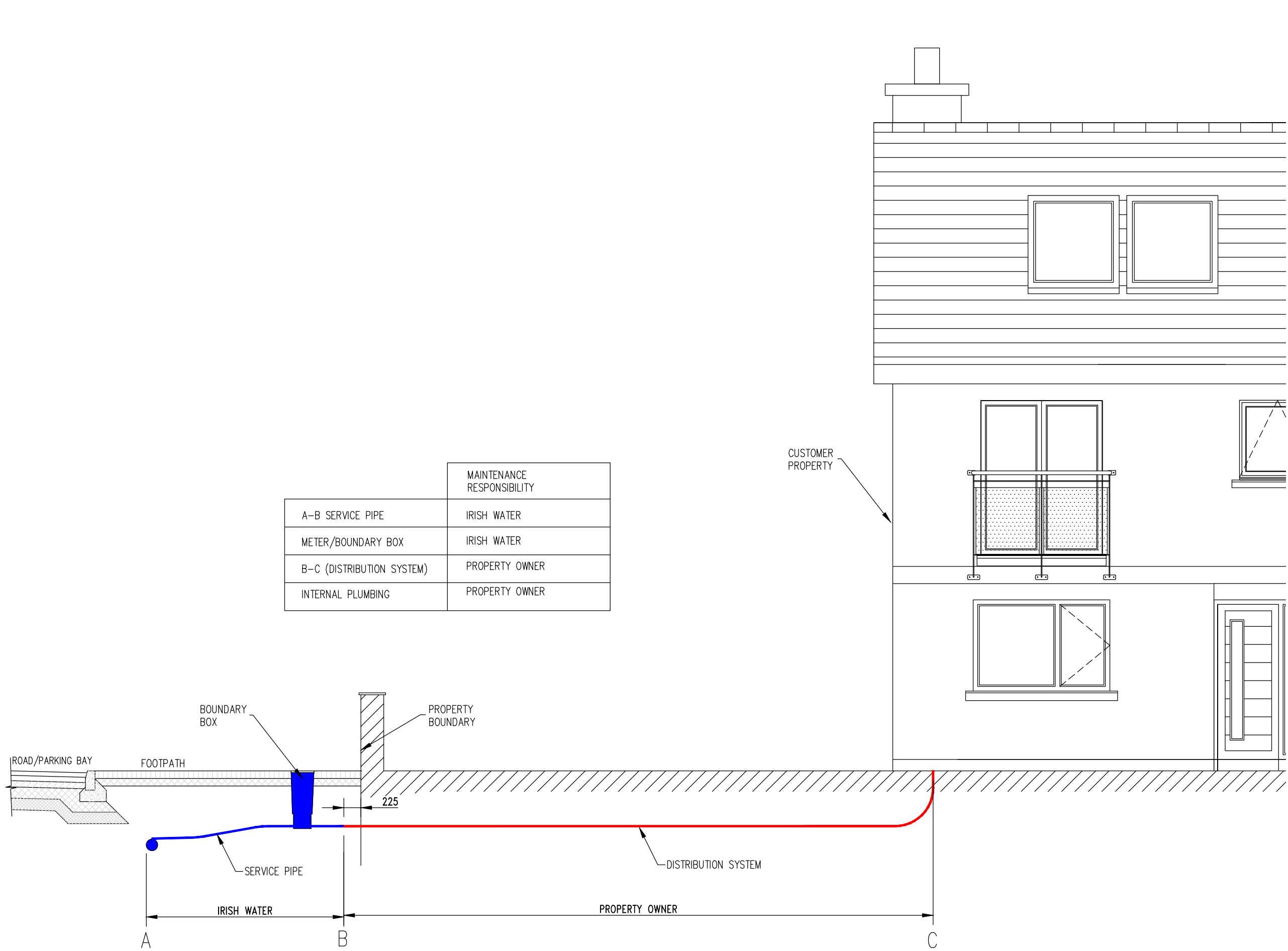
Architect	
Project	
Title	
Dwg. No.	
Date	Dwn by
06.04.2020	JS

Henry J. Lyons			
A01 Project Shoreline, Baldoyle.			
WATERMAIN DETAILS			
SHEET 1 OF 2			
D-CSC-ZZ-XX-DR-C-0010			
Chkd by	Apvrd by	Scale	Revision
NB	OS	AS SHOWN @ A1	P1

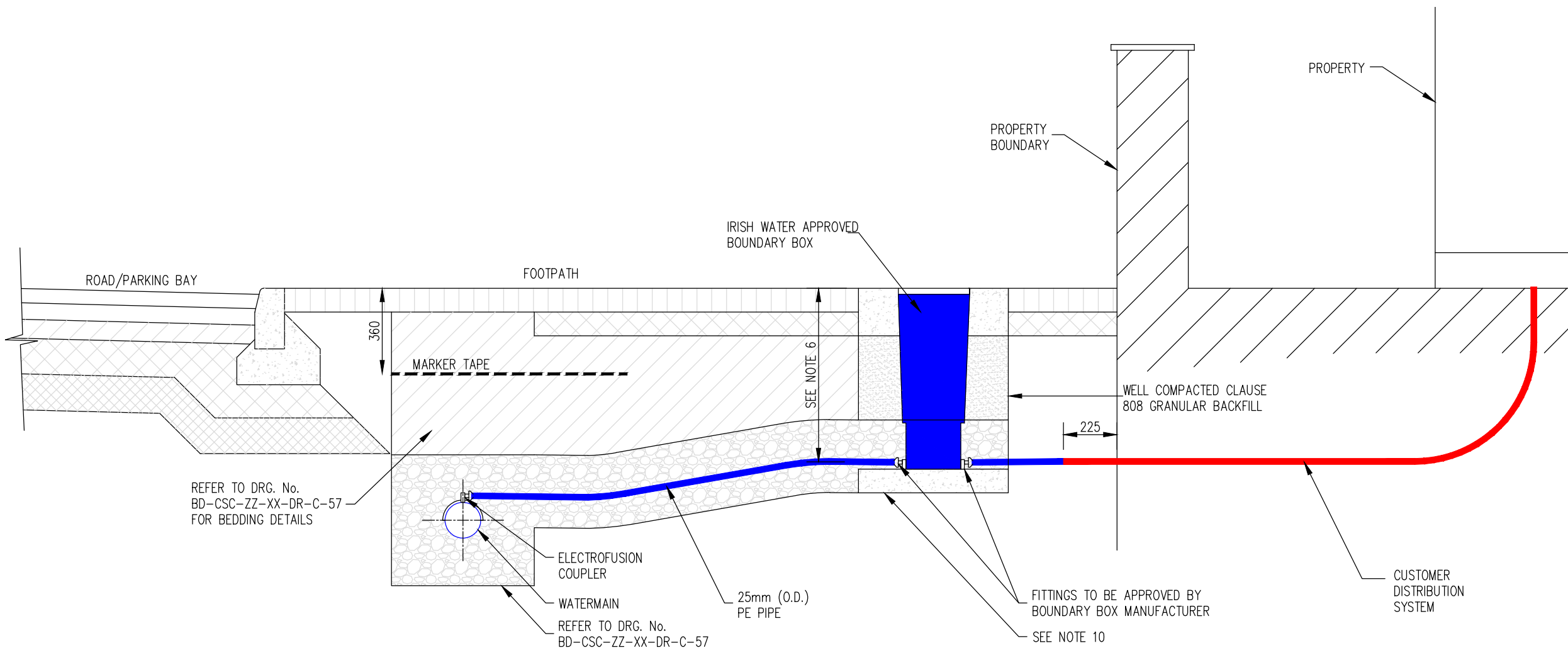
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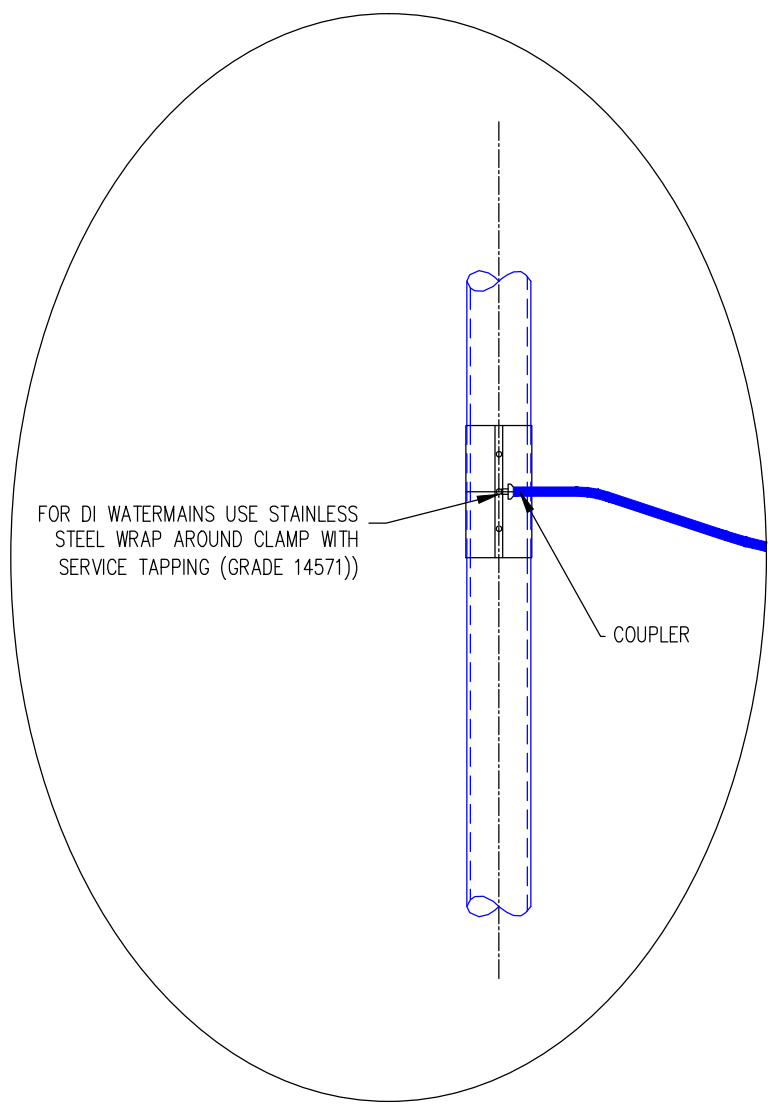
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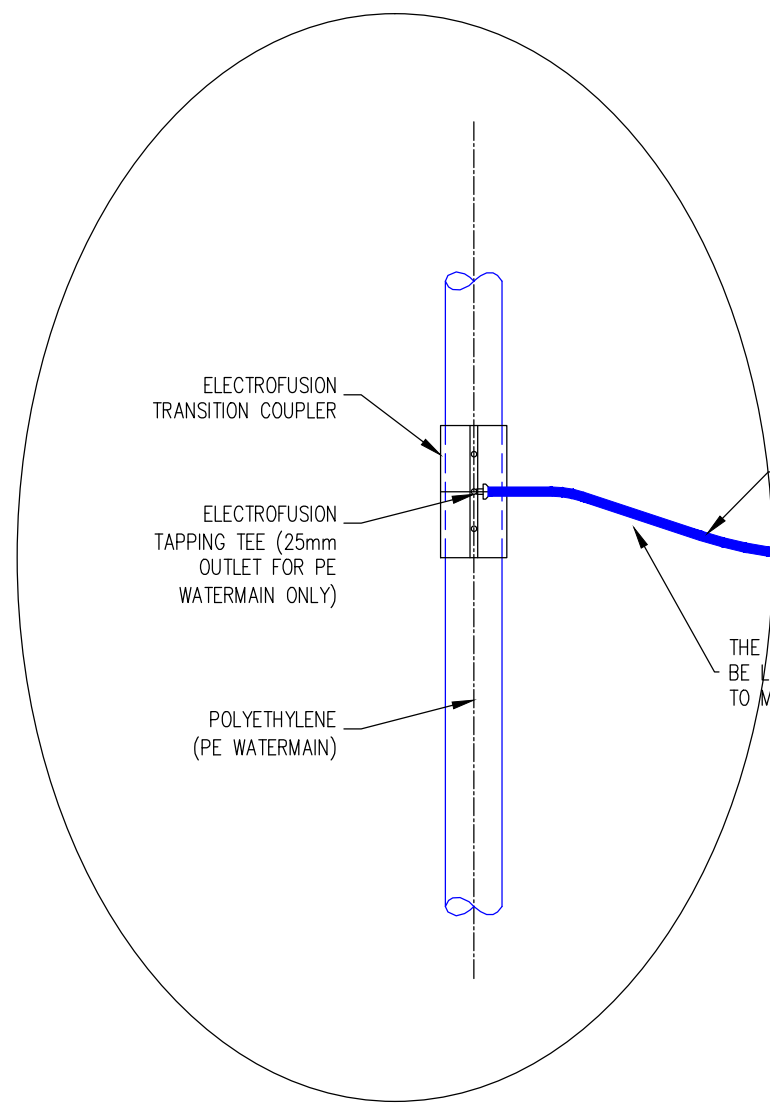
WATER SERVICE CONNECTION RESPONSIBILITY
SCALE 1:50



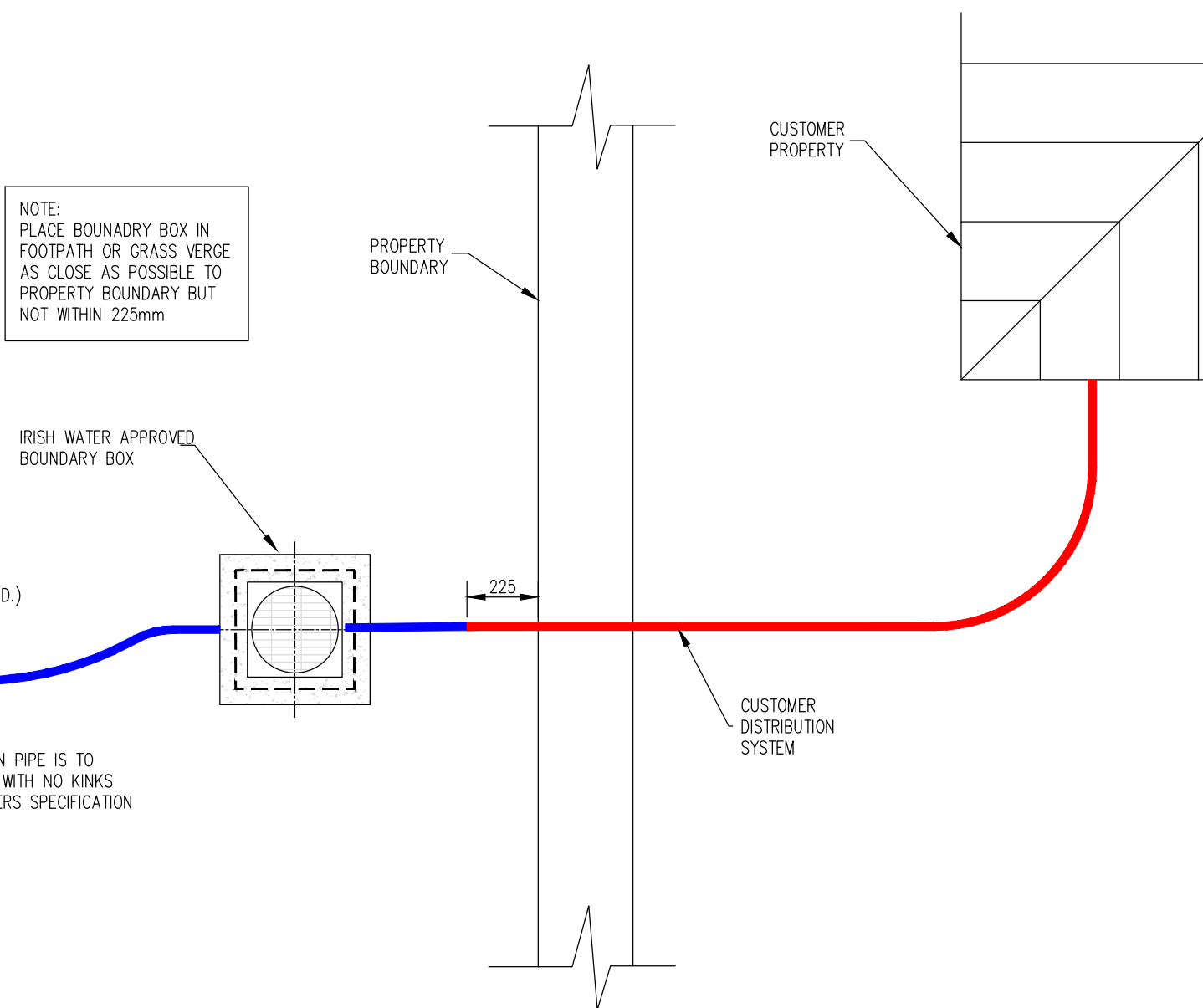
SECTION (CUSTOMER CONNECTION AND BOUNDARY BOX)
SCALE 1:20



FOR DUCTILE IRON (DI) WATERMAIN ONLY
SCALE 1:20



FOR POLYETHYLENE (PE) WATERMAIN ONLY
SCALE 1:20



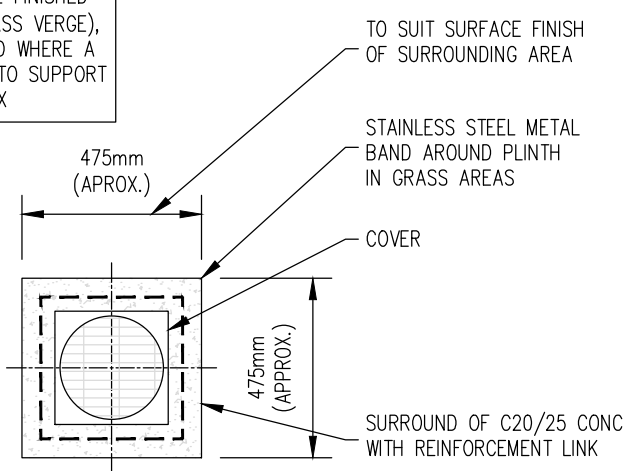
PLAN (CUSTOMER CONNECTION AND BOUNDARY BOX)
SCALE 1:20

GENERAL NOTES:-

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- FOR CONNECTION TO AN EXISTING MAIN THE CONNECTION SHALL BE AS PER THE PIPE MANUFACTURERS SPECIFICATION.
- ELECTROFUSION COUPLING TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN206.
- THE BOUNDARY BOX TO BE IN ACCORDANCE WITH THE IRISH WATER SPECIFICATION, INCORPORATING A G1.5 MANFOLD, STOP-TAP, FROST PULIC AND NON RETURN VALVE.
- THE BOUNDARY BOX SHALL BE POSITIONED IN PUBLIC SPACE AND AS CLOSE AS POSSIBLE TO THE PROPERTY BOUNDARY BUT NO PART OR FITTING TO BE WITHIN 225mm OF THE PROPERTY LINE.
- THE BOUNDARY BOX SHALL BE LOCATED WHERE IT IS SAFE TO OPEN THE COVER AND ACCESS THE STOP TAP OR VISUALLY READ THE METER, i.e. ON A FOOTPATH OR VERGE AND NOT IN A CARRIAGEWAY.
- THE SURFACE BOX COVER ON THE BOUNDARY BOX SHOULD BE NOT LESS THAN GRADE C (BS 5834:2-2011); AND THE BOUNDARY BOX SHOULD BE LOCATED SUCH THAT HEAVIER GRADES OF COVER WOULD NOT BE REQUIRED.
- THE SHAFT OF THE BOUNDARY BOX SHOULD BE INSTALLED VERTICALLY AND THE SURFACE BOX/COVER INCINED TO MATCH THE SURFACE GRADIENT.
- THE BOUNDARY BOX IS TO BE INSTALLED AT A MINIMUM DEPTH OF 600mm (+/-25mm) TO THE CROWN OF THE INLET AND THE OUTLET FITTINGS ON THE OUTSIDE OF THE BOX.
- THE SERVICE CONNECTION PIPE SHALL NOT BE WRAPPED AROUND THE SHAFT OF THE BOUNDARY BOX OR BENT IN ANY RADIUS LESS THAN THAT APPROVED BY THE MANUFACTURER.
- THE PIPE FITTINGS TO THE BOUNDARY BOX SHALL BE APPROVED BY THE BOUNDARY BOX MANUFACTURER.
- THE BOUNDARY BOX SHALL BE INSTALLED HYGIENICALLY AND LEFT CLEAN AND FREE OF CONSTRUCTION WASTE OR DIRT FOR LATER METER INSTALLATION BY IRISH WATER.
- BOX TO BE FOUNDED ON 100mm DEPTH OF C12/15 CONCRETE AND SURROUNDED WITH CLAUSE 808 GRANULAR MATERIAL.
- THE DESIRABLE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL TO THE EXTERNAL CROWN OF A SERVICE CONNECTION SHALL BE 750mm WITH AN ABSOLUTE MINIMUM DEPTH OF 600mm FOR SHORT DISTANCES (SUBJECT TO IRISH WATER AGREEMENT).

NOTE:

THIS DETAIL APPLIES WHERE THE FINISHED SURFACE (EITHER UNBOUND (GRASS VERGE), BRICK PAVING OR MACADAM AND WHERE A CONCRETE PLINTH IS REQUIRED TO SUPPORT THE TOP OF THE BOUNDARY BOX



PLAN (CONCRETE SURROUND TO BOUNDARY BOX)
SCALE 1:20

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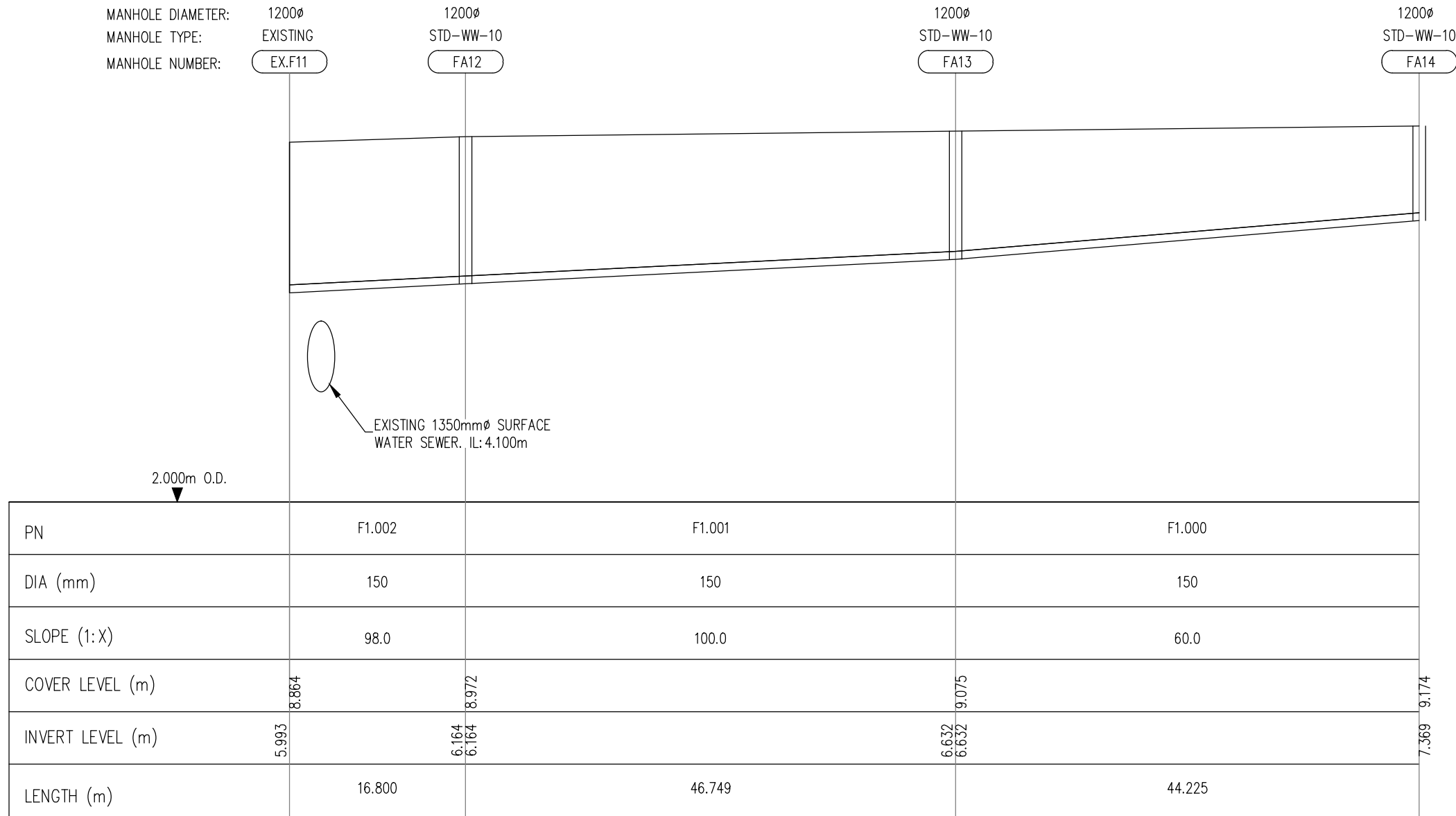
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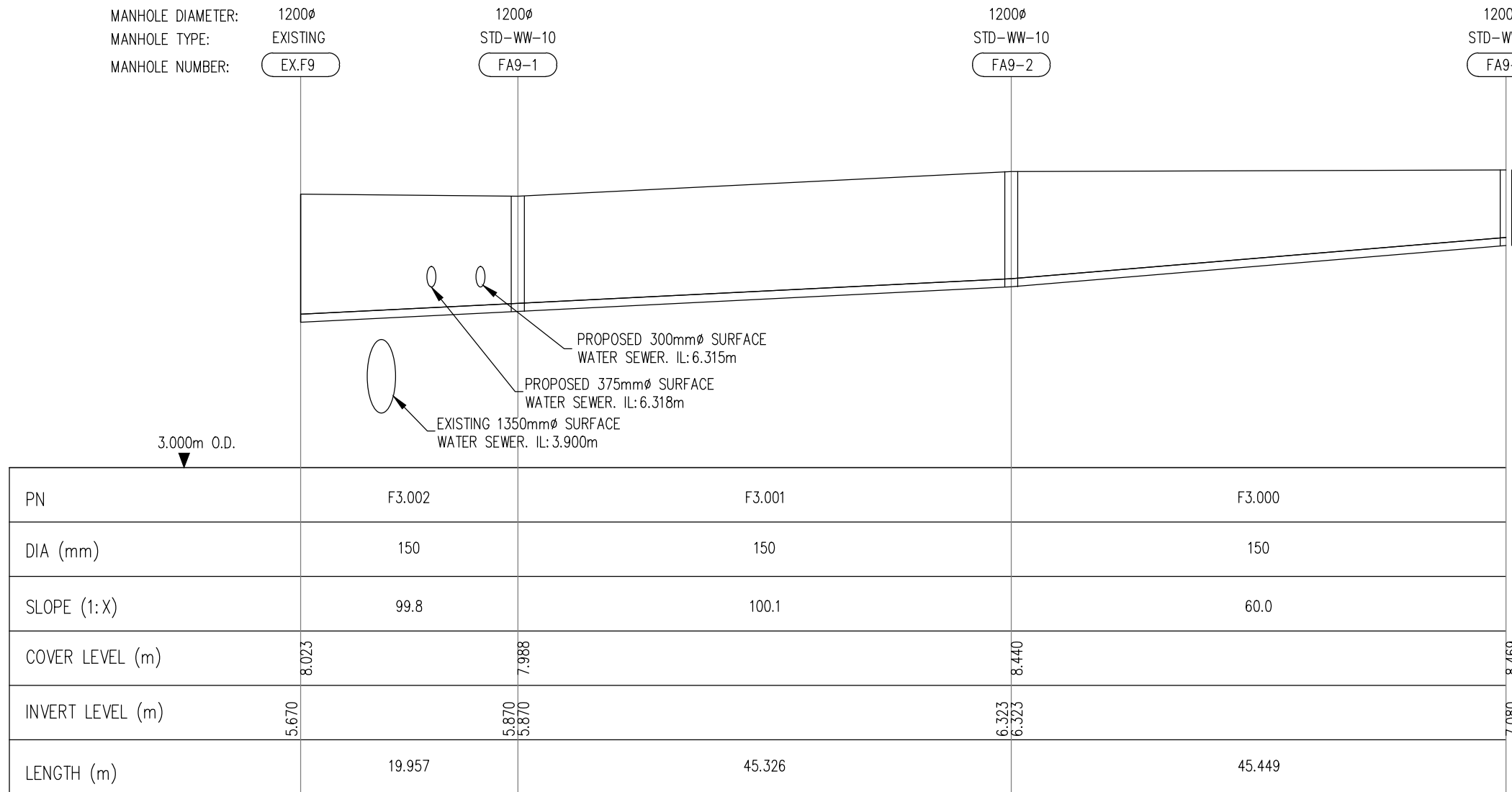
Rev. No.	Date	REVISION NOTE	Dm. By	Chkd. By
P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	OS

Architect	Henry J. Lyons
Project	GA01 Project Shoreline, Baldoye.
Title	WATERMAIN DETAILS SHEET 2 OF 2
Dwg. No.	BD-CSC-ZZ-XX-DR-C-0011
Date	06.04.2020
Dm by	JS
Chkd by	NB
Appvd by	OS
Scale	AS SHOWN @ A1
Revision	P1

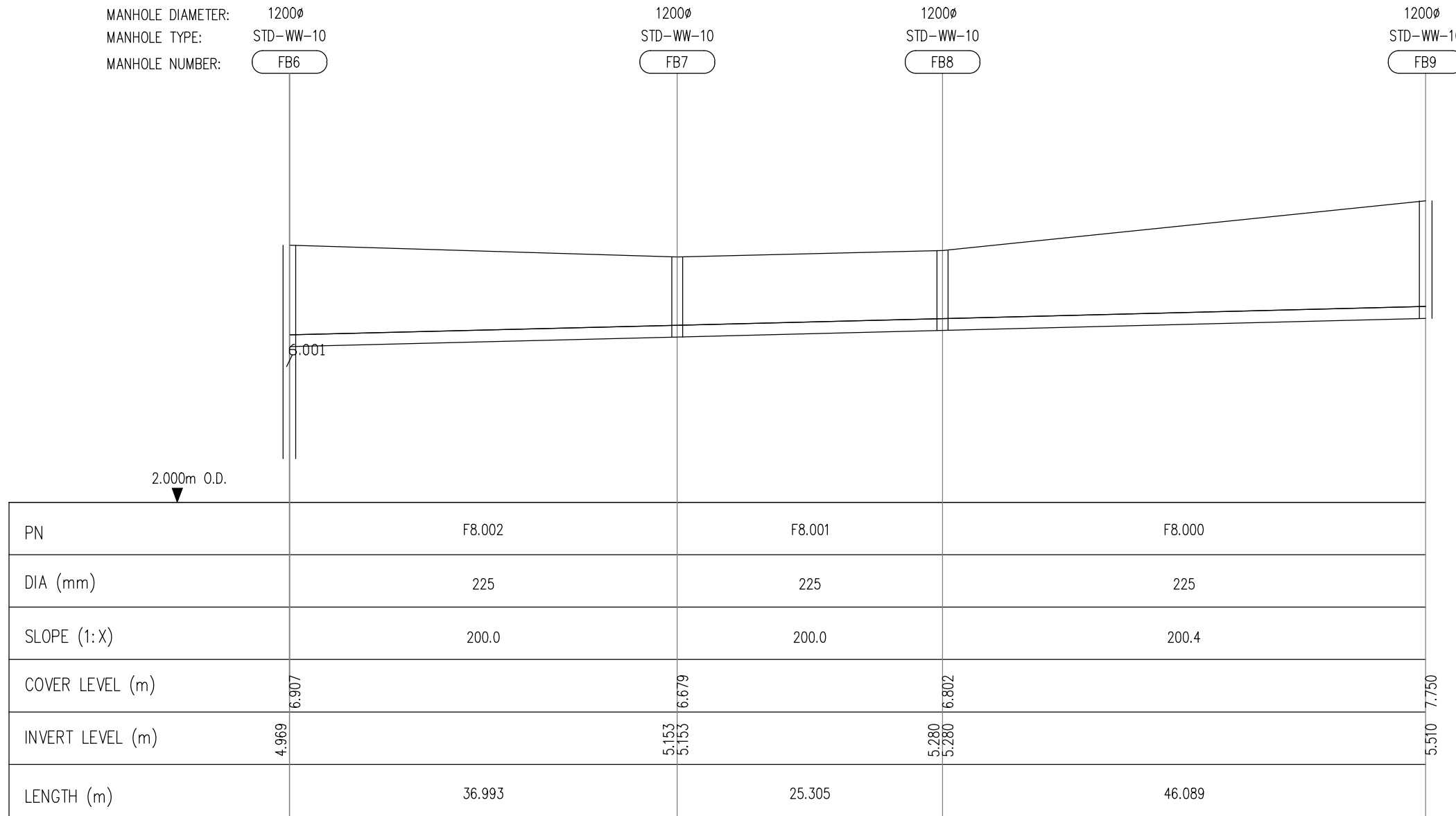
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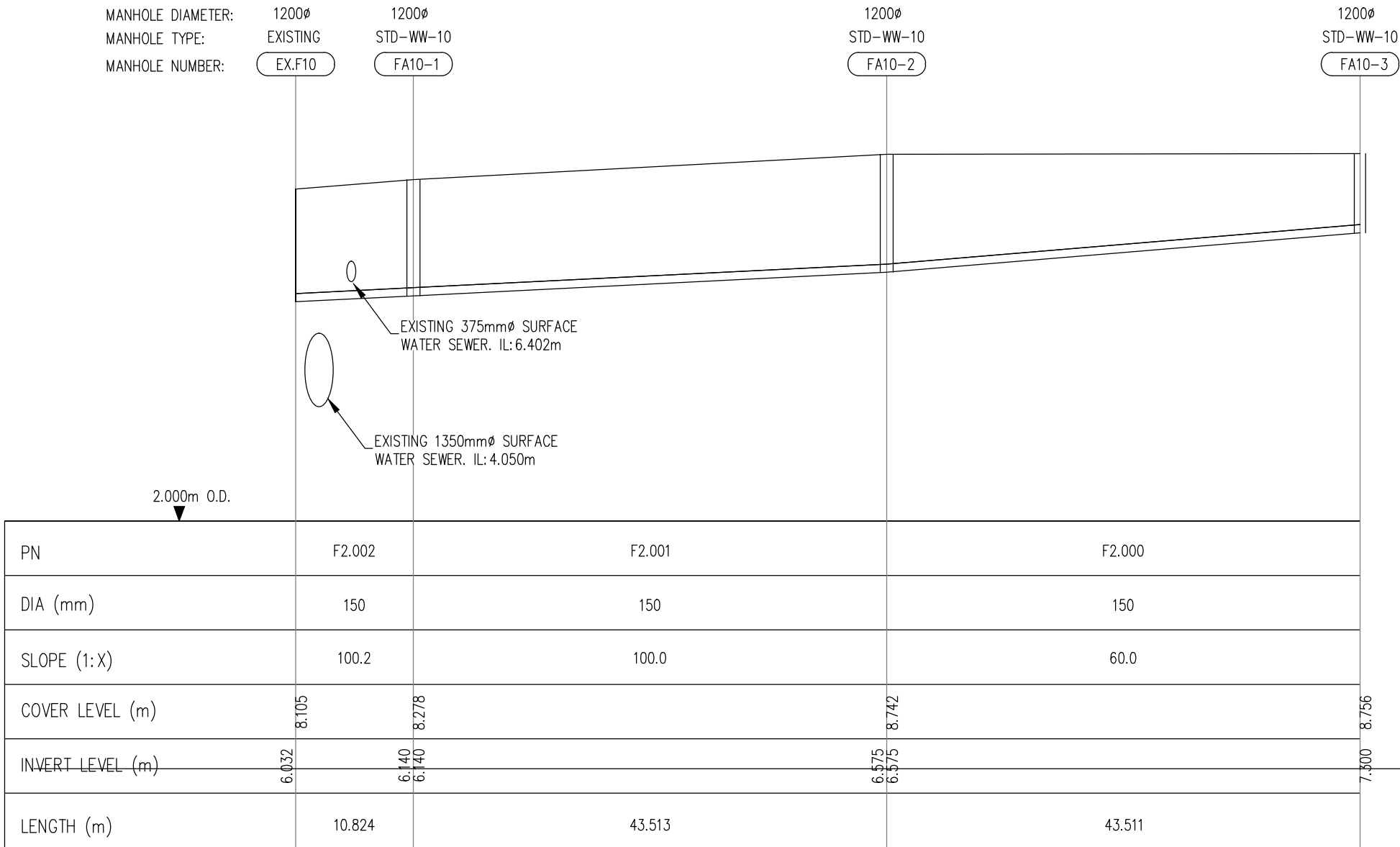
FOUL SEWER FROM FA14 TO EXISTING MANHOLE (EXF11 UNDER CONSTRUCTION)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



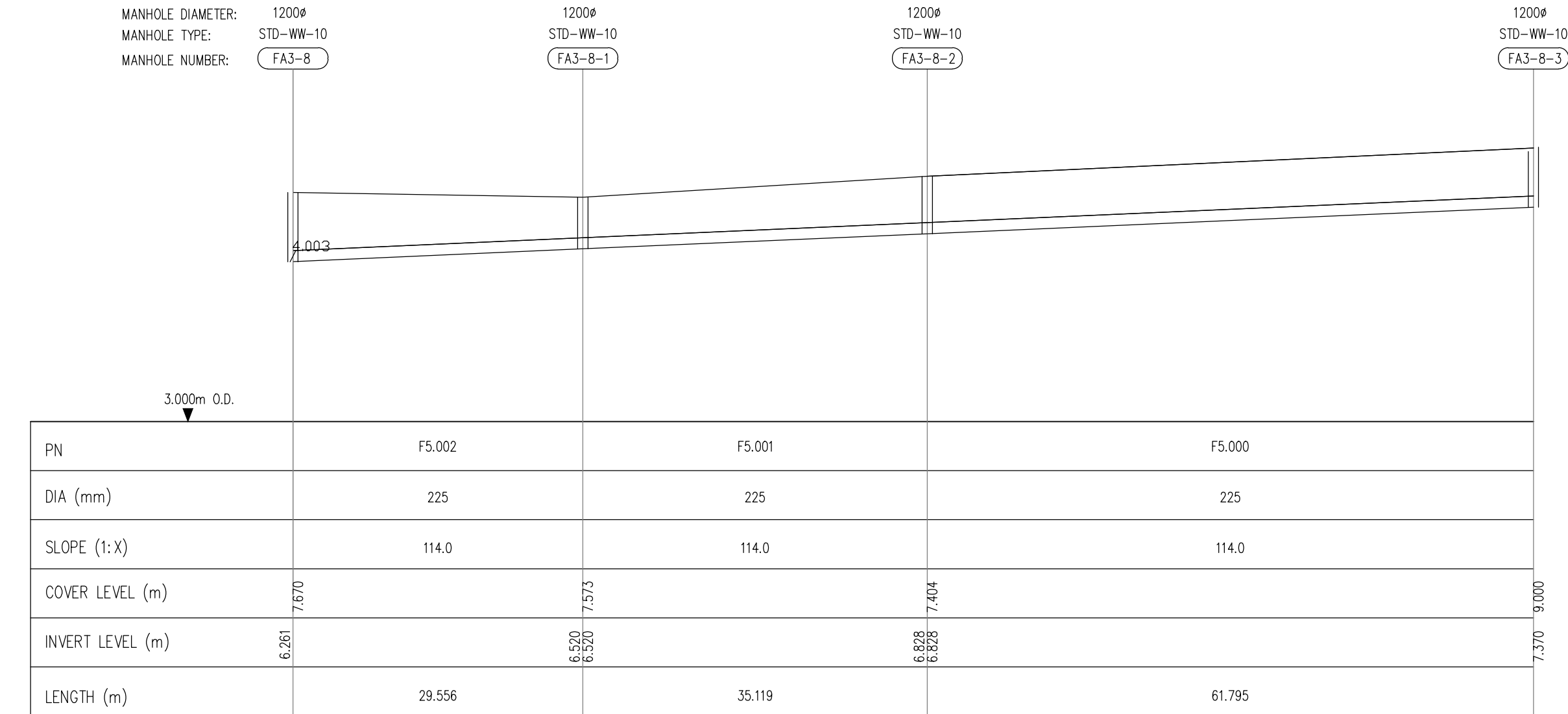
FOUL SEWER FROM FA9-3 TO EXISTING MANHOLE (EXF9 UNDER CONSTRUCTION)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



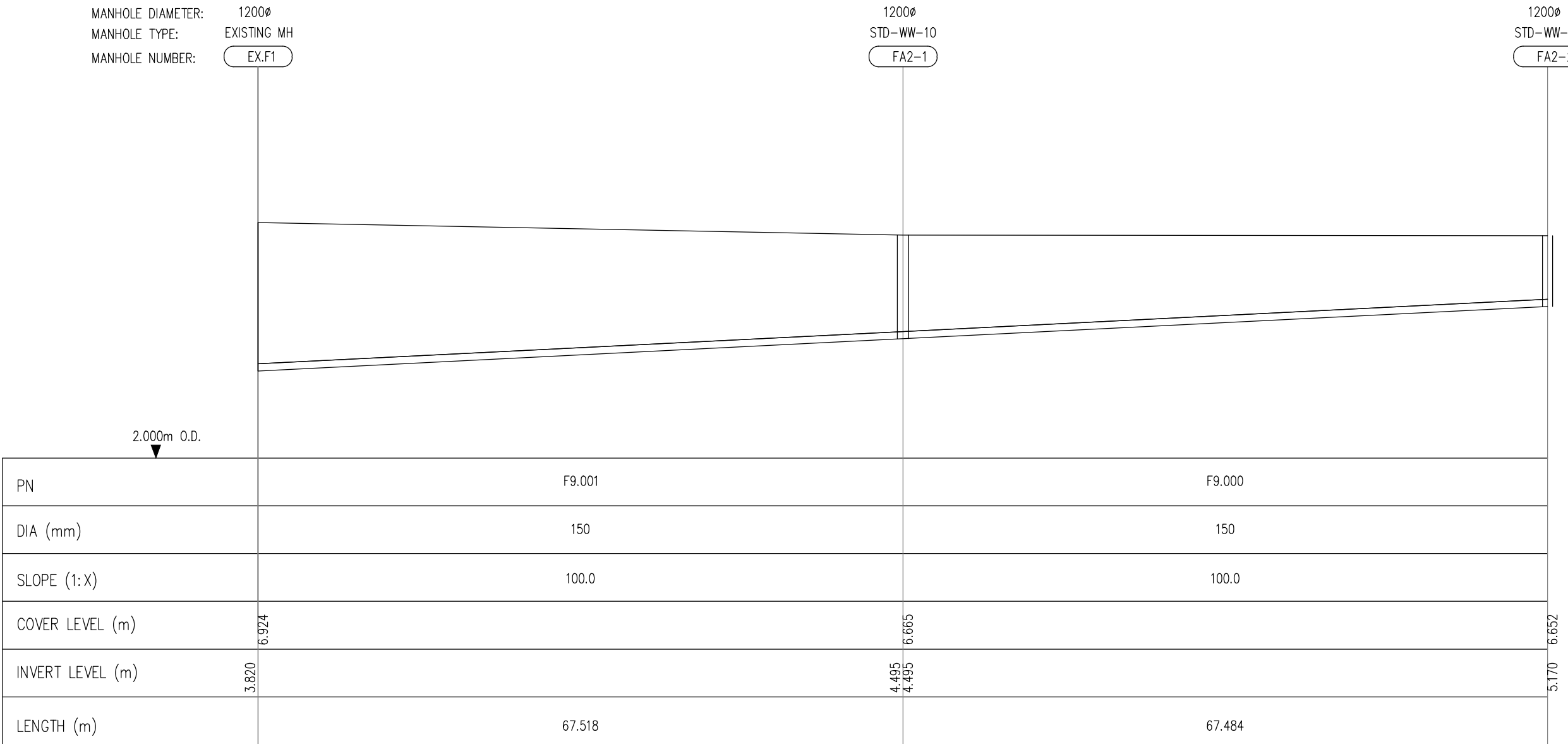
FOUL SEWER FROM FB9 TO EXISTING MANHOLE FB6
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



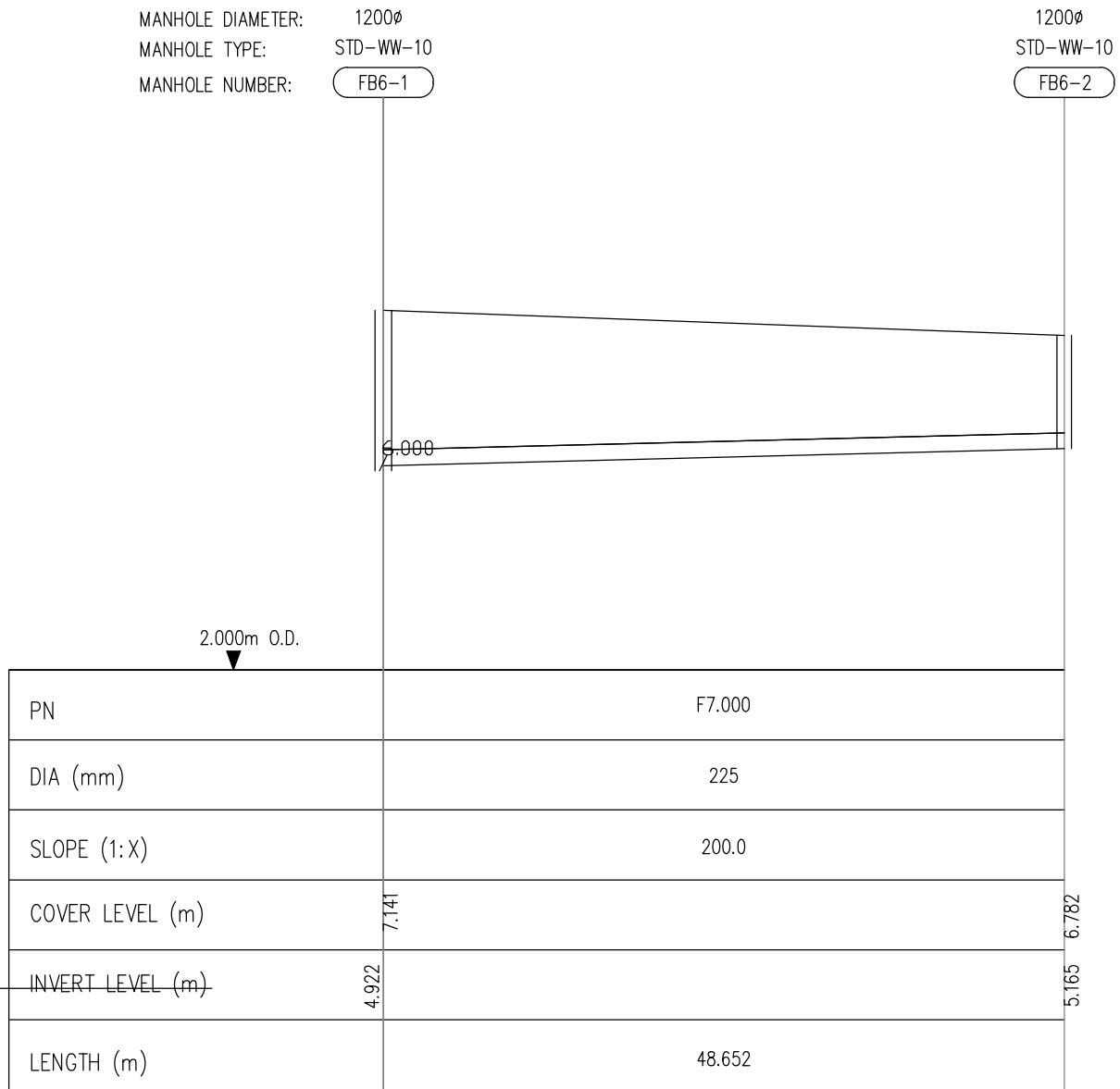
FOUL SEWER FROM FA10-3 TO EXISTING MANHOLE (EXF10 UNDER CONSTRUCTION)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOUL SEWER FROM FA3-8-3 TO FA3-8
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOUL SEWER FROM FA2-2 TO EXISTING MANHOLE F1
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOUL SEWER FROM FB2 TO EXISTING MANHOLE FB6-1
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	GS

Architect	Henry J. Lyons				
Project	GA01 Project Shoreline, Baldoyle.				
Title	FOUL LONGITUDINAL SECTIONS SHEET 1 OF 2				
Dwg. No.	BD-CSC-ZZ-XX-DR-C-0039				
Date	Dm by	Chkd by	Aprvd by	Scale	Revision
06.04.2020	JS	PC	OS	AS SHOWN @ A1	P1

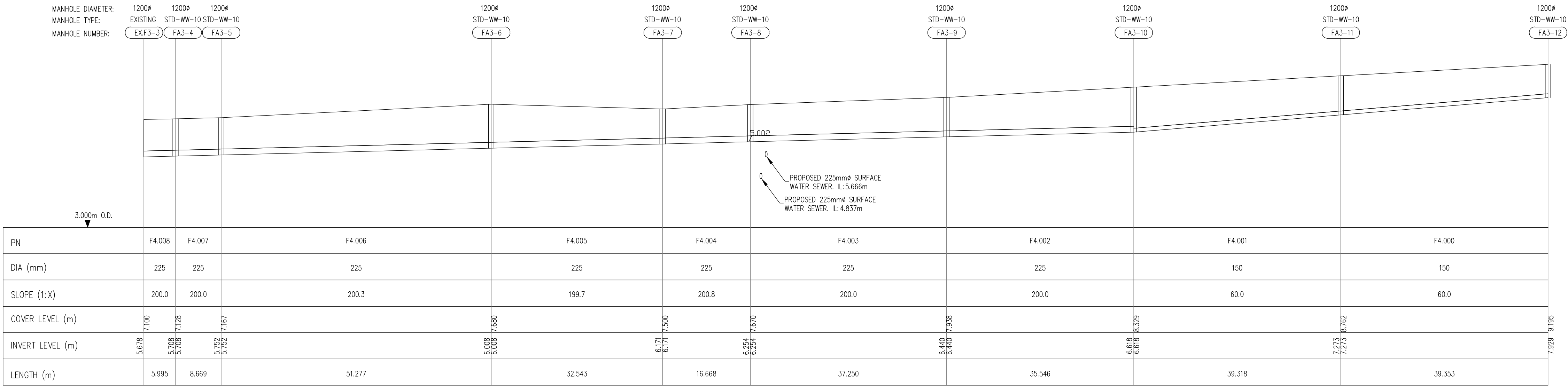
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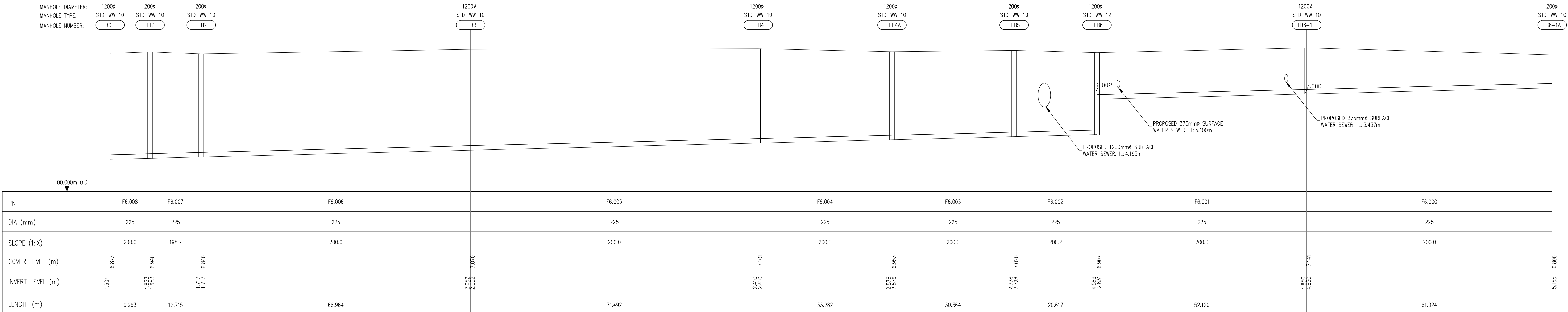
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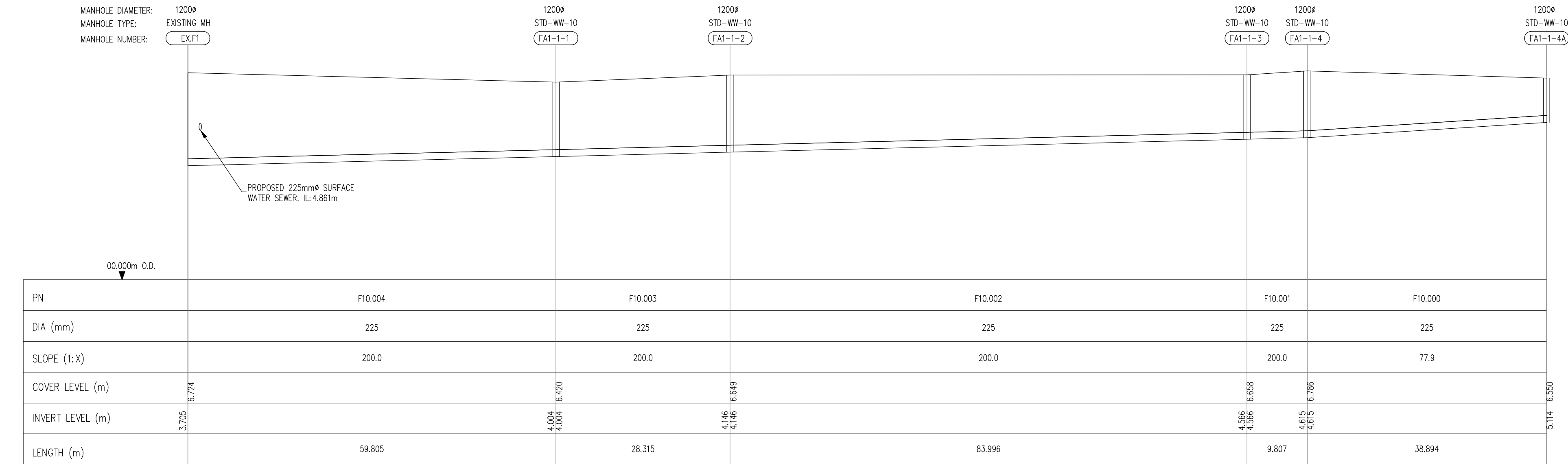
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FOUL SEWER FROM FA3-12 TO EXISTING MANHOLE (EXF3-3 UNDER CONSTRUCTION)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOUL SEWER FROM FB6-1A TO EXISTING MANHOLE FB0
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



FOUL SEWER FROM FA1-1-4A TO EXISTING MANHOLE (EX.F1 UNDER CONSTRUCTION)
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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P1	20.10.2020	PLANNING SUBMISSION STAGE 3	JS	GS

Architect	Henry J. Lyons				
Project	GA01 Project Shoreline, Baldoyle.				
Title	FOUL LONGITUDINAL SECTIONS SHEET 2 OF 2				
Dwg. No.	BD-CSC-ZZ-XX-DR-C-0040				
Date	Dm by	Chkd by	Aprvd by	Scale	Revision
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