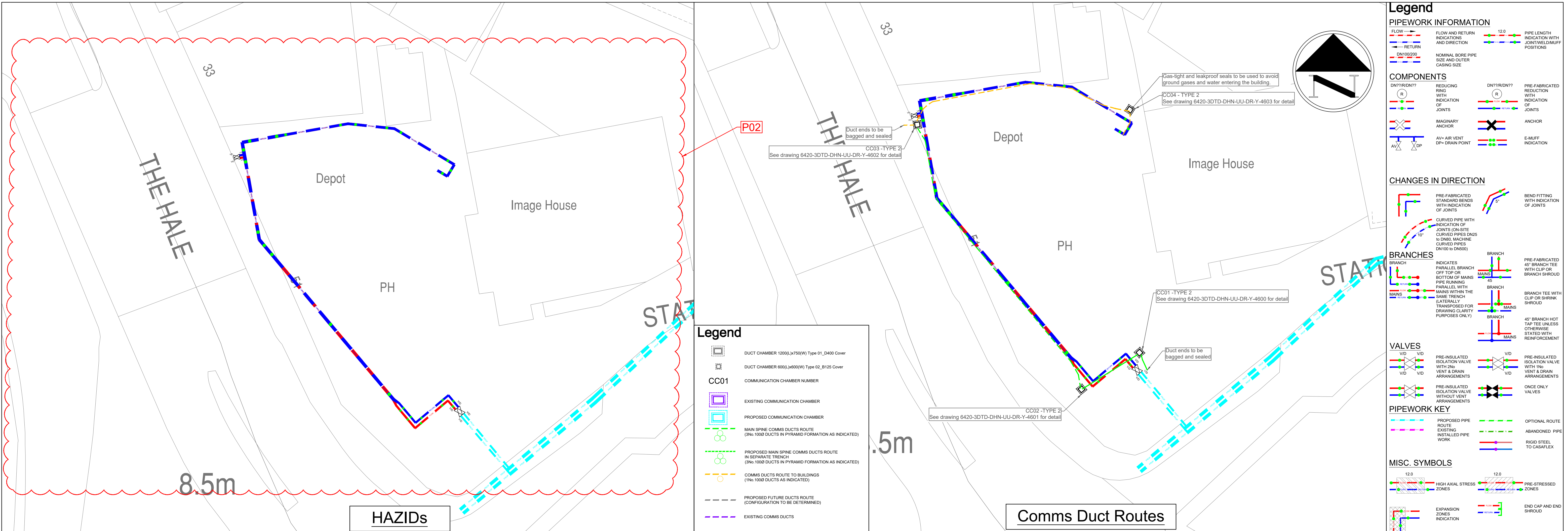


Condition A36: HGY/2022/4530 – Responses to LBH 22.05.23

LBH Comments – 12.05.23	Responses
1. The attached letter sent on 5th May states that the approved strategy is for the commercial units not to connect to the DEN. Although the strategy indeed stated this, the intention of this condition would be to make all future occupiers aware that there is a heat network that they could connect to, if they wish. Therefore this information should be made available.	The pipework drawings submitted to discharge Condition A9 in Appendix 1 demonstrate that the proposed design for the District Heating network connection route has been designed to the DEN Room only. There is no active or passive valved connection designed from the DEN Room to connect to the retail units. Therefore, with no valved connections provided on-site or passive provision to connect to the DEN, the condition requirements have been satisfied. Should retail tenants want to connect to the heat network, they will need to install their own connections.

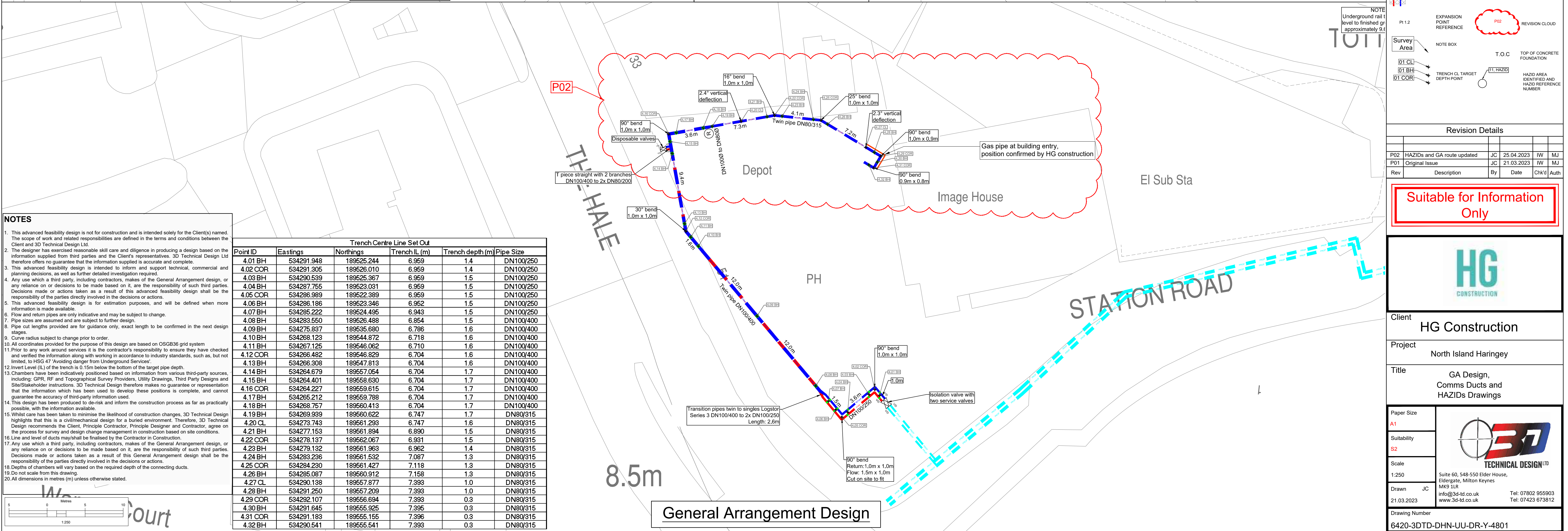


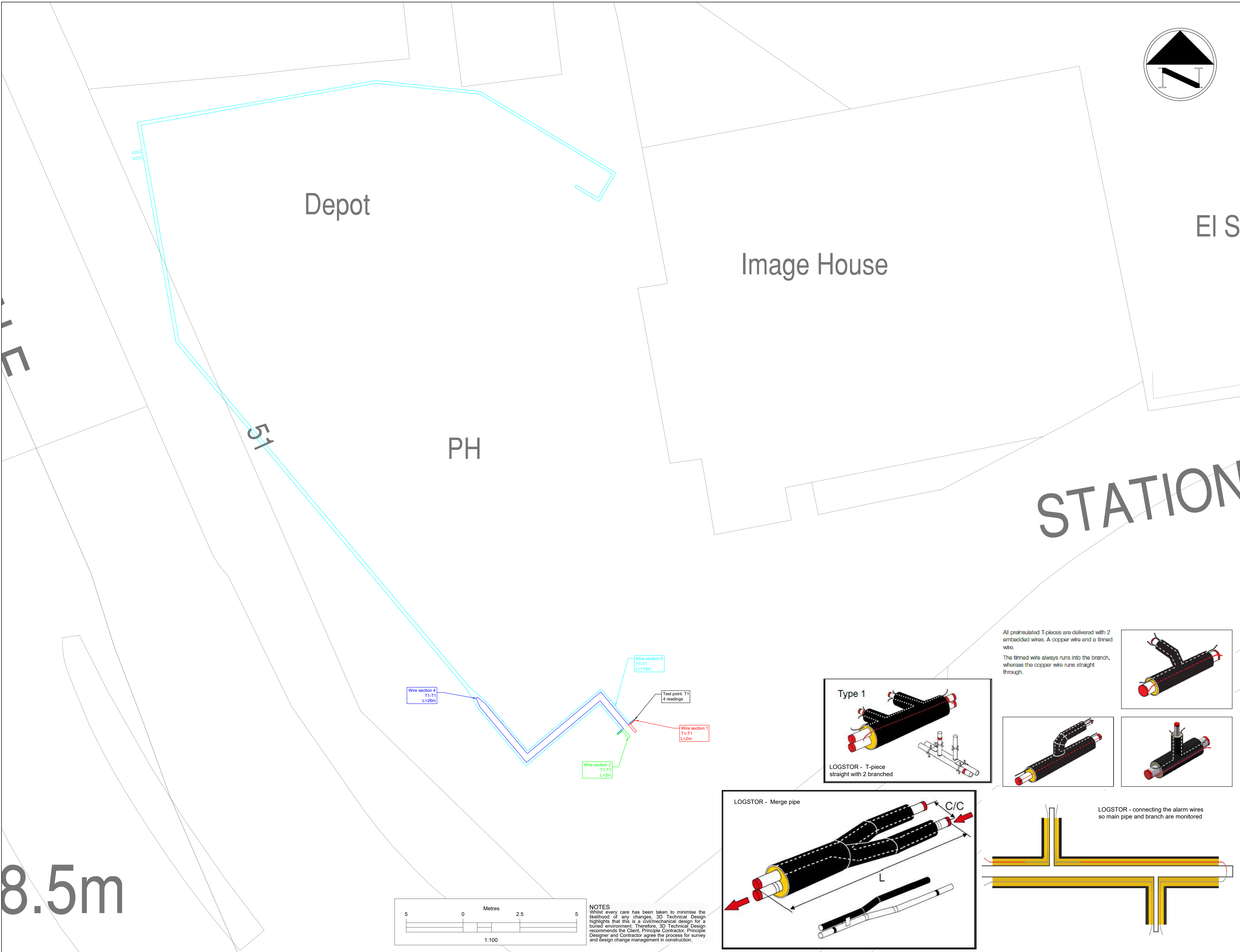
Legend
PIPEWORK INFORMATION
FLOW AND RETURN INDICATIONS AND DIRECTION
PIPE LENGTH INDICATION WITH JOINT/WORK STOP POSITIONS
NOMINAL BORE PIPE SIZE AND OUTER CASING SIZE
REDUCING RING WITH INDICATION OF JOINTS
IMAGINARY ANCHOR
AV= AIR VENT
DP= DRAIN POINT
PRE-FABRICATED REDUCTION INDICATION OF JOINTS
ANCHOR
E-MUFF INDICATION
CHANGES IN DIRECTION
PRE-FABRICATED STANDARD BENDS WITH INDICATION OF JOINTS
CURVED PIPE WITH INDICATION OF JOINTS (ON-SITE CURVED PIPES DN25 to DN100 to DN500)
BRANCHES
INDICATES PARALLEL BRANCH OFF TOP OR BOTTOM OF MAINS
PARALLEL WITH MAINS WITHIN THE SAME TRENCH (LATERALLY TRANSFERRED FOR DRAWING CLARITY PURPOSES ONLY)
PRE-FABRICATED 45° BRANCH TEE WITH CLIP OR BRANCH SHROUD
BRANCH TEE WITH CLIP OR SHROUD
45° BRANCH HOT TAP TEE UNLESS OTHERWISE STATED WITH REINFORCEMENT
VALVES
VD
PRE-INSULATED ISOLATION VALVE WITH 2% VENT & DRAIN ARRANGEMENTS
PRE-INSULATED ISOLATION VALVE WITHOUT VENT ARRANGEMENTS
ONCE ONLY VALVES
PIPEWORK KEY
PROPOSED PIPE ROUTE
EXISTING PIPE WORK
OPTIONAL ROUTE
ABANDONED PIPE
RIGID STEEL TO CASAFLEX
MISC. SYMBOLS
HIGH AXIAL STRESS ZONES
EXPANSION POINT INDICATION
END CAP AND END SHROUD
REVISION CLOUD
NOTE BOX
T.O.C TOP OF CONCRETE FOUNDATION
HAZID AREA IDENTIFIED AND HAZID REFERENCE NUMBER

Revision Details					
Rev	Description	By	Date	Chkd	Auth
P02	HAZIDs and GA route updated	JC	25.04.2023	IW	MJ
P01	Original Issue	JC	21.03.2023	IW	MJ

Suitable for Information Only

HG CONSTRUCTION
Client: HG Construction
Project: North Island Haringey
Title: GA Design, Comms Ducts and HAZIDs Drawings
Paper Size: A1
Suitability: S2
Scale: 1:250
Drawn: JC
21.03.2023
Drawing Number: 6420-3DTD-DHN-UU-DR-Y-4801
Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR
info@3d-td.co.uk
www.3d-td.co.uk
Tel: 07802 955903
Tel: 07423 673812





Legend

DETECTION SYSTEM

Fault locator, 2-circuit plus associated items

Fault detector, 2-circuit

Fault detector, 1-circuit

Fault locator, 4-circuit plus associated items

Fault detector, 4-circuit

CABLES

Connection cable and cable length

Jumper cable band muff

Cable takeoff from band muff

Jumper cable steel muff

Cable takeoff pre-insulated component

COMPONENTS

Junction box

Connecting link

End component red for detector

Earth connection

Connection box

Connecting link with shrink tubing

End component black for locator

Weatherproof cabinet

TERMINATIONS

Connection box, end component red for detector, and earth connection

2 x junction boxes with 1m cable connection

10m pre-insulated takeoff terminated in a weatherproof cabinet

Connection box, end component black for locator, and earth connection

CIRCUITS

Wire section 1 - Return pipe

Wire section 2 - Return pipe

Wire section 3 - Flow pipe

Wire section 4 - Flow pipe

Revision Details					
Rev	Description	By	Date	Chkd	Auth
P01	Original Issue	JC	22/03/2023	IW	MJ

Suitable for Information Only

Client

Project

Title

6420-3DD-DHN-UU-DR-Y-4802

Paper Size

Suitability

Scale

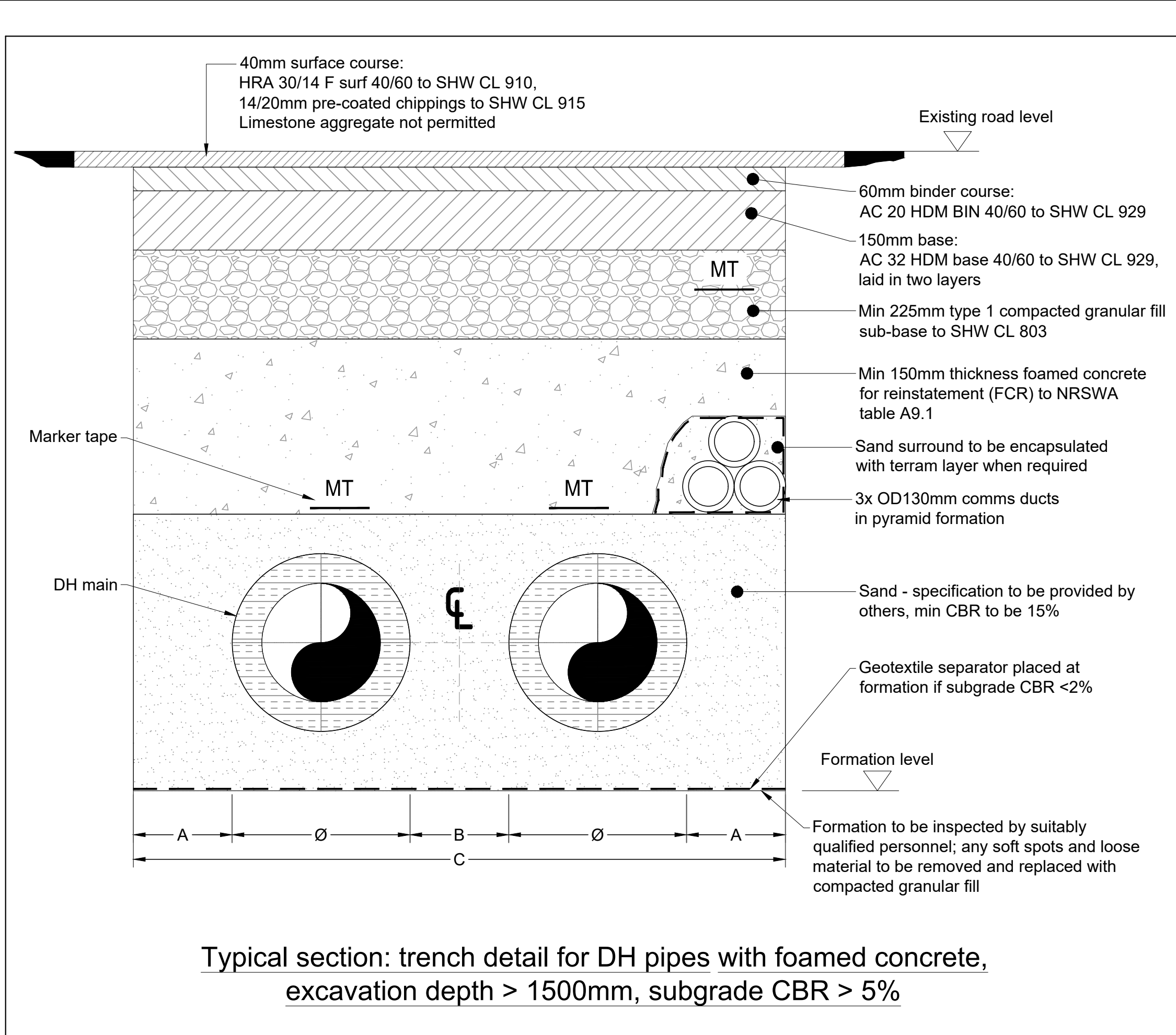
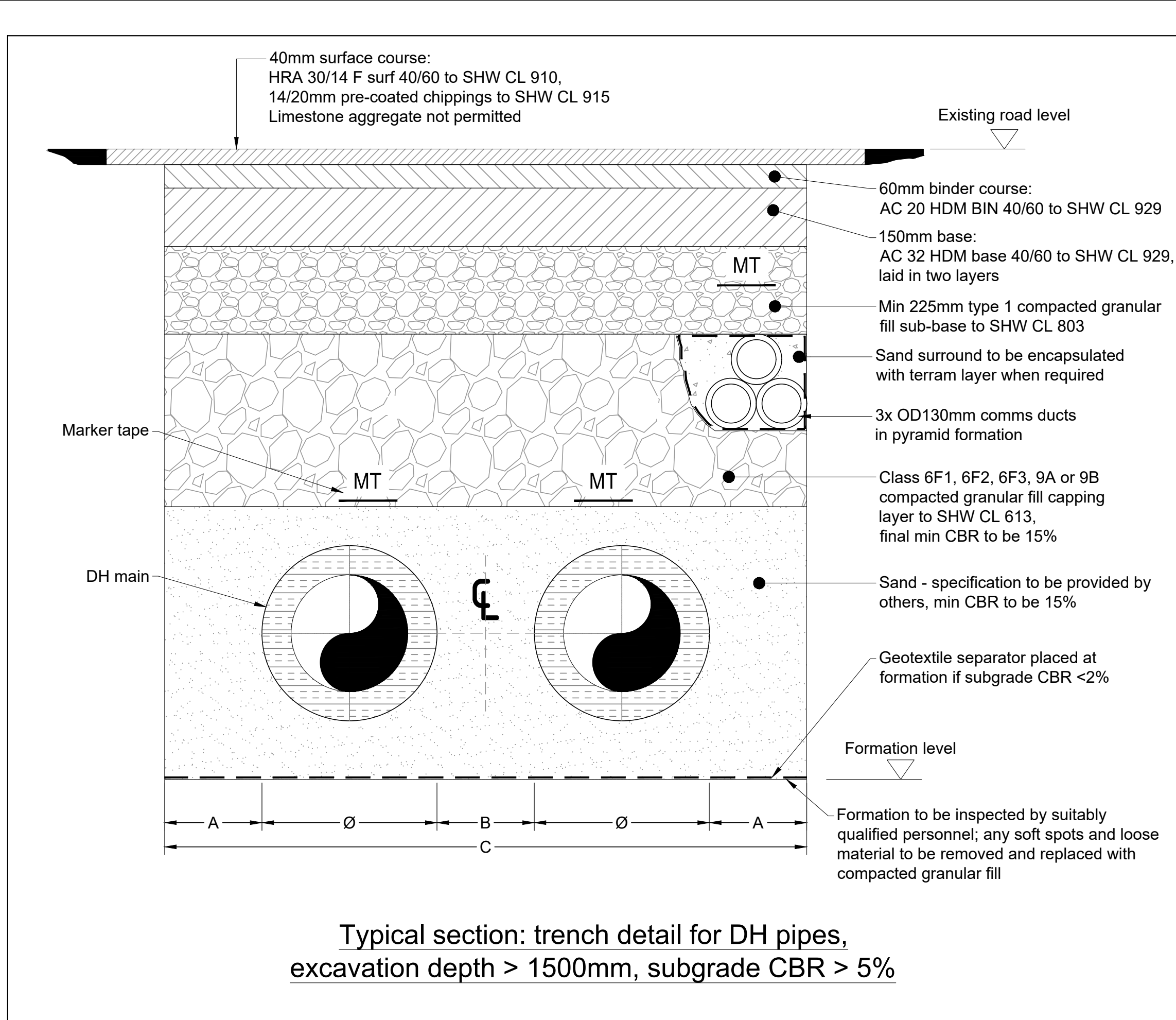
Drawn

22/03/2023

Drawing Number

Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR info@3d-td.co.uk www.3d-td.co.uk

Tel: 07802 955903 Tel: 07423 673812



Trench Schedule for Logstor Series 3				
Straight Pipe				
Pipe diameter (DN)	Outer casing Ø (mm)	A* (mm) min	B (mm) min	C** (mm) min
20	125	100	150	700
25	125	100	150	700
32	140	100	150	730
40	140	100	150	730
50	160	100	150	770
65	180	100	150	810
80	200	100	150	850
100	250	100	150	1050
125	280	100	250	1110
150	315	100	250	1180
200	400	100	250	1350
250	500	100	250	1550
300	560	100	250	1670
350	630	100	300	1860
400	710	100	300	2020
450	800	100	300	2200
500	900	100	300	2400

NOTES:

General

- Do not scale from this drawing.
- All dimensions are given in millimetres (mm) unless otherwise stated.
- All levels are given relative to a local datum unless otherwise stated.

Setting out

- The contractor shall be responsible for setting out on site.
- Depths of the district heating pipework will vary along the network. This drawing shows typical installation details which shall be adjusted for all specific locations by the contractor.

Earthworks

- The details shown on this drawing provide the minimum recommended dimensions for trench width and depth; trench dimensions may be increased during construction to accommodate installation of temporary works.
- Any temporary works designs required to ensure the stability of the excavation during the works shall be by others. It shall be the responsibility of the contractor to establish whether or not this is required on site.
- The client and contractor should assess the case for allowing additional width and depth on a project-by-project basis to reflect / accommodate the risk of post-excavation changes to the design that may be required due to unforeseen ground conditions, including unrecorded / undetected services and structures.
- The contractor shall be responsible for confirming suitability of the subgrade for installation of the proposed structure.
- Prior to installation of the pipework and new road structure, the formation shall be inspected by suitably qualified personnel. Any soft spots and loose material shall be removed and replaced with compacted granular fill.
- A geotextile separator shall be placed at formation prior to installation of the proposed details if the subgrade CBR is found to be less than 2%. Geotextile separator shall be Terram T1000 or similar.
- Drawing is appropriate for rigid steel and Casaflex pipe.

FOAM PADS

Horizontal alignment

Cross section

Only 1 layer inside

4.0/2.0

2.0m 4.0m

1.6m

Foam pads are to be installed equally on the inside and outside of bends as per the above illustration.

The indicated number of foam pads shall be installed on both Flow and Return pipe.

Foam pads shall be installed on both sides of the pipe - 'inner' side only one layer.

Foam pads to be installed according to Handling & Installation manual.

Foam pad thickness: 40mm.

The D.Y. casing diameter determines the height of the foam pad, and the number of layers is determined by the AL (preparation length):

10 < AL < 35mm = 1 layer
35 < AL < 70mm = 2 layers
70 < AL < 105mm = 3 layers

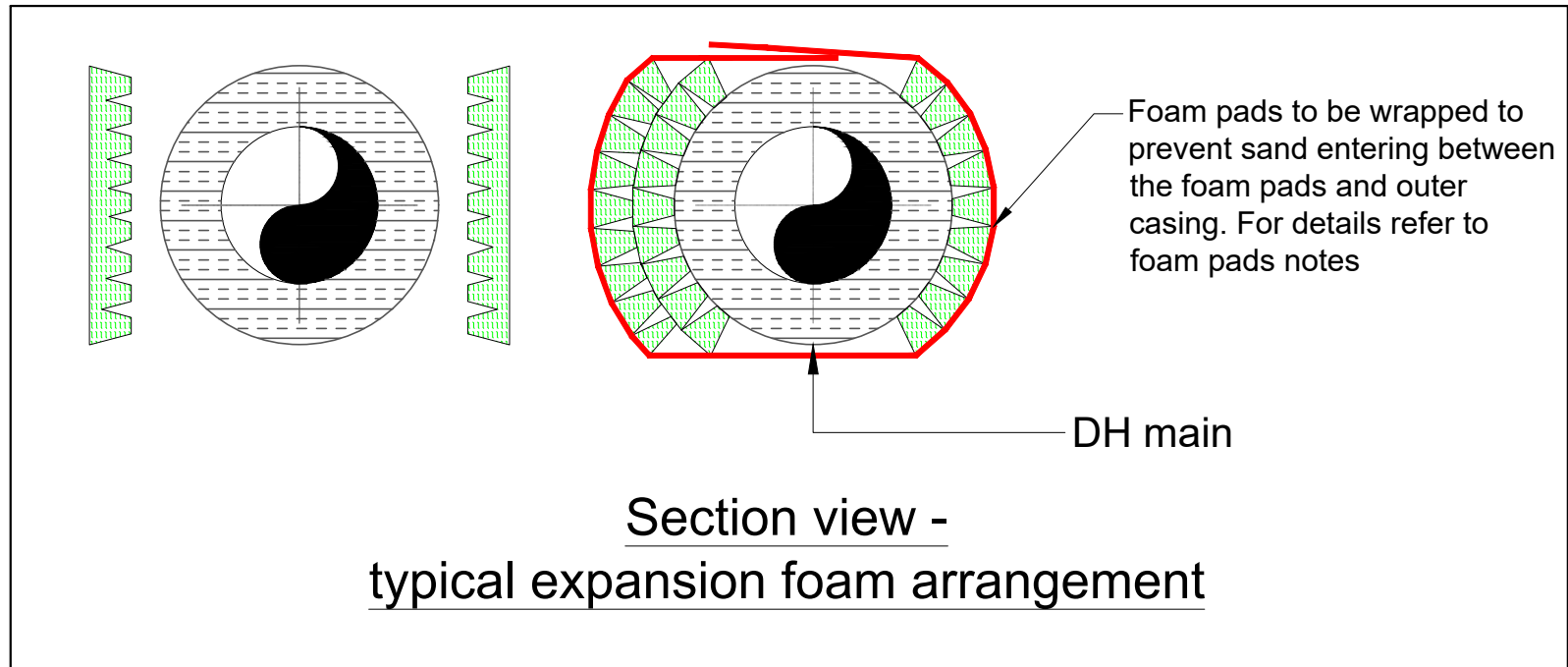
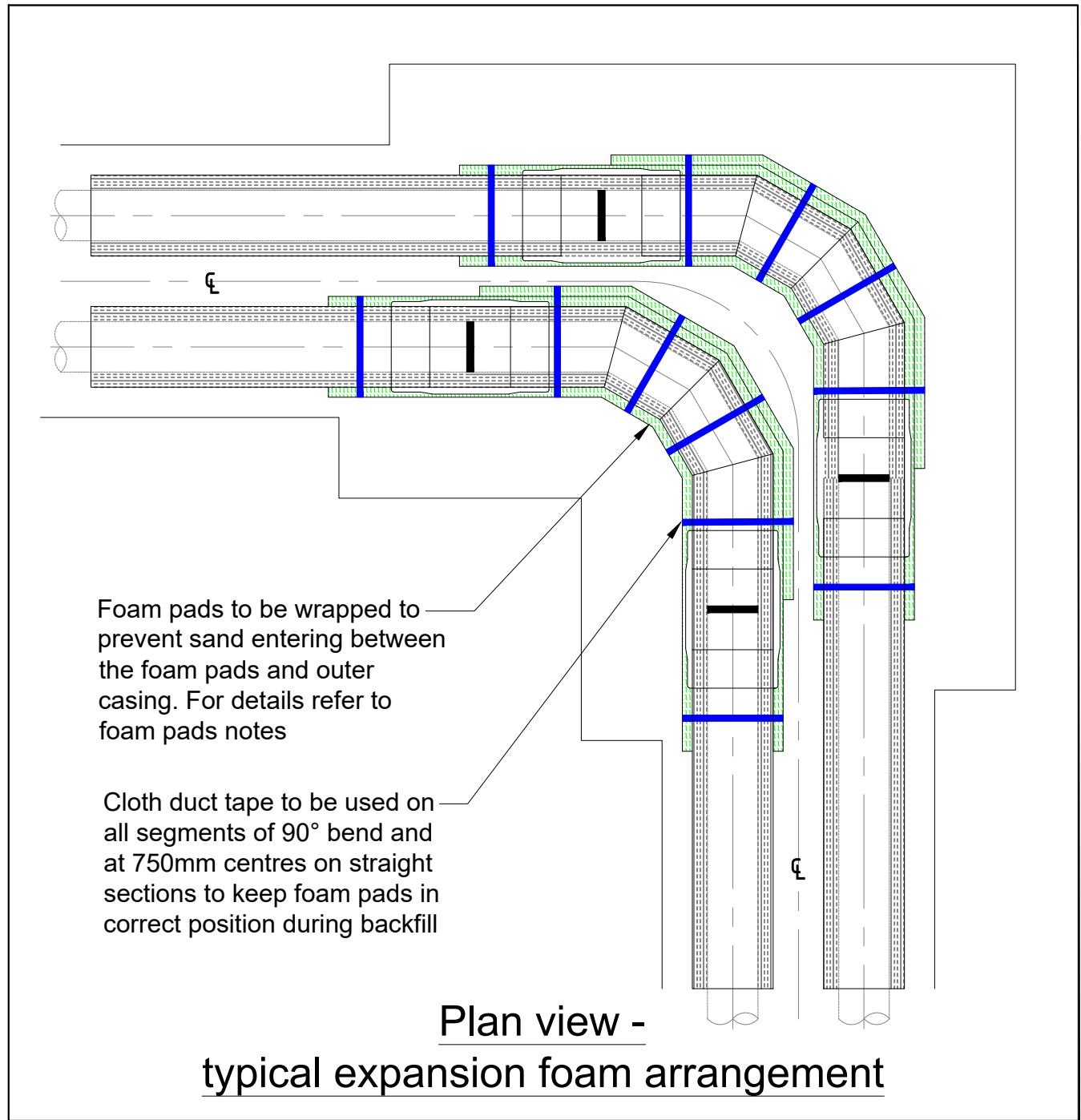
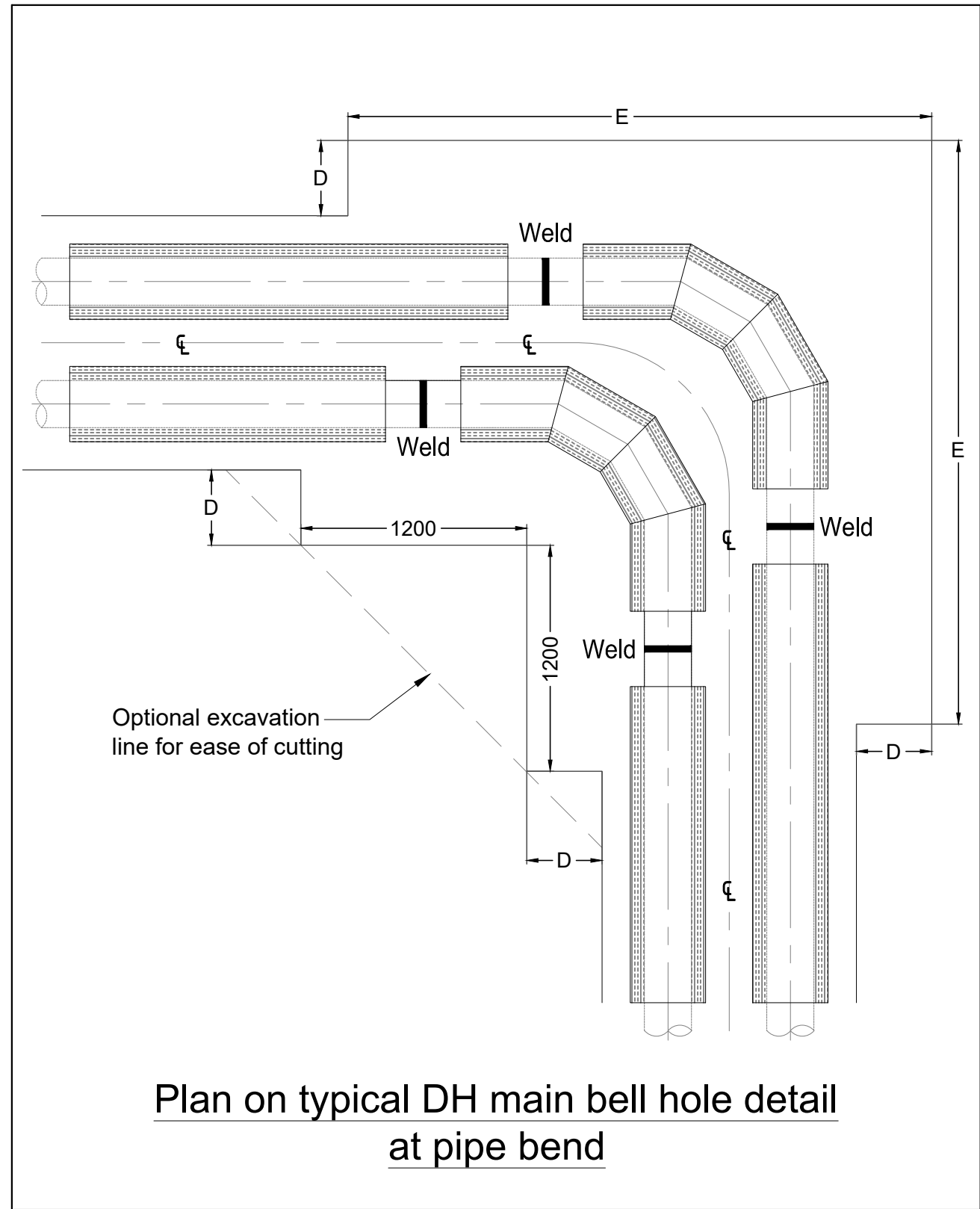
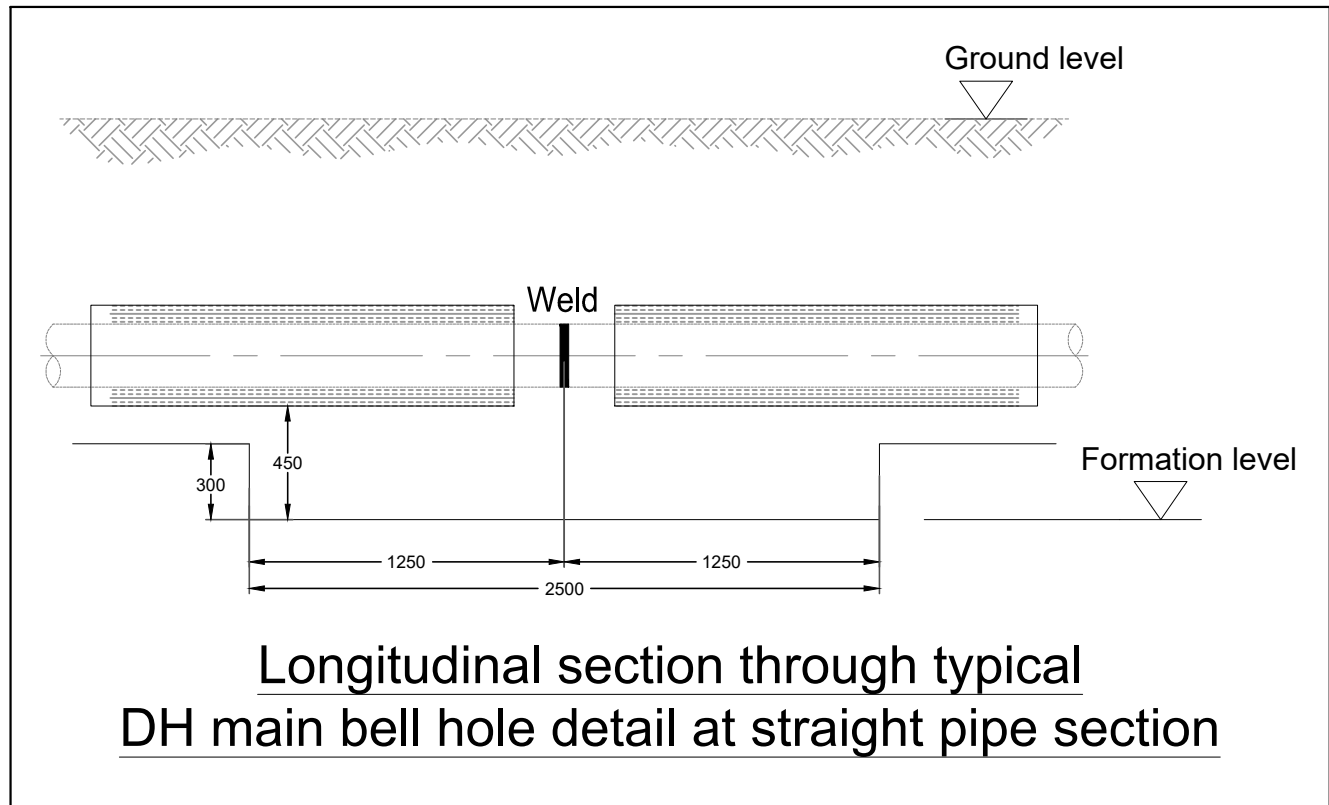
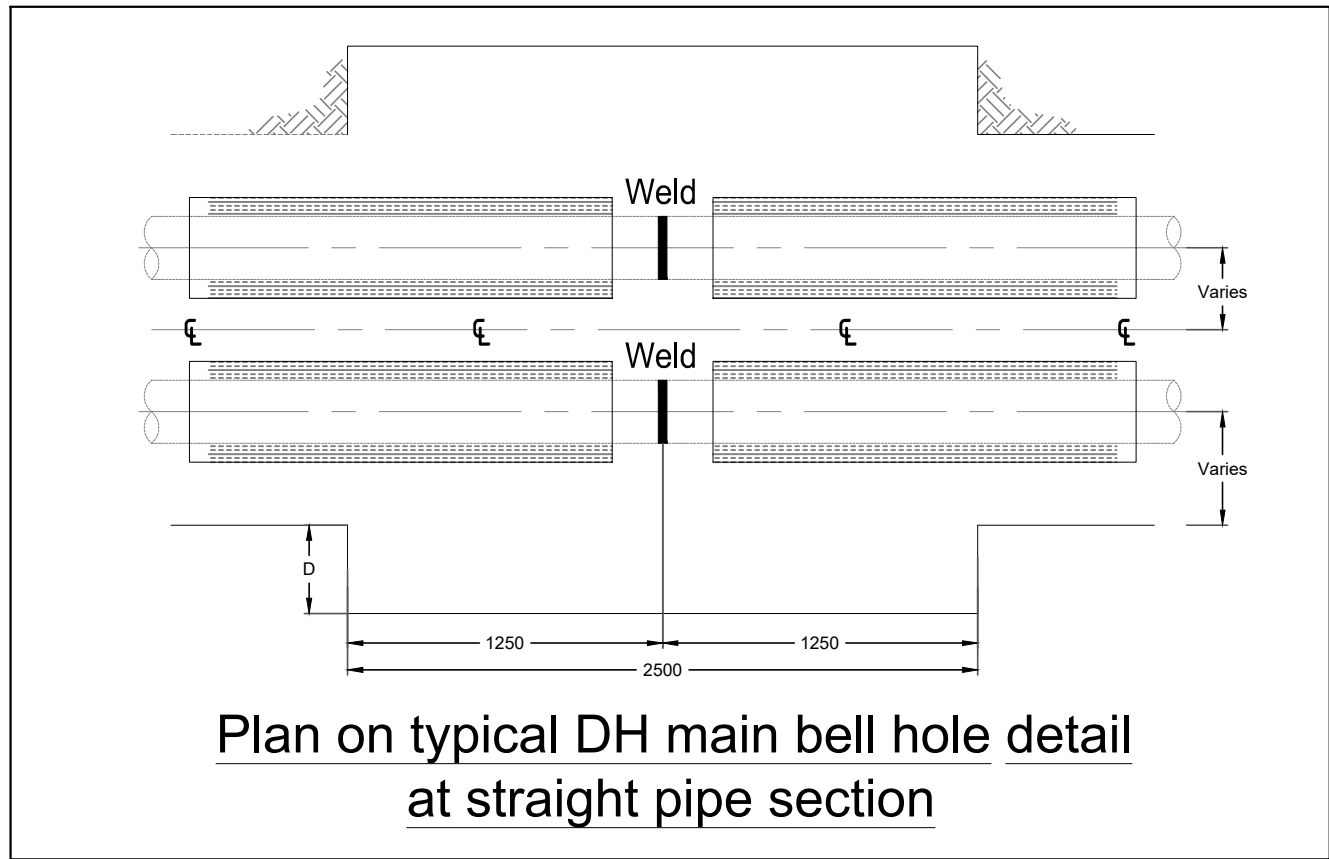
Fix the pads with filament tape, minimum 30cps per m foam pad.

To prevent sand from entering between the foam pads and the outer casing, the foam pads can be wrapped in e.g. geotextile or cross-laminated foil laminate, which is secured by means of filament tape.

In systems with many large temperature cycles (e.g. distribution and building connections) a geotextile or cross-laminated foam foil laminate must always be used, ensuring that no backfill material comes between the pads and the outer casing.

Foam Pads - 90° Branch

Foam Pads - 45° Branch



Trench Schedule for Logstor Series 3 Corner bell holes			
Pipe diameter (DN)	Outer casing Ø (mm)	D (mm) min	E** (mm) min
20	125	200	2613
25	125	200	2613
32	140	200	2620
40	140	200	2620
50	160	200	2630
65	180	200	2640
80	200	200	2650
100	250	250	2725
125	280	250	2740
150	315	250	2758
200	400	250	2800
250	500	250	2850
300	560	250	2880
350	630	250	2915
400	710	300	3005
450	800	300	3050
500	900	300	3100

Revision Details				
P01	Original issue	AJ	16.03.2023	LC M.J.
Rev	Description	By	Date	Chkd Auth

Suitable for Information Only

HG CONSTRUCTION

Client **HG Construction**

Project North Island Haringey

Title Typical Trench Detail Series 3 Single Pipe

Paper Size **A1**

Suitability **S2**

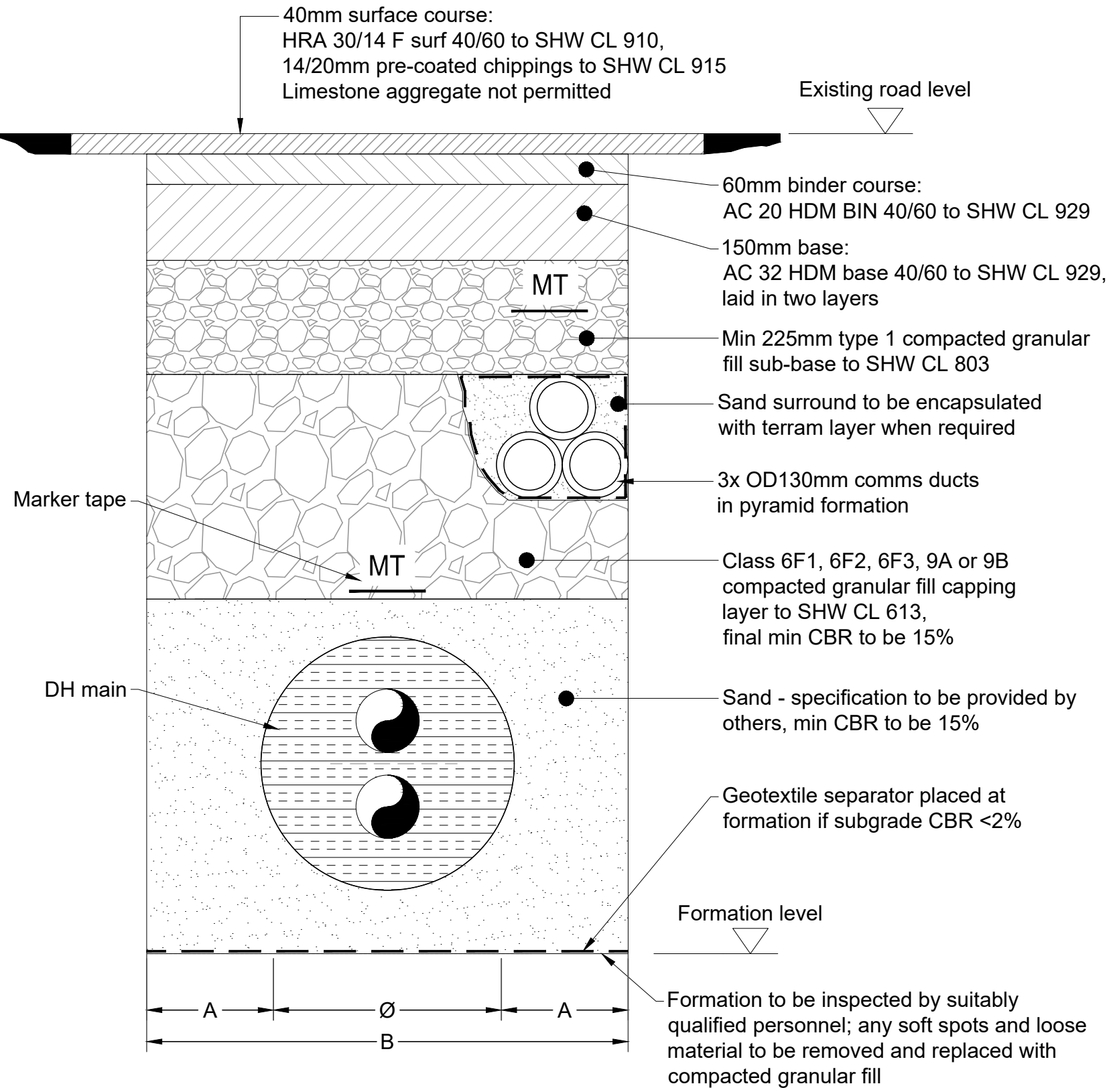
Scale N.T.S

Drawn **AJ** 16.03.2023

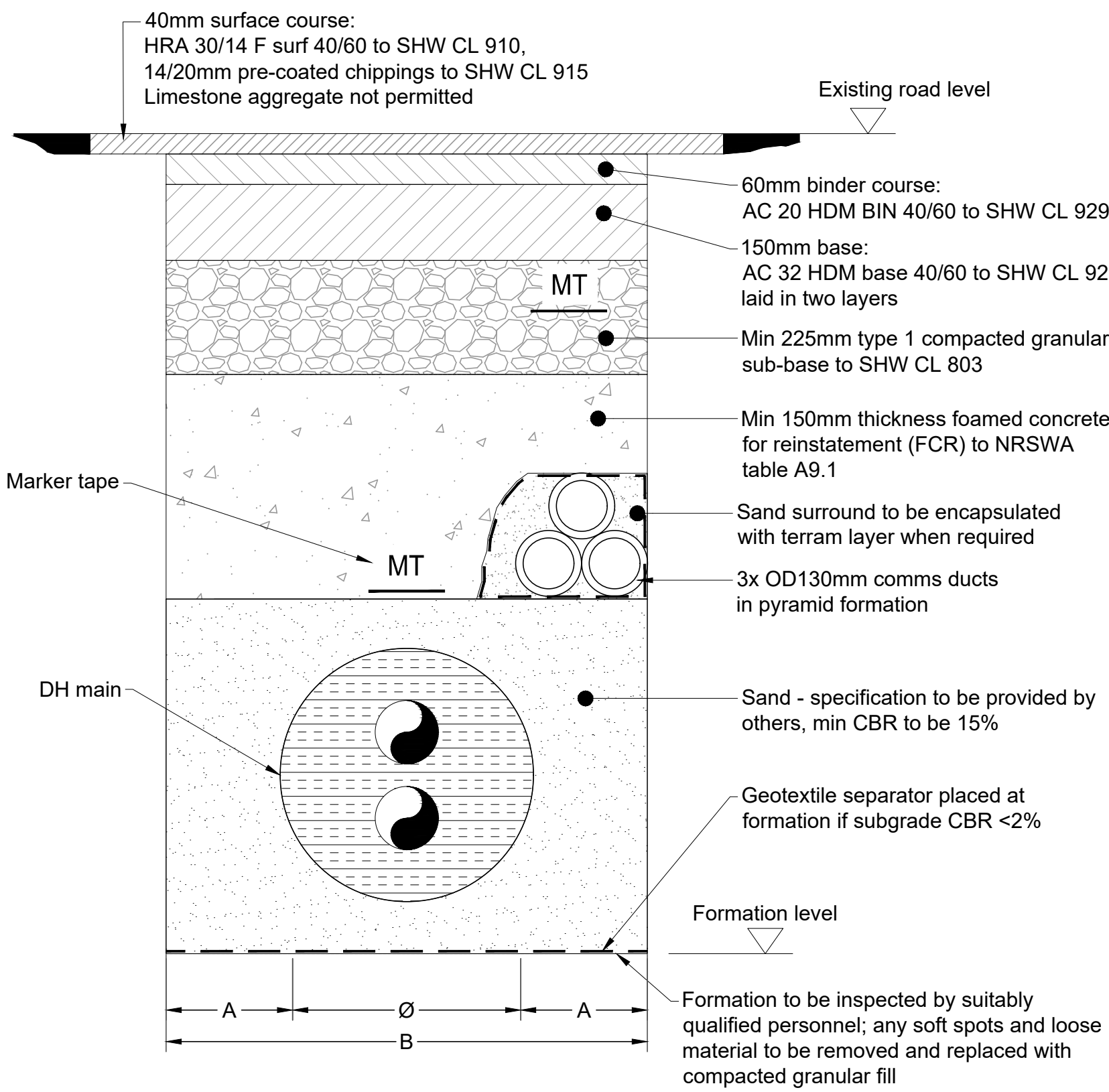
Drawing Number **6420-3D TD-DHN-UU-DR-Y-3900**

Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR
info@3d-td.co.uk www.3d-td.co.uk
Tel: 07802 955903 Tel: 07423 673812

3D TECHNICAL DESIGN LTD



Typical section: trench detail for DH pipes,
excavation depth > 1500mm, subgrade CBR > 5%

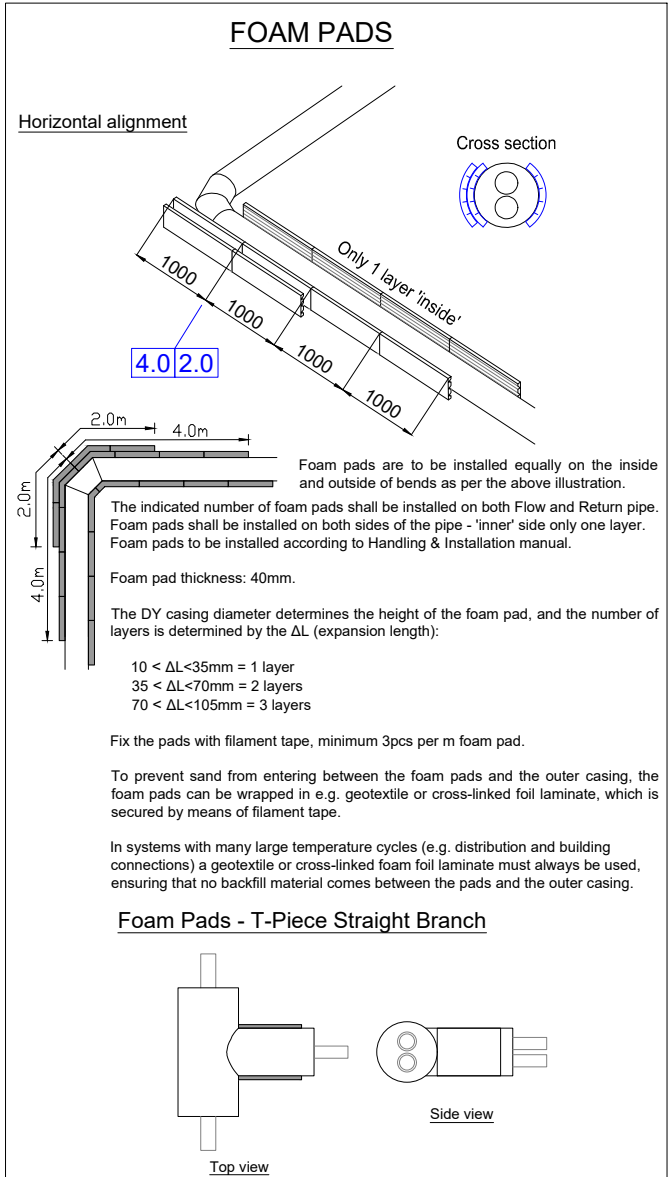


Typical section: trench detail for DH pipes with foamed concrete,
excavation depth > 1500mm, subgrade CBR > 5%

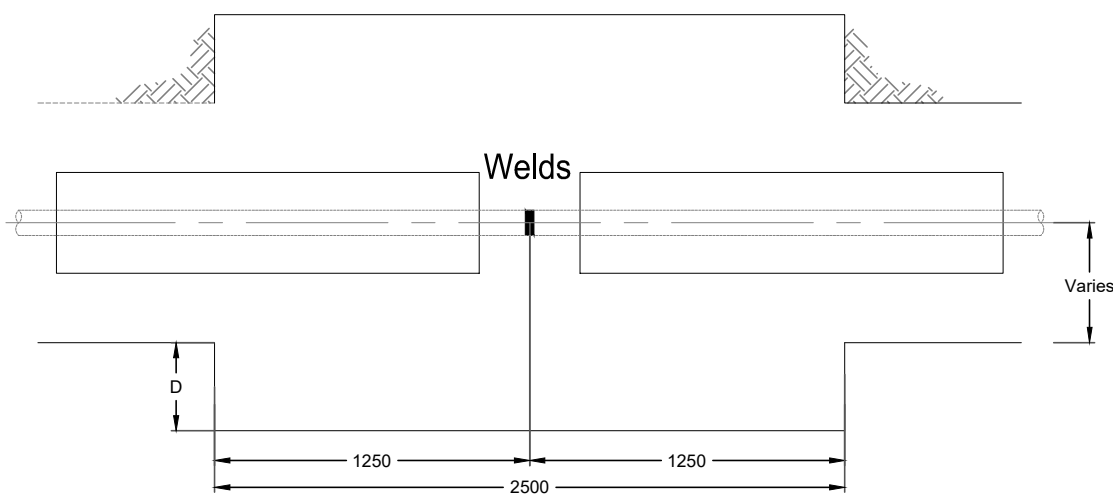
Trench Schedule for Logstor Series 3			
Twin StraightPipe			
Pipe diameter (DN)	Outer casing Ø (mm)	A* (mm) min	B** (mm) min
20	160	100	360
25	180	100	380
32	200	100	400
40	200	100	400
50	250	100	450
65	280	100	480
80	315	100	515
100	400	100	600
125	500	100	700
150	560	100	760
200	710	100	910

NOTES:

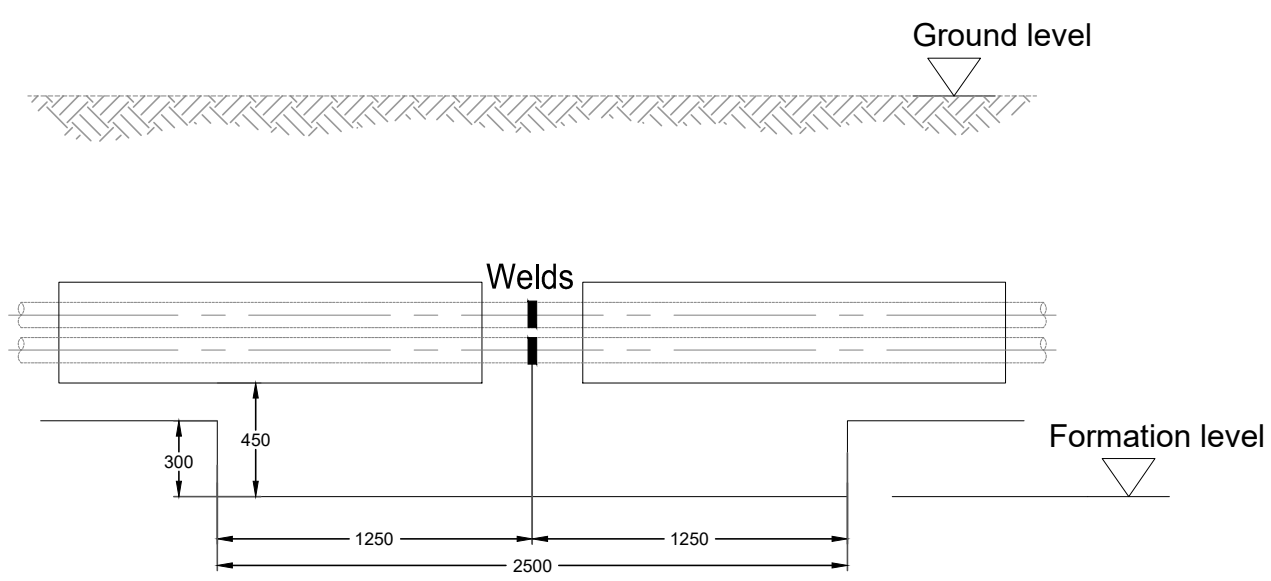
- General
- Do not scale from this drawing.
 - All dimensions are given in millimetres (mm) unless otherwise stated.
 - All levels are given relative to a local datum unless otherwise stated.
- Setting out
- The contractor shall be responsible for setting out on site.
 - Depths of the district heating pipework will vary along the network. This drawing shows typical installation details which shall be adjusted for all specific locations by the contractor.
- Earthworks
- The details shown on this drawing provide the minimum recommended dimensions for trench width and depth; trench dimensions may be increased during construction to accommodate installation of temporary works.
 - Any temporary works designs required to ensure the stability of the excavation during the works shall be by others. It shall be the responsibility of the contractor to establish whether or not this is required on site.
 - The client and contractor should assess the case for allowing additional width and depth on a project-by-project basis to reflect / accommodate the risk of post-excavation changes to the design that may be required due to unforeseen ground conditions, including unrecorded / undetected services and structures.
 - The contractor shall be responsible for confirming suitability of the subgrade for installation of the proposed structure.
 - Prior to installation of the pipework and new road structure, the formation shall be inspected by suitably qualified personnel. Any soft spots and loose material shall be removed and replaced with compacted granular fill.
 - A geotextile separator shall be placed at formation prior to installation of the proposed details if the subgrade CBR is found to be less than 2%. Geotextile separator shall be Terram T1000 or similar.
 - Drawing is appropriate for rigid steel and Casaflex pipe.



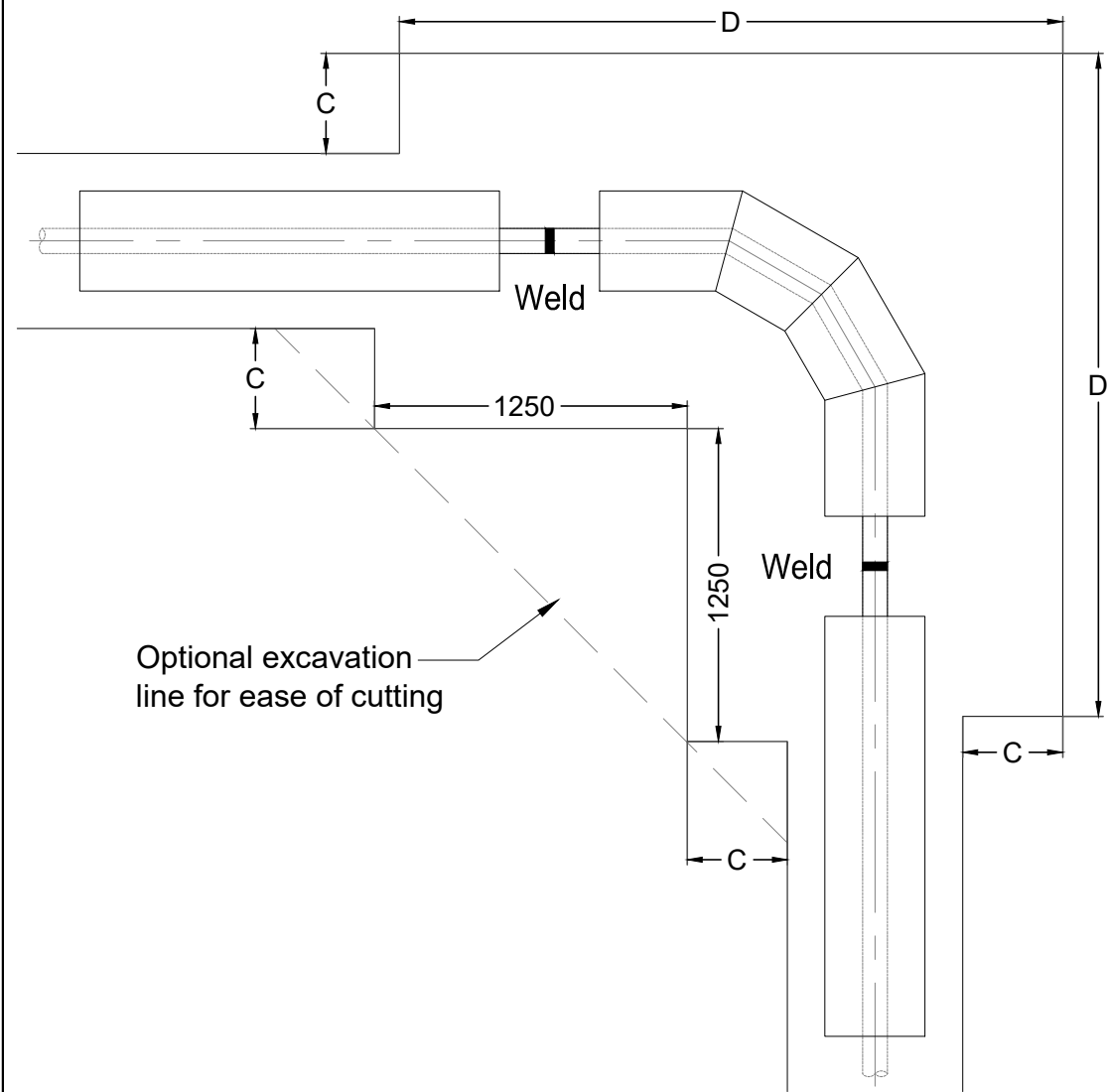
Trench Schedule for Logstor Series 3			
Twin Pipe Corner bell holes			
Pipe diameter (DN)	Outer casing Ø (mm)	C (mm) min	D** (mm) min
20	160	200	2600
25	180	200	2600
32	200	200	2600
40	200	200	2600
50	250	200	2600
65	280	200	2600
80	315	200	2600
100	400	250	2650
125	500	250	2650
150	560	250	3150
200	710	250	3150



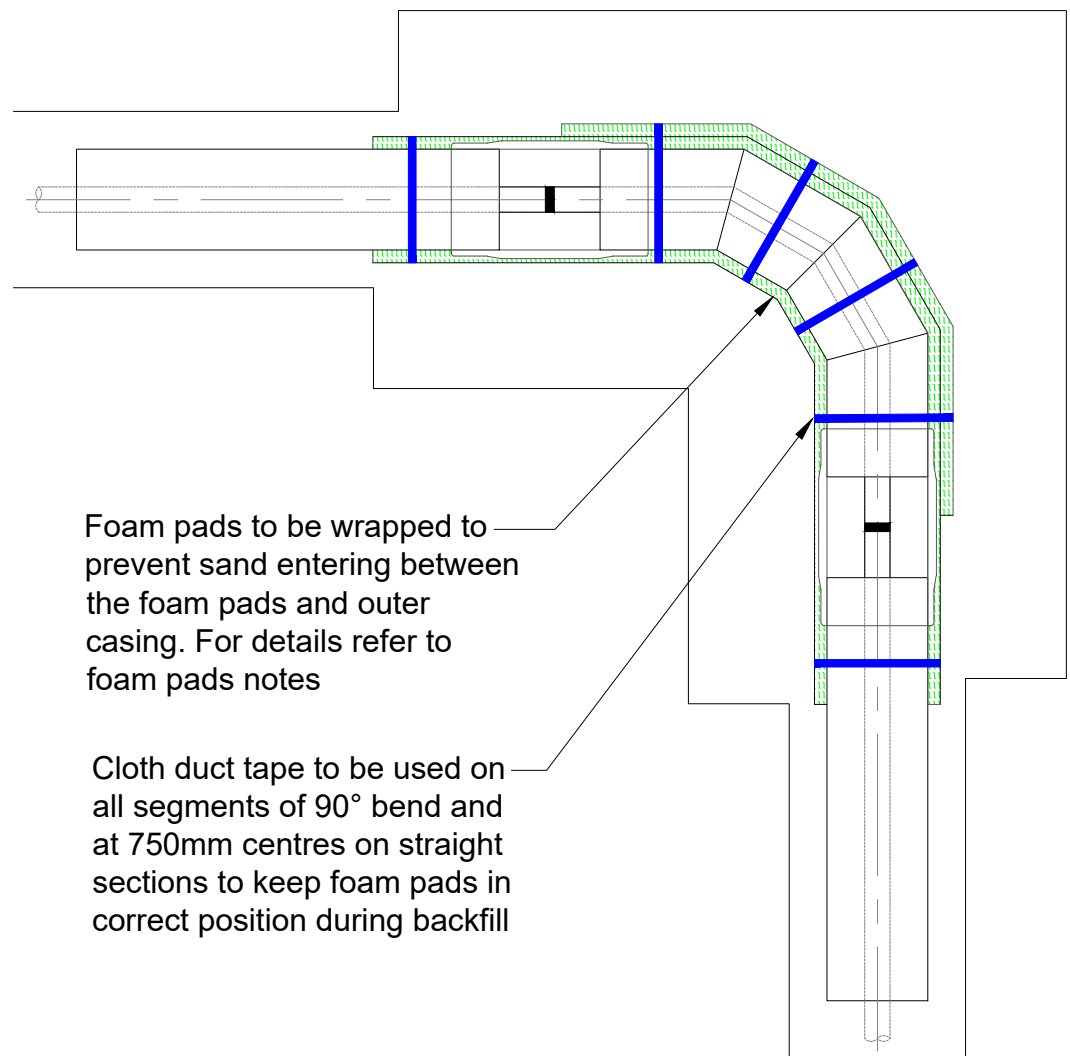
Plan on typical DH main bell hole detail
at straight pipe section



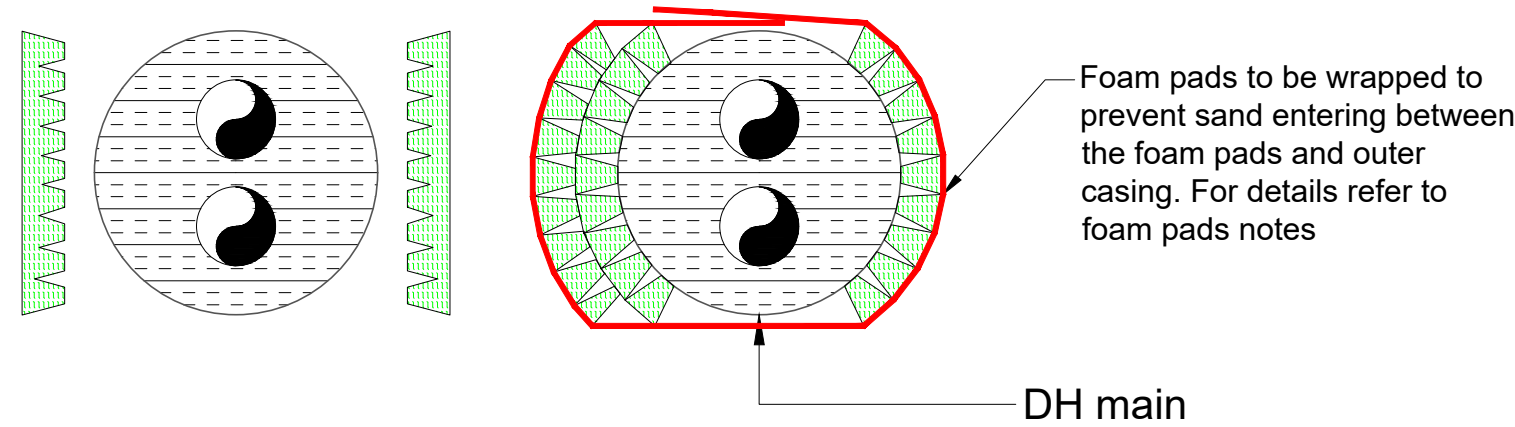
Longitudinal section through typical
DH main bell hole detail at straight pipe section



Plan on typical DH main bell hole detail
at pipe bend



Plan view -
typical expansion foam arrangement



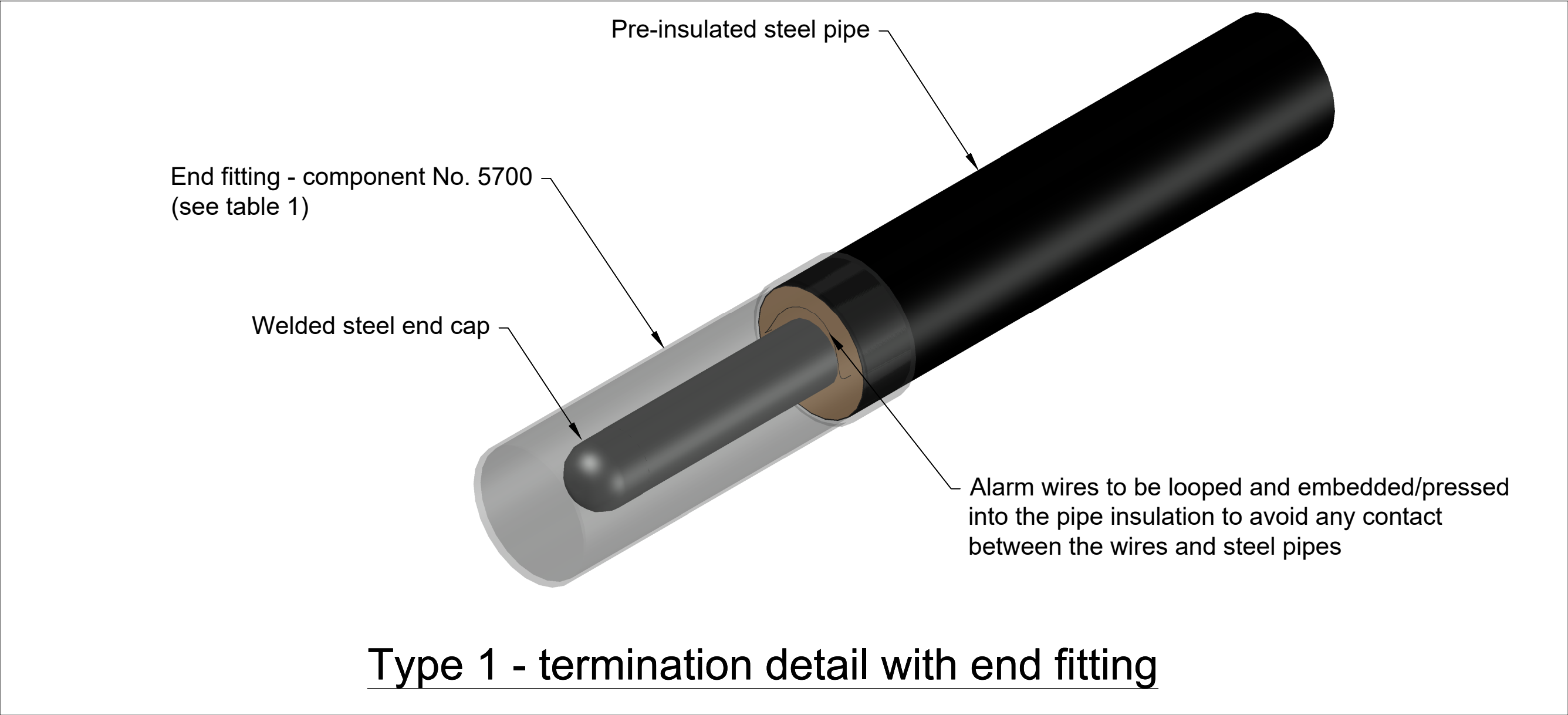
Section view -
typical expansion foam arrangement

Revision Details					
Rev	Description	By	Date	Chkd	Auth
P01	Original issue	IW	20.03.2023	LC	MJ

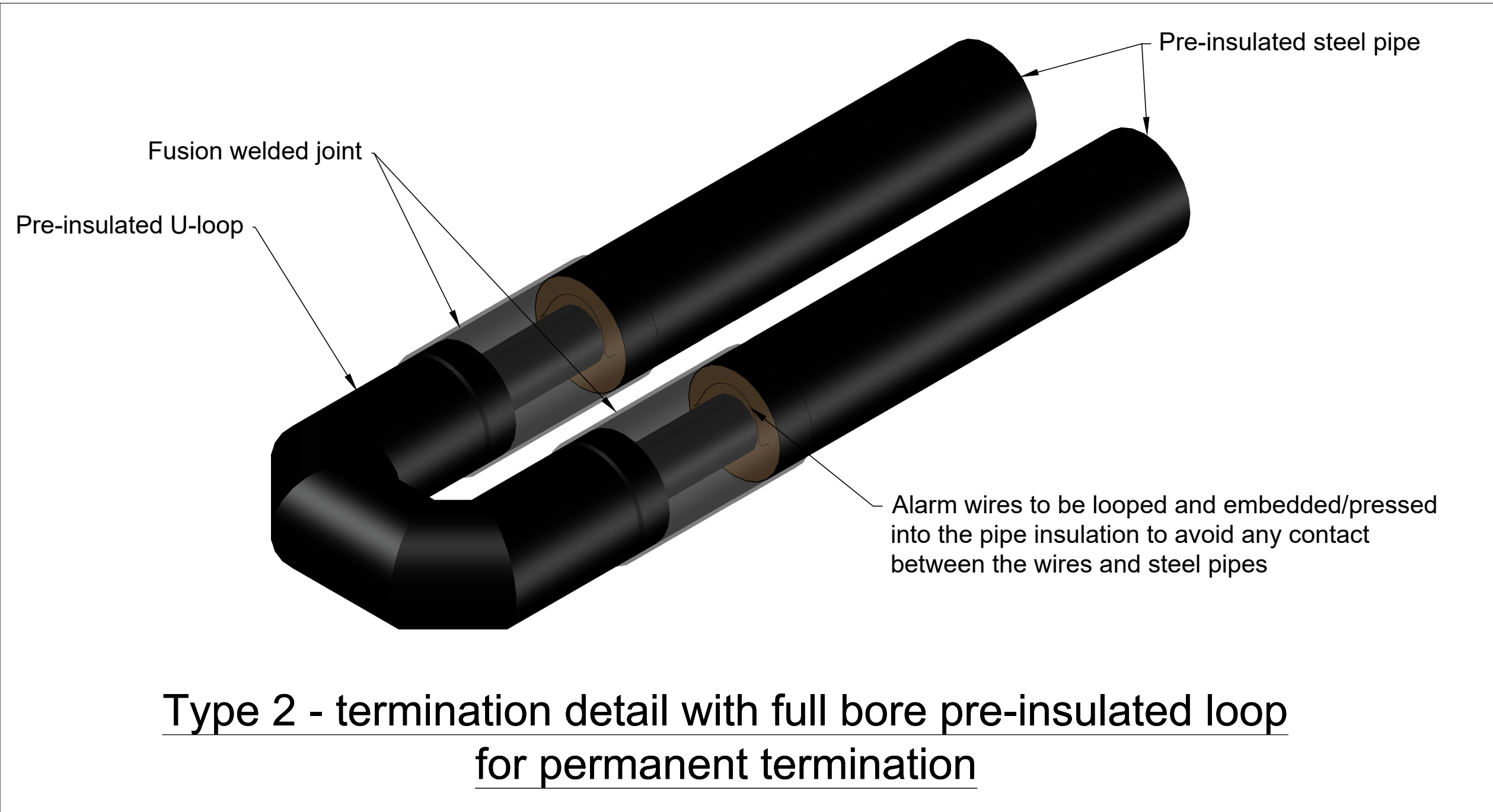
Suitable for Information
Only



Client		HG Construction	
Project		North Island Haringey	
Title		Typical Trench Detail Series 3 Twin Pipe	
Paper Size	A1		
Suitability	S2		
Scale	N.T.S.	Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR	
Drawn	IW	info@3d-td.co.uk www.3d-td.co.uk	
20.03.2023		Tel: 07802 955903 Tel: 07423 673812	
Drawing Number		6420-3DTH-DHN-UU-DR-Y-3901	



Type 1 - termination detail with end fitting



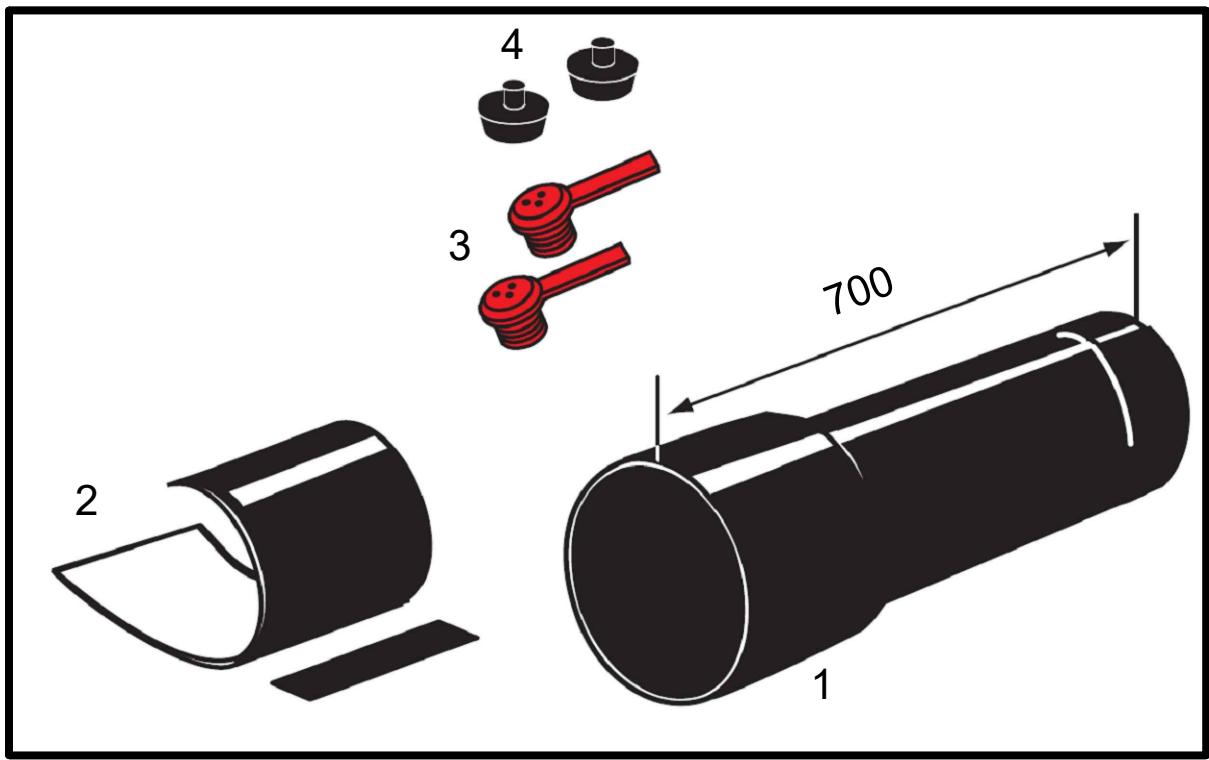
Type 2 - termination detail with full bore pre-insulated loop for permanent termination

Steel pipe ø out. mm	Outer casing, mm														
	DHEC No.														
26.9	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500
26.9	2100	2200	2200	2300											
33.7	2100	2200	2200	2300	2340										
42.4		2200	2200	2300	2340										
48.3		2300	2300	2300	2340										
60.3			2400	2400	2500	2500									
76.1				2400	2500	2500									
88.9					2500	2500	2600								
114.3						2600	2600	2630							
139.7							2630	2630	2700						
168.3									2700	2700	2800				
219.1											2800	2900			
273.0												2900	2900	3000	
323.9													3000	3000	3000
355.0														3000	3000

Table 2: component no. 5600 overview

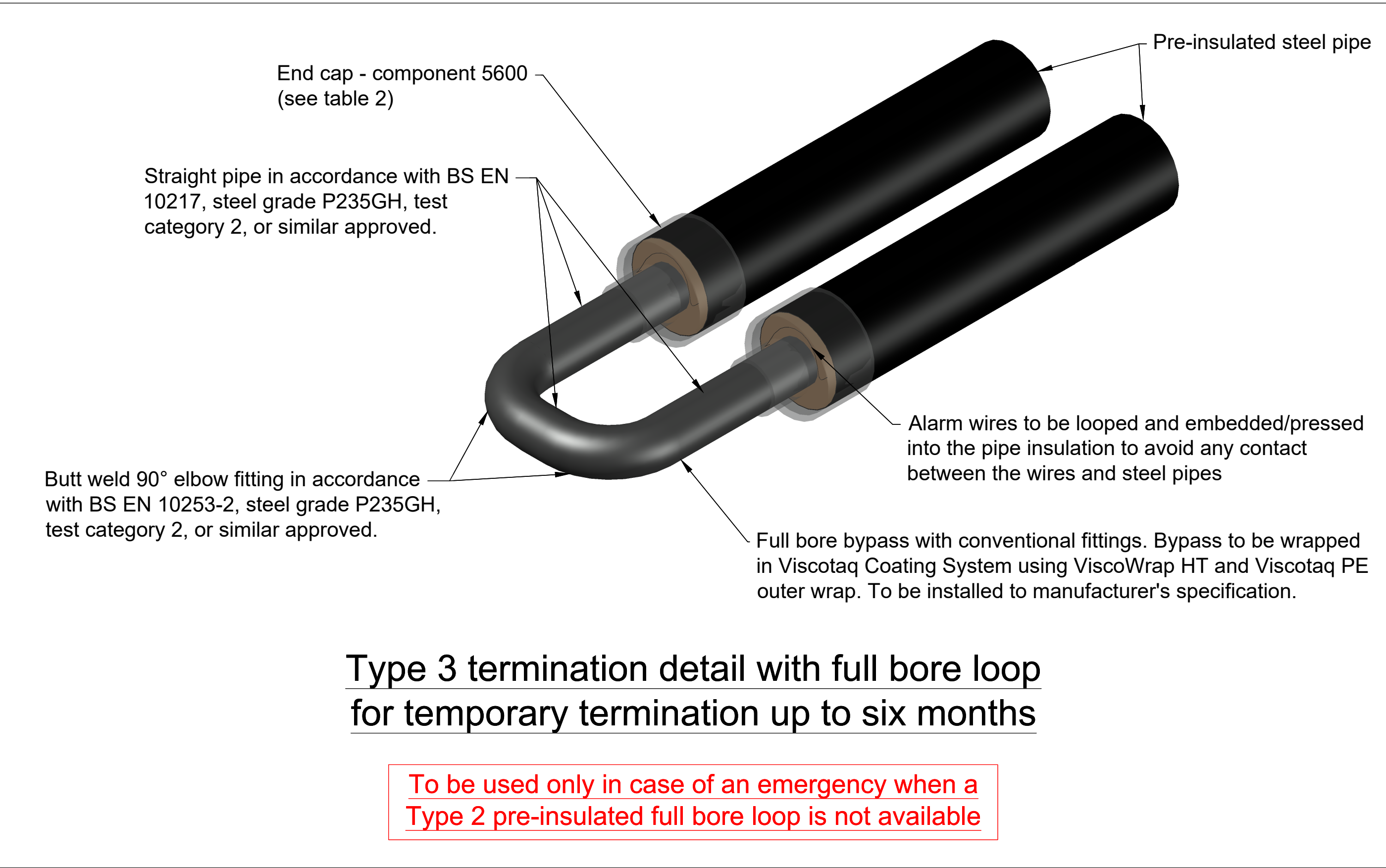
Outer casing ø out. mm	Service pipe range ø out. mm
90	26.9 - 33.7
110	26.9 - 48.3
125	26.9 - 60.3
140	42.4 - 76.1
160	42.4 - 88.9
180	76.1 - 88.9
200	88.9 - 114.3
225	114.3 - 139.7
250	114.3 - 168.3
280	139.7 - 168.3
315	168.3 - 219.1
355	219.1
400	219.1 - 273.0
450	273.0 - 323.3
500	273.0 - 323.3
560	323.3 - 406.4
630	406.4
710	406.4-508.0
800	457.0-610.0
900	508.0-711.0
1000	610.0-813.0

Table 1:
component no. 5700 overview



Description:
1 - End fitting, drifted
2 - Shrink wrap with closure patch
3 - Vent plug
4 - Weld plugs

End fitting for foaming



Type 3 termination detail with full bore loop for temporary termination up to six months

To be used only in case of an emergency when a Type 2 pre-insulated full bore loop is not available

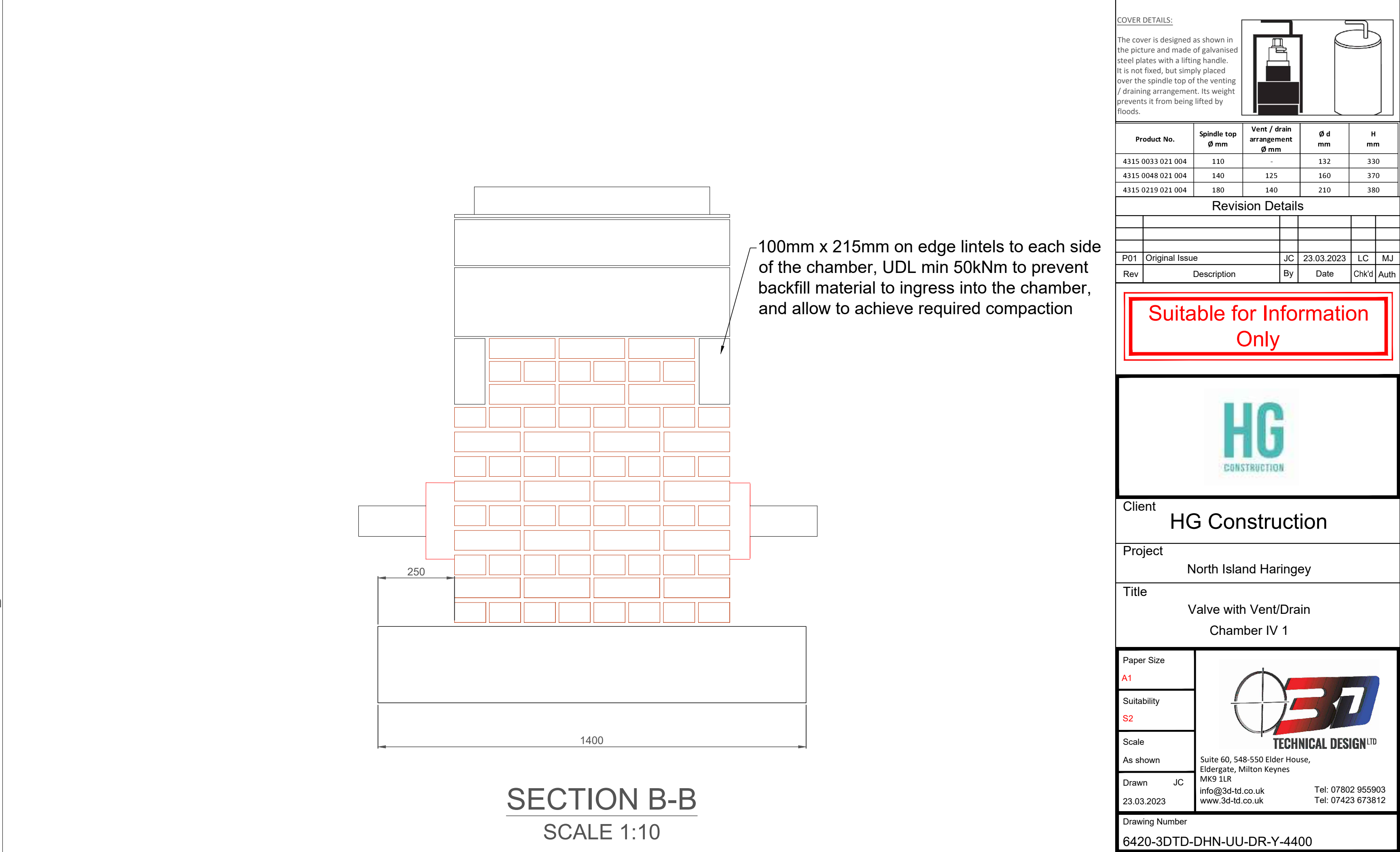
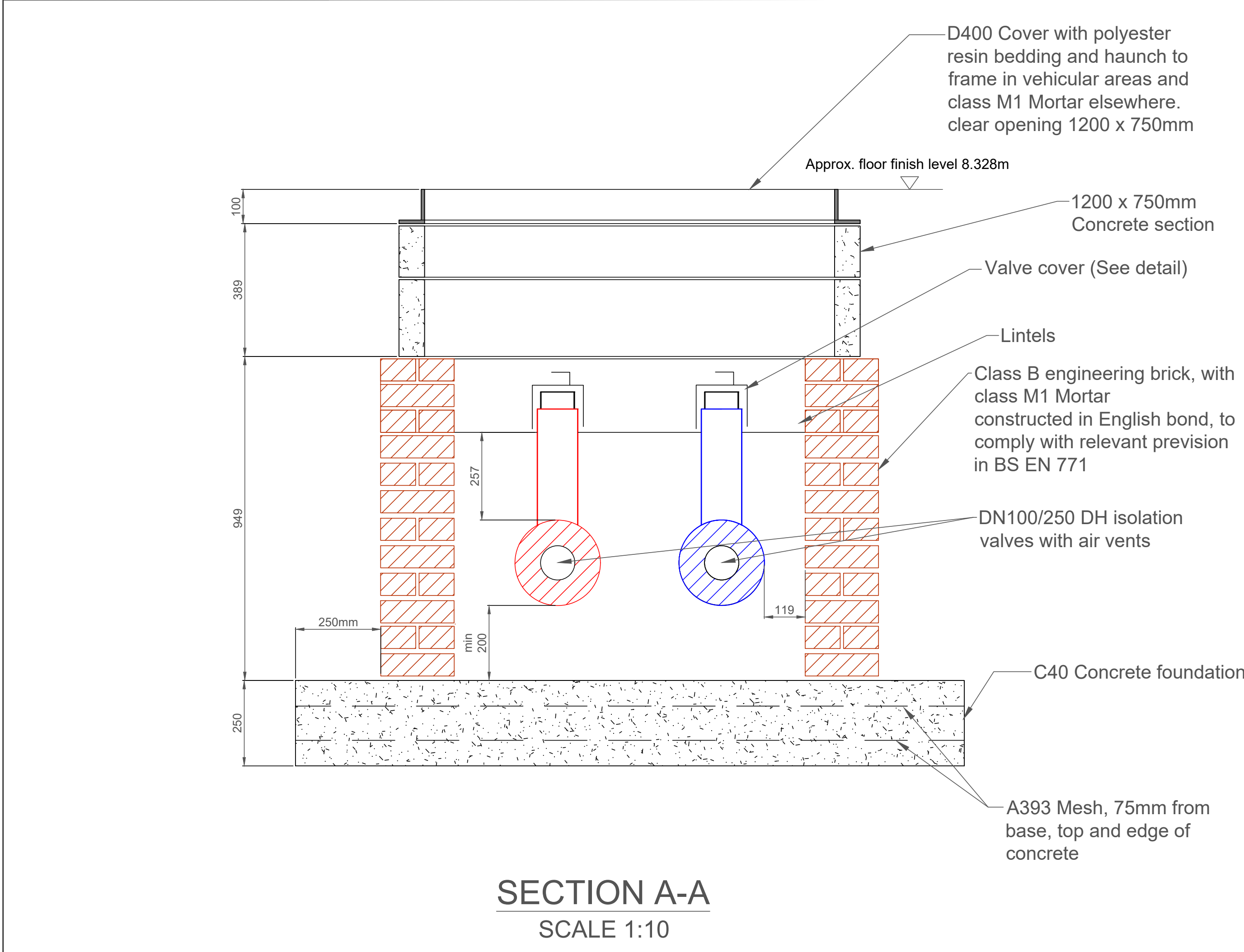
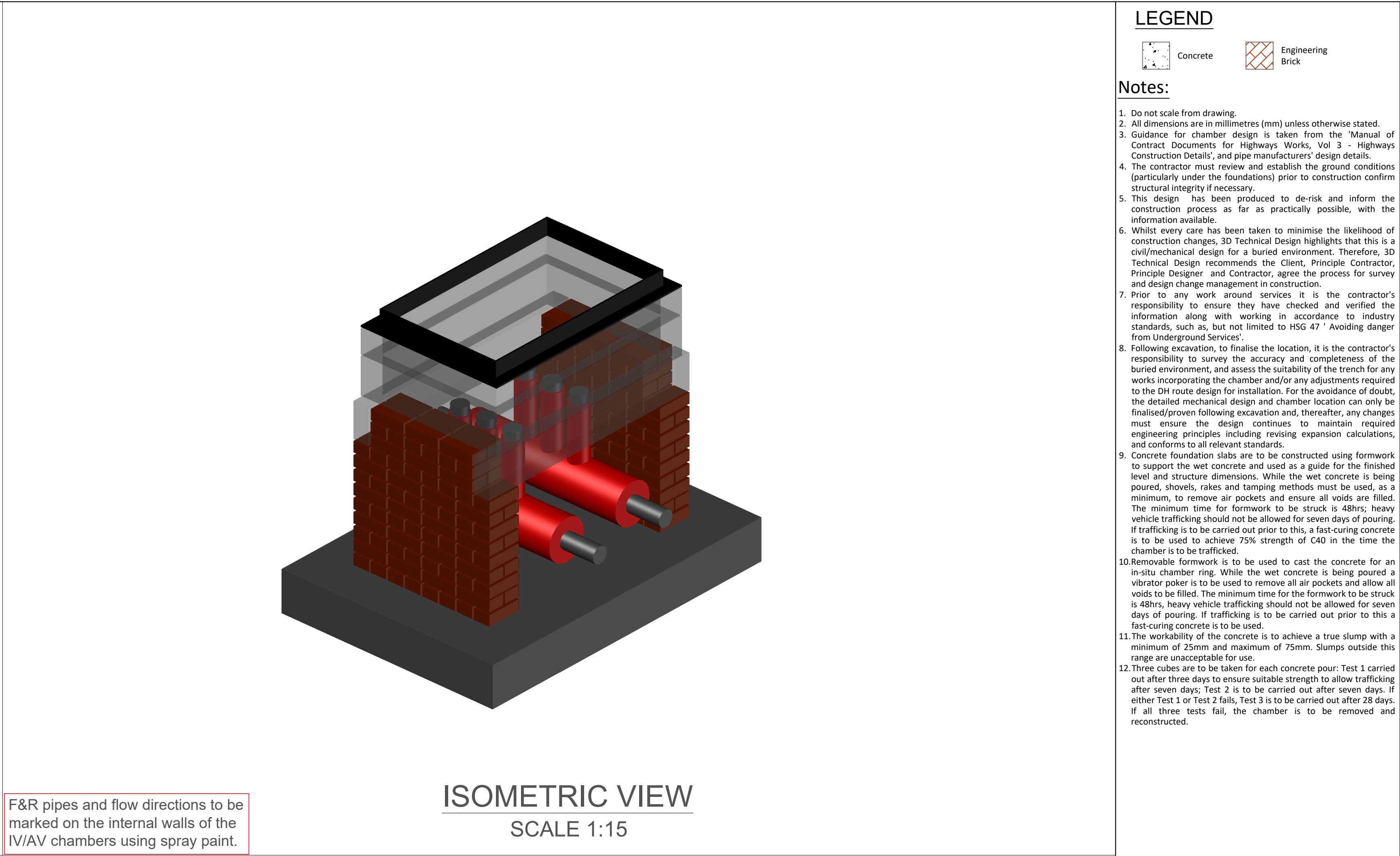
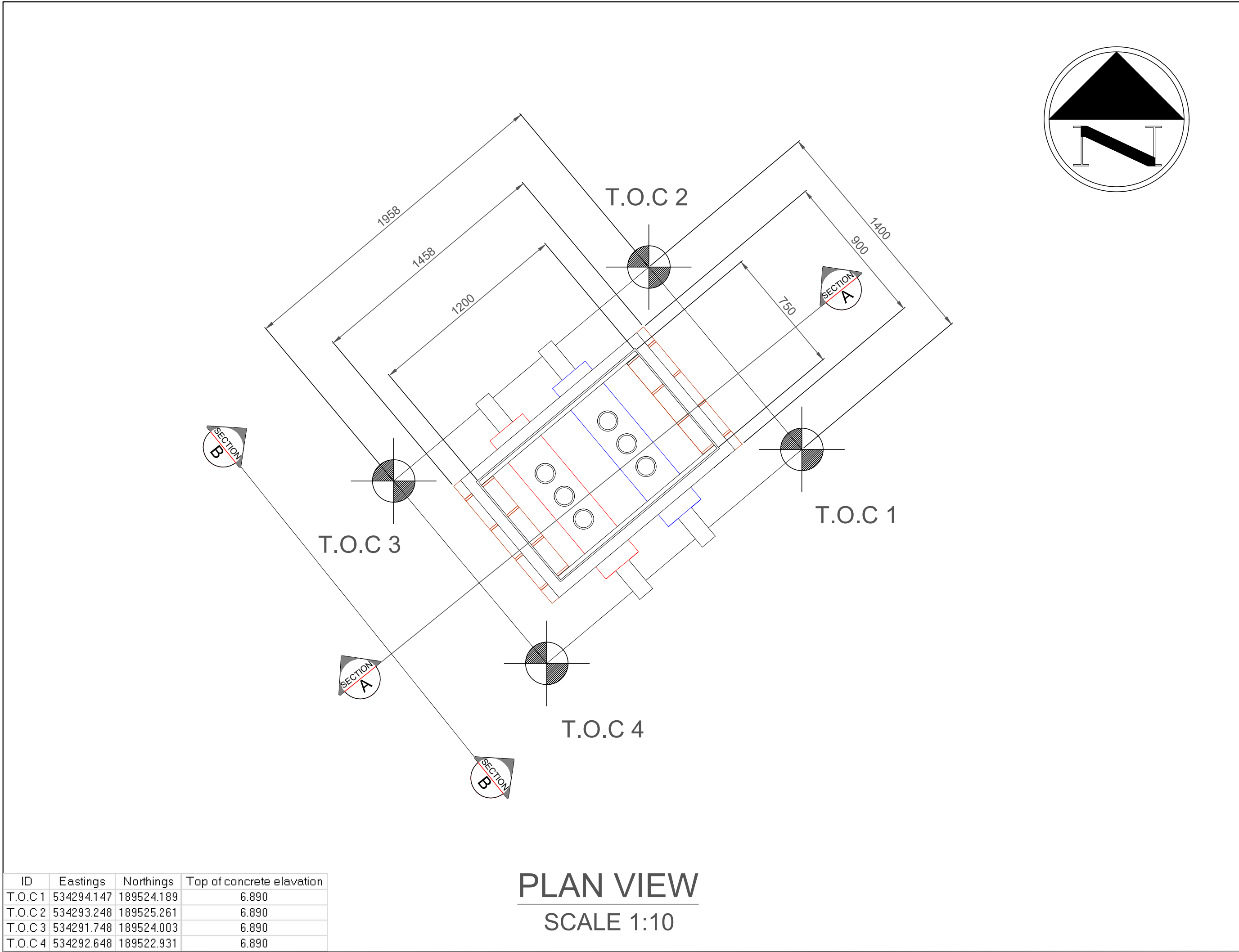
NOTES
1. End caps, joints, and alarm terminations to be installed in compliance with the manufacturer's requirements.
2. The component numbers listed on this drawing refer to the Logstor product catalogue.
3. Do not scale from this drawing.

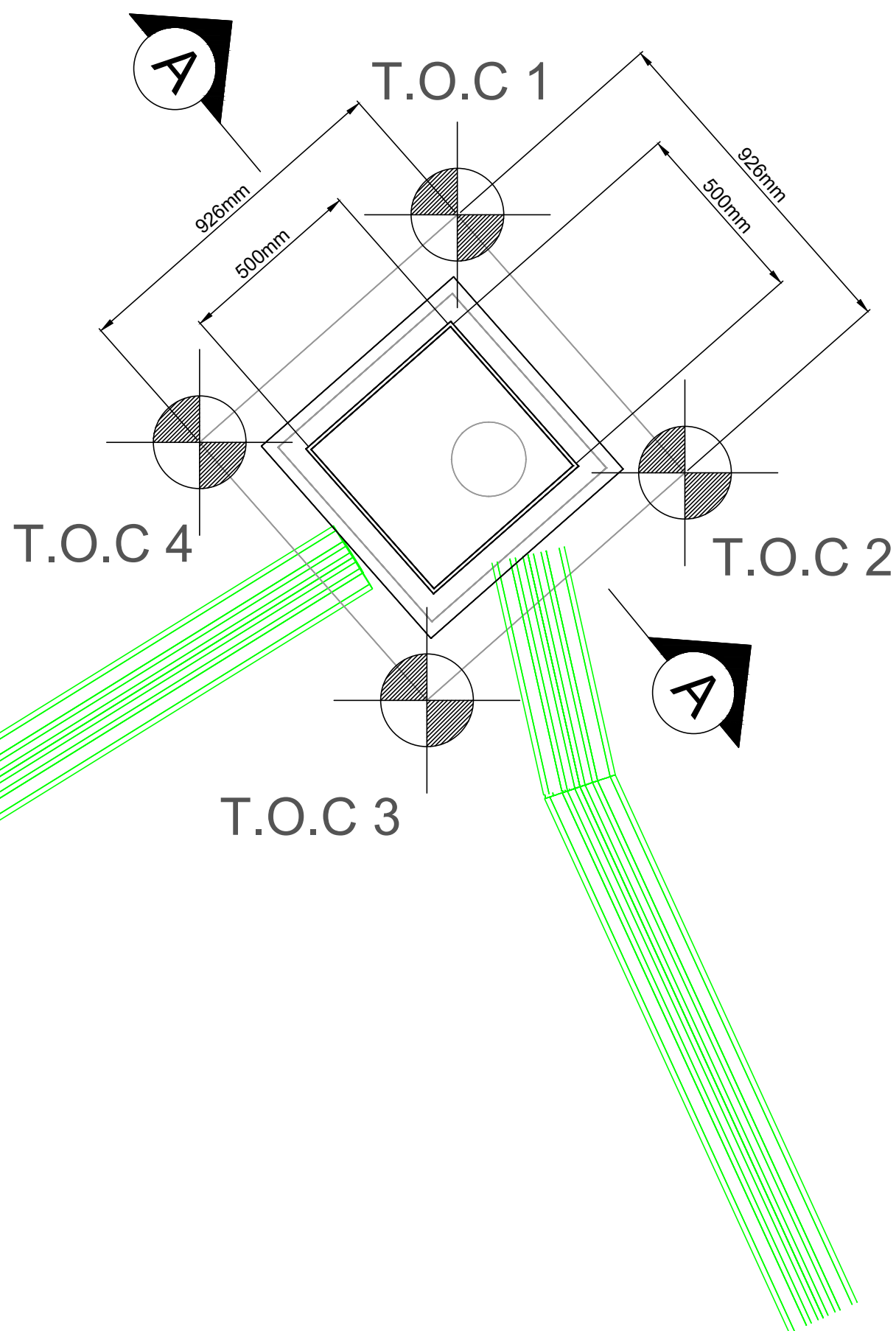
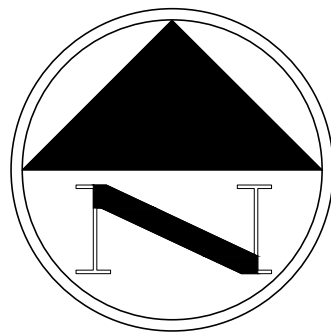
Revision Details					
P01	Original Issue	AJ	16.03.2023	LC	MJ
Rev	Description	By	Date	Chkd	Auth

Suitable for Information Only



Client		HG Construction	
Project		North Island Haringey	
Title		Typical DH Pipe Termination Details	
Paper Size	A1		
Suitability	S2		
Scale	N.T.S.		
Drawn	AJ	Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR info@3d-td.co.uk www.3d-td.co.uk	
Drawing Number		6420-3DTD-DHN-UU-DR-Y-3902	

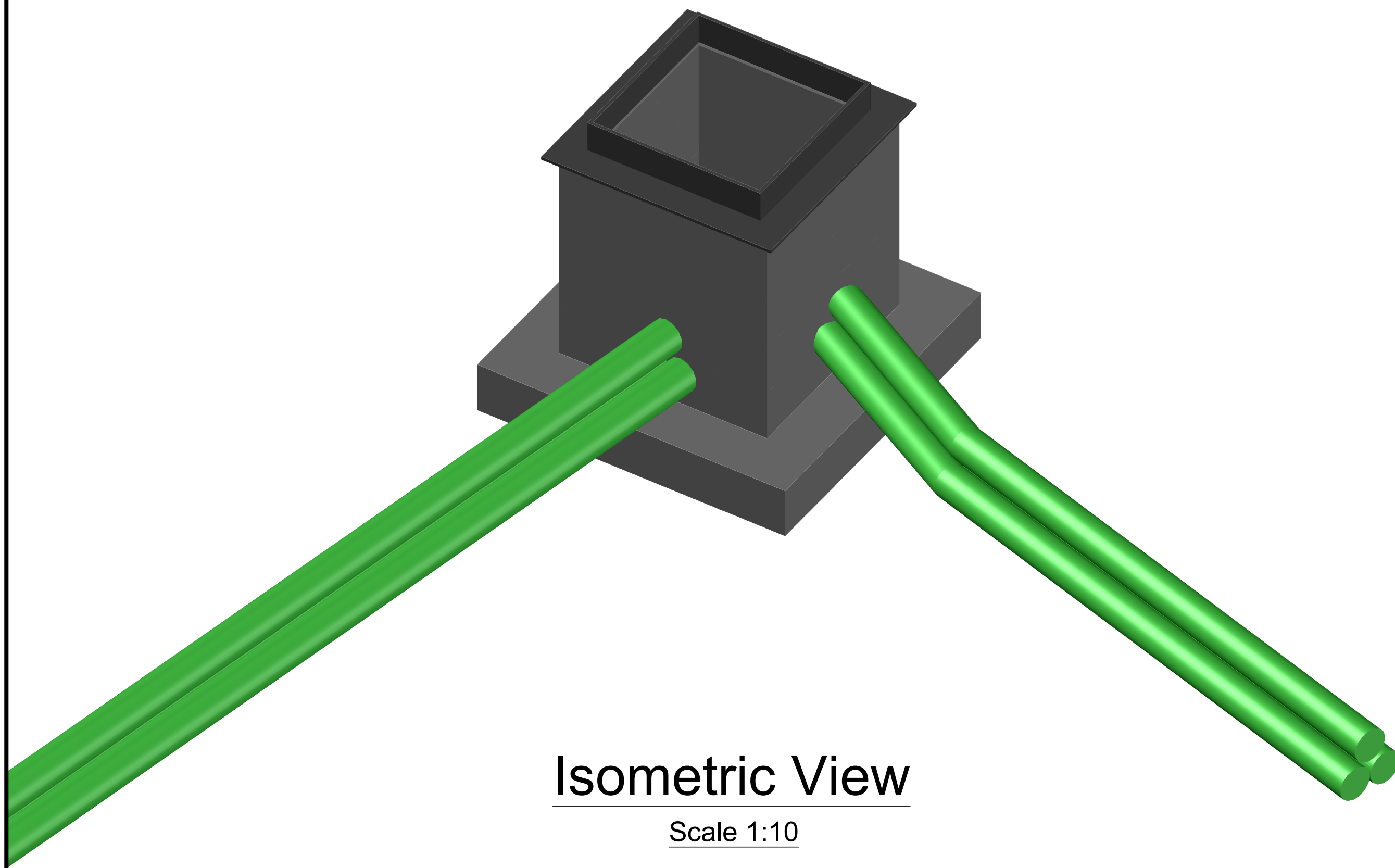




Plan View

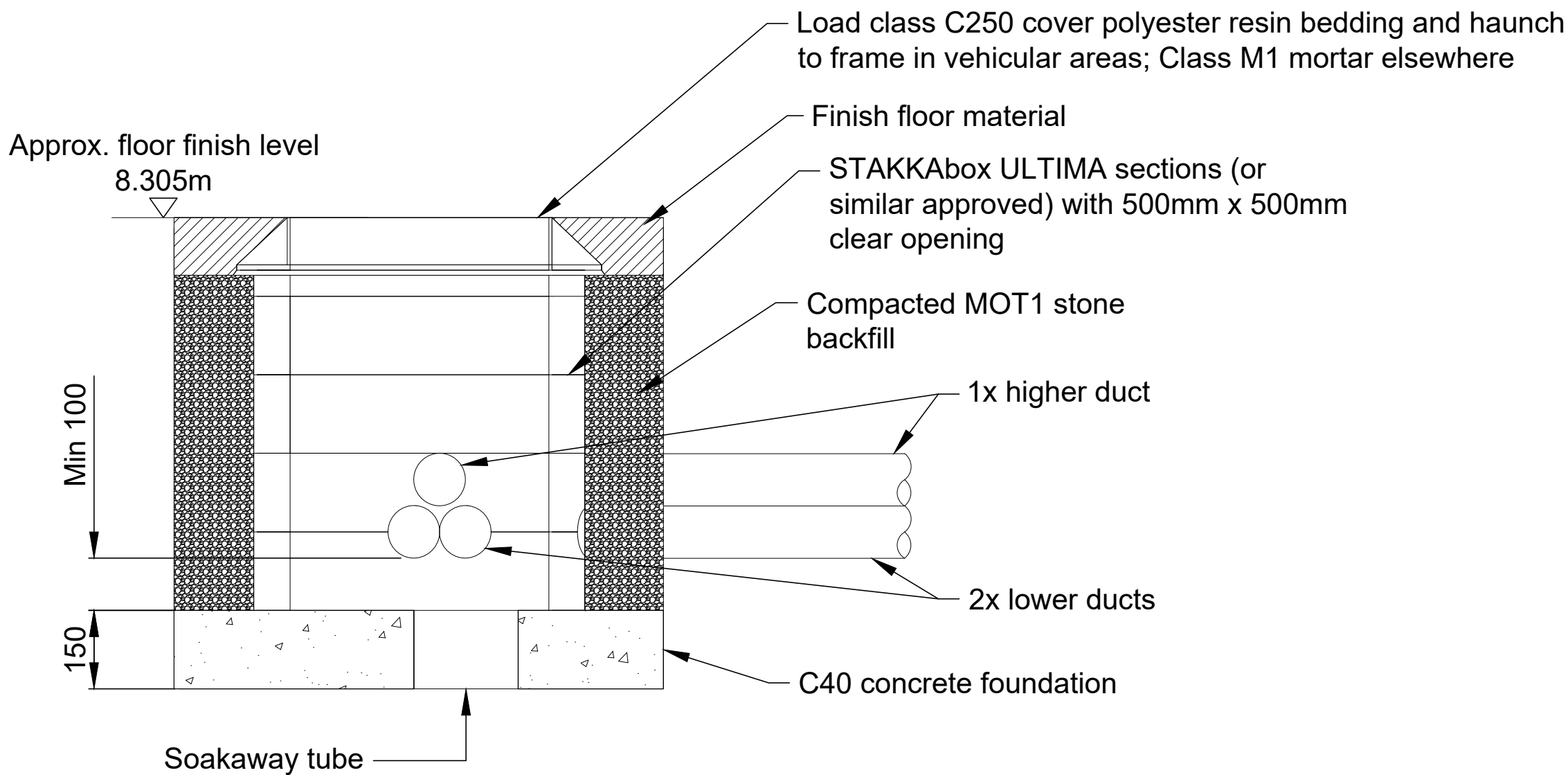
Scale 1:15

ID	Eastings	Northings	Top of concrete Elevation (m)
T.O.C 1	534293.162	189527.155	7.555
T.O.C 2	534293.774	189526.461	7.555
T.O.C 3	534293.080	189525.848	7.555
T.O.C 4	534292.467	189526.543	7.555



Isometric View

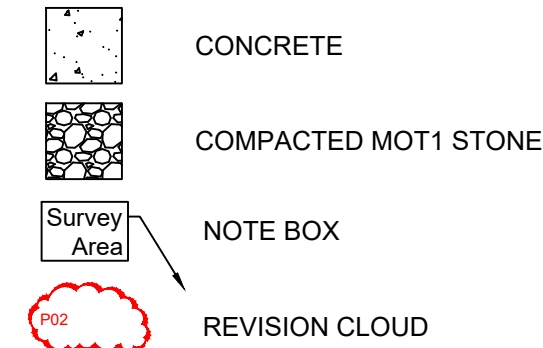
Scale 1:10



Section A-A

Scale 1:10

LEGEND



NOTES

- Do not scale from this drawing.
- All dimensions are in millimeters (mm), unless otherwise stated.
- Guidance for chamber design is taken from the 'Manual of Contract Documents for Highways Works, Vol 3 - Highways Construction Details' and manufacturers' design details.
- The contractor must review and establish the ground conditions (particularly under the foundations) prior to construction confirm structural integrity if necessary.
- This design has been produced to de-risk and inform the construction process as far as practically possible, with the information available.
- Whilst every care has been taken to minimize the likelihood of construction changes, 3D Technical Design highlights that this is a civil/mechanical design for a buried environment. Therefore, 3D Technical Design recommend the Client, Principle Contractor, Principle Designer and Contractor, agree the process for survey and design change management in construction.
- Prior to any work around services it is the contractor's responsibility to ensure they have checked and verified the information along with working in accordance to industry standards, such as, but not limited to HSG 47 'Avoiding danger from Underground Services'.
- Following excavation, to finalize the location, it is the contractor's responsibility to survey the accuracy and completeness of the buried environment, and assess the suitability of the trench for any works incorporating the chamber and/or any adjustments required to the DH route design for installation. For the avoidance of doubt, the detailed mechanical design and chamber location can only be finalized/proven following excavation and, thereafter, any changes must ensure the design continues to maintain required engineering principles including revising expansion calculations, and conforms to all relevant standards.
- Concrete foundation slabs are to be constructed using formwork to support the wet concrete and used as a guide for the finished level and structure dimensions. While the wet concrete is being poured, shovels, rakes and tamping methods must be used, as a minimum, to remove air pockets and ensure all voids are filled. The minimum time for formwork to be struck is 48hrs; heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this, a fast-curing concrete is to be used to achieve 75% strength of C40 in the time the chamber is to be trafficked.
- Removable formwork is to be used to cast the concrete for an in-situ chamber ring. While the wet concrete is being poured a vibrator poker is to be used to remove all air prockets and allow all voids to be filled. The minimum time for the formwork to be struck is 48hrs, heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this a fast curing concrete is to be used.
- The workability of the concrete is to achieve a true slump with a minimum of 25mm and maximum of 75mm. Slumps outside this range are unacceptable for use.
- Three cubes are to be taken for each concrete pour: Test 1 carried out after three days to ensure suitable strength to allow trafficking after seven days; Test 2 is to be carried out after seven days. It either Test 1 or Test 2 fails, Test 3 is to be carried out after 28 days. If all three test fail, the chamber is to be removed and reconstructed.

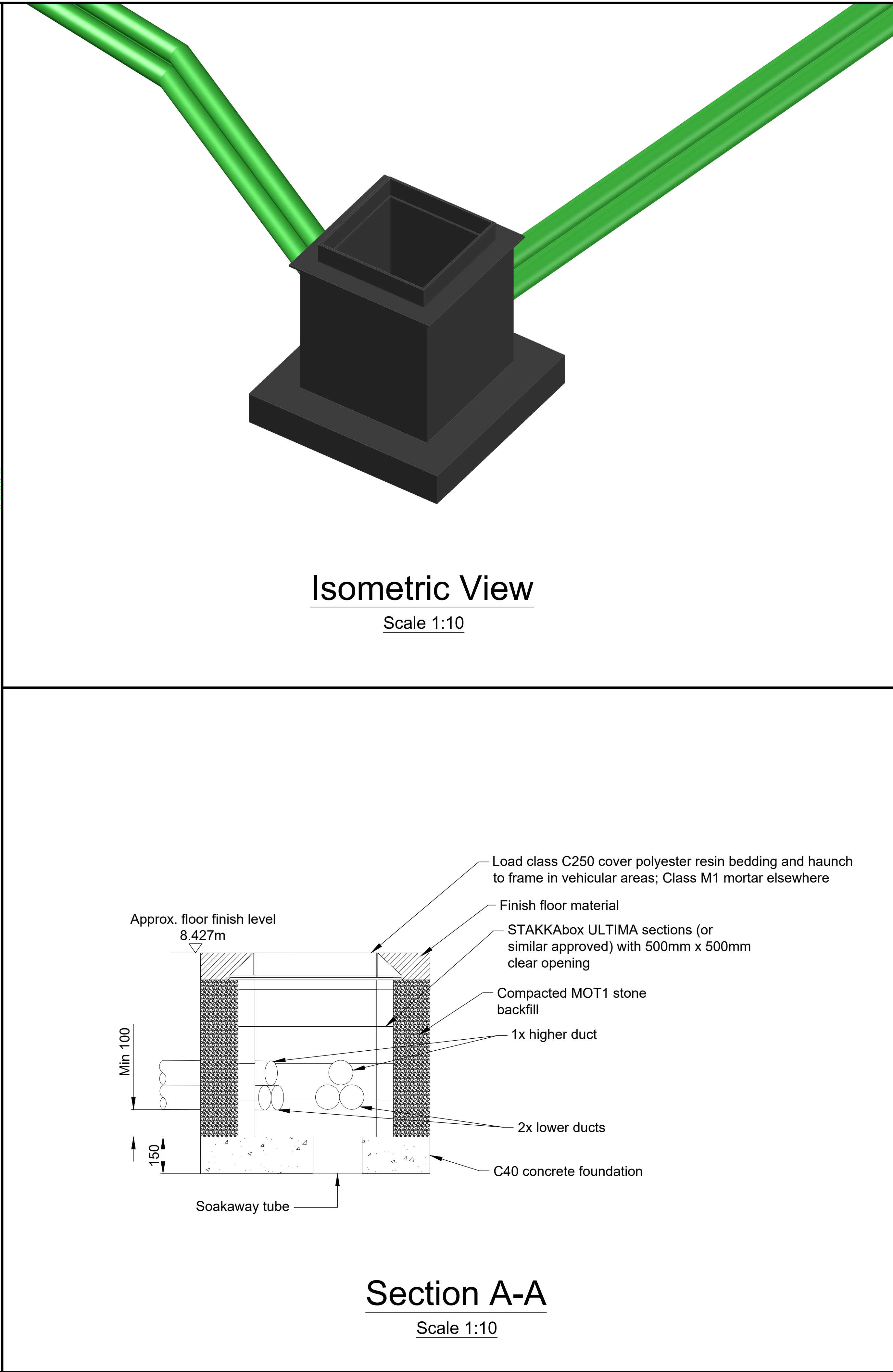
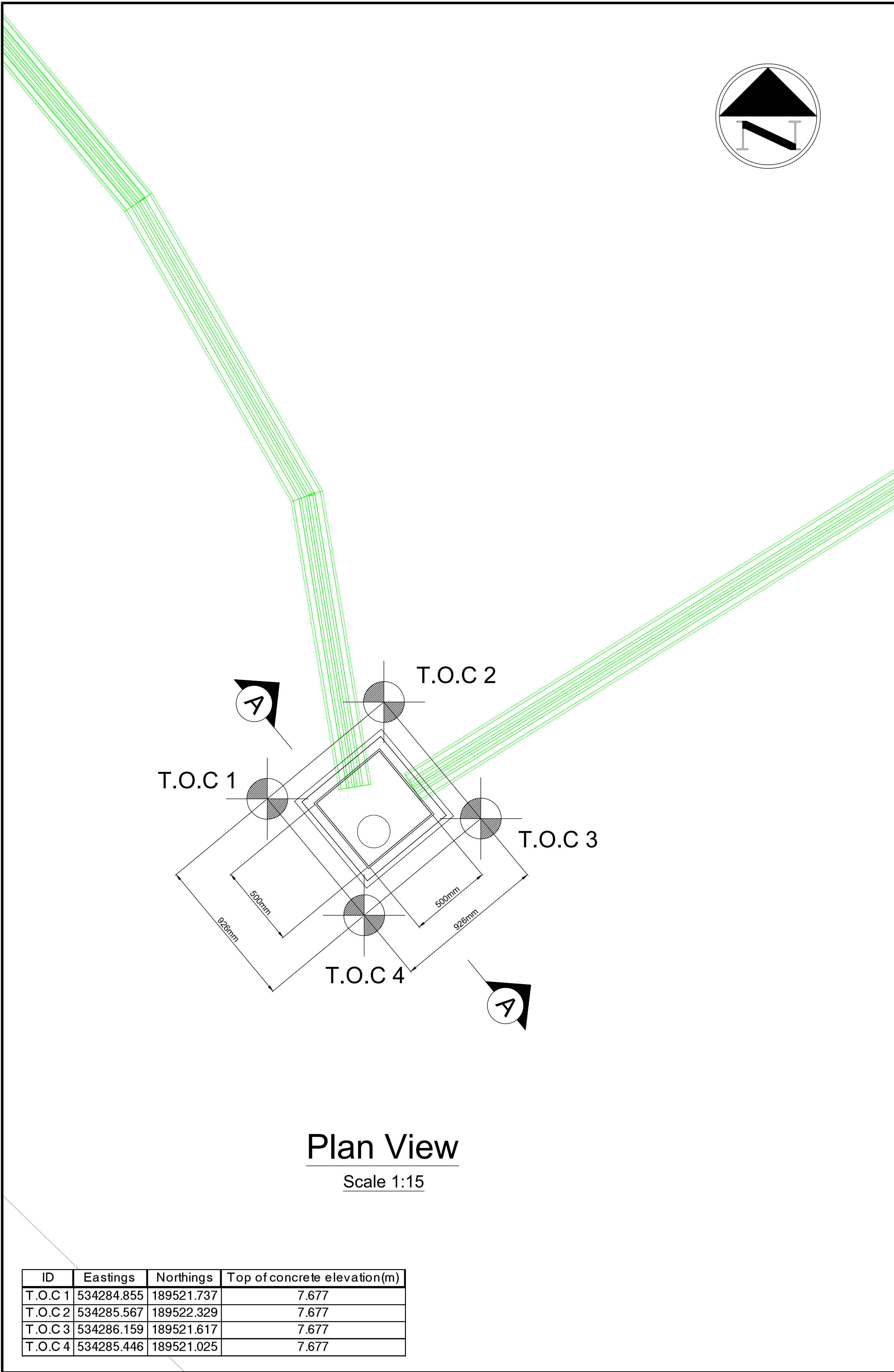
Revision Details					
Rev	Description	By	Date	Chkd	Auth
P01	Original Issue	AJ	28.03.2023	IW	MJ

Suitable for Information Only



Client	HG Construction
Project	North Island Haringey
Title	Comms Duct & Duct Chamber Comms 1

Paper Size			
Suitability			
Scale			
As shown			
Drawn	AJ	Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR	Tel: 07802 955903
28.03.2023		info@3d-td.co.uk www.3d-td.co.uk	Tel: 07423 673812
Drawing Number	6420-3DTD-DHN-UU-DR-Y-4600		



LEGEND

- CONCRETE
- COMPACTED MOT1 STONE
- Survey Area
- NOTE BOX
- REVISION CLOUD

NOTES

- Do not scale from this drawing.
- All dimensions are in millimeters (mm), unless otherwise stated.
- Guidance for chamber design is taken from the 'Manual of Contract Documents for Highways Works, Vol 3 - Highways Construction Details' and manufacturers' design details.
- The contractor must review and establish the ground conditions (particularly under the foundations) prior to construction confirm structural integrity if necessary.
- This design has been produced to de-risk and inform the construction process as far as practically possible, with the information available.
- Whilst every care has been taken to minimize the likelihood of construction changes, 3D Technical Design highlights that this is a civil/mechanical design for a buried environment. Therefore, 3D Technical Design recommend the Client, Principle Contractor, Principle Designer and Contractor, agree the process for survey and design change management in construction.
- Prior to any work around services it is the contractor's responsibility to ensure they have checked and verified the information along with working in accordance to industry standards, such as, but not limited to HSG 47 'Avoiding danger from Underground Services'.
- Following excavation, to finalize the location, it is the contractor's responsibility to survey the accuracy and completeness of the buried environment, and assess the suitability of the trench for any works incorporating the chamber and/or any adjustments required to the DH route design for installation. For the avoidance of doubt, the detailed mechanical design and chamber location can only be finalized/proven following excavation and, thereafter, any changes must ensure the design continues to maintain required engineering principles including revising expansion calculations, and conforms to all relevant standards.
- Concrete foundation slabs are to be constructed using formwork to support the wet concrete and used as a guide for the finished level and structure dimensions. While the wet concrete is being poured, shovels, rakes and tamping methods must be used, as a minimum, to remove air pockets and ensure all voids are filled. The minimum time for formwork to be struck is 48hrs; heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this, a fast-curing concrete is to be used to achieve 75% strength of C40 in the time the chamber is to be trafficked.
- Removable formwork is to be used to cast the concrete for an in-situ chamber ring. While the wet concrete is being poured a vibrator poker is to be used to remove all air prockets and allow all voids to be filled. The minimum time for the formwork to be struck is 48hrs, heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this a fast curing concrete is to be used.
- The workability of the concrete is to achieve a true slump with a minimum of 25mm and maximum of 75mm. Slumps outside this range are unacceptable for use.
- Three cubes are to be taken for each concrete pour: Test 1 carried out after three days to ensure suitable strength to allow trafficking after seven days; Test 2 is to be carried out after seven days. It either Test 1 or Test 2 fails, Test 3 is to be carried out after 28 days. If all three test fail, the chamber is to be removed and reconstructed.

Revision Details

Rev	Description	By	Date	Chkd	Auth
P01	Original Issue	AJ	28.03.2023	IW	MJ

Suitable for Information Only

HG CONSTRUCTION

Client
HG Construction

Project
North Island Haringey

Title
Comms Duct & Duct Chamber Comms 2

Paper Size
A1

Suitability
S2

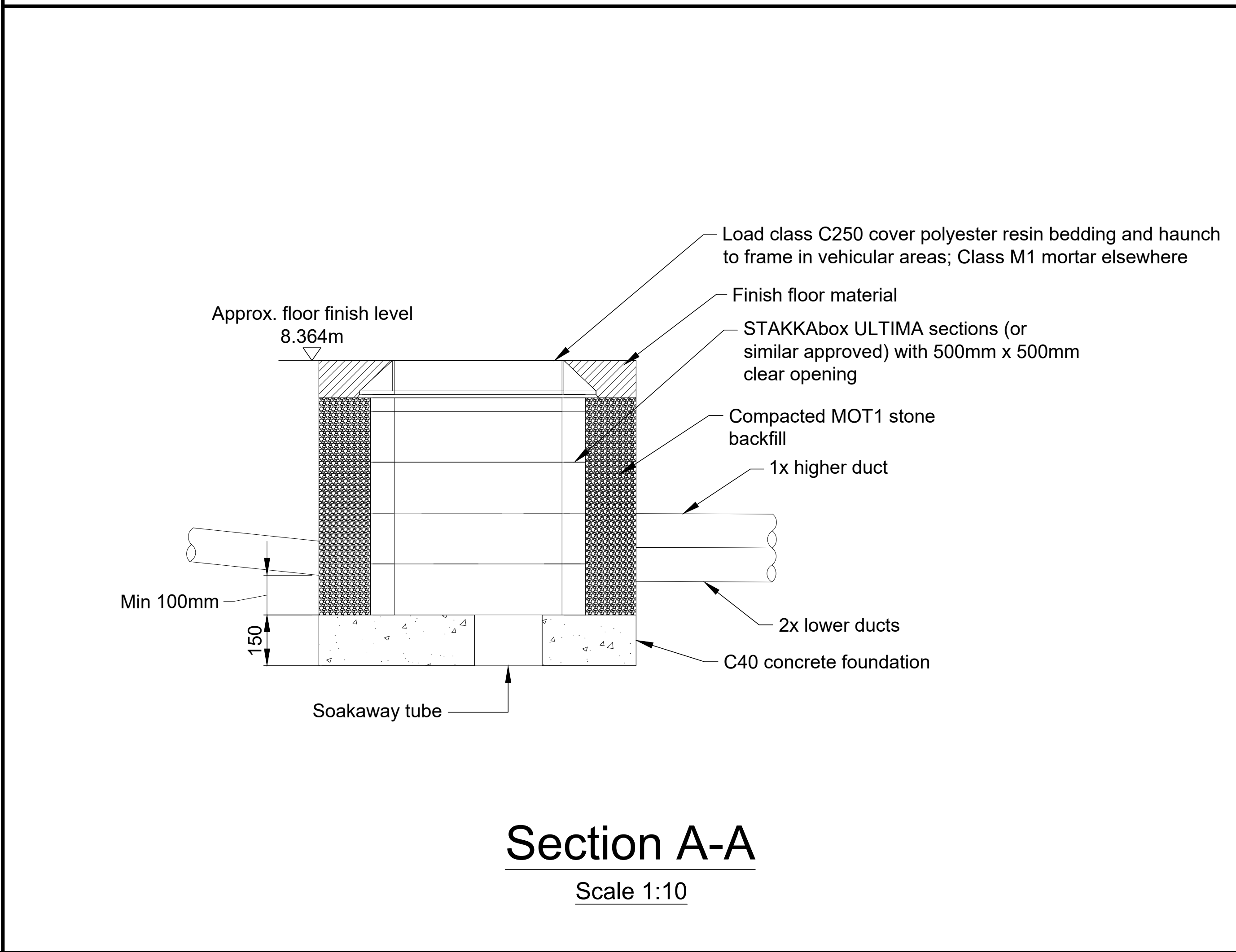
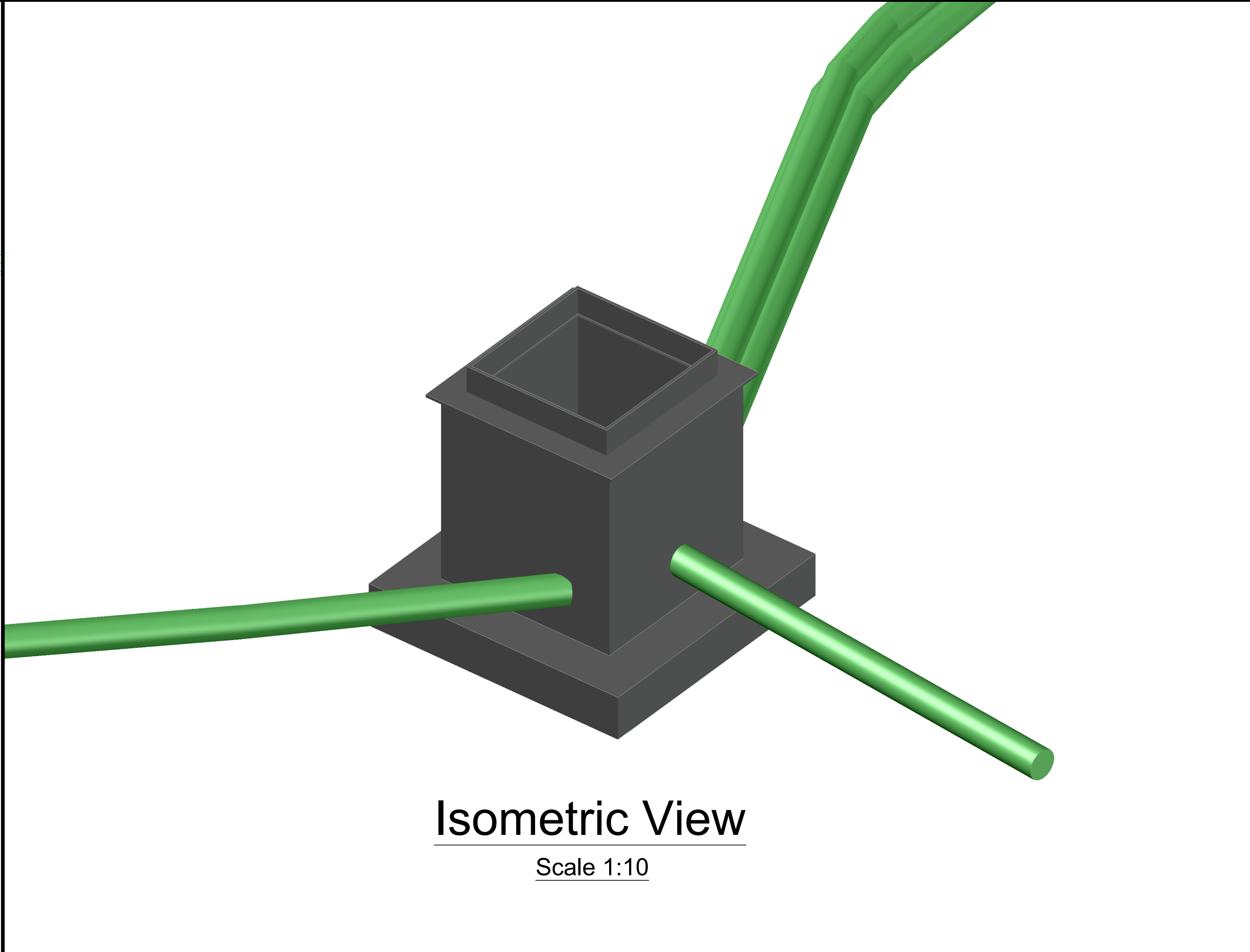
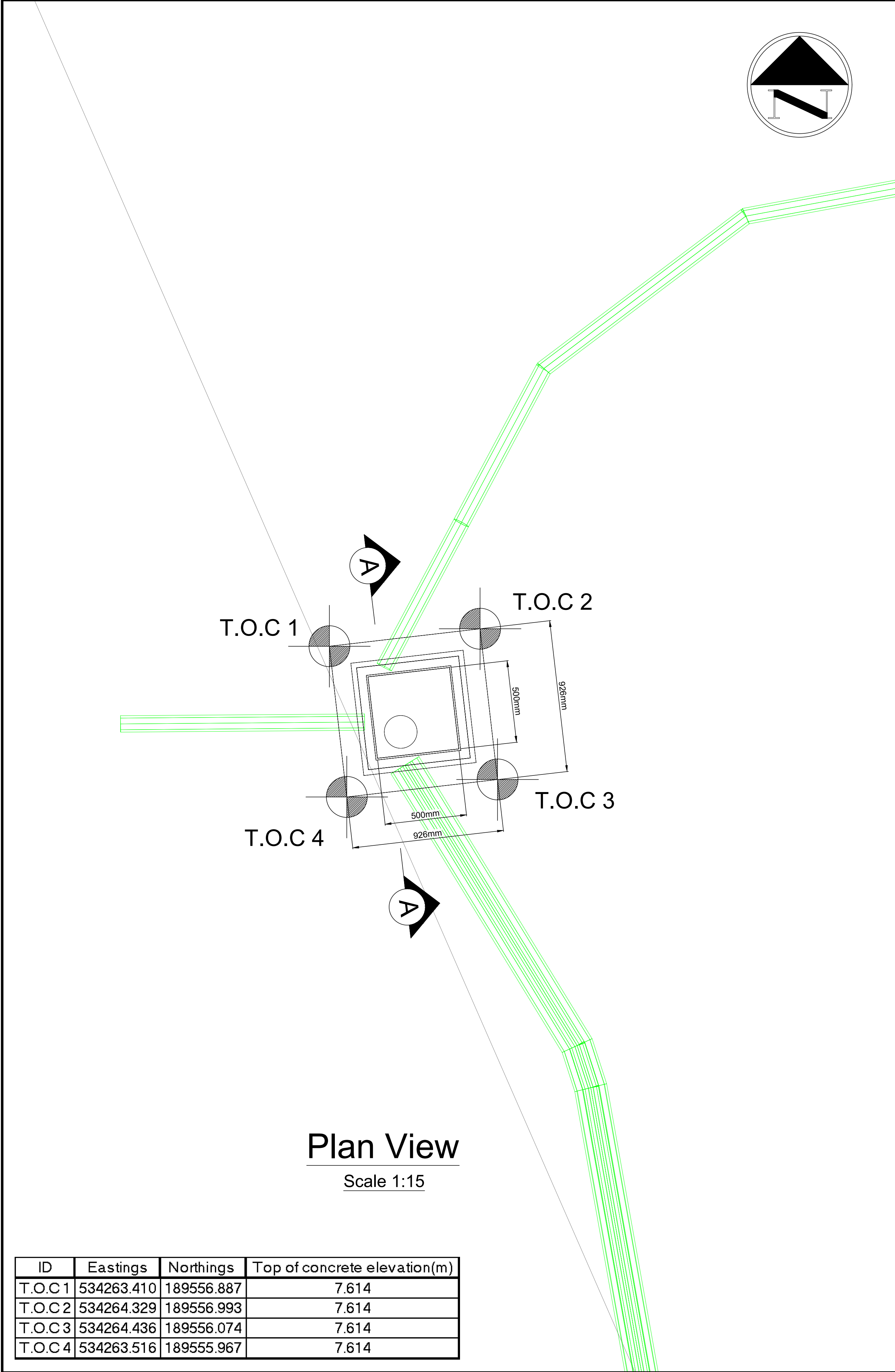
Scale
As Shown

Drawn
AJ
28.03.2023

Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR
info@3d-td.co.uk
www.3d-td.co.uk

Tel: 07802 955903
Tel: 07423 673812

Drawing Number
6420-3DTD-DHN-UU-DR-Y-4601



LEGEND

- CONCRETE
- COMPACTED MOT1 STONE
- NOTE BOX
- REVISION CLOUD

NOTES

- Do not scale from this drawing.
- All dimensions are in millimeters (mm), unless otherwise stated.
- Guidance for chamber design is taken from the 'Manual of Contract Documents for Highways Works, Vol 3 - Highways Construction Details' and manufacturers' design details.
- The contractor must review and establish the ground conditions (particularly under the foundations) prior to construction confirm structural integrity if necessary.
- This design has been produced to de-risk and inform the construction process as far as practically possible, with the information available.
- Whilst every care has been taken to minimize the likelihood of construction changes, 3D Technical Design highlights that this is a civil/mechanical design for a buried environment. Therefore, 3D Technical Design recommend the Client, Principle Contractor, Principle Designer and Contractor, agree the process for survey and design change management in construction.
- Prior to any work around services it is the contractor's responsibility to ensure they have checked and verified the information along with working in accordance to industry standards, such as, but not limited to HSG 47 'Avoiding danger from Underground Services'.
- Following excavation, to finalize the location, it is the contractor's responsibility to survey the accuracy and completeness of the buried environment, and assess the suitability of the trench for any works incorporating the chamber and/or any adjustments required to the DH route design for installation. For the avoidance of doubt, the detailed mechanical design and chamber location can only be finalized/proven following excavation and, thereafter, any changes must ensure the design continues to maintain required engineering principles including revising expansion calculations, and conforms to all relevant standards.
- Concrete foundation slabs are to be constructed using formwork to support the wet concrete and used as a guide for the finished level and structure dimensions. While the wet concrete is being poured, shovels, rakes and tamping methods must be used, as a minimum, to remove air pockets and ensure all voids are filled. The minimum time for formwork to be struck is 48hrs; heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this, a fast-curing concrete is to be used to achieve 75% strength of C40 in the time the chamber is to be trafficked.
- Removable formwork is to be used to cast the concrete for an in-situ chamber ring. While the wet concrete is being poured a vibrator poker is to be used to remove all air prockets and allow all voids to be filled. The minimum time for the formwork to be struck is 48hrs, heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this a fast curing concrete is to be used.
- The workability of the concrete is to achieve a true slump with a minimum of 25mm and maximum of 75mm. Slumps outside this range are unacceptable for use.
- Three cubes are to be taken for each concrete pour: Test 1 carried out after three days to ensure suitable strength to allow trafficking after seven days; Test 2 is to be carried out after seven days. It either Test 1 or Test 2 fails, Test 3 is to be carried out after 28 days. If all three test fail, the chamber is to be removed and reconstructed.

Revision Details					
Rev	Description	By	Date	Chkd	Auth
P01	Original Issue	AJ	28.03.2023	IW	MJ

Suitable for Information Only

HG CONSTRUCTION

Client
HG Construction

Project
North Island Haringey

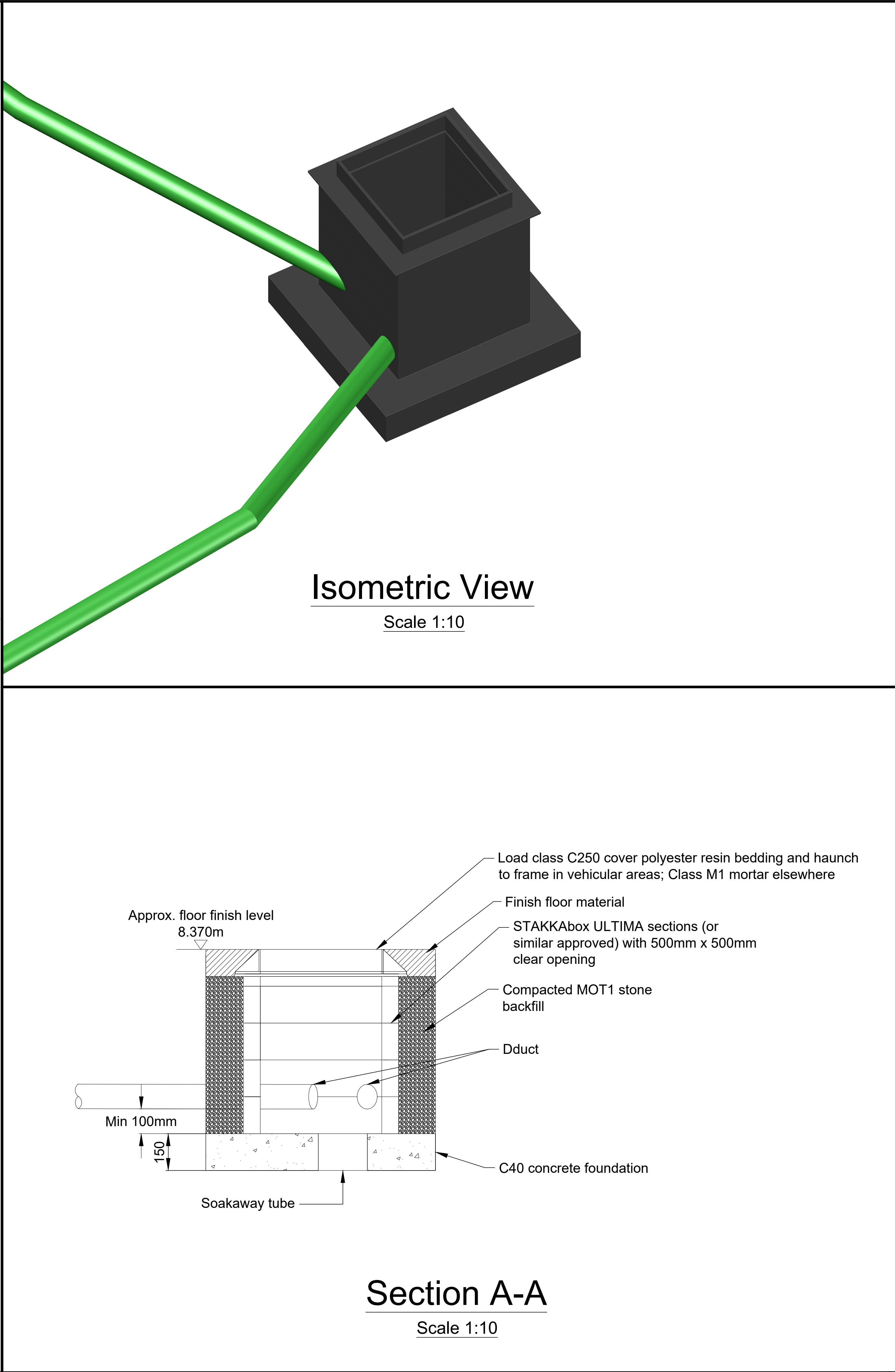
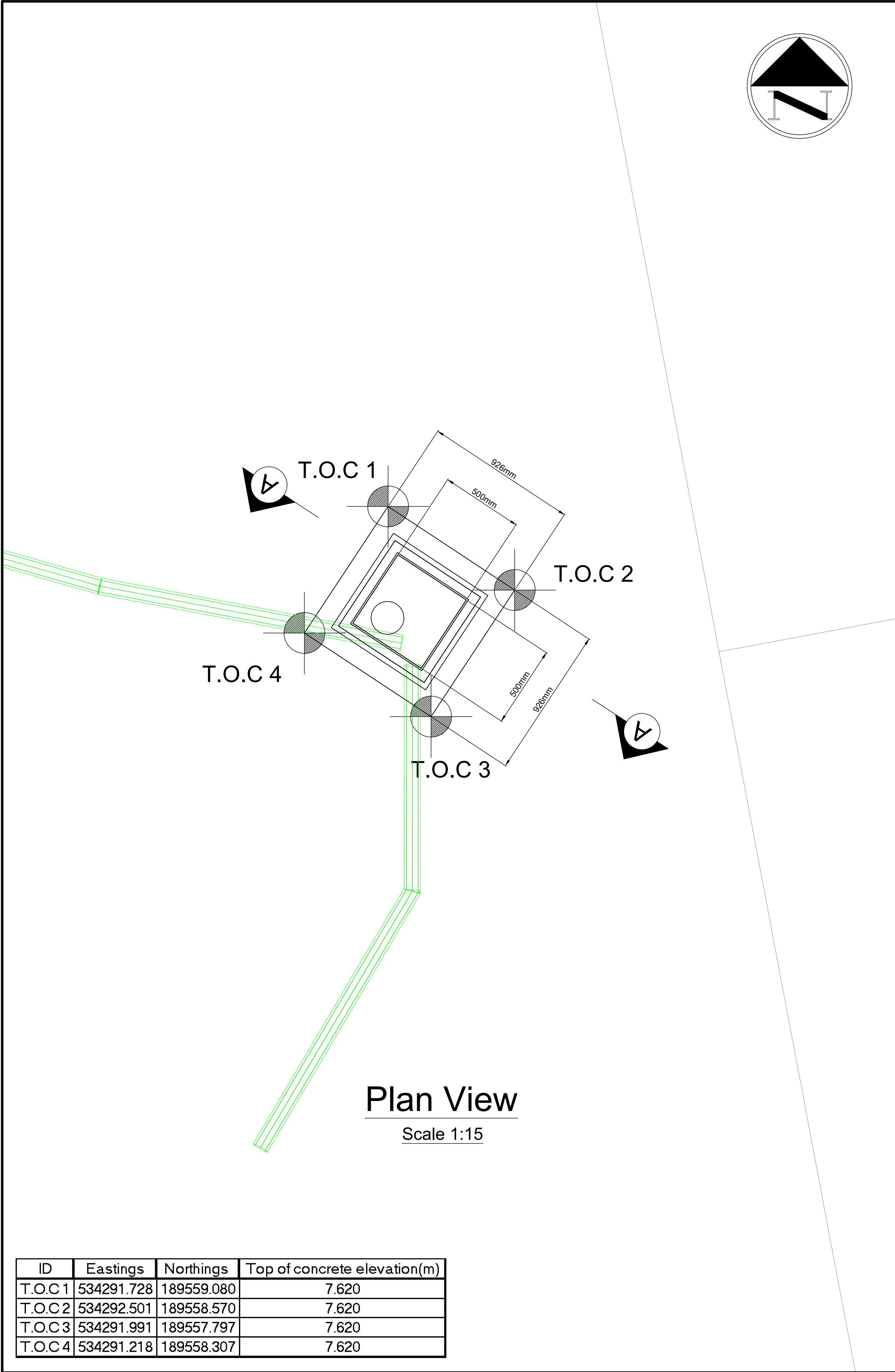
Title
Comms Duct & Duct Chamber Comms 3

Paper Size A1	
Suitability S2	
Scale As shown	
Drawn AJ 28.03.2023	

Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR
info@3d-td.co.uk
www.3d-td.co.uk

Tel: 07802 955903
Tel: 07423 673812

Drawing Number
6420-3DD-DHN-UU-DR-Y-4602



LEGEND

- CONCRETE
- COMPACTED MOT1 STONE
- NOTE BOX
- REVISION CLOUD

NOTES

- Do not scale from this drawing.
- All dimensions are in millimeters (mm), unless otherwise stated.
- Guidance for chamber design is taken from the 'Manual of Contract Documents for Highways Works, Vol 3 - Highways Construction Details' and manufacturers' design details.
- The contractor must review and establish the ground conditions (particularly under the foundations) prior to construction confirm structural integrity if necessary.
- This design has been produced to de-risk and inform the construction process as far as practically possible, with the information available.
- Whilst every care has been taken to minimize the likelihood of construction changes, 3D Technical Design highlights that this is a civil/mechanical design for a buried environment. Therefore, 3D Technical Design recommend the Client, Principle Contractor, Principle Designer and Contractor, agree the process for survey and design change management in construction.
- Prior to any work around services it is the contractor's responsibility to ensure they have checked and verified the information along with working in accordance to industry standards, such as, but not limited to HSG 47 'Avoiding danger from Underground Services'.
- Following excavation, to finalize the location, it is the contractor's responsibility to survey the accuracy and completeness of the buried environment, and assess the suitability of the trench for any works incorporating the chamber and/or any adjustments required to the DH route design for installation. For the avoidance of doubt, the detailed mechanical design and chamber location can only be finalized/proven following excavation and, thereafter, any changes must ensure the design continues to maintain required engineering principles including revising expansion calculations, and conforms to all relevant standards.
- Concrete foundation slabs are to be constructed using formwork to support the wet concrete and used as a guide for the finished level and structure dimensions. While the wet concrete is being poured, shovels, rakes and tamping methods must be used, as a minimum, to remove air pockets and ensure all voids are filled. The minimum time for formwork to be struck is 48hrs; heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this, a fast-curing concrete is to be used to achieve 75% strength of C40 in the time the chamber is to be trafficked.
- Removable formwork is to be used to cast the concrete for an in-situ chamber ring. While the wet concrete is being poured a vibrator poker is to be used to remove all air prockets and allow all voids to be filled. The minimum time for the formwork to be struck is 48hrs, heavy vehicle trafficking should not be allowed for seven days of pouring. If trafficking is to be carried out prior to this a fast curing concrete is to be used.
- The workability of the concrete is to achieve a true slump with a minimum of 25mm and maximum of 75mm. Slumps outside this range are unacceptable for use.
- Three cubes are to be taken for each concrete pour: Test 1 carried out after three days to ensure suitable strength to allow trafficking after seven days; Test 2 is to be carried out after seven days. It either Test 1 or Test 2 fails, Test 3 is to be carried out after 28 days. If all three test fail, the chamber is to be removed and reconstructed.

Revision Details					
Rev	Description	By	Date	Chkd	Auth
P01	Original Issue	AJ	28.03.2023	IW	MJ

Suitable for Information Only

HG CONSTRUCTION

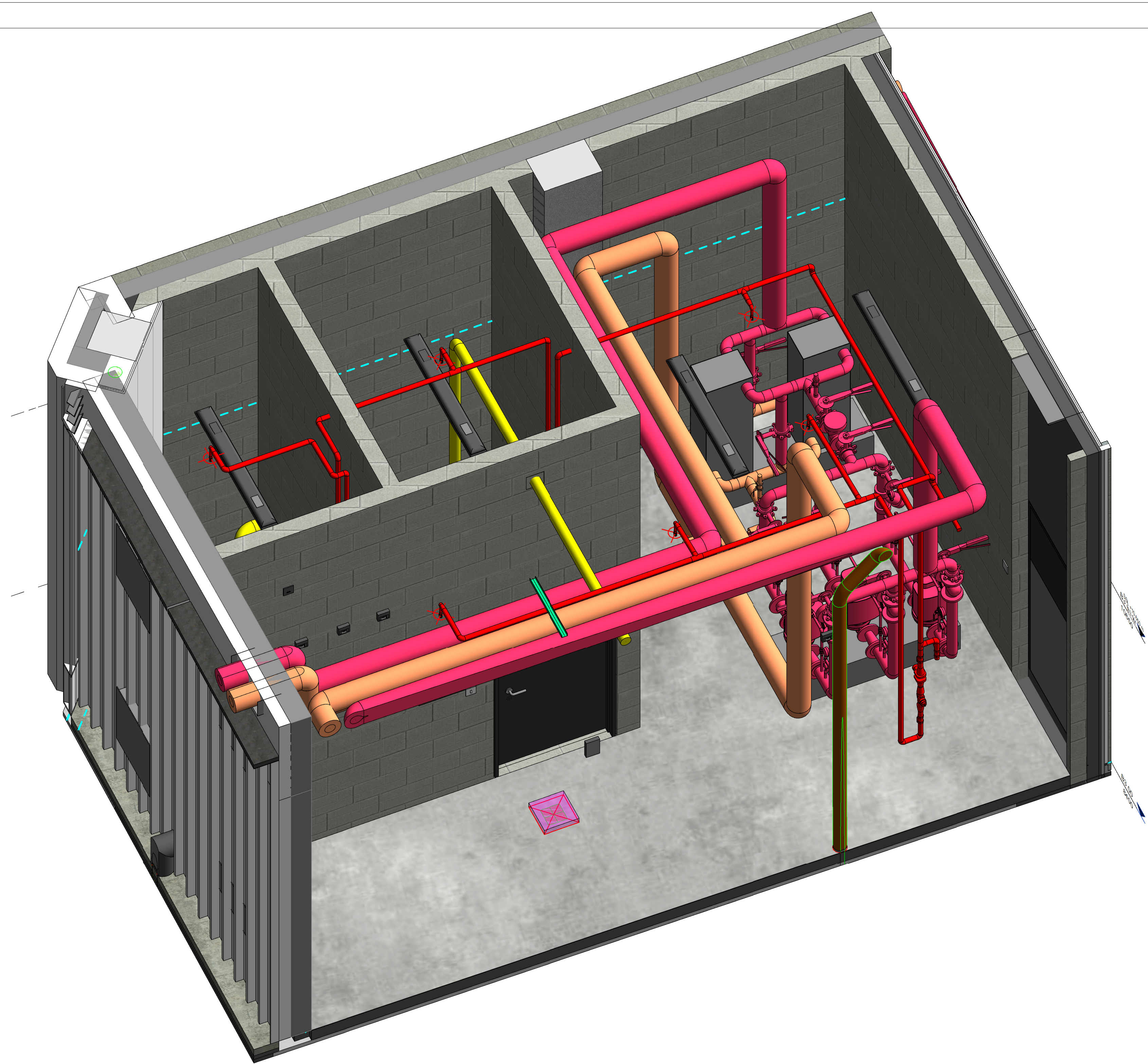
Client: **HG Construction**

Project: **North Island Haringey**

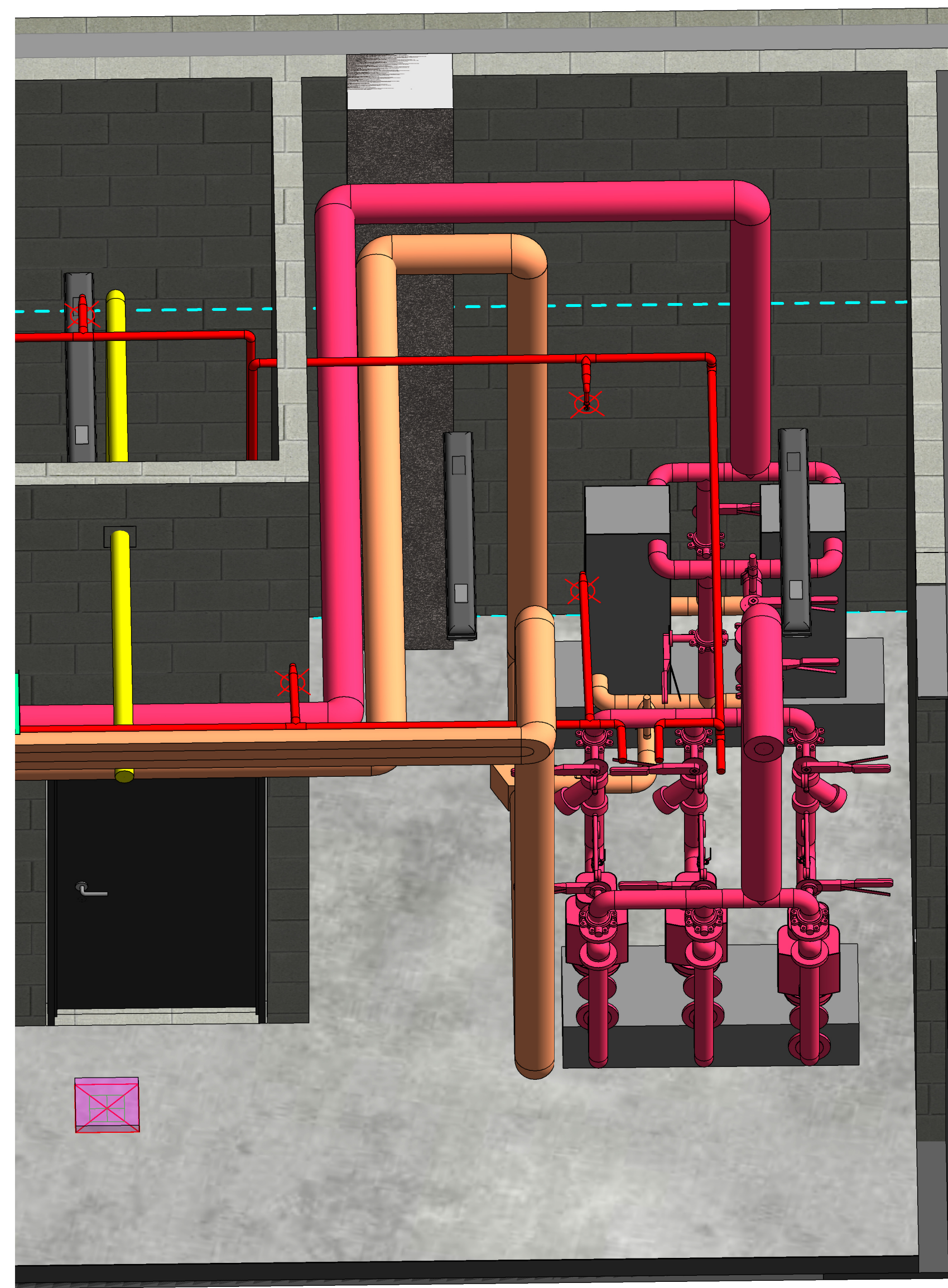
Title: **Comms Duct & Duct Chamber Comms 4**

Paper Size: A1		
Suitability: S2		
Scale: As shown		
Drawn: AJ	Suite 60, 548-550 Elder House, Eldergate, Milton Keynes MK9 1LR	Tel: 07802 955903
28.03.2023	info@3d-td.co.uk	Tel: 07423 673812
www.3d-td.co.uk		

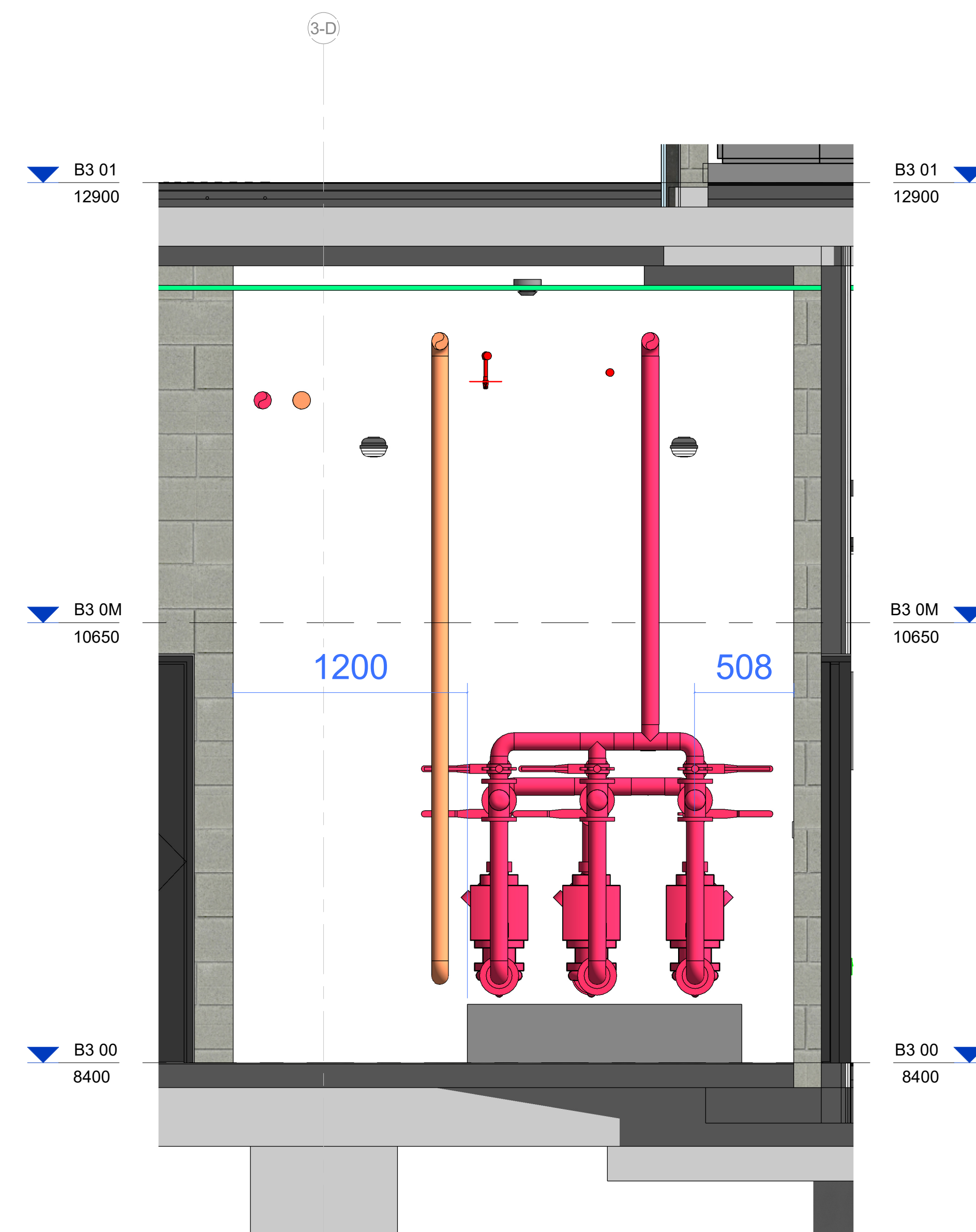
Drawing Number: **6420-3DTD-DHN-UU-DR-Y-4603**



1 Plantroom-4_3D View 1



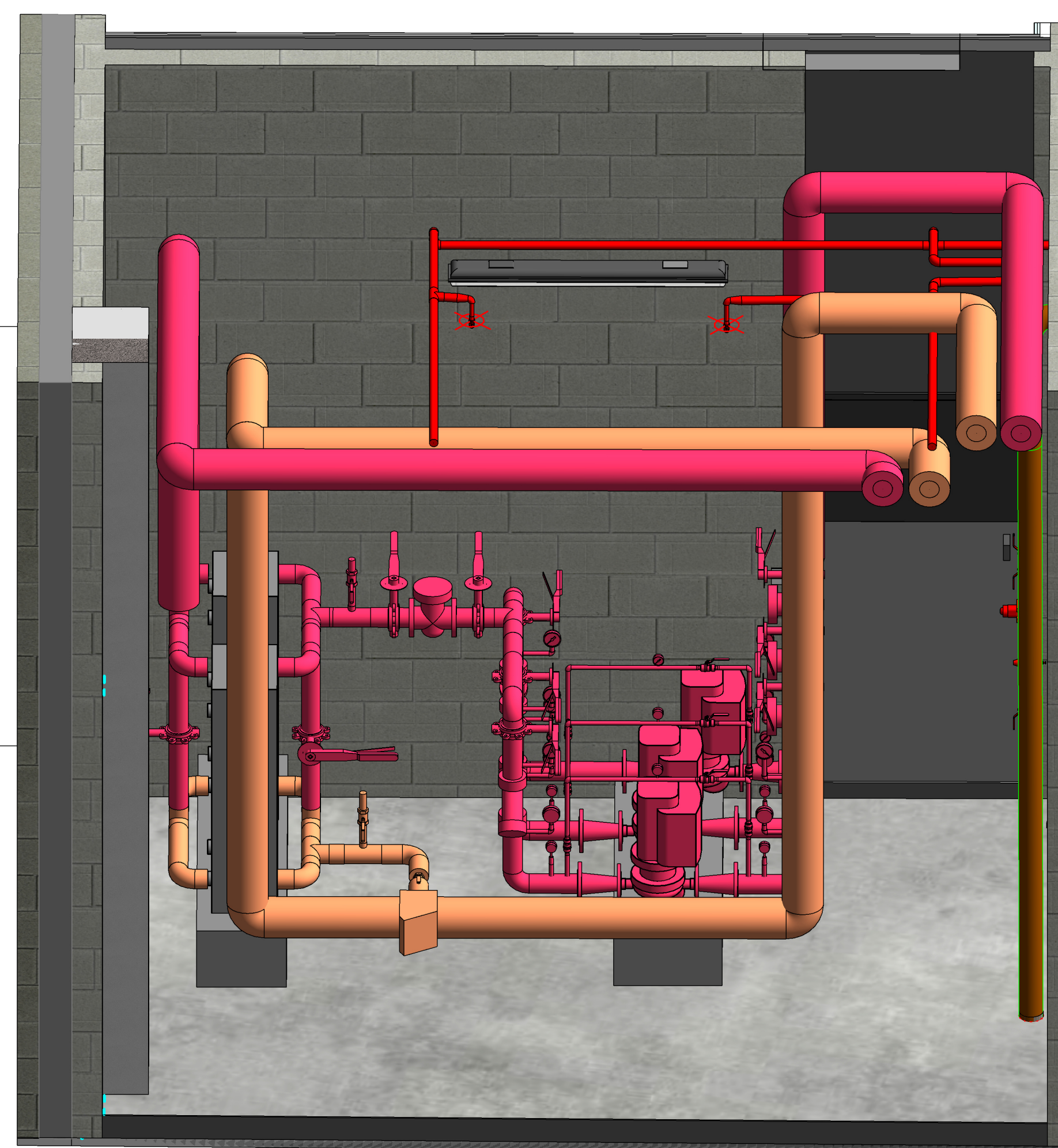
3 Plantroom-4_3D View 2



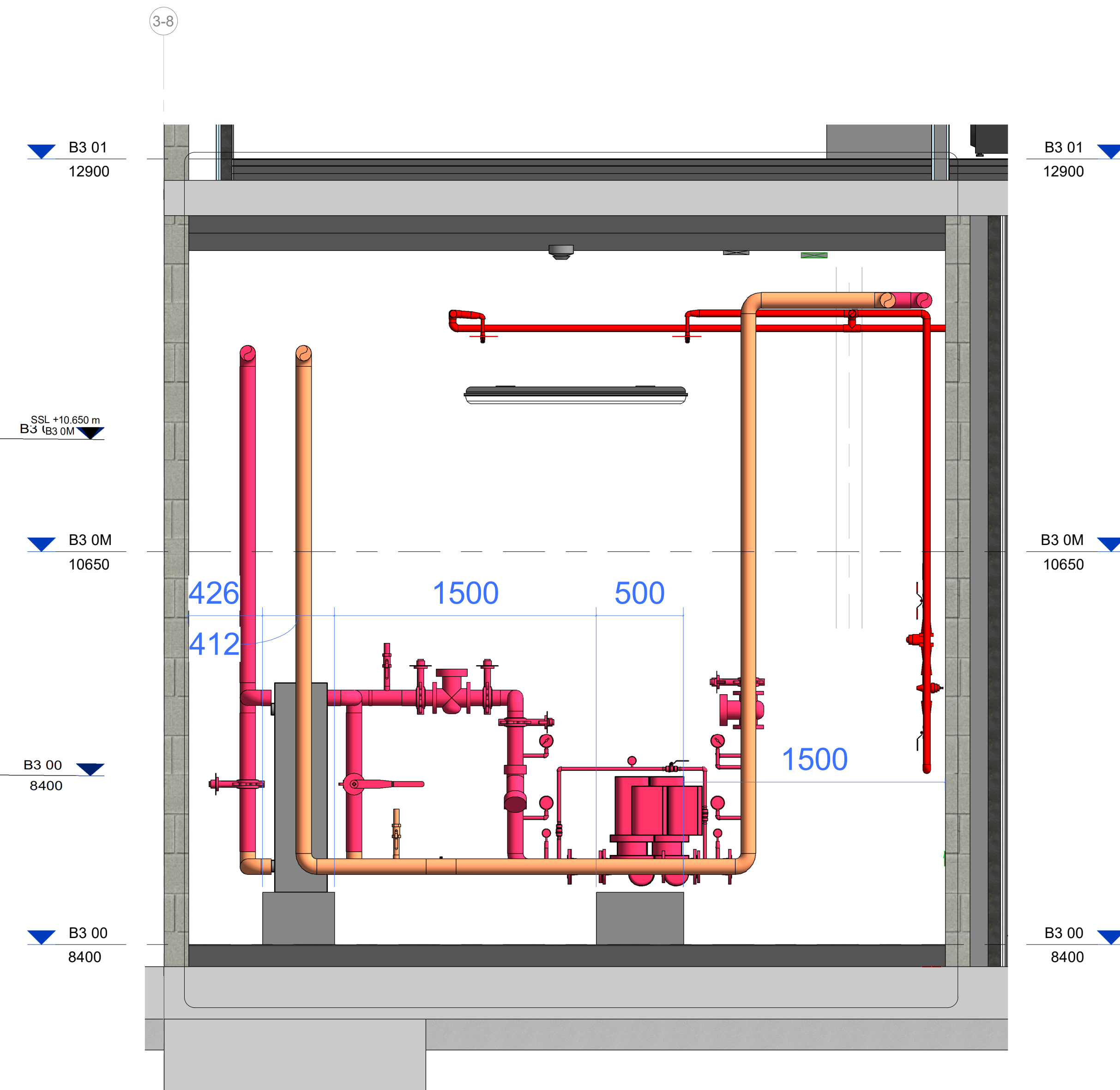
6 DEN Plantroom-1_Section-1
1 : 20



4 Plantroom-4_3D View 3



2 Plantroom-4_3D View 4



5 DEN Plantroom-1_Section - 2
1 : 20

DEN PLANT-ROOM AS PER LONDON
BOROUGH OF HARINGEY DISTRICT HEATING
NETWORK SUPPLY-TECHNICAL
SPECIFICATION FOR DEVELOPERS
DOCUMENT (TBH DHN)

Rev	Date	Description	Orig	App
Client				

HG
CONSTRUCTION

Name of
Job
TOTTENHAM HALE

Title of Drawing
DEN PLANTROOM LAYOUT

Drawing No:
TH-IS-03-001-M-20016-60-XX1

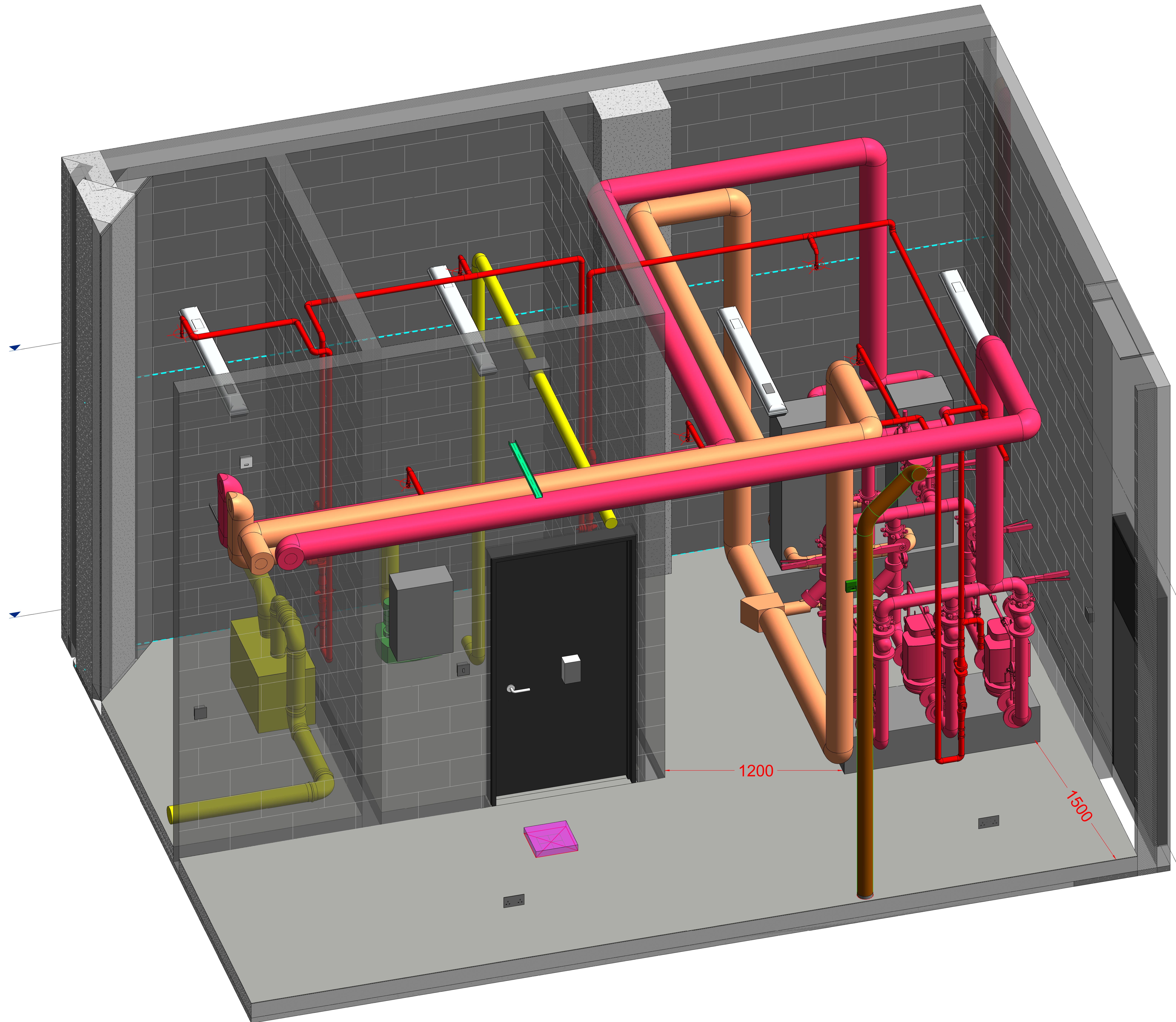
Scale @ A0	Model Manager	Project Manager
1 : 20	AA	SMC

EDC Mechanical & Electrical
Consulting Engineers
Cork Office
Tel: +353 (0)21 452 0000 email: info@edc.ie
Dublin Office
Tel: +353 (0)1 531 1000 email: info@edc.ie
London Office
Tel: +44 (0)20 331 04000 email: info@edc.ie
www.edc.ie

THIS DRAWING IS THE PROPERTY OF E.D.C.
AND IS NOT TO BE REPRODUCED OR
DISTRIBUTED TO ANY OTHER PARTY WITHOUT THE
WRITTEN PERMISSION OF E.D.C.

ISO
9001

BIM



DEN PLANT-ROOM AS PER LONDON
BOROUGH OF HARINGEY DISTRICT HEATING
NETWORK SUPPLY-TECHNICAL
SPECIFICATION FOR DEVELOPERS
DOCUMENT (TBH DHN)

Rev	Date	Description	Orig	App
HG CONSTRUCTION				
Name of Job				
TOTTENHAM HALE				
Title of Drawing				
DEN PLANTROOM LAYOUT - 3D view				
Drawing No:				
TH-IS-03-001-M-20016-60-XX2				
Scale @ A0	Model Manager	Project Manager		
AA	SMC			
EDC Mechanical & Electrical Consulting Engineers Cork Office Tel: +353 (0)21 454 0000 email: info@edc.ie Dublin Office Tel: +353 (0)1 524 0000 email: info@edc.ie London Office Tel: +44 (0)203 554 0000 email: info@edc.ie www.edc.ie				
THIS DRAWING IS THE PROPERTY OF E.D.C. AND SHALL NOT BE LOANED, REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF E.D.C. ANY UNAUTHORIZED USE WILL BE THE RESPONSIBILITY OF THE USER.				
ISO 9001		BIM BA001.14		