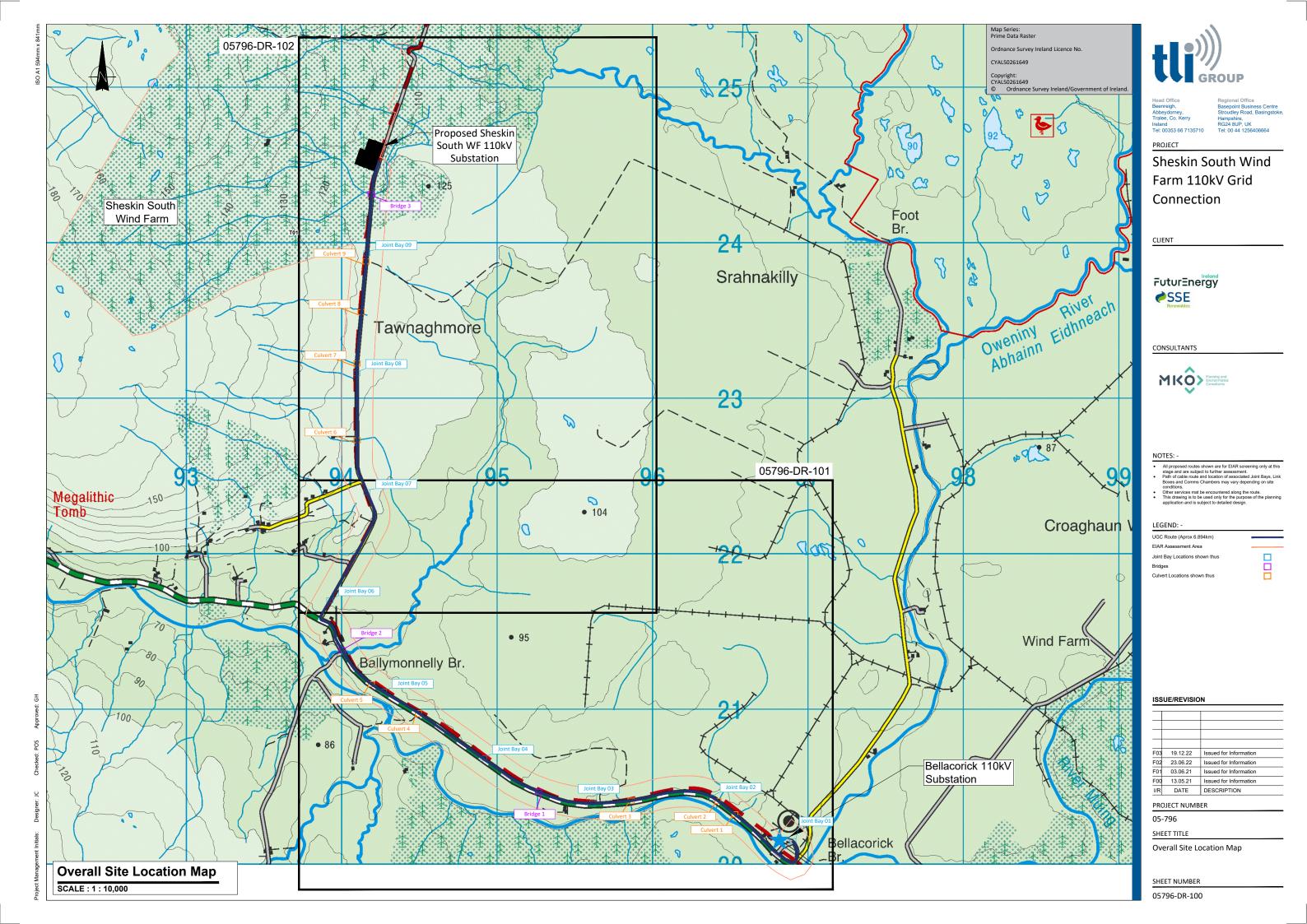
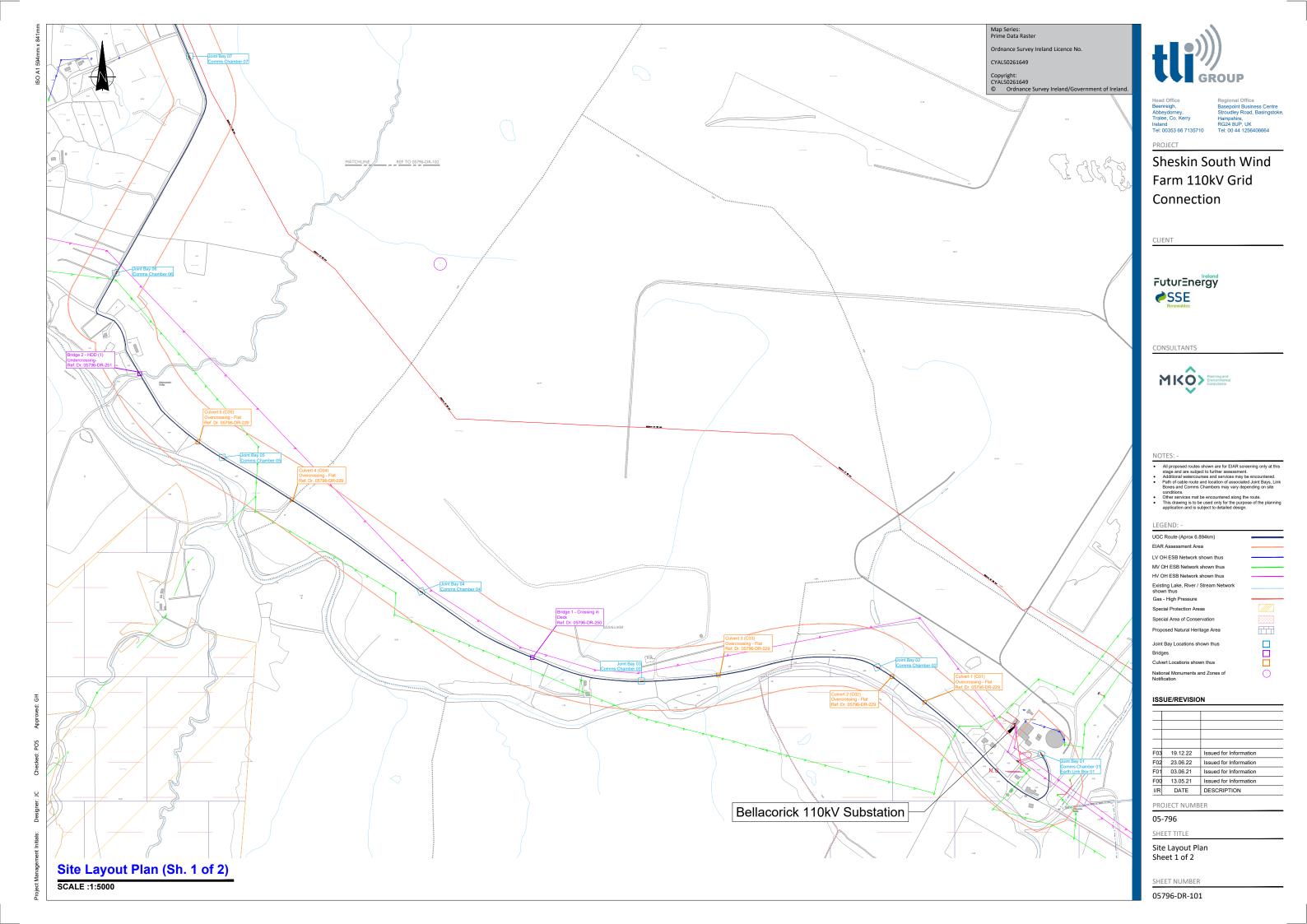
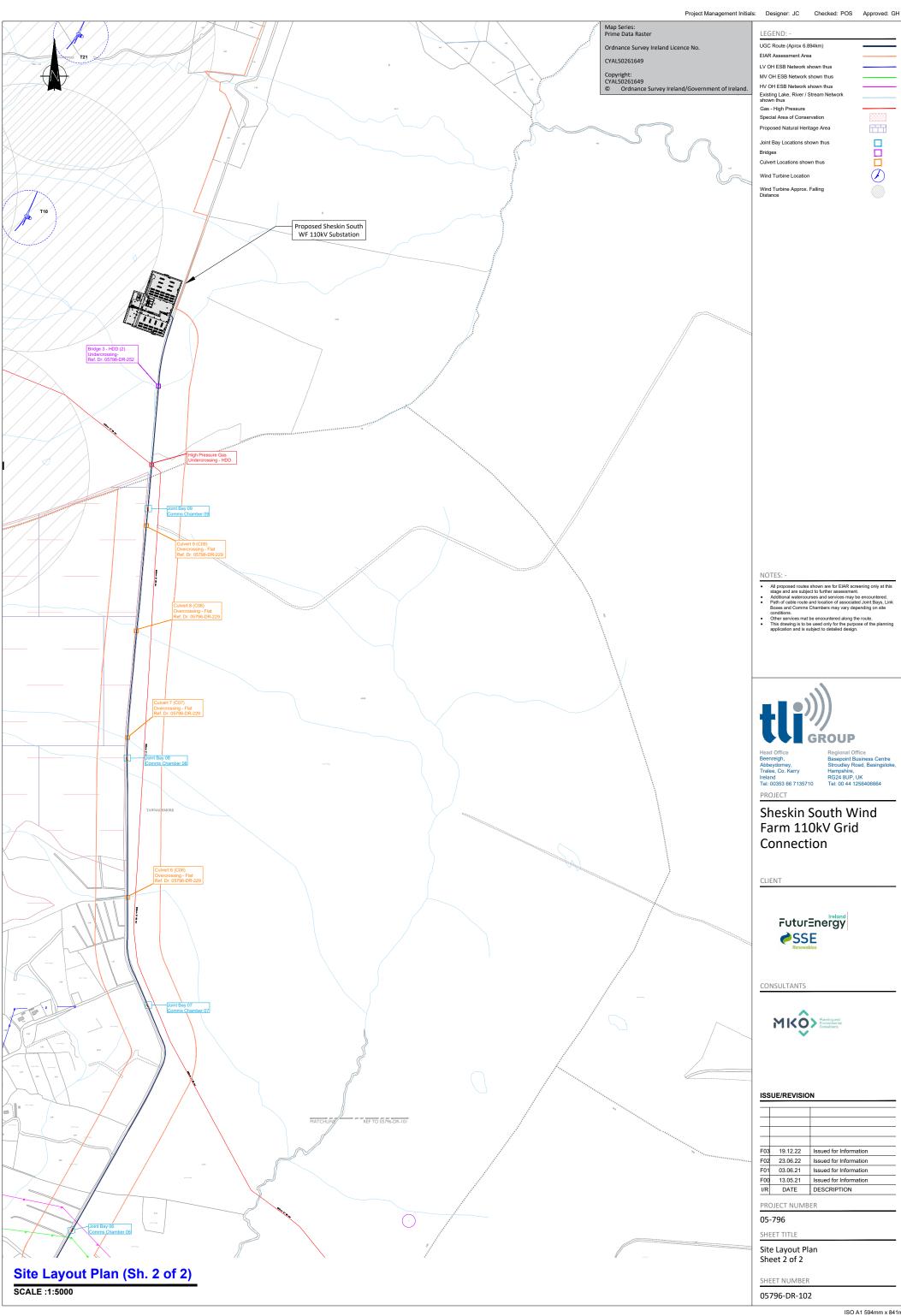
Sheet Titles	Sheet Number
Overall Site Location Map	05796-DR-100
Site Layout Plan (Sheet 1 of 2)	05796-DR-101
Site Layout Plan (Sheet 2 of 2)	05796-DR-102
Communications Chamber Details	05796-DR-109
Transition Chamber Details	05796-DR-110
Link Box Chamber Details	05796-DR-111
Ducting through Off Road Sections	05796-DR-112
110kV Joint Bay General Arrangement and Details	05796-DR-113
110kV Joint Bay Section Details	05796-DR-114
Trench Sections for Crossing Existing Culverts/Services	05796-DR-115
Trench Sections for Crossing Watermain/Wastewater	05796-DR-116
Ducting Through Roadways	05796-DR-117
Ducting through Forestry Road	05796-DR-118
Section Through Ducting in Flat Formation	05796-DR-119
Substation Layout Plan	05796-DR-300
Substation Compound Elevations	05796-DR-303
Control Building – Plan & Elevations & Section	05796-DR-304
IPP Building - Plan & Elevations & Section	05796-DR-305

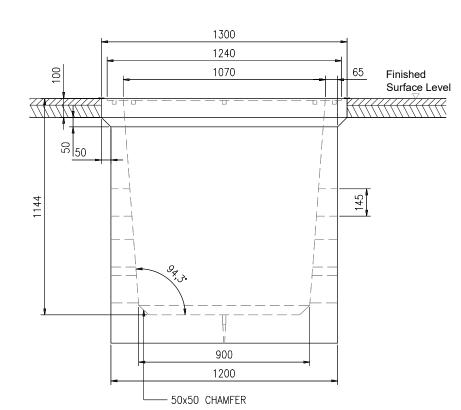




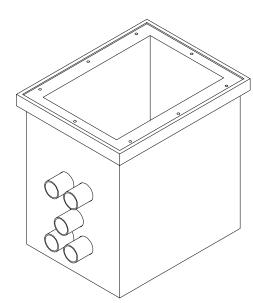


### **NOTES:**

- 1. This drawing is to be read in conjunction with relevant drawings, specifications and reports.
- 2. Dimensions are in millimetres, unless noted otherwise.
- 3. Drawings are not to be scaled use figured dimensions only.
- 4. Reinstatement to comply with requirements of the relevant local Authority/Asset owner
- 5. Entrance & Exit ducts to be in line
- All material and workmanship to be in accordance with the NRA./TII specification for Roadworks, May 2005 and subsequent revisions
- Reinforced concrete to be a minimum grade C32/40, Sulphate resisting cement to be used where aggressive soil conditions apply, refer to table 6.1 of B.S. 8110.
- 8. Carraigeway covers and frames to be to B.S. 124.
- All covers to have ESB logo incorporated in them to the approval of Eirgrid
- Step irons to be hot dipped glvanised to B.S. 729 and positioned as shown on any chamber deeper than 700mm on the end remote from any side entry duct.
- 11. Concrete precast chamber and cover should be tested through a 5 point 40 tonnes vertical static loading test by an independent test company, if required, further details will be provided by Eirgrid.
- 12. Final position of C2 chambers shall be agreed with Eirgrid.13. In a forest environment backfill with lean mix outside the
- In a forest environment backfill with lean mix outside the cover frame.
- 14. This drawing is subject to Eirgrid design approval.

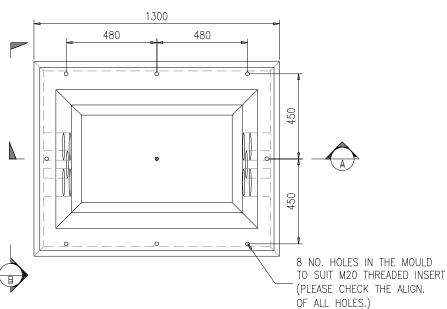


C2 Chamber Detail - Section A
SCALE 1:20



**Isometric: C2 Chamber Arrangement** 

**SCALE 1:20** 



Plan of Joint Bay



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PROJECT

Sheskin South Wind Farm 110kV Grid Connection

PROJECT NUMBER 05-796

SHEET NUMBER **05796-DR-109** 

SHEET TITLE

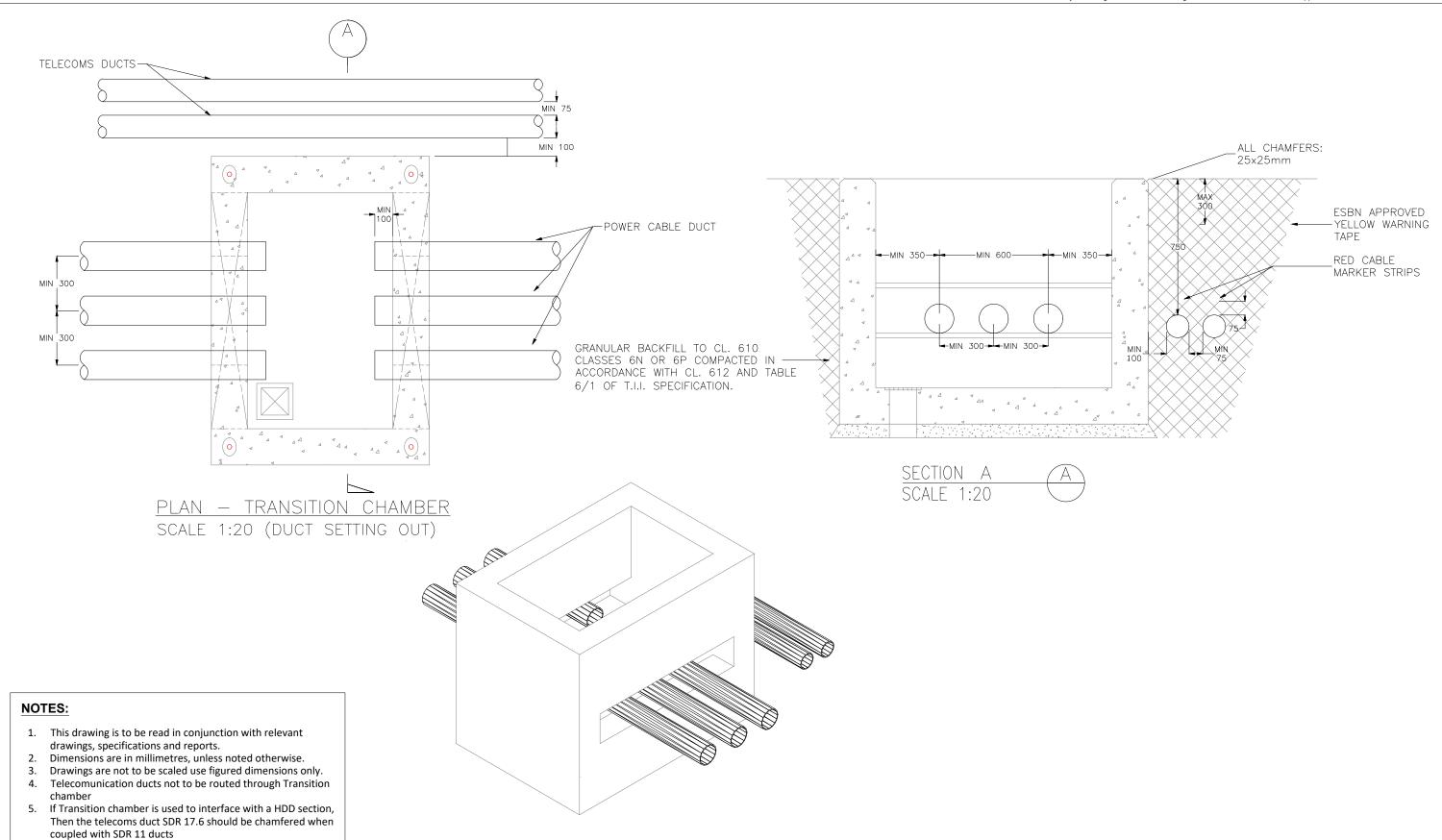
Communications Chamber Details

DRAWING STATUS
For Information

ISSUI	E/REVISION	
F00	23.06.22	Issued for Information
I/R	DATE	DESCRIPTION

RECESS TO BE 1-2mm MORE THAT FRAME OF COVER	
GRADE C30/37 CONCRETE TO BE USED AROUND LID	1030 970 735 147,5 Finished Surface Level
	Surface Level
1294	
594	200
3/4" BSP FITTING	190

C2 Chamber Detail - Section B
SCALE 1:20





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PROJECT

Sheskin South Wind Farm 110kV Grid Connection

PROJECT NUMBER 05-796

SHEET NUMBER **05796-DR-110** 

SHEET TITLE

Transition Chamber Details

13	SSUE	E/REVISION	
-			
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F	F00	23.06.22	Issued for Information
Ī	I/R	DATE	DESCRIPTION

drawings, specifications and reports.

subsequent revisions

conditions apply.

approval of Eirgrid

1. This drawing is to be read in conjunction with relevant

Dimensions are in millimeters, unless noted otherwise.
 Drawings are not to be scaled use figured dimensions only.
 All material and workmanship to be in accordance with the

NRA./TII specification for Roadworks, May 2005 and

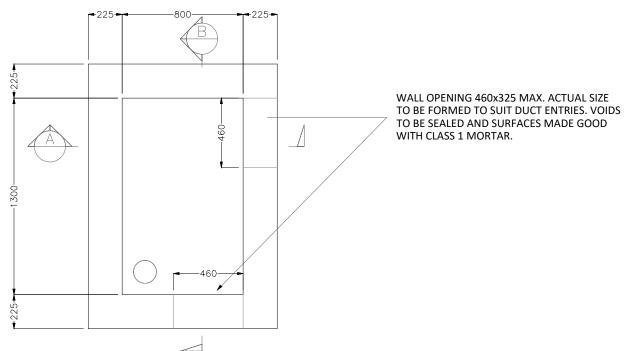
8. Brickwork to be class B Engineering, beds and Joints to be class 1 mortar
9. Final position of Link Box to be agreed with Eirgrid prior to

Sulphate resisting cement to be used where aggressive soil

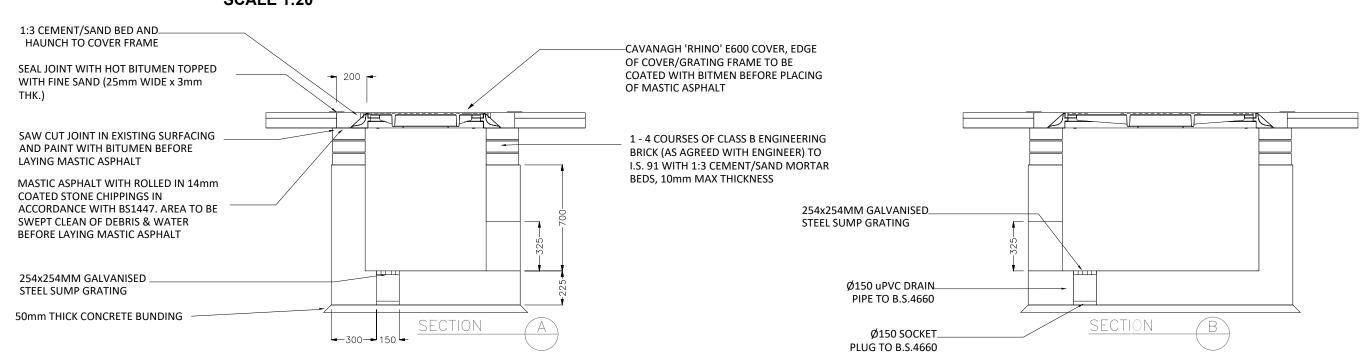
5. Reinforced concrete to be a minimum grade C32/40,

6. Carriageway covers and frames to be to B.S. 124.7. All covers to have ESB logo incorporated in them to the

NOTES:



# Link Box Chamber Detail - Plan SCALE 1:20



# Link Box Chamber Detail - Section A-A SCALE 1:20

# Link Box Chamber Detail - Section B-B SCALE 1:20



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PROJECT

Sheskin South Wind Farm 110kV Grid Connection

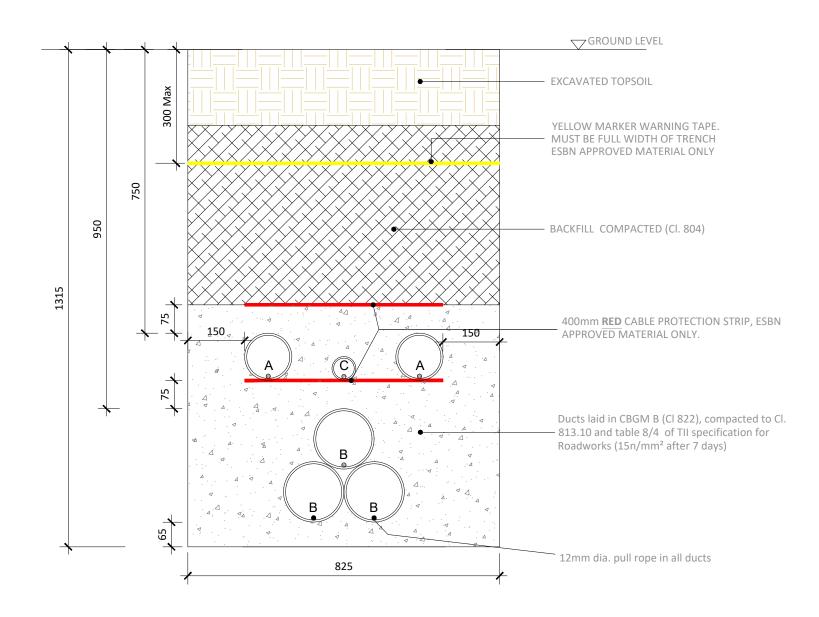
PROJECT NUMBER 05-796

SHEET NUMBER **05796-DR-111** 

SHEET TITLE

Link Box Chamber Details

ISSU	E/REVISION	
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I/R	DATE	DESCRIPTION



A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6 B= 160mm : Outer Diameter HDPE ESB Approved Duct, SDR= 21

C = 63mm: ECC Earth Continuity Conductor

### **Section Through Off Road Sections**

**SCALE 1:10** 

## ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LANDOWNER REQUIREMENTS

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD14



This drawing is to be read in conjunction with

Drawings are not to be scaled use figured

relevant drawings, specifications and reports
Dimensions are in millimeters, unless noted

Note:

otherwise

dimensions only

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PROJECT

Sheskin South Wind Farm 110kV Grid Connection

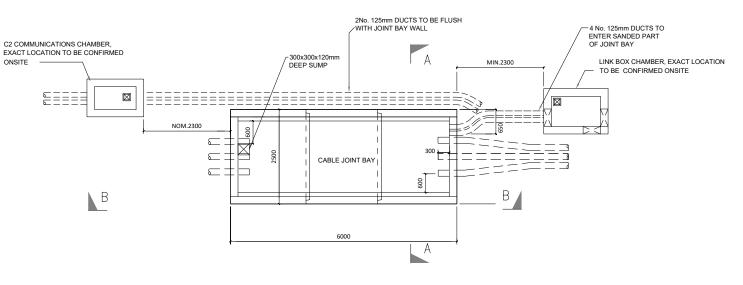
PROJECT NUMBER 05-796

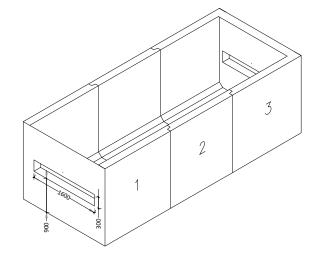
SHEET NUMBER 05796-DR-112

SHEET TITLE

Ducting through Off Road Sections

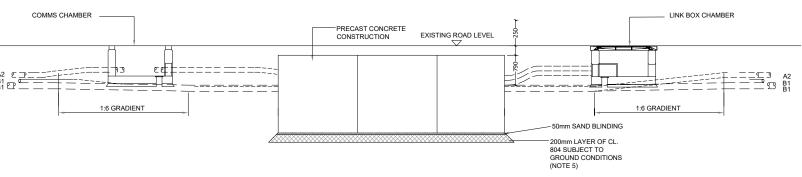
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**PLAN VIEW** 

ISOMETRIC VIEW PRECAST CHAMBER



EXISTING ROAD LEVEL VARIES DEPENDING ON — SITE GROUND CONDITIONS AFTER PLACING THE DUCTS VOID IS TO BE PACKED WITH CONCRETE C16/20 CONTAINING A NON-SHRINK ADDITIVE BY EIRGRID PRECAST CONCRETE
CONSTRUCTION B1 B1 B1 1600 GRANULAR BACKFILL 10 T HALFEN DEHA \_SPHERICAL LIFTING ANCHORS. REF: 6000-10.0-0170 4 PER UNIT 50mm SAND BLINDING 200mm LAYER OF CL 804 SUBJECT TO GROUND CONDITIONS 30mmØ OPENING IN SLAB ∅ Ø125MM HDPE DUCT (COMMS) Ø160MM HDPE DUCT

**SECTION B-B** 

### **GENERAL NOTES:**

- ENERAL NOTES:

  THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE AND IS SUBJECT TO AMENDMENT.
  THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT INFORMATION
  DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
  ALL DIMENSIONS ARE IN MILLIMETRES UNLESS DEFINED OTHERWISE.
  STANDARD FOUNDATIONS ARE BASED ON THE FORMATION AT THE BASE OF THE EXCAVATION SHOWN BEING
  SUITABLE FOR A MINIMUM BEARING PRESSURE OF 100kN/m2. SUITABILITY OF STANDARD JOINT BAY
  FOUNDATIONS CAN ONLY BE CONFIRMED FOLLOWING GROUND INVESTIGATION. HAND VANE TESTS SHALL BE
  REQUIRED AS PER GI SPECIFICO MINIMUM BEARING PRESSURE IS NOT ACHIEVABLE,
  AND WHERE PEAT IS ENCOUNTERED, THE CONTRACTOR SHALL REFER TO THE ENGINEER FOR GUIDANCE.
  THE LENGTH OF BONDING LEAD LENGTH SHALL IN NO CASE EXCEED 10M. NO JOINTS IN BONDING CABLE ARE
  PERMITTED.
- PERMITTED.
  ALL EARTHING SHALL BE IN ACCORDANCE WITH ENA ER C55 AND EIRGRID/ESBN FUNCTIONAL SPECIFICATION
- THE DEPTH FROM GROUND/ROAD LEVELTO THE TOP OF THE CONCRETE WALL SHALL BE
  A. 500MM IN CULTIVATED FIELDS & GRASS LAND
  B. 300MM IN PAVED ROADS AND GRASS VERGES
  C. 350MM IN PAVED CITY ROADS AND GRASS VERGES

- LINK BOX CHAMBERS TO BE POSITIONED AT THE EDGE OR OFF ROAD
- 10. LINK BOX CHAMBERS AND C2 COMM CHAMBERS FINAL POSITIONING TO BE AGREED WITH EIRGRID PRIOR TO INSTALLATION

**SECTION A-A** 



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### Sheskin South Wind Farm 110kV Grid Connection

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NOTES: See General Notes

LEGEND: -

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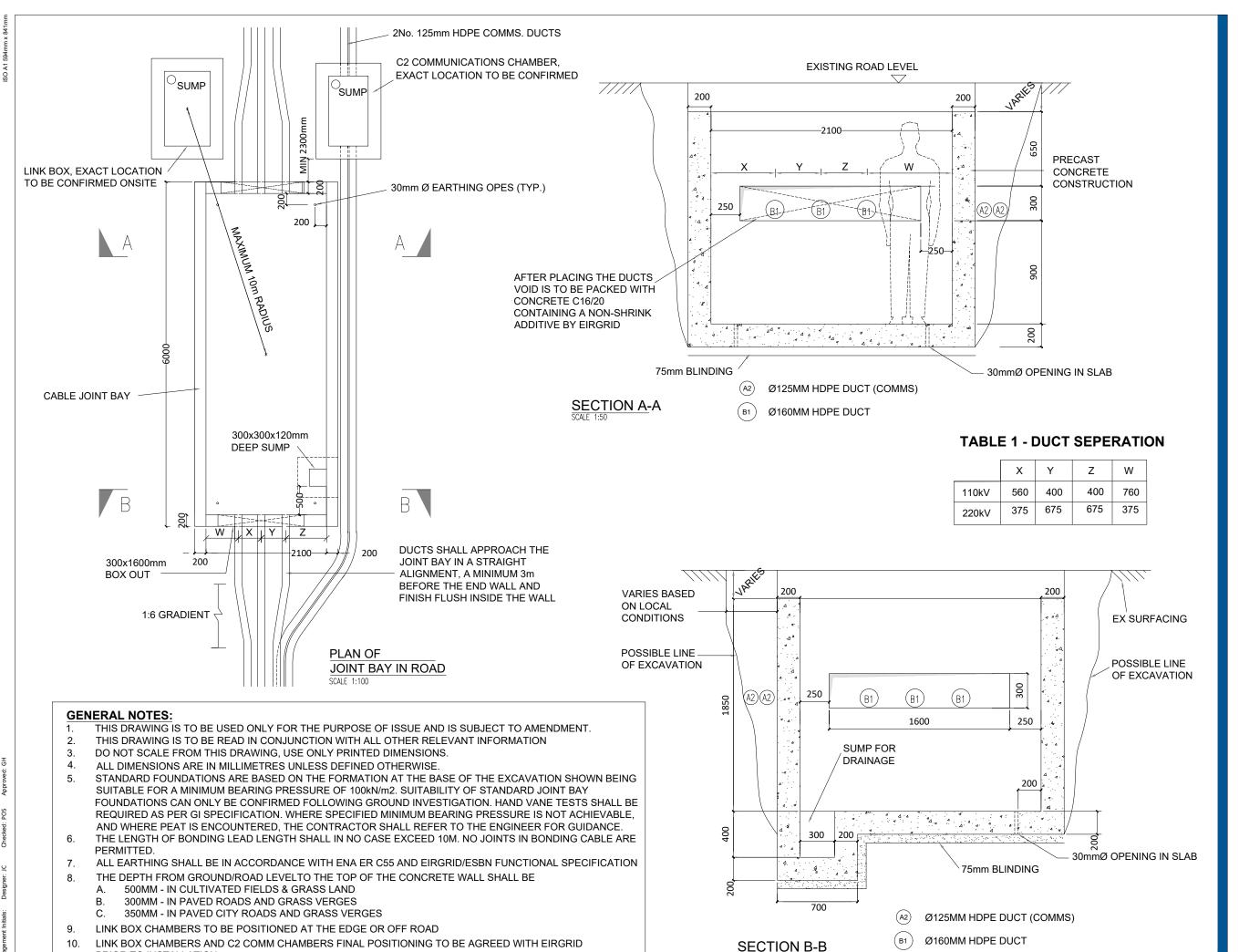
PROJECT NUMBER

05-796

SHEET TITLE

110kV Joint Bay General Arrangement and Details

SHEET NUMBER



PRIOR TO INSTALLATION

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Regional Office
Basepoint Business Centi Stroudley Road, Basingst Hampshire, RG24 8UP, UK
Tel: 00 44 1256406664

PROJECT

Sheskin South Wind Farm110kV Grid Connection

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NOTES: -

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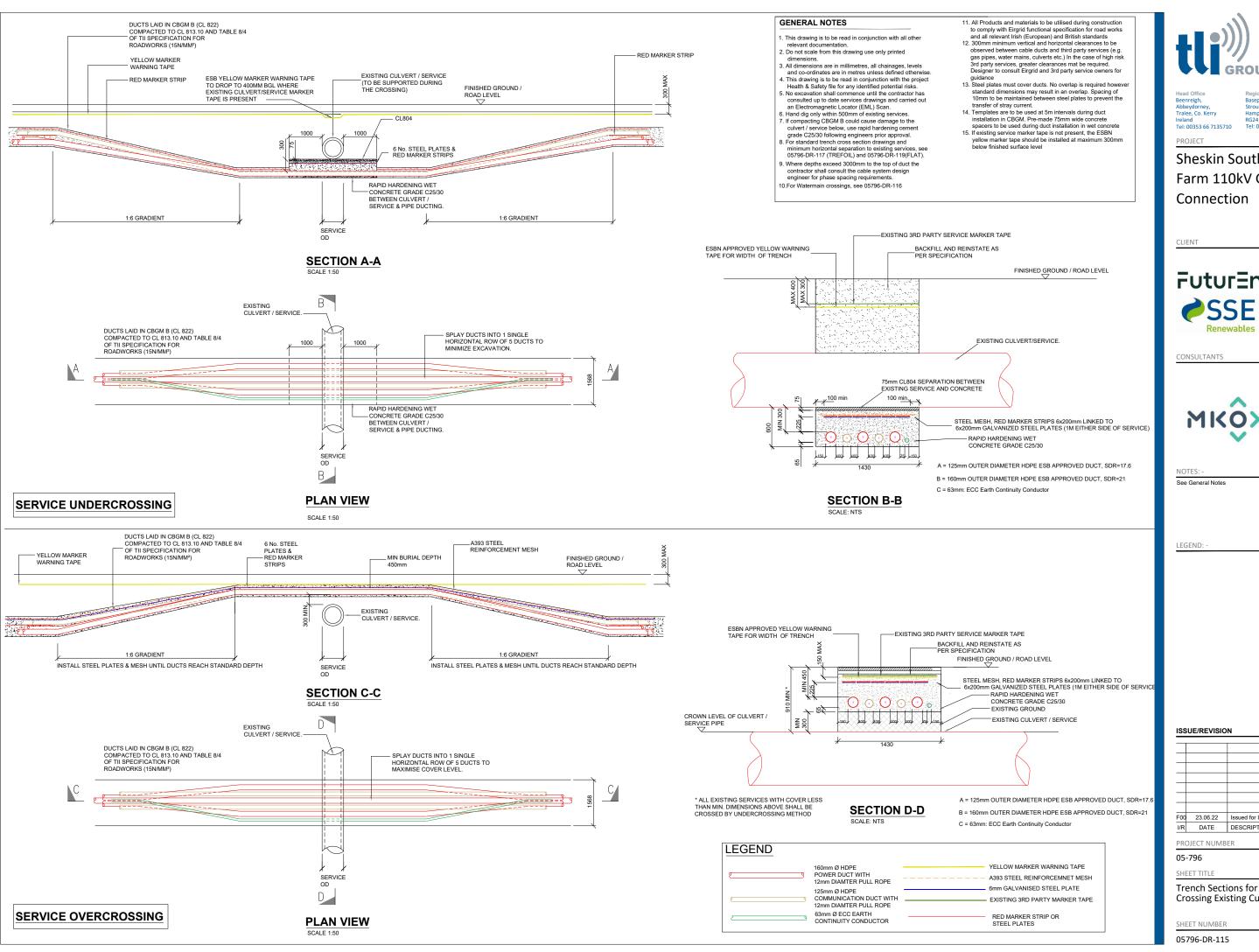
PROJECT NUMBER

05-796

SHEET TITLE

110kV Joint Bay Section Details

SHEET NUMBER



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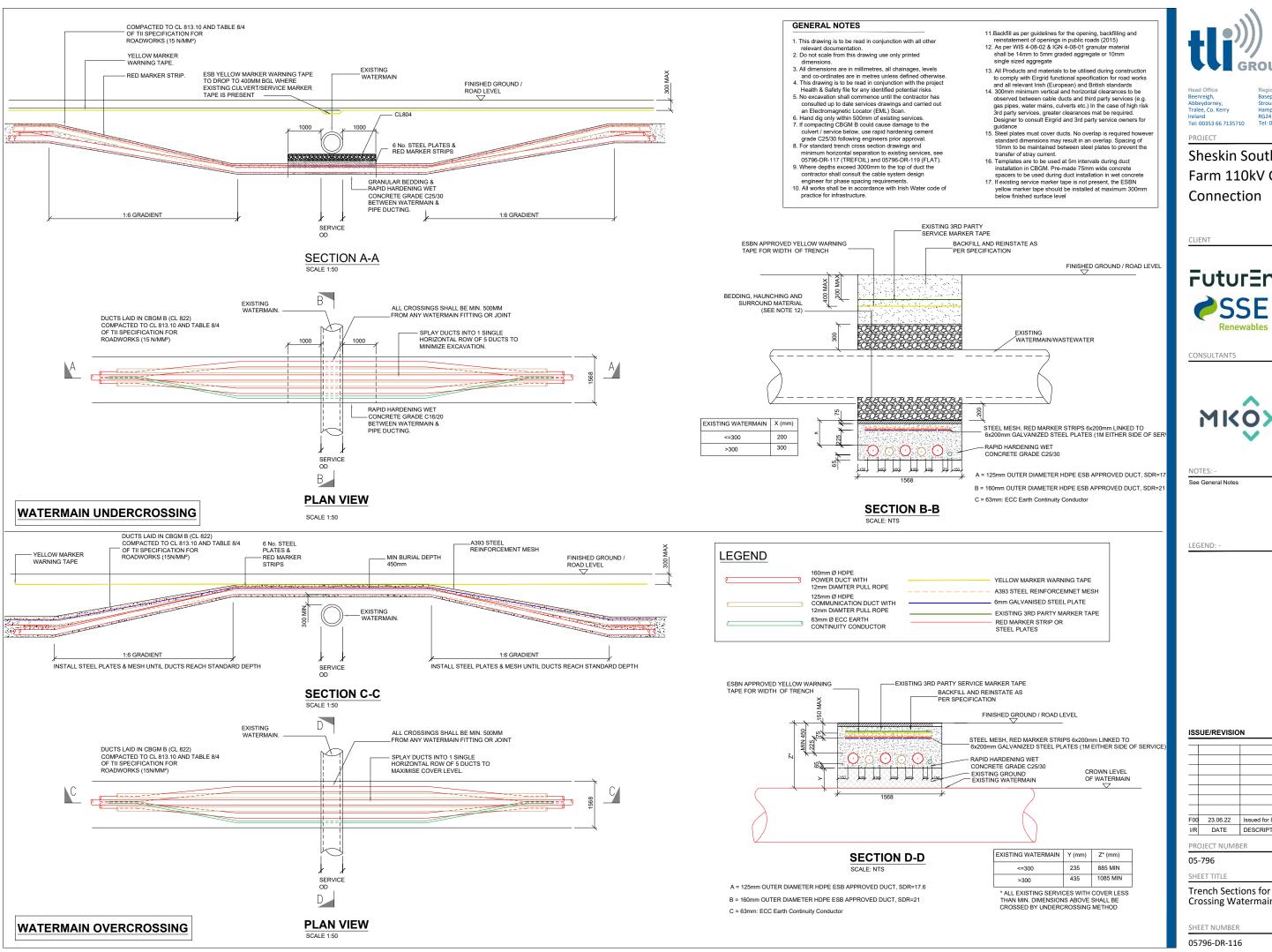
**Sheskin South Wind** Farm 110kV Grid





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**Crossing Existing Culverts/Services** 

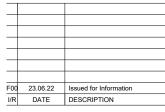


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**Sheskin South Wind** Farm 110kV Grid







Crossing Watermain/Wastewater

A = 125mm; Outer Diameter HDPE ESB Approved Duct. SDR=17.6 B= 160mm : Outer Diameter HDPE ESB Approved Duct, SDR= 21

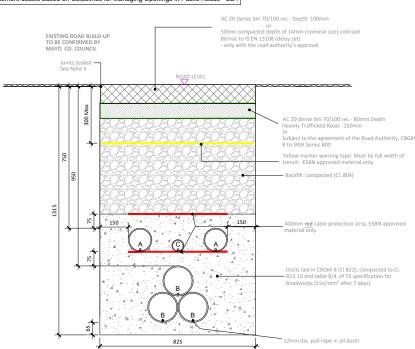
C = 63mm: ECC Earth Continuity Conductor

#### Section Through Permanent Reinstatement of Longitudinal Opening in Roadway

SCALE 1:10

**Temporary Reinstatement** 

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD1

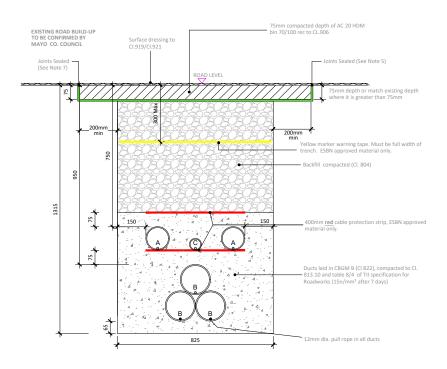


A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6 B= 160mm: Outer Diameter HDPE ESB Approved Duct, SDR= 21 C = 63mm: ECC Earth Continuity Conductor

Section Through Temporary Reinstatement of Longitudinal Opening in Roadway

SCALE 1:10

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD5

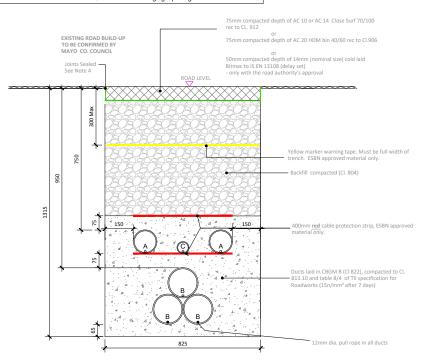


A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6 B= 160mm: Outer Diameter HDPE ESB Approved Duct, SDR= 21 C = 63mm: ECC Earth Continuity Conductor

### Section Through Permanent Reinstatement of Longitudinal Opening in **Dressed Rural Unbound Roadway**

SCALE 1:10

Reinstatement details based on Guidelines for Managing Openings in Public Roads - SD2



A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6 B= 160mm : Outer Diameter HDPE ESB Approved Duct, SDR= 21 C = 63mm: ECC Earth Continuity Conductor

#### Section Through Temporary Reinstatement of Longitudinal Opening in **Dressed Rural Unbound Roadway**

SCALE 1:10

ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AREA ENGINEERS REQUIREMENTS AND GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS

Note:

1. Refer to Guidelines for managing Openings in Public Roads (Purple Book - April 2017), Chapter 6 'Specifications' for guidance on Duct type / colour and Marker Tape type / colour

- Where a temporary surface has been used, material shall be planed out to the depth specified in this drawing. The new permanent surface shall be machined laid and mechanically compacted with a vibrating roller.
- Where the trimmed edge of excavation is within 400mm\* of a joint / edge, ironwork or other reinstatement, this trimmed edge shall be extended to include same and the area of reinstatement shall be extended accordingly (\* increase to 800mm where this is pre-existing practice).
- included within the area to be reinstated.
- Joint sealer shall be a hot 50 pen bitumen binder or cold thixtropic bitumen 50 -70 pen to be applied to all vertical cuts in accordance with B.S.594987 prior to application of bituminous materials.
- For roads without asphalt concrete surface (e.g. may be Cl.804 with double surface dressing), the
  road authority may as its discretion permit the temporary reinstatement surface of asphalt
  concrete to be regulated in lieu of excavation and reinstatement; and subsequently surface dressed.
- 10. Where required by the Road authority the trench may be reinstated with a Cement Bound Granular

- Any damaged area adjacent to the opening and resulting from the excavation operation shall be
- 6. Clause 808 or Cement Bound Granular Material surface to be sprayed per clause 920 prior to
- 9. On highly trafficked roads services must have a minimum cover of 750mm

ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AREA ENGINEERS
REQUIREMENTS AND GUIDELINES FOR MANAGING **OPENINGS IN PUBLIC ROADS** 

Note:

1. Refer to 'Guidelines for managing Openings in Public Roads (Purple Book - April 2017)',

1. Refer to 'Guidelines for managing Openings in Public Roads (Purple Book - April 2017)',

1. Refer to 'Guidelines for managing Openings in Public Roads (Purple Book - April 2017)', Chapter 6 'Specifications' for guidance on Duct type / colour and Marker Tape type / colour.

- All bound edges shall be saw cut to expose the full vertical thickness of each layer prior to excavation. All edges shall be essentially straight, smooth and vertical.
- 3. Clause 808 surface to be sprayed per clause 920 prior to application of Asphalt Concrete Layer.
- Joint sealer shall be a hot 50 pen bitumen binder or cold thixotropic bitumen 50-70 pen to be applied to all vertical cuts in accordance with B.S. 594987 prior to application of bituminous materials.
- . Licence holder must maintain temporary reinstatement to a safe and acceptable standard.
- Any damaged area adjacent to the opening and resulting from the excavation operation shall be included within the area to be reinstated.
- Temporary Road Surface warning signs must be used in accordance with the Traffic Signs Manual (Chaper 8 - Temporary Traffic Measures and Signs for Roadworks).
- Refer to detail Permanent Reinstatement of Road for advice on permanent reinstatement all permanent reinstatement shall be carried out when adequate settlement has occurred as determined by the Road Authority.

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**Sheskin South Wind** Farm 110kV Grid Connection



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- This drawing is to be read in conjunction with relevant drawings, specifications and reports
  Dimensions are in millimeters, unless noted otherwise
- Drawings are not to be scaled use figured dimensions only Geogrid may be implemented along the cable trench route where deemed necessary by the contractor or as required by Mayo County Council

LEGEND:

ISSUE/REVISION

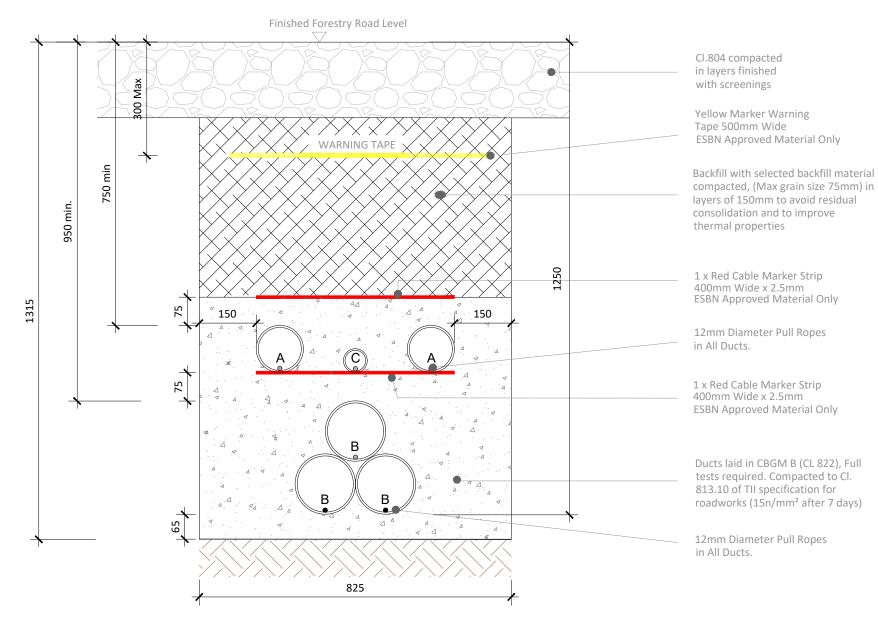
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	I/R	DATE	DESCRIPTION

PROJECT NUMBER

SHEET TITLE

**Ducting Through Roadways** 

SHEET NUMBER



A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6 B= 160mm: Outer Diameter HDPE ESB Approved Duct, SDR= 21 C = 63mm: ECC Earth Continuity Conductor

### **Section Through Forestry Road**

**SCALE 1:10** 

ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LANDOWNERS REQUIREMENTS

### Note:

- This drawing is to be read in conjunction with relevant drawings, specifications and reports
- Dimensions are in millimeters, unless noted otherwise
- Drawings are not to be scaled use figured dimensions only



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PROJECT

Sheskin South Wind Farm 110 kV Grid Connection

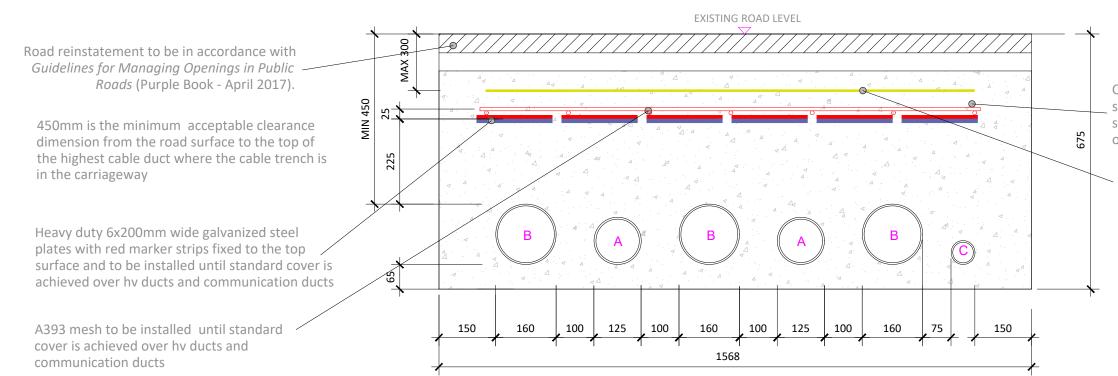
PROJECT NUMBER 05-796

SHEET NUMBER 05796-DR-118

SHEET TITLE

Ducting through Forestry Road

ISSU	E/REVISION	
F00	23.06.22	Issued for Information
I/R	DATE	DESCRIPTION



C25/30 concrete to be in accordance with specification for road works 1000. 20mm max size of aggregate, with minimum duct spacing of 75mm. Min. cover to steel - 50mm.

4 X 400mm ESBN yellow warning tape across full width of trench

A = 125mm: Outer Diameter HDPE ESB Approved Duct, SDR=17.6

B= 160mm : Outer Diameter HDPE ESB Approved Duct, SDR=21

C = 63mm: ECC Earth Continuity Conductor

### **Section Through Ducting in Flat Formation**

**SCALE 1:10** 

### Note:

- This drawing is to be read in conjunction with relevant drawings, specifications and reports
- Dimensions are in millimeters, unless noted otherwise
- Drawings are not to be scaled use figured dimensions only

ALL REINSTATEMENT WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AREA ENGINEERS LANDOWNERS REQUIREMENTS AND GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS



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PROJECT

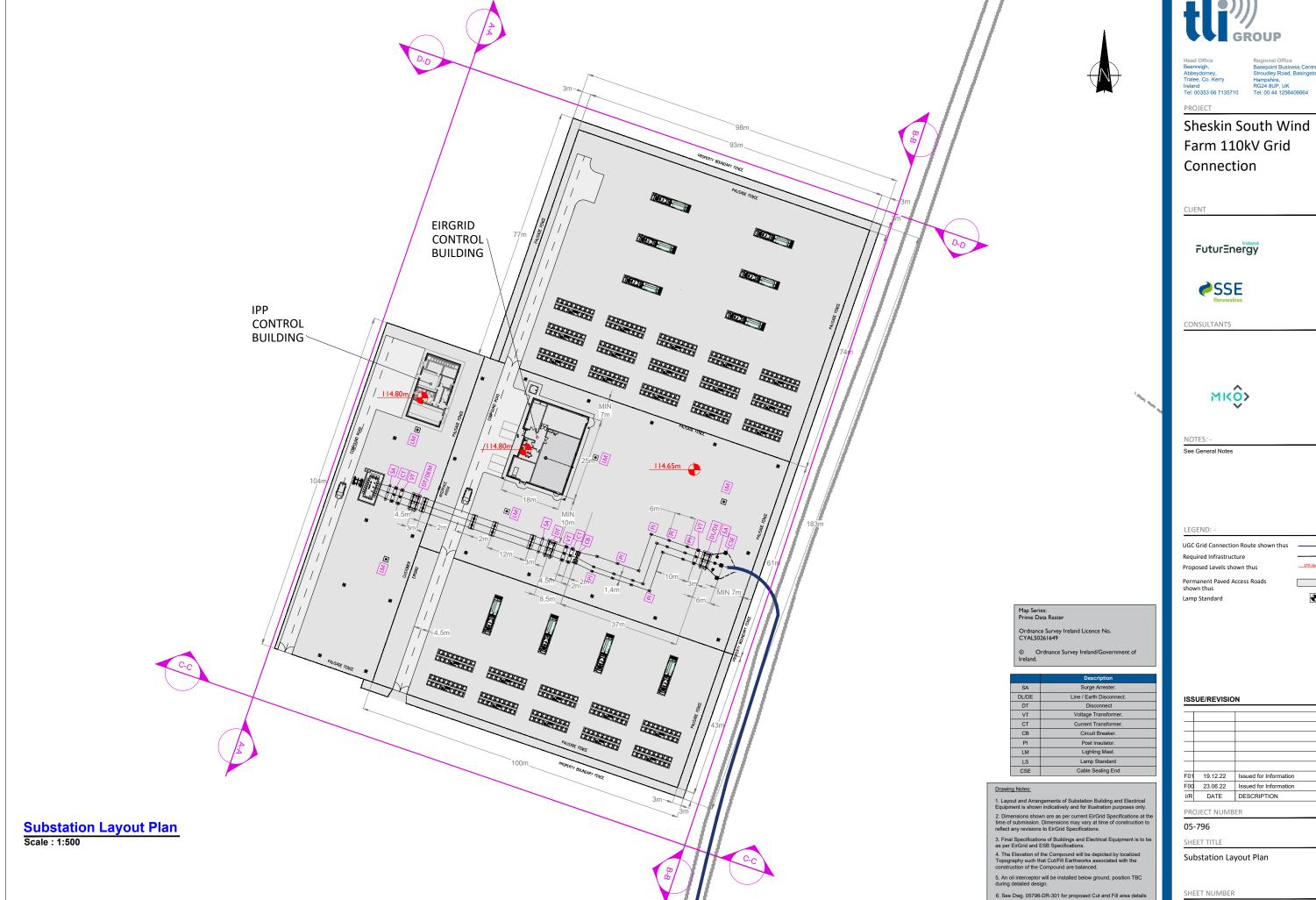
Sheskin South Wind Farm 110 kV Grid Connection

PROJECT NUMBER 05-796

SHEET NUMBER **05796-DR-119** 

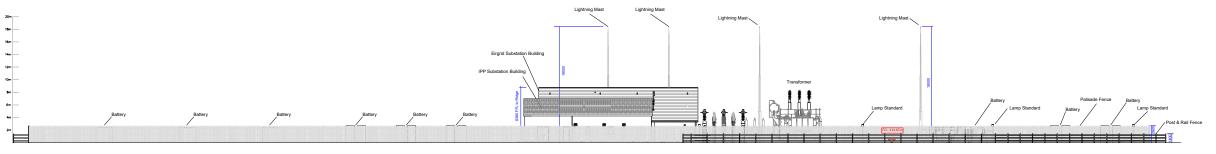
SHEET TITLE
Section Through Ducting
in Flat Formation

ISSUE/REVISION		
F00	23.06.22	Issued for Information
I/R	DATE	DESCRIPTION

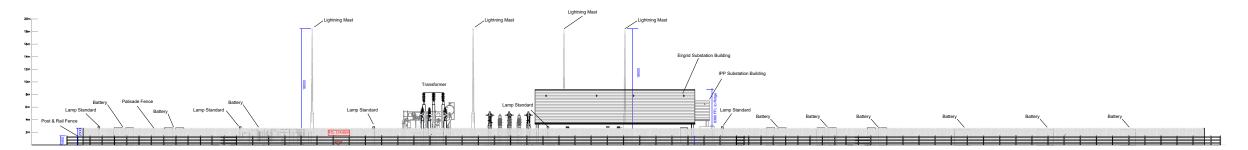




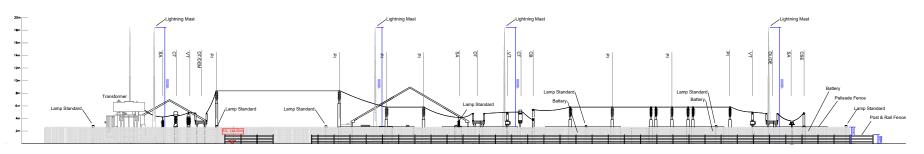
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F00	23.06.22	Issued for Information
I/R	DATE	DESCRIPTION



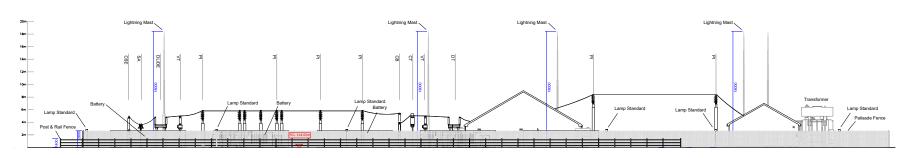
## Scale 1:200



## Scale 1:200



# Scale 1:200



### **Section D-D Elevation**



### **Sheskin South Wind** Farm 110kV Grid Connection



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- Layout and Arrangements of Substation Building and Electrical Equipment is shown indicatively and for illustration purposes only

- LEGEND: -

	Description			
SA	Surge Arrester.			
DL/DE	Line / Earth Disconnect.			
DT	Disconnect			
VT	Voltage Transformer.			

SA	Surge Arrester.
DL/DE	Line / Earth Disconnect.
DT	Disconnect
VT	Voltage Transformer.
CT	Current Transformer.
СВ	Circuit Breaker.
PI	Post Insulator.
LM	Lighting Mast.
LS	Lamp Standard
CSE	Cable Sealing End

#### ISSUE/REVISION

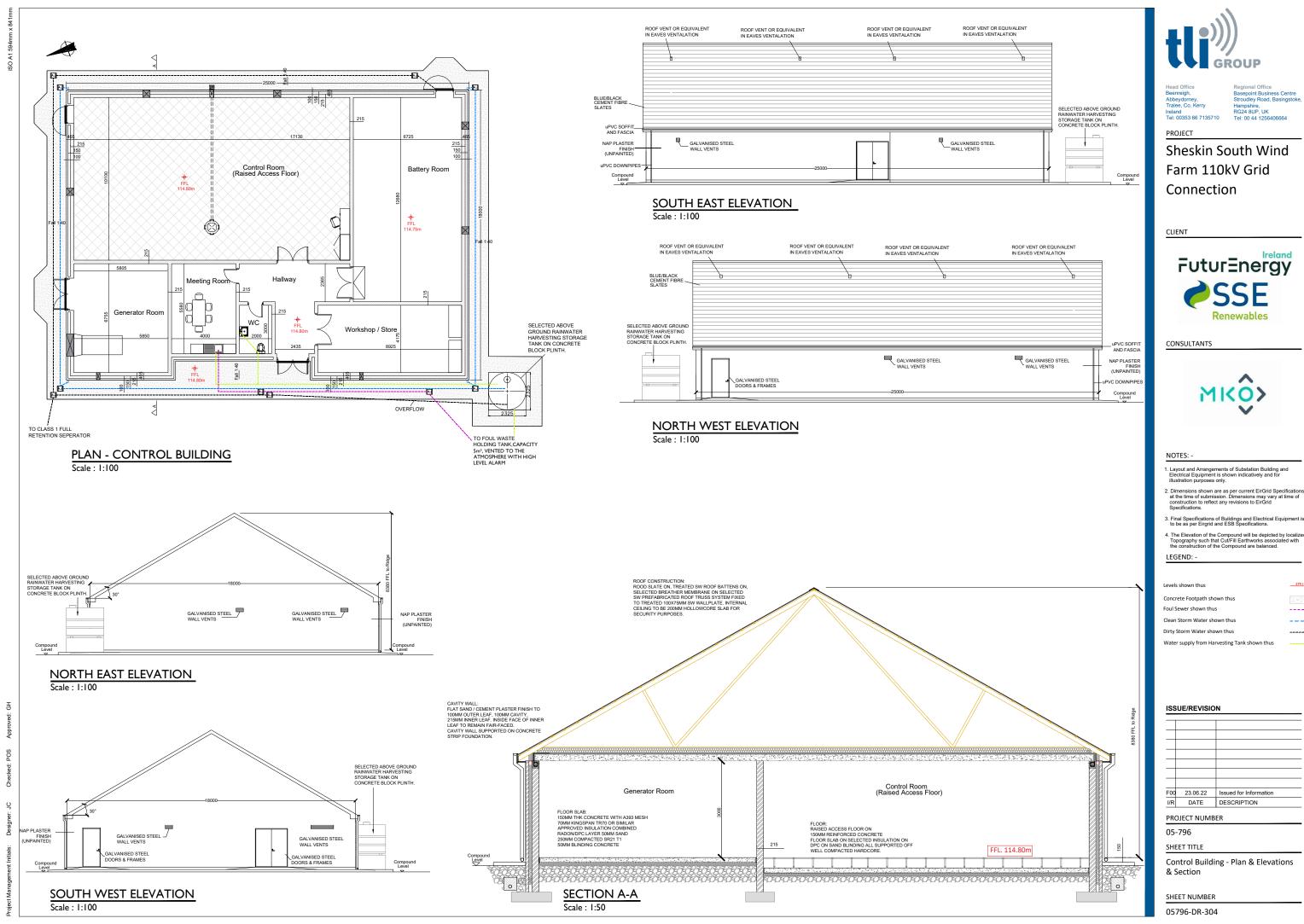
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F00	23.06.22	Issued for Information
I/R	DATE	DESCRIPTION

PROJECT NUMBER

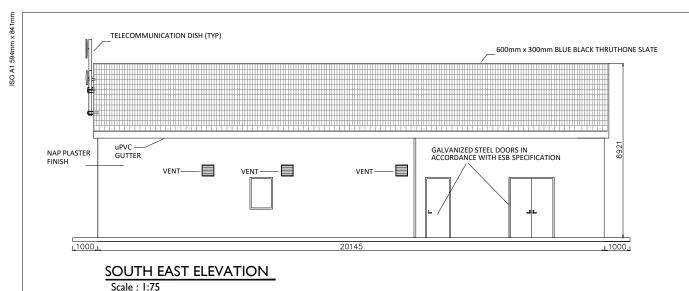
05-796

SHEET TITLE

**Substation Compound Elevations** 



Basepoint Business Centre Stroudley Road, Basingstoke



NAP PLASTER FINISH

MOVEMENT JOINT

NAP PLASTER FINISH

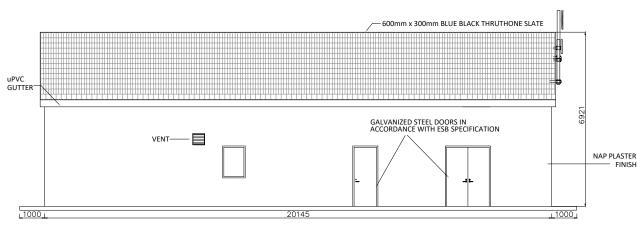
1000

10740

1000

SOUTH WEST ELEVATION

Scale: 1:75



NAP PLASTER
FINISH

VENTS

VENTS

VENTS

VENTS

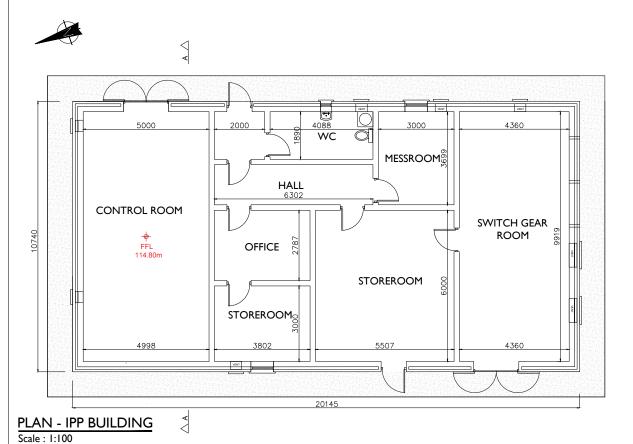
VENTS

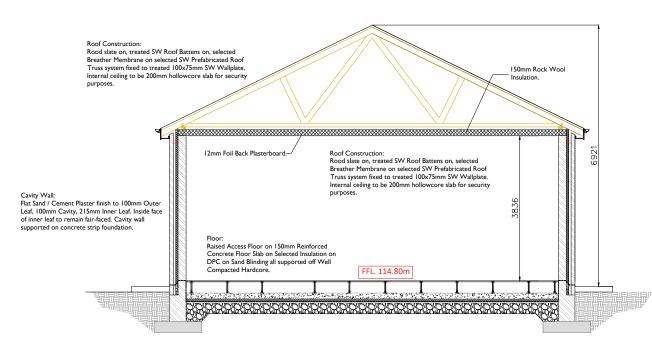
VENTS

NORTH WEST ELEVATION

Scale: 1:75

NORTH EAST ELEVATION
Scale: 1:75





Scale: 1:50



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PROJECT

Sheskin South Wind Farm 110kV Grid Connection

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NOTES:

- Layout and Arrangements of Substation Building and Electrical Equipment is shown indicatively and for illustration purposes only.
- Dimensions shown are as per current EirGrid Specifications at the time of submission. Dimensions may vary at time of construction to reflect any revisions to EirGrid Specifications.
- Final Specifications of Buildings and Electrical Equipment is to be as per Eirgrid and ESB Specifications.
- The Elevation of the Compound will be depicted by localizer Topography such that Cut/Fill Earthworks associated with the construction of the Compound are balanced.

LEGEND: -

Levels shown thus

Concrete Footpath shown thus

Foul Sewer shown thus

Clean Storm Water shown thus

ISSUE/REVISION

Dirty Storm Water shown thus

Water supply from Harvesting Tank shown thus

F00	23.06.22	Issued for Information		
I/R	DATE	DESCRIPTION		

PROJECT NUMBER

05-796

SHEET TITLE

IPP Building - Plan & Elevations & Section

SHEET NUMBER