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- KEY**
- SURFACE WATER SEWER - YORKSHIRE WATER
 - SURFACE WATER SEWER - BMBC
 - COMBINED SEWER - YORKSHIRE WATER
 - COMBINED SEWER - BMBC
 - - YW - - MISSING YW COMBINED SEWER
 - - YW - - MISSING YW SURFACE WATER SEWER
 - - RISING - - MISSING YW MAIN
 - CONNECTION
 - ADDITIONAL INFORMATION REQUIRED

P01	19/03/24	First Revision	LB	CK	VB
Rev	Date	Description	Drawn	Check	App'd
S3		Drawing status: Suitable for Review and Comment			4

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Metropolitan Borough Council

Project Title
A635 Bus Rapid Transfer Route

Drawing Title
**Drainage Network
Sheet 6 of 9**

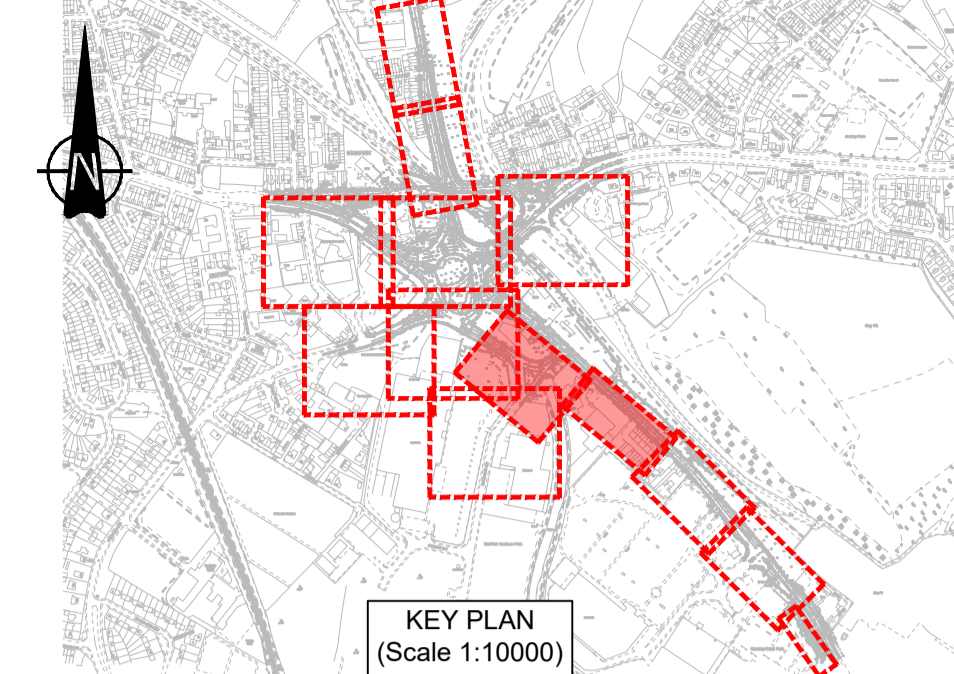
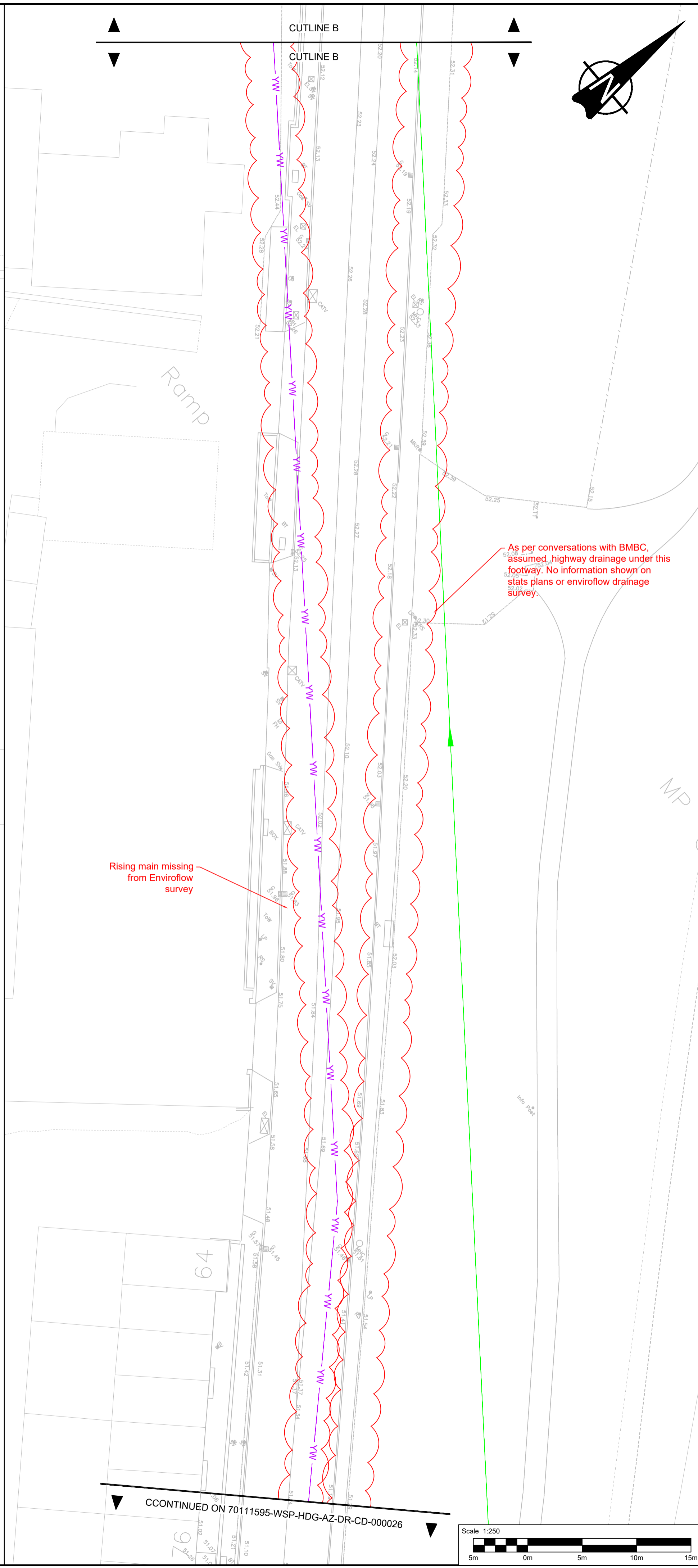
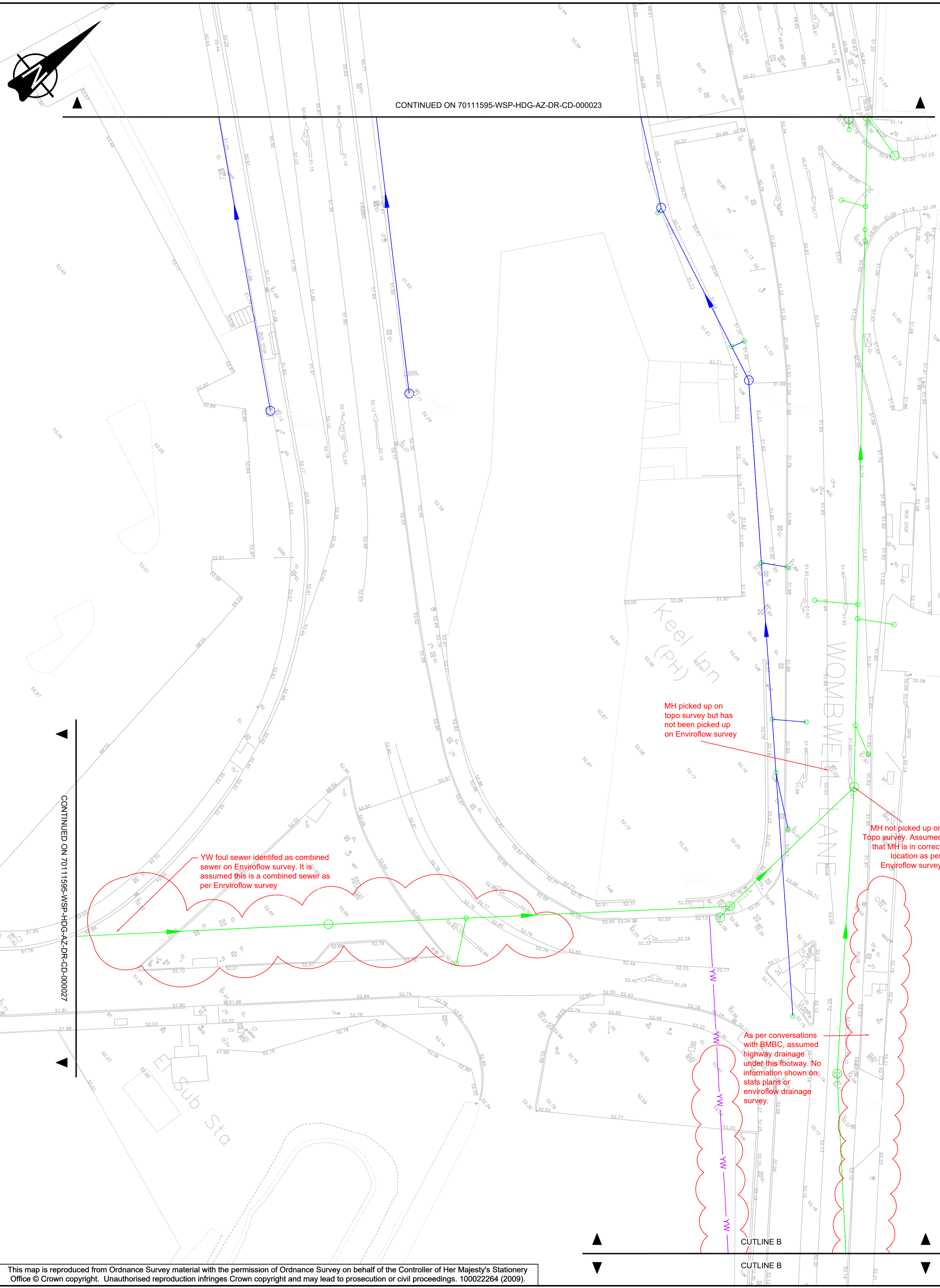
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Project No: 70111595	Designed: L.Brown	Drawn: L.Brown	Rev: P01

Drawing Number:
70111595-WSP-HDG-AZ-DR-CD-000024

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 - MISSING YW SURFACE WATER SEWER
 - MISSING YW MAIN
 - CONNECTION
 - ADDITIONAL INFORMATION REQUIRED

YW foul sewer identified as combined sewer on Enviroflow survey. It is assumed this is a combined sewer as per Enviroflow survey

MH picked up on topo survey but has not been picked up on Enviroflow survey

MH not picked up on Topo survey. Assumed that MH is in correct location as per Enviroflow survey

Rising main missing from Enviroflow survey

As per conversations with BMBC, assumed highway drainage under this footway. No information shown on stats plans or enviroflow drainage survey.

As per conversations with BMBC, assumed highway drainage under this footway. No information shown on stats plans or enviroflow drainage survey.

Rev	Date	Description	Drawn	Check	App'd
P01	19/03/24	First Revision	LB	CK	VB
S3		Drawing status: Suitable for Review and Comment			4

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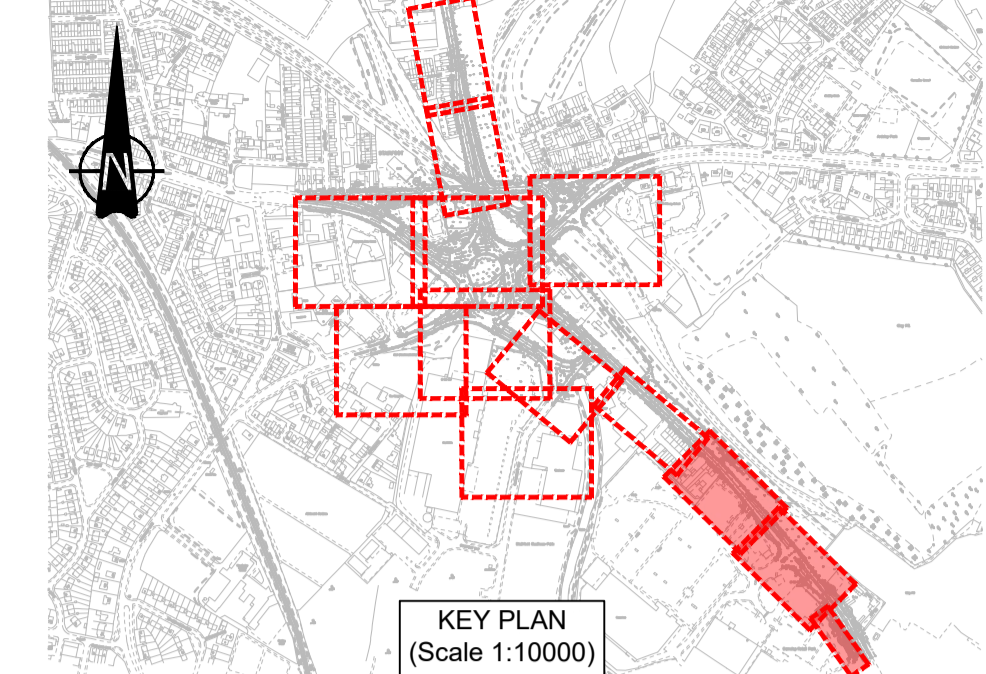
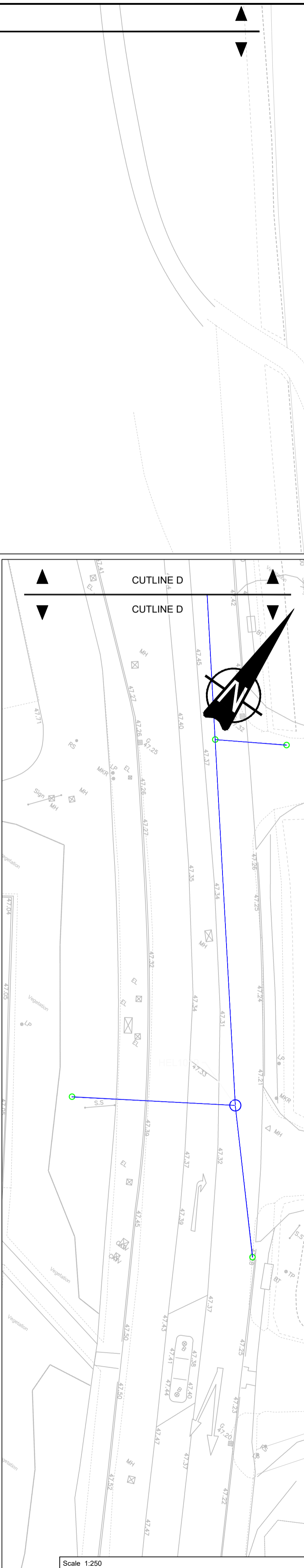
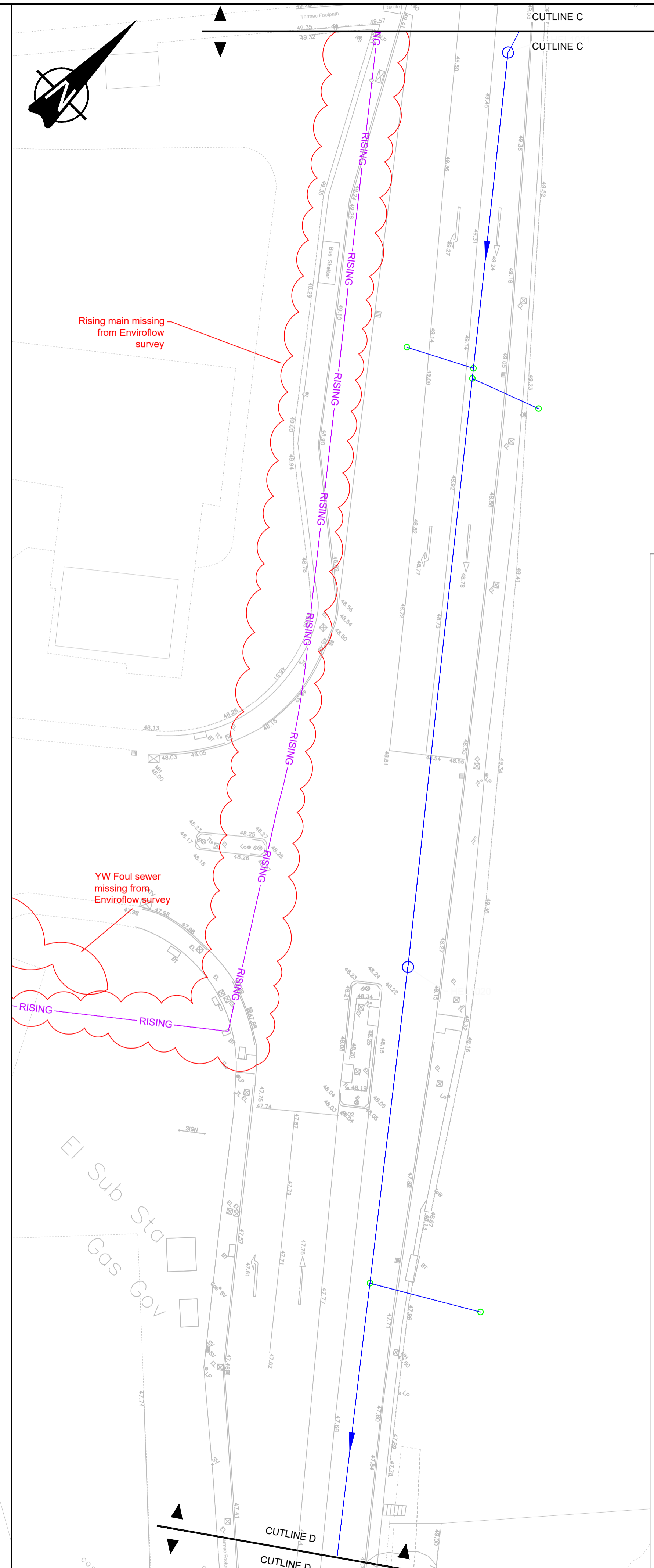
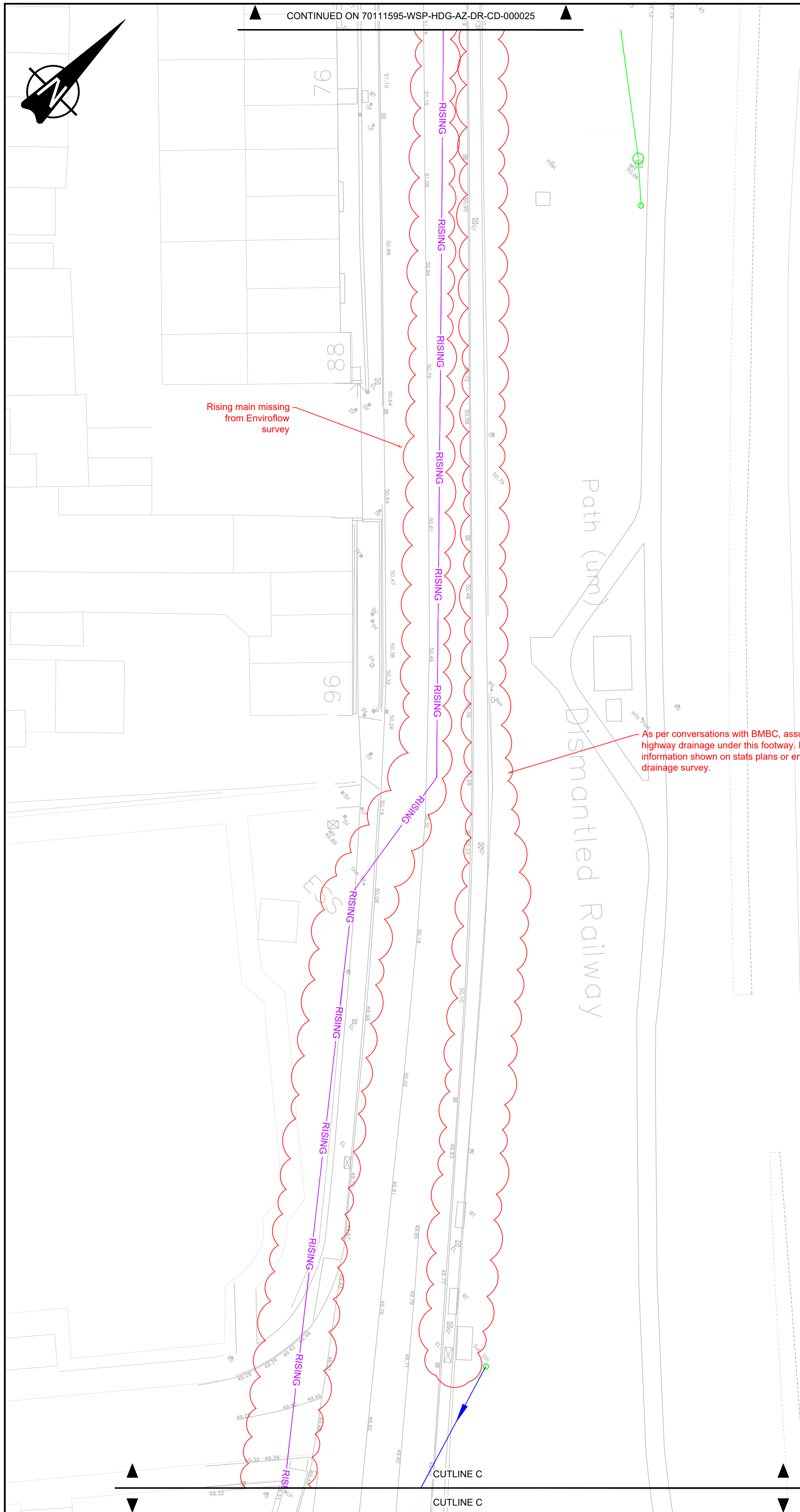
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Sheet 7 of 9

Scale@A1: 1:250	Checked: C.Kirk	Approved: V.Belton	Date: 19/03/24
Project No: 70111595	Designed: L.Brown	Drawn: L.Brown	Rev: P01

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 - CONNECTION
 - ADDITIONAL INFORMATION REQUIRED

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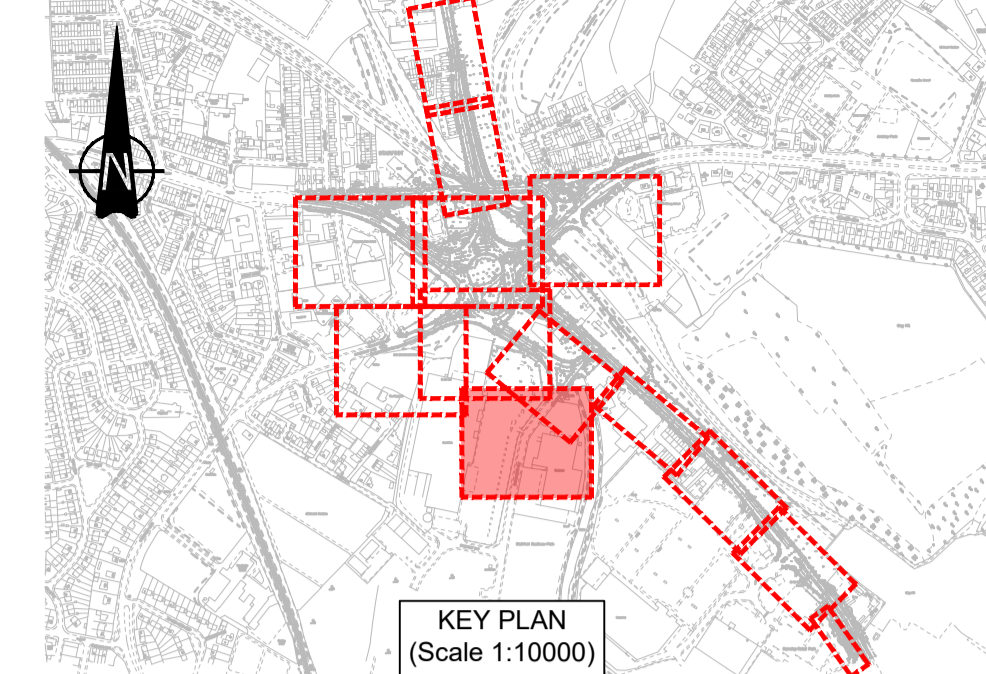
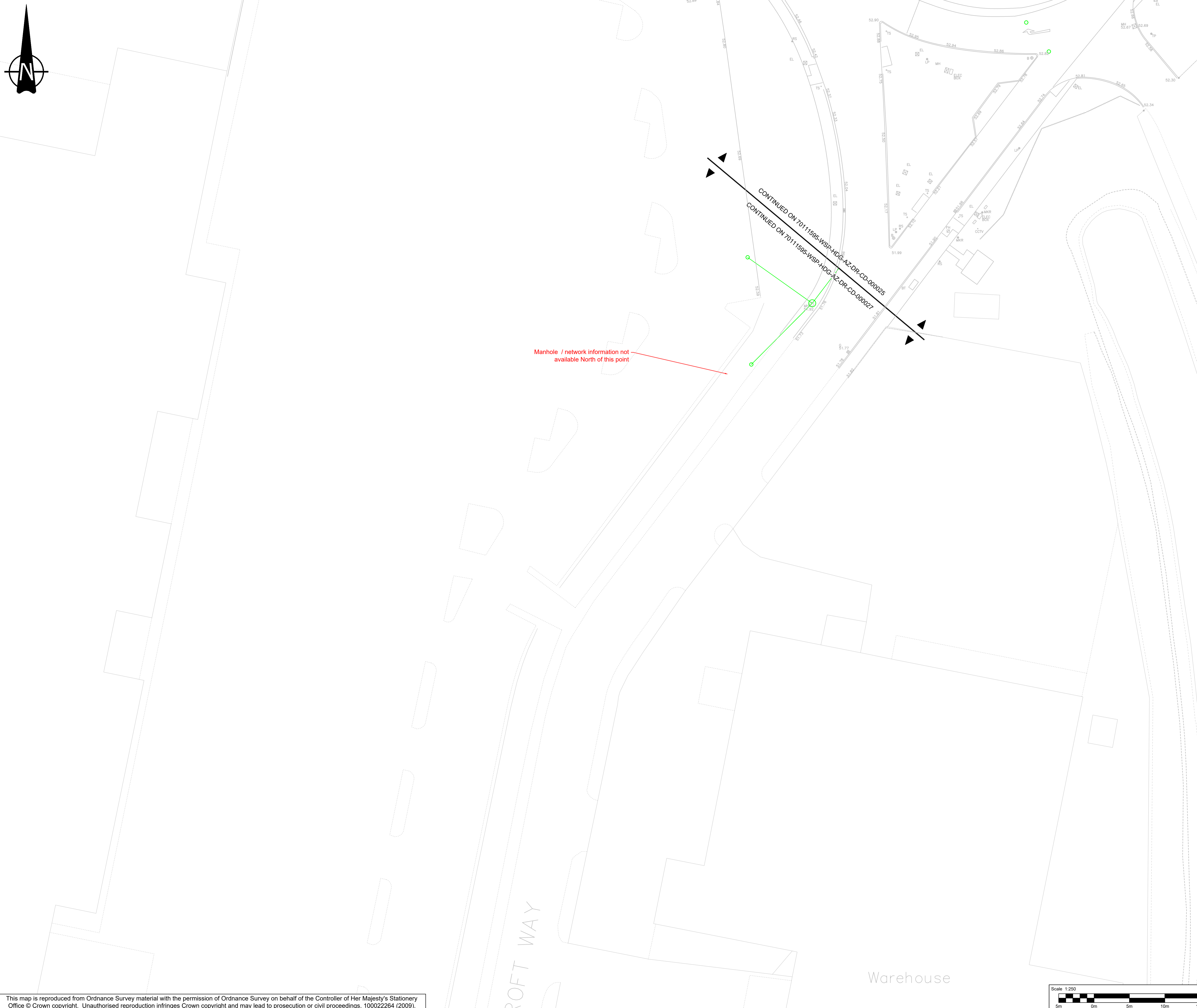
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Scale@A1: 1:250	Checked: C.Kirk	Approved: V.Belton	Date: 19/03/24
Project No: 70111595	Designed: L.Brown	Drawn: L.Brown	Rev: P01

Drawing Number: **70111595-WSP-HDG-AZ-DR-CD-000026**

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	MISSING YW MAIN
	CONNECTION
	ADDITIONAL INFORMATION REQUIRED

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Status code: S3 Drawing status: Suitable for Review and Comment Stage: 4

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Project Title: A635 Bus Rapid Transfer Route

Drawing Title: Drainage Network
Sheet 9 of 9

Scale@A1: 1:250	Checked: C.Kirk	Approved: V.Belton	Date: 19/03/24
Project No: 70111595	Designed: L.Brown	Drawn: L.Brown	Rev: P01

Drawing Number: 70111595-WSP-HDG-AZ-DR-CD-000027

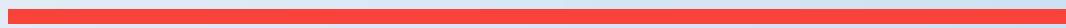
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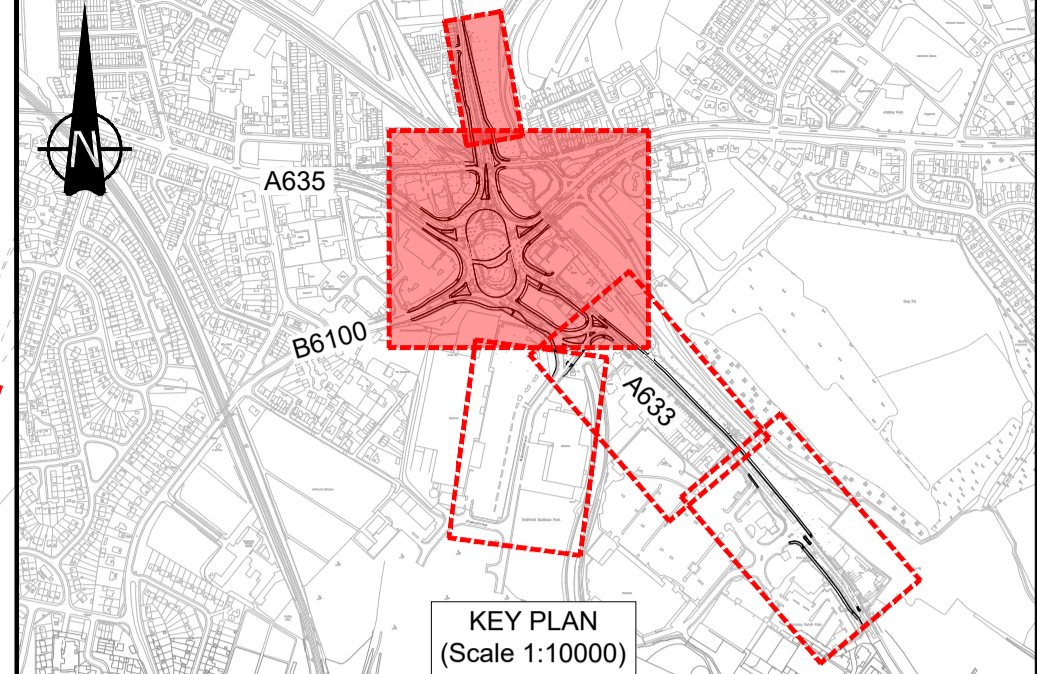
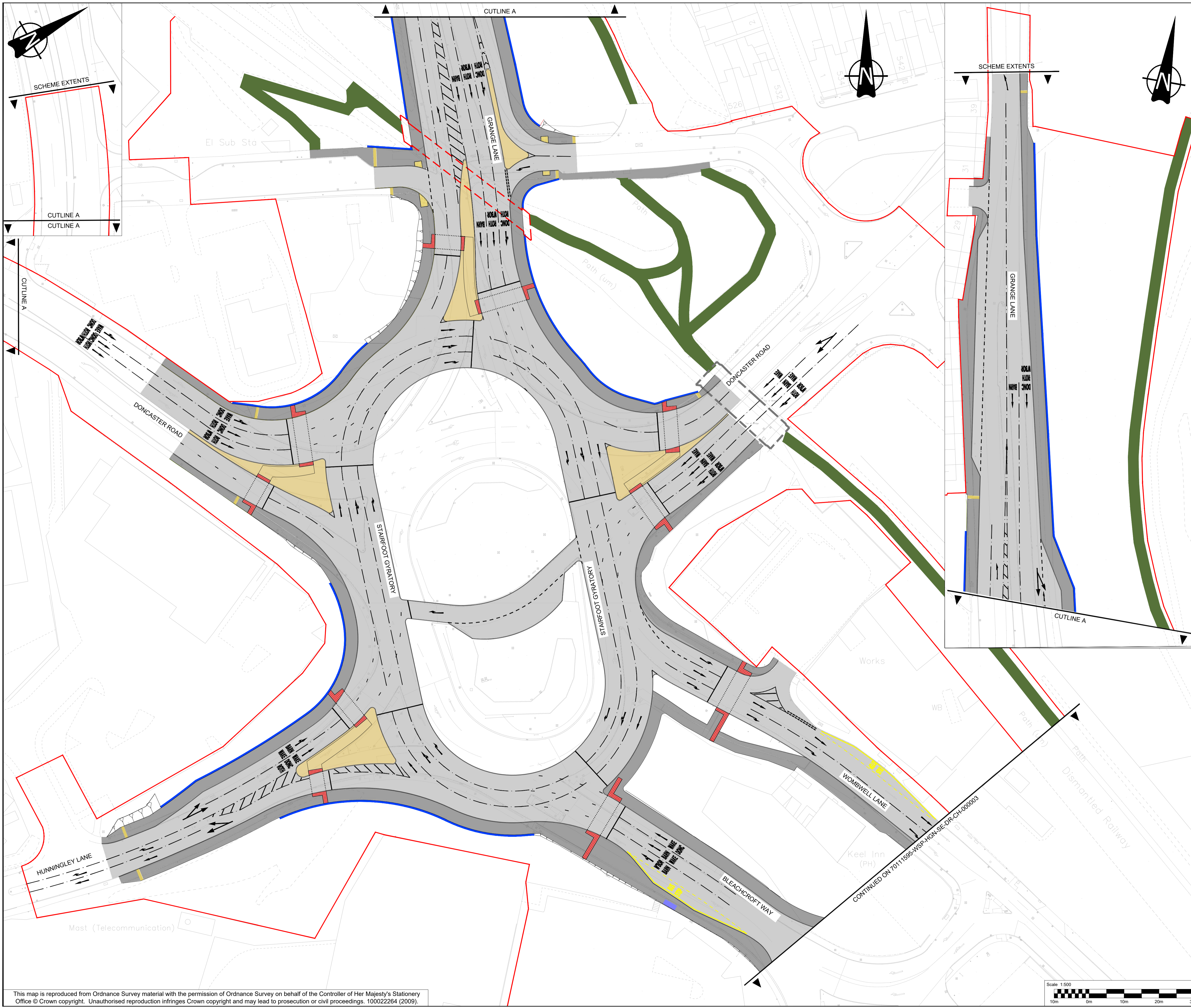
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Appendix B

DESIGN FIX 0 GENERAL
ARRANGEMENT





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 - EARTHWORKS
 - EXISTING STRUCTURE
 - PROPOSED STRUCTURE
 - RETAINING WALL
 - ROAD MARKING
 - BUS SHELTER

Rev	Date	Description	Drawn	Check	App'd	
P01	06/12/23	Design Fix 0		AW	BM	LB
P02	22/12/23	DESIGN FIX 0 - REVISED TO ADDRESS CLIENT COMMENTS		KK	BM	LB
P03	30/04/24	DESIGN FIX 2		DW	LB	IA

Status code:	Drawing status:	Stage:
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Project Title

A635 Bus Rapid Transfer Route

Drawing Title

**General Arrangement
Sheet 1 of 2**

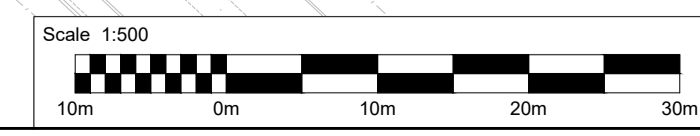
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Project No:	Designed:	Drawn:	Rev:
70111595	A.Wallace	D.Williams	P03

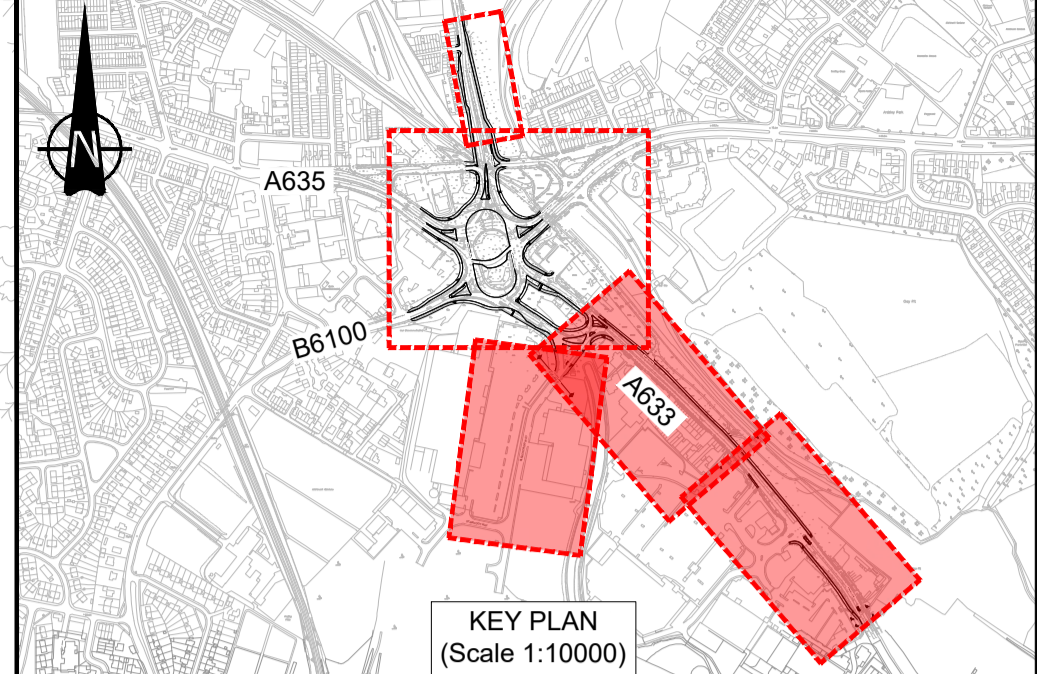
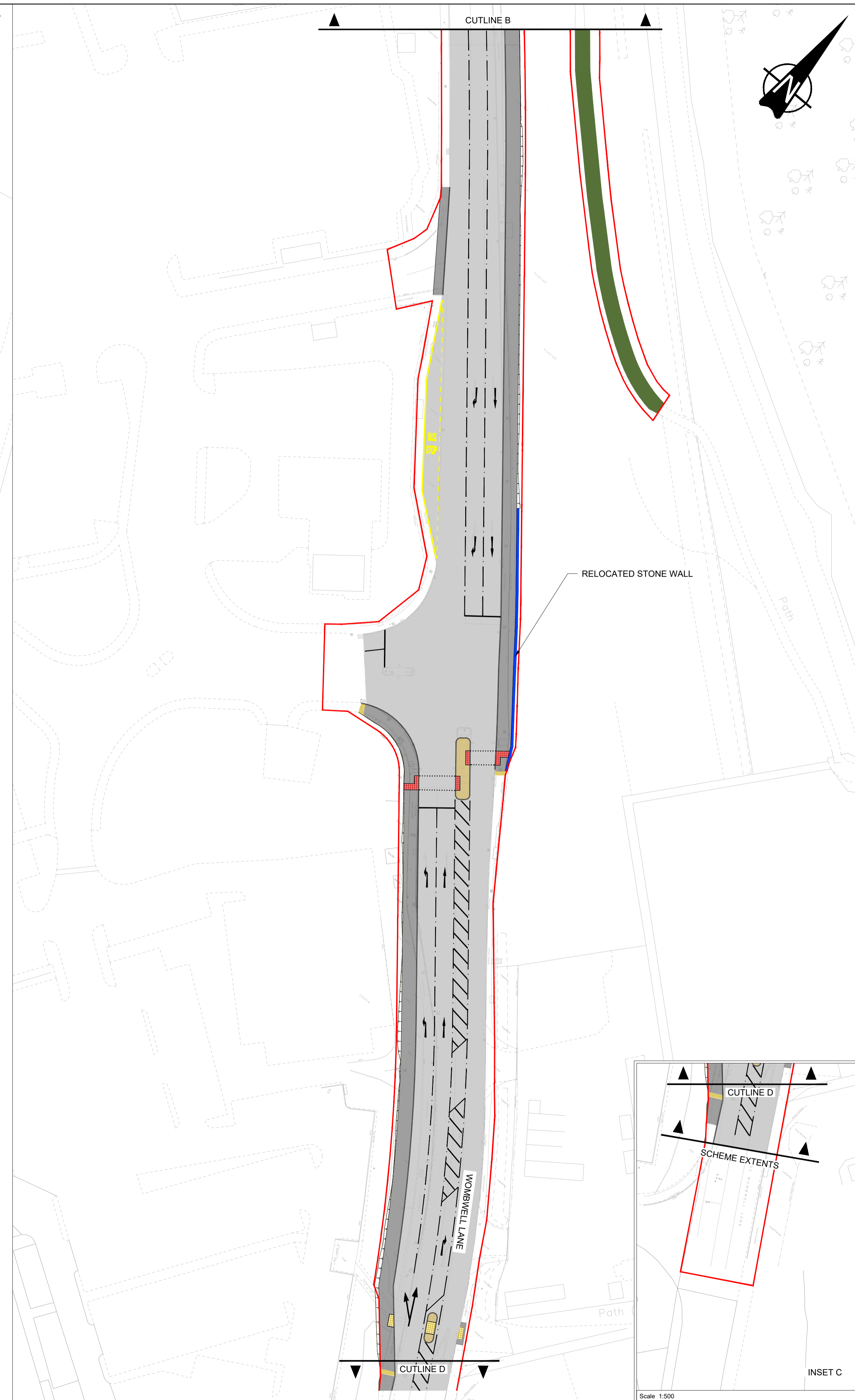
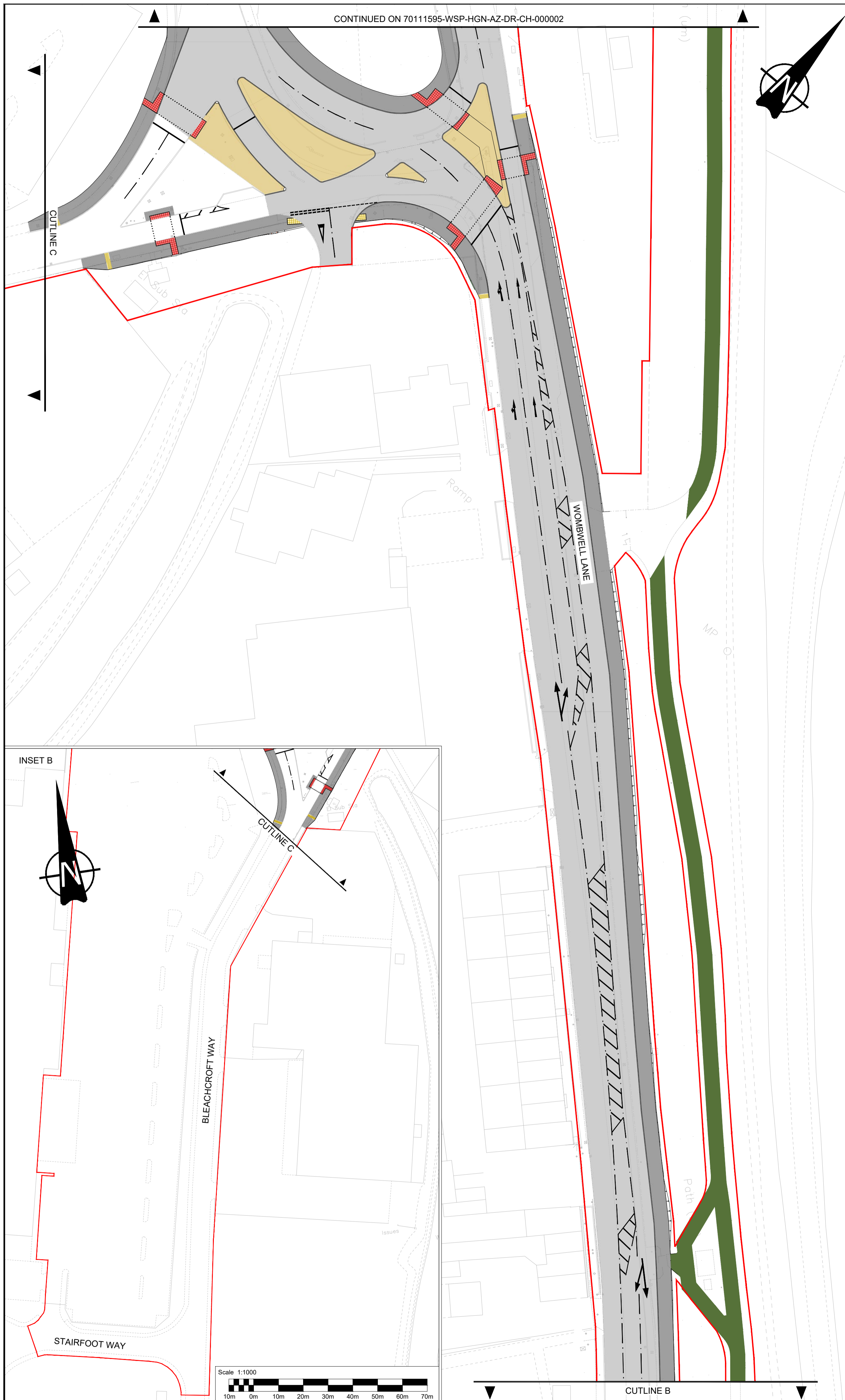
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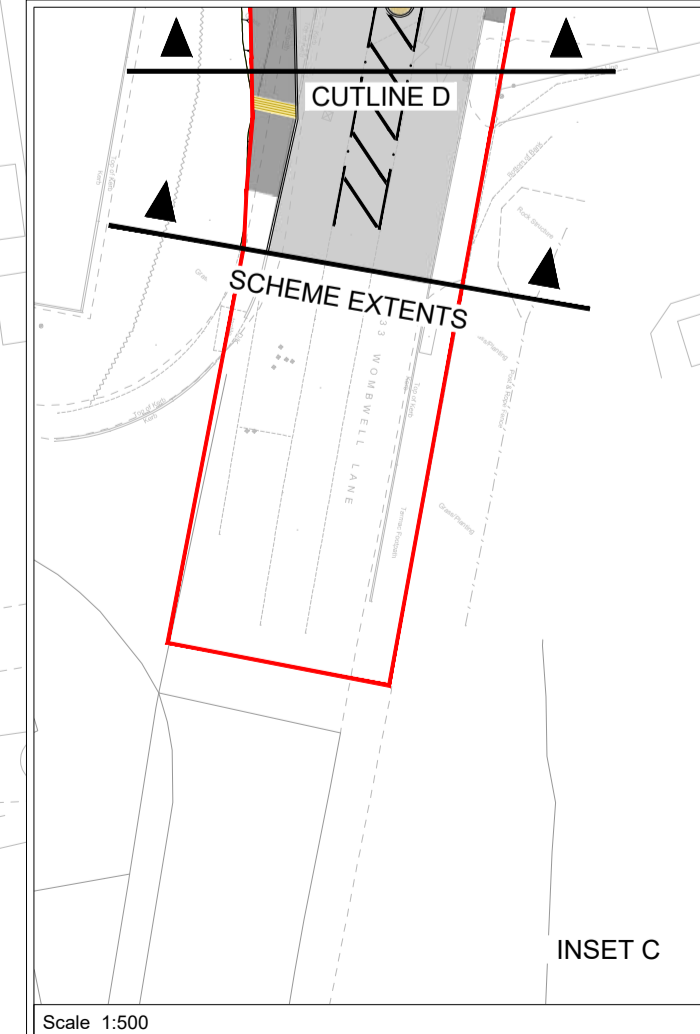
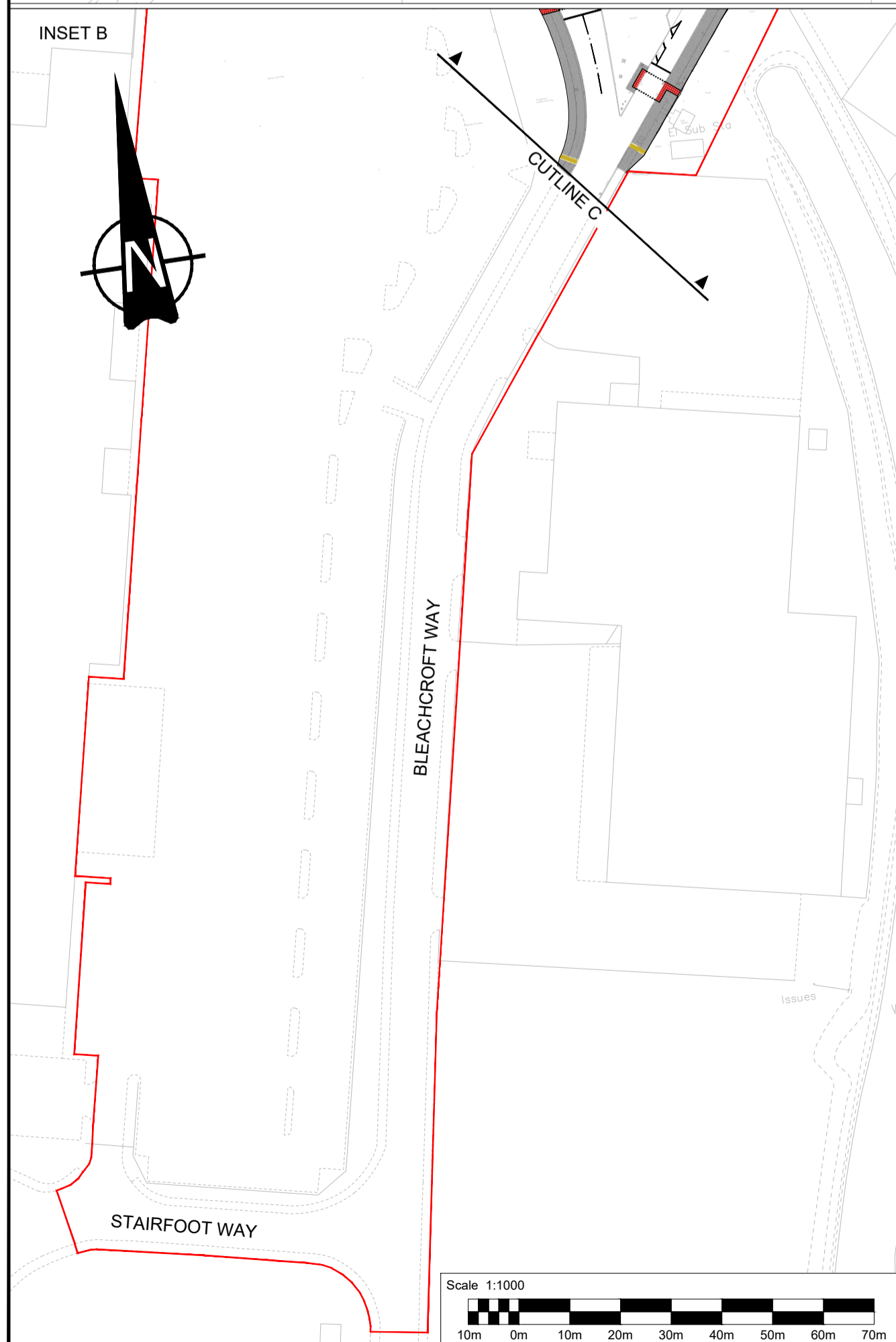
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 - CORDUROY PAVING (BUFF)
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 - PROPOSED STRUCTURE
 - RETAINING WALL
 - ROAD MARKING
 - BUS SHELTER



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P02	22/12/23	DESIGN FIX 0 - REVISED TO ADDRESS CLIENT COMMENTS				KK	BM	LB
P03	30/04/24	DESIGN FIX 2				DW	LB	IA
Rev	Date	Description	Drawn	Check	App'd			

Status code: S1 Drawing status: Suitable for Coordination Stage: 4

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Project Title: **A635 Bus Rapid Transfer Route**

Drawing Title: **General Arrangement Sheet 2 of 2**

Scale@A1: As shown	Checked: L.Basterfield	Approved: I.Akram	Date: 30/04/24
Project No: 70111595	Designed: A.Wallace	Drawn: D.Williams	Rev: P03

Drawing Number: **70111595-WSP-HGN-AZ-DR-CH-000003**

Appendix C

DRAINAGE EMAIL CONVERSATION



Basterfield, Luke

From: Rowlands , Jake (PROJECT MANAGER) <JakeRowlands@barnsley.gov.uk>
Sent: 17 October 2023 14:06
To: Basterfield, Luke
Cc: Jones , Andrew (GROUP LEADER HIGHWAY DESIGN)
Subject: FW: A635 - Drainage Queries
Attachments: BCD5913-CKDB.pdf; BCD500A-Sewers Bedding & backfill.pdf; BCD510D-Connection to Existing Drain.pdf; BCD511C-Connection to manholes.pdf; BCD525D-Back Drop MH.pdf; BCD530D-Gullies Group 1.pdf; BCD531C-Gullies Group 2.pdf; BCD570C-Trench Backfill - Service Support.pdf; BCD571B-Trench Reinstatement.pdf; BCD5900-CKDB.pdf; BCD5901-CKDB.pdf; BCD5902-CKDB.pdf; BCD5903-CKDB.pdf; BCD5904-CKDB.pdf; BCD5905-CKDB.pdf; BCD5906-CKDB.pdf; BCD5907-CKDB.pdf; BCD5908-CKDB.pdf; BCD5909-CKDB.pdf; BCD5910-CKDB.pdf; BCD5911-CKDB.pdf; BCD5912-CKDB.pdf; DR-SK-003 - Stairfoot Roundabout - Existing Manhole Locations - P2.pdf; DR-SK-002 - Stairfoot Roundabout - Known Existing Drainage Apparatus.pdf

Afternoon Luke

Do you want a Drainage meeting late this week/early next week?

Please see responses in red:

- Please can we have a copy of BMBC standard details.

See examples attached, further details can be made available upon request, just let me know what is required

- Is it possible to get details of the proposed drainage survey that is being procured, this will allow us to review and see if all information we need is received.

Copy of drawings attached showing Manholes and drain runs to be surveyed.

- Details of the outfalls into the River Dearne. This may be covered in the drainage survey.

It is believed that the Highway Drainage system outfalls to the Public Sewer system not the River Dearne, this will be confirmed once the survey is complete

- Standards to be designed to – Assume this will be the DMRB.

Correct DMRB except that criteria for no flooding from the Highway Drainage system should be 1 in 10 years not 1 in 5.

- Any Information pertaining to any departures they may have already identified.

None as yet

- Is there any template available for WSP to use for any departures required.

We don't have a preferred format. I have asked Highways DC if they have an example of something you could adopt, or you could use the Welsh/ Scottish format as a guide, or a format that WSP have previously used. Key is to ensure that a check and challenge approach is incorporated.

- Confirm climate change uplift required:
 - Percentage uplift required.

Initial discussions with the LLFA suggest Climate change uplift should be 30% i.e 100 year Storm +30%, however, confirmation of this and any other LLFA requirements should be sought at an early stage.

- Would this be on the “new” pavement area only (ie the difference between existing impermeable area and proposed).
- Or would this be on the whole of the impermeable area. Note that this would mean considerable attenuation storage.

Initial discussions with the LLFA suggest Climate change uplift should be 30% i.e 100 year Storm +30% for the whole site, however, confirmation of this and any other LLFA requirements should be sought at an early stage.

- Any preference on attenuation storage type. Some local authorities might prefer oversized pipes rather than ponds or stormcell type features

Attenuation storage should preferably be oversized pipes, box culverts or pond dependent upon storage volume requirements and land availability, Stormcell or similar is not acceptable.

- Any requirements/preference on drainage collection type – gullies or CKD?

Gullies are preferable dependant upon spacing requirements, we can discuss this at our meeting

- Will BMBC be appointing a TA for drainage? Who is the approver.

Wayne Atkins – wayneatkins@barnsley.gov.uk, tel: 07748181374

Jake Rowlands

Project Manager

Strategic Transport

Growth & Sustainability

Barnsley Council

Mobile: 07561516162

E: jakerowlands@barnsley.gov.uk

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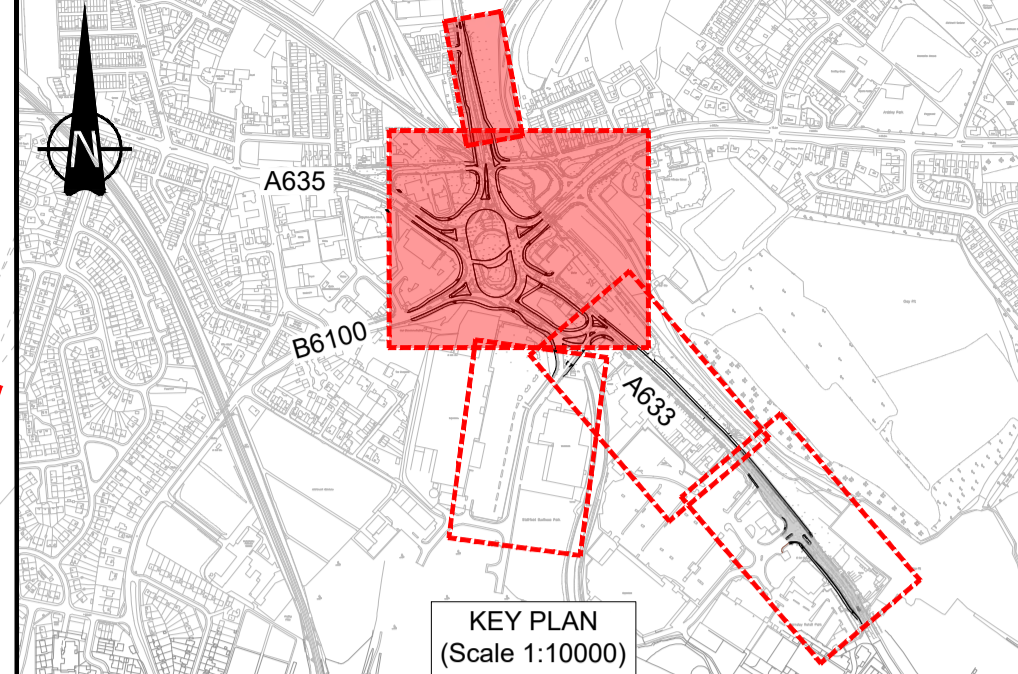
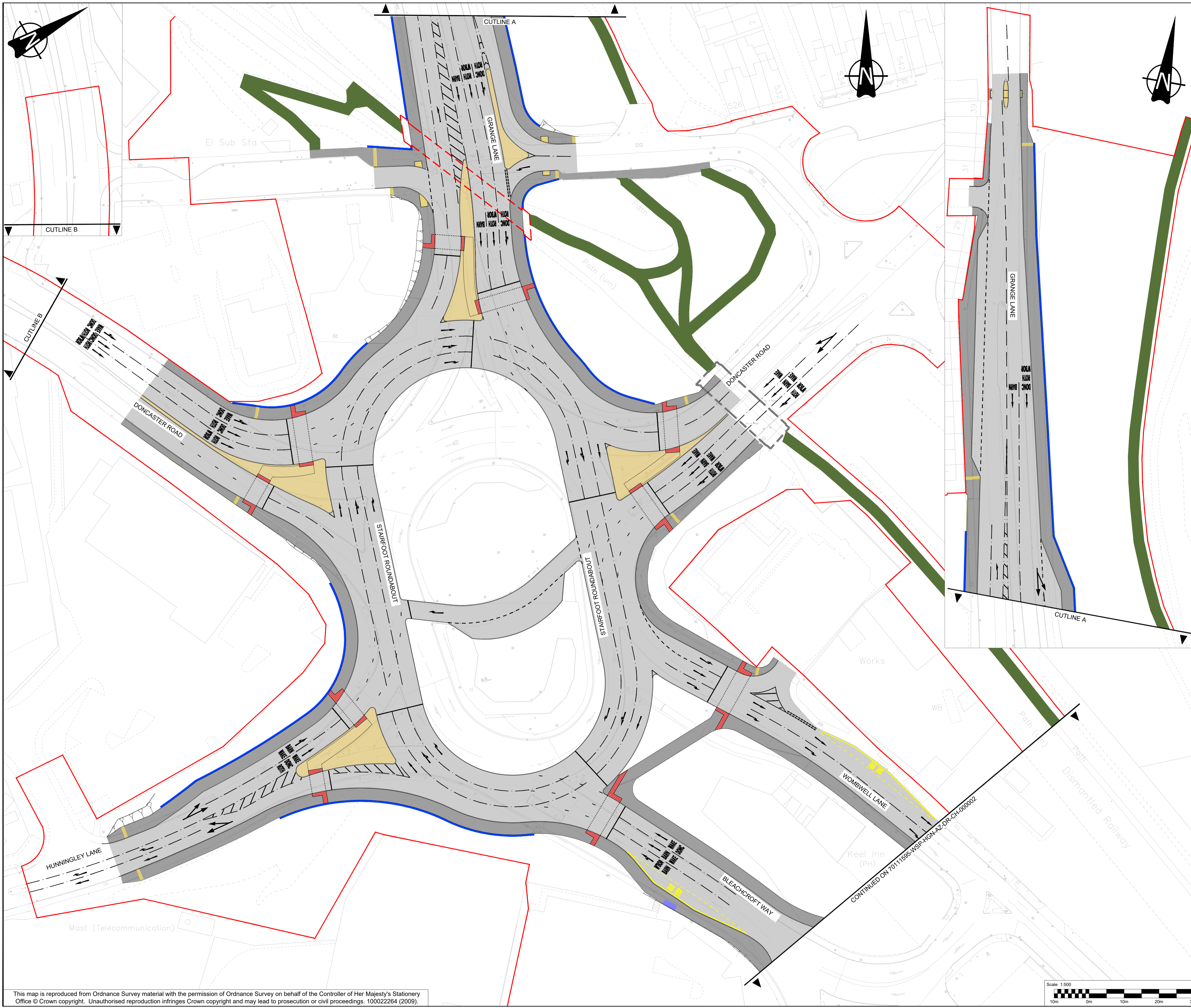
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Appendix B

GENERAL ARRANGEMENT PLAN





- NOTES:**
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P03	30/04/24	DESIGN FIX 2	DW	LB	IA
P04	18/06/24	DESIGN FIX 2 - REVISED TO ADDRESS CLIENT COMMENTS	KK	BM	LB

Status code:	Drawing status:	Stage:
S1	Suitable for Coordination	4

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Project Title

A635 Bus Rapid Transit Route

Drawing Title

General Arrangement
Sheet 1 of 2

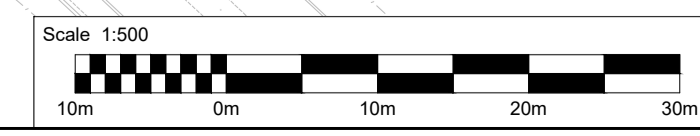
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Project No:	70111595	Designed:	A.Wallace	Drawn:	K.Krishnan	Rev:	P04

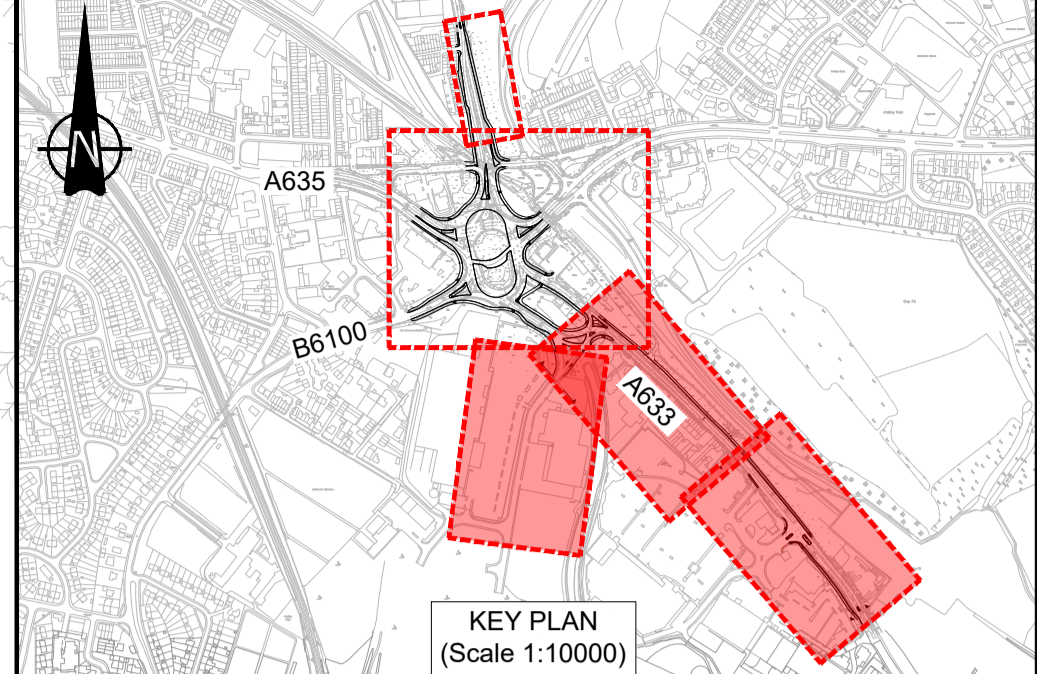
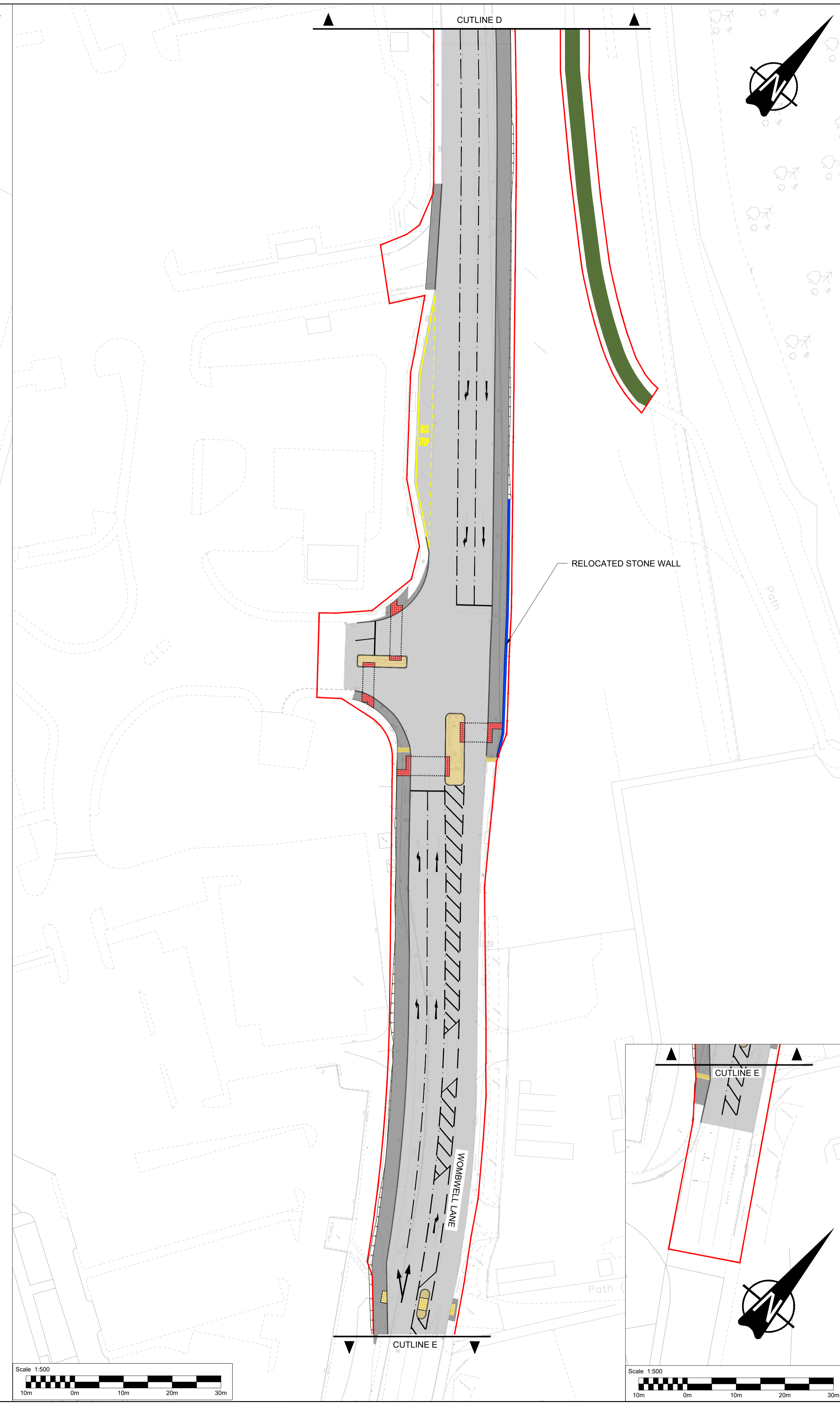
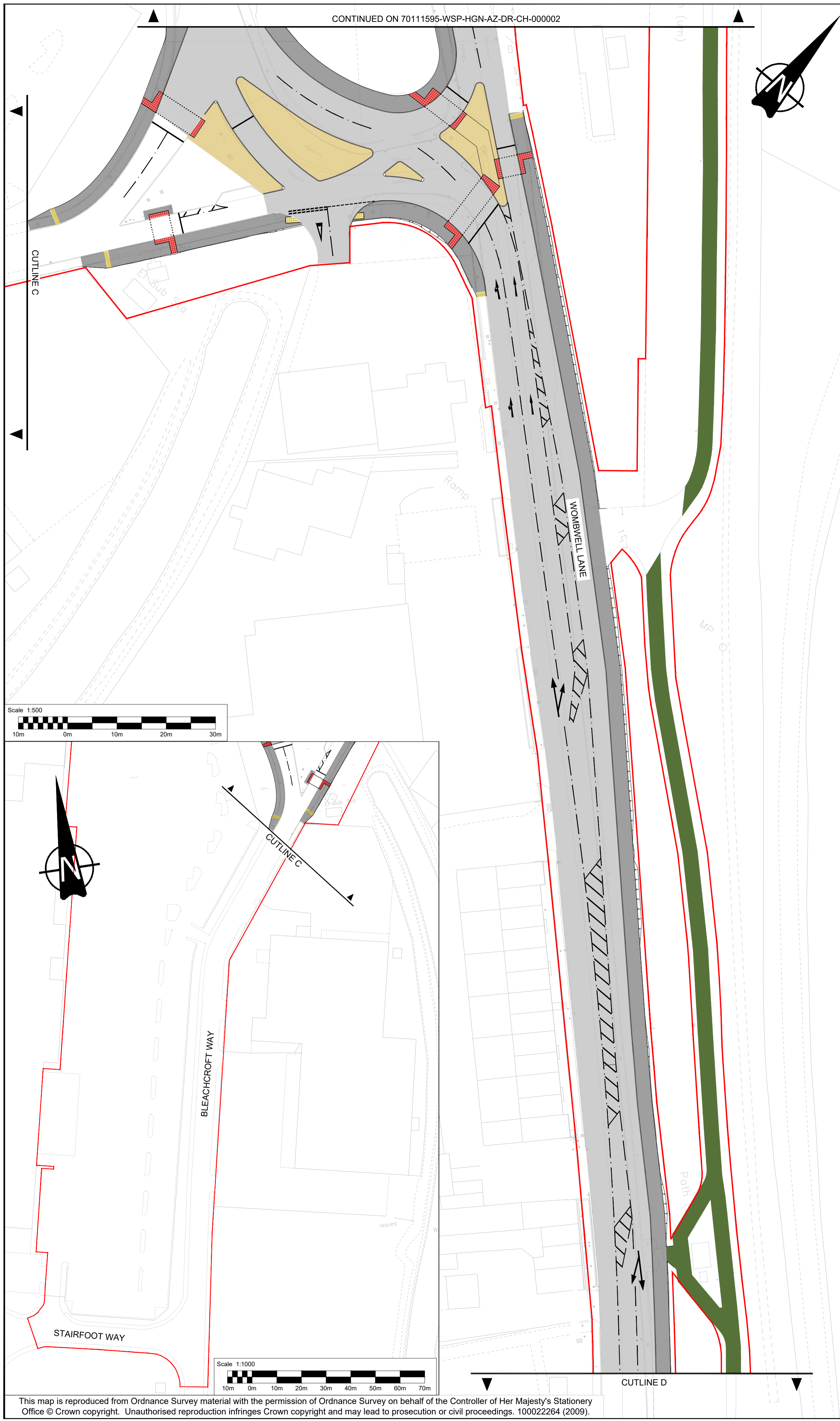
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P04	18/06/24	DESIGN FIX 2 - REVISED TO ADDRESS CLIENT COMMENTS	KK	BM	LB

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Project Title: **A635 Bus Rapid Transit Route**

Drawing Title: **General Arrangement Sheet 2 of 2**

Scale@A1:	Checked:	Approved:	Date:
As shown	B.Mathew	L.Basterfield	18/06/24
Project No:	Designed:	Drawn:	Rev:
70111595	A.Wallace	K.Krishnan	P04

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