A

Client.

OSBORNE

MARTIN

888

Project Title. A46 Walsgrave Junction Upgrade

Drawing Title. Option 6 Phase 2 - A

Drawing No. DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	2 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:

B

Weir

Sluice

Overflow

Track

ROYSTON RISE

GAINFORD RISE

El Sub Sta

Client.

OSBORNE

MARTIN

889

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 6 Phase 2 - B

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	3 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1	Scale	NTS

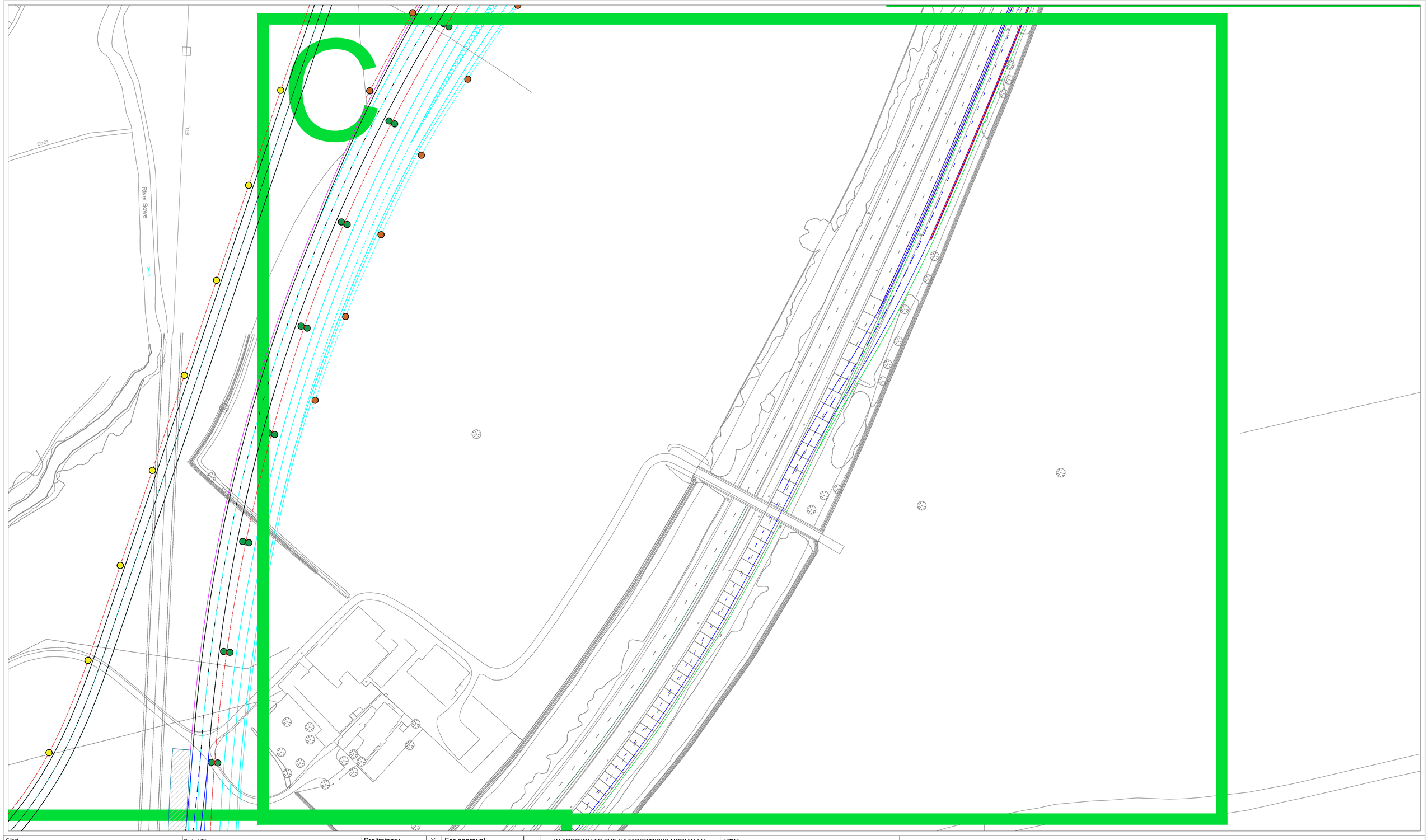
Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:



Client.

OSBORNE

MARTIN

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 6 Phase 2 - C

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	4 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:

D

contraflow req either side. contraflow will run on the existing and then onto temporary tie ins that tie in to proposed alignment thats built off site.

Client. OSBORNE	Project Title. A46 Walsgrave Junction Upgrade	Preliminary X / For approval	IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX
	Drawing Title. Option 6 Phase 2- D	For comment X / Final Design	HAZARD/RISK — HIGH/MED/LOW
	Drawing No. DRAFT OUTLINE 001	Drawn by: Ed Menear — Date: 01/02/21	1
MARTIN	Revision details	Verified by: — Date:	
891	Revision — Sheet No. 5 of 5	Validation by: — Date:	
	Revised by: / Rev: / Date:	Original size A1 — Scale NTS	KEY:
		Technical Support	
		Designer Checklist No: XXX	
		Technical Note & Design Commentary No: XXX	
		Associated Risk Assement No: XXX	
		Layer Register No: XXX	
		DWG File Number No: XXX	

Client.

OSBORNE

MARTIN

892

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 6 Phase 2 Overview

Drawing No.
DRAFT OUTLINE 001

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Revision details

Revision	–	Sheet No.	1 of 5

Revised by:	Rev:	Date:

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:

A

Issues

Play Area

VALENCIA ROAD

FLORENCE ROAD

LISBON WAY

CALGARY CLOSE

COOMBE COURT

SEVILLA CLOSE

COMBERTON CLOSE

HIMBLETON DRIVE

MARTLEY CLOSE

El Sub Sta

Posts

Sewage Ppg Sta

Path (um)

Track

1.22m RH

B 4428

Client. OSBORNE	Project Title. A46 Walsgrave Junction Upgrade	Preliminary X For approval	IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX
	Drawing Title. Option 7 Overview - A	For comment X Final Design	HAZARD/RISK — HIGH/MED/LOW: 1
	Drawing No. DRAFT OUTLINE 001	Drawn by: Ed Menear — Date: 01/02/21; Verified by: — Date:; Validation by: — Date:	KEY:
MARTIN	Revision details	Original size A1 — Scale NTS	
	Revision — — Sheet No. 2 of 4	Technical Support	
	Revised by: — Rev: — Date:	Designer Checklist No: xxx; Technical Note & Design Commentary No: xxx; Associated Risk Assement No: xxx; Layer Register No: xxx; DWG File Number No: xxx	

893

B

Hatch out to show flattening of RBT

Weir

Sluice

Overflow

Track

El Sub Sta

GAINFORD RISE

ROYSTON RISE

Client.

OSBORNE

MARTIN

894

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 7 Overview - B

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	3 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1	Scale	NTS

Technical Support

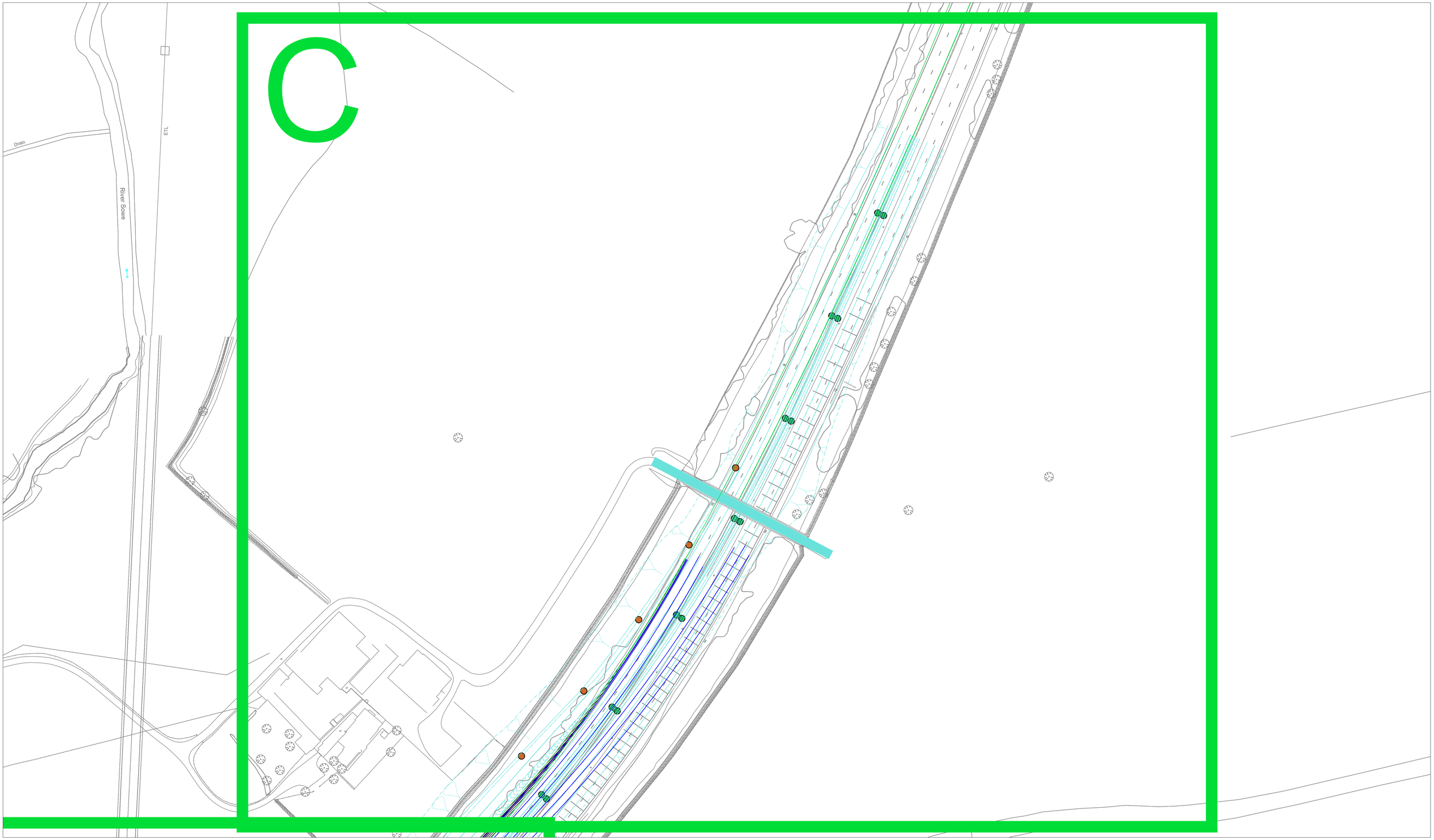
Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

C



Client.

OSBORNE

MARTIN

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 7 Overview - C

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	4 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

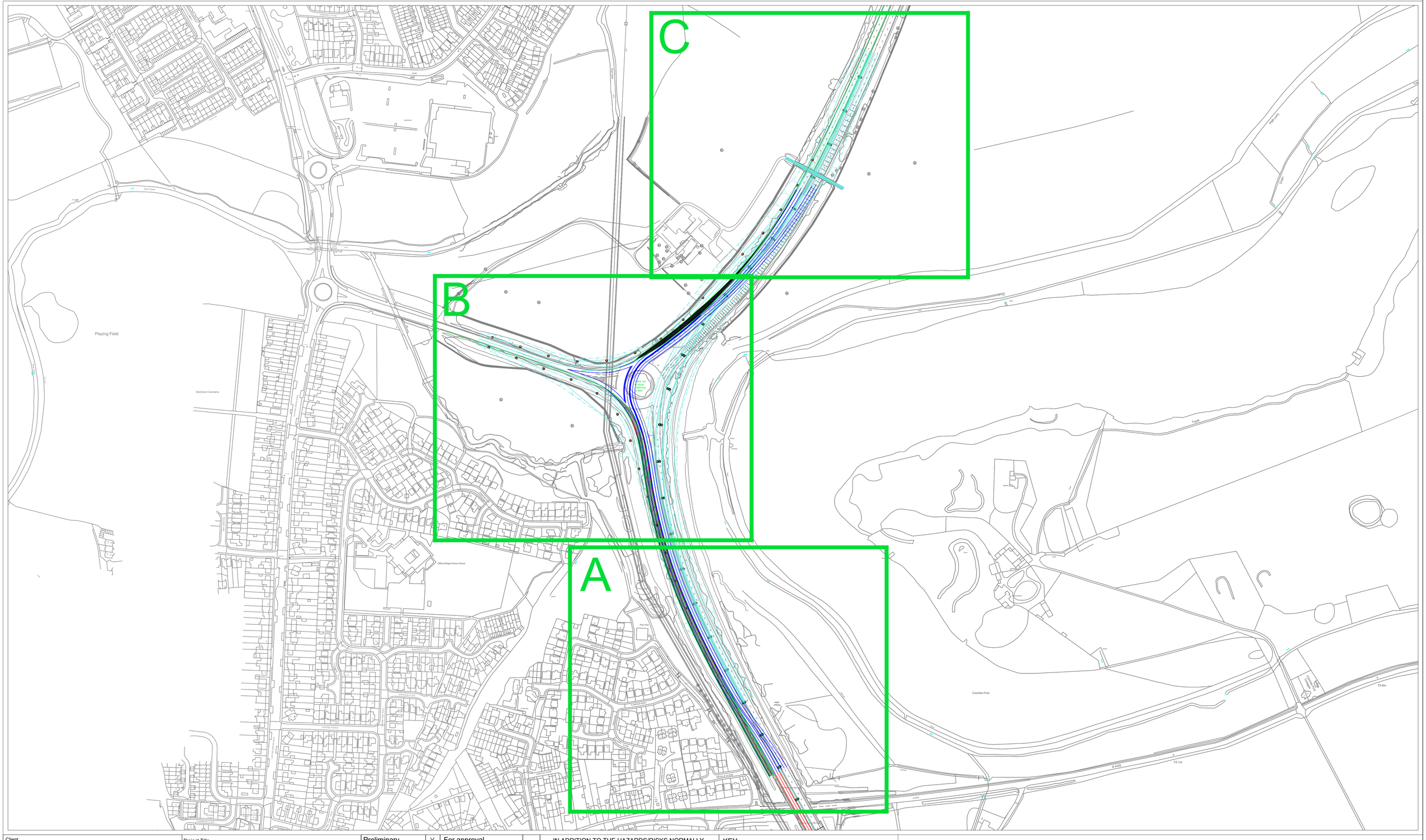
Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:

895



Client.

OSBORNE

MARTIN

896

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 7 Overview

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	1 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

Client.

OSBORNE

MARTIN

897

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 7 Phase 2 - A

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	2 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size A1 Scale NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:

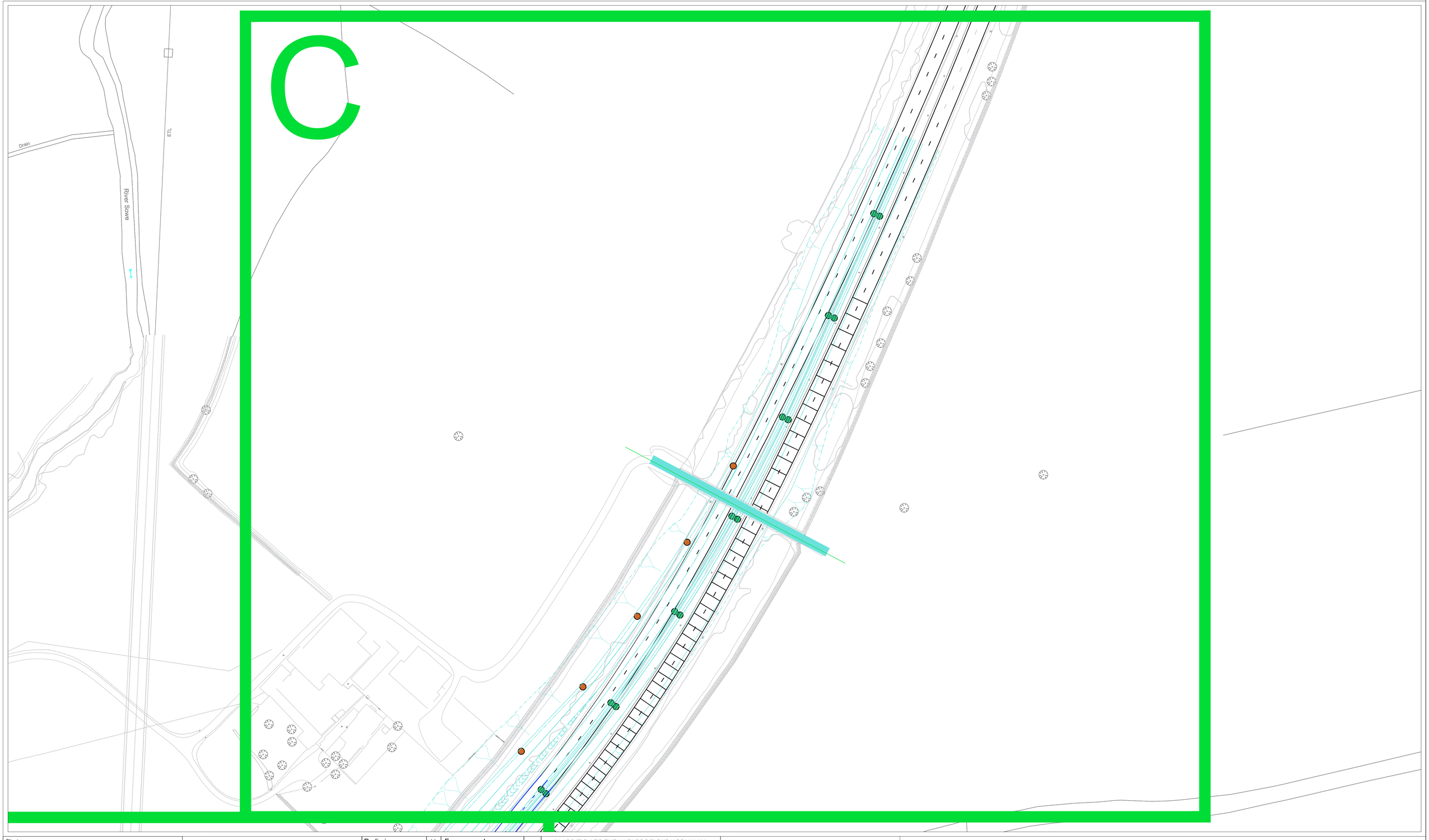
B

SM
SM
SM
SM
Weir
Sluice
Overflow
Track
ROYSTON RISE
GAINFORD RISE
GAINFORD RISE
El Sub Sta
11
12
10
19
2
15
18
6
17
14
16
10
7
8
24
18
24
34
1
36
1
37
17
39
43
44
54
64
160
15
155
25
35
65
49
85

Client.	Project Title. A46 Walsgrave Junction Upgrade	Preliminary X For approval	IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX
OSBORNE	Drawing Title. Option 7 Phase 2 - B	For comment X Final Design	KEY:
	Drawing No. DRAFT OUTLINE 001	Drawn by: Ed Menear Date: 01/02/21	
MARTIN	Revision details	Verified by: Date:	
898	Revision – Sheet No. 3 of 4	Validation by: Date:	
	Revised by: Rev: Date:	Original size A1 Scale NTS	
		Technical Support	
		Designer Checklist No: xxx	
		Technical Note & Design Commentary No: xxx	
		Associated Risk Assement No: xxx	
		Layer Register No: xxx	
		DWG File Number No: xxx	

HAZARD/RISK	HIGH/MED/LOW
1	

C



Client.

OSBORNE

MARTIN

899

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 7 Overview - C

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	4 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

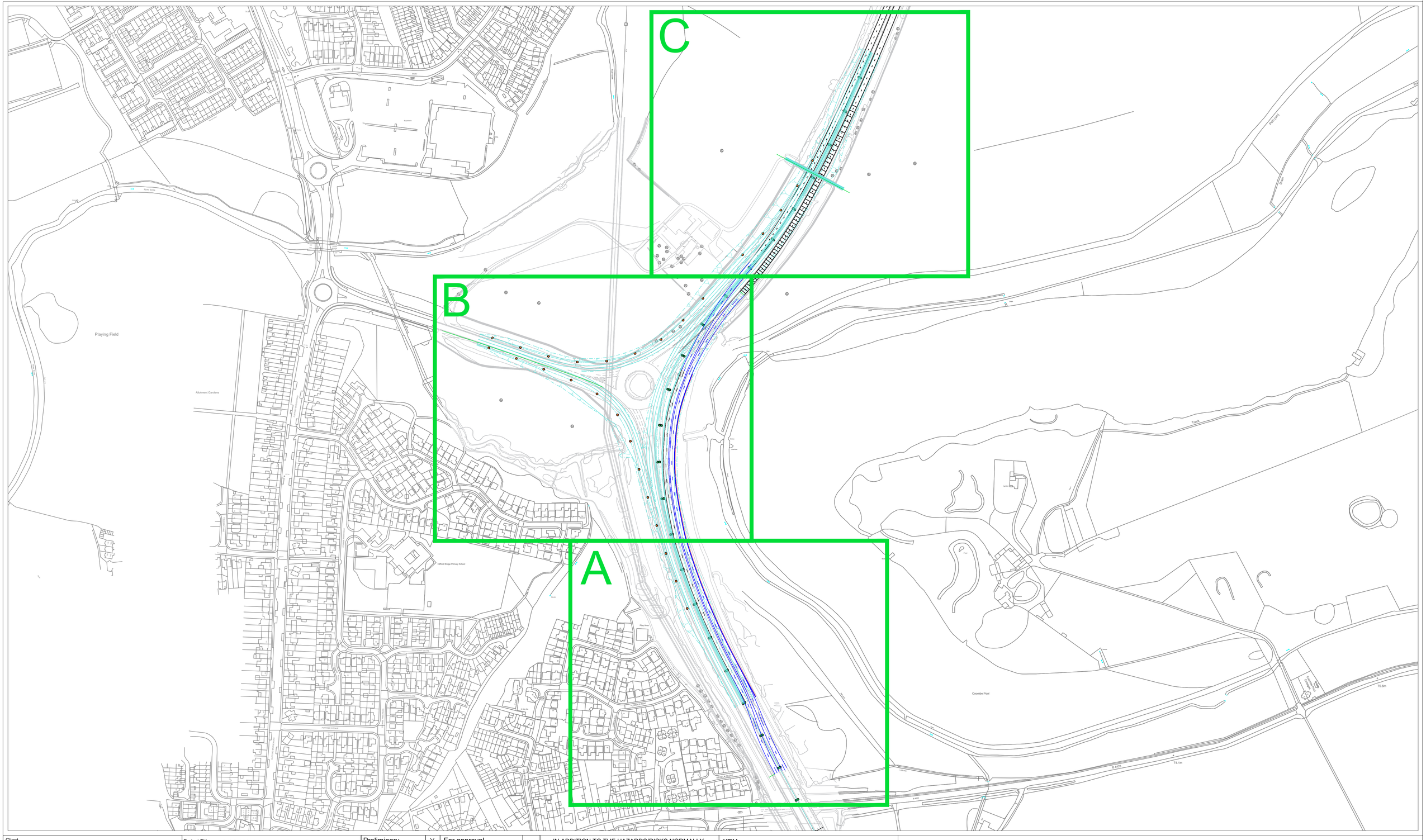
Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:



Client.

OSBORNE

MARTIN

900

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 7 Phase 2 Overview

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	1 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

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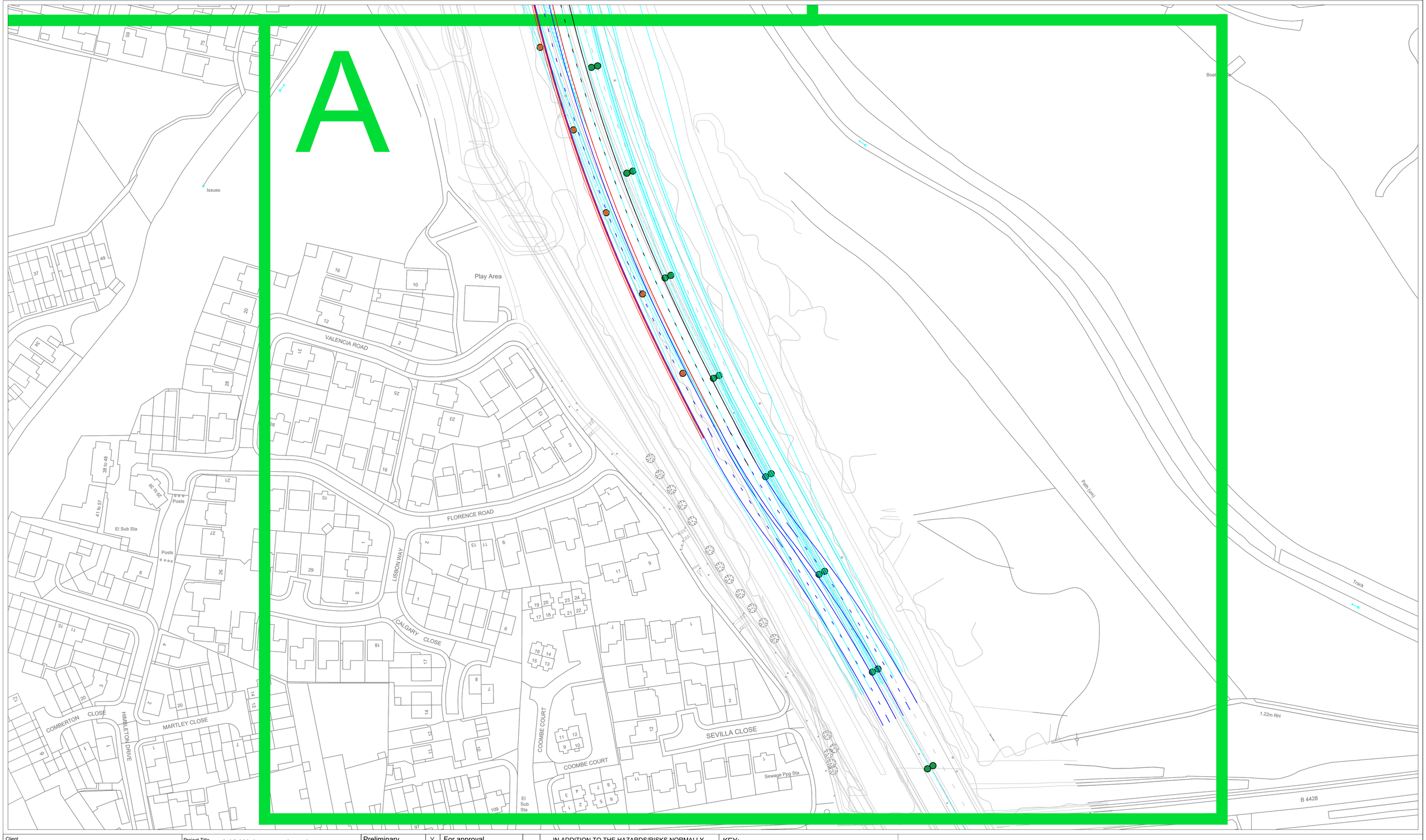


Client.

OSBORNE

MARTIN

901

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 8 Phase 2 - A

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	2 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

B

SM
SM
SM
SM

GAINFORD RISE
ROYSTON
GAINFORD RISE
El Sub Sta

Weir
Sluice
Overflow
Track

Client.	Project Title.	A46 Walsgrave Junction Upgrade	
OSBORNE	Drawing Title.	Option 8 Phase 2 - B	
	Drawing No.	DRAFT OUTLINE 001	
MARTIN	Revision details		
902	Revision –	Sheet No. 3 of 5	

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	
Drawn by: Ed Menear		Date: 01/02/21	
Verified by:		Date:	
Validation by:		Date:	
Original size A1		Scale NTS	

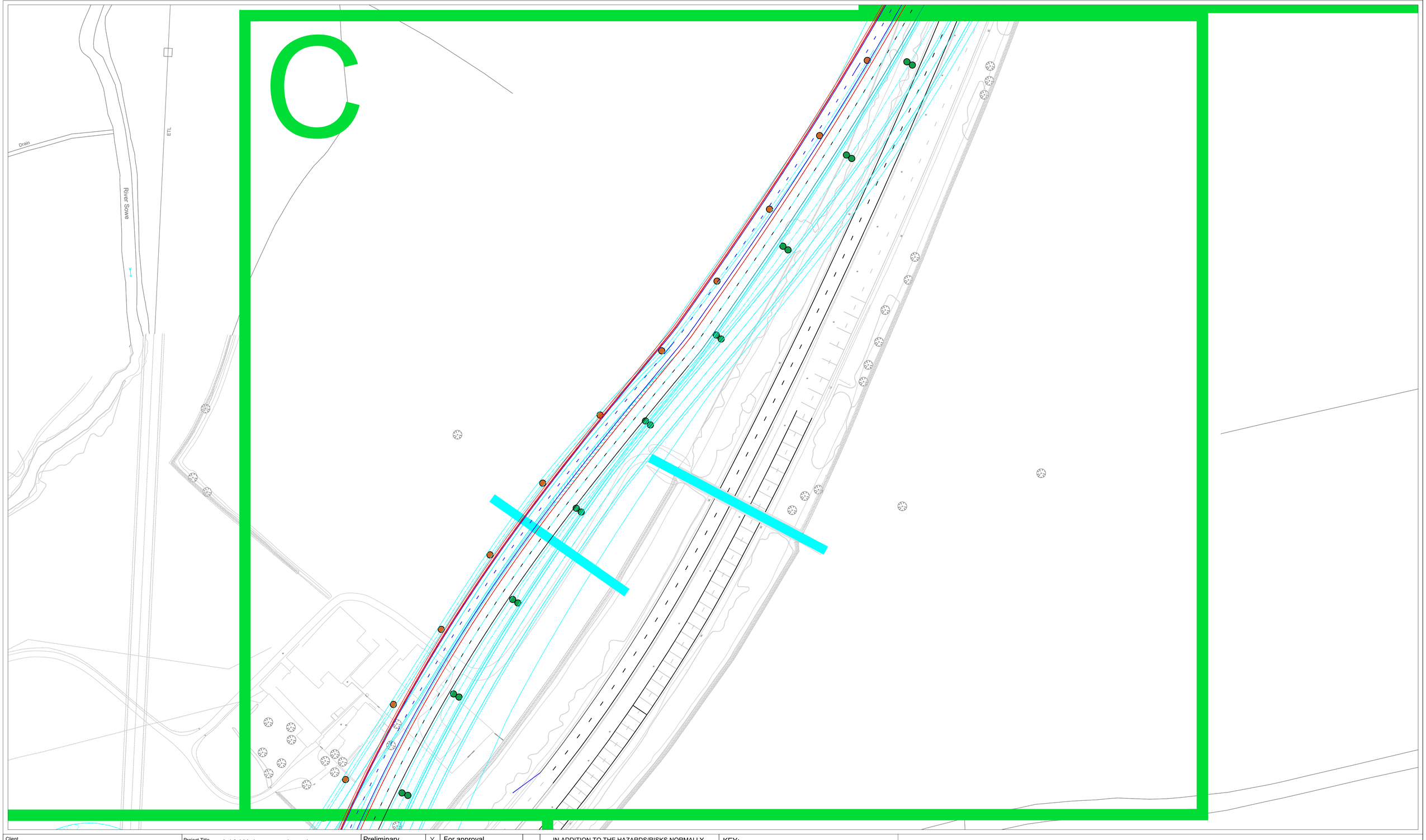
Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:



Client.

OSBORNE

MARTIN

903

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 8 Phase 2 - C

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	4 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

Client.

904

Project Title.	A46 Walsgrave Junction Upgrade		
Drawing Title.	Option 8 Phase 2 - D		
Drawing No.	DRAFT OUTLINE 001		
Revision details			
Revision	—	Sheet No.	5 of 5
Revised by:	Rev:	Date:	

Preliminary	X	For approval	
For comment	X	Final Design	
Drawn by: Ed Menear		Date: 01/02/21	
Verified by:		Date:	
Validation by:		Date:	
Original size	A1	Scale	NTS

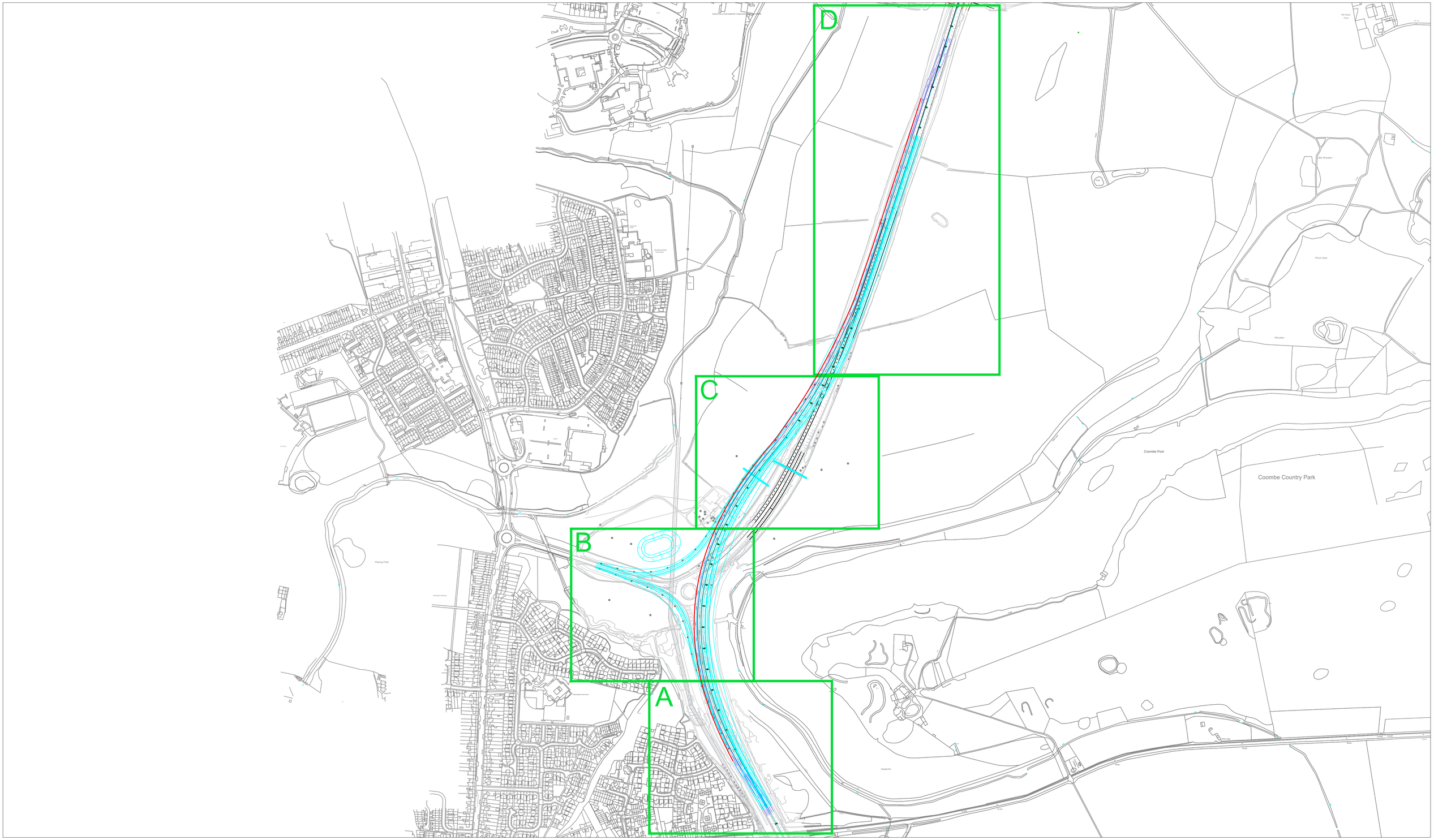
Technical Support

Designer Checklist No:	XXX
Technical Note & Design Commentary No:	XXX
Associated Risk Assement No:	XXX
Layer Register No:	XXX
DWG File Number No:	XXX

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:



Client.

OSBORNE

MARTIN

905

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 8 Phase 2 Overview

Drawing No.
DRAFT OUTLINE 001

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size A1 Scale NTS

Revision details

Revision – Sheet No. 1 of 5

Revised by:	Rev:	Date:

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

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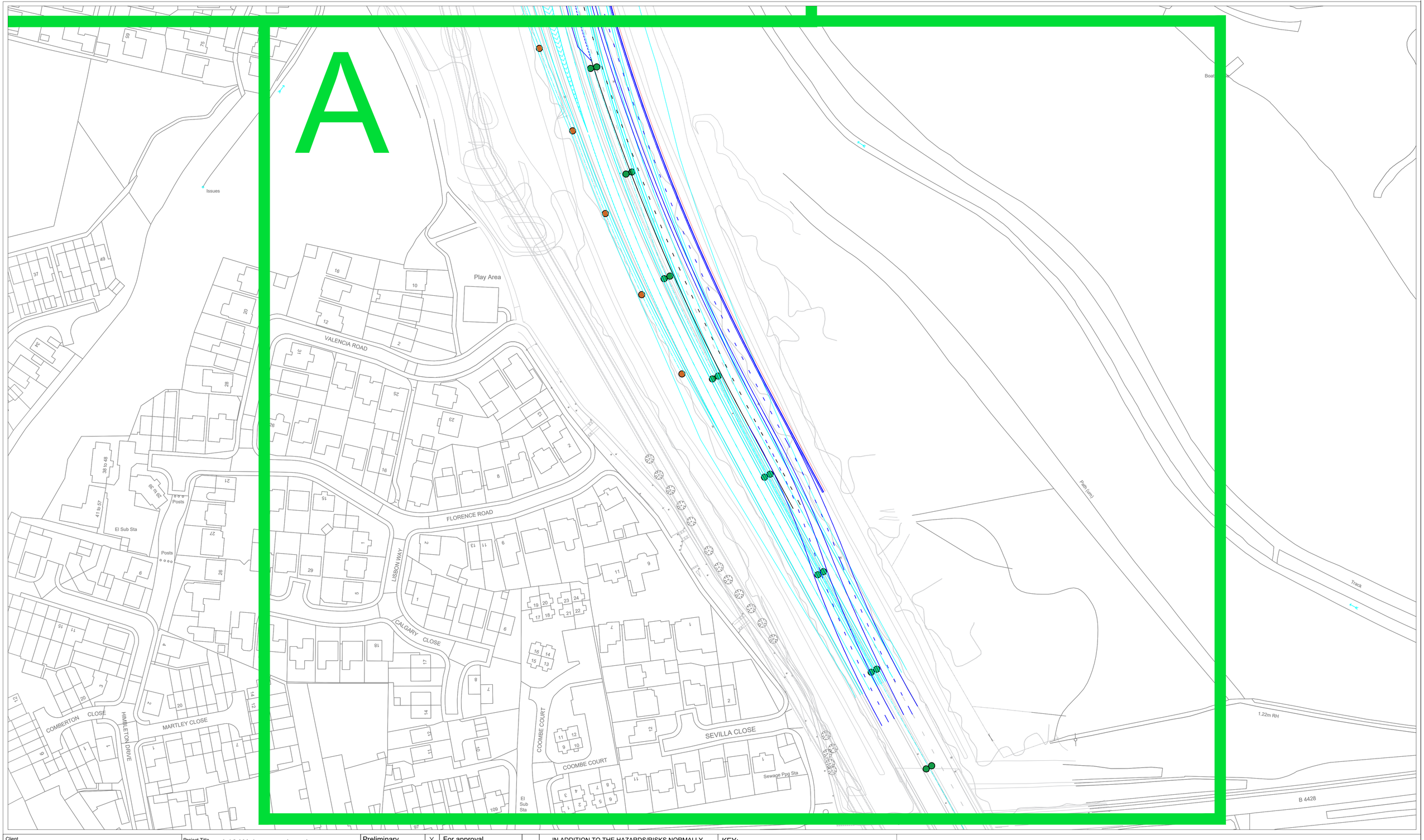

Client.

OSBORNE

MARTIN

906

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 8 Phase 1 - A

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	2 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

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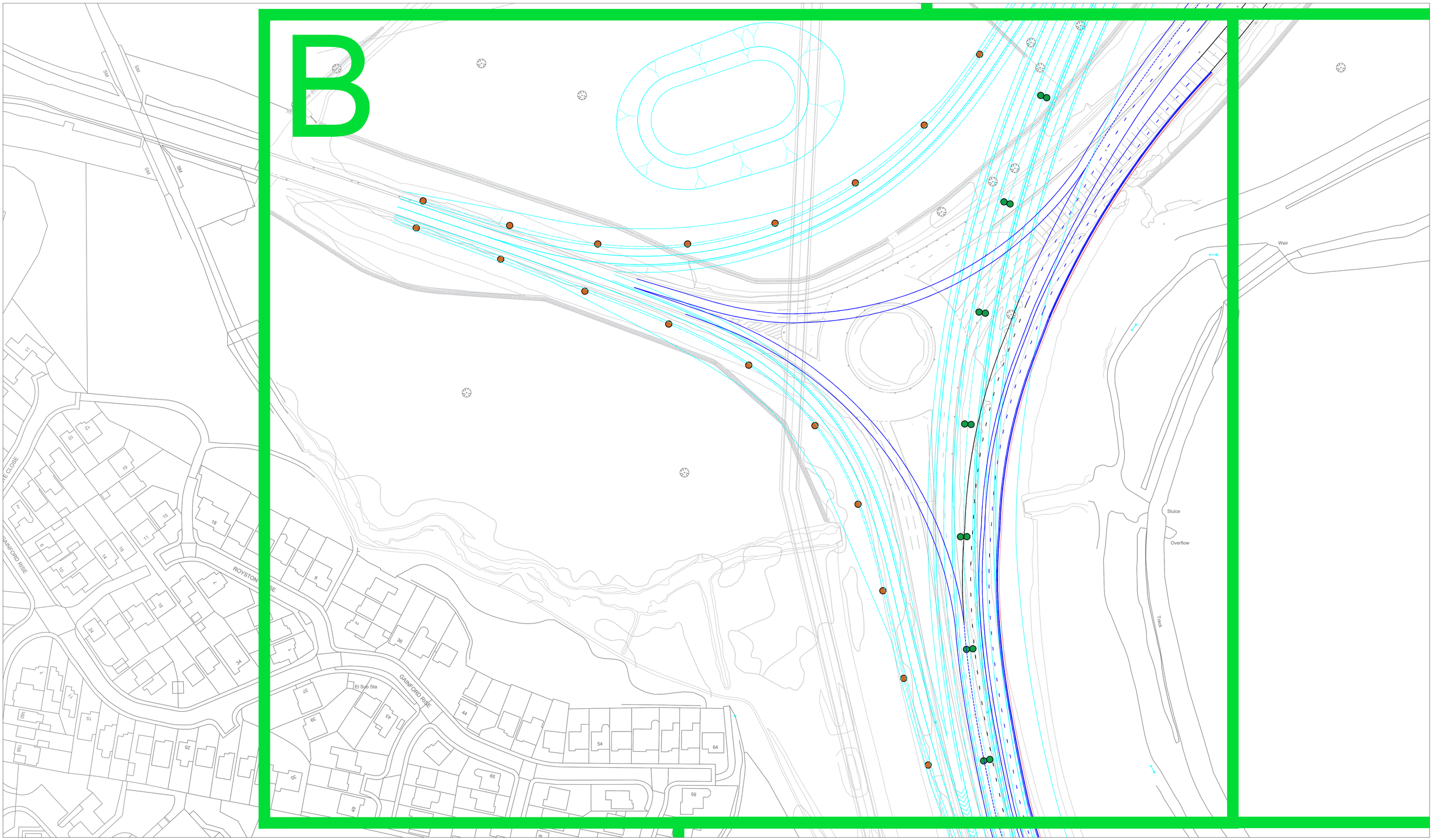


Client.

OSBORNE

MARTIN

907

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 8 Phase 1 - B

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	3 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1		Scale	NTS	

Technical Support

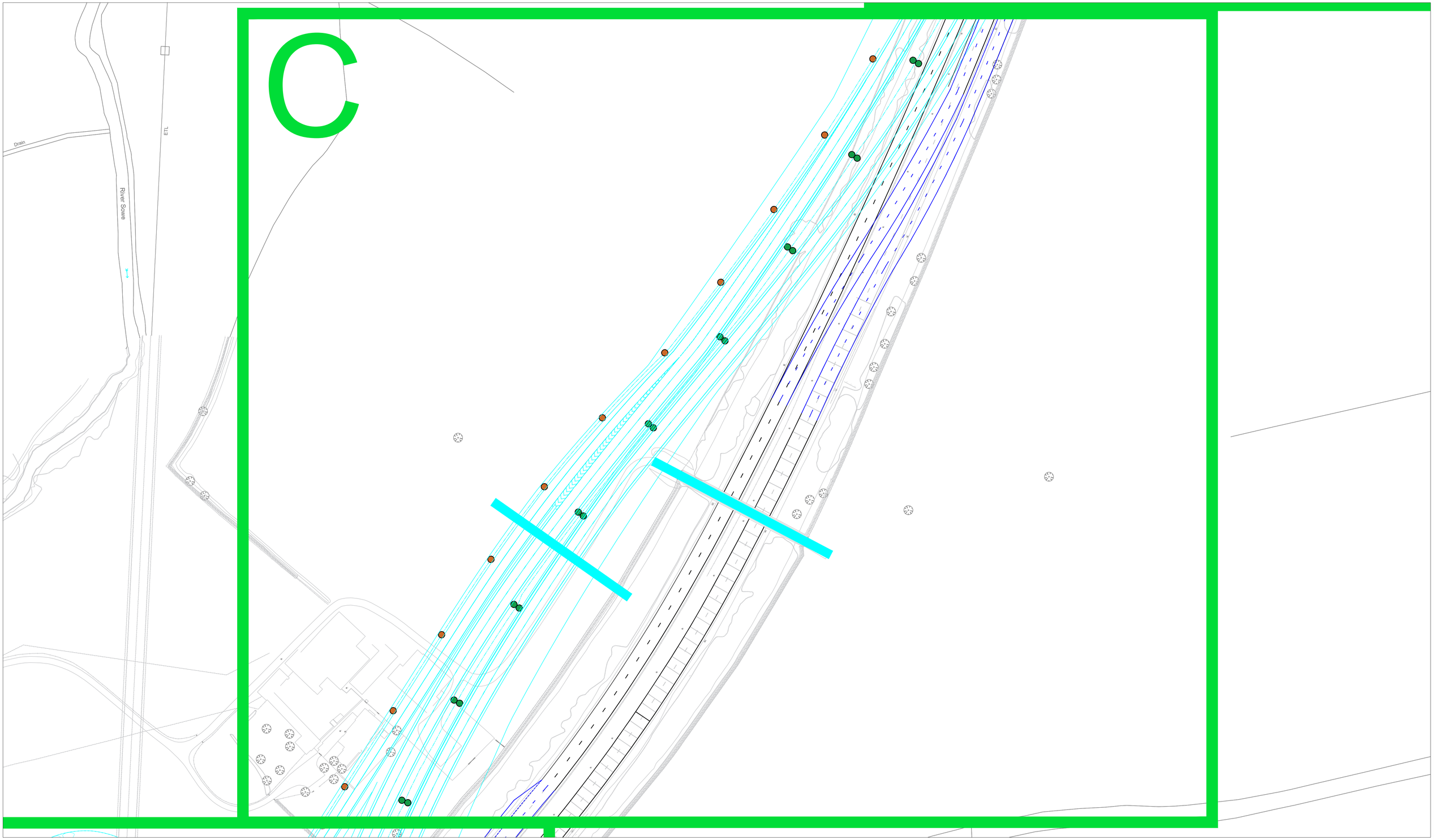
Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

C



Client.

OSBORNE

MARTIN

908

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 8 Phase 1 - C

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	4 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by:	Ed Menear	Date:	01/02/21
Verified by:		Date:	
Validation by:		Date:	

Original size	A1		Scale	NTS	

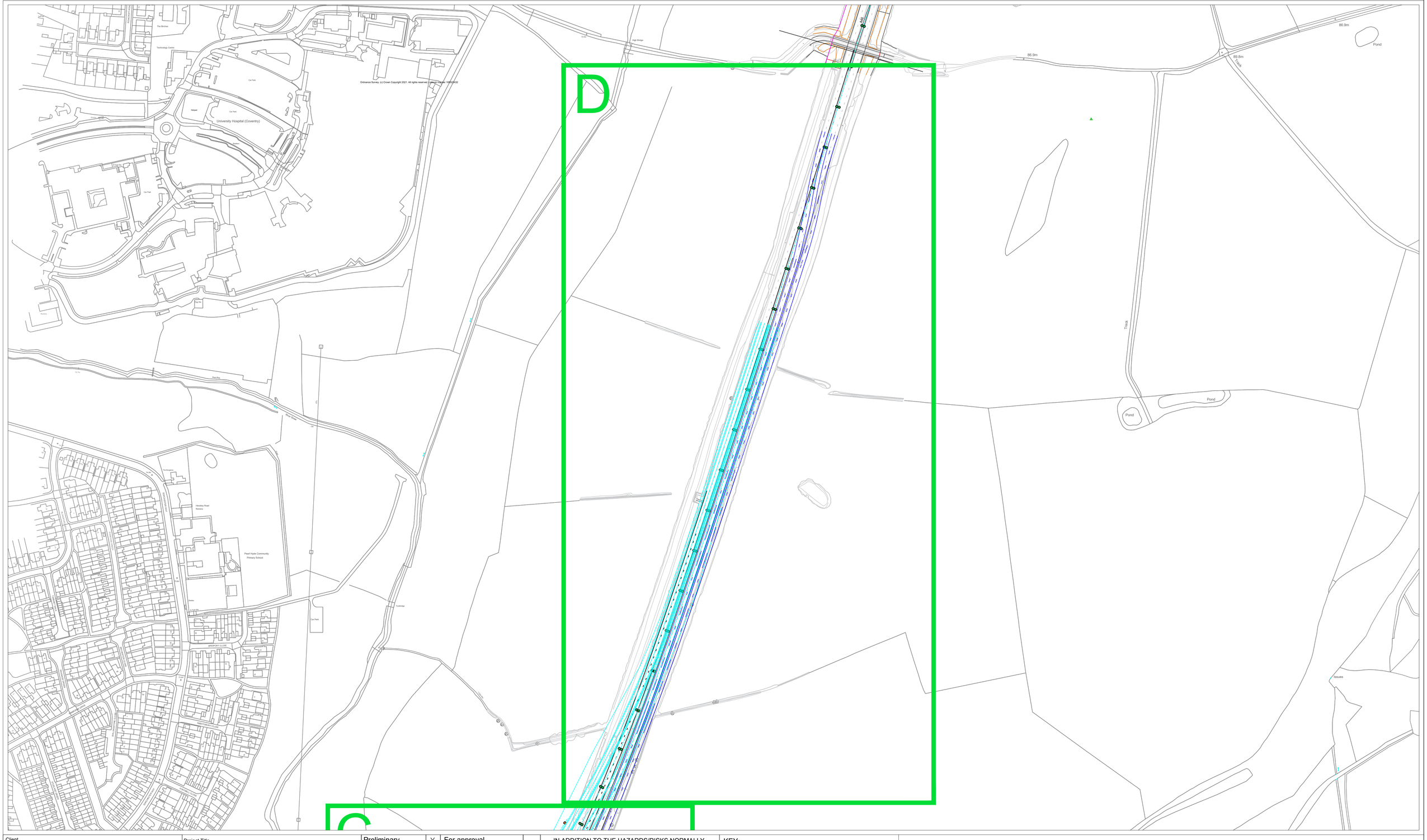
Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

HAZARD/RISK	HIGH/MED/LOW
1	

KEY:



Client.

OSBORNE

MARTIN

909

Project Title.

A46 Walsgrave Junction Upgrade

Drawing Title.

Option 8 Phase 1 - D

Drawing No.

DRAFT OUTLINE 001

Revision details

Revision	—	Sheet No.	5 of 5

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

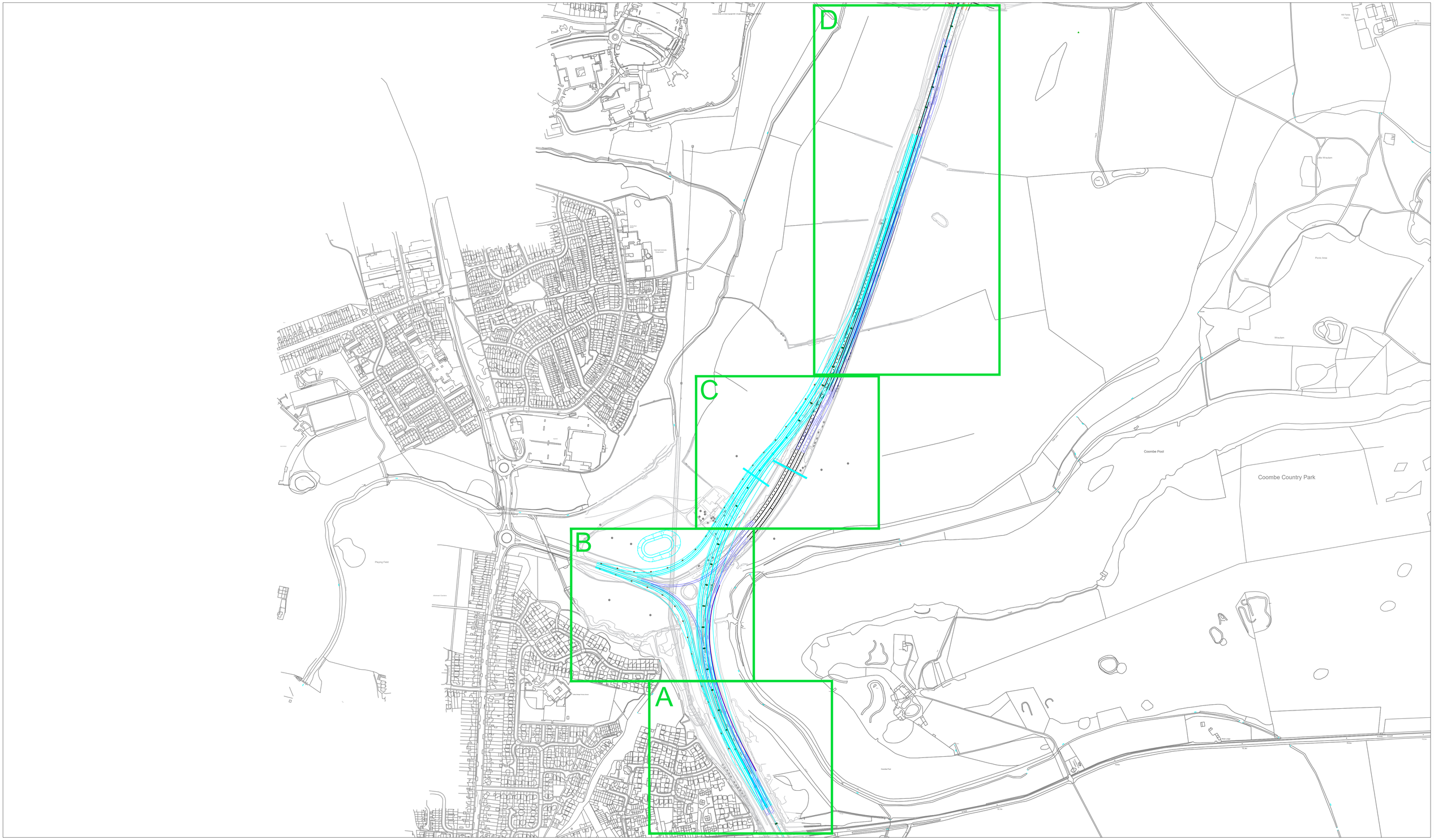
Technical Support

Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:



Client.

OSBORNE

MARTIN

910

Project Title.
A46 Walsgrave Junction Upgrade

Drawing Title.
Option 8 Phase 1 Overview

Drawing No.
DRAFT OUTLINE 001

Revision details

Revision	–	Sheet No.	1 of 4

Revised by:	Rev:	Date:

Preliminary	X	For approval	
For comment	X	Final Design	

Drawn by: Ed Menear	Date: 01/02/21
Verified by:	Date:
Validation by:	Date:

Original size	A1	Scale	NTS

Technical Support

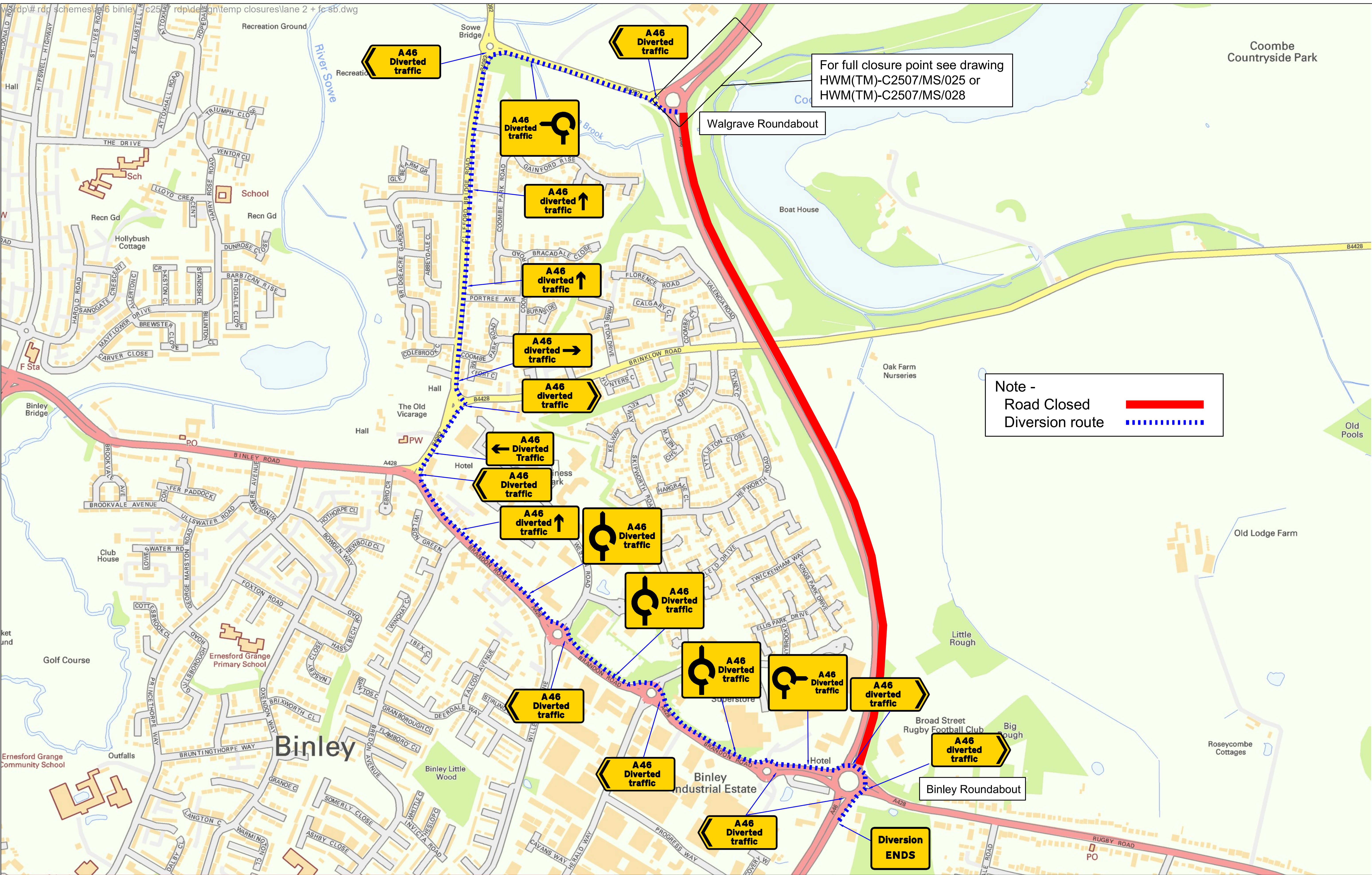
Designer Checklist No:	xxx
Technical Note & Design Commentary No:	xxx
Associated Risk Assement No:	xxx
Layer Register No:	xxx
DWG File Number No:	xxx

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS IN THE HAZARD/RISK BOX

	HAZARD/RISK	HIGH/MED/LOW
1		

KEY:

wdp\# rdp schemes\a46 binley\c2507 rdp\design\temp closures\lane 2 + fc sb.dwg



DESIGNERS CHECK LIST

	YES	NO
Is an airlock system required??	☒	☐
Have we been informed of any Overhead obstructions ie overhead cables?? (GS6 requirements)	☐	☒
Have we been informed of any significant risk of people and plant interface??	☐	☒

OVERHEAD STRUCTURES — The overhead hazard may not be visible, particularly at night. Mark the extent of the hazard with blue cones and a white sleeve.

WORKS ACCESSES — Signs face oncoming traffic, workers cannot see them and will be un-aware of the works access location. Place green cones with white sleeves on either side of the works access point, inside the works, not as part of the site boundary cone line

OVERHEADCABLES — The overhead hazard may not be visible, particularly at night. Mark the extent of the risk zone with blue cones and a yellow sleeve, carrying an electrical hazard symbol and message.

RESTRICTION ON STOPPING IN A DECLARED ZONE WITHIN AREA OF WORKS — Vehicles stopping in any part of a deceleration zone just inside the works access or on a haul route increase the risk of work vehicle collisions. Place yellow cones with white sleeves inside the works throughout the no stopping zone as a reminder for drivers.

HW Martin Traffic Management
Fordbridge Lane
Blackwell
Derbyshire
DE55 5JY
Tel: 01773 813213
Email: traffic@hwmartin.com
www.hwmartin.com

Client: highways england

Contractor: OSBORNE

Project Title: A46 Binley Roundabout

Drawing Title: Full closure of SB carriageway at Walsgave Roundabout - Diversion route

Rev No	Details	Date
A	Drawing line marked up, TM Added	04/08/20

Drawn by: M Sludds — Date: 16/08/20
Checked by: G Taylor — Date: 17/08/20
Approved by: S Clarke — Date: 17/08/20

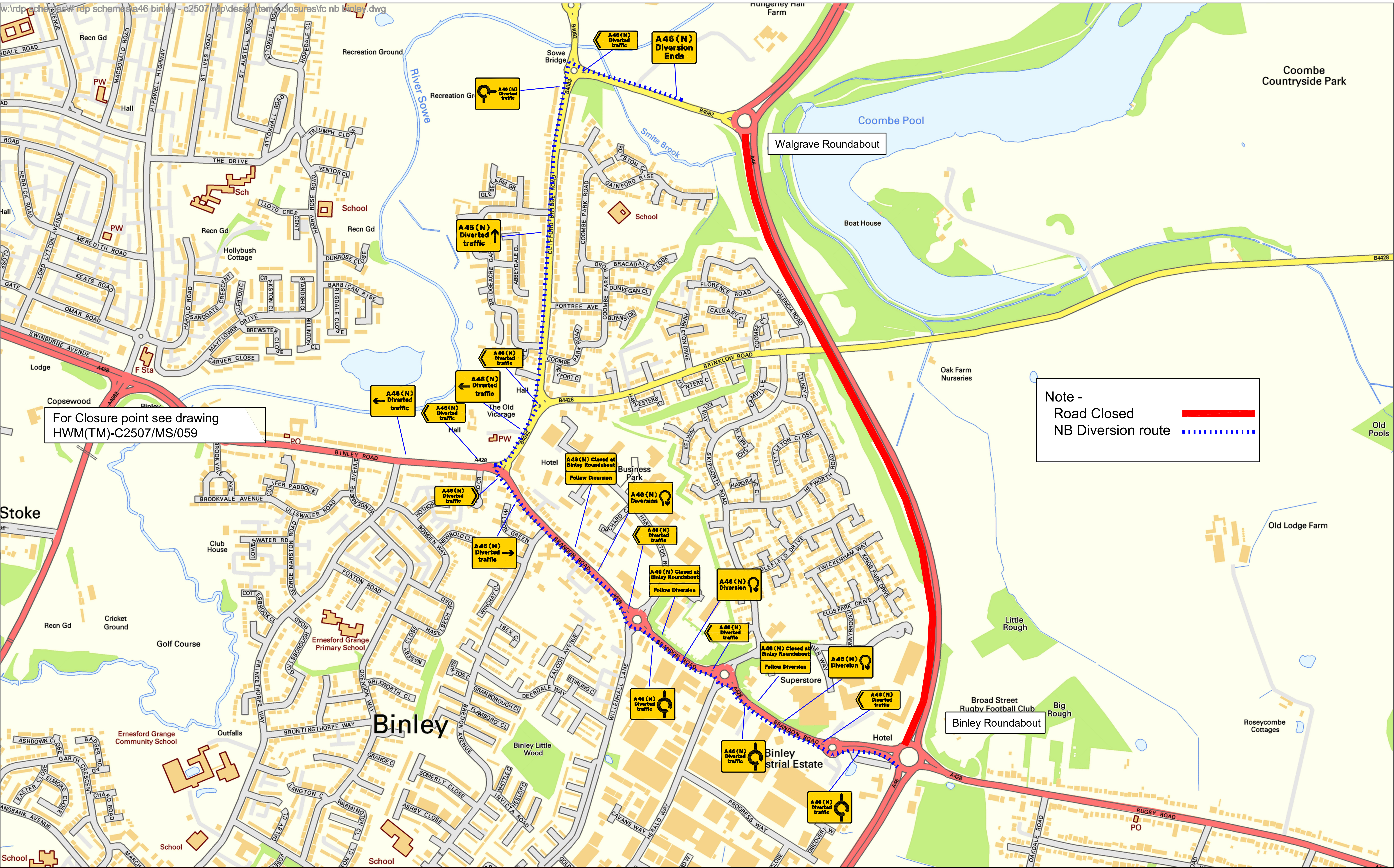
Drawing No: HWM(TM)-C2507/MS/027

Status: [✓ For Comment] For issue As Built

Sheet No: 1 of 1 HE Pin:

Original size: A3 Scale: N/T/S

911



DESIGNERS CHECK LIST

	YES	NO
Is an airlock system required??	☒	☐
Have we been informed of any Overhead obstructions ie overhead cables?? (GS6 requirements)	☐	☒
Have we been informed of any significant risk of people and plant interface??	☐	☒

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DE55 5JY
Tel: 01773 813213
Email: traffic@hwmartin.com
www.hwmartin.com

Client: highways england

Contractor: OSBORNE

Project Title: A46 Binley Roundabout

Drawing Title: A46 NB full closure Binley to Walsgrave R/bout Diversion route

Rev No	Details	Date
A	Drawing line marked up, TM Added	07/12/20

Drawn by: M Studds — Date: 07/12/20
Checked by: Sam Clarke — Date: 07/12/20
Approved by: Mark Rainbow — Date: 07/12/20

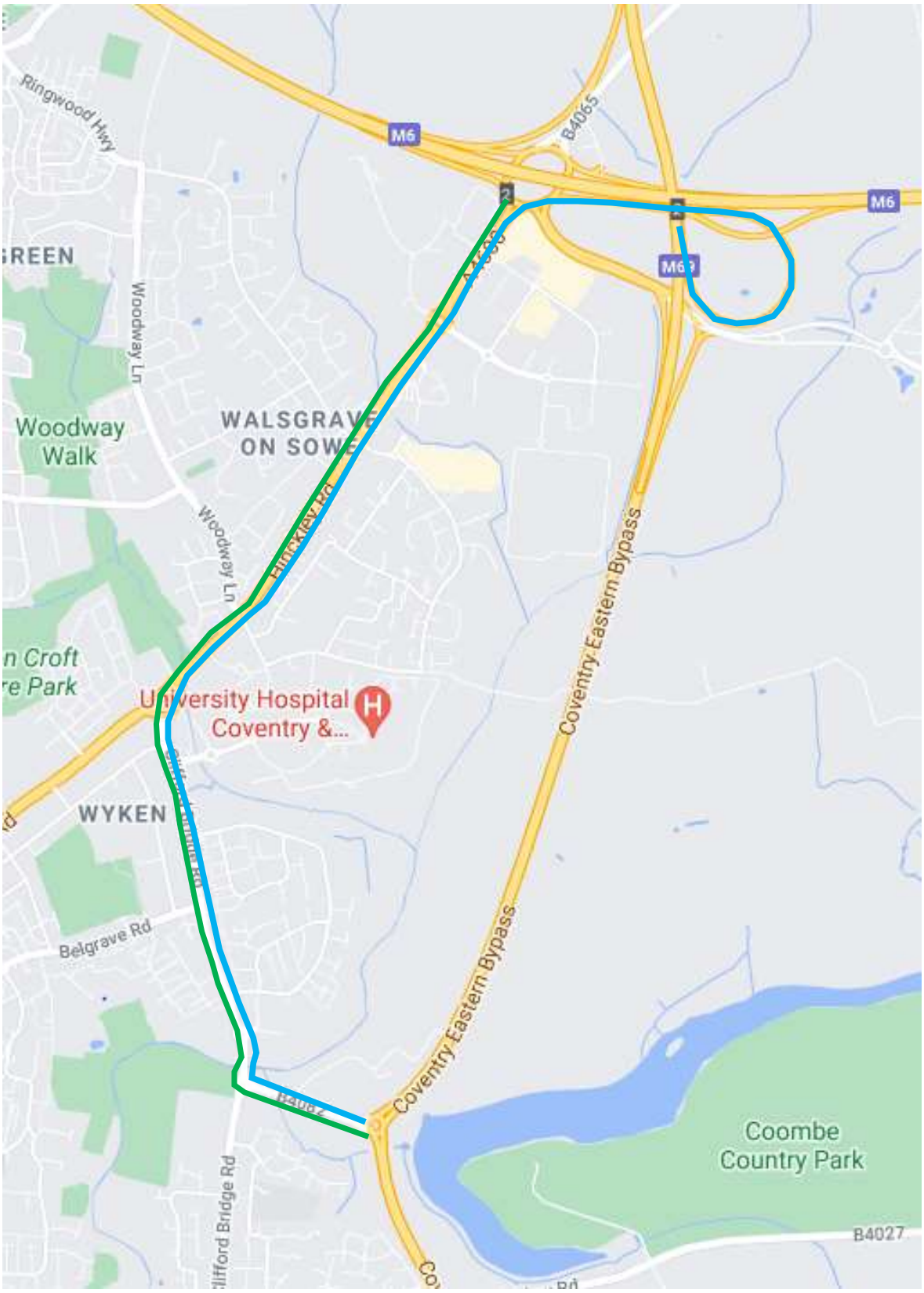
Drawing No: HWM(TM)-C2507/MS/060

Status: ☒ For Comment ☐ For issue ☐ As Built

Sheet No: 1 of 1 HE Pin: 912

Original size: A3 Scale: N/T/S

M6 to Walsgrave Diversion Route



A46 Walsgrave Roundabout - Utilities Review

Figures in Red Italics are Paige estimates and have not been confirmed with the utilities.

Utility	Location / Description	Affected	In Nov 18 Utils Report & Utils presentation	In tracker HE551486-ACM-HGN-XX-TK-CH-0001	In PCF Utils report 25/01/21 or latest C3 summary	Date of latest C3	Latest C3 estimate (Ex VAT, Ex NRSWA) (Rounded)	Lead / Duration	Is scope correct	Likely increase or decrease on C3 value.	Remarks /Actions	Suggested possible adjustment to C3 value for risk / opportunity / enabling	Reason
BT Openreach	**Removal of Hungerley Hall Farm OH line and poles from the north west of the access road.**												
	Option 6 - Diversion required	Yes	Yes / Yes	Yes	Yes	05/01/2021	£44,045	24 wks / 5 wks	Yes but could be improved	Possible decrease	Removal of existing and diversion length could be shortened just to immediate road crossing. Consider access to diversion location? **£1,997** C4 survey / design fee required.	*-£10,000*	Shortened diversion may be possible
	Option 7 - Not affected	No	N/A	N/A									
	Option 8 - Removal required	Yes	N/A	Yes	Yes	05/01/2021	£16,207	16 wks / 1 wk	Yes		**£1,997** C4 survey / design fee required. (Listed building noted!)		
	Option 11 - Not affected	No	N/A	N/A									
Vodafone	**Runs in the west verge from Binley RA to the WPD 132kV pylon HK27, just South of Walsgrave RA, where cables then go aerial along pylon route. Slew required after culvert extension complete. No. of duct and cables to be verified but possible single duct. On Binley Rbt, this route was confirmed as being a leased route from WPD Telecoms, so unlikely to be works required directly Vodafone.**												
	Option 6 - Slew required - but see note above	Yes	Yes / Yes	Yes	Yes	19/01/2021	£47,945	20 wks / *4 wks*	Yes but see note	Possible decrease	On Binley Rbt, this route was confirmed as being leased from WPD Telecoms (Surf) and therefore costs were not payable. **£4k** C4 survey / design fee, but may not be payable if confirmed leased route. 28/9/18 estimate was £60,846. 270m of diversion assumed in C3 but plan only shows asset in southern part of verge, where it may not be affected, subject to confirming location, but likely that asset continues in verge over culvert and would be affected by culvert widening.	*-£48,000*	Assume leased route and therefore no costs payable to Vodafone. If works required, then slew or trench and duct lay could be by Osborne
	Option 7 - Slew required - but see note above	Yes	N/A	Yes	Yes	19/01/2021	£600/day *(Assume = £12,000)*	20 wks / *4 wks*	Yes but see note and extent of interface likley to be longer		Protection supervision at £600/day assumed by Vodafone for main contractor to slew, (but likely to be arranged through WPD Telecoms). **£2,500** C4 design / survey fee.		Slew works or trench and duct lay by Osborne, if required.
	Option 8 - Slew required - but see note above	Yes	N/A	Yes	Yes	19/01/2021	£44,204	20 wks / *4 wks*	Yes but could be improved	Possible decrease	Estimate assumes 200m diversion but extent likely to be longer if asset continues in verge over culver (but likely to be arranged through WPD Telecoms). **£4k** C4 survey / design fee, but may not be payable if confirmed leased route.	*-£44,000*	Assume leased route and therefore no costs payable to Vodafone. If works required, then slew or trench and duct lay could be by Osborne
	Option 11 - Porection slab only required.												
WPD Telecoms (was Surf)	**Runs in the west verge from Binley RA to the WPD 132kV pylon HK27, just South of Walsgrave RA, where cables then go aerial along pylon route. Slew required after culvert extension. No. of duct and cables to be verified. Also likely to be carrying Vodafone data in lease arrangement.**												
	Option 6 - Slew required	Yes	Yes / Yes	No	No	N/A	*£50,000*	*20 wks / 4 wks*	N/A	*Increase but then also possible decrease*	Whilst included within the 2018 Utils presentation (value £56k), it is not included in any later report or schedule. No further details of C3s have been provided. On same / similar route to Vodafone C2. If separate cables / ducts, then efficiencies in civils works and possibility to slew etc. Exact location and details of asset to be verified. Lead time on any outages for cable changeovers will need to be determined if not slewed. Estimate value will need to be verified with WPD Telecoms.	*-£40,000*	If slew works undertaken by Osborne
	Option 7 - Slew required	Yes	N/A	No	No	N/A	*£50,000*	*20 wks / 4 wks*	N/A	*Increase but then also possible decrease*	No further details of C3s have been provided so option 6 value assumed. Comments as above.	*-£40,000*	If slew works undertaken by Osborne

Utility	Location / Description	Affected	In Nov 18 Utils Report & Utils presentation	In tracker HE551486-ACM-HGN-XX-TK-CH-0001	In PCF Utils report 25/01/21 or latest C3 summary	Date of latest C3	Latest C3 estimate (Ex VAT, Ex NRSWA) (Rounded)	Lead / Duration	Is scope correct	Likely increase or decrease on C3 value.	Remarks /Actions	Suggested possible adjustment to C3 value for risk / opportunity / enabling	Reason
	Option 8 - Slew required	Yes	N/A	No	No	N/A	*£50,000*	*20 wks / 4 wks*	N/A	*Increase but then also possible decrease*	No further details of C3s have been provided so option 6 value assumed. On same/similar route to Vodafone so may be some possible efficiencies in civils works, possibility to slew etc. Exact location and details of asset to be verified. Lead time on any outages for cable changeovers will need to be determined.	*-£40,000*	If slew works undertaken by Osborne.
	Option 11 - Not affected	No	N/A	N/A									
Western Power Distribution WPD01	**Diversion or removal of 470m LV overhead main to Hungerley Hall Farm**												
	Option 6 - Diversion required	Yes	No / Yes	Yes	Yes	11/12/2020	£114,021	8 wks / 8 wks	Yes	Possible decrease	Diversion route assumed as no detail provided for new access road. WPD would want it to follow the new road so quote may change if length differs from that assumed. Non-cost sharing figure assumed.	*-£80,000*	Possible reduction if civils works undertaken by Osborne.
	Option 7 - Not affected	No	N/A	N/A	N/A								
	Option 8 - Removal required	Yes	N/A	Yes	No	14/12/2020	£6,000	8 wks / 2 wks	Yes		£6k only noted in e-mail, no C3 rec'd. Included in C3 table but not noted in latest report text.		
	Option 11 - Not affected	No	N/A	N/A									
WPD02	**132kV EHV overhead cables on pylon route (Pylons HK25 to HK29) crossing scheme on the west side of Walsgrave RA.**												
	Option 6	Yes	Yes / Yes	Yes	Yes	04/09/2018	N/A (was £17m previously)	N/A	N/A	N/A	Pylons now unlikely to be affected after scheme design revisions from earlier. Early engagement needed to design out any clashes / construction methodlogy etc. See correspondence from 14/12/20. GS6 surveys to be carried out and impact assessments to be completed.		
	Option 7	Yes	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Pylons unlikely to be affected. Early engagement needed to design out any clashes. See correspondence from 14/12/20. GS6 surveys to be carried out and impact assessments to be completed.		
	Option 8	Yes	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A	Pylons unlikely to be affected. Early engagement needed to design out any clashes. See correspondence from 14/12/20. GS6 surveys to be carried out and impact assessments to be completed.		
	Option 11 - Not affected	No	N/A	N/A									
WPD03	**LV feed to NB verge assets east of Walsgrave RA, at northern tie-in**												
	Option 6 - Possibly affected	Yes	No / No	No	No	N/A	*£5,000*	*8 wks / 2 wks*	N/A	*Possible Increase*	Location of asset and interface TBC. May need to be moved or disconnected depending on scheme design requirements at this location. Nominal sum shown.		
	Option 7	No	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	Unlikely to be affected		
	Option 8	No	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	Unlikely to be affected		
	Option 11 - Not affected	No	N/A	N/A									
Severn Trent Water - Potable STWP01	**500mm MDPE potable main runs west of A46 and HHF, 100mm DI main on B4082 and 2 private mains, (6" and 8") crossing A46 just South of Underpass North of Walsgrave Rbt.**												
	Option 6 - All assets affected	Yes	Yes / Yes	Yes	Yes	22/12/2020	£1,588,707	14 wks / 14 wks	Yes but could be improved	Decrease	Although mentioned in both documents, a C3 was not obtained until 22/12/20. The extent of conflict with the 500mm main appears reduced between 2018 and 2020. C3 contains lump sum for all affected assets for option 6, including 100mm main on B4082 and the private 6" and 8"mains crossing under A47. All will need to be reviewed and assessed independently, but likely that 6" and 8" could remain unaffected subject to assessment. Further possible revision to B4082 connector road may further reduce conflict with 500mm main. Also water supply to HHF likely to be affected but not mentioned in reports or STW estimaate, but should be nominal value to divert.	*-£1,000,000*	Diversion of 500mm main unlikely to be required at B4082 due to minimal level change. Diversion of 6" and 8" at eastern tie-in unlikely to be required as very close to works extent, (but STW noted 600mm level drop (?) on vertical alignment. Further revision to connector road could reduce or eliminate diversion, hence possible reduction shown.
	Option 7 - Assets not affected	No	No / No	N/A	N/A								

Utility	Location / Description	Affected	In Nov 18 Utils Report & Utils presentation	In tracker HE551486-ACM-HGN-XX-TK-CH-0001	In PCF Utils report 25/01/21 or latest C3 summary	Date of latest C3	Latest C3 estimate (Ex VAT, Ex NRSWA) (Rounded)	Lead / Duration	Is scope correct	Likely increase or decrease on C3 value.	Remarks /Actions	Suggested possible adjustment to C3 value for risk / opportunity / enabling	Reason
	Option 8 - Assets not affected but possible service to HHF from 100mm DI main.	No	No / No	No	No					Possible Increase	No costs or mention of the disconnection of potable water supply to HHF. Allow nominal sum	*£5,000*	Disconnection of possible service to farm - to be investigated.
	Option 11 - Not affected	No	N/A	N/A									
Severn Trent Water - Sewers STWS01	**315mm foul rising main heads towards and parallel to the A46 at the northern tie-in**												
	Option 6 - Diversion required	Yes	Yes / Yes	Yes	Yes	08/01/2021	£472,000	19 wks / 25 wks	Yes		Although mentioned in both documents, a C3 was not obtained until 8/1/21. C3 figure is "£472,00.00" for 500m sewer diversion, so either the comma is in the wrong place or it's missing a zero. Probably the latter, which is what has been assumed here and in Aecom cost spreadsheet. £26,340 design fee payment required, but assumed to be within C3 figure.		Unlikely that STW will allow Osborne to undertake diversion works to rising main.
	Option 7 - Not affected	No	N/A	N/A	N/A								
	Option 8 - Not affected	No	N/A	N/A	N/A								
	Option 11 - Not affected	No	N/A	N/A									
						Total					**Possible Total Variance to C3 Total**		
						Option 6	**£2,321,718**				**Option 6**	**-£1,178,000**	
						Option 7	**£62,000**				**Option 7**	**-£40,000**	
						Option 8	**£116,411**				**Option 8**	**-£79,000**	
Traffic Signals, Streetlights and Drainage (HE and Local Authority) have not been assessed and are assumed to be picked up as part of the respective design function for those assets. Similarly the need for disconnection of those assets and any new connections required has not been assessed or estimated.													

No.	Programme Operation	Potentially Hazardous Activity	Significant Risks	Physical Controls Required	Control Documentation Records, Forms,	Guides, and References.	INSPECTION		
							Type	By	Signature
119	Overhead power cables	Contact by with overhead power lines and communication cables	Fatalities, serious injuries, Disruption to supplies	Prior to commencing work notification and advice must be given and obtained from the regional electricity company or the cable owner As far as is reasonably practicable ensure power lines are isolated prior to work commencing. If practicable erect barriers to prevent contact with mechanical plant, i.e. cranes. Erect suitable signage to warn of overhead lines in the vicinity of the works Ensure all activities are monitored by a competent supervisor All plant, cranes and excavators may should be modified with suitable physical restraints to limit their operations where applicable If any work is undertaken in darkness ensure all warning signs are suitably illuminated Suitable and sufficient PPE is to be worn	CPCS for operator CPCS for banksman/ slinger Thorough examination certificates for Hiab and lifting tackle Lifting Appliance Register for Hiab Lift Plan	CDM LOLER PUWER PPEWR SB 1, 10 GSP/ELC/001.3 SGN/ELC/001 HSE Guidance Note GS6			
Comments.									

Part1. Location of Work Activity **Permit No:**

Serial Number Works Supervisor Name:		**Authorisation Commences:**			
Project Name/Number:		Date:		Time:	
Order/Instruction Number:		**Authorisation Expires:**			
Site Location:		Date:		Time:	
Brief Description of Work:		Method Statement / WPP Name and Number:			

Part 2. KnownOverhead Services/Structures

Description of overhead obstruction	Height to underside of overhead	Asset owner	Method height obtained	Required clearance (m)	Maximum allowed height from ground level

Part 3. Controls / Limitations

To be implemented before works commences	Details / (Y/N or N/A):	To be implemented before works commences	Details (Y/N or N/A):
Authorising Person Supervises the works:			
Mechanical plant restrictions (slew or height restrictors):			
Asset Owner / Utility Provider to Witness works?			
Method of verifying isolation (If Required)			

Part 4. Authorisation to proceed

Authorising Persons Name:		Position:		**Type of works authorised:**	
Company				Passing under O/H lines /structures*with restrictions	☐
Signed				Passing under O/H lines/structures* with no restrictions	☐
Authorisation Acceptance: To be completed by the recipient to confirm that the				Working under O/H lines/structures* with	☐

aforementioned controls have been briefed, understood and accepted:		restrictions	
Authorisation Received by:	Company:	Working under O/H lines/structures* with no restrictions	☐
Company:	Position	Local Instructions Issurd	☐
Signed:	Date:		☐

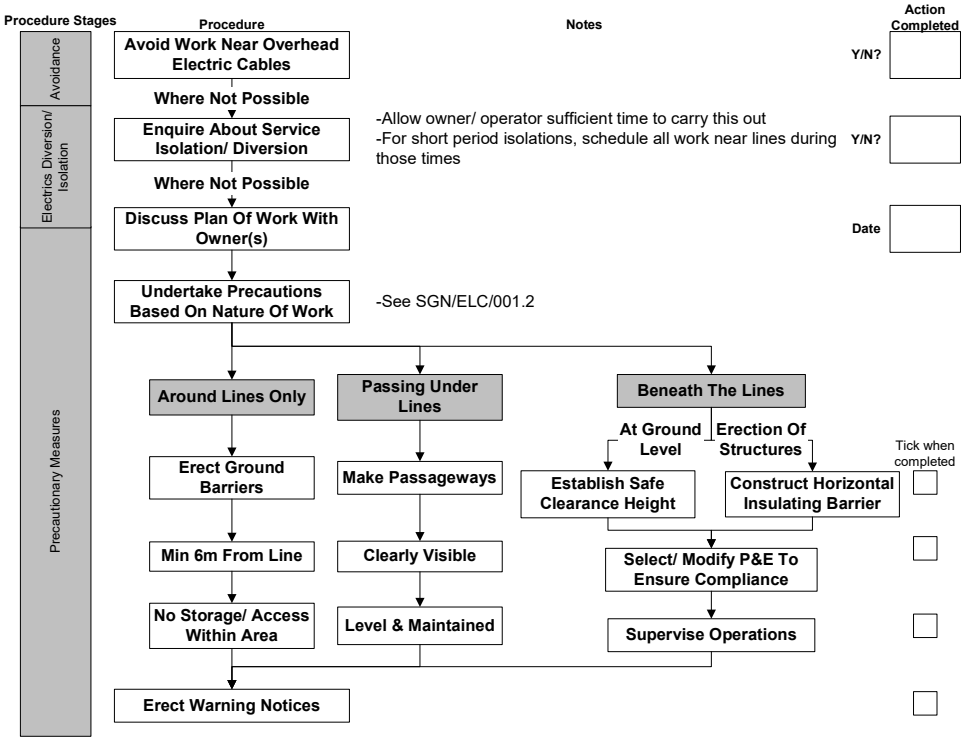
Part 5. Communication of Hazards/Controls & Persons Authorised to Work Near Existing Services

I confirm I have been briefed on the hazards and precautions of this authorisation and have fully understood them:			
Name of Employee	Signature	Employer	Date of Briefing

I confirm I have been briefed on the hazards and precautions of this authorisation and have fully understood them:			
Name of Employee	Signature	Employer	Date of Briefing

The Electricity At Work Regulations
001.3 Work Near Electricity

1. Procedure/Checklist:



2. Purpose:

2.1 To define the measures to be undertaken when carrying out work near overhead electrical cables, to minimise the associated risks & comply with the above regulations.

3. Responsibilities:

3.1 Site Manager: Carry out all of the above duties & ensure that works near electricity are carried out safely.

3.2 Appointed Suitable Persons: Supervise operations to ensure safety precautions are observed.

4. Appendices:
N/A

5. References:

5.1 001.2 Precautionary Measures in SGN-ELC-001 ELC

5.2 HSE Leaflet HSG 85 – Electricity At Work: Safe Working Practices

5.3 HSE Guidance Note GS 6 – Avoiding Danger From Electric Lines

5.4 GSP/SMA/003.2 To Provide Feedback On This Procedure

6. Relevant Forms (See Forms Section In Folder):
N/A

Work Near Overhead Electricity Cables

001.1 Introduction

Contact with live overhead lines can be lethal regardless of whether they are carrying a voltage as high as 400 000V/ as low as 230V. Close approach may also allow a 'flashover' arc to occur, resulting in electric shock- the risk of these occurring increases as the line voltage increases. Therefore, if plant/ equipment makes contact with/ approaches near to these lines, an electric current can flow with a risk of fatal/ severe shock/ burns to any person in the immediate vicinity.

Work near lines can be categorised in the following:

- Work around lines only (no scheduled work/ passage of plant under the lines)
- Work involving plant passing under the lines
- Work carried out beneath the lines

001.2 Precautionary Measures

Around Lines Only
Ground level barriers erected must:

- Be at least 6 metres from the line/ more depending on the overhead line voltage- measure horizontally from underneath the nearest conductor
- Be as visible as possible- by:
  - Painting red & white stripes
  - Hanging alternate red & white plastic warning flags on/ immediately above fence lines
- Have additional barrier position indicators to prevent parts of mobile plant (crane jibs/ excavator buckets/ etc) may cross it- i.e.:
  - A line of coloured plastic flags/ 'bunting'
  - Mount 3-6 metres above ground level immediately above fence lines
- Prohibit access to people where people may carry conducting objects (scaffold poles/ ladders/ etc)
- Be substantial enough so that they are not easily moved

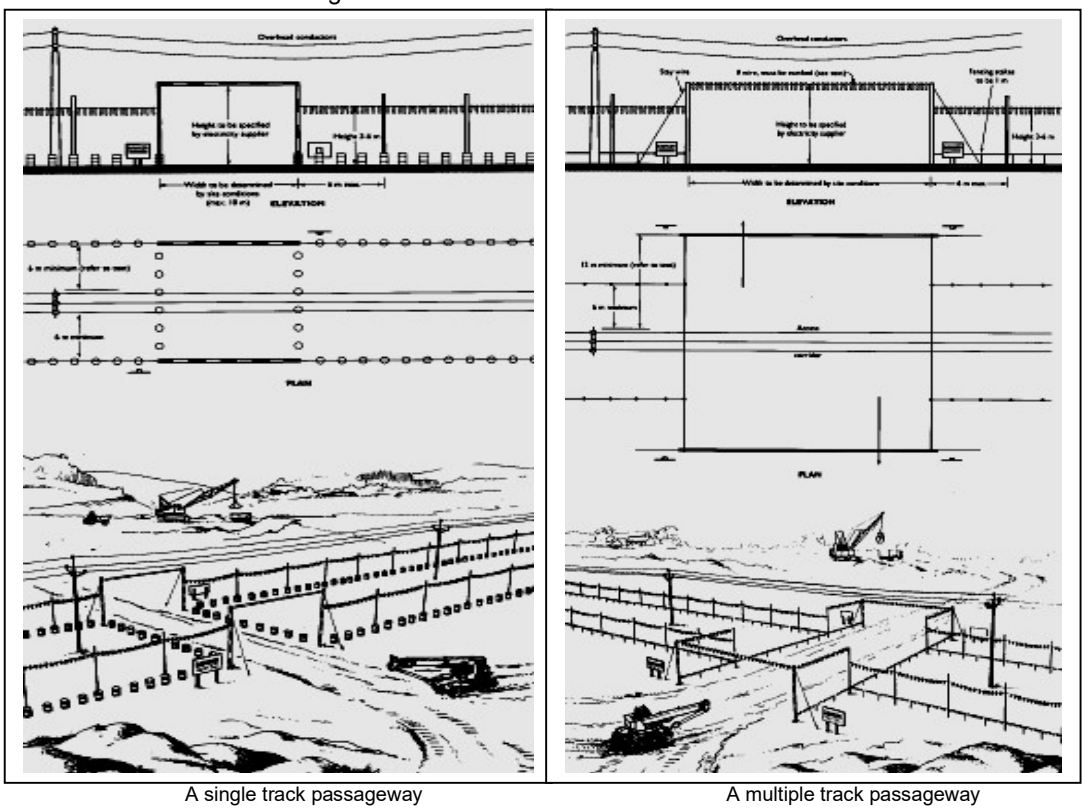
Passing Under Lines
Passageways made must:

- Have width restricted to the minimum needed for safe crossing of plant
- Preferably cross the route of the line at right angles
- Be kept to a minimum
- Be clearly defined- by:
  - Fencing the passageway
  - Erecting goalposts made of rigid, non-conducting material at each end in the barriers
  - Using tensioned ropes 12 metres from the line for multi-tracked passageways
- Be as visible as possible- by:
  - Distinctively marking fencing & goalposts with red & white stripes
  - Attaching coloured 'bunting' to the tensioned rope

- Illuminated- i.e.:
  - Warning notices
  - Cross-bars/ tensioned rope
  - Conductors- with light fittings sited at ground level projecting upwards towards the conductors

- Be levelled, firmed up & well-maintained to prevent undue tilting/ bouncing when passing under the line

- Have warning notices on approaches to the crossing & at either side of passageway giving:
  - Cross-bar clearance height
  - Instructions to drivers to lower jibs/ tipper bodies/ etc & keep below height while crossing



A single track passageway

A multiple track passageway

Work Beneath The Lines

When carrying out work beneath the lines, the safe clearance height must be established via contacting the owner(s) of the lines. When the work involves the erection of structures, a horizontal barrier made of timber/ other insulating material should be erected to form a roof over the construction area.

Plant & equipment employed for the work must:

- Not be able to reach beyond the safe clearance height

- Be modified so they cannot reach beyond the safe clearance height- by adding suitable physical restraint devices that are:
  - Fitted to the derricking/ slewing mechanism/ both
  - In the form of mechanical stops/ limit switches/ oil or fuel valves