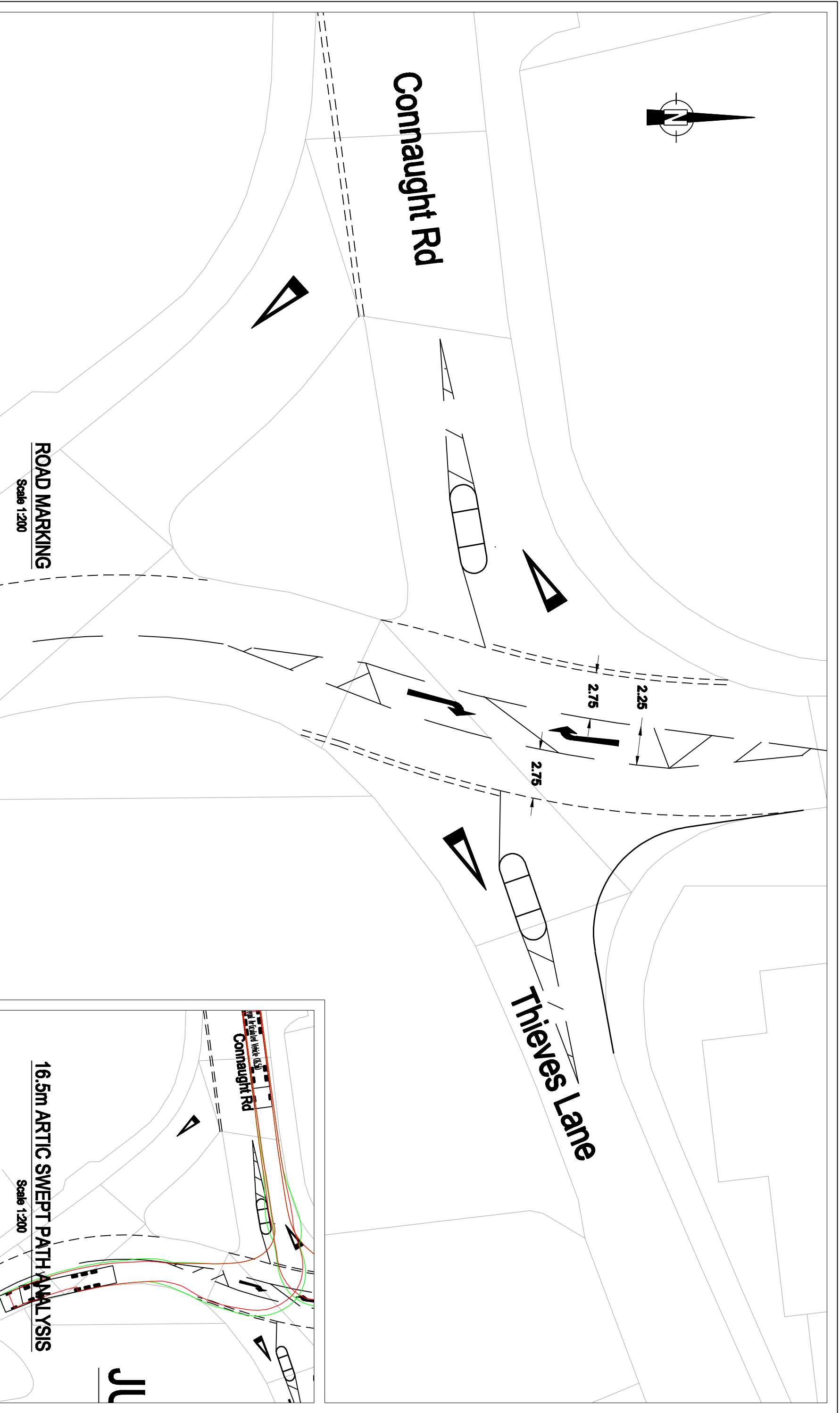


Appendix GG – Scheme Drawings of Surrogate Street / Thieves Lane / Connaught Road



ROAD MARKING
Scale 1:200

16.5m ARTIC SWEEP PATH ANALYSIS
Scale 1:200

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INFORMATION

BRECKLAND COUNCIL
ATTLEBOROUGH TOWN CENTRE
TRANSPORT STUDY

CONNAUGHT RD & SURROGATE ST JN
JUNCTION 3 - PRIORITY OPTION

Drawn By	AS SHOWN	Checked By	DR	Approved By	WVA	CRH	Date Drawn	JUNE 13
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Project No: CS059912-01-002D

Do Not Scale From This Drawing

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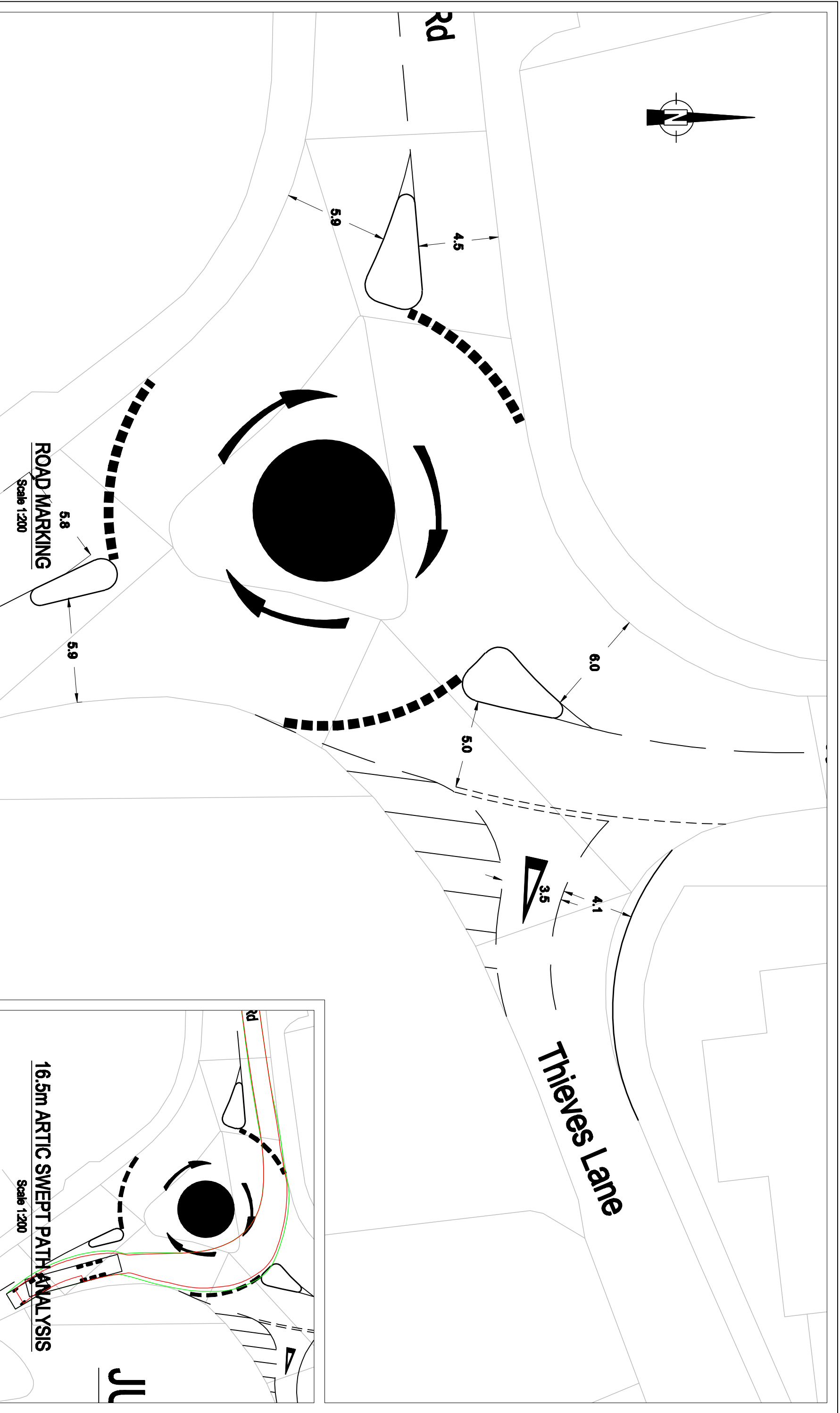
ISSUE NO. 001 DATE 13/06/13

ISSUE NO. 001 DATE 13/06/13

ISSUE NO. 001 DATE 13/06/13

ISSUE NO. 001 DATE 13/06/13

ISSUE NO. 001 DATE 13/06/13



ROAD MARKING
Scale 1:200

16.5m ARTIC SWEPT PATH ANALYSIS
Scale 1:200

INFORMATION

BRECKLAND COUNCIL

ATTLEBOROUGH TOWN CENTRE
TRANSPORT STUDY

**CONNAUGHT RD & SURROGATE ST JN
JUNCTION 3 - ROUNDABOUT OPTION**

Drawn By	AS SHOWN	Checked By	DR	Approved By	WVA	CRH	Date Issued	JUNE 13
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Project No: CS059912-01
Drawing No: **H-059912-01-003D**

Revision: **101**

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REV	DESCRIPTION	DATE	BY	CHKD	APP	DATE	REV	DESCRIPTION	DATE	BY	CHKD	APP	DATE

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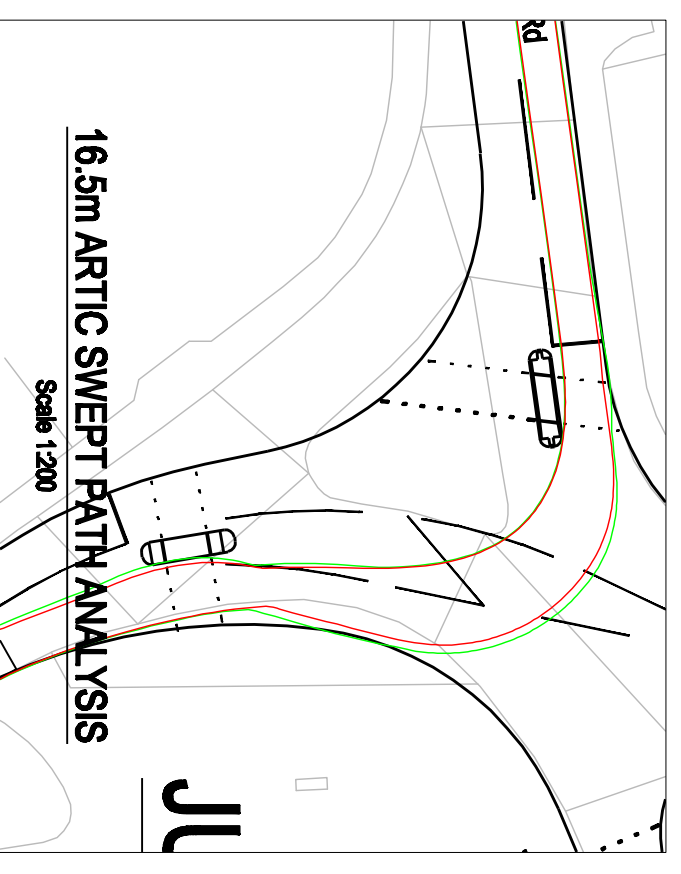
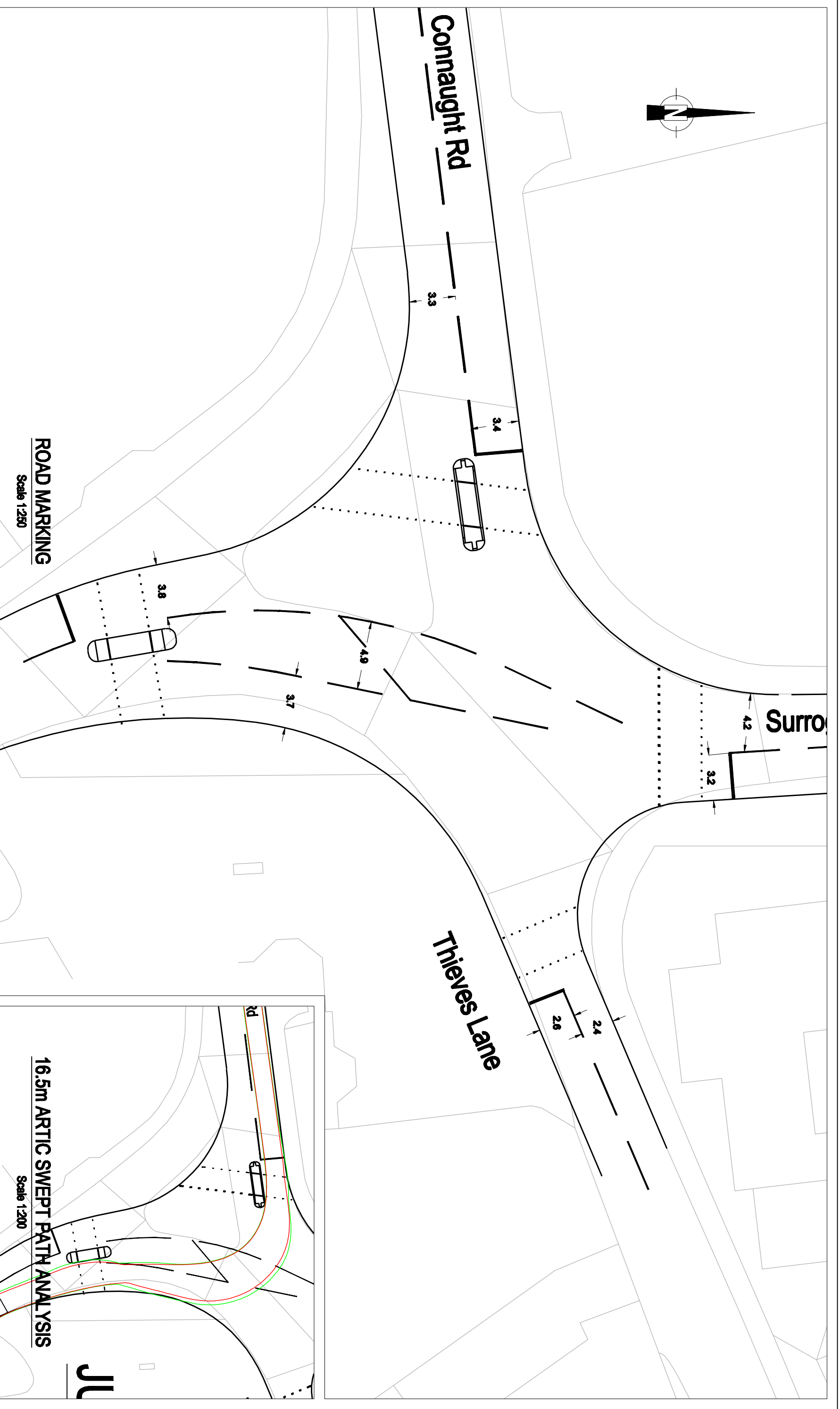
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Do Not Scale From This Drawing



ROAD MARKING
Scale 1:250

16.5m ARTIC SWEPT PATH ANALYSIS
Scale 1:200

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CONNAUGHT RD & SURROGATE ST JN
JUNCTION 3 - TRAFFIC SIGNAL OPTION

Drawn By	AS SHOWN	W/A	DR	W/A	CRH	DATE	JUNE 13
Checked By							

Project No: CS059912-01
Drawing No: H-059912-01-004D

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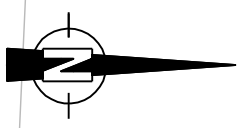
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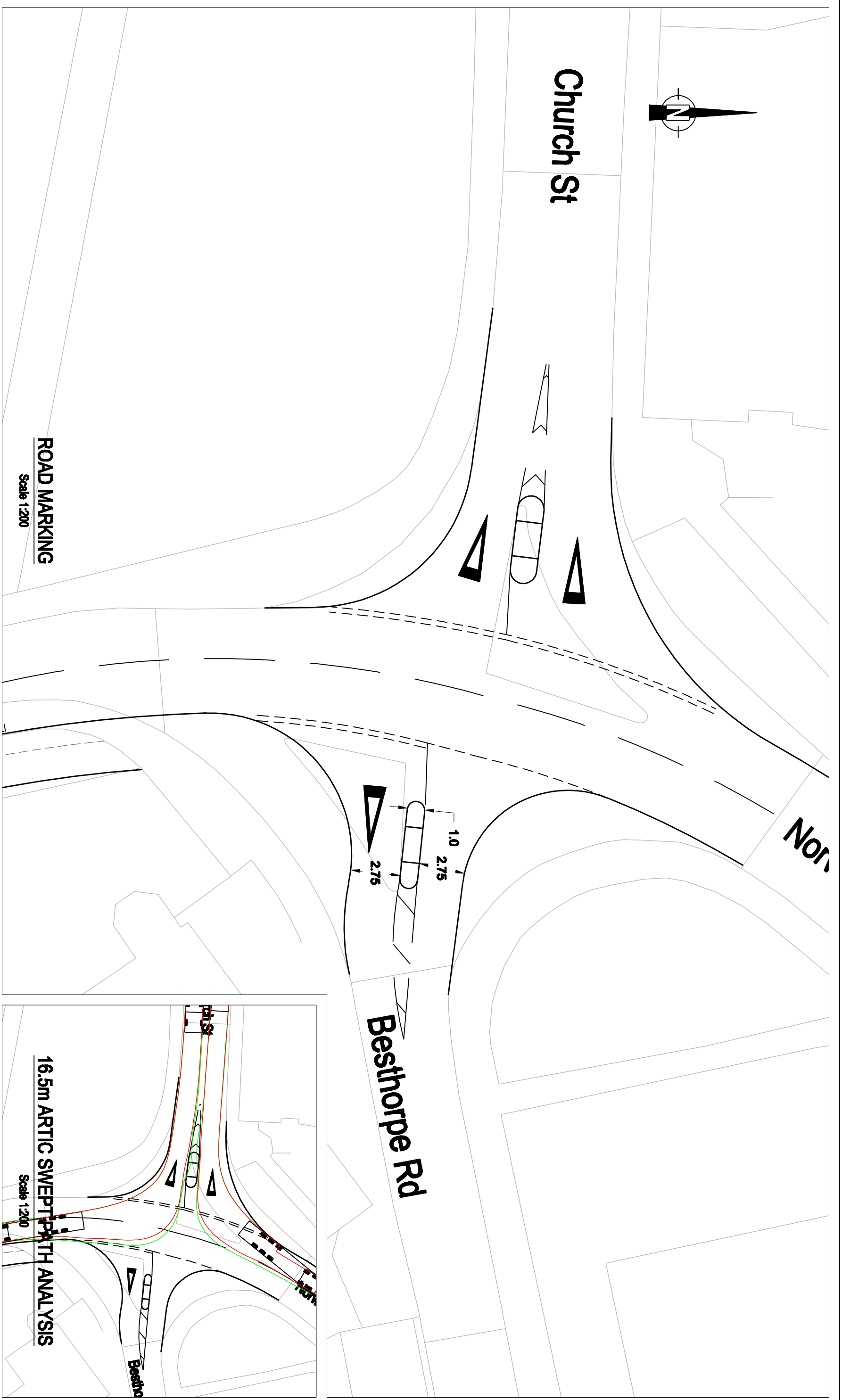
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Appendix HH – Scheme Drawings of Surrogate Street / Church Street / Norwich Road

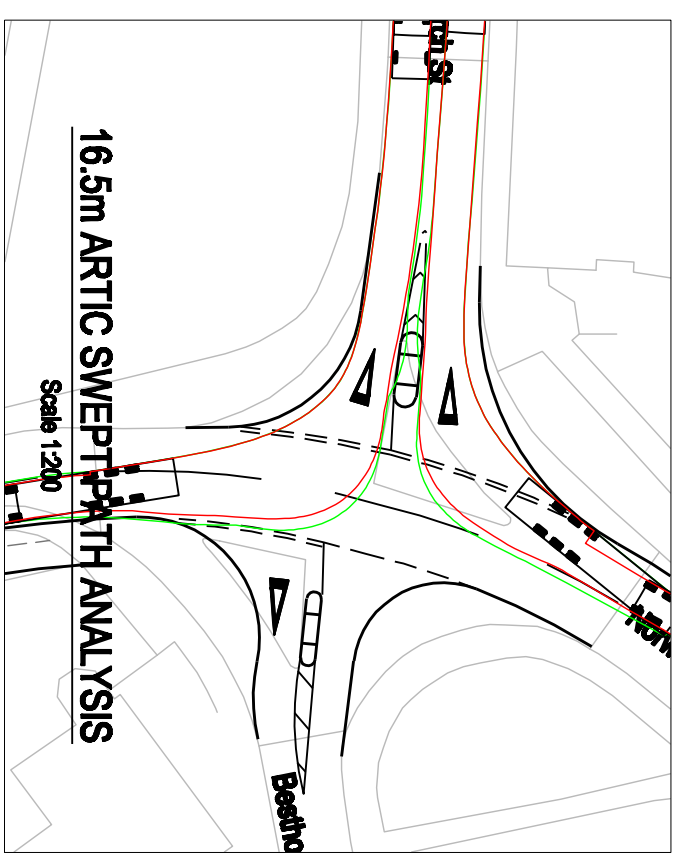


Church St

North



ROAD MARKING
Scale 1:200



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TRANSPORT STUDY

CHURCH ST BESTHORPE RD JUNCTION
JUNCTION 2 - PRIORITY OPTION

AS SHOWN W/A DR W/A CRH JUNE 13

CS059912-01-002C

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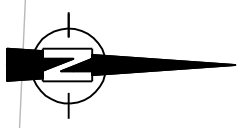
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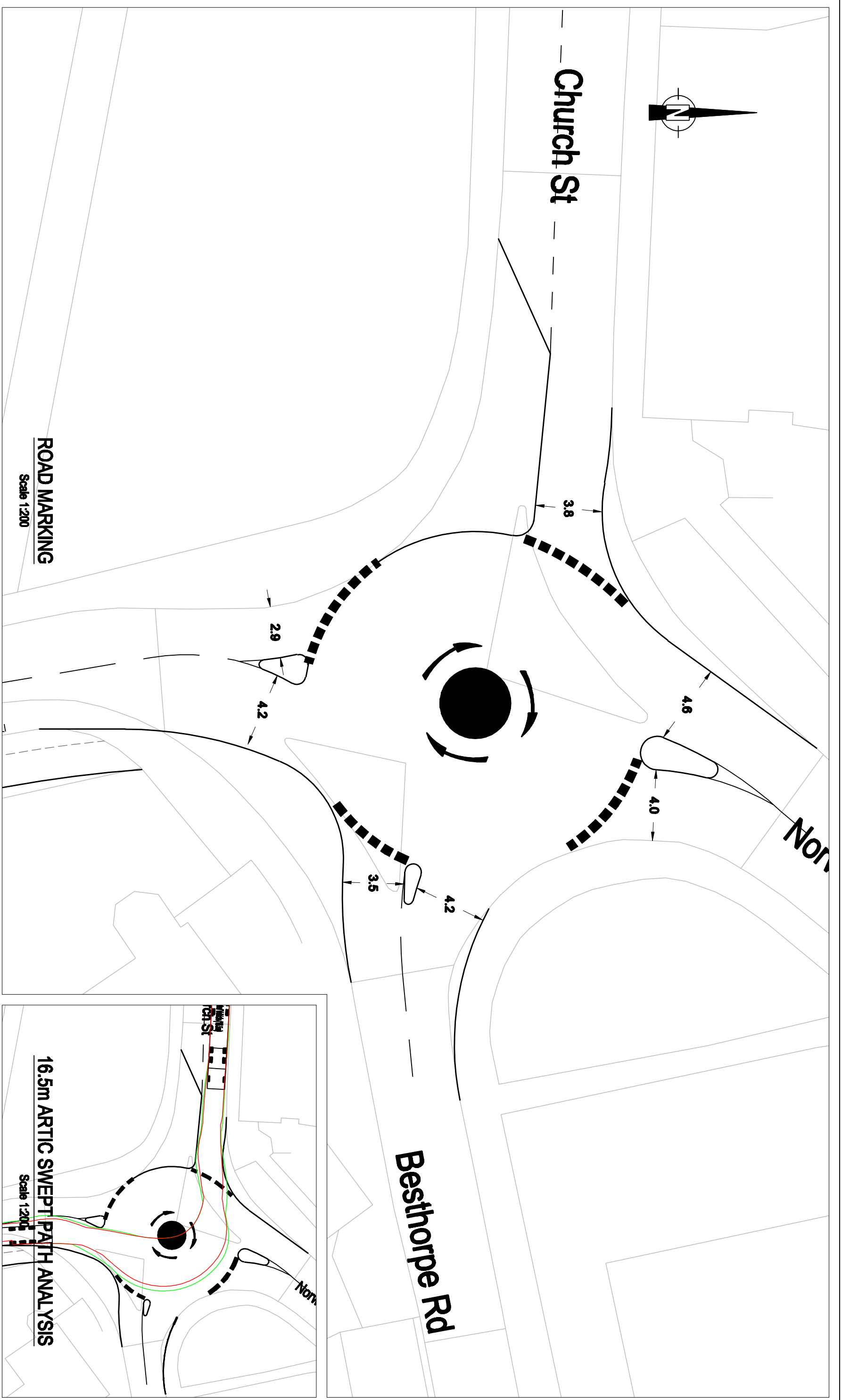
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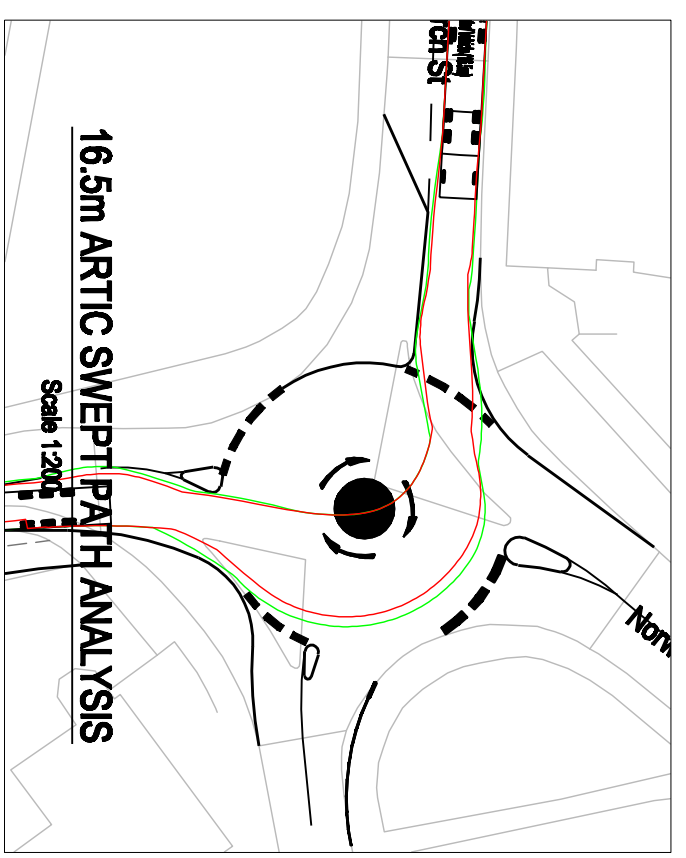
Church St

North

Besthorpe Rd



ROAD MARKING
Scale 1:200



INFORMATION

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ATTLEBOROUGH TOWN CENTRE
TRANSPORT STUDY

CHURCH ST BESTHORPE RD JUNCTION
JUNCTION 2 - ROUNDABOUT OPTION

Drawn By	AS SHOWN	W/A	DR	W/A	CRH	DATE	JUNE 13
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101

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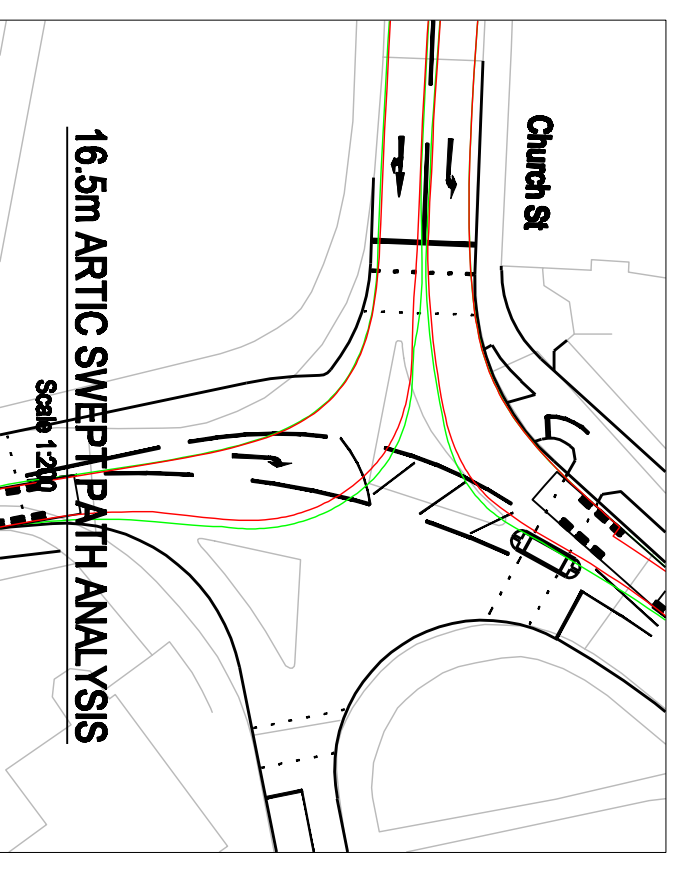
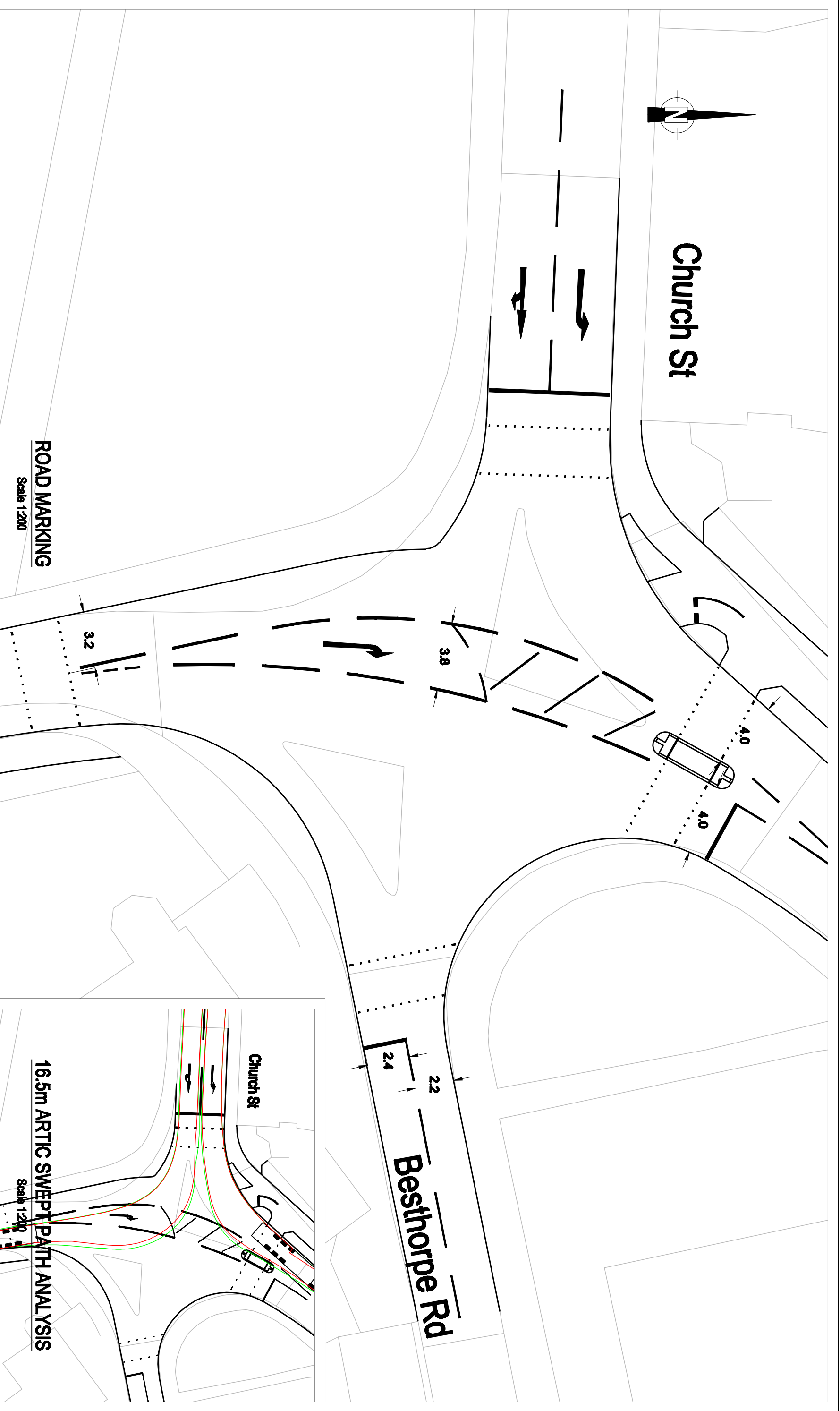
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REV	DESCRIPTION	DATE	BY	CHK

REV	DESCRIPTION	DATE	BY	CHK

REV	DESCRIPTION	DATE	BY	CHK



ROAD MARKING
Scale 1:200

INFORMATION

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**CHURCH ST BESTHORPE RD JUNCTION
JUNCTION 2 - TRAFFIC SIGNAL OPTION**

Drawn By	AS SHOWN	Checked By	DR	Approved By	CRH	Date Issued	JUNE 13
Project No.	CS059912-01						

H-059912-01-004C

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REV	DESCRIPTION	DATE	BY	APP	CHK	DATE	BY	APP	CHK

Appendix II – Summary of Recommended Package of Measures

Attleborough Town Centre Transport Strategy

Alignment of Recommended Strategy with Policy Objective and Guidance

Policy Document / Guidance	Priority/Objective	How well Strategy aligns with Objectives	Assessment of Recommended Strategy against Regional Policy
Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (Transport White Paper)	Engine for economic growth	✓	The strategy proposes improved public transport provision improving links with existing and proposed centres of employment. The proposals for the town centre one-way system and a new link road would prevent the existing network from reaching grid lock as indicated by do-minimum modelling.
	Reduces carbon	✓	The proposed package of measures to encourage modal shift and reduce congestion will have a positive impact on reducing carbon emissions.
	Improves quality of life for communities	✓ ✓	The reductions in traffic levels and removal of HGVs from Exchange Street and Church Street will greatly improve the environment in the town centre and should make people feel safer.
	Enabling sustainable transport choices	✓ ✓	The proposals to improve public transport service provision and provide improved walking and cycling networks will greatly enhance the choices available to Attleborough residents.
	Promoting active travel and healthy lifestyles	✓ ✓ ✓	New pedestrian and cycle infrastructure and facilities will make it easier for people to walk and cycle to and around the town centre and improve safety.
	Making public transport more attractive	✓ ✓	The strategy includes proposals to improve public transport services, bus stops and interchange facilities including improvements to Attleborough Rail Station.
Norfolk's Third Local Transport Plan, 2011 - 2026	Maintaining and managing the highway network	✓ ✓	The proposed changes to the town centre network and the proposed new link road will secure the expeditious movement in accordance with the 2004 Traffic Management Act
	Delivering sustainable growth	✓ ✓ ✓	The strategy is principally aimed at providing the infrastructure required to support the plans for growth.
	Enhancing strategic connections	✓ ✓	The introduction of a new link road will provide a key strategic route between the A11 and the urban extension and existing employment areas. It is also expected that the route will provide significant relief to the town centre network.
	Reducing emissions	✓ ✓	The proposed package of measures to encourage modal shift and reduce congestion will have a positive impact on reducing carbon emissions.
	Improving road safety	✓	The proposed local highway network changes and walking cycling infrastructure will be designed in accordance with appropriate standards and seek to reduce the potential for incidents through the implementation of Road Safety Audit procedures. Road accident statistics for Attleborough indicate that there isn't a significant problem currently.
	Improving accessibility	✓ ✓	The proposals to improve public transport service provision and provide improved walking and cycling networks will greatly enhance the choices available to Attleborough residents.
Breckland Adopted Core Strategy and Development Control Policies Development Plan Document	SO5: To address infrastructure and green infrastructure deficits, and infrastructure capacity issues.	✓	There are no significant infrastructure deficits in terms of the local highway network at present, particularly since the upgrade of the level crossing. It could however be argued that the provision of public transport is currently poor and that there are likely to be levels of latent demand. The proposed measure to improve public transport services would address this.
	SO6: To ensure that infrastructure and green infrastructure delivery keeps pace with the levels of growth.	✓ ✓ ✓	The strategy is principally aimed at providing the infrastructure required to support the plans for growth.
	SO9: To protect and enhance the built and historic environment of Breckland and require new development to meet high quality design standards.	✓ ✓	The reductions in traffic levels and removal of HGVs from Exchange Street and Church Street will greatly improve the environment in the town centre and should make people feel safer. The link road proposals would enable the proposed HGV ban to be extended to include Connaught Road and possibly Surrogate Street effectively covering the whole of the town centre Conservation Area.
	SO18: To provide for a significant modal shift from a reliance on the private car, in particular single person car use, to sustainable forms of transport.	✓ ✓	The proposals to improve public transport service provision and provide improved walking and cycling networks will greatly enhance the choices available to those living and working in Attleborough enabling modal shift.
	SO19: To ensure good accessibility for all to jobs, facilities and services in Breckland.	✓ ✓	The proposals to improve public transport service provision and provide improved walking and cycling networks will greatly enhance the choices available to Attleborough residents.
	SO21: To reduce urban isolation and social exclusion through the promotion of appropriate tenure mixes in new developments and improved accessibility to key services and facilities.	✓	The proposed measures will improve accessibility to existing and proposed employment areas and the town centre. Improved public transport services and facilities and walking and cycling infrastructure will provide greater levels of accessibility and reduce social exclusion.

Appendix JJ – Implementation Plan

Theme	Strategy Element	Price in '000s	2013-2017	2018-2021	2022-2024	2025-2027	2028-2031
Demand Management & Smarter Choices Package	Town Centre Walking and Cycling Improvements	See Smarter Choices Study	Green				
	Town Centre Public Transport Improvements (Waiting Facilities and Interchanges)		Green				
	Parking Policy Review			Yellow	Green		
Alterations to One-way System to revert Connaught Road and Surrogate Street to Two-way.	Church Street / Norwich Road / Surrogate Street Signalisation	345		Green			
	Connaught Road / Station Road Signalisation	305		Green			
	High Street / Exchange Street / Connaught Road Signalisation	290		Green			
	Public Realm Improvements on Exchange Street and Church Street	?		Green			
Major New Highway Infrastructure	Western Link Road	See Link Road Study			Green		



Feasibility / Detailed Study
Implementation / Construction

Appendix KK – Bill of Quantities

Item	Description - Priority Proposal	Quantity	Unit	Rate	Amount
	Junction 1				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				6500
	Site Clearance				
200/001	Removal of dis-used materials				2500
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	5	no	600	3000
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)		m ³	40	0
700/002	Surface Course 40mm thick	900	m ²	11	9900
700/003	Binder Course 60mm thick	0	m ²	8	0
700/004	Base Layer 225mm thick	0	m ³	22	0
700/005	Tack Coat	900	m ²	0.5	450
700/006	Plane off Surface Course	900	m ²	5	4500
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	65	m	20	1300
1100/002	Pre-cast concrete Edgings	65	m	15	975
	Footways				
1100/003	Surface course 20mm thick	135	m ²	9	1215
1100/004	Base layer 105mm thick	15	m ³	20	300
1100/005	Sub-base 100mm thick	0	m ³	40	0
1100/005	Tack Coat	100	m ²	0.5	50
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	175	m	2	350
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	30	m	2	60
1200/003	Arrow in white reflectorised thermoplastic screed	1	no	25	25
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	5	no	1500	7500
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	175	m	30	5250
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	175	m	5	875
				Total	44750
	Fees @ 10%				4475
	Contingency @ 5%				2237.5
				Grand Total	51462.5

Item	Description - Priority Proposal	Quantity	Unit	Rate	Amount
	Junction 2				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				5500
	Site Clearance				
200/001	Removal of dis-used materials				2000
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	4	no	600	2400
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)		m ³	40	0
700/002	Surface Course 40mm thick	660	m ²	11	7260
700/003	Binder Course 60mm thick		m ²	8	0
700/004	Base Layer 225mm thick		m ³	22	0
700/005	Tack Coat	660	m ²	0.5	330
700/006	Plane off Surface Course	660	m ²	5	3300
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	120	m	20	2400
1100/002	Pre-cast concrete Edgings	120	m	15	1800
	Footways				
1100/003	Surface course 20mm thick	250	m ²	9	2250
1100/004	Base layer 105mm thick	30	m ³	20	600
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat	250	m ²	0.5	125
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	90	m	2	180
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	100	m	2	200
1200/003	Arrow in white reflectorised thermoplastic screed		no	25	0
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	4	no	1500	6000
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	90	m	30	2700
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	90	m	5	450
				Total	37495
	Fees @ 10%				3749.5
	Contingency @ 5%				1874.75
				Grand Total	43119.25

Item	Description - Priority Proposal	Quantity	Unit	Rate	Amount
	Junction 3				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				3000
	Site Clearance				
200/001	Removal of dis-used materials				1000
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	1	no	600	600
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)		m ³	40	0
700/002	Surface Course 40mm thick	770	m ²	11	8470
700/003	Binder Course 60mm thick	0	m ²	8	0
700/004	Base Layer 225mm thick	0	m ³	22	0
700/005	Tack Coat	770	m ²	0.5	385
700/006	Plane off Surface Course	770	m ²	5	3850
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	20	m	20	400
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick	36	m ²	9	324
1100/004	Base layer 105mm thick	4	m ³	20	80
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat	36	m ²	0.5	18
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	150	m	2	300
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	150	m	2	300
1200/003	Arrow in white reflectorised thermoplastic screed	2	no	25	50
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	1	no	1500	1500
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	20	m	30	600
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	20	m	5	100
				Total	20977
	Fee @ 10%				2097.7
	Contingency @ 5%				1048.85
				Grand Total	24123.55

Item	Description - Roundabout Proposal	Quantity	Unit	Rate	Amount
	Junction 1				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				8000
	Site Clearance				
200/001	Removal of dis-used materials				3000
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	7	no	600	4200
	Earthworks				
600/001	Excavation of materials	4	m ³	15	60
600/002	Disposal of excavated materials	4	m ³	20	80
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)	4	m ³	40	160
700/002	Surface Course 40mm thick	925	m ²	11	10175
700/003	Binder Course 60mm thick	25	m ²	8	200
700/004	Base Layer 225mm thick	4	m ³	22	88
700/005	Tack Coat	950	m ²	0.5	475
700/006	Plane off existitng pavement	75	m ²	5	375
700/007	Palne off existing surface course	900	m ²	11	9900
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	150	m	20	3000
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick	90	m ²	9	810
1100/004	Base layer 105mm thick	10	m ³	20	200
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat	90	m ²	0.5	45
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	150	m	2	300
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	150	m	2	300
1200/003	Arrow in white reflectorised thermoplastic screed		no	25	0
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	4	no	1500	6000
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	150	m	100	15000
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	150	m	5	750
				Total	63118
	Fees @ 10%				6311.8
	Contigency @ 5%				3155.9
				Grand Total	72585.7

Item	Description - Roundabout Proposal	Quantity	Unit	Rate	Amount
	Junction 2				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				4000
	Site Clearance				
200/001	Removal of dis-used materials				1500
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	4	no	600	2400
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)		m ³	40	0
700/002	Surface Course 40mm thick	540	m ²	11	5940
700/003	Binder Course 60mm thick		m ²	8	0
700/004	Base Layer 225mm thick		m ³	22	0
700/005	Tack Coat	540	m ²	0.5	270
700/006	Plane off Surface Course	540	m ²	5	2700
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	80	m	20	1600
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick	165	m ²	9	1485
1100/004	Base layer 105mm thick	20	m ³	20	400
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat	165	m ²	0.5	82.5
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	90	m	2	180
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	90	m	2	180
1200/003	Arrow in white reflectorised thermoplastic screed	3	no	25	75
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	3	no	1500	4500
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	60	m	100	6000
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	60	m	5	300
				Total	31612.5
	Fees @ 10%				3161.25
	Contingency @ 5%				1580.625
				Grand Total	36354.38

Item	Description - Roundabout Proposal	Quantity	Unit	Rate	Amount
	Junction 3				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				3500
	Site Clearance				
200/001	Removal of dis-used materials				1200
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	2	no	600	1200
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)		m ³	40	0
700/002	Surface Course 40mm thick	900	m ²	11	9900
700/003	Binder Course 60mm thick		m ²	8	0
700/004	Base Layer 225mm thick		m ³	22	0
700/005	Tack Coat	900	m ²	0.5	450
700/006	Plane off Surface Course	900	m ²	5	4500
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	100	m	20	2000
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick		m ²	9	0
1100/004	Base layer 105mm thick		m ³	20	0
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat		m ²	0.5	0
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	120	m	2	240
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	120	m	2	240
1200/003	Arrow in white reflectorised thermoplastic screed	3	no	25	75
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	1	no	1500	1500
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	20	m	100	2000
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	20	m	5	100
				Total	26905
	Fees @ 10%				2690.5
	Contingency @ 5%				1345.25
				Grand Total	30940.75

Item	Description - Traffic Signal Proposal	Quantity	Unit	Rate	Amount
	Junction 1				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				30000
	Site Clearance				
200/001	Removal of dis-used materials				12500
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	8	no	600	4800
	Earthworks				
600/001	Excavation of materials	5	m ³	15	75
600/002	Disposal of excavated materials	5	m ³	20	100
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)	5	m ³	40	200
700/002	Surface Course 40mm thick	675	m ²	11	7425
700/003	Binder Course 60mm thick	35	m ²	8	280
700/004	Base Layer 225mm thick	10	m ³	22	220
700/005	Tack Coat	710	m ²	0.5	355
700/007	Palne off existing surface course	750	m ²	11	8250
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	185	m	20	3700
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick	300	m ²	9	2700
1100/004	Base layer 105mm thick	30	m ³	20	600
1100/005	Sub-base 100mm thick	30	m ³	40	1200
1100/005	Tack Coat	300	m ²	0.5	150
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	110	m	2	220
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	110	m	2	220
1200/003	Arrow in white reflectorised thermoplastic screed		no	25	0
	Traffic Signals				
1200/004	Signals Equipment				65000
1200/005	Vehicle Detection				40000
1200/006	Signals Civils (ducting, chambers, sockets)				60000
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	4	no	1500	6000
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	110	m	30	3300
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	110	m	5	550
				Total	247845
	Fees @ 10%				24784.5
	Contingency @ 5%				12392.25
				Grand Total	285021.8

Item	Description - Traffic Signal Proposal	Quantity	Unit	Rate	Amount
	Junction 2				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				37000
					12000
	Site Clearance				
200/001	Removal of dis-used materials				
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	4	no	600	2400
	Earthworks				
600/001	Excavation of materials	5	m ³	15	75
600/002	Disposal of excavated materials	5	m ³	20	100
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)	5	m ³	40	200
700/002	Surface Course 40mm thick	800	m ²	11	8800
700/003	Binder Course 60mm thick	40	m ²	8	320
700/004	Base Layer 225mm thick	10	m ³	22	220
700/005	Tack Coat	840	m ²	0.5	420
700/006	Plane off Surface Course	800	m ²	5	4000
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	210	m	20	4200
1100/002	Pre-cast concrete Edgings	15	m	15	225
	Footways				
1100/003	Surface course 20mm thick	60	m ²	9	540
1100/004	Base layer 105mm thick	10	m ³	20	200
1100/005	Sub-base 100mm thick	10	m ³	40	400
1100/005	Tack Coat	60	m ²	0.5	30
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	160	m	2	320
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	160	m	2	320
1200/003	Arrow in white reflectorised thermoplastic screed	3	no	25	75
	Traffic Signal				
1200/004	Signals Equipment				85000
1200/005	Vehicle Detection				55000
1200/006	Signals Civil (ducting, chambers, sockets)				75000
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	4	no	1500	6000
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	45	m	100	4500
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	45	m	5	225
				Total	297570
	Fees @ 10%				29757
	Contingency @ 5%				14878.5
				Grand Total	342205.5

Item	Description - Traffic Signal Proposal	Quantity	Unit	Rate	Amount
	Junction 3				
	Preliminaries				
100/001	Temporary Accomodation and Traffic Management				33000
	Site Clearance				
200/001	Removal of dis-used materials				11000
	Drainage				
500/001	225mm internal diameter drain pipe		m	100	0
500/002	1050 Internal diameter chamber with D400 grating and frame		no	1500	0
500/003	Pre-cast concrete gully with D400 grating and frame	7	no	600	4200
	Earthworks				
600/001	Excavation of materials		m ³	15	0
600/002	Disposal of excavated materials		m ³	20	0
600/003	Capping Layer 600mm thick		m ³	25	0
600/004	Geotextile Material		m ²	1	0
	Pavement				
700/001	Type 1 Unbound mixture sub-base (150mm thick)	10	m ³	40	400
700/002	Surface Course 40mm thick	710	m ²	11	7810
700/003	Binder Course 60mm thick	90	m ²	8	720
700/004	Base Layer 225mm thick	20	m ³	22	440
700/005	Tack Coat	800	m ²	0.5	400
700/006	Plane off Surface Course	710	m ²	5	3550
	Kerbs and Edgings				
1100/001	Pre-cast concrete kerbs (Half Battered)	170	m	20	3400
1100/002	Pre-cast concrete Edgings		m	15	0
	Footways				
1100/003	Surface course 20mm thick	320	m ²	9	2880
1100/004	Base layer 105mm thick	20	m ³	20	400
1100/005	Sub-base 100mm thick		m ³	40	0
1100/005	Tack Coat	320	m ²	0.5	160
	Road Markings				
1200/001	Continuous line in white thermoplastic screed with applied solid glass beads 200 mm wide.	115	m	2	230
1200/002	Intermittent line in white themoplastic screed with applied solid glass beads 75mm wide with 600 mm line and 600 mm gap.	115	m	2	230
1200/003	Arrow in white reflectorised thermoplastic screed		no	25	0
	Traffic Signals				
1200/004	Signals Equipment				75000
1200/005	Vehicle Detecttion				45000
1200/006	Signal Civils (ducting, chambers, sockets)				65000
	Road Lighting Columns				
1300/001	Steel Lighting column of 10m nominal height	4	no	1500	6000
	Electrical Works for Cable Trench and Duct				
1400/001	Trench for cable	130	m	30	3900
1400/001	10 mm ² 3 core cable with copper conductors laid in trench	130	m	5	650
				Total	264370
	Fees @ 10%				26437
	Contingency @ 5%				13218.5
				Grand Total	304025.5