

BT-NG-020621-545-0266

Bramford to Twinstead Reinforcement

Volume 8: Examination Submissions

Document 8.7.4: Temporary Access Route off the A131 Concept Design
and Swept Path Assessment

Final Issue A
December 2023

Planning Inspectorate Reference: EN020002

The Infrastructure Planning (Examination Procedure) Rules 2010
Regulation 8(1)(k)

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Appendix A Concept Design of A131 Ghost Island and Bellmouth
Appendix B Abnormal Indivisible Load Swept Path Assessment

Executive summary

This report has been produced for the purpose of providing a Swept Path Assessment (SPA) for the Temporary Access Route off the A131 (access point at H-AP20 through to the access point at H-AP10 in the vicinity of the Stour Valley West Cable Sealing End Compound).

The concept design for the access point off the A131 (A131 ghost island) and bellmouth in Appendix A demonstrates that the design can be suitably accommodated within the Order Limits.

The SPA in Appendix B demonstrates that the A131 ghost island and bellmouth can safely accommodate two Abnormal Indivisible Load (AIL) transport units in convoy, and that the Temporary Access Route off the A131 as currently proposed can accommodate the AIL movements within the temporary access route, and within the Order Limits.

The designs presented in Appendices A and B are indicative designs to demonstrate that the accesses can be developed safely, within the Order limits and without generating more vegetation removal than proposed. However, the precise design of the bellmouth, its location along the A131 and the alignment of the temporary access route may vary with detailed design. Requirement 11 on the draft Development Consent Order (**document 3.1**) ensures that final access designs are submitted and approved by the relevant highway authority prior to construction.

1. Introduction

1.1 Overview

- 1.1.1 This document has been produced in response to Action Point AP2 arising from Compulsory Acquisition Hearing 1 [EV-045] which required the Applicant to “*submit an appendix to the earlier technical note to deal with the environmental comparison and swept path analyses for the Applicant’s preferred route for the A131 construction haul road and the alternative routes suggested by DFP Nott and Sons and Mr PJ Nott for their holdings*”.
- 1.1.2 The environmental comparison was addressed by an update to the Technical Note at Deadline 4 in the submission of document 8.5.5 (B): Technical Note on Temporary Access Route off the A131 at Deadline 4 [REP4-009].
- 1.1.3 This document contains the Swept Path Assessment (SPA) for the Applicant’s preferred route of the Temporary Access Route off the A131 as represented in Figure 1.1 of document 8.5.5 (B): Technical Note on Temporary Access Route off the A131 [REP4-009]. Refer to Appendix B for the SPA report.
- 1.1.4 This document also incorporates a concept design for the A131 ghost island and bellmouth (refer to Appendix A) which has been incorporated within the SPA in Appendix B. This concept design also addresses queries from the local highway authorities on the nature of the proposed junction with the A131.

2. A131 Ghost Island and Bellmouth

2.1 Concept Design

- 2.1.1 Appendix A contains a concept design for the A131 ghost island and bellmouth (drawing BT-NG-020621-TAR-002). The detailed design of the A131 ghost island and bellmouth will be undertaken by the main works contractor once appointed and submitted to the relevant Local Highway Authority (Essex County Council) for approval pursuant to Requirement 11 of the draft DCO (**document 3.1**).
- 2.1.2 The A131 ghost island has been designed to allow for a right turn in (from the south) and a left turn out (to the south); for clarity AILs are not proposed to use the A131 from Sudbury to the north. The concept design includes a right turn pocket that can accommodate two AIL transport units travelling in convoy.
- 2.1.3 The concept design presently indicates the bellmouth placed on the northern boundary of the Order Limits as a worst-case arrangement, this resulting in a tighter right turn into the bellmouth and a tighter left turn out of the bellmouth along the access route. It is noted that the Order Limits allow space for the bellmouth to be re-positioned further to the south (more centrally within the Order Limits) in the detailed design which would allow for smoother initial turns by the AILs.
- 2.1.4 The concept design demonstrates that a ghost island and bellmouth can be constructed at the A131 access point at H-AP20 within the Order Limits requested by the Applicant, and that the Order Limits further allow flexibility for some repositioning of this ghost island and bellmouth to suit detailed design if required and/or following discussions with the local highway authority.

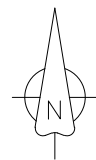
3. Swept Path Assessment

3.1 Review of Swept Path Assessment

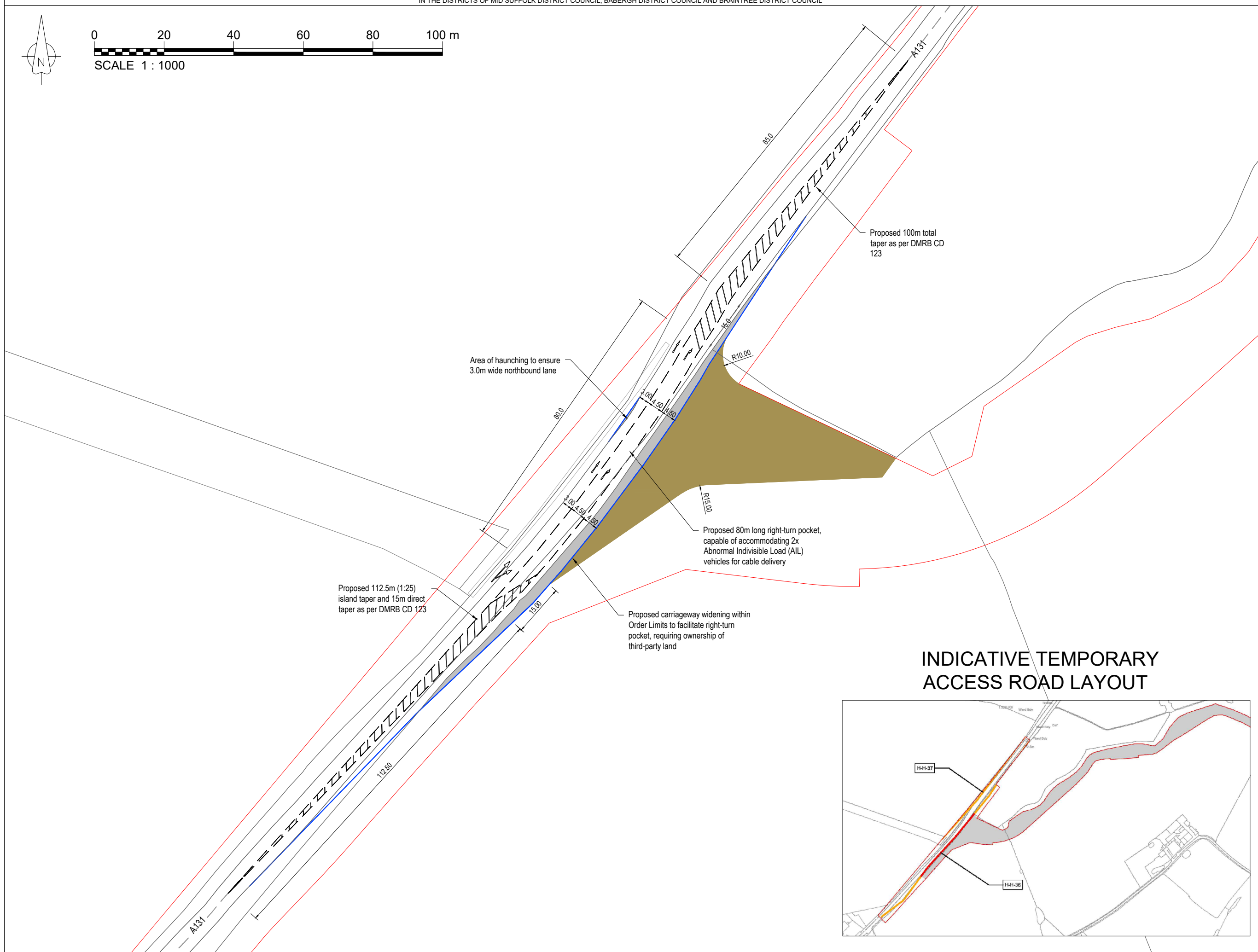
- 3.1.1 The Applicant appointed a specialist Consultant to undertake the SPA of the Temporary Access Route off the A131 as per Figure 1.1 within document 8.5.5 (B): Technical Note on Temporary Access Route off the A131 [REP4-009]. The SPA report is attached as Appendix B.
- 3.1.2 The SPA is provided for the Temporary Access Route off the A131 (access point at H-AP20 through to the access point at H-AP10 in the vicinity of the Stour Valley West Cable Sealing End Compound). The concept design for the A131 ghost island and bellmouth as per Appendix A has been incorporated within the SPA.
- 3.1.3 Drawing 21-1030.GI01 (page 14) of Appendix B demonstrates that two AIL transport units can be safely accommodated within the 80m long right turn pocket within the ghost island, and further that two AIL transport units can be safely accommodated within the bellmouth once the right turn has been completed by both units.
- 3.1.4 Drawing 21-1030.SPA03 Sheets 1 to 17 (pages 15 to 31) of Appendix B provides the SPA of an AIL transport unit travelling from access point H-AP20 through to access point H-AP10 along the proposed temporary access route. The report notes that although in places an oversail of the temporary access route occurs, this is a result of an attempt to track the AIL vehicle along the left-hand lane of the temporary access route. If the AIL occupied the full width of the temporary access route, no oversail would be expected, and the Applicant anticipates that this would be the approach adopted by the main works contractor during the AIL deliveries.
- 3.1.5 There are predicted to be 50 AIL vehicles using this temporary access route over the construction period and AIL deliveries are tightly controlled, programmed and managed. It is therefore likely that the Applicant would effectively close the temporary access route to other construction traffic during AIL movements, enabling use of the full carriageway. One benefit of the temporary access route is that the Applicant will be the only user of the temporary access route so this can be easily managed with no impact on the local highway network after the A131 junction except for locations where the temporary access route crosses the local highway network.
- 3.1.6 The Applicant notes that in all cases the AIL remains well within the Order Limits, which allows for some flexibility in the detailed design of the Temporary Access Route off the A131 by the main works contractor to address any localised issues arising.

Appendix A

Concept Design of A131 Ghost Island and Bellmouth



1. Drawing to be printed in colour.
2. Layouts to be agreed with relevant land owners / stakeholder
3. Do not scale from this drawing.
4. All dimensions in metres unless otherwise noted
5. The accuracy of this plan is limited to the accuracy of the Ordnance Survey map. If any conflicting information is reported on site, this should be reported to a representative of the overseeing organisation.
6. Swept path analysis has not been undertaken due to the exceptional nature of the vehicle, but the geometry has been constructed to ensure the swept path of the worst-case abnormal indivisible load (AIL) vehicle can be accommodated within the order limits.
7. Existing infrastructure such as drainage, street lighting, traffic signs and signal ducts are subject to alteration as required.
8. All road markings and signs are as per the traffic signs regulations and general directions 2016 (tsrgd) and traffic signs manual.
9. The feasibility of this design solution is subject to further work to be conducted during the next design stage.
10. The proposals are indicative and subject to alteration following completion of the topographical survey



INDICATIVE TEMPORARY ACCESS ROAD LAYOUT



- Proposed road markings
- Existing road markings to remain
- Proposed edge of widened carriageway
- Proposed carriageway widening
- Proposed temporary access road bellmouth

Reference should be made to Document 2.1 Guide to the Plans which provides further information on what the plans show.

NG Investment No. 21847

| | | | | | |
|-------|----------|------------------------|-------|------|------|
| | | | | | |
| A | 13/11/23 | Issued for Information | NP | DF | RF |
| ISSUE | DATE | REMARKS | DRAWN | CHKD | APPD |

PROJECT
Bramford to Twinstead Reinforcement



TITLE
 Design and Layout Plans:
 Proposed Ghost Island / Temporary Access Road Bellmouth Layout Concept Design

CIRCUIT / SITE
 Bramford - Pelham & Bramford - Braintree - Bulls Lodge

ORIGINATOR DRAWING No.
 B2441B04-JAC-TE-B2T-TAR-002

NG DRAWING No.
 BT-NG-020621-TAR-002

Scale:- NTS

ACAD

A3

Issue

A

Appendix B

Abnormal Indivisible Load Swept Path Assessment



Bramford to Twinstead – Option 1 DCO (Red Route) - Abnormal Indivisible Load Swept Path Assessment Considerate of 60te Cable Drum Delivery

Prepared for National Grid





National Grid | 21-1030 Bramford to Twinstead | SPA Summary | 29.11.23

| NAME | | SIGNATURE | DATE |
|--------------|--------------|------------|----------|
| Prepared by: | Micah Orbart | [REDACTED] | 28.11.23 |
| Checked by: | Andy Pearce | [REDACTED] | 28.11.23 |
| Approved by: | Andy Pearce | [REDACTED] | 28.11.23 |

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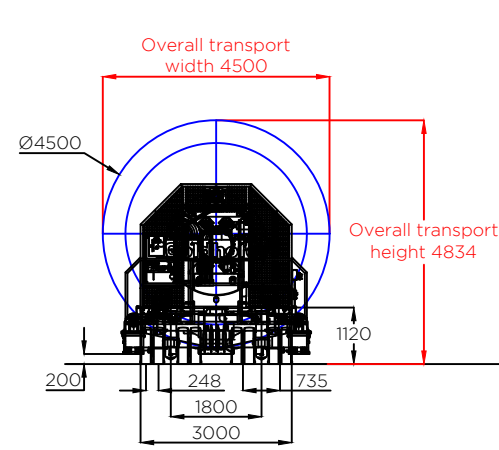
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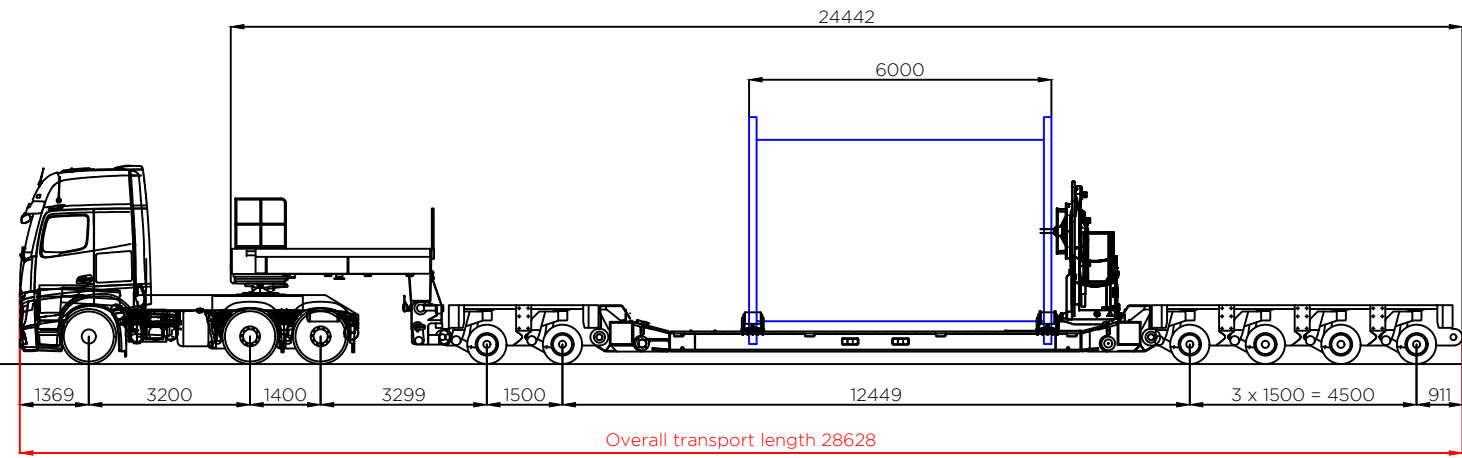
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DOCUMENT REVISIONS

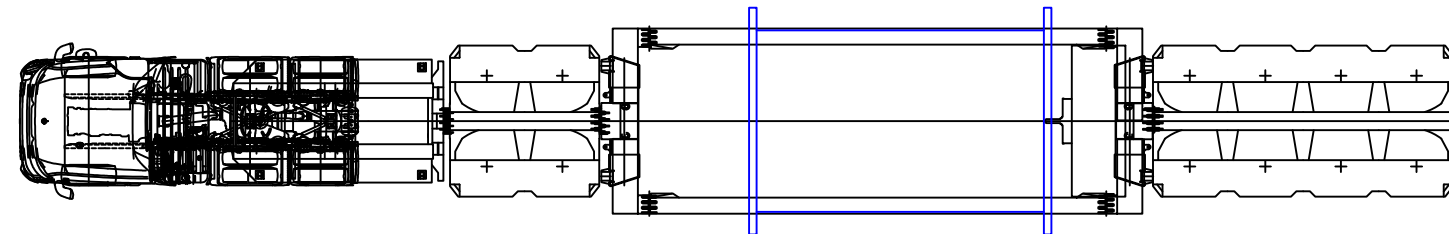
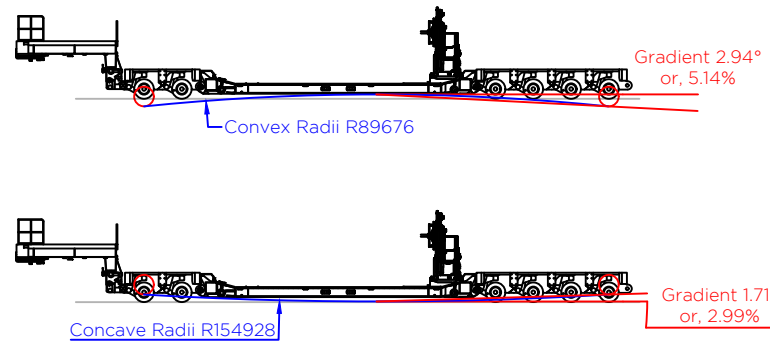
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|-------|----------|--------------------------------|
| 0 | 28.11.23 | SPA Drawings Issued |
| 1 | 29.11.23 | Vertical Negotiability Updated |
| 2 | | |



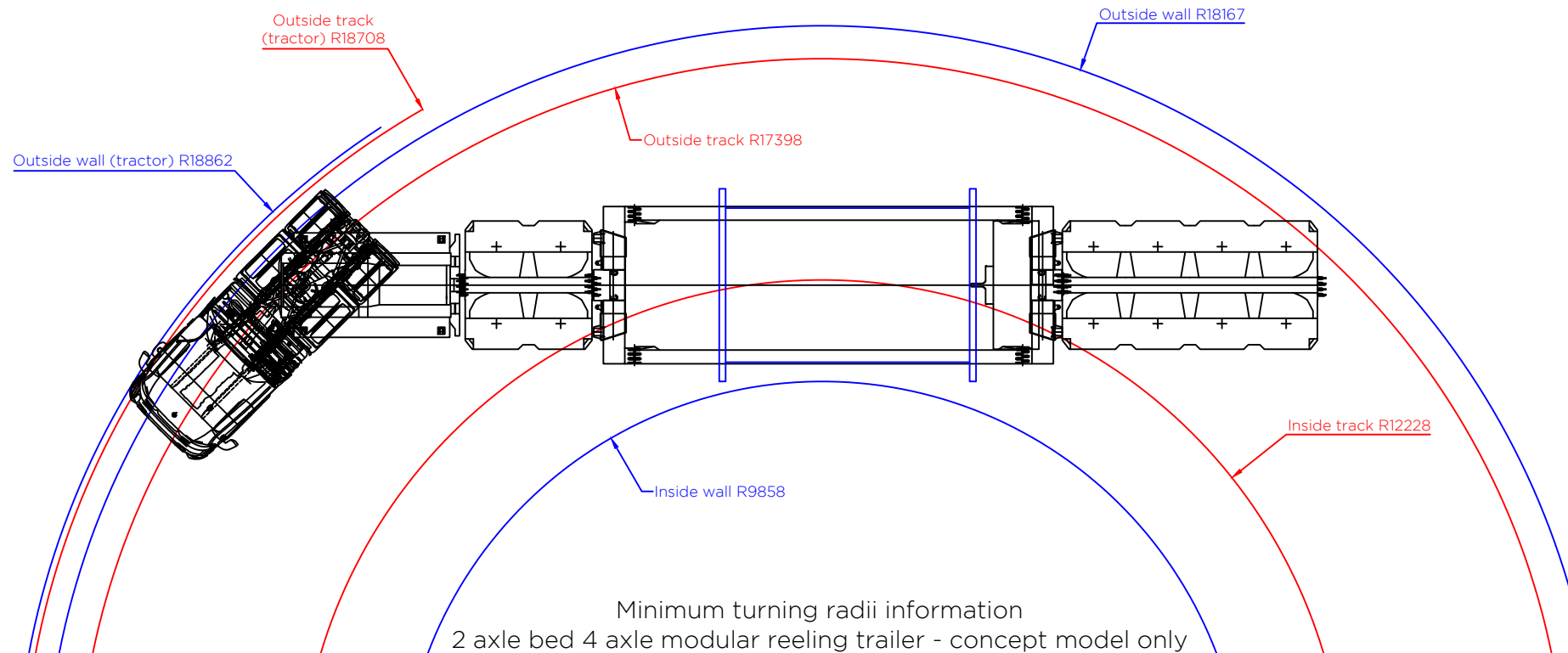
Profile view



Elevation view - 2 axle bed 4 axle modular reeling trailer - concept model only
Indicative 60 te cable drum



Plan view - 2 axle bed 4 axle modular reeling trailer - concept model only
Indicative 60 te cable drum



Minimum turning radii information
2 axle bed 4 axle modular reeling trailer - concept model only
Indicative 60 te cable drum

| Load table | |
|------------------------------------------------|------------------------|
| 4 axle modular reeling trailer | |
| Self weight of cable drum | 60.0 te |
| Self weight of trailer | 39.6 te |
| Self weight of tractor | 12.0 te |
| Total combined weight | 111.6 te |
| Max. load per axle line (trailer) | 14.12 te |
| Load per axle | 7.06 te |
| Load per wheel (4 per axle) | 1.77 te |
| Max. overall ground bearing pressure (trailer) | 4.77 te/m ² |

| Tractor (12 te) | |
|-----------------|---------|
| Front steer | 8.1 te |
| Rear axle | 12.7 te |
| Rear axle | 12.7 te |

Notes:
 [1] The figures shown above are representative of the transport configuration portrayed. However, as tractor and trailer arrangements vary then the loads and dimensions indicated should be treated as probable values.
 [2] Actual dimensions, including axle spacing and mean running height, may vary slightly depending on manufacturer of trailer deployed.
 [3] All linear measures in millimetres unless stated otherwise.
 [4] Minimum turning radii based upon maximum steering angle of 45 degrees. Some trailers operate to a maximum steering angle of 60 degrees, which will improve negotiability.

| Rev. | Date | Amendments |
|------|----------|--------------------------------|
| 2 | 29.11.23 | Vertical Negotiability Updated |
| 1 | 28.11.23 | Vertical Negotiability Added |
| 0 | 17.06.22 | Issued for comment |

Revisions

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Independent Transportation Engineers

Client:



National Grid
Hams Lane
Coleshill
West Midlands
B46 1AW

Project:

Bramford to Twinstead

Title:

**Indicative transport configuration
Indicative 60.0 te cable drum carried on
2 axle bed 4 axle modular reeling trailer
showing minimum turning radii**

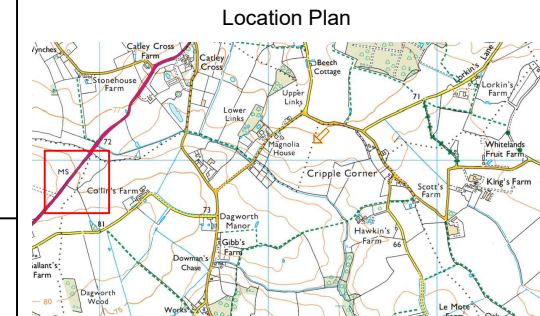
Drawing status:

Final report

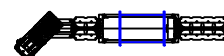


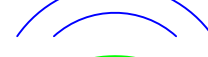


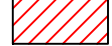

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| Scale (A3): 1:150 | Drawn By: MTO | Checked By: AP |
| Dwg. no: 21-1030.TC07 | Sheet: 1 of 1 | Rev: 2 |



Ghost Island
Vehicle Position Review
Based on Client Supplied Drawing
Scale 1:500



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

Client supplied drawing for ghost island. The illustration shows two transport configurations waiting within the proposed ghost island. Sufficient space available to accommodate.

Client supplied drawing for bell mouth. The illustration shows two transport configurations waiting within the proposed bell mouth. Consideration at this time has not been given to the access road from the position of the bell mouth. Sufficient space available to accommodate.

Proposed 112.5m (1:25) island taper and 15m direct taper as per DMRB CD 123

Approximately 60m

Approximately 10m

Area of haunching to ensure 3.0m wide northbound lane

Proposed 80m long right-turn pocket, capable of accommodating 2x Abnormal Indivisible Load (AIL) vehicles for cable delivery

Proposed carriageway widening within Order Limits to facilitate right-turn pocket, requiring ownership of third-party land

| 1 | | |
|------|----------|--------------------|
| 0 | 24.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

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Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: Ghost Island Design Review
Vehicles to wait in ghost Island, then turn right from A131 onto access road, considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

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| As shown | MTO | AP |

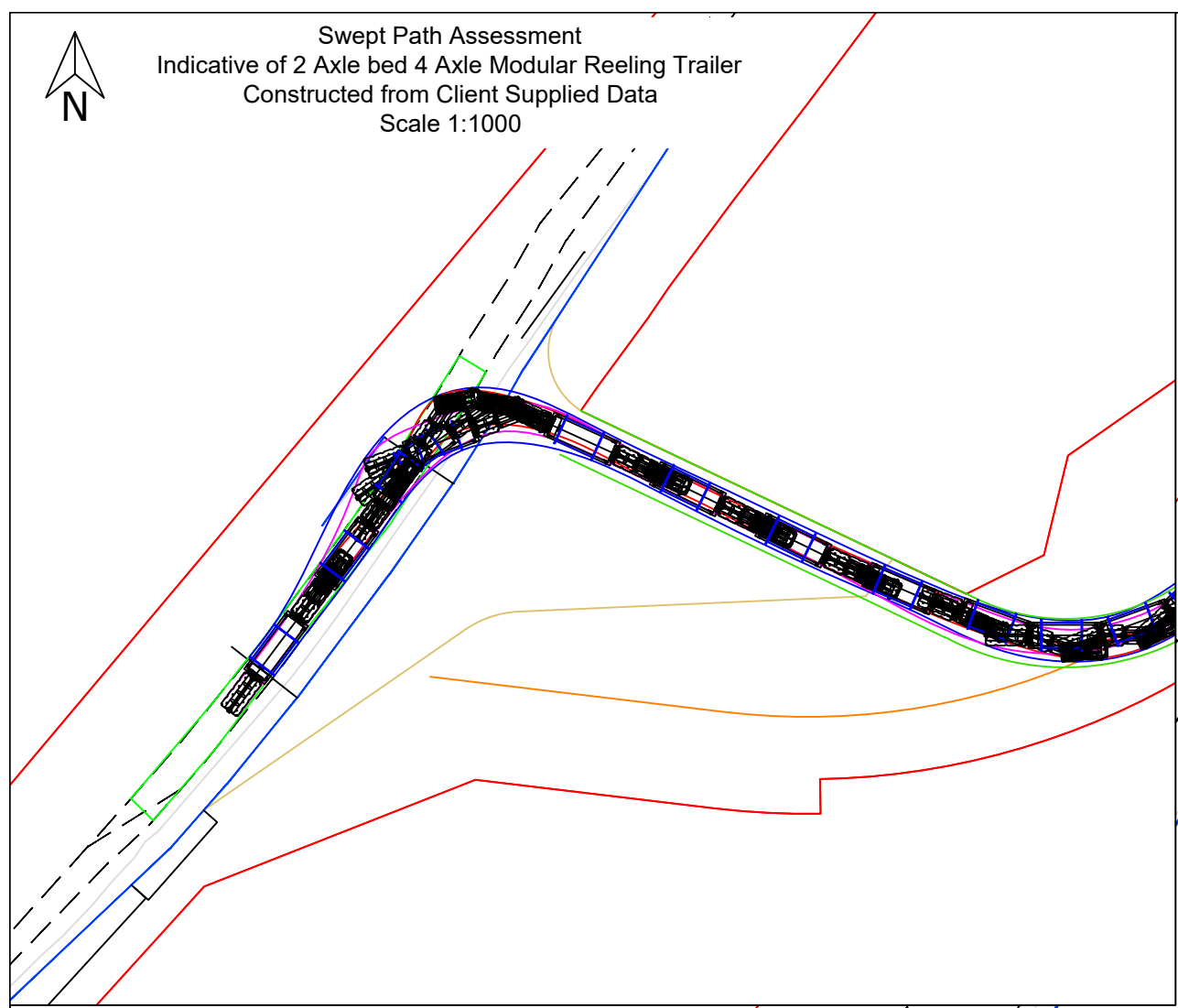
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Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000



Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

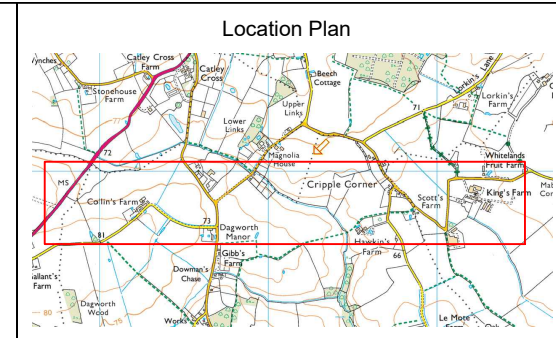
The delivery vehicle can be seen turning right from A131 onto the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, utilising the left lane will result in oversail outside the road boundary and into the opposite lane.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.









Refer to Seperate Client Drawing
 (SW_20231115 CG) Regarding
 Detailed Specification for Design
 Paramaters of Entrance.

Road Width = 7m

Direction of Travel



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| Rev. | Date | Amendments |
|------|----------|--------------------|
| 1 | | |
| 0 | 22.11.23 | Issued for comment |

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Client:



Project: Bramford to Twinstead

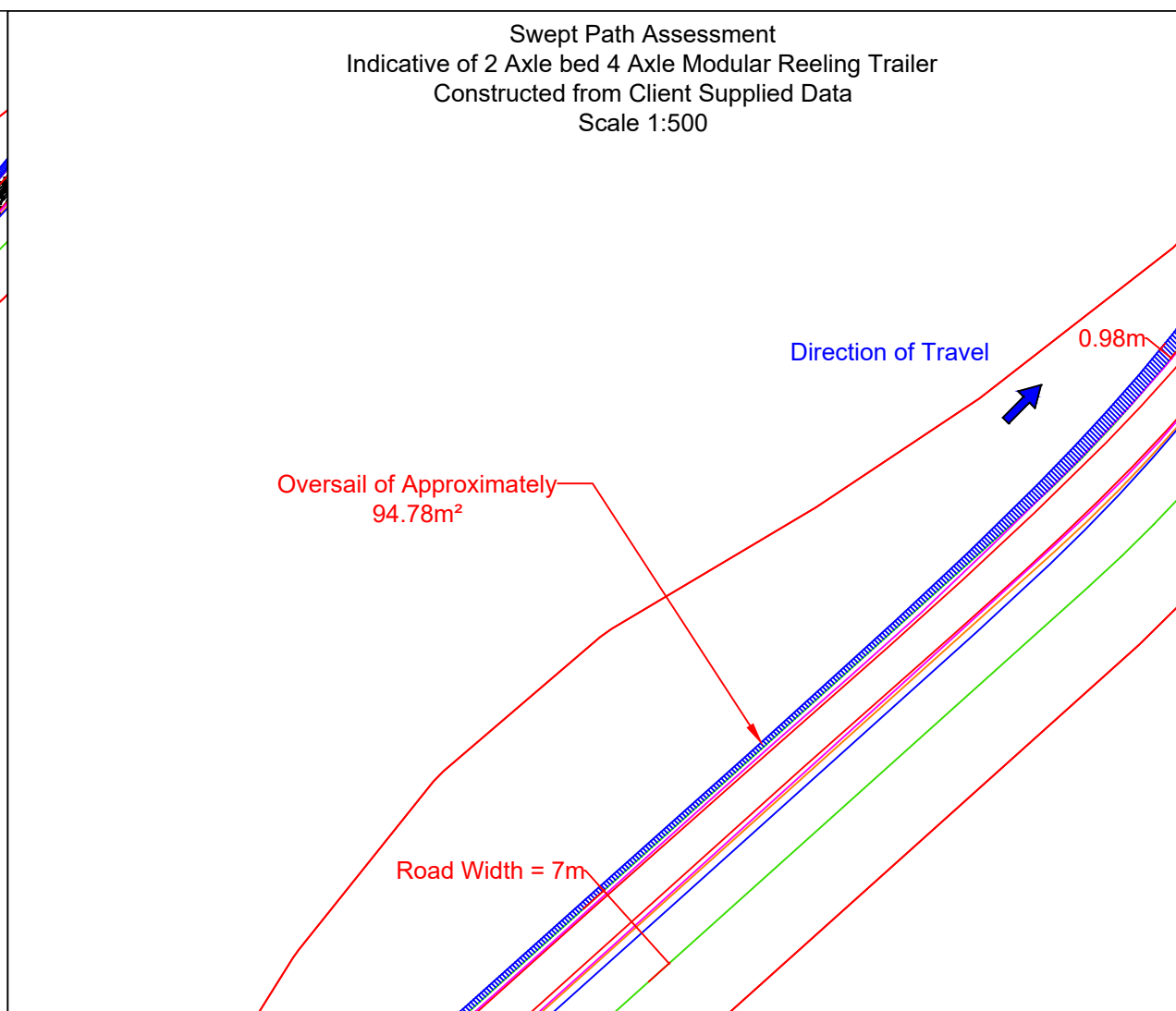
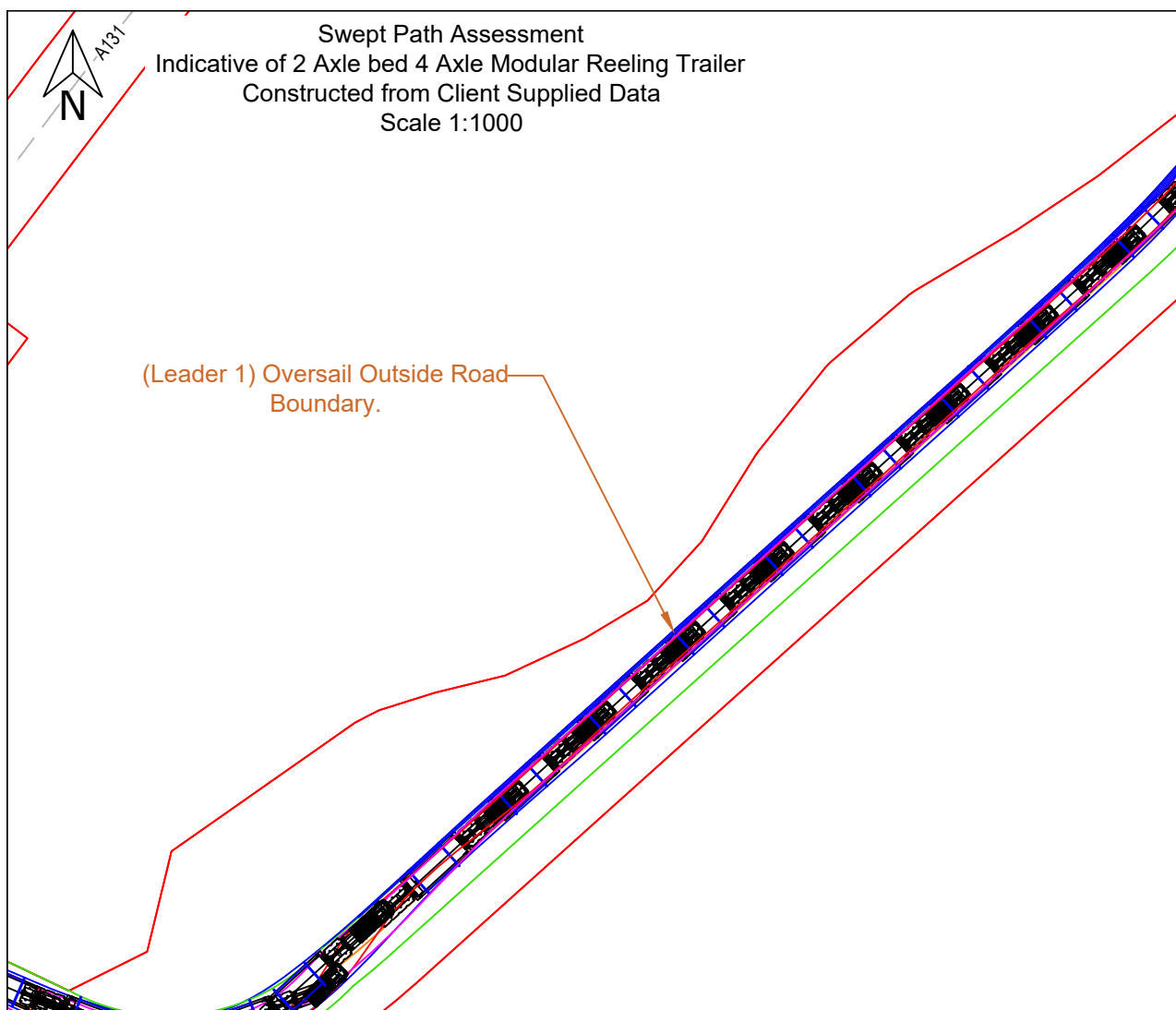
Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

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| Dwg. no: 21-1030.SPA03 | Sheet: 1 of 18 | Rev: 0 |

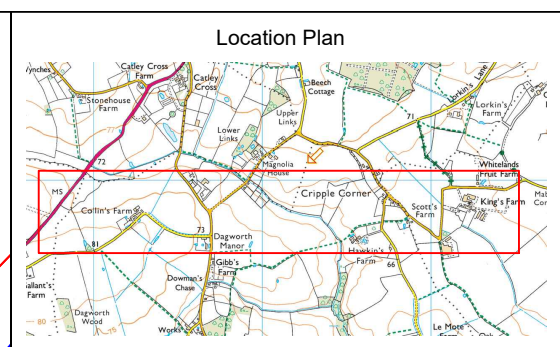
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The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.98m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.



Legend:

- 2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
- Extent of tractor track
- Extent of trailer track
- Extent of oversail
- Extent of road boundary
- Overrun and oversail beyond kerb
- Overrun beyond kerb
- Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

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Shaftesbury House, 2 High Street,
Eccleshall, Stafford, ST21 6BZ
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Independent Transportation Engineers

Client:

Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
Swept Path Assessment
Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

Final Report

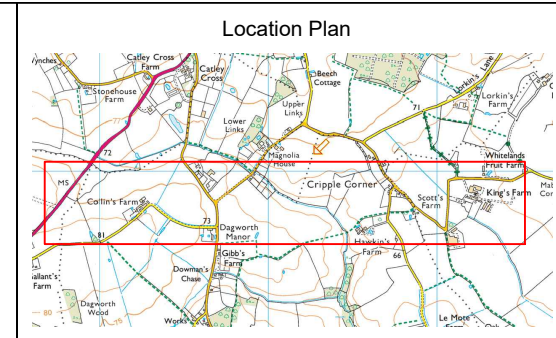
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| 21-1030.SPA03 | 2 of 18 | 0 |

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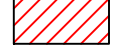

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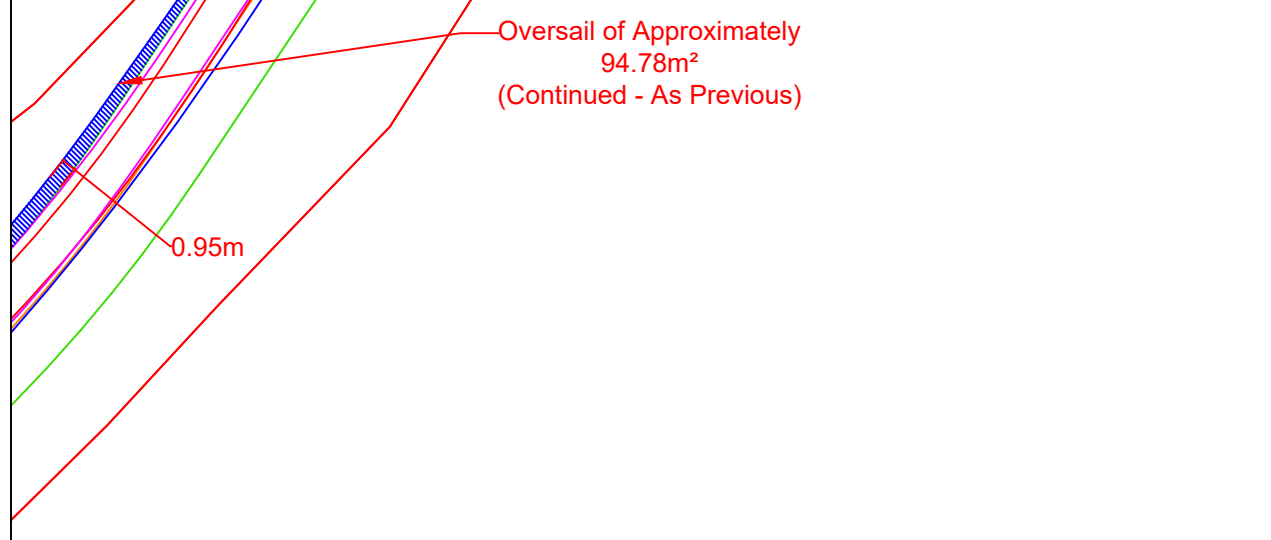
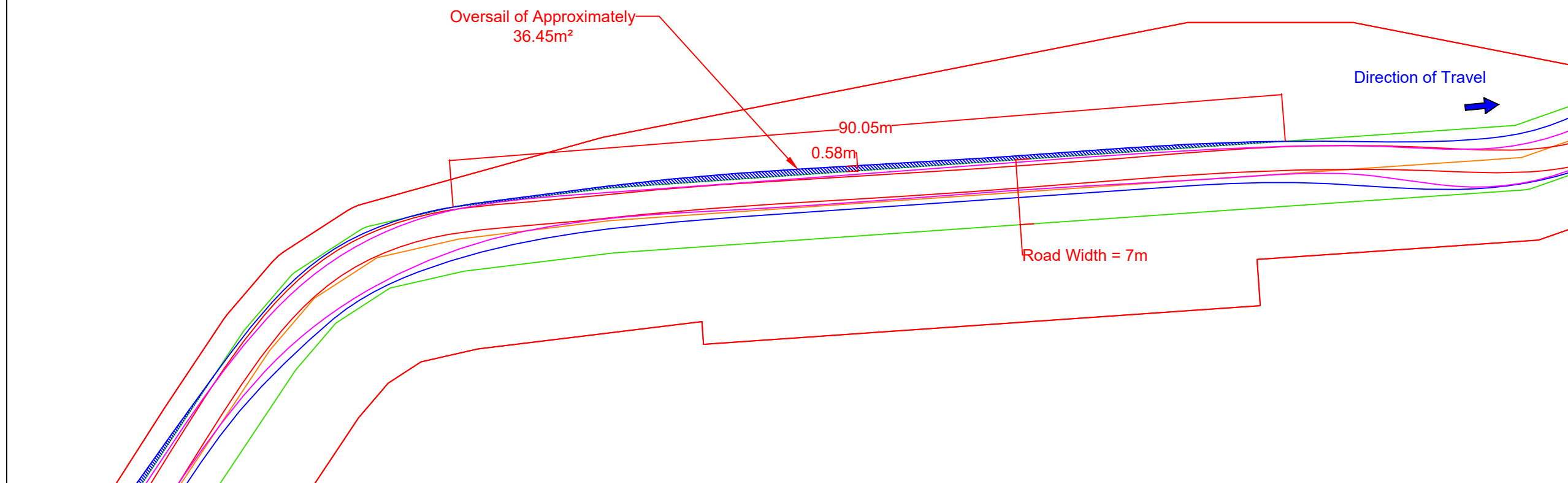


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500



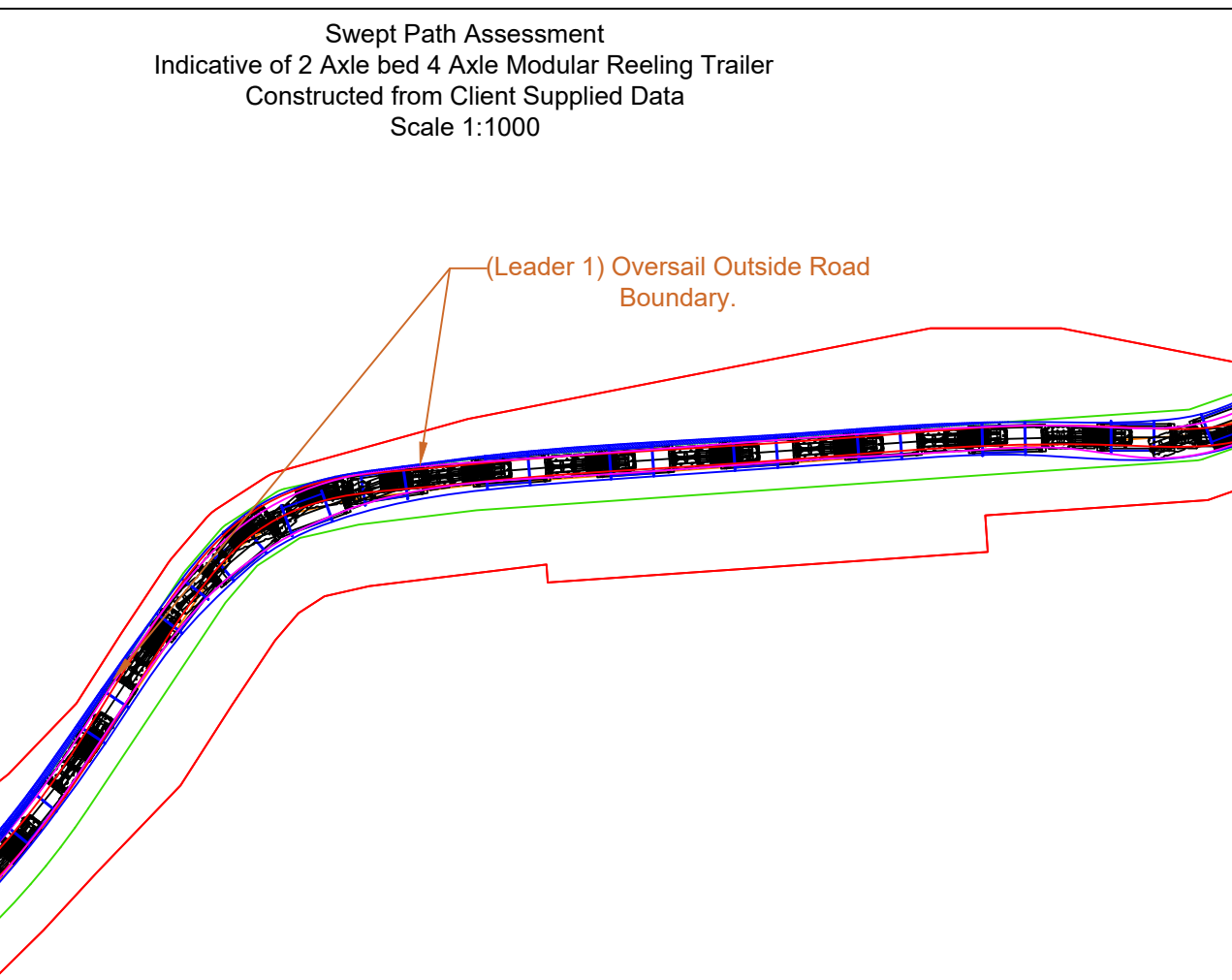
Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb





The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.95m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

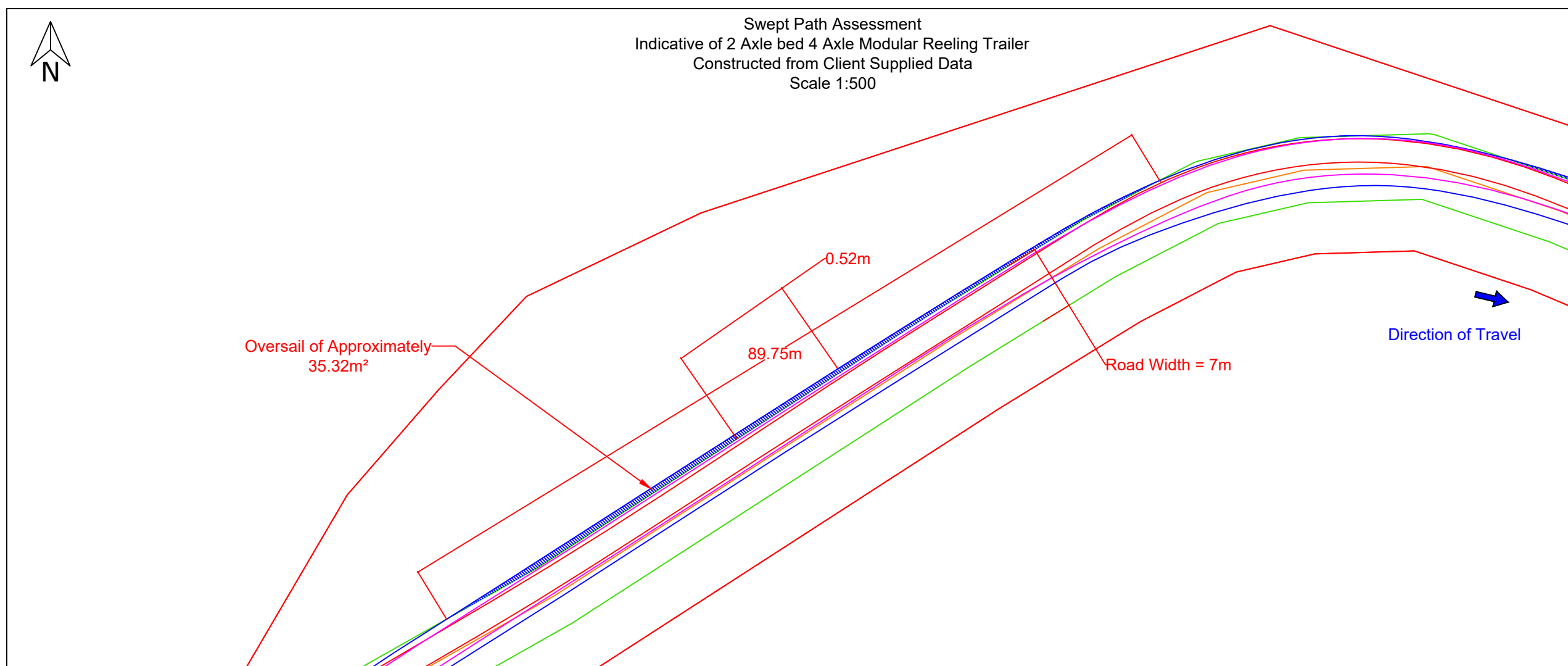


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000

| 1 | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |
| Revisions | | |
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| Independent Transportation Engineers | | |
| Client: | | |
|  | | |
| Project: | | |
| Bramford to Twinstead | | |
| Title: | | |
| A131 Twinstead Cable Drum Access, Swept Path Assessment Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum. | | |
| Drawing status: | | |
| Final Report | | |
| Scale (A3): | Drawn by: | Checked by: |
| As shown | MTO | AP |
| Dwg. no: | Sheet: | Rev: |
| 21-1030.SPA03 | 3 of 18 | 0 |
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Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500



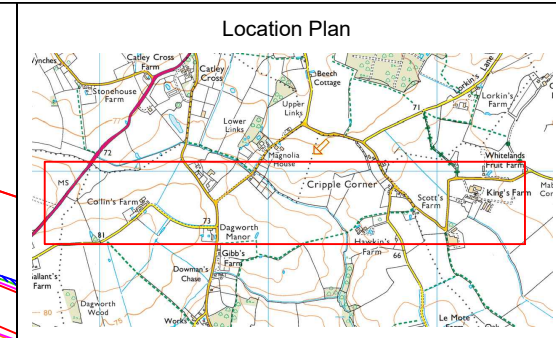
Oversail of Approximately
35.32m²

89.75m

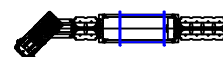


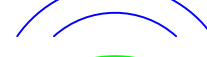


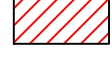
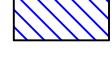
0.52m

Road Width = 7m

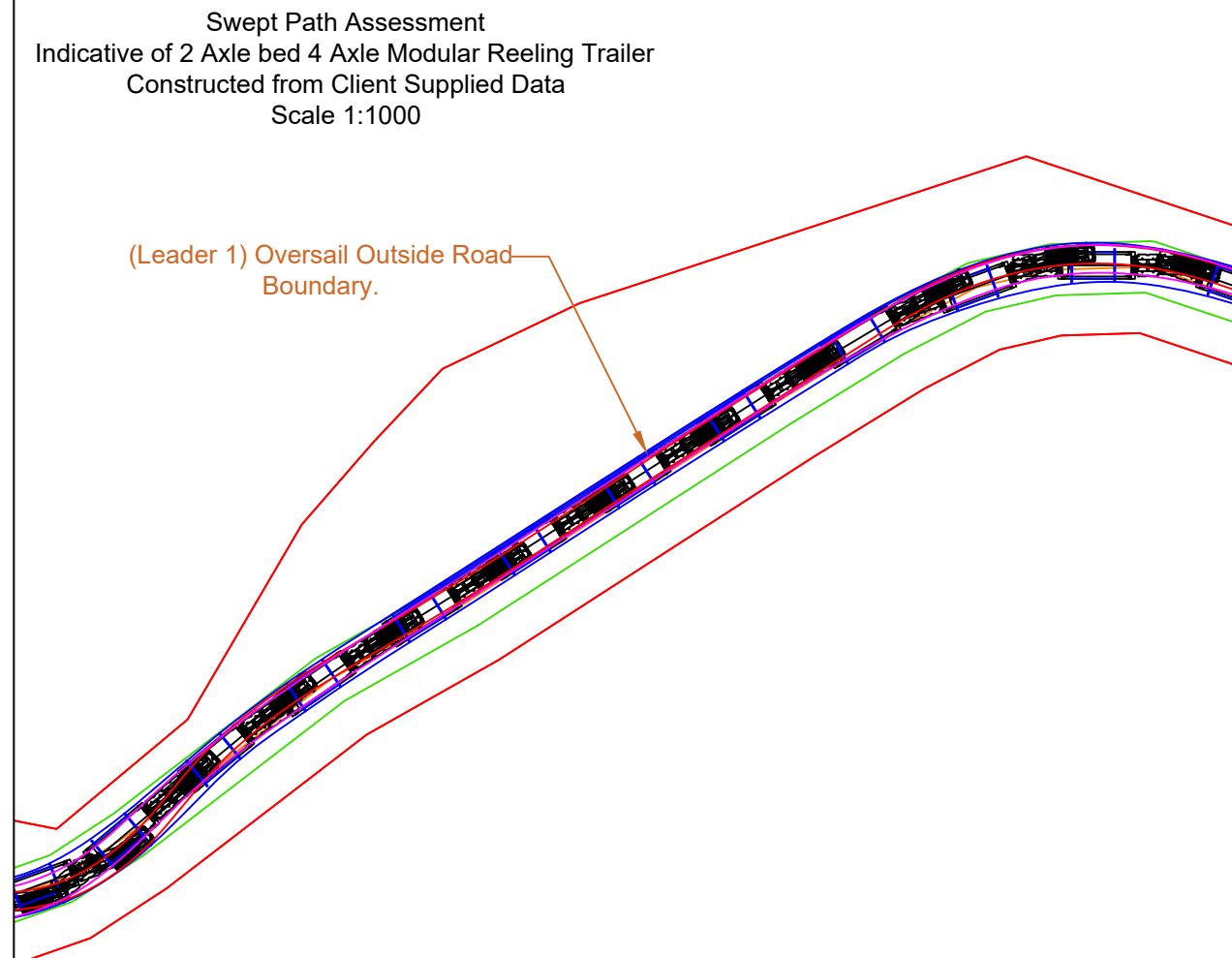
Direction of Travel



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000




(Leader 1) Oversail Outside Road Boundary.

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.52m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

| 1 | | |
|------|----------|--------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|-------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 4 of 18 | Rev: 0 |

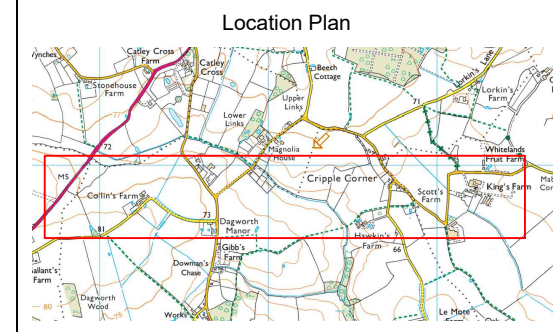
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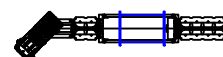


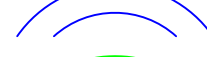


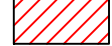



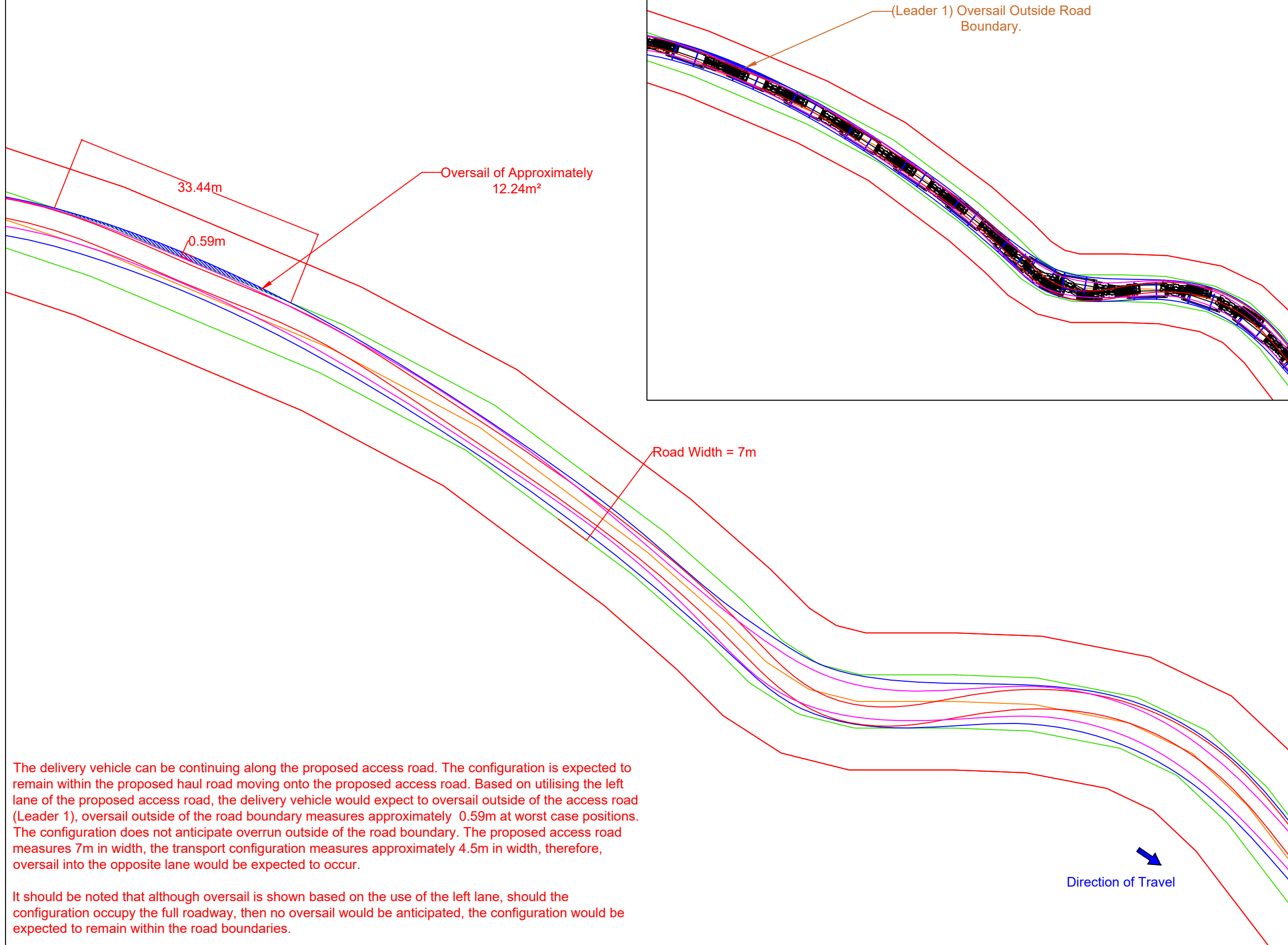
Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000





Legend:

-  2 bed 4 axle modular reeling trailer
minimum turning arrangements
Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb



The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.59m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

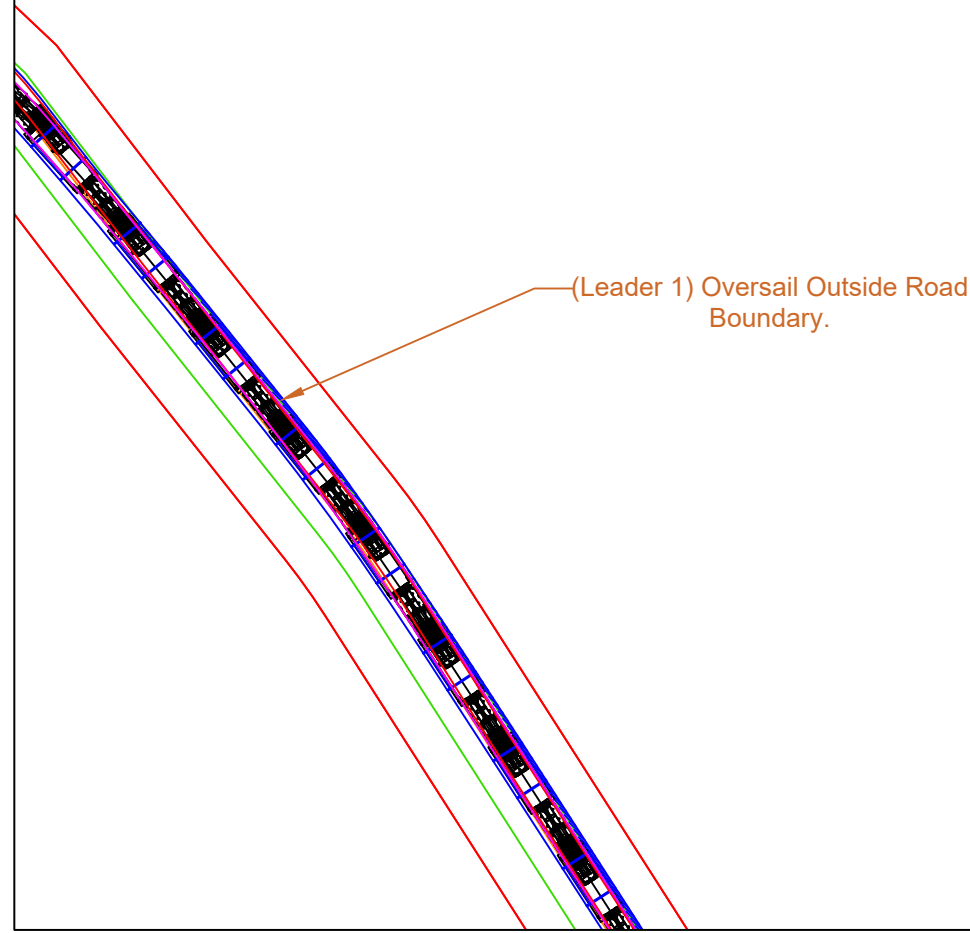
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |
| Revisions | | |
| Prepared by: | | |
|  Shaftesbury House, 2 High Street, Eccleshall, Stafford, ST21 6BZ Tel: (01785) 850411 Independent Transportation Engineers | | |
| Client: | | |
|  | | |
| Project: | | |
| Bramford to Twinstead | | |
| Title: | | |
| A131 Twinstead Cable Drum Access, Swept Path Assessment Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum. | | |
| Drawing status: | | |
| Final Report | | |
| Scale (A3): | Drawn by: | Checked by: |
| As shown | MTO | AP |
| Dwg. no: | Sheet: | Rev: |
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Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

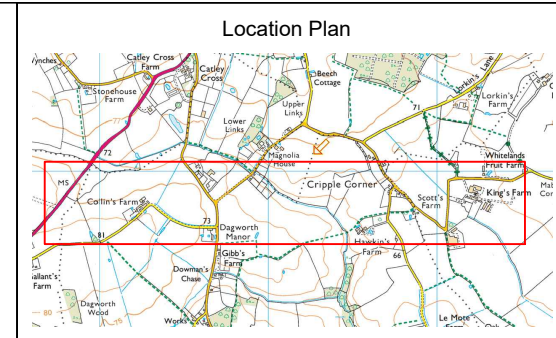


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000




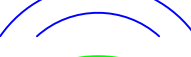


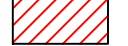



The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.47m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

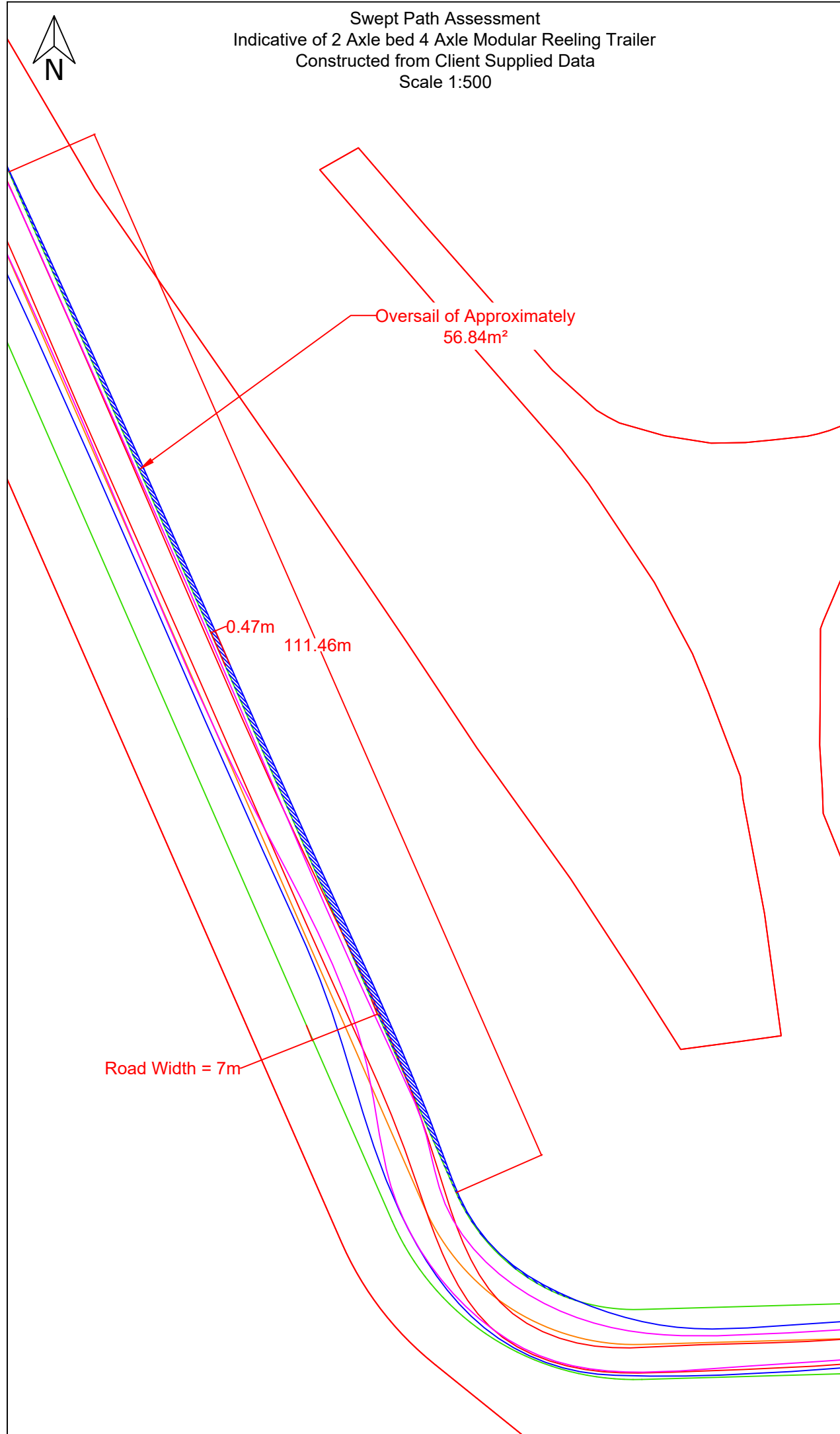
Final Report

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| Scale (A3): | Drawn by: | Checked by: |
| As shown | MTO | AP |
| Dwg. no: | Sheet: | Rev: |
| 21-1030.SPA03 | 6 of 18 | 0 |

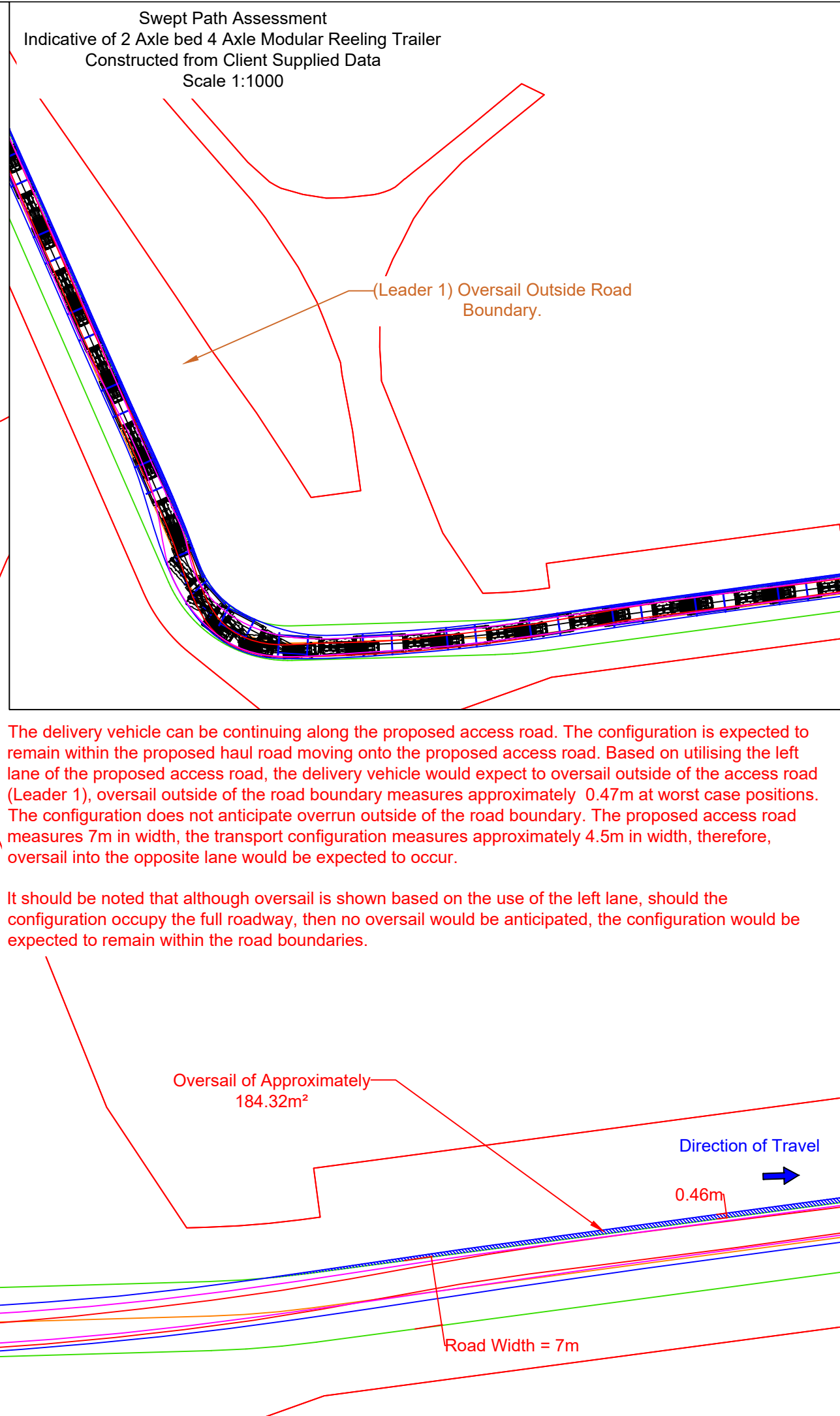
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Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

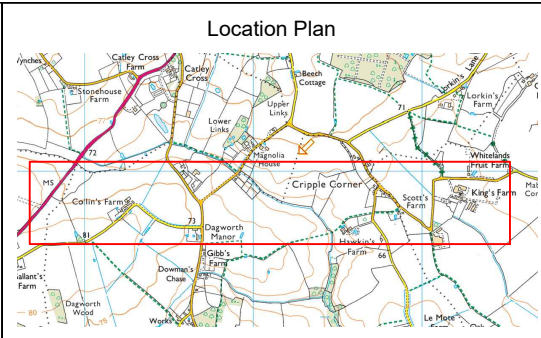


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000







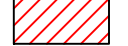



The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.47m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 22.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|-------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
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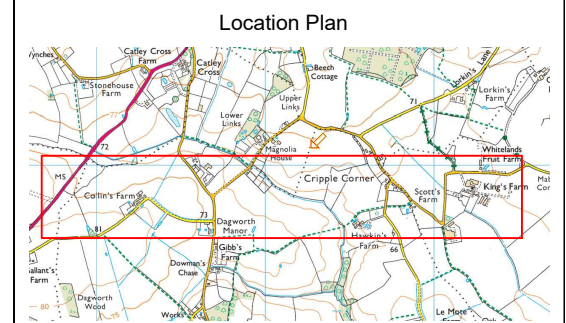
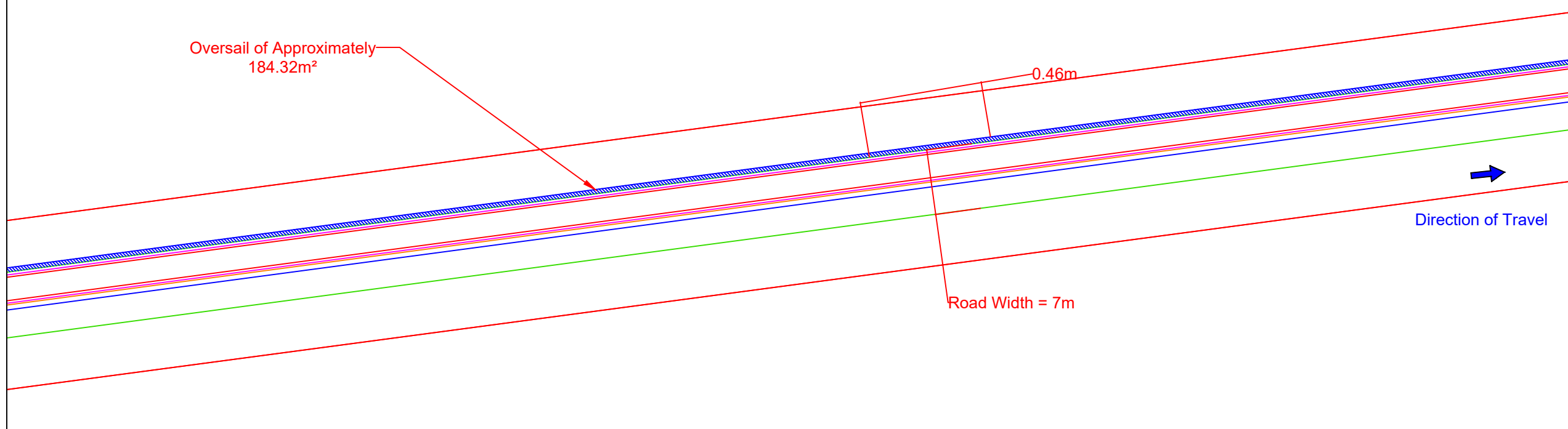
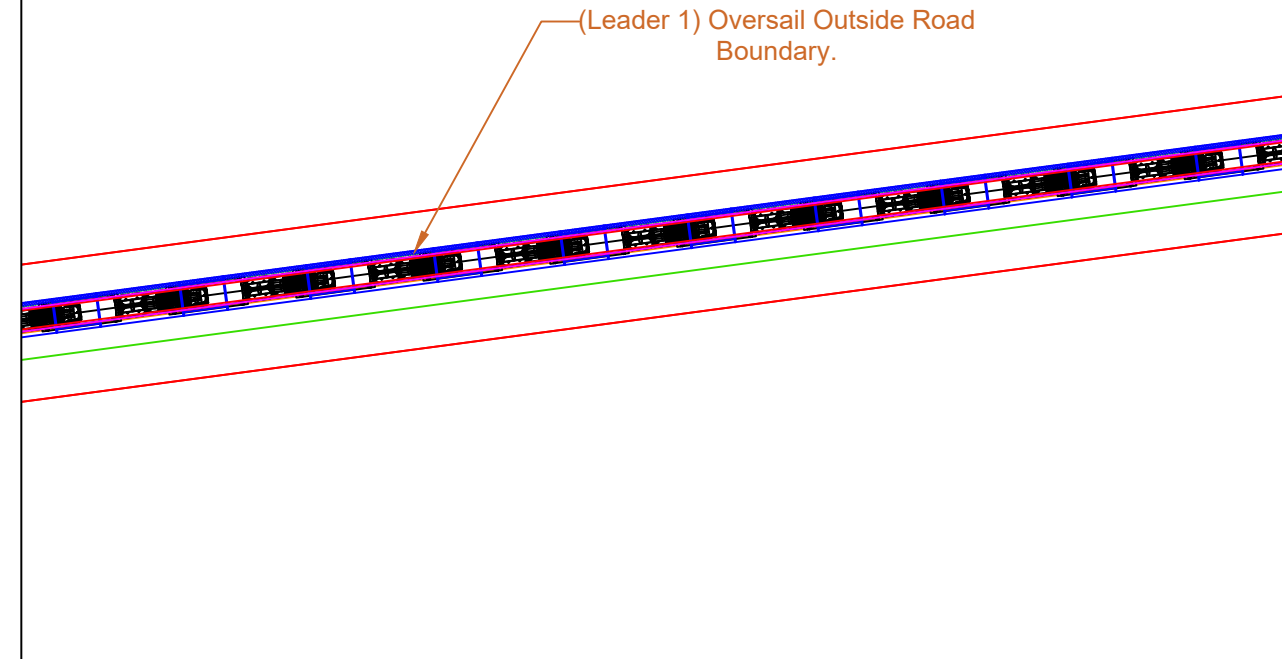


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.46m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000




Legend:

- 2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
- Extent of tractor track
- Extent of trailer track
- Extent of oversail
- Extent of road boundary
- Overrun and oversail beyond kerb
- Overrun beyond kerb
- Oversail beyond kerb

| Rev. | Date | Amendments |
|------|----------|--------------------|
| 1 | | |
| 0 | 22.11.23 | Issued for comment |

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

Final Report

| | | |
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| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
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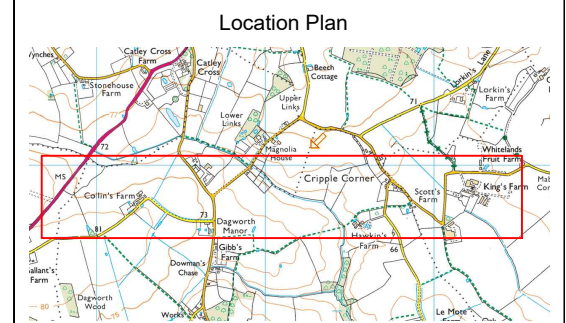
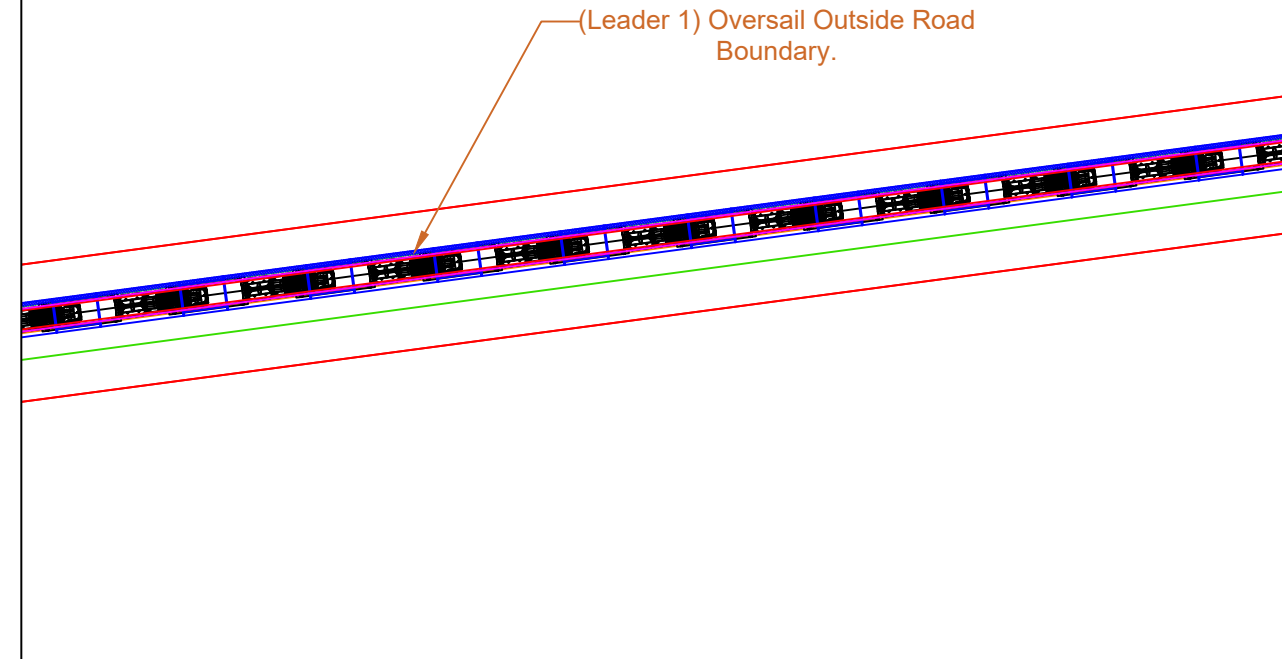


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

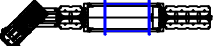


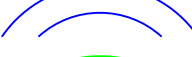




The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.46m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000




Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

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| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |


Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

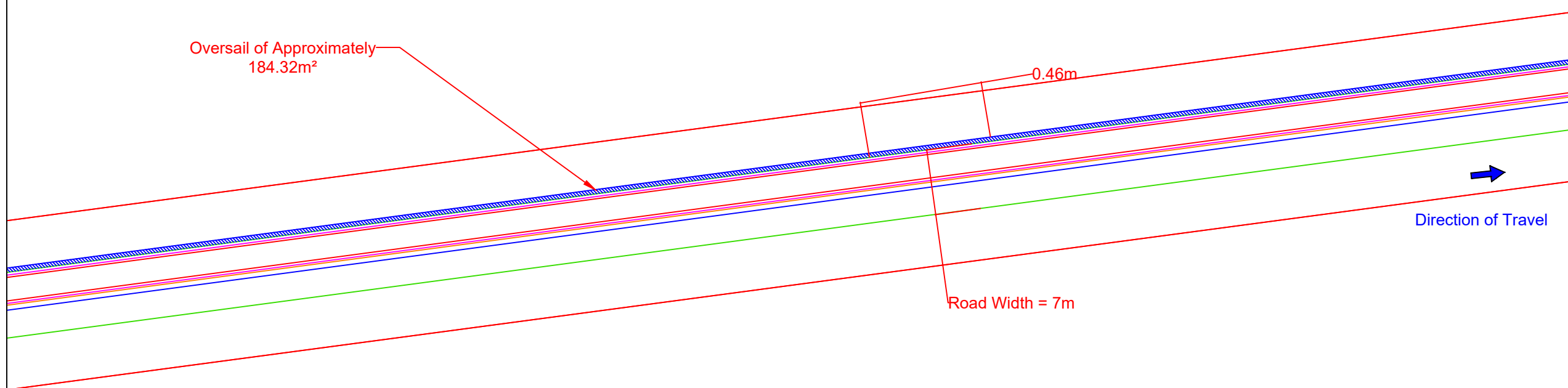
Drawing status:

Final Report

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| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 9 of 18 | Rev: 0 |

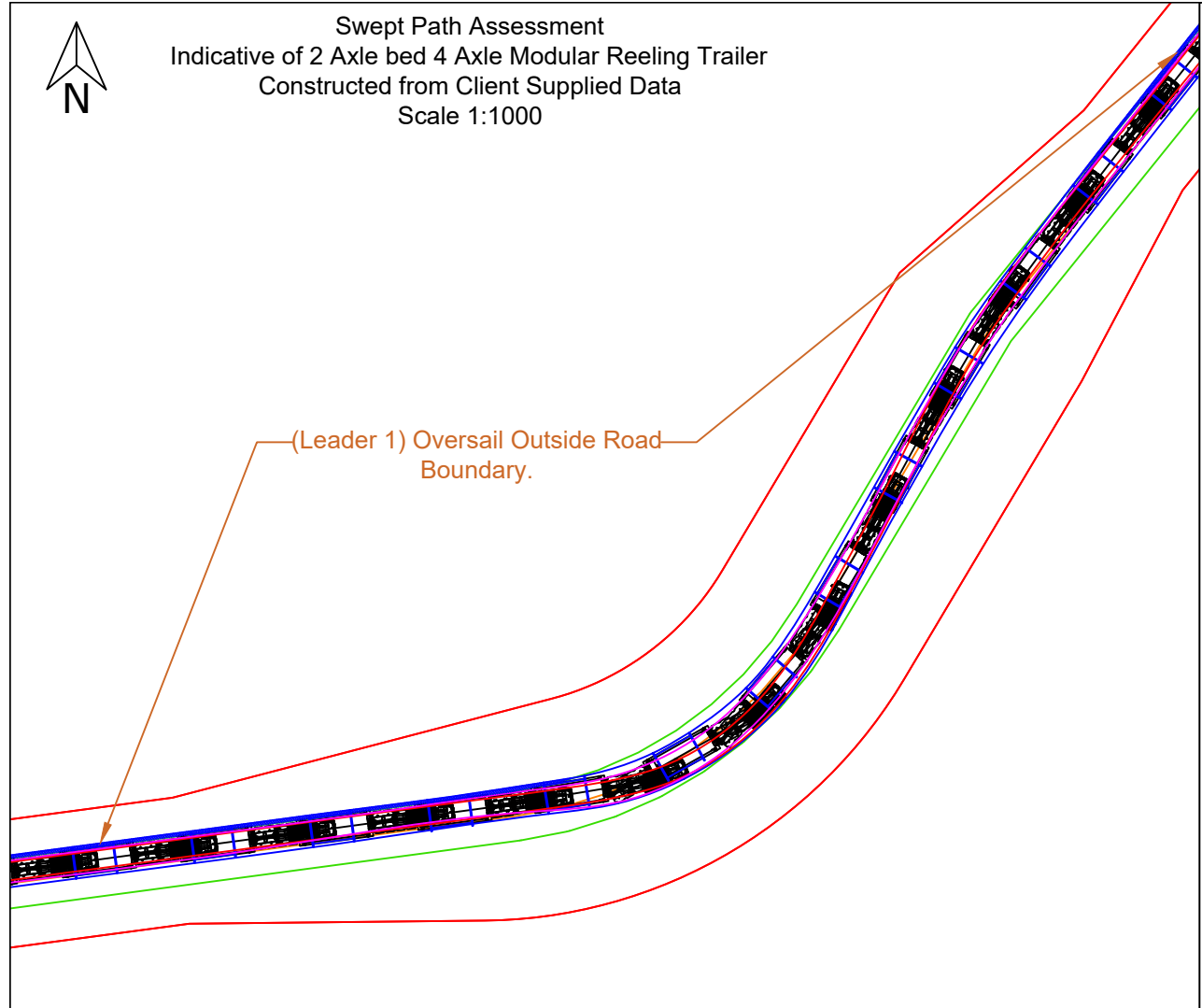
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Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000

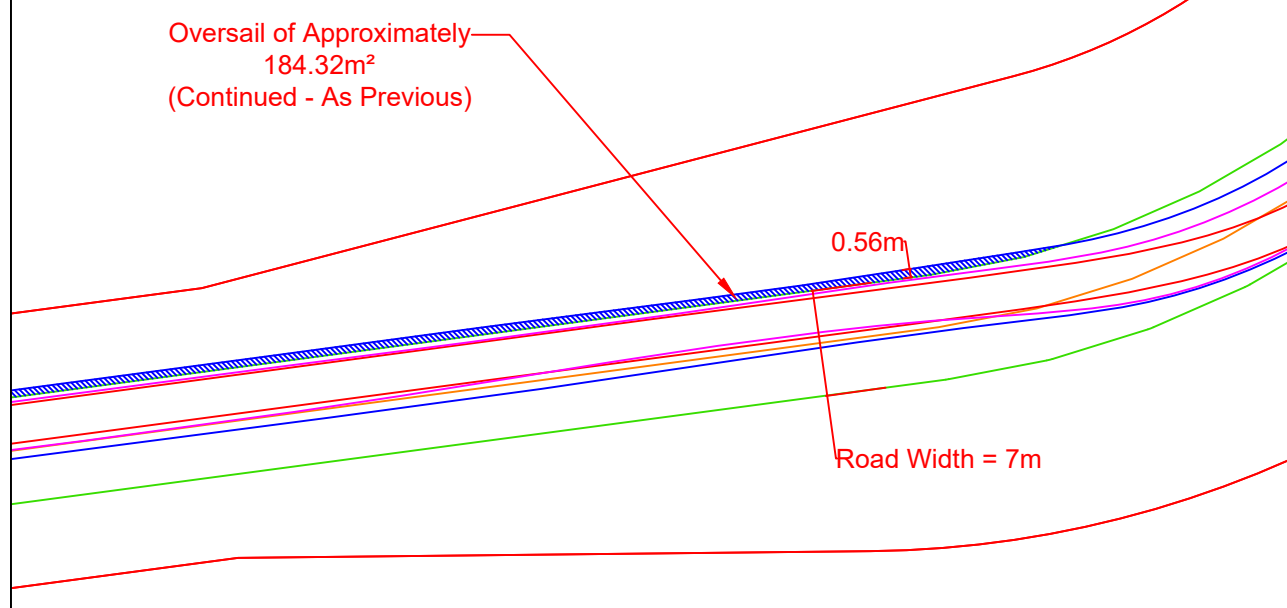


(Leader 1) Oversail Outside Road Boundary.

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.56m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

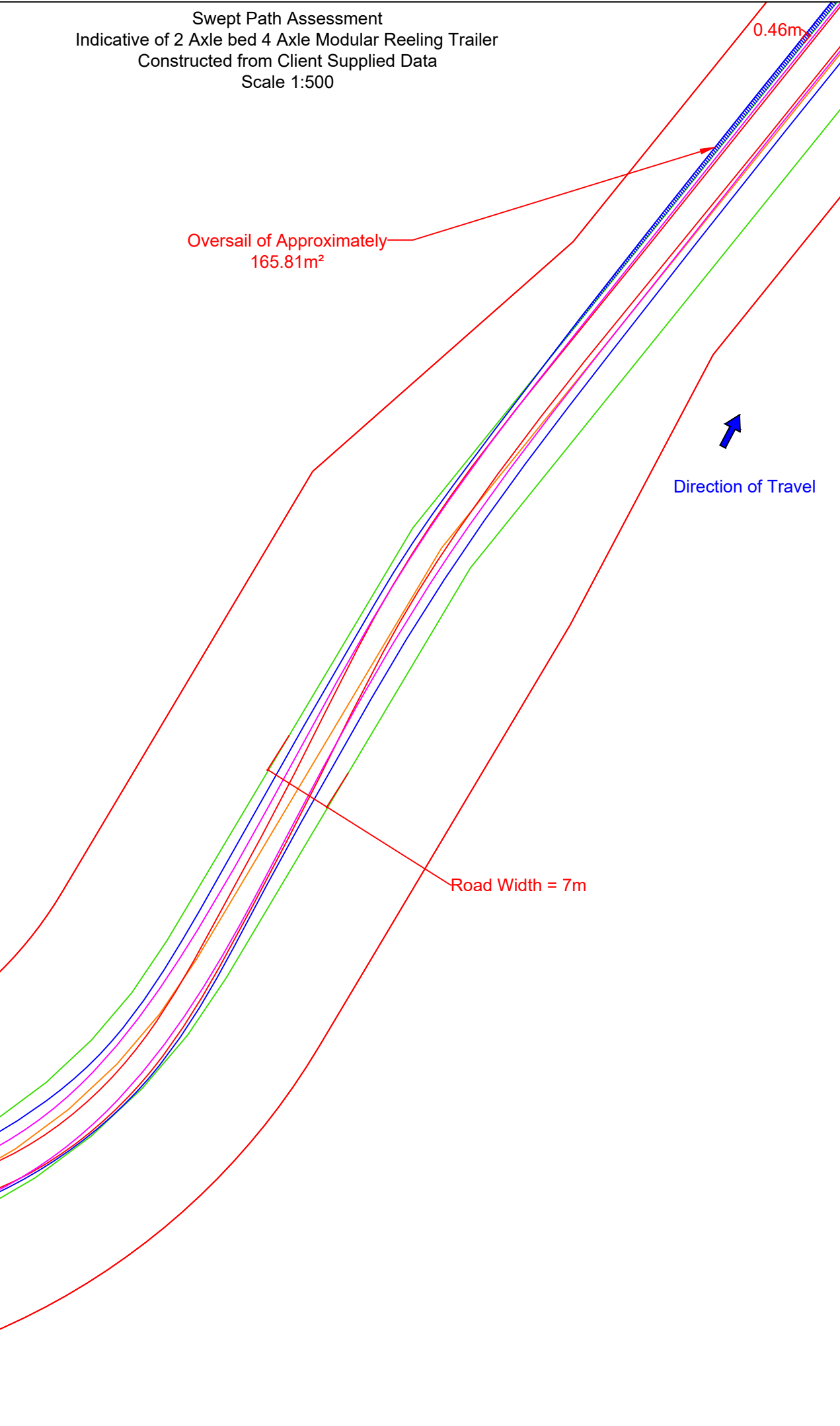
Oversail of Approximately
 184.32m²
 (Continued - As Previous)



0.56m

Road Width = 7m

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

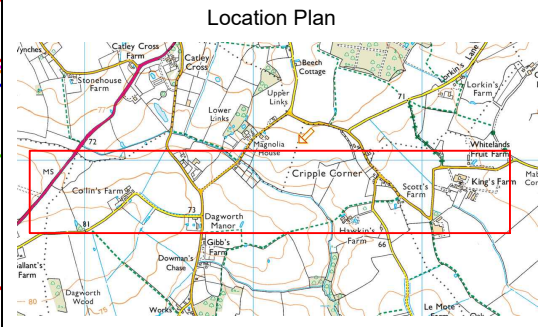


Oversail of Approximately
 165.81m²

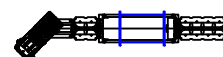


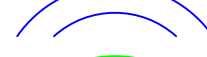


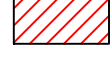
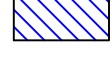
Direction of Travel

Road Width = 7m

0.46m



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|--------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 10 of 18 | Rev: 0 |

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P:\Clients\Existing Clients\National Grid Company\Proposed New sites Investigations\21-1030 Bramford to Twinstead\Swept Path Analysis\SPA03 22.11.23



Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000

(Leader 1) Oversail Outside Road Boundary.

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

Oversail of Approximately
 165.81m²
 (Continued - As Previous)

Direction of Travel

0.46m

0.46m

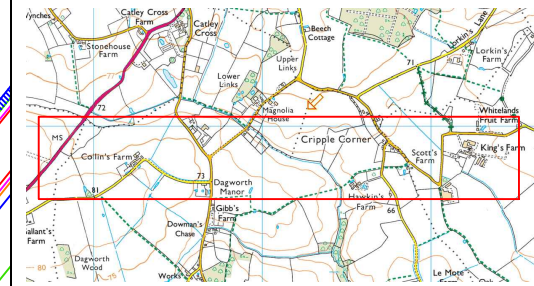
0.46m

Road Width = 7m

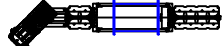


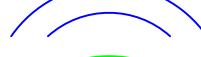




The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.46m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

Location Plan



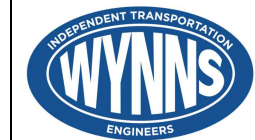
Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

Final Report

| | | |
|---------------------------|--------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 11 of 18 | Rev: 0 |

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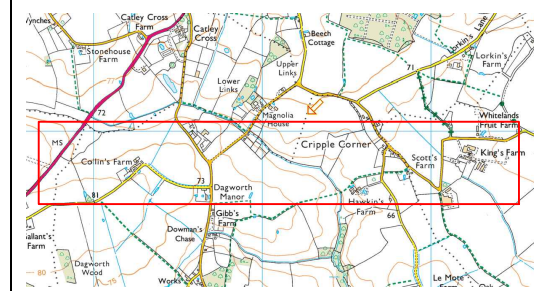
P:\Clients\Existing Clients\National Grid Company\Proposed New sites Investigations\21-1030 Bramford to Twinstead\Swept Path Analysis\SPA03 22.11.23






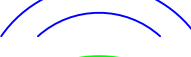


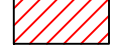

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

Location Plan




Legend:

-  2 bed 4 axle modular reeling trailer
minimum turning arrangements
Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

Final Report

| | | |
|---------------|-----------|-------------|
| Scale (A3): | Drawn by: | Checked by: |
| As shown | MTO | AP |
| Dwg. no: | Sheet: | Rev: |
| 21-1030.SPA03 | 12 of 18 | 0 |

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(Leader 1) Oversail Outside Road Boundary.

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.52m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

Oversail of Approximately
 204.11m²

Direction of Travel

0.52m

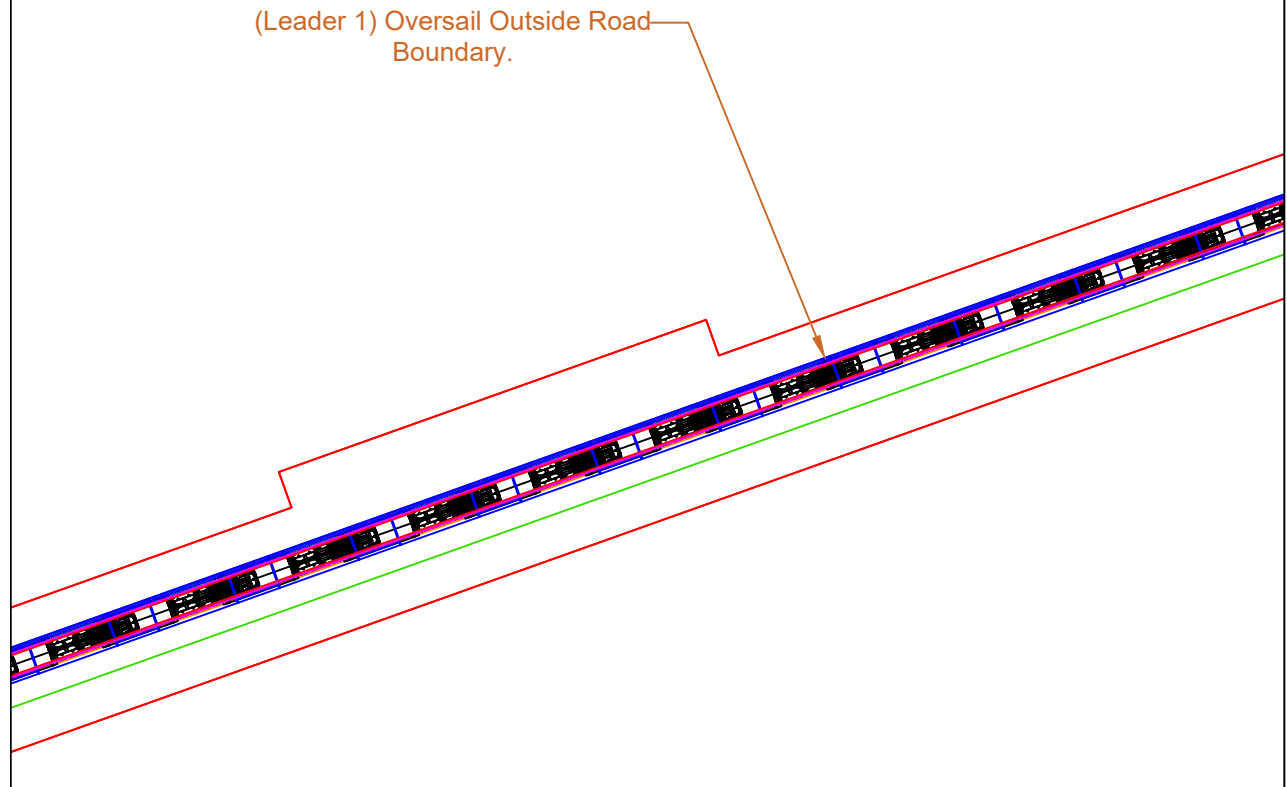
Road Width = 7m

Oversail of Approximately
 165.81m²
 (Continued - As Previous)



Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000

(Leader 1) Oversail Outside Road Boundary.



Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.50m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

Direction of Travel



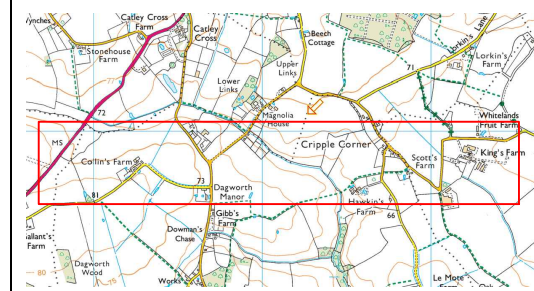
0.49m

Oversail of Approximately
 204.11m²
 (Continued - As Previous)

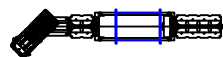


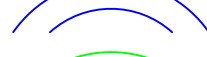

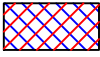


0.50m

Road Width = 7m

Location Plan



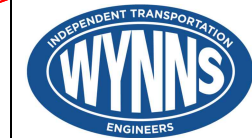
Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project:

Bramford to Twinstead

Title:

A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status:

Final Report

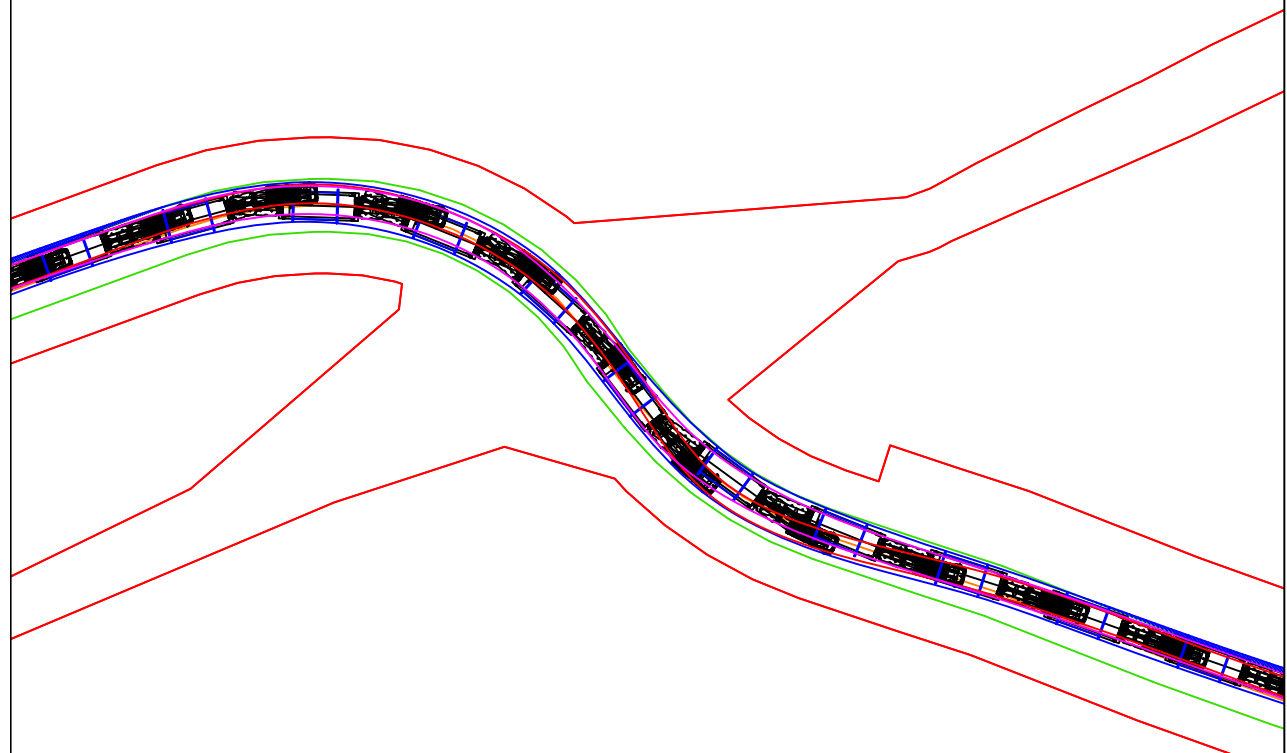
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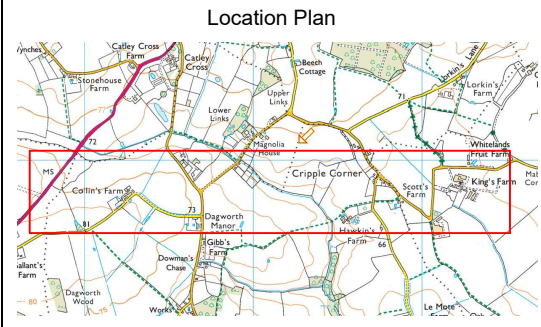
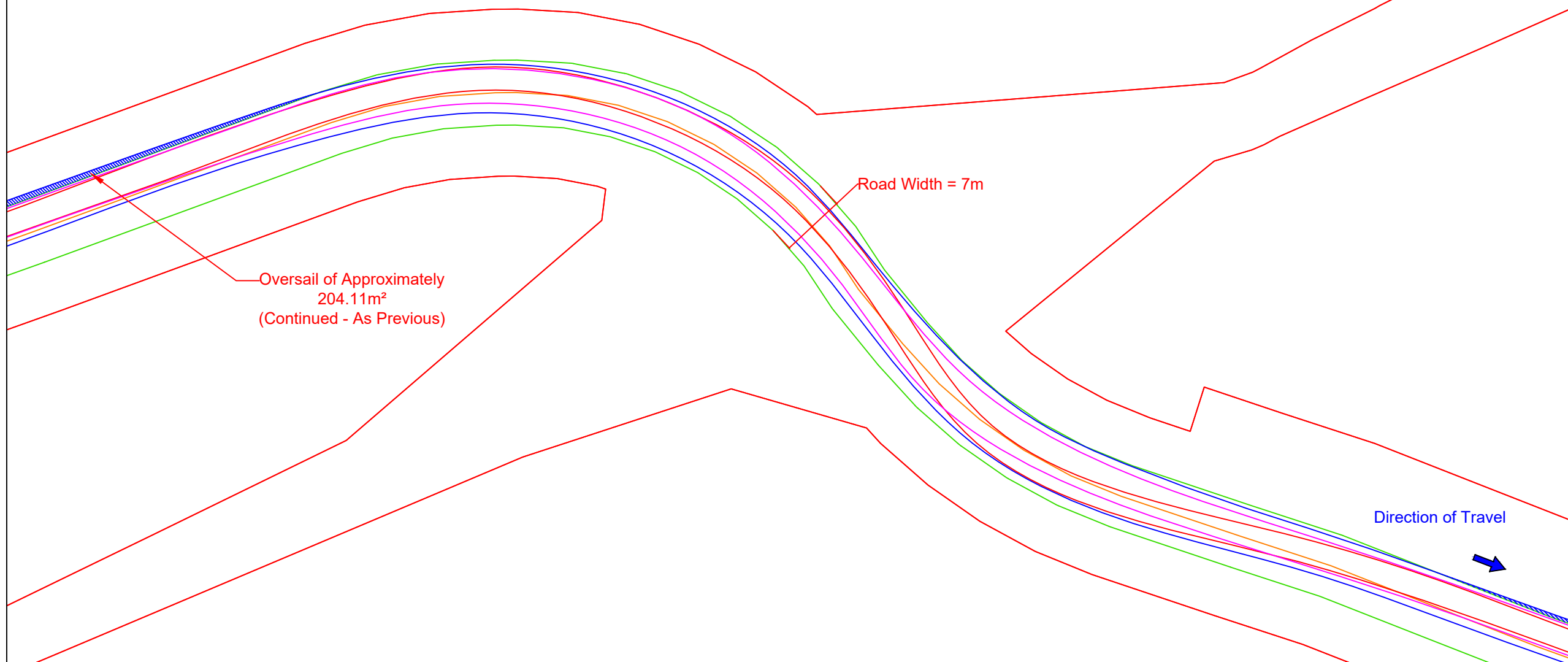
Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000









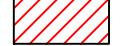

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, and the proposed access road measuring 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

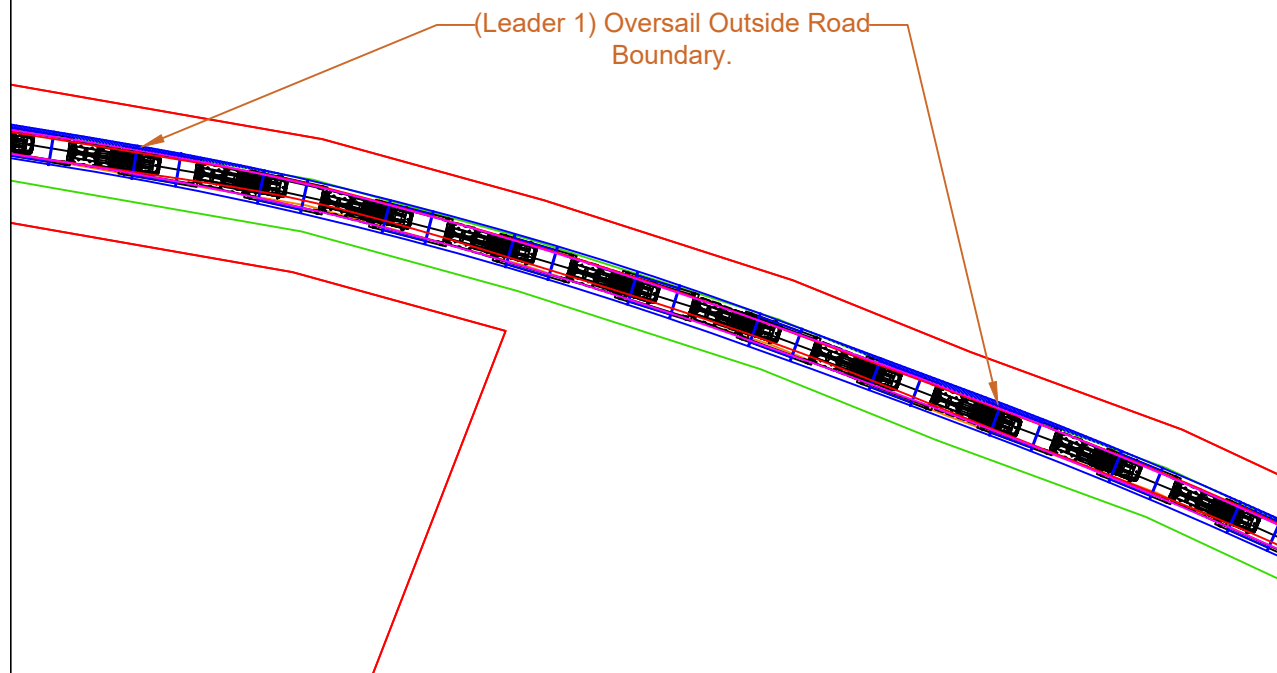
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| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
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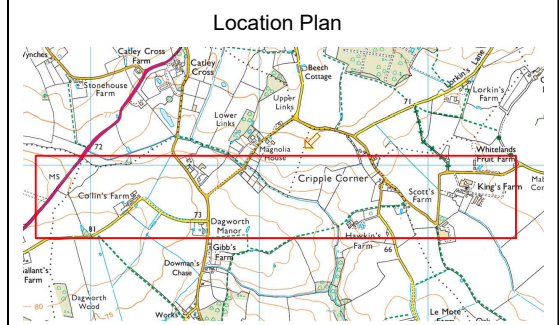
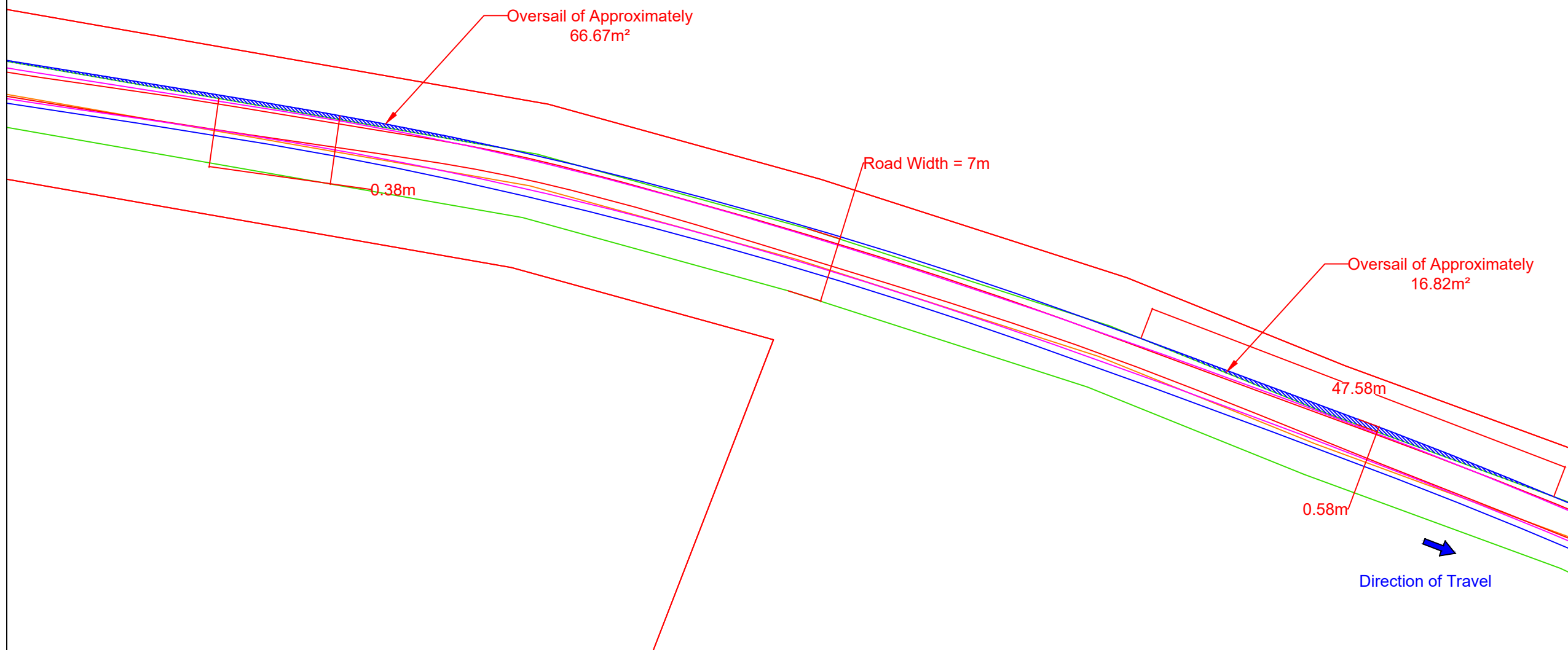
Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000



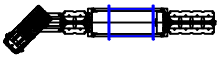




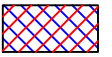


Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.40m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.



Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Revisions


Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

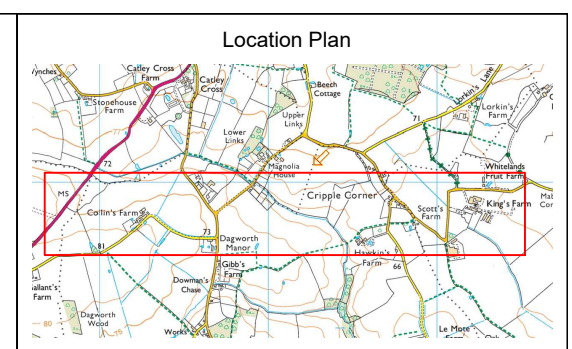
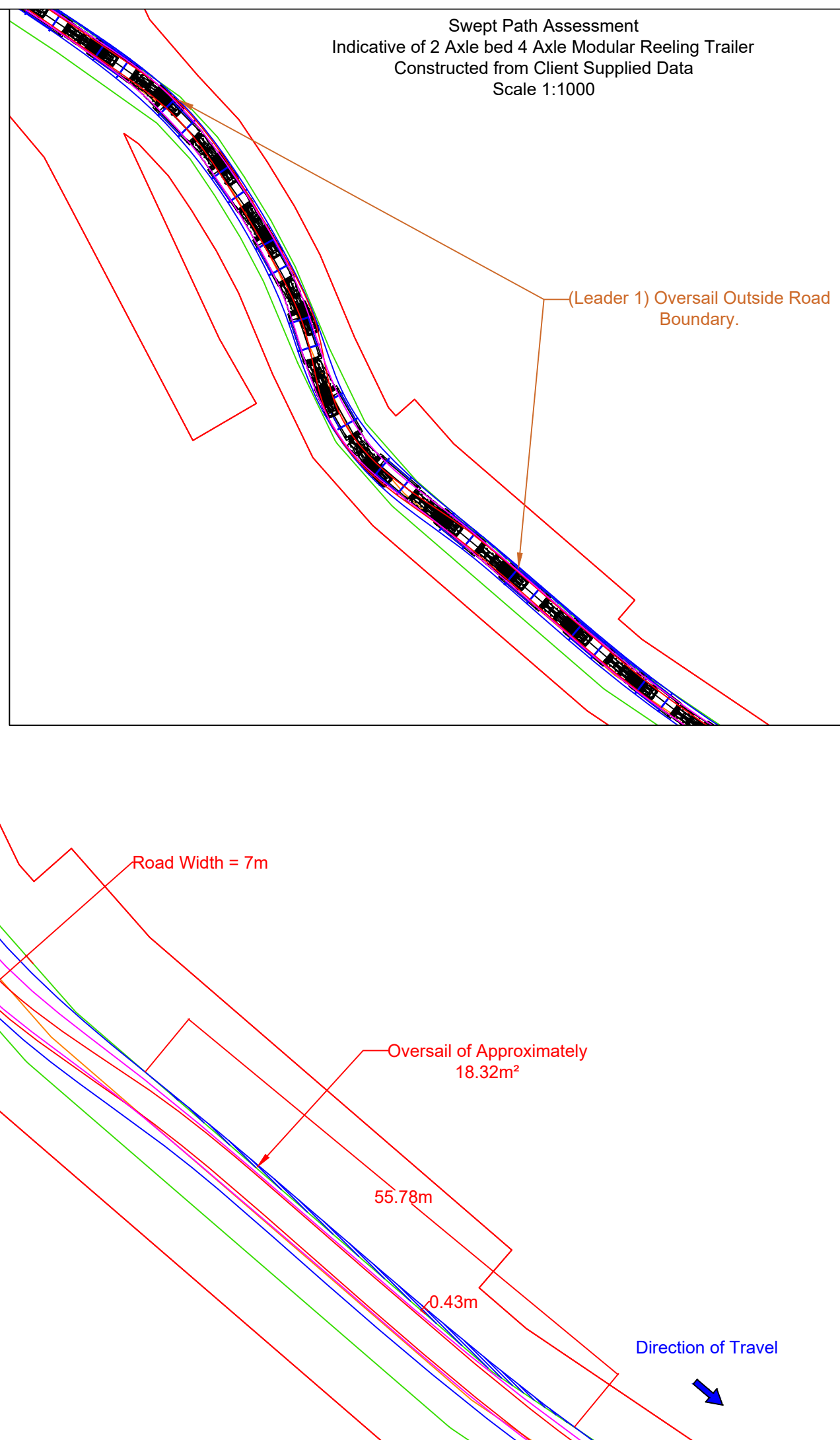
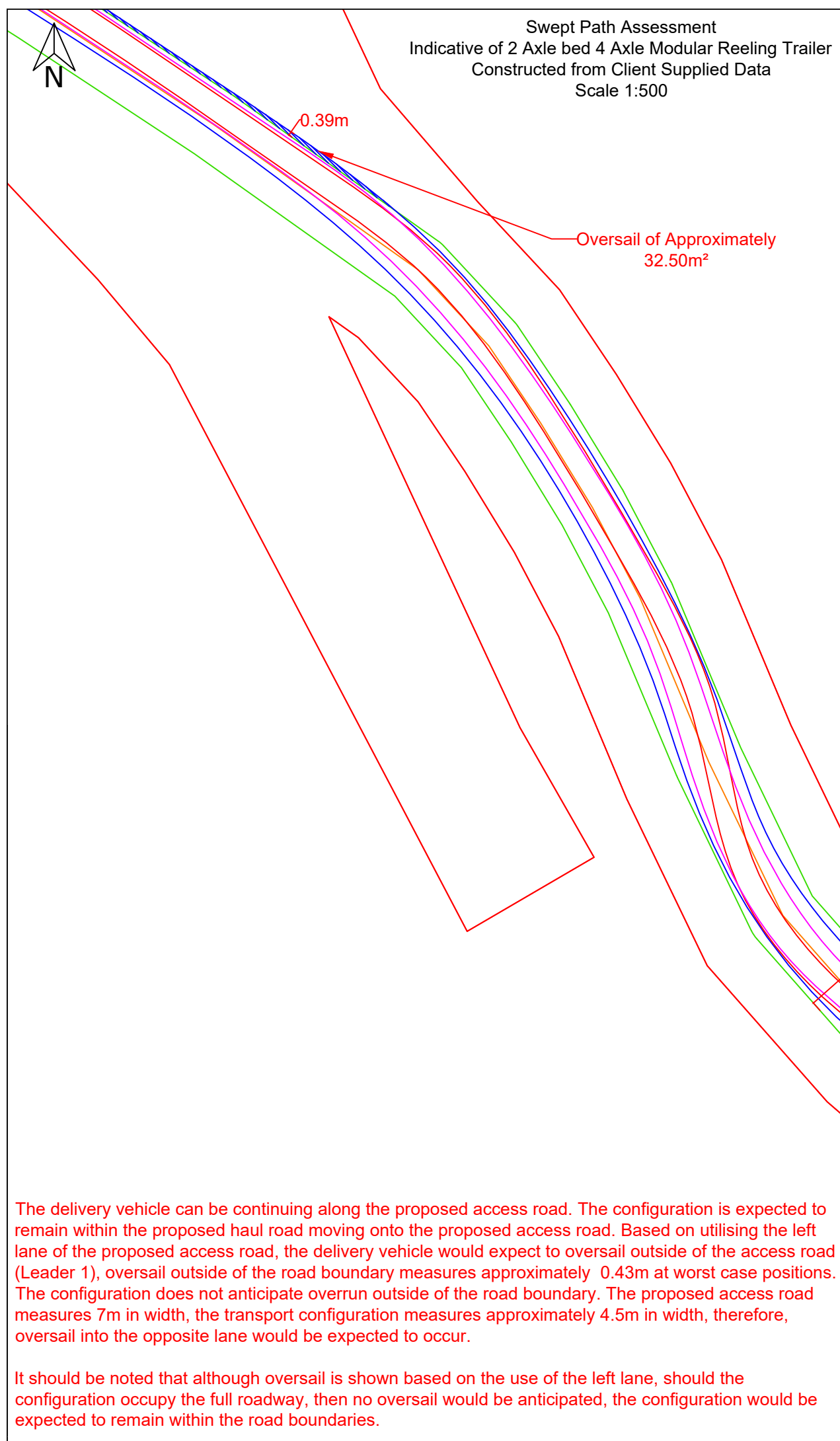
Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

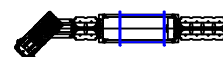


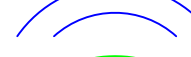




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Legend:

-  2 bed 4 axle modular reeling trailer minimum turning arrangements Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Prepared by:



Shaftesbury House, 2 High Street,
Eccleshall, Stafford, ST21 6BZ
Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access, Swept Path Assessment
Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|--------------------|-------------------|
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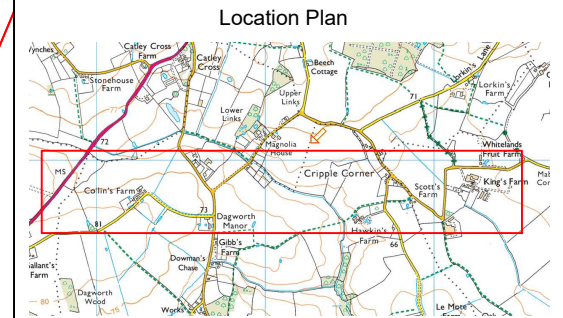
The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.43m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

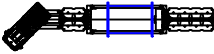


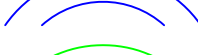






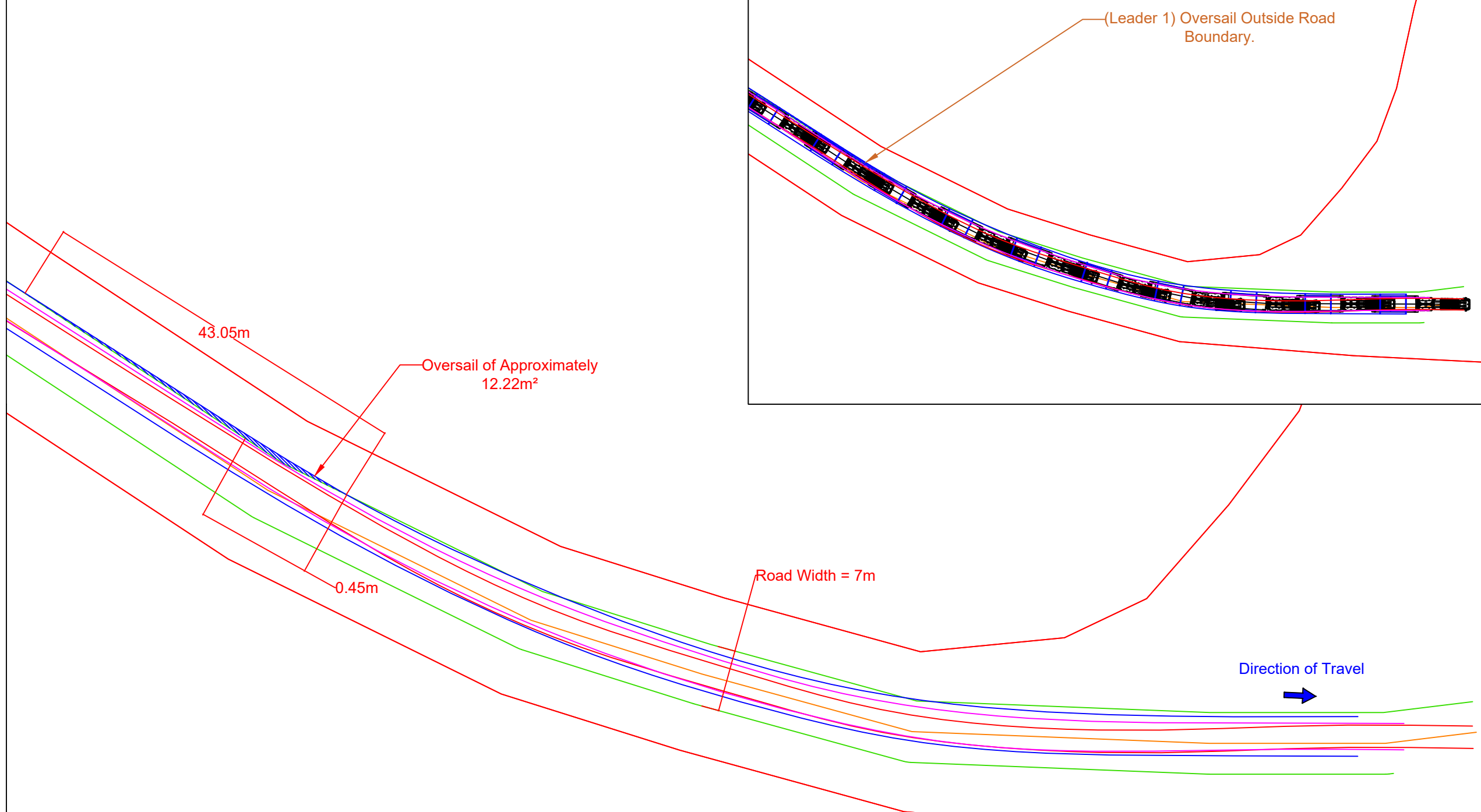
Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:500

Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:1000



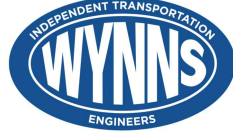
Legend:

-  2 bed 4 axle modular reeling trailer
minimum turning arrangements
Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb



| 1 | | |
|------|----------|--------------------|
| 0 | 23.11.23 | Issued for comment |
| Rev. | Date | Amendments |

Prepared by:



Shaftesbury House, 2 High Street,
 Eccleshall, Stafford, ST21 6BZ
 Tel: (01785) 850411

Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|--------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 17 of 18 | Rev: 0 |

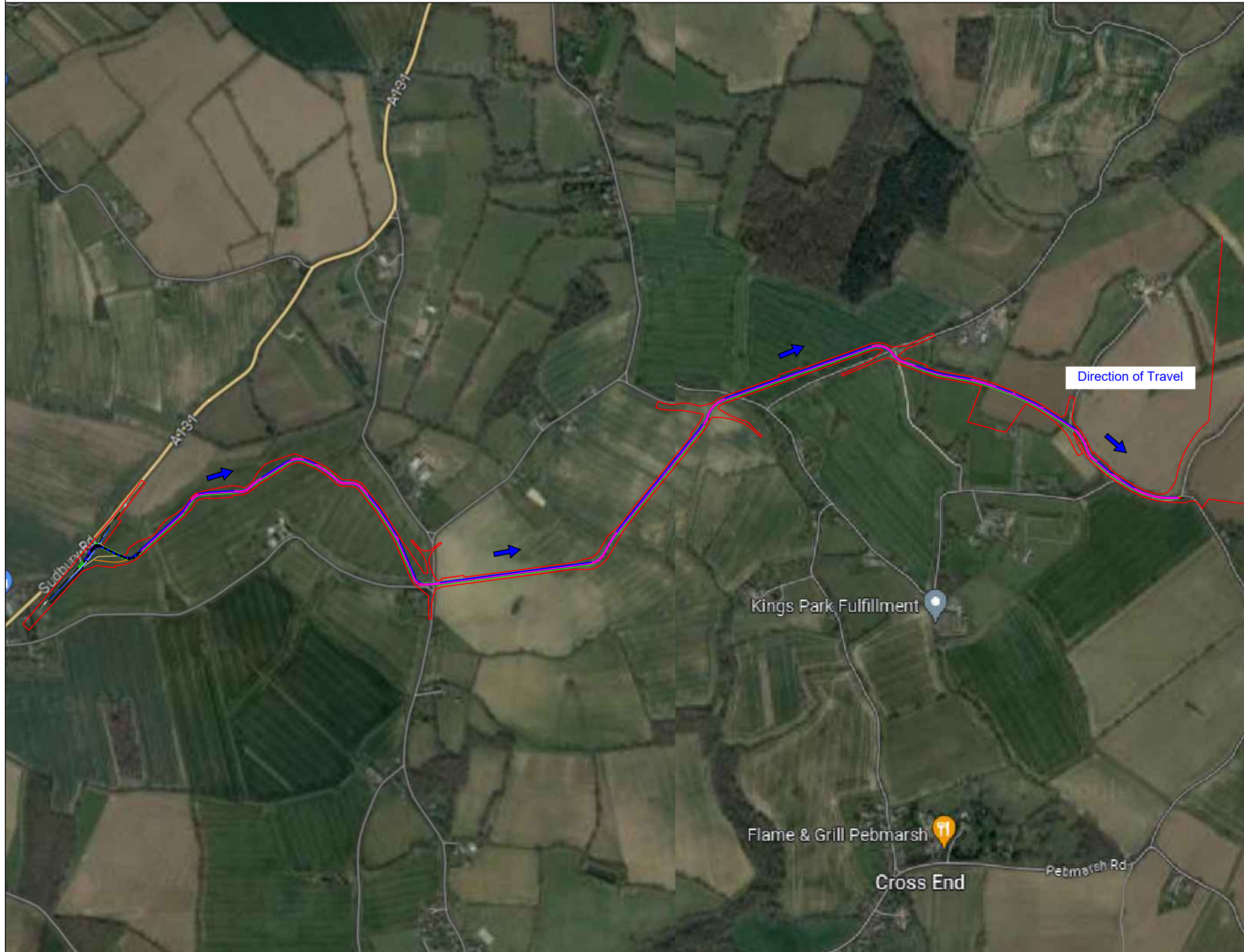
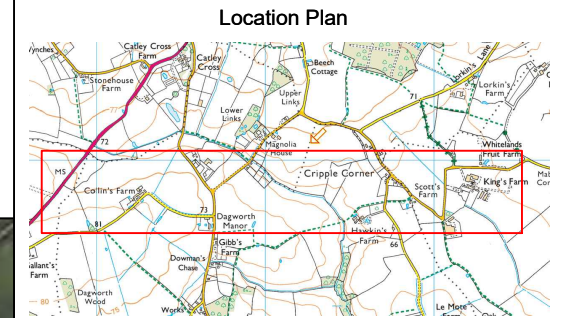
The delivery vehicle can be continuing along the proposed access road. The configuration is expected to remain within the proposed haul road moving onto the proposed access road. Based on utilising the left lane of the proposed access road, the delivery vehicle would expect to oversail outside of the access road (Leader 1), oversail outside of the road boundary measures approximately 0.45m at worst case positions. The configuration does not anticipate overrun outside of the road boundary. The proposed access road measures 7m in width, the transport configuration measures approximately 4.5m in width, therefore, oversail into the opposite lane would be expected to occur.

It should be noted that although oversail is shown based on the use of the left lane, should the configuration occupy the full roadway, then no oversail would be anticipated, the configuration would be expected to remain within the road boundaries.

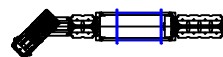


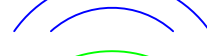

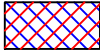




Swept Path Assessment
 Indicative of 2 Axle bed 4 Axle Modular Reeling Trailer
 Constructed from Client Supplied Data
 Scale 1:10000

NOTE: Overlay onto aerial image is not representative of the configuration relative to the environment. This is for illustrative purposes only, and should only be taken as such.




Legend:

-  2 bed 4 axle modular reeling trailer
minimum turning arrangements
Drawing ref. 21-1130.TC07
-  Extent of tractor track
-  Extent of trailer track
-  Extent of oversail
-  Extent of road boundary
-  Overrun and oversail beyond kerb
-  Overrun beyond kerb
-  Oversail beyond kerb

| Rev. | Date | Amendments |
|------|----------|--------------------|
| 1 | | |
| 0 | 23.11.23 | Issued for comment |

Revisions

Prepared by:



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Independent Transportation Engineers

Client:



Project: Bramford to Twinstead

Title: A131 Twinstead Cable Drum Access,
 Swept Path Assessment
 Negotiability of proposed access road (Option 1, DCO - Red Route), considerate of indicative 2 axle bed 4 axle modular reeling trailer transporting 60 te cable drum.

Drawing status: Final Report

| | | |
|---------------------------|--------------------|-------------------|
| Scale (A3): As shown | Drawn by: MTO | Checked by: AP |
| Dwg. no: 21-1030.SPA03 | Sheet: 18 of 18 | Rev: 0 |

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P:\Clients\Existing Clients\National Grid Company\Proposed New sites Investigations\21-1030 Bramford to Twinstead\Swept Path Analysis\SPA03 22.11.23

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