Castle Road
Battery Energy Storage System (BESS)
Land North of Castle Road, Burton Rhoose

Framework Construction Management Statement

For

REWE 7

motion

Document Control Sheet

Castle Road
Battery Energy Storage System (BESS)

Land North of Castle Road, Burton Rhoose

REWE 7

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
17/02/2025	1st Draft	Chris Saunders	John Russell
19/02/2025	Final	Chris Saunders	John Russell

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Appendices

1.0 Introduction

1.1 This Framework Construction Management Statement (CMS) has been prepared by Motion on behalf of REWE 7 in relation to the proposed development of a Battery Energy Storage System (BESS) and associated infrastructure at land north of Castle Road, Burton, Rhoose. The application site which covers an area of up to 10.5 hectares to accommodate a BESS with a capacity of circa 440MW is within the administrative boundaries of the Vale of Glamorgan Council (VGC) and is shown on Figure 1.1 below.

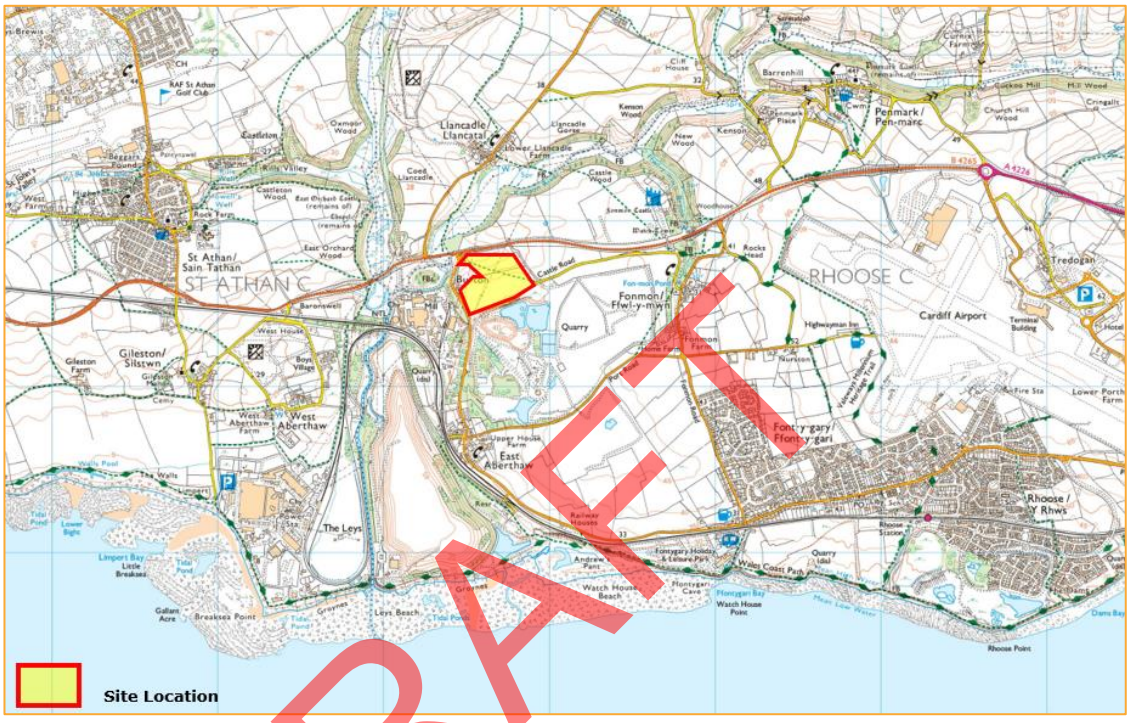


Figure 1.1 – Site Location

1.2 The CMS provides a methodology to ensure all construction work adheres to best practices and techniques where possible. The appointed contractor will be required to comply with this CMS as well as the 'Considerate Contractor Scheme' and the 'Construction (Design & Management Regulations) 2015.

1.3 Following this introduction, the report is split in three further sections as follows:

- Construction Requirements;
- Construction Traffic; and,
- Summary and Conclusions.

2.0 Construction Requirements

Highway Impact

2.1 Access to the site for the construction of the BESS will be from an existing field access located 52 metres south of the junction of Fontygary Road / B4265 junction. The access will be widened to accommodate construction vehicles including HGV's as detailed on drawing 2301070/01 Rev A within **Appendix A**. The drawing also details a second field access at the junction of Fontygary Road and Castle Road, although this is an emergency access for the completed development and will not be used by construction vehicles.

2.2 The access is provided with visibility splays of 2.4 metres by 120 metres to the south along Fontygary Road commensurate with the 40 miles per hour speed limit and with visibility splays to the north of 2.4 metres by 52 metres to the junction with the B4265 and 2.4 metres by 67 metres to the end of the deceleration lane.

2.3 The access road will then progress across fields joining the site at the south east portion of the site as shown on the access layout within **Appendix B**. Turning will be provided on site to enable large vehicles to enter and leave in a forward gear.

2.4 It is anticipated that the construction and commissioning of the new battery farm will be undertaken over approximately a 12 month (52 week period) between the specific working hours of 7.00am to 6.30pm, Monday to Friday and 8.00am to 12.30pm on Saturdays. No work will be undertaken on Sundays or Bank Holidays.

2.5 Large construction vehicles making deliveries, will where practicable, avoid travelling to and from the site during the peak hours of 8.00am to 9.00am and 5.00pm to 6.00pm, Monday to Friday to minimise the impact on the adjacent road network.

Typical Construction Programme

2.6 A BESS of the size proposed would usually be developed as follows:

- Site Preparation, including laying temporary roads, preparation of earthworks and foundations, construction of site compound and the installation of perimeter fences;
- Battery Installation, including construction of storage units, transformer substations, switchboards and the installation of electrical ducting;
- Electrical Infrastructure Installation, including installation and connection of relevant cables and the installation of substation;
- Testing and Commissioning; and,
- Completion Works, including removal of site compound and temporary works together with final landscaping works.

2.7 An indicative programme of works is as follows, but this will be confirmed when the final contractor is appointed.

- Set up (2 weeks)
- Construction (46 weeks)
- Completion including testing and commissioning (4 weeks)

2.8 The majority of materials and components, especially large components, will be delivered as they are required on site. However, storage containers will be provided on site which will contain spare parts and maintenance kit.

3.0 Construction Traffic

Daily Traffic Movements

3.1 The following is an estimate of the number of vehicular movements that will be generated during construction based on work on similar sites. Deliveries of the battery farm equipment are expected to be undertaken by a combination of large articulated vehicles and smaller rigid vehicles and to assist in unloading some of the larger components, a mobile crane will be required.

3.2 During the construction phase, it is anticipated to be in the region of 1040 HGV movements, with a typical average of two deliveries (four vehicle movements) per day. An indicative breakdown of the expected HGV movements is detailed below.

- Set up (2 weeks) 20 vehicles (40 movements)
- Construction (46 weeks) 460 vehicles (920 movements)
- Completion (4 weeks) 40 vehicles (80 movements)

3.3 The majority of large vehicles will be utilised during the main construction period, with smaller vehicles used especially during the completion phase period.

3.4 Based on previous experience it is expected that a daily workforce of around 20 personnel will be required on site at any one time. Given the remoteness of the site car sharing will be promoted with operatives encouraged to share transport.

3.5 However, if it is assumed that four operatives arrive per vehicle, the number of vehicle movements associated with the workforce will equate to 10 vehicle movements per day. When this is added to the estimated number of delivery vehicles, the total number of vehicle movements per day will be in the region of 14. The proposed temporary increase of 14 vehicle movements per day during construction, is a small increase and will not result in a severe increase in traffic on the neighbouring highway network. especially when taken in the context of the existing Annual Average Daily Flow along the B4265 of 11,830 vehicles.

3.6 It should also be noted that an average of two HGV's a day entering the site will be within the daily fluctuations of the HGV's accessing the adjacent cement works.

3.7 Once operational, there will be no staff based on site and access will be provided for maintenance of the installation and security inspections. These visits will occur in normal size vans and cars with inspections taken weekly.

Site Access

3.8 As detailed within Section 2, access to the Site will be from the existing field access from Fontygary Road to the north west of the site. Swept Path Analysis is also provided within **Appendix C**, which shows that a 16.5 metre long articulated lorry can access and egress the site via the existing access as per the routing strategy detailed later within this section.

3.9 Within the site an unloading area will be provided along with a turning area for large vehicles to turn as shown on the swept path analysis within **Appendix D**.

Parking

3.10 It is assumed 4 operatives will arrive per vehicle to the Site, and therefore a parking area for 10 vehicles will be provided adjacent to the access road within the Site construction compound area.

Vehicle Routing

3.11 All long distance construction traffic will access the site from junction 33 of M4 before travelling south on the A4232 until Culverhouse Cross, where vehicles will turn right onto the A48. Vehicles will then turn left at Sycamore Cross onto the A4226 following the road to Cardiff Airport, where vehicles will progress onto the B4265 to the site, as detailed on Figure 3.1.

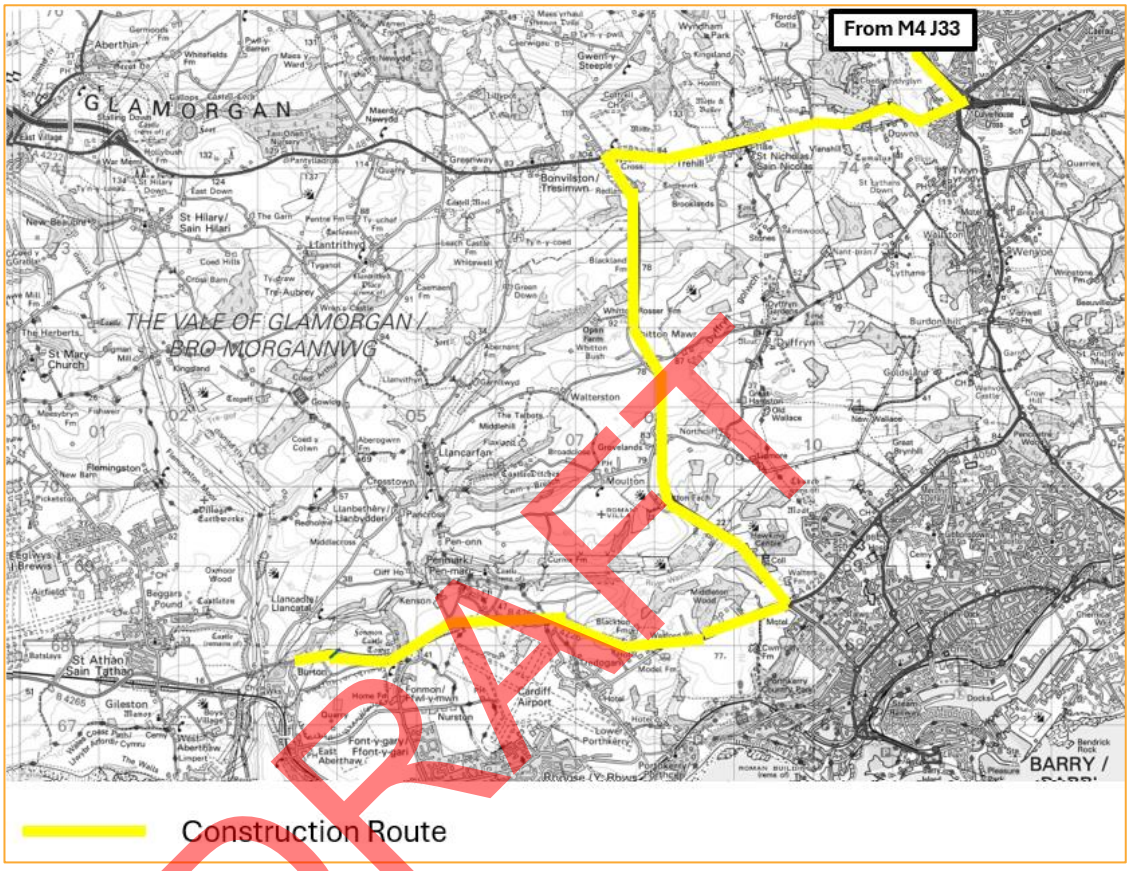


Figure 3.1 – Construction Route

3.12 Local construction traffic generating from Bridgend will use the A48 pass Cowbridge turning right onto the A4226 at Sycamore Cross, and then following the same route as vehicles approaching from the M4. Local construction traffic from South Cardiff and the docks will use the A4232 until Culverhouse Cross turning left onto the A48 and following the same route as vehicles approaching from the M4.

4.0 Summary and Conclusions

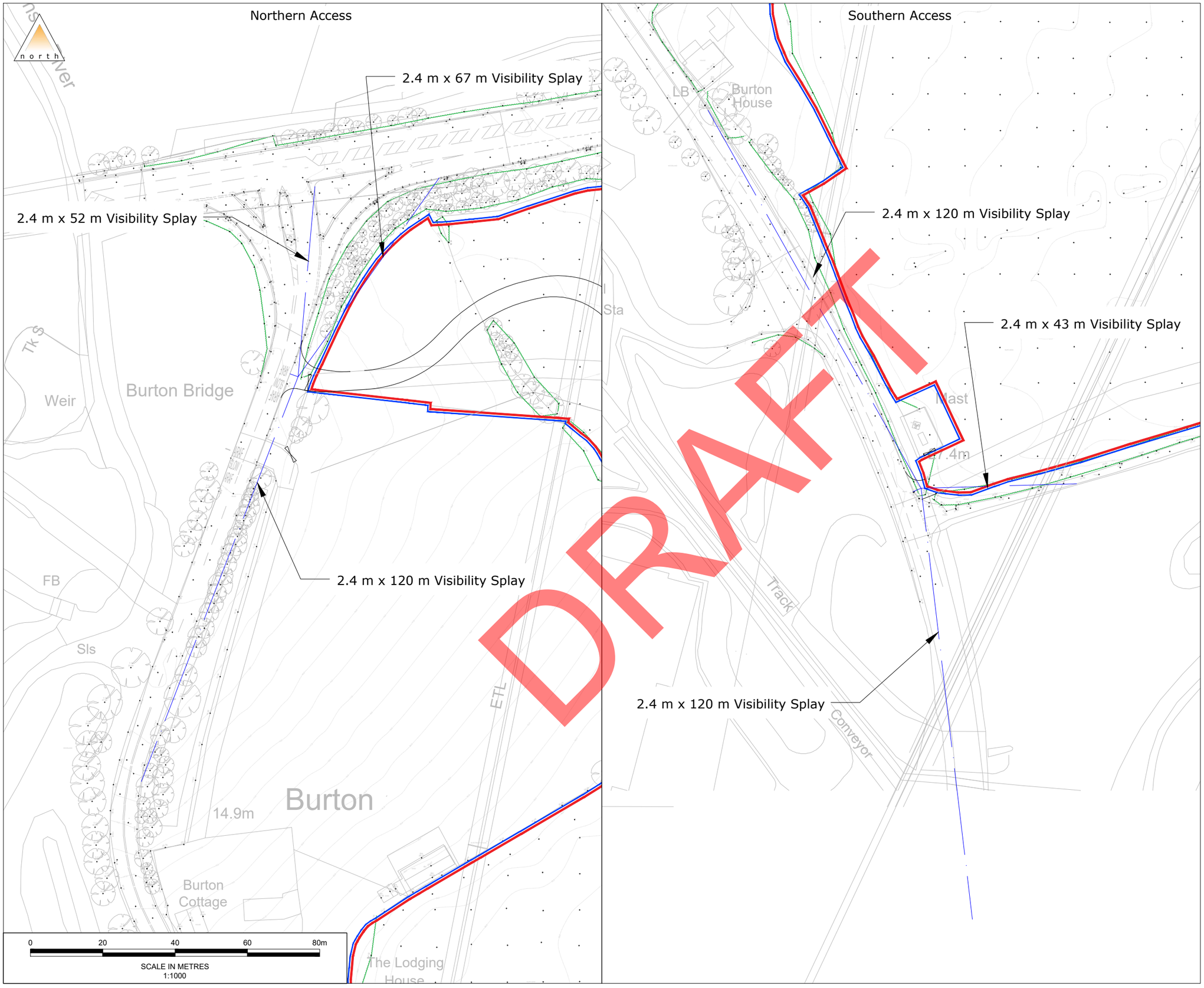
4.1 Access to the Site for all construction vehicles will be via an existing access from Fontygary Road. Sufficient visibility splays can be achieved for this access.

4.2 All deliveries will access the site from the north via junction 33 of the M4 and then via the principal road network, avoiding the 'B' road network west of the site.

4.3 Deliveries of the equipment for the BESS will be via a mixture of articulated and rigid goods vehicles over an estimated twelve month period, with the anticipated daily increase in traffic not having material implications for the adjacent road network.

Appendix A

Site Access



Notes

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2. This drawing is based on OS mapping and Motion cannot guarantee the accuracy of the data.

Legend

Visibility Splay

Rev.	Description	Drn	Chk	App	Date
A	Updated Site Layout	DR	CS	CS	12/02/2025
-	First Issue	DR	CS	CS	30/08/2024

Drawing Status:

FOR PLANNING
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motion
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Client:
LDA Design

Project:
BESS - Fonmon Estate

Title:
Visibility Splays at Site Access'

Scale: 1:1,000 (@ A3)

Drawing: 2301070-01

Revision: A

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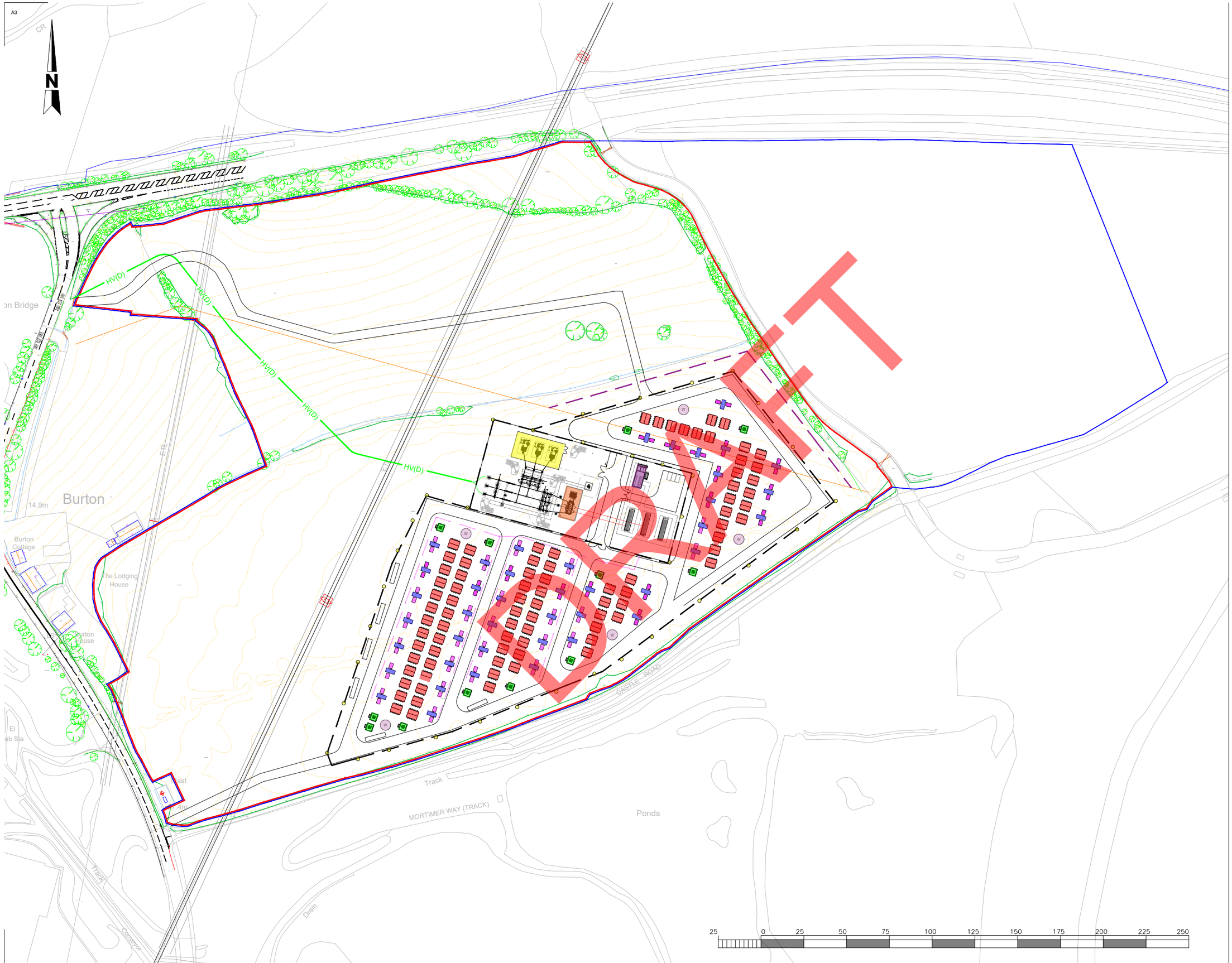
Appendix B

Site Plan

A3



NOTES:

1. ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION
2. ALL DIMENSIONS ARE INDICATIVE AND IN METERS (M) UNLESS STATED OTHERWISE

LEGEND:

- BESS CONTAINER
- TWIN SKID INVERTER
- TWIN SKID TRANSFORMER
- AUXILIARY TRANSFORMER
- SWITCHGEAR
- HARMONIC FILTERS
- HV 33/400kV TRANSFORMER
- CONTROL ROOM
- RED LINE BOUNDARY
- FENCELINE
- MV CABLING INDICATIVE
- 275kV CABLE INDICATIVE
- CCTV POLE
- EXISTING PRoW
- PROPOSED PRoW DIVERGENCE
- WATER TANK

Windel Energy

S10 Blyth Workspace, Commissioners Quay, Quay Road, Blyth NE24 3AG
Phone: +44 (0) 191 406 6209
www.windelenergy.co.uk

CLIENT

REWE 7 LTD

PROJECT TITLE

CASTLE ROAD BATTERY ENERGY STORAGE SYSTEM

DRAWING TITLE

SITE LAYOUT PLAN

SCALE @ A3

1:7500

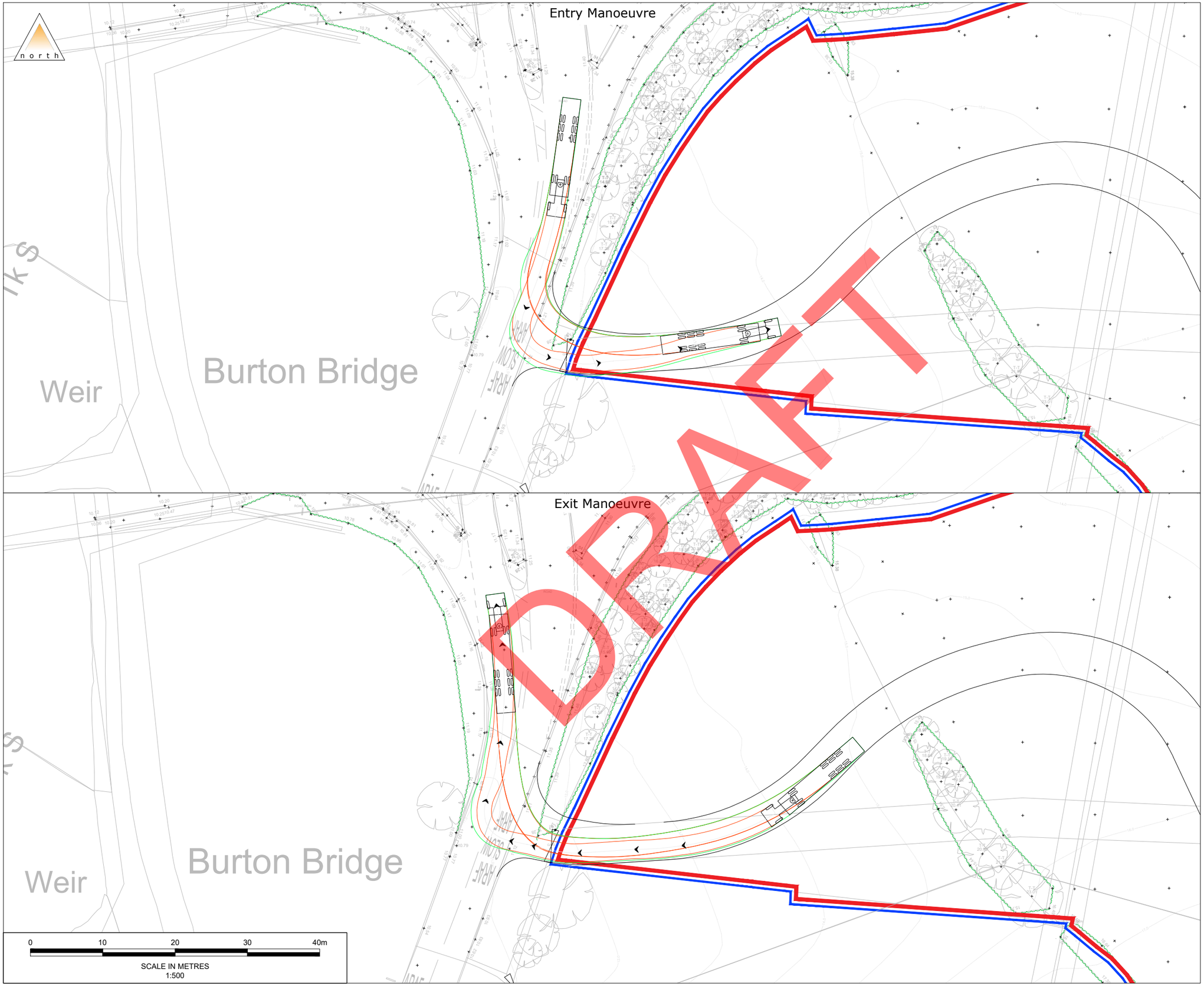
JOB No.	REV.
08	06

DRAWING No.

WIN-BES-08-DR-03-03-01

Appendix C

Swept Path Analysis – Site Access



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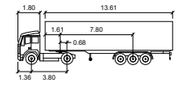

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Trailer Width	: 2.55	Steering Angle	: 42.7		
Tractor Track	: 2.55	Articulating Angle	: 70.0		
Trailer Track	: 2.55				

Rev.	Description	Drn	Chk	App	Date
A	Updated Site Layout	DR	CS	CS	02/12/25
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Title:
Swept Path Analysis at Site Access'

Scale: 1:500 (@ A3)

Drawing: 2301070-TK01

Revision: A

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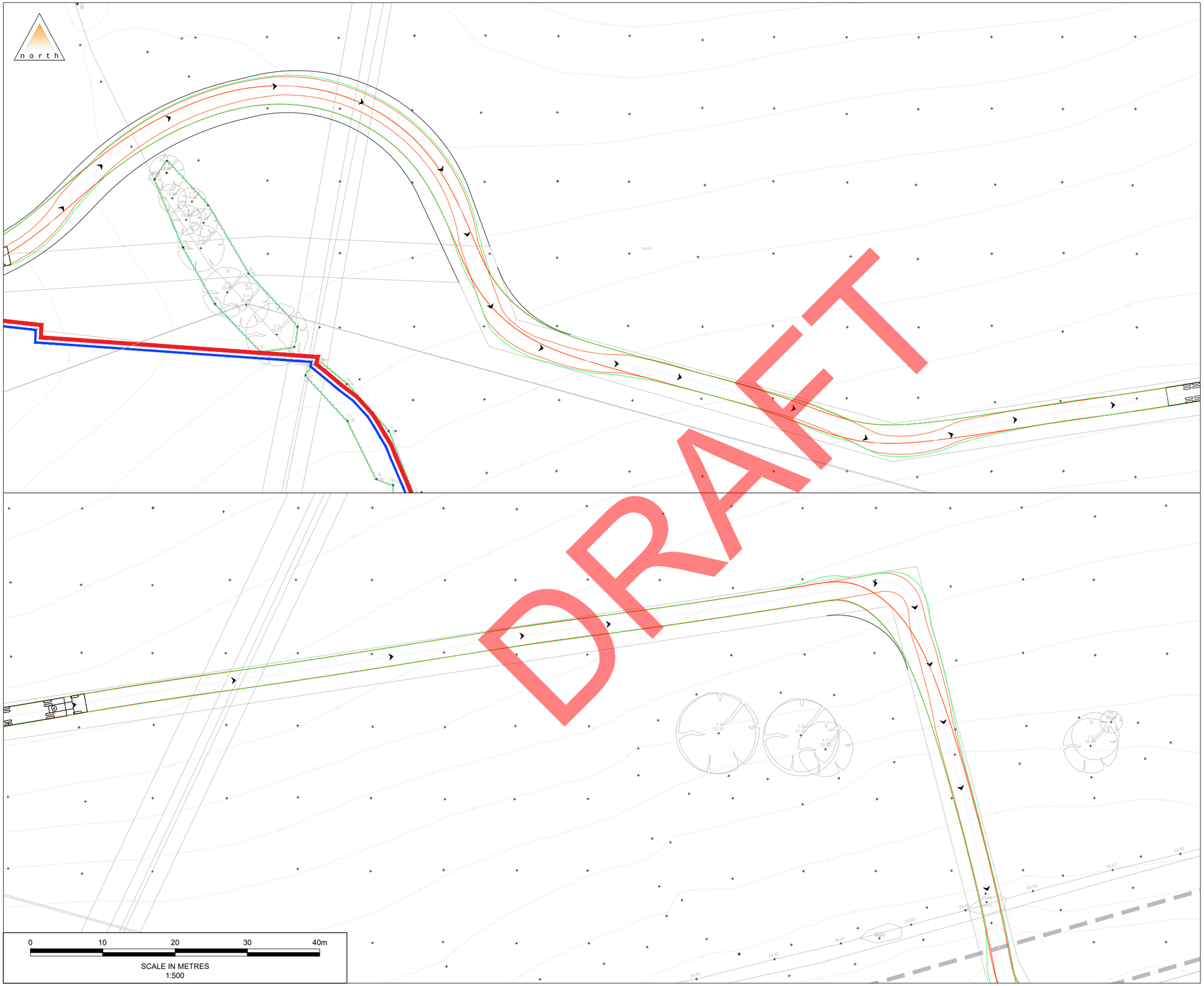
Appendix D

Swept Path Analysis – Within Site



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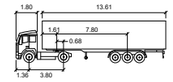

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16.5 m Artic
Entry

Scale: 1:500 (@ A3)

Drawing: 2301070-TK02

Revision: -

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north

DRAFT

0 10 20 30 40m

SCALE IN METRES
1:500

Notes

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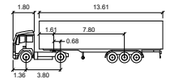

Artic

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Trailer Track	: 2.55		

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Swept Path Analysis
16.5 m Artic
Entry

Scale: 1:500 (@ A3)

Drawing: 2301070-TK03

Revision: -

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north

DRAFT

0 10 20 30 40m

SCALE IN METRES
1:500

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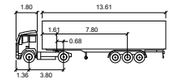

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Swept Path Analysis at Site Access'

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Drawing: 2301070-TK04

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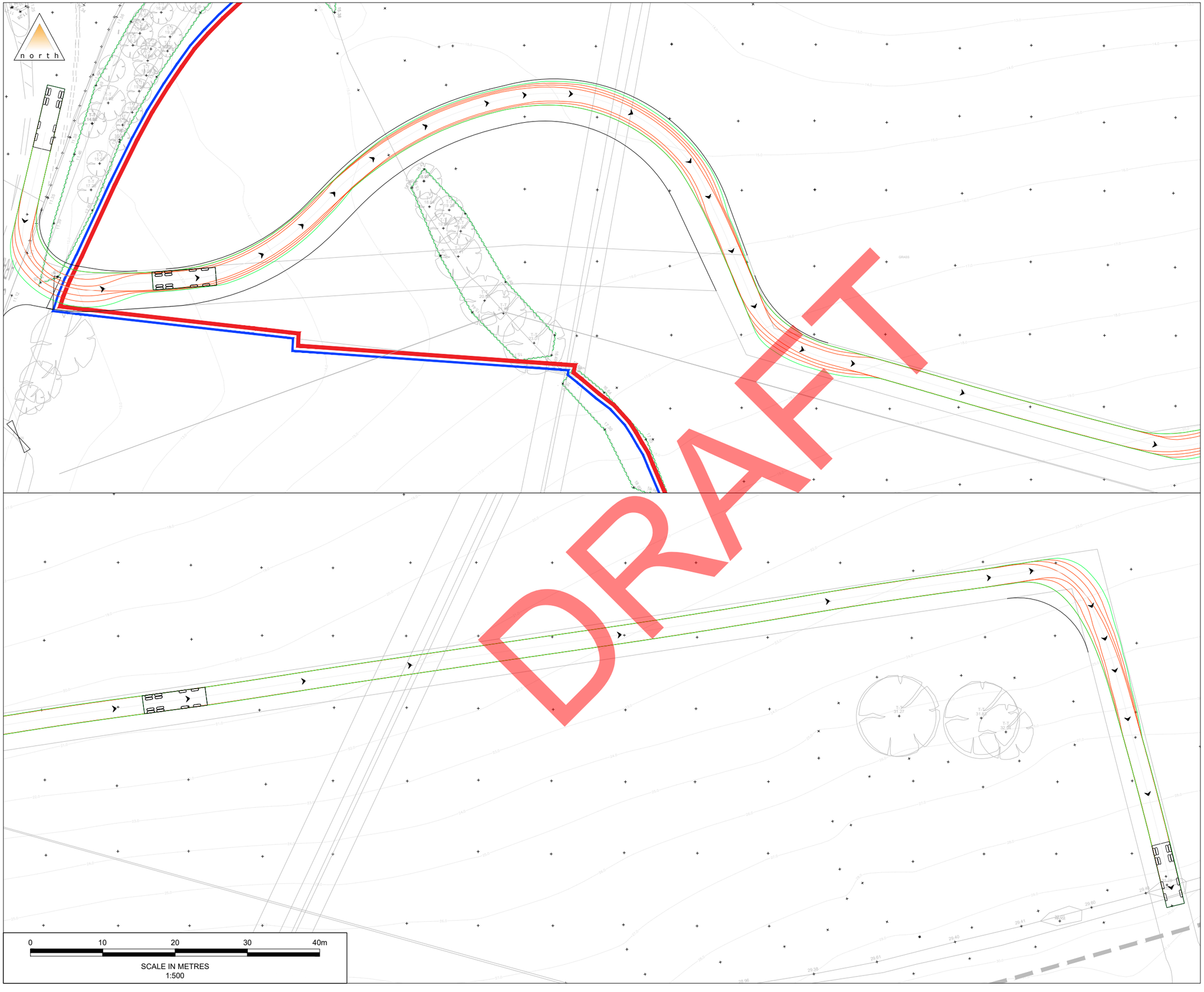

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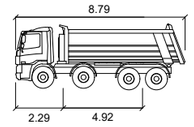

Mercedes Actros Rigid Tipper 8x4 3236K

meters

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Track	:	2.49
Lock to Lock Time	:	6.0
Steering Angle	:	30.7

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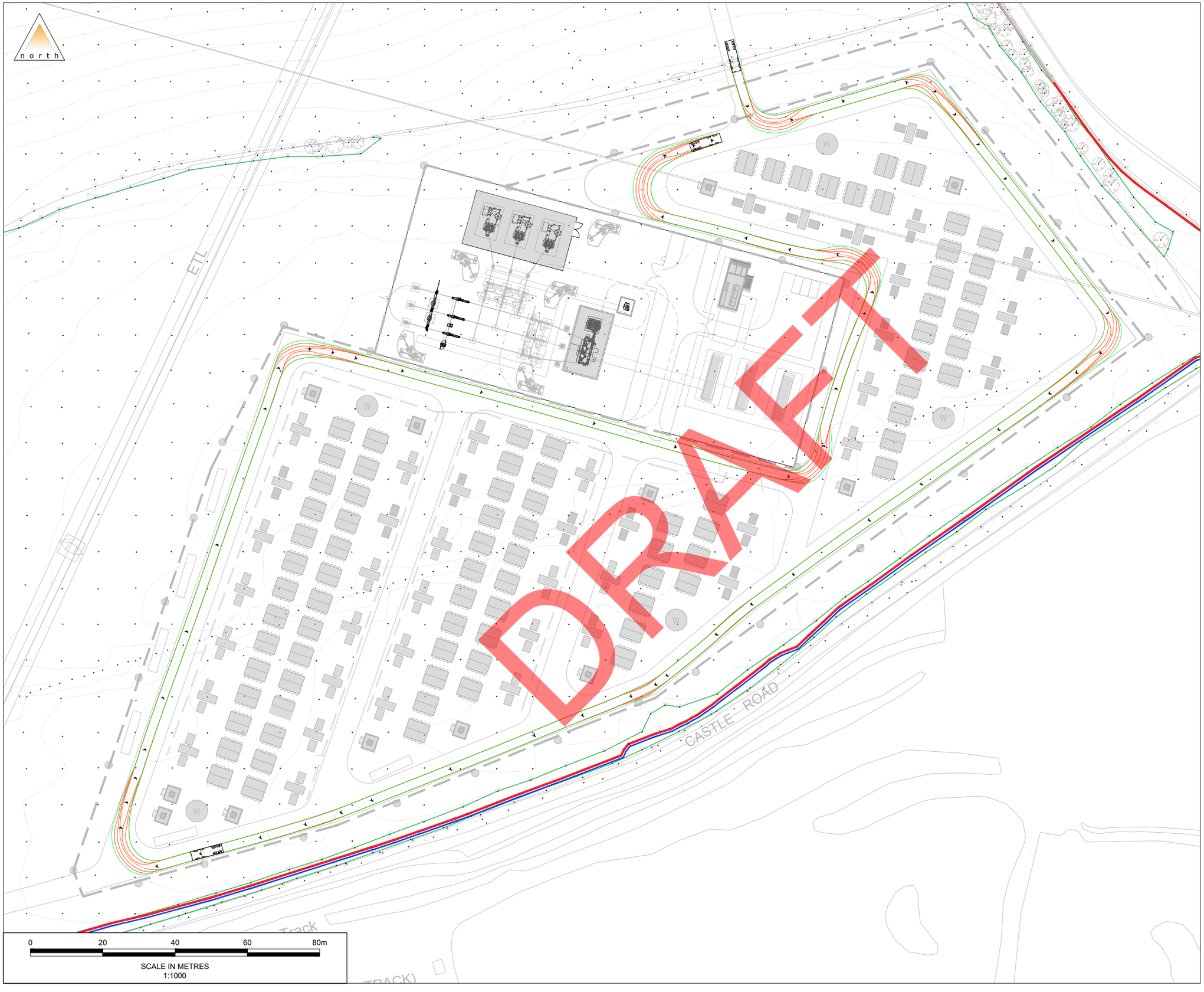
Tipper Vehicle

Scale: 1:500 (@ A3)

Drawing: 2301070-TK05

Revision: -



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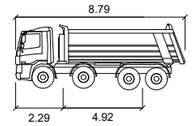

Mercedes Actros Rigid Tipper 8x4 3236K

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Project:
BESS - Fonmon Estate

Title:
Swept Path Analysis
Tipper Vehicle

Scale: 1:1,000 (@ A3)

Drawing: 2301070-TK06

Revision: -

north

0 10 20 30 40m

SCALE IN METRES
1:500

DRAFT

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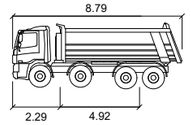

Mercedes Actros Rigid Tipper 8x4 3236K
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Track	:	2.49
Lock to Lock Time	:	6.0
Steering Angle	:	30.7

Rev.	Description	Drn	Chk	App	Date
-	First Issue	DR	CS	CS	12/02/2025

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Project:
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Title:
Swept Path Analysis
Tipper Vehicle

Scale: 1:500 (@ A3)

Drawing: 2301070-TK07

Revision: -

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north

DRAFT

SLOW ARAF

SLOW ARAF

0 10 20 30 40m

SCALE IN METRES
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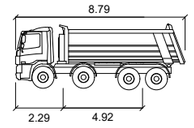

Mercedes Actros Rigid Tipper 8x4 3236K
meters

Width	:	2.49
Track	:	2.49
Lock to Lock Time	:	6.0
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Client:
LDA Design

Project:
BESS - Fonmon Estate

Title:
Swept Path Analysis
Tipper Vehicle

Scale: 1:500 (@ A3)

Drawing: 2301070-TK08

Revision: -