CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Project	BESS – Rothienorman
Report Title	Construction Traffic Management Plan
Date	24/10/2025
Prepared by	Momentum Transport Consultancy
Prepared for	Blackford Renewables Ltd

1. Introduction

1.1 This Construction Traffic Management Plan (CTMP) has been prepared by Momentum Transport Consultancy 'Momentum' on behalf of Blackford Renewables Ltd to support the pre-application process for the development of a 500MW (1,000MWh) Battery Energy Storage System (BESS) at Rothienorman, Aberdeenshire, Scotland. Figure 1.1 shows the site plan.

1.2 This CTMP is based on the CTMP that was prepared for the development of a 50MW (100 MWh) BESS at Rothienorman (planning application reference APP/2023/0718), which was consulted on and has similar conditions. This CTMP seeks to achieve the following objectives:

- Minimise the impact of the construction traffic on Rothienorman local highway network especially during peak hours.
- Establish how construction materials can be delivered, and waste removed, in a safe and efficient manner.
- Assist in easing construction congestion on the local and wider highway network.
- Improve the safety and reliability of deliveries to the site.

1.3 This CTMP sets out the anticipated impacts of the development in line with the national, regional and local policy. The remainder of the note is therefore set out as follows:

- Section 2 presents the policy review.
- Section 3 sets out anticipated traffic forecasts for the development.
- Section 4 provides details of site access.
- Section 5 highlights measures to minimise impact and mitigate construction traffic.
- Section 6 presents CTMP implementation and monitoring.
- Section 7 forms the conclusions.

Figure 1.1: Site Plan

2. Policy Review

NATIONAL POLICY

National Planning Framework 4 – (2024) – Scottish Government

2.1 The NPPF 4 spatial strategy reflects a wide range of proposals for development in rural areas, supported by national developments that recognise the potential and need to expand key sectors including renewable energy, sustainable transport and green infrastructure.

2.2 Policy 11 of the NPF requires project design and mitigation to demonstrate how the impacts on road traffic and on adjacent trunk roads, including during construction, are addressed.

2.3 Policy 13 ensures that in assessing the transport impacts of development, the area's needs and characteristics are taken into account.

National Transport Strategy 2 (2020) – Transport Scotland

2.4 The National Transport Strategy aims at taking climate action to **"***enable greener, cleaner choices: over the next 20 years, Scotland will see a continued transformation in transport where sustainable travel options are people's first choice if they need to travel*" (p.7).

LOCAL POLICY

Aberdeenshire Local Development Plan (2023)

2.5 Section 14 presents that any new private access onto a public road must be designed to the satisfaction of Aberdeenshire Council's Road and Transportation Service and, in the case of a trunk road, Transport Scotland. Developers should be aware of the Aberdeenshire Standards for Road Construction Consent and Adoption, and the need for Roads Construction Consent in most instances. A Transport Assessment (or for smaller proposals a Transport Statement) may be asked for, to demonstrate that the development (and any proposed mitigation measures) will not have significant transport impacts on existing transport infrastructure and services (RD1.8)

Aberdeen City and Shire Local Transport Strategy (2012)

2.6 Aberdeen City and Shire's vision is to have a transport network that is safe for all users. The Council has an obligation to ensure that road casualty reduction is a main priority and the Local Transport Strategy (LTS) will support the delivery of the Joint Road Safety Plan.

2.7 The aims of the LTS are to:

- Reduce Non-Sustainable Journeys
- Increase Active Travel
- Make Travel More Effective
- Improve Health
- Reduce Carbon Emissions from Transport

3. Construction Works

CONSTRUCTION PROGRAMME

3.1 The construction period could be expected to last up to 18 months between the periods of Q1 2028 until Q3 2029.

3.2 Exact details on the construction programme will be delivered once a contractor has been appointed.

CONSTRUCTION WORKERS

3.3 Based on observations at existing BESS sites and the scale of the proposed development, no more than 150 workers are anticipated to be present on site during the peak of construction activities.

3.4 Please note that this number is indicative and the exact number of expected construction workers on site during the peak periods would need to be confirmed once a contractor has been appointed.

WORKING HOURS

3.5 Construction works would be undertaken from 08:00 to 18:00 Monday to Friday, and 09:00-13:00 Saturday. No construction would be undertaken on Sundays nor on Bank Holidays.

3.6 Staff will work 10-hour shifts, arriving on site between 8am and 9am in the morning and leaving site between 7pm and 8pm in the evening on weekdays.

CONSTRUCTION TRAFFIC FORECAST

3.7 In the absence of an appointed contractor at this stage, construction delivery traffic has been forecast using a scaled approach from another BESS site in Stairfoot. The Stairfoot site is smaller (40MWh instead of 1,000MWh planned for the proposed site) and therefore the deliveries have been uplifted proportionally as shown in Table 3.1.

Table 3.1 Traffic Forecast

Activity	Vehicle type / size	Stairfoot site (40MWh)	Rothienorman site (1,000MWh)
Delivery of inverters	Articulated lorry	4 deliveries	100 deliveries
Delivery of transformers	Articulated lorry	4 deliveries	100 deliveries
Installation Inverters/Transformers	Crane	3 movements	75 movements
Delivery of Battery and PV	Articulated lorry	20 deliveries	500 deliveries
Installation of Battery racks	Crane	2 movements	50 movements
Delivery of MV substation	Articulated lorry	2 deliveries	50 deliveries
Installation of MV substation	Crane	2 movements	50 movements
Delivery of concrete	Concrete truck	6 deliveries	150 deliveries
Concrete pumping	Concrete pump	6 movements	150 movements
Aggregate movements	Lorry	5 movements	125 movements

3.8 On average it is expected that over the 18-months construction period this will create 3 - 4 HGV movements per day and the delivery of three abnormal loads for the supergrid transformers would also be expected. However this would need to be further validated by the appointed contractor.

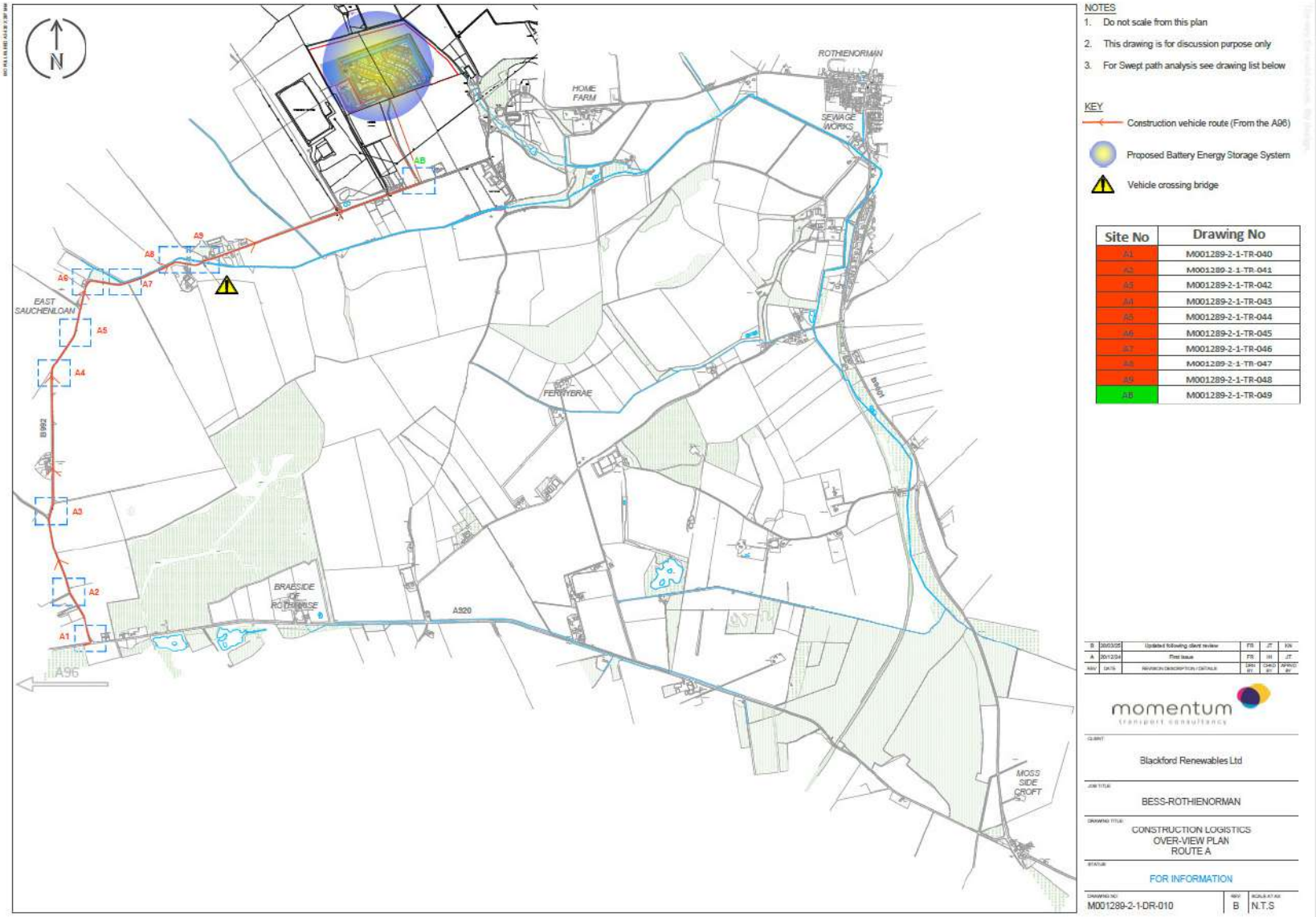
TRAFFIC ROUTES

3.9 As shown in Figure 3.1 (also provided in Appendix A), construction deliveries and construction-related traffic will be routed to the site via the A96 to the west, and onward via the A920 and the B992. This is in line with the existing construction vehicle routing for the nearby BESS site located further west of the proposed development, and also for the existing 50MW (100MWh) BESS site.

3.10 An assessment of routing options demonstrated that this route from the west presents less constraints compared with other options, and would be best-suited for construction traffic. It was also noted that the nearby substation had its construction vehicles routed via the west as well, avoiding Rothienorman village.

3.11 As per Aberdeenshire Council's recommendation, there would be an advisory 20 mph speed limit on the approach to the site access, notified to drivers and indicated through advisory signage.

Figure 3.1: Construction Routing



4. Site Access

4.1 Site access and egress for the worst-case vehicles has been tested. In line with the forecast traffic and delivery types set out in Paragraph 3.7, the following vehicles have been tested (full dimensions are available on the relevant drawings):

- An Abnormal Load Carrier (62.183m overall length)
- A 16.5m length articulated lorry

4.2 The larger vehicles are required for the delivery of the supergrid transformers.

4.3 The topographical survey and client-provided information used for the assessment shows up-to-date conditions for accessing the site. The access into the site is proposed to be widened compared to its current arrangement, and some MOT Type 1 and gravel surfacing installed to allow for the relevant vehicles to access and egress. It is worth noting that the junction will need to be widened from the Phase 1 proposals to accommodate the larger construction vehicles.

4.4 As shown in Figure 4.1, swept path analyses for each vehicle entering and leaving the site have been undertaken, using a topographic survey of the proposed development site. Given the Phase 1 application resulted in construction vehicles only approaching from and egressing to the westward direction, the same approach has been applied for this Phase 2 assessment. It is anticipated that construction vehicles will be routed to approach the site from the west only. Swept path analyses are provided in Appendix B.

4.5 The visibility of the junction has also been reviewed, as shown in Figure 4.2 (also provided in Appendix C). The clearance will be undertaken within the splay extents to ensure sufficient visibility from the junction.

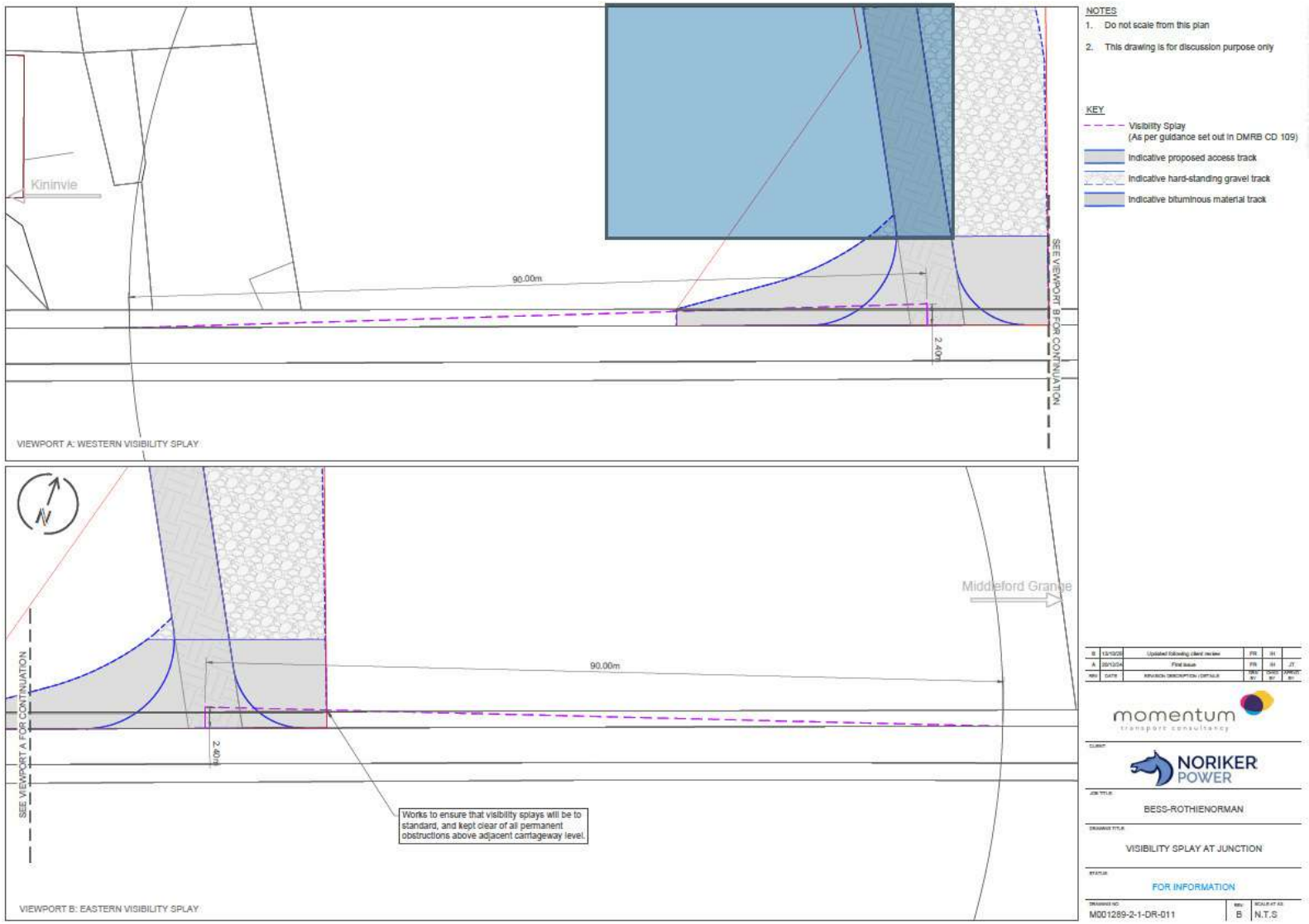
4.6 As shown in Figure 4.2, the first 10m of the site entrance will be constructed with bituminous material to facilitate the movement of the vehicles.

4.7 Vehicle routing on the A920 where the first bridge after leaving the A96 trunk road has been reviewed in the Abnormal Loads Report provided in Appendix D, which includes consideration of the Gardensmill Bridge and Black Burn Bridge.

4.8 Further, it should be noted that parking will be provided on site for construction vehicles.

Figure 4.1: Proposed Site Access and Egress Arrangements

Figure 4.2 Visibility Splay Analysis



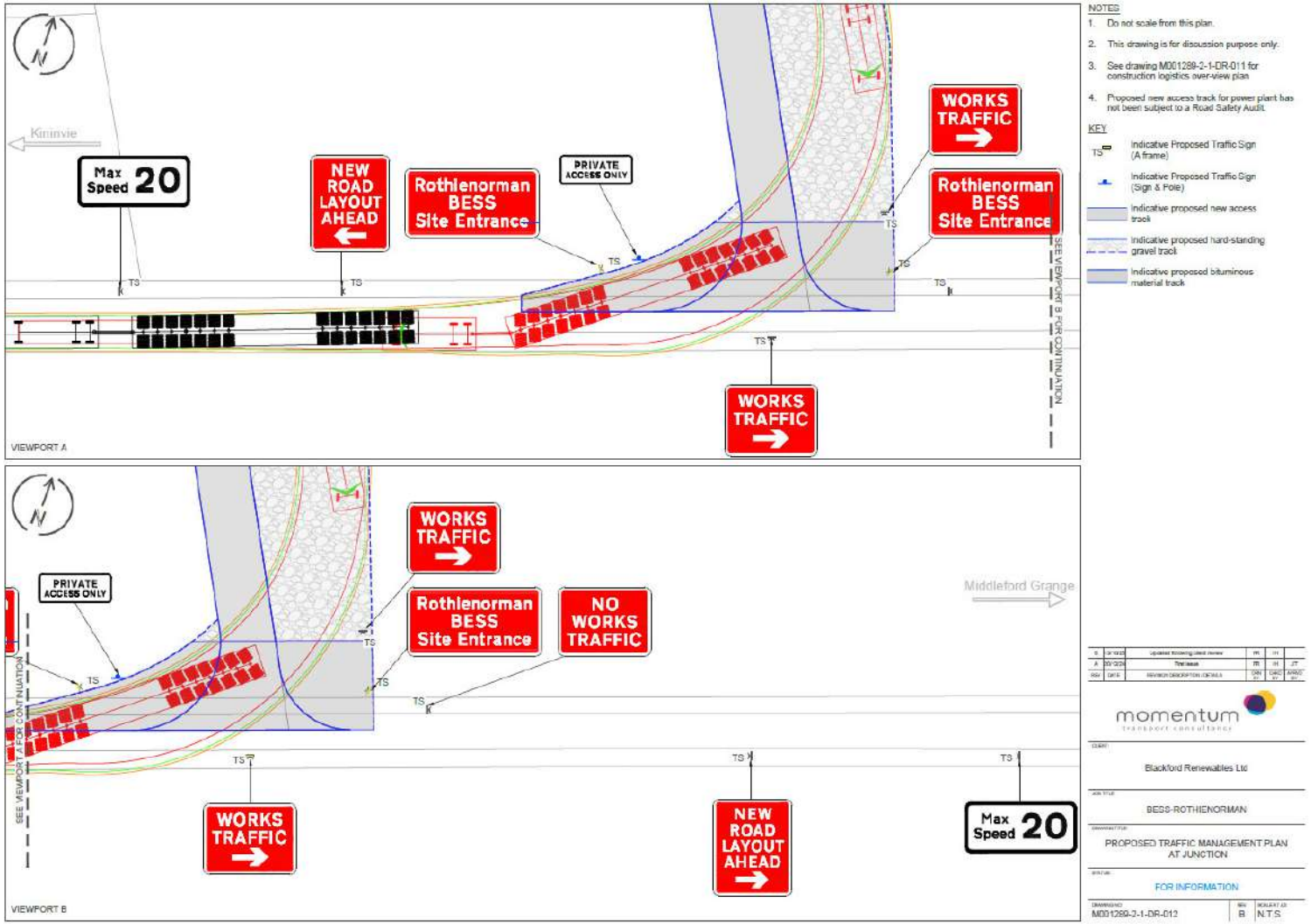
ROAD SIGNAGE

4.9 Signage will be implemented on the primary road adjacent to the private access road leading to the BESS site, to inform other road users that HGVs and other construction vehicles are expected to manoeuvre in and out of the site from this access point. The recommended traffic signs and their proposed location are shown in Figure 4.3 (also provided in Appendix E).

4.10 The signage would be implemented using rigid signposts planted in the ground, and is aimed at ensuring construction-related vehicles are aware of the site access road as they approach the junction.

4.11 Given the low-traffic nature of the public highway network through which the construction traffic is expected to route through, no wider signage strategy or marshals are deemed necessary for the site. This approach was confirmed for Phase 1 with Aberdeenshire Council during the conversation on 13th October 2023

Figure 4.3: Site Access Signage Strategy



5. Other Mitigation Measures

5.1 This section sets out further measures to minimise the impact of construction traffic on the local highway network. Based on previous feedback from Aberdeenshire Council, no further measures in addition to what was set out in the previsouly-submitted and consented Outline CTMP is deemed necessary given the site location and expected vehicle movements.

DELIVERIES

5.2 An average of 3 - 4 HGV movement per day is expected for the duration of the construction works.

5.3 An estimated 3 abnormal load deliveries will be required, utilising the AL24 Girder Vehicle.

5.4 To minimise the impact of the deliveries on the local highway network, deliveries would be undertaken between 8am and 6pm Monday to Friday and between 9am and 2pm on Saturdays. No deliveries would be undertaken on Sundays nor on Bank Holidays.

STAFF TRAVEL MEASURES

5.5 As noted in section 3.3, no more than 150 construction workers are expected on-site during the peak periods of construction works, although this is to be confirmed.

5.6 Information on office and operational staff travel to the site will be confirmed in the detailed CTMP, once a contractor has been appointed.

6. CTMP implementation and monitoring

6.1 An individual will be made responsible to ensure that measures to minimise construction traffic are put in place and are sufficient. They would also act as Transport Coordination Officer (TCO) as a point of contact between local authorities and other key stakeholders such as local authorities. A phone number for the TCO will be provided on site for the public to call if required. This will be provided upon discharging the CTMP, and once a contractor has been appointed.

6.2 The TCO will be responsible for the ongoing monitoring, promotion and development of the CTMP measures put in place for the duration of the construction works. This will ensure the measures are taken forward and delivered by all site employees.

7. Conclusions

7.1 This CTMP has been prepared by Momentum on behalf of Blackford Renewables Ltd and aimed at minimising the impact of the construction traffic on Rothienorman local highway network, especially during peak hours anticipated as a result of the BESS development at Rothienorman, Aberdeenshire, Scotland.

7.2 An average of 3 - 4 HGVs movement per day, or 1,350 total HGV trips over 18 months, is expected during the peak construction of the BESS which is when the site is expected to be at the busiest throughout the construction period. An estimated 3 abnormal load deliveries will be required, utilising the AL24 Girder Vehicle.

7.3 The assessment of routing options and detailed site access arrangements have shown that the site and its surrounding highway network can overall accommodate the expected volumes and vehicles types anticipated. All construction related vehicle drivers would be informed in advance

that access will be from the west of the site, as it would be the most suitable for large vehicles and would avoid Rothienorman village. It is worth noting that the swept path analysis for the wider construction routing identified numerous clashes present for the larger AL24 Girder vehicle, including with adjacent third party land. These will likely need to be addressed and rectified.

7.4 The current site access will not be used as a result of visibility issues identified as part of the application process. Instead, a new access further east is proposed which is suitable for most manoeuvres within the highway boundary. This access will utilise an existing junction, and will be amended to suit the proposed construction traffic.

7.5 The CTMP has set out different measures to minimise the impact of construction traffic on the local highway network such as road signage and advisory speed limits, restricting delivery times, and the implementation of measures to support construction workers travelling to site. These measures would need to be discussed once a contractor is appointed and delivered in the detailed CTMP.

7.6 The CTMP will be monitored by a Transport Coordination Officer who would act as appoint of contact between local authorities and other key stakeholders and will ensure the proposed measures are taken forward and delivered by all site employees to minimise the impact of the site on the local highway network. Key phone contact details will be provided on site.

APPENDIX A – CONSTRUCTION ROUTING

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Swept path analysis see drawing list below

KEY

Construction vehicle route (From the A96)

Proposed Battery Energy Storage System

Vehicle crossing bridge

Site No	Drawing No
A1	M001289-2-1-TR-040
A2	M001289-2-1-TR-041
A3	M001289-2-1-TR-042
A4	M001289-2-1-TR-043
A5	M001289-2-1-TR-044
A6	M001289-2-1-TR-045
A7	M001289-2-1-TR-046
A8	M001289-2-1-TR-047
A9	M001289-2-1-TR-048
AB	M001289-2-1-TR-049

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
B	28/03/25	Updated following client review	FR	JT	KN
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT: NORIKER POWER

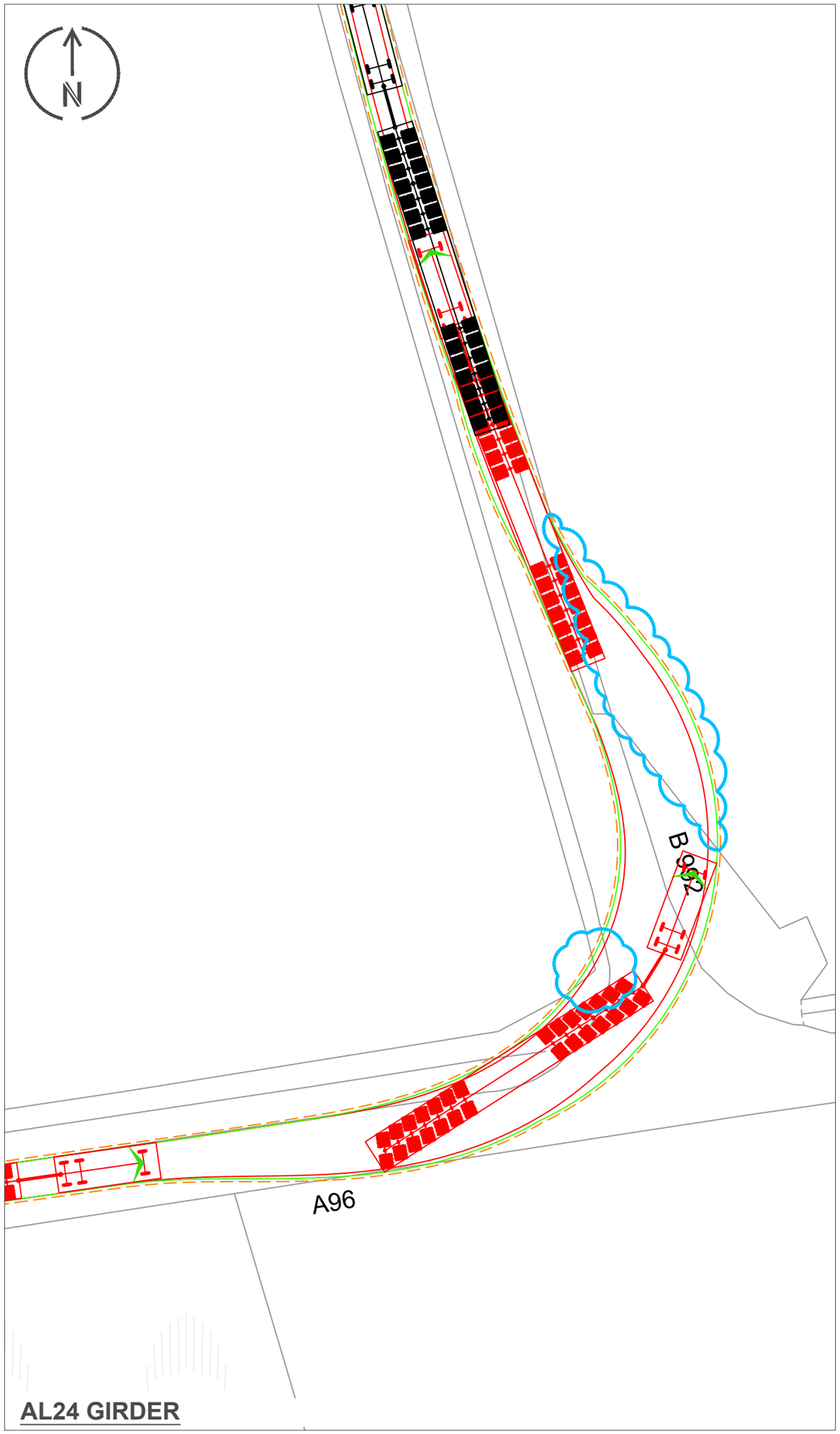
JOB TITLE: BESS-ROTHIENORMAN

DRAWING TITLE: CONSTRUCTION LOGISTICS OVER-VIEW PLAN ROUTE A

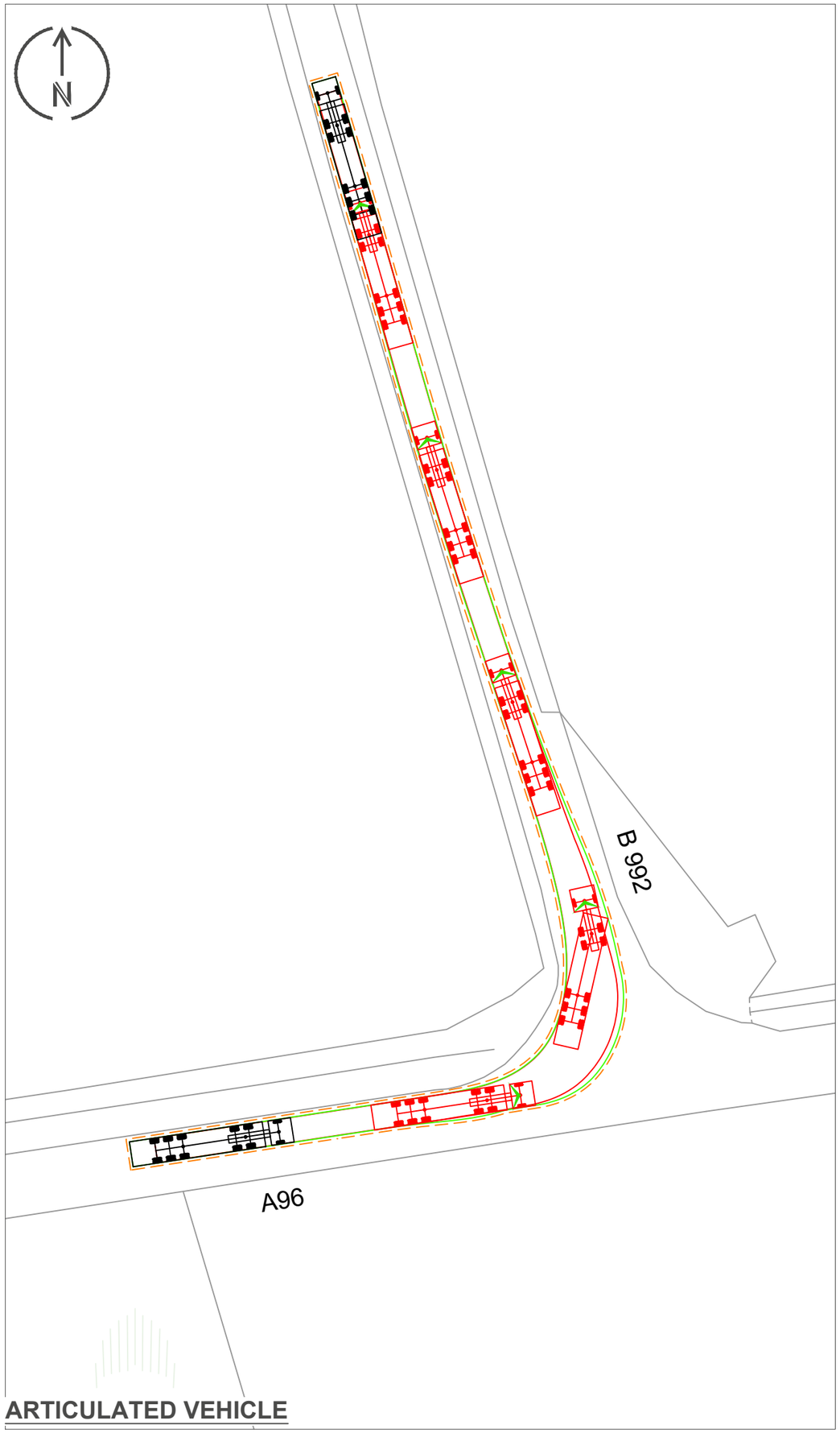
STATUS: FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-DR-010	B	N.T.S

APPENDIX B – SITE ACCESS SWEPT PATH ANALYSIS



AL24 GIRDER



ARTICULATED VEHICLE

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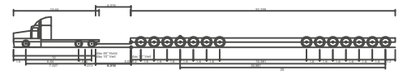
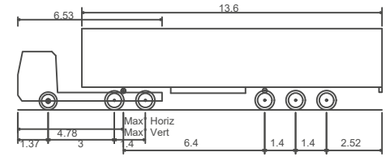
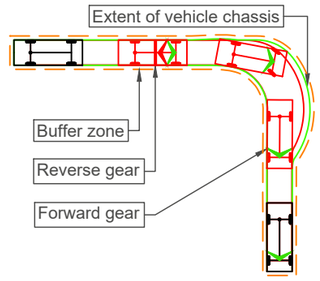


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 1 OF 9

STATUS:

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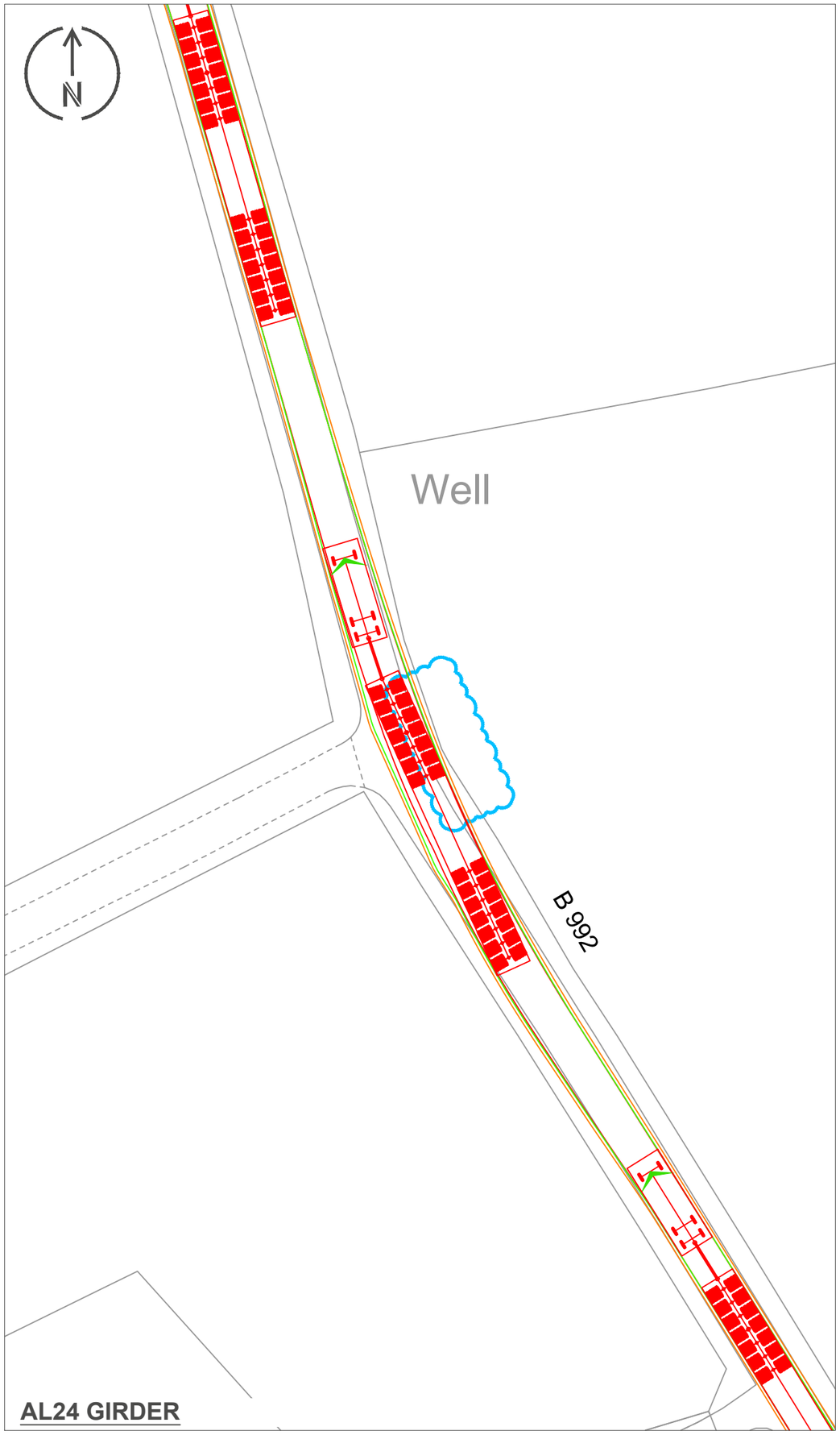

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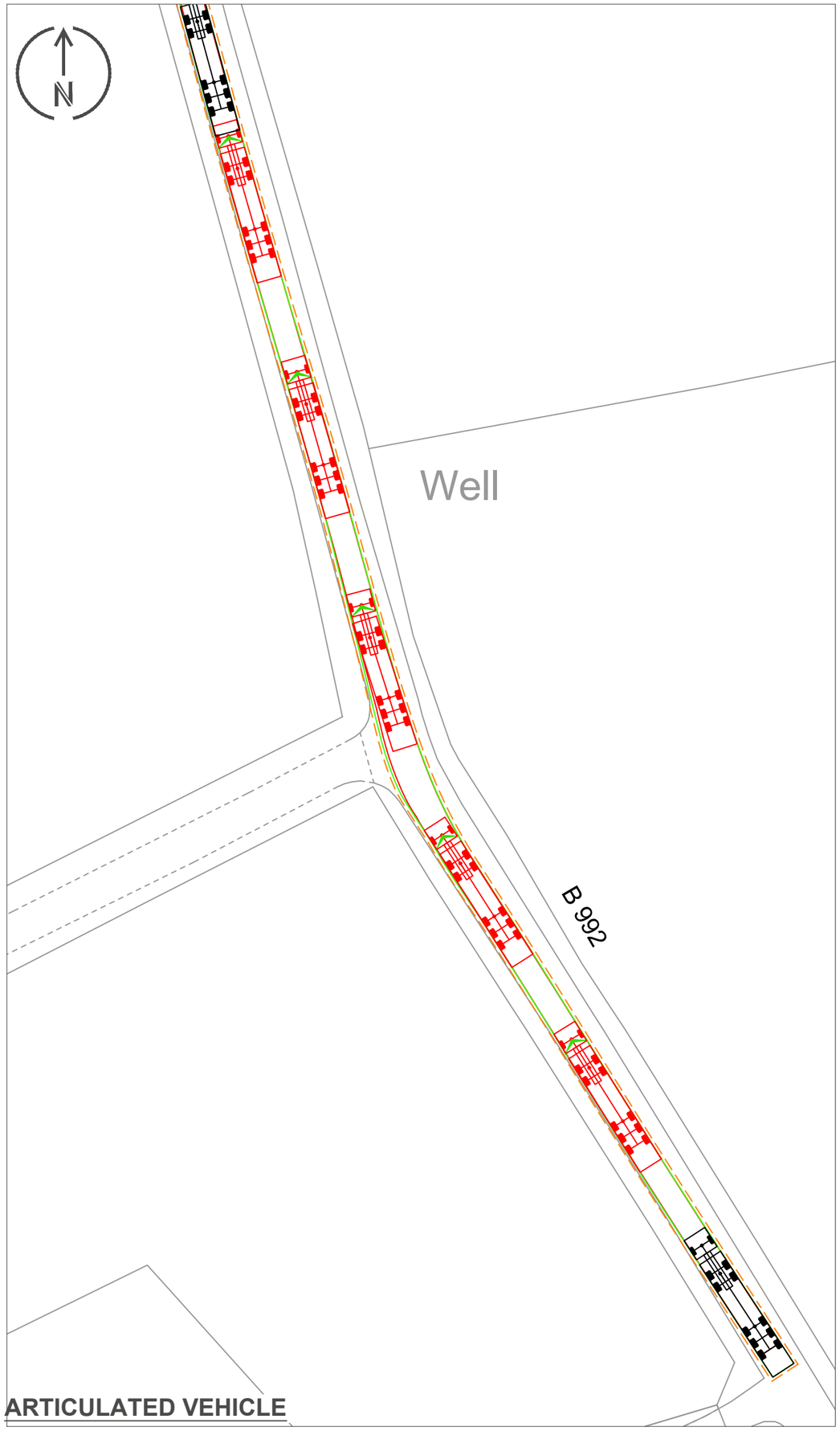

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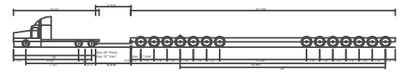

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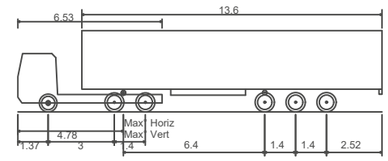

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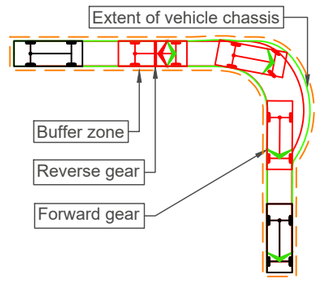

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A	20/12/24	First issue	FR	IH	JT

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Blackford Renewables Ltd

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BESS-ROTHIENORMAN

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CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 2 OF 9

STATUS:

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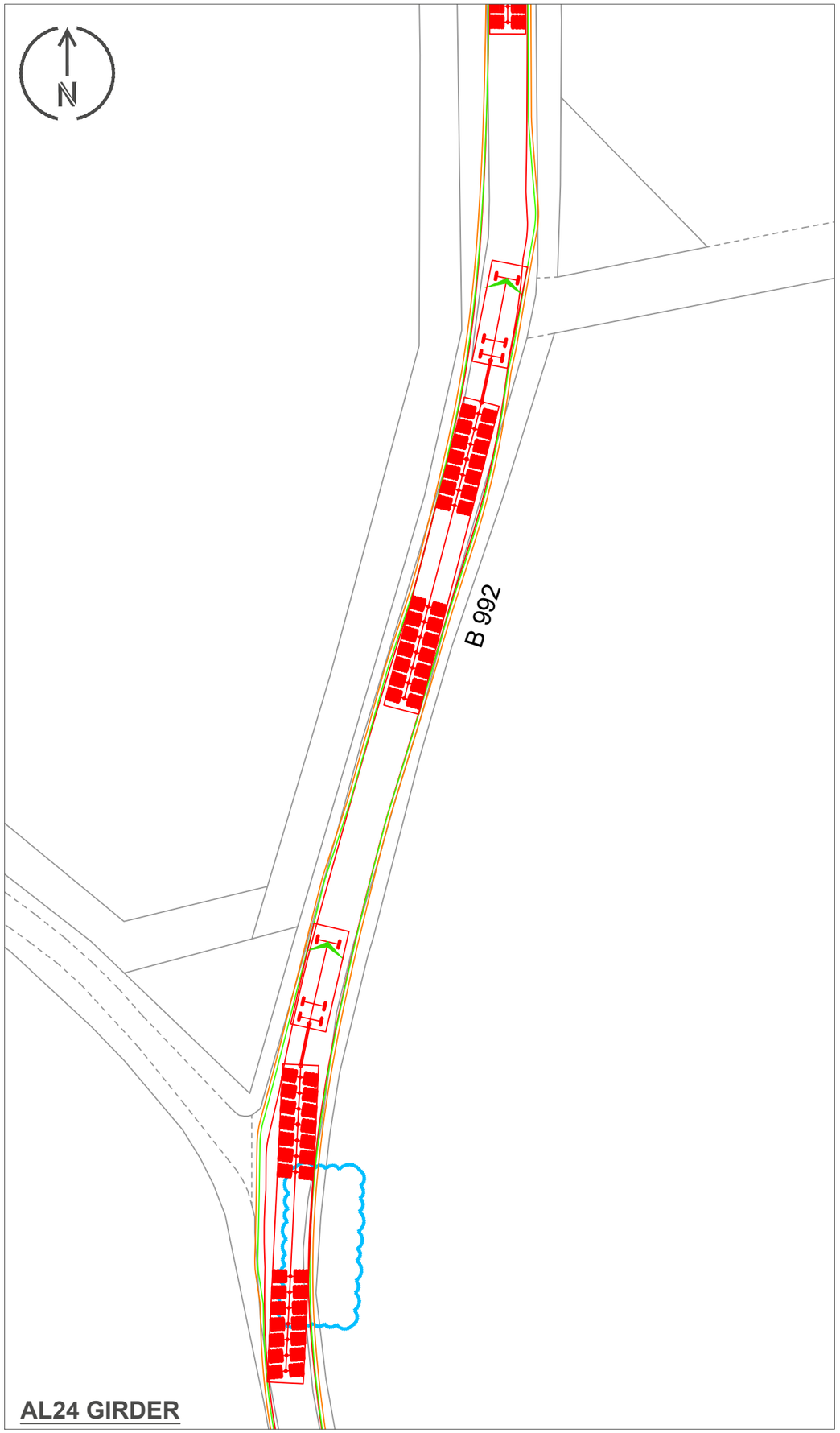

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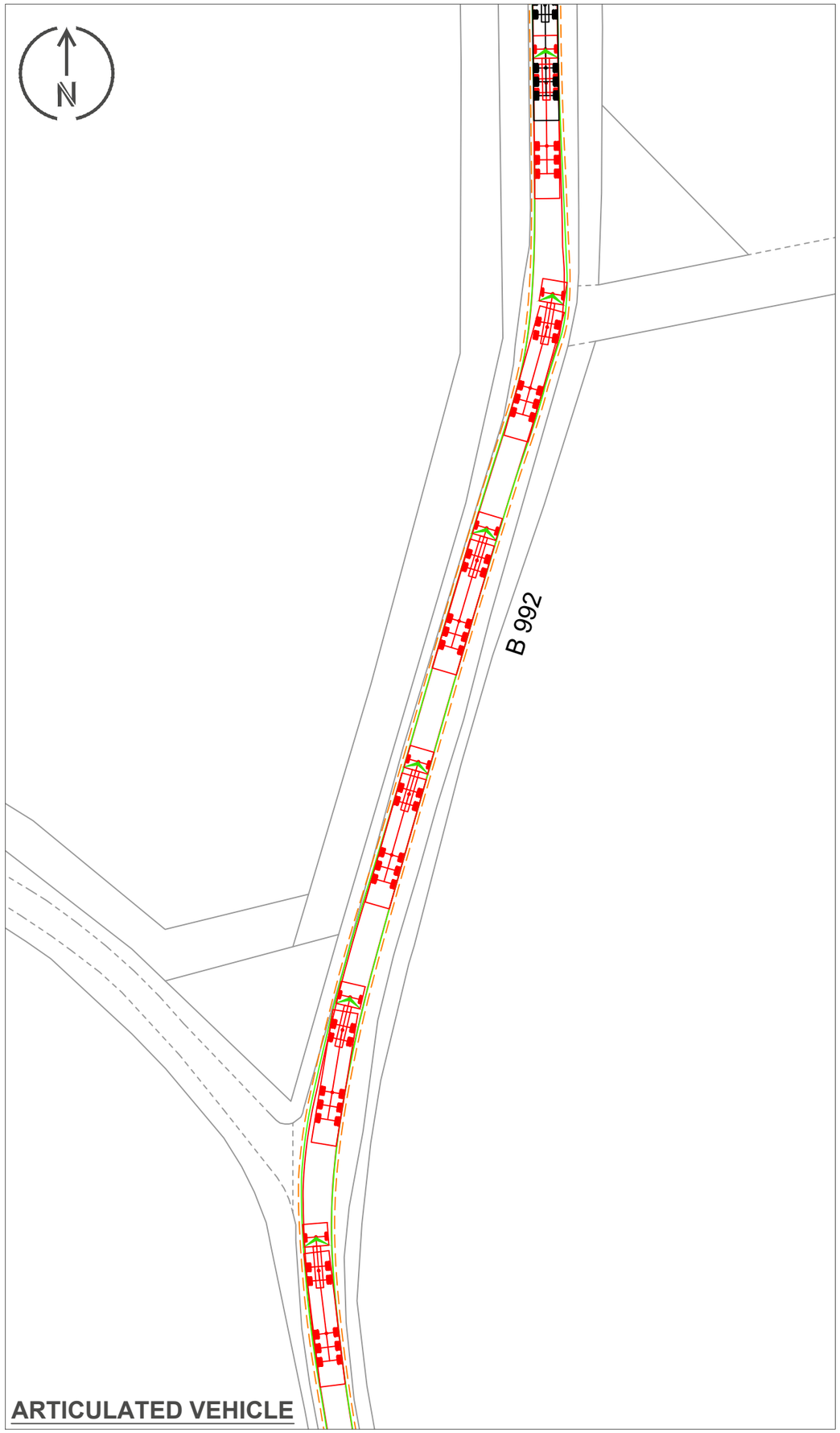

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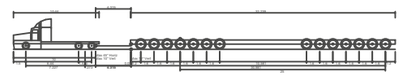

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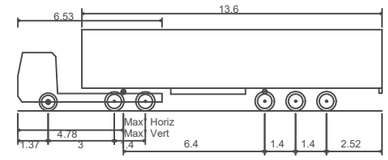

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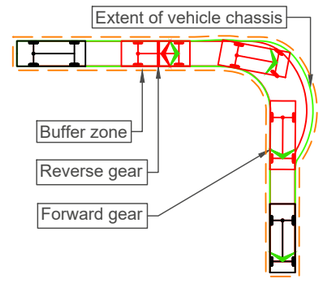

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CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 3 OF 9

STATUS:

FOR INFORMATION

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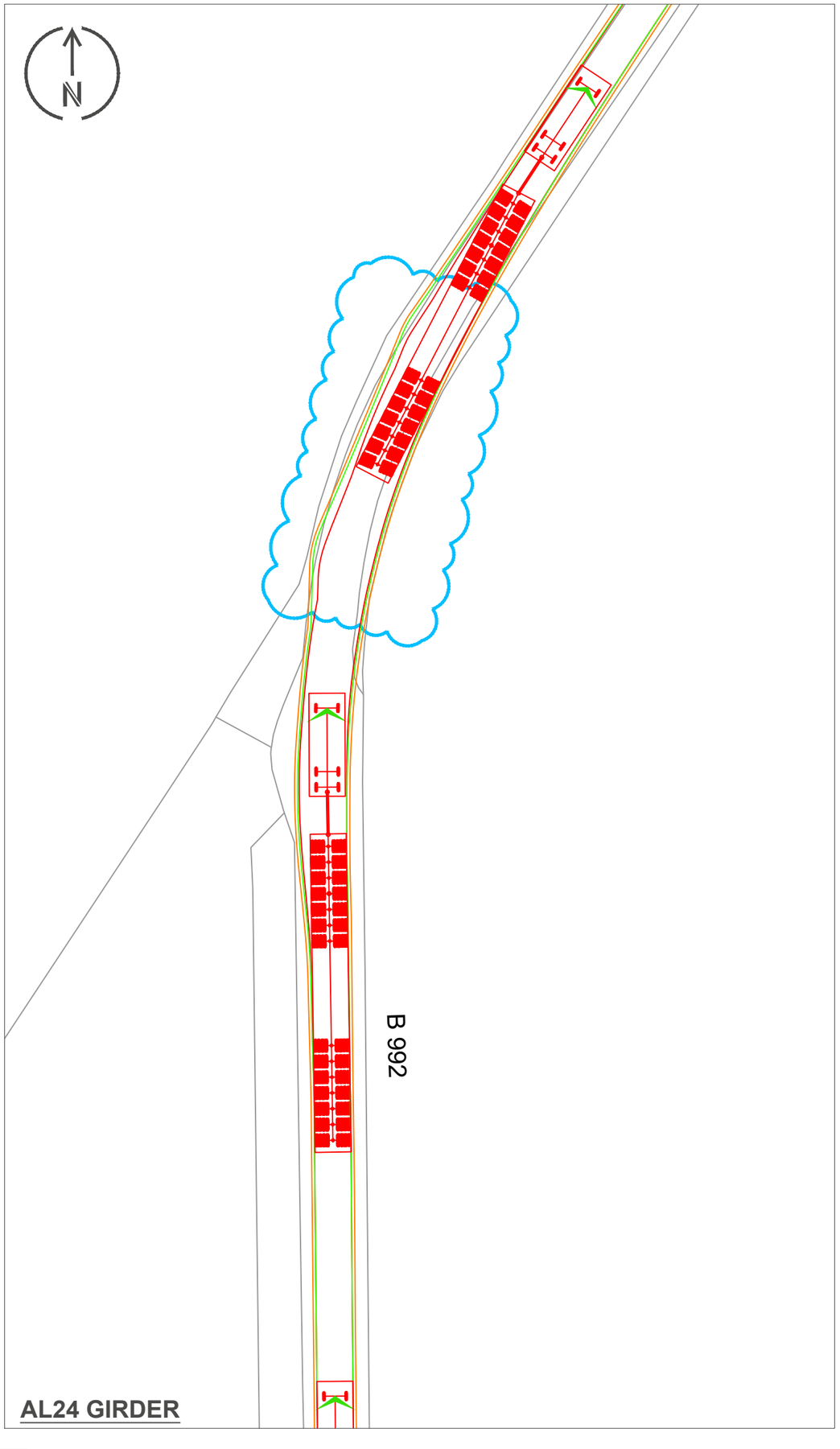

AL24 GIRDER

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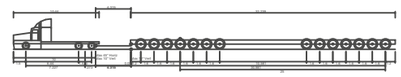

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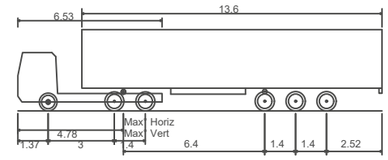

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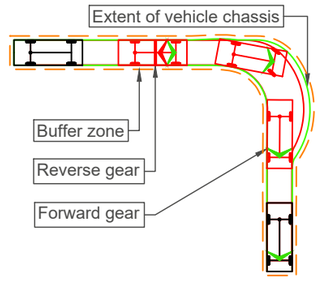
KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

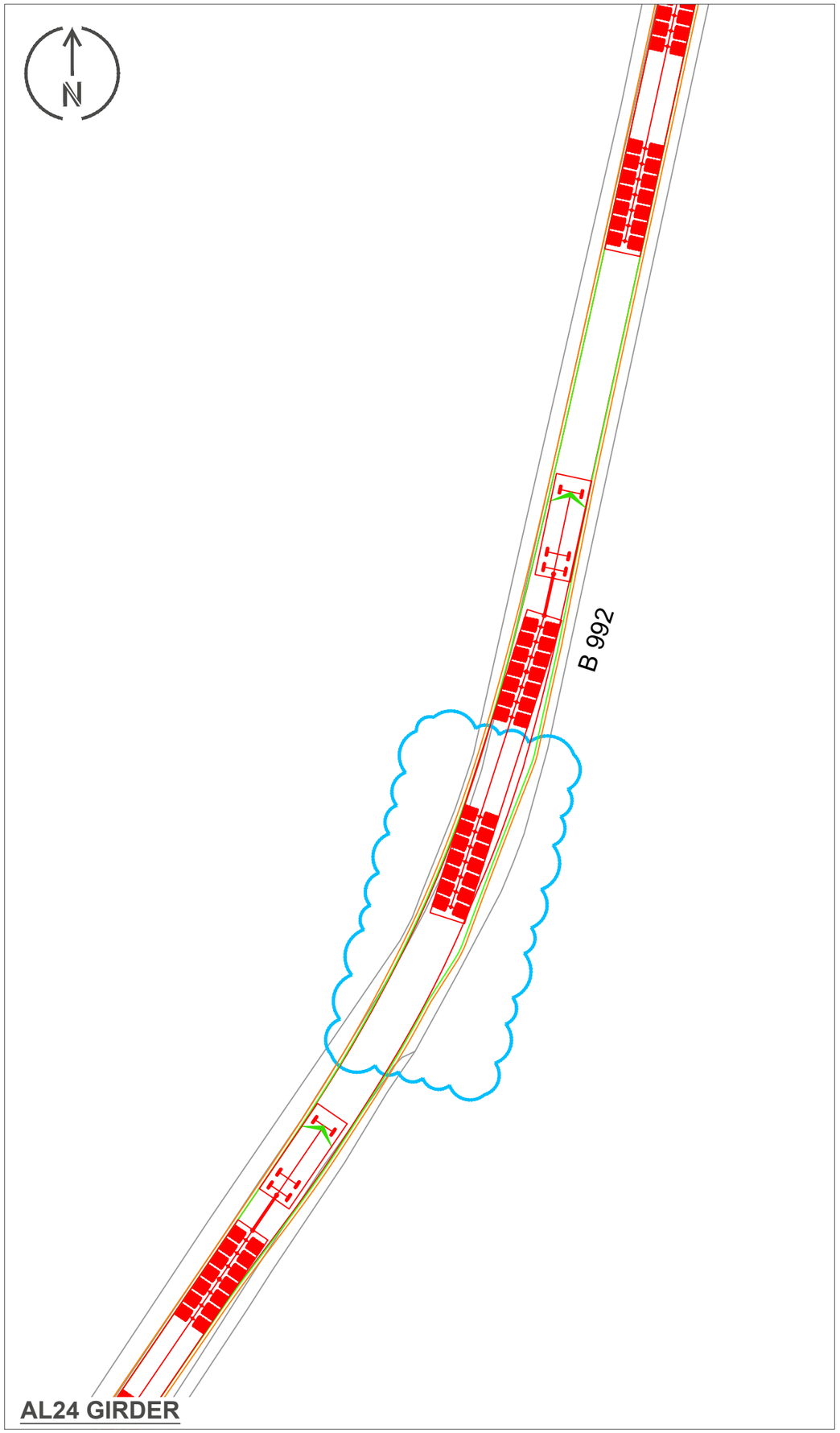
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 4 OF 9

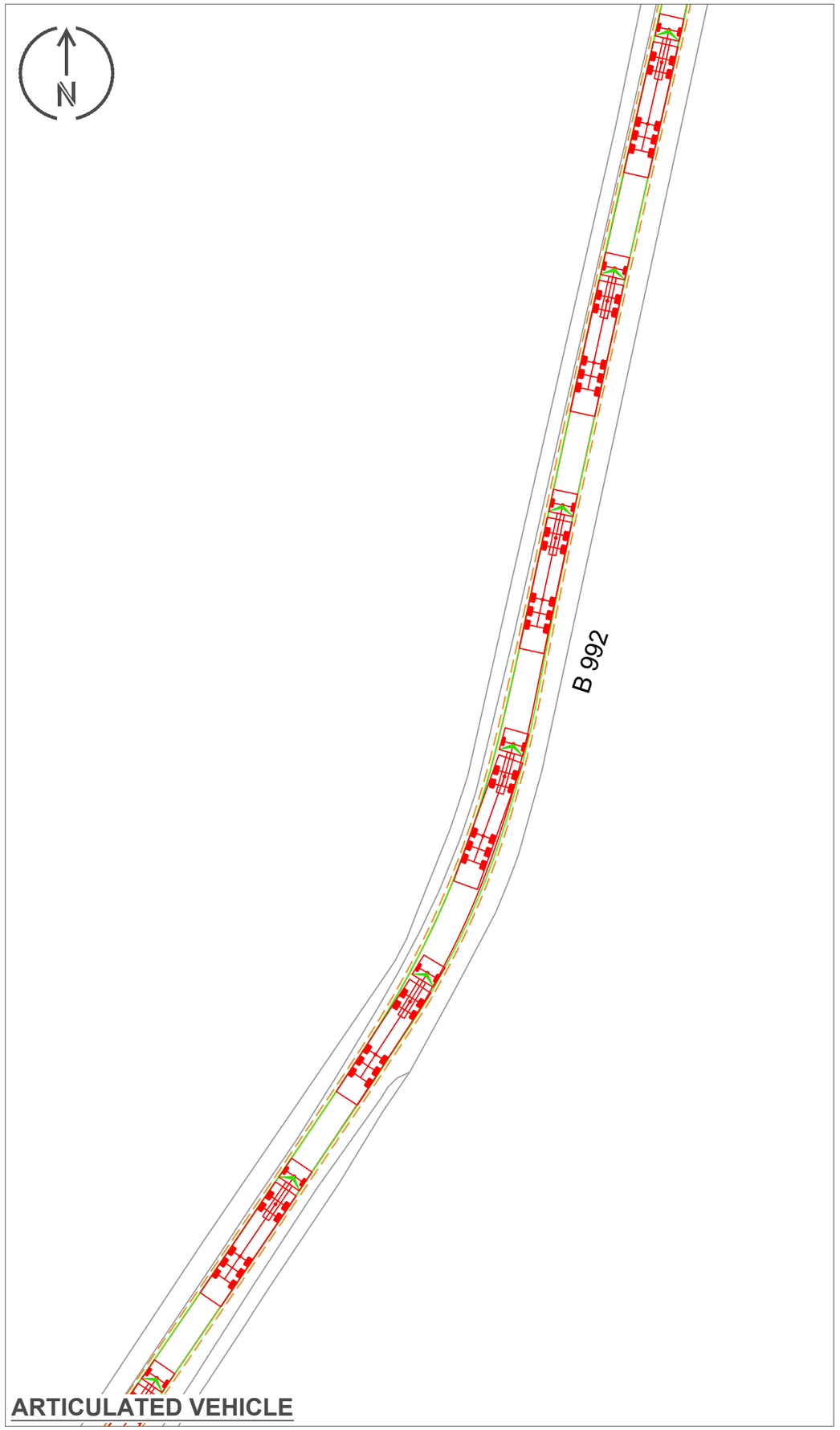
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-043	A	1:500



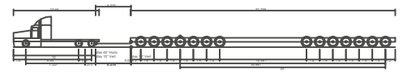
AL24 GIRDER



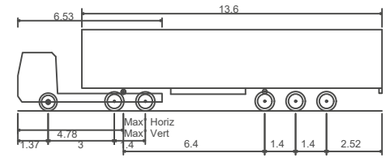
ARTICULATED VEHICLE

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Over-view plan see drawing M001289-2-1-DR-010
4. Swept path analysis is based on the following vehicle traveling at 10mph, unless stated otherwise:

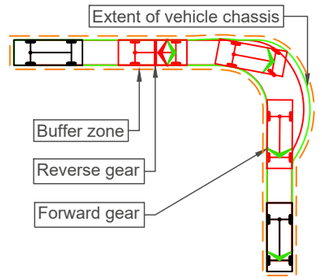


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum
transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 5 OF 9

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-044	A	1:500

penters Croft

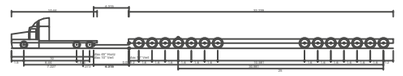
AL24 GIRDER

penters Croft

ARTICULATED VEHICLE

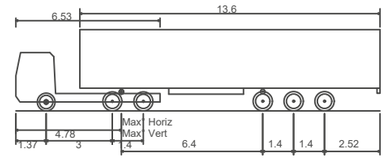
NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Over-view plan see drawing M001289-2-1-DR-010
4. Swept path analysis is based on the following vehicle traveling at 10mph, unless stated otherwise:



AL24 Girder

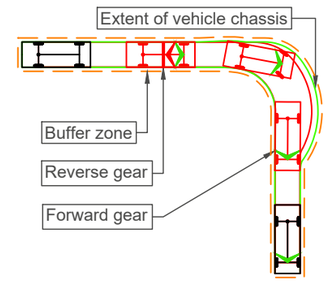
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

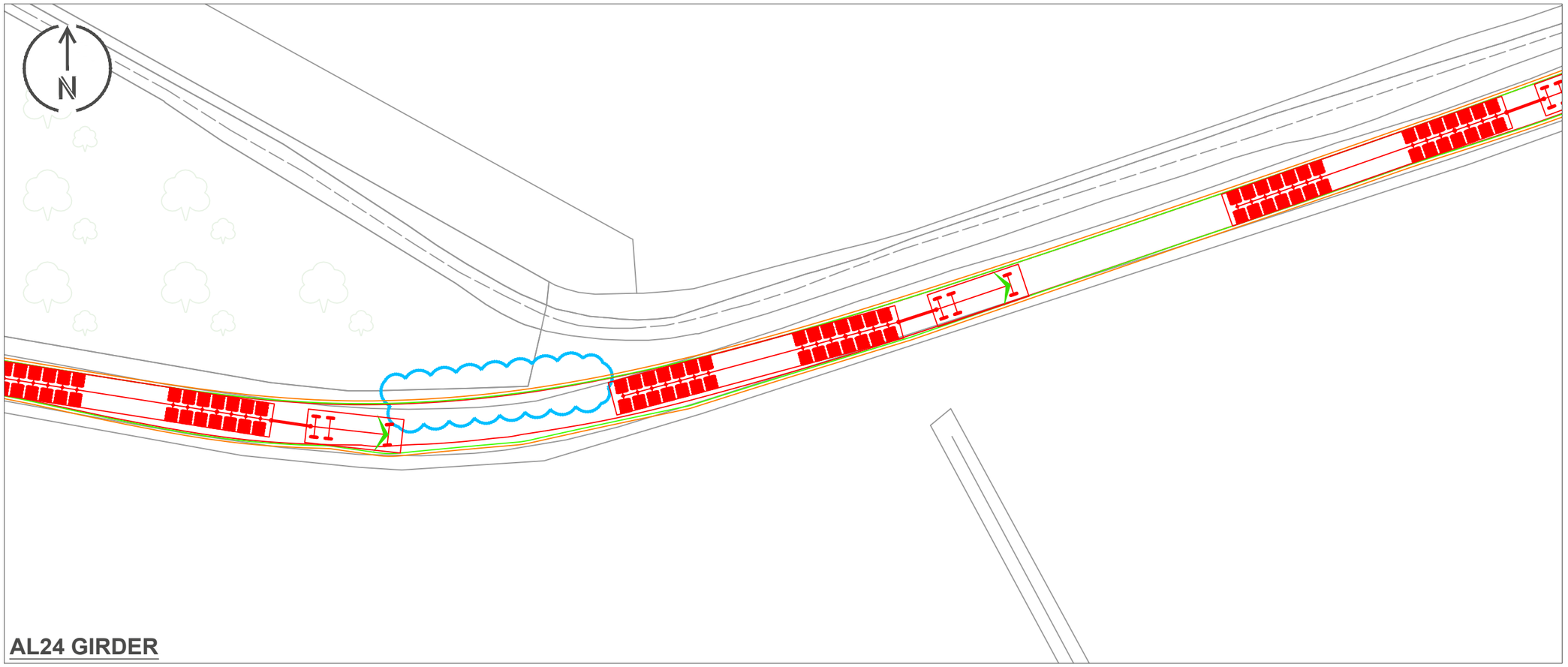
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 6 OF 9

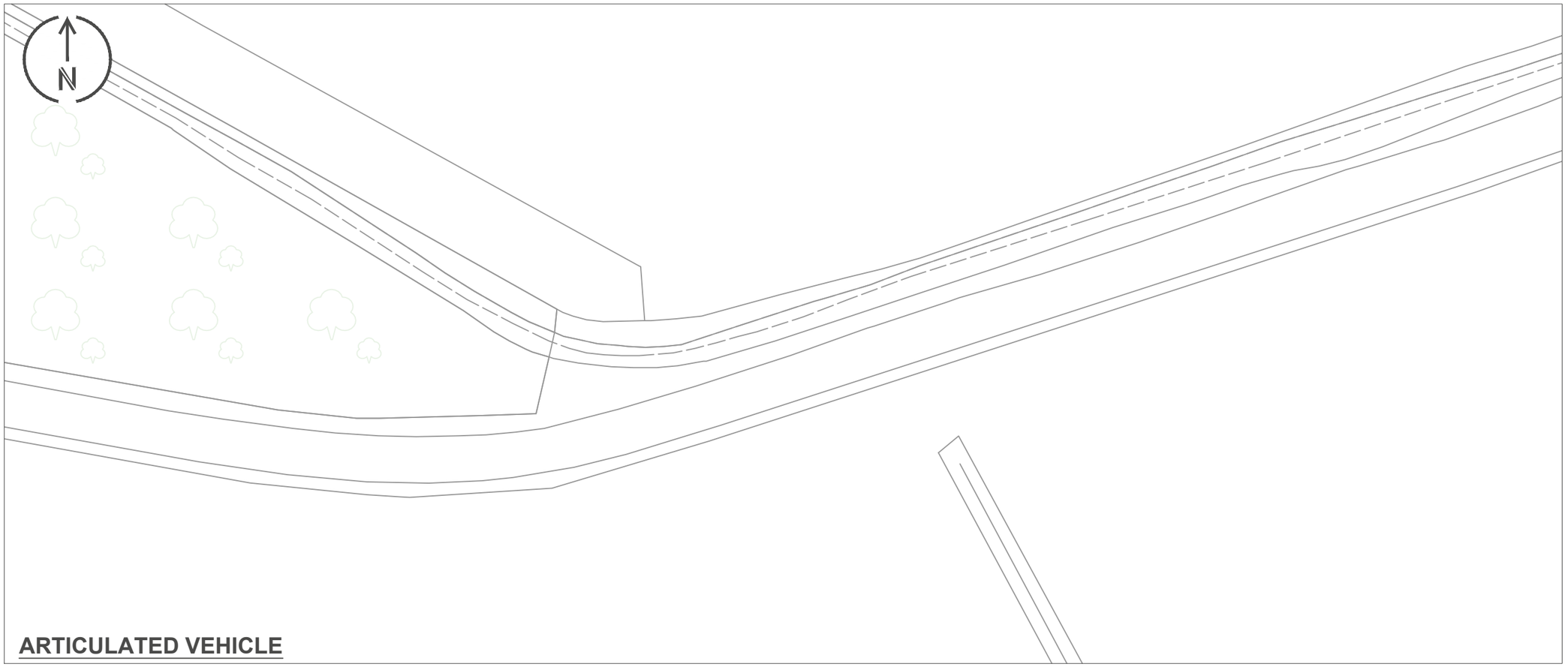
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-045	A	1:500



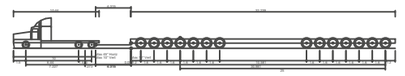
AL24 GIRDER



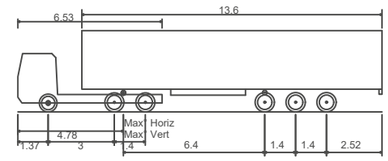
ARTICULATED VEHICLE

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Over-view plan see drawing M001289-2-1-DR-010
4. Swept path analysis is based on the following vehicle traveling at 10mph, unless stated otherwise:

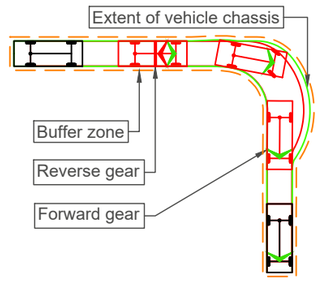


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

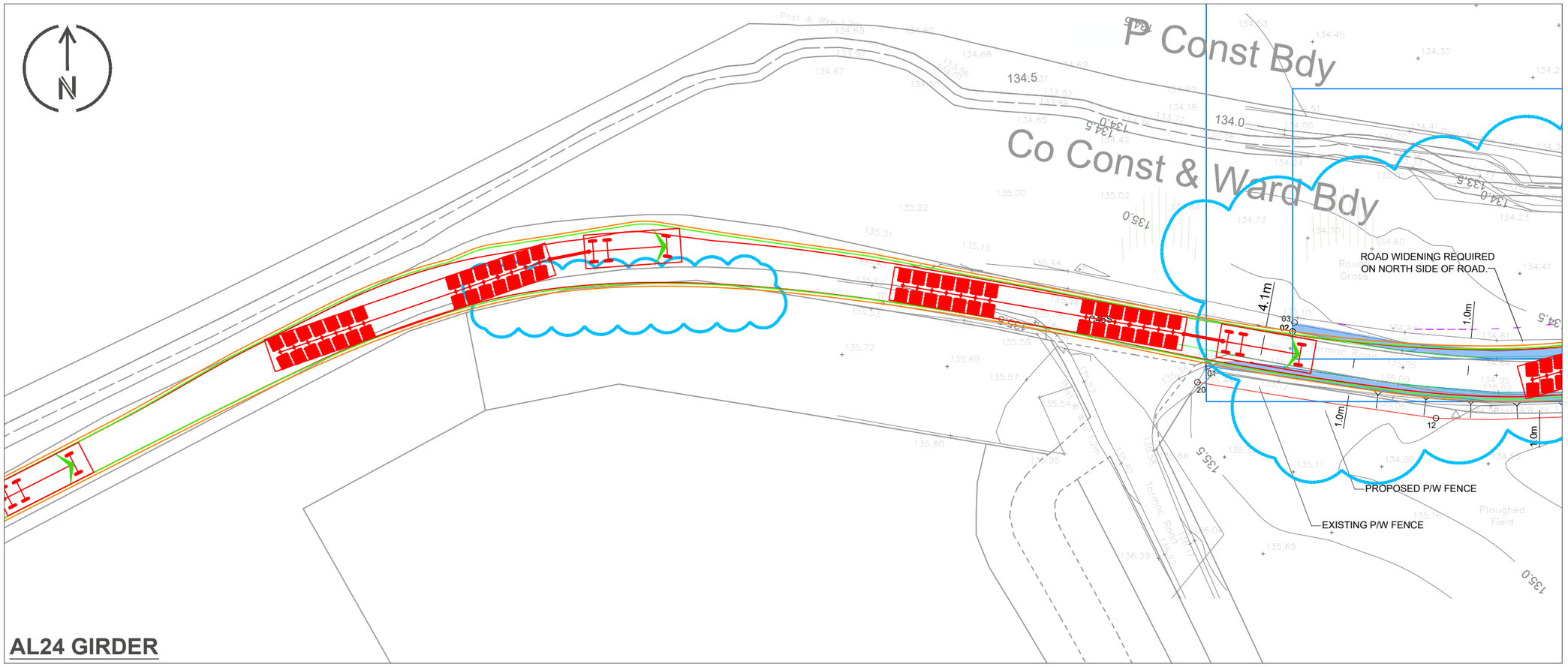
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 7 OF 9

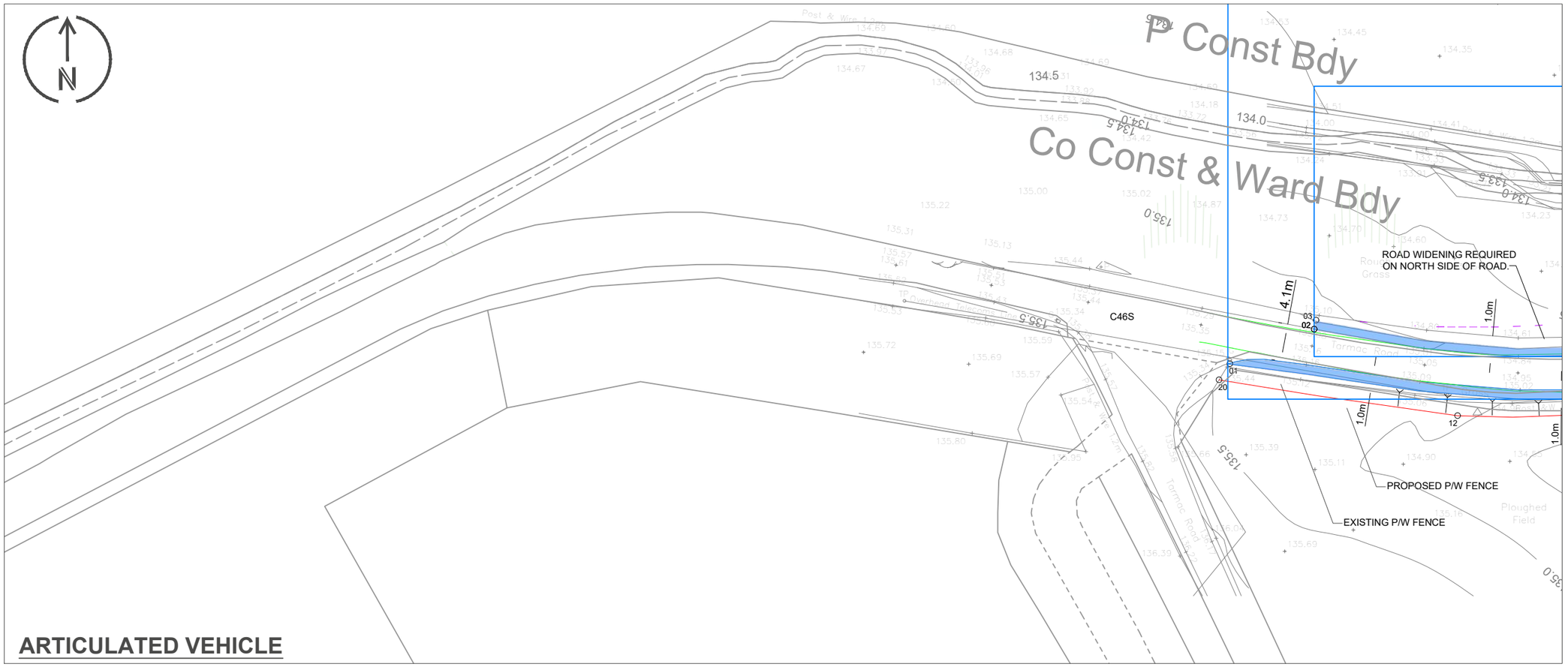
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-046	A	1:500



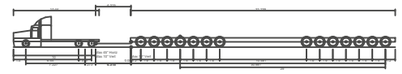
AL24 GIRDER



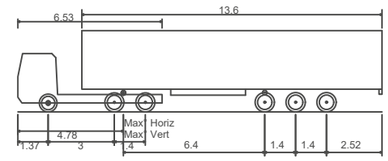
ARTICULATED VEHICLE

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Over-view plan see drawing M001289-2-1-DR-010
4. Swept path analysis is based on the following vehicle traveling at 10mph, unless stated otherwise:

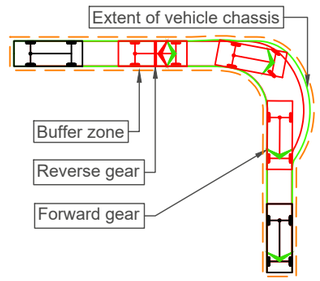


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 8 OF 9

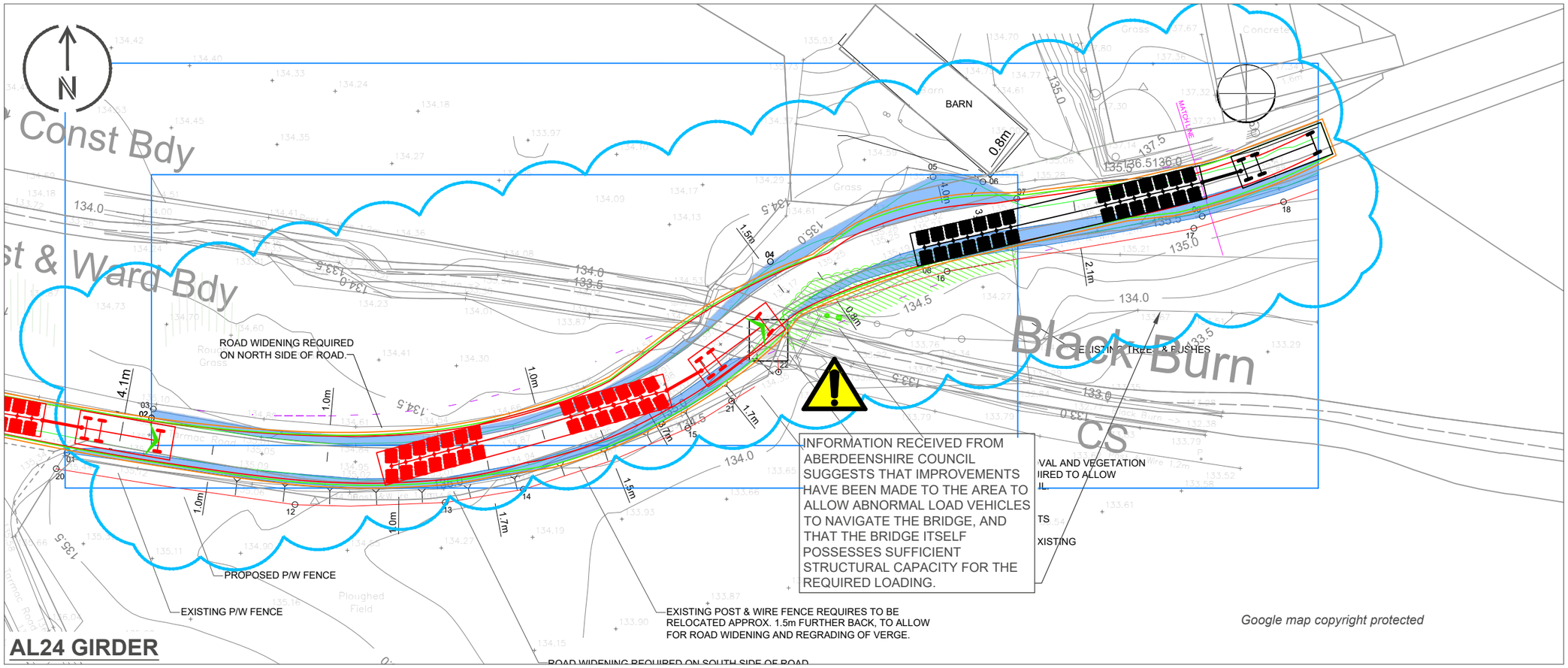
STATUS:

FOR INFORMATION

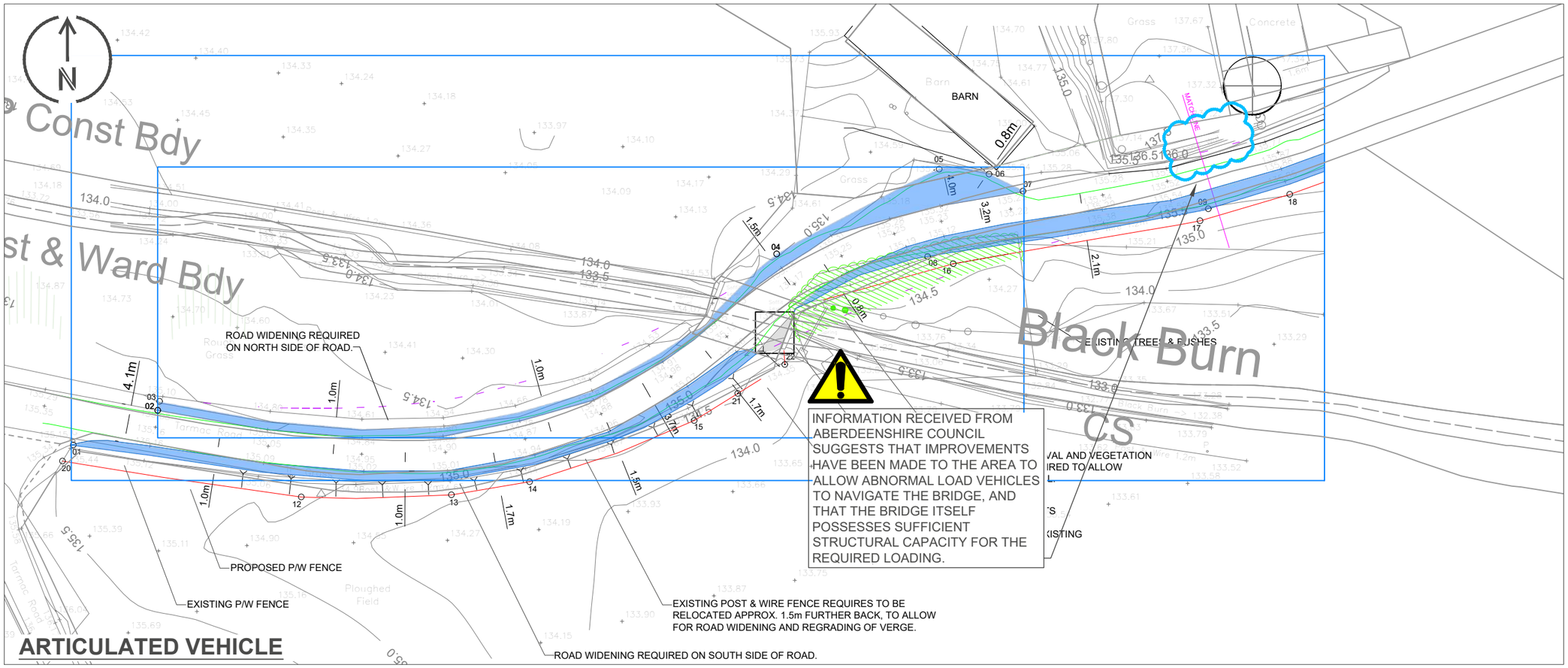
DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-047	A	1:500

ISO FULL BLEED A3 420 X 297 MM

The way the world moves. By design.



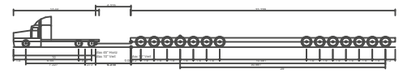
AL24 GIRDER



ARTICULATED VEHICLE

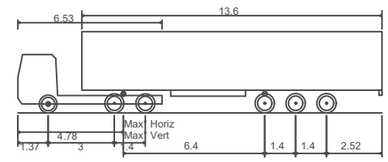
NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. For Over-view plan see drawing M001289-2-1-DR-010
4. Swept path analysis is based on the following vehicle traveling at 10mph, unless stated otherwise:



AL24 Girder

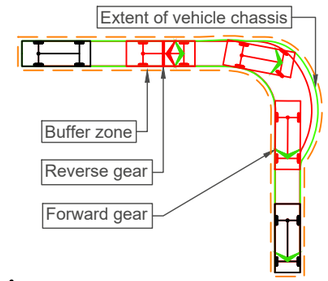
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Vehicle crossing bridge

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
B	31/01/25	Minor Updates	FR	IH	JT
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

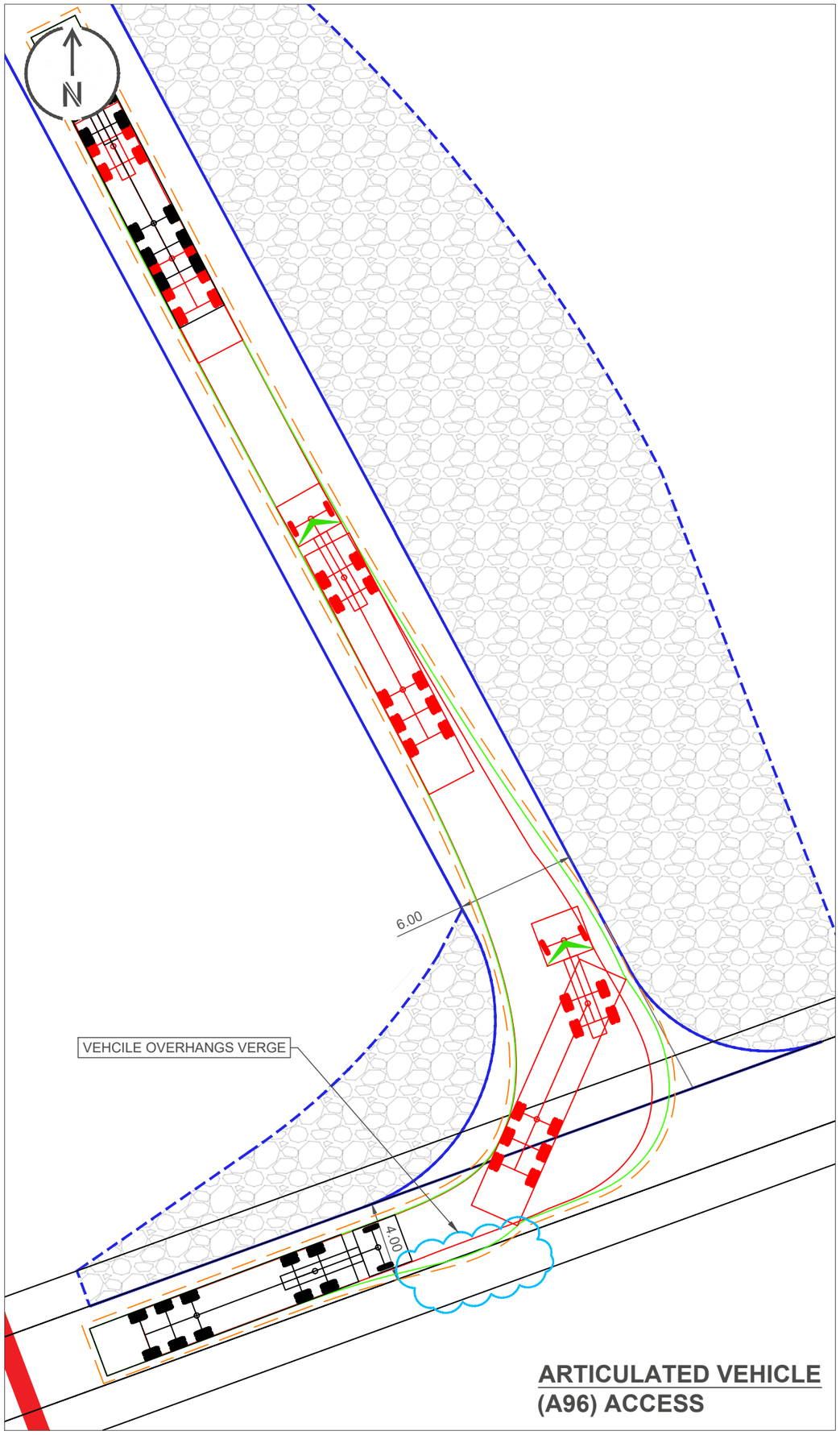
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS - ROUTE A
SHEET 9 OF 9

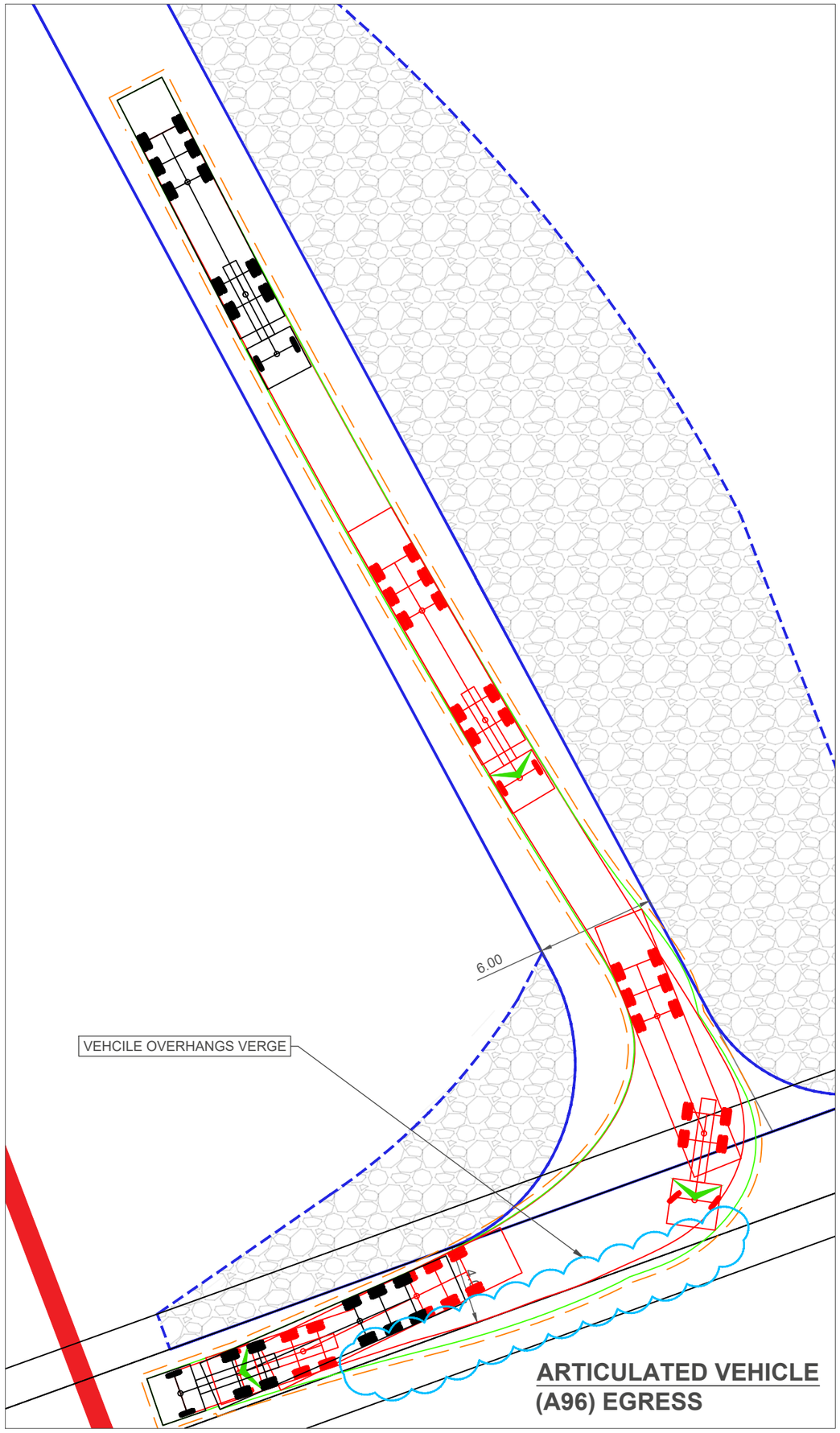
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-048	B	1:500



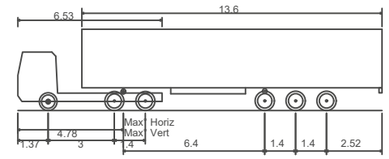
ARTICULATED VEHICLE (A96) ACCESS



ARTICULATED VEHICLE (A96) EGRESS

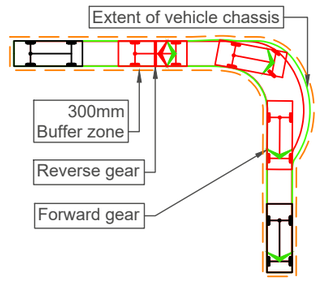
NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. Swept path analysis is based on the following vehicles traveling at 5mph, unless stated otherwise:



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Indicative hard-standing gravel track

Indicative proposed track

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

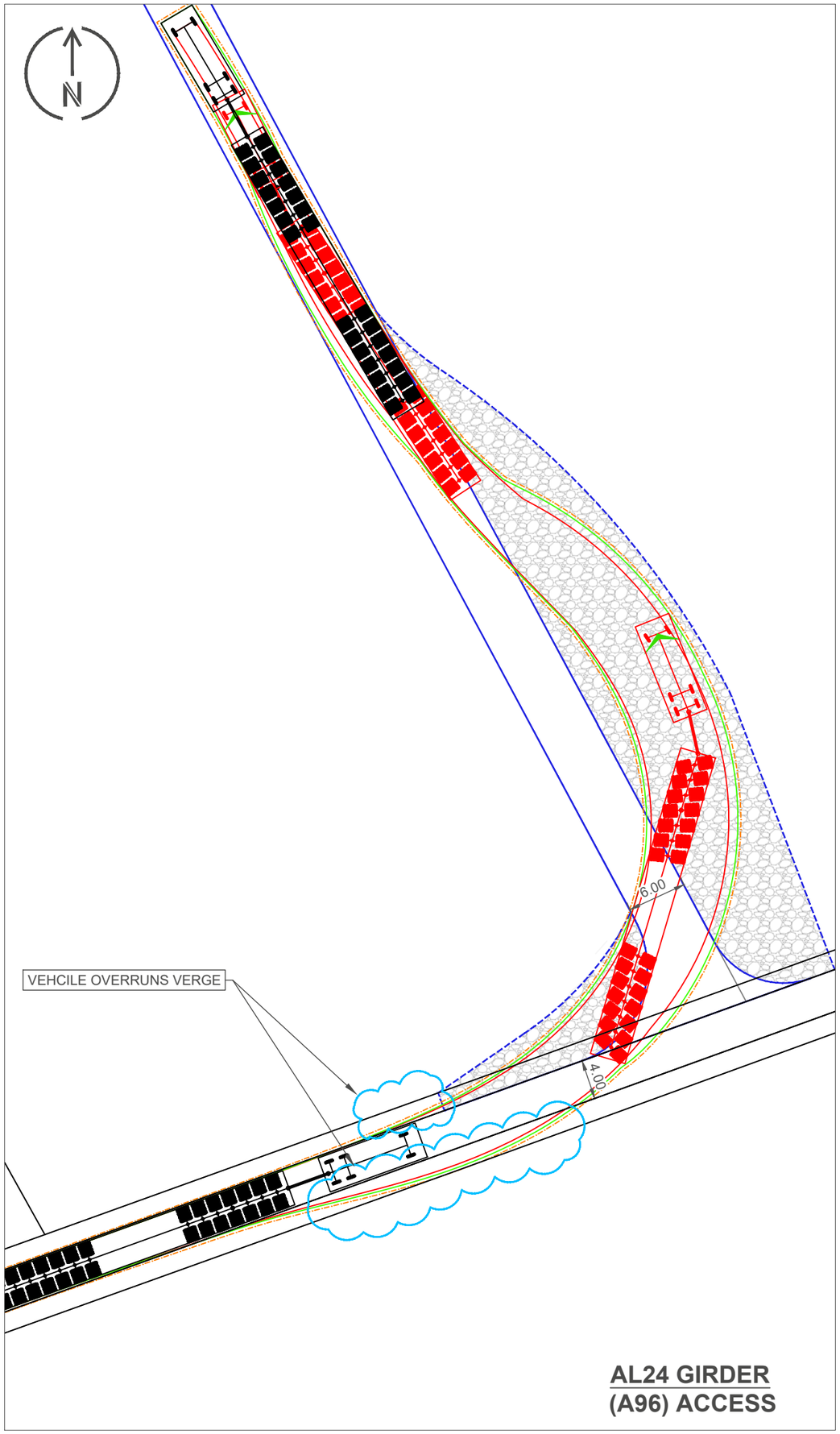
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
NEW SITE JUNCTION INGRESS AND EGRESS

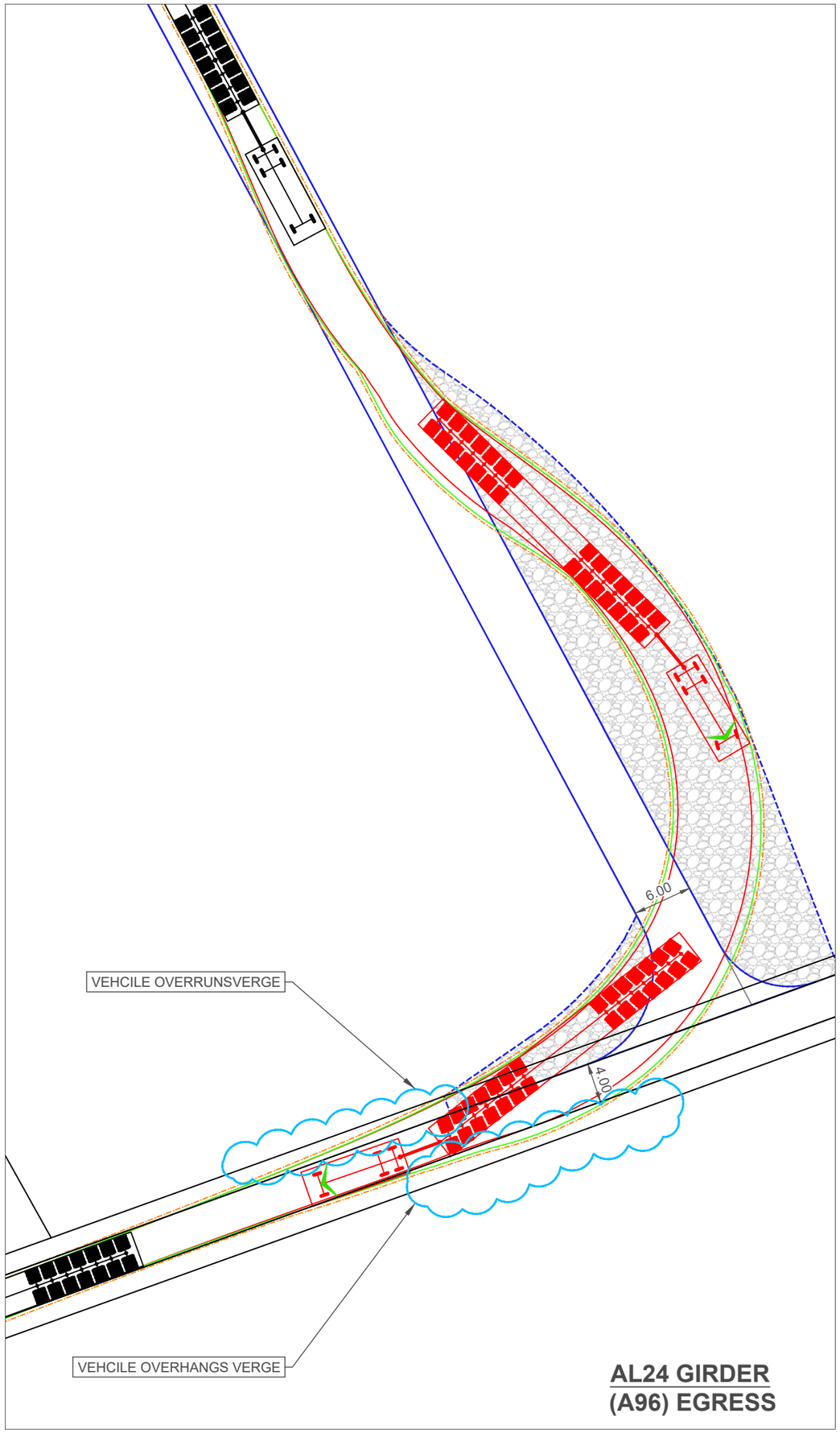
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-049	A	1:250



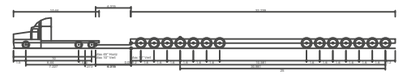
AL24 GIRDER
(A96) ACCESS



AL24 GIRDER
(A96) EGRESS

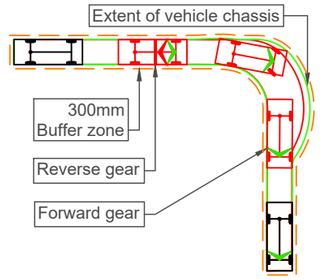
NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. Swept path analysis is based on the following vehicles traveling at 5mph, unless stated otherwise:



AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m

KEY



Indicative hard-standing gravel track

Indicative proposed track

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

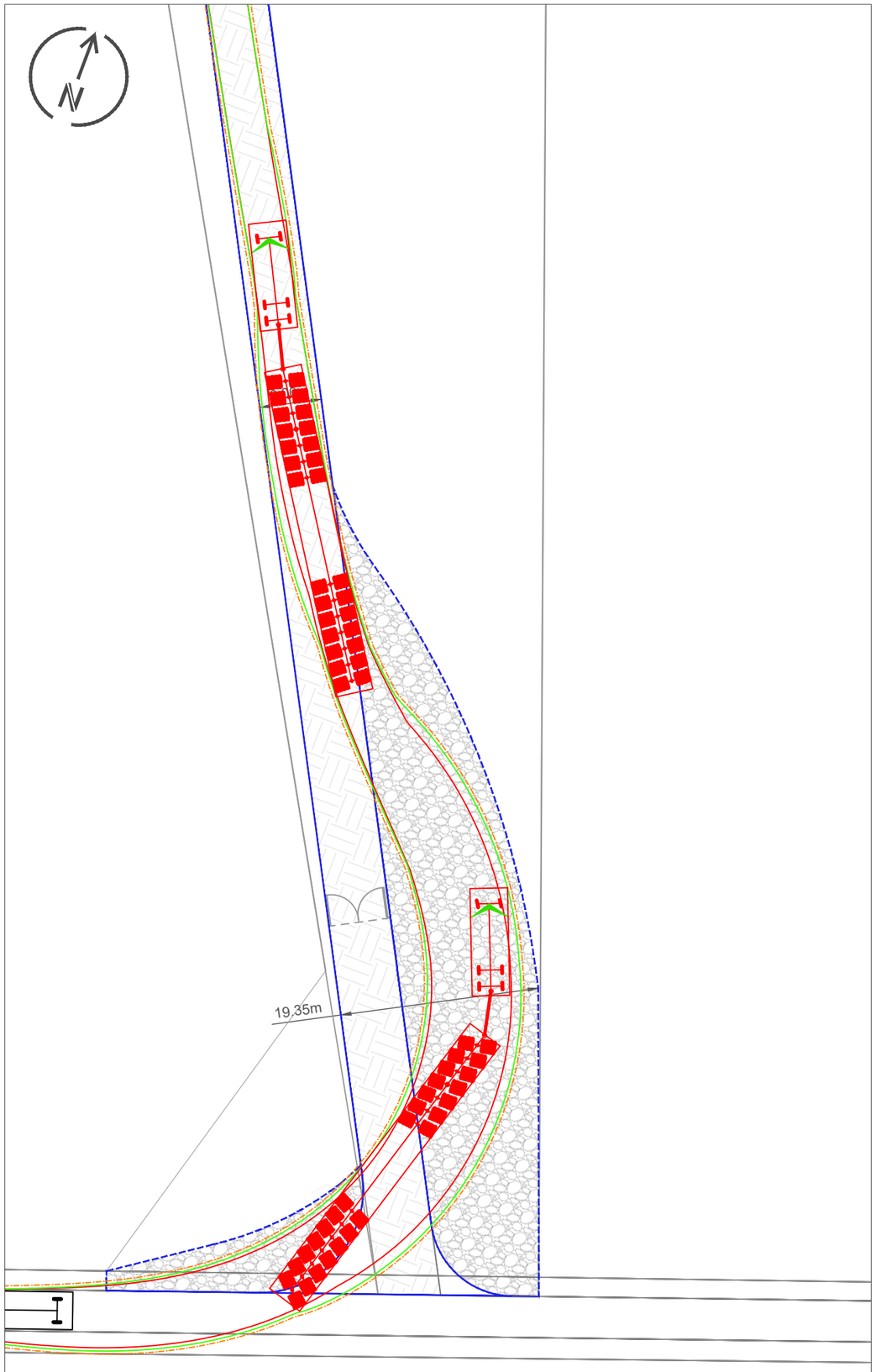
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
SITE JUNCTION INGRESS AND EGRESS

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-050	A	1:500



AL24 GIRDER

ARTICULATED VEHICLE

LOCATION KEY

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
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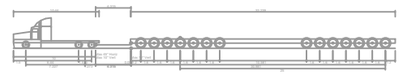
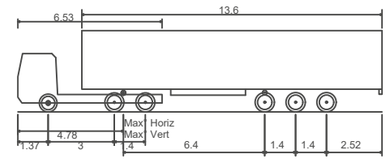
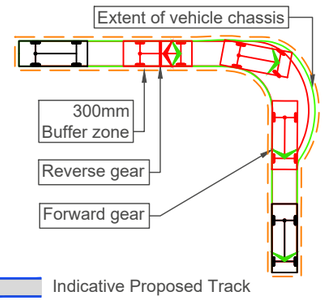


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Indicative Proposed Track

Indicative Proposed Laybys

Indicative Proposed Hard-Standing Gravel

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
PROPOSED TRACK - SHEET 1 OF 5

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
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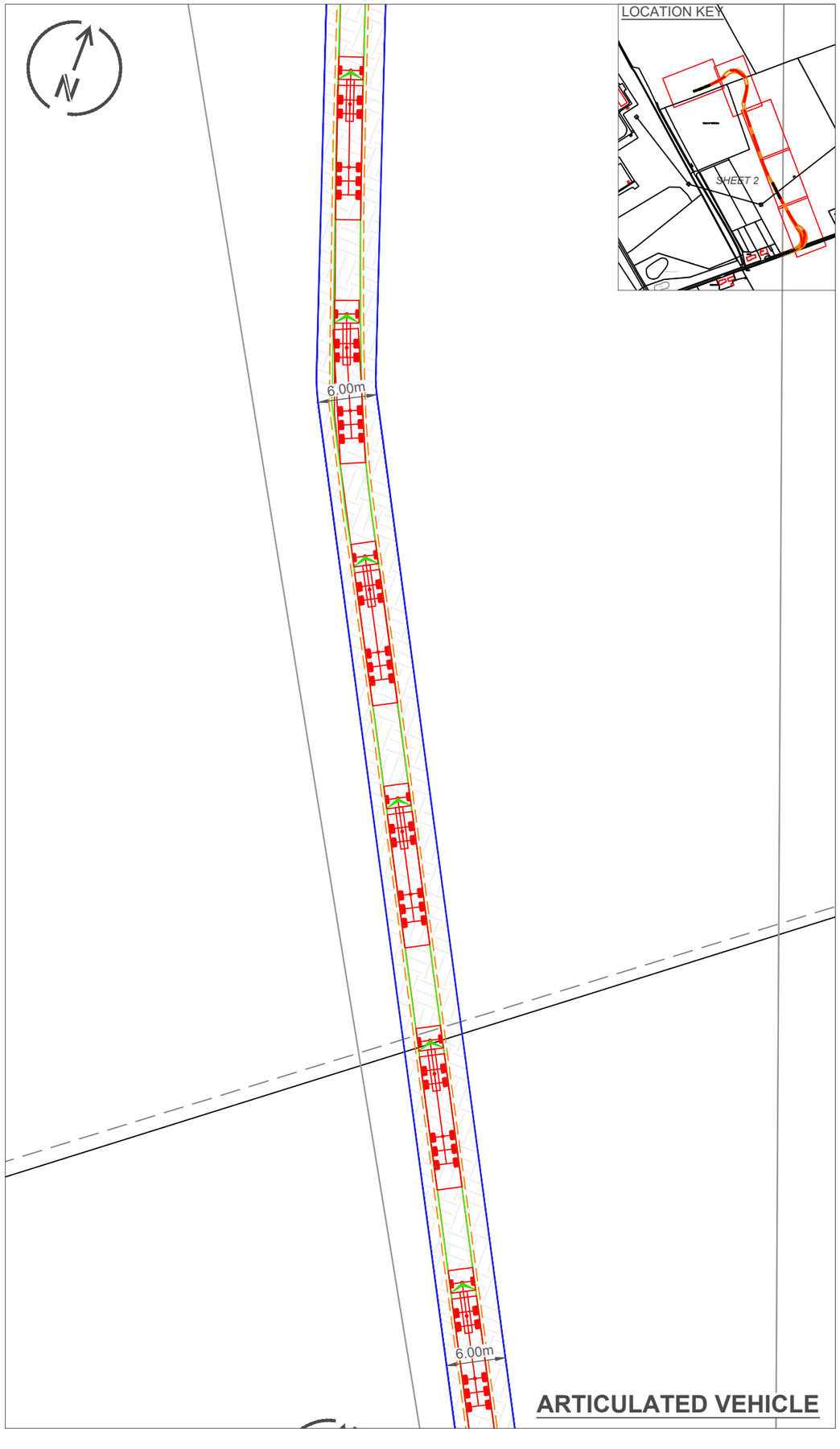
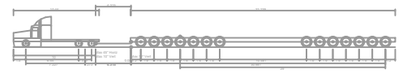
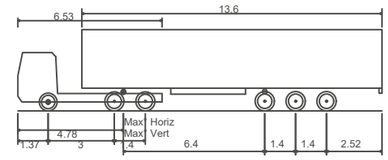


NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. Swept path analysis is based on the following vehicles traveling at 5mph, unless stated otherwise:

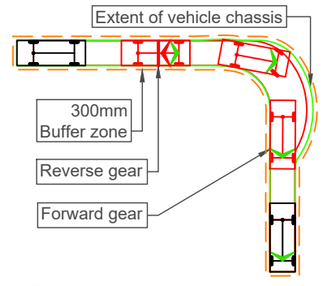


AL24 Girder	
Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Proposed track
Proposed laybys
Existing trees
Tree root protection zone

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

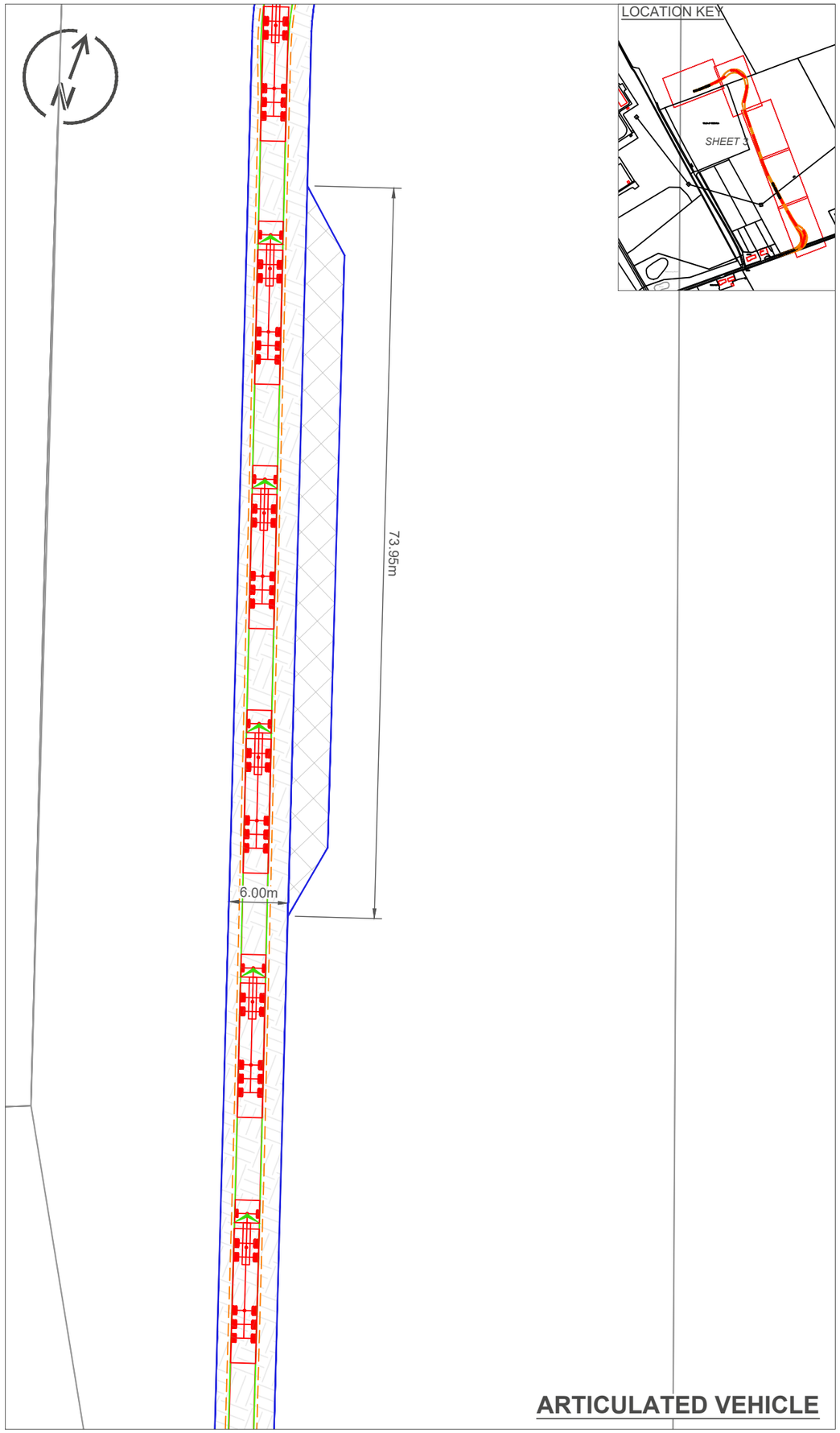
CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
PROPOSED TRACK - SHEET 2 OF 5

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-052	A	1:500

AL24 GIRDER

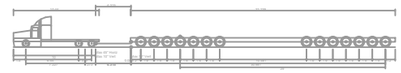


ARTICULATED VEHICLE

LOCATION KEY

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only
3. Swept path analysis is based on the following vehicles traveling at 5mph, unless stated otherwise:



AL24 Girder

Overall Length	46.496m
Overall Width	3.650m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
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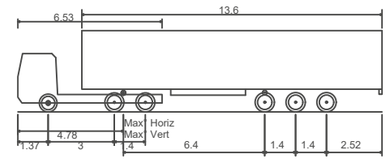

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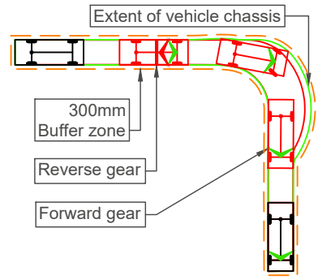
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Proposed track
Proposed laybys
Existing trees
Tree root protection zone

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
PROPOSED TRACK - SHEET 3 OF 5

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
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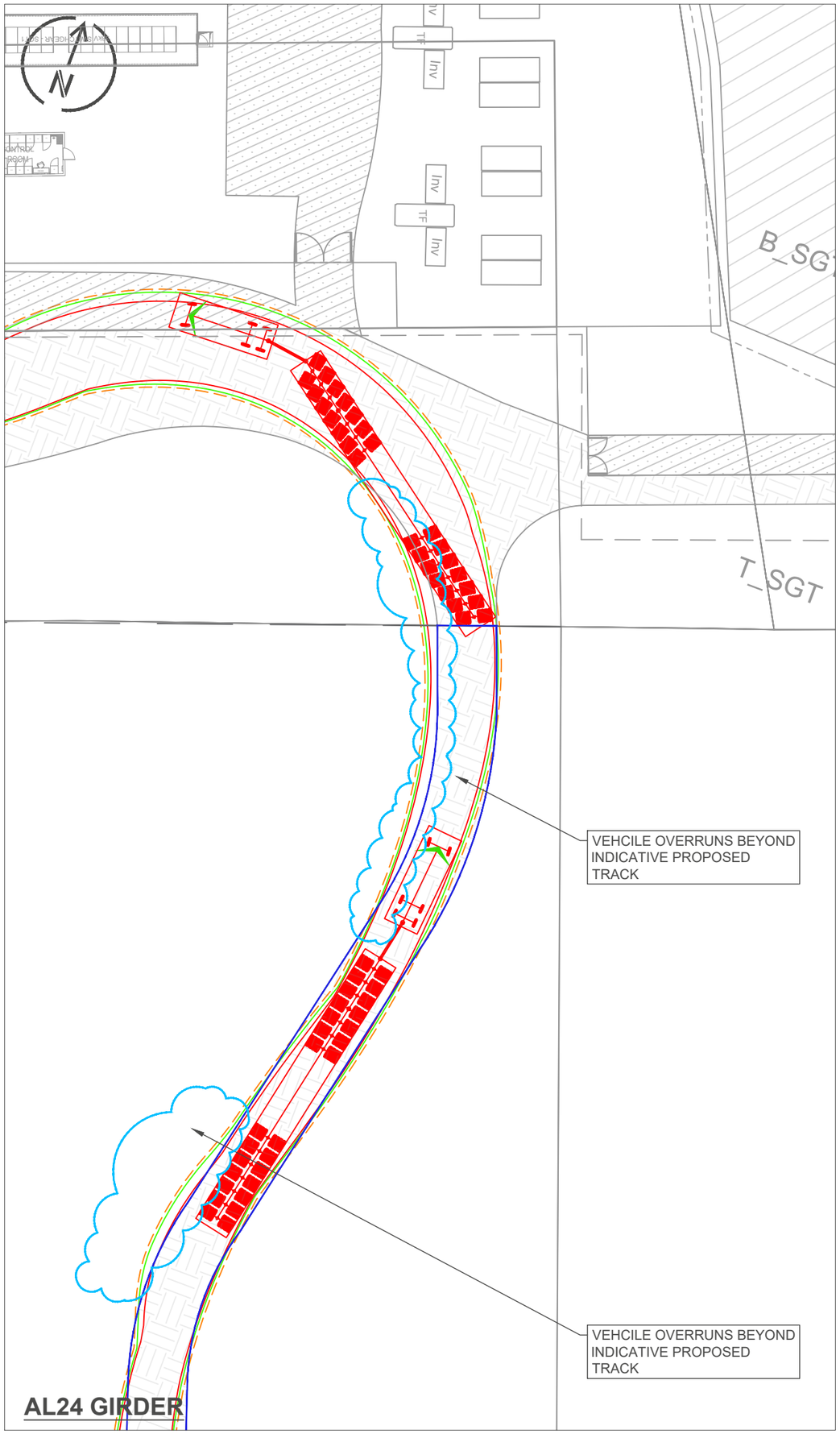
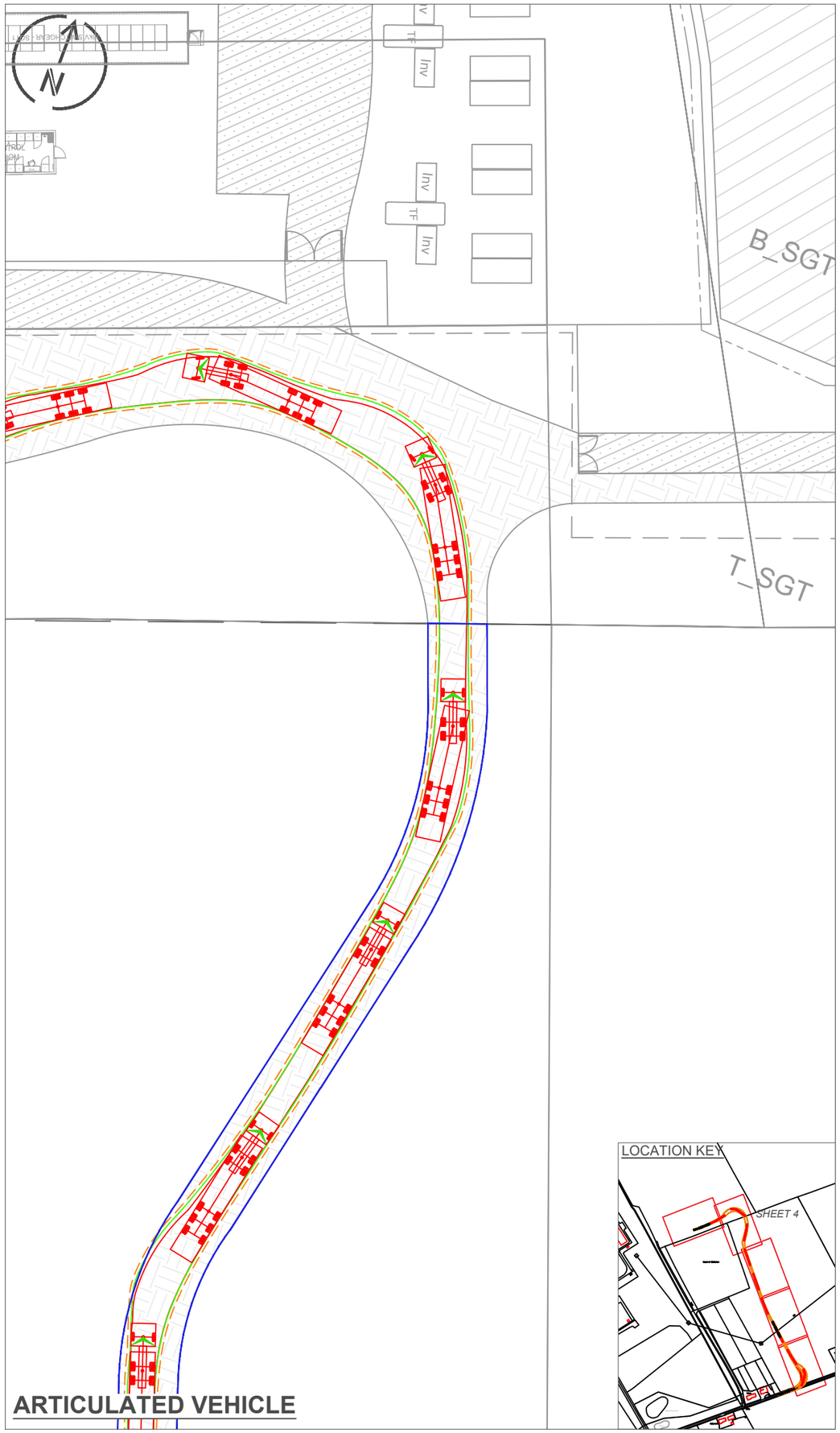


AL24 GIRDER



ARTICULATED VEHICLE

NOTES

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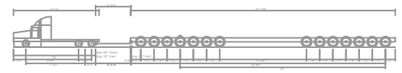

AL24 Girder

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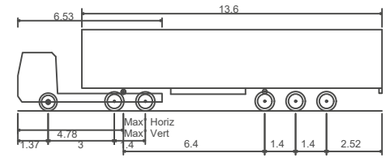
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.650m
Lock-to-lock time	6.00s
Wall to Wall Turning Radius	31.150m



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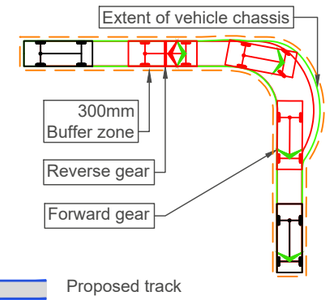


Proposed track
Proposed laybys
Existing trees
Tree root protection zone

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

LOCATION KEY

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS-ROTHIENORMAN

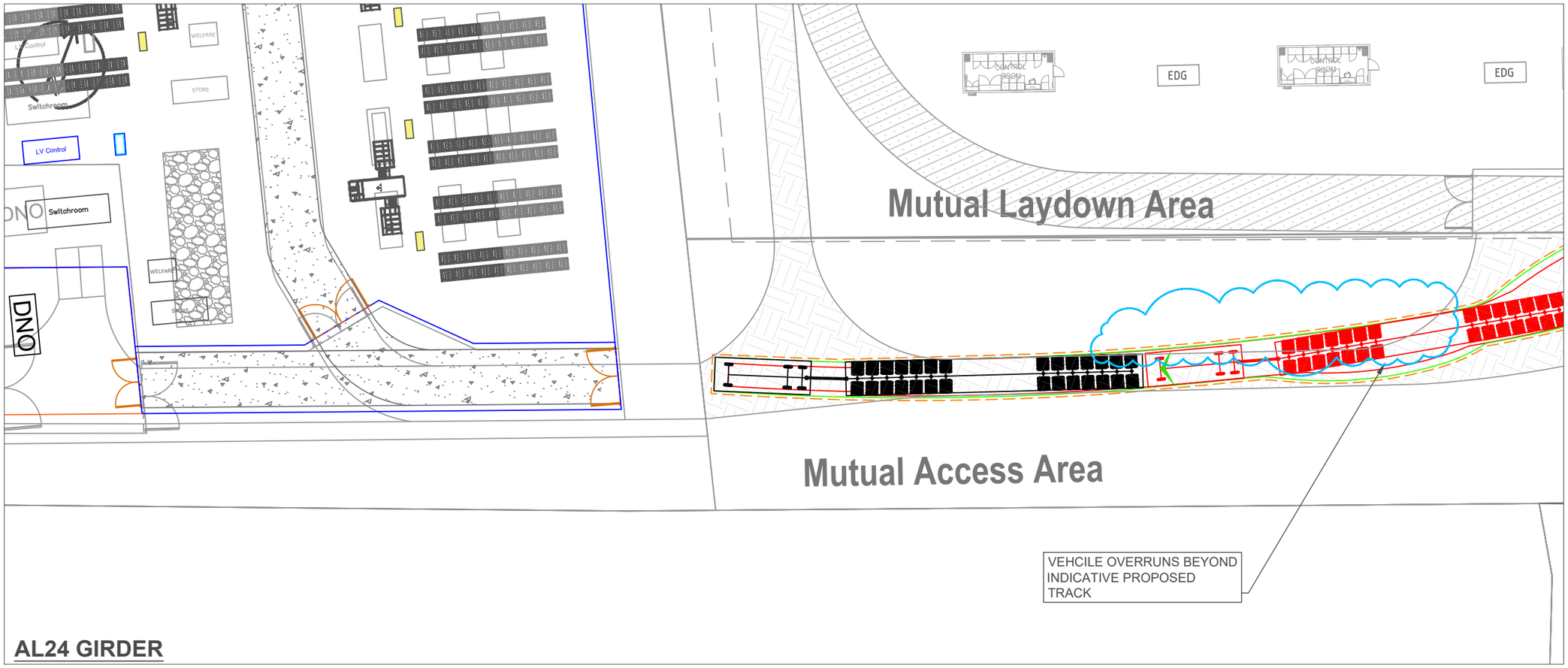
DRAWING TITLE:

CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
PROPOSED TRACK - SHEET 4 OF 5

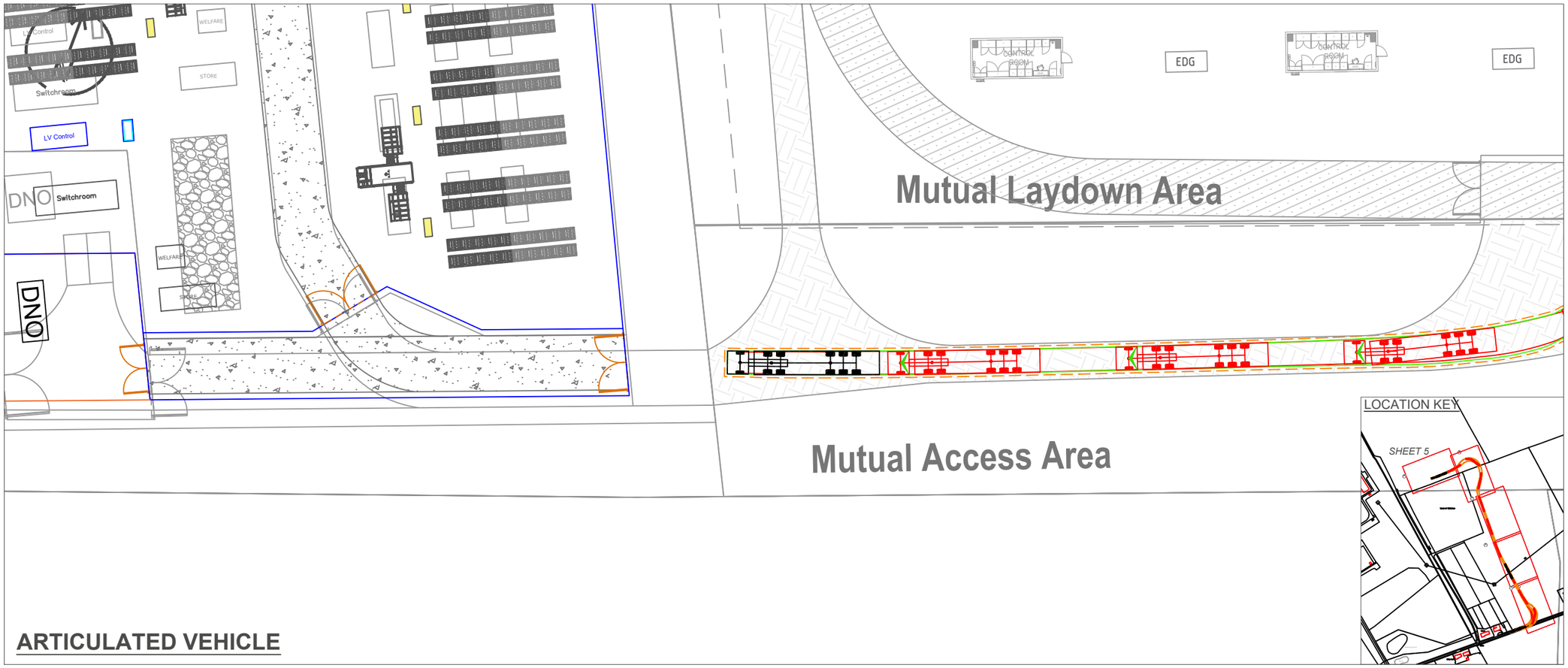
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-054	A	1:500



AL24 GIRDER



ARTICULATED VEHICLE

NOTES

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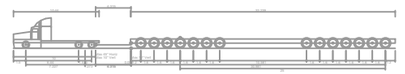

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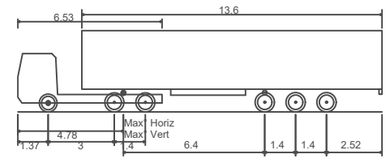

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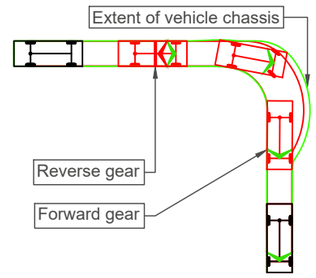
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY



Proposed track
Proposed laybys
Existing trees
Tree root protection zone

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	20/12/24	First issue	FR	IH	JT

LOCATION KEY

momentum transport consultancy

CLIENT:
Blackford Renewables Ltd

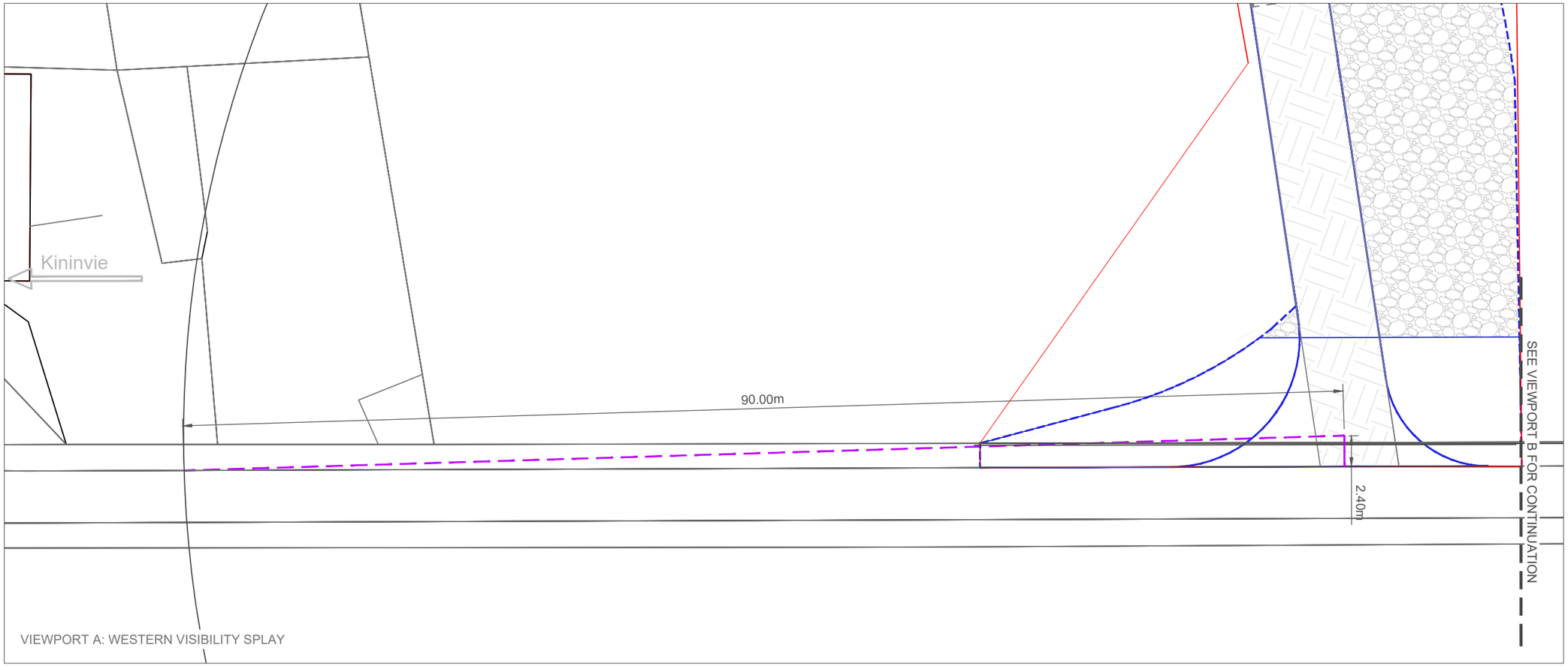
JOB TITLE:
BESS-ROTHIENORMAN

DRAWING TITLE:
CONSTRUCTION LOGISTICS
SWEPT PATH ANALYSIS
PROPOSED TRACK - SHEET 5 OF 5

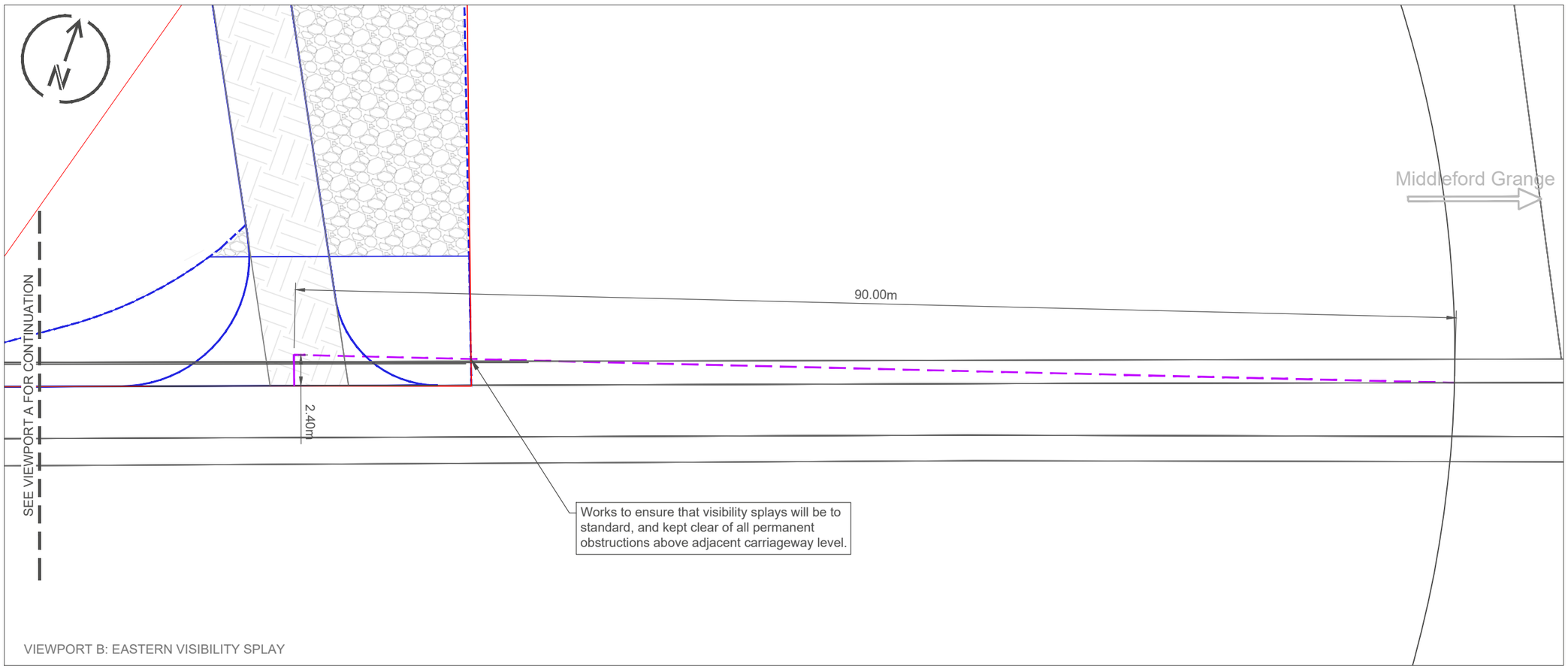
STATUS:
FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-055	A	1:500

APPENDIX C – VISIBILITY SPLAY ANALYSIS



VIEWPORT A: WESTERN VISIBILITY SPLAY



VIEWPORT B: EASTERN VISIBILITY SPLAY

NOTES

1. Do not scale from this plan
2. This drawing is for discussion purpose only

KEY

- Visibility Splay (As per guidance set out in DMRB CD 109)
- Indicative proposed access track
- Indicative hard-standing gravel track
- Indicative bituminous material track

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
B	13/10/25	Updated following client review	FR	IH	
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT: NORIKER POWER

JOB TITLE: BESS-ROTHIENORMAN

DRAWING TITLE: VISIBILITY SPLAY AT JUNCTION

STATUS: FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-DR-011	B	N.T.S

APPENDIX D – ABNORMAL LOADS REPORT

momentum
transport consultancy

BESS – Rothienorman

Abnormal Loads Route Assessment

24/10/2025

Document control issue sheet

Project & document details

Project Name	BESS – Rothienorman
Project Number	M001289-2
Document Title	Abnormal Loads Route Assessment

Document history

Issue	Status	Reason for Issue	Issued to
1.0	Draft	Review	Blackford Renewables Ltd
2.0	Final	For Issue	Blackford Renewables Ltd

Issue control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	17/10/2025	NBO	IH, FR	JT	
2.0	24/10/2025	NBO	IH, JT	JT	

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Tables

Appendices

1. Introduction

1.1.1 This Abnormal Load Assessment Report has been prepared by Momentum Transport Consultancy ('Momentum') on behalf of Blackford Renewables Ltd to support the pre-application process for the development of a 500MW (1,000MWh) Battery Energy Storage System (BESS) at Rothienorman, Aberdeenshire.

1.1.2 The construction of the BESS will involve the delivery of three abnormal indivisible loads (AIL) for the supergrid transformers. These Abnormal Loads will be transported from Buckie harbour to the Site at Rothienorman. The route used will be the same as previously used for the transport of a 352te Generator and 158te Transformer from Buckie harbour to Rothienorman.

1.1.3 The aim of this Abnormal Loads Assessment is to identify key pinch points on the trunk road network and demonstrate that the size of loads proposed can negotiate the selected pinch points on the route, and that their transport will not have any detrimental effect on structures within the route path.

1.1.4 The report contains swept path analysis for the intended vehicle passing through these pinch points. This Report is provided in response to comments shared by Transport Scotland's Energy Consents Unit (ECU) on 21/08/2025.

1.1.5 Figure 1.1 shows the Site plan.

Figure 1.1 Site Plan

2. Route analysis

2.1 Route and vehicle characteristics

Proposed route

2.1.1 The proposed route from Buckie Harbour to BESS Rothienorman is shown in Table 2.2. The proposed route is identical to the route previously used to transport AILs to the Site.

2.1.2 Table 2.1 shows the proposed route with key points of interest.

Table 2.1 Route, points of interest and mitigation

Route from Buckie Harbour	Points of interest and proposed mitigation
A940 (Buckie Harbour)	See Table 2.2
Freuchny Road	See Table 2.2
March Road	See Table 2.2
A98 (including culvert road plates)	Culvert road plates
B9016	Steep gradient climb
A96, North of Keith	Railway bridge
A96, North of Keith	River bridge
A920	Gardensmill overbridge
B992	See Table 2.2
Black Burn (BESS Rothienorman)	Black Burn Bridge widening

2.1.3 Similar vehicles have successfully navigated this route with a video showing a recent example of AILs being transported on this same route at this link “From Buckie Harbour to Rothienorman - Transport of a 352te Generator and 158te Transformer”: https://www.youtube.com/watch?v=uAWk5G77mwk.

2.2 Swept Path Analysis

Junctions tested

2.2.1 The junctions along the proposed route that have been agreed for testing and mitigation are set out in Figure 2.1.

2.2.2 As discussed and agreed with the Transport for Scotland Network Operations team on 23/09/2025, swept path analysis was conducted for the constrained junctions along the route.

2.2.3 Junctions were tested in one direction (from Buckie Harbour) as required for the transport of the AIL.

Vehicle tested

2.2.4 The vehicle tested is referred to in this report as the Abnormal Load Carrier – its characteristics are shown on the Swept Path Analysis drawings. The specification of

this vehicle is the same as previously used for transporting Abnormal Loads on the same route.

Figure 2.1 Proposed Abnormal Loads Route

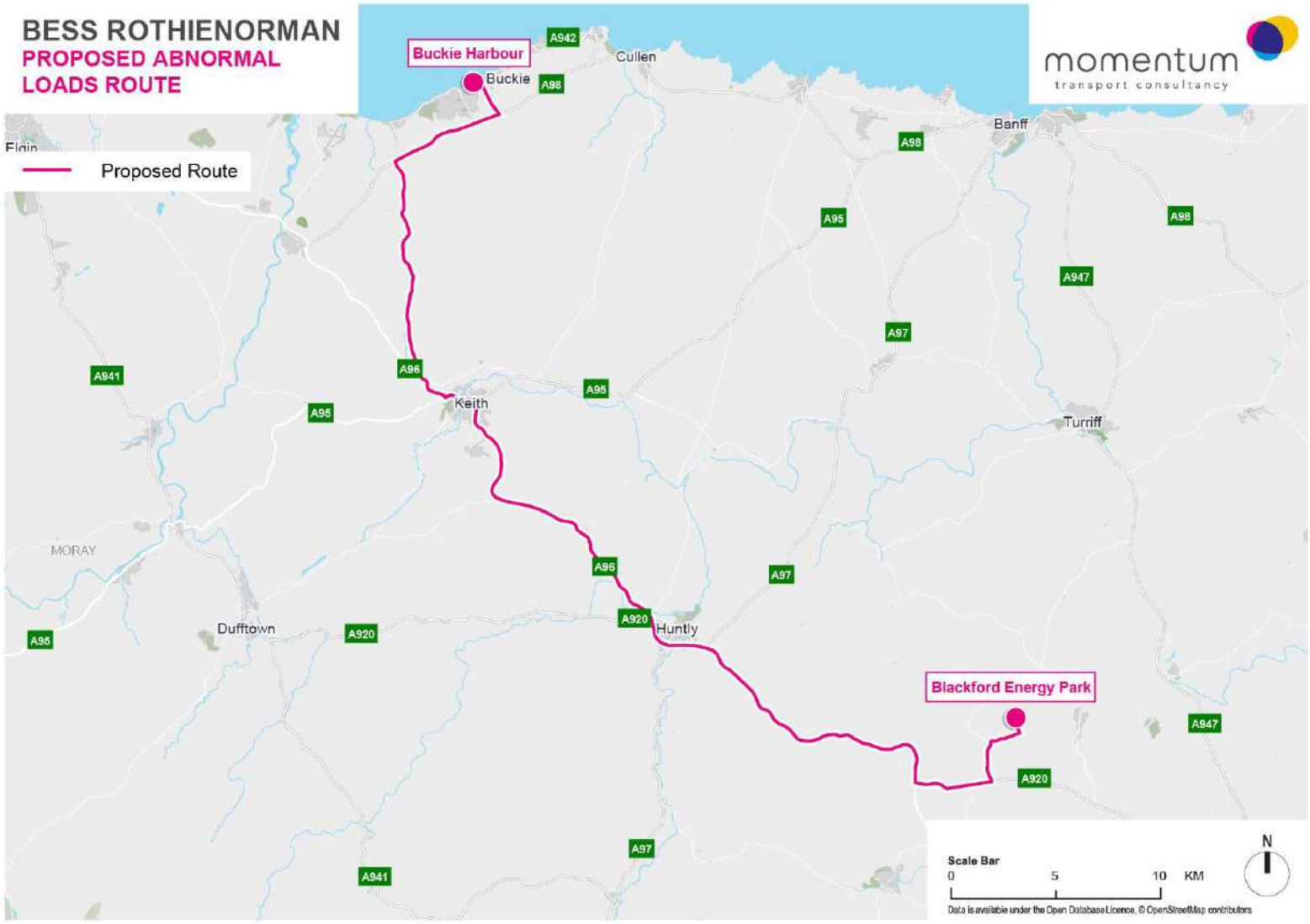


Table 2.2 Junctions tested with swept path analysis

Location	Drawing	Elements impacted	Proposed mitigation
Freunchy Road – March Road Junction	M001372-2-1-TR-056	Vehicle overrun and lighting column clash	Protective measures for areas of overrun Temporary removal of lighting 2x columns
March Road – Main Road Roundabout	M001371-2-1-TR-057	Vehicle overrun	Protective measures for areas of overrun
A98 – B9016 Junction	M001371-2-1-TR-058	Vehicle overrun	Protective measures for areas of overrun
B9016 – A96 Junction	M001371-2-1-TR-059	Vehicle overrun	Protective measures for areas of overrun
A96 – Haughs Road Junction	M001371-2-1-TR-060	Vehicle overrun	Road widening at junction (completed for previous AIL movements) Protective measures for areas of overrun Potential load spreading required at bridge crossing – additional engagement with Aberdeenshire Council advised
A96 Roundabout	M001371-2-1-TR-061	N/A	N/A
A96 – A920 Junction	M001371-2-1-TR-062	Vehicle overrun	Protective measures for areas of overrun

2.3 Further mitigation proposed

Culvert Road Plates

2.3.1 As for previous transport of Abnormal Loads along this route, culverts at risk should be protected as applicable, for example via the use of road plates.

Steep gradient climbs

2.3.2 In case of severe weather, pulley vehicles will be used to improve traction in areas of steep climb, as was done for the previous Abnormal Loads cases.

Gardensmill Bridge (A920)

2.3.3 Based on advice from Aberdeenshire Council, this bridge was assessed in 2023 in advance of abnormal load movements into the site and found to not have the loading capacity for abnormal loads.

2.3.4 Subsequent abnormal loads into the Rothienorman sub-station site had to install a temporary overbridging system prior to the movements to ensure the safety of the structure and the load.

2.3.5 The previous AIL movements highlighted a 17.5m temporary overbridging structure to protect Gardensmill Bridge (A920) by spreading the load. A similar measure should be applied in our situation, as per the previous Abnormal Loads examples, and as set out in our Construction Traffic Management Plan (CTMP).

Black Burn Bridge (C46S Overhill bridge)

2.3.6 Road widening was undertaken to allow for the previous abnormal loads vehicles – as shown in Appendix B. An email exchange with Aberdeenshire Council confirmed that there should be sufficient structural capacity for abnormal loads at this bridge.

Marshalling

2.3.7 As for previous transport of Abnormal Loads along this route, the vehicle will be marshalled along the route. Temporary traffic interruption will be required at specific locations to allow for the Abnormal Loads to use several lanes of traffic. The timing of these suspensions, and their management will be agreed in advance with Aberdeenshire Council. These interruptions will be made using support warning vehicles and personnel.

Rear vehicle

2.3.8 As shown in Figure 2.2 to Figure 2.4, the evidence from previous Abnormal Loads Vehicles travelling the same route shows that a rear vehicle was employed. This vehicle assisted in the navigation of the rear trailer, allowing it to independently manoeuvrer through the various junctions and pinch-points successfully from the port at Buckie to the BESS site. It is recommended that a similar approach is applied in this case to similarly provide successful access.

2.3.9 It is worth noting that this measure was unable to be applied in the Swept Path Analysis software. Therefore, the analysis and output drawings show clashes which will be unlikely to occur once the rear vehicle has been applied. This is supported by

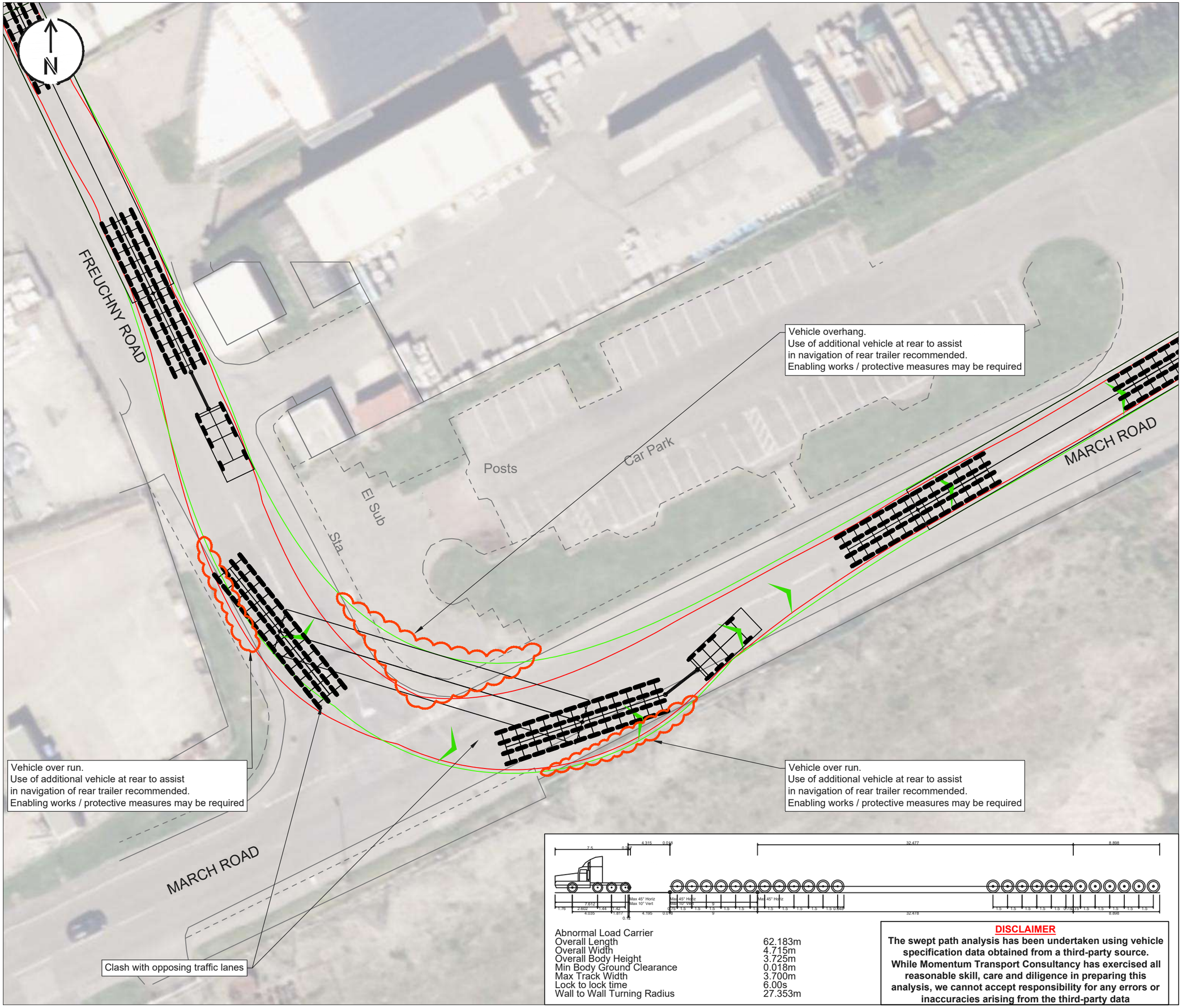
the fact that previous Abnormal Loads Vehicles have successfully negated those clashes while navigating this route.

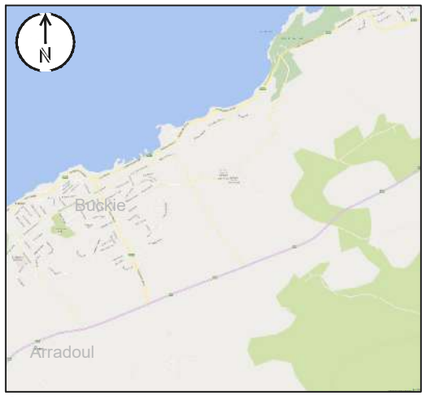
Figure 2.2 Rear vehicle assisting navigation of rear trailer

Figure 2.3 Rear vehicle assisting navigation of rear trailer

Figure 2.4 Rear vehicle assisting navigation of rear trailer

Appendix A: Swept Path Analysis



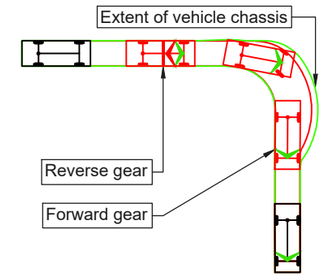


OVERVIEW PLAN

NOTES

1. Do not scale from this drawing, work to figured dimensions only.
2. Dimensions are in metres unless stated otherwise.
3. Background layout is based on Ordnance survey data and Microsoft Bing maps. Accuracy is therefore limited due to the available information.
4. Vehicle manoeuvre to be marshaled and comply with all National Highways guidelines from start to finish, and temporary traffic management / road closures to be applied where required
5. Central trailer of vehicle overhangs only - no overrun applicable.
6. Use of rear vehicle to assist rear trailer may reduce/eliminate overrun and overhang issues.
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



Abnormal Load Carrier	
Overall Length	62.183m
Overall Width	4.715m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.700m
Lock to lock time	6.00s
Wall to Wall Turning Radius	27.353m

DISCLAIMER

The swept path analysis has been undertaken using vehicle specification data obtained from a third-party source. While Momentum Transport Consultancy has exercised all reasonable skill, care and diligence in preparing this analysis, we cannot accept responsibility for any errors or inaccuracies arising from the third-party data

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

DRAWING TITLE:

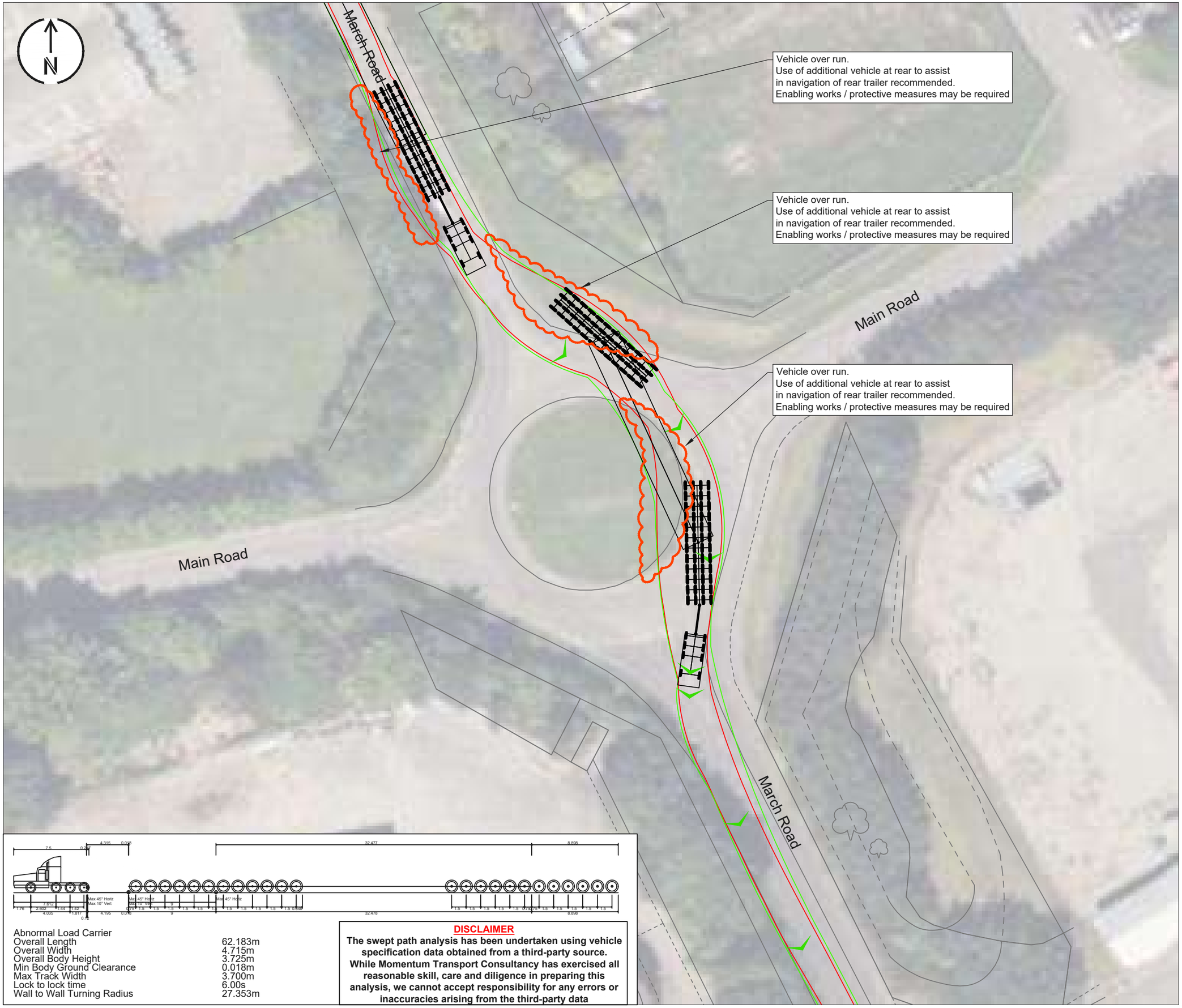
SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
FREUCHNY ROAD - MARCH ROAD JUNCTION

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-056	A	NTS

ISO FULL BLEED A3 420 X 297 MM



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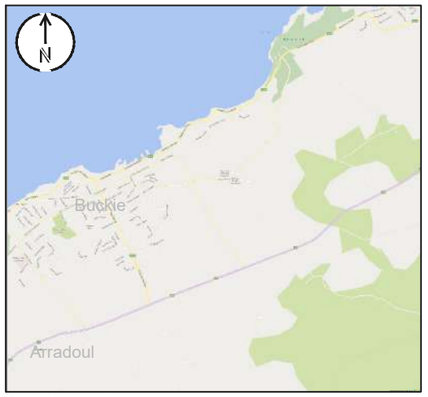

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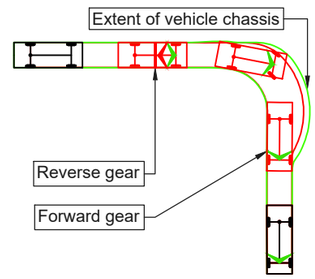
6. Use of rear vehicle to assist rear trailer may reduce/eliminate overrun and overhang issues.
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

DRAWING TITLE:

SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
MARCH ROAD-MAIN ROAD ROUNDABOUT

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-057	A	NTS

The way the world moves. By design.

ISO FULL BLEED A3 420 X 297 MM

OVERVIEW PLAN

NOTES

1. Do not scale from this drawing, work to figured dimensions only.
2. Dimensions are in metres unless stated otherwise.
3. Background layout is based on Ordnance survey data and Microsoft Bing maps. Accuracy is therefore limited due to the available information.
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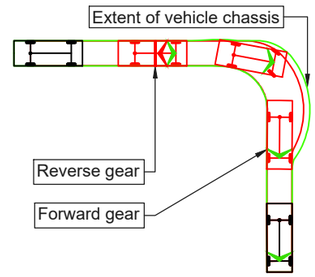
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



Abnormal Load Carrier		
Overall Length	62.183m	
Overall Width	4.715m	
Overall Body Height	3.725m	
Min Body Ground Clearance	0.018m	
Max Track Width	3.700m	
Lock to lock time	6.00s	
Wall to Wall Turning Radius	27.353m	

DISCLAIMER

The swept path analysis has been undertaken using vehicle specification data obtained from a third-party source. While Momentum Transport Consultancy has exercised all reasonable skill, care and diligence in preparing this analysis, we cannot accept responsibility for any errors or inaccuracies arising from the third-party data

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

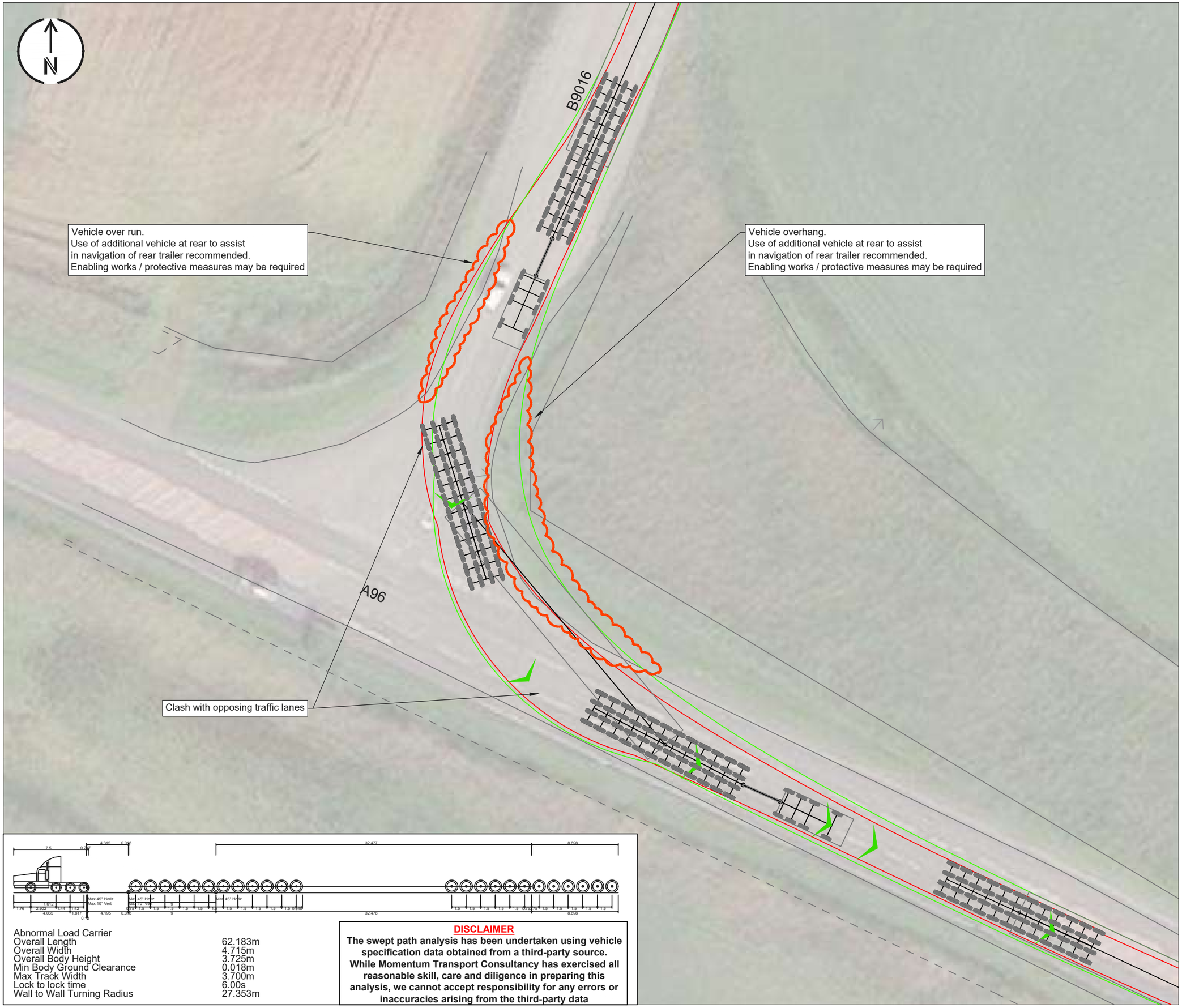
DRAWING TITLE:

SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
A98-B9016 JUNCTION

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-058	A	NTS



Abnormal Load Carrier	
Overall Length	62.183m
Overall Width	4.715m
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Max Track Width	3.700m
Lock to lock time	6.00s
Wall to Wall Turning Radius	27.353m

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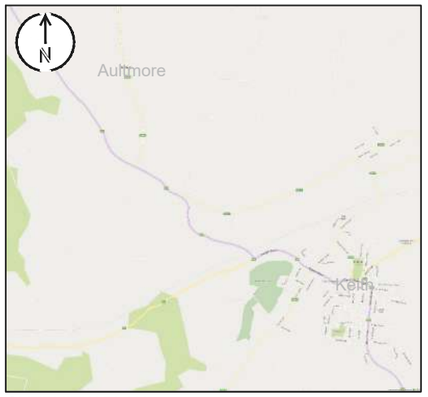

OVERVIEW PLAN

NOTES

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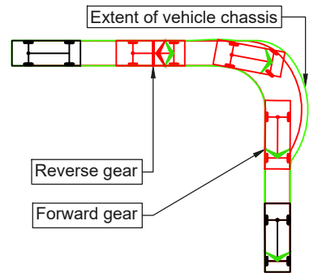
6. Use of rear vehicle to assist rear trailer may reduce/eliminate overrun and overhang issues.
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

DRAWING TITLE:

SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
B9016-A96 JUNCTION

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-059	A	NTS

ISO FULL BLEED A3 420 X 297 MM

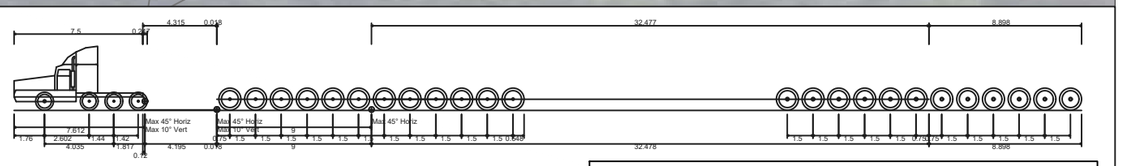
Vehicle over run.
Use of additional vehicle at rear to assist
in navigation of rear trailer recommended.
Enabling works / protective measures may be required

Vehicle overhang.
Use of additional vehicle at rear to assist
in navigation of rear trailer recommended.
Enabling works / protective measures may be required

Clash with opposing traffic lanes

A96

HAUGHS ROAD



Abnormal Load Carrier	
Overall Length	62.183m
Overall Width	4.715m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.700m
Lock to lock time	6.00s
Wall to Wall Turning Radius	27.353m

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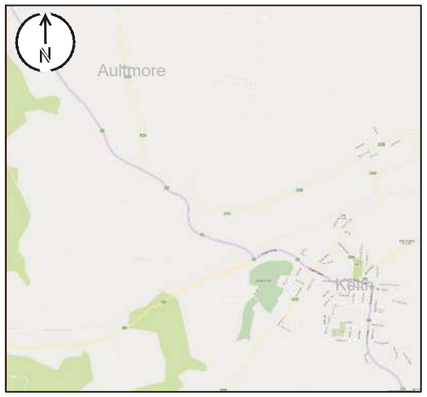

OVERVIEW PLAN

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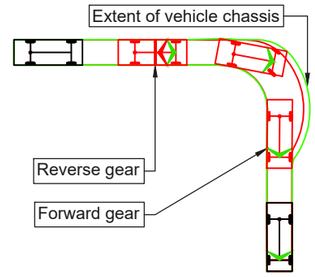
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

DRAWING TITLE:

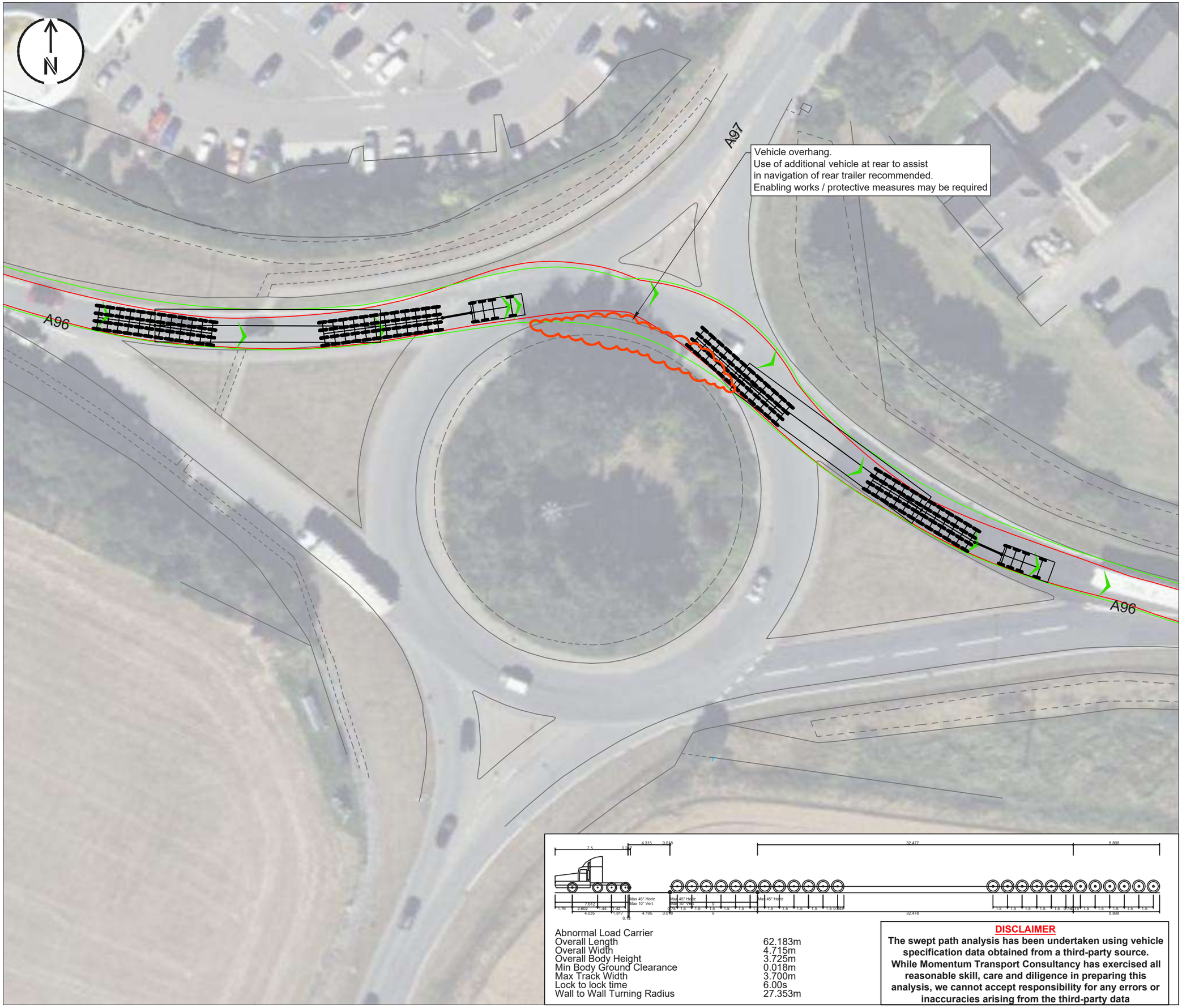
SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
A96-HAUGHS ROAD JUNCTION

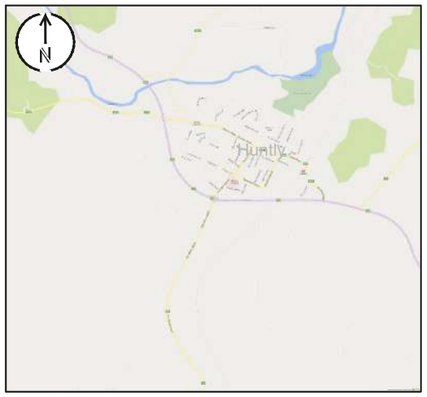
STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-060	A	NTS

The way the world moves. By design.





OVERVIEW PLAN

NOTES

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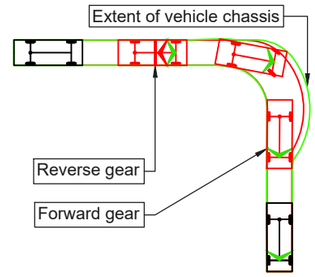
KEY



Abnormal Load Carrier	
Overall Length	62.183m
Overall Width	4.715m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.700m
Lock to lock time	6.00s
Wall to Wall Turning Radius	27.353m

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REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum
transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

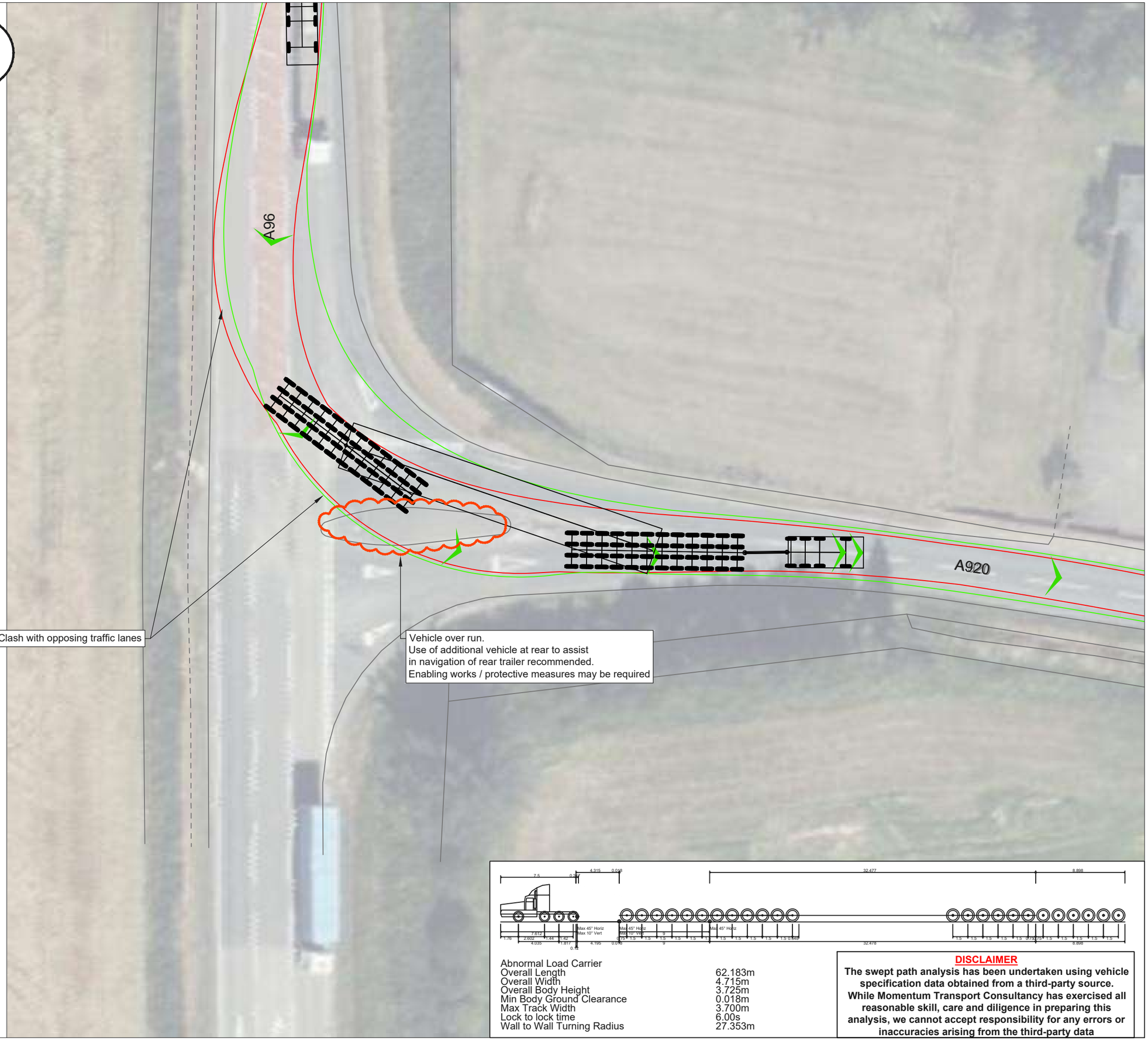
DRAWING TITLE:

SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
A96 ROUNDABOUT

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-061	A	NTS



OVERVIEW PLAN

NOTES

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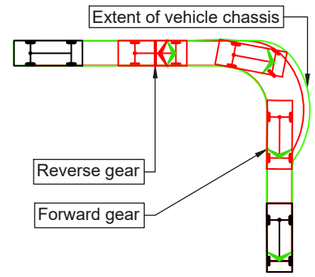
7. Swept path analysis is based on the following vehicle traveling at 2.5kph.

KEY



Abnormal Load Carrier	
Overall Length	62.183m
Overall Width	4.715m
Overall Body Height	3.725m
Min Body Ground Clearance	0.018m
Max Track Width	3.700m
Lock to lock time	6.00s
Wall to Wall Turning Radius	27.353m

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REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
A	21/10/25	FIRST ISSUE	IH	KL	NB

momentum transport consultancy

CLIENT:

Blackford Renewables Ltd

JOB TITLE:

BESS

DRAWING TITLE:

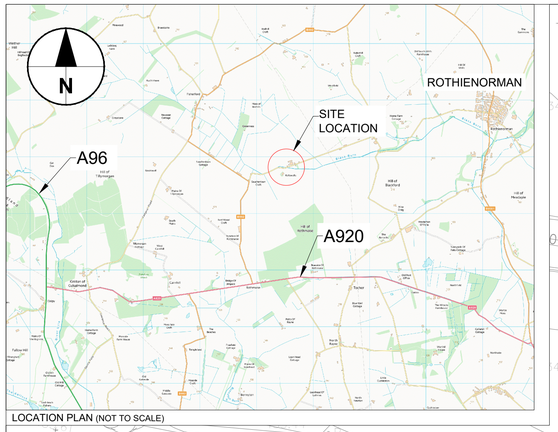
SWEPT PATH ANALYSIS
ABNORMAL LOAD CARRIER
A96-A920 JUNCTION

STATUS:

FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-TR-062	A	NTS

Appendix B: Black Burn road widening



LOCATION PLAN (NOT TO SCALE)

SETTING OUT COORDINATES

POINTS	EASTING	NORTHING	NOTES
01	368453.423	834796.831	ROAD WIDENING
02	368462.592	834800.584	ROAD WIDENING
03	368462.786	834801.564	ROAD WIDENING
04	368529.771	834817.547	ROAD WIDENING
05	368547.405	834826.749	ROAD WIDENING
06	368552.816	834826.203	ROAD WIDENING
07	368556.501	834824.362	ROAD WIDENING
08	368546.158	834817.269	ROAD WIDENING
09	368576.618	834822.455	ROAD WIDENING
10	368615.816	834836.853	ROAD WIDENING
11	368648.249	834850.563	ROAD WIDENING
12	368478.164	834791.195	PROPOSED NEW FENCE
13	368494.461	834791.419	PROPOSED NEW FENCE
14	368502.954	834792.85	PROPOSED NEW FENCE
15	368520.815	834799.488	PROPOSED NEW FENCE
16	368548.932	834816.488	PROPOSED NEW FENCE
17	368575.714	834821.153	PROPOSED NEW FENCE
18	368585.454	834824.028	PROPOSED NEW FENCE
19	368619.032	834836.735	PROPOSED NEW FENCE
20	368452.248	834795.09	PROPOSED NEW FENCE - START
21	368525.547	834802.432	GATE - START
22	368530.648	834805.567	GATE - END
23	368632.492	834842.932	PROPOSED NEW FENCE - END

AECOM

Project

BUCKIE TO ROTHIENORMAN AIL ROUTE

Client

Allelys

Consultant

Aecom
1 Tanfield
Edinburgh
EH3 5DA
United Kingdom
Fax +44 (0)131 301 8699
Tel +44 (0)131 301 8600
www.aecom.com

Notes

THIS DRAWING IS BASED ON VEHICLE TRACKING INFORMATION PROVIDED BY ALLELYS HEAVY HAULAGE, AND TOPOGRAPHIC SURVEY INFORMATION CARRIED OUT BY ASPECT SURVEYS, DECEMBER 2023.

FOR CROSS SECTIONS A-A TO C-C REFER TO DRAWING 60623903-ACM-XX-00-DR-CE-0102

KEY

- PROPOSED ROAD WIDENING REFER TO DETAIL: 60623903-ACM-XX-00-DR-CE-0102
- EXISTING CARRIAGEWAY
- OUTER WHEEL TRACK OF VEHICLE
- OVER-SAIL OF TRAILER
- PROPOSED POST & WIRE FENCE
- EXTENT OF VEGETATION CLEARANCE

ISSUE/REVISION

Rev	Date	Description	Drn/Chk/Appr
C	18.07.23	VEGETATION CLEARANCE ADDED	EP/CGY/CGY
B	04.07.23	LOCATION PLAN ADDED	EP/CGY/CGY
A	26.06.23	ADDITIONAL DETAIL ADDED	GM/EP/CGY
-	16.01.23	FIRST ISSUE	DWT/EP/DGY

Key Plan

Purpose Of Issue

FOR CONSTRUCTION

Project Number

60623903

Sheet Title

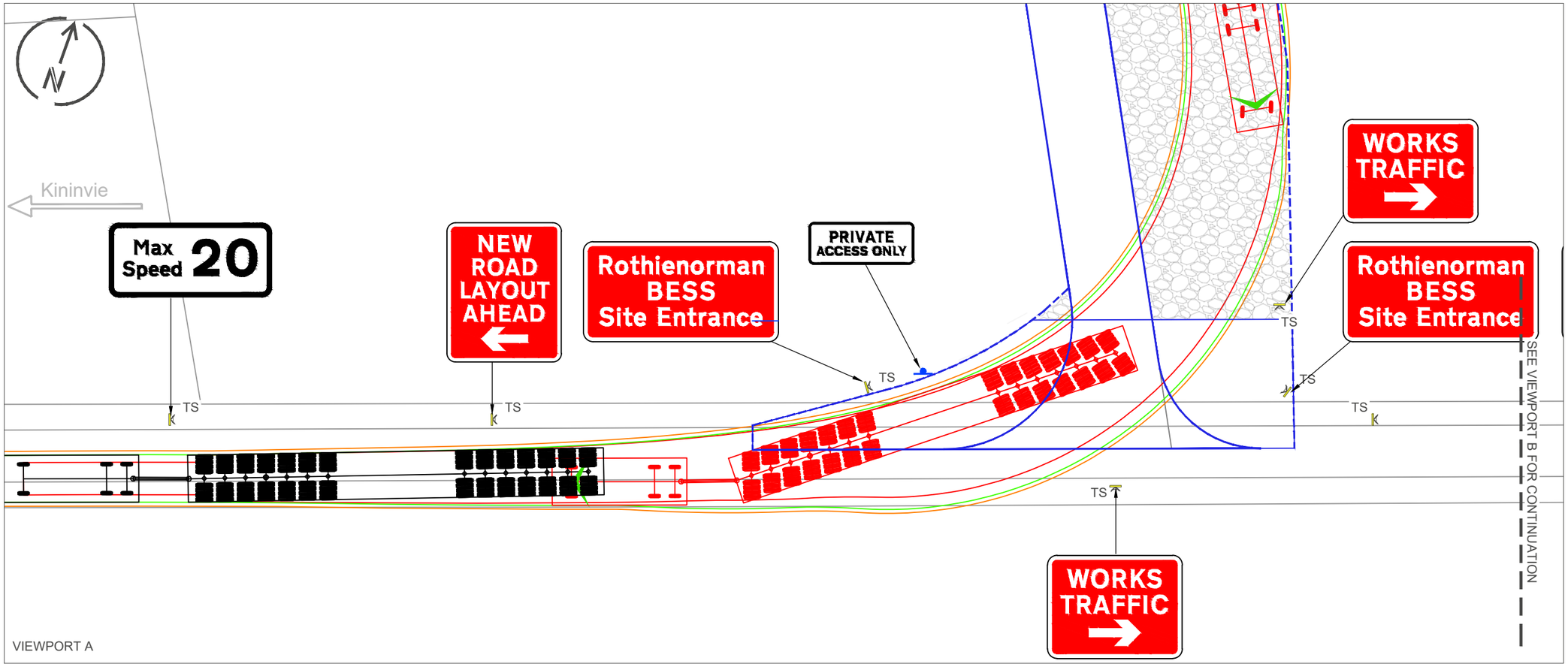
BUCKIE TO ROTHIENORMAN - PROPOSED PRI AT OVERHILL BRIDGE

Sheet Number

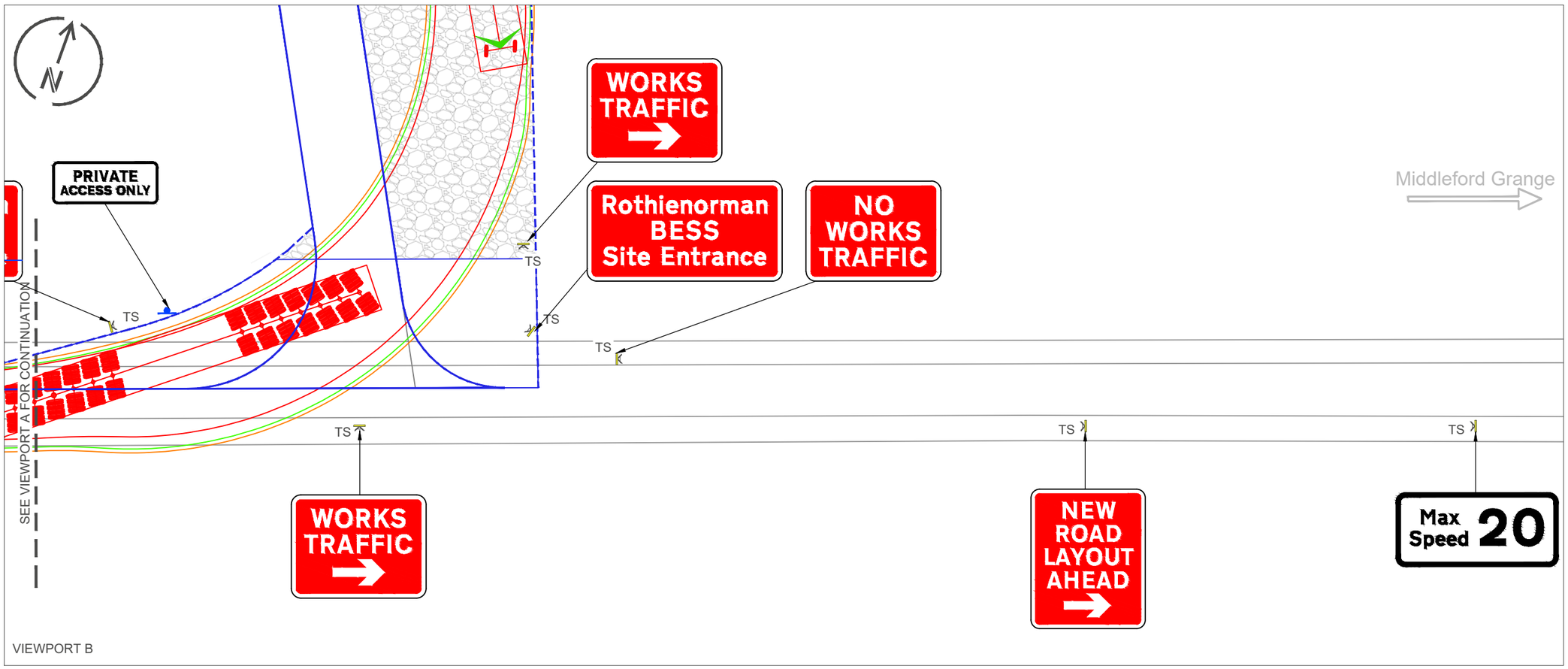
60623903-ACM-XX-00-DR-CE-0101

Scale: 1:250 @ A1 **Rev:** C

APPENDIX E – SITE ACCESS SIGNAGE STRATEGY



VIEWPORT A



VIEWPORT B

NOTES

1. Do not scale from this plan.
2. This drawing is for discussion purpose only.
3. See drawing M001289-2-1-DR-011 for construction logistics over-view plan
4. Proposed new access track for power plant has not been subject to a Road Safety Audit.

KEY

- Indicative Proposed Traffic Sign (A frame)
- Indicative Proposed Traffic Sign (Sign & Pole)
- Indicative proposed new access track
- Indicative proposed hard-standing gravel track
- Indicative proposed bituminous material track

REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APRVD BY
B	13/10/25	Updated following client review	FR	IH	
A	20/12/24	First issue	FR	IH	JT

momentum transport consultancy

CLIENT: Blackford Renewables Ltd

JOB TITLE: BESS-ROTHIENORMAN

DRAWING TITLE: PROPOSED TRAFFIC MANAGEMENT PLAN AT JUNCTION

STATUS: FOR INFORMATION

DRAWING NO:	REV:	SCALE AT A3:
M001289-2-1-DR-012	B	N.T.S

Project & Document Details

Project Name	BESS-Rothienorman Phase 2
Project Number	M001289-2
Document Title	Construction Traffic Management Plan

Document History

Issue	Status	Reason for Issue	Issued to
1.0	Draft	Draft for client comment	Blackford Renewables Ltd
2.0	Final	For Issue	Blackford Renewables Ltd
3.0	Final	For Issue	Blackford Renewables Ltd
4.0	Final	For Issue	Blackford Renewables Ltd

Issue Control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	23/12/24	RO	KN	JT	
2.0	31/01/25	RO	KN	JT	
3.0	25/04/25	KN	JT	JT	
4.0	24/10/25	KN	JT	JT	