
**THREE OAKS RENEWABLE
ENERGY PARK
EXTENSION**

**Environmental
Statement Appendix 8.3: AIL
Assessment**

MAY 2026





Transportation
Consultancy

VALUE EXCEED TRUST EXCELLENCE CLARITY

Abnormal Indivisible Loads Assessment

Client: Ridge Clean Energy Ltd
Project: Three Oaks Renewable Energy Park
Extension



Document Control Form

Client: Ridge Clean Energy
Project Title: Three Oaks Renewable Energy Park Extension

Document type: Abnormal Indivisible Loads Assessment
Document Date: March 2026

Project No/Ref: 211213-04
Document Status: FINAL

Doc Ref: 211213-04 Three Oaks Renewable Energy Park Extension

Document Approval

Prepared by

Project Manager

Technical Review/Audit

Document Issue

Issue Date and History	Draft	6 th March 2026
	Final	31 st March 2026

Distribution	External	Ridge Clean Energy Ltd
	Internal	File

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of The Transportation Consultancy Ltd being obtained. The Transportation Consultancy Ltd accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purpose for which it was commissioned. The Transportation Consultancy Ltd accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

Contents

1.	Introduction	5
1.1	Overview	5
1.2	Purpose of the Abnormal Load Assessment	5
1.3	Pre-app Scoping & Consultation	5
1.4	Objectives of the ALA	6
1.5	Structure of the ALA	6
2.	Development Proposals	8
2.1	Overview	8
2.2	Site Location	8
2.3	Development Proposals	9
2.4	Development Phases	10
	Project Timescales	10
3.	Legislative & Procedural Guidelines	11
3.1	Overview	11
3.2	Special Types General Order (STGO) – Abnormal Indivisible Load Regulations	11
3.3	Special Orders	12
3.4	Notification Requirements	13
3.5	Guidance on the Movement of Abnormal Indivisible Loads (NPCC, 2025)	14
4.	AIL Types and Transfer Vehicle Specifications.....	16
4.1	Overview	16
4.2	AIL Deliveries	16
4.3	Wind Turbine Blade Transfer	16
4.4	Nacelle Transfer	17
4.5	Tower transfer	18
5.	Route Options, Appraisal and Assessment.....	19
5.1	Overview	19
5.2	Route Option 1 to Site (via A165)	19
5.3	Route Option 2 to Site (via A1079)	21
5.4	Route Option 3 to Site (via A63)	23
5.5	Route Option 4 to Site (via Staveley Road)	24

5.6	Options Analysis	26
5.7	Swept Path Analysis	27
6.	Management Strategy	29
6.1	Overview	29
6.2	General Traffic Management Measures	29
	Route Enforcement	29
	Timings of Movements	29
	Escorts	29
	Temporary Closure	29
	Accommodation Works	30
	Notification	30
	Trial Run	30
	Contingency Planning	30
	Monitoring and Incident Reporting	31
6.3	Abnormal Load Management Plan	31
Table 1.1	AIL Consultation Undertaken	5
Table 2.1	Anticipated Construction Programme	10
Table 3.1	Speed limits against weight category	12
Table 3.2	Summary of Required Measures	13
Table 5.1	Options Analysis	27
Figure 2.1	Site Location	8
Figure 2.2	Indicative Site Layout	9
Figure 4.1	Typical Wind Turbine Transfer	17
Figure 4.2	Typical Nacelle Transfer	17
Figure 4.3	Typical Tower Transfer	18
Figure 5.1	Route Option 1 Overview	20
Figure 5.2	Route Option 1 – Hull Inset	21
Figure 5.3	Route Option 2 Overview	22
Figure 5.4	Route Option 2 – Hull Inset	23
Figure 5.5	Route Option 3 Overview	24
Figure 5.6	Route Option 4 Overview	25
Figure 5.7	Route Option 4 – Hull Inset	26
Figure 5.8	Abnormal Load Swept Path Analysis Location	28
Appendix A	Indicative Axle Loading	
Appendix B	Drawing Package	

1. Introduction

1.1 Overview

The Transportation Consultancy Ltd ('ttc') have been appointed by Ridge Clean Energy Ltd (RCE) to prepare an Abnormal Indivisible Loads Assessment (ALA) to accompany a planning application for the construction of a renewable energy park near Bridlington, East Riding of Yorkshire.

This assessment forms a crucial part of the planning and logistical framework for the project, ensuring that the transportation of oversized and heavy components necessary for the energy park's construction is conducted safely, efficiently, and in compliance with relevant regulations.

1.2 Purpose of the Abnormal Load Assessment

The primary transport impacts of the Proposed Development on the surrounding area are anticipated to arise during the construction phase. This report has been prepared to identify and evaluate a safe, practical, and efficient transport route for Abnormal Indivisible Loads (AILs) accessing the site throughout this phase. In doing so, it carefully considers the existing highway conditions, ensuring that potential disruptions are minimised and any issues that could arise have been prepared for.

The purpose of this report is to outline the potential routes under consideration for the transportation of components associated with wind turbines. It seeks to secure confirmation from East Riding of Yorkshire Council (ERYC) and Hull City Council (HCC) in their capacity as Local Highway Authority (LHA) that the proposed transfer route is, in principle, acceptable for use. This ensures alignment with local infrastructure capabilities and addresses any preliminary concerns regarding feasibility and safety.

This ALA should be read alongside ES Technical Chapter 8 - Traffic and Transport, Appendix 8.4 (Outline CTMP) - Volume 4 and other highways and transportation related documents as part of this application.

1.3 Pre-app Scoping & Consultation

Pre-application consultation has been undertaken with the Local Highway Authorities in relation to the scope of the assessment and potential effects of construction traffic on the local highway network.

Table 1.1 below summarises relevant consultation undertaken in relation to AILs.

Table 1.1 AIL Consultation Undertaken

Consultee	Date	Summary of Discussion	Where Addressed in this AIL Assessment
East Riding Highways Consultation Response	22nd August 2025	The principle of development is acceptable subject to mitigation. Key issues raised include: access constraints at A614 junction, abnormal loads, liaison with Abnormal Loads team, and construction disruption management.	Throughout the AIL Assessment.
East Riding Abnormal Loads Team	Ongoing	ttc continues to engage with Cascade Software, acting on behalf of the council/EYRC, on the feasibility of the proposed AIL route and possible mitigation measures relating to structures.	Appendix B – Drawing Package

Consultee	Date	Summary of Discussion	Where Addressed in this AIL Assessment
Hull Abnormal Loads. Bridges, Trees and Signals Teams	Ongoing	ttc continues to engage with Cascade Software, acting on behalf of HCC, on the feasibility of the proposed AIL route and possible mitigation measures relating to structures, including bridge assessment. HCC have advised a preferred AIL route for the purposes of this assessment, and the route assessed herein reflects that advice.	Appendix B – Drawing Package

Cascade Software undertakes structural assessments on behalf of both EYRC and HCC, reviewing the suitability of highway structures along proposed AIL routes and identifying any issues or requirements for further assessment. They also coordinate with the relevant teams within each respective authority.

TTC has submitted the proposed preferred and alternative AIL routes to Cascade Software for assessment. Cascade have confirmed that the route within the East Riding of Yorkshire is structurally acceptable. However, a structural issue identified within the Hull boundary has necessitated consideration of a minor route modification, as suggested by HCC. Formal approval of this variation is still pending however the Applicant has adopted this suggestion, and the routes under consideration are set out in full within this report.

This structured assessment process provides confidence that any structural constraints along the proposed routes will be identified and appropriately mitigated ahead of construction, ensuring AIL movements can be undertaken safely and in accordance with the requirements of both highway authorities.

1.4 Objectives of the ALA

The objectives of the ALA is to provide information on:

- Legislative and procedural guidance;
- AIL types and transfer vehicle types;
- Route appraisal and Swept Path Analysis (SPA); and,
- Management strategy.

1.5 Structure of the ALA

The remainder of this ALA is structured as follows:

- **Chapter 2 – Development Proposals:** summarises the development proposals and construction timescales;
- **Chapter 3 – Legislative & Procedural Guidelines:** provides an overview of the relevant guidance and procedural documentation used to determine the category of AIL vehicle and respective requirements concerning notification procedures, speed limits and vehicle escorts;
- **Chapter 4 – AIL Types and Transfer Vehicle Specifications:** provides details of the different AIL components being considered and the respective transfer vehicle configuration, which includes details on axle spacing/loading;
- **Chapter 5 – Route Options, Appraisal and Assessment:** provides an overview of the route options, including the identification of ‘pinch points’ and the works required to accommodate the proposed movements; and

- **Chapter 6 – Management Strategy:** details the general management measures that will be adhered to during the transfer of AILs.

2. Development Proposals

2.1 Overview

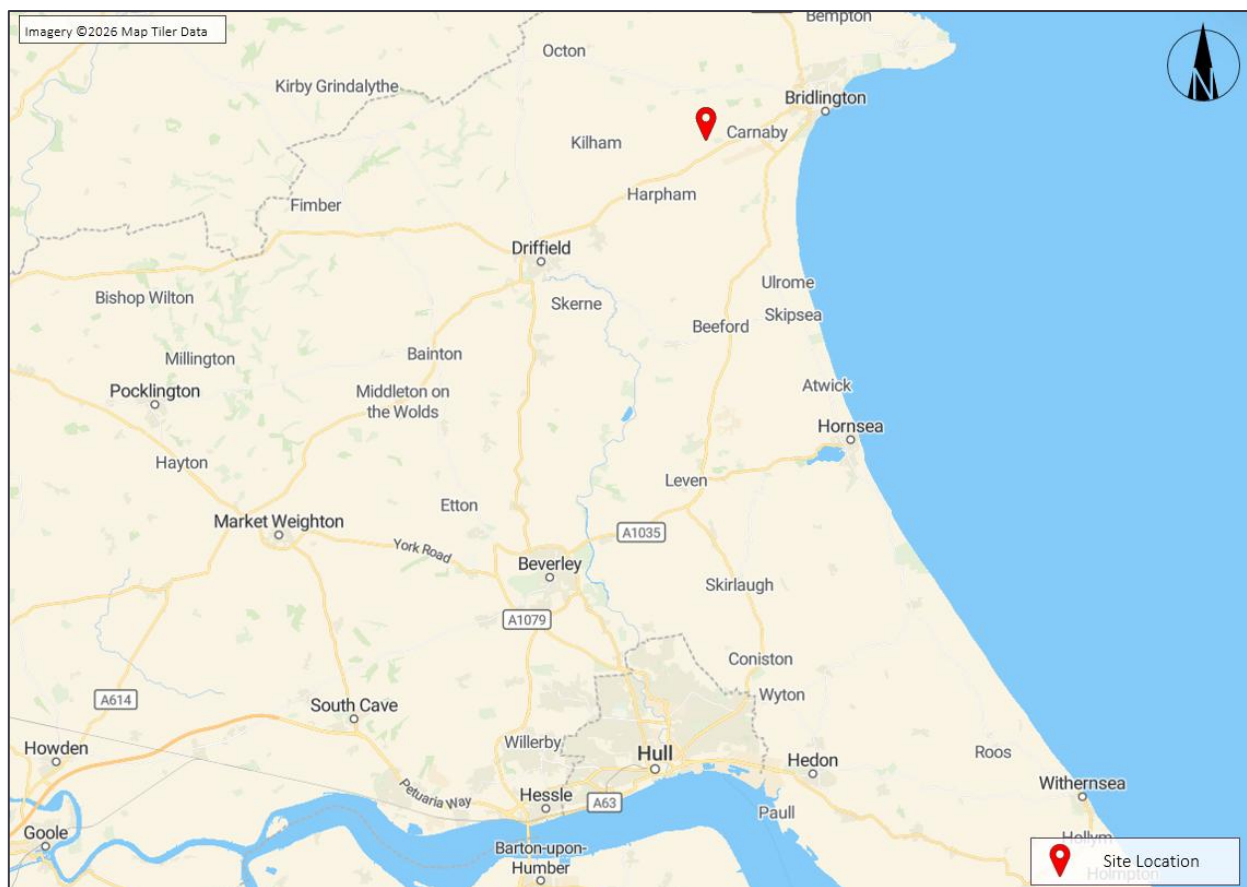
This chapter provides a detailed overview of the site location, its current usage, and the Proposed Development plans.

2.2 Site Location

The site falls within the jurisdiction of East Riding of Yorkshire Council (ERYC) in the northeast of England, situated to the west of Bridlington. The surrounding area consists of agricultural fields with rolling terrain, interspersed with hedgerows and trees, and occasional farm buildings.

Figure 2.1 below illustrates the site's location within the strategic context.

Figure 2.1 Site Location



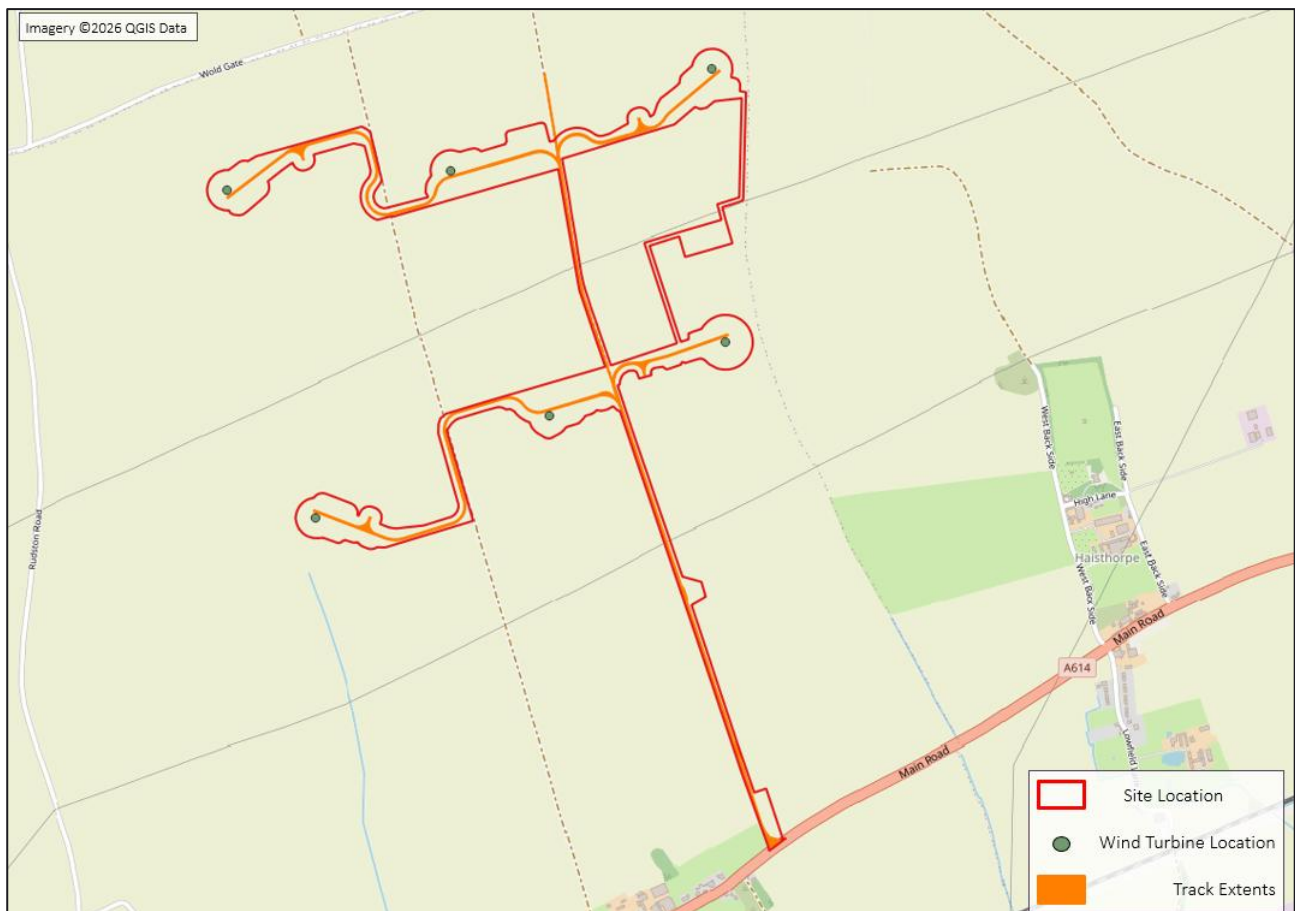
2.3 Development Proposals

The component parts of the Proposed Development (with an export capacity of 25.2 MW) are as follows:

- Wind turbines;
- Wind turbine foundations;
- Crane hardstandings;
- Met mast;
- Site access and maintenance tracks;
- Transformers;
- Cabling;
- Temporary construction compound;
- Mitigation and Enhancement; and
- The substation and access tracks from the adjacent consented (yet to be built) Three Oaks Renewable Energy Park.

An indicative site layout is shown below in **Figure 2.2**

Figure 2.2 Indicative Site Layout



2.4 Development Phases

This ALA considers the movement of AILs during the construction phase of the proposed development. Whilst no routine AIL movements are anticipated during the operational period, it is acknowledged that blade replacements or other major component exchanges may necessitate AIL movements during this phase. In such instances, the access improvements delivered as part of the construction phase, including the widened junction off the A614, would be retained to facilitate any such movements. AIL movements will also be required at the point of decommissioning. Given the estimated 40-year lifespan of the development, it is not possible to predict baseline highway conditions at the time of decommissioning with certainty; however, it is reasonable to assume that decommissioning AIL movements would be broadly comparable in nature and scale to those assessed within this ALA for the construction phase, utilising an appropriate AIL route agreed with the relevant highway authorities at that time and subject to the same statutory controls and escort arrangements. Any material changes to highway conditions prevailing at the time of decommissioning would be addressed through consultation with ERYC and HCC as appropriate.

Project Timescales

The construction timescales are expected to follow an 8-month period set out in phases below in **Table 2.1**.

Table 2.1 Anticipated Construction Programme

Aspect of Development	Month No.							
	1	2	3	4	5	6	7	8
Site set up								
Site entrance and track construction								
Turbine foundation								
Foundation curing								
Crane hardstandings								
Cabling								
Turbine delivery and erection								
Grid connection works								
Energise and commission								
Completion								

Site reinstatement will take place following this construction programme.

3. Legislative & Procedural Guidelines

3.1 Overview

'*The Road Vehicles (Construction & Use) Regulations 1986*' commonly referred to as the '*Construction & Use*' or '*C&U*' regulations, defines the various types and classifications of vehicles permitted for use on public roads. These include motor cars, motorbikes, buses, lorries, mobile cranes, and tracked vehicles. The regulations also set out the maximum permissible dimensions for each vehicle type, along with specifications for gross weight, number of axles, braking systems, tyre types, maximum speed, exhaust systems, and mirrors.

In tandem with the C&U regulations, '*The Road Vehicles (Authorised Weight) Regulations 1998*', commonly known as the '*Authorised Weight Regulations*', establishes the maximum permissible weight (both gross and per axle) for different vehicle types based on the number of axles within each category.

Vehicles that do not comply with the above regulations fall under the scope of 'The Road Vehicles (Authorisation of Special Types) (General) Order 2003'—commonly referred to as 'Special Types' or 'STGO'. This legislation outlines the conditions under which the Police, Roads Authority, or Secretary of State must be notified about an intended vehicle movement. It also specifies the required notice period before such movements can take place.

3.2 Special Types General Order (STGO) – Abnormal Indivisible Load Regulations

All transport vehicles are broadly defined by the Department for Transport (DfT) as vehicles that have any of the following:

- A weight of more than 44,000 kg;
- An axle load of more than 10,000 kg for a single non-driving axle and 11,500 kg for a single driving axle;
- A width of more than 2,900mm; and
- A rigid length of more than 18,650 mm.

In addition to the above, hauliers are generally advised to inform statutory authorities if total vehicle heights are likely to exceed 5,000 mm (although it should be noted that there is no legal height restriction).

STGO vehicles are further categorised into three weight categories, as follows:

- Category 1 - Maximum Gross Weight: 50,000 kg, C&U regulation axle limit (46,000 kg if the combination has less than 6 axles and does not comply in all other respects with the Authorised Weight regulations);
- Category 2 - Maximum Gross Weight: 80,000 kg, 12,500 kg axle limit; and
- Category 3 - Maximum Gross Weight: 150,000 kg, 16,000 kg axle limit.

For all categories, the following advice is provided with regards to width:

- A vehicle, locomotive or trailer may be up to 3,000 mm wide and subject to certain qualifications, this limit may be exceeded if it is necessary for the safe carriage of the load;

- Loads wider than 5 m can only be conveyed if authorised by special order (the VR1 procedure – supplementary form under STGO regulations). The VR1 must be carried on the vehicle and at least 10 days notification is required prior to the movement date; and
- The load cannot exceed 6,100 mm width under STGO regulations.

For all categories, the following advice is provided with regards to length:

- The overall length of the vehicle(s) and load may be up to 30,000 mm, or greater if authorised by special order from the Secretary of State. In any combination of vehicles on which a load rests, including any articulated vehicle, the 30,000 mm does not include the length of the drawing vehicle; and
- An articulated vehicle or trailer, which is abnormal only in respect of length for carrying indivisible loads of exceptional length, can operate under normal C&U regulations.

With regards to speeds, those that apply to each of the weight categories are set out in **Table 3.1**.

Table 3.1 Speed limits against weight category

Vehicle Type	Vehicle Category and Weight Limits			
	Definition	Motorways	Dual Carriageway	Other
Category 1	Maximum gross weight up to 50,000 kg. Subject to C and U axle limit of 46,000 kg where the vehicle combination has fewer than 6 axles or does not otherwise comply with authorised weight regulations.	60 mph	50 mph	40 mph
Category 2	Maximum gross weight up to 80,000 kg with a maximum axle limit of 12,500 kg.	40 mph	35 mph	30 mph
Category 3	Maximum gross weight up to 150,000 kg with a maximum axle limit of 16,000 kg.	30 mph	25 mph	20 mph

Department for Transport

It should be noted that although the speeds referenced above are the legal limits, the actual achievable speed of the vehicle configuration may be slower.

3.3 Special Orders

Vehicles that exceed one of the following, and thus are not covered by the STGO regulations, necessitates an application for a Vehicle Special Order (VSO):

- Width of 6,100 mm;
- Length of 30,000 mm;
- Gross weight of 150,000 kg; or
- Axle weights exceeding 16,500 kg.

To apply for a VSO, the following information will need to be supplied to the DfT,

- Name and address of person/ organisation making the application;
- Details of the persons/ organisations of who will be using the vehicles, if different from (point 1);

- The number of vehicles involved;
- Type of vehicles involved, their make, model, registration and/or chassis (serial) numbers of motor vehicles or trailers. These will be listed on any order issued;
- Details of the vehicles e.g. number of axles, individual axle weights, and gross vehicle weights (both in kg), plus dimensions (in m);
- In the case of vehicle combinations, overall weights (in kg) and dimensions (in m); and
- Details of the C&U Regulations with which the vehicles do not comply and the reasons why they cannot comply: The Regulations are specified on an Order and it should be made clear that failure to comply with non-specified Regulations, or supplying incorrect data would invalidate an Order.

On receipt of the application, the Vehicle Certification Agency (VCA) will evaluate the application and contact the applicant should further information be required. Various organisations including the Police, Local Authorities, and other interested parties, both within and outside of the DfT may be consulted; especially in respect of the conditions to be imposed. Following receipt of all information, and assuming that there are no technical reasons or objections from any of the parties consulted, an Order will be prepared and dispatched by email within 10 working days.

Orders are issued for varying periods of time at the discretion of the DfT. Typically, they are issued for a period of up to five years.

The following sets out the speed limits of VSO loads:

- Articulated vehicles weighting between 150 and 250 tonnes: 25 mph;
- Draw-bar trailer vehicles weighting between 150 and 250 tonnes: 20 mph; and
- Girder frame trailers: 12 mph.

3.4 Notification Requirements

Table 3.2 below provides a summary of the actions required dependent upon the vehicle's specified width, length, weight and load projection.

Table 3.2 Summary of Required Measures

	Width of Vehicle Load	Police Notification	Special Notice to Road & Bridge Authorities (And Indemnity)	Secretary of State 'VR1' Authorisation	Special Order
Width of Vehicle Load	Exceeding 2,900 mm up to 4,300 mm (C&U)	✓			
	Exceeding 3,000mm up to 5,000 mm (STGO)	✓		✓	
	Width between 5,000 mm and 6,100 mm	✓	✓		✓

	Width of Vehicle Load	Police Notification	Special Notice to Road & Bridge Authorities (And Indemnity)	Secretary of State 'VR1' Authorisation	Special Order
Overall Length	Width exceeding 6,100 mm	✓			
	Exceeding 18,650 mm up to 27,400 mm (C&U)	✓			
	Exceeding 18,750 mm (STGO)	✓	✓		✓
Gross weight of Vehicle and Load	Exceeding C&U limits up to 80,000 kg (STGO Cat 1 & 2)		✓		
	Exceeding 80,000 kg up to 150,000 kg (STGO Cat 3)	✓	✓		
	Exceeding 150,000 kg	✓	✓		✓

Note: Part 2, article 12 of the Road Vehicles (Authorisation of Special Types) (General) Order 2003. Full information available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503103/Aide_Memoire_updated_Sep_2015.pdf

3.5 Guidance on the Movement of Abnormal Indivisible Loads (NPCC, 2025)

The National Police Chiefs' Council (NPCC) published updated guidance on the movement of abnormal indivisible loads in 2025, superseding the previous guidance issued by the Association of Chief Police Officers (ACPO) in March 2010. The purpose of this document is to assist individual Constabularies concerning the movement of abnormal loads and to ensure a consistent approach to the policing of AIL movements across force boundaries.

An escort driver or any other person or attendant to the abnormal load does not have any legislative powers to stop and control other road users. It should be noted that there is no power in either the C&U Regulations or the STGO for the police to mandate to an operator the use of a police escort. National Police Chiefs' Council

The police and National Highways encourage hauliers to use self or private escorts. Police escorts should only be supplied if specifically requested, and payment for their services will be required in accordance with the prevailing NPCC approved Special Police Service (SPS) rates. Where there is a requirement to stop or control traffic for the purposes of undertaking a specific manoeuvre, a police officer may be deployed, however this would need to be specifically requested by the haulier, with costs recovered in line with SPS rates. The haulier should give as much notice as possible but at least eight days' notice of any proposed movement requiring a police officer. National Police Chiefs' Council Alternatively, hauliers can also consider applying to the local authority for a Temporary Traffic Regulation Order (TTRO) to facilitate the movement. National Police Chiefs' Council

A load will require a private escort vehicle if the load width exceeds 4100 mm on standard roads or 4600 mm on motorways, exceeds 30,500 mm in length on standard roads, or if the load weight exceeds 100 tonnes on standard roads or 130 tonnes on motorways. Croner- Regional police forces may vary these thresholds and the appointed haulier should confirm requirements with Humberside Police prior to transfer.

Self or private escorts should comply with the National Highways guidance, although this is a voluntary code and can only be used for evidential purposes in the event of an incident occurring. It is evidence of good practice and a standard to which the haulage associations subscribe.

Humberside Police, like all other police forces, utilises the Electronic Service Delivery for Abnormal Loads (ESDAL) system to notify police forces, road authorities, and bridge authorities about the movement of AILs. Notifications must be submitted at least 2–3 working days before any AIL movement commences. Since the route to the site passes through multiple police jurisdictions, the ESDAL system automatically notifies all relevant authorities, eliminating the need for the applicant to contact them individually.

In accordance with the above, where the stopping of traffic or other road users is required, the appointed haulier should first consider whether a TTRO or alternative traffic management measure can be implemented. Where a police officer is required, the haulier shall make a specific request to the relevant Constabulary with at least eight days' notice, and costs will be met by the haulier. In all other instances, self or private escort will be utilised.

4. AIL Types and Transfer Vehicle Specifications

4.1 Overview

This chapter provides details of the different AIL components being considered and the respective transfer vehicle configuration, which includes details on axle spacing/loading.

4.2 AIL Deliveries

The types of transfer vehicles being considered in this assessment are as follows:

- 18no. turbine blades (16,000 kg) with a length of 57,200 mm;
- 6no. nacelle components (67,035 kg);
- 30no. tower components (79,500 kg); and,
- 12no. escort vehicles.

The vehicle configurations used to transfer the abnormal loads will ultimately be decided by the appointed haulier, however, the configurations selected are considered a worst-case and robust representation.

Following the site audit, it is recommended that, where possible and subject to availability, the appointed haulier makes use of blade-lifting technology to minimise the risk of contact with street furniture such as lighting columns and signage.

Notwithstanding this, the AIL route assessment has been undertaken on the basis that blade-lifting technology is not available, and the route has been confirmed as feasible in this worst-case scenario. The use of blade-lifting technology would therefore serve to further reduce the already low risk of interaction with street furniture but is not a prerequisite for successful AIL movement along the identified route.

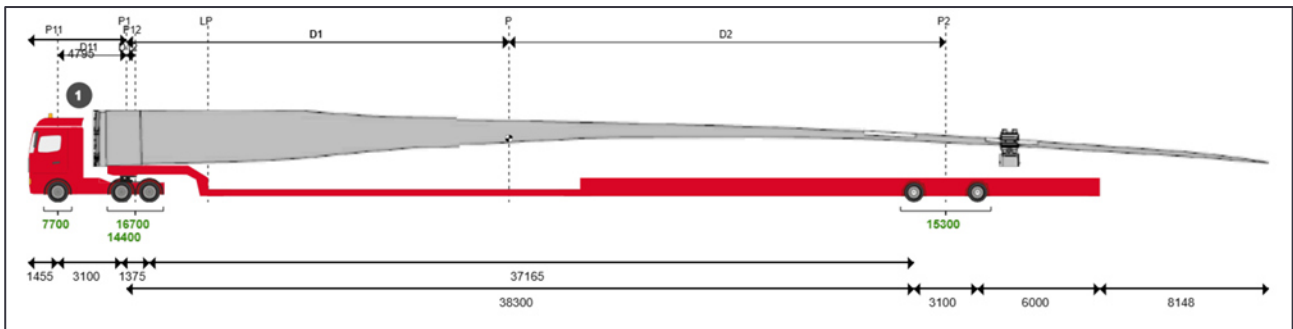
4.3 Wind Turbine Blade Transfer

The delivery of blades to the site will require 18no. AIL movements. At the time of writing, each wind turbine blade is expected to be transported at the following size, inclusive of the tractor unit and trailer:

- Length – 60,343 mm
- Width – 5,500 mm
- Height – 4,514 mm
- Total Mass – 39,700 kg

The type of vehicle used in this assessment is shown below in **Figure 4.1** for the wind turbine blade transfer.

Figure 4.1 Typical Wind Turbine Transfer



Full details of indicative axle loading for this AIL are included within **Appendix A**.

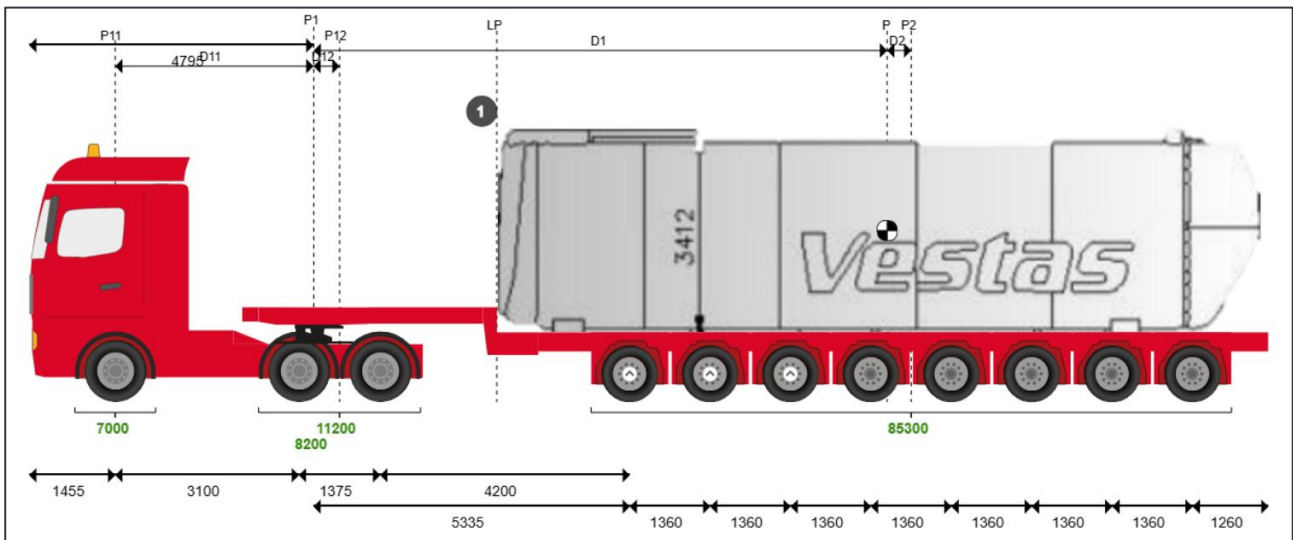
4.4 Nacelle Transfer

The movement of nacelle units to the site will involve 6no. AIL movements. At the time of writing, each nacelle unit is expected to be transported at the following size, inclusive of the tractor unit and trailer:

- Length – 20,670 mm – 21,395 mm
- Width – 4,200 mm
- Height - 4,608 mm
- Total Mass – 103,600 kg

The type of vehicle used in this assessment is shown below in **Figure 4.2** for the nacelle transfer.

Figure 4.2 Typical Nacelle Transfer



Full details of indicative axle loading for this AIL are included within **Appendix A**.

5. Route Options, Appraisal and Assessment

5.1 Overview

This section of the report outlines the proposed routes that could be used to transfer the wind turbine components to the site.

The route has been determined using:

- Desktop review of potential routes identifying weight, height, horizontal and vertical considerations;
- An in-person site audit on 9th April 2025 of the preferred route indicatively checking weight, height, horizontal and vertical considerations; and
- Most suitable routes for transport configuration.

5.2 Route Option 1 to Site (via A165)

Route Option 1 begins at the Port of Hull, following the A63 (Hedon Road) dual carriageway westward. It then transitions onto Mount Pleasant (A1165) to connect with the A165. The proposed route makes extensive use of the A165, a primary road, to ensure a safe and efficient transport corridor for the majority of the journey. From Bridlington, it continues west to site via the A164, another primary road, minimising interaction with sensitive receptors.

Route Option 1 is illustrated below in **Figure 5.1** and **Figure 5.2**.

Figure 5.1 Route Option 1 Overview

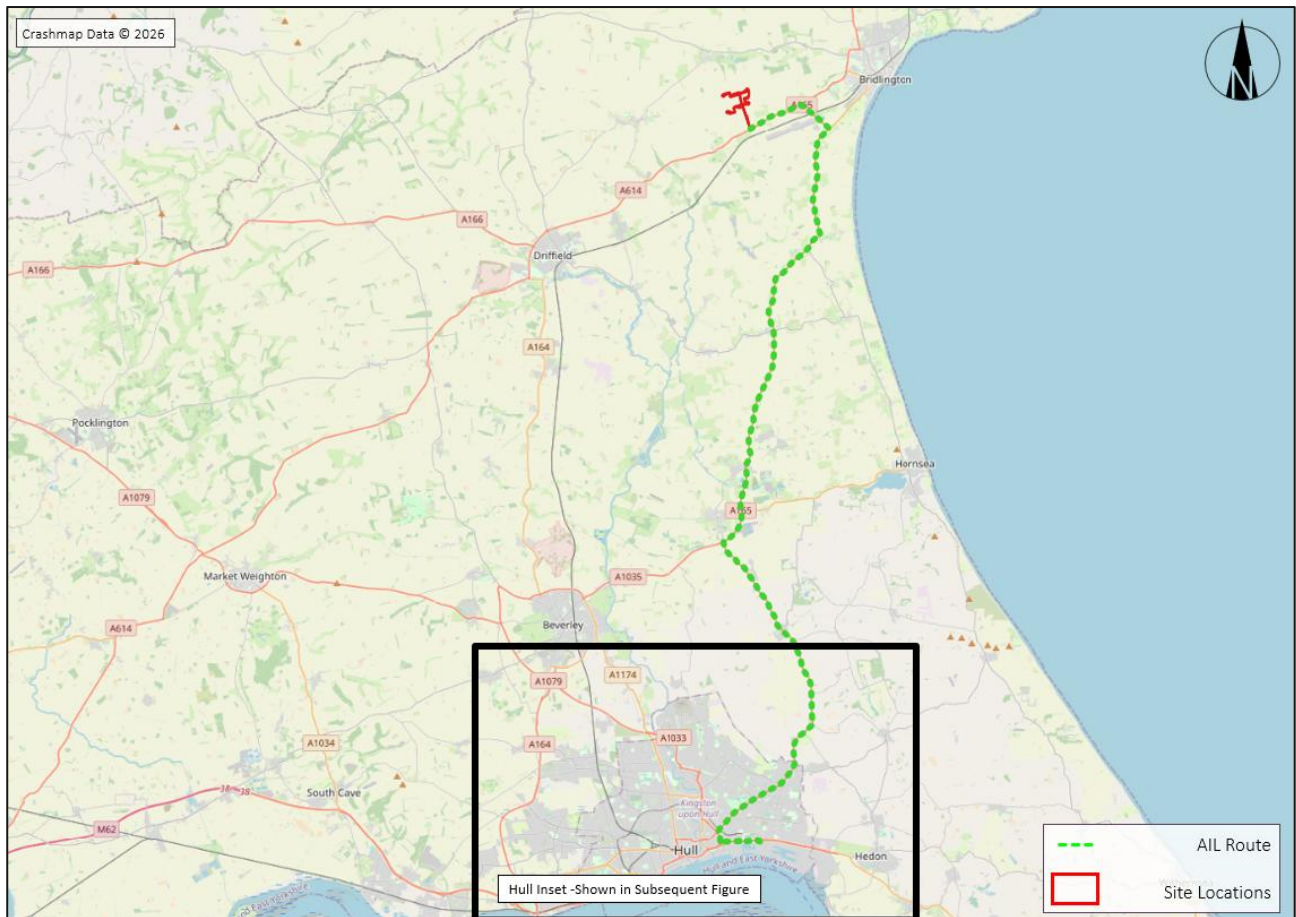
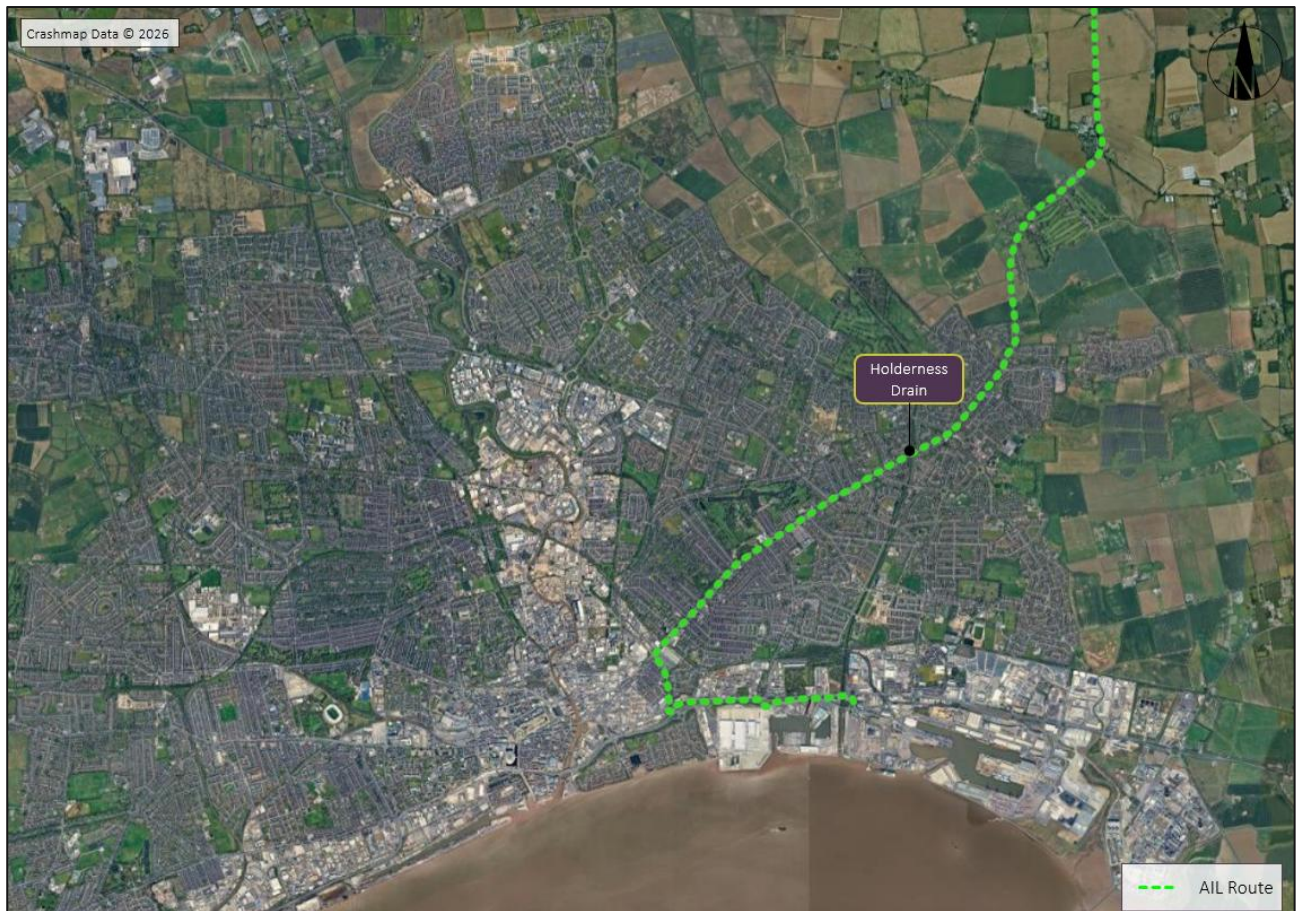


Figure 5.2 Route Option 1 – Hull Inset



Following Cascade Software’s review of the proposed axle loadings for the AIL components, it has been confirmed that the bridge over Holderness Drain is not suitable for AIL movements and is therefore closed to such traffic. The remainder of the route has been assessed as suitable.

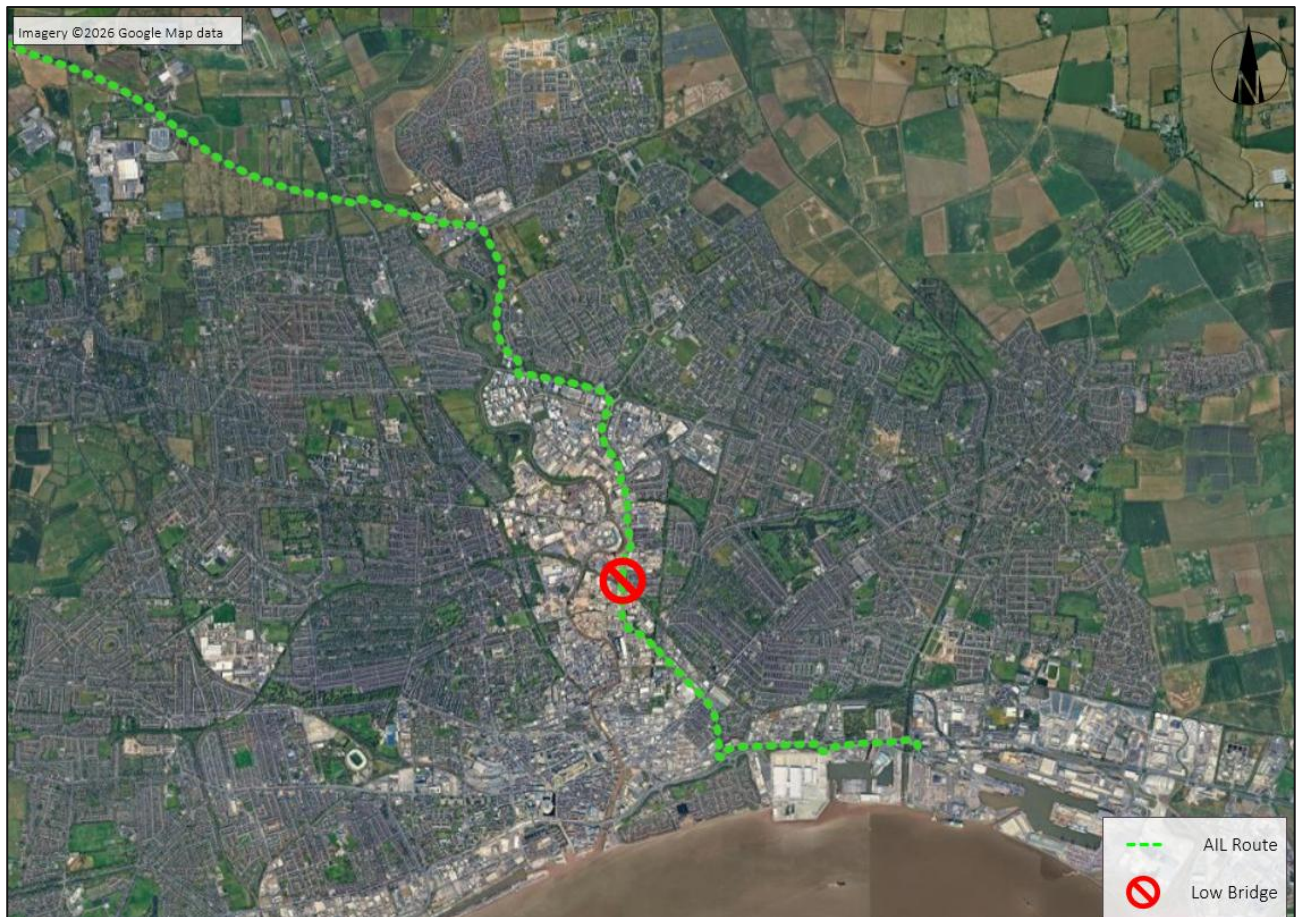
5.3 Route Option 2 to Site (via A1079)

Route Option 2 starts at the Port of Hull and follows the A63 (Hedon Road) dual carriageway westbound. It then turns onto Mount Pleasant (A1165) and continues north, before utilising the A1079 for the majority of the onward journey. At Beverley, the route transfers to the B1256, which it follows north to the A614 at Bainton. From there, it connects into the construction traffic route, approaching the site from the west.

The Route Option 2 is illustrated below in **Figure 5.3** and **Figure 5.4**.



Figure 5.4 Route Option 2 – Hull Inset



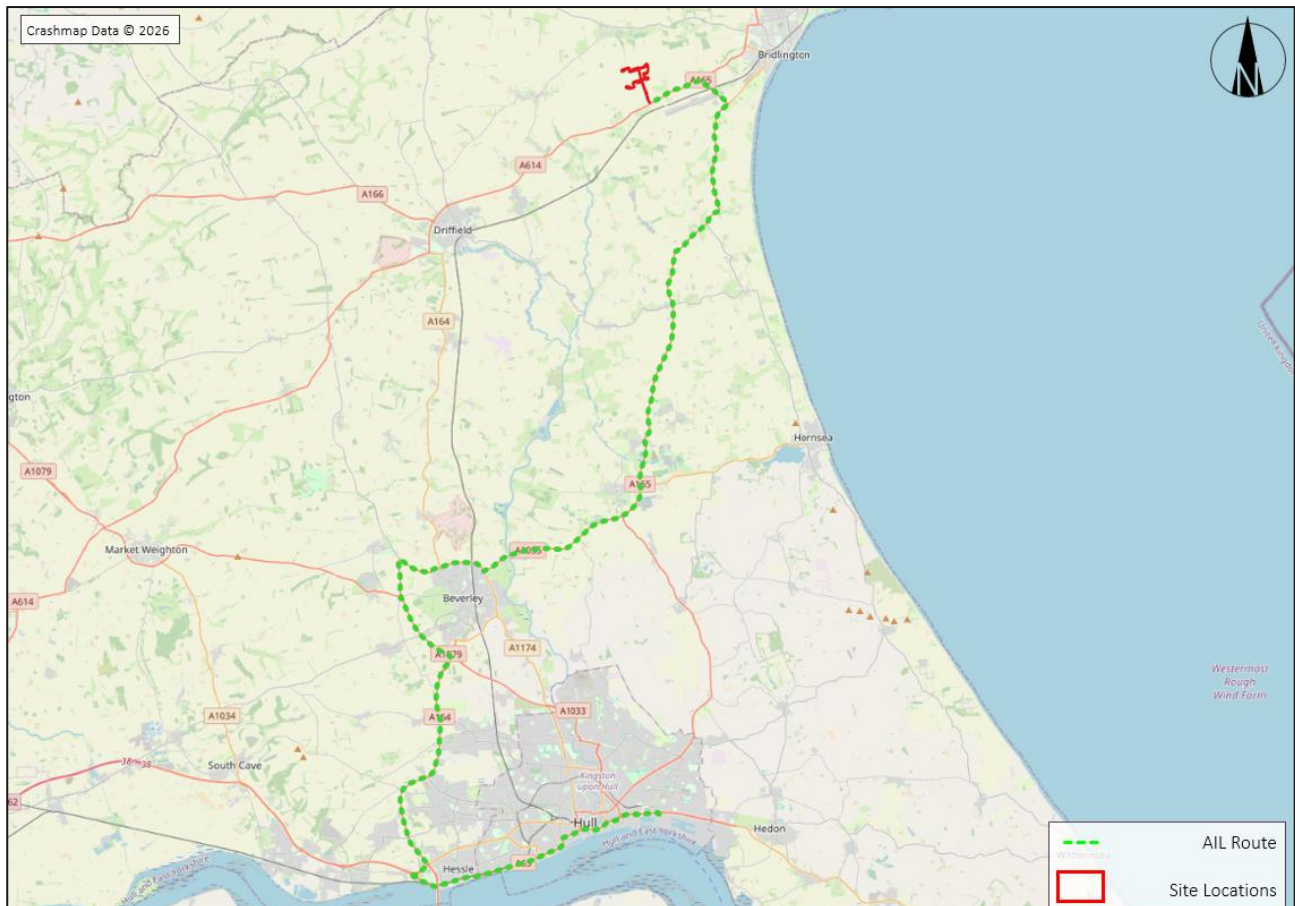
The site audit identified a low bridge (HJS/23) on the A1079 through Hull, with a recorded clearance of 4.6m. This presents a potential constraint to the movement of AILs along this section of the route.

5.4 Route Option 3 to Site (via A63)

Route Option 3 starts at the Port of Hull and follows the A63 (Hedon Road) dual carriageway westbound before joining the A164 and travelling north towards Beverley. From Beverley, the route continues north via the A1079 before transitioning onto the A1035. It remains on the A1035 to Leven, where it turns onto the A165 and continues north to Bridlington. From Bridlington, it then travels west towards the site via the A164, approaching from the east.

The Route Option 3 is illustrated below in **Figure 5.5**.

Figure 5.5 Route Option 3 Overview

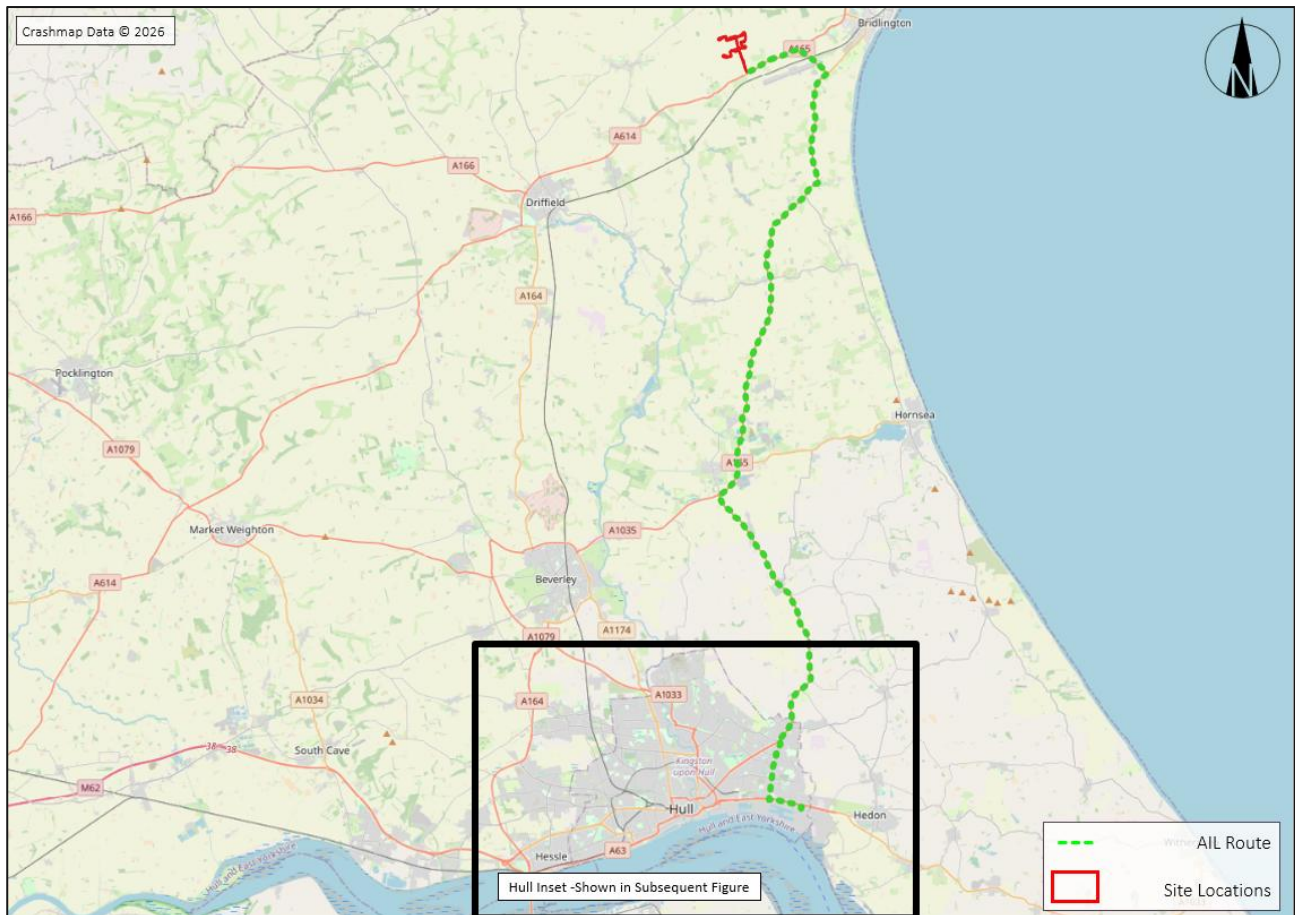


Whilst Route 3 is considered feasible from an initial review, it represents the longest of the four options assessed and traverses a greater number of junctions and roundabouts along its length. As a consequence, a greater number of mitigation measures would be required to facilitate safe AIL passage, including potential geometric works at multiple locations along the route. Route Option 4 to Site (via Staveley Road)

Route Option 4 is similar to Route Option 1 however it avoids the weight restricted bridge along Holderness Road. Instead of this route it uses Marfleet Lane, Staveley Road and then connects back into the A165 at Diadem Grove.

Route Option 4 is illustrated below in **Figure 5.6** and **Figure 5.7**.

Figure 5.6 Route Option 4 Overview



Route 4 has been identified as the most direct of the four options assessed and, on the basis of the desktop review undertaken, appears viable for AIL movements associated with the Proposed Development. This route has been specifically suggested by Cascade Software, following their review of the available option 1, which provides additional confidence in its suitability.

Figure 5.7 Route Option 4 – Hull Inset



5.5 Options Analysis

A review of the route options has been undertaken to determine the most appropriate option, taking account of route distance, mitigation requirements to accommodate the loads and the outcomes of consultation responses. Each area has been graded using a Red Amber Green (RAG) scale as follows:

- **Green:** no significant constraints and / low impact.
- **Amber:** moderate impacts/constraints, but no technical or land ownership constraints.
- **Red:** severe impacts/constraints, with either technical or landownership constraints.

The analysis is summarised within **Table 5.1:**

Table 5.1 Options Analysis

Option	Relative Route Length	Measured Route Length	Ease of Mitigation Measures	Mitigation Required	Site Audit / Desktop Review Rating	Site Audit / Desktop Research Results	Cascade Software Rating	Cascade Software Summary
1		47.4km		Some limited mitigation on roundabouts along A165 and at the Mount Pleasant Junction.		Preliminary checks positive and Option 1 appeared favourable.		Holderness Drain Bridge is closed to all AILs due to axle loading restrictions.
2		65.6km		Several mitigation measures required to move through roundabouts.		Preliminary checks show the low bridge along the A1079 may be impassable for the size of AIL required.		Not been reviewed.
3		71.4km		Some mitigation measures required to move through roundabouts.		Preliminary checks positive and Option 3 appears favourable although the route is very long.		Not been reviewed.
4		45.5km		Some limited mitigation along Staveley Road roundabouts and then on Diadem Roundabout back onto the A165.		Preliminary checks positive and Option 4 appears favourable.		Pending review although the East Riding Section has been deemed appropriate and Route Option 4 has been suggested as an alternative by HCC.

Based on the route options appraisal, it has been determined that Route Option 4 is preferable. It should be noted that Route Option 3 was utilised to deliver the wind turbine components for the nearby Fraisthorpe Wind Farm and could therefore provide a further alternative should any issues arise at the time of transfer. Some modifications to the local highway have been undertaken since the Fraisthorpe transfers occurred, and therefore swept path analysis and consideration of any mitigation works would need to be undertaken prior to permit application to confirm suitability.

5.6 Swept Path Analysis

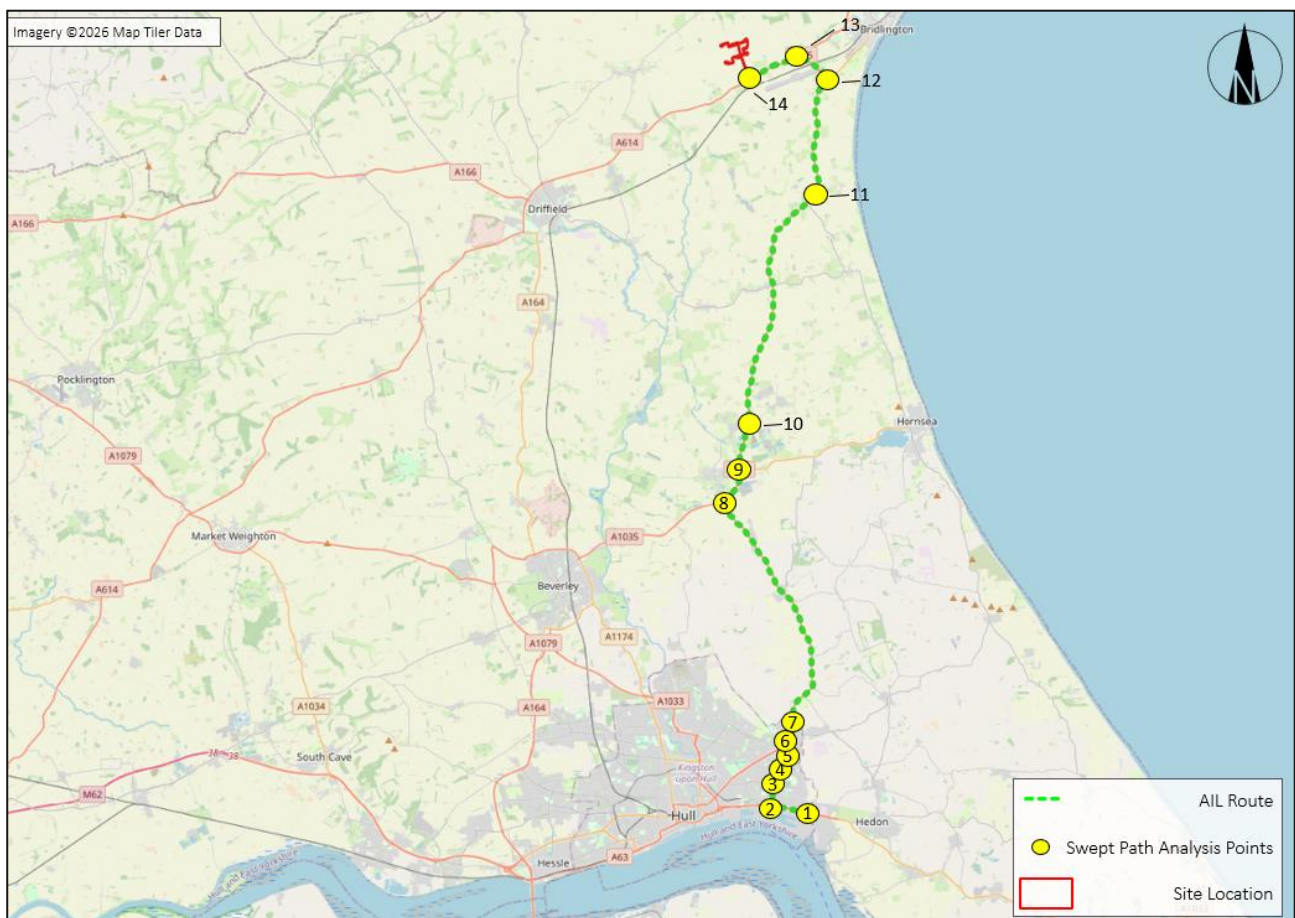
It is recognised due to the scale of the AIL that SPA must be conducted at certain locations where manoeuvrability could be limited. As such, SPA has been conducted at a number of locations identified through a desktop audit and confirmed onsite in order to determine the feasibility of using the preferred route. These locations are outlined below alongside the relevant Drawing Sheet Number:

1. Somerdon Roundabout (Sheet 3)
2. Marfleet Roundabout (Sheet 4)
3. Marfleet Lane (Sheet 5)

4. Staveley Road Roundabout South (Sheet 6)
5. Staveley Road Roundabout North (Sheet 7)
6. Diadem Grove Roundabouts (Sheet 8)
7. A165 / Main Road Roundabout (Sheet 9)
8. A165 Roundabout (Leven South) (Sheet 10);
9. A165 Roundabout (Leven East) (Sheet 11);
10. A165 Brandesburton Roundabout (Sheet 12);
11. A165 Barmston (tight left bend) (Sheet 13);
12. Kingsgate / A165 Roundabout (Sheet 13 /14);
13. A165 / A614 Roundabout (Sheet 15); and
14. Site Access (Sheet 16).

These points are illustrated in **Figure 5.8** below.

Figure 5.8 Abnormal Load Swept Path Analysis Location



A copy of the SPA is included within **Appendix B**.

6. Management Strategy

6.1 Overview

This section of the report outlines the general management measures that will be adhered to during the transfer of AILs. It is expected that a full Abnormal Load Management Plan (ALMP) will be drafted and agreed with the relevant Local Highway Authorities prior to any movements taking place and secured by planning condition..

6.2 General Traffic Management Measures

The following sets out the general traffic management strategy that would be employed by the contractor.

Route Enforcement

The routes identified in this ALA will be strictly enforced unless further notification is given. All main and sub-contracting companies involved in the project will be monitored to ensure they follow the correct routes and do not use other 'shortcuts'. The routes will be clearly defined in all subcontracts and clearly signposted for all drivers to see.

Timings of Movements

Deliveries shall only take place during the hours agreed with the Police and the Council.

Deliveries would be timed to avoid the morning or afternoon school run periods or other predictable peak traffic periods.

Deliveries are not expected to take place during weekends; however, if deliveries are required at weekends, approval in principle should be sought from the relevant LHAs and the Police.

Escorts

Where applicable, AIL vehicles shall all be escorted in accordance with the 'Self-Escorting of Abnormal Loads and Abnormal Vehicles' Code of Practice. The escorting will be undertaken by the haulage contractor. Where it has been identified that traffic will need to be temporarily stopped, the appointed haulier should first consider whether a Temporary Traffic Regulation Order (TTRO) or alternative traffic management measure can be implemented. Where a police officer is nonetheless required, the haulier shall make a specific request to the relevant Constabulary with at least eight days' notice, and costs will be met by the haulier in accordance with the prevailing NPCC Special Police Service (SPS) rates.

Convoys would typically comprise no more than two AILs and shall be escorted by Police and/or haulier escort vehicles as appropriate. Advanced notice will be published to inform members of the public regarding movements to enable drivers to make informed decisions.

Temporary Closure

At the discretion of the haulage contractor, temporary road closures may be required in order to deliver some of the larger AILs. The haulage contractor will liaise with the local community, businesses and key services to ensure they are fully informed in advance should a road closure scheme be required. It is expected that road

closures will take the form of rolling closures to ensure the operation of the network is managed and maintained.

Accommodation Works

The accommodation works (temporary or permanent modifications to highway infrastructure and street furniture required to facilitate safe AIL passage) identified within this ALA and accompanying SPA will be confirmed as part of the trial run. All confirmed accommodation works will be undertaken prior to the first AIL movement and where applicable all reinstatements will be undertaken following the last abnormal load delivery. It is anticipated that accommodation works such as 'socketing' of signal poles and other street furniture would remain following the completion of the project.

Notification

All key stakeholders would be notified prior to the movement of AILs. The appointed haulage contractor will be responsible for notifying the relevant stakeholders and will do so in one of the following ways:

- National Highways Electronic Service Delivery for Abnormal Loads (ESDAL) system; and
- Abnormal Loads Movement Application Form.

If the latter method of notification is chosen, then notification periods referenced within the following document apply:

- 'Aide Memoire for notification requirements for the movement of Abnormal Indivisible Loads or vehicles by road when not complying with The Road Vehicles (Construction and Use) Regulations 1986 (commonly known as C & U).'

In addition to statutory notifications, a communication strategy should be developed ahead of AIL movements to keep local residents, businesses, and key services informed. This should include advance notice of movement dates and times, information on any temporary road closures or restrictions, and a designated point of contact for queries or concerns. Particular consideration should be given to notifying schools along or adjacent to the route, given the timing restrictions referenced above in respect of school run periods.

Trial Run

Prior to the first AIL movement, a formal trial run should be undertaken along the preferred route using a vehicle of comparable dimensions. This will confirm the feasibility of the route in practice, verify the swept path analysis findings, and identify any unforeseen constraints not captured during the desktop review or site audit. The trial run should be undertaken in consultation with ERYC and HCC and, where appropriate, Humberside Police.

Contingency Planning

A contingency plan should be prepared and agreed with the relevant authorities prior to the commencement of AIL movements. This should address the actions to be taken in the event of a vehicle breakdown or incident on route, including designated safe stopping and turning locations. Given the structural issue identified within the Hull boundary and the pending formal approval of the route modification, the contingency plan should also identify the fallback position should the preferred route become unavailable at short notice. In this regard, it is noted that Route Option 3 has previously been used for comparable AIL movements to the nearby Fraisthorpe Wind Farm and could serve as an alternative, subject to the swept path analysis and mitigation works referenced in Section 5.

Monitoring and Incident Reporting

A monitoring and reporting protocol should be established for the duration of AIL movements. This should include a designated site representative responsible for coordinating movements on the day, a clear chain of communication between the haulier, escort vehicles, and the relevant highway authorities, and a post-movement reporting mechanism to record any incidents, near-misses, or damage to highway infrastructure. Any damage identified should be reported to the relevant highway authority promptly and remedied at the contractor's cost.

6.3 Abnormal Load Management Plan

Prior to the commencement of construction, a standalone ALMP shall be prepared and submitted to ERYC and HCC for approval. The ALMP will consolidate all of the management measures referenced within this ALA and provide the relevant authorities with a single reference document governing the conduct of AIL movements throughout the construction programme. The ALMP should be treated as a live document and updated as necessary to reflect any changes to the approved route, vehicle configurations, or programme.

Appendix A

Indicative Axle Loading

1. Introduction

1.1 Disclaimer

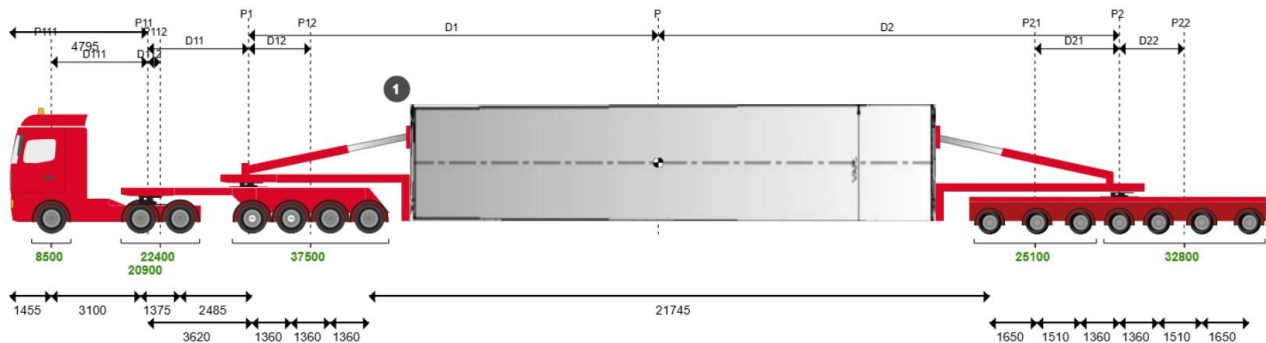
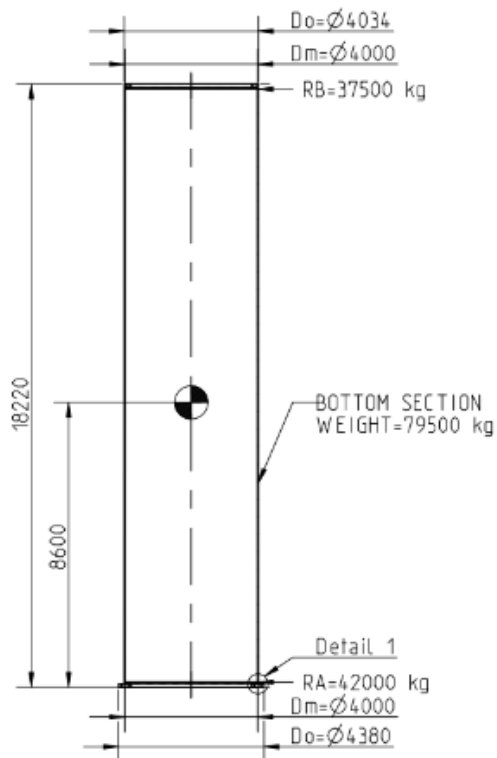
All dimensions and vehicle configurations contained within this document are provided for indicative guidance only. The information is based on standard haulage assumptions and publicly available data for typical abnormal load vehicles. It does not necessarily represent a final confirmed transport arrangement.

The haulage company responsible for undertaking the movement will be required to review, verify and confirm all dimensions, axle configurations, trailer types and loading arrangements prior to any transport taking place. Final transport specifications may vary depending on vehicle availability and operational requirements identified by the haulier.

1.2 Vestas V117 Wind Turbine Spec

Component	Dimension / Size
Rotor diameter	117 m
Swept area	10,751 m ²
Blade length (each)	57.2 m
Blade maximum chord width	4 m
Blade transport weight (each)	70 t
Nacelle length	12.8 m
Nacelle width	4.2 m
Nacelle height (transport)	3.4 m
Nacelle height (installed with CoolerTop)	6.9 m
Typical tower section diameter (max)	c.4.2 m (site variant dependent)

2. Lower Tower



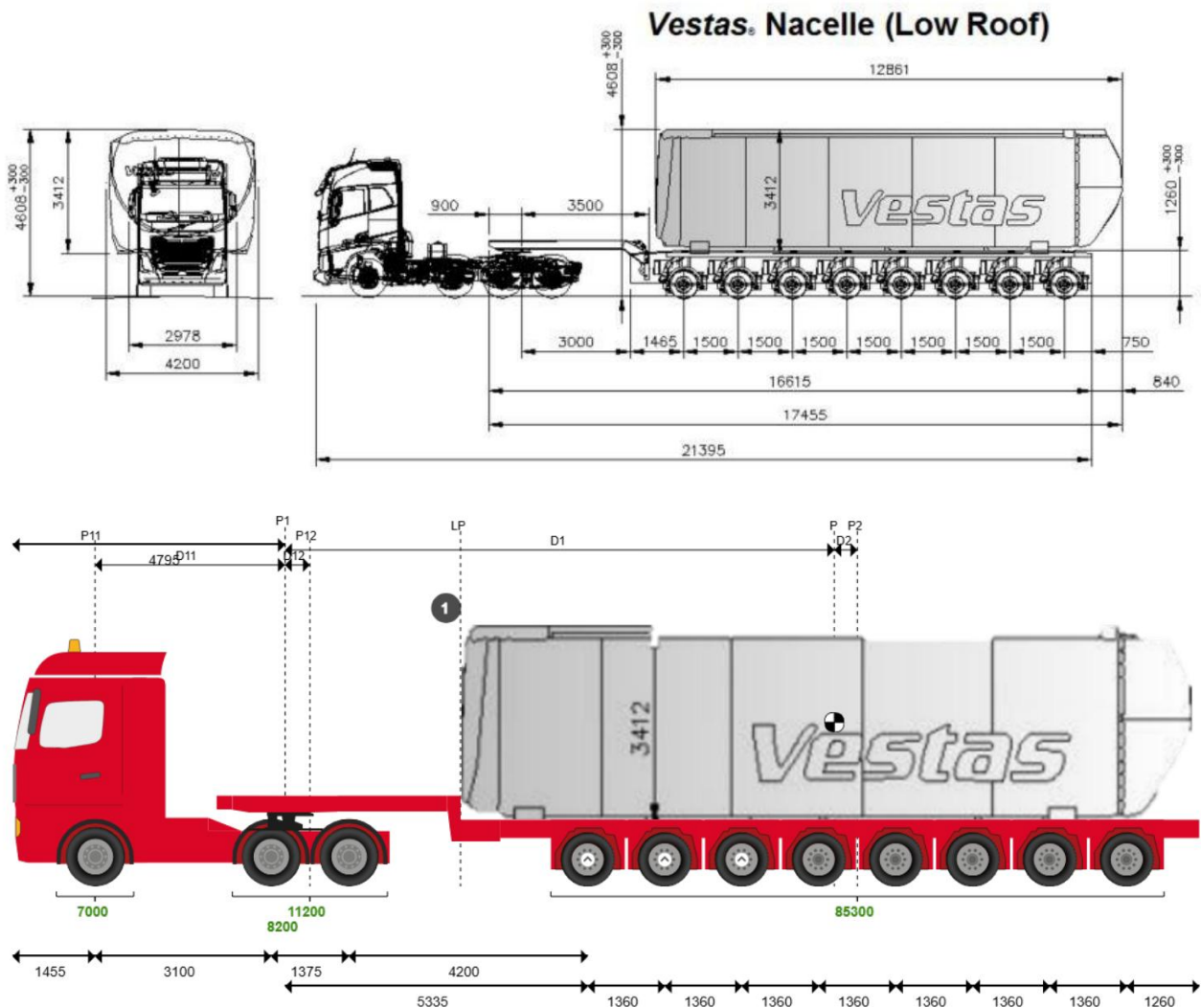
Length incl. load: 43,965mm

Height incl. load: 4,456mm (4034mm + 422mm)

Total Mass: 126,300kg

Full details are contained in **Annex A**.

3. Nacelle



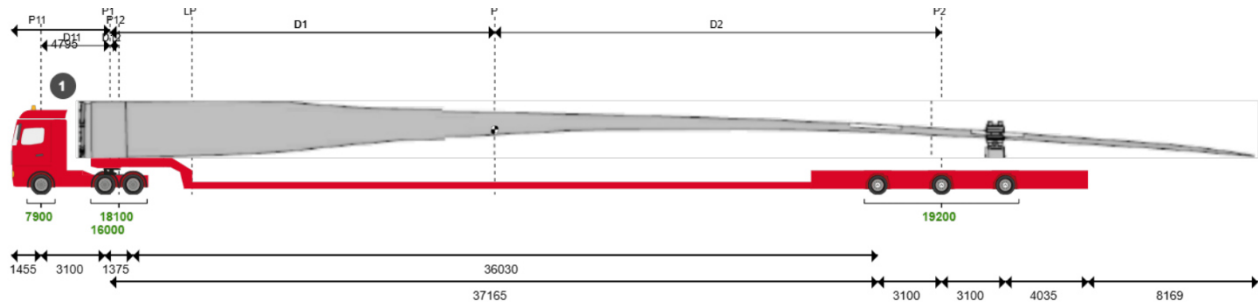
Length incl. load: 20,670mm - 21395mm

Height incl. load: 4,608mm

Total Mass: 103,600kg

Full details are contained in **Annex B**.

4. Blade



Length incl. load: 60,364mm

Height incl. load: 4,514mm

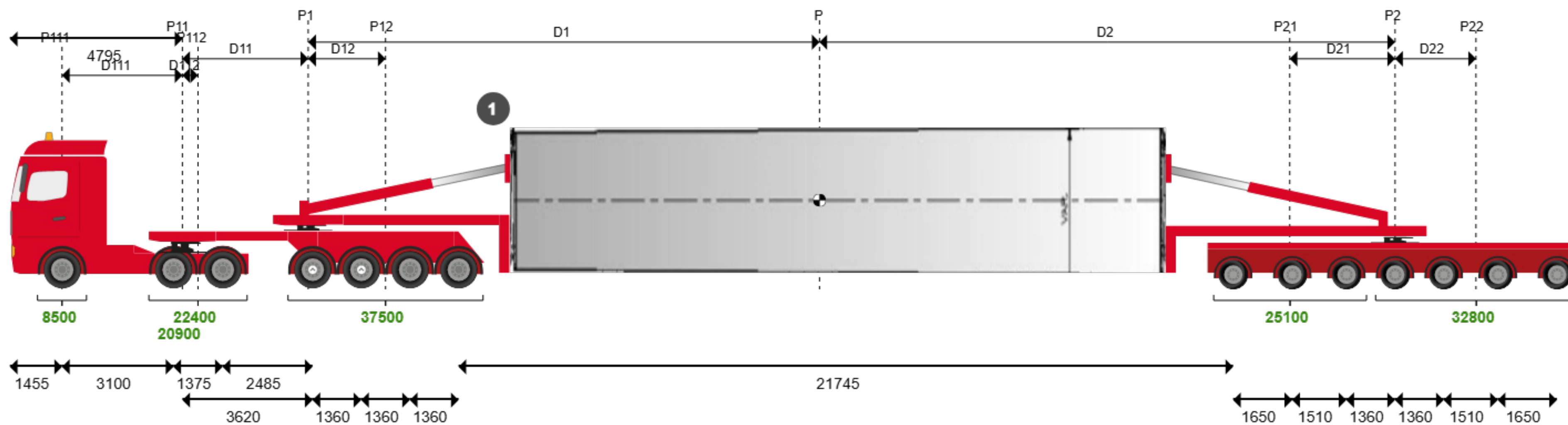
Total Mass: 45,200 kg

Full details are contained in **Annex C**.

Annex A

Lower Tower Dimensions

Attention! Calculated values are indicative. No rights may be derived. Always check the loading advice of the trailer.



VEHICLE SPECIFICATIONS

Company	The Transportation Consultancy
Length Incl. Load	43,965 mm
Total Mass	126,300 kg

TRACTOR

General	
Id	3 Axle
Name	3 Axle
Dimensions	
Front Overhang	1,455 mm
FTKP	4,795 mm
Front Axles	
Amount	1
Empty	6,000 kg
Capacity	9,000 kg
Empty Combination	6,618 kg
Load Mass	1,882 kg
Actual Load	8,500 kg
Load Axle 1	8,466 kg
Rear Axles	
Amount	2
Empty	4,000 kg
Capacity	26,000 kg
Empty Combination	8,350 kg
Load Mass	14,050 kg
Actual Load	22,400 kg
Load Axle 2	11,203 kg
Load Axle 3	11,203 kg

TRAILER

General	
Id	Lower Tower Trailer
Name	Lower Tower Trailer
Axles	
Amount	4
Capacity	40,000 kg
Empty	11,700 kg
Empty Combination	11,684 kg
Load Mass	25,816 kg
Actual Load	37,500 kg
Per axle	9,375 kg
Kingpin weight	
Capacity	25,000 kg
Empty	4,900 kg
Empty Combination	4,968 kg
Load Mass	15,932 kg
Actual Load	20,900 kg
Dimensions	
Front Overhang	500 mm
Neck	0 mm
KPTR-min	0 mm
KPTR-max	0 mm
Extended	0 mm

SUBTRAILER

General	
Id	
Name	
Front Axles	
Amount	3
Capacity	30,000 kg
Empty	8,600 kg
Load Mass	16,438 kg
Actual Load	25,100 kg
Per axle	8,367 kg
Rear Axles	
Amount	4
Capacity	40,000 kg
Empty	11,500 kg
Load Mass	21,313 kg
Actual Load	32,800 kg
Per axle	8,200 kg
Dimensions	
Front Overhang	0 mm
Neck	0 mm
KPTR-min	0 mm
KPTR-max	0 mm
Extended	0 mm

LOAD 1

Id	Lower Tower
	Section
Name	Lower Tower
	Section
Mass	79,500 kg
Length	18,200 mm
Height	4,034 mm
Centre of gravity	8,600 mm
Load Position	0 mm

Data to be provided by the transport operator				
D1 = 14,450		D2 = 15,980		D11 = 3,500
D111 = 3,340		D112 = 448		D21 = 2,882
P = 79,500				D12 = 2,160
				D22 = 2,223

$$P2 = P \times \left(\frac{D_1}{D_1 + D_2} \right)$$

i.e.

$$79,500 \times \left(\frac{14,450}{14,450 + 15,980} \right) = 37,751 \text{ kg}$$

$$P1 = P \times \left(\frac{D_2}{D_1 + D_2} \right)$$

i.e.

$$79,500 \times \left(\frac{15,980}{14,450 + 15,980} \right) = 41,749 \text{ kg}$$

Check: 37,751 + 41,749 = 79,500 kg

$$P12 = P1 \times \left(\frac{D_{11}}{D_{11} + D_{12}} \right)$$

i.e.

$$41,749 \times \left(\frac{3,500}{3,500 + 2,160} \right) = 25,816 \text{ kg}$$

$$P11 = P1 \times \left(\frac{D_{12}}{D_{11} + D_{12}} \right)$$

i.e.

$$41,749 \times \left(\frac{2,160}{3,500 + 2,160} \right) = 15,932 \text{ kg}$$

Check: 25,816 + 15,932 = 41,748 kg

$$P112 = P11 \times \left(\frac{D_{111}}{D_{111} + D_{112}} \right)$$

i.e.

$$15,932 \times \left(\frac{3,340}{3,340 + 448} \right) = 14,050 \text{ kg}$$

$$P111 = P11 \times \left(\frac{D_{112}}{D_{111} + D_{112}} \right)$$

i.e.

$$15,932 \times \left(\frac{448}{3,340 + 448} \right) = 1,882 \text{ kg}$$

Check: 14,050 + 1,882 = 15,932 kg

$$P22 = P2 \times \left(\frac{D_{21}}{D_{21} + D_{22}} \right)$$

i.e.

$$37,751 \times \left(\frac{2,882}{2,882 + 2,223} \right) = 21,313 \text{ kg}$$

$$P21 = P2 \times \left(\frac{D_{22}}{D_{21} + D_{22}} \right)$$

i.e.

$$37,751 \times \left(\frac{2,223}{2,882 + 2,223} \right) = 16,438 \text{ kg}$$

Check: 21,313 + 16,438 = 37,751 kg

Axle load on each trailer rear axle:

$$\frac{25,816}{4} = 6,454 \text{ kg}$$

Axle load on each dolly rear axle:

$$\frac{37,751}{4} = 5,328 \text{ kg}$$

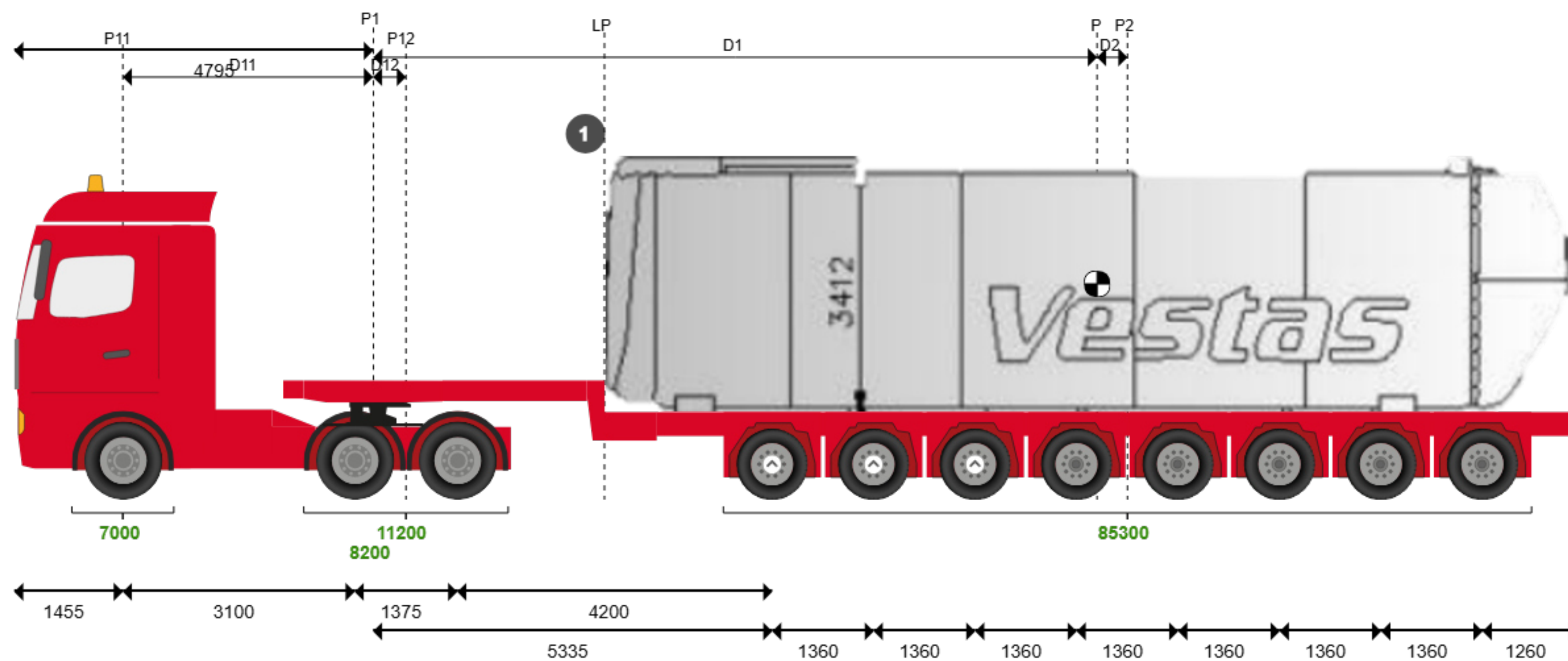
Axle load on each dolly front axle:

$$\frac{16,438}{3} = 5,479 \text{ kg}$$

Annex B

Nacelle Dimensions

Attention! Calculated values are indicative. No rights may be derived. Always check the loading advice of the trailer.



VEHICLE SPECIFICATIONS

Company	The Transportation Consultancy
Length Incl. Load	20,910 mm
Total Mass	103,500 kg

TRACTOR

General

Id	3 Axle
Name	3 Axle

Dimensions

Front Overhang	1,455 mm
FTKP	4,795 mm

Front Axles

Amount	1
Empty	6,000 kg
Capacity	9,000 kg
Empty Combination	6,671 kg
Load Mass	329 kg
Actual Load	7,000 kg
Load Axle 1	6,969 kg

Rear Axles

Amount	2
Empty	4,000 kg
Capacity	26,000 kg
Empty Combination	8,746 kg
Load Mass	2,454 kg
Actual Load	11,200 kg
Load Axle 2	5,617 kg
Load Axle 3	5,617 kg

TRAILER

General

Id	Nacelle 8 Axle
Name	Nacelle 8 Axle

Axles

Amount	8
Capacity	96,000 kg
Empty (retracted)	21,100 kg
Empty (extended)	20,700 kg
Empty Combination	21,047 kg
Load Mass	64,253 kg
Actual Load	85,300 kg
Per axle	10,663 kg

Kingpin weight

Capacity	25,000 kg
Empty	5,400 kg
Empty Combination	5,418 kg
Load Mass	2,782 kg
Actual Load	8,200 kg

Dimensions

Front Overhang	1,200 mm
Neck	3,105 mm
KPTR-min	16,115 mm
KPTR-max	23,815 mm
Extended	0 mm

LOAD 1

Id	V117 Nacelle (low roof)
Name	V117 Nacelle (low roof)
Mass	67,035 kg
Length	12,861 mm
Height	3,412 mm
Centre of gravity	6,571 mm
Load Position	0 mm

Data to be provided by the transport operator

D1 = 9,676

D2 = 419

D11 = 3,340

D12 = 448

P = 67,035

$$P2 = P \times \left(\frac{D_1}{D_1 + D_2} \right)$$

i.e.

$$67,035 \times \left(\frac{9,676}{9,676 + 419} \right) = 64,253 \text{ kg}$$

Axle load on each trailer rear axle:

$$\frac{64,253}{8} = 8,032 \text{ kg}$$

$$P1 = P \times \left(\frac{D_2}{D_1 + D_2} \right)$$

i.e.

$$67,035 \times \left(\frac{419}{9,676 + 419} \right) = 2,782 \text{ kg}$$

Check: 64,253 + 2,782 = 67,035 kg

$$P12 = P1 \times \left(\frac{D_{11}}{D_{11} + D_{12}} \right)$$

i.e.

$$2,782 \times \left(\frac{3,340}{3,340 + 448} \right) = 2,454 \text{ kg}$$

Axle load on each tractor rear axle:

$$\frac{2,454}{2} = 1,227 \text{ kg}$$

$$P11 = P1 \times \left(\frac{D_{12}}{D_{11} + D_{12}} \right)$$

i.e.

$$2,782 \times \left(\frac{448}{3,340 + 448} \right) = 329 \text{ kg}$$

Axle load on each tractor front axle:

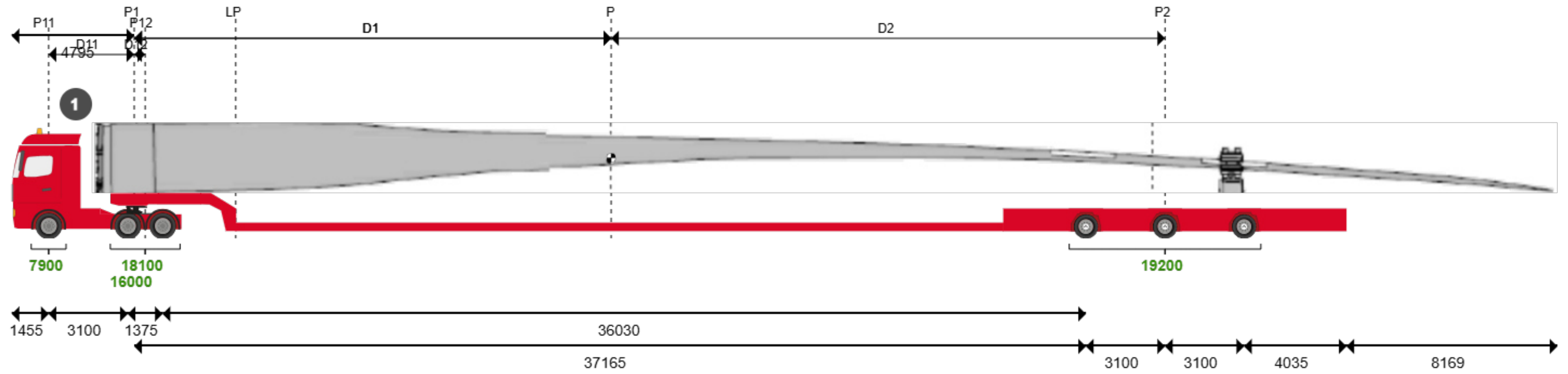
$$\frac{329}{1} = 329 \text{ kg}$$

Check: 2,454 + 329 = 2,783 kg

Annex C

Blade Dimensions

Attention! Calculated values are indicative. No rights may be derived. Always check the loading advice of the trailer.



VEHICLE SPECIFICATIONS

Company	The Transportation Consultancy
Length Incl. Load	60,364 mm
Total Mass	45,200 kg

TRACTOR

General

Id	3 Axle
Name	3 Axle

Dimensions

Front Overhang	1,455 mm
FTKP	4,795 mm

Front Axles

Amount	1
Empty	6,000 kg
Capacity	9,000 kg
Empty Combination	6,885 kg
Load Mass	1,015 kg
Actual Load	7,900 kg
Load Axle 1	7,892 kg

Rear Axles

Amount	2
Empty	4,000 kg
Capacity	26,000 kg
Empty Combination	10,524 kg
Load Mass	7,576 kg
Actual Load	18,100 kg
Load Axle 2	9,060 kg
Load Axle 3	9,060 kg

TRAILER

General

Id	V117 Blade Transporter
Name	V117 Blade Transporter

Axles

Amount	3
Capacity	36,000 kg
Empty (retracted)	11,800 kg
Empty (extended)	11,800 kg
Empty Combination	11,791 kg
Load Mass	7,409 kg
Actual Load	19,200 kg
Per axle	6,400 kg

Kingpin weight

Capacity	23,000 kg
Empty	7,400 kg
Empty Combination	7,409 kg
Load Mass	8,591 kg
Actual Load	16,000 kg

Dimensions

Front Overhang	610 mm
Neck	4,000 mm
KPTR-min	47,400 mm
KPTR-max	47,400 mm
Extended	0 mm

LOAD 1

Id	V117 Blade
Name	V117 Blade
Mass	16,000 kg
Length	57,200 mm
Height	2,750 mm
Centre of gravity	20,275 mm
Load Position	-5,631 mm

Data to be provided by the transport operator

D1 = 18,644

D2 = 21,621

D11 = 3,340

D12 = 448

P = 16,000

$$P2 = P \times \left(\frac{D_1}{D_1 + D_2} \right)$$

i.e.

$$16,000 \times \left(\frac{18,644}{18,644 + 21,621} \right) = 7,409 \text{ kg}$$

Axle load on each trailer rear axle:

$$\frac{7,409}{3} = 2,470 \text{ kg}$$

$$P1 = P \times \left(\frac{D_2}{D_1 + D_2} \right)$$

i.e.

$$16,000 \times \left(\frac{21,621}{18,644 + 21,621} \right) = 8,591 \text{ kg}$$

Check: 7,409 + 8,591 = 16,000 kg

$$P12 = P1 \times \left(\frac{D_{11}}{D_{11} + D_{12}} \right)$$

i.e.

$$8,591 \times \left(\frac{3,340}{3,340 + 448} \right) = 7,576 \text{ kg}$$

Axle load on each tractor rear axle:

$$\frac{7,576}{2} = 3,788 \text{ kg}$$

$$P11 = P1 \times \left(\frac{D_{12}}{D_{11} + D_{12}} \right)$$

i.e.

$$8,591 \times \left(\frac{448}{3,340 + 448} \right) = 1,015 \text{ kg}$$

Axle load on each tractor front axle:

$$\frac{1,015}{1} = 1,015 \text{ kg}$$

Check: 7,576 + 1,015 = 8,591 kg

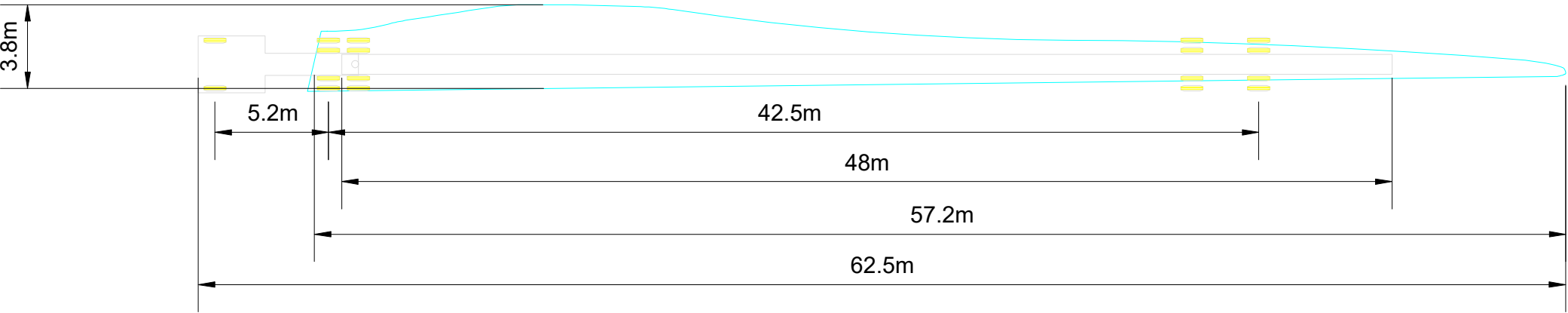


Appendix B

Drawing Package

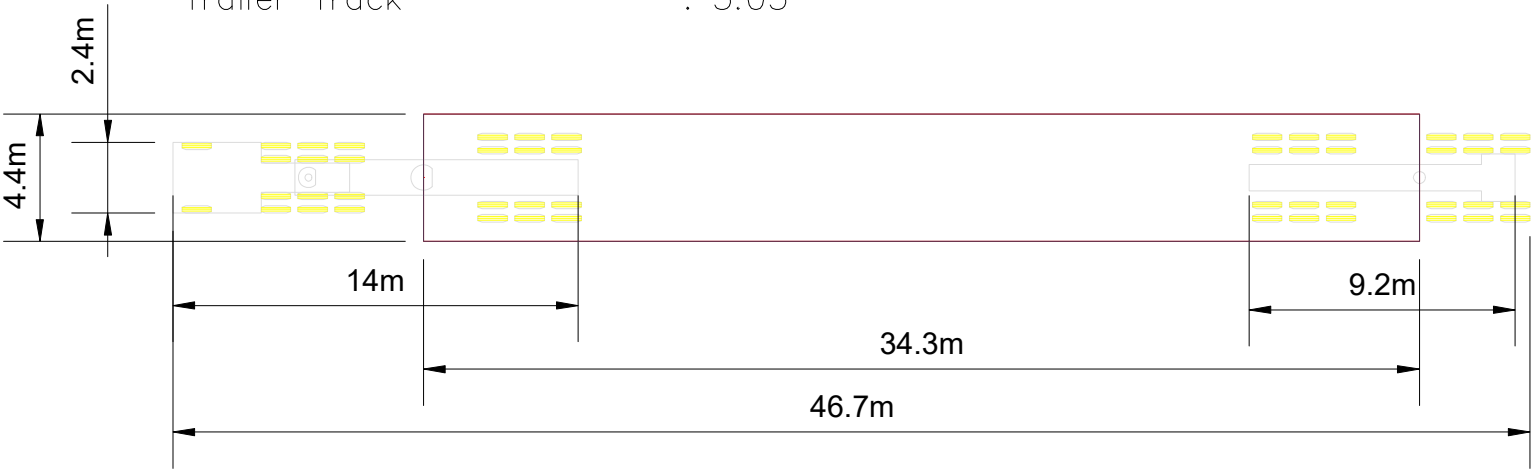
ttc V117 Blade Transporter

	meters		
Tractor Width	: 2.59	Lock to Lock Time	: 12.0
Trailer Width	: 0.91	Steering Angle	: 40.0
Tractor Track	: 2.44	Articulating Angle	: 70.0
Trailer Track	: 2.44		



ttc V117 Tower Transporter

	meters		
First Unit Width	: 2.44	Lock to Lock Time	: 6.0
Trailer Width	: 1.22	Steering Angle	: 40.0
First Unit Track	: 2.44	Articulating Angle	: 70.0
Trailer Track	: 3.05		



REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

- Notes:
- Drawing units are in metres unless specified otherwise.
 - Drawing is based on OS mapping unless stated otherwise.
 - All mitigation is subject to confirmation through a test run.
 - This is not a construction drawing and is intended for illustration purposes only.
 - Vegetation to be trimmed back where required within highway corridor.
 - The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE	0 m	50 m
1:1000	Scale 1:1000 @ A3	

Drawing Title
Three Oaks Renewables Energy Park 2
Design Package
Vehicle Profiles
Sheet 1 of 16

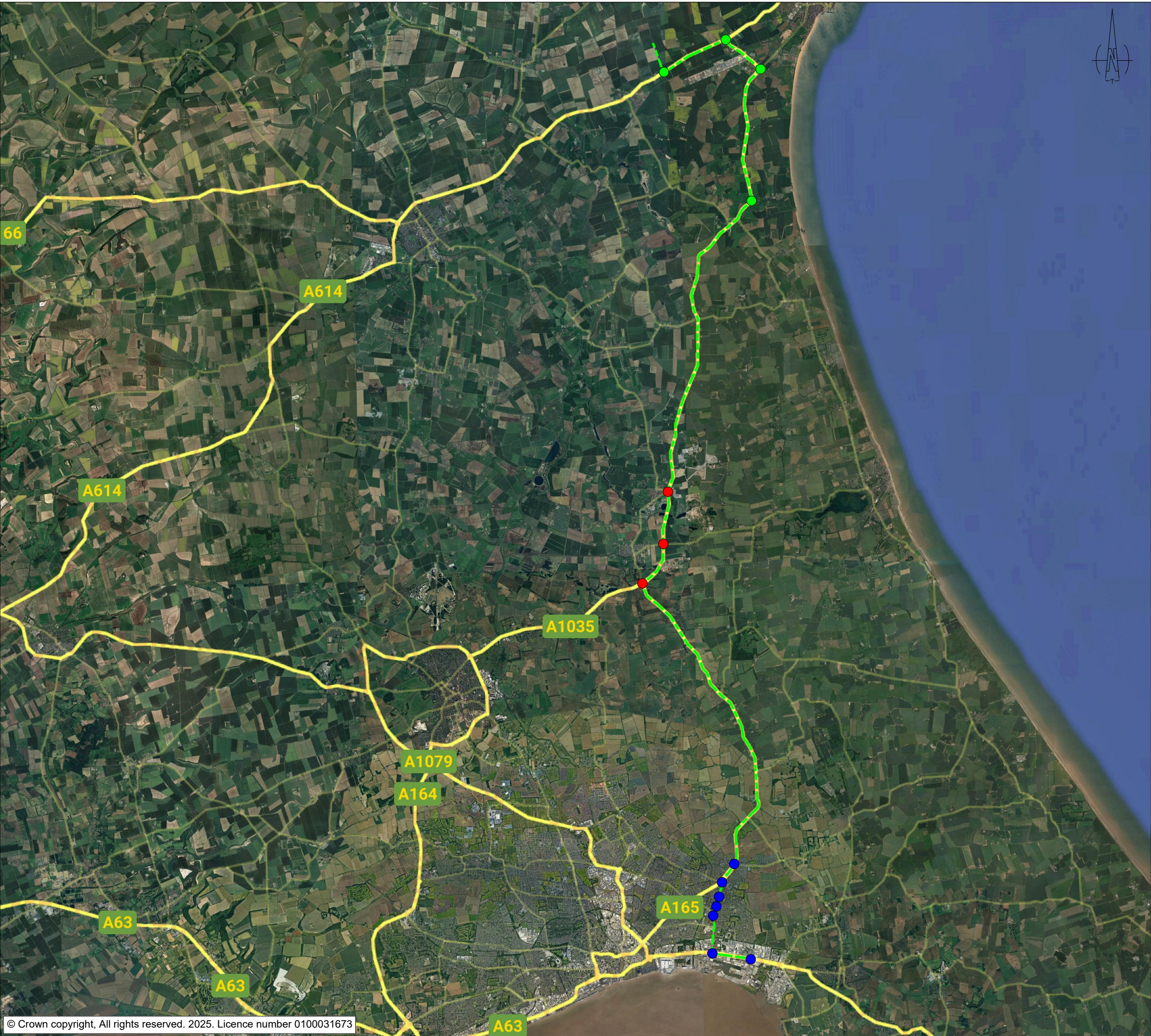
Client
Ridge Clean Energy

Drawing Status
Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc
Transportation
Consultancy
VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number	211213-01	Revision	B
----------------	-----------	----------	---



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

AIL Route

Hull Area Pinch Points (Section1)

Leven Area Pinch Points (Section 2)

Bridlington Area Pinch Points (Section 3)

Notes:

1.

 Drawing units are in metres unless specified otherwise.

2.

 Drawing is based on OS mapping unless stated otherwise.

3.

 All mitigation is subject to confirmation through a test run.

4.

 This is not a construction drawing and is intended for illustration purposes only.

5.

 Vegetation to be trimmed back where required within highway corridor.

6.

 The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE

Not to scale

Drawing Title

Three Oaks Renewables Energy Park 2

Design Package

AIL Route

Sheet 2 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street

Leamington Spa

CV32 4QN

E: info@ttc-tp.com

ttc

Transportation

Consultancy

VALUE EXCEED TRUST EXCELLENCE CLARITY

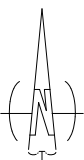
Drawing Number

211213-01

Revision

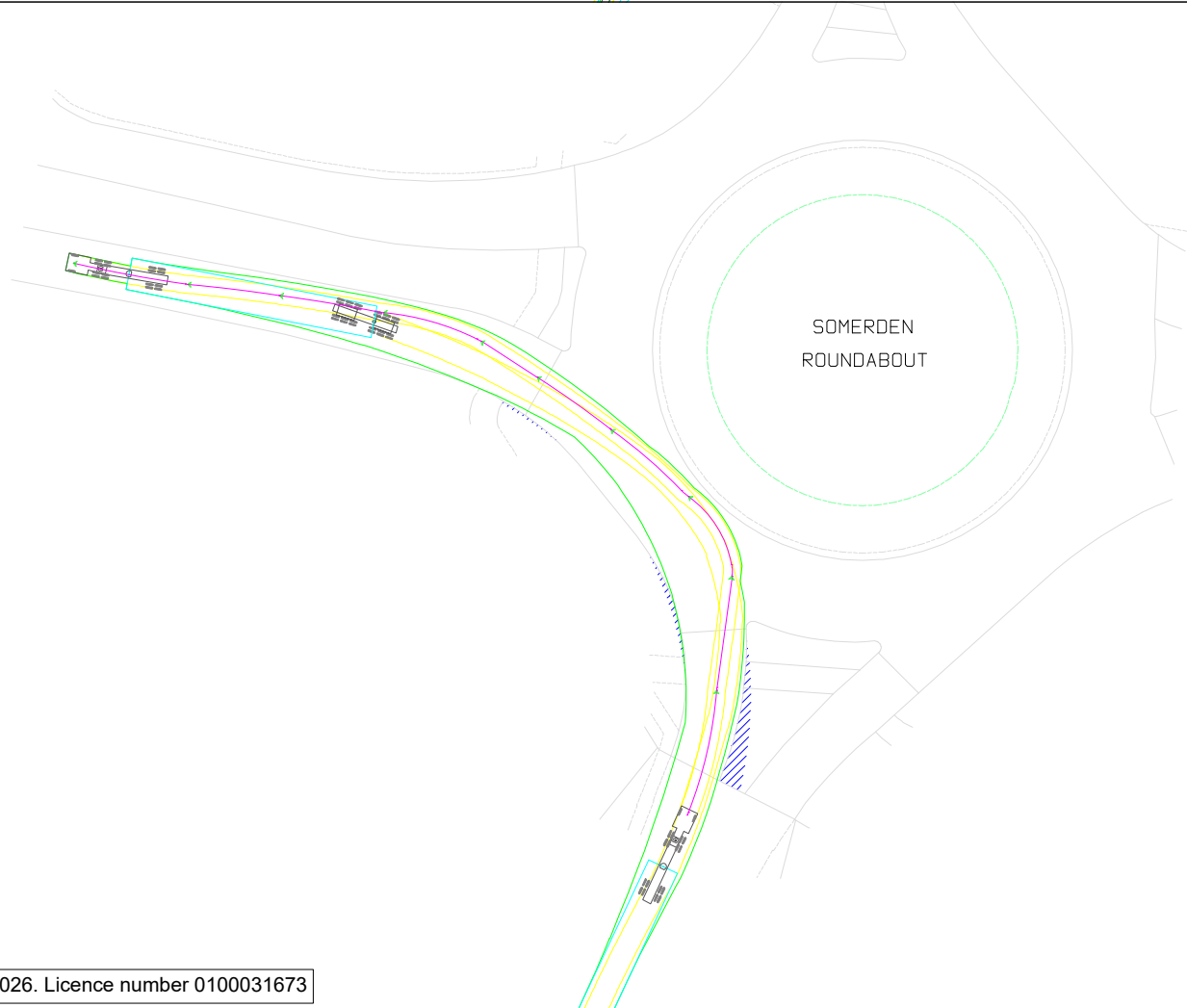
A

Blade Point 1



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by	
REVISIONS				
Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	
Key:				
Base Mapping Vehicle Outline Vehicle Wheel Track Tractor Trailer Outline Blade Outline Tower Outline Vehicle Centre Line Oversail Overrun				
Notes:				
1. Drawing units are in metres unless specified otherwise. 2. Drawing is based on OS mapping unless stated otherwise. 3. All mitigation is subject to confirmation through a test run. 4. This is not a construction drawing and is intended for illustration purposes only. 5. Vegetation to be trimmed back where required within highway corridor. 6. The absence of annotations indicates that no additional mitigation measures are required.				

Tower Point 1



A3 SCALE
1:1000

0 m50 m
Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Somerdon Roundabout SPA
Sheet 3 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc

Transportation
Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

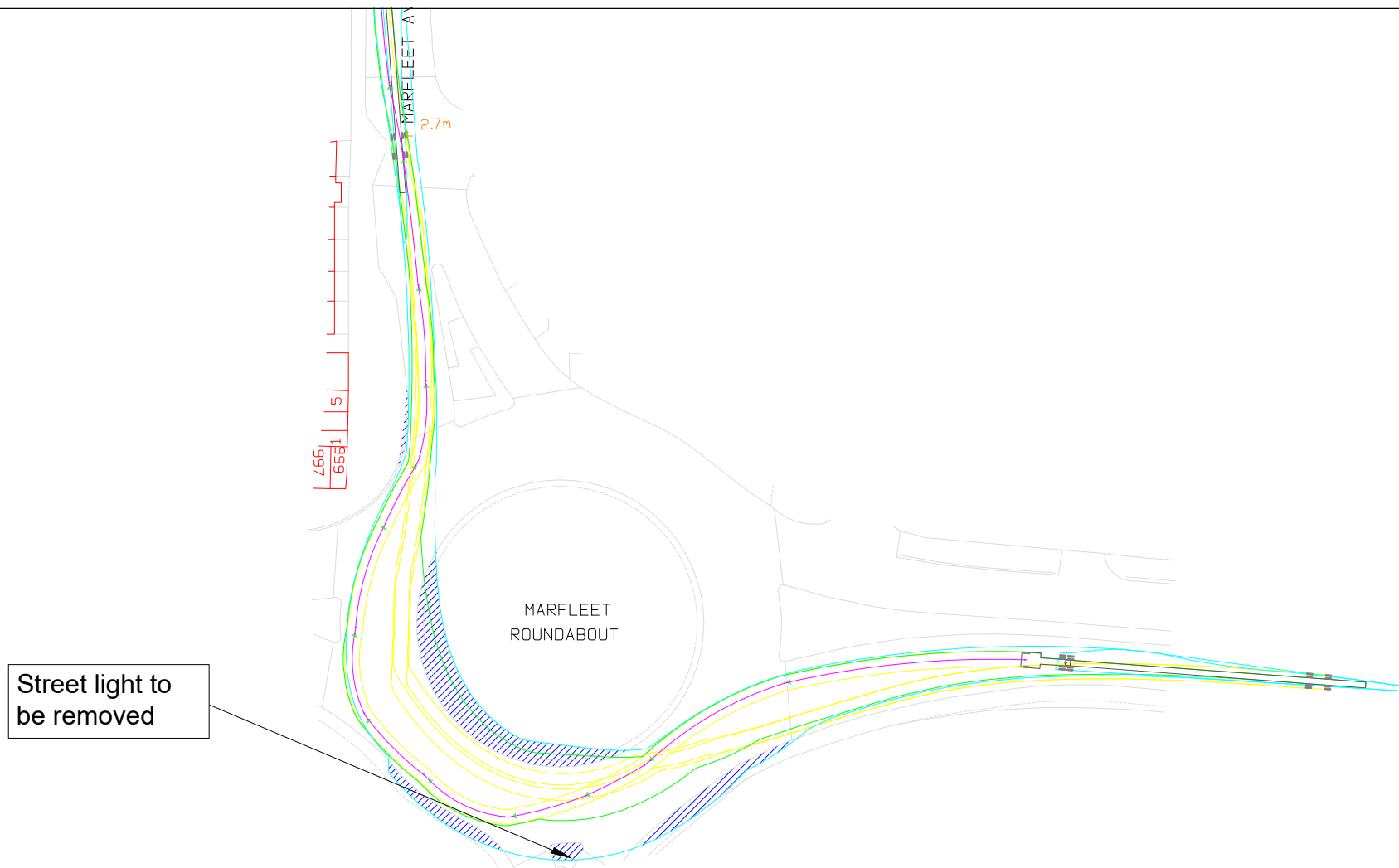
Drawing Number

211213-01

Revision

B

Blade Point 2



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

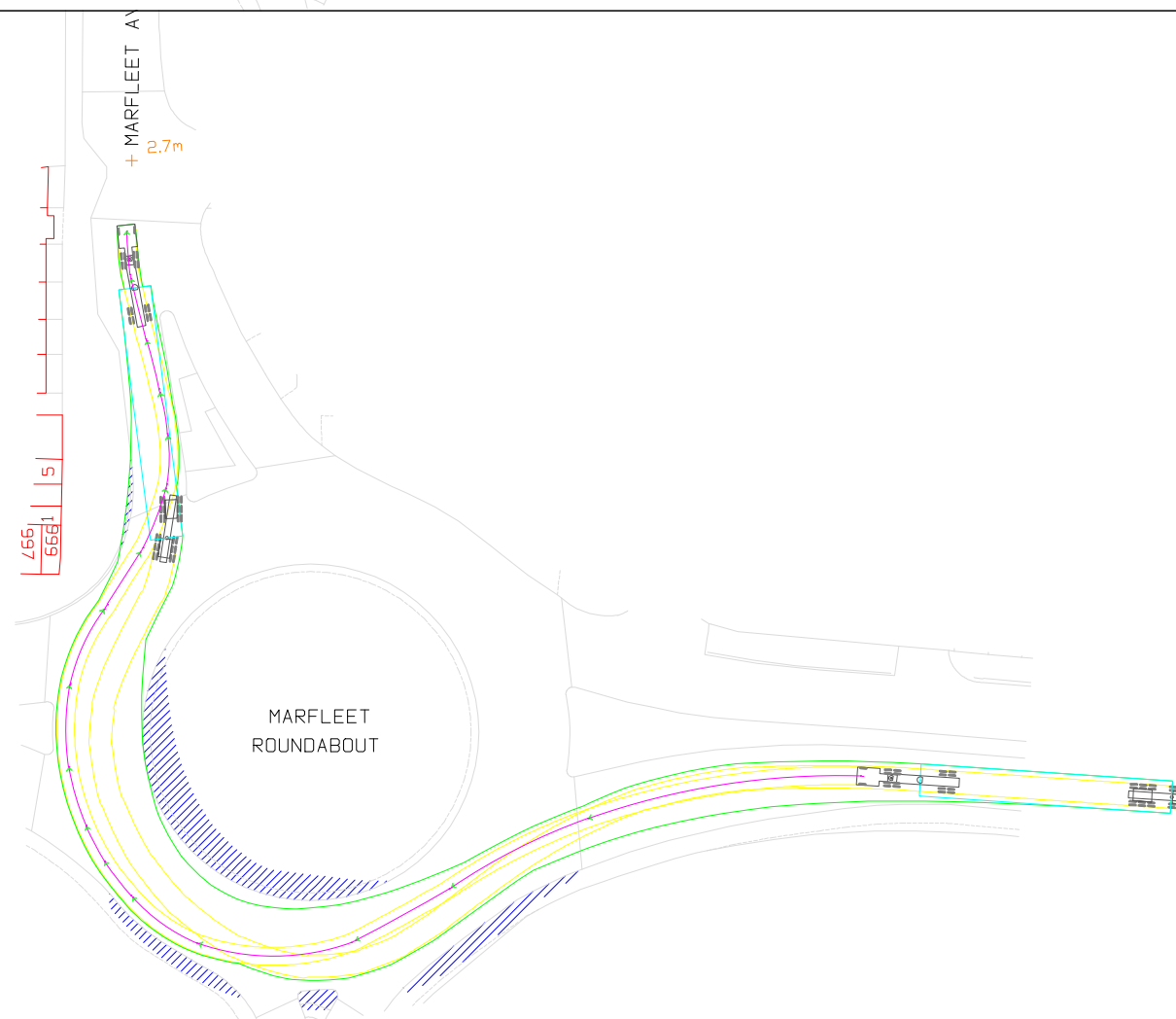
Key:

-  Base Mapping
-  Vehicle Outline
-  Vehicle Wheel Track
-  Tractor Trailer Outline
-  Blade Outline
-  Tower Outline
-  Vehicle Centre Line
-  Oversail
-  Overrun

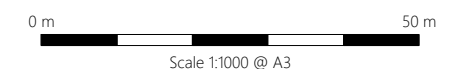
Notes:

1. Drawing units are in metres unless specified otherwise.
2. Drawing is based on OS mapping unless stated otherwise.
3. All mitigation is subject to confirmation through a test run.
4. This is not a construction drawing and is intended for illustration purposes only.
5. Vegetation to be trimmed back where required within highway corridor.
6. The absence of annotations indicates that no additional mitigation measures are required.

Tower Point 2



A3 SCALE
1:1000



Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Marfleet Roundabout SPA
Sheet 4 of 16

Client	
--------	--

Ridge Clean Energy

Drawing Status	
----------------	--

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com



© Crown copyright, All rights reserved. 2026. Licence number 0100031673

Drawing Number

211213-01

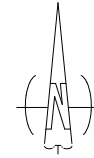
revision

B

Blade Point 3



Road sign to be removed



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS				
Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

	Base Mapping
	Vehicle Outline
	Vehicle Wheel Track
	Tractor Trailer Outline
	Blade Outline
	Tower Outline
	Vehicle Centre Line
	Oversail
	Overrun

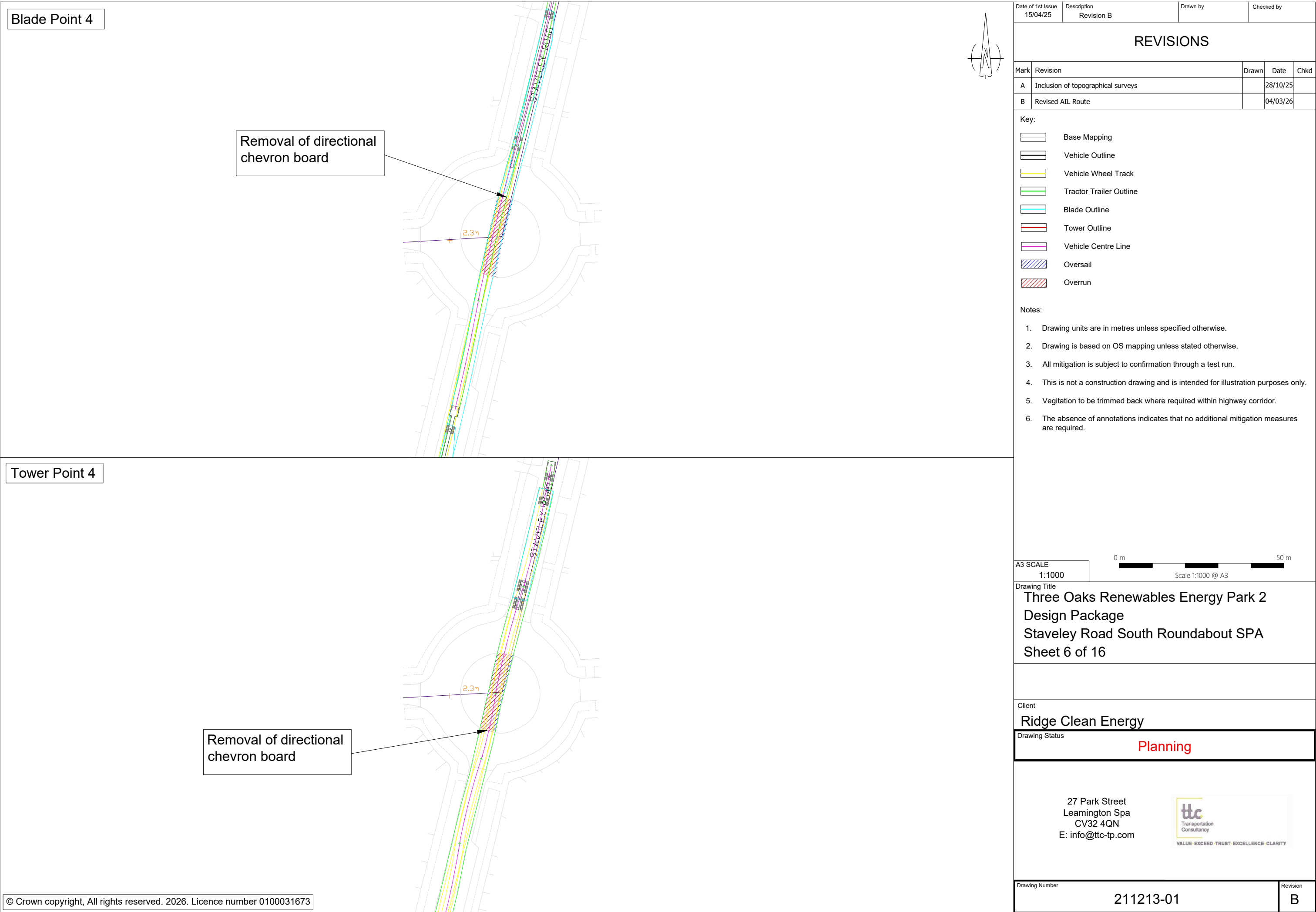
Notes:

- Drawing units are in metres unless specified otherwise.
- Drawing is based on OS mapping unless stated otherwise.
- All mitigation is subject to confirmation through a test run.
- This is not a construction drawing and is intended for illustration purposes only.
- Vegetation to be trimmed back where required within highway corridor.
- The absence of annotations indicates that no additional mitigation measures are required.

Tower Point 3



A3 SCALE 1:1000		0 m  50 m Scale 1:1000 @ A3	
Drawing Title Three Oaks Renewables Energy Park 2 Design Package Marfleet Lane SPA Sheet 5 of 16			
Client Ridge Clean Energy			
Drawing Status Planning			
27 Park Street Leamington Spa CV32 4QN E: info@ttc-tp.com		 VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY	
Drawing Number 211213-01			Revision B



A3 SCALE
1:1000

0 m50 m
Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Staveley Road South Roundabout SPA
Sheet 6 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc

Transportation
Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number

211213-01

Revision

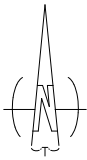
B

© Crown copyright, All rights reserved. 2026. Licence number 0100031673

Blade Point 5

Street light to
be removed

Street light to
be removed



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

	Base Mapping
	Vehicle Outline
	Vehicle Wheel Track
	Tractor Trailer Outline
	Blade Outline
	Tower Outline
	Vehicle Centre Line
	Oversail
	Overrun

Notes:

1. Drawing units are in metres unless specified otherwise.
2. Drawing is based on OS mapping unless stated otherwise.
3. All mitigation is subject to confirmation through a test run.
4. This is not a construction drawing and is intended for illustration purposes only.
5. Vegetation to be trimmed back where required within highway corridor.
6. The absence of annotations indicates that no additional mitigation measures are required.

Tower Point 5

Move telegraph pole

A3 SCALE
1:1000

0 m 50 m



Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Staveley Road North Roundabout SPA
Sheet 7 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

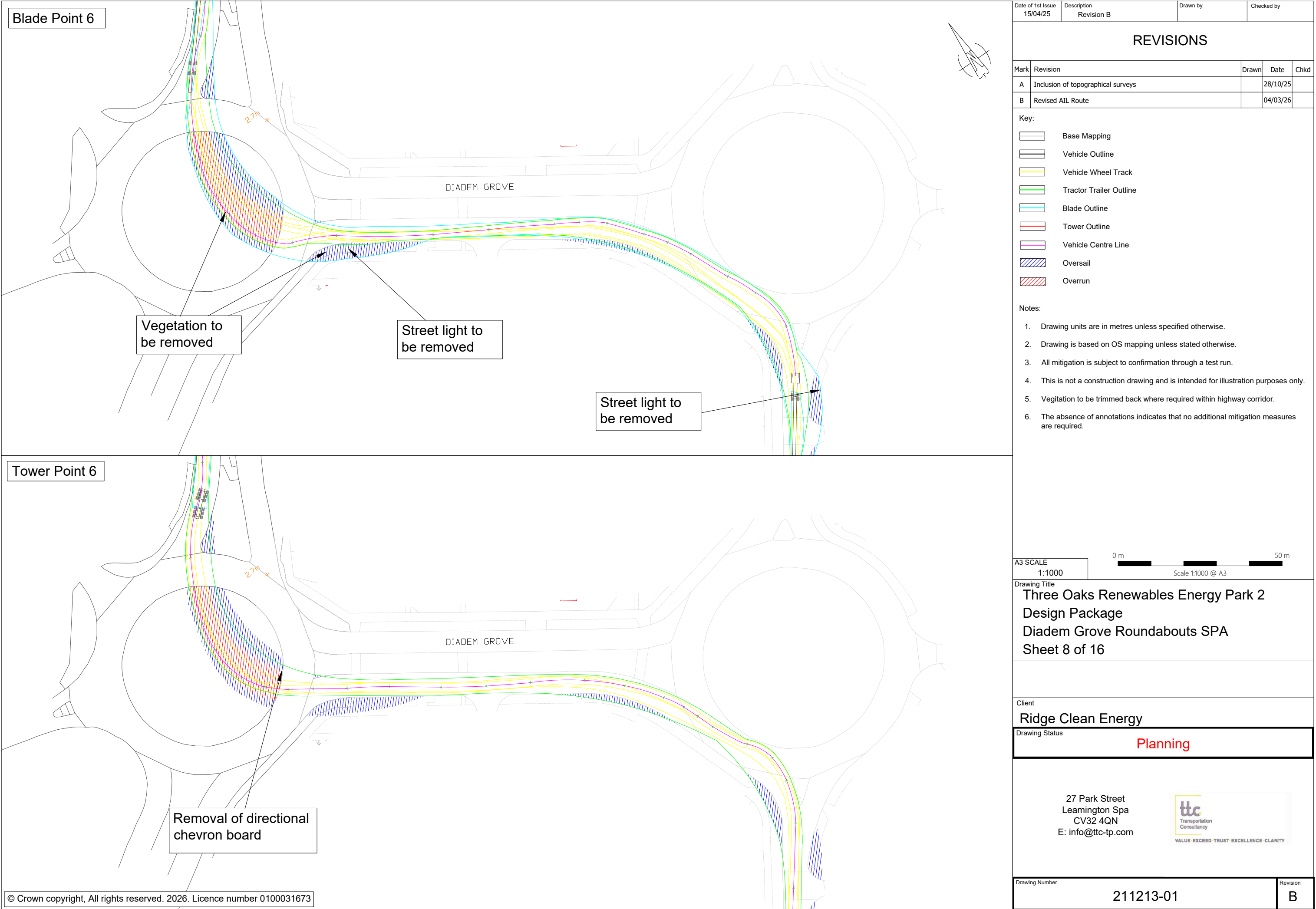


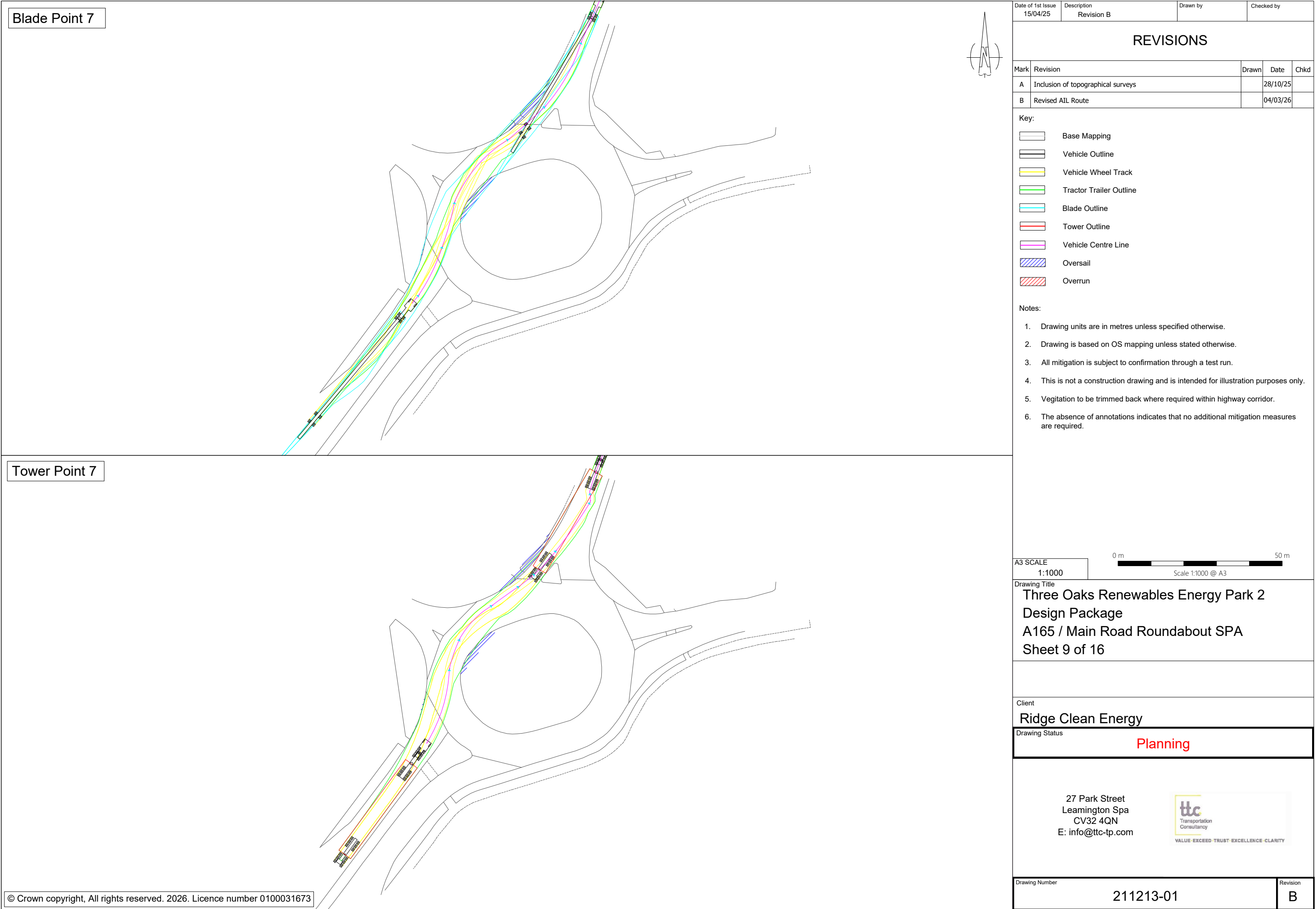
Drawing Number

211213-01

Revision

B





A3 SCALE
1:1000

0 m

50 m

Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
A165 / Main Road Roundabout SPA
Sheet 9 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc

Transportation
Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number

211213-01

Revision

B

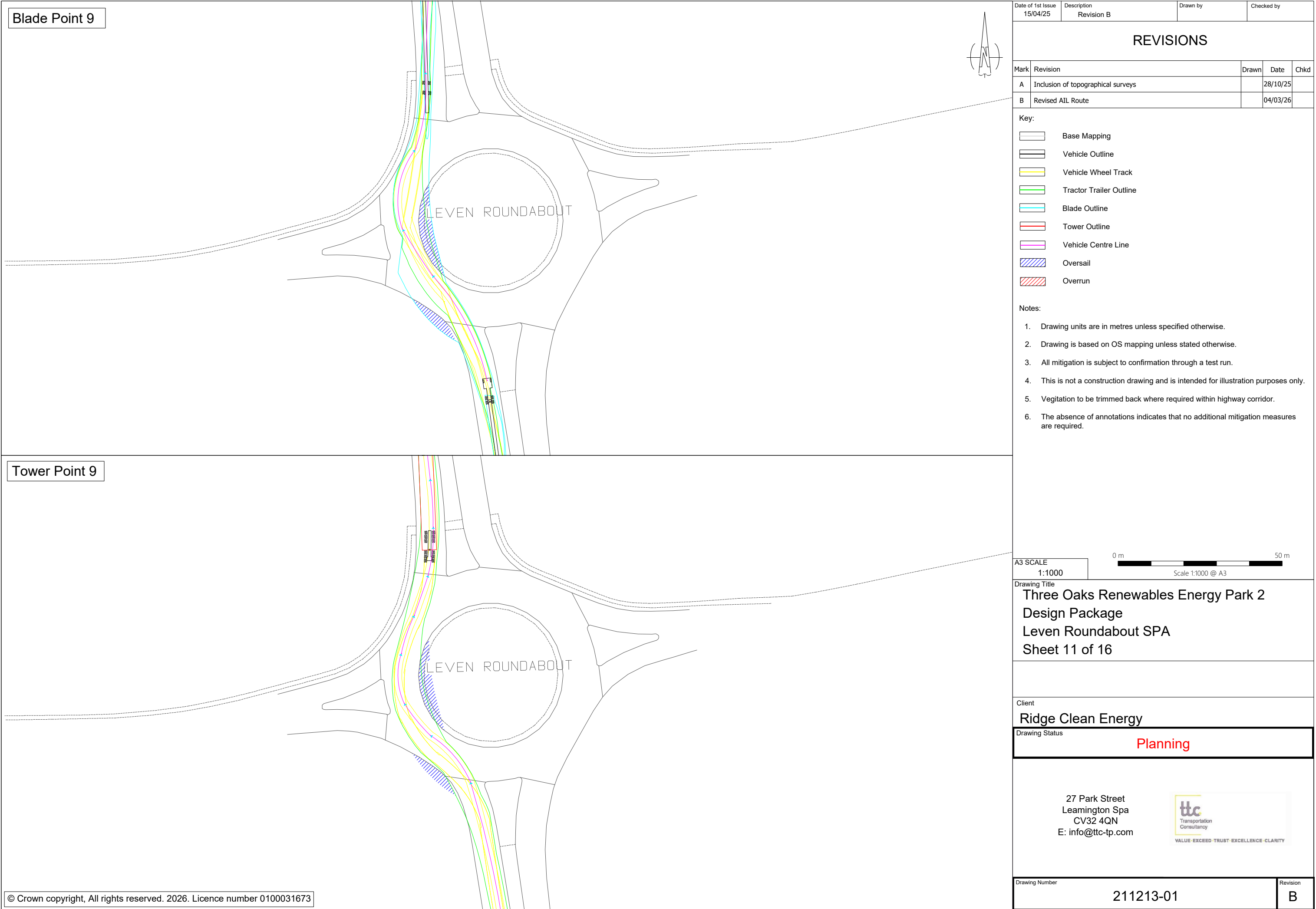
© Crown copyright, All rights reserved. 2026. Licence number 0100031673



© Crown copyright, All rights reserved. 2026. Licence number 0100031673

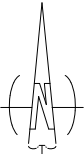
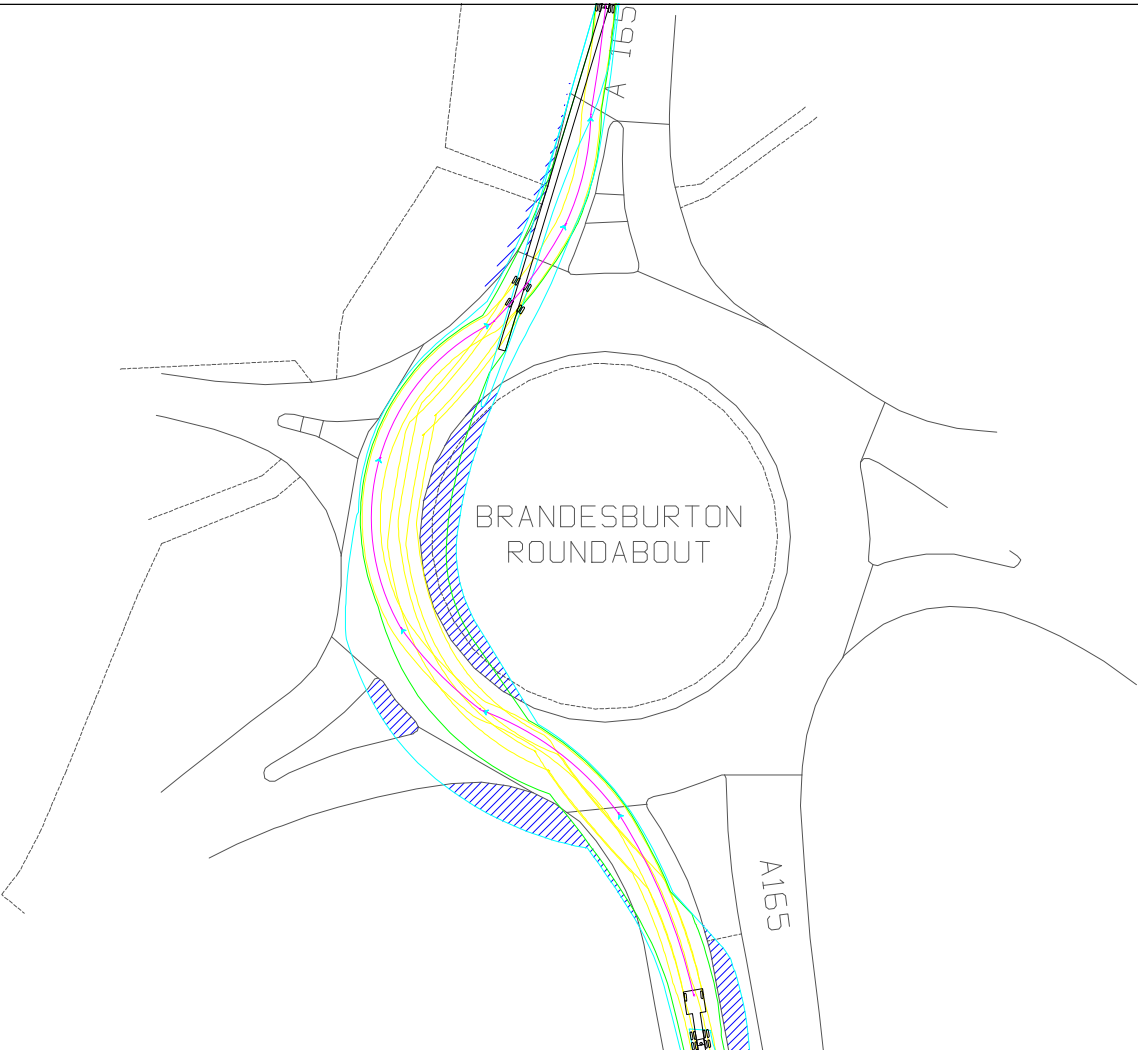
user name: georgeeaston

File Location: c:\users\georgeeaston\lttc transport\planning\lttc transport\planning team site - documents\lttc - projects\211213 - three oaks\drawings\acad\211213 - no names.dwg



© Crown copyright, All rights reserved. 2026. Licence number 0100031673

Blade Point 10



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

Base Mapping

Vehicle Outline

Vehicle Wheel Track

Tractor Trailer Outline

Blade Outline

Tower Outline

Vehicle Centre Line

Oversail

Overrun

Notes:

1.

Drawing units are in metres unless specified otherwise.

2.

Drawing is based on OS mapping unless stated otherwise.

3.

All mitigation is subject to confirmation through a test run.

4.

This is not a construction drawing and is intended for illustration purposes only.

5.

Vegetation to be trimmed back where required within highway corridor.

6.

The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE
1:1000

0 m50 m
Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Brandesburton Roundabout SPA
Sheet 12 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc

Transportation
Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

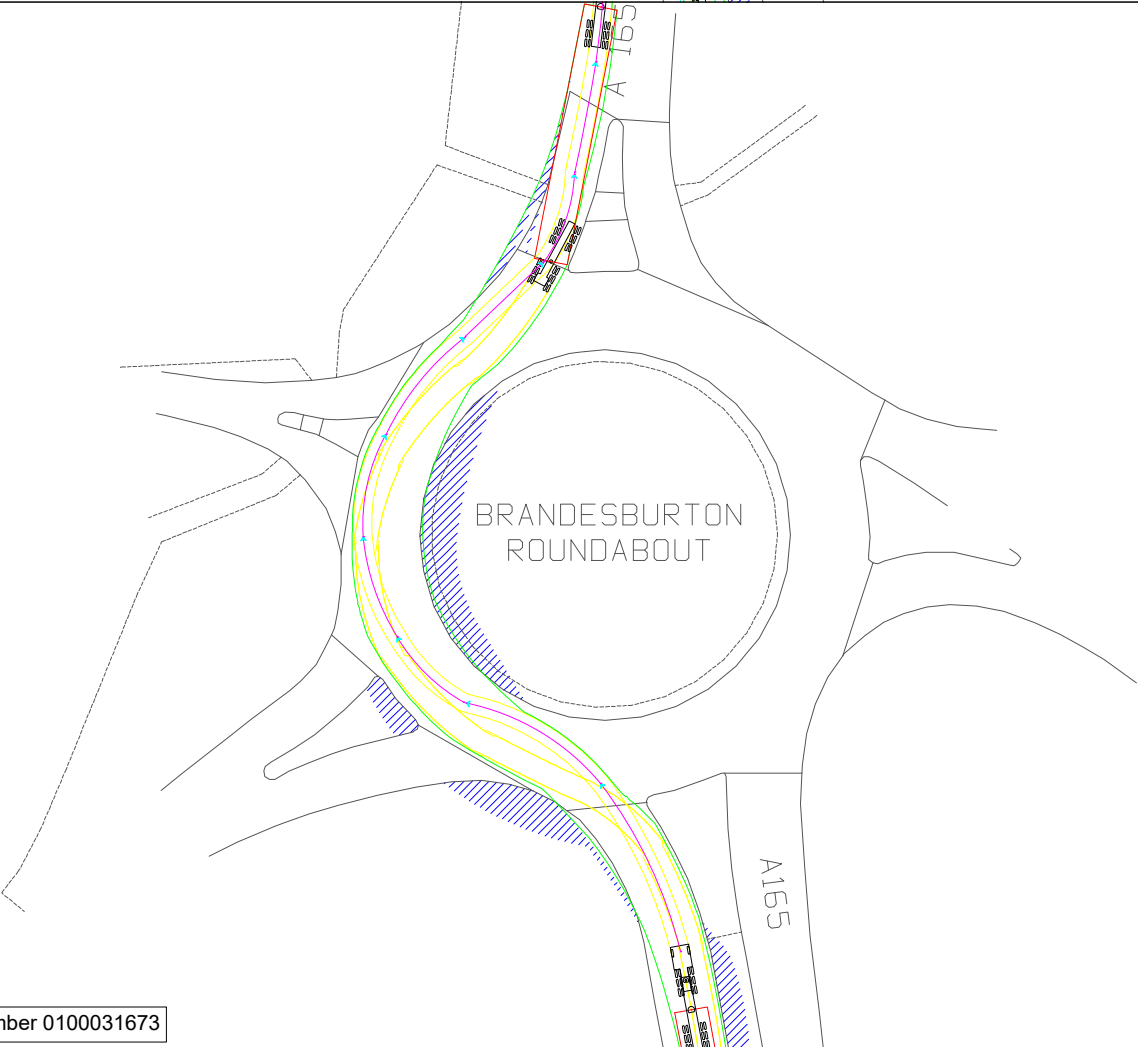
Drawing Number

211213-01

Revision

B

Tower Point 10



Blade Point 11



Tower Point 11



© Crown copyright, All rights reserved. 2026. Licence number 0100031673

Date of 1st Issue
15/04/25

Description
Revision B

Drawn by

Checked by

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

Base Mapping

Vehicle Outline

Vehicle Wheel Track

Tractor Trailer Outline

Blade Outline

Tower Outline

Vehicle Centre Line

Oversail

Overrun

Notes:

1.

Drawing units are in metres unless specified otherwise.

2.

Drawing is based on OS mapping unless stated otherwise.

3.

All mitigation is subject to confirmation through a test run.

4.

This is not a construction drawing and is intended for illustration purposes only.

5.

Vegetation to be trimmed back where required within highway corridor.

6.

The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE
1:1000

0 m50 m
Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2
Design Package
Barmston Curve SPA
Sheet 13 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com

ttc

Transportation
Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number

211213-01

Revision

B

Blade Point 12

Removal of directional
chevron board

Tower Point 12

Removal of signage
and bollards.



Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

- Base Mapping
- Vehicle Outline
- Vehicle Wheel Track
- Tractor Trailer Outline
- Blade Outline
- Tower Outline
- Vehicle Centre Line
- Oversail
- Overrun

Notes:

- Drawing units are in metres unless specified otherwise.
- Drawing is based on OS mapping unless stated otherwise.
- All mitigation is subject to confirmation through a test run.
- This is not a construction drawing and is intended for illustration purposes only.
- Vegetation to be trimmed back where required within highway corridor.
- The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE 1:1000	0 m Scale 1:1000 @ A3 50 m
--------------------	----------------------------------

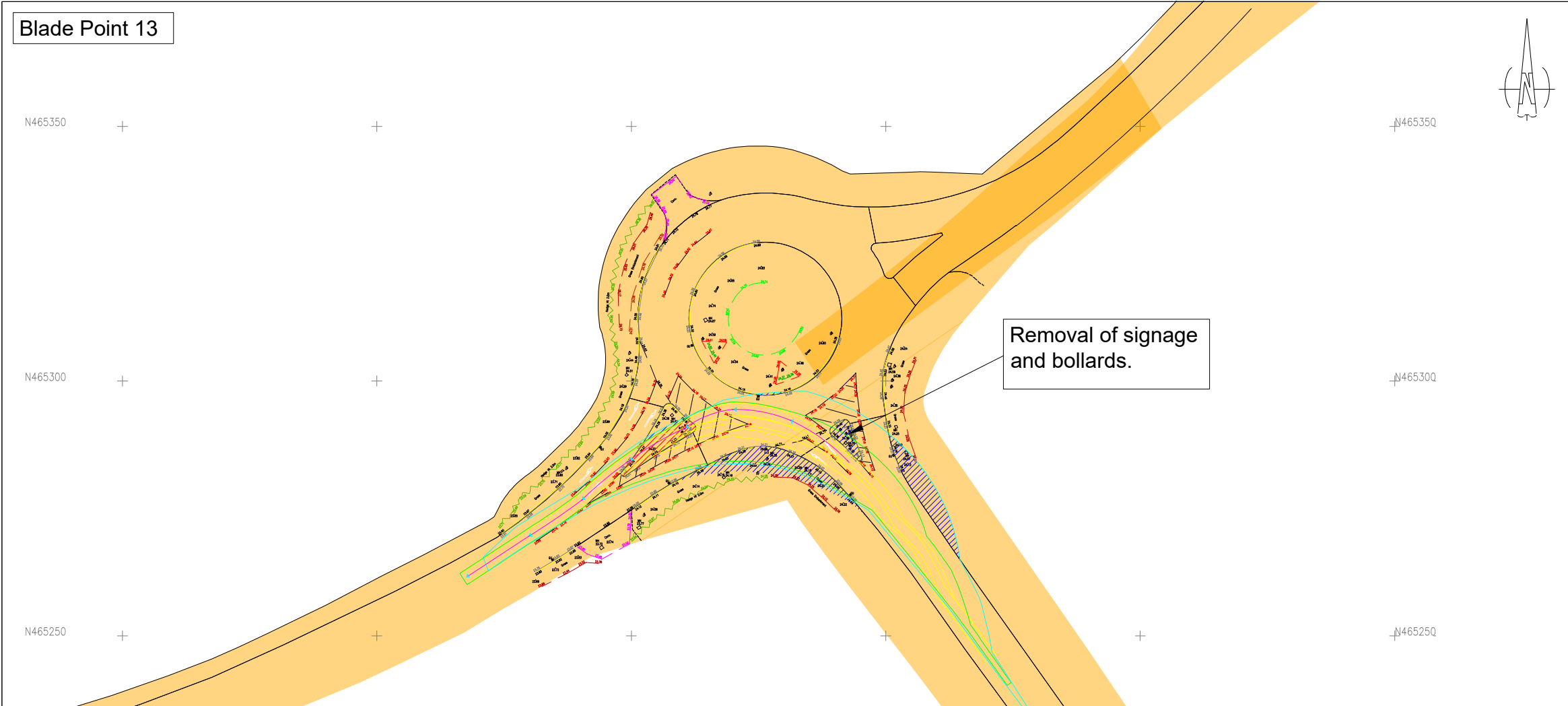
Drawing Title
Three Oaks Renewables Energy Park 2
Design Package
Willsthorpe Roundabout SPA
Sheet 14 of 16

Client
Ridge Clean Energy
Drawing Status
Planning

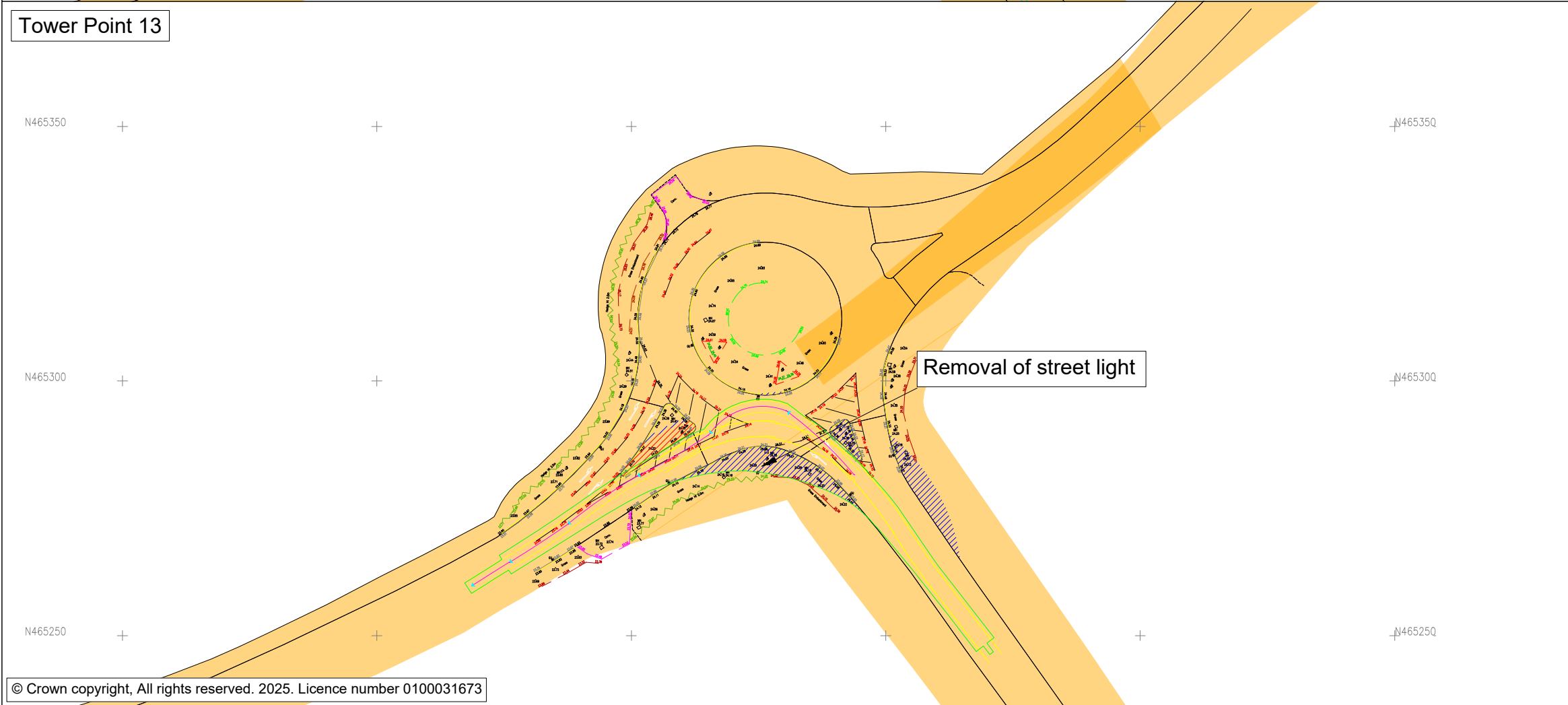
27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-tp.com
ttc
Transportation
Consultancy
VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number 211213-01	Revision B
-----------------------------	---------------

Blade Point 13



Tower Point 13



© Crown copyright, All rights reserved. 2025. Licence number 0100031673

Date of 1st Issue 15/04/25	Description Revision B	Drawn by	Checked by
-------------------------------	---------------------------	----------	------------

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

Base Mapping

Vehicle Outline

Vehicle Wheel Track

Tractor Trailer Outline

Blade Outline

Tower Outline

Vehicle Centre Line

Oversail

Overrun

Land within Highway Extent

Notes:

1.

Drawing units are in metres unless specified otherwise.

2.

Drawing is based on OS mapping unless stated otherwise.

3.

All mitigation is subject to confirmation through a test run.

4.

This is not a construction drawing and is intended for illustration purposes only.

5.

Vegetation to be trimmed back where required within highway corridor.

6.

The absence of annotations indicates that no additional mitigation measures are required.

7.

The highway boundary extent shown is limited to the area covered by the search only. The termination of the boundary does not indicate a change in land ownership or highway status.

A3 SCALE

1:1000

0 m

50 m

Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2

Design Package

A614 / A165 Roundabout SPA

Sheet 15 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street

Leamington Spa

CV32 4QN

E: info@ttc-tp.com

ttc

Transportation

Consultancy

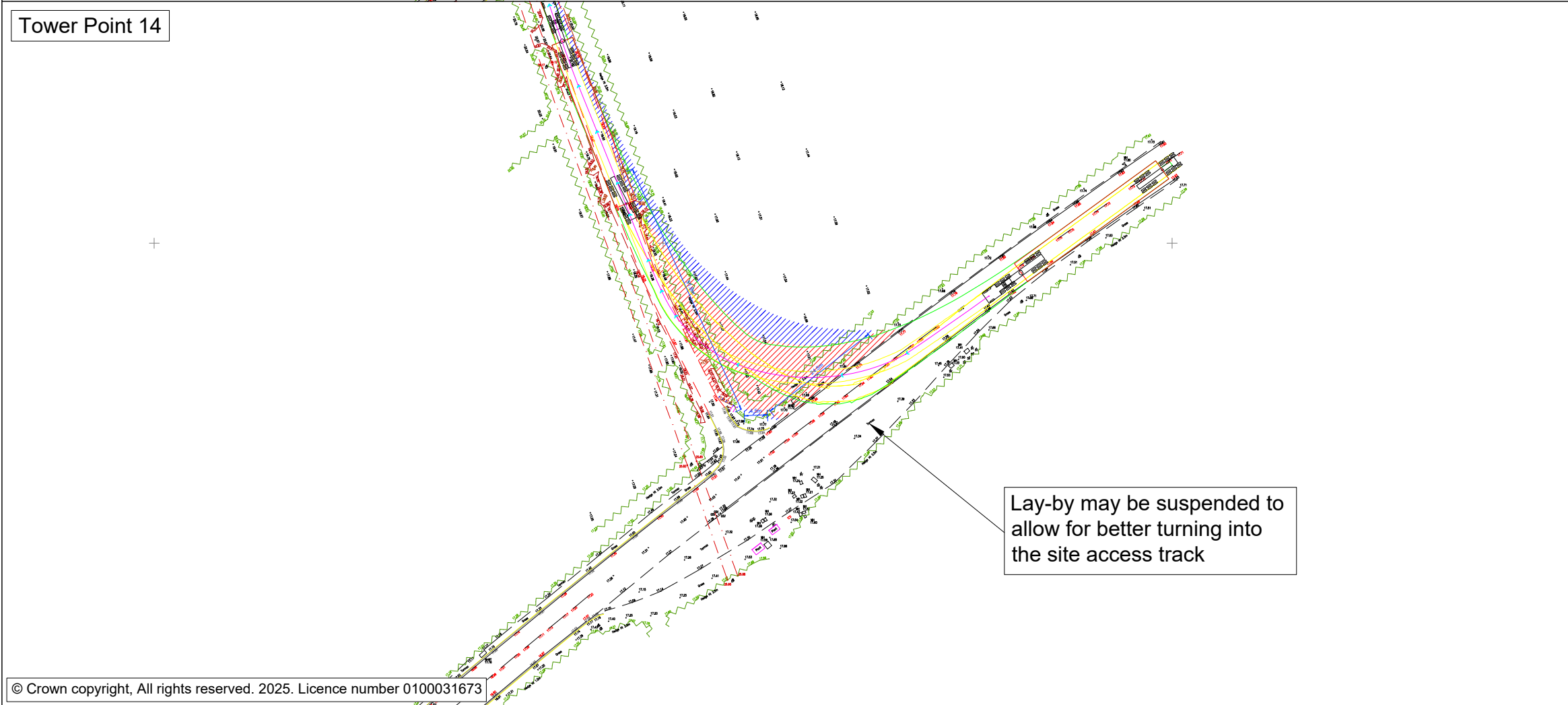
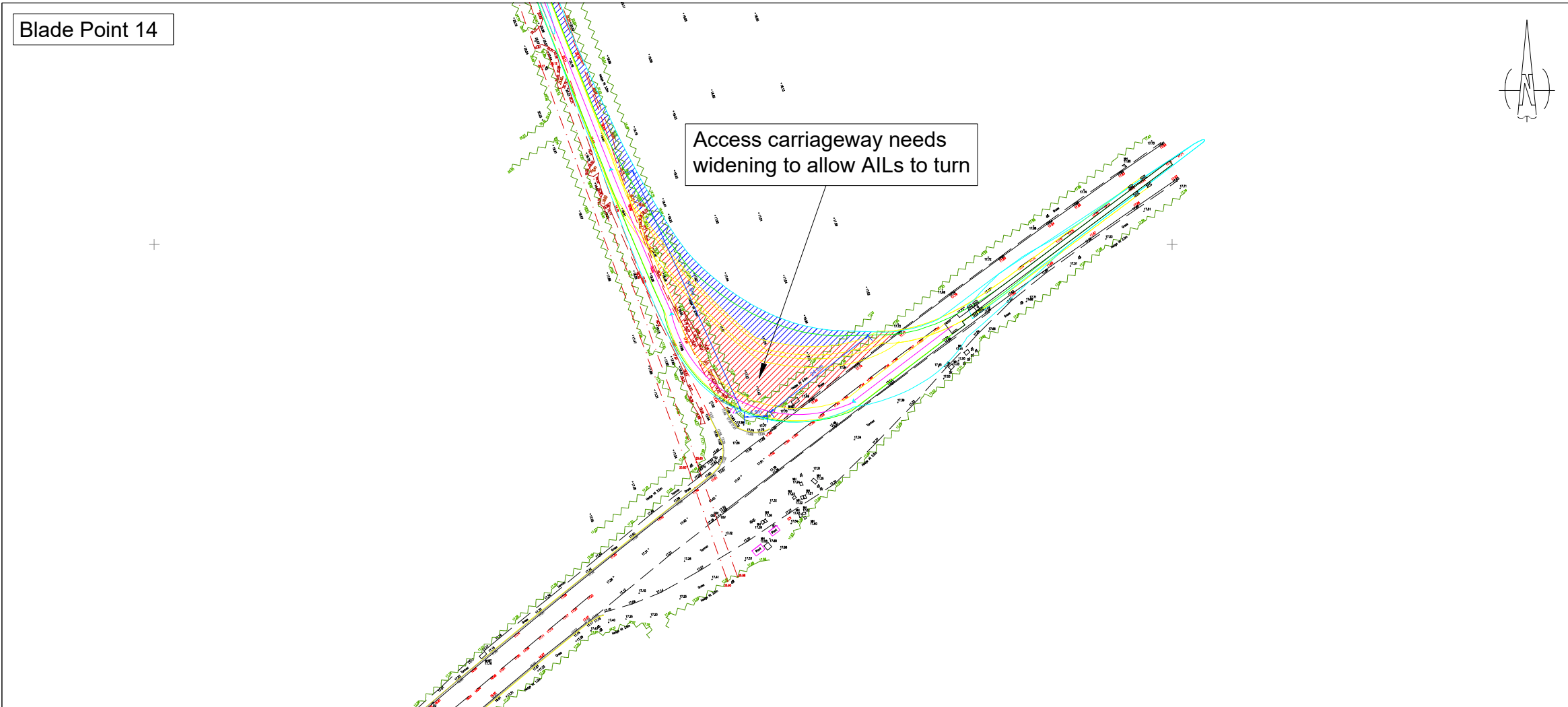
VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number

211213-01

Revision

B



Date of 1st Issue
15/04/25

Description
Revision B

Drawn by

Checked by

REVISIONS

Mark	Revision	Drawn	Date	Chkd
A	Inclusion of topographical surveys		28/10/25	
B	Revised AIL Route		04/03/26	

Key:

Base Mapping

Vehicle Outline

Vehicle Wheel Track

Tractor Trailer Outline

Blade Outline

Tower Outline

Vehicle Centre Line

Oversail

Overrun

Notes:

1.

Drawing units are in metres unless specified otherwise.

2.

Drawing is based on OS mapping unless stated otherwise.

3.

All mitigation is subject to confirmation through a test run.

4.

This is not a construction drawing and is intended for illustration purposes only.

5.

Vegetation to be trimmed back where required within highway corridor.

6.

The absence of annotations indicates that no additional mitigation measures are required.

A3 SCALE
1:1000

0 m50 m

Scale 1:1000 @ A3

Drawing Title

Three Oaks Renewables Energy Park 2

Design Package

Site Access SPA

Sheet 16 of 16

Client

Ridge Clean Energy

Drawing Status

Planning

27 Park Street

Leamington Spa

CV32 4QN

E: info@ttc-tp.com

ttc

Transportation

Consultancy

VALUE · EXCEED · TRUST · EXCELLENCE · CLARITY

Drawing Number

211213-01

Revision

B