Coille Beith Wind Farm

Technical Appendix 9.1: Transport Assessment

June 2025

Pell Frischmann

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1 Introduction

1.1 Purpose of the Report

Pell Frischmann Consultants Limited (PF) has been commissioned by Coille Beith Wind Farm Limited ("the Applicant") to undertake a Transport Assessment (TA) for the proposed Coille Beith Wind Farm (the 'Proposed Development'). The Proposed Development is located approximately 18 kilometres (km) southwest of Lairg and 20 km northwest of Bonar Bridge within The Highland Council (THC) administrative area.

This Technical Appendix identifies the key transport and access issues associated with the Proposed Development, including the route for Abnormal Indivisible Loads (AILs). The TA identifies where the Proposed Development may require mitigation works to accommodate the predicted traffic; however, the detailed design of these remedial works is beyond the agreed scope of this report. The findings have informed the assessment of traffic and transport related effects in **Chapter 9 (EIA Report, Volume 2)**.

1.2 Report Structure

Following this introduction, the TA report is structured as follows:

- Chapter 2 describes the Proposed Development;
- Chapter 3 reviews the relevant transport and planning policies;
- Chapter 4 sets out the methodology used within this assessment;
- Chapter 5 describes the baseline transport conditions;
- Chapter 6 describes the trip generation and distribution of traffic in the Study Area;
- Chapter 7 summarises the traffic impact assessment;
- Chapter 8 considers mitigation proposals for development related traffic within the study network; and
- Chapter 9 summarises the findings of the TA and outlines the key conclusions.

2 Proposed Development

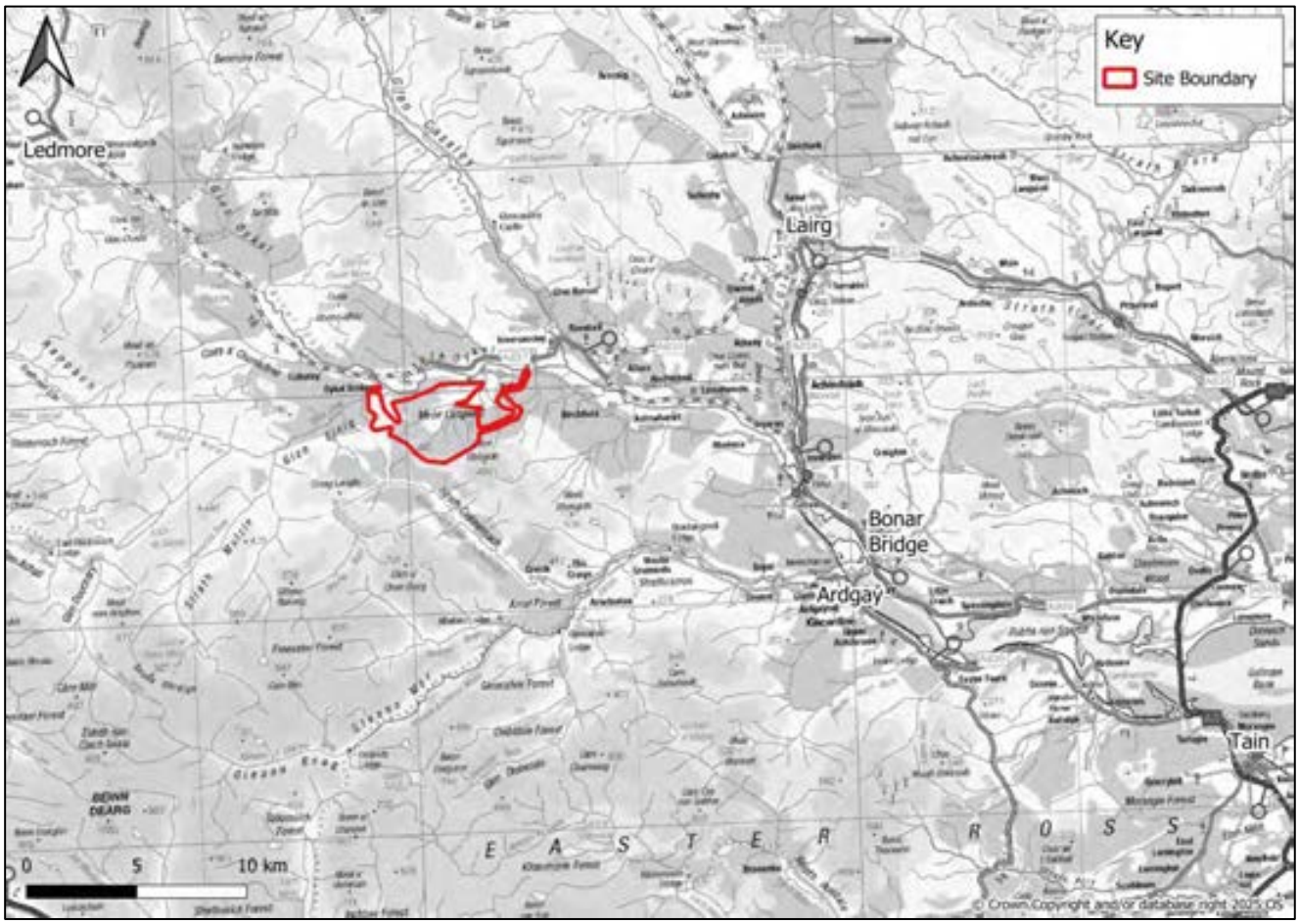
2.1 Site Location

The Site is located approximately 18 km southwest of Lairg and 20 km northwest of Bonar Bridge within THC administrative area.

The Site comprises an area of approximately 1,306 hectares (ha) within an area of commercial forestry on the southern slopes of Strath Oykel. The Site is bounded to the north by River Oykel and the A837 and by River Einig to the west.

The Site location can be seen in **Figure 1.**

Figure 1 Site Location



2.2 Proposed Development

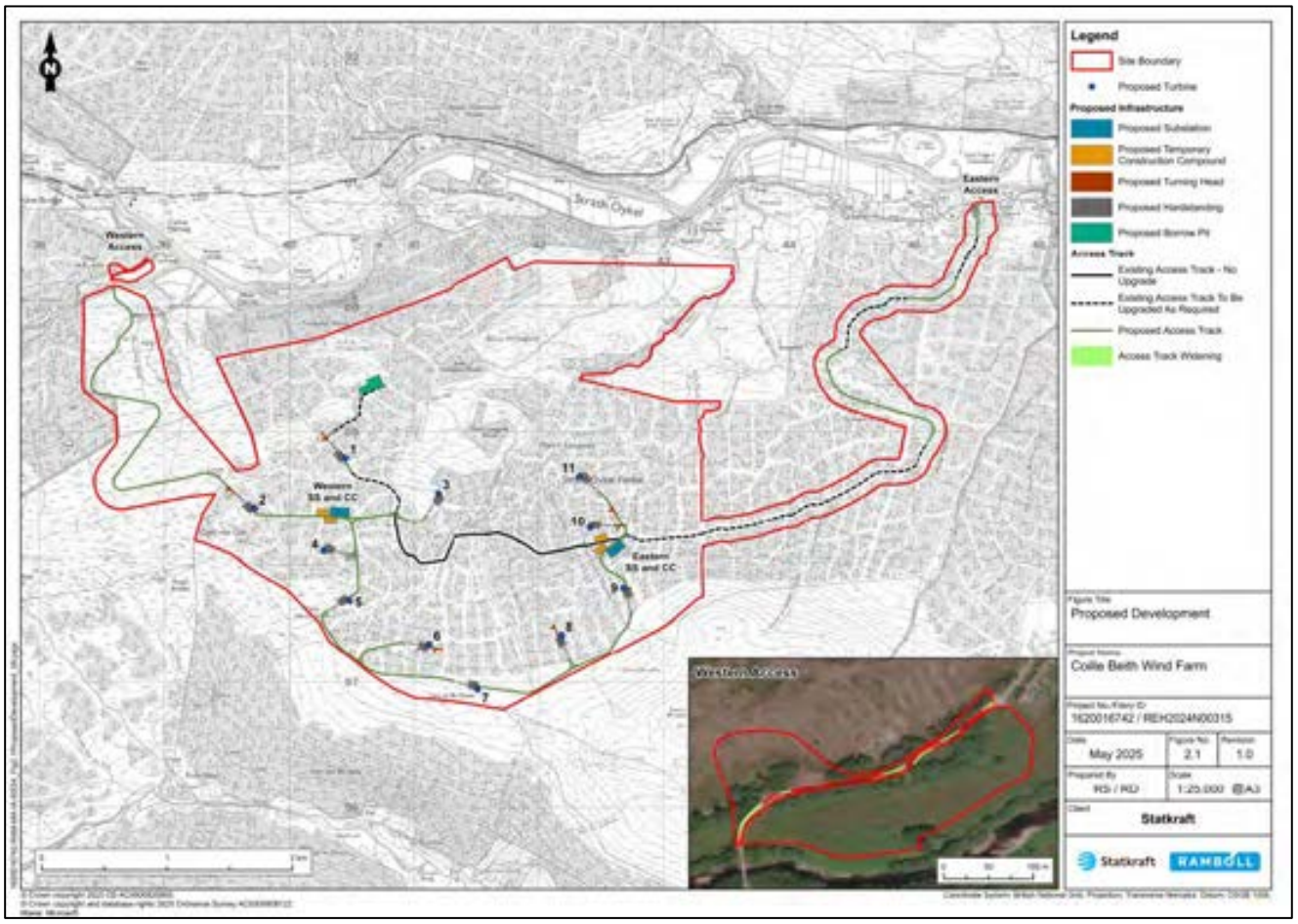
The Proposed Development will comprise the construction of the following:

- Up to 11 wind turbines, each up to a maximum tip height of 200 metres (m);
- Permanent foundations supporting each wind turbine;
- Associated crane hardstanding at each turbine location;
- An internal transformer in each turbine;
- A series of new and upgraded on-site access tracks with associated watercourse crossings;
- Underground cabling within the turbine array;
- A control building and substation compound;
- Temporary construction compounds and laydown areas; and
- Extraction of rock from borrow pit.

In addition, improvements will be made to the public access tracks to the turbine array to support transportation of construction materials.

The Proposed Development layout is shown in **Figure 2**.

Figure 2 Proposed Development Layout



A complete description of the Proposed Development is provided in **Chapter 2: Description of the Proposed Development (EIA Report, Volume 2).**

2.3 Access Arrangements

Two access junction options are currently under review for the Proposed Development for which the Applicant is seeking consent, which are detailed below:

- Eastern Access Option (joining the Strath Oykel Wind Farm access tracks) from the C1136 via the A837; and
- Western Access Option (joining the Meall Buidhe Wind Farm access tracks) from Oykel Bridge Road (U3581) via the A837.

The Eastern Access Option would be directly off the C1136 to the northeast of the Site, making use of the proposed access tracks for the consented Strath Oykel Wind Farm, with an extension of these tracks continuing into the eastern extents of the Site. Strath Oykel Wind Farm which was consented in January 2025 comprises 11 wind turbines and is located immediately to the east of the Proposed Development.

As per Strath Oykel Wind Farm, this access option will require the formation of a new bridge across the River Oykel, to the south of the A837. This access option would provide access to the Site for all AILs associated with

the turbine deliveries, as well as access for heavy goods vehicles (HGVs) delivering construction materials and general Site traffic.

The Western Access Option would be directly off Oykel Bridge Road (U3581) to the northwest of the Site boundary, making use of the proposed access tracks for the consented Meall Buidhe Wind Farm, with a branch taken off of these tracks south of Loch Phail, before continuing into the western extents of the Site. Meall Buidhe Wind Farm, which was consented in June 2023 at appeal, comprises eight wind turbines and is located immediately to the southeast of the Proposed Development.

As per Meall Buidhe Wind Farm, this access option will make use of the existing bridge crossing over the River Einig, to the south of the A837 and accessed via Oykel Bridge Road (U3581). This access option would provide access to the Site for all AILs associated with the turbine deliveries, as well as access for HGVs delivering construction materials and general site traffic.

The proposed Site access options are provided in **Annex A**.

Until such time as the access proposals have been finalised, both access options have been considered in full within this TA and within **Chapter 9: Transport (EIA Report, Volume 2)**.

All AIL traffic will access from the Port of Entry (PoE) at the Port of Nigg, utilising sections of proven AIL routes used during the construction of other wind farms in the area.

2.4 Candidate Turbine

The Applicant has indicated that they wish to consider the Vestas 172 turbines at a tip height of 200 m for the purposes of this assessment. The assessment has used a generic tower section to provide for a range of turbine options.

The details of the components that have been provided by Vestas are detailed in **Table 1**. Note these are indicative component dimensions at this time and are subject to change.

Table 1 Turbine Size Summary

Component	Length (m)	Width (m)	Height / Min Diameter (m)	Weight (t)
Vestas V172 Blade	85.122	4.458	3.336	29.620
Generic Tower section envelope	30.000	4.800	4.800	80.000

A detailed Route Survey Report (RSR) has been prepared and appends this TA as **Annex B**.

The selection of the final turbine model and specification will be subject to a commercial procurement process following consent of the application. The assumed dimensions may therefore vary slightly from those assumed as part of this assessment; however, the turbine tip height will be no greater than 200 m.

With regards to the equipment used to transport the turbine components, to provide a robust assessment scenario based upon the known issues along the access routes and constraints in moving larger loads, it has been assumed that all blades would be carried on a blade dolly trailer to comply with Vestas's requirements for this type of blade.

Where constraints are extreme, loads would be transferred onto a blade lifting trailer. This trailer has the ability to lift blades up to a maximum angle of 60 degrees, lifting blades over potential constraints and shortening the length plan view. Where the blade lifting trailer is used, all overhead utilities and obstructions would need to be removed.

To transfer to a blade lifting trailer, an area of third-party land would be required to construct a transfer station. The transfer station should be large enough to accommodate up to two sets of blades, welfare facilities, two cranes and a storage area for frames.

Towers would be carried in a 4+7 clamp adaptor style trailer, whereas loads such as the hub, nacelle housing, and top towers would be carried on a six-axle step frame trailer.

Examples of the vehicles and trailers that are likely to transport loads are shown in **Figure 3** to **Figure 5.**

Figure 3 Blade Dolly Trailer

Figure 4 Indicative Blade Lifting Trailer

Figure 5 Clamp Tower Trailer

These configurations are subject to confirmation by the chosen haulier at the time of their commissioning.

As the loads are classified as Special Order, due to a rigid length in excess of 30 m, a full Police Escort would be required along the full length of the route.

3 Policy Context

3.1 Introduction

An overview of relevant transport planning policies has been undertaken and is summarised below for national and local government policies.

3.2 National Policy

3.2.1 National Planning Framework 4 (2023)

The National Planning Framework 4 (NPF4) was approved by Scottish Parliament on 11 January 2023 and was adopted by Scottish Ministers on 13 February 2023. NPF4 sets out the Government's plan looking forward to 2045 that will guide spatial development, set out national planning policies, designate national developments and highlight regional spatial priorities. It is part of the development plan and so influences planning decisions across Scotland.

NPF4 puts the climate and nature crises at the heart of the Scottish planning system and was adopted in February 2023.

Policy 11: Energy within the NPF4 notes that: *"Development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:*

- *Wind farms including repowering, extending, expanding and extending the life of existing wind farms; and*
- *Energy storage, such as battery storage and pumped storage hydro.*
- *In addition, project design and mitigation will demonstrate how the following impacts are addressed:*
  - *Impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;*
  - *Public access, including impact on long distance walking and cycling routes and scenic routes;*
  - *Impacts on road traffic and on adjacent trunk roads, including during construction; and*
  - *Cumulative impacts."*

The assessment undertaken as part of this TA and the associated **Chapter 9 (EIA Report, Volume 2)** has taken cognisance of this and provided appropriate mitigation where necessary.

3.2.2 Planning Advice Note (PAN) 75

Planning Advice Note (PAN) 75: Planning for Transport provides advice on the requirements for Transport Assessments. The document notes that:

"… transport assessment to be produced for significant travel generating developments. Transport Assessment is a tool that enables delivery of policy aiming to integrate transport and land use planning."

"All planning applications that involve the generation of person trips should provide information which covers the transport implications of the development. The level of detail will be proportionate to the complexity and scale of the impact of the proposal...For smaller developments the information on transport implications will enable local authorities to monitor potential cumulative impact and for larger developments it will form part of a scoping exercise for a full transport assessment. Development applications will therefore be assessed by relevant parties at levels of detail corresponding to their potential impact."

3.2.3 Transport Assessment Guidance (2012)

Transport Scotland's (TS) Transport Assessment Guidance was published in 2012. It aims to assist in the preparation of TAs for development proposals in Scotland such that the likely transport impacts can be identified and dealt with as early as possible in the planning process. The document sets out requirements according to the scale of development being proposed.

The document notes that a TA will be required where a development is likely to have significant transport impacts but that the specific scope and contents of a TA will vary for developments, depending on location, scale and type of development.

3.2.4 Onshore Wind Turbines: Online Renewables Planning Advice (2014)

The most recent Scottish Government advice note regarding onshore wind turbines was published in 2014. The advice note identifies the typical planning considerations in determining applications for onshore wind turbines including landscape impact, impacts on wildlife and ecology, shadow flicker, noise, ice throw, aviation, road traffic impacts, cumulative impacts and decommissioning.

In terms of road traffic impacts, the guidance notes that in siting wind turbines close to major roads, pre-application discussions are advisable as this is important for the movement of abnormal indivisible loads during the construction phase, ongoing planned maintenance and for decommissioning (if applicable).

3.3 Local Policy & Guidance

3.3.1 Highland-wide Local Development Plan (2012)

The Highland-wide Local Development Plan (LDP) was adopted by THC in April 2012 and is the established planning policy for the Highlands. It sets out a settlement strategy and spatial framework for how THC foresees development occurring in the forthcoming twenty-year period.

The LDP does not contain any specific policy guidance for the Proposed Development. However, Policy 56 is relevant with regards general transport policy. The relevant transport elements from this policy are:

"Development proposals that involve travel generation must include sufficient information with the application to enable the Council to consider any likely on- and off-site transport implications of the development and should:

- *incorporate appropriate mitigation on-site and/or off-site, provided through developer contributions where necessary, which might include improvements and enhancements to the walking/cycling network and public transport services, road improvements and new roads; and*
- *incorporate an appropriate level of parking provision, having regard to the travel modes and services which will be available and key travel desire lines and to the maximum parking standards laid out in Scottish Planning Policy or those set by the Council.*

When development proposals are under consideration, the Council's Local Development Strategy will be treated as a material consideration.

The Council will seek the implementation and monitoring of Green Travel Plans in support of significant travel generating developments."

3.3.2 Caithness and Sutherland Local Development Plan (LDP)

In relation to Connectivity and Transport, the LDP notes that:

"Key growth sectors, like the renewables industry, may put increased pressure on the road network. In some cases renewable energy projects may result in repairs and upgrades but it is essential that the Council ensures that there is no net degradation to infrastructure from these projects."

3.3.3 The Highland Council Local Transport Strategy (LTS) (2014)

The LTS refers to the road network across rural areas being characterised by 'winding single carriageway roads with passing places'. Reference is also made to the additional pressure that can be placed on sub-standard roads. The LTS also notes that in terms of timber transport, there are initiatives such as tyre pressure moderation which are reducing the damaging effect of forestry lorries on rural roads.

The LTS also mentions the many bridges which are subject to weight restrictions in the Local Authority area. The LTS states that *"where possible, the Council, through its Lifeline Bridges programme will invest in the bridges to maintain access either by removing weight restrictions or reducing the weight restriction effect of HGV vehicles."* The aim of the Lifeline Bridges programme is to assist the economy of the area by allowing the efficient transport of essential goods and services, as well as providing for industries that are heavily dependent on large vehicle transport.

3.3.4 Onshore Wind Energy Supplementary Guidance (2016)

The Onshore Wind Energy Supplementary Guidance was adopted by THC in 2016. In relation to traffic and transport interests, the guidance document notes that:

"All proposals should seek to avoid significant adverse effects on the public road network individually and cumulatively with other built and permitted proposals as well as valid planning applications not yet determined (the weight apportioned to each will reflect their position in the planning process).

The proposals for the use of the public roads and mitigation works will require the approval of the Roads Authority. Developers will be required to enter into a Section 96 (Roads Scotland Act) agreement with the Council to cover damage to the public roads by construction traffic and may be required to provide a bond as surety.

Developers will be required to undertake a Transport Assessment to establish the transport impacts of the construction traffic associated with the development, the suitability of the existing road network, the impact on existing road users and adjacent communities, and the requirement for any mitigation works.".

3.3.5 Roads and Transport Guidelines for New Developments (2013)

THC document outlines the guidance and standards for the provision of infrastructure within the council area which includes the design and construction of all new roads associated with development proposals.

THC's Roads and Transport Guidelines for New Developments document provides guidance in relation to transport implications of onshore wind farm developments. The document notes that:

"For wind farm proposals, a developer should be aware that the Council will require a Transportation Assessment (TA) to be submitted that must consider the existing road network, transportation constraints and potentially sensitive routes or communities.

A wind farm vehicular site access must provide appropriate visibility splays and suitable surface water drainage. Within the site, the wind turbines are likely to be located some distance from the nearest public road, requiring internal access tracks to be constructed. As the access tracks need to accommodate abnormal loads, they have to be of a suitable width. These tracks are normally constructed from hard-core material and the developer will usually be encouraged/allowed to use material obtained from borrow pits within the site area, to reduce construction traffic. On-site concrete batching should also be considered, as this can also result in a reduction of associated vehicles on the local road network.

A suitable turning area must be constructed within the site, to accommodate abnormal load delivery vehicles, construction vehicles and future maintenance vehicles. During the construction period, a wheel-wash system shall be provided."

3.3.6 Guidance on the Preparation of Transport Assessments (2014)

THC has prepared guidance on how TA should be prepared for development sites within the Highlands. The guidance was published by THC in November 2014.

This TA has noted the guidelines and has provided the required assessment.

3.4 Policy Summary

The Proposed Development can align with the stated policy objectives and the design of the Site and proposed mitigation measures will ensure compliance with national and local objectives.

4 Study Methodology

There are three phases of the Proposed Development which have been considered in this assessment and are as follows:

- The Construction Phase;
- The Operational Phase; and
- The Decommissioning Phase.

4.1 Project Phases – Transport Overview

Of the three phases, the construction phase is considered to have the greatest impact in terms of transport and potential impacts on the road network and sensitive receptors. Construction plant, bulk materials and wind turbine components will be transported to Site, potentially resulting in a significant increase in traffic on the study network.

The operational phase is restricted to occasional maintenance operations which generate significantly lower volumes of traffic that are not considered to be in excess of daily traffic variation levels on the road network.

The decommissioning phase involves fewer trips on the road network than the construction phase, as minor elements of infrastructure are likely to be left in place, adding to local infrastructure that can potentially be used for further agricultural or leisure uses in the future.

It should be noted, however, that construction effects are short lived and transitory in nature, whilst the operational phase assessment has been assumed to be based on typical operating conditions with occasional operational and maintenance traffic.

4.2 Scoping Discussions

The Applicant submitted a scoping report to the Energy Consents Unit (ECU) in respect of the EIA which included a section considering traffic and transport. A full review of that scoping opinion and other correspondence relating to the scope of the study including pre-application advice is provided in the **Chapter 9 (EIA Report, Volume 2).**

5 Baseline Conditions

5.1 Study Area Determination

The Study Area includes local roads that are likely to experience increased traffic flows resulting from the Proposed Development. The geographic scope was determined through a review of Ordnance Survey (OS) plans and an assessment of the potential origin locations of construction staff and supply locations for construction materials. Locally sourced material will be used where feasible and traffic will avoid impacting on local communities as far as is possible.

As previously advised, access to the Proposed Development will be taken from one of the following options:

- Eastern Access Option (joining the Strath Oykel Wind Farm access tracks) from the C1136 via the A837; and
- Western Access Option (joining the Meall Buidhe Wind Farm access tracks) from Oykel Bridge Road (U3581) via the A837.

All vehicular traffic for both the construction and operational phases will use the selected access, including AILs. Until such time as the access proposals have been finalised, both access options have been considered in full within this TA and are therefore both included within the Study Area.

Strategic access to the Site will be taken from the A9, which forms part of the trunk road network, accessed via the A837 and A839. Construction vehicles delivering loads to and from the Site are likely to originate from quarries to the south of Bonar Bridge, utilising the A836 and the B9176, and quarries along the A9 south of the Mound.

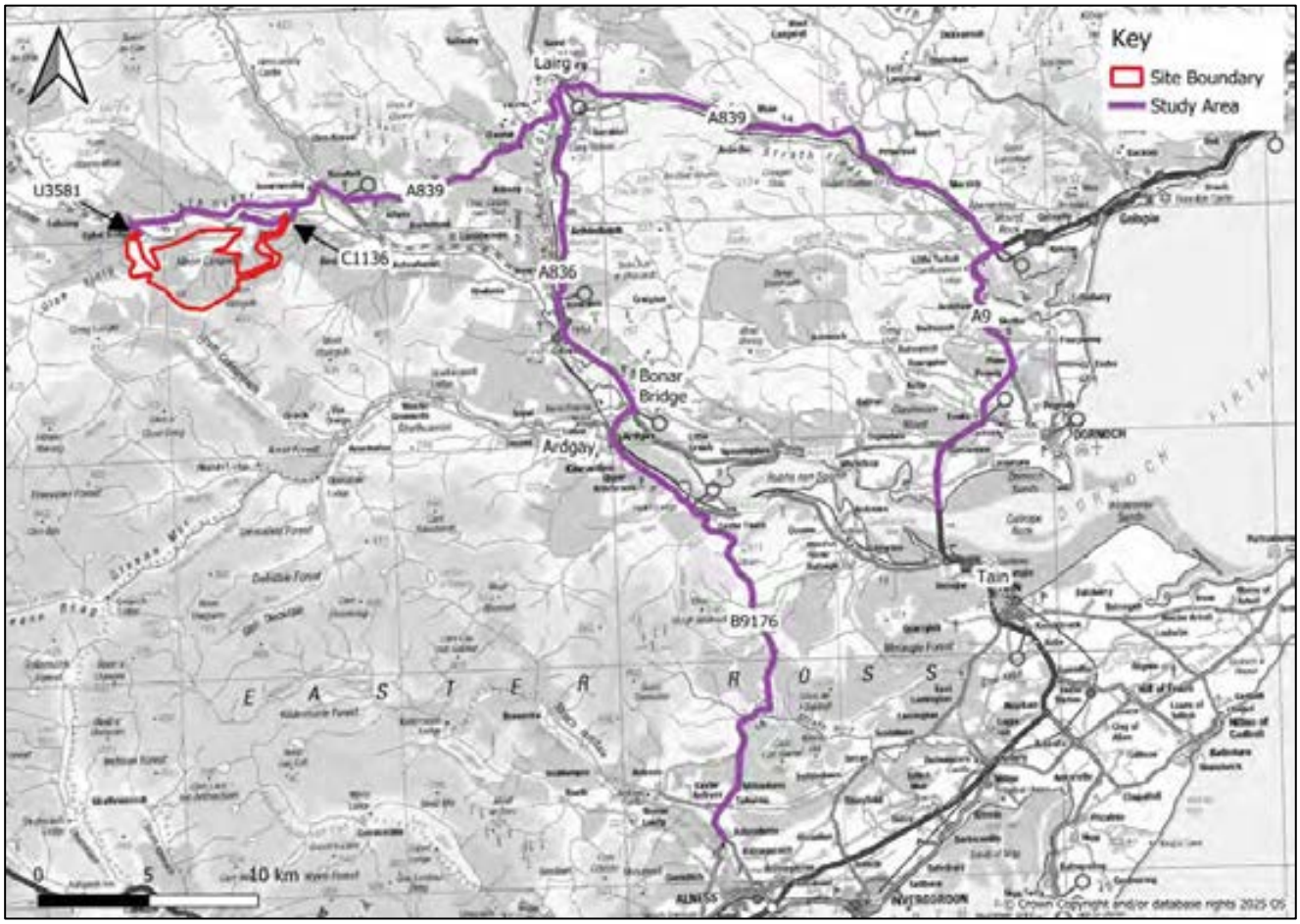
The likely PoE used for the discharging of wind turbine components will be the Port of Nigg to the southeast, routing along the B9175, A9, A839, A836, A837, and C1136 or Oykel Bridge Road (U3581), depending on the preferred access option. Full details of the AIL routes are provided later in the report and within **Annex B.**

Based on the above, the Study Area for this assessment is as follows:

- The A9 (between Dornoch Bridge and The Mound);
- The A836 (from Ardgay to Lairg);
- The A839 (between the A9 at The Mound and Rosehall);
- The A837 (Between its junction with the A839 at Rosehall and Oykel Bridge);
- The B9176 (to the south of its junction with the A836 and Achandunie);
- The C1136 (from its junction with the A837 to the Site access); and
- Oykel Bridge Road (U3581).

The Study Area is shown in **Figure 6.**

Figure 6 Study Area



Note that the Study Area chosen relates to those roads likely to be subject to the biggest increase in construction traffic i.e. those closest to the Site for which their users could experience significant effects and does not include all roads used in the movement of construction materials and AIL traffic

Effects associated with construction traffic generated by the Proposed Development would be most pronounced in close proximity to the Site access junction and on the final approaches to the Site. As vehicles travel away from the Proposed Development, they would disperse across the wider road network, thus diluting any potential effects. It is therefore expected that the effects relating to construction traffic are unlikely to be significant beyond the Study Area identified above.

5.2 Pedestrian and Cyclist Networks

There are no dedicated pedestrian facilities in the immediate vicinity of the Site, reflecting its rural setting. Further away from the Proposed Development, in the wider Study Area, there are pedestrian facilities within the larger settlements of Lairg, Pittentrail, Bonar Bridge, and Ardgay.

A review of The Highland Council's Core Path network[1] indicates that there are a number of Core Paths in the vicinity of the Site and within the Site.

The Core Paths located within the Site are as follows:

- SU21.10 Oykel Bridge - Glen Einig, which is 8.85 km in length and falls within the Site to the northwest, should the Western Access Option be progressed. The Core Path is signposted from the row of cottages on Oykel Bridge Road (U3581), with the path following the proposed route into the Site, across the River Einig,

[1] https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=2fd3fc9c72d545f7bcf1b43bf5c8445f [accessed May 2025]

before heading west and continuing along the private road. The Core Path is an on-road track and there are no segregated facilities in the vicinity of the Site; and

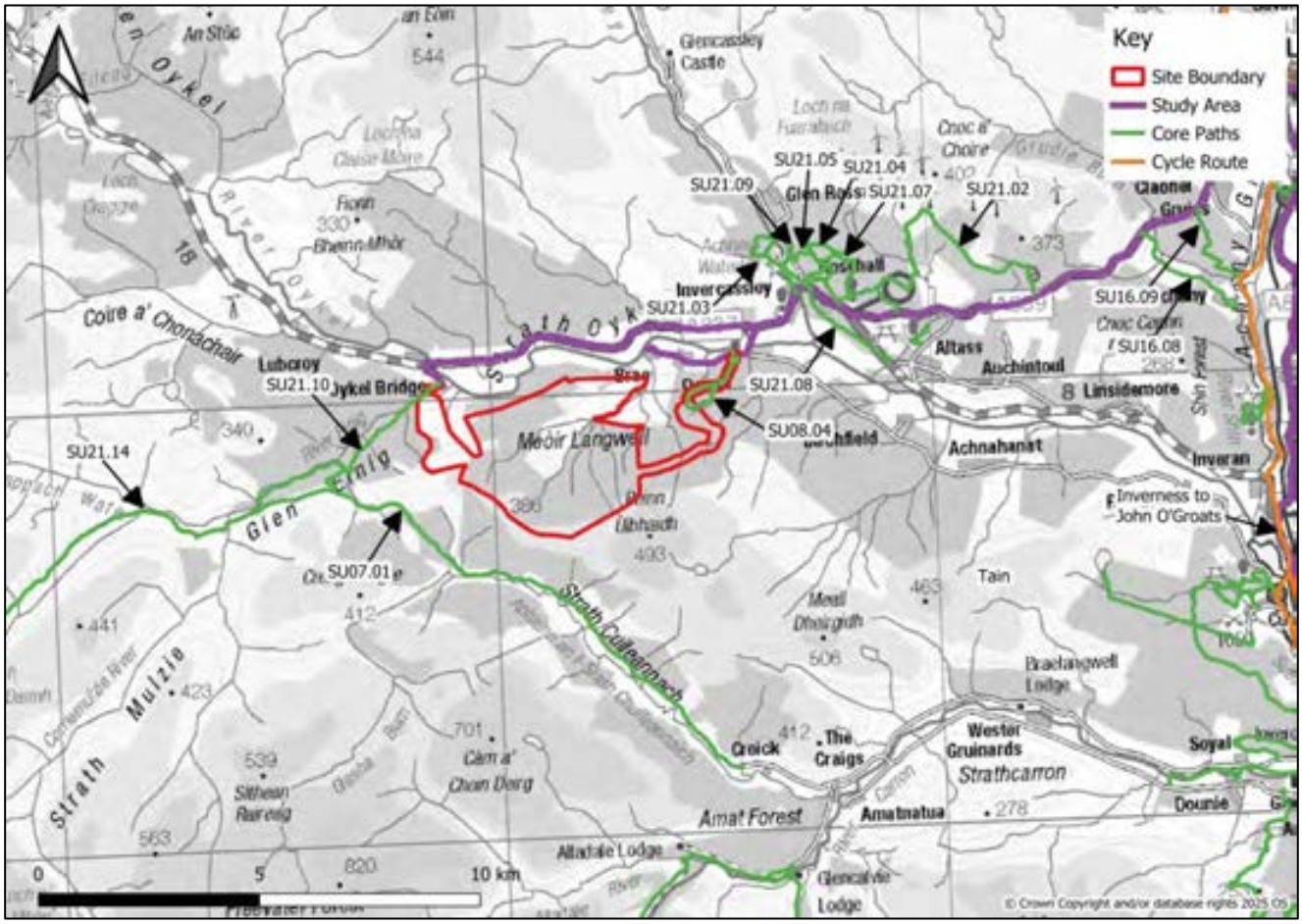
- SU08.04 Loch Mhic Mharsail, which is 3.14 km in length and falls within the Site to the northeast, should the Eastern Access Option be progressed. The Core Path is not signposted from where it joins the C1136 at the proposed access junction location. The Core Path follows the existing tracks at this location which are used for timber extraction and there are no segregated facilities in the vicinity of the Site.

A number of additional Core Paths intersect or are located close to the A837 and A839 which will be used by construction vehicles access the Proposed Development. This includes paths SU21.03, SU21.09, SU21.07, SU21.02, SU21.08, SU16.08 and SU16.9.

A review of the Sustrans Map of the National Cycle Network (NCN)[2] shows that the closest cycling route to the Site is The Far North Way: Inverness to John O'Groats route which follows sections of the A9 and A836 within the Study Area. The route is an on-road route and includes sections that are not part of the NCN. There are no NCN routes in the vicinity of the proposed Site access options.

The Core Path Network and The Far North Way: Inverness to John O'Groats cycle route in relation to the Site is shown in **Figure 7.**

Figure 7 Core Path Network and Cycle Routes



[2] https://www.sustrans.org.uk/national-cycle-network [accessed May 2025]

5.3 Road Access

A9

The A9 is the main trunk road in the area which links Perth to Scrabster. The road is subject to a speed limit of 60 miles per hour (mph) within the Study Area, however, sections of dual carriageway are signed as 70 mph. Within the Study Area, the road is operated by BEAR Scotland on behalf of Transport Scotland and appears to be in good condition.

A837

The A837 is a single carriageway road, which has a variable width of 4 m to 6 m, ranging from sections of narrow single track road with passing places to single two-way carriageway. The A837 is approximately 72 km in length and routes from Lochinver to Inveran. The A837 is mainly subject to a speed limit of 60 mph within the Study Area, reducing to 40 mph within Rosehall / Invercassley. The A837 is maintained by THC and appears to be generally in reasonable condition.

A836

The A836 is a district distributor road that provides connections between Tain and Thurso, passing through Lairg. The A836 is approximately 196 km in length and varies between 6 m and 7 m in width. The A836 is mainly subject to a speed limit of 60 mph within the Study Area, reducing to 30 mph within Lairg, Bonar Bridge, and Ardgay. The A836 is maintained by THC and appears to be generally in reasonable condition.

A839

A839 is approximately 36 km in length and provides a connection from the A9 at The Mound to Rosehall, passing through Lairg. The road to the east of Lairg has two lanes and is of good standard. To the west of Lairg, the road width varies between two lanes and long sections of single track with passing places. The A839 is mainly subject to a speed limit of 60 mph within the Study Area, reducing to 30 mph within Lairg and Pittentrail. The A839 is maintained by THC.

B9176

The B9176 is a single carriageway road, approximately 24 km in length, which runs from the A9 at Skiach to Eastern Fern on the Dornoch Firth. The road is subject to a speed limit of 60 mph within the Study Area, reducing to 40 mph within the small village of Dalnavie for goods vehicles in excess of 7.5 tonnes. The road is maintained by THC and appears to be in a generally reasonable condition.

C1136

The C1136 for the most part is a narrow single carriageway road with passing places which routes from Ardgay in the south to Brae in the north. The road is subject to the national speed limit of 60 mph. There is a short section of the C1136 that branches off the main route, tying in with the A837 to the north, crossing the River Oykel. The short section leading through to the A837 has a number of cattle grids in place and signage advising of flooding occurring on the road. The C1136 is maintained by THC.

Oykel Bridge Road (U3581)

Oykel Bridge Road (U3581) is a single carriageway road, approximately 850 m in length, running from the A837 at Oykel Bridge to 170 m west of the row of cottages on the road between the River Oykel and River Einig. Beyond this the road is privately owned. The road section within the adopted road network is a single carriageway road with passing places and is subject to the national speed limit. The private section of the road beyond the cottages crosses the River Einig and follows the path of the river in an east / west direction.

General Road Suitability

The Agreed Timber Route Map[3] has been developed by The Timber Transport Forum who are a partnership of the forestry and timber industries, local government, national government agencies, timber hauliers and road and freight associations. One of the key aims of the forum is to minimise the impact of timber transport on the public road network, on local communities and the environment and a way of achieving this is to categorise the roads leading to forest areas in terms of their capacity to sustain the likely level of timber haulage vehicles i.e. HGVs. The routes are categorised into four groups, namely; 'Agreed Routes', 'Consultation Routes', 'Severely Restricted Routes' and 'Excluded Routes'.

'Agreed Routes' are categorised as routes used for timber haulage without restriction as regulated by the Road Traffic Act 1988. A-roads are classified as 'Agreed Routes' by default unless covered by one of the other road classifications. Those links classed as 'Consultation Routes' are categorised as a route which is key to timber extraction, but which are not up to 'Agreed Route' standard. Consultation with the local authority is required, and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B-roads are classified as 'Consultation Routes' by default unless covered by one of the other classifications. 'Severely Restricted Routes' are not normally to be used for timber transport in their present condition. These routes are close to being Excluded Routes. Consultation with the local authority is required prior to use. Finally, 'Excluded Routes' should not be used for timber transport in their present condition. These routes are either formally restricted, or are close to being formally restricted, to protect the network from damaging loads.

Roads within the Study Area form part of the route network used for the extraction of timber and are therefore regularly used by HGV traffic. This includes the A9, A836, B9176, and a section of the A839 west of Lairg which are 'Agreed Routes' and the A837, C1136, A839 east of Lairg and Oykel Bridge Road (U3581) which are 'Consultation Routes'.

5.4 Existing Traffic Conditions

In order to assess the impact of the Proposed Development construction traffic on the Study Area, traffic data was obtained from publicly available information from THC planning portal from Automatic Traffic Counters (ATC) that were deployed at the following locations in 2021:

1. C1136, near the Eastern Access Option;
2. C1136, to the south of its junction with the A837; and
3. A837, at Invercassley.

The ATCs were deployed over a 7-day period, to collect vehicle volumes, composition and speed per direction per hour.

To compliment the ATC survey information obtained from THC, existing traffic count data was obtained from the Department for Transport (DfT)[4] database and the TS[5] database, with 2023 data utilised from the DfT database, with the exception of the B9176 which utilises data from 2019, and 2024 data utilised from the TS database.

DfT Annual Average Daily Traffic (AADT) data was obtained for the following locations:

4. A837, Oykel Bridge (site reference: 10937);
5. A839, between its junction with the A837 and the A836 (site reference: 50934);
6. A836, west of Lairg (site reference: 40936);
7. A839, between its junction with the A9 and the A836 (site reference: 20935);
8. A836, between its junction with the A837 and the A839 (site reference: 20934);
9. A836, between its junction with the A949 and the A837 (site reference: 50937);
10. A836, Ardgay (site reference: 80005); and

[3] https://timbertransportforum.org.uk/ [accessed May 2025]
[4] https://roadtraffic.dft.gov.uk/#6/55.254/-11.096/basemap-regions-countpoints [Accessed May 2025]
[5] https://ts.drakewell.com/multinodemap.asp [Accessed May 2025]

11. B9176, south of Dalnavie (site reference: 979064).

TS AADT data was obtained for the following locations:

12. A9, between Poles and The Mound (site reference: ATC01334);
13. A9, between its junction with the A949 and the B9168 (site reference: ATC01023); and
14. A9, south of its junction with the A949 (site reference: ATC01020).

The traffic counters allowed the traffic flows to be split into vehicle classes and the data has been summarised into cars / LGVs and HGVs (all goods vehicles >3.5 tonnes gross maximum weight).

National Road Traffic Forecast (NRTF) high and low growth factors were applied to the traffic flows in order to estimate the 2025 baseline year flows. NRTF high growth factors were applied to the 2021 flows obtained from ATC surveys and the 2019 and 2023 flows obtained from the DfT database. The NRTF high growth factors utilised are as follows:

- 2019 to 2025 is 1.081
- 2021 to 2025 is 1.049
- 2023 to 2025 is 1.024

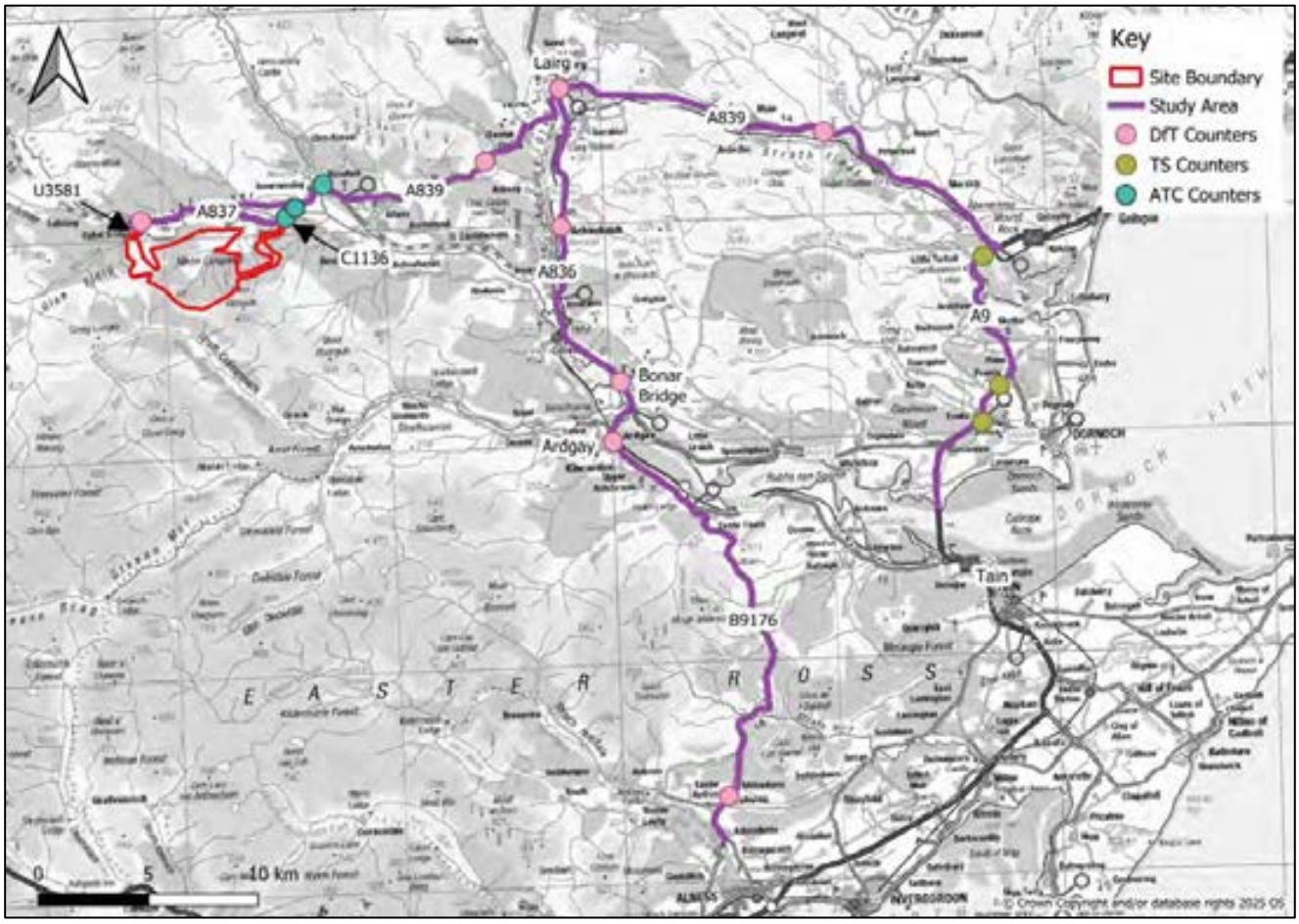
Low growth factors were applied to the 2024 flows obtained from the TS database. The NRTF low growth from 2024 to 2025 is 1.005.

These traffic count sites were identified as being areas were sensitive receptors, such as residential properties, on the access route would be located. A full receptor sensitivity and effect review is prepared in **Chapter 9 (EIA Report, Volume 2)**.

With regards to Oykel Bridge Road (U3581), this is a single-track road, serving a small number of isolated dwellings and providing access to areas used for agricultural and commercial forestry purposes. The road is very lightly trafficked and given that all traffic used in the construction of the Proposed Development will use this road if the Western Access Option is progressed, the percentage increase will be significant. As such rather than use the base flows to determine if an assessment is required, one has been undertaken within **Chapter 9 (EIA Report, Volume 2)**.

The locations of the traffic count sites are illustrated in **Figure 8.**

Figure 8 Traffic Counter Locations



The 24-hour two-way average traffic flows for each of the traffic count locations are presented in **Table 2.**

Table 2 24-Hour Two Way Average Traffic Data (2025)

Site ID	Survey Location	Count Source	Cars & LGVs	HGVs	Total
1	C1136 Eastern Access Option Site access	ATC	31	17	47
2	C1136 south of A837 junction	ATC	21	13	35
3	A837 Invercassley	ATC	153	119	273
4	A837 Oykel Bridge	DfT	219	17	237
5	A839 between the A837 and A836	DfT	231	8	240
6	A836 west of Lairg	DfT	1,731	154	1,884
7	A839 between the A9 and A836	DfT	807	37	844
8	A836 between A837 and A839	DfT	955	82	1,037
9	A836 between the A949 and A837	DfT	1,621	113	1,734
10	A836 Ardgay	DfT	1,667	137	1,804
11	B9176 south of Dalnavie	DfT	1,751	152	1,904
12	A9 between Poles and The Mound	TS	4,199	974	5,173
13	A9 between the A949 and B9168	TS	3,352	880	4,232
14	A9 south of A949 junction	TS	6,368	962	7,329

Please note minor variances due to rounding may occur.

The ATC survey locations and the TS database which provided traffic volume data was also used to obtain speed statistics (DfT counts do not provide speed data). The two-way seven-day average and 85th percentile speeds observed at two of the count sites are summarised in **Table 3**.

Table 3 Speed Summary Table

Site ID	Survey Location	Count Source	Mean Speed (mph)	85%ile (mph)	Speed Limit (mph)
1	C1136 Eastern Access Option Site access	ATC	17.0	24.6	60
2	C1136 south of A837 junction	ATC	27.3	35.7	60
3	A837 at Invercassley	ATC	28.3	35.2	40
12	A9 between Poles and The Mound	TS	55.2	63.3	60
13	A9 between the A949 and B9168	TS	56.0	63.3	60
14	A9 south of A949 junction	TS	49.0	55.8	60

Speed data obtained 2021 for ATC and 2024 for TS

The speed information indicates that for the most part, speed limits are being adhered to within the Study Area, with the exception of the 85th percentile on the A9 between Poles and the Mound and the A9 between the A949 and B9168 junctions. On these road links, the 85th percentile speed exceeds the speed limit by approximately 5%. The average (mean) speeds on all sites are below the speed limit of 60 mph.

5.4.1 Accident Review

Personal Injury Accident (PIA) data for the five-year period commencing 01 January 2019 through to the 31 December 2023 was obtained from the online resource CrashMap[6] which uses data collected by the police about road traffic crashes occurring on British roads, where someone is injured.

TA Guidance[7] requires an analysis of the accident data on the road network in the vicinity of any development to be undertaken for at least the most recent three-year period, or preferably a five-year period, particularly if the Site has been identified as being within a high accident area. The statistics are categorised into three categories, namely “Slight” for damage only incidents, “Serious” for injury accidents and “Fatal” for accidents that result in a death. Whilst the Study Area has not been identified as having a high accident rate, a five-year review has been undertaken to ensure a comprehensive assessment has been undertaken.

The review included the following road sections:

- C1136, from its junction with the A837 to the Eastern Access Option;
- Oykel Bridge Road (U3581) to the Western Access Option;
- A837, between its junction with the A839 at Rosehall and Oykel Bridge;
- A836, between Lairg and Ardgay; and
- A839, between the A9 at The Mound and Rosehall.

The locations and severity of the recorded accidents within the Study Area are summarised in **Table 4** while **Figure 9** shows their locations.

Table 4 PIA Summary

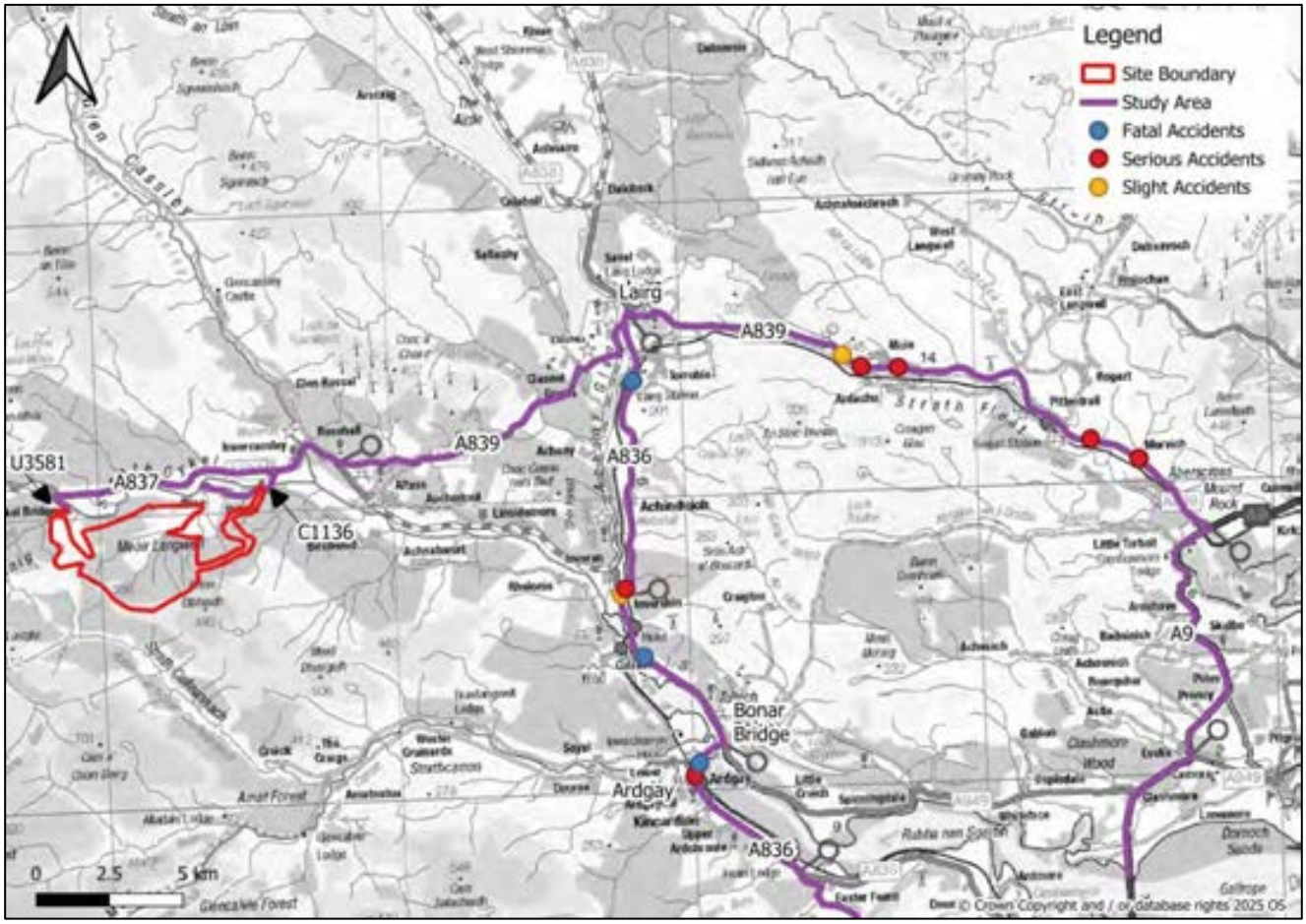
Road Link	Slight	Serious	Fatal	HGV
C1136	0	0	0	0
Oykel Bridge Road (U3581)	0	0	0	0
A837	0	0	0	0
A836	1	2	3	0
A839	1	4	0	0

[6] https://www.crashmap.co.uk

[7] https://www.transport.gov.scot/media/4589/planning_reform_-_dpmtag_-_development_management__dpmtag_ref__17__-_transport_assessment_guidance_final_-_june_2012.pdf

Road Link	Slight	Serious	Fatal	HGV
Total	**2**	**6**	**3**	**0**
Percentage of total accidents	*18%*	*55%*	*27%*	*0%*

Figure 9 PIA Locations



A general summary of the accidents considered within the review is as follows:

C1136

- There were no accidents recorded on the C1136 within the five year period between 2019 and 2023.

Oykel Bridge Road (U3581)

- There were no accidents recorded on Oykel Bridge Road (U3581) within the five year period between 2019 and 2023.

A837

- There were no accidents recorded on the A837 within the five year period between 2019 and 2023.

A836

- There were a total of six accidents recorded on the A836 within the five year period between 2019 and 2023. Of these, one was classified as being “slight”, two were “serious” and there were three accidents resulting in fatalities.
- The first fatality occurred to the south of Lairg, in the vicinity of Lairg rail station and was a single vehicle (car) accident resulting in two fatalities. The accident occurred during daylight hours, with the vehicle leaving the road.

- The second fatality occurred to the west of Balblair and involved a motorcycle hitting a pedestrian, resulting in a fatality. The section of road where the accident occurred does not have any pedestrian facilities in place. The accident occurred during daylight hours and at a bend on the carriageway.
- The third fatality occurred between Ardgay and Bonar Bridge and involved a car striking a pedestrian, resulting in a fatality.
- A total of two accidents recorded on the A836 involved a motorcycle, one which was “serious” and one resulting in a fatality.
- A total of two accidents recorded on the A836 involved a pedestrian, both of which were fatalities.
- Two accidents occurred at the A836 junction with the A837 and were both single car accidents. One accident was “slight” and one was “serious”. The “serious” accident involved a young driver (under 25).
- All accidents recorded on the A836 were single vehicle accidents.
- There were no accidents on the A836 involving an HGV, bus or cyclist.
- There were no accidents on the A836 resulting in a child casualty.
- There were two accident on the A836 occurring during Winter months (November – March) when poor weather conditions may have exacerbated the risk of an accident occurring.
- There was a total of one accident on the A836 involving a young driver.
- There were no clusters of accidents recorded at any location on the A836. Two separate single vehicle accidents were recorded at the A837 / A836 priority junction.

A839

- There were a total of five accidents recorded on the A839 within the five year period between 2019 and 2023. Of these, one was classified as being “slight”, four were “serious”, and there were no accidents resulting in a fatality recorded.
- Of the five accidents, two involved a motorcycle, both of which were classified as “serious”.
- There were no accidents on the A839 involving an HGV, bus or cyclist.
- There were no accidents on the A839 resulting in a pedestrian or child casualty.
- There was one accident on the A839 occurring during Winter months (December – February) when poor weather conditions may have exacerbated the risk of an accident occurring.
- There were a total of three single vehicle accidents recorded on the A839, two of which involved a young driver (under 25).
- There were a total of two accidents involving a young driver on the A839.
- There were no clusters of accidents recorded at any location on the A839.

PIA Summary

The analysis indicates that there were a total of 11 PIAs recorded along the assessed links within the most recent five-year period. Most recorded accidents were categorised as being “slight” (18%), with 55% of incidents recorded as “serious” and three resulting in a fatality (27%).

There are no clusters of PIAs at any location in the assessed area and there were no accidents recorded involving an HGV.

Based on the information available, it has been established that there are no specific road safety issues within the immediate vicinity of the Proposed Development that currently require to be addressed or would be exacerbated by construction activities associated with the Proposed Development.

5.5 Future Baseline

5.5.1 2031 Traffic Flows

Construction of the Proposed Development is anticipated to commence in 2031 if planning permission is granted and is expected to last 18 months depending on weather conditions and ecological considerations.

To assess the likely effects during the construction phase, base year traffic flows were determined by applying NRTF high and low growth factors to the surveyed traffic flows. The NRTF low growth factor, applied to trunk

roads, for 2025 to 2031 is 1.030 and the high growth factor, applied to all other roads, for 2025 to 2031 is 1.074. These factors were applied to the 2025 traffic data presented in **Table 2** to estimate the 2031 Base traffic flows presented in **Table 5**.

Table 5 2031 Traffic Data

Site ID	Survey Location	Cars & LGVs	HGVs	Total
1	C1136 Eastern Access Option Site access	33	18	51
2	C1136 south of A837 junction	23	14	37
3	A837 Invercassley	165	128	293
4	A837 Oykel Bridge	235	19	254
5	A839 between the A837 and A836	249	9	257
6	A836 west of Lairg	1,859	165	2,024
7	A839 between the A9 and A836	867	40	906
8	A836 between A837 and A839	1,026	88	1,114
9	A836 between the A949 and A837	1,741	121	1,862
10	A836 Ardgay	1,790	147	1,938
11	B9176 south of Dalnavie	1,881	164	2,045
12	A9 between Poles and The Mound	4,325	1,003	5,328
13	A9 between the A949 and B9168	3,452	907	4,359
14	A9 south of A949 junction	6,559	991	7,549

Please note minor variances due to rounding may occur.

5.6 Committed Developments

5.6.1 Onshore Wind Farm and Energy Related Planning Applications

A review of THC's online planning portal[8], Major Energy Related Projects interactive portal[9] and the Scottish Governments ECU portal[10] was undertaken to identify any consented energy related schemes within the vicinity of the Proposed Development which would generate significant traffic within the same Study Area and should be included within the assessment.

TA Guidance[11] advises that only those projects with extant planning permission or local development plan allocations within an adopted or approved plan require to be included in any assessment. Those projects in scoping or at the application stage should not be included in cumulative assessments as they have yet to be determined. When considering traffic impacts specifically in relation to the construction phase of a project, the potential traffic impact is highly speculative and as such, cannot be included in the assessment.

Table 6 shows the consented schemes that have been given further consideration.

Table 6 Summary of Cumulative Developments

Reference	Wind Farm	Distance from Proposed Development	Status	Included as Committed Development
20/02659/FUL	Meall Buidhe Wind Farm	< 5 km	Consented at appeal in June 2023 – Commencement of	No – Even if construction commences at the end of the commencement period, the development would be completed

[8] https://www.highland.gov.uk/info/180/planning_-_applications_warrants_and_certificates/143/planning_permission/4 [Accessed May 2025]
[9] https://experience.arcgis.com/experience/2928bb39f0dd4ab68f1b3a8988861af5 [Accessed May 2025]
[10] https://www.energyconsents.scot/ApplicationSearch.aspx?T=1 [Accessed May 2025]
[11] https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements

Reference	Wind Farm	Distance from Proposed Development	Status	Included as Committed Development
			development no later than three years from the date of consent.	prior to the commencement of the Proposed Development.
ECU00001930 / 21/03695/S36	Achany Extension Wind Farm	~ 10 km	Consented in May 2023 – Commencement of development no later than five years from the date of consent.	No – Even if construction commences at the end of the commencement period, the development would be completed prior to the commencement of the Proposed Development.
21/00849/FUL	Lairg 2 Wind Farm Re-Design	< 20 km	Consented in October 2022 – Commencement of development no later than three years from the date of consent.	No – Even if construction commences at the end of the commencement period, the development would be completed prior to the commencement of the Proposed Development.
20/05067/FUL	Strath Tirry Wind Farm	< 25 km	Consented in June 2022 – Commencement of development no later than three years from the date of consent.	No – Even if construction commences at the end of the commencement period, the development would be completed prior to the commencement of the Proposed Development.
ECU00002031 / 22/01635/S36	Chleansaid Wind Farm	<30 km	Consented in December 2023 – Commencement of development no later than five years from the date of consent.	No – Even if construction commences at the end of the commencement period, the development would be completed prior to the commencement of the Proposed Development.
22/02717/S36	Strath Oykel Wind Farm	< 5 km	Consented in January 2025 – Commencement of development no later than five years from the date of consent.	Yes – Potential for construction phases to overlap if construction commences at the end of the commencement period and the Proposed Development is consented and begins construction in 2031.
21/01921/S36	Garvary Wind Farm	< 20 km	Consented in February 2025 – Commencement of development no later than five years from the date of consent.	Yes – Potential for construction phases to overlap if construction commences at the end of the commencement period and the Proposed Development is consented and begins construction in 2031.
ECU00004487 / 23/02936/S36	Creag Riabhach Wind Farm Extension	~ 30 km	Consented in July 2024 – Commencement of development no later than five years from the date of consent.	Yes – Potential for construction phases to overlap if construction commences at the end of the commencement period and the Proposed Development is consented and begins construction in 2031.
ECU00001800 / 19/01861/S36	Kirkan Wind Farm	~ 30 km	Consented in July 2023 – Commencement of development no later than five years from the date of consent.	No – There are no shared sections of the respective study areas.
21/02985/FUL	Lochluichart Wind Farm Extension II Redesign	~ 30 km	Consented in January 2023 – Commencement of development no later than three years from the date of consent.	No – There are no shared sections of the respective study areas.
24/04118/S42	Sallachy Wind Farm	~ 20 km	Section 42 application consented in March 2025 – Commencement of development no later than five years from the date of consent.	Yes – Potential for construction phases to overlap if construction commences at the end of the commencement period and the Proposed Development is consented and begins construction in 2031.
22/02442/FUL	Strathrory Wind Farm	~ 30 km	Consented in August 2023 – Commencement of development no later	No – Construction is already underway on Strathroy Wind Farm and as such will be completed prior to the

Reference	Wind Farm	Distance from Proposed Development	Status	Included as Committed Development
			than five years from the date of consent.	commencement of the Proposed Development.

Based on the information provided in **Table 6** above, the following projects will be considered further within the cumulative development assessment within **Chapter 9 (EIA Report, Volume 2)**.

- Strath Oykel Wind Farm;
- Garvary Wind Farm;
- Creag Riabhach Wind Farm Extension; and
- Sallachy Wind Farm.

Should the above or any other schemes be consented and constructed at the same time as the Proposed Development, the Applicant would welcome the opportunity to engage with other developers in consultation with THC to ensure appropriate traffic management measures would be implemented to minimise any cumulative impacts. In the event of all the sites being constructed at the same time it is suggested this would be mitigated through the use of an overarching Traffic Management and Monitoring Plan (TMMP) for all of the sites and by introducing a phased delivery plan which would be agreed with THC and Police Scotland.

Furthermore, it is extremely unlikely that peak traffic conditions would overlap should more than one scheme be constructed at the same time, due to differences in construction programmes, material supplies and developer resources.

5.6.2 Other Planning Applications

A review of the THC online planning portal was also undertaken for other developments with planning consent, which should be considered within this assessment. The review examined consented developments whose trips are considered significant in scale (i.e., has associated traffic impact of over 30%).

The review did not identify any other significant traffic generating developments in the Study Area that may occur during the construction phase associated with the Proposed Development.

The use of NRTF growth factors for future background traffic is considered robust for addressing smaller, non-significant traffic generation caused by smaller developments within the Study Area.

It should be noted that the inclusion of additional traffic trips to the baseline, such as committed development trips, will dilute the potential impact that the Proposed Development will have on the local road network. As such, the approach taken is considered to be an overly robust assessment.

6 Trip Generation and Distribution

6.1 Construction Phase

6.1.1 Trip Derivation

During the 18-month construction phase, the following traffic will require access to the Site:

- Staff transport, in either cars or staff minibuses;
- Construction equipment and materials, deliveries of machinery and supplies such as concrete materials and crushed rock;
- Components relating to the substation and associated infrastructure;
- AILs consisting of the wind turbine sections and heavy lift cranes; and
- Escort vehicles for AIL deliveries.

Average monthly traffic flow data was used to establish the construction trips associated with the Proposed Development, based on the assumptions detailed in the following sections. It should be noted that there may be variations in the following calculations due to rounding, which do not significantly affect outcomes.

As previously discussed, two potential access options for the Proposed Development are currently under consideration, which are detailed below:

- Eastern Access Option (joining the Strath Oykel Wind Farm access tracks) from the C1136 via the A837; and
- Western Access Option (joining the Meall Buidhe Wind Farm access tracks) from Oykel Bridge Road (U3581) via the A837.

Depending on the final access option that is progressed, there will be small differences in the construction trip generation between the two. As such, where relevant, the difference in material quantities and resultant trip generation is provided below.

6.1.2 Construction Staff

Staff will arrive in non-HGV vehicles and where possible will be encouraged to car share, or potentially share a mini bus. The workforce on-site will depend on the activities undertaken, but, based on previous wind farm construction site experience for a project of this scale which suggests three to four staff per turbine during the short peak period of construction is likely, the maximum number of staff expected on-site could be around 44 per day.

For the purposes of estimating traffic movements, it was assumed that 40% of staff would be transported by minibus and 60% would arrive by car (single car occupancy was assumed as the worst case at this stage with potentially fewer movements through car sharing).

Based on these assumptions, staff transport cars and light vehicles would account for a maximum of 60 vehicle movements (30 inbound trips and 30 outbound trips) per day during the peak period of construction.

6.1.3 Abnormal Indivisible Loads

The turbines are broken down into components for transport to the Site. The nacelle, blade and tower sections are classified as AILs due to their weight, length, width and height when loaded. For the purposes of the report, the 'worst case' numbers of components requiring transport are illustrated in **Table 7**.

Table 7 Turbine Components

Component	Number of Components per Turbine
Rotor Blades	3
Tower Sections	5
Nacelle	1

Component	Number of Components per Turbine
Hub	1
Drive Train	1
Nose Cone	1
Transformer	1
Ancillary	1
Site Parts	0.25 (parts shared between 4 wind turbines on one delivery)

In addition to the turbine deliveries, two high-capacity erection cranes would be needed to offload a number of components and erect the turbines. The cranes are likely to be mobile cranes with a capacity up to 1,000 tonnes that are escorted by boom and ballast trucks to allow full mobilisation on-site. Smaller erector cranes would also be present to allow the assembly of the main cranes and to ease the overall erection of the turbines.

Escort vehicles would accompany the AIL convoys to support the traffic management measures. Up to three vehicles would be deployed and it is assumed that three AIL turbine component loads would be delivered per convoy. This would result in 41 convoys on the network, with a total of approximately 246 escort vehicle movements (123 inbound trips and 123 outbound trips).

Wind turbine components that do not classify as AILs, would be delivered in addition to these, resulting in a further approximate 70 vehicle movements (35 inbound trips and 35 outbound trips). All of these deliveries are expected to occur over a period of approximately six months depending on weather conditions.

The escort vehicles have been assumed to be police cars and light goods vehicles. Motorcycles may be deployed, depending upon police resources.

6.1.4 General Deliveries

Throughout the construction phase, general deliveries will be made to the Site by HGV. These would include fuel, Site office supplies and staff welfare. At height of construction, it is assumed that up to 40 journeys to Site are made (20 in and 20 out) per month.

6.1.5 Timber Extraction

There will be a requirement for timber felling and extraction associated with the construction of the Proposed Development. It is currently estimated that there will be in the order of 50,000 tonnes of timber to be felled and exported from the Site. Note this is subject to change following the preparation of a detailed felling plan.

It has been assumed that the timber will be felled at the start of the construction programme and occur over a period of seven months. For the purposes of the assessment, it has been assumed that all timber extracted will be done using a dedicated timber articulated lorry, which has a payload capacity of approximately 25 t.

Based on the above, it is therefore assumed that a total of 4,000 vehicle movements (2,000 inbound trips and 2,000 outbound trips) will be required to extract the timber from the Site.

6.1.6 Material Deliveries

Various materials will need to be delivered to Site to form the site-based infrastructure. At the outset, HGV deliveries will deliver plant and initial material deliveries to the Site to enable the formation of the Site compound and to delivery construction machinery.

The Site is large enough to warrant on-site batching of concrete. All wind turbine, substation foundation concrete will be mixed on-site, with deliveries of cement powder, water and sand and aggregates being delivered by HGV. For the purpose of this assessment, it is assumed that the cement powder and water will be delivered from local suppliers to the south on the A9, while aggregates / sand will be delivered from quarries to the south of Bonar Bridge.

The estimated total volume of concrete required on-site is 9,185 m³, based upon expected wind turbine foundation, substation foundation and miscellaneous uses across the Proposed Development. . The individual deliveries associated with the raw materials for the production of concrete have been estimated and detailed in **Table 8**.

Table 8 Concrete Material Deliveries

Element	Volume / Installation (m³)	Inbound Trips	Total Movements
Cement	2,429	20	40
Sand	1,072	96	191
Aggregates	2,186	195	390
Water	3,498	117	233

Reinforcement steel required in the wind turbine foundations, substation etc. across the Site are detailed in **Table 9** below.

Table 9 Steel Deliveries

Element	Weight / Installation (t)	Total Weight (t)	Lorry Capacity (t)	Inbound Trips	Total Journeys
Turbine Foundation	37	407	30	14	28
Substation / Control Building Foundation	20	20	30	1	2

The proposed access tracks will generally be between 5 m and 6 m in width and would be designed to accommodate 13 tonne axle loads. In addition to the access tracks, crane hardstands will be constructed to enable the wind turbine erection process. While it is anticipated that 70% of the aggregate requirements will be sourced from on-site borrow pit, as a worst-case assessment, it has been assumed that 50% of the aggregate material requirements will be imported to the Site. It is assumed that the aggregate material will be delivered from quarries to the south of Bonar Bridge.

The estimate of imported material (i.e. 50% of the total volume of required material) for each access option is detailed in **Table 10**.

Table 10 Aggregate Material Deliveries (excluding concrete aggregates)

Element	Volume / Installation (m³)	Total Weight (t)	Lorry Capacity (t)	Inbound Trips	Total Movements
Eastern Access Option					
Stone / Aggregates	48,058	105,728	20	5,287	10,574
Western Access Option					
Stone / Aggregates	47,328	104,121	20	5,207	10,414

Cables will connect each turbine to the internal substation and control building. Trip estimates for the cable materials are provided below in **Table 11** and **Table 12**. Up to three cables are to be provided within each cable trench and would be backfilled with cable sand. The cable materials would be likely sourced from the Central Belt and would access the Site via the A9, A836, A839, and A837, before travelling through to the Site via the eastern or western access option.

Table 11 Cable Trip Estimate

Element	Total Cable Length (m)	Length per Drum (m)	Number of Drums	Inbound Trips	Total Movements
Eastern Access Option					
Cables	12,633	500	76	9	18
Western Access Option					
Cables	10,554	500	63	7	14

Table 12 Cable Sand Trip Estimate

Element	Volume (m^3)	Total Weight (t)	Lorry Capacity (t)	Inbound Trips	Total Movements
Eastern Access Option					
Cable Sand	4,264	6,821	20	342	684
Western Access Option					
Cable Sand	3,562	5,699	20	285	570

Geotextile will be delivered to Site in rolls by HGV. A summary for each access option is provided below:

- Eastern Access Option - A total of 349 large rolls may be required at Site and will be delivered by HGV which will result in 36 vehicle movements (18 inbound trips in and 18 outbound trips).
- Western Access Option - A total of 329 large rolls may be required at Site and will be delivered by HGV which will result in 34 vehicle movements (17 inbound trips in and 17 outbound trips).

Ducting will be used to shield the trench and ducting will be used to protect the cable when it runs under roadways, with ten vehicle movements predicted for ducting materials (five inbound trips and five outbound trips).

One substation building will be constructed on the Site. This will require deliveries of building materials and structural elements and will result in 230 vehicle movements (115 inbound trips in and 115 outbound trips).

The resulting traffic generation estimates have been plotted onto the indicative construction programme to illustrate the peak journeys on the network. **Table 13 and Table 14** illustrate the trip generation throughout the construction programme for each month, showing two-way construction vehicle movements, i.e. an inbound and outbound trip for the Eastern Access Option and the Western Access Option, respectively.

Table 13 Construction Traffic Profile (two-way trips) – Eastern Access Option

Activity	Class	Month													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Site Establishment & Remediation	HGV				60	40	40	20					20	20	20
Plant Deliveries	HGV				40	30									
Timber Extraction	HGV	571	571	571	571	571	571	571							
General Site Deliveries	HGV	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Imported Stone	HGV							2,604	2,644	2,644	2,644				
Reinforcement	HGV								15	15					
Concrete Deliveries	HGV								214	214	214	214			
Cable and Ducting Deliveries	HGV									7	7	7	7		
Cabling Sand	HGV									171	171	171	171		
Geotextile Deliveries	HGV						9		9		9		9		
Substation Building	HGV								58	58	58	58			
Cranes	HGV											20			
Turbine Deliveries	HGV											52	52	52	52
AIL Escorts	Car & LGV											41	41	41	41
Commissioning & Testing	Car & LGV														
Staff	Car & LGV	330	660	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320
Total HGV	HGV	611	611	611	711	681	660	3,275	2,979	3,148	3,142	561	299	112	112
Total Cars / LGV	Car & LGV	330	660	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,361	1,361	1,361	1,361
Total Movements		**942**	**1,272**	**1,932**	**2,032**	**2,002**	**1,982**	**4,596**	**4,300**	**4,468**	**4,462**	**1,924**	**1,662**	**1,474**	**1,474**
Total HGV per Day		**28**	**28**	**28**	**34**	**32**	**32**	**150**	**136**	**144**	**144**	**26**	**14**	**6**	**6**
Total Cars / LGV per Day		**16**	**30**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**62**	**62**	**62**	**62**
Total per Day		**44**	**58**	**88**	**94**	**92**	**92**	**210**	**196**	**204**	**204**	**88**	**76**	**68**	**68**

Please note minor variances due to rounding may occur.
Calculations assume that there are 22 working days per month.
Continues over the page.

Activity	Class	Month			
		15	16	17	18
Site Establishment & Remediation	HGV	20	40	40	20
Plant Deliveries	HGV			40	30
Timber Extraction	HGV				
General Site Deliveries	HGV	40	40	40	40
Imported Stone	HGV				
Reinforcement	HGV				
Concrete Deliveries	HGV				
Cable and Ducting Deliveries	HGV				
Cabling Sand	HGV				
Geotextile Deliveries	HGV				
Substation Building	HGV				
Cranes	HGV			20	
Turbine Deliveries	HGV	52	52		
AIL Escorts	Car & LGV	41	41		
Commissioning & Testing	Car & LGV	30	30	30	30
Staff	Car & LGV	1,320	1,320	660	660
Total HGV	HGV	112	132	140	90
Total Cars / LGV	Car & LGV	1,391	1,391	690	690
Total Movements		**1,504**	**1,524**	**830**	**780**
Total HGV per Day		**6**	**8**	**8**	**6**
Total Cars / LGV per Day		**64**	**64**	**32**	**32**
Total per Day		**70**	**70**	**38**	**36**

Please note minor variances due to rounding may occur.
Calculations assume that there are 22 working days per month.

Table 14 Construction Traffic Profile (two-way trips) – Western Access Option

Activity	Class	Month													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Site Establishment & Remediation	HGV				60	40	40	20					20	20	20
Plant Deliveries	HGV				40	30									
Timber Extraction	HGV	571	571	571	571	571	571	571							
General Site Deliveries	HGV	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Imported Stone	HGV							2,604	2,604	2,604	2,604				
Reinforcement	HGV								15	15					
Concrete Deliveries	HGV								214	214	214	214			
Cable and Ducting Deliveries	HGV									6	6	6	6		
Cabling Sand	HGV									143	143	143	143		
Geotextile Deliveries	HGV						9		9		9		9		
Substation Building	HGV								58	58	58	58			
Cranes	HGV											20			
Turbine Deliveries	HGV											52	52	52	52
AIL Escorts	Car & LGV											41	41	41	41
Commissioning & Testing	Car & LGV														
Staff	Car & LGV	330	660	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320
Total HGV	HGV	611	611	611	711	681	660	3,235	2,938	3,078	3,072	532	269	112	112
Total Cars / LGV	Car & LGV	330	660	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,320	1,361	1,361	1,361	1,361
Total Movements		**942**	**1,272**	**1,932**	**2,032**	**2,002**	**1,980**	**4,556**	**4,260**	**4,400**	**4,392**	**1,894**	**1,632**	**1,474**	**1,474**
Total HGV per Day		**28**	**28**	**28**	**34**	**32**	**30**	**148**	**134**	**140**	**140**	**26**	**14**	**6**	**6**
Total Cars / LGV per Day		**16**	**30**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**60**	**62**	**62**	**62**	**62**
Total per Day		**44**	**58**	**88**	**94**	**92**	**90**	**208**	**194**	**200**	**200**	**88**	**76**	**68**	**68**

Please note minor variances due to rounding may occur.
Calculations assume that there are 22 working days per month.
Continues over the page.

Activity	Class	Month			
		15	16	17	18
Site Establishment & Remediation	HGV	20	40	40	20
Plant Deliveries	HGV			40	30
Timber Extraction	HGV				
General Site Deliveries	HGV	40	40	40	40
Imported Stone	HGV				
Reinforcement	HGV				
Concrete Deliveries	HGV				
Cable and Ducting Deliveries	HGV				
Cabling Sand	HGV				
Geotextile Deliveries	HGV				
Substation Building	HGV				
Cranes	HGV			20	
Turbine Deliveries	HGV	52	52		
AIL Escorts	Car & LGV	41	41		
Commissioning & Testing	Car & LGV	30	30	30	30
Staff	Car & LGV	1,320	1,320	660	660
Total HGV	HGV	112	132	140	90
Total Cars / LGV	Car & LGV	1,391	1,391	690	690
Total Movements		**1,504**	**1,524**	**830**	**780**
Total HGV per Day		**6**	**8**	**8**	**6**
Total Cars / LGV per Day		**64**	**64**	**32**	**32**
Total per Day		**70**	**70**	**38**	**36**

Please note minor variances due to rounding may occur.
Calculations assume that there are 22 working days per month.

The peak of construction activity is expected to occur in month seven for the Proposed Development, regardless of which access option is progressed.

In the scenario whereby the Eastern Access Option is progressed, there will be a total of 4,596 vehicle movements per month, which equates to 210 vehicle movements per day, comprising 150 two-way HGV movements and 60 two-way car / LGV movements.

This would equate to approximately 18 two-way total vehicles movements or 12 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.

In the scenario whereby the Western Access Option is progressed, there will be a total of 4,556 vehicle movements, which equates to 208 vehicle movements per day, comprising 148 two-way HGV movements and 60 two-way car / LGV movements.

This would equate to approximately 16 two-way total vehicles movements or 12 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.

6.1.7 Distribution of Construction Trips

The distribution of development traffic on the network will vary depending on the types of loads being transported. The assumptions for the distribution of construction traffic during the peak months are as follows:

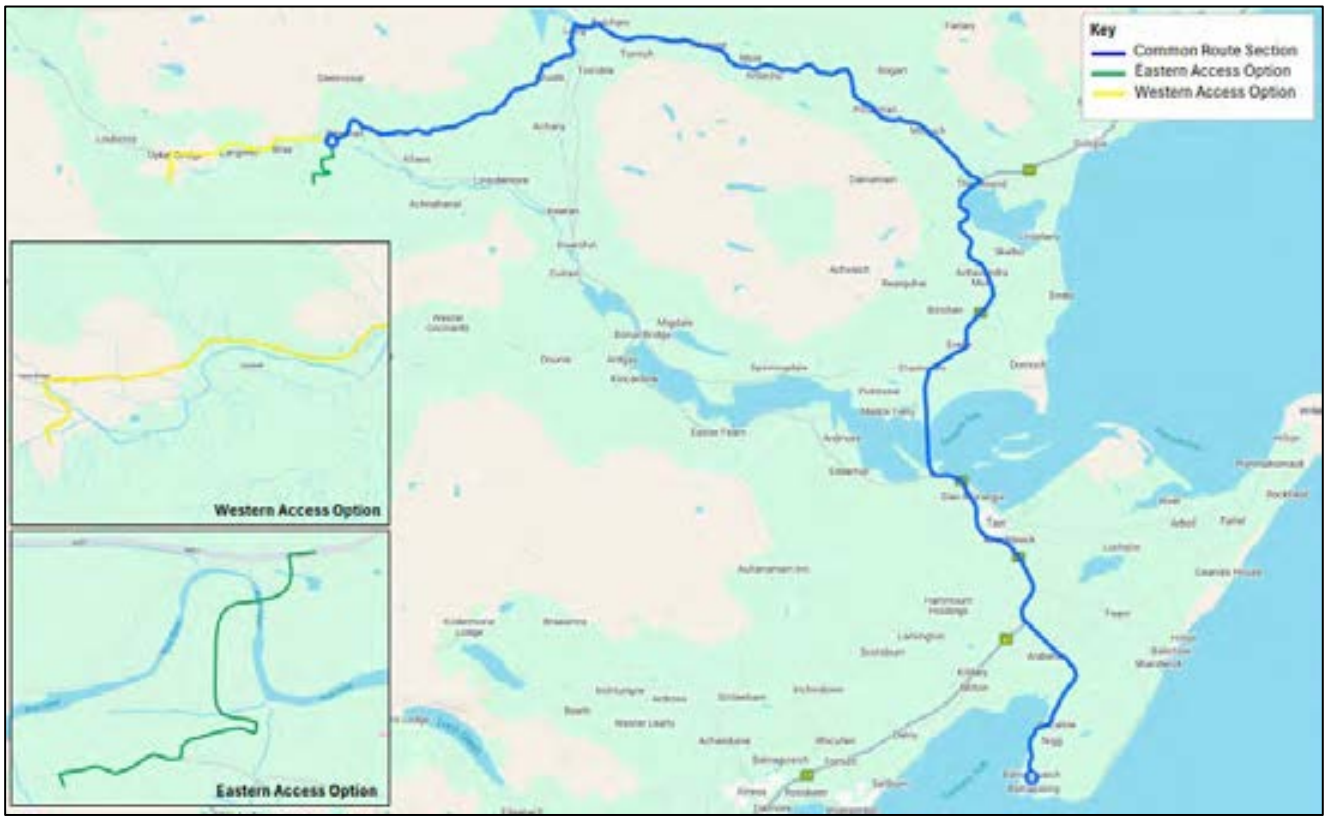
- All construction traffic enters the Site via the proposed Site access junction. Depending on the final access option chosen, that will be via the C1336 for the Eastern Access Option or the Oykel Bridge Road (U3581) for the Western Access Option;
- Deliveries associated with concrete materials, such as cement powder and water, will be sourced from concrete suppliers, which for the purpose of this assessment will originate south, routing via the A9, A839, A837 and C1336 for the Easter Access Option or the A9, A839, A837 and Oykel Bridge Road (U3581) for the Western Access Option;
- Sand and aggregates will be sourced from local quarries. For the purposes of the assessment, it is assumed that all material will be sourced from quarries located to the south of Bonar Bridge. The Balance of Plant (BoP) contractor will confirm final quarry and material sourcing with THC in the Construction Traffic Management Plan (CTMP);
- HGV deliveries associated with the HV electrical installation, control buildings, etc will arrive from the south via the A9;
- Staff working at the Site are likely to be based locally. It is assumed that 80% will come from Lairg or Bonar Bridge, while 20% will arrive from the south via the A9; and
- General Site deliveries will come from the south. These are generally smaller rigid HGV vehicles.

Loads relating to the turbine components would be delivered from Port of Nigg. The proposed access route would be as follows:

- Loads will exit the Port of Nigg and turn left onto the B9175 and continue north;
- Loads will continue north onto the A9;
- At The Mound, loads will turn left onto the A839 and will proceed westbound to Lairg;
- In Lairg, loads will turn left and will continue southbound on the A836;
- Loads would continue west on the A839;
- Loads would turn right onto the A837 and continue through Invercassley and Rosehall; and
- Depending on the final access option, either:
    - Eastern Access Option: Loads would turn left onto the C1136 and follow it into the Site via a new proposed crossing over the River Oykel and new access tracks; or
    - Western Access Option: Loads would cross the Oykel Bridge and turn left into the Site access track and then proceed to Site via an existing crossing over the River Einig and new and upgraded access tracks.

The proposed AIL access routes are illustrated in **Figure 10** and has been considered, within the AIL RSR, provided in **Annex B**.

Figure 10 Proposed AIL Access Routes



6.1.8 Peak Construction Traffic

Following the distribution and assignment of traffic flows to the Study Area network, the resultant daily traffic during the peak of construction (month seven) are summarised in **Table 15** for the Eastern Access Option and **Table 16** for the Western Access Option.

Table 15 Peak Construction Traffic – Eastern Access Option

Survey Location	Cars / LGV	HGV	Total
C1136 Eastern Access Option Site access	60	150	210
C1136 south of A837 junction	60	150	210
A837 Invercassley	60	150	210
A837 Oykel Bridge	0	0	0
A839 between the A837 and A836	60	150	210
A836 west of Lairg	36	150	186
A839 between the A9 and A836	12	4	16
A836 between A837 and A839	24	148	172
A836 between the A949 and A837	24	148	172
A836 Ardgay	24	148	172
B9176 south of Dalnavie	24	0	24
A9 between Poles and The Mound	12	4	16
A9 between the A949 and B9168	12	4	16
A9 south of A949 junction	12	4	16

Please note that variances may occur due to rounding.

Table 16 Peak Construction Traffic – Western Access Option

Survey Location	Cars / LGV	HGV	Total
C1136 Eastern Access Option Site access	0	0	0
C1136 south of A837 junction	0	0	0
A837 Invercassley	60	148	208
A837 Oykel Bridge	60	148	208
A839 between the A837 and A836	60	148	208
A836 west of Lairg	36	148	184
A839 between the A9 and A836	12	4	16
A836 between A837 and A839	24	144	168
A836 between the A949 and A837	24	144	168
A836 Ardgay	24	144	168
B9176 south of Dalnavie	24	0	24
A9 between Poles and The Mound	12	4	16
A9 between the A949 and B9168	12	4	16
A9 south of A949 junction	12	4	16

Please note that variances may occur due to rounding.

Note, where road links show no construction traffic, this is due to those road links not being used during the peak month of construction activity or not being used due to the access option being considered.

6.2 Operational Phase

In the operational phase, it is envisaged that the level of traffic associated with the Proposed Development will equate to on average two vehicle trips per week which is considered negligible and therefore no detailed assessment of the operational phase of the development is proposed.

6.3 Decommissioning Phase

Prior to decommissioning of the Site, a traffic assessment would be undertaken, and appropriate traffic management procedures followed.

The decommissioning phase would result in fewer trips on the road network than the construction or operational phase as it is considered likely that elements of infrastructure such as access tracks would be left in place and structures may be broken up on Site to allow transport by a reduced number of HGVs.

7 Traffic Impact Assessment

7.1 Construction Impact – Eastern Access Option

The peak month (month seven) traffic data was combined with the future year (2031) traffic data to allow a comparison between the baseline results to be made, for the scenario where the Eastern Access Option is progressed. The increase in traffic volumes is illustrated in percentage increases for each class of vehicle. This is illustrated in **Table 167**.

Table 17 Eastern Access Option – 2031 Baseline + Construction Development - Flows and Impact

Survey Location	Cars & LGV	HGV	Total Traffic	Cars & LGV % Increase	HGV % Increase	Total Traffic % Increase
C1136 Eastern Access Option Site access	93	168	261	182.7%	839.6%	414.2%
C1136 south of A837 junction	83	164	247	264.4%	1,035.5%	564.8%
A837 Invercassley	225	278	503	36.4%	117.1%	71.7%
A837 Oykel Bridge	235	19	254	0.0%	0.0%	0.0%
A839 between the A837 and A836	309	159	467	24.1%	1,704.9%	81.6%
A836 west of Lairg	1,895	315	2,210	1.9%	90.9%	9.2%
A839 between the A9 and A836	879	44	922	1.4%	10.1%	1.8%
A836 between A837 and A839	1,050	236	1,286	2.3%	168.2%	15.4%
A836 between the A949 and A837	1,765	269	2,034	1.4%	122.3%	9.2%
A836 Ardgay	1,814	295	2,110	1.3%	100.4%	8.9%
B9176 south of Dalnavie	1,905	164	2,069	1.3%	0.0%	1.2%
A9 between Poles and The Mound	4,337	1,007	5,344	0.3%	0.4%	0.3%
A9 between the A949 and B9168	3,464	911	4,375	0.3%	0.4%	0.4%
A9 south of A949 junction	6,571	995	7,565	0.2%	0.4%	0.2%

Please note minor variances due to rounding may occur.

The total traffic movements are predicted to increase by a maximum of 564.8% on the C1136 south of the A837 junction, which would be used by all construction traffic should the Eastern Access Option be progressed. Whilst this increase could be considered significant, it is caused by the low level of vehicles using the road. To put the increase into perspective, the road will see an additional 210 total vehicle movements per day or approximately 18 vehicle movements per hour over the course of a typical 12-hour shift. This is not considered significant in terms of overall traffic flows.

Table 17 shows that highest HGV traffic movements increase will also occur on the C1136 south of the A837 junction, which would be used by all construction traffic should the Eastern Access Option be progressed. At this location it is estimated to increase by 1,035.5%. Whilst this increase could be considered statistically high, this is due to the extremely low level of HGVs currently using this road (13 HGVs per day). To put the increase into perspective, the road will see an additional 150 HGV movements per day or on average of 12 HGV movements per hour, over the course of a typical 12-hour shift. This is not considered significant in terms of overall traffic flows.

A review of existing theoretical road capacity has been undertaken using The NESA Manual, formerly part of the Design Manual for Roads and Bridges, Volume 15, Part 5. The theoretical road capacity has been estimated for each of the road links for a 12-hour period that makes up the Study Area. The results are summarised in **Table 18**.

Table 18 Eastern Access Option – 2031 Peak Traffic Flow Capacity Review

Survey Location	2031 Baseline Flow	2031 Base + Development Flows	Theoretical Road Capacity (12hr)	Spare Road Capacity %
C1136 Eastern Access Option Site access	51	261	3,360	92.2%
C1136 south of A837 junction	37	247	3,360	92.6%
A837 Invercassley	293	503	19,200	97.4%
A837 Oykel Bridge	254	254	3,360	92.4%
A839 between the A837 and A836	257	467	21,600	97.8%
A836 west of Lairg	2,024	2,210	21,600	89.8%
A839 between the A9 and A836	906	922	21,600	95.7%
A836 between A837 and A839	1,114	1,286	19,200	93.3%
A836 between the A949 and A837	1,862	2,034	19,200	89.4%
A836 Ardgay	1,938	2,110	19,200	89.0%
B9176 south of Dalnavie	2,045	2,069	21,600	90.4%
A9 between Poles and The Mound	5,328	5,344	28,800	81.4%
A9 between the A949 and B9168	4,359	4,375	28,800	84.8%
A9 south of A949 junction	7,549	7,565	28,800	73.7%

The results indicate there are no road capacity issues with the addition of construction traffic associated with the Proposed Development and significant spare capacity exists within the trunk and local road network to accommodate all construction phase traffic.

7.2 Construction Impact – Western Access Option

The peak month (month seven) traffic data was combined with the future year (2031) traffic data to allow a comparison between the baseline results to be made, for the scenario where the Western Access Option is progressed. The increase in traffic volumes is illustrated in percentage increases for each class of vehicle. This is illustrated in **Table 19**.

Table 19 Western Access Option – 2031 Baseline + Construction Development - Flows and Impact

Survey Location	Cars & LGV	HGV	Total Traffic	Cars & LGV % Increase	HGV % Increase	Total Traffic % Increase
C1136 Eastern Access Option Site access	33	18	51	0.0%	0.0%	0.0%
C1136 south of A837 junction	23	14	37	0.0%	0.0%	0.0%
A837 Invercassley	225	276	501	36.4%	115.5%	71.0%
A837 Oykel Bridge	295	167	462	25.5%	791.6%	81.9%
A839 between the A837 and A836	309	157	465	24.1%	1,682.2%	80.8%
A836 west of Lairg	1,895	313	2,208	1.9%	89.7%	9.1%
A839 between the A9 and A836	879	44	922	1.4%	10.1%	1.8%
A836 between A837 and A839	1,050	232	1,282	2.3%	164.0%	15.1%
A836 between the A949 and A837	1,765	265	2,030	1.4%	119.3%	9.0%
A836 Ardgay	1,814	292	2,106	1.3%	97.9%	8.7%
B9176 south of Dalnavie	1,905	164	2,069	1.3%	0.0%	1.2%
A9 between Poles and The Mound	4,337	1,007	5,344	0.3%	0.4%	0.3%
A9 between the A949 and B9168	3,464	911	4,375	0.3%	0.4%	0.4%
A9 south of A949 junction	6,571	995	7,565	0.2%	0.4%	0.2%

Please note minor variances due to rounding may occur.

The total traffic movements are predicted to increase by a maximum of 81.9% on the A837 at Oykel Bridge, which would be used by all construction traffic should the Western Access Option be progressed. Whilst this increase could be considered significant, it is caused by the low level of vehicles using the road. To put the increase into perspective, the road will see an additional 208 total vehicle movements per day or approximately 16 vehicle movements per hour over the course of a typical 12-hour shift. This is not considered significant in terms of overall traffic flows.

It is also assumed that the total traffic increase on Oykel Bridge Road (U3581) that leads through to the Site should the Western Access Option be progressed will be significantly in excess of 100% for total traffic due to the extremely low levels of existing traffic using it.

Table 19 shows that highest HGV traffic movements increase will occur on the A839 between the A837 and A836, which would be used by a significant number of HGV traffic associated with the movement of bulk materials. At this location it is estimated to increase by 1,682.2%. Whilst this increase could be considered statistically high, this is due to the relatively low level of HGVs currently using this road (nine HGVs per day). To put the increase into perspective, the road will see an additional 148 HGV movements per day or on average of 12 HGV movements per hour, over the course of a typical 12-hour shift. This is not considered significant in terms of overall traffic flows.

Similar to the total traffic increase, it is assumed that the HGV increase on Oykel Bridge Road (U3581) that leads through to the Site should the Western Access Option be progressed will be significantly in excess of 100% for HGV traffic movements due to the extremely low levels of existing HGV traffic using it.

A review of existing theoretical road capacity has been undertaken using The NESA Manual, formerly part of the Design Manual for Roads and Bridges, Volume 15, Part 5. The theoretical road capacity has been estimated for each of the road links for a 12-hour period that makes up the Study Area. The results are summarised in **Table 20**.

Table 20 Western Access Option – 2031 Peak Traffic Flow Capacity Review

Survey Location	2031 Baseline Flow	2031 Base + Development Flows	Theoretical Road Capacity (12hr)	Spare Road Capacity %
C1136 Eastern Access Option Site access	51	51	3,360	98.5%
C1136 south of A837 junction	37	37	3,360	98.9%
A837 Invercassley	293	501	19,200	97.4%
A837 Oykel Bridge	254	462	3,360	86.2%
A839 between the A837 and A836	257	465	21,600	97.8%
A836 west of Lairg	2,024	2,208	21,600	89.8%
A839 between the A9 and A836	906	922	21,600	95.7%
A836 between A837 and A839	1,114	1,282	19,200	93.3%
A836 between the A949 and A837	1,862	2,030	19,200	89.4%
A836 Ardgay	1,938	2,106	19,200	89.0%
B9176 south of Dalnavie	2,045	2,069	21,600	90.4%
A9 between Poles and The Mound	5,328	5,344	28,800	81.4%
A9 between the A949 and B9168	4,359	4,375	28,800	84.8%
A9 south of A949 junction	7,549	7,565	28,800	73.7%

The results indicate there are no road capacity issues with the addition of construction traffic associated with the Proposed Development and significant spare capacity exists within the trunk and local road network to accommodate all construction phase traffic.

8 Proposed Mitigation Measures

8.1 Construction Phase

8.1.1 Construction Traffic Management Plan (CTMP)

During the construction phase, a project website, blog or X (previously Twitter) feed will be regularly updated to provide the latest information relating to traffic movements associated with vehicles accessing the Site. This would be agreed with THC and TS.

The following measures will be implemented during the construction phase through the CTMP:

- Agree AIL route modifications and improvements with THC and TS. Works which will be required to facilitate turbine deliveries are outlined in the RSR, which is presented in **Annex B**;
- Where possible, the detailed design process will minimise the volume of material to be imported to Site to help reduce HGV numbers;
- A Staff Travel Plan, including transport modes to and from the worksite (including pick up and drop off times);
- A Transport Management Plan for AIL deliveries;
- All materials delivery lorries (dry materials) should be sheeted to reduce dust and stop spillage on public roads;
- Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- Wheel cleaning facilities may be established at the Site entrance, depending on the views of THC;
- Normal Site working hours will be limited to between 0700 and 1900 Monday to Friday and 0700 and 1300 on Saturdays though component delivery and turbine erection may take place outside these hours i.e. depending on when police escort is available;
  Appropriate traffic management measures will be put in place on the A837 and either the C1136 or Oykel Bridge Road (U3581), depending on the selected access location, to avoid conflict with general traffic, subject to the agreement of THC. Typical measures will include HGV turning and crossing signs and / or banksmen at the Site access and warning signs;
- Provide construction updates on the project website, social media feeds and a newsletter to be distributed to residents within an agreed distance of the Site;
- Adoption of a voluntary reduced speed limits, for example on the A837 and either the C1136 or Oykel Bridge Road (U3581), depending on the selected access location and at other locations to be agreed with THC;
- All drivers will be required to attend an induction to include:
  - A toolbox talk safety briefing;
  - The need for appropriate care and speed control;
  - A briefing on driver speed reduction agreements (to slow Site traffic at sensitive locations through the villages); and
  - Identification of the required access routes and the controls to ensure no departure from these routes.

THC is likely to request that an agreement to cover the cost of abnormal wear on its network is made. Video footage of the pre-construction phase condition of the abnormal loads access route and the construction vehicles route will be recorded to provide a baseline of the condition of the road prior to any construction work commencing. This baseline will inform any change in the road condition during the construction phase. Any necessary repairs will be coordinated with THC's roads team. Any damage caused by traffic associated with the Proposed Development during the construction phase that would be hazardous to public traffic will be repaired immediately.

Damage to road infrastructure caused directly by construction traffic will be repaired and street furniture that is removed on a temporary basis will be fully reinstated.

There will be a regular road review and any debris and mud will be removed from the carriageway using an on-Site road sweeper to ensure road safety for all road users.

Before the AILs traverse the route, the following tasks will be undertaken to ensure load and road user safety:

- Ensure any vegetation which may foul the loads is trimmed back to allow passage;
- Confirm there are no roadworks or closures that could affect the passage of the loads;
- Check no new or diverted underground services on the proposed route are at risk from the abnormal loads; and
- Confirm the police are satisfied with the proposed movement strategy.

8.2 Abnormal Load Traffic

8.2.1 Abnormal Load Management Plan

There are a number of traffic management measures that can help reduce the effect of abnormal load convoys. All abnormal load deliveries will be undertaken at appropriate times (to be discussed and agreed with THC, Transport Scotland and police) with the aim to minimise the effect on the local road network. It is likely that the abnormal load convoys would travel in the early morning periods, before peak times while general construction traffic would generally avoid the morning and evening peak periods.

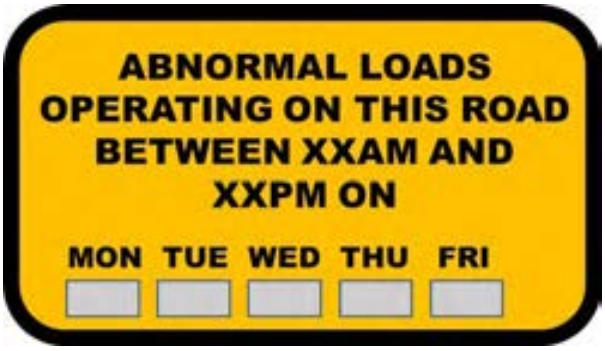
The majority of potential conflicts between construction traffic and other road users will occur with abnormal load traffic. General construction traffic is not likely to come into conflict with other road users as the vehicles are smaller and road users are generally more accustomed to them.

Potential conflicts between the abnormal loads and other road users can occur at a variety of locations and circumstances.

- On sections of single carriageway road or narrow road sections, for example on the A837 and either the C1136 or Oykel Bridge Road (U3581);
- At locations where there are significant changes in the horizontal alignment of the carriageway, requiring the loads to use the full carriageway width;
- Where traffic turns at a road junctions, requiring other traffic to be restrained on other approach arms; and
- In locations where high speeds of general traffic are predicted.

Advance warning signs will be installed on the approaches to the affected road network. Information signage could be installed to help assist drivers and an example is illustrated in **Figure 11**. Flip up panels (shown in grey) will be used to mask over days where convoys would not be operating. When no convoys are moving, the sign will be bagged over by the Traffic Management contractor.

Figure 11 Example Information Sign



This signage will assist in helping improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist).

The location and numbers of signs will be agreed post consent and will form part of the wider Traffic Management Proposal for the project.

The Abnormal Load Transport Management Plan will also include:

- Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking;
- A diary of proposed delivery movements to liaise with the communities to avoid key dates;
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and
- Proposals to establish a construction liaison committee to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would form a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.

8.2.2 Public Information

Information on the wind turbine convoys will be provided to local media outlets such as local papers and local radio to help assist the public.

Information will relate to expected vehicle movements from the PoE through to the Site access junction. This will assist residents in understanding the timing of the convoy movements and may help reduce any potential conflicts.

The Applicant will also ensure information is distributed through its communication team via the project website, local newsletters, and social media.

8.2.3 Convoy System

A police escort will be required to facilitate the delivery of the predicted AILs. The police escort will be further supplemented by a civilian pilot car to assist with the escort duty. It is proposed that an advance escort will warn oncoming vehicles ahead of the convoy, with one escort staying with the convoy at all times. The escorts and convoy will remain in radio contact at all times where possible.

The AIL convoys will be no more than three AILs vehicles long, or as advised by the police, to permit safe transit along the delivery route, and to allow limited overtaking opportunities for following traffic where it is safe to do so.

The times in which the convoys will travel will need to be agreed with Police Scotland who have sole discretion on when loads can be transported.

8.3 Outdoor Access Management Plan (OAMP)

Within the Site, consideration has been given to pedestrians and cyclists alike due to potential interactions between construction traffic and users of Core Paths / paths, cycle routes and public roads. An Outdoor Access Management Plan (OAMP) will be developed and secured via a planning condition.

Users of the Core Paths / paths etc. will be separated from construction traffic wherever possible. Crossing points will be provided where required, with path users having right of way and temporary diversions will be provided where necessary. Appropriate Traffic Signs Manual Chapter 8[12] compliant temporary road signage will be provided to assist at these crossings for the benefit of all users.

The principal contractor will ensure that speed limits are always adhered to by their drivers and associated subcontractors. This is particularly important within close proximity to the forest paths and at crossing points. Advisory speed limit signage will also be installed on approaches to areas where path users may interact with construction traffic.

[12] https://assets.publishing.service.gov.uk/media/5a74adeaed915d7ab83b5ab2/traffic-signs-manual-chapter-08-part-01.pdf

Signage will be installed on the Site exits that makes drivers aware of local speed limits and reminding drivers of the potential presence of pedestrians and cyclists in the area. This will also be emphasised in the weekly toolbox talks.

A scoping response has been received from The British Horse Society. Measures implemented on similar schemes will be given consideration as part of the Proposed Development. These measures are predominantly focused around the interactions between HGV traffic and horses. Horses are normally nervous of large vehicles, particularly when they do not often meet them. Horses are flight animals and will run away in panic if really frightened. Riders will do all they can to prevent this but, should it happen, it could cause a serious accident for other road users, as well as for the horse and rider.

The main factors causing fear in horses in this situation are:

- something approaching them, which is unfamiliar and intimidating;
- a large moving object, especially if it is noisy;
- lack of space between the horse and the vehicle;
- the sound of air brakes; and
- anxiety on the part of the rider.

The British Horse Society has recommended the following actions that will be included in the Site training for all HGV staff:

- on seeing riders approaching, drivers must slow down and stop, minimising the sound of air brakes, if possible;
- if the horse still shows signs of nervousness while approaching the vehicle, the engine should be shut down (if it is safe to do so);
- the vehicle should not move off until the riders are well clear of the back of the HGV;
- if drivers are wishing to overtake riders, please approach slowly or even stop in order to give riders time to find a gateway or lay by where they can take refuge and create sufficient space between the horse and the vehicle. Because of the position of their eyes, horses are very aware of things coming up behind them; and
- all drivers delivering to the Site must be patient. Riders will be doing their best to reassure their horses while often feeling a high degree of anxiety themselves.

8.4 Staff Travel Plan

A Staff Travel Plan will be deployed where necessary, to manage the arrival and departure profile of staff and to encourage sustainable modes of transport, especially car-sharing. A package of measures could include:

- Appointment of a Travel Plan Coordinator (TPC);
- Provision of public transport information;
- Mini-bus service for transport of Site staff;
- Promotion of a car sharing scheme;
- Car parking management; and
- Restrictions on parking, for example on the public road network and verges in the vicinity of the Site entrance.

8.5 Operational Phase Mitigation

Site entrance roads will be well maintained and monitored during the operational life of the development. Regular maintenance will be undertaken to keep the Site access track drainage systems fully operation and to ensure there are no run-off issues onto the public road network.

9 Summary and Conclusions

Pell Frischmann has been commissioned by the Applicant to undertake a TA for the proposed Coille Beith Wind Farm located approximately 18 km southwest of Lairg within THC administrative area.

Two potential access options for the Proposed Development are currently under consideration, which are as follows and have been included within the assessment:

- Eastern Access Option (joining the Strath Oykel Wind Farm access tracks) from the C1136 via the A837; and
- Western Access Option (joining the Meall Buidhe Wind Farm access tracks) from Oykel Bridge Road (U3581) via the A837.

The selected access option will provide access to the Site for all AILs associated with the turbine deliveries, as well as access for HGVs delivering construction materials and general Site traffic.

Existing traffic data from Transport Scotland and Department for Transport was supplemented by ATC surveys, with the data used to establish a base point for determining the impact during the construction phase and was factored to future levels (2031) to help determine the impact of construction traffic on the road network.

The peak of construction activity is expected to occur in month seven for the Proposed Development, regardless of which access option is progressed.

In the scenario whereby the Eastern Access Option is progressed, there will be a total of 4,596 vehicle movements per month, which equates to 210 vehicle movements per day, comprising 150 two-way HGV movements and 60 two-way car / LGV movements. This would equate to approximately 18 two-way total vehicles movements or 12 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.

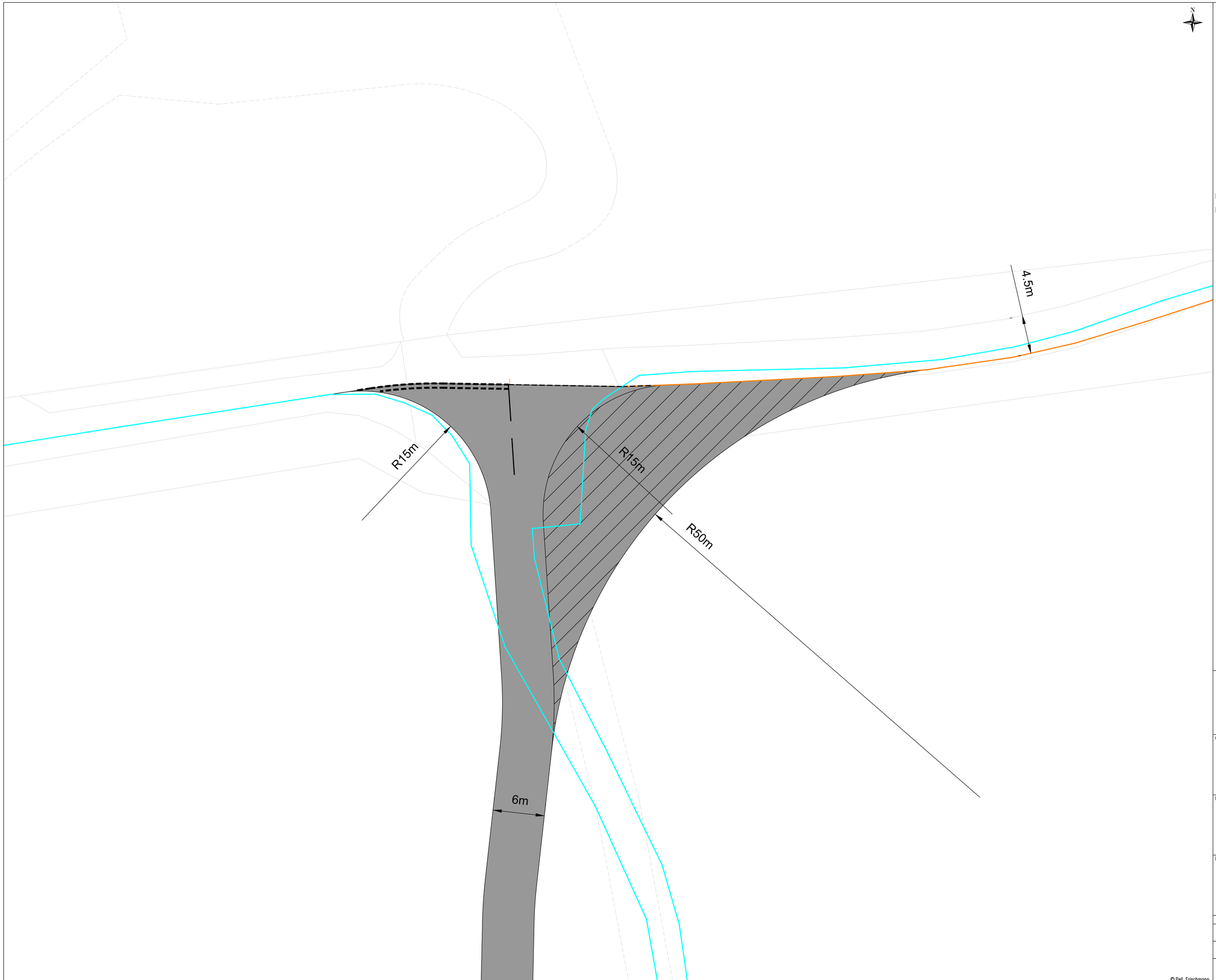
In the scenario whereby the Western Access Option is progressed, there will be a total of 4,556 vehicle movements, which equates to 208 vehicle movements per day, comprising 148 two-way HGV movements and 60 two-way car / LGV movements. This would equate to approximately 16 two-way total vehicles movements or 12 two-way HGV movements per hour, across a typical 12-hour day, assuming a flat traffic profile i.e. vehicles distributed evenly across the day.

In addition, a review of the theoretical road capacity was undertaken for the Study Area which showed that with the addition of construction traffic associated with the Proposed Development, there was significant spare capacity within the road network.

A series of mitigation measures and management plans have been proposed to help mitigate and offset the impacts of the construction phase traffic flows for both general construction traffic and AILs associated with the delivery of the turbine components. It is considered that these can be secured by condition with The Highland Council.

The Proposed Development will lead to a temporary increase in traffic volumes within the Study Area during the construction phase only, however this can be appropriately and effectively managed. It is therefore concluded that there are no transport related matters which would preclude the construction of the Proposed Development Site.

Annex A Indicative Junction Layout



NOTE:

1. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR HIGHWAY WORKS AND THE TURBINE MANUFACTURERS STANDARDS AND ALL RELEVANT DRAWINGS WITHIN THE PROJECT DESIGN PACKAGE.
2. ALL WORKS TO BE EXECUTED IN ACCORDANCE WITH THE DMRB, THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, DESIGN MANUAL FOR ROADS AND BRIDGES, AND TRAFFIC SIGNS MANUAL.
3. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.
4. DO NOT SCALE FROM ANY DRAWING. WORK TO FIGURED DIMENSIONS ONLY. ANY DISCREPANCIES IN DIMENSIONS ARE TO BE REFERRED TO THE DESIGNER BEFORE WORK IS PUT TO HAND.
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7. ALL WORKS ARE TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENT OF THE STATUTORY AUTHORITIES AND CONSTRUCTION DESIGN MANAGEMENT REGULATIONS.

KEY:

- Proposed Junction
- Proposed Additional Widening
- Indicative Road Edge
- Proposed 4.5m Widening

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Client

Coille Beith Wind Farm Ltd

Project

Coille Beith Wind Farm

Drawing Title

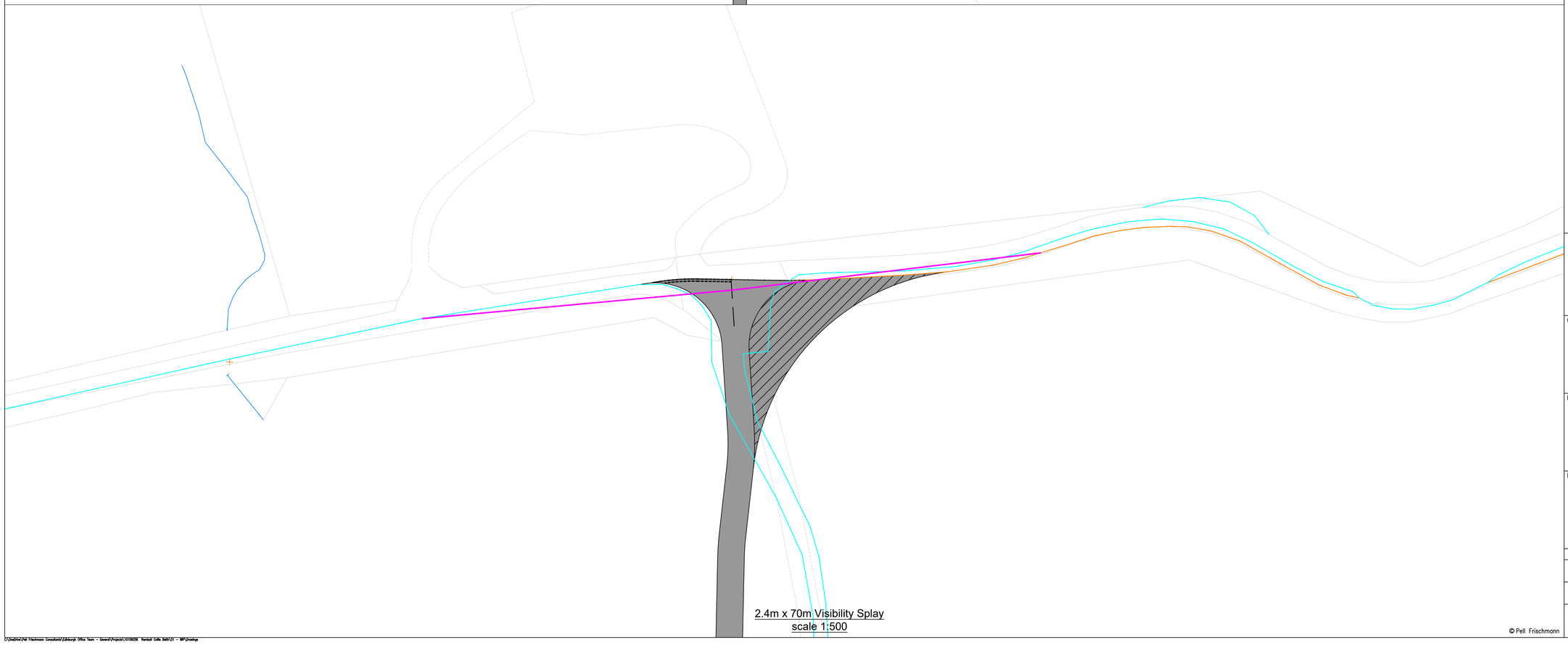
Access Junction
General Arrangement

	Name	Date	
			Scale 1:200 @ A1
Designed	JS	30.05.2025	File 250530 Coille Beith Access Junction
Checked	SC	30.05.2025	Drawing Status DRAFT

Drawing No. 10109258_001

Revision P1

4.5m x 215m Visibility Splay
scale 1:1000



2.4m x 70m Visibility Splay
scale 1:500

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KEY:

- 2.4m x 70m Visibility Splay (Based on observed speed limits)
- 4.5m x 215m Visibility Splay
- Indicative Road Edge
- Proposed 4.5m Widening

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Client
Coille Beith Wind Farm Ltd

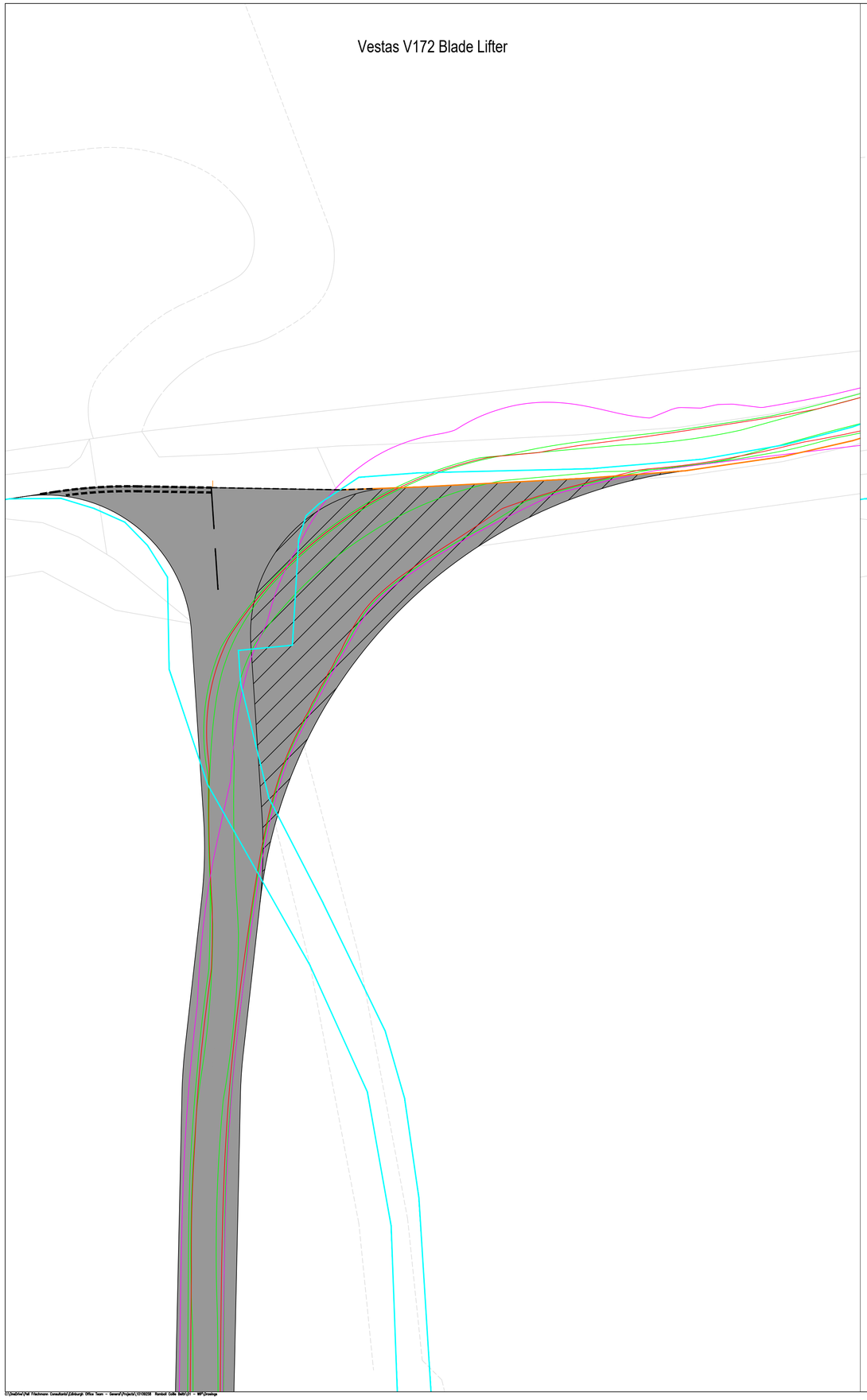
Project
Coille Beith Wind Farm

Drawing Title
Access Junction
Visibility

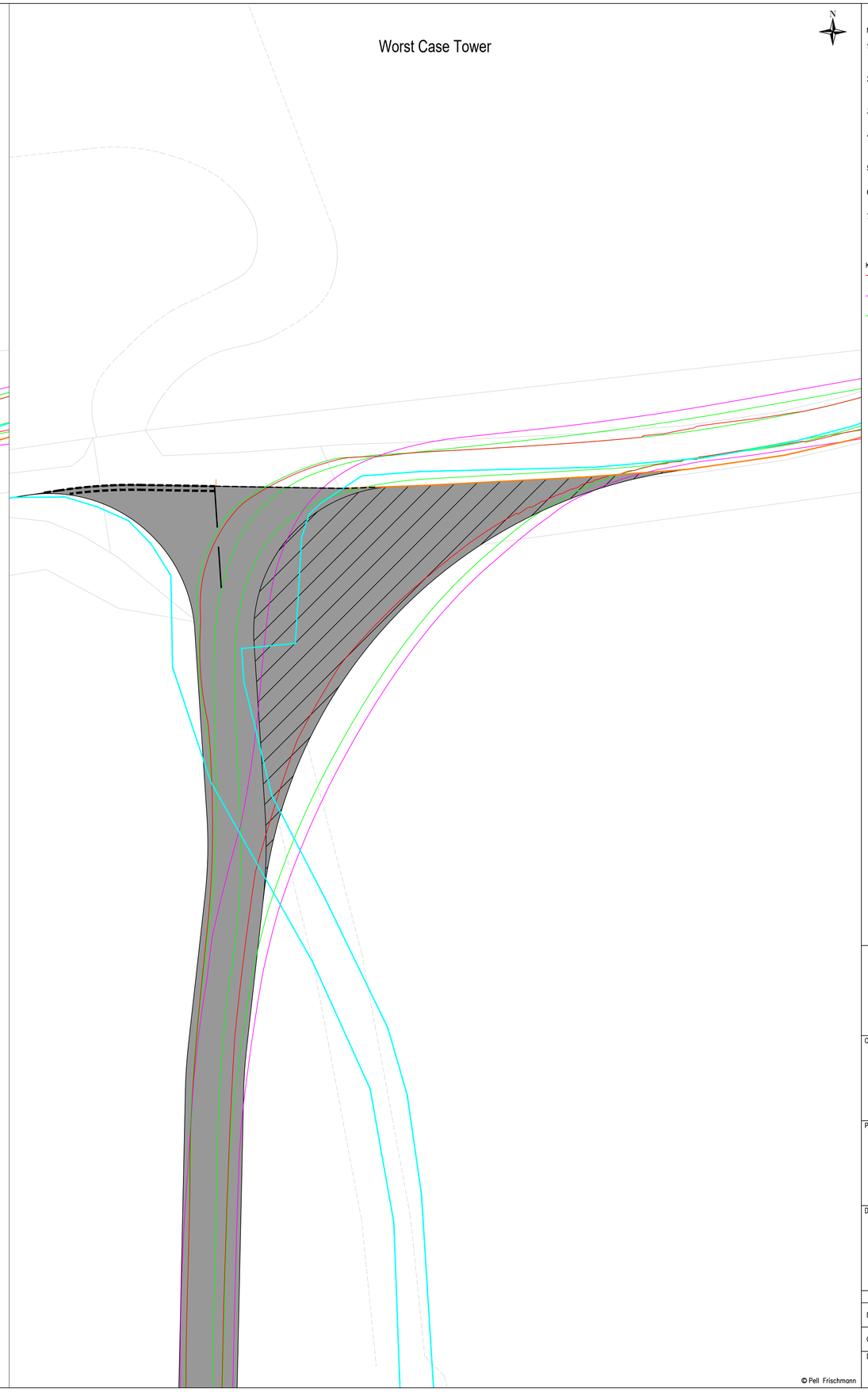
	Name	Date	
Designed	JS	30.05.2025	Scale 1:500 @ A1
Checked	SC	30.05.2025	File 250530 Coille Beith Access Junction
			Drawing Status DRAFT

Drawing No. 10109258_002
Revision P1

Vestas V172 Blade Lifter



Worst Case Tower



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KEY:

- Vehicle Wheels
- Vehicle Load
- Vehicle Body

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Client

Coille Beith Wind Farm Ltd

Project

Coille Beith Wind Farm

Drawing Title

Access Junction
Swept Path Analysis

	Name	Date	Scale	1:250 @ A1
Designed	JS	30.05.2025	File	250530 Coille Beith Access Junction
Checked	SC	30.05.2025	Drawing Status	DRAFT

Drawing No. 10109258_003

Revision P1

Annex B AIL Route Survey Report

Report Ref.	**TA9.1_Annex B_Coille Beith RSR_Tcs.Docx**
File Path	**C:\Users\CACOLL\Downloads\TA9.1_Annex B_Coille Beith RSR_TCs.docx**

Rev	Suit	Description	Date	Originator	Checker	Approver
1		Draft	31/03/2025	T Otchereh	G Buchan	G Buchan
2		Revision to suit new client access location	01/04/2025	T Otchereh	G Buchan	G Buchan
3		Western and eastern access options added	05/06/2025	A Dimitrov	S Cochrane	G Buchan
4		Client comments	13/06/2025	A Dimitrov	S Cochrane	G Buchan

Ref. reference. Rev revision. Suit suitability.

Prepared for

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Figures

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Annexes

Annex A Points of Interest
Annex B Swept Path Assessments
Annex C ESDAL Responses

1 Introduction

1.1 Purpose of the Report

Pell Frischmann Consultants Limited (PF) have been commissioned by Coille Beith Wind Farm Limited ("the Applicant") to undertake a Route Survey Report (RSR) to examine the issues associated with the transport of wind turbine Abnormal Indivisible Loads (AILs) associated with the development of Coille Beith Wind Farm (the 'Proposed Development'). The Proposed Development is located approximately 18 kilometres (km) southwest of Lairg and 20 km northwest of Bonar Bridge within The Highland Council (THC) administrative area.

The RSR has been prepared to help inform the Applicant of the likely issues associated with the development of the Site with regards to off-site transport and access for AIL traffic and examines the issues associated with transport along the whole of the access route from the port to the Site access junction.

The access review identifies the key issues associated with AIL deliveries and notes what remedial works, either in the form of physical works or as traffic management interventions, will be required to accommodate the predicted loads.

The detailed assessment and subsequent designs of any remedial works are beyond the agreed scope of works between PF and the Applicant at this point in time.

It is the responsibility of the turbine supplier to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction (depending upon contract). The turbine supplier will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration for all road users and are in line with the relevant legislation at the time of delivery.

2 Proposed Development

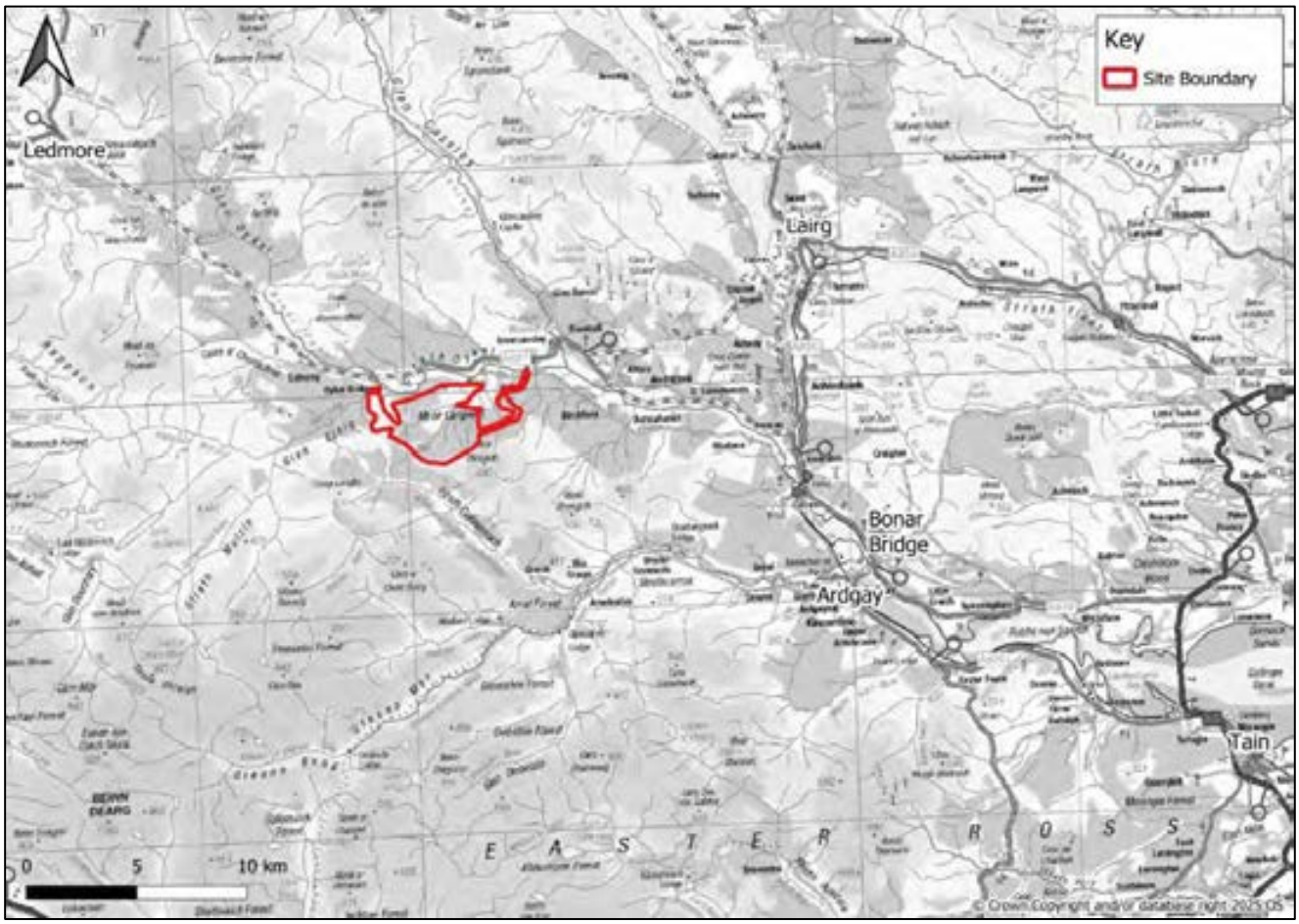
2.1 Site Location

The Site is located approximately 18 km southwest of Lairg and 20 km northwest of Bonar Bridge within THC administrative area.

The Site comprises an area of approximately 1,306 hectares (ha) within an area of commercial forestry on the southern slopes of Strath Oykel. The Site is bounded to the north by River Oykel and the A837 and by River Einig to the west.

The Site location can be seen in **Figure 2-1** below.

Figure 2-1: Site Location



2.2 Proposed Development

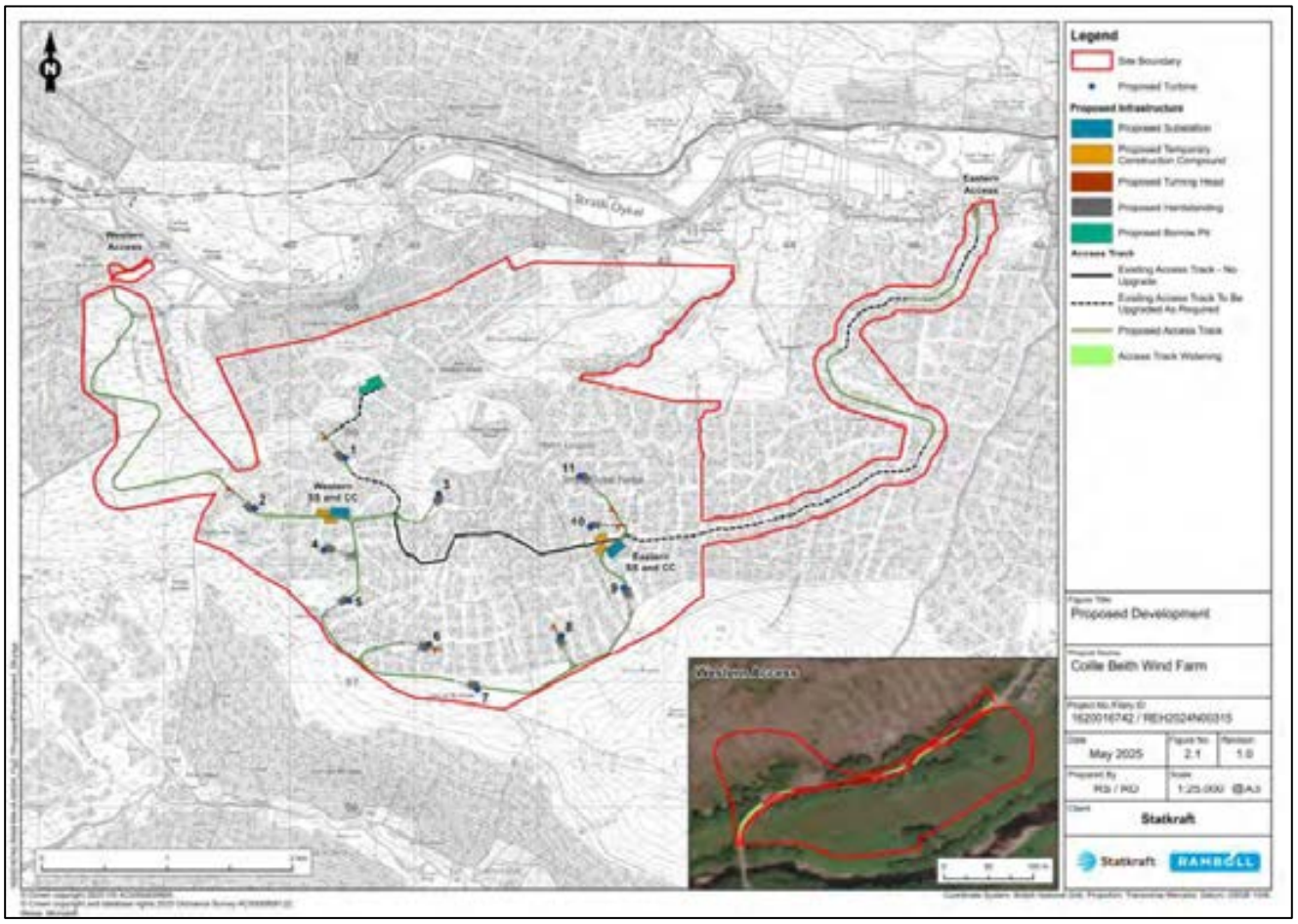
The Proposed Development will comprise the construction of the following:

- Up to 11 wind turbines, each up to a maximum tip height of 200 metres (m);
- Permanent foundations supporting each wind turbine;
- Associated crane hardstanding at each turbine location;
- An internal transformer within each turbine location;
- A series of new and upgraded on-site access tracks with associated watercourse crossings;
- Underground cabling within the turbine array;
- A control building and substation compound;
- Temporary construction compounds and laydown areas; and
- Extraction of rock from a borrow pit.

In addition, improvements will be made to the public access tracks to the turbine array to support transportation of construction materials.

The Proposed Development layout is shown in **Figure 2-2**.

Figure 2-2: Proposed Development Layout



2.3 Access Arrangements

Two access junction options are currently under review for the Proposed Development, which are detailed below:

- Eastern Access Option (joining the Strath Oykel Wind Farm access tracks) from the C1136 via the A837; and
- Western Access Option (joining the Meall Buidhe Wind Farm access tracks) from Oykel Bridge Road (U3581) via the A837.

The Eastern Access Option would be directly off the C1136 to the northeast of the Site, making use of the proposed access tracks for the consented Strath Oykel Wind Farm, with an extension of these tracks continuing into the eastern extents of the Site. Strath Oykel Wind Farm which was consented in January 2025 comprises 11 wind turbines and is located immediately to the east of the Proposed Development.

As per Strath Oykel Wind Farm, this access option will require the formation of a new bridge across the River Oykel, to the south of the A837. This access option would provide access to the Site for all AILs associated with the turbine deliveries, as well as access for heavy goods vehicles (HGVs) delivering construction materials and general Site traffic.

The Western Access Option would be directly off Oykel Bridge Road (U3581) to the northwest of the Site boundary, making use of the proposed access tracks for the consented Meall Buidhe Wind Farm, with a branch

taken off of these tracks south of Loch Phail, before continuing into the western extents of the Site. Meall Buidhe Wind Farm, which was consented in June 2023 at appeal, comprises eight wind turbines and is located immediately to the southeast of the Proposed Development.

As per Meall Buidhe Wind Farm, this access option will make use of the existing bridge crossing over the River Einig, to the south of the A837 and accessed via Oykel Bridge Road (U3581). This access option would provide access to the Site for all AILs associated with the turbine deliveries, as well as access for HGVs delivering construction materials and general Site traffic..

All AIL traffic will access from the Port of Entry (PoE) at the Port of Nigg, utilising sections of proven AIL routes used during the construction of other wind farms in the area.

2.4 Candidate Turbine

The Applicant has indicated that they wish to consider the Vestas 172 turbines at a tip height of 200 m for the purposes of this assessment. Vestas have confirmed that they do not currently have a UK market tower for this machine and as such a generic large scale tower section has been used at this time.

The details of the components that have been provided by Vestas are detailed in **Table 2-1**. Note that these are indicative component dimensions at this time and are subject to change.

Table 2-1: Turbine Components Summary

Component	Length (m)	Width (m)	Height / Min Diameter (m)	Weight (t)
Vestas V172 Blade	84.487	4.350	3.336	25.400
Generic Tower	30.000	4.800	4.800	80.000

The selection of the final turbine model and specification will be subject to a commercial procurement process following consent of the application. The assumed dimensions may therefore vary slightly from those assumed as part of this assessment; however, the turbine tip height will be no greater than 200 m.

2.5 Proposed Delivery Equipment

To provide a robust assessment scenario based upon the known issues along the access routes and constraints in moving larger loads, it has been assumed that all blades would be carried on a blade dolly trailer to comply with Vestas's requirements for this type of blade.

Where constraints are extreme, loads would be transferred onto a blade lifting trailer. This trailer has the ability to lift blades up to a maximum angle of 60 degrees, lifting blades over potential constraints and shortening the length plan view. Where the blade lifting trailer is used, all overhead utilities and obstructions would need to be removed.

To transfer to a blade lifting trailer, an area of third-party land would be required to construct a transfer station. The transfer station should be large enough to accommodate up to two sets of blades, welfare facilities, two cranes and a storage area for frames.

Towers would be carried in a 4+7 clamp adaptor style trailer, whereas loads such as the hub, nacelle housing, and top towers would be carried on a six-axle step frame trailer.

Figure 2-3: Blade Dolly Trailer

Figure 2-4: Tower Trailer

Figure 2-5: Indicative Blade Lifter Trailer

These configurations are subject to confirmation by the chosen haulier at the time of their commissioning.

As the loads are classified as Special Order, due to a rigid length in excess of 30 m, a full Police Escort would be required along the full length of the route.

3 Access Route Review

3.1 Access Route

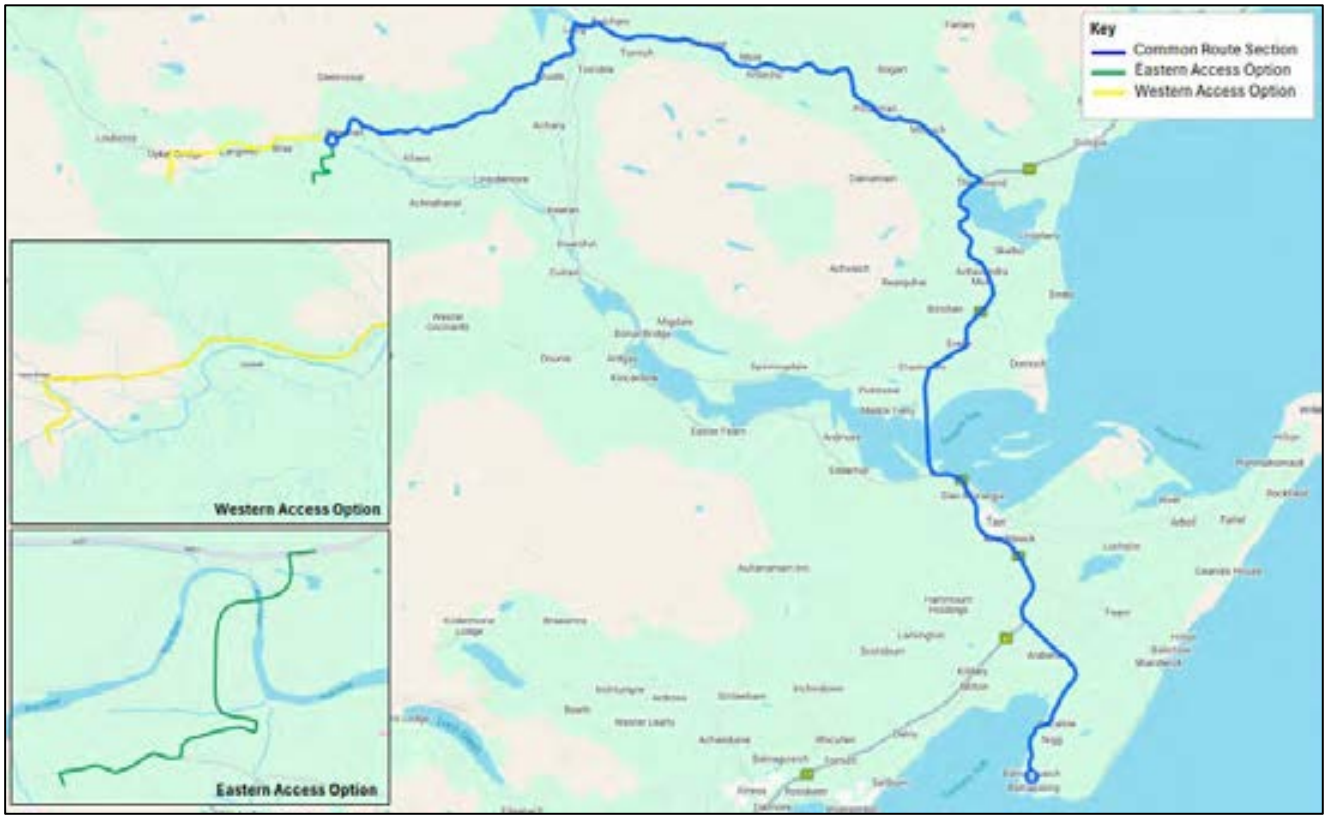
The nearest feasible and economical PoE for the Site is the Port of Nigg. The port has been previously used by turbines imports in the past. It has over 900 m of deepwater quayside, allowing access for a wide variety of vessels. The port has been used extensively by the offshore wind industry, although to date has not been used for the import of onshore wind turbine sections. The port has up to 700,000 m^2 of laydown and storage areas within the harbour and can accommodate heavy lift cranes at various berths.

The proposed access route is as follows:

- Loads will exit the Port of Nigg and turn left onto the B9175 and continue north;
- Loads will continue north onto the A9;
- At The Mound, loads will turn left onto the A839 and will proceed westbound to Lairg;
- In Lairg, loads will turn left and will continue southbound on the A836;
- Loads would continue west on the A839;
- Loads would turn right onto the A837 and continue through Invercassley and Rosehall; and
- Depending on the final access option, either:
    - Eastern Access Option: Loads would turn left onto the U2126 and continue south to the C1136 via a new proposed crossing over the River Oykel, before joining the C1136 and heading west to the proposed Site access junction; or
    - Western Access Option: Loads would cross the Oykel Bridge and turn left onto Oykel Bridge Road (U3581) continuing south to the existing bridge crossing over the River Einig, before continuing through to the Site on new access tracks.

The proposed access route is illustrated in **Figure 3-1**.

Figure 3-1: Proposed Access Routes



3.2 Route Constraints

The constraints noted in the review are detailed in **Table 3-1**. These cover all constraints from the port access gates through to the Site entrances. No consideration of the transport issues within the port or within the Site have been undertaken and this includes the design of the Site access junction.

Plans illustrating the location of the constraints and a detailed list of POI are provided in **Annex A**.

Table 3-1: Constraint Points and Details

POI	Key Constraint	Details
1	**Exit from the Port of Nigg** 	Loads will exit Nigg Port and turn left to join the B9175 northbound. A swept path assessment has been undertaken and indicates that loads will overrun and oversail two grassed areas where load bearing surfaces should be laid. On the first area a chain link fence, one lighting column, and three road signs should be removed. The trees should be cleared. On the second area the land will require reprofiling, and the chain link fence should be removed. Trees should be cleared. Following the exit from the port, loads will oversail both verges of the first right-hand bend, though no physical mitigation measures will be required.
2	**B9175 Mount Canisp** 	Loads will continue on the B9175 northbound. The clearances to overhead power lines at this location should be reviewed with the utility provider prior to loads moving to ensure that there is sufficient head height and flashover protection for all temperature ranges.

POI	Key Constraint	Details
3	**B9175 west of Nigg House** 	Loads will continue on the B9175 northbound. A swept path assessment has been undertaken and indicates that loads will oversail the inside verge of the right-hand bend, though no physical mitigation measures will be required.
4	**B9175 Northwest of Nigg House** 	Loads will continue on the B9175 northbound. A swept path assessment has been undertaken and indicates that loads will oversail the inside verge of the right-hand bend, where vegetation should be trimmed.
5	**B9175 Pitcalnie** 	Loads will continue on the B9175 northbound. Tree canopy trimming should be undertaken on the B9175 to ensure a clear head height of 5m. Early engagement with The Highland Council is recommended as works may be subject to seasonal and ecological constraints. A swept path assessment has been undertaken and indicates that loads will oversail the inside verge of the left-hand bend, where vegetation would need to be cleared.

POI	Key Constraint	Details
6	**B9175 Arabella and Level Crossing**  	Loads will continue on the B9175 northbound. The bend on the approach to Arabella is constrained and loads will require access to both lanes of the road to pass through the bend. The loads will cross a Network Rail Level Crossing. Network Rail should be informed of all planned movements in advance and on each day of convoy movements.
7	**A9 Nigg Roundabout** 	Loads will take the second exit at the roundabout to join the A9 northbound, undertaking a contraflow manoeuvre. A swept path assessment has been undertaken and indicates that loads will overrun and oversail through the central island where a load bearing surface should be laid. The central island will need to be reprofiled to suit the proposed works. One set of lit chevron signs should be removed and the trees and vegetation cleared. Loads will oversail the right-hand verge on exit, though no physical mitigation measures will be required.

POI	Key Constraint	Details
8	**A9 Meikle Ferry Roundabout** 	Loads will take the third exit at the roundabout to continue on the A9 northbound, undertaking a contraflow manoeuvre. A swept path analysis has been undertaken and indicates loads will oversail the safety barrier on both verges on entry. A review of the extents of road adoption is required. Loads will overrun and oversail the entry splitter island where a load bearing surface should be laid. One road sign, one lighting column and two bollards should be removed. The blade tip will oversail one bollard. Loads will overrun and oversail the central island where a load bearing surface should be laid and one set of lit chevron signs removed. The blade tip will oversail one bollard on the exit splitter island. Loads will oversail the safety barrier on the right-hand verge on exit. A review of the limits of road adoption is required.
9	**A9 Cherry Tree Cottage** 	Loads will continue on the A9 northbound. A swept path analysis has been undertaken and indicates loads blade tip will oversail a series of bollards on the outside verge of the bend where one chevron sign should be removed. Loads will overrun and oversail the inside verge where the vegetation should be trimmed, load bearing surface should be laid and a fence removed. **Third party land is required.** Parking should be suspended in the layby during deliveries.
10	**A9 Trentham Hotel** 	Loads will continue on the A9 northbound. A swept path analysis has been undertaken and indicates that the blade tip will oversail the bollards on the outside verge of the bend where the trees should be trimmed. Loads will oversail the inside verge where three bollards should be removed.

POI	Key Constraint	Details
11	**A9 south of Cambusavie** 	Loads will continue on the A9 northbound. A swept path analysis has been undertaken and indicates loads will oversail the inside verge of the right-hand bend where the trees should be trimmed. **Third party land may be required.** The blade tip will oversail the bollards on the outside verge where the trees should be cleared, and a land search is recommended to confirm the extent of the adopted land boundary. Loads will overrun the outside verge where a load bearing surface should be laid and a series of bollards, one road sign and four sets of chevron signs should be removed. The trees and vegetation should be trimmed.
12	**A9 Cambusavie**  	Loads will continue on the A9 northbound. A swept path assessment has been undertaken and indicates that the blade tip will oversail the bollards on the left-hand verge on approach to the first right-hand bend where the trees and vegetation should be trimmed. Loads will overrun and oversail the outside verge of the first right-hand bend where a load bearing surface should be laid. A series of bollards and four sets of chevron signs should be removed and trees trimmed. Loads will overrun and oversail the inside verge where a load bearing surface should be laid and one utility pole and the stone wall removed. The trees and vegetation should be cleared. **Third party land** will be required. Loads will oversail the left-hand verge prior to the following left-hand bend where the trees should be trimmed. The blade tip will oversail a series of bollards and stone wall. The blade tip would also oversail the right-hand verge where the trees should be trimmed. Loads will overrun and oversail the outside verge of the left-hand bend where a load bearing surface should be laid and two chevron signs and a series of bollards removed. The trees should be trimmed. Loads will oversail the inside verge where the vegetation should be cleared, one road sign and fence removed. **Third party land** will be required. A review of all land requirements at this location is required.

POI	Key Constraint	Details
13	**A9 / A839 Junction** 	Loads will turn left at the junction to exit the A9 and join the A839 westbound. A swept path assessment has been undertaken and indicates that the blade tip will oversail the southeast verge of the A9 where two road signs should be removed and trees trimmed. Loads will overrun and oversail the inside verge of the turn where a load bearing surface should be laid and one bollard removed. The trees should be cleared. **Third party land** required. The blade tip will oversail one bollard on the splitter island. Loads will oversail the right- hand verge of the A839 where trees and vegetation should be trimmed.
14	**A839 Pittentrail**  	Loads will continue on the A839 westbound. Prior to this location, the blades will need to be transferred into a blade lifting trailer. An area of third party land approximately 250m x 70m is required prior to POI 14. From this location onwards, the blade tip is elevated and all overhead constraints will need to be removed. On straight sections, it will be possible to lower the blade hen passing under High Voltage overhead lines. Once past the utility, the blade will need to be re-elevated. A swept path assessment has been undertaken and indicates that the blade tip will oversail the outside verge of the first right-hand bend where two lighting columns should be removed. Loads will oversail the inside verge where the pedestrian guardrail should be removed and the vegetation trimmed. Parking should be suspended during deliveries. Loads will overrun and oversail the outside verge of the left-hand bend where a load bearing surface should be laid. Loads will overrun and oversail the inside verge, where a load bearing surface should be laid. Parking should be suspended during deliveries.

POI	Key Constraint	Details
15	**A839 West of Pittentrail** 	Loads will continue westbound on the A839 and will oversail the verges on both sides of the road, though no physical mitigation measures will be required.
16	**A839 Rovie Lodge** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges of the bend. Tree trimming will be required.
17	**A839 at Dalmore Bend** 	Loads will continue westbound on the A839 and will oversail the verges on both sides of the road. The road sign on the southern verge should be lowered or removed.
18	**A839 Torbreck** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the first right hand bend. Vegetation should be trimmed along inner verge.

POI	Key Constraint	Details
19	**A839 Tressady** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the first left-hand bend and along the eastern verge further along the section. Loads should be set to their highest suspension to oversail bridge parapet.
20	**A839 Rossal** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the section, although no physical mitigation measures will be required.
21	**A839 Northwest of Ardachu** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges of the bend where vegetation should be trimmed.
22	**A839 North of Acheilidh** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the section. Vegetation should be trimmed and one metal cabinet should be removed along outer verge of first left hand bend.

POI	Key Constraint	Details
23	**A839 West of Creag a'Mhuilleir** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along first right-hand bend where vegetation should be trimmed along outer verge. The loads would also oversail the outer verge along the second left-hand bend where trees and vegetation should be cleared.
24	**A839 West of Rhaoine** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the section, although no physical mitigation measures will be required.
25	**A839 Creag Innse Chomhraig** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the section, although no physical mitigation measures will be required.
26	**A839 Tomich** 	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges along the bend. The loads would also oversail both verges approaching the bend, where the vegetation should be cleared.

POI	Key Constraint	Details
27	**A839 Gunn's Plantation**  	Loads will continue on the A839 westbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges of the first left-hand bend where the vegetation should be trimmed. The blade tip will oversail the outside verge of the following left-hand bend where the trees and vegetation should be cleared. Loads will oversail the outside verge of the final right-hand bend where vegetation should be cleared. Loads will oversail the inside verge where vegetation should be trimmed.
28, 29	**A839 Lairg & A836 Junction**  	Loads will turn left at the junction to exit the A839 and join the A836 southbound. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Loads will overrun and oversail both verges of the slight right-hand bend in four areas where minor load bearing surfaces should be laid, and all street furniture should be removed. Loads will oversail the right-hand verge, though no physical mitigation measures will be required. Parking should be suspended. Loads will overrun and oversail the left verge when approaching the Post Office and Bank where a load bearing surface should be laid, and one planter should be removed. Loads will oversail the right verge where one lighting column and one planter should be removed. Loads will oversail both verges as it makes the final left turn, where two road signs, three lighting columns, two planters and all street furniture should be removed. A load bearing surface should be laid, and suspension settings should be raised to oversail stone wall. **Third party land** is required.

POI	Key Constraint	Details
30, 31	**A836 / A839 River Shin Bride, Lairg**  	Loads will exit the A836, cross the River Shin Bridge, and join the A839 southbound. A swept path assessment has been undertaken and indicates that loads will overrun and oversail the left-hand verge of the A836 where the fence and one road sign should be removed. **Third party land** is required. Loads will oversail the inside of the turn and the northern verge of the bridge on leaving the A836. The fence and one lighting column should be removed. Loads to be raised on highest suspension setting to oversail safety barrier. The bridge railing should be lowered. **Third party land** is required. Loads will oversail the inside of the turn on joining the A839, where two lighting columns, one road sign and two metal poles should be removed. Loads should be raised on highest suspension setting to oversail the safety barrier and the bridge railing should be lowered. **Third party land** is required.
32, 33	**A839 The Ord**  	Loads will continue south on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. On the inside of the first right-hand bend, the proximity of loads to the stone wall should be confirmed on a topographical base survey. One road sign should be removed and vegetation trimmed. Trees should be trimmed on the outside of the bend. The tree canopy should be trimmed to ensure passage for the raised blade. Trimming works can be subject to ecological time constraints and early engagement with the relevant authority is recommended.

POI	Key Constraint	Details
34	**A839 The Cashel** 	Loads will continue south and then west on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. One road sign and one pole would need to be removed on the outside of the bend. Trees and vegetation would need to be trimmed. One road sign and two poles should be removed on inner verge of slight right bend. Loads would overrun the inner bend of first left hand bend. A load bearing surface should be laid and vegetation cleared.
35	**A839 Achlich** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges, though no physical mitigation measures are required.
36, 37	**A839 Carnich**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the first right hand bend. Vegetation would need to be trimmed on both sides of the first bend. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage to ascertain if tar wedges will be required to prevent grounding. Loads will oversail the outer verge of second bend however no physical mitigation measures are required.

POI	Key Constraint	Details
38, 39	**A839 Carnich**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. The vegetation should be trimmed and one road sign would need to be removed on the inner verge of right hand bend. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage to ascertain if tar wedges will be required to prevent grounding.
40, 41	**A839 Gruids**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. An overrun surface is required in the inner verge of first right hand bend, where two road signs should be removed and the vegetation should be cleared. Clearance of loads to embankment to be confirmed during test run. Load bearing surface to be laid. The blade will oversail the safety barrier on the outside of the bend. Vegetation should be trimmed along both verges of second bend. The power lines at this location should be re-routed to allow access for the raised blade.

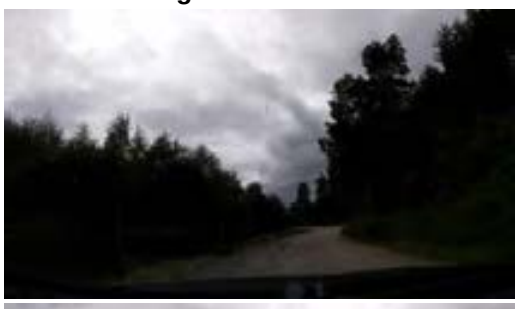
POI	Key Constraint	Details
42, 43	**A839 Gruids Wood**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Trees would need to be trimmed along the left-hand verge. Along the inner bend, vegetation would need to be cleared and one utility pole would need to be removed and a load bearing surface laid. Vegetation would need to be cleared and two road signs should be removed. One road sign should be removed, vegetation should be trimmed and **third party land** is required along outer verge of second bend. Vegetation should be trimmed along inner verge. The overhead power lines at this location should be relocated where they cross the road to allow access for the raised blade.
44	**A839 Braemore** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. On the inside of the first right-hand bend one road sign and one utility pole would need to be removed. On the outside of the first right-hand bend, one bollard would need to be removed and trees and vegetation to be trimmed. On the outside of the following left-hand bend the loads should be raised on highest suspension setting to oversail the stone bridge parapet, and the trees should be trimmed and land reprofiled. Vegetation should be trimmed on inner bend. The overhead power lines at this location should be relocated where they cross the road to allow access for the raised blade.

POI	Key Constraint	Details
45, 46	**A839 Meall a Ghruididh**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section where vegetation should be trimmed and one road sign removed. A land search is required to confirm if third party land is required. Trees and vegetation should be trimmed along inner verge of second bend. Vegetation should be trimmed and one road sign removed along the outer verge of second bend. The overhead power lines at this location should be relocated where they cross the road to allow access for the raised blade.
47	**A839 North of Braemore Wood** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Vegetation should be trimmed on both verges. Loads should be raised to highest suspension settings to oversail stone bridge parapet and one road sign to be removed along inner verge. A land search is recommended to confirm the extent of the adopted land boundary and one road sign to be removed on the inside of the bend.
48	**A839 Cnoc Eader-mi** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Vegetation and trees should be trimmed on both verges.

POI	Key Constraint	Details
49	**A839 Cnoc Eader-mi** 	Loads will continue westbound on the A839. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage to ascertain if tar wedges will be required to prevent grounding.
50, 51	**A839 Netherton**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges and will overrun the inner verge. Vegetation should be cleared and a load bearing surface should be laid along the inner bend of first right hand bend. Vegetation should be trimmed and one pole should be removed along outer verge. Vegetation should be trimmed along inner verge of final bend.
52	**A839 Netherton** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the first right hand bend where vegetation should be cleared. Vegetation would need to be trimmed along both verges along second left-hand bend.

POI	Key Constraint	Details
53, 54	**A839 Netherton** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that the blade will oversail both verges requiring tree trimming. A land search is recommended to confirm extent of adopted land boundary throughout the section. A fence and one road sign should be removed along outer verge of first right hand bend. Vegetation should be cleared, and two bollards should be removed along the inside of the bend. **Third party land is required.** Along the inner verge of the second left-hand verge, vegetation should be trimmed, land should be reprofiled and two bollards should be removed. Trees, vegetation and one road sign should be removed along the outer verge. Loads will overrun and oversail both verges approaching second right-hand bend. A load bearing surface is required. Trees and vegetation would need to be trimmed, one road sign should be removed and **third-party land** is required along inner verge of second right hand bend. Vegetation would need to be cleared, and boulders should be removed along outer verge. Trees to be trimmed along both verges after bend. Approaching the light left-hand bend, trees should be trimmed along both verges. One road sign should be removed, and land should be reprofiled along inner verge of final left-hand bend.

POI	Key Constraint	Details
55	**A839 Badfluich Wood** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Along the inner verge of the first left-hand bend, one road sign should be removed. The loads will overrun and oversail the outer verge along the first right hand bend where trees and vegetation should be cleared, and a load bearing surface should be laid. Third party land is required. Along the inner verge of the bend, one utility pole, two road signs and a series of bollards should be removed. Trees should be cleared. Third party land is required. Loads to be set to highest suspension to oversail bridge parapet. The loads will overrun and oversail the inner verge of the final bend, where a load bearing surface should be laid, and trees should be cleared. Third party land is required. Loads will oversail outer verge of the final bend where one utility pole should be removed. On the western side of the bridge, an overrun surface is required.
56, 57	**A839 Badfluich Wood**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads oversail both verges along the first bend. On the outside of the bend one road sign should be removed. The blade will oversail the fence and stone wall. **Third party land** is required. On the inside of the bend the trees should be trimmed, and vegetation cleared. **Third party land** may be required. Loads will oversail both verges of the following left-hand bend.

POI	Key Constraint	Details
58	**A839 Badfluich Wood** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Vegetation trimming on both verges is required and land reprofiling may be required along inner verge of first bend. Trees to be trimmed along the southern verge approaching second right hand bend.
59, 60	**A839 Auchurigill**  	Loads will continue westbound on the A839. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads will oversail both verges through the section where tree and vegetation trimming works are required, third party land reviews are required throughout. Two road signs and one utility pole will need to be removed, and load bearing surfaces are required. An area of land reprofiling is required.
61	**A839 West of Auchurigill** 	Loads will continue westbound on the A839. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads will oversail both verges through the section. Tree and vegetation trimming will be required on both verges. One road sign should be removed from the inner verge of the first left-hand bend. On the inside of the following right-hand bend one utility pole and two bollards should be removed and vegetation trimmed. The proximity of loads to the stone wall should be confirmed on topographical base survey. Stones and metal structure to be removed further along the bend.

POI	Key Constraint	Details
62	**A839 / A837 Junction** 	Loads will merge with the A837 westbound. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads will oversail both verges through the section. Vegetation trimming is required. A load bearing surface is required in the northern verge to avoid impacting the war memorial. Three road signs and one utility pole to be removed. **Third party land is required in this section.**
63	**A837 East of Rosehall** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. On both verges the vegetation and trees should be trimmed. Loads to be raised to highest suspension setting to oversail low stone wall and raised ground along outer verge of first bend.
64, 65	**A837 Rosehall**  	Loads will continue westbound on the A837. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads will oversail both verges on approach to the bridge. Vegetation trimming will be required. At West Lodge, a load bearing surface is required. One road sign should be removed. A review of third-party land is required. A vertical assessment of the bridge should be undertaken on a topographical base plan. Loads should be raised on their highest suspension setting. Loads will oversail the bridge and a review of third-party land is required. On the western side of the river, four road signs should be removed. A further third-party land review is required.

POI	Key Constraint	Details
66	**A837 Invercassley** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Trees and vegetation should be cleared from both verges.
67	**A837 West of Invercassley** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section, although no physical mitigation measures will be required. *Following this point, the route splits. To access the Western Access Option, loads will remain on the A837 heading west. The following POIs 68-78 detail the constraints along the route section leading to the Western Aaccess Option at Oykel Bridge.*
68	**A837 North of Brae** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section where vegetation and trees would need to be trimmed. Loads will overrun the northern verge of first bend, where a load bearing surface should be laid and one road sign should be removed. A fence should be removed on the inner bend. **Third party land** is required. Loads should be set to highest suspension to oversail bridge parapet. Eight bollards should be removed.

POI	Key Constraint	Details
69, 70	**A837 North of Brae** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken. This should be repeated on a topographical base plan to fully confirm all mitigation and land options. Loads will oversail both verges through the section. Along the first left hand bend, vegetation and trees would need to be trimmed along both verges. A load bearing surface would need to be laid in the northern and eastern verges.
71	**A837 North of Langwell** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Vegetation trimming will be required.
72	**A837 North West of Langwell** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will oversail both verges through the section. Trees and vegetation will need to be trimmed along both verges of bend.
73	**A837 East of Oykel Bridge** 	Loads will continue westbound on the A837. A swept path assessment has been undertaken and indicates that loads will over sail both verges of the section. Minor overrun areas will be required to the east of the bridge. The stone bridge parapets will be oversailed and suspensions settings should be adjusted to enable this. One bollard should be removed and load bearing surface laid. Vegetation should be trimmed along outer verge of first left hand bend.

POI	Key Constraint	Details
74	**A837 / Oykel Bridge Road (U3581) Junction** 	Loads will drive through a left bend, over the Oykel Bridge, then turn left onto Oykel Bridge Road heading south towards the western Site access. Through the bend and over the bridge they will oversail both verges. Loads should be raised on their suspension settings to allow oversail of the bridge parapets and safety barriers. **Third party land** is required. When turning left the raised blade tip will oversail trees in the northern verge. **Third party land** is required. A load bearing surface should be laid in the western verge at the junction to allow loads to overrun and oversail. Detailed design on a topographical survey is required to confirm the exact required mitigation. The earthworks footprint of the load bearing surface should be confirmed through detailed design. Land reprofiling is required. Confirmation of the feasibility to culvert the existing watercourse should be confirmed as part of the design. One road sign should be removed. Vegetation should be cleared. **Third party land** is required. Trees and vegetation in the western verge south of the junction should be trimmed. *The road from this point to the Site will need to be widened to provide a minimum 4.5m running width and a 5.5m clearance width. This may require third party land to complete the construction. Detailed design should be completed for the remainder of the route. All swept path assessments from this point to the western Site access assume the above required works have been constructed and that the mitigation shown is in addition to the widening works.*

POI	Key Constraint	Details
75	**Oykel Bridge Road (U3581), Cathair Thurnaig** 	Loads will head southeast through a series of bends oversailing both verges and overrunning the southern verges. One road sign should be removed from the northern verge. Trees in the northern verge will be oversailed. A land search should be completed to confirm the extent of the available adopted boundary to the north. Load bearing surfaces should be laid in the southern verges where loads overrun. Trees and vegetation should be cleared. A fence in the southern verge will be oversailed. **Third party land** is required to the south. The vertical profile of the road at this location is pronounced and should be reviewed during the test run stage or on a topographical survey base to ascertain if tar wedges are required to prevent grounding.
76	**Oykel Bridge Road (U3581), Gob na Foide** 	Loads will head southwest through two right bends. Through the first bend they will oversail both verges where trees and vegetation should be trimmed. Through the second bend they will overrun and oversail the western verge where a load bearing surface should be laid. The existing culvert should be extended. The western safety railing should be removed. Trees and vegetation should be cleared. The raised blade tip will oversail trees and vegetation in the eastern verge where **third party land** is required.
77	**Oykel Bridge Road (U3581), Cnoc na h- Atha** 	Loads will continue southwest through a series of bends. They will overrun and oversail both verges throughout. Load bearing surfaces should be laid. Trees and vegetation should be cleared from both verges. One road sign should be removed from the northern verge.

POI	Key Constraint	Details
78	**Oykel Bridge Road (U3581), Poll Crom** 	Loads will keep left at the junction to head south on Oykel Bridge Road, cross the River Einig then drive forward onto a newly constructed access track. *This location marks the Western Site access option.* Load bearing surfaces should be laid in the northern verges at the junction to allow loads to overrun and oversail. A fence in the northern verge will be oversailed. Trees and vegetation should be cleared. **Third party land** is required. Trees and vegetation in the southern verge at the junction should be trimmed to allow loads to oversail into **third party land**. A detailed assessment of the bridge crossing the River Einig is required to establish the extent of works needed to bring it up to the appropriate standards for AIL delivery. Based on the available satellite imagery and OS mapping, the bridge's running surface falls below manufacturer guidelines. Confirmation on the ownership of the structure should be sought as no detailed information is readily available on the ESDAL database. **Third party land** is required. The new access track south of the bridge should be constructed to turbine manufacturer and local road authority guidelines. Detailed design on a topographical survey base is required. The southern fence should be removed. Trees and vegetation should be cleared. **Third party land** is required.

POI	Key Constraint	Details
79	**A837 / U2126 Junction**  	Immediately west of POI 67, 1.3 km southwest of the bridge crossing over the River Cassley (within Invercassley) loads would turn left onto the U2126 for access to the eastern Site entrance. A load bearing surface should be laid in the eastern verge of the junction to allow loads to overrun and oversail. Land reprofiling is required. The existing watercourse should be culverted. One road sign, a wall and fence should be removed. Trees and vegetation should be cleared. **Third party land** is required to the east. *The road from this point to the Site will need to be widened to provide a minimum 4.5m running width and a 5.5m clearance width. This may require third party land to complete the construction. Detailed design should be completed for the remainder of the route. All swept path assessments from this point to the eastern Site access assume the above required works have been constructed and that the mitigation shown is in addition to the widening works.* Loads will oversail the western verge after the junction. *To the south of the junction is a bridge crossing the River Oykel which has been determined to be unsuitable for AIL passage.* A new bridge should be constructed to turbine manufacturer and road authority standards to allow loads to cross the river. Detailed design on a topographical survey base is required. Load bearing surfaces should be laid. Land reprofiling is required. Trees and vegetation should be cleared. **Third party land** is required. Once loads cross the new bridge and rejoin the U2126, they will drive south, oversailing the western verge into **third party land**. One road sign will be oversailed.

POI	Key Constraint	Details
80, 81, 82	**U2126 / C1136 Junction**   	Loads will drive through two bends, turn right onto the C1136, drive through two more bends, then turn left into the eastern Site entrance. Through the first bend they will oversail both verges into **third party land**. The western safety barrier will be oversailed. Trees in the western verge should be trimmed. *The second bend was noted to be extremely constrained both in terms of vertical profile and horizontal alignment.* To navigate successfully, substantial earthworks and vertical reprofiling would be required to widen the road such that it becomes capable of accommodating the loads. Detailed design on a topographical survey base is required to confirm the extent of the works. A load bearing surface should be laid on the outside of the bend to allow loads to overrun and oversail. One road sign, a fence and safety barrier should be removed. Trees and vegetation should be cleared. **Third party land** is required. One road sign on the inside of the bend will be oversailed. Trees and vegetation in the southern verge after the bend should be trimmed. At the junction, it is proposed that loads drive onto an offline track to bypass the sharp right turn. A load bearing surface should be laid in the western verge. Two road signs, a gate and fences should be removed. Trees and vegetation should be cleared. **Third party land** is required to the west. Through the subsequent two bends loads will oversail both verges into **third party land** and overrun the northern verges. Fences on both sides of the road will be oversailed. Land reprofiling of the northern verge is required to construct the load bearing surfaces for the overrun areas. Vegetation should be cleared from the northern verge. The vertical profile of the road through the bends is pronounced and should be reviewed during the test run stage or on a topographical survey base to ascertain if tar wedges or reprofiling of the existing carriageway is required to prevent grounding. A new Site access junction should be constructed to turbine manufacturer standards to accommodate AIL delivery. Loads will overrun and oversail the eastern verge at the junction on entry. A load bearing surface should be laid. Land reprofiling is required. Detailed design on a topographical survey is required to confirm the extent of earthworks. The eastern fence should be removed. Vegetation should be cleared. **Third party land** is required.

4 Access Route Review

4.1 Swept Path Assessment Results and Summary

The detailed Swept Path Assessment (SPA) drawings for the locations assessed are provided in **Annex B** for review. The drawings illustrate tracking undertaken for the worst-case loads at each location.

The colours illustrated on the swept paths represent:

- **Grey** / **Black** – Ordnance Survey (OS) / topographical base mapping;
- **Green** – vehicle body outline (body swept path);
- **Red** – tracked pathway of the wheels (wheel swept path); and
- **Magenta** – the oversail tracked path of the load where it encroaches out with the trailer (load swept path).

Where mitigation works are required, the extents of the overrun and oversail areas are illustrated and fully detailed on the SPA drawings. Additional land areas to those indicated in the SPA drawings may be required to facilitate the construction of the proposed physical mitigation measures depending on the Site conditions and topography. The extent of any additional areas required to construct the mitigation works highlighted within this study and the detailed design of said mitigation works is beyond the scope of this study and should be confirmed on detailed topographical survey data.

Please note that where SPA have been undertaken using OS base mapping, AutoCAD based aerial mapping and historic topographical data, there can be errors in these data sources.

Where provided by the client, topographical data has been utilised. Please note that PF cannot accept liability for errors on the data source, be that OS base mapping, aerial mapping, historic topographical surveys or client supplied data. Where applicable, mapping has been augmented with aerial imagery for illustration only. The accuracy of this mapping cannot be confirmed by PF.

Please note that turbine supplier guidance suggests that the minimum road width for the safe transport of AIL components is 4.5 m. All public roads and on-site access tracks should comply with this standard unless a relaxation has been agreed with suppliers.

The need to widen public roads will require engagement with the relevant road authority and may constitute permanent or temporary surfacing.

4.2 Access Junction Considerations

The access junctions into the Site will need to be built to accommodate the proposed physical size of loads and the number of trips predicted during the construction phase.

The design and form of the junction will need to be discussed with the local road authority. The design of the junction should take into account the requirement for provision of visibility splays which should be confirmed with the road authority.

The junction will also need to be built in accordance with the turbine supplier design criteria.

4.3 Third Party Land

A review of third party land should be undertaken by the client to ensure that no additional land rights are required to enable deliveries or mitigation works. PF accept no responsibility for the accuracy of land ownership assumptions, all of which should be confirmed across the entire access route by a qualified land agent.

4.4 Weight Review

A review of the structures on the proposed access route has been undertaken via the ESDAL (Electronic Service Delivery for Abnormal Loads) database. No constraints were identified at this time, using the Highways Agency website www.esdal.com. This, however, does not confirm the suitability or otherwise of the structures and a full review of these structures will be required with the relevant agencies via the contacts in the database when the candidate turbine has been confirmed. For information, the relevant ESDAL contacts in relation to the proposed development are noted in Table 3-2 below.

Table 4-1: ESDAL Contacts

Organisation	Email Address
The Highland Council	abnormal.loads@highland.gov.uk
BEAR Scotland	nwabnormalload@bearscotland.co.uk
Police Scotland	OSDAbnormalLoadsScotland@scotland.police.uk
Network Rail	abnormalloadsenquiries@networkrail.co.uk
Historic Rail Estate	rsgbrb@jacobs.com
Scottish Canals	SCAbnormal.Loads@scottishcanals.co.uk
Transport Scotland	AbnormalLoads@transport.gov.scot

The responses from the ESDAL search are contained in **Annex C**; where no response has been received, it is assumed that no constraints are in place at this time.

4.5 Land Ownership

The limits of road adoption can vary depending upon the location of the Site and the history of the road agencies involved. The adopted area is generally defined as land contained within a defined boundary where the road agency holds the maintenance rights for the land. In urban areas, this usually defined as the area from the edge of the footway across the road to the opposing footway back edge.

In rural areas the area of adoption can be open to greater interpretation as defined boundaries may not be readily visible. In these locations, the general rule is that the area of adoption is between established fence / hedges lines or a maximum 3 m from the road edge. This can vary between areas and location.

4.6 Summary Issues

It is strongly suggested that following a review of the RSR, the Applicant should undertake the following prior to the delivery of the first abnormal loads, to ensure load and road user safety:

- Confirm that the mitigation measures for the larger blade are achievable with respect to land ownership boundaries and ecological constraints;
- That any necessary topographical surveys are undertaken, and that swept path assessments are repeated;
- A review of axle loading on structures along the entire access route with the various road agencies is undertaken immediately prior to the loads being transported in case of last minute changes to structures;
- A review of clear heights with utility providers and the transport agencies along the route to ensure that there is sufficient space to allow for loads plus sufficient flashover protection (to electrical installations);
- That any verge vegetation and tree canopies which may foul loads is trimmed prior to loads moving;
- That a review of potential roadworks and or closures is undertaken once the delivery schedule is established in draft form;
- That a test run is completed to confirm the route and review any vertical clearance issues; and
- That a condition survey is undertaken to ascertain the extents of road defects prior to loads commencing to protect the developer from spurious damage claims.

5 Summary

5.1 Summary of Access Review

PF have been commissioned by the Applicant to prepare an RSR to examine the issues associated with the transport of AIL turbine components to the Proposed Development, located approximately 18 km southwest of Lairg and 20 km northwest of Bonar Bridge within THC administrative area.

This report identifies the key points and issues associated with the most appropriate access routes and outlines the issues that will need to be considered for successful delivery of components.

The report is presented for consideration to the Applicant. Various road modifications, structural reviews and interventions are required to successfully access the Site. If these are undertaken, access to the Proposed Development is considered feasible.

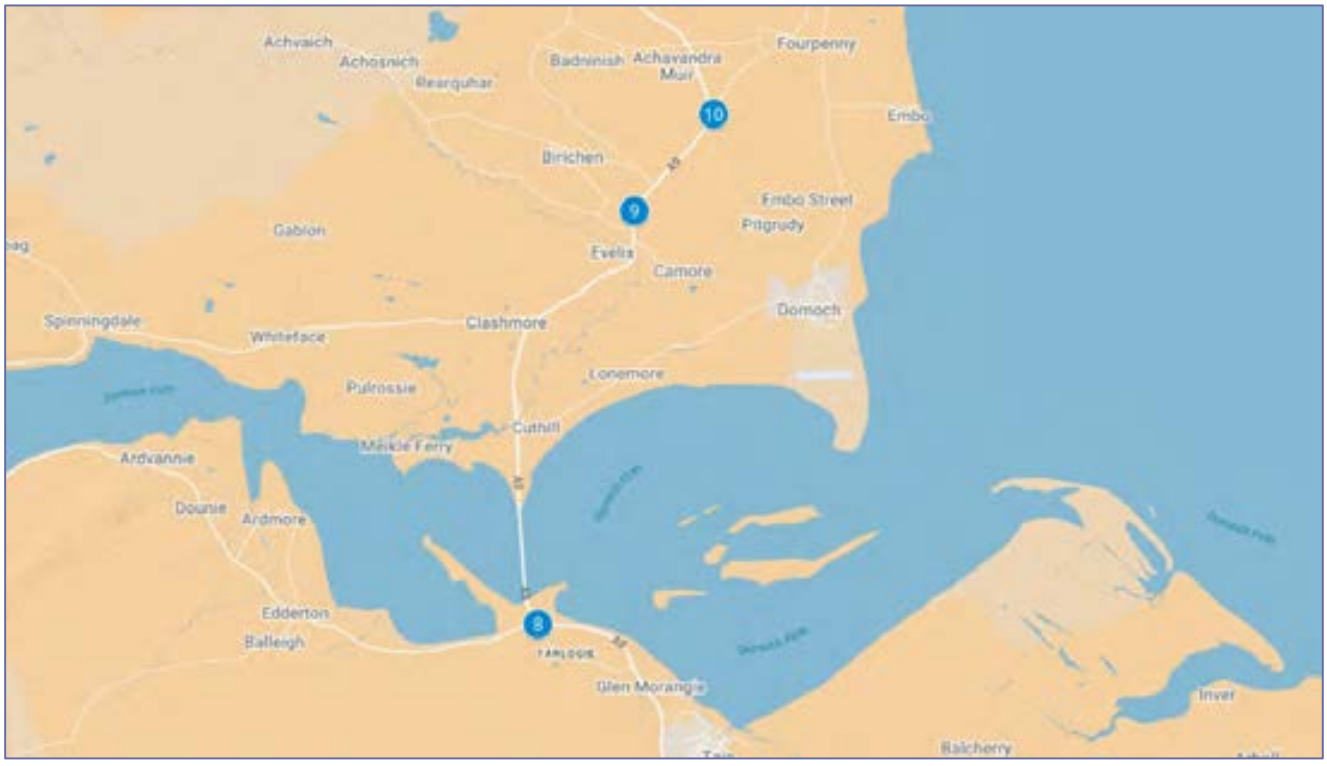
5.2 Further Actions

The following actions are recommended to pursue the transport and access issues further:

- Confirm that the mitigation measures for the larger blade are achievable with respect to land ownership boundaries and ecological constraints;
- Prepare detailed mitigation design proposals to help inform the land option / consultee discussions;
- Obtain the necessary land options;
- Undertake discussion with the affected utility providers and roads agencies;
- Obtain the necessary statutory licences to enable the mitigation measures; and
- Develop a detailed operational Abnormal Load Transport Management Plan to assist in transporting the proposed loads. Further details in this regard are included in **Chapter 9** (EIA Report Volume 2) and **Technical Appendix 9.1** (EIA Report Volume 4).

Annex A Points of Interest

An electronic version of the POI plans can be found here:
https://www.google.com/maps/d/edit?mid=1XVoVf04dwSWK_kzcBPD7smQJwPd_-Kc&usp=sharing




Little Torboll
13
The Mound
A9
A9
12
11
A9
Loch Fleet


East Langwell
24
A839
Rhaoine
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Mule
22
A839
21
Ardachu
20
A839
19
18
17
16
Little Rogart
Rogart
A839
15
14
A839


A839
A839
River Finer
26
25
Tomich


29
28
Main St
A839
27
A839
Lairg
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34
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41
42
43
A939
B864
Gruids
Lairg


44
45
46
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48
49
A939
Braemore


A839
A837
Ale Mhor
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Invercassley
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A839
Aucharrigill
Rosehall
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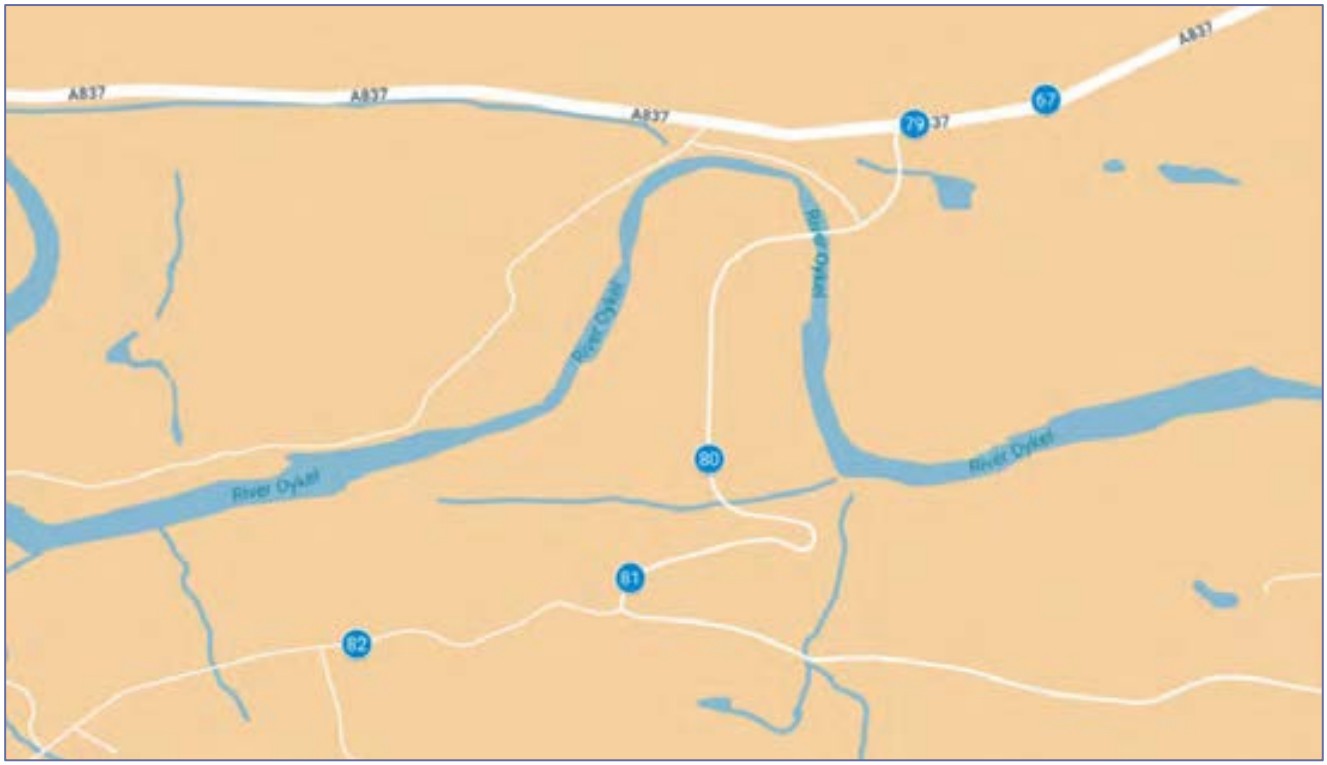
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River Dykel
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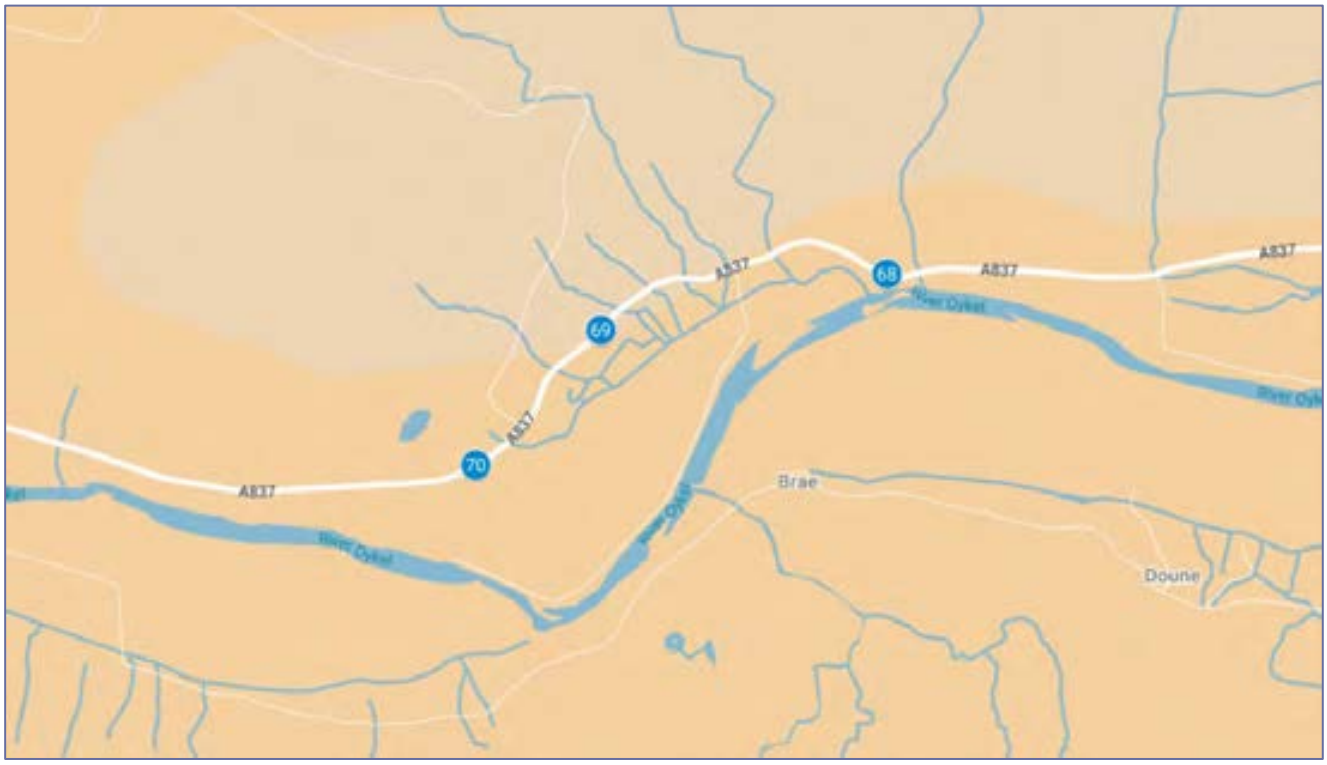
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River Dykel
Brae
Doune


A837
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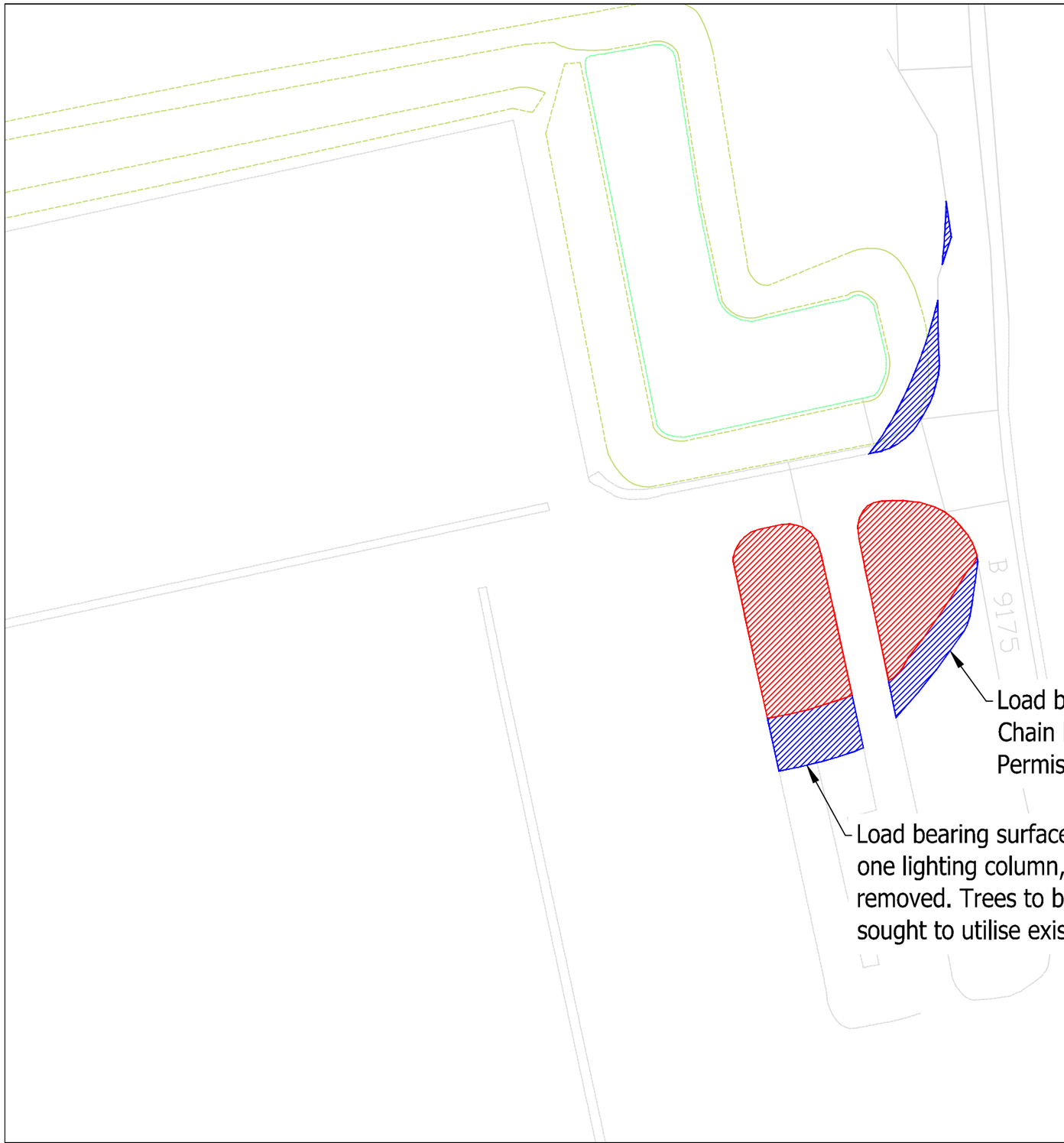
Bridge

Annex B Swept Path Assessments



Load bearing surface to be laid. Land to be reprofiled.
Chain link fence to be removed. Trees to be cleared.
Permission to be sought to utilise existing overrun area.

Load bearing surface to be laid. Chain link fence, one lighting column, and three road signs to be removed. Trees to be cleared. Permission to be sought to utilise existing overrun area.

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: Exit from Port of Nigg

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Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		1

Scale: 1:750 @ A3

File No. 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No. SK01A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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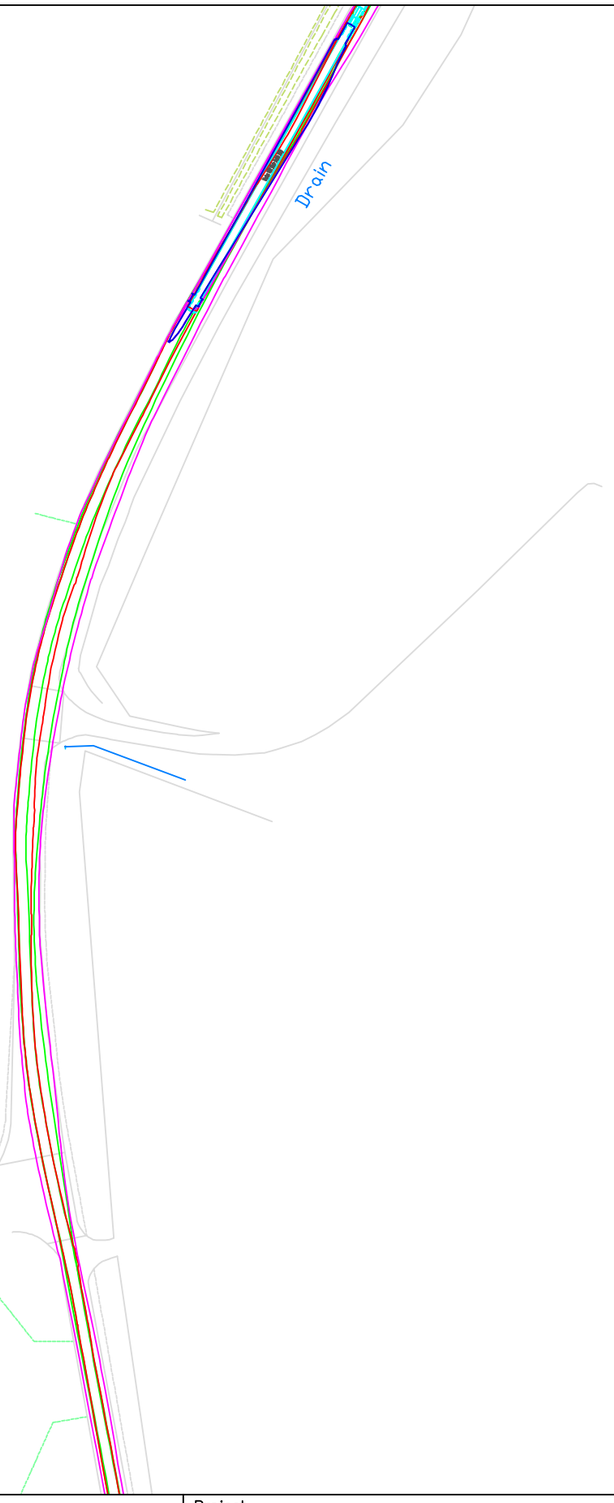
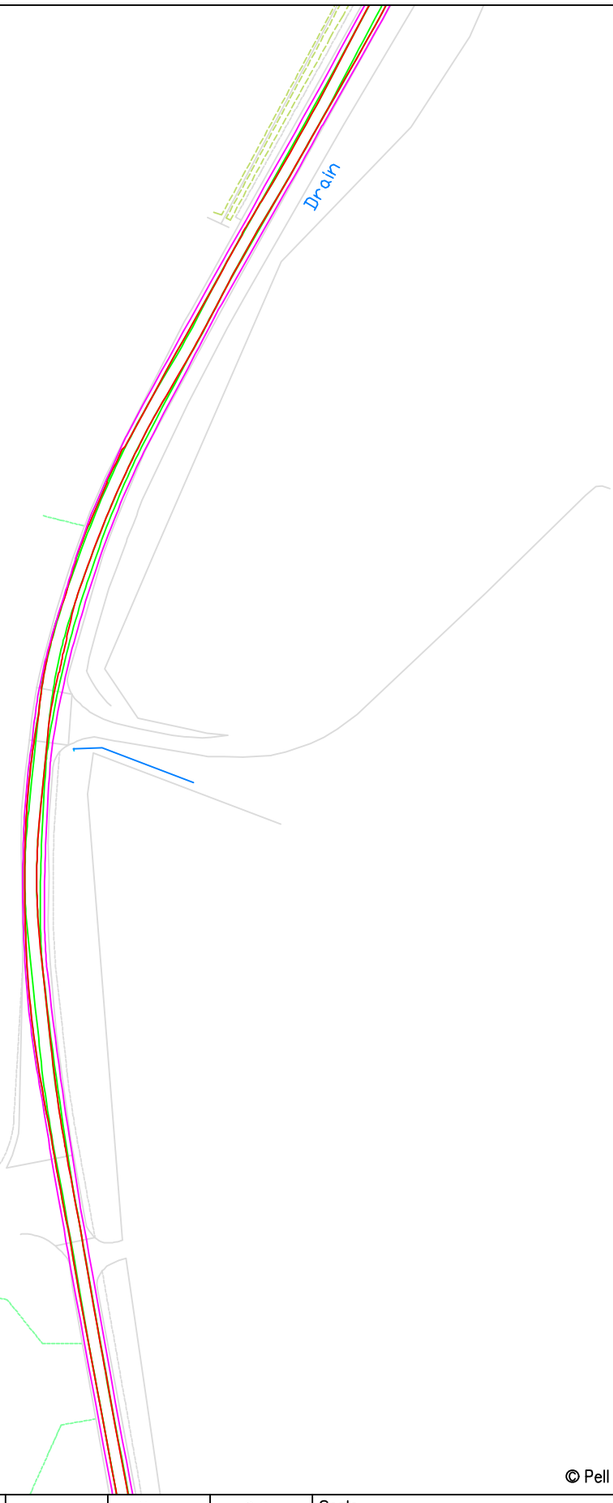


Tower



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Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: Exit from Port of Nigg

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		1

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK01B

Notes:
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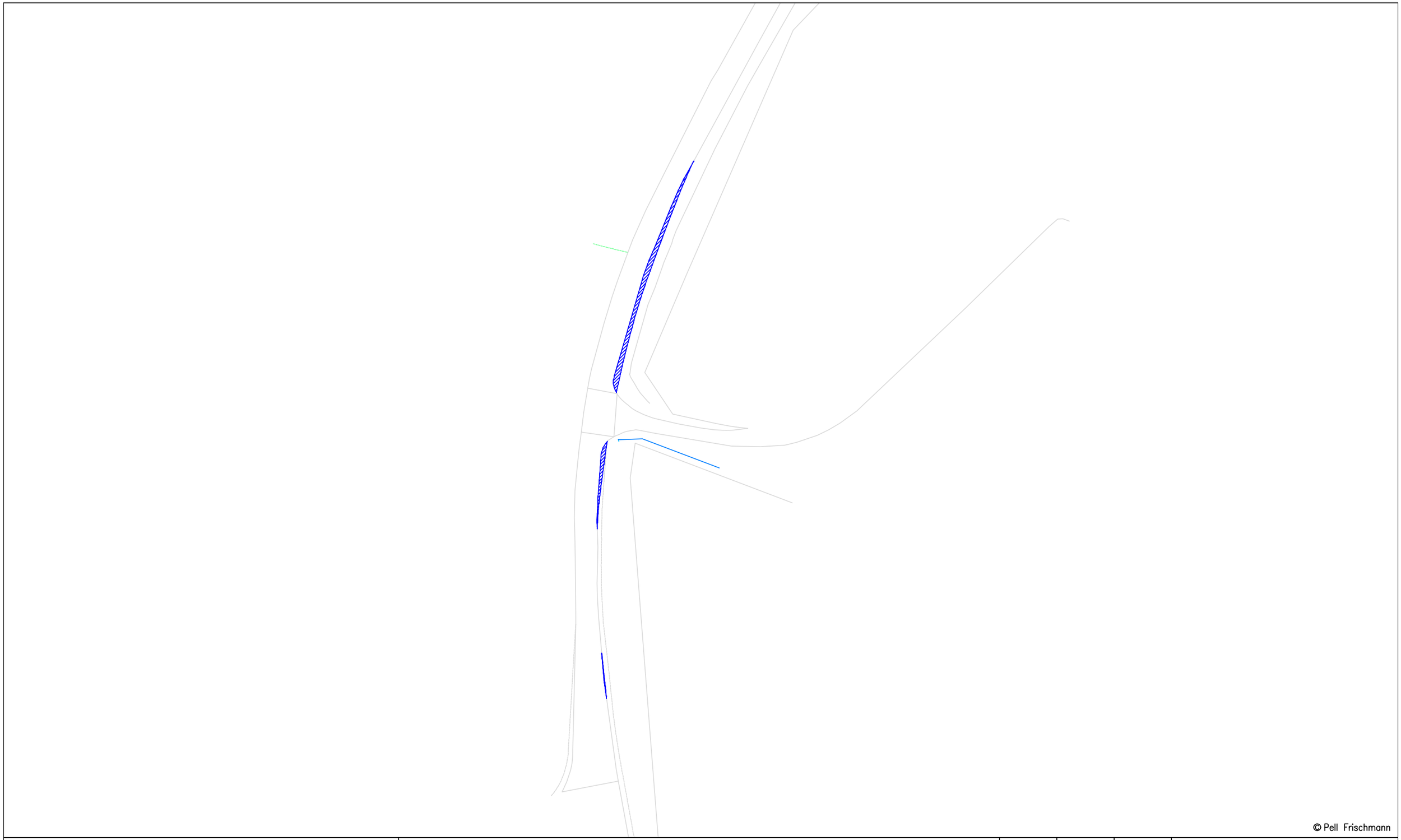
Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: Exit from Port of Nigg

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		1

Scale: 1:1000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK01C

Notes:
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Revision: –

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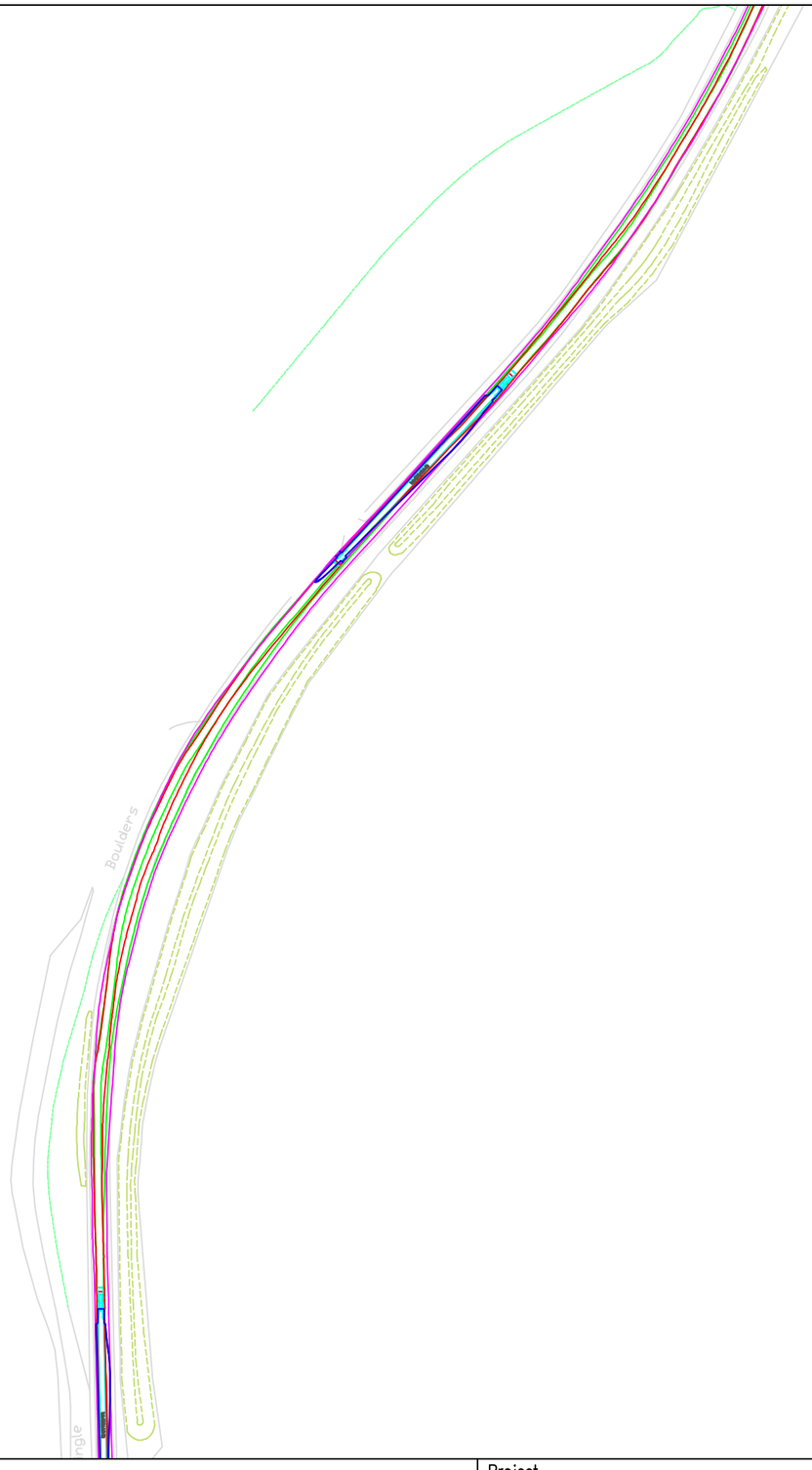
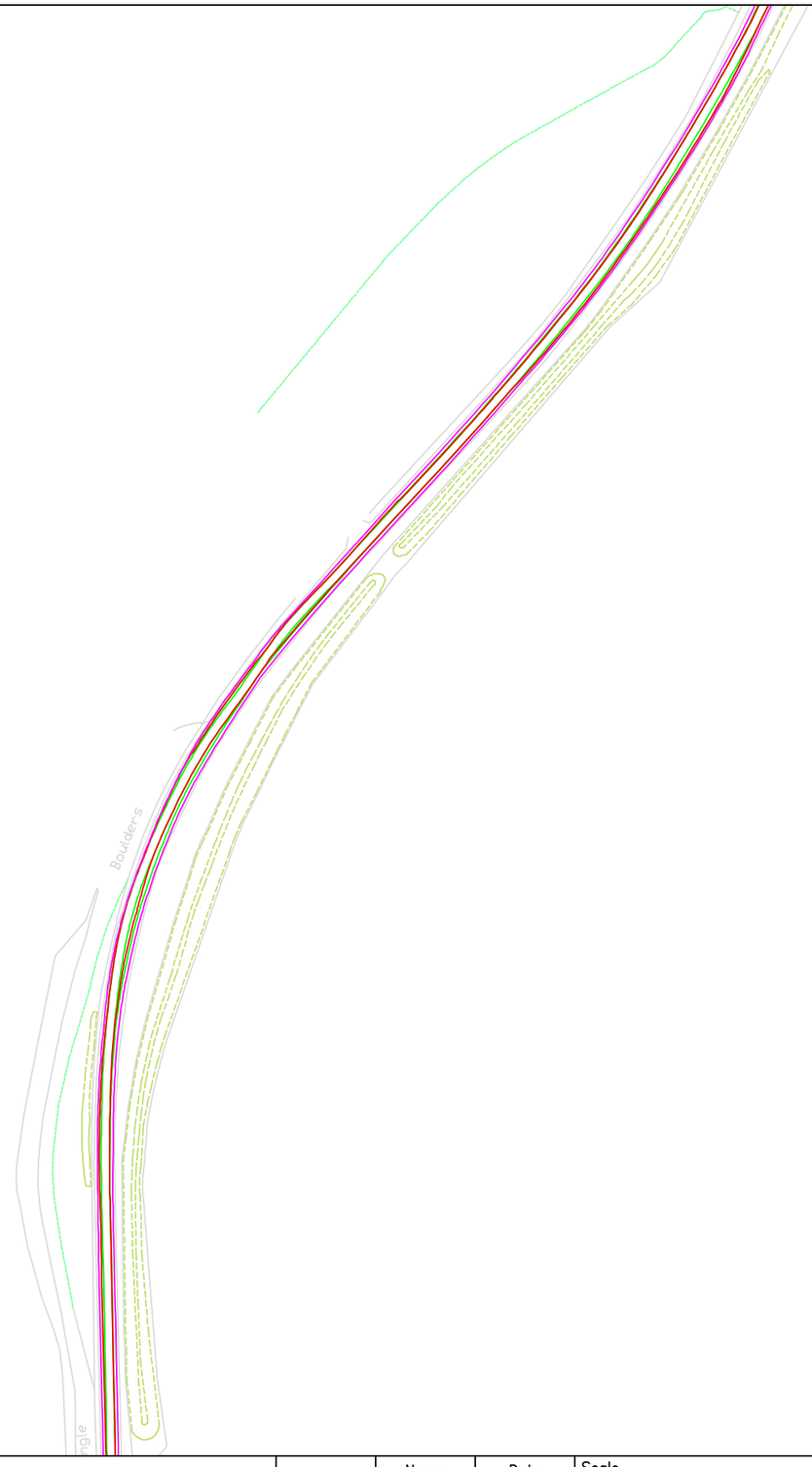


Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 west of Nigg House

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Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		3

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK02

Notes:
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Revision: –

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 west of Nigg House

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		3

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK02A

Notes:
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Revision: –

Blade

Tower

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Project: Coille Beith Wind Farm

Client: Coille Beith Wind Farm Ltd.

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 northwest of Nigg House

Key: Wheel SPA, Body SPA, Load SPA, Indicative, Overrun, Oversail

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Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		4

Scale: 1:2000 @ A3

File No. 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No. SK03

Notes:

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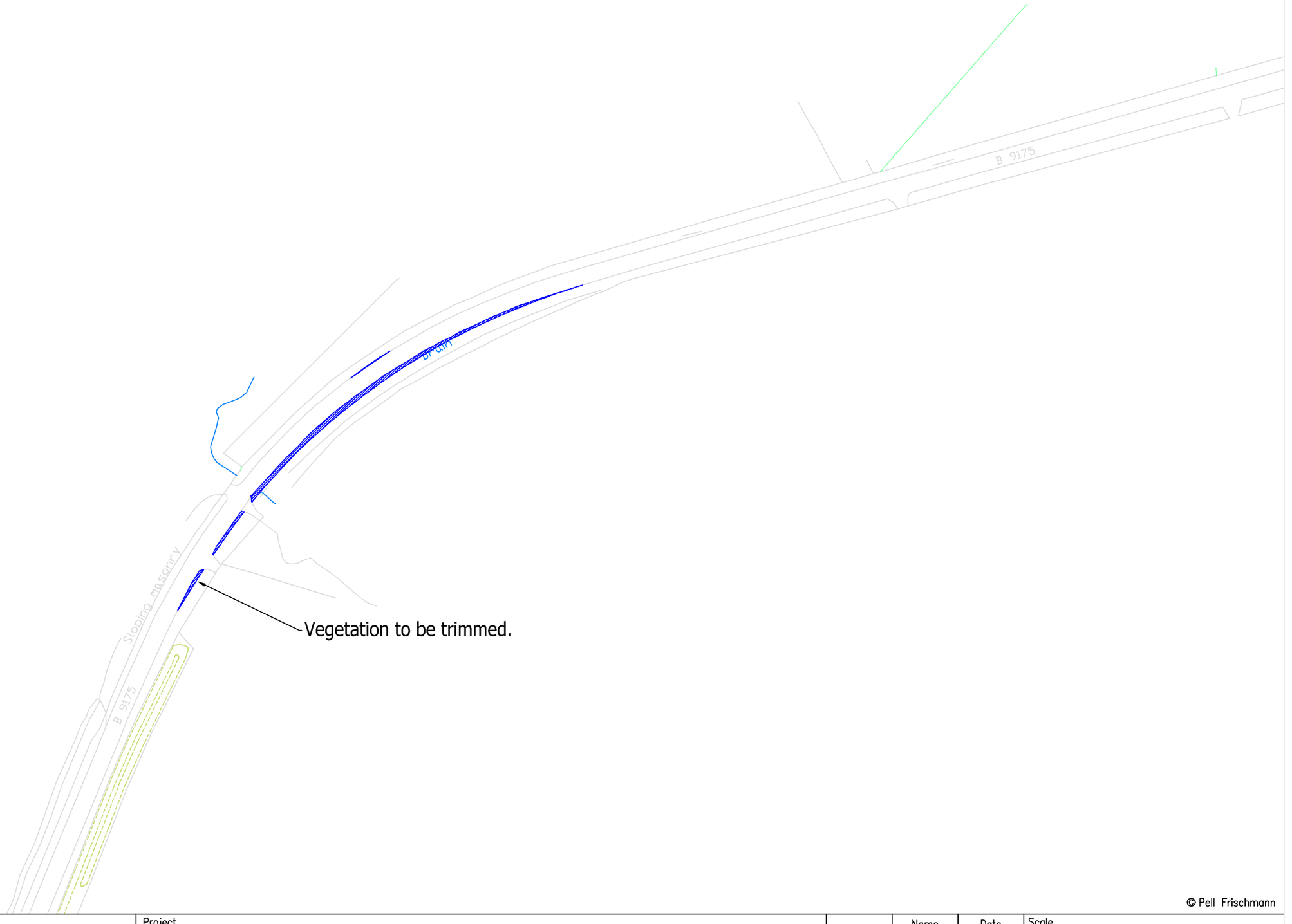
Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 northwest of Nigg House

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		4

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK03A

Notes:
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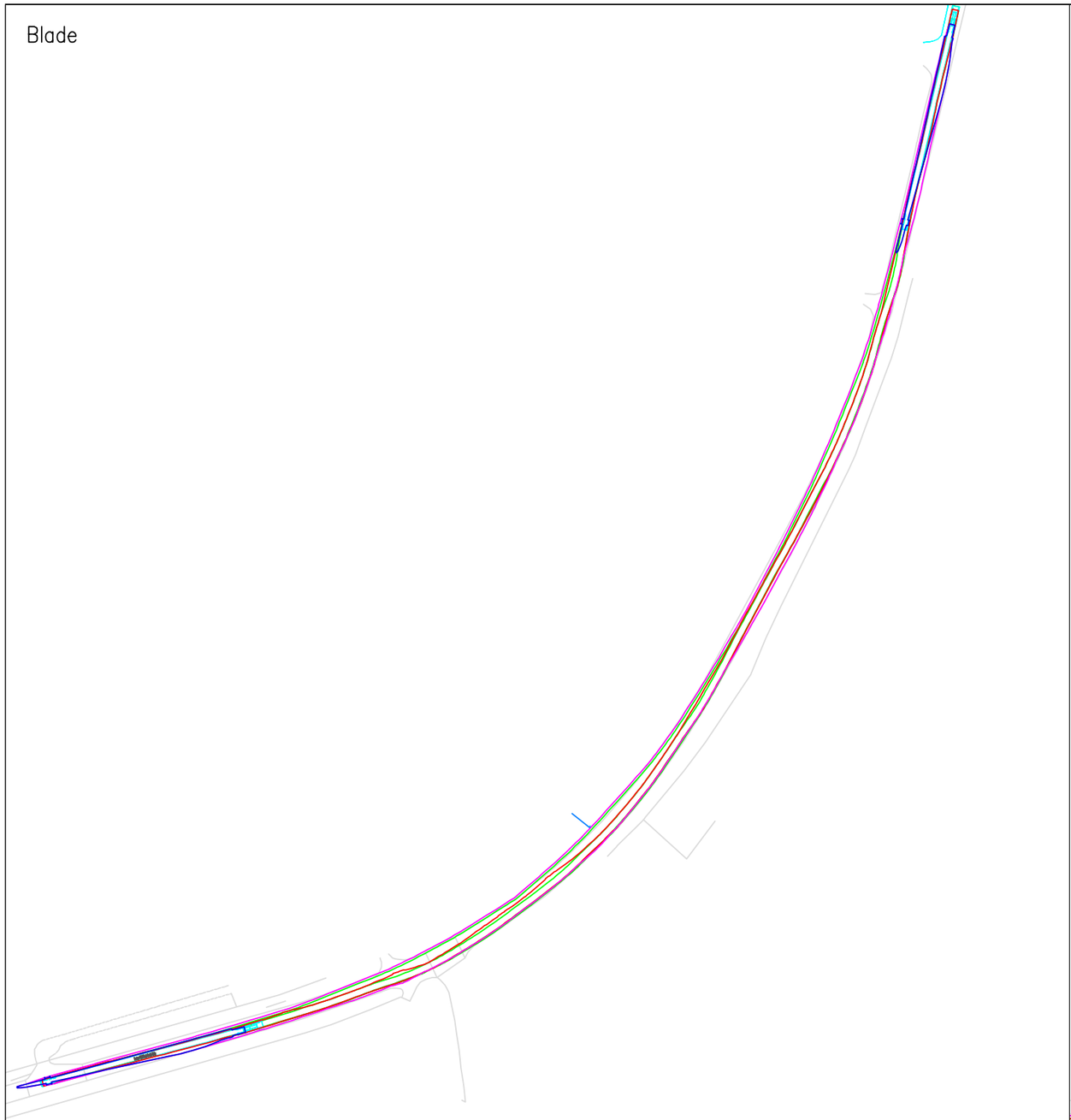
Revision: –

Blade



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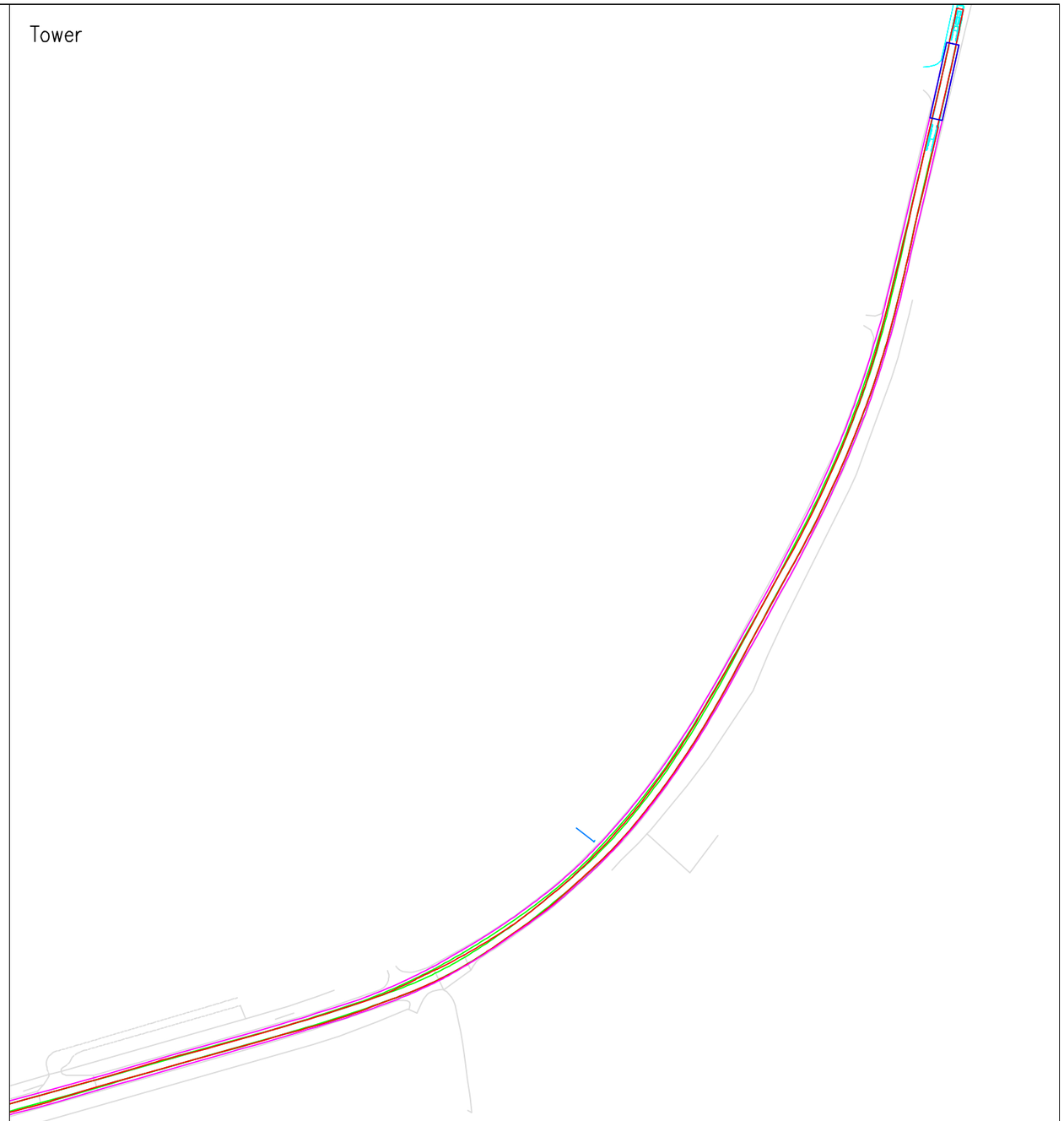

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 Pitcalnie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		5

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK04

Notes:
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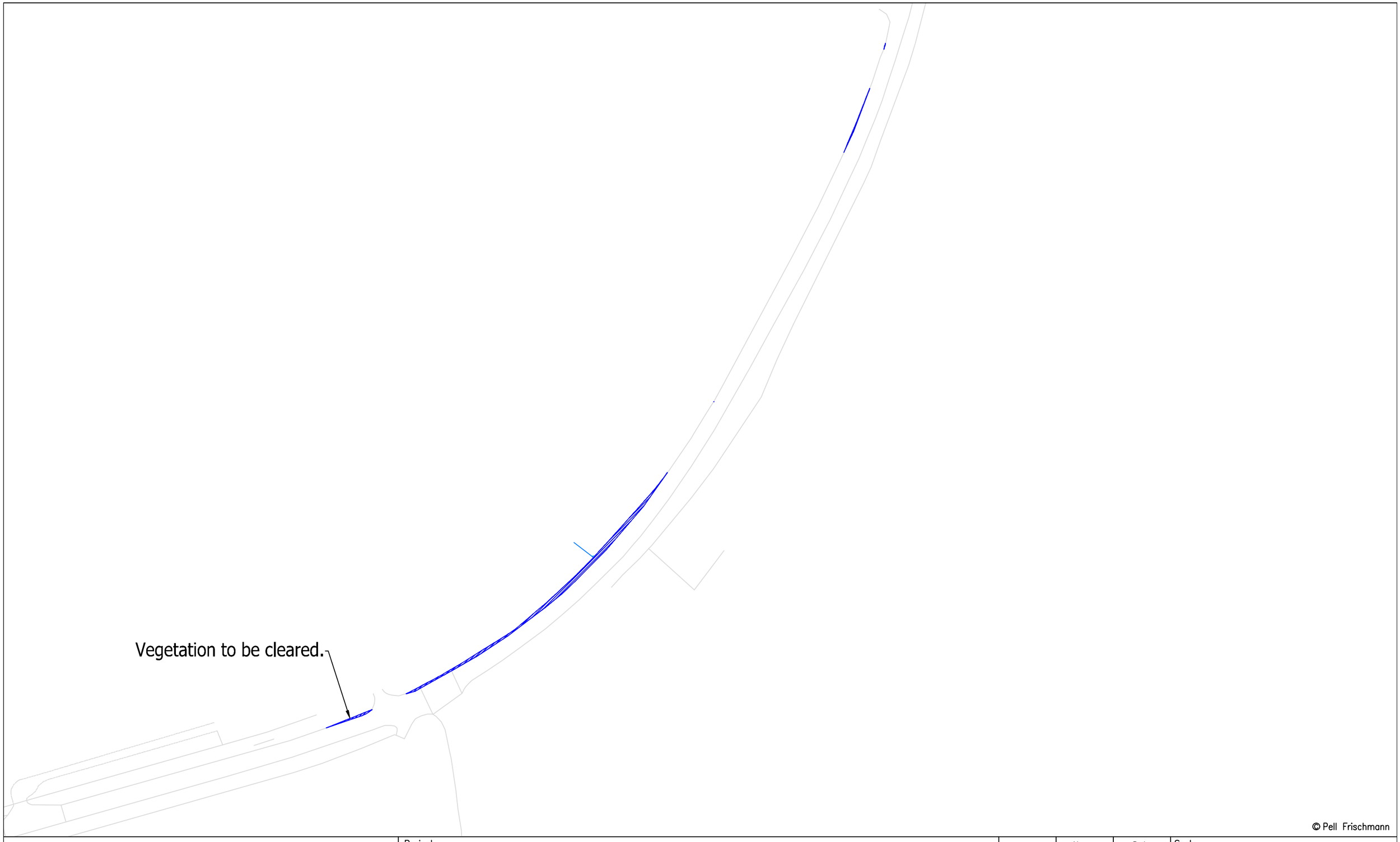
Revision: —



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: B9175 Pitcalnie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		5

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK04A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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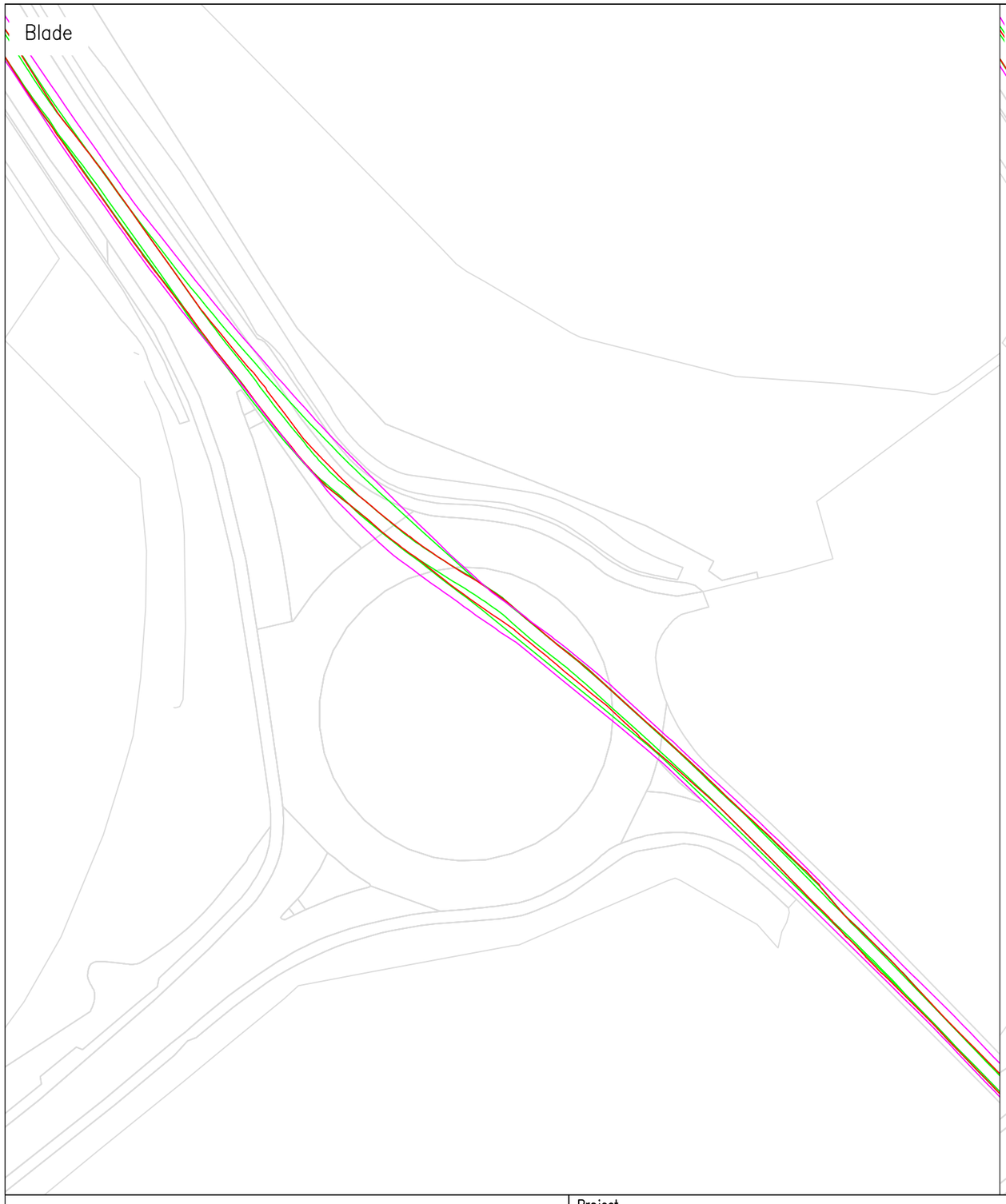
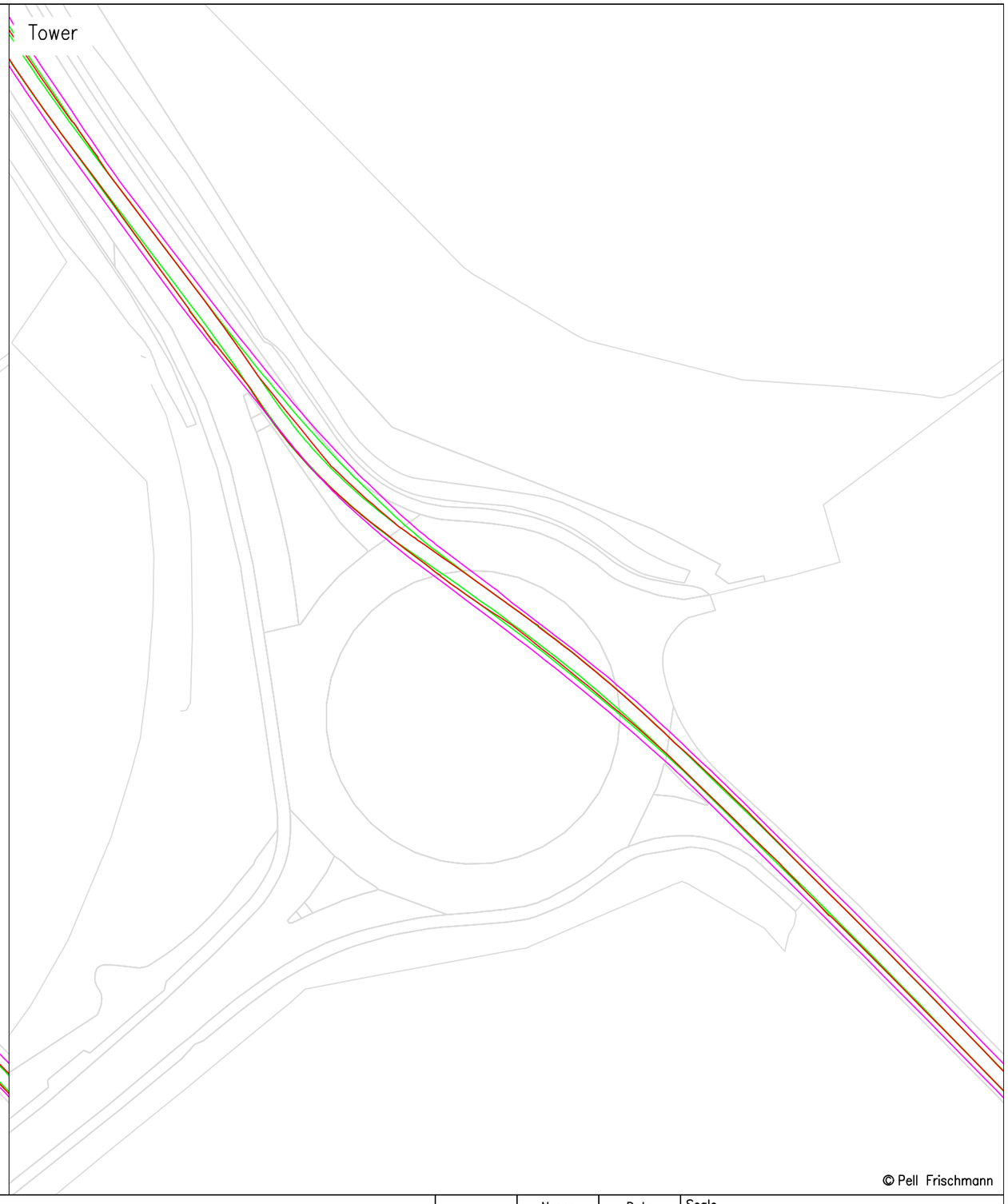


Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Nigg Roundabout

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		7

Scale: 1:1000 @ A3

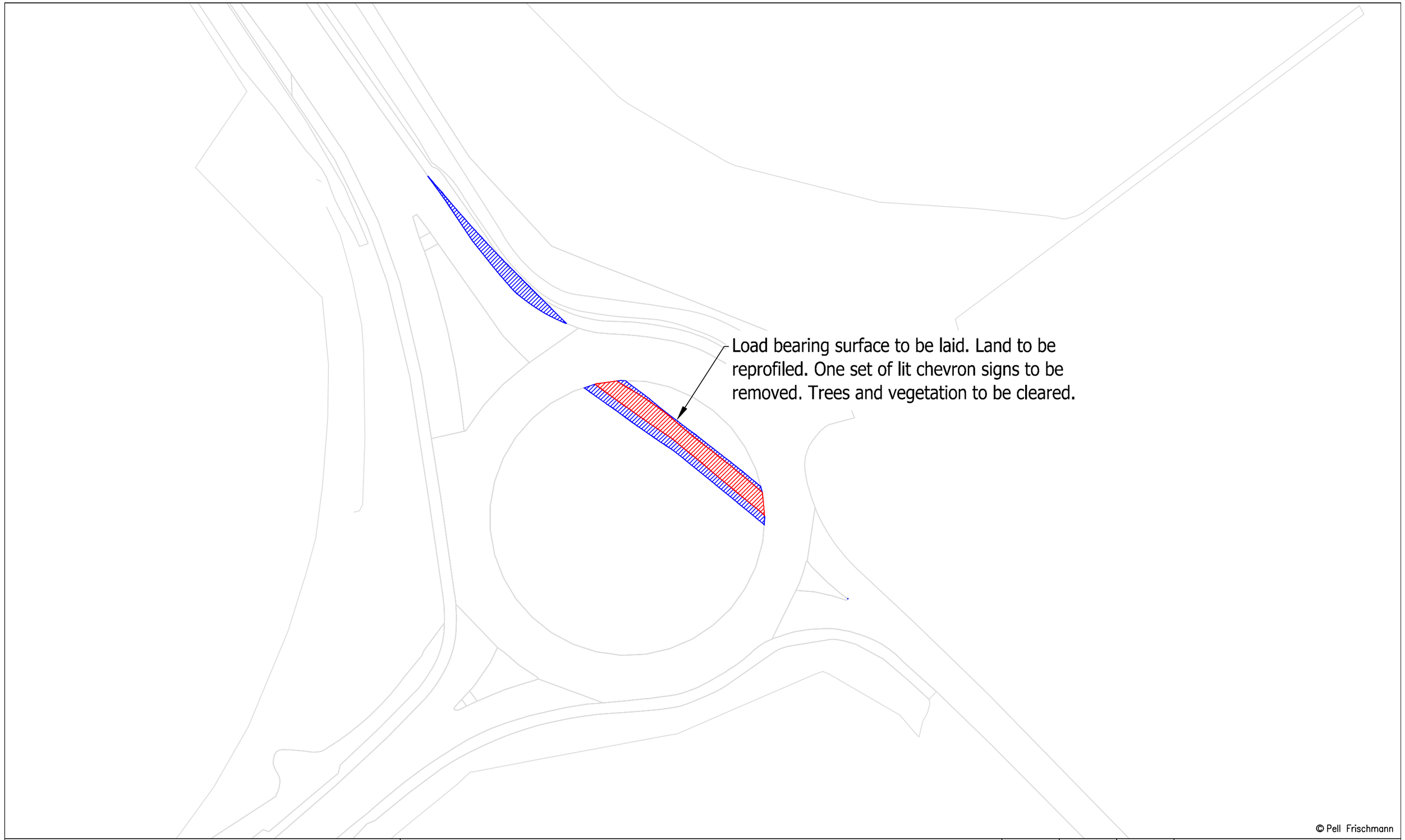
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK05

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: —



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Nigg Roundabout

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		7

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

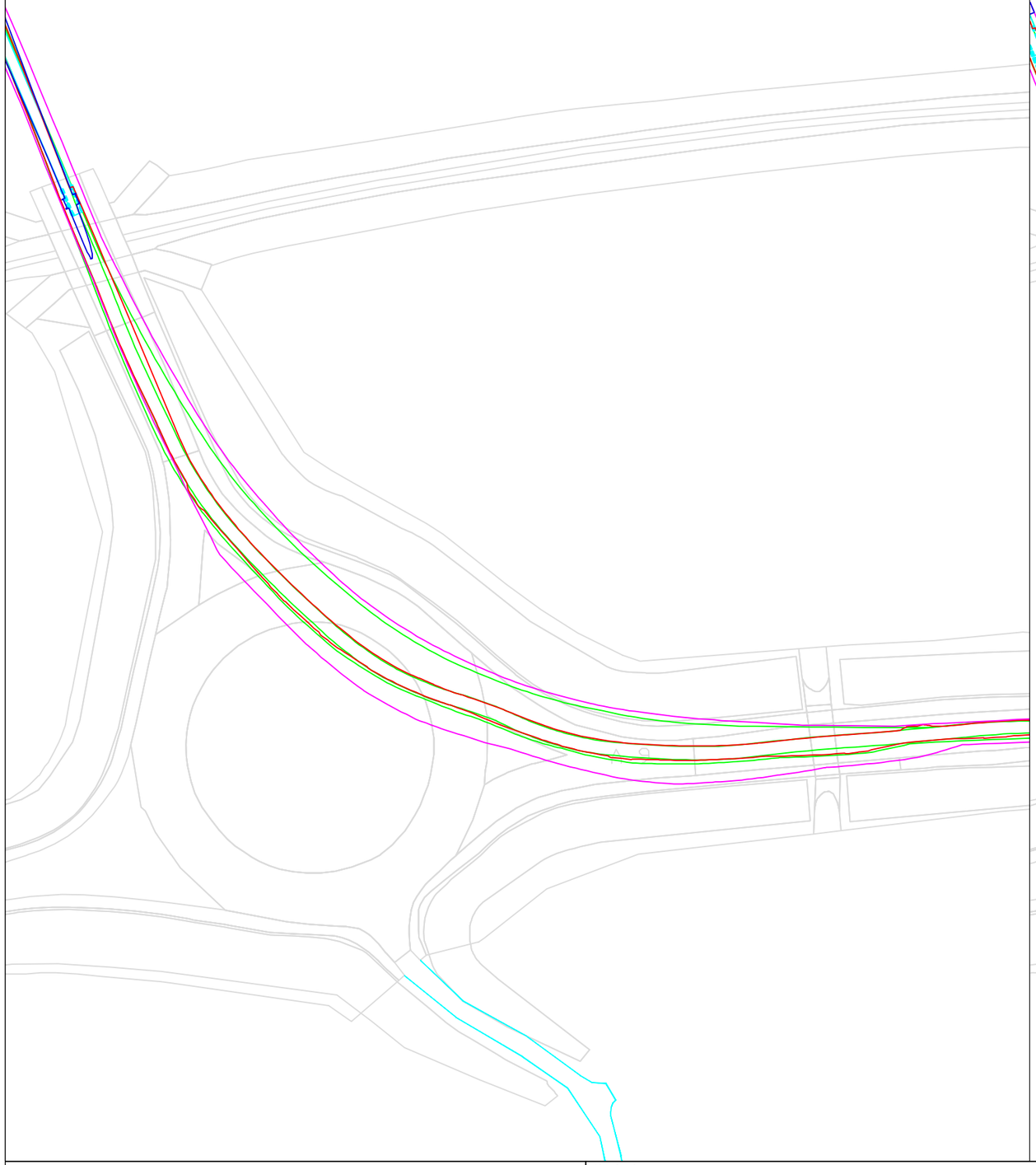
Drawing Status: Draft

Drawing No.: SK05A

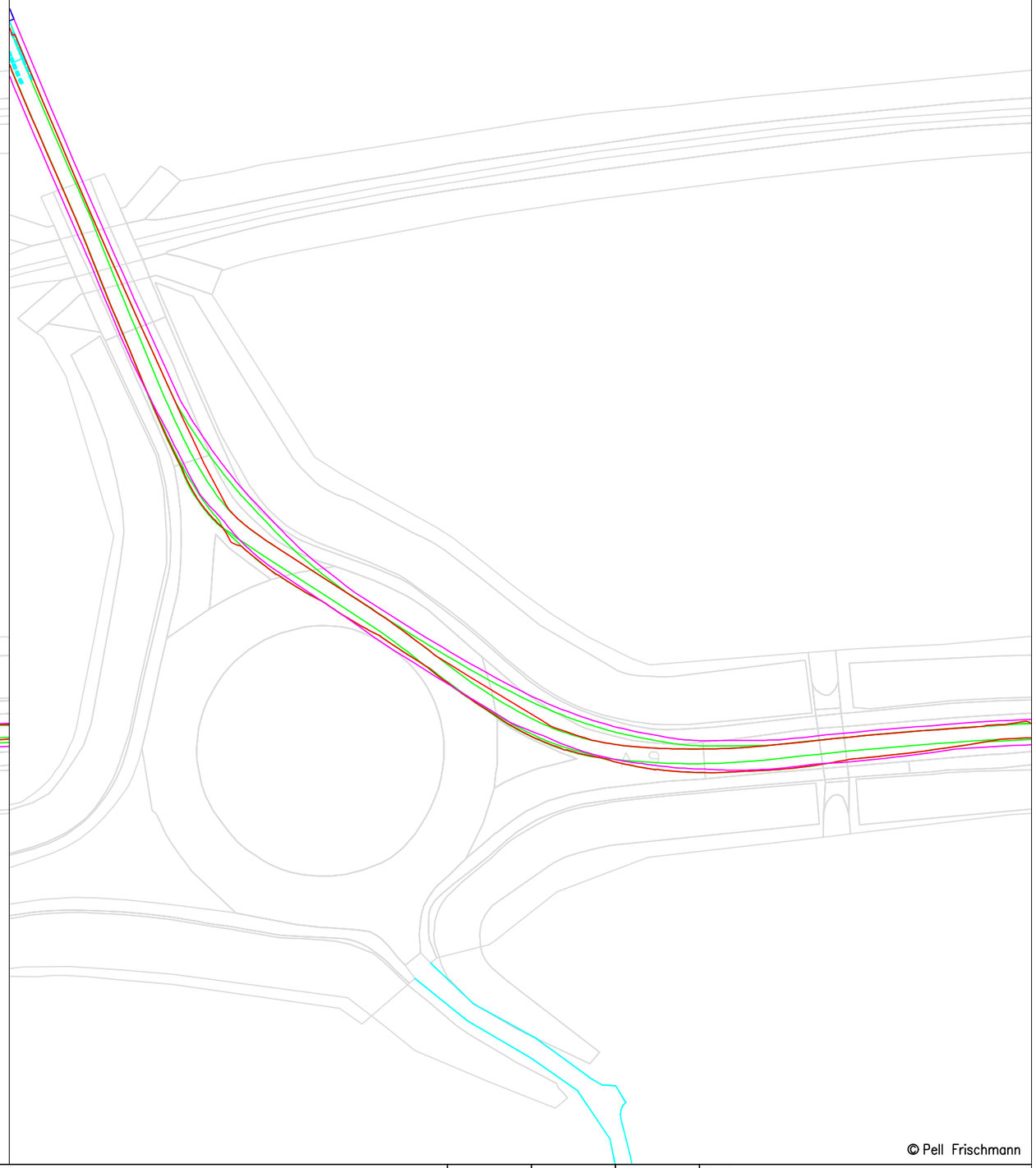
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: —

Blade



Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Meikle Ferry Roundabout

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		8

Scale: 1:1000 @ A3

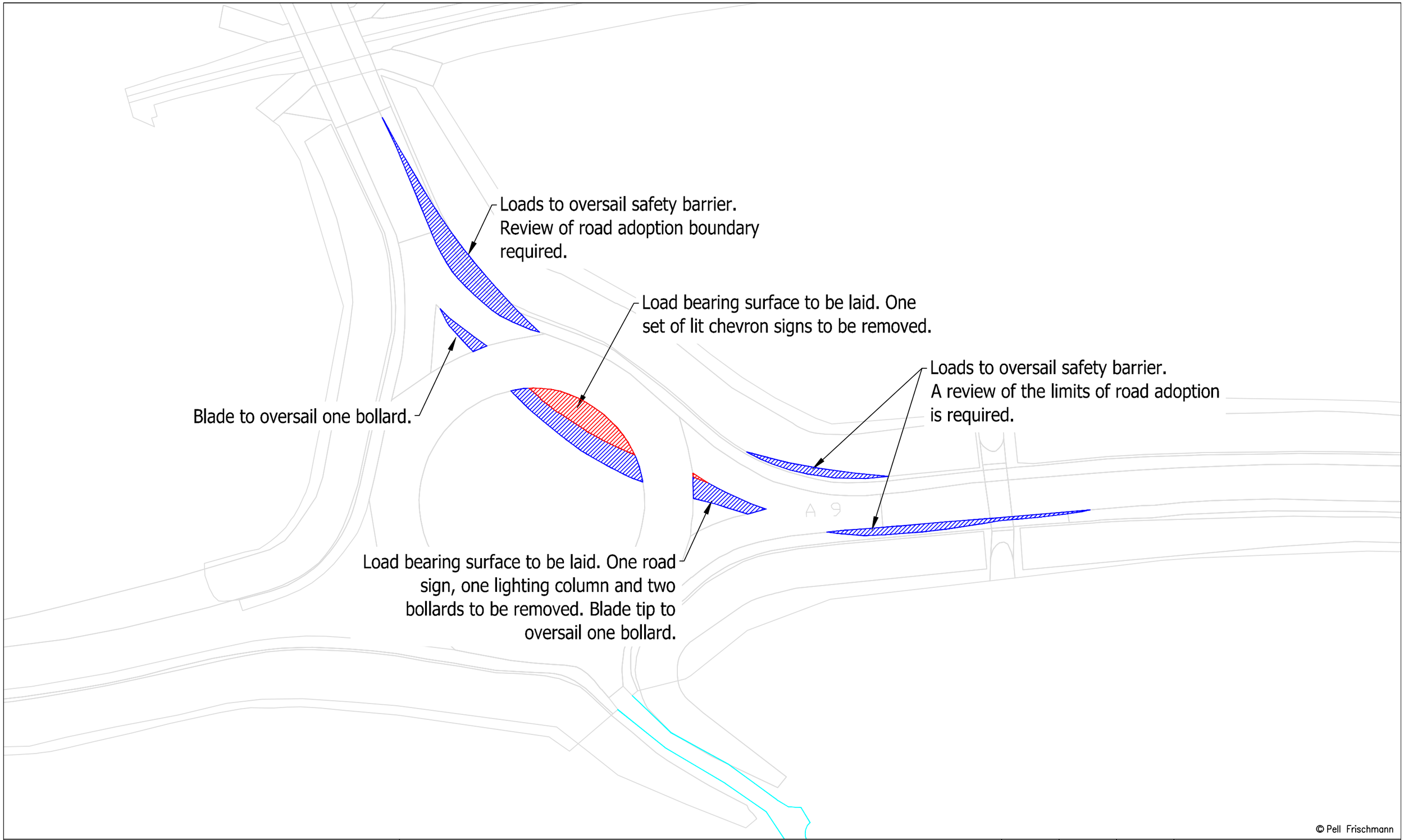
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK06

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: —



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Meikle Ferry Roundabout

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		8

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK06A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Cherry Tree Cottage

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		9

Scale: 1:1250 @ A3

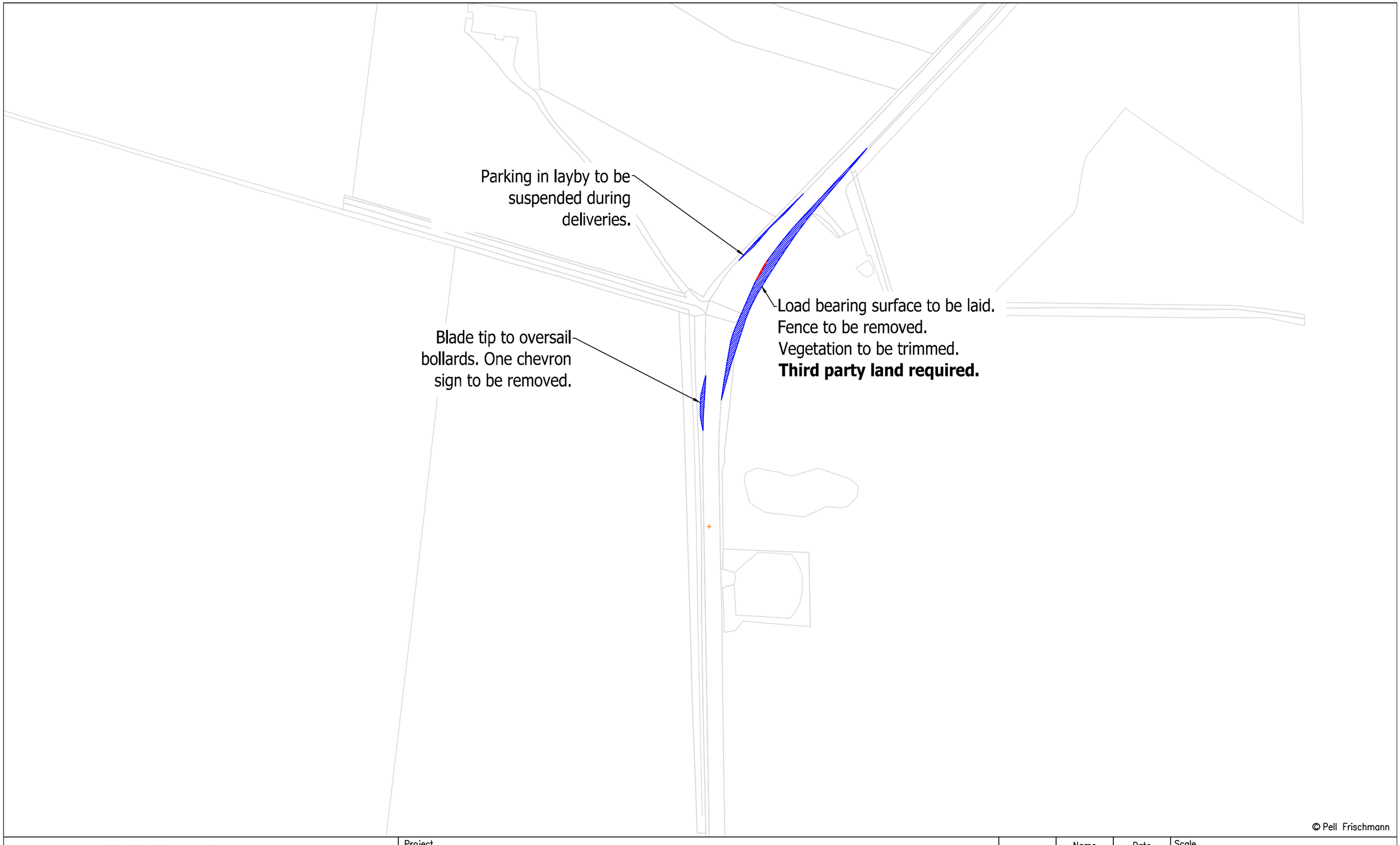
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK07

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Cherry Tree Cottage

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		9

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK07A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade

Tower

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Trentham Hotel

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		10

Scale: 1:1000 @ A3

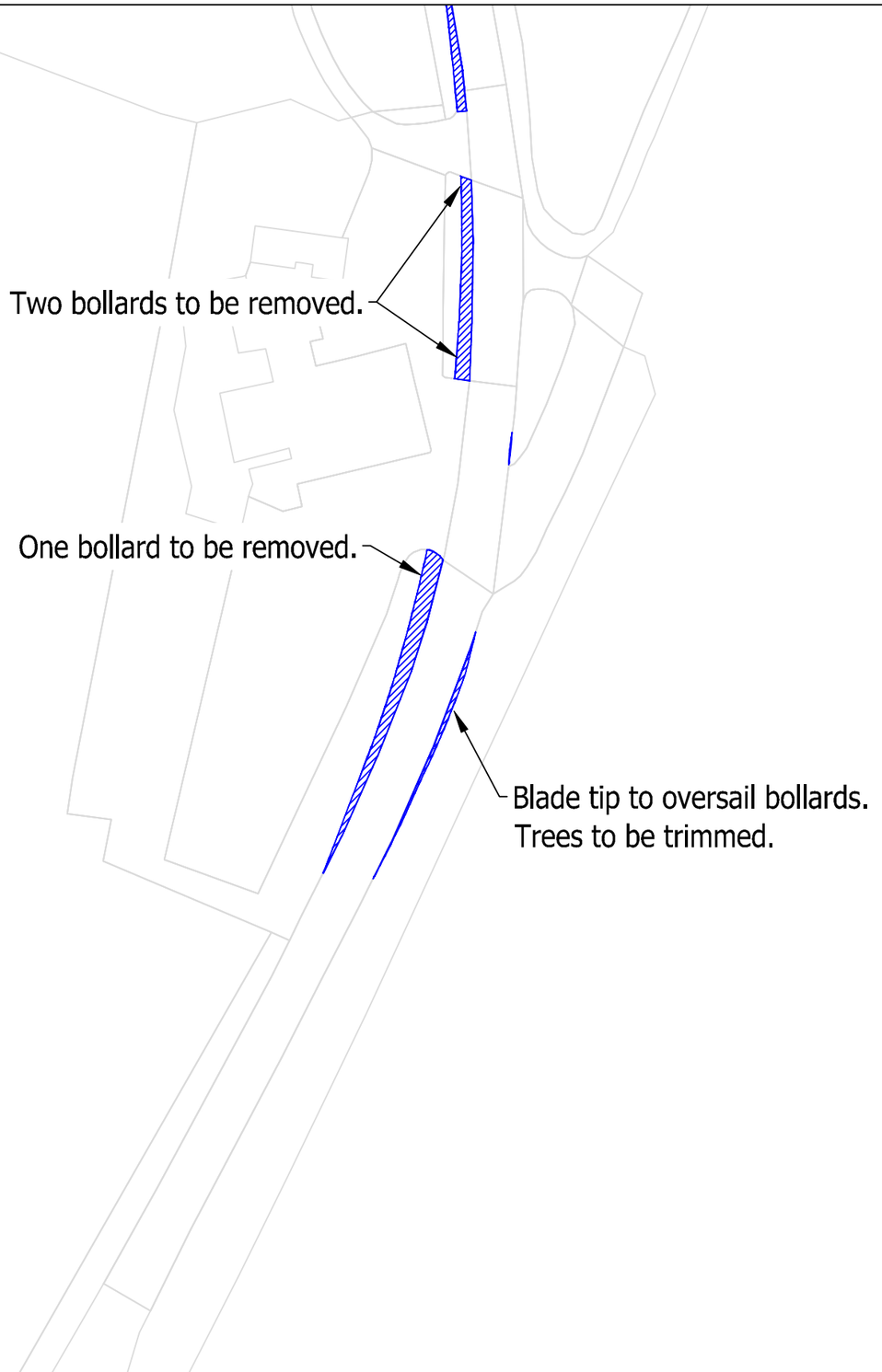
File No. 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK08

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Trentham Hotel

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		10

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

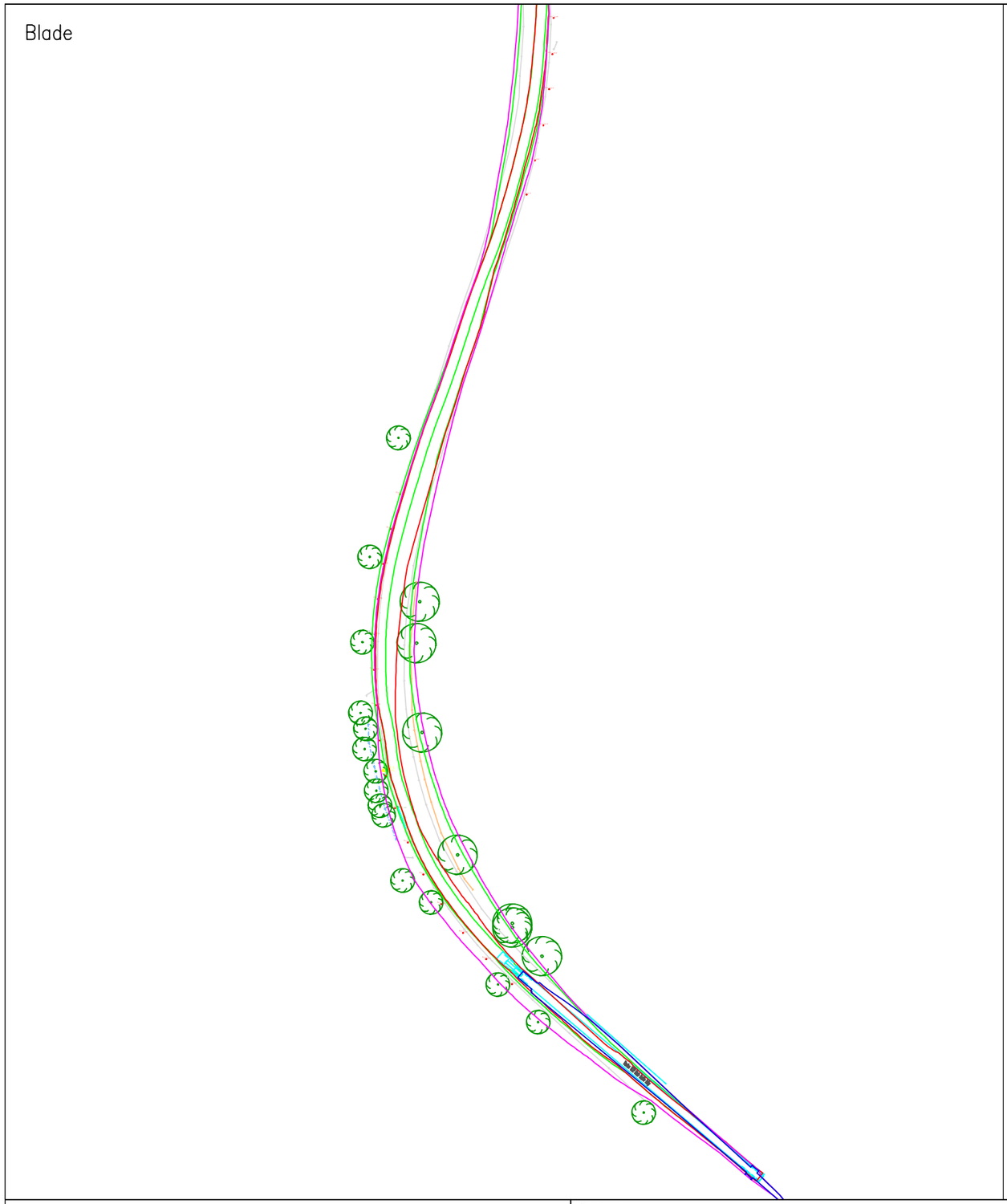
Drawing Status: Draft

Drawing No.: SK08A

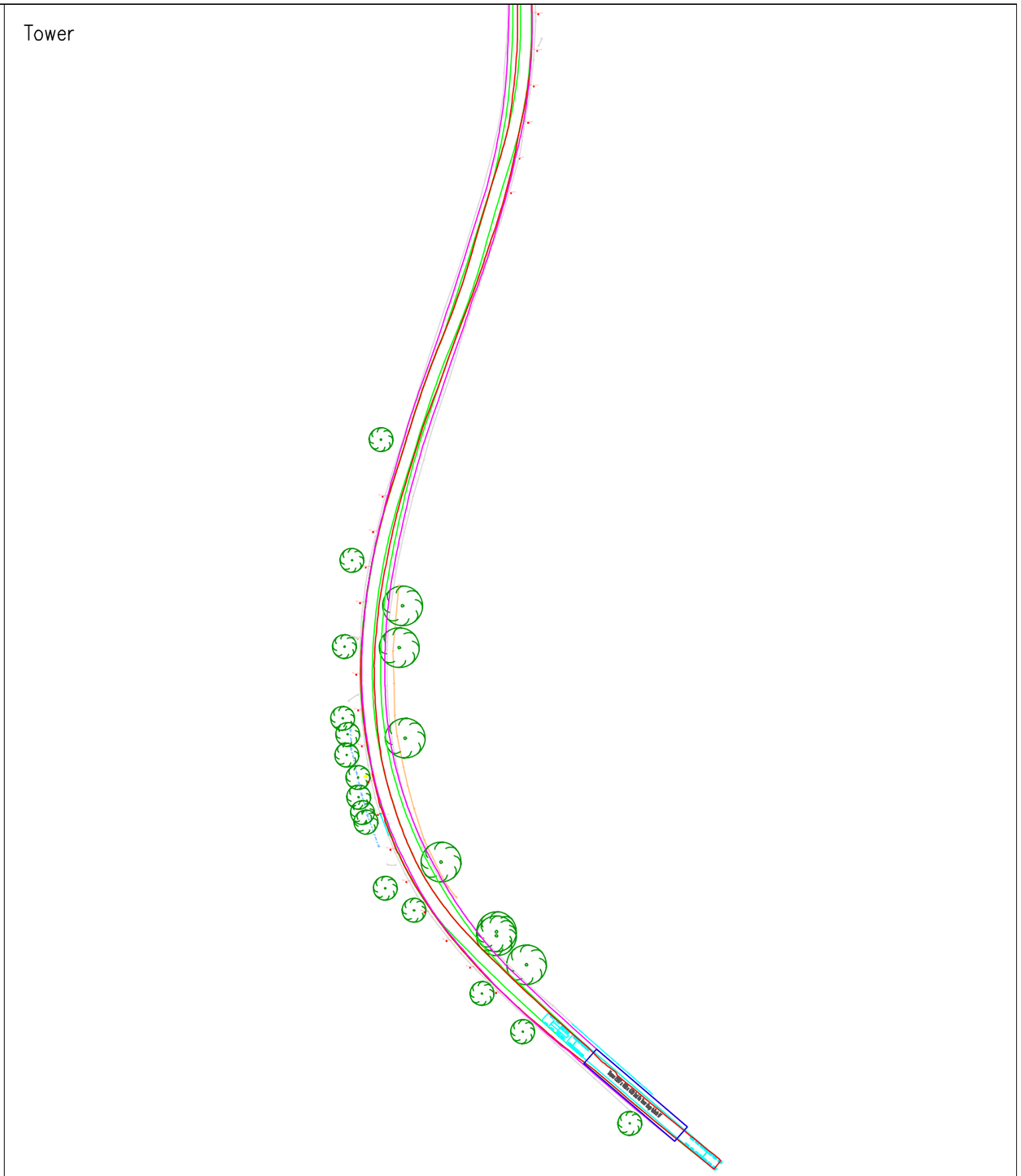
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 south of Cambusavie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		11

Scale: 1:1250 @ A3

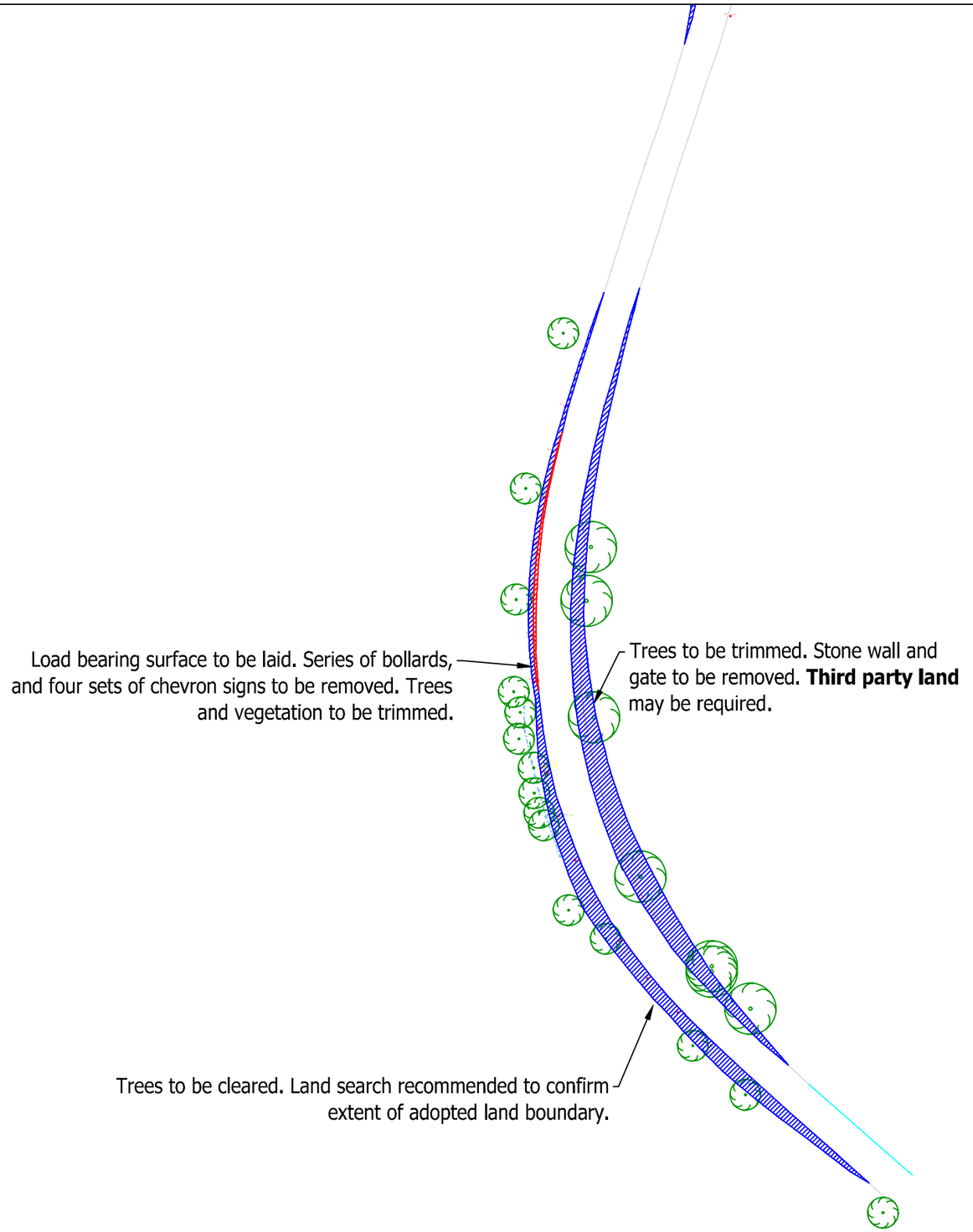
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK09

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: —



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 south of Cambusavie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		11

Scale: 1:1000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

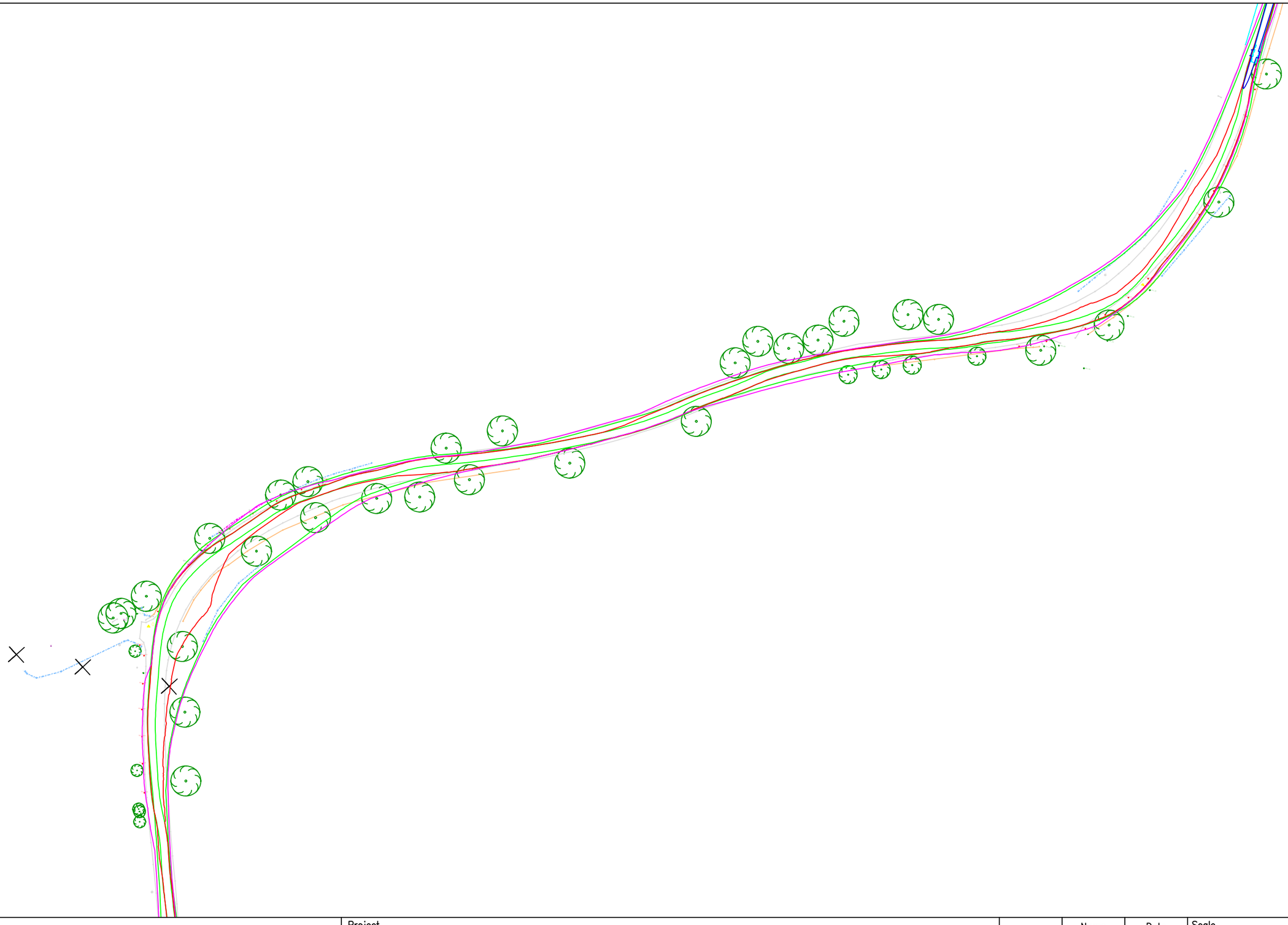
Drawing Status: Draft

Drawing No.: SK09A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Cambusavie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		12

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

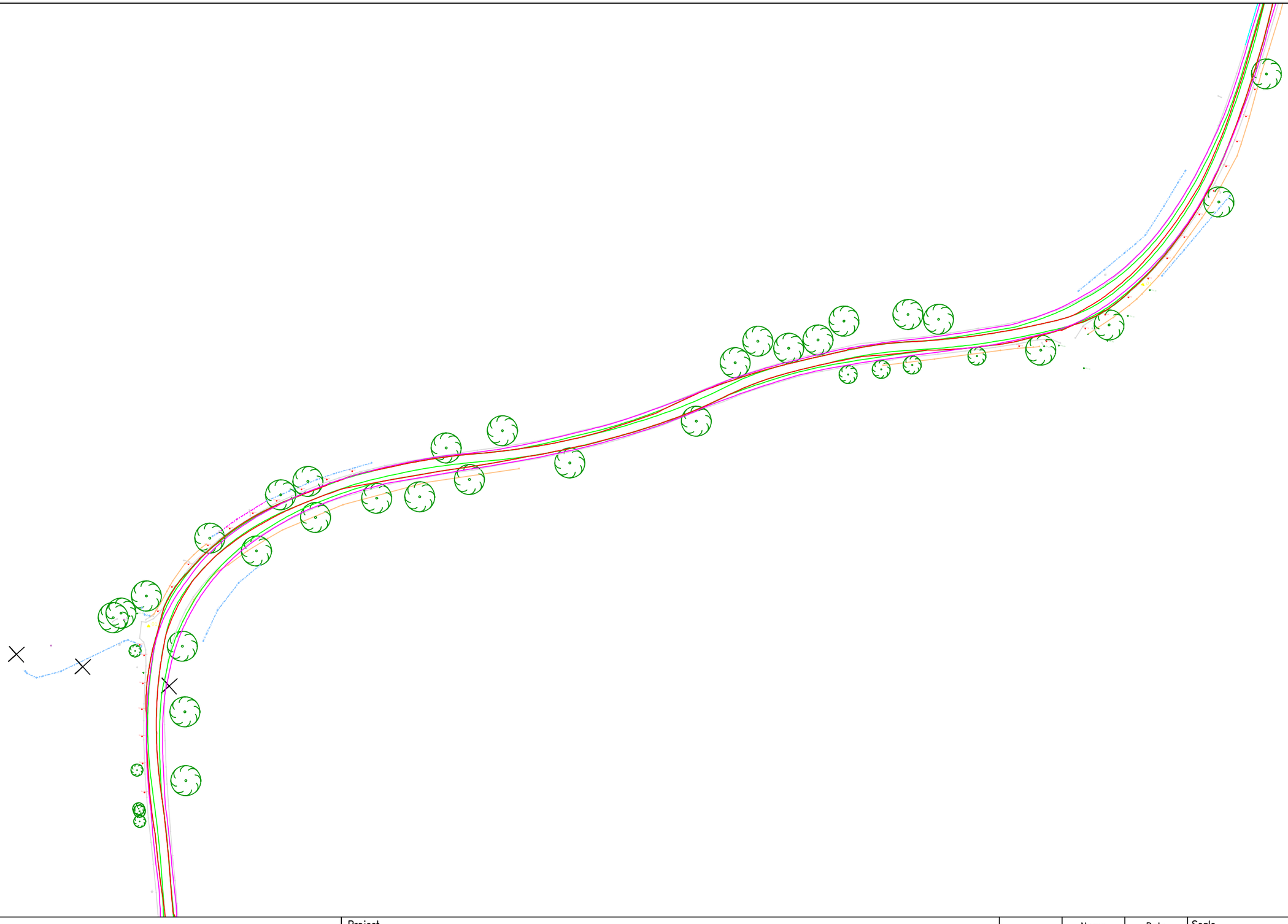
Drawing Status: Draft

Drawing No.: SK10

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Cambusavie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		12

Scale: 1:1250 @ A3

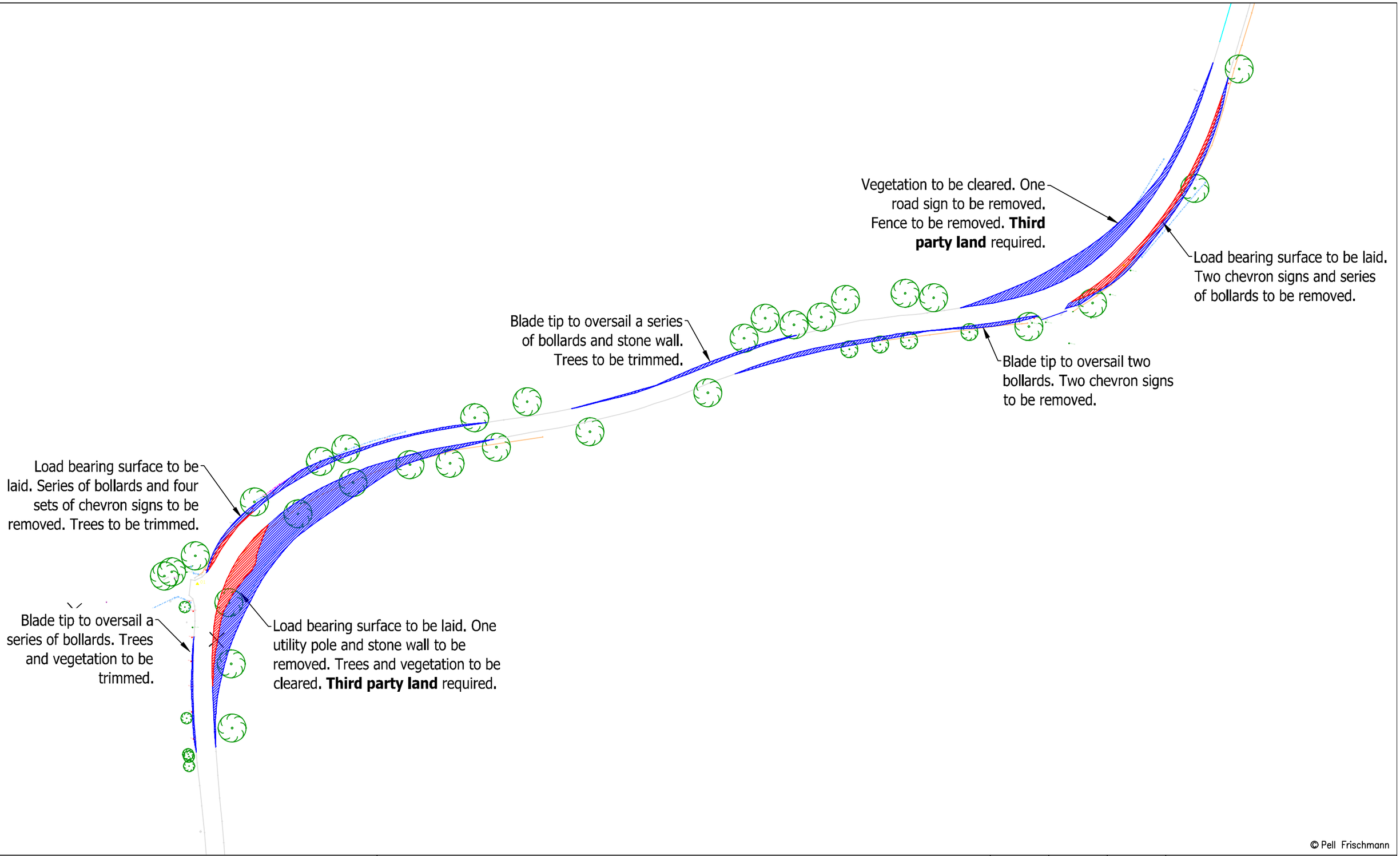
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK10A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Email: pfedinburgh@pellfrischmann.com
www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 Cambusavie

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		12

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

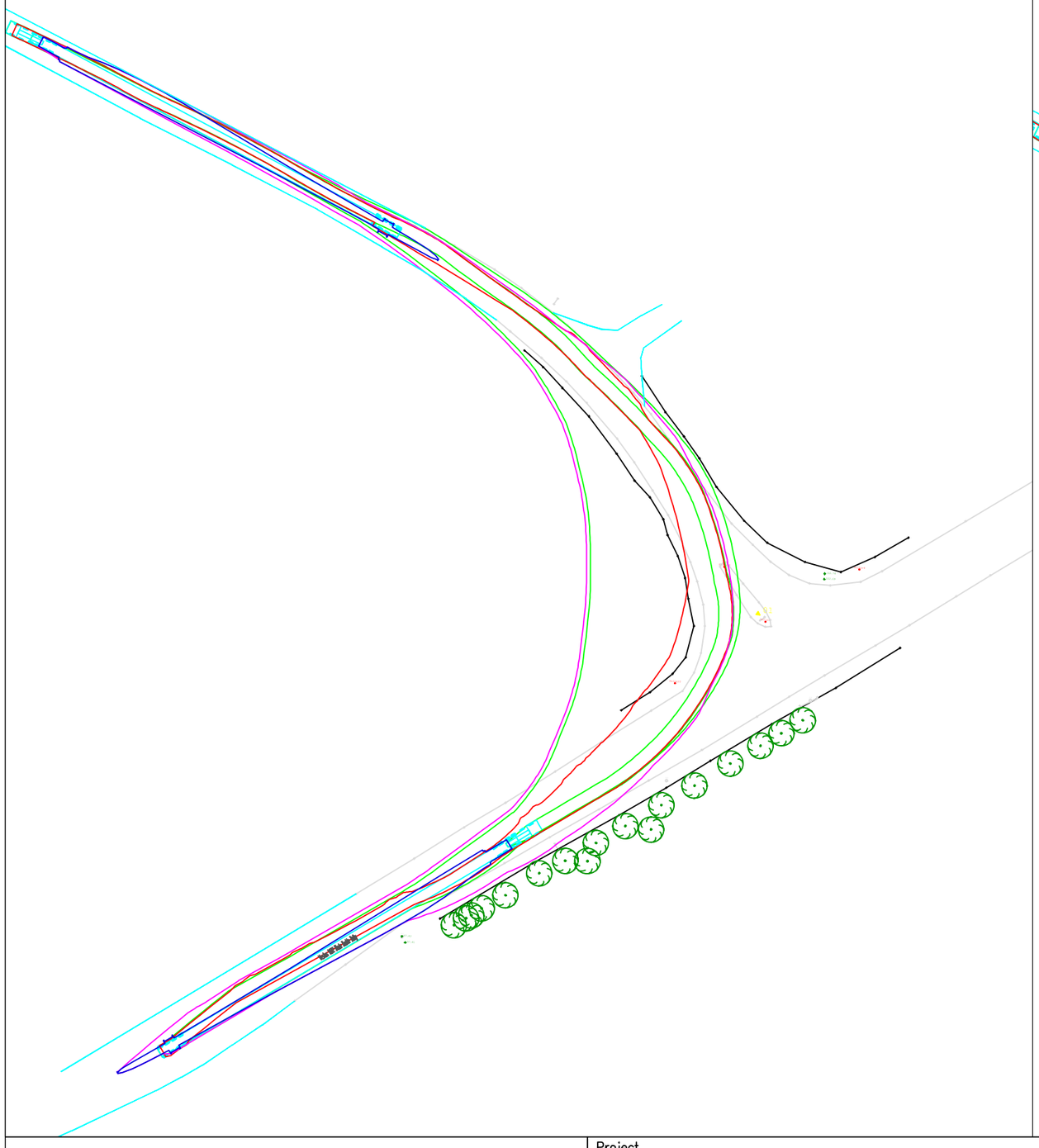
Drawing Status: Draft

Drawing No.: SK10B

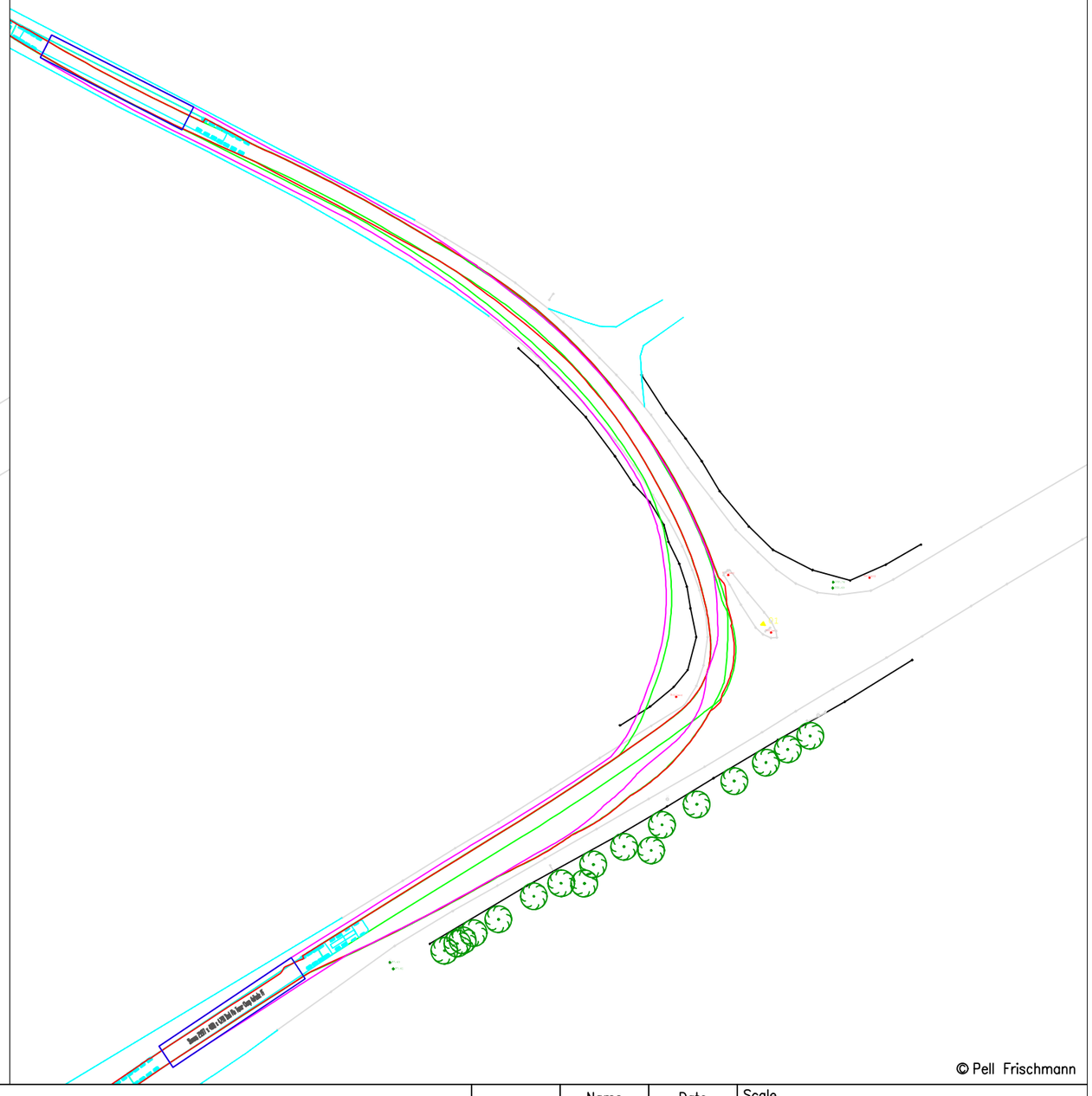
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 / A839 Junction

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		13

Scale: 1:1000 @ A3

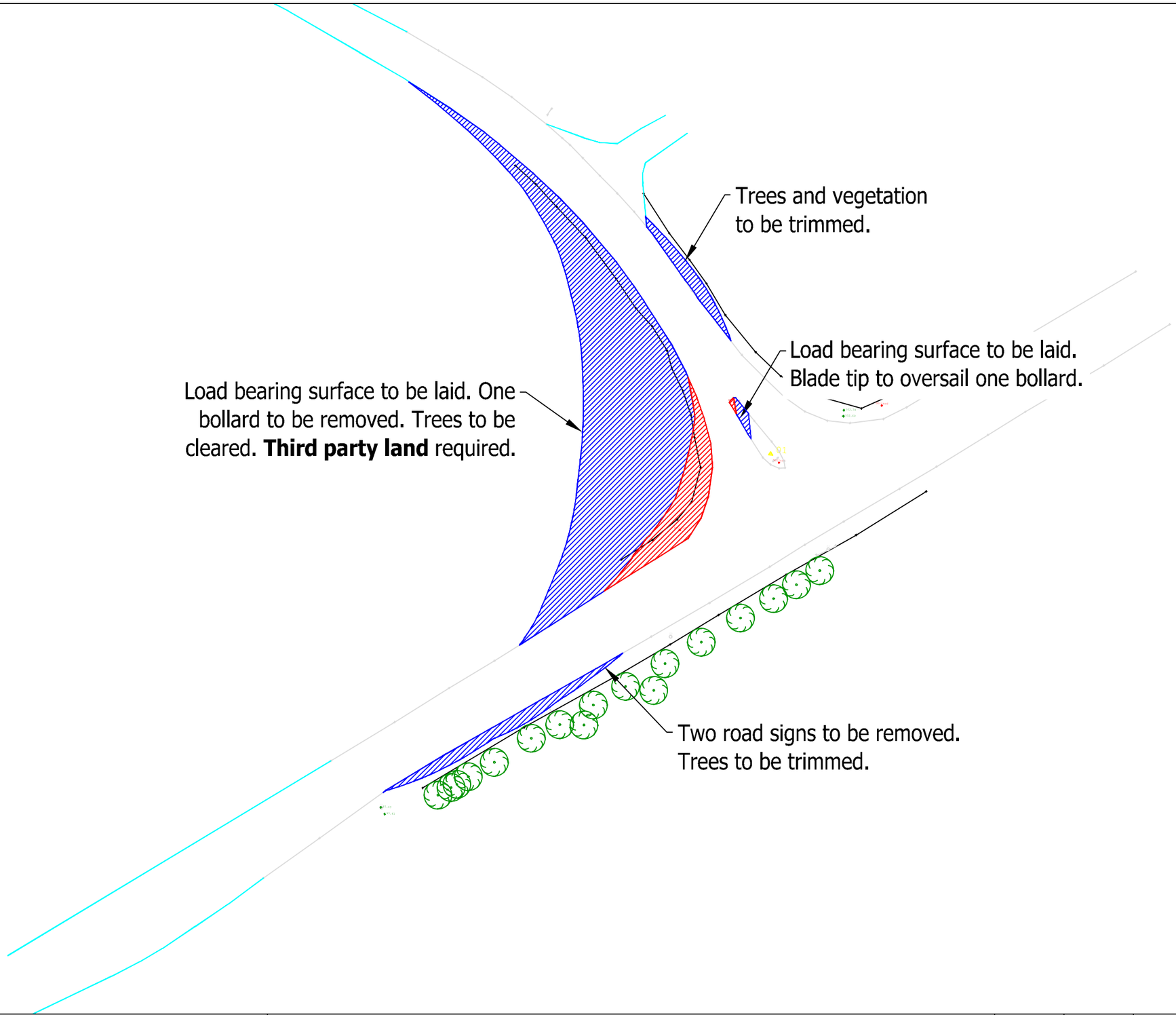
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK11

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A9 / A839 Junction

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		13

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

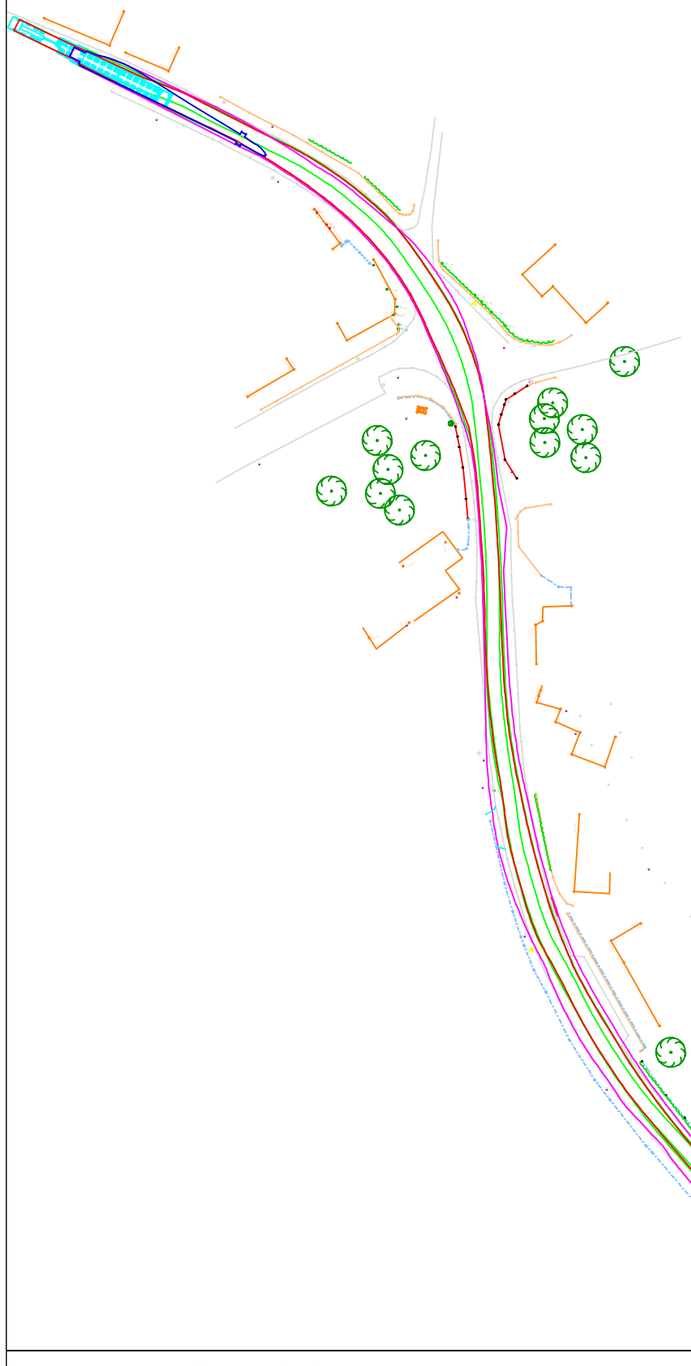
Drawing Status: Draft

Drawing No.: SK11A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Pittentrail

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		14

Scale: 1:1250 @ A3

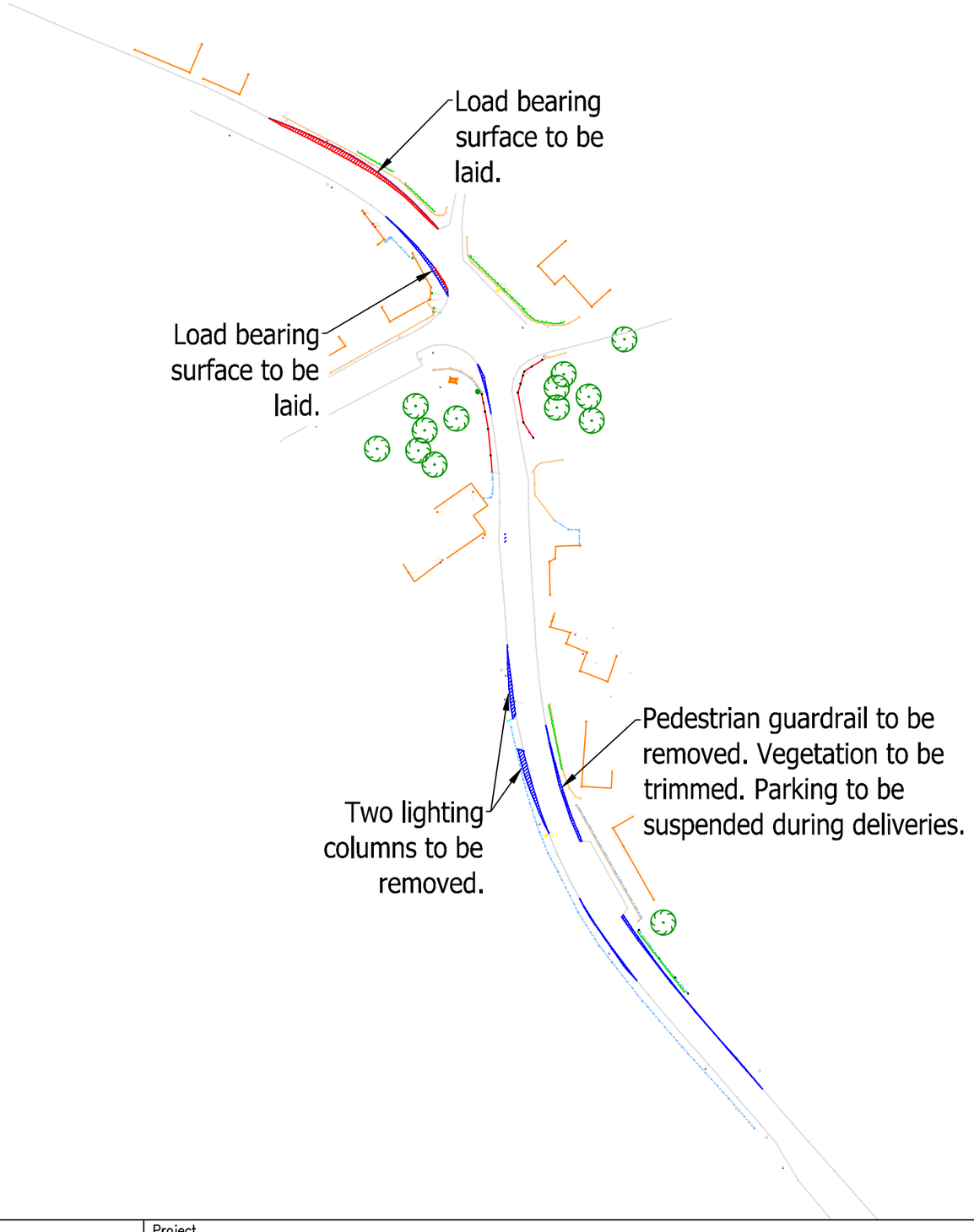
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK12

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Pittentrail

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		14

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

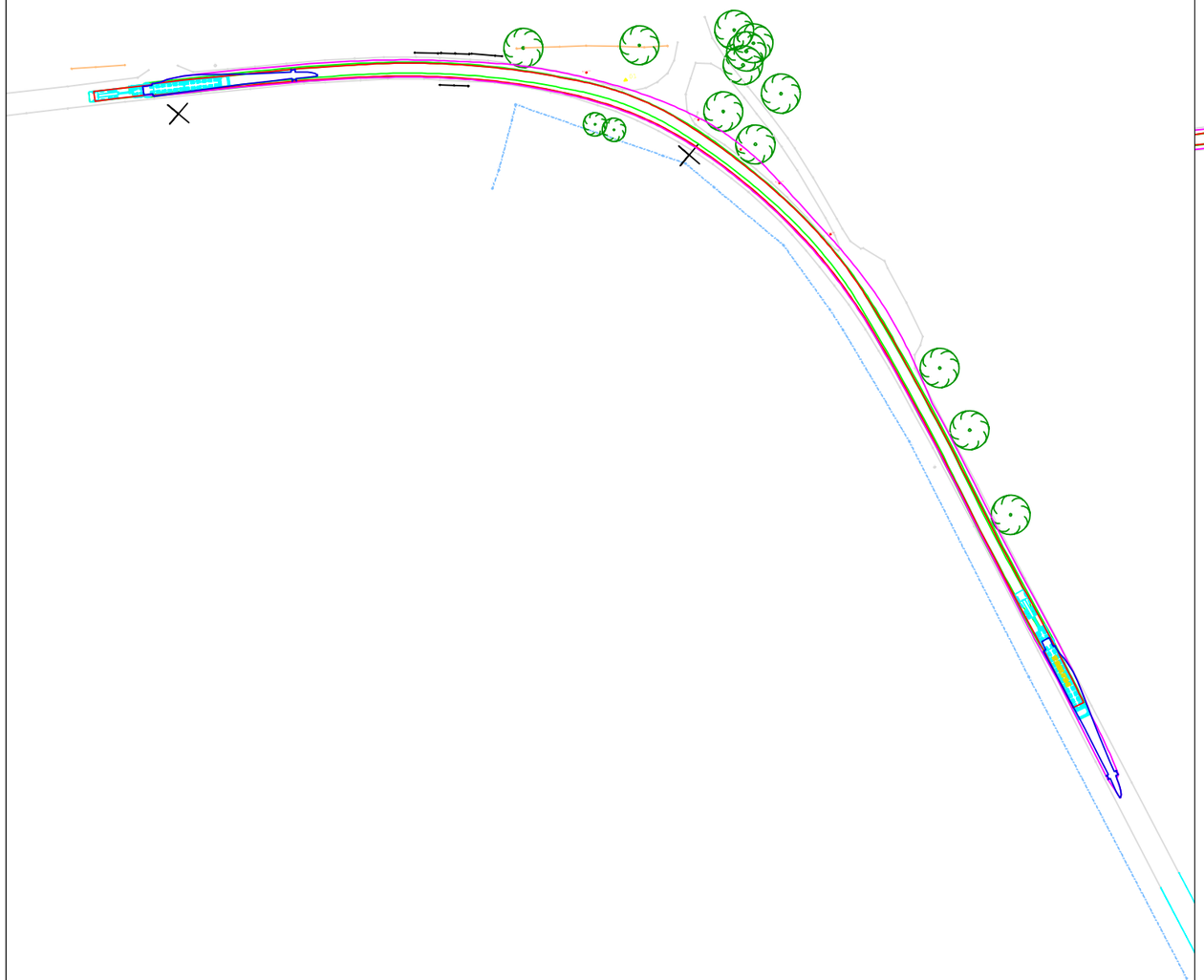
Drawing Status: Draft

Drawing No.: SK12A

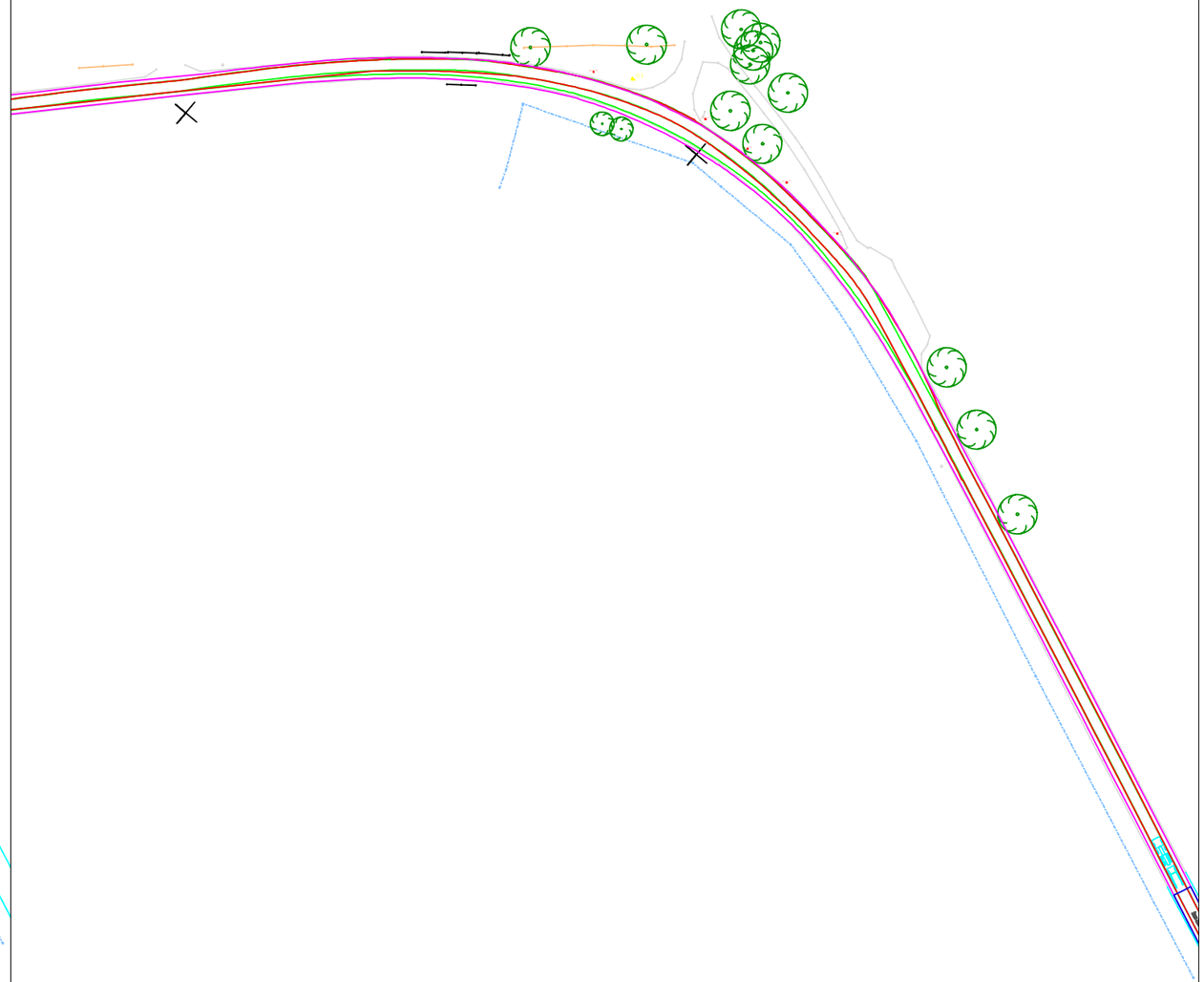
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Email: pfedinburgh@pellfrischmann.com
www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Rovie Lodge

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		16

Scale: 1:1500 @ A3

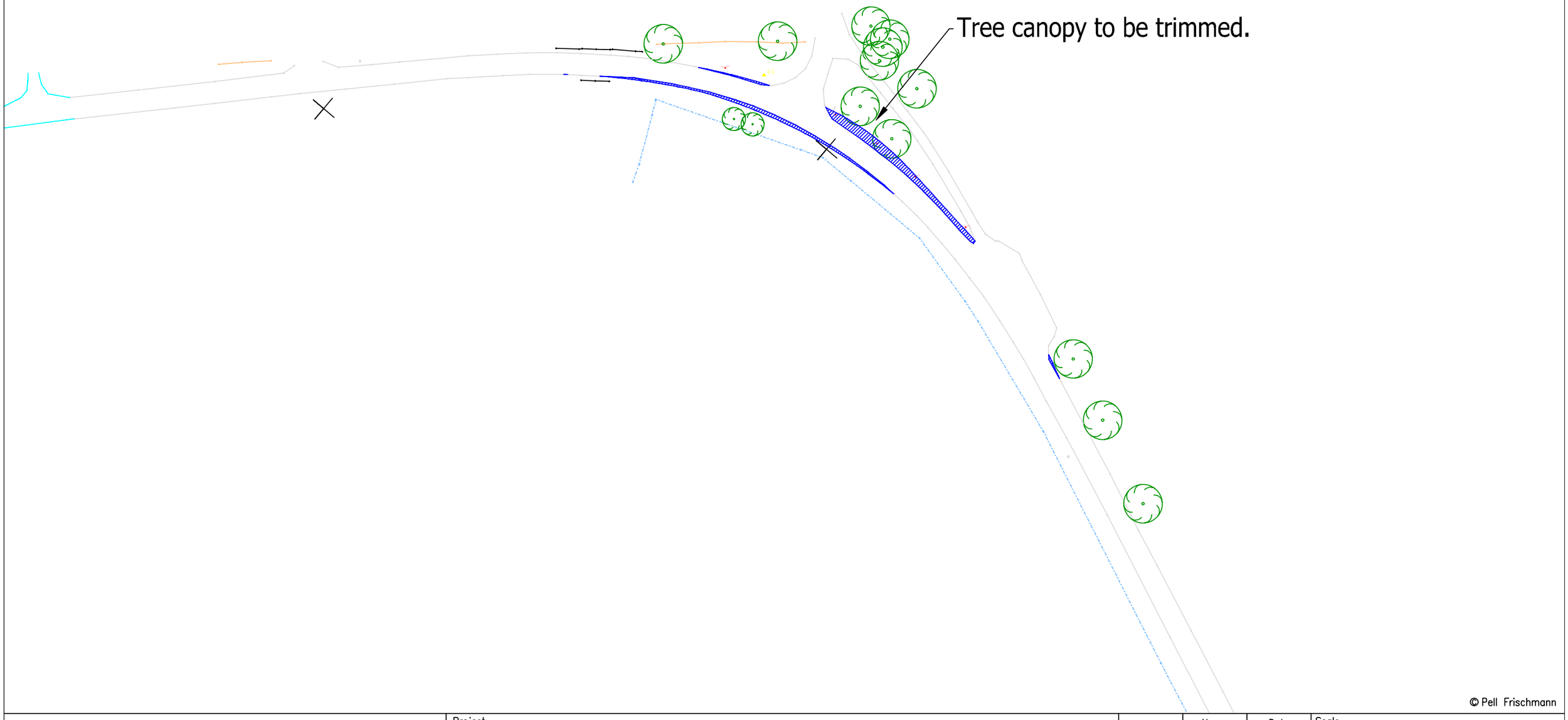
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK13

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: —



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Email: pfedinburgh@pellfrischmann.com
www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Rovie Lodge

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		16

Scale: 1:1000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK13A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Torbreck

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		18

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK14

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Torbreck

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		18

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

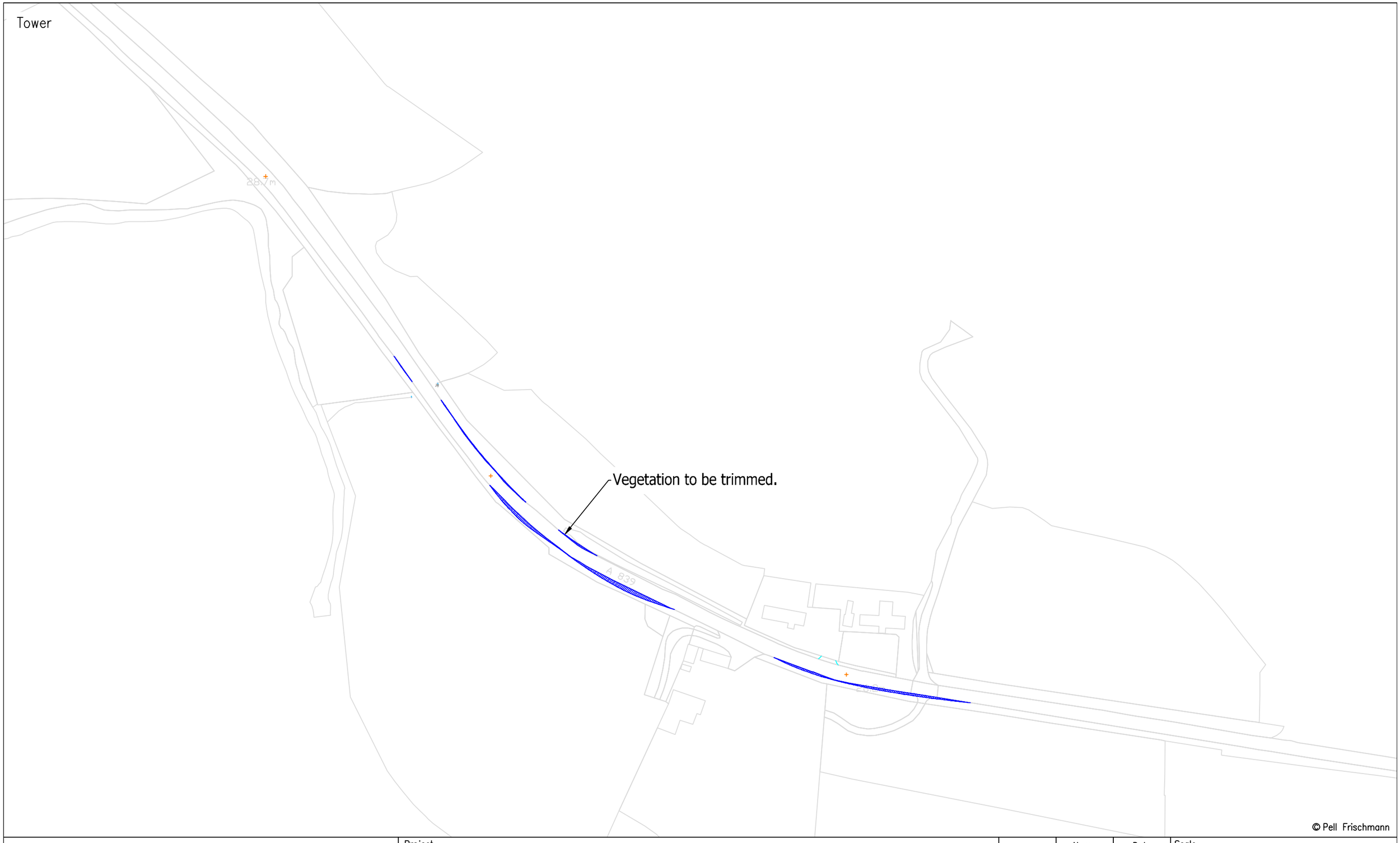
Drawing Status: Draft

Drawing No.: SK14A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Torbreck

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		18

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

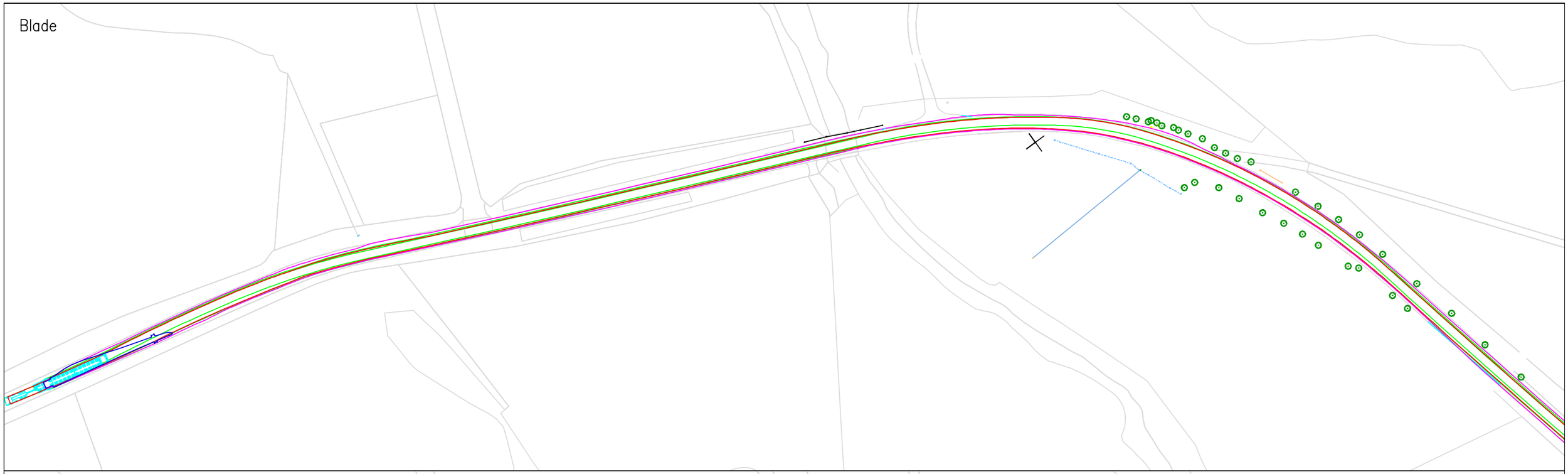
Drawing Status: Draft

Drawing No.: SK14B

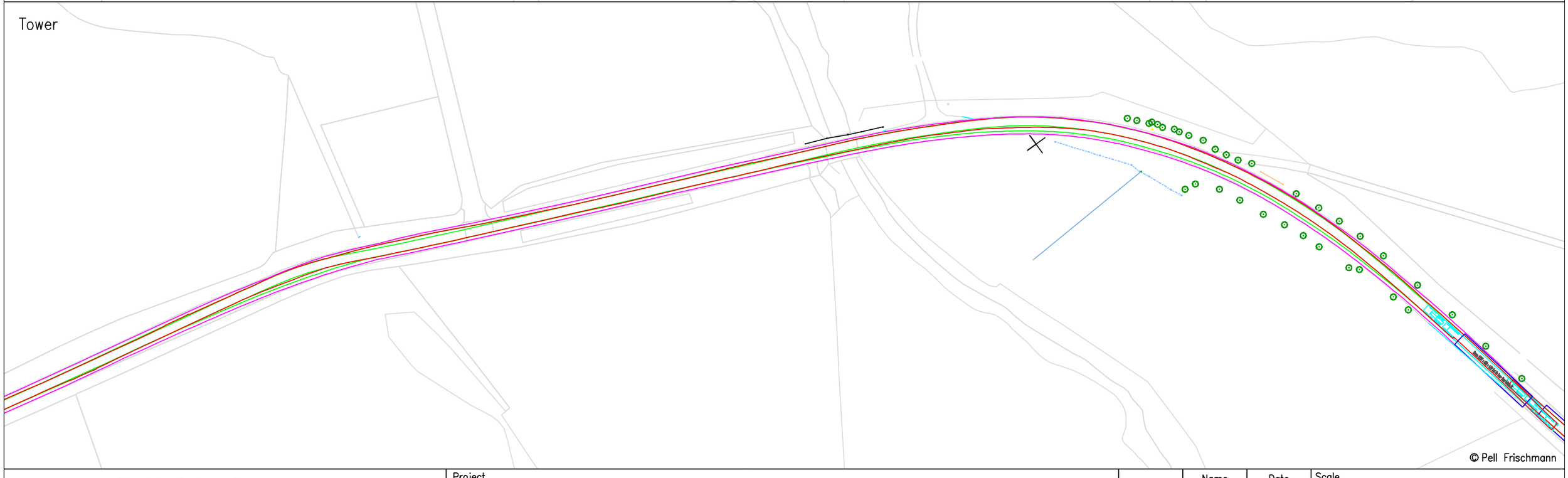
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Tressady

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		19

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK15

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Tressady

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		19

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

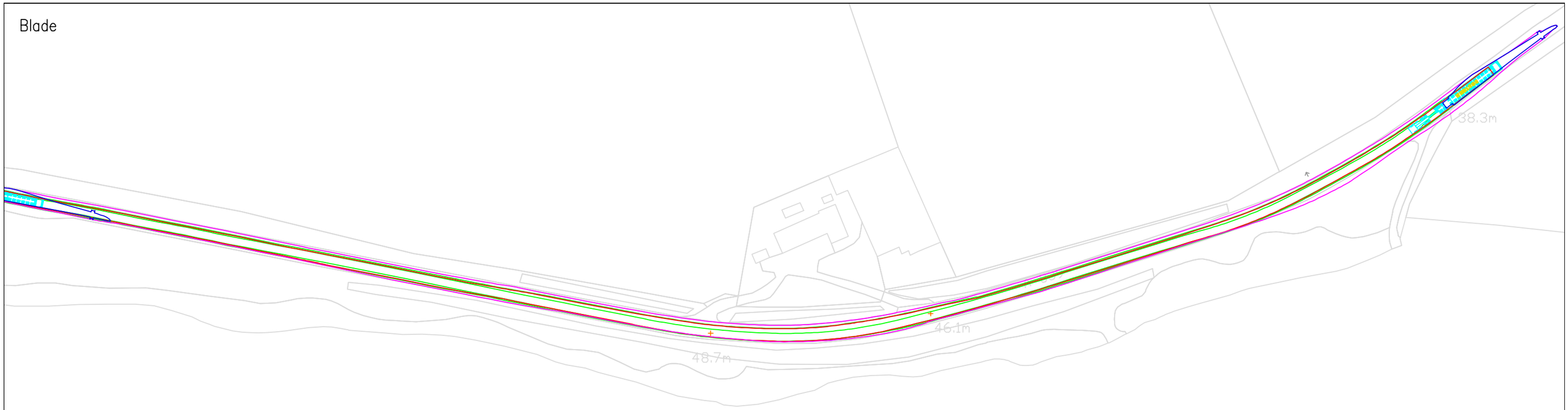
Drawing Status: Draft

Drawing No.: SK15A

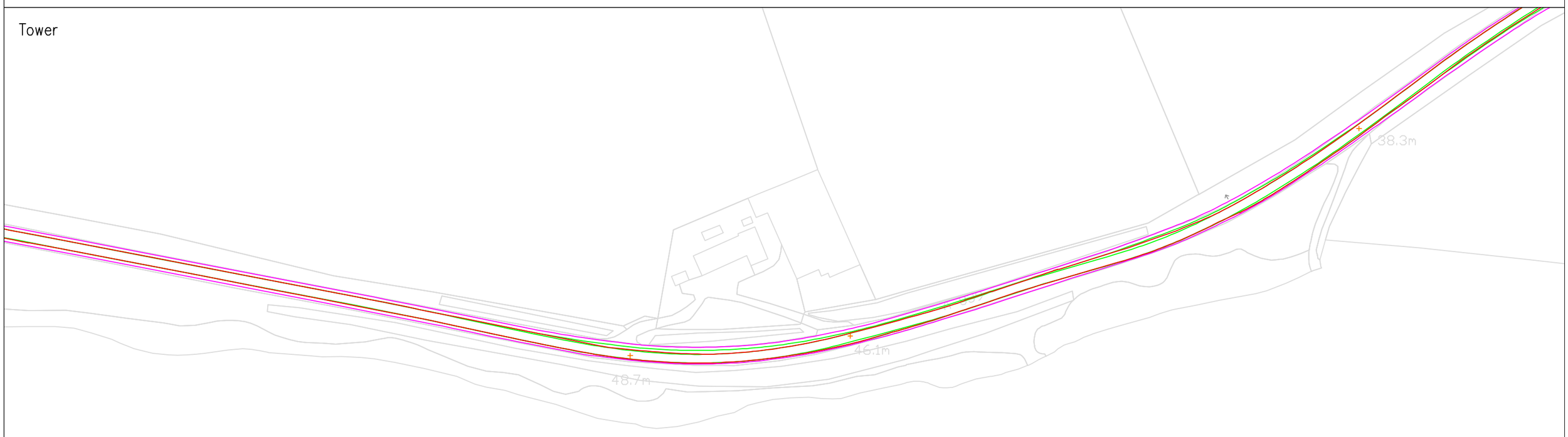
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Rossal

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		20

Scale: 1:1250 @ A3

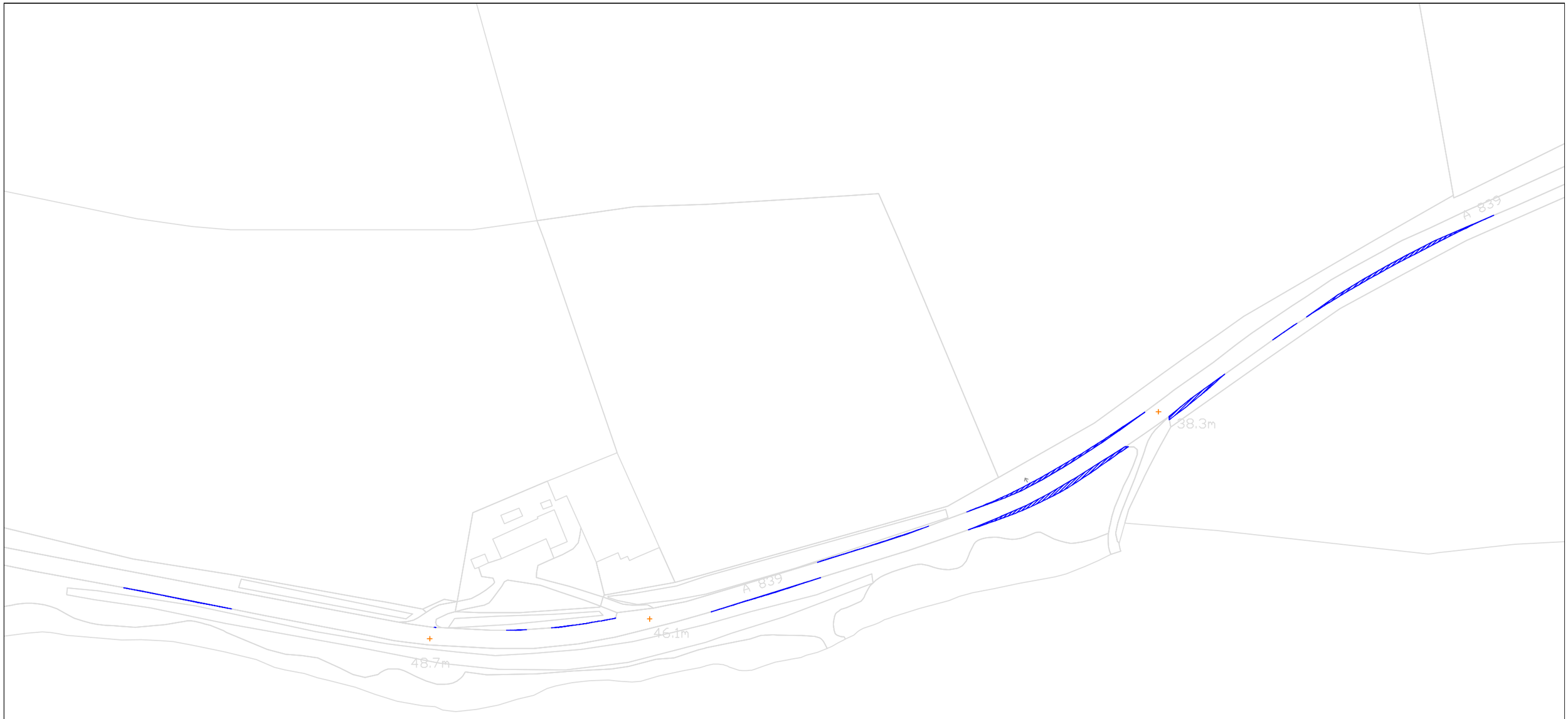
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK16

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Rossal

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		20

Scale: 1:1250 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

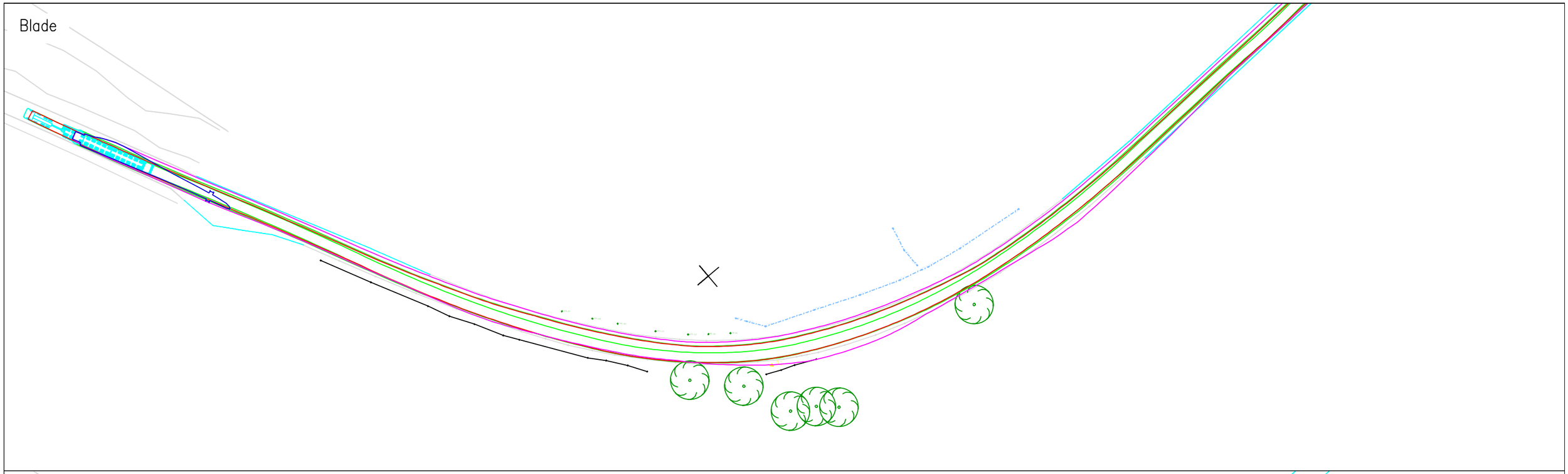
Drawing Status: Draft

Drawing No.: SK16A

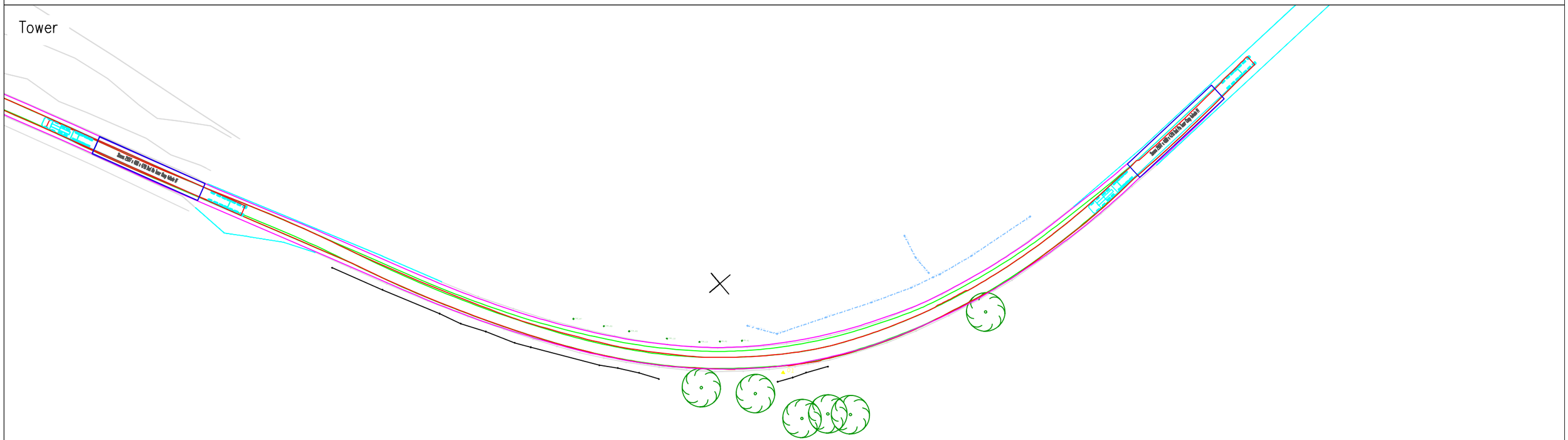
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 northwest of Ardachu

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		21

Scale: 1:1000 @ A3

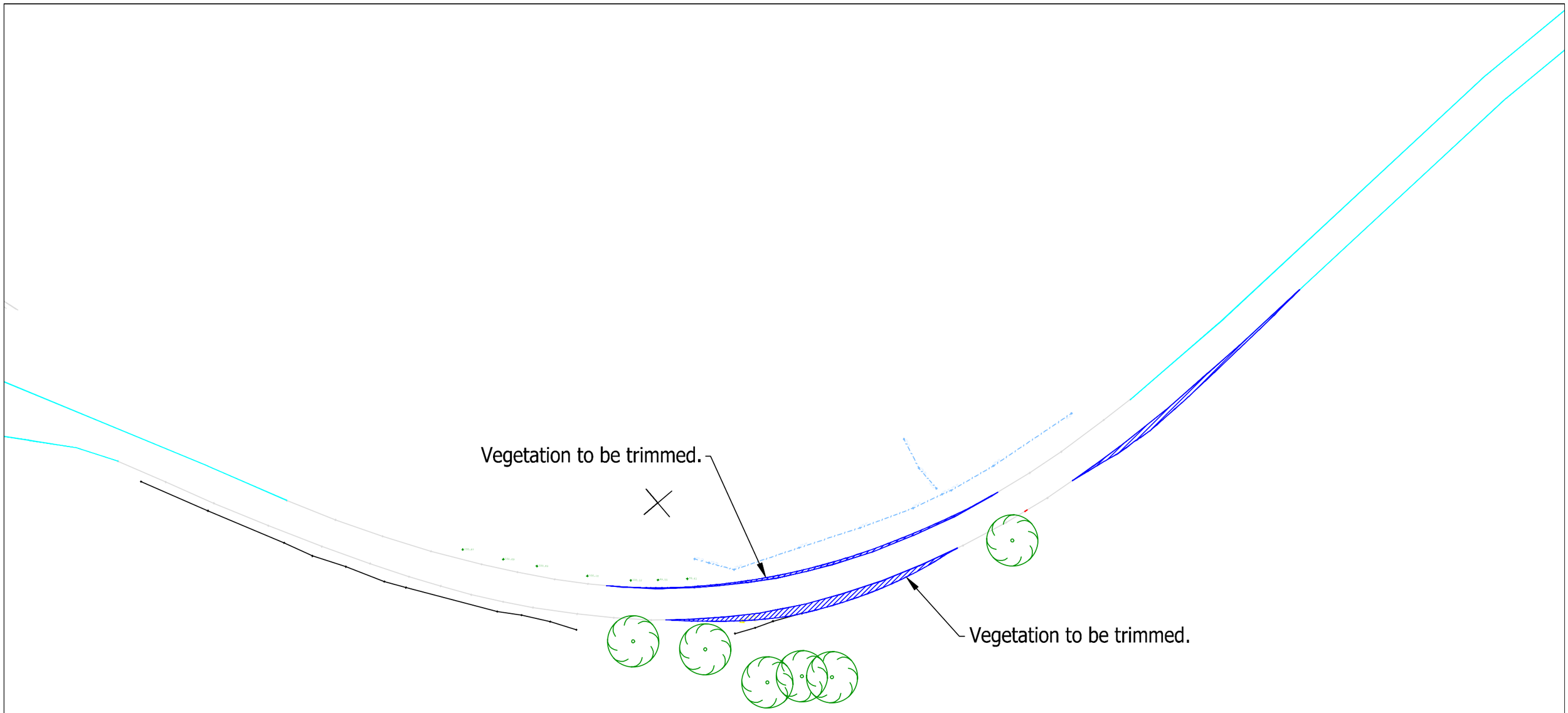
File No. 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No. SK17

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA; Body SPA; Load SPA; Indicative; Overrun; Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 northwest of Ardachu

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		21

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK17A

Notes:
1. All mitigation is subject to confirmation through a test run.
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3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade

Tower

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 north of Acheilidh

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		22

Scale: 1:1750 @ A3

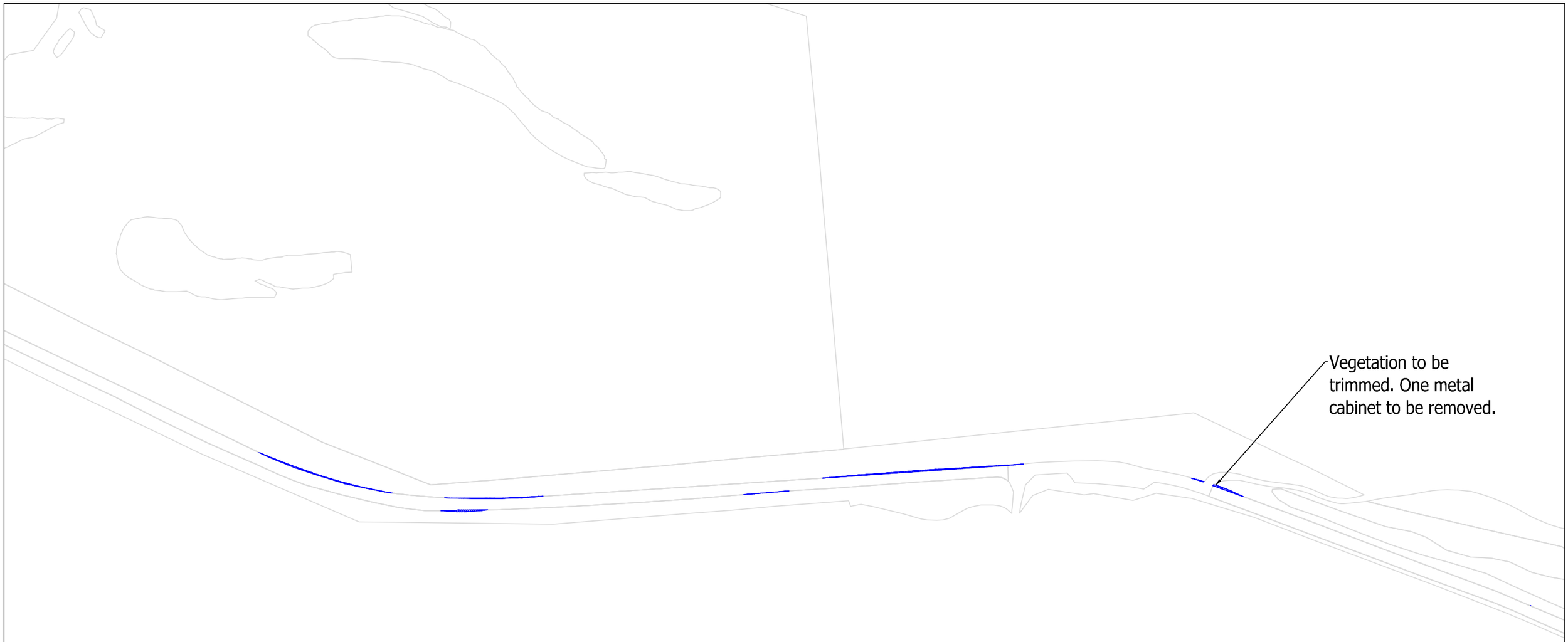
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK18

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 north of Acheilidh

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		22

Scale: 1:1750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK18A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade

Tower

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 west of Creag a'Mhuilleir

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		23

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK19

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
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Revision: –

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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 west of Creag a'Mhuilleir

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		23

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK19A

Notes:
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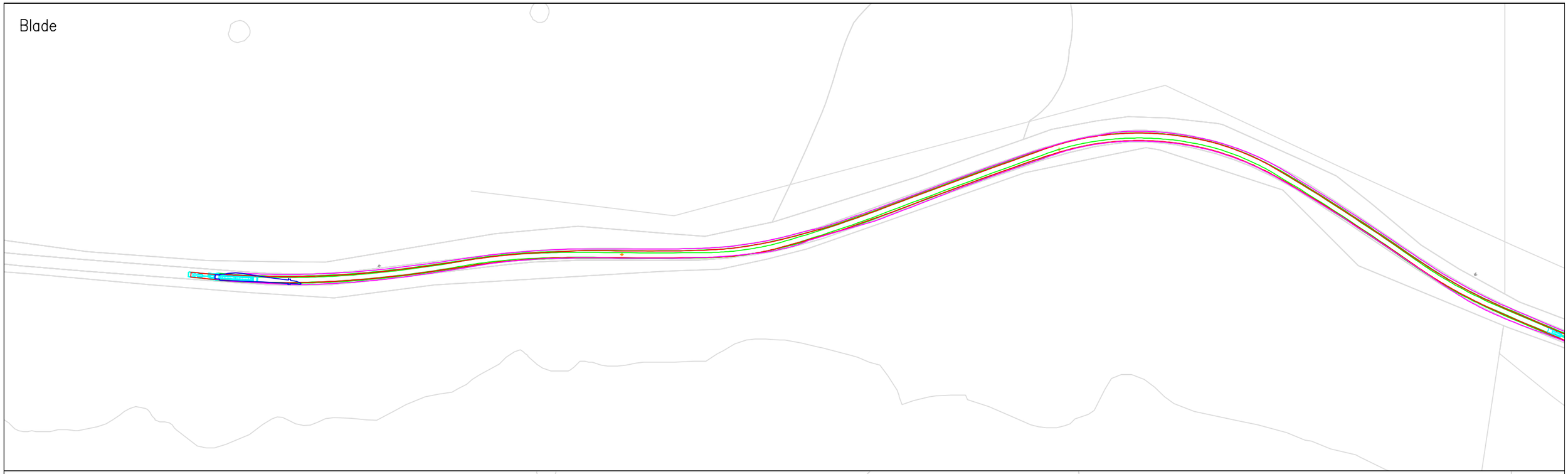
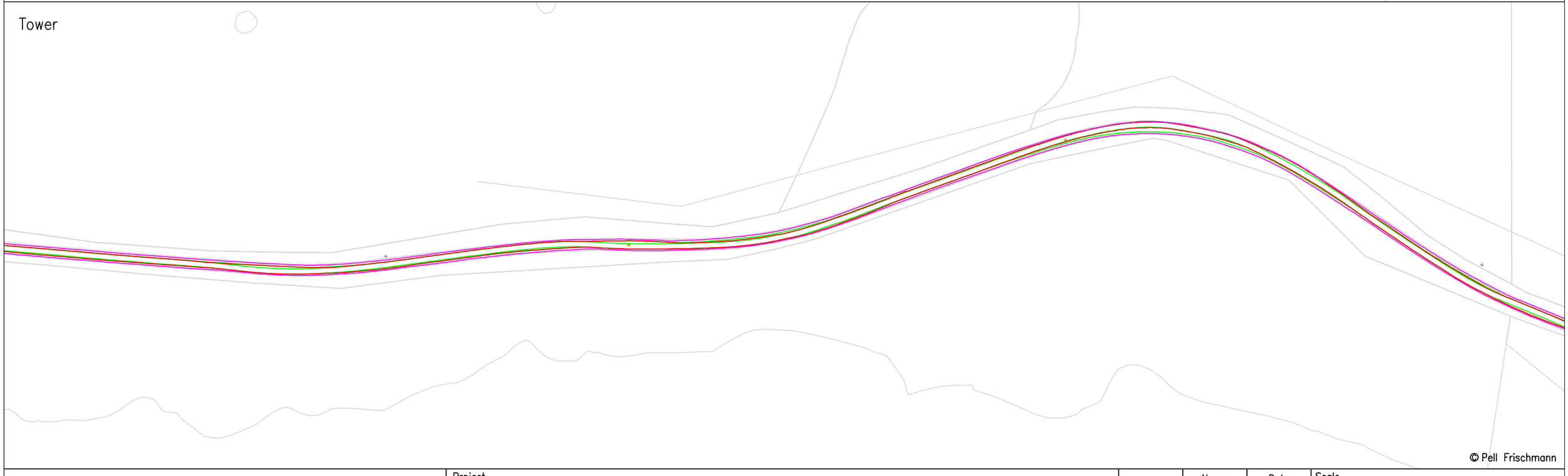
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 west of Rhaoine

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		24

Scale: 1:2000 @ A3

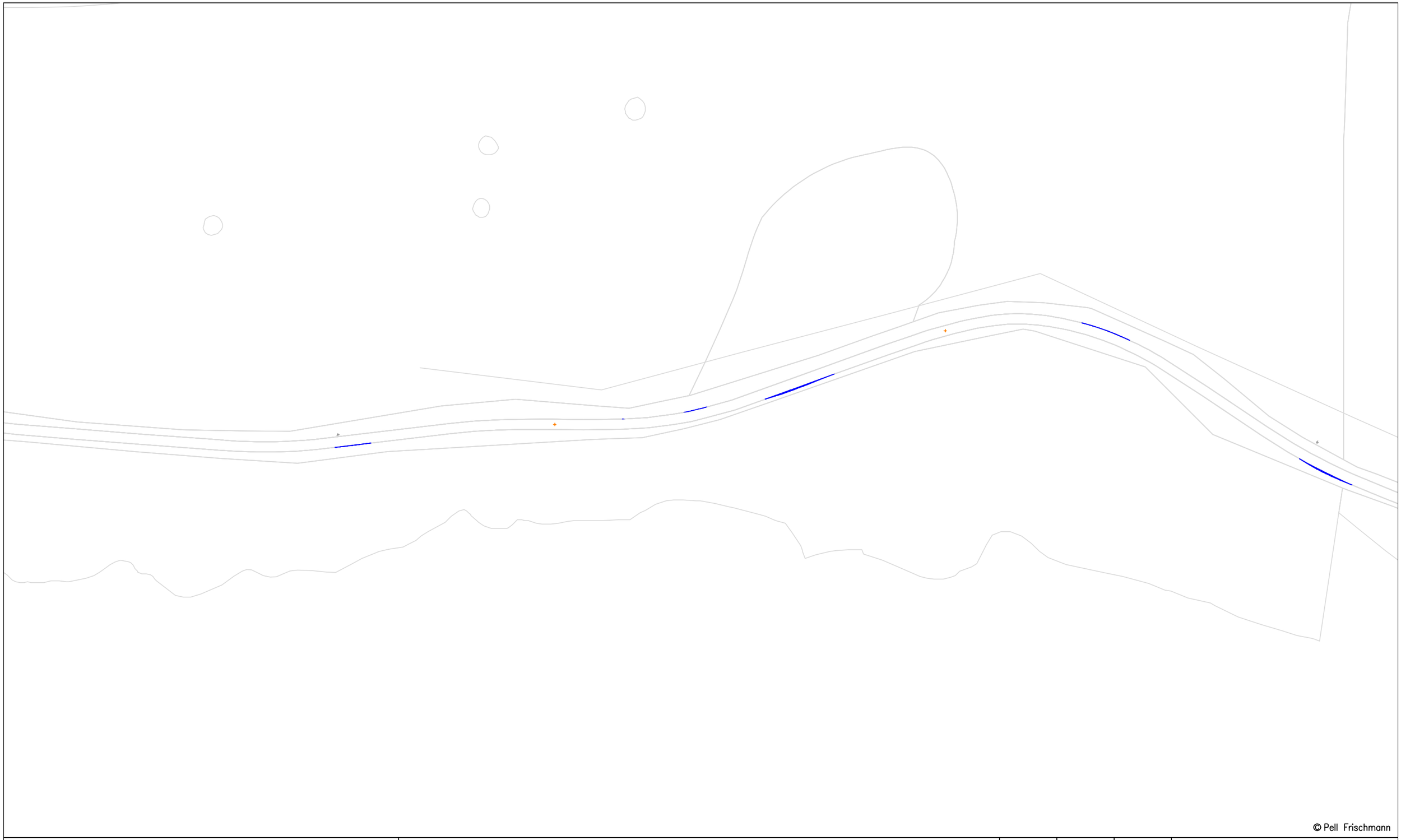
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK20

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 west of Rhaoine

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		24

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

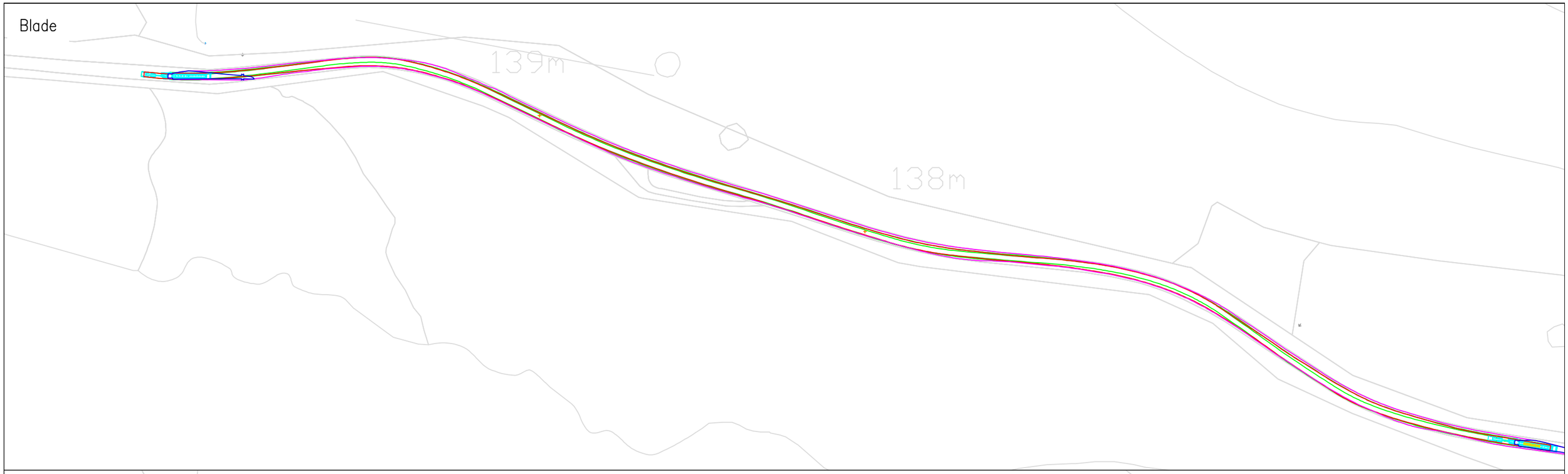
Drawing Status: Draft

Drawing No.: SK20A

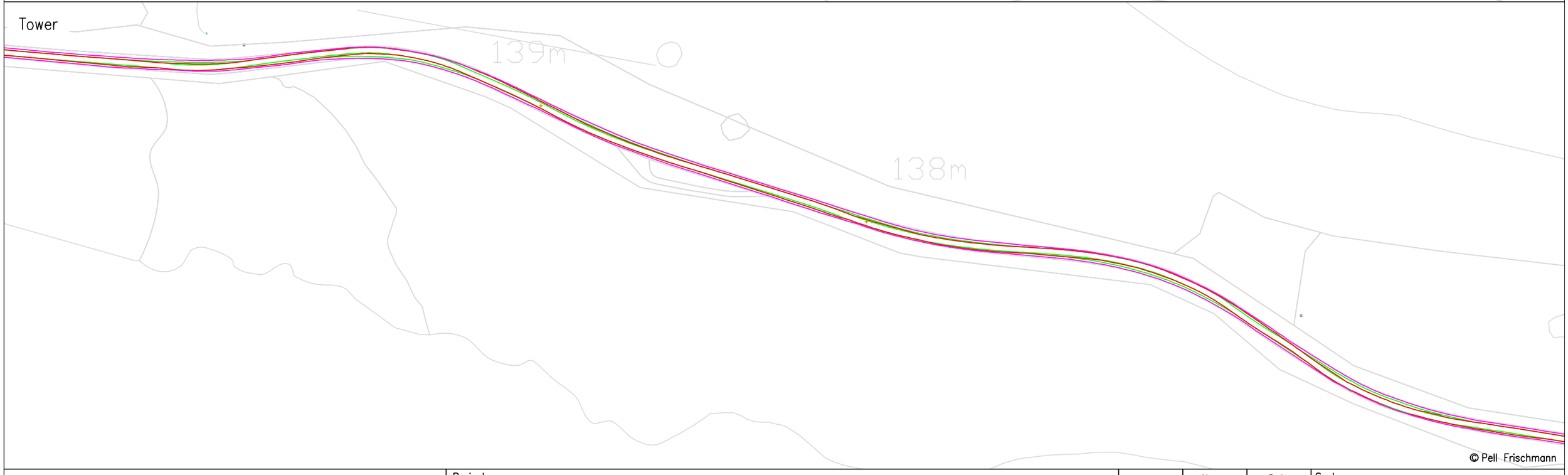
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Creag Innse Chomhraig

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		25

Scale: 1:2000 @ A3

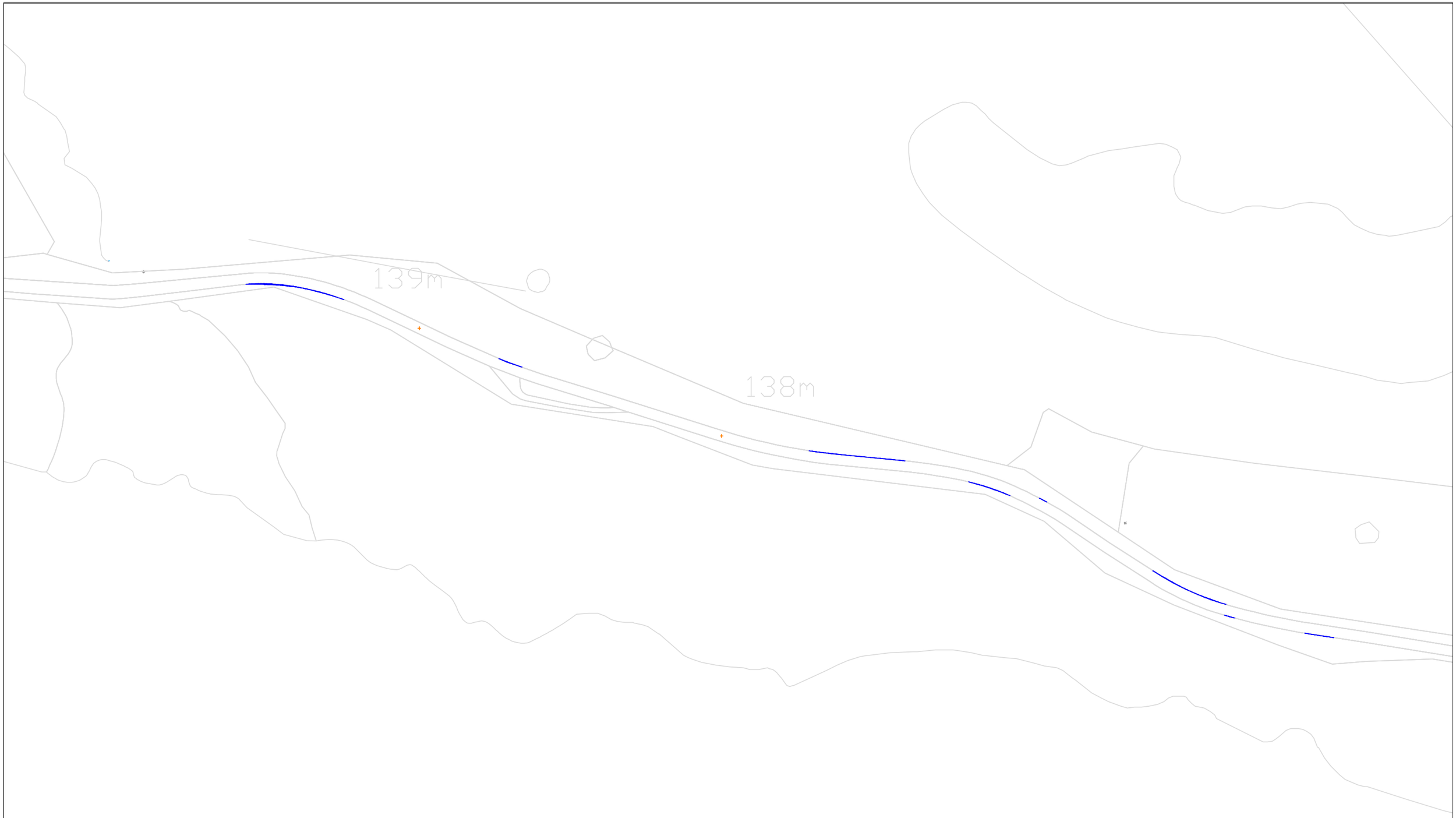
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK21

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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www.pellfrischmann.com

Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Creag Innse Chomhraig

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		25

Scale: 1:2000 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

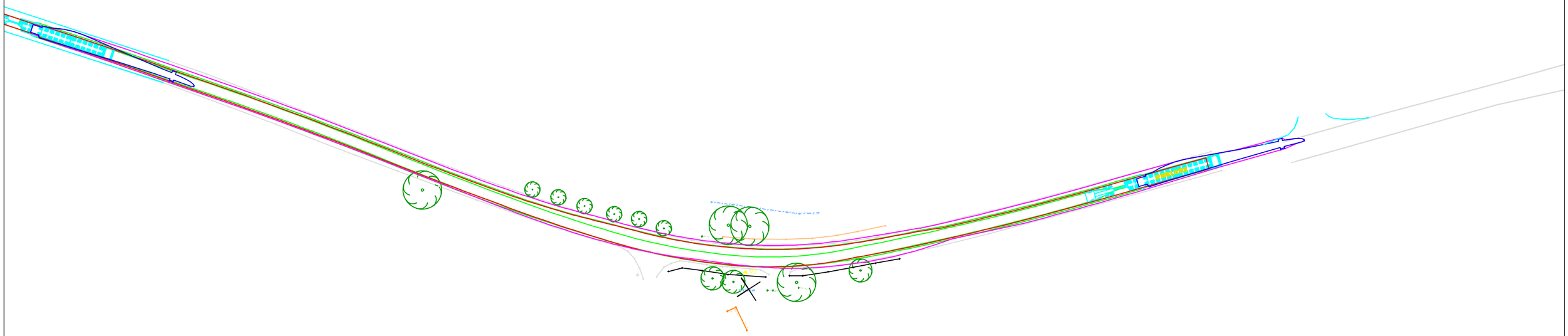
Drawing Status: Draft

Drawing No.: SK21A

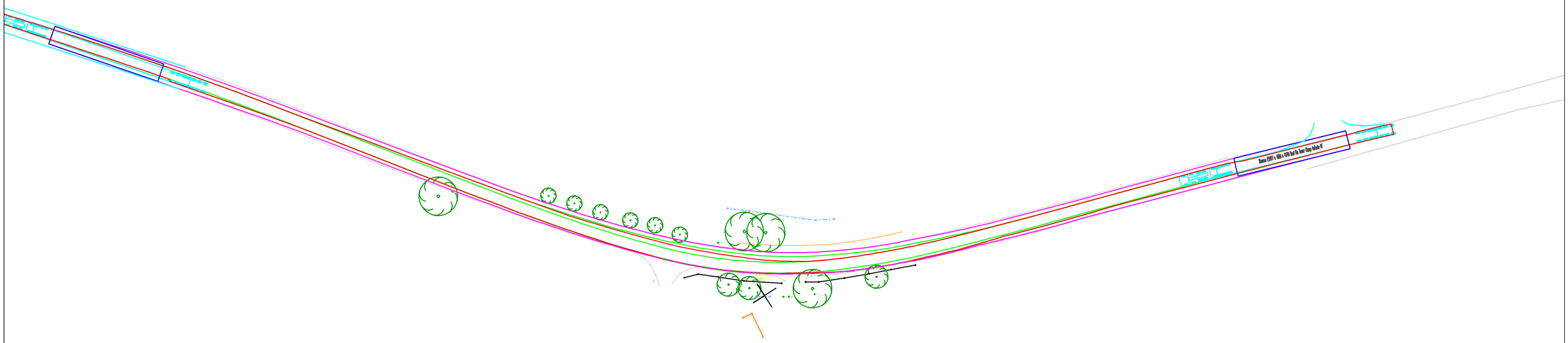
Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –

Blade



Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Tomich

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		26

Scale: 1:1000 @ A3

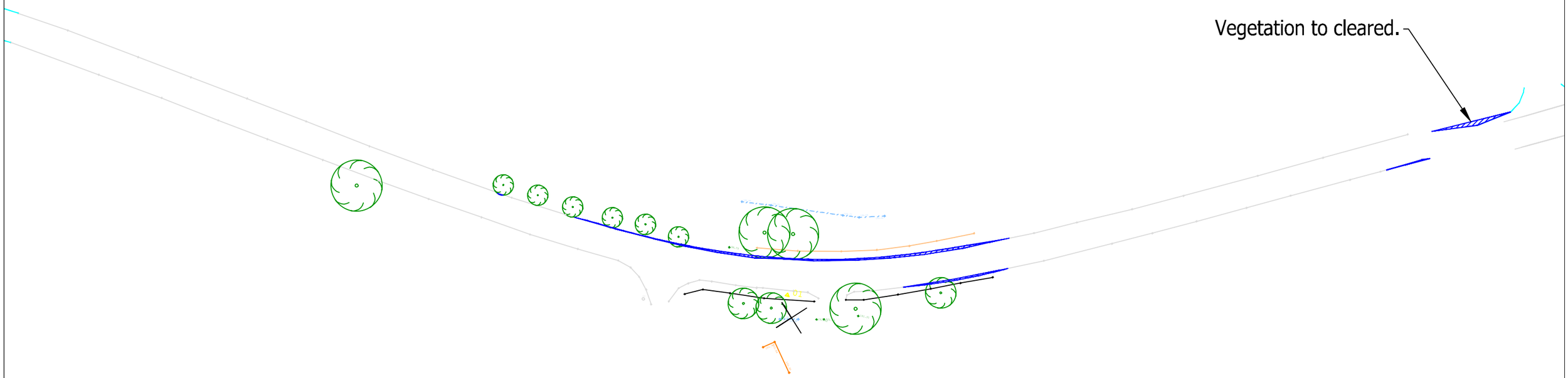
File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK22

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Tomich

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		26

Scale: 1:750 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK22A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
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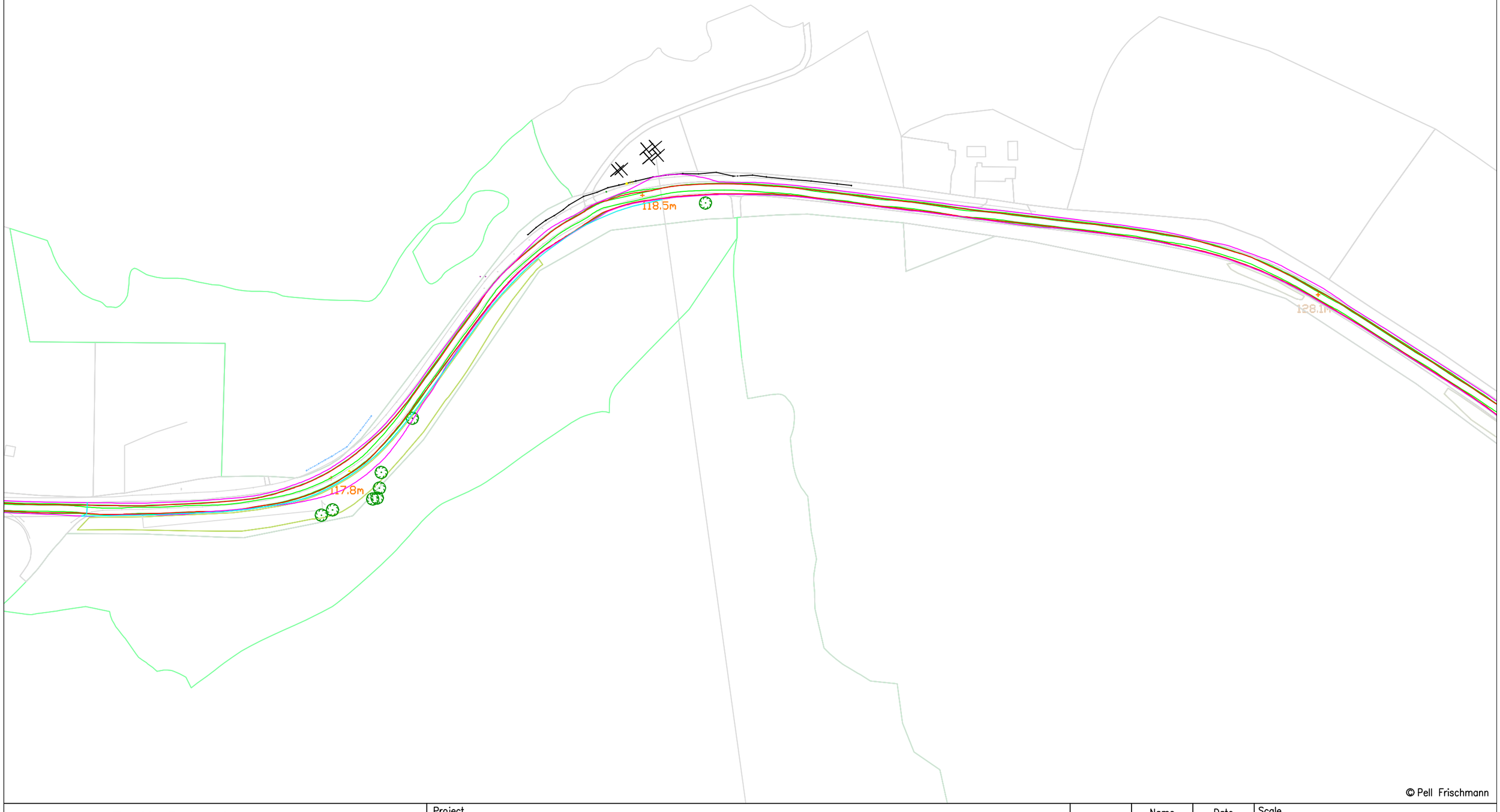
Revision: –

Blade



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Gunn's Plantation

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		27

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK23

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
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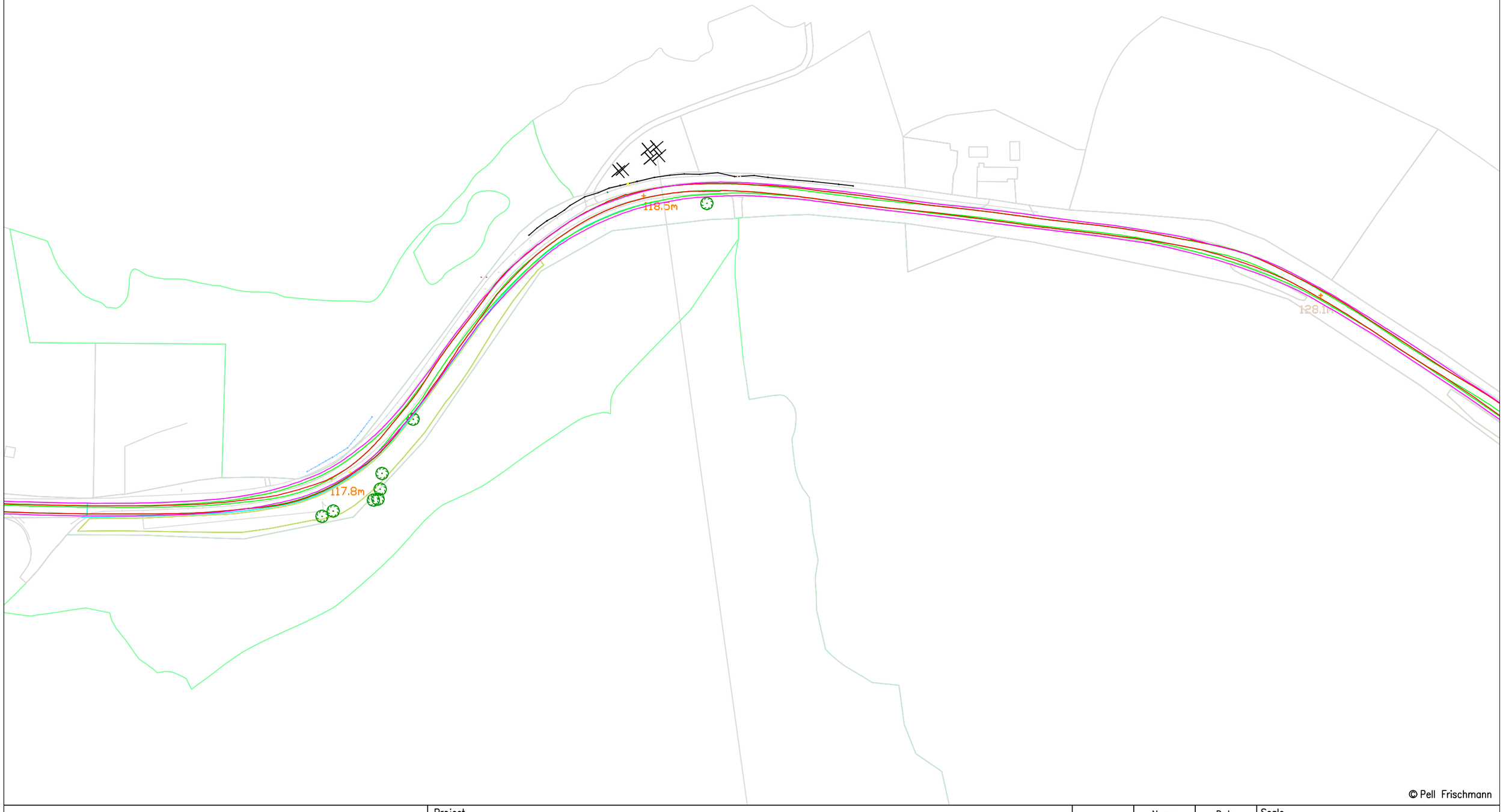
Revision: –

Tower



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Client: Coille Beith Wind Farm Ltd.

Key: Wheel SPA | Body SPA | Load SPA | Indicative | Overrun | Oversail

Project: Coille Beith Wind Farm

Drawing Title: Vestas V172 Blade and Tower

SPA Location: A839 Gunn's Plantation

	Name	Date
Drawn	TO	04/06/2025
Designed	GB	04/06/2025
Checked	GB	04/06/2025
Point of Interest		27

Scale: 1:1500 @ A3

File No.: 250603 Coille Beith SPA V172.dwg

Drawing Status: Draft

Drawing No.: SK23A

Notes:
1. All mitigation is subject to confirmation through a test run.
2. This is not a construction drawing and is intended for illustration purposes only.
3. All overhead utilities and obstructions should be removed as the blade will be carried in the raised position.

Revision: –