

P e l l F r i s c h m a n n

Coumnagappul Wind Farm

Abnormal Indivisible Load Route Survey

June 2023



This report is to be regarded as confidential to our Client and is intended for their use only and may not be assigned except in accordance with the contract. Consequently, and in accordance with current practice, any liability to any third party in respect of the whole or any part of its contents is hereby expressly excluded, except to the extent that the report has been assigned in accordance with the contract. Before the report or any part of it is reproduced or referred to in any document, circular or statement and before its contents or the contents of any part of it are disclosed orally to any third party, our written approval as to the form and context of such a publication or disclosure must be obtained.

|   |   |  |             |                   |                |                 |
|---|---|--|-------------|-------------------|----------------|-----------------|
| <b>Report Ref.</b>                              | <b>290623 Coumragappul RSR.Docx</b>   |  |             |                   |                |                 |
| <b>File Path</b>                                | <a href="https://pellf.sharepoint.com/sites/EdinburghOfficeTeam/Shared Documents/General/Projects/107763 Fehily Coumragappul Revisions/01 - WIP/Reports/290623 Coumragappul RSR.docx">https://pellf.sharepoint.com/sites/EdinburghOfficeTeam/Shared Documents/General/Projects/107763 Fehily Coumragappul Revisions/01 - WIP/Reports/290623 Coumragappul RSR.docx</a> |  |             |                   |                |                 |
| <b>Rev</b>                                      | <b>Suit</b>   | <b>Description</b>                     | <b>Date</b> | <b>Originator</b> | <b>Checker</b> | <b>Approver</b> |
| 01  |   | Draft                                  | 18-11-2021  | T Lockett         | G Buchan       | G Buchan        |
| 02  |   | Update – Second route option           | 23-03-2023  | G Ludford-Jones   | T Lockett      | G Buchan        |
| 03  |   | Update – Additional Land Options Added | 05-05-2023  | T Lockett         | G Buchan       | G Buchan        |
| 04  |   | Final Report                           | 29-06-2023  | T Lockett         | G Buchan       | G Buchan        |
| Ref. reference. Rev revision. Suit suitability. |   |  |             |                   |                |                 |

**Prepared for**

**Fehily Timoney and Company**

Core House  
Pouladuff Road  
Cork  
T12 D773

**Prepared by**

**Pell Frischmann**

93 George Street  
Edinburgh  
EH2 3ES



Pell Frischmann



## Contents

|     |   |    |
|-----|---|----|
| 1   | Introduction .....                              | 3  |
| 1.1 | Purpose of the Report.....                      | 3  |
| 2   | Site Background .....                           | 4  |
| 2.1 | Site Location .....                             | 4  |
| 2.2 | Candidate Turbine .....                         | 4  |
| 2.3 | Proposed Delivery Equipment .....               | 5  |
| 3   | Access Route Review .....                       | 6  |
| 3.1 | Access Route.....                               | 6  |
| 3.2 | Proposed Access Route .....                     | 6  |
| 3.3 | Route Constraints .....                         | 7  |
| 3.4 | Swept Path Assessment Results and Summary ..... | 16 |
| 3.5 | Access Junction Considerations.....             | 16 |
| 3.6 | Summary Issues .....                            | 16 |
| 4   | Summary.....                                    | 17 |
| 4.1 | Summary of Access Review .....                  | 17 |
| 4.2 | Further Actions.....                            | 17 |

### Figures

|   |   |
|---|---|
| Figure 2-1: Site Location Plan .....        | 4 |
| Figure 2-2: Superwing Carrier Trailer ..... | 5 |
| Figure 2-3: Tower Trailer .....             | 5 |
| Figure 3-1: Proposed Access Route.....      | 6 |

### Tables

|  |   |
|--|---|
| Table 2-1: Turbine Components Summary .....    | 4 |
| Table 3-1: Constraint Points and Details ..... | 7 |

### Appendices

|                                   |  |
|-----------------------------------|--|
| Appendix A Points of Interest     |  |
| Appendix B Swept Path Assessments |  |



# 1 Introduction

## 1.1 Purpose of the Report

Pell Frischmann (PF) has been commissioned by Fehily Timoney and Company (FTC) to undertake a study of the delivery route for wind turbine Abnormal Indivisible Loads (AIL) associated with the construction and development of Coumragappul Wind Farm, located to the east of Ballymacarbry, County Waterford, Ireland.

The Route Survey Report (RSR) has been prepared to help inform FTC on the likely issues associated with the development of the site with regards to off-site transport and access for AIL traffic. The report identifies the key issues associated with AIL deliveries and notes that 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 FTC at this point in time.

It is the responsibility of the wind turbine supplier to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. 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 has been made in accordance with the relevant legislation at the time of delivery.





## 2 Site Background

### 2.1 Site Location

The development site located to the east of Ballymacarbry, County Waterford, Ireland. Figure 2-1 illustrates the general site location.

**Figure 2-1: Site Location Plan**



### 2.2 Candidate Turbine

FTC have indicated that they wish to consider the worst case components from a Vestas V162 turbine at a hub height of 104m.

The details of the components have been provided by the turbine manufacturers and are detailed in Table 2-1.

**Table 2-1: Turbine Components Summary**

| Component   | Length (m) | Width (m)     | Height / Min Diameter (m) | Weight (t) |
|-------------|------------|---------------|---------------------------|------------|
| Blade       | 81.100     | 4.500         | 4.000                     | 27.100     |
| Base Tower  | 17.430     | (4.450) 4.150 | 4.189                     | 80.100     |
| Mid Tower 1 | 24.920     | 4.189         | 4.178                     | 76.900     |
| Mid Tower 2 | 29.960     | 4.178         | 4.166                     | 66.500     |
| Top Tower   | 30.000     | 4.166         | 4.008                     | 56.800     |

Following review of the turbine dimensions it was decided that the assessment should be based on the V162 Blade and Mid Tower 2 length (combined with the Base Tower width) in order to represent the worst-case components

## 2.3 Proposed Delivery Equipment

To provide a robust assessment scenario based upon the known issues along the access route, it has been assumed that all blades would be carried on a Superwing Carrier trailer to reduce the need for mitigation in constrained sections of the route.

Figure 2-2: Superwing Carrier Trailer



The base and mid towers would be carried on a 4+7 clamp trailer. The hub, nacelle housing, and top towers would be carried on a six-axle step frame trailer.

Figure 2-3: Tower Trailer



### 3 Access Route Review

#### 3.1 Access Route

Due to travel restrictions associated with the Covid 19 outbreak, all results described below are based upon a desk top assessment of the access route as agreed with FTC. Previous experience of sections of the route has been utilised as part of the assessment. A full site visit will be required to confirm that all constraints have been noted on the route.

The nearest, suitable Port of Entry (PoE) for the site is Bellview Port, Wterford. Loads can be offloaded by geared vessels or onshore mobile cranes. The harbour has been used for delivery of components for a number of windfarms including Meenwaun and Tullahennel wind farms.

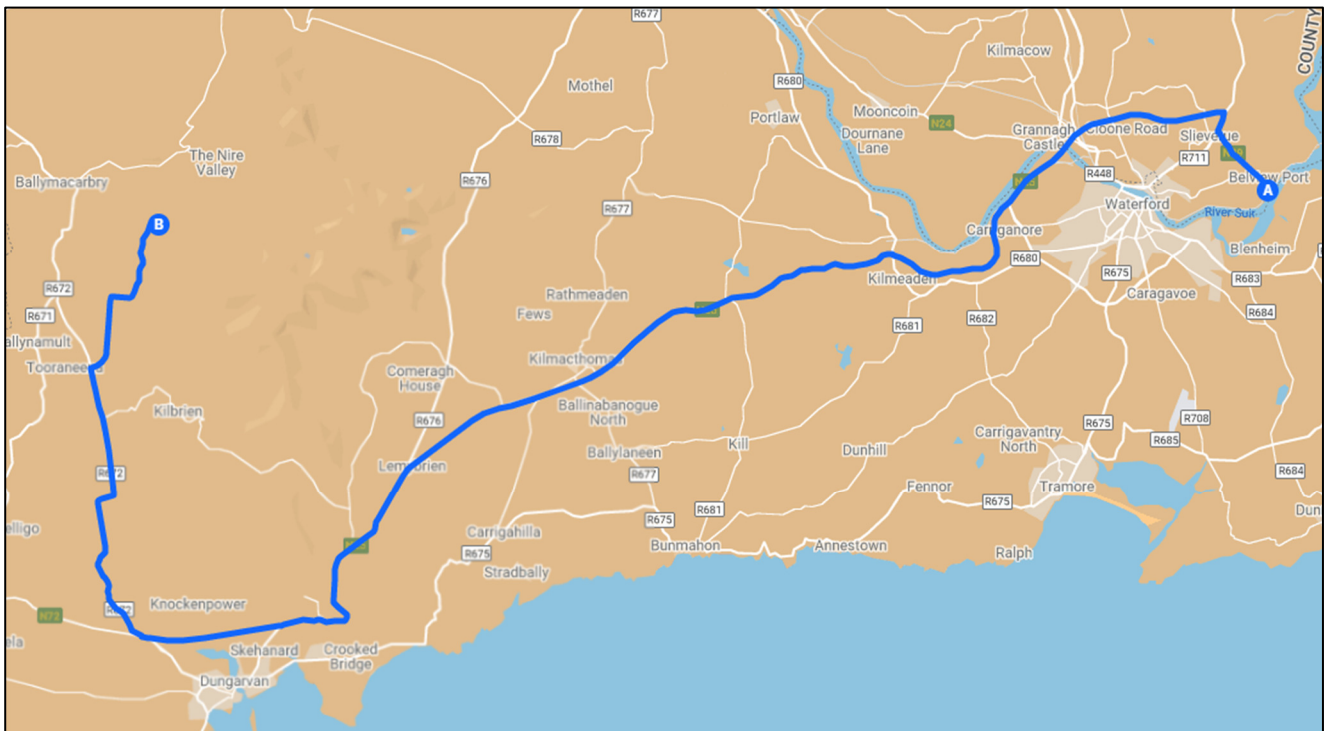
#### 3.2 Proposed Access Route

The proposed access route to site is detailed below:

- Loads would depart the port and join the N29 travelling north west;
- Loads will turn left and join the westbound N25;
- Loads will turn right onto the N72 and continue west;
- Loads will turn right onto the R672 and travel north west;
- Loads would turn right at Clooncogaile Cross Roads to join the unclassified road eastbound;
- Loads would turn left at Ford's Cross Roads to join the unclassified road northbound; and
- Loads would turn right at Bryan's Cross Roads to follow the original route on the L5119 eastbound to site.

The route is illustrated below.

Figure 3-1: Proposed Access Route



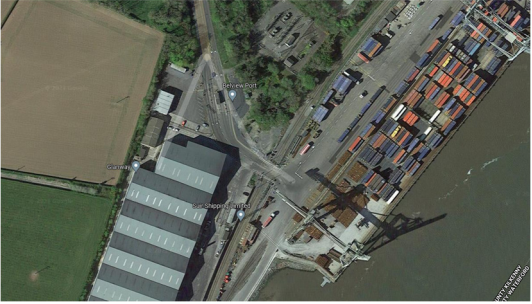

### 3.3 Route Constraints

The constraints noted on the route are provided in Table 3-1. These cover all constraints from the port access gate through to the site access junction. No consideration of the transport issues within the development site have been undertaken and this includes the design of the site access junction.

The POIs may not be in numerical order as certain options have been removed since the original assessment was completed.




Plans illustrating the location of the constraints are provided in Appendix A.



**Table 3-1: Constraint Points and Details**

| POI             | Key Constraint  | Details  |
|-----------------|---|--|
| <p><b>1</b></p> | <p><b>Bellview Port Exit, Waterford</b></p>  | <p>Loads will exit Bellview Port and continue onto the N25.</p> <p>It is recommended that at topographical survey is completed and the swept path assessment repeated to confirm the mitigation required to exit the port.</p> <p>A swept path assessment has been undertaken and indicates that loads will utilise the container storage area to allow for a more suitable approach to the level crossing at the exit. The area will need to be cleared of all obstacles and a load bearing surface laid to allow movement over the railway sidings and crane running line. It is strongly recommended that early discussions are held with the port authority to ensure that they are content with the proposed mitigation measures.</p> <p>Once past the level crossing, loads will overrun and oversail the north eastern verge where a load bearing surface should be laid and the gates, fence and posts should be removed. Loads will contraflow past the guard house and the traffic island should be cleared and provided with a load bearing surface. Existing utilities should be protected.</p> <p>Swept path assessment SK01 is included in Appendix B.</p> |
| <p><b>2</b></p> | <p><b>N29 Slieverue Roundabout</b></p>     | <p>Loads will take the 3<sup>rd</sup> exit from the roundabout.</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun the approach and exit road splitter islands where load bearing surfaces should be laid and five road signs should be removed.</p> <p>Loads will overrun and oversail the roundabout island where a load bearing surface should be laid and the surface should be reprofiled to carriageway level. One road sign should be removed.</p> <p>Swept path assessment SK02 is included in Appendix B.</p>   |

| POI | Key Constraint  | Details  |
|-----|---|--|
| 3   | <p><b>N25 Luffany Roundabout</b></p>         | <p>Loads will take the 1<sup>st</sup> exit from the roundabout.</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun and oversail the approach road splitter island where a load bearing surface should be laid and four road signs should be removed. Loads will oversail the eastern verge on approach to the roundabout where the blade tip will pass over the safety barrier. All traffic movements should be held.</p> <p>Loads will overrun and oversail the south western edge of the roundabout where a load bearing surface should be laid and one road sign should be removed.</p> <p>Loads will oversail the verge on the inside of the left turn. The loads suspension should be raised to allow oversail of the safety barrier. One road sign and one lighting column should be removed.</p> <p>Swept path assessment SK03 is included in Appendix B.</p> |
| 4   | <p><b>N25 Toll Booth</b></p>                | <p>Loads will pass through the toll booth on the N25 north of Waterford.</p> <p>Loads should utilise the wide load lane when passing through the gates.</p>  |
| 5   | <p><b>N25 Carrick Road Roundabout</b></p>  | <p>Loads will continue straight through the roundabout.</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun and oversail through the southern half of the roundabout island where a load bearing surface should be laid and the island should be reprofiled. One road sign should be removed.</p> <p>Swept path assessment SK04 is included in Appendix B.</p>  |
| 6   | <p><b>N26 / N72 Junction</b></p>           | <p>Loads will depart the N25 and turn right onto the N72.</p> <p>A swept path assessment has been undertaken and indicates that loads overrun and oversail the northern verge on the inside of the right movement. A load bearing surface should be laid and two road signs should be removed.</p> <p>Swept path assessment SK05 is included in Appendix B.</p>  |


| POI | Key Constraint  | Details   |
|-----|---|---|
| 7   | <p><b>N72 / R672 Junction</b></p>                            | <p>Loads will turn right at the junction.</p> <p>A swept path assessment has been undertaken and indicates that loads will utilise the existing hatched overrun area to the north of the junction. The traffic bollards should be removed.</p> <p>Swept path assessment SK06 is included in Appendix B.</p>   |
| 8   | <p><b>N72 / R672 Junction Master McGraith Monument</b></p>  | <p>Loads will turn right at the junction onto the R672.</p> <p>A swept path assessment has been undertaken and indicates that loads will oversail the southern verge on approach to the junction however no mitigation is required.</p> <p>Loads will overrun and oversail the north eastern verge on the inside of the right turn where a load bearing surface should be laid and three road signs and two bollards should be removed.</p> <p>Swept path assessment SK07 is included in Appendix B.</p>  |
| 9   | <p><b>R672 East of Ballylemon Lower</b></p>                | <p>Loads will continue north on the R672.</p> <p>A swept path assessment has been undertaken and indicates that loads should be raised using the trailer suspension settings in order that they can oversail the verge on the inside of the right bend where vegetation should be trimmed.</p> <p>Swept path assessment SK08 is included in Appendix B.</p>   |
| 10  | <p><b>R672 South of Colliganwood</b></p>                   | <p>Loads will continue north through the left / right bends.</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun and oversail the northern verge through the initial left bend where a load bearing surface should be laid. It is recommended that a topographical survey is completed and the swept path assessment repeated to confirm the required works. Vegetation to be trimmed and <b>third party land</b> may be required to construct the proposed mitigation.</p> <p>Loads will oversail the verge on the inside of the following right bend where one bollard should be removed.</p> <p>Swept path assessment SK09 is included in Appendix B.</p> |



| POI | Key Constraint  | Details   |
|-----|---|---|
| 11  | <p><b>R672 South of Calligan</b></p>   | <p>Loads will continue through the left bend.</p> <p>Loads will oversail the verge on the inside of the bend where vegetation should be trimmed.</p>  |
| 12  | <p><b>R672 Colligan</b></p>            | <p>Loads will continue through two right bends when travelling north.</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun into the existing hatched overrun area on the outside of the initial right bend. This should be extended with a load bearing surface as required and vegetation should be trimmed back.</p> <p>Loads will overrun and oversail the verge on the outside of the following right bend. Vegetation should be cleared and a load bearing surface laid. Reprofile will be required. A section of wall will need to be removed and <b>third party land</b> may be required to construct the proposed mitigation.</p> <p>Loads will oversail into <b>third party land</b> on the inside of the right bend where the hedge and fence should be removed.</p> <p>Swept path assessment SK10 is included in Appendix B.</p> |
| 13  | <p><b>R672 West of Colligan</b></p>  | <p>Loads will continue north through the left bend on the R672</p> <p>A swept path assessment has been undertaken and indicates that loads will overrun the inside of the bend and oversail both verges. A load bearing surface should be laid and one traffic bollard should be removed. Existing utilities should be protected.</p> <p>Swept path assessment SK11 is included in Appendix B.</p>  |



| POI       | Key Constraint   | Details   |
|-----------|--|---|
| <p>14</p> | <p><b>R672 North of Garrycline</b></p>  | <p>Loads will continue through a long right bend north of Garrycline</p> <p>A swept path assessment has been undertaken and indicates that loads will oversail both verges throughout the bend with <b>third party land</b> required on the inside of the bend. One road sign should be removed.</p> <p>Loads will overrun the western verge on entry to the bend where a load bearing surface should be laid and the verge will need to be reprofiled. Trees / vegetation should be removed.</p> <p>Swept path assessment SK12 is included in Appendix B.</p>  |
| <p>15</p> | <p><b>R672 West of Colligan</b></p>    | <p>Loads will continue through the left bend travelling north.</p> <p>A swept path assessment has been undertaken and indicates that loads will oversail both verges throughout the left bend. <b>Third party land</b> will be required on the inside of the bend where the suspension should be raised to allow oversail of the verge. Two road signs, the fence and vegetation should be removed.</p> <p>A load bearing surface should be laid on the outside of the bend and existing utilities should be protected. Traffic and chevron signs should be removed.</p> <p>Swept path assessment SK13 is included in Appendix B.</p> |



| POI | Key Constraint   | Details  |
|-----|--|--|
| 26  | <p><b>R672 Clooncogaile Cross Roads</b></p>                         | <p>Loads will turn right at the junction to join the unclassified road eastbound. Two options to negotiate this junction have been presented.</p> <p><b>Option 1</b><br/>         The temporary traffic island and associated road sign should be removed.</p> <p>A swept path assessment has been undertaken and indicates that the blade tip will slightly over-sail the western verge of the R672, though no physical mitigation measures will be required.</p> <p>Loads will over-run and over-sail the inside verge of the turn where a load bearing surface should be laid. The ditch should be culverted and the verge reprofiled. Two utility poles, fence, one road sign and bollard should be removed. The vegetation should be cleared. <b>Third party land</b> will be required.</p> <p>Loads will over-sail the northern verge of the unclassified road immediately on joining it.</p> <p>Loads will over-sail the southern verge of the unclassified road where one utility pole and one sign should be removed and the northern and southern embankments should be reprofiled and potential <b>third party land</b> is required. The vegetation should be trimmed.</p> <p><b>Option 2</b><br/>         The temporary traffic island and associated road sign should be removed.</p> <p>Loads would utilise <b>third party land</b> to the north of the road where a load bearing surface should be laid. Ditches should be culverted and the verge should be reprofiled. Fences and one road sign should be removed.</p> <p>Swept path assessments SK20 and SK20e are included in Appendix B.</p> |
| 27  | <p><b>Unclassified Road east of Clooncogaile Cross Roads</b></p>  | <p>Loads will continue on the unclassified road eastbound.</p> <p>A swept path assessment has been undertaken and indicates that loads will over-sail the inside verge of the first slight left-hand bend where the trees and vegetation should be cleared. <b>Third party land</b> is required. The blade tip will over-sail the outside verge where one utility pole should be removed and the vegetation should be trimmed.</p> <p>Loads will over-sail both verges following the bend. The vegetation should be trimmed on the south-eastern verge.</p> <p>Swept path assessment SK21 is included in Appendix B.</p>   |

| POI | Key Constraint   | Details   |
|-----|--|---|
| 28  | <p><b>Ford's Cross Roads</b></p>  | <p>Loads will turn left at the junction to join the unclassified road northbound.</p> <p>A swept path assessment has been undertaken and indicates that the blade tip will over-sail the vegetation and fence on the outside verge of the slight right-hand bend where the trees should be cleared. <b>Third party land</b> will be required. Loads will over-sail the inside verge where one utility pole should be removed. The proximity to the stone wall should be confirmed on a topographical base survey. The trees and vegetation should be trimmed. <b>Third party land</b> may be required.</p> <p>Loads will over-run and over-sail the inside verge of the turn where a load bearing surface should be laid, and one utility pole, fence, and metal gate should be removed. The trees and vegetation should be cleared. The ditch should be culverted. <b>Third party land</b> will be required. Loads will over-sail the eastern verge on turning, though no physical mitigation measures will be required.</p> <p>The road from this point to POI 17 should be widened to a minimum width of 4.5m and a minimum clearance width of 5.5m. <b>Third party land</b> may be required to provide these works and it has not been possible to review if there are any vertical constraints along the section.</p> <p>Swept path assessment SK22 is included in Appendix B.</p> |

| POI | Key Constraint  | Details   |
|-----|---|---|
| 17  | <p><b>Bryan's Cross Roads</b></p>  | <p>Loads will turn right at the junction to join the L5119 eastbound. Two options have been presented to negotiate the right turn.</p> <p><b>Option 1</b><br/>         Due to the requirement to cross the River Colligan and the associated wet land located on the inside of the right turn and to avoid the requirement for a new bridge to be provided, it is proposed that loads will utilise the land to the west of the road to sweep left before turning right to cross the existing bridge.</p> <p>A swept path assessment has been undertaken and indicates that loads will over-run and over-sail through the land to the west of the road where a load bearing surface should be laid. The ditch should be culverted, and the land should be reprofiled. The fence should be removed, and the vegetation should be cleared. <b>Third party land</b> will be required.</p> <p>The blade tip will over-sail the vegetation and raised ground on the north-western verge of the L5119 where the fence and one road sign should be removed. The vegetation should be trimmed. <b>Third party land</b> will be required.</p> <p>Loads should be raised on suspension settings to over-sail the stone bridge parapet and raised verge on the southern verge through the junction. The fence and one road sign should be removed, and the vegetation should be cleared. <b>Third party land</b> will be required. Loads will slightly over-sail the northern verge, though no physical mitigation measures will be required.</p> <p><b>Option 2</b><br/>         Loads would utilise <b>third party land</b> on the inside of the right turn. A full ground assessment will be required along with detailed design to understand the feasibility of using this flood plain area. Either the River Colligan will have to be culverted or a new bridge structure will be required. All vegetation and fencing should be removed.</p> <p>Swept path assessments SK23 and SK24 are included in Appendix B.</p> |
| 18  | <p><b>Sweep Crossroads</b></p>   | <p>Loads will continue north through Sweep Cross Roads.</p> <p>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.</p> <p>A swept path assessment has been undertaken and indicates that loads will oversail into <b>third party land</b> on both sides of the road. The trailer suspension should be raised to allow oversail of the stone wall on the inside of the bend and the utility pole and hedge should be removed.</p> <p>The hedge should be trimmed to allow oversail on the outside of the bend.</p> <p>Swept path assessment SK16 is included in Appendix B.</p>   |

| POI | Key Constraint   | Details  |
|-----|--|--|
| 19  | <p><b>West of Blaentasour</b></p>                         | <p>Loads will continue north.</p> <p>A swept path assessment has been undertaken and indicates that loads will oversail the verge on the inside of the bend where vegetation should be trimmed.</p> <p>As previously stated, road widening to a minimum of 4.5m with a 5.5m clearance width will be required.</p> <p>Swept path assessment SK17 is included in Appendix B.</p> |
| 20  | <p><b>South of Knockeen – Proposed Site Entrance</b></p>  | <p>Loads will continue north through the sinuous section which needs to be widened and upgraded and arrive at the proposed site entrance.</p> <p>Loads will oversail verges on the inside of each bend through the section and vegetation should be trimmed.</p> <p>The site access should be constructed to meet manufacturer and local road authority standards.</p>         |

### 3.4 Swept Path Assessment Results and Summary

The detailed swept path drawings for the locations assessed are provided in Appendix B for review. The drawings in Appendix B illustrate tracking undertaken for the worst case loads at each location.

The colours illustrated on the swept paths are:

- Grey / Black – OS / Topographical Base Mapping;
- Green – Vehicle body outline (body swept path);
- Red – Tracked pathway of the wheels (wheel swept path); and
- Purple – The over-sail tracked path of the load where it encroaches outwith the trailer (load swept path).

Where mitigation works are required, the extents of over-run and over-sail areas are illustrated on the swept path drawings.

Please note that where assessments have been undertaken using Ordnance Survey Ireland (OSI) base mapping or available CAD based aerial mapping, there can be errors in this data source.

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 OSI base mapping, aerial mapping or client supplied data.

### 3.5 Access Junction Considerations

The access junction into the site would 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 would need to be discussed with the local road authority. The design of the junctions should take into account the requirement for provision of visibility splays which should be defined by the road authority.

The junctions would also need to be built in accordance with the turbine supplier design criteria.

### 3.6 Summary Issues

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

- That any necessary topographical surveys are undertaken and the swept path results completed;
- 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.



## 4 Summary

### 4.1 Summary of Access Review

PF has been commissioned by FTC to prepare a desk based Route Survey Report to examine the issues associated with the transport of AIL turbine components to the development site.

This report identifies the key points and issues associated with the proposed route and outlines the issues that will need to be considered for successful delivery of components.

The access review has been based upon a Vestas V162 blade and worst case tower component.

The report is presented for consideration to FTC. Various third party land arrangements, road modifications and interventions are required to successfully access the site. If these are assessed, approved and undertaken, access to the consented wind farm site is considered potentially feasible.

### 4.2 Further Actions

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

- Undertake a full site visit and update the route survey report for the proposed site;
- 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 Transport Management Plan to assist in transporting the proposed loads.

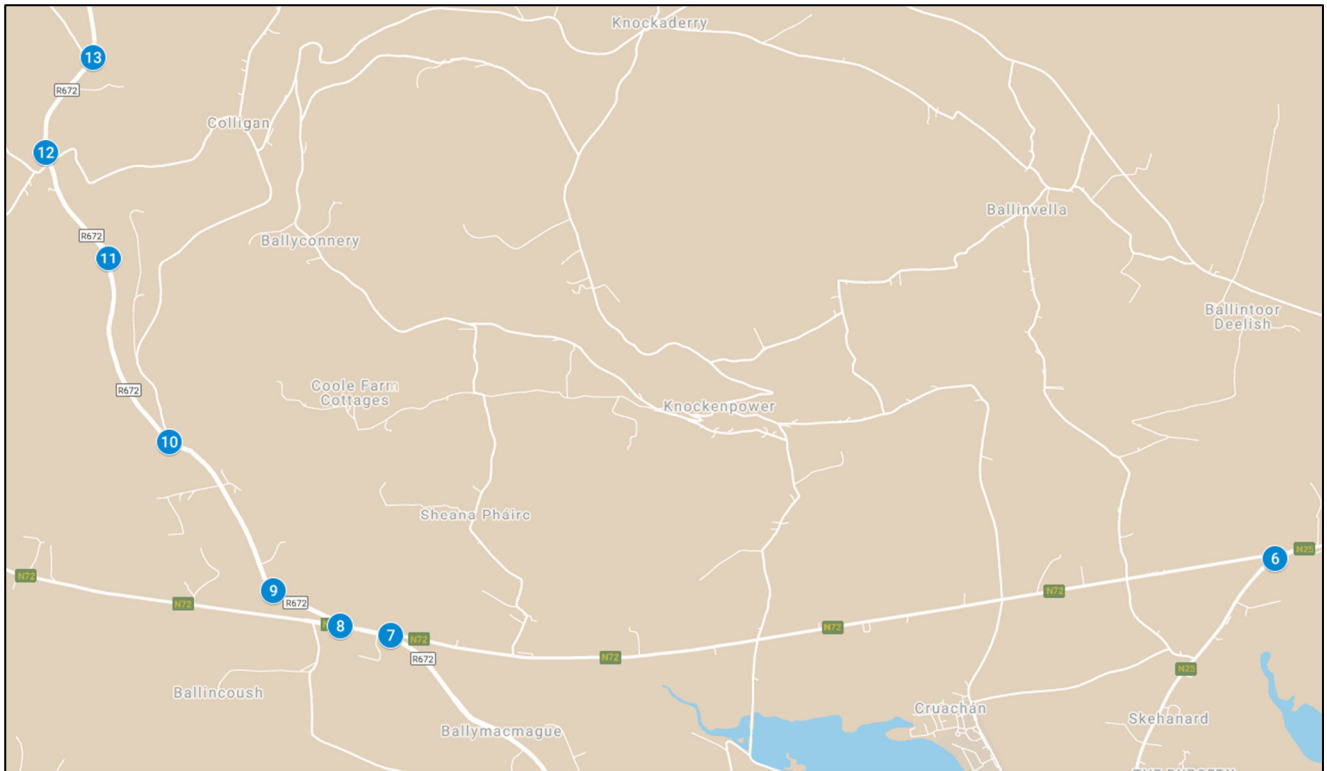
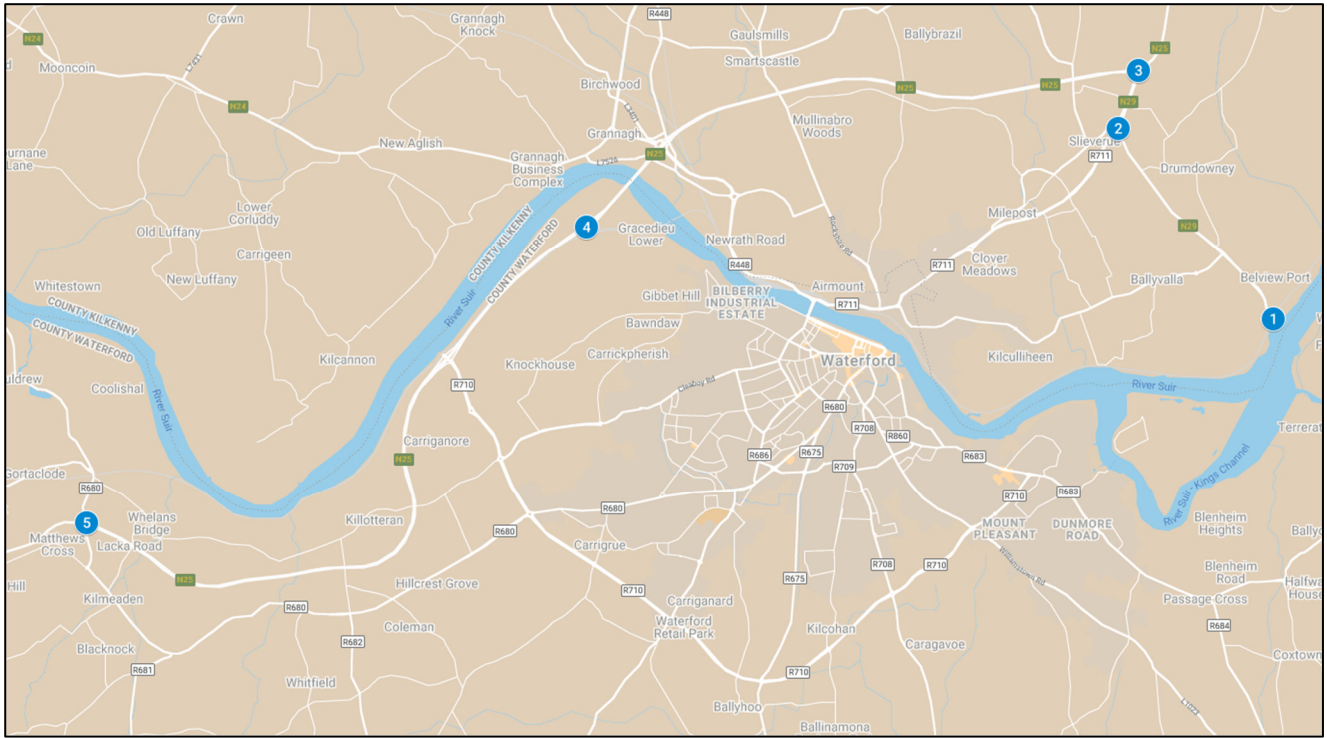


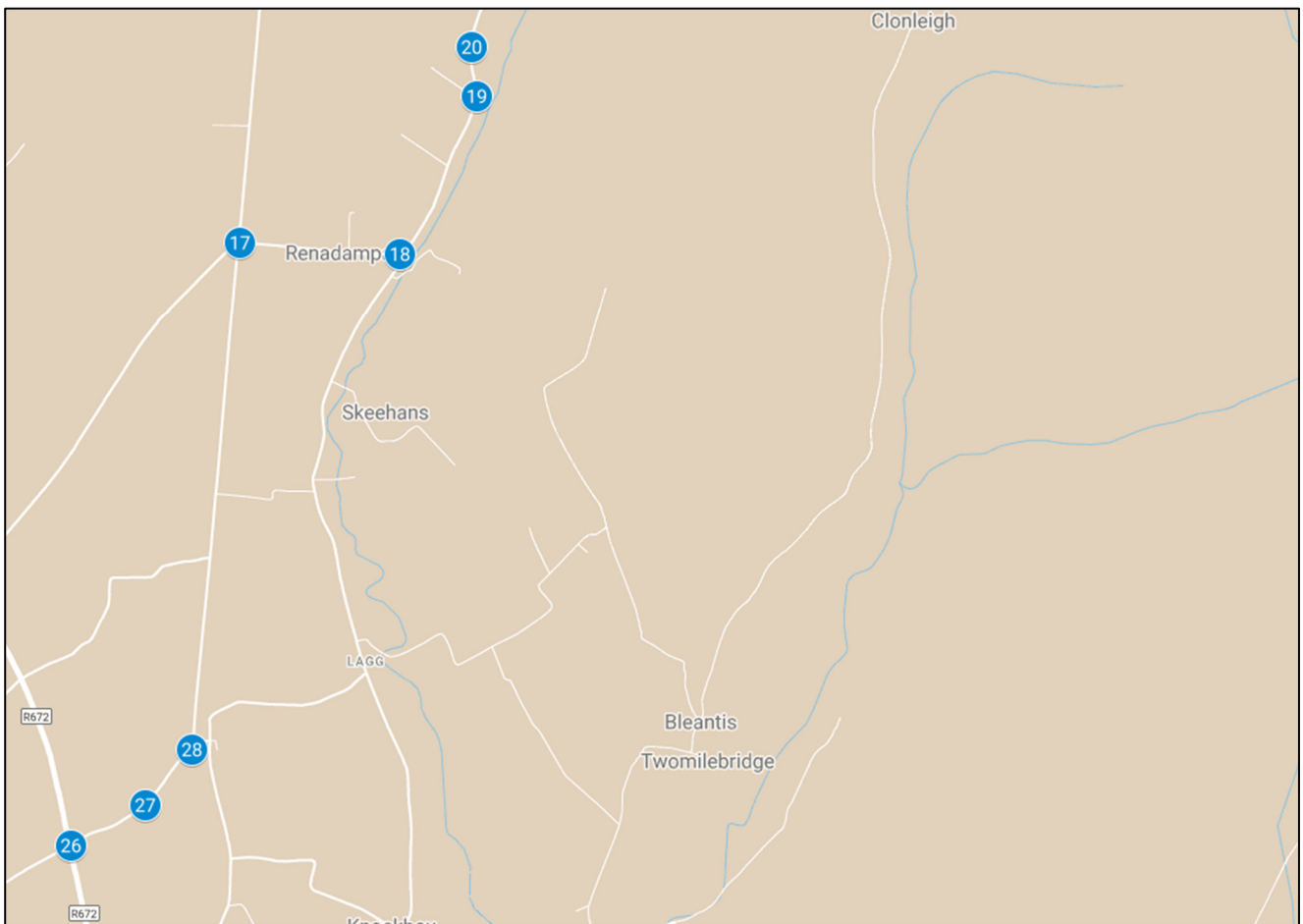
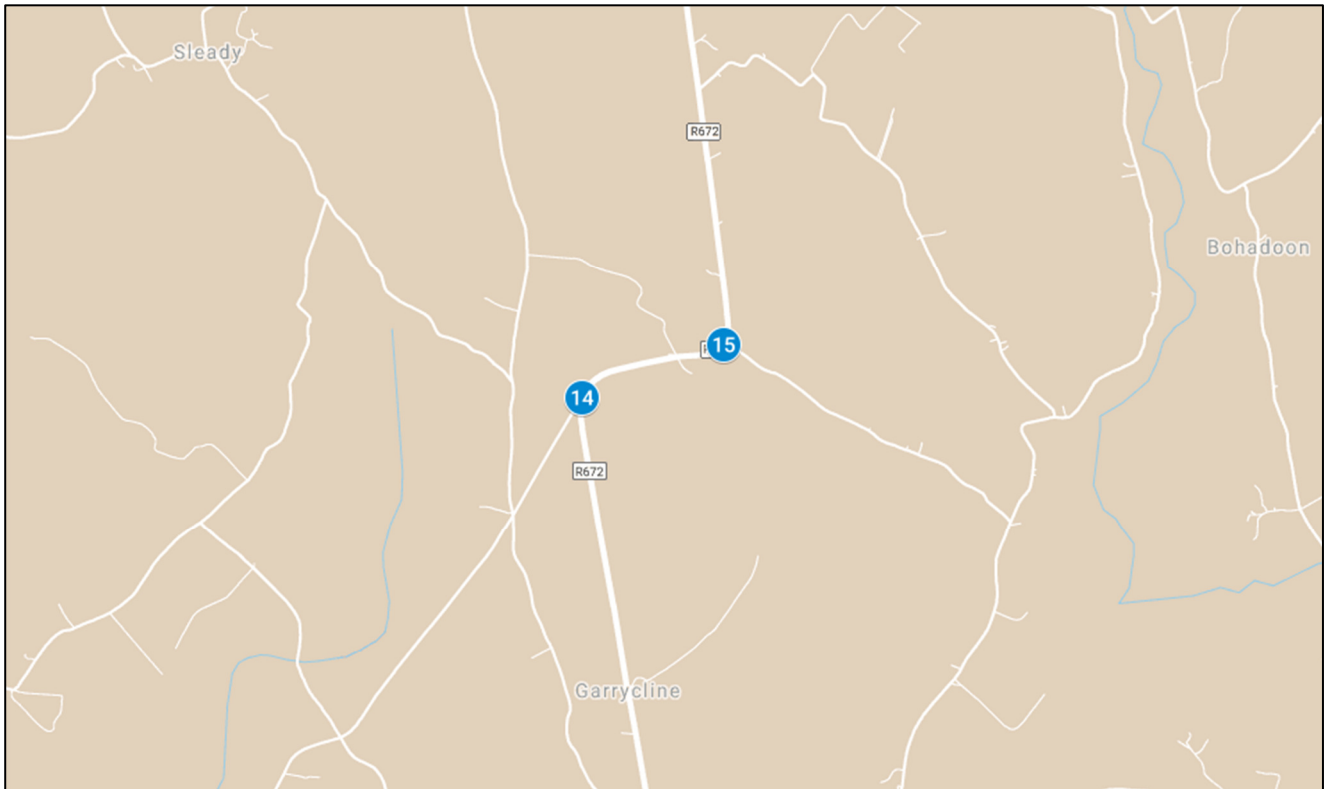


## Appendix A Points of Interest



Counmagappul Wind Farm  
Abnormal Indivisible Load Route Survey





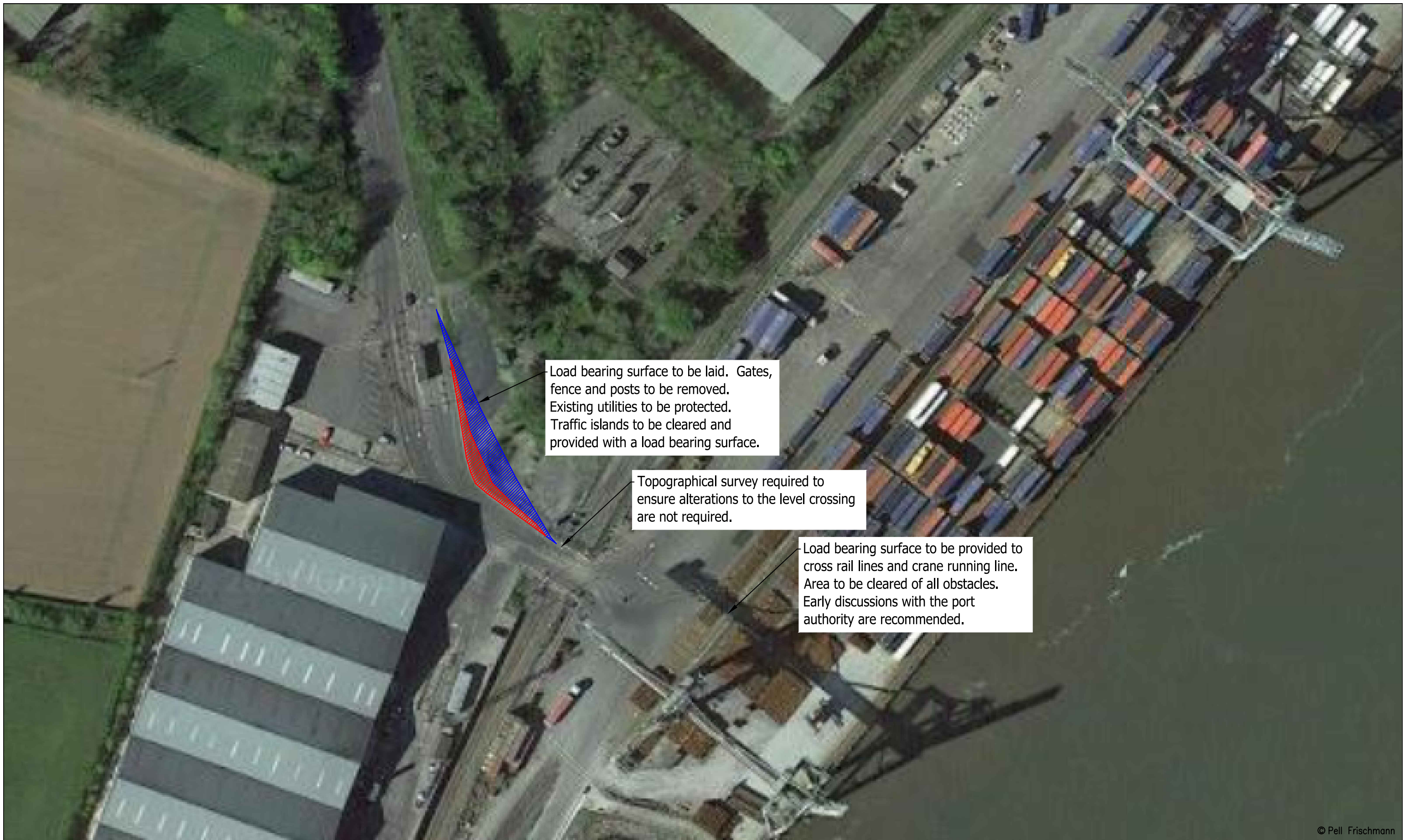
## Appendix B Swept Path Assessments











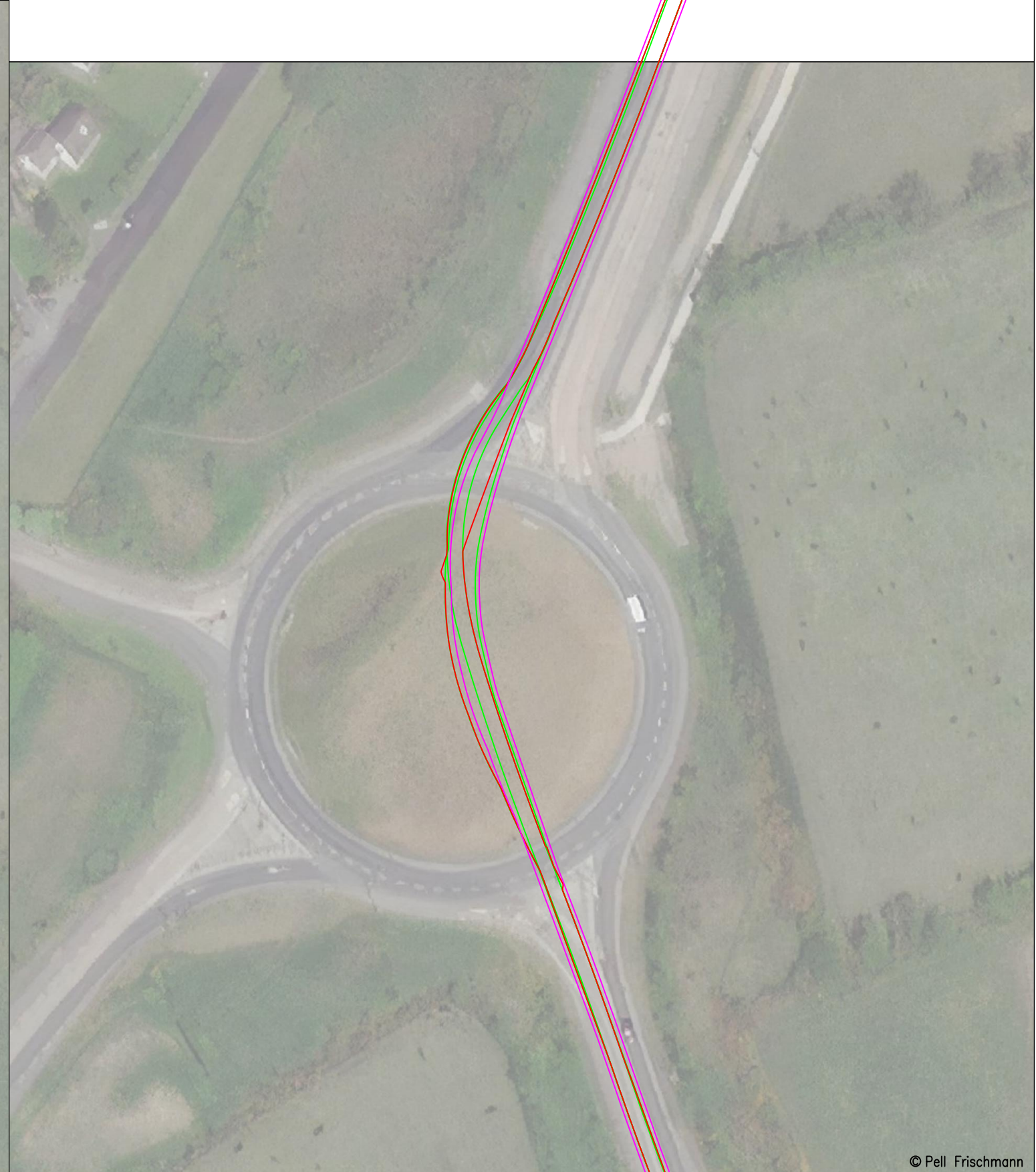
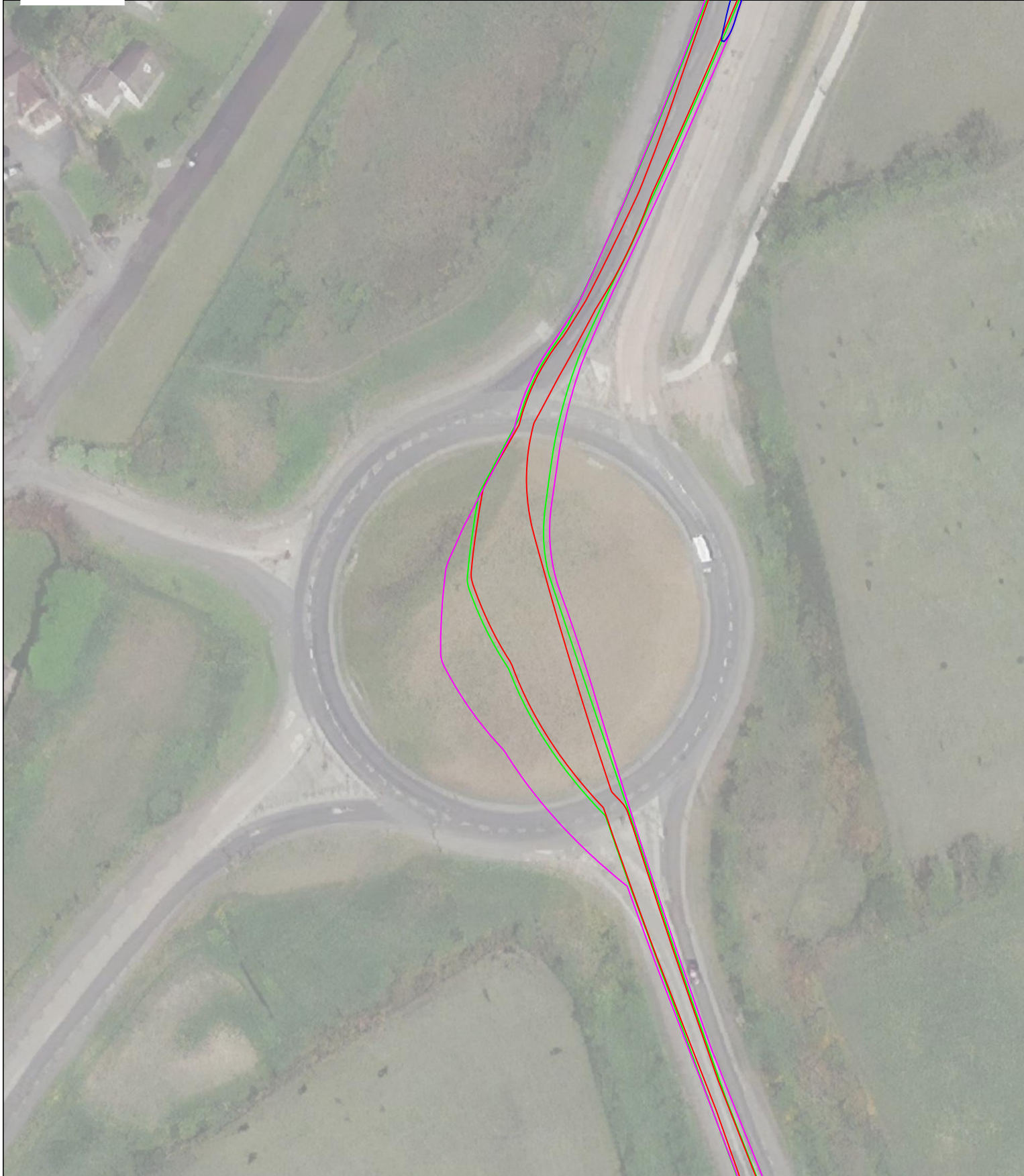
© Pell Frischmann

|  |               |                                 |  |                   |    |          |             |                |   |          |
|--|---------------|---------------------------------|--|-------------------|----|----------|-------------|----------------|---|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date     | 05/05/2023  | Scale          | 1:1000 @ A3   |          |
|  | Client        | Fehily Timoney                  |  | Drawn             | TL | Designed | 05/05/2023  | File No        | 05052023 Coumnagappul Tracking v4.dwg   |          |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date     | 05/05/2023  | Drawing Status | Draft   |          |
|  | SPA Location  | Belview Port Exit               |  | Point of Interest | 1  |          | Drawing No. | SK01A          | Notes:  | Revision |
|  |               |                                 |  |                   |    |          |             |                | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | 1        |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES

Tel: +44 (0)131 240 1270

Email: pfe@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumragappul Wind Farm

Name

Date

Scale

1:1000 @ A3

Drawn

JS

05/05/2023

File No

05052023 Coumragappul Tracking v4.dwg

Designed

TL

05/05/2023

Checked

GB

05/05/2023

Drawing Status

Draft

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

Point of Interest

2

Drawing No.

SK02

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.

Revision

1

Key



Wheel SPA

Body SPA

Load SPA

Indicative

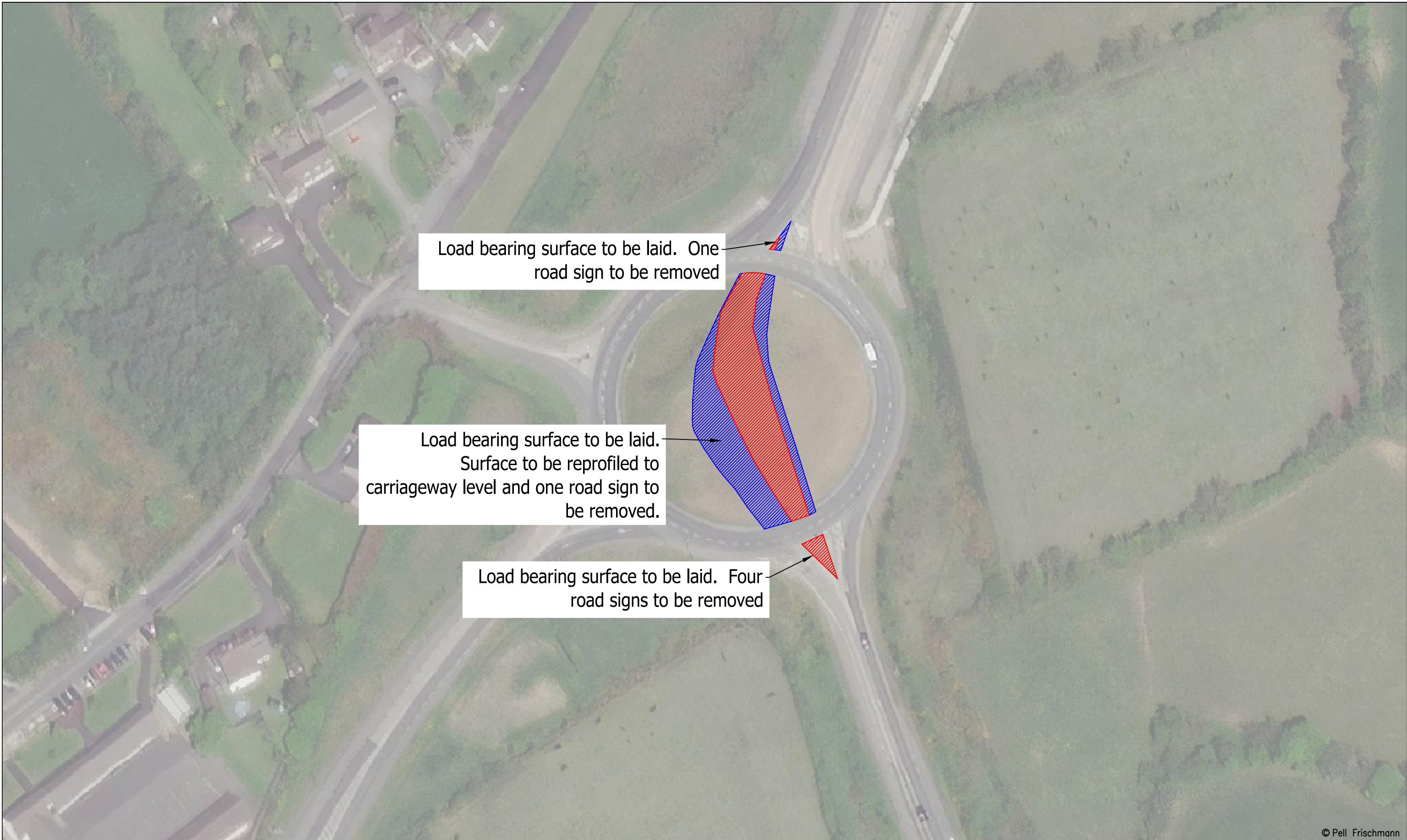
Over-run

Over-sail

SPA Location

N29 Slieverue Roundabout





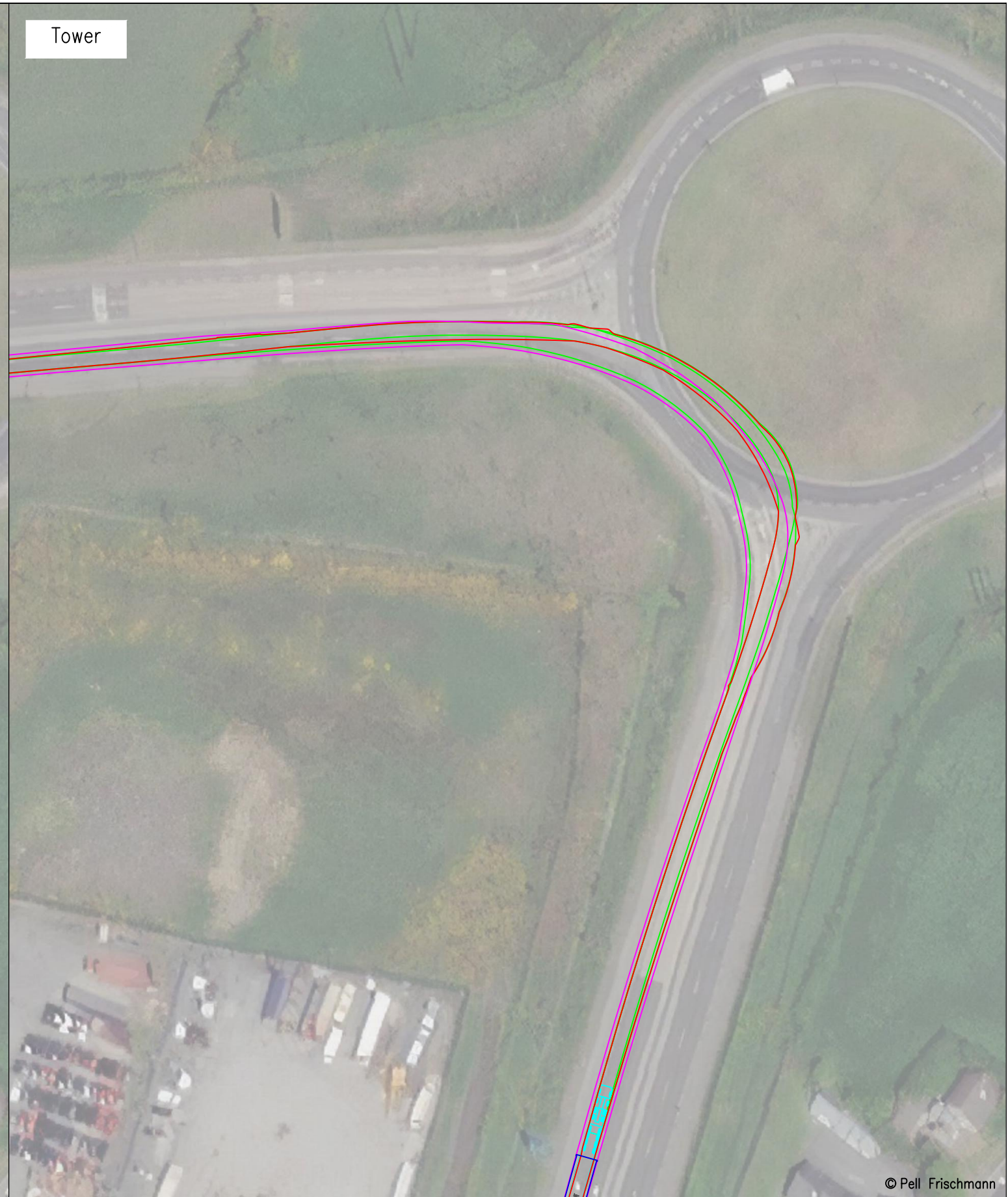
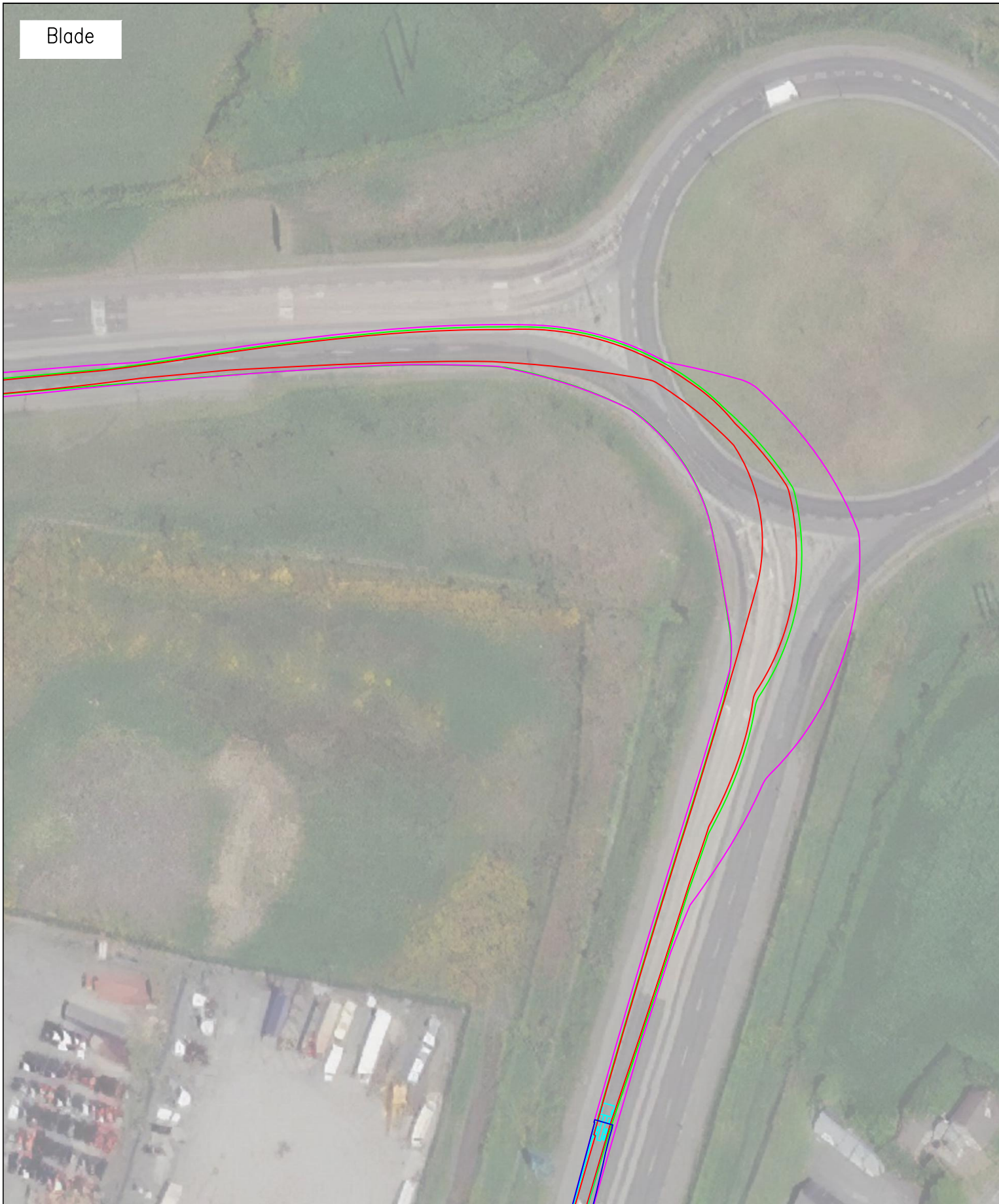
© Pell Frischmann

|   |              |                          |               |                                 |                   |                |   |             |                                       |
|---|--------------|--------------------------|---------------|---------------------------------|-------------------|----------------|---|-------------|---------------------------------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project      | Coumnagappul Wind Farm   | Name          | JS                              | Date              | 05/05/2023     | Scale   | 1:1000 @ A3 |                                       |
|   | Client       | Fehily Timoney           | Drawing Title | Vestas V162 Blade and Mid Tower | Designed          | TL             | 05/05/2023  | File No     | 05052023 Coumnagappul Tracking v4.dwg |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | SPA Location | N29 Slieverue Roundabout | Checked       | GB                              | 05/05/2023        | Drawing Status | Draft   | Revision    | 1                                     |
|   |              |                          | Drawing No.   | SK02A                           | Point of Interest | 2              | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |             |                                       |



Blade

Tower



© Pell Frischmann

### Pell Frischmann

93 GEORGE STREET, EDINBURGH, EH2 3ES  
 Tel: +44 (0)131 240 1270  
 Email: pfeinburgh@pellfrischmann.com  
 www.pellfrischmann.com

Client **Fehily Timoney**

|     |                                  |                                    |                                      |                                   |          |           |
|-----|----------------------------------|------------------------------------|--------------------------------------|-----------------------------------|----------|-----------|
| Key | <span style="color:red">—</span> | <span style="color:green">—</span> | <span style="color:magenta">—</span> | <span style="color:cyan">—</span> |          |           |
|     | Wheel SPA                        | Body SPA                           | Load SPA                             | Indicative                        | Over-run | Over-sail |

Project  
**Coumragappul Wind Farm**

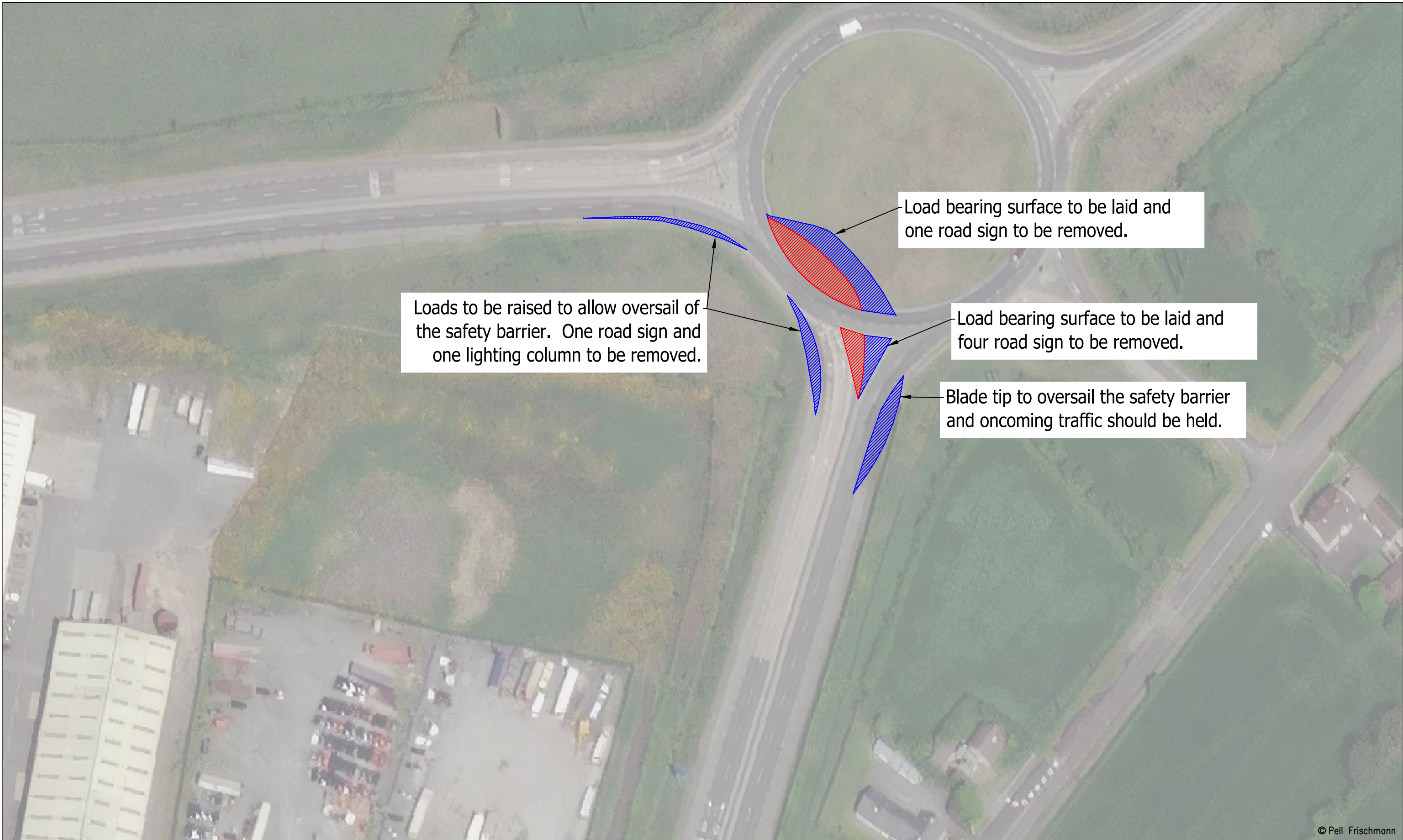
Drawing Title  
**Vestas V162 Blade and Mid Tower**

SPA Location  
**N25 Luffany Roundabout**

|                   |   |            |  |
|-------------------|---|------------|--|
|                   | Name  | Date       | Scale  |
| Drawn             | JS  | 05/05/2023 | 1:1000 @ A3                                    |
| Designed          | TL  | 05/05/2023 | File No. 05052023 Coumragappul Tracking v4.dwg |
| Checked           | GB  | 05/05/2023 |  |
| Point of Interest |   |            | Drawing Status                                 |
| 3                 |   |            | Draft  |
| Drawing No.       | Notes:  |            | Revision                                       |
| SK03              | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            | 1  |







© Pell Frischmann

|   |              |                        |                   |                                 |             |                |            |   |                                       |
|---|--------------|------------------------|-------------------|---------------------------------|-------------|----------------|------------|---|---------------------------------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project      | Coumragappul Wind Farm | Name              | JS                              | Date        | 05/05/2023     | Scale      | 1:1000 @ A3   |                                       |
|   | Client       | Fehily Timoney         | Drawing Title     | Vestas V162 Blade and Mid Tower | Designed    | TL             | 05/05/2023 | File No   | 05052023 Coumragappul Tracking v4.dwg |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | SPA Location | N25 Luffany Roundabout | Checked           | GB                              | 05/05/2023  | Drawing Status | Draft      | Revision  | 1                                     |
|   |              |                        | Point of Interest | 3                               | Drawing No. | SK03A          | Notes:     | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES  
 Tel: +44 (0)131 240 1270  
 Email: pfedinburgh@pellfrischmann.com  
 www.pellfrischmann.com

Project

Coumnagappul Wind Farm

Name

Date

Scale

1:500 @ A3

Drawn

JS

05/05/2023

File No

05052023 Coumnagappul Tracking v4.dwg

Designed

TL

05/05/2023

Checked

GB

05/05/2023

Drawing Status

Draft

Point of Interest

5

Drawing No.

SK04

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.

Revision

1

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

SPA Location

N25 Carrick Road Roundabout

Key







© Pell Frischmann

|   |               |                                 |  |   |    |      |            |                |                                       |  |
|---|---------------|---------------------------------|--|---|----|------|------------|----------------|---------------------------------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name  | JS | Date | 05/05/2023 | Scale          | 1:500 @ A3                            |  |
|   | Client        | Fehily Timoney                  |  | Designed  | TL | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |  |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked   | GB | Date | 05/05/2023 | Drawing Status | Draft                                 |  |
|   | SPA Location  | N25 Carrick Road Roundabout     |  | Point of Interest   |    |      | 5          | Drawing No.    | SK04A                                 |  |
|   |               |                                 |  | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |    |      |            | Revision       | 1                                     |  |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES  
Tel: +44 (0)131 240 1270  
Email: pfeinburgh@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumragappul Wind Farm

Name

JS

Date

05/05/2023

Scale

1:1000 @ A3

Drawn

TL

05/05/2023

File No

05052023 Coumragappul Tracking v4.dwg

Checked

GB

05/05/2023

Drawing Status

Draft

Point of Interest

6

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.

Revision

1

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

Key

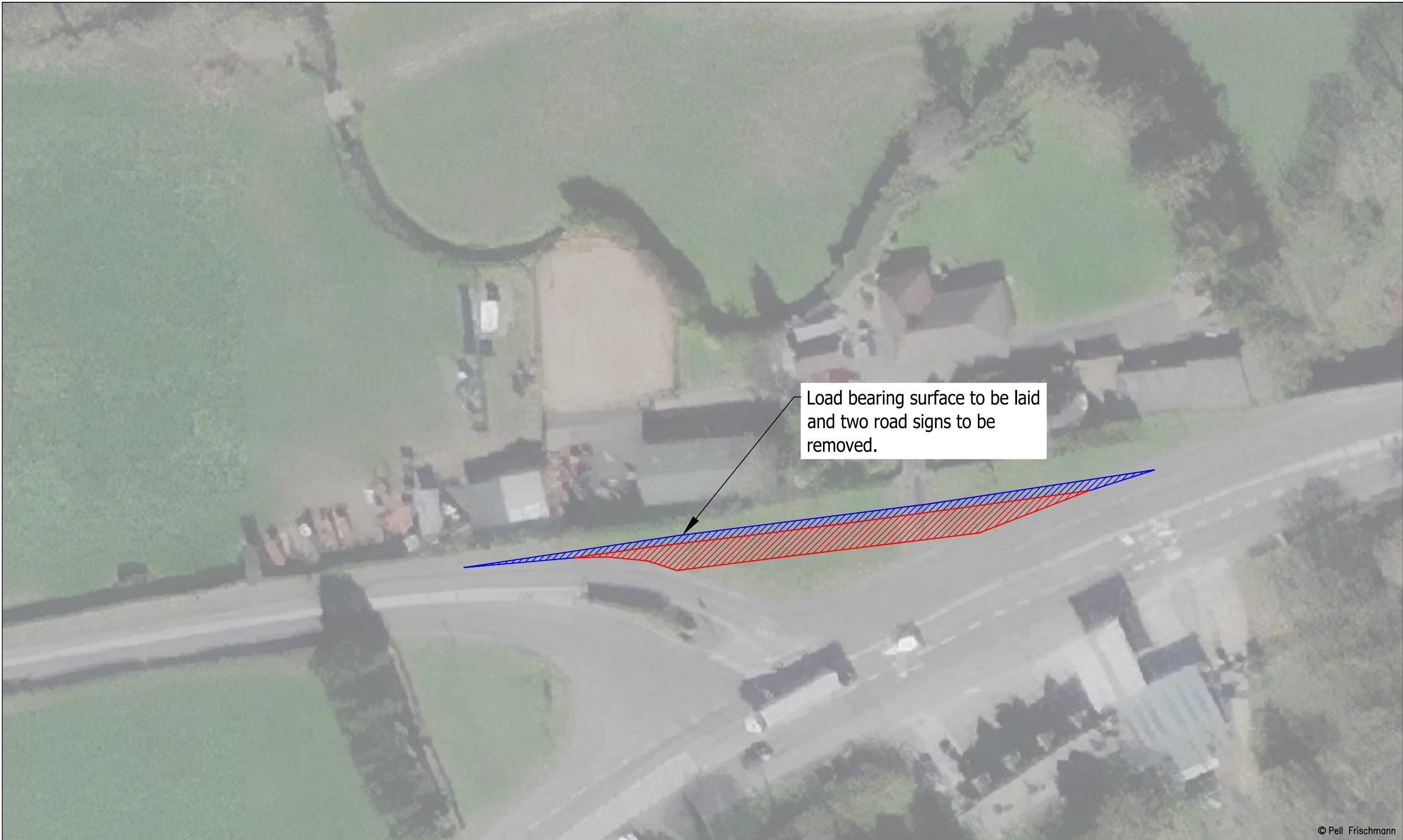
- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Over-run
- Over-sail

SPA Location

N25 / N72 Junction







Load bearing surface to be laid and two road signs to be removed.

© Pell Frischmann

|   |               |                                 |  |                   |   |      |            |                |                                       |          |
|---|---------------|---------------------------------|--|-------------------|---|------|------------|----------------|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS  | Date | 05/05/2023 | Scale          | 1:500 @ A3                            |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL  | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB  | Date | 05/05/2023 | Drawing Status | Draft                                 |          |
|   | SPA Location  | N25 / N72 Junction              |  | Point of Interest |   |      | 6          | Drawing No.    | SK05A                                 |          |
|   |               |                                 |  | Notes:            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |      |            |                |                                       | Revision |









Blade

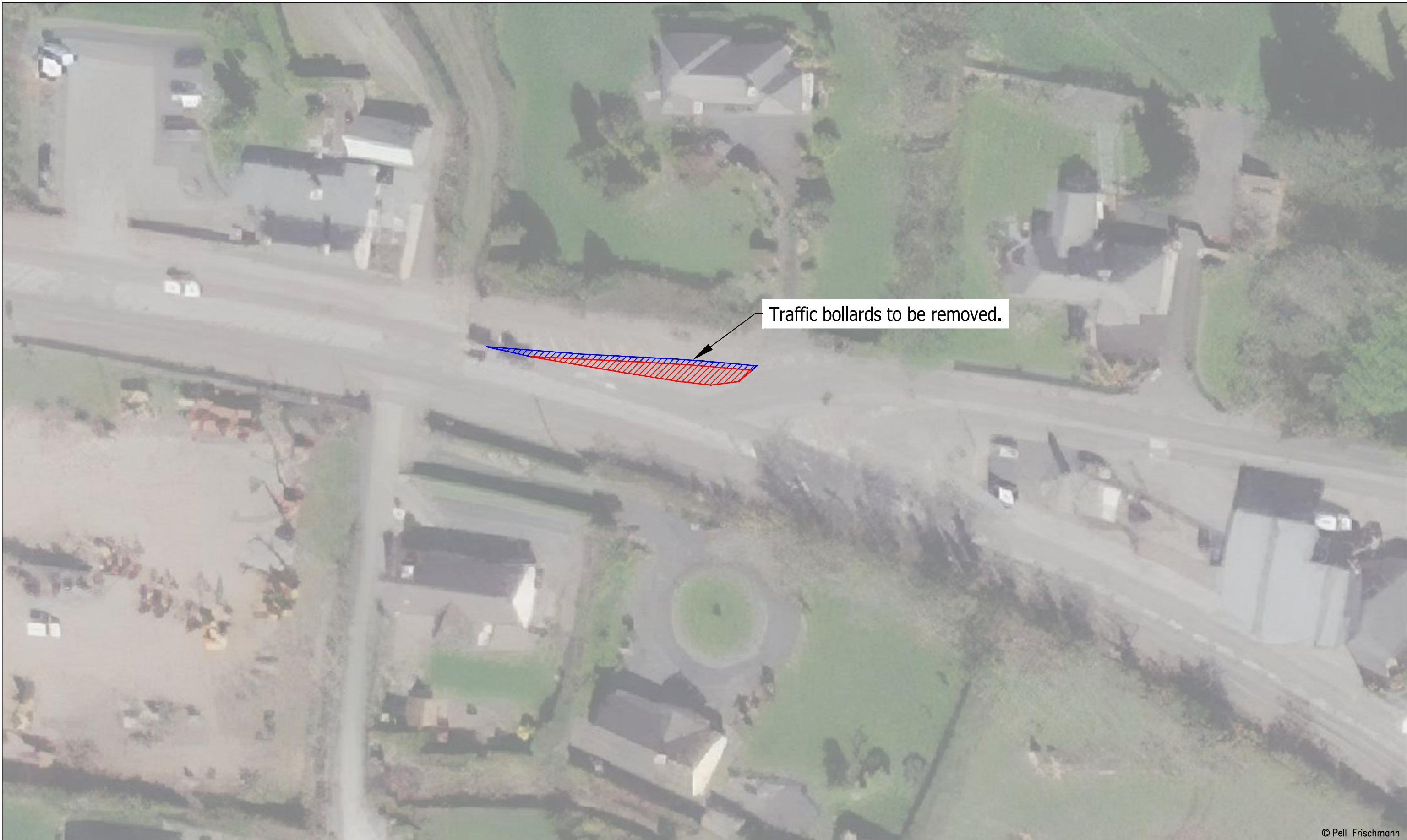
Tower



© Pell Frischmann

|  |               |                                 |  |                   |    |      |            |                |                                       |   |          |
|--|---------------|---------------------------------|--|-------------------|----|------|------------|----------------|---------------------------------------|---|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023 | Scale          | 1:500 @ A3                            |   |          |
|  | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023 | File No        | 05052023 Coumnagappul Tracking v4.dwg |   |          |
| <b>Key</b><br> Wheel SPA<br> Body SPA<br> Load SPA<br> Indicative<br> Over-run<br> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023 | Drawing Status | Draft                                 |   |          |
|  | SPA Location  | N72 / R672 Junction             |  | Point of Interest |    |      | 7          | Drawing No.    | SK06                                  | Notes:  | Revision |
|  |               |                                 |  |                   |    |      |            |                |                                       | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | 1        |





© Pell Frischmann

|   |               |                                 |  |                   |    |          |             |                |            |   |          |
|---|---------------|---------------------------------|--|-------------------|----|----------|-------------|----------------|------------|---|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date     | 05/05/2023  | Scale          | 1:500 @ A3 |   |          |
|   | Client        | Fehily Timoney                  |  | Drawn             | TL | Designed | GB          | 05/05/2023     | File No    | 05052023 Coumnagappul Tracking v4.dwg   |          |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date     | 05/05/2023  | Drawing Status | Draft      |   |          |
|   | SPA Location  | N72 / R672 Junction             |  | Point of Interest | 7  |          | Drawing No. | SK06A          | Notes:     | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | Revision |

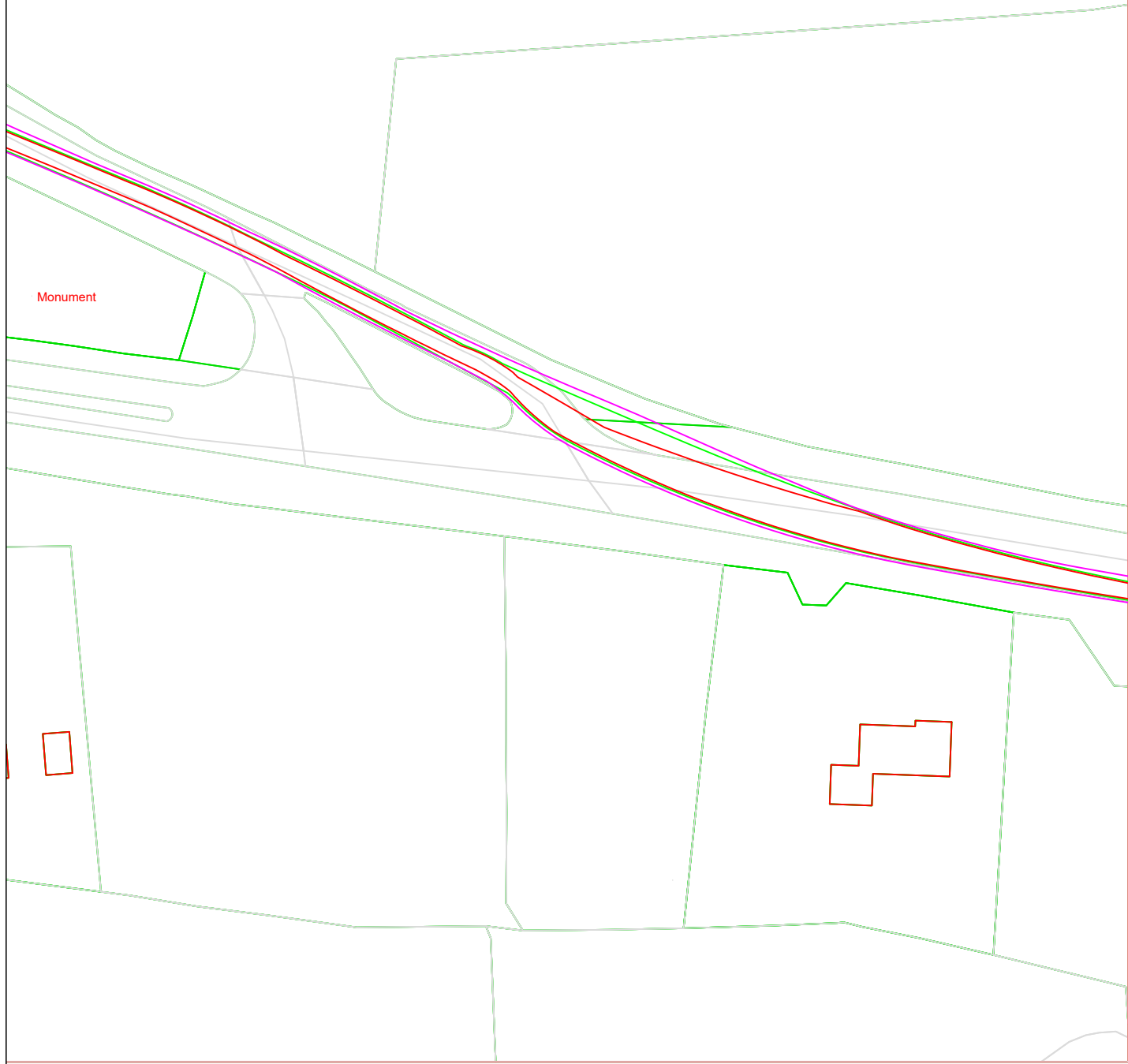


Blade

Ballymacmague South

Tower

Ballymacmague South



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES  
Tel: +44 (0)131 240 1270  
Email: pfeinburgh@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumragappul Wind Farm

|                   |   |            |                |                                       |
|-------------------|---|------------|----------------|---------------------------------------|
| Drawn             | JS  | 05/05/2023 | Scale          | 1:1000 @ A3                           |
| Designed          | TL  | 05/05/2023 | File No        | 05052023 Coumragappul Tracking v4.dwg |
| Checked           | GB  | 05/05/2023 | Drawing Status | Draft                                 |
| Point of Interest | 8   |            | Drawing No.    | SK07                                  |
| Notes:            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            |                | Revision                              |

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

Key



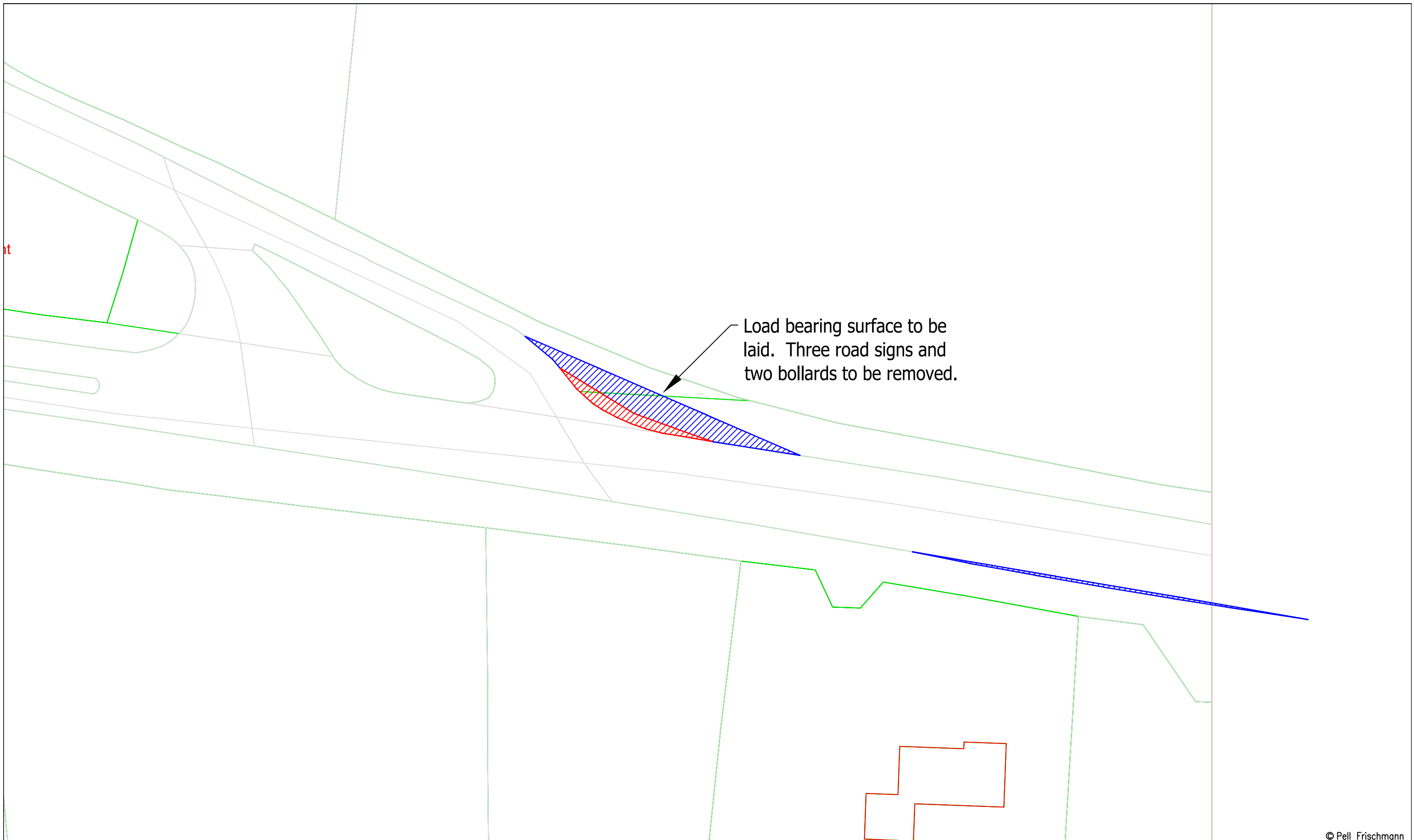
SPA Location

N72 / R672 Junction Master McGrath Monument

1



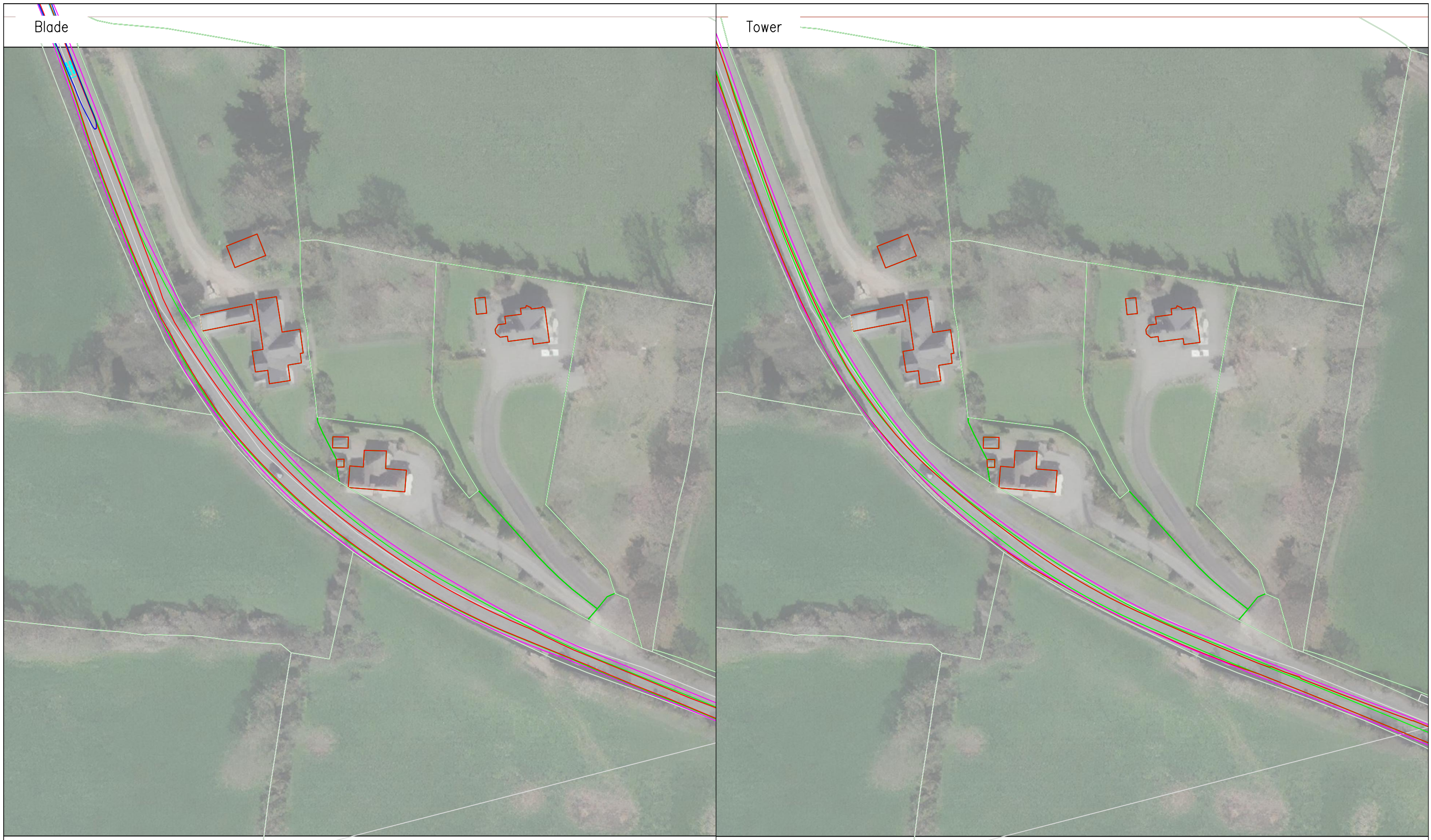




© Pell Frischmann

|  |               |   |  |                   |    |      |             |   |                                       |
|--|---------------|---|--|-------------------|----|------|-------------|---|---------------------------------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm                      |  | Name              | JS | Date | 05/05/2023  | Scale   | Custom @ A3                           |
|  | Client        | Fehily Timoney                              |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower             |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |
|  | SPA Location  | N72 / R672 Junction Master McGrath Monument |  | Point of Interest | 8  |      | Drawing No. | SK07A   | Notes:                                |
|  |               |   |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | 1                                     |





© Pell Frischmann

|  |                   |   |            |  |
|--|-------------------|---|------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project           | Coumnagappul Wind Farm  |            |  |
|  | Client            | Fehily Timoney  |            |  |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title     | Vestas V162 Blade and Mid Tower   |            |  |
|  | SPA Location      | R672 East of Ballylemon Lower   |            |  |
|  |                   | Name  | Date       | Scale  |
|  | Drawn             | JS  | 05/05/2023 | 1:1000 @ A3                                    |
|  | Designed          | TL  | 05/05/2023 | File No. 05052023 Coumnagappul Tracking v4.dwg |
|  | Checked           | GB  | 05/05/2023 | Drawing Status                                 |
|  | Point of Interest | 9   |            | Draft  |
|  | Drawing No.       | SK08  |            | Revision                                       |
|  | Notes:            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            | 1  |





© Pell Frischmann

|  |               |                                 |                   |   |            |                |                                       |            |
|--|---------------|---------------------------------|-------------------|---|------------|----------------|---------------------------------------|------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumragappul Wind Farm          | Name              | JS  | Date       | 05/05/2023     | Scale                                 | 1:500 @ A3 |
|  | Client        | Fehily Timoney                  | Designed          | TL  | 05/05/2023 | File No.       | 05052023 Coumragappul Tracking v4.dwg |            |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower | Checked           | GB  | 05/05/2023 | Drawing Status | Draft                                 |            |
|  | SPA Location  | R672 East of Ballylemon Lower   | Point of Interest | 9   |            | Drawing No.    | SK08A                                 |            |
|  |               |                                 | Notes:            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            | Revision       | 1                                     |            |





Blade



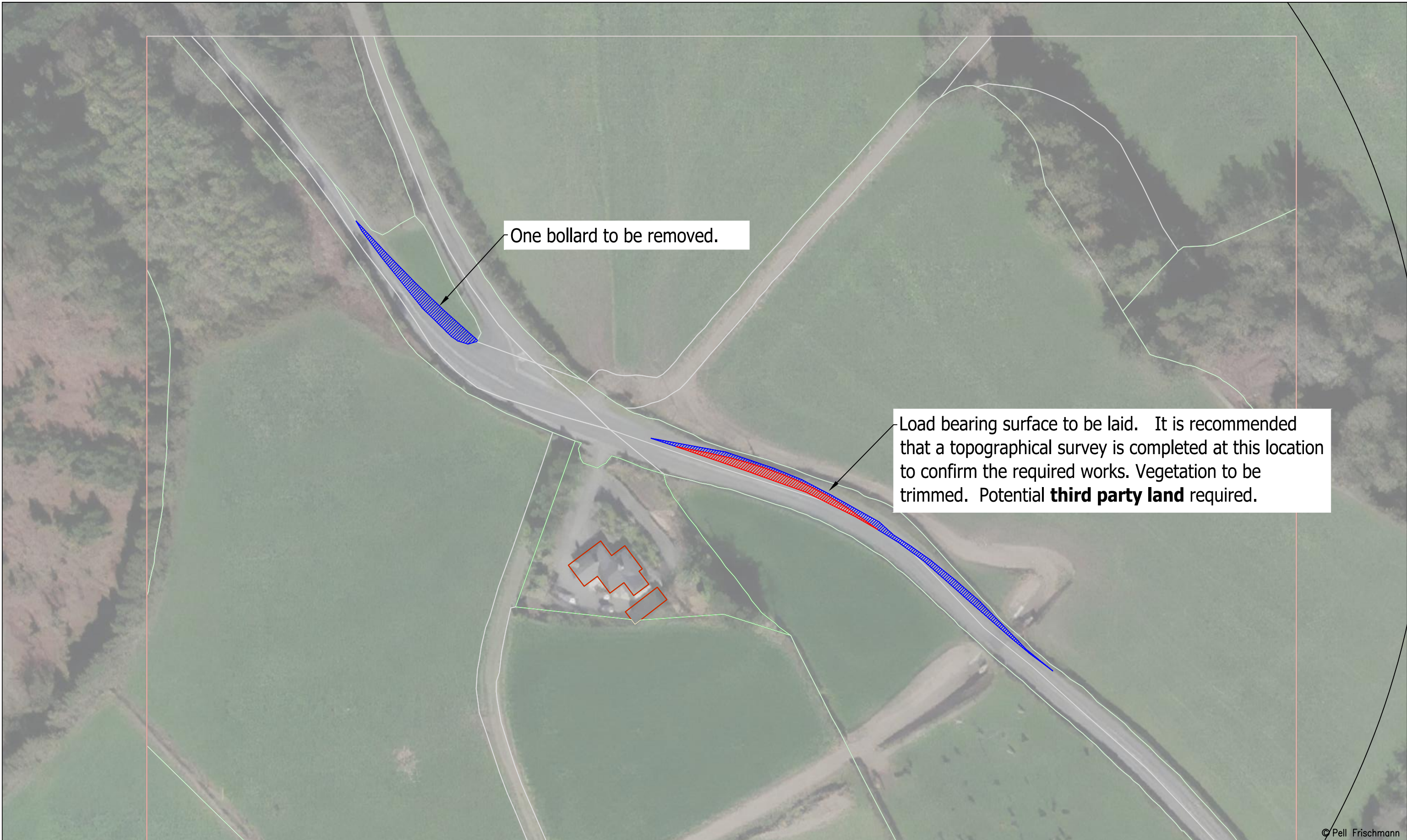
Tower

© Pell Frischmann

|   |               |                                 |  |                   |    |            |                |          |                                       |   |
|---|---------------|---------------------------------|--|-------------------|----|------------|----------------|----------|---------------------------------------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date       | 05/05/2023     | Scale    | 1:1000 @ A3                           |   |
|   | Client        | Fehily Timoney                  |  | Drawn             | TL | Designed   | 05/05/2023     | File No  | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | 05/05/2023 | Drawing Status | Draft    |                                       |   |
|   | SPA Location  | R672 South of Colliganwood      |  | Point of Interest | 10 |            | Drawing No.    | SK09     | Notes:                                | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |
|   |               |                                 |  |                   |    |            |                | Revision | 1                                     |   |







© Pell Frischmann

|  |               |                                 |  |                   |    |          |             |                |   |                                       |   |
|--|---------------|---------------------------------|--|-------------------|----|----------|-------------|----------------|---|---------------------------------------|---|
| <b>Pell Frischmann</b><br>93 GEORGE STREET, EDINBURGH, EH2 3ES<br>Tel: +44 (0)131 240 1270<br>Email: pfeinburgh@pellfrischmann.com<br>www.pellfrischmann.com | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date     | 05/05/2023  | Scale          | 1:1000 @ A3   |                                       |   |
|  | Client        | Fehily Timoney                  |  | Drawn             | TL | Designed | GB          | 05/05/2023     | File No.  | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date     | 05/05/2023  | Drawing Status | Draft   |                                       |   |
|  | SPA Location  | R672 South of Colliganwood      |  | Point of Interest | 10 |          | Drawing No. | SK09A          | Notes:  | Revision                              |   |
|  |               |                                 |  |                   |    |          |             |                | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       | 1 |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES

Tel: +44 (0)131 240 1270

Email: pfeinburgh@pellfrischmann.com

www.pellfrischmann.com

Client **Fehily Timoney**

|     |                                  |                                    |                                      |                                   |          |           |
|-----|----------------------------------|------------------------------------|--------------------------------------|-----------------------------------|----------|-----------|
| Key | <span style="color:red">—</span> | <span style="color:green">—</span> | <span style="color:magenta">—</span> | <span style="color:cyan">—</span> |          |           |
|     | Wheel SPA                        | Body SPA                           | Load SPA                             | Indicative                        | Over-run | Over-sail |

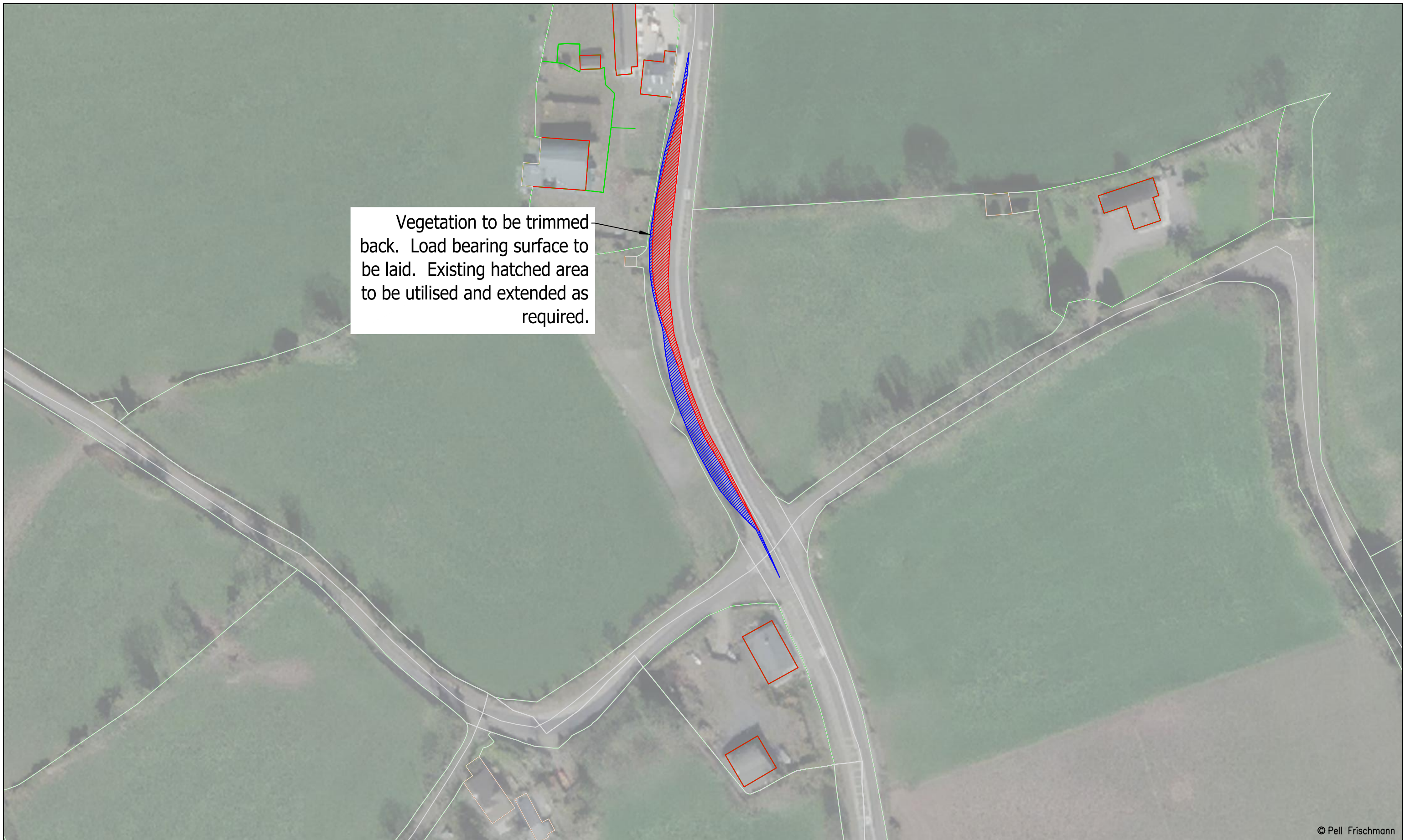
Project  
**Coumragappul Wind Farm**

Drawing Title  
**Vestas V162 Blade and Mid Tower**

SPA Location  
**R672 Colligan**

|                   |   |            |          |                                       |  |
|-------------------|---|------------|----------|---------------------------------------|--|
|                   | Name  | Date       | Scale    | 1:1000 @ A3                           |  |
| Drawn             | JS  | 05/05/2023 | File No  | 05052023 Coumragappul Tracking v4.dwg |  |
| Designed          | TL  | 05/05/2023 |          | Drawing Status                        |  |
| Checked           | GB  | 05/05/2023 |          | Draft                                 |  |
| Point of Interest |   | 12         | Revision |                                       |  |
| Drawing No.       | Notes:  |            |          | Revision                              |  |
| SK10              | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            |          | 1                                     |  |





© Pell Frischmann

|  |               |                                 |  |                   |        |      |   |                |                                       |   |
|--|---------------|---------------------------------|--|-------------------|--------|------|---|----------------|---------------------------------------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS     | Date | 05/05/2023  | Scale          | 1:1000 @ A3                           |   |
|  | Client        | Fehily Timoney                  |  | Designed          | TL     | Date | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB     | Date | 05/05/2023  | Drawing Status | Draft                                 |   |
|  | SPA Location  | R672 Colligan                   |  | Point of Interest |        |      | 12  | Drawing No.    | SK10A                                 |   |
|  |               |                                 |  |                   | Notes: |      | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                | Revision                              | 1 |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES  
Tel: +44 (0)131 240 1270  
Email: pfeinburgh@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumragappul Wind Farm

|   |       |            |         |                                       |          |
|---|-------|------------|---------|---------------------------------------|----------|
|   | Name  | Date       | Scale   | 1:1000 @ A3                           |          |
| Drawn   | JS    | 05/05/2023 | File No | 05052023 Coumragappul Tracking v4.dwg |          |
| Designed  | TL    | 05/05/2023 |         |                                       |          |
| Checked   | GB    | 05/05/2023 |         |                                       |          |
| Point of Interest   |       |            | 12      | Drawing Status                        | Draft    |
| Drawing No.   | SK10B |            |         | Notes:                                | Revision |
| 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |       |            |         |                                       | 1        |

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

Key

- Wheel SPA
- Body SPA
- Load SPA
- Indicative
- Over-run
- Over-sail

SPA Location

R672 Colligan







Vegetation to be trimmed cleared. Load bearing surface to be laid. Verge to be reprofiled. Wall to be removed. **Third party land** potentially required to provided mitigation.

Hedge and fence to be removed. **Third party land** required.

© Pell Frischmann

|   |               |                                 |  |                   |        |      |   |                |                                       |   |
|---|---------------|---------------------------------|--|-------------------|--------|------|---|----------------|---------------------------------------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS     | Date | 05/05/2023  | Scale          | 1:1000 @ A3                           |   |
|   | Client        | Fehily Timoney                  |  | Designed          | TL     | Date | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB     | Date | 05/05/2023  | Drawing Status | Draft                                 |   |
|   | SPA Location  | R672 Colligan                   |  | Point of Interest | 12     |      | Drawing No.   | SK10C          |                                       |   |
|   |               |                                 |  |                   | Notes: |      | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                | Revision                              | 1 |



Blade

Tower



© Pell Frischmann

|   |               |                                 |  |  |                   |   |            |            |                |                                       |          |
|---|---------------|---------------------------------|--|--|-------------------|---|------------|------------|----------------|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  |  | Name              | JS  | Date       | 05/05/2023 | Scale          | 1:1000 @ A3                           |          |
|   | Client        | Fehily Timoney                  |  |  | Drawn             | TL  | 05/05/2023 | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:purple">—</span> Load SPA <span style="color:cyan">—</span> Indicative<br><span style="border:1px solid red; padding:2px;"> </span> Over-run <span style="border:1px solid blue; padding:2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  |  | Checked           | GB  | 05/05/2023 | 05/05/2023 | Drawing Status | Draft                                 |          |
|   | SPA Location  | R672 West of Colligan           |  |  | Point of Interest | 13  |            |            | Drawing No.    | Notes:                                | Revision |
|   |               |                                 |  |  | SK11              | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            |            |                | 1                                     |          |



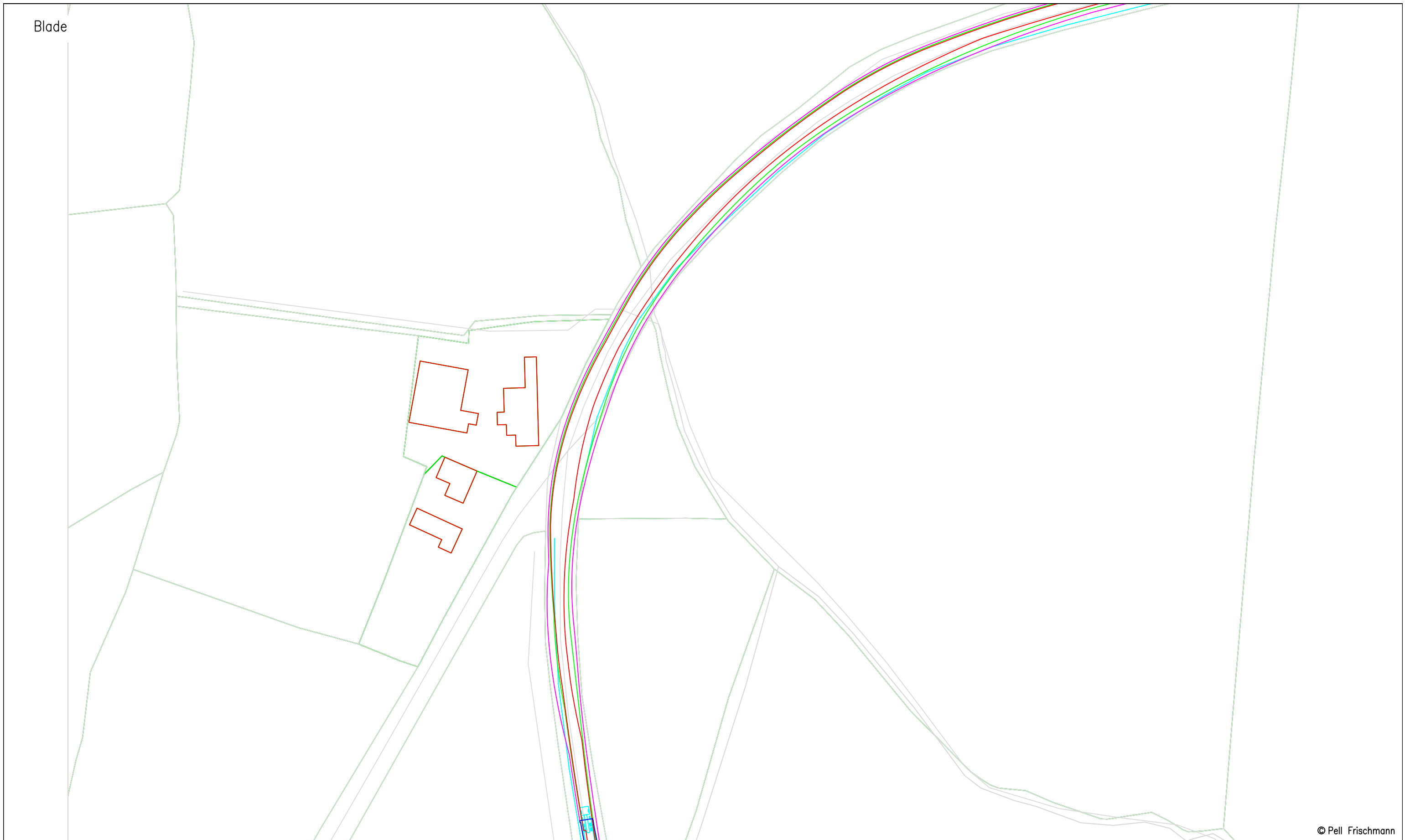


© Pell Frischmann

|   |               |                                 |  |                   |   |      |            |                |                                       |   |
|---|---------------|---------------------------------|--|-------------------|---|------|------------|----------------|---------------------------------------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS  | Date | 05/05/2023 | Scale          | 1:1000 @ A3                           |   |
|   | Client        | Fehily Timoney                  |  | Designed          | TL  | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB  | Date | 05/05/2023 | Drawing Status | Draft                                 |   |
|   | SPA Location  | R672 West of Colligan           |  | Point of Interest |   |      | 13         | Drawing No.    | SK11A                                 |   |
|   |               |                                 |  |                   | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |      |            |                | Revision                              | 1 |



Blade



© Pell Frischmann

|   |               |                                 |  |                   |    |            |                |   |        |          |
|---|---------------|---------------------------------|--|-------------------|----|------------|----------------|---|--------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Drawn             | JS | 05/05/2023 | Scale          | 1:1000 @ A3   |        |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg   |        |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | 05/05/2023 | Drawing Status | Draft   |        |          |
|   | SPA Location  | R672 North of Garrycline        |  | Point of Interest | 14 |            | Drawing No.    | SK12  | Notes: | Revision |
|   |               |                                 |  |                   |    |            |                | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |        | 1        |





Tower



© Pell Frischmann

|   |               |                                 |  |                   |    |            |   |                                       |  |
|---|---------------|---------------------------------|--|-------------------|----|------------|---|---------------------------------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Drawn             | JS | 05/05/2023 | Scale   | 1:1000 @ A3                           |  |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | 05/05/2023 | File No.  | 05052023 Coumnagappul Tracking v4.dwg |  |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | 05/05/2023 | Drawing Status  | Draft                                 |  |
|   | SPA Location  | R672 North of Garrycline        |  | Point of Interest | 14 |            | Drawing No.   | SK12A                                 |  |
|   |               |                                 |  |                   |    |            | Notes:  | Revision                              |  |
|   |               |                                 |  |                   |    |            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | 1                                     |  |





© Pell Frischmann

|   |               |                                 |  |                   |        |      |   |                |                                       |          |   |
|---|---------------|---------------------------------|--|-------------------|--------|------|---|----------------|---------------------------------------|----------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |  | Name              | JS     | Date | 05/05/2023  | Scale          | 1:1000 @ A3                           |          |   |
|   | Client        | Fehily Timoney                  |  | Designed          | TL     | Date | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |          |   |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB     | Date | 05/05/2023  | Drawing Status | Draft                                 |          |   |
|   | SPA Location  | R672 North of Garrycline        |  | Point of Interest | 14     |      | Drawing No.   | SK12B          |                                       | Revision | 1 |
|   |               |                                 |  |                   | Notes: |      | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                |                                       |          |   |



Blade



© Pell Frischmann

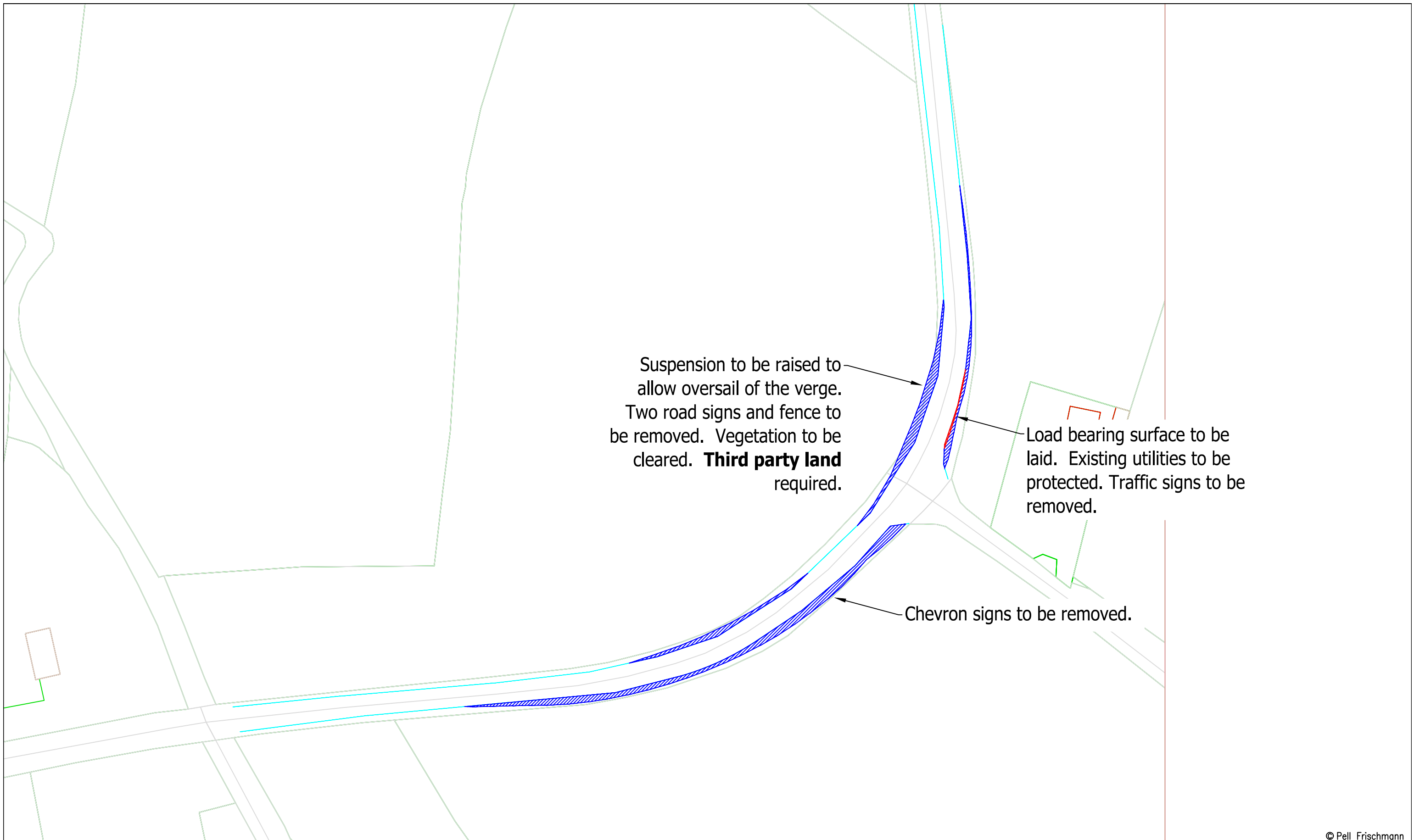
|  |               |   |    |        |  |             |            |
|--|---------------|---|----|--------|--|-------------|------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm  |    |        | Scale  | 1:1000 @ A3 |            |
|  | Client        | Fehily Timoney  |    |        | Drawn  | JS          | 05/05/2023 |
| <b>Key</b><br><br>Wheel SPA    Body SPA    Load SPA    Indicative    Over-run    Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower   |    |        | Designed                                       | TL          | 05/05/2023 |
|  | SPA Location  | R672 North of Garrycline  |    |        | Checked  | GB          | 05/05/2023 |
|  |               | Point of Interest   | 15 |        | File No. 05052023 Coumnagappul Tracking v4.dwg |             |            |
|  | Drawing No.   | SK13  |    | Notes: |  |             | Revision   |
|  |               | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |    |        |  |             | 1          |
|  |               | Drawing Status  |    |        |  |             | Draft      |











© Pell Frischmann

|   |               |                                 |  |                   |        |   |             |                |                                       |          |
|---|---------------|---------------------------------|--|-------------------|--------|---|-------------|----------------|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |  | Name              | JS     | Date  | 05/05/2023  | Scale          | 1:1000 @ A3                           |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL     | Date  | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border:1px solid red; padding:2px;"> </span> Over-run <span style="border:1px solid blue; padding:2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB     | Date  | 05/05/2023  | Drawing Status | Draft                                 |          |
|   | SPA Location  | R672 West of Colligan           |  | Point of Interest | 15     |   | Drawing No. | SK13B          |                                       |          |
|   |               |                                 |  |                   | Notes: | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |             |                |                                       | Revision |



Blade



© Pell Frischmann

|   |               |                                 |  |                   |             |      |            |                |   |  |          |
|---|---------------|---------------------------------|--|-------------------|-------------|------|------------|----------------|---|--|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS          | Date | 05/05/2023 | Scale          | 1:1000 @ A3   |  |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL          | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg   |  |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB          | Date | 05/05/2023 | Drawing Status | Draft   |  |          |
|   | SPA Location  | R672 Clooncogaile Cross Roads   |  | Point of Interest |             |      | 26         |                |   |  |          |
|   |               |                                 |  |                   | Drawing No. | SK20 |            | Notes:         | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |  | Revision |



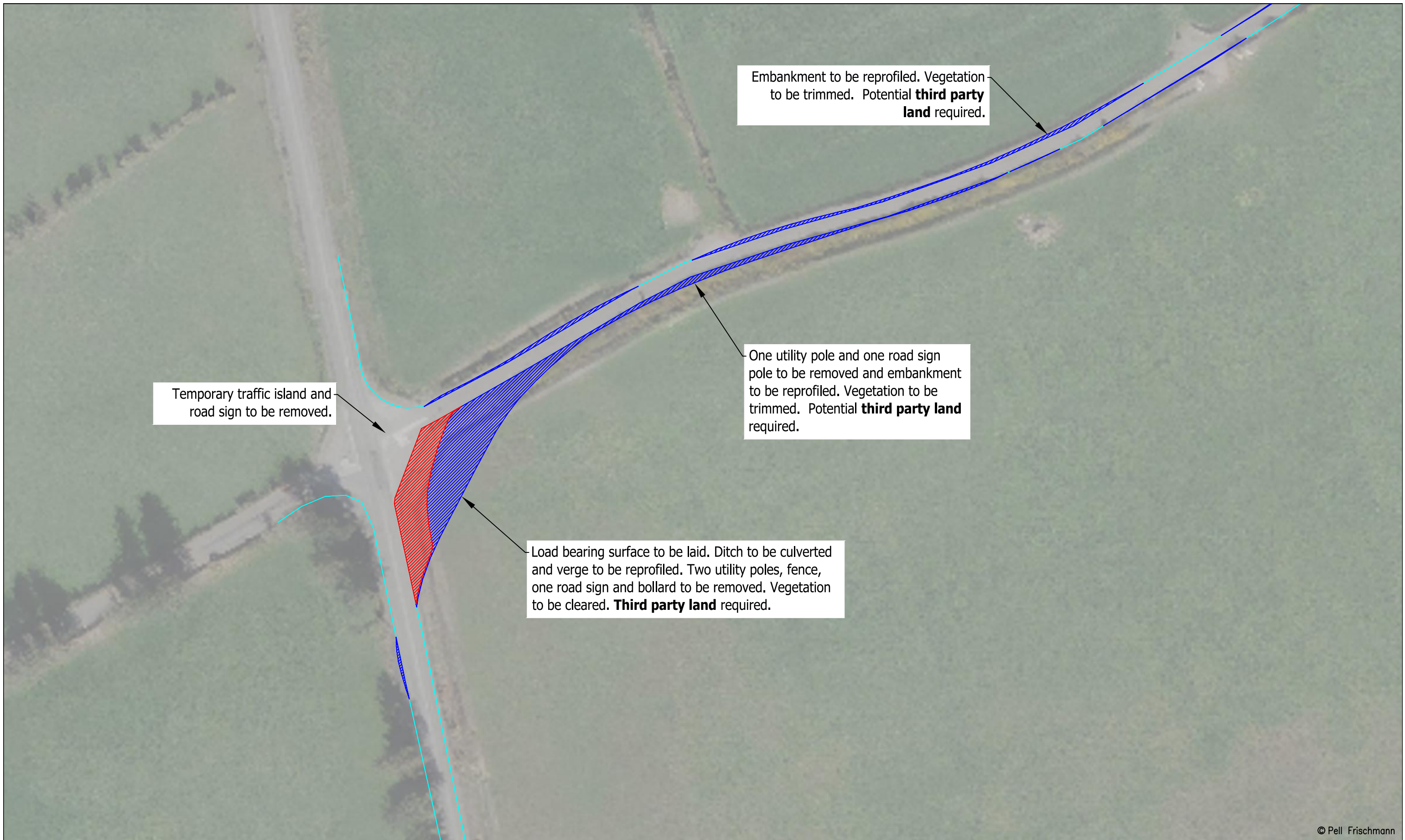
Tower



© Pell Frischmann

|  |               |                                 |  |                   |    |      |             |   |                                       |          |
|--|---------------|---------------------------------|--|-------------------|----|------|-------------|---|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale   | 1:1000 @ A3                           |          |
|  | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative<br><span style="border: 1px solid red; width: 10px; height: 10px; display: inline-block; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; width: 10px; height: 10px; display: inline-block; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |          |
|  | SPA Location  | R672 Clooncogaile Cross Roads   |  | Point of Interest | 26 |      | Drawing No. | SK20A   | Notes:                                | Revision |
|  |               |                                 |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | 1                                     |          |





© Pell Frischmann

|   |               |                                 |  |                   |    |      |             |   |                                       |          |
|---|---------------|---------------------------------|--|-------------------|----|------|-------------|---|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale   | 1:1000 @ A3                           |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |          |
|   | SPA Location  | R672 Clooncogaile Cross Roads   |  | Point of Interest | 26 |      | Drawing No. | SK20B   | Notes:                                | Revision |
|   |               |                                 |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       | 1        |





Blade  
Option 2



© Pell Frischmann

|   |               |                                 |  |                   |    |      |             |   |                                       |          |
|---|---------------|---------------------------------|--|-------------------|----|------|-------------|---|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale   | 1:500 @ A3                            |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:purple">—</span> Load SPA <span style="color:cyan">—</span> Indicative<br><span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |          |
|   | SPA Location  | R672 Clooncogaile Cross Roads   |  | Point of Interest | 26 |      | Drawing No. | SK20C   | Notes:                                | Revision |
|   |               |                                 |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       | 1        |



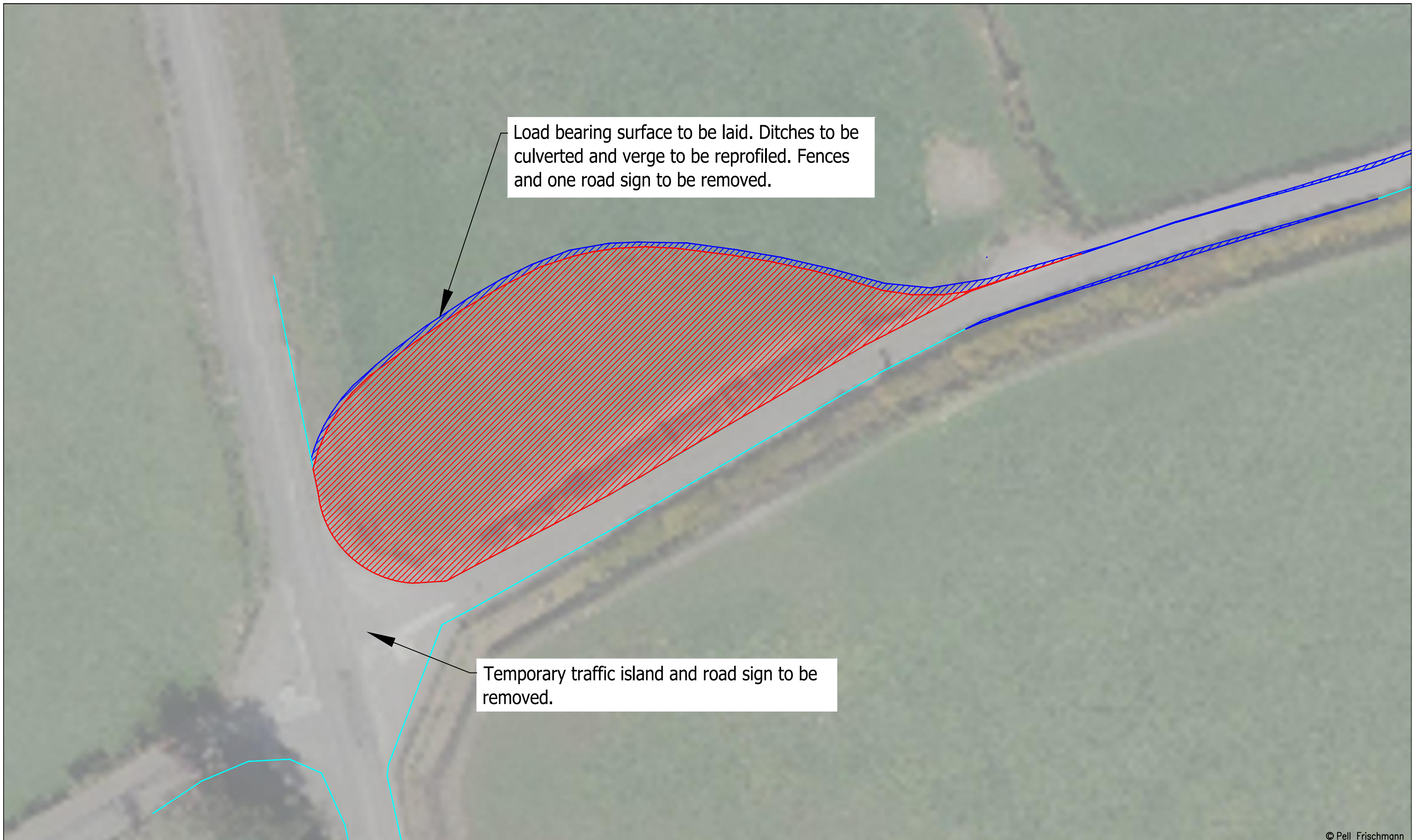
Tower  
Option 2



© Pell Frischmann

|   |              |                               |               |                                 |            |                   |   |                |                                       |
|---|--------------|-------------------------------|---------------|---------------------------------|------------|-------------------|---|----------------|---------------------------------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project      | Coumnagappul Wind Farm        | Name          | JS                              | Date       | 05/05/2023        | Scale   | 1:500 @ A3     |                                       |
|   | Client       | Fehily Timoney                | Drawing Title | Vestas V162 Blade and Mid Tower | Designed   | TL                | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:purple">—</span> Load SPA <span style="color:cyan">—</span> Indicative<br><span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | SPA Location | R672 Clooncogaile Cross Roads | Checked       | GB                              | 05/05/2023 | Point of Interest | 26  | Drawing Status | Draft                                 |
|   |              |                               |               | Drawing No.                     | SK20D      | Notes:            | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                | Revision                              |





Load bearing surface to be laid. Ditches to be culverted and verge to be reprofiled. Fences and one road sign to be removed.

Temporary traffic island and road sign to be removed.

© Pell Frischmann

|   |  |                        |                               |                   |    |   |                |                                       |             |
|---|--|------------------------|-------------------------------|-------------------|----|---|----------------|---------------------------------------|-------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project  | Coumnagappul Wind Farm |                               | Name              | JS | Date  | 05/05/2023     | Scale                                 | Custom @ A3 |
|   | Client   | Drawing Title          | SPA Location                  | Drawn             | TL | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |             |
|   |  |                        |                               | Checked           | GB | 05/05/2023  | Drawing Status | Draft                                 |             |
|   |  |                        |                               | Point of Interest | 26 |   | Revision       | 1                                     |             |
| Client  | Fehily Timoney   |                        | Drawing No.                   | SK20E             |    | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                |                                       |             |
| Key   | Wheel SPA             Body SPA             Indicative             Over-run             Over-sail |                        | R672 Clooncogaile Cross Roads |                   |    |   |                |                                       |             |



Blade



© Pell Frischmann

|   |               |  |                   |      |            |   |       |             |
|---|---------------|--|-------------------|------|------------|---|-------|-------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm                             | Name              | JS   | Date       | 05/05/2023  | Scale | 1:1000 @ A3 |
|   | Client        | Fehily Timoney                                     | Designated        | TL   | 05/05/2023 | Checked   | GB    | 05/05/2023  |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower                    | Point of Interest | 27   |            | Drawing Status  | Draft |             |
|   | SPA Location  | Unclassified Road east of Clooncogaile Cross Roads | Drawing No.       | SK21 | Notes:     | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |       | Revision    |

Tower



© Pell Frischmann

|   |               |  |  |   |    |      |            |                |                                       |  |
|---|---------------|--|--|---|----|------|------------|----------------|---------------------------------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm                             |  | Name  | JS | Date | 05/05/2023 | Scale          | 1:1000 @ A3                           |  |
|   | Client        | Fehily Timoney                                     |  | Designed  | TL | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |  |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:blue">—</span> Load SPA <span style="color:magenta">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; transform: rotate(45deg);"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower                    |  | Checked   | GB | Date | 05/05/2023 | Drawing Status | Draft                                 |  |
|   | SPA Location  | Unclassified Road east of Clooncogaile Cross Roads |  | Point of Interest   |    |      | 27         | Drawing No.    | SK21A                                 |  |
|   |               |  |  | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |    |      |            | Revision       | 1                                     |  |







© Pell Frischmann

|  |               |  |  |                   |    |          |             |                |             |   |          |
|--|---------------|--|--|-------------------|----|----------|-------------|----------------|-------------|---|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm                             |  | Name              | JS | Date     | 05/05/2023  | Scale          | 1:1000 @ A3 |   |          |
|  | Client        | Fehily Timoney                                     |  | Drawn             | TL | Designed | GB          | 05/05/2023     | File No.    | 05052023 Coumnagappul Tracking v4.dwg   |          |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail   | Drawing Title | Vestas V162 Blade and Mid Tower                    |  | Checked           | GB | Date     | 05/05/2023  | Drawing Status | Draft       |   |          |
|  | SPA Location  | Unclassified Road east of Clooncogaile Cross Roads |  | Point of Interest | 27 |          | Drawing No. | SK21B          | Notes:      | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. | Revision |



Blade

Tower



© Pell Frischmann

|  |               |                                 |  |                   |    |      |             |   |                                       |          |
|--|---------------|---------------------------------|--|-------------------|----|------|-------------|---|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale   | 1:1000 @ A3                           |          |
|  | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:purple">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |          |
|  | SPA Location  | Ford's Cross Roads              |  | Point of Interest | 28 |      | Drawing No. | SK22  | Notes:                                | Revision |
|  |               |                                 |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       | 1        |



Blade







Road to be widened to a minimum of 4.5m with a 5.5m clearance width. **Third party land** may be required to provide this.

Load bearing surface to be laid. One utility pole, fence, and metal gate to be removed. Trees and vegetation to be cleared. Verge to be removed and ditch to be culverted. **Third party land** required.

Blade tip to over-sail vegetation and fence. Trees to be cleared. **Third party land** required.

One utility pole to be removed. Proximity to stone wall to be confirmed on topographical base survey. Trees and vegetation to be trimmed. **Third party land** may be required.

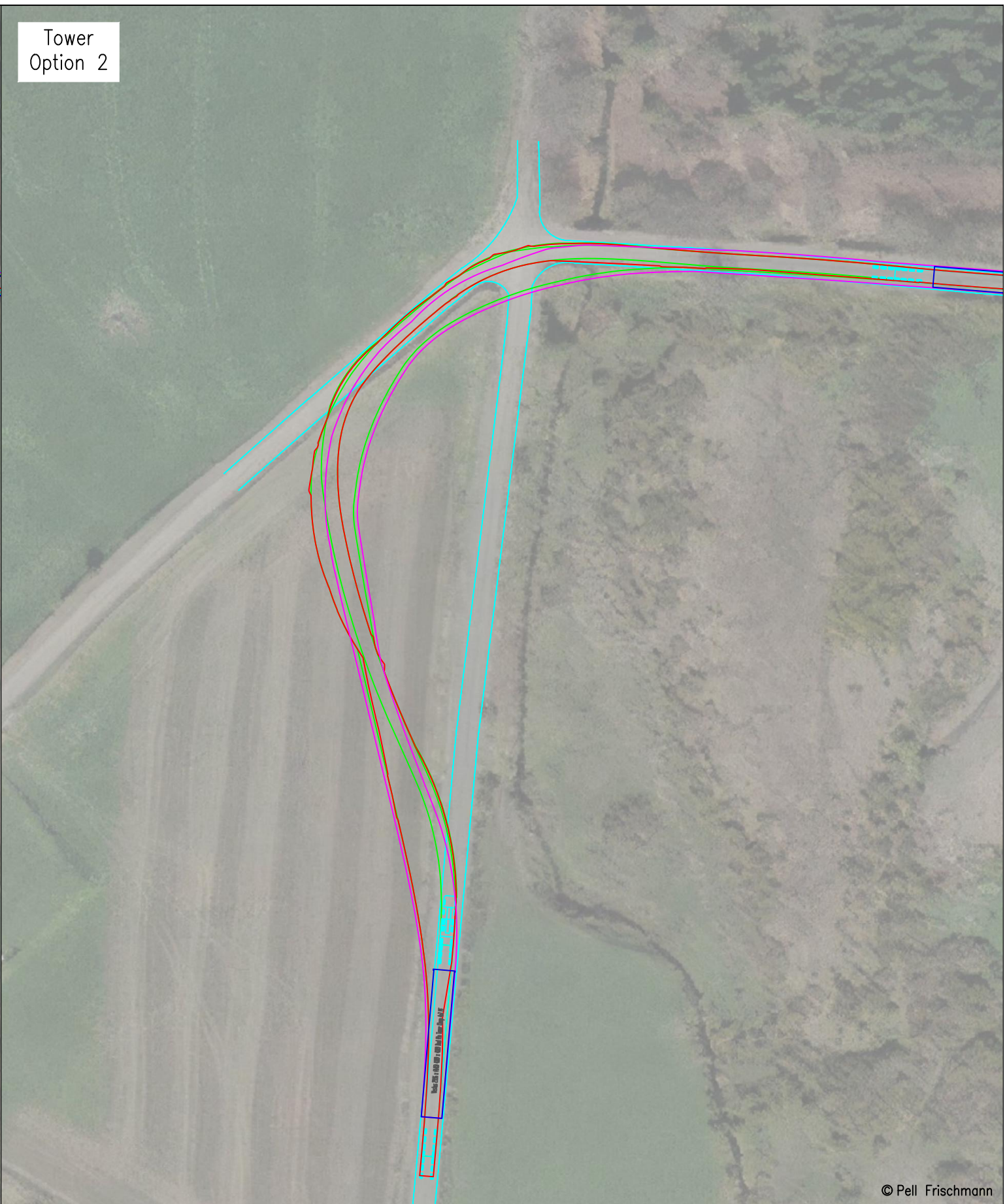
© Pell Frischmann

|  |                   |                        |               |                                 |            |   |            |             |                                       |
|--|-------------------|------------------------|---------------|---------------------------------|------------|---|------------|-------------|---------------------------------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project           | Coumnagappul Wind Farm | Name          | JS                              | Date       | 05/05/2023  | Scale      | 1:1000 @ A3 |                                       |
|  | Client            | Fehily Timoney         | Drawing Title | Vestas V162 Blade and Mid Tower | Designed   | TL  | 05/05/2023 | File No     | 05052023 Coumnagappul Tracking v4.dwg |
| <b>Key</b><br> Wheel SPA<br> Body SPA<br> Load SPA<br> Indicative<br> Over-run<br> Over-sail | SPA Location      | Ford's Cross Roads     | Checked       | GB                              | 05/05/2023 | Drawing Status  | Draft      | Revision    | 1                                     |
|  | Point of Interest | 28                     | Drawing No.   | SK22A                           | Notes:     | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            |             |                                       |



Blade  
Option 2

Tower  
Option 2

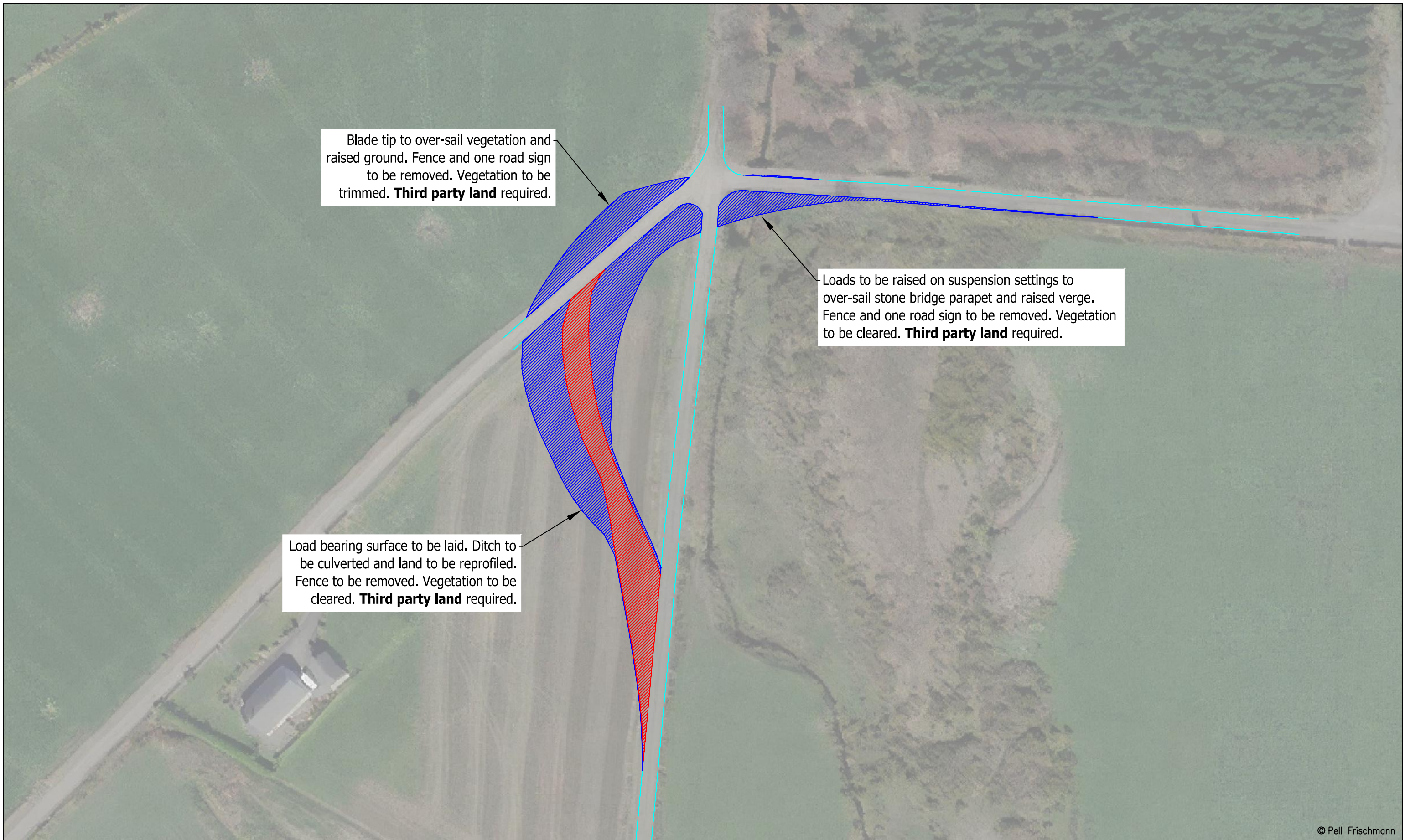


© Pell Frischmann

|   |               |                                 |      |  |                |   |            |
|---|---------------|---------------------------------|------|--|----------------|---|------------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |      |  | Scale          | 1:1000 @ A3   |            |
|   | Client        | Fehily Timoney                  |      |  | Drawn          | JS  | 05/05/2023 |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; display: inline-block; width: 10px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, red 2px, red 4px); border: 1px solid red;"></span> Over-run <span style="border: 1px solid blue; display: inline-block; width: 10px; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, blue 2px, blue 4px); border: 1px solid blue;"></span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |      |  | Designed       | TL  | 05/05/2023 |
|   | SPA Location  | Bryan's Cross Roads             |      |  | Checked        | GB  | 05/05/2023 |
|   |               | Point of Interest               | 17   |  | Drawing Status |   | Draft      |
|   |               | Drawing No.                     | SK23 |  | Notes:         | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            |
|   |               |                                 |      |  | Revision       | 1   |            |







© Pell Frischmann

|   |               |                                 |  |                   |        |      |   |                |                                       |   |
|---|---------------|---------------------------------|--|-------------------|--------|------|---|----------------|---------------------------------------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfeinburgh@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>  | Project       | Coumnagappul Wind Farm          |  | Name              | JS     | Date | 05/05/2023  | Scale          | 1:1000 @ A3                           |   |
|   | Client        | Fehily Timoney                  |  | Designed          | TL     | Date | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg |   |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB     | Date | 05/05/2023  | Drawing Status | Draft                                 |   |
|   | SPA Location  | Bryan's Cross Roads             |  | Point of Interest |        |      | 17  | Drawing No.    | SK23A                                 |   |
|   |               |                                 |  |                   | Notes: |      | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                | Revision                              | 1 |



Blade  
Option 3

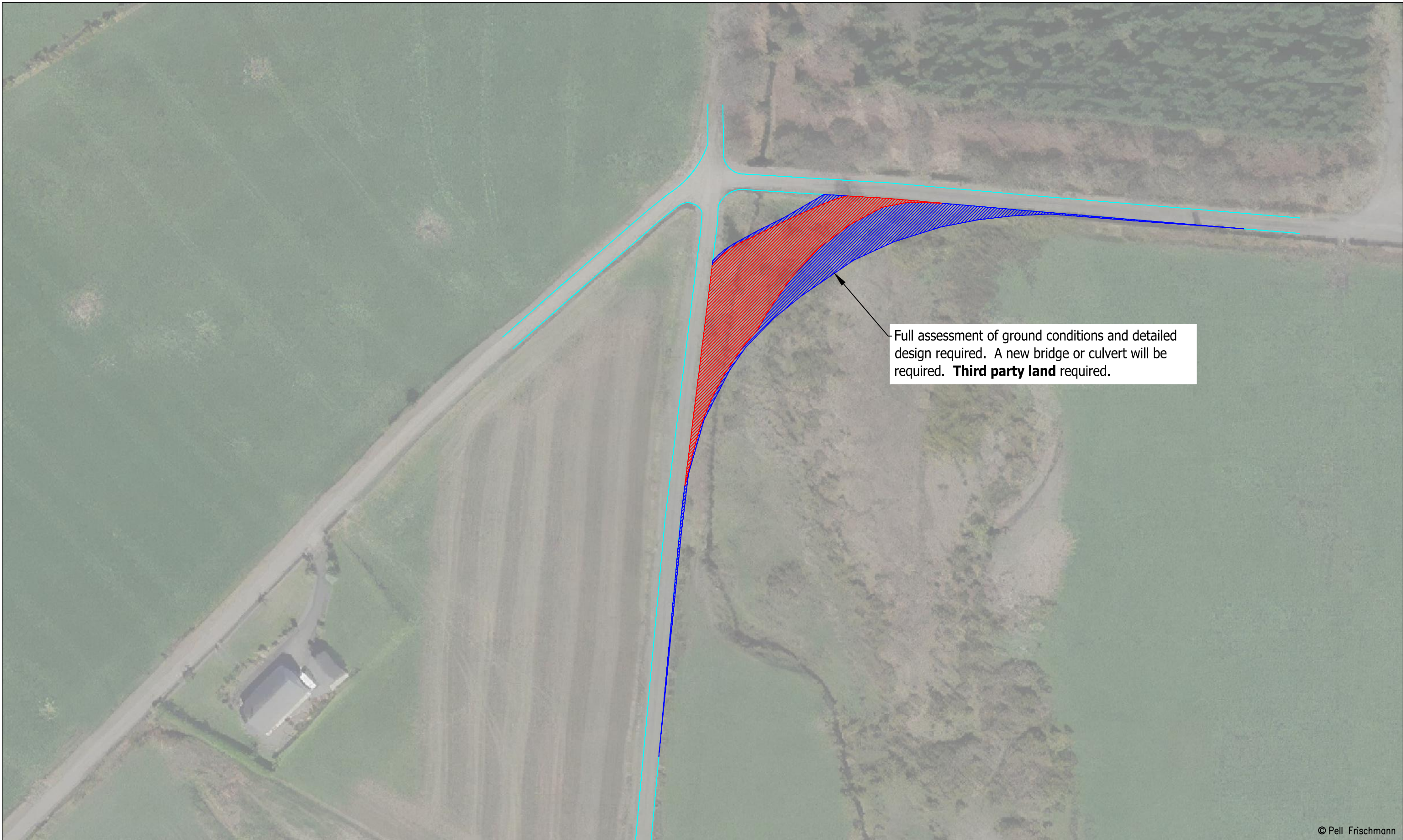
Tower  
Option 3



© Pell Frischmann

|   |                   |   |            |  |
|---|-------------------|---|------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project           | Coumnagappul Wind Farm  |            |  |
|   | Client            | Fehily Timoney  |            |  |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title     | Vestas V162 Blade and Mid Tower   |            |  |
|   | SPA Location      | Bryan's Cross Roads   |            |  |
|   |                   | Name  | Date       | Scale  |
|   | Drawn             | JS  | 05/05/2023 | 1:1000 @ A3                                    |
|   | Designed          | TL  | 05/05/2023 | File No. 05052023 Coumnagappul Tracking v4.dwg |
|   | Checked           | GB  | 05/05/2023 |  |
|   | Point of Interest | 17  |            | Drawing Status                                 |
|   | Drawing No.       | SK24  |            | Draft  |
|   |                   | Notes:  |            | Revision                                       |
|   |                   | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |            | 1  |





© Pell Frischmann

|   |               |                                 |  |   |    |      |            |                |                                       |  |
|---|---------------|---------------------------------|--|---|----|------|------------|----------------|---------------------------------------|--|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name  | JS | Date | 05/05/2023 | Scale          | 1:1000 @ A3                           |  |
|   | Client        | Fehily Timoney                  |  | Designed  | TL | Date | 05/05/2023 | File No.       | 05052023 Coumnagappul Tracking v4.dwg |  |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="color:red">▨</span> Over-run <span style="color:blue">▨</span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked   | GB | Date | 05/05/2023 | Drawing Status | Draft                                 |  |
|   | SPA Location  | Bryan's Cross Roads             |  | Point of Interest   |    |      | 17         | Drawing No.    | SK24A                                 |  |
|   |               |                                 |  | Notes:<br>1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |    |      |            | Revision       | 1                                     |  |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES

Tel: +44 (0)131 240 1270

Email: pfeinburgh@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumnagappul Wind Farm

Name

JS

Date

05/05/2023

Scale

1:1000 @ A3

Drawn

TL

05/05/2023

File No

05052023 Coumnagappul Tracking v4.dwg

Checked

GB

05/05/2023

Drawing Status

Draft

Point of Interest

18

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.

Revision

1

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

SPA Location

Sweep Cross Roads

Key



Wheel SPA

Body SPA

Load SPA

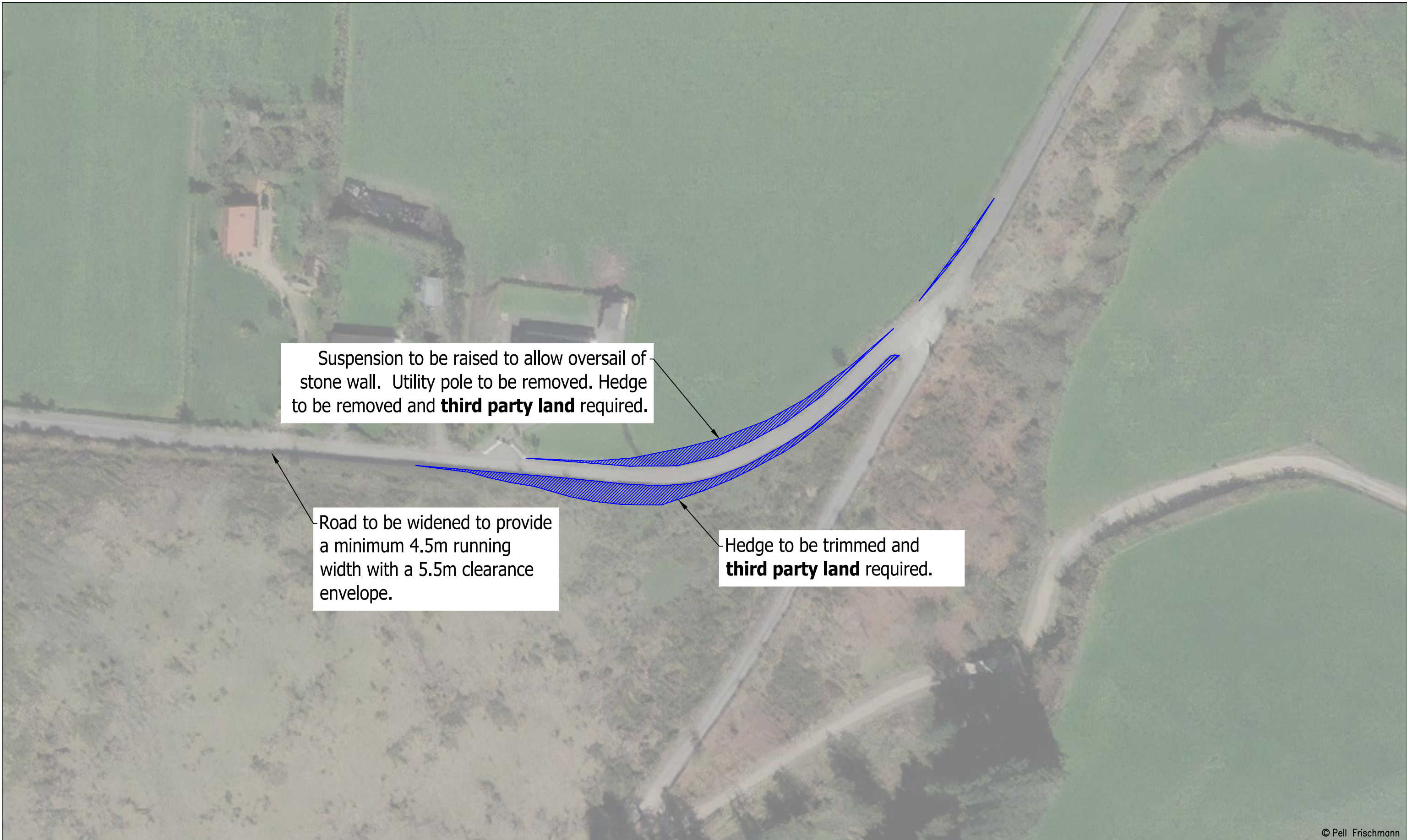
Indicative

Over-run

Over-sail







© Pell Frischmann

|   |               |                                 |  |                   |    |      |             |   |                                       |          |
|---|---------------|---------------------------------|--|-------------------|----|------|-------------|---|---------------------------------------|----------|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small>   | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale   | 1:1000 @ A3                           |          |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.  | 05052023 Coumnagappul Tracking v4.dwg |          |
| <b>Key</b><br><span style="color:red">—</span> Wheel SPA <span style="color:green">—</span> Body SPA <span style="color:magenta">—</span> Load SPA <span style="color:cyan">—</span> Indicative <span style="border: 1px solid red; padding: 2px;"> </span> Over-run <span style="border: 1px solid blue; padding: 2px;"> </span> Over-sail | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status  | Draft                                 |          |
|   | SPA Location  | Sweep Cross Roads               |  | Point of Interest | 18 |      | Drawing No. | SK16A   | Notes:                                | Revision |
|   |               |                                 |  |                   |    |      |             | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |                                       | 1        |



Blade

Tower



© Pell Frischmann

**Pell Frischmann**

93 GEORGE STREET, EDINBURGH, EH2 3ES

Tel: +44 (0)131 240 1270  
Email: pfeinburgh@pellfrischmann.com  
www.pellfrischmann.com

Project

Coumnagappul Wind Farm

Name

Date

Scale

1:1000 @ A3

Drawn

JS

05/05/2023

Designed

TL

05/05/2023

Checked

GB

05/05/2023

File No

05052023 Coumnagappul Tracking v4.dwg

Drawing Status

Draft

Point of Interest

19

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.

Revision

1

Client

Fehily Timoney

Drawing Title

Vestas V162 Blade and Mid Tower

Key

— Wheel SPA   
 — Body SPA   
 — Load SPA   
 — Indicative   
  Over-run   
  Over-sail

SPA Location

West of Bleantasour





Vegetation to be trimmed.

Road to be widened to provide a minimum 4.5m running width with a 5.5m clearance envelope.

© Pell Frischmann

|   |               |                                 |  |                   |    |      |             |                |   |          |   |
|---|---------------|---------------------------------|--|-------------------|----|------|-------------|----------------|---|----------|---|
| <b>Pell Frischmann</b><br><small>93 GEORGE STREET, EDINBURGH, EH2 3ES</small><br><small>Tel: +44 (0)131 240 1270</small><br><small>Email: pfe@pellfrischmann.com</small><br><small>www.pellfrischmann.com</small> | Project       | Coumnagappul Wind Farm          |  | Name              | JS | Date | 05/05/2023  | Scale          | 1:1000 @ A3   |          |   |
|   | Client        | Fehily Timoney                  |  | Designed          | TL | Date | 05/05/2023  | File No.       | 05052023 Coumnagappul Tracking v4.dwg   |          |   |
| <b>Key</b><br>Wheel SPA<br>Body SPA<br>Load SPA<br>Indicative<br>Over-run<br>Over-sail  | Drawing Title | Vestas V162 Blade and Mid Tower |  | Checked           | GB | Date | 05/05/2023  | Drawing Status | Draft   |          |   |
|   | SPA Location  | West of Bleantasour             |  | Point of Interest | 19 |      | Drawing No. | SK17A          | Notes:  | Revision |   |
|   |               |                                 |  |                   |    |      |             |                | 1. All mitigation is subject to confirmation through a test run.<br>2. This is not a construction drawing and is intended for illustration purposes only. |          | 1 |