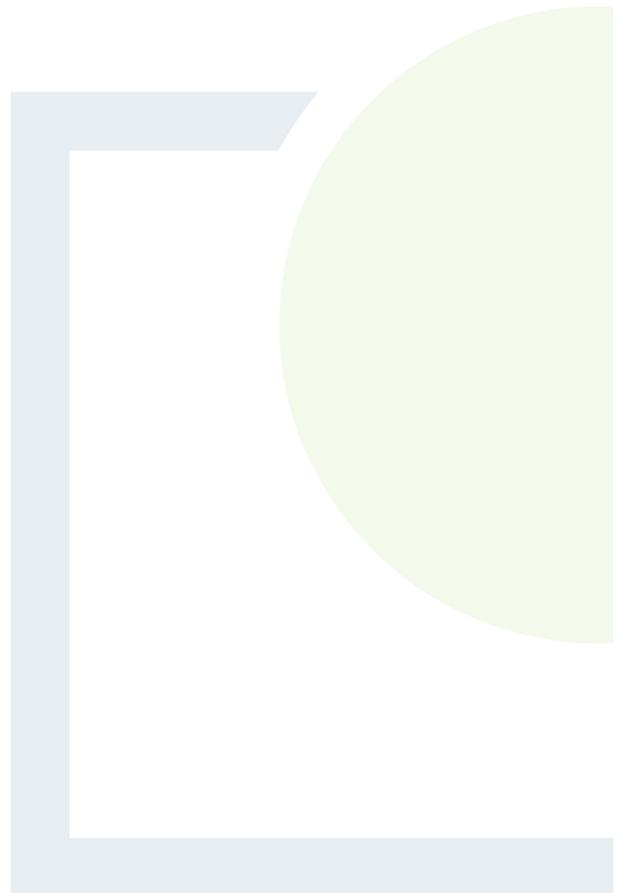


CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE & PLANNING

# APPENDIX 13.1

Automatic Traffic Count  
Survey Results





**SITE 01**

**LOCATION:** L6957 Carrignavar Road, immediately north of Bottlehill Landfill (Google Maps Ref: 52.041419, -8.559255)

**SPEED SURVEY SUMMARY:**

<b>NORTHBOUND</b>	85% Speed = 84.13 km/h, 95% Speed = 92.75 km/h, Median = 69.21 km/h	Maximum = 122.6 km/h, Minimum = 8.3 km/h, Mean = 67.8 km/h
<b>SOUTHBOUND</b>	85% Speed = 86.04 km/h, 95% Speed = 93.87 km/h, Median = 71.55 km/h	Maximum = 128.0 km/h, Minimum = 6.3 km/h, Mean = 69.4 km/h

**VOLUMETRIC VEHICLE COUNTS:**

Direction	Time	Tuesday 3 September 2019	Wednesday 4 September 2019	Thursday 5 September 2019	Friday 6 September 2019	Saturday 7 September 2019	Sunday 8 September 2019	Monday 9 September 2019	No. Vehicles 7 day Mean
NORTHBOUND	07-19	263	278	269	315	206	170	290	1791
SOUTHBOUND	07-19	282	253	233	271	180	166	257	1642
NORTHBOUND	00-00	320	339	320	386	255	207	345	2172
SOUTHBOUND	00-00	349	327	281	349	246	237	308	2097

**PEAK FLOW SUMMARY:**

Peak	AM	IP	PM
Most Frequent Peak Hour	0800	1200	1700
Average Vehicles per Peak Hour	25	20	42



**SITE 02**

**LOCATION:** Park Avenue North, Lackendarragh (Google Maps Ref: 52.100173, -8.426298)

**SPEED SURVEY SUMMARY:**

**NORTHBOUND** 85% Speed = 84.13 km/h, 95% Speed = 92.75 km/h, Median = 69.21 km/h Maximum = 122.6 km/h, Minimum = 8.3 km/h, Mean = 67.8 km/h

**SOUTHBOUND** 85% Speed = 80.94 km/h, 95% Speed = 87.49 km/h, Median = 68.49 km/h Maximum = 105.1 km/h, Minimum = 6.7 km/h, Mean = 65.0 km/h

**VOLUMETRIC VEHICLE COUNTS:**

Direction	Time	Tuesday 3 September 2019	Wednesday 4 September 2019	Thursday 5 September 2019	Friday 6 September 2019	Saturday 7 September 2019	Sunday 8 September 2019	Monday 9 September 2019	No. Vehicles 7 day Mean
NORTHBOUND	07-19	51	64	64	68	34	28	58	367
SOUTHBOUND	07-19	60	61	82	74	50	32	59	418
NORTHBOUND	00-00	61	75	72	82	50	35	71	446
SOUTHBOUND	00-00	75	85	94	90	67	43	72	526

**PEAK FLOW SUMMARY:**

Peak	AM	IP	PM
Most Frequent Peak Hour	0800	1400	1600
Average Vehicles per Peak Hour	6	3	10



**LOCATION:** Un-Named Road, Coolnakilla (Google Maps Ref: 52.108543, -8.318427)

**SPEED SURVEY SUMMARY:**

<b>EASTBOUND</b>	85% Speed = 76.32 km/h, 95% Speed = 84.35 km/h, Median = 63.63 km/h	Maximum = 101.5 km/h, Minimum = 7.9 km/h, Mean = 62.0 km/h
<b>WESTBOUND</b>	85% Speed = 73.90 km/h, 95% Speed = 80.41 km/h, Median = 61.74 km/h	Maximum = 115.9 km/h, Minimum = 3.4 km/h, Mean = 59.5 km/h

**VOLUMETRIC VEHICLE COUNTS:**

Direction	Time	Tuesday 3 September 2019	Wednesday 4 September 2019	Thursday 5 September 2019	Friday 6 September 2019	Saturday 7 September 2019	Sunday 8 September 2019	Monday 9 September 2019	No. Vehicles 7 day Mean
EASTBOUND	07-19	169	156	165	145	121	129	158	1043
WESTBOUND	07-19	200	176	190	159	154	137	163	1179
EASTBOUND	00-00	219	198	213	192	176	161	188	1347
WESTBOUND	00-00	236	208	232	195	201	159	196	1427

**PEAK FLOW SUMMARY:**

Peak	AM	IP	PM
Most Frequent Peak Hour	0800	1300	1700
Average Vehicles per Peak Hour	12	14	22

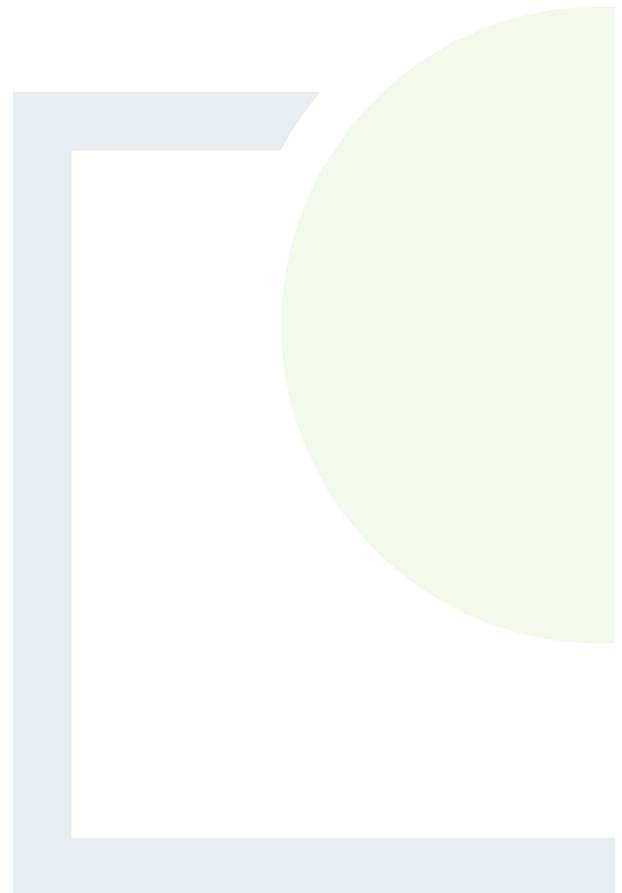




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# APPENDIX 13.2

Turbine Delivery Route Report



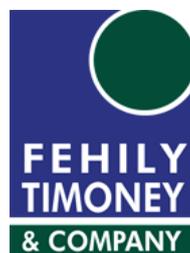


# Coom Green Energy Park

## Route Survey Report



October 2018



**Exceptional Load Services Ltd, Ballymoyle, Arklow, Co Wicklow, Ireland**

**T: +353-402-31229. E. [permits@wide-loads.com](mailto:permits@wide-loads.com)**



<b>Customer</b>	Fehily Timony & Company		
<b>Site Address</b>	Coom Green Energy Park Bottlehill Co Cork		
<b>Survey Date</b>	05/09/2018		
<b>Survey Personnel</b>	Edwin Sunderland, ELS John Webb, ELS		
<b>Survey Criteria</b>	<p>To select most suitable route from Cork Harbour (Ringaskiddy) to site entrances.</p> <p>For the purpose of the survey the following route options were considered</p> <p>Site Entrance #1: Ringaskiddy – N28 – Bloomfield – N40 – Lynch Tunnel – N8 (Lower Glanmire Road) – Tivoli – R635 (Northlink) – Blackpool – N20 – L6955 – L6956.</p> <p>Site Entrance #2: No Workable route found.</p> <p>Site Entrance #3: Not Surveyed.</p> <p>Site Entrances #4,(5,6 &amp; 7 included): Ringaskiddy – N28 – Bloomfield – N40 – M8 – (J14) – R639 – N72 – L1506 – L1507 – L1501.</p>		
<b>Surveyed Dimensions</b>	<p>For this survey the following components were considered</p> <p>Blade: 65m</p> <p>It is assumed tower sections would be delivered on tower adaptors</p>		
Revision Record			
Revision/Version	Date	Author	Description
Issue R.0	03/12/18	Edwin Sunderland	Report.
Revision R1	18/07/19	Edwin Sunderland	Update for 70m blades

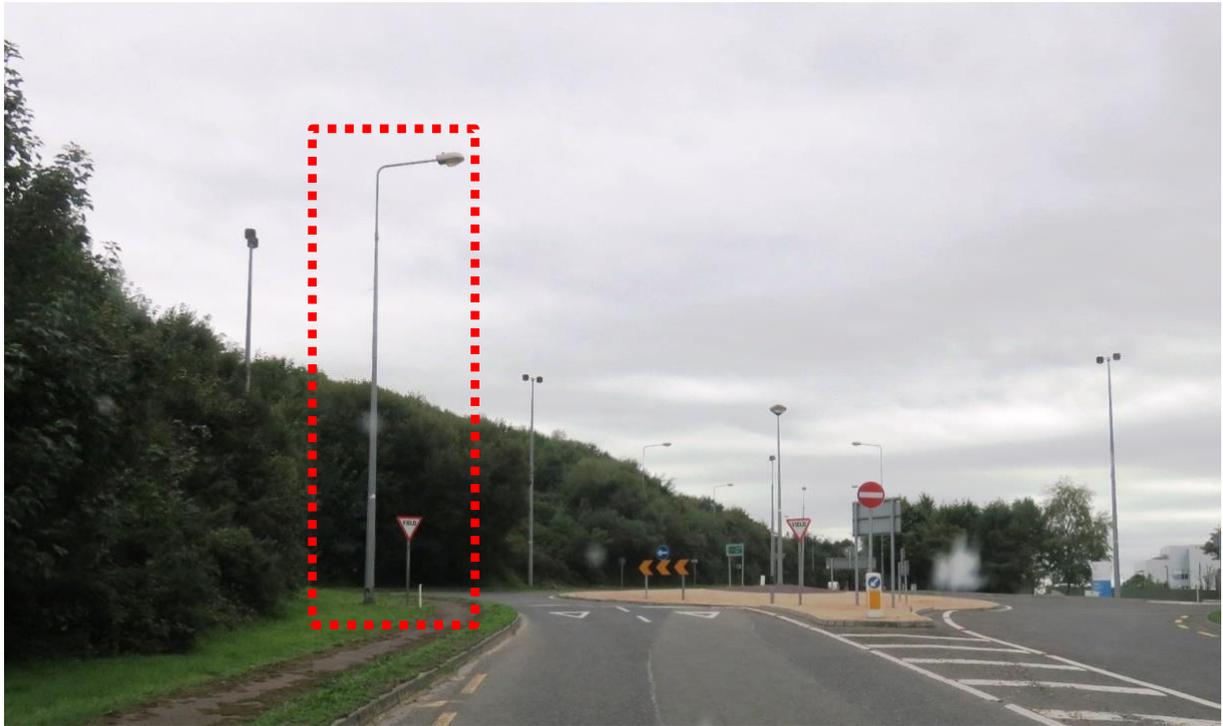
Location Map



Route Option 1 & 2

**Node 1.0. (All Routes) Pfizer Roundabout**

Street furniture should be removed to allow rear oversail



**Node 1.1. (All Routes) Shanbally Roundabout**

This roundabout will be travelled by contraflow. Upgrade works have been carried out on this roundabout and may require further investigation.



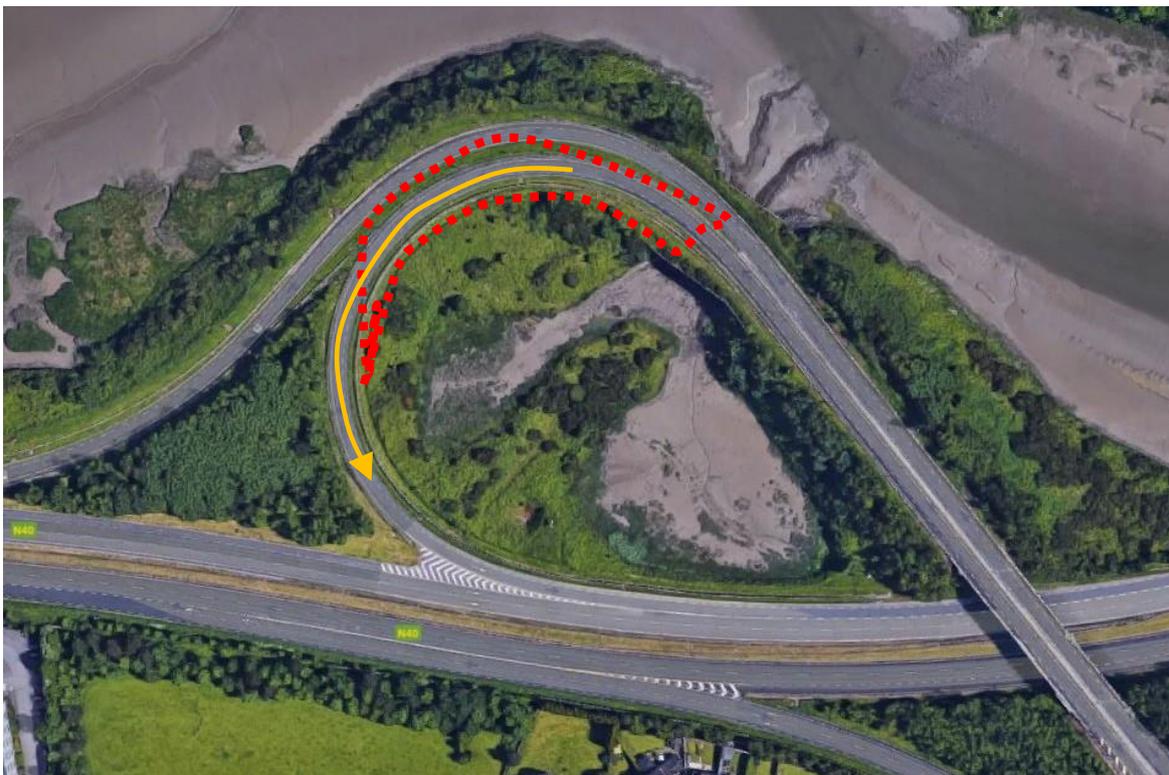
**Node 1.2 Carrigaline Roundabout (Contra flow)**

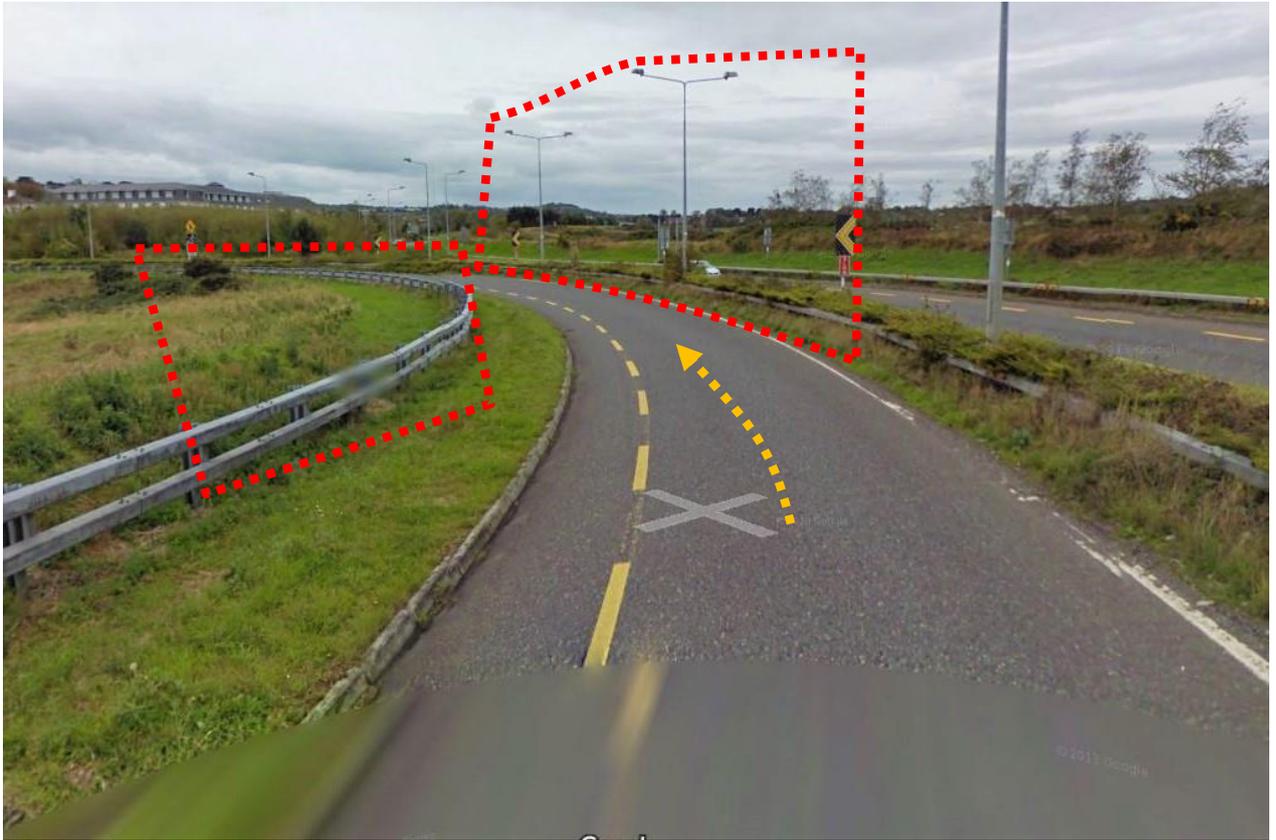
This roundabout will also be contra-flow and will require street furniture removal (YIELD sign)



**Node 1.2.1 Bloomfield Interchange**

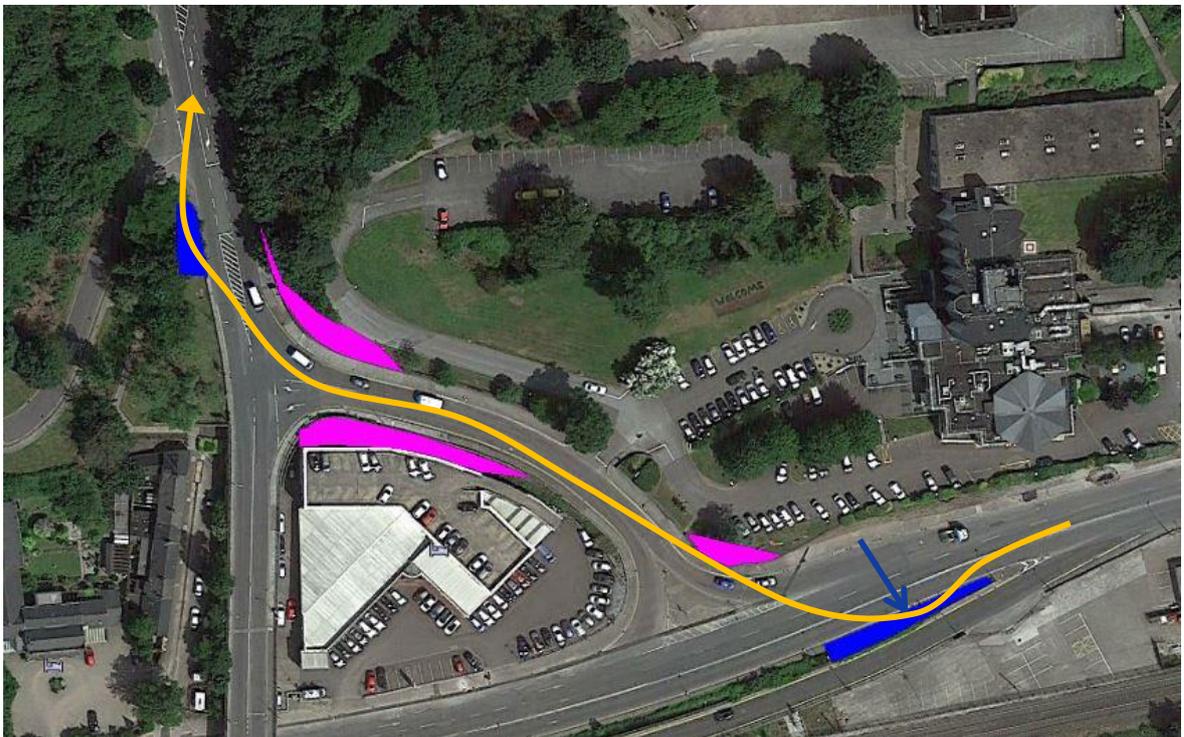
This Ramp may need safety barrier on inside of curve (left side) to be removed. Also street lighting on right may need to be removed.





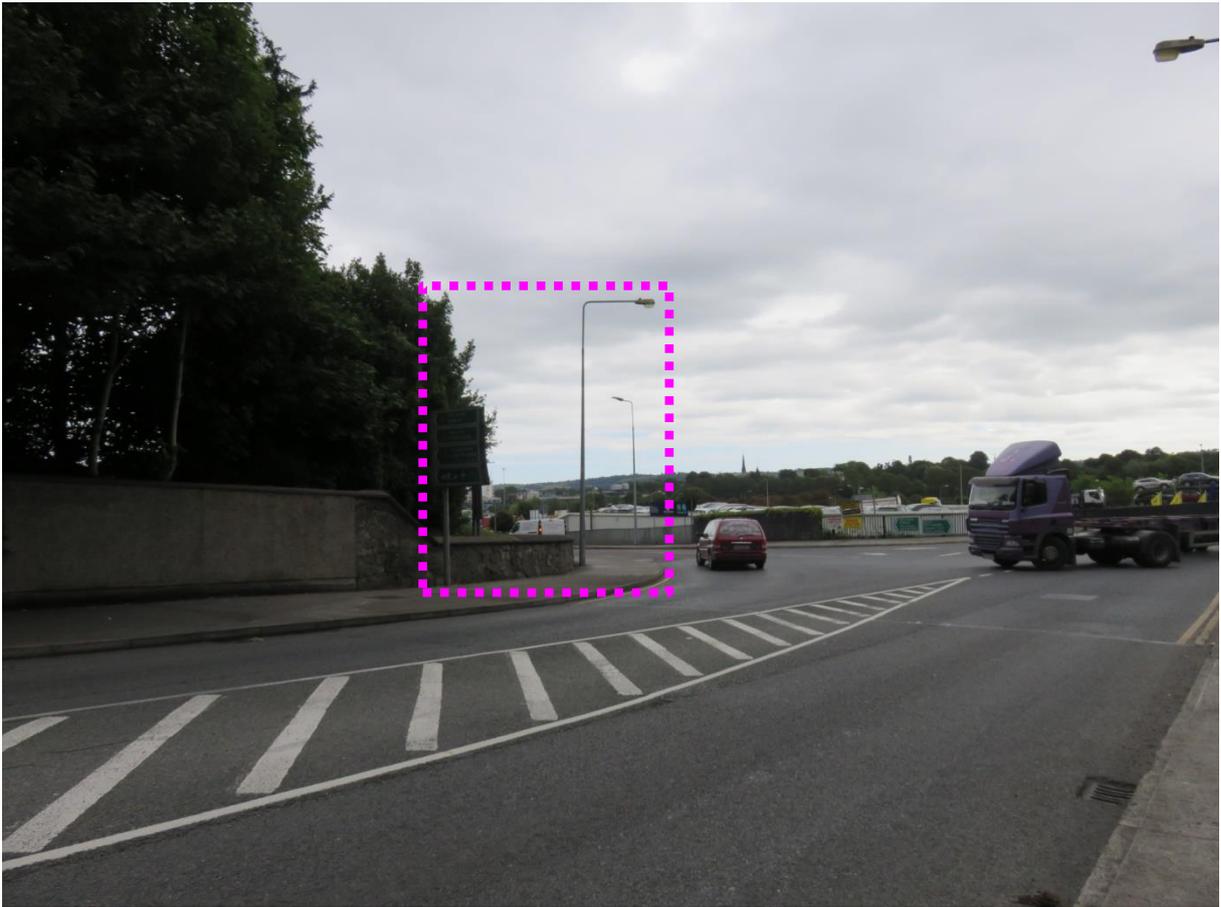
**Node 1.3. Tivoli/Silversprings (Contraflow)**

All towers, blades and nacelles will have to access the North Ring via the Silversprings slip road. Street furniture removal and tree/hedge trimming will be required. Land take and oversail will be required. Splitter island should be ramped and checked for load bearing capacity. Blue areas are load bearing and Magenta are for mid or rear oversail .



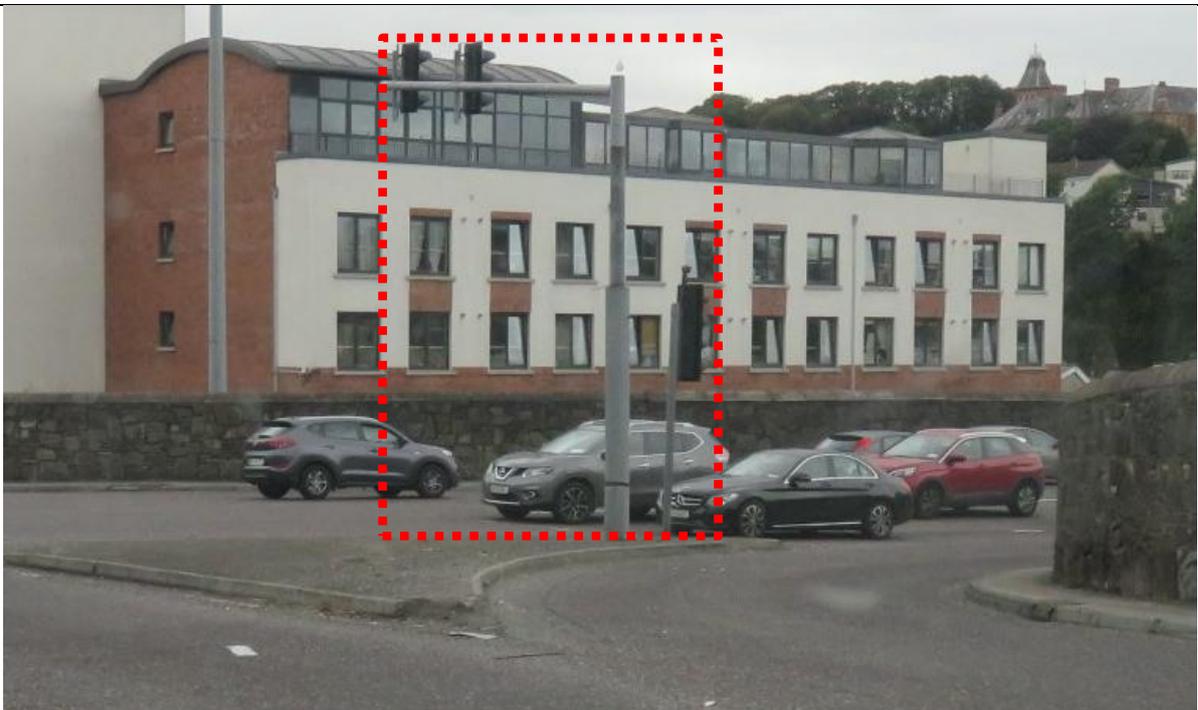
**Node 1.4 Tivoli - Contraflow**

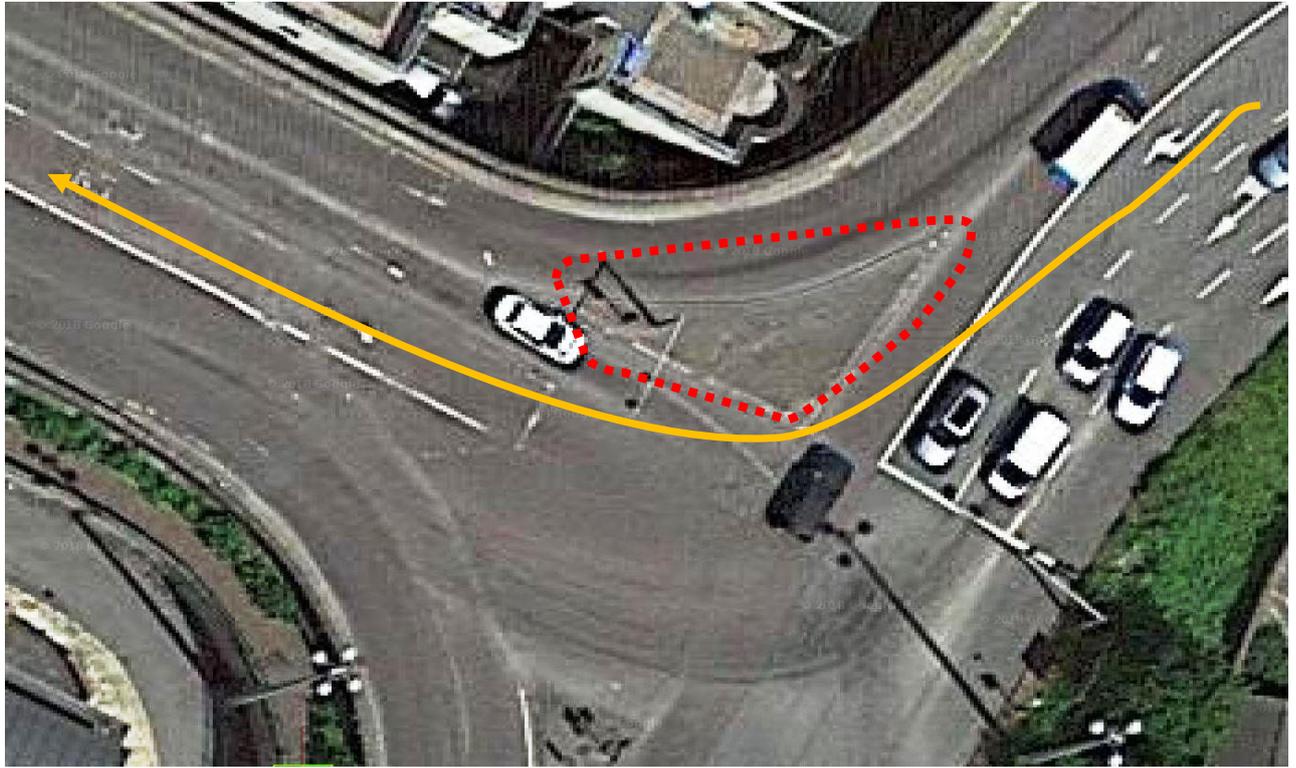
This junction (right turn) will require works for blade deliveries. Street light should be removed . Oversail will be required behind street light. Mid oversail will also be required on the right side. A segment of load bearing may also be required near the entrance to Tivoli Woods.



**Node 1.5. Blackpool. N20 Junction - Contraflow**

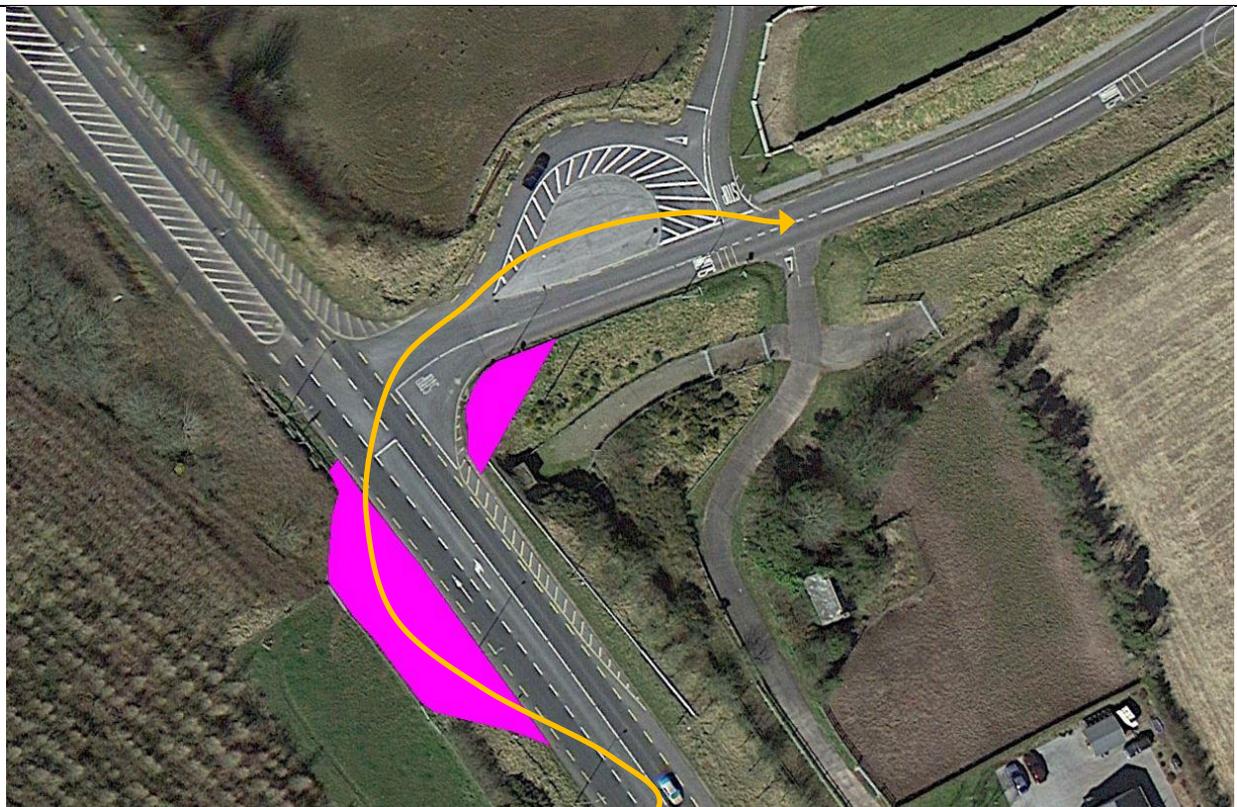
This right turn will require travelling in contra flow over the inbound splitter island. Traffic lights should be removed and all kerbing on the splitter island should be ramped with tarmac.

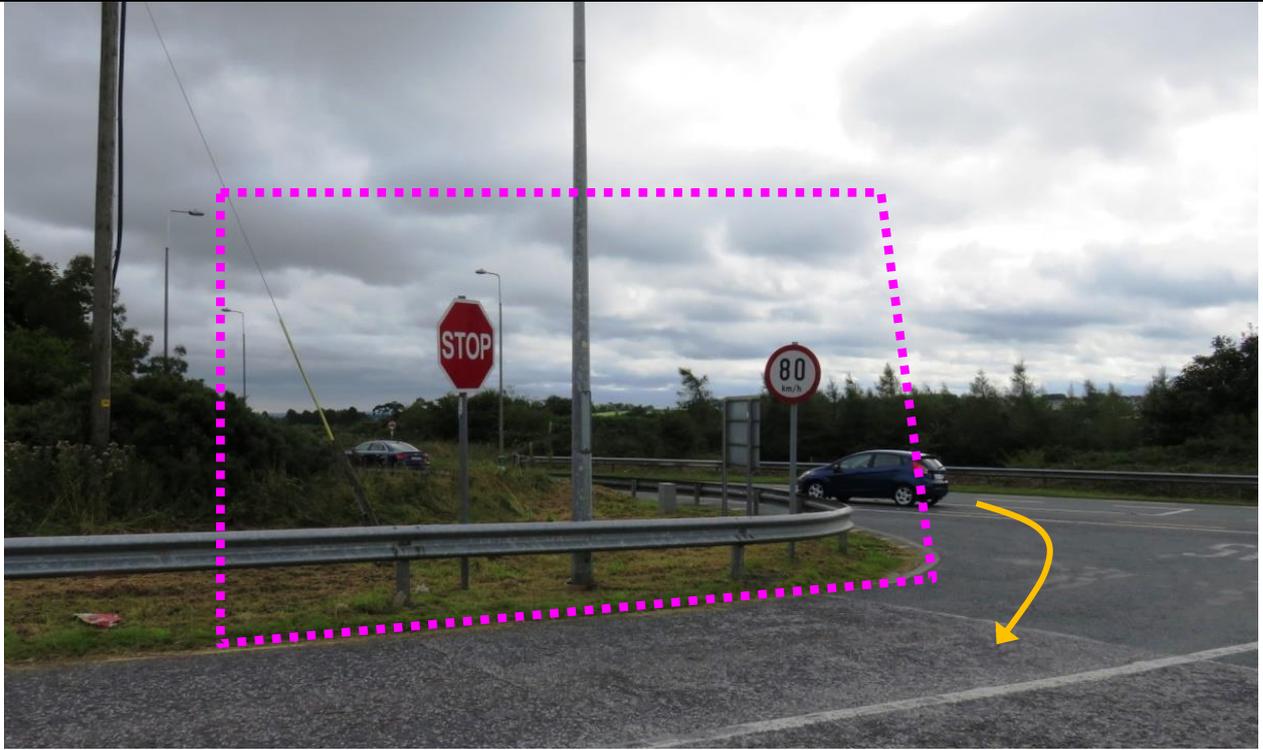




Node 1.6. N20/L6955

This right turn off the N20 will require land on left and right for oversail and the removal of street furniture as marked.





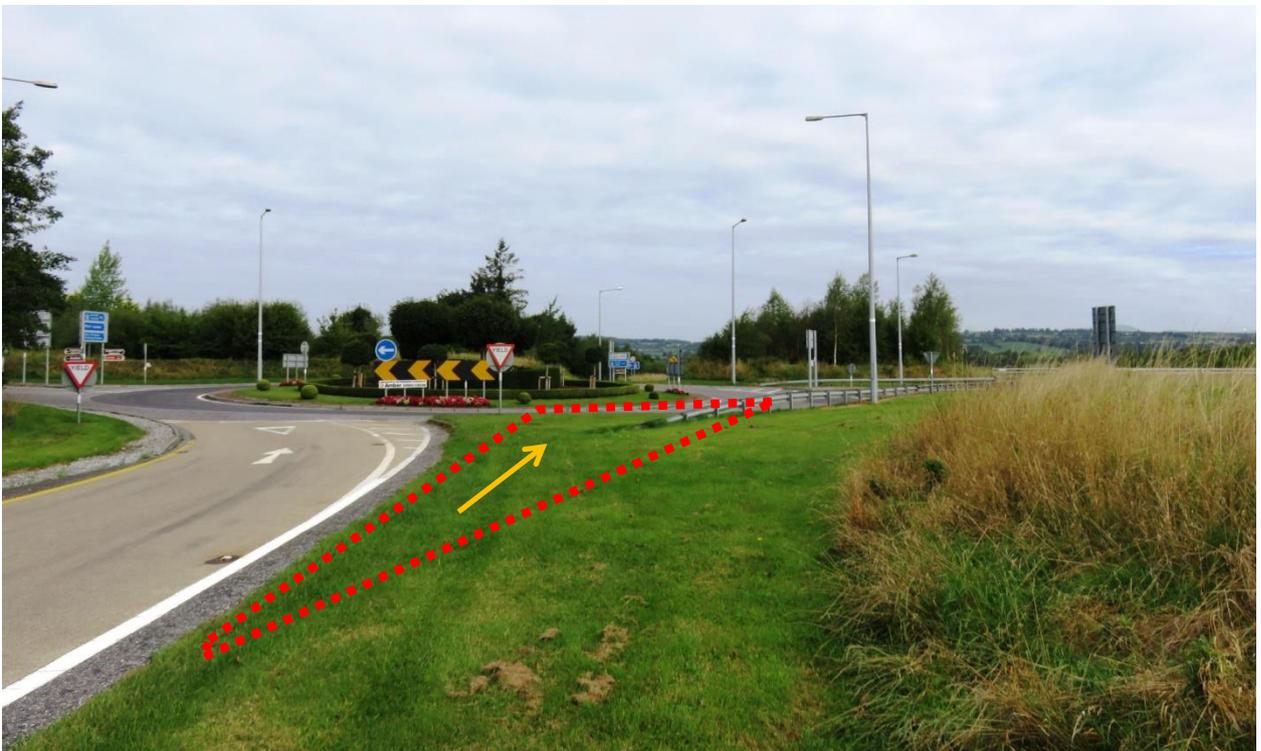
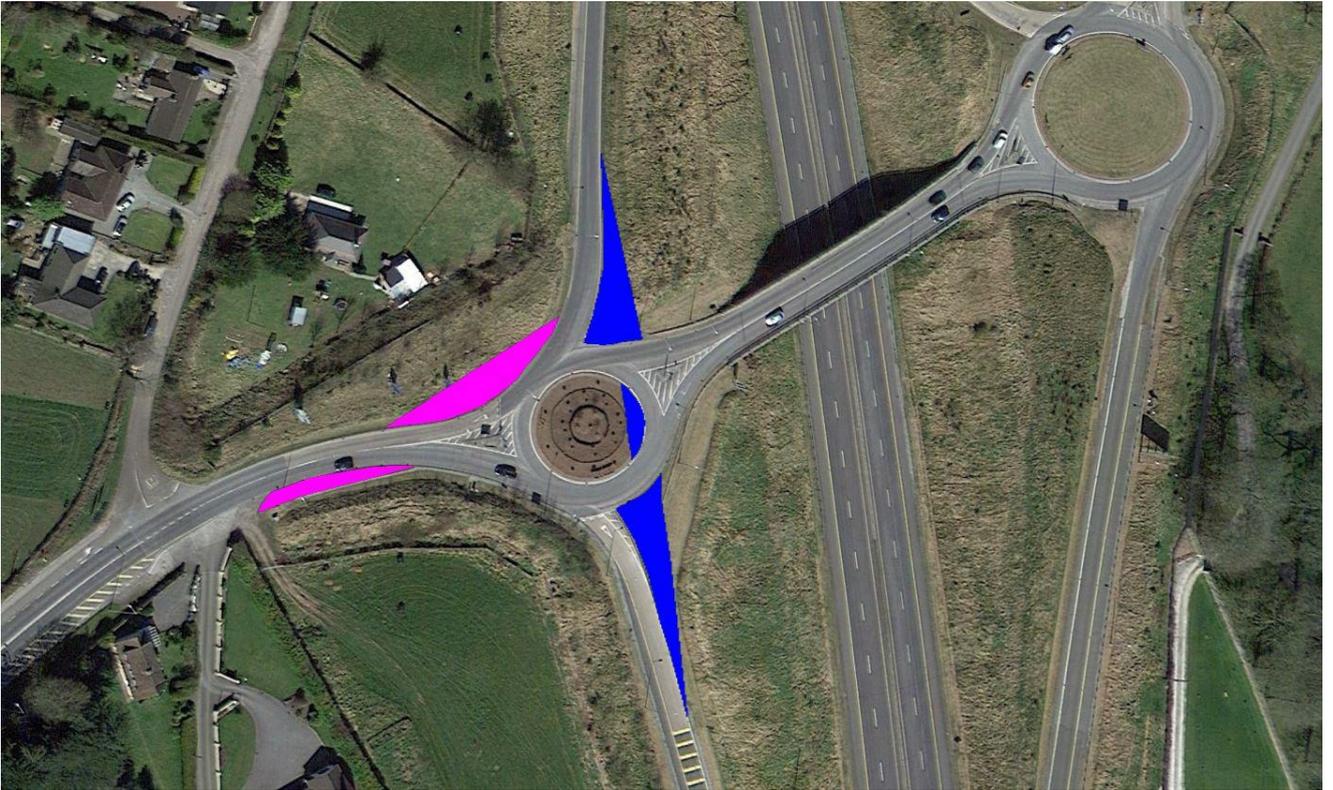
Node 1.7. L6955

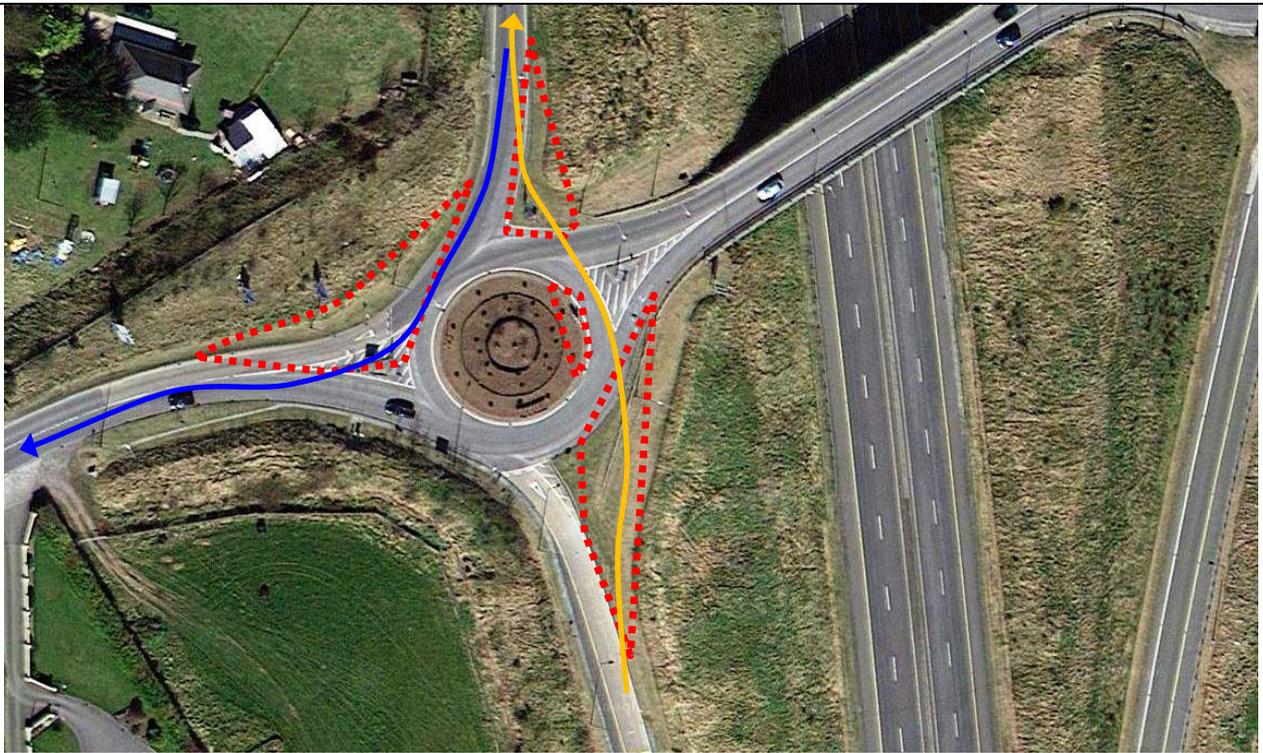
This left turn onto site road will require land take for both load bearing and oversail.



**Node 2.0. M8 Junction 14.**

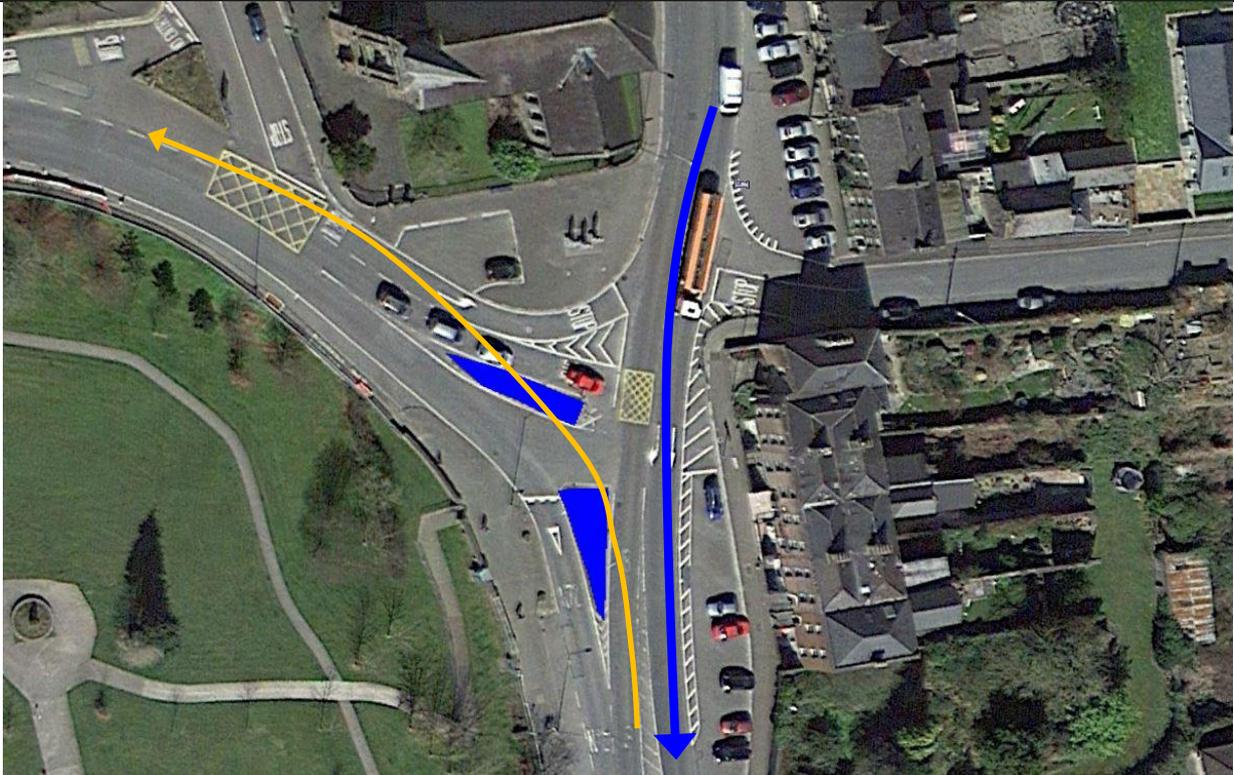
As blades will not be able to make a direct turn onto the N72 in Fermoy town the loads will need to reverse from this point into the town. Travel is contraflow. There is a combination of load bearing and oversail requirements – all within road boundary. Enabling works on the R639 Splitter island will be sufficient to accommodate a direct turn for tower sections.





**Node 2.1 Fermoy Town. R639/N72 Junction**

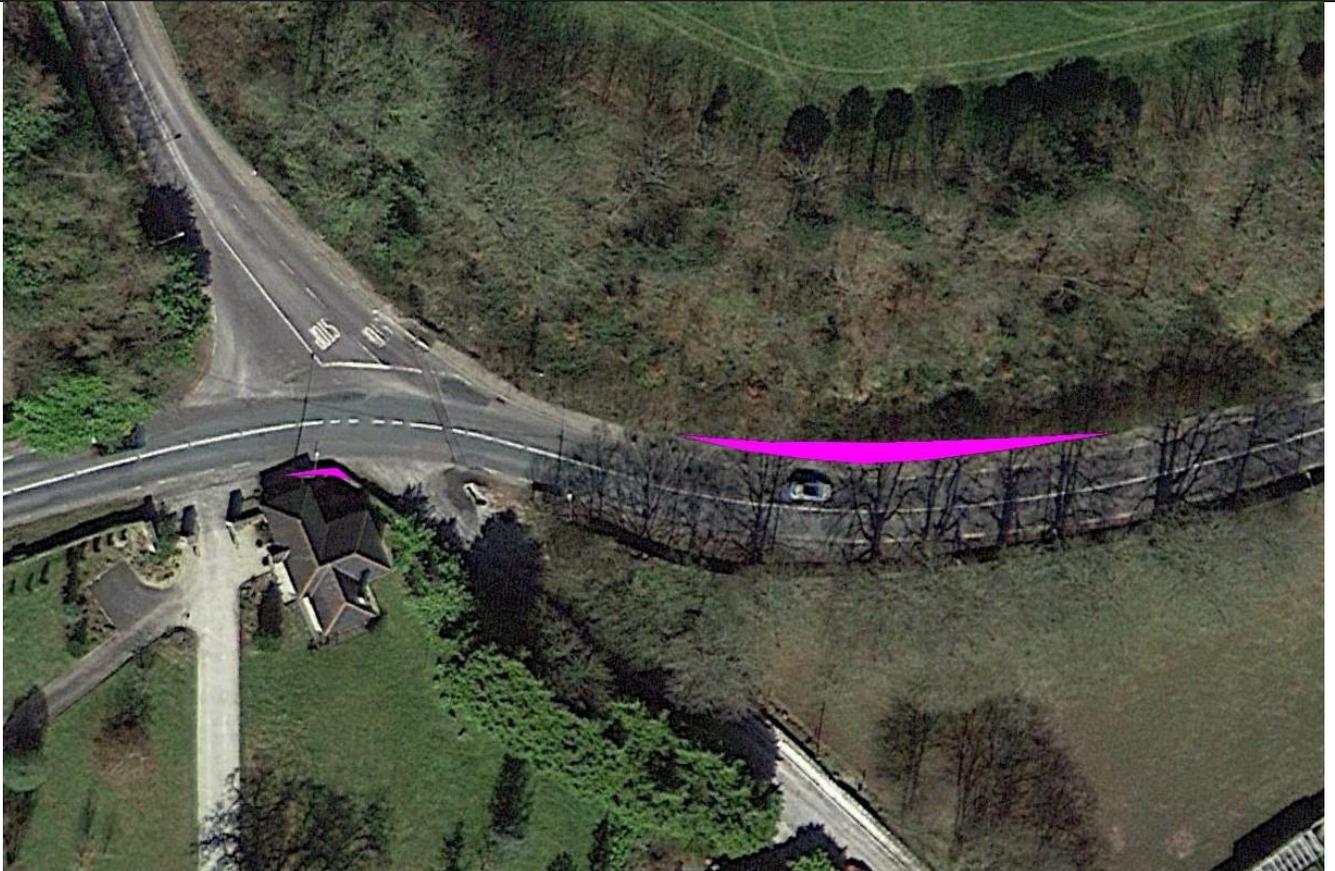
This junction will require removal of all street furniture on both splitter islands. Both islands should be ramped with tarmac. Enabling works on the Splitter islands will be sufficient to accommodate a direct turn for tower sections.

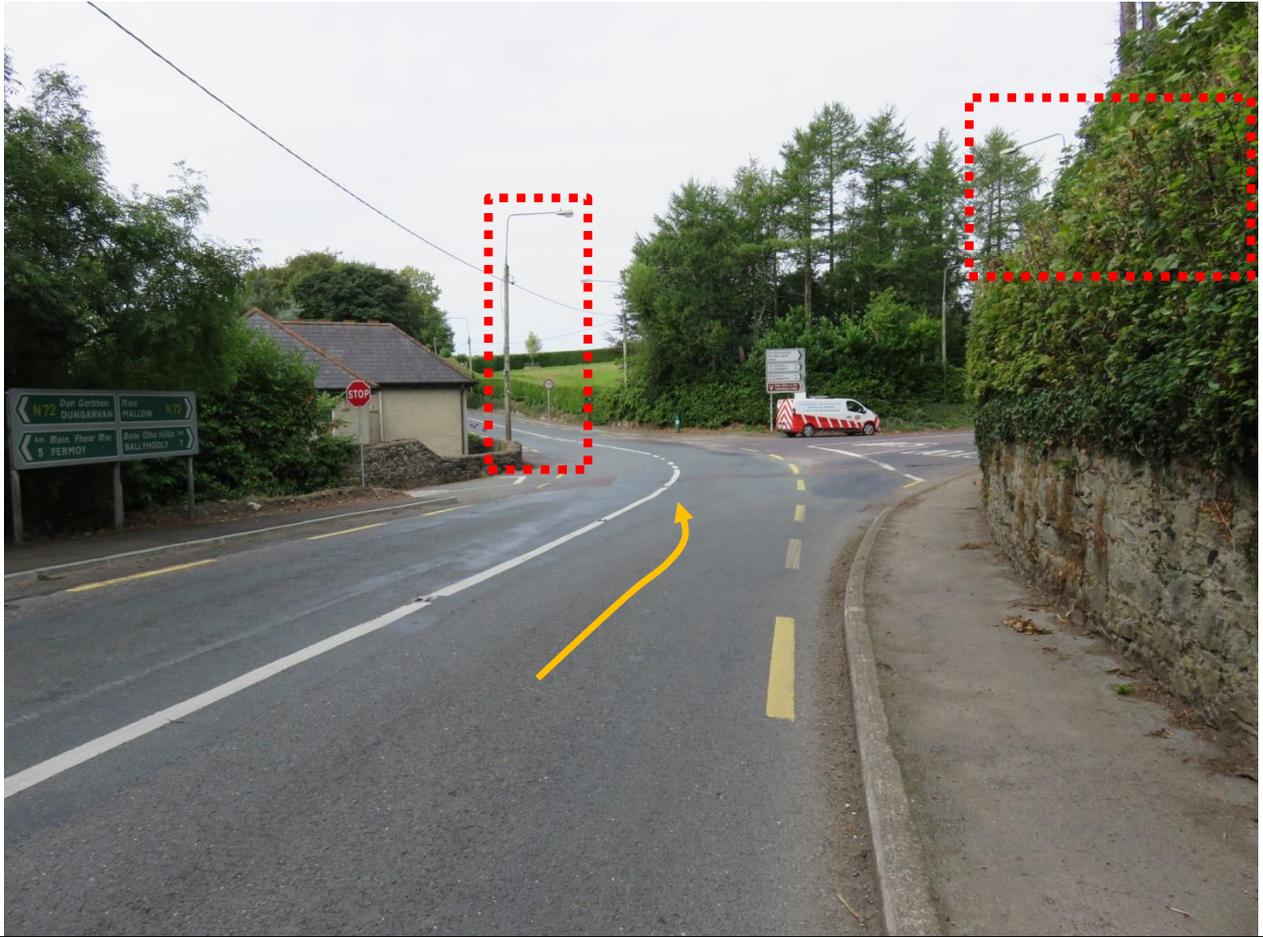




Node 2.2. N72/

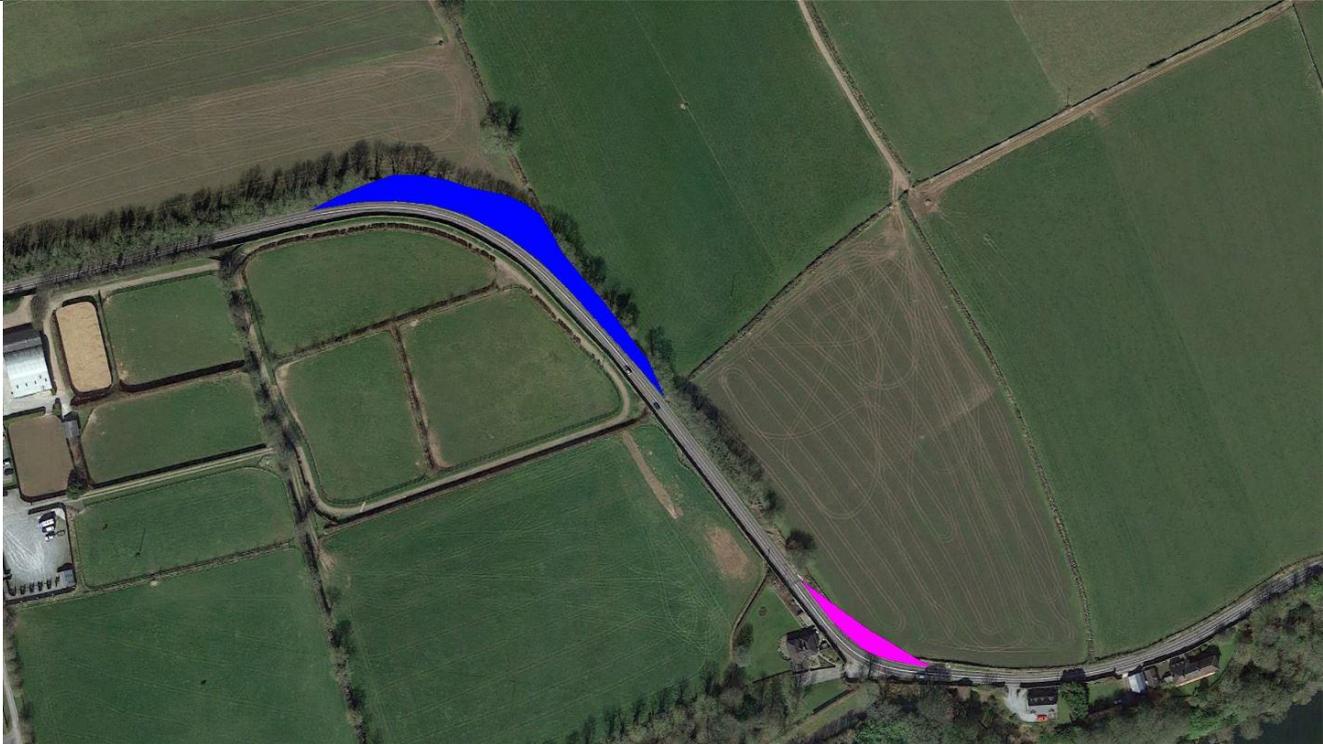
Pole and street light should be removed/re-located. Hedge on right should be reduced to 3m over road level to a depth of 2.5m

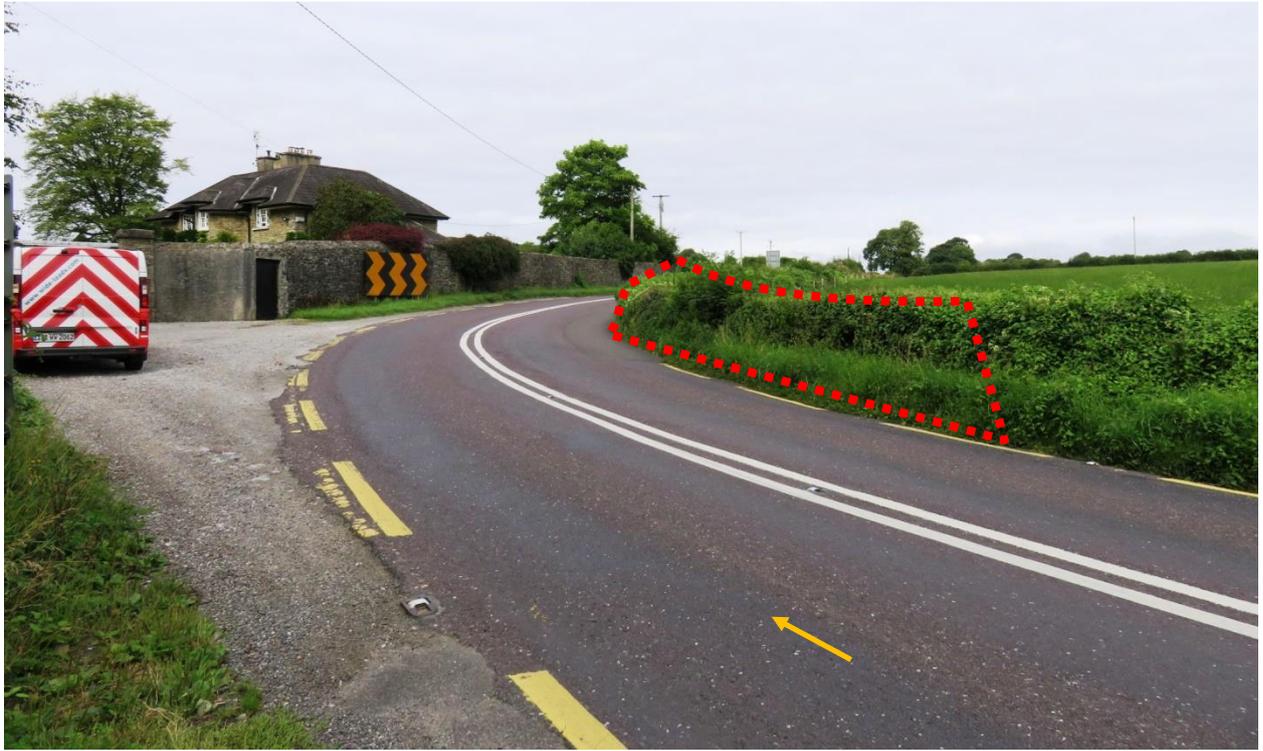




Node 2.3. N72 (579545, 598702)

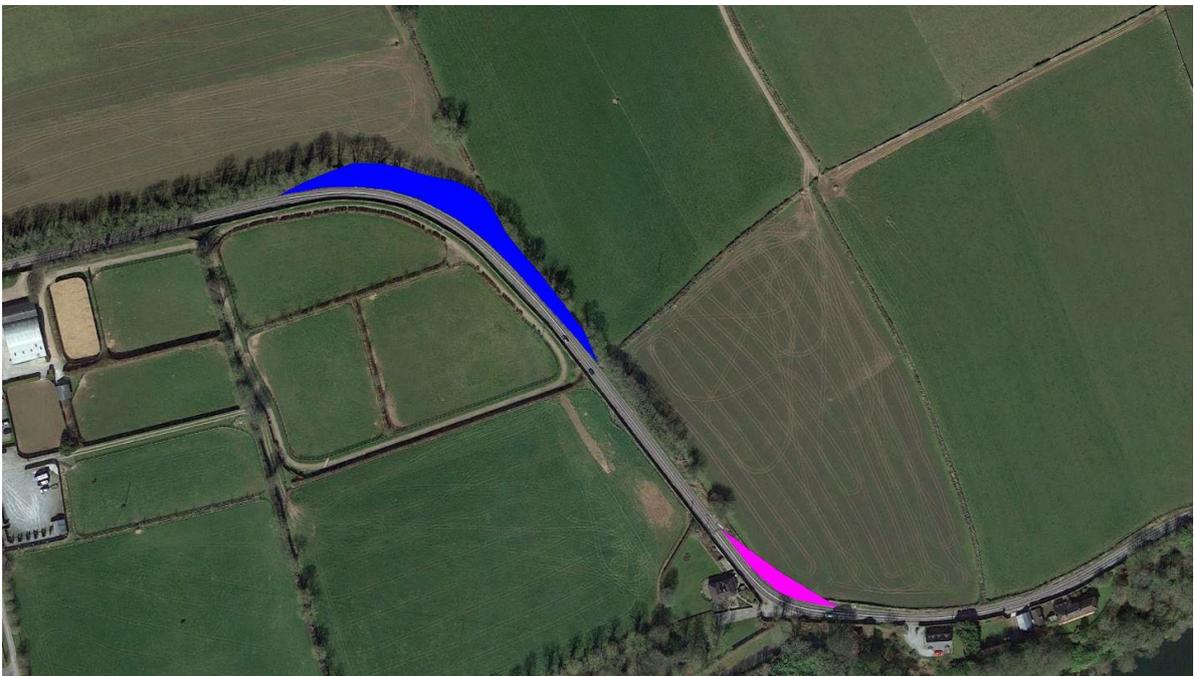
Bank on right should be removed for mid oversail. Depending on rear overhang some load bearing may be required.

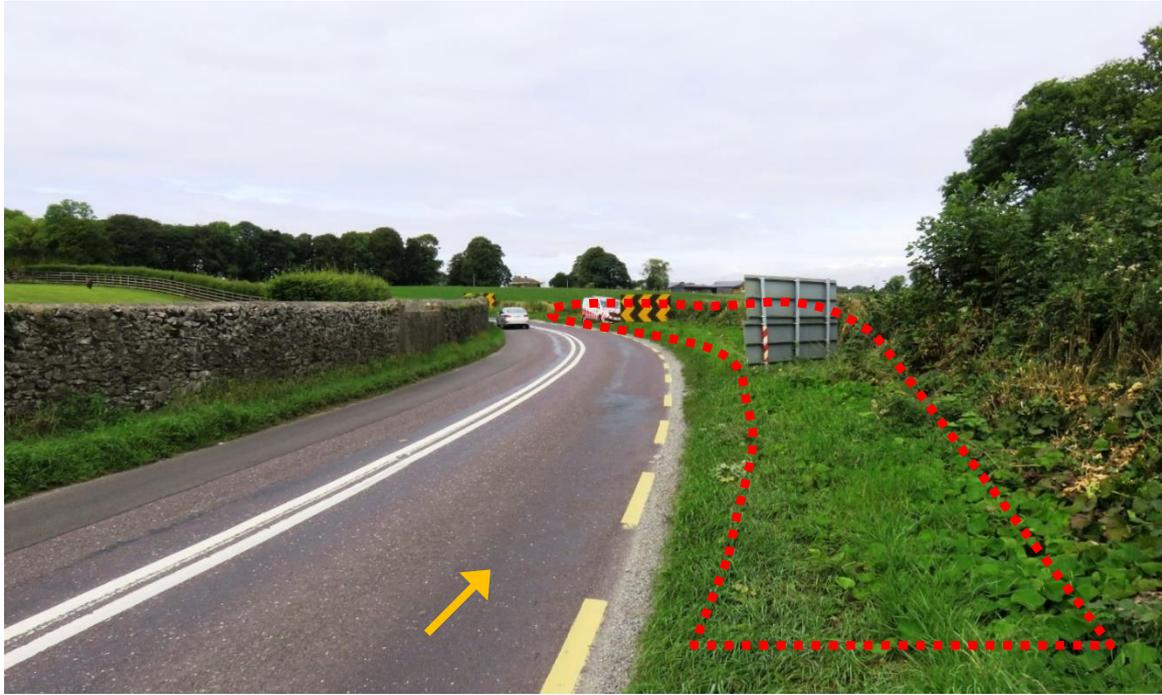




**Node 2.4. N72 (579323, 598922)**

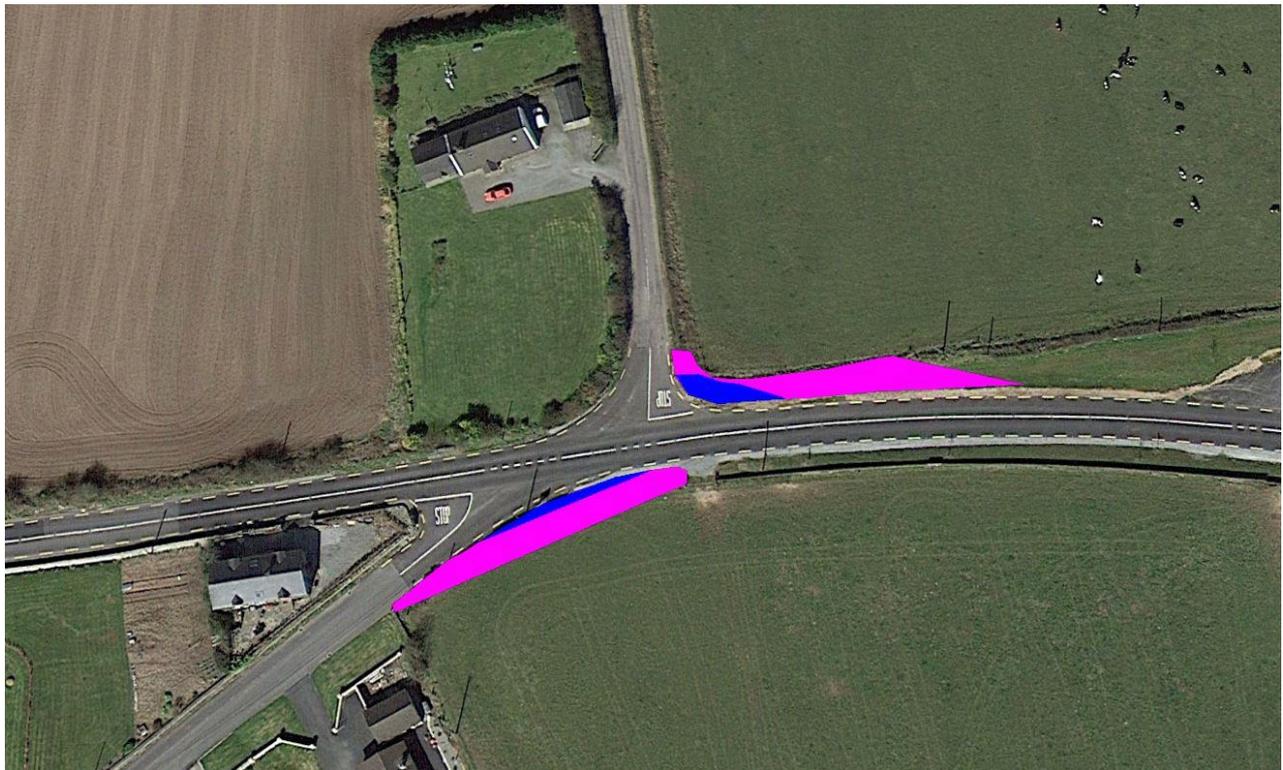
Road should be widened to load bearing up to boundary. 180m – 200m. All signs should be removed.

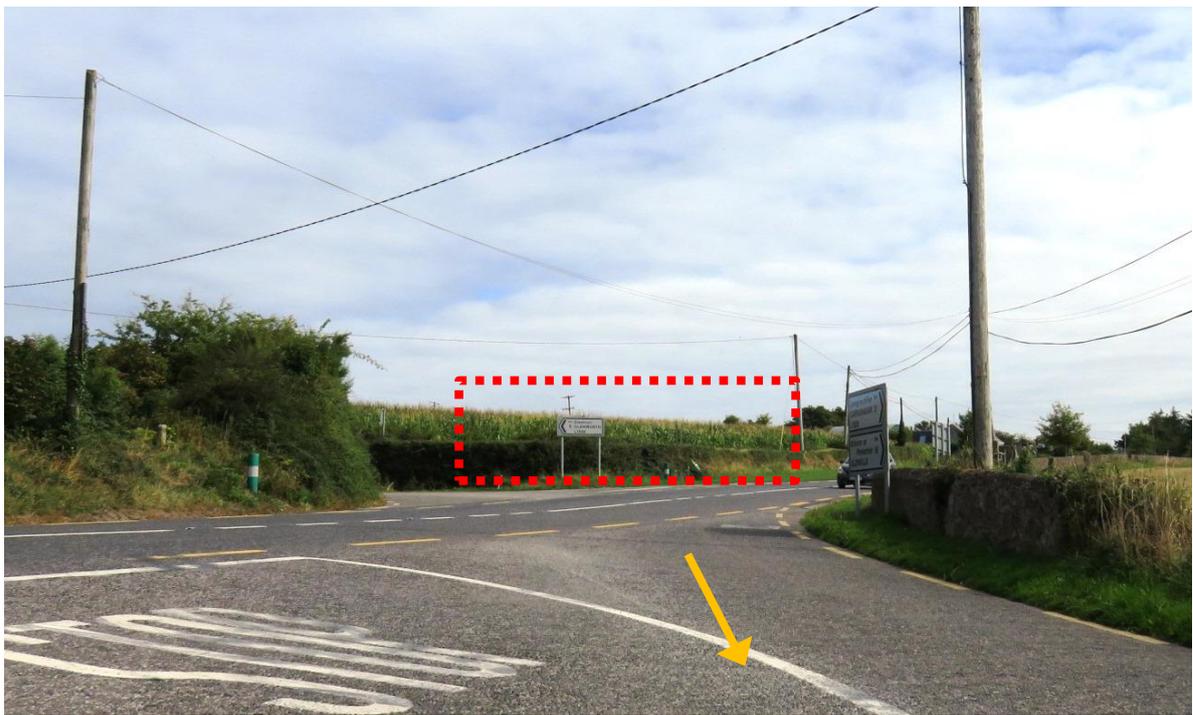
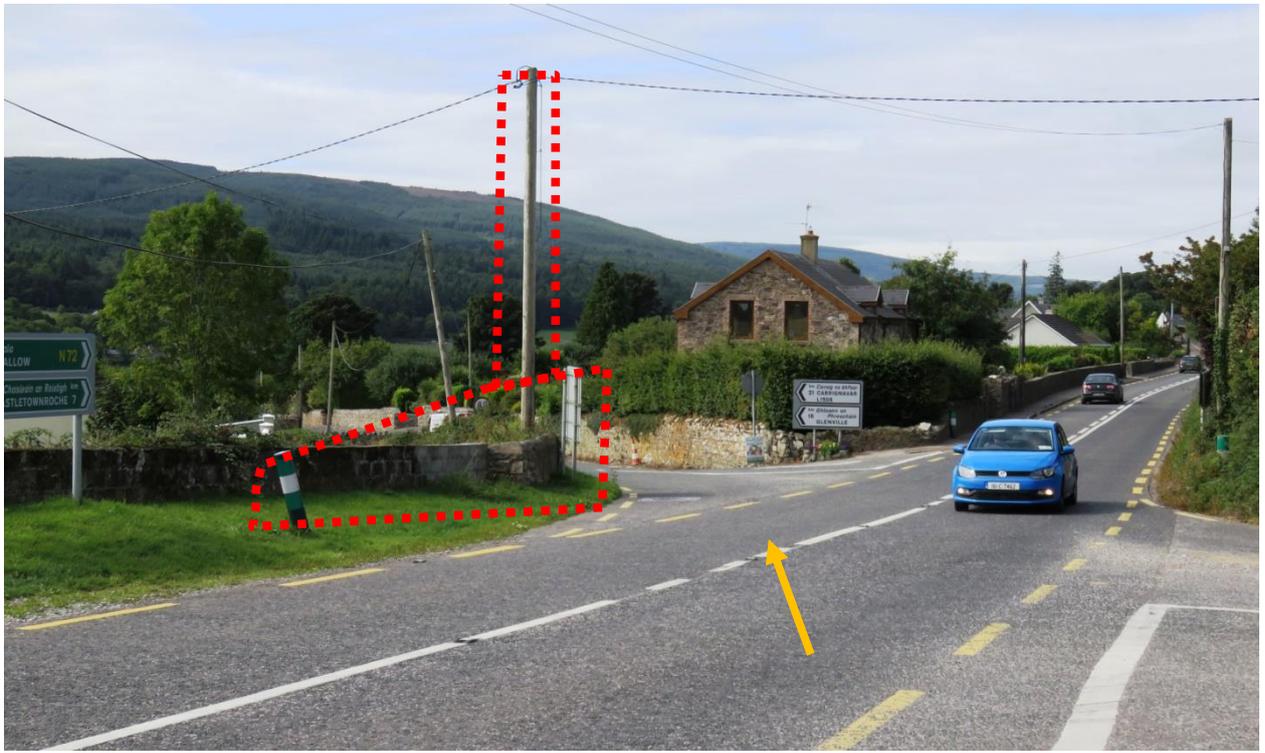




**Node 2.5. N72 (580323, 598800)**

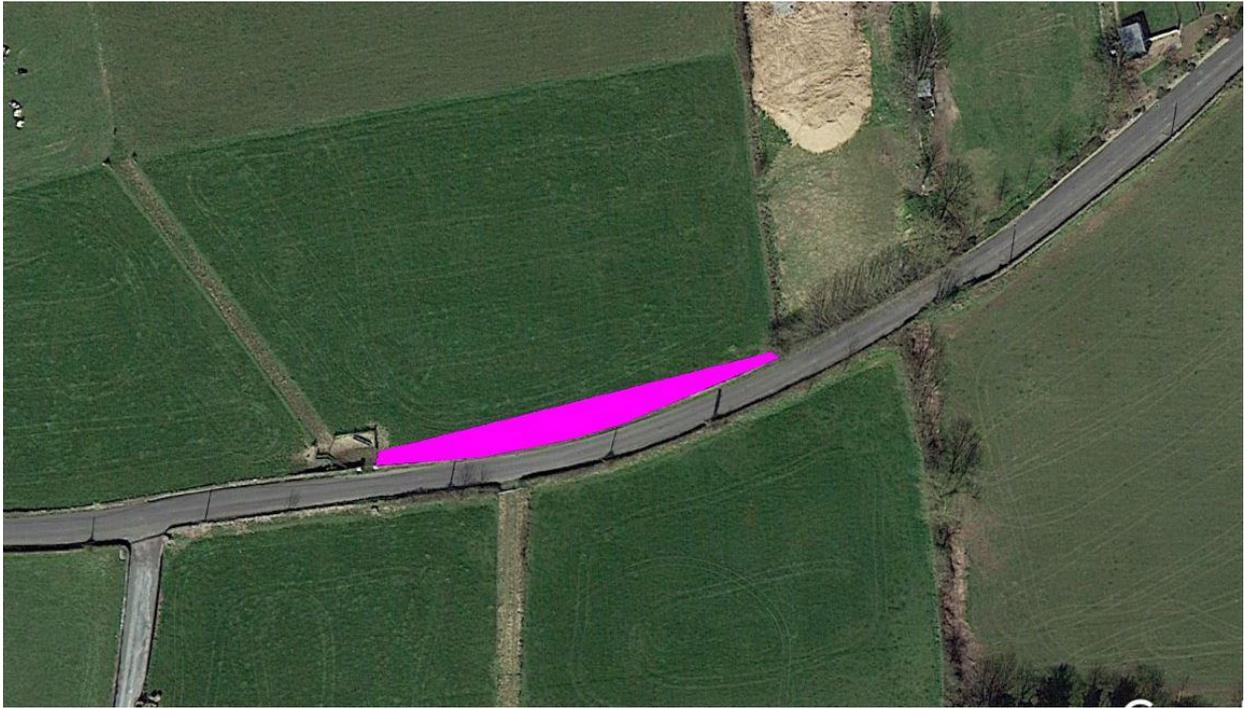
Wall should be lowered to ground level. Pole and signs to be removed.  
Bank on right should be lowered for rear oversail.





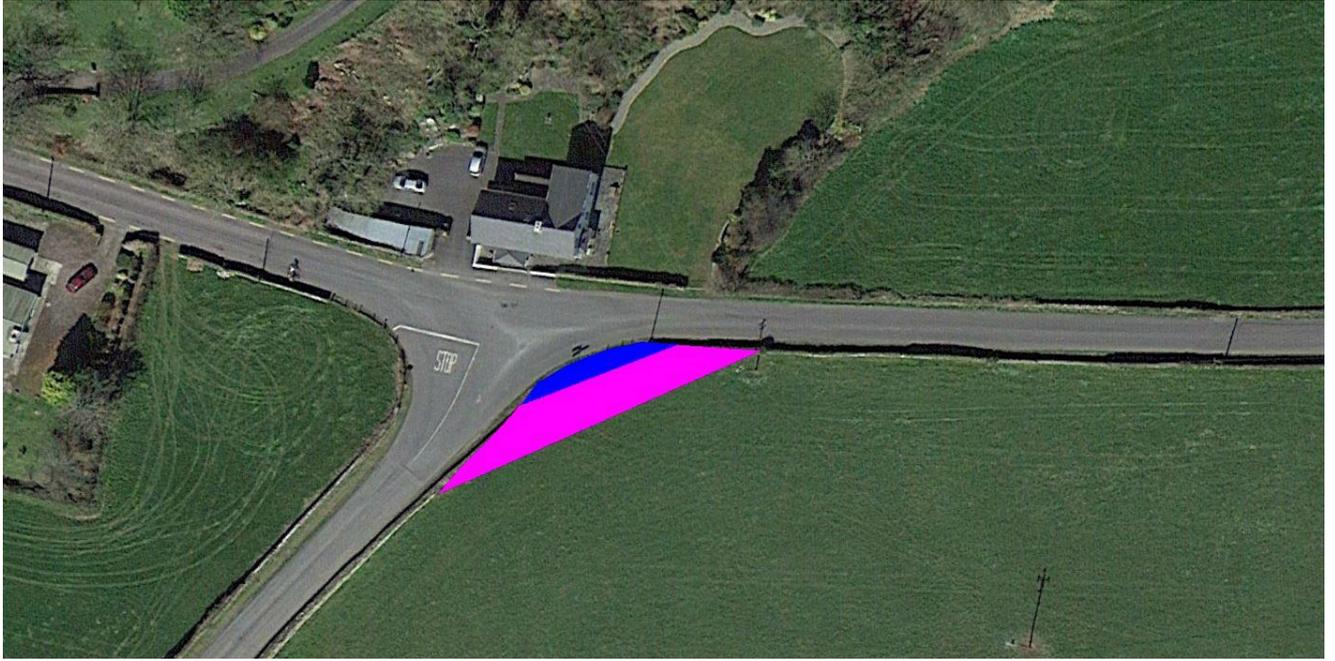
Node 2.6.

Depending on final rear overhang, telephone poles may have to be removed. A sweptpath analysis and early trial run are recommended. (This section could decide optimum overhang)



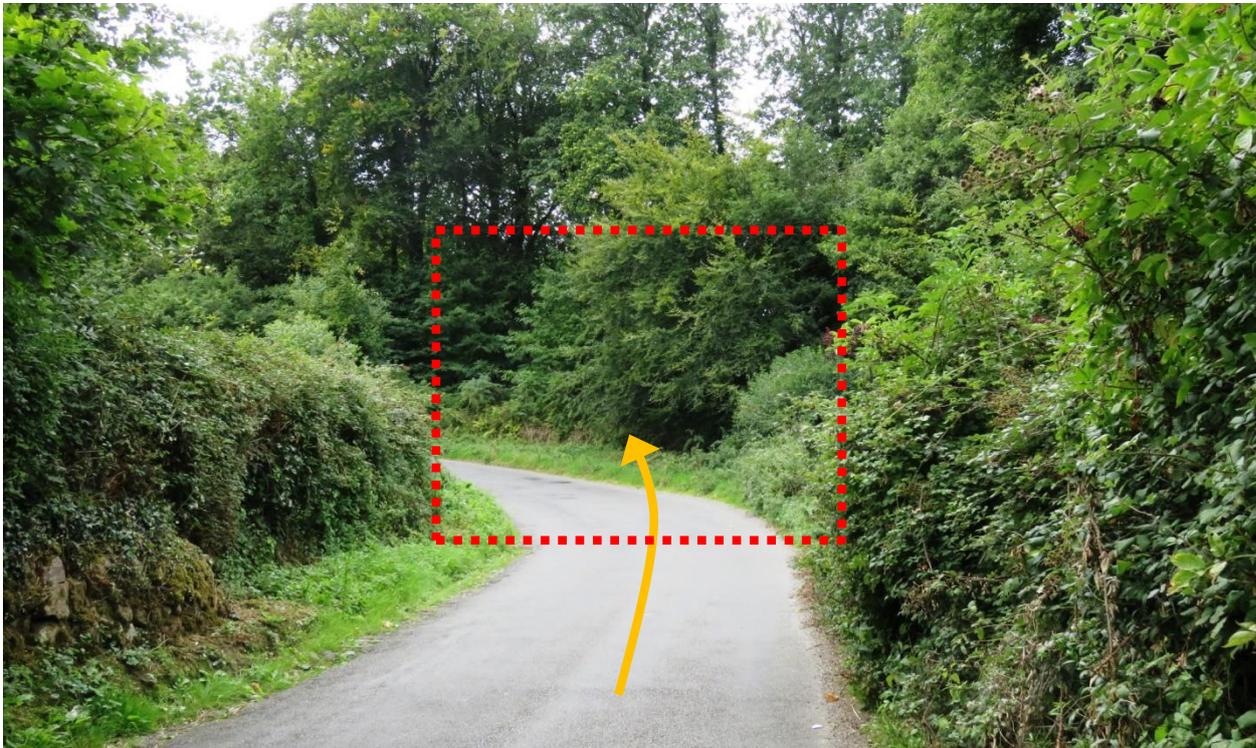
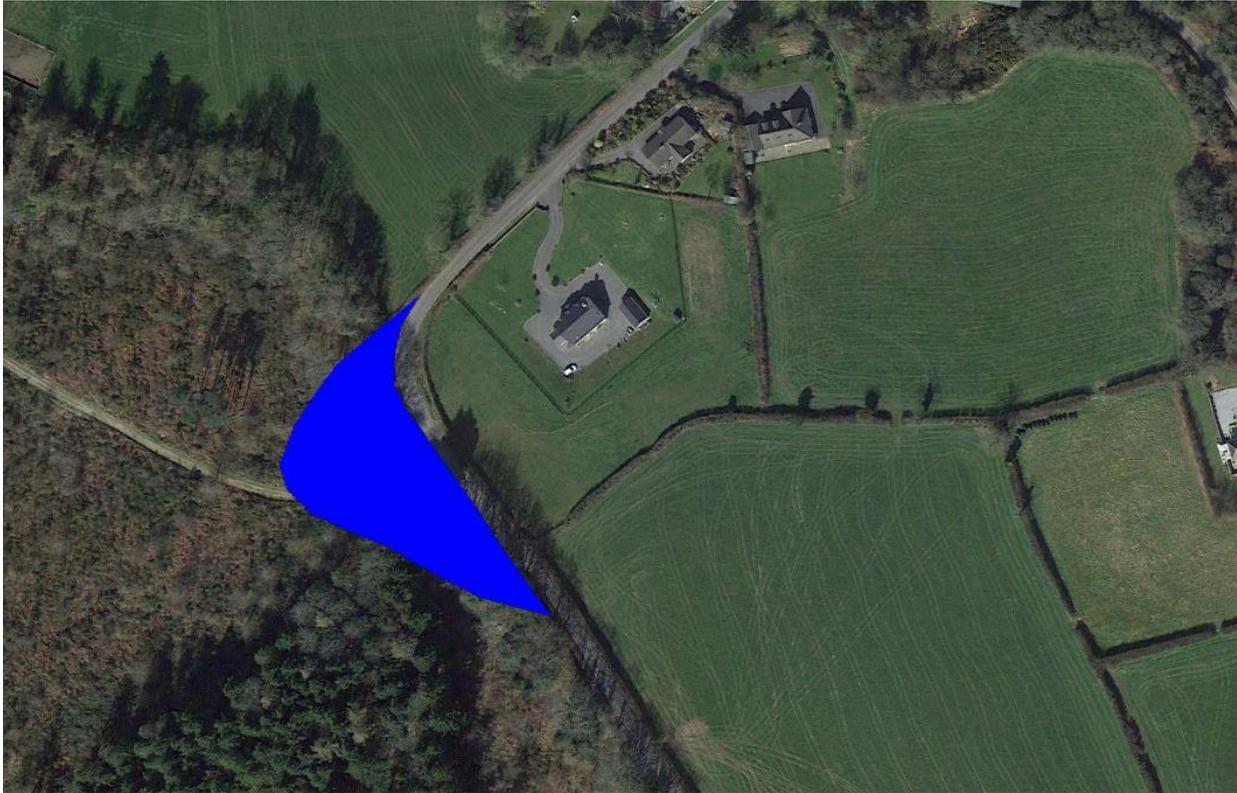
**Node 2.7.**

A section of wall should be lowered to road level for mid oversail. Depending on rear overhang some load bearing may be required



**Node 2.8. Castlebagh**

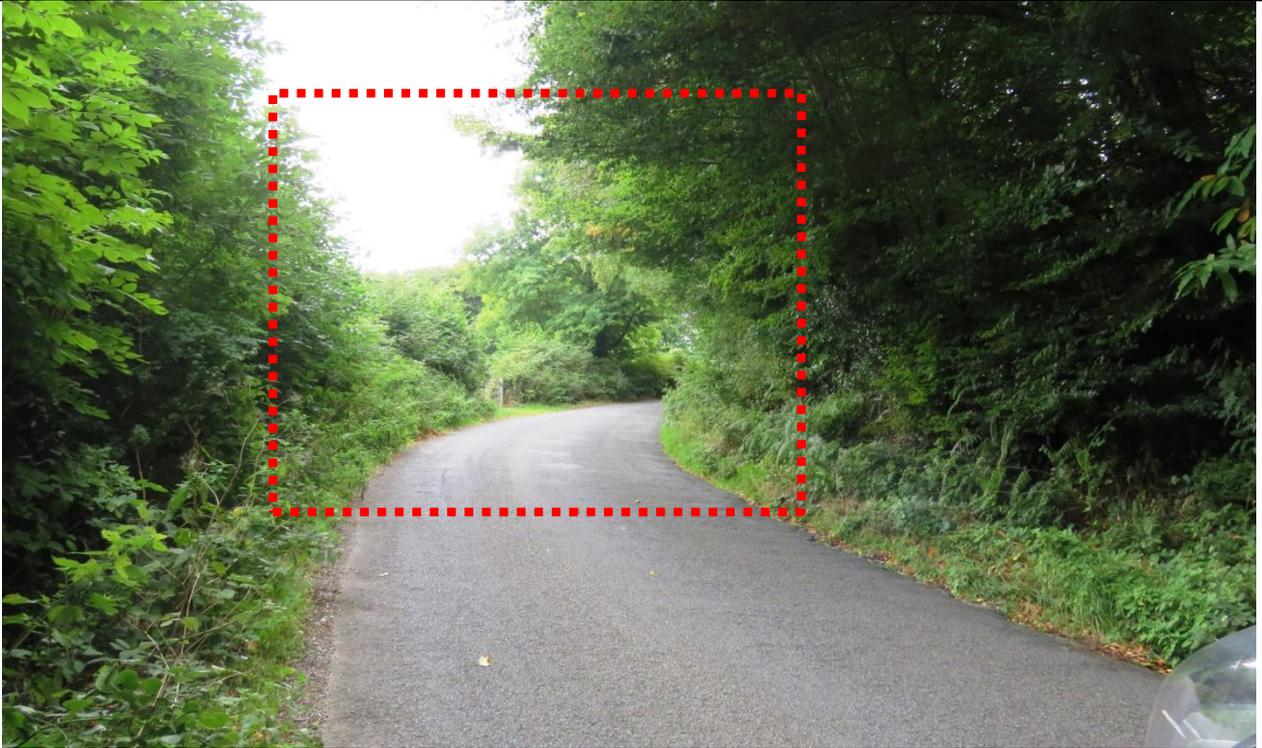
This left bend will require land take straight ahead

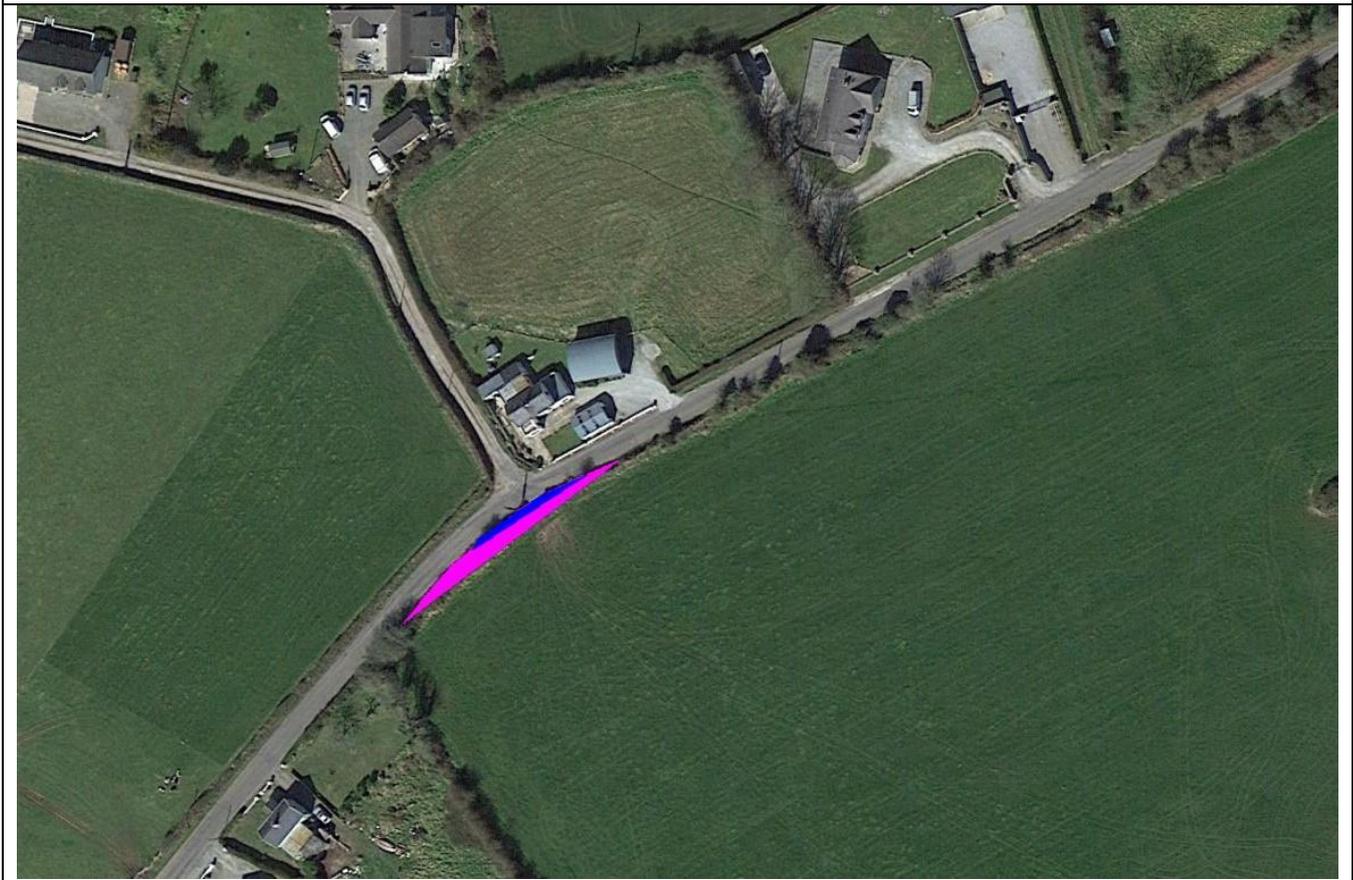


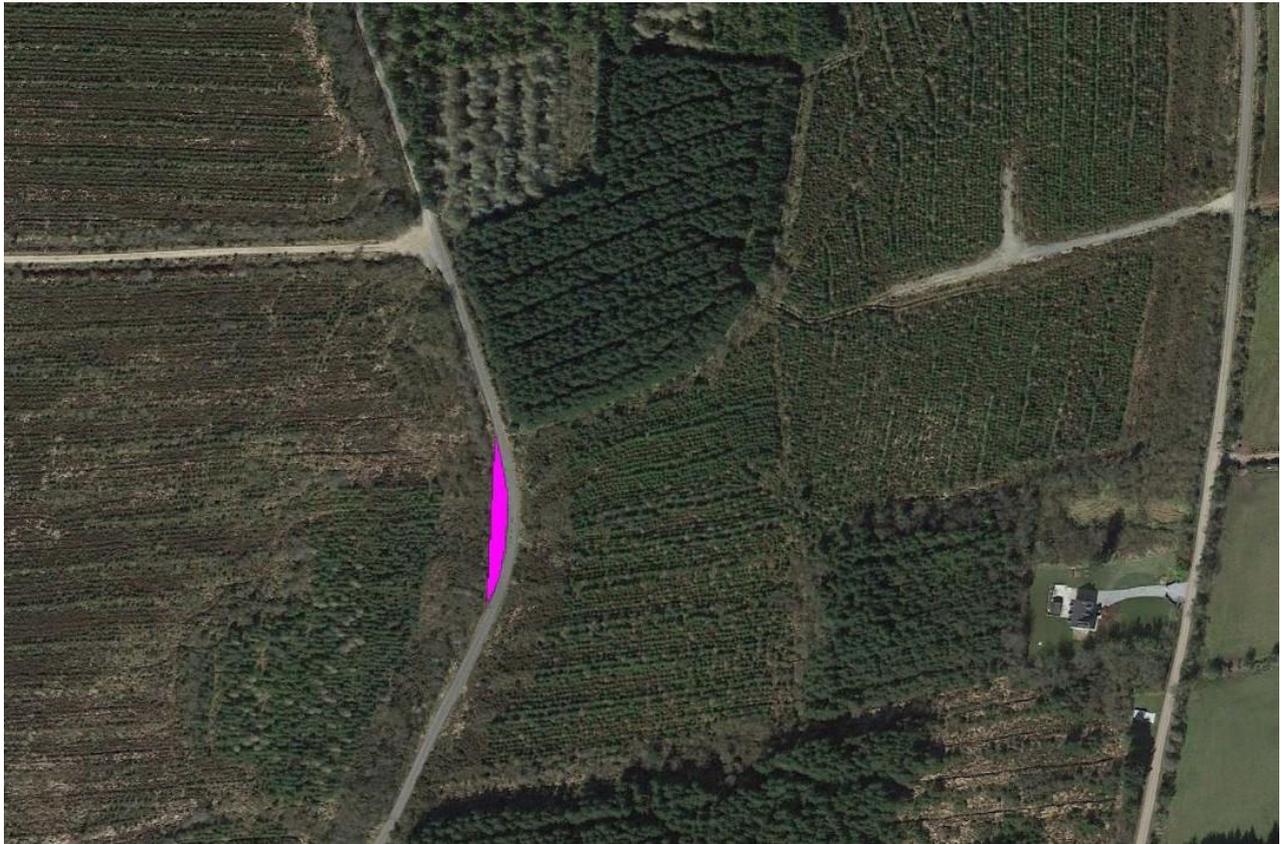
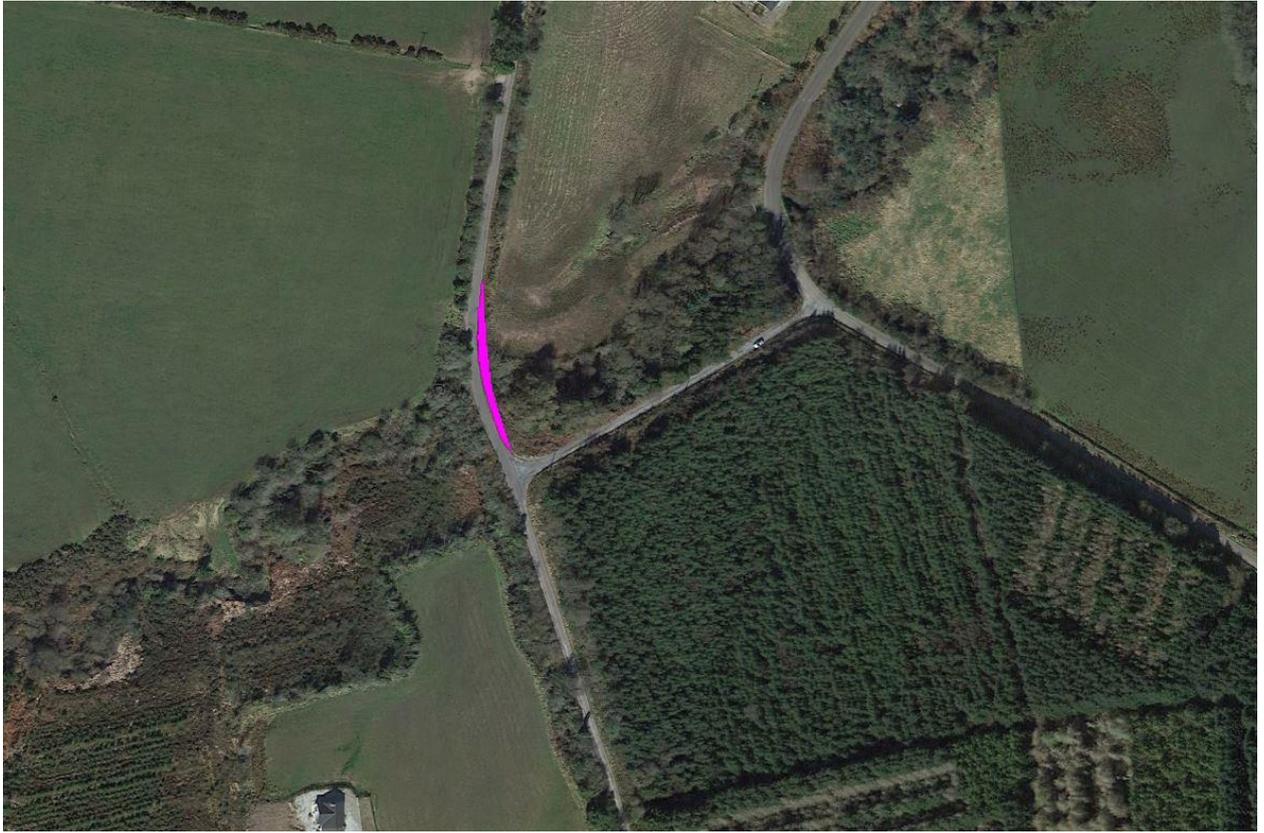


**Node 2.9 Castlebagh to Site entrance**

Site approach road will require land take for widening and tree trimming as per Turbine Suppliers/Hauliers requirements









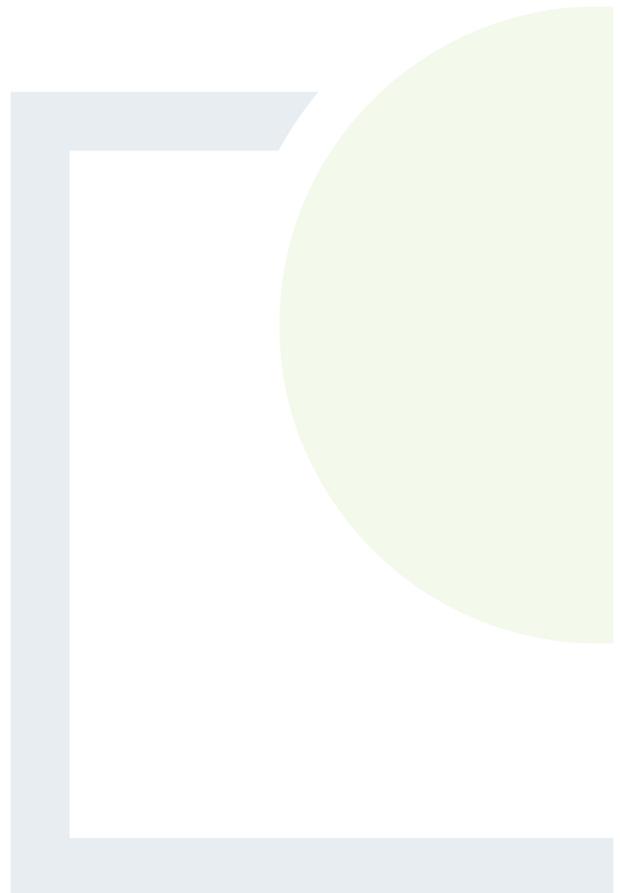
<p>Other Route Options</p>	<p>Route options for each proposed entrance are limited to the options shown.</p>
<p>Conclusions</p>	<p>The route options shown are the only available for each entrance</p> <p>Bridge and other structure capacities have not been assessed.</p> <p>Tree canopy and overhead cables have not been surveyed as part of this survey</p> <p>A trial run should be carried out prior to delivery to verify works carried out.</p> <p>An early test run is recommended to establish passage and rear overhang through Node 2.6.</p>
	<p><i>Edwin Sunderland 03/12/18</i></p>



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE & PLANNING

# APPENDIX 13.3

Consultation Response





Distribution *TR*

08 JUL 2019

Job No:

Correspondence No: *3*

Comment:

**Mr. Trevor Byrne**  
**Fehily Timoney & Company**  
**Core House**  
**Pouladuff Raod**  
**Cork**

Dáta | Date  
4 July 2019

Ár dTag | Our Ref.  
TII19-106239

Bhur dTag | Your Ref.  
P1036/Lt/MM/MG/CF

**Re: EIAR Scoping Request: Proposed Coom Green Energy Park, Co. Cork on behalf of Brookfield Renewable Ireland Ltd. & Coillte.**

Dear Mr. Byrne,

Transport Infrastructure Ireland (TII) acknowledges receipt of your EIAR Scoping request in respect of the above proposed project, received 3 July 2019.

National Strategic Outcome 2 of the National Planning Framework includes the objective to maintain the strategic capacity and safety of the national roads network. It is also an investment priority of the National Development Plan, 2018 – 2027, to ensure that the extensive transport networks which have been greatly enhanced over the last two decades, are maintained to a high level to ensure quality levels of service, accessibility and connectivity to transport users.

The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests for further information, objections or appeals following the examination of any valid application referred.

The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidance as outlined in the Spatial Planning and National Roads Guidelines for Planning Authorities (2012). Regard should also be had to other relevant guidance available at [www.TII.ie](http://www.TII.ie).

In this instance, the proposal is for up to 22 no. turbine windfarm, access tracks and underground cable to supply grid to either 110kV substation located at Barrymore near Rathcormac, Co. Cork or a 'looped-in' connection to the Killonan-Knockraha 200kV overhead line. The indicated site layouts submitted show the proposed development is located approximately 7km east of the N20, 10 km south of the N72 and 12 km west of the M8.

With respect to EIAR Scoping issues, the recommendations indicated below provide only general guidance for the preparation of EIAR, which may affect the national roads network. The developer should have regard, *inter alia*, to the following;

Próiseálann BIE sonraí pearsanta a sholáthraítear dó i gcomhréir lena Fhógra ar Chosaint Sonraí atá ar fáil ag [www.tii.ie](http://www.tii.ie).  
TII processes personal data in accordance with its Data Protection Notice available at [www.tii.ie](http://www.tii.ie).

1. As set down in the Spatial Planning and National Roads Guidelines, it is in the public interest that, in so far as is reasonably practicable, that the national road network continues to serve its intended strategic purpose. The EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network in order to demonstrate that the development can proceed complementary to safeguarding the capacity, safety and operational efficiency of that network.
2. Consultations should be had with the relevant local authority/National Roads Design Office with regard to locations of existing and future national road schemes, including the M20 Cork to Limerick Road identified as an Investment Action to commence planning in the National Development Plan 2018 -2027.
3. In relation to cabling and potential connection routing, the scheme promoter should note locations of existing and future national road schemes and develop proposals to safeguard proposed road schemes. In the context of existing national roads, alternatives to the provision of cabling along the national road network, such as alternative routing or the laying of cabling in private lands adjoining the national road, should be considered in the interests of safeguarding the investment in and the potential for future upgrade works to the national road network. The cable routing should avoid all impacts to existing TII infrastructure such as traffic counters, weather stations, etc. and works required to such infrastructure shall only be undertaken in consultation with and subject to the agreement of TII, any costs attributable shall be borne by the applicant/developer. The developer should also be aware that separate approvals may be required for works traversing the national road network.
4. Clearly identify haul routes proposed and fully assess the network to be traversed. Separate structure approvals/permits and other licences may be required in connection with the proposed haul route and all structures on the haul route should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal load proposed.
5. Where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site with reference to impacts on the national road network and junctions of lower category roads with national roads. TII's TTA Guidelines (2014) should be referred to in relation to proposed development with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of the TII TTA Guidelines which addresses requirements for sub-threshold TTA.
6. TII Standards should be consulted to determine the requirement for Road Safety Audit (RSA) and Road Safety Impact Assessment (RSIA).
7. Assessments and design and construction and maintenance standards and guidance are available at [TII Publications](#) that replaced the NRA Design Manual for Roads and Bridges (DMRB) and the NRA Manual of Contract Documents for Road Works (MCDRW).
8. The developer, in conducting Environmental Impact Assessment, should have regard to TII Environment Guidelines that deal with assessment and mitigation measures for varied environmental factors and occurrences. In particular;

- a. TII's Environmental Assessment and Construction Guidelines, including the *Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes* (National Roads Authority, 2006),
- b. The EIAR should consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see *Guidelines for the Treatment of Noise and Vibration in National Road Schemes* (1<sup>st</sup> Rev., National Roads Authority, 2004)).

Notwithstanding, any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.

I hope that the above comments are of use in your EIAR preparation.

**Yours sincerely,**



**Natasha Crudden**

**Regulatory & Administration Unit**

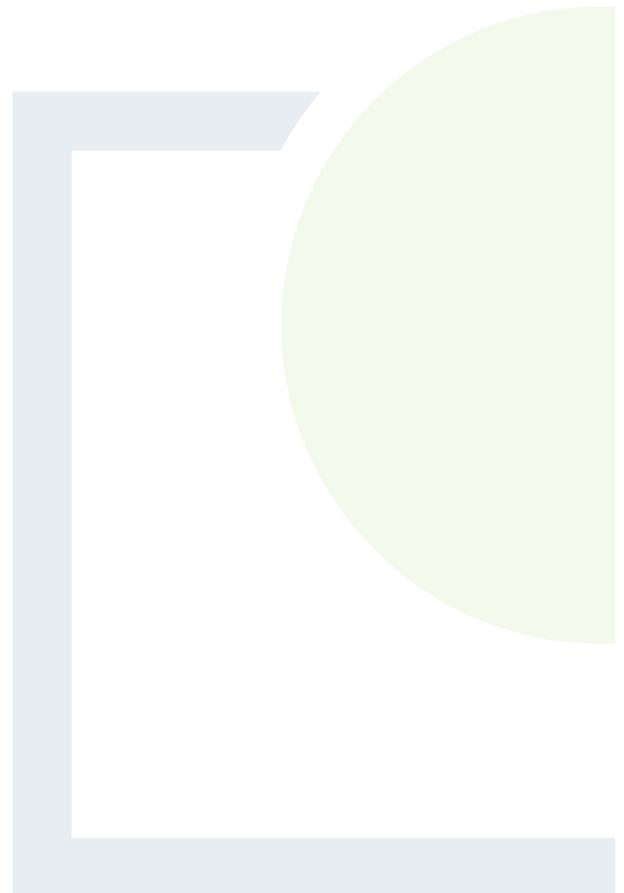




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# APPENDIX 13.4

Swept Path Assessment  
Results Report





Pell Frischmann

## Coom Wind Farm

### Swept Path Assessment Results



August 2020



### Revision Record

Rev	Description	Date	Originator	Checker	Approver
A	Draft	24/08/20	T Lockett	G Buchan	G Buchan

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.

**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

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### Appendices

**Appendix A - Points of Interest Locations**

**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 swept path assessments at a number of FTC identified locations to demonstrate the mitigation requirement to facilitate the use of blade lifting technology.

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

No site visit had been undertaken at this time. A site visit will be required to confirm the results of this report.

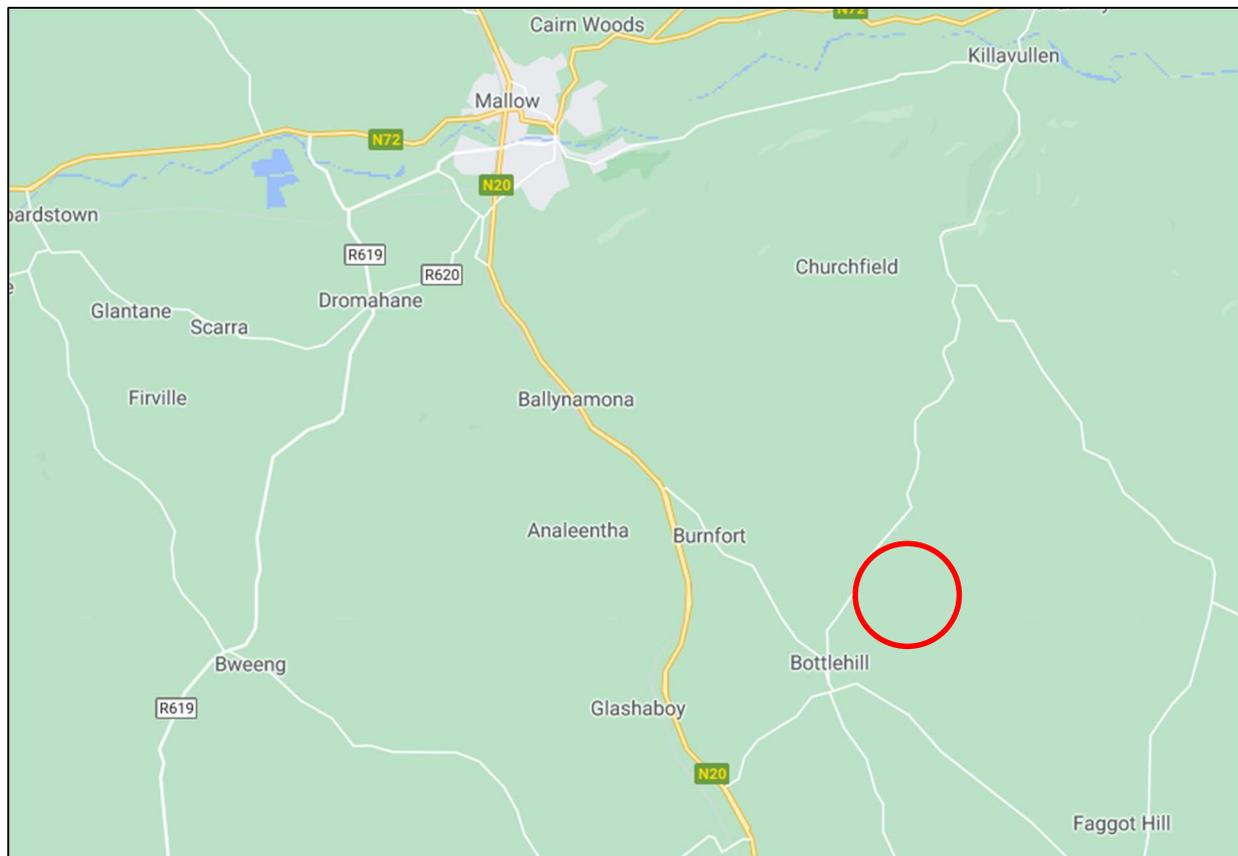
It is the responsibility of the wind turbine supplier to ensure that the entirety of the proposed access route is suitable and meets with their satisfaction. The turbine supplier will be responsible for ensuring that the finalised proposals meet with the appropriate levels of health and safety consideration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

## 2 Site Background

### 2.1 Site Location

The development site is located to the south-east of Mallow, County Cork. Figure 1 illustrates the general site location.

Figure 1: Site Location Plan



### 2.2 Candidate Turbines

FTC has indicated that they wish to consider the ‘worst case scenario’ components from the Vestas V136, Nordex N133, Enercon E138 or Enercon E136 turbines at a tip height of 169m.

The swept path assessment will be based on the following ‘worst case scenario’ components;

- 67.7m Blade; and
- 24.03m x 4.3m x 4.02m tower carried in 4 x 7 clamp trailer.

### 2.3 Proposed Delivery Equipment

The assessment has assumed the blade will utilise a standard superwing carrier for the route to the proposed transfer point.

It is proposed that the blade would be transferred onto a Goldhofer blade lifting trailer for onward movement to the site. This trailer has the ability to lift blades up to a maximum angle of 60 degrees, lifting blades over potential constraints and shortening the length plan view.

All overhead utilities and obstructions should be removed at any locations that the blades are raised on the blade lifting trailer.

Tower sections would be carried in a 4+7 clamp adaptor trailer.

Examples of the types of trailers proposed are provided in Figures 3, 3 and 4.

Figure 2: Superwing Carrier Trailer



Figure 3: Blade lifter



Figure 4: Tower Trailer

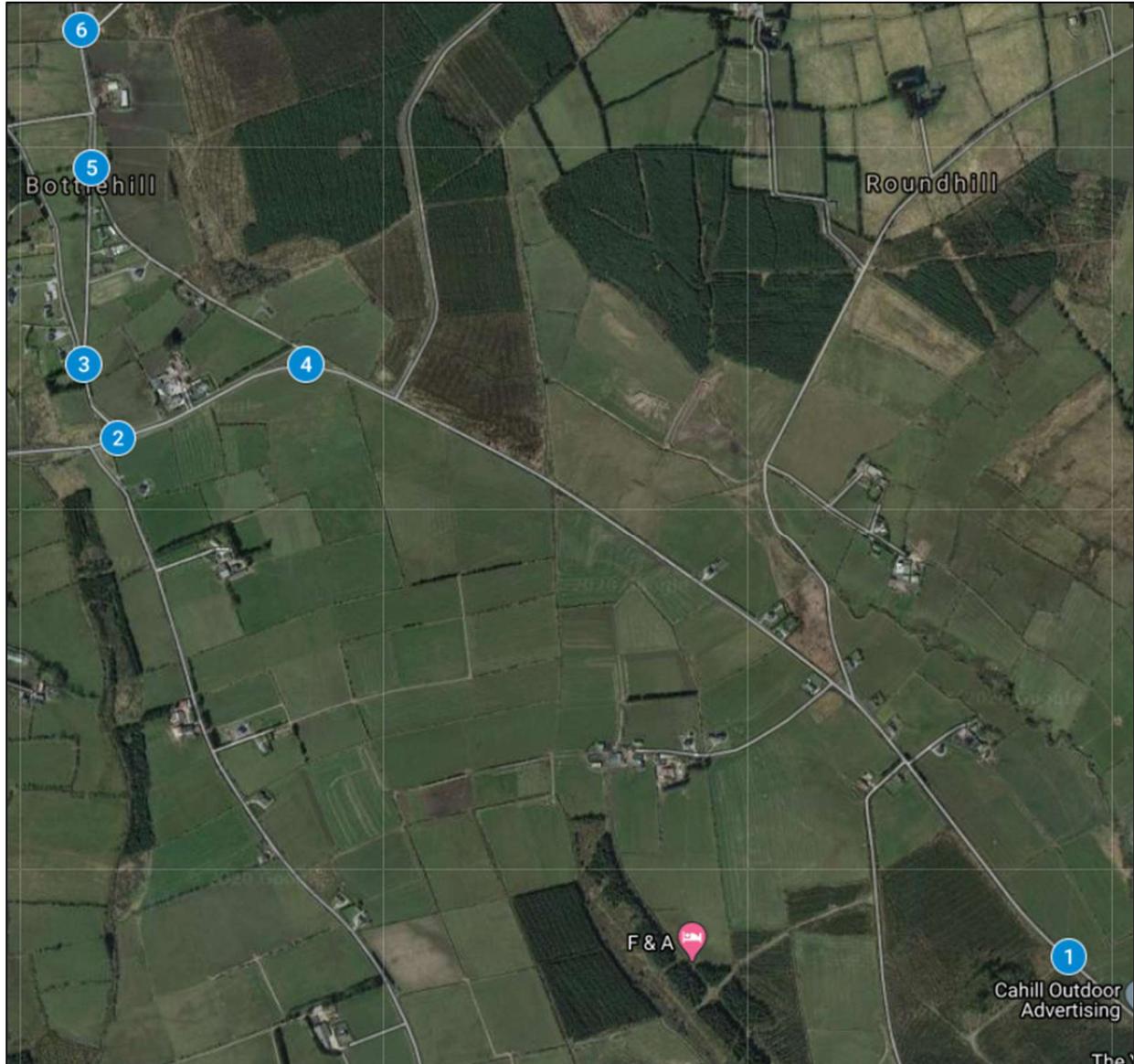


### 3 Access Route Review

#### 3.1 Access Route

PF have been commissioned to undertake swept path assessments at the locations shown in Figure 5 below. No assessment of the wider route to this point has been undertaken as part of this study.

Figure 5: Requested Swept Path Locations



### 3.2 Swept Path Assessment Results

The constraints noted in Figure 5 are detailed in Table 1. No consideration of the transport issues within the port, the development site or the route to this point have been undertaken and this includes the design of the site access junction, which are addressed by others.

Where the blade lifting trailer is utilised all overhead utilities and obstructions should be removed at any location where the blade is in the raised position.

Table 1: Constraint Points and Details

POI	Key Constraint	Details
1	<p><b>Potential Turning Location</b></p> 	<p>FTC have provided an indicative design for a blade transfer point at this location.</p> <p>Loads arriving at the site will be carried on a superwing carrier. They will then transfer to the blade lifting trailer for onward transportation to the site. All assessments from this point to the site have been undertaken with the blade in the raised position.</p> <p><u>All overhead utilities and obstructions should be removed where the blade is carried in the raised position.</u></p> <p>The swept path indicates that locations will oversail and overrun into <b>third party land</b> on the inside of the right turn into the junction where a load bearing surface should be laid. Trees and vegetation should be removed.</p> <p>The swept path assessment can be found in SK01 of Appendix A.</p>

POI	Key Constraint	Details
2	<p><b>Junction 1 SPA</b></p> 	<p>Loads will turn right at the junction from the L6957 onto the Tooreen North road.</p> <p>All overhead utilities and obstructions should be removed.</p> <p>The swept path assessment indicates that loads will overrun and oversail the southern verge on approach to the bend where a load bearing surface should be laid and one traffic sign removed. It is recommended that a land search is completed to confirm the extent of adopted road boundary at this location.</p> <p>Loads will overrun and oversail the verge on the inside of the bend where a load bearing surface should be laid and three traffic signs removed. Existing utilities should be protected.</p> <p>Loads will overrun and oversail the western verge of Tooreen North Road where a load bearing surface should be laid.</p> <p>Loads will continue to oversail both verges through the following right bend where vegetation should be cleared.</p> <p>The swept path assessment can be found in SK02 of Appendix A.</p>
3	<p><b>Junction 2 SPA</b></p> 	<p>Loads will turn right at the junction and continue on the Tooreen North Road.</p> <p>All overhead utilities and obstructions should be removed.</p> <p>The swept path assessment indicates that loads will oversail the western verge where vegetation should be trimmed. The proximity to a utility pole should be confirmed during the test run.</p> <p>The swept path assessment can be found in SK03 of Appendix A.</p>

POI	Key Constraint	Details
4	<p><b>Junction 4 SPA</b></p> 	<p>Loads would turn right from the L6956 onto the unclassified road leading north west.</p> <p>All overhead utilities and obstructions should be removed.</p> <p>The swept path assessment indicates that loads will oversail the southern verge of the L6956 on approach to the junction. Loads will overrun and oversail into <b>third party land</b> on the inside of the right turn where a load bearing surface should be laid and the drainage ditch culverted. The fence should be removed along with one road sign, one bollard and vegetation.</p> <p>Loads will overrun and oversail both verges through the following left bend where load bearing surfaces should be laid and one road sign and a number of traffic bollards should be removed. The vegetation should be trimmed and the ditch culverted.</p> <p>The swept path assessment can be found in SK04 of Appendix A.</p>
5	<p><b>Junction 3 SPA</b></p> 	<p>Loads will continue north through the junction to the access junction.</p> <p>All overhead utilities and obstructions should be removed.</p> <p>The swept path assessment indicates that loads will oversail the western verge where vegetation should be trimmed. Vegetation on the eastern verge should also be cut back.</p> <p>The swept path assessment can be found in SK05 of Appendix A.</p>
6	<p><b>Potential Site Entrance Location (Option 1)</b></p> 	<p>Loads would turn right into the proposed site entrance.</p> <p>In order to remain within the Coillte property boundary that was provided by FTC, the swept path assessment indicates that the existing junction will need to be upgraded to allow loads to leave the road and continue north east until they are within the site to begin their turn.</p> <p>The junction should be designed to meet turbine manufacturer guidelines and Cork County Council standards.</p> <p>The swept path assessment can be found in SK06 of Appendix A.</p>

### 3.3 Swept Path Assessment Results and Summary

The detailed swept path drawings for the locations assessed are provided in Appendix A for review. The drawings in Appendix A 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, aerial mapping has been utilised. Please note that PF cannot accept liability for errors on the data source, be that OSI base mapping or client supplied aerial mapping and data.

### 3.4 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 Cork County Council. 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.

### 3.5 Summary Issues

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

- That a full site visit is completed and a route survey report prepared to ensure that all constraints have been noted;
- Negotiations with land owners where identified as being required should commence as a priority;
- A revised 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 series of swept path assessments at locations identified by FTC in order to examine the issues associated with the transport of AIL turbine components to the development site.

This report identifies the issues associated with the identified locations and outlines the issues that will need to be considered for successful delivery of components.

The access review has been based upon a 67.7m blade and worst case tower components.

The report is presented for consideration to FTC. Various third party land arrangements, road modifications and interventions are required to successfully negotiate the identified points.

### 4.2 Further Actions

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

- Undertake a full site visit and 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

## Swept Path Assessments



Flat Blade In

Raised Blade Out



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	Client	Fehily Timoney			Designed	CN	21/08/2020	File No.	Coom Tracking 210820.dwg		
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	SPA Location	Potential Turning Location			Point of Interest	1		Drawing No.	SK01	Notes:	Revision
									1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.		1



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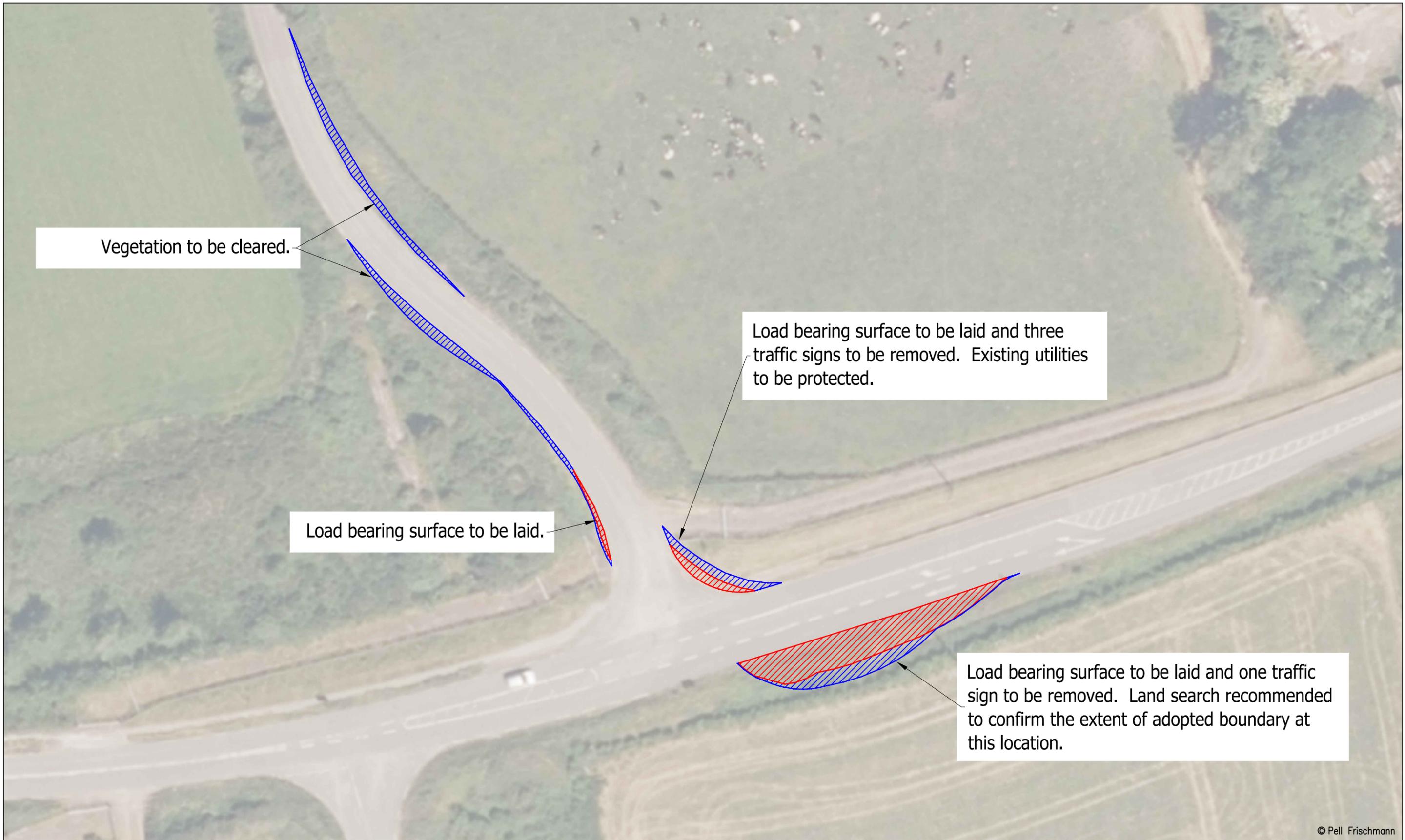
Tower



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								1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.		1





Vegetation to be cleared.

Load bearing surface to be laid.

Load bearing surface to be laid and three traffic signs to be removed. Existing utilities to be protected.

Load bearing surface to be laid and one traffic sign to be removed. Land search recommended to confirm the extent of adopted boundary at this location.

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	Client	Fehily Timoney	Designed	CN	21/08/2020	File No.	Coom Tracking 210820.dwg	
<b>Key</b> Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail	Drawing Title	67.7m Blade & 24.03x4.3x4.02m Tower	Checked	GB	25/08/2020	Drawing Status	Draft	
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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 **Coom Wind Farm**

Drawing Title **67.7m Blade & 24.03x4.3x4.02m Tower**

SPA Location **Junction 2 SPA**

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Designed	CN	21/08/2020	File No. Coom Tracking 210820.dwg
Checked	GB	25/08/2020	Drawing Status Draft
Point of Interest		3	
Drawing No.	Notes:		Revision
SK03	1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.		1





Vegetation to be cleared.  
Proximity to utility pole to be confirmed during the test run.

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	Client	Fehily Timoney	Designed	CN	21/08/2020	Checked	GB	25/08/2020	File No.
<b>Key</b> Wheel SPA Body SPA Load SPA Indicative Over-run Over-sail	Drawing Title	67.7m Blade & 24.03x4.3x4.02m Tower	Point of Interest		3		Drawing Status		Draft
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				1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.		1			



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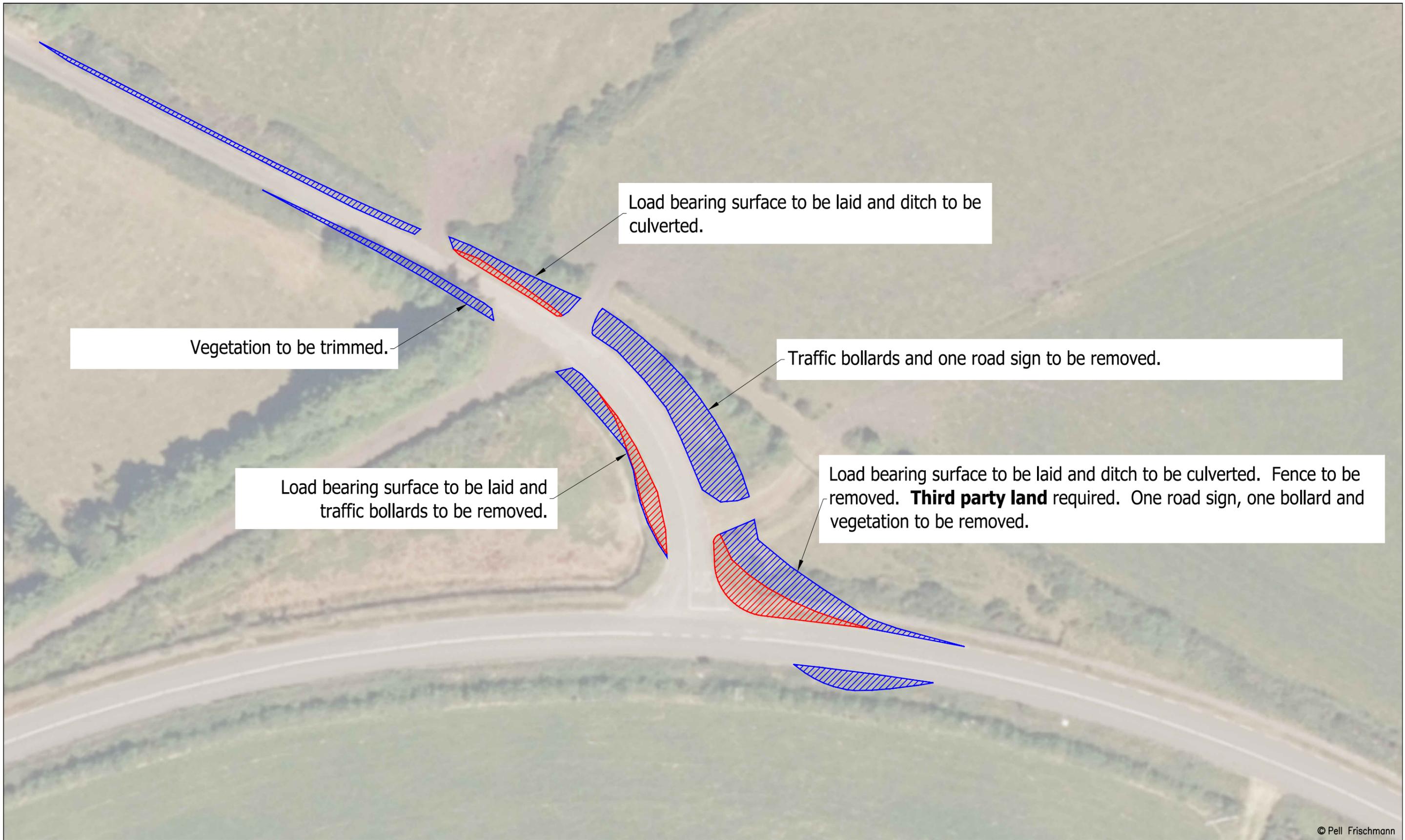
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								1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.	1	





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			Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.					



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Tower



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					Notes: 1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.				Revision	1





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			Notes:		1. All mitigation is subject to confirmation through a test run. 2. This is not a construction drawing and is intended for illustration purposes only. 3. PF accept no responsibility for the accuracy of the client provided aerial imagery.					





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		Drawing No.	SK06A		Notes:			
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