# COLLETT

**EXPERTS IN MOTION** 



#### REPORT DETAILS

#### REPORT FOR

Jennings O'Donovan Finisklin Business Park Sligo Ireland F91 RHH9

#### ATTENDEES OF THE SURVEY

Steven Mangham

#### DATE AND TIME OF THE SURVEY

Friday 3<sup>rd</sup> February

### **GENERAL WEATHER CONDITIONS**

Mixed

#### **ISSUED BY**

Steven Mangham

#### **APPROVED BY**

Steven Mangham

#### **DOCUMENT REVISIONS**

No	Date	Details
1	03/02/2023	Updated after swept path analysis completed

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#### **COMPANY PROFILE**

Collett & Sons Ltd established in Halifax over 45 years ago specialise in the multimodal logistics throughout the UK, Europe and Worldwide.

Our Company owns a modern fleet of over 60 vehicles and over 100 trailers, operating from 3 depots located in Halifax, Goole and Grangemouth.

The depots situated in Goole and Grangemouth offer strategically located sites suitable to provide central hubs for the distribution of abnormal load throughout the UK. Each facility is complete with up to 110 tonnes lifting capacity. The company is able to offer the complete transport solution from point of manufacture through to job site.

Collett & Sons Limited operate an in-house consultancy that deals with transport feasibility, route and site access surveys, Swept Path Analysis, Traffic Management Plans, Test Drives and Environment Statements.

In addition to consulting services, Collett & Sons Limited delivers the following services;

Marine
Port Operation
Heavy Lift Storage
Heavy Transport
Project Management
Freight Forwarding
Heavy Lift
General Haulage
Warehousing
Test Station (DVSA-authorised)
SHEQ Training











#### **CONTACT DETAILS**

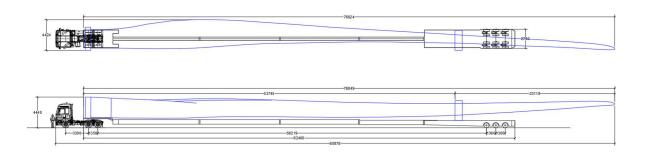
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Tel: +44 (0) 8456 255288 Fax: +44 (0) 8456 255244 renewables@collett.co.uk www.collett.co.uk

#### **ROUTE ASSESSMENT OVERVIEW**

This section of the report illustrates the route assessed for the delivery of a Siemens SG155 blade component to the proposed Firlough Wind Farm, Near Ballina, Co. Mayo, Ireland.

All the routes surveyed in this report have been identified by Collett Consulting and have been detailed in this report based on the following maximum dimensions instructed by Jennings O'Donovan:

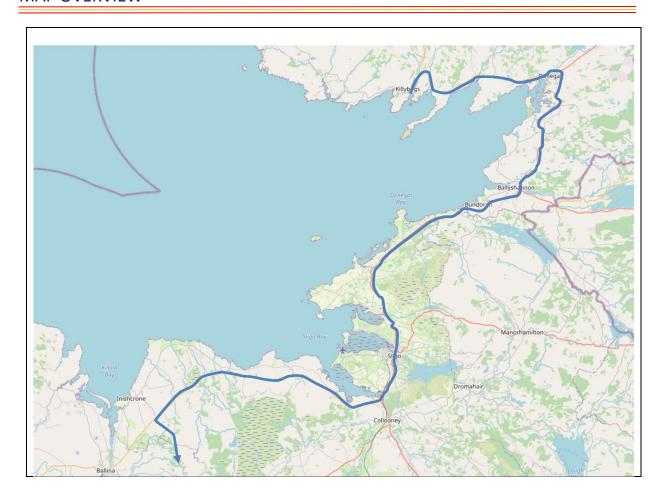


#### Route

Start Location	Killybegs Habour	Distance	Km	Miles
Max Load Dims:	84.4m Rigid Length Approx. 4.4m width	of Route	136	84.4

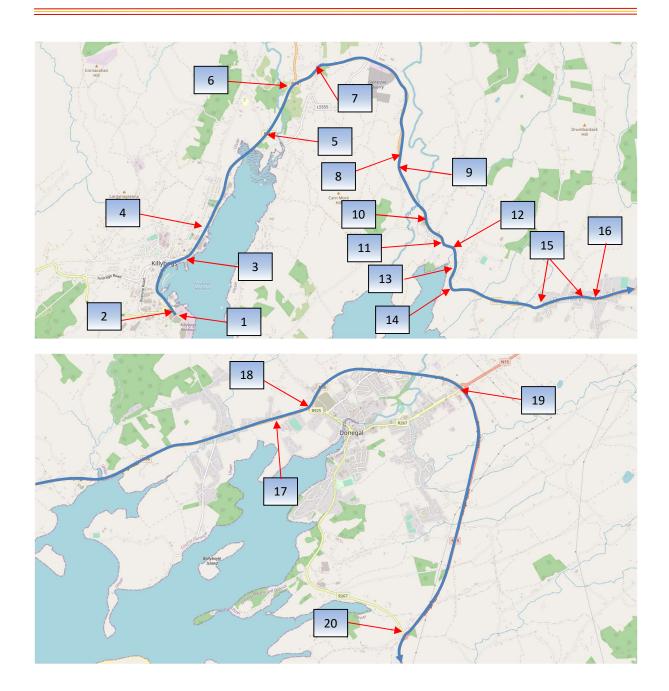
- Exit Killybegs Harbour
- At roundabout, take 2<sup>nd</sup> exit onto Shore Road
- Continue onto R263
- Continue onto N56
- At roundabout, take 2<sup>nd</sup> exit onto N56
- At roundabout, take 2<sup>nd</sup> exit onto N15
- At roundabout, take 1st exit onto N15
- At roundabout, take 1<sup>st</sup> exit onto N15
- At roundabout, take 1<sup>st</sup> exit onto N15
- At roundabout, take 1<sup>st</sup> exit onto N15
- At roundabout, take 2<sup>nd</sup> exit onto N4
- Exit N4 and turn right onto N59
- At mini roundabout, turn right onto N59
- At mini roundabout, turn right onto N59
- Continue on N59 through Dromore West
- Turn left onto L2604
- Continue on L2604 to proposed site location. Approx Coordinates: E535081 N821578

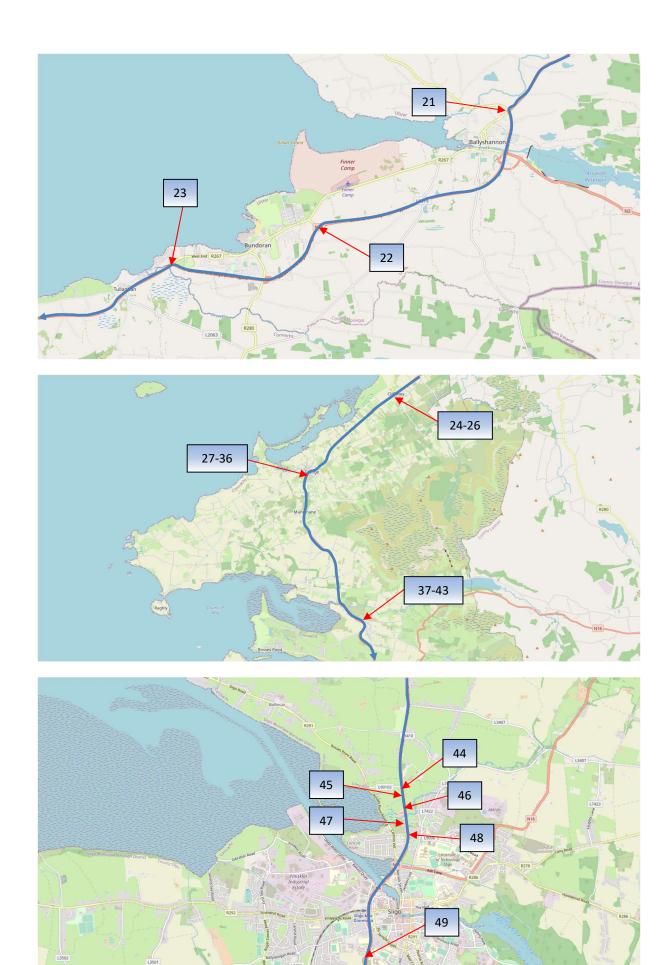
# MAP OVERVIEW

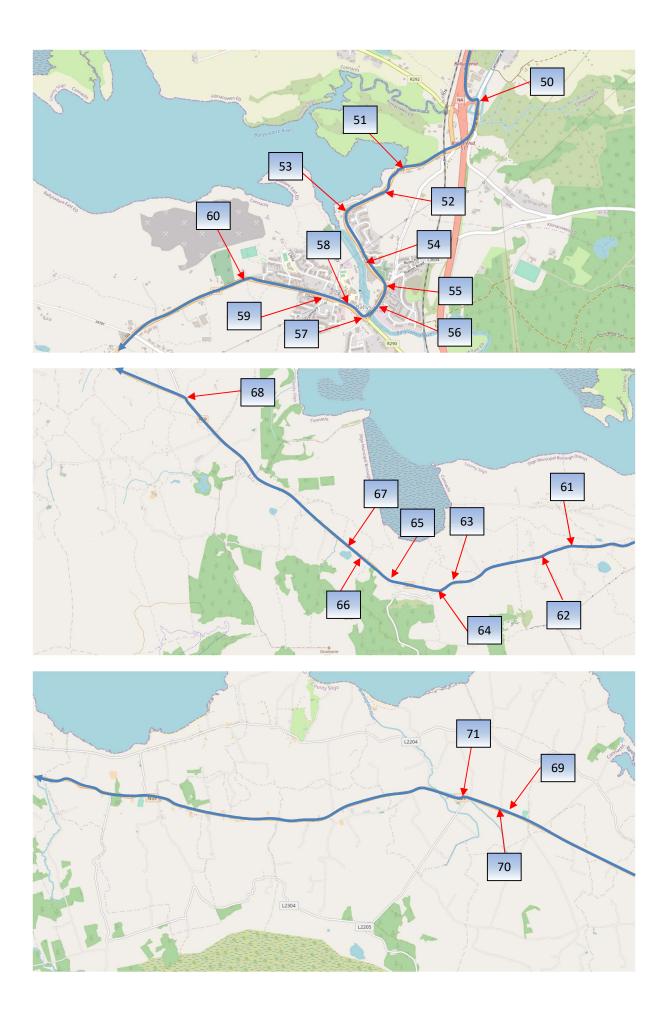


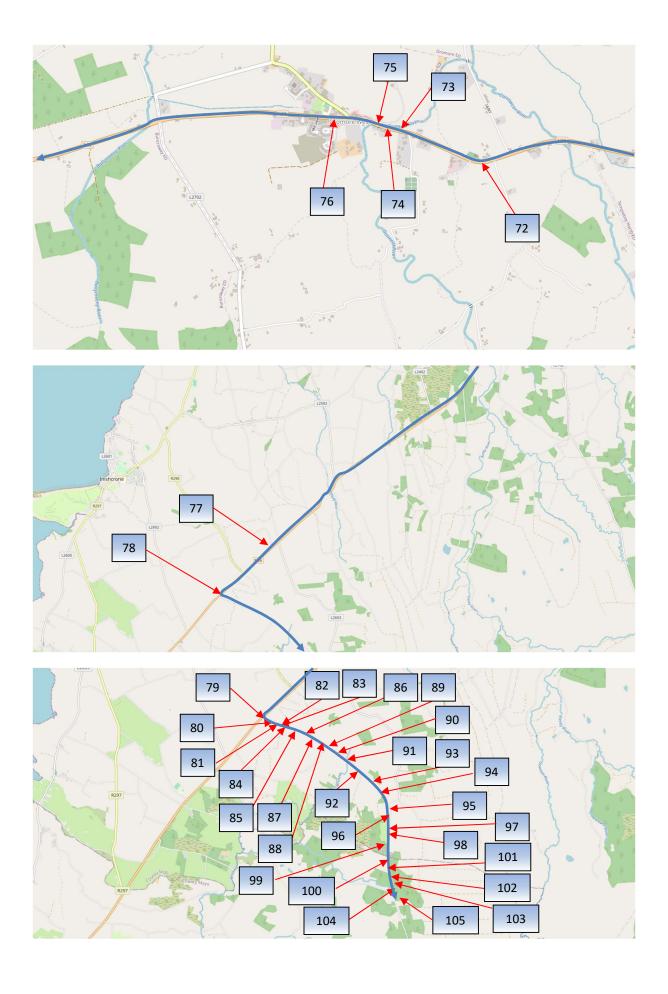
# ROUTE ASSESSMENT

# **LOCATION OVERVIEW**











# **Location 1 - Exit From Storage Area At Killybegs Harbour**

Direction - Exit Storage Area

Visual inspection indicates that the loaded vehicle will navigate out of the exit gate.



#### **Location 2 - Shore Road Roundabout**

Direction - Take 2nd Exit At The Roundabout

Visual inspection indicates that road widening will be required on the entry Splitter Island. Street furniture on the island to be removed.

Fence on the nearside to be removed to allow blade tip to oversail port land. Lamp post and road sign in this area to be removed.

Street furniture on the offside of the roundabout exit to be removed.

Loaded vehicle to contraflow this roundabout.



#### **Location 3 - Splitter Island On R263**

Direction - Continue On R263

Visual inspection indicates that the flexi bollards on the Splitter Island are to be removed.



# Location 4 - Splitter Island On R263

Direction - Continue On R263

Visual inspection indicates that there are no issues at this location.



#### Location 5 - Left Bend On R263

Direction - Continue On R263

Visual inspection indicates that pruning is required on the offside.

Manual steering required to assist navigation.



# Location 6 - Right Bend At R263/N56 Junction

Direction - Continue Onto N56

Visual inspection indicates that there are no issues at this location.



#### Location 7 - Right Bend On N56

Direction - Continue On N56

Visual inspection indicates that Road widening is required on the nearside of the bend.

Pruning required on both sides of the road.

Manual steering required.



# **Location 8 - Right Bend And Crest On N56**

Direction - Continue On N56

Visual inspection indicates that vertical analysis will be required to determine whether grounding will occur.

Trees in nearside required to be pruned to allow rear projection to oversail.

Manual steering required.



#### Location 9 - Left Bend And Crest On N56

Direction - Continue On N56

Visual inspection indicates that vertical analysis is required to determine whether grounding occurs.

Vertical analysis required to confirm modifications.



#### Location 10 - Left Bend On N56 In Bruckless

Direction - Continue On N56

Visual inspection indicates that third party land is required on the nearside.

Fence and boundary features on the nearside to be removed.

Swept Path Analysis required to confirm modifications.



#### Location 11 - Left Bend On N56

Direction - Continue On N56

Visual inspection indicates telegraph pole, tree and road sign are to be removed.

Trees on the offside to be removed. Pruning required on the nearside.

Manual steering required.



### Location 12 - Right Bend On N56

Direction - Continue On N56

Visual inspection indicates that the loaded blade will navigate this bend utilizing manual steering.



#### Location 13 - Right Bend On N56

Direction - Continue On N56

Visual inspection indicates that road widening is required to avoid third party land.

Utility Poles on the nearside to be removed.

Pruning required on both sides of the road.

Manual steering required



#### Location 14 - Left Bend On N56

Direction - Continue On N56

Visual inspection indicates that third party land is required on the nearside.

Utility Pole on the offside to be removed.

Fence and vegetation on the nearside to be removed.

Pruning required on the offside.

Manual steering required.



### **Location 15 - N56 Through Dunkineely**

Direction - Continue On N56

Visual inspection indicates that parking is to be restricted during deliveries.



# **Location 16 - Right Bend And Crest On N56**

Direction - Continue On N56

Visual inspection indicates that vertical analysis is required to determine whether grounding occurs.



# **Location 17 - Splitter Island On N56**

Direction - Continue On N56

Visual inspection indicates that the road sign on the splitter island is to be removed.



#### Location 18 - N56/R925 Roundabout

Direction - Take 2nd Exit At The Roundabout

Visual inspection indicates that the loaded vehicle will navigate this location utilising manual steering.



#### Location 19 - N56/N15 Roundabouy

Direction - Take 2nd Exit At The Roundabout

Visual inspection indicates that road widening is required on the exit Splitter Island.

Loaded vehicle to contraflow this roundabout.

Road sign and small trees on the central island to be removed.

Road sign and bollard on exit Splitter Island to be removed.

Pruning required on the offside of the roundabout entry.

Manual steering required.



#### Location 20 - N15/R267 Roundabout

Direction - Take 1st Exit At The Roundabout

Visual inspection indicates that road widening is required on central island.

Street furniture on the nearside and central island to be removed.

Manual steering required.



#### Location 21 - N15/R231 Roundabout

Direction - Tale 1st Exit At The Roundabout

Visual inspection indicates that road widening is required on the central island.

Road signs on entrance and exit of roundabout to be removed.

Manual steering required.



#### Location 22 - N15/R267 Roundabout

Direction - Take 1st Exit At The Roundabout

Visual inspection indicates that road widening is required on the central island.

Road sign on central island to be removed.

Manual steering required.



#### Location 23 - N15/R267 Roundabout

Direction - Take 1st Exit At The Roundabout

Visual inspection indicates that road widneing is required on the central island.

Street furniture on entry and exit splitter island to be removed.

Manual steering required.



### **Location 24 - Entry Splitter Island At Cliffony**

Direction - Continue On N15



# **Location 25 - Splitter Islands On N15 Through Cliffony**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 26 - Exit Splitter Island On N15 At Cliffony**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 27 - Entry Splitter Island On N15 At Grange**

Direction - Continue On N15



# **Location 28 - Splitter Island On N15 At Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



### **Location 29 - Splitter Island On N15 At Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 30 - Splitter Island On N15 At Grange**

Direction - Continue On N15



# **Location 31 - Splitter Island On N15 At Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 32 - Splitter Island On N15 At Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



### **Location 33 - Splitter Island On N15 At Grange**

Direction - Continue On N15



### **Location 34 - Spitter Island On N15 In Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 35 - Splitter Island On N15 In Grange**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



### **Location 36 - Exit Splitter Island On N15 At Grange**

Direction - Continue On N15



# Location 37 - Entry Splitter Island On N15 At Rathcormac

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# **Location 38 - Splitter Island On N15 At Rathcormac**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# Location 39 - Splitter Island On N15 At Rathcormac

Direction - Continue On N15



# Location 40 - Splitter Island On N15 In Rathcormac

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# Location 41 - Splitter Island On N15 In Rathcormac

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# Location 42 - Splitter Island On N15 At Rathcormac

Direction - Continue On N15



# Location 43 - Exit Splitter Island On N15 At Rathcormac

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# Location 44 - Splitter Island On N15 At Sligo

Direction - Continue On N15

Visual inspection indicates that there are no issues at this location.



### **Location 45 - Splitter Island On N15 At Sligo**

Direction - Continue On N15



Location 46 - Splitter Island On N15 At Sligo

Direction - Continue On N15

Visual inspection indicates that there are no issues at this location.



# **Location 47 - Splitter Island On N15 At Sligo**

Direction - Continue On N15

Visual inspection indicates that the street furniture on the splitter island is to be removed.



# Location 48 - Splitter Island On N15 At Sligo

Direction - Continue On N15



#### Location 49 - N4 Roundabout

Direction - Take 2nd Exit At Roundabout

Visual inspection indicates that road widening is required on the central island.

Road sign on central island to be removed.



#### Location 50 - N4/N59 Junction

Direction - Exit N4 Onto N59

Visual inspection indicates that road widening is required on the splitter island and on the offside of the junction.

Street furniture in these areas to be removed.

Manual steering required.



#### Location 51 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning is required on both sides of the road.

Manual steering required.



### Location 52 - Right Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning is required on both sides of the road.

Manual steering required.



#### Location 53 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that the blade rotated to 60 degrees will navigate without issue.

All overhead lines from transhipment point to the other transhipment point are to be removed to allow the blade to utilise the airspace.

Manual steering required.



# **Location 54 - Splitter Island On N59**

Direction - Continue On N59



# Location 55 - Mini Roundabout On N59 In Ballysadare

Direction - Take 3rd Exit At The Roundabout

Visual inspection indicates that the blade will oversail third party land on the nearside.

Any overhead obstructions to be removed.



# **Location 56 - Section Through Ballysadare**

Direction - Continue On N59

Visual inspection indicates that overhead cables are to be removed for the raised blade in the lift adapter.



#### Location 57 - N59/R290 Mini Roundabout

Direction - Take 2nd Exit At The Roundabout

Visual inspection indicates that the raised blade in the lift adapter will oversail beyond the bridge parapet on the offside.

Any overhead obstructions to be removed.

Manual steering required.



# **Location 58 - Left Bend And Crest On N59 At Ballysadare**

Direction - Continue On N59

Visual inspection indicates that the overhead cables are to be removed.

Vertical Analysis of the Crest required to determine whether there are any issues.



# **Location 59 - Splitter Island On N59 At Ballysadare**

Direction - Continue On N59

Visual inspection indicates that the street furniture on the splitter island to be removed.



#### Location 60 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that third party land is required on the nearside if the blade is transhipped back to the standard loading prior to this location. If not, it is recommend to be transhipped immediately following this location if land agreements allow.

Wall, trees and fence on the nearside to be removed.

If blade is still on lift adapter, overhead cables to be removed.

The remainder of the route is based on standard transport.



#### Location 61 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that the blade will navigate utilise manual steering.



# Location 62 - Right Bend On N59

Direction - Continue On N59

Visual inspection indicates that the blade will navigate this bend utilising manual steering.



#### Location 63 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning is required on both sides of the road.

Utility Pole on the offside to be removed.

Manual steering required.



### Location 64 - Right Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning is required on both sides of the road.

Manual steering required.



# Location 65 - Right Bend On N59

Direction - Continue On N59

Visual inspection indicates that the loaded blade will navigate without issue.



#### **Location 66 - Crest On N59**

Direction - Continue On N59

Visual inspection indicates that vertical analysis will be required to determine whether grounding occurs at this location.



#### **Location 67 - Crest On N59**

Direction - Continue On N59

Visual inspection indicates that vertical analysis is required to determine whether grounding occurs at this location.



#### **Location 68 - Left Bend On N59**

Direction - Continue On N59

Visual inspection indicates that pruning is required on both sides of the road.

Manual steering required.



#### **Location 69 - Crest On N59**

Direction - Continue On N59

Visual inspection indicates that vertical analysis is required to determine whether grounding will occur at this location.



#### Location 70 - Crest On N59

Direction - Continue On N59

Visual inspection indicates that vertical analysis is required to determine whether grounding will occur at this location.



### Location 71 - Left Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning will be required on the offside of the road.



### Location 72 - Right Bend On N59

Direction - Continue On N59

Visual inspection indicates that pruning will be required on both sides of the road.

Manual steering required.



# Location 73 - Entry Splitter Island On N59 At Dromore West

Direction - Continue On N59

Visual inspection indicates that the street furniture on the splitter island to be removed.



# **Location 74 - Splitter Island On N59 At Dromore West**

Direction - Continue On N59

Visual inspection indicates that the street furniture on the splitter island to be removed.



# **Location 75 - Splitter Island On N59 At Dromore West**

Direction - Continue On N59



# **Location 76 - Spitter Island On N59 At Dromore West**

Direction - Continue On N59

Visual inspection indicates that the street furniture on the splitter island to be removed.



# Location 77 - Crest And Dip On N59

Direction - Continue On N59

Visual inspection indicates that vertical analysis is required to determine whether any grounding issues will occur during navigation.



#### Location 78 - N59/L2604 Junction

Direction - Turn Left Onto L2604

Visual inspection indicates that third party land will be required on the nearside of the junction.

Trees and vegetation on the nearside to be removed.

Street furniture on the nearside to be removed.

Swept Path Analysis required to confirm modifications.



#### Location 79 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Tree Pruning required on both sides of the road.



# Location 80 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on both sides of the road.



#### Location 81 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside.

Pruning will also be required.



#### Location 82 - S Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the nearside of the road.

Pruning required on both sides of the road.



#### Location 83 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on both sides of the road.



#### **Location 84 - L2604**

Direction - Continue On L2604

Visual inspection indicates that the road width narrows from this location onwards.

Road will require upgrading to the turbine manufacturers specification.

Pruning will be required to provide a clear envelope as stipulated in the manufacturers specification.



#### Location 85 - Crest On L2604

Direction - Continue On L2604

Visual inspection indicates that vertical analysis is required to determine whether any grounding issues will occur during navigation.



### Location 86 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land will be required at this location.



#### **Location 87 - Narrow Section On L2604**

Direction - Continue On L2604

Visual inspection indicates that road widening will be required on both sides of the road.

Road sign and telegraph pole on the offside to be removed.

Pruning required on both sides of the road.



### Location 88 - Road Signs On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening will be required on both sides of the road.

Road signs to be removed.



#### Location 89 - Crest On L2604

Direction - Continue On L2604

Visual inspection indicates that vertical analysis is required to determine whether any grounding issues will occur during navigation.



#### Location 90 - Crest On L2604

Direction - Continue On L2604

Visual inspection indicates that vertical analysis is required to determine whether any grounding issues will occur during navigation.



### Location 91 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land will be required at this location.

Street furniture will require removal.



#### Location 92 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the both sides of the road.

Telegraph Pole on the nearside to be removed.

Pruning required on both sides of the road.



#### Location 93 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on both sides of the road.



#### Location 94 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on both sides of the road.



# Location 95 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on the nearside of the road.



#### Location 96 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land will be required on the nearside of the road.

Trees and vegetation on the nearside to be removed.



#### Location 97 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land is required on the offside of the road.

Trees and vegetation on the offside to be removed.

Pruning required on the nearside.



# Location 98 - Right Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land is required on the offside of the road.

Trees and vegetation on the offside to be removed.

Pruning required on the nearside.



#### **Location 99 - L2604**

Direction - Continue On L2604

Visual inspection indicates that the road will require upgrading to the turbine manufacturers specification.

Pruning will be required to provide a clear envelope as stipulated in the manufacturers specification.



#### Location 100 - Left Bend On L2604

Direction - Continue On L2604

Visual Visual inspection indicates that road widening is required on the offside of the road.

Pruning required on both sides of the road.



#### Location 101 - Tree On L2604

Direction - Continue On L2604

Visual inspection indicates that road widening is required on both sides of the road.

Tree on the nearside to be pruned.



#### Location 102 - Left Bend On L2604

Direction - Continue On L2604

Visual inspection indicates that third party land is required on the nearsidd of the road.

Trees and vegetation on the nearside to be removed.

Pruning required on the offside.



#### Location 103 - Crest On L2604

Direction - Continue On L2604

Visual inspection indicates that vertical analysis is required to determine whether any grounding issues will occur during navigation.



# Location 104 - Bridge On L2604

Direction - Continue On L2604

Visual inspection indicates that the bridge will require replacing as it is currently too narrow to allow for turbine deliveries.

Widening will be required both before and after the bridge.



### **Location 105 - Proposed Site Location**

Direction - Turn Left Into Site

Site Entrance to be constructed in accordance with the turbine manufacturers specification.

The whole of the L2604 will rewuire upgrading to meet the manufactures specification in terms of road widths and vertical radii.

#### **IMPORTANT NOTES**

- Garda Escorts and Pilot cars will be required to negotiate the route, in order to assist with traffic control and control oncoming traffic flow.
- The information contained in this report is privileged and confidential and is for the exclusive use of the client nominated herein.
- All access diagrams and assessments are made and calculated for the road movement of loaded trailer equipment carrying components. These dimensions are based on the turning circles and specification of Collett & Sons Ltd trailer equipment.
- Land take is usually referred to when land is required from Private Land Owners; road widening is usually
  referred to when land is required within highways boundaries. The boundaries between private land and
  highways property are assumed by using obvious demarcation such as fence lines/hedges etc. It should be
  noted that actual boundaries between highways and private land are not substantiated in this report and
  can only be authenticated by carrying out land searches.
- All route assessment, proposed land-take and removal/re-instatement of nominated street furniture is
  deemed accurate by Collett & Sons Ltd at the date that this report is created. We cannot be held responsible
  for the development of future road schemes or alterations to the routes surveyed that may leave this report
  inaccurate.
- Route should comply with the turbine manufacturers minimum specifications for road width and clear envelope. Any locations where the minimum road dimensions are not met, should be upgraded. Any obstructions that impede within the clear envelope, such as street furniture, is to be removed.
- This report is a high level overview of the route. A full in depth survey should be undertaken, assessing all
  turbine components with further investigation measures such as Swept Path Analysis, to fully confirm the
  route suitability.