
DREENACREENIG WEST WIND FARM LIMITED

DERREENACRINNIG WEST WIND FARM CO. CORK

APPENDIX 11.1 TRAFFIC MANAGEMENT PLAN

JULY 2025

**Dreenacreenig West
Wind Farm Limited**
Derreenacrinnig West,
Drimoleague,
Co. Cork



Jennings O'Donovan & Partners Limited,
Consulting Engineers,
Finisklin Business Park,
Sligo.
Tel.: 071 9161416
Fax: 071 9161080
email: info@jodireland.com



JENNINGS O'DONOVAN & PARTNERS LIMITED

Project, Civil and Structural Consulting Engineers,
FINISKLIN BUSINESS PARK,
SLIGO,
IRELAND.

Telephone (071) 91 61416
Fax (071) 91 61080

Email info@jodireland.com
Web Site www.jodireland.com



DOCUMENT APPROVAL

PROJECT	Derreenacrinnig West Wind Farm	
CLIENT / JOB NO	Dreenacreenig West Wind Farm Limited	4636
DOCUMENT TITLE	Construction Environmental Management Plan (CEMP) Traffic Management Plan (TMP)	

	Prepared by	Reviewed / Approved by
Issue / Revision	Name Evan Concar	Name Breena Coyle David Kiely
Date July 2025	Signature 	Signature

This document, and information or advice which it contains, is provided by JENNINGS O'DONOVAN & PARTNERS LIMITED solely for internal use and reliance by its Client in performance of JENNINGS O'DONOVAN & PARTNERS LIMITED's duties and liabilities under its contract with the Client. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The advice and opinions in this document are based upon the information made available to JENNINGS O'DONOVAN & PARTNERS LIMITED at the date of this document and on current standards, codes, technology and construction practices as at the date of this document. Following final delivery of this document to the Client, JENNINGS O'DONOVAN & PARTNERS LIMITED will have no further obligations or duty to advise the Client on any matters, including development affecting the information or advice provided in this document. This document has been prepared by JENNINGS O'DONOVAN & PARTNERS LIMITED in their professional capacity as Consulting Engineers. The contents of the document does not, in any way, purport to include any manner of legal advice or opinion. This document is prepared in accordance with the terms and conditions of JENNINGS O'DONOVAN & PARTNERS LIMITED contract with the Client. Regard should be had to those terms and conditions when considering and/or placing any reliance on this document. Should the Client wish to release this document to a Third Party for that party's reliance, JENNINGS O'DONOVAN & PARTNERS LIMITED may, at its discretion, agree to such release provided that:

- (a) JENNINGS O'DONOVAN & PARTNERS LIMITED written agreement is obtained prior to such release, and
- (b) By release of the document to the Third Party, that Third Party does not acquire any rights, contractual or otherwise, whatsoever against JENNINGS O'DONOVAN & PARTNERS LIMITED and JENNINGS O'DONOVAN & PARTNERS LIMITED, accordingly, assume no duties, liabilities or obligations to that Third Party, and
- (c) JENNINGS O'DONOVAN & PARTNERS LIMITED accepts no responsibility for any loss or damage incurred by the Client or for any conflict of JENNINGS O'DONOVAN & PARTNERS LIMITED's interests arising out of the Client's release of this document to the Third Party.

Directors
Nigel Board, Abigail Draper,
David Kiely, Seamus Lee,
David O'Hagan, Alan Ryder

Chief Finance Officer
Rose Davis
Technical Directors
Joe Healy, Sean Molloy
Regional Director
Audrey Phelan

Senior Associates
Seán Gilmartin, John McElvaney, Tomás McGloin
Associates
Breena Coyle, Dermot Guilfoyle, Lindsey McCormack,
Sarah Moore, Cáit O'Reilly



CONTENTS

1	INTRODUCTION	1
1.1	General.....	1
1.2	Objectives.....	1
1.3	Implementation and Monitoring.....	2
2	THE PROJECT	2
2.1	Project Location	2
2.2	Project Description.....	3
2.3	Proposed Turbine Component Haul Route	4
3	CONSTRUCTION STAGE	24
3.1	Programme.....	24
3.2	Hours of Construction	25
3.3	Construction Phase Traffic.....	26
4	CONSTRUCTION PHASE TRAFFIC MANAGEMENT PLAN.....	27
4.1	Consents, Licences, Notifications and Permissions	27
4.2	General Provisions	28
4.3	Routing of Construction Phase Traffic.....	30
4.4	Site Specific Temporary Traffic Measures	30
4.5	Enforcement of Traffic Management Plan	34
4.6	Emergency Procedures during the Construction	34
5	OPERATIONAL AND DECOMMISSIONING PHASES	36
5.1	Operational Phase.....	36
5.2	Decommission Phase	36
6	CONCLUSION.....	38
	APPENDIX A GRID CONNECTION WORKS	38

1 INTRODUCTION

1.1 General

This document is a Traffic Management Plan (TMP), prepared as an Appendix to the Construction Environmental Management Plan (CEMP).

The TMP is a “living document”. Therefore, any changes which may occur in the planning process and in the detailed construction programme can be incorporated, as can inputs by the Contractor(s), the detailed design team and the Developer. The commitments included within the Environmental Impact Assessment Report (EIAR) and in the CEMP are the minimum commitments that the Contractor shall follow, and others will be developed during the Construction Phase in consultation with the various stakeholders, including the Local Authorities.

1.2 Objectives

This TMP has been prepared prior to the appointment of a Contractor, material suppliers and final Construction Phase programme. It will be updated following grant of planning permission and prior to commencement of any construction works as outlined in **Section 3.8** of the CEMP.

The primary objectives of this TMP are to:

- Outline minimum road safety measures to be undertaken at site access/egress locations during the Construction Phase, including approaches to such access/egress locations.
- Demonstrate to the Developer, Contractor and suppliers the need to adhere to the relevant guidance documentation for such works.

The TMP addresses the following issues which are explained in detail in this report:

- Consent, Licenses, Notifications and Permissions;
- General Provisions;
- Site Access and Egress;
- Routing of Construction Traffic;
- Site Specific Temporary Traffic Measures;
- Enforcement of TMP, and
- Emergency Procedures During the Construction.

1.3 Implementation and Monitoring

The works are likely to be constructed under three separate contracts:

- Turbine Supply Contract;
- Civil Works Balance of Plant Contract;
- Electrical Works Balance of Plant Contract;
- Grid Connection which will be constructed by ESB.

All contracts have the potential to impact on traffic and roads.

The Contractors shall agree and implement measures to monitor the effectiveness of the TMP, in conjunction with the Local Authority and Developer. On finalisation of the TMP, the Contractors shall adopt the plan and associated monitoring measures.

In order to ensure that environmental awareness and compliance is communicated effectively at the start and throughout the construction works, this TMP in conjunction with the CEMP and its contents, will be communicated to all site personnel, including management staff, operative and sub-contractors. The key elements of this CEMP will form part of the Site induction which will be mandatory for all employees, Contractors and visitors attending the Site. Refer to Environmental Training and Awareness in **Section 4.6** of the CEMP.

2 THE PROJECT

2.1 Project Location

The Site, as shown in **Figure 2.2**, is located within an agricultural and forested landscape, between Goulanes and Castledonovan, in Co. Cork. The nearest settlement is the village of Drimoleague which is situated 5.1 km to the southeast of the Site. The Site is located 10.5 km north-east of Bantry, Co. Cork and 10.9 km west of Dunmanway. The Site is 14.2 km south-east the county boundary between Cork and Kerry and is 59 km west of Cork City.

The red line wind farm Site extends to approximately 104 ha as identified on **Figure 2.2**.

The Site is located within the townland of Derreenacrinnig West. The Grid Connection development traverses the townlands of Derreenacrinnig West, Barnagowlane West, Glanareagh, Gortnacowly, Ards Beg, Ardrah, Laharanshermeen, Maulraha, Maulikeeve, Derryarkane, Cappanaboul, Skahanagh, Gortroe, Shandrum Beg, Shandrum More, Dromloughlin, Ballylicky, Crossoge, in Co. Cork ("the Proposed Development Site").

Temporary works will be required to accommodate the delivery of the turbine components. These temporary works are included as part of this application and are located in the townlands of Castledonovan, Derreenacrinnig East, and Derreenacrinnig West.

2.2 Project Description

Planning Permission is being sought by the Developer for the construction of 3 No. Wind Turbines, an on-site substation, and all ancillary works (Derreenacrinnig West), works along the Turbine Delivery Route (Derreenacrinnig West, Derreenacrinnig East and Castledonovan), and the construction of a Grid Connection between the consented Derreenacrinnig West Wind Farm substation and the 110 kV substation in Ballylicky, (Derreenacrinnig West, Barnagowlane West, Glanareagh, Gortnacowly, Ards Beg, Ardrah, Laharanshermeen, Maulraha, Maulikeeve, Derryarkane, Cappanaboul, Skahanagh, Gortroe, Shandrum Beg, Shandrum More, Dromloughlin, Ballylicky, Crossoge). The Site is approximately 104 hectares (ha).

The Proposed Development will consist of the following:

- Construction of 3 No. wind turbines with an overall ground to blade tip height of 119.3 m with a rotor diameter of 82 m and a hub height of 78.3 m.
- Construction of 1 no. permanent 20 kV electrical, all associated electrical plant and equipment, all associated underground cabling, and all ancillary structures and works.
- Construction of one Temporary Construction Compound with associated temporary site offices, parking areas and security fencing.
- Upgrade and reuse of existing hardstands.
- Upgrade and reuse of existing internal site access roads.
- Provision of Biodiversity Enhancement Area.
- All associated underground electrical and communications cabling connecting the wind turbines to the wind farm Electrical Substation.
- Construction of approximately 10.75 km of 20 kV overhead line (OHL) along the Grid Connection route, the OHL to be constructed consists of c. 157 wood poles (ranging from 9m to 15 m above ground) supporting electrical conductor lines and ancillary structures and equipment.
- Installation of approximately 3.3 km of underground cable ducting and associated electrical cabling, and all other ancillary works including joint bays, culverts, marker posts and all associated developments.
- Construction Haul Route works along the L-8767, L-4711, and L-8765.

A 10-year planning permission and 40 -year operational life from the date of commissioning of the entire wind farm is being sought.

2.3 Proposed Turbine Component Haul Route

For the turbine haul route, much of journey from Ringaskiddy Port to the Wind Farm Site will be on National Primary Roads shown on **Figure 11.3**. These include the N28, N40 and N71. These roads vary in terms of width, number of lanes and types of junctions. Ringaskiddy Port has ongoing use by other Wind Farm developments such as Gortarahilly and Gortloughra.

Leaving Ringaskiddy Port, the N28 initially has two lanes westwards from the R613 junction (**Nodes 1 and 2**).



Node 1: Exit from Ringaskiddy Port onto N28



Node 2: N28 westwards from R613 junction.

This narrows to one lane prior to the Pfizer Roundabout (**Node 3**) and continues towards Shanbally in a similar manner with traffic islands at either side of junctions. The speed limit is 50 km/h. Shanbally is the transition from an industrial area to a largely residential area.



Node 3: Roundabout at Pfizer Factory.

Upon entrance into Shanbally, there is a splitter island on the N28 which will require wide loads to travel contraflow around the splitter island (**Node 4**).



Node 4: Contraflow manoeuvre required around traffic islands.

A central reservation with splitter islands (splitter islands accommodate street furniture which will need to be relocated temporarily to allow passage of turbine blades) is present at the approach to the R611 Roundabout. A contraflow manoeuvre is required at this location, street furniture to be removed at the approach to the R611 Roundabout (**Node 5**).



Node 5: R611 Roundabout.

At the Shannonpark Roundabout, longer delivery vehicles such as blades will require to travel contraflow around this roundabout. Shorter loads will be able to negotiate the roundabout in the usual manner (**Node 6**).



Node 6: Shannonpark Roundabout.

The N40 (South Ring Road) has two lanes and hard shoulder in each direction, it widens further towards the junction with the N27. The N40 continues as a dual carriageway.

At the Bandon Road Roundabout, the route takes the first exit south onto the N71 (**Node 7**).



Node 7: Bandon Road Roundabout.

The N71 is predominately double lane without hard shoulders and with central reservation. The speed limit is 60km/h until the Bandon Road where it increases to 100km/h. The road is without hard shoulder until the junction onto the L2451. There is a central reservation present at the Chetwynd Viaduct. The Bandon Road splits into a dual carriage way with two lanes and without a hard shoulder.

The road then continues as one lane heading south and two lanes heading north, with a hard shoulder. The road returns to a single lane after the exit onto the R613.

At the N71/R607 roundabout, the route continues on the second exit onto the N71 (**Node 8**). All vehicles will negotiate this roundabout without issue.



Node 8: N71/R607 Roundabout.

The speed limit reduces to 60 km/h through Inishshannon with a central reservation (**Node 9**). The N71 from Inishshannon to Bandon is predominantly double lane with a hard shoulder either side of the road.



Node 9: Entrance to Inishshannon with central reservation and street furniture.

The speed limit reduces to 60 km/h through Inishshannon with a central reservation. The N71 from Inishshannon to Bandon is predominantly double lane with a hard shoulder either side of the road.

Upon entering Bandon, the route takes the first exit south on Cork Road/Relief Road roundabout (**Node 10**).



Node 10: Cork Road/Relief Road Roundabout

The route continues on the Relief Road south of Bandon before heading north onto the N71 at the R603 junction (**Node 11**).



Node 11: Relief Road/R603 Junction.

The route then continues west on the N71/ R603 roundabout (**Node 12**).



Node 12: N71/ R603 roundabout

The route continues on the N71 west of Bandon. This is a two-lane road with hard shoulders on each side and sections of traffic islands that vehicles will negotiate without

issue. Leaving Bandon, the road narrows with no hard shoulder and the speed limit increases to 100 kmh.

The route then turns right heading north from the N71 onto the R586 (**Node 13**).



Node 13: N17/R586 junction.

The R586 is a double lane regional road with no hard shoulder. The route then continues on the R586 heading west (**Node 14**). This turn can be made with no issue.



Node 14: Left turn continuing on the R586.

The R586 is a double lane regional road with no hard shoulder and a speed limit of 80 km/h. In the village of Enniskeneane, there is a small amount of street furniture which should not be an issue (**Node 15**).



Node 15: Street furniture in the village of Enniskeneane

After the village of Enniskeneane, the route continues on the R586 west towards Dumanway. Approaching Dumanway, the road widens with a hard shoulder on each side. Upon entering Dumanway, the speed limit reduces to 50 km/h with a traffic island (**Node 16**), this will not be an issue.



Node 16: Traffic island and street entering Dumanway

In Dumanway, the route turns south from the Main Street onto Sackville Street (**Node 17**).



Plate 17: Junction from Main Street onto Sackville Street

The route then continues from Sackville Street onto Quarry Road, proceeding through the Quarry Road/R599 Junction (**Node 18**), before turning left at the Quarry Road/R568 Junction heading south onto the R568 (**Node 19**).



Node 18: Quarry Road/R599 Junction



Node 19: Quarry Road/R568 Junction

The route continues on the R586 west towards Drimoleague. Through the village of Drimoleague, the route turns right at the R586/L8752 junction onto the L8752 heading north (**Node 20**).



Node 20: R586/L8752 junction

The L8752 is a single lane local road. The route continues on the L8752 before turning right onto the L4710 (**Node 21**).



Node 21: L8752/L4710 junction

The route continues left on the L4710 at the River Cloddagh Crossing (**Node 22**).



Node 22: River Cloddagh Crossing.

The route continues on the L4710 before turning left onto the L4711 (**Node 23**).



Node 23: L4710/L4711 junction.

The route continues west on the L4711 towards Castledonovan and passed Castledonovan National School (**Node 24**).

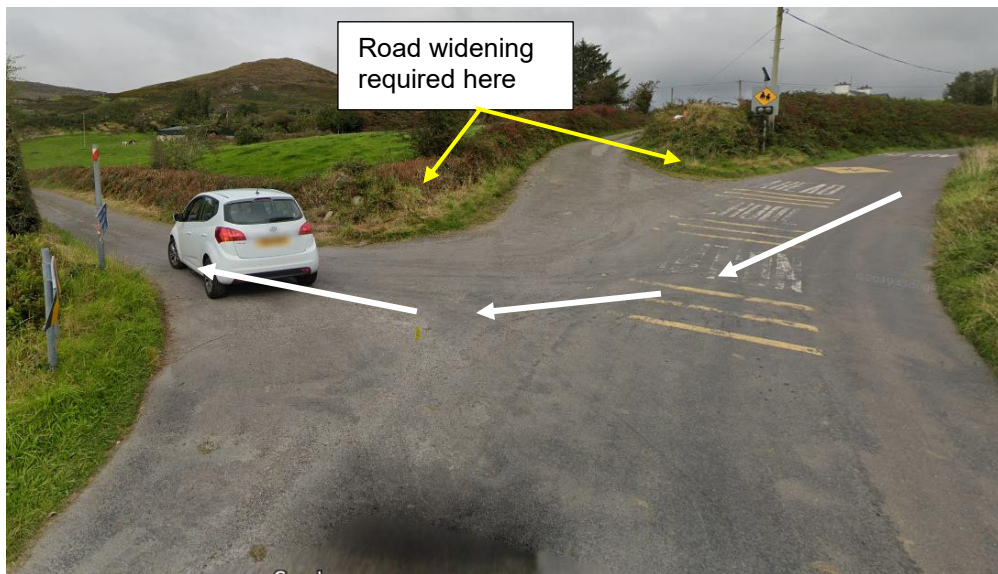


Node 24: Castledonovan National School

At approximately 115 meters west of Castledonovan National School, the route turns right onto the L8767 (**Node 25**). Road widening will be required at this junction to accommodate longer delivery vehicles (**Node 26**).



Node 25: L4711/L8767 junction



Node 26: Road widening required at L4711/L8767 junction

The last section of the route, approximately 1.7 km along the L8767, will require road widening in areas to comply with Enercon specifications. Road will be required to be resurfaced, hedges will have to be trimmed along the road corridor.

Hedge trimming will be required along the route to accommodate blade oversail into third party lands (**Node 27**).



Node 27: L8767 Hedge Trimming required for blade oversail

On the L8767, approx. 1.2 km south of the Site entrance, road widening will be required within the road corridor (**Node 28**). Roadside vegetation will also be required to be trimmed.



Node 28: L8767 Road Widening required within the road corridor.

On the L8767, approx. 1 km south of the Site entrance, road widening will be required within the road corridor, initially required at the western side of the road (**Node 29**) and

then required on the eastern side (**Node 30**). Roadside vegetation will also be required to be trimmed to accommodate blade oversail.

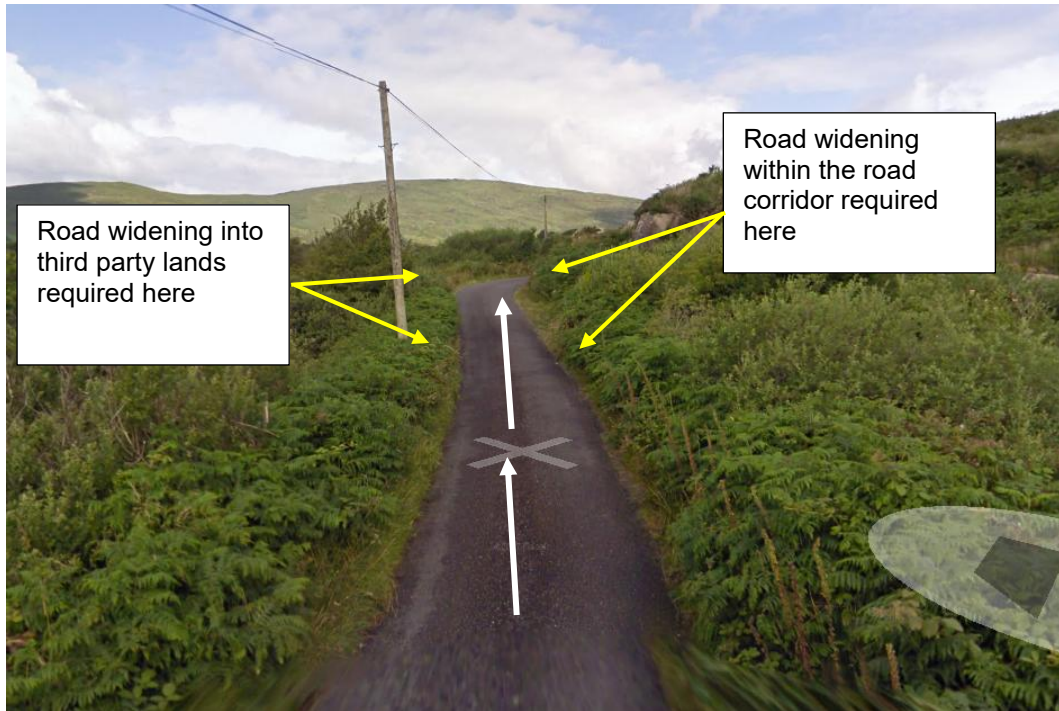


Node 29: L8767 road widening required to the west



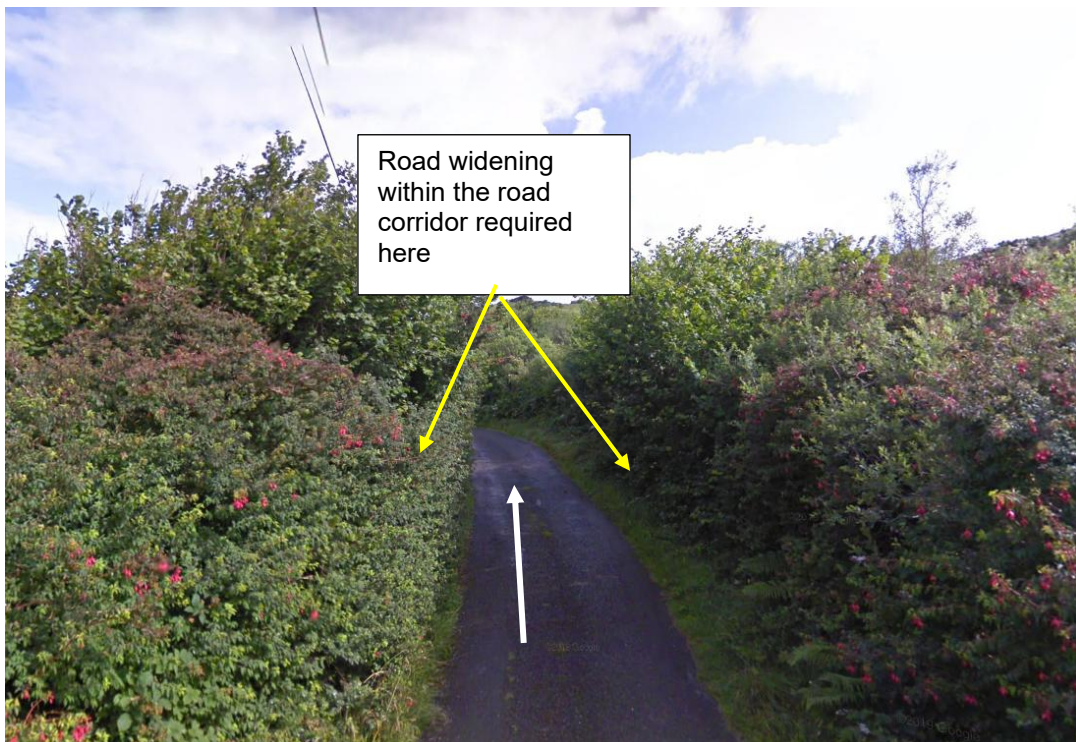
Node 30: Road widening required to the east

The L8767 continues on to a right to left 'S' bend. Road widening into third party lands will be required to the west of the right hand turn along the 'S' bend, with road widening within the road corridor required to the east (**Node 31**).



Node 31: Road widening required on third party lands and within the road corridor

Road widening is required on both sides of the road at the left-hand turn of the 'S' bend. This road widening is within the road corridor (**Node 32**). Roadside vegetation will also need to be trimmed back to accommodate blade oversail.



Node 32: Road widening required within the road corridor

Past the 'S' bend, approx. 800 m south of the Site entrance, road widening is required to the east of the road into third party lands (**Node 33**). Roadside vegetation to be trimmed back.



Node 33: Road widening required into third party lands

Road Widening is required to the east of the L8767 before the Ilen River bridge. This is to approach the bridge at a straight angle (**Node 34**).



Bridge at Ilen River

Road widening into third party lands required here

Node 34: Road widening required into third party lands.

Road widening into third party lands required to the west of the L8767 for turbine delivery load bearing (**Node 35**).



Road widening into third party lands required here

Node 35: Road widening required into third party lands.

Road widening into third party lands required to the west of the L8767 for turbine delivery load bearing (**Node 36**).



Node 36: Road widening required into third party lands.

Road widening into third party lands required to the west of the L8767 for turbine delivery load bearing (**Node 37**).



Node 37: Road widening required into third party lands.

Site entrance is constructed in line with Enercon specifications (**Node 38 & Node 39**).



Node 38: Existing site entrance



Node 39: Existing site entrance

3 CONSTRUCTION STAGE

3.1 Programme

The Project will have a construction period of 16-18 months as follows:

Table 1: Indicative Construction Programme

Activity	Month															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Site Establishment	X															

Activity	Month															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Internal Access Road Upgrade and Turbine Delivery Route works		X	X	X	X											
Substation & Compound Construction				X	X	X	X									
Substation Electrical Works									X	X	X	X	X	X		
Substation Commissioning										X						
Excavation & Construction of Turbine Foundations & Upgrades to Hardstands		X	X	X	X	X	X	X	X							
Internal Cabling Installation								X	X	X						
Turbine Delivery and Erection										X	X					
Grid Connection									X	X	X	X	X			
Energisation														X		
Turbine Commissioning															X	X
Site Restoration															X	X
Gnod Code Testing																X

However, the programme will be dependent on lead times for turbines, transformers and electrical cable as well as weather conditions.

3.2 Hours of Construction

The hours of construction activity will be limited to avoid unsociable hours, where possible. Construction operations shall generally be restricted to between 07:00hrs and 19:00hrs on weekdays and between 07:00hrs and 13:00hrs on Saturdays.

However, to ensure that optimal use is made of good weather periods or at critical periods within the programme (i.e. concrete pours or to accommodate delivery of large turbine components along public routes), it may be necessary on occasion to work outside of these hours. Any such out of hours working will be agreed in advance with the Local Authority.

3.3 Construction Phase Traffic

3.3.1 Staff Levels

For the wind farm construction, a peak workforce of 25 persons are anticipated on the main Site. There will be peaks and troughs in the numbers, with the peak workforce during the general Site works.

In addition to the onsite construction workforce, additional construction staff will be required for the Grid Connection cable laying works. Two gangs will be required for the Grid Connection. A maximum of 15 construction staff are anticipated. Thus, up to 40 workers could be employed at peak times between the wind farm and Grid Connection.

3.3.2 Staff Traffic Generations

The 40 workers will generally travel to the Site via light vehicle (LV) (i.e. car or small van) assuming 1 person per vehicle, or 40 trips to and 40 trips from the Site per day. This is made up of:

- 25 trips each way to/from wind farm Site.
- 15 trips each way to/from grid construction works.

3.3.3 Construction Vehicles

The construction phase for the Proposed Development will result in additional traffic on the roads in the vicinity of the Proposed Development. The proposed HGVs will typically be rigid vehicles (i.e. concrete trucks, dump trucks, delivery vehicles) or maximum legal articulated vehicles within normal vehicle loading.

This additional construction traffic will include the following:

- Construction worker vehicles, e.g. cars or vans (light vehicles).
- HGVs carrying conventional earthworks equipment such as an excavator, a roller, stone crusher, forklifts, etc.
- Mobile Cranes.
- Delivery vehicles carrying:
 - Conventional construction materials for the Site, e.g. aggregate, concrete, rebar, etc.
 - Conventional construction materials for the substation, e.g. electrical components, bricks, concrete, rebar, fencing, etc.

4 CONSTRUCTION PHASE TRAFFIC MANAGEMENT PLAN

The Contractors shall develop and take account of the commitments imposed within this TMP. The following are the commitments made at the planning stage of the Project which shall be further developed by the Contractor and agreed with the Roads Authorities, prior to works commencing on site:

- General Provisions
- Site Access & Egress
- Routing of Construction Phase Traffic
- Site Specific Temporary Traffic Measures
 - Traffic Management Logistics
 - Traffic Management Speed Limits
 - Traffic Management Signage
 - Road Closures
 - Timings of Material Deliveries to Site
 - Abnormal Load
 - Road Cleaning
- Enforcement of TMP and
- Emergency Procedures During the Construction.

4.1 Consents, Licences, Notifications and Permissions

The key consents, licences, notifications and permissions likely to be required for the Project with regards to traffic and roads are summarised as:

- Planning permission and associated planning compliance.
- Abnormal loads – it is envisaged that permits will be required for the abnormal loads that will be required for the delivery of the transformer and turbine components to the Site.
- Road opening licences for underground cable works, junction upgrade works, foundations in the public roadway etc.
- Approval of temporary TMPs.
- Road closures and diversions.
- Permission for works outside of standard construction operation hours agreed with Cork County Council (CCC).
- Permission from the Motorway Maintenance and Renewal Contractor (MMaRC) / Public Private Partnership Contractor (PPP) on the relevant national roads.

The above list is non-exhaustive but identifies the key consents, licenses, notifications and permissions required for the Project. This list will be further populated as required through planning compliance and stakeholder engagement to ensure that any further consents are identified as early as possible and do not impact on the construction programme.

4.2 General Provisions

The construction traffic impacts of the Proposed Development have been identified as being temporary in nature. It is important that any impact caused by the Proposed Development is minimised as far as possible and, considering this the following mitigation measures shall be included in future developments of this TMP:

- Traffic movements will be limited to 07:00 - 19:00 Monday to Friday and 07:00 – 13:00 Saturday, unless otherwise agreed in writing with CCC.
- HGV movements will be restricted during peak road network hours (including morning school hours) from 08.30 – 09.30 and 17.00 - 18.00 Monday to Friday, unless otherwise agreed in writing with CCC.
- No parking shall be permitted along the access route for unloading or activities that result in blockages of access routes. Such vehicles will be immediately requested to move to avoid impeding the works and traffic on the road network.
- Measures to remove queuing of construction traffic on the adjoining road network including turning space and queuing of convoy HGVs will be provided within the Site (i.e. one-way internal access track loop system and passing bays).
- Wheel wash equipment will be used on site to prevent mud and stones being transferred from site to the public road network.
- Activities generating dust will be minimised where practical during windy conditions. Loads will be covered on arrival and departure from site, where required. Other measures are outlined in the CEMP.
- Clear construction warning signs will be placed on the public road network to provide advance warning to road users to the presence of the construction site and slower moving vehicles making turning manoeuvres.
- Access to the construction site will be controlled by on site personnel and all visitors will be asked to sign in and out of the Site by security / site personnel and site visitors will all receive a suitable Health and Safety (H&S) site induction.
- Security gates will be sufficiently set back from the public road, so that vehicles entering the Site will stop well clear of the public road.

- Compound locations have been identified for storage, site offices and welfare facilities.

The final TMP will also include provision by the appointed Contractor, for details of intended construction practice for the Proposed Development, including:

- Traffic Management Co-ordinator – a competent traffic management co-ordinator will be appointed for the duration of the Project and this person will be the main point of contact for all matters relating to traffic management.
- Delivery Programme – a programme of deliveries will be submitted to CCC in advance of the delivery of the turbine components to site.
- Information to locals – local residents in the area will be informed of any upcoming traffic related matters, e.g. temporary lane/road closures (if required) or any night deliveries of turbine components, via letter drops and posters in public places. Information will include the contact details of the Developer's representative (Community Liaison Officer), who will be the main point of contact for all queries from the public or local authority during normal working hours. An "out of hours" emergency number will also be provided.
- Liaison with Local Authorities – liaison with CCC and other Local Authorities, including the roads and transport section, through which the delivery route traverses and An Garda Síochána, during the delivery phase of the abnormal loads, wherein an escort for all convoys may be required.
- Temporary Alterations – implementation of temporary alterations to road network at critical junctions.
- Travel plan for construction workers – a travel plan for construction staff and sub-contractor construction staff.
- Temporary traffic signs – As part of the traffic management measures, temporary traffic signs will be put in place.
- Traffic Management Operatives (TMOs) will be present at all site access points during peak delivery times.
- Delivery Times of Large Turbine Components – The Turbine Supply Contractor will include the option to deliver the larger wind turbine plant components at night in order to minimise disruption to general traffic during the construction stage.
- All vehicles using or while operating within the wind farm site shall either have roof mounted flashing beacons or will use their hazard lights.

The TMP will be updated by the Contractors (on appointment) and agreed with the Planning Authorities prior to commencement of development in the event of a grant of permission.

4.3 Routing of Construction Phase Traffic

The proposed haul roads were identified based on review of existing quarry sources, principal road networks (i.e. national and regional) and consultation with the local authorities. The haul routes utilise the national and regional road network as much as feasible. All construction traffic to the wind farm site and Grid Connection will arrive via the L8767. As detailed in **Section 11.5**, the majority of materials delivered to site will be delivered using maximum legal articulated lorries or smaller vehicles.

Project construction HGV traffic will be directed away from communities and sensitive receptors (i.e. schools, dense residential areas, urban centres) where possible to minimise the effect on these communities.

Other Construction Materials such as stone fill required for internal access tracks, concrete, fencing materials and landscaping elements will be sourced by the relevant Contractors. Such material deliveries are envisaged to utilise one of the haul routes identified in **Figure 11.3**. The Contractors shall be required, in the further development of the TMP, to confirm the specific sources and proposed haul routes for all material supplies.

4.4 Site Specific Temporary Traffic Measures

The specific details of each temporary traffic measure shall be developed by the Contractor(s) for each site access in consultation with the Roads Authority, An Garda Síochána and other Emergency services, before being submitted to the Roads Authority for formal approval prior to any works taking place.

Where reasonably practicable, consideration will be given to the scheduling of deliveries so as to avoid/consider:

- Particularly high traffic volumes due to sporting or other events
- Adverse weather conditions
- Emergency access

If the night-time or weekend Temporary Traffic Management (TTM) measures varies from daytime plan, a separate TTM will be prepared to be approved by the Roads Authority.

On completion of the works, the traffic management measures are to be removed when the road is safe and free from obstructions, all Reinstatement of road surfacing is completed and all permanent signs, road markings and other items are in place.

4.4.1 Traffic Management Systems / Logistics

The Contractor as a minimum shall employ the following traffic management systems and logistics to facilitate the safe transport of materials to and from the Proposed Development.

4.4.1.1 Traffic Management Operatives (TMOs)

It is not envisaged that TMOs would be required at the L8767 access during average construction traffic volumes. They will be provided during concrete pours for Turbine Foundations. The road has adequate width for vehicles to turn into the Site and advanced warning signage is proposed. During peak construction activities, the appointed Contractor may require TTM (i.e. stop / go system) at the Site access to facilitate movement of construction vehicles off site if in convoy.

TMOs will be required within the wind farm site to manage the movement of HGVs within the internal layout, in particular during peak construction activities such as during concrete pours for Turbine Foundations.

The requirement for TMOs in conjunction with pilot vehicles for the wind turbine component delivery will be confirmed by the appointed Contractor in consultation with the specialised haulage provider, An Garda Síochána and the Local Authority.

4.4.1.2 Convoy System

A convoy system shall be employed by the Contractor, applied to HGVs departing the Site, involving:

- Traffic management operatives at the Proposed Development access / egress points. The TMOs shall restrict HGVs exiting the Site, to facilitate the development of a convoy system (maximum 4 no. HGVs).
- Suitable spaces shall be made available within the Site for queuing of HGVs (i.e. passing bays and at widened crossing points / site accesses).
- Traffic management operatives shall be stationed at the wind farm site entrance with suitable intercommunication system (i.e. radio) to control the release of the convoy system between the main site and to the L8767.

- The convoy shall have separation between convoys to facilitate use of the public road network in the absence of construction HGV movements.

4.4.2 Traffic Management Speed Limits

It shall be noted that where a temporary speed limit is deemed appropriate by the contractor(s) to facilitate the Construction Phase activities along the public roads serving the Proposed Development, it shall be a requirement for the appointed Contractor to liaise with the relevant Roads Authority for the purpose of obtaining a temporary speed limit.

Adherence to posted / legal speed limits will be emphasised to all staff / suppliers and Contractors during induction training. In speed zones greater than 60km/h, drivers of construction vehicles / HGVs will be instructed that vehicular movements in sensitive locations, such as schools and local community areas, shall be restricted to 60 km/h. Such advisory speed limits will only apply to Construction Phase haulage traffic and shall not apply to general traffic. It is not proposed to signpost such speed limits in the interest of clarity for local road users.

Within the wind farm site, the speed limit shall be 25 km/h.

4.4.3 Traffic Management Signage

Signage for temporary traffic measures shall be provided in accordance with the Department of Transport's Traffic Signs Manual, August 2019 - **Chapter 8 – Temporary Traffic Measures and Signs for Roadworks** (or any subsequent update of the standards that will be in place at the time of construction).

Advanced warning signs will be used to alert drivers to the unexpected road layout. Clear construction warning signs shall be placed at adjacent roads and the entrances, to advise the general public of the presence of construction sites and activities. All permanent road signs contrary to the proposed roadworks will be covered for the duration of the works and uncovered on removal of the temporary traffic management measures.

4.4.4 Timing of Material Deliveries

In order to reduce impacts on local communities and residents adjacent to the proposed sites, it is proposed that:

- Construction activities will be undertaken based on a six-day working week, with deliveries between 07:00-19:00 on weekdays and 07:00-13:00 on Saturdays.

- HGV deliveries shall avoid passing schools at opening and closing times where it is reasonably practical. Deliveries are restricted between the hours of 08:00 and 09:00hrs, the school morning peak and peak traffic on the road network.
- Construction activities and deliveries outside these hours shall be agreed with the Local Authorities in advance.
- The Contractors shall liaise with the management of other construction projects and the local authority to co-ordinate deliveries.
- The Contractors shall schedule deliveries in such a way that construction activities and delivery activities do not occur during peak traffic flows or run concurrently, such as:
 - avoiding pouring of concrete on the same day as other large material deliveries to site in order to avoid conflicts between vehicles.
 - staggering the pouring of concrete on different days.
- HGV deliveries to the Proposed Development site will be suspended on the days of any major events (i.e. sporting, agricultural etc), that have the potential to cause larger than normal traffic volumes on the existing road network, in the vicinity of the works.
- The Contractor will be required to interact with members of the local community to ensure that deliveries will not conflict with sensitive events such as funerals.
- It is likely that some deliveries will be required to be undertaken outside these hours. For example, during large concrete pours or other essential continuous operation whereby the continuous delivery of material will be required. Such deliveries will be agreed in advance with CCC.

The scheduling of material deliveries is required in order to facilitate the implementation of traffic management activities at the Site and the works zones within the Site. It will also impact on the offsite works locations for the abnormal loads advanced works. A convoy system shall be employed for HGVs departing the Proposed Development to reduce the frequency of isolated HGV movements on the public road network as much as practicable.

4.4.5 Abnormal Loads for Turbine Components

The Contractor shall ensure that the haulage of abnormal loads is done in conjunction with an Gardaí Síochána and the Roads Authorities. The appointed Contractor and their haulage provider will be responsible for obtaining all necessary permissions and licences from the local authorities and Gardaí.

4.4.6 Road Closures

In order to facilitate the Grid Connection of the proposed wind farm to the national grid, a connection between the Proposed Development and Ballylickey Substation is required, see **Figure 2.1**. This requires a crossing of the L4721, L4720, L4717, and L-47202.

Further details on road closures and subsequent diversions are outlined in **Appendix A – Grid Connection Works**.

4.4.7 Road Cleaning

Regular visual surveys of the road network in the vicinity of the Sites will be carried out. Where identified / required, the Contractor shall carry out road sweeping operations, employing a suction sweeper to remove any project related dirt and material deposited on the road network by construction / delivery vehicles. It shall be a requirement of the works contract that the Contractor(s) will be required to provide wheel cleaning facilities, and any other necessary measures to remove mud and organic material from vehicles. In addition, the cleaning of delivery lorries such as concrete delivery lorries shall be carried out at the material storage yard as outlined in the CEMP.

4.5 Enforcement of Traffic Management Plan

The appointed Contractor will further develop this TMP in consultation with the Road Authorities. The Contractor will, during the development and adoption of the TMP, agree and implement an appropriate way of monitoring the effectiveness of the plan.

All project staff and material suppliers will be required to adhere to the TMP. Inspections / spot checks will also be carried out by the Contractor(s) to ensure that all project staff and material supplies follow the agreed measures adopted in the TMP.

4.6 Emergency Procedures during the Construction

In the case of an emergency, the following procedure shall be followed:

- Emergency Services will be contacted immediately by dialling 112.
- Exact details of the emergency/ incident will be given by the caller to the emergency line operator to allow them to assess the situation and respond in an adequate manner.
- Follow the instructions of the Local Authorities and An Garda Síochána.
- The emergency will then be reported to the Site Team Supervisors and the Safety Officer.
- Where required, appointed site first aiders will attend the emergency immediately.

- The Safety Officer will ensure that the emergency services are enroute.

It is important that during the Construction Phase, emergency services can gain ready access to any property along the Haul Road or in the vicinity of any of the infrastructure sites or indeed can gain priority usage of any Haul Road. Emergency procedures will be agreed, and contact numbers provided to the local Emergency Services. On being notified of a priority condition, all construction vehicles will be directed to give right of way to the emergency vehicles until the need for priority access has passed.

With respect to an emergency condition arising on any of the Sites, priority access to and from these sites will be given to ambulance or fire tenders.

5 OPERATIONAL AND DECOMMISSIONING PHASES

5.1 Operational Phase

On completion of the construction works, and when the wind farm is operational, the majority of the traffic generated for the operation of the Site will be for routine maintenance by a small van or four by four.

All vehicles using the wind farm site shall either have roof mounted flashing beacons or will use their hazard lights.

A speed limit of 25km/h shall apply to all vehicles within the wind farm site.

Internal wind farm signage shall be maintained throughout the operational period.

Road surfaces shall be inspected on a quarterly basis and any maintenance work identified shall be completed within one month of the inspection.

Overall, due to the relatively low operational and recreational traffic, it is envisaged that the operational impacts of the Proposed Development will be slight when compared to the existing background traffic.

As the Site accesses for construction have been designed as new or upgraded in accordance with the TII DN-GEO-03060 (Geometric Design of Junctions), adequate visibility splays are available from the accesses in both directions. Minor maintenance of hedgerows and vegetation to maintain the required visibility shall be required.

The arrangements for access/egress at the junction will be reviewed every two years to confirm or otherwise if the entry from the east only and exit to west only will apply.

5.2 Decommission Phase

The wind turbines proposed as part of the Proposed Development are expected to have a lifespan of up to 40 years. Following the end of their useful life, the wind turbines may be replaced with a new set of machines, subject to planning permission being obtained, or the Site may be decommissioned fully, with the exception of the electricity substation.

Upon Decommissioning of the proposed wind farm, the wind turbines will be disassembled in reverse order to how they were erected. All above ground turbine

components will be separated and removed off-site for recycling. Turbine Foundations will remain in place underground and will be covered with earth and allowed to revegetate or reseeded as appropriate. Leaving the Turbine Foundations in-situ is considered a more environmentally prudent option, as to remove that volume of reinforced concrete from the ground could result in potentially significant environment nuisances such as noise, dust and/or vibration. The Site roadways will be in use for additional purposes to the operation of the wind farm (e.g. for forestry and recreational use) by the time the Decommissioning of the Project is to be considered, and therefore the Site roads will remain in situ for future use. If it were to be confirmed that the roads were not required in the future for any other useful purpose, they could be removed.

The turbine blades can be cut into manageable lengths on Decommissioning reduces the requirement for adjustments to signage and sheet furniture for Decommissioning.

The traffic management of the Decommissioning phase will be advised by the road conditions at the time of Decommissioning. It is not possible to predict the changes to the public road infrastructure and policies in the next 30-40 years. It is envisaged that a TMP will be developed for the Decommissioning phase.

Nevertheless, the following traffic management measures are likely to be required:

- Signage will be erected at the Site entrance and on the L8767 approaching the Site.
- Construction traffic associated with Decommissioning will be scheduled so as to avoid school drop off and collection times.
- All vehicles using or while in operation at the wind farm site shall either have roof mounted flashing beacons or will use their hazard lights.
- A speed limit of 25 km/h shall apply to all vehicles within the wind farm site.


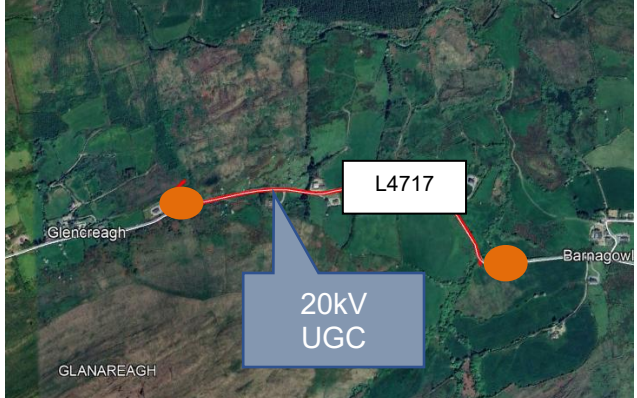
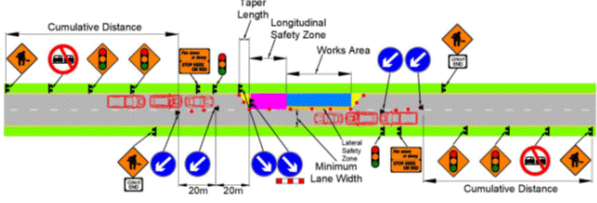
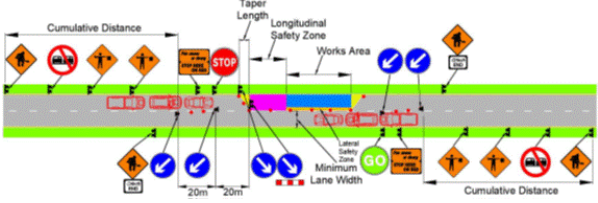
6 CONCLUSION

The TMP is a living document and shall be developed through the Detailed Design and Construction phases with ongoing consultation with the Local Authority, An Garda Síochána, Emergency Services and other stakeholders.


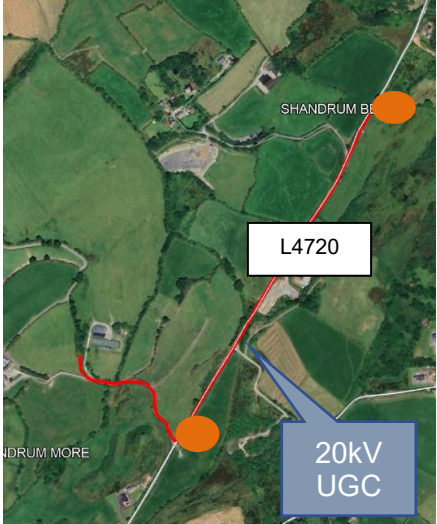
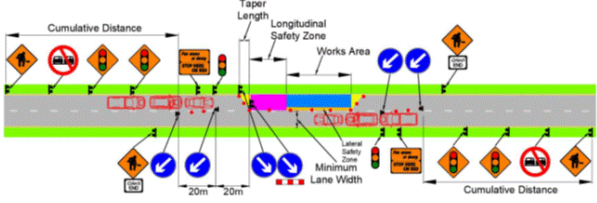
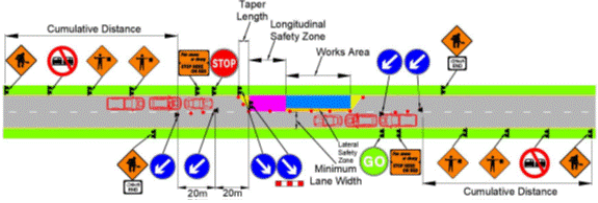
This TMP has thus far been developed to the Planning Stage, so that the necessary steps are taken throughout the planning proposals to support an efficient, safe transportation operation, with the least possible impact upon vulnerable road users and traffic along the haul roads or in close proximity to the Proposed Development.

APPENDIX A GRID CONNECTION WORKS


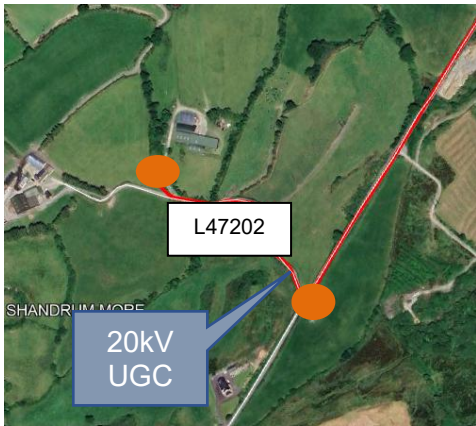
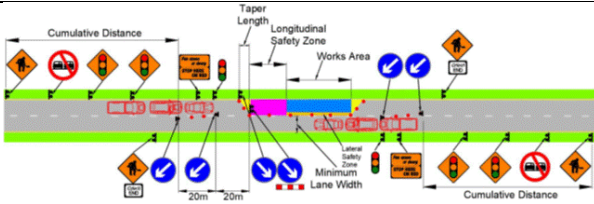
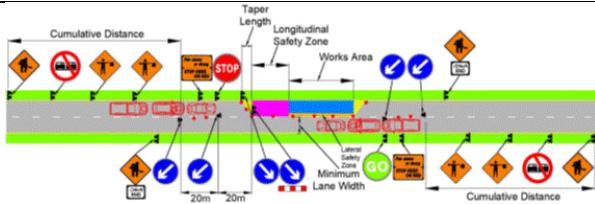
L4717 Grid Connection Works Location

<p>Works Location</p>	<p>L4717 - 20kV Underground Grid Connection (963 m)</p>
<p>Road Number</p>	<p>L4717</p>
<p>Description of Works to be Undertaken</p>	<p>Construction of 20 kV underground Grid Connection and joint bays in the public road.</p>
<p>Road Width (approximate)</p>	<p>3.0 m carriageway with grass verges</p>
<p>Traffic Management System</p>	<p>Road Closure during trenching works Temporary Traffic Lights / Stop & Go / Flagman during cable pulling and surfacing works.</p>
	
<p>Local Access</p>	<p>To be maintained through the works at all times using steel plates / temporary backfilling of trenches.</p>
<p>Diversion</p>	<p>L4717 - L4718 – L8768 – L4717</p>
<p>Emergency Access</p>	<p>To be maintained through the works at all times using steel plates / temporary backfilling of trenches.</p>
 <p>Temporary Traffic Lights</p>	 <p>Stop & Go</p>


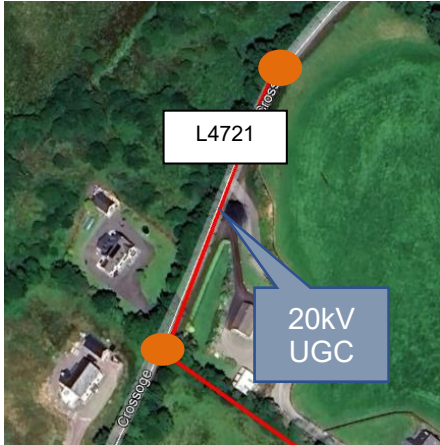
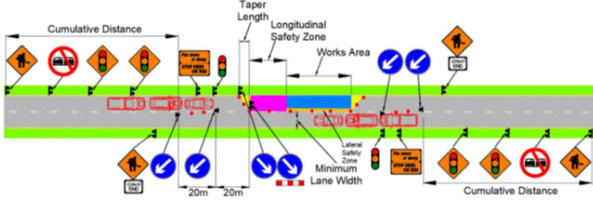
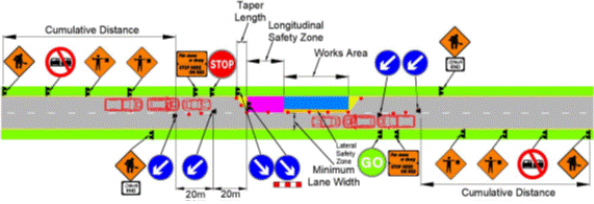
L4720 Grid Connection Works Location

Works Location	L4765 – 20 kV Underground Grid Connection (765 m)
Road Number	L4765
Description of Works to be Undertaken	Construction of 20 kV underground Grid Connection and joint bays in the public road.
Road Width (approximate)	3.0 m carriageway with grass verges
Traffic Management System	Road Closure during trenching works Temporary Traffic Lights / Stop & Go / Flagman during cable pulling and surfacing works.
	
Local Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
Diversion	L4720 – L47204 – L8771 – L8772 – L4720
Emergency Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
 <p>Temporary Traffic Lights</p>	 <p>Stop & Go</p>

L47202 Grid Connection Works Location

Works Location	L47202 – 20 kV Underground Grid Connection (230 m)
Road Number	L47202
Description of Works to be Undertaken	Construction of 20 kV underground Grid Connection and joint bays in the public road.
Road Width (approximate)	3.0 m carriageway with grass verges
Traffic Management System	Road Closure during trenching works Temporary Traffic Lights / Stop & Go / Flagman during cable pulling and surfacing works.
	
Local Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
Diversion	No diversion as L47202 is a cul-de-sac
Emergency Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
 <p>Temporary Traffic Lights</p>	 <p>Stop & Go</p>

L4721 Grid Connection Works Location

Works Location	L4721 - 20kV Underground Grid Connection (137 m)
Road Number	L4721
Description of Works to be Undertaken	Construction of 20 kV underground Grid Connection and joint bays in the public road.
Road Width (approximate)	3.0 m carriageway with grass verges
Traffic Management System	Road Closure during trenching works Temporary Traffic Lights / Stop & Go / Flagman during cable pulling and surfacing works.
	
Local Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
Diversion	N71 – R584
Emergency Access	To be maintained through the works at all times using steel plates / temporary backfilling of trenches.
 <p>Temporary Traffic Lights</p>	 <p>Stop & Go</p>