



APPENDIX 15-5

TII Design Report

**PROPOSED CAHERMURPHY WEST WIND FARM,
CO. CLARE**

EXISTING N68 / R484 JUNCTION

**Design Phase Procedure for Road Safety Improvement Schemes, Urban
Renewal Schemes and Local Improvement Schemes**

DN-GEO-03030 Design Report

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Client: Cahermurphy Renewables DAC

March 12th, 2026

AL Project No: 11190

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**ALAN LIPSCOMBE
TRAFFIC & TRANSPORT CONSULTANTS**

1 INTRODUCTION

This TII Design Report has been prepared for the proposed Cahermurphy West Wind Farm (the Proposed Project) in Co. Clare.

It is proposed that the Proposed Wind 8 turbine Farm will be accessed via one access junction off the L-6254 local road remote from the National Road network. The turbine delivery route (TDR) passes through the N68 / R484 junction. There are no permanent alterations proposed at the junction, however, the temporary removal of a low wall in the proximity of the N68 / R484 junction is proposed in order to accommodate the delivery of the abnormally sized loads transporting the large turbine components. The location of the wall is shown in Plate 1 below.



This report is prepared in response to a request made by An Coimisiún Pleanála (ACP), requesting a stage 1 road safety audit as part of the planning application for the Proposed Project.

The following figures from the proposed Cahermurphy West Wind Farm EIAR are referenced in this section, both of which are included as Appendix A of this report;

- Figure 15-A Proposed works at Crossroad Bar – N68 / R484 junction
Figure 15-6 Location 1 – N68 / R484 junction, autotrack assessment – blade transporter (81m blade)

The proposal for existing N66 / R484 junction is summarised in Section 6 of this report.

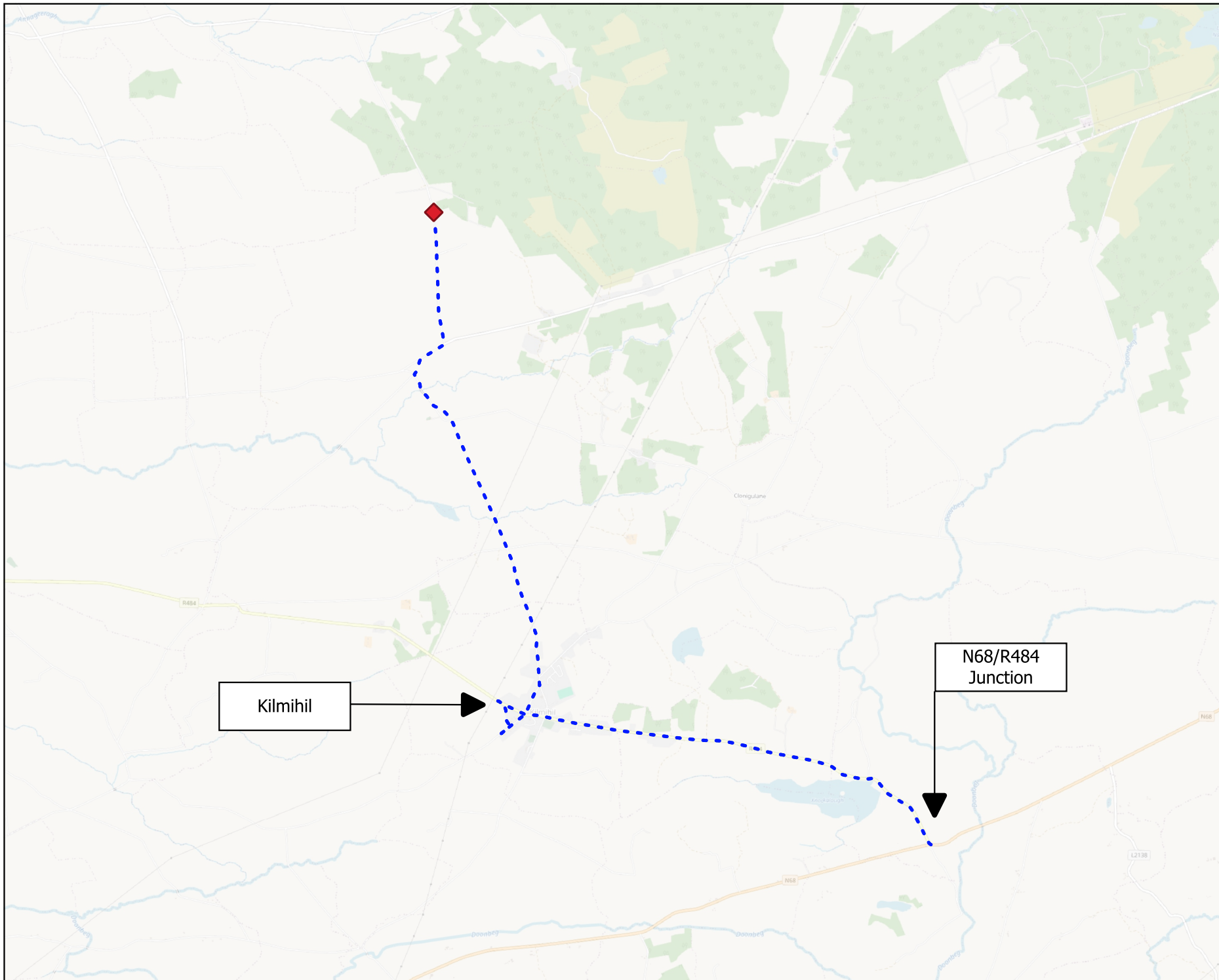
2 COLLISION HISTORY

There is no collision history available from the RSA website at present.

3 SAFETY OBJECTIVES

The safety objectives of the proposed temporary amendment to the boundary wall in the proximity of the N66 / R484 junction for the delivery of abnormal loads during night-time hours are;

- To facilitate safe access for the delivery of all abnormally sized loads to the site.
- To provide a safe environment for background traffic on the N66 and the R484 by means of transient traffic management measures provided by An Garda Siochana and the haulage company.
- To provide a safe environment for existing traffic and construction workers during the proposed amendment to the existing wall.



Map Legend

- - - Proposed Turbine Delivery Route
- ◆ Proposed Site Access Junction

Kilmihil

N68/R484
Junction



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Drawing Title
**Site Location and Turbine
 Delivery Route**

Project Title
**Cahermurphy West Wind
 Farm**

Drawn By MC	Checked By EMC
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Project No. 230843	Drawing No. Figure 15-1a
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Scale 1:50,000	Date 19.03.2026
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4 EXISTING CONDITIONS

4.1 Speed

The speed limit on the N68 at this location is 80km/hr.

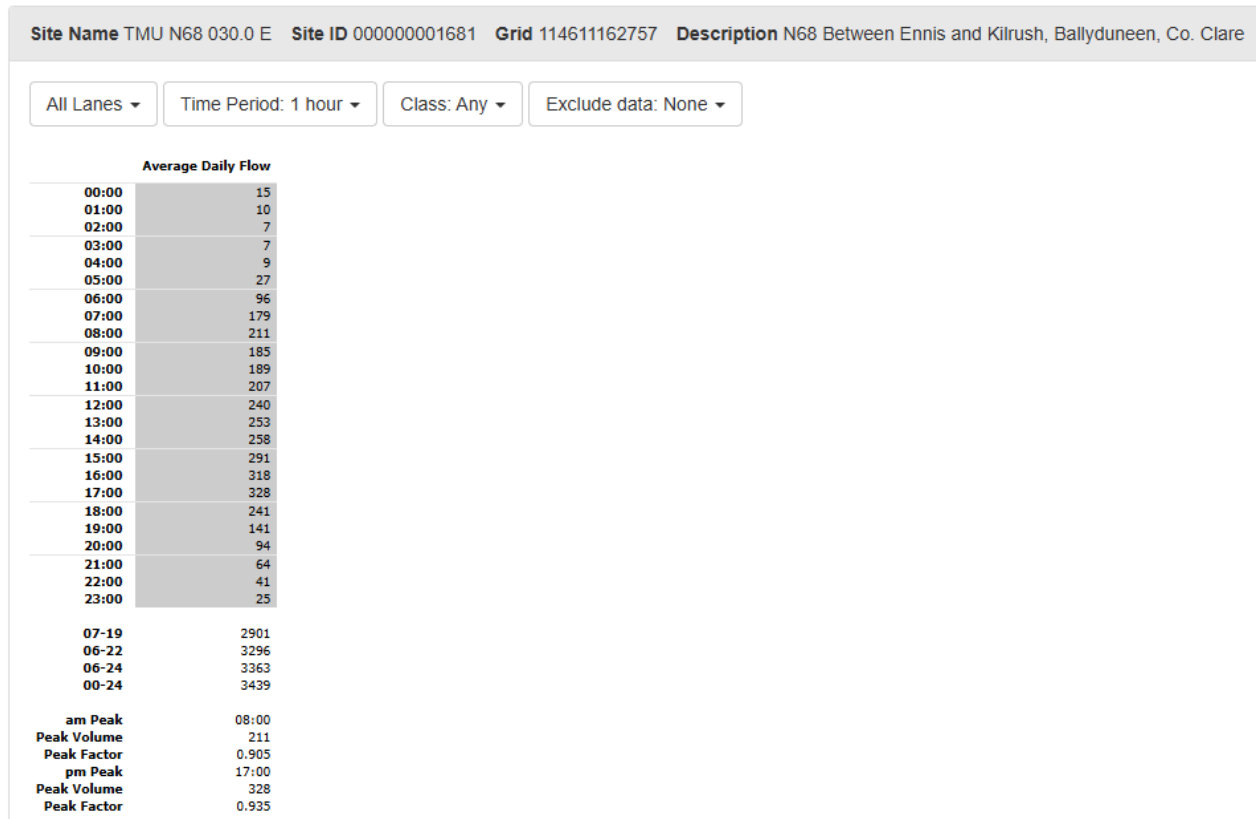
4.2 Traffic Volumes

During the nighttime hours when the convoys of the abnormally sized loads will negotiate the N68 / R484 junction, traffic volumes are low. Based on year 2025 traffic counts obtained from the Automatic Traffic Count site maintained by TII, the following traffic volumes were observed between the hours of 00:00 to 05:00;

- N68 = An average of 10 vehicles 2-way in one hour between the hours of 00:00 and 05:00 (as inserted below).

Traffic volumes during night-time hours are therefore very low, which is the reason that these deliveries are made during this time period. Furthermore, the removal of the stone wall will likely take place during the day, however, the works will be brief in nature and take place off of the public road network within the parking lot of the Crossroads bar.

Automatic Traffic Count Data – N68 between Ennis and Kilrush, Ballyduneen, Co Clare



4.3 Horizontal Alignment

The alignment N68 / R484 junction together with the direction of the Turbine Delivery Route through the junction is shown in Figure 1. The alignment of the N68 through the junction takes the form of a gentle S-Bend. There are no changes proposed to the alignment of the N68 or the N68 / R484 junction as part of the Proposed Project.

Figure 1 Existing N68 / R484 junctions and direction of Turbine Delivery Route



4.4 Vertical Alignment

The vertical alignment on the N68 in the proximity of the N68 / R484 junction is relatively flat. There are no changes to the vertical alignment proposed.

4.5 Cross Section, Crossfall & Super elevation

4.5.1 Cross Section

In the proximity of the junction with the R484 the N68 has a carriageway width of approximately 3 x 3.0m lanes inclusive of the right turning lane. At the junction with the N68, the approach to the junction on the R484 is wide with a stopline measuring approximately 8m.

There is generally standard cross fall on the N68 at the junction with R484. There are no changes to the crossfall on the N68 or the R484 proposed.

4.5.2 Super elevation

On site observations indicate that there is standard superelevation at the 2 bends on the N68 in the proximity of the junction with the R484. There are no changes to the superelevation the N68 proposed.

4.6 Junctions & Accesses

There is an access off the southern side of the N68 where the L61801 forms the 4th arm of the staggered junction with the N68 and the R484. There is also direct access to the parking area adjacent to the Crossroads Public bar situated on the north east corner of the junction. It is from this parking area that access will be gained to the wall that it is proposed to temporarily remove, and which is the subject of this report.

4.7 Facilities for Vulnerable Road Users

There are currently no facilities for vulnerable users at this location. Based on the nature of the temporary access for the delivery of abnormal loads, there are no facilities for vulnerable road users proposed at this location as part of the Proposed Project.

4.8 Visibility & Sightlines

Visibility splay along the N68 taken from a 3m setback at the R484 approach are appropriate for the 80 km/h speed limit to the west but are constrained by the bend in the road to the east to < 100m. There are no changes proposed at the N62 / L-3248 junction that will impact on existing visibility.

5 ENVIRONMENTAL, ARCHAEOLOGICAL AND OTHER CONSTRAINTS

5.1 Appropriate Assessment

Not Applicable

5.2 Ecological Assessment

Not Applicable

5.3 Other Environmental Surveys

Not Applicable.

5.4 Archaeological Constraints

Not Applicable.

6 PROPOSED DESIGN

6.1 General

The following figures from the proposed Cahermurphy West Wind Farm EIAR are referenced in this section, both of which are included as Appendix A of this report;

Figure 15-A Proposed works at Crossroad Bar – N68 / R484 junction

Figure 15-6

Location 1 – N68 / R484 junction, autotrack assessment – blade transporter (81m blade)

The proposed works involve the temporary removal of the low boundary wall shown in Figure 15-A and Plate 1, in order to facilitate the delivery of the abnormally sized turbine loads, as shown for the transportation of the turbine blade (81.5m) in Figure 15-6.

All accommodation works required for the temporary removal and subsequent reconstruction of the wall will be undertaken internally from the Public House carpark. This will ensure there will be no impact on the N68 or the R484 during the accommodation works.

6.2 Link capacity and junction capacity

The results of the capacity assessment for this junction are shown in Tables 15-1a and 15-1b. It is forecast that during the AM peak hour a maximum RFC of 25.3% is forecast for the left turn from the R484 onto the N68. For the movement that is impacted most during the AM peak hour, the right turn from the N68 onto the R484, it is forecast that the maximum RFC will increase from 13.6% for the Do Nothing scenario, to 23.5% with the construction traffic in place.

Similarly for the PM peak hour the maximum RFC for the movement impacted by staff leaving the site, the left turn from the R484 onto the N68, it is forecast that the RFC will increase from 10.8% to 20.1% with the additional construction traffic. The movements during the PM peak hour with the highest RFC is the right turn from the N68, which is 33.6%. This junction is therefore forecast to operate well within acceptable limits of 85% suggested in TII guidelines for Traffic and Transport Assessments (PE-PDV-02045, TII, May2014).

Table 15-1a Junction capacity test results, N68 / R484 junction, without construction traffic, year 2030, AM peak

Period	Location	Without construction traffic		
		Ratio of flow to Capacity	Queue (vehicles)	Delay (minutes)
AM				
	Right turn from R484	0.7%	0.01	0.20
	Left turn from R484	25.3%	0.34	0.14
	Right turn from N68	13.6%	0.16	0.12

Table 15-1b Junction capacity test results, N68 / R484 junction, without construction traffic, year 2030, PM peak

Period	Location	Without construction traffic		
		Ratio of Flow to Capacity	Queue (vehicles)	Delay (minutes)
PM				

Period	Location	Without construction traffic		
	Right turn from R484	3.3%	0.03	0.23
	Left turn from R484	10.8%	0.12	0.12
	Right turn from N68	33.6%	0.50	0.16

Both the N68 and R484 links are 'Type 3 Single' links with a link capacity of 5,000. Given the brief nature of the accommodation works at the N68/R484 junction, it is not expected that these works will have any perceptible impact on the link and junction capacity of the N68/R484

6.3 Land Acquisition

The Applicant has acquired the consent from the relevant landowner to facilitate the inclusion of the temporary accommodation works at the N68/R484 junction within the planning application for the proposed Cahermurphy West Wind Farm.

6.4 Horizontal Alignment

There are no changes proposed to the horizontal alignment on the N68, or the R484 approach to the junction with the N68.

6.5 Vertical Alignment

There are no changes proposed to the vertical alignment on the N68 or the R484 approach to the junction with the N68.

6.6 Cross Section Crossfall & Super elevation

6.6.1 Cross Section

There are no changes proposed to the cross section on the N68 or the R484 approach to the junction with the N68.

6.6.2 Crossfall

There are no changes proposed to the crossfall on the N68 or the R484 approach to the junction with the N68.

6.6.3 Super elevation

There are no changes proposed to the superelevation on the N68 or the R484 approach to the junction with the N68.

6.7 Facilities for Vulnerable Road Users

There are no changes proposed for conditions for vulnerable road users on the N68 or the R484 approach to the junction with the N68.

6.8 Junctions & Accesses

There are no changes proposed to existing junctions and accesses on the N68 or the R484 approach to the junction with the N68.

6.9 Visibility and Sightlines

No changes are proposed relating to sightlines on the N68 or the R484 approach to the junction with the N68.

6.10 Drainage

No changes are proposed relating to drainage on the N68 or the R484 approach to the junction with the N68.

6.11 Pavement

No changes are proposed relating to pavement design on the N68 or the R484 approach to the junction with the N68.

6.12 Safety Barrier Risk Assessment and Provision

There are currently no safety barriers on the N68 in the proximity of the junction with the R484. No changes are proposed.

6.13 Traffic Signs and Road Markings

No changes are proposed relating to the existing traffic signs and markings at the N68 / R484 junction.

6.14 Accommodation Works

As set out previously, the accommodation works for the temporary removal and subsequent reconstruction of the wall will be constructed internally from the carpark of the Public House. Using this method of construction there will be no impact on the N68 during the proposed accommodation works.

6.15 Lighting

There is existing lighting on the N68 in the proximity of the N68 / R484 junction. While some lamps will require to be lowered on a temporary basis during the delivery of the abnormally sized loads there are no permanent changes proposed as part of the Proposed Project.

6.16 Departures from Standard

The proposed accommodation works involve the temporary removal of the existing wall required for the purpose of the delivery of abnormally sized loads, and subsequent reconstruction of the wall in the proximity of the N68 / R484 junction. As set out above there will also be minor temporary works

relating to the temporary lowering of existing lighting. There are no other changes to the N68 / R484 junction proposed.

7 ROAD SAFETY AUDIT

Traffico Road Safety Engineering Consultants Ltd were commissioned to undertake a Stage 1 Road Safety Audit for the access arrangements for the Proposed Project site, in accordance with GE-STY-01024 Road Safety Audit Guidelines, TII, December 2017. The Stage 1 Road Safety Audit Report is attached as Appendix 15-4 of the Cahermurphy West Wind Farm EIAR.

As documented in the Audit Report (Appendix 15-4 of the EIAR), the Audit Team did not identify any issues relating to the proposed accommodation works in the proximity of the N68 / R484 junction.

8 TOTAL SCHEME BUDGET

There are no cost estimates available at present.

9 PROPOSED NEXT STEPS

Subject to being granted planning permission the next steps will be to finalise construction drawings and compile a construction tender package.

Appendix A - Figures referenced from EIAR prepared for proposed Cahermurphy West Wind Farm

Figure 15-A Proposed works at Crossroad Bar – N68 / R484 junction
Figure 15-6 Location 1 – N68 / R484 junction, autotrack assessment – blade transporter (81m blade)

DRAFT



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 6. The use of or reliance upon this drawing shall be deemed to be acceptance of these conditions of use unless otherwise agreed in writing, such written agreement to be sought from and issued by the copyright holder to the use or reliance upon this drawing.
 7. Layout plans show typical Turbine rotor diameter as per turbine drawing.
 8. Final levels may vary depending on local ground conditions.

- Drawing Legend**
- Planning Application Boundary
 - Wall to be Temporarily Removed



PROJECT TITLE:
**Proposed Cahermurphy
 West Wind Farm, Co. Clare**

DRAWING TITLE:
Figure 15-A: Proposed works at Crossroad Bar-N68 / R484 junction

PROJECT No.:	DRAWING No.:	SCALE:
230843	15-A	1:2,500 @ A3
DRAWN BY:	CHECKED BY:	DATE:
JOB	AC	11.03.2026
		REVISION.:
		D01




OS SHEET No.: 4373, 4374, 4375, 4431, 4432, 4433, 4490, 4491, 4492, 4550, 4551, 4552, 4609, 4610, 4611



Email: info@www.mkoireland.ie / Website: www.mkoireland.ie



Drawing Legend

	Wheel Base Accommodation
	Blade Oversail
	Truck Body

81.5m Blade Clamp and Dolly

PROJECT TITLE:
Cahermurphy West Wind Farm

DRAWING TITLE:
Figure 15-6: Location 1

PROJECT No.:	DRAWING No.:	SCALE:
230843	15-6	N.T.S @ A3
DRAWN BY:	CHECKED BY:	DATE:
KD	N/A	07.03.2025
		REVISION:
		V1

OS SHEET No.:

