



Cush Wind Farm

# Environmental Impact Assessment Report

## Annex 13.1: Road Safety Audit

Cush Wind Limited

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Cush Wind Farm, Co. Offaly

Stage 1 Road Safety Audit

Cush Wind Ltd.

December 2022

## Notice

This document and its contents have been prepared and are intended solely for Cush Wind Ltd.'s information and use in relation to the proposed Cush Wind Farm, Co. Offaly.

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## Document History

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2	Final Issue	JW	MD	MD	JW	05/01/2023

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# 1. Introduction

## 1.1 Report Context

This report describes the findings of a Stage 1 Road Safety Audit associated with the proposed Cush Wind Farm, Co. Offaly. The audit has been undertaken at the N52/N62 junction, the two temporary construction site entrances off the N62 and the two operation site entrances at the locations detailed in the figure below.

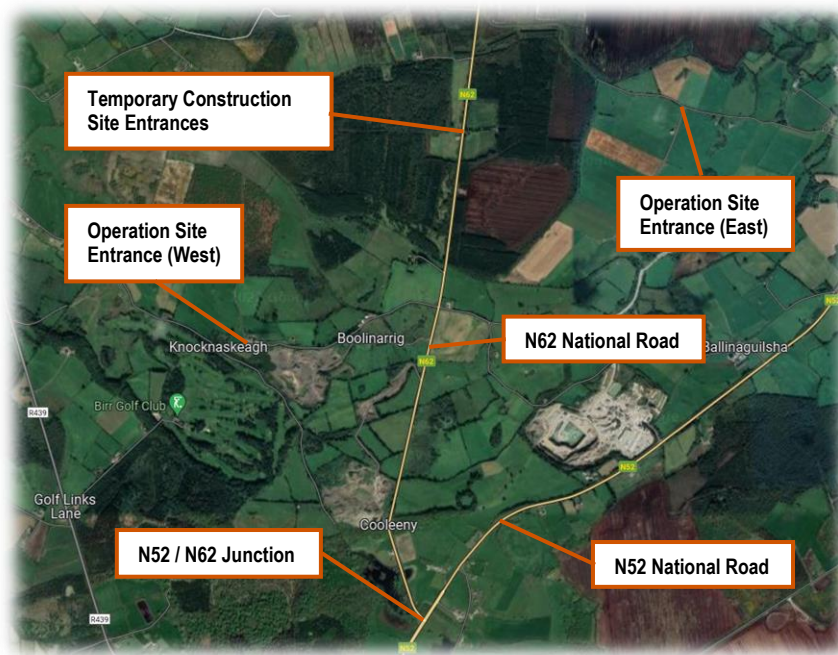


Figure 1.1 – Audit Locations

The Audit has been completed by Trasky Ltd. on behalf of Cush Wind Ltd.

## 1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Tuesday 22 <sup>nd</sup> November 2022	Daylight	Sunny, dry roads.

Table 1.1 – Site Inspection Details

## 1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	<b>Jason Walsh</b> BEng (Hons) PCert (RSA) CEng MIEI	JW3362499
Audit Team Member (ATM)	<b>Martin Deegan</b> BEng (Hons) MSc CEng MIEI	MD101312
Audit Trainee (AT)	-	-

Table 1.2 – Audit Team Details

## 1.4 Design Drawings Examined as Part of the Audit Process

The following drawing(s) were examined as part of the Road Safety Audit (RSA) process:

Drawing No.	Drawing Title	Revision
369854-210B1.1	N52 / N62 Junction	-
CSH/PP/TRA/0.01	Temporary Construction Site Entrance Details	0
CSH/PP/TRA/0.02	Operational Site Entrance (East)	00
CSH/PP/TRA/0.03	Operational Site Entrance (West)	00

Table 1.3 – Designers Drawing List

## 1.5 Road Safety Audit Compliance

### Procedure and Scope

This Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number **GE-STY-01024 - Road Safety Audit**.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

### Compliance with Design Standards

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

### Minimizing Risk of Collision Occurrence

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.



## 2. Road Safety Issues Identified

### 2.1 Problem: Abnormal Load Reversing Manoeuvre

Location: N52 / N62 Junction

The abnormal load reversing manoeuvre could cause unexpected delay and sudden vehicle stops on the N52 & N62 National Road mainlines resulting in vehicle conflicts.

#### Recommendation

Appropriate traffic management should be deployed to provide short 'All Stop' at an appropriate location on the N52 & N62 National Road mainline approaches.

### 2.2 Problem: Opposition Conflict between Entrances

Location: Temporary Construction Site Entrances

The partial stagger setup of the construction site entrances may increase the risk of the occurrence of opposition conflicts between the traffic streams at the entrances.

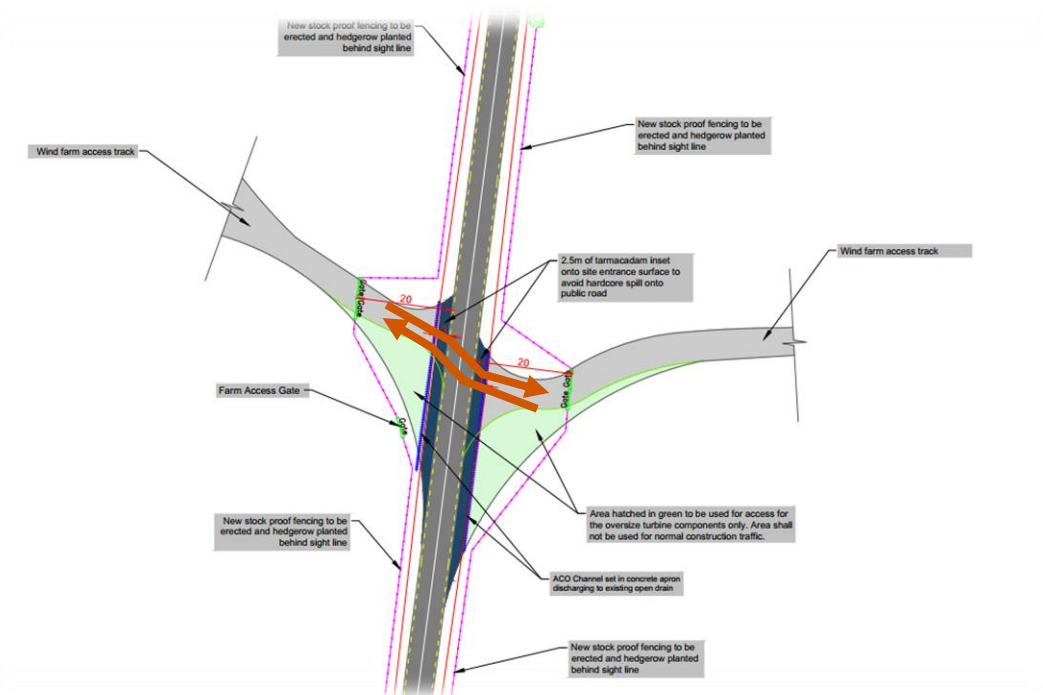


Figure 2.1 – Construction Site Entrance Stagger

#### Recommendation

The stagger of the construction site entrances should be increased or alternatively the entrance be fully aligned.

## 2.3 Problem: Step Approach Gradients

Location: Temporary Construction Site Entrances

A steep existing approach gradient on the western construction access track may lead to vehicle stalls on the mainline or vehicles over-shooting the junction onto the mainline resulting in vehicle conflicts.

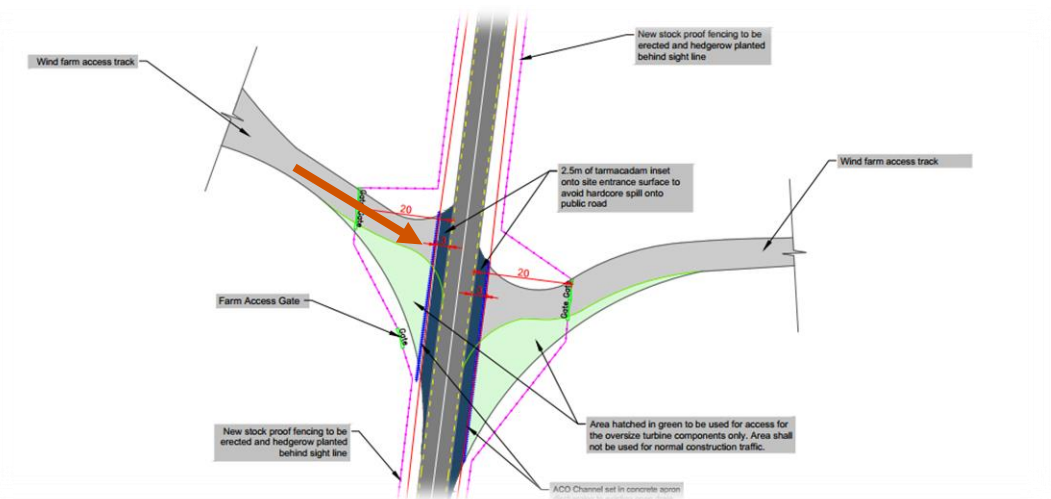


Figure 2.2 – Construction Site Access Track Approach Gradient

### Recommendation

An appropriate dwell area should be provided on the construction access track approach to the mainline.

## 2.4 Problem: Material / Detritus Deposited on Carriageway

Location: Temporary Construction Site Entrances

Granular material / detritus from construction vehicles wheels may be deposited on the mainline carriageway impacting the safe operation of the national road.

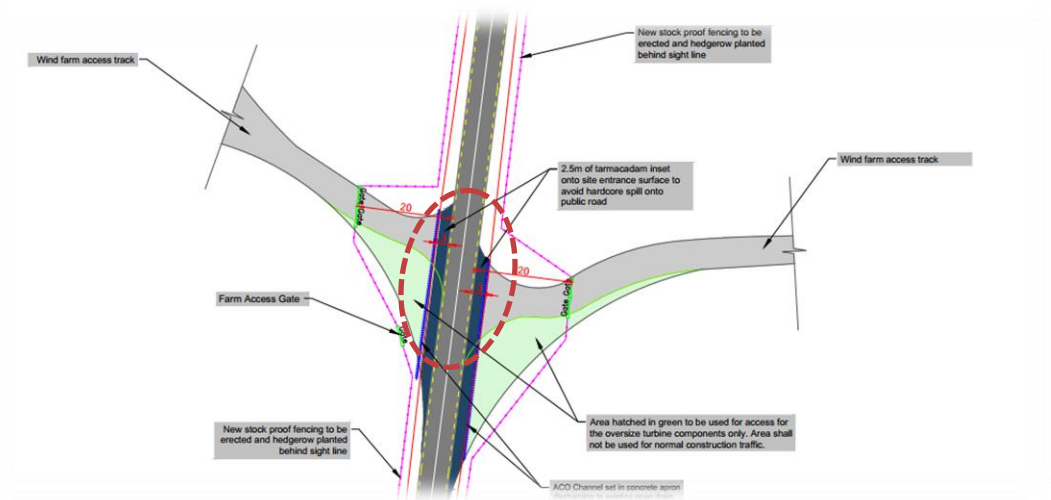


Figure 2.3 – Granular Material / Detritus Deposited on Carriageway

### Recommendation

A suitable wheel washing facility should be provided to serve each of the construction site entrances.

## 2.5 Problem: Pavement Damage

Location: Operational Site Entrance (East)

Heavy operational traffic may further damage the failed pavement on the private road leading to the occurrence of loss of control type collisions.



Figure 2.4 – Existing Failed Pavement

### Recommendation

The pavement on the private road should be made good and maintained.

## 2.6 Problem: Forward Visibility

Location: Operational Site Entrance (East)

The overgrown hedge at the bend on the private road may lead to forward visibility impact from the operational site entrance and the private road leading to vehicle conflicts.

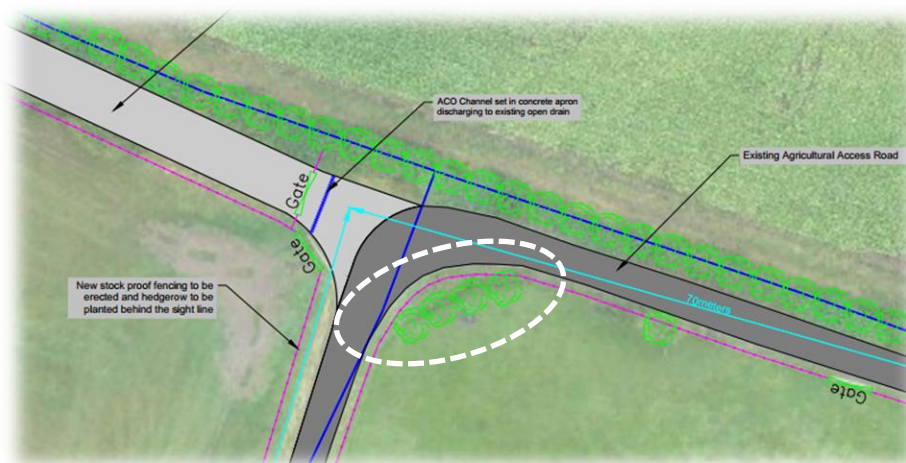


Figure 2.5 – Forward Visibility

### Recommendation

The overgrown hedge on the private road should be lowered and maintained to ensure appropriate forward visibility is provided at the bend.

## 2.7 Problem: Vehicle Blocking Local Road

Location: Operational Site Entrance (East) & Operational Site Entrance (West)

The gate setback may not be sufficient for large operational vehicles to pull in completely off the road leading to conflicts with approaching vehicles.

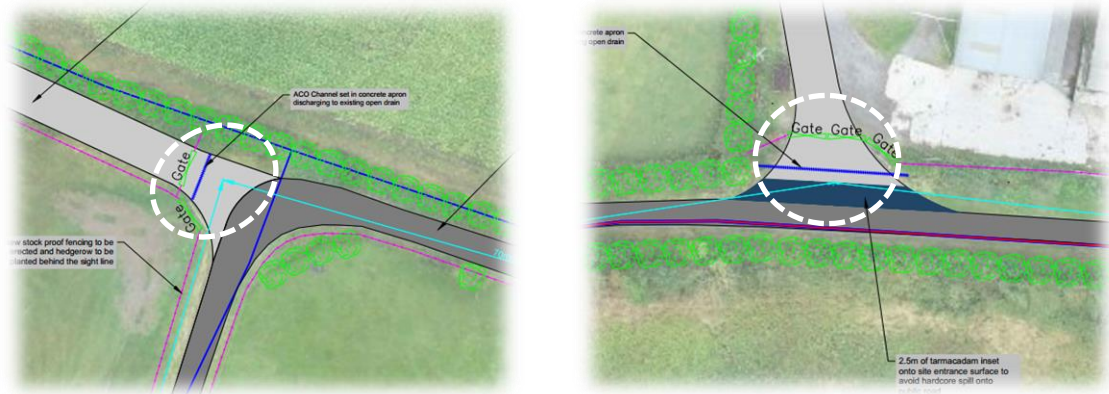


Figure 2.6 – Vehicles Blocking Road

### Recommendation

The gates should be in-set an appropriate distance to ensure that the largest expected size operational vehicle can pull in completely off the road.

### 3. Audit Team Statement

#### 3.1 Certification

We certify that we have examined the drawing(s) listed in Chapter 1 of this Report.

#### 3.2 Purpose of the Road Safety Audit

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

#### 3.3 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

#### 3.4 Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

#### 3.5 Road Safety Audit Team Sign-Off

Jason Walsh

Audit Team Leader  
Road Safety Engineering Team

TRASKY

Signed:



Date:

12<sup>th</sup> December 2022

Martin Deegan

Audit Team Member  
Road Safety Engineering Team

TRASKY

Signed:



Date:

12<sup>th</sup> December 2022



## 4. Designers Response

### 4.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.

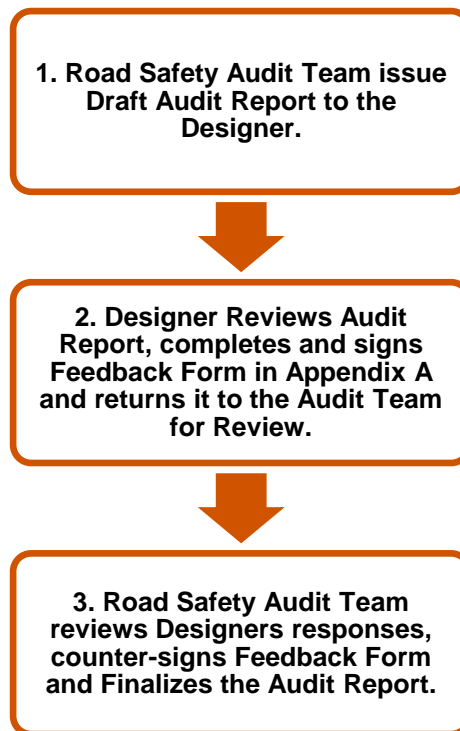


Figure 4.1 – Road Safety Audit Sign-Off and Completion Process

### 4.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: [jason@trasky.ie](mailto:jason@trasky.ie)

The Audit Team will consider the Designer's response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

### 4.3 Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.



# Appendix A

## A.1 Road Safety Audit Feedback Form

<h2 style="color: #C8513E;">Road Safety Audit Feedback Form</h2>			
<b>Scheme:</b>	Cush Wind Farm, Co. Carlow		
<b>Audit Stage:</b>	Stage 1 Road Safety Audit	<b>Audit Date:</b>	12 <sup>th</sup> December 2022

Problem Reference (Section 2)	<h3 style="color: #C8513E;">Designer Response Section</h3>			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
2.1	YES	YES	Appropriate traffic management will be deployed to provide short 'All Stop' at an appropriate location on the N52 & N62 National Road mainline approaches.	
2.2	YES	YES	The eastern entrance shall be shifted north so that entrances are fully aligned.	
2.3	YES	YES	The access tracks to be constructed so that the first 20meters will have a maximum gradient of 1%.	
2.4	YES	YES	A suitable wheel washing facility will be provided to serve each of the construction site entrances	
2.5	YES	YES	The pavement on the existing private road should will made good and maintained.	
2.6	YES	YES	The overgrown hedge on the local road will be lowered and maintained to ensure appropriate forward visibility is provided at the bend.	
2.7	YES	YES	The entrance gates will be in-set an appropriate distance to ensure that the largest expected size operational vehicle can pull in completely off the local road.	

*\*The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.*

<b>Designer's Name:</b>	Cormac McPhillips	<b>Designer's Signature:</b>		<b>Date:</b> 04/01/2023
<b>Employer's Name:</b>	_____	<b>Employer's Signature:</b>	_____	<b>Date:</b> _____
<b>Audit Team's Name:</b>	Jason Walsh	<b>Audit Team's Signature:</b>		<b>Date:</b> 05/01/2023



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