



REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HURST, SKIBBEREEN, CO. CORK



APPENDIX 8-1

GEOTECHNICAL AND PEAT STABILITY REPORT



256398-06/11/2025-EIAR Volume 3B Appdx. 8-1
Geotechnical & Peat Stability Report



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

GEOTECHNICAL & PEAT STABILITY REPORT

CURRAGLASS WIND FARM

Prepared for: MKO Ltd



Date: August 2025

Unit 6, Bagenalstown Industrial Park, Bagenalstown,
Co. Carlow, R21 XW81, Ireland
T: +353 59 9723800 E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

GEOTECHNICAL & PEAT STABILITY ASSESSMENT REPORT

CURRAGLASS WIND FARM

User is responsible for Checking the Revision Status of this Document

| Rev. No. | Description of Changes | Prepared by: | Checked by: | Approved by: | Date: |
|----------|-------------------------------------|--------------|-------------|--------------|------------|
| 0 | Draft for Comment | IH | TC | BdeH | 14.05.2025 |
| 1 | Final following comments | IH | TC | BdeH | 24.06.2025 |
| 2 | Final following additional comments | IH | TC | BdeH | 22.07.2025 |
| 3 | Final following layout revisions | IH | TC | BdeH | 22.08.2025 |

Client: MKO Ltd

Keywords: Geotechnical, Peat Stability, Peat Failure, Risk Assessment

Abstract: Fehily Timoney and Company (FT) were engaged by MKO Ltd to undertake a geotechnical assessment of the proposed Curraglass Wind Farm with respect to peat stability. As part of the geotechnical assessment of the Proposed Development, FT completed walkover surveys at the Site. The findings of the geotechnical and peat stability assessment showed that the Site has an acceptable margin of safety and is suitable for the proposed wind farm development.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

TABLE OF CONTENTS

| | | |
|--|--|-----------|
| 1. NON-TECHNICAL SUMMARY | | 1 |
| 2. INTRODUCTION | | 1 |
| 2.1 | Fehily Timoney and Company | 1 |
| 2.2 | Project Description | 1 |
| 2.3 | Peat Stability Assessment Methodology | 2 |
| 2.4 | Peat Failure Definition | 4 |
| 2.5 | Main Approaches to Assessing Peat Stability | 5 |
| 2.6 | Peat Stability Assessment – Deterministic Approach | 5 |
| 2.7 | Applicability of the Factor of Safety (Deterministic) Approach for Peat Slopes | 6 |
| 2.8 | Assessment of Intense Rainfall and Extreme Dry Events on the Peat Slope | 7 |
| 3. DESK STUDY | | 8 |
| 3.1 | Desk Study | 8 |
| 3.2 | Soils, Subsoil & Bedrock | 8 |
| 4. FINDINGS OF SITE RECONNAISSANCE | | 9 |
| 4.1 | Site Reconnaissance | 9 |
| 4.2 | Findings of Site Reconnaissance | 9 |
| 5. GROUND INVESTIGATION | | 11 |
| 5.1 | Summary of Ground Conditions | 11 |
| 5.2 | Summary of Laboratory Tests | 11 |
| 5.3 | Summary of Geotechnical Parameters | 12 |
| 6. PEAT DEPTHS, STRENGTH & SLOPE AT PROPOSED INFRASTRUCTURE LOCATIONS | | 13 |
| 6.1 | Peat Depth | 13 |
| 6.2 | Peat Strength | 13 |
| 6.3 | Slope Angle | 13 |
| 6.4 | Summary of Findings | 13 |
| 7. PEAT STABILITY ASSESSMENTS | | 16 |
| 7.1 | Methodology for Peat Stability Assessment | 16 |
| 7.2 | Analysis to Determine Factor of Safety (Deterministic Approach) | 18 |

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

_____ COUNTY COUNCIL
NO. 10, BATHOUSE, SKIBBEREEN, CO. CORK

| | | |
|---|--|-----------|
| 7.3 | Results of Analysis | 20 |
| | 7.3.1 Undrained Analysis for the Peat..... | 20 |
| | 7.3.2 Drained Analysis for the Peat..... | 21 |
| 7.4 | Stability of Borrow Pit Berm | 22 |
| 8. PEAT STABILITY RISK ASSESSMENT..... | | 24 |
| 8.1 | Summary of Risk Assessment Results..... | 24 |
| 9. INDICATIVE FOUNDATION TYPE AND FOUNDATION DEPTH FOR TURBINES | | 26 |
| 9.1 | Summary..... | 26 |
| 10. FOUNDING DETAILS FOR INFRASTRUCTURE ELEMENTS (EXCEPT TURBINES) | | 27 |
| 10.1 | Access Roads..... | 27 |
| 10.2 | Crane Hardstands | 27 |
| 10.3 | Construction Compound Platform | 27 |
| 11. SUMMARY AND RECOMMENDATIONS | | 28 |
| 11.1 | Summary..... | 28 |
| 11.2 | Recommendations..... | 29 |
| 12. REFERENCES | | 30 |

DRAWINGS

- P24-263-0600-0001: Peat Depth Contour Plan
- P24-263-0600-0002: Construction Buffer Zone Plan
- P24-263-0600-0003: Ground Investigation Location Plan
- P24-263-0600-0004: Factor of Safety Plan – Short Term Critical

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NOTTON HOUSE, SKIBBEREEN, Co. CORK

LIST OF APPENDICES

| | |
|-------------|--|
| Appendix A: | Photos from Site Walkover |
| Appendix B: | Peat Stability Risk Register |
| Appendix C: | Calculated FoS for Peat Slopes on Site |
| Appendix D: | Methodology for Peat Stability Risk Assessment |
| Appendix E: | IDL Ground Investigation (2025) |

LIST OF FIGURES

| | | |
|-------------|--|----|
| Figure 2.1: | Methodology for Peat Stability Assessment | 4 |
| Figure 2.2: | Peat Slope Showing Balance of Forces to Maintain Stability | 6 |
| Figure 6.1: | Undrained Shear Strength (c_u) Profile for Peat with Depth | 15 |
| Figure 7.1: | Borrow Pit Stability Check, Drained DA1C1 | 23 |
| Figure 7.2: | Borrow Pit Stability Check, Drained DA1C2 | 23 |

LIST OF TABLES

| | | |
|------------|---|----|
| Table 5-1: | Summary of Geotechnical Parameters | 12 |
| Table 6.1: | Peat Depth & Slope Angle at Proposed Infrastructure Locations | 14 |
| Table 7.1: | List of Effective Cohesion and Friction Angle Values for Peat | 17 |
| Table 7.2: | Factor of Safety Limits for Slopes | 18 |
| Table 7.3: | Factor of Safety Results (Undrained Condition) | 20 |
| Table 7.4: | Factor of Safety Results along Access Roads (Undrained Condition) | 20 |
| Table 7.5: | Factor of Safety Results (Drained Conditions) | 21 |
| Table 7.6: | Factor of Safety Results along access roads (Drained Condition) | 21 |
| Table 7.7: | Material Properties | 22 |
| Table 7.8: | Borrow Pit Stability Analysis | 22 |
| Table 8.1: | Risk Rating Legend | 24 |
| Table 8.2: | Summary of Peat Stability Risk Register | 25 |
| Table 9-1: | Summary of Indicative Turbine Foundation Type and Founding Depths | 26 |

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

_____ COUNTY COUNCIL
TOWN HOUSE, SKIBBEREEN, Co. CORK



1. NON-TECHNICAL SUMMARY

Fehily Timoney and Company (FT) was engaged by MKO Ltd to undertake a geotechnical and peat stability assessment of the Proposed Curraglass Wind Farm (the 'Proposed Development'), located in west Co. Cork. In accordance with planning guidelines compiled by the Department of the Environment, Heritage and Local Government (Wind Energy Development Guidelines, DoEHLG, 2006), where peat >0.5m thickness is present on a proposed wind farm development, a peat stability assessment is required.

A walkover survey, including intrusive peat depth probing, ground investigation, desk study, stability analysis and risk assessment was carried out to assess the susceptibility of the Site to peat failure following the principles in "Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments" (2nd Edition, Scottish Government, 2017).

The findings, which involved a stability analysis of 92 locations, show that the Site has an acceptable margin of safety, a low risk of peat failure and is suitable for the Proposed Development. The findings include recommendations and control measures for construction work in peat lands to ensure that all works adhere to an acceptable standard of safety.

The Proposed Development comprises 3 no. wind turbines and associated infrastructure. A detailed description of the Proposed Development is included in Chapter 4 of the EIAR.

Elevations across the Site range from 111 to 347mOD, with the highest point on the Site to the west of T02. Slopes at turbine locations are typically falling to the west towards the River Owenbeg. The land use within the Site comprises of forestry, agricultural land and an existing wind farm site.

Slope inclinations at the main infrastructure locations range from 4 to 10 degrees. The relatively uniform topography on Site reflects the relatively low risk of peat failure that has been determined following this peat stability assessment. Ground conditions comprised mainly of shallow blanket peat overlying clay and gravel overlying bedrock.

Between January 2020 and August 2025, 354 no. peat depth readings were taken across the Site by GDG, MKO, HES and FT. Peat depth recorded during the site walkovers and from the ground investigation ranged from 0.0 to 5.5m with an average peat depth across the Site of 0.45m. 95% of the probes recorded peat depths of less than 1.5m. A number of localised readings recorded peat depths from 1.5 to 5.5m. The average peat depth specifically at the proposed turbine locations is 0.5m.

The purpose of the stability analysis was to determine the stability i.e. Factor of Safety (FoS), of the peat slopes. The FoS provides a direct measure of the degree of stability of a peat slope. A FoS of less than 1.0 indicates that a slope is unstable; a FoS of greater than 1.0 indicates a stable slope. An acceptable FoS for slopes is generally taken as a minimum of 1.4. The stability analysis for the Proposed Development, which analysed the turbine locations, access roads and related infrastructure, resulted in FoS above the minimum acceptable value of 1.4 and hence the Site has a satisfactory margin of safety.

The risk assessment uses the results of the stability analysis in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk of peat failure at the Site. The results of the risk assessment are given in Appendix B. A construction buffer zone plan based on qualitative factors identified during the site walkover is included as Drawing P24-263-0600-0002.



In summary, the Site has an acceptable margin of safety, and therefore is considered to be at **low** risk of peat failure subject to the specified mitigation measures and is suitable for wind farm development.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



2. INTRODUCTION

2.1 Fehily Timoney and Company

Fehily Timoney and Company (FT) is an Irish engineering, environmental science and planning consultancy with offices in Cork, Dublin and Carlow. The practice was established in 1990 and currently has c.100 members of staff, including engineers, scientists, planners and technical support staff. FT deliver projects in Ireland and internationally in our core competency areas of Waste Management, Environment and Energy, Civils Infrastructure, Planning and GIS and Data Management.

FT have been involved in over 100 wind farm developments in both Ireland and the UK at various stages of development i.e., preliminary feasibility, planning, design, construction, and operational stage and have established themselves as one of the leading engineering consultancies in peat stability assessment, geohazard mapping in peat land areas, investigation of peat failures and site assessment of peat.

This Report was written by Ian Higgins (FT Technical Director, MSc in Geotechnical Engineering). Ian is a Technical Director with Fehily Timoney and has 25 years' experience in geotechnical engineering.

2.2 Project Description

FT was engaged in October 2024 by MKO Ltd. to undertake a geotechnical and peat stability assessment of the Site for the Proposed Development.

The Proposed Development is located approximately 6.8km northeast of Kealkill and 3.8km southwest of the village of Ballingearry, Co. Cork.

The Site comprises predominantly forestry. The surrounding landscape to the south and north is rolling hillsides with land-use comprising forestry and blanket peatland, as well as existing wind farm infrastructure.

The Proposed Development will comprise the following:

- 3 no. wind turbines and associated foundations, hardstanding and assembly areas,
- Continued use of the existing onsite 38kV substation and associated 38kV underground cabling,
- 1 no. permanent meteorological mast and associated foundation and hardstanding area,
- All associated underground electrical and communications cabling connecting the wind turbines and meteorological mast to the existing onsite 38kV substation,
- 1 no. borrow pit,
- 1 no. temporary construction compound,
- Peat and spoil management,
- Upgrade of existing site tracks/roads, construction of new site access roads, junctions and hardstanding areas,
- Temporary improvements and modifications to the existing site access junction off the R584 to facilitate delivery of abnormal loads,
- Upgrade of an existing access track off the R584, including improvements and modifications to facilitate a turbine component turning area,
- Tree felling and vegetation removal,
- Biodiversity Enhancement measures (Kerry Slug and peatland habitat enhancement, and riparian planting of native broadleaf trees),



REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON ROAD, BREEN CO. CORK

- All associated site development works, ancillary works and apparatus.

2.3 Peat Stability Assessment Methodology

FT undertook the assessment following the principles in Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (2nd edition, Scottish Government, 2017). The Peat Landslide Hazard and Risk Assessment Guide (PLHRAG) is used in this report as it provides best practice methods to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects.

The aforementioned best practice guide was produced following peat failures in the Shetland Islands, Scotland in September 2003 but more pertinently following the peat failure in October 2003, during the construction of a wind farm at Derrybrien, County Galway, Ireland.

This peat stability assessment has been undertaken taking into account peat failures that have occurred on upland peatland sites (such as recent failures at Shass Mountain (2020), Co. Leitrim and Meenbog (2020), Co. Donegal). The lessons learned from both peat slide events have been incorporated into the design of this project and the construction methodologies to be implemented. The Meenbog failure, which occurred during wind farm construction works, involved a large area of deep, soft peat, poorly maintained forestry drainage, and the presence of a break in slope along the downslope margin of the area of deep peat, all of which were considered contributory factors to the failure which occurred as a floating road was under construction. The failure at Shass Mountain occurred where a large volume of water draining from a forestry plantation was concentrated into the headwaters of a stream, in an area of deep peat (>4m).

The peat depths across the majority of the Site are significantly lower than those recorded at the Meenbog failure, and the Site is better drained. The one area of deep peat is small in extent and is crossed by an existing floating access road, which has been in place for a number of years without any noticeable peat stability issues. This continued use of this road is not considered to be a significant peat stability risk; however monitoring points will be put in place on both sides of this section of road during construction (see Section 8 of the Peat & Spoil Management Plan for details).

It is important that the existing site drainage is maintained during construction to avoid a similar failure to that on Shass Mountain, which occurred following heavy rainfall, and this is referenced in the Risk Assessments for the turbines/access roads. However, the topography of the Site is also different to that at Shass Mountain and does not contain any areas where a large catchment area is focussed into a localised area of deep peat.

A constraints study was initially undertaken by the Environmental, Hydrogeological and Ecological members of the design team to determine the developable area on the Site, prior to the site reconnaissance by engineering geologists/geotechnical engineers from FT. The extent and depth of ground investigation and peat stability analysis by FT have been undertaken in accordance with guidance within PLHRAG (2nd Edition, Scottish Government, 2017) to investigate peat slopes that have the potential to impact on the Proposed Development, as applicable. Sufficient peat depth data has been recorded during the site walkovers to enable the characterisation of the peat depth across the Site as shown in Drawing 24-263-600-0001, with additional detail at infrastructure locations. The peat stability assessment is undertaken to identify peat slopes at risk from the Proposed Development, and to identify peat slopes that may pose a risk to the Proposed Development.

The geotechnical and peat stability assessment at the Site included the following activities:

- (1) Desk study, involving the review of publicly available soils and geology maps, records of historical peat failures, aerial photography.

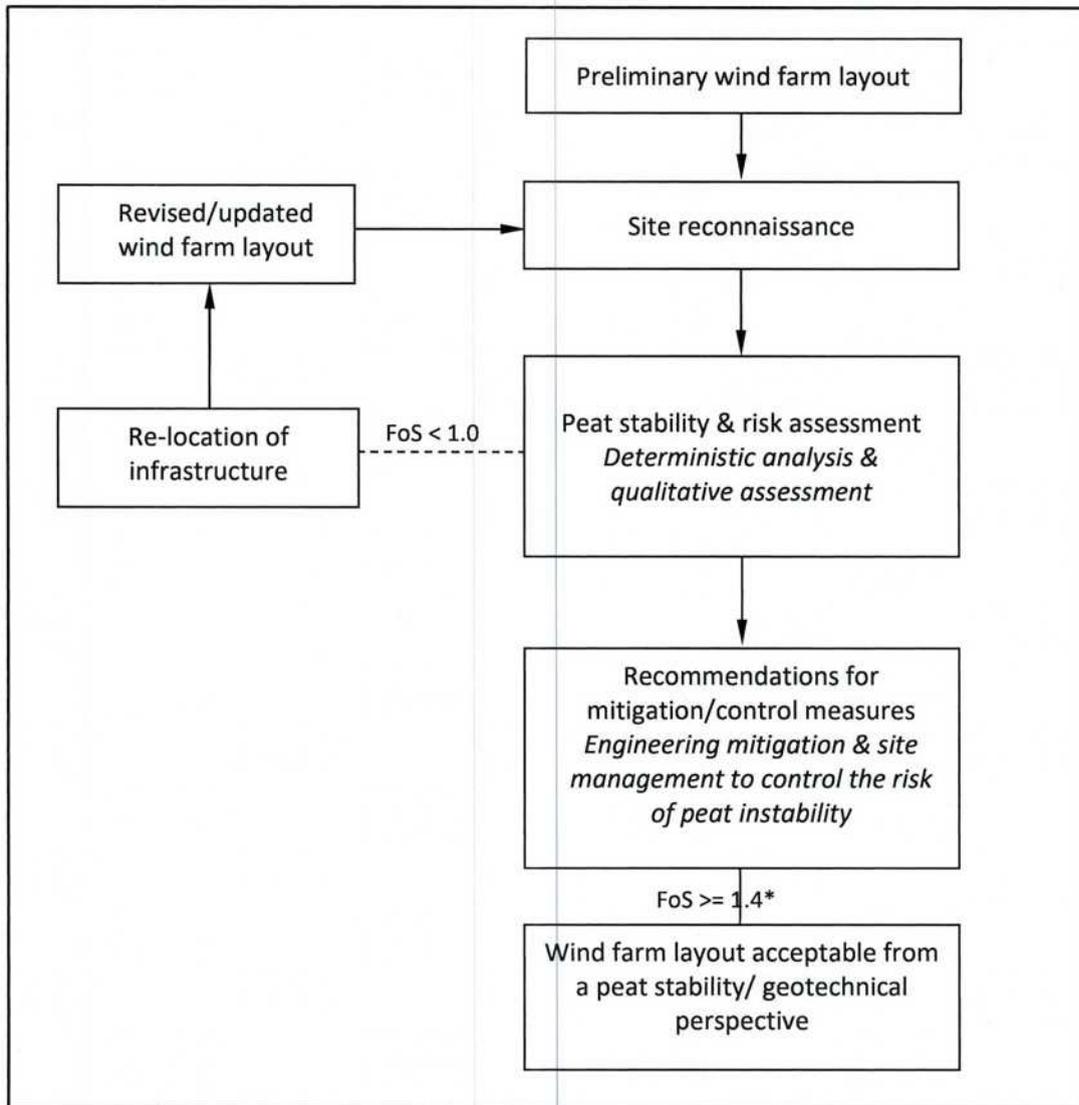


- (2) Site reconnaissance including shear strength and peat depth measurements undertaken following initial multidisciplinary constraints study (by the design team) to determine the proposed construction areas within the Site i.e. the area within the overall Site where development is possible following multidisciplinary review and assessment of constraints (refer to Chapter 3 of the EIAR).
- (3) Peat stability assessment of the peat slopes on the Site using a deterministic and qualitative approach.
- (4) Peat contour depth plan – compiled based on the peat depth probes carried out across the Site.
- (5) Factor of safety plan – compiled for the short-term critical condition (undrained) for 92 no. FoS points analysed along the proposed infrastructure envelope on the Site.
- (6) Construction buffer zone plan – identifies areas with an elevated or higher construction risk where mitigation/control measures will need to be implemented during construction to minimise the potential risks, as well as areas where construction works should be avoided.
- (7) A peat stability risk register was compiled to assess the potential design/construction risks at the infrastructure locations and determine adequate mitigation/control measures for each location to minimise the potential risks and ensure they are kept within an acceptable range, where necessary.
- (8) Review of ground investigation carried out at the Site by Irish Drilling Ltd. (IDL).
- (9) Commentary of founding details for other infrastructure elements such as access roads, crane hardstands, substation & construction compound platforms and met mast foundation.

A flow diagram showing the general methodology for the peat stability assessment is shown in Figure 2.1. The methodology illustrates the optimisation of the wind farm layout based on the findings from the site reconnaissance and stability analysis and subsequent feedback.

As for all construction projects, a detailed engineering construction design must be carried out by the appointed construction stage designer prior to any construction work commencing on Site. This must take account of the consented project details and any conditions imposed by that consent. This must include a confirmatory peat stability assessment to account for any changes in the environment which may have occurred in the time leading up to the commencement of construction.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



*An FoS of between 1.0 and 1.4 does not mean that a failure will occur, but that the area requires attention. Mitigation measures can be provided for areas with an FoS of between 1.0 and 1.4 to reduce the risk of failure.

Figure 2.1: Methodology for Peat Stability Assessment

2.4 Peat Failure Definition

Peat failure in this report refers to a significant mass movement of a body of peat that would have an adverse impact on the Proposed Development and the surrounding environment. Peat failure excludes localised movement of peat that would occur below an access road, creep movement or erosion type events.

The potential for peat failure at this Site is examined with respect to wind farm construction and associated activity.

REG. No. _____
 PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL

PLANNING & DEVELOPMENT SERVICES, CORK



2.5 Main Approaches to Assessing Peat Stability

The main approaches for assessing peat stability for wind farm developments include the following:

- (1) Geomorphological
- (2) Qualitative (judgement)
- (3) Index/Probabilistic (probability)
- (4) Deterministic (factor of safety)

Approaches (1) to (3) listed above are considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach (as discussed in Section 2.6).

As part of FT's deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified, such as the presence of mechanically cut peat, quaking peat, bog pools, sub peat water flow, slope characteristics and numerous other factors. The qualitative factors used in the risk assessment are compiled based on FT's experience of assessments and construction in peat land sites and peat failures throughout Ireland and the UK. FT have been involved with in excess of 100 wind farm developments across Ireland and the UK at various stages of development, from preliminary feasibility stage through planning and from scheme development at tender design and detailed design stage, through to the construction and operational stages. This approach follows the guidelines for geotechnical risk management as given in Clayton (2001), as referenced in the best practice for Peat Landslide Hazard and Risk Assessment Guide (2nd Edition, Scottish Government, 2017) and takes into account the approach of MacCulloch (2005).

The risk assessment uses the results of the deterministic approach in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability to assess the risk of instability on a peatland site.

2.6 Peat Stability Assessment – Deterministic Approach

The peat stability assessment is carried out across a wide area of peatland to determine the stability of peat slopes and to identify areas of peatland that are suitable for development; this allows the layout of infrastructure on a particular wind farm site to be optimised. The assessment provides a numerical value (factor of safety) of the stability of individual parcels of peatland. The findings of the assessment discriminate between areas of stable and unstable peat, and areas of marginal stability where restrictions may apply. This allows for the identification of the most suitable locations for turbines, access roads and infrastructure.

A deterministic assessment requires geotechnical information and site characteristics which are obtained from desk study and site walkover, e.g. properties of peat/soil/rock, slope geometry, depth of peat, underlying strata, groundwater, etc. An adverse combination of the factors listed above could potentially result in instability. Using the information above, a factor of safety is calculated for the stability of individual parcels of peatland on a site (as discussed in Section 7).

The factor of safety is a measure of the stability of a particular slope. For any slope, the degree of stability depends on the balance of forces between the weight of the soil/peat working downslope (destabilising force) and the inherent strength of the peat/soil (shear resistance) to resist the downslope weight, see Figure 2.2.

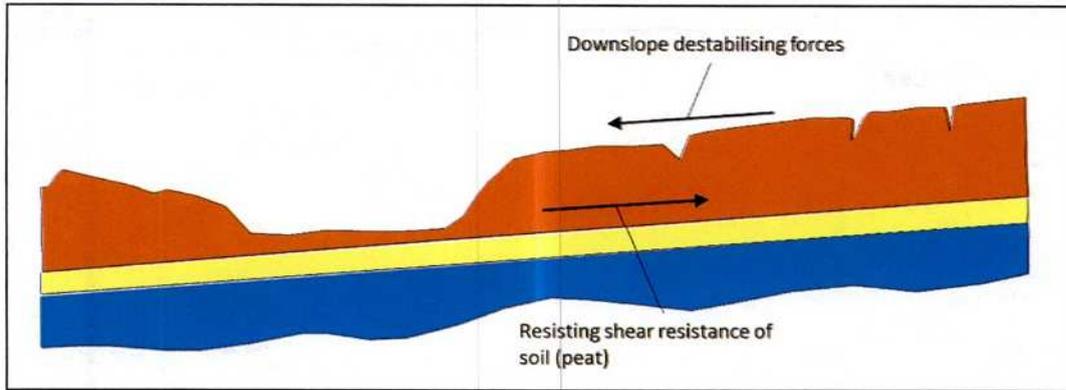


Figure 2.2: Peat Slope Showing Balance of Forces to Maintain Stability

The factor of safety provides a direct measure of the degree of stability of a slope and is the ratio of the shear resistance over the downslope destabilising force. Provided the available shear resistance is greater than the downslope destabilising force then the factor of safety will be greater than 1.0 and the slope will remain stable. If the factor of safety is less than 1.0 the slope is unstable and liable to fail. The acceptable range for factor of safety is typically from 1.3 to 1.4 (BS6031, 1981). A FoS of 1.4 is taken as indicative of sufficient stability within this report, which would be deemed a conservative approach.

2.7 Applicability of the Factor of Safety (Deterministic) Approach for Peat Slopes

The factor of safety approach is a standard engineering approach in assessing slopes which is applied to many engineering materials, such as peat, soil, rock, etc.

The factor of safety approach is included in the Peat Landslide Hazard and Risk Assessments Best Practice Guide for Proposed Electricity Generation Developments (2nd Edition, Scottish Government, 2017); see Section 5.3.1 of the guide. This guide provides best practice methods to identify, mitigate and manage peat slide hazards and associated risks in respect of consent applications for electricity generation projects.

Furthermore, the best practice guide notes that the results from the factor of safety approach 'has provided the most informative results' with respect to analysing peat stability (Section 5.3.1 of the guide).

The factor of safety approach in this report includes undrained (short-term stability) and drained (long-term stability) analyses. The undrained condition is the critical condition for the development. The purpose of the drained analysis is to identify the relative susceptibility of rainfall-induced failures at the Site.

Notwithstanding the above, the stability analysis used by FT in this report also includes qualitative factors to determine the potential for peat stability i.e. the analysis used does not solely rely on the factor of safety approach.

The deterministic analysis is considered an acceptable engineering design approach. This concurs with the best practice guide referenced above.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
WORTON HOUSE, SKIBBEREEN, Co. CORK



2.8 Assessment of Intense Rainfall and Extreme Dry Events on the Peat Slope

The deterministic approach carried out by FT examines intense rainfall and extreme dry events. The deterministic approach includes and undrained (short-term stability) and drained (long-term stability) analysis to assess the factor of safety for the peat slopes against a peat failure.

The drained loading condition applies in the long-term. This condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes. For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the peat slope.

In order to represent varying water levels within the peat slopes, a sensitivity analysis is carried out which assesses varying water level in the peat slopes i.e. water levels ranging from 0 to 100% of the peat depth is conducted, where 0% equates to the peat been completely dry and 100% equates to the peat being fully saturated.

By carrying out such a sensitivity analysis with varying water level in the peat slopes, the effects of intense rainfall and extreme dry events are considered and analysed. The results of which are presented in Section 7 of this report.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



3. DESK STUDY

3.1 Desk Study

The main relevant sources of information with respect to the Site include:

- Geological plans and Geological Survey of Ireland database
- Ordnance survey plans
- Literature review of peat failures

The Geological Survey of Ireland online dataset viewer (GSI, 2025) was used to verify the soil and bedrock conditions.

The Ordnance Survey plans were reviewed to determine if any notable features or areas of particular interest (from a geotechnical point of view) are present on the Site.

The desk study also includes a review of both published literature and GSI online dataset viewer (GSI, 2025) on peat failures/landslides in the vicinity of the Site.

3.2 Soils, Subsoil & Bedrock

A review of the Geological Survey of Ireland online database and published documents from the GSI was carried out.

The published soil and subsoil map (GSI subsoils map) for the area shows that the Site is dominated by shallow peaty soils over shallow bedrock (the subsoils mapping shows subsoils are largely absent with bedrock close to surface). Pockets of blanket peat are mapped along the summit of the central ridgeline and on the lower western slopes of the Site, in the area of the proposed infrastructure.

In relation to bedrock, the Site and surrounding area is underlain by the following formations:

- Caha Mountain Formation, Purple and green sandstone and siltstone.
- Gun Point Formation, Green-grey sandstone and purple siltstone

No karst features were identified within 5km of the Site.

The closest geological heritage site is located adjacent to the Site entrance and is called the "Pass of Keimaneigh". It is described as a major glacial meltwater channel. The Pass of Keimaneigh is c. 2.5 km long glacial meltwater channel (spillway) that forms a steep north-south gorge between the mountains of Diúchoill (Doughill Mountain, 471m) and Fail an Stuaicín (Foilastokeen, 500m). The channel was formed by meltwaters at the end of the last glaciation, escaping from ice impounded lakes situated to the southwest around Kealkill and Bantry Bay and emptying into the Upper Lee Valley (GSI, 2023).

The landslide susceptibility of the Site was classified by the GSI (2025) as ranging from "low" to "high" susceptibility, with the higher risk areas corresponding to steeper slopes present in the southern half of the Site. There are no recorded peat failures within 5km of the Site.

REGISTERED
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
MORTON HOUSE, SKIBBEREEN, Co. CORK



4. FINDINGS OF SITE RECONNAISSANCE

4.1 Site Reconnaissance

As part of the assessment of potential peat failure at the Site, FT carried out a site reconnaissance in conjunction with the desk study review described in Section 3. This comprised walkover inspections of the Site with recording of salient geomorphological features with respect to the wind farm development which included peat depth and preliminary assessment of peat strength. General photographs of the Site are included at the end of the main text.

The following salient geomorphological features were considered:

- Active, incipient or relict instability (where present) within the peat deposits
- Presence of shallow valley or drainage lines/flush zones
- Wet areas
- Any change in vegetation
- Peat depth
- Slope inclination and break in slope

The survey covered the proposed locations for the turbine bases and associated infrastructure.

The method adopted for carrying out the site reconnaissance relied on experienced practitioners carrying out a visual assessment of the site supplemented with measurement of slope inclinations.

4.2 Findings of Site Reconnaissance

The site reconnaissance undertaken by FT comprised a walkover inspection of the Site on the 2nd December 2024 and 18th March 2025. Weather conditions for the site visits were dry. Site visits had also been undertaken by MKO and HES (2020 and 2025) and GDG (2020).

The main findings of the site walkover are as follows:

- (1) The Site is typically covered in a thin layer of peaty topsoil and has an undulating terrain. Peat depths vary across the Site depending on mainly topography. Generally deeper peat was encountered in the flatter areas of the Site with thinner peat on the surrounding slopes. The Site comprises forestry (see Appendix A), including access roads and hardstands associated with existing wind farm infrastructure.
- (2) A total of 354 no. peat depth probes were carried out during the various site visits by GDG, MKO, HES and FT. Peat depths recorded across the Site ranged from 0 to 5.5m with an average depth of 0.45m (Drawing P24-263-0600-0001). Approximately 95% of peat depth probes recorded peat depths of less than 1.5m. A number of localised readings were recorded where peat depths were between 2.0 and 5.5m, located in one localised flat area found on the main entrance road, and within part of the area intended for peatland enhancement.
- (3) The peat depths recorded at the turbine locations varied from 0.1 to 0.8m with an average depth of 0.5m.



- (4) With respect to the proposed new access roads, peat depths are typically less than 1.0m (average 0.45m) with localised depths of up to 5.5m recorded in one location along a section of existing floated access road on the main entrance road.
- (5) Slope angles at the turbine locations ranged from 6 to 10 degrees. These slope angle readings were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master which has an accuracy of +/- 0.25 degrees and from contour survey plans for the Site.
- (6) The slope angle quoted typically reflects the slope within the footprint of each infrastructure location.
- (7) A single area of deep peat with ponded water was recorded. This extends for around 50m on either side of a 200m long section of the main entrance road and is located in an area of flat ground.
- (8) Peat strengths recorded in the localised deep peat area vary from 10 to 30kPa.
- (9) A summary of the site walkover findings for the Site are as follows:
 - (a) The Site is typically covered in a layer of peat with undulating terrain open peatland. Peat depths recorded across the Site ranged from 0 to 5.5m with an average depth of 0.45m.
 - (b) A construction buffer zone plan has been produced for the Site (Drawing P24-263-0600-0002). This shows areas on the Site with an elevated or higher construction risk. The above identified buffer areas are based on qualitative factors identified during the walkover survey e.g. relatively deep peat, quaking peat, bog pools, mechanically cut peat, historical peat landslide, etc.
 - (c) The results of the peat depth probing, shear strength testing of the peat and qualitative factors identified on the Site have been used in the stability and risk assessments, see Sections 6, 7 and 8 of this report for details.
 - (d) Based on the findings from the walkover survey, the Site is considered to have a low risk of peat failure.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NOTTON HOUSE, SKIBBEREEN, Co. CORK



5. GROUND INVESTIGATION

A ground investigation was carried out at the Site by Irish Drilling Limited (IDL) under the supervision of FT during February and March 2025.

The ground investigations by IDL comprised 7 no. trial pits and 1 no. rotary corehole with associated laboratory testing. The trial pits were carried out at various locations across the Site to provide information on the ground conditions at turbine locations, and to investigate the potential to develop borrow pits within the Site.

The laboratory testing included the following:

- Classification testing for overburden material
- Determination of dry density/moisture content relationship

The trial pits logs, photographs and associated laboratory testing are included within Appendix E of this report. A ground investigation location plan is included as Drawing P24-263-0600-0003 in this report.

5.1 Summary of Ground Conditions

The ground conditions at the Site can be categorised into the following deposits:

Peat – Typically described as spongy black pseudo fibrous peat. Peat thicknesses from the trial pits ranged from 0.2 to 1.0m.

Made Ground: Described as brownish grey slightly sandy silty angular to subangular fine to coarse shale schist and siltstone Gravel with rare cobbles and rare boulders and rare large boulders. This material was used to construct the existing roads and hardstands relating to the existing wind farm infrastructure on the Site.

Glacial Sands and Gravels – Bluish grey slightly silty slightly sandy angular to subangular fine to coarse siltstone and shale Gravel.

Bedrock – very strong thinly laminated blueish grey fine grained Siltstone.

Groundwater recorded in the trial pits varied from none to seepages and inflows between 0.5 and 1.8m bgl.

5.2 Summary of Laboratory Tests

Based on the results of the particle size distribution (PSD) tests, the descriptions on the final trial pit logs have been updated. PSD results indicate that the gravel have a fines content of between 20 and 30%. Moisture content testing on samples of the gravel recorded results to 10 to 21%.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



5.3 Summary of Geotechnical Parameters

Table 5-1 contains characteristic geotechnical parameters for the main material types likely to be encountered on the Proposed Development. Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values. Characteristic values are defined as a cautious estimate of the value affecting the occurrence of limit state based on clause 2.4.5.2 from Eurocode 7.

Table 5-1: Summary of Geotechnical Parameters

| Material Type/Strata | Unit Weight γ (kN/m ³) | Geotechnical Parameters | | |
|-------------------------|--|-------------------------------------|---|-----|
| | | Undrained Parameters c_u (kPa) | Drained Parameters ϕ' (°) ⁽⁴⁾ c' (kPa) | |
| Peat | 10 | 5 ⁽³⁾ /8 | 25 | 4 |
| Glacial Sand and Gravel | 20 | - | 34 | 0 |
| Sandstone bedrock | 23 | - | 32 | 750 |

Notes

Note (1) The above parameters are indicative only and have been derived based on experience and from a review of the ground investigation undertaken.

Note (2) Where direct measurement of parameters has not been carried out, established correlations with measured properties have been used to derive values.

Note (3) A lower bound undrained shear strength, c_u for the peat of 5kPa was selected for flat areas (<5 degrees). The lowest recorded value within the development boundary on the Site was 10kPa, recorded in one location containing deep peat within the development footprint, hence a value of 5kPa is considered to be a conservative value. For slopes >5 degrees, a value of 8kPa was selected.

Note (4) ϕ' (°) – internal angle of shearing resistance.

REG. No. _____
 PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
 NO. 100 HOUSE, SKIBBEREEN, Co. CORK



6. PEAT DEPTHS, STRENGTH & SLOPE AT PROPOSED INFRASTRUCTURE LOCATIONS

As part of the site walkover, peat depth, in-situ peat strength and slope angles were recorded at various locations across the Site.

6.1 Peat Depth

Peat depth probes were carried out at/near to proposed turbine locations and access roads and other main infrastructure elements. At turbine locations a minimum of 5 probes were carried out around the turbine location, and an average peat depth was calculated.

6.2 Peat Strength

The strength testing was carried out in-situ using a Geonor H-60 Hand-Field Vane Tester. From FT's experience hand vanes give indicative results for in-situ strength of peat and would be considered best practice for the field assessment of peat strength.

6.3 Slope Angle

The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master and from contour survey plans for the Site.

The slope angle quoted typically reflects the slope within the footprint of each infrastructure location. It should be noted that slope angles derived from contour survey plans are considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography. Slope angles recorded during the site reconnaissance by FT using handheld equipment would generally be deemed more accurate and representative of local topography.

6.4 Summary of Findings

Based on the peat depths recorded across the Site by FT and historically by MKO, HES and GDG, the peat varied in depth from 0 to 5.5m with an average depth of 0.45m. All peat depth probes carried out on the Site have been utilised to produce a peat depth contour plan for the Site (Drawing P24-263-0600-0001).

A summary of the peat depths at the proposed infrastructure locations is given in Table 6.1. The data presented in Table 6.1 is used in the peat stability assessment of the Site.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



Table 6.1: Peat Depth & Slope Angle at Proposed Infrastructure Locations

| Turbine | Easting | Northing | Peat Depth Range (m) ⁽¹⁾ | Average Peat Depth (m) | Slope Angle (°) ⁽²⁾ |
|------------|---------|----------|-------------------------------------|------------------------|--------------------------------|
| T01 | 509077 | 563204 | 0.1-0.8 | 0.4 | 8 |
| T02 | 509002 | 562644 | 0.0-0.2 | 0.1 | 10 |
| T03 | 509016 | 561949 | 0.1-0.5 | 0.3 | 6 |
| Substation | 508836 | 562175 | 0.1-0.4 | 0.25 | 12 |
| Met Mast | 509109 | 562918 | 0.0-0.7 | 0.3 | 10 |
| TCC | 508928 | 563491 | 0.0-0.4 | 0.2 | 4 |

Note (1) Based on probe results from the site walkovers. The range of peat depths for the infrastructure locations are typically based on a 10m grid carried out around the infrastructure element.

Note (2) The slope angles at each of the main infrastructure locations were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment, such as the Silva Clino Master (which has an accuracy of +/- 0.25 degrees) and from contour survey plans for the Site. The slope angle quoted typically reflects the slope within the footprint of each infrastructure location.

Note (3) The data presented in the Table above is used in the peat stability assessment of the Site.

In addition to probing, in-situ shear vane testing was carried out as part of the ground investigation. Strength testing was carried out at turbine and other selected locations across the Site to provide representative coverage of indicative peat strengths. The results of the vane testing with depth are presented in Figure 6.1.

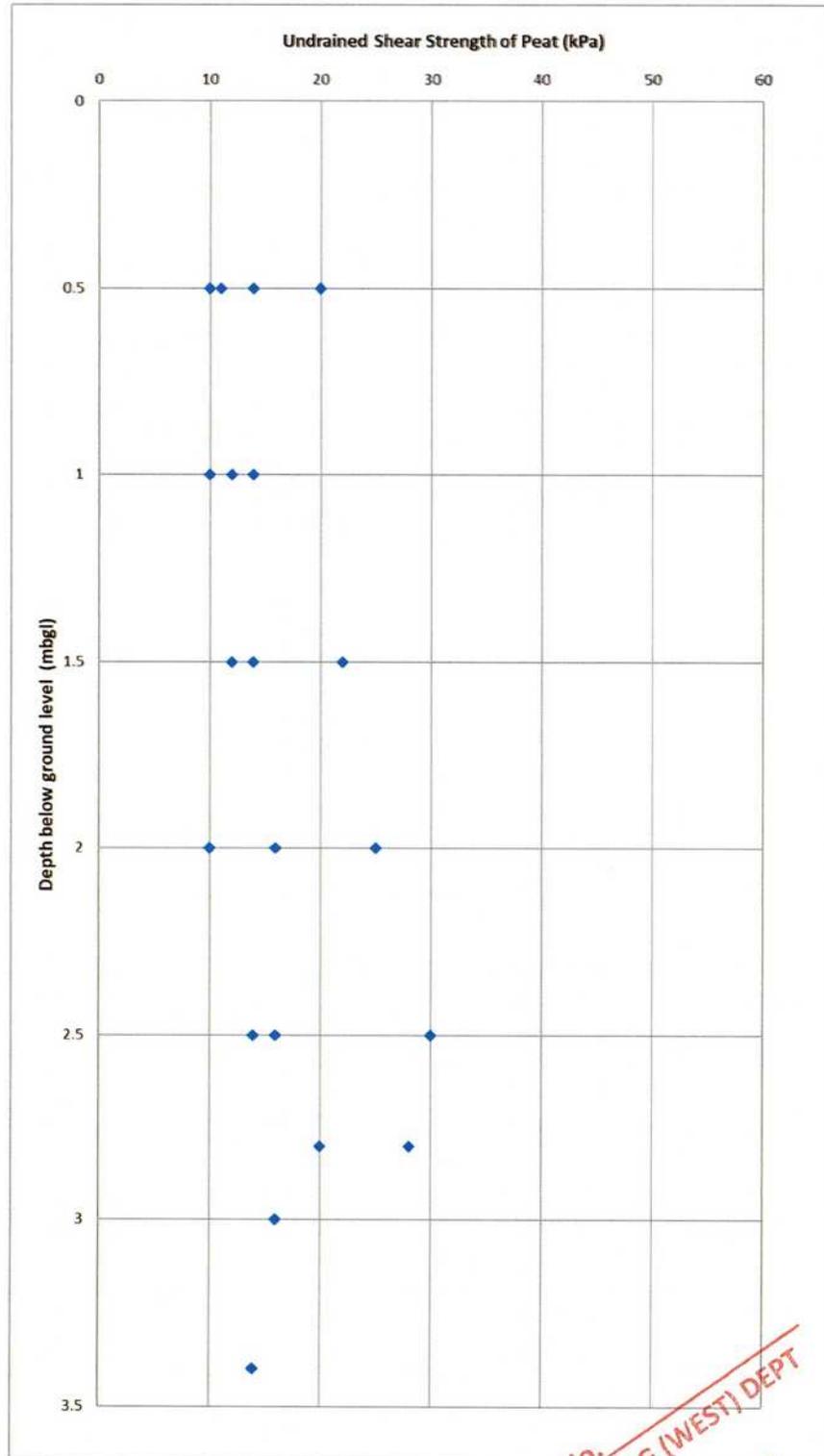
The hand vane results indicate undrained shear strengths in the range 10 to 40kPa, with an average value of 16kPa. The lowest strength was recorded in the one area of deep peat present on the Site.

Peat strength at sites of known peat failures (assuming undrained loading failure) are generally very low. For example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from back-analysis, was estimated at 2.5kPa. The recorded undrained strength at the Site is greater than the lower bound values for Derrybrien, indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is less likelihood of failure on the Site

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



Figure 6.1: Undrained Shear Strength (c_u) Profile for Peat with Depth



REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



7. PEAT STABILITY ASSESSMENTS

The peat stability assessment includes an assessment of the stability of the natural peat slopes for individual parcels across the Proposed Development including at the turbine locations and along the proposed access roads. The assessment also analyses the stability of the natural peat slopes with a surcharge loading of 10kPa, equivalent to placing 1m of stockpiled peat on the surface of the peat slope.

7.1 Methodology for Peat Stability Assessment

Stability of a peat slope is dependent on several factors working in combination. The main factors that influence peat stability are slope angle, shear strength of peat, depth of peat, pore water pressure and loading conditions.

An adverse combination of factors could potentially result in peat sliding. An adverse condition of one of the above-mentioned factors alone is unlikely to result in peat failure. The infinite slope model (Skempton and DeLory, 1957) is used to combine these factors to determine a factor of safety for peat sliding. This model is based on a translational slide, which is a reasonable representation of the dominant mode of movement for peat failures.

To assess the factor of safety for a peat slide, an undrained (short-term stability) and drained (long-term stability) analysis has been undertaken to determine the stability of the peat slopes on the Site.

1. The undrained loading condition applies in the short-term during construction and until construction induced pore water pressures dissipate.
2. The drained loading condition applies in the long-term. The condition examines the effect of the change in groundwater level as a result of rainfall on the existing stability of the natural peat slopes.

Undrained shear strength values (c_u) for peat are used for the total stress analysis. Based on the findings of the 2003 Derrybrien failure and other failures in peat, undrained loading during construction was found to be the critical failure mechanism.

A drained analysis requires effective cohesion (c') and effective friction angle (ϕ') values for the calculations. These values can be difficult to obtain because of disturbance experienced when sampling peat and the difficulties in interpreting test results due to the excessive strain induced within the peat. To determine suitable drained strength values a review of published information on peat was carried out. Table 7.1 shows a summary of the published information on peat together with drained strength values.

From Table 7.1 the values for c' ranged from 1.1 to 8.74kPa and ϕ' ranged from 21.6 to 43°. The average c' and ϕ' values are 4.5kPa and 30° respectively. Based on the above, it was considered to adopt a conservative approach and to use design values below the averages. For design the following general drained strength values have been used for the Site:

$$c' = 4\text{kPa}$$
$$\phi' = 25^\circ$$

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
COUNTY COUNCIL
TOWN HOUSE, SKIBBEREEN, Co. CORK



Table 7.1: List of Effective Cohesion and Friction Angle Values for Peat

| Reference | Cohesion, c' (kPa) | Friction Angle, ϕ' (degs) | Testing Apparatus/ Comments |
|-----------------------------------|----------------------|--------------------------------|--|
| Hanrahan et al (1967) | 5 to 7 | 36 to 43 | From triaxial apparatus |
| Rowe and Mylleville (1996) | 2.5 | 28 | From simple shear apparatus |
| Landva (1980) | 2 to 4 | 27.1 to 32.5 | Mainly ring shear apparatus for normal stress greater than 13kPa |
| | 5 to 6 | - | At zero normal stress |
| Carling (1986) | 6.5 | 0 | - |
| Farrell and Hebib (1998) | 0 | 38 | From ring shear and shear box apparatus. Results are not considered representative. |
| | 0.61 | 31 | From direct simple shear (DSS) apparatus. Result considered too low therefore DSS not considered appropriate |
| Rowe, Maclean and Soderman (1984) | 1.1 | 26 | From simple shear apparatus |
| | 3 | 27 | From DSS apparatus |
| McGreever and Farrell (1988) | 6 | 38 | From triaxial apparatus using soil with 20% organic content |
| | 6 | 31 | From shear box apparatus using soil with 20% organic content |
| Hungr and Evans (1985) | 3.3 | - | Back-analysed from failure |
| Dykes and Kirk (2006) | 3.2 | 30.4 | Test within acrotelm |
| Dykes and Kirk (2006) | 4 | 28.8 | Test within catotelm |
| Warburton et al (2003) | 5 | 23.9 | Test in basal peat |
| Warburton et al (2003) | 8.74 | 21.6 | Test using fibrous peat |
| Hendry et al (2012) | 0 | 31 | Remoulded test specimen |
| Komatsu et al (2011) | 8 | 34 | Remoulded test specimen |
| Zwanenburg et al (2012) | 2.3 | 32.3 | From DSS apparatus |
| Den Haan & Grognet (2014) | - | 37.4 | From large DSS apparatus |
| O'Kelly & Zhang (2013) | 0 | 28.9 to 30.3 | Tests carried out on reconstituted, undisturbed and blended peat samples |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, CO. CORK



7.2 Analysis to Determine Factor of Safety (Deterministic Approach)

The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes using infinite slope analysis. The analysis was carried out at the turbine locations, along the proposed access roads and at various locations across the Site.

The FoS provides a direct measure of the degree of stability of the slope. A FoS of less than 1.0 indicates that a slope is unstable, a FoS of greater than 1.0 indicates a stable slope.

The acceptable safe range for FoS typically ranges from 1.3 to 1.4. The previous code of practice for earthworks BS 6031:1981 (BSI, 1981), provided advice on design of earthworks slopes. It stated that for a first-time failure with a good standard of site investigation the design FoS should be greater than 1.3. For the purposes of this assessment, a design FoS of 1.4 has been adopted, as a conservative value.

As a general guide the FoS limits for peat slopes in this report are summarised in Table 7.2.

Table 7.2: Factor of Safety Limits for Slopes

| Factor of Safety (FoS) | Degree of Stability |
|------------------------|----------------------------|
| Less than 1.0 | Unstable (red) |
| Between 1.0 and 1.4 | Marginally stable (yellow) |
| 1.4 or greater | Acceptable (green) |

Eurocode 7 (EC7) (IS EN 1997-1:2005) now serves as the reference document and the basis for design geotechnical engineering works. The design philosophy used in EC7 applies partial factors to soil parameters, actions and resistances. Unlike the traditional approach, EC7 does not provide a direct measure of stability, since global Factors of Safety are not used.

As such, and in order to provide a direct measure of the level of safety on a site, EC7 partial factors have not been used in this stability assessment. The results are given in terms of FoS.

A lower bound undrained shear strength, c_u for the peat of 5kPa (slopes <5 degrees) and 8kPa (slopes >5 degrees) were selected for the assessment based on the c_u values recorded within the Site boundary. It should be noted that a c_u of 5/8kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality the peat generally has a higher undrained strength.

The formula used to determine the factor of safety for the undrained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c_u}{\gamma \sin \alpha \cos \alpha}$$

Where:

- F = Factor of Safety
- c_u = Undrained strength
- γ = Bulk unit weight of material

REG. No. _____
 PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



z = Depth to failure plane assumed as depth of peat
 α = Slope angle

The formula used to determine the factor of safety for the drained condition in the peat (Bromhead, 1986) is as follows:

$$F = \frac{c' + (\gamma z - \gamma_w h_w) \cos^2 \alpha \tan \phi'}{\gamma z \sin \alpha \cos \alpha}$$

Where:

F = Factor of Safety
 c' = Effective cohesion
 γ = Bulk unit weight of material (Peat)
 z = Depth to failure plane assumed as depth of peat
 γ_w = Unit weight of water
 h_w = Height of water table above failure plane
 α = Slope angle
 ϕ' = Effective friction angle

For the drained analysis the level of the water table above the failure surface is required to calculate the factor of safety for the slope. Since the water level in blanket peat can be variable and can be recharged by rainfall, it is not feasible to establish its precise location throughout the Site. Therefore, a sensitivity analysis using water level ranging between 0% and 100% of the peat depth was conducted, where 0% equates to the peat being completely dry and 100% equates to the peat been fully saturated.

The following general assumptions were used in the analysis of peat slopes at each location:

- (1) Peat depths are based on the maximum peat depth recorded at each location from the walkover surveys.
- (2) The slope angles used in the peat stability assessment were obtained using a combination of readings taken during the site reconnaissance by FT using handheld equipment and from contour survey plans for the Site. It should be noted that slope angles derived from contour survey plans would be considered approximate, as such surveys are dependent on the density of survey data and do not always reflect local variations in ground topography.
- (3) Slope angle at base of sliding assumed to be parallel to ground surface.
- (4) A lower bound undrained shear strength, c_u for the peat of 5kPa (slopes <5 degrees) and 8kPa (slopes >5 degrees), was selected for the assessment. The lowest recorded value on the Site during the site walkover was 10kPa, recorded at one location in an area of deep waterlogged peat, which is not considered representative of the majority of the Site, where the peat is significantly shallower. It should be noted that a c_u of 5/8kPa for the peat is considered a conservative value for the analysis and is not representative of all peat present across the Site. In reality, the majority of the shear strength values recorded in the peat have a higher undrained strength.

For the stability analysis two load conditions were examined, namely:

Condition (1): no surcharge loading



Condition (2): surcharge of 10 kPa, equivalent to 1m of stockpiled peat assumed as a worst case.

7.3 Results of Analysis

7.3.1 Undrained Analysis for the Peat

The results of the undrained analysis for the natural peat slopes at all locations analysed are presented in Appendix C and the results of the undrained analysis for the most critical load case (load condition 2) are shown on Figure 7.1. The undrained analysis for load condition 2 is considered the most critical load case as most peat failures occur in the short term upon loading of the peat surface. The results from the main infrastructure locations, including along access roads and in areas of peat placement, are summarised in Table 7.3 to 7.5. This includes the proposed peatland enhancement area, where 0.5m of peat will be placed over the in-situ peat following tree felling, as detailed in the BMEP.

The calculated FoS for load condition 1 is in excess of 1.40 for all of the locations analysed with a range of FoS of 1.74 to 143.36, indicating a low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.40 for all of the locations analysed with a range of FoS of 1.47 to 13.03, again indicating a low risk of peat instability.

Table 7.3: Factor of Safety Results (Undrained Condition)

| Turbine No./Waypoint | Easting | Northing | Factor of Safety for Load Condition | |
|---------------------------|---------|----------|-------------------------------------|---------------|
| | | | Condition (1) | Condition (2) |
| T01 | 509084 | 563191 | 7.26 | 3.22 |
| T02 | 509009 | 562642 | 23.39 | 3.90 |
| T03 | 509016 | 561948 | 19.39 | 5.13 |
| Substation | 508836 | 562175 | 9.83 | 2.81 |
| Met Mast | 509109 | 562924 | 6.68 | 2.75 |
| Construction Compound | 508930 | 563491 | 6.37 | 4.79 |
| Peatland Enhancement Area | 509153 | 563219 | 6.87 | 2.83 |

06 NOV 2025

Table 7.4: Factor of Safety Results along Access Roads (Undrained Condition)

CORK COUNTY COUNCIL
 TOWN HOUSE, SKIBBEREEN, Co. CORK

| Turbine No./Waypoint | Easting | Northing | Factor of Safety for Load Condition | |
|-------------------------------------|---------|----------|-------------------------------------|---------------|
| | | | Condition (1) | Condition (2) |
| Main Access Road to TCC | Varies | | 4.37 | 2.07 |
| Main Access Road (Floating Section) | Varies | | 2.78 | 2.35 |
| TCC to T01 | Varies | | 12.77 | 6.05 |
| T01 to T02 | Varies | | 9.36 | 3.12 |



| Turbine No./Waypoint | Easting | Northing | Factor of Safety for Load Condition | |
|----------------------|---------|----------|-------------------------------------|---------------|
| | | | Condition (1) | Condition (2) |
| T02 to T03 | | Varies | 33.43 | 6.41 |

7.3.2 Drained Analysis for the Peat

The results of the drained analysis for the peat are presented in Appendix C. The results from the main infrastructure locations, including along access roads and in areas of peat placement, are summarised in Table 7.6 to 7.8. As stated previously, the drained loading condition examines the effect of in particular, rainfall on the existing stability of the natural peat slopes and represents the post construction phase of the development.

The calculated FoS for load condition 1 is in excess of 1.40 for all of the locations analysed with a range of FoS of 1.49 to 128.04, indicating a relatively low risk of peat instability.

The calculated FoS for load condition 2 is in excess of 1.40 for all of the locations analysed with a range of FoS of 2.19 to 23.78, indicating a low risk of peat instability.

Table 7.5: Factor of Safety Results (Drained Conditions)

| Turbine No./Waypoint | Easting | Northing | Factor of Safety for Load Condition | |
|---------------------------|---------|----------|-------------------------------------|---------------|
| | | | Condition (1) | Condition (2) |
| T01 | 509084 | 563191 | 3.63 | 3.46 |
| T02 | 509009 | 562642 | 11.70 | 4.15 |
| T03 | 509016 | 561948 | 7.70 | 5.52 |
| Substation | 508836 | 562175 | 4.92 | 2.97 |
| Met Mast | 509109 | 562924 | 3.34 | 2.93 |
| Construction Compound | 508930 | 563491 | 11.50 | 8.28 |
| Peatland Enhancement Area | 509153 | 563219 | 9.93 | 6.16 |

Table 7.6: Factor of Safety Results along access roads (Drained Conditions)

| Turbine No./Waypoint | Easting | Northing | Factor of Safety for Load Condition | |
|-------------------------------------|---------|----------|-------------------------------------|---------------|
| | | | Condition (1) | Condition (2) |
| Main Access Road to TCC | | Varies | 2.19 | 2.19 |
| Main Access Road (Floating Section) | | Varies | 1.49 | 2.73 |
| TCC to T01 | | Varies | 6.39 | 6.54 |
| T01 to T02 | | Varies | 4.68 | 3.32 |
| T02 to T03 | | Varies | 19.24 | 6.90 |



7.4 Stability of Borrow Pit Berm

A stability check has been undertaken to demonstrate the stability of the proposed perimeter berm around the borrow pit. Slope stability has been checked using SlopeW[©] slope stability software. The analysis was carried out to EC7 design standards. The design philosophy used in EC7 applies partial factors to soil parameters, actions and resistances. Unlike the traditional approach, EC7 does not provide a direct measure of stability, since global Factors of Safety are not used. Rather, it provides a result in terms of an overdesign ratio (ODR), where an ODR of >1 is stable, and an ODR of <1 is unstable.

The following material properties have been used in the stability assessment. Material properties for the mixed peat/spoil to be retained within the borrow pit/repositories have been assumed from material descriptions. For the purposes of the assessment shallow failures in the surface of the berm have not been considered.

Table 7.7: Material Properties

| Material | Unit Weight (kN/m ³) | Undrained Shear Strength, c_u (kPa) | Angle of Shearing Resistance, ϕ (degrees) | Effective Cohesive, c' (kPa) |
|---|----------------------------------|---------------------------------------|--|--------------------------------|
| Intact Peat | 10.5 | 8 | 25 | 4 |
| Granular fill (berm) | 21 | - | 40 | 0 |
| Retained Peat/Spoil within Borrow Pit (disturbed) | 15 | 8 | 20 | 1 |
| Granular Glacial Material | 20 | - | 34 | 0 |
| Bedrock | 22 | - | 30 | 100 |

This assessment considers the southern side of the borrow pit. The berm along the southern side of the borrow pit will be up to 4.0m in height. Bedrock has been assessed at 1m below ground level based on the available ground investigation information, overlain by 0.3m of peat and 0.7m of granular glacial material. All peat that may be present will be excavated from below the perimeter berm. The base of the rock berm will be benched into the glacial overburden to create a level platform. The inside slope of the perimeter berm has been modelled as a 60-degree slope (1V:0.6H) in intact bedrock, and the outside slope as 33 degrees (1V:1.5H). Groundwater has been assumed at 1m below ground level on the downslope side of the berm. The analysis assumes that the material contained within the borrow pit is a mixture of disturbed peat and spoil, with the majority of the material actually being spoil material as the peat will be reused for landscaping purposes across the Site.

The stability analysis has been undertaken using drained (long term) strength parameters and shows that the berm is stable. As there are no cohesive materials or peat present on this side of the borrow pit, only a drained assessment has been undertaken.

Table 7.8: Borrow Pit Stability Analysis

| Borrow Pit | Over Design Ratio (ODR) | |
|------------------|-------------------------|-------|
| | DA1C1 | DA1C2 |
| Drained Analysis | 1.31 | 1.05 |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



8. PEAT STABILITY RISK ASSESSMENT

A peat stability risk assessment was carried out for the main infrastructure elements that form the Proposed Development. This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRAG (2nd edition, Scottish Government, 2017) and MacCulloch (2005).

The risk assessment uses the results of the stability analysis (deterministic approach) in combination with qualitative factors, which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability, to assess the risk for each infrastructure element.

For each of the main infrastructure elements, a risk rating (product of probability and impact) is calculated and rated as shown in Table 8.1. Where a subsection is rated 'Medium' or 'High', control measures are required to reduce the risk to at least a 'Low' risk rating. Where a subsection is rated 'Low' or 'Negligible', only routine control measures are required.

Table 8.1: Risk Rating Legend

| | |
|----------|--|
| 17 to 25 | High: avoid works in area or significant control measures required |
| 11 to 16 | Medium: notable control measures required |
| 5 to 10 | Low: only routine control measures required |
| 1 to 4 | Negligible: none or only routine control measures required |

A full methodology for the peat stability risk assessment is given in Appendix D.

8.1 Summary of Risk Assessment Results

The results of the peat stability risk assessment for potential peat failure at the main infrastructure elements is presented as a Geotechnical Risk Register in Appendix B and summarised in Table 8.2.

The risk rating for each infrastructure element at the Proposed Development is designated Negligible or Low following some general mitigation/control measures being implemented. Sections of access roads to the nearest infrastructure element will be subject to the same mitigation/control measures that apply to the nearest infrastructure element.

Details of the required mitigation/control measures can be found in the Geotechnical Risk Register for each infrastructure element (Appendix B) and are summarised below:

- Detailed ground investigation to confirm peat, mineral soil and bedrock condition and properties.
- Use of experienced geotechnical staff for site investigation.
- Excavations will require temporary support and regular inspection.
- Side casting of excavated material only in designated areas.
- No temporary stockpiling of materials on in-situ peat.
- Maintain hydrology of area as far as possible by maintaining existing drains to prevent the build-up of water pressures in the peat, leading to the peat becoming "buoyant".
- Use of experienced contractors and trained operators to carry out the work.
- Monitoring upslope and downslope of open excavations and along the section of existing floating road.

REG. CORK COUNTY COUNCIL
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, CO. CORK



- Limits on the length of excavation (10m) left open before backfilling.

Table 8.2: Summary of Peat Stability Risk Register

| Infrastructure | Pre-Control Measure Implementation Risk Rating | Pre-Control Measure Implementation Risk Rating Category | Notable Control Measures Required | Post-General Control Measure Implementation Risk Rating | Post-General Control Measure Implementation Risk Rating Category |
|------------------------------------|--|---|-----------------------------------|---|--|
| T01 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| T02 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| T03 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| Temporary Construction Compound | Low | 5 to 10 | No | Negligible | 1 to 4 |
| Substation | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| Met Mast | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| Borrow Pit | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| Main Access Road to TCC | Low | 5 to 10 | Yes | Negligible | 1 to 4 |
| Main Access Road (floated section) | Medium | 11 to 16 | No | Low | 5 to 10 |
| TCC to T01 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| T01 to T02 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| T02 to T03 | Negligible | 1 to 4 | No | Negligible | 1 to 4 |
| Peatland Enhancement Area | Negligible | 1 to 4 | No | Negligible | 1 to 4 |

While there are no areas which record a pre mitigation/control risk rating of higher than Medium, the deep peat and the presence of bog pools along a 200m section of the main entrance road indicate that restrictions will be required when constructing this section of the Proposed Development. These restrictions would be required along the main entrance road in the deep peat area. In this area movement monitoring points will be required both upslope and downslope of the access road, which will be monitored daily. No material should be sidecast or stockpiled alongside this section of access road, and no delivery vehicles should be left parked in this area for an extended period of time (such as overnight).

REG. No. _____
 PLANNING (WEST) DEPT.
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



9. INDICATIVE FOUNDATION TYPE AND FOUNDATION DEPTH FOR TURBINES

9.1 Summary

Based on a review of the ground investigation and walkover information for the Proposed Development, an assessment of the likely foundation type and founding depths for each turbine location was carried out. A summary of this assessment is provided in Table 9-1.

Table 9-1: Summary of Indicative Turbine Foundation Type and Founding Depths

| Turbine No. | Turbine Foundation Type | Relevant GI | Indicative founding depth (m bgl) | Comment |
|-------------|-------------------------|---------------------------|-----------------------------------|--|
| T01 | Gravity foundation | Trial pit/ Peat probes | 3.3m | Found on weathered bedrock at 3.3m bgl. |
| T02 | Gravity foundation | Trial pit/ Peat probes | 2.6m | Found on weathered bedrock at 2.6m bgl. |
| T03 | Gravity foundation | Trial pit/ Peat probes | 2.0m | Found on weathered bedrock at 2.0m bgl. |
| Met Mast | Gravity foundation | Trial pit/ Peat probes | 1.5-2.0m | Ground investigation findings indicate that a gravity foundation will be suitable. |

It should be noted that confirmatory ground investigation will be carried out prior to construction at each turbine location, in the form of a borehole with in-situ SPT testing at 1m intervals in the overburden and follow-on rotary core through bedrock, to confirm the foundation types and founding stratum indicated in Table 9-1. It is likely that following the completion of further ground investigation prior to construction that the turbine bases will be deemed suitable for gravity type foundations.

For gravity type turbine foundations, where the depth of excavation exceeds the required founding depth for the proposed turbine base, up-fill material consisting of granular fill (6N) shall be used to backfill the excavation to the required founding depth.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



11. SUMMARY AND RECOMMENDATIONS

11.1 Summary

The following summary is given.

FT was engaged by MKO Ltd. to undertake a geotechnical and peat stability assessment of the Site.

The findings of the peat assessment showed that the Site has a low risk of peat failure and is suitable for the Proposed Development. The findings include recommendations and control measures for construction work in peat lands, all of which will be implemented in full to ensure that all works adhere to an acceptable standard of safety.

The Site is typically covered in blanket peat with undulating terrain of open peatland and forestry. Existing wind farm infrastructure is present in the form of roads and hardstand areas across the Site.

Peat thicknesses recorded during the site walkovers from 354 probes ranged from 0.0 to 5.5m with an average depth of 0.45m. 95% of the probes recorded peat depths of less than 1.5m. The average peat depth at any of the proposed turbine locations is 0.3m.

Slope inclinations at the main infrastructure locations range from 6 to 10 degrees.

An analysis of peat sliding was carried out at the main infrastructure locations across the Site for both the undrained and drained conditions. The purpose of the analysis was to determine the Factor of Safety (FoS) of the peat slopes.

An undrained analysis was carried out, which applies in the short-term during construction. For the undrained condition, the calculated FoS for load conditions 1 and 2 for the locations analysed, showed that all locations have an acceptable FoS of greater than 1.4, indicating a low risk of peat failure. The undrained analysis is considered the most critical condition for the peat slopes.

A drained analysis was also carried out, which examined the effect of in particular, rainfall on the existing stability of the natural peat slopes on the Site. For the drained condition, the calculated FoS for load conditions (1) & (2) for the locations analysed, showed that all locations have an acceptable FoS of greater than 1.4.

The peat stability risk assessment at each infrastructure location, along access roads, in peat placement areas and at settlement pond locations identified a number of mitigation/control measures to reduce the potential risk of peat failure. See Appendix B for details of the required mitigation/control measures for each infrastructure element.

In summary, the findings of the peat assessment showed that the Site has an acceptable margin of safety, is suitable for the Proposed Development and is considered to be at **low** risk of peat failure provided appropriate mitigation measures, such as using founded roads, and implementing and maintaining an appropriate drainage system are implemented. The findings include recommendations and mitigation/control measures for construction work in peat lands, all of which will be implemented in full to ensure that all works adhere to an acceptable standard of safety.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
MINTON HOUSE, SKIBBEREEN, Co. CORK



11.2 Recommendations

The following recommendations are given, which are to be implemented in full.

Notwithstanding that the Site has a low risk of peat failure a number of mitigation/control measures are prescribed to ensure that all works adhere to an acceptable standard of safety for work in peatlands. Mitigation/control measures identified for each of the infrastructure elements in the risk assessment will be implemented throughout design and construction works (Appendix B).

The proposed construction method for the new proposed and upgraded access roads at the wind farm is excavate and replace type construction, with the exception of a 200m section of the existing main entrance road which was constructed as a floated road across an area of deep peat, and will be upgraded if required. Movement monitoring points will be installed on both sides of this floating road and monitored at regular intervals during construction.

The measures prescribed given in FT's report 'Peat & Spoil Management Plan - Curraglass Wind Farm, County Cork' (FT, 2025) will be implemented in full during the design and construction stage of the Proposed Development.

To minimise the risk of construction activity causing potential peat instability the Construction Method Statements (CMS's) for the project will implement in full, but not be limited to, the recommendations above. This will ensure that best practice guidance regarding the management of peat stability will be inherent in the construction phase.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



12. REFERENCES

Applied Ground Engineering Consultants (AGEC) (2004). Derrybrien Wind Farm Final Report on Landslide of October 2003.

British Standards Institute (1981). BS 6031:1981 Code of practice for earthworks.

Bromhead, E.N. (1986). The Stability of Slopes.

Carling, P.A. (1986). Peat slides in Teesdale and Weardale, northern Pennines, July 1983: Description and failure mechanisms. *Earth Surface Processes and Landforms*, 11.

Clayton, C.R.I. (2001). *Managing Geotechnical Risk*. Institution of Civil Engineers, London.

Den Haan EJ and Grognet M (2014). A large direct simple shear device for the testing of peat at low stresses. *Géotechnique Letters* 4(4): 283–288, <http://dx.doi.org/10.1680/geolett.14.00033>.

Dykes, A.P. and Kirk, K.J. (2006). Slope instability and mass movements in peat deposits. In Martini, I.P., Martinez Cortizas, A. and Chesworth, W. (Eds.) *Peatlands: Evolution and Records of Environmental and Climatic Changes*. Elsevier, Amsterdam.

Farrell, E.R. & Hebib, S. (1998). The determination of the geotechnical parameters of organic soils. *Proceedings of International Symposium on problematic soils, IS-TOHOKU 98, Sendai, Japan*.

Geological Survey of Ireland (2002). Sheet 24 Geology of West Cork.

Geological Survey of Ireland (2006). *Landslides in Ireland*. Geological Survey of Ireland -Irish Landslides Group. July 2006.

Geological Survey of Ireland (2023). Cork – County Geological Site Report CK071, Pass of Keimaneigh.

Geological Survey of Ireland (2025). Online dataset public viewer, February 2025.

Hanrahan, E.T., Dunne, J.M. and Sodha, V.G. (1967). Shear strength of peat. *Proc. Geot. Conf., Oslo*, Vol. 1.

Hendrick, E. (1990). A Bog Flow at Bellacorrick Forest, Co. Mayo. *Irish Forestry*, Volume 47 (1): pp 32-44.

Hendry MT, Sharma JS, Martin CD and Barbour SL (2012). Effect of fibre content and structure on anisotropic elastic stiffness and shear strength of peat. *Canadian Geotechnical Journal* 49(4): 403–415, <http://dx.doi.org/10.1139/t2012-003>.

Hungr, O. and Evans, S.G. (1985). An example of a peat flow near Prince Rupert, British Columbia. *Canadian Geotechnical Journal*, 22.

Komatsu J, Oikawa H, Tsushima M and Igarashi M (2011). Ring shear test on peat. In *Proceedings of the 21st International Offshore and Polar Engineering Conference, Maui, Hawaii, USA* (Chung JS, Hong SY, Langen I and Prinsenber SJ (eds)). International Society of Offshore and Polar Engineers, Cupertino, CA, USA, vol. 2, pp. 393–396.

Landva, A.O. (1980). Vane testing in peat. *Canadian Geotechnical Journal*, 17(1).



MacCulloch, F. (2005). Guidelines for the Risk Management of Peat Slips on the Construction of Low Volume/Low Cost Roads over Peat. RoadEx 11 Northern Periphery.

McGeever J. and Farrell E. (1988). The shear strength of an organic silt. Proc. 2nd Baltic Conf., 1, Tallin USSR.

O'Kelly BC and Zhang L (2013). Consolidated-drained triaxial compression testing of peat. Geotechnical Testing Journal 36(3): 310–321, <http://dx.doi.org/10.1520/GTJ20120053>.

PLHRAG (2017). Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments. Prepared for Energy Consents Unit Scottish Government, 2nd Edition. Dated April 2017.

Skempton, A. W. and DeLory, F. A. (1957). Stability of natural slopes in London Clay. Proc 4th Int. Conf. On Soil Mechanics and Foundation Engineering, Rotterdam, vol. 2, pp.72-78.

Warburton, J., Higgett, D. and Mills, A. (2003). Anatomy of a Pennine Peat Slide. Earth Surface Processes and Landforms.

Warburton, J., Holden, J. and Mills, A. J. (2003). Hydrological controls of surficial mass movements in peat. Earth-Science Reviews 67 (2004), pp. 139-156.

Zwanenburg C, Den Haan EJ, Kruse GAM and Koelewijn AR (2012). Failure of a trial embankment on peat in Booneschans, the Netherlands. Géotechnique 62(6): 479–490, <http://dx.doi.org/10.1680/geot.9.P.094>.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



**FEHILY
TIMONEY**

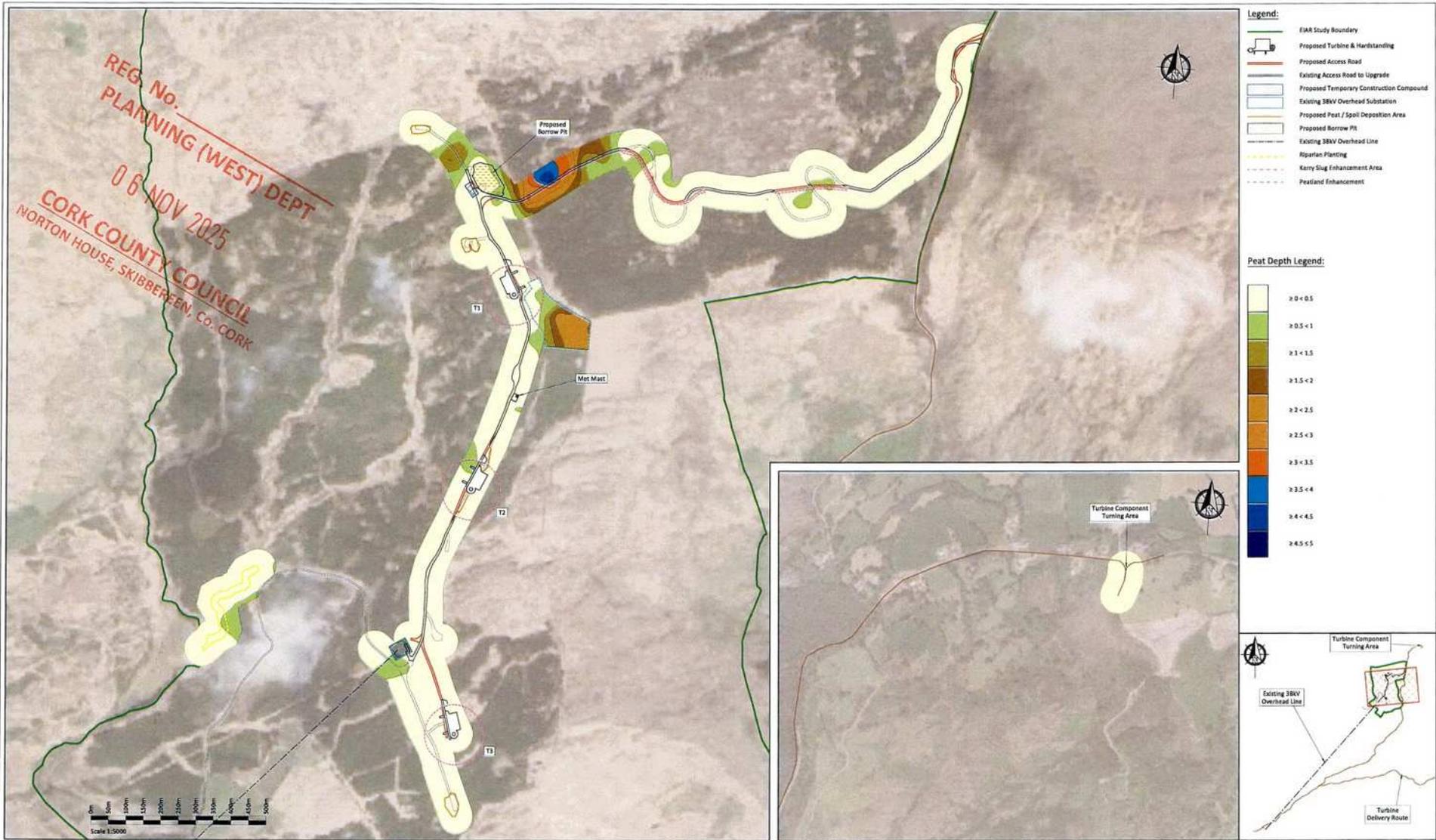
**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

DRAWINGS

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



PLAN
Scale 1:5000

PLAN - TURBINE COMPONENT TURNING AREA
Scale 1:5000

KEYPLAN
Scale 1:120000

If Applicable: Talis Eirann Licence No. CYAL5036274 © Ordnance Survey Ireland and Government of Ireland

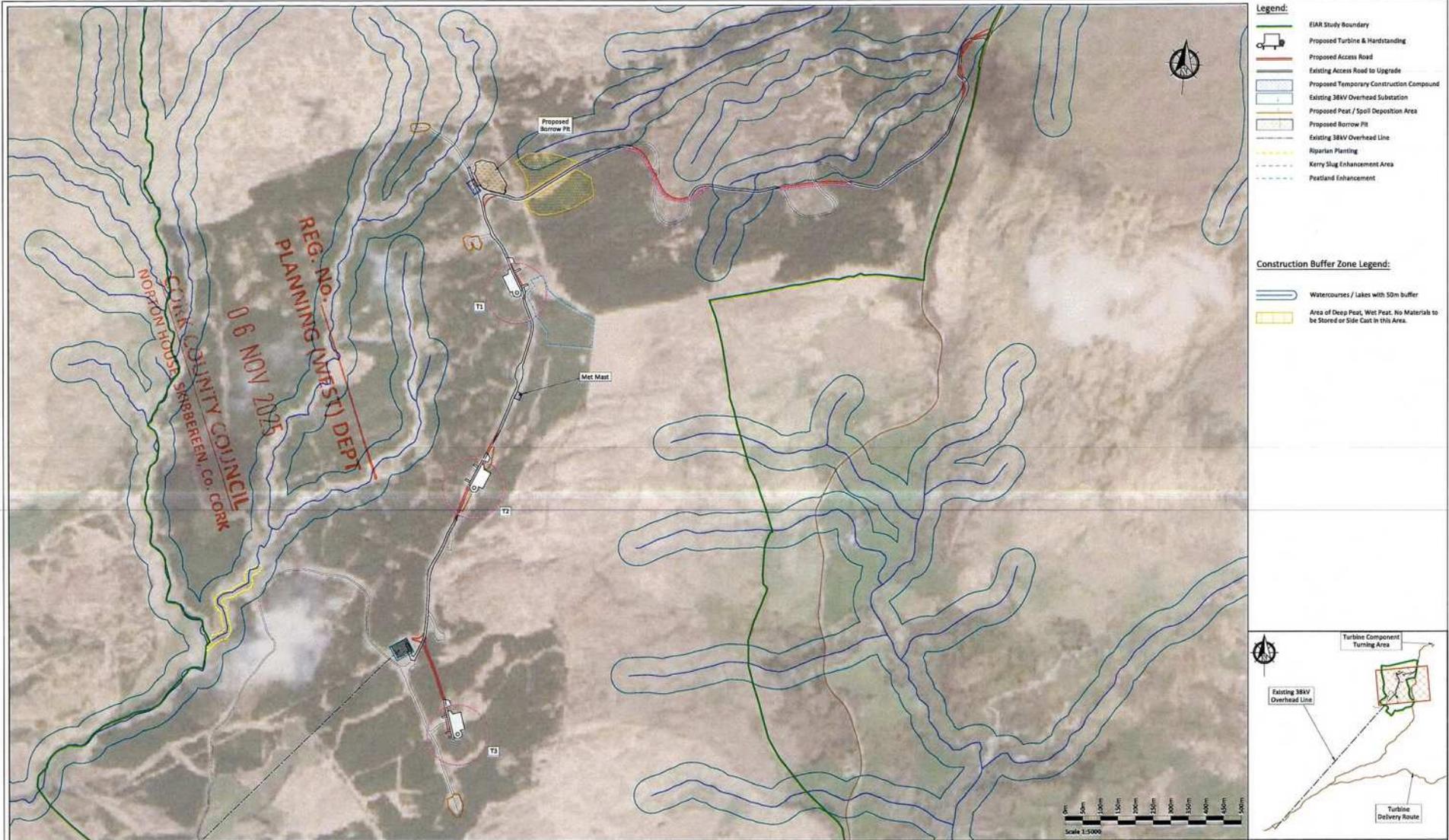


No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fahily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

| Rev. | Description | App By | Date |
|------|-----------------|--------|----------|
| P01 | FOR INFORMATION | BOH | 01.05.25 |
| P02 | FOR INFORMATION | BOH | 02.07.25 |
| P03 | FOR INFORMATION | BOH | 23.07.25 |
| P04 | FOR INFORMATION | BOH | 22.08.25 |
| P05 | FOR INFORMATION | BOH | 27.08.25 |

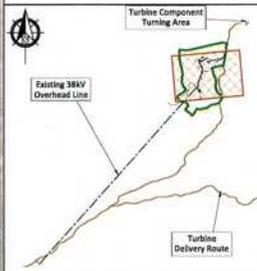
| PROJECT | | CLIENT | |
|--------------------------------|--|------------|-------------------|
| CURRAGLASS WIND FARM | | MKO | |
| SHEET | | Date | Project number |
| PEAT DEPTH CONTOUR PLAN | | 27.08.25 | P24-263 |
| | | Scale (A1) | 1:5000 |
| | | Drawn by | Drawing Number |
| | | POR | P24-263-0600-0001 |
| | | Checked by | Rev |
| | | WH | P05 |

27 August 2025



- Legend:**
- EIA Study Boundary
 - Proposed Turbine & Handstanding
 - Proposed Access Road
 - Existing Access Road to Upgrade
 - Proposed Temporary Construction Compound
 - Existing 38kV Overhead Substation
 - Proposed Peat / Spoil Deposition Area
 - Proposed Barrow Pit
 - Existing 38kV Overhead Line
 - Riparian Planting
 - Kerry Slug Enhancement Area
 - Peatland Enhancement

- Construction Buffer Zone Legend:**
- Watercourses / Lakes with 50m buffer
 - Area of Deep Peat, Wet Peat. No Materials to be Stored or Side Cast in this Area.



PLAN
Scale 1:5000

KEYPLAN
Scale 1:120000

If Applicable: Talta Easnam Licence No. CYAL5056274 © Ordnance Survey Ireland and Government of Ireland

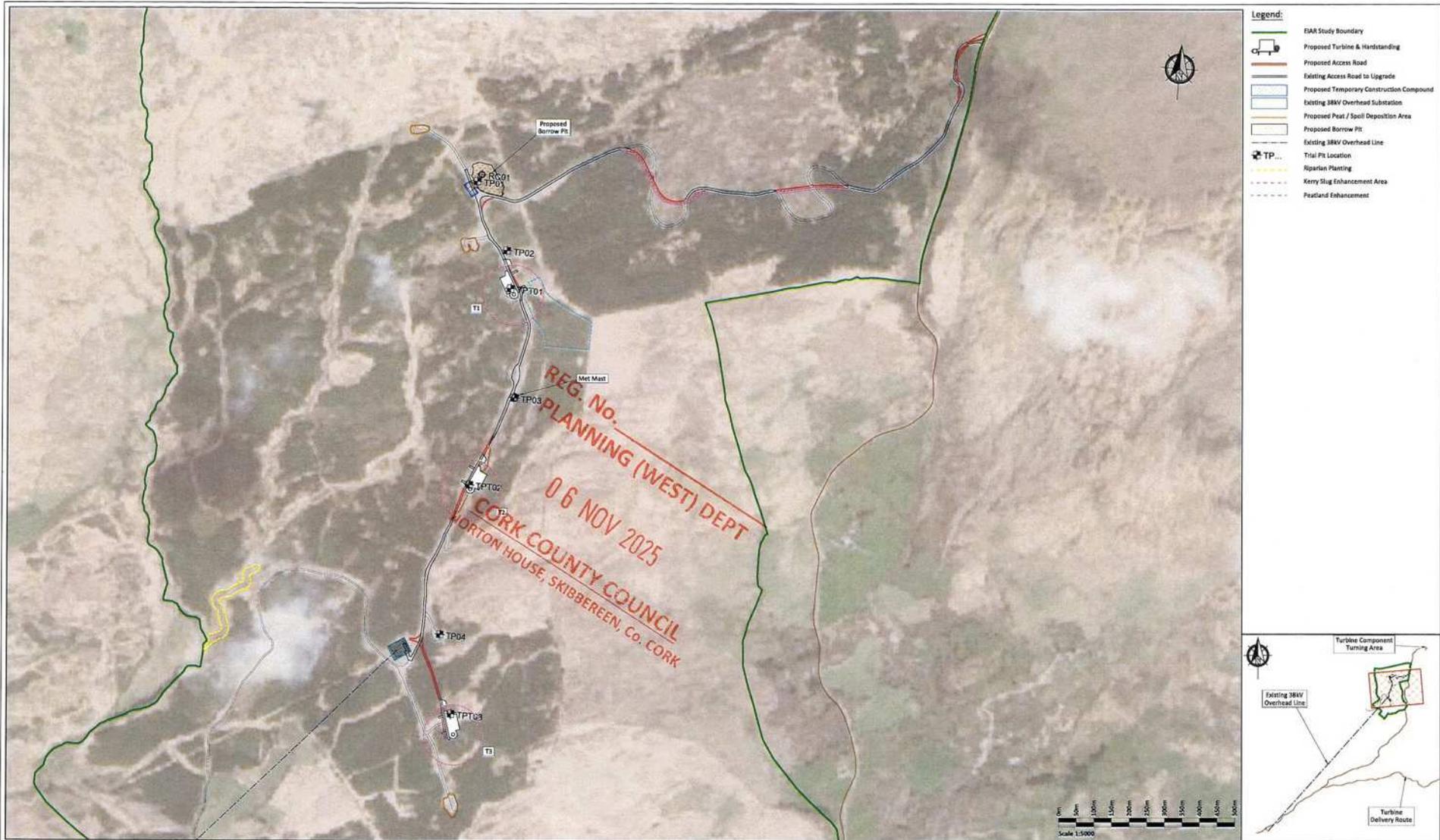


No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Feihly Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

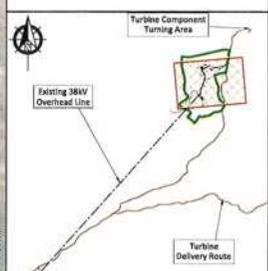
| Rev. | Description | App By | Date |
|------|-----------------|--------|----------|
| P01 | FOR INFORMATION | BDH | 01.05.25 |
| P02 | FOR INFORMATION | BDH | 02.07.25 |
| P03 | FOR INFORMATION | BDH | 23.07.25 |
| P04 | FOR INFORMATION | BDH | 22.08.25 |
| P05 | FOR INFORMATION | BDH | 27.08.25 |

| | | | |
|-------------------------------|--|---------------|-------------------|
| PROJECT | | CLIENT | |
| CURRAGLASS WIND FARM | | MKO | |
| SHEET | | Date | Project number |
| CONSTRUCTION BUFFER ZONE PLAN | | 37.08.25 | P24-263 |
| | | Scale (@ A1) | Rev |
| | | 1:5000 | P05 |
| | | Drawn by | Drawing Number |
| | | POR | P24-263-0600-0002 |
| | | Checked by | |
| | | BH | |

27 August 2025



- Legend:**
- ESB Study Boundary
 - Proposed Turbine & Hardstanding
 - Proposed Access Road
 - Existing Access Road to Upgrade
 - Proposed Temporary Construction Compound
 - Existing 38kV Overhead Substation
 - Proposed Peat / Spoil Deposition Area
 - Proposed Borrow Pit
 - Existing 38kV Overhead Line
 - TP... Turbine Location
 - Riparian Planting
 - Kerry Slug Enhancement Area
 - Pastland Enhancement



PLAN
Scale 1:5000

KEYPLAN
Scale 1:120000

If Applicable : Taltaí Éireann Licence No. CYAL5038274 © Ordnance Survey Ireland and Government of Ireland



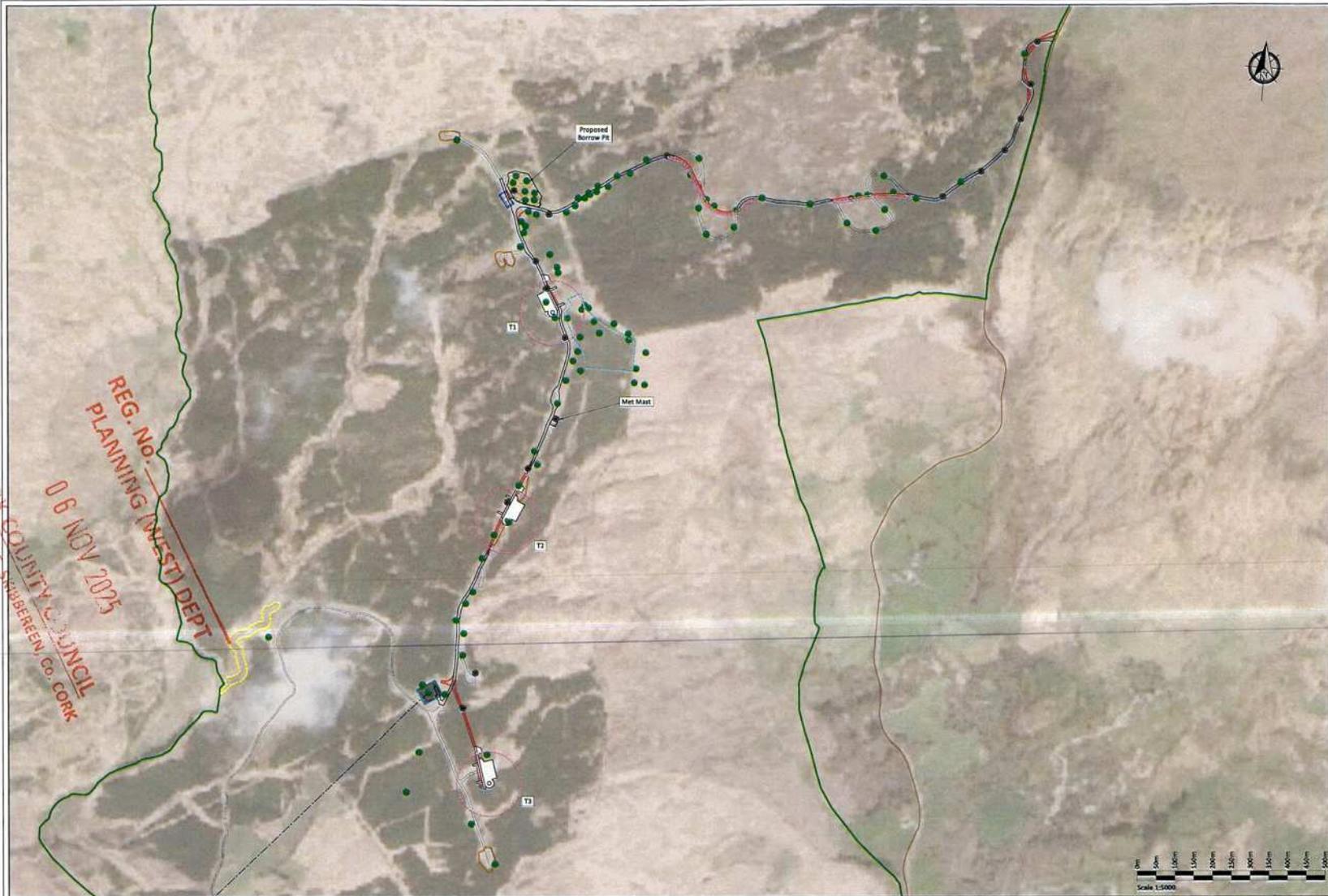
No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

| Rev. | Description | App By | Date |
|------|-----------------|--------|----------|
| P01 | FOR INFORMATION | BDH | 01.05.25 |
| P02 | FOR INFORMATION | BDH | 02.07.25 |
| P03 | FOR INFORMATION | BDH | 23.07.25 |
| P04 | FOR INFORMATION | BDH | 22.08.25 |
| P05 | FOR INFORMATION | BDH | 27.08.25 |

| | | | |
|----------------------|-----------------------------------|----------------|-------------------|
| PROJECT | | CLIENT | |
| CURRAGLASS WIND FARM | | MKO | |
| SHEET | GROUND INVESTIGATION LOCATON PLAN | Date | 27.08.25 |
| | | Project number | P24-263 |
| | | Scale (@ A1) | 1:5000 |
| | | Drawn by | POR |
| | | Checked by | HH |
| | | Drawing Number | P24-263-0600-0003 |
| | | Rev | P05 |

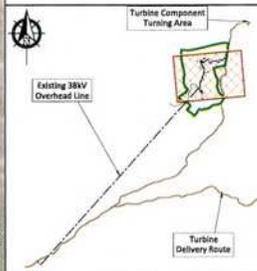
27 August 2025

REG. No. 06 NOV 2025
 PLANNING (WEST) DEPT
 CORK COUNTY COUNCIL
 NORTON HOUSE, SMIBREEN, Co. CORK



- Legend:**
- EIA Study Boundary
 - Proposed Turbine & Handstanding
 - Proposed Access Road
 - Existing Access Road to Upgrade
 - Proposed Temporary Construction Compound
 - Existing 38kV Overhead Substation
 - Proposed Peat / Spoil Deposition Area
 - Proposed Borrow Pit
 - Existing 38kV Overhead Line
 - Riparian Planting
 - Kerry Slug Enhancement Area
 - Peatland Enhancement

- Factor of Safety Legend:**
- 0 < 1.0
 - ≥ 1.0 < 1.3
 - ≥ 1.3
 - No Peat Recorded At This Location
- Assigned Direction ↓



PLAN
Scale 1:5000

KEYPLAN
Scale 1:120000

If Applicable: Talis Eirann Licence No. CYA15058274 © Ordnance Survey Ireland and Government of Ireland

FEHILY TIMONEY Cork | Dublin | Carlow
 www.fehilytimoney.ie

No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

| Rev. | Description | App By | Date |
|------|-----------------|--------|----------|
| P01 | FOR INFORMATION | BDH | 01.05.25 |
| P02 | FOR INFORMATION | BDH | 02.07.25 |
| P03 | FOR INFORMATION | BDH | 23.07.25 |
| P04 | FOR INFORMATION | BDH | 22.08.25 |
| P05 | FOR INFORMATION | BDH | 27.08.25 |

| | | | | | | | |
|----------------|--|--|--|---------------|----------|----------------|-------------------|
| PROJECT | | CURRAGLASS WIND FARM | | CLIENT | | MKO | |
| SHEET | | FACTOR OF SAFETY PLAN – SHORT TERM CRITICAL | | Date | 27.08.25 | Project number | P24-263 |
| | | | | Scale (A1) | 1:5000 | Drawn by | POR |
| | | | | Checked by | BH | Drawing Number | P24-263-0600-0004 |
| | | | | | | Rev | P05 |

27 August 2025



**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

APPENDIX A

Photos from Site Walkover

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



Photo 1: Existing entrance road



Photo 2: Existing section of floating road

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



Photo 3: Looking south along existing road to location of T01



Photo 4: Looking south along existing access road towards T02

REG. No. _____
PLANNING (WEST) DEPT.
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

APPENDIX B

Peat Stability Risk Registers

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|------------------|--------------------|
| Location: | Turbine T01 |
|------------------|--------------------|

| | | |
|---|---------|--------|
| Grid Reference (Eastings, Northings): | 509084 | 563191 |
| Distance to Watercourse (m) | > 150 | |
| Min & Max Measured Peat Depth (m): | 0.1-0.8 | |
| Control Required: | No | |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 3.22 (u), 3.46 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 11 | Other | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |

| Control Measures to be Implemented Prior to/and During Construction for Turbine T01 | |
|---|--|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |
| v | Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | | |
|---|--------------------|--------|
| Location: | Turbine T02 | |
| Grid Reference (Eastings, Northings): | 509009 | 562642 |
| Distance to Watercourse (m) | > 150 | |
| Min & Max Measured Peat Depth (m): | 0.0-0.2 | |
| Control Required: | No | |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|------------------|--|-------------------------------------|-----------------|------|----------------|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating |
| 1 | FOS = 4.81 (u), 6.90 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 11 | Other | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |

| Control Measures to be Implemented Prior to/and During Construction for Turbine T02 | |
|---|--|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |
| v | Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed. |

Note
 (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CLONMEL COUNTY COUNCIL
 JUNCTION HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | | |
|---|--------------------|--------|
| Location: | Turbine T03 | |
| Grid Reference (Eastings, Northings): | 509004 | 562024 |
| Distance to Watercourse (m) | > 150 | |
| Min & Max Measured Peat Depth (m): | 0.1-0.5 | |
| Control Required: | No | |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 7.84 (u), 11.29 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 11 | Other | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |

| Control Measures to be Implemented Prior to/and During Construction for Turbine T03 | |
|--|--|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |
| v | Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Currage Wind Farm - Peat Stability Risk Register (Rev 0)

| | | |
|---|---------------------|--------|
| Location: | Const. Comp. | |
| Grid Reference (Eastings, Northings): | 508924 | 563480 |
| Distance to Watercourse (m) | 50 - 100 | |
| Min & Max Measured Peat Depth (m): | 0.0-0.5 | |
| Control Required: | No | |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|------------------|--|-------------------------------------|-----------------|------|----------------|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating |
| 1 | FOS = 4.79 (u), 8.28 (d) | 1 | 3 | 3 | Negligible | No | See Below | 1 | 3 | 3 | Negligible |
| 2 | Evidence of sub peat water flow | 1 | 3 | 3 | Negligible | No | | 1 | 3 | 3 | Negligible |
| 3 | Evidence of surface water flow | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible |
| 4 | Evidence of previous failures/slips | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |
| 5 | Type of vegetation | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |
| 8 | Evidence of mechanically cut peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |
| 9 | Evidence of quaking or buoyant peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |
| 10 | Evidence of bog pools | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |
| 11 | Other | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable |

| Control Measures to be Implemented Prior to/and During Construction for Construction Compound | |
|---|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note
 (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT

06 NOV 2025

COR. COUNTY COUNCIL
 NORTON HALL, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|------------------|-----------------|
| Location: | Met Mast |
|------------------|-----------------|

| | | |
|---|---------|--------|
| Grid Reference (Eastings, Northings): | 509109 | 562924 |
| Distance to Watercourse (m) | > 150 | |
| Min & Max Measured Peat Depth (m): | 0.0-0.7 | |
| Control Required: | No | |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 2.75 (u), 4.15 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 11 | Other | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |

| Control Measures to be Implemented Prior to/and During Construction for Met Mast | |
|--|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix E.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|---|----------------------------------|
| Location: | Peatland Enhancement Area |
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | > 150 |
| Min & Max Measured Peat Depth (m): | 0.35-2.5 |
| Control Required: | No |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|------------------|--|-------------------------------------|-----------------|------|----------------|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating |
| 1 | FOS = 2.83 (u), 6.16 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 2 | 1 | 2 | Negligible |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 11 | Relatively deep peat | 3 | 1 | 3 | Negligible | No | | 2 | 1 | 2 | Negligible |

| Control Measures to be Implemented Prior to/and During Construction for Peatland Enhancement Area | |
|---|--|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |
| v | Inspection & approval of turbine base sub-formation by a competent person where a gravity type foundation base is constructed. |
| vi | Movement monitoring posts to be installed upslope of the turbine/hardsand excavation and monitored on a regular basis |

Note
 (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix E.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
 BERTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|------------------|--|
| Location: | Entrance to TCC (founded section) |
|------------------|--|

| | |
|---|----------------|
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | < 50 |
| Min & Max Measured Peat Depth (m): | 0.0-1.3 |
| Control Required: | No |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 2.07 (u), 2.19 (d) | 1 | 4 | 4 | Negligible | No | See Below | 1 | 4 | 4 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 4 | 4 | Negligible | No | | 1 | 4 | 4 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 4 | 8 | Low | No | | 1 | 4 | 4 | Negligible | |
| 4 | Evidence of previous failures/slips | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 4 | 8 | Low | No | | 1 | 4 | 4 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 4 | 8 | Low | No | | 1 | 4 | 4 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |
| 11 | Other | 0 | 4 | 0 | Not Applicable | No | | 0 | 4 | 0 | Not Applicable | |

| Control Measures to be Implemented Prior to/and During Construction for Entrance Road to TCC | |
|--|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

Location: Entrance to TCC (floated section)

| | |
|---|-----------------|
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | 50 - 100 |
| Min & Max Measured Peat Depth (m): | 2.6-5.5 |
| Control Required: | Yes |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 2.35 (u), 1.49 (d) | 1 | 3 | 3 | Negligible | No | See Below | 1 | 3 | 3 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 3 | 3 | Negligible | No | | 1 | 3 | 3 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible | |
| 4 | Evidence of previous failures/slips | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 3 | 6 | Low | No | | 1 | 3 | 3 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 3 | 0 | Not Applicable | No | | 0 | 3 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 3 | 3 | 9 | Low | No | | 2 | 3 | 6 | Low | |
| 11 | Relatively deep peat | 4 | 3 | 12 | Medium | Yes | | 2 | 3 | 6 | Low | |

| Control Measures to be Implemented Prior to/and During Construction for Entrance to TCC (floated section) | |
|---|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |
| v | Movement monitoring posts to be installed along floated section of track and monitored on a regular basis |
| vi | No material to be sidecast or stockpiled along this section of access road. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|------------------|-------------------|
| Location: | TCC to T01 |
|------------------|-------------------|

| | |
|---|------------------|
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | > 150 |
| Min & Max Measured Peat Depth (m): | 0.0 - 0.9 |
| Control Required: | No |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|---------------|------------------|--|-------------------------------------|------|----------------|--|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Prob (Note 2) | | | Impact (Note 3) | Risk | Risk Rating | |
| 1 | FOS = 56.05 (u), 6.39 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible | |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 4 | Evidence of previous failures/slps | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible | |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |
| 11 | Other | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable | |

| Control Measures to be Implemented Prior to/and During Construction for TCC to T01 | |
|--|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. NO. [REDACTED]
 PLANNING (WEST) DEPT
 06 NOV 2025
 COUNTY COUNCIL
 WOLFE TOWN, STRIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|------------------|-------------------|
| Location: | T01 to T02 |
|------------------|-------------------|

| | |
|---|-----------------|
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | > 150 |
| Min & Max Measured Peat Depth (m): | 0 - 1.0 |
| Control Required: | Yes |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | Control Required | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|------------------|--|-------------------------------------|-----------------|------|----------------|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating |
| 1 | FOS = 3.12 (u), 3.32 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 11 | Relatively deep peat | 3 | 1 | 3 | Negligible | No | | 2 | 1 | 2 | Negligible |

| Control Measures to be Implemented Prior to/and During Construction for T01 to T02 | |
|--|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note
 (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis.
 (2) Probability assessed as per Table A and B of Appendix D in PSA.
 (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 BORTON HOUSE, SKIBBEREEN, Co. CORK

Curraglass Wind Farm - Peat Stability Risk Register (Rev 0)

| | |
|-----------|------------|
| Location: | T02 to T03 |
|-----------|------------|

| | |
|---------------------------------------|-----------|
| Grid Reference (Eastings, Northings): | Varies |
| Distance to Watercourse (m) | > 150 |
| Min & Max Measured Peat Depth (m): | 0.0 - 0.3 |
| Control Required: | No |

| Ref. | Contributory/Qualitative Factors to Potential Peat Failure | Pre-Control Measure Implementation | | | | | Control measures to be implemented during construction | Post-Control Measure Implementation | | | |
|------|--|------------------------------------|-----------------|------|----------------|------------------|--|-------------------------------------|-----------------|------|----------------|
| | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating | Control Required | | Prob (Note 2) | Impact (Note 3) | Risk | Risk Rating |
| 1 | FOS = 6.41 (u), 6.90 (d) | 1 | 1 | 1 | Negligible | No | See Below | 1 | 1 | 1 | Negligible |
| 2 | Evidence of sub peat water flow | 1 | 1 | 1 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 3 | Evidence of surface water flow | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 4 | Evidence of previous failures/slips | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 5 | Type of vegetation | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 6 | General slope characteristics upslope/downslope from infrastructure location | 2 | 1 | 2 | Negligible | No | | 1 | 1 | 1 | Negligible |
| 7 | Evidence of very soft/soft clay at base of peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 8 | Evidence of mechanically cut peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 9 | Evidence of quaking or buoyant peat | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 10 | Evidence of bog pools | 0 | 1 | 0 | Not Applicable | No | | 0 | 1 | 0 | Not Applicable |
| 11 | Relatively deep peat | 3 | 1 | 3 | Negligible | No | | 2 | 1 | 2 | Negligible |

| Control Measures to be Implemented Prior to/and During Construction for T02 to T03 | |
|--|---|
| i | Maintain hydrology of area as far as possible; |
| ii | Use of experienced geotechnical staff for site investigation; |
| iii | Use of experienced contractors and trained operators to carry out the work; |
| iv | Detailed ground investigation to determine peat, mineral soil and bedrock condition and properties. |

Note

- (1) FOS abbreviations are: u: FOS for undrained analysis, d: FOS for drained analysis
- (2) Probability assessed as per Table A and B of Appendix D in PSA.
- (3) Impact based on distance of infrastructure element to nearest watercourse.

REG. NO. [REDACTED] PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK



**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

APPENDIX C

**Calculated FOS for Peat Slopes
on Site**

**REG. No. _____
PLANNING (WEST) DEPT**

06 NOV 2025

**CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK**

Calculated FOS of Natural Peat Slopes for Curraglass Wind Farm- Drained Analysis

| Turbine No./Waypoint | Slope | Design c' | Bulk unit weight of Peat | Unit weight of Water | Depth of In situ Peat | Friction Angle | Surcharge Equivalent Filled | Equivalent Total Depth of Peat (m) | Factor of Safety for Load Condition | |
|--------------------------------|----------------|------------|-------------------------------|---------------------------------|-----------------------|----------------|-----------------------------|------------------------------------|-------------------------------------|-----------------------------|
| | α (deg) | c' (kPa) | γ (kN/m ³) | γ_w (kN/m ³) | (m) | ϕ' (deg) | Condition (2) | Condition (2) | Condition (1) 100% Water | Condition (2) 100% Water |
| T01 | 8 | 4 | 10.0 | 10.0 | 0.8 | 25 | 1.0 | 1.8 | 3.91 | 3.65 |
| T02 | 10 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 11.70 | 3.15 |
| T03 | 6 | 4 | 10.0 | 10.0 | 0.5 | 25 | 1.0 | 1.5 | 7.70 | 5.52 |
| TCC | 4 | 4 | 10.0 | 10.0 | 0.5 | 25 | 1.0 | 1.5 | 11.50 | 3.81 |
| Substation | 12 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 8.92 | 7.77 |
| Met Mast | 10 | 4 | 10.0 | 10.0 | 0.7 | 25 | 1.0 | 1.7 | 1.11 | 2.61 |
| PP001 | 18 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP002 | 16 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP003 | 16 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP004 | 15 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP005 | 12 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP006 | 10 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 24.39 | 4.71 |
| PP007 | 10 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 11.70 | 3.15 |
| PP008 | 10 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 11.70 | 3.15 |
| PP009 | 12 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 19.67 | 3.78 |
| PP010 | 8 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 19.04 | 5.65 |
| PP011 | 8 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 7.97 | 19.1 |
| PP012 | 10 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 21.19 | 4.13 |
| PP013 | 8 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 29.02 | 5.65 |
| PP014 | 10 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 11.70 | 3.15 |
| PP015 | 8 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 9.31 | 37.8 |
| PP016 | 8 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 11.51 | 21.8 |
| PP017 | 5 | 4 | 10.0 | 10.0 | 0.8 | 25 | 1.0 | 1.8 | 5.76 | 5.52 |
| PP018 | 4 | 4 | 10.0 | 10.0 | 3.0 | 25 | 1.0 | 4.0 | 1.97 | 14.9 |
| PP019 | 3 | 4 | 10.0 | 10.0 | 2.6 | 25 | 1.0 | 3.6 | 2.31 | 15.0 |
| PP020 | 4 | 4 | 10.0 | 10.0 | 3.5 | 25 | 1.0 | 4.5 | 1.61 | 15.1 |
| PP021 | 3 | 4 | 10.0 | 10.0 | 3.2 | 25 | 1.0 | 4.2 | 4.11 | 27.6 |
| PP022 | 3 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 1.96 | 17.3 |
| PP023 | 3 | 4 | 10.0 | 10.0 | 2.8 | 25 | 1.0 | 3.8 | 4.71 | 13.6 |
| PP024 | 3 | 4 | 10.0 | 10.0 | 3.0 | 25 | 1.0 | 4.0 | 7.55 | 11.4 |
| PP025 | 4 | 4 | 10.0 | 10.0 | 3.2 | 25 | 1.0 | 4.2 | 1.80 | 25.6 |
| PP026 | 2 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP027 | 5 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 16.07 | 5.93 |
| PP028 | 6 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP029 | 10 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 21.19 | 4.13 |
| PP030 | 10 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP031 | 6 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 19.24 | 6.59 |
| PP032 | 6 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 19.24 | 6.70 |
| PP033 | 6 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 18.48 | 7.51 |
| PP034 | 6 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 19.24 | 6.59 |
| PP035 | 4 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 27.43 | 11.55 |
| PP036 | 4 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP037 | 6 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| PP038 | 4 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 19.16 | 9.85 |
| PP039 | 10 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 7.81 | 3.89 |
| PP040 | 12 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 7.31 | 15.7 |
| PP041 | 5 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 11.52 | 7.10 |
| PP042 | 5 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 15.16 | 7.61 |
| PP035 | 4 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| APP01 | 2 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 17.91 | 11.55 |
| APP02 | 2 | 4 | 10.0 | 10.0 | 0.5 | 25 | 1.0 | 1.5 | 16.29 | 21.00 |
| APP03 | 2 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 20.70 | 22.91 |
| APP04 | 3 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 18.01 | 14.16 |
| APP05 | 2 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 18.85 | 11.78 |
| APP06 | 4 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 15.31 | 11.78 |
| APP07 | 4 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 15.13 | 11.09 |
| APP08 | 6 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 13.06 | 7.19 |
| APP09 | 5 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 16.61 | 8.87 |
| MKO (2025) | | | | | | | | | | |
| MKO P200 | 4 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 21.11 | 11.69 |
| MKO P201 | 4 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 21.09 | 10.97 |
| MKO P202 | 4 | 4 | 10.0 | 10.0 | 0.7 | 25 | 1.0 | 1.7 | 9.37 | 5.70 |
| MKO P203 | 6 | 4 | 10.0 | 10.0 | 0.7 | 25 | 1.0 | 1.7 | 10.16 | 5.77 |
| MKO P204 | 4 | 4 | 10.0 | 10.0 | 1.1 | 25 | 1.0 | 2.1 | 11.39 | 7.41 |
| MKO P205 | 4 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 17.91 | 15.53 |
| MKO P206 | 2 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 17.91 | 15.53 |
| MKO P207 | 2 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 17.31 | 15.33 |
| MKO P208 | 2 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 17.91 | 15.53 |
| MKO P209 | 2 | 4 | 10.0 | 10.0 | 2.5 | 25 | 1.0 | 3.5 | 17.91 | 15.53 |
| MKO P210 | 7 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 13.66 | 6.16 |
| MKO P211 | 7 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 13.73 | 6.25 |
| MKO P212 | 7 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 12.06 | 6.76 |
| Historical probing (GDS, 2020) | | | | | | | | | | |
| MKO10 | 12 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 19.67 | 7.72 |
| MKO P020 | 6 | 4 | 10.0 | 10.0 | 0.5 | 25 | 1.0 | 1.5 | 13.51 | 7.01 |
| MKO P021 | 6 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 12.11 | 6.32 |
| MKO P025 | 6 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 19.24 | 6.70 |
| MKO P027 | 8 | 4 | 10.0 | 10.0 | 1.0 | 25 | 1.0 | 2.0 | 19.24 | 6.70 |
| MKO P037 | 4 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P038 | 2 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P041 | 3 | 4 | 10.0 | 10.0 | 5.5 | 25 | 1.0 | 6.5 | 25.19 | 12.12 |
| MKO P042 | 3 | 4 | 10.0 | 10.0 | 3.8 | 25 | 1.0 | 4.8 | 1.69 | 7.12 |
| MKO P043 | 6 | 4 | 10.0 | 10.0 | 1.9 | 25 | 1.0 | 2.9 | 1.01 | 7.15 |
| MKO P047 | 12 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P052 | 12 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 2.41 | 13.7 |

REG. NO. PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 COUNTY HOUSE, SKIBBEREEN, CO. CORK

| Calculated FoS of Natural Peat Slopes for Curraglass Wind Farm- Drained Analysis | | | | | | | | | | |
|--|----------------|-----------|-------------------------------|---------------------------------|-----------------------|----------------|----------------------------------|------------------------------------|-------------------------------------|---------------|
| Turbine No./Waypoint | Slope | Design c' | Bulk unit weight of Peat | Unit weight of Water | Depth of In situ Peat | Friction Angle | Surcharge Equivalent Placed Fill | Equivalent Total Depth of Peat (m) | Factor of Safety for Load Condition | |
| | | | | | | | | | Condition (1) | Condition (2) |
| | α (deg) | c' (kPa) | γ (kN/m ³) | γ_w (kN/m ³) | (m) | ϕ' (deg) | Condition (2) | Condition (2) | 100% Water | 100% Water |
| MKO P057 | 10 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P060 | 12 | 4 | 10.0 | 10.0 | 0.9 | 25 | 1.0 | 1.9 | 1.49 | 1.49 |
| MKO P064 | 5 | 4 | 10.0 | 10.0 | 1.0 | 25 | 1.0 | 2.0 | 1.97 | 1.97 |
| MKO P066 | 6 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P071 | 8 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 1.34 | 1.34 |
| MKO P073 | 8 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 1.34 | 1.34 |
| MKO P074 | 4 | 4 | 10.0 | 10.0 | 0.9 | 25 | 1.0 | 1.9 | 1.49 | 1.49 |
| MKO P076 | 4 | 4 | 10.0 | 10.0 | 0.9 | 25 | 1.0 | 1.9 | 1.49 | 1.49 |
| MKO P087 | 8 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 1.46 | 1.46 |
| MKO P091 | 8 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P094 | 5 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P096 | 6 | 4 | 10.0 | 10.0 | 0.3 | 25 | 1.0 | 1.3 | 1.43 | 1.43 |
| MKO P100 | 6 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P102 | 10 | 4 | 10.0 | 10.0 | 0.5 | 25 | 1.0 | 1.5 | 1.64 | 1.64 |
| MKO P106 | 10 | 4 | 10.0 | 10.0 | | | | | No peat recorded at this location | |
| MKO P156 | 10 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 1.49 | 1.49 |
| MKO P160 | 12 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.44 | 1.44 |
| MKO P161 | 12 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.44 | 1.44 |
| MKO P164 | 10 | 4 | 10.0 | 10.0 | 0.6 | 25 | 1.0 | 1.6 | 1.71 | 1.68 |
| MKO P174 | 4 | 4 | 10.0 | 10.0 | 0.2 | 25 | 1.0 | 1.2 | 1.45 | 1.44 |
| MKO P179 | 10 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.49 | 1.45 |
| MKO P181 | 6 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.48 | 1.47 |
| MKO P182 | 6 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.50 | 1.44 |
| MKO P183 | 6 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.47 | 1.44 |
| MKO P195 | 12 | 4 | 10.0 | 10.0 | 0.4 | 25 | 1.0 | 1.4 | 1.72 | 1.67 |
| MKO P196 | 12 | 4 | 10.0 | 10.0 | 0.1 | 25 | 1.0 | 1.1 | 1.44 | 1.48 |

Minimum = 1.49 2.19
Maximum = 128.04 23.78
Average = 17.41 7.27

Notes:

- (1) Assuming a bulk unit weight of peat of 10 (kN/m³)
- (2) Assuming a surcharge equivalent to fill depth of 1.0m.
- (3) Slope inclination (β) based on site readings and contour survey plans of site.
- (4) FoS is based on slope inclination and shear test results obtained from published data.
- (5) Peat depths based on probes carried out by FT, MKO and GDG.
- (6) For load conditions see Report text.
- (7) Minimum acceptable factor of safety required of 1.3 for first-time failures based on BS: 6031:1981 Code of practice for Earthworks.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

COUNTY COUNCIL
KILBEGREEN, Co. CORK



**FEHILY
TIMONEY**

**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

APPENDIX D

**Methodology for Peat
Stability Risk Assessment**

**REG. No. _____
PLANNING (WEST) DEPT**

06 NOV 2025

**CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK**

Methodology for Peat Stability Risk Assessment

A peat stability risk assessment was carried out for each of the main infrastructure elements at the Proposed Development. This approach takes into account guidelines for geotechnical/peat stability risk assessments as given in PLHRAG (2nd edition, Scottish Government, 2017) and MacCulloch (2005). The degree of risk is determined as a Risk Rating (R), which is the product of probability (P) and impact (I). How these factors are determined and applied in the analysis is described below.

The main approaches for assessing peat stability include the following:

- (a) Geomorphological
- (b) Qualitative (judgement)
- (c) Index/Probabilistic (probability)
- (d) Deterministic (factor of safety)

Approaches (a) to (c) listed above would be considered subjective and do not provide a definitive indication of stability; in addition, a high level of judgement/experience is required which makes it difficult to relate the findings to real conditions. FT apply a more objective approach, the deterministic approach. As part of FT’s deterministic approach, a qualitative risk assessment is also carried out taking into account qualitative factors, which cannot necessarily be quantified.

Probability

The likelihood of a peat failure occurring was assessed based on the results of both the quantitative results of stability calculations (deterministic approach using factors of safety) and the assessment of the severity of several qualitative factors which cannot be reasonably included in a stability calculation but nevertheless may affect the occurrence of peat instability.

The qualitative factors used in the risk assessment are outlined in Table A and have been compiled based on FT’s experience of assessments and construction in peatland sites and peat failures throughout Ireland and the UK.

Table A: Qualitative Factors used to Assess Potential for Peat Failure

| Qualitative Factor | Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾ | Explanation/Description of Qualitative Factor |
|---------------------------------|--|---|
| Evidence of sub peat water flow | No | Based on site walkover observations. Sub peat water flow generally occurs in the form of natural piping at the base of peat. Where there is a constriction or blockage in natural pipes a build-up of water can occur at the base of the peat causing a reduction in effective stress at the base of the peat resulting in failure; this is particularly critical during periods of intense rainfall. |
| | Possibly | |
| | Probably | |
| | Yes | |

REG. No. ~~PLANNING~~ INVEST. DEPT

06 NOV 2025

COUNTY COUNCIL
HOUSE, SKIBBEREEN, Co. CORK

| Qualitative Factor | Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾ | Explanation/Description of Qualitative Factor |
|--|--|--|
| Evidence of surface water flow | Dry | Based on site walkover observations. The presence of surface water flow indicates if peat in an area is well drained or saturated and if any additional loading from the ponding of surface water onto the peat is likely. |
| | Localised/Flowing in drains | |
| | Ponded in drains | |
| | Springs/surface water | |
| Evidence of previous failures/slips | No | Based on site walkover observations. The presence of clustering of relict failures may indicate that particular pre-existing site conditions predispose a site to failure. |
| | In general area | |
| | On site | |
| | Within 500m of location | |
| Type of vegetation | Grass/Crops | Based on site walkover observations. The type of vegetation present indicates if peat in an area is well drained, saturated, etc. Vegetation that indicates wetter ground may also indicate softer underlying peat deposits. |
| | Improved Grass/Dry Heather | |
| | Wet Grassland/Juncus (Rushes) | |
| | Wetlands Sphagnum (Peat moss) | |
| General slope characteristics upslope/downslope from infrastructure location | Concave | Based on site walkover observations. Slope morphology in the area of the infrastructure location is an important factor. A number of recorded peat failures have occurred in close proximity to a convex break in slope. |
| | Planar to concave | |
| | Planar to convex | |
| | Convex | |
| Evidence of very soft/soft clay at base of peat | No | Based on inspection of exposures in general area from site walkover. Several reported peat failures identify the presence of a weak layer at the base of the peat along which shear failure has occurred. |
| | Yes | |
| Evidence of mechanically cut peat | No | Based on site walkover observations. Mechanically cut peat typically cut using a 'sausage' machine to extract |

REG. No. PLANNING (WEST) DEF
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

| Qualitative Factor | Type of Feature/Indicator for each Qualitative Factor ⁽¹⁾ | Explanation/Description of Qualitative Factor |
|-------------------------------------|--|---|
| | Yes | peat for harvesting. Areas which have been cut in this manner have been linked to peat instability. The mechanical cuts can notably reduce the intrinsic strength of the peat and also allow ingress of rainfall/surface water. |
| Evidence of quaking or buoyant peat | No | Based on site walkover observations. Quaking/buoyant peat is indicative of highly saturated peat, which would generally be considered to have a low strength. Quaking peat is a feature on sites that have been previously linked with peat instability. |
| | Yes | |
| Evidence of bog pools | No | Based on site walkover observations. Bog pools are generally an indicator of areas of weak, saturated peat. Commonly where there are open areas of water within peat these can be interconnected, with the result that there may be sub-surface bodies of water. The presence of bog pools have been previously linked with peat instability. |
| | Yes | |
| Other | Varies | In addition to the above features/indicators and based on site recordings the following are some of the features which may be identified: Excessively deep peat, weak peat, overly steep slope angles, etc. |

Note (1) The list of features/indicators for each qualitative factor are given in increasing order of probability of leading to peat instability/failure.

It should be noted that the presence of one of the qualitative factors alone from Table A is unlikely to lead to peat instability/failure. Peat instability/failure at a site is generally the combination of a number of these factors occurring at the same time at a particular location. The probability rating assigned to the quantitative and qualitative factors is judged on a 5-point scale from 1 (indicating negligible or no probability of failure) to 5 (indicating a very likely failure), as outlined in Table B.

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Table B: Probability Scale

| Scale | Factor of Safety | Probability |
|-------|------------------|-----------------|
| 1 | 1.40 or greater | Negligible/None |
| 2 | 1.39 to 1.20 | Unlikely |
| 3 | 1.19 to 1.11 | Likely |
| 4 | 1.01 to 1.10 | Probable |
| 5 | ≤1.0 | Very Likely |

| Scale | Likelihood of Qualitative Factor leading to Peat Failure | Probability of Failure |
|-------|--|------------------------|
| 1 | Negligible/None | Least |
| 2 | Unlikely | |
| 3 | Probable | |
| 4 | Likely | |
| 5 | Very Likely | Greatest |

Impact

The severity of the risk is also assessed qualitatively in terms of impact. The impact of a peat failure on the environment within and beyond the immediate wind farm site is assessed based on the potential travel distance of a peat failure. Where a peat failure enters a watercourse, it can travel a considerable distance downstream. Therefore, the proximity of a potential peat failure to a drainage course is a significant indicator of the likely potential impact.

The risk is determined based on the combination of hazard and impact. A qualitative scale has been derived for the impact of the hazard based on distance of infrastructure element to a watercourse (Table C).

The location of watercourses is based on topographic maps and supplemented by site observations from walkover survey. Note that not all watercourses are shown on maps.

Table C: Impact Scale

| Scale | Criteria | Impact |
|-------|---|-----------------|
| 1 | Proposed infrastructure element greater than 150m of watercourse | Negligible/None |
| 2 | Proposed infrastructure element within 150 to 101m of watercourse | Low |
| 3 | Proposed infrastructure element within 100 to 51m of watercourse | Medium |

REG. No. PLANNING (BEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
MORTON HOUSE, SKIBBEREEN, Co. CORK

| | | |
|---|--|----------------|
| 4 | Proposed infrastructure element within 50 m of watercourse | High |
| 5 | Proposed infrastructure element within 50 m of watercourse, in an environmentally sensitive area | Extremely High |

Risk Rating

The degree of risk is determined as the product of probability (P) and impact (I), which gives the Risk Rating (R) as follows:

The Risk Rating is calculated from: $R = P \times I$

Due to the 5-point scales used to assess Probability and Impact, the Risk Rating can range from 1 to 25 as shown in Table D.

Table D: Qualitative Risk Rating

| | | Probability | | | | | Risk Rating & Control Measures | |
|--------|---|-------------|----|----|----|----|--------------------------------|--|
| | | 1 | 2 | 3 | 4 | 5 | | |
| Impact | 5 | 5 | 10 | 15 | 20 | 25 | 17 to 25 | High: avoid working in area or significant control measures required |
| | 4 | 4 | 8 | 12 | 16 | 20 | 11 to 16 | Medium: notable control measures required |
| | 3 | 3 | 6 | 9 | 12 | 15 | 5 to 10 | Low: only routine control measures required |
| | 2 | 2 | 4 | 6 | 8 | 10 | 1 to 4 | Negligible: none or only routine control measures required |
| | 1 | 1 | 2 | 3 | 4 | 5 | | |
| | | | | | | | | |

The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Low' risk rating. The control measures in response to the qualitative risk ratings are included in the peat stability risk registers for each main infrastructure element in Appendix B.

The risk rating is calculated individually for each contributory factor. Control measures are required to reduce the risk to at least a 'Tolerable' risk rating

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
MORTON HOUSE, SKIBBEREEN, Co. CORK



**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

APPENDIX E

Ground Investigation
Information (IDL, 2025)

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

IRISH DRILLING LIMITED

LOUGHREA, CO. GALWAY, IRELAND



CONTRACT DRILLING
SITE INVESTIGATION

Phone: (091) 841 274
Fax: (091) 880 861

email: info@irishdrilling.ie

CURRAGLASS WIND FARM

GROUND INVESTIGATION FACTUAL REPORT

MKO,
Tuam Road,
Galway.
H91 VW84

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CO. CARLOW COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

FTCO,
Bagenalstown Industrial Park,
Bagenalstown,
Co. Carlow,
R21 XW81.

| Prepared by | Approved by | Rev. Issue Date: | Revision No. |
|------------------|--------------|---------------------------|--------------|
| Ronan Killeen | Declan Joyce | 7 th July 2025 | 24_C_111/02 |
| <u>Signature</u> | | | |

FOREWORD

The borehole and trial pit records have been compiled from an examination of the samples by a Geotechnical Engineer and from the Drillers' descriptions.

The report presents an opinion on the configuration of the strata within the site based on the borehole and trial pit results. The assumptions, though reasonable, are given for guidance only and no liability can be accepted for changes in conditions not revealed by the boreholes and trial pits.

The fieldwork was carried out in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Ground Investigations with precedence given to IS EN 1997-2 where applicable.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



Contents:

| | | |
|-------------|--------------------------------|--------|
| 1.0 | Introduction | Page 1 |
| 2.0 | The Site & Geology | Page 1 |
| 3.0 | Fieldwork | Page 1 |
| 4.0 | Laboratory Testing | Page 4 |
| Book 1 of 1 | | |
| Appendix 1 | Borehole Records (Rotary Core) | |
| Appendix 2 | Trial Pit Records | |
| Appendix 3 | Laboratory Test Results | |
| Appendix 4 | Trial Pit Photographs | |
| Appendix 5 | Rotary Core Photographs | |
| Appendix 6 | Site Plans | |
| Appendix 7 | Digital Data (AGS) | |

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

JNTY COUNCIL
SKIBBEREEN, Co. CORK



1 Introduction.

Irish Drilling Ltd. (IDL) was instructed by FTCO Consulting Engineers, on behalf of MKO/FTCO, to carry out a site investigation at the site of the proposed Curraglass Wind Farm.

This site investigation was carried out to provide detailed factual geotechnical information of the underlying ground conditions at the site.

The fieldwork commenced on January 28th 2025 and was completed on March 18th 2025.

2 Site & Geology

The site is located between Gougane Barra and Kealkill, County Cork.

The fieldwork was carried out at targeted locations adjacent to the existing wind farm infrastructure.

The fieldwork was carried out predominantly on agricultural lands, forested lands and/or boglands. Weather conditions in general were quite variable with the majority of the fieldwork carried out over a typical winter/spring period in Ireland.

Site Plans, prepared by FTCO to show approximate fieldwork locations, are included with this report as Appendix 6.

The following were the main published information sources used:
Geological Map of Ireland: 1:500,000 scale map series.

Site investigation data is available as point source data along the proposed route, and the majority of the ground in between the points can only be assumed to follow the characteristics of the nearest available data.

Overview of Subsoil Geology

Peat:

The deposition of peat occurred in post-glacial periods and is generally associated with the start of warmer and wetter climatic conditions. Peat is an unconsolidated usually dark brown to black organic material comprising a mixture of decomposed and undecomposed plant matter that accumulated in an acidic waterlogged environment. Peat has an extremely high-water content generally averaging over 90% by volume.

Glacial Till:

Glacial Till is what was often referred to as Boulder Clay. It is a diverse material that is largely deposited sub-glacially and has a wide range of characteristics due to the variety of parent materials and different processes of deposition. Tills are tightly packed, unsorted, heterogeneous, unbedded, and can have a wide range of particle sizes and types, which are often but not exclusively angular or sub-angular.

The type of parent material plays a critical role in providing the particles that create different subsoil permeability with sandstones giving rise to a high proportion of sand sized grains in the till matrix.

Made Ground:

Made Ground is material which has been purposefully emplaced by humans.

Solid Geology

The Geological Map of Ireland: (GSI 1:500,000 scale map series) indicate that the site is predominantly underlain by mudstone and silt-lensed mudstone of the Ardaturrish Member Formation and/or flaser-bedded sandstone and minor mudstone of the Old Head Sandstone Formation.

PLANNING (WEST) DEPT
15 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREN CO. CORK



3 Fieldwork.

3.1 Fieldwork Plant:

The following plant was mobilised to site by IDL to carry out fieldwork operations:

- 1nr. Case CX130D 12T Tracked Excavator.
- 1nr. GT1100 GoTract Rotary Core Drilling Rig.
- 1nr. Yanmarr All-Terrain Support Vehicle.
- 1nr. HQ Rotary Core Drill String.
- 1nr. Honda Water Supply Pump.
- 1nr. Drilling Water Recirculation Tank System.

Fieldwork carried out to date has included the following:

3.2 Fieldwork Operations:

A general summary of fieldwork operations carried out to date includes the following:

- Completion of 1nr Rotary Core Borehole.
- Excavation of 7nr Trial Pits.
- Installation of 1nr 50mm diameter standpipes at the borehole location.

3.3 Rotary Core Boreholes:

One rotary core borehole was carried out to establish overburden conditions and rockhead and to establish the nature and integrity of the underlying rock.

HQ drill strings ((64mm core diameter, 96mm hole diameter), using wireline drilling techniques, were then used to recover soil and rock core samples at the borehole locations.

The borehole was drilled to a depth of 10.40m below ground level. The borehole was carried out to target depth as instructed by the client representatives. Target depths were established by the client's representatives based on bedrock quality and bedrock depths encountered.

A water based flush system was used as the drilling medium while a biodegradable polymer gel was also used where necessary to aid the drilling and soil / rock recovery process.

The samples were stored in wooden boxes and returned to the laboratory where there were logged and photographed by a Geotechnical Engineer and presented for testing.

A 50mm diameter standpipe was installed in the borehole and as instructed by the Client's Engineer, to allow for monitoring of groundwater levels over a prolonged period of time.

Detailed engineering logs for the rotary core boreholes completed are included with this report in Appendix 1.

3.4 Trial Pits:

Seven trial pits were excavated on site using a 12T tracked excavator.

The pits were logged and photographed by an Engineer with observations made on ground conditions, pit stability, water ingress and services encountered.

The pits were excavated to depths ranging from 0.05m to 3.50m below ground level. Trial pits were terminated in general once target depths were achieved and/or due to pit stability issues encountered and for further details on pit terminations please refer to the trial pit logs included as Appendix 2.

Small and bulk disturbed soil samples were recovered at each change in strata and returned to the laboratory and presented for testing.

Detailed engineering logs for the trial pits completed are included with this report in Appendix 2.



3.5 General Summary:

The borehole and trial pit locations were set out using a Trimble CU Bluetooth GPS Surveying Unit and the co-ordinates are included on the logs presented in the appendices.

All fieldwork co-ordinates were recorded by the site engineer and are reported to Irish Transverse Mercator (ITM).

Ground conditions encountered during the completion of the fieldwork were typical and as expected for this region and predominantly consisted of Glacial Tills overlying bedrock.

The Glacial Tills in general consisted of loose, medium dense and very dense brown silty very sandy gravel with cobbles and boulders and/or soft, firm and stiff brown slightly gravelly sandy silt/clay with cobbles and boulders.

Peat was encountered in many of the trial pit locations at depths ranging from 0.20m to 1.00m below ground level.

Made ground was encountered at trial pit TP T01 and TP T02 to depths ranging from 0.60m to 1.00m below ground level.

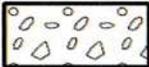
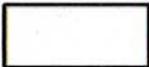
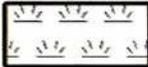
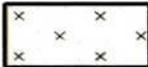
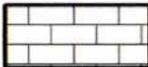
Intact bedrock was encountered in borehole RC 01 at a depth of 0.70m below ground level.

Bedrock is predominantly described as very strong locally strong thinly laminated grey fine-grained siltstone.

For detailed descriptions of bedrock and ground conditions encountered please refer to the engineering logs included in the appendices of this report.

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

The following Key Legend Table details the symbology used on the engineering logs to describe ground conditions encountered:

| Legend: | |
|--|--------------------------|
|  | Made ground=mg |
|  | Boulders and cobbles=b/c |
|  | Gravel=g |
|  | Sand=s |
|  | Silt=si |
|  | Clay=cl |
|  | Peat=p |
|  | Silty sand=s/si |
|  | Rock=r |

The fieldwork was carried out in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Site Investigations with precedence given to IS EN 1997-2 where applicable.

6.4 Laboratory Testing

Representative samples recovered from the boreholes and trial pits were scheduled for testing in the laboratory.

The test schedules were prepared by the Client's Engineer and included the following tests on bulk disturbed soil samples:

| Test Type: | Number |
|----------------------------|--------|
| Moisture Content | 05 |
| Particle Size Distribution | 05 |

The test schedules were carried out predominantly at the IDL Laboratory located at Loughrea, County Galway.

Soil samples in general were recovered from the excavation of trial pits. Rock core samples were recovered from the completion of rotary core boreholes and the records of all laboratory test results are included with this report as Appendix 3.

The soil and rock descriptions as noted on the borehole and trial pit logs are in general visual descriptions as observed and logged by our Engineers and are described in accordance with IS EN 1997-2 and BS5930:2015+A1:2020 Code of Practice for Site Investigations.

Soils descriptions (cohesive or otherwise) are also initially assessed based on the texture and 'feel' of the soil materials as witnessed by our Geotechnical Engineers and in accordance with IS EN 1997-2 and BS5930:2015+A1:2020.

REC No. (EST) DEPT
5 NOV 2025
COUNTY COUNCIL
TOWN HOUSE, SKIBBEREEN, Co. CORK



Where laboratory classification tests have been carried out on soil and/or rock samples then these visual descriptions have been amended accordingly to take into account the results of these classification tests.

The records of all fieldwork, laboratory test results and photographs are included in the appendices of this Factual Report.

Ronan Killeen
Chartered Engineer
Irish Drilling Limited
July 7th 2025

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



Appendix 1 Borehole Records (Rotary Core)

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

COUNTY COUNCIL
TOWN HOUSE, SKIBBEREEN, Co. CORK



Appendix 2 Trial Pit Records

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

PROJECT: Curraglas Wind Farm
 LOCATION: County Cork
 CLIENT: MKO/FT
 ENGINEER: FTCO

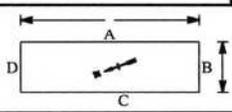
TRIALPIT: TP-01
 Sheet 1 of 1
 Rig: CASE CX 130 OD
 Rev:

Co-ordinates:
 E 508,945.4 N 563,514.7

Ground level: 315.04m O.D. DATE: 28.1.25

GROUNDWATER
 Water strikes: Rose to after:
 1st: dry
 2nd:
 3rd:

PIT DIRECTION: 200°
 PIT DIMENSION: 4.00m * 1.00
 LOGGED BY: PC



Shoring/Support: N/A
 Stability: Pit stable.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|---------|-----------|-------------------------------------|--------|---------------------|-----------|--|-------------------------|
| 0 | | | B1 | 0.00-0.10 | | | 314.84 | 0.20 | Rushes over bluish grey slightly silty slightly sandy angular to subangular fine to coarse shale GRAVEL with occasional cobbles. Cobbles are angular to subangular of shale. | |
| | | | | | | END | | | | |
| -1 | | | | | | | | | | |
| -2 | | | | | | | | | | |
| -3 | | | | | | | | | | |
| -4 | | | | | | | | | | |
| -5 | | | | | | | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 COUNTY COUNCIL
 TOWN HOUSE, SKIBBEREEN, Co. CORK

Remarks: Ingress of surface water at g/l. TP terminated at 0.20m bgl. Obstruction as probable rock. TP backfilled with arisings. Scale: 1:25

TRIALPIT CURRAGLAS WF TFS FILE 1 JAN 29 2025 GPJ ID GINT AGS 4.0_4.GDT 7/7/25

Irish drilling LTD

Ph.
 Fax

PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO

Co-ordinates:
 E 509,046.5 N 563,326.9

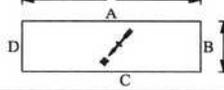
TRIALPIT: TP-02
Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:

Ground level: 321.87m O.D. **DATE:** 28.1.25

GROUNDWATER
 Water strikes:
 1st: 1.00m
 2nd: 1.80m
 3rd:

Rose to after:
 20min 1.00m
 20min 1.75m

PIT DIRECTION: 230°
PIT DIMENSION: 4.00m * 1.20
LOGGED BY: PC



Shoring/Support: N/A
 Stability: Pit unstable. Sidewall collapse from 1.00m bgl.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|------------|------------------------|-------------------------------|--------|------------------|-----------|--|-------------------------|
| 0 | | | | | | | | | Grass and moss over spongy black pseudo fibrous PEAT. H6 B1 F1 R1 W0 TV1 TH1 A1. | |
| | | | B 1 D 2 | 0.50-0.60 0.50-0.60 | | | | | | |
| 1 | | | | | | | 320.87 | 1.00 | Brown slightly peaty very sandy very silty angular to subrounded fine to coarse shale and siltstone GRAVEL with rare cobbles and rare boulders. Cobbles are subangular to subrounded of shale and siltstone. Boulders are subrounded to rounded of shale and siltstone. Boulders are up to 500mm in length. | |
| | | | B 3 | 1.50-1.60 | | | 320.07 | 1.80 | | |
| 2 | | | | | | | | | Grey brown very sandy very silty angular to subangular fine to coarse shale and siltstone GRAVEL with occasional cobbles and occasional boulders and rare large boulders. Sand is fine to coarse. Cobbles are angular to subrounded of shale and siltstone. Boulders are subangular to subrounded of shale and siltstone. Large boulders are subrounded of shale and siltstone. Boulders are up to 1100mm in length. | |
| | | | B 4 | 2.50-2.60 | | | | | | |
| 3 | | | | | | | 318.67 | 3.20 | | |
| | | | | | | END | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SCRIBBEREEN, Co. CORK

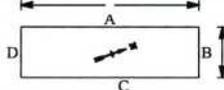
Remarks: Seepage of water at 1.00m bgl. Ingress of water at 1.80m bgl. TP terminated at 3.20m bgl. Unable to keep TP open - sidewall collapse. TP backfilled with arisings.

Scale: 1:25

TRIALPIT CURRAGLAS WF TPS FILE 1 JAN 29 2025 GPJ ID GINT AGS 4.0 4.GDT 7/7/25

PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO
Co-ordinates: E 509,104.2 N 562,913.2
TRIALPIT: TP-03
Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:

Ground level: 306.34m O.D. **DATE:** 28.1.25

GROUNDWATER
Water strikes: 1st: 1.80m 2nd: 20min 3rd: 1.80m
PIT DIRECTION: 20°
PIT DIMENSION: 4.00m * 1.20
LOGGED BY: PC

Shoring/Support: N/A
Stability: Pit stable.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|------------|------------------------|-------------------------------------|--------|---------------------|-----------|---|-------------------------|
| 0 | | | | | | | | | Rushes heather and sedge over spongy dark brown pseudo fibrous PEAT. H6 B1 F1 R1 W0 TV1 TH1 A1. | |
| | | | B 1 B 2 | 0.30-0.40 0.30-0.40 | | | 306.14 | 0.20 | Soft damp light brown gravelly clayey SILT with rare cobbles. Gravel is angular to subangular fine to coarse of shale and siltstone. Cobbles are angular to subangular of shale and siltstone. | |
| | | | B 3 | 1.10-1.20 | | | 305.84 | 0.50 | Light brown very sandy very silty subangular to subrounded fine to coarse siltstone GRAVEL with rare cobbles and rare boulders. Sand is fine to coarse. Cobbles are subangular to subrounded of siltstone. Boulders are subangular to subrounded of siltstone. Boulders are up to 400mm in length. | |
| | | | | | | | 304.34 | 2.00 | | |
| | | | B 4 | 2.50-2.60 | | | 302.84 | 3.50 | Light bluish grey slightly sandy slightly silty angular to subangular fine to coarse shale and siltstone GRAVEL with occasional cobbles and rare boulders. Sand is fine to coarse. Cobbles are angular to subangular of shale and siltstone. Boulders are angular to subangular of shale and siltstone. Boulders are up to 400mm in length. | |
| | | | | | | END | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 TOWN HOUSE, SKIBBEREEN, CO. CORK

Remarks: Seepage of water at g/l from stream. Seepage of water at 1.80m bgl. TP terminated at 3.50m bgl. Obstruction as possible rock. TP backfilled with arisings. **Scale:** 1:25

Irish drilling LTD

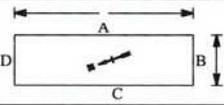
Ph.
Fax

TRIALPIT CURRAGLAS WF TPS FILE 1 JAN 28 2025 GPJ ID GINT AGS 4 0 4 GDT 7/7/25

PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO
Co-ordinates:
 E 508,951.2 N 562,226.9
TRIALPIT: TP-04
 Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:

Ground level: 282.86m O.D. **DATE:** 28.1.25

GROUNDWATER
 Water strikes: 1st: dry 2nd: 3rd:
 Rose to after:
PIT DIRECTION: 200°
PIT DIMENSION: 4.00m * 1.10
LOGGED BY: PC
 Shoring/Support: N/A
 Stability: Pit stable.



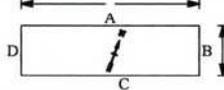
| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|---------|-----------|-------------------------------|--------|------------------|-----------|---|-------------------------|
| 0 | | | | | | END | 282.81 | 0.05 | Moss over silty clayey angular to subangular fine to coarse shale GRAVEL. | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |

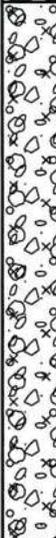
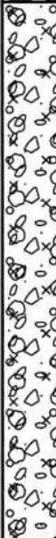
REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SIBBEREEN, Co. CORK

Remarks: TP dry on excavation. TP terminated at 0.05m bgl. Obstruction as probable rock. TP backfilled with arisings. **Scale:** 1:25

TRIALPIT CURRAGLAS WF TPS FILE 1 JAN 29 2025 GP.J ID GINT AGS 4.0.4.GDT 7/7/25

PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO
Co-ordinates: E 509,066.3 N 563,220.9
TRIALPIT: TP-T01
Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:
Ground level: 325.83m O.D.
DATE: 28.1.25

GROUNDWATER
Water strikes: Rose to after:
 1st: dry
 2nd:
 3rd:
PIT DIRECTION: 70°
PIT DIMENSION: 4.00m * 1.20
LOGGED BY: PC

 Shoring/Support: N/A
 Stability: Pit unstable. Sidewall collapse from g/l to 1.00m bgl.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|---------|-----------|-------------------------------------|--|---------------------|-----------|--|-------------------------|
| 0 | | | | | | x x | 325.73 | 0.10 | Rushes over soft dark brown SILT. | |
| | | | B 1 | 0.50-0.60 | |  | | | MADE GROUND: Brownish grey slightly sandy silty angular to subangular fine to coarse shale schist and siltstone GRAVEL with rare cobbles and rare boulders and rare large boulders. Sand is fine to coarse. Cobbles are angular to subangular of shale schist and siltstone. Boulders are subangular to subrounded of shale schist and siltstone. Boulders are up to 1300mm in length. | |
| -1 | | | | | |  | 324.83 | 1.00 | Soft dark brown peaty silty CLAY. | |
| | | | B 2 | 1.50-1.60 | |  | 324.43 | 1.40 | Light bluish grey very silty very sandy angular to subangular fine to coarse shale and siltstone GRAVEL with occasional cobbles. Sand is fine to coarse. Cobbles are angular to subangular of shale and siltstone. | |
| -2 | | | B 3 | 2.50-2.60 | |  | | | | |
| -3 | | | | | | | 322.53 | 3.30 | | |
| | | | | | | END | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 KERRY COUNTY COUNCIL
 TOWN HOUSE, SKIBBEREEN, Co. CORK

Remarks: TP dry on excavation. TP terminated at 3.30m bgl. Obstruction as possible rock. TP backfilled with arisings.
Scale: 1:25
Irish drilling LTD
 Ph. Fax

TRIALPIT CURRAGLAS WF TPS FILE 1 JAN 29 2025 GPJ_ID GINT AGS 4_0_4.GDT 7/7/25

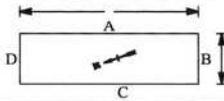
PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO

TRIALPIT: TP-T02
Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:

Ground level: 291.32m O.D.
Co-ordinates: E 508,999.7 N 562,657.4
DATE: 28.1.25

GROUNDWATER
Water strikes: Rose to after:
 1st: dry
 2nd:
 3rd:

PIT DIRECTION: 200°
PIT DIMENSION: 4.00m * 1.10
LOGGED BY: PC



Shoring/Support: N/A
 Stability: Pit stable.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|---------|-----------|-------------------------------|--|------------------|-----------|---|-------------------------|
| 0 | | | | | | | | | MADE GROUND: Along track - heather and sedge over brownish grey slightly sandy slightly silty subangular to subrounded fine to coarse siltstone and shale GRAVEL with rare cobbles and rare boulders and rare large boulders. Sand is fine to coarse. Cobbles are subangular to subrounded of siltstone and shale. Boulders are subrounded of siltstone and shale. Large boulders are subangular of siltstone and shale. Boulders are up to 1200mm in length. | |
| | | | B 1 | 0.50-0.60 | |  | 290.72 | 0.60 | Firm dark brown peaty silty CLAY. | |
| | | | | | |  | 290.52 | 0.80 | | |
| 1 | | | B 2 | 1.50-1.60 | |  | | | Bluish grey very silty very sandy angular to subangular fine to coarse siltstone and shale GRAVEL with occasional cobbles and rare boulders. Sand is fine to coarse. Cobbles are angular to subangular of siltstone and shale. Boulders are subangular of siltstone and shale. Boulders are up to 500mm in length. | |
| 2 | | | B 3 | 2.50-2.60 | | | 288.72 | 2.60 | | |
| | | | | | | END | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Remarks: Seepage of water at g/l. TP terminated at 2.60m bgl. Obstruction as probable rock. TP backfilled with arisings.

Scale: 1:25

TRIALPIT CURRAGLAS WF TPS FILE 1 JAN 29 2025.GPJ ID GINT.AGS 4.0.4.GDT 7/7/25

PROJECT: Curraglas Wind Farm
LOCATION: County Cork
CLIENT: MKO/FT
ENGINEER: FTCO

TRIALPIT: TP-T03
Sheet 1 of 1
Rig: CASE CX 130 OD
Rev:

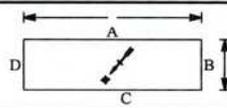
Co-ordinates:
 E 509,004.1 N 562,006.1

Ground level: 270.44m O.D.

DATE: 28.1.25

GROUNDWATER
Water strikes: 1st: 1.50m
 2nd:
 3rd:
Rose to after: 20min 1.45m

PIT DIRECTION: 230°
PIT DIMENSION: 4.00m * 1.10
LOGGED BY: PC



Shoring/Support: N/A
Stability: Pit stable.

| Depth (m) | Date | Water | Samples | Depth (m) | SPT (N) In Situ Vane Tests | LEGEND | Elevation m O.D. | Depth (m) | DESCRIPTION | Instrument/ Backfill |
|-----------|------|-------|---------|-----------|-------------------------------------|--------|---------------------|-----------|--|-------------------------|
| 0 | | | | | | | | | Gorse and heather over brownish grey slightly sandy silty angular to subrounded fine to coarse siltstone and shale GRAVEL with rare cobbles and rare boulders. Sand is fine to coarse. Cobbles are angular to subangular of siltstone and shale. Boulders are subangular of siltstone and shale. Boulders are up to 450mm in length. 0.00-0.30: with some roots. | |
| | | | B 1 | 0.50-0.60 | | | | | | |
| | | | B 2 | 1.40-1.50 | | | 268.94 | 1.50 | | |
| | | | | | | END | | | | |

REG. No. _____
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, Co. CORK

Remarks: Ingress of water at 1.50m bgl. TP terminated at 1.50m bgl. Obstruction as probable rock. TP backfilled with arisings.

Scale: 1:25

TRIALPIT_CURRAGLAS_WF_TPS_FILE_1_JAN_29_2025.GPJ_ID_GINT_AGS_4_0_4.GDT_7/7/25



Appendix 3

Laboratory Test Results

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Project ID **2024C111**
 Project Name **Curraglas Wind Farm**
 Schedule ID **2024C111_1**

Client **MKO/FT**
 Due Date **30/01/2025 11:47**
 Scheduled Date **30/01/2025 11:47**

| Sample Details | | | | | | Classification | | | | | Chemical / Concrete | | | | | | | | | | |
|----------------|-----------|------------|-------------|------------|--------------|----------------|------------------|-------------------|-----------------------------|--------------------------------------|----------------------------|------------|-----------------|------------------|----------------|----------------------------|---------------------|----|------------------|-----------------------|--|
| Location | Depth (m) | Base Depth | Sample Type | Sample Ref | Date Sampled | Storage | Moisture Content | Atterberg 4 Point | Particle Density by Gas Jar | Particle Density by Small Pyknometer | Particle Size Distribution | Hydrometer | Organic Content | Loss On Ignition | Sulphate Total | Sulphate Water Gravimetric | Carbonate Titration | ph | Chloride Content | Chloride Content Acid | |
| TP-01 | 0.00 | 0.10 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-02 | 0.50 | 0.60 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-02 | 0.50 | 0.60 | D | 2 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-02 | 1.50 | 1.60 | B | 3 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-02 | 2.50 | 2.60 | B | 4 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-03 | 0.30 | 0.40 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-03 | 0.30 | 0.40 | D | 2 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-03 | 1.10 | 1.20 | B | 3 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-03 | 2.50 | 2.60 | B | 4 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-101 | 0.50 | 0.60 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-101 | 1.50 | 1.60 | B | 2 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-101 | 2.50 | 2.60 | B | 3 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-102 | 0.50 | 0.60 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-102 | 1.50 | 1.60 | B | 2 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-102 | 2.50 | 2.60 | B | 3 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-103 | 0.50 | 0.60 | B | 1 | 28/01/25 | | | | | | | | | | | | | | | | |
| TP-103 | 1.40 | 1.50 | B | 2 | 28/01/25 | | | | | | | | | | | | | | | | |

Total Reported: April 7th 2025

5

5

24C111.CurraglasWF.Sch01(rec 04.02.25),
 1/1, 07/04/2025

REG. No.
 PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREN, Co. CORK

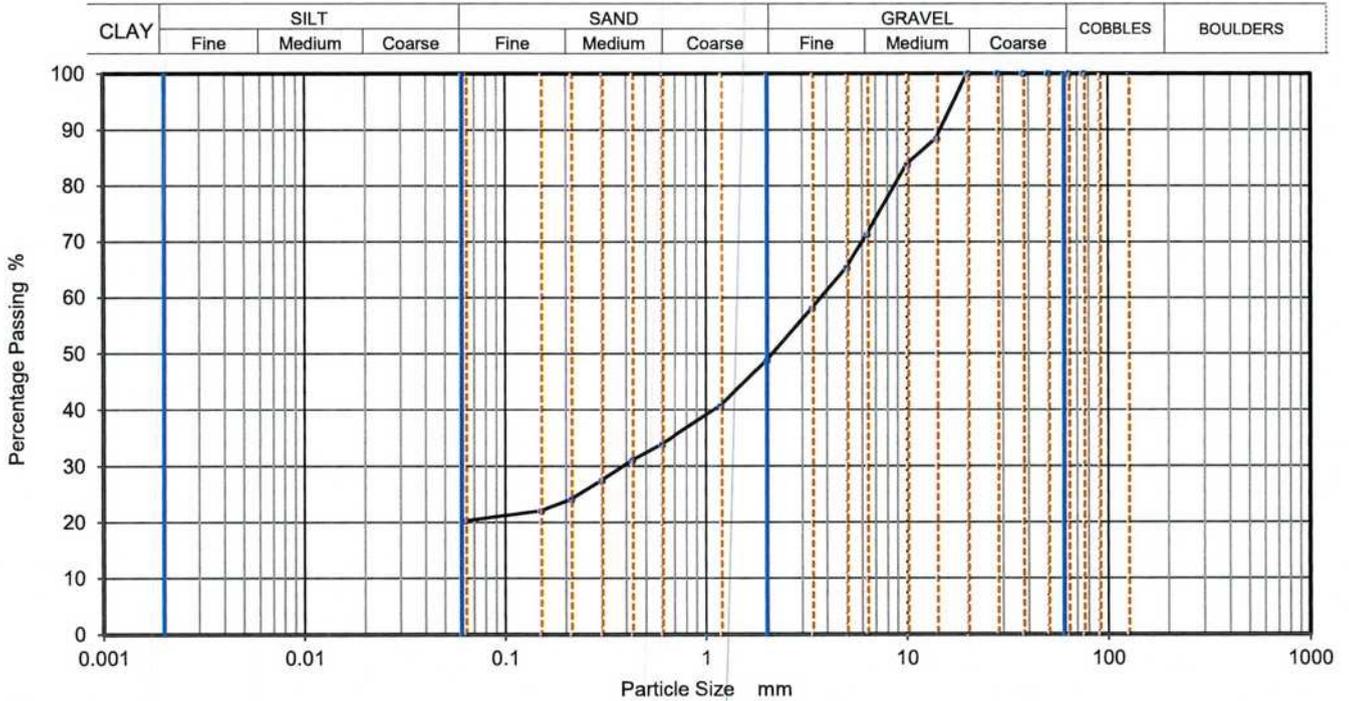
0 = test scheduled,
 1 = test completed as scheduled,
 0* = sample not suitable for scheduled test



PARTICLE SIZE DISTRIBUTION

| | |
|------------------|-----------------|
| Job Ref | 2024C111 |
| Borehole/Pit No. | TP-02 |
| Sample No. | 3 |
| Depth, m | 1.50 |
| Sample Type | B |
| KeyLAB ID | IDL1202501309 |

| | | |
|--------------------|---|---|
| Site Name | Curraglas Wind Farm | |
| Soil Description | Brown very silty very sandy fine and medium GRAVEL. | |
| Specimen Reference | Specimen Depth | m |
| Test Method | BS1377:Part 2:1990, clause 9.2 | |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 100 | | |
| 14 | 89 | | |
| 10 | 84 | | |
| 6.3 | 71 | | |
| 5 | 65 | | |
| 3.35 | 58 | | |
| 2 | 49 | | |
| 1.18 | 41 | | |
| 0.6 | 34 | | |
| 0.425 | 31 | | |
| 0.3 | 28 | | |
| 0.212 | 24 | | |
| 0.15 | 22 | | |
| 0.063 | 20 | | |

Dry Mass of sample, g 666

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0 |
| Gravel | 51 |
| Sand | 29 |
| Fines <0.063mm | 20 |

| Grading Analysis | |
|------------------------|-------|
| D100 | mm |
| D60 | 3.72 |
| D30 | 0.385 |
| D10 | mm |
| Uniformity Coefficient | |
| Curvature Coefficient | |

Remarks: Preparation and testing in accordance with BS1377 unless noted below

REG. No. PLANNING (WEST) DEPT

06 NOV 2025

DUNYMOY COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. DORK

| | | |
|----------|---------|--------------------|
| Operator | Checked | Approved |
| | | Dympna Darcy B.Sc. |

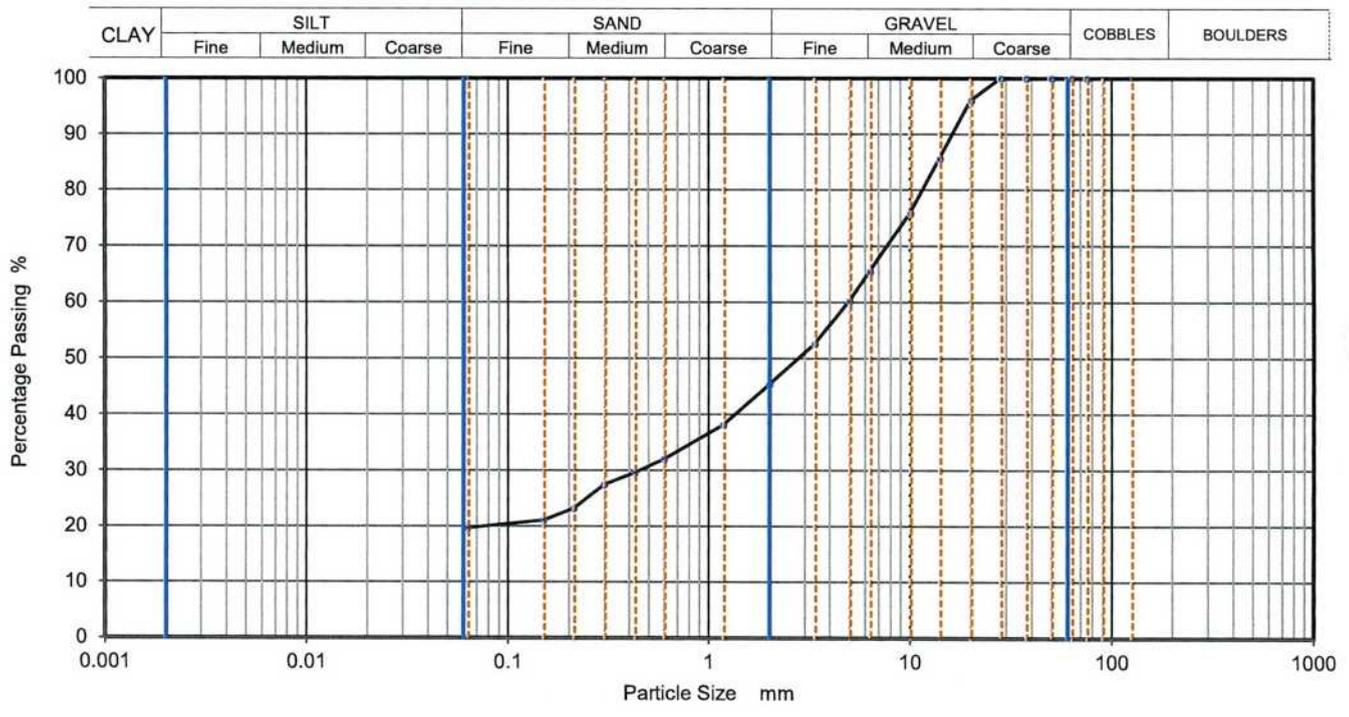
Sheet printed 07/04/2025 17:23 1

QC From No:R2



PARTICLE SIZE DISTRIBUTION

| | | | | | |
|--------------------|---|------------------|-----------------|----------------|---|
| | | Job Ref | 2024C111 | | |
| | | Borehole/Pit No. | TP-02 | | |
| Site Name | Curraglas Wind Farm | | Sample No. | 4 | |
| Soil Description | Brown very silty very sandy fine and medium GRAVEL. | | Depth, m | 2.50 | |
| Specimen Reference | | Specimen Depth | m | Sample Type | B |
| Test Method | BS1377:Part 2:1990, clause 9.2 | | KeyLAB ID | IDL12025013010 | |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 96 | | |
| 14 | 86 | | |
| 10 | 76 | | |
| 6.3 | 66 | | |
| 5 | 60 | | |
| 3.35 | 53 | | |
| 2 | 45 | | |
| 1.18 | 38 | | |
| 0.6 | 32 | | |
| 0.425 | 30 | | |
| 0.3 | 28 | | |
| 0.212 | 23 | | |
| 0.15 | 21 | | |
| 0.063 | 20 | | |

Dry Mass of sample, g 776

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0 |
| Gravel | 55 |
| Sand | 26 |
| Fines <0.063mm | 20 |

| Grading Analysis | |
|------------------------|----------|
| D100 | mm |
| D60 | mm 4.94 |
| D30 | mm 0.449 |
| D10 | mm |
| Uniformity Coefficient | |
| Curvature Coefficient | |

Remarks: Preparation and testing in accordance with BS1377 unless noted below

REG. NO. PLANNING (W&E) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORMAN HOUSE, SKIBBEREEN, CO. CORK

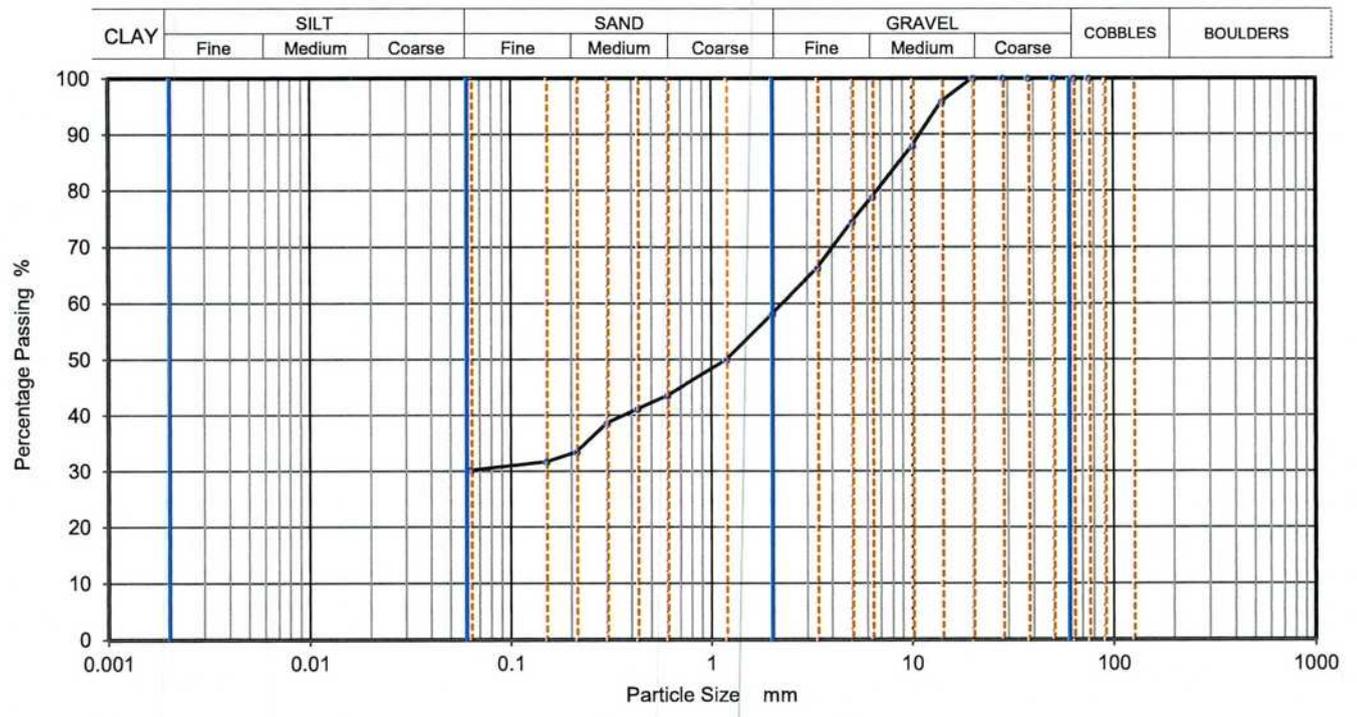
| | | | |
|----------|---------|--------------------|------------------|
| Operator | Checked | Approved | Sheet printed |
| | | Dympna Darcy B.Sc. | 07/04/2025 17:23 |

QC From No:R2



PARTICLE SIZE DISTRIBUTION

| | | | | |
|--------------------|---|------------------|-----------------|----------------|
| | | Job Ref | 2024C111 | |
| | | Borehole/Pit No. | TP-03 | |
| Site Name | Curraglas Wind Farm | | Sample No. | 3 |
| Soil Description | Brown very sandy very silty fine and medium GRAVEL. | | Depth, m | 1.10 |
| Specimen Reference | Specimen Depth | m | Sample Type | B |
| Test Method | BS1377:Part 2:1990, clause 9.2 | | KeyLAB ID | IDL12025013013 |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 100 | | |
| 14 | 96 | | |
| 10 | 88 | | |
| 6.3 | 79 | | |
| 5 | 74 | | |
| 3.35 | 66 | | |
| 2 | 58 | | |
| 1.18 | 50 | | |
| 0.6 | 44 | | |
| 0.425 | 41 | | |
| 0.3 | 39 | | |
| 0.212 | 33 | | |
| 0.15 | 32 | | |
| 0.063 | 30 | | |

Dry Mass of sample, g 809

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0 |
| Gravel | 42 |
| Sand | 28 |
| Fines <0.063mm | 30 |

| Grading Analysis | |
|------------------------|----|
| D100 | mm |
| D60 | mm |
| D30 | mm |
| D10 | mm |
| Uniformity Coefficient | |
| Curvature Coefficient | |

Remarks
Preparation and testing in accordance with BS1377 unless noted below

REC NO
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
CANTON HOUSE, SKIBBEREEN, Co. CORK

| | | | |
|----------|---------|--------------------|--|
| Operator | Checked | Approved | |
| | | Dympna Darcy B.Sc. | |

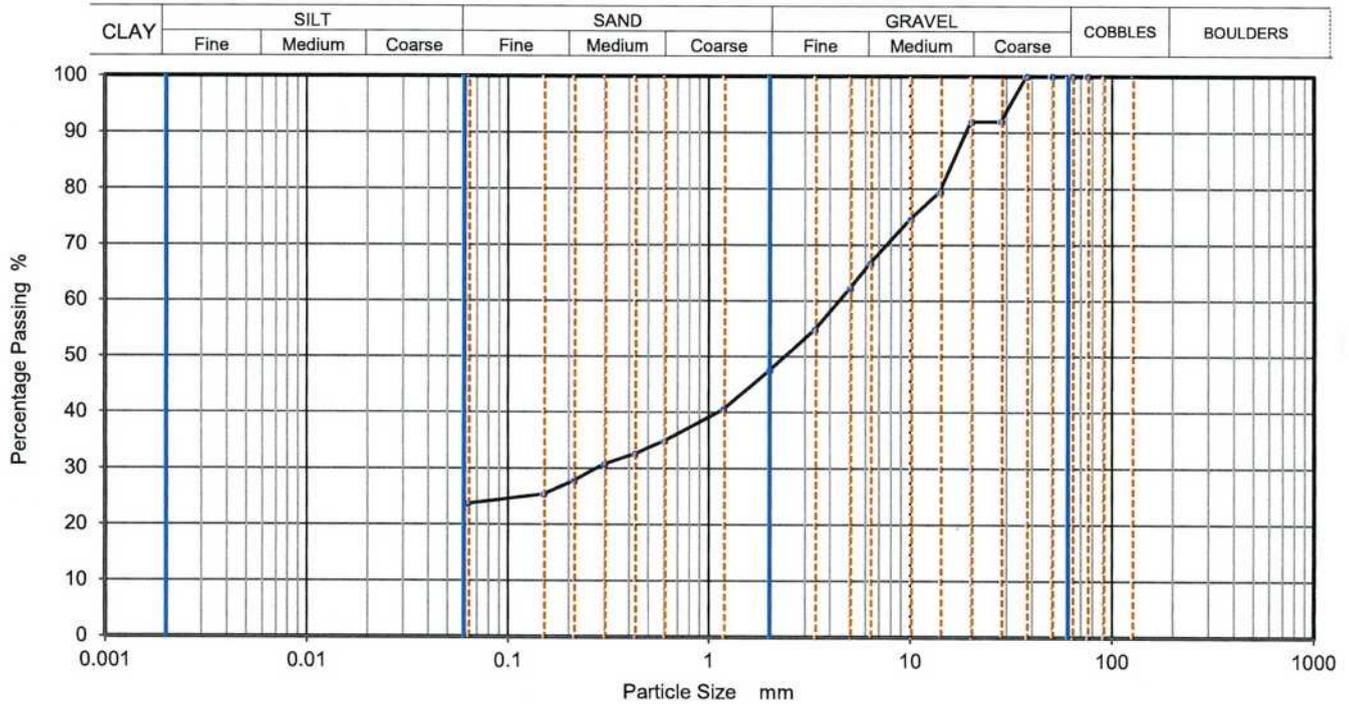
Sheet printed
07/04/2025 17:23



PARTICLE SIZE DISTRIBUTION

| | |
|------------------|-----------------|
| Job Ref | 2024C111 |
| Borehole/Pit No. | TP-T01 |
| Sample No. | 2 |
| Depth, m | 1.50 |
| Sample Type | B |
| KeyLAB ID | IDL12025013016 |

| | | |
|--------------------|--|---|
| Site Name | Curraglas Wind Farm | |
| Soil Description | Grey very sandy very silty fine and medium GRAVEL. | |
| Specimen Reference | Specimen Depth | m |
| Test Method | BS1377:Part 2:1990, clause 9.2 | |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 92 | | |
| 20 | 92 | | |
| 14 | 80 | | |
| 10 | 75 | | |
| 6.3 | 67 | | |
| 5 | 62 | | |
| 3.35 | 55 | | |
| 2 | 48 | | |
| 1.18 | 41 | | |
| 0.6 | 35 | | |
| 0.425 | 33 | | |
| 0.3 | 31 | | |
| 0.212 | 28 | | |
| 0.15 | 25 | | |
| 0.063 | 24 | | |

Dry Mass of sample, g 749

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0 |
| Gravel | 53 |
| Sand | 24 |
| Fines <0.063mm | 24 |

| Grading Analysis | |
|------------------------|----------|
| D100 | mm |
| D60 | 4.44 mm |
| D30 | 0.274 mm |
| D10 | mm |
| Uniformity Coefficient | |
| Curvature Coefficient | |

Remarks
Preparation and testing in accordance with BS1377 unless noted below

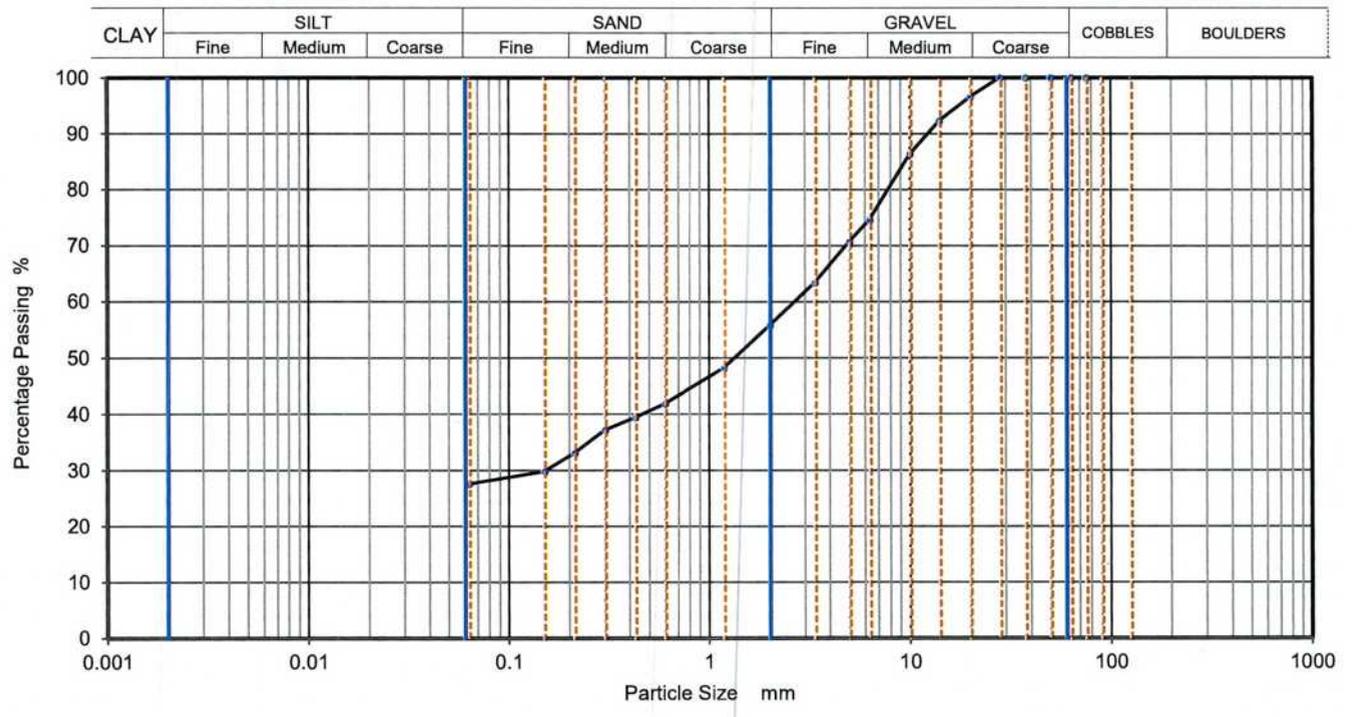
RECEIVED PLANNING (WEST) DEPT
 06 NOV 2025
 CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, CO. CORK

| | | | |
|----------|---------|--------------------|------------------|
| Operator | Checked | Approved | Sheet printed |
| | | Dympna Darcy B.Sc. | 07/04/2025 17:23 |
| | | | QC From No:R2 |



PARTICLE SIZE DISTRIBUTION

| | | | | | |
|--|---|---|--|---|---|
| JOB REF 2024C111 | | Borehole/Pit No. TP-T02 | | | |
| | | | | Site Name Curraglas Wind Farm | |
| Soil Description Light greyish-brown very silty very sandy fine and medium GRAVEL. | | Sample No. 3 | | | |
| Depth, m 2.50 | | Specimen Reference <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Specimen Depth</td> <td style="width: 50%; text-align: center;">m</td> </tr> </table> | | Specimen Depth | m |
| Specimen Depth | m | | | | |
| Sample Type B | | Test Method BS1377:Part 2:1990, clause 9.2 | | | |
| KeyLAB ID IDL12025013020 | | | | | |



| Sieving | | Sedimentation | |
|------------------|-----------|------------------|-----------|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 97 | | |
| 14 | 92 | | |
| 10 | 86 | | |
| 6.3 | 75 | | |
| 5 | 71 | | |
| 3.35 | 63 | | |
| 2 | 56 | | |
| 1.18 | 48 | | |
| 0.6 | 42 | | |
| 0.425 | 39 | | |
| 0.3 | 37 | | |
| 0.212 | 33 | | |
| 0.15 | 30 | | |
| 0.063 | 28 | | |

Dry Mass of sample, g 921

| Sample Proportions | % dry mass |
|--------------------|------------|
| Very coarse | 0 |
| Gravel | 44 |
| Sand | 28 |
| Fines <0.063mm | 28 |

| Grading Analysis | |
|------------------------|----------|
| D100 | mm |
| D60 | mm 2.65 |
| D30 | mm 0.154 |
| D10 | mm |
| Uniformity Coefficient | |
| Curvature Coefficient | |

Remarks: Preparation and testing in accordance with BS1377 unless noted below

REG. No.
 PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

| | | |
|-----------------|----------------|--------------------|
| Operator | Checked | Approved |
| | | Dympna Darcy B.Sc. |

Sheet printed
07/04/2025 17:23

1
QC From No:R2



Appendix 4 Trial Pit Photographs

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Irish Drilling Ltd: Trial Pit Photos:



Figure 5 H:\2024\24C111_CurraglassWF\TP02 (1).jpg



Figure 7 H:\2024\24C111_CurraglassWF\TP02 (3).jpg



Figure 6 H:\2024\24C111_CurraglassWF\TP02 (2).jpg



Figure 8 H:\2024\24C111_CurraglassWF\TP02 (4).jpg

RES. PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Irish Drilling Ltd: Trial Pit Photos:

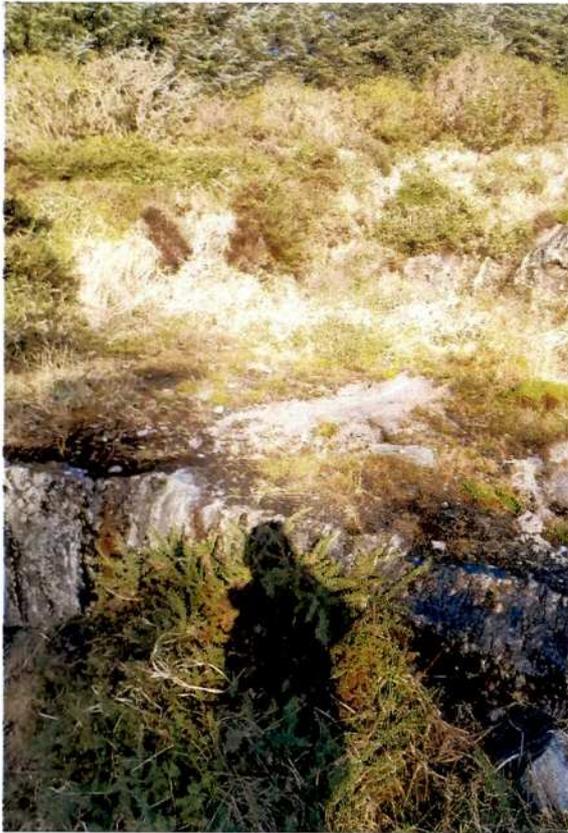


Figure 13 H:\2024\24C111_CurraglassWF\TP04 (1).jpg

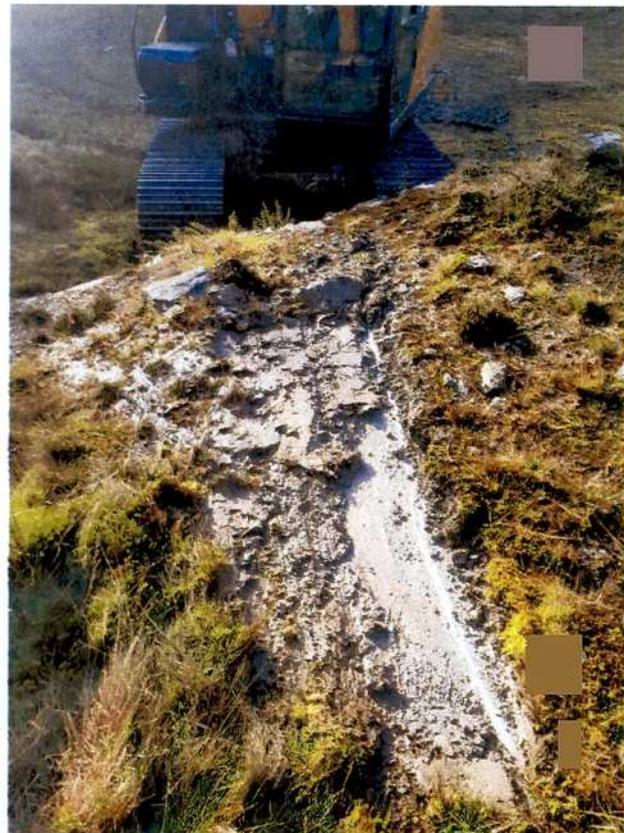


Figure 15 H:\2024\24C111_CurraglassWF\TP04 (3).jpg



Figure 14 H:\2024\24C111_CurraglassWF\TP04 (2).jpg

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Irish Drilling Ltd: Trial Pit Photos:



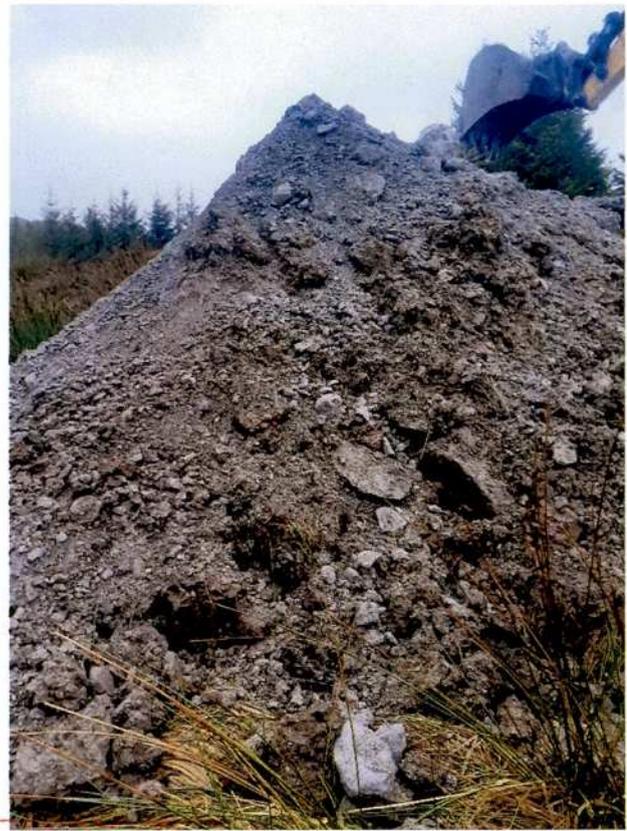
Figure 16 H:\2024\24C111_CurraglassWF\TPT01 (1).jpg



Figure 18 H:\2024\24C111_CurraglassWF\TPT01 (3).jpg



Figure 17 H:\2024\24C111_CurraglassWF\TPT01 (2).jpg



REG. No. _____
PLANNING (WEST) DEPT
Figure 19 H:\2024\24C111_CurraglassWF\TPT01 (5).jpg

06 NOV 2025

NC

Y COUNCIL
RIBBEREEN, Co. CORK

Irish Drilling Ltd: Trial Pit Photos:

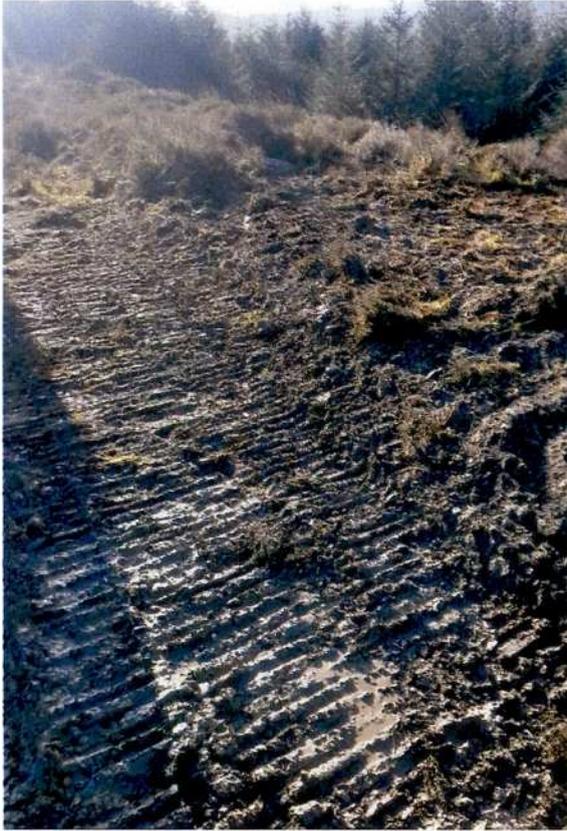


Figure 20 H:\2024\24C111_CurrageglassWF\TPT02 (1).jpg

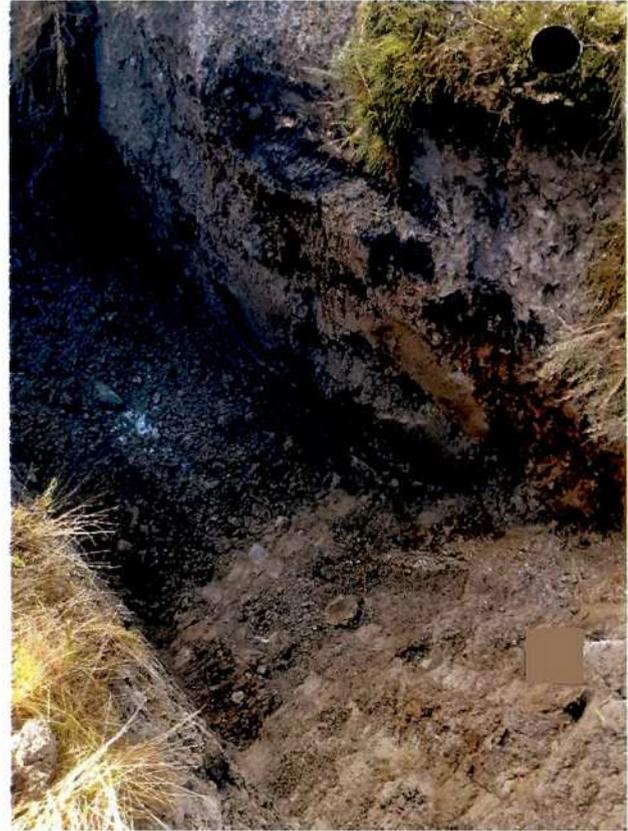


Figure 22 H:\2024\24C111_CurrageglassWF\TPT02 (3).jpg

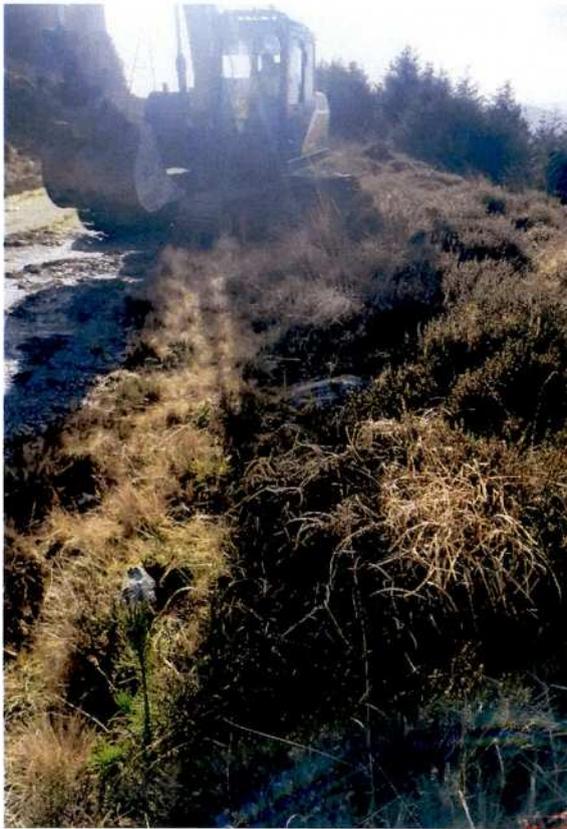


Figure 21 H:\2024\24C111_CurrageglassWF\TPT02 (2).jpg



Figure 23 H:\2024\24C111_CurrageglassWF\TPT02 (4).jpg

Res. No. _____
PLANNING (W)
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Irish Drilling Ltd: Trial Pit Photos:



Figure 24 H:\2024\24C111_CurraglassWF\TPT03 (1).jpg



Figure 26 H:\2024\24C111_CurraglassWF\TPT03 (4).jpg



Figure 25 H:\2024\24C111_CurraglassWF\TPT03 (2).jpg



RECEIVED
PLANNING (WEST) DEPT
Figure 27 H:\2024\24C111_CurraglassWF\TPT03 (5).jpg

06 NOV 2025

CORK COUNTY COUNCIL
GORTON HOUSE, SKIBBEREEN, Co. CORK



Appendix 5

Rotary Core Photographs

REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK

Irish Drilling Ltd: Core Photos:



REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

_____ COUNTY COUNCIL
TOWN HOUSE, SKIBBEREEN, Co. CORK

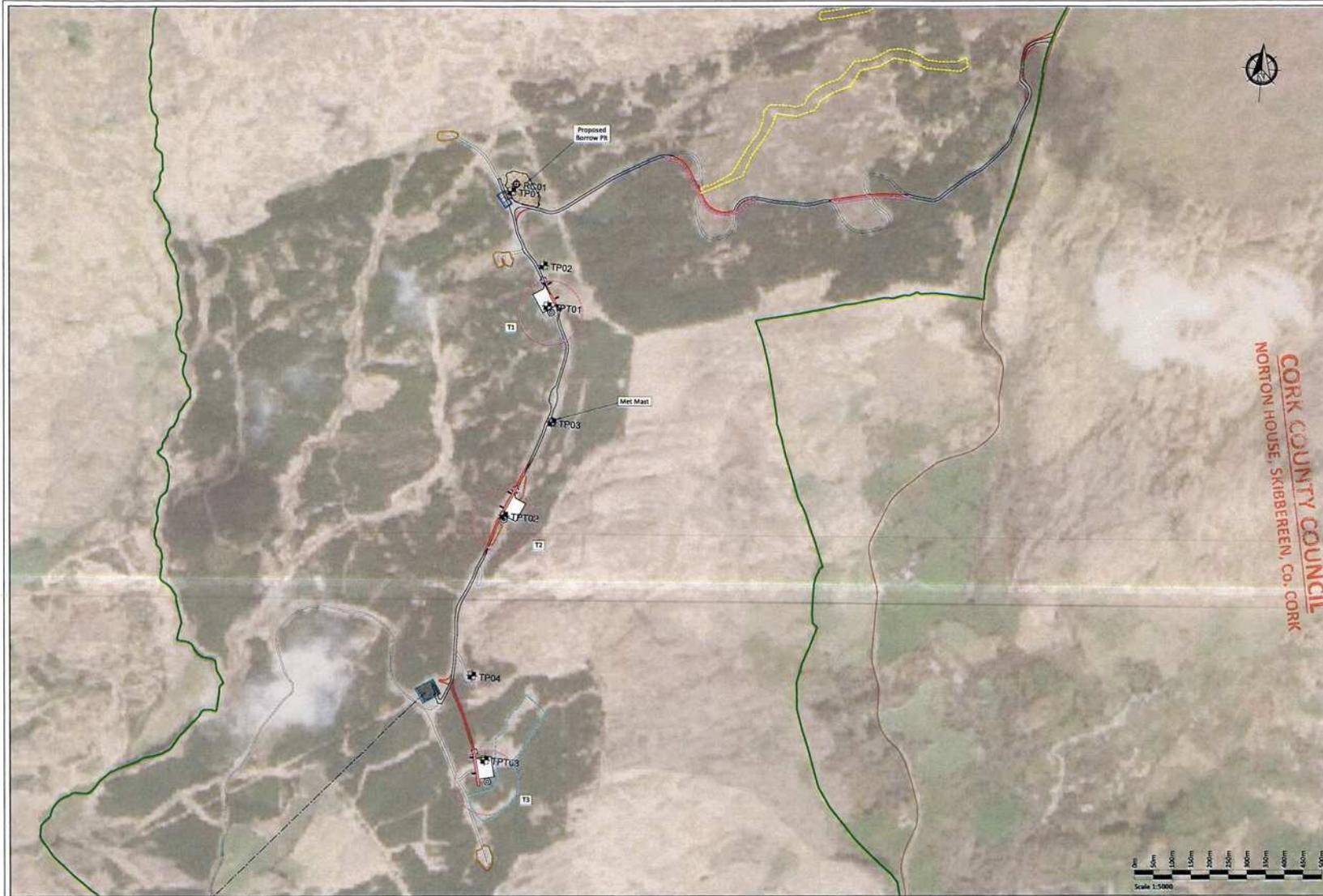


Appendix 6 Site Plans

REG. No. _____
PLANNING (WEST) DEPT

06 NOV 2025

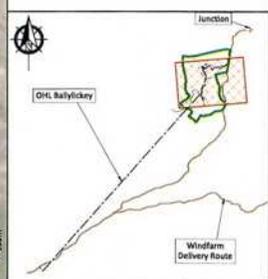
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK



- Legend:**
- EIAR Study Boundary
 - Proposed Turbine & Handstanding
 - Proposed Access Road
 - Existing Access Road to Upgrade
 - Proposed Temporary Construction Compound
 - Existing Substation
 - Proposed Peat / Spoil Deposition Area
 - Proposed Borrow Pit
 - Trial Pit Location
 - Trial Pit to be Installed
 - Riparian Planting
 - Kerry Slug Enhancement Area
 - Peatland Enhancement

CORK COUNTY COUNCIL
 NORTON HOUSE, SKIBBEREEN, CO. CORK

REG. NO. _____
 PLANNING (WEST) DEPT
 06 NOV 2025



PLAN
Scale 1:5000

KEYPLAN
Scale 1:120000

If Applicable: Talta Éireann Licence No. CYAL50368274 © Ordnance Survey Ireland and Government of Ireland



No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

| Rev. | Description | App By | Date |
|------|-----------------|--------|----------|
| P01 | FOR INFORMATION | BDH | 01.05.25 |
| P02 | FOR INFORMATION | BDH | 02.07.25 |
| | | | |
| | | | |
| | | | |

| | | | |
|---|--|------------|-------------------|
| PROJECT | | CLIENT | |
| CURRAGLASS RENEWABLE ENERGY DEVELOPMENT | | MKO | |
| SHEET | | Date | Project number |
| GROUND INVESTIGATION LOCATON PLAN | | 02.07.25 | P24-263 |
| | | Scale (A1) | |
| | | 1:5000 | |
| | | Drawn by | Drawing Number |
| | | POB | P24-263-0600-0003 |
| | | Checked by | Rev |
| | | IH | P02 |

02/07/25



**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING**

www.fehilytimoney.ie

**REG. No. _____
PLANNING (WEST) DEPT
06 NOV 2025
CORK COUNTY COUNCIL
NORTON HOUSE, SKIBBEREEN, Co. CORK**

CORK OFFICE
Core House
Pouladuff Road,
Cork, T12 D773,
Ireland
+353 21 496 4133

Dublin Office
J5 Plaza,
North Park Business Park,
North Road, Dublin 11, D11 PXT0,
Ireland
+353 1 658 3500

Carlow Office
Unit 6
Bagenalstown Industrial Park,
Bagenalstown, Co. Carlow,
R21 XW81, Ireland
+353 59 972 3800

