APPENDIX 4-2

PEAT & SPOIL MANAGEMENT PLAN

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

PEAT AND SPOIL MANAGEMENT PLAN

SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

Prepared for: **MKO Ltd**

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Abstract: Fehily Timoney and Company (FT) were engaged by MKO Ltd. to compile a Peat and Spoil Management Plan (PSMP) for the proposed Slieveacurry Renewable Energy Development. The purpose of this report is to provide a Peat and Spoil Management Plan for the construction phase of the Proposed Project. The report describes how peat and spoil which will be excavated from infrastructure locations such as turbine bases and roads and will be handled and placed/reinstated onsite. The report also provides construction details for the types of roads which will be put in place at the site and proposed peat and spoil placement/reinstatement areas which will be developed at the site.

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1. INTRODUCTION

1.1 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. We 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.

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

1.2 Project Description

Fehily Timoney and Company (FT) was engaged in October 2024 by MKO Ltd. to compile a Peat and Spoil Management Plan for the proposed Slieveacurry Renewable Energy Development site (the 'Proposed Project').

The Site is located approx. 7km south of Ennistimon, Co. Clare and 8km west of Inagh, Co. Clare. The town of Miltown Malbay is located approx. 5.8km east of the nearest proposed turbine (T07).

The Site is typically covered in a thin layer of peat and has undulating terrain. Peat depths vary across the Site depending mainly on topography. Generally, deeper peat was encountered in the flatter areas of the Site with thinner peat on the surrounding slopes. Mature forestry and open peatland are present across the Site.

1.3 Purpose

The purpose of this report is to provide a peat and spoil management plan with particular reference to peat stability for the construction phase of the project. The report describes how peat and spoil which will be excavated from permanent built infrastructure locations such as turbine bases and roads will be handled and placed/reinstated onsite. The report also provides construction details for the types of roads which will be constructed for the Proposed Project and proposed peat and spoil placement/reinstatement areas which will be developed at the Proposed Project .

This peat and spoil management plan also includes a monitoring programme which will be implemented during the construction phase of the Proposed Project and a contingency plan should peat instability/failure occur at the Site.

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 detailed 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 and a peat and spoil management plan to allow for the most appropriate geotechnical and environmental led solutions to be developed for the management of peat and spoil.

As work is carried out on site the contents of the peat and spoil management plan and peat stability monitoring programme will be implemented in full and updated (if required) in the Construction & Environmental Management Plan (CEMP) for the construction phase.

This peat and spoil management plan contains some drainage guidelines for construction works and for management of peat on site. It should be noted that the control of water quality and drainage measures for site is outlined in detail in Chapter 4 Description of the Proposed Project, Chapter 9 Hydrology and Hydrogeology and Appendix 4-7 Surface Water Management Plan of the Environmental Impact Assessment Report (EIAR).

1.4 Peat Instability Definition

Peat instability in this report is defined as a mass movement of a body of peat that would have a significant adverse impact on the surrounding environment. Peat instability excludes localised movement of peat that would occur below a floating access road, creep movement or localised erosion type events.

Adherence to the peat and spoil management plan should reasonably minimise the potential for all such peat movements. However, it is noted that due to the soft ground nature of the peat terrain it is not possible to completely avoid such localised peat movement as described above.

1.5 Ground Conditions

Ground conditions across the Site are described in the Geotechnical & Peat Stability Assessment Report (FT, 2026).

Ground investigations were carried out at the Proposed Wind Farm Site by FT in June 2021, with a geophysical investigation undertaken during February 2025 by Minerex. A copy of the trial pits logs and the geophysical survey from Minerex is included in Appendix E and F of the Geotechnical & Peat Stability Assessment Report (FT, 2026).

Ground investigations in the form of trial pits were carried out on the following dates:

- 17th June 2021 (7 no. trial pits)

The trial pits were carried out at turbine locations and at the borrow pit to provide details of ground and groundwater conditions below the surface peat layer, to confirm the suitability of the overburden as a bearing stratum for the access roads and hardstands, and to confirm the suitability of the rock within the borrow pits for reuse in the construction of the Proposed Project.

The trial pits recorded that peat is underlain by a mixture of slightly gravelly Silt and sandy Gravel, with bedrock recorded at the base of the majority of the trial pits. Bedrock is described as a strong grey muddy Sadnstone, fresh to slightly weathered.

The geophysical survey at the borrow pit recorded bedrock (weak sandstone) at 0.5-1.0m bgl, altering to a strong Siltstone at 1.0-3.0m bgl. At turbines T04, T07 and T08 intact bedrock is indicated at 1.0-3.0m bgl. At T09 a layer of stiff overburden/weathered bedrock is present to a depth of 4.5-6.0m bgl, with intact bedrock below this. No areas of deep soft soil or evidence of faulting in the bedrock was recorded at the locations surveyed.

1.6 Relevant Guidance

The relevant guidance used and referred to throughout this report includes;

- Geological Survey of Ireland (DCEE)/National Parks and Wildlife (DHLGH), 2024. Assessment of main contributing factors leading to three major peatland failures in Leitrim, Kerry and Donegal.
- Good Practice during Windfarm Construction (NatureScot, 2024);
- Guidance on Developments on Peatland: Site Surveys (Scottish Government, Scottish Natural Heritage and SEPA, 2017;
- Munro, R, 2004. Dealing with bearing capacity problems on low volume roads constructed on peat. Roadex II Northern Periphery;
- Scottish Natural Heritage/Forestry Commission Scotland, 2010. Floating Roads on Peat;
- Scottish Natural Heritage, 2015. Constructed Tracks in the Scottish Uplands. Scottish Natural Heritage.

2. CONSTRUCTION ACTIVITIES COVERED BY PEAT AND SPOIL MANAGEMENT PLAN

2.1 Construction Activities

For the construction phase of the Proposed Project the activities that will generate peat and spoil are as follows:

(1) Upgrade of existing access roads (as excavate and replace roads)
(2) Construction of new excavated roads through peat
(3) Excavation and placement of arisings
(4) Excavations in peat and overburden for borrow pits
(5) Excavations in peat for turbine bases, hardstands and other infrastructure foundations
(6) Excavations for underground cables

Peat and spoil management of the above construction activities are covered individually in this report.

2.2 Road Construction Types

To provide access within the Proposed Wind Farm Site and to connect the Proposed Turbines and associated infrastructure existing roads will need to be upgraded and new access roads will need to be constructed. The road construction preliminary design has taken into account the following key factors:

(1) Buildability considerations
(2) Maximising use of existing infrastructure
(3) Minimising excavation arisings
(4) Peat stability
(5) Serviceability requirements for construction and wind turbine delivery and maintenance vehicles
(6) Requirement to minimise disruption to peat hydrology

Whilst the above key factors are used to determine the road design the actual construction technique employed for a particular length of road will be determined by the prevailing ground conditions encountered along that length of road.

The general road construction techniques to be considered are given in Table 2-1.

This report describes the most suitable type of road construction for each section of access road based on the ground/site conditions recorded during the site walkovers. It should be noted that this report does not include a detailed design for the access roads for the Proposed Project. This report includes the most suitable type of road construction envisaged for each section of access road based on the ground/site conditions recorded during the site walkovers and intrusive site investigation works. Where floating roads are proposed in this report, a proposed methodology is presented, however a detailed design will be carried out prior to construction commencing on the Site. These measures are based on available guidance, including 'Constructed Tracks in the Scottish Uplands (Scottish Natural Heritage, 2nd Edition ,2015), Floating Roads on Peat (Scottish

Natural Heritage/Forestry Commission Scotland, 2010) and 'Dealing with Bearing Capacity Problems on Low Volume Roads Constructed on Peat (ROADEX II, 2004).

Table 2.1: General Road Construction Techniques

Construction Method	Typical Site Conditions			Comment
	Construction Type	Typical Peat Depth (m)	Typical Slope Inclination (degs)	
Upgrade of existing founded access roads/Proposed public road to be upgraded	Type A/A1	<1.0m	Varies	Upgrade existing excavated access roads to the required width and finished with a layer of selected granular fill – Drawing P24-264-0600-0007.
Upgrade of existing floated access road	Type B	Typically less than 2.0m, locally up to 3.5m	Varies	Upgrade existing floated access roads to the required width and finished with a layer of selected granular fill – Drawing P24-264-0600-0008.
Construction of new excavated roads through peat	Type C/E	Typically less than 1.0m	Varies	New access road construction technique envisaged for various locations on site – Drawing P24-264-0600-0009.
Construction of new floating roads over peat	Type D	>1.0m	<5	New access road construction technique envisaged for a single location on site – Drawing P24-264-0600-0010.

Further details on access road construction types A to E are given in Sections 3 and 4 of this report.

3. UPGRADE OF EXISTING ACCESS ROADS – TYPE A/A1 AND B

Up to 2.5km of existing access roads requiring upgrade are present across the Proposed Wind Farm Site and have been in operation for a significant number of years. The existing access roads appear to have been constructed using a founded construction technique, with the exception of one area of floated construction (400m in length) on the main entrance road. Upgrade works will involve the widening of the existing access roads, as well as the widening of a section of the public road at the site entrance (Type A1). The proposed locations for upgrade of the existing access roads on site are shown in Drawing P24-264-0600-0006 and details are shown in Drawing P24-264-0600-0007 and 0008.

3.1 Upgrading Existing Access Roads Construction Methodology

This methodology includes procedures that will be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are discussed separately in Chapter 4 and 9 of the EIAR. The methodology below also applies to the section of public road to be upgraded close to the site entrance.

(1) Access road construction will be to the line and level requirements as per design/planning conditions.

(2) For upgrading of all existing founded access roads (Type A/A1 – Drawing P24-264-0600-0007) the following will apply:

  (a) Excavation of the access road will take place to a competent stratum beneath the peat, removing all peat and soft clay and backfilled with suitable granular fill.

  (b) Benching of the excavation will be required between the existing section of access road and the widened section of access road where the depth of excavation exceeds 500mm.

  (c) For a founded access road, the surface of the existing access road will be overlaid with an average of 500mm of selected granular fill.

  (d) Access roads will be finished with a layer of capping across the full width of the road.

  (e) A layer of geogrid/geotextile may be required at the surface of the existing access road where the existing roads shows signs of rutting, etc.

  (f) For excavations in peat, side slopes will be not greater than 1 (v): 3 (h). This slope inclination will be reviewed during construction, as appropriate. Where areas of weaker peat are encountered then slacker slopes will be required to ensure stability.

(3) For upgrading of existing access roads constructed using a floated construction technique (Type B – Drawing P24-264-0600-0008) the following will apply:

  (a) Prior to commencing floating road construction movement monitoring posts will be installed in areas where the peat depth is greater than 2m and will be placed at 10m intervals along these sections.

  (b) Construction of upgraded floating road will be in accordance with appropriate design from the designer.

  (c) The surface of the existing access road will be graded/tidied up prior to the placement any geogrid/geotextile, where necessary (to prevent damaging the geogrid/geotextile).

  (d) Where granular fill has been used in the existing access road make-up, a layer of geogrid will be placed on top of the existing access road.

(e) The basal geogrid on the widened section will be overlaid with an average of 1000mm of selected granular fill.

(f) Additional geogrid and granular fill may be required in certain sections of the works, such as where excessive rutting is noted in the existing road (to be confirmed by the designer).

(g) Stone delivered to the floating road construction will be end-tipped onto the constructed floating road. Direct tipping of stone onto the peat will not be carried out.

(h) To avoid excessive impact loading on the peat due to concentrated end-tipping all stone delivered to the floating road will be tipped over at least a 10m length of constructed floating road.

(i) Following the detailed design of the floated access roads it may be deemed necessary to include pressure berms either side of the access road in some of the deeper peat areas. The inclusion of a 5m wide pressure berm (1.0m in height) either side of the access road will reduce the likelihood of potential bearing failures beneath the access road.

(j) Following end-tipping suitable machinery will be employed to spread and place the tipped stone over the base geogrid along the line of the road.

(4) At transitions between upgraded floating and existing/upgraded excavated roads a length of about 10m shall have all peat excavated and replaced with suitable fill, with the geogrid extended into this fill. The surface of this fill shall be graded to accommodate wind turbine construction and delivery traffic.

(5) The finished road width will have a running width of 5m, with wider sections of up to 8m on bends and corners.

(6) On side long sloping ground any road widening works required will be done on the upslope side of the existing access road.

(7) A final surface layer shall be placed over the existing access road, as per design requirements, to provide a road profile and graded to accommodate wind turbine construction and delivery traffic.

(8) The construction of access roads in areas of deep peat (greater than 2m) will be inspected on a routine basis (by the Site Manager/Ecological Clerk of Works/Project Geotechnical Engineer) during the works, particularly before/following trafficking by heavy vehicular loads.

4. CONSTRUCTION OF NEW EXCAVATED ROADS THROUGH PEAT – TYPE C/E

The excavation of peat and spoil and founding of access roads on competent stratum (below the peat) for new access roads will be carried out at various locations across the Proposed Wind Farm Site. This technique also applies to the proposed grid connection road. The proposed locations for new excavated access roads on site are shown in Drawing P24-264-0600-006 and details are shown in Drawing P24-264-0600-009. A similar detail is proposed along a section of the proposed 33kV underground cabling (Type E); however, this will only be 4m in width. The location of this is shown on drawing P24-264-0600-006.

Excavate and replace type access roads are the conventional method for construction of access roads on peatland sites and the preferred construction technique for this site provided sufficient placement/reinstatement capacity is available on site for the excavated peat.

4.1 New Excavated Road Construction Methodology

This methodology includes procedures that will be adopted in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are discussed in Chapter 4 and 9 of the EIAR.

(1) Prior to commencing the construction of the excavated roads, movement monitoring posts will be installed in areas where the peat depth is greater than 2.0m, and in areas identified within the peat stability risk assessment (see Geotechnical & Peat Stability Assessment, FT, 2025) as requiring monitoring.

(2) Interceptor drains will be installed upslope of the access road alignment to divert any surface water away from the construction area.

(3) Excavation of roads will be to the line and level given in the design requirements. Excavation will take place to a competent stratum beneath the peat.

(4) Road construction will be carried out in sections of approximately 20m lengths i.e. no more than 20m of access road will be excavated without replacement with stone fill.

(5) Excavation of materials with respect to control of peat stability:

  (a) Acrotelm (to about 0.3 to 0.4m of peat) will be required for landscaping and will be stripped and temporarily stockpiled for re-use as required. Acrotelm stripping will be undertaken prior to main excavations.

  (b) Where possible, the acrotelm will be placed with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation.

  (c) All catotelm peat (peat below about 0.3 to 0.4m depth) will be transported immediately on excavation to the designated placement areas or the borrow pit.

(6) Once excavated, non-catotelm peat will be temporarily stored in localised areas adjacent to excavations for roads and hardstands before being placed into the permanent peat storage areas within the borrow pit, at the designated peat storage areas or reused for landscaping purposes. All peat placement areas will be upslope of founded roads/hardstands and will be inspected by the Project Geotechnical Engineer before material is stored in the area. No material is to be sidecast or stored on the in-situ peat on the downslope side of the access roads.

(7) Excavation side slopes in peat will be not greater than 1 (v): 3 (h). This slope inclination will be reviewed during construction, as appropriate. Should areas of weaker peat be encountered then

slacker slopes will be required. Battering of the side slopes of the excavations will be carried out as the excavation progresses.

(8) End-tipping of stone onto the road during the construction/upgrading of the access road will be carefully monitored to ensure that excessive impact loading, which may adversely affect the adjacent peat, is limited.

(9) The excavated access road will be constructed with an average of 500mm of selected granular fill. Granular fill to be placed and compacted in layers in accordance with the TII Specification for Road Works.

(10) Access roads will be finished with a layer of capping across the full width of the road.

(11) A layer of geogrid/geotextile will be required at the surface of the competent stratum, where this stratum is cohesive in nature.

(12) Where slopes of greater than 5 degrees are encountered along with relatively deep peat (i.e. greater than 1.5m) and where it is proposed to construct the access road perpendicular to the slope contours it is best practice to start construction at the bottom of the slope and work towards the top, where possible. This method avoids any unnecessary loading to the adjacent peat and greatly reduces any risk of peat instability.

(13) Where the above is not possible, a specific Risk Assessment Method Statement (RAMS) from the contractor will be produced, detailing how the downslope works will be undertaken, including that all plant would operate from the already constructed section of road, with no loading of the peat on the downslope slope and limiting the length of ground to be stripped/excavated at any one time. Movement monitoring posts (as described in Section 10) will also be installed downslope of the works area to allow for ongoing monitoring during the construction works.

(14) A final surface layer will be placed over the excavated road and graded to accommodate wind turbine construction and delivery traffic.

(15) The construction and upgrading of access roads in areas of deep peat (greater than 2m) will be inspected on a routine basis (by the Site Manager/Ecological Clerk of Works/Project Geotechnical Engineer) during the works, particularly before/following trafficking by heavy vehicular loads.

5. CONSTRUCTION OF NEW FLOATED ROADS OVER PEAT – TYPE D

A new floating road will be constructed in a single area on the Proposed Wind Farm Site (to the west of T01) where the peat depth is in excess of 1m and the slope angle is less than a 5 degree slope. The proposed location for this section of floating road within the Site is shown in drawing P24-264-0600-0006 and details are shown on drawing P24-264-0600-0010.

A confirmatory stability analysis should be carried out by the designer where it is proposed to install floating access roads over the peat prior to any construction work commencing on Site.

Floating roads minimise impact on the peat, particularly peat hydrology. As there is no excavation required no peat arisings are generated. However, where the underlying peat has insufficient bearing capacity or due to topographic restrictions an excavate and replace type access road may be more suitable (see Section 4), although this is not anticipated at the location of the floated road based on the recorded peat strengths.

5.1 Floating Road Construction Methodology

This methodology includes procedures that are to be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are considered in the relevant chapter of the EIAR.

Note: Details of geogrid arrangement will be provided by the specialist geogrid provider/designer.

(1) Prior to commencing floating road construction movement monitoring posts will be installed in areas where the peat depth is greater than 2m.

(2) Base geogrid will be laid directly onto the existing peat surface along the line of the road in accordance with geogrid provider's requirements.

(3) The typical make-up of the new floated access road will be up to 1,000mm of selected granular fill with 2 no. layers of geogrid with possibly the inclusion of a geotextile separator (drawing P24-264-0600-0010).

(4) Granular fill to be placed and compacted in layers in accordance with the TII Specification for Road Works, Series 600 (2024).

(5) Following the detailed design of the floated access roads it may be deemed necessary to include pressure berms either side of the access road in some of the deeper peat areas. The inclusion of a 2 to 5m wide pressure berm (typically 1.0m in height) either side of the access road will reduce the likelihood of potential bearing failures beneath the access road.

(6) The finished road width will be approximately 5m, with wider sections on bends and corners.

(7) Stone delivered to the floating road construction will be end-tipped onto the constructed floating road. Direct tipping of stone onto the peat will not be carried out.

(8) To avoid excessive impact loading on the peat due to concentrated end-tipping all stone delivered to the floating road will be tipped over at least a 10m length of constructed floating road.

(9) Where it is not possible to end-tip over a 10m length of constructed floating road then dumpers delivering stone to the floating road will carry a reduced stone load (not greater than half full) until such time as end-tipping can be carried out over a 10m length of constructed floating road.

(10) Following end-tipping suitable machinery will be employed to spread and place the tipped stone over the base geogrid along the line of the road.

(11) A final surface layer will be placed over the full width of the floating road, as per design requirements, to provide a road profile and graded to accommodate wind turbine construction and delivery traffic.

6. EXCAVATION AND STORAGE OF PEAT AND SPOIL

6.1 Excavation and Storage of Arisings Methodology

This methodology includes procedures that are to be included in the construction phase to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, described in Chapter 4 and 9 of the EIAR.

(1) All excavated peat and spoil will be either temporarily stockpiled locally at turbine hardstands or transported immediately on excavation the borrow pit (see Drawing P24-264-0600-0006) or to one of the designated peat and spoil management areas. No material is to be sidecast or stored on the in-situ peat on the downslope side of the access roads/hardstands.

(2) Further details on the construction and reinstatement of the borrow pit are given in Section 6.4.

(3) Further details on the placement of excavated material to designated peat placement areas close to turbines are given in Section 6.5.

(4) Some of the peat, in particular the acrotelm (upper layer of the peat), excavated during construction will be used for landscaping purposes.

6.2 Summary of Peat and Spoil Volumes on Site

A summary of the excavated peat and spoil volumes calculated for the Proposed Project is given in Table 6-1.

Table 6.1: Summary of Excavated Peat and Spoil Volumes on Site

Infrastructure Element (1)	Proposed Dimensions	Peat Volume (m^3) (2)	Spoil (non-peat) Volume (m^3) (2) and (3)	Comment
9 no. Turbines and Hardstands	27m diameter excavation footprint for turbine foundation with 50 x 30m hardstand area.	23,000	37,100	Hardstanding area and foundation footprint. Allowance included for mini-crane pads and blade finger hardstands associated with the main hardstand..
Access Roads	Assumed 5m running surface with 6-8m wide development footprint.	31,000	13,000	Allowance includes for widening on bends, at junctions, laybys, and tie-ins to hardstands.
2 no. Temporary Construction Compounds	Hardstanding area of 60 x 40m and 60m x 30m	450	450	1 no. Compound will be floated, no peat/spoil to be excavated.
Meteorological Mast	12.5 x 14.5m hardstanding area.	100	200	Within temporary construction compound.
Borrow Pit	Area of 11,600m^3.	2,600	10,000	Borrow pit footprint
33kV Underground Cable Trench	1.2m x 0.9m	1,300	5,300	7.1km in length
Extension to existing Slievecallan 110kV substation	95m x 40m	-	-	No excavation required for proposed substation extension
	Total =	**58,450m^3**	**66,050m^3**	**Total = 124,500m^3 (peat and spoil volume) (4)**

Note (1) The location of the built infrastructure elements on site are shown on Drawing P24-264-0600-0006.

Note (2) A factor of 10% (bulking factor of 10%) has been applied to the excavated peat and spoil volumes to allow for expected increase in volume upon excavation and to allow for a variation in ground conditions across the Site.

Note (3) The excavated spoil volumes have been determined based on a cut-fill assessment carried out for the Site, see Section 12 of this report for further details.

Note (4) Tree felling is proposed at various locations across the Proposed Wind Farm Site, however this generally will not involve any excavation of tree stumps and as such does not affect the excavation volumes. Where tree stumps are removed along proposed access roads, the excavation volume has been included in the above table.

Note (5) Around 5,000m^3 of rock is estimated to be available for reuse from excavations across the site. This has been removed from the spoil volume quoted above.

Note (6) It should be noted that the excavated rock volume from the borrow pit is not included in the total volume quoted above in Table 6-1. It is assumed that the excavated rock volume will be re-used as part of the construction works for the development and hence will not require reinstatement on site.

6.3 Summary of Peat and Spoil Management Areas on Site

A summary of the proposed peat and spoil management areas across the Proposed Wind Farm Site are given in Table 6-2.

Table 6.2: Summary of Peat and Spoil Management Areas on Site

Location (1)	Storage Volume (m^3)	Comment
Borrow Pit	95,000	See Drawing P24-264-0600-0009 for further details. The material to be placed in the borrow pit will be a mixture of peat and spoil.
Peat and Spoil Management Areas	20,400	1.2m in height across clearfell areas adjacent to turbines, where slopes are relatively shallow (<5 degrees) (Drawing P24-264-0600-0010). 1.5m in height in spoil storage area adjacent to the borrow pit.
Landscaping (2)	18,000	It is estimated that 1,500m^3 of peat will be required for landscaping purposes and a further 500m^3 of spoil as ballast backfill to turbines at each of the 9 no. turbine locations.
Total =	**133,400m^3**	

Note (1) The location of the proposed borrow pit at the Proposed Wind Farm Site are shown on Drawing P24-264-0600-0006.

Note (2) Some of the acrotelm (upper layer of the peat) excavated during construction will be used for landscaping purposes.

6.4 Summary of Management and Reuse of Excavated Peat and Spoil

The Proposed Project will be developed in phases, to allow for the development and backfill of the peat and spoil storage areas. An outline of the proposed phasing is provided below:

(1) Peat excavated from T01, T02, T04 and T09 (16,000m^3) will be transported to the adjacent peat management areas, transported to the borrow pit for permanent storage or used for landscaping around the hardstands.

(2) Peat excavated from T03, T05, T06, T07 and T08 (7,000m^3) will be transported to the borrow pit or used as landscaping around the hardstands.

(3) Spoil excavated from T01-T09 (34,100m^3) will be transported to the borrow pit or to the spoil storage area adjacent to the borrow pit for permanent storage.

(4) Peat and spoil excavated from access roads (44,000m^3) will be transported to the borrow pit for permanent storage.

(5) A small volume (c. 500m^3 per base) of spoil will be reused at each turbine base as ballast backfill.

6.5 Summary of Stone Volume Requirements

Table 6.3 below summarises the stone volume requirement for the Proposed Project, excluding the final blinding layer which will come from an external source.

Table 6.3: Summary of Stone Volume Requirements

Infrastructure Element (1)	Typical Dimensions	Stone Volume (m^3) (2)	Comment
9 no. Turbines and Hardstands	27m diameter excavation footprint for turbine foundation with 50 x 30m finished hardstand surface.	59,000	Hardstanding area and foundation footprint. Allowance included for mini-crane pads and blade finger hardstands associated with the main hardstand, plus allowance for side slopes in areas of fill.
Access Roads (including cabling)	Assumed 5m running surface with 6-8m wide development footprint. Typical stone depth of 0.75m.	39,000	Allowance includes for widening on bends, at junctions, laybys, and tie-ins to hardstands.
Meteorological Mast	12.5 x 14.5m hardstanding area.	200	-
2 no. Temporary Construction Compounds	Hardstanding area of 60 x 40m and 60 x 30m.	3,400	
Extension to existing Slievecallan 110kV substation	95m x 40m	-	
	Total =	**101,600m^3**	

Notes

Note (1) A contingency factor of 10% has been applied to the volumes to allow for a variation in ground conditions across the Site.

Note (2) It should be noted that the volumes given in Table 6-3 are subject to confirmatory design.

6.6 Construction and Reinstatement of Borrow Pit

The location of the proposed borrow pit is shown on Drawing P24-264-0600-0011. The peat depth within the development footprint of the borrow pit is less than 0.5m. The peat is underlain by a firm grey clay, with Sandstone bedrock recorded at between 0.2 and 0.5m bgl in two trial pits and from the geophysical survey. The borrow pit location was selected based on the relatively shallow depth to bedrock. Bedrock (Sandstone and underlying Siltstone) will be excavated and reused across the site as granular fill for roads and hardstands.

Upon removal of the rock from within the borrow pit, it is proposed to reinstate the borrow pit using excavated peat and spoil. The excavated rock from the borrow pit will be used in the construction of the infrastructure elements (turbine bases, roads, etc.) at the Site. The contractor excavating the rock will be required to develop the borrow pit in a way which will allow the excavated peat and spoil to be placed safely. It is proposed to

construct cells within the borrow pit for the placement of the excavated peat and spoil. This is to allow for the safe placement and grading of the peat and spoil using dumper trucks and excavators. It also eliminates the need to construct above ground retaining structures which may have an unnecessary visual impact and increase the development footprint of the proposed wind farm. The text below provides design and construction commitments for the borrow pit.

It should be noted that there are significant excavation works required in order to develop the borrow pit at the Site. Excavation works will be undertaken and supervised by an experienced contractor and the Project Geotechnical Engineer. The text below provides design and construction guidelines for the borrow pit.

Drawing P24-264-0600-0011 shows typical construction details for the borrow pit.

The borrow pit will be constructed as follows:

(1) Peat and overburden will be removed and temporarily stored in a localised area adjacent to the borrow pit location before being placed into the permanent peat/spoil management areas within the borrow pit. The rock within the proposed borrow pit footprint will be removed by either breaking or blasting depending on its excavatability, which will be determined from confirmatory ground investigation carried out at the proposed borrow pit. The ground investigation will comprise rotary core drilling with associated engineering logging including rock quality designation and strength and durability testing. Data from the available ground investigation surveys undertaken to date indicates that the rock can be removed by breaking, however blasting could also be used.

(2) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road. As excavation progresses into the back edge of the borrow pits, localised deepening of the borrow pit floor will be undertaken if required depending on extraction operations.

(3) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions. Exposed sections of the rock slopes will be left with irregular faces and declivities to promote re-vegetation and provide a naturalistic appearance.

(4) The stability of the rock faces within the borrow pit will be inspected by the Project Geotechnical Engineer upon excavation to ensure stability during construction works and in the long term. This inspection will allow unfavourable rock conditions to be identified and suitable mitigation measures to be applied such as the removal of loose rock, in line with best practice guidelines.

(5) Rock from the borrow pit will be excavated whilst leaving in place upstands/segments of intact rock which will retain the placed peat and spoil. The upstands/segments of intact rock will essentially act as an engineered rock berm inside the borrow pit (below ground level).

(6) Excavation and infilling of the borrow pit will need to be sequenced and programmed. This will involve leaving in place upstands/segments of intact rock which will help to retain the placed peat and spoil and will allow the borrow pit to be developed and infilled in cells. These cells will be opened in sequence and filled as needed.

(7) Infilling of the peat and spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance/rock upstand. The contractor excavating the rock will be required to develop the borrow pit in a way which will allow the excavated peat and spoil to be reinstated safely.

(8) The location of the rock upstand shown on Drawing P24-264-0600-0011 for the borrow pit is indicative only and may change subject to local conditions encountered on site during construction and as a result of the confirmatory ground investigation. The rock upstand will be wide enough (up to 4m) to allow construction traffic access for tipping and grading during the placement of the excavated peat and spoil. The permanent side slopes of the rock upstand will be formed at 60 degrees.

(9) The use of temporary access ramps and long reach excavators during the placement of the excavated peat and spoil will be required.

(10) The surface of the placed peat and spoil will be shaped to allow efficient run-off of surface water from the placed arisings towards the perimeter of the borrow pit. The surface of the placed spoil will have a maximum grade of 5°.

(11) A layer of geogrid to strengthen the surface of the placed peat within the borrow pit will be required.

(12) An interceptor drain will also be installed around the perimeter of the borrow pit. This drain will divert any surface water away from the borrow pit and hence prevent water from ponding and lodging during construction, and also when reinstated.

(13) Temporary control of groundwater within the borrow pit will be required and measures will be determined as part of the ground investigation programme. A temporary pump and suitable outfall locations will be required during construction.

(14) A settlement pond will be constructed at the lower side/outfall location of the borrow pit and is shown on the drainage drawings.

(15) The acrotelm will be placed with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation at the surface of the peat and spoil within the borrow pit.

(16) Supervision by the Project Geotechnical Engineer is required for the development of the borrow pit.

(17) All the above-mentioned requirements will be implemented by the Contractor during construction.

6.7 Designated Peat and Spoil Management Areas

The following commitments for the placement of peat within permanent clearfell areas around 4 no. turbines (T01, T02, T04 and T09) will be implemented during construction. A spoil management area is also proposed adjacent to the borrow pit. These areas have been selected based on a combination of the depth of peat, the recorded peat strength in the area and the slope angle. A check of peat stability in each area was also undertaken, allowing for the additional loading from 1.2m of stored peat, and these results are included on the Peat Stability Assessment Report (FT, 2026). The works to clearfell these areas will involve the removal of the tree trunks and branches; however, the tree stumps and roots remain in place. As such there is only minimal disturbance to the ground, and this activity is not considered to reduce the strength of the in-situ peat or have a significant negative impact on the stability of the in-situ peat.

(1) Excavated peat will be placed/spread across the clearfell areas around 4 no. of the proposed turbines. These locations are shown in Drawing P24-264-0600-0006, with details shown on drawings P24-264-0600-0012 to 0016.

(2) The peat placed within the areas shown on Drawing P24-264-0600-0006 will be restricted to a maximum height of 1.2m. Any weak/liquified peat (if any is encountered) will be placed within the proposed borrow pit and not stored within these areas. Spoil will be placed to a height of 1.5m in the spoil management area adjacent to the borrow pit.

(3) The placement of peat within the placement areas will require the use of long reach excavators and low ground pressure machinery in particular for drainage works.

(4) The surface of the placed peat will be shaped to allow efficient run-off of surface water. Shaping of the surface of the peat will be carried out as placement of peat within the peat management area progresses. This will reduce the likelihood of debris run-off and reduce the risk of instability of the placed peat.

(5) Finished/shaped side slopes in the placed peat will be not greater than 1 (v): 4 (h). This slope inclination will be reviewed during construction, as appropriate.

(6) The acrotelm will be placed on the finished surface with the vegetation part of the sod facing the right way up to encourage growth of plants and vegetation at the surface of the placed peat and spoil within the management areas.

(7) Movement monitoring instrumentation will be placed around the areas where peat has been placed. The locations where monitoring is required will be both upslope and downslope of the peat storage areas and should be monitored on a weekly basis during construction.

(8) Supervision by the Project Geotechnical Engineer will be undertaken during the works.

(9) An interceptor drain will be installed upslope of the designated peat placement areas to divert any surface water away from these areas. This will help ensure stability of the placed peat and reduce the likelihood of debris run-off.

(10) All the above-mentioned general guidelines and requirements will be undertaken by the Contractor during construction.

7. EXCAVATIONS IN PEAT FOR TURBINE BASES, HARDSTANDINGS AND INFRASTRUCTURE FOUNDATIONS

The turbine bases will be founded on competent founding strata which will require excavation through peat and any soft overburden.

Similarly, crane hardstandings, temporary construction compound and met mast foundations are to be founded on competent mineral soil which will also require excavation through peat and spoil. Excavations for the borrow pits will also require the removal of peat and non-peat spoil overlying the rock.

No excavations works are required for the proposed extension to the existing Slievecallan 110kV substation within the Proposed Grid Connection Site.

7.1 Methodology

This methodology includes procedures that will be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are covered in Chapter 4 and 9 of the EIAR.

(1) With respect to placement of arisings from excavations the commitments given in Section 6 are to be followed.

(2) All excavations within peat will be adequately supported or peat slopes will be battered to a safe slope inclination typically of 1(v): 3(h). This slope inclination will be reviewed during construction, as appropriate. Where areas of weaker peat are encountered then slacker slopes will be required.

(3) Excavations will be kept reasonably free from water at all times. Water will be prevented from being impounded within excavations by either using drainage channels cut into the excavation face or by pumping.

(4) Where water is channelled or pumped from an excavation then this water will be fed into an established watercourse or drainage ditch following suitable treatment, as described in Chapter 7 of the EIAR.

8. EXCAVATIONS FOR UNDERGROUND CABLES

A connection between the Proposed Project and the national electricity grid will be necessary to export electricity. It is proposed that the Proposed Project will connect to the national grid via proposed 33kV underground cabling and an extension to the existing Sievecallan substation located within the Proposed Grid Connection Site. The proposed 33kV underground cabling is approximately 7.1km in length and will predominately follow existing private access tracks and the public road corridor.

The proposed 33kV underground cabling construction methodology, including proposals for water crossings on the underground cabling routes is described in Chapter 4 of the EIAR.

It is proposed to install the proposed 33kV underground cabling at a uniform level within the footprint of the access tracks and the public road. The proposed 33kV underground cabling will encounter peat and till derived from derived from Namurian sandstones and shales and will be constructed on solid ground to Eirgird specifications.

8.1 Methodology

This methodology includes procedures that are to be included in the construction to minimise any adverse impact on peat stability. The methodology is not intended to cover all aspects of construction such as drainage and environmental considerations, which are described in Chapters 4 and 9 of the EIAR.

(1) With respect to placement of arisings from excavations the guidelines given in Section 6 will be followed.

(2) All excavations within peat will be adequately supported or peat slopes will be battered to a safe slope inclination typically of 1(v): 3(h). This slope inclination will be reviewed during construction, as appropriate. Where areas of weaker peat are encountered then slacker slopes will be required.

(3) Similarly, all excavations within non-peat overburden for the cable trench will be adequately supported or battered to a safe slope inclination typically of 1(v): 1.5 or 2(h). This slope inclination will be reviewed during construction, as appropriate.

(4) Excavations will be kept reasonably free from water at all times.

(5) Any overburden excavated from the cable trench will be transported to the borrow pit for storage. Any pavement materials containing tar will be transported to an authorised waste facility.

9. GENERAL COMMITMENTS FOR GOOD CONSTRUCTION PRACTICE

To minimise the risk of construction activity causing potential peat instability the Construction Method Statements (CMS) for the Proposed Project will also implement, but not be limited to, the general measures below together with the specific measures.

(1) Uncontrolled concentrated water discharge onto peat slopes identified as being unsuitable for such discharge will be avoided. All water discharged from excavations during work will be piped over areas specifically assessed as being unsuitable and hence directly into suitable drainage lines.

(2) All excavations will be suitably supported to prevent collapse and development of tension cracks.

(3) Avoidance of placing fill and excavations in the vicinity of steeper peat slopes, that is at the crest or toe of the slope.

(4) Installation and regular monitoring of geotechnical instrumentation during construction in areas of possible poor ground, such as deeper peat deposits (see Section 10).

(5) Site reporting procedures will be implemented to ensure that working practices are suitable for the encountered ground conditions. Ground conditions to be assessed by suitably experienced geotechnical engineer.

(6) Regular briefing of all site staff (e.g. toolbox talks) to provide feedback on construction and ground performance and to promote reporting of any observed change in ground conditions.

(7) Routine inspection of the Proposed Wind Farm Site and Proposed Grid Connection Site by the Contractor and Project Geotechnical Engineer will be undertaken and will include an assessment of ground stability conditions (e.g. cracking, excessive floating road settlement, disrupted surface, closed-up drains) and drainage conditions (e.g. blocked drains, absence of water in previously flowing drains, springs, etc).

10. INSTRUMENTATION

10.1 Movement Monitoring Posts

To monitor possible peat movements, it is proposed to install sighting posts upslope and downslope of the access road at staggered intervals at locations where the peat depth is greater than 2.0m, such as along the main entrance road and around T04. Additional monitoring locations will be required at infrastructure locations with deeper peat deposits, as determined by the Designer or Project Geotechnical Engineer. Details of sighting posts are given below.

(1) A line of sighting posts will comprise:

(a) A line of wooden stakes (typically 1 to 1.5m long) placed vertically into the peat to form a straight line.

(b) The sighting line will comprise 6 no. posts at 5m centres that is a line some 25m long.

(c) A string line will be attached to the first and last posts and all intervening posts will be adjusted so they are just touching the string line.

(2) Lines of sighting posts will be placed across the existing slope about 5m away from the area to be worked. The posts will be located along the road at 10m intervals in areas of deep peat (say greater than 2.0m). Where there are relatively steeper slopes or softer ground a sighting line will be placed down the slope, or at any location where monitoring is deemed necessary by the Designer or the Project Geotechnical Engineer.

(3) Each line of sighting posts will be uniquely referenced with each post in the line given a reference. The post reference will be marked on each post (e.g. reference 1-1, 1-2, 1-3, 1-4, 1-5, 1-6 for posts in line 1).

(4) The sighting lines will be monitored at the beginning of each working day, and during the day where considered appropriate (e.g. when working activity is concentrated at a specific location).

(5) Monitoring of the posts will comprise sighting along the line and recording any relative movement of posts from the string line.

(6) Where increased movements are recorded the frequency of monitoring will be increased.

(7) A monitoring record will be kept of the date, time and relative movement of each post, if any. This record will be updated and stored as a spreadsheet.

10.2 Post-Construction Monitoring

To monitor possible peat movements following the construction of the Proposed Project, it is recommended that the Proposed Wind Farm Site is inspected by a suitably qualified engineer once every six months for the first three years following commissioning of the Proposed Project. Particular attention will be given to the peat storage areas and the borrow pit, as well to any areas where the site drainage is not functioning as intended. Should any signs of instability be noted, a site visit by a suitably qualified geotechnical engineer will be arranged and suitable remediation measures enacted. The site inspections should continue on an annual basis for a further three years.

11. CONTINGENCY MEASURES

11.1 Excessive Movement

Where there is excessive movement or continuing peat movement recorded at a monitoring location or identified at any location within the Site but no apparent signs of distress to the peat (e.g. cracking, surface rippling) then the following will be carried out.

(1) All activities (if any) will cease within the affected area.

(2) Increased monitoring at the location will be carried out. The area will be monitored until such time as movements have ceased.

(3) Re-commencement of activities will only start following a cessation of movement and agreement with all parties (Contractor/Engineer/Designer).

11.2 Onset of Peat Slide

In the unlikely event where there is the onset or actual detachment of peat (e.g. cracking, surface rippling) then the following will be carried out.

(1) On alert of a peat slide incident, all activities (if any) in the area will cease and all available resources will be diverted to assist in the required mitigation procedures.

(2) Action will be taken to prevent a peat slide reaching any watercourse. This will take the form of the construction of check barrages on land. Due to the terrain and the inability to predict locations it may not be possible to implement any on-land prevention measures, in this case a watercourse check barrage will be implemented.

(3) All relevant authorities will be notified if a peat slide event occurs on the Site.

(4) For localised peat slides that do not represent a risk to a watercourse and have essentially come to rest the area will be stabilised initially by rock infill, if required. The failed area and surrounding area will then be assessed by the engineering staff and stabilisation procedures implemented. The area will be monitored, as appropriate, until such time as movements have ceased.

11.3 Check Barrages

Whilst it is not anticipated based on the analysis undertaken that a peat slide will occur on the Site, as a contingency a check barrage procedure is included below.

The check barrage procedure deals with preventing a peat slide from moving downstream within a watercourse.

The most effective method of preventing excessive peat slide debris from travelling downstream in a watercourse is the use of a check barrage. A check barrage comprises the placement of rock fill across a watercourse. The check barrage is a highly permeable construction that will allow the passage of water but will prevent peat debris from passing through. Rock fill will comprise well-graded coarse rock pieces from about 300mm up to typically 1000mm.

The rock fill for the check barrage will be sourced from the borrow pit on the Site.

The size of the barrage will vary depending on the scale of the peat debris to be contained and the geometry of the watercourse at the barrage location. In general, due to the low speed of a peat slide there is generally little impact force and most of the lateral load is due to fluid pressure on the upslope face of the barrage.

The check barrage will fill the entire channel width of the watercourse up to a height of 3 to 4m with a crest width of typically 2m and side slopes of about 45 degrees depending on the geometry of the barrage location.

The check barrage procedure is as follows:

(1) Access to the check barrage location will be along the existing access roads on the Proposed Wind Farm Site, Proposed Grid Connection Site and/or along public roads, where possible. When it is necessary to form the barrage then rock fill will be placed across the watercourse to effectively block the passage of peat debris.

(2) Operatives employed to carry out the construction of the check barrage will be inducted by means of a briefing by on-site supervisors as to the proposed location of the check barrage.

(3) The check barrage provides containment for peat debris in the highly unlikely event of a major peat slide. Further remedial measures, should they be required, will be assessed by the Contractor and the Project Geotechnical Engineer, and carried out as soon as physically possible when the location and extent of the failure is established.

(4) Where a barrage was constructed as a precaution and no peat debris reached the watercourse then the barrage will be removed as soon as any measures to prevent further peat sliding are agreed with all parties (Contractor/Engineer/Designer).

12. CUT AND FILL EARTHWORKS ASSESSMENT

FT carried out an assessment for the Proposed Project which quantifies the total volume of cut and fill earthworks required for the construction of the built infrastructure of the Proposed Project. The cut and fill assessment is graphically presented in drawing P24-264-0600-0017.

The outputs from the cut and fill earthworks assessment includes the following:

- Plan drawing of the Proposed Wind Farm Site showing an outline of cut and fill earthworks at all infrastructure elements (drawing P24-264-0600-0017)
- Cut and fill earthwork volumes (see Table 6-1 of this report)

A summary of the basis for the cut and fill earthworks assessment is included in Appendix A of this report.

12.1 Commentary on Earthworks Volumes

This section of the report should be read in conjunction with Sections 6.2 and 6.3 of the report which summarise the peat and spoil volumes for site and the placement/reinstatement areas on site.

In summary:

1) A total of 124,500m^3 of peat and spoil will be generated during the construction of the Proposed Project (Table 6.1).
2) The peat and spoil generated will be stored within the borrow pit and used for landscaping around hardstands. A volume of peat (37,000m^3) will be stored adjacent to the turbines in peat management areas. A total storage capacity of 133,400m^3 is available across the Proposed Project (Table 6.2).
3) A total of 101,600m^3 of stone is required in order to construct the hardstands, access roads and temporary compounds across the Proposed Project excluding the final blinding layer which will come from external sources (Table 6.3).
4) Based on available ground investigation information the estimated quantity of available rock within the borrow pit is 100,000m^3. Conservative assumptions were made in estimating the quantity of rock available in the borrow pit. A small volume of reusable rock (c. 5,000m^3) will be generated during the excavations for the Proposed Turbines and ancillary infrastructure.
5) A bulking factor of 10% has been applied to peat excavation volumes and 10% to spoil excavation volumes to allow for expected bulking upon excavation.

13. REFERENCES

Munro, R, 2004. Dealing with bearing capacity problems on low volume roads constructed on peat. Roadex II Northern Periphery.

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Scottish Natural Heritage, 2015. Constructed Tracks in the Scottish Uplands. Scottish Natural Heritage.

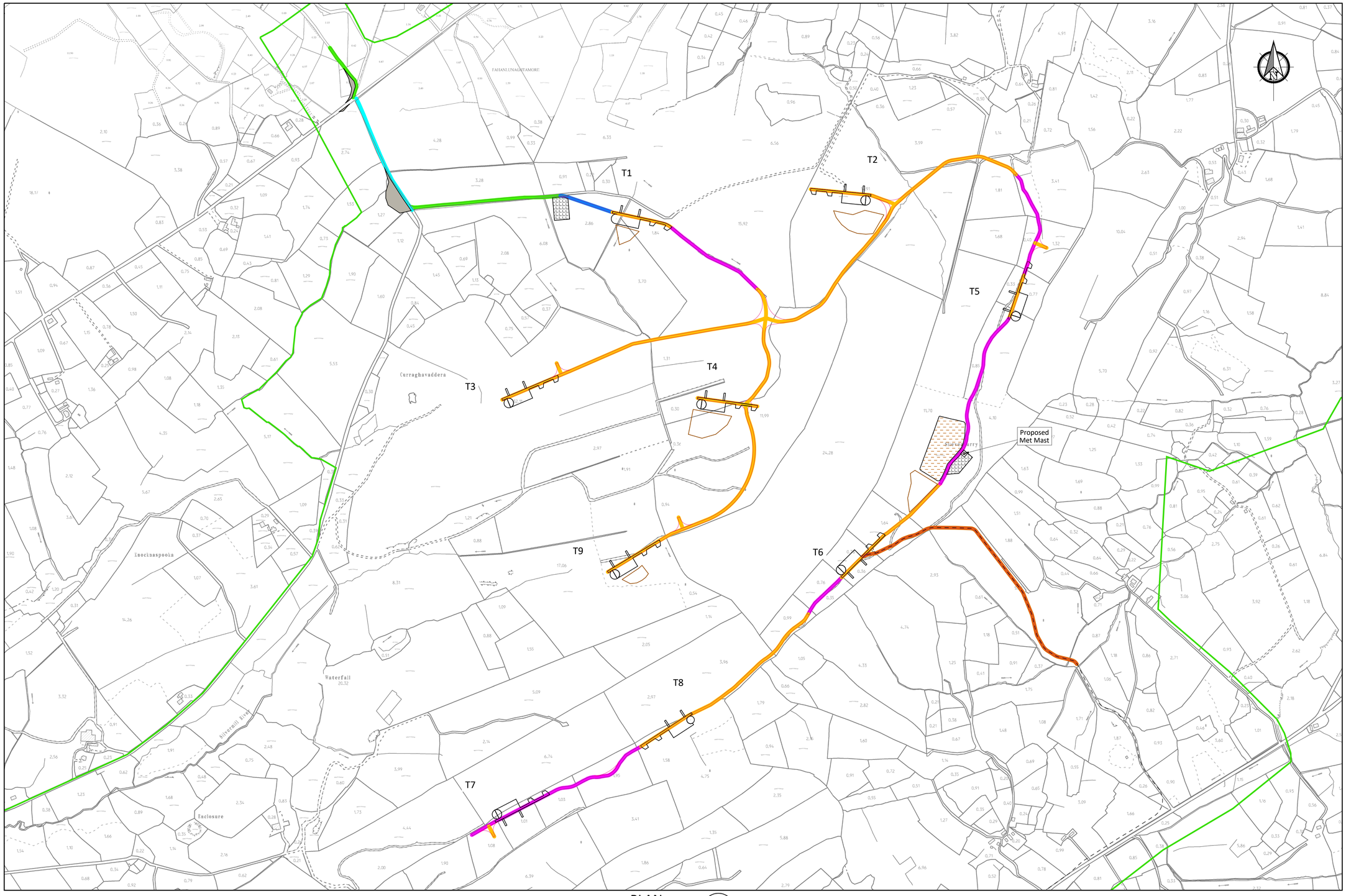
Good Practice during Windfarm Construction (NatureScot, 2024).

Guidance on Developments on Peatland: Site Surveys (Scottish Government, Scottish Natural Heritage and SEPA, 2017.

FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

DRAWINGS



PLAN

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

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- Proposed Biodiversity Enhancement Area
- Proposed Delivery Overrun Area

Road Type Legend:

- Type A - Upgrade of Existing Excavated Access Tracks
- Type A1 - Proposed Public Road to be Upgraded
- Type B - Upgrade of Existing Floated Access Tracks
- Type C - New Excavate & Replace Access Road
- Type D - New Floated Access Road
- Type E - New Excavate & Replace Access Road

0m 50m 100m 150m 200m 250m 300m 350m 400m 450m 500m

Scale 1:5000

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26

PROJECT

SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT

MKO

SHEET

PLAN DRAWING OF WIND FARM WITH ROAD CONSTRUCTION TYPE

Date 17.02.26	Project number P24-264	Scale (@ A1) 5000	
Drawn by POR	Drawing Number P24-264-0600-0006 (Sheet set subset 0600)		Rev P02
Checked by IH			

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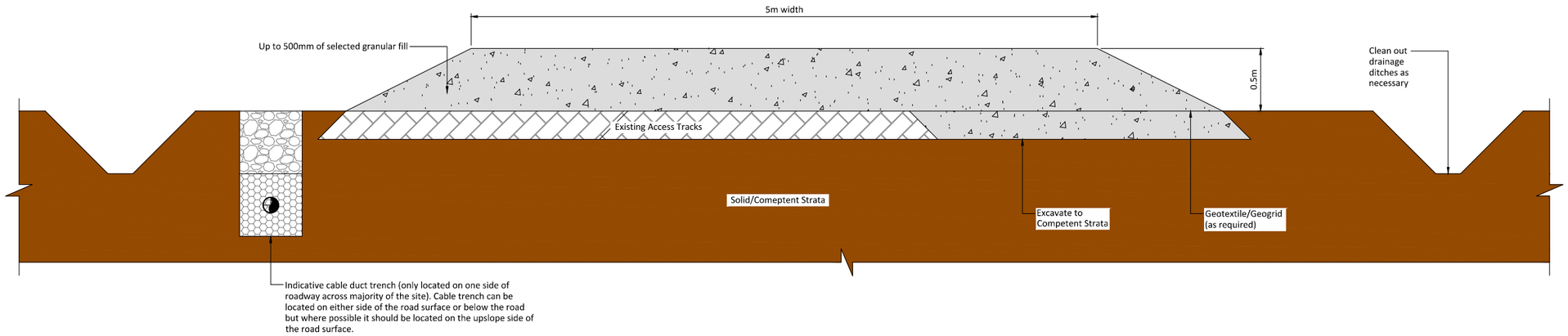
20 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0006)



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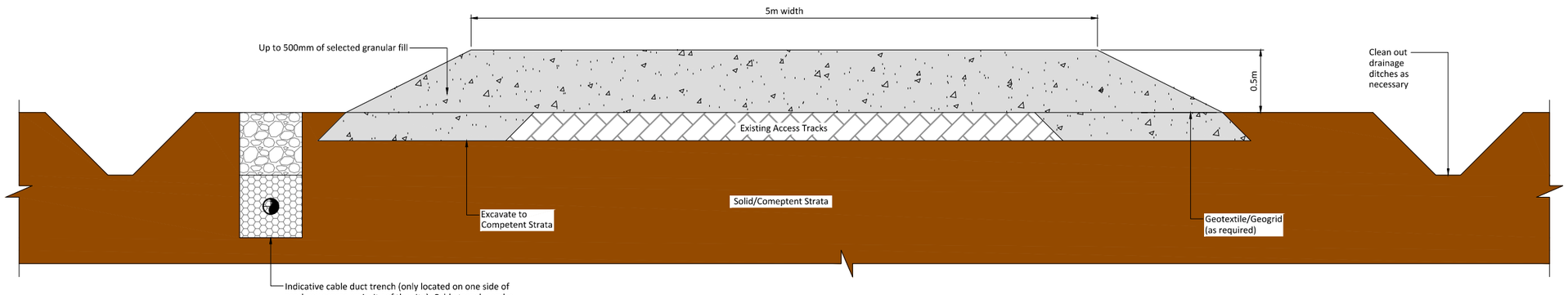

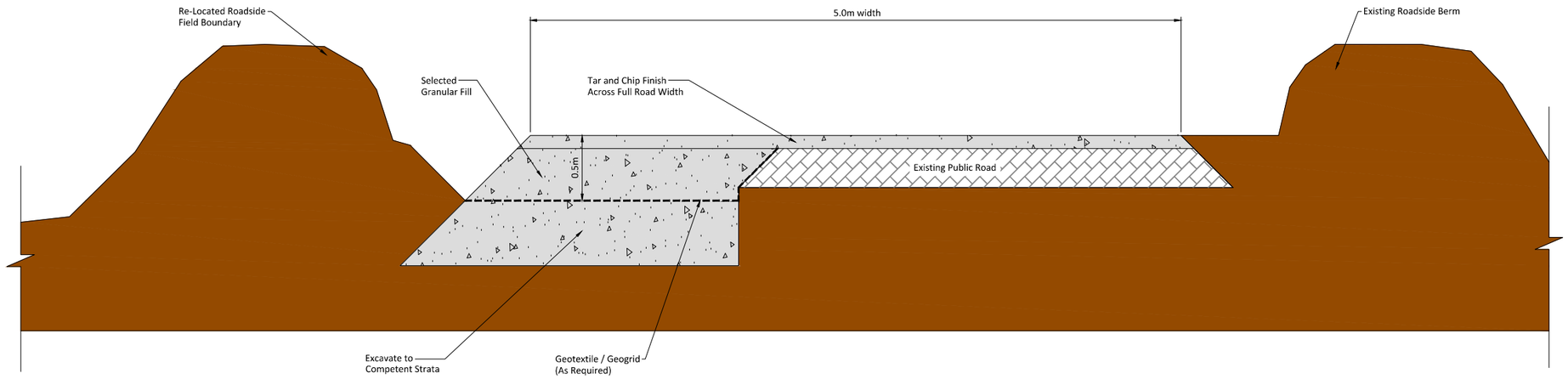

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	23.04.26

PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: TYPE A & A1 – UPGRADE OF EXISTING FOUNDED ACCESS ROAD

Date: 23.04.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): 1:20
Drawing Number: P24-264-0600-0007
Rev: P02
(sheet set subset 0600)

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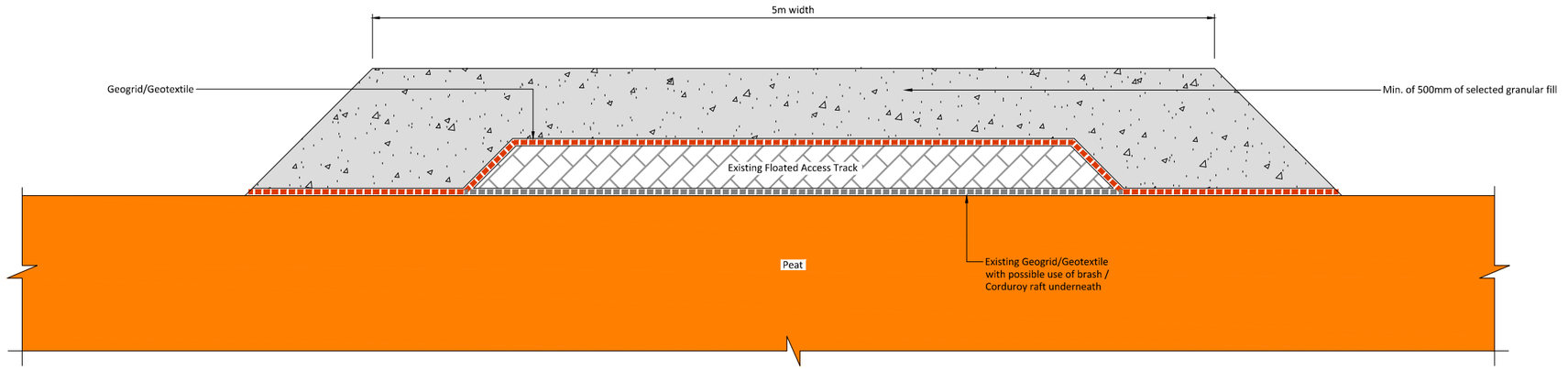
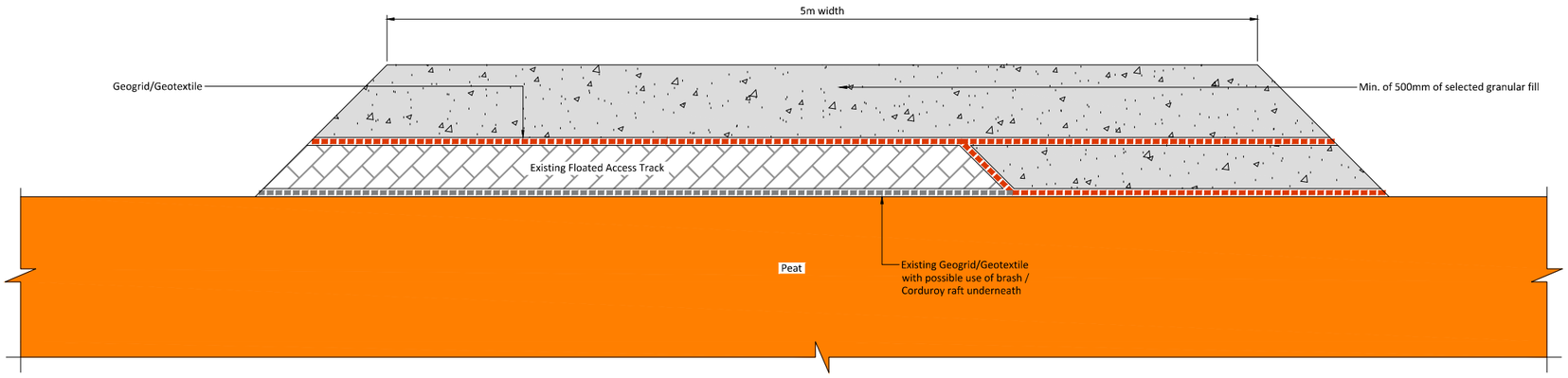
23 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0007)





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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25

PROJECT
SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
TYPE B – UPGRADE OF EXISTING FLOATING ACCESS ROAD

Date: 18.12.25
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): 1:20
Drawing Number: **P24-264-0600-0008**
(Sheet set subset (XXX))
Rev: **P01**

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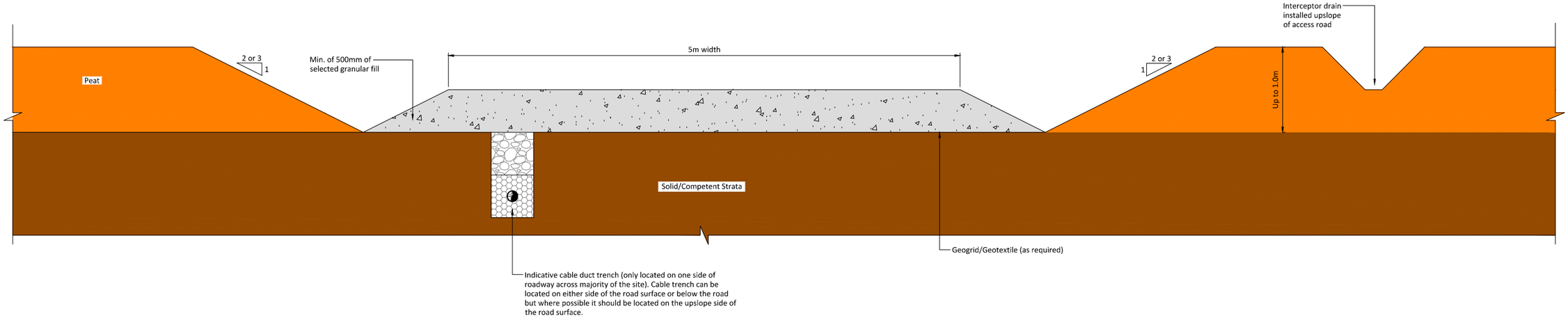
19 December 2025 (O:\ACAD\2024\P24-264\P24-264-0600-0008)



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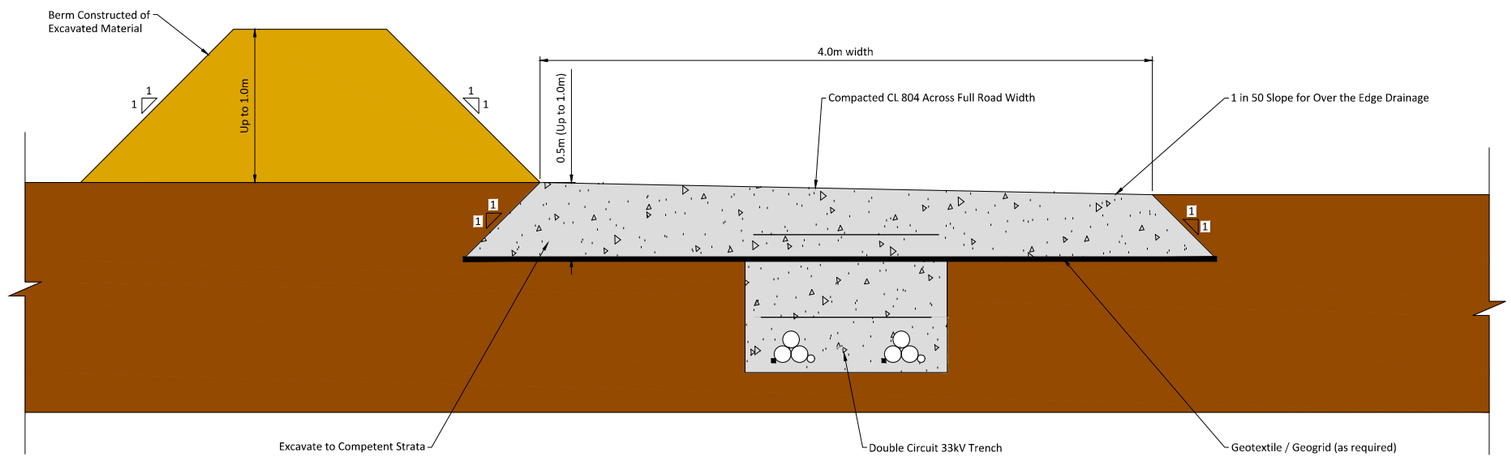

DETAIL E
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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	23.04.26

PROJECT
SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
TYPE C & E – NEW EXCAVATE AND REPLACE ACCESS ROAD

Date 23.04.26
Drawn by POR
Checked by IH

Project number P24-264
Scale (@ A1) As Shown
Drawing Number P24-264-0600-0009
Rev P02

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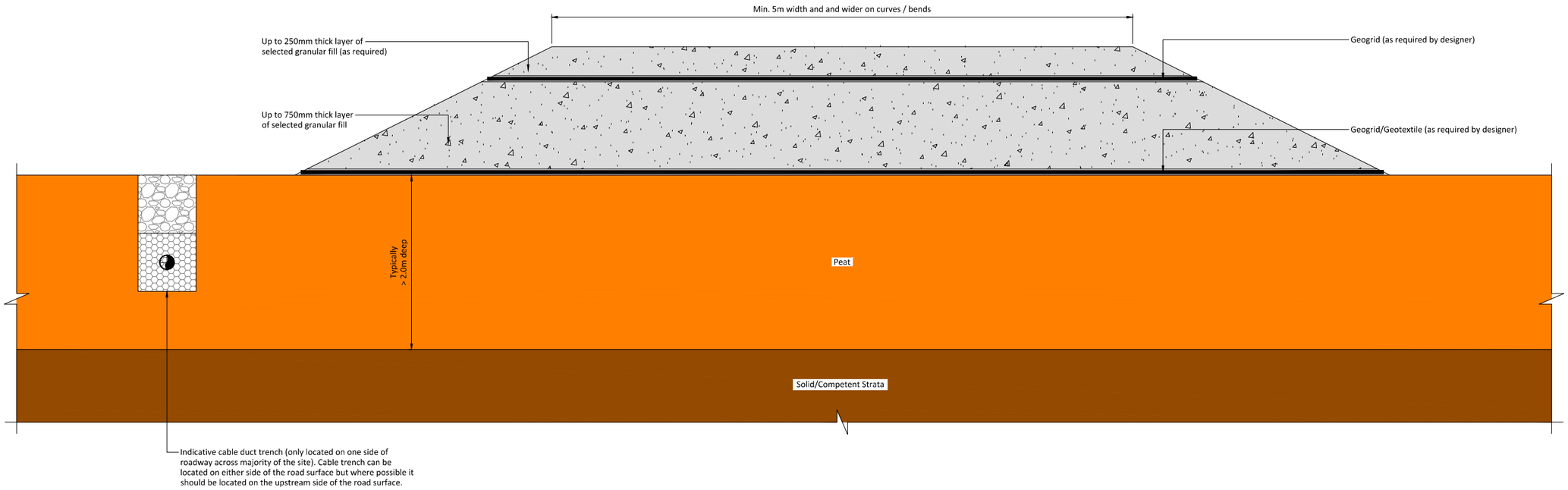
23 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0009)



DETAIL
1:20

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P01	FOR INFORMATION	BDH	18.12.25
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PROJECT
SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
TYPE D – NEW FLOATING ACCESS ROAD

Date 23.04.26
Drawn by POR
Checked by IH
Project number P24-264
Scale (@ A1) 1:20
Drawing Number P24-264-0600-0010
(Sheet set subset 0600)
Rev P02

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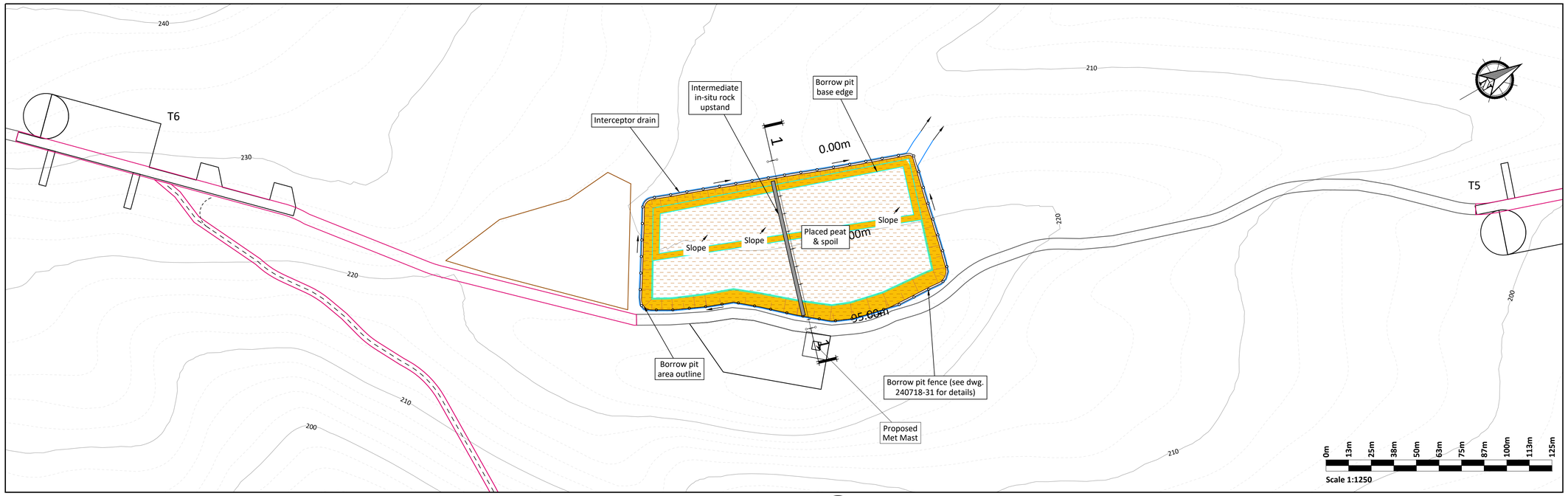
23 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0010)



PLAN 0001 -
1:1250

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- Proposed Biodiversity Enhancement Area
- Proposed Delivery Overrun Area
- Proposed Public Road to be Upgraded
- Proposed Public Road to be Maintained
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Borrow Pit:

(1) It is proposed to construct the borrow pit so that the base of the borrow pit is below the level of the adjacent section of access road.

(2) Slopes within the excavated rock formed around the perimeter of the borrow pit will be formed at stable inclinations to suit local in-situ rock conditions.

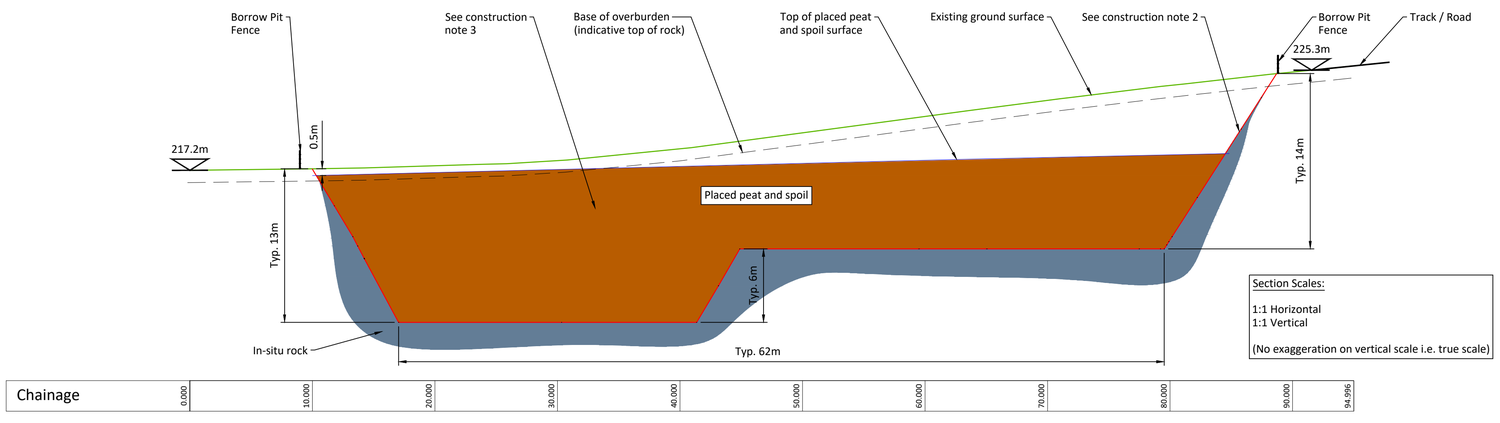
(3) Infilling of the peat & spoil will commence at the back edge of the borrow pit and progress towards the borrow pit entrance. A rock upstand will be left in place to allow the borrow pit to be developed and infilled in cells.

(4) The surface of the placed peat & spoil will be shaped to allow efficient run-off of surface water from the placed arising's.

(5) Control of groundwater within the borrow pit may be required and measures will be determined as part of the ground investigation programme.

(6) All the above-mentioned general guidelines and requirements will be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the borrow pit are included within Section 6.6 of the Peat & Spoil Management Plan.



SECTION 1 - 1 -
1:250

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Rev.	Description	App By	Date
P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	23.04.26

PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: BORROW PIT 1 - PLAN AND SECTION DETAILS

Date: 23.04.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): As Shown
Drawing Number: P24-264-0600-0011 (Sheet set subset 0600)
Rev: P03

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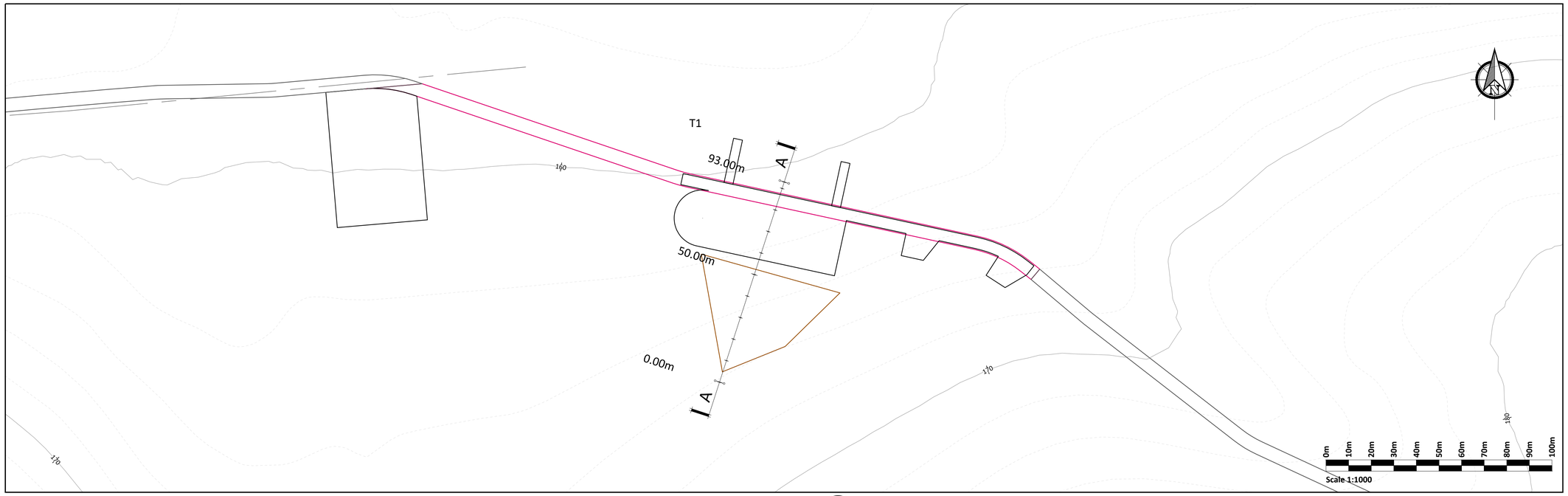
23 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0011)



PLAN 0001
1:1000 -

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Peat & Spoil Managment Areas:

(1) An interceptor drain should also be installed upslope of the management areas.

(2) A silting pond will be required at the lower side of the management areas.

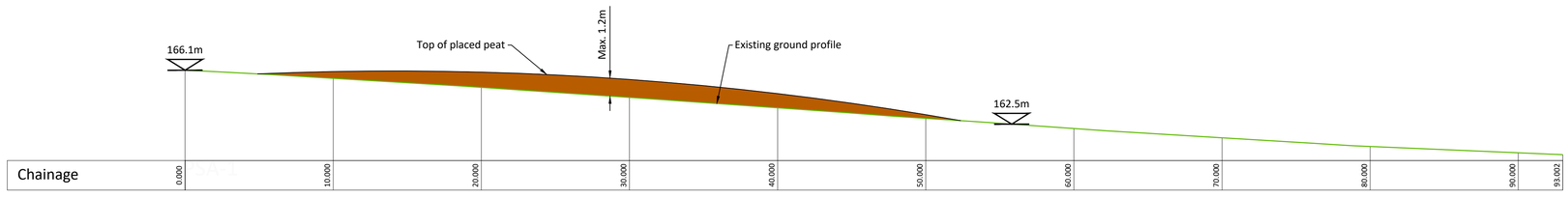
(3) The placement of the excavated peat/spoil should commence at the downslope edge of the management area against the stone buttress and placement should then continue upslope.

(4) It is important that the surface of the stored peat/spoil be shaped to allow efficient run-off of water from the stored peat/spoil.

(5) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the management area.

(6) All the above-mentioned general guidelines and requirements should be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the management area are included within Section 6.7 of the Peat & Spoil Management Plan.



SECTION A - A
1:200 -

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P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26

PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: PEAT MANAGEMENT AREA (T01)

Date: 17.02.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): As Shown
Drawing Number: P24-264-0600-0012 (Sheet set subset 0600)
Rev: P02

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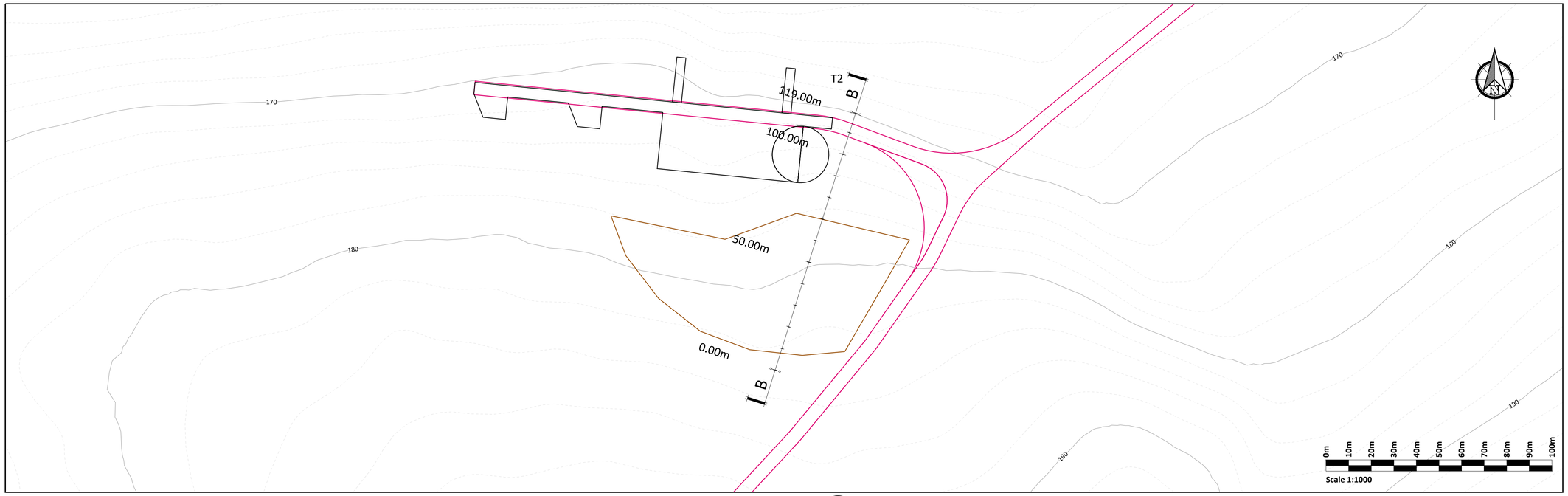
11 March 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0012)



PLAN 0001
1:1000 -

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Peat & Spoil Managment Areas:

(1) An interceptor drain should also be installed upslope of the management areas.

(2) A silting pond will be required at the lower side of the management areas.

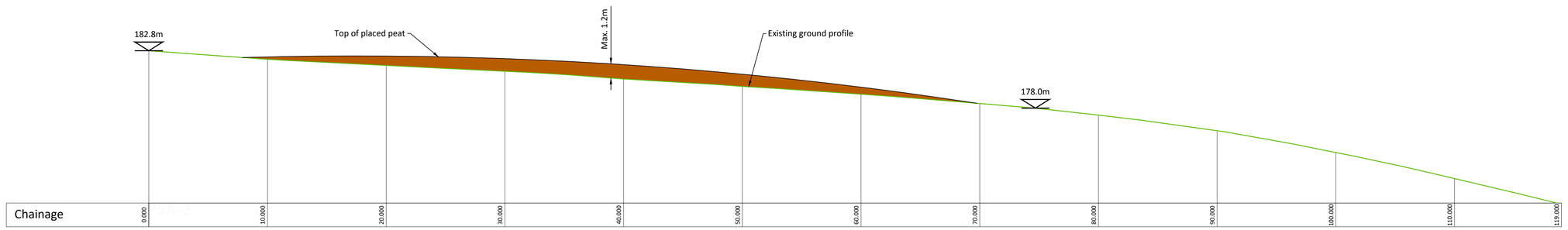
(3) The placement of the excavated peat/spoil should commence at the downslope edge of the management area against the stone buttress and placement should then continue upslope.

(4) It is important that the surface of the stored peat/spoil be shaped to allow efficient run-off of water from the stored peat/spoil.

(5) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the management area.

(6) All the above-mentioned general guidelines and requirements should be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the management area are included within Section 6.7 of the Peat & Spoil Management Plan.



SECTION B - B
1:200 -

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P01	FOR INFORMATION	BDH	18.12.25
P02	FOR INFORMATION	BDH	17.02.26

PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: PEAT MANAGEMENT AREA (T02)

Date: 17.02.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): As Shown
Drawing Number: P24-264-0600-0013 (Sheet set subset 0600)
Rev: P02

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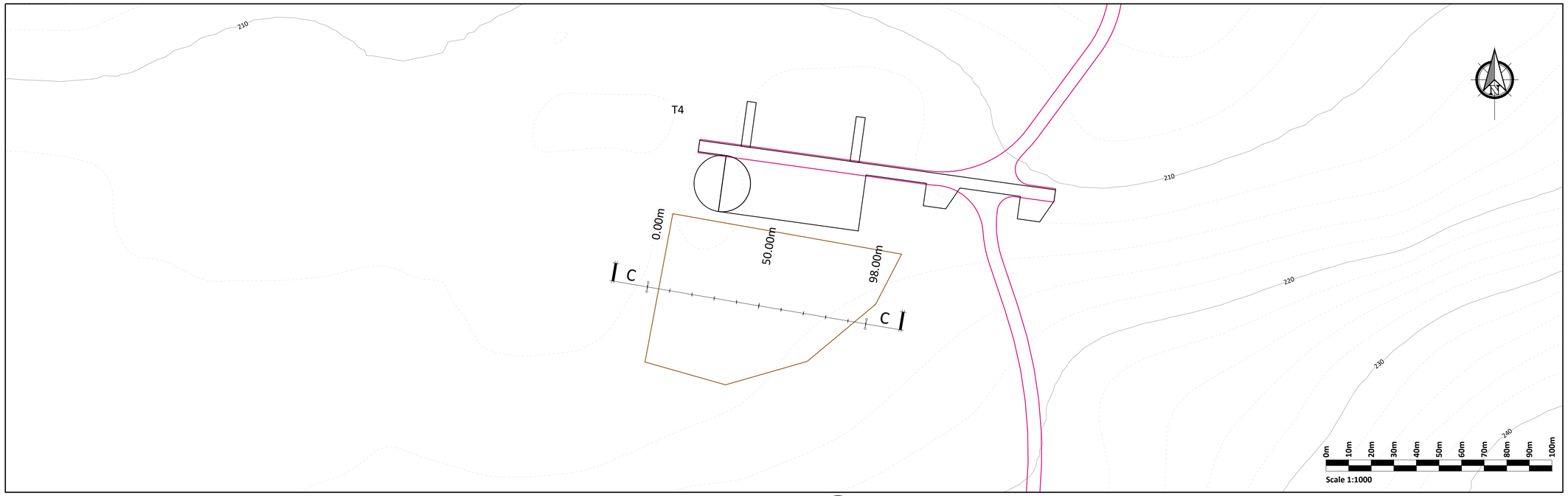


PLAN 0001
1:1000 -

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Peat & Spoil Managment Areas:

(1) An interceptor drain should also be installed upslope of the management areas.

(2) A silting pond will be required at the lower side of the management areas.

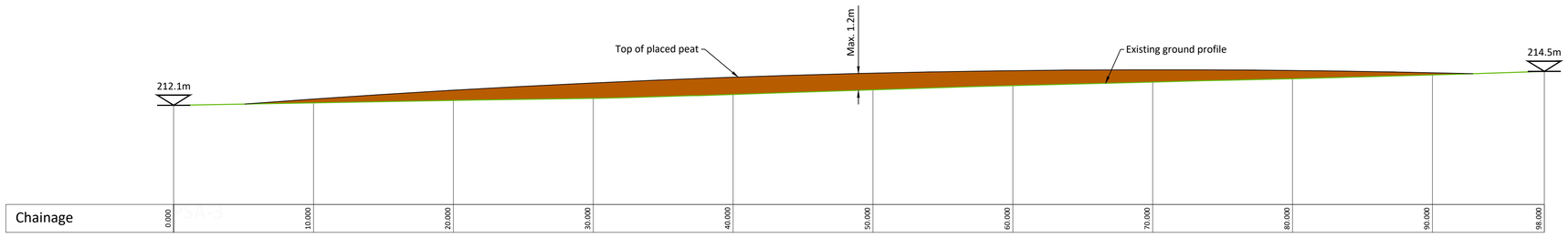
(3) The placement of the excavated peat/spoil should commence at the downslope edge of the management area against the stone buttress and placement should then continue upslope.

(4) It is important that the surface of the stored peat/spoil be shaped to allow efficient run-off of water from the stored peat/spoil.

(5) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the management area.

(6) All the above-mentioned general guidelines and requirements should be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the management area are included within Section 6.7 of the Peat & Spoil Management Plan.



SECTION C - C
1:200 -

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PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: PEAT MANAGEMENT AREA (T04)

Date: 17.02.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): As Shown
Drawing Number: P24-264-0600-0014 (Sheet set subset 0600)
Rev: P02

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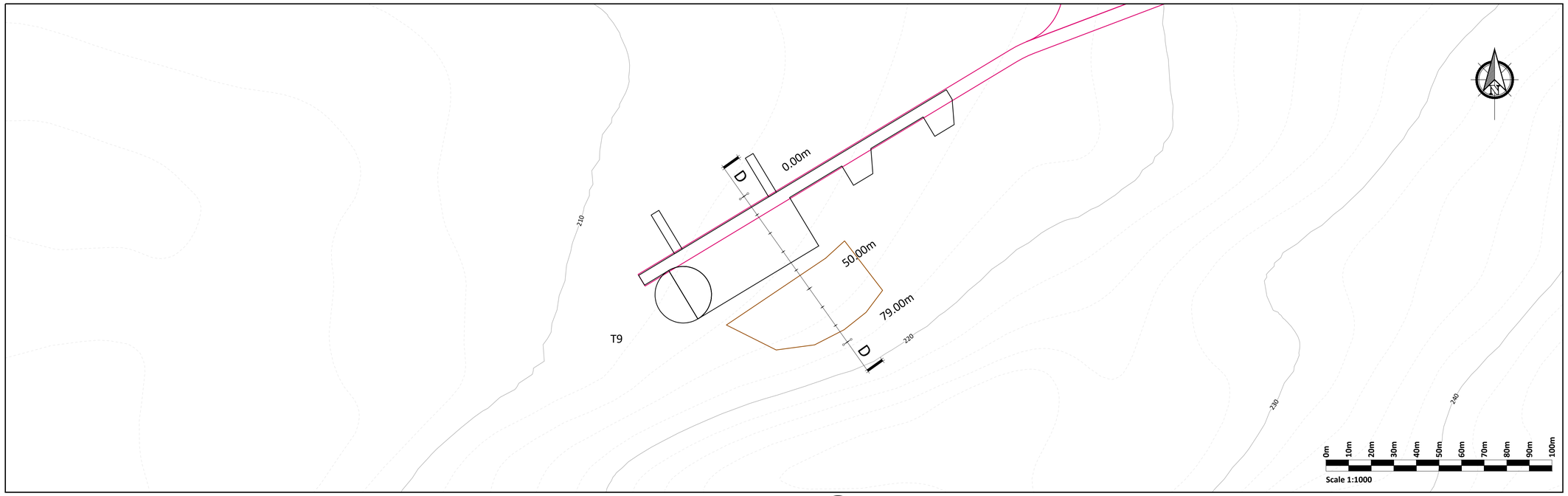


PLAN 0001
1:1000 -

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Peat & Spoil Managment Areas:

(1) An interceptor drain should also be installed upslope of the management areas.

(2) A silting pond will be required at the lower side of the management areas.

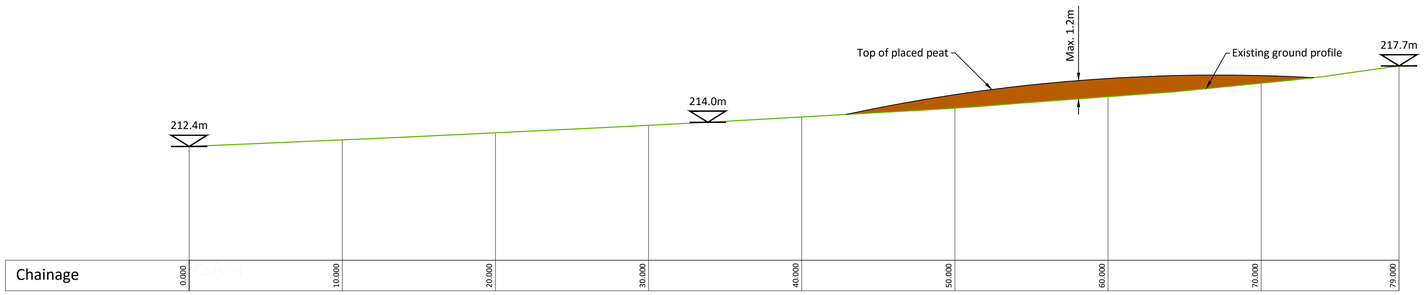
(3) The placement of the excavated peat/spoil should commence at the downslope edge of the management area against the stone buttress and placement should then continue upslope.

(4) It is important that the surface of the stored peat/spoil be shaped to allow efficient run-off of water from the stored peat/spoil.

(5) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the management area.

(6) All the above-mentioned general guidelines and requirements should be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the management area are included within Section 6.7 of the Peat & Spoil Management Plan.



SECTION D - D
1:200 -

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P02	FOR INFORMATION	BDH	17.02.26

PROJECT: SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT: MKO

SHEET: PEAT MANAGEMENT AREA (T09)

Date: 17.02.26
Drawn by: POR
Checked by: IH
Project number: P24-264
Scale (@ A1): As Shown
Drawing Number: P24-264-0600-0015 (Sheet set subset 0600)
Rev: P02

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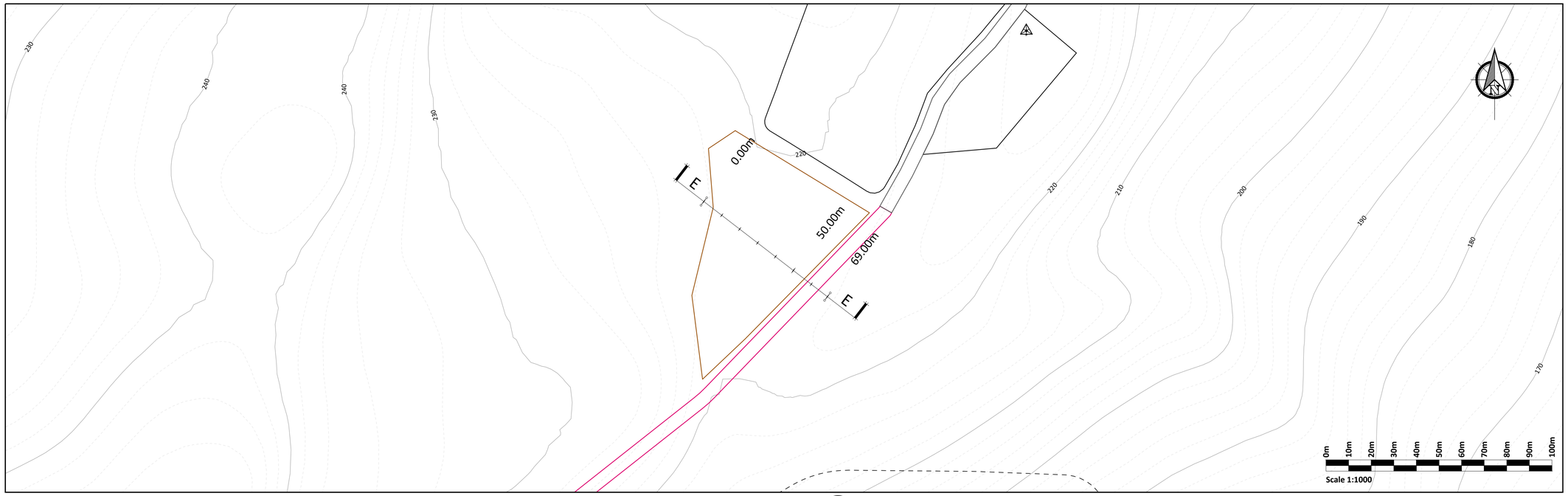
11 March 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0015)



PLAN 0001
1:1000

Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- 50.0 Existing Ground Level - Major Contour
- Existing Ground Level - Minor Contour

Construction Notes Spoil Managment Area

(1) An interceptor drain should also be installed upslope of the management areas.

(2) A silting pond will be required at the lower side of the management areas.

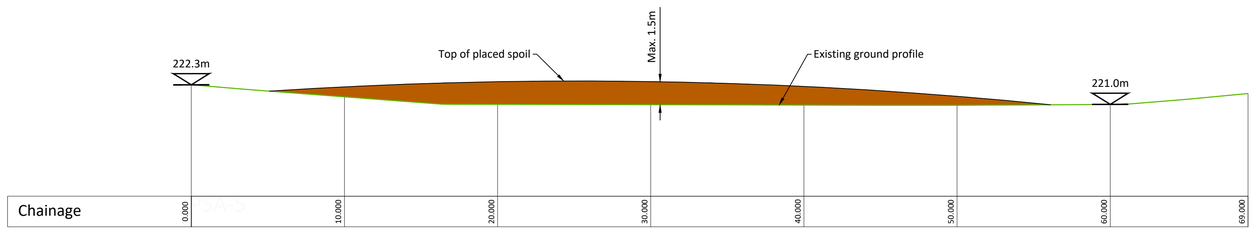
(3) The placement of the excavated spoil should commence at the downslope edge of the management area against the stone buttress and placement should then continue upslope.

(4) It is important that the surface of the stored spoil be shaped to allow efficient run-off of water from the stored spoil.

(5) Supervision by a geotechnical engineer or appropriately competent person is recommended for the construction of the management area.

(6) All the above-mentioned general guidelines and requirements should be confirmed by the designer prior to construction.

(7) Further guidelines on the construction of the management area are included within Section 6.7 of the Peat & Spoil Management Plan.



SECTION E - E
1:200

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P02	FOR INFORMATION	BDH	17.02.26

PROJECT
SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT
MKO

SHEET
SPOIL MANAGEMENT ADJACENT TO BORROW PIT

Date 17.02.26
Drawn by POR
Checked by IH
Project number P24-264
Scale (@ A1) As Shown
Drawing Number P24-264-0600-0016
Rev P02
(Sheet set subset 0600)

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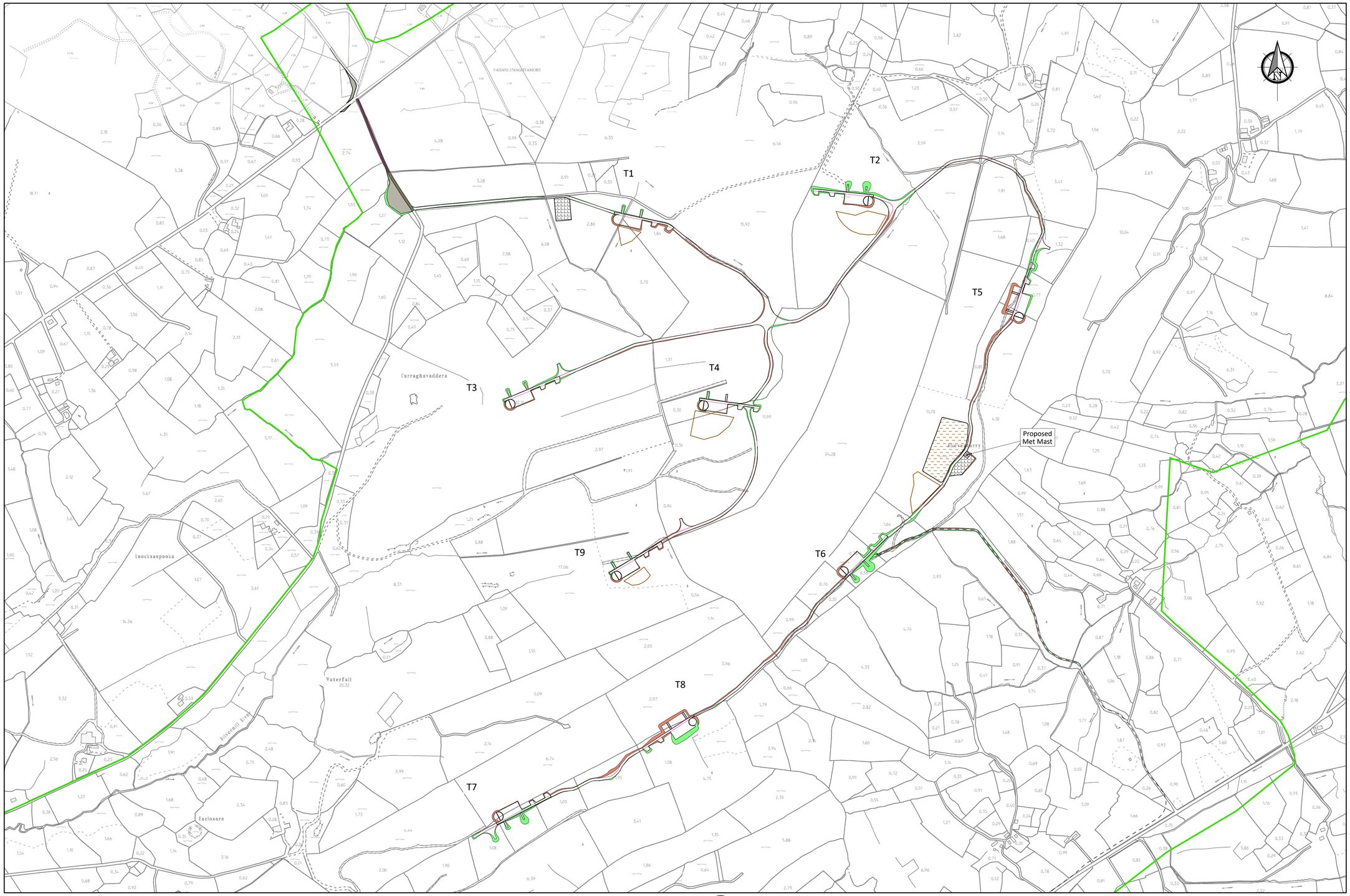
11 March 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0016)



Legend:

- EIAR Site Boundary
- Proposed Turbine
- Proposed Upgrades to Existing Road
- Proposed New Road
- Proposed Temporary Construction Compound
- Proposed Borrow Pit
- Proposed Underground Cable Connection
- Proposed Turbine Delivery Route
- Proposed Peat & Spoil Management Area
- Proposed Biodiversity Enhancement Area
- Proposed Delivery Overrun Area
- Proposed Public Road to be Upgraded
- Proposed Public Road to be Maintained

Earthworks Legend:

- Area of Cutting
- Area of Fill

0m 50m 100m 150m 200m 250m 300m 350m 400m 450m 500m

Scale 1:5000

PLAN 0001

1:5000 -

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P02	FOR INFORMATION	BDH	17.02.26
P03	FOR INFORMATION	BDH	23.04.26

PROJECT

SLIEVEACURRY RENEWABLE ENERGY DEVELOPMENT

CLIENT

MKO

SHEET

PLAN DRAWING OF CUT AND FILL EARTHWORKS FOR SITE

Date 23.04.26	Project number P24-264	Scale (@ A1) 5000	
Drawn by POR	Drawing Number P24-264-0600-0017 (Sheet set subset 0600)		Rev P03
Checked by IH			

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23 April 2026 (O:\ACAD\2024\P24-264\P24-264-0600-0017)

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APPENDIX A

Basis for Cut and Fill Earthworks Assessment

Basis for Cut/Fill Earthwork Assessment

Main Infrastructure Locations

Appendix A provides a summary of the main assumptions for the cut/fill earthworks assessment.

Table A1 provides a summary of the dig depths adopted for the cut/fill assessment for the main infrastructure elements at the Slieveacurry Renewable Energy Development.

The assumed excavation footprint for the turbine foundation is the turbine base diameter of 25m plus 1m working room all around the base i.e. 27m.

Table A1: Summary of the dig depths at the main infrastructure locations

Turbine	Easting	Northing	Average Peat Depth for Turbines (m)	Dig depth for Turbine Foundation (m) (1)	Average Peat Depth for Crane Hardstands (m)	Max Dig depth for Associated Crane Hardstand (m) (2)
T01	511800	680767	1.0	4.0	1.5	1.8
T02	512456	680815	0.6	4.0	0.6	0.9
T03	511518	680283	0.4	4.0	0.4	0.7
T04	512025	680280	1.8	4.0	2.0	2.3
T05	512851	680510	0.7	4.0	0.7	1.0
T06	512392	679845	0.8	4.0	0.8	1.1
T07	511487	679203	0.5	4.0	0.5	0.8
T08	511996	679451	0.6	4.0	0.6	0.9
T09	511797	679836	1.5	4.0	1.8	2.1
Infrastructure Element	**Easting**	**Northing**	**Average Peat Depth (m)**	**Max Dig depth for Infrastructure Element (m) (3)**		
Construction Compound	511650	680788	2.0	-		
Construction Compound/Met Mast)	512706	680122	0.1	0.4		
Cable Trench			0.3	1.2		
Borrow Pit 1	512658	680160	0.15	Varies		

Notes

(1) Founding depths for the turbines was assumed to be the average peat depth + 1m to a competent strata. To be confirmed at detailed design stage following confirmatory ground investigation. A minimum dig depth of 4m is assumed for each turbine foundation. For the purpose of this assessment, it is assumed that all turbine foundations will be gravity type founded bases i.e. no piled foundations.

(2) Founding depths for the crane hardstands was assumed to be the average peat depth + 0.3m to a competent strata. To be confirmed at detailed design stage following confirmatory ground investigation. In areas of steeper terrain (say greater than 10% gradient), for the crane hardstandings and for the purpose of this assessment, it was endeavoured to balance the earthworks for the footprint of the hardstands, where possible.
(3) It is proposed to float Temporary Construction Compound (N), and as such no excavation is anticipated at this location.
(4) Note the maximum dig depths stated in the Table above are indicative and for information purposes only and are subject to confirmation at detailed design stage following confirmatory ground investigation.

Access Roads

The following assumptions for the cut/fill assessment are given in relation to the access roads.

- Typical gradient requirements from turbine suppliers were assumed for the cut and fill assessment i.e., maximum gradients of 10 to 12%. A maximum gradient of 12% has been assumed for straight sections of access road on site.
- For the purpose of the assessment, it is assumed that the existing access roads on site are typically 3m in width.
- There are 4 types of access roads proposed/present on site, which include:
    - Existing excavated and replace type access roads, and section of public road to be upgraded (Type A and A1)- some excavation works as a result of localised widening will be required. It is assumed that widening will typically take place on both sides of the road. In areas of side long ground/steeper terrain (greater than 5% gradient), widening of existing roads will take place on the upslope side of the road. Estimated dig depth to competent strata for both cases is 0.3m below the base of the peat.
    - Existing floating roads (Type B) – no excavation associated with the widening of this road.
    - New proposed excavate and replace type access roads (Type C and E) – excavation work will be required. Estimated dig depth to competent strata was 0.3m below the base of the peat.
    - New floated access road (Type D) – no excavation associated with this type of road.

Borrow Pit

The cut/fill assessment for the borrow pit is based on the cross-section drawings included in this report. The borrow pit was sized to allow for the reinstatement of the excavated peat and spoil volume generated on site and to accommodate the estimated site-won stone fill requirements.

General Assumptions

A 1(v): 1.5(h) configuration for all excavation faces was assumed for the cut and fill earthworks assessment, except for excavations in rock at the borrow pit where a configuration of 1(v): 0.7(h) i.e. 60 degrees was assumed. These configurations are considered reasonable based on the ground conditions encountered on the site, and in line with best practice guidelines.

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