

The Highland Council

**South Planning Applications Committee
1 March 2016**

Agenda Item	6.4
Report No	PLS 014/16

15/00737/FUL: RES Ltd

Land at Carn Ghriogair, Aberarder Estate, Aberarder, Inverness

Report by Head of Planning and Building Standards

SUMMARY

Description: Erection of 12 wind turbines (130m in height) including and associated works (Aberarder Wind Farm)

Recommendation: Grant Planning Permission

Ward: 13 - Aird and Loch Ness

Development category: Major

Pre-determination hearing: None

Reason referred to Committee: Major Development

1.0 PROPOSED DEVELOPMENT

1.1 The application is for the formation of Aberarder wind farm and its associated infrastructure. This includes:

- 12 wind turbines (3MW capacity each), maximum height to tip of 130m;
- crane hard standings;
- temporary assembly areas;
- one permanent 82m meteorological mast;
- four temporary meteorological masts;
- site access tracks;
- control building and substation;
- network of cable trenches;
- temporary construction, welfare and gatehouse compounds;
- concrete batching plant and compound;
- communications mast; and
- sustainable urban drainage system.

1.2 The applicant has stated that windfarm components will be landed at Inverness Harbour and transported to site via the A9 trunk road onto the B851. Access to the development is through the Dunmaglass Wind Farm, utilising the same access

from the B851. A final grid connection route is not known at this time, and will be subject to a separate application under Section 37 of the Electricity Act 1989 (As Amended). The applicant anticipates there will be two options for grid connection. Option 1 would be to connect into the consented connection for Dunmaglass Wind Farm and option 2 would be to construct a new grid connection to the proposed Garbole transmission hub to the east of the site.

- 1.3 The applicant anticipates that the wind farm construction period will be 18 months. This period of time will include commencement on site through to site commissioning and testing. The applicant has stated they will utilise a Construction Environment Management Document throughout the construction period. This would be approved by The Highland Council, in consultation with relevant statutory bodies before the start of development or works. To address particular site constraints which may become apparent during construction the applicant is seeking a micrositing allowance of 50m.
- 1.4 The wind farm has an expected operational life of 25 years. Following this the applicant has advised that a decision will be made as to whether to re-power the site. If the decision is made to decommission the wind farm, the applicant advises that all turbine components, substation and associated buildings will be removed. Upper sections of the foundations will be removed and backfilled with suitable material and restored. Cables would be cut away below ground level and sealed or removed. It is intended that some of the access tracks may be left in place.
- 1.5 In support of the application the following studies / assessments have been submitted:
 - Environmental Statement addressing: Design Evolution and Alternatives; Landscape and Visual Assessment; Cultural Heritage; Ornithology; Terrestrial Ecology; Transport and Traffic; Geology, Hydrology and Hydrogeology; and Noise; and
 - Planning Statement.

2.0 Site Description

- 2.1 The wind farm site extends to approximately 318ha with the built development occupying a much smaller area, approximately 6.6ha. The turbines which form the development are set on an area of ground which rises from east to west between Coille Mhòr (675m) and Carn Ghriogair (806m). The ground on which the turbines sit varies between 650m in height and 770m in height above ordnance datum (AOD).
- 2.2 The site is located approximately 14.1km south west of Inverarnie, 12.5km south west of Farr and 5.6km south of Croachy. There are a large number of smaller groups of houses in this area including those at Abersky, Torness, Whitebridge and Inverfarigaig. Inverness is approximately 20.5km to the north of the site. The immediate area to the south and east of the turbine envelope is very sparsely populated.
- 2.3 The site is not within any areas designated as important for natural heritage but

there are a number of sites within a 20km radius study area of the site: including the following:

Special Areas of Conservation

- Ness Woods
- Loch Ruthven
- Kinveachy Forest
- River Spey
- Slochd
- Urquhart Bay Woods
- Monadhliath

Special Protection Areas

- Loch Ashie
- Loch Ruthven
- Loch Knockie and Nearby Lochs
- Kinveachy Forest

Sites of Special Scientific Interest

- Allt na Feithe Sheilich
- Balnagrantach
- Creag nan Clag
- Easter Ness Forest
- Gartally Limestone Quarries
- Kinveachy Forest
- Inverfarigaig
- Knockie Lochs
- Loch Ashie
- Loch Bran
- Littlemill fluvio-glacial landform
- Loch Ruthven
- Monadhliath
- Urquhart Bay Wood
- Dubh Lochs

- 2.4 A number of archaeological records exist within a 5km study area around the site, however no remains have been identified within the site. The ES has identified there is a very low chance of further significant archaeological finds within the core study area and in proximity of the site. This is due to the settlement pattern being at lower elevations along the strath.
- 2.5 A number of Scheduled Monuments are within 10km of the turbine envelope. Aberarder House, Abersky Farmhouse, Flichity House, and Bridgend Farmhouse are listed located within the study area and have theoretical visibility of the wind farm. There are no world heritage sites, designated gardens / landscape or conservation areas within 10km of the site.
- 2.6 A number of watercourses are present within the development site, including Cròm-allt Mòr and Crom-allt Beag, these are tributaries of the River Nairn. The

turbine envelope sits across the catchments of the Allt Rugaidh Bheag. The access track and the majority of the borrow pits sit within the catchments of the Cròm-allt Mòr, Crom-allt Beag and Allt nan Adag.

- 2.7 Within the site there are a number of Ground Water Dependant Terrestrial Ecosystems (GWDTEs) which are protected under the Water Framework Directive. The ES identifies that the application site includes wet heath, blanket mire and springs as the most likely to be impacted GWDTE on the site.
- 2.8 The bedrock on the site is classified as Ruthven Semipelite Formation and to the west of the site lies Glen Doe Psammite Formations. Peat is present across the site to varying depths. Peat probing has been undertaken which has identified peat depths of between 0m and in excess of 2m albeit the areas of deeper peat over 1.5m in depth are limited.
- 2.9 A variety of valued habitats are present across the application site. The ES reported the results of the surveys for Otter, Badgers, Water Voles, Bat, reptiles, Red squirrel, Pine Marten, Wildcat, Great Crested Newt, terrestrial invertebrates, fish and aquatic invertebrate. The surveys, both desk and on-site, identified that the site has the potential habitat both within the site and around it to attract otter and water vole. The site has limited suitable habitat for other species.
- 2.10 Surveys have been carried out which identify the site (including its immediate surrounds) is frequented by a varied range of birds. This includes, but is not limited to, the following species: Pink-footed Goose; Greylag Goose; Red Grouse; Red Kite; Buzzard; Golden Eagle; Raven; and Kestrel.
- 2.11 The turbine area is characterised as Rolling Uplands in the Inverness Landscape Character Assessment (I-LCA). The track passes through an area characterised as Farmed Straths in the I-LCA.
- 2.12 The site is not located within any international or regional landscape designations. The site lies in proximity (within 35km) to the following landscape designations:

National Scenic Areas

- The Cairngorm Mountains;
- Glen Strathfarrar;
- Glen Affric.

Gardens and Designed Landscapes

- Kinrara
- Inshriach Nursery
- Doune of Rothiemurchus
- Cawdor Castle;
- Culloden House;
- Dalcross Castle;
- Leys Castle;
- Aldourie Castle;
- Dochfour;
- Tomnahurich Cemetery;

- Beaufort Castle;
- Rosehaugh.

Special Landscape Areas

- Loch Ness and Duntelchaig;
- Drynachan, Lochindorb and Dava Moors;
- Ben Alder Laggan and Glen Banchor.

2.13 The application does not sit within a wild land area. The application site is in proximity of the following wild land areas:

- WLA 20 - Monadhliath;
- WLA 19 - Braeroy - Glenshirra - Creag Meagaidh;
- WLA 15 - Cairngorms;
- WLA 24 - Central Highlands.

2.14 The key recreational interests in this area are mountaineering, walking, cycling, and canoeing in the surrounding lochs. There are a number of low level walks in the area, the most notable of which is the Great Glen Way, a section of which passes to the east of the site at the opposite side of Loch Ness. High level walks accessing the nearby hills including those identified as Munros, Corbetts and Grahams are also present in the surrounding area.

2.15 When assessing a wind farm proposal, consideration of similar developments in proximity of the proposal for cumulative effects is required. The list below sets out the projects in the wider area that are operational, approved or have been submitted but not yet determined.

Built and / or consented

- Dunmaglass
- Farr
- Glen Kyllachy
- Corriegarth (and extension)
- Bhlairaidh
- Corrimony
- Auchmore 1 and 2
- Moy
- Tom Nan Clach.

Under consideration

- Cnoc an Eas
- Druim Ba
- Stronelaireg (awaiting outcome of appeal to legal challenge)
- Dell.

3.0 Planning History

- 3.1 12.01.2016 Erection of 50m guyed mast to facilitate meteorological measurements and community broadband, relating to the proposed Aberarder Wind Farm - Appeal Upheld - Planning Permission Granted (15/00060/REFIN).
- 3.2 29.06.2015 Erection of 50m guyed mast to facilitate meteorological measurements and community broadband, relating to the proposed Aberarder Wind Farm Planning Permission Refused (15/01784/FUL).
- 3.2 08.04.2014 Aberarder Wind Farm - Proposed wind farm, estimated could accommodate up to 13 wind turbines. max tip height 130 metres, rate at 2 mw (15/01520/PAN)
- 3.3 13.05.2014 Aberarder Wind Farm - The development will comprise up to 13 3 bladed horizontal wind turbines rated at 2 MW, hard standing areas for erection and maintenance cranes, a series of on-site tracks, site access route, borrow pits, sub-station compound, network of buried electrical cables, temporary construction compound and temporary guyed meteorological masts (14/00819/PREAPP).
- 3.4 28.03.2014 Aberarder Wind Farm - Erection of approx 13 wind turbines, development exceeding 20MW. Scoping Opinion Issued (14/00639/SCOP)

4.0 PUBLIC PARTICIPATION

4.1 Advertised:

Representation deadline: 16.04.2015

- 4.4 Timeous representations against: 34
Comments: 2
Representations in support: 0

4.3 Material issues raised in objection to the application:

- Visual impact (individual and cumulative);
- Landscape impact (individual and cumulative);
- Impact on the economy;
- Impact on tourism;
- Impact on residential amenity (noise, visual)
- Impact on the road network;
- Impact on species and habitats
- Impact on peat;
- Impact on ornithology (Golden Eagles);

- Impact on the water environment (including water quality, drainage and flood risk);
 - Impact on the historic environment;
 - Carbon balance.
- 4.3 Material issues raised in comment on the application:
- Impact on Golden Eagle populations;
 - Cumulative landscape and visual impact;
 - Impact on recreational users.
- 4.4 A list of all those who made representation is provided in Appendix 1 of this report. All letters of representation can be viewed via the Council's e-planning portal <http://wam.highland.gov.uk>.

5.0 CONSULTATIONS

- 5.1 **Strathnairn Community Council** object to the application. Concerns have been raised as to the location of the development, individual and cumulative landscape and visual impact, impacts on peat, ecology, impact on the amenity as a result of noise, traffic and transport impacts, impact on tourism.
- 5.2 **Strathdearn Community Council** object to the application. Concerns have been raised as to cumulative impact and landscape impacts.
- 5.3 **THC Transport Planning Team** object to the application unless mitigation is secured to address the impact on the local road network. Conditions are sought to address construction traffic management.
- 5.4 **THC Historic Environment Team (HET)** do not object to the application.
- 5.5 **THC Forestry Team** do not object to the application.
- 5.6 **THC Flood Risk Management Team (FRM)** do not object to the application. Conditions are sought to secure buffers from watercourses, and detail of the Sustainable Drainage System (SuDS).
- 5.7 **THC Environmental Health Officer** does not object to the application on the basis of noise. It is requested the cumulative noise assessment is assessed using the significant head room approach. He notes that the predicted noise levels at Aberarder are anticipated to be very low.
- 5.8 **THC Access Officer** does not object to the application. He requests a condition to secure an outdoor access management plan.
- 5.9 **Scottish Environment Protection Agency (SEPA)** do not object to the application. Conditions are requested to secure a Nature Conservation Management Plan, Peat Management Plan, Construction Environment Management Document, and detail of borrow pits.

- 5.10 **Scottish Natural Heritage (SNH)** do not object to the application. Conditions are sought to secure construction methodologies sensitive to the European Protected Species and other protected species on the site. SNH welcome the proposed contribution to the Regional Golden Eagle Conservation Management Plan. SNH do not consider that the additional landscape and visual impact as a result of this development is significant.
- 5.11 **Transport Scotland** do not object to the application. Conditions are sought to secure detail of the proposed route for abnormal loads on the trunk road network and traffic control measures.
- 5.12 **Historic Environment Scotland (HES)** do not object to the application.
- 5.13 **Civil Aviation Authority (CAA)** do not object to the application.
- 5.14 **National Air Traffic Services (NATS)** do not object to the application.
- 5.15 **Highlands and Islands Airports Ltd (HIAL)** object to the application unless mitigation can be put in place to avoid impact on the operation of the radar at Inverness Airport.
- 5.16 **Ministry of Defence (MOD)** do not object to the application. Conditions are sought to secure aviation lighting.

6.0 Development Plan Policy

- 6.1 The following policies are relevant to the assessment of the application:

Highland-wide Local Development Plan (April 2012)

- 6.2
- | | |
|-----------|--------------------------------------|
| Policy 28 | Sustainable Development |
| Policy 29 | Design, Quality and Place Making |
| Policy 31 | Developer Contributions |
| Policy 51 | Trees and Development |
| Policy 55 | Peat and Soils |
| Policy 56 | Travel |
| Policy 57 | Natural, Built and Cultural Heritage |
| Policy 58 | Protected Species |
| Policy 59 | Other Important Species |
| Policy 60 | Other Important Habitats |
| Policy 61 | Landscape |
| Policy 63 | Water Environment |
| Policy 67 | Renewable Energy Developments |
- Natural, Built and Cultural Heritage
 - Other Species and Habitat Interests
 - Landscape and Visual Impact
 - Amenity at Sensitive Locations
 - Safety and Amenity of Individuals and Individual Properties
 - The Water Environment
 - Safety of Airport, Defence and Emergency Service Operations

- The Operational Efficiency of Other Communications
- The Quantity and Quality of Public Access
- Other Tourism and Recreation Interests
- Traffic and Transport Interests

Policy 72 Pollution
 Policy 77 Public Access

Inverness Local Plan (As Continued in Force 2012)

6.3 The general policies and land allocations of the Local Plan pertinent to this application have been superseded by the policies of the Highland-wide Local Development Plan.

Inner Moray Firth Local Development Plan (July 2015)

6.4 No policies or allocations relevant to the proposal are included in the Local Development Plan. However it should be noted that the Plan confirms the boundaries of the Special Landscape Areas.

Supplementary Guidance

6.5 The following Supplementary Guidance forms a statutory part of the development plan and is considered pertinent to the determination of this application.

- Flood Risk and Drainage Impact Assessment: Supplementary Guidance (January 2013)
- Highland Historic Environment Strategy: Supplementary Guidance (March 2013)
- Managing Waste in New Developments: Supplementary Guidance (March 2013)
- Sustainable Design Guide: Supplementary Guidance (January 2013)
- Trees, Woodlands and Development: Supplementary Guidance (January 2013)
- Highland Statutorily Protected Species: Supplementary Guidance (March 2014)

7.0 Other Material Planning Policy

Draft Onshore Wind Energy: Supplementary Guidance (September 2015)

7.1 The document provides additional guidance on the principles set out in Policy 67 - Renewable Energy Developments of the Highland-wide Local Development Plan and reflects the updated position on these matters as set out in Scottish Planning Policy. This draft document is a material consideration in the determination of planning applications. It is anticipated that the document will move to adoption in summer 2016.

7.2 The document includes a draft Spatial Framework, which is largely in line with

Table 1 of Scottish Planning Policy. The site sits predominantly within an “Area of Significant Protection”. This draft Spatial Framework will be refined, in line with Scottish Planning Policy, finalised and included within the revised Highland-wide Local Development Plan.

- 7.3 At Planning, Development and Infrastructure Committee on 19 August 2015 it was agreed that the new Draft Supplementary Guidance be a material consideration in the determination of planning applications. As the new Draft SG sets out the Council’s most up to date position on the matters related to on-shore wind, including the latest spatial framework, the Draft SG is considered to supersede the Interim Supplementary Guidance which had been adopted for use by the Council in March 2012.

Highland Renewable Energy Strategy (HRES) (May 2006)

- 7.4 While superseded, in part, by the above documents, HRES is still relevant as a strategy document for renewable energy. Relevant policies to the current application, include:

- Policy H1 Education and Training
- Policy K1 Community Benefit
- Policy N1 Local Content of Works

Other Highland Planning Guidance

- 7.5 The Highland-wide Local Development Plan is currently under review and is at Main Issues Report Stage. It is anticipated the Proposed Plan will be published in 2016.
- 7.6 In addition to the above, The Highland Council sets out further advice on delivery of major developments in a number of documents. This includes but is not limited to the Construction Environmental Management Process for Large Scale Projects and The Highland Council Visualisation Standards for Wind Energy Developments.

Scottish Government Planning Policy and Guidance (June 2014)

- 7.7 Scottish Planning Policy (SPP) advances principal policies on Sustainability and Placemaking, and subject policies on A Successful, Sustainable Place; A Low Carbon Place; A Natural, Resilient Place; and A Connected Place. It also highlights that the Development Plan continues to be the starting point of decision making on planning applications. The content of the SPP is a material consideration that carries significant weight, although it is for the decision maker to determine the appropriate weight to be afforded to it in each case.
- 7.8 The SPP sets out continued support for onshore wind. It requires Planning Authorities to progress, as part of the Development Plan process, a spatial framework identifying areas that are most likely to be most appropriate for onshore wind farms as a guide for developers and communities. It also lists likely considerations to be taken into account relative to the scale of the proposal and

area characteristics (Para. 169).

7.9 Other Material Planning Considerations

- National Planning Framework for Scotland 3
- PAN 56 – Planning and Noise
- PAN 58 – Environmental Impact Assessment
- PAN 60 – Planning for Natural Heritage
- 2020 Routemap for Renewable Energy
- Onshore Wind Turbines
- Wind Farm developments on Peat Lands

8.0 **PLANNING APPRAISAL**

8.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 requires that planning applications are determined in accordance with the Development Plan unless material considerations indicate otherwise.

Determining Issues

8.2 The determining issues are:

- do the proposals accord with the development plan?
- if they do accord, are there any compelling reasons for not approving them?
- if they do not accord, are there any compelling reasons for approving them?

Planning Considerations

8.3 In order to address the determining issues, the Committee must consider:

- a) Development Plan
- b) Draft Onshore Wind Energy Supplementary Guidance
- c) Highland Renewable Energy Strategy
- d) Caithness and Sutherland Local Development Plan - Proposed Plan
- d) National Policy
- e) Roads and Transport
- f) Water, Flood Risk, Drainage and Peat
- g) Natural Heritage including ornithology;
- h) Built and Cultural Heritage
- i) Design, Landscape and Visual Impact (including Wild Land)
- j) Access and Recreation
- l) Noise and Shadow Flicker
- m) Telecommunications
- n) Aviation
- o) Construction
- p) Economic Benefits
- q) Other material considerations

Development Plan

- 8.4 The Development Plan comprises the adopted Highland wide Local Development Plan (HwLDP), Inner Moray Firth Local Development Plan (IMFLDP) and the Inverness Local Plan (as continued in force). There are no site specific policies affecting this application site within the Inverness Local Plan (as continued in force) or the IMFLDP. The IMFLDP sets the boundaries of the Special Landscape Areas. The principal HwLDP policy on which the application needs to be determined is Policy 67 - Renewable Energy. The other HwLDP policies listed at 6.2 of this report are also relevant and the application must be assessed against these.
- 8.5 Policy 67 sets out that renewable energy development should be well related to the source of the primary renewable resource needed for operation, the contribution of the proposed development in meeting renewable energy targets and positive / negative effects on the local and national economy as well as all other relevant policies of the development plan and other relevant guidance. In that context the Council will support proposals where it is satisfied they are located, sited and designed such as they will not be significantly detrimental overall individually or cumulatively with other developments having regard to 11 specified criteria (as listed in para 6.2). Such an approach is consistent with the concept of Sustainable Design (Policy 28) to achieve the right development in the right place; it is not to allow development at any cost. If the Council is satisfied that there will be no significant adverse impact then the application will accord with the Development Plan.

Draft Onshore Wind Energy Supplementary Guidance

- 8.6 Following the publication of SPP the Council reviewed its Onshore Wind Energy: Interim Supplementary Guidance (ISG) as a matter of priority. The resultant draft Onshore Wind Energy Supplementary Guidance is a material consideration in the determination of planning applications and supersedes the Interim Supplementary Guidance (March 2012). The site principally falls within an "Area of Search" for wind energy. This requires the proposal to be assessed, as noted above, within Policy 67 of the HwLDP. The draft Supplementary Guidance also expands on the considerations / criteria set out in the Development Plan policy.
- 8.7 The draft Supplementary Guidance includes a methodology for and detail of a landscape sensitivity study for Loch Ness and the Great Glen. The development sits within Landscape Character Area 6 - Monadhliath ridge and tops, Rolling Uplands. This section of the guidance identifies that:
- the landscape sensitivity as medium to low in recognition of the existing density of development;
 - the highest sensitivity receptors are people at key viewpoints / tourists including cyclists and walkers;
 - there is potential for extensions to large scale wind farms but with care to ensure that mitigation of current schemes is not undone and the landscape setting of each scheme is maintained and skylining and coalescence is

avoided with current positioning, spacing and scale of turbine respected.

These matters are addressed primarily in the Design, Landscape and Visual Impact (including Wild Land) section of this report.

Highland Renewable Energy Strategy (HRES)

- 8.8 The Development Plan references HRES, which was developed by the Council for a range of Renewable Energy technologies. In particular the additional benefits from such investment including for example 'Education and Training,' 'Community Benefit' and 'Local Content' which are important considerations when assessing individual project proposals. For the avoidance of any doubt only those parts of the Council's HRES which are compliant with Scottish Government SPP remain in force.

Inner Moray Firth Local Development Plan (IMFLDP)

- 8.9 The IMFLDP does not contain any specific land allocations related to the proposed development. Paragraphs 2.3 - 2.6 74 of the IMFLDP sets out that the Special Landscape Area boundaries have been refined and confirmed in the IMFLDP. The boundaries set out in IMFLDP are supported by a background paper which includes citations for the Special Landscape Areas. Policies 28, 57, 61 and 67 of the HwLDP seek to safeguard these regionally important landscapes. The impact of this development on landscape is primarily assessed in the Design, Landscape and Visual Impact (including Wild Land) section of this report.

National Policy

- 8.10 There is strong support for renewable energy development in national policy. The Scottish Government has a target of 50% of Scotland's electricity demand generated from renewable resources by 2015 and 100% of demand by 2020. These targets are not a cap. As the technology is well developed it is expected that the majority of this energy will come from on-shore wind farms.
- 8.11 Notwithstanding the overarching context of support, SPP recognises that the need for energy and the need to protect and enhance Scotland's natural and historic environment must be regarded as compatible goals. The planning system has a significant role in securing appropriate protection to the natural and historic environment without unreasonably restricting the potential for renewable energy. National policies highlight potential areas of conflict but also advise that detrimental effects can often be mitigated or effective planning conditions can be used to overcome potential objections to development.
- 8.12 Criteria outlined within SPP for the assessment of applications include landscape and visual impact; effects on heritage and historic environment; contribution to renewable energy targets; effect on the local and national economy and tourism and recreation interests; benefits and dis-benefits to communities; aviation and telecommunications; development within the water environment, peat, noise and shadow flicker; and cumulative impact.

- 8.13 The Council continues to respond positively to the Government's renewable energy agenda. The Scottish Government advised that operational onshore wind energy capacity at 30 December 2014 was 7,316MW; equating to ~50% of Scotland's gross electricity consumption. Highland onshore wind energy projects in operation/under construction as of June 2015 have a capacity to generate 1,162MW; approximately 16% of the national installed capacity. There is a further 772MW of consented on-shore wind and 1,866MW off-shore wind in Highland.
- 8.14 While the Council has effectively met its own 2015 target, it remains the case that there are areas of Highland capable of satisfactorily absorbing renewable developments without significant effects. However, equally the Council could take a more selective approach to determining which wind farm developments should be supported, consistent with national and local policy. This is not treating targets as a cap or suggesting that targets cannot be exceeded; simply recognition of the balance that is called for in both national and local policy.
- 8.15 Notwithstanding any significant impacts that this proposal may have upon the landscape resource, amenity and heritage of the area, the development could be seen to be compatible with Scottish Government policy and guidance and increase its overall contribution to the Government, UK and European energy targets.

Roads and Transport

- 8.16 The development will bring an increase in traffic onto what has been described by Transport Planning as a fragile road network. The increase in traffic will be principally during construction. There will be limited to no impacts on the trunk road network.
- 8.17 The construction activity is likely to result in 19,054 vehicle movements over an 18 month period. This equates to an average of 81 return journeys per day, around 46 of which are likely to be larger than a car / van. The abnormal loads will be delivered to site in months 14-17 of the 18 month construction programme.
- 8.18 The proposed route for construction traffic to the windfarm site uses approximately 18km of the B851 from its junction with the A9. Recent improvements on the original single track road secured via previous windfarm developments in the area mean that almost 10km of the road is now twin tracked leaving nearly 9km of road remaining as single track. A recent inspection showed that almost 2km of the remaining single track road is suffering from significant edge deterioration, especially in Croachy, Inverarnie and Farr and close to the entrance of Dunmaglass wind farm.
- 8.19 The site will be accessed using an existing access onto the B851, currently used for the construction of Dunmaglass Wind Farm. Work is currently being progressed to upgrade this junction to facilitate the delivery of abnormal loads to the Dunmaglass Wind Farm. It is not considered that the access will require further upgrades. Transport Planning broadly agree with the methodology of the ES, however it is considered that the impact on the road, given its fragile nature

and importance to the area has not been adequately addressed in the ES. They consider that there is a significant risk of damage to the road network as a result of this development with structural failure of the carriageway a possibility. The developer disputes this.

8.20 Transport Planning consider that the moderate to large impacts identified within the Transport and Environmental Statement will significantly exacerbate the rate and scale of deterioration on the single track sections of the B851 by adversely affecting the integrity of the road structure and its safety standards. They recommend that before delivery of abnormal loads to the site that a scheme of mitigation is delivered to mitigate the impact on the local road network. It is considered that this would be a fair and reasonable approach to ensure that development can progress. This would be consistent with the Councils approach to developer contributions as set out in Policy 31 of the HwLDP and the associated Guidance.

8.22 Any mitigation sought would be done so in line with the established strategy as set out in the South Loch Ness Road Improvement Strategy, which has been applied consistently across all large scale renewable energy developments in the South Loch Ness Area and seeks to also address the change in character of what is now a multi-user road. The level of mitigation to be secured by a pre-commencement condition is set out below:

- The delivery of carriageway twin tracking to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of twin tracking; and
- The delivery of shared-use path to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of shared-use path.

8.23 This is considered to be proportionate to the level of impact on the structure, condition and character of the road. Without this level of mitigation, it is considered that the development would have an unacceptable impact on the local road network both in terms of structure and condition of the road and the cumulative change in character. In light of this, and the comment made that the road is not fit for purpose, it is considered that the above mitigation must be delivered in advance of the commencement of development.

8.24 A Section 96 Agreement under the Road Act will also be required. A Construction Traffic Management Plan will also be required to manage the impact of construction on the road network. Given the potential disruption to the road network during construction, there will be a need for a community liaison group to ensure the community are informed of any traffic issues prior to them coming into force. This can be secured by condition.

Water, Flood Risk, Drainage and Peat

8.25 The Environmental Statement is clear that a Construction Environmental Management Document / Plan (CEMD) will be in place to ensure that potential sources of pollution on site can be effectively managed throughout construction

- and in turn during operation, albeit there will be fewer sources of pollution during operation.
- 8.26 The CEMD can be secured by planning condition, requiring the agreement of construction methodologies with statutory agencies following appointment of the wind farm balance of plant contractor and prior to the start of development or works.
- 8.27 In order to protect the water environment a number of measures have been highlighted by the applicant for inclusion in the CEMD including the adoption of sustainable drainage principles, and measures to mitigate against effects of potential chemical contamination, sediment release and changes in supplies to Ground Water Dependant Terrestrial Ecosystems. This includes setbacks from water courses. Further mitigation is proposed during the operational phase to manage these potential issues. SEPA support this approach however conditions are sought to secure further details of these matters.
- 8.28 The wider site is home to extensive Ground Water Dependent Terrestrial Ecosystems (GWDTEs). The positioning of the tracks and turbines have generally avoided the most sensitive GWDTEs. SEPA has requested that the proposed mitigation associated with GWDTEs should be secured by condition. This mitigation includes the use of drainage inspections and marking / fencing of highly GWDTEs. There will also be a requirement to produce a Nature Conservation Management Plan to protect and enhance the rare GWDTEs on site. This is supported by both SNH and SEPA and can be secured by condition.
- 8.29 The development proposes the use of sustainable drainage systems to attenuate run off and filter out any potential pollutants. Details of the SuDS plan can be secured by condition, as requested by the Flood Risk Management Team.
- 8.30 The Environmental Statement is clear that a Construction Environmental Management Document / Plan (CEMD) will be in place to ensure that potential sources of pollution on site can be effectively managed throughout construction and in turn during operation, albeit there will be fewer sources of pollution during operation.
- 8.31 The CEMD can be secured by planning condition, requiring the agreement of construction methodologies with statutory agencies following appointment of the wind farm balance of plant contractor and prior to the start of development or works.
- 8.32 While SEPA have not raised concerns with regard to flood risk, there is a concern that inappropriately constructed watercourse crossings may increase the frequency and extent of flooding. This was raised by the THC Flood Risk Management Team. However, this matter can be addressed by consideration of the detail of the watercourse crossings prior to construction. This can be secured by condition.
- 8.33 The majority of the site has some form of peat resource with depths of peat varying from 0m to over 2m across the site. It is anticipated that approximately

168,213m³ of peat will be excavated through the construction of the wind farm, much of this will all be re-used in the backfilling / dressing of the site following completion of construction. With that said to avoid additional impact on peat a peat management plan will be secured by condition.

- 8.34 Peat is a carbon store and the excavation of peat can have an impact on the carbon payback period of a development. While the developer has not provided details of the carbon payback period, this level of peat excavation is not uncommon in wind energy developments and experience demonstrates that despite this level of peat disturbance the development is likely to payback carbon in a reasonable level of time.

Natural Heritage including ornithology and fisheries

- 8.35 The development is not situated within any sites designated for ecological interests but is close to, and has potential connectivity with, a number of sites which are designated at national and international level. As there is a potentially connected site designated at a European level (Loch Ruthven SPA), the proposal needs to be assessed against the 'Habitats Directive' which is translated into Scots law through the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). The advice from SNH is that given there were no flights of Slavonian Grebe (the qualifying species of the SPA) recorded through the vantage point surveys and as there is no suitable habitat for them on-site, it is unlikely to have significant effects on the on the qualifying interests of the SPA. As such SNH advise that an Appropriate Assessment is not required. The position of SNH is accepted.
- 8.36 The conditions on the site lend themselves to supporting a number of habitats and species. The Environmental Statement has identified the ecological receptors present within and outwith the site. Through the design of the development, it is considered that the applicant has avoided or minimised the impact on these ecological receptors. With that said, mitigation is proposed in order to further reduce the potential for adverse effects. This includes undertaking further baseline monitoring of the ecology; implementation of pollution prevention plans; implementation of species protection plans (if required); Habitat Management Planning; and Nature Conservation Plans. Following the application of mitigation it is anticipated there will be no significant effects on Alpine and Boreal Dry Heath, Bats or Water Voles. It is considered that the effects of construction on Blanket Bog will be moderate and therefore significant. There will not be any additional effects on Blanket Bog as a result of the operation of the wind farm.
- 8.37 SNH has suggested additional mitigation to avoid impacts on the protected species and avoid the need for a protected species licence. This mitigation includes: pre-construction protected species surveys; stop the job powers if otter holts or wild cat dens are found; information provided to contractors in relation to protected species; and a 10m stand off between works and any water vole burrow. This mitigation is considered appropriate and can be secured by condition. The applicant has stated that an Ecological Management Plan which will include habitat management will be progressed through the construction period and will enhance the remaining habitats throughout the operation of the

development. While this is not disputed, it is considered that an operational phase habitat management plan should also be produced and implemented throughout the operational lifetime of the wind farm. The implementation of a Habitat Management Plan and employment of an Ecological Clerk of Works can be secured by condition.

- 8.38 The impacts of this development on ornithology are largely considered to be related to displacement during the construction phase and potential collision risk through the operation phase of the development. The development has designed out many of the risks to ornithology. However, mitigation is still considered appropriate to mitigate any significant effects on Golden Eagles and other ornithology on the site. The applicant has suggested prompt removal of any animal carcasses as to avoid attracting carrion to the site, a contribution to the Regional Golden Eagle Conservation Management Plan and a Nature Conservation Management Plan as mitigation. These are accepted and can be secured by condition or, in the case of the contribution toward the Regional Golden Eagle Conservation Management Plan, a legal agreement.

Built and Cultural Heritage

- 8.39 The area in which the wind farm sits contains a limited amount of built and cultural heritage features as demonstrated by Chapter 5 of the Environmental Statement. This identifies no known archaeological features within the site. The Historic Environment Team do not consider that any further investigation or mitigation is required.
- 8.40 Beyond the application site there are a number of cultural heritage assets which are of international, national, regional and local importance where there may be indirect affects. However, these are limited and the effects are not likely to be significant.

Design, Landscape and Visual Impact (including Wild Land)

- 8.41 A total of 20 viewpoints across a study area of 35km have been assessed with regard to landscape and visual impact. These viewpoints are representative of a range of receptors including recreational users of the outdoors, residences and road routes. The expected impact of the development in isolation can be seen with the ZTV to Blade Tip with Viewpoints (Figure 4.4) in the Environmental Statement. The methodology for the Landscape and Visual Impact Assessment is generally acceptable. The table of residual significant effects (Tables 4.7a and 4.7b) is considered appropriate but it does not give a view as to the acceptability or otherwise of the affects. The applicant considers that significant landscape or visual effects are those identified as major or major/moderate. This is considered a conservative approach to identification of effects. Based upon the 4 point scale set out, Council Officers consider effects identified as Moderate would also be a significant effect. In instances where the effect is described as “moderate/minor”, further consideration is required as to whether the effect is considered significant.
- 8.42 Scottish Planning Policy states that wind farm sites should be suitable in perpetuity. Therefore it is considered reasonable to assess all landscape

character and visual impacts as non-reversible.

Design

- 8.43 The majority of receptors of this development will view the development from the north, south and west. The development will appear from most angles as a cluster of 13 turbines to the side of the consented Dunmaglass Wind Farm. In some angles, such as those from the north (VP5 and 13) Aberarder will sit in front of the turbine envelope of Dunmaglass Wind Farm. The applicant has stated that the design of the wind farm has been a balance of conflicting interests including: technical / economic requirements; landscape character and visual amenity; natural and built heritage features; utility services and communication links. The applicant has stated that the turbines included in the proposed development represent the optimal design when balancing the environmental, technical and engineering considerations. A number of design principles were adopted by the developer to aid in design decisions, these included: mitigation by design; utilisation of existing infrastructure; the delivery of a development which is a visual extension to Dunmaglass Wind Farm; utilisation of site won rock; and minimisation of the extent of the development. The design of the development is best demonstrated by the visuals from VP17 - Great Glen Way (Carn na Leitire).
- 8.44 The development lies in a shallow dip in the landscape between two higher points, Coille Mhòr (675m) and Carn Ghriogair (806m), in an area of undulating ground. When the turbines are viewed from the north, west and south will appear set back from the edge of the plateau and predominantly appear against the skyline.
- 8.45 Given Aberarder will not sit alone in the landscape, of the stated design principles in the ES the one which is perhaps most important is that the planned development will be designed as a visual extension to Dunmaglass Wind Farm. The height difference between turbines at Aberarder (130m to blade tip) compared to Dunmaglass (120m to blade tip) has been raised as a concern. When one views the development from the south and north the wind farm will either sit just in front of, or just behind, the consented turbines at Dunmaglass. Given the close proximity of the two schemes it is not considered that the difference in height of the turbines will have caused a distortion of the perception of scale and distance of the landscape and, in these views, can be considered to accord with SNHs guidance, Siting and Design of Wind Farms in the Landscape. It is however considered that when one views the development from the east and west, the height difference is more noticeable. The difference in height of 10m is largely due to the increased rotor diameter of the turbines. In creating slightly larger spaces between the turbines and, for the most part, siting them on ground of similar or lower elevation, it is considered that this has offset the difference in height between the proposed development and the consented development. It is considered that once one is beyond 10km from the site the difference in height is negligible. This varies on a case by case basis and in this case it is largely due to the limited difference in size and the topography in which one would view the turbines.
- 8.46 The Inverness Landscape Character Assessment (I-LCA) identifies the site of the

- turbine envelope as sitting within the Rolling Uplands Landscape Character Area. This suggests that if turbines are clearly sited in a “hilltop location, they will seem logically sited in relation to their function.” It is considered that the location of the proposed Aberarder wind farm meets this locational criterion. In addition the I-LCA suggests that “Turbines should be grouped in a similar relationship to the landscape throughout the area to minimise visual impact.” Again it is considered that the location of the Aberarder Wind Farm at a similar position and elevation in the landscape to the consented development of the area meets this locational criterion.
- 8.47 The Draft Onshore Wind Energy Supplementary Guidance contains the Loch Ness Landscape Sensitivity study. The development sits within Landscape Character Area 6 (Monadhliath ridge and tops, Rolling Uplands). The design guidance provided in the “Potential for wind energy development” section suggests there is potential for extensions to large scale wind farms. This suggests that the design of the development should avoid skylining and coalescence with current positioning, spacing and scale of turbines respected. While skylining is not avoided, in this instance it is considered acceptable given the adjacent developments are predominantly skylined from most angles. Bringing development down the hill to avoid skylining would lead to a more visually confusing design.
- 8.48 The issue of spacing of turbines and positioning of turbines is one which Aberarder Wind Farm addresses quite well. The layout of the turbines is largely reflective of the adjacent Dunmaglass Wind Farm, and this is considered acceptable. The matter of turbine height is dealt with earlier in this report.
- 8.49 Maintaining the landscape setting of each scheme is an important element of the Loch Ness Sensitivity Assessment. Aberarder can be, and has been, referred to as an extension to Dunmaglass Wind Farm, and in many respects it is. Therefore taking the cluster which would be formed by Dunmaglass Wind Farm and Aberarder Wind Farm and looking at the positioning of the other adjacent clusters (Farr and Glen Kyllachy to the north east and Corriegarth and Corriegarth Extension to the south west), it can be demonstrated that the landscape setting of each cluster will continue to be respected. As discussed earlier in this report, this is also consistent with design guidance set out in the I-LCA.
- 8.50 When the application was presented to Officers at pre-application stage the applicant had suggested that a separate access to the site would be taken through Aberarder Estate land. It is considered that by pursuing an access through the consented Dunmaglass Wind Farm, as recommended by Council Officers, the design of the infrastructure of the development has a reduced visual impact.
- 8.51 In some limited views, including VP6 - Bunloit, the development will appear as more of a separate cluster of turbines with a clear separation between the consented Dunmaglass and the proposed Aberarder Wind Farm. However, this is only experienced in limited views and the separation is not considered significant.
- 8.52 In terms of design of the other infrastructure on the site, these appear to have

been well sited and designed with those elements of greatest visual impact (borrow pits) set into the forested area.

Landscape

- 8.53 The development sits predominantly within the Rolling Uplands Landscape Character Area (LCA), in the I-LCA. The ES identifies that the effect on the localised parts of this LCA where the development takes place would be Major and Significant. However, given the scale of the LCA, the existing presence of turbines, and the variations in topography, which has a screening effect, the ES states that the effect on the LCA would range from no effect to Major/Moderate effect. This assessment is not disputed. The I-LCA includes design criteria for development within the Rolling Uplands LCA. Consideration of compatibility with this is discussed earlier in this report.
- 8.54 The ES has also identified major / moderate (significant) effects on the character of the Farmed Strath LCA and the Farmed and Wooded Foothills to the west of the site as a result of the development. This is not disputed.
- 8.55 For the majority of the rest of the surrounding LCAs the ES has not identified significant effects on any other LCA in the study area. Given the intervening topography and the limited views towards the development from these LCAs this is not disputed.
- 8.56 The site is approximately 5.1km to the south of the Loch Ness and Duntelchaig SLA. There is some theoretical visibility towards the development from within the SLA, however clearer views are only found at higher elevations. There is no theoretical visibility of the scheme from the southern shores of Loch Ness. The visibility of the scheme from the northern side of Loch Ness is no greater than that which will be experienced as a result of consented development. There is no theoretical visibility from Loch Ness itself. Views typical of those found at these higher elevations within the SLA can be gained from VP13, VP6, VP14, VP17 and VP20. At these viewpoints the consented development of Dunmaglass will also be visible. Aberarder will extend the horizontal array of turbines in this area to a limited extent. Dunmaglass and other developments mean that wind turbines are not unfamiliar in the views looking out from the SLA to the south east.
- 8.57 Considering the special qualities of the SLA, these are considered to focus predominantly on the striking landscape feature formed by the steep sided trench with Loch Ness at its base. It is not considered that the proposed development will have an impact on these qualities, albeit when viewing Loch Ness from elevated viewpoints such as Meall Fuar-Mhonaidh, it will provide, combined with the other wind farm developments, an alternative visual foci to the Loch. With that said it is not considered that the development, given its position set back from the edge of the Rolling Uplands LCA, would significantly detract from the views up and down the glen. While the development will intermittently be seen from the road network, it is not considered that in these locations one would experience the striking shape or features of the SLA, for which the landscape is designated.

- 8.58 The Assessment of Highland Special Landscape Areas indicates that the landscape that makes up the SLA can be sensitive to change from a number of different types of development. Therefore siting and design will be a key factor as to whether the impacts on the special qualities of the SLA are adversely affected or not. It is not considered that the proposed development will conflict with these sensitivities to change given the location of the development, set back on the elevated ground.
- 8.59 The ES states that the residual effect on the SLA would be Major / Moderate (significant). Considering the impacts on the SLA, including its special qualities and the impact on receptors, it is not considered that this development would give rise to significantly adverse effects on the integrity of the SLA as a whole and as such the effect is considered acceptable.
- 8.60 There are a number of other landscape designation in the area, which have the potential to be effected by the proposed development. The assessment of these other designations set out in Chapter 4 and Technical Appendix 4.4 of the ES is not disputed.

Wild Land

- 8.61 In relation to wild land, the policy position as set out in SPP is clear that development may be appropriate in certain circumstances. No part of the development sits within an area of wild land. The development is theoretically visible from Wild Land Areas (WLA). The nearest WLA is WLA 20 - Monadhliath. VP9 (Carn Sguarlain) is typical of views from the more elevated positions within this wild land area.
- 8.62 The development will not be the only modern feature in this landscape, as immediately adjacent to the site is the consented Dunmaglass Wind Farm and other wind farms will likely also be in view. Wind farms are considered to have a much greater impact, due to the scale and movement of turbine blades, on qualities of wildness than other modern features (such as commercial forestry) in the landscape.
- 8.63 VP9 is towards the southern edge of WLA 20 and 14.6km from the nearest turbine at Aberarder Wind Farm. When standing at VP9 one would have, for the most part, Dunmaglass Wind Farm in front of Aberarder Wind Farm. There will be elements of Aberarder which spill out to the east of Dunmaglass Wind Farm, however the expansion in the horizontal spread of turbines is limited. While the development will be visible from WLA 20, the impact of it has been substantially overcome by siting and design through locating the development largely to the rear of and within the existing array of turbines at Dunmaglass Wind Farm. The impact on wild land can, in this instance, be considered acceptable.

Visual Impact

- 8.64 The applicant's assessment draws upon the supportive elements of how the proposal could be viewed within the landscape. The ZTV demonstrates that the scheme will be predominantly visible from areas to the north, west and south of

the development, with more limited visibility to the east. The development would extend the theoretical visibility of turbines only slightly beyond that already experienced as a result of the operational wind farms in the South Loch Ness Area. The ES includes cumulative ZTVs with Allt Duine and Beinn Mhor wind farms, however since submission of the application, these applications have been refused.

- 8.65 The extension of theoretical visibility of wind energy development above that of operational wind farms is within Strathnairn (around Abersky and Aberarder House) and within Farrigaig Forest. This extension of theoretical visibility is very limited.
- 8.66 The visual receptors for the development have all been assessed in Technical Appendix 4.5 of the ES. This is summarised in Table 4.7b within Chapter 4 of the ES. Given the scheme would sit in the landscape with Dunmaglass Wind Farm, the assessment has also presented the cumulative effects in these tables as well.
- 8.67 For those travelling scenic routes, whether designated as such or not, they will have a higher sensitivity to views. While a driver of a vehicle is likely to be concentrated on the view immediately in front, passengers have a greater scope for looking at their surroundings. As such it is considered that road users are high susceptibility receptors. The ES has set out that tourists using key routes to access the region are of high sensitivity and commuters are of medium susceptibility as they are less likely to be focused on the landscape. It is the view of THC that all road users should be considered high sensitivity as those travelling to and from work are likely to experience the impact everyday and are more susceptible to changes in the landscape which surrounds them. Therefore it is considered that the ES underplays the impact on road users.
- 8.68 Using the definition of significance as set out in paragraph 4.63 of the ES, this table sets out that only receptors at Viewpoint 13 (Stac Gorm) would experience a significant visual effect. The receptors at the remaining viewpoints have not been assessed as having significant impact on receptors by the applicant. As set out in paragraph 8.41 of this report, THC officers consider that “moderate” effects should also be classed as significant. With that said it is important to consider these matters in detail. Below all of the viewpoints assessed as moderated in the ES have been considered taking this, the different susceptibility of road users into account, and the methodology set out in Chapter 4 of the ES.
- VP5 (B851 - Milton of Farr) - While one would not see the whole scheme the sensitivity of the receptor is considered to be underplayed. The turbines themselves, sitting in front of those consented at Dunmaglass would be more notable in the view with a localised change within an otherwise unaltered context. Following the criteria set out in the ES it is considered that the magnitude of change would be moderate not slight. This would make this a Major / Moderate effect on receptors and therefore significant.
 - VP7 (B862 - North of Torness) - One would see almost the whole scheme from 9.2km distance. As this is representative of road users, the sensitivity of the receptor is considered to be high. The development when viewed

from this location will extend the horizontal array of turbines. While the height of the turbines remains in scale with the landscape it is considered that the extension of the array would be a notable increase in the influence of wind energy of development and have an effect on the composition of the view. In common with the assessment in the ES the magnitude of change is considered moderate, however the sensitivity of the receptor is considered high. This would make this a Major / Moderate effect on receptors and therefore significant.

- VP9 (Carn Sgurlain Summit) - The assessment in the ES considers hill walkers to be high sensitivity. This is not disputed. The ES assesses the magnitude of change as slight, given that the majority of the turbines sit behind the consented Dunmaglass turbines. While the Aberarder turbines do fill in some of the gaps between the Dunmaglass turbines and creates elements of overlapping, this considered to be the correct assessment of the magnitude of change. It is accepted that in relation to the impacts on receptors at this viewpoint that this would not be a significant impact. This is primarily due to the intervening distance between the receptor and the proposed development.
- VP14 (Portclair Forest) - The ES considers that local walkers are of medium susceptibility as they may be less likely to be focused on views of the landscape. This is not accepted. Users of local or short range paths may be doing are likely to go for walks in areas of interest to them and given the pace of movement are likely to be taking in there surroundings as they walk through or to an area. Therefore it is considered that local walkers are of high sensitivity on par with hill walkers. However, the magnitude of change experienced by receptors at this viewpoint is not disputed. It is accepted that in relation to the impacts on receptors at this viewpoint that there would not be a significant impact. This is primarily due to the intervening distance between the receptor and the proposed development.
- VP17 (Carn na Leitire, near Abriachan) - This is a viewpoint which is representative of long distance path users who are considered to be high sensitivity receptors. It is considered that although, from this viewpoint the development appears as a relatively modest extension to Dunmaglass wind farm, it would be a notable change. As such it is considered that the magnitude of change would be moderate not slight. This would make this a Major / Moderate effect on receptors and therefore significant.
- VP18 (Carn na Saobhaidhe Summit) - The assessment in the ES considers hill walkers to be high sensitivity. This is not disputed. The ES assesses the magnitude of change as slight, given that the turbines sit behind the consented Dunmaglass turbines. While the Aberarder turbines do fill in some of the gaps between the Dunmaglass turbines and creates elements of overlapping, this considered to be the correct assessment of the magnitude of change. It is accepted that in relation to the impacts on receptors at this viewpoint that this would not be a significant impact. This is primarily due to the intervening distance between the receptor and the

proposed development.

- VP19 (Geal -Charn Mor Summit) - The assessment in the ES considers hill walkers to be high sensitivity. This is not disputed. The ES assesses the magnitude of change as slight, given that the majority of the turbines will be out of view, at least in part, this is not disputed. In addition the intervening distance means that while the turbines will extend the horizontal array, the extent to which they effect the overall panoramic views from this point is limited. It is accepted that in relation to the impacts on receptors at this viewpoint that this would not be a significant impact.
- VP20 (Meall Fuar Mhonaigh Summit) - The assessment in the ES considers hill walkers to be high sensitivity. This is not disputed. It is considered that while, from this viewpoint the development appears as a relatively modest extension to Dunmaglass wind farm, it is considered that it would be a notable change as it takes turbines out on the northern axis away from the main cluster formed by Dunmaglass Wind Farm. As such it is considered that the magnitude of change would be moderate not slight. This would make this a Major / Moderate effect on receptors and therefore significant.

8.69 A key consideration in the effects on receptors of wind energy development is the sequential effect as travelling through the area on the local road network, both by individuals who live and work in the area and tourists. The applicant has carried out route assessments for the principle roads within the study area (i.e. 35km of the site). The applicants' assessment, as presented in the ES is as follows:

- A9 - Moderate/Minor impact
- A82 - None - Moderate impact
- A96 - None
- A835 - Moderate/Minor impact
- B851 (north of Torness) - Moderate - Moderate/Minor impact
- B851 (between Aberarder House and Cairn Ardachy) - Moderate - Moderate/Major impact
- B861 - Moderate/Minor impact impact
- B862 - Moderate impact
- B862 (at Loch Duntelchaig and approach to Torness) - Major /Moderate impact

8.70 The applicant classes the level of sensitivity of local road users and tourist users separately. As discussed earlier in this report all road users are considered to be of high sensitivity by THC. However, when considering the sequential impact on routes, for the local roads in the area, it is not considered that there is a difference in opinion as to the results of this assessment when considering the routes as a whole. The assessment of the impact on users of routes is not disputed.

8.71 Given the limited views from the railway network toward the wind farm, combined with the intervening topography, the assessment of impact on rail users as set out

in paragraph 4.184 of the ES is accepted.

- 8.72 Walkers on long distance routes, such as the Great Glen Way, are considered to be high sensitivity receptors. The ES states that Aberarder will be theoretically visible from the Great Glen Way, a route which is over 117km in length. The visibility from the Great Glen Way can be demonstrated by the visuals provided for VP17 (Carn na Leitire, near Abriachan). The development will be intermittently visible from a number of points on the route between Invermoriston and Abriachan. In these areas the development will be seen with other wind farms. While the assessment of the impact on the route overall is accepted, it is considered that at points in closer proximity to the wind farm, the impact will be higher than those assessed due to the turbines appearing as a noticeable feature in the landscape.

Access and Recreation

- 8.73 The site, like most land in Scotland, is subject to the provisions of the Land Reform (Scotland) Act 2003. There are no core paths running over the site however, the wider area is rich in opportunities to access the outdoors, including a Corbett to the south of the site. The most likely direct impact is during the construction phase where some access will be restricted. Any impacts arising through the construction or operational phases of development can be managed through outdoor access management which should cover both construction and operation of the wind farm. This can be secured by condition.

Noise and Shadow Flicker

- 8.74 Representations have raised concerns in relation to noise and cumulative noise. However it is not anticipated that noise will be an issue as a result of this development due to the distance between the development and noise sensitive properties. However, it is considered appropriate to seek a noise mitigation and management scheme, supported by a revised noise assessment adopting the significant headroom principle in relation to the cumulative effect with Dunmaglass Wind Farm, if an issue arises. By taking this approach, the Planning Authority will retain effective control over the potential individual and cumulative noise impacts, and have a suitable avenue for investigation should any noise complaints arise from the development.
- 8.75 In terms of shadow flicker it is not anticipated that this will be an issue for this development either individually or cumulatively given the location of the development in relation to properties.

Telecommunications

- 8.76 No concerns have been raised in relation to potential interference with radio / television networks in the locality. A condition should nonetheless be imposed to secure a scheme of mitigation should an issue arise.

Aviation

- 8.77 The application has raised no concerns with regard to aviation interests in relation to the Civil Aviation Authority, Ministry of Defence or National Air Traffic Control. Should the proposal be granted consent, a condition can be applied to secure suitable mitigation in terms of aviation lighting and notification to the appropriate bodies of the final turbine positions.
- 8.78 A number of the turbines are be in line of sight of the Inverness radar. HIAL has advised these turbines could affect the performance of electronic aeronautical systems at the airport. HIAL has objected to the application as it would not wish to see a degradation of any of these services, particularly the radar installation and coverage. It has advised however that it currently has advisors carrying out work on proposed changes to the Inverness airspace classification and procedures. HIAL will work with the developer towards a resolution.
- 8.79 Planning Authorities have been encouraged to progress with the determination of applications leaving such matters of a proven radar solution to be addressed within a planning condition. This pre-supposes that a resolution is likely. HIAL's response does suggest a technical solution may be possible and have previously advised that it needs to be made clear that that the cost for the discharge of any such condition would need to be borne in full by the developer(s).

Construction

- 8.80 The construction phase of the development is anticipated to last 18 months. Further works may be required for any interim site restoration, in addition to decommissioning and site restoration at the end of the operational period of the wind farm. The key impacts for local residents and road users through construction will be the additional traffic movements of the work force and deliveries including abnormal loads associated with turbine deliveries. By using best practice construction management, the anticipated impacts on local communities and residential properties in the proximity of the development / road access routes will be minimised.
- 8.81 In addition to the requirement for submission and agreement on a CEMD, the Council will require the applicant to enter into legal agreements and provide financial bonds with regard to its use of the local road network (Wear and Tear Agreement) and a final site restoration (Restoration Bond). In this manner the site can be best protected from the impacts of construction and for disturbed ground to be effectively restored post construction and operational phases. This would include the restoration of any access tracks and other associated infrastructure.
- 8.82 Developers have to comply with reasonable operational practices with regard to construction noise so as not to cause nuisance, which is then tackled via Section 60 of the Control of Pollution Act 1974 which can set restrictions in terms of hours of operation, plant and equipment used and noise levels etc. Should the application be granted an informative should be set out to invite the developer discuss the construction noise with relevant Environmental Health Officer.

8.83 In taking forward the development, the developer has committed to the use of Community Liaison Group to ensure the community and other stakeholders are kept up to date and consulted before and during the construction period. This can be secured by condition.

Economic Impact and Tourism

8.84 The proposed development anticipates a construction period of 18 months, 25 years of operation prior to several months of decommissioning. Such a project can offer significant investment / opportunities to the local, Highland, and Scottish economy including businesses ranging across construction, haulage, electrical and service sectors. There is also likely to be some adverse effects caused by construction disruption (traffic). Representations have raised the economic impact that turbines may have on tourism. These adverse impacts are most likely to be within the service sector particularly during the construction phase when abnormal loads are being delivered to site. The ES does not contain a section on socio-economics.

8.85 Representations have also highlighted potential adverse impacts on walking / mountaineering. These concerns have been raised in relation to the disturbance of the area in relation to wind farm development and the impact this may have on tourism, especially those accessing the hills. Consideration of impacts on these matters are contained elsewhere in this report. It is however considered that while wind farms may not stop people from visiting the area for the first time to take part in walking, mountaineering or other tourist activities, it may discourage repeat visits.

Other Material Considerations

8.86 Given the complexity of major developments, and to assist in the discharge of conditions, the Planning Authority seek contributions towards the employment of a Planning Monitoring Officer (PMO). The role of the PMO, amongst other things, will include the monitoring of, and enforcement of compliance with, all conditions, agreements and obligations related to this permission (or any superseding or related permissions) and shall include the provision of a quarterly compliance report to the Planning Authority.

8.87 In line with Council policy and practice, community benefit considerations are undertaken as a separate exercise and generally parallel to the planning process.

8.88 There are no other relevant material factors highlighted within representations for consideration of this application.

9.0 Conclusion

9.1 The Scottish Government gives considerable commitment to renewable energy and encourages planning authorities to support the development of wind farms where they can operate successfully and where concerns can be satisfactorily addressed. Highland has been successful in accepting many renewable energy projects in recent years and many more applications are in the planning process. This project will make a modest, but worthwhile, 36 MW contribution.

- 9.2 The application has attracted a level of objection from members of the public. There is one objection from a statutory consultee and one from an internal consultee, both of which can be addressed by condition. It is important to consider the benefits of the proposal and the potential drawbacks and when assessing it against the policies of the Development Plan.
- 9.3 The development is likely to have a positive economic impact to the area through the construction period and make a contribution to meeting renewable energy targets. Policy 67 - Renewable Energy Developments highlights the balance that the Council has to strike between the delivery of proposals which make a contribution towards meeting the renewable energy generation targets and the protection of natural resources which contribute to the overall character of the Highland area.
- 9.4 As with any development of this type, it will have a visual impact. The scale of turbines presented in this application are larger than those present in the area, however, this is not necessarily problematic as discussed earlier in this report. Where the turbines are visible, they will almost always be viewed with other turbines, particularly those of Dunmaglass Wind Farm. The development only extends the visibility of turbines slightly beyond those already consented and the design and layout of the development is considered to fit with the guidance set out in the Inverness Landscape Character Area, SNH's Siting and Design of Wind Turbines in the Landscape (Volume 2) and the criteria set out in the Loch Ness Landscape Sensitivity Study contained within the Draft Onshore Wind Energy Supplementary Guidance. While the visual impact of the development is considered to be underplayed in the ES, as a result of the design of the development it is considered that the visual impact is acceptable.
- 9.6 The development is likely to have an impact on the road network in excess of what has been assessed in the ES which accompanies the planning application. The traffic impact will be during the construction and decommissioning period, with limited additional traffic on the road network during operation. The traffic associated with this development is likely to exacerbate the rate and scale of deterioration on the single track sections of the B851 by adversely affecting the integrity of the road structure and its safety standards. Given that this exacerbated deterioration will be a direct result of construction traffic from this development, it is considered that appropriate and proportionate mitigation measures are provided.
- 9.7 This application has been assessed against the policies set out in the Development Plan, principally Policy 67 (Renewable Energy) of the Highland-wide Local Development Plan with its eleven tests which are expanded upon with the Onshore Wind Energy Draft Supplementary Guidance. This policy also reflects policy tests of other policies in the plan, for example Policy 28 (Sustainable Development). This policy also draws in the range of subject specific policies as also contained within the HwLDP as listed in section 6.2 above. Given the above analysis the application would, on balance, be consistent with the Development Plan.

9.8 All relevant matters have been taken into account when appraising this application. It is considered that the proposal accords with the principles and policies contained within the Development Plan and is acceptable in terms of applicable material considerations. It is recommended that planning permission be granted.

10.0 Recommendation

10.1 It is recommended that:

10.1a subject to the conclusion of a legal agreement to secure:

- £5,000 per annum contribution to the delivery of the Regional Golden Eagle Conservation Management Plan;
- Bond for Restoration and De-commissioning of the site; and
- Roads wear and tear agreement under Section 96 of the Roads (Scotland) Act 1984 (as Amended).

10.1b that **planning permission be granted** subject to the following conditions and reasons:

1. This planning permission shall expire after a period of 30 years from the date when electricity is first exported from any of the approved wind turbines to the electricity grid network (the "First Export Date"). Upon the expiration of a period of 25 years from the First Export Date, the wind turbines shall be decommissioned and removed from the site, with decommissioning and restoration works undertaken in accordance with the terms of Condition 3 of this permission. Written confirmation of the First Export Date shall be submitted in writing to the Planning Authority within one month of the First Export Date.

Reason: Wind turbines have a projected lifespan of 25 years, after which their condition is likely to be such that they require to be replaced, both in terms of technical and environmental considerations. This limited consent period also enables a review and, if required, re-assessment to be made of the environmental impacts of the development and the success, or otherwise, of species protection, habitat management and other offered mitigation measures. The 30 year cessation date allows for a 5 year period to complete commissioning and site restoration work.

2. For the avoidance of doubt the development shall be constructed and operated in accordance with the provisions of the application, the submitted plans, and the Environmental Statement, including Supplementary Environmental Information. For the avoidance of doubt the turbines, access tracks, crane hard-standing areas and other associated infrastructure may be micro sited but no more than 50 metres from the positions shown in the approved plans unless otherwise agreed in writing with the Planning Authority in consultation with SEPA and SNH.

Reason: In order to clarify the terms of permission.

3. No development or works (excluding preliminary ground investigation which shall

be permitted) shall commence until an Interim Decommissioning and Restoration Plan (IDRP) for the site has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH and SEPA . Thereafter:

- i. not later than 3 years prior to the decommissioning of the Development, the IDRP shall be reviewed by the Developer, to ensure that the IRDP reflects best practice in decommissioning prevailing at the time and ensures that site specific conditions, identified during construction of the site, and subsequent operation and monitoring of the Development are given due consideration. A copy shall be submitted to the Planning Authority for its written approval, in consultation with SNH and SEPA; and
- ii. not later than 12 months prior to the decommissioning of the Development, a detailed Decommissioning and Restoration Plan (DRP), based upon the principles of the approved interim plan, shall be submitted to, and approved in writing by, the Planning Authority, in consultation with SNH and SEPA.

The IDRP and subsequent DRP shall include, unless otherwise agreed in writing with the Planning Authority and in accordance with legislative requirements and published best practice at time of decommissioning details about the removal of all elements of the Development, relevant access tracks and all cabling, including where necessary details of (a) justification for retention of any relevant elements of the Development, b) the treatment of disturbed ground surfaces, c) management and timing of the works, d) environmental management provisions and e) a traffic management plan to address any traffic impact issues during the decommissioning period. The DRP shall be implemented as approved. In the event that the Final DPR is not approved by The Highland Council in advance of the decommissioning, unless otherwise agreed by the Planning Authority the Interim IDRP shall be implemented.

Reason: To ensure that all wind turbines and associated Development are removed from site should the wind farm become largely redundant; in the interests of safety, amenity and environmental protection.

Reason: To ensure financial security for the cost of the restoration of the site to the satisfaction of the Planning Authority.

4. The Wind Farm Operator shall, at all times after the First Export Date, record information regarding the monthly supply of electricity to the national grid from the site as a whole and electricity generated by each individual turbine within the development and retain the information for a period of at least 12 months. The information shall be made available to the Planning Authority within one month of any request by them. In the event that:
 - i. any wind turbine installed and commissioned fails to supply electricity on a commercial basis to the grid for a continuous period of 6 months, then unless otherwise agreed, the wind turbine, along with any ancillary equipment, fixtures and fittings not required in connection with retained turbines, shall, within 3 months of the end

of the said continuous 6 month period, be dismantled and removed from the site and the surrounding land fully reinstated in accordance with this condition; or

- ii. the wind farm fails to supply electricity on a commercial basis to the grid from 50% or more of the wind turbines installed and commissioned and for a continuous period of 12 months, then the Wind Farm Operator must notify the Planning Authority in writing immediately. Thereafter, the Planning Authority may direct in writing that the wind farm shall be decommissioned and the application site reinstated in accordance with this condition. For the avoidance of doubt, in making a direction under this condition, the Planning Authority shall have due regard to the circumstances surrounding the failure to generate and shall only do so following discussion with the Wind Farm Operator and such other parties as they consider appropriate.

All decommissioning and reinstatement work required by this condition shall be carried out in accordance with the approved detailed Decommissioning and Reinstatement Plan (DRP), or, should the detailed DRP not have been approved at that stage, other decommissioning and reinstatement measures, based upon the principles of the approved draft DRP, as may be specified in writing by the Planning Authority.

Reason: To ensure that any redundant wind turbine is removed from site, in the interests of safety, amenity and environmental protection.

5. No turbines shall be erected until full details of the proposed wind turbines have been submitted to, and approved in writing by, the Planning Authority. These details shall include:

- i. The make, model, design, power rating and sound power levels of the turbines to be used; and
- ii. The external colour and/or finish of the turbines to be used (incl. towers, nacelles and blades) which should be non-reflective pale grey semi-matt.

Thereafter, development shall progress in accordance with these approved details and, with reference to part ii above, the turbines shall be maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned. For the avoidance of doubt, all wind turbine blades shall rotate in the same direction.

Reason: To ensure that the turbines chosen are suitable in terms of visual, landscape, noise and environmental considerations.

6. For the avoidance of any doubt all wind turbine transformers shall be located within the tower of the wind turbine to which they relate.

Reason: To reduce any ancillary elements to the development in terms of its visual and landscape impacts.

7. Notwithstanding the provisions of the Town and Country Planning (Control of Advertisements) (Scotland) Regulations 1984 (as amended), and unless there is a demonstrable health and safety or operational reason, none of the wind turbines substation buildings / enclosures or above ground fixed plant shall display any name, logo, sign or other advertisement without express advertisement consent having been granted on application to the Planning Authority.

Reason: To ensure that the turbines are not used for advertising, in the interests of visual amenity.

8. No development shall commence until full details of the location, layout, external appearance, dimensions and surface materials of all control and/or substation buildings, welfare facilities, compounds and parking areas, as well as any fencing, walls, paths and any other ancillary elements of the development, have been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA and SNH, as necessary). Thereafter, development shall progress in accordance with these approved details. For the avoidance of doubt, details relating to the control and substation buildings shall include additional architectural design, carried out by suitably qualified and experienced people, to ensure that they are sensitively scaled, sited and designed.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

9. No development shall commence until a scheme of aviation lighting is submitted to, and approved in writing by, the Planning Authority after consultation with the Ministry of Defence. Thereafter the approved scheme of aviation lighting shall be fully implemented on site. The Company shall provide both the Ministry of Defence and the Defence Geographic Centre (AIS Information Centre) with a statement, copied to the Planning Authority and Highland and Islands Airports Limited, containing the following information:

- a. The date of commencement of the development;
- b. The exact position of the wind turbine towers in latitude and longitude;
- c. A description of all structures over 300 feet high;
- d. The maximum extension height of all construction equipment;
- e. The height above ground level of the tallest structure; and
- f. Details of an infra red aviation lighting scheme, unless otherwise required, as agreed with the MOD, HIAL and other aviation interests and the

Planning Authority.

Reason: -To ensure that the erected turbines present no air safety risk and in a manner that is acceptable to local visual impact considerations.

10. No development shall commence until a Construction Traffic Management Plan (CTMP) has been submitted to, and approved by, the Planning Authority in consultation with the relevant Roads Authority(s) and Transport Scotland. The CTMP, which shall be implemented as approved, must include:
- i. A description of all measures to be implemented by the developer in order to manage traffic during the construction phase (incl. routing strategies), with any additional or temporary signage and traffic control undertaken by a recognised suitably qualified traffic management consultant;
 - ii. The identification and delivery of all upgrades to the public road network to ensure that it is to a standard capable of accommodating construction-related traffic (including the formation or improvement of any junctions leading from the site to the public road) to the satisfaction of The Highland Council and Transport Scotland, including;
 - a. A route assessment report for abnormal loads and construction traffic, including swept path analysis and details of the movement of any street furniture, any traffic management measures and any upgrades and mitigations measures as necessary;
 - b. An assessment of the capacity of existing bridges and other structures along the construction access routes to cater for all construction traffic, with upgrades and mitigation measures proposed and implemented as necessary;
 - c. A videoed trial run to confirm the ability of the local road network to cater for turbine delivery. Three weeks notice of this trial run must be made to the local Roads Authority who must be in attendance;
 - iii. Drainage and wheel washing measures to ensure water and debris are prevented from discharging from the site onto the public road;
 - iv. A risk assessment for the transportation of abnormal loads to site during daylight hours and hours of darkness;
 - v. A contingency plan prepared by the abnormal load haulier. The plan shall be adopted only after consultation and agreement with the Police and the

respective roads authorities. It shall include measures to deal with any haulage incidents that may result in public roads becoming temporarily closed or restricted.

- vi. A procedure for the regular monitoring of road conditions and the implementation of any remedial works required during the construction period.
- vii. A detailed protocol for the delivery of abnormal loads/vehicles, prepared in consultation and agreement with interested parties. The protocol shall identify any requirement for convoy working and/or escorting of vehicles and include arrangements to provide advance notice of abnormal load movements in the local media. Temporary signage, in the form of demountable signs or similar approved, shall be established, when required, to alert road users and local residents of expected abnormal load movements. All such movements on Council maintained roads shall take place outwith peak times on the network, including school travel times, and shall avoid local community events.
- viii. A detailed delivery programme for abnormal load movements, which shall be made available to Highland Council and community representatives.
- ix. Details of any upgrading works required at the junction of the site access and the public road. Such works may include suitable drainage measures, improved geometry and construction, measures to protect the public road and the provision and maintenance of appropriate visibility splays.
- x. Details of appropriate traffic management which shall be established and maintained at the site access for the duration of the construction period. Full details shall be submitted for the prior approval of Highland Council, as roads authority.
- xi. A concluded agreement in accordance with Section 96 of the Roads (Scotland) Act 1984 under which the developer is responsible for the repair of any damage to the local road network that can reasonably be attributed to construction related traffic. As part of this agreement, pre-start and post-construction road condition surveys must be carried out by the developer, to the satisfaction of the Roads Authority(s).
- xii. Measures to ensure that construction traffic adheres to agreed routes.

- xiii. Appropriate reinstatement works shall be carried out, as required by Highland Council, at the end of the turbine delivery and erection period.

Reason : To maintain safety for road traffic and the traffic moving to and from the development, and to ensure that the transportation of abnormal loads will not have any detrimental effect on the road network.

- 11. During the delivery period of the wind turbine construction materials any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised quality assured traffic management consultant, to be approved by The Highland Council in consultation with Transport Scotland before delivery commences.

Reason: To ensure that the transportation will not have any detrimental effect on the road and structures along the route.

- 12. No development shall commence until a community liaison group is established by the developer, in collaboration with The Highland Council and affected local Community Councils. The group shall act as a vehicle for the community to be kept informed of project progress and, in particular, should allow advanced dialogue on the provision of all transport-related mitigation measures and to keep under review the timing of the delivery of turbine components. This should also ensure that local events and tourist seasons are considered and appropriate measures to co-ordinate deliveries and work with these and any other major projects in the area to ensure no conflict between construction traffic and the increased traffic generated by such events / seasons / developments. The liaison group, or element of any combined liaison group relating to this development, shall be maintained until the wind farm construction has been completed and is fully operational.

Reason: To assist with the provision of mitigation measures to minimise potential hazards to road users, including pedestrians, travelling on the road networks.

- 13. No development shall commencement until, a radar mitigation scheme is submitted to and approved in writing by the Planning Authority in consultation with the operator of Inverness Airport. This will include the submission of a Safety Case to the Civil Aviation Authority for approval.

No turbine shall be erected until the approved radar mitigation scheme has been implemented in full at the expense of the developer. Once operational the development shall be operated in accordance with the approved radar mitigation scheme for the lifetime of the development.

In this condition “Radar mitigation scheme” means a scheme designed to mitigate the impact of the wind farm upon the operation of the primary surveillance radar at Inverness Airport (“the radar”) and the air traffic control operations of the airport which are reliant upon the radar. The radar mitigation scheme must set out the appropriate measures to be implemented to mitigate the impact of the

development on the radar and shall be in place for the operational life of the development.

These measures shall include (but will not be limited to) the compatibility and interoperability with the Inverness radar; the proven effective range and coverage; the proven effectiveness of filtering out the turbines without loss of aircraft returns; the reliability of the mitigation; the security arrangements in place to protect any installation or equipment associated with the radar mitigation scheme.

Reason: All of the turbines are likely to be visible to the Inverness Airport radar and would pose an unacceptable operational constraint to Inverness Airport. Mitigation is required to ensure that there will be no unacceptable impacts on the safe operation of Inverness Airport's radar

14. No development shall commence on site until full details of the following (including scale plans as necessary) have been submitted to, and approved in writing by, the Planning Authority:
- i. The delivery of carriageway twin tracking to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of twin tracking, and,
 - ii. The delivery of shared-use path to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of shared-use path.

Thereafter the upgrades and other work approved under parts (i) and (ii) above shall be completed to the satisfaction of the Planning Authority, in line with the attached schedule and at the expense of the development, before commencement of construction, or as otherwise agreed in writing with the Planning Authority.

Reason: To increase the structural integrity of the road to ensure that it is adequate to serve this development and to address the cumulative change in character of the existing road network as a result of this development, in line with the Council's South Loch Ness Road Improvement Strategy and to ensure road safety.

15. No development shall commence until a detailed Outdoor Access Plan of public access across the site (as existing, during construction, during operation and during decommissioning) has been submitted to, and approved in writing by, the Planning Authority. The plan shall include details showing:
- i. All existing access points, paths, core paths, tracks, rights of way and other routes (whether on land or inland water), and any areas currently outwith or excluded from statutory access rights under Part One of the Land Reform (Scotland) Act 2003, within and adjacent to the application site;
 - ii. Any areas proposed for exclusion from statutory access rights, for reasons of privacy, disturbance or effect on curtilage related to proposed buildings

or structures;

- iii. All proposed paths, tracks and other routes for use by walkers, riders, cyclists, canoeists, all-abilities users, etc. and any other relevant outdoor access enhancement (including construction specifications, signage, information leaflets, proposals for on-going maintenance etc.);
- iv. Any diversion of paths, tracks or other routes (whether on land or inland water), temporary or permanent, proposed as part of the development (including details of mitigation measures, diversion works, duration and signage).

The approved Outdoor Access Plan, and any associated works, shall be implemented no later than 12 months after the first export of electricity from the wind farm or as otherwise may be agreed within the approved plan.

Reason: - To ensure public access to the outdoors is not unnecessarily impeded as a result of this development.

16. No development shall commence until a finalised Construction Environmental Management Document is submitted to and agreed in writing by the Planning Authority in consultation with SNH and SEPA. The document shall include provision for :

- An updated Schedule of Mitigation (SM).
- Processes to control / action changes from the agreed Schedule of Mitigation.
- The following specific Construction and Environmental Management Plans (CEMP):
 - i. Peat Management Plan – to include details of all peat stripping, excavation, storage and reuse of material in accordance with best practice advice published by SEPA and SNH. This should for example highlight how sensitive peat areas are to be marked out on-site to prevent any vehicle causing inadvertent damage.
 - ii. Water Quality Management Plan - highlighting drainage provisions including monitoring / maintenance regimes, water crossings designed to 1 in 200 year event plus 20% for climate change, surface water drainage management (SUDs) and development and storage of material buffers (50m minimum) from water features, unless otherwise agreed in writing by SEPA and The Highland Council's Flood Risk Management Team;
 - iii. Public and Private Water Supply Protection Measures;
 - iv. Pollution Prevention Plan and Construction Method Statement

- v. Site Waste Management Plan
- vi. Construction and Decommissioning Method Statement
- vii. Provision of wheel washing facilities.
- viii. Construction Noise Mitigation Plan.
- ix. Species Protection Plan advancing: -
 - a. The pre construction survey for legally protected species is carried out at an appropriate time of year for the species, at a maximum of 12 months preceding commencement of construction, and that a watching brief is then implemented by the Ecological Clerk of Works (ECOW) during construction. The species that should be surveyed for include, but are not limited to, breeding birds, wild cat, otter and water vole. The area that is surveyed should include all areas directly affected by construction plus an appropriate buffer to identify any species within disturbance distance of construction activity and to allow for any micro-siting needs
 - b. Provision of a communication plan to ensure all contractors are aware of the possible presence of protected species frequenting the site and the laws relating to their protection;
 - c. The notification and a stop the job commitment requirements set out below:
 - i. Should an otter holt be found during construction, all works within 250m of the holt shall stop immediately and the SNH Dingwall office be notified and asked for advice.
 - ii. Should a wild cat den be found during construction, all works within 200m of the den shall stop immediately and the SNH Dingwall office be notified and asked for advice.
 - iii. Should any water vole activity be found during construction, all works within 10m of the nearest burrow shall stop. Work may progress if it is in excess of 10m of the nearest burrow, otherwise work shall stop immediately and the SNH Dingwall office be notified and asked for advice.
- Details of the appointment of an appropriately qualified Environmental Clerk of Works with roles and responsibilities which shall include but not necessarily be limited to:

- i. Providing training to the developer and contractors on their responsibilities to ensure that work is carried out in strict accordance with environmental protection requirements;
 - ii. Monitoring compliance with all environmental and mitigation works and working practices approved under this consent;
 - iii. Advising the developer on adequate protection for environmental and nature conservation interests within, and adjacent to, the application site;
 - iv. Directing the placement of the development (including any micro-siting, as permitted by the terms of this consent) and the avoidance of sensitive features; and
 - v. The power to call a halt to development on site where environmental considerations warrant such action.
- Details of any other methods of monitoring, auditing, reporting and communication of environmental management on site and with the client, Planning Authority and other relevant parties.
 - Statement of any additional persons responsible for 'stopping the job / activity' if in potential breach of a mitigation or legislation occurs.

Unless otherwise agreed in writing by the Planning Authority the development shall proceed in accordance with the agreed CEMD.

Reason: To protect the environment from the construction and operation of the development and secure final detailed information on the delivery of all on-site mitigation projects.

17. Where ground conditions specifically require it, wind turbines, masts, areas of hardstanding and tracks may be micro-sited within the application site boundary. However, unless otherwise approved in writing by the Planning Authority (in consultation with SEPA and SNH), micro-siting is subject to the following restrictions:
- i. No wind turbine foundation shall be positioned higher, when measured in metres Above Ordinance Datum (Newlyn), than the position shown on the original approved plans;
 - ii. No wind turbine, mast, hardstanding or track shall be moved:
 - a. More than 50m from the position shown on the original approved plans;

- b. Into an area identified as a highly dependent ground water dependent terrestrial ecosystem buffer as shown in the Hydrological Constraints (Figure 8.2 MMD-324487-DR-GI-001);
 - c. To a position within 50m of any watercourse or, where it outlines a lesser distance, to a position within a watercourse buffer zone identified within the approved Environmental Statement and/or plans;
 - d. To a position within an area identified within the approved Environmental Statement and/or plans as having a gradient constraint, being deep peat (that is peat with a depth of 1.5m or greater) or having a peat landslide hazard risk of significant or greater;
- iii. No wind turbine, mast, hardstanding or track shall be moved where a change to its position, location or route has been proscribed under a condition of this permission.

All micro-siting permissible under this condition without requiring the approval of the Planning Authority must be approved by the development's Environmental Clerk of Works (ECoW). A written record must be kept of any such ECoW approval and shall be maintained for a period extending to no less than four years following the First Export Date.

Within one month of the wind farm being commissioned, the developer must submit an updated site plan to the Planning Authority showing the final position of all wind turbines, masts, areas of hardstanding, tracks and associated infrastructure within the site. The plan should also highlight areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW or Planning Authority's approval, as applicable.

Reason: To enable appropriate micro-siting within the site to enable the developer to respond to site-specific ground conditions, while enabling the planning authority to retain effective control over any changes to layout that may have ramifications for the environment and/or landscape and visual impact.

18. All wires and cables between the wind turbines, control buildings, sub-stations and welfare buildings shall be located underground within the verge of the access tracks or within 3m of the access tracks, unless otherwise agreed in writing by the Planning Authority. Thereafter, and within three months of the completion of cable laying, the ground shall be reinstated to a condition comparable with that of the adjoining land, to the satisfaction of the Planning Authority.

Reason: To ensure that the construction of the wind farm is carried out appropriately and does not have an adverse effect on the environment.

19. No development shall commence until the Planning Authority has approved the terms of appointment of a Planning Monitoring Officer (PMO), the identity of the appointee by and at the cost of the Developer of an independent and suitably qualified consultant to assist the Planning Authority in the monitoring of compliance with conditions attached to this deemed planning permission during the period from commencement of Development to the date of final decommissioning.

The role of the PMO shall include the monitoring of compliance with all conditions, agreements and obligations related to this permission (and/or any superseding or related permissions) and shall include the provision of a quarterly compliance report to the Planning Authority throughout the construction phase. Following the final commissioning of the wind farm a compliance report shall be submitted no later than 31 March of the following years 1, 3, 5, 10, 15, 20, 25.

Reason: To enable the Development to be suitably monitored during the construction and operational phases to ensure compliance with the permission issued.

20. No development shall commence until a proposed scheme for the working of each borrow pit within the site has been submitted to, and approved in writing by, the Planning Authority, in consultation with SEPA and SNH. Thereafter, the scheme shall be implemented as approved. The scheme shall make provision for:

- i. Methods of working (including the timing of works and the use of explosives and/or rock-breaking equipment);
- ii. A description of the volume and type of minerals, aggregates and/or fines to be extracted from each borrow pit, including harness and potential for pollution;
- iii. A site plan and section drawings showing the location and extent of each proposed extraction area;
- iv. Overburden (peat, soil and rock) handling and management;
- v. Details of the existing water table and volumes of de-watering;
- vi. Drainage infrastructure, including measures to prevent the drying out of surrounding peatland; and
- vii. A programme for the re-instatement, restoration and aftercare of each borrow pit once working has ceased, including a management proposal if wetland features form part of the restoration.

For the avoidance of doubt the material won from the hereby approved borrow pits shall only be used in the construction of Aberarder Wind Farm.

Reason: To ensure that a scheme is in place to control the use of borrow pits to minimise the level of visual intrusion and any adverse impacts as a result of the construction phase of the Development.

21. No development shall commence until full details of all surface water drainage provision within the application site (which should accord with the principles of Sustainable Urban Drainage Systems (SUDS) and be designed to the standards outlined in Sewers for Scotland Second Edition, or any superseding guidance

prevailing at the time) have been submitted to, and approved in writing by, the Planning Authority. Thereafter, only the approved details shall be implemented and all surface water drainage provision shall be completed prior to the first occupation of any of the development.

Reason: To ensure that surface water drainage is provided timeously and complies with the principles of SUDS; in order to protect the water environment.

22. The Wind Turbine Noise Level, including the application of any tonal penalty specified in ETSU-R-97 at pages 99-109, shall not exceed 35 dB LA90,10min at any Noise-Sensitive Premises. This condition shall only apply at wind speeds up to 10m/s measured or calculated using the methods described in "Prediction and Assessment of Wind Turbine Noise" (published in IOA Bulletin March/April 2009).

The Wind Farm Operator shall, beginning with the first day upon which the wind farm becomes operational, log wind speed and wind direction data continually and shall retain the data for a period of at least 12 months from the date that it was logged. The data shall include the average wind speed, measured in metres per second, over 10 minute measuring periods. These measuring periods shall be set to commence on the hour and at 10 minute consecutive increments thereafter. Measurements shall be calculated at 10m above ground level using the methods described in "Prediction and Assessment of Wind Turbine Noise" (published in IOA Bulletin March/April 2009). All wind speed data shall be made available to the Planning Authority on request in Microsoft Excel compatible electronic spreadsheet format.

At the reasonable request of the Planning Authority, the Wind Farm Operator shall assess, at its own expense and using a suitably qualified consultant(s) not involved in the original noise assessment, the level of noise emissions from the Wind Turbines.

Assessment shall be carried out in accordance with the Noise Measurement and Mitigation Scheme as required by condition 32 of this planning permission and a report of assessment shall be submitted to the Planning Authority within two months of a request under this condition, unless an alternative timescale is otherwise agreed in writing by the Planning Authority.

If noise emissions are found to exceed limits prescribed under this planning permission, then the Wind Farm Operator shall implement mitigation measures in full accordance with the approved Noise Measurement and Mitigation Scheme, or alternative equal or better mitigation measures as may first be approved in writing by the Planning Authority, in order to reduce noise levels to comply with prescribed limits. The time period for implementing mitigation measures shall be as outlined in the approved Noise Measurement and Mitigation Scheme or as otherwise may be specified writing by the Planning Authority.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded,

suitable mitigation are undertaken.

23. No development shall commence until a Noise Measurement and Mitigation Scheme has been submitted to, and approved in writing by, the Planning Authority. The scheme shall include:

a) a framework for the measurement and calculation of noise levels to be undertaken in accordance with ETSU-R-97 and its associated Good Practice Guide and supplementary guidance notes to be undertaken in the event of a complaint

b) Noise limits, agreed with the Planning Authority, for the cumulative noise levels from any or all of Dunmaglass Wind Farm and Aberarder Wind Farm

c) Details of the mitigation measures to be enacted, along with a timetable(s) for implementation in the event that the agreed noise limits are exceeded. A range of measures may need to be established to cover the different possible scenarios due to the number of wind turbine developments.

Within 21 days from receipt of a written request of the Planning Authority, following a complaint to it alleging noise disturbance at a dwelling, the approved noise measurement and mitigation scheme must be implemented. Any noise measurements and calculations must be undertaken in accordance with the scheme.

The wind farm operator shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise immissions within 2 months of the date of the written request of the Planning Authority, unless the time limit is extended in writing by the Planning Authority. All data collected for the purposes of undertaking the compliance measurements shall be made available to the Planning Authority on the request of the Planning Authority.

Where a further assessment of the rating level of noise immissions from the wind farm is required to assess the complaint, the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment to the Planning Authority unless the time limit for the submission of the further assessment has been extended in writing by the Planning Authority.

The wind farm operator shall continuously log power production, wind speed and wind direction. This data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in writing to the Planning Authority within 14 days of such a request.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded, suitable mitigation are undertaken.

24. No development shall commence until a Stage 1 Nature Conservation

Management Plan (including Habitat Management Plan and restoration) has been submitted to and approved in writing by the Planning Authority in consultation with SNH and SEPA. The Nature Conservation Management Plan shall set out proposed long term management for the wind farm site and shall provide for the management, monitoring and reporting of terrestrial and aquatic habitats on site..

The approved Nature Conservation Management Plan will be reviewed and updated by the Developer to reflect ground condition surveys undertaken during construction and prior to the First Export Date and shall be submitted to the Planning Authority for its written approval in consultation with SNH and SEPA prior to the First Export Date, as the Stage 2 Nature Conservation Management Plan.

In furtherance of the aim and for the better implementation and review of the Nature Conservation Management Plan Steering Group (NCMP SG) shall be formed prior to the commencement of any development. The membership of this NCMP SG will include representatives of the Developer, the Planning Authority and SNH. The NCMP SG will meet annually but it is expected that its consideration of relevant matters will be primarily by exchange of correspondence.

The Stage 2 Nature Conservation Management Plan shall be further reviewed by the Developer at a frequency of no longer than the 5 year anniversary of the First Export Date, and no longer than every 6 years thereafter until the Development is no longer in operation and the Decommissioning and Restoration Plan has been implemented in full. The Developer shall submit a stage reviewed Nature Conservation Management Plan following each such Nature Conservation Management Plan monitoring year as provided for in the Nature Conservation Management Plan for approval in writing by the Planning Authority in consultation with SNH and SEPA. Mitigation identified through the reviewed Nature Conservation Management Plans shall be implemented in full by the Developer, unless otherwise agreed in writing by the Planning Authority in consultation with SNH and SEPA.

NCMP monitoring shall be carried out by the Developer in operational years 1, 5, 10, 15 and 25 and shall be reported to the Planning Authority, the NCMP Steering Group in writing by the Developer.

The Developer shall submit a monitoring report to the Planning Authority, SNH and SEPA on the ongoing implementation of the approved Nature Conservation Management Plan which will be provided no later than 6 months after the end of each NCMP monitoring year. The monitoring report shall present an assessment of the implementation of the Nature Conservation Management Plan, including -

- a. an assessment of the implementation of the Nature Conservation Management Plan, and any reviewed such plan, in relation to the aims and objectives of the plan;
- b. the levels, if any, of habitat restoration delivered on site, and
- c. the results of any monitoring and surveys required in compliance with the conditions of this deemed planning permission.

If a monitoring report identifies that the implementation of the Nature Conservation

Management Plan is not meeting the aims and objectives of the Habitat Management Plan then this shall be reported by the Developer to the HMP SG along with details of the proposed mitigation and any other works considered to be required to ensure the aims and objectives of the approved Habitat Management Plan will be met within 6 months of the relevant monitoring report being so submitted. The HMP SG will review such proposals and make recommendations thereon. The Developer shall then finalise proposed mitigation and other works, incorporate changes into an updated Habitat Management Plan which shall be submitted to the Planning Authority within 12 months of the relevant monitoring report for written approval in consultation with SNH and SEPA.

Unless otherwise agreed in advance in writing with the Planning Authority after consultation with SNH and SEPA, the approved Habitat Management Plan, each approved reviewed Habitat Management Plan and updated mitigation and works to achieve same shall be implemented in full by the Developer.

Reason: In the interests of good land management, the protection of habitats and to minimise collision risk to bird species which are qualifying interests of the Caithness and Sutherland Peatlands Special Protection Area.

25. No development shall commence until a TV mitigation plan has been submitted to, and approved in writing by, the Planning Authority. The plan shall provide for a baseline TV reception survey to be carried out prior to the commencement of turbine installation, the results of which shall be submitted to the Planning Authority. Within 12 months of the first export of electricity from the wind farm, any claim by any individual person regarding TV picture loss or interference at their house, business premises or other building, shall be investigated by a qualified engineer appointed by the developer and the results shall be submitted to the Planning Authority. Should any impairment to the TV signal be attributable to the development, the developer shall remedy such impairment so that the standard of reception at the affected property is equivalent to the baseline TV reception.

Reason: To ensure local TV Services are sustained during the construction and operation of this development.

Road Mitigation Schedule

Planning Application Ref.	15/00737/FUL
Proposed Development	Erection of 12 wind turbines (130m in height) including and associated works (Aberarder Wind Farm) at Land At Carn Ghriogair, Aberarder Estate, Aberarder, Inverness
Schedule Date	12.02.2016

The road mitigation required as a result of this development shall comply with the requirements of The Highland Council and deliver the following mitigation:

- The delivery of carriageway twin tracking to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of twin tracking; and
- The delivery of shared-use path to the B851 public road, from Dunmaglass Bridge/Mains Entrance twin tracking to Aberarder Bridge. This equates to approximately 1.9km of shared-use path.

This mitigation is proportionate to the level of impact arising from the development and inline with the South Loch Ness Road Improvement Strategy.

The mitigation shall be delivered as follows:

Twin Tracking of B851 between Dunmaglass Bridge/Mains Twin Tracking to Aberarder Bridge

- The carriageway twin tracking shall provide a 6.5m wide 'blacktop' providing:
 - a 6m carriageway width between white lines;
 - optimisation of alignment within land boundary available to locally improve road alignment and geometry;
 - a full width surface course overlay (with regulating to achieve appropriate camber/crossfall); and
 - suitable road drainage provision.

Shared Use Path to the B851 from Dunmaglass Bridge/Mains Entrance Twin Tracking to Aberarder Bridge

- The shared use paths shall comprise:
 - 2 m in width;
 - unbound aggregate construction acceptable;
 - 1 m separation strip required between carriageway and shared use path;
 - suitable path drainage provision, this may be incorporated with road drainage;
 - delivery of termination/connection points to existing paths or the road where appropriate. This shall include tying in with either existing paths or the road network.

Note: All mitigation works must be completed before development starts on site. To increase the structural integrity of the road to ensure that it is adequate to serve this development and to address the cumulative change in character of the existing road network as a result of this development, in line with the Council's South Loch Ness Road Improvement Strategy and to ensure road safety.

Other Statutory Requirements

In addition to planning permission, prior to starting any access works within the public road boundary, you will require separate written permission from the Roads Authority (The Council's Community Services). This is a legal requirement.

Permission will also be required for the installation of, or connection to, any utility apparatus within the public road boundary and any occupation of the public road by building materials, equipment or plant.

No connections should be made to any public road drainage system without the formal written permission of either Community Services (Roads) or Scottish Water, as appropriate.

Application forms and guidance on the above requirements can be obtained from your local Community Services (Roads) office or from the Council's website.

Note: All works must be completed to the satisfaction of both the Planning Authority and the Roads Authority, and in accordance with all relevant consents. To ensure compliance, one or more inspections may be carried out by Council officials during and/or after completion of the development.

Designation: Head of Planning and Building Standards

Author: Simon Hindson

Background Papers: Documents referred to in report and in case file.

Relevant Plans:



**ABERARDER
WIND FARM**

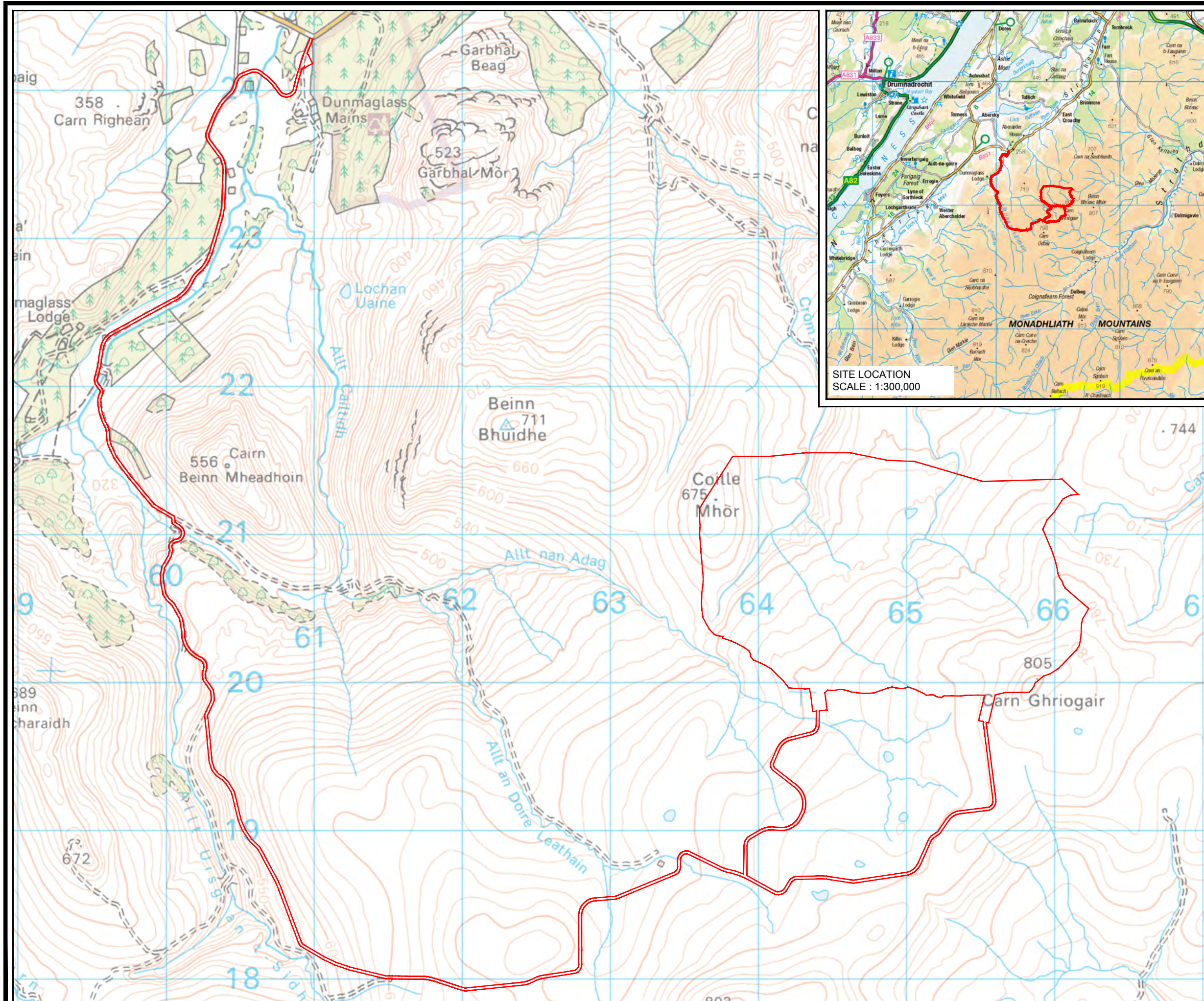
FIGURE 1.1

**SITE LOCATION &
PLANNING APPLICATION
BOUNDARY**

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2015 LICENCE NUMBER 0100031673.

KEY

— SITE BOUNDARY



SITE LOCATION
SCALE : 1:300,000

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2220-03

SCALE - 1:25,000 @ A3

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2015**

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ABERARDER WIND FARM

FIGURE 2.1

INFRASTRUCTURE LAYOUT

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- KEY**
- ⊕ WIND TURBINE LOCATION
 - SITE BOUNDARY (TAKEN FROM RES DRAWING 02835D2202-03)
 - DUNMAGLASS INFRASTRUCTURE (CONSENTED LAYOUT 2012)
 - NEW SITE TRACKS
 - PASSING PLACE & INDICATIVE HAUL ROAD TO BORROW PIT AREA
 - WATERCOURSE CROSSING
 - CRANE HARDSTANDING AREA
 - ⊞ PERMANENT
 - ⊞ TEMPORARY
 - TEMPORARY CONSTRUCTION COMPOUND
 - BATCHING PLANT
 - BORROW PIT SEARCH AREAS
 - TEMPORARY WELFARE COMPOUND
 - CONTROL BUILDING & SUBSTATION COMPOUND
 - 10m TELECOMS MAST (NOT TO SCALE)
 - METEOROLOGICAL MAST LOCATION (PERMANENT LATTICE TYPE, NOT TO SCALE) (TAKEN FROM RES DRAWING 02835D0103-01)
 - × METEOROLOGICAL CALIBRATION MAST LOCATION (TEMPORARY GUYED TYPE, INDICATIVE GUY WIRE FOOTPRINT SHOWN) (TAKEN FROM RES DRAWING 02835D0102-02)
 - WATERLESS WHEEL WASH
 - ➔ SITE ENTRANCE LOCATION

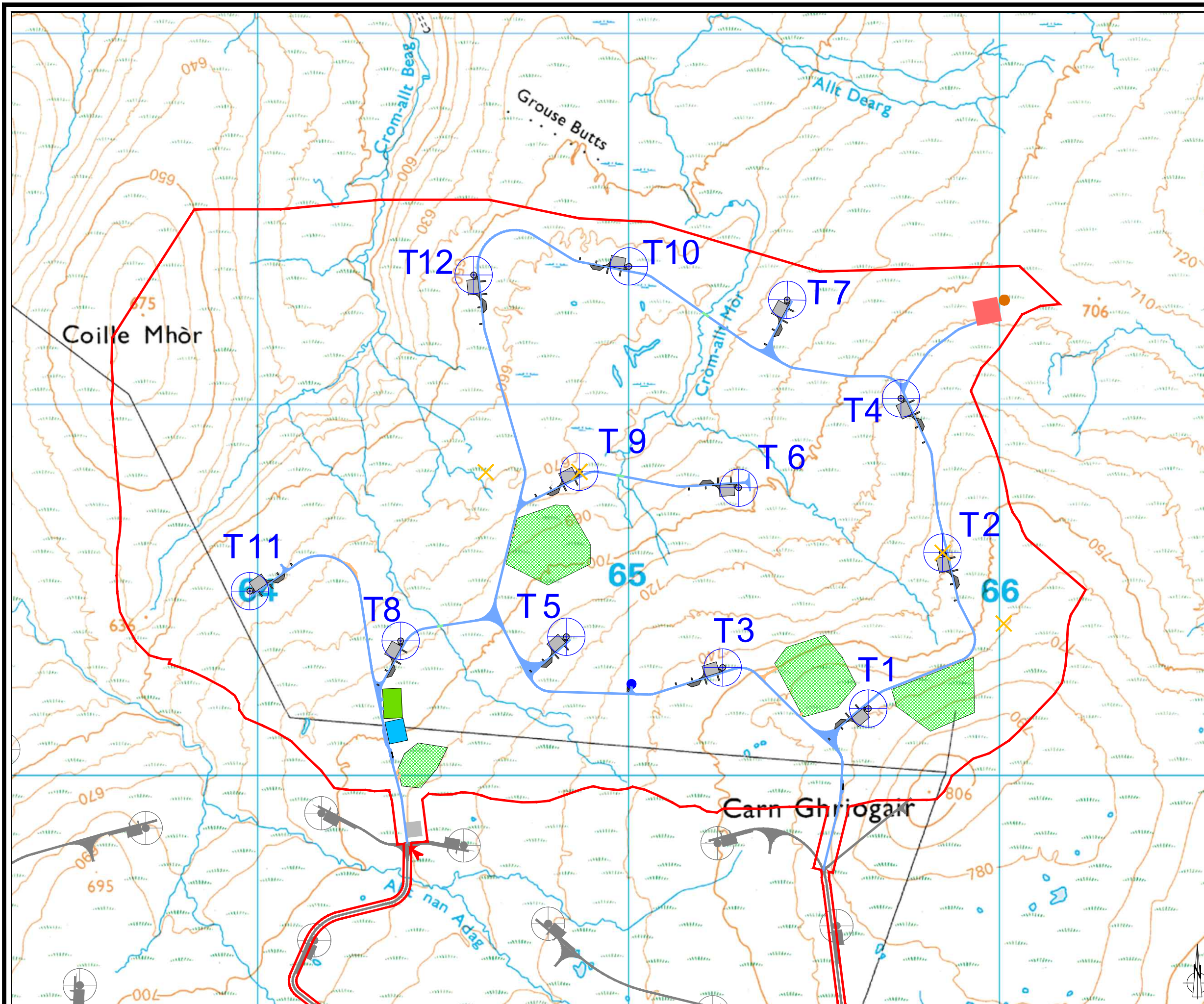
LAYOUT DWG: 02835D0001-10 T-LAYOUT NO: PSC0abe027

DRAWING NUMBER: 02835D1001-08

SCALE - 1:10,000

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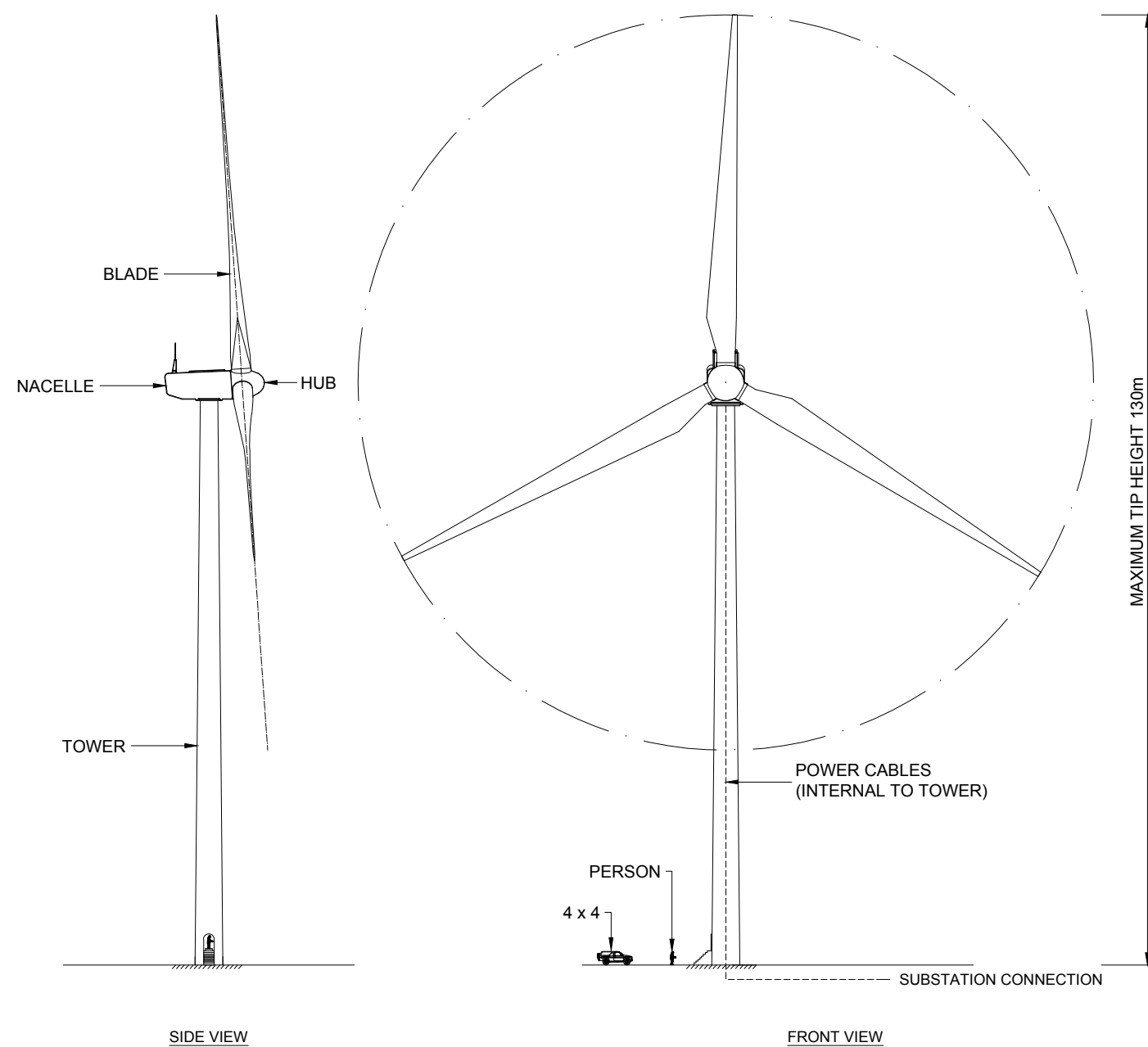




ABERARDER
WIND FARM

FIGURE 2.2

WIND TURBINE
ELEVATION (130M)



PHOTOGRAPH OF TYPICAL TURBINE

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2906-02

SCALE - NOT TO SCALE

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2014

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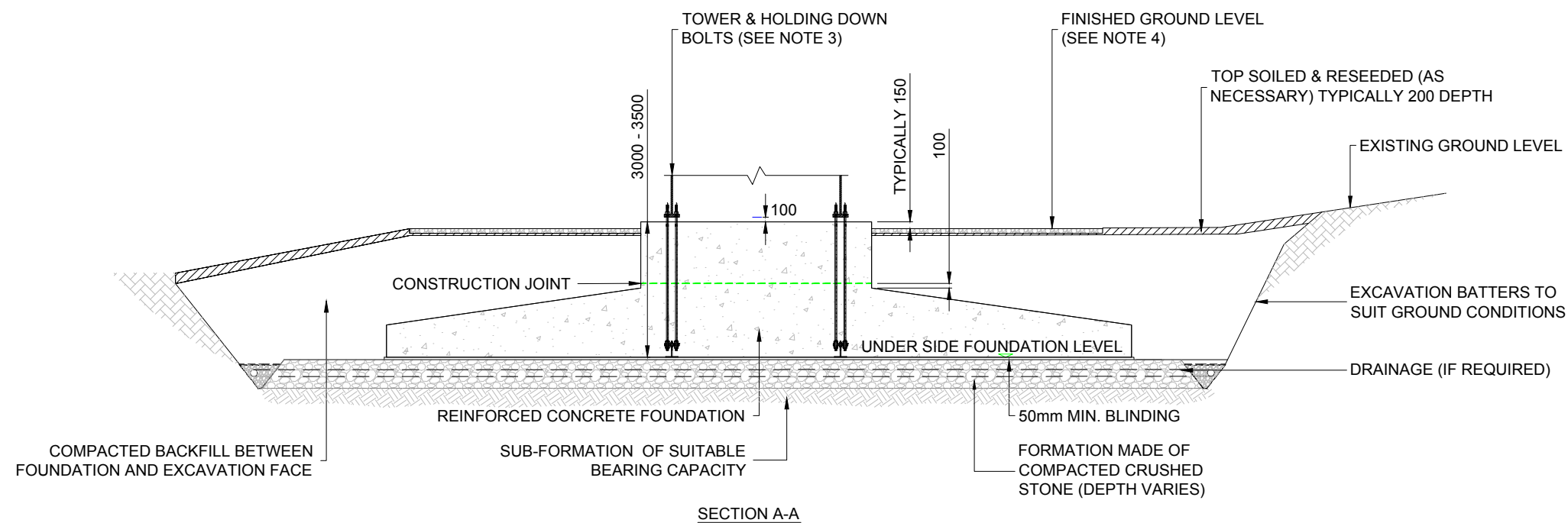
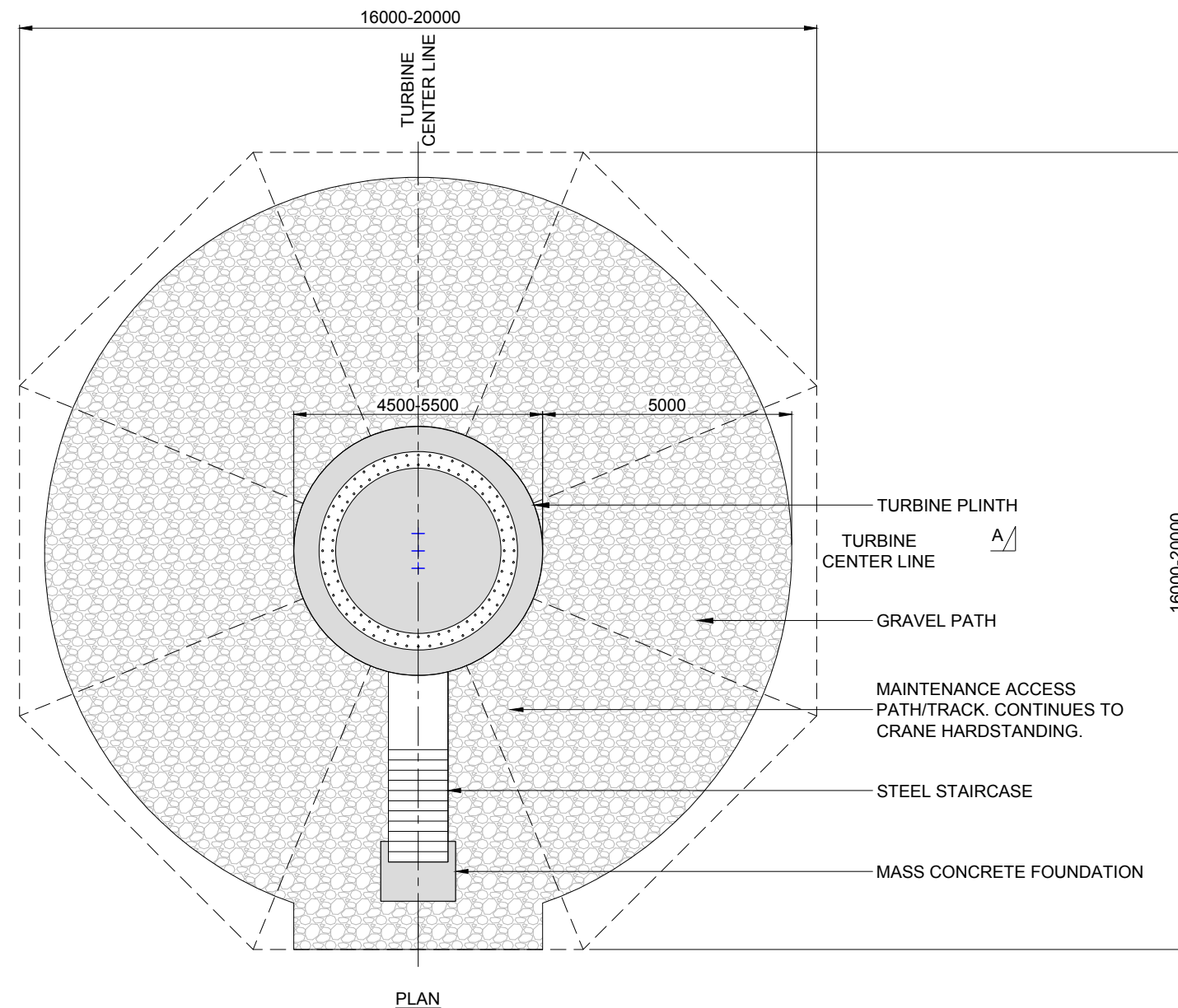
**ABERARDER
WIND FARM**

FIGURE 2.3

**WIND TURBINE
FOUNDATION**

MAXIMUM PERMANENT LAND TAKE	
TURBINE PLINTH	23.8m ²
GRAVEL PATH	174m ²

A



NOTES

1. DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND MAY VARY DUE TO SPECIFIC TURBINE OR GROUND CONDITIONS.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
3. THE HOLDING DOWN BOLT ARRANGEMENT SHOWN ON THIS DRAWING IS TYPICAL. HOWEVER ALTERNATIVE CAST IN ARRANGEMENTS ARE AVAILABLE AND MAY BE SUBSTITUTED DEPENDING ON ACTUAL TURBINE SELECTION.
4. GRADIENT OF FINISHED GROUND LEVEL OVER TURBINE BASE, MAX 1:12.
5. MATERIALS ARISING FROM EXCAVATIONS TO BE SEGREGATED AND PLACED IN AGREED LOCATIONS ADJACENT TO THE WORKING AREA FOR RE-USE. REINSTATEMENT AND /OR PEAT MANAGEMENT PLANS WILL BE DEVELOPED DURING THE DETAILED DESIGN OF SITE INFRASTRUCTURE, IN LINE WITH CURRENT BEST PRACTICE.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2302-01

SCALE - NOT TO SCALE

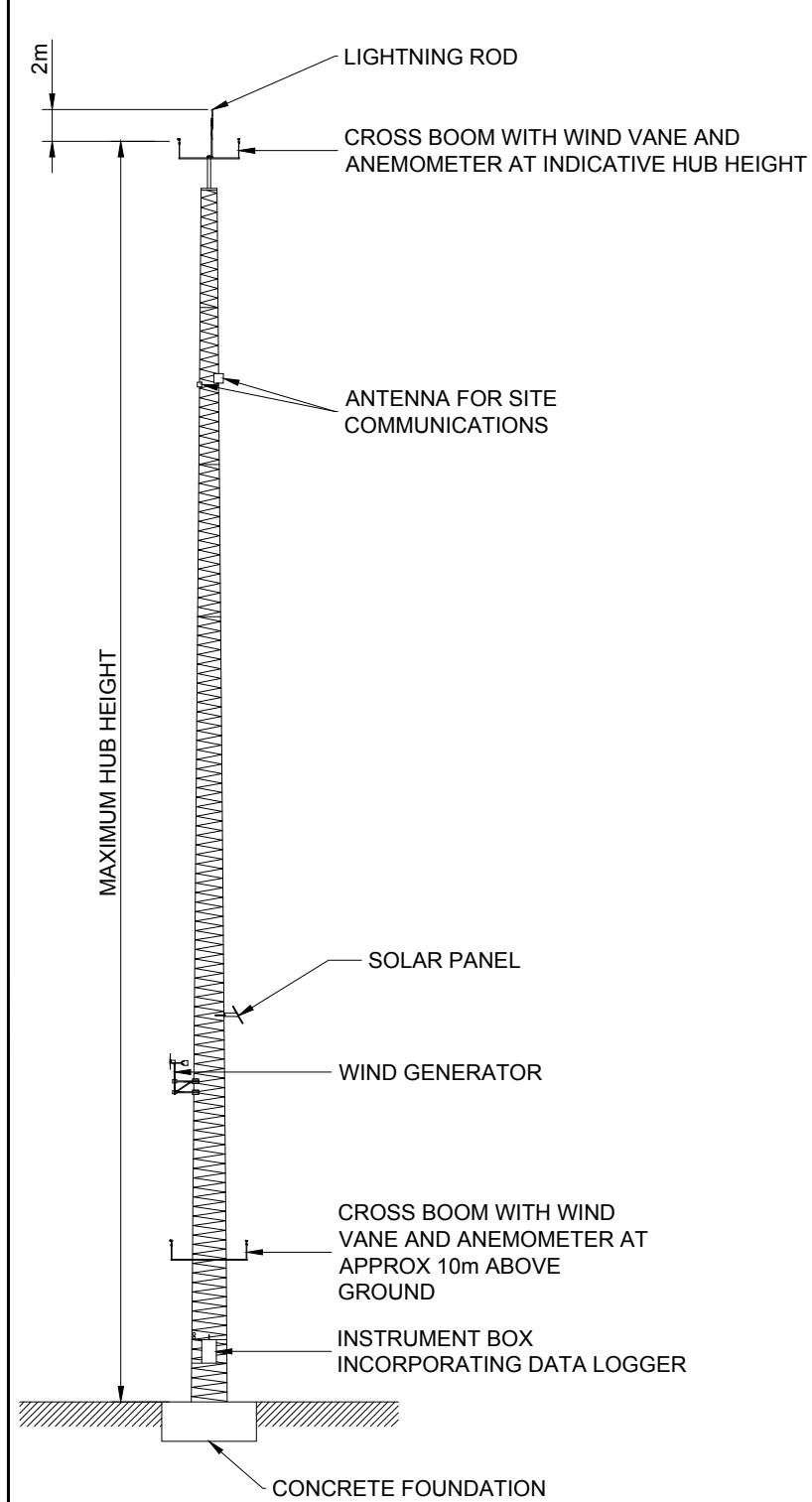
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2014**

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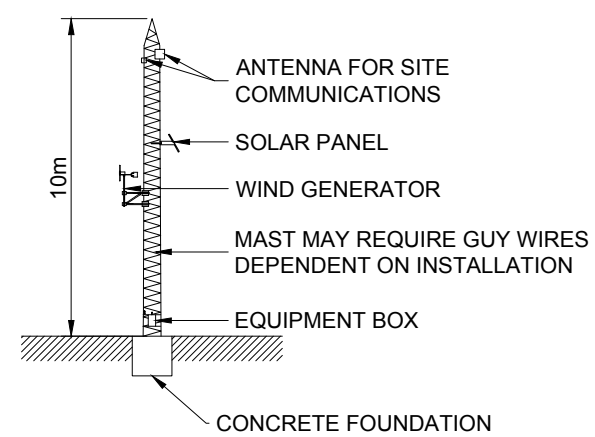


**ABERARDER
WIND FARM**

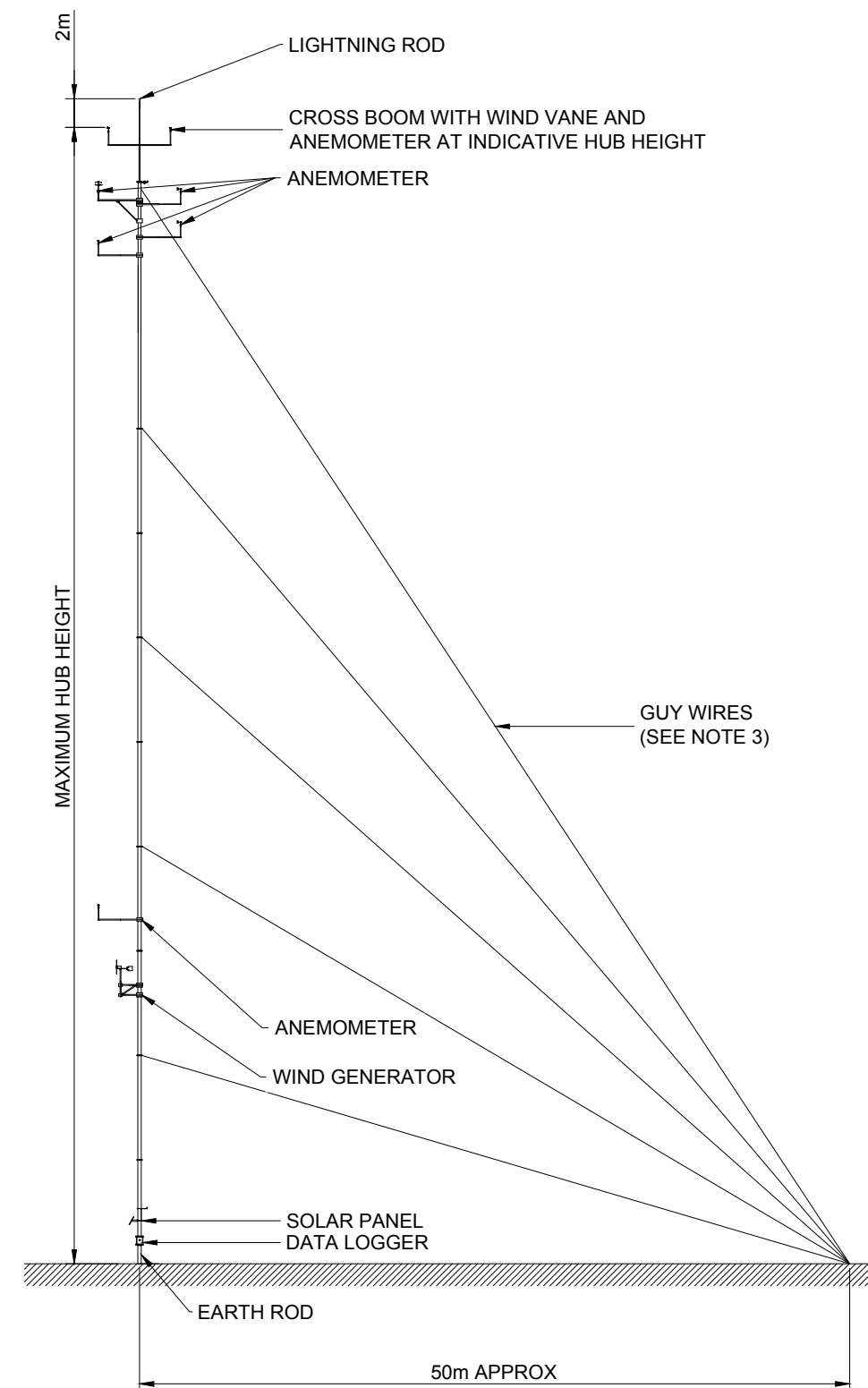
**FIGURE 2.5
TYPICAL MASTS DETAIL-
PERMANENT, TEMPORARY
AND COMMUNICATIONS**



PERMANENT METEOROLOGICAL MAST



TELECOMMUNICATIONS MAST



TEMPORARY AND
SITE CALIBRATION METEOROLOGICAL MAST

NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL INSTRUMENTATION SHOWN TO PROVIDE INDICATION OF TYPES AND NUMBERS REQUIRED. ACTUAL REQUIREMENTS TO BE CONFIRMED DURING DEVELOPMENT OF DETAILED DESIGN.
3. NUMBER AND LOCATION OF GUY WIRES ARE INDICATIVE ONLY, ALL REQUIRED WIRES NOT SHOWN FOR CLARITY.
4. ALL GUY WIRES TO EXTEND TO AND BE ANCHORED AT GROUND LEVEL.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2226-01

SCALE - NOT TO SCALE

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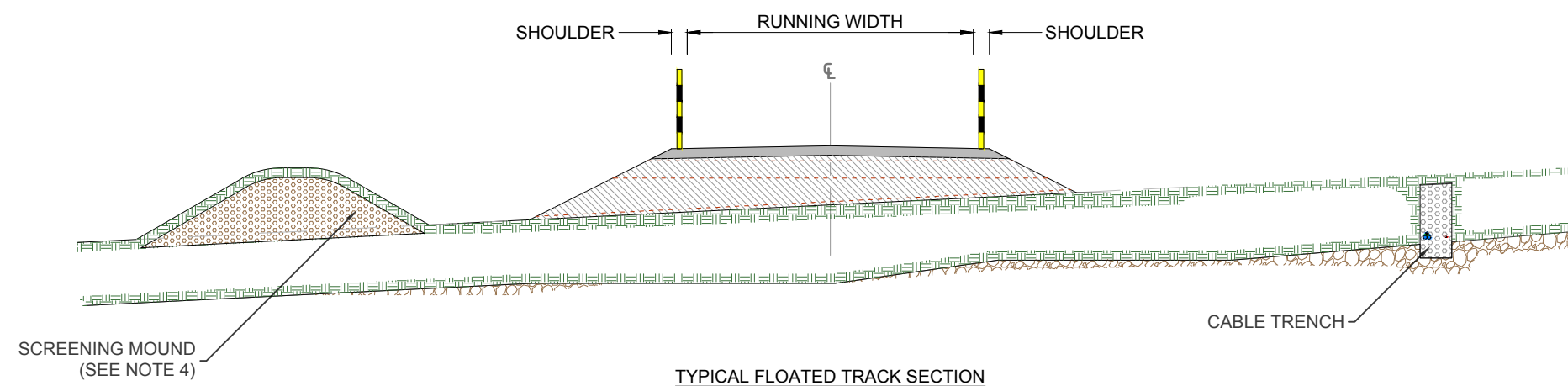
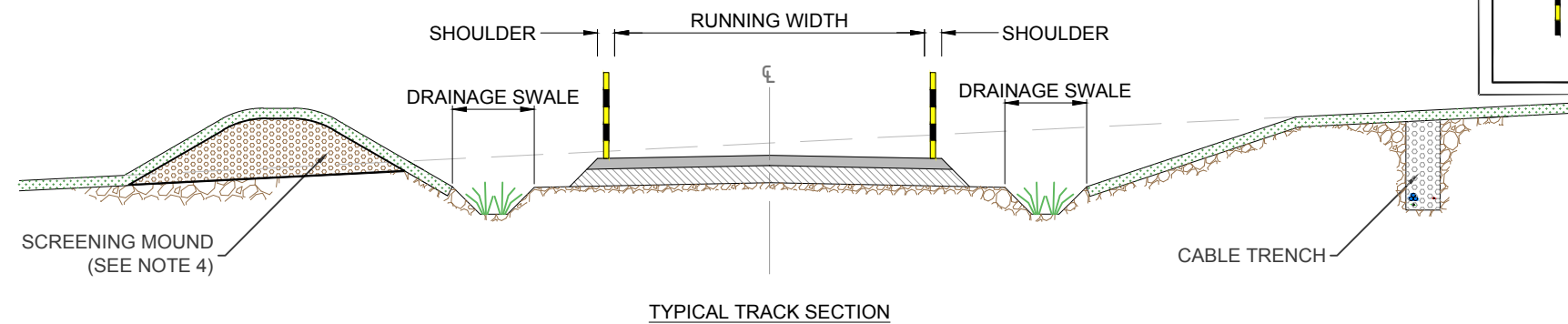
ABERARDER
WIND FARM

FIGURE 2.6

TYPICAL ACCESS
TRACK DETAILS

KEY

-  RUNNING SURFACE
-  BASE/CAPPING LAYER
-  TOPSOIL
-  SUBGRADE
-  PEAT LAYER/SOFT GROUND
-  EXCAVATED MATERIAL
-  GEOGRID
-  EXISTING GROUND LEVEL
-  SNOW POLES
(WHERE REQUIRED)



NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. TRACK WIDTH TO INCREASE ON BENDS AND PASSING PLACES.
3. ALL EMBANKMENT SLOPES TO BE PROVIDED AT A STABLE ANGLE BASED ON THE PROPERTIES OF THE MATERIAL ENCOUNTERED ON SITE.
4. EXCAVATED MATERIAL WILL BE PLACED IN AGREED LOCATIONS. REINSTATEMENT AND/OR SPOIL MANAGEMENT PLANS WILL BE DEVELOPED IN LINE WITH CURRENT BEST PRACTICE.
5. TRACK CONSTRUCTION TYPE TO BE DETERMINED DURING DETAILED DESIGN. LAYOUT OF DRAINAGE, CABLE TRENCHES AND SCREENING BUNDS MAY VARY.
6. RUNNING SURFACE AND BASE/CAPPING LAYER TO BE FORMED FROM SUITABLE MATERIALS COMPACTED IN LAYERS.
7. GEOSYNTHETIC REINFORCEMENT OR SOIL STABILISATION MAY BE USED TO REDUCE THE DEPTH OF TRACK CONSTRUCTION. REQUIREMENT TO BE DETERMINED DURING DETAILED DESIGN.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2218-02

SCALE - NOT TO SCALE

ENVIRONMENTAL STATEMENT
2014

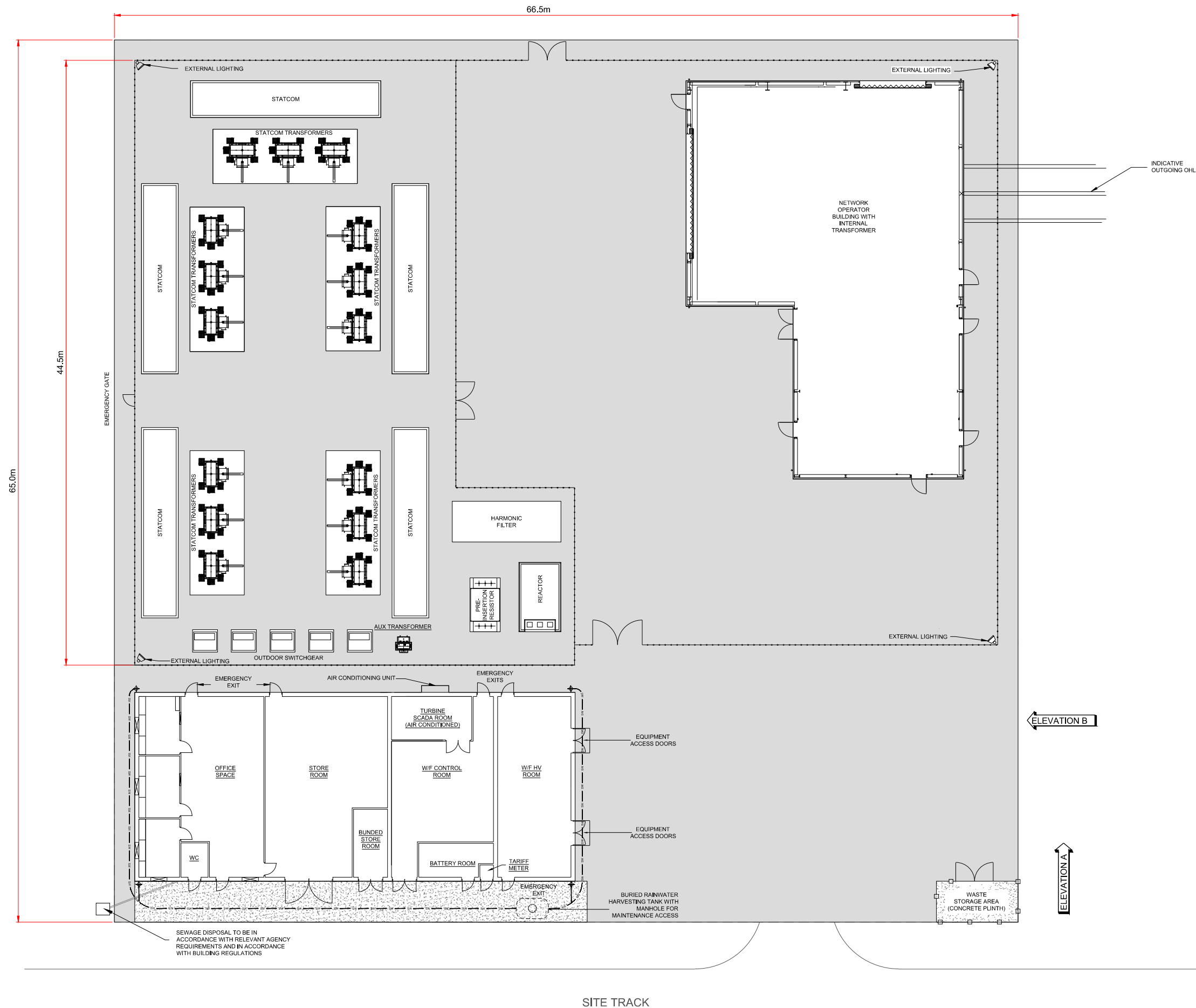
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**ABERARDER
WIND FARM**

FIGURE 2.7

**SUBSTATION BUILDING
AND COMPOUND PLAN**



- NOTES**
1. THE CONTROL BUILDING, ELECTRICAL COMPOUND AND ASSOCIATED INFRASTRUCTURE IS INDICATIVE ONLY. THE INTERNAL ARRANGEMENTS OF EQUIPMENT, DOOR LOCATIONS, ROOM SIZES, ETC ARE SUBJECT TO REQUIREMENTS OF THE TURBINE SUPPLIER AND ELECTRICITY TRANSMISSION NETWORK OPERATOR.
 2. THE SHAPE OF THE COMPOUND AND HARDSTANDING IS SUBJECT TO CHANGE DEPENDING ON FINAL EQUIPMENT REQUIREMENTS AND ELECTRICITY TRANSMISSION NETWORK OPERATOR SPECIFICATIONS. THE OVERALL AREA IS NOT EXPECTED TO INCREASE.
 3. FOUL AND SURFACE WATER DRAINAGE TO BE FINALISED AT DETAILED DESIGN STAGE.
 4. SIZE AND LOCATION OF RAINWATER HARVESTING TANK TO BE FINALISED AT DETAILED DESIGN STAGE.
 5. EXTERNAL ELECTRICAL EQUIPMENT TO HAVE A MINIMUM SEPARATION OF 1m.
 6. ELECTRICAL RESISTIVITY STRIP TO BE INSTALLED AROUND THE PERIMETER OF COMPOUND AND BUILDINGS.
 7. BURIED CABLES AND TRENCHES EXCLUDED FOR CLARITY.

- KEY**
- PLATFORM WITH CONCRETE, ASPHALT OR SIMILAR
 - HARDSTANDING FORMED OF CRUSHED STONE OR SIMILAR APPROVED
 - SURFACE WATER DRAINAGE PIPE
 - FENCE

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2227-01

SCALE - 1:300 @ A3

**ENVIRONMENTAL STATEMENT
2014**

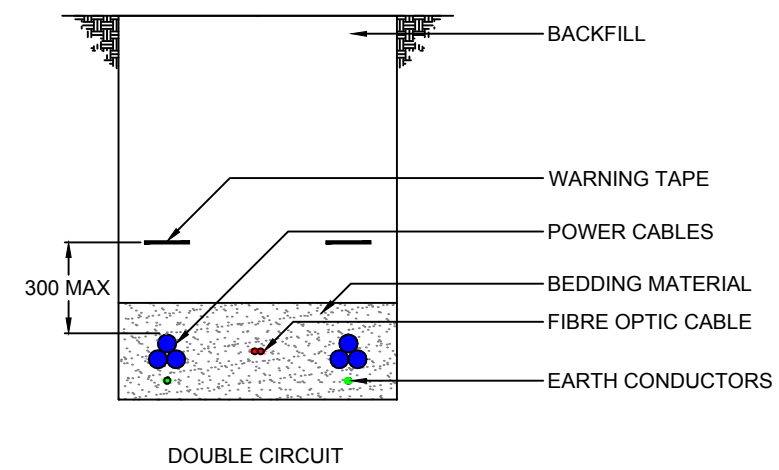
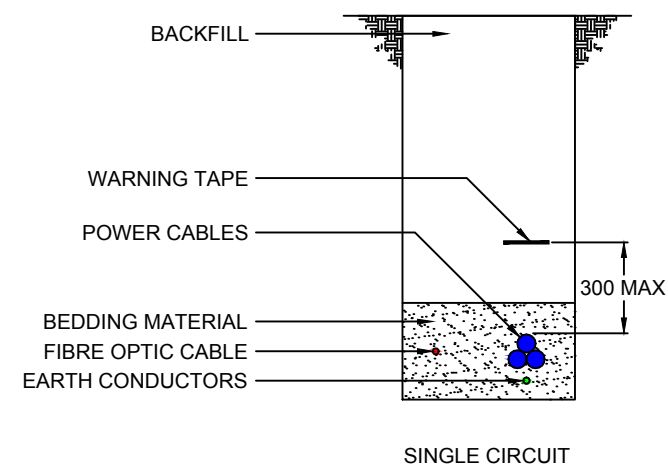
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SITE TRACK

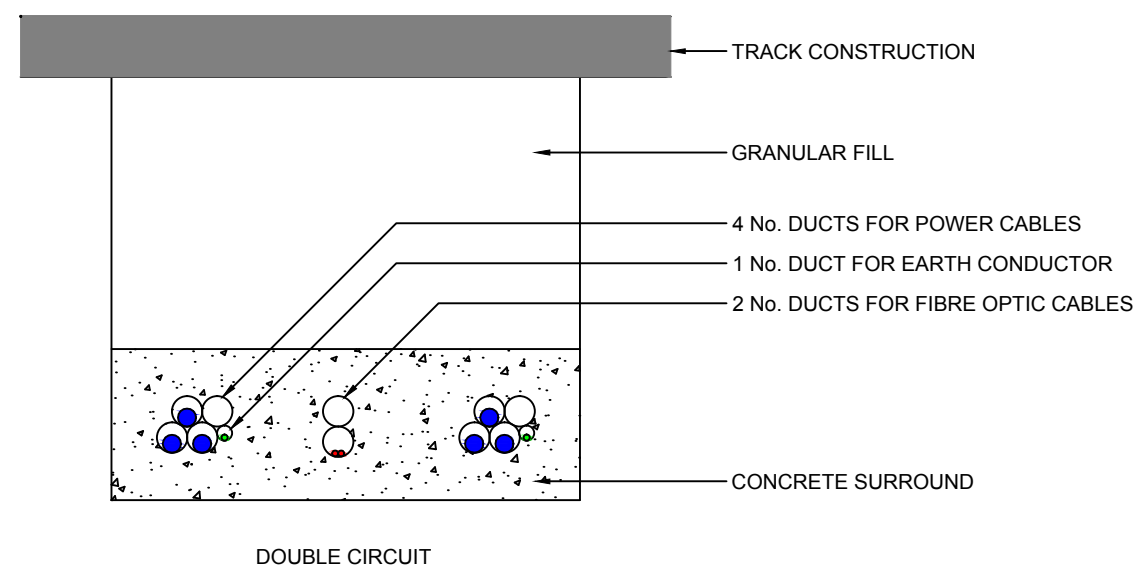
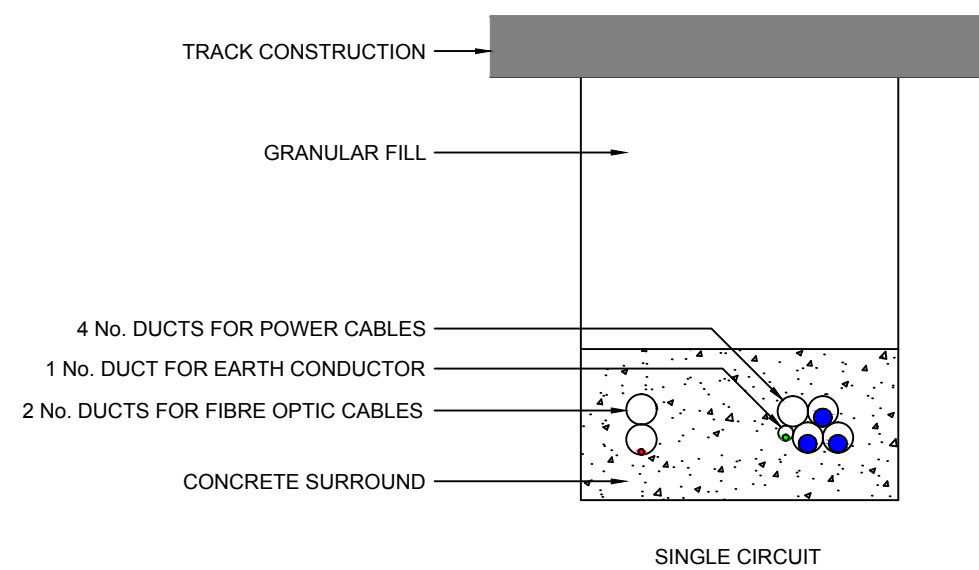
ABERARDER
WIND FARM

FIGURE 2.8

CABLE TRENCH
TYPICAL DETAILS



TYPICAL CABLE TRENCHES



TYPICAL TRACK CROSSINGS

NOTES

1. THIS DRAWING IS INDICATIVE ONLY AND IS SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
2. ALL DIMENSIONS IN mm.
3. CABLES MAY BE INSTALLED BY CABLE PLOUGH FOR DISTANCES GREATER THAN 1km.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2303-01

SCALE - NOT TO SCALE

ENVIRONMENTAL STATEMENT
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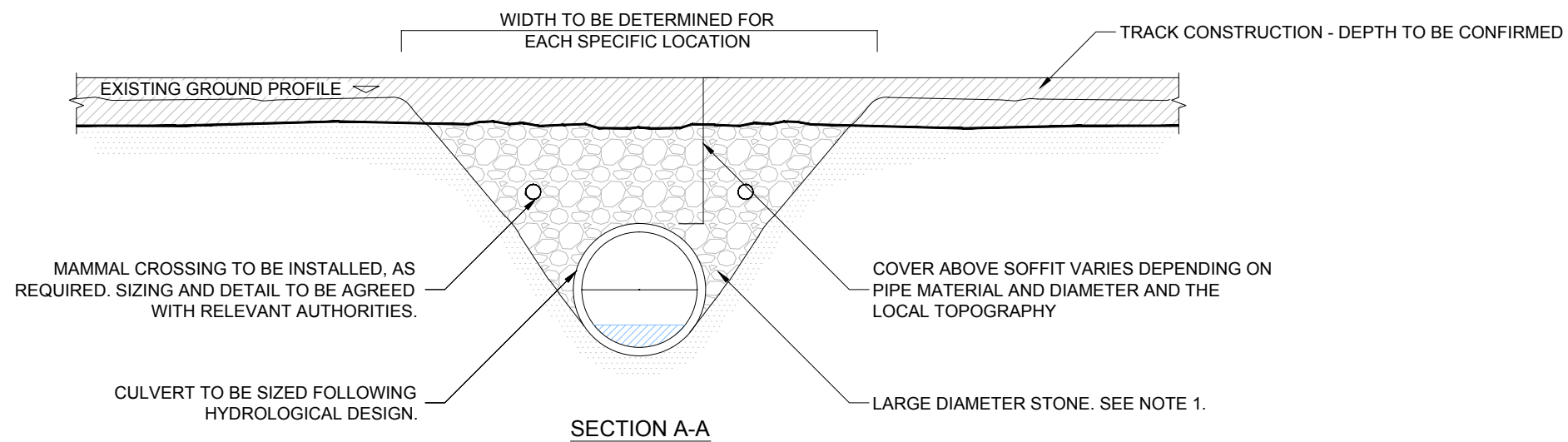
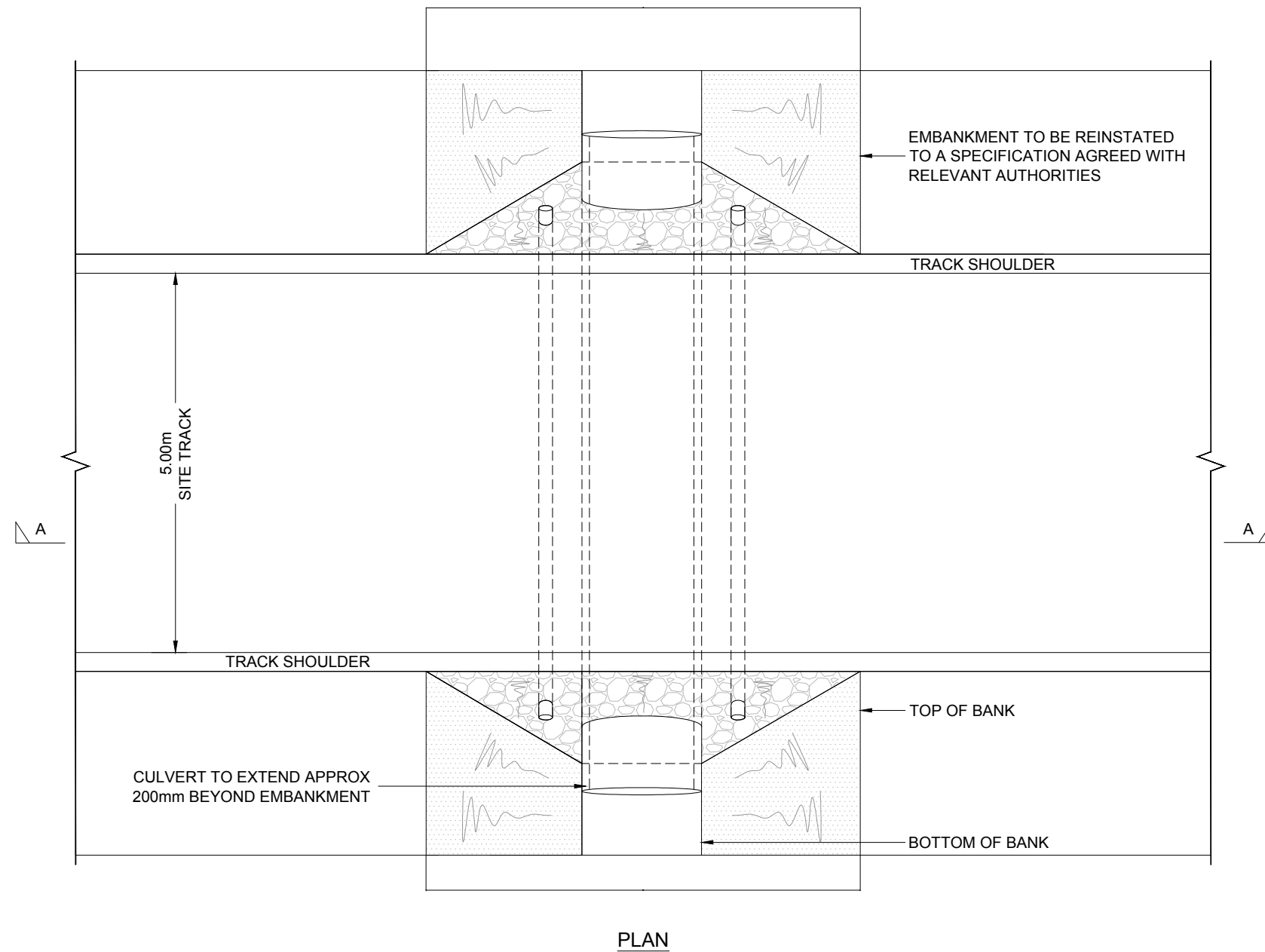
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**ABERARDER
WIND FARM**

FIGURE 2.9

**WATER CROSSING
DETAIL**



NOTES

1. FINAL SPECIFICATION AND INSTALLATION METHOD TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITIES.
2. CULVERT TYPE AND SIZING TO BE DEFINED DURING DESIGN OF ON-SITE DRAINAGE SYSTEMS.
3. INFILL MATERIAL TO BE CLEAN CRUSHED ROCK.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2228-01

SCALE - NOT TO SCALE

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ABERARDER WIND FARM

FIGURE 2.10

TEMPORARY GATEHOUSE COMPOUND

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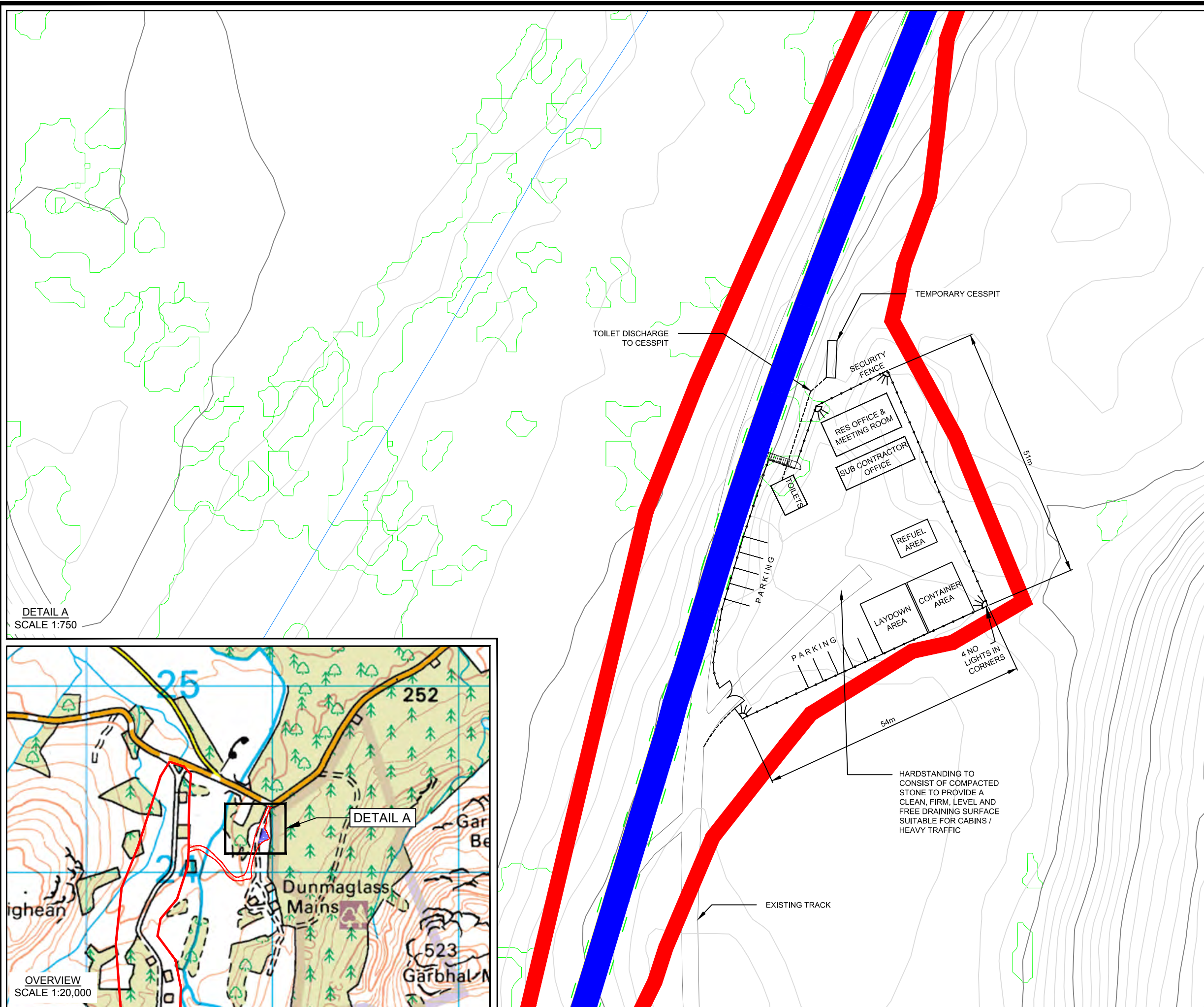
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KEY

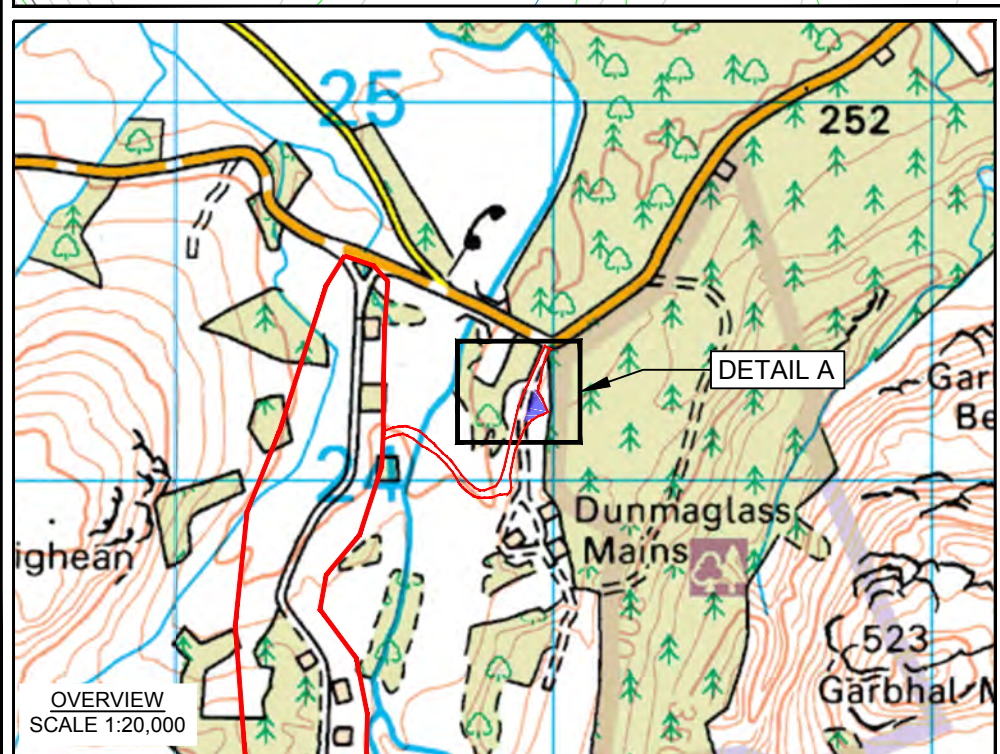
- DUNMAGLASS WIND FARM DEVELOPMENT SITE BOUNDARY
- EXISTING TRACKS UPGRADED FOR CONSTRUCTION AND OPERATION OF DUNMAGLASS WIND FARM

NOTE

1. EXISTING GATEHOUSE AREA CONSTRUCTED FOR DUNMAGLASS WIND FARM TO BE RE-USED FOR ABERARDER DEVELOPMENT.
2. INDICATIVE LAYOUT ONLY, INTERNAL ARRANGEMENT OF PARKING AND COMPOUNDS WILL BE SUBJECT TO CONTRACTORS PREFERENCE.



DETAIL A
SCALE 1:750



OVERVIEW
SCALE 1:20,000

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2223-03

SCALE - AS SHOWN

ENVIRONMENTAL STATEMENT
2014

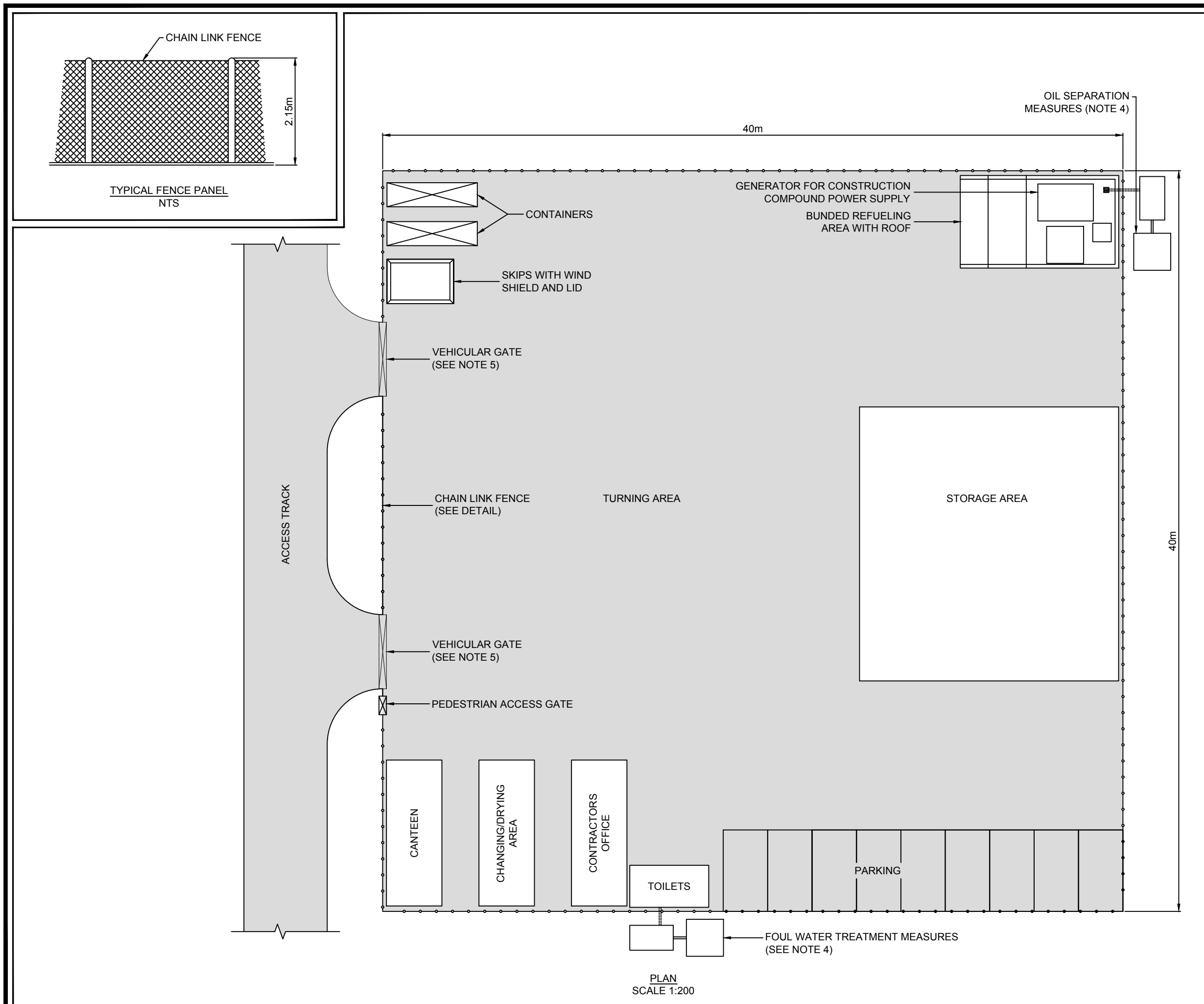
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**ABERARDER
WIND FARM**

FIGURE 2.11

**ENABLING WORKS
COMPOUND**



NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. SIZE, NUMBER AND LOCATION OF COMPOUND EQUIPMENT AND FACILITIES ARE INDICATIVE ONLY AND SUBJECT TO CHANGE TO SUIT SITE CONDITIONS.
3. COMPOUND HARDSTANDING TO BE REMOVED FOLLOWING CONSTRUCTION WORKS BEING COMPLETED AND GROUND REINSTATED TO ORIGINAL CONDITION.
4. APPROPRIATE MEASURES FOR SEPARATION OF OILS AND TREATMENT OF FOUL WATER TO BE AGREED WITH THE RELEVANT AUTHORITIES
5. VEHICULAR GATES TO BE 6m WIDE CONSISTING OF 2 x 3m LEAVES.
6. COMPOUND HARDSTANDING TO CONSIST OF COMPACTED STONE OVER A LAYER OF GEOTEXTILE TO PROVIDE A CLEAN, FIRM, LEVEL AND FREE DRAINING SURFACE SUITABLE FOR CABINS/HEAVY TRAFFIC.
7. FOLLOWING MOBILISATION OF THE MAIN CONSTRUCTION COMPOUND, THE ENABLING WORKS COMPOUND AREA WILL BE REINSTATED.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2222-03

SCALE - AS SHOWN

**ENVIRONMENTAL STATEMENT
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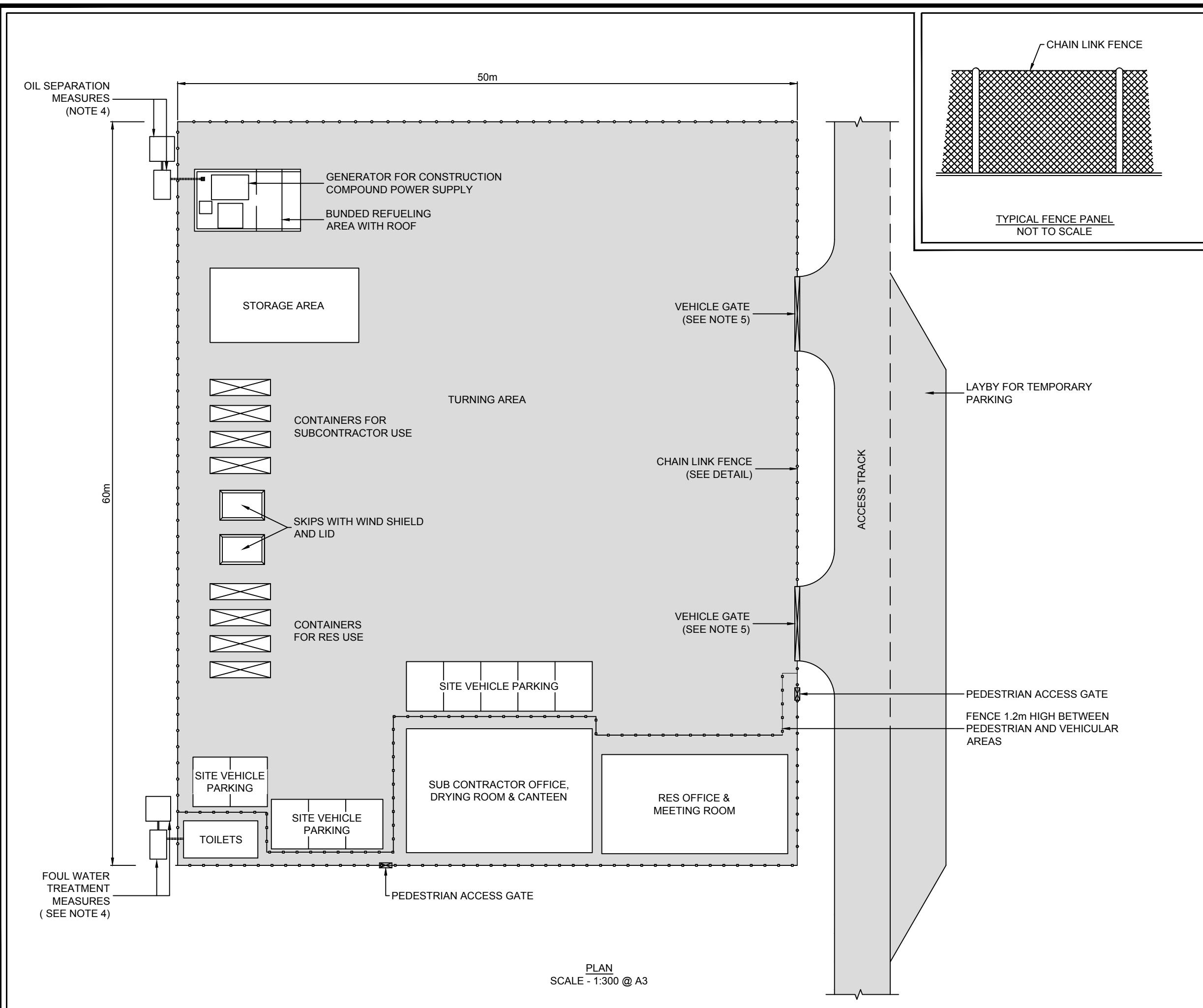
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**ABERARDER
WIND FARM**

FIGURE 2.12

**TEMPORARY
CONSTRUCTION
COMPOUND**



NOTES

1. SIZE, NUMBER AND LOCATION OF COMPOUND EQUIPMENT AND FACILITIES ARE INDICATIVE ONLY
2. STRUCTURE TO BE TEMPORARY AND TO BE REMOVED AFTER CONSTRUCTION.
3. COMPOUND HARDSTANDING CONSISTING OF COMPACTED STONE OVER A LAYER OF GEOTEXTILE TO PROVIDE A CLEAN, FIRM, LEVEL AND FREE DRAINING SURFACE SUITABLE FOR CABINS AND HEAVY TRAFFIC.
4. APPROPRIATE MEASURES FOR SEPARATION OF OILS AND TREATMENT OF FOUL WATER TO BE AGREED WITH THE RELEVANT AUTHORITIES.
5. VEHICULAR GATES TO BE 6m WIDE CONSISTING OF 2 x 3m LEAVES

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2229-02

SCALE - AS SHOWN @A3

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2014**

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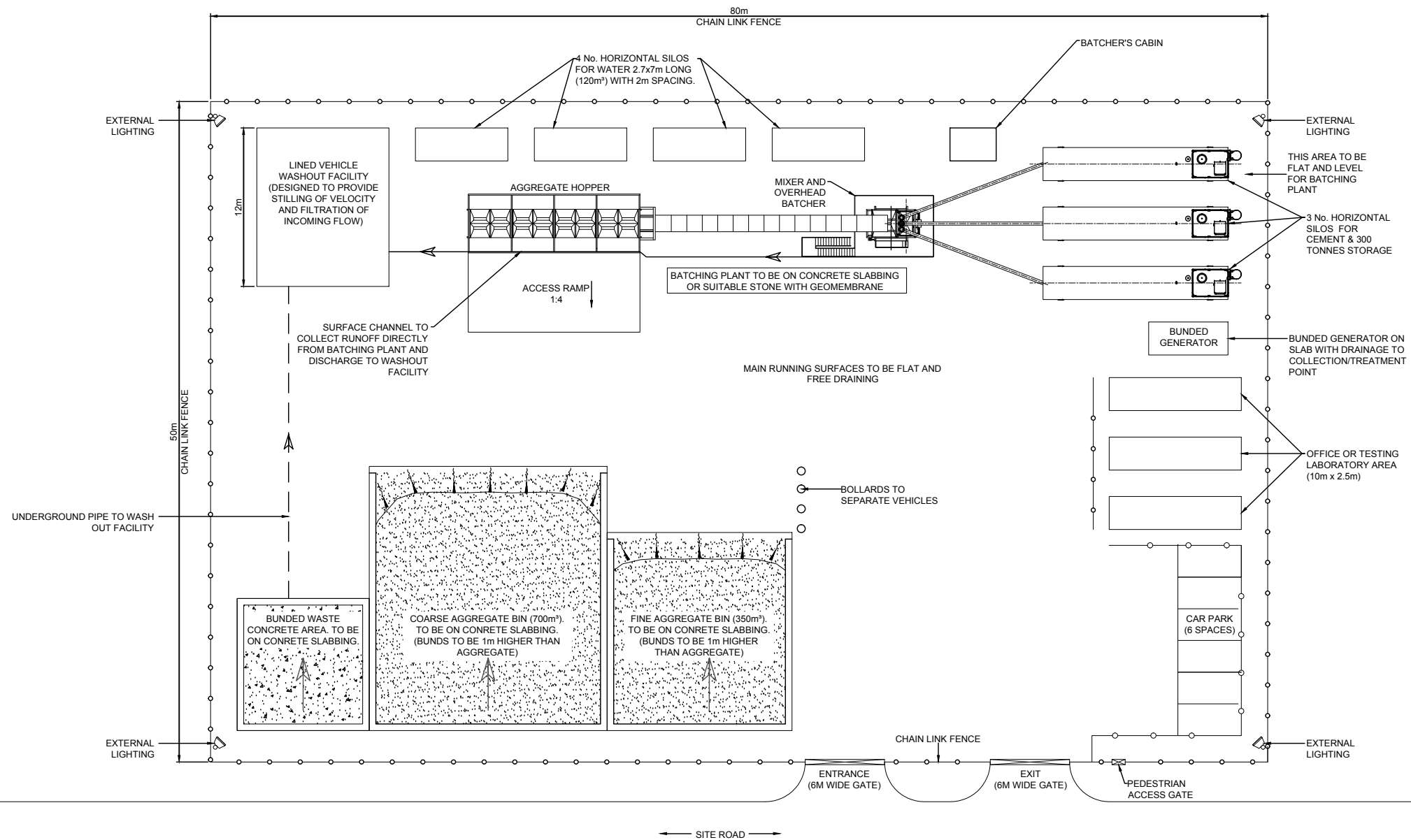
PLAN
SCALE - 1:300 @ A3



**ABERARDER
WIND FARM**

FIGURE 2.13

**PROPOSED BATCHING
PLANT LAYOUT**



NOTES

1. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
2. STRUCTURE TO BE TEMPORARY AND TO BE REMOVED AFTER CONSTRUCTION.
3. SIZE, NUMBER AND LOCATION OF EQUIPMENT AND FACILITIES ARE INDICATIVE ONLY.
4. MATERIAL STORAGE AREAS SHOWN ALLOW THE STORAGE OF MATERIAL FOR APPROXIMATELY FOUR TURBINE BASES.
5. DRAINAGE ARRANGEMENTS WILL BE CONFIRMED WITHIN SUDS DESIGN.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2230-02

SCALE - 1:400 @ A3

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ABERARDER WIND FARM

FIGURE 2.14

PROPOSED BORROW PIT PBP1

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2015 LICENCE NUMBER 0100031673.

- KEY**
- BORROW PIT SEARCH AREA
 - INDICATIVE BORROW PIT LOCATION

- BORROW PIT NOTES:**
1. PLAN AREA AND LOCATION OF BORROW PITS WITHIN SEARCH AREA TO BE CONFIRMED FOLLOWING DETAILED GROUND INVESTIGATION WORKS.
 2. SITE OBSERVATIONS INDICATE AN OVERBURDEN DEPTH OF APPROXIMATELY 1m TO 1.5m AT THE PROPOSED BORROW PIT LOCATION.
 3. OVERBURDEN STORAGE ARRANGEMENTS, PEAT MANAGEMENT AND RE-INSTALLMENT PLAN WILL BE DEVELOPED DURING DETAILED DESIGN OF THE BORROW PIT AND IN CONSULTATION WITH SEPA.
 4. DETAILS OF SURFACE WATER DRAINAGE, SETTLEMENT PONDS, ETC., TO BE DESIGNED IN CONSULTATION WITH SEPA.

NOTE : FOR SITE INFRASTRUCTURE DETAILS REFER TO DRAWING 02835D1001-06



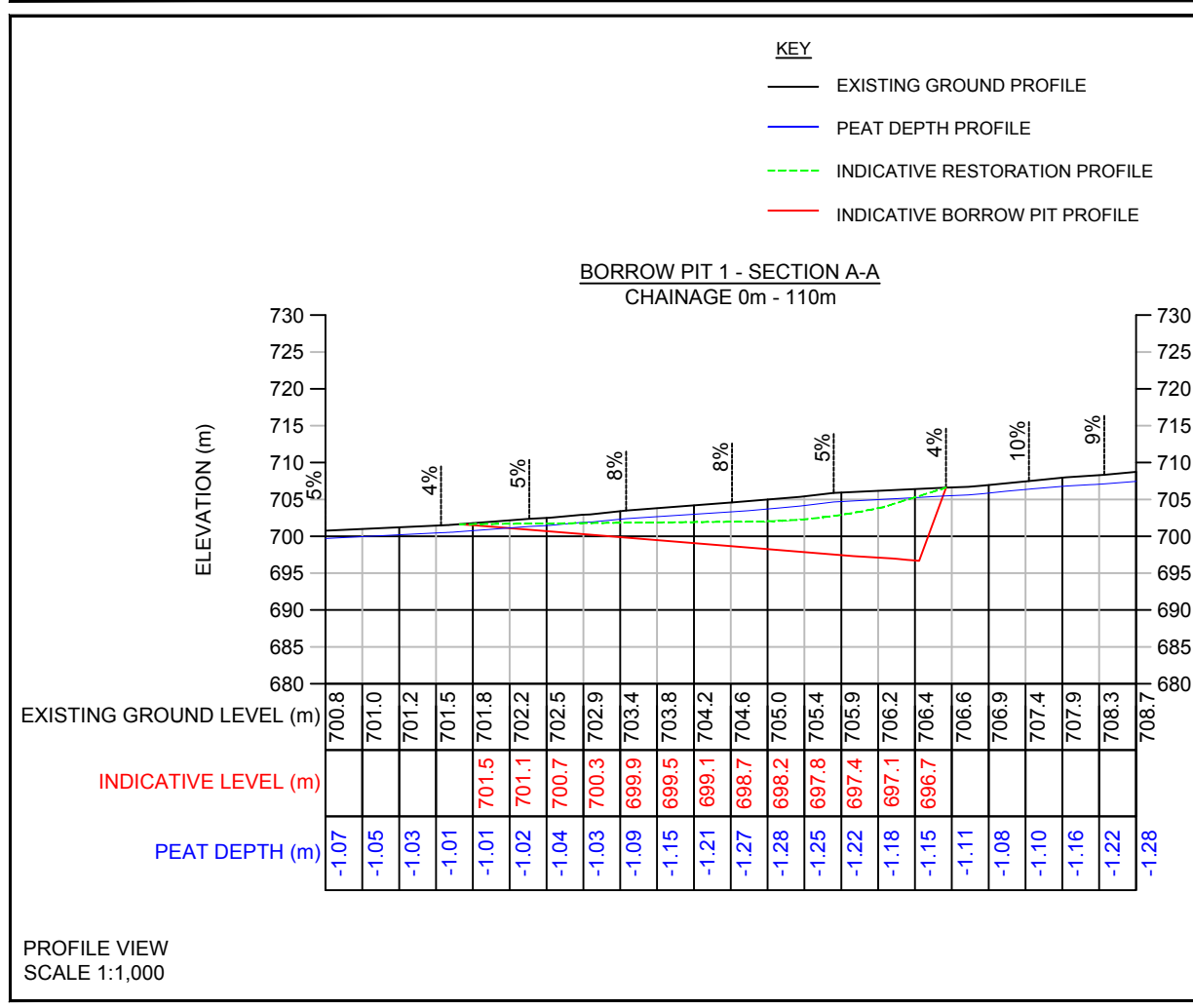
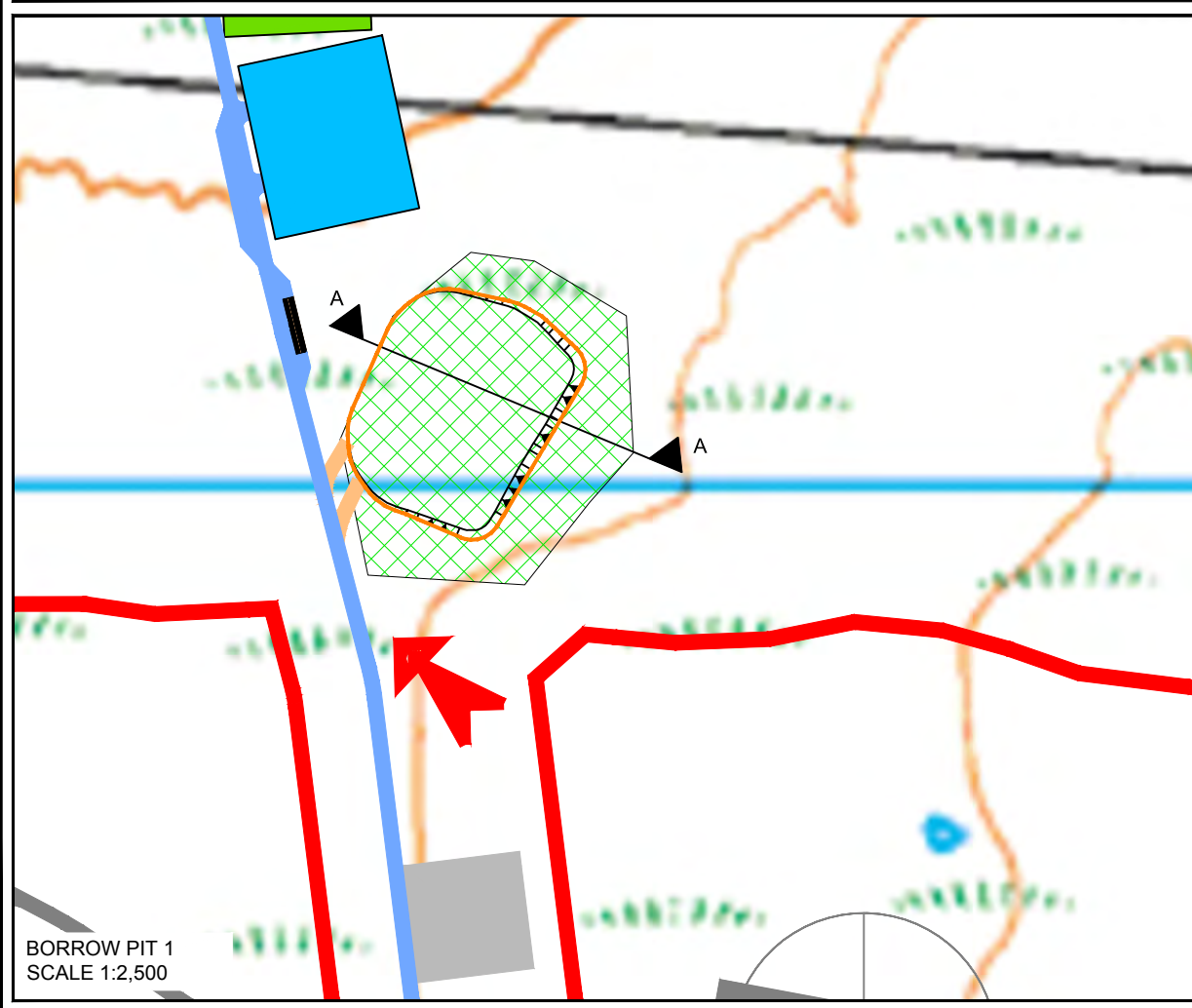
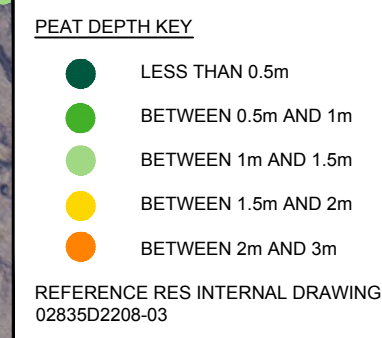
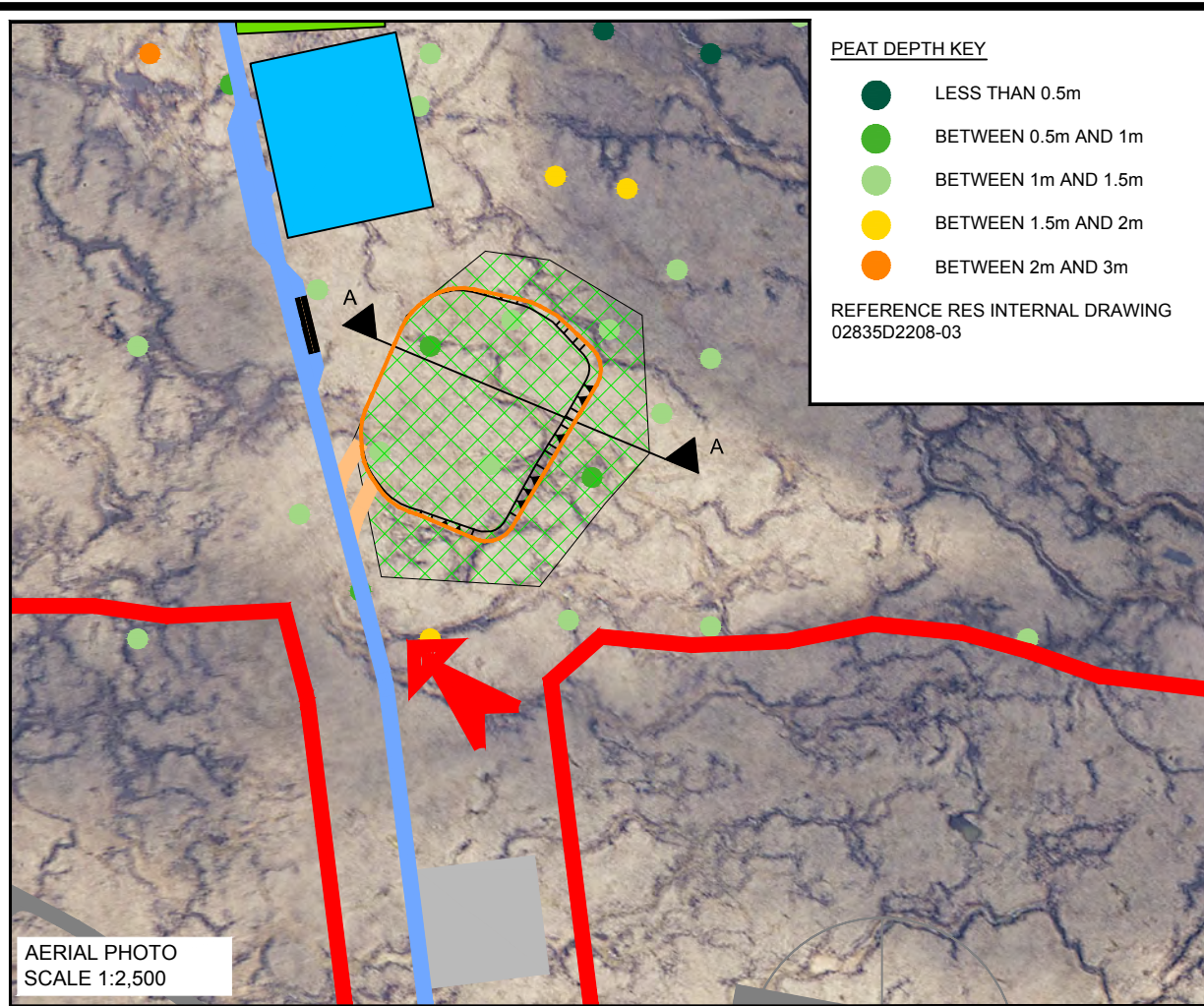
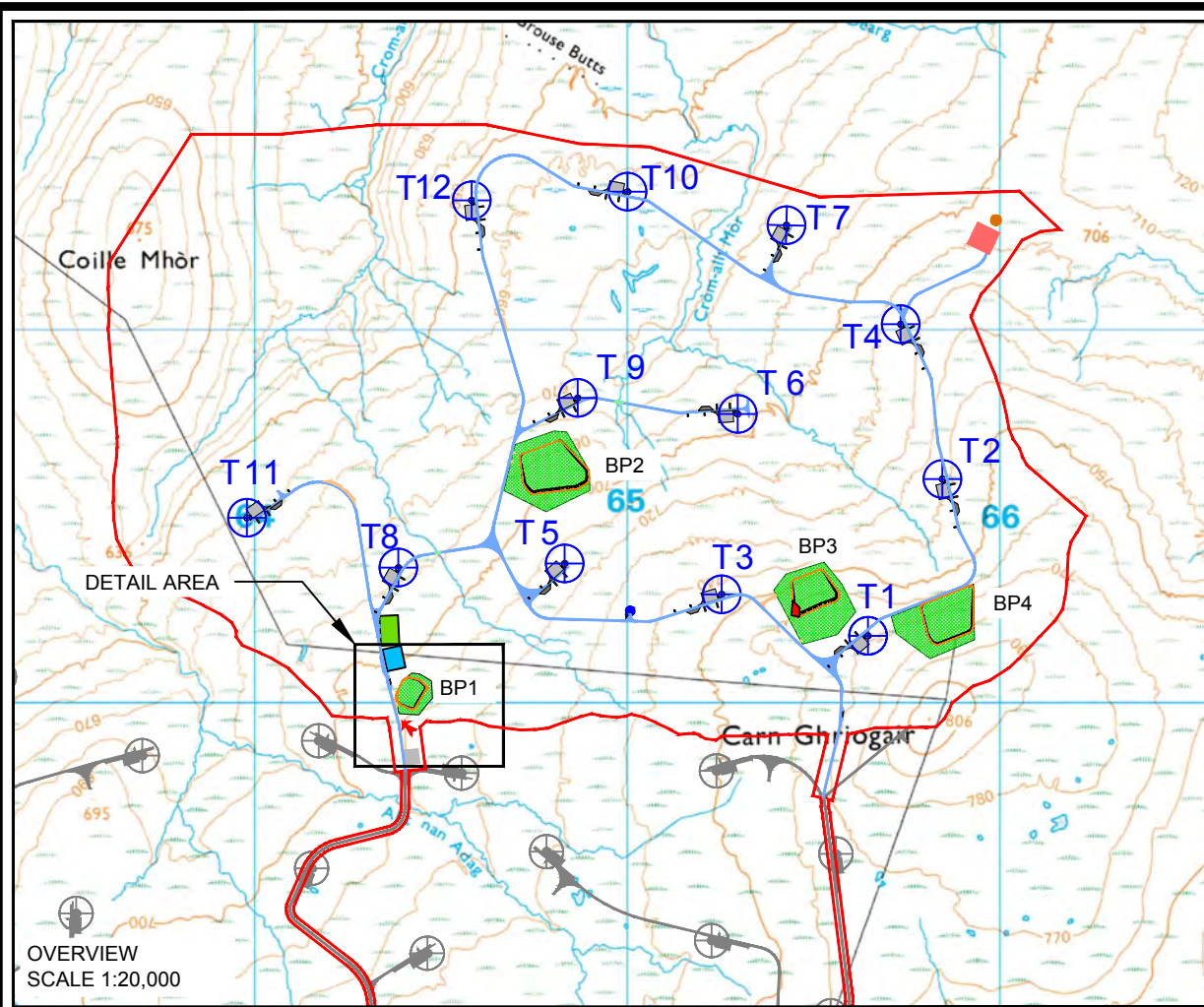
LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2217-04

SCALE - 1:400 @ A3

ENVIRONMENTAL STATEMENT
2015

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**ABERARDER
WIND FARM**

FIGURE 2.15

**PROPOSED BORROW
PIT PBP2**

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- BORROW PIT SEARCH AREA
- INDICATIVE BORROW PIT LOCATION

BORROW PIT NOTES:

1. PLAN AREA AND LOCATION OF BORROW PITS WITHIN SEARCH AREA TO BE CONFIRMED FOLLOWING DETAILED GROUND INVESTIGATION WORKS.
2. SITE OBSERVATIONS INDICATE AN OVERBURDEN DEPTH OF APPROXIMATELY 1m TO 1.5m AT THE PROPOSED BORROW PIT LOCATION.
3. OVERBURDEN STORAGE ARRANGEMENTS, PEAT MANAGEMENT AND RE-INSTALLMENT PLAN WILL BE DEVELOPED DURING DETAILED DESIGN OF THE BORROW PIT AND IN CONSULTATION WITH SEPA.
4. DETAILS OF SURFACE WATER DRAINAGE, SETTLEMENT PONDS, ETC., TO BE DESIGNED IN CONSULTATION WITH SEPA.

NOTE : FOR SITE INFRASTRUCTURE DETAILS REFER TO DRAWING 02835D1001-06



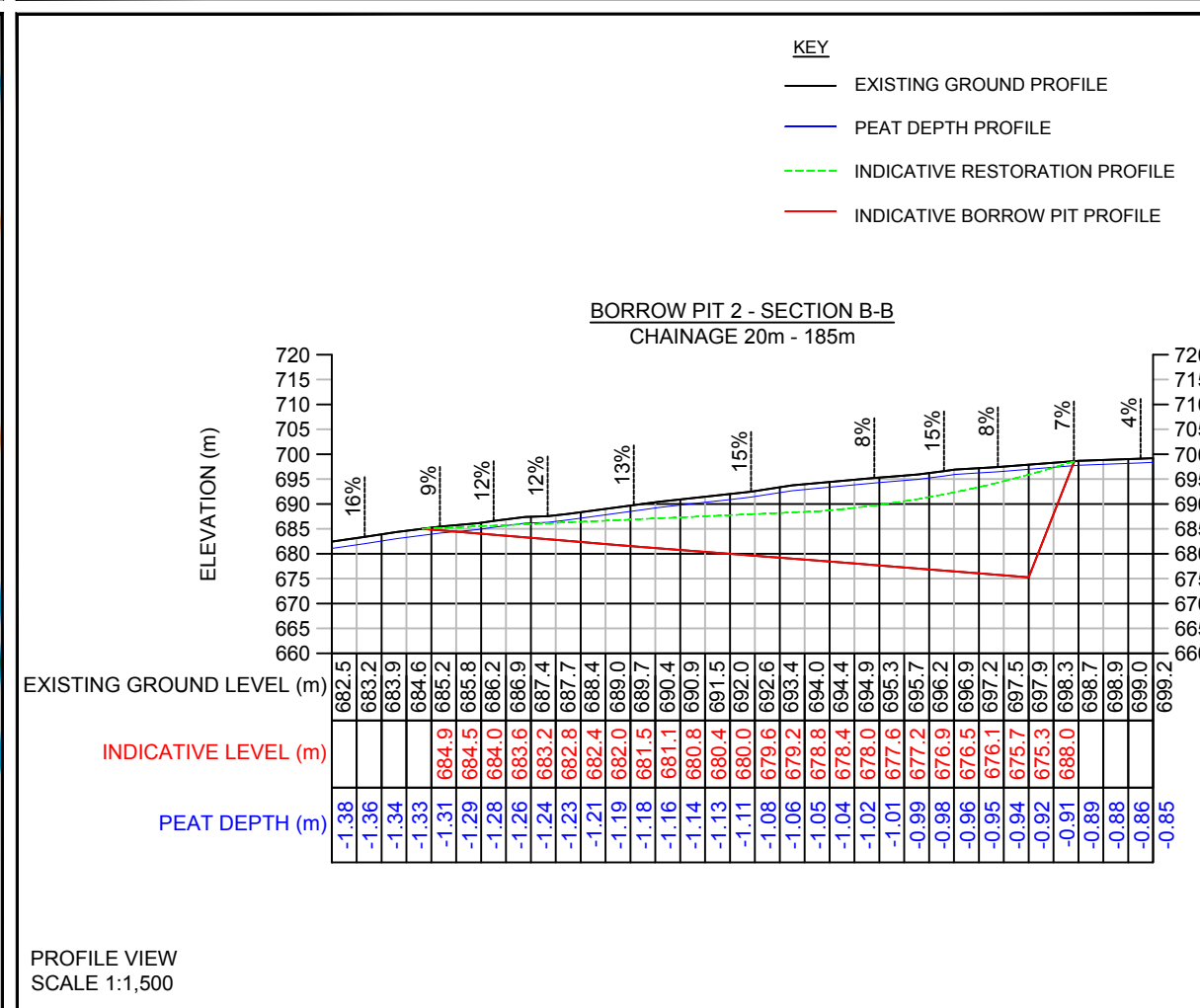
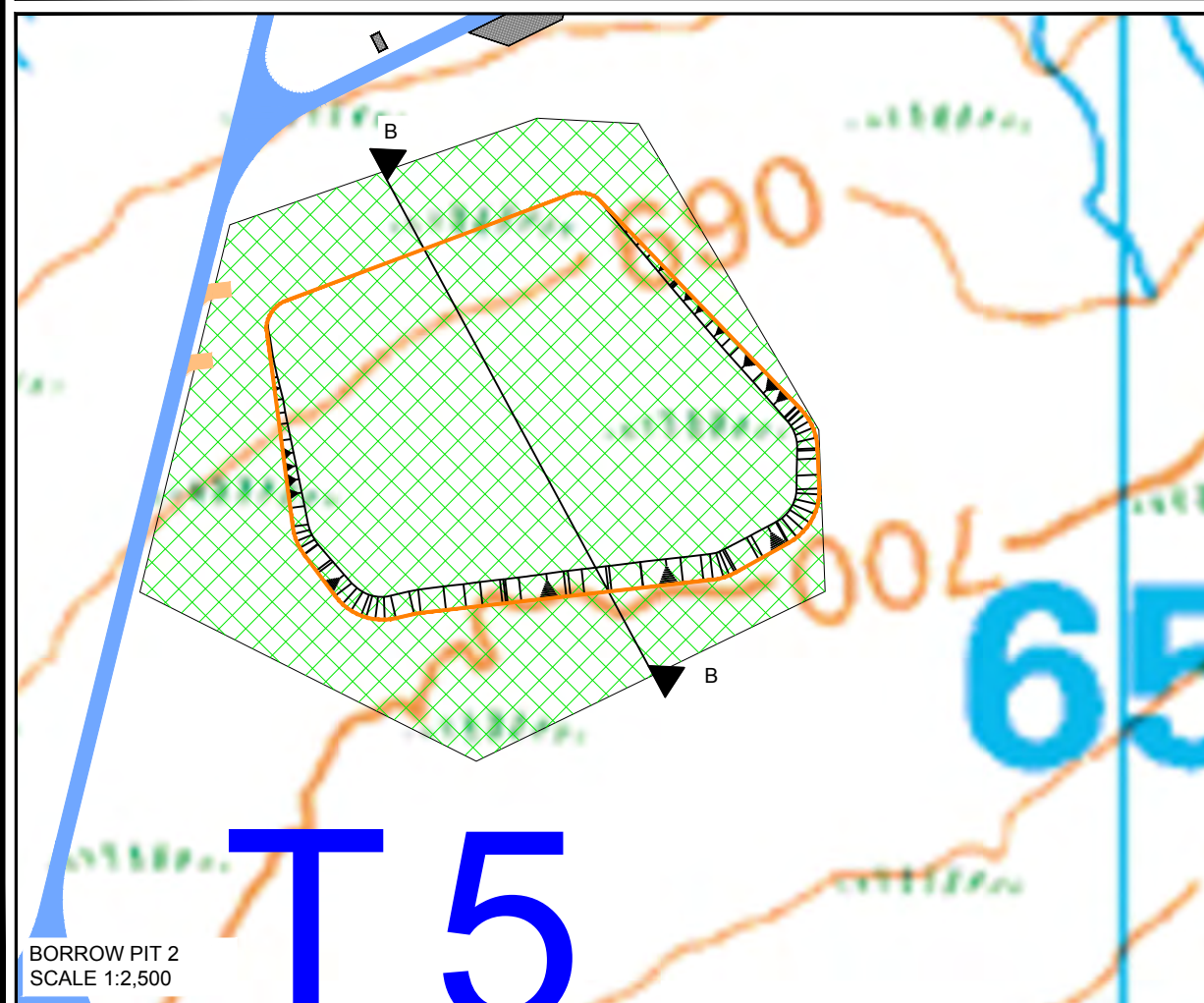
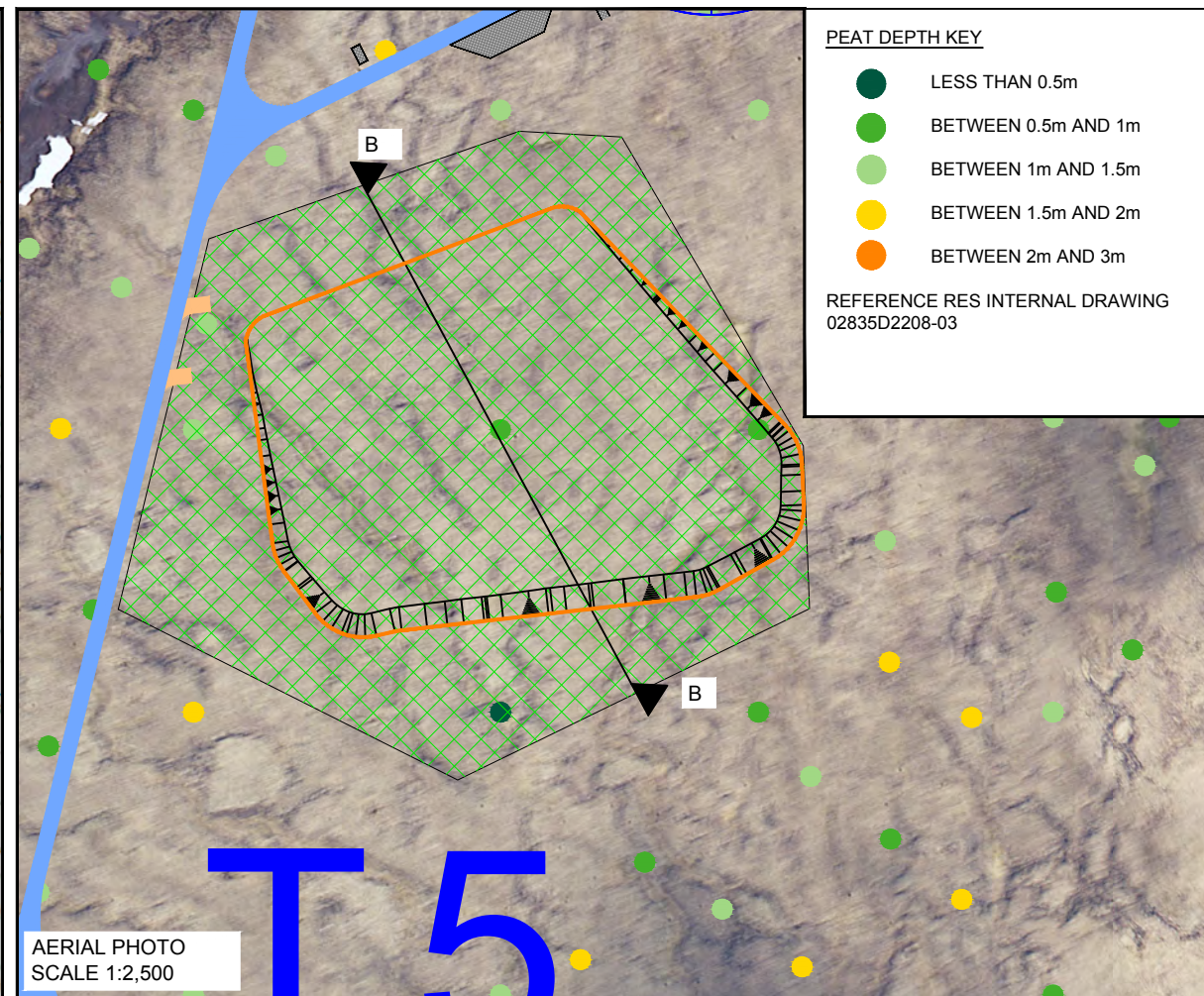
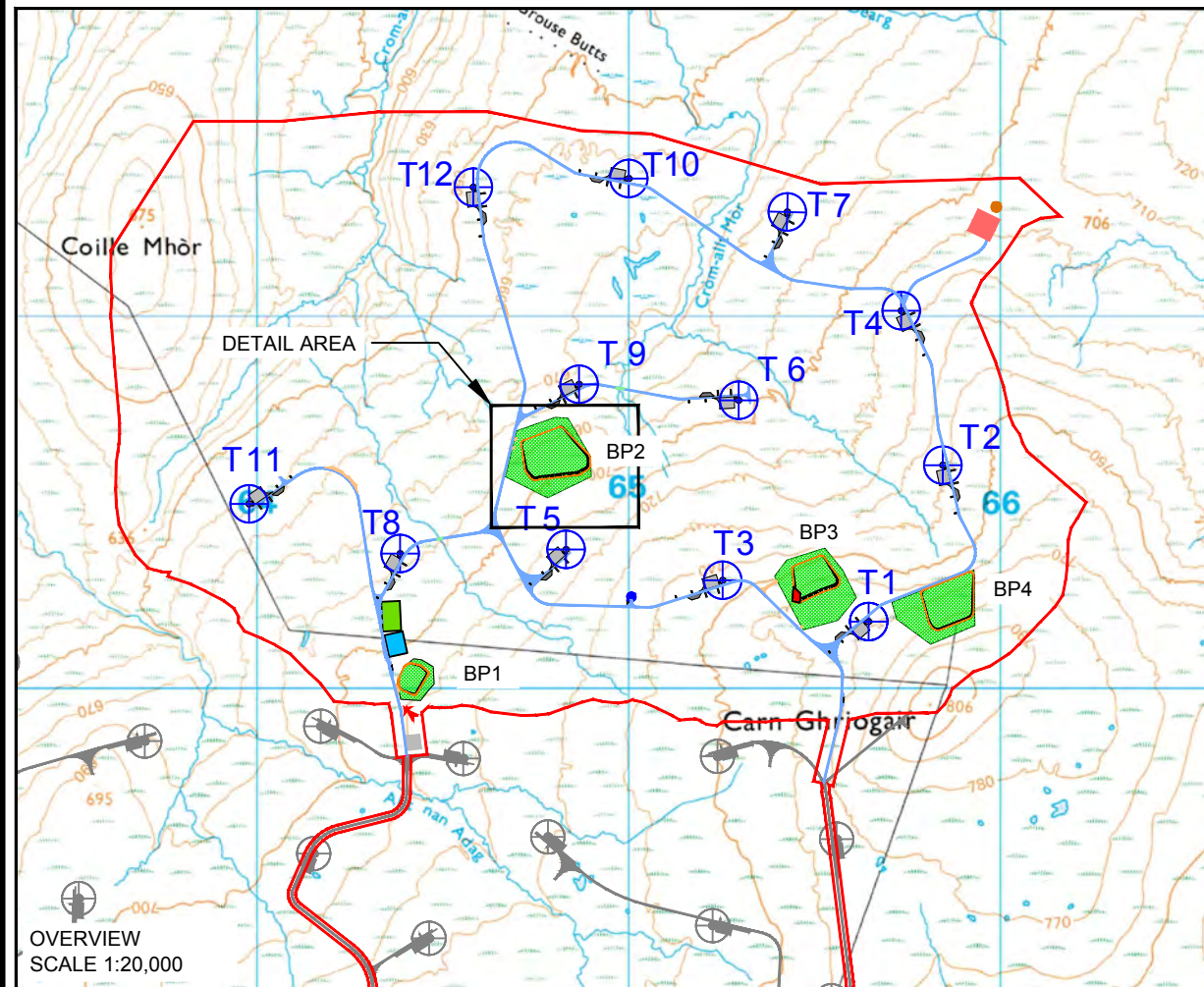
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DRAWING NUMBER
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SCALE - 1:400 @ A3

**ENVIRONMENTAL STATEMENT
2015**

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ABERARDER WIND FARM

FIGURE 2.16

PROPOSED BORROW PIT PBP3

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- KEY**
- BORROW PIT SEARCH AREA
 - INDICATIVE BORROW PIT LOCATION
 - AREA HISTORICALLY WORKED FOR EXTRACTION OF ROCK

BORROW PIT NOTES:

1. PLAN AREA AND LOCATION OF BORROW PITS WITHIN SEARCH AREA TO BE CONFIRMED FOLLOWING DETAILED GROUND INVESTIGATION WORKS.
2. SITE OBSERVATIONS INDICATE AN OVERBURDEN DEPTH OF APPROXIMATELY 0.5m TO 1m AT THE PROPOSED BORROW PIT LOCATION.
3. OVERBURDEN STORAGE ARRANGEMENTS, PEAT MANAGEMENT AND RE-INSTANTMENT PLAN WILL BE DEVELOPED DURING DETAILED DESIGN OF THE BORROW PIT AND IN CONSULTATION WITH SEPA.
4. DETAILS OF SURFACE WATER DRAINAGE, SETTLEMENT PONDS, ETC., TO BE DESIGNED IN CONSULTATION WITH SEPA.

NOTE : FOR SITE INFRASTRUCTURE DETAILS REFER TO DRAWING 02835D1001-06



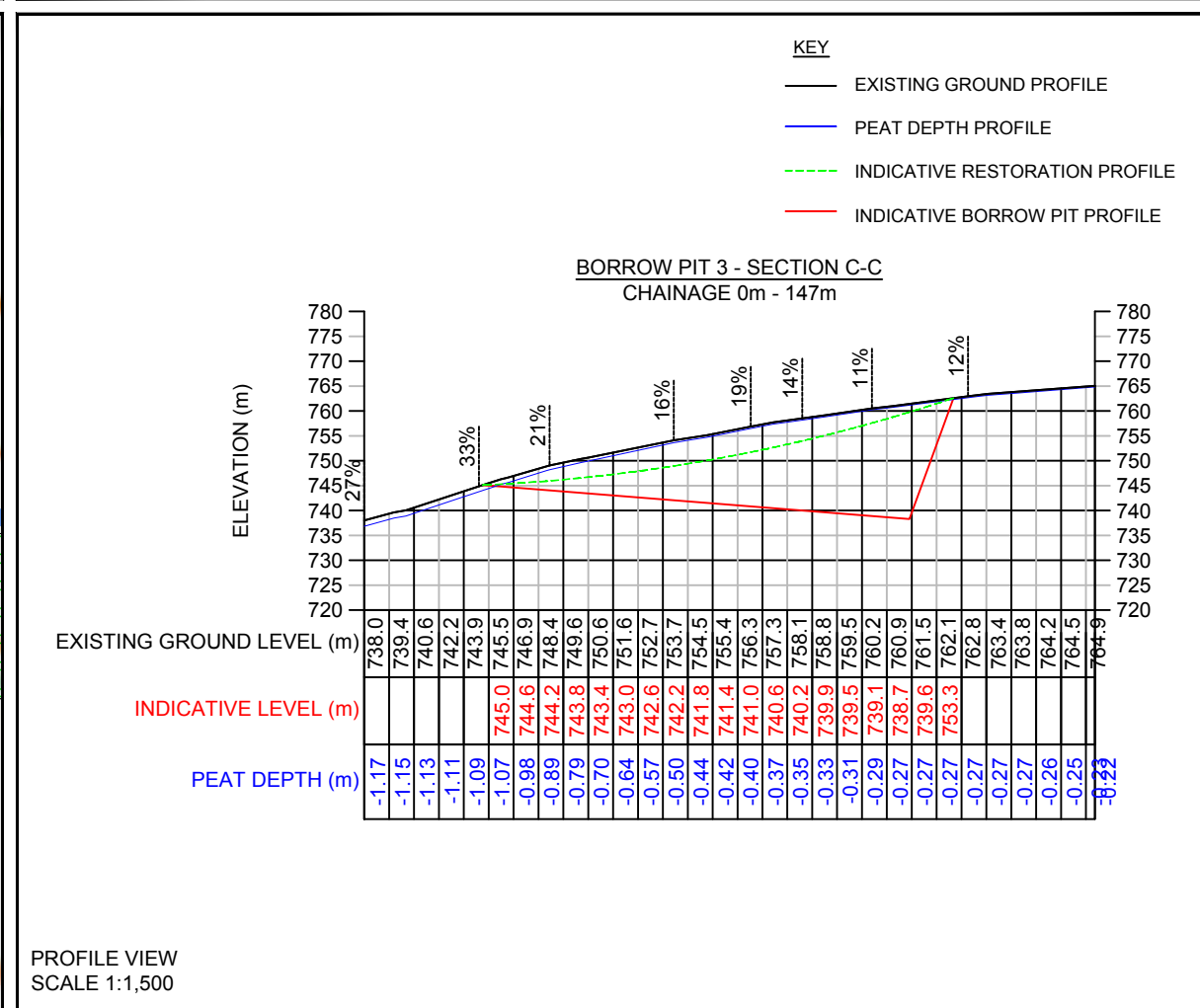
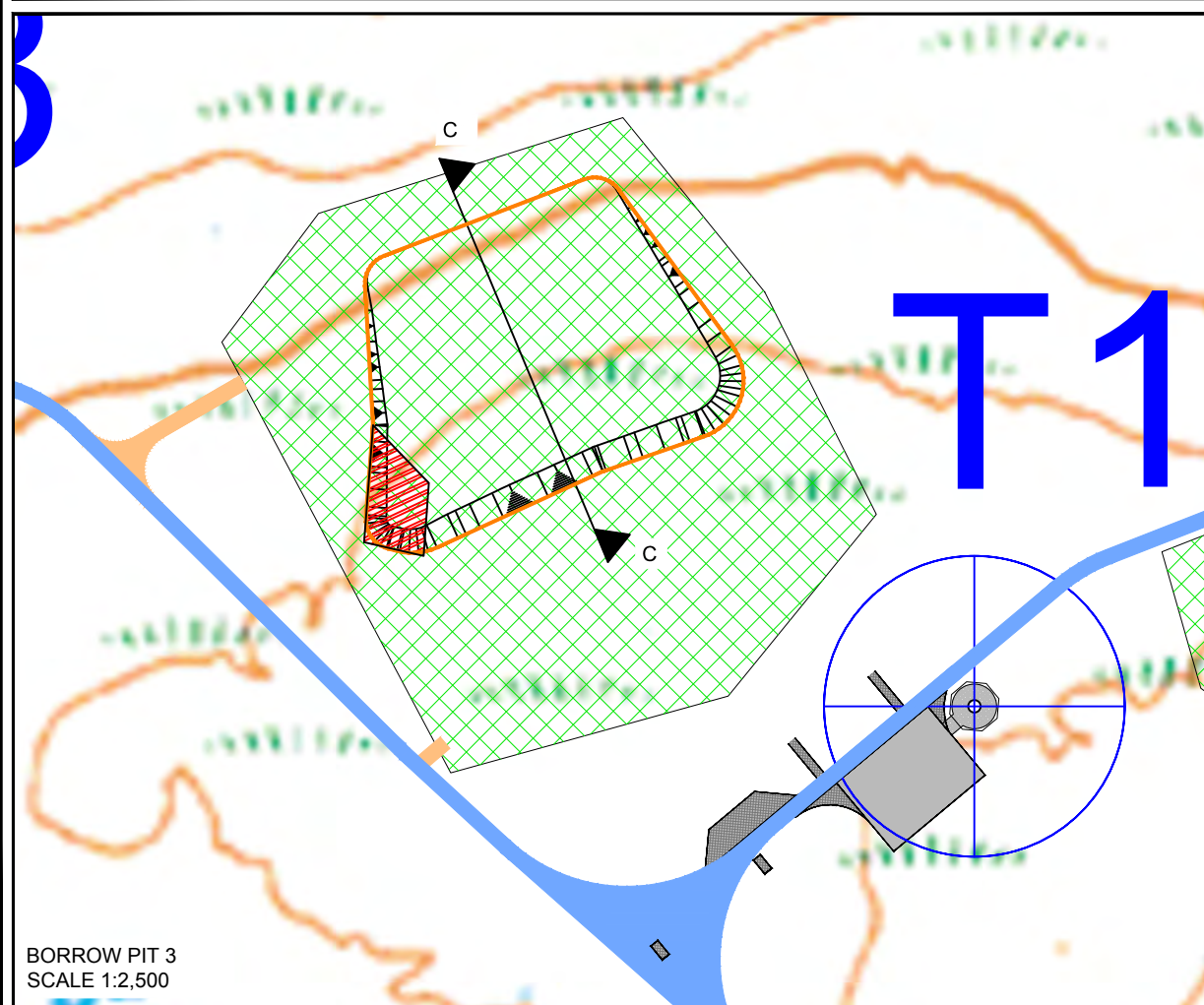
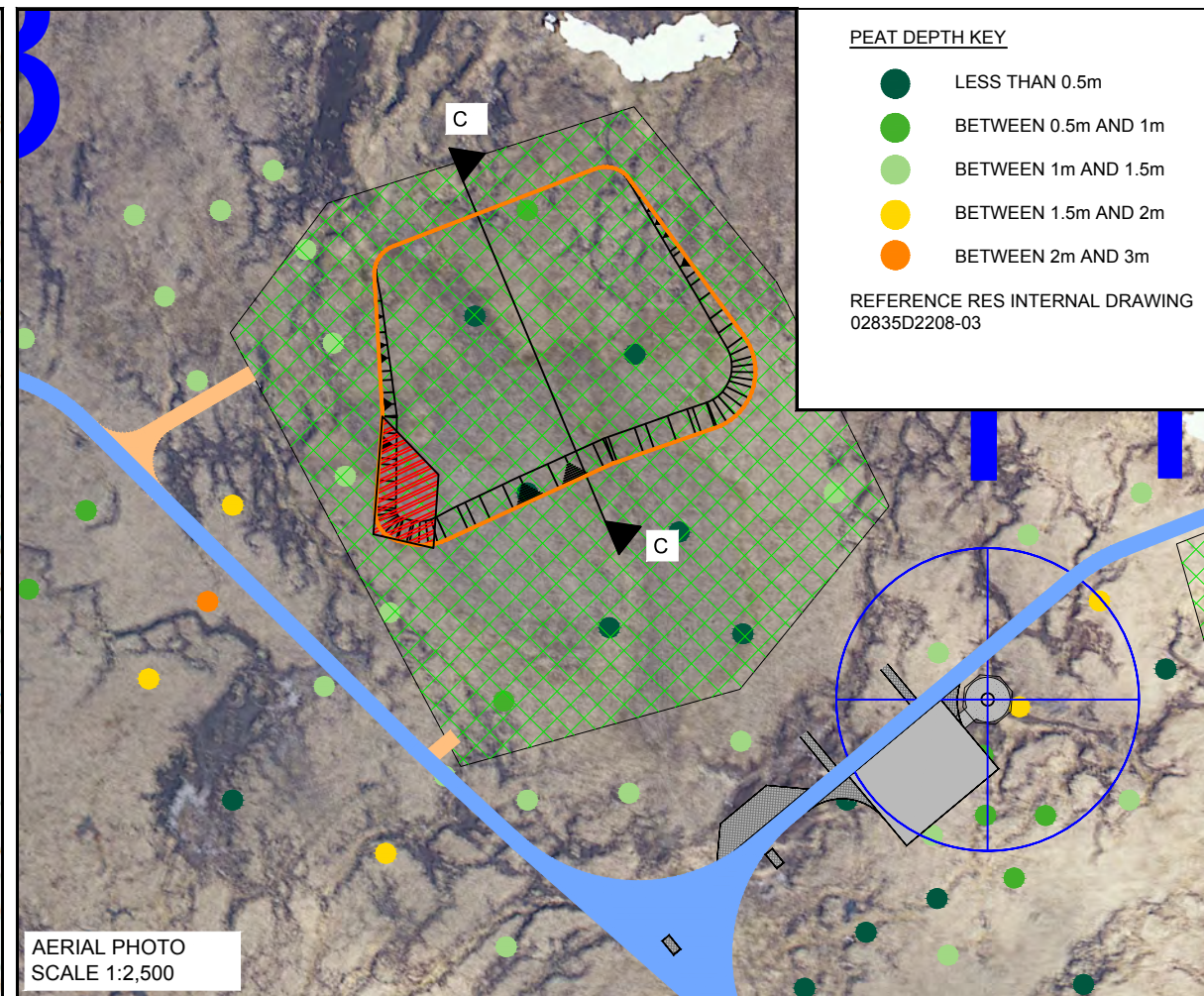
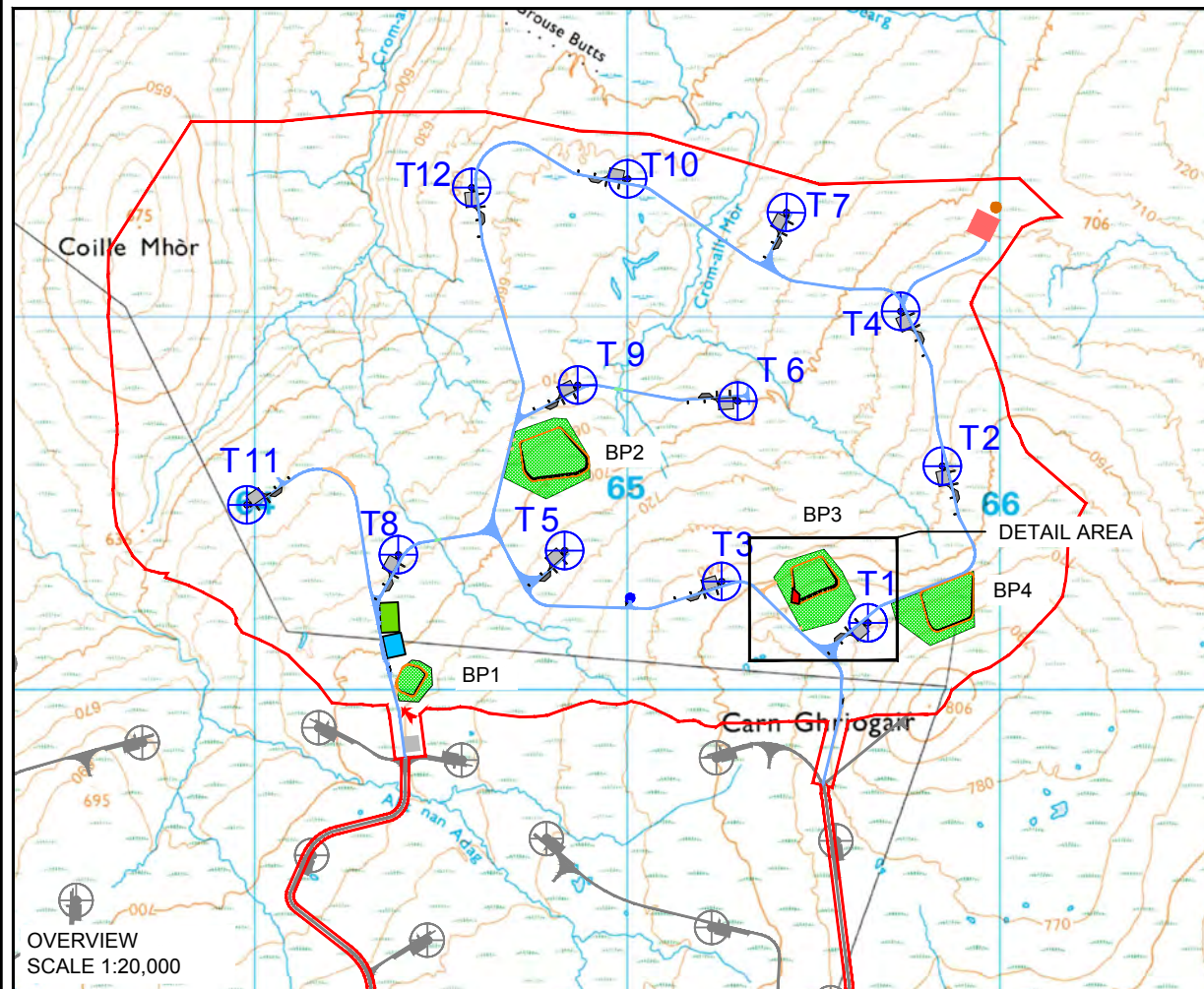
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SCALE - 1:400 @ A3

ENVIRONMENTAL STATEMENT
2015

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ABERARDER WIND FARM

FIGURE 2.17

PROPOSED BORROW PIT PBP4

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- KEY**
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 - INDICATIVE BORROW PIT LOCATION

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- PLAN AREA AND LOCATION OF BORROW PITS WITHIN SEARCH AREA TO BE CONFIRMED FOLLOWING DETAILED GROUND INVESTIGATION WORKS.
 - SITE OBSERVATIONS INDICATE AN OVERBURDEN DEPTH OF APPROXIMATELY 0.5m TO 1m AT THE PROPOSED BORROW PIT LOCATION.
 - OVERBURDEN STORAGE ARRANGEMENTS, PEAT MANAGEMENT AND RE-INSTATEMENT PLAN WILL BE DEVELOPED DURING DETAILED DESIGN OF THE BORROW PIT AND IN CONSULTATION WITH SEPA.
 - DETAILS OF SURFACE WATER DRAINAGE, SETTLEMENT PONDS, ETC., TO BE DESIGNED IN CONSULTATION WITH SEPA.

NOTE : FOR SITE INFRASTRUCTURE DETAILS REFER TO DRAWING 02835D1001-06



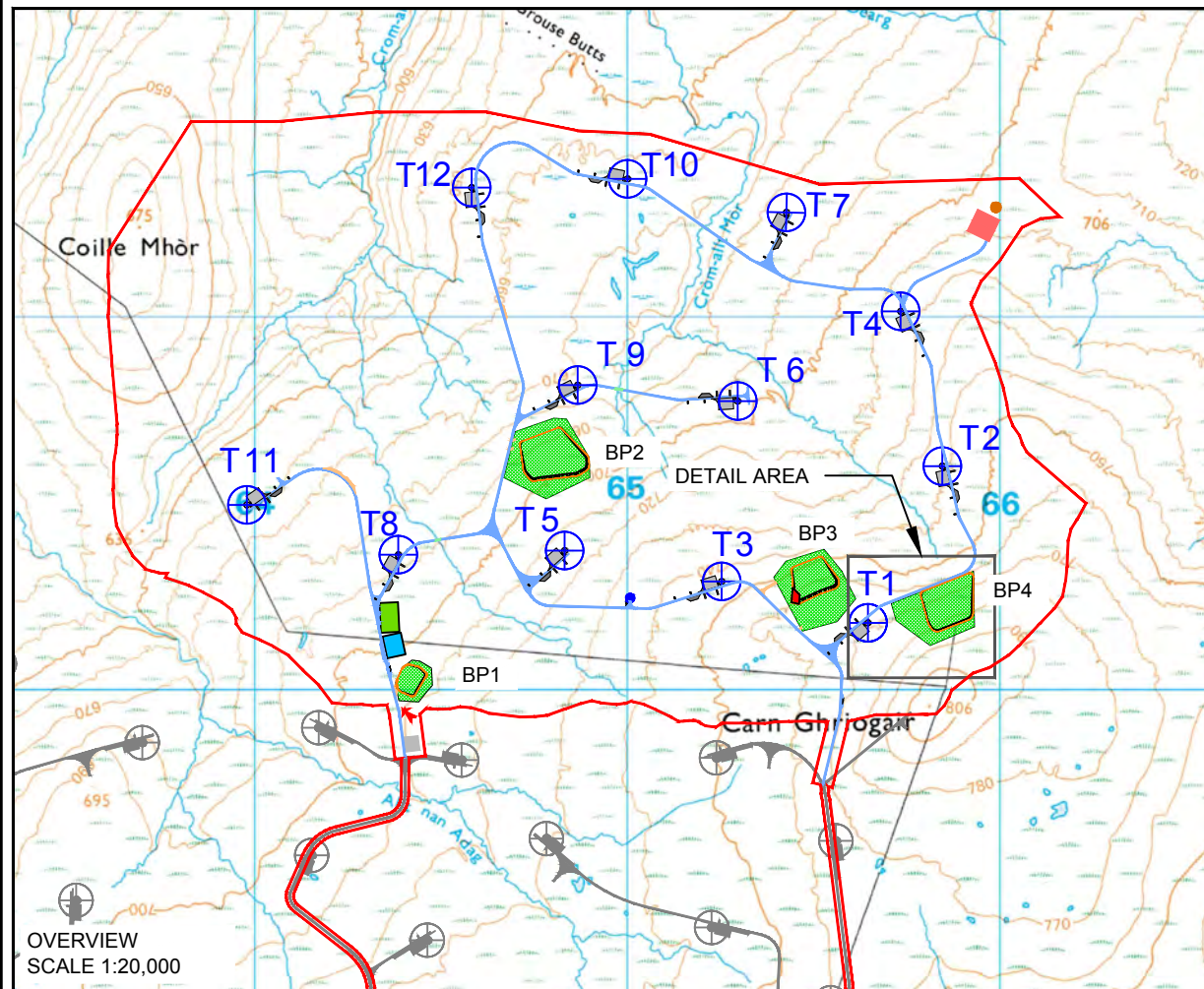
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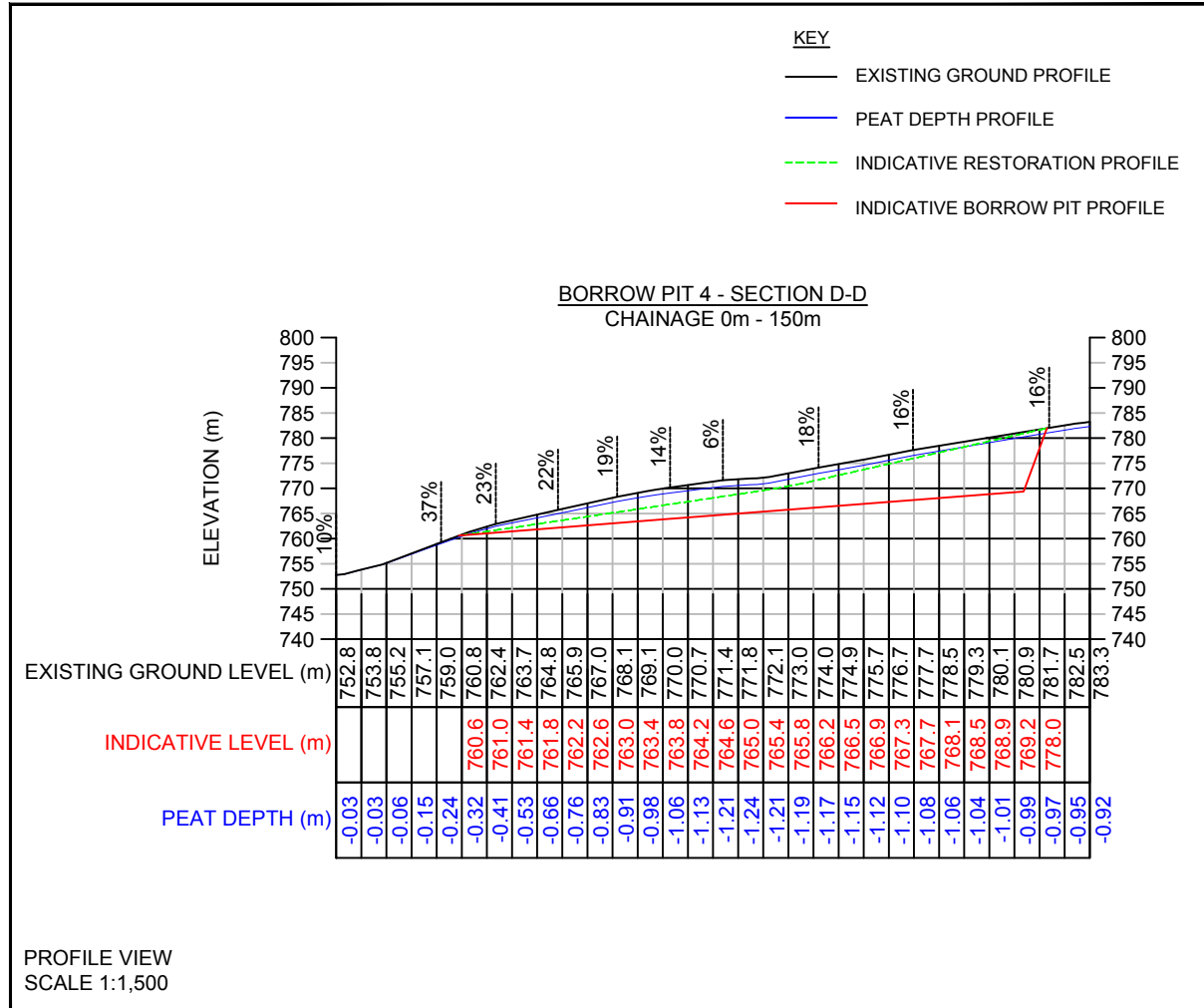
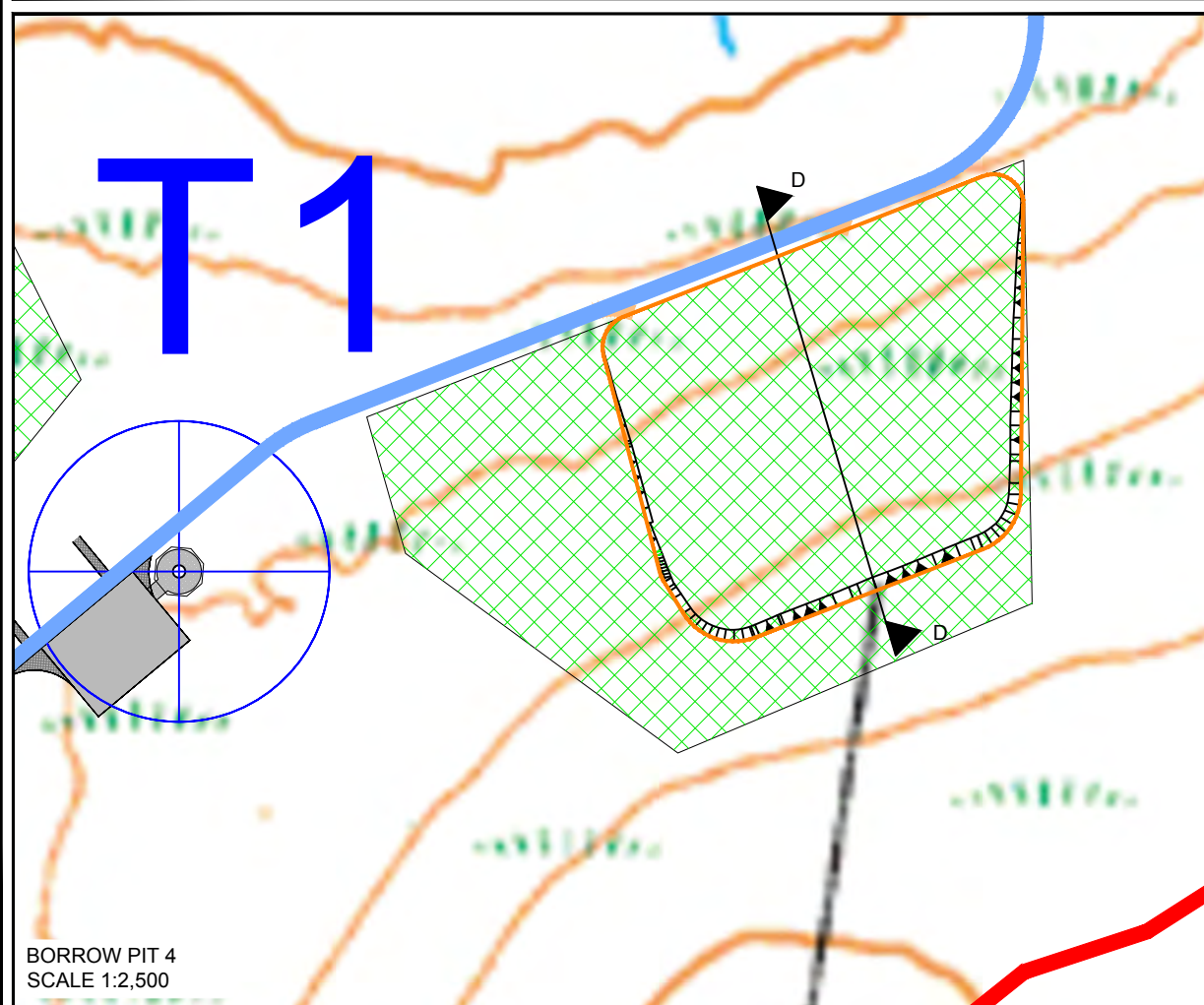
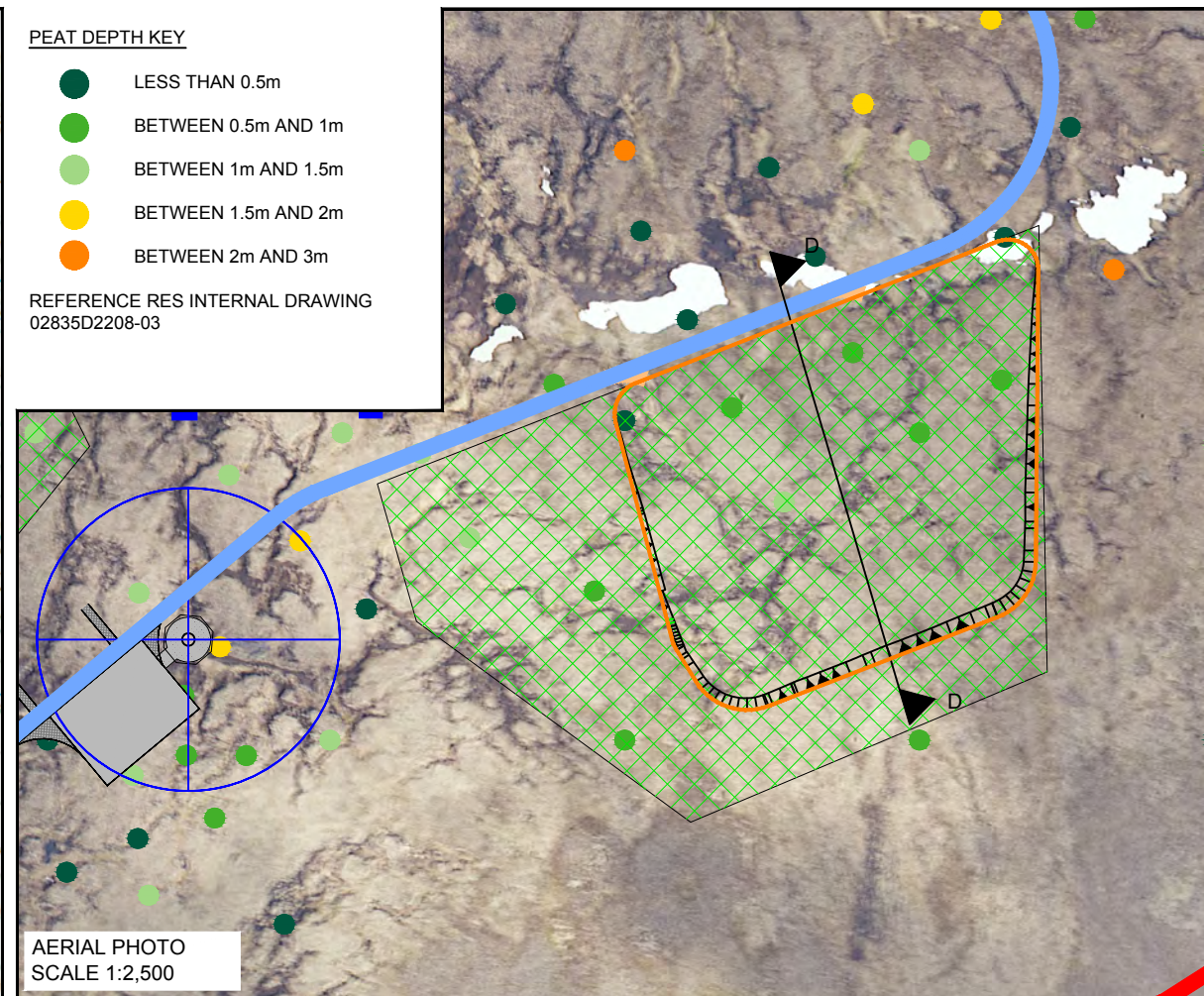
SCALE - 1:400 @ A3

ENVIRONMENTAL STATEMENT
2015

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- PEAT DEPTH KEY**
- LESS THAN 0.5m
 - BETWEEN 0.5m AND 1m
 - BETWEEN 1m AND 1.5m
 - BETWEEN 1.5m AND 2m
 - BETWEEN 2m AND 3m
- REFERENCE RES INTERNAL DRAWING
02835D2208-03

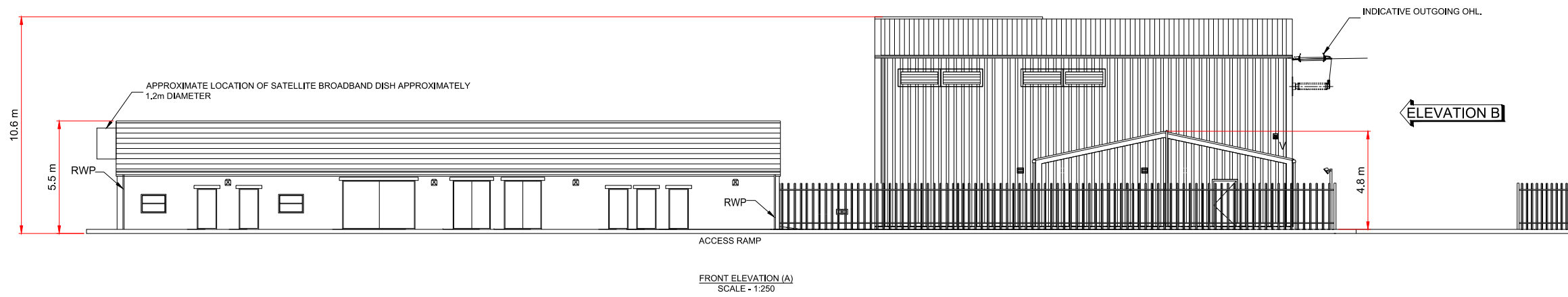




**ABERARDER
WIND FARM**

FIGURE 2.18

**SUBSTATION BUILDING
AND COMPOUND
ELEVATIONS**



FRONT ELEVATION (A)
SCALE - 1:250

KEY:

V - VENT

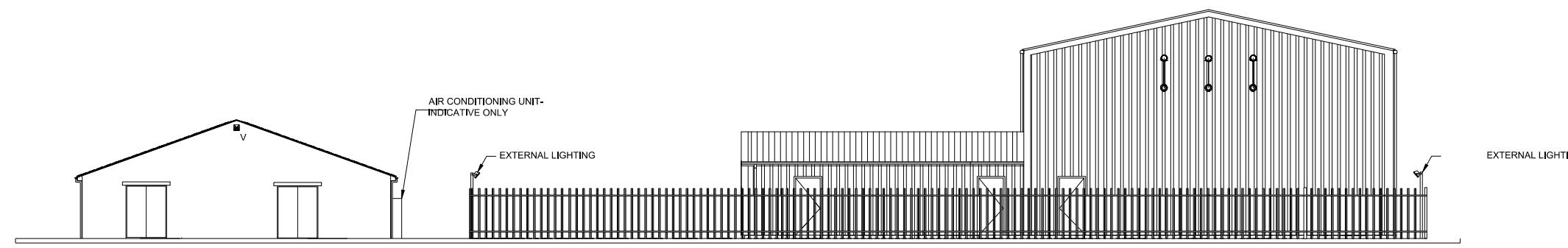
RWP - RAINWATER PIPE

☒ - PIR LIGHTING ABOVE DOORS

NOTES:

1. ELEVATIONS ARE INDICATIVE ONLY AND SUBJECT TO CHANGE.
2. CONTROL BUILDING FINISHES OF A TRADITIONAL VERNACULAR STYLE ARE PROPOSED TO ENSURE THAT THE BUILDING IS IN KEEPING WITH OTHERS IN THE AREA.
3. SUBSTATION FINISHES TO BE DETERMINED BY THE NETWORK OPERATOR.

ELEVATION A →



SIDE ELEVATION (B)
SCALE - 1:250

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2227-02

SCALE - 1:250 @ A3

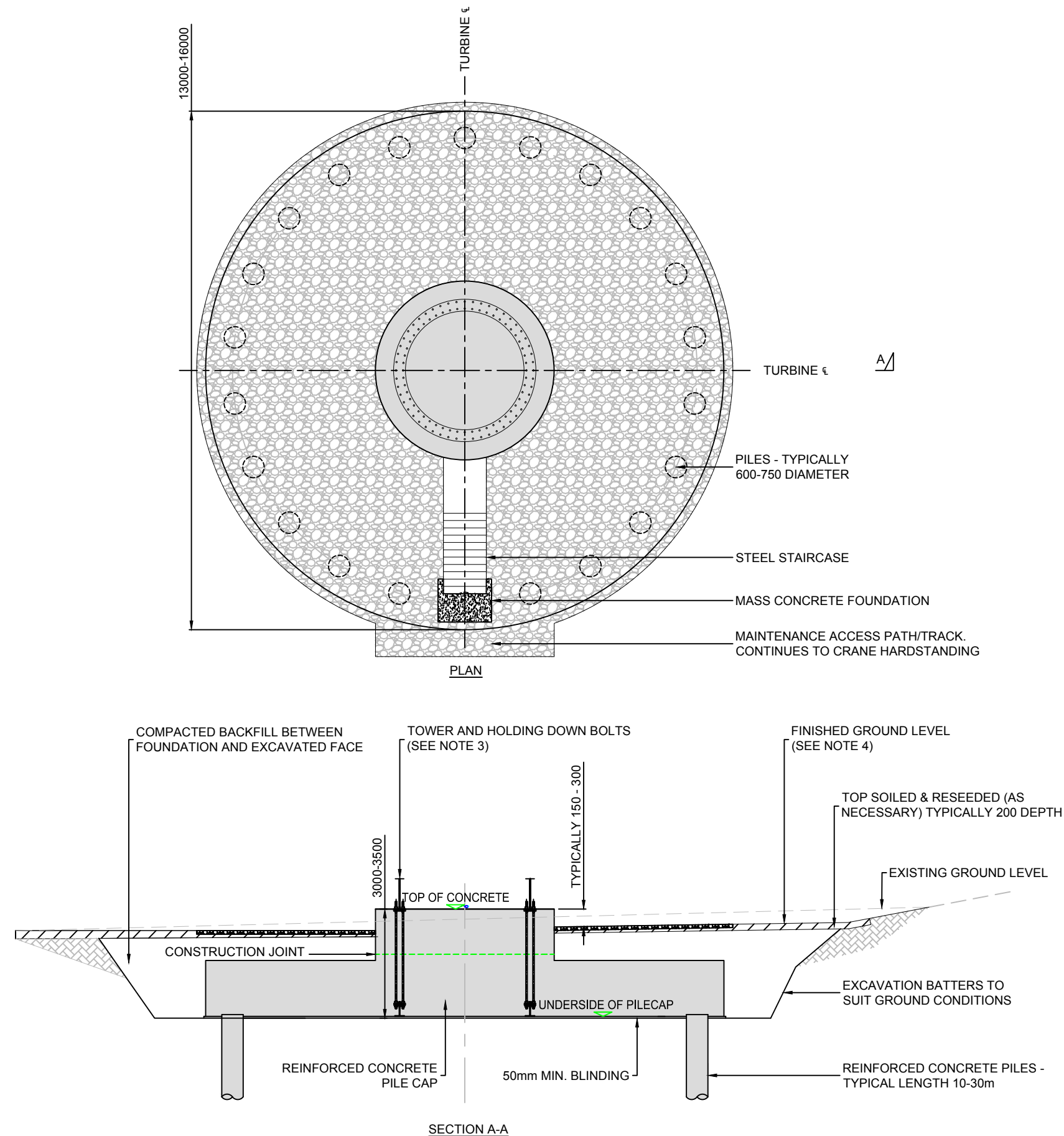
**ENVIRONMENTAL STATEMENT
2014**

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ABERARDER
WIND FARM

FIGURE 2.19

WIND TURBINE
PILED FOUNDATION



NOTES

1. DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND MAY VARY DUE TO SPECIFIC TURBINE OR GROUND CONDITIONS.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
3. THE HOLDING DOWN BOLT ARRANGEMENT SHOWN ON THIS DRAWING IS TYPICAL. ALTERNATIVE CAST IN ARRANGEMENTS ARE AVAILABLE AND MAY BE SUBSTITUTED DEPENDING ON ACTUAL TURBINE SELECTION.
4. GRADIENT OF FINISHED GROUND LEVEL OVER TURBINE BASE, MAX 1:12.
5. MATERIALS ARISING FROM EXCAVATIONS TO BE SEGREGATED AND PLACED IN AGREED LOCATIONS ADJACENT TO THE WORKING AREA FOR RE-USE. REINSTATEMENT AND/OR PEAT MANAGEMENT PLANS WILL BE DEVELOPED DURING THE DETAILED DESIGN OF SITE INFRASTRUCTURE, IN LINE WITH CURRENT BEST PRACTICE.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
02835D2304-02

SCALE - NOT TO SCALE

ENVIRONMENTAL STATEMENT
2014

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