Design and Access Statement for Beinn Ghlas Wind Farm Repowering

On behalf of Beaufort Wind Ltd.
Date: July 2025 I Pegasus Ref: P22-0086

Author: Pegasus Group

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nadara

PEGASUS GROUP

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Executive Summary

This Design and Access Statement explains the approach to the design of the Proposed Development and illustrates how environmental effects have been avoided or reduced as far as reasonably possible. A detailed explanation of environmental effects resulting from the Proposed Development is set out in the Environmental Impact Assessment Report (EIAR) that accompanies this application.

The design of the Proposed Development is the result of a considered design process that has evolved over the course of six proposed layouts, from an initial layout comprising 20 turbines with a proposed blade tip height of up to 180 m, to the final proposed layout of up to 7 turbines of up to 149.9 m to blade tip.

The arrangement of turbines and the associated infrastructure have been sited sympathetically so as to appropriately mitigate their influence on the character and scale of the surrounding landscape and also with regard to other environmental and technical constraints.

Background

Beaufort Wind Limited ('the Applicant') is proposing to submit an application for consent for a wind farm development of 7 turbines of up to 149.9 m to tip (the "Proposed Development"), with associated infrastructure, replacing the existing 14 operational turbines of approximately 54.1 m to tip. The application site is 430 ha and is located on the undulating uplands around Carn Gaibhre to the east of Beinn Ghlas summit on the Barguillean Estate near Taynuilt in the Argyll and Bute Council (A&BC) local authority area.

The Applicant is the owner of the existing Beinn Ghlas Wind Farm and is a wholly owned subsidiary of Nadara Limited (hereafter referred to as Nadara).

The site currently contains the existing Beinn Ghlas Wind Farm, comprising 14 wind turbines, each with a capacity of 600 kW providing an overall installed wind farm capacity of 8.4 MW. The wind farm has been operational since May 1999. In June 2022, planning consent was secured to operate the wind farm for an additional ten years to August 2033. The existing turbines would be removed, and the site would be reinstated except where infrastructure would be used for the repowering.

The Proposed Development would comprise the construction, 35 year operation and subsequent decommissioning of up to 7 turbines and permanent anemometer mast at wind turbine hub height, together with on-site access tracks, hardstanding areas, upgrading of the existing substation/control building, transformers and underground cabling, telecommunications equipment, and two temporary construction compounds. The purpose of the Proposed Development would be to generate electricity from the 7 proposed wind turbines, giving a total maximum installed capacity from all of the wind turbines of around 33.6 MW. Turbines with a greater installed capacity could be used if they are available at the time of procurement for the Proposed Development and providing that they would also fit within the scope of the consent. A comparison ZTV of the existing and proposed turbines is shown at Figure 1.

The purpose of this Design and Access Statement is to outline the opportunities, constraints and decision-making processes that have led to the design of the Proposed Development. The document accompanies the application for consent for the Proposed Development, and describes the iterative design process undertaken for the Proposed Development, including the design principles that were established at the outset of the design process and the alternative turbine layouts that have been considered throughout the process.

Image 1: Photograph taken from LVIA viewpoint 4 looking towards the existing Beinn Ghlas wind turbines

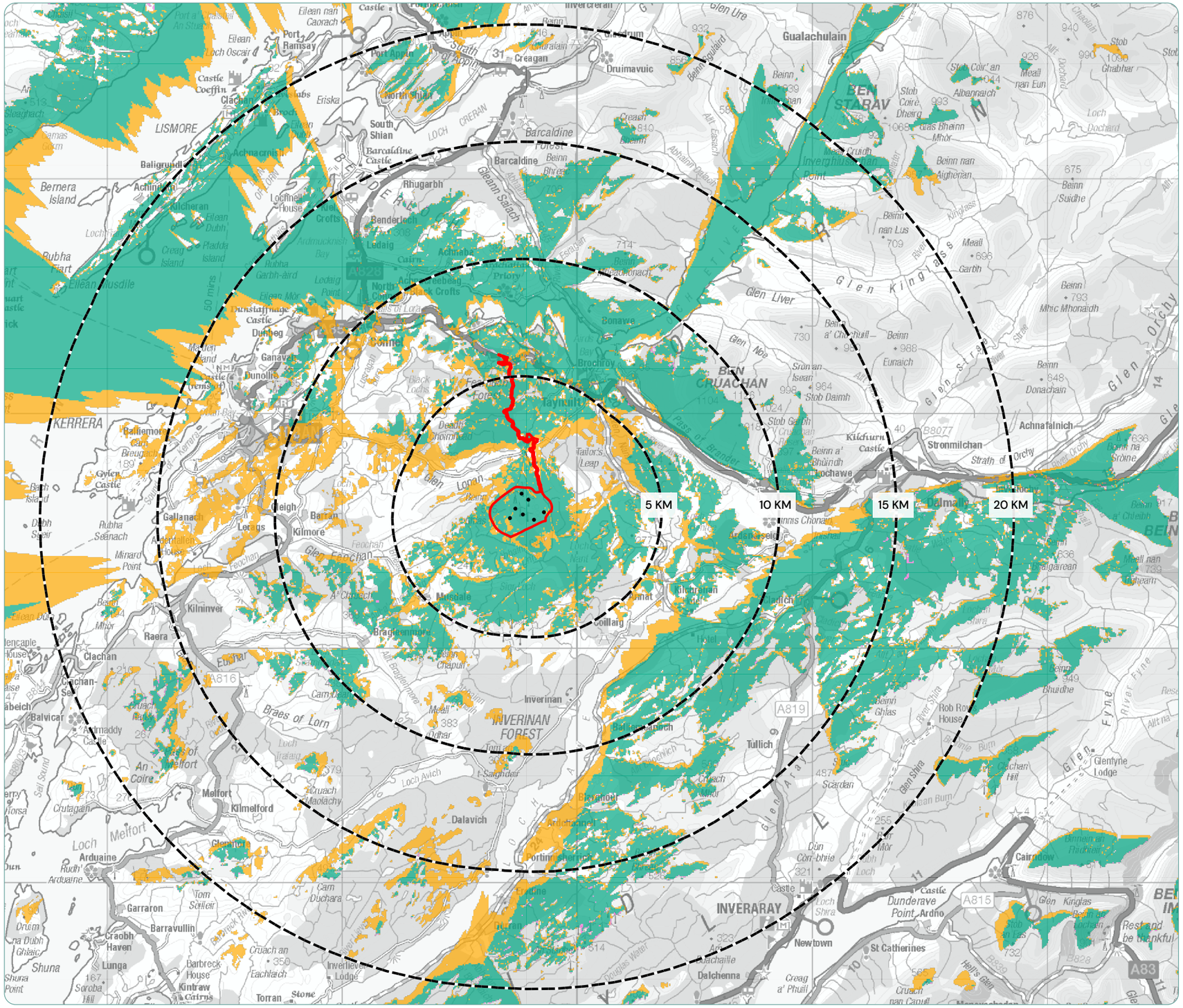

Figure 1: LVIA Comparison ZTV with Existing and Proposed Beinn Ghlas Wind Turbines to 20 km

Guidance

1.1 This Design and Access Statement has been prepared with consideration made to the Planning Advice Note (PAN68): Design Statements (2003) (Figure 2). It has also been prepared with regard to the guidance set out within the respective chapters of the EIA Report. The purpose of this Design and Access Statement is to set out the design principles which determine the design and layout of the Proposed Development. The Design and Access Statement provides an explanation of the design of the Proposed Development and seeks to demonstrate what has been done to appraise the site and its context, and how the design has taken account of it sensitively in accordance with the various topic-specific guidance which applies, and which are set out within the respective EIA Report chapters.

Siting and Designing Wind Farms in the Landscape.

1.2 NatureScot (previously known as Scottish Natural Heritage [SNH]) has produced guidance to aid the location of wind farms and their design principles. The most recent version of this guidance is 'Siting and Designing Wind Farms in the Landscape', Version 3a, August 2017 and despite now being eight years old remains of relevance to the design of wind development (Figure 3).

1.3 The guidance acknowledges that wind turbines are generally large structures with the potential to have significant landscape and visual impacts, but that more wind farms will be needed to meet renewable energy targets and the challenge is to make sure these are sited and designed well in landscapes most suited to this form of development.

1.4 The guidance only concerns landscape and visual matters. It does not refer to wider technical design considerations (such as wind speed, access to grid) or to other natural heritage issues (such as impacts on birds, other wildlife and habitats) which are also of importance to the design process.

1.5 The content of the guidance therefore focuses on Landscape and Visual Impact Assessment (LVIA) matters with regard to wind farms, wind turbine design and layout, wind farm siting and design, and designing in landscapes with multiple wind farms. Guidance is provided on the appropriate turbine form, size, scale, layout and on the siting and design of wind farms in relation to landscape character, landscape with scenic value, landscape pattern, landform, perspective and focal features. The guidance has informed the content of the Design and Access Statement, which outlines the site context and design rationale for the Proposed Development, although it must be noted that the guidance is substantially that originally issued in 2009 and does not perhaps engage with the implications of the scale of wind energy development proposed in recent years.

Figure 2: 'Design Statements', Scottish Government, August 2003

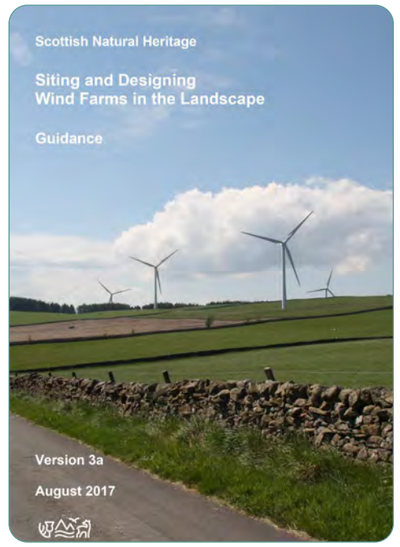

Figure 3: 'Siting and Designing Wind Farms in the Landscape' (Version 3a), SNH, August 2017

Image 2: Photograph of the existing Beinn Ghlas Wind Farm from LVIA viewpoint 2

Figure 4: 'Onshore Wind Policy Statement', Scottish Government, 2022

Figure 5: 'National Planning Framework4', Scottish Government, 2023

Planning Policy Context

Overview

2.1 In recent years, United Kingdom (UK) and Scottish Government policies have focussed increasingly on concerns about climate change. Each tier of Government has developed targets, policies, and actions to deal with the climate crisis and generate more renewable energy and electricity.

2.2 The Scottish Government has published a number of policy documents and its own targets. The most relevant policy, legislative documents and more recent statements published by the Scottish Government include:

- *The Scottish Energy Strategy (December 2017);*
- *The Scottish Government's declaration of a Climate Emergency (April 2019);*
- *The Scottish Climate Change Plan Update (2020);*
- *The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 and the legally binding net zero target for 2045 and interim targets for 2030 and 2040;*
- *The Scottish Government's 'Programme for Government' (2022);*
- *The Onshore Wind Policy Statement (OWPS) (December 2022)* (Figure 4)*; and*
- *The Draft Energy Strategy and Just Transition Plan (January 2023).*

2.3 The Environmental Impact Assessment Report (EIAR) sets out the detailed policy context and the Planning and Sustainable Place Statement which accompanies the application provides an assessment of the extent to which the Proposed Development accords with planning policies and other material considerations.

National Planning Policy

2.4 National Planning Framework 4 (2023) (NPF4) is the national spatial strategy for Scotland (Figure 5). It sets out spatial principles, regional priorities, national developments and national planning policy and replaces National Planning Framework 3 (2014) and Scottish Planning Policy (2014). It represents a package of planning policies including a long-term spatial strategy to 2045, reflecting the spatial aspects of a range of Scottish Government policies, including the Infrastructure Investment Plan (IIP).

2.5 NPF4 is required by law to contribute to six outcomes, including meeting any targets relating to the reduction of emissions of greenhouse gases. It states that:

'The global climate emergency and the nature crisis have formed the foundations for the spatial strategy as a whole. The regional priorities share opportunities and challenges for reducing emissions and adapting to the long-term impacts of climate change, in a way which protects and enhances our natural environment.'

2.6 Part 2 of NPF4 – National Planning Policy sets out 33 policies within three overarching themes (Sustainable Places, Liveable Places and Productive Places). Within 'Sustainable Places' the Energy Policy Intent is:

- *'To encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).'*

2.7 Policies which are of most relevance are as follows:

Policy 3 – Biodiversity;

Policy 4 – Natural Places;

Policy 5 - Soils;

Policy 7 – Historic Assets and Places; and

Policy 11 – Energy.

2.8 Policy 11 sets out that

- *a) development proposals for all forms of renewable, low-carbon and zero emissions technologies will be supported. These include:*
- *i. wind farms including repowering, extending, expanding and extending the life of existing wind farms;*
- *ii. enabling works, such as grid transmission and distribution infrastructure;*
- *iii. energy storage, such as battery storage and pumped storage hydro;*
- *iv. small scale renewable energy generation technology;*
- *v. solar arrays;*

- *vi. proposals associated with negative emissions technologies and carbon capture; and*
- *vii. proposals including co-location of these technologies.*
- *b) Development proposals for wind farms in National Parks and National Scenic Areas will not be supported.*
- *c) Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.*
- *d) Development proposals that impact on international or national designations will be assessed in relation to Policy 4.*
- *e) In addition, project design and mitigation will demonstrate how the following impacts are addressed:*
- *i. impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;*
- *ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable;*
- *iii. public access, including impact on long distance walking and cycling routes and scenic routes;*
- *iv. impacts on aviation and defence interests including seismological recording;*
- *v. impacts on telecommunications and broadcasting insallations, particularly ensuring that transmission links are not compromised;*
- *vi. impacts on road traffic and on adjacent trunk roads, including during construction;*
- *vii. impacts on historic environment;*
- *viii. effects on hydrology, the water environment and flood risk;*
- *ix. biodiversity including impacts on birds;*
- *x. impacts on trees, woods and forests;*
- *xi. proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration;*
- *xii. the quality of site restoration plans including the measures in place to safeguard or guarantee availability of finances to effectively implement those plans; and*
- *xiii. cumulative impacts.'*

Local Planning Policy

2.9 The Local Development Plan (LDP) covering the application site is the Argyll and Bute LDP2 (adopted 28 February 2024).

2.10 The lead policy is Policy 30 'The Sustainable Growth of Renewables'. Other LDP2 policies of relevance and which have been taken into account include the following:

Policy 02 – Outwith Settlement Areas;

Policy 04 – Sustainable Development;

Policy 08 - Sustainable Siting;

Policy 15 – Supporting the Protection, Conservation and Enhancement of Our Historic Built Environment;

Policy 16 – Listed Buildings;

Policy 19 – Scheduled Monuments;

Policy 20 - Gardens and Designated Lndscapes;

Policy 21 – Sites of Archaeological Importance;

Policy 30 - The Sustainable Growth of Renewables;

Policy 55 - Flooding;

Policy 59 – Water Quality and the Environment;

Policy 61 – Sustainable Drainage Systems (SuDS);

Policy 70 – Development Impact on National Scenic Areas (NSAs);

Policy 71 – Development Impact on Local Landscape Areas (LLA);

Policy 73- Development Impact on Habitats, Species and Biodiversity;

Policy 74 – Development Impact on sites of international importance;

Policy 75 – Development Impact on Sites of Special Scientific Interest (SSSI) and National Nature Reserves;

Policy 76 – Development Impact on Local Nature Conservation Sites (LNCS);

Policy 77 – Forestry, Woodland and Trees;

Policy 78 - Woodland Removal;

Policy 79 – Protection of Soil and Peat Resources; and

Policy 80 – Geodiversity.

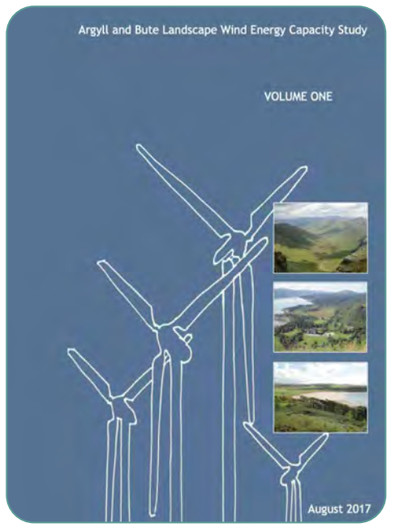

Figure 6: Argyll and Bute Landscape Wind Energy Capacity Study, August 2017

Locational Guidance

Argyll and Bute Landscape Wind Energy Capacity Study, August 2017

2.11 The Argyll and Bute Landscape Wind Energy Capacity Study (ABLWECS) was undertaken in March 2012 and updated in August 2017 (Figure 6). Whilst it aims to inform strategic planning for wind energy development in line with Scottish Planning Policy (SPP) and to also provide guidance on the appraisal of individual wind farm and wind turbine proposals in Argyll and Bute, there is little reference to considerations of the repowering of existing wind development. It should also be noted that in their guidance "Onshore wind energy landscape sensitivity studies" NatureScot confirm that *'Wind energy studies should not be referred to as 'capacity studies' as no local or regional targets are available on which to determine the 'capacity' for development. Landscape Sensitivity Assessments should reflect their purpose, which is to provide a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development'.*

2.12 Notwithstanding this, the ABLWECS has been reviewed during the evolution of the Proposed Development and provides key sensitivities related to landscape character, visual amenity and on the value placed on the landscape in the form of scenic designations and other recognised interests.

The Changing Landscape

Overview

2.13 As shown on the Site Location Plan (EIA Report Figure 2.5b), the site is situated at the location of the operational Beinn Ghlas Wind Farm comprising 14 wind turbines. The footprint of the Proposed Development is similar to the existing wind farm, as the proposed turbines are all located within proximity of the existing development.

Landscape and Visual Context

2.14 The site is located in the A&BC area, centred at approximately Ordnance Survey (OS) Grid Reference NM 977 258. The closest settlements (identified in the A&BC LDP) include the village of Taynuilt 4.9 km northeast, and the town of Oban 10.4 km west of the site.

2.15 There are no national landscape designations covering the site. The Loch Lomond and the Trossachs National Park (LLTNP) is located approximately 26.3 km east of the site.

2.16 The Proposed Development is not located within a locally designated landscape.

Topography

2.17 The Proposed Development is situated on an undulated plateau, part of the wider Lorn plateau with boundaries comprising the Sound of Lorn to the west, Loch Etive to the north, Loch Awe to the east and Loch Melfort to the south.

2.18 The proposed turbines would be located on the plateau east of high point Beinn Ghlas and north-west of Loch Nant. Elevations across the site range from 335 m AOD to 461 m AOD at Carn Gaibhre. The immediate plateau is defined by Glen Lonan to the north, Glen Nant to the east, Loch Nant, Sior Loch to the south and the higher ground of Beinn Ghlas to the west. The highest areas within the 35km LVIA study area are found beyond 10 km to the north and the north-west and include high points Ben Cruachan 1126 m AOD and Beinn Meadhonach 715 m AOD.

2.19 Overall, the topography of the site and its immediate environs is characterised as undulating uplands of rounded knolls, rock outcrops, lochs and lochans. The wireline illustrated at Figure 7 below illustrates the landform of the site area.

Built Infrastructure

2.20 The existing Beinn Ghlas Wind Farm occupies the Proposed Development site comprising 14 wind turbines with a blade tip height of approximately 54.1 m. Associated infrastructure includes the access tracks between the turbines and the minor road at Barguillean Farm, approximately 2.2 km north. Beyond the site the closest operational wind farm to the Proposed Development is Carraig Gheal Wind Farm, 4 km south comprising 9 turbines with a blade tip height of approximately 109.8m and 11 turbines with a height of 124.8 m. Within the wider landscape there are several consented and operational wind farms.

2.21 Settlement close to the site is sparse with the closest residential property situated at Duntanachan, within Glen Lonan approx. 1.9 km to the north. The closest settlements are identified in paragraph 2.15.

2.22 The nearest main transport routes are the A85 between Oban (west) and Perth (east), situated approximately 5.2 km to the northeast, the A816 between Oban (north) and Lochgilphead (south) that passes approximately 8.9km to the northwest and the West Highland Railway Line between Oban and Glasgow that passes approximately 5.2 km to the northeast.

2.23 Other elements of electricity infrastructure include the pylon lines near Glen Nant and Taynuilt.

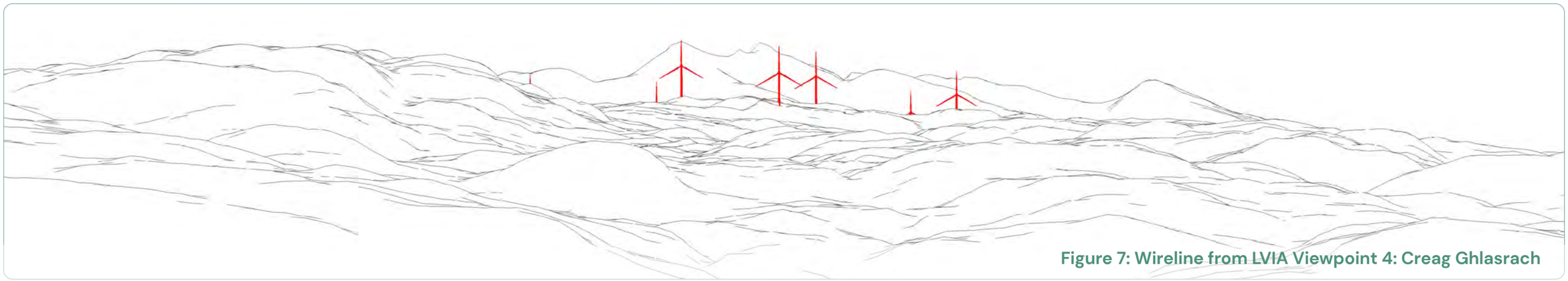

Figure 7: Wireline from LVIA Viewpoint 4: Creag Ghlasrach

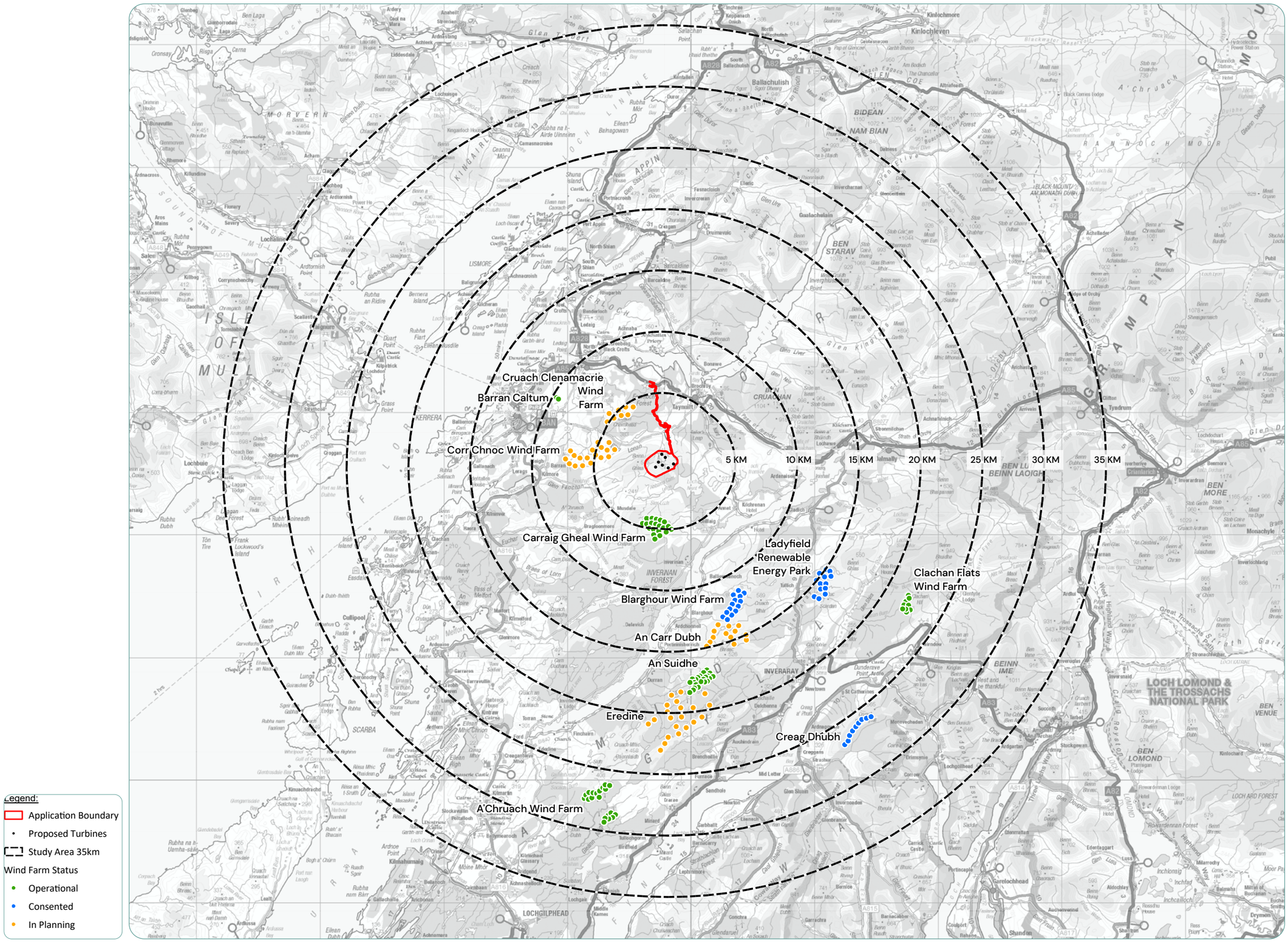

Figure 8: Other Operational, Consented and In Planning Wind Farms within 35 km

Image 3: The existing Beinn Ghlas Wind Farm

Image 4: The Proposed Development with forestry plantation located on sloping landform towards Loch Nant to the south east

Watercourses and Drainage

2.24 The Proposed Development generally lies on watersheds between three drainage systems. The burn alongside the access track from Barguillean Farm continues north into the Allt Nathais, which emerges into Loch Etive at Muckairn, west of Airds point. Burns on the northern slopes of high point Carn Gaibhre 461 m AOD and Beinn Ghlas 512 m AOD join the River Lonan west into Loch Nell. To the south the burns join Garbh Allt, and Allt Carnaich / Laggan Burn which all flow into Loch Nant. A number of small water bodies and lochans are found within and in proximity to the site including Lochan Criege Ruaidhe, southeast of Carn Gaibhre.

Sensory and Perceptual Characteristics

2.25 The site is already influenced by the presence of Beinn Ghlas Wind Farm surrounded by immediate open moorland. Outward views from within the site are generally open, unrestricted and panoramic looking across the open access moorland, coastal transitions and highpoints within National Scenic Areas (NSA), Areas of Panoramic Quality (APQ) and Wild Land Areas (WLA) to the north, east and west.

2.26 The average elevation of the upland moor is approximately 300 m, generally lower than the mountains to the north and east. The uplands become higher and broader in scale towards the north. Burns flow in narrow gullies leading from the moorland, but in broader glens on the lower slopes. The rounded knolls remain as distinctive, prominent landscape features within the valleys. Together with the mosaic of moorland, conifer forest plantation and native woodland the landscape of the site and surroundings is large in scale.

Forces for Future Change in the Landscape

2.27 The main foreseeable forces for change in the landscape surrounding the site relate to areas of forest plantations with forestry coupes of felling and replanting in line with medium and long-term management plans. Further changes may also occur due to factors affecting agricultural land use and traditional forms of moorland management. For instance, there may be, over time, longer rotations between burning, or changes to vegetation resulting from re-wetting or rewilding which encourage greater habitat diversity.

2.28 Within the wider landscape, there are several commercial wind energy developments, consented or in planning which, if consented, would influence the existing character of the wider landscape surrounding the Proposed Development. As located at Figure 8, these are:

OPERATIONAL:

Barran Caltum (2 x 54 m to blade tip)

Carraig Gheal (9 x 110 m and 11 x 125 m to blade tip)

An Suidhe (23 x 80 m to blade tip)

CONSENTED OR UNDER CONSTRUCTION:

Blarghour (14 x 180 m to blade tip)

Ladyfield Renewable Energy Park (13 x 180 m to blade tip)

IN PLANNING:

An Carr Dubh (13x 180 m to blade tip)

Corr Chnoc (12 x 200 m to blade tip)

Cruach Clenamacrie (6 x 200 m to blade tip)

Eredine (22 x 200 m to blade tip)

2.29 In addition to the consented or proposed developments within the vicinity of the site, it is widely recognised that climate change will have an impact on the future character of the Scottish landscape through changes to weather conditions that will in turn result in changes to vegetation that will affect the intrinsic character of the landscape.

3. DESIGN PROCESS

Image 5: LVIA VP3 Photomontage - from Taynuilt Church

Overview

3.1 The presence of wind development at the site is established. The construction and operation of the existing Beinn Ghlas Wind Farm has provided direct knowledge and understanding of site conditions. One of the primary design drivers has been to reuse existing infrastructure as far as practicable to reduce potential for disturbance while balancing this with the need for a technically feasible design that is sensitive to environmental receptors.

3.2 In addition to the benefits of utilising the existing infrastructure, where possible, the design of the Proposed Development has taken into consideration a range of technical, environmental, planning and commercial factors. These factors have been considered from the initial site selection through the design process to the final layout of the Proposed Development. This section describes this design process and design considerations applicable to the Proposed Development.

Site Selection

3.3 Feasibility work was undertaken by Nadara, drawing on specialist consultant input. The appraisal work undertaken at the feasibility stage covered a range of different factors, including:

- Wind speed data;
- Distance to private dwellings;
- Nearby wind farms;
- Grid connection distances and costs;
- Site access;
- Land designations;
- Landscape and visual considerations;
- Initial noise modelling;
- Ecology and ornithology;
- Archaeology;
- Local development plan policies;
- Telecommunication links; and
- Aviation.

3.4 The site was progressed to the full EIA and project design stage for reasons that included the following:

- Initial desk-based assessments and a review of wind resource suggest that there are high wind speeds;
- There are no planning policies which, in principle, preclude wind farm or renewable energy development;
- Good access to grid infrastructure;
- The site is not located within any area of national environmental importance, and it was considered that a wind farm could be developed on the site with limited environmental effects;
- The site already contains the existing Beinn Ghlas Wind Farm;
- The site presents an opportunity for power output to be maximised thereby increasing the existing performance of the site with minimum additional impact; and
- The site enables adequate separation to be achieved from the nearest residential properties;
- The site is large enough to accommodate sufficient and viable generating capacity; and
- The topography of the site is compatible with the construction of a commercial scale wind farm.

Design Approach

Identification of constraints

3.5 Constraint information obtained from the baseline survey work was collated and mapped to establish the potentially developable area for the siting of wind turbines within the site. The following factors and constraints were taken into account in deciding where turbines could be sited:

- Ecologically sensitive habitats;
- Archeological assets;
- Ornithological buffers;
- Peat condition and depth estimation surveys;
- Steepness of slopes;
- Site boundary over-sail: to prevent turbines extending out-with the site boundary;
- Residential properties: 1 km buffer;
- Watercourses: 50 m buffer;
- Drainage: 30 m buffer; and
- Telecommunications links.

3.6 Each of the on site constraints determined by surveys or desktop review were combined into a composite map to aid the design process, as shown on Figure 2.2 located in Volume 2 of the EIAR, and on Figure 9 of this report.

Consultation

3.7 Consultation has been integral to the design and development of the Proposed Development, identification of existing environmental constraints and sensitivities, and the identification and assessment of the likely environmental effects of the Proposed Development.

3.8 Consultation with statutory organisations, non-statutory organisations and the general public has taken a number of forms, including EIA Scoping, public information events, a project website and informal discussions.

3.9 In July 2022, the Applicant submitted a Scoping Report to the ECU as part of a request for a Scoping Opinion under Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. The Scoping process involved a review of available environmental baseline information, preliminary factor-specific studies and appraisals, the relevant potential impacts and an overview of the proposed method of assessment for each. Where relevant, the technical areas were assessed in the context of industry guidance, best practice, and likely design of the Proposed Development.

3.10 Following receipt of the Scoping Request, the ECU undertook consultation with statutory and non-statutory agencies and other environmental bodies with knowledge of the Proposed Development site. The following bodies provided responses:

- Scottish Environment Protection Agency;
- NatureScot;
- Historic Environment Scotland;
- Transport Scotland;
- Aberdeen International Airport;
- Arqiva;
- British Telecommunications plc;
- Defence Infrastructure Organisation;
- Edinburgh Airport;
- Fisheries Management Scotland;
- Glasgow Airport;
- Glasgow Prestwick Airport;
- Highlands and Islands Airports Limited;
- Joint Radio Company;
- Mountaineering Scotland;
- NATS Safeguarding;
- Office for Nuclear Regulation;
- ScotWays;
- Telefonica;
- Vodafone; and
- Marine Scotland Science.

3.11 A Scoping Opinion was issued by the ECU on 07 October 2022 with an addendum containing the scoping response from A&BC on 31 May 2023.

3.12 In addition to the formal Scoping process, discussion was undertaken with the following parties during the design development of the Proposed Development and the EIA process:

- Historic Environment Scotland (HES) – a Stage 1 Settings Assessment was undertaken and submitted to HES to agree the final viewpoint locations for consideration of impacts on historical assets within the outer study area;
- NatureScot – a virtual meeting and email correspondence was undertaken in order to clarify key considerations relating to landscape and ornithology; and
- JRC and Airwave – phone conversation and email correspondence was undertaken to discuss potential impacts and mitigation in relation to telecommunications links.

Efficiency Modelling

3.13 Efficiency modelling was undertaken at key stages throughout the design evolution process to ensure commercial viability of the scheme. For turbines to work effectively, they must be spaced relative to the expected prevailing wind direction. If they are too close together, the energy will be taken out of the wind at the front edge of the array and will create turbulent air for the next row and so on through the array. This is known as the wake effect.

Public Consultation

3.14 Public consultation has been undertaken during the development process to inform the general public and other interested parties of emerging proposals and evolving understanding of the baseline environmental conditions and potential impacts, and to elicit comment and feedback on the Proposed Development.

1st Round of Public Consultation Events - January 2023

3.15 Two in-person consultation events were held in January 2023. The location of each event was selected to give residents in the areas surrounding the Site an opportunity to find out more about the Proposed Development and provide feedback to the Project team.

3.16 The events took place in:

- Taynuilt Village Hall, Taynuilt: 25th January 2023, 2pm –7:30pm.
- North Connel Hall, Oban: 26th January 2023, 2pm – 7:30pm.

3.17 The consultation events included a number of A1 information boards which outlined the project location, the development and EIA process and the environmental surveys being conducted. The information boards also included a Zone of Theoretical Visibility (ZTV), several key viewpoints, and outlined the next steps of the development process. In total, the exhibition comprised 21 information boards comprising text and figures, which were also made available on the 25th of January 2023 via the project website.

3.18 The public consultation events also provided interactive software to allow interested parties to look at wirelines from selected viewpoints as well as a number of A1 print outs of photomontages and comparative wirelines. Attendees at the events could leave comments directly with the exhibition team or via a feedback form, which was also made available online. A deadline of 28th of February 2023 was set to provide feedback and comments on the consultations, allowing residents and organisations time to respond following the exhibition events.

3.19 The Applicant provided a summary of the feedback from the 1st round of exhibitions to the Community Councils, interested residents and elected representatives in May 2023 as well as uploading a copy to the project website.

3.20 Newspaper adverts, consultation materials, feedback forms, frequently asked questions (FAQ) sheets and event photos from all consultation events are provided in Appendices B to F of the Pre-application Consultation (PAC) Report

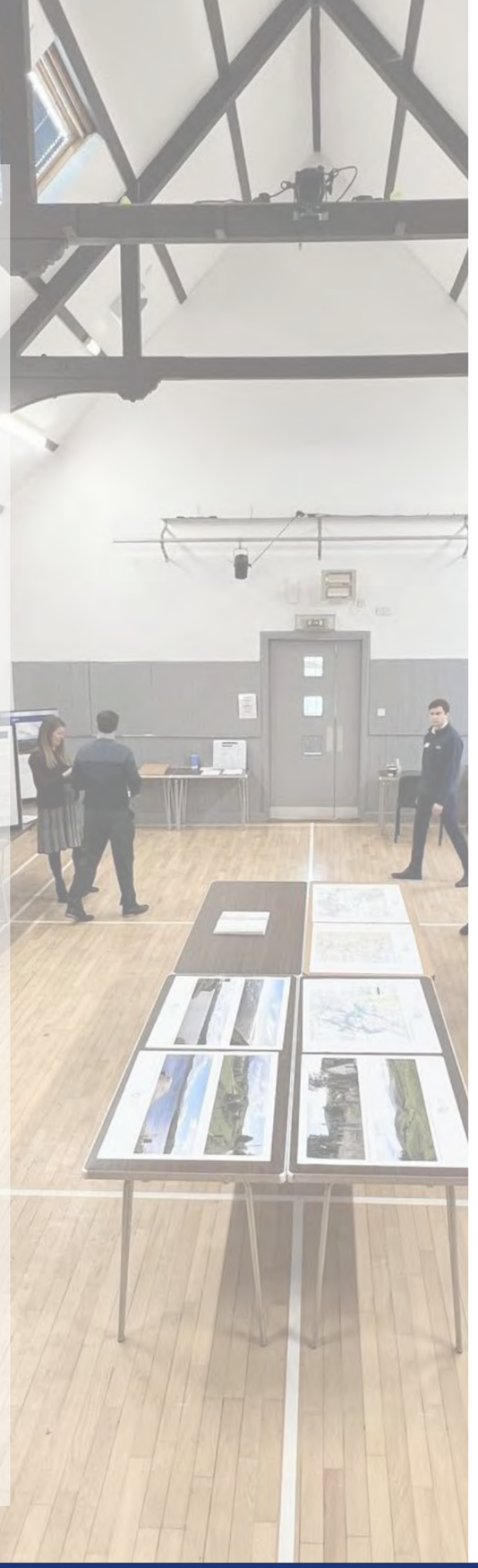

Image 6: January 2023 Public Consultation at Taynuilt Village Hall

3.21 A total of at least 57 people attended the first round of public consultation events. Feedback could be provided in-person or via email correspondence, online feedback forms, and through the post. Residents of the local community had several questions/ comments and provided a mixture of Positive, Negative, and Neutral feedback regarding the Proposed Development.

3.22 In summary, all returned feedback forms were from the local area and the majority of feedback forms (11/13 forms) confirmed that they were supportive of onshore wind, with one individual remaining neutral, and another attendee not providing an answer.

3.23 Just over three quarters (10/13) of returned feedback forms stated support for the Proposed Development, with the remaining feedback forms being neutral (2/13 forms) or not answered (1/13 forms).

3.24 Feedback along with the Applicants response focused on the following themes, in no particular order of significance:

- Community Benefits
- Ecology and Ornithology.
- Landscape and Visual Impacts
- Noise Impacts
- Recreation Activities
- Road infrastructure and traffic.

2nd Public Consultation Event - April 2025

3.25 The second round of exhibitions was held between the 22 and 24 April 2025. The purpose of these exhibitions was to consult the public on the Proposed Development during preparation of the Town and Country Planning application.

3.26 The exhibitionss took place in:

- Portsonachan Village Hall, Portsonachan, by Dalmally: 22nd April 2025, 4pm – 7pm.
- North Connel Hall, North Connel: Wednesday 23rd April 2025: 10am – 1pm.
- Taynuilt Village Hall, Taynuilt: 23rd April 2025, 4pm – 7pm.
- Kilmore Village Hall, Kilmore: 24th April 2025, 10am – 1pm.

3.27 These events provided the local community with an update on changes to the Proposed Development proposals and how the Applicant took account of views raised during the pre-application consultation process. Members of the public were given a chance to comment on any changes to proposals, before the application was finalised.

3.28 Project information was displayed on pop-up boards and online alongside photomontages of the Proposed Development. This included the project location, description of the proposals, viewshed maps, visualisations from several key viewpoints, project background, the EIA and planning process, and the potential benefits of the Proposed Development. The exhibition information boards presented at the second exhibition are shown in Appendix C of the PAC. Attendees were also given the opportunity to observe how the Proposed Development turbines would appear from any specific point in the surrounding area, through location-specific wireline visualisation created through Resoft software.

3.29 Staff from the Applicant and RSK's project team were in attendance to enable discussion with members of the public.

3.30 A total of at least 67 people attended the second round of public consultation events. Feedback could be provided in-person or via email correspondence, online feedback forms, and through the post. Residents of the local community had several questions/ comments and provided a mixture of Positive, Negative, and Neutral feedback regarding the Proposed Development.

3.31 In summary, the majority of returned feedback forms were from individuals who lived close to Beinn Ghlas Wind Farm or had business interests/work near Beinn Ghlas Wind Farm (21/24), and conveyed their support of onshore wind (16/24), whilst two feedback forms were not supportive of onshore wind. In addition, four feedback forms recorded a neutral stance, one feedback form recorded don't know, and another not providing an answer.

3.32 Overall, just over half (13/24) of returned feedback forms received conveyed their support for the Proposed Development, with 4 feedback forms not supportive of the Proposed Development. The remaining contributions were either neutral (5/24 forms), don't know (1/24 forms) or not answered (1/24 forms).

3.33 Feedback along with the Applicants response focused on the following themes, in no particular order of significance:

- Landscape and visual considerations;
- Community benefit Funding ;
- Disruption of water supplies; and
- Ornithological mortality risks

3rd Public Consultation Event - June 2025

3.34 The third round of exhibitions was held on the 10th and 11th June 2025. The purpose of the exhibitions was to provide a further opportunity to find out about the Proposed Development and receive Nadara's feedback on the points raised at the April 2025 public exhibitions.

3.35 The events took place in:

- North Connel Hall, North Connel: 10th June 2025, 4pm – 7pm.
- Taynuilt Village Hall, Taynuilt: 11th June, ,4pm - 7pm.

3.36 Project information was displayed on A1 boards and online alongside photomontages of the Proposed Development. The content of these boards was identical to that provided at the April 2025 exhibitions, with the exception of 3 boards which were updated to reflect the changes which had been undertaken since the April 2025 exhibition. The exhibition information boards presented at this exhibition are shown in Appendix C of the PAC Report. Attendees were also given the opportunity to observe how the Proposed Development turbines would appear from any specific point in the surrounding area, through location-specific wireline visualisation created through Resoft software.

3.37 Staff from the Applicant and RSK's project team were in attendance for discussion with members of the public.

3.38 A total of at least 24 people attended the third round of public consultation events. Feedback could be provided in-person or via email correspondence, online feedback forms, and through the post. Residents of the local community had several questions/ comments and provided a mixture of Positive, Negative, and Neutral feedback regarding the Proposed Development.

3.39 In summary, three quarters of returned feedback forms were from the local area and all feedback forms (4/4 forms) conveyed their support of onshore wind.

3.40 Overall, all (4/4 forms) of the returned feedback forms conveyed their support for the Proposed Development.

3.41 Feedback along with the Applicants response focused on the following themes, in no particular order of significance:

- Appropriate siting of onshore wind developments;
- Recreation and public access
- Repowering wind farms; and
- Community benefit funding

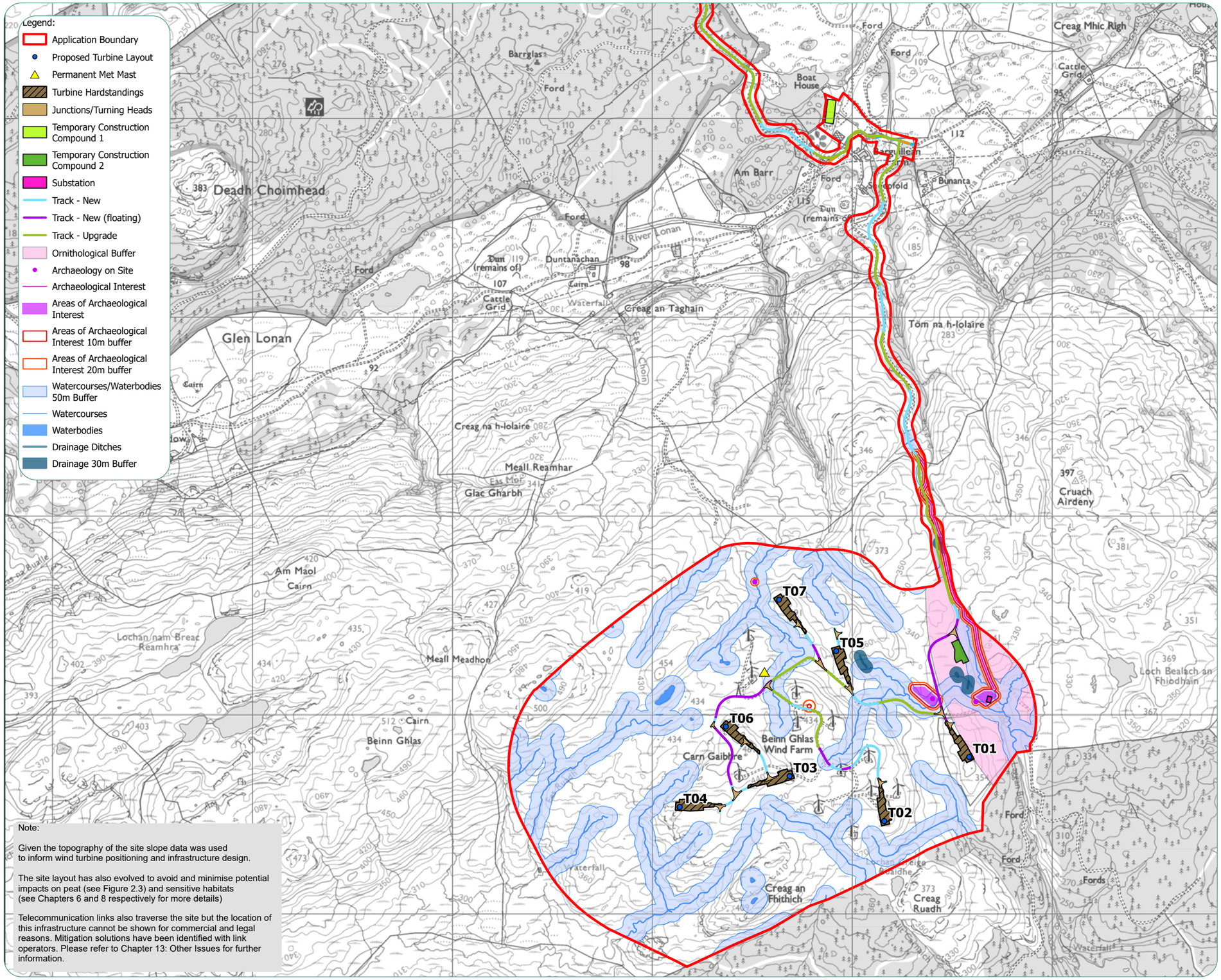

Figure 9: Combined On-site Constraints Map

Design Considerations

3.42 During the EIA process the following design considerations were determined, in addition to the site based constraints listed at paragraph 3.3 above. This section explains how these considerations have influenced the design through the layout iteration process.

3.43 Constraints analysis was undertaken using Geographical Information Systems (GIS). A project-specific workspace, based on ArcGIS Online, was developed specifically for the Proposed Development. This allowed base-mapping to be overlaid with spatial data, such as environmental constraints and protected sites, and project-specific data to provide the project team with a means of interrogating environmental and project details in a single place at technical meetings and design workshops.

Technical and Environmental Considerations

Landscape and Visual Considerations

- Views from nearby residential properties;
- Views from other settlements, roads and public rights of way;
- Potential effects on Landscape Character;
- Potential effects on Designated Landscapes;
- Additional and total cumulative effects; and
- Key design viewpoints were developed and were also included subsequently as LVIA Viewpoints.

Ecology and Ornithology

- Ecological surveys have been carried out across the site and surrounding area from 2020 to 2025, including a Phase 1 habitat survey, a National Vegetation Classification Survey, fisheries survey, and protected species surveys (including bats, pine marten, badger, otter, wildcat, water vole, red squirrel). Sensitive and protected ecological features and appropriate buffers have been avoided. Sensitive habitats within the site have been avoided where possible, or where unavoidable the potential impacts reduced as far as practicable. Areas of priority peatland habitat have been avoided where possible, and the recommended habitat standoff distances from blade swept path to key habitat features have been incorporated into the design.
- Ornithology surveys have been carried out across the site and surrounding area since September 2020, including flight activity surveys; black grouse surveys, scarce breeding birds (for raptors and divers listed in Schedule 1 of the Wildlife and Countryside Act 1981 and Annex 1 of the EU Birds Directive), moorland bird surveys and winter walkovers for non-breeding birds. Suitable buffers were considered during the design evolution process and areas have been avoided owing to the presence of sensitive bird populations.
- Proposed habitat enhancement measures form an integral part of the project and includes peatland restoration and riparian woodland creation. This will not only support the local biodiversity but will support Scotland's commitment of reaching net zero emissions by 2045 and thereby tackling the climate change emergency.

Aviation and Radar considerations

- Consideration has been made to the effects of wind turbine visibility on aviation radars.

Ground considerations

- The project design has been informed by an understanding of the ground conditions, which has evolved from baseline studies including an engineering site visit and peat depth surveys. The design has been iterated to minimise potential impacts on deep peat.

Noise Considerations

- For the purposes of early constraints mapping, avoidance buffers of 1 km were applied to residential properties in the vicinity of the Site.
- The Proposed Development is located in an area of fairly low population density. The nearest residential properties identified are greater than 1.5 km to the closest turbine.
- In line with the ETSUR97 methodology, background noise surveys were not considered necessary as predicted operational noise levels from the wind turbines do not exceed 35 dB(A) up to a wind speed of 10 m/s, and are therefore considered acceptable.

Forestry

- Due to the proposed widening of the access road running through Fearnoch Forest to accommodate the delivery of abnormal loads from the anticipated port of entry, the Proposed Development will impact upon woodland managed by Forestry and Land Scotland resulting in the felling of some trees.

Combined Constraints Mapping

- Each of the on site constraints were combined into a composite map to aid the design process as shown on on Figure 9 and on Figure 2.2 located in Volume 2 of the EIAR. A greater level of detail is available on Figures 2.2a - 2.2d of the EIAR.

Design Evolution

Layout Iterations

3.44 The turbine layout has undergone several principal iterations as part of the EIA and wind farm design process. The main iterations are described below and Figures 10 to 15 illustrate the progression through the Applicant's iterative design process.

Initial Layout (Layout A)

3.45 An initial layout (Layout A) (Figure 10) was identified following initial feasibility work undertaken by the Applicant. The initial layout contained the maximum of 20 turbines with a maximum height to blade tip of 180 m that was identified could fit onto the site within the parameters of basic on-site constraints, such as watercourses, environmental designations and steep slopes. Early on in the design process, turbines at the greater height of 200 m were also considered in detail with comparative visual appraisals. It was decided, as a result of this exercise, that 180 m tip height turbine should be looked at further.

Scoping Layout (Layout B)

3.46 The scoping layout contained 18 turbines with a maximum blade tip height of up to 180 m. These turbines were distributed across the site and represented a slightly reduced number of turbines from the maximum of 20 turbines that was identified could fit onto the site within the parameters of basic onsite constraints (Figure 11).

3.47 The location and sensitivity of all identified environmental receptors were mapped in this iteration, and appropriate buffers around them were agreed between the technical specialists and project engineers as a result of desk studies and field surveys. The following design principles and buffers were applied during this design iteration:

- 50 m buffer from watercourses;
- Appropriate turbine separation distances;
- 30 m buffer from designated heritage assets of medium importance and 10 m buffer from non-designated heritage assets;
- Avoidance of areas of deep peat (>1 m depth);
- Avoidance of development on steep slopes; and
- Avoidance of the most sensitive habitats and sensitive ornithology species.

Layout C

3.48 The omission of two turbines, was recommended following early consideration of landscape and visual matters in order to reduce potential effects upon nearby residents and landscape and visual effects in locations to the north and west. In addition, it was recommended that, if feasible, the height of proposed turbines be kept below the 150 m threshold at which aviation lighting is required.

3.49 Concerns were raised regarding the likely impacts to peatland habitat and groundwater dependent terrestrial ecosystems (GWDTEs). This resulted in modifications to the track layout to mitigate impacts on near natural blanket bog/highly dependent GWDTE.

3.50 When the landscape and visual appearance of Layout C was reviewed, it became apparent that the distribution of the turbines across the site was leading to a development that extended widely across some views, with notable variations in the ground levels of the turbine bases and with some turbines appearing as outliers from some locations. In some instances, the arrangement of turbines also led to clustering and overlapping of turbines. This resulted in the removal of two turbines to create a 14 turbine layout (Figure 12). Ornithology constraints were also considered when developing this layout.

Layout A – 20 Turbines

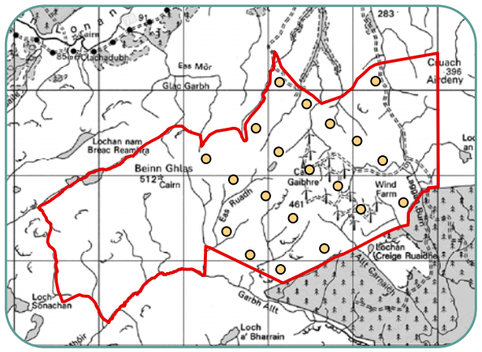

Figure 10: Iteration 1: Initial Layout (Layout A)

Layout B – 18 Turbines

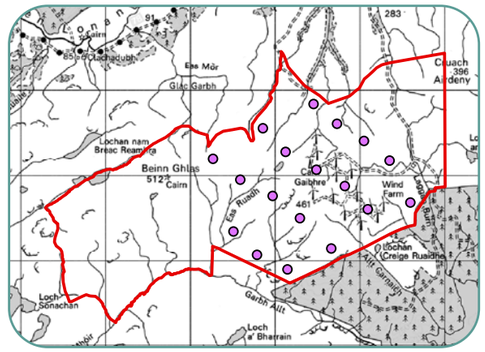

Figure 11: Iteration 2: Scoping Layout (Layout B)

Layout C – 14 Turbines

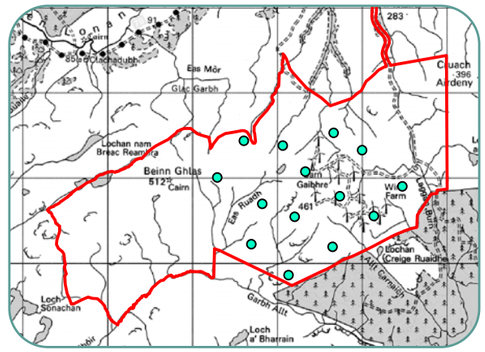

Figure 12: Iteration 3: Layout C

Layout D

3.51 Further technical appraisal of the arrangement and appearance of the proposed turbines was undertaken (including consideration of landscape and visual matters plus ornithological constraints). This recommended that the wind farm be focussed in the southern parts of the site, with turbines removed from the northern and western areas. This resulted in the removal of two turbines which appeared as outliers, improving the layout from and landscape and visual perspective. Further refinements to track layout were also made at this stage. This represented the layout taken forward for public consultation (Figure 13).

Layout E

3.52 Landscape and visual issues were considered throughout the design iteration process, with the layout being tested against the LVIA viewpoints to ensure that effects mitigated in Layout C were not increased by the movement of turbines.

3.53 Further survey work comprised a further peat depth survey, and an archaeological desk based review followed by a walkover survey. A review of Layout E by the construction design and management (CDM) principal designer and lead engineer was conducted.

3.54 A second design workshop was held to review Layout D and to identify locations for additional ancillary infrastructure, a temporary construction compound, and other considerations. This led to a chilled layout being identified to be taken forward for further review.

3.55 The Phase 2 Peat Survey further covered the chilled turbine layout indicative track, and ancillary infrastructure for deep peat. Some micrositing was undertaken to ensure that turbines and ancillary infrastructure were placed outwith pockets of peat >1m depth and avoided priority habitats.

Final Turbine Layout (Layout F)

3.56 The final layout including ancillary infrastructure is shown on Figure 15. The final site layout reflects the primary design driver to reuse existing infrastructure as far as practicable while balancing this with the need for a technically feasible design that is sensitive to environmental receptors.

3.57 Through the removal of four turbines, it is considered that the final layout has avoided and/or reduced impacts on sensitive onsite constraints. These include important habitats and sensitive ornithological constraints. This has resulted in the layout being more compact, resulting in less habitat loss overall and better appearance in views towards the site, further reducing landscape and visual effects.

3.58 Individual technical assessment chapters in the EIA Report refer to design input in further detail and respond to specific matters.

Layout D – 12 Turbines

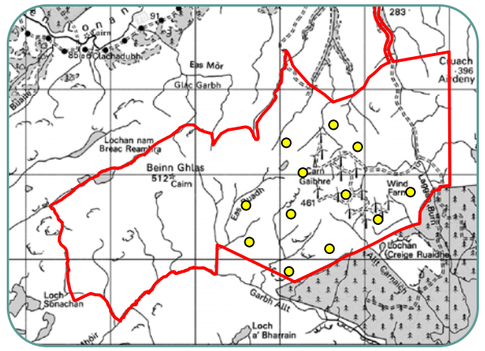

Figure 13: Iteration 4: Layout D

Layout E – 11 Turbines

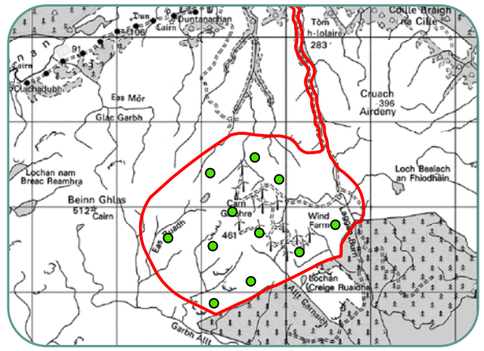

Figure 14: Iteration 5: Layout E

Layout F – 7 Turbines

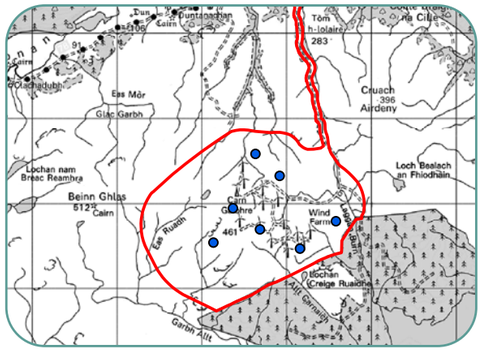

Figure 15: Iteration 6: Layout F

Site Infrastructure

Internal Track Layout

3.59 The internal track layout for the final turbine arrangement was developed so that it meets the following criteria:

- Avoidance of steep slopes;
- Utilisation of the existing track where possible; and
- Avoidance of / minimisation of impacts upon on-site constraints.

Construction Compound Locations

3.60 The location of the construction compounds were selected for the following reasons:

- Utilisation of an existing hardstanding area;
- Selection of an existing area of less undulating ground; and
- Avoidance of / minimisation of impacts upon on-site constraints.

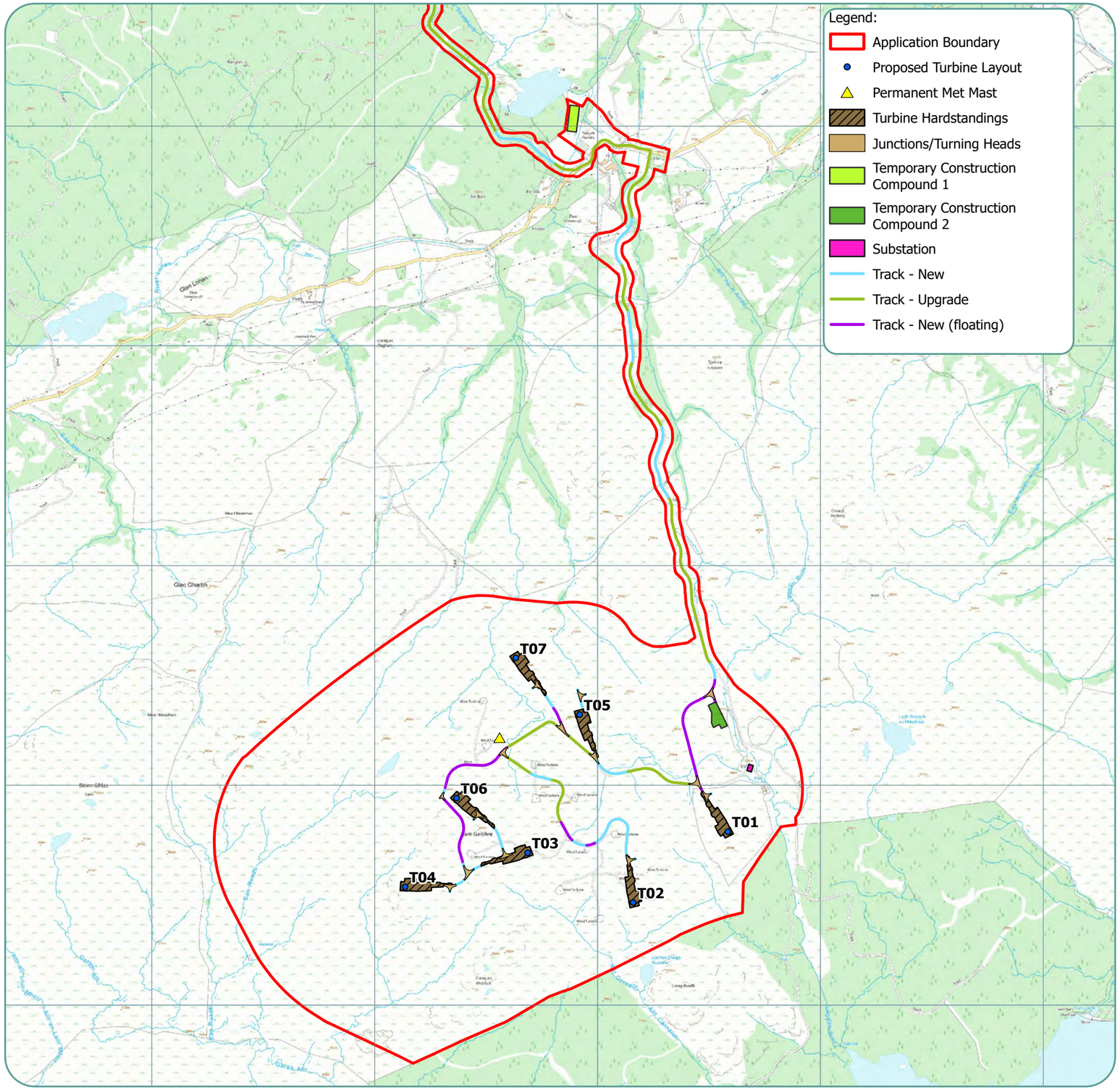

Figure 16: Internal Track Layout

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4. DESIGN RESPONSE

Image 7: LVIA VP4 Photomontage - from Craeg Ghlasrach

Landscape and Visual Design Response

4.1 The final design for the Proposed Development seeks to respond to the specific characteristics and qualities of the landscape and how these are experienced.

4.2 A key component of the design progression has been the consideration of landscape and visual effects. This process was informed by Pegasus' own observations and experience of key landscape and visual issues relating to wind energy development and the pre-application consultation responses.

4.3 The output of the review was advice regarding where further design iteration to the scheme could address the areas of potential landscape and visual concern. This included discussion of the relative merits of both potential turbine deletion and reduction in turbine height from the Layout A scheme and through the evolution of the scheme.

4.4 A summary of the key findings of the landscape design review, and how the feedback subsequently influenced the development is set out below. Where appropriate, reference is made to the LVIA viewpoints which are listed at Table 1 and located on Figure 17.

Viewpoint Number	Viewpoint Location
1	Minor road, Lonan
2	Clach Bhadan, Core Path
3	Taynuilt Church
4	Creag Ghlasrach
5	Minor road near Barran an Fhraoich, east of Oban
6	Achnacairn
7	Ardchattan Priory
8	B845
9	Ben Cruachan
10	Portsonachan
11	A819 layby nr Cladich
12	A816 layby / parking near Knipoch
13	A6088 Approach to Bonchester Bridge
14	Beinn Bhreac
15	Core Path C517(b) - Inverawe to Glenkinglass, Loch Etive
16	Achnacroish Lismore
17	Ben Starav
18	Bonawe Jetty, Taynuilt
19	Glen Lonan Road

Table 1: LVIA Viewpoint Locations

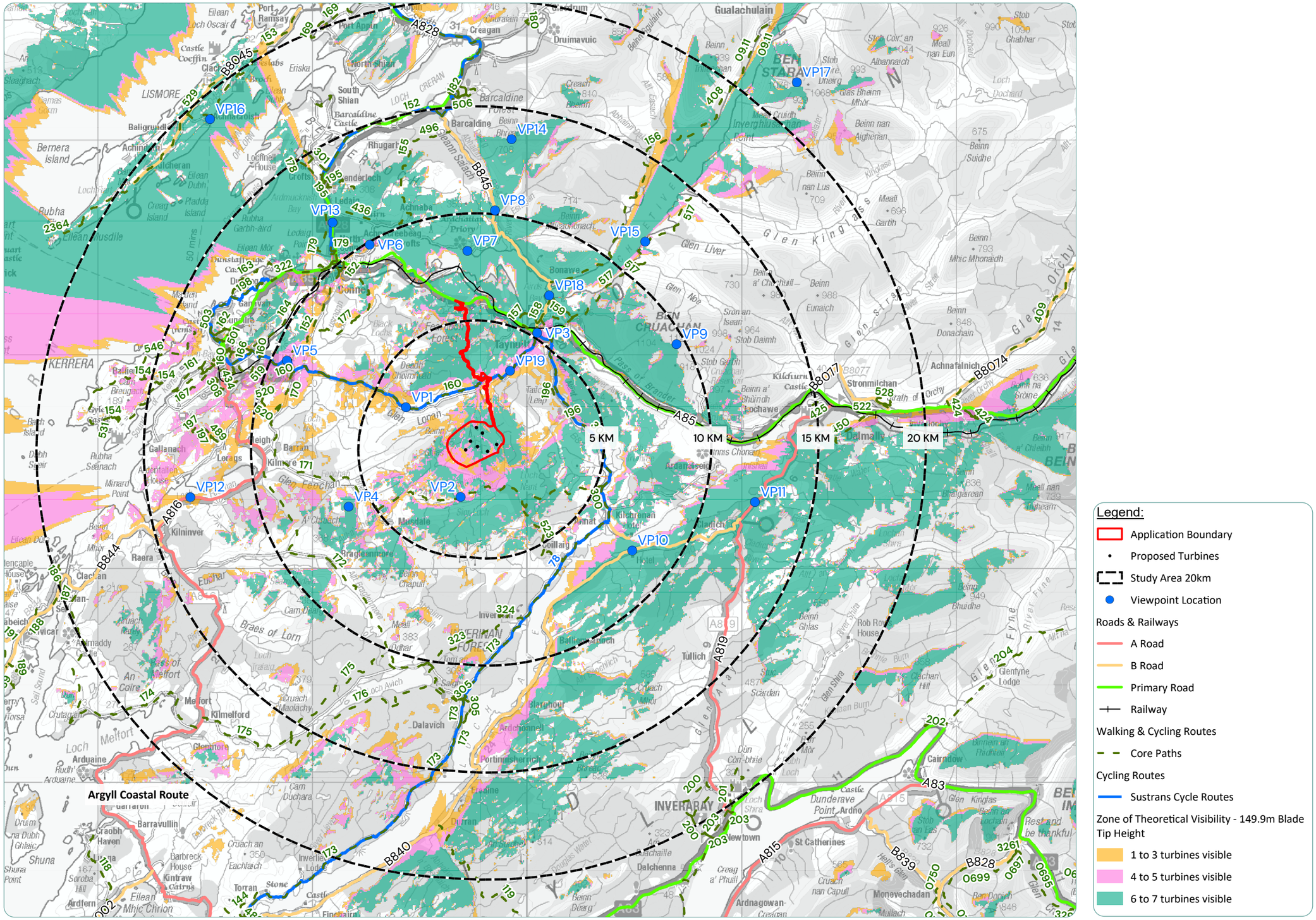

Figure 17: LVIA Principal Visual Receptors with Blade Tip ZTV and Viewpoint Locations to 20 km

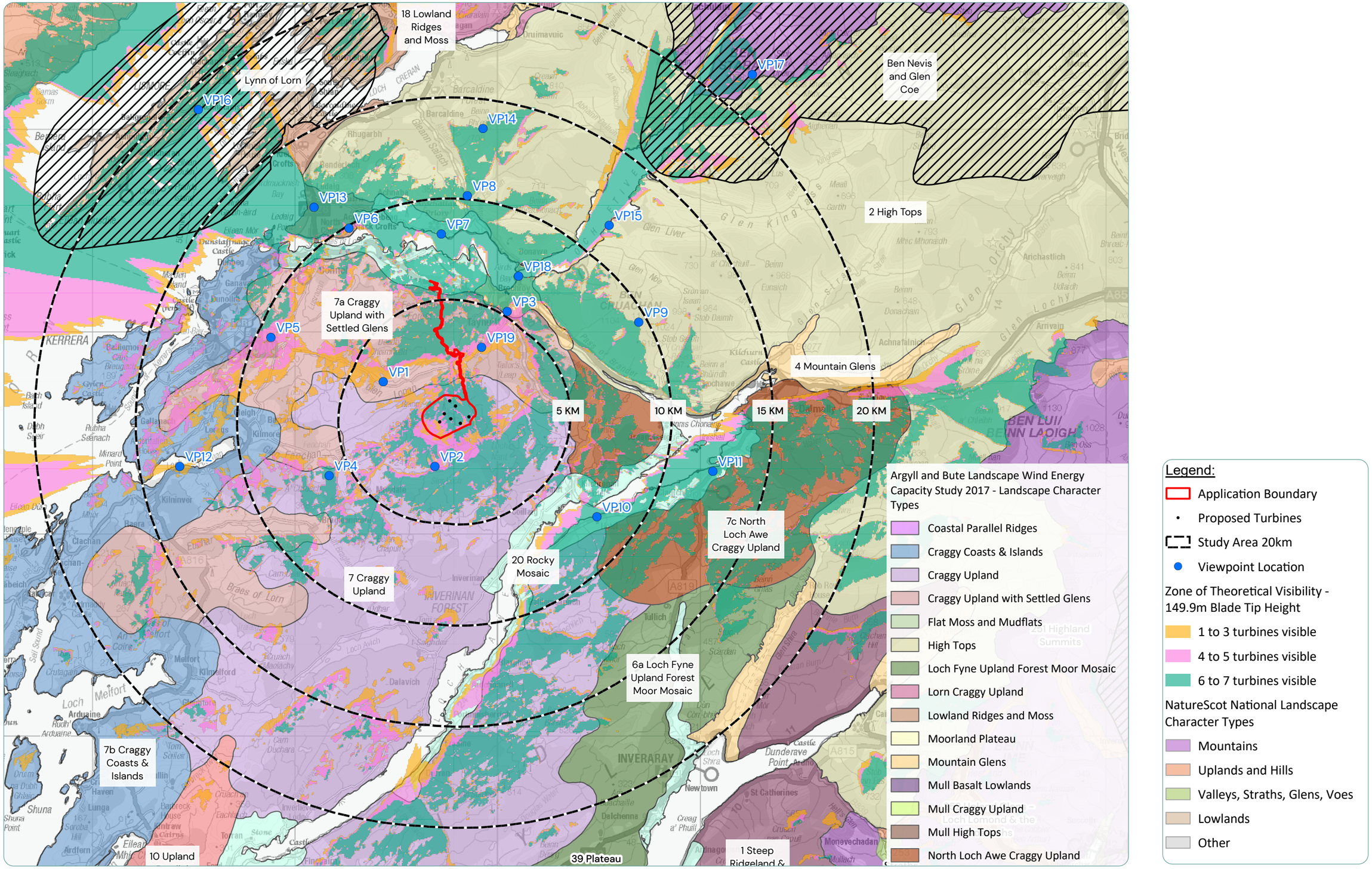

Figure 18: LVIA Landscape Character to 20 km with Blade Tip ZTV

Overview of Landscape and Visual Matters identified in Scoping Responses

Argyll and Bute Council (A&BC)

4.5 Key landscape and visual matters raised by A&BC were:

- The proposed turbines in the scoping layout lie within the boundary of the ABLWECS LCT 7: Craggy Upland. The guidance on development within this LCT states that: *"There is considered to be no scope to accommodate very large turbines in this landscape due to potential effects on Loch Awe and its smaller scale and often scenic settled fringes, the Craggy Upland with Settled Glens (7a) and Craggy Coasts and Islands (7b). Replacement of the operational wind farm developments of Carraig Gheal, An Suidhe and Beinn Ghlas with turbines > 130 m high would be likely to incur significant effects on key sensitivities"*. Landscape character can be seen at Figure 18;
- A&BC considered that cumulative impact will be a significant material consideration in the final determination of any future application;
- A&BC noted in particular the potential visibility from areas within locally designated Argyll & Bute Areas of Panoramic Quality (North Argyll and North West Argyll), in addition to other national and regionally designated landscapes;
- A&BC advised that water-based viewpoints should be considered to represent important water-based recreation receptors; and
- A&BC noted the requirement for aviation lighting based upon potential turbine heights of 150 m to blade tip or taller. However, this is no longer relevant as the Proposed Development now falls below the 150 m threshold.

NatureScot

4.6 Key landscape and visual matters raised by NatureScot were:

- The appearance of the Proposed Development from the south-western extents of the Ben Nevis and Glen Coe NSA and the southern extent of Glen Etive around the head of Loch Etive;
- Additional visibility over the Ben Lui and Loch Etive Mountains WLAs;
- The effects of aviation lighting upon the Ben Lui and Loch Etive Mountains WLAs; and
- Cumulative effects upon the qualities of Ben Lui and Loch Etive Mountains WLAs.

Mountaineering Scotland

4.7 Key landscape and visual matters raised by Mountaineering Scotland were:

- The appearance of the Proposed Development along the Loch Etive trough from the Etive Mountains;
- The visual difference between the existing Beinn Ghlas Wind Farm compared with the Proposed Development; and
- The cumulative effects with the existing wind farm at Carraig Gheal and with the Musdale scoping scheme.

Summary of Matters Raised

4.8 The key landscape and visual matters raised by each of the consultees helped to inform the key landscape and visual considerations for the development of the layout. Each of which are identified in the following section.

Key Landscape and Visual Design Considerations

4.9 It is generally accepted that it is a challenge for the design of a wind farm to achieve a layout that reduces, or minimises, the effects, or its appearance, for all landscape or visual receptors in all directions. The following issues and key receptors for the design evolution of the scheme were set out at an early stage within the design process whereby the landscapes or visual receptors most sensitive to the appearance of large-scale wind development were key considerations through the design evolution:

- The sheltered glens to the west of the site which extend inland from the coast, and which include Glen Lonan, represented by Viewpoints 1 and 5;
- Coastal tourist routes, in particular where these are located within designated landscapes (such as that within the North West Argyll (Coast) Local Landscaoe Area, represented by Viewpoint 12);
- Distant views available towards the Argyll and Bute Coast from the west such as those from the Lynn of Lorn National Scenic Area where turbines would appear within views that encompass the more dramatic Nevis Range and Ben Cruachan to the north, represented by Viewpoint 16;
- Distant views from the north within the Ben Nevis and Glen Coe National Scenic Area and the Loch Etive Mountains Wild Land Area, represented by Viewpoint 15; and
- Southerly views from the Garden and Designed Landscape at Archattan and the residential areas at Taynuilt and on the north shore of Loch Etive, represented by viewpoint 7.

Summary of Design Response

4.10 Each of the issues and key receptors set out above have been appropriately addressed through the design iteration process, thereby responding to the key landscape and visual matters raised by the consultees. The final layout has noteably reduced potential landscape and visual effects, in particular in relation to each of the matters set out in Section 4.9. As such it is considered that appropriate design mitigation has been applied in line with NPF4 Policy 11(e).

Potential Effects on Landscape Character

4.11 As with almost any onshore wind farm development it is recognised that the Proposed Development would give rise to some localised significant effects on landscape character and visual amenity. A summary of these effects is set out here.

4.12 As shown at Figure 18, Beinn Ghlas Wind Farm is located within the northern part of LCT 7 (Craggy Upland). To the west and south west the more elevated and open craggy upland is interspersed with the lower glens which are more intimate in their character and within which views are often more enclosed or channelled by the valley landform (LCT 7a, Craggy Upland with Settled Glens). LCT 7a extends within 5 km of the proposed turbines. Further west, beyond approximately 7.5 km, the glens give way to the craggy coasts and islands (LCT 7b).

4.13 It was identified during the design evolution of the Proposed Development that the landscapes listed above are those where particular regard was to be made.

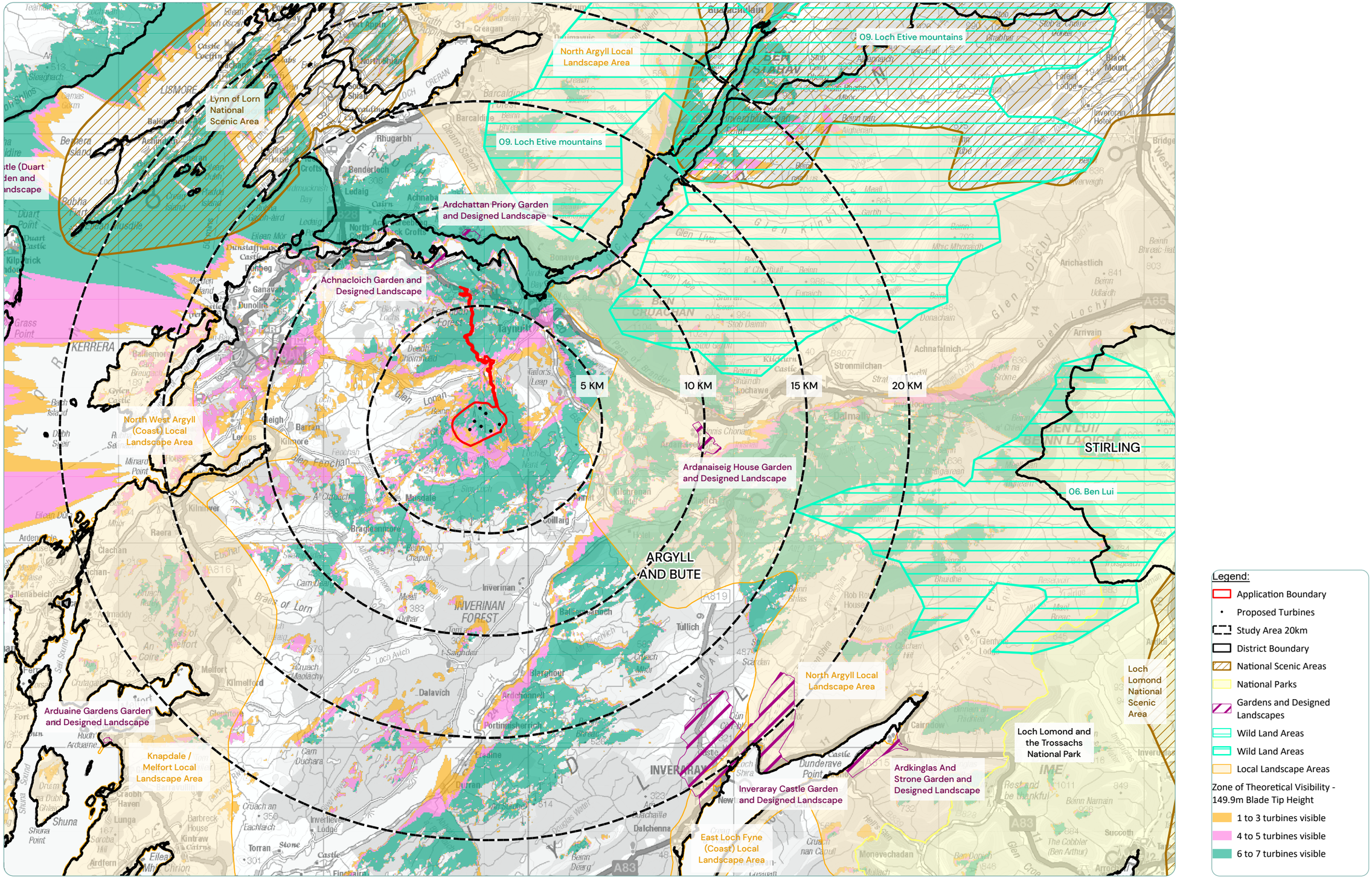

Figure 19: LVIA Landscape Designations to 20 km with Blade Tip ZTV

4.14 Viewpoints 1 and 5 are located within LCT 7a and Viewpoint 12 within LCT 7b. An additional viewpoint, Viewpoint 19, was added within LCT 7a as the design evolved to reflect the location of part of the proposal at the time.

4.15 From Viewpoint 1 there are enclosed views along the valley floor over the low, pastoral farmland through which the river Lonan winds its path. Views to the southeast extend towards the steeply sloping southern valley side that provides the backdrop to the view. The lower slopes are scattered with trees, whilst the ridge of high ground is exposed. The existing Beinn Ghlas is not visible and there are no other wind farms currently present within the existing view.

4.16 The pre-scoping (Layout A) wireline for Viewpoint 1 at Figure 20 (page 38) indicated that the hubs of two turbines would appear above the valley side, as would several blades. The degree of visibility from this location, along with other visual considerations (described below) resulted in the omission of T14 (Layout A). In addition, Turbine T20 (Layout A) was also omitted due to its position on the north sloping land and whereby within parts of the adjoining LCT 7a to the north, its retention would bring about a disproportionate effect and appear as an outlier in views to the west and which can be seen in reference to Viewpoints 5 (Figure 21 Layout A).

4.17 Viewpoint 12, located at a lay-by / parking area off the A816, provides opportunities for panoramic views along Loch Feochan to the north. The alignment of the road towards the northeast focuses the view on the steep, rounded slopes of the craggy upland in the distance and where, as indicated at Figure 23 Layout A, two turbine hubs would be visible and up to 7 blades.

Potential Effects on Visual Amenity

Residential Properties

4.18 The matter of potential effects on individual residential properties was not specifically raised in the scoping responses. However, it was identified as part of the design considerations that the relationship between turbines and residential properties is an important matter to be considered for wind energy applications.

4.19 There are a number of residential properties which are located within Glen Lonan to the north of the site. Consideration of potential effects upon residential visual amenity were made early in the design process. This include the omission of T14 from layout A which was the turbine located closest to residential properties and which, given its position within the site, could appear dominant within views from the nearest properties.

Settlements

4.20 To the north east of the site are a cluster of properties around Corachie Farm and Balindore and the settlement of Taynuilt, situated approximately 4.9 km northeast and Connel and North Connel to the north west. Residents at Taynuilt are represented by Viewpoint 3 and those towards North Connel, located on the north shore of Loch Etive, are represented by Viewpoints 6 (Achnacairn) and 7 (Ardchattan).

4.21 The settled north shore of Loch Etive (Viewpoints 6 and 7) is a location from where Loch Etive is seen in the foreground backed by undulating moorland, broadleaf woodland and conifer forestry plantation in the middle distance. Open elevated moorland is seen in the background. The operational Beinn Ghlas Wind Farm can be seen against the skyline as a relatively distant feature across the centre of the ridge of open moorland between Cruagh Airdeny and the eastern side of Beinn Ghlas.

4.22 Given the design iteration work which subsequently took place, the potential for effects on these routes has been reduced through the consolidation of turbines within the heart of the site and constraining the turbine heights to below 150 m reduced the breadth of the array when seen from the north, as seen at Figure 25.

Highway Users

4.23 The road network which runs in the vicinity of the site includes the A85, A819 and the A828 (Argyll Coastal Route), the B845 and B840, along with a number of minor roads, including that which runs along the valley of the Glen Loth immediately to the north-west of the site (Viewpoints 1 and 19) and minor roads to the north shore of Loch Etive (Viewpoints 6, 7 and 8).

4.24 The A816 and the A85 run within the landscapes of the Craggy Coasts and Islands and Craggy Upland with Settled Glens and the design evolution which sought to reduce effects across those landscapes to the north and west would also bring about reduction in potential effects on these routes. Similarly, it was noted that the minor road which runs along Glen Lonan (also a Sustrans route) would also benefit.

4.25 Given the design iteration work which subsequently took place, the potential for effects on routes has been reduced accordingly. This is illustrated with regard to the comparative wirelines, Viewpoints 1, 5 and 7 are representative of the views from the road network.

Recreational Receptors

4.26 Loch Lomond and the Trossachs National Park is a key destination for tourists, however, has very limited ZTV coverage.

4.27 It was noted that NatureScot and Mountaineering Scotland refer to views from the northern end of Loch Etive. Viewpoint 15 represents users on Core Path 517. Figure 26 shows the evolution of the design which reduces the number and extent of turbines visible from a point where the route meets Glen Kinglass to the north, closer to the Ben Nevis and Glen Coe NSA. The viewpoint location in the LVIA has been sited further south from this initial location to enable greater visibility of the Proposed Development..

4.28 Closer to the site other main destinations include the Gardens and Designed Landscapes (GDL) of Inverary Castle; Ardanaiseig House, Achnacloich and Ardchattan Priory, the latter of which is represented by Viewpoint 7 (Figure 22). The benefits which have been discussed in relation to other receptors which are represented by Viewpoint 7 would also apply to visitors to the GDL at Ardchattan. Viewpoint 7 and the additional viewpoint at Bonawe Jetty (Viewpoint 18) provide a representation of views towards the site, from people who may view it both across and from the loch. In this respect, the series of wirelines from Viewpoint 7 at Figure 22, show the reduction in number, extent and scale of the proposed turbines from these water-based recreational receptors to the north who A&BC requested were considered.

4.29 Sustrans cycle route 78 follows a route in proximity to the site and is represented by Viewpoints 1, 5, 13 and 19. The potential for effects on recreational routes such as this was not raised in the scoping responses. However, Sustrans 78 is located for some of its route, within the Craggy Upland with Settled Glens LCT and whereby the design evolution which sought to reduce effects across those landscapes to the north and west would also bring about reduction in potential effects on this route.

Landscape Designations

4.30 As seen at Figure 19, although the site is not located within any designation recognised for its landscape or scenic qualities, within their scoping responses consultees highlight the visibility of the Proposed Development from a number of national, regional and local designations which cover parts of the landscape to the south west / west, north and north east.

4.31 In undertaking further assessment work following the submission of the scoping scheme a key design decision was made which was to constrain the maximum turbine height to less than 150 m to blade tip. This change to the scheme would offer benefits from the more sensitive, designated landscapes which are further from the site where aviation lighting would introduce sources of light to areas where none are currently seen, in particular from the elevated landscapes to the north. The receipt of the consultation response of NatureScot in relation to the potential effects of aviation lighting reinforced this design decision. Furthermore, the reduced scale enabled further reduction of potential effects upon local landscape character and for other identified landscape and visual receptors.

4.32 Viewpoints 12, 14, 15, 16 and 17 are located within designated landscapes. The wireline sequences at Figures 27, 28 and 29 show the improvement in the appearance of the scheme from Viewpoints 12 (North West Argyll Coast LLA), 16 (Lynn of Lorn NSA) and 17 (Ben Nevis and Glen Coe NSA).

Cumulative Effects

4.33 Whilst it is accepted that there is already a presence of existing wind development at Beinn Ghlas and within the wider landscape, consultee responses made reference to consideration of cumulative effects. NatureScot raised this in relation to potential cumulative effects upon WLAs and Mountaineering Scotland referred to the Musdale Wind Farm which is at scoping stage.

4.34 The closest operational wind farm to Beinn Ghlas is Carraig Gheal which comprises 20 turbines, 9 of 109.8 m height and 11 of 124.8 m height to blade tip and is located approximately 3.5 km to the south. Due to its proximity to the site, the greatest likelihood for cumulative effects was considered to be where proposed turbines at Beinn Ghlas are seen concurrently or sequentially with turbines at Carraig Gheal. Although there are other proposed developments, either in planning or at scoping stage (such as Musdale), an additional benefit to reducing the height of the proposed turbines is that these would appear closer in scale to those at Carraig Gheal.

4.35 Although it is not necessary for schemes at scoping stage to be considered within the LVIA, it is acknowledged that there are two schemes in proximity to Beinn Ghlas Wind Farm which are at scoping stage, i.e. Musdale and Barachander Wind Farms. As a result, these are described within a separate appendix to the LVIA.

Landscape and Visual Illustrations

4.36 The following wirelines at Figures 20 - 26 illustrate the benefit of key landscape and visual design considerations which have been made throughout the design process and evolution of the project. The wirelines below show the Layouts A to F, which consisted of the following:

- Layout A – 20 turbine initial layout, each with a maximum height to blade tip of 180 m;
- Layout B – 18 turbine Scoping layout, each with a maximum height to blade tip of 180 m;
- Layout C – 14 turbine layout, each with a maximum height of 149.5 m to blade tip;
- Layout D – 12 turbine refined layout with a maximum height of 149.5 m for public consultation;
- Layout E – 11 turbine refined layout with a maximum height of 149.5 m; and
- Layout F - 7 turbine refined layout with a maximum height of 149.9m.

4.37 The wirelines below are a representation of 6 LVIA viewpoint locations that have formed part of the LVIA chapter, although it should be noted that Viewpoint 15 within the LVIA has been micro-sited slightly south due to no visibility from the original location which is demonstrated in the sequence of wirelines at Figure 24 below.

4.38 These locations are as follows:

- Viewpoint 1 – Minor road, Lonan
- Viewpoint 5 – Minor road near Barran an Fhraoich, east of Oban
- Viewpoint 7 - Ardchattan Priory
- Viewpoint 12 – A816 layby / parking near Knipoch
- Viewpoint 15 – Footpath Ardmaddy, Loch Etive (as proposed at scoping stage)
- Viewpoint 16 – Achnacroish Lismore

4.39 The wirelines illustrate the existing Beinn Ghlas Wind Farm. This has been assigned a colour not representative of their application status, as prescribed and applicable for the submission material in NatureScots 'Siting and Designing Wind Farms in the Landscape' (Version 3a), SNH, August 2017. The colours have been chosen to discern a clear distinction between the existing and proposed repowering turbines for the purposes of design evolution exercises.

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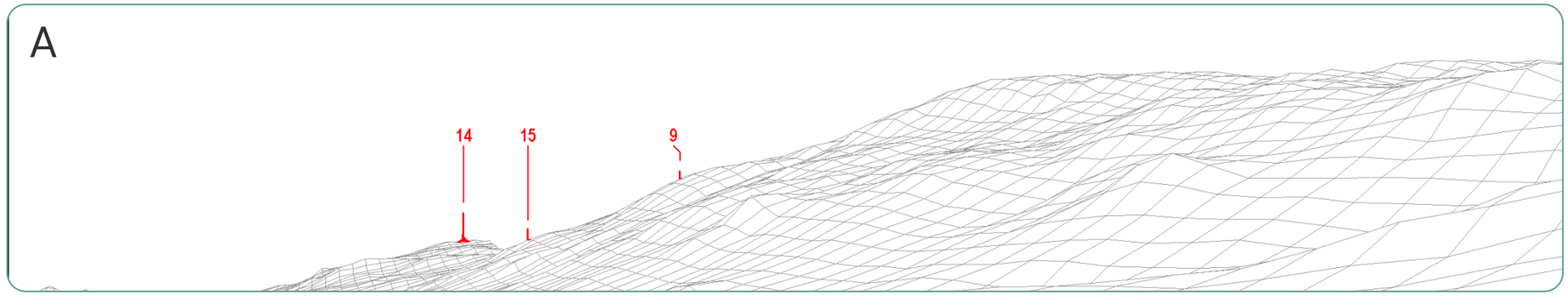
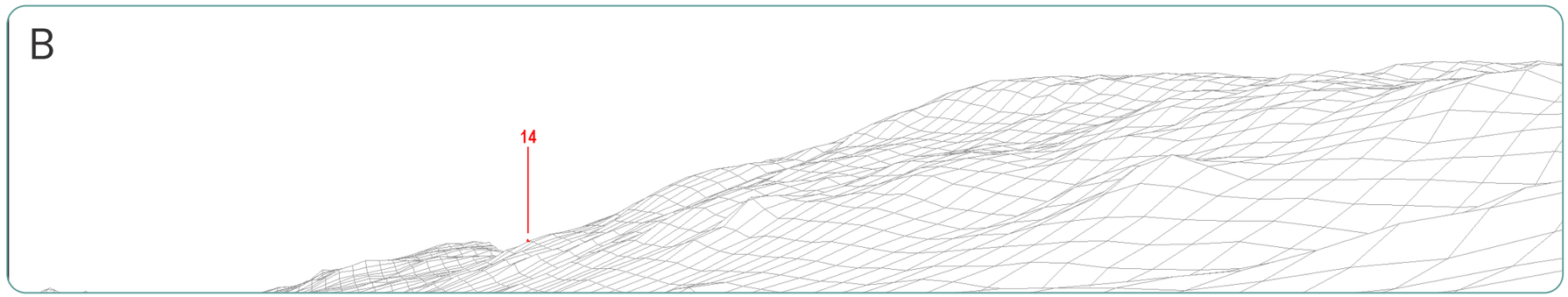
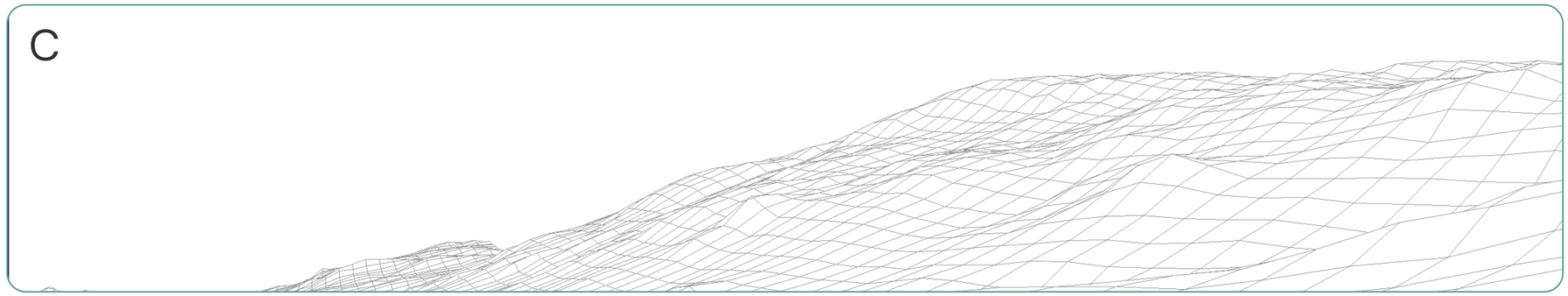
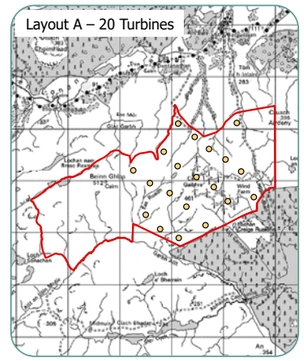
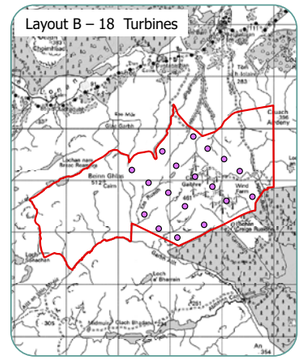
Figure 20: Layouts A to F – Viewpoint 1: Minor Road, Lonan

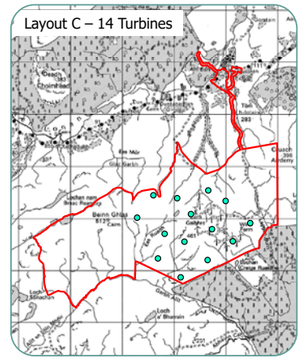






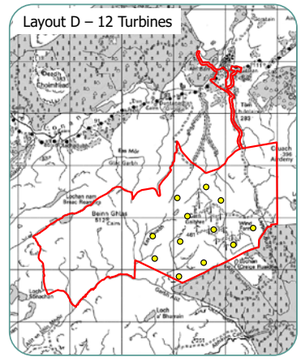






VP1 - Minor road, Ionan
Proposed Beinn Ghlas
Existing Beinn Ghlas

D



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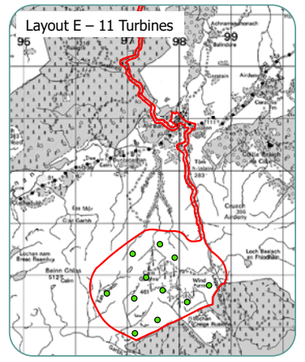
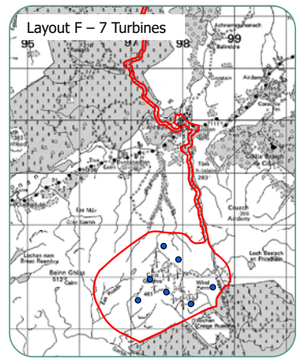
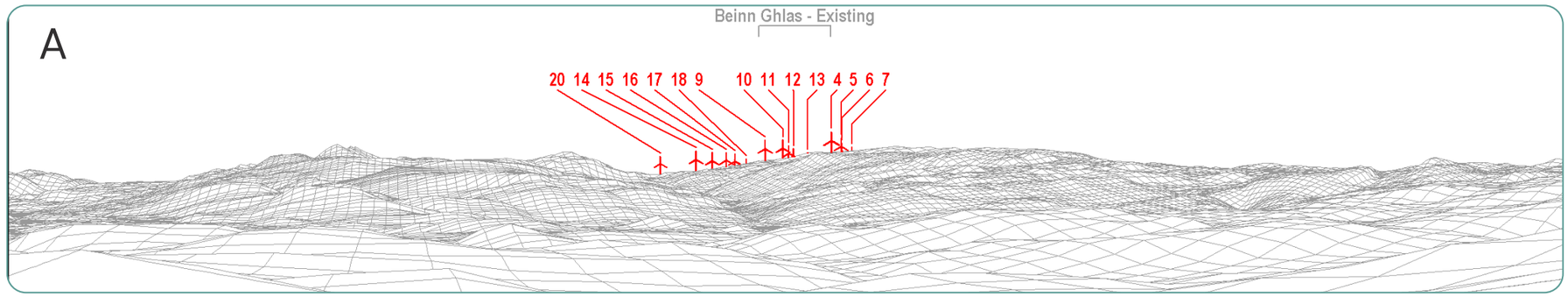


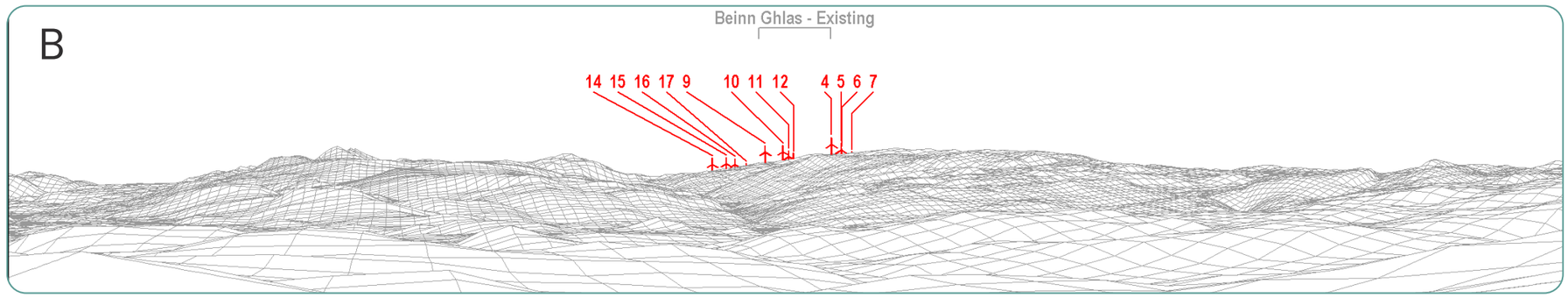
F

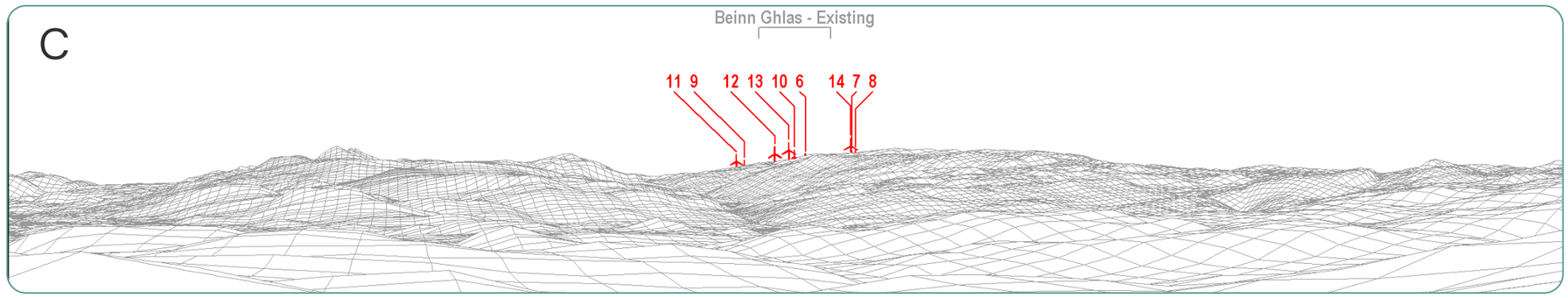


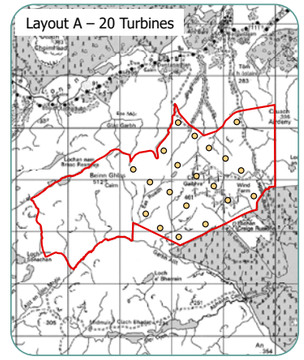
VP1 - Minor road, Ionan
Proposed Beinn Ghlas
Existing Beinn Ghlas

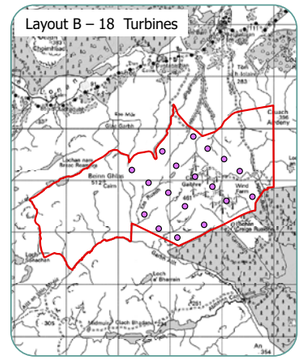
Figure 21: Layouts A to F – Viewpoint 5: Minor road near Barran an Fhraoich, east of Oban

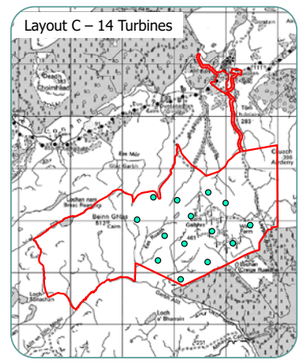




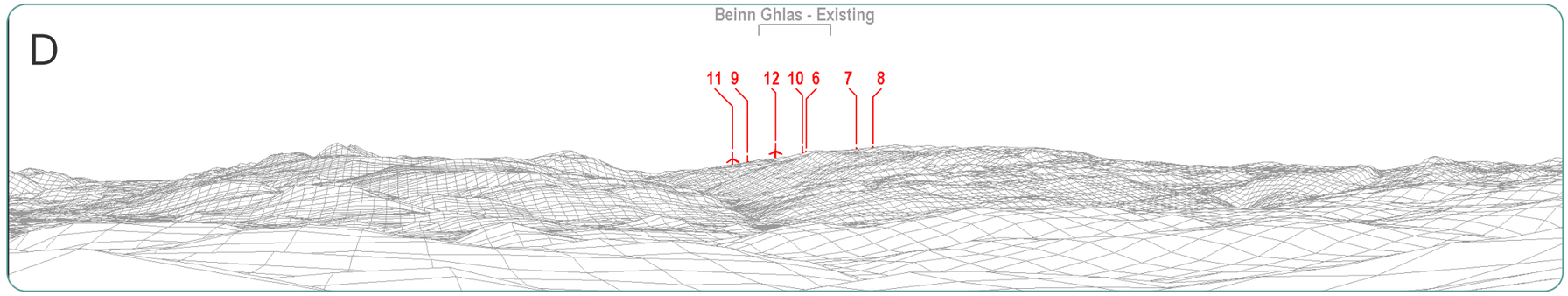


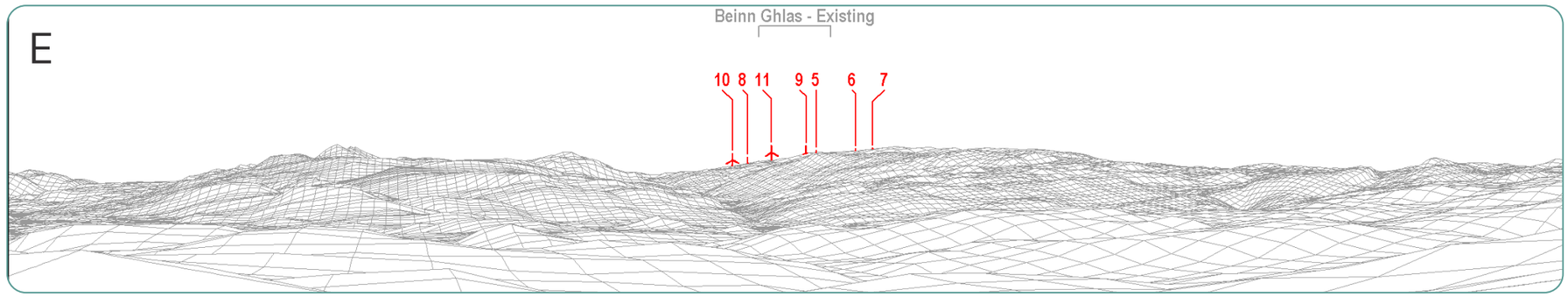


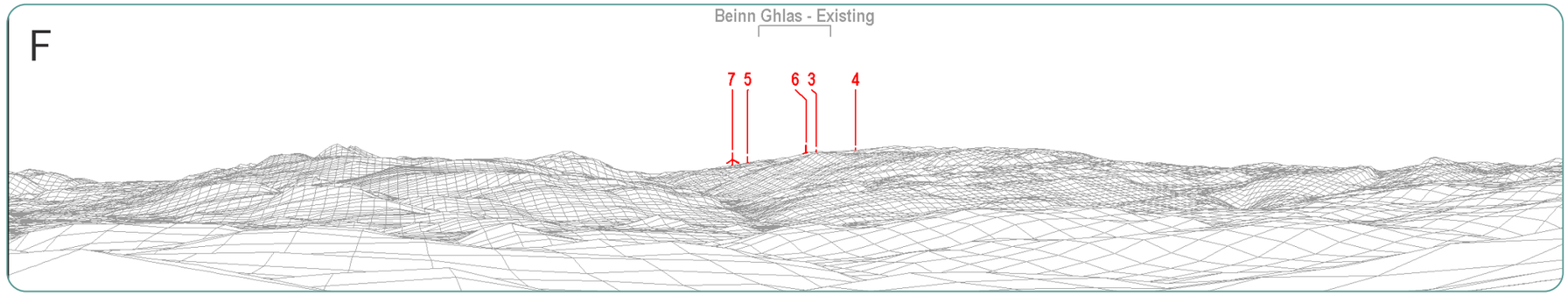


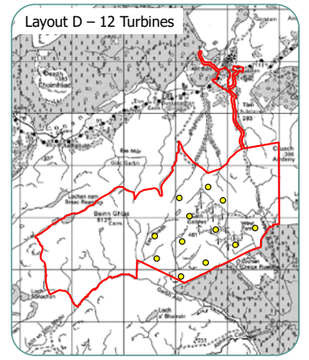


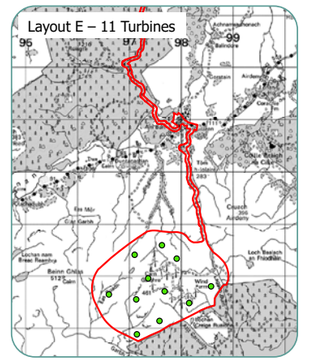
VP5 - Minor road near Barrab an Fhraoich, east of Oban
Proposed Beinn Ghlas
Existing Beinn Ghlas

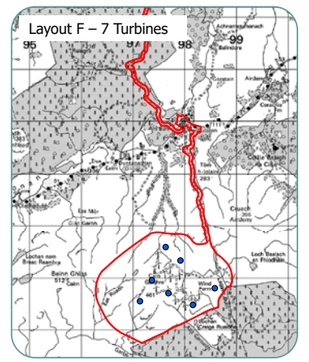






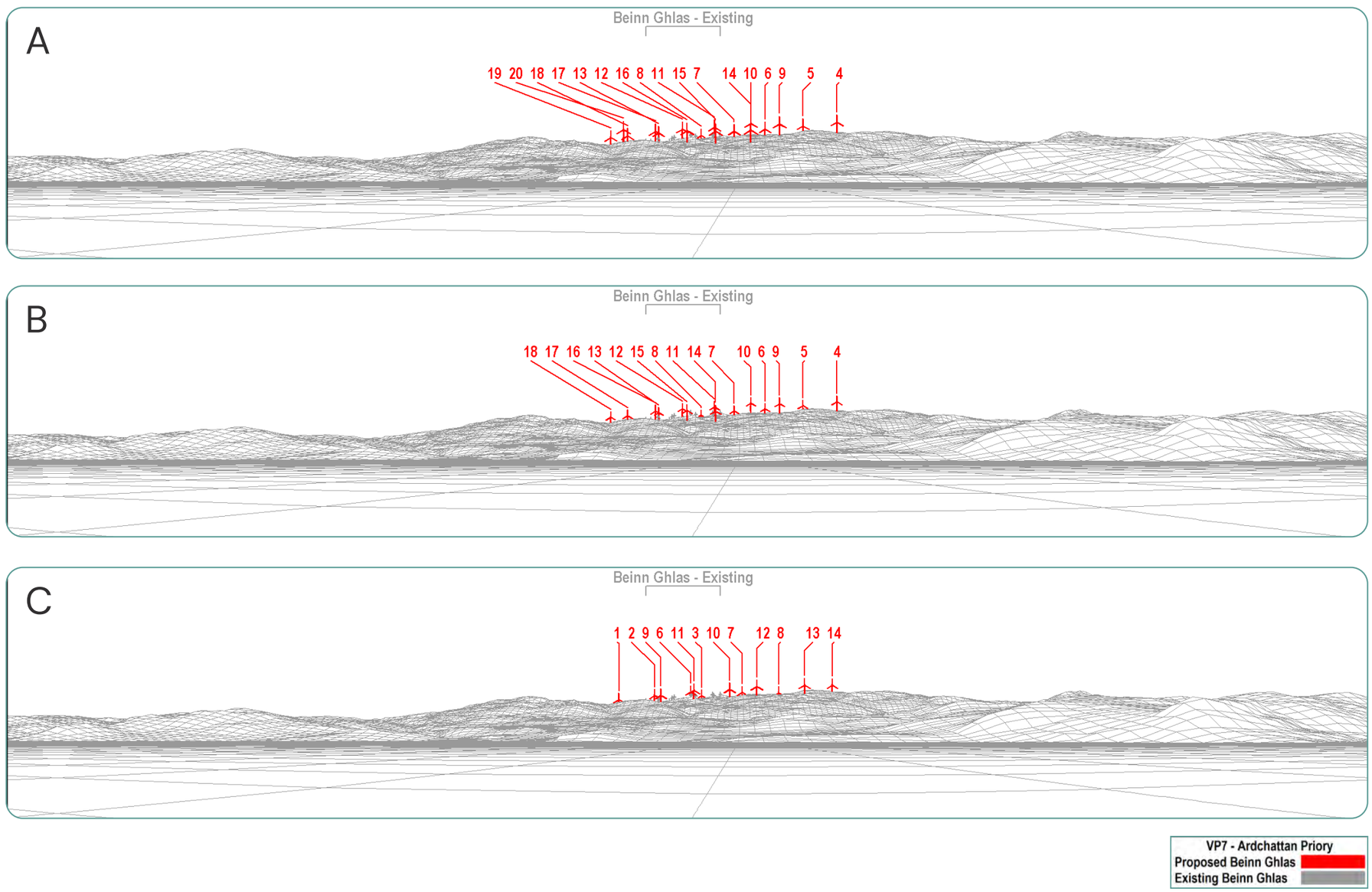


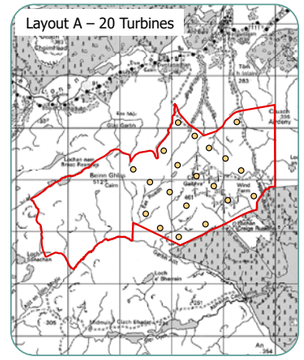


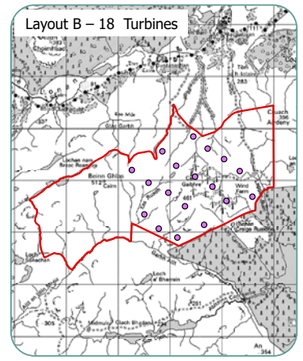


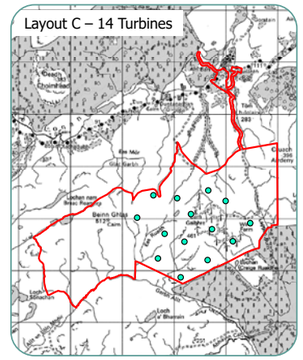
VP5 - Minor road near Barrab an Fhraoich, east of Oban
Proposed Beinn Ghlas
Existing Beinn Ghlas

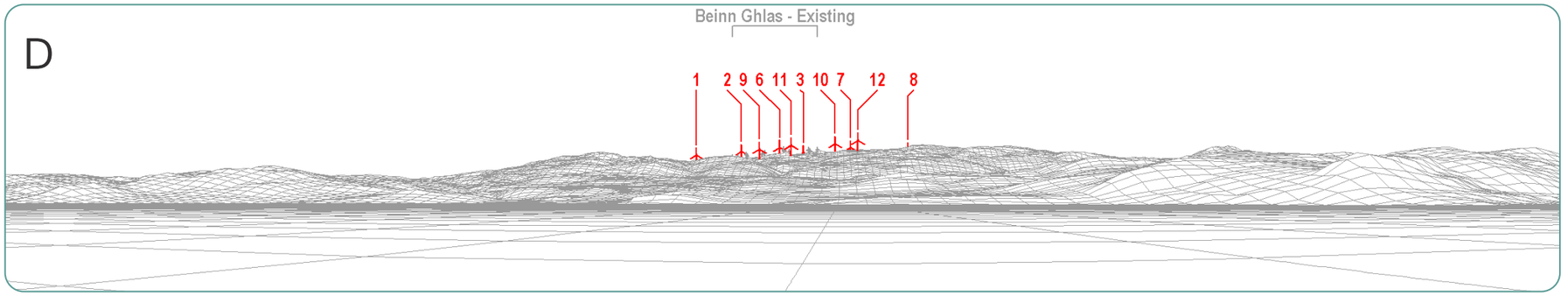
Figure 22: Layouts A to F – Viewpoint 7: Ardchattan Priory

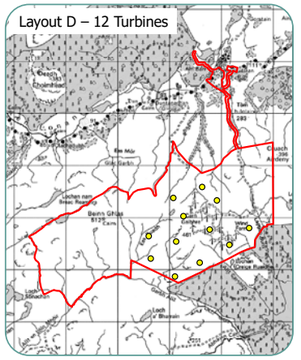


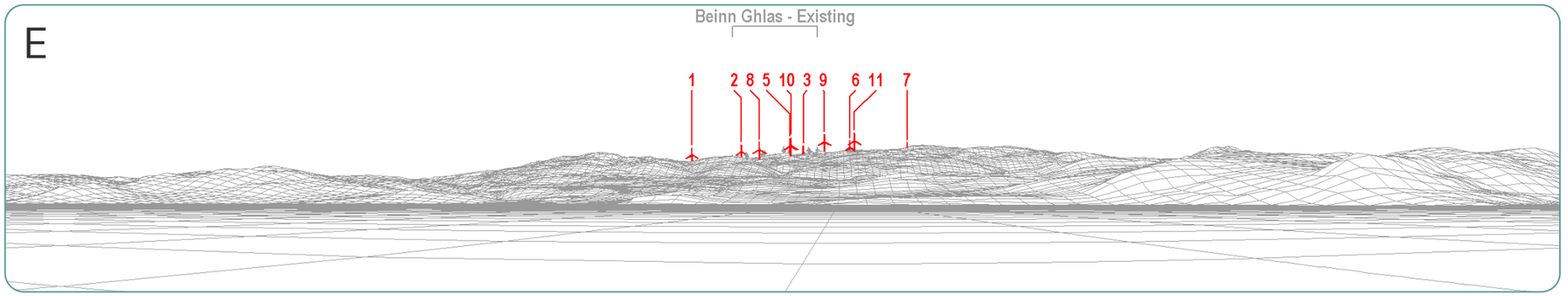


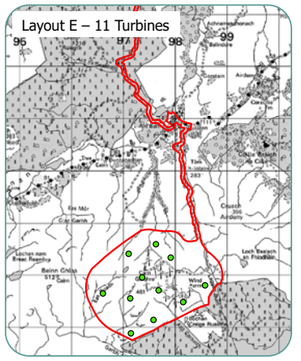


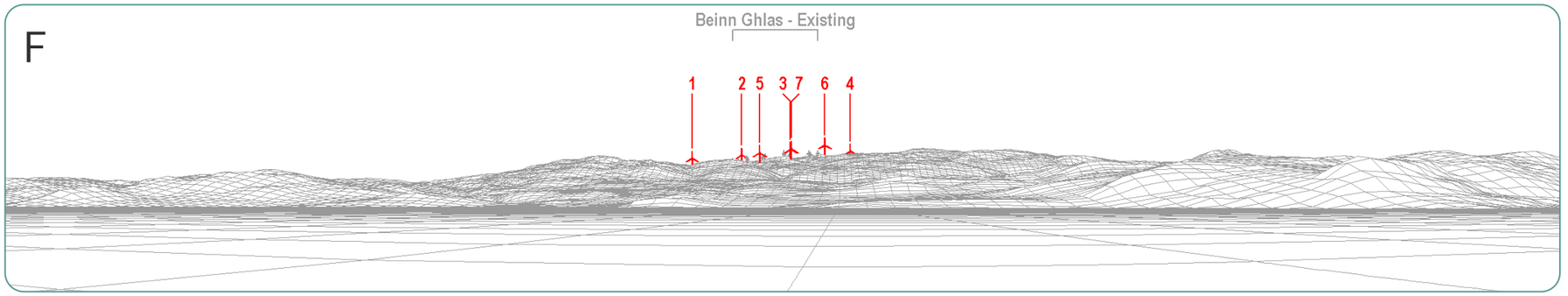


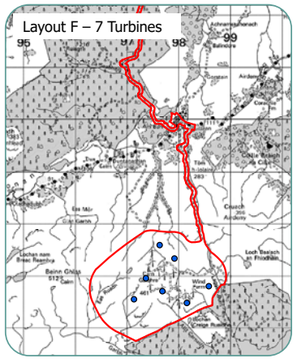






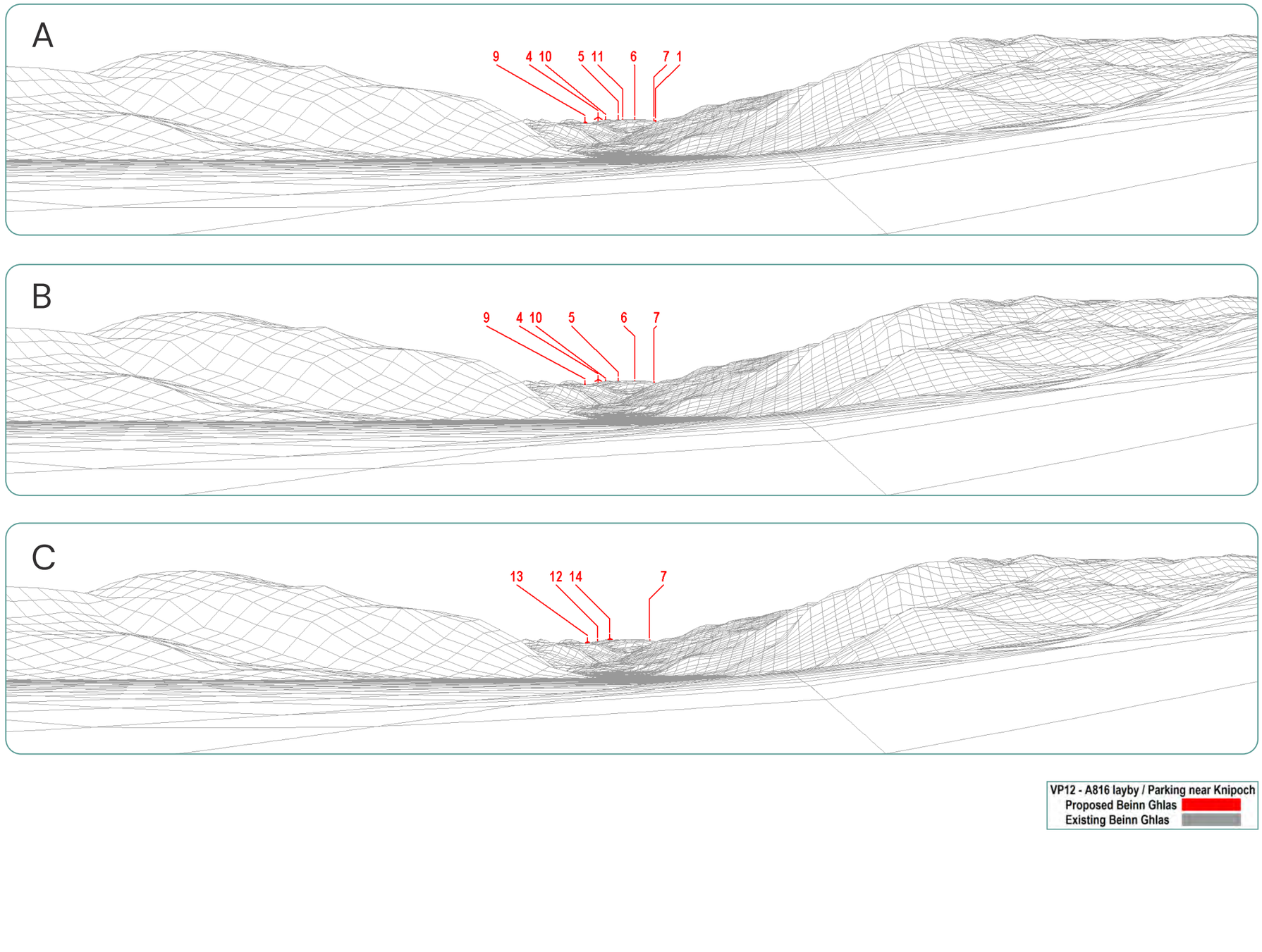


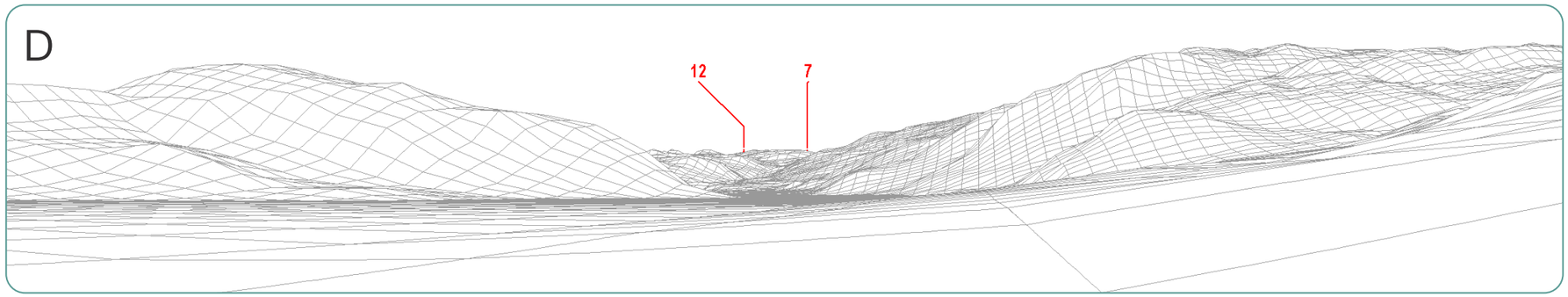


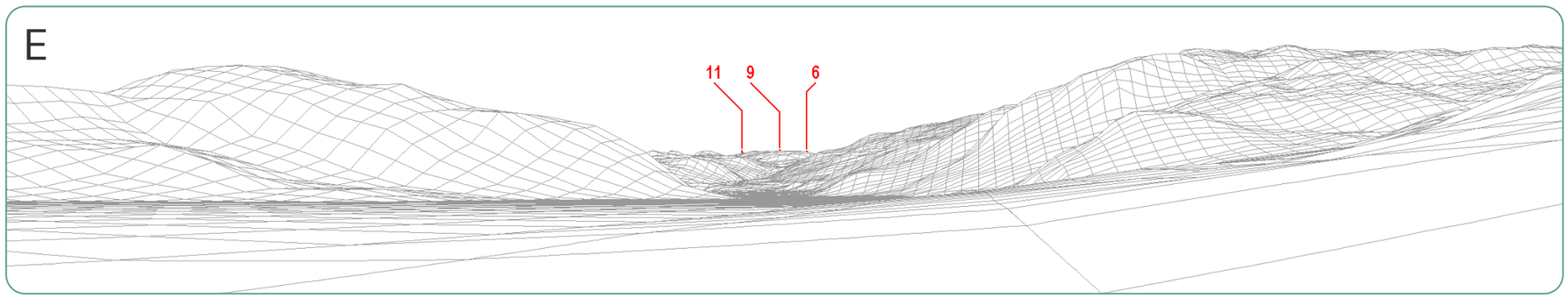


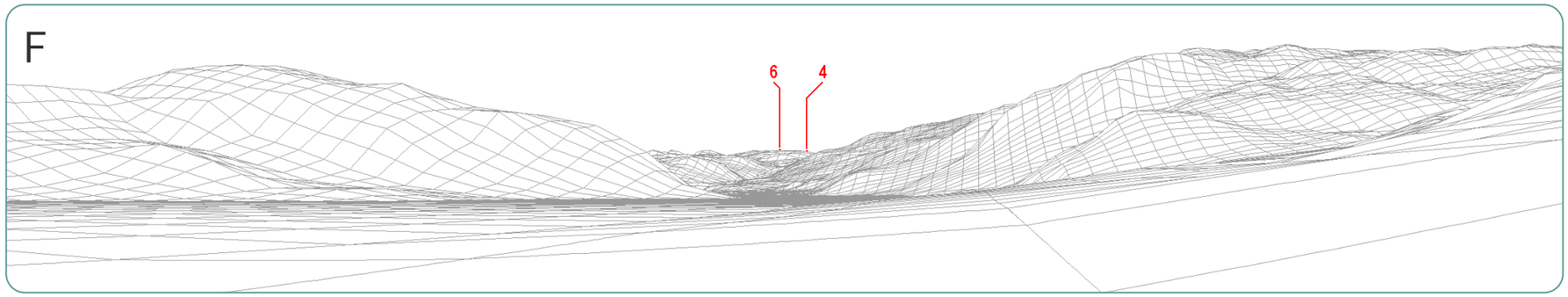
VP7 - Ardchattan Priory
Proposed Beinn Ghlas
Existing Beinn Ghlas

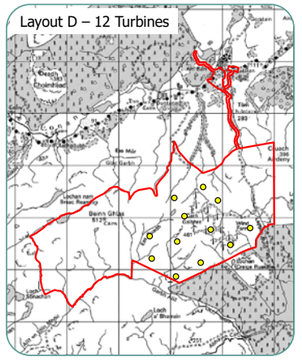
Figure 23: Layouts A to F - Viewpoint 12: A816 layby / parking near Knipoch

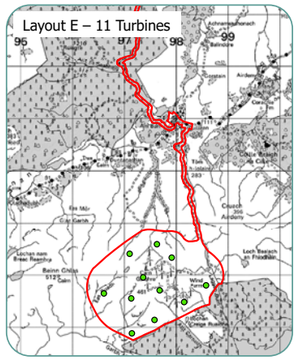


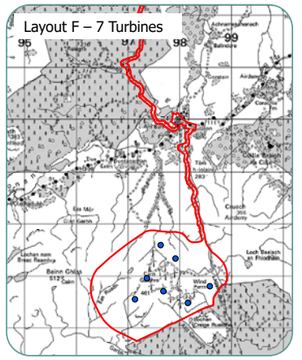






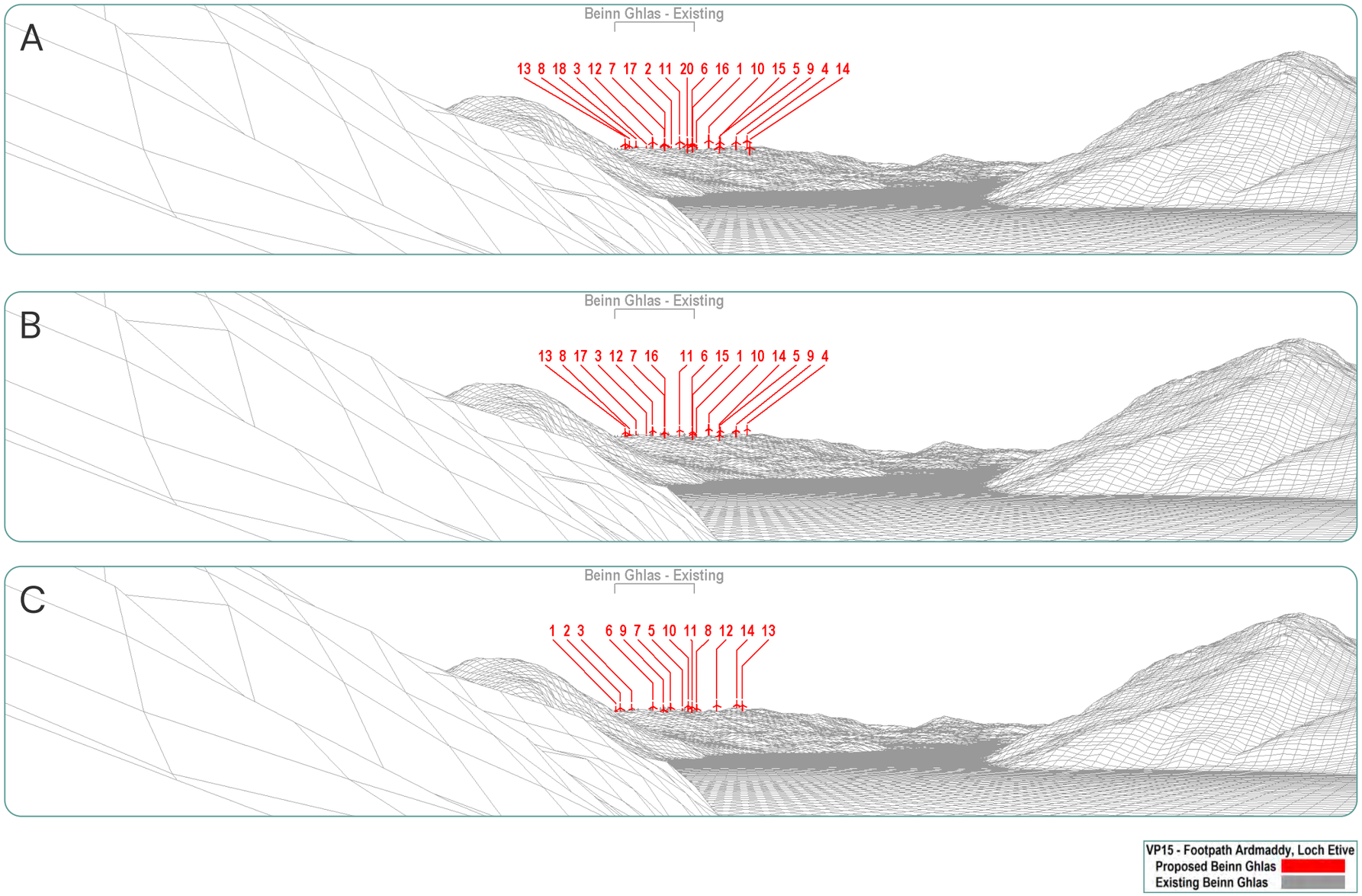


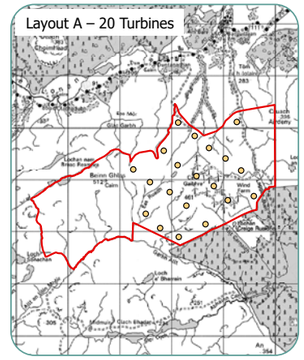


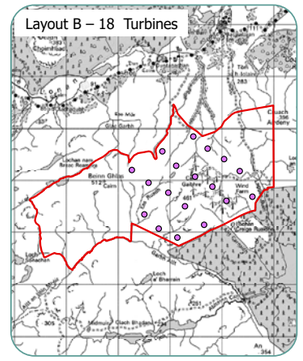


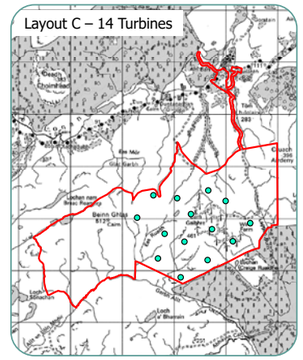
VP12 - A816 layby / Parking near Knipoch
Proposed Beinn Ghlas
Existing Beinn Ghlas

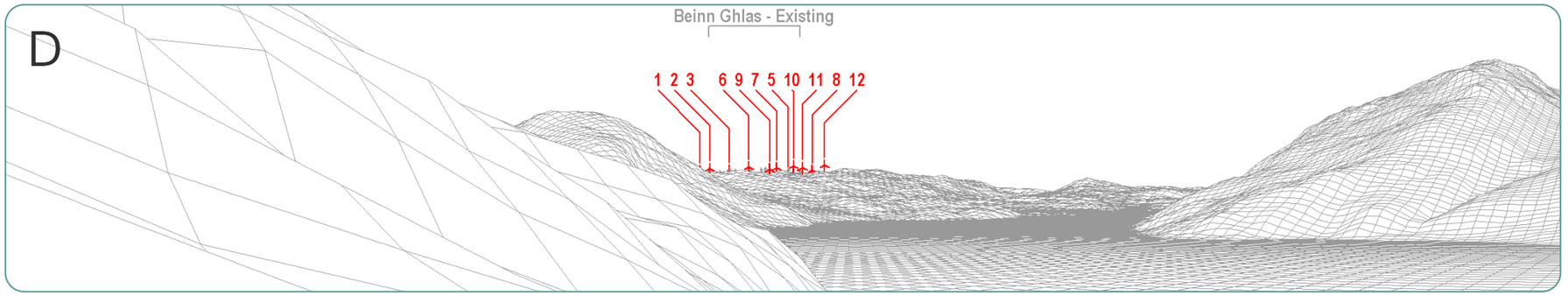
Figure 24: Layouts A to F – Viewpoint 15: Footpath Ardmaddy, Loch Etive

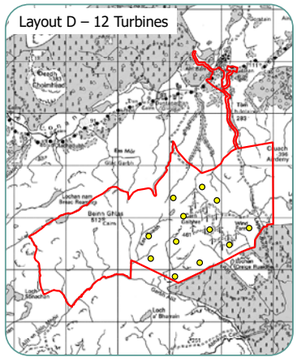


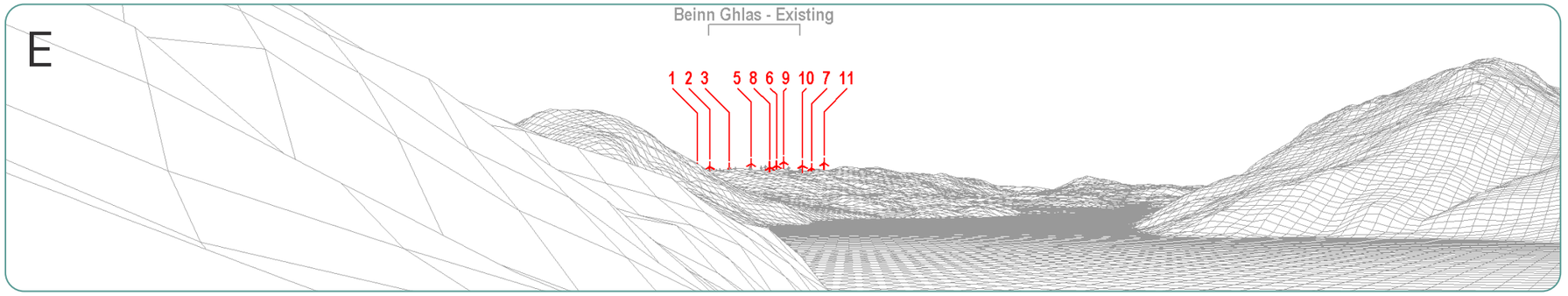


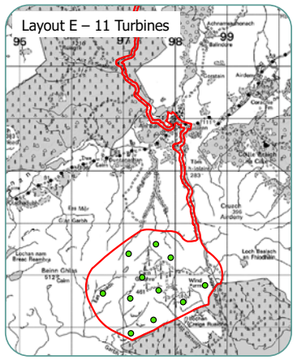


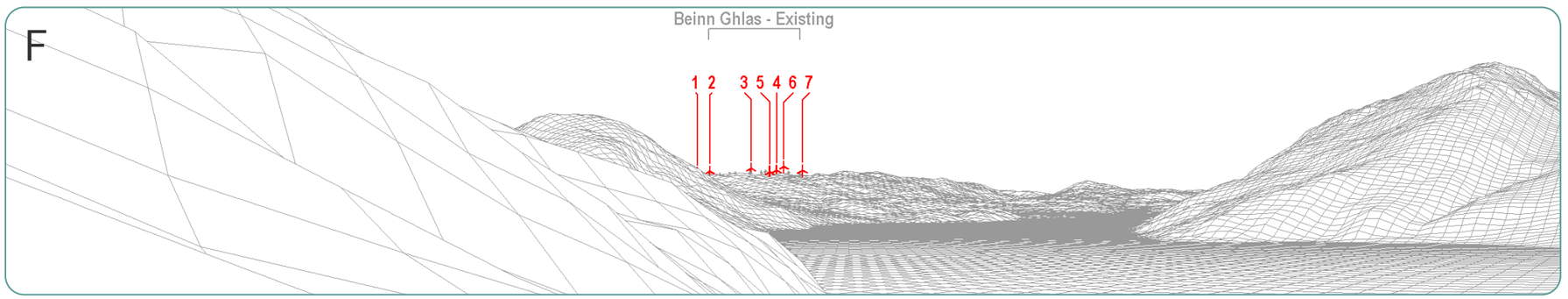


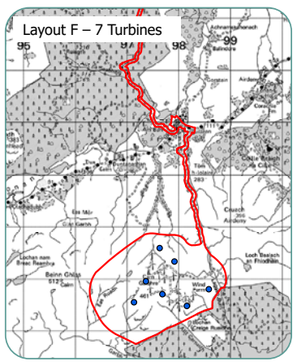






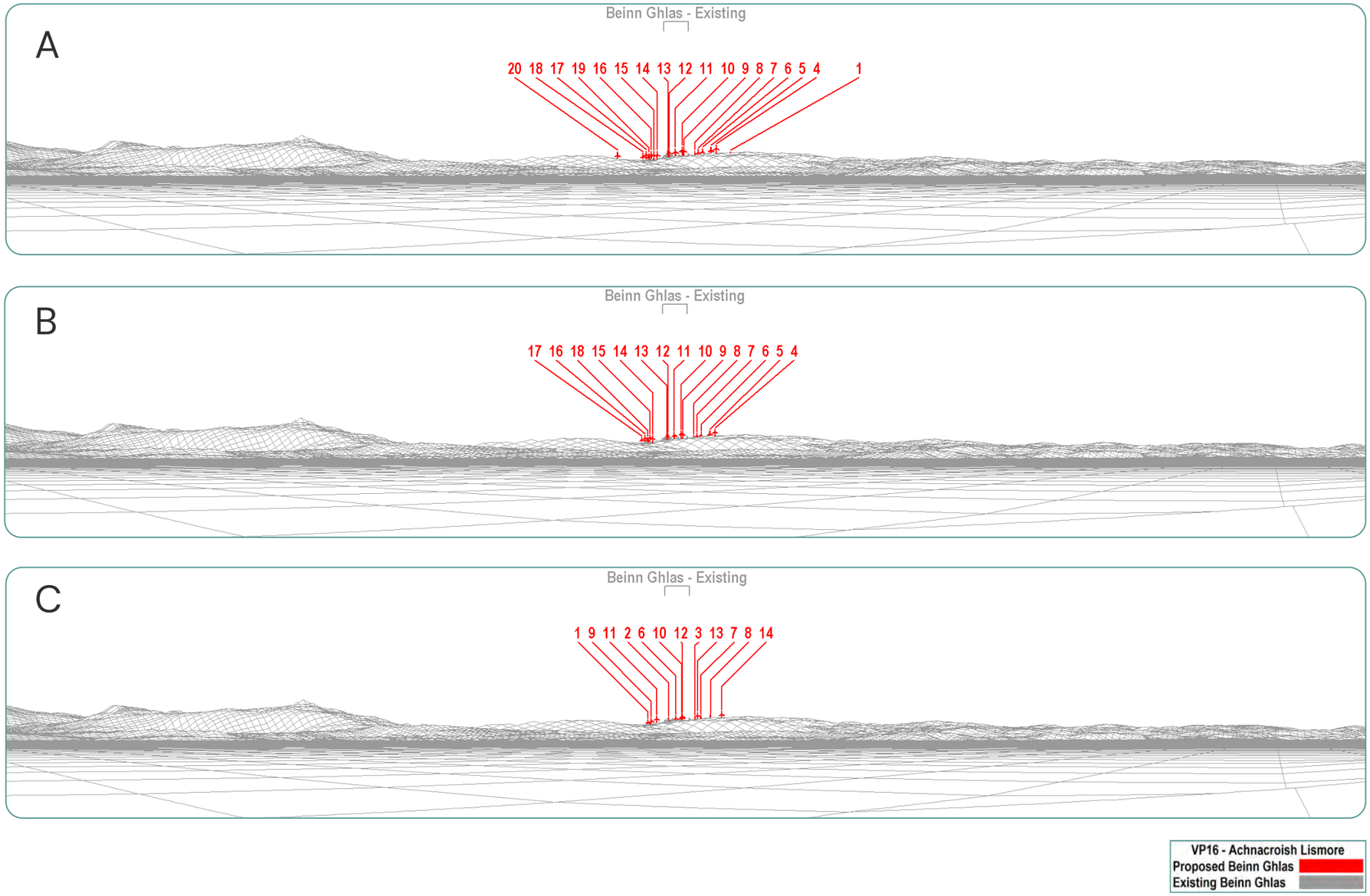


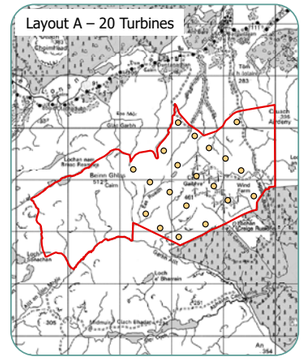


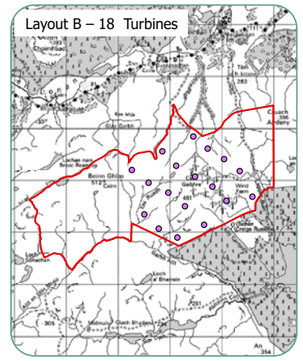


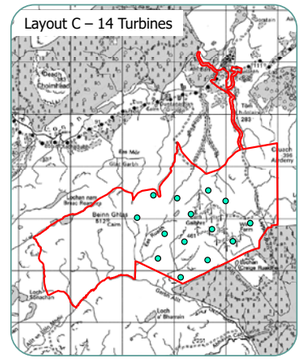
VP15 - Footpath Ardmaddy, Loch Etive
Proposed Beinn Ghlas
Existing Beinn Ghlas

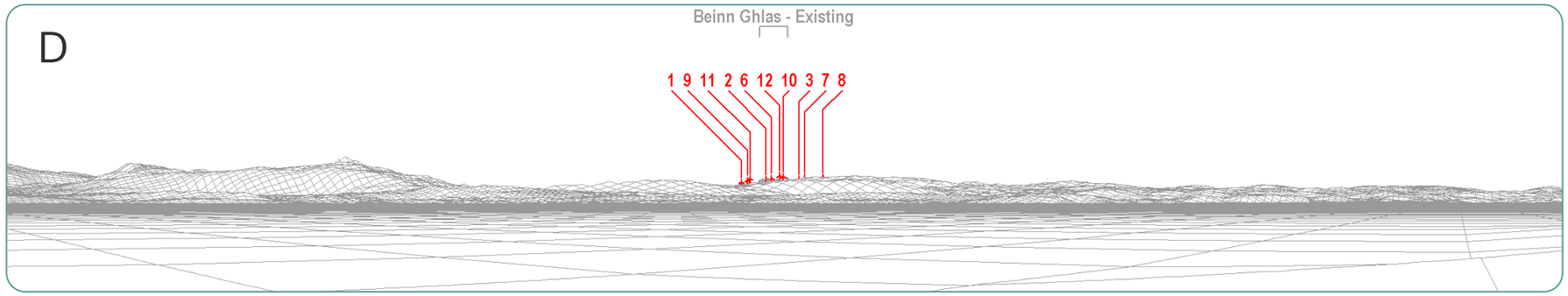
Figure 25: Layouts A to F – Viewpoint 16: Achnacroish Lismore

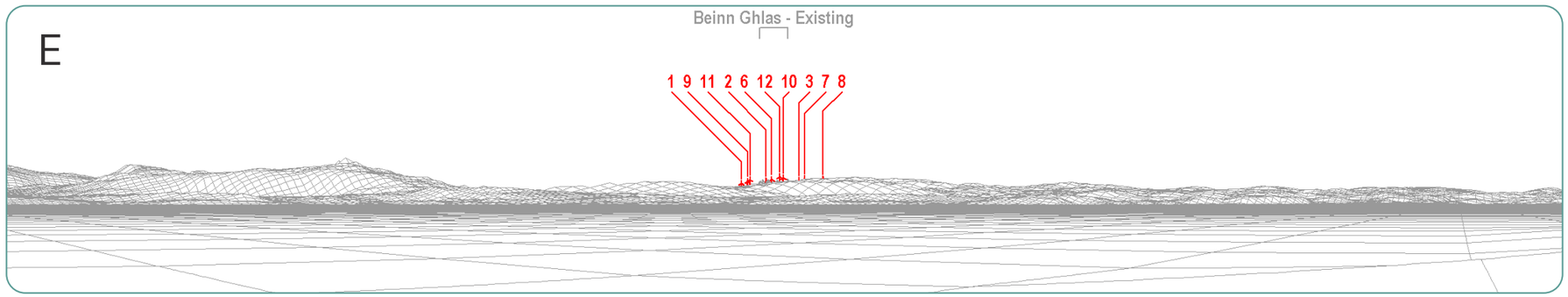


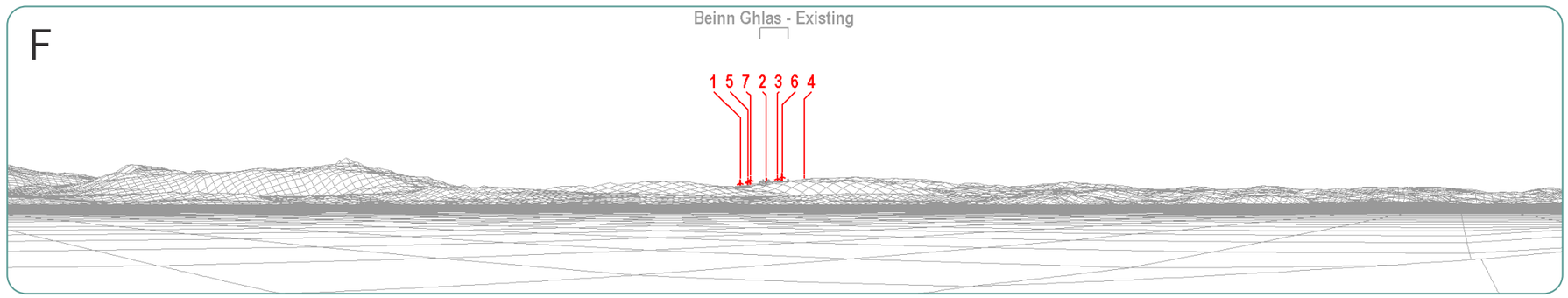


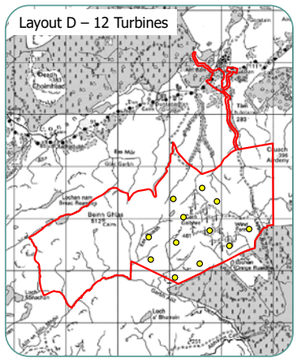


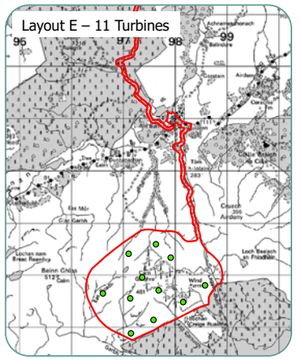


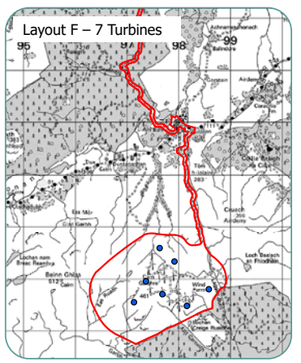






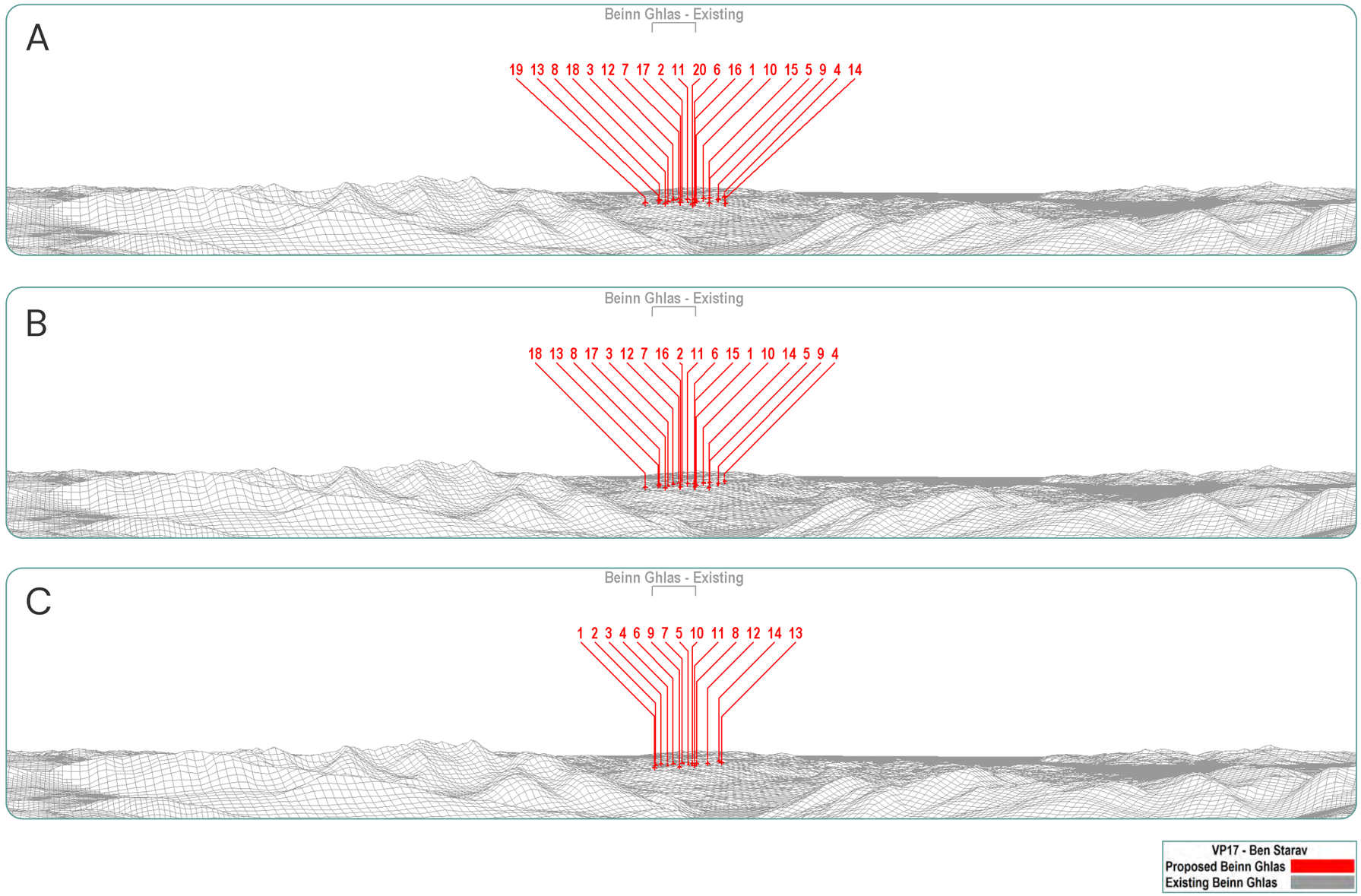


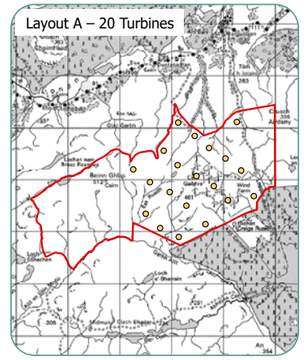


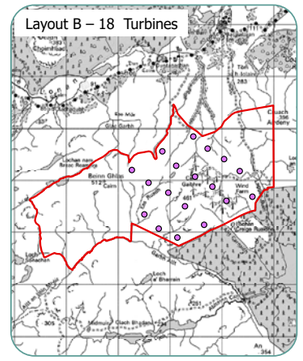


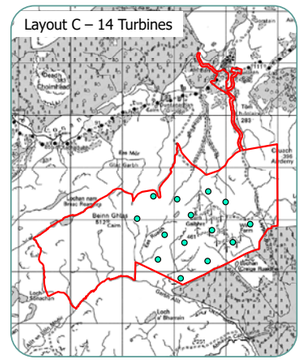
VP16 - Achnacroish Lismore
Proposed Beinn Ghlas
Existing Beinn Ghlas

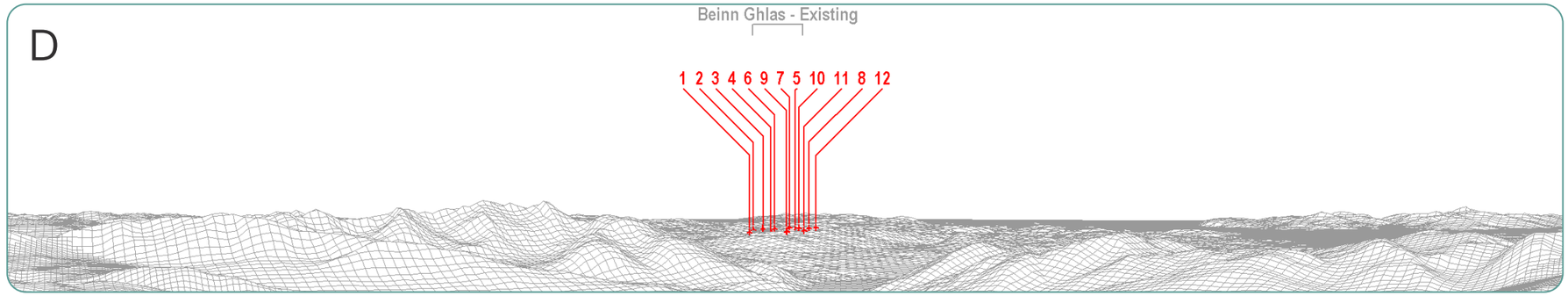
Figure 26: Layouts A to F – Viewpoint 17: Ben Starav

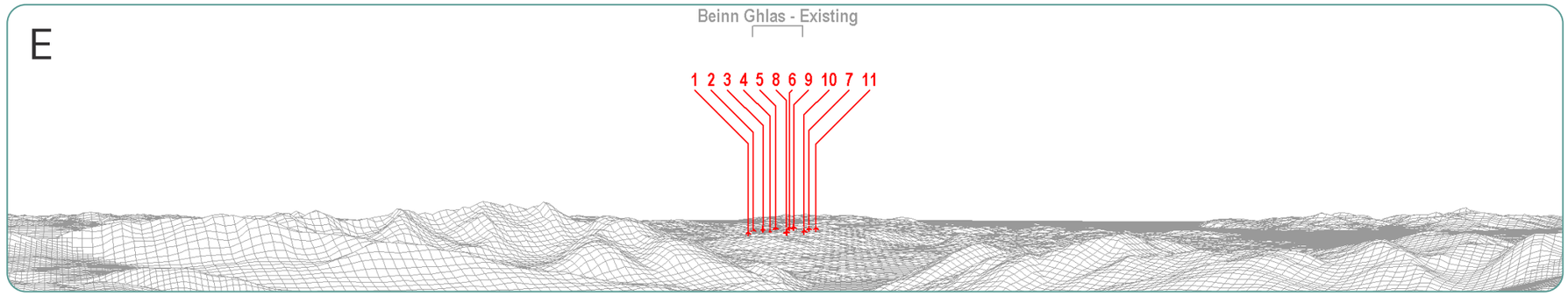


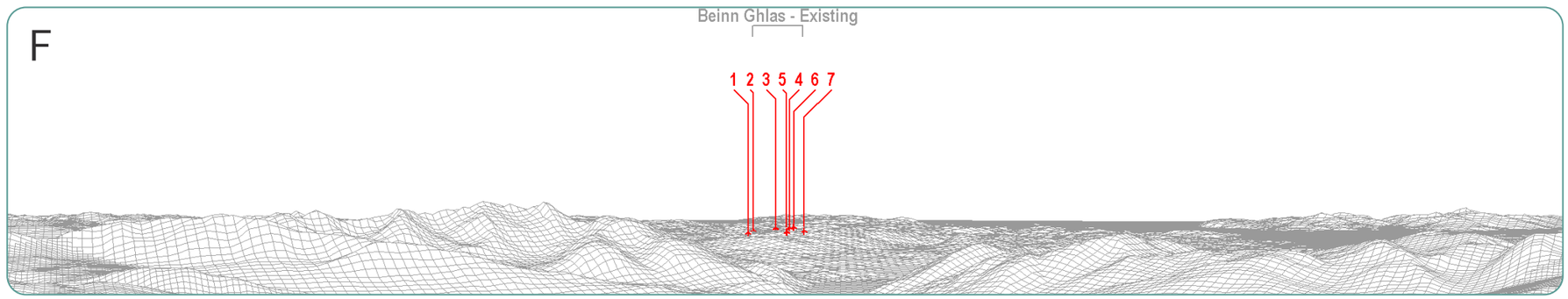


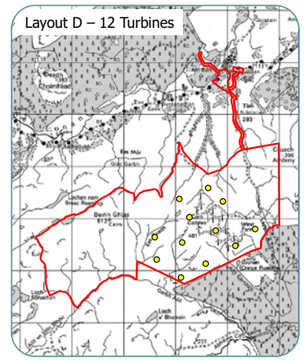


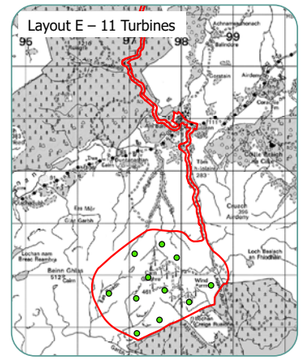


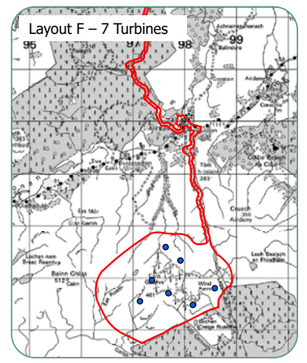












VP17 - Ben Starav
Proposed Beinn Ghlas
Existing Beinn Ghlas

5. ACCESS

This section of the Design and Access Statement sets out the options considered during the development of the proposals to ensure that the transport and construction of the Proposed Development causes the minimum disruption to the road network and road safety.

Image 8: Typical image of a turbine blade delivery

Site Access and Internal Access Tracks

5.1 Access to the Site would be taken along the existing and upgraded forestry track through Fearnoch Forest and then along Glen Lonan Road (C32) before connecting with the existing Beinn Ghlas Wind Farm site entrance. Access junction details on to and off Glen Lonan Road are illustrated in Figures 2.10b and 2.10c located in Volume 2 of the EIAR. The onsite track network would use the existing Wind Farm tracks where possible, with new sections of tracks required to access certain infrastructure locations. The total length of the Site Access and Internal Access Tracks would be approximately 12.83 km of which 2.71 km is new access track (1.6 km floating) with associated new watercourse crossings and 8.52 km is existing access track and watercourse crossings which would need to be upgraded. Indicative track details are shown on Figure 2.11 located in Volume 2 of the EIAR.

5.2 The following objectives were adopted during the track design:

- tracks make use of existing infrastructure and track/ disturbed ground where suitable;
- track length is kept to a minimum to reduce construction time, the requirement for stone, land-take, and to reduce associated environmental effects;
- gradients to be kept to acceptable levels to accommodate the requirements of delivery vehicles, including AIL, and to allow construction plant to move safely around the Site;
- tracks are routed to avoid sensitive hydrological, ecological and archaeological features as far as practicable and to keep watercourse crossings to a minimum;
- tracks are routed to minimise tree translocation and/or felling requirements;
- to facilitate safe access to each wind turbine, ground with potential instability and deeper areas of peat has been avoided;
- tracks are designed to minimise the required cut-and-fill quantities;
- horizontal and vertical alignments of tracks are designed in such a way as to comply with turbine supplier requirements, for example minimum turning radius and vertical curvature on both the tracks and hardstandings;
- to build health and safety aspects into track design from an early stage, including avoiding slopes which would be too steep for access and creating clear definitions between turbine working areas and access tracks;
- to minimise watercourse crossings; and
- to avoid disturbance to public access. surveys holding two or more males have been buffered by more than 1000 m;
- All golden eagle breeding sites recorded during baseline surveys have been buffered by more than 1000 m;
- All white-tailed eagle breeding sites recorded during baseline surveys have been buffered by more than 1000 m; and
- The final turbine layout has been designed to minimise potential effects on golden eagle by avoiding the creation of turbine strings and outliers, and by maintaining a turbine cluster (Prospective guidance from Natural Research to NatureScot (NatureScot, 2021)).

5.3 The running width of the tracks would be approximately 5 m although there may be some localised widening and a requirement for passing places and laydown areas. The track surface would have a cross fall for the runoff to drain into ditches on the downhill side of the track where necessary. Lateral and cross drains would also be installed, with erosion protection, where required. Chapter 8, Technical Appendix 8.7: Watercourse Crossing Inventory Infrastructure within 50 m of a Surface Water Feature sets out the drainage infrastructure required.

5.4 Turning heads of sufficient size to accommodate articulated vehicles would also be provided at several locations, as indicated on Figure 2.5a and Figure 2.5b located in Volume 2 of the EIAR.

5.5 In general terms, the construction method would see topsoil, including peat, being removed and stored adjacent to the construction area until required for reinstatement. Excavations would continue to expose a suitable horizon or bedrock on which to construct the track. The tracks would be constructed in layers, with a geo-textile membrane if required, overlain by a base of coarse stone, and subsequent layers of higher graded crushed stone. Each layer of stone would be compacted and shaped to provide a profile and surface finish of a quality suitable for the turbine construction vehicles. The estimated depth of stone would be 750 millimetres (mm), though the final thickness used would be dependent on local ground conditions and load capacity.

5.6 Tracks used by construction vehicles would be retained throughout the lifetime of the Proposed Development for use by maintenance vehicles.

Public Access

5.7 Following commissioning of the wind turbines, informal recreational site access will be maintained for visitors to the repowered wind farm. Access Design Process

5.8 Swept Path Analysis assessments have been undertaken to identify whether the delivery route can accommodate the swept path of the abnormal load delivery vehicles carrying components such as the turbine blades and nacelle. TThe design of the Proposed Development has taken into consideration the movement and subsequent access of vehicles involved with the construction and operation of the wind farm. As the wind farm layout developed, this considered potential access restrictions associated with the movement of vehicles required to transport large turbine components.

5.9 The internal access roads have been designed to use existing access tracks where possible while factoring in technical and environmental constraints. The layout for the site access roads has been designed to meet the anticipated engineering requirements in terms of gradient, drainage and vehicle turning heads. All site tracks have been located in areas identified during the EIA process as not being environmentally sensitive.

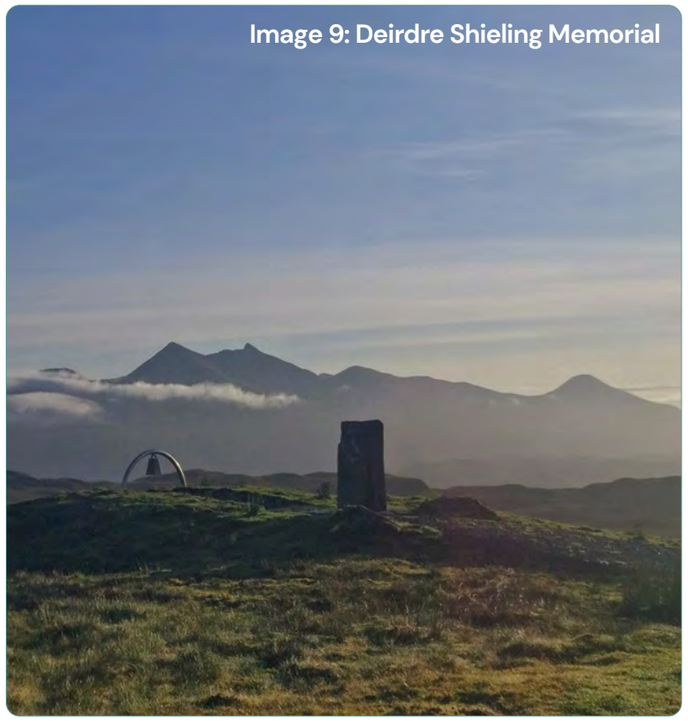


Image 9: Deirdre Shieling Memorial

6. OTHER CONSIDERATIONS

Image 10: View from within the site

Cultural Heritage

6.1 Known heritage assets within the application boundary are shown at Figure 27. Direct (physical) impacts upon known heritage assets within the site have been minimised through the design process. The proposed infrastructure layout has been designed to avoid all known heritage assets within the site identified through the Cultural Heritage Baseline and Stage 1 Setting Assessment (EIA Report Volume 4, Technical Appendix 10.1).

Ornithology

6.2 The following considerations relating to ornithological interests have been incorporated into the Proposed Development design as embedded mitigation:

- All waterbodies used by breeding red-throated diver during baseline surveys have been buffered by more than 1000 m;
- All black grouse lek sites recorded during baseline surveys holding two or more males have been buffered by more than 1000 m;
- All golden eagle breeding sites recorded during baseline surveys have been buffered by more than 1000 m;
- All white-tailed eagle breeding sites recorded during baseline surveys have been buffered by more than 1000 m; and
- The final turbine layout has been designed to minimise potential effects on golden eagle by avoiding the creation of turbine strings and outliers, and by maintaining a turbine cluster (Prospective guidance from Natural Research to NatureScot (NatureScot, 2021)).

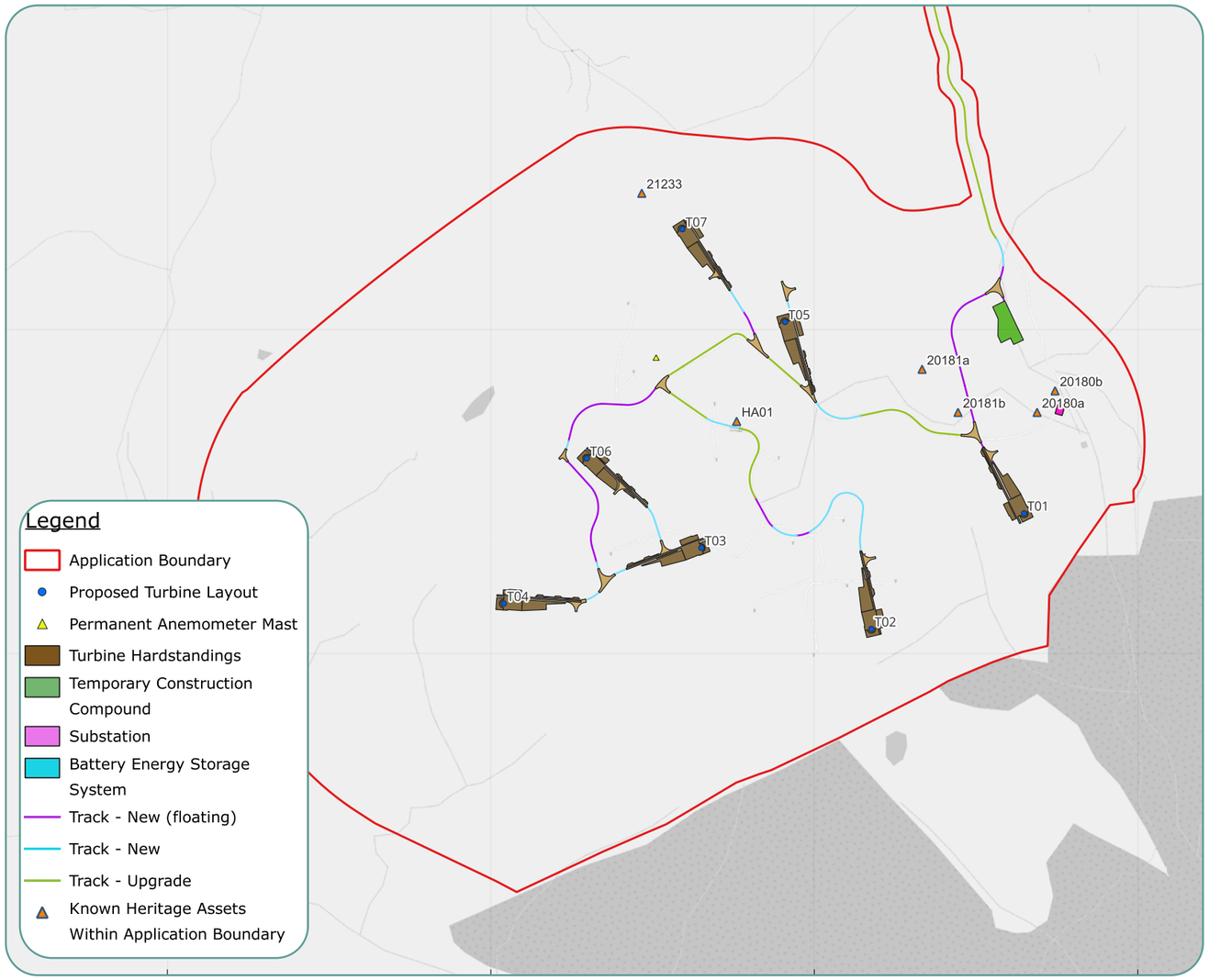


Figure 27: Known Heritage Assets within the Application Boundary

Ecology

6.3 The overriding consensus of policy and guidance that development plans should not just try to avoid causing likely significant effects but go much further. NPF4, Policy 3 states: "*Development proposals will contribute to the enhancement of biodiversity, including where relevant, restoring degraded habitats and building and strengthening nature networks and the connections between them. Proposals should also integrate nature-based solutions, where possible.*" Best practice EcIA guidance recommends seeking to provide net benefits for important biodiversity over and above design requirements for avoidance, minimisation or compensation (e.g. CIEEM, 2018).

6.4 In line with NPF4 and CIEEM, an iterative design approach has been taken and the Proposed Development was designed to avoid or minimise sensitive and legally protected ecological receptors, as far as possible within the parameters of the project. As such, mitigation has been embedded within the project design and so will be guaranteed to take place for the lifetime of the Proposed Development through planning conditions.

6.5 The ecological study areas are shown at Figure 28. The avoidance of potentially important ecological receptors has been achieved in several areas by the proposed design. For example:

- Careful consideration of sensitive habitats was undertaken throughout the design process. It was recommended in Technical Appendix 6.3 that all blanket bog habitat identified as being in or approaching Near-Natural conditions should be avoided and impacts should be minimised on all blanket bog and likely GWDTE habitats.
- All the blanket bog identified as being in or approaching Near-Natural conditions was avoided by design as far as possible.
- The design iteration included the removal of 4 turbines, resulting in a reduction of impacts on habitats including bog habitats.
- Several turbines were relocated to less sensitive positions based on ecological evidence. For example, T03 was moved from an area adjacent to Near-Natural blanket bog to an area of grassland and less sensitive bog habitat and T06 was likewise moved out of more sensitive blanket bog habitat. For further details see Technical Appendix 6.9 and Chapter 2 of the EIAR.
- Track and other infrastructure have been re-positioned to avoid more sensitive areas. For example, the track to T01 was rerouted to avoid a GWDTE and to avoid the more sensitive bog habitat.
- T01 was repositioned to avoid bog pools that would have been impacted by the crane pad. See Chapter 2 of EIAR for further details.
- As far as possible, the design layout uses the existing wind farm tracks and forestry tracks, thereby avoiding creating many wholly new and unnecessary tracks.
- Remnants of riparian woodland habitat within the Turbine Study Area have been avoided by design.
- Most highly GWDTE including flushes and springs have been avoided by design (see Chapter 8 of EIAR for further details).

Minimisation

6.6 Where avoidance was not possible, potential impacts have been minimised in the following ways:

- To minimise impacts on areas with deep peat and blanket bog habitat, floating tracks would be used wherever possible. See Chapter 2 for further details.
- Where possible, existing tracks have been identified for widening, rather than the unnecessary creation of lengthy new sections of tracks.

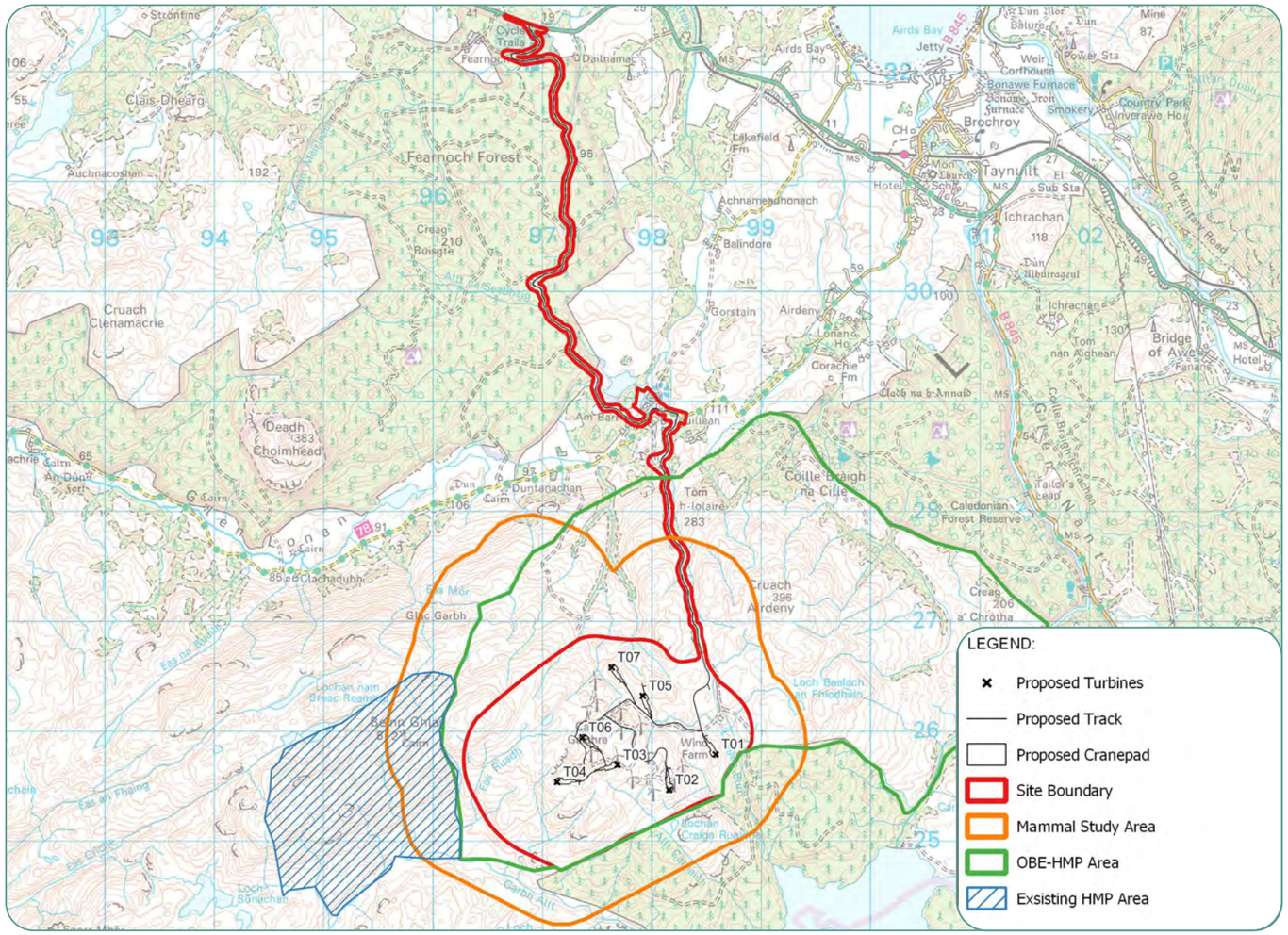


Figure 28: Ecological Study Areas

Traffic and Transport

6.7 During the construction period, the following traffic will require access to the site:

- Staff transport (cars or staff minibuses);
- Construction equipment and materials, deliveries of machinery and supplies such as concrete;
- Abnormal loads consisting of the wind turbine sections and also a heavy lift crane, transported to site in sectional loads; and
- Turbine blades are anticipated to be transport using a blade lifter.

6.8 A Construction Traffic Management Plan (CTMP) would be in place to actively mitigate the effects of the Proposed Development upon local traffic.

Internal Access Tracks

6.9 The following design considerations were made in relation to traffic and transport:

- Utilisation of the existing access infrastructure;
- Utilisation of the existing access tracks where possible,
- Utilisation of the existing access point off the A85 (although requiring upgrading), the existing access to the wind farm from Glen Lonan Road.

6.10 The proposed route from a port to the site is based on what is considered technically feasible.

Watercourse and Service Crossings

6.11 The site is within the River Nant and River Nell/Foechan Mhor catchments. The site access is within the Allt Nathais catchment. The watercourses and waterbodies are shown on Figures 8.6a to 8.6c of the EIA Report.

6.12 A total of 26 watercourse crossings are required for the Proposed Development. Of the 22 existing crossings to be re-used, extended or replaced, one is a single span crossing and 21 are culverted crossings, six are watercourse crossings shown on the 1:50,000 scale OS Mapping and five are of watercourses shown on the 1:25,000 scale OS mapping (minor crossings).

6.13 The number of watercourse crossing have been limited where possible, and where required will be designed to improve on existing crossings to improve habitats and fish migration, where possible. The replacement of existing culverted crossings with bottomless arches or box crossing could be beneficial to improve migratory fish passage and otter passage particularly along the section of existing access tracks where fish are more likely to be present.

Abnormal Load Route

6.14 The routes for turbine components, which will arrive at Corpach Harbour is illustrated by Figure 29, and described below:

- Loads turn right onto the A830 and proceed eastbound;
- At the roundabout junction with the A82(T) North Road, loads turn right and head south into and through Fort William;
- Loads turn right at the roundabout junction of Glen Nevis Road / A82(T) Belford Road and continue into Fort William;
- Loads continue along the A82(T) through Glencoe, Bridge of Orchy until junction with A85 in Tyndrum; and
- Loads follow the A85(T) westbound until Dailnamac then turn left onto the Fearnoch Forestry track and continue southbound to the site.

6.15 An Abnormal Load Transport Management Plan would be prepared to cater for all movements to and from the Proposed Development site. This would include:

- Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates and agreeing communication protocols and lay over areas to allow overtaking;
- A diary of proposed delivery movements to liaise with the communities to avoid key dates such as popular local events etc; and
- A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic.

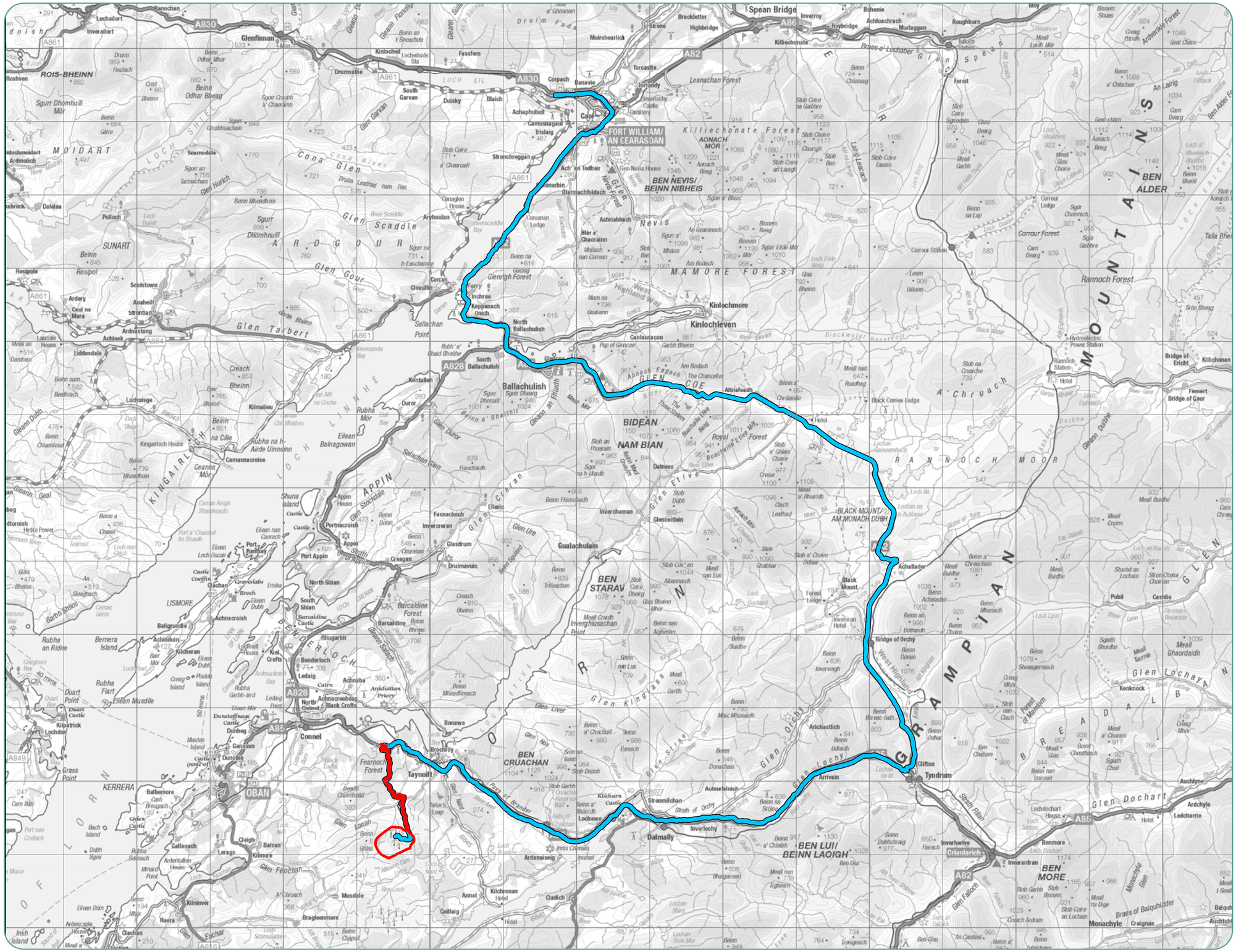


Figure 29: Abnormal Load Route

6. CONCLUSION

Conclusion

This Design and Access Statement explains the approach to design of the Proposed Development and illustrates how environmental effects have been avoided or reduced as far as reasonably possible. A detailed explanation of environmental effects resulting from the Proposed Development is set out in the Environmental Impact Assessment (EIA) Report that accompanies this application and sets out the mitigation measures to avoid or reduce the effects.

The design of the Proposed Development is the result of a considered design process that has evolved over the course of six proposed layouts, from an initial pre-scoping layout comprising 20 turbines with a proposed blade tip height of up to 180 m, a scoping layout consisting of 18 turbines with a blade tip height of up to 180 m and a further four iterations which sought to further reduce the potential impacts arising from the scheme. The final proposed layout of up to 7 turbines of 149.9 m to blade tip has been designed to appropriately mitigate the effects of the scheme, responding to character and scale of the landscape, in addition to other environmental and technical constraints. The associated infrastructure has also been sited sympathetically so as to limit its influence on the surrounding landscape.

Image 11: LVIA VP8 Photomontage - View from B845, north of Loch Etive

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