

Lairg to Loch Buidhe Reinforcement

EIA Report: Volume 2:
Main Report
January 2019



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GLOSSARY OF ABBREVIATIONS AND DEFINITIONS

Abbreviation	Expanded Term / Definition
AA	Appropriate Assessment
AT	Angle Tower
Backclothing	Where elements (such as a proposed development) are seen below the skyline/horizon, and against a backdrop, thereby making them less prominence (potentially).
BAP	Biodiversity Action Plan
BBS	Breeding bird survey
BGS	British Geological Survey
BNG	British National Grid
CAR	Controlled Activities Regulations. The Water Environment (Controlled Activities) (Scotland) Regulations (CAR) 2011 (as amended).
CDM Regulations	The Construction (Design and Management) Regulations 2015
CEMP	Construction Environmental Management Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
CIfA	Chartered Institute for Archaeologists
CIRIA	Construction Industry Research and Information Association
Clearance cairn	An irregular and unstructured collection of field stones which have been removed from arable land or pasture, to allow for more effective agriculture, and collected into a usually low mound or cairn.
CRA	Collision Risk Assessment
Cumulative Effects	Effects arising from the additional or combination of developments. May be experienced in combination, concurrently or sequentially.
Designated Landscape	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
DTM	Digital Terrain Model
EclA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EIA Regulations	Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
EIA Report	Environmental Impact Assessment Report
EMF	Electro-magnetic field
ENVFOR	The Scottish Government's Environment and Forestry Department
EPS	European Protected Species
ESQCR	The Electricity Safety, Quality and Continuity Regulations 2002
FCS	Forestry Commission Scotland

Abbreviation	Expanded Term / Definition
FISA	Forest Industry Safety Accord Safety Guide 804 - Electricity at Work: Forestry (FISA 804).
FTE	Full Time Equivalent
GEMP	General Environmental Management Plan
GIS	Geographical Information System
GLVIA	Guidelines for Landscape and Visual Impact Assessment, Third Edition, published jointly by the Landscape Institute and Institute of Environmental Management and Assessment.
GAV	Gross Added Value
GSP	Grid Supply Point
GWDTE	Groundwater Dependent Terrestrial Ecosystem.
Ha	Hectare
HER	Historic Environment Record
Heritage Asset	Those parts of the historic environment that have significance and are worthy of consideration in planning matters are referred to as heritage assets. Heritage assets include standing, buried or submerged remains, buildings, parks and gardens and areas, sites and landscapes including designated sites and those identified by the local planning authority. World Heritage Sites, Scheduled Monuments, Listed Buildings, protected wreck sites, Inventory Gardens and Designed Landscapes, Inventory Battlefields and Conservation Areas are all heritage assets.
HES	Historic Environment Scotland
HESPS	Historic Environment Scotland Policy Statement (2016)
HGV	Heavy Goods Vehicle
HRA	Habitat Regulations Appraisal
Hz	Hertz. Standard unit of measurement used for measuring frequency. Sound frequency refers to how quickly the air vibrates, or how close the sound waves are to each other (in cycles per second, or Hertz (Hz)).
IBA	Important Bird Area
IEMA	Institute of Environmental Management and Assessment
JNCC	Joint Nature Conservation Committee
km	Kilometre
kV	Kilovolt
Landcover	Feature and vegetation that covers the land surface.
Landscape	Human perception of the land conditioned by knowledge and identity with a place.
Landscape Character Type	A landscape type will have broadly similar patterns of geology, landform, soils, vegetation land use, settlement and field pattern discernible in maps and field survey records.
LI	Landscape Institute

Abbreviation	Expanded Term / Definition
Landscape Sensitivity (to a specific type of change)	The extent to which a landscape can accept change of a particular type and scale.
LCT	Landscape Character Type
LDP	Local Development Plan
LNR	Local Nature Reserve
LODs	Limits of Deviation
LUPS	Land Use Planning System
LVIA	Landscape Visual Impact Assessment
m	Metre
Magnitude (of change)	A term that combines judgements about the size and scale of the effect, the extent of the area over which occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Magnitude of landscape Impact	A measure of the amount of change to the landscape that would occur as a result of proposed development, generally based on the scale or degree of change to the landscape resource, the nature of the effect and its duration. This is based on a combination of largely quantifiable parameters, such as the distance to the proposed development, visible extent, degree of contrast with context, extent to which the development would be visible, and the duration of an impact.
Magnitude of visual change	A measure of the amount of change to the visual context that would occur as a result of a proposed development. This is generally based on the scale of change to the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view that would be occupied by the proposed development; the degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale, mass, line, height, colour and texture; duration and nature of the change, whether temporary or permanent, transient or persistent, etc.; the angle of view in relation to the main activity of the receptor(s); distance of the viewpoint from the proposed development, and the extent of the area over which the changes would be visible.
Methodology	The specific approach and techniques used for a given study.
Mitigation Measures	Measures including any process, activity or design process to avoid, reduce, remedy or compensate for adverse impacts of a development.
Mph	Miles per hour
MSS	Marine Scotland Science
NBN	National Biodiversity Network
NCN	National Cycle Network
NETS SQSS	National Electricity Transmission System Security and Quality of Supply Standard
NNR	National Nature Reserve
NSA	National Scenic Area
NSR	Noise sensitive receptor
NTS	Non-Technical Summary

Abbreviation	Expanded Term / Definition
NVC	National Vegetation Classification
OHL	Overhead Line
OS	Ordnance Survey
PAN	Planning Advice Note
PMP	Peat Management Plan
PPP	Pollution Prevention Plan
PWS	Private Water Supply
RAMSAR Site	Wetlands of International Importance designated under the Ramsar Convention.
Receptor (LVIA)	Physical landscape resource, special interest or individual or group experiencing view liable to change as a result of the proposed development.
Residual Effects	Effect of development after mitigation/embedded mitigation or design proposals are taken into account.
Rig and furrow	A pattern of ridges and troughs created by a system of pre-mechanised ploughing used in Europe typical of the open field system.
RSPB	Royal Society for the Protection of Birds
RVAA	Residential Visual Amenity Assessment
s37	Section 37 of Electricity Act 1989
SAC	Special Area of Conservation
SEC	Sealing End Compound
SEPA	Scottish Environment Protection Agency
Setting	Setting is more than the immediate surroundings of a site or building, and may be related to the function or use of a place, or how it was intended to fit into the landscape of townscape, the view from it or how it is seen from areas round about, or areas that are important to the protection of the place, site or building (SPP 2014).
SHE Transmission	Scottish Hydro Electric Transmission plc
Significance	A measure of importance or gravity of the environmental effect defined by significance criteria specific to the environmental topic
Skylining	The proposed development (or aspects of it) would be seen on the skyline. The contrast between the proposed development and the sky would generally render the proposed development more visible/prominent in views than if it were backclothed by topography.
SM	Scheduled Monument
SNH	Scottish Natural Heritage
Sound Power Level	The total sound power radiated by a source, in decibels (dB).
SPA	Special Protection Area
SPP (Ecology)	Species Protection Plan
SPP (Planning)	Scottish Planning Policy (2014 Edition)
SSSI	Site of Special Scientific Interest
TA	Technical Appendix

Abbreviation	Expanded Term / Definition
THC	The Highland Council
THCHET	The Highland Council Historic Environment Team
UGC	Underground cable
UKFS	United Kingdom Forestry Standard
Visual Amenity	A particular composition of landscape elements that contribute to a view, or views.
Visual Effect	The consequence of change in the appearance of the landscape as a result of development, which may be adverse or beneficial.
Visual Impact	The change in the appearance of the landscape and nature of views which may be adverse or beneficial.
Visualisation	A computer simulation, photomontage or other techniques illustrating the predicted appearance of a development from a known location.
VP (Landscape and Visual)	View Point
VP (Ornithology)	Vantage Point
WCA	Wildlife and Countryside Act 1981
Wireline	A computer-generated line drawing of the DTM (digital terrain model) and the proposed development from a known location.
WLA	Wild Land Area
WMP	Water Management Plan
ZTV	Zone of Theoretical Visibility. A map, usually digitally produced, showing areas of land within, which a development is theoretically visible. Also known as a Viewshed.

1. INTRODUCTION

1.1 Overview of the Proposed Development

- 1.1.1 This Environmental Impact Assessment Report (EIA Report) has been prepared on behalf of Scottish Hydro Electric Transmission plc (SHE Transmission, hereafter referred to as “the Applicant”) to accompany an application for consent from the Scottish Government under section 37 of the Electricity Act 1989, as amended (a section 37 application) to construct and operate a new 16 kilometre (km) double circuit 132 kilovolt (kV) overhead electricity transmission line (OHL), supported by steel lattice towers, between the proposed Dalchork Substation, located approximately 3 km north of Lairg, and a terminal tower located 500 m west of the existing Loch Buidhe substation, located approximately 8 km north of Bonar Bridge. In addition, the Applicant is seeking consent to construct and operate a new 1 km double circuit 132 kV OHL to connect the proposed Dalchork Substation with the existing Cassley to Shin 132 kV OHL, and a temporary diversion of the existing Cassley to Shin 132 kV OHL, to allow it to be connected to the proposed Dalchork substation.
- 1.1.2 The Applicant is also seeking deemed planning permission from The Highland Council (THC) under Section 57(2) of the Town and Country Planning (Scotland) Act 1997, for certain ancillary works, including tree clearance, the formation of new accesses, the installation of a sealing end compound at Loch Buidhe substation, and the installation of underground cables to divert 11kV and 33kV OHL’s and connect the proposed OHL with Loch Buidhe substation.
- 1.1.3 The above described development is referred to herein collectively as the ‘Proposed Development’, the location of which is shown in Figure 1.1 in Volume 3.
- 1.1.4 The Dalchork substation will be subject to a separate application under The Town and Country Planning (Scotland) Act 1997 (as amended) which the applicant submitted in January 2019. The substation application is not an EIA application, but will be accompanied by an Environmental Report. The substation proposal is not addressed in this Report; apart from where the substation gives rise to potentially significant cumulative impacts in combination with the Proposed Development.
- 1.1.5 Following the construction and commissioning of the Proposed Development, the existing single circuit steel lattice 132 kV OHL between Shin Substation and the Lairg Grid Supply Point (GSP) would be decommissioned and dismantled. These activities do not form part of the Proposed Development, and are not considered in this EIA Report, apart from where they contribute to a change in the character of the future baseline environment.

1.2 Background to the Proposed Development

- 1.2.1 The Applicant is the electricity transmission licence holder in the north of Scotland and has the following duties under Section 9 of the Electricity Act 1989:
- to develop and maintain an efficient, coordinated and economical system of electricity transmission; and
 - to facilitate competition in the generation and supply of electricity.
- 1.2.2 The Applicant also has obligations to offer non-discriminatory terms for connection to the electricity transmission system. As such, the Applicant has a legal duty to provide connections for new electricity generators wishing to connect to the transmission network in its licence area under the terms of its statutory and licence obligations. The Applicant is obliged to make its electricity transmission network available for these purposes and ensure the system is fit for purpose through appropriate reinforcements to accommodate the contracted capacity.
- 1.2.3 The area around Lairg is currently served by a single circuit 132 kV OHL which runs from Cassley GSP near the north end of Loch Shin to the Shin substation at Inveran, via the existing GSP at Lairg. The connection of additional renewable energy to the network in recent years means that the existing circuit is at capacity. Current renewable energy generation connections to existing infrastructure include:
- 49.34 MW of wind farm and hydro generation at Lairg GSP; and
 - 16.5 MW of hydro generation at Cassley GSP, which is connected to the existing single circuit 132 kV OHL.

1.2.4 Connection offers have also been accepted by the developers of the proposed Sallachy wind farm (66 MW) and the consented Creag Riabhach wind farm (72.6 MW), which are to be constructed on the northwest shore of Loch Shin, near the Cassley hydro power station, and to the north of the Crask Inn, respectively.

1.2.5 When the Lairg to Loch Buidhe Reinforcement project was first initiated in August 2012, there were a number of proposed renewable energy developments in the area representing some c.314 MW that would require connection to the electricity transmission network. Based on this, the strategic project need was defined as a 275kV OHL connection between a new 275 kV / 132 kV substation near Lairg and the Loch Buidhe Substation north of Bonar Bridge. Since then, however, the number of developers seeking connection to the transmission network has reduced, which required SHE Transmission to review the reinforcement options¹ all of which are summarised below:

- A new build 275 kV OHL supported by steel lattice towers (between c.44 m and 60 m in height) between the proposed Dalchork Substation and Loch Buidhe Substation;
- A new build 275 kV underground cable between the proposed Dalchork Substation and Loch Buidhe Substation;
- A new build 132 kV OHL supported by steel lattice towers (between c.44 m and 60 m in height) capable of supporting a 275 kV OHL at some future point between the proposed Dalchork Substation and Loch Buidhe Substation;
- A new build 132 kV OHL using steel lattice towers (between c.25 m and 40 m in height) between the proposed Dalchork Substation and Loch Buidhe Substation;
- A new build 132 kV underground cable between the proposed Dalchork Substation and Loch Buidhe Substation; and
- Upgrade of the existing 132 kV OHL between the proposed Dalchork Substation and Shin Substation, consisting of tower and foundation strengthening, and the installation of new higher capacity conductors.

¹ Scottish Hydro Electric Transmission plc. Lairg to Loch Buidhe Options Appraisal Report. May 2017

1.2.6 Plate 1.1 presents a diagram showing the OHL tower options under consideration.

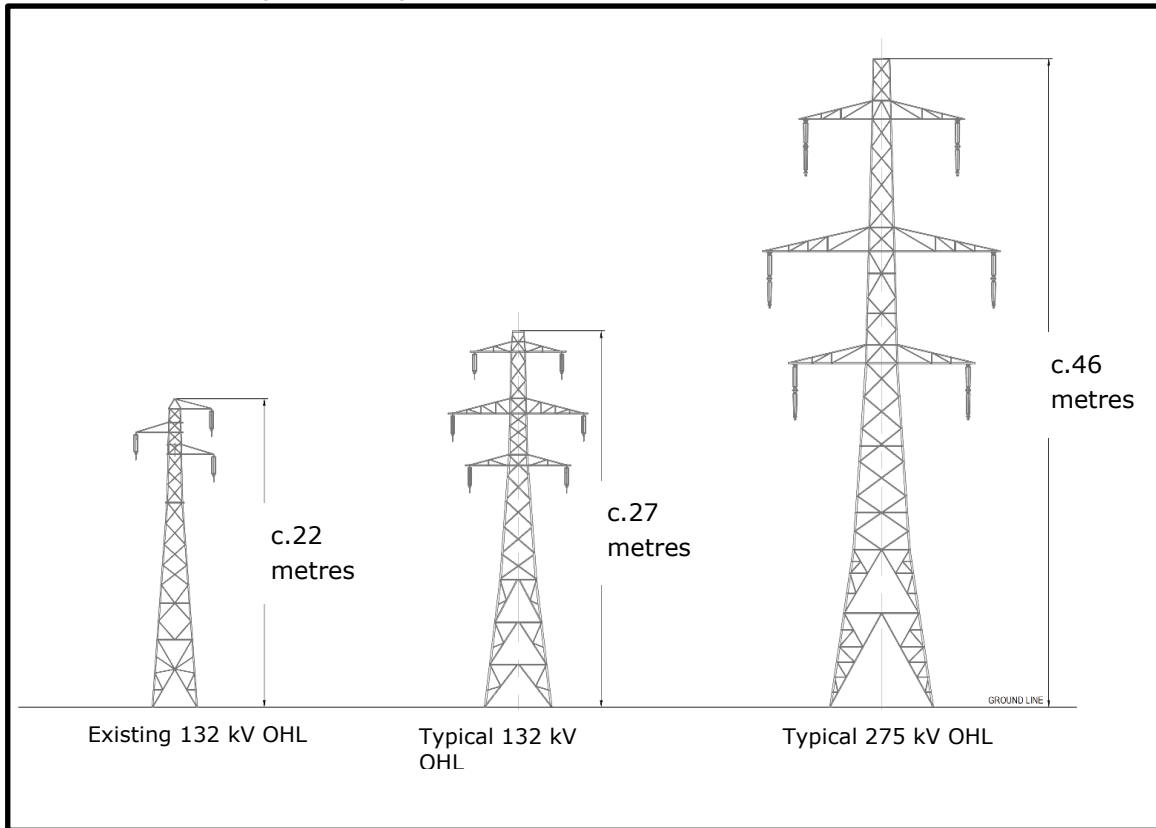


Plate 1.1: Steel Lattice Tower Options

1.2.7 The review concluded that the option best able to accommodate forecast generation, on technical and cost grounds, would be to construct a new build 132 kV OHL, supported by steel lattice towers.

1.3 Legislative Requirements

1.3.1 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 - hereafter referred to as the “EIA Regulations” contain two schedules. Schedule 1 lists projects for which EIA is mandatory. Schedule 2 lists projects for which EIA may be required ‘where proposed development is considered likely to give rise to significant effects on the environment by virtue of factors such as its nature, size or location’.

1.3.2 The Proposed Development does not fall within the definition of schedule 1 development under the EIA Regulations, but does fall within the definition of schedule 2. Further, based on evidence gathered from consultation with stakeholders and site assessments, the Applicant considers that the Proposed Development has the potential to have significant effects on the environment and has decided to submit an Environmental Impact Assessment Report (EIA Report) to accompany the section 37 application.

1.4 Description of the EIA Process Followed

1.4.1 The key stages in the EIA process adopted for the Proposed Development are summarised below.

Scoping

1.4.2 A request for a Scoping Opinion was made to the Scottish Ministers under Regulation 12 of the EIA Regulations in January 2018, to seek an opinion on the scope and content of the EIA Report. A Scoping Report was submitted to support the request setting out information about the project, the character of the environment and identifying those issues which it was proposed would be considered within the EIA (i.e. “scoped in”) and those which would be scoped out, together with information on the methods that would be followed in characterising the existing baseline environment and in predicting and assessing potential impacts.

- 1.4.3 A Scoping Opinion was received from the Scottish Ministers in May 2018, the content of which together with other responses received as a result of wider consultation about the Proposed Development, are summarised in Technical Appendix 1.1: Consultation Register.

Pre-Application Consultation

- 1.4.4 Since the project commenced in 2012, the Applicant has engaged with the local community and other stakeholders through drop-in public exhibitions, attending community council meetings and publishing two Consultation Documents on the routeing process, inviting comments on the route and alignment selection process.
- 1.4.5 Further detail on the public consultation process is provided in the Report on Consultation which is included as part of the section 37 consent application.

Baseline Characterisation

- 1.4.6 Baseline characterisation refers to the description of environmental conditions now (and in the future, assuming no development) . It is based on a combination of desk based research, empirical study and projections. .

Mitigation by Design and Consideration of Alternatives

- 1.4.7 Following the baseline characterisation, the environmental constraint information collected was used to inform the consideration of alternative routes and alignment options.
- 1.4.8 This has followed a three-stage approach, as follows:
- Stage 1: Identification of OHL route options and selection of a Preferred Route;
 - Stage 2: Refinement of the Preferred Route and selection of the Proposed Route; and
 - Stage 3: Engineering Design and Environmental Impact Assessment.
- 1.4.9 During Stage 1, the Applicant considered a number of route options and, following an evaluation of the environmental and technical implications of each, which included consultation with stakeholders, an initial Preferred Route was selected. This was subsequently subject to consultation with stakeholders. Stage 2 comprised a refinement of the potential route options. Four further route options were identified and evaluated and a Proposed Route was adopted as the most technically feasible and economically viable option causing least disturbance to the environment; and those living in it, working in it, visiting it or using it for recreational purposes. The Proposed Route was then taken forward into Stage 3 where engineering design produced a proposed alignment and tower schedule, which was then subject to an Environmental Impact Assessment, and submission of an application for consent under section 37 of the Electricity Act 1989, as amended.
- 1.4.10 The route selection process adopted to determine the design of the Proposed Development is summarised in Chapter 3: Route Selection and Alternatives.

Impact Assessment

- 1.4.11 This EIA Report provides an impact assessment of the relevant factors specified in regulation 4(3) and Schedule 4 of the EIA Regulations where they are likely to be significantly affected, taking account of the description of the Proposed Development and the mitigation by design.
- 1.4.12 The impact assessment describes direct effects and indirect effects during the construction and operational phase of the Proposed Development. The description of effects identifies the effect duration (e.g. short-term, medium-term and long-term), whether effects are permanent or temporary, and if effects can be categorised as adverse or beneficial. The impact assessment also considers the potential for significant cumulative effects. Cumulative effects are those arising from the Proposed Development in combination with effects from other developments proposed in the vicinity. Each assessment chapter sets out the assessment methodology used and the criteria by which a significant effect is defined.

Mitigation

- 1.4.13 The Applicant's approach to the EIA process has been to prioritise and implement mitigation following a hierarchy of: i) primary: avoidance/prevention; ii) secondary: reduction. By following this hierarchy, the Applicant has focussed on developing a design through the consideration of alternative routes to avoid likely significant adverse effects as far as possible; this process is described in Chapter 3: Route Selection and Alternatives. These 'primary' mitigation measures are considered to be embedded into the design of the Proposed Development, and would be inherent to a consent.
- 1.4.14 Where it has not been possible to fully avoid or prevent likely significant adverse effects through the design process, the topic specific impact assessment chapters identify 'secondary' mitigation measures to reduce the likelihood or magnitude of the effects. It is envisaged that such secondary mitigation measures would be secured via suitably worded conditions imposed through the grant of deemed planning permission. In order to ensure that mitigation is proportionate, secondary mitigation measures specified in this EIA Report are described in relation to likely significant effects only. In addition, topic specific impact assessment chapters also highlight proposed additional good practice management controls, where it is considered proportionate to further reduce non-significant effects.
- 1.4.15 Residual effects are those that remain following the implementation of mitigation.

EIA Report

- 1.4.16 This EIA Report documents the process followed and the outcomes of the impact assessment. The EIA Report has been prepared to provide clear and concise information on the likely significant environmental effects associated with the Proposed Development. The EIA Report aims is to provide proportionate environmental information², to support the decision-making process in respect of the section 37 application. In accordance with regulation 5(5) of the EIA Regulations, the Applicant has appointed Ramboll as the 'competent experts' to manage the preparation of the EIA Report. In addition, each individual assessment has been completed by competent experts who are recognised in their field through holding relevant professional qualifications and memberships, as identified within the introductory section of each assessment. The EIA Report has been compiled by Ramboll to meet the requirements of the Institute of Environmental Management and Assessment (IEMA) EIA Quality Mark scheme. The EIA Quality Mark is a voluntary scheme operated by IEMA that allows organisations to make a commitment to excellence in EIA and to have this commitment independently reviewed on an annual basis. Technical Appendix 1.2: IEMA Quality Mark provides further information on the IEMA EIA commitments which underpin the scheme. This EIA Report has been compiled and approved by professional EIA practitioners at Ramboll, holding relevant undergraduate and post-graduate degrees and full membership of IEMA (MIEMA).
- 1.4.17 Subsequent chapters detail the assessment methodology used in each case, including the specific criteria for defining the sensitivity of the baseline environment, the magnitude of predicted change, proposals to avoid, reduce or control significant adverse effects and a conclusion on the significance of any predicted residual effects.

1.5 Structure of this Report

- 1.5.1 The EIA Report consists of the following volumes:
- Volume 1 – Non-Technical Summary;
 - Volume 2 – Environmental Impact Assessment Report;
 - Volume 3 – Figures; and
 - Volume 4 – Technical Appendices.
- 1.5.2 Additional documentation that will be submitted with this application includes:
- Section 37 application (the content of the application is set out in Chapter 2: Description of the Proposed Development);

² In accordance with Planning Advice Note 1/2013 – URL: <http://www.scotland.gov.uk/Publications/2013/08/6471/0>

- Cover Letter;
- Report on Consultation;
- Planning Statement; and
- Construction Traffic Management Plan.

1.6 Commenting on the Application

- 1.6.1 Notice will be served on The Highland Council by the Scottish Ministers for consent under Section 37 of the Electricity Act 1989 and deemed planning permission.
- 1.6.2 Any representations to the s37 consent application may be submitted via:
- the Energy Consents Unit website at www.energyconsents.scot/Register.aspx;
 - by email to the Scottish Government, Energy Consents Unit mailbox at representations@gov.scot; or
 - by post to the Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.
- 1.6.3 Written or emailed representations should be dated, clearly stating the name (in block capitals), full return email and postal address of those making representations, identify the proposal (Lairg to Loch Buidhe 132 kV Overhead Line) and specify the grounds for representation. Only representations sent by email to representations@gov.scot will receive acknowledgement.
- 1.6.4 All representations should be received not later than Friday 5th April 2019, although Ministers may consider representations received after this date.
- 1.6.5 In accordance with the Electricity (Applications for Consent) Regulations 1990, and Regulation 9 of the EIA Regulations, the application and this EIA Report will be advertised in the following local newspapers: The Northern Times. It will also be advertised in the following regional newspapers: Edinburgh Gazette; and the Press and Journal.
- 1.6.6 The Section 37 application, including this EIA Report and associated documents, will be available for viewing at the following public locations:
- Lairg Library, Community Centre, Main Street, Lairg, IV27 4DD.
 - The Highland Council, Development & Infrastructure, Drummuie, Golspie, KW10 6TA.
- 1.6.7 Electronic versions of the application, including this EIA Report are available to download from SHE Transmission's website: <https://www.ssen-transmission.co.uk/projects/lairg-loch-buidhe/>, and through the Scottish Government energy consents portal³.
- 1.6.8 A hard copy of the EIA report may be obtained from Scottish Hydro Electric Transmission Plc at a charge of £300.00 or on CD free of charge. A hard copy of a short non-technical summary is available free of charge. For further details including costs contact:

Lisa Marchi-Grey
Scottish Hydro Electric Transmission Plc
10 Henderson Road
Inverness
IV1 1SN
OR
Email to: lisa.marchi@sse.com.

³ <https://www.energyconsents.scot/>

7. CULTURAL HERITAGE AND ARCHAEOLOGY

7.1 Introduction

Scope of the Assessment

- 7.1.1 This chapter considers the potential effects on archaeology and cultural heritage interests (hereafter 'heritage assets') associated with the construction, operation and decommissioning of the Proposed Development. The assessment has been carried out by CFA Archaeology Ltd (CFA) using information provided by Historic Environment Scotland (HES) and the Highland Council Historic Environment Team (HET).
- 7.1.2 This chapter considers direct effects (construction impacts) and indirect effects (effects on setting) on:
- Scheduled Monuments and other archaeological features; and
 - Listed Buildings, and other buildings and structures of historic architectural importance.
- 7.1.3 There are no World Heritage Sites, Inventory status Gardens and Designed Landscapes and Conservation Areas within 10 km of the Proposed Development.
- 7.1.4 The chapter considers cumulative effects arising as a result of the Proposed Development in-combination with other developments, which are the subject of a valid planning application. Operational, under construction and consented (not yet constructed) developments are considered as part of the baseline.
- 7.1.5 The assessment is based on the Proposed Development as described in Chapter 2: Description of the Proposed Development.
- 7.1.6 The scope of the assessment has been informed by consultation responses summarised in Table 7.1 and the following guidelines/policies:
- Ancient Monuments and Archaeological Areas Act 1979;
 - Planning (Listed Buildings and Conservation Areas (Scotland) Act 1997 (as amended by Historic Environment (Amendment) (Scotland) Act 2011);
 - Historic Environment Scotland Policy Statement (HESPS) 2016;
 - Planning Advice Note 2/2011: Planning and Archaeology (PAN2/2011);
 - Highland-wide Local Development Plan (HwLDP) (2012):
 - Policy 28: Sustainable Design;
 - Policy 57: Natural, Built and Cultural Heritage;
 - Caithness and Sutherland Modified Proposed Local Development Plan (Sept 2016);
 - Highland Historic Environment Strategy, Supplementary Planning Guidance (January 2012); and
 - Historic Environment Scotland (2016) 'Managing Change in the Historic Environment Setting'.

Objectives

- 7.1.7 The specific objectives of the chapter are to:
- identify the cultural heritage baseline within the study area as described in Section 7.3.1-7.3.5;
 - assess the archaeological potential of the Proposed Development LOD, proposed access track routes outside the LOD, proposed cable route from Tower LL01 to Loch Buidhe Substation and proposed lay down area (Inner Study Area);
 - describe the assessment methodology and significance criteria used in completing the impact assessment;
 - consider the potential effects, including direct, indirect and cumulative effects of the Proposed Development on heritage assets;
 - identify measures, where appropriate, to mitigate any predicted significant effects; and

- assess the significance of any residual effects remaining, following the implementation of mitigation.

7.1.8 The assessment was prepared by Mhairi Hastie BSc MSc FSA Scot MCIfA, a Consultant with CFA Archaeology Ltd (CFA) a Chartered Institute for Archaeologists (CIfA) Registered Organisation (RO) based in Musselburgh, East Lothian. Mhairi Hastie has over 10 years full-time experience of producing EIAs for renewable energy developments, and for other industrial and commercial developments across the UK.

7.1.9 The assessment was conducted in accordance with the Chartered Institute for Archaeologists' 'Code of Conduct'¹ and 'Standard and Guidance for Historic Desk-based Environment Assessment'². The assessment has also been designed to comply with Section 3 (Survey) and Section 4 (Environmental Statements) of the Highland Council 'Standards for Archaeological Work'³.

7.1.10 Effects on landscape and visual amenity are addressed separately in Chapter 4: Landscape Resource and Visual Amenity.

7.1.11 This chapter is supported by:

- Technical Appendix 7.1: Baseline Conditions.
- Technical Appendix 7.2: Cultural Heritage Constraints within Inner Study Area.
- Technical Appendix 7.3: Cultural Heritage Constraints within Outer Study Area with predicted visibility of the Proposed Development.
- Technical Appendix 7.4: Detailed Assessment of Key Heritage Assets within Outer Study Area.
- Technical Appendix 7.5: Written Scheme of Investigation.
- Figures 7.1 a-d to Figure 7.3, included in Volume 3a; and
- Figures 7.4 to Figure 7.16a-b, included in Volume 3b, and referenced in the text where relevant.

7.2 Consultation Undertaken To Date

7.2.1 Table 7.1 summarises the consultation responses received regarding cultural heritage interests and provides information on where and/or how they have been addressed in this assessment. The following organisations made comment on cultural heritage interests: Historic Environment Scotland (HES) and the Highland Council (THC) Historic Environment Team (HET).

7.2.2 Full details on the consultation responses can be reviewed in Technical Appendix 1.1: Consultation Register.

Table 7.1: Consultation Responses			
Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
Historic Environment Scotland (HES) 23 July 2014	Pre-Planning Advice	Identified potential effects of the Proposed Development on the setting of the following heritage assets and requested that they are specifically assessed within the EIA. <ul style="list-style-type: none"> • Lairg Muir North, Chambered Cairn (SM1817). • Lairg Moor South, Chambered Cairn (SM1818). • Balcharn, Chambered Cairn (SM1768). 	The potential effects of the Proposed Development on the settings of designated heritage assets are assessed in Section 7.8.

¹ Chartered Institute for Archaeologists (CIfA) (2014) 'By-Laws: Code of Conduct', Institute for Archaeologists, London

² Chartered Institute for Archaeologists (CIfA) (2017) 'Standard and guidance for historic environment desk-based assessment', Institute for Archaeologists, London

³ The Highland Council (2012) The Highland Council Standards for Archaeological Work (March 2012), Inverness.

Table 7.1: Consultation Responses			
		<ul style="list-style-type: none"> • Altbreck, broch (SM1829). • Altbreck, homestead (SM5563). • Loch Tign na Creige, settlement (SM5153). • Loch Dola, hut circles and clearance cairns (SM1878). • Achany Glen, settlement (SM2208). • Achinduich, stone circle (SM1761). 	
Historic Environment Scotland (HES), 31 January 2018	Scoping Opinion	Content with the proposed scope and methodology of the cultural heritage assessment as described in Chapter 7 of the Scoping Report.	Noted
		Content with the list of sensitive receptors identified as requiring further assessment.	Noted
THC Historic Environment Team (HET), 21 March 2018	Post Scoping Consultation	Advised that there is considerable potential across the Proposed Development area for the survival of unrecorded upstanding remains and recommend that a study of aerial photography and a walkover survey of the Proposed Development are carried out.	A desk-based assessment, including examination of aerial photographs and a walkover survey of the whole of the Proposed Development LOD has been undertaken. The results are summarised in Technical Appendix 7.1 (Current Baseline Conditions Within the Inner Study Area) and details on a site-by-site basis are provided in Technical Appendix 7.2 (Cultural Heritage Constraints within the Inner Study Area).
		Identified need to consider the potential impact of the Proposed Development on the settings of two non-designated heritage assets, Puill Fhraocih (MHG10052) and Cnoc Garbh-Airigh, Township (MHG10057). Requested that visualisations showing the Proposed Development where it crosses the townships be included in the assessment and that justification for the final tower positions in relationship to these heritage assets be included in the ES.	The potential effects of the Proposed Development on the township remains are assessed in Section 7.8: Residual Effects.
		Recommended that it is likely that detailed survey of the township remains, MHG10052 & MHG10057, may be required in advance of any setting impacts and that any specific features where direct impacts cannot	Mitigation measures to offset or reduce the predicted effects on the township remains from the Proposed Development are set out in Section 7.6: Mitigation and

Table 7.1: Consultation Responses			
		be avoided will require excavation and recording.	7.7: Additional Good Practice.
		Requested that any linear features, such as banks or stone dykes, which cannot be avoided during construction works should, where appropriate, be reinstated on completion of the works.	The potential direct effects of the Proposed Development on heritage assets identified within the Proposed Development LOD are assessed in Section 7.8 and detailed in Technical Appendix 7.2. Mitigation measures to offset or reduce the predicted effects on heritage assets from the Proposed Development are set out in provided in Section 7.6: Mitigation and Section 7.8: Additional Good Practice.

Issues Scoped Out

- 7.2.3 The potential effects on the setting of heritage assets from construction activities such as pull through and machine positions, scaffolding, and temporary construction compounds and working areas has been scoped out. These construction activities would be temporary, resulting in only short-term/low magnitude and not significant effects on the setting of cultural heritage assets in close proximity to the Proposed Development and would have no permanent or significant effects.

7.3 Assessment Methodology and Significance Criteria

Method of Baseline Data Collation

Extent of the Study Area

- 7.3.1 Two zones have been defined for the assessment of effects of the Proposed Development on heritage assets, as illustrated on Figures 7.1 a-d and Figure 7.2 in Volume 3.
- **Inner Study Area:** the study area for consideration of potential direct impacts upon heritage assets comprised the area within the Limit of Deviation (LOD) for the Proposed Development, including:
 - a 200 m corridor centred on: the proposed 132 kV OHL between the proposed Dalchork Substation and Loch Buidhe Substation (Figure 7.1 a-d in Volume 3);
 - a 80 m corridor centred on the proposed 132 kV OHL between T80 of the Cassley to Shin 132 kV OHL and the proposed Dalchork Substation (Figure 7.1 a-d in Volume 3);
 - the proposed temporary 132 kV OHL diversion between Tower 79 and Tower 80 of the Cassley to Shin 132 kV OHL (Chapter 2: Description of Proposed Development, Figure 2.2): this alignment is fixed and there is no LOD required;
 - A 100 m corridor centred on the proposed underground cable route between the SEC at Tower LL01 and Loch Buidhe Substation (Figure 7.1 d in Volume 3);
 - a 50 m corridor centered on proposed underground cables to be installed to replace existing distribution OHLs (11 kV and 33 kV) which presently cross the route of the proposed 132 kV OHL (Figure 7.1 a-d in Volume 3);
 - a 100 m corridor centred on proposed access tracks to the 132 kV OHL between the proposed Dalchork Substation and the existing Loch Buidhe Substation that lie outside the Proposed

Development LOD (i.e. 50 m either side of the proposed access track routes) (Figures 7.1 a-d in Volume 3); and

- a proposed Sealing End Compound (SEC) at Tower 1 at Loch Buidhe Substation (details provided in Chapter 2).

7.3.2 Two heritage assets (ss3a: hut circle and ss3d: clearance cairns/cairnfield, locations shown on Figure 7.1a) fall within the footprint (platform area) of the proposed Dalchork Substation. The potential impacts of the proposed substation on these assets is assessed in the Dalchork Substation Environmental Appraisal and these assets are not considered further in this assessment.

7.3.3 **Outer Study Area:** the study area for consideration of impacts affecting the settings of heritage assets, employs a 10 km ZTV from the centre line of the Proposed Development LOD, for the proposed 132 kV OHL between the proposed Dalchork Substation and the existing Loch Buidhe Substation (Figure 7.2 in Volume 3). The 10 km study area is consistent with the ZTV study area employed by the Landscape and Visual Assessment. Details on the methodology and parameters used to generate the ZTVs are provided in Chapter 4: Landscape Resource and Visual Amenity. The Proposed Development together with the Standard Tower Height and Maximum Tower Height 'Bare-Earth' ZTVs, and the locations of heritage assets within 10 km from which there could be theoretical views of the Proposed Development are shown, on Figure 7.2 in Volume 3. The Proposed Development together with the Standard Tower Height and Maximum Tower Height 'With-Screening' ZTVs and the locations of heritage assets within 10 km from which there could be theoretical views of the Proposed Development are shown on Figure 7.3 in Volume 3.

Desk Study

Inner Study Area

7.3.4 A detailed desk-based assessment was conducted for the Proposed Development LOD using a range of documentary, archival and bibliographic sources. Up-to-date information was obtained from appropriate sources on the locations and extents of heritage assets with statutory protection and non-statutory designations within the study area.

7.3.5 Sources included:

- Historic Environment Scotland Spatial Data Warehouse (HES 2018a⁴): provided up-to-date data on the locations and extents of Scheduled Monuments, Listed Buildings, Inventory status Gardens and Designed Landscapes, Inventory status Historic Battlefields and Conservative Areas;
- The Highland Council Historic Environment Record (HER), obtained January 2017: digital database extract obtained from HET;
- The Online Historic Environment Scotland database (Canmore) (HES 2018b⁵): provided information additional to that contained in the HER;
- Ordnance Survey maps (principally 1st and 2nd edition) and other published historic maps held by the Map Library of the National Library of Scotland;
- Available on-line modern aerial photographs (ESRI ArcGIS and GoogleEarth™);
- The on-line Historic Land-Use Assessment Data for Scotland (HLAmap, HES 2018c⁶) was consulted for information on the historic land-use character across the study area;
- The Scottish Palaeoecological Archive Database (SPAD, Coles et al 1998⁷): records the distribution of known sites across Scotland, was consulted for information on sites with palaeoenvironment and palaeoecological potential; and

⁴ HES (2018a) Historic Environment Scotland (HES) GIS downloader, available at <http://portal.historicenvironment.scot/spatialdownloads> (Accessed Feb 2018)

⁵ HES (2018b) National Record of the Historic Environment Database (Canmore) available from <http://pastmap.org.uk/map> (Assessed Jan 2017)

⁶ HES (2018c), Historic Land-Use Assessment Data for Scotland, available at: <http://hlapmap.org.uk> (Accessed Jan 2017)

- Relevant bibliographic references and on-line historic resources (including McCullagh & Tipping 1998⁸; Wordsworth, 1999⁹; Highland Archaeology Service Ltd, 2006¹⁰).

Outer Study Area

- 7.3.6 The 'Bare-Earth' Zone of Theoretical Visibility map generated for the Proposed Development was used to identify those designated assets within the Outer Study Area that would have theoretical visibility of the Proposed Development. Details of the methods and parameters used to generate the ZTVs are set out in Chapter 4: Landscape Resource and Visual Amenity.
- 7.3.7 Up to date information was obtained from Historic Environment Scotland and the Highland Council Historic Environment Record (HER) for heritage assets with statutory and non-statutory designations within the Outer Study Area and within the ZTV.
- effects on Scheduled Monuments, Category A and B Listed Buildings within 10 km of the Proposed Development were assessed; and
 - assessment of the effects on Category C Listed Buildings is restricted to those within 5 km of the Proposed Development as these are all locally important designations and generally minor vernacular building types of the local historic environment, with localised geographical settings.

Field Survey

- 7.3.8 Reconnaissance field survey was carried out along the whole of the Proposed Development LOD (Inner Study Area).
- 7.3.9 Initial field survey was carried out between 30th January and 5th February 2017; then, following refinement of the alignment to take into consideration development constraints, additional field survey was carried out between 29th January and 2nd February 2018.
- 7.3.10 The field survey was carried out with the following aims:
- to assess the baseline conditions of the known heritage assets identified by the desk-based study;
 - to identify any further features of heritage interest not detected from the desk-based study;
 - to assess the potential for the Inner Study Area to contain currently unrecorded, buried archaeological remains; and
 - to assess the potential effect of the proposed construction works on identified assets.
- 7.3.11 No intrusive archaeological interventions have been carried out as part of this assessment.
- 7.3.12 Identified heritage assets were recorded on pro-forma monument recording forms and by digital photography, and their positions (and where appropriate extents) were logged using a Global Positioning System (GPS).
- 7.3.13 A gazetteer of heritage assets identified within the Proposed Development LOD is provided in Technical Appendix 7.2 and the locations, and where appropriate extents, of these are shown on Figures 7.1 a-d in Volume 3.
- 7.3.14 Site visits to assess the character and sensitivity of the settings of the heritage assets in the Outer Study Area were undertaken between 30th January and 5th February 2017. Site visits focused on those heritage assets most likely to receive effects on their settings (i.e. those closest to the Proposed Development and those specifically identified as requiring assessment by HES: see Table 7.1). Where access was difficult or denied, publicly accessible locations as close as possible to each asset were sought as a basis for the assessment.

⁷ Coles, G.M., Gittings, B.M., Milburn, P. and Newton, A.J. (1998) Scottish Palaeoecological Archive Database [online], available from <http://www.geo.ed.ac.uk/spad> (Accessed Jan 2017)

⁸ McCullagh, R.P.J and Tipping, R (1998) The Lairg Project 1988-1996: The Evolution of an Archaeological Landscape in Northern Scotland, AOC Scotland Ltd/Historic Scotland, Monograph 3, Scottish Trust for Archaeological Research: Tynside Free Press.

⁹ Wordsworth, J (1999) Torroble Common Grazings, Lairg, Sutherland: An Archaeological Survey, Wordsworth Archaeological Services.

¹⁰ Highland Archaeology Services Ltd (HAS), 2006, Lairg Wind Farm Environmental Statement: Archaeology and Cultural Heritage.

7.3.15 A list of relevant assets identified within the ‘Standard Tower Height’ ZTVs (‘Bare-Earth’ and ‘With-Screening’¹¹ ZTVs) and those assets with predicted visibility of the larger tower heights (+ 6 m vertical LOD) indicated by the ‘Maximum Tower Height’ ZTVs (‘Bare-Earth’ and ‘With-Screening’ ZTVs) are provided in Technical Appendices 7.3 and 7.4, together with an assessment of the likely indirect effects upon them resulting from the construction and operation of the Proposed Development. The locations of these heritage assets, set against the ‘Bare-Earth’ ZTVs, are shown, on Figure 7.2 in Volume 3 and on the ‘With-Screening’ ZTVs on Figure 7.3 in Volume 3.

Cultural Heritage Viewpoints

7.3.16 Seven viewpoints, Figures 7.4-7.10, found in Volume 3b “Visualisations” (see Table 7.2 for details), were produced for cultural heritage assets within the Outer Study Area that were considered to be especially sensitive to changes within their settings from the Proposed Development. These heritage assets were identified through consultation with HES and HET (see Table 7.1 for summary of consultation responses) and from site visits. Cross reference is also made to Landscape and Visual (LVIA) viewpoints, where appropriate. Details of LVIA VPs cross-referenced within the following assessment are provided in Table 7.2. Further explanation of the method used in generating these visualisations is set out in Chapter 4: Landscape Resource and Visual Amenity.

Table 7.2: Cultural Heritage Viewpoints			
Asset Name and No	Status	Viewpoint type	Figure no
Abhainn A’Chuirp Hut Circles (MHG11862)	Non-designated site of regional importance	Photomontage & Comparative Wireline	CH Viewpoint 1 ¹² Figure 7.4: Standard Height Tower Figure 7.11 a-b: Comparative wireline
Lairg Muir North Chambered Cairn (SM1817)	Scheduled Monument	Photomontage & Comparative Wireline	CH Viewpoint 2 Figure 7.5: Standard Height Tower Figure 7.12 a-c: Comparative wireline
Lairg Moor South Chambered Cairn (SM1818)	Scheduled Monument	Photomontage & Comparative Wireline	CH Viewpoint 3 Figure 7.6: Standard Height Tower Figure 7.13 a-b: Comparative wireline
Balcharn Chambered Cairn (SM1768)	Scheduled Monument	Photomontage & Comparative Wireline	CH Viewpoint 4 Figure 7.7: Standard Height Tower Figure 7.14 a-c: Comparative wireline
Loch Dola Hut Circles and Clearance Cairns (SM1878)	Scheduled Monument	Photomontage & Comparative Wireline	CH Viewpoint 5 Figure 7.8: Standard Height Tower Figure 7.15: Comparative wireline
Puill Fhraoich Township (MHG10052)	Non-designated site of regional importance	Photomontage & Comparative Wireline	CH Viewpoint 6 Figure 7.9: Standard Height Tower Figure 7.16 a-b: Comparative wireline
Cnoc Garbh-Airigh Township, Field System (MHG10057)	Non-designated site of regional importance	Photomontage & Comparative Wireline	CH Viewpoint 7 Figure 7.10: Standard Height Tower Figure 7.16 a-b: Comparative wireline

¹¹ The ‘With-Screening’ ZTV produced for the Proposed Development uses the following assumptions: height of buildings 8 m and height of forestry/woodland 15 m.

¹² This visualisation has been included as an example from one of a number of non-designated sites of regional importance presence in the Saval / Abhainn A’Chuirp area.

Table 7.2: Cultural Heritage Viewpoints			
The Ord Chambered Cairns, Cairns, Settlements and Field System (SM1812)	Scheduled Monument	Photomontage & Comparative Wireline	LVIA Viewpoint 11 Figure 4.18.1-4.18.2: Standard Height Tower Figure VP11 a-c: Comparative wireline

Assessment of Effects

7.3.17 The effects of the Proposed Development on heritage assets have been assessed on the basis of their type (direct effects, impacts on setting and cumulative effects) and their nature (beneficial, neutral or adverse). The assessment takes into account the sensitivity of the heritage asset and its setting and the magnitude of the predicted impact.

Criteria for Assessing Sensitivity of Receptors

7.3.18 The assessment of sensitivity of heritage assets reflects the relative weight that statute and policy attach to them, principally as published in Scottish Planning Policy (SPP) and Historic Environment Scotland Policy Statement (HESPS). Table 7.3 summarises the relative sensitivity of those types of heritage assets relevant to this study.

Table 7.3: Relative Sensitivity of Heritage Assets	
Sensitivity	Definition / Criteria
High	Assets of national or international importance, including: Scheduled Monuments Category A Listed Buildings Inventory status Historic Battlefields
Medium	Assets of regional importance, including: Archaeological assets of distinctive regional importance Category B Listed Buildings Conservation Areas
Low	Assets of local importance, including: Archaeological assets of local importance Category C Listed Buildings Unlisted buildings and townscapes with local (vernacular) characteristics
Negligible	Assets of little or no importance, including Artefact find-spots Unlisted buildings of minor historic architectural interest Poorly preserved examples of particularly types of features

Criteria for Assessing Magnitude of Change

7.3.19 Criteria for assessing the magnitude of direct impacts, which measure the degree of change to the baseline condition of a heritage asset that would result from the construction of one or more elements of the Proposed Development, are presented in Table 7.4.

Table 7.4: Magnitude of Direct Impacts	
Level of magnitude	Definition
High	A fundamental material change to the baseline condition of the heritage asset, leading to total or major alteration of character.
Medium	A material, partial alteration of character.

Table 7.4: Magnitude of Direct Impacts	
Low	Slight, detectable alteration of the baseline condition of the heritage asset.
Imperceptible	A barely distinguishable change from baseline conditions.

7.3.20 The sensitivity of the heritage asset (Table 7.3) and the magnitude of impact (Table 7.4) are used to inform the professional judgement of the likely significance of the direct effect. Table 7.5 provides a matrix for assigning significance of a direct effect.

Table 7.5: Significance of Direct Effects				
Magnitude of Impact ▼	Sensitivity of Heritage Asset ►			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	None
Low	Moderate	Minor	None	None
Imperceptible	Minor	None	None	None

Criteria for Assessing Cumulative Effects

7.3.21 The assessment of cumulative impacts on cultural heritage is based upon consideration of the impact of the Proposed Development on the setting of heritage assets in addition to the proposed Dalchork Substation, which would be constructed at the northern end of the Proposed Development. The assessment takes into account the relative scale of the proposals, their distances from key heritage assets and their potential degree of visibility from the assets.

Determining Magnitude of Change and Sensitivity of Receptors

7.3.22 Historic Environment Scotland's guidance document 'Managing Change in the Historic Environment: Setting' (HES 2016¹³) notes that 'Setting is the way the surrounding of a historic asset or place contributes to how it is understood, appreciated and experienced. Setting often extends beyond the property boundary or 'curtilage' of an individual historic asset into a broader landscape context.' The guidance also advises that 'if a Proposed Development is likely to affect the setting of a cultural heritage asset, an objective, written assessment should be prepared by the applicant to inform the decision-making process. The conclusions drawn should take into account the significance of the historic asset and its setting and attempt to quantify the extent of any detrimental impact. The methodology and level of information should be tailored to the circumstances of each case'.

7.3.23 The guidance recommends that there are three stages in assessing the impact of a development on the setting of a historic asset or place:

7.3.24 Stage 1: identify the historic asset that might be affected by the Proposed Development.

7.3.25 Stage 2: define and analyse the setting by establishing how the surroundings contribute to the ways in which the historic asset or place is understood, appreciate and experienced.

7.3.26 Stage 3: evaluate the potential impact of the proposed changes on the setting, and the extent to which any negative impacts can be mitigated.

7.3.27 Adopting this approach, details were obtained for cultural heritage assets with statutory and non-statutory designations within the Outer Study Area and the 'Bare-Earth' ZTV was used to identify those cultural heritage assets from where there could be theoretical visibility of the Proposed Development (provided in Technical Appendix 7.3).

¹³ HES (2016) Managing Change in the Historic Environment: Setting, Historic Environment Scotland

- 7.3.28 Cultural heritage assets identified in the Scoping Opinions (Table 7.1) as requiring consideration have been included in the assessment where there is shown to be predicted visibility of the Proposed Development from their locations.
- 7.3.29 Cultural heritage assets that can be presumed to have long distance views or vistas (to and from their locations), that may contribute to their cultural significance, or where they are prominent visual components of the landscape or local land marks (for example prehistoric hill forts/duns, funerary cairns, castles, country houses and gardens and designed landscapes), or those that are located in close proximity to the route of the Proposed Development, were included in the assessment and assessed using the criteria detailed in Tables 7.6-7.9 (below).
- 7.3.30 Cultural heritage assets that are considered to have localised settings (summarised in Technical Appendix 7.3) have not been assessed in detail. Such assets include: those presumed not to have long distance views or vistas (to and from their locations); those that are demonstrably functional in their purpose, for example burnt mounds, cairnfields, ancillary farm buildings and minor architectural structures (mills, cottages, limekilns); those standing in closely planted forestry plantations or mature woodland; and those within built environs.
- 7.3.31 Sensitivity of setting has been assessed by considering two factors:
- The value / sensitivity which statute and policy attach to the assets and its setting (Table 7.3).
 - The degree to which the baseline setting contributes to the understanding and / or appreciation, and hence value, of the asset (Table 7.6.).

Table 7.6: Contribution of Setting to Understanding and Appreciation of a Heritage Asset	
Contribution of Setting	Definition
High	A setting which makes a strong positive contribution to the understanding and / or appreciation of the siting and / or historical / archaeological / architectural context of an asset. e.g. a prominent topographic location; surroundings that include related monuments in close association; surroundings that are believed to be little changed from those when the asset was created.
Moderate	A setting which makes some positive contribution to the understanding and / or appreciation of the siting and / or historical / archaeological / architectural context of an asset. e.g. surroundings that complement the siting and appearance of an asset such as the presence of a feature of the rural past within a more recent farming landscape containing little or no urban or industrial development.
Low	A setting which makes little positive contribution to the understanding and / or appreciation of the siting and / or historical / archaeological / architectural context of an asset. e.g. where surroundings only partially complement the siting and appearance of an asset, such as the presence of a feature of the rural past within a partly urbanised or industrialised landscape.
Negligible	A setting which does not contribute positively to the understanding and / or appreciation of the siting and / or historical / archaeological / architectural context of an asset. e.g. immediate surroundings, such as of a commercial coniferous single species woodland or an industrial development, that are not relevant to understanding the context of the asset.

7.3.32 The two criteria (Table 7.3 and Table 7.6) are combined to assess the overall sensitivity of setting, as set out in Table 7.7. Assets of negligible sensitivity are excluded from the matrix in Table 7.6 and from the setting assessment, as their settings would not be significantly adversely affected by the Proposed Development.

Table 7.7: Sensitivity of Setting of Asset				
Sensitivity of Heritage Asset ▼	Contribution of Setting ►			
	High	Moderate	Low	Negligible
High	High	High	Medium	Low
Medium	High	Medium	Low	Low
Low	Medium	Medium	Low	Low

7.3.33 For those assets considered to have settings that would potentially be affected by the Proposed Development (listed in Technical Appendix 7.4), the magnitude of the predicted impact on their settings has been assessed according to the thresholds set out in Table 7.8.

Table 7.8: Magnitude of Impacts on Setting	
Magnitude of Impacts on Setting	Definition
High	A fundamental material impact obviously changing the surroundings of an asset, such that its baseline setting is substantially or totally altered.
Medium	An effect discernibly changing the surroundings of an asset, such that its baseline setting is partly and materially altered.
Low	A slight, but detectable impact that does not materially alter the baseline setting of the asset.
Imperceptible	A very slight and barely distinguishable change from baseline conditions.

7.3.34 The significance of an impact depends on both the magnitude of impact and the sensitivity of the asset's setting. Table 7.9 presents the matrix that was used to inform the determination of the significance of effects on setting.

Table 7.9: Significance of Impact on Setting			
Magnitude of Impact ▼	Sensitivity of Setting ►		
	High	Medium	Low
High	Major	Major	Minor
Medium	Moderate	Moderate	Minor
Low	Minor	Minor	None
Imperceptible	None	None	None

Significance Criteria

7.3.35 The significance of impacts is classified as Major, Moderate, Minor and None, as defined in Tables 7.5 and 7.9. Major and Moderate impacts are considered to be significant.

Table 7.10: Significance Criteria	
Level of Significance	Definition
Major	A change to the fabric or setting of a heritage asset that leads to a substantial environmental effect.
Moderate	Changes to the fabric or setting of a heritage asset that lead to a material

Table 7.10: Significance Criteria	
	environmental effect.
Minor	Changes to the fabric or setting of a heritage asset that lead to a detectable but non-material environmental effect.
None	Changes to the fabric or setting of a heritage asset that lead to, at most a negligible environmental effect.

Limitations and Assumptions

- 7.3.36 The assessment has been completed using data derived from Historic Environment Scotland's Spatial Warehouse and from Highland Council's HER and other sources (historic maps, aerial photographs). It is assumed that, at the time of the acquisition of the data, the information provided was accurate and up-to-date. It is considered that the data obtained is sufficient to provide a reliable assessment of the archaeological baseline of the Proposed Development study areas and that the information has been sufficient to allow a proper assessment of the potential effects of the Proposed Development on the cultural heritage resource.
- 7.3.37 The Proposed Development, as described in Chapter 2: Description of the Proposed Development, includes horizontal and vertical Limits of Deviation (LOD) to allow for micro-siting and variation of tower heights. The assessment presented in this chapter is based on the likely effects on heritage assets associated with the construction and operation of the Proposed Development, based on the proposed tower schedule provided in Technical Appendix 2.1. The potential increase in tower height within the vertical LOD could, in some instances, potentially exacerbate adverse effects on the setting of heritage assets. This is particularly the case for those heritage assets that are in close proximity to the Proposed Development, and this factor is taken into consideration within the assessment. Final tower positions and access track routes would be subject to micro-siting within their respective LODs on the basis of detailed ground investigation. At this stage, consideration would also be given to detailed local environmental sensitivities, including the proximity to heritage assets. Towers and tracks which lie within close proximity to heritage assets would be micro-sited as far from heritage assets as possible.

7.4 Baseline Conditions

Current Baseline

Inner Study Area

- 7.4.1 In total, 84 heritage assets have been identified within the Inner Study Area¹⁴.
- 7.4.2 The landscape within the Inner Study Area contains rich and diverse archaeological remains dating from the Bronze Age to the post-medieval period. The majority of the assets relate to rural settlement and land use, and include: prehistoric hut-circles and associated cairnfields; two well-preserved pre-improvement townships; three former farmsteads; and numerous other agrarian features (including individual or small groups of clearance cairns/spreads, sections of former field banks and rig and furrow cultivation). The prehistoric remains are found principally within pasture land and in heather moorland areas surrounding Lairg, and on the higher slopes overlooking Auchinduich.
- 7.4.3 There are no heritage assets with statutory designations (Scheduled Monuments, Listed Buildings, Conservation Areas) within the Inner Study Area and the Proposed Development LOD does not cross any heritage assets with statutory or non-statutory designations (Conservation Areas, Inventory status Gardens and Designed Landscapes, Inventory status Historic Battlefields).

¹⁴ Following changes to the Proposed Development design in March 2018 a number of heritage assets previously recorded within the Proposed Development LOD fell outwith the Proposed Development LOD. These sites were consequently removed from the cultural heritage assessment and are shown as 'VOID' in Technical Appendix 7.2.

- 7.4.4 Numbers in brackets and in bold in the following text, refer to asset numbers provided on Figures 7.1 a-d in Volume 3.
- 7.4.5 A detailed description of the baseline conditions within the Inner Study Area is provided in Technical Appendix 7.1 and Technical Appendix 7.2 provides details of each heritage asset on a site-by-site basis.

Outer Study Area

- 7.4.6 The 'Bare-Earth' ZTV (Figure 7.2 in Volume 3) indicates that heritage assets predicted to have views of the Proposed Development are concentrated principally within 5 km of the Proposed Development and are focused largely around Lairg and along the River Shin valley.
- 7.4.7 Analysis of the heritage assets scoped into the assessment (see Table 7.10 for details) and the 'Bare-Earth' ZTV (Figure 7.2 in Volume 3) indicates that there would be theoretical visibility of one or more component of the Proposed Development from a total of 39 designated heritage assets within the Outer Study Area (listed in Technical Appendix 7.3). These include: 29 Schedules Monuments; two Category B Listed Buildings; and, one Inventory status Historic Battlefield, within 10 km of the Proposed Development; and, seven Category C Listed Buildings within 5 km of the Proposed Development.

Future Baseline

- 7.4.8 If the Proposed Development was not to proceed there would likely be no immediate change to the baseline condition of the heritage assets identified unless they were affected by future land use changes unrelated to the Proposed Development.
- 7.4.9 As part of the wider works associated with the Proposed Development, the existing 132 kV OHL from Lairg GSP to Shin Substation would be decommissioned and removed following the installation of the Proposed Development. The decommissioning and removal of this existing OHL would result in beneficial effects on the settings of heritage assets that are located in close proximity to the existing OHL; particularly those within the Achany Glen¹⁵.

Summary of Sensitive Receptors

- 7.4.10 A summary of the heritage assets identified as having settings that are sensitive to the Proposed Development and which have been 'scoped-in' to the assessment are given in Table 7.11, together with the justification for inclusion.

Receptor	Sensitivity	Justification
Scheduled Monuments up to 10 km from the Proposed Development - 29 Scheduled Monuments are predicted to have visibility of the Proposed Development from the Standard Tower Height 'Bare-Earth' ZTV – a list of these is provided in Technical Appendix 7.3 along with their relative sensitivities. There are no additional Scheduled Monuments predicted to have visibility of the Proposed	High	These are monuments protected by statute. They are of national heritage importance and high sensitivity. The consent of the Scottish Ministers is required before any works are carried out which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a Scheduled Monument. In addition, effects of Proposed Development works upon the setting of a Scheduled Monument form an important consideration in the

¹⁵ The removal of the existing Lairg GSP to Shin Substation OHL would result in the removal of the section of existing OHL that currently passes through the Achany Glen, settlement Scheduled Monument (SM2208). The proposed works for the removal of the existing Lairg GSP to Shin Substation OHL are outwith the scope of the EIA/S37 consent for the Lairg to Loch Buidhe OHL and will be developed in consultation with Historic Environment Scotland.

<p>Development if larger tower heights (up to 6 m vertical LOD) were to be utilised (Figures 7.2 and 7.3).</p>		<p>granting or refusal of planning consent to conduct development works.</p>
<p>Listed Buildings (Category A and B) up to 10 km from the Proposed Development – 2 Category B Listed Buildings are predicted to have visibility of the Proposed Development from the Standard Tower Height 'Bare-Earth' ZTV visibility of the Proposed Development – these are listed in Technical Appendix 7.3 along with their relative sensitivities.</p> <p>There are no additional Category B Listed Buildings predicted to have visibility of the Proposed Development if larger tower heights (up to 6 m vertical LOD) were to be utilised (Figures 7.2 and 7.3).</p>	<p>High/Medium</p>	<p>Buildings that are statutorily protected as being of special architectural or historic interest. They are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (1997 Act). They are classified into Categories A and B, in decreasing order of importance. Planning authorities and the Scottish Ministers are required to have special regard for the desirability of preserving Listed Buildings and their settings and any features of special architectural or historic importance they possess.</p>
<p>Listed Buildings (Category C) up to 5 km from the Proposed Development – 6 Category C Listed Buildings are predicted to have 'Bare-Earth' visibility of the Proposed Development – these are listed in Technical Appendix 7.3 along with their relative sensitivities.</p> <p>There are no additional Category C Listed Buildings predicted to have visibility of the Proposed Development if larger tower heights (up to 6 m vertical LOD) were to be utilised (Figures 7.2 and 7.3).</p>	<p>Low</p>	<p>Buildings that are statutorily protected as being of special architectural or historic interest. They are protected under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (1997 Act). Planning authorities and the Scottish Ministers are required to have special regard for the desirability of preserving Listed Buildings and their settings and any features of special architectural or historic importance they possess.</p>
<p>Inventory status Historic Battlefields up to 10 km from the Proposed Development – one Historic Battlefield is predicted to have visibility of the Proposed Development from the Standard Tower Height 'Bare-Earth' ZTV visibility of the Proposed Development – this is listed in Technical Appendix 7.3 along with its relative sensitivity.</p> <p>There are no additional Historic Battlefields predicted to have visibility of the Proposed Development if larger tower heights (up to 6 m vertical LOD) were to be utilised (Figures 7.2</p>	<p>High</p>	<p>Under the provisions set out in Section 32B(1) of the Ancient Monuments and Archaeological Areas Act 1979 Historic Scotland has compiled an Inventory of Historic Battlefields which it considers to be of national importance. The inventory provides information on those battlefields which are provided with statutory protection, to enable their sustainable management through the planning system. The impact of a development on a Historic Battlefield listed in The Inventory of Historic Battlefields (published by Historic Scotland) is a material consideration in the determination of a planning application.</p>

Table 7.11: Summary of Receptor Sensitivity		
and 7.3m).		
Other historic environment interest within the Proposed Development LOD – 84 heritage assets have been identified within the Proposed Development LOD – a list of these is provided in Technical Appendix 7.2 along with their relative sensitivities.	Medium to Negligible	A range of other non-designated archaeological sites, monuments and areas of historic interest which do not have statutory protection but are curated by the local planning authority

7.5 Assessment of Likely Effects

Construction Effects

- 7.5.1 Any ground breaking/disturbance activities associated with construction of the Proposed Development have the potential to disturb or destroy feature of cultural heritage interest. Other activities, such as vehicle movements and the storage of construction materials within the Proposed Development LOD also have the potential to cause direct, adverse, permanent and irreversible impacts on the cultural heritage (all potential impacts listed in Technical Appendix 7.2 (Cultural Heritage Constraints within Inner Study Area) are such).
- 7.5.2 The potential adverse, permanent and irreversible direct impacts result primarily from possible ground disturbance associated with the erection of the OHL towers, installation of underground cable routes and construction of and upgrading of access tracks close to cultural heritage assets.
- 7.5.3 A total of 84 heritage assets have been identified within the Proposed Development LOD. It is assessed that there is potential for construction works to result in direct effects on 51 of these heritage assets in the absence of mitigation.
- 7.5.4 In addition, it is assessed that there is a high potential for buried archaeology to survive in areas within the Proposed Development LOD (Inner Study Area) and proposed construction works could potentially directly affect any buried remains that may survive.
- 7.5.5 Mitigation to reduce or offset these impacts is provided in Sections 7.6 and 7.7 and the residual impacts are summarised in Section 7.8.

Assumptions for potential construction effects

- 7.5.6 For the purpose of this assessment direct (construction) impacts have been based on the proposed OHL route and indicative tower positions and access track routes.
- 7.5.7 It is considered that there is potential for a direct impact on heritage assets with known or potential physical remains in the following circumstances:
- within 50 m of proposed tower locations, to take into account working areas around towers and vehicle movement at these locations;
 - within 25 m of the proposed 11 kV and 33 kV underground cable routes and within 50 m of the proposed 132 kV underground cable route at Loch Buidhe;
 - along, and within close proximity to, the proposed access track routes – it is assumed that there would be no requirement for construction works along the route of the proposed 132 kV OHL apart from sections where access tracks are proposed;
 - within proposed forestry felling areas (see Technical Appendix 2.4: Forestry and Woodland Management Plan for more information); and
 - within the proposed SEC at Loch Buidhe.

7.5.8 The development layout as set out in Figures 7.1 a-d in Volume 3 is indicative, based on the proposed OHL alignment and tower schedule (see Chapter 2: Description of the Proposed Development, for details). Any changes to the proposed layout of the development could potentially result in changes to the impacts predicted below and would require to be assessed further.

Operational Effects

7.5.9 The construction and presence of the proposed 132 kV OHL may adversely affect the setting of heritage assets in its vicinity. Impacts affecting the settings of heritage assets can occur both during the construction phase (short term and temporary effects) and throughout the operational phase (long term or permanent effects).

7.5.10 Short term and temporary effects arising from construction have been scoped out as they would have no lasting, permanent impact on the settings of heritage assets, either within the Proposed Development LOD or in the wider study area.

7.5.11 The effects of the Proposed Development on heritage assets during the operational phase, using the indicative layout depicted on Figures 7.1 a-d in Volume 3, are detailed in Technical Appendices 7.3 (Cultural Heritage Constraints within Outer Study Area with predicted visibility of the Proposed Development) and 7.4 (Detailed Assessment of Key Heritage Assets within Outer Study Area), and the residual effects are discussed in Section 7.8: Appraisal of Residual Effects.

7.5.12 It is assessed that there is potential for the Proposed Development to result in indirect effects on the settings of a total of 22 heritage assets: 17 Scheduled Monuments, two Category B Listed Buildings and one Inventory status Historic Battlefield within 10 km of the Proposed Development. No mitigation is proposed to offset these impacts.

7.5.13 No additional heritage assets within the Wider Study Area are predicted to have visibility of the Proposed Development if the proposed maximum tower heights (up to 6 m vertical LOD) were utilised.

7.5.14 Decommissioning and removal of the existing 132 kV OHL from Lairg GSP to Shin Substation would be likely to result in beneficial effects on the settings of heritage assets that are located in close proximity to the existing OHL; particularly those within the Achany Glen.

Cumulative Effects

7.5.15 The proposed 132 kV OHL in combination with the proposed Dalchork Substation may have an adverse cumulative effect on the heritage assets in the vicinity of the Proposed Development. Such effects would be long term but would ultimately be reversible, contingent upon any future decommissioning. Cumulative effects on the settings of heritage assets can occur both during the construction phase and the operational phase.

7.5.16 The cumulative impact assessment is presented in Section 7.8: Residual Effects.

7.6 Mitigation

7.6.1 Mitigation measures would be implemented to avoid, reduce or offset the likely direct (physical) impacts of the Proposed Development on heritage assets. This is in line with requirements of the national, regional and local planning policies set out in Section 7.2. A suitable programme of mitigation has been prepared and presented in a Written Scheme of Investigation (WSI) provided in Technical Appendix 7.5.

7.6.2 Provision is also made within the WSI for an appropriate programme of investigation and recording of any archaeological remains, identified as a result of any mitigation works undertaken in advance of, or during, construction works, that cannot be preserved in situ. All works would be conducted by a professional archaeological organisation (Archaeological Clerk of Works). The mitigation works would include the consequent production of written reports on the findings of the archaeological work conducted, with post-excavation analyses, publication and archiving of the results of the work where appropriate.

7.6.3 The WSI (Technical Appendix 7.5), and written guidelines outlining the need to avoid causing unnecessary damage to known heritage assets, will be contained within the CEMP (as described in Chapter 2: Description of

the Environment and Technical Appendix 2.2: Outline Construction Environmental Management Plan). The CEMP would contain arrangements for calling upon retained professional archaeological support in the event that features of potential archaeological interest (such as building remains, human remains, artefacts, etc) are discovered in areas not subject to archaeological monitoring. The guidance would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.

Mitigation at Pre-Construction Stage

Micrositing of Tower Positions and Access Track Routes

- 7.6.4 Final tower positions and access track routes would be subject to micrositing within their respective LODs on the basis of detailed ground investigations. At this stage, consideration would be given to detailed local environmental sensitivities, including the proximity of heritage assets to components of the Proposed Development. Where feasible, towers and tracks that are in close proximity to heritage assets identified in the assessment would be microsited to avoid heritage assets or to minimise potential direct effects.

Enhanced Field Survey

- 7.6.5 Whilst every effort has been made during the alignment phase to avoid archaeological constraints, due to the extensive nature of some of the heritage assets identified within the Inner Study Area, the Proposed Development crosses a number of complex archaeological sites, for example cairnfields and township remains. A more comprehensive survey of these sites, where they would be crossed by the proposed access tracks and OHL, would be carried out prior to construction works commencing in those areas. This would be achieved through an enhanced GPS earthwork survey, the purpose of which would be to record the locations of individual components of these sites sufficient to inform a construction phase management plan. It is envisaged that this enhanced field survey would be undertaken for the following assets: ten cairnfields (1, 4, 6, 13, 16, 18, 21, 25, 34 and 46), hut-circles and cairnfield (59) and two townships (77 and 80). The surveys would be limited to the areas within the OHL LOD or track micrositing allowance and the level of detail of the surveys would be commensurate with the need to optimise the micrositing of the tracks or towers.

Mitigation during Construction

- 7.6.6 The following mitigation strategy is proposed during the construction phase of the Proposed Development. Technical Appendix 7.2 contains detail of the proposed mitigation on a site-by-site basis and detailed in a Written Scheme of Investigations provided in Technical Appendix 7.5.

Impact Avoidance – Preservation in situ / Marking-off

- 7.6.7 The locations of construction works and ground breaking works at: proposed towers, along proposed access track routes and along proposed underground cable routes., would seek to avoid known cultural heritage assets where feasible. Procedures would include the exclusion of heritage assets from working areas, and avoidance of assets when planning access routes for construction areas.
- 7.6.8 Where assets (including individual components of complex or extensive heritage assets (for example cairnfields)) survive as upstanding features and lie within 50 m of proposed tower locations they would be avoided as far as is practicable in order to ensure their preservation in situ. Where appropriate, assets would be marked-off using high visibility fencing placed, wherever possible, a minimum of 10 m from the visible extent of the heritage asset, to prevent avoidable accidental damage occurring to the remains during construction activities.
- 7.6.9 Temporary access panels or floated track construction would be used where new access tracks are proposed close to two regionally important sites, Puill Fhraoich Township (77) and Cnoc Garbh-Airigh Township, Field System (80). Pulling bonds, where they cross, the townships would be pulled through by hand thus removing the need for the use of machinery within the confines of the townships.

Impact Reduction – Protection of Features Crossed by Access Tracks

- 7.6.10 A working corridor will be defined for the routes of proposed access tracks where these cross cairnfields. This approach will limit the areas within which construction works would take place and ensure the preservation in situ of the majority of the individual components of the cairnfields as far as is practicable.
- 7.6.11 Where linear assets survive as upstanding features, principally field banks and drystone dykes, access tracks would be routed through any existing gates or through broken (less well-preserved) sections of the dykes where possible. Where banks and dykes, cannot be avoided, breaches would be kept to the minimum width necessary and they would, where appropriate, be reinstated on completion of the construction works.
- 7.6.12 Floated track construction would be employed, where possible, where access tracks run close to former building location (45c) or pass through cairnfields (1, 3, 4, 6, 13, 16, 18, 21, 25, 34, 46 and 59), to avoid disturbance of any surviving buried remains.

Mitigation During Operation

- 7.6.13 Where access would be required along the route of the Proposed Development, for maintenance and repair of the Proposed Development during its life-time, the same mitigation as proposed for the construction phase works would be necessary where temporary access tracks were used during the construction phase.

Mitigation During Decommissioning

- 7.6.14 It is assumed that the same access track infrastructure / routes would, as far as practicable, be used for dismantling and removal of the built features of the Proposed Development during future decommissioning. Where temporary access tracks were used during construction phase works, the same mitigation proposed for the construction phase would be implemented during the decommissioning period.

7.7 Additional Good Practice

Impact Offset – Investigation and Recording

- 7.7.1 Where upstanding features cannot be avoided or protected during the construction phase, any heritage assets in these areas that cannot be avoided would be investigated and recorded prior to construction works being carried out, to a specification and standard to be agreed in writing within THC and in consultation with HET. In addition, given the concentration of both prehistoric and medieval/post-medieval settlement remains and associated field systems (cairnfields) within both the Inner Study Area and in the landscape surrounding the Proposed Development, it is considered that there is a high potential for the preservation of buried remains of archaeological interest to survive within the Inner Study Area. Any requirements for archaeological monitoring of works / watching briefs in particular locations would need to be agreed through consultation with HET.
- 7.7.2 If significant discoveries are made during any archaeological monitoring / watching briefs, and if preservation in situ of any archaeological remains identified is not possible, provision would be made for an appropriate amount of investigation and recording; the scope of which would need to be agreed through consultation with, and agreement in writing with, HET. This provision would include the consequent production of written reports on the findings, with post-excavation analyses and publication of the results of the work where appropriate (see Technical Appendix 7.5: Written Scheme of Investigation).

7.8 Residual Effects

- 7.8.1 The Proposed Development includes horizontal and vertical limits of deviation to allow for micro-siting and variation of tower heights (see Section 7.3 for details) and this assessment is based on the proposed tower schedule provided in Technical Appendix 2.1.
- 7.8.2 The potential increase in tower height within the vertical LOD (up to 6 m) could potentially exacerbate adverse effects on the setting of heritage assets; particularly for those that are in close proximity to the Proposed Development. The potential increase in tower height has been taken into consideration within the assessment.

- 7.8.3 The potential for movement in the positions of towers away from the alignment described in Chapter 2, within the horizontal LOD, could potentially change the specific heritage assets directly affected by the construction of the Proposed Development. Any movement of towers within the horizontal LOD would therefore be subject to review by the Archaeological Clerk of Works: the aim being to seek to avoid or minimise direct effects where practicable. Specific requirements for archaeological monitoring of construction works / watching briefs would be agreed in consultation with HET.
- 7.8.4 Any changes to the proposed layout of the development could potentially result in changes to the impacts predicted below. However, it is assessed that overall any changes would unlikely result in any material change to the conclusions of the assessment, as set out below.

Construction Effects

- 7.8.5 Using the criteria detailed in Tables 7.3-7.4, Technical Appendix 7.2 details the potential pre-mitigation construction impacts, provides mitigation proposals and details predicted residual construction effects on heritage assets identified within the Proposed Development LOD.
- 7.8.6 A total of 84 heritage assets have been identified within the Proposed Development LOD. For the residual effects assessment, it is assumed that the Proposed Development (OHL, access tracks, etc) would, where possible, be microsited to avoid these heritage assets. Taking this into consideration, out of the 84 heritage assets identified within the Proposed Development LOD there is potential for construction works to result in direct (construction) effects on 30 heritage assets; where elements of the surviving remains are crossed by the Proposed Development and cannot be avoided:
- **Moderate, adverse** and permanent effects (significant) are predicted on the remains of ten cairnfields (1, 4, 6, 13, 16, 18, 21, 25, 34 and 46), a hut-circle/cairnfield (59), and two townships (77 and 80).
 - **Minor, adverse** and permanent effects (not significant) are predicted on three culverts (79, 81 and 82).
 - One unknown, but potentially **moderate adverse** effect (significant), on a former farmstead building (45c).
 - Residual effects on the remaining 13 heritage assets are predicted to be not significant: seven enclosures (15, 29, 36, 53, 57, 83 and 86) and six drystone dykes/banks (7, 32, 37, 48, 55 and 71).
- 7.8.7 Where heritage assets lie in close proximity to the Proposed Development these impacts would be avoided through micrositing the Proposed Development within the LOD, where possible; consequently no residual effects are predicted for these assets. If however, the assets cannot be avoided by construction works there is potential for direct adverse effects to occur to 21 heritage assets:
- One **major adverse** effect (significant) on a hut-circle (52).
 - Ten **moderate adverse** effects (significant) on seven individual or small clusters of clearance cairns (12, 22, 24, 35, 38, 39, 47, 49, 51 and 78).
 - Ten **minor adverse** effects (not significant) on modern building footings (9); farmstead/pillbox (30), quarries (62-63, 65-67 and 69), gravel pits (84) and a remains of a former building (87).
- 7.8.8 Where heritage assets cannot be avoided during construction, mitigation to offset and/or reduce the effect has been proposed (see Section 7.6 above and Technical Appendix 7.2 for details). In these cases, where construction work would disturb heritage assets the residual effects on the heritage assets would be the same as predicted before mitigation, although offset by mitigation through preservation by record.

Operational Effects

- 7.8.9 Analyses of the Standard Tower Height 'Bare-Earth' ZTV (Figure 7.2 in Volume 3) indicates that there would be theoretical visibility of one or more components of the Proposed Development from a total of 36 designated heritage assets within the Outer Study Area (listed in Technical Appendix 7.3 in Volume 4). The 'Bare-Earth' ZTVs takes no account of obstruction to intervisibility resulting from existing forestry / woodland and other vegetation, or from buildings and man-made features. Taking this into consideration, both a Standard Tower

Height 'With-Screening' ZTV and a Maximum Tower Height 'With-Screening' ZTV have been produced for the Proposed Development (Figure 7.3 in Volume 3) using the following assumptions: height of buildings 8 m and height of forestry / woodland 15 m.

- 7.8.10 The Standard Tower Height 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that views to the Proposed Development would be screened entirely from 17 heritage assets, 13 Scheduled Monuments, one Category B Listed Building, and four Category C Listed Buildings; see Technical Appendix 7.3 for details.
- 7.8.11 There are no additional heritage assets that would have predicted visibility of the Proposed Development from the Maximum Tower Height 'With-Screening' ZTV.
- 7.8.12 Following the assessment process as set out above, it was assessed that 22 heritage assets, 17 Scheduled Monuments, two Category B Listed Buildings and one Inventory status Historic Battlefield within 10 km of the Proposed Development, have settings that would potentially be affected by the presence of the Proposed Development in the surrounding landscape (listed in Technical Appendix 7.4).
- 7.8.13 Technical Appendix 7.4 details the findings of the assessment of the residual operational effects of the Proposed Development upon the settings of these heritage assets, based on the current ground conditions and does not take into account of any future changes to the baseline, such as changes to commercial forestry.
- 7.8.14 Heritage assets identified by HES and THC HET (see Table 7.1) to lie in close proximity to the Proposed Development and to have sensitive settings that could potentially be significantly affected by the Proposed Development are considered in detail below. To aid the assessment of these assets, photomontages and comparative wirelines (listed in Table 7.2) have been produced to show the theoretical visibility of the Proposed Development from a selection of these assets. Further explanation of the methods used in generating these visualisations is included in Chapter 4: Landscape Resource and Visual Amenity. Assessment of the effects on the settings of these and other heritage assets selected by the assessment methods set out above can be found in Technical Appendix 7.4.
- 7.8.15 In addition five non-designated cultural heritage assets considered to be of regional heritage importance, as recorded in the THC Historic Environment Record (HER), and of medium sensitivity have been identified either within the Proposed Development LOD or in close proximity of the Proposed Development LOD. These are: Abhainn A'Chuirp, Hut-circle and Field System (MHG11861 & MHG11862), Saval, Hut-circles and Field System (MHG13251 & MHG11856) and Claisnafaire, Township (MHG10328). In line with planning legislation policy and guidance, including PAN2/2011, the Highland-wide Local Development Plan (HwLDP) 2012¹⁶ and the Highland Council Historic Environment Strategy Supplementary Planning Guidance (2013¹⁷), the residual effects of the Proposed Development on the setting of these five assets are discussed in detail below, but they are not included in the Technical Appendices.
- 7.8.16 Significant residual operational effects of **moderate adverse** significance have been predicted on the setting of two non-designated assets of regional importance - Puill Fhraoich Township (77 – MHG10052) and Cnoc Garbh-Airigh Township and Field System (80 – MHG10057) - and these are detailed below.
- 7.8.17 No other cultural heritage assets within the ZTV would be likely to receive significant residual operational effects on their settings from the introduction of the Proposed Development.

Significant Impacts

Non Designated Sites of Regional Importance present within or in close proximity to the Proposed Development LOD

¹⁶ The Highland Council (2012) The Highland-wide Local Development Plan (HwLDP)

¹⁷ The Highland Council (2013) Highland Council Historic Environment Strategy Supplementary Planning Guidance

Puill Fhraoich Township (77 – MHG10052) & Cnoc Garbh-Airigh Township and Field System (80 – MHG10057) (Figures 7.9, 7.10 and 7.16 in Volume 3b)

- 7.8.18 The well-preserved and complex remains of these two townships, dating from at least the 18th century, are located in an area of open heather moorland on the lower south-facing slopes of Cnoc Garbh-airigh. The remains include the footings of at least twelve buildings and various enclosures and form two distinct and discrete townships standing c.340 m apart. The township remains are not scheduled; however, they are well-preserved and are clearly visible in the moorland landscape, and they have a high archaeological interest and value as an educational resource in their potential to inform our understanding of 18th century, or earlier, townships in the area. Accordingly, they are assessed as being of regional heritage importance and medium sensitivity.
- 7.8.19 Outward views from the assets are concentrated to the south, overlooking the Allt Loch Laro watercourse and surrounding open moorland, and along the Loch Laro valley, to the west and east, with panoramic views overlooking Loch Laro to the west. The township remains are also visible from an existing track that runs parallel with the northern side of the Allt Loch Laro, and which passes through the lower remains of the townships, and from the opposite side of the valley, where the townships can be seen in their moorland setting. The setting of the two townships is characterised by the open moorland and the Allt Loch Laro valley out over which views extend. The current setting contributes to the sense of place and the aesthetic and experiential appeal of the assets. The townships have settings that make a high contribution to their understanding and appreciation and this gives them a setting of high sensitivity.
- 7.8.20 An existing overhead transmission line (Loch Shin to Loch Buidhe OHL) crosses the moorland on the south side of the valley, opposite the townships, and is, at its nearest, around 500 m away from the Cnoc Garbh-Airigh Township and Field System (80 – MHG10057).
- 7.8.21 The Proposed Development LOD passes through the two townships (Figure 7.1d in Volume 3) with proposed towers (T13-T14 and T15-T16) being sited either side of each township. Temporary access panels or floated track construction would be used along the proposed temporary access routes and any effects on the setting of the assets from the use of the access tracks would be short-term and temporary in nature, and fully reversible at the end of the construction phase.
- 7.8.22 The setting of the townships would be discernibly altered by the introduction of the Proposed Development; particularly arising from the presence of towers immediately next to the township remains. The proposed towers (particularly T13 and T15) would be visible in key views out from the townships along the Loch Laro valley towards Loch Laro itself and in views towards the townships from the south side of the valley. Visualisations (Figures 7.9 and 7.10 in Volume 3, showing the Standard Height Towers) show the predicted visibility of the Proposed Development from the southern side of Loch Laro valley looking towards the townships. From this viewpoint the proposed towers would be seen together with the township remains, the towers standing adjacent to the remains and the overhead line wires crossing the assets. Given the permeable nature of the Proposed Development, the relationship between the two townships, and their relationship with the surrounding moorland landscape, would still be readily legible and it would remain possible to appreciate the setting of the assets and the sense of place would be largely retained. However, the proximity of the proposed towers to the assets would noticeably alter their baseline setting. It is therefore assessed that the presence of the Proposed Development would have an impact of medium magnitude on the setting of the two townships (a discernible change to the surroundings of an asset, such that its baseline setting is partly and materially altered) resulting in a **moderate adverse** residual effect (significant in the context of the EIA regulations).
- 7.8.23 A comparative wireline (Figure 7.16 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. The position of the proposed towers would not change and although the increased tower heights would result in slightly larger towers being visible either side of the township remains. Whilst the change in tower height would be noticeable, the change in visual impact would be minimal and would not result in a change to the effect on the setting of the townships remains that

would be materially different to that of the Standard Height Towers. Taking this into consideration it is assessed that the impact on the setting of the townships from the proposed increased tower heights would be no worse than that assessed for the Standard Height Towers: a **moderate adverse** residual effect (significant in the context of the EIA regulations).

Not Significant Impacts

Scheduled Monuments

Loch Tigh Na Creige Settlement (SM5153)

- 7.8.24 The remains of a post-medieval settlement, comprising the remains of a long house, an outhouse and associated field walls, are situated in a relatively flat area of moorland, within a forest clearing c.600 m west of Loch Tigh na Creige. The current setting of the asset is characterised by moorland and the forestry that surrounds it; views to the north, east and west are restricted by the surrounding forestry, although some views are afforded to the south, overlooking the Allt Chaiseagail burn. The current setting is assessed as being of medium, but localised, sensitivity.
- 7.8.25 The Proposed Development would be approximately 1.2 km from the settlement, running in an arc from the north-west to the south, where it passes the settlement and the 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that there would be only limited visibility of the Proposed Development; the proposed towers being largely screened by the surrounding commercial forestry. If the plantation to the south of the monument were to be felled, this would result in opening up views from the monument and the proposed towers would become visible; although the permeable nature of the Proposed Development would mean that the landscape surroundings, and context of, the settlement could still be readily appreciated and understood. It is assessed that the Proposed Development would have an impact of no more than low magnitude (slight but detectable impact) on the setting of Loch Tigh Na Creige Settlement, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).
- 7.8.26 The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that there would be a slight increase in visibility of the Proposed Development from the southern edge of the settlement. Nevertheless, at over 1.2 km away any proposed increase in tower heights (up to 6 m) would result in only a minimal change to the appearance of the Proposed Development from the monument and would result in a change that is not materially different to that of the Standard Height Towers. It is, therefore, assessed that the impact of the increased tower heights on the setting of the broch would be no worse than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Altbreck, Broch (SM1829)

- 7.8.27 The remains of this Iron Age broch and associated enclosures occupy the summit of a small, naturally terraced knoll, c.110 m north of a modern forestry access track, standing in a strategic position overlooking the confluence of the Allt Ruadh burn and the Allt Chaiseagail burn. Although the remains lie within a commercial forestry plantation (Dalchork Wood) they currently have an open hilltop setting, as the forestry around the monument has been felled, and views are afforded from the monument in all directions, contributing to the aesthetic and experiential appeal of the monument. The open hilltop setting of the monument makes a high contribution to its understanding and appreciation and gives it a setting of high sensitivity.
- 7.8.28 The Proposed Development would, at its nearest, be around 1.8 km from the monument running in an arc from the south to the south-west of the broch, crossing moorland to the south (at Saval) and passing through commercial forestry to the south-west. The 'With-Screening' ZTVs (Figure 7.3 in Volume 3) predicts that views of the Proposed Development would be largely screened from the monument due to intervening forestry. However, recent forestry felling has returned views to and from the monument, although some screening is still provided by the forestry that stands to the south of the monument. Although a new element in the wider landscape of the broch, the Proposed Development would be seen as a minor, distant change to the surrounding landscape and the wide views obtained from the monument and the introduction of the Proposed Development within the wider landscape setting of the broch would not detract from an ability to appreciate or

understand the broch or its relationship with its surrounding landscape. It is assessed that the Proposed Development would have a predicted impact of low magnitude on the setting of Altbreck Broch resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

- 7.8.29 The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that there would be a slight increase in visibility of the Proposed Development from the edges of the Scheduled Area. Nevertheless, at over 1.5 km away any proposed increase in tower heights (up to 6 m) would result in only a minimal change to the appearance of the Proposed Development from the monument and would result in a change that is not materially different to that of the Standard Height Towers. It is, therefore, assessed that the impact of the increased tower heights on the setting of the broch would be no worse than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Altbreck, Homestead (SM5563)

- 7.8.30 This monument comprises the earthwork remains of a probable prehistoric homestead, occupying an elevated location on a south facing slope, c.25 m north of a modern forestry access track. The homestead remains lie within the same commercial forestry plantation as the Altbreck, Broch (SM1829), described above, and lie a short distance to the south-east of the broch. The forestry around the monument has been felled and there are open views in an arc from the east to the west, overlooking the confluence of the Allt Ruadh burn and the Allt Chaiseagail burn and this location is evidently a key component of the monument's setting. More distant views out to the surrounding landscape are limited by surrounding commercial plantation and distant views to and from the homestead do not contribute significantly to the understanding and appreciation of its character. The current setting of the monument (within commercial forestry) is assessed as being of medium sensitivity.

- 7.8.31 The Proposed Development would, at its nearest, be around 1.3 km from the monument crossing moorland to the south of the monument (at Saval) and passing through commercial forestry to the south-west and the 'With-Screening' ZTVs (Figure 7.3 in Volume 3) predicts that the Proposed Development would be largely screened in views from the monument due to intervening plantation. If the forestry to the south of the monument were to be felled, this would result in opening up views from the monument and the Proposed Development would be visible crossing the moorland, at Saval, within the wider landscape setting of the homestead. Although the permeable nature of the Proposed Development would mean that the landscape surroundings, and context of, the homestead could still be readily appreciated and understood. It is assessed that the Proposed Development would have a predicted impact of no more than low magnitude on the setting of Altbreck Homestead resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

At around 1.3 km away, any proposed increase in the proposed tower heights (up to 6 m) would result in only minimal change to the appearance of the Proposed Development; the towers would be visible only in the wider landscape of the monument and the change would not be materially different to that of the Standard Height Towers. It is therefore assessed that the impact of the increased tower heights on the setting of the monument would be no worse than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations). **Loch Dola, Hut-Circles & Clearance Cairns (SM1878) (Figure 7.8 in Volume 3).**

- 7.8.32 The remains of this well-preserved prehistoric settlement, comprising the earthwork remains of at least ten hut-circles and an associated field system, occupy undulating moorland between Loch Dola and Loch Craggie. The main features of the setting of the monument are its relationship with the two lochs and the immediate surrounding moorland which was most likely exploited during occupation of the settlement. Wider landscape views are afforded from the settlement in all directions, overlooking surrounding commercial forestry and more distant hill slopes; although, from within the settlement the principal views are those to the south-east, overlooking Loch Craggie, and north-west, overlooking Loch Dola. The current setting of the monument is assessed as being of high sensitivity.

- 7.8.33 The Proposed Development would be visible from the settlement around 1.4 km away, running in an arc from west to south-west. A photomontage (Figure 7.8 in Volume 3), of the predicted view of the Proposed Development from the settlement shows that the proposed towers would be seen in distant views to the south-

west; the proposed towers crossing hill slopes at a slightly higher elevation than the settlement. The towers would, however, be mostly back-clothed by hill slopes and partially screened by intervening topography and commercial forestry; the Proposed Development would not be seen in the principal views from the monument, those towards Loch Dola and Loch Craggie, and the immediate moorland setting of the monument would be unaffected. Although the Proposed Development would constitute a change to the wider landscape setting of the settlement, this would not affect an ability to understand or appreciate the layout of the settlement or its topographical location. It is assessed that the Proposed Development would have a predicted impact of low magnitude on the setting of Loch Dola settlement, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

- 7.8.34 A comparative wireline (Figure 7.15 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower height (up to 6 m) were to be utilised. The comparative wireline predicts that there would be no additional towers visible from the monument. The change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. It is, therefore, assessed that the impact of the increased tower heights on the setting of the monument would be no worse than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Lairg Muir North, Chambered Cairn (SM1817) (Figure 7.5 in Volume 3)

- 7.8.35 The remains of this Neolithic burial cairn, aligned north-west to south-east, are located in a pasture field c.230 m south-east of the public road between Lairg Muir and Saval. The cairn has been heavily robbed of its stone content in the past and is now surmounted by a later sheepfold. From its location there are open views to the south-east, taking in surrounding farmland back-dropped by hill slopes, with views concentrated particularly from the chamber entrance across the Allt a' Chion-duinn burn. The current setting of the cairn is assessed as being of high sensitivity.
- 7.8.36 The burial cairn is one of a group of related burial monuments surviving within the Allt a' Chion-duinn valley, and north-east of Lairg; with two potentially contemporary burial cairns in the immediate vicinity: Lairg Moor South, Chambered Cairn (SM1818), c.400 m to the south-west, and Balcharn, Chambered Cairn (SM1768), on the opposite side of the valley, to the south-east, c.1 km away. Both cairns are visible from the Lairg Muir North Chambered Cairn and there may have been intended intervisibility between the three monuments. These relationships and intervisibility are an important aspect of their individual and collective settings.
- 7.8.37 In the immediate landscape of the cairn there are several wood pole overhead power lines crisscrossing the farmland. An existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) which runs in an arc from the south to the west c.600 m from the burial cairn would be decommissioned and dismantled as part of wider works associated with the Proposed Development. Within the wider landscape three wind farm developments are visible on the skyline: Lairg Wind Farm (3 turbines) in views to the south-east, on the opposite side of the valley (c.4 km away), and a cluster of turbines, including Rosehall Wind Farm and Achany Wind Farm, are visible in distant views to the south-west (c7 km away).
- 7.8.38 The Proposed Development would, at its nearest, be around 670 m from the monument; visible running in an arc from the north-west to the south-east with proposed towers being visible in the foreground crossing farmland and moorland to the north, north-east and west of the cairn, and passing in front of Lairg Wind Farm in more distant views to the south-east (Figure 7.5 in Volume 3). Proposed towers would be visible in the view from the monument towards Balcharn, Chambered Cairn (SM1768), to the south-east; although the towers would be at a higher elevation than the burial cairn, seen behind the cairn and back-clothed by hill slopes. The Proposed Development would also be seen crossing the landscape beyond the cairn when viewed from Lairg Moor South Chambered Cairn (SM1818); although the intervisibility between the two cairns would not be interrupted.
- 7.8.39 Although a new element in the landscape surrounding the cairn, the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary monuments in the immediate landscape to continue to be appreciated and

understood. It is assessed that the Proposed Development would have an impact of low magnitude on the setting of the asset, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

7.8.40 A comparative wireline (Figure 7.12 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. One additional tower (T59) would be visible from the monument. However, only the very tip of the additional tower would be visible beyond the horizon, in views to the southwest, with intervening topography screening views to much of this tower; it being barely visible in distant views. Overall, the change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. It is, therefore, assessed that the impact of the increased tower heights on the setting of the burial cairn would be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Lairg Moor South, Chambered Cairn (SM1818) (Figure 7.6 in Volume 3)

7.8.41 The remains of this Neolithic burial cairn, aligned north-west to south-east, occupies a relatively flat position in a pasture field c.40 m south-east of the public road between Lairg North and Saval. The cairn has been heavily robbed of its stone content in the past and all that now survives is a slight turf-covered mound of stones enclosed by a low stone bank. Open views are afforded from the monument in all directions; although views are particularly focussed to the east overlooking the Allt a' Choin duinn burn valley. The current setting of the cairn is assessed as being of high sensitivity.

7.8.42 The burial cairn is one of a group of related burial monuments surviving within the Allt a' Chion-duinn valley, and north-east of Lairg, with two potentially contemporary burial cairns in the immediate vicinity: Lairg Muir North, Chambered Cairn (SM1817), c.400 m to the north-east, and Balcharn, Chambered Cairn (SM1768), on the opposite side of the valley, to the south-east, c.1 km away. Both cairns are visible from the Lairg Moor South Chambered Cairn and there may have been intended intervisibility between the three monuments. These relationships and intervisibility are an important aspect of their individual and collective settings.

7.8.43 In the immediate landscape of the cairn there are several wood pole overhead power lines crisscrossing the farmland. A steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) which runs in an arc from the south to the west, c.300 m from the burial cairn would be decommissioned and dismantled as part of wider works associated with the Proposed Development. Within the wider landscape one wind farm development, Lairg Wind Farm (3 turbines), is visible on the skyline with all three turbines visible in views to the south-east, on the opposite side of the valley (c.3.8 km away).

7.8.44 The Proposed Development would be, at its nearest, 1 km away from the monument; visible running in an arc from the north-west to the south-east. A photomontage (Figure 7.6 in Volume 3) shows that the Proposed Development would be visible in the foreground crossing farmland and moorland to the north, north-east and west of the cairn, and passing in front of Lairg Wind Farm in more distant views to the south-east. The Proposed Development would also be seen crossing the view from the monument towards Balcharn, Chambered Cairn (SM1768), to the south-east, at a higher elevation than the burial cairn, behind the cairn and back-clothed by hill slopes, and seen crossing the landscape beyond Lairg Muir North Chambered Cairn (SM1817), although the intervisibility between the monument and this cairn would not be interrupted.

7.8.45 Although a new element in the landscape surrounding the cairn, the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary monuments in the immediate landscape to continue to be appreciated and understood. It is assessed that the Proposed Development would have an impact of low magnitude on the setting of the asset, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

A comparative wireline (Figure 7.13 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. One additional tower (T59) would be visible from

the monument. However, only the very tip of the additional tower would be visible, beyond the horizon in views to the southwest, with intervening topography screening views to much of this tower; it being barely visible in distant views. Overall, the change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. It is, therefore, assessed that the impact of the increased tower heights on the setting of the burial cairn would be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations). **Balcharn, Chambered Cairn (SM1768)**.

- 7.8.46 This monument comprises an Orkney-Cromarty-type round cairn of Neolithic date standing at the edge of a pasture field, c.30 m north-west of the Balcharn public road. The cairn has been disturbed in the past leaving an irregular mound which is overlain by the remains of a former farmstead and by a later drystone stock enclosure. From its location there are open views, particularly overlooking the Allt a'Chion-duinn burn to the west, taking in surrounding farmland back-dropped by hill slopes. The setting of the burial cairn is characterised by the pasture field in which it stands, the farmland over which views extend and its association with the Allt a'Chion-duinn burn. The current setting of the cairn is assessed as being of high sensitivity.
- 7.8.47 The burial cairn is one of a group of related burial monuments surviving within the Allt a' Chion-duinn valley, and north-east of Lairg, with two potentially contemporary burial cairns in the immediate vicinity: Lairg Moor South, Chambered Cairn (SM1818) and Lairg Muir North, Chambered Cairn (SM1817) both of which are on the opposite side of the valley, c.1 km to the north-west. Both of these other cairns are visible from the Balcharn Burial Cairn and there may have been intended intervisibility between the three monuments. These relationships and intervisibility are an important aspect of their individual and collective settings.
- 7.8.48 In the immediate landscape surrounding the monument there are wood pole overhead power lines crisscrossing the farmland. A steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) which runs in an arc from the south-west to the north-west, c.520 m from the burial cairn would be decommissioned and dismantled as part of wider works associated with the Proposed Development. Within the wider landscape three wind farm developments are visible on the skyline: Lairg Wind Farm (3 turbines) visible in views to the south-east, on the opposite side of the valley (c.2.7 km away), and distant views of a cluster of turbines, including Rosehall Wind Farm and Achany Wind Farm, can be glimpsed to the south-west (c.6.8 km away).
- 7.8.49 The Proposed Development would, at its nearest, be around 750 m away from the monument. The Proposed Development visible running in an arc from the north-west to the south-east. A photomontage (Figure 7.7 in Volume 3) shows that the Proposed Development would be visible beyond the skyline and partially screened from view by intervening topography. The Proposed Development would also be seen passing in front of Lairg Wind Farm, in more distant views to the south (Figure 7.7 in Volume 3); although the turbines would be back-clothed by hill slopes in this view. The Proposed Development would not be visible in the view from the monument towards Lairg Muir North Chambered Cairn (SM1817) or towards Lairg Moor South Chambered Cairn (SM1818) and would not affect the intervisibility between these three related monuments.
- 7.8.50 The Proposed Development would be visible in the surrounding landscape but screening provided by surrounding hill slopes and the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary monuments in the immediate landscape to continue to be appreciated and understood. It is assessed that the Proposed Development would have an impact of low magnitude on the setting of the asset, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).
- 7.8.51 A comparative wireline (Figure 7.14 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. The comparative wireline predicts that two additional towers (T54 and T44) would be visible, in views to the north-west and south-east respectively. Only the tips of the additional towers would be visible beyond the horizon; with intervening topography principally screening the towers from view. Overall, the change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. It is therefore assessed that the impact of the increased tower heights on the setting of the chambered cairn would

be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

The Ord, Chambered Cairns, Cairns, Settlement and Field System (SM1812) (Figure 4.18: LVIA Viewpoint 11 in Volume 3)

- 7.8.52 This monument consists of a landscape of a variety of prehistoric sites including: two chambered cairns, a homestead, several hut circles, and accompanying field systems, which occupy a strategic position of the summit area on The Ord, at the south end of Loch Shin and at the north end of Achany Glen. The settlement remains are a promoted visitor's site. There are wide ranging views from the monument, to the north, south and east; whilst rising ground to the west constrains views in that direction. The principal views, those that are most relevant to the understanding and appreciation of the monument within its setting, are to the north and northwest, along Loch Shin, and to the south, along Achany Glen. The Ord is a prominent feature in the surrounding landscape and because of its prominent topographic position, the monument has a setting that makes a high contribution to its understanding and appreciation, giving it a setting of high sensitivity.
- 7.8.53 A telecommunications mast stands close to the summit of The Ord, in close proximity to the chambered cairn. A wood pole overhead power line runs from the mast at The Ord to Lairg village, passing through the settlement site, and other wooden pole lines crisscross surrounding farmland. An existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) on the opposite side of Achany Glen would be decommissioned and dismantled as part of the wider works associated with the Proposed Development. Further afield, Lairg Wind Farm (three turbines) is visible in views on the skyline to the east of the monument, on the opposite side of Achany Glen, the Rosehall Wind Farm and Achany Wind Farm turbines are detectable as blade tips beyond the skyline in views to the west south-west, whilst the consented Braemore Wind Farm turbines (18 turbines) will be visible to the south-east.
- 7.8.54 The Proposed Development would, at its nearest, be around 2.8 km from the monument. A photomontage (Figure 4.18, LVIA Viewpoint 11 in Volume 3) shows that the Proposed Development would be seen running in an arc from the north-east to the south-east crossing hill slopes on the opposite side of Achany Glen and extending away from the monument; the majority of the proposed towers back-clothed against surrounding hills, although occasional towers would be visible against the skyline. Although a new element in the surrounding landscape the Proposed Development would represent only a minor change to the views in which other built up elements (including Lairg village) are present and it would not adversely affect the immediate moorland setting of the monument. The presence of the Proposed Development would not detract from an appreciation or understanding of the monument, its surrounding landscape or its strategic position looking along both the Achany Glen and Loch Shin. It is assessed that the Proposed Development would have an impact of no more than low magnitude on the setting of The Ord Chambered Cairns, Cairns, Settlement and Field System resulting in a **minor adverse** residual effect (not significant in the context of the EIA).
- 7.8.55 A comparative wireline (Figure VP11.a-b in Volume 3) shows the predicted visibility of the Proposed Development from the monument, if the Maximum Tower Heights (up to 6 m) were to be utilised. The proposed towers would be at the closest around 2.8 km from the monument and at this distance any increase in tower height would be barely distinguishable. The majority of the proposed towers would still be back-clothed against surrounding hills and any change resulting from the increase in tower height would be minimal. It is therefore assessed that the impact of the increased tower heights on the setting of monument would be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

River Shin, Stone Circle (SM1801)

- 7.8.56 This monument comprises the remains (northern half) of a stone circle which stands in rough pasture on a low spur on the western bank of the River Shin. Four stones remain in situ, while the rest of the stone circle has been eroded by the burn; two of the stones are upright, but the other two are boulders and there is some doubt

that this is in fact a prehistoric stone circle (HES 2018¹⁸). The monument is part of a group of prehistoric sites that survive on the western side of the Achany Glen. Views outwards from the monument are concentrated along the River Shin and Achany Glen, to the north and south, and the key aspect of its setting is this relationship with the river and glen. The current setting of the monument is assessed as being of high sensitivity.

- 7.8.57 An existing wood pole overhead power line passes just north of the monument, c.50 m away, while in the wider landscape a telecommunications mast is visible on the summit of The Ord, to the north-west of the monument, and an existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) is visible running along upper hill slopes on opposite side of the Achany Glen. The Lairg GSP to Shin Substation OHL would be decommissioned and dismantled as part of the wider works associated with the Proposed Development.
- 7.8.58 The Proposed Development would pass to the east of the monument, at its nearest, over 2km away, running in an arc from the north to the south-east. The 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that the Proposed Development would be principally screened from view from the monument by topography; any visible proposed towers would be seen beyond the skyline within the wider setting of the stone circle. The Proposed Development would not be visible in the key views along the River Shin and the relationship between the monument and other potentially contemporary remains in the immediate landscape would not be adversely affected. It is assessed that the Proposed Development would have an impact of no more than imperceptible magnitude on the setting of River Shin stone circle and would consequently **not adversely affect** the setting of the asset.
- 7.8.59 At over 2 km any proposed increase in the proposed tower heights (up to 6 m) would result in only a minimal change to the appearance of the Proposed Development; the towers would be visible only in the wider landscape of the monument and principally screened from view by intervening topography. The change would not be materially different to that of the Standard Height Towers and it is assessed that the increased tower heights would **not adversely affect** the setting of the chambered cairn.

Achany Glen, Settlement (SM2208)

- 7.8.60 This monument comprises the remains of prehistoric settlement and medieval or later settlement occupying an area of rough pastureland/ moorland on the low lying slopes of Cnoc an Mhoir and on the west-facing slopes of Achany Glen. Views outwards from the site are concentrated along the Achany Glen, to the north and south, and the main features of the setting of the monument are its relationship with the River Shin and Achany Glen. Wider landscape views to and from the settlements do not contribute significantly to understanding and appreciation of their character. The monument has a setting that makes a high contribution to its understanding and appreciation and this gives it a setting of high sensitivity.
- 7.8.61 An existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) passes through the settlement site, but this OHL would be decommissioned and dismantled as part of wider works associated with the Proposed Development, resulting in a beneficial effect on its setting¹⁹. In the wider landscape Rosehall Wind Farm and Achany Wind Farm turbines are visible skylined on the opposite side of Achany Glen, c.6.5 km away and the consented Braemore Wind Farm (18 turbines) will be visible in forestry, again on the opposite side of Achany Glen, c.3.9 km away.
- 7.8.62 The Proposed Development would pass to the east of the monument, running in an arc from the north-east to the south-east, at its nearest being around 2 km away. The Proposed Development would be visible, in varying degrees, from the site; more so from the higher reaches of the scheduled area. In these views the proposed towers would be visible beyond the skyline and mostly screened by topography. The Proposed Development

¹⁸ HES (2018) Historic Environment Scotland online resources <https://canmore.org.uk/site/5084/river-shin>

¹⁹ The removal of the existing Lairg GSP to Shin Substation OHL is outwith the scope of the EIA/S37 consent for the Lairg to Loch Budihe OHL. Works for the removal of this section of existing OHL which passes through the Scheduled Monument would be subject to consultation and agreement with Historic Environment Scotland as part of the consent application for works within a Scheduled Monument Area.

would not be visible in the main views to the west and along Achany Glen. It is assessed that the Proposed Development would have an impact of no more than low magnitude on the setting of the asset, resulting in a **minor adverse** residual effect (not significant in the context of the EIA regulations).

7.8.63 The Maximum Tower Height 'With-Screening ZTV' (Figure 7.3 in Volume 3) indicates that there would be no additional visibility of the Proposed Development if the increased tower heights were to be utilised. At over 2 km away the Proposed Development would be visible in the wider landscape of the monument, but would continue to be largely screened from view by intervening topography and where visible seen beyond the skyline. Overall, the change resulting from increased tower heights, visible over 2 km away would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. It is therefore assessed that the impact of the increased tower heights on the setting of the monument would be no more than that assessed for the Standard Height Towers, a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Achinduich, Stone Circle (SM1761)

7.8.64 This monument comprises the remains of a double stone circle which occupies an area of moorland in an elevated position on a west-facing slope above the west side of Achany Glen; the monument is part of a group of prehistoric remains that survive along the west-facing slope of Achany Glen. Views outwards from the stone circle are concentrated along the Achany Glen, to the north and south, and to the west across the Glen. The main features of the setting of the monument are its relationship with the River Shin and Achany Glen and its associations with nearby prehistoric settlement remains. The stone circle has a setting that makes a high contribution to its understanding and appreciation, and which gives it a setting of high sensitivity.

7.8.65 An existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) passes 70 m to the west of the monument; but this would be decommissioned and dismantled as part of wider works associated with the Proposed Development, resulting in a beneficial effect on its setting. In the wider landscape Rosehall Wind Farm and Achany Wind Farm turbines are visible skylined on the opposite side of Achany Glen, c.6.5 km away and the consented Braemore Wind Farm (18 turbines) will be visible in forestry, again on the opposite side of Achany Glen, c.3.9 km away.

7.8.66 The Proposed Development would pass to the east of the monument, running in an arc from the north-east to the south-east and, at its nearest, being around 2 km away. The 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that there would be only limited visibility of the Proposed Development, with glimpses of the proposed towers being possible from the western side of the monument, in views to the north-east. In these views the proposed towers would be seen beyond the skyline and mostly screened by intervening topography. The Proposed Development would not be visible in the key views from the site towards the west and along Achany Glen. It is assessed that the Proposed Development would have an impact of no more than imperceptible magnitude and would have **no adverse effect** on the setting of Achinduich Stone Circle.

7.8.67 The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3 in Volume 3) indicates that there would be a minimal change to the appearance of the Proposed Development in views from the monument if the increased tower heights (up to 6 m) were to change that is not materially different to that of the Standard Height Towers. It is therefore assessed that the impact of the increased tower heights on the setting of the monument would be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Non Designated Sites of Regional Importance

Hut-circles and associated field systems: Abhainn A'Churip (MHG11861 & MHG11862) and Saval (MHG13251 & 5 - MHG11856) (Figure 7.4 in Volume 3)

7.8.68 The remains of these three hut-circle settlements and associated cairnfields survive within an area of moorland just north of Saval on the outskirts of Lairg village (Figure 7.1a in Volume 3). Additional prehistoric settlement remains, including hut-circles and cairnfields, identified during this assessment, are also present in the surrounding landscape (including heritage assets 1, 3, 4, 6, 12-14, 16, 18-21, 25, 33-34 and 46) (Figure 7.1a-b

in Volume 3) and these collectively form a well-preserved prehistoric landscape that survives in upland moorland/pasture areas surrounding Lairg village. The settlement remains are mostly preserved as low-relief features which are not visually prominent in the landscape and they are generally best appreciated at close quarters. The remains do not possess strong aesthetic qualities, but they do have high archaeological interest and value as an educational resource in their potential to inform our understanding of later prehistoric settlement. Accordingly, they are assessed as being of regional heritage importance and medium sensitivity.

- 7.8.69 Some of these assets, including Saval hut-circles (5 – MHG11856) lie (wholly or partly) within the Proposed Development LOD and the Proposed Development would be seen in varying degrees and at varying distances from these assets, crossing areas of moorland and pasture (Figure 7.4a in Volume 3). In addition, a combination of temporary and permanent access tracks would cross the moorland/pasture landscape that the assets occupy. Any effects of the temporary access tracks on the setting of the assets would be short-term and fully reversible at the end of the construction phase. Effects arising from permanent access tracks would be more long lasting. Several wood pole overhead lines crisscross the landscape within which the assets are sited and an existing steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) passes the assets, on their west side, running in an arc from the south to the north-west. This OHL would, however, be decommissioned and dismantled as part of wider works associated with the Proposed Development, resulting in beneficial effects on their settings.
- 7.8.70 The settings of the settlement remains would be discernibly altered by the introduction of the Proposed Development; particularly where proposed towers stand in close proximity to the settlement remains. However, given the permeable nature of the Proposed Development, its presence would not significantly disrupt the ability of any visitor to the sites to appreciate or understand the layout and character of the sites, their immediate landscape or the relationships between the individual settlements. It is assessed that the Proposed Development would have an impact of no more than low magnitude on the setting of the settlements, resulting in **minor adverse** residual effects, individually and collectively (not significant in the context of the EIA regulations).
- 7.8.71 A comparison wireline (Figure 7.11 in Volume 3) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. No additional towers would be visible from the settlement remains and there is only a slight comparative change in the appearance of the Proposed Development. The change would not result in an impact on the setting of the monument that is materially different from that of the Standard Tower Heights and the impact of the Proposed Development on the setting of the monument is considered to be no more than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations).

Claisnafaire, Township (MHG10328)

- 7.8.72 The remains of this former township comprise the footings of eleven buildings accompanied by a network of field walls and banks bounded by a head-dyke; located within low lying heather moorland at the base of the Loch Laro valley and just north of the Allt Loch Laro burn. The township is not scheduled but is well-preserved and clearly visible within the moorland landscape. It has a high archaeological interest and has a value as an educational resource in its potential to inform our understanding of 18th century, or earlier, townships in the area. Accordingly, it is assessed as being of regional heritage importance and medium sensitivity.
- 7.8.73 Views out from the township are concentrated along the Loch Laro valley to the north-west and south-east and the township is visible from an existing farm access track that runs just north of the site. The setting of the township is characterised by the moorland and valley landscape that it occupies and over which views extend. The current setting of the township is assessed as being of high sensitivity.
- 7.8.74 An existing steel lattice tower overhead line (Loch Shin to Loch Buidhe OHL) crosses over the township, and two towers stand within the township itself.
- 7.8.75 The Proposed Development would, at the nearest, be around 400 m away on the opposite side of the valley; the proposed towers running from the north-west to the east, although the Proposed Development would be

back-clothed by hill-slopes where it would pass the township. The Proposed Development would be visible in the surrounding landscape and would have an effect upon the wider landscape setting of the township. However, the Proposed Development would be visible in a landscape that already contains a similar OHL, which is positioned closer to the monument. It is assessed that the Proposed Development would have an impact of low magnitude on the setting of the asset, resulting in a **minor adverse** residual effect (not significant).

A comparative wireline (Figure 7.16 in Volume 3) shows the predicted visibility of the Proposed Development, from a position close to the township remains, if the Maximum Tower Height (up to 6 m) were to be utilised. No additional towers would be visible in views from the township and the majority of the towers would continue to be seen back-clothed by surrounding hill-slopes where it passes the township. The change would not result in an impact on the setting of the monument that is materially different from that of the Standard Tower Heights and the impact of the Proposed Development on the setting of the township is considered to be no worse than that assessed for the Standard Height Towers: a **minor adverse** residual effect (not significant in the context of the EIA regulations). Decommissioning Effects

- 7.8.76 It is assumed that the same access track infrastructure / routes would, as far as practicable, be used for dismantling and removal of built features of the Proposed Development during future decommissioning and where this is the case the dismantling works would not disturb any new areas or require a deepening of any previous excavations. Where temporary access tracks were used during construction phase works, the same mitigation proposed for the construction phase would be implemented during the decommissioning period.
- 7.8.77 The removal of the proposed towers would have a **beneficial effect**, removing any adverse effects of development on the settings of any effected heritage assets.

Cumulative Effects

Effect Interactions

- 7.8.78 There are no predicted effect interactions between the Proposed Development and other cumulative developments within the Study Area.

In-Combination Effects

Likely Effects on Heritage Assets from the construction of the Proposed Development and the construction of the Proposed Dalchork Substation

Direct Effects

- 7.8.79 There are no predicted direct effects on heritage assets resulting from the Proposed Development in-combination with the Proposed Dalchork Substation. No heritage assets identified within the Proposed Development LOD lie in, or extend, into the Proposed Development Area for Dalchork Substation. The construction of the Proposed Dalchork Substation would therefore not affect any of the heritage assets identified within the Proposed Development LOD.

Operational Effects

- 7.8.80 Based on professional judgement, it is considered that there would be a cumulative impact from the Proposed Development in-combination with the proposed Dalchork Substation on the setting of two heritage assets: Altbreck Broch (SM1829) and Altbreck Homestead (SM5563), due to their proximity to both developments (Figure 7.2 and 7.3 in Volume 3). Both developments would be visible from these heritage assets in views to the south-west, around 1 km away. The heritage assets currently stand in clearings within commercial forestry plantation and some screening of views of the Proposed Development and proposed Dalchork Substation is provided by intervening forestry. Where views of both developments are gained from the heritage assets, the developments would be seen together within the wider landscape setting of the assets. The introduction of the Proposed Development in combination with the proposed Dalchork Substation would not detract from an ability to appreciate or understand the monuments or their relationship with the surrounding landscape. It is therefore

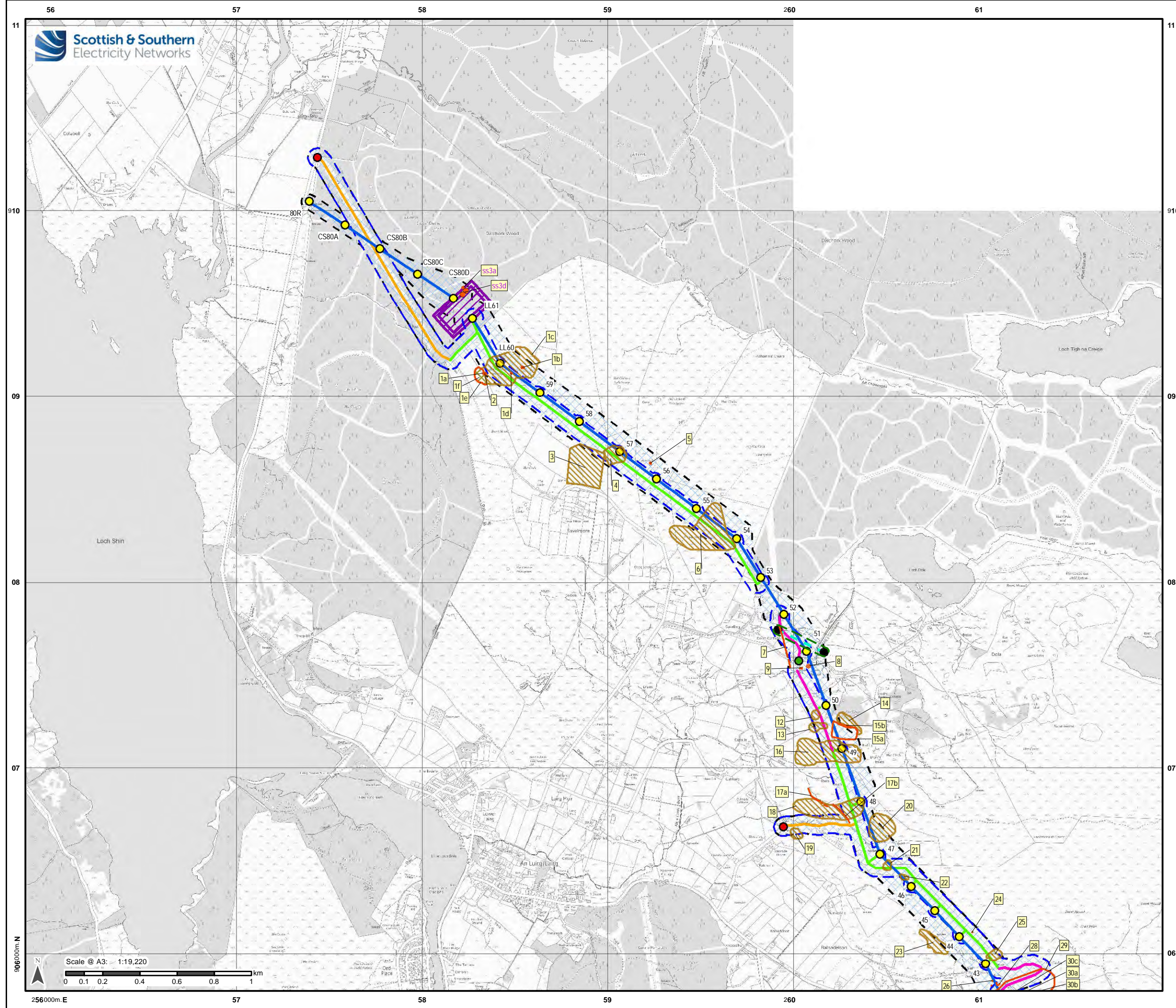
assessed that the Proposed Development in combination with the proposed Dalchork Substation would have a predicted cumulative impact of low magnitude (slight but detectable impact) on the setting of the monuments resulting in a **minor cumulative** effect (not significant in the context of the EIA regulations).

In-combination effects that might arise between the different environmental topics being assessed in the EIA.

- 7.8.81 In specific regard to effects of the Proposed Development on heritage assets, some potential interactions may arise from landscape changes and with impacts on the setting of heritage assets. The landscape aspects are described in Chapter 4: Landscape Resource and Visual Amenity.
- 7.8.82 The effects arising from the potential impacts of the Proposed Development on the surrounding landscape and on the setting of key heritage assets are however distinct; the first is an effect on the landscape character and how the effects are perceived by people, while the second is an effect on the heritage setting of individual or groups of assets. Taking this into consideration it is assessed that the in-combination cumulative effect would be **negligible** and not significant.

7.9 Summary

- 7.9.1 A desk-based assessment and reconnaissance field survey have been carried out for the Proposed Development. The assessment has been informed by comments and information supplied by Historic Environment Scotland (HES) and the Highland Council Historic Environment Team (HET).
- 7.9.2 The landscape surrounding Lairg contains rich and diverse archaeological remains dating from the Bronze Age to the post-medieval period and this is reflected in the character of the remains identified within the Proposed Development LOD. A total of 84 heritage assets (sites and features) have been identified within the Proposed Development LOD.
- 7.9.3 Field survey found that extensive upstanding archaeological remains survive within moorland and pasture areas that have seen little modification or development since the 19th century. As such, it is considered that there is a high potential for further buried archaeology to survive within the Proposed Development LOD in these areas.
- 7.9.4 Final tower positions and access track routes would be subject to micrositing within their respective LODs, on the basis of detailed ground investigation. At this stage, consideration would also be given to detailed local environmental sensitivities, including the proximity to heritage assets. Towers and tracks which lie in close proximity to heritage assets would be microsited, as far as possible, to avoid heritage assets.
- 7.9.5 There is potential for construction works within the Proposed Development LOD to result, prior to mitigation, in direct effects on 30 heritage assets; where surviving remains cannot be avoided. In addition, there are 21 heritage assets that lie in close proximity to the Proposed Development and which may be affected by the Proposed Development if they cannot be avoided through micrositing.
- 7.9.6 Of the 51 heritage assets that may potentially be affected by the Proposed Development, there is one potential major adverse (significant) and 26 potential moderate adverse (significant) direct effects. Mitigation measures are proposed to offset the potential loss of the archaeological resource that could occur as a result of the construction of the Proposed Development.
- 7.9.7 There would be two adverse (significant) operational effects on the settings of two non-designated heritage assets from the Proposed Development: Puill Fhraoich Township (77 – MHG10052) and Cnoc Garbh-Airigh Township and Field System (80 – MHG10057), both of which lie within the Proposed Development LOD and would be crossed by the Proposed Development. All other operational effects would be not significant.
- 7.9.8 The cumulative effect of the Proposed Development in combination with the proposed Dalchork Substation is considered to be minor and not significant.

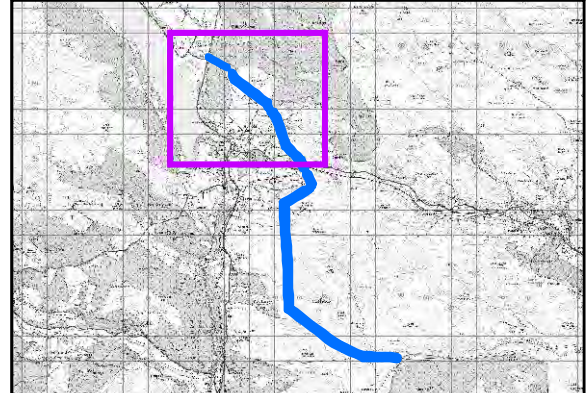


Legend

- Proposed 132kV OHL
- Limits of Deviation
- 50m Buffer
- 25m Buffer
- Proposed Tower Location
- Existing Pole Locations

Bellmouth Junctions

- Existing Access
- New Access
- New Access Track - Permanent
- New Access Track - Temporary
- Existing Access Track
- Proposed 132kV Underground Cable
- Proposed 11kV Underground Section
- Proposed 33kV Underground Section
- Proposed Dalchork Substation
- Loch Buidhe Substation
- Cultural Heritage Site (point)
- Cultural Heritage Site (linear)
- Cultural Heritage Site (area)
- Cairnfield
- Rig and Furrow
- Cultural Heritage Sites within Footprint of Proposed Dalchork Substation (appraised in substation application)



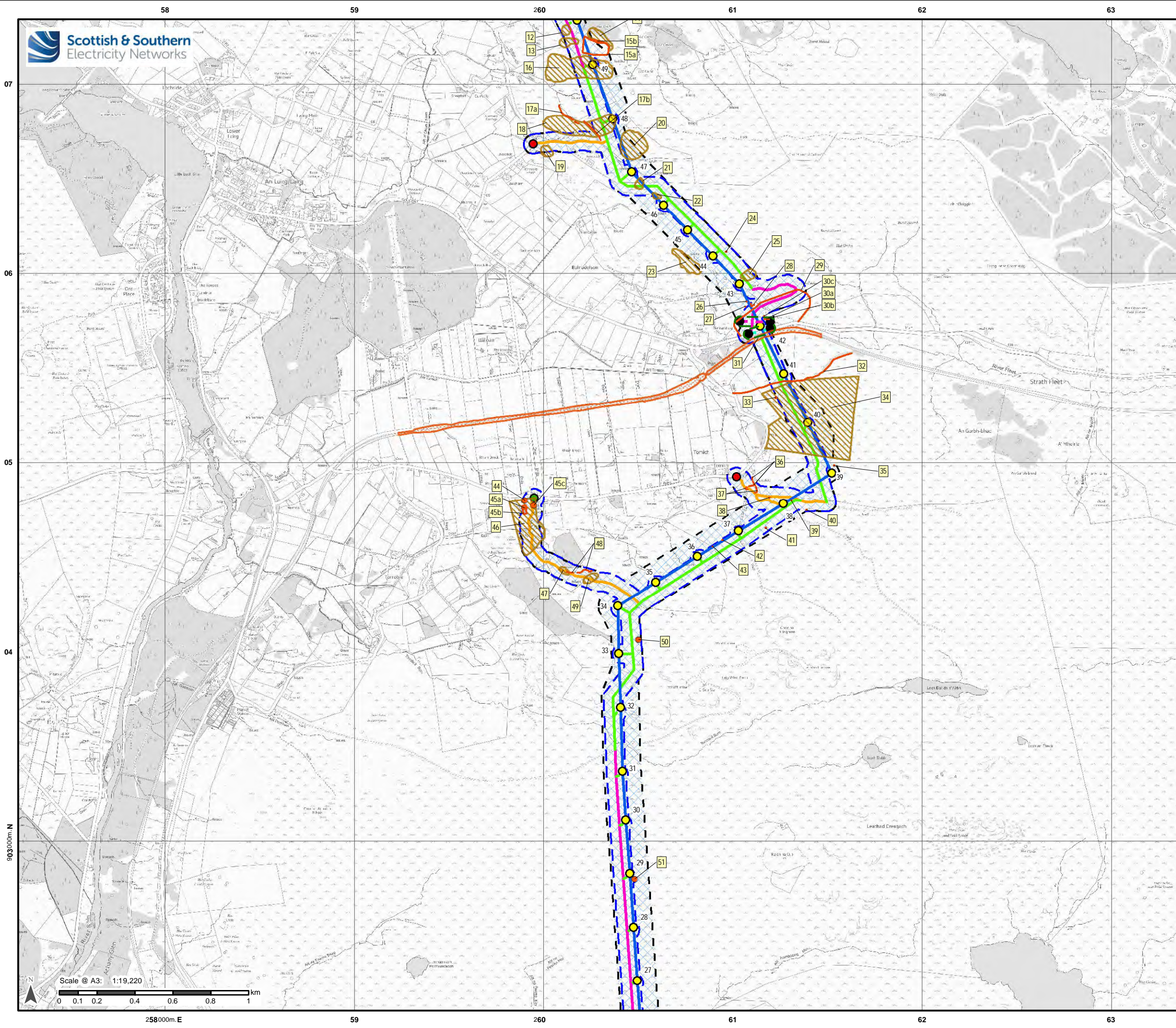
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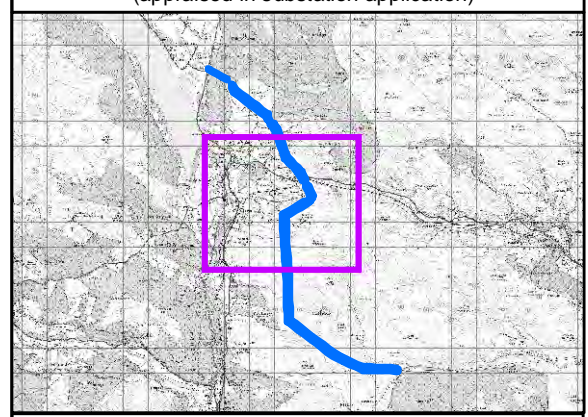
Title: Lairg to Loch Buidhe Reinforcements
Figure 7.1a: Cultural Heritage Constraints

Drawn by: SW Date: 22/01/2019

Drawing: UK12-19015_Fig 7.1a



- ### Legend
- Proposed 132kV OHL
 - Limits of Deviation
 - 50m Buffer
 - 25m Buffer
 - Proposed Tower Location
 - Existing Pole Locations
- ### Bellmouth Junctions
- Existing Access
 - New Access
 - New Access Track - Permanent
 - New Access Track - Temporary
 - Existing Access Track
 - Proposed 132kV Underground Cable
 - Proposed 11kV Underground Section
 - Proposed 33kV Underground Section
 - Proposed Dalchork Substation
 - Loch Buidhe Substation
 - Cultural Heritage Site (point)
 - Cultural Heritage Site (linear)
 - Cultural Heritage Site (area)
 - Cairnfield
 - Rig and Furrow
 - ss3a Cultural Heritage Sites within Footprint of Proposed Dalchork Substation (appraised in substation application)



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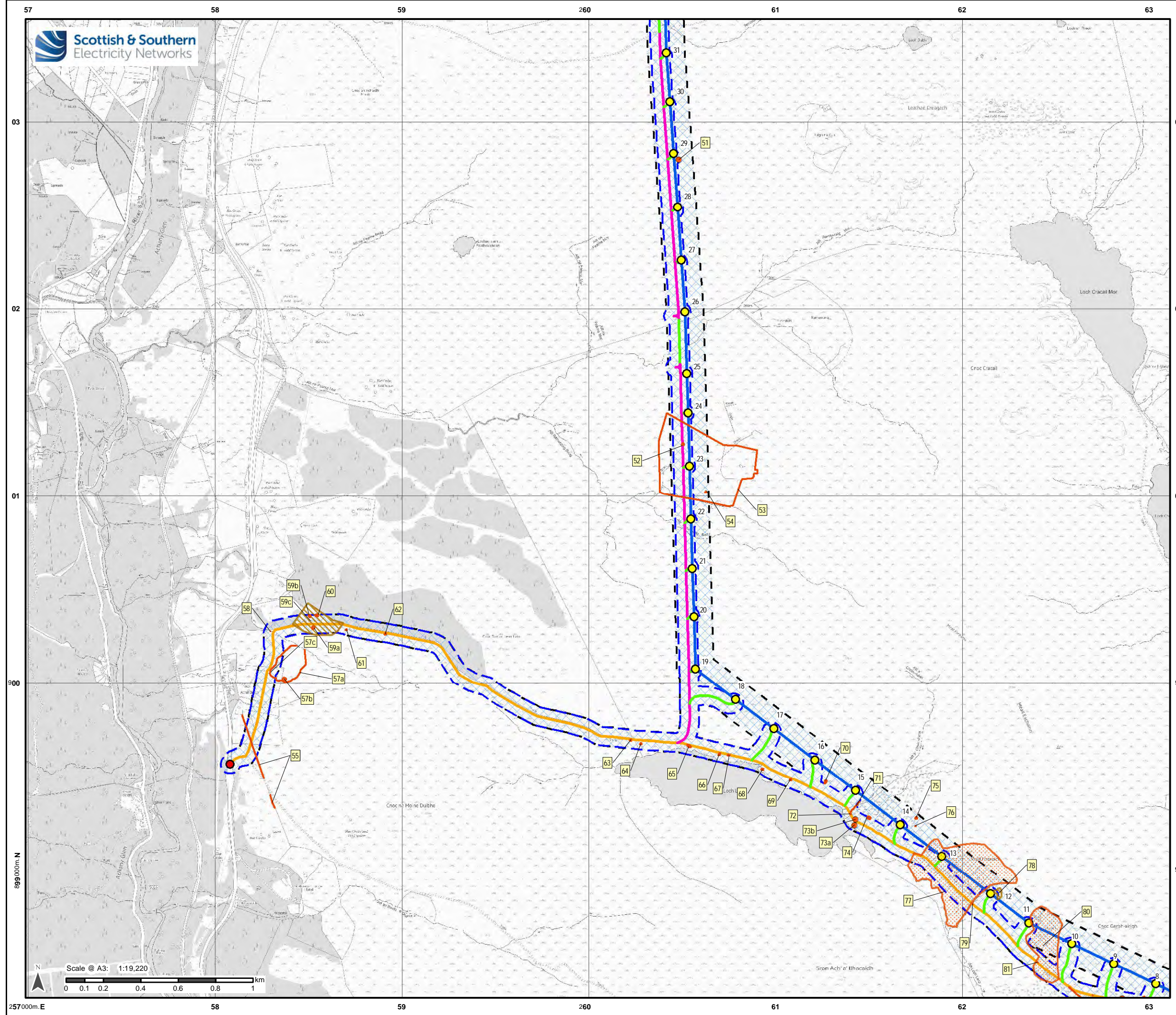
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Project: UK12-19015

Title: Laing to Loch Buidhe Reinforcements
Figure 7.1b: Cultural Heritage Constraints

Drawn by: SW Date: 22/01/2019

Drawing: UK12-19015_Fig 7.1b

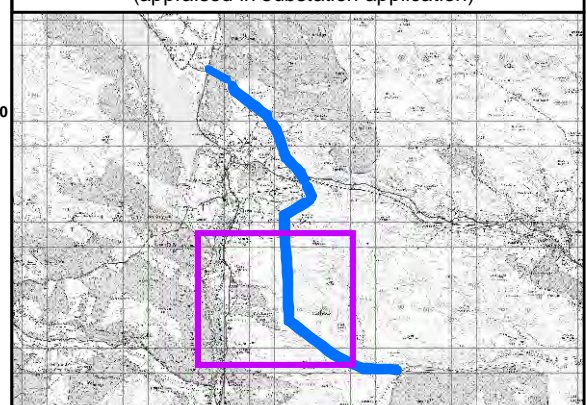


Legend

- Proposed 132kV OHL
- Limits of Deviation
- 50m Buffer
- 25m Buffer
- Proposed Tower Location
- Existing Pole Locations

Bellmouth Junctions

- Existing Access
- New Access
- New Access Track - Permanent
- New Access Track - Temporary
- Existing Access Track
- - - Proposed 132kV Underground Cable
- - - Proposed 11kV Underground Section
- - - Proposed 33kV Underground Section
- Proposed Dalchork Substation
- Loch Buidhe Substation
- Cultural Heritage Site (point)
- Cultural Heritage Site (linear)
- Cultural Heritage Site (area)
- Cairnfield
- Rig and Furrow
- ss3a Cultural Heritage Sites within Footprint of Proposed Dalchork Substation (appraised in substation application)



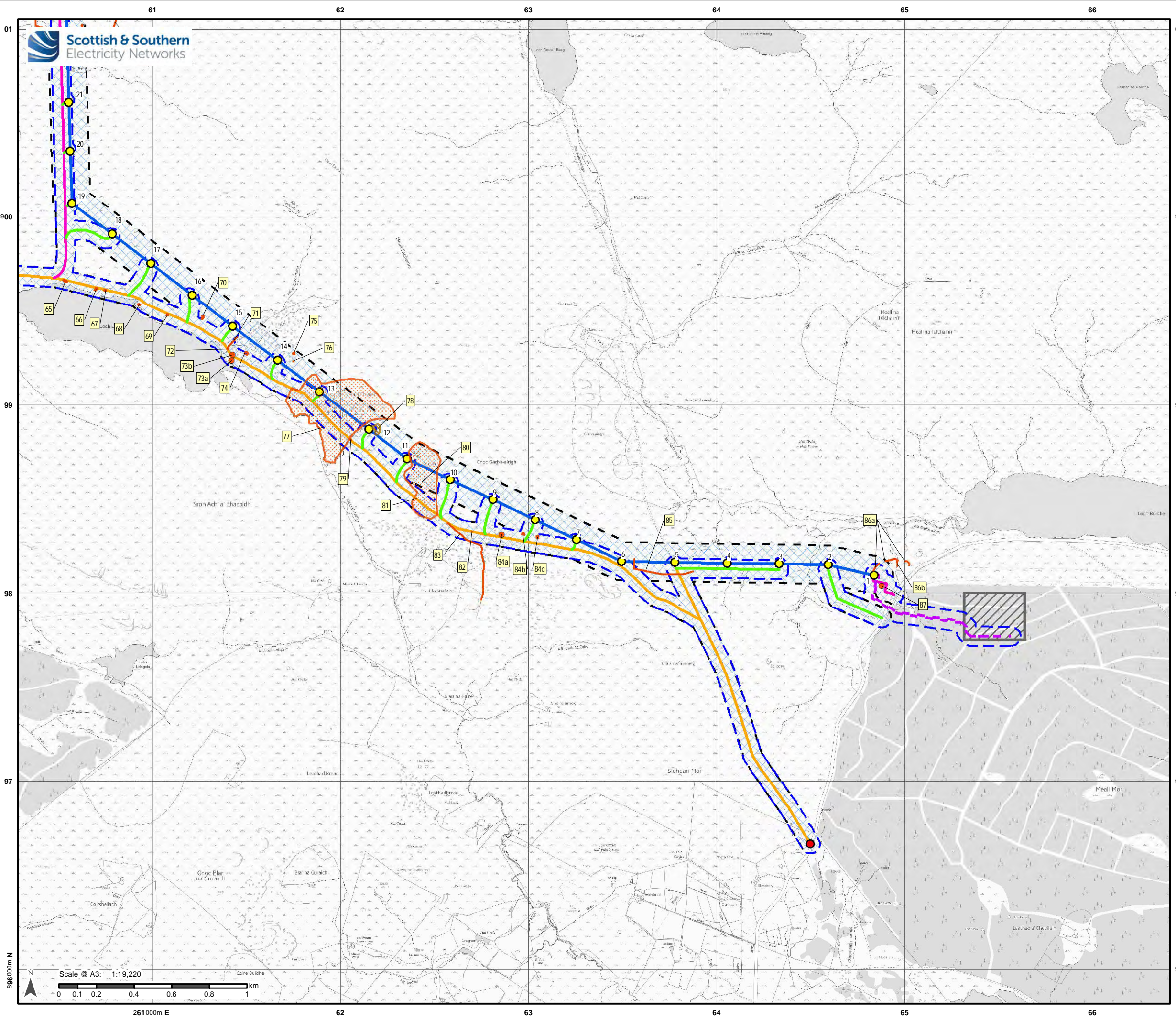
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Project: UK12-19015

Title: Lairg to Loch Buidhe Reinforcements
Figure 7.1c: Cultural Heritage Constraints

Drawn by: SW Date: 22/01/2019

Drawing: UK12-19015_Fig 7.1c

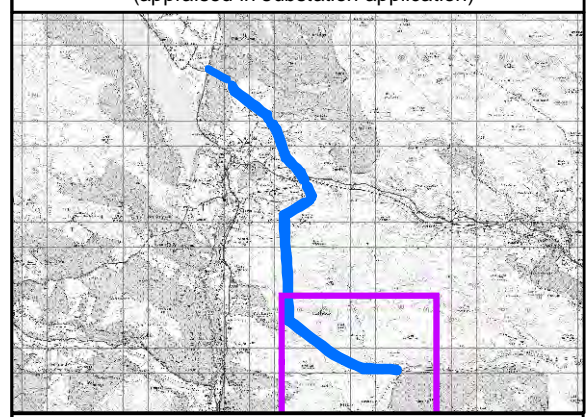


Legend

- Proposed 132kV OHL
- Limits of Deviation
- 50m Buffer
- 25m Buffer
- Proposed Tower Location
- Existing Pole Locations

Bellmouth Junctions

- Existing Access
- New Access
- New Access Track - Permanent
- New Access Track - Temporary
- Existing Access Track
- Proposed 132kV Underground Cable
- Proposed 11kV Underground Section
- Proposed 33kV Underground Section
- Proposed Dalchork Substation
- Loch Buidhe Substation
- Cultural Heritage Site (point)
- Cultural Heritage Site (linear)
- Cultural Heritage Site (area)
- Cairnfield
- Rig and Furrow
- Cultural Heritage Sites within Footprint of Proposed Dalchork Substation (appraised in substation application)



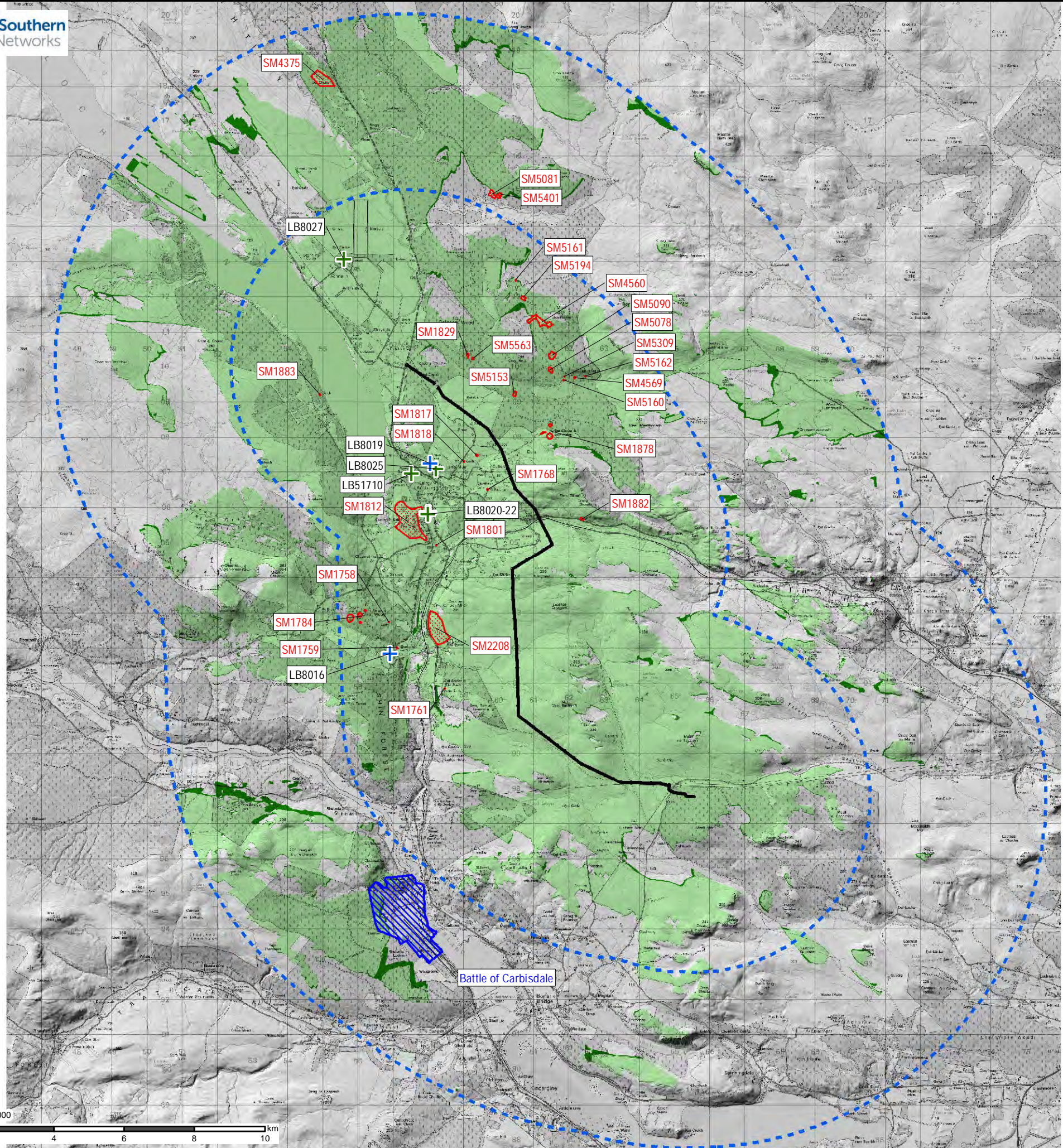
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Project: UK12-19015

Title: Lairg to Loch Buidhe Reinforcements
Figure 7.1d: Cultural Heritage Constraints

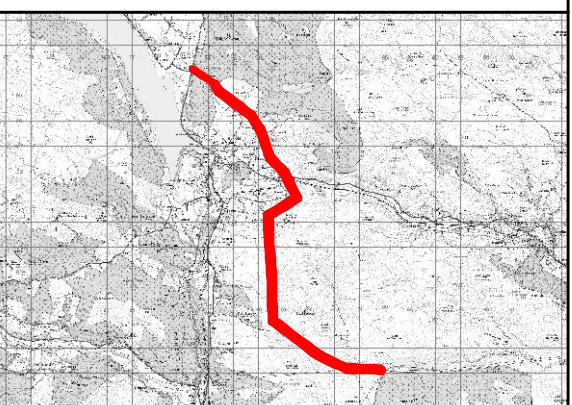
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Drawing: UK12-19015_Fig 7.1d



Legend

- Proposed 132kV OHL Alignment
- - - 5km and 10km Buffer
- ▨ Scheduled Monument
- + Category B Listed Building
- + Category C Listed Building
- ▨ Inventory Battlefield Site
- ZTV Bare Ground Visibility
- Standard Height ZTV
- Maximum Height ZTV



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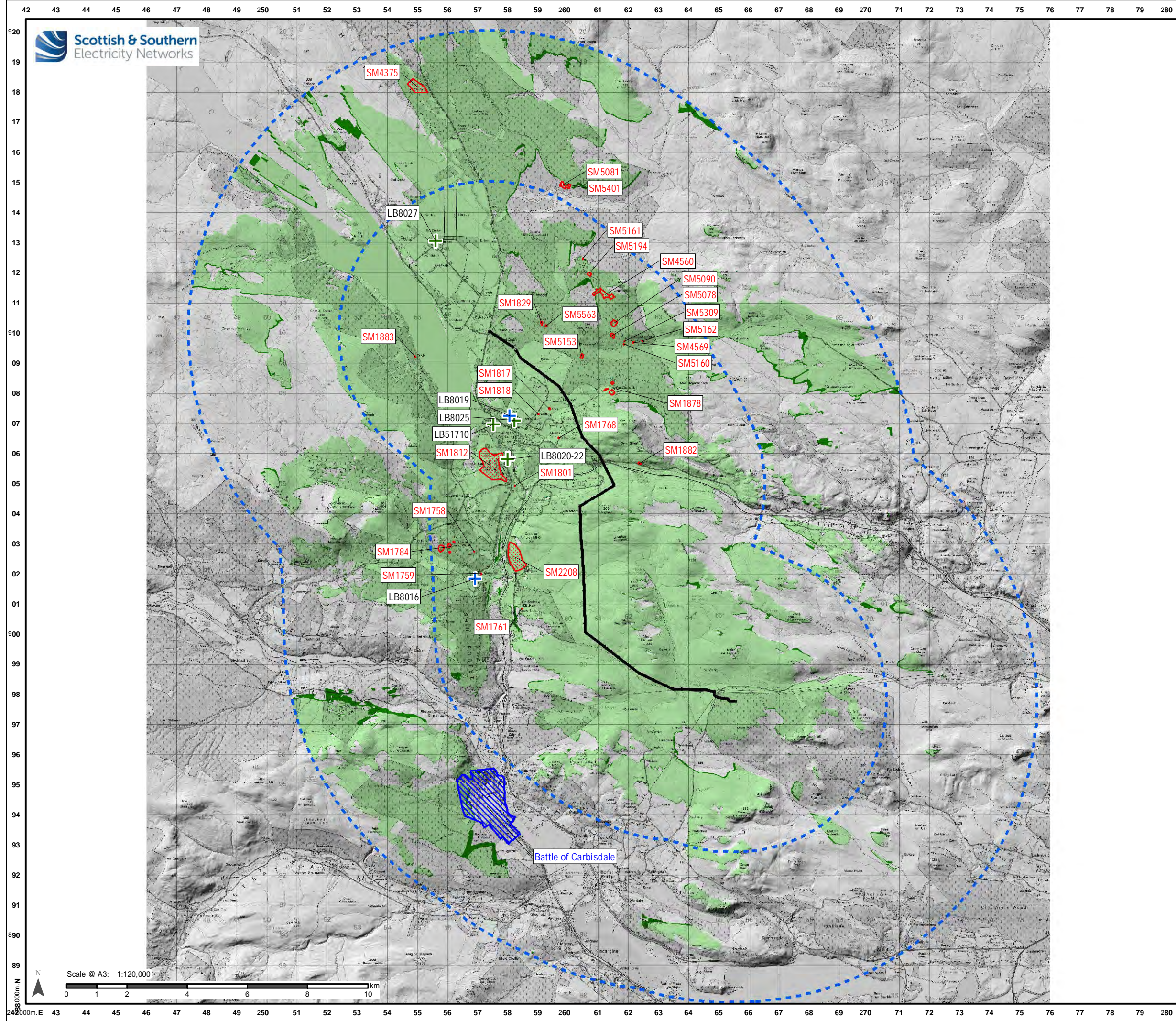
Project No: LT000061
Project: UK12-19015

Title: Lairg to Loch Buidhe Reinforcements:

Figure 7.2: Key Heritage Assets and 'Bare-Earth' ZTV

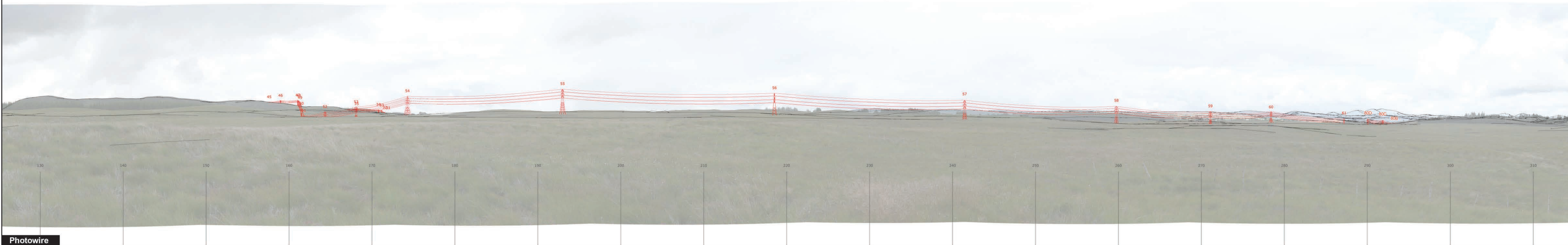
Drawn by: SW Date: 10/12/2018

Drawing: UK12-19015_Fig





Existing View



Photowire

OS Grid reference: 259618 E 909003 N
 Eye level: 156.4 AOD
 Bearing to nearest tower: 220°
 Distance to nearest tower: 571.496m

Horizontal field of view: 90° (cylindrical projection)
 Principle distance: 522mm
 Paper size: 841 x 297mm
 Correct printed image size: 820 x 260mm

Camera: Canon EOS 5D
 Lens: 50mm (Canon EF 50mm F1.8mm)
 Camera height: 1.5m AGL
 Date and Time: 24/07/2015 09:42:00



Existing View



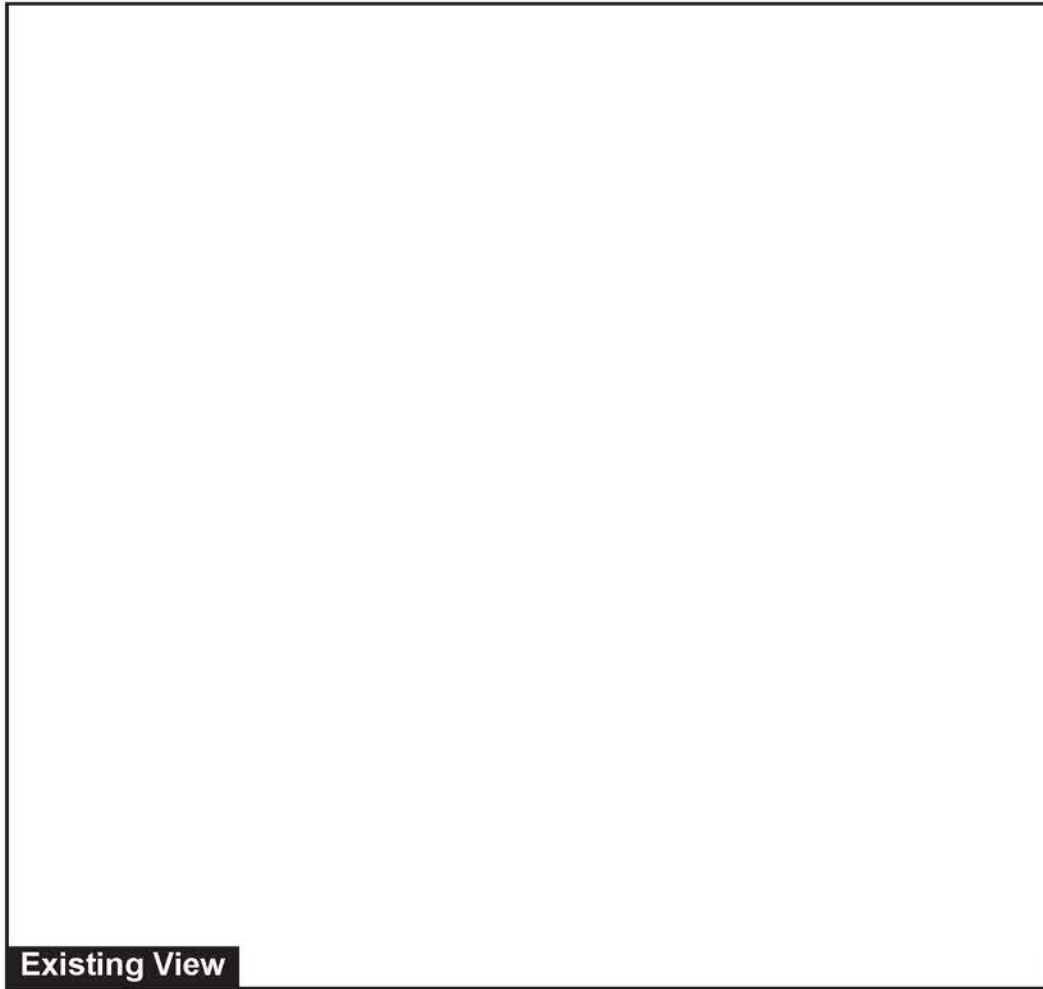
Photowire

OS Grid reference: 259380 E 907410 N
 Eye level: 138.3m AOD
 Bearing to nearest tower: 80°
 Distance to nearest tower: 704.609m

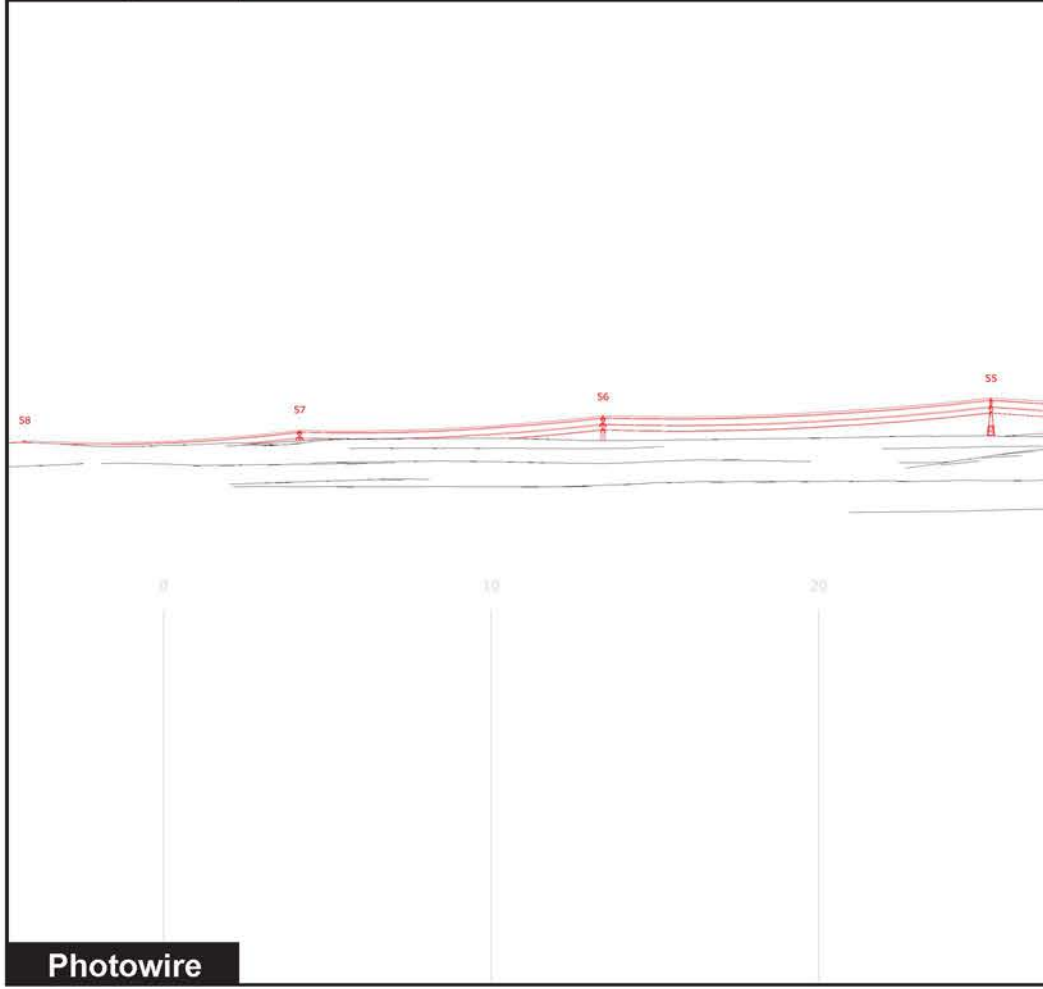
Horizontal field of view: 90° (cylindrical projection)
 Principle distance: 522mm
 Paper size: 841 x 297mm
 Correct printed image size: 820 x 260mm

Camera: Canon EOS 5D
 Lens: 50mm (Canon EF 50mm F1.8mm)
 Camera height: 1.5m AGL
 Date and Time: 24/07/2015 11:08:00

CULTURAL HERITAGE (Fig 7.5)
 Viewpoint 2 Lairg Muir North Chambered Cairn (SM1817)



Existing View



Photowire

OS Grid reference: 258972 E 907306 N
 Eye level: 137.9 AOD
 Bearing to nearest tower: 140°
 Distance to nearest tower: 1106.211m

Horizontal field of view: 90° (cylindrical projection)
 Principle distance: 522mm
 Paper size: 841 x 297mm
 Correct printed image size: 820 x 260mm

Camera: Canon EOS 5D
 Lens: 50mm (Canon EF 50mm F1.8mm)
 Camera height: 1.5m AGL
 Date and Time: 01/07/2015 14:08:00



Existing View



Photowire

OS Grid reference: 259617 E 906463 N
 Eye level: 138 AOD
 Bearing to nearest tower: 80°
 Distance to nearest tower: 825.808m

Horizontal field of view: 90° (cylindrical projection)
 Principle distance: 522mm
 Paper size: 841 x 297mm
 Correct printed image size: 820 x 260mm

Camera: Canon EOS 5D
 Lens: 50mm (Canon EF 50mm F1.8mm)
 Camera height: 1.5m AGL
 Date and Time: 01/07/2015 13:40:00



Existing View



Photowire

OS Grid reference: 261521 E 908019N
 Eye level: 178.5 AOD
 Bearing to nearest tower: 220°
 Distance to nearest tower: 1502.239m

Horizontal field of view: 90° (cylindrical projection)
 Principle distance: 522mm
 Paper size: 841 x 297mm
 Correct printed image size: 820 x 260mm

Camera: Canon EOS 5D
 Lens: 50mm (Canon EF 50mm F1.8mm)
 Camera height: 1.5m AGL
 Date and Time: 10/09/2015 10:15:00



CULTURAL HERITAGE (Fig 7.9)
VIEWPOINT 6 Puill Fhraoich Township (MHG10052)



Existing View



Photomontage

CULTURAL HERITAGE (Fig 7.10)
VIEWPOINT 7 Cnoc Garbh-Airigh Township, Field System (MHG10057)

Table 10.1 Summary of Mitigation

	display diving which increases exposure to collision.		
Cultural Heritage and Archaeology			
Potential Direct Effects on Heritage Assets	<p>There is potential for construction works to result in direct effects on 54 of the 84 heritage assets identified in the absence of mitigation.</p> <p>Of the 54 heritage assets that may potentially be affected by the Proposed Development, there is one potential major adverse (significant) and 27 potential moderate adverse (significant) direct effects.</p>	<p><i>Written Scheme of Investigation (WSI)</i></p> <p>A WSI has been prepared and included in Technical Appendix 7.5 of the EIA Report. This includes a suitable programme of mitigation that would be implemented to avoid, reduce or offset likely direct impacts of the Proposed Development on heritage assets.</p> <p>Provision is also made within the WSI for an appropriate programme of investigation and recording of any archaeological remains, identified as a result of any mitigation works undertaken in advance of, or during, construction works, that cannot be preserved in situ. All works would be conducted by a professional archaeological organisation (Archaeological Clerk of Works). The mitigation works would include the consequent production of written reports on the findings of the archaeological work conducted, with post-excavation analyses, publication and archiving of the results of the work where appropriate.</p> <p>Written guidelines would be issued for use by all construction contractors, outlining the need to avoid causing unnecessary damage to known heritage assets. The guidelines, to be contained within the CEMP (as described in Chapter 2: Description of the Environment and Technical Appendix 2.2: Outline Construction Environmental Management Plan), would contain arrangements for calling upon retained professional archaeological support in the event that features of potential archaeological interest (such as building remains, human remains, artefacts, etc) are discovered in areas not subject to archaeological monitoring. The guidance would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.</p>	Pre-construction
		<p><i>Micrositing</i></p> <p>Final tower positions and access track routes would be subject to micrositing within their respective LODs on the basis of detailed ground investigations. At this stage, consideration would be given to detailed local environmental</p>	Pre-construction

Table 10.1 Summary of Mitigation

		<p>sensitivities, including the proximity of heritage assets to components of the Proposed Development. Where feasible, towers and tracks that are in close proximity to heritage assets identified in the assessment would be microsituated to avoid heritage assets or to minimise potential direct effects.</p>	
		<p><i>Enhanced Field Survey</i></p> <p>Whilst every effort has been made during the alignment phase to avoid archaeological constraints, due to the extensive nature of some of the heritage assets identified within the Inner Study Area, the Proposed Development crosses a number of complex archaeological sites, for example cairnfields and township remains. A more comprehensive survey of these sites, where they would be crossed by the proposed access tracks and OHL, would be carried out prior to construction works commencing in those areas. This would be achieved through an enhanced GPS earthwork survey, the purpose of which would be to record the locations of individual components of these sites sufficient to inform a construction phase management plan. It is envisaged that this enhanced field survey would be undertaken for the following assets: ten cairnfields (1, 4, 6, 13, 16, 18, 21, 25, 34 and 46), hut-circles and cairnfield (59) and two townships (77 and 80). The surveys would be limited to the areas within the OHL LOD or track micro siting allowance and the level of detail of the surveys would be commensurate with the need to optimise the micro siting of the tracks or towers.</p>	Pre-construction
		<p><i>Impact Avoidance</i></p> <p>The locations of construction works and ground breaking works at: proposed towers, along proposed access track routes and along proposed underground cable routes., would seek to avoid known cultural heritage assets where feasible. Procedures would include the exclusion of heritage assets from working areas, and avoidance of assets when planning access routes for construction areas.</p> <p>Where assets (including individual components of complex or extensive heritage assets (for example cairnsfields)) survive as upstanding features and lie within 50 m of proposed tower locations they would be avoided as far as is practicable in order to ensure their preservation in situ. Where appropriate, assets would be marked-off using high visibility fencing placed,</p>	Construction

Table 10.1 Summary of Mitigation

		<p>wherever possible, a minimum of 10 m from the visible extent of the heritage asset, to prevent avoidable accidental damage occurring to the remains during construction activities.</p> <p>Temporary access panels or floated track construction would be used where new access tracks are proposed close to two regionally important sites, Puill Fhraoich Township (77) and Cnoc Garbh-Airigh Township, Field System (80). Pulling bonds, where they cross, the townships would be pulled through by hand thus removing the need for the use of machinery within the confines of the townships.</p>	
		<p><i>Impact Reduction</i></p> <p>A working corridor will be defined for the routes of proposed access tracks where these cross cairnfields. This approach will limit the areas within which construction works would take place and ensure the preservation in situ of the majority of the individual components of the cairnfields as far as is practicable.</p> <p>Where linear assets survive as upstanding features, principally field banks and drystone dykes, access tracks would be routed through any existing gates or through broken (less well-preserved) sections of the dykes where possible. Where banks and dykes, cannot be avoided, breaches would be kept to the minimum width necessary and they would, where appropriate, be reinstated on completion of the construction works.</p> <p>Floated track construction would be employed, where possible, where access tracks run close to former building location (45c) or pass through cairnfields (1, 3, 4, 6, 13, 16, 18, 21, 25, 34, 46 and 59), to avoid disturbance of any surviving buried remains.</p>	Construction
Unknown Buried Archaeology	High potential for buried archaeology to survive in areas within the Proposed Development LOD and proposed construction works could potentially directly affect any buried remains that may survive.	<p><i>Impact offset – Investigation and Recording</i></p> <p>Where upstanding features cannot be avoided or protected during the construction phase, any heritage assets in these areas that cannot be avoided would be investigated and recorded prior to construction works being carried out, to a specification and standard to be agreed in writing within THC and in consultation with HET. In addition, given the concentration of both prehistoric and medieval/post-medieval settlement</p>	Construction

Table 10.1 Summary of Mitigation

		<p>remains and associated field systems (cainfields) within both the Inner Study Area and in the landscape surrounding the Proposed Development, it is considered that there is a high potential for the preservation of buried remains of archaeological interest to survive within the Inner Study Area. Any requirements for archaeological monitoring of works / watching briefs in particular locations would need to be agreed through consultation with HET.</p> <p>If significant discoveries are made during any archaeological monitoring / watching briefs, and if preservation in situ of any archaeological remains identified is not possible, provision would be made for an appropriate amount of investigation and recording; the scope of which would need to be agreed through consultation with, and agreement in writing with, HET. This provision would include the consequent production of written reports on the findings, with post-excavation analyses and publication of the results of the work where appropriate (see Technical Appendix 7.5: Written Scheme of Investigation).</p>	
Hydrology and Soils			
<p>Pollution to watercourses during crossing construction works</p>	<p>N/A</p>	<p><i>CAR Regulations Requirements</i></p> <p>The Scottish Environment Protection Agency (SEPA) is the public body responsible for environmental protection in Scotland under both the Environment Act 1995 and the WEWS Act. Many SEPA policies relating to water are now delivered by the regulatory methods produced to implement the Water Environment (Controlled Activities) (Scotland) Regulations 2011 as amended (the 'CAR Regulations'). The CAR Regulations mean that it is an offence to undertake the following activities with regard to watercourse crossings without an authorisation under the CAR Regulations.</p> <p>Given that the watercourse crossings identified are at locations where the channel is less than 2 m wide, it has been assumed that the proposed watercourse crossings could constitute culverts rather than minor bridges and would, therefore, involve construction on the bed or banks of the watercourses. This is line with typical design strategies for such access tracks. However, SEPA guidance typically requires that single span structures be designed where feasible, especially for larger watercourse crossing widths where a bridge design would typically be considered more</p>	<p>Pre-construction</p>

TECHNICAL APPENDIX 7.1: CURRENT BASELINE CONDITIONS WITHIN THE INNER STUDY AREA

7.1 Introduction

This technical appendix provides a detailed description of the archaeology and cultural heritage baseline condition within the Inner Study Area.

Numbers in brackets in the following text, refer to asset numbers provided on Figures 7.1 a-d and detailed on a site-by-site basis in Technical Appendix 7.2: Cultural Heritage Constraints.

Following changes to the Proposed Development design, in March 2018, three heritage assets previously recorded within the Proposed Development LOD now fall outwith the Proposed Development LOD. These heritage assets have been removed from the cultural heritage assessment and are shown as 'VOID' in Technical Appendix 7.2.

In total, 84 heritage assets have been identified within the Inner Study Area. The majority of these are former settlement remains and land use features dating from the prehistoric (Bronze Age) through to the medieval and post-medieval periods.

There are no Scheduled Monuments and no Listed Buildings within the Inner Study Area, and the Inner Study Area does not lie within any Inventory Status Gardens and Designed Landscape, Inventory status Historic Battlefield or Conservation Area.

For ease of discussion, the following statement of baseline conditions has been split into two sections.

7.2 Dalchork Wood to Rhian Breck (Assets 1-51)

There is a total of 49 heritage assets identified within the section of the Inner Study Area between Dalchork Wood and Rhian Breck.

This section consists principally of rough pasture grazing and upland heather moorland surrounding Lairg, with some small pockets of improved pasture at Tomich and Rhian Breck, around the periphery of Lairg, and recently felled forestry at Dalchork Wood. Lairg itself occupies low-lying arable land close to the eastern shore of Loch Shin.

The landscape surrounding Lairg contains rich and diverse archaeological remains dating from the Bronze Age to the post-medieval period and this is reflected in the character of the remains identified within this section of the Inner Study Area.

7.2.1 Prehistoric

Settlement and Associated Field Systems

The Highland Council Historic Environment Record (HER) records the presence of numerous prehistoric settlement remains, with associated field systems (often including extensive cairnfields¹), along with other monuments (such as burnt mounds² and a possible henge³) scattered around Lairg and throughout the wider landscape. These include the extensive and well-preserved hut-circles and field systems preserved at Loch Dola (SM1878) and The Ord (SM1812), both of which are Scheduled Monuments, and at least three scheduled burial cairns (Lairg Moor South Chambered Cairn (SM1818), Lairg Muir North Chambered Cairn (SM1817) and Balcharn Chambered Cairn (SM1768)) (Figure 7.2). Although these do not lie within the Inner Study Area, they are indicative of the character, richness and diversity of the prehistoric remains found around Lairg.

¹ Cairnfield: a large group of closely spaced cairns which are commonly Bronze Age in date and where some cairns might be funerary

² Burnt mound: a mound of shattered stones and charcoal, normally with an adjacent hearth and trough. The trough could be rock-cut, wood-lined or clay-lined to ensure it was watertight.

³ Henge: particular type of earthwork of the Neolithic period, typically consisting of a roughly circular or oval-shaped bank with an internal ditch surrounding a central flat area of more than 20 m in diameter.

This section of the Inner Study Area has within it, where it passes Lairg, the remains of six hut-circles (1a, 1b, 5, 10a, 33 and 52). These are generally well-preserved remains, ranging in size from 5 m to 10 m in diameter and defined by stone and turf banks (Plate 7.1); all of those recorded were identified in areas of relatively flat ground on the periphery of Lairg. Hut-circles are commonly attributed to the period of the Bronze Age and Iron Age and several excavated examples, recorded at Auchinduich (just south-west of Lairg) in the 1990s, have been dated to the Bronze Age; one provided Iron Age dates showing that settlement here continued throughout this later period (McCullagh & Tipping 1998⁴). The hut-circles are components of an extensive later prehistoric landscape that surrounds Lairg and they are considered to be of regional heritage importance and medium sensitivity.



Plate 7.1: Hut-Circle (1b), taken from the North East (CFA Archaeology Ltd)

Extensive cairnfields (1c, 3-4, 6, 13-14, 16, 18-21, 25, 34 and 46) (Plate 7.2) were found scattered along and throughout the Inner Study Area; in areas of rough pasture and heather moorland at Saval, Baddhu, Tomich and Rhina Breck for example. 'Cairnfield' is a generic name for groups of small heaps of stones, roughly rounded or oval in plan, often less than 5 m in diameter and numbering from several to many hundreds in any one location. They are not characteristic of any one particular period since stone clearance has been practised in Britain from the Neolithic to the present day. However, in this instance, their close association, either surrounding or in close proximity to the remains of hut-circles, would suggest that the majority are likely to be of prehistoric date and contemporary with the prehistoric settlement remains. As with the hut-circles, the cairnfields are components of an extensive prehistoric landscape that survives surrounding Lairg and they are considered to be of regional heritage importance and medium sensitivity.

⁴ McCullagh, R.P.J & Tipping, R (1998) *The Lairg Project 1988-1996: The Evolution of an Archaeological Landscape in Northern Scotland*, AOC Scotland Ltd/Historic Scotland, Monograph 3, Tyneside Free Press.



Plate 7.2: General shot of Cairnfield (6), taken from the West (CFA Archaeology Ltd)

Several individual clearance cairns (24-26, 35, 38-40, 43, 50 and 51) or small clusters of cairns (12, 22-23, 47 and 49), where there are less than five in a group, were also recorded along the LOD; in areas of upland heather moorland at Reimarstaig, Tomich and Rhian Breck. There is little to distinguish between later prehistoric and medieval/post-medieval cairns and these examples could potentially be associated with prehistoric agricultural practices or they may be of later (medieval/post-medieval) date. As individual examples, or small groups, these examples are considered to be of local heritage importance and low sensitivity; although, it is also possible that further clearance cairns may be present and concealed by heather or peat in these areas.

A section of poorly preserved turf and stone bank (1e) has also been identified alongside and probably associated with the remains of hut-circles (1a and 1b). This bank quite possibly once formed elements of a field system, potentially associated with the prehistoric settlement, and, through its associations with the hut circles, it is considered to be of regional heritage importance and medium sensitivity.

Other Prehistoric Features

Further prehistoric activity in this section of the Inner Study Area is indicated by the presence of a burnt mound (8) which stands on the north bank of the Allt a'Choinn-duinn burn, in an area of pasture, just south of the Savalbeg to Dola public road. The burnt mound which is unusually large and well-preserved is horse-shoe shaped with its open side aligned south-east towards the burn (Plate 7.3). The mound is turf-covered; however, small burnt stones, blackened earth and fragments of charcoal have been exposed in rabbit burrows and mole-hills within the mound. Burnt mounds are usually interpreted as prehistoric cooking sites (or possibly saunas) and are generally dated to the Bronze Age; although several in Dumfries and Galloway have been dated to the medieval period (Russel-White 1990⁵). Excavations of burnt mounds by McCullagh & Tipping (1998⁶) in the area around Lairg have revealed that they were used at times when the surrounding hut-circles were occupied.

⁵ Russel-White ,C.J. (1990) 'The East Rhins of Galloway'. In: V. Buckley, ed. 1990 Burnt Offerings: International Contributions to Burnt Mound Archaeology. Dublin: Wordwell Ltd.

⁶ McCullagh, R.P.J & Tipping, R (1998) The Lairg Project 1988-1996: The Evolution of an Archaeological Landscape in Northern Scotland, AOC Scotland Ltd/Historic Scotland, Monograph 3, Tyneside Free Press.

As a well-preserved example, the burnt mound (8) is considered to be of regional heritage importance and medium sensitivity.



Plate 7.3: Burnt Mound (8), taken from the South East (CFA Archaeology Ltd)

Prehistoric Find-Spots

The HER and Canmore entries record that a polished kaolin axe (44) was discovered during works associated with the construction in 1867 of the railway at Lairg. The exact location of the find-spot is not recorded, and no further information is provided; although it is likely to be an artefact of Neolithic date. Although it is indicative of possible Neolithic activity in the area, the find-spot is for an artefact that no longer survives in situ and, as such, it is considered to be of no heritage importance and of negligible sensitivity.

7.2.2 Medieval or Later Settlement

A farmstead (30b-30c) at 'Riemarstaig' comprising of three roofed buildings, and three enclosures is shown on the Ordnance Survey 1st Edition map (1879). By the time of the 2nd Edition map (1908) only one building is shown as roofed and another as partially roofed, suggesting that the farmstead may have been abandoned by that date. Today, little survives of the farmstead buildings, with only the remains of one building (30b) being visible underlying a later World War II pillbox (30a). The remains of this building (30b), although covered in heather and difficult to distinguish, appear to have been rectangular in plan and split into two compartments, with only the eastern end of the western compartment surviving. The poorly preserved remains of a possible second building (30c) survive approximately 5 m to the north-west of the first (30b). All that survives of this building is an L-shaped section of wall. The remains of a roughly oval enclosure (29), depicted surrounding the farmstead on the Ordnance Survey 1st Edition map (1879), is still present and is defined by a well-preserved stone and turf bank, 1 m wide and 1.2 m high. Wordsworth (1991) also recorded the presence of a turf and stone bank (32) running along the edge of an area of woodland/scrubland to the south of 'Riemarstaig' and suggested that the bank may have formed part of a large stock enclosure connected with the farmstead. This bank still survives, in varying condition along its length. Where best preserved, it survives as a low bank, 1 m - 2 m wide and 1 m high. The farmstead (30b-30c) remains and elements of an associated field system (29 and 32) all form part of the local historical landscape and are considered to be of local heritage importance and low sensitivity.

A second farmstead, comprising two small rectangular, roofed buildings (45a and 45c), is depicted just south of the Rhian Breck to Tomich public road on the Ordnance Survey 1st Edition map (1879). The most easterly of these buildings (45c) is not shown on the later 2nd Edition map (1908); while the other (west) building (45a) is still depicted, standing within a rectangular enclosure (45b). The ruins of the westerly building (45a) and its associated enclosure (45b) still survive today, standing in a pasture field. The building (45a) has been divided into two compartments, comprising the living quarters (east compartment) and a barn (to the west). The living quarters, of mortared stone construction, are generally well preserved; still standing to gable height (2m high) at its eastern end. An entrance is present on the south side of the building and two small windows survive in the north and south sides at the eastern end. A small fireplace is also visible at the east end of the building. The barn section is less well preserved, with a tumbled wall, at best 0.5 m high and no internal features are visible. The building is surrounded by the remains of an enclosure (45b), as shown on the 2nd Edition map, formed by a stone and turf bank (c.0.6 m high and 1.5 m wide). Surrounding the farmstead (45) are numerous turf covered clearance cairns (46), forming a small cairnfield that extends over an area approximately 300 m by 140 m. These cairns are typical of Bronze Age activity (see above) and they may be associated with a hut-circle settlement and field system (HER Ref no: MHG12080 / MHG40498) which lies to the west of the cairnfield and which outside the Proposed Development LOD. Some of the clearance cairns may, however, be of later date and may be associated with the post-medieval farmstead (45). There are no surviving, upstanding remains of the easterly building (45c) that is shown on the 1st Edition map; its former location, taken from the 1st Edition (1879) map, is however shown for reference on figure 7.1 b as there could be buried remains that do survive. The ruined farmstead (45) is considered to be of local heritage importance and low sensitivity.

Field survey recorded the footings of two buildings/structures (41 and 42) in pasture on the lower slopes of Cnoc na h-Inghinnin, to the south of Tomich. The first (41) is square in plan (c.4 m by 4 m) and defined by a stone and turf bank 0.5 m high. The second structure (42) is rectangular in plan and defined by a poorly preserved stone and turf bank. No internal features are visible within either structure and their date and function are unknown. They are considered to be of local heritage importance and low sensitivity.

The HER and Canmore entries record the presence of a ruined sheepfold (2) at An T-Sron, which is depicted on both the Ordnance survey 1st (1879) and 2nd (1900) edition maps. The tumbled remains of the sheepfold, 15 m in diameter and with a drystone wall 0.5 m high, were found during the field survey overlying the remains of an earlier prehistoric hut-circle (1a). As a minor agricultural feature of 19th century date it is considered to be of little heritage importance and negligible sensitivity.

Field survey identified the remains of a roughly rectangular enclosure (15a), which is depicted on the Ordnance Survey 1st Edition map (1879); it measures 135m long by 75m wide, defined by a tumbled stone wall on its north and east side and a stone and turf bank on its west and south sides. A short section of poorly preserved linear stone and turf bank (15b), possibly the remains of an earlier enclosure that partly underlies the later enclosure (15a), is also visible; running parallel with the northern side of the enclosure for 20 m. Both the ruined enclosure and the bank remains are considered to be of local heritage importance and low sensitivity.

Field survey also recorded remains of several sections of stone and turf field banks (7, 17, 36, 37 and 48), in areas of pasture farmland. The banks vary in their state of preservation, ranging from 1.5 m to 3 m wide and from 0.3 m to 1 m high. They are likely to be vestigial remains of more extensive enclosures or field systems and are of unknown date; although they are probably of medieval and post-medieval date. The remains of these banks are considered to be of local heritage importance and low sensitivity.

In addition, a small area of relict rig and furrow cultivation (1f) survives to the south-west of a hut-circle (1a) at Saval. Rig and furrow cultivation is a pattern of ridges and troughs created by a system of ploughing used in Europe during the medieval and post-medieval period; the earliest examples date to the immediate post-Roman period and the system was commonly used until the 19th century. The rig and furrow remains show that cultivation was being carried out to the north of Lairg, during the medieval and post-medieval period, in an area which today comprises of rough pasture and heather moorland. The rig and furrow remains survive close to an earlier prehistoric settlement and are enclosed by a field bank (1e), which appears to have been originally

associated with the hut-circle and thus potentially of prehistoric date (see above); the presence of the later rig and furrow cultivation probably indicates the reuse of an earlier site and they are considered, along with the hut circle and associated remains, to be collectively of regional heritage importance and medium sensitivity.

7.2.3 Miscellaneous

Field survey recorded the concrete footings of a probable building (9) just north of Allt a'Choin duinn burn and c.30 m west of a burnt mound (8). The remains comprise the footings of two concrete structures with a poorly preserved concrete wall linking the two, on their south side. No buildings are recorded in this area on early Ordnance Survey maps (1879, 1908) and the building is likely to be of relatively recent date and of negligible sensitivity.

What may be a possible quarry (28), 15 m by 12 m and 2 m deep, cut into the east side of a large bedrock knoll was recorded during the field survey. The quarry is a minor historic feature of relatively recent date and is of little heritage importance and negligible sensitivity.

The HER and Canmore entries record that a World War II pillbox (30a) is present at Riemarstaig. The pillbox (a concrete dug-in guard post) stands in a rough pasture field, just south of the A839 public road. It is well preserved with five openings, thick walls and still retains its firing shelf. It has recently been used as an animal shelter. The pillbox has been built into the footings of an earlier stone building (30b), which once formed part of 'Riemarstaig' farmstead (see above). As a historical feature of the landscape associated with past military conflict, the pillbox is considered to be of local heritage importance and low sensitivity.

The Sutherland railway line, built in the 1860s and running between Inverness and Thurso and including a loop from Lairg to Golspie (31), was designed at the time to open the centre of Sutherland to trade. The railway line is depicted on the Ordnance Survey 1st (1879) and 2nd (1908) Edition maps passing the southern edge of Lairg and is still in use. The railway line is considered to be of local heritage importance and low sensitivity.

7.3 Rhian Breck to Loch Buidhe (Assets 52-87)

There is a total of 35 heritage assets recorded within the section of the Inner Study Area between Rhian Breck and Loch Buidhe in a landscape that consists principally of upland heather moorland with some pockets of rough pasture at Auchinduich. Here, the Inner Study Area contains diverse archaeological remains dating from at least the Bronze Age through to the post-medieval period with a hut-circle settlement preserved at Auchinduich and the well-preserved ruins of two pre-improvement townships surviving within the Loch Laro valley.

7.3.1 Prehistoric

The HER and Canmore entries record the presence of a circular structure (52) situated on a west facing slope and located within the large enclosure of 'Ramscaig' farmstead (53). Field survey recorded the structure, which appears to be the remains of a prehistoric hut-circle, as measuring 13.5 m east to west and 12 m transversely within a stone and turf bank. A gap was noted in the southern arc, which may correspond with a possible entrance.

Two further hut-circles (59a and 59b) and an associated field system (59c) are also recorded, further south at Auchinduich, by the HER and Canmore. Field survey recorded these as being either side of a trackway running from Auchinduich to Loch Laro, along with a scatter of clearance cairns. Both hut-circles are generally well-preserved: the first (59a) is roughly oval in plan and defined by a turf and stone bank, with occasional large facing stones protruding from the bank. The second (59b) is more circular in plan and is also defined by a low-relief turf and stone bank. At least 15 clearance cairns are visible, constituting a small cairnfield that is likely to be contemporary with the prehistoric settlement remains. The hut-circles and their associated cairnfields are considered to be of regional heritage importance and medium sensitivity.

7.3.2 Medieval or Later Settlement and Activity

The HER and Canmore entries record the presence of two pre-improvement townships (77 and 80) lying to the east of Loch Laro.

The first (77) is depicted on Burnett and Scott's map of 1855⁷ annotated 'Peilfraoich' and is shown on the Ordnance Survey 1st Edition map (1879) as comprising four roofed buildings, an unroofed building, a circular enclosure and four fields. The name 'Peilfraoich' translates as 'boggy heather'. By the time of the 2nd Edition map (1908) all of the buildings are shown as unroofed, indicating that it had been abandoned by that date. The ruins of the township survive today in an area of heather moorland just north of a trackway leading to Loch Laro and on a south facing slope. The township ruins are well preserved and complex (Plate 7.4), comprising of at least nine buildings, five enclosures and a number of large clearance heaps. The remains of an extremely well-preserved corn drying barn and kiln (Plate 7.5) survive on the southern edge of the township, revetted into the hill slope (at 261934, 898964). The buildings, all of drystone wall construction, vary in size; the largest being 21 m long by 5 m wide with walls 0.5 m-1 m high. The township remains are spread over an area measuring approximately 400 m by 400 m and extend to either side of the trackway leading to Loch Laro. The main elements of the township are enclosed by a number of sinuous turf and stone banks, forming a series of enclosures and which together generally define the extent of the township; although occasional features, probably associated with the township (for example a sheepfold (75), several clearance cairns/heaps including assets (76) and (78), bank (71) and a bridge (72): see details below), lie outside of the enclosed areas.



Plate 7.4: General shot of the remains of Township (77), taken from the North West (CFA Archaeology Ltd)

⁷ Burnett, G and Scott, W (1855) Map of the county of Sutherland made on the basis of the trigonometrical survey of Scotland in the years 1831, 1832.



Plate 7.5: Corn-drying Kiln surviving within Township 77, taken from South West (CFA Archaeology Ltd)

The second township (80), around 330 m to the east of 'Peifraocih' (77) is depicted on the 1st Edition map (1879) comprising four roofed buildings, one unroofed building, two enclosures and a ring-dyke. As with 'Peifraocih' (77), the buildings forming this township are all shown as unroofed on the later 2nd Edition map (1908) indicating that it was also abandoned by that date. The ruins of this township are also well preserved and complex (Plate 7.6), at least four buildings, a series of large clearance cairns and at least four enclosures and several field banks were recorded during the field survey, spread out over an area measuring approximately 350 m by 320 m and extending either side of the trackway to Loch Laro. Several particularly large clearance cairns (stone heaps), which are rectangular in plan, were recorded within the main township enclosure and these may well overlie remains of additional buildings (Plate 7.7). The extent of the township is defined by a stone and turf bank, which encloses the main elements of the township; although two buildings are present outside the enclosure bank, just to the north-west of the township.



Plate 7.6: General shot of Buildings within Township (80), taken from the South East (CFA Archaeology Ltd)



Plate 7.7: An example of a Large Clearance Cairn (stone heap) within Township (80) which may overlie former Building remains, taken from West (CFA Archaeology Ltd)

The townships (77 and 80) form part of a group of settlements that survive within the Loch Laro valley, including 'Claisnafaire' (HER Ref no: MDG10328) and 'Garbh-Airigh' (HER Ref no: MDG25255), both of which are

depicted on Roy's map of 1747-55⁸, and collectively these indicate that the valley was once well populated; the townships being of at least mid-18th century date, and potentially earlier. These well-preserved township remains are considered to be of regional heritage importance and medium sensitivity.

The Proposed Development LOD passes through a large rectangular enclosure (**53**) that lies to the west of the remains of a farmstead (HER Ref no: MHG19397), comprising an unroofed building and four enclosures, that is depicted on the Ordnance Survey 1st Edition map (1879), which survives in an area of upland moorland, to the north of the Allt Ramascaig Beag burn. The core elements of the farmstead lie outside the Proposed Development LOD and were not visited during the field survey. The enclosure measures approximately 500 m by 400 m and is defined by a turf bank 2 m wide and 0.6 m high. There is no evidence for any rig and furrow cultivation within the enclosure; which might suggest that it is large stock enclosure. Field survey also identified the remains of a possible building (54) in the southern half of the enclosure. It is roughly square in plan and measures 6m by 6m, defined by a turf bank 1 m thick and with a possible entrance on its south-east side. The function of the building is unknown. The enclosure and building, through their association with a former farmstead, are considered to be of local heritage importance and low sensitivity.

A number of other, individual agrarian features, including: a field bank (71); a bridge (72); a circular sheepfold (75); clearance spreads (76); possible clearance cairns (78); and two enclosures (83 and 85), were also recorded within the Loch Laro valley close to the townships (77 and 80) described above and they are likely to be associated with occupation of the townships. As individual elements probably associated with more aggregated settlements, they are considered to be of local heritage importance and low sensitivity.

Settlement at 'Auchinduich' is known to have existing from the medieval period onwards. In the 13th century, Auchinduich was part of the lands of Invershin and from the 17th century onwards it formed part of the Duke of Sutherland estate (McCullagh & Tipping 1998⁹). Documentary evidence indicates that the land at Auchinduich was included in the 'Great Sheep Tenement', or Lairg sheep farm, which was established in the early 19th century (McCullagh & Tipping 1998). Several features, potentially associated with 19th century agrarian activity and sheep farming, are recorded within the Proposed Development LOD at Auchinduich, including: the remains of a roughly oval field (57a) with associated stock enclosure (57b) and possible shepherds shelter (**57c**) and a field wall (55). Through probable association with this settlement, they are considered to be of local heritage importance and low sensitivity.

A Canmore entry records the presence of a former blackhouse (or longhouse) (87) at Torbreck, close to the western end of Loch Buidhe. The building was recorded during archaeological investigations for a proposed electricity substation at Loch Buidhe and excavations of the building were carried out in 2013, prior to the construction of the substation. The excavations recorded a longhouse of drystone and turf construction built in three phases. These included two distinct house structures with associated byres and a small ancillary building. Analysis of the pottery recovered from the site provided an early 19th century date. Part of the building was removed during construction of a sealing end compound linking with Loch Buidhe electricity substation; while the remnants of the building still survive in situ. Although part of this building has been removed there still remains in-situ remains and taking this into account it is considered to be of local heritage importance and low sensitivity. Field survey identified the presence of two turf and stone banks (86a-b) close to the western end of Loch Buidhe. The banks form part of two enclosures (or fields) that may have once been associated with the blackhouse (87). There has been some erosion of the field bank and there are gaps along its length; in some areas, only a line of stone boulders is visible. Construction works for a recently erected steel overhead electricity tower, immediately south of the enclosures, has disturbed a short section of the enclosure bank. The enclosure remains were probably associated with the former blackhouse and are considered to be of local heritage importance and low sensitivity.

⁸ Roy, W (1747-55) Military survey of Scotland.

⁹ McCullagh, R.P.J and Tipping, R (1998) The Lairg Project 1988-1996: The Evolution of an Archaeological Landscape in Northern Scotland, AOC Scotland Ltd/Historic Scotland, Monograph 3, Scottish Trust for Archaeological Research: Tyneside Free Press.

Field survey also recorded the presence of several overgrown stone quarries and gravel pits (60-70, 74 and 84a-c) cut into a number of bedrock knolls close to a trackway leading from Auchinduich to Sleastary. The quarries vary in size (from 7 m by 14 m to 9 m by 23 m and 1.5 m to 2m deep) and shape (from circular to sub-rectangular in plan). Three of the gravel pits (84a-c) are shown on the Ordnance Survey 2nd Edition map (1908) indicating that they are of late 19th or early 20th century date; the other quarries are not shown on the early Ordnance survey maps and may be earlier or later in date. It is most likely that these provided stone for use in the construction of field banks/walls and other structures and tracks within the area, including the buildings and enclosures within the townships in the area (including 77 and 80). As minor historical features the quarries are considered to be of little heritage importance and negligible sensitivity.

7.3.3 Miscellaneous

The Ordnance Survey 2nd Edition map (1908) depicts two small roofed buildings (73a-b) standing either side of a trackway close to the head of Loch Laro. No remains of these buildings were found during the field survey. Taking their location, close to the Loch, into consideration the structures may have been short-lived buildings associated with fishing activities on the loch. As there are no remains of these fairly recent and probably sporting related structures, they are considered to be of no heritage importance and negligible sensitivity.

Four stone-built culverts (58, 79, 81 and **82**) were recorded by field survey crossing below the trackway between Auchinduich and Sleastary. The culverts were most likely constructed when the trackway was laid to Loch Laro and they are minor heritage features of little heritage importance and negligible sensitivity.

7.3.4 Overall Archaeological Potential of the Proposed Development Area LOD

Extensive and complex archaeological remains, dating from the prehistoric to the medieval and later periods, have been recorded within the Inner Study Area, particularly around Lairg and along the Loch Laro valley. Given the concentration of both prehistoric and medieval/post-medieval settlement remains and associated field systems (cairnfields) within both the Inner Study Area and in the landscape surrounding the Proposed Development, it is considered that there is a high probability that buried remains of archaeological interest are preserved within the Inner Study Area.

Peat depth analysis within the Proposed Development LOD (see Technical Appendix 2.2: Outline Construction Environmental Management Plan) indicates that peat accumulation is variable along the route. There are some deep deposits, commonly between 1 m and 3 m, with small pockets in excess of 3 m. These deeper deposits occur particularly within areas of moorland/rough pasture to the north and west of Lairg, around Saval and Savalbeg, and within the upland moorland areas to the south of Lairg, between the Torroboll Burn and the Ramascaig Beag Burn. Such deep peat deposits could potentially be concealing archaeological remains relating especially to prehistoric periods. Given the altitude of the upland moorland between Torroboll Burn and Ramascaig, between 190 AOD and 200 AOD, it is considered that there is a limited potential for buried archaeological remains to survive within this area, apart from along the lower lying water course Allt Ramascaig Mor which may have been a focus for prehistoric settlement/activity.

Particular concentrations of upstanding prehistoric remains have been identified within the areas of rough pasture and in the moorland on the lower hill slopes surrounding Lairg; with extensive prehistoric cairnfields along with hut-circle settlement remains still surviving in these areas. Previous excavations of cairnfields (for example Barber 1997¹⁰) have revealed complex deposits, occasionally including assemblages of flint tools and even cremation burials. It is therefore to be considered possible that such remains may survive within the cairnfields identified here within the Inner Study Area.

¹⁰ Barber, J. (Ed.) 1997. *The Archaeological Investigation of a Prehistoric Landscape: excavations on Arran 1978-1981*. Edinburgh: Scottish Trust for Archaeological Research.

TECHNICAL APPENDIX 7.2: CULTURAL HERITAGE CONSTRAINTS WITHIN THE INNER STUDY AREA

(Following changes to the Proposed Development design in March 2018 three heritage assets previously recorded within the Proposed Development LOD now fall outwith the Proposed Development LOD. These sites have consequently been removed from the cultural heritage assessment and are shown as: 'VOID' in the following Technical Appendix).

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
1	An T-ron, Field system, Hut-circle(s)	MHG11865 / 5042	258400	909100	HER; Canmore; Aerial photographs; Field survey	<p>The HER and Canmore record that at 258400, 909100 on a low ridge surrounded by marshy ground are two hut-circles (1a and 1b) and an associated field system (1c).</p> <p>1a: is partially overlaid by a modern ruined sheepfold. The hut-circle measures 10 m internal diameter within a wall 0.4 m high of which both inner and outer facing stones can be seen, giving an estimated thickness of 1.8 m. The position of the entrance is uncertain. From the west arc of the hut-circle, a turf-covered bank extends westwards before curving north then east to enclose an area 4 m in diameter. There appears to be an entrance to the enclosed area from the hut-circle, and it is almost certainly contemporary. From this enclosure a curving boulder wall extends westward.</p> <p>1b: is oval, 10 m north-west to south-east by 9 m internally within a tumbled wall 0.6 m high, spread to 2.5 m. At the entrance in the south-east arc the wall extends outwards and the entrance, with parallel sides, is 5.5 m</p>	Medium	<p>Direct</p> <p>Crossed by proposed new temporary access track between towers T61 and T59.</p> <p>Proposed tower T60 located within the cairnfield (1c).</p>	Medium	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the cairnfield.</p> <p>Mark-off upstanding remains during works.</p> <p>A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield.</p> <p>Microsite proposed development to avoid upstanding remains of the hut circles and cairnfield.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact	
						<p>long and about 1.3 m wide. No stones remain in situ to indicate the precise nature of this entrance.</p> <p>1c: the field system comprises scattered clearance heaps with some stony lynchets and field walls fringing cultivated areas. Near hut (1b) where the clearance heaps are closer together one or two plots, average size 40 m by 15 m can be seen.</p> <p>The hut-circles and clearance cairns are visible on aerial photographs from 1946-54. At least 25 clearance cairns are visible on modern aerial photographs (GoogleEarth™, 2004) within an area of rough pastureland and spread over an area 600 m by 300 m. A semi-circular stone and turf bank is also visible on the south-western edge of the clearance cairns.</p> <p>Field survey recorded the remains of three possible hut-circles (1a, 1b and 1d), an associated cairnfield (1c) and a curvilinear field bank (1e) and the possible remnants of former rig and furrow cultivation (1f).</p> <p>1a: the remains of a hut-circle overlain by a later sheepfold (2). The hut-circle measures c.9 m in diameter defined by a turf and stone wall, c.0.4 m high. No obvious entrance was</p>							

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>visible. The remains of a curvilinear field bank (1e) runs from the north-western arc of the hut-circle.</p> <p>1b: an oval-shaped enclosure, defined by a turf and stone wall (c.0.75 m), was identified on a slightly raised knoll. This enclosure appears to be the remains of a hut-circle previously recorded by Canmore (see above). The enclosure (hut-circle) measures c.16 m east to west and c.15 m north-east to south-west with an entrance visible on the southeast side.</p> <p>1c: At least 25 clearance cairns, spread over an area c. 350 m by c.170 m, were identified surrounding the hut-circles (1a and 1b), these range in size from 3 m to 4 m in diameter and 0.5 m to 0.75 m high. The clearance cairns are all turf covered.</p> <p>1d: A third possible hut-circle was identified at 258478, 909126, located c.60 m to the north-east of enclosure/hut-circle (1b). It measures c.8 m in diameter and defined by a 2 m wide and 0.3 m high turf and stone bank.</p> <p>1e: A roughly curvilinear field bank runs from the north-western corner of hut-circle (1a) to the west before curving to the south and forming a roughly oval shaped</p>						

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						enclosure measuring c.100 m by c.50 m, to the south-west of the hut-circle. What may be the remnants of rig and furrow cultivation (1f) were visible within this enclosed area; the rig measuring c.2 m wide, c.0.6 m high and with a 5 m wide wavelength.						
2	An T-Sron, Sheepfold	MHG39267	258400	909100	HER; Historic maps; Aerial photographs; Field survey	<p>The HER records that a ruined sheepfold (2) overlies the remains of a hut-circle (1a) at 584000, 091000.</p> <p>The sheepfold is not depicted on the Ordnance Survey 1st or 2nd Edition (1879 & 1908) map suggesting that it is of relatively recent date.</p> <p>The sheepfold is visible on modern aerial photographs (GoogleEarth™, 2004).</p> <p>Field survey recorded the tumbled remains of the sheepfold, overlying the remains of a hut-circle (1a) measuring 15 m in diameter with a dry stone wall measuring 0.5 m high.</p>	Negligible	None	None	None	None	None
3	Cairnfield	-	258893	908627	Field survey	Field survey recorded the presence of a cairnfield centred at 258893, 908627 and comprising c. 30-40 cairns spread over an area of semi-improved pasture measuring c.190 m by 190 m. The cairns range in size from c.2 m to 6 m in diameter and c.0.4 m to 1 m high. All of the cairns are turf covered.	Medium	None Separated from the Proposed Development by modern post and wire fence.	None	None	None	None
4	Cairnfield	-	259038	908690	Field survey	Field survey recorded the presence of a	Medium	Direct	Medium	Moderate	Pre-construction enhanced GPS	Moderate

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>cairnfield centred at 259038, 908690 in an area of heather moorland, comprising c. 25-30 cairns spread over an area measuring c.145 m by 120 m. The cairns range in size from c.2 m to 4 m in diameter and c.0.3 m to 0.5 m high; most of the cairns are turf covered.</p>		<p>Crossed by proposed new temporary access track between towers T58 and T56. Proposed tower T57 located within cairnfield.</p>	<p>Any ground works for the construction of the proposed tower and along the proposed access track could disturb remains within the cairnfield.</p>		<p>earthwork survey of the cairnfield. Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield. Microsite proposed development to avoid upstanding remains within the cairnfield. Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	(significant)
5	Saval, Hut-circle	MHG11856 / 5033	259230	908630	HER; Canmore; Field survey	<p>The HER and Canmore record that at 259230, 908630 a solitary hut-circle survives on a knoll in marshy ground. The hut-circle measures 5 m in diameter defined by a low heather-covered wall spread to 2 m wide. The entrance (of simple form) is in the south-east arc. The knoll on which the hut-circle stands is stone free and may have been cultivated, but there is no evidence of plots or</p>	Medium	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						stone clearance. Field survey recorded the hut-circle at 259229, 908646. It measures c.7 m internally and defined by a low turf bank 0.4 m high (max). It is heather-covered and hard to distinguish. A cairnfield is visible c.100 m to the west (4).						
6	Cairnfield	MDG118444 / 5020	259500	908260	HER; Canmore; Field survey	<p>The HER and Canmore record that on a low moorland ridge bounded by marshy ground, is a small field system extending for four hectares. It is comprised mainly of scattered stone clearance heaps and the occasional stony lynchet, with indeterminate areas of stone-free cultivation. Only where the clearance heaps are close together, can two or three measurable plots be identified; one is rectangular 40 m by 15 m. No hut-circles were located within the system.</p> <p>Field survey identified the cairnfield spread over a moorland ridge and as described by the HER and Canmore. The cairns appear to spread slightly further north, than originally recorded, with some visible close to the remains of a hut-circle (MDG11863) which lies outside the LOD. At least 34 clearance cairns were visible, these ranging in size from c.2 m to 6 m diameter and c.0.5 m to</p>	Medium	<p>Direct</p> <p>Crossed by proposed new temporary access track between towers T55 and T56.</p> <p>Working area for T56 clips eastern edge of cairnfield.</p>	Medium	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the cairnfield.</p> <p>Mark-off upstanding remains during works.</p> <p>A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield.</p> <p>Microsite proposed development to avoid upstanding remains within the cairnfield.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						1.5 m high. Most of the cairns are turf covered.						
7	Field bank	-	259948	907683	Field survey	<p>Field survey recorded the presence of a turf covered field bank aligned north-north-west to south-south-east running between 259933, 907729 and 259967, 907602 for c. 160 m. The bank measured 1 m high and is spread to 2 m wide with a ditch visible on either side.</p> <p>Approximately 70 m along the bank (from the south-south-east end) is a short curvilinear bank, measuring c.18 m long, forming what may be a small D-shaped enclosure, c.2 m wide and 14 m long, on the east side of the bank. A short section of bank was also recorded to the south of the public road running for c.45 m in length; this appears to be a continuation of the bank on the north side of the road.</p> <p>Examination of the Ordnance Survey 2nd Edition map (Sutherland, 1908, Sheet XCV, 6 inches to 1 mile) indicates that the field bank originally defined the eastern extent of improved land surrounding 'Savalbeg' farm.</p>	Low	Direct: crossed by proposed underground cable route for existing 11kV OHL at Savalbeg.	Low Only small part of enclosure could potentially be affected.	None	Breaches and disturbance to field bank should be kept to a minimum. Watching brief to be carried out during ground breaking required for the installation of the underground cable route where it crosses the field bank – to recover any dating evidence for its construction.	None
8	Dola, Burnt Mound	MDG12294 / 5455	260070	907550	HER; Canmore; Aerial photographs; Field survey	The HER and Canmore record that situated on the north side of Allt a' Choin-duinn, is an unusually large, turf-covered burnt mound. It is horse-shoe shaped with its open side	Medium	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>towards the burn and measures 17 m east to west by 12 m transversely with two pinnacles 1.5 m high. The content of the mound, consisting of small burnt stones, blackened earth, and fragments of charcoal, is exposed in rabbit burrows and mole-hills. There is no trace of associated hut-circles or cultivation.</p> <p>The burnt mound is visible on modern aerial photographs (GoogleEarth™, 2004). Field survey identified the burnt mound as previously described by the HER and Canmore. The burnt mound stands to the north of Allt a' Choin duinn burn.</p>						
9	Building footings (modern)	-	260039	907538	Field survey	<p>Field survey identified the concrete footings of a probable building just north of the Allt a' Choin duinn burn and c.30 m west of burnt mound (8). The building footings comprise two rectangular concrete structures: the first measuring 4 m by 3 m and 0.6 m high, and the second 4 m by 2 m and 0.8 m high. The poorly preserved remains of a concrete wall linking these structures were visible on their southern side. No buildings are recorded on Ordnance Survey mapping (1879-1908) in this area and the structure is likely to be of relatively recent date.</p>	Negligible	<p>Direct</p> <p>In close proximity to proposed new permanent access track between proposed towers T51 and T50.</p>	<p>High:</p> <p>Ground works along proposed access track could disturb the asset.</p>	Minor	<p>None: as the asset is of minimal heritage importance.</p>	<p>No impact if avoided.</p> <p>Minor (not significant) residual impact if asset cannot be avoided.</p>

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
10	VOID											
11	VOID											
12	Clearance cairns	-	260112	907285	Field survey	Field survey identified the remains of four clearance cairns clustered together on a north-facing slope in an area of improved pasture. The cairns ranged in size from c.4 m to 6 m in diameter and c.0.2 m to 0.6 m high; all are turf covered. A second cluster of clearance cairns (13) were identified c.50 m to the south.	Low	Direct Clearance cairns in close proximity to proposed new permanent access track between T50 and T49.	High Ground works along proposed access track could disturb the clearance cairns.	Moderate	Microsite proposed access track route to avoid clearance cairns. Mark-off during construction works. If disturbance of the cairns is unavoidable they should be recorded archaeologically prior to, or during, construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass this asset.	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.
13	Cairnfield	-	260131	987223	Field survey	Field survey identified the remains of seven clearance cairns clustered together on a north facing slope in an area of improved pasture. The cairns ranged in size from c.3 m to 5 m in diameter and c.0.2 m to 0.6 m high; all are turf covered. A further cluster of clearance cairns (12) were identified c.50 m to the north.	Medium	Direct Crossed by proposed new permanent access track between T50 and T49.	Medium Any ground works for the construction of the proposed tower and along the proposed access track could disturb remains within the cairnfield.	Moderate	Pre-construction enhanced GPS earthwork survey of the cairnfield. Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield. Microsite proposed development to avoid upstanding remains within the cairnfield. Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during,	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
											construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.	
14	Cairnfield	MDG12426 / 5439	260330	907280	HER; Canmore; Field survey	<p>The HER and Canmore entries record that at 260330, 907280, in a birch wood on a north facing slope, is a hut-circle, evident as a turf covered hollow measuring 8 m east to west and 7 m north to south within a spread wall of indeterminate width and 0.4 m high. The simple entrance is in the east. An indistinct depression 18 m to the west is possibly the remains of a further hut-circle. Approximately half a dozen clearance heaps lie in close proximity, no pits are evident.</p> <p>Field survey recorded the presence of a small cairnfield (cluster of clearance cairns) as described by the HER and Canmore (see above). At least 25 cairns were identified spread over an area 120 m by 90 m on a north facing slope. The cairnfield was present immediately south of two hut-circles (previously recorded by the HER and Canmore). The hut-circles lie immediately east of the LOD, in woodland, and were not recorded in detail.</p>	Medium	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
15a-b	Baddhu, Enclosure(s)	MHG19528 / 91471	2602800	907200	HER; Canmore; Historic maps; Aerial photographs; Field survey	<p>The HER and Canmore record that an enclosure is depicted on the Ordnance Survey 1st Edition map (Sutherland, 1879, Sheet XCV) and on the 1992 1:10,000 OS map. The enclosure is visible on modern aerial photographs (GoogleEarth™, 2004). Field survey identified the enclosure (15a) on a north facing slope surrounded by cairnfields (12-14 and 16). The enclosure measures 135 m long by 75 m wide. Its north and east sides are defined by a tumbled dry stone wall, 0.5 m high and 0.5 m wide, while the south and west sides are defined by a stone and turf bank, 1 m high and 3 m wide, with a ditch, 1 m wide and 0.5 m deep, on its outer edge. The poorly preserved fragments of what maybe an earlier enclosure (15b) were visible as a short section of linear stone and turf bank, measuring 0.5 m wide and 0.3 m high, running from 260276, 907230 to 260295, 907225 for 20 m.</p>	Low	<p>Direct</p> <p>In close proximity to new permanent access track between T50 and T49.</p>	<p>Low</p> <p>Only small part of enclosure could potentially be affected.</p>	None	<p>Mark-off for avoidance.</p> <p>Microsite proposed access track to avoid enclosure.</p>	None
16	Baddhu, Field system, Hut-circle	MHG13284 / 5426	260200	907100	HER; Canmore; Historic maps; Aerial photographs; Field survey	<p>The HER records that a cluster of at least 15 clearance cairns, annotated 'Tumuli' are depicted on the Ordnance Survey 2nd Edition map (Sutherland, 1879, Sheet XCV, 6 inches to</p>	Medium	<p>Direct</p> <p>Crossed by proposed new temporary access track between T50 and T48.</p> <p>Proposed tower T49 located within cairnfield.</p>	<p>Medium</p> <p>Any ground works for the construction of the proposed tower and along the proposed access track could disturb</p>	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the cairnfield.</p> <p>Mark-off upstanding remains during works.</p> <p>A working corridor would be defined for</p>	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>1 mile).</p> <p>Canmore records that there are 15 to 20 closely grouped field clearance heaps centred at 260000, 907000. Some 150 m to the east, further clearance heaps occur, about 20 m apart spread over an area of 1.5 hectares. No cultivation plots or hut-circles are evident at either location. Centred on 2605000, 907100 are the remains of four hut-circles situated on a north-facing slope and partly covered by birch wood.</p> <p>A scatter of clearance cairns are visible on modern aerial photographs (GoogleEarth™, 2004).</p> <p>Field survey identified at least 30 cairns spread over an area 350 m by 100 m within an area of moorland to the east of Culbuie. The cairns range in size from 4 m to 7 m in diameter by 0.5 m to 0.8 m high. Most are turf-covered. A number of the cairns, centred at 260214, 907126, are visible as large linear spreads of clearance stone aligned north to south, downslope, and measuring c.3 m long. These clearance cairns are only partially turf covered and may be later in date. Lengths of turf field banks are visible towards the eastern edge of the cairnfield, outside the</p>			remains within the cairnfield.		<p>the route of the proposed access track, where it crosses the cairnfield.</p> <p>Microsite proposed development to avoid upstanding remains within the cairnfield.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						LOD. The hut-circles previously recorded by Canmore lie outside the LOD and were not visited during the field survey.						
17a-b	Field banks	-	260202	906793	Field survey	Field survey identified the remains of two curvilinear turf-covered field banks crossing an area of moorland. Both banks are aligned approximately north-west to south-east and are 1 m high and 2 m to 3 m wide. The first bank (17a) runs between 260183, 906791 to 260150, 906812 for c.150 m and then continues further to the north-west outside the LOD. The second bank (17b) runs between 260212, 906802 to 260302, 906702 for c.135 m before petering out.	Low	None In close proximity to existing track that does not require upgrading.	None	None	None	None
18	Baddhu, Cairn(s), Cairnfield	MHG12413 & MHG12415 / 5427	260300	907500	HER; Canmore; Historic maps; Field survey	The HER records the presence of a group of about 20 to 25 clearance heaps of a type normally found in association with hut-circles. The area south-east of a farm track was cultivated in early modern times with the remains of a longhouse and field banks surviving. Some of the large heaps are possibly contemporary with the latter, or, are enhanced prehistoric heaps. No hut-circles are evident. Field survey identified the cairnfield comprising at least 20 clearance cairns. The cairns ranged in size from 2 m to 5 m in diameter and	Medium	Direct Crossed by proposed new temporary access track between T49 and T47. Proposed tower T48 located within cairnfield.	Medium Any ground works for the construction of the proposed tower and along the proposed access track could disturb remains within the cairnfield.	Moderate	Pre-construction enhanced GPS earthwork survey of the cairnfield. Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield. Microsite proposed development to avoid upstanding remains within the cairnfield. Any areas where disturbance to components of the cairnfield is	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						0.4 m to 1 m high; most are turf-covered. They are spread over an area c.400 m by 70 m within an area of rough pasture and extending outside the survey area. The remains of two field banks (17a-b) pass through the middle of the cairnfield. There was no evidence within the LOD of any improved/cultivated land, or the longhouse previously recorded by the HER (see above).					unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.	
19	Cairnfield	MHG12734	260004	906656	HER	<p>The HER and Canmore entries record that nine to a dozen clearance heaps occur over an area of nearly a hectare. The largest, an alleged burial cairn (recorded separately in the HER under Ref: MHG12419) is almost undoubtedly a clearance heap, dug into at some time in the past. No measurable cultivation plots or hut-circles are evident.</p> <p>Field survey recorded the presence of a small cairnfield comprising of at least 13 cairns present in an area of improved pasture just north-east of Kinvolve House. The cairns range in size from c.2.5 m to 4 m in diameter and c.0.4 m to 0.6 M high; all are covered in turf and heather. The large, possible burial cairn (MHG12419), was identified located on top of a south-west facing slope and away from the other clearance cairns; it</p>	Medium	None In close proximity to existing access track that does not require upgrading.	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						lies outside the LOD and was not recorded in detail.						
20	Cairnfield	-	260463	906677	Field survey	Field survey recorded the presence of a small cairnfield comprising at least 18 cairns present on a north facing slope in an area of heather moorland. The cairns range in size from 2.5 m to 6 m in diameter and 0.2 m to 0.6 m high; all are covered in turf and heather.	Medium	None	None	None	None	None
21	Cairnfield	-	260504	906471	Field survey	Field survey identified at least nine turf-covered clearance cairns clustered together on the west-facing slope of Carn Liath. The cairns ranged in size from c.2.5 m to 6 m diameter and c.0.4 m to 0.5 m high.	Medium	<p>Direct</p> <p>Crossed by proposed new temporary access track between T47 and T46.</p> <p>Proposed working area for T47 clips cairnfield.</p>	Medium	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the cairnfield.</p> <p>Mark-off upstanding remains during works.</p> <p>A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield remains.</p> <p>Microsite proposed development to avoid upstanding remains within the cairnfield.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the</p>	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
											extent of this asset.	
22	Clearance cairns	-	260593	906053	Field survey	Field survey identified at least four turf-covered clearance cairns clustered together on the west-facing slope of Cairn Laith. The cairns ranged in size from c.3 m to 4 m in diameter and c.0.75 m to 1 m high.	Low	Direct Within 50 m of proposed tower T46.	High Any ground works for the construction of the proposed tower could disturb the clearance cairns.	Moderate	Microsite proposed development to avoid upstanding remains of the clearance cairns. Mark-off upstanding remains during works. If disturbance of the cairns is unavoidable they should be recorded archaeologically prior to, or during, construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass this asset.	No impact if asset is avoided. Moderate (not significant) residual impact of asset cannot be avoided.
23	Clearance cairns	-	206762	906059	Field survey	Field survey identified at least five clearance cairns clustered together on a south facing slope in an area measuring 190 m by 60 m. The cairns range in size from 4 m to 5 m in diameter and 0.3 m to 0.6 m high. A number of turf-covered mounds were also noted immediately north-west of the clearance cairns; these were covered in dense heather and it was not possible to confirm whether they were further clearance cairns or bedrock knolls.	Low	None	None	None	None	None
24	Clearance cairn (possible)	-	260963	906115	Field survey	Field survey identified what may be a small clearance cairn, roughly oval in plan and measuring 4m by 3m and 0.6m high. It is covered in dense heather and hard to	Low	Direct In close proximity to proposed new temporary access track between T44 and T43.	High Ground works along proposed access track could potentially disturb the clearance cairns.	Moderate	Microsite proposed access track route to avoid clearance cairn. Mark-off during construction works. If disturbance of the	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						distinguish. A second possible clearance cairn was noted at 261020, 906107 just outside the LOD (not shown on Figure 7.1).					cairn is unavoidable it should be recorded archaeologically prior to, or during, construction works as appropriate.	
25	Cairnfield	-	261086	905993	Field survey	Field survey recorded the presence of a small cairnfield, comprising at least nine cairns. The cairns range in size from c.3 m to 5 m in diameter and 0.8 m to 1 m high; all are covered in turf and heather.	Medium	Direct Crossed by proposed new temporary access track between T44 and T43.	Medium Any ground works along the proposed access track could disturb remains within the cairnfield.	Moderate	Pre-construction enhanced GPS earthwork survey of the cairnfield. A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield remains. Microsite access track to avoid upstanding remains within the cairnfield. Mark-off upstanding remains during works. Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate. Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.	Moderate (significant)
26	Clearance cairn (possible)	-	261071	905853	Field survey	Field survey identified what maybe the remains of a possible clearance cairn within an area of rough grazing. The cairn was roughly circular in plan and measures 4 m in diameter and 0.3 m	Low	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						high; the cairn was covered in dense grass and hard to distinguish.						
27	Clearance cairn (possible)	-	261065	905837	Field survey	Field survey identified the remains of a possible clearance cairn within an area of rough grazing. The cairn was roughly circular in plan and measures 3 m in diameter and 0.3 m high; the cairn was covered in dense grass and hard to distinguish.	Low	None	None	None	None	None
28	Quarry (possible)	-	261099	905837	Field survey	Field survey identified what may be the remains of a possible quarry, cut into the east side of a large bedrock knoll. The quarry measures 15 m by 12 m and c.2 m deep.	Negligible	None	None	None	None	None
29	Enclosure	-	261234	905799	Historic maps	A sub-rectangular enclosure is depicted enclosing 'Riemarstaig' Farm on the Ordnance Survey 1 st Edition map (Sutherland, 1879, Sheet XCV, 6 inches to 1 mile) and the 2 nd Edition map (Sutherland, 1908, Sheet XCV, 6 inches to 1 mile). Field survey identified the enclosure which is defined by a substantial stone and turf wall measuring c.1 m to 1.2 m high and 1 m wide.	Low	Direct Crossed by proposed new permanent access track between towers T43 and T42 and crossed by proposed underground cable route of existing 33kV OHL at Riemarstaig.	Low Only small part of enclosure would be affected.	None	Breaches of and disturbance to the enclosure wall should be kept to a minimum. Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure wall – to recover any dating evidence for its construction.	None
30a-c	Riemarstaig, Farmstead, Pillbox	MHG26624 / 116448	261190	905760	HER; Canmore; Historic maps; Field survey	The HER and Canmore record that a pillbox is set within the footings of a stone building, one corner of which still stands to five courses, 50 m to the north of the A839 public road at the point where it comes closest to the railway,	Low	Direct Remains of farmstead (30b-30c) within 50 m of proposed T42 and within 25m of proposed underground cable route of existing 33kV OHL at Riemarstaig.	Medium Ground works for the construction of the proposed tower could potentially disturb the farmstead	Minor	Microsite proposed development to avoid upstanding remains of the farmstead. Mark-off upstanding remains during works. Where disturbance	No impact if asset avoided. Minor (not significant) residual impact if asset cannot be avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact	
						<p>known as Lairg Summit. The pillbox has five openings and is probably a type 24 version with thick walls. The interior still retains the firing shelf and has been used as an animal shelter.</p> <p>Three rectangular buildings and three enclosures are depicted on the Ordnance Survey 1st Edition map (Sutherland, 1879, Sheet XCV, 6 inches to 1 mile) annotated 'Riemarstaig'. The same buildings are shown on the Ordnance Survey 2nd Edition map (Sutherland, 1908, Sheet XCV, 6 inches to 1 mile), by this date the most easterly building is shown as unroofed and the southerly building is depicted as partially unroofed.</p> <p>Field survey identified the pill box (30a) and the fragmentary remains of the farmstead (30b-30c). The pill box (30a) is as described above and stands within the footings of a rectangular stone building (30b). The building remains are c.4 m wide and c.24 m long. The building appears to have been split into two compartments, the pill box standing in the eastern compartment, while only the eastern end of the western compartment survives, defined by a wall c.1 m wide and 1 m high. The possible remains of a</p>			remains.			is unavoidable, any affected remains should be recorded archaeologically prior to, or during, construction works as appropriate.	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						second building (30c) survive c.5 m to the north-west of the first building. Little survives of this building apart from an L-shaped section of wall, centred at 261170, 905759, which measures 5 m east to west and 8 m north to south. The remains of this possible building are covered in dense turf and heather and are difficult to distinguish.						
31	Railway	-	-	-	Historic maps; Field survey	The route of the Sutherland Railway is depicted on the Ordnance Survey 1st and 2nd Edition maps (Sutherland, 1879 & 1908, Sheet XCV, 6 inches to 1 mile). The railway is still in use.	Low	None Railway still in use.	None	None	None	None
32	Dyke (or bank)	-	261640	905580	Wordsworth (1999) – Site 11; Field survey	Field survey carried out in 1999 (Wordsworth 1999) recorded a dyke of turf and stone (or possibly a stone-faced bank). The dyke was recorded on earlier Ordnance Survey maps and is presumably part of a large stock enclosure connected with 'Riemerstaig' farm (30). No traces of earlier cultivation are visible in the interior and the majority of the enclosed area is heather moorland and bog, though there are traces of improved ground at the north-west. The western edge of the enclosure no longer survives. Field survey identified	Low	Direct Crossed by proposed temporary access track between T42 and T40. Within 50 m of proposed tower T41.	Low Only small section of dyke would be affected.	None	Breaches of and disturbance to the bank should be kept to a minimum. Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure wall – to recover any dating evidence for its construction.	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						the field bank running along the edge of an area of woodland/scrubland. It survives in varying condition along its length, where best preserved it survives c.1 m-2 m wide (max) and 1 m high (max). It is covered in reeds and gorse bushes.						
33	Hut-circle (possible)	-	261226	905344	Field survey	Field survey identified the possible remains of a much denuded hut-circle within an area of rough grazing. It measured c.10 m in diameter and was defined by a turf bank 0.3 m high and c.1 m wide. It was covered in dense heather and hard to distinguish.	Medium	None c.40 m from the proposed access track.	None	None	None	None
34	Hut-circles, Cairnfield	MHG12289 / 5450	261280	905160	Wordsworth (1999) – Site 9; HER; Canmore; Field survey	Field survey carried out in 1999 (Wordsworth 1999) recorded the presence of a circular hollow measuring 10 m east to west by 8 m north to south. Vehicle tracks leading to it and erosion in the centre of the structure show that it has been used as a feeding station for stock. However, the shape of the hollow and the bank (most clearly visible on its south and east sides) suggest this may once have been a roundhouse. Several peat and heather clad mounds up to 5 m by 3 m and nearly 1 m high lie to the north and east. These are almost certainly the remains of field clearance cairns associated with the putative structure,	Medium	Direct Cairnfield crossed by proposed new temporary access track between T41 and T39.	Medium Any ground works for the construction of the proposed access track could disturb remains within the cairnfield.	Moderate	Pre-construction enhanced GPS earthwork survey of the cairnfield. Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairnfield. Microsite proposed development to avoid upstanding remains within the cairnfield. Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during,	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact		
						<p>though no stones were actually observed.</p> <p>In addition, the HER and Canmore entries record the presence of a group of about eight small clearance heaps on a north facing shelf and scattered over half a hectare (MHG122289 / 5450) centred at 261500, 905200. No measurable cultivation plots or associated hut-circles are evident.</p> <p>Field survey identified at least twenty-five clearance cairns (34) surrounding the remains of two possible hut-circles (see details below). The cairns were scattered across an area of rough pasture and heather moorland to the east of Tomich. They range in size from 3 m to 6 m in diameter and 0.5 m to 0.8 m high, some are heather covered, and others are turf covered.</p> <p>The hollow, previously recorded by Wordsworth, appears to be the definite remains of a former hut-circle, centred on 261263, 905182 surrounded by a turf and stone bank. It measures c.11 m in diameter with a bank 0.6 m high. A possible entrance is visible on the south-west arc. The remains of the hut-circle lie outside the LOD.</p> <p>A possible second, much denuded, hut-circle was noted just west of the hut-circle at 261238, 905184 also</p>							<p>construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						located outside the LOD.						
35	Clearance cairn (possible)	-	261533	904985	Field survey	Field survey recorded the presence of what may be a clearance cairn, measuring 4 m in diameter and 0.9 m high.	Low	Direct In close proximity to working area for proposed T39.	High: Ground works for the construction of the proposed tower could potentially disturb the clearance cairn.	Moderate	Microsite proposed development to avoid upstanding remains of asset. Mark-off upstanding remains during works. If disturbance is unavoidable the cairn should be recorded archaeologically prior to, or during, construction works as appropriate.	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.
36	Enclosure, field bank	-	261108	904897	Historic maps; Field survey	Field survey recorded the presence of an L-shaped turf and stone bank, measuring 0.5 m high and spread to 1.5 m wide. It appears to be the remains of the south-eastern corner of a larger enclosure depicted on the Ordnance Survey 1 st Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile).	Low	Direct In close proximity to existing access that requires upgrading.	Low Only a small section of the enclosure would be affected.	None	Disturbance to the enclosure field banks should be kept to a minimum.	None
37	Field bank(s)	-	261124	904860	Field survey	Field survey recorded the presence of two sections of curvilinear field bank. The first is centred at 261068, 904861 and measures c.20 m long. The second is centred at 261124, 904860 and measures c. 48 m long. Both bank sections measure c.1.5 m to 2 m wide and 0.4 m high. These fragments of banks may have originally formed part of a sub-rectangular enclosure.	Low	Direct In close proximity to existing access track that requires upgrading.	Low Only a small section of the field bank(s) would potentially be affected.	None	Disturbance to the enclosure field banks should be kept to a minimum.	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
38	Clearance cairn (possible)	-	261192	904816	Field survey	Field survey recorded the presence of a possible clearance cairn at 261192, 904816, measuring 4 m long by 3 m wide and 0.5 m high; it was turf covered.	Low	Direct In close proximity to existing access track that requires upgrading.	High: Ground works along the proposed access track could potentially disturb the asset.	Moderate	Microsite proposed development to avoid clearance cairn. Mark-off during works. If disturbance is unavoidable the cairn should be recorded archaeologically prior to, or during, construction works as appropriate.	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.
39	Clearance cairn (possible)	-	261307	904801	Field survey	Field survey identified the remains of a possible clearance cairn in an area of rough grazing. The turf-covered cairn was roughly circular in plan measuring 3 m in diameter and 0.2 m to 0.3 m high.	Low	Direct In close proximity to existing access track that requires upgrading.	High Ground works along the proposed access track could potentially disturb the asset.	Moderate	Microsite proposed development to avoid clearance cairn. Mark-off during works if needed. If disturbance is unavoidable the cairn should be recorded archaeologically prior to, or during, construction works as appropriate.	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.
40	Clearance cairn	-	261388	904750	Field survey	Field survey identified the remains of a clearance cairn in an area of heather moorland. It measured 3 m in diameter and 0.8 m high; it is heather covered. A second clearance cairn was recorded, just c.11 m to the south-east at 261397, 904397 and outside the LOD.	Low	None	None	None	None	None
41	Building/Structure	-	261172	904655	Field survey	Field survey identified the denuded remains of a possible building/structure in an area of pasture. The building is roughly rectangular in plan measuring 5 m by 3 m and defined by a stone	Low	None c.30 m from proposed access track.	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						and turf bank 0.3 m to 0.4 m high.						
42	Building/Structure	-	260943	904590	Field survey	Field survey identified the denuded remains of a possible building/structure in an area of pasture. The building is roughly square in plan 4 m by 4 m and defined by a stone and turf bank (0.5 m high and 0.8 m wide). No entrances were visible.	Low	None	None	None	None	None
43	Clearance cairn (possible)		260892	904557	Field survey	Field survey identified the remains of a possible clearance cairn in heather moorland. The turf-covered cairn is roughly oval in plan measuring 3 m by 2 m and 0.3 m high.	Low	None	None	None	None	None
44	Find-spot, polished axehead (stone)	MHG12074 /	25990	90480	HER; Canmore	The HER and Canmore entries record that a polished kaolin axe was recovered from Rhianbreck, Lairg in 1867 during the construction of the railway.	Negligible	None Find-spot only.	None	None	None	None
45a-c	Farmstead	-	259898	904759	Historic maps; Aerial photographs; Field survey	Two small roofed rectangular buildings are depicted on the Ordnance Survey 1 st Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile) in an area of rough pasture just south of a public road. By the 2 nd Edition map (Sutherland, 1907, Sheet CIII, 6 inches to 1 mile) only the most westerly building is shown, now depicted surrounded by a rectangular enclosure. The stone footings of a rectangular building are visible on modern aerial	Low	Direct Location of former building (45c) is crossed by the existing track that would require upgrading and other upstanding farmstead remains (45a-45b) in close proximity to access track.	Unknown (High) Ground works associated with proposed upgrading of access track (upgrading of current green track) could potentially disturb the asset, particularly any remains of building (45c) which may still survive as buried remains.	Unknown (Moderate)	Microsite the Proposed Development to avoid upstanding remains of farmstead (45a-45b). Archaeological watching brief to be carried out during any ground-breaking works in the vicinity of building (45c).	Unknown (Moderate) (significant) residual impact if buried remains survive.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>photographs (GoogleEarth™; 2004). Field survey recorded the presence of a ruined rectangular building (45a) of stone and mortar construction. It measures c. 15 m long by 5 m wide and survives at its eastern end to gable height (c.2 m high). The building is split into two compartments; the western compartment appears to be the remains of a byre barn, while the eastern compartment was the living quarters. An entrance is visible on the south side of the eastern compartment, two small windows survive in the north and south sides at the eastern end and a small fireplace, with large lintel, is visible within the eastern end. Fragments of corrugated iron, probably remains of a former roof, are scattered within the interior of the building. The byre barn is less well preserved, with lots of stone scattered around the walls; no internal features are visible. The outline of the enclosure (45b) shown on the 2nd Edition map surrounding the building, is visible defined by a turf and stone bank measuring c.0.6 m high and 1.5 m wide. No upstanding remains of the other building (45c) shown on the 1st Edition map were identified during the</p>						

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						survey, its former location taken from the 1 st Edition map is shown on Figure 7.1b). A number of clearance cairns (46) are scattered around the enclosure.						
46	Cairnfield	-			Historic maps, Field survey	<p>A number of 'tumuli' are depicted on the Ordnance Survey 1st Edition (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile) and on the 2nd Edition map (Sutherland, 1907, Sheet CIII, 6 inches to 1 mile) just south of a public road in an area of moorland.</p> <p>Field survey recorded the presence of at least 35 clearance cairns spread over an area measuring c.290 m by 125 m in an area of improved pasture just south-west of Old Croft Cottage. The cairns range in size from c.3 m to 6.5 m in diameter and c.0.5 m to 1 m high. The majority of the cairns were turf covered, although a small number had, at some point, been dug into.</p>	Medium	Direct Crossed by existing access track that requires upgrading.	Medium Any ground works (upgrading of current green track and any road widening works) along the existing access track could potentially disturb component of the cairnfield.	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the cairnfield.</p> <p>Microsite proposed development to avoid upstanding remains within the cairnfield.</p> <p>Mark-off upstanding remains during works.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	Moderate (significant)
47	Clearance Cairns (possible)	-	260112	904432	Field survey	Field survey recorded the presence of four possible clearance cairns clustered together in an area of pasture and just south of a small area of woodland. The cairns ranged in size from c. 2.5 m to 4 m in diameter and c. 0.3 m to 0.8 m high; all are turf covered. The cairns are located close to a short section of poorly	Low	Direct Individual cairns in close proximity to existing access track that requires upgrading.	High Any ground works along the existing access track could potentially disturb the clearance cairns.	Moderate	<p>Mark-off clearance cairns and avoid, where possible.</p> <p>Where disturbance of the cairns is unavoidable they should be recorded archaeologically prior to, or during, construction works as appropriate.</p>	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						preserved turf and stone bank (48) and another cluster of possible clearance cairns (49).						
48	Field bank	-	260138	904420	Field survey	Field survey recorded three sections of poorly preserved sinuous bank, which likely originally formed one continuous field bank. The first section runs for c. 9 m between 260120, 904424 and 260129, 904421; the second for c.20 m between 260138, 904420 and 260155, 904420, and the third for c.86 m between 260177, 904420. Each length measures 1.5 m wide and 0.3-0.4 m high.	Low	Direct In close proximity to existing access track that requires upgrading.	Low Only a small section of the field bank could potentially be affected.	None	Breaches of and disturbance to the enclosure wall should be kept to a minimum.	None
49	Clearance Cairns (possible)	-	260248	904394	Field survey	Field survey recorded the presence of four possible clearance cairns clustered together in an area of pasture and just south-east of a small area of woodland. The cairns ranged in size from c. 3 m to 4 m in diameter and c. 0.8 m to 1 m high; all are turf covered. The cairns are located close to a short length of poorly preserved turf and stone bank (48) and another cluster of possible clearance cairns (47).	Low	Direct Individual cairns in close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the clearance cairns.	Moderate	Mark-off clearance cairns and avoid, where possible. Where disturbance of the cairns is unavoidable they should be recorded archaeologically prior to, or during, construction works as appropriate.	No impact if asset avoided. Moderate (significant) residual impact if asset cannot be avoided.
50	Clearance cairn (possible)	-	260501	904065	Field survey	Field survey identified the remains of a possible clearance cairn in heather moorland. The cairn was roughly oval in plan, measuring 5 m by 3 m and 0.3 m to 0.4 m high.	Low	None c.35 m from the Proposed Development.	None	None	None	None
51	Clearance cairn (possible)	-	260492	902799	Field survey	Field survey identified the remains of a	Low	Direct Within 50 m of proposed	High Any ground	Moderate	Microsite proposed development to	No impact if asset avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						possible clearance cairn in heather moorland. The cairn was roughly oval in plan measuring 5 m by 3 m and 0.3 m to 0.4 m high.		tower T29.	works for the construction of the proposed tower could potentially disturb the asset.		avoid the clearance cairn. Mark-off cairn during works. If disturbance is unavoidable clearance cairn should be recorded archaeologically prior to, or during, construction works as appropriate.	Moderate (significant) residual impact if asset cannot be avoided.
52	Ramascaig, Enclosure, Hut-circle (possible)	MHG12767/5507	260500	901270	HER; Canmore; Aerial photographs; Field survey	<p>The HER and Canmore entries record that on a west facing hill-slope is an enclosure with features characteristic of both hut-circles and ruined sheepfolds. It measures 8.7 m in diameter within a wall spread to 2 m wide and up to 0.5 m high. A slight gap in the south may indicate an entrance. The wall in the north arc is peat and heather-covered but, in the south arc it is of bare stone protruding through turf.</p> <p>The structure is visible on modern aerial photographs (GoogleEarth™, 2007). Field survey identified the structure. It is sub-circular in shape and measures 13.5 m east to west and 12 m transversely. It is defined by a turf and stone bank measuring 0.4 m high and spread 2 m to 3 m wide; with stone visible around the full circumference of the bank. A gap was noted in the south arc, and this may correspond with the possible entrance</p>	Medium	Direct Crossed by proposed new permanent access track between T24 and T23.	High Any ground works for the proposed access track would disturb the asset.	Major	<p>Microsite proposed access track to avoid upstanding remains of the hut-circle.</p> <p>Mark-off upstanding remains during works.</p> <p>If disturbance of the hut-circle is unavoidable the remains should be recorded archaeologically prior to, or during, construction works as appropriate.</p>	<p>No impact on hut circle if asset avoided (TBC).</p> <p>Major (significant) residual impact if hut circle cannot be avoided.</p>

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						previously recorded (see above), although the structure is rather denuded in places and this may just be a result of erosion.						
53	Allt Ramascaig Beag, Farmstead, Field System	MHG19397 / 91270	260800	901100	HER; Canmore; Field survey	The HER and Canmore record that a farmstead comprising an unroofed building and two enclosures, and a field-system is depicted on the Ordnance Survey 1st Edition map (Sutherland, 1879, sheet CIII, 6 inches to 1mile). Two unroofed buildings, three enclosures and a field-system are shown on the 1971 1:10,000 Ordnance Survey map. Field survey recorded a large rectangular enclosure to the west of the farmstead ruins which lie within a smaller enclosure on the east side of the large enclosure. The enclosure measures 500 m by 400 m and is defined by a 2 m wide and 0.6 m high (max) turf bank. There was no evidence for any cultivation remains (former rig and furrow) within the enclosure. The other farmstead ruins lie outside the LOD and were not visited.	Low	Direct Large enclosure associated with farmstead would be crossed by proposed new permanent access track between T24 and T22.	Minor Only a small part of the large enclosure would be affected – the core elements of the farmstead, which lie within a smaller enclosure on the east side of the large enclosure, would not be affected.	None	Breaches of and disturbance to the enclosure bank should be kept to a minimum. Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure bank – to recover any dating evidence for its construction.	None
54	Structure, Building (possible)	-	260624	901020	Aerial photographs; Field survey	The faint outline of a possible circular structure standing on a small grassy knoll, approximately 230 m south-west of Allt Ramascaig Beag Farmstead buildings, is visible on modern aerial	Low	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						photographs (GoogleEarth™, 2007). Field survey identified the structure which appears to be the remains of a possible building. It is sub-square in plan and measures 6 m by 6 m and defined by a turf and stone bank (0.7 m high and 1 m thick). A possible entrance is visible on its south-east side.						
55	Field wall	-	258222	899599	Historic maps; Field survey	Field survey recorded the poorly preserved remains of a dry stone wall running between 258319, 899330 to 258293, 899400 and 258261, 899489 to 258195, 899671. The wall is much denuded and survives principally as a spread of stone measuring 0.8 m wide and 0.6 m high. It has been truncated in places by animal trampling and a length has been removed at its southern end during the construction of a modern farm access track.	Negligible	Direct Crossed by existing access track that requires upgrading.	Low: Only small section of wall would be affected.	None	Breaches of and disturbance to the wall should be kept to a minimum.	None
56	VOID											
57a-c	Achinduich, Enclosure, Field	MHG19344	258400	900100	HER; Canmore; Historic maps; Aerial photographs; Field survey	The HER and Canmore entries record the presence of an enclosure (57b) attached to the wall of a field (57a), is depicted on the Ordnance Survey 1st Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile). A two-compartment enclosure attached to the wall of the field is shown on the	Low	Direct In close proximity to existing access track that requires upgrading.	Low Only a small section of the field wall (57a) could potentially be affected.	None	Microsite proposed development to avoid upstanding remains of the enclosure. Mark-off during works.	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>1992 edition of the 1:10,000 Ordnance Survey map.</p> <p>Field survey recorded the field (57a), the two-compartment enclosure (57b) and the remains of a possible pen or small shelter (57c).</p> <p>57a: a roughly oval field, centred on 258391, 900110 defined by a turf and stone bank spread to 2 m wide and 0.5 m high.</p> <p>57b: the vestigial remains of a two compartment roughly rectangular enclosure attached to the southern internal edge of field (57a). The enclosure measures 17.5 m long by 14 m wide defined by a turf bank 0.2 m-0.3 m high.</p> <p>57c: the vestigial remains of what may be a small dry-stone, sub-circular pen (or shelter) built against the south-western arc of the field (57a) defined by a line of stones, 5 m long, 0.5 m wide and 0.3m high.</p>						
58	Culvert	-	258294	900276	Field survey	Field survey recorded the presence of a stone lined culvert (0.5 m wide and 0.8 m high) forming part of a farm access track from Auchinduich to Loch Laro.	Negligible	None c. 20m from existing track; forming part of different track.	None	None	None	None
59	Achinduich, Hut-circle, Field system, Cairnfield	MHG12087 / 5098	25851	90033	HER; Canmore; Field survey	The HER and Canmore record that at 25852, 70029 and 25851, 70036 there are two stone-walled hut-circles (Huts A and B) in association with a minor field system. The field	Medium	Direct Extent of site crossed by existing access track that requires upgrading.	Medium Any ground works (widening works) along the existing access track could disturb components of	Moderate	Pre-construction enhanced GPS earthwork survey of the cairnfield. Keep any require ground breaking works (i.e. road widening) to a	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>system comprises mounds and rickles of stone clearance and one or two lynchets near the huts, though cultivation would appear to extend up the slope to the east, where there is some wasted [ruined] walling. The huts, turf and heather-covered and much reduced, appear of similar build.</p> <p>Hut 'A' - is c.11 m north to south by 9.5 m internally within a wall spread to 2.5 m wide with one or two large facing stones. The entrance gap is in the south arc.</p> <p>Hut 'B' - is c.7.5 m in diameter within a wall spread to 2.5 m wide; an entrance is from the south-east.</p> <p>Field survey recorded the presence of two hut-circles (59a and 59b) and a spread of clearance cairns (59c) either side of a track running from Achinduich to Loch Laro.</p> <p>59a: hut-circle ('A') centred at 258524, 900295 roughly oval in plan, measuring 14 m long by 12 m wide (externally) and defined by turf and stone bank spread c.1.5 m to 2 m wide and 0.5 m (max) high. Occasional large facing stones are visible protruding from the bank. No obvious entrance was visible.</p> <p>59b: hut-circle ('B') centred at 258505, 900358 roughly circular in plan, measuring</p>			the asset which lie in close proximity to existing track.		<p>minimum in this area.</p> <p>Mark-off upstanding remains during works.</p> <p>Any areas where disturbance to components of the cairnfield is unavoidable should be recorded archaeologically prior to, or during, construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>c.11 m in diameter (externally) defined by the remains of a turf and stone bank spread 1 m wide and 0.4 m (max) high. No obvious entrance was visible.</p> <p>59c: at least 15 clearance cairns were identified surrounding the hut-circles (59a and 59b). The cairns ranged in size from 4 m to 6 m in diameter and 0.5 m to 0.7 m high. The clearance cairns continue outside the LOD to the north of hut-circle (59b) in an area of moorland. All of the clearance cairns were turf covered. What maybe the poorly preserved remains of one or two lynchets are visible near the huts. No remains of a wall, as previously recorded (see above) were identified within the LOD. A quarry (60) is present c.26 m to the east of hut-circle (59b).</p>						
60	Quarry	-	258544	900361	Field survey	Field survey recorded the presence of a roughly oval shaped quarry, 14.5 m long by 11.5 m wide and 1 m deep (max), cut into a small bedrock knoll. It is located c.26 m to the east of hut-circle (59b).	Negligible	None	None	None	None	None
61	Quarry	-	258701	900284	Field survey	Field survey recorded the presence of a circular quarry, c.6 m in diameter and 1 m deep, c.18 m south of a track running from Achinduich to Loch Laro.	Negligible	None	None	None	None	None
62	Quarry	-	258909	900263	Field survey	Field survey recorded the presence of a	Negligible	Direct: In close proximity to	High Any ground	Minor	None, as the site is of minimal heritage	No impact if avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						roughly square quarry located immediately south of a track running from Achinduich to Loch Laro. The quarry measures 9 m by 8 m and 2 m deep, with an opening on the north-west side.		existing access track that requires upgrading.	works along the existing access track could potentially disturb the quarry.		importance.	Minor (not significant) residual impact if asset cannot be avoided.
63	Quarry	-	260223	899693	Field survey	Field survey recorded the presence of a roughly circular quarry located immediately south of a track running from Achinduich to Loch Laro. The quarry measures c.7.5 m in diameter and 0.7 m deep with an opening on the north side.	Negligible	Direct: In close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the quarry.	Minor	None, as the site is of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.
64	Quarry	-	260277	899674	Field survey	Field survey recorded the presence of a roughly oval quarry c.13 m south of a track running from Achinduich to Loch Laro. The quarry measures 8 m long by 7.5 m wide and 1.5 m deep with an opening on the north-west side.	Negligible	None	None	None	None	None
65	Quarry	-	260536	899662	Field survey	Field survey recorded the presence of a double quarry immediately south of a track running from Achinduich to Loch Laro. The quarry measures c. 23 m by 9 m and 2 m deep (max) and open at the north-east end.	Negligible	Direct In close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the quarry.	Minor	None, as the site is of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.
66	Quarry	-	260698	89961	Field survey	Field survey recorded the presence of a roughly rectangular quarry immediately south of a track running from Achinduich to Loch Laro. The quarry measures 14 m by 7 m and 1.5 m deep with an	Negligible	Direct In close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the	Minor	None, as the site is of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						opening on the north side.			quarry.			
67	Quarry	-	260747	899614	Field survey	Field survey recorded the presence of a roughly oval quarry immediately south of a track running from Achinduich to Loch Laro. The quarry measures 10 m by 6.5 m and 0.4 m deep with an opening on the north-east side.	Negligible	Direct: In close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the quarry.	Minor	None, as the site is of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.
68	Quarry	-	260927	899536	Field survey	Field survey recorded the presence of a roughly rectangular quarry, c.20 m south-west of a track running from Achinduich to Loch Laro. The quarry measures 12 m by 7.5 m and 1.5 m deep with an opening on the north-east side.	Negligible	None	None	None	None	None
69	Quarry	-	261079	899482	Field survey	Field survey recorded the presence of a roughly tear-shaped quarry, immediately south of a track running from Achinduich to Loch Laro. The quarry measures 11 m long by 8 m wide (max) and 2 m deep with an opening at the north end.	Negligible	Direct In close proximity to existing access track that requires upgrading.	High Any ground disturbance works along the existing access track could potentially disturb the quarry.	Minor	None, as the site is of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.
70	Quarry (possible)	-	261266	899470	Field survey	Field survey identified a possible quarry within heather moorland to the north of Loch Laro. The quarry cut into a south facing slope is roughly oval in plan and measures 15 m long by 10 m wide and 2.5 m deep.	Negligible	None	None	None	None	None
71	Bank	-	261419	899331	Field survey	Field survey recorded the remains of a vestigial turf and stone field bank aligned north-east to south-west and	Low	Direct In close proximity to existing access track that requires upgrading.	Low Only a small section of the bank could potentially be	None	Breaches of and disturbance to the bank should be kept to a minimum.	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						north of Loch Laro. The bank is best preserved at its south-west end, where it measures 0.5 m high and 0.7 m wide; it is much less well-preserved along the rest of its length ranging from 0.2 m to 0.3 m high and up to 0.5 m wide.			affected.			
72	Bridge	-	261399	899299	Field survey	Field survey recorded a small bridge located at the eastern end of Loch Laro which carries a track, which runs along the north side of Loch Laro, over the Allt a'Choin-duinn burn. The bridge which comprises two, square, stone built arches is c.3 m long and 4 m wide.	Low	None Bridge to be avoided.	None	None	None	None
73a-b	Buildings	-	261438	899248	Historic maps, Field survey	Two roofed buildings (73a and 73b), located either side of a trackway are depicted on the Ordnance Survey 2 nd Edition map (Sutherland, 1908, Sheet CIII, 6 inches to 1 mile). No upstanding remains of either building were identified during the field survey. The trackway still exists and is used as the current access to Loch Laro.	Negligible	None No surviving remains.	None	None	None	None
74	Quarry (possible)	-	261497	899277	Field survey	Field survey identified what may be an area of stone quarrying, 20 m by 8 m and 1.2 m deep, cut into a south facing slope. A large amount of stone is still present within and around the quarried area.	Negligible	None	None	None	None	None
75	Sheepfold	-	261750	899276	Historic maps; Field survey	A circular sheepfold is depicted on the Ordnance Survey 1 st	Low	None	None	None	None	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						<p>Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile) and on the 2nd Edition map (Sutherland, 1907, Sheet CIII, 6 inches to 1 mile).</p> <p>Field survey recorded the remains of the sheepfold surviving in an area of heather moorland on a south facing slope overlooking Loch Laro. The sheepfold survives as a tumbled stone wall measuring 0.8 m high (max) and spread 1 m to 1.5 m wide. No obvious entrance was visible.</p>						
76	Clearance spread (possible)	-	261748	899233	Field survey	Field survey identified what may be an area of field clearance measuring 5 m by 3 m and 0.3 m high.	Low	None	None	None	None	None
77	Puill Fhraoich. Township, Corn drying kiln	MHG10052, MHG20022, MHG42486 & MHG42492 / 13955, 96419 & 104348	261900	898900	HER; Canmore; Aerial photographs; Field survey	<p>The HER and Canmore record a township comprising four roofed and one unroofed building, a circular enclosure and four fields is depicted on the Ordnance Survey 1st Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile).</p> <p>By the Ordnance Survey 2nd Edition map (Sutherland, 1908, Sheet CIII, 6 inches to 1 mile) all the township buildings are shown as unroofed.</p> <p>Seven unroofed building, an enclosure, three fields and some field walls are shown on the 1970 1:10,000 Ordnance Survey map.</p>	Medium	<p>Direct</p> <p>Proposed new temporary access track to T13 within extent of township. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T13.</p>	Medium Ground works for the Proposed Development could affect the township remains.	Moderate	<p>Pre-construction enhanced GPS earthwork survey of the township.</p> <p>Microsite Proposed Development to avoid upstanding remains of the township.</p> <p>Keep upgrading of existing track (i.e. road widening) to a minimum where it crosses the township.</p> <p>Disturbance to field banks, in close proximity to existing road, should be kept to a minimum.</p> <p>Mark-off upstanding remains during works.</p> <p>Any areas where</p>	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact	
						<p>A township annotated 'Peifraocih' is depicted on Burnett and Scott, 1855 Map of the County of Sutherland.</p> <p>The Ordnance Survey in 1995 recorded that the remains of 'Puill Fhraoich' township consists of four building footings, in a field complex of walls, banks and individual enclosures. The buildings range in size from 8 m by 4 m to 21 m by 5 m. There is a well-preserved corn-drying kiln at 26192 89895.</p> <p>The stone footings of at least four buildings, three enclosures (or fields) and several field banks are visible on modern aerial photographs (GoogleEarth™, 2007).</p> <p>Field survey recorded the presence of the well preserved and complex township ruins surviving within an area of upland moorland, on a south facing slope, overlooking Loch Laro. The township comprises at least nine buildings, five enclosures and a number of large clearance heaps some of which may overlie the footings of other buildings. The remains of an extremely well-preserved corn-drying barn and kiln were identified at the southern edge of the township; the kiln survives to 1.5 m high with the flue, bowl and in-situ floor remains</p>						<p>disturbance to components of the township is unavoidable these should be recorded archaeologically prior to, or during construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						surviving. Other buildings vary in size from 4 m by 8 m and 5 m by 21 m with walls ranging in height from 0.4 m to 1 m high. The township remains are present either side of a track running to Loch Laro.						
78	Clearance cairns (possible)	-	262192	898874	Field survey	Field survey recorded the presence of a cluster of at least five possible clearance cairns in an area of heather moorland c.80 m south-east of 'Puill Fhraoich' township (76). The cairns range in size from c.4 m to 5 m in diameter and c.0.3 m to 0.5 m high.	Low	Direct Within 50 m of proposed tower T12.	High Ground works for the Proposed Development could potentially disturb one or more of the cairns.	Moderate	Microsite proposed development to avoid upstanding remains of cairns. Mark-off upstanding remains during works. If disturbance is unavoidable any affected cairns should be recorded archaeologically prior to, or during, construction works as appropriate.	No impact if cairns avoided. Moderate (significant) residual impact if cairns cannot be avoided.
79	Culvert, revetment wall	-	262053	898816	Field survey	Field survey recorded the presence of a stone culvert forming part of a track running to Loch Laro. The culvert measures 0.5 m wide and 1 m high. A section of revetment wall, 1 m high and 0.4 m wide and up to five courses high, runs along the southern edge of the track.	Negligible	Direct Forms part of existing access track that requires upgrading.	High Any ground disturbance works along the existing access track would disturb the culvert.	Minor	None, as the site is of minimal heritage importance.	Minor (not significant)
80	Cnoc Garbh-Airgh, Township	MHG41936 & MHG10057 / 13960	262400	898600	HER; Canmore; Historic maps; Aerial photographs; Field survey	The HER and Canmore record that a township comprising four roofed and one unroofed buildings, two enclosures and a ring-dyke is depicted on the Ordnance Survey 1 st Edition map (Sutherland, 1879, Sheet CIII, 6 inches to 1 mile). Five unroofed buildings, an enclosure, some field walls and a	Medium	Direct In close proximity to proposed new temporary access tracks to T11 and T10. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T10.	Medium Ground works for the Proposed Development could disturb the township remains.	Moderate	Pre-construction enhanced GPS earthwork survey of the township. Microsite Proposed Development to avoid upstanding remains of the township. Keep upgrading of existing track (i.e. road widening) to a minimum where it	Moderate (significant)

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact	
						<p>ring-dyke are shown on the 1970 1:10,000 Ordnance Survey map.</p> <p>By the Ordnance Survey 2nd Edition map (Sutherland, 1908, Sheet CII, 6 inches to 1 mile) all the township buildings are shown as unroofed.</p> <p>Field survey carried out in 1980 by the Ordnance Survey) record that the remains of the township consist of four building footings ranging in size from 4 m by 7 m to 5 m by 20 m, with accompanying enclosure and field walls.</p> <p>The stone footings of at least five buildings, a large circular enclosure, three further enclosures and a series of field banks are visible on modern aerial photographs (GoogleEarth™, 2007).</p> <p>Field survey recorded the presence of the well-preserved and complex township ruins surviving within an area of upland moorland, on a south facing slope, overlooking Loch Laro.</p> <p>The township comprises the remains of at least four buildings, a series of large clearance heaps and at least four enclosures. The extent of the township is generally defined by the remains of a turf and stone bank that surrounds and encloses the main elements of the township; although some small features</p>						<p>crosses the township.</p> <p>Disturbance to field banks, in close proximity to existing road, should be kept to a minimum.</p> <p>Mark-off upstanding remains during works.</p> <p>Any areas where disturbance to components of the township is unavoidable these should be recorded archaeologically prior to, or during construction works as appropriate.</p> <p>Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.</p>	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						associated with the township were identified outside the enclosure, for example the footings of two small buildings and a possible clearance cairn lie outside the main township enclosure to the west, and fragments of stone and turf banks and another clearance cairn are visible immediate south of the township enclosure (south of a track running to Loch Laro). The buildings vary in size from 4 m by 7 m and 5 m by 20-25 m; the longest building being split into four compartments. Both building walls and enclosure walls survive 0.5 m to 1 m high. A number of large clearance heaps were noted within the main township enclosure, some of these were rectangular in plan and potentially overlie the remains of additional buildings.						
81	Culvert	-	262402	898505	Field survey	Field survey recorded a stone culvert forming part of a track running to Loch Laro. The culvert measures 0.5 m wide and 0.8 m high.	Negligible	Direct Forms part of existing access track that requires upgrading.	High Any ground works along the existing access track would affect the culvert.	Minor	None, as the site is of minimal heritage importance.	Minor (not significant)
82	Culvert	-	262697	898329	Field survey	Field survey recorded the presence of a stone culvert forming part of a track running to Loch Laro. The culvert measures 0.5 m wide and 0.8 m high.	Negligible	Direct Forms part of existing access track that requires upgrading.	High Any ground works along the existing access track would affect the culvert.	Minor	None, as the site is of minimal heritage importance.	Minor (not significant)
83	Enclosure	-	262640	89831	Field survey	Field survey recorded the presence of a stone	Low	Direct In close proximity to	Low Only small part	None	Breaches of and disturbance to bank	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact	
						and turf bank, measuring c. 2 m wide and 0.4 m-0.5 m high, forming part of an enclosure present to the south of a track leading to Loch Laro. The bank is covered in dense heather and difficult to trace on the ground.		existing access track that requires upgrading.	of enclosure wall could potentially be affected.		should be kept to a minimum.		
84a-c	Gravel pits	-	262971	898312	Historic maps; Field survey	<p>Three gravel pits (83a-c) are depicted on the north side of a trackway on the Ordnance Survey 2nd Edition map (Sutherland, 1908, Sheet CVIII, 6 inches to 1 mile).</p> <p>Field survey identified the quarries, the first (83a) survives now only as a slight water filled hollow, c.0.5 m (max), centred at 262857, 898312 present immediately north of a track running to Loch Laro. The other two (83b and 83c) are better preserved:</p> <p>83b: (262970, 898315) roughly oval in plan, 12 m long by 10 m wide and 0.6 m to 1 m deep, with an opening to the south side.</p> <p>83c: (263046, 898299) roughly square in plan, 11 m by 10 m and 0.5 m deep.</p> <p>All of the quarries are heather covered, and no working surfaces were visible.</p>	Negligible	<p>Direct</p> <p>Poorly preserved remains of gravel pit (84a) in close proximity to existing access track that requires upgrading.</p> <p>Other gravel pits (84b-84c) in close proximity to proposed new temporary access track to T8.</p>	High	Ground works along access tracks could potentially affect the gravel pits.	Minor	None, as the quarries are of minimal heritage importance.	No impact if avoided. Minor (not significant) residual impact if asset cannot be avoided.
85	Field bank, Enclosure	-	263619	898121	Field survey	Field survey recorded the presence of an L-shaped length of stone and turf bank running from 263564, 898191 to the south for c.55 m and then turning east for	Low	None	None	None	Any further disturbance to bank (for example through road widening works) should be kept to a minimum.	None	

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
						another c.330 m petering out at 263876, 898119. The western end of the bank is generally well-preserved and visible as a heather covered bank measuring, 2 m wide and 0.5 m to 1 m high, the remaining bank section from 263603, 898125 to 263876, 898119 is visible only as a faint heather covered bank c.0.2 m to 0.3 m high.						
86a-b	Field banks, Enclosure (possible)	-	264959	898164	Field survey	<p>Field survey identified two field banks (85a and 85b) defining the edge of an area of improved pasture to the south-west of Loch Buidhe.</p> <p>86a: curvilinear turf and stone bank running between 264831, 898120 to 265021 898150, measuring c.230 m long, 0.5 m to 1 m wide and 0.3 m to 0.5 m high. There has been some erosion to the field bank and there are gaps along its length. In some areas only, a line of stone boulders is visible. Construction works for a recent steel overhead electricity tower that has been erected immediately south of the bank has disturbed a small section of it.</p> <p>86b: linear turf and stone bank aligned north to south running between 264959, 898178 to 264958, 898147, measuring c.30 m long by 1 m to 2 m wide and 0.6 m high.</p>	Low	Direct Within 50 m of proposed tower T1 and in close proximity to proposed 132kV underground cable section.	Low Only small section of field bank potentially affected.	None	Any further disturbance to bank should be kept to a minimum.	None

Asset no	Asset Name	HER no / Canmore no	Easting	Northing	Source(s)	Asset Description	Heritage Sensitivity	Direct Impacts	Magnitude of Direct Impacts	Significance of Direct Impact	Mitigation	Residual Impact
87	Torbreck blackhouse	348673	264880	898040	Canmore; Field survey	<p>The Canmore entry records that an excavation was undertaken in 2013 of a longhouse complex near Loch Buidhe prior to the development of a new electricity sub-station. The excavation recorded a longhouse complex of drystone and turf structures consisting of three phases of construction. These included two distinct house structures with associated animal byres and a small ancillary building. The structures had obvious portions and both house structures revealed intact floor deposits and several internal architectural features. A small quantity of ceramic fragments and glass were recovered from the buildings, together with the remains of an iron cauldron and two copper buttons. Initial examination of the pottery indicates that it is of early 19th century date and this correlates well with the known historical evidence for the site.</p> <p>Part of the building was removed during construction of a sealing end compound linking with Loch Buidhe electricity substation, although remnants of the building still survives in situ.</p>	Low	<p>Direct</p> <p>In close proximity to proposed access track to T1 and proposed 132kV underground cable section.</p>	<p>Medium</p> <p>Ground works along the proposed access track and cable routes could potentially affect the remainder of the building remains.</p>	Minor	<p>Microsite Proposed Development to avoid remains of the building.</p> <p>Mark-off upstanding remains during works.</p> <p>The building has been previously investigated (see Asset description) and no further mitigation is recommended.</p>	<p>No impact if avoided.</p> <p>Minor (not-significant) residual impact if asset cannot be avoided.</p>

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TECHNICAL APPENDIX 7.3: CULTURAL HEIRTAGE ASSETS WITHIN THE OUTER STUDY AREA WITH PREDICTED BARE-EARTH VISIBILITY OF ONE OR MORE ELEMENTS OF THE PROPOSED DEVELOPMENT - SUMMARY OF SETTING CHARACTERISATION

(Assets highlighted in grey are considered to have a wider landscape setting and have been assessed in further detail in Technical Appendix 7.4).

Asset No	Asset Name	Heritage Status	Easting	Northing	Approx. Distance (km) from OHL	Standard Height 'Bare-Ground' Visibility	Standard Height 'With-Screening' Visibility	Maximum Height 'Bare-Ground' Visibility	Maximum Height 'With-Screening' Visibility	Sensitivity of Asset	Setting Summary	Heritage Assets Identified through Consultation (Chapter 7, Table 7.1) as Requiring Consideration
SM1758	Achany, Cairn 890 NW of	Scheduled Monument	256875	902744	3.6	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM1759	Achany, Chambered Cairn 250m NE of	Scheduled Monument	257104	902020	3.4	Yes	Yes	Yes	Yes	High	Post-medieval/modern farming landscape valley setting.	
SM1761	Achinduich, Stone Circle 950m NNE of	Scheduled Monument	258467	900843	2.1	Yes	No	Yes	No	High	Unmodified moorland setting.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1768	Balcham, chambered cairn 120m W of	Scheduled Monument	259682	906510	0.7	Yes	Yes	Yes	Yes	High	Post-medieval/modern farming landscape.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1784	Druim Baile Fuir, Stone Circle, Cairns, Hut Circles and Enclosure	Scheduled Monument	255776	902861	4.2	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM1801	River Shin, Stone Circle on W bank of, S of Lairg	Scheduled Monument	258225	904932	2.3	Yes	Yes	Yes	Yes	High	Post-medieval/modern farming landscape.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1812	The Ord, Chambered Cairns, Cairns, Settlement And Field System	Scheduled Monument	257530	905586	2.6	Yes	Yes	Yes	Yes	High	Relatively unmodified moorland setting; with wide views all around.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1817	Lairg Muir North, Chambered Cairn 500m NW of Culbuie	Scheduled Monument	259384	907482	0.6	Yes	Yes	Yes	Yes	High	Post-medieval/modern farming landscape.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1818	Lairg Moor South, Chambered Cairn 290m N of Sydney House	Scheduled Monument	259001	907306	1.1	Yes	Yes	Yes	Yes	High	Post-medieval/modern farming landscape.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1829	Altbreck, Broch 1650m ESE of Dalchork Bridge	Scheduled Monument	259118	910343	1.2	Yes	No	Yes	No	High	Within commercial forestry clearing, views out to wider landscape all around.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1878	Loch Dola, hut circles & clearance cairns 270 E of	Scheduled Monument	261429	908104	1.2	Yes	Yes	Yes	Yes	High	Relatively unmodified moorland setting; with wide views all round.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM1882	Creag Innse Chomhraig, hut circles SSW	Scheduled Monument	262366	905675	1.0	Yes	Yes	Yes	Yes	High	Relatively unmodified moorland setting; valley setting.	
SM1883	Sallachy, broch 600m N of	Scheduled Monument	254915	909221	2.6	Yes	No	Yes	No	High	Within moorland clearing, surrounded by woodland and close to loch shore.	
SM2208	Achany Glen, Settlement 900m to 1850m S of Lairg Station	Scheduled Monument	258251	902552	1.9	Yes	Yes	Yes	Yes	High	Relatively unmodified moorland setting; valley setting.	See Chapter 7: Section 7.8: Operational Effects

Asset No	Asset Name	Heritage Status	Easting	Northing	Approx. Distance (km) from OHL	Standard Height 'Bare-Ground' Visibility	Standard Height 'With-Screening' Visibility	Maximum Height 'Bare-Ground' Visibility	Maximum Height 'With-Screening' Visibility	Sensitivity of Asset	Setting Summary	Heritage Assets Identified through Consultation (Chapter 7, Table 7.1) as Requiring Consideration
												for detailed assessment
SM4375	Cnoc Olsdail, Hut Circles & Field System	Scheduled Monument	254977	918187	8.2	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; views out along Strath Tirrey to the north west and south east.	
SM4560	Meall Meadhonach, Hut Circles, Field Systems & Shielings 750m SW of	Scheduled Monument	261177	911309	3.1	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; views out to wider landscape, in an arc from the south south east to north west.	
SM4569	Loch Tugh Na Creige, House 200m N of E end of	Scheduled Monument	262155	909702	2.8	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5078	Loch Tigh Na Crieg, Farmstead 600m NNE of NW End of	Scheduled Monument	261476	909921	2.4	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; views out to wider landscape, to the south.	
SM5081	Loch Beag na Furalachd, cairn and shielings 1175m ESE of SW end	Scheduled Monument	259855	914908	5.4	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5090	Creagan Tigh Na Creige, Shielings 600m W of	Scheduled Monument	261519	910332	2.7	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; surrounded by plantation. Localised setting.	
SM5153	Loch Tigh Na Creige Settlement 650m W of W End of Loch	Scheduled Monument	260458	909240	1.2	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; views out to wider landscape. Localised setting.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
SM5160	Loch Tigh Na Creige, Sheepfold 300m NW of NE Corner of	Scheduled Monument	261851	909626	2.5	Yes	No	Yes	No	High	Agrarian feature standing in a clearing within commercial forestry; localised setting.	
SM5161	Meall Meadhonach Sheepfold 1550m NW of	Scheduled Monument	260481	912479	3.7	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5162	Tighcreag, Hut Circle 500m WSW of	Scheduled Monument	262460	909744	3.1	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5194	Meall Meadhonach, Hut Circle and Field System 1200m WNW of	Scheduled Monument	260703	911972	3.5	Yes	Yes	Yes	Yes	High	Within clearing in commercial forestry; views out to wider landscape, particularly to the north west and south west.	
SM5309	Loch Tigh Na Creige, Hut Circle 350m N of NE Corner	Scheduled Monument	261854	909724	2.6	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5401	Loch Beag na Fuaralachd, prehistoric settlement 950m SW of SW end	Scheduled Monument	260041	914919	5.5	Yes	No	Yes	No	High	Within commercial forestry plantation; localised setting.	
SM5563	Altbreck, Homestead 1800m ESE of Dalchork Bridge	Scheduled Monument	259271	910257	1.3	Yes	No	Yes	No	High	Within commercial forestry clearing, views out to wider landscape, in an arc from the east to the west.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
LB8016	Achany House	Category B Listed	256909	901838	3.6	Yes	No	Yes	No	Medium	Country house within small designed landscape. Valley setting.	
LB8019	Lairg Burial Ground with Matheson Memorial	Category B Listed	258051	907252	1.8	Yes	Yes	Yes	Yes	Medium	Surrounded by farmland; views out to wider landscape, concentrated to the west and south.	

Asset No	Asset Name	Heritage Status	Easting	Northing	Approx. Distance (km) from OHL	Standard Height 'Bare-Ground' Visibility	Standard Height 'With-Screening' Visibility	Maximum Height 'Bare-Ground' Visibility	Maximum Height 'With-Screening' Visibility	Sensitivity of Asset	Setting Summary	Heritage Assets Identified through Consultation (Chapter 7, Table 7.1) as Requiring Consideration
LB8020	Lairg, Free Church of Scotland	Category C Listed	258011	905856	2.5	Yes	No	Yes	No	Low	Localised village setting.	
LB8021	Lairg, Free Church of Scotland Hall (Former School and Teacher's House)	Category C Listed	257972	905846	2.6	Yes	No	Yes	No	Low	Localised village setting.	
LB8022	Lairg, Free Church Manse	Category C Listed	257988	905810	2.6	Yes	No	Yes	No	Low	Localised village setting.	
LB8025	Old Church of Scotland Manse, excluding stable block to the north, walled garden, boundary walls and gatepiers, Manse Road, Lairg	Category C Listed	258222	907094	1.8	Yes	Yes	Yes	Yes	Low	Surrounded by mature woodland which provides a sheltered and secluded localised setting.	
LB8027	Shinness Murray Memorial	Category C Listed	255587	913057	3.5	Yes	No	Yes	No	Low	Within commercial forestry plantation; localised setting.	
LB51710	Shin Hydro Electric Scheme, Lairg Dam and Power Station	Category C Listed	257512	906962	2.3	Yes	Yes	Yes	Yes	Low	Modern hydro-electric scheme located at south end of Loch Shin; localised loch side setting.	
BLT19	Battle of Carbisdale	Inventory status Historic Battlefield	257307	894431	5.4	Yes	Yes	Yes	Yes	High	Low lying river plain. South shore of the Kyle of Sutherland and hill slopes above.	
MHG10052	Puill Fhraoich, Township	Non-designated heritage asset of regional importance	262000	898940	Crossed by Proposed Development	Yes	Yes	Yes	Yes	Medium	Relatively unmodified moorland, with wide views.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment
MHG10057	Cnoc Garbh-Airigh, Township	Non-designated heritage asset of regional importance	262430	898620	Crossed by Proposed Development	Yes	Yes	Yes	Yes	Medium	Relatively unmodified moorland, with wide views.	See Chapter 7: Section 7.8: Operational Effects for detailed assessment

TECHNICAL APPENDIX 7.4: DETAILED ASSESSMENT OF KEY HERITAGE ASSETS WITHIN 10 KM OF THE PROPOSED DEVELOPMENT

(Heritage assets highlighted in grey are those assets identified by Historic Environment Scotland and The Highland Council Historic Environment Team as having sensitive settings that could be significantly affected by the Proposed Development. These are considered in detail in Chapter 7: Section 7.8: Residual Effects).

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
SM1759	Achany, Chambered Cairn 250m NE of	Scheduled Monument	<p>Character (HES Database (Canmore) / HER description):</p> <p>A chambered cairn of the Orkney-Cromarty type with a rectangular chamber. The cairn, which has been partially removed, is composed of large, water-worn pebbles and is covered with turf. The cairn measures 22 m north-north-east to south-south-west and by 19.7 m east-south-east by west-north-west and is 1.5 m high.</p> <p>Setting</p> <p>The remains of this Neolithic burial cairn stand at the edge of an improved pasture field immediately adjacent to the B864 public road and immediately south of the Grudie Burn and not far from where the Grudie Burn joins the River Shin. The cairn is aligned roughly parallel with the river course. There are open views out to the surrounding farmland and across the Grudie Burn in views to the east. Wider views taken in surrounding hill slopes of River Shin valley; views are concentrated on the Grudie Burn. The existing Lairg Wind Farm (3 turbines) is visible to the north-east of the burial cairn; against the skyline and on the opposite side of the River Shin valley. The current setting of the monument is the surrounding farmland over which it looks and the wider views to the surrounding landscape.</p>	High	Moderate Survives within a recent farming landscape.	High	<p>Low</p> <p>The Proposed Development would be visible running along hill slopes on the opposite side of the valley; the pylons being visible against the skyline as they pass the monument. At over 3.5 km distant, the Proposed Development would only be perceived as a minor addition to the views to the east and would not affect the immediate farmland setting in which the burial cairn stands or its relationship with the Grudie Burn.</p> <p>The presence of the Proposed Development would constitute only a minor change to the wider views obtained from the monument and would not affect the ability to understand or appreciate the monument or its setting.</p> <p>At over 3.5 km any proposed increase in the tower heights (up to 6 m) would result in only a minimal change to the visibility of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surrounding but would not have a material effect on the setting of the asset.
SM1761	Achinduich, Stone Circle 950m NNE of	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises the remains of a double stone circle of which only the western arcs survive. The outer ring now consists of five stones approximately 1 m high, and would have measured about 9 m in diameter when complete. The inner circle would have measured about 5.5 m in diameter but only three stones survive, with the tallest standing to approximately 0.8 m. The most northerly of the inner stones is set with its broad face towards the centre of the circle.</p> <p>Setting</p> <p>This monument occupies an elevated position on a west-facing slope above the west side of Achany Glen. The stone circle remains comprise an outer ring of which is about 9 m in diameter and consists of five stones approximately 1 m high, and an inner circle, c. 5.5 m diameter, with three surviving stones. The monument which stands in an area of moorland forms part of a group of prehistoric remains that survive along the west-facing slope of the Glen, including hut-circles (MHG12804-MHG12086), a burnt mound (MHG20598) and two burial cairns (MHG45059 & MHG45060). Views out from the stone circle are concentrated along the Achany Glen, to the north and south, and the main features of the setting of the monument are its relationship with the River Shin and Achany Glen. Views to the east are more constrained by rising topography. A 132 kV steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) runs passed the monument on its west side, c.70 m away. This OHL would be decommissioned and dismantled as part of wider works associated with</p>	High	High Stands in relatively unmodified moorland.	High	<p>Low</p> <p>The Proposed Development would pass the monument on its east side, running in an arc from the north-east to the south-east at its nearest being around 2 km away.</p> <p>The Standard Tower Height 'With-Screening' ZTV (Figure 7.3) indicates that there would be only limited visibility of the Proposed Development from the stone circle, with glimpses of the proposed towers being seen from the western side of the monument, in views to the north-east.</p> <p>In these views the proposed towers would be visible beyond the skyline, over 2 km away, and principally screened by intervening topography. The Proposed Development would not be visible in key views from the site out to the west and along Achany Glen.</p> <p>The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3) indicates that there would be only a minimal change to the appearance of the Proposed Development from the monument if the increased tower heights (up to 6 m) were to be utilised. Overall, the change resulting from increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers.</p> <p>See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			the Proposed Development. In the wider landscape Rosehall Wind Farm and Achany Wind Farm turbines are visible skylined on the opposite side of Achany Glen, c.6.5 km away and the consented Braemore Wind Farm (18 turbines) will be visible in forestry, again on the opposite side of Achany Glen, c.3.9 km away.					
SM1768	Balcharn, chambered cairn 120m W of	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises an Orkney-Cromarty-type round cairn with a polygonal chamber. The cairn has been disturbed, leaving an irregular mound c.28 m in diameter, rising to a height of 2.3 m above the surrounding ground on the west side. In the centre of the mound a small mutilated portion of the cairn 1 m high contains the remains of the chamber, outlined by four stones protruding from the turf. The foundations of a farmstead, depicted on the Ordnance Survey 1st Edition map can be seen on the south extremity of the cairn. To the south-east the stone wall of a stock enclosure has bisected the edge of the cairn.</p> <p>Setting</p> <p>This monument stands at the edge of a pasture field and c.30 m north-west of the Balcharn public road, occupying a low rise on a gentle west-facing slope. The cairn has been disturbed in the past leaving an irregular mound which is overlain by the remains of a former farmstead at its south extremity and by a later drystone stock enclosure which bisects the south-east edge of the cairn. From its location there are open views particularly overlooking the Allt a'Chion-duinn burn to the west, taking in surrounding farmland back-dropped by hill slopes. The setting of the burial cairn is characterised by the pasture field in which it stands and the farmland out over which views extend. The remains of the cairn do not form a prominent feature in the landscape, and it does not possess strong aesthetic qualities. The key aspects of the setting of the asset would appear to be its topographical setting and the views concentrated along the Allt a' Chion-duinn burn. The burial cairn forms part of a group of similar features surviving within the Allt a' Chion-duinn valley, and north-east of Lairg, with two potentially contemporary burial cairns in the immediate vicinity: Lairg Moor South, Chambered Cairn (SM1818) and Lairg Muir North, Chambered Cairn (SM1817) both present on the opposite side of the valley, to the north-west, c.1 km away. Both cairns are visible from the Balcharn Burial Cairn and there may have potentially been intended visibility between the three cairns. In the immediate landscape surrounding the monument there are several wooden pole lines crisscross the farmland and a 132 kV steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) is visible running in an arc from the south west to the north-west c.520 m from the burial cairn; the Lairg GSP to Shin Substation OHL would, however, be decommissioned and dismantled as part of wider works associated with the Proposed Development. Within the wider landscape three wind farm developments are visible on the skyline: Lairg Wind Farm (3 turbines) visible in views to the south-east, on the opposite side of the valley (c.2.7 km away), and distant views of a cluster of turbines, including Rosehall Wind Farm and Achany Wind Farm, can be glimpsed to the south west (c.6.8 km away).</p>	High	Moderate Survives within a recent farming landscape	High	<p>Figure 7.7 & Figure 7.14: CH Viewpoint 4</p> <p>Low</p> <p>The Proposed Development would be, at its nearest, c.750 m away from the monument. Towers from the Proposed Development would be visible running in an arc from the north-west to the south-east.</p> <p>A photomontage of the predicted views of the proposed Development from the cairn (Figure 7.7) indicates that the proposed towers would be visible beyond the skyline and partially screened from view by intervening topography. Elements of the Proposed Development would be seen passing in front of Lairg Wind Farm, in more distant views to the south (Figure 7.7); although the turbines would be back-clothed by hill slopes in this view.</p> <p>The Proposed Development would not be visible in views from the monument towards Lairg Muir North or Lairg Moor South Chambered Cairns (SM1817 & SM1818) and would not affect the intervisibility between these monuments.</p> <p>The Proposed Development would be visible in the surrounding landscape which forms part of the wider landscape views afforded from the monument and would have an effect upon the wider landscape setting of the burial cairn. However, screening provided by surrounding hill slopes and the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary monuments in the immediate landscape to continue to be appreciated and understood.</p> <p>A comparative wireline (Figure 7.14) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. Two additional towers (T54 and T44) would be visible in views to the northwest and southeast, respectively; although only the tower tips would be visible beyond the horizon, with intervening topography principally screening the towers. The change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	Minor: The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
SM1801	River Shin, Stone Circle on W bank of, S of Lairg	Scheduled Monument	<p>Character (HES Database (Canmore) / HER description):</p> <p>A group of four stones that form the northern half of a former stone circle that has been eroded by a burn. Two of the stones are upright, but the other two are mere boulders, which may not have been set up. One of the uprights and one of the boulders are somewhat loose. There is some doubt that this is a prehistoric stone circle and it may be a natural formation, wholly or in part.</p> <p>Setting</p> <p>This monument occupies a low spur on the west bank of the River Shin, in an area of rough pasture. Views from the monument are concentrated on the River Shin; views along the river orientated north and south. Glimpses of hill slopes edging the river valley are afforded from the monument, although partially screened by rising topography and intervening woodland (both commercial and semi-natural). The monument forms one of numerous prehistoric remains, including settlement and funerary remains present throughout the River Shin valley. It appears that the key aspects of the monuments setting are its views along the River Shin and the rough pasture that it looks out over.</p>	High	High Relatively unmodified riverside setting	High	<p>Low</p> <p>The Proposed Development would be visible in distant views (over 2 km away) running in an arc from the north to south-east, crossing higher slopes on the opposite side of the River Shin to the monument.</p> <p>At over 2 km distant, the presence of the proposed towers in the wider setting of the monument would not affect an ability to understand or appreciate the monument's riverside setting.</p> <p>At over 2 km distant any proposed increase in the proposed tower heights (up to 6 m) would result in minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.</p> <p>See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	None The presence of the Proposed Development would not affect the setting of the asset.
SM1812	The Ord, Chambered Cairns, Cairns, Settlement And Field System	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises a landscape of prehistoric sites, including two chambered cairns, cairns, a homestead, several hut circles and accompanying field systems, including cairns of field –cleared stones. The scheduled remains are scattered across the summit and slopes of The Ord at the south end of Loch Shin.</p> <p>Setting</p> <p>The site covers 55 ha of the summit area on The Ord, at the south end of Loch Shin and at the north end of Achany Glen. The settlement remains are a promoted visitor's site and form part of an archaeology trail, starting from Ferrycroft Countryside Centre at Lairg. The settlement occupies a strategic position at the south end of Loch Shin and at the north end of Achany Glen. There are wide ranging views to the north, south and east from the summit of The Ord, whilst rising ground to the west constrains views in that direction. The principal views, and those that are most relevant to the understanding and appreciation of the monument within its setting, are those views to the north and northwest, along Loch Shin, and those to the south, along Achany Glen. The Ord is a prominent feature in the surrounding landscape, visible whilst travelling along the A836 public road and from Lairg and its surrounding landscape. A telecommunication met mast stands close to the summit of The Ord and in close proximity to the chambered cairn that forms part of the site. A wooden trident overhead lines runs from the met mast at The Ord to Lairg village, passing through the settlement site, and other wooden poles crisscross surrounding farmland. While a 132 kV steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) is visible on the opposite side of Achany Glen; this OHL would be decommissioned and dismantled as part of the wider works associated with the Proposed Development. Further afield, Lairg Wind Farm (three turbines) is visible in views on the skyline to the east of the monument, on the opposite side of Achany Glen, the Rosehall Wind Farm and Achany Wind Farm turbines are detectable as</p>	High	High Stands in relatively unmodified moorland	High	<p>Figure 4.18 & VP11a-c: LVIA Viewpoint 11</p> <p>Low</p> <p>The Proposed Development would be, at its nearest, c.2.8 km from the monument. A photomontage produced for the predicted views of the Proposed Development from The Ord indicates that the proposed towers would be seen running in an arc from the north-east to the south-east, crossing hill slopes on the opposite side of Achany Glen and extending away from the monument. The majority of the proposed towers would be principally back-clothed against surrounding hills, although occasional towers would be visible against the skyline.</p> <p>Although a new element in the surrounding landscape of the monument, the Proposed Development would only be a minor addition to the views in which other built up elements (including Lairg village) are present and it would not affect the immediate moorland setting of the asset.</p> <p>The presence of the Proposed Development on the opposite side of the Achany Glen would not detract from an appreciation or understanding of the monument, its surrounding landscape or its strategic position looking along both the Achany Glen and Loch Shin.</p> <p>A comparative wireline (Figure VP11.a-c) shows the predicted visibility of the Proposed Development from the monument, if the Maximum Tower Heights (up to 6 m) were to be utilised. The proposed towers would be at the closest around 2.8 km from the monument and at this distance any increase in tower height would be barely distinguishable. The majority of the proposed towers would still be back-clothed against surrounding hills and any change from the increased tower height would be minimal. See Chapter 7, Section 7.8:</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			blade tips beyond the skyline in views to the west south west, whilst the consented Braemore Wind Farm turbines (18 turbines) will be visible to the south-east.				Operational Effects for detailed assessment.	
SM1817	Lairg Muir North, Chambered Cairn 500m NW of Culbuie	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises a round, chambered cairn which may have been horned on the south-east side. The turf-covered cairn, measuring c.19 m east to west by 24 m and c.1.5 m high, has been heavily robbed in the past and the cairn has been surmounted by a later sheepfold.</p> <p>Setting</p> <p>The remains of this probable Neolithic burial cairn are located just north of a farm track, within a pasture field c.230 m south-east of the public road between Lairg Muir and Saval. The remains of the cairn occupy a low rise on a gentle south-east facing slope. The turf-covered cairn, which is orientated north-west to south-east, has been heavily robbed in the past and is now surmounted by a later sheepfold. The remains of three hut-circles, an associated cairnfield (field system) and later rig and furrow cultivation remains (MHG11990) survive within the immediate landscape of the burial cairn. From its location there are open aspect views overlooking the Allt a' Chion-duinn burn to the south-east, taking in surrounding farmland backdropped by hill slopes. The setting of the burial cairn is characterised by the pasture field in which it stands and the farmland out over which views extend. The remains of the cairn do not form a prominent feature in the landscape, and it does not possess strong aesthetic qualities. The key aspects of the setting of the asset would appear to be its topographical setting and the views concentrated along the Allt a' Chion-duinn burn. The burial cairn forms part of a group of similar features surviving within the Allt a' Chion-duinn valley, and north-east of Lairg, with two potentially contemporary burial cairns in the immediate vicinity: Lairg Moor South, Chambered Cairn (SM1818), located c.400 m to the south west, and Balcharn, Chambered Cairn (SM1768), present on the opposite side of the valley, to the south-east, c.1 km away. Both cairns are visible from the Lairg Muir North Chambered Cairn and there may have potentially been intended visibility between the three cairns. Within the wider landscape three wind farm developments are visible on the skyline: Lairg Wind Farm (3 turbines) in views to the south-east, on the opposite side of the valley (c.4 km away), and a cluster of turbines, including Rosehall Wind Farm and Achany Wind Farm, are visible in distant views to the south west (c7 km away).</p>	High	Moderate Survives within a recent farming landscape.	High	<p>Figure 7.5 & Figure 7.12: CH Viewpoint 2</p> <p>Low</p> <p>The Proposed Development would be, at its nearest, around c.670 m from the monument; proposed towers being visible running in an arc from the north-west to the south-east. The proposed towers would be visible in the foreground crossing farmland and moorland to the north, north-east and west of the cairn, and passing in front of Lairg Wind Farm in more distant views to the south-east.</p> <p>Elements of the Proposed Development would also be seen crossing views from the monument to Balcharn, Chambered Cairn (SM1768), to the south-east; although the Proposed Development would be seen at a higher elevation than the burial cairn and the proposed towers would be backclothed by hill slopes within these views. The Proposed Development would be seen crossing the landscape beyond the cairn when viewing the monument from Lairg Moor South Chambered Cairn (SM1818), although the intervisibility between the two cairns would not be directly affected.</p> <p>The Proposed Development would be visible in the surrounding landscape which forms part of the wide ranging views afforded from the monument and would have an effect upon the wider landscape setting of the asset. However, the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary burial cairns in the immediate landscape to continue to be appreciated and understood.</p> <p>A comparative wireline (Figure 7.12) indicates that there would be one additional tower (T59) visible from the monument if the Maximum Height Towers (up to 6 m) were utilised. Only the very tip of the additional tower would be visible beyond the horizon, in views to the southwest, with intervening topography screening much of this tower. The change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers.</p> <p>See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM1818	Lairg Moor South, Chambered Cairn 290m N of Sydney House	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises a round chambered cairn. The cairn has been robbed in the past and remains as a mound of turf-covered stones enclosed by a shallow ditch and low bank of turf-covered stones. The whole structure measures about 13 m north-east to south-west by 20 m. The remains of a central chamber were noted in 1909 but are no longer</p>	High	Moderate Survives within a recent farming landscape.	High	<p>Figure 7.6 & Figure 7.13: CH Viewpoint 3</p> <p>Low</p> <p>The Proposed Development would be, at its nearest, around c.670 m from the monument. Towers for the Proposed Development would be visible running in an arc from the north-west to the south-east; the proposed towers being visible in the</p>	Minor The Proposed Development would be detectable

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			<p>visible.</p> <p>Setting</p> <p>The remains of this probable Neolithic burial cairn are located within a pasture field c.40 m south-east of the public road between Lairg North and Saval. The remains of the cairn occupy a relatively flat position overlooking the Allt a' Choin-duinn burn to the east. The burial cairn has been heavily robbed in the past and all that now survives is a slight turf-covered mound of stones enclosed by a shallow ditch and low stone bank. Remains of prehistoric settlement, including several hut circles and clearance heaps, are scattered around the cairn (MHG11987). Open views are afforded from the monument in all directions, although views are particularly concentrated to the east overlooking the Allt a' Choin duinn burn valley, taking in the surrounding farmland backdropped by hill slopes. The setting of the burial cairn is characterised by the pasture field in which it stands and the farmland out over which views extend. The remains of the cairn do not form a prominent feature in the landscape, and it does not possess strong aesthetic qualities. The key aspects of the setting of the asset would appear to be its topographical setting and the views concentrated across the Allt a' Chion-duinn burn. The burial cairn forms part of a group of similar features surviving within the Allt a' Chion-duinn valley, and north-east of Lairg, with two potentially contemporary burial cairns in the immediate vicinity: Lairg Muir North, Chambered Cairn (SM1817), located c.400 m to the north-east, and Balcharn, Chambered Cairn (SM1768), present on the opposite side of the valley, to the south-east, c.1 km away. Both cairns are visible from the Lairg Moor South Chambered Cairn and there may have potentially been intended visibility between the three cairns. In the immediate landscape surrounding the monument there are several single wooden pole lines crisscross the farmland and an 132 kV steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) is visible running in an arc from the south to the west c.300 m from the burial cairn; the Lairg GSP to Shin Substation OHL would however be decommissioned and dismantled as part of wider works associated with the Proposed Development. Within the wider landscape one wind farm development, Lairg Wind Farm, is visible on the skyline with all three turbines visible in views to the south-east, on the opposite side of the valley (c.3.8 km away).</p>				<p>foreground, crossing farmland and moorland to the north, north-east and west of the cairn and passing in front of Lairg Wind Farm in more distant views to the south-east.</p> <p>Elements of the Proposed Development would be seen crossing views from the monument to Balcharn, Chambered Cairn (SM1768), to the south-east; although the Proposed Development would be seen at a higher elevation than the burial cairn and the proposed towers would be backclothed by hill slopes within these views. The Proposed Development would also be seen crossing the landscape beyond Lairg Muir North Chambered Cairn (SM1817) in views to the north-east from the monument, although the intervisibility between the two cairns would not be directly affected.</p> <p>The Proposed Development would be visible in the surrounding landscape which forms part of the wide ranging views afforded from the monument and would have an effect upon the wider landscape setting of the burial cairn. However, the permeable nature of the Proposed Development would still allow the landscape surroundings, the context of the monument and its relationship with other potentially contemporary monuments in the immediate landscape to continue to be appreciated and understood.</p> <p>A comparative wireline (Figure 7.13) indicates that there would be one additional tower (T59) visible from the monument if the Maximum Height Towers (up to 6 m) were utilised. Only the very tip of the additional tower would be visible beyond the horizon, in views to the southwest, with intervening topography screening much of this tower. The change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	<p>from the asset as a minor addition to its wider surrounding but would not have a material effect on the setting of the asset.</p>
SM1829	Altbreck, Broch 1650m ESE of Dalchork Bridge	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument consists of a broch, surrounded by an enclosure and associated with other enclosures and dykes. The monument is in an elevated location within a forestry plantation. The broch measures 9.5 m in diameter within a wall 4 m thick with an entrance 1 m wide in the south-east. There are guard-chambers on either side of the entrance passage and four additional chambers within the width of the wall. The chamber west of the entrance appeared in 1909 to be the staircase gallery. The chambers and entrance are still visible, although they are almost filled with collapsed walling. The outer face of the broch wall stands to 1.2 m. Abutting the broch to the north-west is a D-shaped enclosure built of broch material. To the east of the broch are traces of a large oval scooped enclosure 18 m by 10 m. The broch is surrounded by the remains of a probable outer enclosure. This is most distinct on the south, east and</p>	High	Medium Open hill top setting; surrounded by commercial forestry	High	<p>Low</p> <p>Although a new element in the wider landscape around the broch, at nearly 2 km distant, the Proposed Development would be seen only as a minor, distant addition to the surrounding landscape and the proposed towers would constitute only a minor change in the wider views obtained from the monument.</p> <p>The presence of the Proposed Development within the wider landscape setting of the broch would not detract from an ability to appreciate or understand the broch or its surrounding landscape.</p> <p>The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3) indicates that there would be a slight increase in visibility of the Proposed Development from the edges of the Scheduled Area.</p>	<p>Minor</p> <p>The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a</p>

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			<p>north as a marked break of slope. In addition there are a number of dykes that appear to focus on the broch and may be prehistoric in date.</p> <p>Setting</p> <p>The remains of this Iron Age broch and associated enclosures occupy the summit of a small naturally terraced knoll, c.110 m north of a modern forestry access track. Although the remains lie within a commercial forestry plantation (Dalchork Wood), they are currently situated within an open hilltop setting as the forestry around the monuments has been felled. As a result views are afforded from the monument in all directions, looking out across surrounding commercial forestry plantation and taking in wide panoramic views to Loch Shin, in the west, and providing some aesthetic/experiential appeal to the monument. The broch stands in a strategic position overlooking the confluence of the Allt Ruadh burn and the Allt Chaiseagail burn. The key aspects of the setting of the asset would appear to be its topographical setting and the wide views gained from the monument.</p>				<p>Nevertheless, at over 1.5 km away, any increase in tower heights (up to 6 m) would result in only a minimal change to the overall visibility of the Proposed Development from the monument and would result in a change that is not materially different to that of the Standard Height Towers.</p> <p>See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	<p>material effect on the setting of the asset.</p>
SM1878	Loch Dola, hut circles & clearance cairns 270 E of	Scheduled Monument	<p>Character (HES Database (Canmore) / HER description):</p> <p>A well-preserved prehistoric settlement comprising of at least ten hut-circles and an associated field system including several enclosure and field clearance heaps along with occasional lynchets. The remains are located principally on the summit and north-facing slope of a ridge overlooking the eastern end of Loch Dola. The cairns are spread over an area measuring 700 m by 300 m.</p> <p>Setting</p> <p>The well-preserved earthwork remains of this prehistoric settlement occupy undulating moorland between Loch Dola and Loch Craggie. The main features of the setting of the monument are its relationship with the two lochs and the immediate surrounding moorland which was most likely exploited during occupation of the settlement. Wider landscape views are afforded out from the settlement remains in all directions, overlooking surrounding commercial forestry and more distant hill slopes; however, views from within the settlement remains are principally concentrated to the south-east, overlooking Loch Craggie, and north-west overlooking Loch Dola.</p>	High	High Surviving in relatively unmodified moorland	High	<p>Figure 7.8 & Figure 7.15: CH Viewpoint 5</p> <p>Minor</p> <p>The Proposed Development would be visible running in an arc from west to south west from the settlement remains; being around 1.4 km away. The proposed towers would be seen from the monument in distant views to the south west; the proposed towers visible crossing hill slopes at a slightly higher elevation than the monument. The towers would, however, principally be back-clothed by hill slopes and partially screened by intervening topography and commercial forestry.</p> <p>The Proposed Development would not be seen in principal views from the monument to Loch Dola and Loch Craggie and the immediate moorland setting of the monument would be unaffected.</p> <p>A comparative wireline (Figure 7.15) indicates that there would be no additional towers visible from the monument. The change resulting from the increased tower heights would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. See Chapter 7, Section 7.8: Operational Effects for detailed assessment.</p>	<p>Minor</p> <p>The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.</p>
SM1882	Creag Inne Chomhraig, hut circles SSW	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises the remains of two hut-circles and associated features, located on the north side of the public road. The first of the hut-circles has an internal diameter of 9 m north to south by 8 m and surrounding wall that is between 1.5 m to 2 m wide and 0.3 m high. It has an entrance on its south side. The second hut circle has been damaged by the road and has lost its south wall, although most of the circle does survive. The area between the two hut-circles contains the remains of a dyke, which may either indicate a former road line of a head dyke.</p> <p>Setting</p> <p>The monument stands within an area of open moorland on a south facing slope immediately north of the A839 public road and overlooking the Fleet</p>	High	High Stands in relatively unmodified moorland	High	<p>Low</p> <p>The Proposed Development would pass the monument on its west side, c.1 km away, in an arc from north-east to south west.</p> <p>The proposed towers would be visible in distant views to the west where the Proposed Development would cross Strath Fleet, the proposed towers visible backclothed against hillslopes.</p> <p>At c.1 km away the Proposed Development would be perceived only as a minor change to the views in the west and would not affect an ability to appreciate or understand the wider</p>	<p>Minor</p> <p>The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings</p>

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			River and across Strath Fleet. There are open views out to the surrounding landscape particularly to the south across the Strath and to the east and west along the Fleet River. Views to the north are limited by intervening topography. A wooden trident electricity overhead line runs past the monument on its south side between the monument and the public road. The key aspects of the setting of the monument are the surrounding moorland over which it looks and the wider views across Strath Fleet.				landscape setting of the monument. The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3) indicates that there would be a minimal change to the appearance of the Proposed Development from the monument if the increased tower heights (up to 6 m) were to be utilised. Overall, the change resulting from increased tower heights, visible over 1 km away, would be minimal and would result in a change that is not materially different to that of the Standard Height Towers.	but would not have a material effect on the setting of the asset.
SM2208	Achany Glen, Settlement 900m to 1850m S of Lairg Station	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises the remains of a large number of prehistoric and later dwelling sites, marked by circular (prehistoric) and rectangular (medieval and later) foundations. Smaller foundations nearby represent outbuildings. Around these dwelling places are well-preserved traces of contemporary field systems, the fields bounded by banks of stone and turf and dotted with small cairns of stone. These cairns are largely the result of field clearance but in a few instances may cover human remains. In addition, there are a number of mounds of burnt stone, probably prehistoric cooking places.</p> <p>Setting</p> <p>This monument covers an area approximate 34 ha on the west-facing slopes of Achany Glen. The site which stands within in an area of rough pastureland/ moorland is spread out across the low-lying slopes of Cnoc an Mhoir running adjacent to the A836 public road for approximately 1 km and extending c.500 m upslope. Views out from the settlement site are concentrated along the Achany Glen, to the north and south, and the main features of the setting of the monument are its relationship with the River Shin and Achany Glen. The monument has a setting that makes a high contribution to its understanding and appreciation and this gives it a setting of high sensitivity. A 132kV steel lattice tower overhead line (Lairg GSP to Shin Substation OHL) currently crosses through the settlement site, although this OHL would be decommissioned and dismantled as part of wider works associated with the Proposed Development. In the wider landscape Rosehall Wind Farm and Achany Wind Farm turbines are visible skylined on the opposite side of Achany Glen, c.6.5 km away and the consented Braemore Wind Farm (18 turbines) will be visible in forestry, again on the opposite side of Achany Glen, c.3.9 km away.</p>	High	High Stands in relatively unmodified moorland	High	<p>Low</p> <p>The Proposed Development would pass the monument on its east side, seen running in an arc from the north-east to the south-east; at its nearest being around 2 km distant. The Proposed Development would be visible, in varying degrees, from the monument; more so from the higher reaches of the scheduled area (Figure 7.3). In these views the proposed towers would be visible beyond the skyline and principally screened by topography.</p> <p>The Proposed Development would not be visible in key views from the site out to the west and along Achany Glen.</p> <p>The Maximum Tower Height 'With-Screening ZTV' (Figure 7.3) indicates that there would be no additional visibility of the Proposed Development if the increased tower heights were to be utilised. At over 2 km away the Proposed Development would be visible in the wider landscape of the monument, but would continue to be largely screened from view by intervening topography and where visible seen beyond the skyline.</p> <p>Overall, the change resulting from increased tower heights, over 2 km away, would be minimal and would result in a change that is not materially different to that of the Standard Height Towers. See Chapter 7, Section 7.82: Operational Effects for detailed assessment.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM4375	Cnoc Olsdail, Hut Circles & Field System	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument consists of a small settlement of five round houses set in slight scoops on the side of a low rounded hill, at least one hut circle, abundant clearance cairns, low banks and lynchets, and more recent features including an annular enclosure. The monument is visible over nine hectares where it is covered by a thin skin of peat, but it clearly continues under the peat. Most of the features of the site appear to be of the later second millennium BC.</p> <p>Setting</p> <p>This monument stands within an area of open moorland on a west facing slope overlooking Strath Tirry and the River Tirrey. There are wide views</p>	High	High Stands in relatively unmodified moorland.	High	<p>Imperceptible</p> <p>The Proposed Development would be visible on a distant horizon in views to the south of the monument. Where they pass the monument, the proposed towers would run through a large swathe of commercial forestry, which would partially screen the towers from view.</p> <p>At around 8 km away the proposed towers would only be seen as a distant minor change to the views in the south.</p> <p>At around 8 km away any proposed increase in the tower heights would be barely distinguishable within the wider landscape and would result in a change that is not materially</p>	None The presence of the Proposed Development would not affect the setting of the asset.

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			afforded from the monument particularly from the upper slopes, looking along Strath Tirrey to the north-west and south-east. The key aspects of the setting of the monument are is the moorland over which it looks and the wider views across and along Strath Tirrey.				different to that of the Standard Height Towers.	
SM4560	Meall Meadhonach, Hut Circles, Field Systems & Shielings 750m SW of	Scheduled Monument	<p>Character (HES Database (Canmore) / HER description):</p> <p>In the upper slopes of a west-facing hillside are two hut-circles and accompanying field clearance. Both huts are heather covered.</p> <p>Setting</p> <p>The monument stands in a clearing in commercial forestry on a south west facing slope. Although standing within commercial forestry wide open views are afforded out across the surrounding plantation taking in Loch Beannach and distant hill tops to the north-west; Loch Shin and the surrounding hill slopes to the south west, and Loch Dola and farmland to the south south-east around Lairg. The monument forms part of a group of prehistoric settlement sites that survive within commercial forestry (Dalchork Wood) to the north of Lairg, including Meall Meadhonach Hut Circle and Field System (SM5194) which is located close to the monument; however surrounding commercial forestry limits visibility between these monuments. The main aspects of the setting of the monument are the long views out to the surrounding landscape and its relationship with similar monuments within the immediate landscape.</p>	High	Low Surrounded by commercial forestry.	Medium	<p>Low</p> <p>The Proposed Development would be visible passing the monument on the south west side in an arc running from the west to the south. The towers would be visible beyond the commercial forestry within which the monument stands.</p> <p>At over 3 km distant, the Proposed Development would form only a minor distant change to the landscape surrounding the monument and would not detract from an ability to appreciate or understand the setting of the monument and its wider landscape views.</p> <p>At over 3 km any proposed increase in the proposed tower heights (up to 6 m) would result in a minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM5078	Loch Tigh Na Crieg, Farmstead 600m NNE of NW End of	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>A farmstead consisting of two substantial rectangular houses, a small stock enclosure, a small rectangular structure, linear earthworks and traces of cultivation. The walls of the two substantial rectangular houses survive to different heights and this may indicate that the settlement was occupied over a lengthy period of time. The settlement was set within a large and substantial enclosure which defined the infield. The area to be scheduled measures a maximum of 160m N-S by 110m E-W, to include the buildings, small enclosure and remaining part of the earthworks which enclose the infield, as shown in red on the attached plan.</p> <p>Setting</p> <p>The monument stands in a clearing in commercial forestry on a south facing slope. Although standing within commercial forestry wide open views are afforded out across the surrounding plantation taking in Loch Tigh na Creige to the south and distant views across Loch Dola/Loch Craggie, farmland to the south and Strath Fleet. The monument forms part of a group of medieval or later settlement/agrarian sites that survive within commercial forestry (Dalchork Wood) to the north of Loch Tigh Na Creige, including Loch Tigh Na Creige, Sheepfold (SM5160), Loch Tigh Na Creig, House (SM4569), which are located close to the monument; however surrounding commercial forestry limits visibility between these monuments. The main aspects of the setting of the monument are the long views out to the surrounding landscape and its relationship with similar monuments within the immediate landscape.</p>	High	Low Surrounded by commercial forestry.	Medium	<p>Low</p> <p>The Proposed Development would be visible passing the monument on the south west side in an arc running from the west to the south west. The towers would be visible beyond the commercial forestry within which the monument stands.</p> <p>At over 2 km distant the Proposed Development would constitute only a minor distant change to the landscape surrounding the monument and would not detract from an ability to appreciate or understand the setting of the monument and its wider landscape views.</p> <p>At over 2 km any proposed increase in the proposed tower heights (up to 6 m) would result in a minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM5153	Loch Tigh Na Creige	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument comprises a post-medieval settlement consisting of a</p>	High	Low Surrounded by	Medium (localised)	<p>Imperceptible</p> <p>The Proposed Development would be approximately 1.2 km</p>	Minor The

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
	Settlement 650m W of W End of Loch		<p>group of building foundations and associated walled enclosures. The settlement is named as 'Torbrec' on a map of 1868. The monument includes the foundations of one long-house, an out-house and associated field walls running down from the buildings towards a stream to the south-south-west. The long-house is 25 m by 5 m with walls surviving to 1.5 m high.</p> <p>Setting</p> <p>The remains of this post-medieval settlement are situated in a relatively flat area of moorland in a forest clearing c.600 m west of Loch Tigh na Creige. The current setting of the asset is the moorland in which it occupies. Views to the surrounding landscape are restricted by surrounding commercial forestry plantation present on the north, east and west sides of the monument; although some views are afforded to the south looking towards the Allt Chaiseagail burn.</p>		commercial forestry; localised.		<p>away, running in an arc from the north-west to the south where it passes the monument.</p> <p>The Standard Height Tower 'With-Screening' ZTV (Figure 7.3) indicates that there would be only limited visibility of the Proposed Development from the settlement remains; the proposed towers being principally screened by surrounding commercial forestry.</p> <p>The Maximum Tower Height 'With-Screening' ZTV (Figure 7.3) indicates that there would be a slight increase in visibility of the Proposed Development from the southern edge of the settlement. Nevertheless, at over 1.2 m away any proposed increase in tower heights (up to 6 m) would result in only a minimal change to the overall visibility of the Proposed Development from the monument and would result in a change that is not materially different to that of the Standard Height Towers.</p> <p>See Chapter 7, Section 7.82: Operational Effects for detailed assessment.</p>	Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM5194	Meall Meadhonach, Hut Circle and Field System 1200m WNW of	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>This monument is a prehistoric settlement consisting of a hut circle and traces of a field system. The hut circle is approximately 9 m east to west by 10 m north to south and is oval in shape with a probable south entrance which is about 2 m across. The hut circle is defined by a bank 1 m to 1.5 m wide and about 0.5 m to 0.7 m high. There are a series of at least 19 clearance cairns surrounding the house site on all sides.</p> <p>Setting</p> <p>The monument stands in a clearing in commercial forestry on a south west facing slope. Although standing within commercial forestry wide open views are afforded out across the surrounding plantation taking in Loch Beannach and distant hill tops to the north-west and Loch Shin and the surrounding hill slopes to the south west. The monument forms part of a group of prehistoric settlement sites that survive within commercial forestry (Dalchork Wood) to the north of Lairg, including Meall Meadhonach, Hut Circles, Field Systems & Shielings (SM4560) which is located close to the monument; however, surrounding commercial forestry limits visibility between these monuments. The main aspects of the setting of the monument are the long views out to the surrounding landscape and its relationship with similar monuments within the immediate landscape.</p>	High	Low Surrounded by commercial forestry.	Medium	<p>Low</p> <p>The Proposed Development would be visible passing the monument on the south west side in an arc running from the west to the south. The towers would be visible beyond the commercial forestry within which the monument stands.</p> <p>At around 3.5 km distant the Proposed Development would constitute only a minor distant change to the landscape surrounding the monument and would not detract from an ability to appreciate or understand the setting of the monument and its wider landscape views.</p> <p>At 3.5 km away, any proposed increase in the tower heights (up to 6 m) would result in a minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.</p>	Minor The Proposed Development would be detectable from the asset as a minor addition to its wider surroundings but would not have a material effect on the setting of the asset.
SM5563	Altbreck, Homestead 1800m ESE of Dalchork Bridge	Scheduled Monument	<p>Character (Scheduled Monument Inventory description):</p> <p>The monument consists of the earthworks of a probable prehistoric homestead on raised ground in a Forestry Commission plantation. The homestead comprises a substantial D-shaped enclosure situated in an elevated location. The enclosure is about 22 m east to west by 24 m north to south and is defined by a turf and stone dyke which is best preserved on the north-east, where it stands to a height of about 0.3 m above the interior. The entrance may have been in the south part of the enclosure.</p> <p>Setting</p> <p>This monument occupies an elevated location on a south facing slope,</p>	High	Low Surrounded by commercial forestry.	Medium	<p>Low</p> <p>The Proposed Development would be, at its nearest, around 1.3 km from the monument. Towers of the Proposed Development would run in an arc from the south to the south west of the homestead, with elements of the Proposed Development crossing moorland to the south of the monument (at Saval) and passing through commercial forestry to the south-west.</p> <p>The Standard Height Tower 'With-Screening' ZTV (Figure 7.3) predicts that views of the Proposed Development would be</p>	Minor The presence of the Proposed Development would not materially affect the setting of the asset.

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			c.25 m north of a modern forestry access track. The homestead remains lie within the same commercial forestry plantation (Dalchork Wood) as the Altbreck, Broch (SM1829) described above. The forestry around the monument has been felled and the monument has open views in an arc from the east to the west overlooking the confluence of the Allt Ruadh burn and the Allt Chaiseagail burn, while views to the north are restricted by rising topography. The location overlooking the confluence, to the south, is evidently a key component of the monuments setting. More distant views out to the surrounding landscape are, however, limited by surrounding commercial forestry plantation.				principally screened from the monument due to intervening forestry plantation. At around 1.3 km away any proposed increase in the tower heights (up to 6 m) would result in only a minimal change to the appearance of the Proposed Development; the towers would be visible only in the wider landscape of the monument and the change would not be materially different to that of the Standard Height Towers. See Chapter 7, Section 7.82: Operational Effects for detailed assessment.	
LB8016	Achany House	Category B Listed	Character (Statutory List description): Late 18th/early 19th century with mid 19th century additions and further late 19th century rear extensions. Symmetrical 3-storey, 5-bay frontage the outer bays projecting as circular drum towers. Setting This country house stands in a small designed landscape to the west of the B864 public road. The house which occupies an elevated position of the west side of Achany Glen near the confluence of the Grudie Burn and the River Shin is visible from the B864 public road. Its principal aspect is orientated to face southeast over an open lawn and small area of parkland with views southwards along the River Shin. These southerly views along Achany Glen (although somewhat constrained by trees and woodland) are an important feature of the setting of the house.	Medium	High Country house standing in small design landscape.	High	Imperceptible The Proposed Development would be visible in distant views to the east from the house, although partially screened by intervening topography and woodland which surround the house. None of the proposed towers would be visible in the principal views from the house along the Achany Glen (River Shin valley). At over 3.5 km distant the presence of the proposed towers within the wider landscape setting of the monument would not affect the ability to understand or appreciate the setting of the house. At over 3.5 km any proposed increase in the tower heights (up to 6 m) would result in a minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.	None The presence of the Proposed Development would not affect the setting of the asset.
LB8019	Lairg Burial Ground with Matheson Memorial	Category B Listed	Character (Statutory List description): Rubble walled burial ground with various 18th, 19th and 20th century tombs and memorials, including memorials to William Gray (1749) and to the Mackay family (dated 1803). Site of former parish church. Setting This burial ground is located at the northern edge of Lairg immediately north of Manse Road. The burial ground is surrounded by a stone wall and a car park area is present on its south side, between the burial ground and the public road. Views from the burial ground are concentrated to the west and south with panoramic views across the southern end of Loch Shin, Lairg and surrounding hill slopes. Views in other directions are restricted by rising topography. No upstanding remains of the former parish church survive. An associated manse (LB8025) stands c.180 m to the south-east of the burial ground. The manse is surrounded by trees that provide a secluded and sheltered setting for the building and screens views of the manse from the burial ground. A wooden trident overhead electricity line passes the burial ground on the south side. The key aspect of the setting of the burial ground is its historic link with Lairg.	Medium	Moderate Surrounded by farmland	Medium	Imperceptible Views of the Proposed Development would be limited by intervening topography and surrounding woodland. The proposed towers would only be visible in distant views to the south/southeast of the burial ground; glimpsed crossing hill slopes to the east of Lairg. The presence of the proposed towers in the wider landscape of the burial ground, at nearly 2 km distant, would not affect the immediate farmland setting of the burial ground nor detract from an appreciation of the views afforded across Loch Shin and towards Lairg. At 2 km any proposed increase in the tower heights (up to 6 m) would result in a minimal change to the appearance of the Proposed Development and would result in a change that is not materially different to that of the Standard Height Towers.	None The presence of the Proposed Development would not affect the setting of the asset.
BTL19	Battle of Carbisdale	Historic Battlefield	Character (Historic Battlefield Inventory description): Carbisdale is significant as the last battle of James Graham, the 1st Marquis of Montrose, in support of the Royalist cause. Widely thought to be one of Scotland's finest ever military commanders; Montrose is a highly	High	High South shore of the Kyle of Sutherland and hill slopes above.	High	Imperceptible At over 5 km distant, the Proposed Development would be a minor element in distant views from the battlefield site. The Standard Tower Height 'With Screening' ZTV (Figure 7.3)	None The Proposed Development

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			<p>significant figure within Scottish history. After Carbisdale, he was finally apprehended by the Covenanters and executed. The Battle of Carbisdale also marks the end of the internal struggles within Scotland as part of the Wars of the Three Kingdoms, as with the Covenanters' subsequent agreement with Charles II, they come into open conflict with Oliver Cromwell and the Protectorate, rather than Royalist supporters in their own lands.</p> <p>Following his defeat at Philiphaugh in 1645, Montrose had fled abroad, only to return in 1650 as the Captain-General of the forces of Charles II. The battle was a decisive victory for the Covenanter forces arrayed against Montrose, with his forces routed almost without firing a shot. Montrose himself escaped the field but he was handed over to the Covenanters a few days later and taken to Edinburgh for his trial and subsequent execution.</p> <p>Setting</p> <p>The battlefield is centred on the low lying plain to the west of the Kyle of Sutherland. The main action is thought to have been contained within the area north of the Culcrain Burn which cuts across the plain from the south-east to the north-west, creating a triangle of flat ground. The open ground to the south of Culcrain where the battle was located is almost entirely given over to improved pastureland. To the north-west of the battlefield there is an area of mixed deciduous woodland that appears to represent 'Scroggie Wood' where Montrose retreated during the battle. The village of Culcrain, present immediately north of the battlefield was not present at the time of the battle and represents a mix of late-19th and early-20th century/modern dwellings. The remains of a possible ravelin (triangular fortification or detached outwork) associated with the battle survives in a field immediately west of the road bridge over the railway, on the outskirts of Cuilcrain village and there are some banks and ditches to the rear (north) of the ravelin, behind the village hall, which may represent further defensive works associated with the battlefield. Although the landscape has changed since the time of the battle, key characteristics of the terrain at the time of the battle can normally still be identified, enabling events to be more fully understood and interpreted in their landscape context.</p>		Surroundings make a strong contribution to the understanding of the battlefield.		<p>indicates that there would be limited visibility of the proposed towers from the battlefield site; visibility being restricted to the south western edge of the protected area.</p> <p>The presence of the Proposed Development within the wider landscape surrounding the battlefield would not detract from an ability to appreciate or understand the battlefield site.</p> <p>At around 8 km away any proposed increase in the tower heights would be barely distinguishable within the wider landscape and would result in a change that is not materially different to that of the Standard Height Towers.</p>	would not affect the setting of the asset.
MHG10052	Puill Fhraoich Township	Non Designated Site of Regional Importance	<p>Character (Field Survey):</p> <p>The township comprises at least nine buildings, five enclosures and a number of large clearance heaps some of which may overlie the footings of other buildings. The remains of an extremely well-preserved corn-drying barn and kiln were identified at the southern edge of the township; the kiln survives to 1.5 m high with the flue, bowl and in-situ floor remains surviving. The township remains are present either side of a track running to Loch Laro.</p> <p>Setting:</p> <p>The well preserved remains of this township are located in an area of open heather moorland on the lower south-facing slopes of Cnoc Garb-airigh. The township remains are clearly visible in the moorland landscape and have a high aesthetic and experiential appeal. Views out from the assets are concentrated to the south overlooking the Allt Loch Laro burn and surrounding open moorland, and along the Loch Laro valley, to the west</p>	Medium	High Stands in relatively unmodified moorland.	High	<p>Figure 7.9 & Figure 7.16: CH Viewpoint 6</p> <p>Medium</p> <p>The character of the landscape within which the settlement remains are located would be discernibly altered by the presence of the Proposed Development; particularly with the presence of proposed towers immediately next to the township remains.</p> <p>The proposed towers (particularly T13) would be visible in key views from the township along the Loch Laro valley towards Loch Laro itself and when approaching the township from the east.</p> <p>When looking across from the southern side of Loch Laro valley to the township, the proposed towers would be seen together with the township remains; the towers standing adjacent to the remains and the overhead line cables crossing</p>	Moderate The proximity of the Proposed Development would result in a discernible change to the surroundings of the monument, such that its baseline is

Asset No	Asset Name	Heritage Status	Character & Setting of Asset	Sensitivity of Asset	Contribution of Setting to Understanding and Appreciation of Asset	Sensitivity of Setting	Magnitude of Impact	Significance of Impact
			and east, with panoramic views overlooking Loch Laro to the west. The township remains are visible from a farm track that runs parallel with the northern side of the Allt Loch Laro, and passes through the lower remains of the township, and from the opposite side of the valley where the township is clearly visible in its moorland setting. The setting of the townships is characterised by the open moorland in which it stands and the valley out over which views extend. An 132 kV steel lattice tower overhead line (Loch Shin to Loch Buidhe OHL) crosses moorland on the opposite side of the valley to the townships, passing on their southern side, and at nearest being c.700 m away.				the asset. However, given the permeable nature of the Proposed Development, the surroundings of the township would still be legible and it would remain possible to appreciate the setting of the asset. A comparative wireline (Figure 7.16) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. The position of the proposed towers would not change and although the increased tower heights would result in slightly larger towers being visible either side of the township remains, the change in appearance would be minimal and would not result in a change that would be materially different to that of the Standard Height Towers. See Chapter 7, Section 7.82: Operational Effects for detailed assessment.	partly, and materially, altered.
MHG10057	Cnoc Garbh-Airigh, Township	Non Designated Site of Regional Importance	<p>Character:</p> <p>The township comprises the remains of at least four buildings, a series of large clearance heaps and at least four enclosures. The extent of the township is generally defined by the remains of a turf and stone bank that surrounds and encloses the main elements of the township; although some small features associated with the township lie outside the enclosure, including two small building, possible clearance cairns and fragments of stone and turf banks. South of the township enclosure (south of a track running to Loch Laro). Both building walls and enclosure walls survive 0.5 m to 1 m high. A number of large clearance heaps were noted within the main township enclosure, some of these were rectangular in plan and potentially overlie the remains of additional buildings.</p> <p>Setting:</p> <p>The well preserved remains of this township are located in an area of open heather moorland on the lower south-facing slopes of Cnoc Garb-airigh. The township remains are clearly visible in the moorland landscape and have a high aesthetic and experiential appeal. Views out from the assets are concentrated to the south overlooking the Allt Loch Laro burn and surrounding open moorland, and along the Loch Laro valley, to the west and east, with panoramic views overlooking Loch Laro to the west. The township remains are visible from a farm track that runs parallel with the northern side of the Allt Loch Laro, and passes through the lower remains of the township, and from the opposite side of the valley where the township is clearly visible in its moorland setting. The setting of the townships is characterised by the open moorland in which it stands and the valley out over which views extend. An steel lattice tower overhead line (Loch Shin to Loch Buidhe OHL) crosses moorland on the opposite side of the valley to the townships, passing on their southern side, and at nearest being c.500 m away.</p>	Medium	High stands in relatively unmodified moorland.	High	<p>Figure 7.10 & Figure 7.16: CH Viewpoint 7</p> <p>Medium</p> <p>The character of the landscape within which the settlement remains are located would be discernibly altered by the presence of the Proposed Development; particularly with the presence of proposed towers immediately next to the township remains.</p> <p>The proposed towers (particularly T15) would be visible in key views out from the township along the Loch Laro valley towards Loch Laro and when approaching the township from the east.</p> <p>When looking across from the southern side of Loch Laro valley to the township, the proposed towers would be seen together with the township remains, the towers standing adjacent to the remains and the overhead line cables crossing the asset.</p> <p>However, given the permeable nature of the Proposed Development, the township surroundings would still be legible and it would remain possible to appreciate the setting of the asset.</p> <p>A comparative wireline (Figure 7.16) shows the predicted visibility of the Proposed Development if the Maximum Tower Height (up to 6 m) were to be utilised. The position of the proposed towers would not change and although the increased tower heights would result in slightly larger towers being visible either side of the township remains, the change in appearance would be minimal and would not result in a change that would be materially different to that of the Standard Height Towers. See Chapter 7, Section 7.82: Operational Effects for detailed assessment.</p>	Moderate The proximity of the Proposed Development would result in a discernible change to the surroundings of the monument such that its baseline is partly and materially altered.

TECHNICAL APPENDIX 7.5: WRITTEN SCHEME OF INVESTIGATION

7.1 Introduction

Scottish Hydro Electric Transmission Plc (SHE Transmission) is to construct and operate a new double circuit 132 kV overhead line between a proposed substation at Dalchork (Lairg) and a recently constructed substation at Loch Buidhe. The aim of this project is to enable renewable energy to connect to the transmission network. On completion of the new line, the existing single circuit 132 kV from Lairg grid supply point to Shin substation will be decommissioned and removed.

This Written Scheme of Investigation (WSI) has been prepared by CFA Archaeology Ltd for SHE Transmission and is designed to meet the requirements of The Highland Council Historic Environment Team (THCHET)¹. It sets out the programme of archaeological works required to mitigate the effects of construction at specific tower locations.

The works comprise:

- construction of c.16 km of double circuit 132 kV OHL supported on 61 lattice steel towers between Tower LL01 (Grid Reference NH 6483 9809) at a 132 kV Sealing End Compound (SEC) west of Loch Buidhe Substation and Tower LL61 (Grid Reference NH 5829 0944) at the proposed 132 kV Dalchork Substation;
- construction of c.1 km of double circuit 132 kV OHL supported on five lattice steel towers between Tower CS80R (Grid Reference NH 5739 1005) of the existing Cassley to Shin 132 kV OHL and Tower CS80D (Grid Reference NH 5808 09669) at the proposed Dalchork Substation;
- construction of a temporary single circuit 132 kV OHL diversion between Tower CS79 (Grid Reference NH 7128 1025) and Tower CS81 (Grid Reference NH 5735 0977) of the existing Cassley to Shin 132 kV OHL, supporting by two temporary masts; and
- ancillary development including construction and operation of the SEC beneath Tower LL01, construction of access tracks and bellmouth junctions, construction of underground cable between Tower LL01 and Loch Buidhe substation, installation of underground cables to replace existing distribution (11 and 33kV) OHLs which presently cross the route of the Proposed Development at three locations, establishments of construction compounds, lay-down areas, and other associated infrastructure features.

A detailed EIA Report (*Lairg to Loch Buidhe 132kV Overhead Line Reinforcement EIA Report: Volume 2*) has been produced for this program of works. Details relating to Cultural Heritage and Archaeology are contained within *Chapter 7: Cultural Heritage and Archaeology*.

The archaeological work carried out for the EIA consisted of a detailed desk-based assessment followed by a reconnaissance field survey. The initial field survey was carried out between 30th January and 5th February 2017, with further work carried out between 29th January and 2nd February 2018 following the refinement of the alignment to take into consideration development constraints.

Site numbering in this WSI follows the numbering in the EIA (Recorded Archaeological Sites 1-87). Following the refinement of the alignment of the route, three sites (10, 11 and 56) were found to fall outwith the study area. These sites are marked as Void in the attached gazetteer (full site gazetteer located in Technical Appendix 7.2: Cultural Heritage Constraints).

The locations of the access routes and the known archaeological sites are presented on Figures 7.1a-d of the EIA and site-specific mitigation proposals are described in Table 7.1 below.

7.2 Objectives

The objectives are to:

¹ The Highland Council (2012) The Highland Council Standards for Archaeological Work (March 2012), Inverness.

- Undertake targeted field survey to record the baseline condition of specific sites and assess their proximity to construction activities, in order to establish whether any further mitigation is required;
- Ensure the preservation of sites in close proximity to construction activities through their avoidance/demarcation for the duration of all works;
- Carry out watching briefs during ground breaking works, in order to identify and record any archaeological remains directly affected by construction activities;
- Carry out any additional mitigation that is identified as being required as a result of the above listed works; and
- Report on the results.

7.3 Methods Statement

7.3.1 General

Mitigation relating to specific archaeological sites is listed in Table 1.

Table 7.1: Proposed Mitigation			
Site no.	Description	Tower No.	Anticipated Impact and recommended Mitigation
Site Visit/Field Survey			
1	An T-ron, Field system, Hut-circle(s), Cairn-field	Proposed tower T60 located within cairn-field. Site crossed by proposed new temporary access track between T59 and T60.	Pre-construction enhanced GPS survey of cairn-field.
4	Cairn-field	Proposed tower T57 located within cairn-field. Crossed by proposed new temporary access track between towers T58 and T56.	Pre-construction enhanced GPS survey of cairn-field.
6	Cairn-field	Crossed by proposed new temporary access track between towers T55 and T56. Working area for T56 clips eastern edge of cairn-field.	Pre-construction enhanced GPS survey of cairn-field.
13	Cairn-field	Crossed by proposed new permanent access track between T50 and T49.	Pre-construction enhanced GPS survey of cairn-field.
16	Baddhu, Field system, Hut-circle, Cairnfield	Crossed by proposed new temporary access track between T50 and T48. Proposed tower T49 located within cairn-field.	Pre-construction enhanced GPS survey of cairn-field.
18	Baddhu, Cairn(s), Cairnfield	Crossed by proposed new temporary access track between T49 and T47. Proposed tower T48 located within cairn-field.	Pre-construction enhanced GPS survey of cairn-field.
21	Cairn-field	Crossed by proposed new temporary access track between T47 and T46.	Pre-construction enhanced GPS survey of cairn-field.

Table 7.1: Proposed Mitigation

		Proposed working area for T47 clips cairn-field.	
25	Cairn-field	Crossed by proposed new temporary access track between T44 and T43.	Pre-construction enhanced GPS survey of cairn-field.
34	Hut-circles, Cairn-field	Cairn-field crossed by proposed new temporary access track between T41 and T39.	Pre-construction enhanced GPS survey of cairn-field.
46	Cairn-field	Crossed by existing access track that requires upgrading.	Pre-construction enhanced GPS survey of cairn-field.
59	Achinduich, Hut-circle, Field-system, Cairn-field	Extent of site crossed by existing access track that requires upgrading.	Pre-construction enhanced GPS survey of cairn-field.
77	Puill Fhraoich, Township, Corn drying kiln	Proposed new temporary access track to T13 within extent of township. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T13.	Pre-construction enhanced GPS survey of township.
80	Cnoc Carbh-Airgh, Township	In close proximity to proposed new temporary access tracks to T11 and T10. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T10.	Pre-construction enhanced GPS survey of township.
Demarcation			
1	An T-ron, Field system, Hut-circle(s), Cairn-field	Proposed tower T60 located within cairn-field. Site crossed by proposed new temporary access track between T59 and T60.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
4	Cairn-field	Proposed tower T57 located within cairn-field. Crossed by proposed new temporary access track between towers T58 and T56.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
6	Cairn-field	Crossed by proposed new temporary access track between towers T55 and T56. Working area for T56 clips eastern edge of cairn-field.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
12	Clearance cairns	Clearance cairns in close proximity to proposed new permanent access track between T50 and T49.	Mark-off upstanding remains during works.
13	Cairn-field	Crossed by proposed new	Mark-off upstanding remains during

		permanent access track between T50 and T49.	works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
15	Baddhu, Enclosure(s)	In close proximity to new permanent access track between T50 and T49.	Mark-off for avoidance.
16	Baddhu, Field system, Hut-circle, Cairnfield	Crossed by proposed new temporary access track between T50 and T48. Proposed tower T49 located within cairn-field.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
18	Baddhu, Cairn(s), Cairn-field	Crossed by proposed new temporary access track between T49 and T47. Proposed tower T48 located within cairn-field.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
21	Cairn-field	Crossed by proposed new temporary access track between T47 and T46. Proposed working area for T47 clips cairn-field.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field.
22	Clearance-cairns	Within 50 m of proposed tower T46.	Mark-off upstanding remains during works.
24	Clearance-cairn (possible)	In close proximity to proposed new temporary access track between T44 and T43.	Moderate (significant) residual impact if asset cannot be avoided. Mark-off upstanding remains during works.
25	Cairn-field	Crossed by proposed new temporary access track between T44 and T43.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field remains.
30	Riemarstaig, Farmstead, Pillbox	Remains of farmstead (30b-30c) within 50m of proposed T42.	Mark-off upstanding remains during works.
34	Hut-circles, Cairn-field	Cairn-field crossed by proposed new temporary access track between T41 and T39.	Mark-off upstanding remains during works. A working corridor would be defined for the route of the proposed access track, where it crosses the cairn-field remains.
35	Clearance-cairn (possible)	In close proximity to working area for proposed T39.	Mark-off upstanding remains during works.
38	Clearance-cairn (possible)	In close proximity to existing access track that requires upgrading.	Mark-off upstanding remains during works.

Table 7.1: Proposed Mitigation			
46	Cairn-field	Crossed by existing access track that requires upgrading.	Mark-off upstanding remains during works.
47	Clearance-cairns (possible)	Individual cairns in close proximity to existing access track that requires upgrading.	Mark-off clearance cairns and avoid where possible.
49	Clearance-cairns (possible)	Individual cairns in close proximity to existing access track that requires upgrading.	Mark-off clearance cairns and avoid where possible.
51	Clearance-cairn (possible)	Within 50m of proposed tower T29.	Mark-off cairn during works.
52	Ramascaig, Enclosure, Hut-circle (possible)	Crossed by proposed new permanent access track between T24 and T23.	Mark-off upstanding remains during construction.
57	Achinduich, Enclosure, Field	In close proximity to existing access track that requires upgrading.	Mark-off during works.
59	Achinduich, Hut-circle, Field-system, Cairn-field	Extent of site crossed by existing access track that requires upgrading.	Mark-off upstanding remains during works.
77	Puill Fhraoich, Township, Corn drying kiln	Proposed new temporary access track to T13 within extent of township. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T13.	Mark-off upstanding remains during works.
78	Clearance-cairns (possible)	Within 50 m of proposed tower T12.	Mark-off upstanding remains during works.
80	Cnoc Carbh-Airgh, Township	In close proximity to proposed new temporary access tracks to T11 and T10. Crossed by existing track that requires upgrading. Within 50 m of proposed tower T10.	Mark-off upstanding remains during works.
87	Torbreck blackhouse	In close proximity to proposed underground cable section.	Mark-off remains during works.
Watching Brief			
1	An T-ron, Field system, Hut-circle(s), cairn-field	Proposed tower T60 located within cairn-field. Site crossed by proposed new temporary access track between T59 and T60.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
4	Cairn-field	Proposed tower T57 located within cairn-field. Crossed by proposed new temporary access track between towers T58 and T56.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.

Asset ID	Asset Description	Proposed Mitigation	Archaeological Mitigation
6	Cairn-field	Crossed by proposed new temporary access track between towers T55 and T56. Working area for T56 clips eastern edge of cairn-field.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
12	Clearance cairns	Clearance cairns in close proximity to proposed new permanent access track between T50 and T49.	Archaeological watching brief to be carried out during any ground works where the works pass this asset.
13	Cairn-field	Crossed by proposed new permanent access track between T50 and T49.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
16	Baddhu, Field system, Hut-circle, Cairnfield	Crossed by proposed new temporary access track between T50 and T48. Proposed tower T49 located within cairnfield.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
18	Baddhu, Cairn(s), Cairnfield	Crossed by proposed new temporary access track between T49 and T47. Proposed tower T48 located within cairn-field.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
21	Cairn-field	Crossed by proposed new temporary access track between T47 and T46. Proposed working area for T47 clips cairn-field	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
22	Clearance-cairns	Within 50m of proposed tower T46.	Archaeological watching brief to be carried out during any ground works where the works pass this asset.
25	Cairn-field	Crossed by proposed new temporary access track between T44 and T43.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
29	Enclosure	Crossed by proposed new permanent access track between towers T43 and T42.	Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure wall – to recover any dating evidence for its construction.
32	Dyke (or bank)	Crossed by proposed temporary access track between T42 and T40. Within 50 m of proposed tower T41.	Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure wall – to recover any dating evidence for its construction.
34	Hut-circles, Cairn-field	Cairn-field crossed by proposed new temporary access track between T41 and T39.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.

Asset ID	Asset Name	Asset Description	Mitigation
45c	Farmstead.	No upstanding remains of building visible. Location of former building (45c) is crossed by the existing track that would require upgrading.	Archaeological watching brief to be carried out during any ground-breaking works in the vicinity of building (45c).
46	Cairn-field	Crossed by existing access track that requires upgrading.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
53	Allt Ramascaig Beag, Farmstead, Field System	Large enclosure associated with farmstead would be crossed by proposed new permanent access track between T24 and T22.	Watching brief to be carried out during ground breaking required during the construction of the access track where it crosses the enclosure bank – to recover any dating evidence for its construction.
59	Achinduich, Hut-circle, Field-system, Cairn-field	Extent of site crossed by existing access track that requires upgrading.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
77	Puill Fhraoich, Township, Corn drying kiln	Proposed new temporary access track to T13 within extent of township. Crossed by existing track that requires upgrading. Within 50m of proposed tower T13.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.
80	Cnoc Carbh-Airgh, Township	In close proximity to proposed new temporary access tracks to T11 and T10. Crossed by existing track that requires upgrading. Within 50m of proposed tower T10.	Archaeological watching brief to be carried out during any ground works where the works pass through the extent of this asset.

7.3.2 Pre-construction Enhanced GPS Survey

Detailed survey is required in relation to ten cairnfields (Sites 1, 4, 6, 13, 16, 18, 21, 25, 34, 46), a hut-circle and cairnfield (Site 59) and two townships (Sites 77 and 80). This will take the form of an enhanced GPS earthwork survey.

The purpose of this survey is to record the locations of the individual components of these sites to a level sufficient to inform further mitigation proposals and/or micro-siting and demarcation as appropriate.

A walkover survey will identify the extent of upstanding remains of cultural heritage sites. A written and graphic account of the surface remains present will be made. All individual features will be described, photographed and sketched, and will be provided with an OS grid reference and mapped with GPS.

A written descriptive and interpretative account of each feature, accompanied by hand drawn sketch plans, will be made on pro forma recording sheets.

Photography will be undertaken using a digital camera with a minimum resolution of ten megapixels and will record general location plus detailed coverage of identified features. All photographs will have a suitable scale visible. All photographs will be listed in a full photo register (describing content, orientation and date).

The survey will be tied in with the Ordnance Survey National Grid and Ordnance datum using a Trimble RTK GPS with survey-grade sub-centimetre accuracy.

Appropriate mitigation proposals will be brought forward following the surveys.

7.3.3 Pre-Construction Micrositing of Tower Positions and Access Track Routes

The potential requirement for micrositing has been identified in relation to Sites 1, 4, 6, 12, 13, 15, 16, 18, 21, 22, 24, 25, 30, 34, 35, 38, 45, 46, 51, 52, 57, 59, 77, 78 and 80.

Final tower positions and access track routes will be subject to micrositing where possible within their respective LODs in order to avoid direct impacts upon sites or elements of sites.

Pre-construction visits, in conjunction with the Engineer, will be undertaken of the proposed routes to allow the identification of individual elements of these sites and provide advice regarding micro-routing of the access.

The sites will be located by GPS and a photographic record will be made of the surviving remains. All photographs will contain a metric scale.

Where disturbance to any elements of these sites is unavoidable, further mitigation will need to be agreed in advance with THCHET and may include trial trenching, excavation or watching briefs.

7.3.4 Preservation in Situ

Sites to be demarcated are listed in Table 1 and will likely include Sites 1, 4, 6, 12, 13, 15, 16, 18, 21, 22, 24, 25, 30, 34, 35, 38, 45, 46, 47, 49, 51, 52, 57, 59, 77, 78 and 80, or individual elements of those sites. The specific requirements for demarcation will be finalised following the pre-construction surveys and micro-siting visits.

Sites will be fenced off with a visible barrier. Where possible this demarcated area will include a minimum 10m buffer zone around the site. It is acknowledged that in some circumstances a 10m buffer will not be possible; where this is the case it will be as large as is possible within the confines of the development. If a buffer is less than 10m, a watching brief will be maintained during any ground-breaking works in the vicinity of the site.

It is the responsibility of the contractor to provide durable, highly visible barrier fencing and fencing pins/wooden stakes. Fencing will be undertaken by the construction contractor under archaeological supervision.

The details of the locations of the sites to be fenced off will be supplied to the Main Contractor, and their importance explained to all site staff.

No development is intended within demarcated areas but if a site cannot be preserved in situ then a programme of mitigation will need to be agreed in advance with THCHET.

Any fencing will remain in place for the duration of all construction works.

7.3.5 Watching Brief

A watching brief will be undertaken during all ground-breaking works within undisturbed ground, i.e. new tower foundations, compounds or laydown areas, and excavated access tracks. Watching briefs are excluded in afforested land, and any excavations within the public carriageway or immediate verges of the public roads are also excluded. Floating roads where no excavation work is undertaken, or roads made from temporary laid panels do not require a watching brief.

Sites to be specifically targeted through the watching brief are listed in Table 1 and will include Site 1, 4, 6, 12, 13, 16, 18, 21, 22, 25, 29, 32, 34, 45, 46, 53, 59, 77 and 80. The areas around Lairg and Allt Ramascaig Mor

are particularly archaeologically sensitive and in the areas between Towers 61-33 and Towers 26-22 a watching brief will be maintained on all ground breaking, regardless of proximity to known archaeological sites.

Methodology

The Chartered Institute for Archaeologists have produced a Standard for archaeological watching briefs. This states that watching briefs are intended to allow the preservation by record of archaeological deposits that could not be established in advance of development, and to provide an opportunity for the watching archaeologist to signal to all interested parties if an archaeological find is made before its destruction.

We provide the following code of practice to allow the watching brief to be conducted as efficiently as possible.

1. To enable proper monitoring, the client will ensure that the Archaeological Contractor/Archaeological Clerk of Works (ACoW) is timeously informed of the work programme.
2. The client will appoint a representative to liaise with the Archaeological Contractor/ ACoW. All communications will be directed through this individual.
3. The archaeological work shall be open to monitoring by THCHET.
4. The excavation will be conducted as follows:
 - Vehicles removing spoil will not track over the exposed surface, but, work away from it. This will leave a clean surface and facilitate archaeological inspection.
 - Topsoil or spoil will be removed completely unless formation levels do not require this. If patches of spoil remain, they may mask archaeological features, and will require to be removed manually by archaeological personnel.
 - Machinery conducting the spoil removal will use smooth edged blades. Toothed blades disturb the exposed surface, making the identification of archaeological features more difficult. Bulldozers are not acceptable.
5. If, during the course of work, any features of potential archaeological interest are revealed, the archaeologist will record them.
6. In some cases, the archaeologist may have to delay the progress of work for a limited period within a defined area. The archaeologist will be authorised to stop site preparation work in the defined area to conduct any recording which is required.
7. If features, groups of features, or artefacts are identified which appear to be extensive or archaeologically significant and require more substantial delays, the client, the contractor and THCHET will be informed immediately, and no further ground disturbance will occur (in the defined area) until a strategy has been agreed for avoidance if possible, or further excavation and recording if not. If necessary a project design will have to be agreed in order to achieve the excavation, recording, post-excavation analysis and publication of such remains, in line with the advice in SPP, PAN2/2011 and SHEP.

7.4 Products

The Products will comprise:

- Illustrated data structure reports;
- A summary report for inclusion in Discovery and Excavation in Scotland;
- An OASIS Scotland entry; and
- Post-excavation Research Design (PERD) for post-excavation and publication, if appropriate.

The reports will be produced and distributed according to the requirements of THCHET. A digital copy of the full reports with plans and DES entry will be supplied to THCHET as a PDF within 4 weeks of the completion of fieldwork. The inclusion of photographs, plans and illustrations will fall within the current guidelines for archival standards set by the Archaeology Data Service and HES.

A PERD, if required, will be submitted within 3 months of agreement to the DSR, and any final publication reporting will be completed within a year of THCHET's agreement to the PERD.

A selection of digital photographs will be produced and presented on CD in archive stable format, accompanied by a list referencing the file name of the photograph and the detail of the photograph, to be supplied as an Excel spreadsheet. A georeferenced digital boundary file will be supplied as an ESRI shapefile or AutoCad dxf file.

The project archive, comprising all record sheets, plans and reports, will be deposited with the National Record of the Historic Environment within six months of completion of fieldwork and any relevant post-excavation analyses. Finds will be subject to the Scots law of Treasure Trove and Bona Vacantia, and, will be reported to the Crown Agent for disposal. Appropriate conservation of finds will be conducted before disposal.

7.5 Health and Safety

All staff will be inducted into the Archaeological Contractor's Health and Safety Policy. All staff will also adhere to the Principal Contractor's site Safety Rules and procedures. All work for the project will be subject to Risk Assessment procedures, a copy of which will be provided prior to going on site.

7.6 Monitoring

Close contact will be maintained with the client, THCHET and other relevant organisations for the purposes of managing the project. The work will be open to monitoring by THCHET.

Important or unexpected discoveries will be communicated to the client and THCHET. Contact numbers for the site will be forwarded in advance of the work starting.

Appendix 1

Guidance in Relation to Archaeology

Lairg to Loch Buidhe 132kV Overhead Line Reinforcement

There is the possibility that features, and objects of archaeological importance may be discovered during the works.

An archaeologist will not be present on site at all times. When an archaeologist is not there, there is still a duty upon the developer to ensure that archaeological sites and items are not destroyed or damaged; these unexpected discoveries can only be reported through the vigilance of construction staff working on site.

Archaeological remains and artefacts are protected by Scottish, UK and European Law and damage to such remains may put the developer in breach of their planning consent and could result in prosecution of the individual causing damage. The following guidance should be followed carefully by all contractors on the Site. Failure to follow it will be considered as misconduct.

Report any discoveries to the Site Manager who will contact the Archaeological Contractor/ Archaeological Clerk of Works (ACoW).

How do I recognise what is significant?

Without training you can't be expected to know what is and isn't important. But there are some questions you can ask yourself:

- Does it look artificial?
- If it is an object, does it look man-made?
- Does it look out of place in this environment?

What sort of things might I find?

Some examples of the kinds of features or items that you may encounter are:

- Stone built cairns.
- Field walls, often of turf and stone or of stone alone.
- Trackways or old roads.
- Ruins of buildings.
- Stone-built sheep pens or shelters.
- Items such as simple stone tools, flint, wooden tools, pottery or metalwork.
- Pits or ditches showing up as dark circles and broad lines in the subsoil.

What do I do if I find something?

In the event of the discovery of an archaeological feature or object stop work at that location immediately and notify the Site Manager. They will notify the Archaeological Contractor. The Archaeological Contractor will then decide whether work may proceed or whether it is necessary for a recording exercise to be conducted. Work may need to be stopped at that location until the find is investigated by the Archaeological Contractor.

If you find an object which you think is archaeologically important, try not to move it (unless it is likely to get lost) as the removal of an object from its discovery position removes it from its context, making an interpretation of its meaning and significance difficult.

Where an archaeological find is accidentally excavated (or if has to be moved) it is important that the Archaeological Contractor is informed as soon as possible so that the find can be investigated. Digital photographs of the find and its location should be e-mailed to the contractor as soon as possible for an initial assessment, and that work in the area should cease pending further advice.

Any object accidentally excavated recovered from the ground should be stored in a plastic bag or Tupperware box until it can be collected / examined. Do not wrap it in old newspaper or paper towels, as this can be harmful to the object. If the object is wood or leather and is very wet, it is a good idea to try and keep it in the same state and not let it get dried out. Do not try to clean any objects.

All newly discovered ancient objects in Scotland, whether of precious metal or not, belong to the Crown, not the finder, and must be reported and handed to the archaeologist.

If you find bones that you think might be human, it is very important not to disturb them further than has already happened and make sure the Site Manager is informed immediately. It is the law that the police are informed in these cases as soon as possible; this should be done by the Archaeological Contractor.

Examples of common archaeological features and objects that may be found are shown overleaf in Plates 7.1 to 7.10).

Examples of Features which may be Encountered and must be Reported



Plate 7.1. Turf and Stone Field Bank



Plate 7.2. Old Field Boundary / Wall under Peat



Plate 7.3. Partially Overgrown Stone Clearance Cairn



Plate 7.4. Stone Cairn Exposed



Plate 7.5. Remains of a Shieling Hut



Plate 7.6. Remains of a Shieling Hut/Building Exposed under Peat



Plate 7. 7. A Pit Visible in the Subsoil



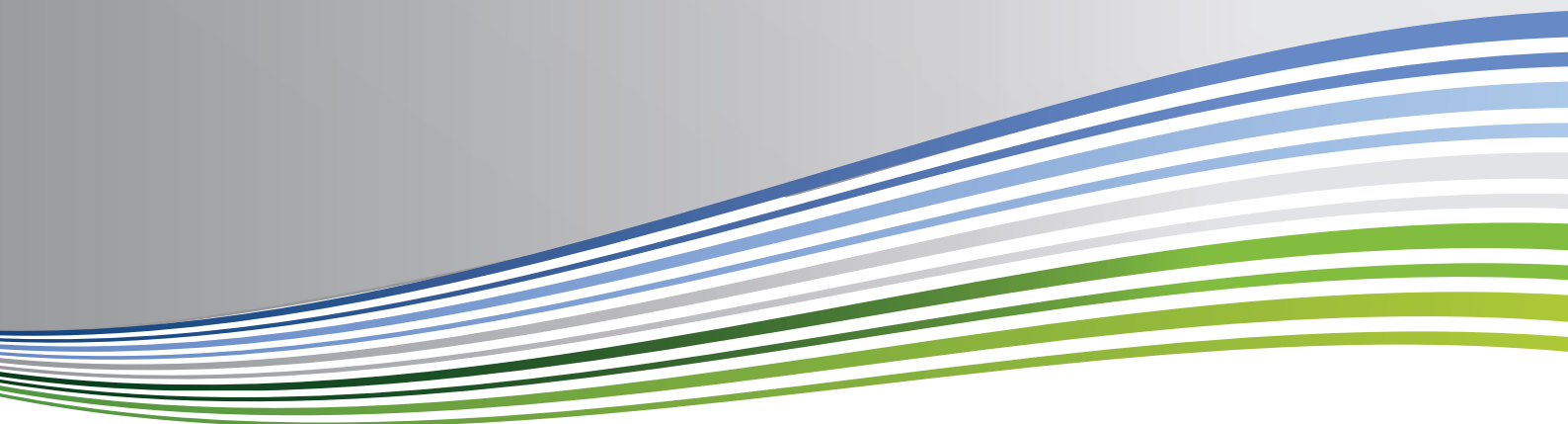
Plate 7. 8. A Linear Ditch Visible in the Subsoil



Plate 7. 9. Pottery Sherds



Plate 7. 10. Flint Objects



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