

Landscape and Visual Impact Assessment.

Land at Newfields Farm, Rownall Road, Wetley Rocks, Stoke-on-Trent

On behalf of Newfields BESS Limited.

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1. Introduction.

Terms of Reference

- 1.1. Pegasus Group has been instructed by Newfields BESS Limited (the Applicant), to undertake a Landscape and Visual Impact Assessment in relation to the Proposed Development on land at Newfields Farm, Rownall Road, in the parish of Cheddleton, Staffordshire (hereafter referred to as 'the Site').
- 1.2. The report appraises the potential landscape and visual effects related to a full application for a proposed a proposed Battery Electricity Storage System (BESS) on this site (referred to as the 'Proposed Development').
- 1.3. This LVIA will consider existing landscape and visual receptors in the study area, these include:
 - Physical landscape resources;
 - Landscape character; and
 - Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.
- 1.4. Principles and good practice for undertaking landscape and visual impact assessment are set out in the Landscape Institute (LI) and the Institute of Environmental Management (IEMA) Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)¹ (GLVIA3) The detailed methodology used is set out in **Appendix A**.
- 1.5. The Site Layout plan for the Proposed Development is included as **Appendix B**.

Background

- 1.6. The Site is a parcel of farmland which lies outside of any landscape designations but within the Stoke-on-Trent Green Belt. The Site extends to approximately 2.48 hectares (ha) and comprises part of a single pasture field surrounded by hedgerows, tree belts and the farmstead of Newfields Farm. The field containing the Site lies immediately adjacent to the existing Cellarhead Substation, approximately 1.2km to the north of Werrington.
- 1.7. The Site lies within the administrative area of Staffordshire Moorlands District Council.
- 1.8. The scope of this LVIA has included early consideration of constraints and opportunities for the Site and its local landscape context. This has been used to inform the current layout and landscape strategy for the proposals which, consequently, incorporate a 'landscape and ecologically led' approach to design and mitigation.

1. Landscape Institute and Institute of Environmental Management and Assessment 2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition

Site Overview

- 1.9. The Site comprises a parcel of farmland outside of any formal designations of specific relevance to landscape and visual matters but is within the Stoke-on-Trent Green Belt.
- 1.10. The Site extends to approximately 2.48 ha and comprises the majority of a single pasture field surrounded by hedgerows, tree belts and the farmstead of Newfields Farm, with the pasture field situated immediately to the south-west of the Cellarhead substation, which is operated by National Grid. The proposed vehicular access would be taken from the existing farm access track link off Rownall Road to the east, via the Newfields Farm stead and entering the main part of the Site from the south.
- 1.11. The immediate context to the Site is a mix of pastoral farmland (with associated farmsteads), and the Cellarhead substation together with its surrounding tree belts.
- 1.12. Additional information and a more detailed description of the physical components, landscape character and visual amenity of the Site and study area are set out in later sections of this LVIA.

2. Approach and Methodology

Overview

- 2.1. The approach and methodology used for this report has been developed using best practice guidance, as set out in the following documents:
- Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition;
 - Natural England (2014) An Approach to Landscape Character Assessment; and
 - Landscape Institute Technical Guidance Note O6/19, Visual Representation of Development Proposals; and
 - Landscape Institute Technical Guidance Note O2/21: Assessing Landscape Value Outside National Designations.
- 2.2. Use has also been made of additional sources of data and information, such as published character assessments, aerial imagery (Google Earth), and Ordnance Survey (OS) base mapping. These are referenced where relevant in the sections of the baseline information.
- 2.3. Supporting plans have also been produced as part of this LVIA, included as **Figures 1 to 8**.

Level of Assessment

- 2.4. Principles and good practice for undertaking landscape and visual impact assessment are set out in the Landscape Institute (LI) and the Institute of Environmental Management (IEMA) Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)² (GLVIA3).
- 2.5. The GLVIA3 acknowledges that landscape and visual impact assessment (LVIA) can be carried out either as a standalone assessment or as part of a broader EIA. GLVIA3 notes that the overall principles and core steps in the process are the same but that there are specific procedures in EIA with which an LVIA that sits within an EIA must comply.
- 2.6. This assessment addresses matters of individual resources, character areas and representative viewpoints. The LVIA also considers the interaction between landscape character and views in relation to physical components of the landscape. The LVIA draws on professional judgement in relation to sensitivity of receptors (both landscape and visual), the nature of impacts and consequential likely effects. This process informs judgements on a landscape mitigation strategy which will avoid, reduce, or remedy adverse impacts.
- 2.7. Landscape features and elements provide the physical environment for flora and fauna and the associated importance of biodiversity assets. This LVIA does not consider value, susceptibility or importance regarding ecology and biodiversity, nor does it consider impacts from an ecological stance.

2. Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment 3rd Edition (April, 2013)

- 2.8. Heritage assets such as Scheduled Monuments, Listed Buildings and Conservation Areas all contribute to the overall present-day landscape character, context and setting of an area. These aspects have been given consideration in the LVIA in terms of physical landscape resources (for example trees and hedgerows) and landscape character. However, this LVIA does not address the historic significance, importance or potential impacts on heritage assets and designations; these assets are assessed in the context of landscape and visual matters only.

Night-Time Impacts/Lighting Impacts

- 2.9. At paragraph 6.12, GLVIA3 notes that for some types of development, the visual effects of lighting may be an issue, and in such cases, it may be important to carry out night-time 'darkness' surveys of the existing conditions in order to address the potential effects of lighting.
- 2.10. Lighting within the Proposed Development would be limited to emergency lighting, and for the most part the Proposed Development would not be externally lit during the hours of darkness. Further consideration of potential night-time lighting effects have therefore not been considered necessary.

Collating Baseline Information

- 2.11. To capture a comprehensive description of the baseline position for landscape and visual receptors, information has been collated using a process of desk study and field survey work.
- 2.12. The desk study includes reference to published landscape character studies and other published policy documents relevant to landscape and visual matters, such as OS 1:25,000 base mapping and aerial imagery.
- 2.13. Field survey work was completed during April 2023. A series of representative photographs were taken with a full-frame digital SLR camera with a 50mm fixed focal length lens, set at approximately 1.7 metres Above Ground Level (AGL). These are presented as a series of viewpoints and have been used to inform both the landscape and, separately, visual appraisal work (included as **Figure 6, Viewpoint Photographs 1 to 16**).
- 2.14. The field survey and viewpoint photography were undertaken in April when the majority of deciduous vegetation had not yet come into full leaf. Consequently, the viewpoints effectively illustrate a near worst-case scenario in terms of potential visibility of the Site and Proposed Development. Where appropriate, consideration has therefore also been given to the potential for reduced visibility during the summer months when deciduous vegetation is in full leaf.

Consideration of Effects

- 2.15. Having established the relevant baseline position, the LVIA process then considers landscape receptors and visual receptors, assesses their sensitivity specifically in response to the nature of the Proposed Development, identifies the nature and magnitude of potential impacts, and consequently the likely scale of effect that would arise from the Proposed Development on the identified landscape and visual receptors.

3. Landscape and Visual Baseline

- 3.1. The following section describes the individual components of the physical landscape that are present in the study area. These have been described to establish an understanding of the specific landscape baseline, including individual elements and more distinctive features, which together contribute to landscape character.
- 3.2. In the context of the relevant planning framework, the following section sets out a summary of those policies relevant to landscape and visual matters. In respect of the proposals, the relevant policies will also have potential implications for the landscape mitigation strategy.

European Landscape Framework

- 3.3. The European Landscape Convention (ELC) promotes the protection, management and planning of European landscapes. The ELC was adopted on 20 October 2000 and came into force on 1 March 2004. It defines landscape as:
- 3.4. *"...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors)."*
- 3.5. This definition is important in that it focuses on landscape as a resource in its own right and moves beyond the idea that landscapes are only a matter of aesthetics and visual amenity.

National Planning Policy Framework

- 3.6. The revised National Planning Policy Framework (NPPF) published in December 2023 sets out the Government's planning policies for England, providing a framework within which local and neighbourhood plans are produced and is a material consideration in planning decisions³.
- 3.7. The NPPF sets out three dimensions to achieving sustainable development that include economic, social and environmental considerations. It places an onus on the planning system to perform a role in relation to the environment that 'contributes to the protection and enhancement of our natural, built and historic environment...' going on to note that sustainable solutions should take account of local circumstances and reflect the character of each area. This underpins the strategic guidance set out in the NPPF in relation to landscape and visual matters.
- 3.8. Section 12; 'Achieving well-designed and beautiful places'; aims to ensure that developments are 'visually attractive', are sympathetic to local character (including the surrounding built environment and landscape setting) and establish and maintain a strong sense of place⁴.
- 3.9. Section 12 also makes specific reference to the use of tree planting, which it states, *"make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change"*⁵.

³ Para 2, Department for Levelling up, Housing and Communities,, NPPF (December 2023)

⁴ Para 135, Department for Levelling up, Housing and Communities, NPPF (December 2023)

⁵ Para 136, Department for Levelling up, Housing and Communities, NPPF (December 2023)

- 3.10. Section 15 of the NPPF addresses on 'conserving and enhancing the natural environment' stating that policies and decisions should contribute to this by 'protecting and enhancing valued landscapes (noting that this should be commensurate with a statutory status or identified quality identified in a development plan) and also recognising the 'intrinsic character and beauty of the countryside'⁶.
- 3.11. NPPF notes the importance that designs 'evolve' in response to local issues and to the views of the community⁷.

Planning Practice Guidance

- 3.12. The Planning Practice Guidance (PPG) is a web-based resource prepared by the Department for Communities and Local Government (DCLG). The PPG sets out guidance across various topics and effectively supersedes previous guidance on many aspects of planning; topics are updated as required.
- 3.13. The PPG for the 'Natural Environment' was updated in July 2019 and addresses agricultural land, green infrastructure, biodiversity and landscape.
- 3.14. In relation to green infrastructure (GI) the PPG acknowledges how a 'range of spaces and assets' can provide 'environmental and wider benefits'. The PPG states that GI can include:
- 3.15. *"...parks, playing fields, other areas of open space, woodland, allotments, private gardens, sustainable drainage features, green roofs and walls, street trees and 'blue infrastructure' such as streams, ponds, canals and other water bodies."*
- 3.16. The PPG goes on to recognise how GI can help achieve well designed spaces, and conservation and enhancement of the natural environment. The PPG also recognises the benefit of considering GI 'at the earliest stage of development proposals, as an integral part of development and infrastructure provision, and taking into account existing natural assets'.
- 3.17. In relation to landscape, the PPG reiterates the requirements of the NPPF in terms of 'recognising the intrinsic character and beauty of the countryside'. The PPG states that:
- 3.18. *"Where landscapes have a particular local value, it is important for policies to identify their special characteristics and be supported by proportionate evidence. Policies may set out criteria against which proposals for development affecting these areas will be assessed. Plans can also include policies to avoid adverse impacts on landscapes and to set out necessary mitigation measures, such appropriate design principles and visual screening, where necessary."*
- 3.19. The PPG also notes the relevance of landscape character assessment, landscape sensitivity/capacity assessment and landscape and visual impact assessment. However, whilst recognising these different aspects of landscape analysis, the PPG does not reflect the subtle variations in these and potential overlap between their different uses and requirements.

⁶ Section 15 Para 180, Department for Levelling up, Housing and Communities, NPPF (December 2023)

⁷ Para 137, Department for Levelling up, Housing and Communities, NPPF (December 2023)

- 3.20. This LVIA includes reference to published landscape character assessments which have been prepared at a range of scales and detail. Reference has also been made to the local landscape character by reference to the key characteristics of the Site and its immediate context, including existing, enhanced and potentially new green infrastructure. Therefore, this LVIA responds fully to the requirement of the PPG.

Local Planning Policy and Guidance

- 3.21. The following section sets out the local planning policy background relevant to the Site. The Site is within the administrative area of Staffordshire Moorlands District Council (SMDC). The current local plan is Staffordshire Moorlands Local Plan, adopted in September 2020.
- 3.22. A number of policies are relevant to relevant to landscape and visual matters more generally. Extracts of those policies relevant to the Site and its immediate context in respect of landscape and visual matters are summarised or extracts quoted in the following table.

Summary of Development Plan policies relevant to landscape and visual matters

Policy Ref	Summary of Policy
Policy SS10: Other Rural Areas Strategy	Amongst other criteria, this policy states that with regard to enhancement and conservation of the quality of the countryside, such a requirement would be achieved by: • <i>"Giving priority to the need to protect the quality and character of the area and requiring all development proposals to respect and respond sensitively to the distinctive qualities of the surrounding landscape; ...</i> • <i>Ensuring renewable energy schemes are of an appropriate scale, type and location"</i>
Policy SD2: Renewable/Low-Carbon Energy	This policy relates to the District's future energy demand through renewable or low-carbon energy sources, whereby the Council will support small- and large- scale standalone renewable or low-carbon energy schemes subject to the following considerations, including the degree to which the scale and nature of a proposal impacts on the landscape (having regard to relevant published Landscape Character evidence), and the impact on residential amenity of residents and the historic environment.
Policy DC1: Design Considerations	This policy states that all development should be well designed and reinforce local distinctiveness by positively contributing to and complementing the special character and heritage of the area in line with the Council's Design Guide SPD. In particular, new development should (with regard to design): • respect the Site and its surroundings and promote a positive sense of place and identity through its scale, height, density, layout, siting, landscaping, character and appearance; and • protect the amenity of the area, including creation of healthy active environments and residential amenity.

Policy DC3: Landscape and Settlement Setting	<i>"The Council will protect and, where possible, enhance local landscape and the setting of settlements ... by:</i> <i>1. Resisting development which would lead to prominent intrusion into the countryside or have a significant adverse impact on the character or the setting of a settlement or important views into and out of the settlement as identified in the Landscape and Settlement Character evidence;</i> <i>2. Supporting development which respects and enhances local landscape character and which reinforces and enhances the setting of the settlement as identified in the Landscape and Settlement Character evidence;</i> <i>3. Supporting developments which conserve or enhance the biodiversity qualities of any natural or man-made features within the landscape, such as trees, woodlands, hedgerows, walls, watercourses or ponds;</i> <i>4. Supporting opportunities to positively manage the landscape and use sustainable building techniques and materials which are sympathetic to the landscape"</i>
Policy NE2: Trees, Woodland and Hedgerows	This policy states that existing trees, woodlands and hedgerows will be protected, particularly, ancient woodland, veteran trees and ancient or species-rich hedgerows from loss or deterioration, by: • Requiring that existing woodlands, healthy trees and hedgerows are retained and integrated within a proposed development unless the need for, and benefits of, the development clearly outweigh their loss; • Requiring new developments to provide tree cover through tree retention and new planting, including on-site replacement (where possible) of any removed trees in sufficient number to replace or increase the canopy cover. Landscaping schemes will also be required to mitigate against negative landscape impact and complement the design of new development and make provision for future maintenance. • Resisting development that would directly or indirectly damage existing ancient woodland, veteran trees and ancient or species-rich hedgerows.

Landscape Related Designations

- 3.23. The Site is not located within any formal designations of specific relevance to landscape and visual matter (refer to **Figure 2, Site Context and Planning Designations**).
- 3.24. Within the vicinity of the Site there are a several other environmental designations which have some relevance to landscape and visual matters. These include:

- Access Land: at Wetley Moor (approx. 875m to the south-west of the Site). Much of which is designated under multiple Sites of Special Scientific Interest (SSSIs);
- Scheduled Monuments: moated site and pond at Moor Hall Farm (approx. 1.7km to the north of the Site);
- Listed buildings: those within 2km of the Site include:
 - Ivy Farmhouse and Rownall Farmhouse (both Grade II), approx. 1.1km to the north;
 - Grade II stables at former Rownall Hall (now demolished), 0.8km to the east;
 - Various Grade II Listed Buildings in Werrington at over 1.5km to the south and within Bagnall Conservation Area over 2km to the north-west.

3.25. Where relevant, these matters are considered in the analysis of constraints and opportunities and the subsequent appraisal.

3.26. The Site lies within the Stoke-on-Trent Green Belt. Although this is not, *per se*, a landscape designation, the 'openness' of the Green Belt is generally considered to be linked to landscape character and is therefore considered in this LVIA. As it is not considered appropriate to assess the openness in terms of its sensitivity, a more qualitative assessment approach has therefore been used, assessing the Site and the Proposed Development against the purposes of the Green Belt. This is presented in a dedicated exercise in Section 8.

Physical Landscape Resource

Topography and Landform

3.27. The Site falls gently from south-east to north-west, with elevations of approx. 230m Above Ordnance Datum (AOD) in the south-east corner and approx. 225m AOD in the north-west.

3.28. The topography of the surrounding landscape is gently undulating, with local high points:

- near Rownall Cottage Farm to the north-north-east (approx. 262m AOD);
- to the north of Cellarhead to the south-east (approx. 255m AOD);
- at Armshead to the south-west (approx. 273m AOD); and
- near Jack Hayes to the west-north-west (approx. 250m AOD).

Hydrology and Water Features

3.29. There are no water features within the Site boundary.

3.30. There is a stream running south to north along the western boundary to the field containing the Site. An ephemeral stream in the north-western corner of the field feeds into this stream which continues north-westwards and feeds into the Stanley Pool north of Bagnall.

3.31. There are numerous other streams, ponds and other waterbodies/water courses within the surrounding landscape.

Land Use

- 3.32. The Site is in permanent pasture, used for grazing livestock.
- 3.33. The majority of the farmland within the surrounding landscape is also pastoral, with some areas of woodland, particularly to the east and south, and to a lesser extent around Bagnall. Wetley Moor Common lies to the south-west of the Site. The Cellarhead substation lies to the immediate north-east of the Site, while the Stanley Pool reservoir, original constructed to supply the Caldon Canal, lies approx. 2.6km to the north-north-west.

Vegetation Patterns

- 3.34. Field boundaries are a mix of fences (post and wire and post and rail) and hedgerows. Hedgerow trees are of variable frequency, in places almost continuous and rarely completely absent. Field sizes are typically small to medium, occasionally larger, with predominantly rectilinear boundaries.
- 3.35. Field trees are rare, and where present typically indicate the alignment of former field boundaries. Analysis of historic mapping indicates some previous field amalgamation. Field trees are present to the south-east of Rownall, possibly indicating former parkland associated with Rownall Hall
- 3.36. Woodland cover is variable within the local landscape. Mature screen belts enclose the Cellarhead substation on three sides, including adjacent to the Site. There are several small woodlands around Bagnall and to the north-east of Rownall, with more extensive areas at Consall Wood (to the east), and to the north of Caverswall and Dilhorne (to the south).

Public Access

- 3.37. In terms of public rights of way (PRoWs), Footpaths Cheddleton 60 and Cheddleton 48 run east-west and north-south along the southern and eastern boundaries, respectively. Cheddleton 60 passes along the southern edge of the field containing the Site and continues west, and Cheddleton 48 follows the eastern boundaries of the field, between the Site and the Cellarhead substation, before crossing into the woodland surrounding the substation before turning north. At the time of the field survey, parts of this Cheddleton 48 were more or less impassable due to overgrown vegetation, suggesting that the route is not regularly used.
- 3.38. There are multiple other PRoWs within the surrounding landscape, the nearest being:
- Bagnall 35
 - Cheddleton 49
 - Cheddleton 47/Bagnall 37
 - Cheddleton 53
 - Cheddleton 58
 - Cheddleton 59
- 3.39. An area of Access Land at Wetley Moor lies circa 850m to the south-west of the Site.

Development and Transport Patterns

- 3.40. The Site lies immediately adjacent to the existing Cellarhead substation, and this represents a dominating feature in the context to the Site. Elsewhere within the surrounding landscape, multiple steel-lattice pylons supporting the high voltage powerlines which connect the substation to the national grid are prominent in many views.
- 3.41. The settlement pattern in the landscape surrounding the Site comprises mainly individual farmstead and residential properties, sometimes grouped into small hamlets. The larger villages of Werrington and Cellarhead lie approximately 1.2km to the south of the Site, and the village of Bagnall lies approximately 2.2km to the north-west. The larger conurbation of Stoke-on-Trent lies to the west of the Site, with the nearest suburbs being approximately 3km from the Site. The Newfields Farmhouse is not occupied (or expected to be occupied in the foreseeable future)
- 3.42. The nearest main road (the A52) is on the southern edge of Werrington and Cellarhead, approximately 1.4km to the south, with the A520 heading north from the A52 to the east of Cellarhead. A network of minor roads connects the various farmsteads, individual residential properties and settlements. There are no railway lines in the vicinity of the Site.

Landscape Character

- 3.43. Reference has been made to published guidance on landscape character for the area. The Site is located in the following landscape character types/areas (LCTs/LCAs) (refer to **Figure 4, Landscape Character**):
- National Character Area (NCA) 64: Potteries and Churnet Valley⁸; and
 - Landscape and Settlement Character Assessment of Staffordshire Moorlands, 2008⁹.
- 3.44. The following sections set out a summary of the characteristics relevant to the Site and its local context.

National Landscape Character

- 3.45. The Site occupying approximately 0.005% of NCA64: 'Potteries and Churnet Valley'. The key characteristics of the NCA are therefore considered to be of only limited relevance to this assessment. Those characteristics which do relate to the Site and its environs include:
- *"Dissected hills and small plateaux, cut by river valleys and steep ravines, contrast with the industrial and densely settled conurbation of the Potteries.*
 - *Sandstones from the Millstone Grit Group and Coal Measures produce prominent, roughly north-south ridges. Softer mudstones with poorly drained and seasonally waterlogged soils and peaty soils form the intervening moorland plateaux, and mudstones and siltstones from the Triassic Mercia Mudstone Group underlie the generally lower-lying ground on the margins of the Needwood Basin.*

⁸ [NCA Profile: 64 Potteries and Churnet Valley - NE509 \(naturalengland.org.uk\)](https://naturalengland.org.uk/nca-profile/64-potteries-and-churnet-valley-ne509)

⁹ [Landscape_and_Settlement_Character_Assessment.pdf \(staffsmoorlands.gov.uk\)](#)

- *The well-wooded character throughout the Churnet Valley contrasts strongly with the urban, sparsely wooded landscapes of the Potteries. Many of the woodlands in the south consist of conifer plantations managed for commercial forestry.*
- *Agriculture is predominantly permanent pasture for grazing and stock rearing with some dairying; flatter areas are used for silage production and some arable cropping in the south, mainly cereals.*
- *... there is heathland on higher ground and significant areas of open mosaic habitat on restored industrial land within urban areas.*
- *There is a contrast between the settlement pattern of valley-bottom villages with scattered farmsteads and hamlets on the valley slopes in the east and the sprawling conurbation of the Potteries in the west.*
- *Major transport infrastructure includes several A roads (A34, A50 and A52) and the Stoke-on-Trent to London railway. The Caldon Canal and Trent and Mersey Canal link the conurbation with the Churnet Valley."*

3.46. Changes that would arise from the Proposed Development are unlikely to result in discernible changes to the character of the NCA. To complete a more detailed appraisal of potential landscape and visual issues, reference has been made to the published landscape character assessment prepared at a finer grain and more local scale.

District Landscape Character

3.47. The Site and the surrounding local landscape lie within the Ancient Plateau Farmlands LCT.

3.48. The wider context also includes the 'Ancient Slope and Valley Farmlands' LCT encompassing land broadly to the north and east within 1km of the Site, and the 'Settled Plateau Farmlands' to the south of Werrington.

3.49. Within the Ancient Slope and Valley Farmlands LCT to the east, is LCT Sub-Area 5a: 'Wetley Rocks', as defined Churnet Valley Landscape Character Assessment, 2011¹⁰ which examines the landscape of the Churnet Valley area at a greater level of detail. However, the ZTV (confirmed by the field survey) indicates that the Proposed Development is unlikely to be discernible in views from these other LCT. Therefore, it is considered unlikely that the Proposed Development would impact upon the (perceived) character of these landscapes. These LCTs are therefore not considered further in this LVIA.

3.50. The Ancient Plateaus Farmlands LCT is also described in the Staffordshire County Landscape Character Assessment *Planning for Landscape Change: Supplementary Planning Guidance to the Staffordshire and Stoke on Trent Structure Plan, 1996 – 2011*, published in 2000. The description provided in the more recent character assessments (identified above) are considered more up-to-date and relevant, and therefore are utilised as the basis of the assessment of impacts upon landscape character.

¹⁰ [Churnet_Valley_Landscape_Character_Assessment_2011.pdf \(staffs Moorlands.gov.uk\)](#)

- 3.51. The key characteristics of Ancient Plateau Farmlands LCT as described within the 'Landscape and Settlement Character Assessment of Staffordshire Moorlands' (2008) are:
- *"Gentle undulating landform with some steep slopes.*
 - *Heathland including wet heath with rushes and rough grasses.*
 - *Drystone walls with remains of unmanaged hedgerows and isolated trees*
 - *Fields often demarcated by fencing.*
 - *Dairy farming and horse grazing.*
 - *Small woodlands, broadleaf and conifer.*
 - *Isolated stone farmhouses and buildings converted to residential dwellings.*
 - *Electricity power lines and substation."*
- 3.52. The Cellarhead substation and associated steel-lattice pylons are specifically noted both as landscape detractors and as a key planning and management issue: *"Power lines and electricity substation are dominant incongruous features within the landscape."*
- 3.53. The landscape is said to be in decline and in need of restoration. *"Urban fringe pressures have had a particularly adverse impact on the landscape quality of this area due to the proliferation of incongruous features and the deteriorating condition of existing landscape features."*
- 3.54. Landscape planning guidelines include:
- *"Planting should be used to screen the conurbation edge and other intrusive and incongruous urban features.*
 - *Where new development is proposed, the edge of the development and public open spaces associated with it should contain appropriate tree and shrub planting to reduce the visual impact of the development and to enable it to be more readily assimilated into the landscape."*
- 3.55. Land management guidelines include:
- *"Ancient/semi-natural broad-leaved woodland: It is highly important to the character and quality of the landscape that degraded ancient/semi-natural broad-leaved woodlands are restored and that new woodlands should be recreated or regenerated.*
 - *Hedgerows: It is highly important that ancient and diverse hedgerows, particularly the hedgerow trees along them, are maintained and managed. Where hedgerows are planted or restored it is important that they should be species rich reflecting local indigenous hedge mixes and that the plants where possible should be grown locally. Consideration should be given to how the current practice of the erection of stock proof fencing rather than maintenance and management of hedgerows can be checked and the retention and maintenance of hedgerows be encouraged."*

Historic Landscape Characterisation

- 3.56. The Staffordshire Historic Landscape Character Assessment¹¹ characterises the Site as “fieldscape”, while the Cellarhead substation is characterised as “industrial and extractive”. The woodland block to the south of the substation is also specifically recorded.

Landscape Character Summary

- 3.57. From the detailed evaluation undertaken for this LVIA, the immediate context to the Site shares a number of characteristics identified in the published baseline landscape character assessments described above, particularly the district-level assessment. Key characteristics of the Site and its immediate context, including those considered to be consistent with published guidance, comprise:
- Gently undulating topography;
 - Remnant hedgerow field boundaries often replaced by post and wire fences;
 - Small blocks and belts of woodland, including those surrounding the Cellarhead substation;
 - Pastoral farmland is the main land use, though in many places this is now replaced by horsey-culture as a form of farm diversification;
 - Farmyards also used for caravan storage (e.g., Newfields Farm and Armshead Farm), with the light colours of the caravans being prominent in the landscape; and
 - The existing Cellarhead substation and associated steel-lattice pylons dominate the immediate context to the Site, forming strong landscape detractors in many existing views towards the Site.

Visual Baseline

- 3.58. This section provides a description of the nature and extent of the existing views from, towards and between the Site and the surrounding area. It also includes reference to specific locations that will potentially be subject to impacts as a result of the Proposed Development of the Site.

Overview

- 3.59. The visual envelope is the area of landscape from which a site or proposed development will potentially be visible. It accounts for general judgements on the theoretical visibility of a site or proposed development and sets a broad context for the study area within which to address landscape and visual impacts. The extent of a visual envelope will be influenced by the physical landscape components of an area, such as hedgerows, woodlands or buildings and can also be influenced by distance from a site.

¹¹ [Staffordshire County Council Public WebMap](#)

- 3.60. A computer generated ZTV has been produced for the Site (refer to **Figure 5, ZTV and Viewpoint Locations**); this was prepared at the early stages of the process, based on initial assumptions regarding the potential for development (including building heights) and accounts for some degree of screening by existing built form and vegetation. It gives an overview of potential visibility to inform the Site visit and field work.
- 3.61. Although the ZTV represents a 'screened' scenario, the OS data sources only tend to include substantial blocks of trees and woodland. Given that much of the existing green infrastructure around the Site forms a 'layering effect' due to the lower-level hedgerows, hedgerow trees and also smaller scale woodlands/tree belts, these are not included in the ZTV. Consequently, overall screening value is underestimated and the ZTV represents a 'worst-case scenario'.
- 3.62. Based on the ZTV and informed by subsequent site survey and observations from the field work, the visual envelope is broadly defined as follows:
- To the north, views are generally restricted by the existing substation, but there is some very limited visibility towards the Site from the rising ground immediately to the north of the substation, and also from a restricted area to the north-west of the Site, both areas within ca. 500m of the Site.
 - To the east, visibility is by the woodland surrounding the substation.
 - To the south, visibility is partially restricted by the farm buildings at Newfields Farm, but in restricted places intermittent visibility extends as far as Armshead Road, ca. 1-1.2km from the Site. Levels of visibility are dependent on the presence or absence of field boundary vegetation and farm buildings.
 - To the west, visibility extends to some restricted areas out as far as Thornyedge Road, ca. 500-800m from the Site, although levels of visibility are dependent on the presence or absence of field boundary vegetation, woodlands and farm buildings.

Representative viewpoints and visual receptors

- 3.63. The visual assessment references a series of viewpoints that are representative of visual receptors in the area. These illustrate views towards the Site in the context of the surrounding landscape and are used to inform judgements on impacts for specific receptors (refer to **Figure 5, ZTV and Viewpoint Locations** and **Figure 6, Viewpoint Photographs 1-16**).
- 3.64. Representative visual receptors include:
- Public Right of Way users:
 - Footpaths Cheddleton 47, Cheddleton 48 and Cheddleton 60 in the vicinity of the Site and Cellarhead substation (VPs 1, 2, 3 and 4);
 - Footpaths Cheddleton 58 and Cheddleton 60 to the west of the Site (VP7);
 - Footpaths Cheddleton 48, Cheddleton 49 and Cheddleton 58 to the south of the Site (VPs 5, 6, 8, 9 and 12); and
 - Footpath Bagnall 31 between Thornyedge Road and Bagnall Road (VPs 15 and 16).

- Residential occupiers:
 - at Far Little Waste Farm (VP6);
 - at Platts Farm (VP8);
 - on Armshead Lane (VPs 10, 11, 12 and 13);
 - near the junction of Armshead Lane, Bagnall Road and Thornyedge Road (VP14);
 - at Little Brookhouse Farm and Holly Grove;
- Minor road users on:
 - Armshead Road (VPs 10, 11, 13 and 14);
 - Bagnall Road (VP14);
 - Thornyedge Road (VPs 14 and 16).

3.65. These visual receptors are considered further as part of the assessment of visual effects.

3.66. Although the ZTV indicates theoretical visibility of the Proposed Development from certain locations on PRoWs within the Conservation Area at Bagnall, the field survey identified that the Proposed Development would be unlikely to be discernible in these views due to intervening but unmapped vegetation. Further details pertaining to the visual appraisal and assessment of potential effects upon receptors and at identified viewpoints within the study are presented in Section 5 and the supporting Figure 6.

4. Development and Landscape Strategy

Overview

- 4.1. To form judgements on the capacity of any given landscape to accommodate specific types of development (without an undue degree of landscape and visual impact) it is necessary to understand the nature and characteristics of the type of development proposed.
- 4.2. This section considers the type of development proposed and the nature of the impacts that are likely to occur; thereafter it draws the landscape and visual baseline information together and summarises the key constraints and opportunities in the existing landscape.

Development Proposals

- 4.3. In summary, the Proposed Development comprises the installation and operation of a Battery Electricity Storage System (BESS), including:
- battery units (similar in appearance to shipping containers);
 - inverter/transformers;
 - control buildings and switch rooms;
 - 132kV/33kV switchyard and connection to the Cellarhead substation and national high voltage transmission network;
 - access roads and compound fencing;
 - a 3m high bund around the north-west, western and south-west of the compound, on top of which is a 2m high acoustic fence along the western extent of the bund;
 - structural landscape planting comprising woodland and woodland edge / scrub; and
 - a new hedgerow along Footpath Cheddleton 48 parallel to the eastern boundary separating the compound area from the footpath corridor.

Likely Causes of Impact

- 4.4. Although a landscape has some intrinsic sensitivity, different landscapes contain a range of components which will respond differently to change, subject to the type of the development that is proposed. Consequently, in order to inform the analysis of impacts, judgements should be made with reference to the specific changes which arise from the type of development being considered.
- 4.5. The following section sets out the likely causes of impacts which would occur in relation to the specific type of development proposed (i.e., energy development).

Causes of Temporary Impact during Construction

4.6. The temporary construction works which may give rise to impacts on landscape and visual receptors are listed as follows:

- Installation of tree and hedgerow protection fencing;
- Presence and movement of associated construction vehicles and plant;
- Presence of construction compounds, site offices and welfare facilities;
- Temporary construction lighting;
- Site clearance works (including any necessary removal of existing vegetation);
- Construction related to the proposed access through Newfields Farm;
- Earthworks (including bund creation) and groundworks;
- Installation of security fencing;
- Installation of the BESS equipment and infrastructure; and
- Landscaping operations, including tree / shrub planting and seeding.

Causes of Impact at Completion

4.7. The components of the Proposed Development which may give rise to impacts on landscape and visual receptors are listed as follows:

- New battery electricity structures and connections to the Cellarhead substation;
- The access road (although its use will generally be for maintenance and servicing of the installed equipment only, and will therefore be relatively infrequent); and
- The proposed bund and structural landscape planting.

4.8. Together with an examination of the landscape and visual baseline, the cause of impacts at construction and operation informs the following analysis of constraints and opportunities.

Constraints and Opportunities

4.9. The following key constraints and opportunities have been identified during the landscape and visual analysis, including reference to field work and desk study of landscape character guidance, and are illustrated in **Figure 7, I Landscape and Visual Analysis**.

4.10. Constraints associated with the Site are summarised as follows:

- Existing planting around (but beyond) the boundaries of the Site. This planting may require stand offs in terms of root / canopy protection.

- Several PROWs within and close to the Site from which the countryside in the local context can be experience where users may potentially be subject to visual impacts.
- Potential medium to long distance views (up to 1-1.2km from the Site) from restricted locations on or near Armshead Road to the south and south-west of the Site.

4.11. Opportunities for the Site are considered to be:

- Immediate enclosure within the local landscape provided by the existing Cellarhead substation to the north and east with its existing large-scale electricity transmission infrastructure elements and the Newfield farmstead to the south;
- Existing field boundary vegetation and tree belts surrounding the substation adjoining and in close proximity to the Site providing the basis for a strong green infrastructure framework extending into the Site and surrounding the proposed built elements of the scheme;
- The gently undulating topography of the surrounding landscape, and the absence of notable high points and associated longer distance views.

4.12. The analysis of these can be used to inform the design process and to avoid or minimise potential impacts.

Landscape and Visual Strategy

4.13. Having considered the landscape and visual analysis, the constraints and opportunities have been used to influence the design of the Proposed Development and accompanying landscape mitigation. This ensures that mitigation for potential impacts on landscape character and visual amenity are embedded in, and integral to, the proposals.

4.14. The landscape led approach to mitigation is described in the following sections (refer to **Figure 7, Strategic Landscape Planting Plan**).

4.15. The overarching principles for the landscape and visual strategy aim to:

- Conserve and enhance the surrounding landscape character beyond the Site boundaries by minimising off-site visibility.
- Maximize the benefits for assimilating the Proposed Development into the landscape that arise from the existing landscape features and elements in the landscape immediately surrounding the Site.
- Optimise protection and screening for visual receptors (including the interface with the countryside to the south and west.

Detailed Landscape Mitigation Design

4.16. The detailed landscape mitigation design comprises three main elements:

- Distribution of the proposed structural landscaping is designed to integrate with the existing woodland and tree belts which surround the Cellarhead substation, maximise habitat connectivity and to minimise visibility of the Proposed Development.

- Create a 3m high earth bund around the western, north-western and south-western sides of the Proposed Development, which is also planted with native trees and shrubs. The bund would raise the height of the proposed tree and shrub planting on these sides and thereby enhance their effectiveness in the shorter term. The bund would be created with no greater than a 1 in 5 gradient on the outer face. Soils would also be spread at the foot of the bund to graduate the base of its slope into the immediately surrounding landform to achieve closest possible integration of the earthworks with the local gently undulating topography. The bund would have the additional benefits of reducing the height of required acoustic fence (through the positioning of the fence on top of the bund).
- The woodland planting would be fringed where appropriate with predominantly shrub / scrub planting to create a graduated woodland edge to the new structural planting block for both visual graduation and habitat structure
- Planting to the north and south of the main engineering area would also be implemented to integrate with the proposed woodland and contributing to a reduction in visibility of the structures within the BESS compound.
- The structural landscaping strategy may also serve to provide some softening or screening of built elements at the substation within views looking towards the Site from the south and west where these currently exist.

4.17. In addition, a hedgerow is proposed within the Site running in parallel with Footpath Cheddleton 48 and the eastern boundary. This would create a corridor along which the footpath passes between the Proposed Development, offering some visual screening of the BESS compound.

5. Assessment of Landscape Effects

Overview of Landscape Effects

- 5.1. Landscape sensitivity is a term applied to specific receptors, combining judgements on the value related to a landscape (i.e., the receptor) with the susceptibility of the landscape to the specific type of change proposed. Receptors can include specific landscape elements or features or may be judged at a wider scale and include landscape character parcels, types or areas.
- 5.2. As advocated in the GLVIA3, professional judgement is used to balance analysis of value and susceptibility in order to determine sensitivity. Each of these aspects of the analysis will vary subject to the scale and detail of the assessment.
- 5.3. The landscape character of the study area is documented at national and district levels. The findings of these studies represent a thorough and generally consistent analysis of landscape character and this has been supported by an analysis of the local landscape character of the Site and its immediate context.
- 5.4. This assessment of landscape effects focuses on the areas of landscape character which are defined by the Landscape and Settlement Character Assessment of Staffordshire Moorlands as Ancient Plateau Farmlands.
- 5.5. As previously noted in the baseline, this presents guidance at an appropriate scale and detail and also represents the most recent baseline position on landscape character for the area.
- 5.6. The assessment is then also applied at a more refined level to consider additional judgements based on the landscape character of 'the Site and its immediate context'.

Landscape Sensitivity

- 5.7. In order to inform judgements on value and susceptibility the following section refers to the baseline information (Section 3) and additional consideration of the local character in relation to the Site and its immediate context. These judgements are then carried through to the analysis of landscape sensitivity.

Landscape Value

- 5.8. In LVIA, landscape value is the value attached to a potentially affected landscape. It is relative in relation to the different stakeholders and different parts of society that use or experience a landscape.
- 5.9. Landscape value is not solely indicated by the presence of formal designations and a range of factors influence landscape value.

- 5.10. The GLVIA3 sets out a range of factors that can help in the identification of landscape value¹² and these concepts have been expanded in the later LI TGN 02/21¹³.
- 5.11. Whilst these have become commonly accepted, it is important to place them in the relevant context that the GLVIA3 is guidance and that its principles have to be adopted into a formal methodology by practitioners. The criteria for determining landscape value as set out in the methodology (**Appendix A**) accord with those presented in the GLVIA3 and LI TGN 02/21.
- 5.12. Landscape value will vary in response to the specific landscape that is being considered, even where a landscape is included in the boundaries of a formal designation.
- 5.13. This section determines the value of the defined LCAs (and local landscape context) relevant to the Site and study area. The considerations and professional judgements used in determining value are summarised in the following tables (with reference to GLVIA3, page 84, Box 5.1 and to LI TGN 02/21).

Considerations	Ancient Plateau Farmlands LCT
Formal landscape or landscape related designations	The Site lies outside of any formal landscape designations, at either statutory/national or non-statutory/local levels.
Natural and cultural heritage interests (i.e., ecological, geological or heritage matters)	No specific natural or cultural heritage interests within the Site. There are no Listed Buildings or Scheduled Monuments within the immediate environs to the Site. There are no ecological designations within or adjacent to the Site boundary. Trees, shrubs and hedgerows are confined to the boundaries of the field containing the Site, and are considered to be of moderate quality. These have a functional contribution from a landscape and visual perspective in reducing the visibility of the Cellarhead substation.
Landscape condition of individual elements or overall structure	The published assessment considers that the LCT is in declining condition and in need of restoration, with the substation and associated pylons an incongruous landscape element/feature. Urban fringe pressures are also noted. The farm buildings at Newfields Farm appear to be in deteriorating condition, and the light colours of the caravans stored within the farmyard also disrupt the natural landscape. The Site itself is a locally typical permanent pasture field, with no notable positive or negative aspects.

12. Box 5.1, Page 84, Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment 3rd Edition (April, 2013)

13. Landscape Institute Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations

Landscape associations	The Site and its immediate environs have no well-known specific associations with notable people, events or the arts.
Distinctiveness and sense of place	The landscape of the Site and its immediate environs is not noted for being distinctive, and the Site is not considered to be atypical of the local area. The adjacent substation and associated pylons are noted as being landscape detractors within the local landscape.
Recreational opportunities in the landscape context	Definitive PRoWs Footpaths Cheddleton 48 and Cheddleton 60 pass to the east and south of the main part of the Site respectively. There is a well-connected network of PRoWs in the wider surrounding landscape.
Perceptual aspects (in respect of scenic/visual quality)	The Site itself has some scenic quality, being managed pastoral farmland. However, the immediate context provided by the Cellarhead substation means that local landscape quality overall is more limited.
Perceptual aspects (in respect of wildness and tranquillity)	The majority of the local landscape is clearly managed for agriculture, with notable urban-fringe characteristics. As a result, there is limited sense of remoteness and tranquillity. Tranquillity mapping undertaken by CPRE indicates that the Site is of moderate tranquillity, with lower levels of tranquillity within Werrington and Cellarhead to the south.
Landscape function	The local landscape does not provide a particular function in relation to nearby settlements.

- 5.14. Overall, the Site is considered to be of medium-low landscape value, while the adjacent substation is considered to be of low value.

Landscape Susceptibility

- 5.15. In LVIA, landscape susceptibility is the ability of a landscape to accommodate change without undue consequences for the maintenance of the baseline situation.
- 5.16. Different types of development can affect landscapes in different ways and consequently landscape susceptibility is specific to the type of development proposed (i.e., energy infrastructure).
- 5.17. This section determines the susceptibility with the considerations and professional judgements used summarised in the following tables.

Considerations	Ancient Plateau Farmlands LCT
Scale of enclosure	Views to and from the north and east are heavily restricted by the substation and associated woodlands and tree belts. Views to and from the south-west and west are more open, but still generally restricted by the combination of undulating topography and consecutive layers of field boundary vegetation. Longer distance views towards the Site are generally not possible.
Nature of land use	The Site is currently permanent pasture, used for grazing livestock. Agriculture is the main land use within the local area, though 'horsey-culture' is also common (due to the proximity of the Stoke-on-Trent urban edge). The engineered energy infrastructure of the existing Cellarhead substation forms a contrasting type of land use to the immediate east and north of the Site.
Nature of existing elements and features	The Site contains grassland, but no other notable landscape features or elements. The field containing the Site is bounded by tree belts and woodland to the north and east, and by a mix of fences and remnant hedgerows to the west and south. These would not be directly affected by the Proposed Development.

- 5.18. Overall, the Site is considered to be of medium-low susceptibility to development of the type proposed due to the limited intervisibility and the nature of the immediate context.

Landscape Sensitivity

- 5.19. The following conclusions on sensitivity are based on the detailed description and justification presented in the previous sections, balancing the professional judgements on value and susceptibility.
- 5.20. In drawing together judgements on landscape value and susceptibility in respect of landscape sensitivity, higher levels of landscape sensitivity will occur where landscape value and landscape susceptibility are toward the upper end of the scale. Lower levels of sensitivity will occur where value and susceptibility are toward the lower end of the scale. More central levels of sensitivity will occur where one component is toward the higher end of the scale whilst one is toward the lower. It is important to note that there are graduations within the process which are not clear cut, and professional judgment is used to balance these and determine an overall judgement on sensitivity.
- 5.21. With medium-low landscape value and medium-low susceptibility to development of the type proposed, the Site and immediate context are considered to be of medium-low sensitivity. For the wider Ancient Plateau Farmlands LCT, landscape character is considered to be of medium sensitivity.

Landscape Impacts

- 5.22. The following section describes the predicted changes to the physical landscape elements and features on the Site that would give rise to the subsequent perceived changes in landscape character.

Impacts on Physical Landscape Resource

- 5.23. Construction impacts will include initial ground clearance, earthworks, and activities associated with the installation of energy infrastructure. This process will also include the implementation of temporary measures such as site hoardings, temporary fencing and peripheral vegetation / tree protection measures. The impacts associated with these activities would be temporary.
- 5.24. Impacts at completion are concerned with the alteration in the landscape from the current undeveloped nature of the Site (albeit in the context of the adjoining substation) to one which incorporates the Proposed Development. The built elements and structures would be a component present in the landscape through to the longer-term; until decommissioning.
- 5.25. Long term impacts would be associated with the increasing influence of mitigation measures on landscape character following completion, reflecting the changes to landscape character as a result of the Proposed Development with proposed mitigation measures fully established. These impacts are not considered to be reversible.
- 5.26. In this context, physical landscape impacts are generally considered to be limited to changes in the Site, or on the immediate boundaries of the Site. Effects on landscape character (those which are perceived) would extend into the landscape of the Site's immediate environs to the south and west, with the changes only experienced within a limited area.

Landscape Character Effects

- 5.27. In the context of the physical impacts considered above, the following sections set out an assessment of the likely landscape effects on the relevant LCA and on the Site and its immediate context.

Magnitude of Landscape Effects

- 5.28. The Site makes up only 0.005% of NCA64: Potteries and Churnet Valley. Particularly taking into consideration the scale of the Proposed Development as well as the Site's location immediately adjacent to the existing Cellarhead substation, changes to the NCA's character would unlikely to be material.
- 5.29. Direct effects on the character of the Ancient Plateau Farmlands LCT would be limited to the Site itself, although perceptual effects would extend into the surrounding local landscape to the south and west (since there are already dominating influences to the east and north by the substation). The combination of undulating topography and consecutive layers of field boundary vegetation would mean that perceptual (predominantly visual) effects would be experienced mainly within 500m of the Site to the south and west, with more limited effects experienced across the wider LCT within the study area. The existing substation is already visible in areas where perceptual effects would be felt, and the Proposed Development would not therefore result in notable changes to the LCT's overriding character.

- 5.30. The magnitude of impact on the Ancient Plateau Farmlands LCT during construction and at Year 1 (completion) is therefore assessed as medium within the Site and its immediate environs, beyond which the magnitude of change would quickly reduce. For the wider LCT within the study area, the magnitude of impact would be negligible.
- 5.31. By Year 15, once the proposed structural planting has become fully established, developing into a notable landscape feature in its own right and reducing the perception of the Proposed Development from the surrounding landscape, the magnitude of impact would reduce to medium-low for the Site and its immediate environs, with a magnitude of impact which would remain negligible.
- 5.32. The Proposed Development would clearly result in a substantial change to the character of the Site itself, changing the Site from pastoral farmland to energy infrastructure and native structural tree and shrub planting. The magnitude of change on the Site is assessed as high.

Significance of Landscape Effects

- 5.33. With medium-low sensitivity and medium or medium-low magnitude of impact, effects on the Ancient Plateau Farmlands LCT within the Site and its immediate environs would be **moderate adverse** during the construction phase and at Year 1. By Year 15, the effect would reduce to **moderate-minor adverse** for the Site and its immediate environs
- 5.34. For the wider LCT where the Proposed Development would not be visible, the significance of effect would be **negligible to minor adverse** during construction and at Year 1, reducing to **negligible adverse** on balance by Year 15.
- 5.35. With medium-low sensitivity, effects on the character of the Site and its immediate context would be up to **major adverse** during construction, reducing to **major-moderate adverse** on completion (at Year 1) once the compound and bunding have been installed and proposed landscaping implemented. In the long term, when the proposed mitigation is considered to be have established and reached full effectiveness, the significance of impacts is assessed as being **moderate adverse** on balance.

Summary of Landscape Effects

- 5.36. The Proposed Development would result in:
- No material impact on the character of NCA64: Potteries and Churnet Valley;
 - A moderate adverse effect on the Ancient Plateau Farmlands LCT within the Site and its immediate environs during construction and at Year 1. By Year 15, effects upon the LCT within the Site would reduce to moderate/minor adverse;
 - There is predicted to be up to a negligible effect on the character of the wider LCT during construction and at Years 1 and 15; and
 - A major effect on the character of the Site and its immediate context during construction, reducing to major-moderate on completion. In the long term, impacts would be of a moderate significance on balance.

6. Assessment of Visual Effects

Overview of Visual Sensitivity

- 6.1. The sensitivity of a visual receptor is a function of the value attached to a particular view balanced with the susceptibility of the visual receptor to changes in a view and/or visual amenity. The criteria for the sensitivity of visual receptors are set out in the detailed methodology (**Appendix A**).

Visual Impact

- 6.2. Visual impacts are considered separately to landscape impacts. For landscape impacts it is necessary to understand the combination of direct and indirect impacts on the landscape resources potentially affected by a proposed development and therefore it is possible to provide a description and overview of the key impacts that are likely to affect the study area.
- 6.3. However, for visual receptors it is necessary to understand the specific, direct impacts on each view. Therefore, the causes of impact are considered on the basis of individual receptors and are set out in the following sections as an integral part of the assessment of visual effects.

Visual Effects

- 6.4. The following section sets out the main visual impacts which are likely to be generated by the Proposed Development. This includes reference to the likely scale of effect on specific visual receptors.
- 6.5. Detailed assessment is set out in respect of individual viewpoint locations, set out on the viewpoint photograph sheets (refer to **Figure 6, Viewpoint Photographs**). These viewpoints represent a selection of potential visual receptors in the local landscape context, including where views are potentially available (with reference to the ZTV) and to address a range of receptor types and locations.
- 6.6. The following table summarises the judgements on impact and effect, with additional discussion on visual effects from broader groups of receptors set out in the following section (i.e., placing these specific viewpoint locations in context).

Assessment of Visual Effects

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
1. Public footpath Cheddleton 48 to the north of the Site, looking south.	High (PRoW users)	Construction activities – and in time the proposed development – would be clearly visible from this section of the path occupying much of the foreground field. On completion the proposed compound would be fronted by newly planted woodland within the north of the Site. Views would be partially filtered by the intervening vegetation. By Year 15, establishment of the proposed native structural planting in the northern part of the field (closest to the viewpoint) would notably reduce any visibility of the Proposed Development. The current view of a pastoral field would have been replaced with a view of native woodland planting at short distance.	Medium to High magnitude Moderate to Major adverse effect	Medium magnitude Negligible Adverse effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
2. Public footpath Cheddleton 48 on the eastern edge of the field containing the Site, looking west.	High (PRoW users)	From along this route, construction activities – and in time the proposed energy infrastructure together with the bund and fencing – would be directly visible from this section of the footpath, occupying the majority of the foreground field, separated from the PRoW by a new native hedgerow. By Year 15, while views into the proposed compound of battery apparatus would be visible, they would be partially screened by the new path-side hedgerow. The view of a pastoral field would be replaced by the substation at short distance, bound by new native woodland planting to the west, south and north.	High magnitude Major adverse effect	High magnitude Major to moderate adverse effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
3. Public footpath Cheddleton 60 in the south-western corner of the field containing the Site, looking north-east.	High (PRoW users)	Construction activities – and in time the proposed bund and acoustic fence – would be clearly visible from this section of the footpath. Structures and buildings within the compound would not be visible above the bund and fence, although machinery associated with the construction and assembly of the BESS may be visible above the bund and fence during this period. The outer face of the proposed bund with new woodland planting together with the site access would be visible in the immediate foreground on completion of the development. By Year 15, the growth and development of the proposed woodland planting around the west and south-west of the compound (closest to the viewpoint) would substantially reduce the visibility of the Proposed Development. The view of a pastoral field would be replaced by a view of native woodland and woodland edge planting on the rising ground of the bund along with the access. The BESS compound would be screened from view, as would much of the currently visible Cellarhead substation infrastructure.	High magnitude Major adverse effect	Medium magnitude Minor to Moderate adverse effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
4. Public footpath Cheddleton 47 to the north of the Cellarhead Substation, looking south-south-west.	High (PRoW users)	There may be glimpsed or marginal views of construction activities (such as machinery), and, following completion, partial views of proposed energy infrastructure elements in the north-east of the Site. However, the substation structures in the foreground are considered to almost entirely screen the site and would continue to dominate the view. By Year 15 the proposed woodland may be marginally perceived but the view would remain broadly as at Year 1.	Negligible magnitude Negligible adverse effect	Negligible magnitude Negligible beneficial effect
5. Public footpath Cheddleton 58 to north-east of Platts Farm, looking north-north-west.	High (PRoW users)	There may be some very limited visibility of construction activities, particularly those involving taller items of plant such as cranes. However, as the farm largely sits in front of the compound, following completion it is unlikely that the Proposed Development would result in any readily perceived change to the view. By Year 15 the view would remain broadly as at Year 1, with any further change – if visible – derived from the establishing woodland mitigation. This would result in a very marginal increase in canopy coverage within the view, seen amongst other vegetation at middle distance.	None / Negligible magnitude Negligible adverse effect	Negligible magnitude Neutral effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
6. Public footpath Cheddleton 58 at junction with footpath Cheddleton 48 next to Far Little Waste Farm, looking north.	High (PRoW users) High (residential occupiers)	There would be some limited visibility of construction activities, particularly those involving taller items of plant such as cranes. Once installed, there may also be some limited visibility of taller structures within the Proposed Development. By Year 15 the view would remain broadly as at Year 1: the Proposed Development is unlikely to be visible from the residential property behind the viewpoint, although from the footpath, established woodland and woodland edge planting would be partially visible on the bund, screening the acoustic fencing and much of the energy apparatus beyond. There may be very marginal and fleeting views of part of the compound, seen through these gaps in field boundary vegetation.	PRoW users: Low magnitude Minor adverse effect Residential occupiers: No discernible change or effect	PRoW users: Low magnitude Negligible to Minor adverse effect Residential occupiers: No discernible change or effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
7. Junction of public footpaths Cheddleton 58 and Cheddleton 60 to the south of Greenfields, looking east-north-east.	High for PRoW users High for residential occupiers	Construction activities – and in time the proposed acoustic fence on top of the bund – would be visible from this location, with some structures within the compound also potentially marginally visible above the fence, although it is considered that these would be predominantly (if not entirely) screened by the fence. Parts of the outer face of the proposed bund would be visible at short distance. By Year 15, the growth of the proposed native structural planting to the west of the compound would reduce the visibility of the Proposed Development. The view of the site as a pastoral field would be replaced by a view of native woodland planting sitting in front of the existing belts to the substation.	Medium magnitude Moderate adverse effect	Low magnitude Neutral effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
8. Public footpath Cheddleton 49 to south-east of Platts Farm, looking north-north-west, and nearby residential properties.	High for PRoW users High for residential occupiers	There may be some very limited visibility of construction activities, particularly those involving taller items of plant such as cranes. Once installed, there may also be some very limited visibility of the Proposed Development, primarily the bund and fence. Year 15 the view would remain broadly as at Year 1, however planting on the bund would screen views of the fence and soften any limited discernibility of structures in the Site.	Negligible magnitude Negligible adverse effect	Negligible magnitude Negligible adverse effect
9. Public footpath Cheddleton 49 to west of Field View Farm, looking north-east.	High for PRoW users	There is notable screening in the view from intervening field boundary vegetation. There may be some very limited perception of construction activities, particularly those involving taller items of plant such as cranes. Once installed, there may also be some very limited visibility of the bund and fence around the south-west of the compound in the Site, although change within the view would be unlikely to be perceived. By Year 15, the growth of the proposed native structural planting around the compound would screen any elements of the Proposed Development that may have been marginally visible.	Negligible magnitude Negligible adverse effect	None / Negligible magnitude Neutral effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
10. Junction of Armshead Road, Draw Well Lane and public footpath Werrington 17 on northern edge of Werrington, looking north-east.	Medium (minor road users) High (residential occupiers) Medium to high (urban PRow users)	The Proposed Development is unlikely to be discernible in the view.	No discernible change Nil	No discernible change Nil
11. Armshead Road between Armshead and Werrington, looking north-east. Also partially representative of views from nearby residential properties.	Medium for minor road users High for residential occupiers	Construction activities and – in time – the proposed bund and acoustic fence around the compound may be partially visible, although largely filtered by intervening vegetation. By Year 15, the growth and development of the proposed native woodland planting to the west of the main compound would reduce the visibility of any built elements of the Proposed Development. Although only just visible, it is considered that the Proposed Development would not result in a notable to change to the nature of the view or the balance of features within it.	Road users: Negligible magnitude Negligible effect Residential occupiers: Low magnitude Minor adverse effect	Negligible magnitude Negligible beneficial effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
12. Public footpath Cheddleton 49 to east of Armshead Farm, looking north-east. Note: Views from the farmhouse at Armshead Farm are likely to be heavily restricted by the intermediate foreground farm buildings.	High for PRoW users High for residential occupiers	There would be very limited perception of construction activities, and in time the proposed acoustic fence and bund within the site, though much of this would be hidden by intervening field boundary vegetation and forms a very small component of a much wider overall view. By Year 15, the growth of the proposed woodland planting to the west and south of the compound would screen the built elements of the Proposed Development. Although partially visible, the context provided by the existing substation means that the Proposed Development would not result in a notable change to the nature of the view or the balance of features within it.	PRoW users: Low magnitude Minor adverse effect Residential occupiers: Negligible magnitude Negligible adverse effect	Negligible magnitude Negligible beneficial effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
13. Armshead Road at entrance to Armshead Farm, looking north-east. Also partially representative of views from residential properties at Nos. 289 and 301 Armshead Road.	Medium for minor road users High for residential occupiers	There may be some very limited visibility of construction activities, and in time the proposed acoustic fence and bund, if visible. Much of the Site and construction activity however would be hidden by intervening field boundary vegetation combined with the distance. By Year 15, the growth and development of the proposed woodland planting to the west and south of the compound would reduce any marginal visibility of the Proposed Development. Although partially visible, the context provided by the existing substation means that the Proposed Development would not result in a notable change to the nature of the view or the balance of features within it.	Road users: Negligible magnitude Negligible Adverse effect Residential occupiers: Low magnitude Minor adverse effect	Negligible magnitude Negligible beneficial effect

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
14. Junction of Armshead Road, Bagnall Road and Thornyedge Road, looking east-north-east. Also partially representative of views from some nearby residential properties.	Medium for minor road users High for residential occupiers	There may be some very limited visibility of construction activities, and in time the proposed acoustic fence and bund, if visible. Much of the Site and construction activity however would be hidden by intervening field boundary vegetation combined with the distance. By Year 15, the growth and development of the proposed woodland planting to the west and south of the compound would reduce any marginal visibility of the Proposed Development. Although partially visible, the context provided by the prominent existing substation means that the Proposed Development would not result in a notable change to the nature of the view or the balance of features within it.	Road users: Negligible magnitude Negligible Adverse effect Residential occupiers: Low magnitude Minor adverse effect	Negligible magnitude Negligible beneficial effect
15. Public footpath Bagnall 31 between Bagnall Road & Thornyedge Road, looking south-east.	High for PRoW users	The Proposed Development is unlikely to be discernible in the view during construction, on completion or in the longer term.	No discernible change Nil	No discernible change Nil

Viewpoint	Sensitivity	Description of change and nature of impact	Magnitude and significance of effects	Magnitude and significance of effects
			Year 1	Year 15
16. Public footpath Bagnall 31 at junction with Thornyedge Road close to Little Brookhouse Farm, looking south-east. Also represents residents' views from Little Brookhouse Farm and Holly Grove.	High for PRoW users High for residential occupiers Medium for minor road users	The Proposed Development is unlikely to be discernible in the view during constriction, on completion or in the longer term.	No discernible change Nil	No discernible change Nil

Significance of Visual Effects

Overview

- 6.7. The Site lies adjacent to the existing Cellarhead substation, with the substation and associated tree planting on two sides of the Site to the immediate north and east. This combines with gently undulating topography, Newfields Farm stead buildings, field boundary vegetation, tree belts and small woodlands to limit the visibility of the Site. The structures within the substation (many of which are large in scale) and the associated steel-lattice pylons to the east and west are also prominent in many local views, providing the context to the Proposed Development.
- 6.8. As a result, notable effects on visual amenity would be limited to within the immediate environs to the Site, notably users of Footpaths Cheddleton 48, Cheddleton 60 and Cheddleton 58.
- 6.9. Whilst there would also be direct visibility of the Proposed Development from the farmhouse at Newfields Farm, the house is currently unoccupied. A legal agreement has been signed between the landowner of this property who is also the landowner of the BESS site and the Applicant, which stipulates that the property will not be occupied and used for residential purposes once the lease of the land for the BESS facility is entered into and the BESS facility becomes operational.

PRoW users

- 6.10. There is a well linked network of PRoWs within the study area, together with access land at Wetley Moor. However, the Site is not visible from the majority of local routes. While there is the potential for some visibility from a number of routes to the south and west of the Site within approximately 1km, the effects of the Proposed Development on visual amenity as experienced from the majority of these would be no greater than neutral or negligible to minor adverse (VPs 6, 7, 8, 9, 10 and 12).
- 6.11. Notable effects on PRoW users would be limited to users of Footpaths Cheddleton 48 and Cheddleton 60 where these pass around the boundaries of the field containing the Site – see VPs 1, 2 and 3. The proposed access road for the development would also cross these routes as it passes around the farm buildings at Newfields Farm.
- 6.12. There would also be a minor to moderate long term adverse effect on users of parts of Cheddleton 58 to the south-west of the Site where this path is in closest proximity to the Proposed Development beyond the boundary. Views from all of these routes are already heavily influenced by the structures within the existing substation.

Residential Occupiers

- 6.13. The Proposed Development would be visible in some views from a number of properties to the south and west of the Site, such as Platts Farm, Field View Farm, Armshead Farm, Green Farm and Bungalow Farm, such visibility would be limited due to consecutive layers of intervening vegetation – see VPs 6 and 8.
- 6.14. There may also be some limited visibility from certain properties on the northern edge of Werrington and Armshead – see VPs 10, 11, 12, 13, 14 and 16. Views towards the Site from all of

these properties already include the structures within the existing substation, and the Proposed Development would not therefore result in a notable to change to the nature of the view or the balance of features within it.

Road Users

- 6.15. Roads with potential views of the Proposed Development comprise local routes, from which visibility of the scheme would be limited and from sections of Armshead Road, Thornyedge Road, and Bagnall Road – see VPs 10, 11, 13, 14 and 16. Effects on users of these roads would typically be negligible where any change could potentially be perceived.

Bagnall Conservation Area

- 6.16. As previously set out, the field survey has shown that the Proposed Development is unlikely to be discernible in views from publicly accessible areas within the Bagnall Conservation Area.

Summary of Visual Effects

- 6.17. The combination of the context provided by the existing Cellarhead substation, and the screening effects of gently undulating topography and existing tree belts, woodlands and field boundary vegetation, means that the effects on local visual amenity that would arise from the Proposed Development would be very limited.
- 6.18. Notable effects on visual amenity would be limited to within the immediate environs to the Site, notably users of Footpaths Cheddleton 48, Cheddleton 60 and Cheddleton 58, and occupiers of the residential properties at Greenfields (to the west of the Site).
- 6.19. Furthermore, where the Proposed Development may be visible in the local landscape, existing structures within the Cellarhead substation are generally already visible, and the Proposed Development would not therefore result in a notable to change to the nature of the view or the balance of features within it.

7. Assessment of Cumulative Effects

Overview

7.1. This section provides an assessment of the potential effects of the Proposed Development in conjunction with potential changes arising from other developments in the surrounding area, specifically:

- the consented BESS to the north-east of the Cellarhead substation (SMD/2022/O444), hereafter referred to as 'the Cellarhead scheme'; and
- the consented BESS to the east of the substation, currently under consideration by SMDC (SMD/2022/O548), hereafter referred to as 'the Sirius scheme'.
- The proposed 49.99MW solar farm to the north of the substation currently under consideration by SMDC (SMD/2023/O523), hereafter referred to as the 'Rownall Farm scheme'.

Methodology

- 7.2. Cumulative effects can be defined as landscape and visual effects that *"result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments."*
- 7.3. Cumulative effects are considered using the same methodology as is adopted for the main LVIA. In addition, this includes assessing where environmental effects could combine to create a more significant impact on a particular receptor or receptors.
- 7.4. Cumulative effects on visual amenity can occur either:
- Simultaneously – where two or more developments are visible from the same location, including where the viewer must turn to see multiple developments; or
 - Sequentially – where two or more developments are seen at different times and from different locations as the viewer travels along a linear route such as a road or PRow.
- 7.5. Cumulative effects are assessed on the basis of the already consented and in-planning developments being built out first, with effects arising from the Proposed Development being in addition to this.
- 7.6. Cumulative effects can arise during the construction phase if the considered developments are in close proximity and the construction phases for two or more developments temporally coincide. However, most construction projects employ construction management controls and good practice to minimise impacts occurring outside the Site boundary, and construction phase cumulative effects are therefore considered unlikely to be any greater than those arising during the operational phase of the Proposed Development.
- 7.7. For the Proposed Development and the consented and in-planning developments, cumulative effects would occur both to landscape character and local visual amenity. Reference has been made to the ZTVs produced as part of the cumulative schemes' planning applications.

Assessment of Cumulative Effects

7.8. The likely cumulative effects are set out below.

Receptor	Description of Cumulative Impacts	Cumulative Magnitude of Impact	Cumulative Significance of Effects
Landscape Character			
Site	All four sites are separate and distinct, therefore there would be no cumulative impact on the character of the sites themselves.	Nil	No cumulative effect on the character of the sites
Site Environs	The Site is physically and visually separated from the other three schemes by the Cellarhead substation and the associated tree belts to the south and east of the substation. In landscape terms, the environs to the Proposed Development are therefore predominantly separate and distinct to the environs of the other schemes. Effects on the local landscape character in these areas would be perceptual or experiential only, relating to the visibility (or not) of multiple schemes. There is a limited area of cumulative theoretical visibility to the south of the substation, with a further very small area to the north of the substation where there is theoretical visibility of both the Cellarhead and Rownall Farm schemes and the Proposed Development. The field survey has shown that effects arising from the Proposed Development on the area to the north of the substation would be very limited due to views towards the Site being through and over the substation and associated structures. Visibility of the Cellarhead scheme would also be very limited in this area due to the separation provided by intervening woodland areas.	Medium	Moderate adverse

Receptor	Description of Cumulative Impacts	Cumulative Magnitude of Impact	Cumulative Significance of Effects
	For the area to the south / south-west of the substation where both the three cumulative schemes may be visible, there would be only very limited visibility of the Proposed Development. Overall, cumulative effects on landscape character within the environs to the three sites, in the form of perceptual/experiential effects only, would be limited.		
Ancient Plateau Farmlands LCT	The four schemes would together result in a larger proportion of farmland within the LCT being converted to energy infrastructure. The Proposed Development is considerably smaller than any of the other schemes and benefits from effective containment by existing tree belts and development as well as by proposed structural planting. The majority of change within this landscape would be arise from the introduction of the Rownall Farm scheme. Nevertheless, the Proposed Development would still result in some limited cumulative experiential effects on the character of the LCT, predominantly experienced within the area of the LCT to the south of the substation as identified above.	Negligible to Low	Minor adverse
Visual Amenity			
PRoW Users	Cheddleton 60 – users would experience simultaneous or simultaneous visibility of the three cumulative schemes, and then subsequent sequential visibility of the Proposed Development as footpath users travel east to west – see VP3. Cheddleton 47 – with the implementation of the Rownall Farm scheme, users are likely to experience sequential visibility only of	Low to medium for different routes, reducing to negligible to low by Year 15	Minor to moderate adverse, reducing to minor adverse or negligible adverse by Year 15

Receptor	Description of Cumulative Impacts	Cumulative Magnitude of Impact	Cumulative Significance of Effects
	the cumulative scheme together with the Proposed Development as footpath users travel south to north, if at all – see VP4. Cheddleton 58 – users may experience simultaneous visibility of a combination of the four schemes (including the Site) from a restricted area to the east of Far Little Waste Farm, although the visibility of the Proposed Development would be limited – see VP6. Cheddleton 49 – users may experience sequential and simultaneous visibility of all four schemes to varying degrees from along a short section of the path between Mayfield House and Platts Farm, although visibility of the Proposed Development would be very limited – see VP8.		
Residential Occupiers	Residential occupiers at Platts Farm may have limited visibility of all four schemes, though the visibility of the Proposed Development would be very limited – see VP8. Residential occupiers at Bungalow Farm may have very limited visibility of the three cumulative schemes, as well as of the Proposed Development. The visibility of the Cellarhead and Sirius schemes is likely to be very limited, with the Rownall Farm scheme being potentially more visible comparatively although it would benefit notably from screening by the Cellarhead substation and associated enclosing tree cover.	Low	Minor adverse
Minor Road Users	Armshead Road – glimpsed sequential and simultaneous visibility of all four schemes, but visibility would be very limited.	Negligible	Negligible adverse

Receptor	Description of Cumulative Impacts	Cumulative Magnitude of Impact	Cumulative Significance of Effects
	Thornycroft Road / Bagnall Road – glimpsed sequential visibility of Cellarhead scheme, then glimpsed simultaneous visibility of Sirius scheme and Proposed Development, but visibility of the Cellarhead and Sirius schemes likely to be very limited. Potential for both simultaneous or sequential visibility of both the Site and the Rownall Farm scheme, however, the visual assessment identified little, if any visibility of the Proposed development from these routes: consequently any cumulative change would be very limited.		

- 7.9. In summary, notable (moderate or greater) cumulative effects would be limited to:
- perceptual/experiential effects on local landscape character within a limited area in close proximity to the substation where all four schemes may be visible; and
 - users along select sections of the PRoW network, namely Footpath Cheddleton 60 who would experience sequential visibility of the three cumulative schemes, and then the Proposed Development. All would be seen in the context of the existing substation.
- 7.10. Cumulative effects would reduce as the proposed landscape mitigation measures on all four schemes establish and achieve greatest efficacy.

8. Green Belt Statement

Green Belt Policy

- 8.1. The NPPF 2023 states that: *“The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence”.*
- 8.2. The NPPF states that Green Belt serves five purposes:
- To check the unrestricted sprawl of large built-up areas;
 - To prevent neighbouring towns merging into one another;
 - To assist in safeguarding the countryside from encroachment;
 - To preserve the setting and special character of historic towns; and
 - To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Assessment of the Proposed Development against the Aims and Purposes of the Green Belt

Methodology

- 8.3. The approach to Green Belt appraisal is based on landscape and visual assessment methodology as relevant to the purposes of the Green Belt.
- 8.4. For each NPPF purpose, criteria have been determined that allow for a more comprehensive analysis to be undertaken, in landscape and visual terms, of the contribution the Site makes to the function of the Green Belt in this location. The criteria for each purpose are set out below:

Purpose	Criteria
Purpose 1: To Check the Unrestricted Sprawl of Large Built-up Areas	This is a test that considers whether the Site is able to prohibit sprawl. Commonly sprawl is ribbon development but may also be piecemeal development in isolated areas or along settlement edges. A Site may already have been compromised by some form of development, in which case it is relevant to consider the extent to which that development has eroded the sense of openness, this being whether or not there is a sense that the Site within the Green Belt is still open and absent of development. Sprawl may also be discouraged by defensible boundaries to existing settlements that are either natural (e.g., topography, woodland or water course) or man-made features (e.g., a main road, main railway line, or settlement edge). These may

Purpose	Criteria
	be within the Site or share a boundary with it. Sites that do not contain defensible boundaries may contribute towards greater openness.
Purpose 2: To Prevent Neighbouring Towns Merging into One Another	The consideration is whether or not the settlement growth could lead to merging with another town. The wording of the NPPF refers to 'towns', but often the Green Belt affects settlements of a considerably smaller geographical scale, in which it is more relevant to consider the potential for merging of neighbouring settlement edges to distinct settlement areas that might be defined as towns. In essence, the purpose seeks to avoid coalescence of built form. This can be perceived in terms of geographic scale in either plan view or 'on the ground' by intervening natural or man-made features. The interpretation of 'merging', in terms of geographic distances, differs according to the study area. Whilst a review of distinct towns might need to account for distances over several kilometres, when considering gaps between smaller settlements, the range can be much smaller with distances reducing to as little as 100m in some cases. It is of note that susceptibility to 'merging' depends on distance between two settlements, and each situation needs to be reviewed in relation to the local landscape and visual context.
Purpose 3: To Assist in Safeguarding the Countryside from Encroachment	In terms of Green Belt, the 'countryside' is the landscape outside of the current development limits, and which is generally defined by key characteristics such as hedgerow networks, varying field patterns, presence/absence of woodland, downland character, topographical features or open space and access to it, etc. Countryside is likely to be undeveloped land that is typically rural and often managed for agriculture or forestry, or simply kept as an open natural or semi natural landscape. It may, however, contain man-made features such as historic landmarks, properties, mineral extraction or larger areas of settlement. This assessment is informed by the identification of key landscape characteristics of the Site and its surroundings, derived from a review of the published landscape character assessment and consideration against aerial mapping of the Site, its surroundings and a site-based baseline review undertaken to inform the design of the concept masterplan. Consideration is also given to the extent of recreational access provided to the Green Belt through the Site.

Purpose	Criteria
	Sites that are highly representative of the key landscape characteristics, and exhibit them in good condition, make a stronger contribution towards safeguarding the countryside than land that is less representative of the landscape character area, or contains features that are in poorer condition. This allows a relative and qualitative consideration to be applied to landscapes. The matter of 'encroachment' is also a judgement that considers whether or not development (such as built form along the edge or within it, pylons and high voltage overhead cables, sub-stations, quarrying and urbanising features such as street lighting, road signs, road infrastructure, etc.) is found in the site or influences it, and also the degree to which it has preserved the key characteristics or divorced them from the wider countryside. A site that has limited or no urbanising influences has a stronger role in safeguarding countryside. Finally, encroachment can also be prohibited by the presence or absence of particular natural or man-made features that separate existing settlement edges from the wider countryside. Typically, encroachment is prevented from progressing by large man-made features such as dual carriageways, or motorways; natural features might include woodland, large water bodies, such as lakes and rivers or deep, steeply sloped valleys. Such features may border a site or be contained wholly or partially within it. However, natural features in particular, including woodland, rivers or ridgelines, may suffer a loss of their integrity as prominent features within the landscape if development is progressed upon, or near, them. These features should therefore be safeguarded where possible, or integrated sensitively into design proposals.
Purpose 4: To Preserve the Setting and Special Character of Historic Towns	The setting and special character of a historic town is usually depicted by the presence of one or more conservation areas to denote a historic association with the built form. Consideration is also given to potential views towards historic landmarks such as churches, listed buildings or scheduled monuments. This does not, however, constitute an appraisal of the historic setting of a designated or non-designated historic asset, the nature of which would be determined by a suitably experienced historic consultant and falls outside of the remit of this Green Belt assessment.

Purpose	Criteria
Purpose 5: To Assist in Urban Regeneration, by Encouraging the Recycling of Derelict and Other Urban Land	This purpose falls outside the scope of this report and has not been tested.

8.5. The grading of overall scores reflects the contribution the Site makes towards meeting the purposes of the Green Belt. This ensures that, whilst the NPPF does not require all five purposes, or tests to be met simultaneously, the extent to which a site contributes to the criterion of a specific purpose will better inform the decision for it to be removed from, or retained within, the Green Belt.

8.6. This assessment does not include consideration of the potential of the Site to address all NPPF paragraphs relating to the Green Belt. However, commentary is provided to give an indication of how the land could deliver development or associated benefits.

Assessment Results

8.7. The table below assesses the Site and the Proposed Development against the purposes of the Green Belt.

Purpose	Application of Criteria	Assessment	Site Contribution
Purpose 1: To Check the Unrestricted Sprawl of Large Built-up Areas	What contribution does the Site make to providing a contiguous open area between the settlement edge and the wider Green Belt?	The Site is fully within the Green Belt and contains no built development. However, the Site lies immediately adjacent to the existing Cellarhead substation, an area of existing energy infrastructure development within the Green Belt.	Low
	What contribution do the Site boundaries make to maintaining openness with the wider Green Belt?	The boundaries to the north and east are adjacent to the existing substation, are formed by existing tree belts, and are therefore defensible. The western boundary is a remnant hedgerow and could be strengthened to make it more defensible. The southern boundary is formed by a post and wire fence.	Moderate/Low

Purpose	Application of Criteria	Assessment	Site Contribution
		The southern and western boundaries would be strengthened as part of the Proposed Development, creating and reinforcing defensible Site boundaries.	
Purpose 2: To Prevent Neighbouring Towns Merging into One Another	To what extent is the Site associated with the existing settlement edge(s)?	The Site is physically separated from existing settlements both inside and outside of the Green Belt by intervening fields. However, the Site is very closely associated with the Cellarhead substation within the Green Belt.	Moderate
	Given the distance between the whole of the Site and next nearest settlement edge, what is the effect of the perceived and actual intervisibility on potential for coalescence?	The Site is within an area of open farmland and does not abut the nearest settlements outside of the Green Belt (Werrington and Cellarhead, more than 1km from the Site), or the nearest settlements within the Green Belt (Bagnall and Wetley Rocks both more than 2km from the Site). It is therefore assessed that there will be no reduction in the physical or perceived distance between non-Green Belt settlements to the south of the Site and Green Belt settlements to the north-west and east.	None
Purpose 3: To Assist in Safeguarding the Countryside from Encroachment	To what extent does the Site represent the key characteristics of the countryside?	The LVIA finds that the Site correlates with some of the key characteristics of the LCT, predominantly its pastoral nature which is adversely affected by the existing and incongruous substation structures.	Moderate/Low

Purpose	Application of Criteria	Assessment	Site Contribution
	To what extent is the Site urbanised, either by on-site or off-site features?	The Site reflects some of the characteristics identified by the published character assessments. However, the presence of the adjacent substation and associated pylons is noted in the published assessment as being a notable landscape detractor.	Moderate/Low
Purpose 4: To Preserve the Setting and Special Character of Historic Towns	Does the Site represent the special characteristics of the setting to the historic town?	No	None
	Is there intervisibility between the Site and historic landmarks?	No	None
Overall Contribution of the Site			Moderate-Low

- 8.8. The assessment finds that the Proposed Development can occur within the Site without compromising the fundamental purposes of the Green Belt as set out in the NPPF – primarily to check the unrestricted sprawl, prevent merging of settlements and safeguard the countryside from encroachment. In addition, the proposed structural planting around the western and south-western boundaries of the Site would, in the medium to longer term, further reinforce the boundaries of the existing energy infrastructure development around and in conjunction with the Cellarhead substation.

Impact on the Openness of the Green Belt

- 8.9. It is accepted that the Proposed Development would reduce openness, one of the essential characteristics of the Green Belt, as a previously open and undeveloped field would be developed with energy infrastructure. In addition, the proposal would involve the development of a very small part (less than 1ha) of the countryside that is currently undeveloped and would, thus, constitute a degree of encroachment into the countryside, contrary to one of the five purposes of Green Belt as set out in the NPPF. It is therefore accepted that the reduction in the openness of the Green Belt and the encroachment into the countryside means that there would be some limited harm to the Green Belt.

- 8.10. In landscape and visual terms, the semi-rural character (farmland, but adjacent to existing energy infrastructure development and the farm buildings at Newfields Farm) and well enclosed nature of the Site, would mean that the Proposed Development would result in limited landscape and visual impacts. Notable effects would be experienced only within the Site and its immediate environs, and in the longer term these effects would result in only very limited harm to the openness of the Green Belt.
- 8.11. Furthermore, the Proposed Development would result in environmental benefits which should be considered in the planning balance:
- The installation and operation of a battery energy storage system which would allow the storage of (renewable-generated) electricity for distribution when demand requires it.
 - The proposed landscape strategy provides significant landscape and visual enhancements to the Site and surrounding landscape through the creation of additional woodland planting that strengthens existing green infrastructure features.
 - The Proposed Development would result in overall biodiversity net gain through the proposed biodiversity enhancements, including meadow grassland and woodland scrub / shrub edge creation.

9. Summary and Conclusions

Overview

- 9.1. Pegasus Group has been instructed by Newfields BESS Limited to undertake a Landscape and Visual Impact Assessment in relation to a proposed Battery Electricity Storage System (BESS) on land at Newfields Farm, Rownall Road, in the parish of Cheddleton, Staffordshire (the Site).
- 9.2. The LVIA has been prepared to address the potential landscape and visual impacts of detailed planning application for the installation and operation of the BESS, including energy storage and connection infrastructure, access road, acoustic fencing, and structural landscaping.
- 9.3. The scope of this LVIA has included early consideration of constraints and opportunities for the Site and its local landscape context. This has been used to inform the current Illustrative Masterplan for the proposals which, consequently, incorporate a 'landscape and ecologically led' approach to design and mitigation.

Site Context

- 9.4. The Site comprises an area of pastoral farmland within a single field parcel which lies outside of any landscape designations but within the Stoke-on-Trent Green Belt.
- 9.5. The Site extends to approximately 2.48 ha. The field in which it sits is surrounded by hedgerows, tree belts and the farmstead of Newfields Farm, with the pasture field situated immediately to the south-west of the Cellarhead substation, which is operated by National Grid. The proposed access road would utilise the existing farm access road, through the farmstead, before entering the main part of the Site from the south.
- 9.6. The immediate context to the Site is largely pastoral farmland (and associated farmsteads), together with the Cellarhead substation and associated surrounding tree belts.

Landscape Character

- 9.7. The Site lies within:
 - National Character Area (NCA) 64: Potteries and Churnet Valley; and
 - Ancient Plateau Farmlands LCT (Landscape and Settlement Character Assessment of Staffordshire Moorlands, 2008).
- 9.8. From the detailed evaluation undertaken for this LVIA, the immediate context to the Site shares a number of characteristics identified in the published baseline landscape character assessments described above, particularly the district-level assessment. Key characteristics of the Site and its immediate context, including those considered to be consistent with published guidance, comprise:
 - Gently undulating topography;

- Remnant hedgerow field boundaries often replaced by post and wire fences;
- Small blocks and belts of woodland, including those surrounding the Cellarhead substation;
- Pastoral farmland is the main land use, though in many places this is now replaced by horsey-culture as a form of farm diversification;
- Farmyards also used for caravan storage (e.g., Newfields Farm and Armshead Farm), with the light colours of the caravans being prominent in the landscape; and
- The existing Cellarhead substation and associated steel-lattice pylons dominate the immediate context to the Site, forming strong landscape detractors in many existing views towards the Site.

9.9. With medium-low landscape value and medium-low susceptibility to development of the type proposed, the Site and its immediate environs are considered to be of medium-low sensitivity. For the wider Ancient Plateau Farmlands LCT, landscape character is considered to be of medium sensitivity.

9.10. The Proposed Development would result in:

- No notable effect on the character of NCA64: Potteries and Churnet Valley;
- a moderate adverse effect on the Ancient Plateau Farmlands LCT within the Site and its immediate environs during construction and at Year 1. By Year 15, effects upon the LCT within the Site would reduce to moderate/minor adverse;
- No greater than a negligible effect on the character of the wider LCT (where the Proposed Development would not be visible) during construction and at Years 1 and 15; and
- A major effect on the character of the Site during construction, reducing to major-moderate on completion and moderate adverse in the long term.

Visual Effects

9.11. Based on the ZTV and informed by subsequent site survey and observations from the field work, the visual envelope is broadly defined as follows:

- To the north, views are generally restricted by the existing substation, but there is some very limited visibility towards the Site from the rising ground immediately to the north of the substation, and also from a restricted area to the north-west of the Site, both areas within ca. 500m of the Site.
- To the east, visibility is restricted to land on the west side of the woodland surrounding the substation.
- To the south, visibility is partially restricted by the farm buildings at Newfields Farm, but in limited places intermittent visibility extends as far as Armshead Road, circa 1-1.2km from the Site. Levels of visibility are dependent on the presence or absence of field boundary vegetation and farm buildings.

- To the west, visibility extends to some restricted areas out as far as Thornyedge Road, ca. 500–800m from the Site, but as elsewhere, levels of visibility are dependent on the presence or absence of field boundary vegetation, woodlands and farm buildings and even in winter these are considered to typically successively combine to provide effective screening of the Site and the Proposed Development.

- 9.12. The combination of the context provided by the existing Cellarhead substation and Newfields Farm stead, together with the screening effects of gently undulating topography and existing tree belts, woodlands and field boundary vegetation, means that the effects on local visual amenity that would arise from the Proposed Development would be very limited.
- 9.13. Notable effects on visual amenity would be limited to within the immediate environs to the Site, notably users of Footpaths Cheddleton 48, Cheddleton 60 and Cheddleton 58, and occupiers of the residential properties at Greenfields (to the west of the Site).
- 9.14. Furthermore, where the Proposed Development may be visible in the local landscape, existing structures within the Cellarhead substation are generally already visible, and the Proposed Development would not therefore result in a notable to change to the nature of the view or the balance of features within it.

Cumulative Effects

- 9.15. Potential cumulative effects on both landscape character and local visual amenity have been assessed for the Proposed Development in conjunction with potential changes arising from other developments in the surrounding area, specifically:
- the consented BESS to the north-east of the Cellarhead substation (SMD/2022/O444), 'the Cellarhead scheme'; and
 - the consented BESS to the east of the substation (SMD/2022/O548), 'the Sirius scheme'.
 - The proposed 49.99MW solar farm to the north of the substation currently under consideration by SMDC (SMD/2023/O523), the 'Rownall Farm scheme'
- 9.16. Notable cumulative effects would be limited to:
- perceptual/experiential effects on local landscape character within a small area to the south of the substation where all three schemes may be visible; and
 - users of Footpath Cheddleton 60 who may experience sequential visibility of the three cumulative schemes, and then the Proposed Development. All would be seen in the context of the existing substation.
- 9.17. Cumulative effects would reduce as the proposed landscape mitigation measures on all four schemes develop and grow.

Effects on the Openness of the Green Belt

- 9.18. It is accepted that the Proposed Development would reduce openness, one of the essential characteristics of the Green Belt, as a previously open and undeveloped field would be

developed with energy infrastructure. In addition, the proposal would involve the development of a very small part (less than 1ha) of the countryside that is currently undeveloped and would, thus, constitute a degree of encroachment into the countryside, contrary to one of the five purposes of Green Belt as set out in the NPPF. It is therefore accepted that the reduction in the openness of the Green Belt and the encroachment into the countryside means that the Proposed Development would cause some limited harm to the Green Belt.

- 9.19. In landscape and visual terms, the semi-rural character (farmland, but adjacent to existing energy infrastructure development and the farm buildings at Newfields Farm) and well enclosed nature of the Site, would mean that the Proposed Development would result in limited landscape and visual impacts. Notable effects would be experienced only within the Site and its immediate environs, and in the longer term these effects would result in only limited harm to the openness of the Green Belt.

Conclusion

- 9.20. Overall, the Proposed Development would result in limited effects on landscape character and visual amenity, restricted to the Site and its immediate environs, and experienced in the context of the existing Cellarhead substation.
- 9.21. A range of landscape and visual receptors have been assessed and impacts have been identified for both landscape character and for visual receptors. This is part of an iterative process whereby potential impacts have informed the design of the Proposed Development and the associated landscape strategy. Mitigation has therefore become integral to the Proposed Development. Notable residual and cumulative effects on landscape character and visual amenity would be limited to the Site and its immediate environs.
- 9.22. The Proposed Development would result in very limited harm to the openness of the Green Belt within a very small area, and in the context of the existing substation.
- 9.23. The Proposed Development is not therefore considered to be in conflict with the policies of the Staffordshire Moorlands Local Plan (adopted 2020) of relevance to landscape and visual matters.



Appendix A: LVIA Methodology

A. Appendix A: Landscape and visual effects detailed methodology (GLVIA3)

A.1. INTRODUCTION

A.1.1 This assessment aims to determine the likely effects of the proposed development on the existing landscape and visual receptors in the study area. The following landscape resources and visual receptors have been addressed:

- Physical landscape features and elements;
- Landscape character; and
- Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.

A.1.2 This assessment details the impacts that may result as a consequence of the proposed development and considers the likely significance of effect arising as a result.

A.2. APPROACH

A.2.1 The approach and methodology used for this assessment has been developed in accordance with the guidance in the following documents:

- Landscape Institute and Institute of Environmental Management and Assessment (April 2013) Guidelines for Landscape and Visual Impact Assessment 3rd Edition;
- Natural England (October 2014) An Approach to Landscape Character Assessment;
- Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals; and
- Landscape Institute Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations.

A.2.2 The overall approach to the identification and assessment of landscape and visual effects is summarised as follows:

- determining the scope of the assessment;
- collating baseline information for landscape and visual receptors, including completing desk study research and undertaking field-based survey work;
- review the proposed development and identify and describe the likely impacts of the proposed development (enabling specific judgments to be made on sensitivity of landscape and visual receptors);

- establish the sensitivity of landscape and visual receptors (balancing judgments on susceptibility and value);
- determine the magnitude of impacts (balancing judgments on size / scale, duration and reversibility);
- the assessment of the likely significance of landscape and visual effects through a balanced approach and clear description of judgments on sensitivity and magnitude; and
- the identification of measures to avoid or remedy impacts and the subsequent re-assessment of likely effects.

A.2.3 The following sections provide further detail on this approach.

Determining the Scope of Assessment

Spatial Scope

A.2.4 The spatial scope for the assessment has been determined by a two-staged approach. Firstly, a 'preliminary study area' is identified. This is based on the wider setting and context of the site and sets the broad parameters for collation of baseline information; this scope also accounts for the potential effects that will be generated by the proposed development.

A.2.5 In order to focus on the key sensitive receptors and likely effects the spatial scope of the preliminary study area is then refined through the initial stages of the assessment (i.e. desk study and field survey work).

A.2.6 The visual envelope of the site has been considered through desk top analysis of topographical data combined with field surveys to investigate visual enclosure arising from landform, vegetation and built form.

Collating Baseline Information

A.2.7 In order to capture a comprehensive description of the baseline position for landscape and visual receptors, information has been collated using desk study and field survey work. These processes include reference to published landscape character studies and a range of views and visual receptor types.

Desk Study

A.2.8 The desk study has identified potentially sensitive landscape resources by reference to OS maps and existing published landscape character studies, relevant planning policy guidance and/or designated or protected views. This stage has also enabled the identification of potential visual receptors such as public rights of way (PROW), residential properties or designated areas.

Field Survey

- A.2.9 Detailed field survey work for this LVIA has further identified landscape elements and features that contribute to the landscape character of the area and visual receptors that will have potential views of the site.
- A.2.10 A series of representative photographs were taken during the field work. The photographs were taken with a digital camera with a 50mm lens (equivalent focal length). These are presented as a full-size single image centred on the site, with a 39.6° HFoV and a 27° vertical field of view (VFoV) (as advised by the Landscape Institute Technical Guidance Note 06/19) supported by a series of contextual baseline panoramic photographs. These have been used to inform the assessment of both landscape and visual impacts.

Assessment of Effects

- A.2.11 Having established the relevant baseline position the assessment process then completes the following specific stages:
- Evaluate the sensitivity of the landscape receptors and visual receptors, specifically in response to the type of proposed development (sensitivity of landscape resources is not standard and depends on the nature and type of development proposed);
 - Identify the potential magnitude of impact on the physical landscape, on landscape character and on visual receptors; and
 - Combine professional judgments on the nature of the receptor (sensitivity) and the nature of the change or impact (magnitude) to arrive at a clear and transparent judgment of significance.
- A.2.12 For both landscape and visual effects, the final conclusions on significance are based on the combination of sensitivity and magnitude. The overall judgment on significance is based on the combination of each of the criteria. The rationale for the balance and justification for each judgement is expressed in the detailed analysis.
- A.2.13 To draw a distinction between different levels of significance, a scale for the degrees of significance, along with criteria and definitions, have been developed. These provide a structure for making judgements which are clear and objective. However, it is necessary to remember that landscapes and interactions in the landscape are both complex and subtle; as such an element of subjectivity remains. No landscape will fit wholly into any one definition and to try would require extensive and complex criterion.

- A.2.14 Consequently, professional judgements draw conclusions in respect of sensitivity, magnitude and significance. These are described in the detailed written analysis presented in the LVIA, supported by descriptive thresholds and criteria for each of these stages in relation to landscape impacts and, separately, visual impacts are set out in the following sections.

A.3. ASSESSMENT OF LANDSCAPE EFFECTS

Overview of landscape sensitivity

- A.3.1 Although landscape has some intrinsic sensitivity, different landscape receptors have different elements and features that can accommodate a variety of development types.
- A.3.2 To reliably inform detailed assessment of impacts, landscape sensitivity needs to be determined with reference to the changes arising from the specific type of development in question. Therefore, landscape sensitivity is assessed combining judgements on the value attached to a landscape and the susceptibility to the type of change and nature of the development proposed.

Landscape value

- A.3.3 Landscape value is the relative value attached to a potentially affected landscape. Landscape value will vary in relation to the different stakeholders and different parts of society that use or experience a landscape.
- A.3.4 Although factors such as formal designations are an important component when determining value, other aspects are also considered as part of the judgement process.
- A.3.5 These include issues related natural and cultural heritage (for example ecological, geological or heritage matters), landscape condition, associations (in terms of connections with people, arts or events), distinctiveness (i.e. a sense of unique identity in the landscape), recreational opportunities, perceptual aspects (including scenic quality, wildness and tranquillity) and landscapes with a clearly identifiable role or function.
- A.3.6 Even where a landscape is included in the boundaries of a formal designation, landscape value will vary in response to the specific landscape that is being considered based on its condition, sense of seclusion or isolation, the presence or absence of detracting features, the presence or absence of rare or distinctive elements and features, and, the degree to which these form key characteristics.
- A.3.7 Factors that have been considered in making judgements on landscape value include designations (both national and local), local planning documents, status of features (e.g. TPOs

or Conservation Areas) and local community and interests (for example local green spaces, village greens or allotments).

A.3.8 The following table sets out the criteria that have been considered for determining landscape value. These are informed by the factors identified the LI TGN 02/21¹.

Table A.1: Factors used for determining landscape value

Value	Factors
High	Designated areas at an International or National level (including, but not limited to, World Heritage Site, National Parks, AONB's) and also considered an important component of the country's character, experienced by high numbers of tourists. Evidence of natural and cultural heritage interests which contribute positively to the landscape are prominent. Landscape condition in respect of the physical state of individual elements or overall structure is good. Landscape associations might be understood in the national context. The distinctiveness of the landscape reflects a strong sense of identity. Recreational opportunities where the experience of landscape is important and/or promoted are extensive. Perceptual scenic/visual qualities are objectively considered as good. Perceptual qualities of wildness, tranquillity and/or dark skies are elevated. Elements of the landscape make a strong contribution to a clearly identifiable landscape function. Functions themselves are landscape specific.

¹ Landscape Institute Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations

Value	Factors
Medium	Designated areas at a Regional or County level (including, but not limited to, green belt, regional scale parks, designated as open space or a Conservation Area in local planning documents) and also considered a distinctive component or the region/county character experienced by a large proportion of its population. Evidence of natural and cultural heritage interests which contribute positively to the landscape are apparent. Landscape condition in respect of the physical state of individual elements or overall structure is fair. Landscape associations might be understood in the local context. The distinctiveness of the landscape reflects a common sense of identity. Recreational opportunities where the experience of landscape is important and/or promoted are available. Perceptual scenic/visual qualities are objectively considered as ordinary. Perceptual qualities of wildness, tranquillity and/or dark skies are fair. Elements of the landscape make a fair contribution to a clearly identifiable landscape function. Functions themselves are landscape related.
Low	No formal designations but a landscape of local relevance (including, but not limited to, public or semi-public open spaces, village greens or allotments) and also green infrastructure and open spaces within residential areas likely to be visited and valued by the local community. Evidence of natural and cultural heritage interests which contribute positively to the landscape are discreet. Landscape condition in respect of the physical state of individual elements or overall structure is poor. Landscape associations which might be understood are highly localised or esoteric. The distinctiveness of the landscape reflect a generic sense of identity. Recreational opportunities where the experience of landscape is important and/or promoted are limited. Perceptual scenic/visual qualities are objectively considered as poor. Perceptual qualities of wildness, tranquillity and/or dark skies are degraded. Elements of the landscape make a limited contribution to a clearly identifiable landscape function. Functions themselves are generic.

A.3.9 Not all considerations for landscape value carry equally weighting in all scenarios. Consequently, professional judgement is applied to establish a balance, and interim categories of 'low to medium' and/or 'medium to high' are employed as necessary.

Landscape susceptibility

- A.3.10 The second component of landscape sensitivity relates to susceptibility. Landscape susceptibility to change is the ability of a landscape to accommodate change without undue consequences for the maintenance of the baseline situation. In this context, the term landscape receptors can be expanded to cover character areas, particular landscape character types or an individual landscape element or feature. Landscape susceptibility will vary in response to the specific landscape that is being considered and to the nature or type of change that may occur.
- A.3.11 The following table sets out the criteria that have been considered for determining landscape susceptibility.

Table A.2: Criteria for landscape susceptibility

Susceptibility	Criteria
High	Scale of enclosure – landscapes with a low capacity to accommodate the type of development proposed due to the nature of, and interactions between, landscape components (e.g. topography, vegetation cover and built form). Nature of land use – landscapes with no or very little existing reference or context to the type of proposed development. Nature of existing elements – landscapes with components that are not easily retained, replaced or substituted or that reflect strategies for landscape conservation. Nature of existing features – landscapes where detracting features or major infrastructure is not present or where these are present but their influence on the landscape is limited.
Medium	Scale of enclosure – landscapes with a medium capacity to accommodate the type of development proposed due to the nature of, and interactions between, landscape components (e.g. topography, vegetation cover and built form). Nature of land use – landscapes with some existing reference or context to the type of proposed development. Nature of existing elements – landscapes with components that are easily retained, replaced or substituted or that reflect strategies for landscape maintenance or enhancement. Nature of existing features – landscapes where detracting features or major infrastructure is present and the influence of these on the landscape is noticeable.

Susceptibility	Criteria
Low	Scale of enclosure – landscapes with a high capacity to accommodate the type of development proposed due to the nature of, and interactions between, landscape components (e.g. topography, vegetation cover and built form). Nature of land use – landscapes with extensive existing reference or context to the type of proposed development. Nature of existing elements – landscapes with components that are easily retained, replaced or substituted, or where there are few/no existing elements present or that reflect landscape strategies for landscape creation or restoration. Nature of existing features – landscapes where detracting features or major infrastructure is present and the influence of these on the landscape is dominant.

- A.3.12 Not all considerations for landscape susceptibility carry equally weighting in all scenarios. Consequently, professional judgement is applied to establish a balance, and interim categories of 'low to medium' and/or 'medium to high' are employed as necessary.

Landscape sensitivity

- A.3.13 Landscape sensitivity is a term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. Receptors can include specific elements or features or may be judged at a wider scale and include landscape character parcels, types or areas.
- A.3.14 Having considered in detail the contributing factors to landscape value and the susceptibility of the site and surrounding area to the type of the development being proposed, conclusions on landscape sensitivity can be drawn by balancing the judgements on value and susceptibility.
- A.3.15 As advocated in the GLVIA3, professional judgement is used to balance judgements on value and susceptibility in order to determine sensitivity. Each of these aspects of the analysis will vary subject to the scale and detail of the assessment.
- A.3.16 Overall judgements on landscape sensitivity are subsequently described as 'high', 'medium' or 'low' (or combinations of these).
- A.3.17 In drawing together judgements on landscape value and susceptibility in respect of landscape sensitivity, higher levels of landscape sensitivity will occur where landscape value and landscape susceptibility are toward the upper end of the scale.
- A.3.18 Lower levels of sensitivity will occur where value and susceptibility are toward the lower end of the scale.

A.3.19 More central levels of sensitivity will occur where one component is toward the higher end of the scale whilst one is toward the lower.

A.3.20 It is important to note that there are graduations within the process which are not clear cut, and professional judgment is used to balance these and determine an overall judgement on sensitivity.

Magnitude of landscape impacts

A.3.21 The effect on landscape receptors is assessed in relation to the size or scale of impact, the geographical extent of the change and the duration and the reversibility of the impact. The magnitude of landscape impacts has been assessed in accordance with the criteria set out in the following table.

Table A.3: Criteria for determining magnitude of landscape impacts

Magnitude	Criteria
Very high	The size and scale of change is considered very large due to the extent and proportion of loss of existing landscape elements or the degree of alteration to aesthetic or perceptual aspects. The nature and scale of change to key characteristics which are critical to character is considered very large. Where the geographical extent would have a very substantial influence on the landscape at a regional scale, i.e. across several landscape character areas/types. Duration of impacts would be considered very long term and where the potential reversal of the impact is not likely and in practical terms would be very difficult to achieve.
High	The size and scale of change is considered large due to the extent and proportion of loss of existing landscape elements or the degree of alteration to aesthetic or perceptual aspects. The nature and scale of change to key characteristics which are critical to character is considered large. Where the geographical extent would have a substantial influence on the landscape at a regional scale, i.e. across several landscape character areas/types. Duration of impacts would be considered long term and where the potential reversal of the impact is not likely and in practical terms would be very difficult to achieve.

Magnitude	Criteria
Medium	The size and scale of change is considered moderate due to the extent and proportion of loss of existing landscape elements or the degree of alteration to aesthetic or perceptual aspects. The nature and scale of change to key characteristics which are critical to character is considered moderate. Where the geographical extent would influence the landscape at a local scale, i.e. a single landscape character area/type (or potentially multiple areas/types where a site is located on the boundary between areas). Duration of impacts would be considered midterm and where the potential reversal of the impact is likely and in practical terms would be difficult to achieve.
Low	The size and scale of change is considered small due to the extent and proportion of loss of existing landscape elements or the degree of alteration to aesthetic or perceptual aspects The nature and scale of change to key characteristics which are critical to character is considered small Where the geographical extent would influence the landscape in the immediate setting of the site, i.e. limited to the influence of part of a single landscape character area/type Duration of impacts would be considered short term and where the potential reversal of the impact is more likely and in practical terms would easily be achieved
Negligible	The size and scale of change is considered very small due to the extent and proportion of loss of existing landscape elements or the degree of alteration to aesthetic or perceptual aspects The nature and scale of change to key characteristics which are critical to character is considered very small Where the geographical extent would substantially influence the landscape of the site only Duration of impacts would be considered very short term and where the potential reversal of the impact is very likely or committed and in practical terms would very easily be achieved
Nil	There is no perceived change to the landscape

A.3.22 As with landscape value and landscape susceptibility, interim categories are employed where necessary.

A.3.23 These judgements are then taken forward to an assessment of the significance of landscape effects.

A.4. ASSESSMENT OF VISUAL EFFECTS

A.4.1 Visual receptors include a particular person or groups of people likely to be affected at a specific viewpoint or series of viewpoints. The assessment of visual effects considers the receptor at a

location, selected as a point that is either particularly representative of a visual experience or where it is the worst-case scenario of a view (for example, a more elevated location at an open point of a PROW, rather than somewhere enclosed by vegetation, even if the route is predominantly enclosed by vegetation).

Visual sensitivity

- A.4.2 Sensitivity of visual receptors is determined through balancing judgements on the value attached to a particular view against the receptors susceptibility to change in a view or visual amenity. Given the need to address the specific issues of the proposed development these factors in the context of visual sensitivity are considered as part of the assessment of visual effects.
- A.4.3 The value attached to a view includes recognition of value through formal designations (for example planning designations or heritage assets), indicators of value attached to views by visitors (for example inclusion on maps/guidebooks, provision of facilities, presence of interpretation).
- A.4.4 For example, views of higher value are likely to be from designated landscapes where the condition or scenic quality of the view is higher and where distinctive elements or features form a prominent part of a view; views of lower value are likely to be from area of landscapes where the condition and scenic quality of the view is poorer, where there is no reference to distinctive elements or features and where detracting features are prominent in the view.
- A.4.5 The susceptibility of different visual receptors to changes in views and visual amenity is judged based on the activity of people experiencing the view at any given time or location and the extent to which their attention would be focused on the view and visual amenity rather than on the activity being undertaken.
- A.4.6 For example, views more susceptible to change are likely to be permanent views, in unenclosed or elevated positions in the landscape and where the landscape forms a primary focus for the activity of the receptor; views less susceptible to change are likely to be transient or temporary views, located in enclosed areas of the landscape where the landscape is a secondary focus or consideration to the activity of the receptor.
- A.4.7 The following table sets out the definitions of sensitivity for different visual receptors. The considerations set out in the table draw together matters of value and matters of susceptibility.

Table A.4: Criteria for visual sensitivity

Sensitivity	Definition
Very high	Designated or protected views or views from publicly accessible locations in protected landscapes Tourists and visitors to heritage assets, or other attractions, where views of the surroundings are an important contributor to the experience and visit
High	Occupiers of residential properties People who are engaged in outdoor recreation whose attention is likely to be focussed on the landscape People travelling through the landscape on roads, rail or other transport routes where this involves recognised scenic routes and an awareness of views and visual amenity
Medium	People travelling more generally through the landscape on roads, rail or other transport routes People staying in hotels and healthcare institutions People at work and in educational institutions where visual amenity is an important contributor to the setting and quality of working life
Low	People at work and in educational institutions where the visual setting is not important to the quality of working life People engaged in formal sports where the visual setting may play a role, but attention is focused on the activity Views from publicly accessible locations in degraded landscapes

A.4.8 As with landscape value and landscape susceptibility, interim categories are employed where necessary.

A.4.9 It should be noted that as professional judgement is applied to the balance of value and susceptibility of visual receptors, in order to determine sensitivity as set out in the table above; there may be some instances where a typical receptor is defined a different degree of sensitivity to the guidance included in the table, above.

Magnitude of visual impacts

A.4.10 The effect on visual receptors is also assessed in relation to the size or scale of change, the geographical extent of the change, the duration of the change and the reversibility of the impact. The magnitude of visual impacts has been assessed in accordance with the criteria set out in the following table.

Table A.5: Criteria for determining magnitude of visual impacts

Magnitude	Criteria
Very High	The size and scale of change is considered very substantial due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience The geographical extent in relation to the angle, distance and proportion of visibility is considered as very extensive Duration of impacts would be considered long term and where the potential reversal of the impact is not likely and in practical terms would not be achievable Alteration in very close proximity
High	The size and scale of change is considered substantial due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience The geographical extent in relation to the angle, distance and proportion of visibility is considered as extensive Duration of impacts would be considered long term and where the potential reversal of the impact is not likely and in practical terms would be very difficult to achieve Alteration in close proximity
Medium	The size and scale of change is considered fair due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience The geographical extent in relation to the angle, distance and proportion of visibility is considered as small or intermediate Duration of impacts would be considered medium term and where the potential reversal of the impact is likely and in practical terms would be difficult to achieve
Low	The size and scale of change is considered small due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience The geographical extent in relation to the angle, distance and proportion of visibility is considered as limited Duration of impacts would be considered short term and where the potential reversal of the impact is very likely and in practical terms would easily be achieved

Magnitude	Criteria
Negligible	The size and scale of change is considered very small due to the extent of loss, addition or alteration of features, the changes to the composition of the view including the proportion of the view occupied by the proposal, the degree of contrast and the nature of the experience The geographical extent in relation to the angle, distance and proportion of visibility is considered as very limited Duration of impacts would be considered very short term and where the potential reversal of the impact is very likely or committed and in practical terms would very easily be achieved
Nil	There is no view of the proposed development in the view

A.4.11 Interim categories are employed where necessary.

A.4.12 These judgements are then taken forward to an assessment of the significance of visual effects.

A.5. DEFINING SIGNIFICANCE OF EFFECTS

A.5.1 For both landscape and visual effects, the final conclusion on the significance of an effect is based on the combination of sensitivity of receptor and magnitude of change (or impact). The rationale for the overall judgement on significance is based on the combination of each of the criteria individually leading to the balance and justification of these.

A.5.2 Detailed assessment is a means of drawing together, in a systematic way, an assessment of the likely significant environmental effects of a proposed development; however not all landscape and visual effects arising will be significant.

A.5.3 Determination of the significance of an effect requires the application of professional judgement to balance the findings in relation to the sensitivity of the receptor and the magnitude of the predicted impacts.

A.5.4 The GLVIA3 advocate a move away from formulaic matrices and tables and encourages an approach using professional judgement. Analysis and consideration of value and susceptibility gives rise to a spectrum of judgements on sensitivity, which along with magnitude inform judgements on the effects and help inform the overall judgement of a decision maker.

A.5.5 The criteria for determining the significance of effects for landscape and visual impacts are set out in the following tables, below. These criteria are based on guidance provided by the Landscape Institute.

Table A.6: Criteria for determining significance of landscape effects

Significance of Effect	Description The proposed development would:
Major Adverse (Negative) Effect	Be at substantial variance with the character of the receiving landscape. Result in the total loss of a range of characteristic elements and features. Damage the sense of place.
Moderate Adverse (Negative) Effect	Be at variance or inconsistency with the character of the receiving landscape. Degrade or diminish the integrity of a range of characteristic elements and features. Detract from the sense of place.
Minor Adverse (Negative) Effect	Not quite fit the character of the receiving landscape. Have some variance with characteristic elements and features. Have a limited influence on sense of place.
Negligible Adverse (Negative) Effect	Result in such limited changes to character that, whilst any variance may be barely perceptible as a negative change, the degree of change is not likely to give rise to the character of the receiving landscape.
Neutral	Potentially be barely perceptible but would not be apparent as either a positive or negative change and would consequently maintain the character of the receiving landscape; blend in with characteristic elements and features; and/or Enable the sense of place to be retained.
Negligible Beneficial (Positive) Effect	Result in such limited changes to character that, whilst any variance may be barely perceptible as a positive change, the degree of change is not likely to give rise to a material change to the character of the receiving landscape.
Minor Beneficial (Positive) Effect	Complement the character of the receiving landscape. Maintain or enhance characteristic elements and features. Enable some sense of place to be restored.
Moderate Beneficial (Positive) Effect	Improve the character of the receiving landscape. Enable the restoration of characteristic elements and features partially lost or diminished as a result of changes from previous inappropriate management or development. Enable the sense of place to be restored.
Major Beneficial (Positive) Effect	Enhance the character of the receiving landscape. Enable the restoration of characteristic elements and features lost as a result of changes from previous inappropriate management or development. Enable the sense of place to be enhanced.

Table A.7: Criteria for determining significance of visual effects

Significance of Effect	Description
Major Adverse	The proposed development project would cause major deterioration to a view from a highly sensitive receptor, and would constitute a major discordant element in the view.
Moderate Adverse	The proposed development would cause obvious deterioration to a view from a moderately sensitive receptor, perceptible damage to a view from a receptor of lower sensitivity or limited damage to views to receptors of higher sensitivity.
Minor Adverse	The proposed development would cause limited deterioration to a view from a moderately sensitive receptor, or cause greater deterioration to a view from a receptor of lower sensitivity.
Negligible Adverse	The proposed development and associated changes would be barely perceptible in a view. Changes will be negative (adverse) however this degree of change is not likely to be material and therefore no distinction is made.
Neutral	The change in the view would be barely perceptible but would not be apparent as either a positive or negative change.
Nil	There would be no view of the proposed development.
Negligible Beneficial	The proposed development and associated changes would be barely perceptible in a view. Changes will be positive (beneficial) however this degree of change is not likely to be material and therefore no distinction is made.
Minor Beneficial	The proposed development would cause limited improvement to a view from a moderately sensitive receptor, or would cause greater improvement to a view from a receptor of lower sensitivity.
Moderate Beneficial	The proposed development would cause obvious improvement to a view from a moderately sensitive receptor, perceptible improvement to a view from a receptor of lower sensitivity or limited improvements to views to receptors of higher sensitivity.
Major Beneficial	The proposed development would lead to a major improvement in a view from a highly sensitive receptor.

A.5.6 GLVIA3 suggests that scales of three or four (but a maximum of five) categories are preferred (GLVIA3, para 3.27). However, for both landscape and visual effects, interim categories of ‘negligible to minor’, ‘minor to moderate’ and ‘moderate to major’ are used where the judgements on an effect are determined to fit across the descriptive criteria for significance banding.

Assessment of Significance

- A.5.7 Significance can only be defined in relation to each development and its specific location, and in landscape and visual terms there are no definitive rules as to what constitutes a significant effect.
- A.5.8 The GLVIA3 state that, in relation to the EIA Regulations:
- A.5.9 *"emphasis is on the identification of likely significant environmental effects. This should embrace all types of effect and includes for example those that are positive/beneficial and negative/adverse... Identifying significant effects stresses the need for an approach that is in proportion to the scale of the project and the nature of its likely effects."*
- A.5.10 For the purposes of this LVIA, in relation to the Site and Proposed Development, effects are considered to be 'significant' where these are judged to be 'moderate to major' or 'major' (either adverse or beneficial) (noting that this is for the purpose of this LVIA⁶ and not necessarily significant 'in EIA terms').
- A.5.11 However, it is important to note that there remains an element of professional judgement when drawing together an 'overall judgment' on effects and that one single 'significant effect' might not lead to landscape and visual effects being significant on balance (for example, one viewpoint subject of a significant effect may not equate to visual effects being significant overall).



Appendix B: Site Layout