

Infinite Solar Farm, Pembrokeshire

Landscape and Visual Impact Assessment

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Dimension
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On behalf of: Infinite Renewables Ltd

November 2021 Report Reference edp7250_r001a

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(Infinite Renewables: Bluestone 201, Rev C & 101, Rev E)

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(edp7250_d002a 20 August 2021 GY/JH)

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This version is intended for electronic viewing only

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Executive Summary

- This Landscape and Visual Appraisal (LVA) has been prepared by The Environmental Dimension Partnership Ltd (EDP), on behalf of Infinite Renewables Ltd, to inform planning proposals for the development of a solar farm scheme on land east of Bluestone, Narberth.
- The proposal seeks planning permission for the construction of solar panels, fixed at c. 2.6m in height, including associated infrastructure such as security fences, sub-stations and transformers. Solar panels are to be pitched at a 30-degree angle. Adjacent landscape features are to be maintained and managed as part of the proposal.
- The site falls outside of any landscape designations, as well as being absent of any heritage or ecological designations. To the east of the site are very few listed buildings, as well as a public bridleway, heading north-south from Canaston Wood.
- The effects on landscape character are judged to be negligible, with the main effect being loss of a single agricultural field. The site will still include features to commensurate with what the local character assessment describes, such as the narrow-wooded streams to the north and east of the site and the relatively low-lying landform.
- The overall effects on visual amenity are also judged to be negligible, given the limited views in to the site from key external areas. The only point from where the development will receive glimpsed views is to the north-eastern high ground, on bridleway SP26/1/3, near Canaston Wood.
- Careful management of the northern and eastern boundaries will result in additional screening of the site from the northern high ground, though careful site selection in respect of the proposed development has already mitigated many of the landscape and visual impacts that otherwise might have surfaced, on a more sensitive site.
- S7 In summary, by weighing the positive effects with the negative, the site presents a well-hidden, low impact proposal to assist Bluestone with the production of a clean, renewable source of energy. The development's limited negative effects are considered acceptable in landscape terms on a site that is best placed for this kind of development within its setting.

Section 1 **Introduction, Purpose and Methodology**

Introduction

- 1.1 The Environmental Dimension Partnership Ltd (EDP) has been commissioned by Infinite Renewables Ltd (hereafter referred to as 'the applicant') to undertake a Landscape and Visual Appraisal (LVA) of proposals to develop a solar farm at land to the east of the A4075, adjacent to the Bluestone resort (hereafter referred to as 'the site'). The site falls within Pembrokeshire Local Planning Authority (LPA) area, extends to circa 5.7 hectares (ha), and is briefly described in Section 2 of this LVA. Full site details are given in the Design and Access Statement (DAS) accompanying the planning application.
- 1.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Cheltenham and Cardiff. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website (www.edp-uk.co.uk). EDP is a Registered Practice of the Landscape Institute(1) specialising in the assessment of the effects of proposed development on the landscape.
- 1.3 This LVA is part of a suite of documents accompanying an full planning application for the proposed development summarised in Section 6 of this LVA. The proposed development is for the implementation of a solar farm, adjacent to the Bluestone resort.

Purpose and Structure of this LVA

- 1.4 The purpose of this LVA is to identify the baseline conditions of the site and surrounding area and to determine those landscape and visual characteristics that might inform the design of the development proposals, including recommendations for mitigation. It then provides an assessment of the landscape and visual effects predicted to arise from development on the site with reference to the baseline analysis.
- 1.5 In undertaking the assessment described in this LVA, EDP has:
 - Undertaken a thorough data trawl of relevant designations and background documents, described in **Section 3**:
 - Assessed the existing (baseline) condition and character of the site and its setting, described in **Section 4**;
 - Assessed the existing visual (baseline) context, especially any key views to and from the site (Section 5). The establishment of baseline landscape and visual conditions,

¹ LI Practice Number 1010

when evaluated against the proposed development, allow the identification and evaluation of landscape effects later in the LVA at **Section 7**;

- Described the landscape aspects of the proposed development that may influence any landscape or visual effects (**Section 6**);
- In **Section 7**, assessed the landscape and visual effects in accordance with the approach described below;
- Reached overall conclusions in Section 8; and
- Provided an analysis of the likely landscape and visual effects of the proposed scheme, which is determined by combining the magnitude of the predicted change with the assessed sensitivity of the identified receptors. The nature of any predicted effects is also identified (i.e. positive/negative, permanent/reversible).

Methodology Adopted for the Assessment

- 1.6 The proposed development assessed by this LVA is not subject to an Environmental Impact Assessment (EIA). This LVA has, therefore, been undertaken in accordance with the principles embodied in 'Guidelines for Landscape and Visual Impact Assessment Third Edition (LI/IEMA, 2013)' (GLVIA3) and other best practice guidance insofar as it is relevant to non-EIA schemes.
- 1.7 Familiarisation: EDP's study has included reviews of aerial photographs, web searches, LPA publications and landscape character assessments. EDP has also obtained, where possible, information about relevant landscape and other designations such as Areas of Outstanding Natural Beauty (AONBs), conservation areas and gardens and parks listed on Historic England's 'Register of Historic Parks and Gardens of Special Historic Interest in England' (RPG).
- 1.8 **Field Assessment**: EDP has undertaken a comprehensive field assessment of local site circumstances, including a photographic survey of the character and fabric of the site and its surroundings, using photography from a number of representative viewpoints. The field assessment was undertaken by a qualified landscape architect in good (dry) weather conditions on 14th June 2021. Only one visit was necessary.
- 1.9 Acknowledgement of any shortcomings: The site visit was undertaken during summer months, and therefore views do not represent a worst-case scenario (due to seasonal variation). Professional judgement has therefore been applied to reflect the potential worsening of effects during winter months when boundary vegetation may provide less of a screening effect in some views.

- 1.10 **Design Inputs:** EDP's field assessment has informed a process whereby the development proposals have been refined to avoid, minimise or compensate for landscape effects. Such measures are summarised in **Section 6**.
- 1.11 **Assessment Methodology**: Predicted effects on the landscape resource arising from the proposed development (as detailed in **Section 7** of this LVA) have been determined in accordance with the principles embedded within published best practice guidance insofar as the assessment adopts the following well-established, structured approach:
 - Likely effects on landscape character and visual amenity are dealt with separately;
 - The assessment of likely effects is reached using a structured methodology for defining sensitivity, magnitude and significance which is contained as Appendix EDP 2. This framework is combined with professional judgement. Professional judgement is an important part of the assessment process; it is neither 'pro' nor 'anti' development but acknowledges that development may result in beneficial change as well as landscape harm;
 - As advised in GLVIA3, the appraisal takes into account the effects of any proposed mitigation; and
 - Typically, a 15-year time horizon is used as the basis for conclusions about the
 residual levels of effect. Fifteen years is a well-established and accepted compromise
 between assessing the shorter-term effects (which may often be rather 'raw' before
 any proposed mitigation has had time to take effect) and an excessively long time
 period.

Study Area

- 1.12 To establish the baseline and potential limit of material effects, the study area has been considered at two geographical scales:
 - First, a broad 'study area' was adopted, the extent of which is illustrated on Plan EDP 2. Based mainly on desk-based study, this broad study area allowed the geographical scope of the assessment to be defined based on the extent of views to/from the site, extent of landscape effects and the site's environmental planning context; and
 - Second, following initial analysis and subsequent fieldwork, the broad study area was
 refined down to the land that is most likely to experience landscape effects. The
 extent of this detailed study area is 2km from the site boundary, although occasional
 reference may be made to features beyond this area where appropriate. This detailed
 study area is illustrated on Plan EDP 1.

Section 2 The Site

- 2.1 **Plan EDP 1** illustrates the location of the site's boundaries and the study area for the LVA. The site is located approximately 3.5km to the south-west of Narberth, Pembrokeshire and is within Pembrokeshire LPA.
- 2.2 The site's character and local context is illustrated on the aerial photograph contained as **Plan EDP 2**.
- 2.3 The site is predominantly pastureland bounded by heavy vegetation of relatively few species. The western boundary is defined by a mature hedgerow. Hedgerow/shrub species identified on the southern boundary of the site, spanning the length of the field, includes Field maple (acer campestre), Blackthorn (Prunus spinosa) and Hawthorne (Crataegus monogyna). Hedgerows on the eastern side of the site appear to be slightly more moisture favouring species such as willow, with the additional presence of Gorse (Ulex europaeus) and Bracken (Pteridium).
- 2.4 The site is relatively undulating in its topographical make-up. This, consequently, appears to have created natural basins of moisture, with Soft rush (*Juncus effusus*) featuring heavily within such areas of acidic grassland.

Section 3 Findings of EDP Data Trawl and Policy Review

3.1 The findings of EDP's data trawl of relevant environmental and planning designations are illustrated on **Plan EDP 2** and summarised in this section.

Background Published Evidence Base Documents

- 3.2 The following documents are relevant and will be discussed as appropriate later in this report:
 - Pembrokeshire County Council Draft Supplementary Planning Guidance: Landscape Character Assessment (July 2019); and
 - Pembrokeshire Local Development Plan (February 2013).

Findings of EDP Data Trawl

Landscape-related Designations and Other Considerations

- 3.3 Landscape-related designations and policy considerations within 5km of the site are shown on **Plan EDP 2**. In summary:
 - National landscape designations: The site does not lie within a nationally designated landscape;
 - Local landscape designations: The site does not lie within a locally designated landscape; and
 - Other landscape-related designations: The site does not lie within Pembrokeshire Coast National Park.

Heritage Matters

- 3.4 Heritage assets can influence the visual character of the landscape and enrich its historic value. This LVA addresses heritage assets only insofar as they are components of the wider contemporary landscape not in terms of their significance and value as heritage assets.
- 3.5 Within the wider study area, the following heritage assets are components of the contemporary landscape:
 - Grade II listed Mounton Quarry Limekiln found c. 750m to the east of the site; and

- Grade II listed Mounton Chapel, found in an isolated position, c. 1.35km to the northeast of the site.
- 3.6 There are no further heritage assets within 1km of the site.

Public Access and Rights of Way

3.7 A review of the definitive map reveals the following public rights of way and open access land within the Study Area. The site itself does not contain any Public Rights of Way (PRoW), nor any public Bridleways. There are, however, public footpaths and bridleways to the east of the site, running north to south, namely Bridleway SP26/1/3 and Bridleway SP26/5/1.

Section 4 Existing (Baseline) Conditions: Landscape Character

4.1 This section provides an assessment of the 'baseline' (existing) conditions in respect of the character of the site and its landscape context. It summarises any relevant published landscape assessments that contribute to a better understanding of the landscape context. Such assessments provide a helpful understanding of the landscape context, but rarely deliver sufficiently site-specific or up-to-date information to draw robust conclusions about the significance of any change proposed by the development. Accordingly, EDP has undertaken its own assessment of the site itself which is included in this section.

National Landscape Character Areas (Natural Resources Wales)

- 4.2 At the national level, the character of Wales has been described and classified in the National Landscape Character Areas (NLCA) profiles published by Natural Resources Wales² (NRW). The site and its surroundings fall within NLCA 44, which extends 62km from Carmarthen to Croesgoch.
- 4.3 While the NLCA is broadly representative of the site's landscape context, it is far too generic to reliably inform an assessment of the suitability of the proposals in landscape terms. Of much greater use are the more localised, county-specific assessments described below.

Local Landscape Character Assessments

Pembrokeshire County Council's Landscape Character Assessment (July 2019)

4.4 The site is situated within Landscape Character Area (LCA) 29: 'Narberth and Lampeter Vale' of the Landscape Character Assessment. This identifies the area to contain undulating agricultural landscape, significant travel routes which cross the area, in the form of the A40, the A478 and railway line. These conclusions are commensurate with EDP's assessment. Highways that are more prominent to the site are the A4075 and A4115. The Character Area also describes significant tourism development which includes Oakwood Theme Park, part of Bluestone Holiday Village, and part of Folly Farm Adventure Park and Zoo. These tourism destinations lie broadly to the west of the A4075 and the site. Broadly speaking, the site itself is consistent with the description of LCA 29 within the Pembrokeshire LCA.

² https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles

4.5 The LCA describes the key qualities of the area as:

'Quiet rural villages that can have an attractive and sheltered feel with low levels of human settlement, mixed farmland with species rich hedgebanks along minor lanes and areas of woodland in association with small streams set in a lowland farm landscape, provide a strong sense of place and rural tranquillity. Elsewhere, however, this sense is reduced by the noise and visual influences of the main roads and railway lines which create unattractive views. Travelling through the area or visiting its tourist attractions introduce noise and disturbance.'

- 4.6 EDP's assessment of the site concurs with the large volume of noise pollution, adjacent to main roads. As the site borders the A4075 on its western boundary, this was a noticeable detractor from the tranquillity of the site. The site possessed small streams as described in the LCA, along its northern and eastern boundaries, these were narrow and wooded.
- 4.7 With the landscape detractors identified above, it is concluded that the sensitivity of the LCA is 'Low'. It is undesignated countryside, though it does present a few distinctive elements/aspects. This, coupled with the presence of the discussed landscape detractors, reinforces the assessment.

Landscape Designations

- 4.8 The site itself isn't subject to any landscape related designations, though it lies adjacent to the Pembrokeshire Coast National Park. From EDP's assessment, the site is not visible from the National Park and is screened by vegetation, with Oakwood Theme Park in the foreground, intercepting most views. It is acknowledged, however, that Oakwood Theme Park is within the National Park, and consequent views from rollercoasters, especially at height, may result in glimpsed views of the site.
- 4.9 Winter views may expose marginally more prominent views of the site from the National Park, though these would still be heavily filtered.

EDP Site Assessment

4.10 While the above-published assessments provide a helpful contextual appreciation of the wider landscape, none provide a sufficiently site-specific assessment to allow a reliable assessment to be made of the effects of the proposed development on the landscape. In particular, published assessments tend to miss more localised influences on the landscape such as the effect of traffic or existing development on tranquillity and visual character. This requires an appropriately detailed assessment of the site itself and its immediate surroundings, which EDP has undertaken and is described below and should be read in conjunction with **Plan EDP 2**.

- 4.11 Site visits were undertaken in June 2021 in clear and dry weather conditions. The visits were complemented by a review of aerial photography, mapping and field assessments from publicly accessible locations (e.g. from local roads and PRoW).
- 4.12 The site itself appears to be very well hidden from the A4075, with very limited access through. The site comprises a single field area, largely enclosed by hedgerows. The field is relatively flat in comparison to its surroundings but contains minor undulating landform. The low points within this rolling landform, typically included species such as Soft rush, among the improved grassland, due to the resulting hydrological character/properties.
- 4.13 The photograph below illustrates the minor undulations within the eastern field:



Image EDP 4.1: Panoramic view across the site looking north.

- 4.14 The site's northern boundary possesses a narrow stream running east-west just outside the site fencing. It is of a woody, enclosed character and offers little accessibility, due to dense surrounding vegetation and steep/narrow banks.
- 4.15 It appears that the site's visual and sensory characteristics comprise of improved grassland, currently used for grazing. Nearby tourism facilities such as Oakwood Theme Park and Bluestone ensure the site is relatively noisy, because of local traffic and rollercoasters when in use. This deducts form the tranquillity of the site. Oakwood Theme Park is typically operational from 10:30am-8:00pm on weekends and 10:30am-5:30pm on weekdays for most of the year. The site, as a whole, feels relatively enclosed due to limited long-distance views in and mature hedgerows along its boundaries.
- 4.16 The landscape offers improved grassland for animal grazing. Namely, there were a few dozen sheep and a horse present during the site visit.
- 4.17 The historic character of the site is derived through its mature hedgerows and the occasional mature tree which offer distinct separation for the field parcels. These features should be protected/retained when designing any future development.
- 4.18 The site's scenic quality is low, given that views in and out are so heavily filtered by its boundary vegetation and the site itself is otherwise relatively featureless.
- 4.19 There is no recreational value related to the site given the absence of public footpaths within it or access to it.
- 4.20 In addition to the single field parcel, the scope of this LVA extends to the consideration of the construction access, which will be through an existing field gate off the A4075. The route to the north-west is provided for the cable connection to Bluestone.

Interim Conclusions: Landscape Character

Overall Sensitivity of the Site Character

- 4.21 In summary, the main character, and the valuable fabric of the site is to be found in the site's boundaries, which include, to the north, wooded streams of a steep nature (albeit offsite). Mature hedgerows can also be found at most of the other site boundaries.
- 4.22 From a sensory perspective, the site is generally consistent with its near, and more distant context, being relatively unremarkable and well filtered within the landscape. It does not form a prominent, or important, part of the appreciation of the wider landscape, as the site is only visible from a small number of places. Where it can be perceived, it is perceived as pastureland for the purposes of agriculture.
- 4.23 In landscape terms, despite the local topography suggesting otherwise, there is a very limited sense of association between the site and its wider setting; being divorced both physically and visually from it by mature vegetation and the A4075. The site sits within undesignated countryside, and contains few landscape characteristics, minimally contributing to the wider setting, through topography and vegetation filtering most views in. The overall sensitivity is therefore judged to be 'medium'.

Section 5 Existing (Baseline) Conditions: Visual Amenity

Introduction

- 5.1 Visual amenity (as opposed to 'visual character' described in the previous section) is not about the visual appearance of the site, but has to do with the number, distribution and character of views towards, from or within the site. An analysis of visual amenity allows conclusions to be reached about who may experience visual change, from where and to what degree those views will be affected by the proposed development.
- 5.2 This section describes the existing views; changes to views wrought by the proposed development are analysed in **Section 6**. An analysis of existing views and the 'receptors' likely to experience visual change is conducted in three steps described in turn below:

Step One: Defining Zones of Theoretical and Primary Visibility

- 5.3 The starting point for an assessment of visual amenity is a computer-generated 'Zone of Theoretical Visibility' (ZTV). The ZTV is derived using digital landform height data only and therefore it does not account for the screening effects of intervening buildings, structures or vegetation, but it does give a prediction of the areas that, theoretically, may be able to experience visual change; it thus provides the basis for more detailed field assessment.
- The ZTV is then refined by walking and driving local roads, rights of way and other publicly accessible viewpoints to arrive at a more accurate, 'field-tested' zone of primary visibility (ZPV). The ZPV is where views of the proposed development would normally be close-ranging and open, whether in the public or private domain, on foot, cycling or in a vehicle. In this instance, the field assessment was undertaken by a qualified landscape architect in June 2021, in good conditions and therefore confidently predicts the extent of summertime views of the proposed development.
- 5.5 Beyond the ZPV lies a zone of visibility that is less open, being either partly screened or filtered. Views from within this zone would include the proposal it may not be immediately noticeable, but once recognised would be a perceptible addition to the view.
- 5.6 **Plan EDP 1** shows the refined viewpoint selection which is assessed in **Section 7**. The viewpoint locations have been informed by desktop research undertaken to identify visual receptors together with ZTV modelling. These viewpoints have been further tested upon a visit to the site and its surroundings.
- 5.7 Note: the ZTV is **NOT** illustrated.

Step Two: Defining Receptor Groups

5.8 Within the ZPV and wider area, the people ('receptors') likely to experience visual change can be considered as falling into a number of discernible groups.

Rights of Way Users

- 5.9 The site neighbours few public walking routes, which lie mainly to the north and east of the site.
- 5.10 Public Bridleway SP26/1/3 runs north-south almost parallel with the eastern boundary of the site, circa 400m away. Bridleway SP26/1/3 is primarily accessed from the north and begins at Canaston Wood car park found via a turning off the A4075, between Bluestone and Carnaston Bridge. The Bridleway is found via public footpath SP27/35/1.
- 5.11 A representative Photoviewpoint (PVP) from this bridleway can be found at **PVP EDP 1**, which has been taken approximately 450m to the north-east of the site. The Public Footpath/Bridleway route weaves through woodland, with small streams along the route. The transition onto the Bridleway however is not very legible and appears subtly as an overgrown path and gate. The Public Footpath continues beyond this turning. The Bridleway contains views filtered views over the site and towards Oakwood theme park. Notably, a wind turbine to the south of the site focuses the view from the Bridleway. Views appear to be mostly long-medium distance, through open rolling farmland though the site can barely be seen, due to the topography and field vegetation in-between. This receptor is considered to be medium sensitivity, due to it being less accessible and apparently less well used than compared to similar points in the area.

Road Users

A4075

5.12 Road users of the A4075 commute to the west of the site boundary, separated by a single field and a robust planted buffer to the roadside. People here should be considered possible receptors, particularly in wintertime, when filtered views are more likely to be available due to seasonality. The road separates the Bluestone & Oakwood Resorts and the site, making it a key corridor within the local setting and likely to be very busy during the peak tourist season. Heavily filtered views in the summertime make for very little/no visibility towards the site from this road, given the buffer planting along this boundary, though there is potential for slight/glimpsed views through during wintertime. There are no footways to the road so pedestrian receptors, although they may be rarely present, will have their attention elsewhere, on a high-speed weaving highway without an allocated pedestrian walkway/pavement. These receptors are of a very low sensitivity, due to the nature of their movement through the area.

Residential Dwellings/Groups

5.13 Views from private residential properties, although likely to be of high to very high sensitivity to changes in the view, are not protected by national planning guidance or local

planning policy. Accordingly, changes to the character, 'quality' and nature of private views are not a material planning consideration in the determination of a planning application. However, they remain relevant to this review of the predicted extent and nature of visual change, so are reviewed briefly below:

- Properties situated on Mounton View to the south, are not considered to be relevant receptors, due to the fact that the site is not visible from this area; and
- Mounton Farm house situated circa 390m to the east of the site should be considered a potential receptor, due to the proximity to the site and possible filtered views into it. This receptor would be of a high sensitivity.

Other Receptors

5.14 Visiting Receptors; Oakwood and Bluestone welcome many thousands of people each year, who may, in turn, see the site whilst using the tourism attractions adjacent to the site. Given the on-site screening in the form of vegetation, the only potential vantage points are from the heightened peaks of the rollercoasters. The nature of these attractions and their relationship to the site mean that these receptors would be of a low sensitivity and unlikely to be focussed on the site or its appearance.

Step Three: Defining Representative Viewpoints

- 5.15 Within the ZPV, there are clearly many individual points at which views towards the site are gained. EDP has selected a number of viewpoints that are considered representative of the nature of the views from each of the receptor groups. The selection of the representative viewpoints is based on the principle that the assessment needs to test the 'worst case' scenario, and in selecting these viewpoints, EDP has sought to include:
 - A range of viewpoints from all points of the compass, north, south, east and west;
 - A range of viewpoints from distances at close quarters at the site boundary and up to distant viewpoints at 1.2km from the site; and
 - Viewpoints from all the above receptor groups.
- 5.16 The representation of views is supported by three PVPs. Their location is illustrated on Plan EDP 5. Photographs from the selected viewpoints are contained in Appendix EDP 4. The purpose of these viewpoints is to aid assessment of a visual receptor(s). These viewpoints are not assessed separately.

Table EDP 5.1: Summary of Representative Photoviewpoints.

PVP	Location	Grid	Distance and	Reason(s) for Selection and
No.		Reference	Direction of View	Sensitivity of Receptor
1	PRoW SP26/1/3	208090,	450m; north-east	Pedestrians, horse-riders
	(bridleway)	212735		
2	Cott Lane (North of	206109,	1.2km; west	Pedestrians, road users
	Wild Lakes Wales)	212252		
3	Bluestone car park	207103,	600m; north-west	Pedestrians, road users
		212993		

Section 6 The Proposed Development and Mitigation

6.1 Having defined the baseline conditions in the previous two sections, this report now reviews the proposed development and (in the next section) undertakes an assessment of the likely effects in landscape terms.

The Proposed Development

- 6.2 The proposed development is illustrated in the Site Layout Plan at **Appendix EDP 1**. To summarise, these comprise solar panels fixed at c. 2.6m in height, including associated infrastructure such as security fences, sub-stations, and transformers. Solar panels are to be pitched at a 30-degree angle, typically 700mm from the ground.
- 6.3 **Overall Landscape Strategy**: The landscape strategy stems from the positive site selection process. Of the surrounding landscape, this site appears to be the most visually contained and suitable for development of this sort. It's mature field boundaries and relatively flat nature make it appropriate in visual terms. Its mitigation will come primarily in the form of management of site boundaries.

Proposed Landscape Mitigation

6.4 Proposed mitigation measures for the development should be focussed on the long-term management and maintenance of the site's existing field boundaries. This will ensure that the level of visual effects will remain negligible. The site's vegetated boundaries to the north of the site could be maintained at a higher level, say circa 3m, therefore imposing even less of a visual connection between bridleway SP26/1/3 and the proposed development.

Section 7 Summary/Assessment of Effects

Introduction

7.1 In this section, the predicted effects on landscape character and visual amenity are summarised/assessed. The assessment uses the thresholds for magnitude, sensitivity and significance defined at **Appendix EDP 2** as a guide, but moderated where appropriate with professional judgement. Professional judgement is an important part of the assessment process; it is neither 'pro' nor 'anti' development but acknowledges that development may result in beneficial change as well as landscape harm. The assessment also takes account of the likely effectiveness of any proposed mitigation.

Construction Effects

7.2 Construction activities, movement of site traffic, lighting, noise and sounds will be present during the construction process. This is not unusual and will be carefully controlled by a conditioned construction method statement. Recommendations for protection of retained trees and hedgerows, in accordance with relevant British Standards such as BS 5837, will ensure that the rooting areas of trees and hedgerows are not adversely affected by the construction process. The magnitude of change will, however, be very high (on the landscape character of both the site itself and immediate context) and when combined with the medium sensitivity of the site, will result in a major/moderate adverse level of effect. The effect will, however, be temporary and extend only for the duration of the construction process. Assuming tower cranes are not required during construction, most machinery is likely to be relatively low-lying and, as such, visual effects will be much more limited given the enclosure of the site.

Predicted Effects on the Character of the Site (Year 1 and Operation) and its Immediate Context

- 7.3 Following construction/establishment of the landscape strategy (whichever is sooner), the predicted effects take into account suitable and appropriate management of existing and proposed landscape features, undertaken in accordance with a landscape management plan or similar.
- 7.4 It is a consequence of the nature of the development proposed that visual and sensory character of the site would change substantially as a result of implementation. The magnitude of change is not an indication of bad design but is to be expected as the result of the change of use of any green field site to development.
- 7.5 The changes predicted to occur on the dimensions that contribute to the character of the site are described below and evaluated overall.

- 7.6 Predicted effects on landscape character are structured using the same format used to describe the site in **Section 4**:
 - The physical landscape: the site's topographic make-up will remain broadly the same, though there may be some localised 'plateauing' to allow for panel installation and maintenance access;
 - The site's visual and sensory character: the site's visual and sensory characteristics
 will change from their current state. Development will change the use and
 appearance of the field itself, though the boundaries surrounding the site will remain
 unchanged. This, coupled with the fact that the site is well screened, makes the
 impact on visual and sensory elements in the wider landscape low, though clearly,
 onsite, the visual effect will be very high;
 - Landscape fabric and habitats: the development of the field parcel means that grazing opportunities on existing grassland will be limited for the livestock currently on the site, though it can continue around the solar panels. In addition, hedgerows and other types of landscape habitats such as the stream to the north will remain;
 - Historic landscape character: mature hedgerows and trees will remain on-site, still
 providing clear separation to existing adjacent field parcels; and
 - Cultural connections: the site has no current use for recreational purposes, due to the absence of public footpaths or bridleways running through the site. This will continue to be the case.
- 7.7 On balance, the overall effect on the character of the site is considered to be major. The physical imposition of the solar panels into the current greenfield character will significantly change the character of the field when experienced on site. However, given there is no public access to the site and limited visibility in the wider landscape, this effect is of limited consequence and the existing character of the site is not considered of such value or sensitivity to warrant protection from this change. The site's immediate context will also be influenced by the changes on site, but this will diminish rapidly away from the site given the enclosure provided by its boundaries.

Predicted Effects on the Pembrokeshire County Council's Landscape Character Area 29 (LCA29)

7.8 The area immediately surrounding the site will be subject to the greatest change to the defined LCA and this is predicted to diminish due to distance and intervening landform and features. Effects on the immediate surroundings and the wider area are described below. The overall sensitivity of the LCA examined in the baseline was judged to be low.

- 7.9 The effects on the LCA, as a result of the proposed development, is broken down and described below:
 - The scale of the effect is small, in comparison to the size of the character area and is therefore less significant;
 - The LCA identified the busy travel routes adjacent to the site as well as the large tourist destinations to the west. Small, narrow streams were identified within the LCA and are present close to the site also, though all the features listed above will remain should the development progress. The Landscape Character Assessment also identified a key characteristic of the area being the lowland farm landscape. This will be affected, with the development replacing pastureland and removing grazing opportunities for livestock; and
 - Other influences such as the tranquillity and noise attributes of the area, as set out in the LCA's character area, will remain unchanged with limited consequential impact to these sensory features.
- 7.10 With the above considered, the overall effect on the wider character of the LCA is judged to be minor.

Predicted Effects on Visual Amenity

7.11 For ease of reference, the three Photoviewpoints (PVP) are listed below;

Table EDP 7.1: Summary of Representative Photoviewpoints.

PVP	Location	Grid	Distance and	Reason(s) for Selection and
No.		Reference	Direction of View	Sensitivity of Receptor
1	PRoW SP26/1/3	208090,	450m; north-east	Pedestrians, horse-riders
	(bridleway)	212735		
2	Cott Lane	206109,	1.2km; west	Pedestrians, road users
	(North of Wild	212252		
	Lakes Wales)			
3	Bluestone Car	207103,	600m; north-west	Pedestrians, road users
	Park	212993		

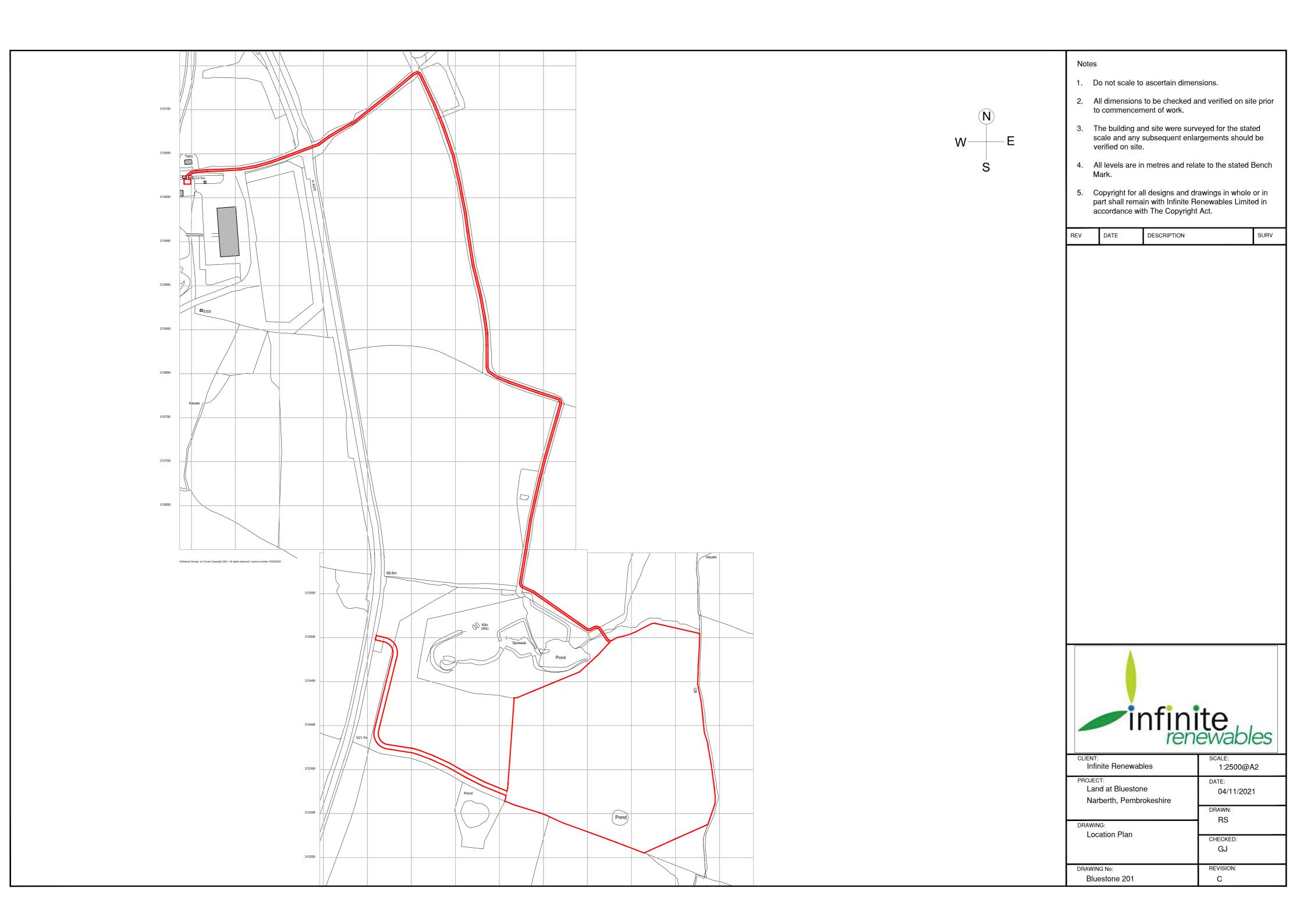
- 7.12 **PVP EDP 1** offers the most prominent identified views of the site. Though, it is only through glimpsed views that the field parcel is visible. It is also the closest PVP and therefore the site is likely to be more visible. The sensitivity of this PVP is judged to be Medium with an overall 'Medium' magnitude of change, resulting in a 'moderate/minor' level of effect on **PVP EDP 1**.
- 7.13 **PVP EDP 2** is found to the west of Oakwood Theme Park, circa 1.2km from the site. Views from this PVP are barely visible, and near invisible in the summer months, due to heavy vegetation and landform. The Oakwood Theme Park vastly occupies the view towards the site. The sensitivity of the PVP is judged to be 'low', coupled with a 'very low' magnitude of change. This makes for a 'negligible' level of effect.

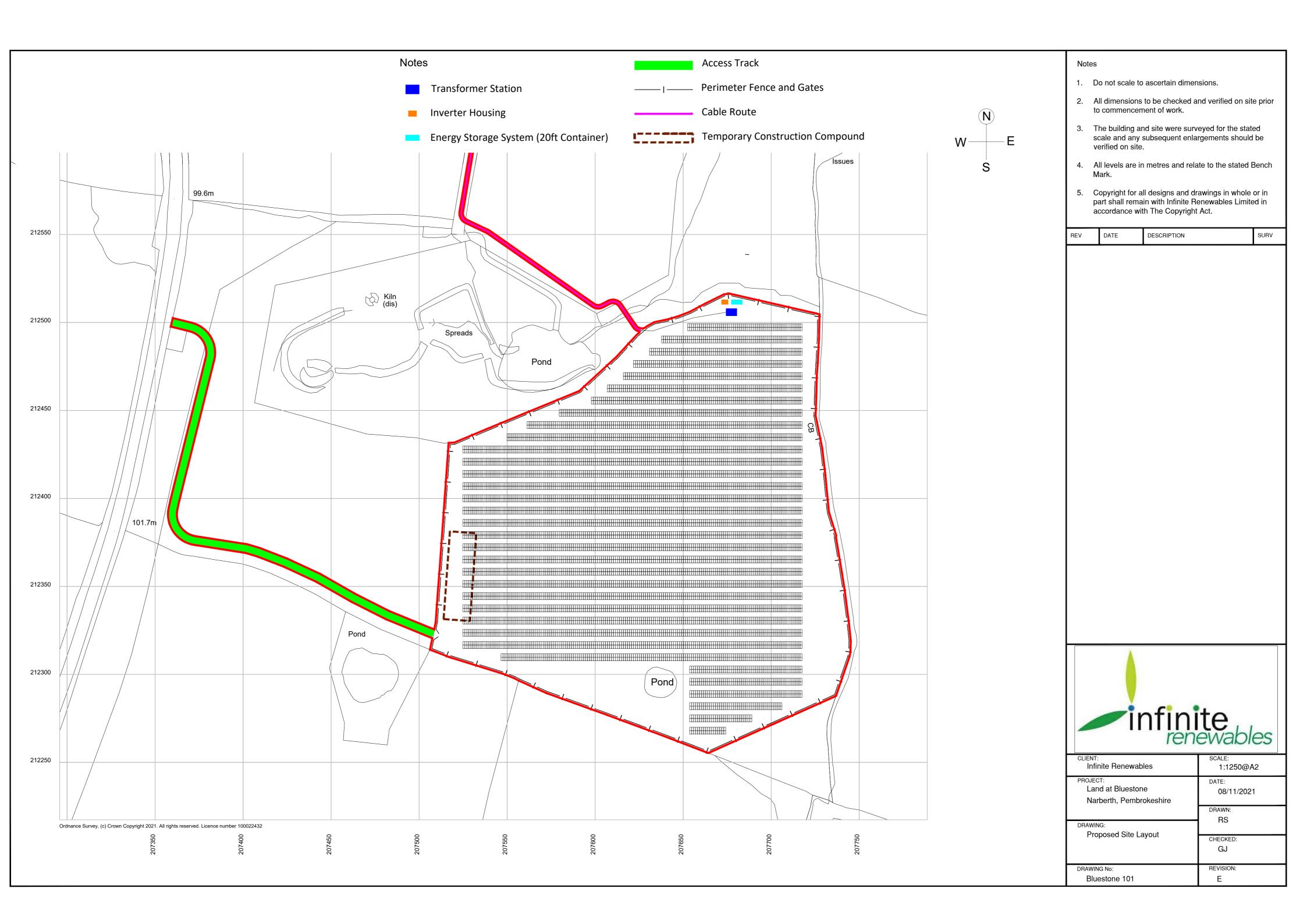
- 7.14 **PVP EDP 3** is located circa 600m from the site's north-western boundaries. Due to dense and high vegetation, the site was not visible within the framed view at all upon the site visit. It was taken however in the Bluestone car park, meaning that the receptors are less sensitive than elsewhere (a PRoW for instance). It is therefore assigned a 'very low' overall sensitivity, alongside a 'very low' magnitude of change. This results in a 'negligible' level of effect.
- 7.15 Following the assessment of each PVP, receptor groups must then be assessed for the overall effects upon them, as a result of development.
- 7.16 Rights of way users have been considered within this assessment, particularly to the north of the site, where views may be more available. The sensitivity of the PRoW receptor group is judged to be 'High', given the generally rural landscape (but not 'very high' given the level of tourism activity and detractors in the locale). This is coupled with a 'Low' magnitude of change. Therefore, the overall level of effect for this receptor group is found to be 'moderate/minor'.
- 7.17 Road users (particularly of the A4075) will experience very little of the site in terms of visual effects. This is due to the limited experiential nature of the vehicles near to the site. The sensitivity of these receptors is judged to be 'low' with a 'very low' magnitude of change. This concludes that there is a 'negligible' level of effect upon this receptor group.
- 7.18 The last of the receptor groups are residential receptors. Although difficult to assess if the site is directly visible from the few residential receptors identified, the high, dense boundaries surrounding the site, particularly from the east, allow for a sound conclusion that views from residential properties would be of a glimpsed nature at worst. Further to this, the influence of Oakwood's high-rise amusement rides within the same views would detract from the sensitivity of the site's adjacent properties. The sensitivity of these receptors should be defined as 'High' with a predicted 'very low' magnitude of change. This therefore results in a 'minor' level of effect.
- 7.19 With the summaries above in mind, of each photoviewpoint and receptor group, the general level of effect on visual amenity is considered acceptable within the context of the development's surroundings.

Section 8 Conclusions

- 8.1 EDP is an independent environmental consultancy and Registered Practice of the Landscape Institute specialising the assessment of developments at all scales across the UK.
- 8.2 This report has summarised the findings of a comprehensive landscape data trawl and field appraisal undertaken by EDP's landscape team (Sections 2, 3, 4 and 5). In Section 6, the proposed development is described with any proposed mitigation. Section 7 undertakes an assessment of the likely landscape and visual effects having regard to the above and based on a combination of the thresholds set out in Appendix EDP 4 coupled with professional judgement.
- 8.3 The following effects are likely:
 - The limited loss of pastureland where panels are present, though the site can still be used for livestock grazing around the panels. The site's use will partially change from farmland to facilitate a source of renewable energy. The site will retain other features such as wooded streams, buffer planting and mature hedgerows;
 - The wider area's landscape character will not be imposed on, due to the contained nature of the site and since the key characteristics of LCA 29: 'Narberth and Lampeter Vale' of the Pembrokeshire County Council's Landscape Character Assessment are retained within the site. In the context of the site itself, these include small wooded, narrow streams. The tranquillity of the area will still be hindered by the nearby highways, which will remain despite the development; and
 - A moderate/minor level of effect on visual amenity, namely from Bridleway SP26/1/3, due to its sensitivity, coupled with its magnitude of change. The development will offer glimpsed views of the site from one of the Photoviewpoints identified.
- 8.4 Having considered the development overall, by weighing the positive effects against the negative, it is clear that the site presents a well-hidden, low impact proposal to assist Bluestone with the production of a clean, renewable source of energy. The development's limited negative effects are considered acceptable in landscape terms on a site that is best placed for this kind of development within its setting.

Appendix EDP 1
Site Location Plan and Site Layout Plan
(Infinite Renewables: Bluestone 201, Rev C & 101, Rev E)





Appendix EDP 2 Methodology: Thresholds and Definitions of Terminology used in this Assessment

A2.1 Landscape and Visual Assessments are separate, though linked procedures. Landscape effects derive from changes in the physical landscape fabric which may give rise to changes in its character and how this is experienced. Visual effects relate to changes that arise in the composition of available views as a result of changes to the perception of the landscape, to people's responses to the changes and to the overall effects with respect to visual amenity.

Table EDP A2.1: Defining the sensitivity of the landscape baseline.

EDP assess	ment terminology and definitions		
Landscape Baseline - Overall Sensitivity			
Very High	Value : Nationally/internationally designated/valued countryside and landscape features; strong/distinctive landscape characteristics; absence of landscape detractors.		
	Susceptibility : Strong/distinctive landscape elements/aesthetic/perceptual aspects; absence of landscape detractors; landscape receptors in excellent condition. Landscapes with clear and widely recognised cultural value. Landscapes with a high level of tranquillity.		
High	Value : Locally designated/valued countryside (e.g. Areas of High Landscape Value, Regional Scenic Areas) and landscape features; many distinctive landscape characteristics; very few landscape detractors.		
	Susceptibility: Many distinctive landscape elements/aesthetic/perceptual aspects; very few landscape detractors; landscape receptors in good condition. The landscape has a low capacity for change as a result of potential changes to defining character.		
Medium	Value : Undesignated countryside and landscape features; some distinctive landscape characteristics; few landscape detractors.		
	Susceptibility : Some distinctive landscape elements/aesthetic/perceptual aspects; few landscape detractors; landscape receptors in fair condition. Landscape is able to accommodate some change as a result.		
Low	Value : Undesignated countryside and landscape features; few distinctive landscape characteristics; presence of landscape detractors.		
	Susceptibility : Few distinctive landscape elements/aesthetic/perceptual aspects; presence of landscape detractors; landscape receptors in poor condition. Landscape is able to accommodate large amounts of change without changing these characteristics fundamentally.		
Very Low	Value : Undesignated countryside and landscape features; absence of distinctive landscape characteristics; despoiled/degraded by the presence of many landscape detractors.		
	Susceptibility : Absence of distinctive landscape elements/aesthetic/perceptual aspects; presence of many landscape detractors; landscape receptors in very poor condition. As such landscape is able to accommodate considerable change.		

Table EDP A2.2: Defining the sensitivity of the visual baseline.

Visual Bas	eline - Overall Sensitivity
Very High	Value/Susceptibility : View is: designed/has intentional association with surroundings; recorded in published material; from a publicly accessible heritage asset/designated/promoted viewpoint; nationally/internationally designated right of way; protected/recognised in planning policy designation.
	Examples : May include views from residential properties; National Trails; promoted holiday road routes; designated countryside/landscape features with public access; visitors to heritage assets of national importance; Open Access Land.
High	Value/Susceptibility : View of clear value but may not be formally recognised e.g. framed view of scenic value or destination/summit views; inferred that it may have value for local residents; locally promoted route or PRoW.
	Examples : May include from recreational locations where there is some appreciation of the visual context/landscape e.g. golf, fishing; themed rights of way with a local association; National Trust land; panoramic viewpoints marked on OS maps; road routes promoted in tourist guides and/or for their scenic value.
Medium	Value/Susceptibility : View is not widely promoted or recorded in published sources; may be typical of those experienced by an identified receptor; minor road routes through rural/scenic areas.
	Examples : May include people engaged in outdoor sport not especially influenced by an appreciation of the wider landscape e.g. pitch sports; views from minor road routes passing through rural or scenic areas.
Low	Value/Susceptibility : View of clearly lesser value than similar views from nearby visual receptors that may be more accessible.
	Examples : May include major road routes; rail routes; receptor is at a place of work but visual surroundings have limited relevance.
Very Low	Value/Susceptibility: View may be affected by many landscape detractors and unlikely to be valued.
	Examples: May include people at their place of work, indoor recreational or leisure facilities or other locations where views of the wider landscape have little of no importance.

Magnitude of Change

- A2.2 The magnitude of any landscape or visual change is determined through a range of considerations particular to each receptor. The three attributes considered in defining the magnitude are:
 - Scale of Change;
 - · Geographical Extent; and
 - Duration and reversibility/Proportion.
- A2.3 **Table 2.3** below provides an indication of the criteria by which the geographical extent of the area will be affected within this assessment.

Table EDP A2.3: Geographical Extent Criteria.

Landscape Receptors	Visual Receptor Criteria	
Large scale effects influencing several landscape types or character areas	Direct views at close range with changes over a wide horizontal and vertical extent.	
Effects at the scale of the landscape type or character areas within which the proposal lies	Direct or oblique views at close range with changes over a notable horizontal and/or vertical extent	
Effects within the immediate landscape setting of the site	Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.	
Effects at the site level (within the development site itself)	Oblique views at medium or long range with a small horizontal/vertical extent of the view affected.	
Effects only experienced on parts of the site at a very localised level	Long range views with a negligible part of the view affected.	

A2.4 The third, and final, factor, in determining the predicted magnitude of change is duration and reversibility. Duration and reversibility are separate but linked considerations. Duration is judged according to the defined terms set out below, whereas reversibility is a judgement about the prospects and practicality of the particular effect being reversed in, for example, a generation. The categories used in this assessment are set out in **Table EDP A2.4** below.

Table EDP A2.4: Factors influencing judgements on magnitude of change

5. 5				
Duration	Reversibility			
Long Term (20+ years)	Permanent with unlikely restoration to original state e.g. major road corridor, power station, urban extension, hydrocarbons			
Medium to long term (10 to 20 years)	Permanent with possible conversion to original state e.g. agricultural buildings, retail units;			
Medium term (5 to 10 years)	Partially reversible to a different state e.g. mineral workings;			
Short term (1 – 5 years)	Reversible after decommissioning to a similar original state e.g. renewable energy development;			
Temporary (less than 12 months)	Quickly reversible e.g. temporary structures.			

Table EDP A2.5: Defining the magnitude of change to the landscape and visual baseline.

Magnitude o	Magnitude of Change		
(Considers S	(Considers Scale of Proposal/Geographical Extent/Duration and Reversibility/Proportion)		
Very High	Landscape : Total loss/major alteration to key receptors/characteristics of the baseline; addition of elements that strongly conflict or fails to integrate with the baseline.		
	Visual : Substantial change to the baseline, forming a new, defining focus and having a defining influence on the view.		
High	Landscape : Notable loss/alteration/addition to one or more key receptors/-characteristics of the baseline; or addition of prominent conflicting elements.		

Magnitude of Change		
	Visual: Additions are clearly noticeable and part of the view would be fundamentally altered.	
Medium	Landscape: Partial loss/alteration to one or more key receptors/characteristics; addition of elements that are evident but do not necessarily conflict with the key characteristics of the existing landscape.	
	Visual : The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor.	
Low	Landscape : Minor loss or alteration to one or more key landscape receptors/-characteristics; additional elements may not be uncharacteristic within existing landscape.	
	Visual: Proposed development will form a minor constituent of the view being partially visible or at sufficient distance to be a small component.	
Very Low	Landscape : Barely discernible loss or alteration to key components; addition of elements not uncharacteristic within the existing landscape.	
	Visual : Proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline.	
Imperceptible	In some circumstances, changes at representative viewpoints or receptors will be lower than 'Very Low' and changes will be described as 'Imperceptible'. This will lead to negligible effects.	

Predicted Effects

A2.5 In order to consider the likely level of any effect, the sensitivity of each receptor is combined with the predicted magnitude of change to determine the level of effect, with reference also made to the geographical extent, duration and reversibility of the effect within the assessment. Having taken such a wide range of factors into account when assessing sensitivity and magnitude at each receptor, the level of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in **Table EDPA2.6.**

Table EDP A2.6: Determining the predicted levels of effects to the landscape and visual baseline.

Overall	Overall Magnitude of Change				
Sensitivity	Very High	High	Medium	Low	Very Low
Very High	Substantial	Major	Major/- Moderate	Moderate	Moderate/ Minor
High	Major	Major/ Moderate	Moderate	Moderate/ Minor	Minor
Medium	Major/ Moderate	Moderate	Moderate/- Minor	Minor	Minor/ Negligible
Low	Moderate	Moderate/ Minor	Minor	Minor/ Negligible	Negligible
Very Low	Moderate/ Minor	Minor	Minor/- Negligible	Negligible	Negligible/ None

Table EDP A2.7: Definition of effects.

Definition of Effects		
Substantial	Effects that are in complete variance to the baseline landscape resource or visual amenity.	
Major or Major/Moderate	Effects that result in noticeable alterations to much (<i>Major effect</i>) or some (<i>Moderate/Major effect</i>) of the key characteristics of the landscape resource or aspects of visual amenity.	
Moderate	Effects that result in noticeable alterations to a few of the key characteristics of the baseline landscape resource or aspects of visual amenity.	
Minor or Minor/Negligible	Effects that result in slight alterations to some (<i>Minor effect</i>) or a few (<i>Minor/Negligible</i>) of the key characteristics of the landscape resource or aspects of visual amenity.	
Negligible or Negligible/None	Effects that result in barely perceptible alterations to a few (Negligible effect) or some (Negligible/None effect) of the key characteristics of the landscape resource or aspects of visual amenity.	
None	No detectable alteration to the key characteristics of the landscape resource or aspects of visual amenity.	

- A2.6 Effects can be adverse (negative), beneficial (positive) or neutral. The landscape effects will be considered against the landscape baseline, which includes published landscape strategies or policies if they exist. Changes involving the addition of large scale manmade objects are typically considered to be adverse, unless otherwise stated, as they are not usually actively promoted as part of published landscape strategies.
- A2.7 Visual effects are more subjective as peoples' perception of development varies through the spectrum of negative, neutral and positive attitudes. In the assessment of visual effects the assessor will exercise objective professional judgement in assessing the level of effects and, unless otherwise stated, will assume that all effects are adverse, thus representing the worst case scenario. Effects can be moderated by maturation of landscape strategies.
- A2.8 The timescale of each effect is also important and effects are generally assessed at time stamps in the whole development life cycle: temporary (at a mid-point in construction), short-term (completion at year 1), medium-term (typically 15 years), medium- to long-term (15+ years). In some cases, the operational phase of a scheme could be considered 'temporary'.

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Plans

Plan EDP 1 Site Location Plan (2km Radius of the Application Site) (edp7250_d002b 09 November 2021 GY/JH)

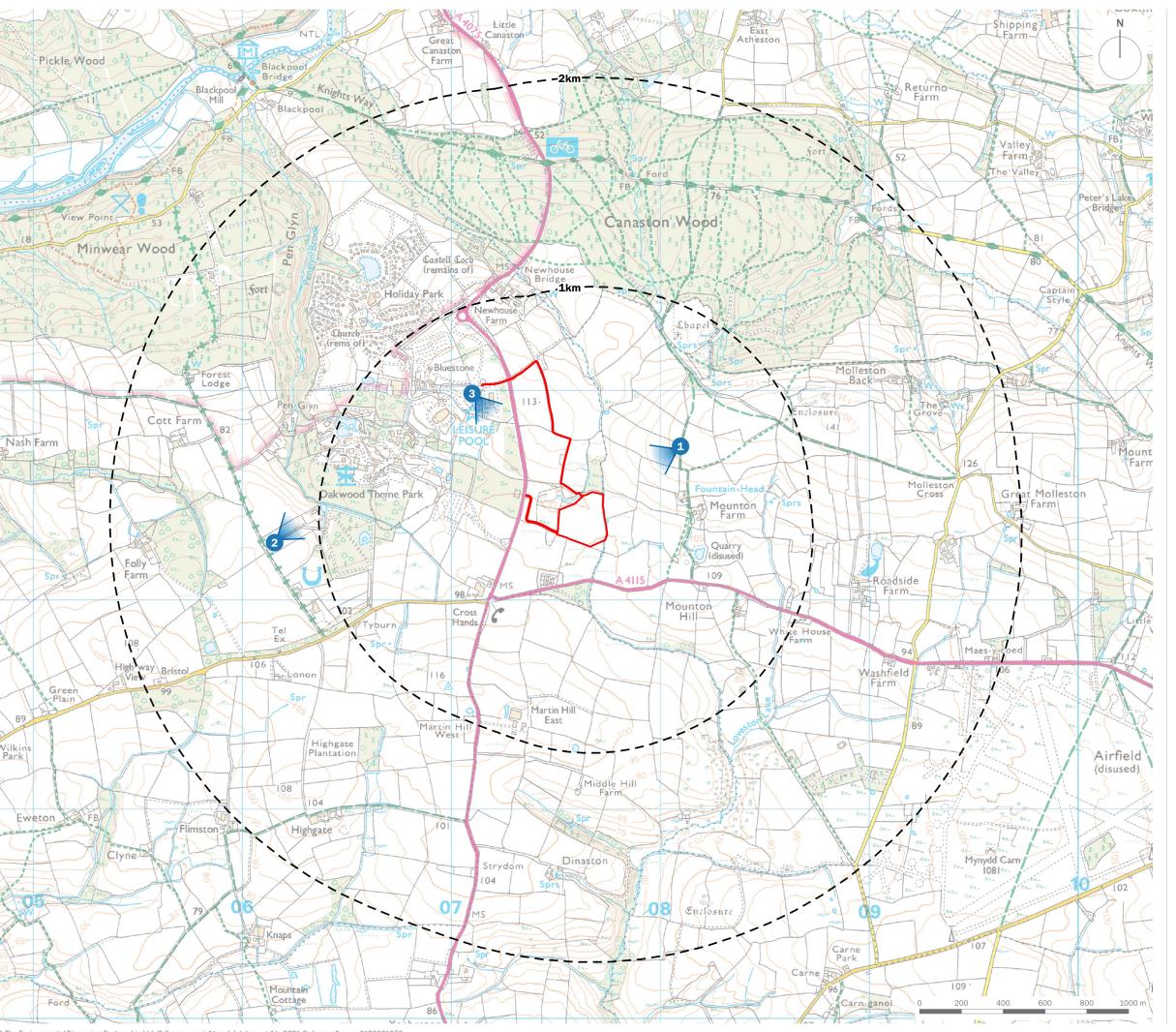
Plan EDP 2 Landscape Related Designations (5km Radius of Application Site)

(edp7250_d003b 09 November 2021 GY/JH)

Plan EDP 3 Topographical Relief

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Infinite Renewables Ltd

project title

Infinite Solar Farm, Pembrokeshire

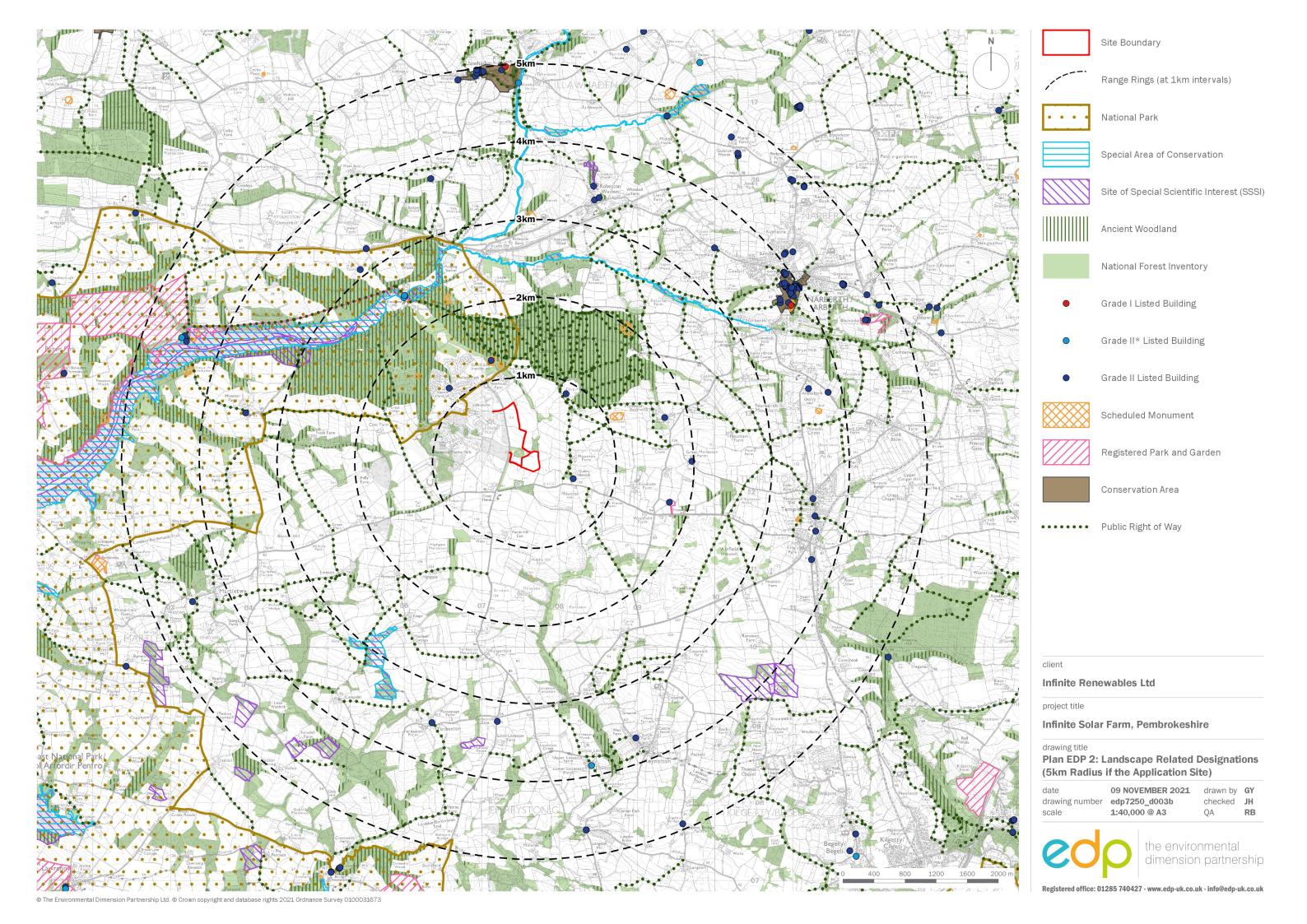
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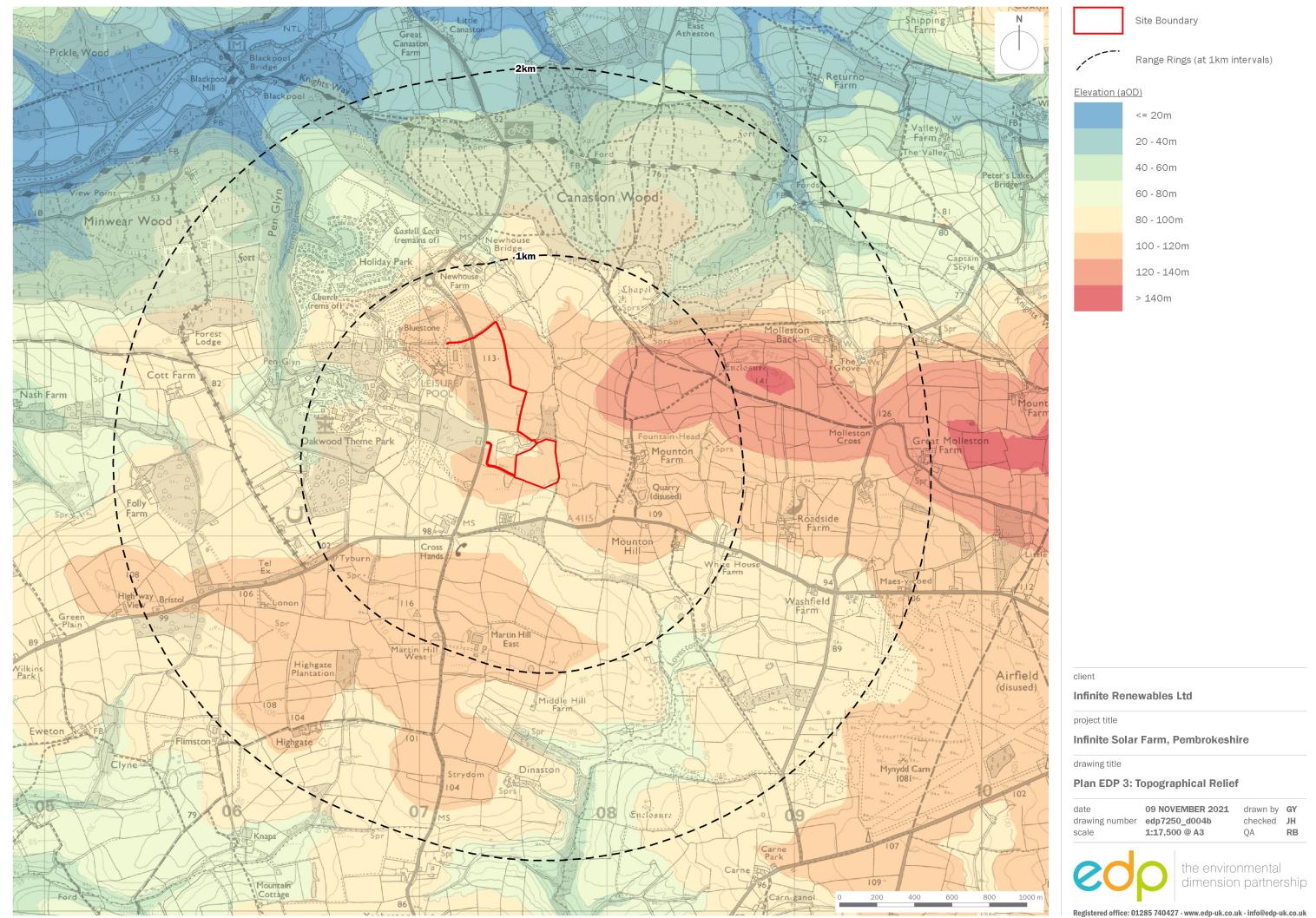
Plan EDP 1: Site Location Plan (2km Radius of the Application Site)

09 NOVEMBER 2021 drawn by GY date drawing number edp7250_d002b checked JH 1:17,500 @ A3 QA RB scale



the environmental dimension partnership





Photoviewpoints

(edp7250_d005a 10 November 2021 GH/JH)

Photoviewpoint EDP 1 PRoW SP26/1/3 (bridleway)

Photoviewpoint EDP 2 Cott Lane (North of Wild Lakes Wales)

Photoviewpoint EDP 3 Bluestone Car Park

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Height of Camera: 1.6m Distance: 515m Make, Model, Sensor: Canon 5D MK2, FFS aOD: 126m Enlargement Factor: 96% @ A1 width Focal Length: 50mm

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project title Infinite Solar Farm, Pembrokeshire





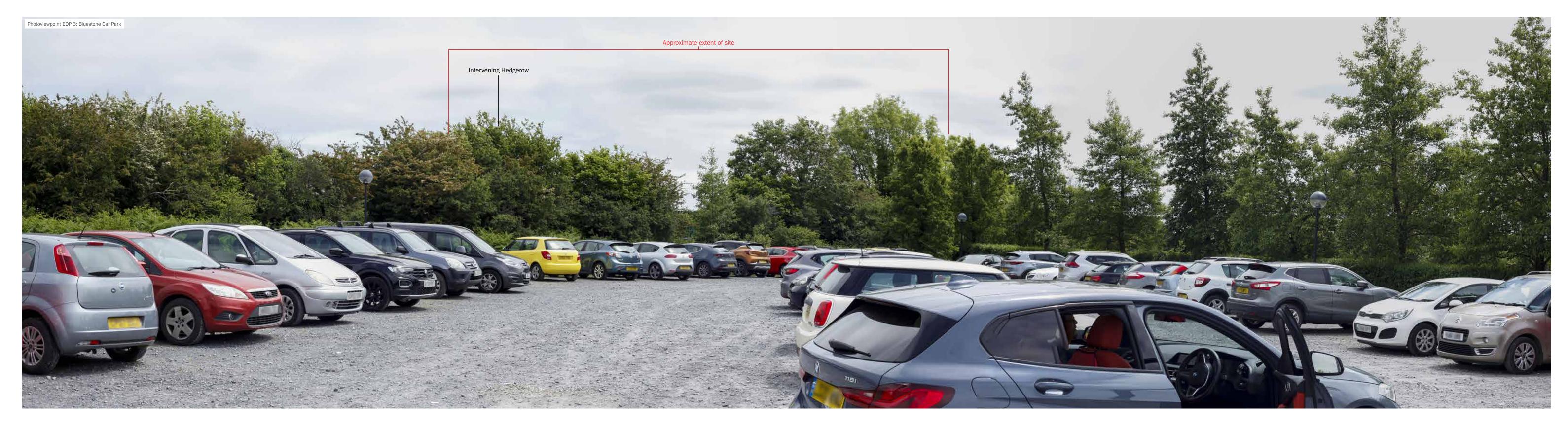
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Infinite Renewables Ltd project title Infinite Solar Farm, Pembrokeshire



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