

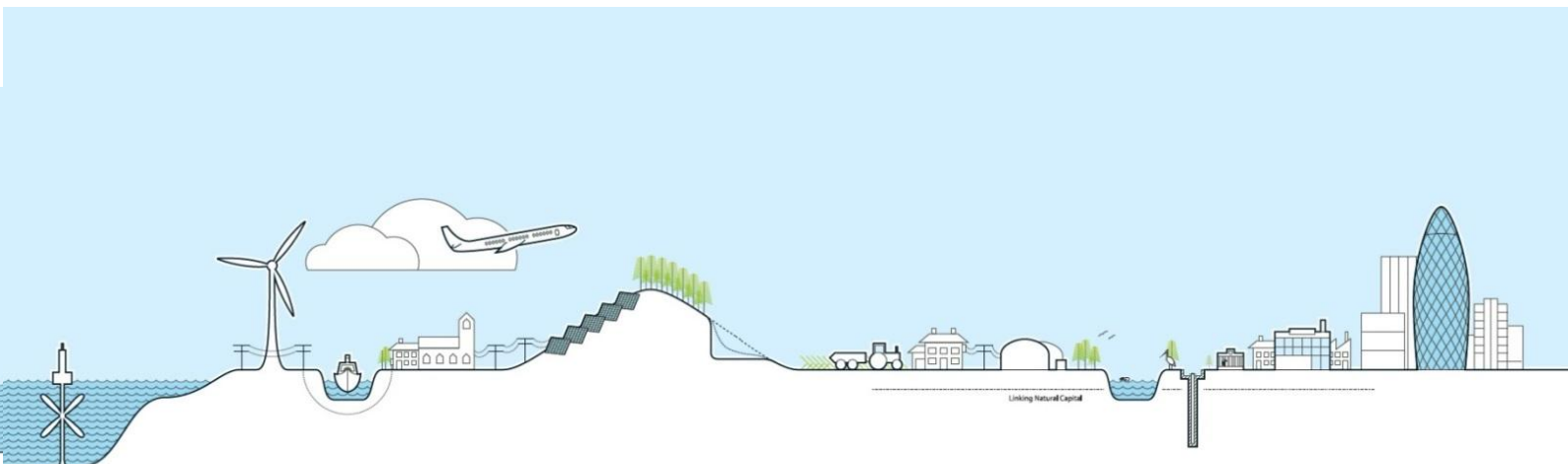
DESIGN & ACCESS STATEMENT

Accompanying a planning application for the Proposed Construction and operation of a ground mounted solar PV array together with all associated works, ancillary infrastructure and equipment, landscaping, biodiversity improvements and access

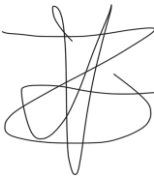
Land at Stourhead, Near Mere, Wiltshire, BA12 6QD

May 2026

Prepared By



Project Quality Control Sheet

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1 INTRODUCTION

1.1 *The Proposal*

Planning permission is sought for the installation and operation of a ground-mounted solar photovoltaic (PV) farm at Stourhead Estate, Warminster, Wiltshire BA12 6QD. The National Trust is one of Europe's largest conservation organisations, and Stourhead is among its most significant and celebrated properties. The Trust's commitment to achieving net zero carbon across its operations by 2030 is not a commitment it intends to meet through the purchase of offsets or by outsourcing its obligations, it is committed to taking direct responsibility for its emissions on its own estate, and to demonstrating that sympathetic, landscape-led renewable energy development is both possible and important.

The Proposed Development is an expression of that commitment in practice. It will make a substantial contribution to the Estate's energy needs, significantly reducing its reliance on grid-imported electricity and the volatility of wholesale energy markets. The scheme is estimated to save approximately 112 tonnes of carbon dioxide equivalent per year, delivering material and tangible progress towards the Trust's net zero target and the Estate's long-term environmental sustainability. But it is not solely about carbon. The Trust places nature recovery at the heart of everything it does, and this project is no exception. The scheme has been designed from the outset to deliver genuine and lasting benefits for biodiversity, with habitat creation, species-rich grassland enhancement and new native hedgerow planting integral to the proposals rather than incidental to them. The result is a development that is intended to contribute to local nature recovery at the same time as reducing the Estate's dependence on fossil fuels. Designed with close regard to its setting within the Cranborne Chase and West Wiltshire Downs National Landscape and in proximity to the Grade I Registered Park and Garden, the scheme demonstrates that decarbonisation and stewardship of valued landscapes can be complementary, not competing, objectives.

The scheme is intended to operate for a period of approximately 40 years, after which the infrastructure could be removed and the land restored to its former condition.

The Proposed Development comprises the following principal elements:

- A ground-mounted solar PV array which supplies Stourhead's main visitor facilities, and any surplus being fed via a maximum AC export capacity of 400kW, as agreed with the Distribution Network Operator, Scottish and Southern Electricity Networks (SSEN).
- String inverters located on the central tables within the array, converting DC electricity generated by the panels into AC electricity.
- Associated electrical infrastructure cabinets, located within a fenced compound area close to the existing bin store for the Estate.
- A new ground-mounted DNO substation, housed within a compact GRP enclosure within a small timber-screened compound of no more than 4.5m x 4.5m. This will replace the existing pole-mounted transformer, resulting in a net reduction in above-ground electrical apparatus on the site.
- New hedging, a perimeter fence and associated security system; and
- Underground electrical cabling connecting the array to the site infrastructure and grid connection point.

1.2 *Site Location*

The boundary of the Site (red line) including the grid connection route and access route from the main road, is shown on the Site Location Plan submitted with the application and encompasses

approximately 1.47 hectares. The solar field itself comprises approximately 0.80 hectares. The Site lies within the administrative area of Wiltshire Council's and is wholly situated within the parish of Stourton with Gasper. The approximate centre of the site is at grid reference ST 77622 33633.

The Site is situated within the wider Stourhead National Trust Estate, positioned to the south of the Stourhead Grade I Registered Park and Garden. Estate buildings associated with the National Trust are located to the northeast of the Site and include visitor facilities, car parking areas, and related infrastructure.

The Site lies to the northwest of the town of Mere and the A303. The nearest residential properties are located along Bells Lane, approximately 33 metres northeast of the proposed construction access point. The village of Zeals is located approximately 1.5 km to the south of the Site, with the villages of Bourton and Wolverton situated further to the south.



Figure 1 - Aerial Imagery 20 June 2024

1.3 Site Description

The 1.47ha Site comprises approximately 1.3ha of poor modified grassland and 0.17 ha of Artificial unvegetated, unsealed surface (existing access track). It is enclosed by species-rich native hedgerows along the northern and eastern boundaries, with post and wire fencing defining the southern and western extents. Whilst agricultural in character, the Site forms part of a managed estate landscape which includes areas of existing development and visitor infrastructure.

The Site is physically and visually separated from the Registered Park and Garden by an intervening area of wooded parkland, which rises to the north. This creates a clear and natural distinction between the more formal historic landscape and the lower-lying agricultural fields.

To the south the land is gently undulating and is predominantly in agricultural use, with a mix of farmland, dispersed farmsteads, and small clusters of residential properties. A decommissioned airfield located to the south has been planted with extensive areas of woodland. The land rises gently to the east before rising abruptly at the scarp of White Castle and White Sheet Down. A chalk ridge and part of the Cranbourne Chase and West Wiltshire Downs National Landscape.

The associated cable route is illustrated on the Proposed Site Layout Plan submitted in support of the application. This extends in a north easterly direction to connect to the point of connection, and a new substation is to be managed and constructed by the Distribution Network Operator to accommodate not only this proposal, but wider electrification needs for the wider site, located within the existing car park area adjacent to the visitor centre and restaurant.

In terms of ecological designations, Heath Farm Hill Site of Special Scientific Interest (SSSI) is located approximately 1.47 km to the west of the Site at its nearest point. Whilst the Site falls within the SSSI Impact Risk Zone, the Proposed Development does not trigger any of the consultation criteria set out by Natural England, and therefore formal consultation is not required. Whitesheet Hill SSSI lies approximately 2.25 km to the north-east and the Site does not fall within its associated Impact Risk Zone. A total of 12 Local Wildlife Sites are located within 2 km of the Site, the closest being Bonham Hanging (approximately 0.3 km to the west). A detailed Ecological Impact Assessment accompanies the application.

The Environment Agency's Flood Map for Planning identifies the Site as lying entirely within Flood Zone 1 (low risk of flooding). Notwithstanding this, as a result of the site size a Flood Risk Assessment and Surface Water Drainage Strategy have been prepared and submitted in support of the application.

The site is located within the statutory designated Cranborne Chase & West Wiltshire Downs National Landscape (formerly Area of Outstanding Natural Beauty) with development guided by the still active Management Plan 2019-2024.

There are no Tree Preservation Orders within the application boundary.

A site-specific Agricultural Land Classification has identified the land as Grade 2, categorised as Best and Most Versatile (BMV) agricultural land. However, whilst the Site is identified as agricultural land, it is not currently subject to active agricultural cultivation and forms part of National Trust's wider visitor estate offer. Furthermore, the Proposed Development is limited in scale and fully reversible, ensuring no permanent loss of agricultural land. Additionally, the Site will support agricultural use through sheep grazing as part of its long-term management.

There are no designated heritage assets, conservation area, registered parks and gardens or registered battlefields located within the application area however there is one non-designated heritage asset recorded within the application area and there are several historic environment records in the wider landscape.

A desk-based Heritage Assessment has identified 138 designated heritage assets within 3 km of the proposed development area. These include 19 Scheduled Monuments, 115 listed buildings, 3 conservation areas, and the Stourhead Registered Park and Garden (which lies within 15m of the Site at its closest point). A further 145 individual records of non-designated heritage assets lie within the 1 km study area.

A Heritage Impact Assessment has been submitted AS part of the application and concludes that the Proposed Development would not result in adverse effects on the setting or significance of heritage assets.

Public access to the natural and historic environment is central to the National Trust's charitable purpose, and Stourhead is one of its most visited properties. Given the Trust's long-standing commitment to opening its land to the public, it is perhaps unsurprising that Public Rights of Way are found across the estate, including within the application site itself. The integration of public access into the design of the Proposed Development has therefore been a primary consideration from the outset. Two Public Rights of Way (PRoW) are located within the application boundary. Footpath STGA7 traverses the field to the north of the Site for approximately 225 metres, extending from the north-western corner to a central point along the western boundary. During the initial establishment phase

of the proposed native hedgerow, there may be some limited visibility of the proposed solar array. The alignment of this route has been fully integrated into the scheme design, with a new hedgerow proposed between the PRoW and the solar array to provide effective visual screening as it matures. At the point of vehicular access into the field, the proposed access track will cross a short section of Footpath STGA7; this interaction will be appropriately managed to ensure the route remains open, safe and unobstructed throughout the construction period, with signage and localised surfacing measures implemented as required.

Part of the proposed access route coincides with Footpath STGA16. It is confirmed that no permanent closure or diversion of STGA16 is proposed at any stage of the development. All potential effects associated with shared use of this route will be managed and mitigated through the Construction Traffic Management Plan (CTMP).

2 APPLICATION DOCUMENTS

The following Environmental Statement documents and supporting environmental assessments and studies are submitted with the application.

Document	Author	Reference
Covering letter	Aardvark EM Ltd	2536-R001
Design and Access Statement	Aardvark EM Ltd	2536-R002
Planning Statement	Aardvark EM Ltd	2536-R003
Submission Pack	Aardvark EM Ltd	2536-R004
EIA Screening Opinion	Wiltshire Council	PL/2025/09055
Pre-Application Response	Wiltshire Council	ENQ/2025/01883
Landscape and Visual Impact Assessment	Swan Paul	SPP/3417/doc.1
Agricultural Land Classification	Reading Agricultural Consultants	10868
Construction Traffic Management Plan	AWP	2032
Ecological Impact Assessment	Tyler Grange	18103_R02a_JS
Biodiversity Net Gain Statement	Tyler Grange	18103_R03a_JS
Flood Risk Assessment and Preliminary Drainage Strategy	RMA Associates	RMA-C2899
Glint & Glare Assessment	Neo Environmental	Glint & Glare Assessment
Noise Impact Assessment	Inacoustic	25-302
Heritage Impact Assessment	Headland Archaeology	P25-274

Table 1: Documents Comprising the Planning Application

2.1 Application Plans and Drawings

The following plans and drawings are submitted with the application (submitted as document R003).

Drawing title	Drawing Number/Reference
Location Plan	SP01 – Revision 06
Proposed Site Layout Plan	PL01 – Revision 06
Existing Site Layout Plan	PL00 – Revision 06
Distribution Board	SD01 – Revision 02

Stourhead Solar – R002: Design & Access Statement

String Inverter	SD02 – Revision 02
PV Detail	SD03 – Revision 02
CCTV Camera	SD04 – Revision 02
Perimeter Fenceline	SD05 – Revision 02
Access Track	SD06 – Revision 02

Table 2: Planning Application Drawings

3 COMMUNITY ENGAGEMENT

3.1 Engagement Strategy

A programme of public consultation and stakeholder engagement has been undertaken by the National Trust in relation to the Proposed Development. The extent of engagement reflects the importance the National Trust placed on ensuring that local communities and relevant stakeholders were able to understand and influence proposals which may affect them.

Engagement has been undertaken throughout the feasibility and pre-application stages, enabling the design of the Proposed Development to be informed by early feedback. This approach recognises the value of a clear and proportionate communication strategy, ensuring that those with a potential interest in the development are appropriately informed and provided with an opportunity to contribute.

The consultation has focused on key considerations relevant to the scheme, including Siting; Landscape mitigation; Construction Access; and Ecology.

3.2 The Consultation

A series of engagement activities have been undertaken between September 2025 and March 2026, as summarised below.

3.2.1 Stakeholder ‘Walk and Talk’ Event (16th September 2025)

An initial stakeholder engagement event was held onsite to introduce the emerging proposal at feasibility stage.

The event was attended by approximately 21 invited stakeholders, including representatives from the National Trust, Cranborne Chase National Landscape and Wiltshire Council. The session provided an opportunity to present early concepts and identify key constraints and opportunities associated with the Site.

A representative from Historic England was unable to attend the September event; however, a separate ‘Walk and Talk’ event was subsequently held on 01st October 2025.

3.2.2 Parish Council Engagement (24th November 2025)

The project team contacted Stourton Parish Council to request attendance at a Parish Council meeting to discuss the Proposed Development. The Parish Council advised that they will engage following submission of a planning application. Notwithstanding this, the Parish Council has been kept informed as part of the wider consultation process.

3.2.3 Public Consultation Event (January 2026)

A public consultation event was held over three days (12-14 January 2026).

The event was publicised via social media and direct emails to stakeholders including the Cranbourne Chase National Landscape, Wiltshire Council, local residents and the Parish Council.

Eight consultation boards were prepared, presenting information on the Site; Proposed Development Layout; Key technical details; and Frequently asked questions.

Members of the project team were present throughout the days to respond to queries and discuss the proposals. Approximately 50 individuals attended the event. Feedback was primarily received through direct discussion.

3.2.4 Targeted Resident Engagement (January 2026)

A focused engagement exercise was undertaken with residents of Bells Lane, in recognition of their proximity to the Site and potential interest in traffic-related matters.

Residents were invited to attend an onsite meeting with the Project Manager, with consultation materials shared in advance. The session provided an opportunity to discuss the proposals in detail and respond to site-specific concerns.

3.2.5 Ongoing Engagement (March 2026)

Details of the Proposed Development were shared via social media platforms, including Facebook and Instagram, in advance of the public consultation event. The posts have received in excess of 10,000 combined views. Questions raised through these platforms were responded to directly, with ongoing monitoring of engagement. Questions were primarily based around the choice of location and use of renewables by National Trust.

Further engagement is planned to be undertaken following the submission of the planning application to the Local Planning Authority. This will include a drop-in session for local residents prior to the project team's attendance at a future Parish Council meeting.

3.3 Summary of Feedback

Feedback received through the consultation process has focused on the following key themes:

3.3.1 Landscape and visual effects

Concerns were raised regarding the potential impact of the proposal on users of the Public Right of Way (PRoW), particularly in relation to their enjoyment of the route. Concerns also related to the Site's location within the Cranborne Chase and West Wiltshire Downs National Landscape, including potential intervisibility with White Sheet Downs to the east.

To mitigate these potential effects, the existing hedgerows along the northern and eastern boundaries will be retained and maintained at a minimum height of 3-4m to preserve effective screening from these directions. In addition, a new hedgerow of approximately 135m in length will be planted along the northern boundary of the Site to provide further screening from footpath STGA7.

3.3.2 Traffic and access, particularly during construction

Residents of properties along Bells Lane raised concerns regarding the increased use of the route by construction traffic, particularly during periods of heightened visitor activity at Stourhead, including seasonal events such as Christmas celebrations.

These matters have been addressed within the Construction Traffic Management Plan (CTMP) submitted as part of the planning application. Furthermore, coordination and advanced programming of the construction work alongside events at Stourhead will be undertaken to ensure traffic movements are effectively managed and disruption minimised.

3.3.3 Ecology and biodiversity enhancement

During the consultation process, questions were raised regarding the proposal's potential effects on ecology and biodiversity, as well as opportunities for enhancement. These concerns were addressed through detailed discussions explaining how the construction process will limit its impacts and confirming that all proposed landscaping and ecological measures would be secured through planning conditions.

3.3.4 Site selection, including the continued use of land for agriculture

During the consultation process, interested parties also raised concerns regarding the use of agricultural land for the proposal. Whilst agricultural in character, the Site forms part of a managed estate landscape and is therefore not within active agricultural use. However, the construction of the Solar Arrays will promote the use of the Site for agriculture with the use of sheep to help maintain the area under the panels.

4 DESIGN

The Proposed Development responds to the Government's support for solar energy by providing a greater renewable energy supply that would reduce carbon emissions and assist in establishing a diversity of energy sources in the UK. The scheme description as set out on the application form is as follows:

'Proposed Construction and operation of a ground mounted solar PV array together with all associated works, ancillary infrastructure and equipment, landscaping, biodiversity improvements and access.'

4.1 Overall Design Approach

The Proposed Development has been designed with a clear and deliberate purpose: to generate renewable electricity directly for the National Trust's buildings, visitor facilities and estate operations at Stourhead, reducing the Estate's dependence on grid-imported power and making a material contribution to the Trust's commitment to achieving net zero carbon on its own estate. Equally, the scheme has been envisioned as an opportunity to deliver genuine and lasting benefits for nature, with biodiversity enhancement and habitat creation integral to the design from the outset rather than incidental mitigation measures.

The primary objective of the solar array is to maximise on-site consumption of the electricity generated. Stourhead is one of the National Trust's most visited properties, and its popularity as a visitor destination means that the Estate has a substantial and consistent demand for electricity across its buildings, visitor facilities and operational infrastructure. This makes it particularly well-suited to a solar installation designed for direct on-site consumption, with the scale of visitor activity providing a strong and reliable baseload against which generation can be matched and reduces reliance on grid-imported power. Where instantaneous site demand does not match generation output, surplus electricity will be exported to the grid. The system has been designed to minimise such surplus, but it is acknowledged that periods of export are an inherent characteristic of solar generation and will occur. Revenue generated from exported electricity will be returned directly to the charity to support its ongoing conservation work. This concept is vitally important for decarbonisation, energy security and reducing power costs as more of the power requirements of the estate are met by renewable energy.

No Battery Energy Storage System (BESS) is proposed as part of this development. No ground levelling works are required for the construction of the solar array. Some minor localised re-levelling may be necessary to provide a level formation for the proposed ground-mounted switchgear cabinet; however, this is anticipated to be minimal in scale.

The connection of the Proposed Development to the grid will require a new ground-mounted substation to replace the existing H-pole mounted transformer on the Site. This infrastructure will be delivered by the Distribution Network Operator (DNO) under a separate application and is therefore not within the scope of this planning application. It is nevertheless noted that the replacement of the existing elevated pole-mounted transformer with a ground-mounted structure is anticipated to represent a modest improvement in visual terms, reducing the prominence of the existing apparatus within the Site.

The overall site will benefit from landscaping and biodiversity enhancements.

The key design considerations are:

- The array has been sized to maximise renewable electricity generation for the Estate, balancing on-site consumption with the benefits of scale necessary to make the scheme viable and to optimise the grid connection agreement;

- Careful regard for the existing topography, orientation of the array, and appropriate buffer zones for hedgerow and ecology features;
- Retention and enhancement of existing hedgerows and field margins, informed by the Landscape and Visual assessment;
- Delivery of biodiversity net gain significantly in excess of the mandatory 10%;
- Sustainable surface water management; and
- Primary access to the Site (both during construction and operation) will be via an existing entrance to the National Trust Estate not used for public access.

Beyond its operational function, the Proposed Development presents a meaningful opportunity for the National Trust to engage its members, visitors and the wider public with the realities of energy consumption and the steps the Trust is taking to address its own emissions directly. It is anticipated that the installation will become an active feature of the visitor and educational offer at Stourhead, with school groups and other visitors able to see firsthand how a working historic estate is taking responsibility for its carbon footprint.

4.2 Alternative Site Assessment

Given the Site's proximity to the Stourhead Grade I Registered Park and Garden, its location within the Cranborne Chase and West Wiltshire Downs National Landscape, and the use of agricultural land, an Alternative Site Assessment has been prepared to accompany the planning application.

The purpose of this assessment is to assist the decision-maker in understanding the Applicant's site selection process and the rationale for identifying the application. Site as the preferred location for the Proposed Development. It sets out the key factors that define a suitable solar farm location and identifies the range of land parcels considered.

4.2.1 The Alternative Site Assessment Process

There is no prescribed process for conducting an alternative site assessment.

The method used in this assessment process is comparable to that used by local planning authorities in their preparation of development plan documents:

- presenting the Search Area;
- identifying all potential opportunities for development in the Search Area;
- narrowing the choice through the application of criteria such as availability; and
- concluding with the preferred location(s) for development.

Search Area

The Search Area was limited to land within the ownership of the National Trust, as illustrated in Figure 2, reflecting the organisation's commitments to meeting its climate responsibilities through action within its own landholding. The roof area available across Stourhead's buildings is completely insufficient to accommodate the level of generation required to meaningfully address the estate's growing energy needs, making an appropriately sized ground-mounted array a viable means of achieving the charity's objectives.

The Proposed Development is intended to generate renewable electricity to directly supply the National Trust's buildings, visitor facilities and estate operations at Stourhead, with any surplus exported to the National Grid. As such, proximity to the point of connection and point of use is a key

consideration. Limiting cable length reduces environmental effects, minimises energy losses during transmission, and ensures the overall viability of the scheme. The selected field best satisfies these requirements. In addition to offering the most direct and practical cable route to the point of connection, it is the most visually contained field within the candidate area, benefiting from strong enclosure provided by existing hedgerows and woodland. The charity is actively transitioning estate operations away from fossil fuels, including the replacement of gas heating with Air Source Heat Pumps, electrification of cooking equipment, EV charging infrastructure, and the electrification of estate vehicles and land management equipment. As no battery storage is proposed, the array has been sized to meet peak operational demand across this evolving and increasing energy profile.

Land within the National Trust's ownership naturally carries a range of designations. Working within these constraints, the National Trust has sought to identify a location for the proposed solar farm that minimises impact on the most sensitive parts of the Estate whilst delivering a meaningful contribution to its net zero ambitions.

The site has been carefully selected to avoid the Registered Park and Garden, the fields in front of the House, and areas of ongoing ecological enhancement, arriving at a location which the National Trust considers to represent an appropriate and responsible balance between renewable energy generation and the stewardship of this exceptional landscape.

It is noted that the entirety of the Search Area falls within the Cranborne Chase and West Wiltshire Downs National Landscape. As such, this designation could not be avoided through site selection alone. Instead, the assessment has sought to identify locations where landscape and visual effects can be appropriately minimised.

The proposed development has been designed with these principles in mind. The site has been selected to avoid the most sensitive parts of the Estate, the solar panels will remain largely screened by existing boundary vegetation, agricultural use of the land will continue beneath the panels, and the associated infrastructure has been kept modest in scale and sited close to existing built visitor offer and car parking.



Figure 2: Map showing National Trust Ownership

Site Selection and Outcome

Following the application of the above criteria, two parcels of land were identified as suitable for further consideration (as shown on Figure 3).

These parcels were selected due to:

- Their proximity to the existing grid connection point and point of use within the Estate;
- The presence of established boundary vegetation providing natural screening from the wider landscape;
- Their location outside the Grade I Registered Park and Garden; and
- The absence of active agricultural use.

The parcels are located to the south of the main visitor buildings and car park areas and are separated by a mature hedgerow. Additional boundary vegetation provides effective containment and limits longer-distance views into the Site from the surrounding landscape.

In terms of current use, the eastern parcel (affectionately named Cockerells) is occasionally utilised for overflow parking associated with the visitor facilities, while the western parcel (affectionately named Brimbles) is maintained grassland without a defined operational purpose.



Figure 3: Map showing potential sites

Both parcels were assessed for their relative suitability. The eastern parcel, being closer to the visitor buildings and car park, was found to be more open in character with a greater degree of intervisibility with the wider Estate and the approaches to the Registered Park and Garden.

The western parcel was identified as the preferred location for the following reasons:

- It is more sheltered in character, sitting within a well-defined field bounded by mature hedgerows and trees on all sides;
- It benefits from stronger natural containment, significantly limiting views into the site from the surrounding landscape and from within the Estate itself;
- It does not form part of the principal visitor experience at Stourhead and is not traversed by the main walking routes around the Estate; and
- Its selection avoids any direct intervisibility with the most visited and celebrated parts of the Registered Park and Garden.

The western parcel provides the greatest opportunity to accommodate the scheme whilst minimising potential effects on landscape character, visual amenity, and the setting of heritage assets, and allows for a coherent and efficient layout taking advantage of existing screening and site characteristics.

The layout of the Proposed Development has been subject to an iterative design process, with a number of revisions undertaken as the scheme has evolved, responding to site-specific constraints, environmental considerations, and feedback received through stakeholder and community engagement. The final layout has been refined to optimise the siting of infrastructure, minimise potential effects, and ensure a landscape-led approach to the design.

4.3 Solar Farm Design

The Proposed Development will generate renewable electricity for a temporary period of approximately 40 years, to directly supply the National Trust's buildings, visitor facilities and estate operations at Stourhead, significantly reducing reliance on fossil fuels and supporting the Trust's net zero ambitions by 2030. By replacing imported grid electricity with clean, locally generated power, the scheme will deliver measurable carbon savings, improve long-term energy security, and enhance the resilience of the estate's operations. Any surplus electricity produced will be exported to the National Grid, contributing to the wider decarbonisation of the national energy supply.

The scheme has been specifically designed to maximise the number of electrical hours of production per hectare. The design layout considers topography, orientation, appropriate hedgerow buffer zones and any proposed landscape planting.

The Solar Site would include the following equipment (approximate):

- Solar photovoltaic (PV) panels, ground mounted onto a Fixed Tilt system, using a south-facing system;
- String Inverters;
- Perimeter deer type fencing and gates to enclose the parameters of the Site;
- Security and monitoring CCTV/infra-red cameras mounted on fence posts along the perimeter of the Site;
- Underground cabling to connect the panels to the proposed point of connection near the cafe;
- Landscaping planting; and biodiversity enhancements.

4.3.1 Finishes and Colours

The Overall Layout drawing submitted with the application shows the layout of the array and ancillary infrastructure relative to the site context. The module frame is aluminium, with the mounting system being galvanised steel (with matt finish), fixed to the ground by driven steel post ground fixings.

Each module is dark blue-grey in colour. Modules will be chosen that have an anti-reflective coating and have a matt grey metallic trim, to ensure that glint and glare are minimised. The impact of both glint and glare is considered in further detail in the Glint and Glare Assessment submitted with this report. Care has been taken to determine the best angle of pitch that will both optimise efficiency of absorption, whilst minimising visual impact.

Details of materials and colours used on the external elevations shall be as shown on the elevation drawings and/or in the text above unless otherwise agreed in writing by the Local Planning Authority prior to the development being commenced.

4.3.2 Solar PV Panels

The solar module panels will be orientated south and mounted on an aluminium frame system on driven posts. At their lower edge panels would be largely 800mm from the ground and up to 3m at their higher edge depending on their position within the topography of the site.

4.3.3 Inverters and Electrical Infrastructure

String inverters will be located on the central tables in the solar array, connecting the panels to the site electrical infrastructure. These inverters convert DC electricity generated by the solar panels into AC electricity. The associated site electrical infrastructure will be contained within a fenced area close to the existing bin store for the Estate. Within the fenced area will be the electrical infrastructure, principally two GRP cabinets, screened from view.

The grid connection will be facilitated via a new ground-mounted Distribution Network Operator (DNO) substation. This infrastructure will be delivered by the DNO under a separate consent process and therefore does not form part of the current planning application, however it is identified within the site layout plan as 'SSE Indicative Compound Area'. Notwithstanding this, it is anticipated that the transformer will be housed within a compact GRP enclosure located within a small timber-screened compound measuring no more than 4.5m x 4.5m. The enclosure will be finished in a colour that is sympathetic to the surrounding landscape, with the final specification to be agreed with the Local Planning Authority.

Importantly, the proposed development will facilitate the removal of the existing H-pole and pole-mounted transformer, replacing this infrastructure with a low-profile ground-mounted enclosure. As a result, the scheme will deliver a reduction in the extent of above-ground electrical infrastructure within the site, thereby providing a visual improvement over the existing arrangement.

All electrical cabling between the array and the site infrastructure will be routed underground.

4.4 Site Security

The Proposed Development would need to be secure. It is proposed that deer fencing (mesh with wooden posts or similar) to a height of approximately 2.4m would be installed along the outer edges of the Solar Array and associated infrastructure in order to restrict access. Small mammal gates and scrapes at the bottom of the fence will be created at appropriate locations around the site perimeter for the passage of small mammals.

The perimeter fencing will be sited inside the outermost hedges, trees and vegetation, maintaining a buffer to respect root protection areas whilst ensuring the fence line is visually obscured from the wider landscape. Sufficient clearance will be retained between the fencing and the vegetation boundary to allow ongoing access for hedge trimming and routine maintenance.

The perimeter of the site will be protected by a security system providing full 24-hour surveillance. Two approaches are proposed, and the applicant is willing to discuss the most appropriate solution with the Local Planning Authority having regard to the sensitivity of the landscape setting.

- Option A - Camera-based system: A discrete system of CCTV and/or infra-red cameras mounted on poles of up to approximately 3m in height, managed by an intelligent sensor management system. Cameras would be positioned at intervals around the perimeter and would be finished in a colour sympathetic to their surroundings. This is a more traditional approach to site security.
- Option B - Ground-based sensor system: A less visually intrusive alternative would be the use of ground-based pressure or vibration sensors buried within the perimeter, which would detect

and signal any intrusion without the need for above-ground camera poles. This approach would have no visible above-ground apparatus beyond the perimeter fencing and would be the preferred option in terms of minimising visual impact within the landscape setting of Stourhead.

The applicant is open to a condition requiring the submission and approval of a detailed security management scheme prior to installation, to ensure the chosen approach is proportionate and appropriate to the setting.

There would be no lighting within the Site at night-time.

4.5 Operation

4.5.1 Solar Farm

Once operational, the solar farm is essentially passive requiring minimal day to day intervention and monitored remotely. Occasional maintenance of the solar panels and associated infrastructure will be required; however it is anticipated that no more than one visit per month by a member of National Trust staff would typically be needed.

The land beneath and around the solar panels will remain in agricultural use throughout the operational lifetime of the site, with sheep grazing continuing as at present. The new and existing hedgerows will be maintained as part of the wider Estate management regime, ensuring the long-term integrity of the site's boundary vegetation.

4.5.2 Decommissioning and Restoration

At the end of the anticipated operational lifespan of the solar farm (c. 40 years), the solar panels and other infrastructure would be removed, and the Site restored. The minimal ground intrusion involved in the construction of the solar farm means it is a straightforward process and that the complete development is reversible, meaning it is temporary and not permanent development.

5 LAYOUT & LANDSCAPING

5.1 *Design Approach and Landscaping*

The Proposed Development has been designed to respond positively to the character of the surrounding landscape, utilising the existing field pattern and well-established boundary features to achieve a high degree of integration. Existing landscape features will be retained and protected, with trees, hedgerows, and field margins safeguarded throughout the lifetime of the development. Where necessary, gaps within existing boundaries will be reinforced through supplementary native planting to maintain continuity and strengthen enclosure.

New habitat creation will be delivered through the introduction of native, species-rich hedgerow planting within the Site. This will provide effective screening of the solar arrays while enhancing ecological connectivity with the surrounding landscape. The improved habitat network will support a range of faunal species, including birds, bats, dormice, badger, reptiles, invertebrates, and amphibians. Overall, the proposal will deliver a significant biodiversity net gain, including a 63.92% increase in habitat area units and a 37.49% net gain in hedgerow units.

The existing grassland sward will be enhanced through overseeding with a locally appropriate, species-rich seed mix sourced from the wider Stourhead Estate. This will increase botanical diversity and provide improved foraging opportunities for invertebrates, birds, and small mammals.

The proposed development components will not exceed 3 metres in height; they will be largely screened by the existing landform and established boundary vegetation. Accordingly, the landscape strategy places emphasis on managing localised views and delivering biodiversity enhancements, rather than relying on substantial additional mitigation measures.

This approach is set out within the submitted Landscape and Visual Impact Assessment (LVIA) and Landscape and Ecological Enhancement Plan (LEEP), which identify locations where targeted planting and habitat enhancement will be implemented.

Mitigation varies in scale depending on location and nature of development. In this case, the scale of development requires minimal mitigation to assist with assimilation into the natural setting. In general, the aspirations of the proposed mitigation can be summarised as follows:

- Retention and protection of existing vegetation and landscape features;
- Reinforcement of hedgerows through native species planting where required;
- Delivery of biodiversity enhancements through new habitat creation and grassland improvement;
- Avoidance of unnecessary ground disturbance, with no alteration to existing site levels;
- Management of construction activities to prevent conflict with ecological constraints, including seasonal sensitivities;
- Use of materials and finishes that are recessive in colour and texture; and
- Design of fencing and ancillary infrastructure to be appropriate to the rural context.

5.2 *Site Levelling and Landscaping Works*

It will not be necessary to undertake ground levelling works for the construction of the panels as they will be erected on driven posts and engineered to sit at the correct angle relative to the level topography of the site such that the panel mounting systems will account for any minor undulations across the field.

5.3 Access Tracks and Paths

Primary access to the Site (during construction and operation) will be via the existing operational access to the estate from Bells Lane. All construction traffic will route along Bells Lane to the north to access High Street, before travelling south along the B3092. This will provide access to the A303 (T) for eastbound and westbound directions.

Once off the public highway network, access will be achieved using existing field gateways and approximately 500 metres of established estate track.

Owing to its scale the development will generate minimal vehicle movements, and there will be no material change to traffic volumes on the local highway network.

Further detail is provided in the Construction Traffic Management Plan, submitted with the application.

5.4 Surface Water Drainage Strategy

The EA's flood map for planning indicates that the site is located entirely within Flood Zone 1. Based on the distance between the site and the land located within Flood Zones 2 and 3 and that the site is elevated higher than these extents, the site will remain in Flood Zone 1 for its operational lifetime.

Site access and egress is via an existing private estate road located in the central part of the site connecting on to Bells Lane. The proposed access/egress route is located entirely within fluvial Flood Zone 1 (low risk), however there is an area classed as 'low' risk of surface water flooding with a flood warning of very low hazard. On this basis, it is concluded that future users of the development would be safe during the design flood event for the operational lifetime of the development.

It is not considered necessary to provide SuDS for the proposed solar panel arrays. The research report "Hydrologic Response of Solar Farms" Cook and McCuen (2013) (see FRA) demonstrated that solar panels do not have a significant effect on runoff volumes, peaks or time to peak if grass cover is well maintained underneath panels and between rows. Therefore, it is proposed to implement a planting framework and maintain the grass cover to prevent areas of bare ground and erosion occurring.

The distribution panel will be sited on granular sub-base with a depth of 300 mm. The subbases will extend at least 500 mm from the footprint of the cabinet. The sub-base will allow runoff to infiltrate into the ground as far as practicable. Any excess runoff will overflow the perimeter of the sub-base at rates approximating greenfield rates.

The proposed substation is located adjacent to the existing car park and the runoff from this area will flow towards the existing car park. Due to the small size of the substation in comparison to the overflow car park, it is considered that any runoff from the substation could be accommodated within the car park drainage. The car park drainage includes drainage blankets, soakaways and gravel surfaces.

It is concluded that the development can be undertaken in a sustainable manner without increasing the flood risk to the proposed development or to existing properties/systems.

6 CONSTRUCTION

6.1 Construction Programme

The construction phase of the Proposed Development is expected to last for c.8 weeks, split into four stages as follows.

Stage	Activity
Stage 1	<u>Enabling Works</u> Site access Foundation of new substation plinth.
Stage 2	<u>Site Set-up</u> Site security Enabling works Creation of new fencing Delivery of plant + equipment
Stage 3	<u>Solar Array Construction</u> Erection of frames and panels Installation of transformer and inverters Electrical Connections
Stage 4	<u>Site Restoration</u> Commissioning + testing Removal of offices/welfare Landscaping and biodiversity enhancements

Facilities would be provided centrally onsite on the construction compound for construction workers, including a site office and welfare facilities. Construction fencing would be installed around the perimeter of the Site and onsite temporary parking using the construction compound.

During the construction period, it is proposed that construction hours would be fully open for all works as follows:

- 08:00 – 18:00 Monday to Friday;
- 09:00 – 13:30 Saturday.

No work will be undertaken on Sundays or bank holidays.

Should work be required outside of these times, it would be agreed beforehand in writing with the Council.

It is estimated that during the main construction period, when construction traffic will be at its highest intensity, the Site will be accessed by approximately 8 HGV delivery vehicles. This will be supplemented by installers arriving to work each morning and leaving each afternoon, along with a small number of National Trust staff vehicle movements. The construction period is anticipated to be relatively short in duration given the nature and scale of the Proposed Development.

During the operational phase, vehicle movements associated with the Site will be minimal. It is anticipated that no more than one visit per month will be required by a member of National Trust staff to carry out routine inspections of the array and associated infrastructure. The solar farm will otherwise be monitored remotely, generating no regular vehicle movements.

A Construction Traffic Management Plan (CTMP) and a site access arrangement drawing has been submitted to support the planning application. The aim of the CTMP is to minimise the effect of the construction phase on the highway network. It contains all of the required information for the construction phase, as well as a package of mitigation measures.

6.2 Construction Compound

It is anticipated that the construction team will put in place a temporary work compound including site office. Welfare facilities will be available within the nearby National Trust visitor centre building complex.

All temporary works and protective fencing will be removed post construction during the operational phase. The anticipated location of the temporary construction compound is shown in the Construction Traffic Management Plan.

6.3 Waste Management

The contractor will ensure that all surplus or waste materials from either materials imported to site or from those generated on site are dealt with responsibly. Relevant waste and resource management procedures will be communicated to all operatives during the initial site induction. This will include details on the appropriate segregation, handling, recycling, reuse and return methods to be used at all appropriate stages of the project.

A specific area will be laid out and labelled to facilitate the separation of materials for potential reuse, recycling, and disposal. Recycling and waste receptacles will be kept clean and will be marked clearly in order to avoid contamination of materials.

The contractor will ensure that all waste is collected and disposed of by an appropriate licensed waste contractor, receiving signed receipts for each collection.

7 ACCESS

7.1 Access to site

The application is accompanied by a Construction Traffic Management Plan which details the proposed construction phase route for the delivery of component parts including the predicted timescales. An overview of the construction traffic is given below.

7.2 Construction Traffic

A detailed Construction Traffic Management Plan has been submitted with the application.

Access to the Site will be via the existing operational access to the estate from Bells Lane. All construction traffic will route along Bells Lane to the north to access High Street, before travelling south along the B3092. This will provide access to the A303 (T) for eastbound and westbound directions.

Once off the public highway network, access will be achieved using existing field gateways and approximately 500 metres of established estate track.

7.3 Operational Traffic

Once operational, Solar Farm developments generate very few traffic movements. Maintenance vehicles (likely to be a small van) will visit the Site approximately once a month. It is anticipated that the member of staff once a month would park in the public car park and walk over to the array to inspect and take a meter read.

7.4 Transport Assessment

In addition to HGV deliveries, a small number of construction staff will travel to and from the site during the construction period. It is anticipated that these movements will primarily comprise smaller private vehicles and minibuses, with staff numbers varying by construction phase. Given the modest scale of the development, the temporary nature of the works, and the dispersed arrival and departure times, staff travel will generate a very low level of daily traffic movements. As such, these trips are not expected to result in any unacceptable impact on highway safety or the operation of the surrounding road network.

It is proposed that provision will be made for enough parking spaces on site for typical construction vehicle numbers.

8 USE

The Proposed Development will generate renewable electricity to directly supply the National Trust's buildings, visitor facilities and estate operations at Stourhead, significantly reducing reliance on fossil fuels and supporting the Trust's net zero ambitions by 2030. By replacing imported grid electricity with locally generated power, the scheme will deliver measurable carbon savings, improve long-term energy security, and enhance the resilience of the estate's operations. Any surplus electricity produced will be exported to the National Grid, contributing to the wider decarbonisation of the national energy supply.

The design allows for the option of low intensity grazing of livestock on the site throughout the operation of the modules.

Following decommissioning of the modules, the proposal is fully reversible and as there are no significant physical changes made to the land in terms of earth removal or levelling, there will be no constraints on returning the site to its current condition.