Application for Planning Permission for a Solar Installation (Domestic) on the Lilford Hall Estate, Northamptonshire, PE8 5SG

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EXECUTIVE SUMMARY

This Application has been co-ordinated by Prosperi Architecture & Design Ltd. on behalf of Mr Michael Bloch KC and Mrs Camilla Bingham KC (the 'Applicants'), who are seeking planning permission from North Northamptonshire Council for the construction and operation of a solar photovoltaic farm and other associated development on self-contained land north-east of Lilford Hall, located in the eastern part of the county, south of Oundle and north of Thrapston.

The primary purpose of this Planning, Design and Access Statement is to set out the planning case for the Proposed Development, including with reference to local and national planning policy. This statement should be read in conjunction with the other documents that comprise the planning application submission, including the requisite environmental and technical reports that have been produced and should be referred to in conjunction with the 'Survey & Analysis Including Heritage Statement'.

The principle of renewable energy, such as solar power, is supported by local and national planning policy. It is also notable that Northamptonshire County Council has declared a climate emergency and the UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050. In order to meet that target, significant investment is required in the development of renewable energy infrastructure.

The Applicants have carried out a meaningful landscape survey and analysis combined with a landscape character and visual impact consultation exercise in respect of the Proposed Development, primarily focused on the local community.

In addition to the sustainable benefits the proposed solar farm will provide there is also a feasible public benefit given that a portion of the energy generated will be exported onto the local grid and thereby providing a potentially significant renewable energy contribution.

The Applicants have addressed potential impact issues by seeking advice from a qualified Landscape Architect and Conservation Experts to best identify suitability and have made changes to the initial siting to help address and mitigate potential concerns. The changes include:

- Moving the proposed boundary line further away from residential properties to the east and south-east of the estate; this area will remain as grassland to be planted with screening trees in a phased future landscaping of the parkland on the Lilford Estate.
- Assessing numerous suitable locations within the east and south of the Site to provide further separation from residential properties and mitigate visibility impact using an architectural survey of the existing topography.

The Proposed Development complies with relevant planning policy and there are significant benefits associated with it. The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts.

These factors, when combined with the significant need for renewable energy, mean that the planning balance (and, in particular, when considered in the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004) is weighted significantly in favour of the Proposed Development.

1.0 INTRODUCTION

Overview

1.1 This Planning, Design and Access Statement ('PDAS') has been prepared in support of an application for full planning permission submitted to North Northamptonshire Council (the 'Council') under the provisions of the Town and Country Planning Act 1990 (as amended) on behalf of Mr Michael Bloch KC and Mrs Camilla Bingham KC (the Applicants).

1.2 The proposal comprises the construction and operation of a solar photovoltaic ('PV') installation and associated infrastructure, including sub-station, inverters, transformers, fencing, access tracks and landscaping. The proposal is referred to collectively as the 'Proposed Development'.

1.3 The proposed site (the 'Site') measures just under 1 hectare ('ha') and comprises a brownfield site north-east of Lilford Hall contained within its own boundaries. The Site is comprised of previously developed upon land (a brief archaeological assessment would indicate a WWII hospital which we know existed historically). The land now consists of sections of concrete foundations amidst low-quality soil. It is important to note the nonintrusive, temporary nature of this project in that no excavation or significant impact will be necessary at any stage of the project.

1.4 The electricity generated by the solar panels is proposed to connect into the existing substation immediately adjoining the site (pre-existing but potentially to be upgraded by National Grid) and will be connected with the Hall via a pre-existing underground cable route. As the cable route has already been established prior to current ownership, this will not cause any disturbance to trees or buildings on the Estate. It is also important to note the infrastructure is due to be upgraded by National Grid and will be carried out independently as part of their own scheme.

1.5 The UK Government has committed to meeting a legally binding target of net-zero carbon emissions by 2050 and Northamptonshire County Council has declared a climate emergency. This requires major investment in proven technologies, such as solar and wind, which are supported by planning policy at local and national level. The Proposed Development would help to address this need by generating clean and renewable energy without the need for subsidies.

1.6 Planning permission is being sought to operate for 40 years, at which point it would be decommissioned and the land returned to its previous state, unless a successful application is made to continue the proposed user. The Proposed use should be viewed as a commitment to sustainable development on the Lilford Hall Estate, and a significant element in the works required to restore Lilford Hall and enable it to be removed from the At-Risk Register. The availability of solar energy will avoid the need to adopt more environmentally disruptive geothermal means of heating the Hall and, consequently, avoid the need to install the additional radiators in the Hall that geothermal heating systems require. The proposal to station solar panels on the Site will also obviate the need for any panels being installed on or in the immediate proximity of the Hall, and it will also allow unsightly modern pipework, ducting and vents to be removed from the Hall.

The Applicant(s)

1.7 Prosperi Architecture & Design Ltd. has been charged with compiling the Planning Application on behalf of Mr Michael Bloch KC and Mrs Camilla Bingham KC (the Applicants). Prosperi Architecture is a UK registered architectural practice committed to making a positive and significant impact on the causes of climate change through sensitive, sustainable design. The fundamental aspect of every project they undertake has nature at its core and their principle aim is to design thoughtful and sustainable landscape solutions for each and every client. Much thought and care goes into protecting and enhancing biodiversity, in line with their aims as signatories to the National Park City Scheme and protectorates of wildflower meadows, woodland and the various fragile eco-systems with which we co-exist.

Pre-Application Consultation

1.8 The Applicants have carried out a comprehensive and meaningful pre-application consultation exercise in respect of the Proposed Development, whereby a qualified Landscape Architect, Environmental Adviser and Historic Building Conservation Experts were consulted to agree key viewpoints and the scope of the assessment and understand the mitigation of all ecological issues and local impact risk.

Environmental Screening

1.9 Despite the Proposed Development being below the necessary scale to require an Environmental Impact Assessment ('EIA') Screening, the Applicants are keen to address any environmental issues the Development may incur and as such, has included various studies and assessments not necessarily required in a Planning Application of this scale but in an attempt to pre-empt potential effects of the Proposed Development on biodiversity, landscape and heritage.

1.10 The submission includes a range of environmental reports produced by technical specialists. These findings are present throughout the submitted reports listed in paragraph 1.11 below.

Planning Application Submission

1.11 The application submission consists of the following documents:

- Application Cover Letter;
- Planning, Design and Access Statement (this document);
- Location plans (within this document);
- Flood Risk Assessment and Drainage Strategy (within this document);
- Heritage Statement;
- Geological and Archaeological Report;
- Historical Assessment;
- Transport and Access Report (within this document);
- Landscape and Biodiversity Report (within this document);
- Visual Impact Assessment (within this document);
- Minerals and Waste Report (within this document);
- Glint and Glare Report (within this document);
- Photomontages (within this document);

1.12 The application has been submitted electronically via the Planning Portal and is accompanied by the necessary fee of $\pounds 238.20$ payable to the Council.

The Purpose & Structure Of This Document

1.13 The primary purpose of this PDAS is to demonstrate how the design of the Proposed Development is a suitable response to the Site and its setting, and to demonstrate that it can be adequately accessed. Furthermore, how the Applicants have taken account of relevant planning policy and the extent to which the Proposed Development is compliant with the Statutory Development Plan.

1.14 In doing so, this PDAS draws upon and cross-refers, where relevant, to the other documents that form part of the planning application submission.

1.15 The PDAS has been prepared in accordance with Article 9 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. Article 9 requires that all applications for major development, such as the Proposed Development, are accompanied by a 'design and access statement' that should:

- explain the design principles and concepts that have been applied to the development;
- demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
- explain how any specific issues which might affect access to the development have been addressed.

1.16 The 'Site' refers to the immediate area outlined in Figures 1, 2 and 3 of this document. The 'Greater Site' refers to the Site in the context of its immediate surroundings incorporating enhanced landscaping and any necessary fencing etc.

2.0 NEED

2.1 There is a significant and quantifiable need for the deployment of solar farms and other renewable energy generation, which is being driven by government at local and national level in the UK.

2.2 In June 2019 the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar and battery storage, which are supported by planning policy at local and national level.

2.3 In October 2021, the Government published the Net Zero Strategy: Build Back Greener (1) which sets out its vision to end our contribution to climate change, and reverse the decline of our natural environment, leading the world to a greener, more sustainable future. It sets out that we need to act urgently and reduce emissions globally to limit further global warming. The sooner we act on climate change the lower the costs will be. Globally, the costs of failing to get climate change under control would far exceed the costs of bringing greenhouse gas emissions down to net zero. Delaying action would only serve to put future generations at risk of crossing critical thresholds resulting in severe and irreversible changes to the planet, the environment, and human society. On the other hand, early and ambitious action would help protect lives and livelihoods, while maximising the benefits for people, society, the environment, and the economy.

2.4 This Strategy commits to take action so that by 2035, all our electricity will come from low carbon sources, subject to security of supply, bringing forward the Government's commitment to a fully decarbonised power system by 15 years, and it explicitly seeks to accelerate deployment of low-cost renewable generation, including wind and solar. It also notes that our exposure to volatile gas prices shows the importance of our plan for a strong home-grown renewable power sector to strengthen our energy security into the future.

2.5 More recently, the Government released the British Energy Security Strategy (2022) (2) which seeks to set out "how Great Britain will accelerate homegrown power for greater energy independence." The report states that there is currently 14GW of solar capacity in the UK split between large scale projects to smaller scale rooftop solar and that the Government expect a five-fold increase in deployment within just 13 years, by 2035. The report sets out that the Government will support solar that is co-located with other functions, such as agriculture, to maximise the efficiency of land use.

2.6 It is also of note that decarbonisation is a UK legal requirement and is of global significance. It cannot be allowed to fail. Because atmospheric carbon has a cumulative global heating effect urgent action is necessary for the UK and abroad, to limit global warming.

2.7 Decarbonisation requires the electrification of energy demand which has hitherto been met by fossil fuels (e.g. transport, home heating and industrial demand), this is expected to double the national annual requirement for electricity in the period to 2050.

2.8 The decommissioning or decarbonisation of existing generation assets acts to increase further the requirement urgently to develop new low-carbon generation in order to "keep the lights on".

2.9 A low-cost, net zero consistent system is likely to be composed predominantly of wind and solar. The UK has substantial renewable energy resources, but wind on its own is not enough. Solar will also provide an essential diversity to the UK's low-carbon generation portfolio, working alongside other technologies to deliver security of supply and shield UK consumers from volatile gas prices.

2.10 The national need for solar generation is urgent and the capacity required is significantly greater than the capacity of projects currently understood to be in development.

2.11 The National Infrastructure Commission ('NIC'), official advisor to the Government on infrastructure, has produced a report (3) (in March 2020) setting out the infrastructure required in order to meet the net zero 2050 target, including the amount of new renewable energy development that would need to be deployed. This target is now even more urgent given the government's revised timescale of 2035 for a fully decarbonised power system.

2.12 Importantly, the NIC recommends the generation mix is up to around 90% renewables, which requires a significant increase in installed capacity, including up to 9x more solar than is currently installed in the UK, which is presently around 14 GW according to Government figures in the 2022 British Energy Security Strategy.

2.13 The above figures go a significant way to demonstrating the amount of new infrastructure that is urgently required. The need is compelling and undeniable, and the amount of new infrastructure means that the responsibility is shared throughout the UK. There is simply too much for it not to be shared nationally, not to mention that climate change is a national and global issue.

2.14 It is wholly reasonable therefore to consider that every local planning authority area where there is developable land should be delivering a significant amount of capacity, taking in a mixture of landscapes and terrains.

2.15 The UK Government published the revised suite of Energy NPSs in September 2021. The NPSs are a material consideration for TCPA and other applications below 50 MW in England.

2.16 The draft of NPSs now provide clearer support for the solar energy and guidance on the key considerations to be taken into account in ensuring a more consistent approach across local authorities.

2.17 Draft EN-1 (Overarching NPS) sets out strong policy support for CCS, hydrogen infrastructure and other forms of low carbon generation including solar development. Part 3 of draft EN-1 identified the 'need' for energy infrastructure, including solar: "The need for all these types of infrastructure is established as urgent...". It recognises that solar development is one of the lowest cost ways to generate electricity and that a Net Zero consistent system likely to be composed predominantly of wind and solar. The need for new electricity generating capacity, including from solar is now confirmed and not open to debate.

2.18 Draft EN-3 (Renewable technology specific NPS) includes a specific section (section 2.47) on 'Solar Photovoltaic Generation'. Para 2.47.1 recognises that solar is one of the most established renewable electricity technologies in the UK, one of the cheapest forms Worldwide and can be built quickly: "The government has committed to sustainable growth

in solar capacity to ensure that we are on a pathway that allows us to meet net zero emissions. As such solar is a key part of the government's strategy for low-cost decarbonisation of power"

2.19 At a local level, Northamptonshire County Council declared a climate emergency in July 2019, acknowledging that urgent action is required to limit the environmental impacts produced by the climate crisis.

2.20 NCC have published 'Northamptonshire's Climate Change Action Plan' as well as having a current 'Climate Change Strategy' highlighting how to ensure local planning decisions fully consider the need for urgent action to meet climate change commitments. It sets out a framework for tackling the causes and effects of climate change in the County.

2.21 The role that the Proposed Development would have in providing much needed energy security and contributing towards urgent national and local ambitions for carbon reduction is clearly significant and merits substantial weight in terms of the assessment of the impact of the Proposed Development.

(2)

 $\label{eq:linear} {$\underline{https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/fil} e/1069969/british-energy-security-strategy-web-accessible.pdf}$

^{(1) &}lt;u>https://www.gov.uk/government/publications/net-zero-strategy</u>

^{(3) &}lt;u>https://www.nic.org.uk/publications/net-zero-opportunities-for-the-power-sector</u>

3.0 THE SITE AND SURROUNDING AREA

3.1 This section describes the location and key features of the Site and surrounding area, identifies any relevant planning and environmental designations, and explains the Applicants' site selection process.

Location, Description & Use

3.2 The Site comprises just under 1 hectare ('ha') of land (the 'Site') approximately 4 kilometres ('km') to the south west of Oundle and 6 kilometres north east of Thrapston. The Site forms part of the greater Lilford Estate, 250 acres of parkland associated with Lilford Hall located north-west of the village of Lilford, part of the parish of Lilford-cum-Wigsthorpe and Thorpe Achurch.

3.3 The immediate surrounding area largely comprises agricultural fields and several small isolated patches of woodland with scattered settlements and farmsteads. The village of Lilford is located approximately 400m to the east, Pilton approximately 650m to the west and Barnwell approximately 1.9km to the west.

3.4 Adjacent to the boundaries of the Estate are scattered residential properties. The River Nene also runs to the west of the Estate, 450m from the Site Boundary.

3.5 There are no access issues as the Site is not crossed by a Public Right of Way ('PRoW') neither is it bordered by any. County mapping also shows there are no Bridleways bordering the site boundary or otherwise.

3.6 The cable route runs via an existing corridor currently containing the pre-existing power cabling crossing solely through the Applicants' land to the Hall, west of the Site. The Site includes all land required for the solar farm, and associated infrastructure.

3.7 The proposed location of the Site and construction lay-down area, defined by the red line planning application boundary, is shown below and in the Site Location Plan (1:12,500).



Fig. 1: Site Location Plan (1:10,000)

3.8 Woodland cover is well represented in the agricultural landscape with significant belts of woodland screening nearby settlements, including Lilford, Pilton and Wadenhoe.

3.9 The topography of the Site and the surrounding area is characterised by relatively flat land with limited topographical change. The Site itself is fairly uniform in topography, having previously been levelled to form the foundation of a WW2 hospital site, varying only in elevation of between approximately 5m at its highest and lowest points.

3:10 The previous infrastructure can be seen clearly from the following aerial images; the proposed location of the Site again defined by the red line planning application boundary (1:10,000 and 1:5,000).



Fig. 2: Site Location Plan (1:10,000)



Fig. 3: Site Location Plan (1:5,000)

Planning & Environmental Designations

3.11 A search using DEFRA's MAGIC mapping resource has confirmed that the Site is not subject to any national or international designations or assets that relate to biodiversity, landscape, cultural heritage or other e.g. Special Protection Area, Scheduled Monument or Area of Outstanding Natural Beauty.

3.12 A wider search of the vernacular shows a very colourful mosaic of designated sites, most importantly Wadenhoe Marsh and Achurch Meadow Site of Special Scientific Interest ('SSSI') (2.2km south-west the Site) and most significantly Upper Nene Valley Gravel Pits which is a Ramsar Site, a Special Protection Area ('SPA') and a SSSI is situated approximately 2.8km to the south of the Site. Titchmarsh Local Nature Reserve ('LNR') is also situated approximately 2km to the north of the Site boundary.

3.13 Each of these designated sites has been allocated special protection for very good reason, whether to protect local wildlife and bird populations or to preserve areas rich in wetland or unique tree and plant species. Having referred to Natural England guidance on the matter, it is prescribed that as site must be assessed to check whether or not its proposal:

- is directly connected with or necessary for the conservation management of a European site
- risks having a significant effect on a European site on its own or in combination with other proposals

3.14 On these grounds we are satisfied that the nature of the plan will not impact the local designations as it shall not increase recreational pressure across any site, it will not add to soil deterioration or degradation, and due to the small scale of the plans, it will not affect bird or other wildlife populations.



Fig. 4: DEFRA map of surrounding designated sites

Nene Valley Gravel Pits SPA

3.15 The Upper Nene Valley Gravel Pits Special Protection Area/Ramsar site was formally classified by the UK government in 2011. It covers 1,358 hectares across four local authority areas namely; Northampton, South Northamptonshire, East Northamptonshire and Wellingborough. It is a composite site comprising 20 separate blocks of land and water, fragmented by roads and other features, and located adjacent and / or close to urban areas.

3.16 It is legally protected by the Conservation of Habitats and Species Regulations 2010 (Habitat Regulations) for a number of reasons. It is a wetland of International Importance used regularly by more than 20,000 water birds and by 2.3% of the UK Golden Plover population.

3.17 Key threats to the SPA are recreational disturbance to water birds, and poorly designed or located development. It was determined that a robust and consistent approach to planning applications was required to safeguard the site's nature conservation interest while bringing through new sustainable development.

3.18 The Upper Nene Valley Gravel Pits SPA SPD – Addendum to the SPD: Mitigation Strategy was adopted on 16 March 2022. It sets out details on mitigation measures required to protect Unit 1 of the Upper Nene Valley Gravel Pits SPA from recreational pressure. The document outlines how developers will be required to either pay a fixed Strategic Assessment Management and Monitoring fee (SAMM) or provide bespoke mitigation.

<u>Upper Nene Valley Gravel Pits Special Protection Area Supplementary Planning Document</u> <u>Upper Nene Valley Gravel Pits SPA SPD</u> | West Northamptonshire Council -<u>Northampton Area</u>

Notified feature	Designation		
	SSSI	SPA	RAMSAR
>20,000 Non-breeding waterbirds	Y	Y	Y
Aggregations of breeding birds: grey heron Ardea cinerea	Y		
Aggregations of non-breeding birds: bittern Botaurus stellaris	Y	Y	
Aggregations of non-breeding birds: coot Fulica atra	Y	*	
Aggregations of non-breeding birds: cormorant Phalacrocorax carbo	Y	*	
Aggregations of non-breeding birds: gadwall Anas strepera	Y	Y	Y
Aggregations of non-breeding birds: golden plover Pluvialis apricaria	Y	Y	
Aggregations of non-breeding birds: great crested grebe Podiceps cristatus	Y	*	
Aggregations of non-breeding birds: mute swan Cygnus olor	Y	*	Y
Aggregations of non-breeding birds: pochard Aythiya farina	Y	*	
Aggregations of non-breeding birds: shoveler Anas clypeata	Y	*	
Aggregations of non-breeding birds: tufted duck Aythya fuligula	Y	*	
Aggregations of non-breeding birds: wigeon Anas penelope	Y	*	
Assemblages of breeding birds: lowland open waters and their margins	Y		
W6: Alnus glutinosa – Urtica dioica woodland	Y		

 Table 4
 Notified features of the Upper Nene Valley Gravel Pits SSSI, SPA and Ramsar site

* Species which are not SPA features in their own right but form a named part of the 20,000 wintering waterbird assemblage and should be taken into account when carrying out a Habitats Regulations Assessment

Fig 5: Notified features of the Upper Nene Valley Gravel Pits

3.19 A potential threat is considered as follows according to Natural England statutory guidance - Upper Nene Valley Gravel Pits SPA Supplementary Planning Document:

"In addition to direct threats to the SPA from poorly located or designed development, Natural England considers the SPA to be 'at risk' from increasing recreational disturbance. Northamptonshire's main towns are earmarked for major urban growth until at least 2026. A 2012/13 study of visitor and access patterns across the SPA showed very clearly that visit rates to the SPA tend to increase with proximity to residential areas."

"Most visits are made by people who live within 3km of the SPA, who visit very frequently for relatively short periods of time. Access by people and dogs can be a significant cause of disturbance in some parts of the SPA. The site is also subject to a range of recreational activities including fishing and watersports. Demand for access and recreational activities (both formal and informal) within the Nene Valley is increasing along with disturbance to the birds for which the SPA is designated. "

"Disturbance effects are cumulative. Without mitigation, any net increase in the number of residential units near the SPA has the potential to increase the significance of the effect by increasing the number of visits to the European Site. Those visitors may increase levels of disturbance to the wintering waterbirds or the habitats they depend on. "

3.20 The Habitats Regulations require that the effects of plans and projects be considered in combination with effects arising from other plans and projects and for this reason we have conducted an impact risk assessment using DEFRA and Natural England guidance which sets out to ensure that significant adverse effects do not arise from any of the following causes, alone or in combination with the effects of other plans or projects:

- Physical loss of habitats within the SPA through conversion to other land uses
- Fragmentation of habitats within the SPA, which isolates waterbirds in small habitat patches and impedes waterbird movement through the site
- Loss of usable habitat within the SPA in which the physical extent of habitat remains, yet factors like disturbance or visual barriers reduce the amount of habitat that is actually suitable for waterbirds
- Loss of supporting habitat adjacent to or outside the SPA
- Increased disturbance to waterbirds from human activity (e.g. recreational uses), domestic pets, noise, light and other factors that cause birds to spend less time feeding and more energy avoiding the disturbance, compromising long term survival
- Changes in ecological condition, e.g. due to lack of management, ecological succession or deteriorating water quality, which render the habitat unsuitable for waterbirds
- Direct waterbird mortality, e.g. from collision with structures

3.21 We can therefore conclude having studied the Supplementary Planning Document in depth that as there will be no recreational pressure created as a result of this proposed solar installation, that no mitigation is required.

Wadenhoe Marsh & Achurch Meadow SSSI

3.22 This complex site on both sides of the River Nene has a variety of habitats and a diverse range of fauna and flora. The west of the river is alder woodland and marshy grassland. On the east there is the largest example in the county of unimproved grassland

on alluvium and gravel, with over 100 flowering plant species. An oxbow in the river is a site for rare plants.

Titchmarsh LNR

3.23 Titchmarsh Local Nature Reserve is part of the Thrapston Gravel Pits complex, which lies within the Upper Nene Valley Gravel Pits SSSI. The biggest lake is Aldwincle Lake, which provides a large area for overwintering birds, as well as isolated islands to encourage breeding.

Ancient & Semi-Ancient Woodland

3.24 There are various pockets of Ancient and Semi-Ancient Woodland located within 10km of the application site boundary; these include Lilford Wood, Wadenhoe Great Wood, Souther Wood, Titchmarsh Wood, Green Side Wood, Oxen Wood, Bullicks Wood, Assart's Coppice, Royal Coppice, Winning Foot Hill, Bearshank Wood, Stoke Wood, Kingsthorpe Coppice,, Bullnose Coppice, Rough Wold and Barnwell Wold. These Ancient Woodlands form part of what was once Rockingham Forest, and are renowned for their lowland mixed deciduous woodland, hedgerow and ancient woodland.



Fig. 6: DEFRA map of surrounding Ancient Woodland

3.25 There are no Statutory Heritage Assets located within Site. More information on the site in the context of its Listed status may be found within the 'Heritage Statement' (Cullen 2022) available upon request.

3.26 There are no Scheduled Monuments located within Site.

3.27 The entire Site is located within Flood Zone 1 as per Government guidance and therefore has a low probability of flooding.



Fig. 7: Flood Risk Assessment map of site

Site Selection

3.28 The identification of the Site is the result of a methodical site selection exercise undertaken by the Applicants. This applied a number of important criteria, including technical feasibility, environmental and planning constraints, and land availability. The criteria were determined with reference to relevant planning policy.

3.29 The site selection process was broadly split into the following sequence of activities:

- definition of a search area;
- analysis of previously development land;
- analysis of lower grade land;
- establishment of a short-list of sites; and
- assessment of the short-list.

3.30 An alternative site assessment formed part of the feasibility aspect of the initial survey and analysis which enabled the Applicants to identify a series of short-listed sites, all of which were similar to the Proposed Site, but none were considered to comprise a more feasible alternative to the Proposed Site for a number of reasons, including environmental, visibility and optimal solar yield.

4.0 PROPOSED DEVELOPMENT

4.1 Following selection of the location of the Proposed Development, the design underwent numerous iterations to incorporate a set of design principles, outlined below.

Generation

4.2 The principal purpose of the Proposed Development is to generate renewable electricity. As a consequence, there are a number of essential design considerations taken into account:

- The site should maximise the available grid capacity (1 MW).
- Panels should be optimally spaced and angled to maximise their generating potential.
- Panels should avoid being overshadowed by surrounding vegetation.
- Access within the site should be as simple as possible.
- Connection to the grid connection point should be as simple as possible.
- The site would need to be surrounded by security fencing.
- The site should generally be south facing or at least allow panels to be south facing avoiding steep northerly slopes.

Embedded Mitigation

4.3 The Proposed Development benefits from extremely limited visibility beyond the site boundaries due to various fundamental factors; the site location in relation to the Estate boundary and subsequently other properties is greater than 250m, the topography favours both a solar array and minimised glint and glare within the vernacular, existing screening (specifically trees and hedgerows) are currently more than adequate in screening the site; The existing trees and hedgerows minimise visibility from the immediate boundary of the Estate.

4.4 No trees or shrubs will be removed or disturbed for the proposal and the Site has been selected due to its high proportion of concrete footings already disturbing the land. The Applicants intend to plant more trees and hedgerows in areas where the panels may be visible. The Applicants have committed to retaining such hedgerows for the project lifetime.

4.5 Given the relative elevation of the site, screening with hedges will be all the more effect in mitigating the view to and from Lilford Hall as the perspective is such that the property does not overlook the Site.

Residential Setback

4.6 There are two properties to the south of the Proposed Development. On initial review these appeared well screened but have some visibility of the site via roof windows through a gap in the existing boundary planting. Further discussion with the Applicants confirmed the desire to have an adequate set back from the Proposed Development to allow for enhanced planting of mature trees on the boundary line (<200m from neighbouring properties) and also to ensure that the land in between was adequately managed and not simply left to potentially revert to scrub. In response to these various matters, a setback area has been established between these properties and the Proposed Development. The nearest panels as a result will be between greater than 250m from the houses. It is also important to note the only windows facing the site are 'skylights' and as such form no direct view to the Site.

Landscaping

4.7 The site will be screened in the foreground by additional boundary trees consisting of native species such as Oak and Beech, as well as a secondary (and more immediate) screening including hawthorn, crabapple, sloe and buddleia which will also have biodiversity benefits as well as screening the substation thus improving the view from Lilford Hall. The hedge will be allowed to grow to around 2m high, high enough to screen the panels but not high enough to block the extended views towards Oundle. The intervening area will be used for habitat and biological enhancement in the form of a wildflower meadow which will be set amongst the panels in a sporadic pattern. This will have the added benefit of wider biodiversity improvements. It is also intended that bees will eventually be kept within the Greater Site and that this will in turn enhance biodiversity, attracted to the wildflower meadow which will be established within the Site and possibly orchards also to act as pollinator receptors. It is also intended to plant trees in the proximity of the hedge in such a way as to break up any visual straight lines and allow the hedge to blend into the landscape.

4.8 The Proposed Development has been designed to respect the character of the landscape and use the strong field boundaries to integrate the scheme into the landscape as far as practicable. Existing landscape features would be protected and strengthened and all trees and hedgerows on or around the Site would be retained except for access and additional planting provided where necessary, to fill gaps in the existing boundary planting to retain field enclosures.

Development Summary

4.9 The Proposed Development comprises the construction and operation of a solar PV farm and other associated infrastructure. The Proposed Development includes the following equipment (approximate):

- Rows of solar PV panels;
- Sub Station Compound (pre-exisiting structure); containing Switchroom, Transformer, Inverters (or similar); and
- Perimeter fencing.

4.10 It is estimated that the solar panels would generate approximately 1 MW, as this has been calculated adequate enough to power to feed the entire property.

Access To Site

4.11 Access to the Proposed Development during construction, operation and decommissioning will be from an existing private road within the grounds of Lilford Hall. This utilises an existing access on the B road into Lilford which provides excellent visibility in all directions; a right turn on to the Lilford Estate (before the main gated access to ensure optimal visibility) means the issue of regular traffic to and from the site will be mitigated by primarily on-site vehicles during the installation phase and the impact on local residents therefore is deemed to be negligible.

4.12 A secure access gate will be installed to allow works vehicles safe and secure access to the site. This will be in-keeping with the existing perimeter fencing and access infrastructure. The route taken from the nearby A605 is outlined below:



Fig. 8: Transport and vehicular access to site via A406

4.13 The delivery of equipment and plant to Site will be staggered throughout the construction programme. It is anticipated that there will be no more than 8 vehicles for deliveries spread across the 6-8 week programme, as well as fairly regular construction vans. During operation it is expected that under normal circumstances 2 further vans would visit the Site in the interests of inspection and servicing per annum. No abnormal loads are anticipated.

4.14 Through careful site selection and an iterative design process involving local consultation the Applicants have arrived at layout which not only optimises the generating capacity of the site but does so in a manner which has due regard to the various sensitivities in the surrounding area.

Design Flexibility

4.15 Construction work on the Proposed Development, assuming planning permission is granted, would not commence until a final investment decision has been made by the Applicants and a contractor appointed. Following the award of the contract(s), the appointed contractor would carry out a number of detailed studies to inform the technology selection for the Proposed Development and also to optimise its layout and design before starting work at the Site.

4.16 It follows that it has not been possible for the Applicants to fix all of the design details of the Proposed Development at this stage. The Applicants have therefore sought to incorporate sufficient design flexibility. This relates to the dimensions and layout of structures forming part of the Proposed Development, including the precise layout of the Site.

4.17 In order to ensure a robust assessment of the likely significant environmental effects of the Proposed Development, the assessments that form part of the planning application have been undertaken adopting the principles of the 'Rochdale Envelope'.

4.18 The approach involved assessing the maximum (and where relevant, minimum) parameters for the elements where flexibility is required. For example, the solar panels have been assessed for the purposes of landscape.

4.19 The approach also involved defining a suitable area rather than having a defined layout. This would allow the future contractor to optimise the layout of the solar farm following any grant of planning permission, rather than being bound to a precise layout. The area is indicated by the red outline that forms part of the figuration throughout the planning application submission.

Solar Panels

4.20 The solar panels would be laid out in rows running from east to west across the Site. There would be a gap of approximately 3-4m between each row. The panels would be mounted on a frame, to be installed using spiked foundations of 1-2m deep. The panels are typically mounted in four horizontal rows, with one row fixed directly above the other, and angled at the optimum position for absorbing year-round solar irradiation. At the lowest edge the arrays would be approximately 0.9 m from the ground and up to approximately 2m at the highest edge. At the highest edge, the arrays will be within the screening of the 2m high hedging described at 4.7 above.

4.21 An example of a row of solar panels is shown below.



Fig. 9: Example of a typical array of ground-mounted solar panels (cross section)

Substation

4.22 The inverters are likely to be mounted on the back of the PV arrays with 415v A.C cables connected to the transformer which will be contained within or immediately alongside an existing sub-station type structure which remains on the brownfield site from its previous use. The brick power station represents an example of the reuse of an existing redundant infrastructure which will benefit from a new lease of life. National Grid have

earmarked the substation for an upgrade as part of their schedule of upgrade works so this would be completed by them in line with national and regional guidelines. This would be regardless of the outcome of the Application. Photographs of the existing structure is made available in the Appendix.

4.23 The inverters would convert the direct current ('DC') generated by the solar panels into alternating current ('AC'). The transformer, contained within the substation, will convert the low voltage output from the inverters to high voltage suitable for feeding into the local electricity distribution network and to Lilford Hall. Such switchgear may require an additional enclosed substation (to be decided following NGED survey).

Security

4.24 The Proposed Development would need to be secure. It is envisaged that deer fencing (mesh with wooden posts or similar) would be installed along the outer edges of the Site (the Greater Site) in order to restrict access as well as a secure access gate for vehicular access. This would be sited inside the outermost hedges/trees/vegetation, ensuring that the fence is visually obscured, and access is available for hedge trimming and maintenance. Gates would be installed at the main site access point for maintenance access. These would be the same design, material and colour as the fencing.

Construction

4.25 The construction phase of the Proposed Development is expected to last for approximately 6-8 weeks. During this period, initial site setup works including access maintenance and improvements will be undertaken where considered to be beneficial to the use of the access, followed by construction of the internal access route(s), ground works, the installation of the solar panels and other infrastructure.

4.26 Facilities would be provided on site for construction workers, including provision of a welfare facilities (such as toilets). Fencing would be installed around the perimeter of the site, as discussed, and parking would be provided for the construction workers via the existing old hospital concrete footings and disused roadways.

4.27 During the construction period, it is proposed that working hours would be as follows:

- 08:00 18:00 Monday to Friday; and
- 08:00 13:00 Saturday.

4.28 The delivery of materials and equipment to Site using large vehicles will be restricted however to the following times:

- AM (Mon-Fri): 10:00 12:00
- PM (Mon-Fri): 12:00 14:30 and 16:00 17:00
- Sat: 09:00 13:00

4.29 Should work be required to be undertaken outside of these times, this would be agreed in writing with the Council.

Construction Management

4.30 Should planning permission be granted, an appropriate Construction Method Statement (CMS) will be provided to satisfy any relevant planning conditions. This

document(s) will meet best practice guidance and advice including considerate contractor standards. The CMS will cover aspects including but not limited to;

- Working hours;
- Management of construction noise;
- Management of waste;
- Management of environmental impacts;
- Management of drainage;
- Management of contractors;
- Management of site access alongside the Traffic Management Plan; and
- Management of health and safety.

4.31 Prior to the start of construction it is planned to remove some of the unsightly concrete footings scarring the brownfield landscape within and surround the Site. This will help improve and protect the soil and in so doing increase ground filtration across the defined area and beyond.

4.32 The use of suitably experienced contractors and sub-contractors for construction, operation and maintenance works within the local area will be encouraged, as long as they meet the financial and technical requirements for the build. Local contractors will be given the opportunity to cost for balance of plant works such as electrics, civils and foundations.

4.33 In view of the fact that traffic movements have been surveyed as modest and access is direct onto private land, a Traffic Management Plan has been advised as surplus to requirements. The Construction Method Statement will provide a more suitable mechanism to avoid and manage any impacts of the construction process on local residents which should be negligible.

Operation

4.34 Once operational, occasional maintenance of the solar panels and other infrastructure would be required. The solar panels would also need to be periodically cleaned, most likely using a modest quantity of ecologically appropriate soap and water, to ensure the efficient running of the system.

4.35 It is expected that under normal circumstances the amount of cars/vans that would visit the Site throughout the duration would be negligible (generally less than 1 per day).

4.36 Overall the Site would be improved on its current state for the life of the Proposed Development. The majority of the site would be planted with a combination of grassland/meadow, which would enable grazing (sheep) at some stage.

Decommissioning & Restoration

4.37 At the end of the Proposed Development's lifespan (i.e. circa 40 years), the solar panels and other infrastructure would be removed and the Site left improved; The small quantity of pre-existing foundations from the brownfield site and hard surfacing (if any) remaining, in combination with retaining the majority of the site as grassland, would mean the land would be in a better ecological condition than before its development and certainly in better standing than a development of any permanence e.g. large buildings requiring significant foundations. 4.38 The restoration process is intended to ensure that the land is restored to a higher quality as previously and it is envisaged this would be secured through a suitable condition attached to any planning permission.

Glint & Glare Assessment

4.39 This assessment considers the potential impacts on ground-based receptors such as roads, rail and residential dwellings as well as aviation assets. A 1km survey area around the Application Site is considered adequate for the assessment of ground-based receptors.

4.40 Within 1km of the Application Site, there are 15 residential receptors and 3 road receptors which were considered. As per the methodology section, where there are a number of residential receptors within close proximity, a representative dwelling or dwellings is/are chosen for full assessment as the impacts will not vary to any significant degree.

4.41 Where small groups of receptors have been evident, the receptors on either end of the group has been assessed in detail. 13 residential and all 3 road-based receptors were dismissed as they are located within the no reflection zones and therefore, will not be impacted upon by the Proposed Development.

4.42 The solar panels will face south and will be inclined at an angle of between 15 and 30 degrees and have been assessed at a height of 2m above ground level (AGL). As the panels will be fixed in this position, points at the tops of the panels have been used to determine the worst-case impacts on receptors. Geometric analysis was conducted at 2 residential receptors. The assessment concludes that solar reflections are not possible at either residential receptor assessed within the 1km study area.

4.43 Mitigation measures recommended include the infilling of hedgerows and having them maintained to a height of approximately 2m along the southern boundary of the Proposed Development. This mitigation will screen all views from residential receptors, therefore, reducing their impacts to None.

- Solar reflections are possible at 0 of 3 road receptors assessed within the 1km study area. Therefore, overall impacts on road receptors is None.
- No impact was predicted for rail receptors.
- No impact on Aviation Assets is predicted.

4.44 The effects of glint and glare and their impact on local receptors has been analysed in detail and once mitigation measures have been introduced there is predicted to be No effect on all residential, road and aviation receptors.

Noise Impact Assessment

4.45 This Noise Impact Assessment has been undertaken for a Proposed Development consisting of the installation and operation of a proposed solar farm with associated infrastructure. The objectives of the assessment were to identify and describe any likely significant noise effects on key receptors during the operational phase of the Proposed Development.

4.46 In order to assess the potential noise impacts of the Proposed Development, the current baseline characteristics of the application site and the surrounding area have been identified as well as the predicted impacts of the Proposed Development.

4.47 A brief precedent study of the construction phase noise impacts was undertaken. It found that the noise level during construction to be negligible and operational levels to be non-existent.

4.48 The solar panels themselves do not generate noise. The only noise source associated with the Proposed Development will be the inverter/transformer units. An assessment of the acoustic impact of the Proposed Development was undertaken in accordance with BS 4142: 2014+A1:2019. The results showed no impact during night-time periods due to no output and therefore no mitigation is required.

4.49 Cumulative noise effects were assessed and the results indicate a low or negligible impact at all NSRs within the study area. The Proposed Development is therefore in line with the Development Management Guidelines and National Planning Policy Framework ('NPPF').

Conclusion

4.50 From the above summaries of various reports, the Proposed Development with the proposed mitigation measures is unlikely to have a significant adverse effect on the surrounding environment. With the inclusion of enhancements identified and having regard to the wider environmental benefits of the Proposed Development for the proposal to be properly regarded as environmentally positive.

5.0 DESIGN APPROACH

5.1 This section sets out the approach that the Applicants have taken to the design of the Proposed Development and how the design has evolved throughout the pre-application process.

Design Principles

5.2 The main design principles adopted by the Applicants are set out below:

- Design Principle 1: to position the main components to minimise environmental impact;
- Design Principle 2: to seek opportunities for the management and enhancement of biodiversity;
- Design Principle 3: to provide a functional design that makes the best use of the location and
- provides for efficient generation of electricity;
- Design Principle 4: to seek to assimilate the Proposed Development into the local landscape as
- far as possible;
- Design Principle 5: to ensure safe and efficient access to the public highway; and
- Design Principle 6: to ensure the approach to design is inclusive.

5.3 These principles are referenced where applicable in the remainder of this section.

Design Approach

5.4 The approach that the Applicants have taken to the design of the Proposed Development has been informed by the context within which it would be situated, in addition to the opportunities and constraints presented by the Site.

5.5 The immediate and wider context within which the Site sits is predominantly brownfield; a former WW2 hospital its buildings have since largely been cleared however their concrete foundations and access roads still remain, making it a site of poor soil structure and aesthetically stunted. Given the Site's context as part of a larger Estate, the Proposed Development has been designed to be sympathetic to its surroundings (in accordance with Design Principles 1, 2 and 4), whilst being practical in terms of technical and engineering considerations (in accordance with Design Principles 3 and 5).



Fig. 10: Aerial photograph of the Proposed Site in 1944 clearly demonstrating its previous use

5.6 Key elements of the design approach have included the following:

- preserving all existing trees and hedgerows (where possible), and maintaining suitable stand-offs from sensitive, ecological features within the greater Site, e.g. field margins, hedgerows (in accordance with Design Principle 2);
- orientating the solar panels south to benefit from maximum solar irradiation (in accordance with Design Principle 2);
- providing additional screen planting to reduce potential visual impact, including where there are gaps, or no hedgerows exist (in accordance with Design Principle 4);
- providing significant habitat improvements within the Greater Site, including the provision of new hedgerow and trees (in accordance with Design Principle 2); and
- removing panels from sections of the Site, and providing standoffs from the adjacent residential properties (in accordance with Design Principles 1 and 4);

5.7 The infrastructure relating to the Proposed Development is functional in appearance and has been situated in such a way so as to avoid any environmentally sensitive areas and mitigation has been included to reduce any other impacts. The approach that has been taken to the design of the Proposed Development is considered appropriate given its context and purpose; to generate renewable energy.

Design Evolution

5.8 The design process for the Proposed Development has been an iterative one. As part of the design process a number of options have been considered for the design and layout of the Proposed Development, as set out in the 'Design Approach' section of this report. The approach and options considered are not repeated here.

5.9 The main changes to the Proposed Development, in terms of its design, include the following:

• Positioning the substation compound and main infrastructure elements adjacent to an area of mature woodland and mature field boundaries and away from public rights of way so as to maximise potential screening and limit visibility from sensitive visual receptors.

- Ensuring solar panels are set well back from any public right of way through the site to allow for a wide footpath (approximately 25m wide between solar farm fencing).
- Ensuring solar panels are set back from all residential properties on the boundaries of the Site; solar panels have been functionally allocated so as to create a distance from properties.
- A comprehensive landscape plan with specific proposals designed for this Site, including the addition of tree belts and hedgerow planting.

5.10 The proposed solar panels and other infrastructure would be set within the existing brownfield pattern, with all field margins and boundary vegetation retained and improved upon wherever possible. The fencing around the Site would be situated inside boundary vegetation, ensuring that access is available for hedge trimming and maintenance and the fencing is not outwardly visible.

5.11 The solar panels would be positioned in south facing rows across the Site, with the inverters set within the rows of panels to reduce visual impact. Positioning the substation compound and main infrastructure elements adjacent to an area of mature woodland and mature field boundaries and away from public rights of way would maximise potential screening and limit visibility from sensitive visual receptors.

5.12 The initial design was assessed by a planning and environmental specialist in terms of, amongst other matters, landscape and visual, cultural heritage, ecology, hydrology and traffic considerations. A landscape specialist visited the Site and identified the presence or absence of potential environmental constraints and opportunities. Consultancy was given to determine all potential constraints both within the Site and surrounding area, including in respect of landscape and visual impact and ecology.

5.13 The constraints and opportunities analysis then informed the subsequent design process undertaken by a qualified Landscape Architect with supplementary advice from Natural England. Although there are factors that limit the extent to which the layout and design of the solar farm can be adjusted, these design iterations have ensured that the Proposed Development has as little impact on the local environment as possible.

5.14 The approach involved defining a suitable area, to ensure that appropriate stand-offs from sensitive features are maintained. The area defines where certain infrastructure should be located within the Site, but there is flexibility in terms of the layout within the designated area.

Scale

5.15 The scale of development at the Site has been determined by the equipment necessary to generate electricity sufficiently and buildings usually erected on a development such as this are pre-existing to a large degree therefore the visual impact is lessened beyond the realm of a standard application. Even when viewed from nearby vantage points, the scale of development would not be overbearing due to its low visual profile. This would be further improved when proposed screen planting matures, which, in addition to existing screening around the Site, would effectively assimilate the Site into the local landscape over time.

Appearance

5.16 The only tangible components of the Proposed Development would be the solar panels, inverters and upgraded substation. The solar arrays would be mounted on a metal frame and constructed from non-reflective glass and as previously mentioned, there is a pre-existing substation.

5.17 It is notable that the solar panels are designed to absorb sunlight, therefore there would be no significant issues associated with glint and glare.

5.18 It is also notable that the metal frame is treated to avoid any significant issues associated with glint and glare. The metal frame is necessary because it is durable and is sufficiently strong to hold the panels in position; a functional design requirement.

5.19 Cabling necessary between rows of arrays, other equipment and the grid connection point would be underground at a prescribed depth, meaning that there would be no requirement for over ground cabling and/or additional pylons, and therefore there would be no visual impact associated with this approach.

Landscaping & Biodiversity

5.20 Although a Landscape and Visual Impact Assessment ('LVIA') is not required for a project of this scale, a report has been produced by a qualified Landscape Architect and was instrumental in forming the environmental and design principles of the planning application submission. The assessment considers the effects of the Proposed Development on both the landscape (landscape impact) and on representative viewpoints from around the Site (visual impact), including from PRoWs.

5.21 The Proposed Development has been designed to respect the character of the landscape and uses the pre-existing brownfield pattern to integrate the scheme as far as practicable. Existing landscape features would be retained, protected and strengthened; including the retention of all existing field margins (hedgerows and ditches) and standoffs from boundary habitats. All trees on the Site would be retained and additional planting provided, where necessary, to fill gaps in the existing boundary planting.

5.22 The specific landscaping and biodiversity proposals for the Site include the following:

- Gapping up and strengthening existing Site boundary hedgerows where necessary with native hedgerow species and maintaining the hedgerow to a minimum height of 3.0m;
- Establishing native tree belts along the length of the southern Site boundary to ensure limited residential views;
- Establishing native tree belts/woodland blocks in the vicinity of the village of Lilford to ensure limited residential views;
- Adding hedgerow planting along the southern Site boundary to ensure limited residential and roadside motorist views;
- Establishing a native hedgerow with several hedgerow trees immediately east of Lilford Hall so as to reduce visibility of the solar farm from the property itself.

- Establishment of a native hedgerow including Hawthorn to immediately to limit possible residential views and to limit more distant residential views from the village of Lilford;
- Establishment of native broadleaf trees across the perimeter of the site providing further screening and as part of a larger plan for the restoration of the 17th Century parkland on the Lilford Estate, which expects to see some 2,000 indigenous trees and hedgerow species planted within the grounds including Oak, Beech, Hazel, Rowan, Hawthorn and Poplar;
- Improve the soil quality and diversity on the land between, around and under the solar panels using species rich grassland;
- All planting comprising of native indigenous species common within the local area;
- Screening of the substation compound and main infrastructure elements adjacent to an area of mature woodland and mature field boundaries and away from public rights of way so as to maximise potential screening and limit visibility from sensitive visual receptors;
- Ensuring solar panels are set back from all residential properties on the boundaries of the Site, specifically in relation to the buildings south of the site; a section of solar panels has been removed in each location to create a distance from properties;
- standoffs from sensitive ecological features e.g. field margins, hedgerows and Ancient Woodland.
- A comprehensive landscape plan with specific proposals designed for this Site, including the addition of tree belts and hedgerow planting.

5.23 The landscaping and planting proposals associated with the Proposed Development would bring about significant ecological benefit when compared to the present situation at the Site, including upgrading moderate value land to higher value habitat.

5.24 The Proposed Development includes the following quantifiable habitat creation:

• creation/maintenance of new native hedgerow and tree planting as to provide new habitat for a range of local fauna, such as nesting birds and small mammals, as well as enhancing the ecological connectivity of the site and the local landscape within which the site lies.

5.25 Further details on the design principles applied and their methodology may be found within the Survey And Analysis report submitted as part of the Planning Application. More information on the site in the context of its Listed status may be found within the 'Heritage Statement' (Cullen 2022) available upon request.

6.0 PLANNING POLICY

6.1 This section provides a brief overview of the relevant planning policy and guidance at local and national level. The design of the Proposed Development has been influenced by these policies and the proposals are assessed against them throughout this report.

Legislation

6.2 As an Application for an electricity generating station of approximately 1MW the proposal is too small to be considered under the Electricity Act 1989 and instead is determined under the Town and Country Planning Act 1990 (as amended).

6.3 Section 70 of the Act stipulates that in dealing with applications the authority shall have regard to the development plan (in so far as it is relevant to the Application), a post examination neighbourhood plan (in so far as it is relevant to the Application), any local finance considerations and any other material considerations.

6.4 The Site falls outside the Rural North, Oundle & Thrapston Plan (July 2011) and is not affected by the East Northamptonshire Local Plan, adopted in 1996. There are also no local finance issues raised. Given the nature of this Application and its potential role in addressing climate change, climate change policy and legislation are listed as material considerations alongside national planning policy.

6.5 As there is no neighbourhood plan for the area, consideration was given for a Lilford Wigsthorpe Thorpe Achurch Parish Council Plan as a material consideration but no documentation exists.

Statutory Development Plan (Local Planning Policy)

6.6 The North Northamptonshire Joint Core Strategy 2016-2031 (July 2016) has been referred to throughout the drafting of this application and the policies within its Core Strategy considered to be of relevance consist of:

- Build Design and Character;
- Accessibility and Changing Travel Behaviour;
- Environment; and
- Energy, Resources, Waste, Water and Recycling.

6.7 Development Policies DPD considered to be of relevance consist of:

- Design and Amenity;
- Historic Environment Assets;
- Accessibility and Access;
- Flood Risk and Management of Surface Water Drainage;
- Nature Conservation and Protected Lanes; and
- Renewable Energy.

6.8 Although the DPD makes up part the Statutory Development Plan for the area, there are no policies considered to be of relevance to this proposal.

The East Northamptonshire District Local Plan (1996)

6.9 The planning application has duly considered key criteria of the East Northamptonshire District Local Plan (1996) including the following key statements:

"Increasing pressure for change is being placed on the environment of East Northamptonshire, as a result of the growing pressure for development in the District. This pressure is evident both within and around towns and villages, as well as in the open countryside. It can be seen in the change in agricultural activity, including farm diversification and in major proposals for recreational developments and mineral extraction in the open countryside. In addition, there is demand for residential, industrial and commercial developments, on the fringe of and within historic centres of settlements. "

"Today there is more pressure for change than ever before with so many enterprises and agencies seeking opportunities for development. This creates a potential threat to the character and way of life in the environment of the District. It is the planning system which provides the mechanism for balancing development needs, with the requirement to protect the quality of the environment. "

Section 03, East Northamptonshire District Local Plan (1996)

North Northamptonshire Joint Core Strategy (2011-2031)

6.10 Section 26 of the North Northamptonshire Joint Core Strategy states "proposals for sensitively located renewable and low carbon energy generation will be supported where it can be demonstrated that the proposal meets all of the following criteria:

- The landscape impact of the development is minimised and mitigated against;
- The development links to a specific demand through a decentralised energy network or where this is not possible, the necessary infrastructure is provided to supply power to the National Grid;
- The siting of development avoids harm to the significance of a heritage asset and its setting in accordance with the provisions of the NPPF;
- The siting of development does not significantly adversely affect the amenity of existing, or proposed, residential dwellings and/or businesses, either in isolation or cumulatively, by reason of noise, odour intrusion, dust, traffic generation, visual impact or shadow flicker;
- The development does not result in an adverse impact on the capacity and safety of the highways network and of public rights of way;
- The development includes a managed programme of measures to mitigate against any adverse impacts on the built and natural environment resulting from the construction, operation and decommissioning of any equipment/infrastructure;
- The development does not create a significant adverse cumulative noise or visual impact when considered in conjunction with other developments planned within North Northamptonshire and adjoining local authority areas;
- The development retains and enhances on-site biodiversity and supports the enlargement of, and/or connection to, existing biodiversity assets such as wildlife corridors, where possible;
- Proposals for Solar Photovoltaic farms avoid the best and most versatile agricultural land.

6.11 It is considered the proposal meets all of these criteria without being 'sensitively' located; these guidelines have been followed to ensure optimum sustainability throughout the proposed development.

Structure Plan Policies

6.12 The Northamptonshire County Structure Plan policies emphasise the need to provide for the conservation of natural resources and protection of the environment. Also stressed is the need for environmental considerations to be taken into account when development proposals are made. The County Structure Plan includes policies which aim to:

- conserve and improve the amenities, flora, fauna and landscape qualities of the countryside;
- maintain and improve the quality of the built environment through conservation and sympathetic new building.

6.13 Strategic policies specifically provide for protection of the archaeological heritage of the County; protection and improvement of historic buildings; protection, conservation and enhancement of sites of geological, landscape and nature conservation importance; provisions for designating new nature reserves and conserving the historic built environment.

National Planning Policy Framework (NPPF)

6.14 The National Planning Policy Framework ('NPPF') was adopted in March 2012 and last updated in July 2021. It sets out the Government's planning policies for England and how these are to be applied. The policies contained within the NPPF are expanded upon and supported by National Planning Practice Guidance ('NPPG'), which was first published in March 2014 and has been periodically updated since. NPPG considered most relevant to the Proposed Development includes:

- Climate Change;
- Historic Environment;
- Natural Environment;
- Open Space, sports and recreation facilities, public rights of way and local green space;
- Renewable and low carbon energy; and
- Strategic environmental assessment and sustainability appraisal.

6.15 The National Policy Statements ('NPSs') make up the planning policy framework for examining and determining Nationally Significant Infrastructure Projects ('NSIPs'). As the Proposed Development is not a NSIP, the NPSs are not directly relevant; however, they do form material considerations in the determination of the planning application.

6.16 The following NPSs are relevant:

- Overarching NPS for Energy ('EN-1');
- NPS for Renewable Energy Infrastructure ('EN-3'); and
- NPS for Electricity Networks Infrastructure ('EN-5').

6.17 The following draft NPS', published in September 2021, are also considered to be of relevance as they refer to Solar Power.

- Draft Overarching Energy NPS (EN-1); and
- Draft National Policy Statement for Renewable Energy Infrastructure (EN-3).

6.18 The latest version of NPPF was published in 2021 and sets out the Government's planning policies for England and how these should be applied.

6.19 Section 2 of the NPPF identifies how the purpose of the planning system is to contribute to the achievement of sustainable development. As paragraph 8 points out this means balancing economic, social and environmental objectives whilst paragraphs 10 and 11 establish the NPPFs presumption in favour of sustainable development.

6.20 As a development which can deliver social, economic and environmental benefits, which will contribute to the governments climate change targets and is in line with the Proposed Development plan the Proposed Development is considered to be supported by the presumption.

6.21 Section 4 of the NPPF deals with decision making and recommends front loading the process through various pre-application studies. This allowed the design and assessment of the Proposed Development to focus on avoiding particularly sensitive areas and including measures to mitigate other potential impacts and effects where they were likely to arise.

6.22 The framework for building a strong and competitive economy is covered by section 6 of the NPPF. The Proposed Development aligns itself with this framework in two ways;

- By assisting the Applicants in improving landscape quality and increasing biodiversity and in so doing help to sustain the rural economy of the local area.
- By providing a source of renewable electricity in an area where there is currently an imbalance and lack of generation. If left unattended the ability for the local economy to grow especially as demand for electricity is likely to increase for the purpose of decarbonising heat and transport, could become limited. Conversely having a supply of sustainable electricity at this location will help to balance the grid and allow further development.

6.23 The Proposed Development is therefore considered to be aligned with and supported by section 6 of the NPPF.

6.24 Under the heading of making effective use of land section 11 of the NPPF highlights the need to promote effective use of land in terms of meeting the needs of housing and other uses whilst also safeguarding the environment and ensuring safe and healthy living conditions. The Proposed Development has responded to this by making effective us of the development site for energy generation whilst also enhancing biodiversity, supporting a local interest group and helping to diversify the brownfield site.

6.25 Although not directly relevant to the Proposed Development the approach to the design of the Proposed Development has had regard to the general principles set out in section 12 of the NPPF. The resultant development seeks to achieve an acceptable balance between the need to generate power with the environmental sensitivities of the surrounding area and having done so is considered be consistent with this part of the NPPF.

6.26 Arguably the most relevant part of the NPPF is Section 14 Meeting the challenge of climate change. Paragraph 152 kicks things off by highlighting that the planning system should support the transition to a low carbon future whilst taking account of flood risk and

coastal change. Taking the transition to low carbon first paragraph 155 highlights the need for plans to provide a positive strategy for renewable and low carbon energy whilst ensuring adverse impacts are satisfactorily addressed. In 158 the NPPF goes on to require that planning authorities should recognise the contribution that development makes to cutting emissions without requiring a needs case. In part b) of 158 it goes a step further suggesting that applications should be approved where its impacts are or can be made acceptable.

6.27 The application clearly enjoys support from this element of the NPPF and having satisfactorily assessed its potential improvements to the ecological status of the land proposed for development, the Proposed Development is considered to be entirely consistent and supported by this key part of the NPPF.

6.28 Section 15 of the NPPF sets out the Government's framework for Conserving and enhancing the natural environment. Paragraph 174 provides a list of criteria which are intended to ensure that planning decisions contribute to and enhance the natural and local environment. The Proposed Development has responded to the matters raised in section 15 in three ways.

- Avoidance of direct impacts on particular sensitivities including but not limited to Upper Nene Valley Gravel Pits SPA and Wadenhoe Marsh and Achurch Meadow Site of Special Scientific Interest SSSI.
- Detailed Design, Assessment and Re-Design to ensure that impacts on the local environment were understood, avoided and where necessary addressed through redesign and embedded mitigation measures.
- Enhancement. Turning what is at present intensively managed agricultural land with very little ecological value beyond the hedgerows which surround, back into a permanent managed grassland habitat provides a number of opportunities to not only conserve what already exists but also enhance it. This has been achieved in a number of ways.

6.29 The formation of a managed wildflower meadow and increased native tree and hedgerow planting in the buffer zone will benefit local biodiversity as well as efforts by local beekeepers to conserve native bee populations. Planting additional hedges will not only help to reduce the visual impact of the Proposed Development but also provide additional biological diversity into the site, building on the character of the surrounding area and providing corridors for wildlife to move through the site. Taken as a whole these positive measures are considered to deliver the type of development envisaged by the NPPF and in a manner which is entirely consistent with Section 15.

6.30 Section 16 of the NPPF provides a similar framework to Section 15 but in relation to the need to conserve and enhance the historic environment. In similarity to the Applicants' approach outlined under section 15, the Proposed Development has sought to address the matters raised in section 16 by:

• Avoiding direct impacts and as far as possible secondary effects on known assets such as Lilford Hall and Historic buildings of the local villages of Lilford, Pilton and Wadenhoe by a visually sensitive Landscape Assessment and Visual Impact Report.

• Detailed Design, Assessment and Re-Design to ensure that impacts on the local environment were understood, avoided and where necessary addressed through redesign and embedded mitigation measures.

6.31 In so far as the historic environment is concerned this has largely been achieved through initial siting whilst the phased improvement of surrounding parkland through additional hedges and tree planting around the Greater Site has sought to reduce potential visual effects where these were unavoidable through siting alone. It is also worth noting the site is situated beyond the area designated 'parkland' utilising a brownfield site and will improve the ecological value of the land it sits upon. Further efforts have been made to avoid the potential impact of construction traffic on the historic village of Lilford and its surrounding villages. The outcome is a development which strikes a balance between the need for development of this kind in this location and sensitive treatment of the historic assets in the surrounding area.

Land-Use & Development In The Countryside

6.32 Policy SD1 (Sustainable Development Locations) states that growth will be located at the most accessible and sustainable locations in accordance with the Settlement Hierarchy and the Key Diagrams. When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will always work proactively with applicants jointly to find solutions which mean that applications can be approved wherever possible and to secure development that improves the economic, social and environmental conditions in the area.

6.33 Policy ENV1 indicates that where development needs or is compatible with a rural location, it should be appropriate in terms of its scale, siting and design, protect, conserve or enhance landscape character, including natural or historic assets, and provide for any necessary mitigating or compensatory measures.

Flood Risk

6.34 Paragraph 159 of the NPPF outlines that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Paragraph 161 notes that all plans should apply a sequential, risk- based approach to the location of development- taking into account the current and future impacts of climate change- so as to avoid, where possible, flood risk to people and property. The paragraph details that the sequential test should be applied, and if necessary, the exception test. Paragraph 162 explains that the aim of the sequential test is to steer new development to areas with the lowest risk of flooding.

6.35 Policy ENV1 (Environment) of the Core Strategy states that "the Council will seek to direct development away from land at risk of fluvial or coastal flooding in accordance with PPS25, including areas where the risk of flooding is likely to increase as a result of climate change."

6.36 The Proposed Site is sited within Flood Zone 1 where there is the lowest risk of flooding. The proposed development will have a very limited extent of impermeable ground cover. The area beneath the solar panels will remain grassed and the post development site infiltration rate will not adversely change. The excavation of cable trenches which would be

backfilled with a granular surround to the cables and with excavated material to potentially increase the infiltration capacity of the site as the cable trenches act as land drains.

6.37 The NPPF classifies Solar Farms as that of 'essential infrastructure' and is therefore appropriate for development in Zones 1 and 2 with an exception test required if the site is situated within Flood Zones 3a or 3b. The proposed solar panels and associated infrastructure are located within Flood Zone 1 with the exception of the underground cable connection to the PoC, which passes under small areas of Flood 3 associated with existing watercourses. It is proposed that where the cable passes these areas, HDD techniques will be employed during construction, so as it leave them undisturbed. Once constructed, the cable route will not be at risk from flooding from any source due to being located underground.

6.38 The proposed drainage measures set out in the Flood Risk Assessment are considered more than sufficient for the Proposed Development. It follows that the Proposed Development complies with relevant planning policy.

Planning Practice Guidance (PPG)

6.39 The PPG on Renewable and low carbon energy was last updated in 2015 and establishes the important role that planning has in delivering new renewable and low carbon energy infrastructure in areas where the local environmental impact is acceptable. Whilst most of the guidance is geared towards planning authorities the PPG does provide some specific guidance on planning considerations for ground-mounted solar projects.

6.40 It is noted that the PPG seeks to focus solar farms on previously developed or nonagricultural land for which the Proposed Development met the relevant criteria. Reverting this brownfield site back into permanent grassland and making use of wild-flower seed mixes will have biodiversity benefits, can be utilised by local beekeepers for the production of honey and is also expected to stabilise the soil, allow it to regenerate from years of intensive use, increase its ability to retain water and slow down run-off. Whilst the Applicants do not intend to graze these fields at this time the opportunity exists to do so in future.

Other

6.41 In June 2019 the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar and battery storage, which are supported by planning policy at local and national level.

6.42 In October 2021, the Government published the Net Zero Strategy: Build Back Greener which sets out its vision to end our contribution to climate change, and reverse the decline of our natural environment, leading the world to a greener, more sustainable future.

6.43 This Strategy commits to take action so that by 2035, all our electricity will come from low carbon sources, subject to security of supply, bringing forward the Government's commitment to a fully decarbonised power system by 15 years, and it explicitly seeks to accelerate deployment of low-cost renewable generation, including wind and solar. It also notes that our exposure to volatile gas prices shows the importance of our plan for a strong home-grown renewable power sector to strengthen our energy security into the future. 6.44 More recently, the Government released the British Energy Security Strategy (2022) which seeks to set out "how Great Britain will accelerate homegrown power for greater energy independence." The report states that there is currently 14GW of solar capacity in the UK split between large scale projects to smaller scale rooftop solar and that the Government expect a five-fold increase in deployment within just 13 years, by 2035.

6.45 In addition, whilst not planning policy documents, the following, also form material considerations:

- National Infrastructure Commission Net Zero Opportunities for the Power Sector (2020);
- National Infrastructure Commission- Annual Monitoring Report (2021);
- The Committee on Climate Change Reducing UK emissions Progress Report to Parliament (2021); and
- Solar Energy UK Lighting the Way (2021)

Climate Change Act (2008)

6.46 The Climate Change Act 2008 established statutory targets for the UK to achieve reductions in greenhouse gases by 2050 against the 1990 baseline. The Act originally set a legally binding target of an 80% reduction in greenhouse gas emissions by 2050 against the 1990 baseline. In response to the declaration of a climate change emergency, the targets of the Act were updated to at least a 100% reduction on 1990 levels by 2050. This target is known as the net zero target, meaning that some emissions can remain, but they must be offset by removal or carbon trading.

Net Zero – The UK's Contribution to Stopping Global Warming (2019)

6.47 The 'Net Zero – The UK's contribution to stopping global warming' report published in May 2019 was a response to a request from the UK, Scottish and Welsh Governments for a re-assessment of the UK's long-term emissions targets. The updated emissions scenarios drew on research projects, expert advisory groups and reviews of the work of the IPCC and others. The key findings of the report are as follows:

- The Committee on Climate Change recommended a target of net-zero greenhouse gases by 2050.
- In Scotland, the recommended net-zero date is 2045, to reflect its greater relative capacity to remove emissions than the UK as a whole.
- In Wales, a 95% reduction in greenhouses gases by 2050 is recommended.

6.48 The net-zero greenhouse gas target for 2050 delivers on the commitment that the UK made by signing the Paris Agreement. This target is achievable using known technologies and improvements in people's lifestyles. It is also anticipated that it falls within the expected economic cost accepted by Parliament when the 2050 target was legislated as an 80% reduction from 1990.

Achieving Net Zero, National Audit Office (2020)

6.49 This Report sets out that achieving net zero "is a colossal challenge and significantly more challenging that Government's previous target to reduce emissions by 80% by 2050". This adds further policy context to that mentioned below.

Sixth Carbon Budget

6.50 The Sixth Carbon Budget report was published by the Climate Change Committee in December 2020, it sets out the carbon budget which will run from 2033 to 2037 and builds on the advice given by the Climate Change Committee which led to Net Zero becoming law throughout the UK. The Report identifies four key steps in meeting the Sixth Carbon Budget, and the second of these is the expansion of low-carbon energy supplies, with the target that UK electricity production is zero carbon by 2035. The step also identifies the increase in electricity demand, which it anticipates would be increased by half over the next 15 years.

UK Government Energy White Paper 'Powering our Net Zero Future' (2020)

6.51 The White Paper was also published in December 2020, and Chapter 2 "Power" sets out the key energy policy. They goal noted here is that "Electricity is a key enabler for the transition away from fossil fuels and decarbonising the economy cost-effectively by 2050". The policy objective to meet this goal is to "Accelerate the deployment of clean electricity generation through the 2020s". The document notes the fivefold growth in renewable capacity in electricity generation since 2010 and comments that this has been "drive by the deployment of wind, solar and biomass." It also states that "A low-cost, net zero consistent system is likely to be composed predominantly of wind and solar". There is clear support in the White Paper for solar developments, such as the Proposed Development

The Clean Growth Strategy (2017)

6.52 The Clean Growth Strategy was published in 2017, and it sets out policies and proposals that aim to increase the pace of clean growth, taking action to cut emissions, increasing efficiency and helping lower the amount consumers and businesses spend on energy. The Strategy includes a proposal titled "Growing Low Carbon Sources of Electricity" which states "We want to see more people investing in solar without government support". This provides clear support for developments such as the Proposed Development.

Minerals and Waste

6.53 According to the Governments Mineral Resource Information in Support of National, Regional and Local Planning (2006) the Site is not located within a Minerals Safeguarding Area for sand and gravel and is therefore not subject to any restrictions.

Assessment

6.54 The principle of the Proposed Development is heavily supported by both local and national policy, provided there are no unacceptable impacts and certain criteria are met. There is also a significant need for proposals like the Proposed Development as demonstrated throughout this document, so long as schemes are 'located and designed in such a way to minimise increases in ambient noise levels and visual impacts should be mitigated through siting, design, layout and landscaping measures.'

6.55 In conclusion the application demonstrates that, with reference to the various guidance and both national and local level planning policy, there are no unacceptable impacts associated with the Proposed Development and that the planning balance weighs heavily in favour of it.

7.0 SUMMARY AND CONCLUSIONS

7.1 The Proposed Development comprises the construction, operation and decommissioning of a solar PV farm and other associated infrastructure.

7.2 The principle of renewable energy, such as solar power, is supported by local and national planning policy. Furthermore, Northamptonshire County Council has declared a climate emergency and the UK Government has committed to meeting a legally-binding target of net-zero carbon emissions by 2050. There is therefore a significant and demonstrable need for the Proposed Development, as set out in detail throughout this document.

7.3 The Applicants have carried out meaningful pre-application consultations in respect of the Proposed Development and has made changes to the Proposed Development to help address and mitigate concerns, whilst minimising the impact of the scheme through careful design.

7.4 It has been demonstrated that the Proposed Development complies with local and national planning policy and there are significant benefits associated with it. The environmental and technical reports that form part of the planning application submission demonstrate that there would be no unacceptable environmental impacts, and there are a number of added benefits, including habitat creation and biodiversity gains.

7.5 These factors, when combined with the significant and urgent need for renewable energy and a secure energy supply, mean that the planning balance (and, in particular, when considered in the context of the tests under Section 38(6) Planning and Compulsory Purchase Act 2004) is weighted significantly in favour of the Proposed Development.

7.6 The Applicants therefore respectfully request that planning permission is granted for the Proposed Development.

8.0 APPENDIX

Site Photographs

8.1 The following photographs were taken as part of an appraisal of potential visual impact and are included to show the site in its current form for referencing purposes.

8.2 The photographs were taken on October 30th 2022.



Fig. 11: View South from site towards Lilford village



Fig. 12: View West from site across parkland towards Pilton



Fig. 13: View North-west from site across grassland



Fig. 14: View North from site towards industrial site at Barnwell



Fig. 15: View North-east towards Barnwell across grassland



Fig. 16: View South across grassland towards Lilford



Fig. 17: View North across lower-lying grassland



Fig. 18: View West across grassland from eastern site boundary



Fig. 19: View East across brownfield site, military footings present, Lilford Woods to the distance.



Fig. 20: Detail of surface composition, concrete-mix access from former hospital infrastructure



Fig. 21: Detail of tarmac surface forming part of the composition of the brownfield site



Fig. 22: View West towards former military vehicle maintenance building and aggregate rubble



Fig. 23: Partially removed concrete footings showing composition of site footings



Fig. 24: Detail of military vehicle maintenance building, aggregate rubble and view East of site



Fig. 25: View East from parkland towards substation and site beyond

Reference

Fig. 1: Site Location Plan (1:12,500) © Crown Copyright and database rights, Ordnance Survey 100022861)

Fig. 2: Site Location Plan (1:10,000) © Crown Copyright and database rights, Ordnance Survey 100022861)

Fig. 3: Site Location Plan (1:5,000) © Crown Copyright and database rights, Ordnance Survey 100022861)

Fig. 4: DEFRA map of surrounding designated sites - © Crown Copyright and database rights, Ordnance Survey 100022861)

Fig 5: Notified features of the Upper Nene Valley Gravel Pits (Upper Nene Valley Gravel Pits SPA Supplementary Planning Document)

Fig. 6: DEFRA map of surrounding Ancient Woodland © Crown Copyright and database rights, Ordnance Survey 100022861)

Fig. 7: Flood Risk Assessment map of site © Crown Copyright and database rights

Fig. 8: Transport and vehicular access to site via A406 - Imagery © Bluesky, CNES/Airbus, Getmapping plc, Infoterre Ltd & Bluesky, Maxer Technologies Map data © 2022

Fig. 9: Example of a typical array of ground-mounted solar panels (cross section)

Fig. 10: Aerial photograph of the Proposed Site in 1944 clearly demonstrating its previous use

Fig. 11: View South from site towards Lilford village © 2022 Prosperi Architecture & Design Ltd

Fig. 12: View West from site across parkland towards Pilton © 2022 Prosperi Architecture & Design Ltd

Fig. 13: View North-west from site across grassland © 2022 Prosperi Architecture & Design Ltd

Fig. 14: View North from site towards industrial site at Barnwell © 2022 Prosperi Architecture & Design Ltd

Fig. 15: View North-east towards Barnwell across grassland © 2022 Prosperi Architecture & Design Ltd

Fig. 16: View South across grassland towards Lilford © 2022 Prosperi Architecture & Design Ltd

Fig. 17: View North across lower-lying grassland © 2022 Prosperi Architecture & Design Ltd

Fig. 18: View West across grassland from eastern site boundary © 2022 Prosperi Architecture & Design Ltd

Fig. 19: View East across brownfield site, military footings present, Lilford Woods to the distance © 2022 Prosperi Architecture & Design Ltd

Fig. 20: Detail of surface composition, concrete-mix access from former hospital infrastructure © 2022 Prosperi Architecture & Design Ltd

Fig. 21: Detail of tarmac surface forming part of the composition of the brownfield site © 2022 Prosperi Architecture & Design Ltd Fig. 22: View West towards former military vehicle maintenance building and aggregate rubble © 2022 Prosperi Architecture & Design Ltd

Fig. 23: Partially removed concrete footings showing composition of site footings © 2022 Prosperi Architecture & Design Ltd

Fig. 24: Detail of military vehicle maintenance building, aggregate rubble and view East of site © 2022 Prosperi Architecture & Design Ltd

Fig. 25: View East from parkland towards substation and site beyond © 2022 Prosperi Architecture & Design Ltd