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## Design and Access Statement

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### Proposed Photovoltaic Array

For

Severn Hospice

Bicton Heath

Shrewsbury

SY3 8HS

March 2024

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# 1. INTRODUCTION

Gould Singleton Architects have been appointed by Severn Hospice to submit a detailed planning application which seeks consent for a private solar photovoltaic array to provide energy for the existing Hospice operations at their Bicton Heath site, Shrewsbury.

This detailed planning application provides a plan as existing, proposed, site sections, aerial photographs and an energy statement demonstrating the provision of the new system.



# 2. SITE HISTORY

The site is on the eastern side of Shrewsbury and has been part of the Hospice facility more than 20 years. More recently, around the parcel of land to which development is proposed, has been constructed **The Uplands** to the south west accessed off Clayton Way and **The Coppice** accessed off the B4380.

The development area (Red line) is 1.76 acres or 7,150 sq.m which is approximately 14% of the total land owned by the Hospice.

The area of land is approximately 90m wide east to west and at its longest dimension north to south is approximately 1.47m.

To the north east abutting the main B4380 is a heavily planted mature woodland which is approximately 20m deep to the road edge. To the western and southern boundaries is a thin recently planted set of trees mainly Silver Birch. To the north west between the parcel of land and the Hospice car park is an existing mature woodland area which is approximately 50m deep to the tarmaced surfaced area.

The recent Coppice development on the eastern boundary is approximately 4m away from the post and rail fence at its tightest point.

The topography of the land is a gentle slope from the southern tip of the development land to the northern tip approximately 5m over the 140m distance.

There is currently no vehicular access to the parcel of land; however, parts of the land are maintained and cut and strimmed as part of an established management programme.

### 3. USE

The area of land which is owned by the Hospice is currently surplus to requirements and is not required for any future building structures to support the Hospice operations; however, due to the considerable energy consumption required for the facility, which is a 24/7 operation, the applicant has now considered energy generation through the positioning of ground mounted PV solar array.

The proposal would seek permission for this commercial installation and the application is supported by an energy statement which gives further background to the need and provisions of this proposal.

At present the Hospice have an average electrical energy consumption of the two buildings combined at 350 kW/h per year. At peak energy generation through seven months of the year, the proposed PV array would provide sufficient energy without requiring support from the National Grid. However, through five months of the year it is anticipated that additional energy will be required from the National Grid of approximately 77,000 kW/h per year.

Based upon current electrical charges the payback period for the scheme will be 8.9 years.

This is a significant reduction in demand on the local energy network and will have a significant benefit to the Hospice operations demonstrating a responsible approach to sustainable energy sources which is being encouraged both at national and local levels.

## 4. AMOUNT

Our proposal drawings submitted demonstrate the likely layout of the PV array which has approximately 19 linear rows spanning east to west with panels positioned on a lightweight metal frame truss angled to face due south. The approximate quantum of panels is 942 panels, and the maximum heights of the panels is circa 2.2 metres from ground level.

It has been established from the manufacturer's/suppliers that the lightweight steel frame will be erected on posts that will be screwed into the ground thus removing any need for any excavations or foundation pads. The screw anchors will ensure resistance to wind uplift and ensure that the light gauge truss remains rigid in position. The PV panels are static and will only face in one direction following installation.

The only excavation required will be the continuous cable at the end of the array which will then feed back to inverters and generators positioned within the main Hospice building which will then deliver energy into the building during its normal daily operations. When excessive electricity is being generated, the surplus energy will be then stored within batteries and can then provide power during the evening hours when the Hospice is still operating.

## 5. SCALE

Our application demonstrates the amount and size of PV array likely to be installed. It has been agreed that the peripheral landscaped boundary features will remain exactly 'as is' and that a minimum of three metres be maintained from any part of the closest bramble overgrowth that has been surveyed on site. This will ensure that sufficient space is available around the array to maintain landscaping and ensures that trees, shrubs and wildlife are unaffected by the proposals.

With the mature trees being maintained along the northern boundary, and the panels facing due south, there is no risk of any glare to any vehicles moving the along the B4380 and the distance from the panels to the Uplands care facility is considerable and the boundary is now maturing with the Silver Birch trees.

The panels are exposed and on view to the Coppice on the eastern boundary; however, with all the panels being positioned sideways, there is no chance of any glare to any of the residents.

A development application fee has been calculated on the area of the panels (plant).

## 6. ACCESS

Access into the facility once completed will only be for service personnel to carry out annual inspection of the panels with no vehicular access being required or formed. Therefore, the existing overgrown field will remain as existing, and pathways will be trimmed and grass cut as it is today.

## 7. ENVIRONMENTAL IMPACT

As commonly known, the position of PV panel arrays provide clean energy and it is this installation with ground anchors being secured into the existing ground, the impact on the immediate and wider environment is zero. A conscious decision has been made to ensure that the proposals are well clear of any peripheral boundaries and the landscaping that is within the peripheral site boundaries will ensure that any wildlife that may frequent or pass through the site remains unaffected.

The site has existing Bee hives and these will be maintained on site

## 8. CONCLUSION

It is hoped that the application is deemed to be of negligible impact by the Local Authority and move to approve this highly sustainable, clean energy supply to assist the Hospice facility within Bicton.



# 9. PHOTOGRAPHS



Image taken from the North



Image taken from the South







Aerial Image



