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Design and Access Statement

For Ground Mounted Solar Photovoltaic Panel Array at: Broxwood Court, Broxwood, Leominster, Herefordshire, HR6 9JJ

For Herefordshire Council

Proposal:

The installation of four ground mounted solar PV arrays within the ha-ha of Broxwood Court and totalling 22kWp of electricity production and to separately feed the four residential properties of Broxwood Court, The Coach House, The Clock Tower and The Game Lodge with renewably produced electricity and comprising 72 Caymax 300-72M panels.



Solar photovoltaic panels similar to the proposed panels. The proposal is for a single row of panels discreetly positioned within a ha-ha.

Site Address:

Broxwood Court

Broxwood Leominster Herefordshire HR6 9JJ

Applicant:

Mr M. Allen

Agent:

Richard Bayliss

BECL

Windsor House Windsor Place Shrewsbury SY1 2BY

Tel: 01743 239 229

Date:

26th October 2011



1.0 Introduction

This application is for a ground mounted array of 72 Caymax 300-72M solar PV panels to be discreetly installed in the ha-ha of Broxwood Court, Broxwood, Leominster, Herefordshire, HR6 9JJ. The solar PV panels will be used to produce a clean, renewable, quiet and sustainable form of electricity production that will assist with providing a renewable source of electricity for Broxwood Court and the three adjacent smaller properties — The Coach House, The Clock Tower and The Game Lodge, as well as improving the carbon footprint of the buildings.

2.0 Background

- 2.1 Broxwood is situated just to the south west of Leominster and just to the north of the village of Weobley. To the north of Broxwood is the A44 with access to Kington. Broxwood Court is situated just to the north of the A4112 and is accessed by local roads. Broxwood Court has a private driveway that leads through the courtyard containing the Coach House, Clock Tower and Game Lodge and through to Broxwood Court. Broxwood Court is a larger dwelling, constructed in the 1950's. The ha-ha is faced with concrete blockwork
- 2.2 It is the applicant's intention that the site is utilised to its best advantage for the generation of electricity from renewable sources. The ha-ha is ideally suited to accommodate a solar pv array as it is below ground level and so hidden from view from the house and the surrounding area and is south facing and is largely unshaded. The generation of electricity from renewable sources will also lead to the reduction of the carbon footprint of the property. Visually this application will appear as a single line of solar PV panels within the ha-ha, however, the panels will be so wired as to provide electricity to the four properties, so the appearance of a single installation will actually comprise four separate installations. The installation of these solar panels will be appropriate within the context of the ha-ha where they will be discreetly hidden from view and for the electricity consumption of the four separate properties. Of the total 22kWp it is proposed 10kWp is installed into Broxwood Court, with The Coach House, Clock tower and Game Lodge each have 4kWp installations. Broxwood Court alone consumes over 40,000kWh of electricity annually, so production of electricity will still be somewhat less than the consumption. Nevertheless, it is anticipated that the four seamless installations will produce an annual output of approximately 19,000 kWh (units) of electricity and will go some way towards reducing the carbon emissions of the site, saving 8,170Kg of CO2 annually (over 200 tonnes of CO₂ in its anticipated 25 year life).
- 2.3 The adoption of a micro solar photovoltaic array will contribute positively to both the ethos of the property owners and the thrust of Government policy in respect of renewable energy. The array will provide an innovative solution to the energy demands of the property whilst reducing environmental impact.
- 2.4 Broxwood Court was built during the 1950's and whilst the house is not listed the gardens and parkland are listed as Grade II. The ha-ha is faced with modern concrete blockwork. The grounds are designated as Protected Historic Parks and Gardens in the Herefordshire UDP Proposals Map. As required under Policy LA4 an Historic Landscape Appraisal has been incorporated in this statement at paragraph 9.

3.0 SiteSelection

The Coach House.

The Clock Tower.

Broxwood Court.

Proposed location of the array. To be ground mounted in the ha-ha.



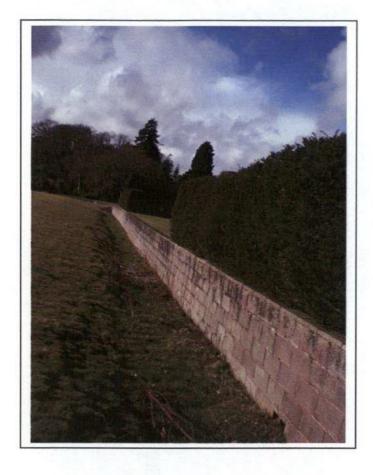
The Game Lodge.

3.1 The location has been selected due to its exposed south facing position (being important for the optimum performance of solar panels) together with its lack of visibility as it is discreetly positioned below ground level in a ha-ha. Proximity to the dwellings that the array will feed will mean that trenching work for underground cabling will be minimised. Plan 65.13 007 02 shows the cabling (in green) from the array to the buildings.



Current view of the site. The distance of the array from the property will be approximately 60 metres and it will be located to the south of the house. The top of the ha ha wall can just be seen as indicated





The ha-ha within which it is proposed the solar PV array will be located.

4.0 National Planning Policy

Renewable energy is addressed in various Government Planning Policy Statements.

4.1 PPS1 - Delivering Sustainable Development

Paragraph 20 of PPS1 states that "Development plan policies should take account of environmental issues such as.... mitigation of the effects of, and adaptation to, climate change through the reduction of greenhouse gas emissions and the use of renewable energy"

4.2 PPS7 – Sustainable Development in Rural areas

Paragraph 16 of this PPS states that "When......determining planning applications for development in the countryside, local planning authorities should provide for the sensitive exploitation of renewable energy sources in accordance with the policies set out in PPS22."

4.3 PPS22 - Renewable Energy

The introduction to this PPS recognises that "Increased development of renewable energy resources is vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy. Positive planning which facilitates renewable energy developments can contribute to....the Government's sustainable development strategy" The PPS also states that renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily.



4.4 General Government Support for Renewables

Government policy encouraging renewable energy is also reinforced and supported through non planning means such as the Climate Change Act and the introduction of Feed in Tariffs.

5.0 Local Policy

The Unitary Development Plan contains the relevant policies and material issues for consideration.

5.1 Unitary Development Plan (Adopted 23rd March 2007)

- **5.1.1** In Chapter 3, The Strategy, the vision for Herefordshire states in para 3.3.2 that one of its three elements is to "properly protect and enhance the environment through sustainable development". Para 3.3.6 Recognises that working within the environmental capacity should involve moving towards conditions where:
- rates of use of renewable resources do not exceed their generation.
- rates of use of non renewable sources do not exceed rates at which sustainable renewable substitutes are adopted.
- **5.1.2** Policy P1 outlines that the UDP will contribute to sustainable development by developing policies and proposals that help ensure "Sustainable economic activity and development" and "Sustainable use of natural resources" Policy P5 states "The UDP will promote forms of Environmental Management which minimise depletion of scarce and non-renewable resources." Policy P6 states "The UDP will favour those forms of land use and development which work within environmental capacity, which demonstrate beneficial environmental impacts...."
- **5.1.3** Policy S1 states "Sustainable development will be promoted by:
- (5) Increasing energy conservation, energy efficiency and energy generation from renewable sources."
- **5.1.4** In Chapter 4, Development Requirements, Para 4.2.1 states policies aim to: "ensure that development proposals take advantage of the opportunities that are available to contribute to sustainable development" The more specific objectives outlined in para 4.2.2 seek to "ensure that where possible development makes a positive environmental contribution."
- **5.1.5** Proposals Map. The proposals Map shows the area as being designated as a Historic Park and Garden. Otherwise the property is not subject to any other designations. Policy LA4 is relevant to this.
- **5.1.6** Policy LA4 is saved and states "Development which would destroy, damage or otherwise adversely affect the historic structure, character, appearance, features or setting..... of a registered park or garden will not be permitted. Development proposals that would affect an historic park or garden should be accompanied by an historic landscape appraisal report and a restoration scheme....." It is considered that this proposal, for a demountable structure, hidden in a blockwork walled ha-ha, outside the garden (but nevertheless inside the listed park) does not destroy damage or adversely affect the criteria set out in this policy and that this proposal would have no tangible affect on the historic park. Nevertheless a brief Historic Landscape Appraisal, commensurate in scale with the proposed development has been included in paragraph 9 of this statement.



6.0 Compliance with Planning Policy

It is considered the application fully complies with local and national planning policy as this proposal promotes both sustainability and working within the environmental capacity as identified in the UDP. Furthermore, any impact on the setting of the listed historic park and garden is judged to be negligible and fully reversible. This issue is addressed more fully in paragraph 9.

7.0 Design

7.1 Description

The proposal is for a ground mounted 22 kilowatt peak solar PV array comprising 72 Caymax 300-72M panels (specification attached) and to feed electricity to the four adjacent dwellings.. This array will be arranged as a row of single panels in landscape formation and mounted on a frame secured into the ground as shown in the drawing a ref 65.13 007 04. The configuration would be 72m long.

7.2 Materials

Each panel comprises Monocrystalline solar cells within a black surface beneath tempered glass with a weather protection film. The slim frames are of anodized aluminum. The glass has an anti-glare coating, being designed to absorb light and radiation rather than reflect it.



Single solar panel module

7.3 Screening and Views

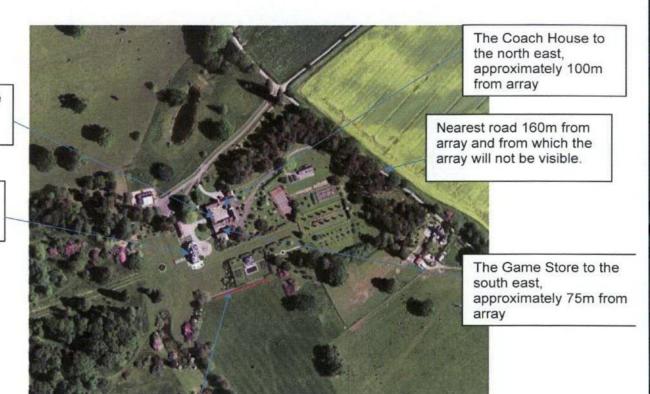
7.3.1 General Screening

Great care has been taken to ensure that the solar PV array is positioned as discreetly as possible and therefore have minimal visual impact. Roof mounting such a system is a the traditional method, but at Broxwood there are no buildings with suitably exposed yet discreet roofs on which the array could be positioned. The obvious solution is to hide the array in the landscape and the best place for this is the dead ground created by the ha-ha. The panels will not reach above the height of the ha-ha and so cannot be seen from any of the properties or from the garden of Broxwood Court, unless one is positioned within a few metres from the edge of the ha-ha. Similarly from the fields beyond the ha-ha, the array is hidden in the landscape and so poses minimal visual intrusion The nearest property is the main house approximately 60m to the north west of the proposed array location. The panels will not be visible from this property.



The Clock Tower to the north, approximately 85m from array

Main House to north west, approximately 60m from array



Location of array (shown as red line)

7.3.2 Nearby Properties

The array will not be visible from any neighbouring or nearby properties.



Position of the proposed array that will run along this section of the ha-ha



7.3.3 Roads

The nearest local road is Bond's Green road that is approximately 160 metres from the proposed installation. The road is fringed with trees. The array will not be visible from this road or any other roads.

7.3.3 Public Access

There is no public access to the site. The nearest point of public access is from the road as shown in the aerial photograph above. The nearest public footpath is some 600m to the south west and from which the installation will not be visible.

8.0 Site Access

The site is accessed from the driveway to the north of the array. There is satisfactory access for both installation and maintenance vehicles.

9.0 Historic Landscape Appraisal

9.1 Listing Detail

Name: BROXWOOD COURT

List Entry Number: 1000876

Grade: II

Date first registered: 28-Feb-1986

Legacy System: Parks and Gardens

UID: 1873

List Entry Description

Details

Formal garden, avenue and woodland walks of c 1860 by W A Nesfield and park associated with a country house (now largely demolished) begun in 1858.

9.1.1 Historic development

In the late 1850s Richard Snead-Cox (1820-99), a substantial landowner in Herefordshire and Oxford, commissioned a new house, Broxwood Court, and employed W A Nesfield to design its gardens. The family (who remain at Broxwood) were Roman Catholics, and the wooded landscape which was developed west of the formal gardens reflects their strong faith, with walks and other features named after biblical figures. There were apparently few substantial changes at Broxwood until the 1950s when Col R J F Snead-Cox (d 1968) demolished the old house and built a smaller replacement, simplified the gardens and undertook new plantings. The house remains (1998) in private ownership.

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9.1.2 Description

Broxwood Court lies 1km south-west of the hamlet of Lower Broxwood in west Herefordshire. Kington lies c 7km to the north-west, and Weobley c 5km to the south-east. The park is bounded to the east by a minor road from Woonton Ash to Whitehill, and to the west by the A480 Kington to Hereford road. The house faces roughly west, although the main view from the front of the house is south, towards the River Wye and the Black Mountains beyond. The registered area is c 63ha.

ENTRANCES AND APPROACHES

A front drive approaches the north side of the house from a gate opposite the road from Lower Broxwood. To either side of the gate is a mid C19 Wellingtonia. The back drive is 100m to the south, and approaches the rear of the house via the old stables court. A group of Scots pines lies either side of the main entrance and continues as a screen along the north side of the drive. The foundations were laid for a drive from the west through the park. The scheme was never completed.

PRINCIPAL BUILDING

In 1858 Richard Snead-Cox commissioned C F Hansom to build a large house in the Gothic style. Hansom, however, died with only stables and a service range completed. In 1891 Leonard Stokes (1858-1925), who undertook many commissions for Roman Catholic clients, was called in to erect a Tudor-style mansion, aligned on an avenue of trees planted by Nesfield c 1860. That house was demolished in 1955 and replaced by a smaller house on the same site, also in the Tudor style. The stables and service court was left standing, and in the 1990s converted to residential and office use.

GARDENS AND PLEASURE GROUNDS

Lawns slope gently away from the main, west front of the house and to the south; in the latter direction, over the Abbot's Pool at the bottom of the lawn and the Lone Pine beyond, long views are enjoyed to Garnstone Hill and to the Black Mountains. Low terraces and steps in the centre of the west side break up the lawns, which to the south are bounded by a ha-ha.

About 75m south-east of the house, and leading away from it, is the Yew Walk: parallel clipped yew hedges with apsidal bays spaced regularly down either side and with a broad grass walk down the centre. To the south of the Walk a rose garden with pergola was about to be reconstructed in 1997. At the east end of the Yew Walk is a formal garden (the Kitchen Garden) entered via an iron gate in a low stone wall and comprising a walk between parallel rows of Irish yews leading to a bench set in an apse in a tall clipped hedge of macrocarpa which runs across the end of the garden. Beyond, and rising above the Yew Walk and Kitchen Garden when seen from the house, is a belt of pine.

The west front of the house is aligned on St John's Avenue, which runs for over 1km to the A480 on the western boundary of the park. The first section of the avenue, leading slightly uphill from the house, is of cedrus deodar. Next are six Wellingtonia (three to either side), with the rest of the avenue being Scots pines. Before passing into open parkland c 400m from the house, the avenue is flanked by an arboretum containing large numbers of mature specimen trees. Two informal walks loop through this from the house, joining at the avenue immediately south of the large fishpond which lies in the north-east corner of the arboretum. The more northerly circuit is known as St Michael's Walk, that to the south Our Lady's Walk. About 50m north of the north end of the latter is a small, cell-like brick oratory of the later C19, while within the loop of Our Lady's Walk is St Joseph's Hut, a pavilion-like summerhouse, also of the later C19.

The garden and woodland walks were laid out by W A Nesfield (1793-1881) c 1860, about the time Richard Snead-Cox commissioned his new house. Photographs show that the Victorian gardens comprised, as well as the Yew Walk and Rose Garden, a patte d'oie arrangement of paths splaying from the west front of the house (the line of the central path being continued by St John's Avenue) and an intricate mass of small flower beds. The beds are thought to have been done away with in the earlier C20. The formal Kitchen Garden was laid-out as a formal pleasure

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ground in the 1950s by Col Snead-Cox.

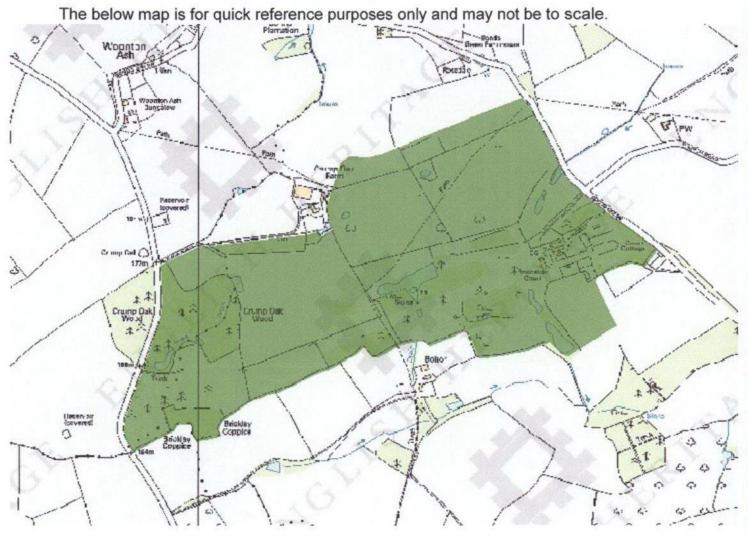
PARK

Open grass parkland with mature oaks and other parkland trees lies north and west of the gardens. The park was probably created, like the gardens and new house, c 1860. KITCHEN GARDEN

The unwalled, C19 kitchen gardens lay at the east end of the Yew Walk, which led into them. Their area has been largely occupied since the 1950s by the formal pleasure ground known as the 'Kitchen Garden' (see above). North of that are vegetable gardens and greenhouses. A brick shed on their north side is the main surviving element of the C19 kitchen garden.

9.1.3 Map

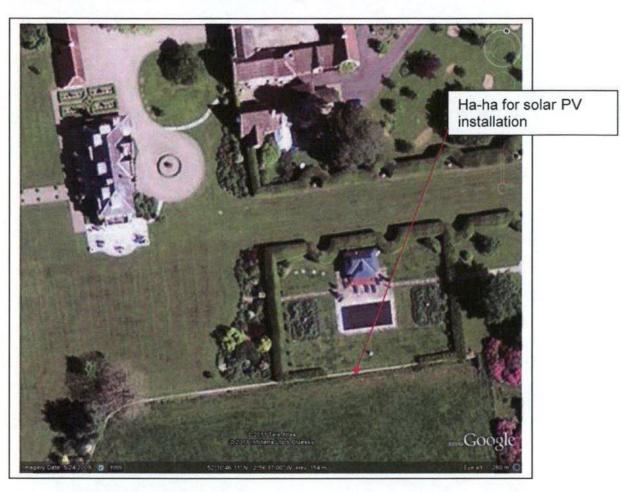
National Grid Reference: SO 35498 53933





9.2 Further Details

The array is to be located in the ha-ha to the south of Broxwood Court and beyond the edge of the garden. The ha-ha has recent blockwork walls and is not original. Indeed the ha-ha was of simple earth construction (there was no stone or brick retaining wall) until it was renovated in the mid 1990's with the blockwork retaining wall. The ha-ha delineates the gardens from the adjacent field that is used for grazing. Being positioned at the bottom of the ha-ha the installation is technically outside the garden and in part of the grazed field, but this is still part of the listed landscape. By placing the array within the ha-ha it is subtly hidden from view and will only screen the modern and non-vernacular blockwork concrete retaining wall.



9.3 Proposed Development

The proposed development seeks to place a line of solar PV panels within the trench formed by the ha-ha and ensure that the solar PV panels do not protrude above the ha-ha wall. The point of any ha-ha is to form an effective, yet invisible barrier between parkland or farm land containing livestock and a more formal garden. At Broxwood Court it is proposed this invisible barrier will host an invisible (or at least well hidden) modern means of generating electricity and the ha-ha is an ideal location for this use. The southern rise of the ha-ha is relatively shallow, so will not cause any shading to the PV panels. The panels will be mounted on a metal frame that in turn will be fixed to a concrete base. There will be sufficient space between the wall of the ha-ha and the panels to gain access to control any vegetation. A cable run will lead to the laundry room and is shown in plan 65.13 007 02. This will be entrenched and the scar will quickly disappear.





The ha-ha with Broxwood Court to the rear, the solar PV panels will be barely visible and not protrude above the blockwork ha-ha wall.

9.4 Impact

This installation will inevitably present some impact, but it is not considered such an impact would be material or to the extent that it might adversely affect the character and setting of the surrounding landscape.

9.4.1 Impact Upon the Fabric and Structure of the Landscape.

Whilst a listed and protected landscape, the gardens and park of Broxwood Court are a relatively recent creation and date from around 1860. There was an original larger house, also dating from this period, but this was demolished after the war and replaced with the current house that dates from the 1950's. With no previous buildings on the site any interference is not going to disturb any previous buried remains or artefacts. The ha-ha itself, although probably dating from the time of the original house, is understood to have been of earth construction with no retaining wall of stone or brick. The blockwork retaining wall was installed in the mid 1990's to shore up the ha-ha wall and this is quite obviously not an original feature. The blockwork retaining wall be mostly obscured by the installation that will also be attached, via concrete footings, to the ground (not the wall). The cable run to the buildings is likely to go along the edge of the border and will not be visible, any damage will be quickly restored. It is not considered that the fabric or structure of the landscape will be in any way adversely impacted upon by the proposed development.

9.4.2 Visual Impact

The installation is so positioned as to mitigate the visual impact. However, that is not to say it will not be seen. The array will be seen from the garden, but only those areas that directly overlook the ha-ha and it is not anticipated the array will be visible from more than 5 m into the garden from the ha-ha and then it will be at one's feet and not part of the panoramic view. From the field on the opposite side the array will also be visible. The photograph in para 3.1 above shows the line of the top of the ha-ha wall being visible some 70m into the field. Similarly and at closer distances the top of the PV array will also be visible, but this will be in line with the the ha-ha wall and may visually serve to enhance the ha-ha definition. From closer up the array will, of course, be fully visible. However, to put this view into context, it is not one that is commonly enjoyed and is not one that will be enjoyed by those looking at the gardens. The field is used for grazing and is not a position from which views are enjoyed back to the house and gardens. There will be some nearby visual impact from beyond the ha-ha, but it is not considered that this will be either intrusive or material.

9.4.3 Potential Conflicts with the Landscape

The placing of a modern looking solar PV array within a historic and listed landscape can cause potential conflict and there are few, if any, other locations where such an installation could take place at Broxwood Court. Great care has been taken to ensure that the installation is discreetly hidden so no such conflicts occur. The gardens and landscape are nevertheless evolving and more recently a tennis court and swimming pool have been installed and do not cause any conflict, indeed the swimming pool area and gardens around add to the landscape rather than detract from it. Solar panels cannot be made to be attractive and landscaped as a swimming pool can, but they can be hidden. It is considered that the placing of the solar panels in the (unhistoric) ha-ha mitigates any conflict with the landscape and if anything showcases how modern expedients can be successfully incorporated into the contours of a historic landscape. Additionally it should be remembered that this is a demountable structure that need not be a permanent fixture in the landscape.

9.4.4 Restoration

No restoration is deemed for the installation. A condition regarding the removal of the installation once it has ceased to function is acceptable. On removal no trace of the installation need remain.

9.5 Historic Landscape Appraisal Conclusion

The solar PV array will be discreetly hidden from view and it is considered that its limited will not intrude upon the wider gardens and landscape. From other features of the landscape such as The Chapel, St Josph's Hut and The Rill, the installation will not be visible and so will not detract from these features. It is considered that this proposal showcases exactly how the incorporation of modern, carbon reducing technology can be incorporated within an historic landscape without causing harm.

10. Conclusion

The proposed array will assist in the production of clean, renewable and sustainable electricity for consumption of the main house and three subsidiary properties, and from which any surplus will be fed back to the grid. The generation of such electricity is supported by both Government and local planning policy and by nature and conservation groups. The photovoltaic array will be so positioned as to mitigate any visual harm. It has been demonstrated that the array will be discreetly positioned within the historic landscape, successfully working within the constraints of this landscape to incorporate modern technology. It is clear that the potential benefits of the proposal outweigh any such limited harm and our conclusion is that having regard to the local and national planning policy, the listing of the grounds and all other material planning considerations this application will contribute towards sustainable development in a responsible way in a historic landscape.

R C Bayliss BECL

26th October 2011

Other Documentation

Application Form

2. Site Plan Ownership Boundary 1:2500

3. Block Plan 1:500

4. Drawing 1:50

5. Panel Technical Specifications

65.13 007 02

65.13 007 03

65.13 007 04

65.13 007 05