

Heritage Statement

The Beeches, 5, Sarsens Close, Cobham, Gravesend, DA12 3DA

Installation of Solar PV system within Cobham Conservation Area & the Kent Downs (AONB)



Installation of a Roof mounted Solar PV System to the Front & side roof pitches.

Property History

Planning Applications (5)

- [Erection of a glasshouse in the rear garden.](#)

Ref. No: 20080319 | Status: Application Permitted

- [Erection of six dwellings](#)

Ref. No: 19550072 | Status: Application Permitted

- Erection of a single storey rear extension to form an enlarged utility room.

Ref. No: 20120920 | Status: Application Permitted

- Demolition of car port and erection of a canopy on brick piers incorporating feather edged fencing to form replacement enclosure.

Ref. No: 20120985 | Status: Application Permitted

- One Oak Tree (T1) - reduce crown by 40% (crown height from 13m - 8m and crown spread from 10 m to 6m) due to close proximity to neighbours house, being on a steep bank and power/phonelines also running close to the crown of the tree

Ref. No: 20221055 | Status: Consent

Conservation Area

The site is situated within a conservation area. We believe that the proposal will have little to no impact on the conservation setting. Although the house is within the conservation area the property itself is of modern construction and the proposal.

Cobham Conservation Area

Cobham Conservation Area was designated on the 1st January 1970. A conservation area statement, including proposals to extend the conservation area boundary, was approved by stakeholders on the 14th October 1999 and subsequently adopted by the Council.

The conservation area's boundary contains the historic streets of Halfpence Lane (part), Cobhambury Road (part), Lawrence Drive, The Street, Battle Street, Jeskyns Road (part) and Sole Street (part).

General Historical Background.

Early settlers in the region and the history of local land use and landowning

North Kent has a long history of known settlement. The 1869 edition of the O.S. map records the site of a 'Druids' circle' in the conservation area, just off Battle Street. This is considered to have been a megalithic structure built from local Sarson Stones and it seems to have been dismantled in the 18th century

when the stones were dispersed to various locations (endnote 2). Numerous crop marks have been identified around Cobham Hall. Bronze Age crop circles have been recorded in the fields round Thong and a bowl-barrow of the same period exists in Ashenbank Wood. Neolithic and Iron Age finds are recorded from within Cobham Park. Just to the south of Watling Street, close to Cobham Hall, are a Roman well and a 2nd and 3rd century villa site. Near this a hoard of Roman coins was discovered in 1883. There is also an account of human bones and Roman armour being found north of the village in 1825. These finds were unfortunately lost at the time.

There is no mention of Cobham in the Domesday survey but the name is Saxon. A little Saxo-Norman work within Cobham Church is noted by Pevsner (Newman). An early date can be ascribed to the place-name element ham in Cobham, perhaps the sixth century, although this certainly does not mean that the village dates from this period (endnote 3). Eckwall has the first mention of it in 939 AD as Cobba hamm and in 1195 it was Cobbeham. Hamm here probably means village or settlement, hence Cobba's village. Saxon Cobham Church was a 'daughter' of Shorne Church. A founding date for the settlement subsequent to that of Shorne makes sense; Saxon colonisation in the region proceeded from the most tractable arable lands close to the coast south up into the Downs.

It is thought that the woods on the poor soils of the ridge north and north east of Cobham were originally developed as communal areas of common grazing under which the land would have been a mixture of heath, wood pasture and woodland. In due course individual villages claimed rights over particular areas of this common land. A document of c.1300 describes Cobham as having a manor with over 100 tenants with very small land holdings. These would have obtained a good part of their living from their grazing and other rights on such surrounding lands (endnote 4). Like Shorne, Cobham retained its pound, in which stray animals were impounded, until relatively recently. It was probably demolished in 1790 when Lord Darnley built Rose Cottage at the east end of the village.

In the 12th century Cobham seems to have come under the Abbey of Saint Saviour, Bermondsey. Early in the 13th century the de Cobham family acquired extensive lands in Cobham, settling at Randall or Rundle Manor, the site of which has been found and recently excavated in Shorne woods. They and their heirs had considerable influence in Cobham but it was certainly not an estate village at the gates of the Park, such as is seen in many other parts of the country (endnote 5). The village was granted a market charter in 1367. The de

Cobhams funded work at the parish church in the mid 14th century, founded Cobham College in 1362 and erected the college buildings south of the church in the 1370s. There were eleven priests at the college by 1389. One other masonry building survives from the medieval period, though altered – Stone House at the north east side of the graveyard. This was built in the 14th century (presumably in the 1360s) originally to house priests before the college was built. Two known timber framed houses stand along The Street and there may be others. The first is the present village shop, 36 The Street, dating from 1411 and built to accommodate visiting monks. The second, nos. 45 to 49 The Street, is a 16th century hall house.

The college was dissolved in 1537 and remained empty until it was converted in 1596 into 20 almshouses known as the New College. The 10th Lord Cobham began the building of Cobham Hall in 1583 but work stopped and the estate was dispersed when the 11th Lord fell from grace in 1603. The house and some of the land passed to the Duke of Richmond and then in 1715 by marriage, to the Irishman John Bligh who became the first Earl of Darnley. His successors continued to develop the Hall well into the 19th century. In later times yeomen and minor members of the establishment built or upgraded one or two houses in or close to the village, the most obvious today being Owletts, of 1683.

Spatial character and form of development within the conservation area

The village is divided up notionally into 16 separate, abutting, areas, each with its own distinctive character..

The areas divide into three groups; Sarsens close is within Group 2

Group 2 (nos. 10 & 11) character areas of modern development hidden from The Street

10. Lawrence Drive: modern residential development, former council housing, hidden from 'outside' view

11. Sarsens Close; modern private residential development more or less hidden from 'outside' view

This later 20th century private residential development is more or less hidden from 'outside' view. The area includes the modern vicarage which is accessed directly from Battle Street. The Close site plan and buildings follow national

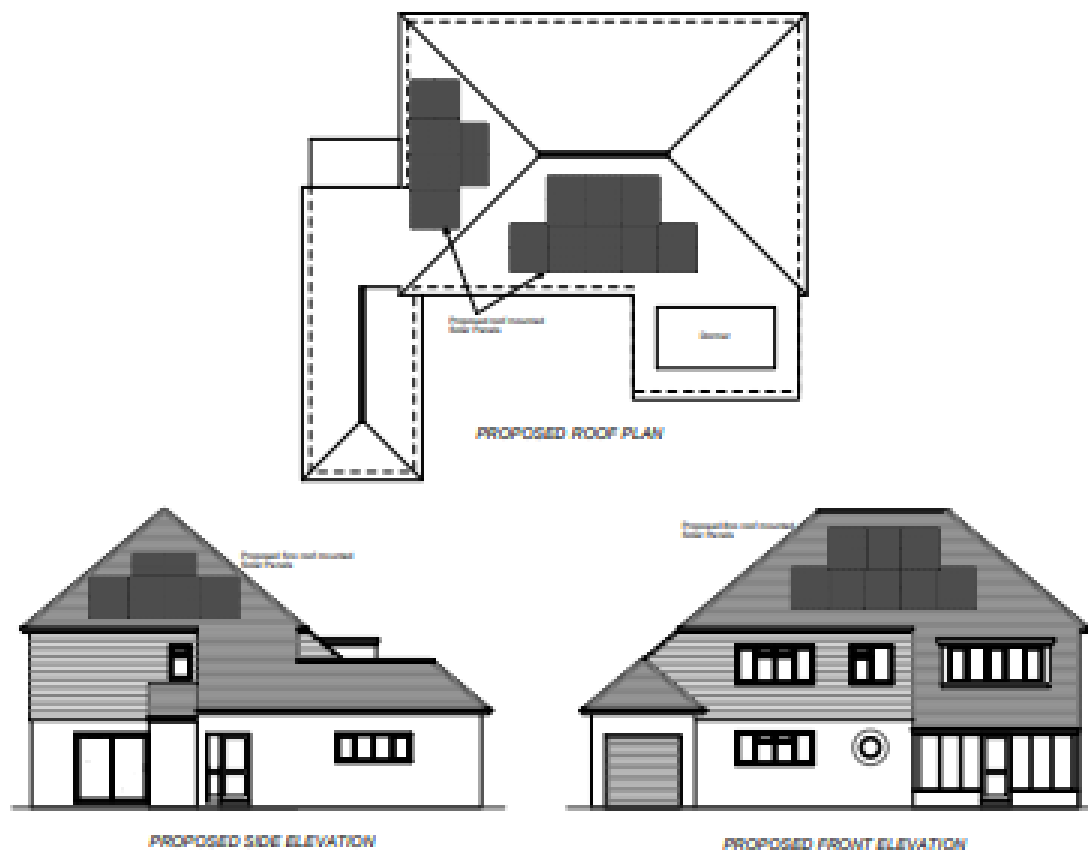
patterns of the time with no thought to the historic context. As with Lawrence Drive, the junction of Sarsens Close with Battle Street is the largest scale piece of road engineering within this part of the conservation area. As noted earlier, it creates a visual hole in the formerly hedge enclosed roadside, within which both the new cul-de-sac and the detached dwellings to each side of it, are on full display, the houses raised up a little above Battle Street. An important tree screen forms the south boundary of this area, hiding it fully from the Meadow Room in adjacent area 6. This tree screen returns along the east side of area 5 thus hiding Sarsens Close from adjoining Meadow House.

Proposed Works

The Solar panel system will be installed to the Front & Side roof pitches. The system will be fitted as per plans supplied.

There will be no structural work required internally or externally and no landscaping work involved.

There are sufficient electrical connections within the Property for all electrical work.



Roof Structure

The installation of the system is carried out in such a way as to ensure that at the end of the systems life span the solar panels can be removed and the roof can be returned to its original condition.

Renewable Energy Types

Solar PV was deemed as the optimum renewable energy type and installation to the desired roof pitches was the obvious choice as there will be no physical and minimal visual impact to the Conservation area.

Installation Guide

Roof Anchors

Roof anchors are aluminium or steel components that screw directly into the rafters, forming the base of the mounting system. The type of anchor used is determined by the characteristics of the existing roof tiles and the height and spacing of the roof batons. The majority of the anchor fits under the tiles with only a small proportion of its tail visible. It is to this tail that the frame is attached.





Mounting Systems

Once the roof anchors are secured in place the frame is attached to them. This attachment is made using a specially engineered locking system to ensure there is no movement and then tightened using conventional bolts. The frame consists of two parallel aluminium bars for each row of panels. The panels sit directly on the frame and attached by clamps.

There are two varieties of clamp; end-clamps and mid-clamps. End-clamps are situated at the end of a row of panels, thereby helping to secure one panel. Mid-clamps are used between panels to help secure two panels in place and ensure there is equal spacing between them (usually 20mm) for aesthetic reasons. At least 4 clamps are used to secure each solar panel to the mounting frame, with different clamps being used for each brand of solar panel.

The Solar PV Installation



Now that the components required for the installation have been laid out, the installation process itself can begin. Roofs are very rarely exactly 'straight'. Inevitably the ridge, the eaves and the ground will not run perfectly parallel to each other. The installation looks best when the panels run parallel to the edge that is nearest them, which is usually the eaves. We recognise that after

performance, aesthetics are the most important aspect of a solar photovoltaic installation and so our installation teams will ensure this to be the case.

We will arrange to have scaffold erected by locally sourced trained specialists. Depending on the expected length of the job this will either happen before or during the morning of the first working day. The scaffold is erected to reach the eaves of the roof and ensures the safety of those working on the roof with compliance to all relevant Health and Safety codes. Ladders from the scaffold across the roof are used when the roof tiles are slippery or fragile.

Positioning the Roof Anchors



It is important that the roof anchors are positioned carefully on the roof to ensure the solar panels can be installed correctly. The location of the rafters under the existing roof tiles are identified, to which the roof anchors will soon be screwed. The anchors are then placed on top of the tiles where they will eventually be positioned while measurements are taken to ensure that the aluminium frame will sit 'straight'.

Once the position of the anchors is determined they can be fixed to the roof. One roof tile is removed to allow the anchor to be screwed to the rafter and then replaced to ensure the roof remains watertight. It is important that the correct type of anchor is used and this would be determined during the site survey.

Once all the roof anchors are fixed into place, the aluminium bars that make up the frame are then locked into the anchors and screwed into place. Each bar is checked to make sure that it is straight and that all the bars are parallel to each other. This is the single most important step in ensuring that the panels will look correct.

If the length of the frame is longer than the aluminium bars supplied then they are spliced together using specially designed strips of aluminium and further bolts.

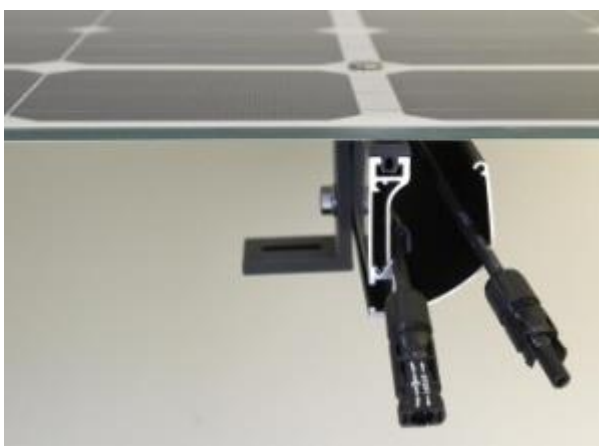
Installing The Solar PV Panels



With the bars in place, the frame is complete and the panels can start to be attached and clamped to the frame. A minimum of 4 clamps is used per solar panel, though in some cases extra clamps are used to aid the parallel alignment of the rows.

The panels are either placed by row or by column depending upon which is the easiest in each specific situation. In the photo to the right the panels are being placed by row. In this case the top row is placed and the alignment of each row thereafter is taken from it.

Wiring The Panels



The solar panels are wired by the manufacturer, meaning the rooftop connection is straightforward. The specific voltage, amperage and power of the system determine how the panels are connected. Smaller systems connect a single series to a single inverter, while larger systems connect several

parallel series into a single inverter. The largest systems may require multiple series into multiple inverters. Shading and panel positioning can also influence the design of the wiring.

Installing the Final PV Panel



Once the top row of solar panels is correctly clamped the rows beneath are secured to the frame in the same manner, taking their positioning from the row above.

Aligning the panels parallel to the row above is extremely important in ensuring the finished system will look good. This process is made easier if the original frame is well placed, which is why our installers take care to get things right within the initial stages of the installation.

Once all the panels have been installed and the alignment checked the final wiring of the system can begin. The DC wiring from the panels on the roof needs to enter the property in order to be connected to the electrics in your . In some cases this is achieved by running the wire under the eaves and directly into the loft. In others, such as in the image on the right, a hole is made within the wall which is then sealed to ensure it is watertight. Once the wiring has reached the inside of the property, the rooftop section of the installation is complete.