

91 Brown Street: Solar Installation Plan

Note: Diagrams and photographs in this document illustrate the location and routing of the installation. They are illustrative rather than drawn to an exact scale, but all key hardware dimensions are noted.

Introduction

Our home at 91 Brown Street is a Grade II listed property. Our proposal for solar panel installation ensures that the historic street-facing character of the house remains unchanged.

Picture 1 is the view of our property from Brown Street. The solar panels will not be visible from the street nor the public realm, as they will be mounted within an internal roof valley, keeping them out of sight.



Picture 1

Solar panel location

Four solar panels will be placed on an east-facing roof pitch that cannot be seen from the street level or ground. Because this section of the roof only faces another roof on our property, the panels will sit within a concealed roof valley at the top of the building.

Picture 2 is an aerial view with the proposed roof area outlined in red:



Picture 2

Below are photographs of the concealed roof valley. Picture 3 is a view of the south side (the left side when looking west towards Brown Street):



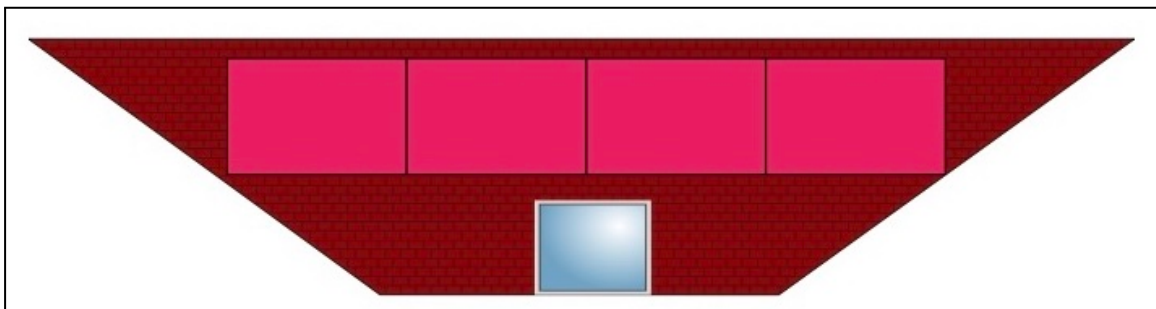
Picture 3

Picture 4 shows the view looking north across the roof (the right side), facing towards Brown Street:



Picture 4

Picture 5 is a diagram showing the proposed layout of the four solar panels on the east-facing part of the concealed roof valley:



Picture 5

Four Aiko Neostar 2S 465W All Black ABC N-Type Mono panels will be used, each measuring 1134 x 1757 mm (full manufacturer specifications also provided with this application).

The array will use the Renusol PV roof mounting system, which secures the panels using specialist stainless steel roof hooks that fix directly to the internal structural timber rafters. This method requires no drilling through the existing plain clay tiles, ensuring the entire installation remains fully reversible if the system is decommissioned in the future.

Picture 6, taken from our private garden, demonstrates that the installation will also not be visible from the rear of the property. The rear roof ridge blocks the line of sight to the front roof section where the panels will be sited:



Picture 6

Cable routing

The power cable from the panel array will be routed through the loft space, entering through an existing roof opening where the external valley gutter connects to an internal drainage channel, then exiting via another existing opening where this channel connects to the external drainage and downpipe.

Picture 7 shows the loft space, with the internal drainage channel in the foreground:



Picture 7

After exiting the loft, the cable will run down alongside the existing downpipe, visible in Picture 8



Picture 8

Battery and inverter location

For reference, we are also installing a ground-mounted Fox ESS EP12 Plus 11.52kWh Li-ion Battery in the right-hand corner of the patio (when facing the rear of the property), alongside the boundary wall. This is a slim, compact unit with the following dimensions:

- Width: 710 mm
- Height: 640 mm
- Depth: 185 mm

Picture 9 shows the boundary wall and a mock-up where the battery will go:



Picture 9

Also for reference, the Fox ESS H1 G2 3.0kW 1ph Hybrid Inverter will be placed in the corner behind the main battery unit, where it will be obscured. The dimensions of the inverter are:

- Width: 434 mm
- Height: 418 mm

- Depth: 185 mm

Cabling from the inverter will follow the same path as the solar cables, running alongside the right-hand rainwater downpipe. The cable will then enter the property through a mortar joint, passing into the ceiling void over the ground-floor bathroom to connect to the consumer unit beneath the stairs.