Design and Access Statement

As supporting document for the planning application for the demolition of an existing 2-bedroom house and erection of a 2-bedroom replacement dwelling at the site of Wishanger Cottage, Frensham Lane, Churt, GU10 2QQ

INTRODUCTION

Background

The applicants purchased the site in 2018, attracted by the location and the prospect of extending the relatively small existing property (for which permission was granted in 2016, see below) or replace it with a larger one, which would allow them to accommodate their requirements and bring the building up to a modern standard.

The applicants have both lived in the area for most of their lives. Their occupations are involved in the environment (woodland management) and the community (training of clinical late life care) in this area. They are River Wey Trust members, participate in local environmental initiatives and have a vested interest in the continued enjoyment of this special area.

Proposal

The proposal is to replace the existing building with a larger, yet modest replacement dwelling. The new build shall be of high quality in terms of structure, materials, sustainability and energy efficiency, using CO2 saving timber-frame construction and off-site manufacturing methods as a means of maintaining a low impact on the site and the neighbouring properties during and following construction and a low carbon footprint as a whole.

CONTEXT

Existing site

The existing site lies north of Wishanger Lake in the area of the Wishanger (Farm) Estate about 1.7 miles west of the village of Churt. The development site including the domestic curtilage comprises approximately 0.12 ha, just north of Frensham Lane, with another 0.45 ha of wet meadow land and fields to the north. A stream connecting Wishanger Lake and the River Wey runs along the north-eastern site boundary. Substantial hedging is established along the southern site boundary towards the main road. The site has a gentle slope from south to north.
The existing building is a small 2-bedroom cottage which, although not unattractive, no longer meets modern requirements in terms of space, thermal performance and overall efficiency and comfort.

Site entrance and screening

The entrance is a gated entrance off Frensham Lane.

The mature, about 2.5-3.0m high hedges to the south of the site provide excellent screening and privacy and should be maintained as far as possible.

Planning history

A planning application prepared by Mitchell Evans Architects for a two storey extension (EHDC planning reference 56325) was granted in August 2016.

Planning context

Apart from following guidance set out in the NPPF, in light of the previous application for the two-storey side extension and further criteria relevant to the new proposal the following local policies were taken into account:
EHDLP Joint Core Strategy (2014): CP1, CP19, CP21, CP27, CP24, CP29, CP31 and
EHDLP Second Review (2006): H16.

DESIGN PRINCIPLES

Building design and layout

The building is a two-storey building with a rectangular footprint with a pitched roof. The ridge runs east to west making the eaves face the road and garden. To the south is a single-storey “lean-to” add-on housing the plant room and the entrance is covered by a simple canopy which spans between the plant room and the eastern edge of the house, providing a dry entrance and potential space for log storage.
The external materials are light coloured render on the ground floor, untreated timber on the first floor (which will weather to a silver-grey colour) and clay roof tiles, all of which are locally common materials in the surrounding area.
The layout comprises a classic division of the living and service areas on the ground floor and bedrooms/bathrooms on the top floor. The proposal is designed as a two-bedroom house with a study to provide the facility for working from home. Future occupants may well use the study space as an additional bedroom which gives the new dwelling more flexibility in terms of future-proofing and potential to serve different living circumstances.

Size and form

Considering the surrounding area and its typical build forms and plot sizes it becomes apparent that the prosed house is of a rather modest size compared to the much larger properties found in the Wishanger Estate.

Referencing the site survey and the previous planning application (EHDC ref. 56325) the existing property measures 88.24 sqm. In accordance with policy H16 a 50% increase in floor area would be acceptable resulting in a size of 132.36 sqm.

Analysing the design brief to achieve a comfortable living space downstairs and two or three bedrooms with sufficient bathrooms upstairs leads to a minimum internal footprint of about 6.70m x 8.60m and as a result an approximate external footprint of about 7.24m x 9.14m. Assuming that ground and first floor were of the same size, this would result in an overall area of 132.34 sqm, so just within the limit set by the mentioned policy.

Considering the ecologically minded design brief and other local and national planning policies, in particular those promoting sustainable and future-proofed design and construction, the proposal incorporates a highly insulated external wall build-up of 38cm rather than the standard 25-30cm which adds about 11sqm to the overall size.
In addition to this it was established that there is another essential space requirement of about 12 sqm (8.5sqm internally) for the plant room accommodating energy-efficient services including an efficient heat source such as an air source heat pump, hot water storage tank, modern media installations, electrical switch board, water softener etc.

Although the gross internal area of the proposed design measures no more than 128.85 sqm, its overall area comprises 155.27 sqm as a result of the above-mentioned factors.

The house shape is based on a two-storey build with rectangular footprint and a pitched roof. The required “lean-to” single-storey addition to the ground floor aids in breaking up the volume, it adds interest and brings the eaves level down to a human scale at the front of the house whilst tying in nicely with the entrance canopy.

Siting

The proposed building will partly cover the existing footprint and maintain the position of its western gable in line with the most westerly façade of the existing building whilst being moved approximately 2.5m to the north. This allows for a more generous approach and more convenient parking and turning for guest and/or delivery vehicles.

Moving the building slightly to the north also reduces its potential impact towards Frensham Lane and makes it sit comfortably in the site which itself is more than large enough to accommodate a building of this size.

Landscaping and ecology

An ecological appraisal report has been created by Wychwood Environmental Ltd in August followed by a bat emergence survey in October 2020. Landscaping and any recommended mitigation matters shall be considered as part of the further design development in particular bat mitigation measures as are to be confirmed as part of the relevant bat license application. (See also bat emergence survey point 5.0 conclusion)

Trees

There are a number of trees on the site which shall not be affected by the implementation of the proposal.

SUSTAINABILITY

General environmental impact

In terms of its effect on the environment the proposal aims to minimize the impact on the site itself and the environment in general by occupying only a modest portion of the land and by using a highly efficient construction method with regards to use of energy during the build and over the building's lifetime.
The aim of the proposal is to achieve a net reduction of environmental impact compared to the existing dwelling. Water consumption and waste production will not increase; energy demand will decrease considerably and there will be no encroachment on the local ecology.

Building construction and eco-credentials in detail

This project has been designed as eco-friendly, low energy house for healthy living. It will be constructed by Baufritz using Modern Methods of Construction (MMC) such as off-site prefabricated closed wall and roof panels, which will allow for the superstructure to be erected in a matter of days, minimising disruption to the site itself and neighbouring properties as well as site wastage.

Thermal insulation values are roughly twice current UK standards and all windows are triple-glazed. Cold bridging is avoided where possible and air-tightness values are near passive house standard. Typically, a Baufritz house requires only 20-30% of the energy for space heating compared to a traditional brick-built house.

The Baufritz construction system has been in use for over forty years and has been constantly refined and updated over that period. The technology is the result of extensive research and development, involving considerable academic input. The first Baufritz house in the UK was awarded Best Timber Frame House in the Daily Telegraph and Home Building and Renovating magazine's annual awards.

The carbon balance in an average Baufritz house is approximately 50 tonnes positive. This means that if the house is run efficiently the house will take around 78 years to reach the carbon neutral stage. Using further CO2 off-setting measures, the house could become indefinitely carbon neutral or even carbon positive. The CO2 calculation for each house is measured using a recognized independent German system developed by Professor Koenig which takes into account carbon emissions from the very start of the process to include the manufacture, construction, transportation of the house. Baufritz was the first German construction company to take the independent 'EU Eco Audit' in 1996, which it has passed every time to date.

Baufritz' partners for SAP calculations and EPC confirm that the construction surpasses current building regulations standards and would already be fit for purpose considering the likely changes to building standards which will come into legislation in 2023 and/or 2025. Most Baufritz houses achieve EPC rating A.

The timber used for the production of a Baufritz home is logged from sustainable forests to provide resource for future generations. Baufritz undertakes extensive tree planting schemes to mark its active approach to

environmental protection. Because most the materials used to build it are 100% biodegradable, they could almost completely be returned to the natural cycle if no re-use were possible.

Passive solar gain and renewable energy use

The southerly and westerly aspect of the house comprises sufficient glazing to make use of passive solar gain for heating purposes, if required. To prevent overheating in the summer, venetian blinds could be fitted to provide adequate shading.
For heating and hot water supply a highly efficient heating system will be fitted, potentially making use of an air source heat pump. Space heating is also aided or could at times be replaced by the use of a proposed wood burner.
It is the intention to fit at least 80% of energy-efficient lighting.

WORKS

The nature of the prefabrication construction method allows for the building shell to be erected in a matter of days to provide a water tight secure building. This will reduce the possible impact the construction has on neighbouring properties. Generally, care will be taken to minimise disturbance to neighbouring properties. Excavated soil will be set aside for re-use as much as possible. The material from the demolition of the existing house shall be reused on site as much as possible.

ACCESS

The access arrangement will remain at the same location, however, with the gate moved further north and creating a larger, more comfortable area for parking in front of the house, which will also aid parking and turning of delivery vehicles.

SUMMARY

In view of the above and the supporting documentation we believe that the building is a fitting replacement for the purposes of creating a modern home that more than meets current building regulations.
Considering the forward-thinking ecologically minded approach of the proposal, it sets a positive precedent in applying high standards of energy efficiency and carbon saving measures, which are desired as well as future-proofing.
The applicants' aspiration is to build a small, flexible home that is suitable for a couple or a small family. The new house would achieve this and be a valuable addition to the Parish housing stock.

The Housedesigners, May 2021