

2223

Design and Access Statement

21/08/2023

Introduction

The Design and Access Statement is for the Full Planning Application for converting an existing barn south of Fentons, 15 The Green, Barrow Hill, Barrow, IP29 5DT, into a new dwelling (Fentons Barn).

The Site

The site is located in the centre of the village of Barrow, West Suffolk.

The proposed site is in the existing curtilage of Fentons, 15 The Green. It is proposed that the current Fentons plot (1747sqm) will be split, with Fentons, 15 The Green on one plot and the proposed dwelling (Fentons Barn) on the other. The proposed site (outlined in RED on the location plan) encompasses an area of approximately 766 sqm.

The site is fairly flat, covered with grass, and has a small pond and the barn. The east boundary faces Barrow Hill Road and has a metal chain link fence. The south boundary has a metal chain link fence with various trees and plants along its length. The west boundary has a timber close-boarded fence.

The site is within the defined Housing Settlement Boundary of the village and is within the buffer zone of an archaeological Site.

The Access

The existing access to the site is off Barrow Hill. The site access has a timber gate.

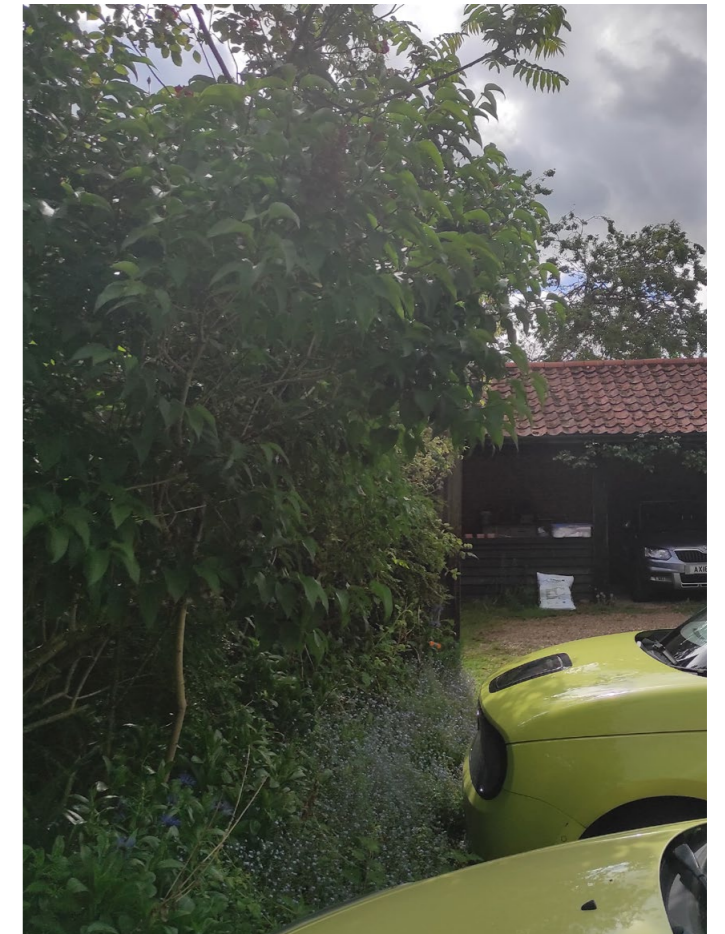
Planning History

A previous application was made under DC-15-0941-FULbutwaswithdrawn prior to determination.

No further previous planning applications were found for the site.



West side of site



North side of site



South side of site including neglected pond



East side of site including existing timber access gate

The Existing Barn

There is a former threshing barn on-site, assumed to be circa 19th century. The barn is approximately 24m x 6m with a ridge of approximately 5.9m. It sits on its site with a road frontage of approximately 20m. The rear five-bay section is the older structure which was at one time thatched and was re-roofed in the late 1890s. Around this same time the newer front section was added.

The barn is in poor condition. The barn is clad in black feather edge weatherboarding, which is also poorly maintained. The roof is covered in a corrugated metal sheet. The timber frame structure combines some original timbers and some newer softwood.

The barn is not listed but can be argued to be a positive feature in the street scene; therefore, converting and retaining the building is preferable.

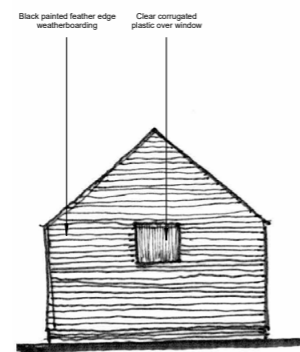
The owners of Fentons, 15 The Green do not currently use the existing barn and adjacent site forming the proposed plot beyond the barn providing some basic storage.



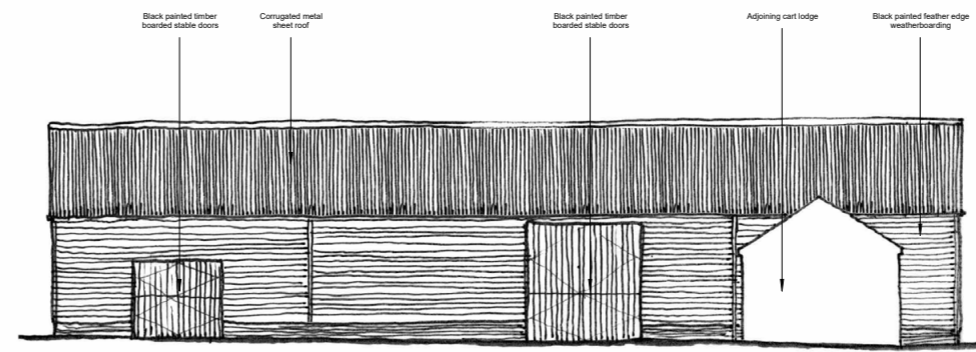
East elevation



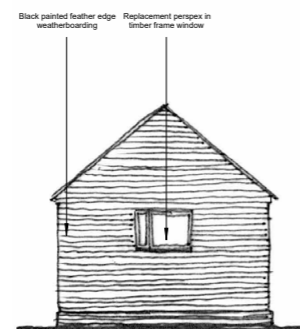
South elevation



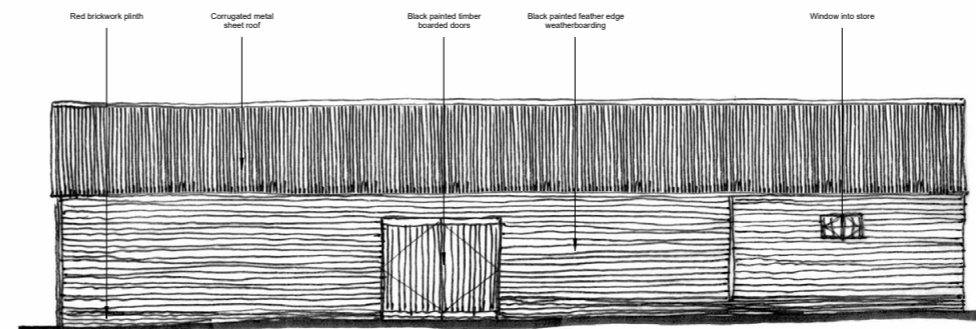
East Elevation



North Elevation



West Elevation



South Elevation

Existing elevations



Internal Views

The proposal

The proposal is for the conversion of the existing barn into a single three-bedroom detached dwelling with a single integral garage within the site outlined in red on the site plan.

The Brief

The intention for the site is to create a new, three-bedroom highly sustainable dwelling.

The key requirements:

- The architecture should form external spaces that are well-linked to the main internal living spaces;
- Ensure high levels of privacy and minimise any overlooking;
- The architecture should maximise the well-being of the occupants.
- The building is to be of a high sustainable standard. Therefore the orientation will need to be optimised for passive solar gains and solar insolation onto PV panels.

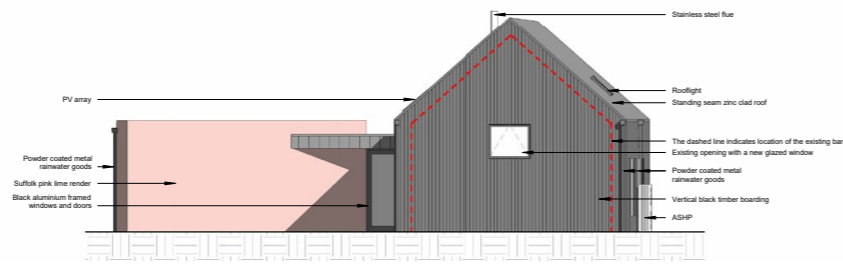
Appearance

The proposed new dwelling conveys an agricultural form. The massing of the proposed building is the same as the existing barn, with an addition of a single flat roof element to the south to accommodate the master bedroom and en-suite. The ridge height and the eaves height are slightly higher than the current barn as the additional insulation is added on the outer face of the walls, and the existing timber structure is exposed internally. The existing barn is best suited for single-storey use rather than installing the first floor with limited headroom.

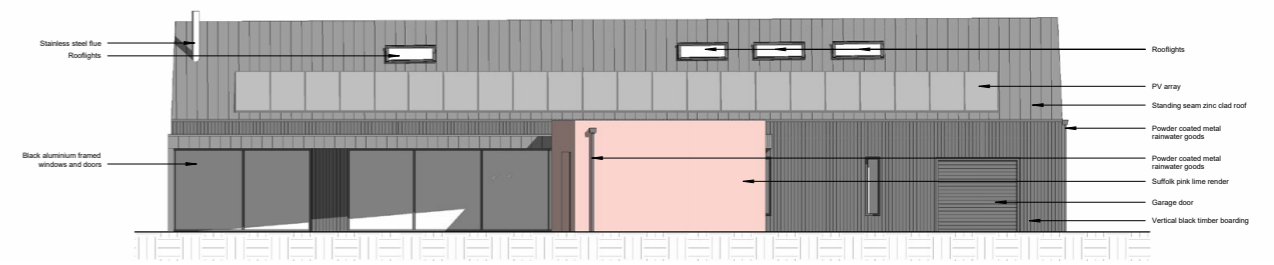
As the existing barn only has three windows and three barn doors with a gate, there will be additional openings that will be visible from the elevations for windows and doors to provide sufficient light, access and escape routes.

Privacy

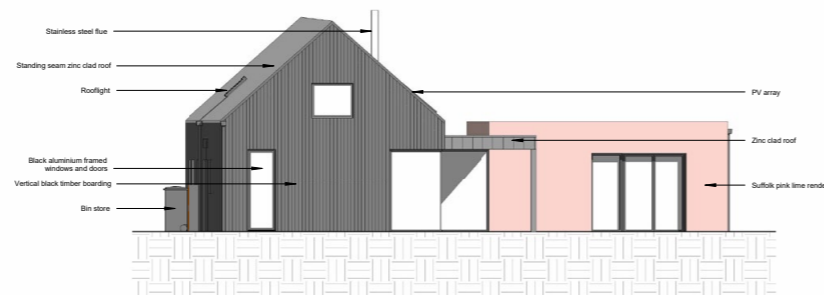
Privacy with the neighbouring buildings will be achieved through a new fence and planting a new hedge line. In addition, the proposed building will only have high-level skylights (1.8m from the finished floor level) on the south elevation to avoid overlooking issues. Large ground-floor windows into the existing opening of the barn on the north elevation will be obscured.



Proposed East Elevation



Proposed South Elevation



Proposed West Elevation



Proposed North Elevation

Layout

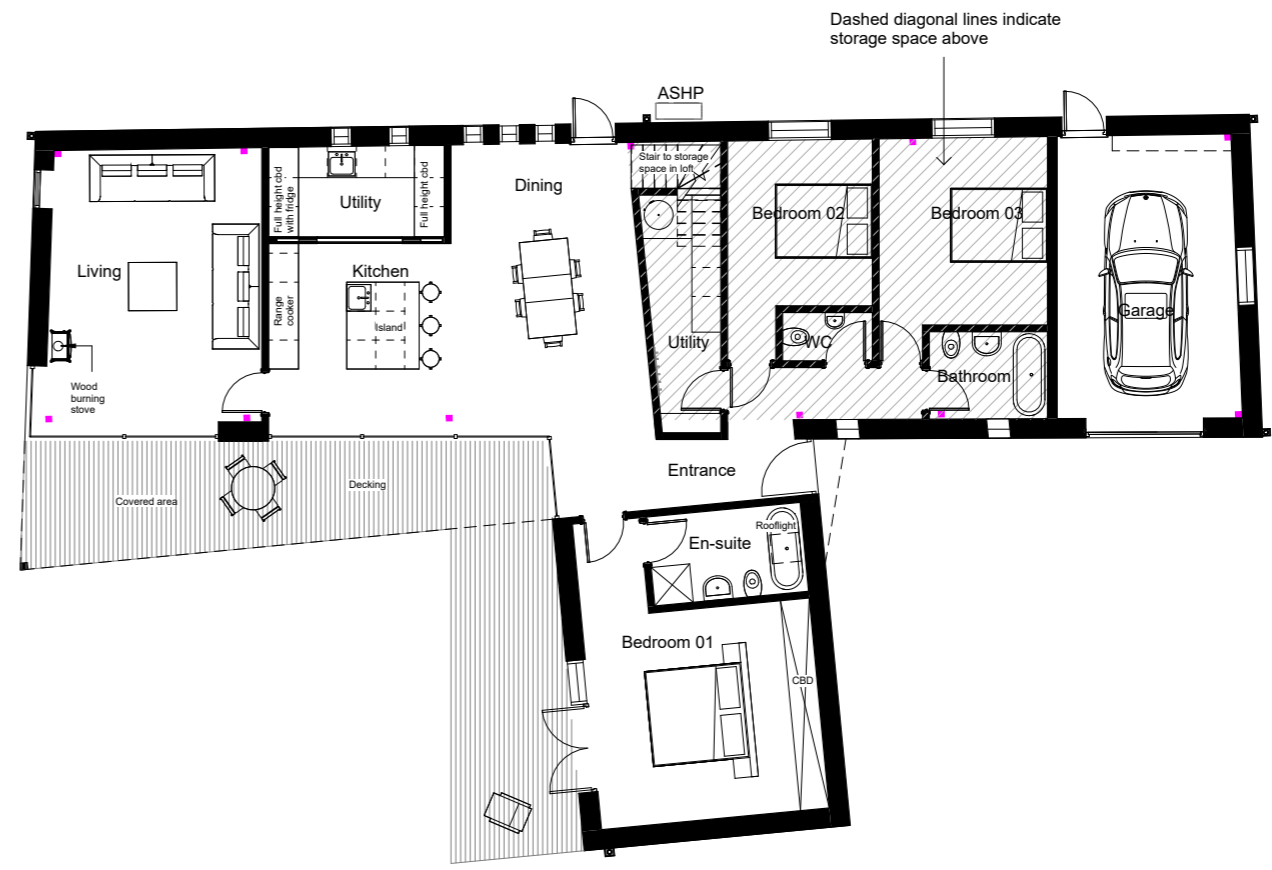
The dwelling has a large open-plan kitchen/living/dining area with large glazed doors connecting to garden spaces. The dwelling will have a bedroom with an en-suite and two more bedrooms sharing a bathroom on the ground floor. There will be a separate living room to the west and a single garage to the east. Additionally, the building has two utility spaces and a cloakroom. There will be a mezzanine for storage space on the first floor.

Level Access

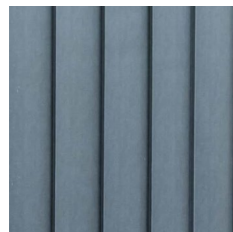
Our proposal has taken level access and its use as a lifetime home into account. The building will have level access throughout the ground floor.

Materiality

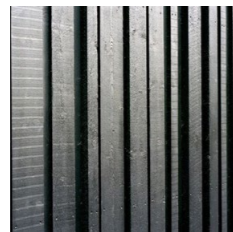
The external materials of the proposed dwelling have been chosen to be appropriate to the surrounding context. The material used for the pitched roof is zinc to keep a similar aesthetic to the existing barn on-site, which has a metal roof. The walls of the pitched form will be clad in black timber, also similar to the existing barn on-site (see page 2) but detailed in a contemporary vertical orientation. The single-storey flat roof elements will have lime rendered walls finished in pink, as are many buildings in the neighbourhood.



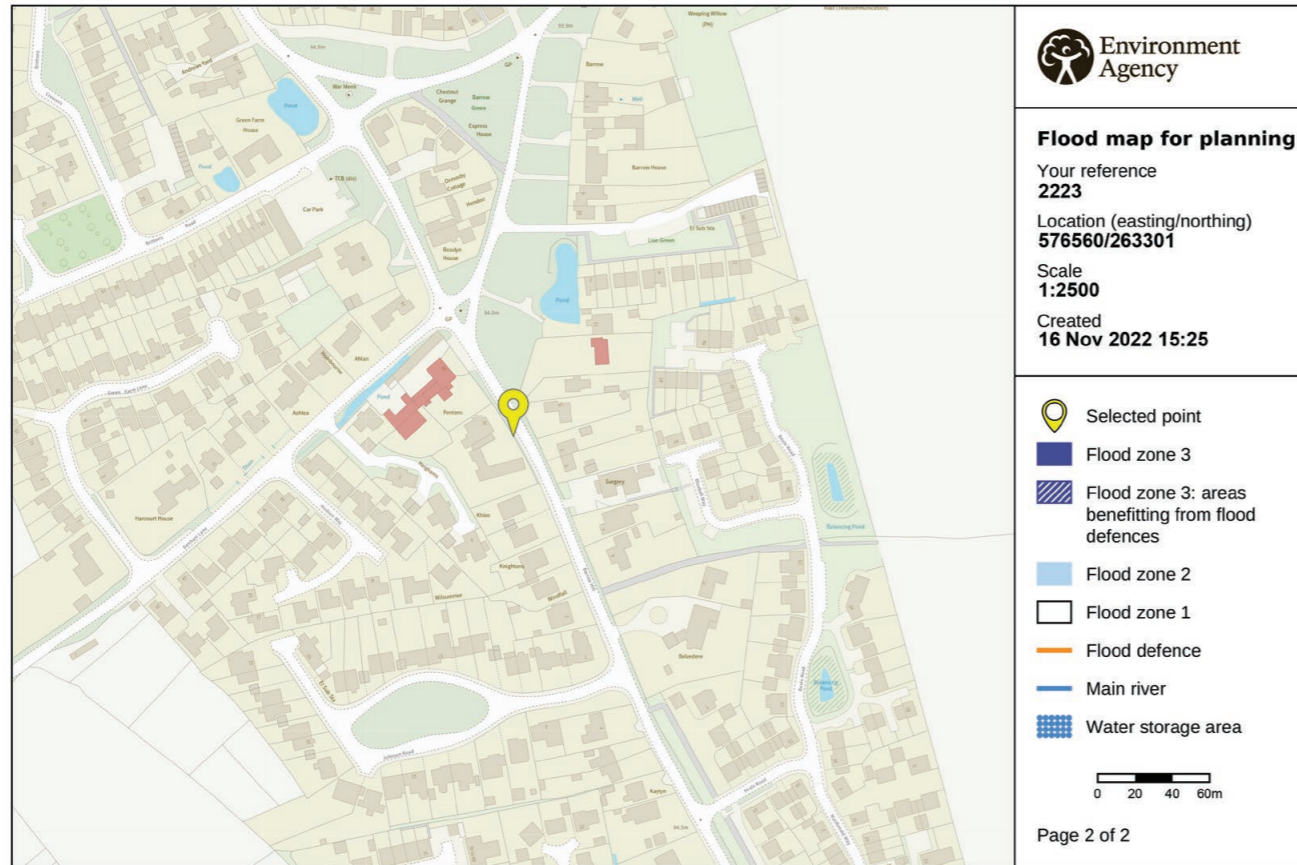
Ground Floor Plan



Grey Zinc cladding with standing seam



Vertically orientated timber cladding



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Planning Principle

The proposal will result in a new dwelling within Barrow, a key service centre. The proposal is within the village's built-up area boundary and would constitute an infill site. As such, the principle of a new dwelling in this location meets the Local Plan policies which relate to location of new housing.

Heritage

The existing barn and dwelling on the site are not listed. There are two listed buildings within 50m of the proposal site - 12 The Green and 16 The Green (highlighted in red). The proposed site is not visible from either buildings nor does it affect the setting of either listed building. The site is neither within or near a conservation area.

The proposal retains the converted existing barn as part of the new dwelling. This is because the form of the existing barn has a value to the setting of the village and as an interesting older barn itself. The nature of the barn is retained, especially when viewed from the public highway. The extension to the existing barn's form is clearly contemporary to ensure there is a clear narrative between new build extension and converted existing building.

This proposal will secure the existing barn's preservation as part of a dwelling into the future. In its current state, the existing barn is in danger of being lost.

Flood Risk

The site lies completely within Environment Agency Flood Zone 1. The site is not therefore considered to be at a significant risk of flooding from rivers and the sea. The site has a very low risk of flooding from surface water.

Contamination

There are no contamination issues raised. Please refer to Enviroscreen Report and Land Contamination Questionnaire submitted along with the application.

Ecology Strategy

A Preliminary Ecological Appraisal has been submitted along with this application. It shows the recommendation of further Bat and Great Crested Newt surveys. Both these additional surveys are appended to this application.

The proposal will incorporate the recommendations of the reports, which can be secured via condition.

Hedgerows

On the south boundary the proposal includes removing some low quality existing hedges, rebuilding a new fence and replanting with new native mix hedges, which will be more natural and along the whole length of the fence. The neighbour to the south is in agreement with the clients and allows them to do this.

A new hedge line will also be planted on the boundary line of the existing dwelling (Fentons Barn) and the proposed plot.

Shrubs running along the back of the garden to the west will be maintained.

Trees

A tree report is attached to this application. Its recommendations will be followed as part of the proposed works.

Archaeology

The site is within the buffer zone of an archaeological site. We request that any recommendations regarding this are applied as a condition if planning permission is approved. Initial consultation with SCC Archaeological Services have gained their approval on this approach.





Access Plan showing achieved visibility splays



View south-east along Barrow Hill, from site entrance



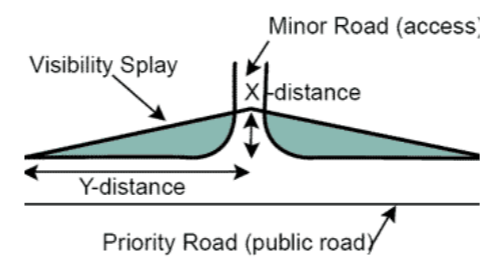
View north-west along Barrow Hill, from site entrance

Highways

The site lies to the west of Barrow Hill, Bury St Edmunds.

Access from Barrow Hill will be via the existing site. The access achieves desired visibility in both directions - see the drawing to the left. During the design stage, we approached SCC Highways. They have agreed that given the size of the development and location, a reduction in the standard X distance of 2.4m to 2.26m to achieve the desired 43m visibility in one direction was reasonable. The visibility of 54.2 can be achieved in another direction without reducing the standard X distance of 2.4m.

The drawing showing the extent of highways is also submitted along this application. Any new hedgerows that border the site and road will be cut back and managed to ensure site access visibility.



Design

The sustainable performance of the building will be a constant consideration and design driver throughout the project. A fully integrated approach for sustainable systems, products and materials on the site will be required.

Thermal Performance

The dwellings will be super-insulated. This will reduce the requirement for dwelling heating and thus reduce the size of the heating system required. In addition, a super-insulated house's internal temperature fluctuates less with external conditions, and therefore the internal temperature and comfort level is easier to control.

Airtightness

An airtight building is as important as insulation. There is no point insulating a space if a cold draught is allowed to remove all the heat. An airtight dwelling solves this issue. Again, it is about giving control of the internal environment back to the occupier.

Low Energy Use

A key component to simultaneously reducing the environmental impact of a dwelling and saving money is to reduce the energy demand as much as possible. Super-insulation and airtightness mean there will be a minimal requirement for heating. However, in addition to this, all appliances in the dwelling will be highly efficient; white goods will be a minimum of A** rated; low energy LEDs will provide all lighting, and a smart energy meter will be installed to help the residents monitor their energy usage and understand how to reduce it if possible.

Ventilation

Good quality ventilation is essential for the health and wellbeing of the residents.

Background ventilation for the dwelling is provided via MVHR ensuring there is minimal heat loss but high standards of ventilation. Purge ventilation is provided via openable windows. In addition, the position of the windows and internal layouts will allow passive cross and stack ventilation to move air through the space if ever required quickly. This can help let out hot air and draw in cool air on the warmest summer days.

Heating

Heating will be supplied through underfloor heating to all ground floor areas and towel rails in en-suites. Heating requirements will be minimal. Hot water will be provided primarily by a air source heat pump in the winter and in conjunction with Solar PV in the summer.

Cooling

The potential for overheating internal spaces is minimised by reducing internal gains through good lighting specifications and low energy-consuming equipment.

Materials

All materials chosen will be scrutinised for their environmental credentials. Key aspects include their embodied energy and sustainable sourcing. Where possible, materials will be procured from local suppliers. Materials that take less energy and do not give off harmful substances when being produced will be prioritised.

All materials specified will have a BRE Green Guide rating of A or A+.

The dwelling will be designed as breathable construction using natural materials which allow moisture to pass through the building fabric and hence help mitigate the internal humidity of the internal environment. Materials derived from petrochemicals will be avoided.

Natural materials generally have the lowest embodied energy associated with them; they do not give off toxic gases and are fully breathable.

Construction longevity

Natural materials are generally more flexible than non-natural. In addition, the entire ground floor will be designed to meet the accessibility requirements of Part M of the building regulations.

Building Whole Life Cycle

Natural materials can be recycled or returned to the environment at the end of the building's useful lifetime without causing harm.

Energy Performance Rating and Environmental Impact

The dwelling will be designed to achieve a high A rating on its Energy Performance Certificate (EPC) and a high A rating for its Environment Impact.

Health and Wellbeing

The dwelling will be designed with the residents' health in mind, from the ventilation strategy to the choice of materials free from toxic emissions (VOCs) and providing good levels of daylight and sound insulation levels.

Water Use

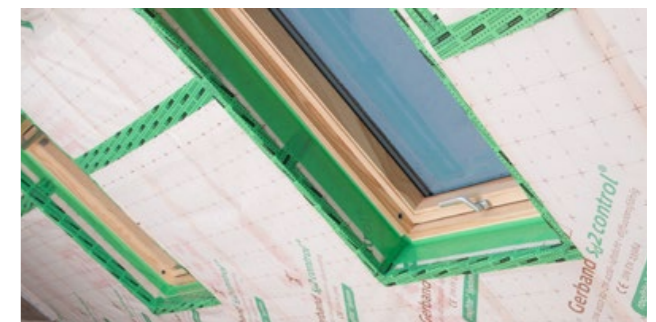
By installing low use appliances and efficient low-flow taps and supplementing the supply with the rainwater harvesting system, the proposed dwelling will be designed to achieve very low usage of water. The target usage of mains water is a maximum of 80ltrs per person per day.

Travel

All vehicle parking spaces on-site will be equipped with fast electric charging points to promote the use of electric cars.



electric car charging points next to all parking spaces



maintaining the airtight layer



natural sheeps wool insulation