

Ref: Admin/CL/282/01/LA.01
21st April 2024

North Yorkshire Council (Craven)
1 Belle Vue Square,
Broughton Road,
Skipton
BD23 1FJ

Dear Sir / Madam

RE: Sustainable Design and Construction Statement

1.0 INTRODUCTION

This document has been prepared as part of North Yorkshire Council's Validation Criteria requiring a Sustainable Design and Construction Statement for householder planning applications. The following information is required:

- A non-technical summary that sets out what climate change mitigation measures have been integrated within the scheme's design;
- Details of how the proposed climate change mitigation measures compare to the minimum required under current Building Regulations;
- Where climate change mitigation measures have been discounted, the applicants demonstrate why it is not viable to do so.

The following paragraphs demonstrate how the proposed extension will comply with the council's sustainability requirements.

2.0 NON-TECHNICAL SUMMARY

The proposed development will comply with all of the requirements of the Approved Documents including Building Regulations Part L1A (2013), including the June 2022 changes which request higher performance U-Values as follows:

EXTERNAL WALLS –CAVITY WALLS STONE/RENDER

Wall construction to be approx. 327.5mm total thickness (not including finishes)

Overall wall construction to achieve a min U-Value of 0.18W/m²K

NEW GROUND-BEARING CONCRETE SLAB TO REAR EXTENSION:

Generally to be a ground bearing slab with insulation over with screed finish

Overall floor construction to achieve a min U-Value of 0.13W/m²K

PITCHED ROOF – NEW WARM

Unventilated roof covering: to new pitched roofs

Roof construction to provide a target 'U' value of 0.15W/m²K

WINDOWS, ROOF LIGHTS, EXTERNAL DOORS

Windows & Doors to be min. double glazed units. To achieve a max. U-Value of 1.4 W/m²K.

The garage and garden room are proposed to be unheated spaces.

HEATING

The existing heating system will be retained.

LIGHTING

In areas affected by the building work, low energy light fittings are to be provided at a rate of not less than 3 per 4 of all the light fittings.

Low energy light fittings should have lamps with a luminous efficacy greater than 45 lumens per circuit-watt and a total output greater than 400 lamp lumens, in accordance with approved document part L1.

3.0 COMPARISION OF THE MINUMUM REQUIREMENTS UNDER CURRENT BUILDING REGULATIONS

The following are the current requirements of the current building regulations:

New Thermal Elements in Extension/ Conversion/ Renovation of Existing Buildings - Target 'U-value' by element:

Roofs	0.15 W/m ² K
Walls	0.18 W/m ² K
Floors	0.18 W/m ² K

Refurbished/ Retained Thermal Elements in Extension/ Conversion/ Renovation of Existing Buildings - Target 'U-value' by element:

Roofs	0.15 W/m ² K
Walls	0.30 W/m ² K
Floors	0.25 W/m ² K

Windows & Doors to be min. double glazed units. To achieve a max. U-Value of 1.4 W/m²K.

In areas affected by the building work, low energy light fittings are to be provided at a rate of not less than 3 per 4 of all the light fittings.

Low energy light fittings should have lamps with a luminous efficacy greater than 45 lumens per circuit-watt and a total output greater than 400 lamp lumens, in accordance with approved document part L1.

4.0 RENEWABLE TECHNOLOGY ASSESSMENT

An assessment of multiple renewable technologies has been carried out in order to determine the suitability of their application at this site.

Renewable Technology	Feasibility	Reason
Photovoltaics	N	The limited works to the existing house make the installation of renewable technology unfeasible
Solar Hot Water	N	The limited works to the existing house make the installation of renewable technology unfeasible

Ground Source Heat Pumps	N	The limited works to the existing house make the installation of renewable technology unfeasible
Air Source Heat Pumps	N	The limited works to the existing house make the installation of renewable technology unfeasible
Wind Turbines	N	Insufficient wind speeds and space available at site
Combined Heat and Power	N	Heat load throughout the year is not consistent enough to justify use of CHP plant
Biomass Boilers	N	Location does not lend itself practically to either regular delivery of fuel, nor for the storage space needed

7.0 CONCLUSION

This brief report has outlined the compliance of the design with approved document L1A and additional design measures taken to ensure the proposals meet current energy efficiency standards required for the scale of development, and has demonstrated how active technologies have been considered and where suitable implemented.

Yours faithfully

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for and on behalf of Wighton Architects Ltd