CLIMATE CHANGE STATEMENT

Applicant	Mr T. & Mrs W. Yates
Site Address	Yew Tree Lane Holmbridge, Holmfirth HD9 2NR
Job nr.	23041
Project details	Barn conversion to dwelling and proposed stables in the green belt.

Climate Change Mitigation Measures

Question 1: **What measures have been/will be taken to reduce the energy demand associated with your proposed development beyond the minimum required in Building Regulations? (see section 2 of guidance notes)**

An air source heat pump will provide domestic hot water and heating to the barn conversion, therefore not relying on available alternatives to the area such as gas or oil. Proposed insulation levels in the barn conversion will assist in exceeding the minimum requirements of the Building Regulations.

Photovoltaic solar panels will provide power to the proposed detached stables and the barn conversion, roof mounted to minimise visual impact and remain largely unseen from ground level.

Where possible, the new buildings to use LED and energy efficient lighting to reduce energy demand, but to also meet the lighting guidance as set out in the Preliminary Ecological Appraisal.

Question 2: **What measures have been/will be taken to limit the carbon consumed through the implementation and construction processes, e.g. by reducing existing on-site materials or sourcing materials locally? (see section 3 of the guidance notes)**

Existing barn and out-buildings are to be retained and converted to form the dwelling. Parts of the structures that are to be demolished are to be set aside and materials re-used elsewhere in the build.

Where possibe, materials involved in the construction of new structures such as the detached stables are to be sourced locally, to reduce transportation distances and deliveries to site, minimising embodied carbon.

Suggest the applicant uses local labour and contractors to limit travel time to site and reduce carbon emissions.

Siting of the detached stables to use the construction method of cut and fill, to re-use excavated earth to raise ground levels elsewhere on the site as part of the proposal. This will minimise the need to import or dispose of fill from excavation.

Question 3:	**What measures have been/will be taken to utilise renewable or low carbon energy sources? (see section 4 of the guidance notes)**
	An air source heat pump will provide domestic hot water and heating to the barn conversion, therefore not relying on available alternatives to the area such as gas or oil. Photovoltaic solar panels will provide power to the proposed detached stables and barn barn conversion, roof mounted to minimise visual impact and remain largely unseen from ground level.
Question 4:	**What measures have been/will be taken to ensure the building design and layout has been optimised to energy efficiency beyond the minimum requirements in Part L of the Building Regulations? (see section 5 of the guidance notes)**
	Barn conversion restricted to existing orientation. Existing window openings utilised to minimise large areas of glass and potential heat loss. Where new larger openings are proposed, these are to face south-west to benefit from solar gains. Existing trees and vegetation on site will provide a level of shading throughout the year. Encourage the use of low energy lighting throughout the proposed barn conversion. Additional levels of internal wall insulation to improved energy efficiency.
Question 5:	**What measures have been/will be taken to reduce potential impacts of flooding associated with your development? (see section 6 of the guidance notes)**
	Permeable surfacing to be proposed to areas of hardstanding to allow for natural drainage of the site. Site vegetation proposed and existing trees retained to assist in drainage of the site, whilst provide additional wildlife habitats. Suggestion of soakaways incorporated within the proposed development, for surface water drainage from the detached stables and barn conversion.
Question 6:	**What measures have been/will be taken to reduce water stress associated with your proposed development? (e.g. water retention and minimisation measures) (see sections 7 and 8 of the guidance notes)**
	The proposed barn conversion to incorporate water-efficient appliances to assist in minimising water stress. There is currently a metered water supply to the barn which will remain following the conversion into a dwelling, this will allow the client to remain aware of their usage and therefore reduce wastage. Suggest the applicant incorporates a form of rainwater collection to the detached stable barn, to further reduce dependency on water supply.
Question 7:	**What measures have been/will be taken to provide biodiversity net gains? (see section 8 of the guidance notes)**
	The proposed yard area to remain as natural as possible, retaining the existing trees whilst proposing additional vegetation, floral variety and planting of orchards throughout the site to improve, enhance and create new habitats. The proposal will allow the applicant to continue to protect and enhance the existing meadows and land in their ownership, preserving the natural habitats in the green belt.

Question 8: **What measures have been/will be taken to reduce air pollution associated with your proposed development? (see section 9 of the guidance notes)**

New materials are to be sourced locally where possible, reducing transport emissions. Suggestion of mechanical ventilation system to the proposed barn conversion to improve air quality for the occupants. Also for the provision for an electric car charger point on the site, potentially linked to the photovoltaic solar panels.

The conversion of the barn to form a dwelling will allow the occupants to live on site and maintain the land and their horses, this will significantly reduce transportation emissions to and from the site. Visits to the site can typically range from 2 - 4 times a day depending on time of year. This will be reduced if the facilities are in place for the occupant. This is further discussed in the design and access statement submitted as part of this application.