

Sustainability Statement

Sustainability Statement for the proposed development to Meadhurst Boarding House at Uppingham School.

Partial demolition of an existing boarding house and replacement with new purpose-built boarding facilities alongside a new arrival courtyard, landscaping, and associated works.

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Introduction

As a leading independent boarding school with both proud historical heritage and forward-focussed values, Uppingham School strives to acknowledge and minimise negative impacts on the environment whilst providing a rich and inspiring educational experience for our pupils.

In recognition of our responsibility to embed a culture of sustainability within the organisation, Uppingham School has implemented and disseminated an Environmental & Sustainability Policy. Within our Policy, we highlight our commitment to deliver Net Zero Carbon emissions across scopes 1 and 2 by 2050 and continually improve environmental performance through an Environmental Management System aligned with ISO 14001.

The proposed development at Meadhurst will further Uppingham School's sustainability goals and those of the local community through the creation of a low carbon, energy-efficient building.

Sustainable Design

The new boarding house is designed to the latest Part L Building Regulations standards and follows Passivhaus principles through a fabric-first approach, prioritising high levels of insulation and airtightness. U-values and heat loss are further reduced through the building's fenestration and glazing design.

The building form factor is planned to reduce overall heating demand through the minimisation of external wall areas and maximisation of floor space, in addition to considering the building's orientation within the site.

Alongside aesthetics, budget, and contextual factors, the life cycle of materials is considered to minimise embodied carbon in construction, maximise operational life, and prioritise recyclability. For example, the use of light-coloured concrete bricks at the top of the building elevations contain approximately half the embodied carbon to standard brick types.

With regards to climate change adaptation, the building design will minimise heat gain from glazed surfaces through solar shading whilst balancing good daylighting with thermal comfort for users.

Energy Efficiency

Heating and Ventilation

The new building will be heated via high-efficiency air source heat pumps, moving completely away from gas boilers to allow for future total decarbonisation of heat provision. Warm air will be recovered from inside the building by MVHR (mechanical ventilation with heat recovery) units and recycled to heat the fresh air input to the building.

Existing gas boilers within the retained property will be scaled back, with considerations made for future replacement to low-carbon heating when they reach the end of their operating life.

Lighting

All lighting within the building will consist of high-efficiency LED lamps with appropriate controls including presence detection. Access to natural light will be maximised throughout the building in addition to daylight linking to ensure artificial lighting is not triggered when light levels are sufficient.

Controls

Control of plant and equipment in the new development will be automated via a building management system (BMS). This will ensure plant and equipment can be controlled in accordance with specified management plans and sensor data including external temperature. Electrical submetering and monitoring of energy consumption throughout the building will facilitate the identification and investigation of operational and base load anomalies.

Renewable Energy Generation

The development will include the installation of approximately 100m² of roof-mounted solar photovoltaic panels to provide renewable electricity to the building. Battery storage will also be incorporated to ensure generated electricity can be utilised throughout the day.

Biodiversity and Landscaping

Uppingham School is committed to protecting and enhancing biodiversity throughout the School's estate, examples include the maintenance of the Uppingham Arboretum accessible to the local community, and annual wildflower planting of boarding house lawns. The Meadhurst development will retain the majority of trees by avoiding root protection areas. However, in areas where tree removal is necessary, Uppingham School will seek to ensure no net loss of trees throughout the Estate by replanting in alternative locations.

Uppingham School will seek to achieve a biodiversity gain, ensuring an improved quality of on-site natural habitat when compared to pre-development.

The landscaping design for the new development will include areas of planting integrated with communal spaces. Hedges will be made up of native species, planting has been selected to be beneficial to wildlife throughout the year, and climbing plants specified for the west-facing gable wall will provide cover and habitat for birds and invertebrates. Bat boxes will be installed into the new building and hedgehog refugia will be incorporated into suitable areas of planting.

Resource and Water Use

Where possible, materials will be retained from the existing development to be reused.

Products made with recycled content were also selected, including the decking made from 95% recycled materials.

The new building will be designed to achieve a high level of water use efficiency in line with part G of the Building Regulations, including low flow WCs, showers, and taps.

Waste and Pollution

As part of our Environmental Management System, Uppingham School ensures all required due diligence and 'duty of care' checks are carried out for waste contractors to ensure only licensed suppliers are used. All operational waste is diverted from landfill, with non-recyclable waste recovered via RDF (resource derived fuel) for the generation of electricity.

Pollution prevention is prioritised throughout the School, ensuring the use and storage of hazardous materials is evaluated and controlled where possible. Colleagues are trained in the deployment of spill kits to contain and clear spills should they occur.

Sustainable Transport

Meadhurst is located a short 5-minute walk from Uppingham town amenities. The main Uppingham School staff car park is situated to the rear of the site and has extensive bicycle parking in addition to off-road parking spaces.

Uppingham is served by public transport links to surrounding towns including Corby, Melton Mowbray, Oakham, Peterborough, and Leicester.