

ENERGY STATEMENT

Reference: 228_ES

17 LILLINGTON ROAD

LEAMINGTON SPA

WARWICKSHIRE

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1 | Introduction

This Energy Statement been prepared in accordance with local planning policy requirements, Warwick Net Zero Carbon Development Plan Document (DPD), to accompany a planning application for the proposed extension and alterations to the existing property at 17 Lillington Road, Leamington Spa, CV32 5YS, which includes:

1. Replacing existing uPVC windows
2. Repositioning utility access door to front elevation
3. Single storey rear extension and replacing existing orangery
4. New first floor bay window
5. Removal of 1no. chimney stack
6. New insulation and roof covering to existing flat roof side extensions
7. Raising existing side extension roof to enable rear extension

Considering the above proposed works this statement addresses specifically 'Policy NZC4: Existing Buildings', of the DPD which states:

All developments should demonstrate a consideration to sustainable construction and design in accordance with Local Plan Policy CC1 'Planning for Climate Change Adaptation'. All development is required to be designed to be resilient to, and adapt to the future impacts of, climate change through the inclusion of the following adaptation measures where appropriate:

- 1. Using layout, building orientation, construction techniques and materials and natural ventilation methods to mitigate against rising temperatures.*
- 2. Optimising the use of multi-functional green infrastructure (including water features, green roofs and planting) for urban cooling, local flood risk management and to provide access to outdoor space for shading, in accordance with Policy NE1; 103*
- 3. Incorporating water efficiency measures, encouraging the use of grey water and rainwater recycling, in accordance with Policy FW3.*
- 4. Minimising vulnerability to flood risk by locating development in areas of low flood risk and including mitigation measures including SuDS in accordance with Policy FW2.*

Applicants will be required to set out how the requirements of the policy have been complied with including justification for why the above measures have not been incorporated. In addition, all development should consider alternatives to conventional fossil fuel boilers. This should be explored through a Low/Zero Carbon assessment of low carbon energy supply options within the submitted application documents.

2 | Response to Warwick Net Zero Carbon Development Plan Document

In response to the specifics outlined in 'Policy NZC4: Existing Buildings', the following should be noted:

1. The proposed extensions and alterations to 17 Lillington Road are site specific in that they related to an existing dwelling with specific site constraints which is located in the Conservation Area.

The proposals look to replace an existing orangery, first floor bay and poorly insulated single storey side and garage conversion with new construction which will improve the thermal efficiency of the dwelling. This is also in conjunction with replacing poor quality glazing units with new units to current regulations.

The increased thermal performance of new elements will also assist with reducing potential overheating. The proposed new roof overhangs will provide a degree of solar shading and also assist passive ventilation in time of potential rain. New energy efficient lighting will be used throughout the building with LED lighting used where possible. Solar control glazing such as 'Pilkington Suncool' will be considered for the rear extensions to reduce solar gains in the summer as this elevation is west facing.

2. The design incorporates roof overhangs which will assist localised solar shading and reduce the need for cooling to the dwelling. As the rear extension fronts onto the garden, localised planting will provide shaded areas in the summer and a degree of passive solar shading.
3. All new taps and toilets to bathrooms, WCs, kitchen and the utility will incorporate dual flush and low-flow rate taps to help reduce water consumption. Water conservation will also be assisted through the use of rain water butts to harvest rainwater for use in the garden.
4. Subject to agreement with building control and suitability of soil type, new roofs will drain to soakaways and as such reduce the risk of flooding. All new paving, such as the rear terrace will either be porous or run to soakaways

A 'fabric first' approach has been taken in that existing building fabric will be improved to be as close to current building standards as possible.

Considering that the dwelling will still not be to current building control levels of insulation, an alternative to utilising the current boiler system, for example with an air source heat pump has been ruled out at this time.

An ASHP would also need to be run in conjunction with photovoltaic panels and considering the main roof is orientated east/west and within the conservation area, this technology has not been considered appropriate for this project and within the budget for what is relatively a small extension.

It should be noted that in conjunction with the relevant qualifications to be a practising and registered architect, the architect responsible for the proposed design holds an MSc in Energy Efficient and Sustainable Buildings. As such, the design proposals have been developed in conjunction with energy efficiency and sustainability at the core of the design which has been outlined above.

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