

ALBION LODGE

Energy Efficiency Statement

March 2026

FLOWER MICHELIN

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THE WARM HOUSE PLAN

Aims & Vision

Our clients are owners and occupiers of Albion Lodge, a Grade II Listed property which they intend to carefully restore, extend and enhance for use as their family home. As part of this process they are committed to ensuring the property is as thermally efficient and has as low a carbon footprint as possible.

This is in line with the UK Government's ambitions to reduce carbon emissions in the construction industry and underpinned by the Warm Homes Plan, published in 2026: *Warm Homes Plan*

It is also in line with the UK Net Zero Building Standard – the Construction Industry's voluntary technical standard developed between the BBP, BRE, the Carbon Trust, IStructE, LETI, RIBA, RICS, and UKGBC and launched in 2025:

UK Net Zero Carbon Buildings Standard

THE WARM HOUSE PLAN

Aims & Vision

The Warm Homes Plan states:

“Homes and buildings are responsible for around one fifth of UK emissions. Upgrading them and switching to clean energy is one of the most important things we can do to combat climate change.”

The Plan outlines a clear case for change. Our continued dependence on volatile and expensive fossil fuels has significant consequences, not only for climate change, but also for energy bills, long-term energy security and fuel poverty.

The solution set out within the Plan is the transition to clean, secure and affordable energy generation within the home. This is achieved through the integration of rooftop solar panels, battery storage, clean heat technologies (ASHP) and wider energy efficiency improvements.

The Plan sets out a clear national vision:

- Every household in Britain should have the opportunity to benefit from clean energy technology within their home.
- Harnessing rooftop solar, battery storage, clean heat (ASHP) and improved energy efficiency to reduce reliance on fossil fuels and save households hundreds of pounds on energy bills.

By 2030, the Plan aims to:

- Triple the number of homes with solar compared to today, deploying panels on up to 3 million additional rooftops.
- Deliver over 450,000 heat pump installations per year.
- Upgrade up to 5 million homes in total to improve energy performance and resilience.

This establishes a clear national direction of travel: the widespread adoption of clean energy technologies within domestic properties



HERITAGE PROPERTY

Grade II listed context & justification for upgrade

The Warm Homes Plan recognizes that every home is different. While it sets ambitious national targets, it also empowers homeowners to pursue upgrades that suit their specific circumstances, provided they are appropriately designed.

Albion Lodge is Grade II listed and therefore of recognized architectural and historic significance. Any intervention must be carefully considered and sensitively detailed. However, listed status does not preclude adaptation. On the contrary, sustainable upgrades, when properly designed, can support the long-term viability, functionality and preservation of historic buildings.

For historic properties, including Grade II listed homes, the transition to clean energy requires:

- Careful siting of external equipment
- Minimal visual impact
- Retention of historic fabric wherever possible
- Reversible interventions where feasible
- Early engagement with conservation officers

Importantly, improving energy performance in listed homes supports their long-term preservation. Reducing reliance on fossil fuels future-proofs the property against rising energy costs and regulatory change, while also ensuring healthy and comfortable internal conditions for our Clients and their young family.

The following sections therefore justify each proposed intervention individually.



PROPOSED INTERVENTIONS

Solar Panels & Battery Storage

New surface mounted solar panels are proposed on the south facing roof slope of the existing building. As indicated in the diagram opposite the panels are to be located at the lowest point of the roof where the two pitches meet. They will be mounted over the historic roof finish, preserving the original materials below. This position:

- Is not visible from the public highway
- Sits discreetly within the roof plane
- Is south-facing, maximising energy efficiency
- Has no impact on the principal elevation or key heritage views

Given their discreet placement, the panels do not harm the building's architectural character. They achieve a clear balance between sustainability and heritage protection.

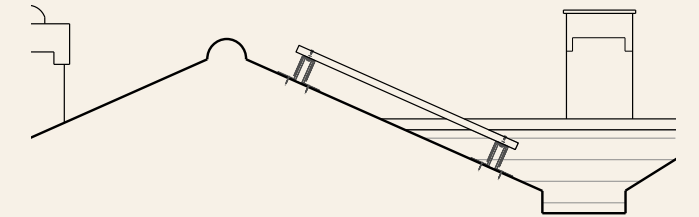
Battery Storage

The proposed solar panels will be connected to a battery storage, to allow the collected energy to be stored and used on demand. This will be connected back to the mains grid and to the existing distribution board inside the house.

Combined with the solar panels, this battery storage will allow Albion Lodge to generate clean, renewable energy on-site, reducing reliance on fossil fuels and contributing to national carbon reduction targets.



*Proposed Air Source Heat Pump location next to existing shed.
Location and enclosure subject to noise survey*



*Proposed Air Source Heat Pump location next to existing shed.
Location and enclosure subject to noise survey*



PROPOSED INTERVENTIONS

Glazing Upgrades

As outlined in the Warm Homes Plan 2026, it is important to note that the efficiency of the heating system is directly linked to the thermal performance of the building envelope. Without reasonable improvements to heat retention, the system would need to work disproportionately hard, reducing overall efficiency, undermining sustainability and carbon reduction objectives, and leading to higher energy bills for occupants.

It is therefore proposed to upgrade the existing windows at Albion Lodge, to improve thermal efficiency. The existing windows vary in significance and are to be addressed in two different approaches:

Secondary Glazing:

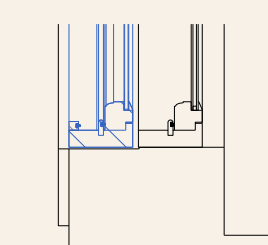
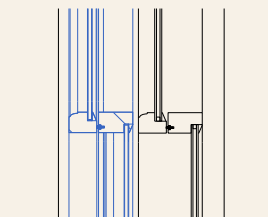
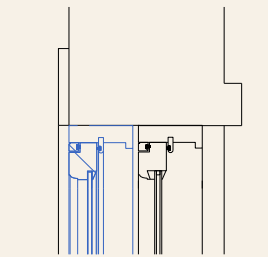
There are a few original windows which form part of the building’s historic character, so any alteration requires careful consideration. The proposal seeks to install new timber-framed secondary single-glazed sash windows, set within the existing window reveals.

Slimline Double Glazing:

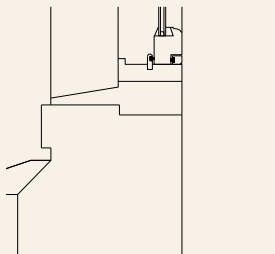
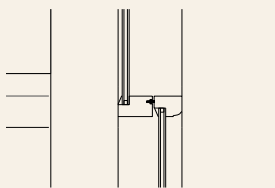
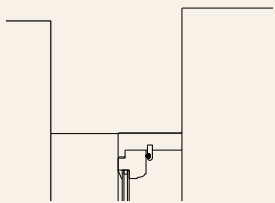
Where the sashes are later replacements and not original, there is greater flexibility to upgrade performance without impacting the building’s heritage significance. It is therefore proposed to introduce heritage slimline double-glazed units within new timber sashes, retaining the existing sash box frames and maintaining the established glazing pattern and proportions.

Both interventions are carefully considered to enhance energy efficiency while safeguarding the architectural and historic significance of Albion Lodge. Together, these strategies:

- Preserves the external appearance of the building
- Minimises alterations to the historic fabric
- Deliver meaningful improvements to thermal performance



Secondary Glazing



Slimline Double Glazing

PROPOSED INTERVENTIONS

Thermal Upgrades

As the building is Listed, thermal upgrades of the existing walls, floors and roof need careful consideration. Although we would:

Existing Walls:

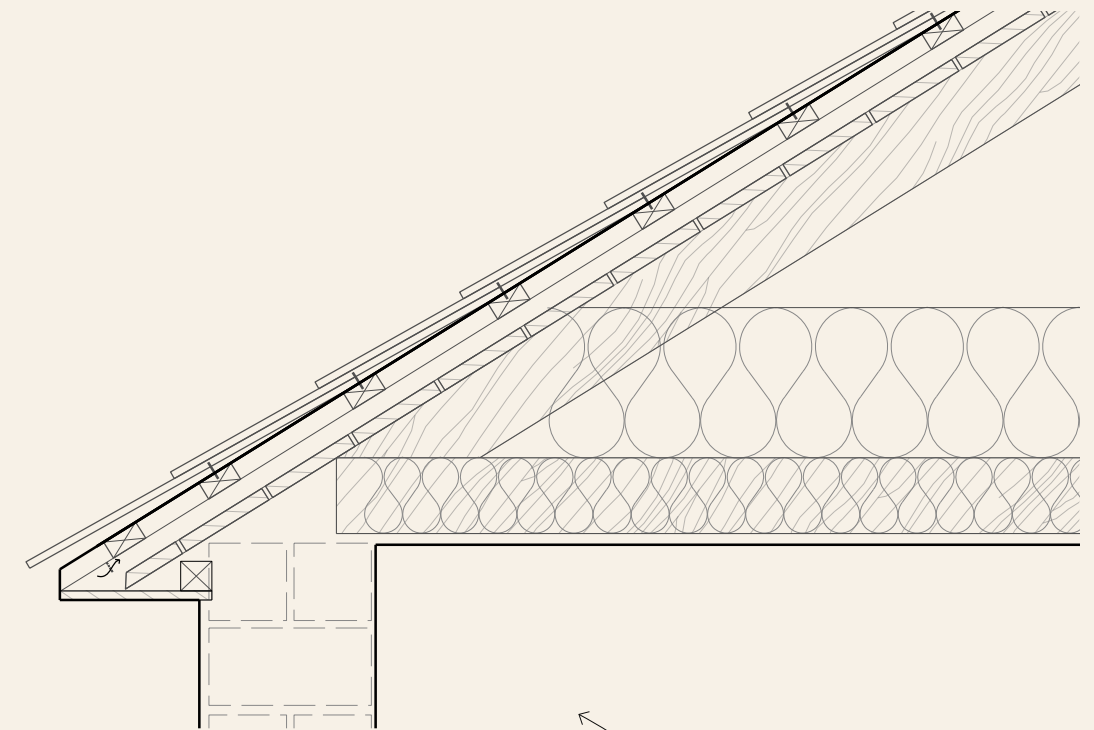
Although significant energy improvements could be achieved by thermally insulating the existing external walls, this is not currently proposed, so as to retain the existing building fabric and cornicing etc

Existing Ground Floor:

Similarly the ground floor construction is assumed to be suspended timber. This could be thermally upgraded to significantly reduce heat loss, by carefully lifting the existing floorboards, thermally insulating the void space below then relaying the original floorboards. However these works are not proposed so as to retain the existing building fabric

Existing Roof:

It is proposed to insulate the loft with approx. 300mm of natural, breathable insulation such as cellulose (made from recycled newspaper), sheep wool or wood fibre, to significantly reduce heat loss through the roof space. All existing roof structure and materials would be retained and locally repaired to ensure a weathertight building.



Upgrades to Existing Roofs of the Main Houses



Proposed Natural breathable insulation upgrades

PROPOSED INTERVENTIONS

Thermal Upgrades

Former Stable

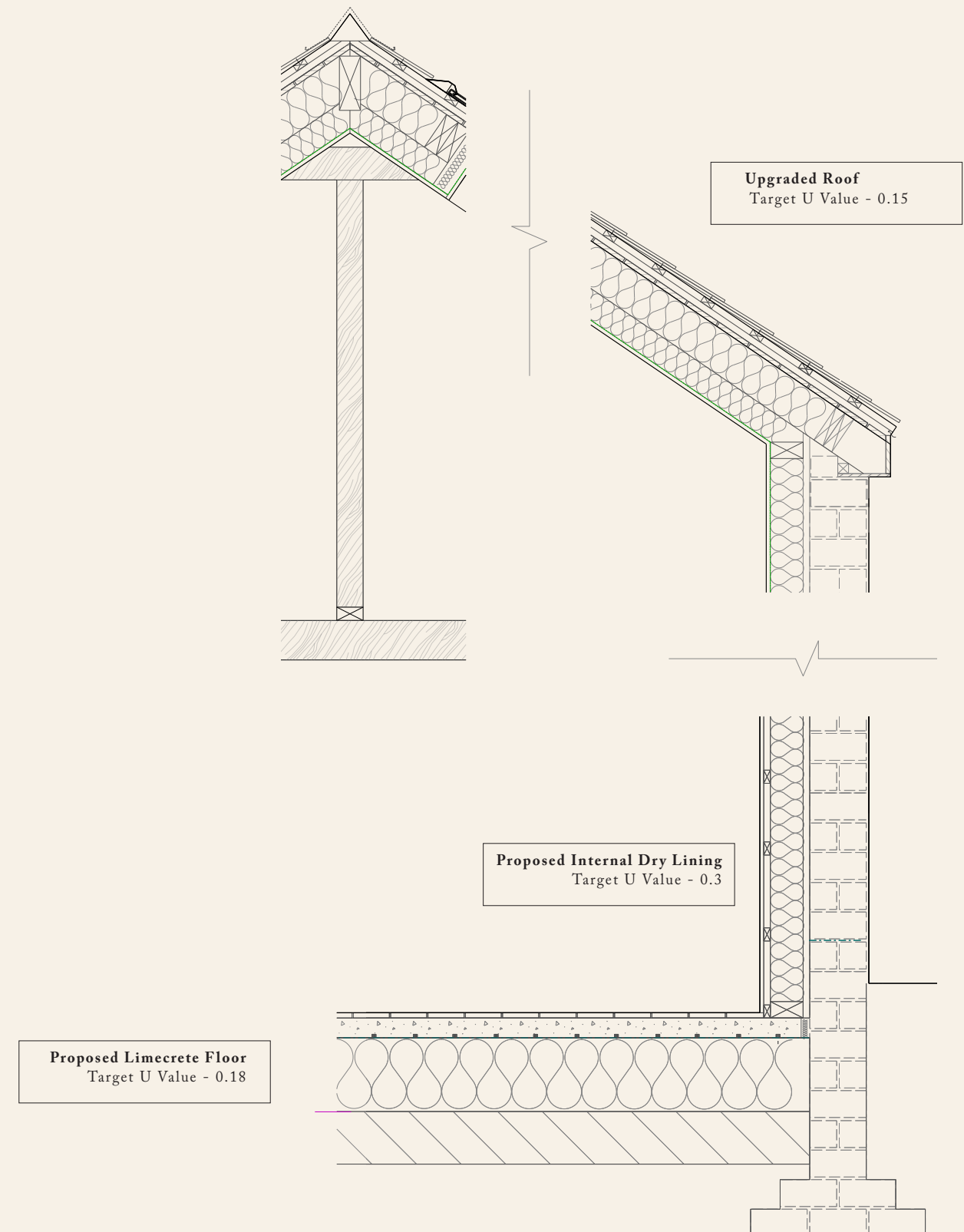
The former stable is currently a non-habitable structure with no meaningful thermal performance. The proposal seeks to convert this space into a habitable room, and this change of use alters the performance requirements of the space.

As a habitable space, it must comply with current Building Regulations for thermal efficiency, moisture control, energy performance and occupant health. The existing construction, comprising an uninsulated roof, solid floor and thermally poor walls, is not suitable for residential occupation.

The proposed works include:

- Introducing breathable mineral wool insulation within the existing timber roof structure to achieve current Building Regulation thermal standard.
- Removing the existing ground floor and replacing with a new breathable limecrete build-up. Limecrete. This allows moisture to migrate naturally through the floor, reducing the risk of trapped damp and long-term decay.
- Improving wall performance using lime mortar and breathable insulation such as mineral wool, ensuring the wall construction remains breathable

This approach reflects conservation best practice: upgrading performance while preserving the building's ability to breathe, and is as outlined in the technical guidance provided by Historic England, published in 2025: *Upgrading Thermal Elements: Installing Insulation* | *Historic England*



CONCLUSION

The proposed interventions at Albion Lodge represent a balanced, conservation-led approach that aligns with the objectives of the Warm Homes Plan 2026 while safeguarding the historic character and material integrity of the property.

Each element has been carefully considered: rooftop solar panels are discreetly sited to avoid visual impact, secondary and slimline double glazing is designed to retain original external appearance while supporting system efficiency, and the thermal upgrade of the former stable ensures safe, compliant, and habitable accommodation.

Together, these measures improve energy performance, reduce reliance on fossil fuels, and contribute to national carbon reduction targets. At the same time, they preserve and enhance the long-term viability of the listed building. All works are proportionate, reversible where possible, and sympathetic to the historic fabric, ensuring that sustainability and heritage objectives are fully balanced.

For these reasons, the proposed works are justified and should be supported, as they deliver measurable environmental benefits while respecting and protecting the significance of the Grade II listed property.

Thank You