

Local Energy Advice Demonstrator (LEAD) Project: Green Heritage Homes

Level 0 Pre-App Phase II Case Studies: 2025- 2026

Case Study Sixteen: Loft insulation, secondary glazing, vacuum glazing, internal wall insulation, EV charging

**All Level 0 pre-app case studies have been anonymised in accordance with GDPR requirements*

History and building type

Building age: 1805

Building type: Terraced dwelling (mid-terrace)

Grade listing: Grade I (group listed)

Wall construction type: Bath stone ashlar

Existing retrofit measures: Some replacement windows are fitted with slim-profile double glazing.

Previous Applications for Listed Building Consent (LBC): Consent granted 2018 for internal wall insulation at ground floor in rear stack extension. Consent granted 2021 for slim-profile double glazed windows in rear elevation at basement level.

Proposals & Matters Discussed:

- Replacement of existing sash windows with more energy efficient glazing, e.g. vacuum glazing.
- Installation of EV charging point to service an on-street parking space.

Heritage Assessment:

- Existing windows are indicated to likely be 1990s replacements, reinstating a traditional multi-pane Georgian-style sash design, but further assessment is required by the applicant. Where it can be demonstrated that existing windows are later, non-historic additions, replacement may be acceptable.
- Secondary glazing is acceptable in principle and can improve the thermal performance of existing windows without their alteration or replacement.
- Loose loft insulation would result in no material change to the historic roof structure, and would require no fixings to historic fabric.
- The rear stack extension is susceptible to heat loss – the interior is fitted with modern finishes, with limited evidence of retained historic fabric. Internal wall insulation may be installed in this area without harm to the listed building.

Possible Retrofit Options:

- Replacement of existing windows with vacuum glazing.
- Alternative options to retain existing windows and improve their efficiency with the installation of secondary glazing.
- Opportunities to improve loft insulation, or install insulation in areas of loft which are indicated to have not previously been insulated.
- Installation of internal wall insulation in the rear stack extension.

Listed Building Consent:

- 'Quick wins' measures such as loose loft insulation would not require listed building consent.
- Installation of internal wall insulation, and alterations to or replacement of existing windows would require listed building consent.
- Secondary glazing may require listed building consent, where certain systems may result in material or visual change to the building.

Measures Discounted:

- Internal wall insulation was considered as a low retrofit priority due to the invasiveness of works and requirement to remove existing kitchen/bathroom fittings. Concerns were raised regarding a proposed EV charging point where there would be impact to the appearance and material finish of the pavement. A gully charger would require removal of historic pavement pennants and would be a prominent addition to the streetscape.

What Next?

The applicant undertook further archive research into the existing windows, demonstrating that windows were replaced in the 1980s. Existing windows are therefore agreed to be late 20th century additions and of no historic interest, and replacement with vacuum glazed sashes of an appropriate profile and design may be acceptable.