



ZAC MONRO ARCHITECTS

Sustainability Statement for a Residential Extension and Refurbishment
25A Sutherland Place, W2 5BZ

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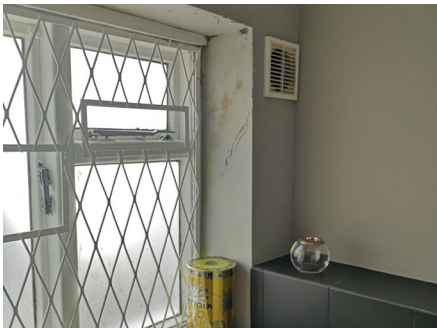
Sustainability Statement



The existing first floor rear window is single glazed and in poor condition. The proposal replaces this with a set-back partial infill extension.



The existing roof at the rear is in a state of disrepair and in need of modernisation to bring it up to current environmental standards.



Existing window to front lightwell, single glazed, poor condition, allowing mould growth internally. To be replaced by a high quality window to the new partial lightwell infill extension.



The existing rear doors and window are single glazed and in poor condition. The proposed rear extension will provide rear glazing that meets modern standards and improves thermal efficiency.

To be read in conjunction with ZMA drawings, Design and Access Statement and Heritage Statement.

The property owner is keen to improve the long term sustainability of the property where possible, without causing harm to the heritage asset. The proposal will provide the user with the right level of comfort and improve the environmental performance of the existing building, ensuring that it is conserved and enhanced in a manner appropriate to its significance.

Current Performance and Condition

The existing building has solid masonry walls without insulation. It has single glazed windows throughout, which is a major source of heat loss due to their poor thermal efficiency. These factors have led to some mould growth on the lower ground floor. The occupants of the flat own the freehold and so they have scope to make changes to improve the environmental performance and address these issues, within the boundaries of what is appropriate for a heritage building.

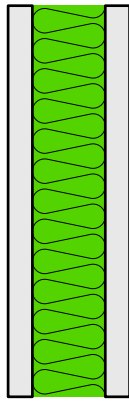
Proposal

Where parts of the building envelope are being replaced by an extension, thermal performance will be markedly improved. New walls and roofs will be insulated to meet current standards and double glazing will be used for the extensions instead of single glazed windows, in order to minimise heat loss and reduce the energy requirement of the property. Skylights and rear glass allow the property to benefit from passive solar gain, further reducing the heating bill and energy consumption. Low-E glass will be used to retain internal warmth in cold weather conditions and reflect external heat radiation in hot weather conditions, minimising the requirement for active heating and cooling.

An air source heat pump was considered, however it is not possible to make the building airtight and so this would not be an effective strategy. Solar panels were considered, however this would clash with planning policy as they would harm the character and external appearance of the listed building. Rather than install intrusive environmental technology, we have opted to focus our efforts on the building envelope, minimising the need for plant and machinery.

The development will extend the lifetime of the heritage asset by bringing it up to modern standards in a way that does not compromise the character of the listed terrace, in line with Policy 39 (Westminster's Heritage) of the City Plan. The new internal arrangement will allow the expanding family to remain in their current home, making it fit for purpose by providing them with flexible, high quality floorspace, whilst simultaneously protecting the architectural features that make the property of special historical interest. High-quality, durable materials and contemporary methods of construction detailing, which respects the traditional Georgian aesthetic, will be used for the extensions in order to ensure the longevity of the building.

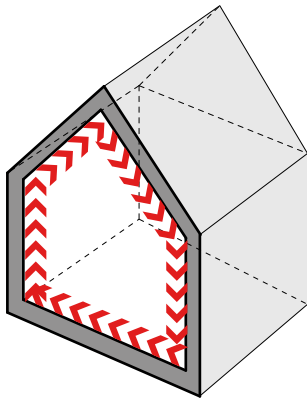
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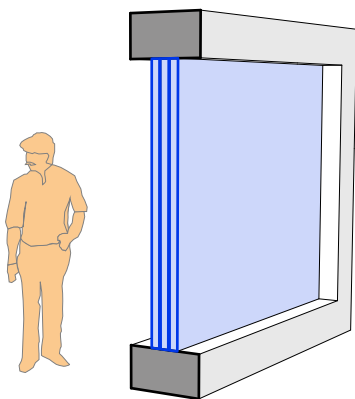
Improved insulation

There are limited opportunities to contribute to urban greening on the site, although the proposed planter on the roof of the front lightwell partial infill extension will introduce new vegetation and replace some of the existing hard surface, aiding with drainage. The improved visual connection to the back garden promotes the introduction of potted plants against the boundary walls as a backdrop to living.

This proposal has been designed with reference to the City Plan, especially Policies 38D, 36, 39, 34B and the Environmental SPD. The design offers sensitive and affective solutions to improving the energy efficiency of the historic building, something which is of vital importance in Westminster, since a large proportion of the existing housing stock is of heritage designation. This kind of refurbishment project provides an opportunity to work towards carbon neutrality by 2040.



Tighter building envelope



Double glazing