

# r j h a

## architecture

### COPPER BUILDING

### SUSTAINABILITY STATEMENT

#### **Sustainability**

##### **Sociological**

The Copper Building is a domestic extension to an existing semi-detached dwelling. The act of extending the property, fulfilling a need for the family, provides a sociological sustainable solution to their needs.

In providing modern accommodation, with step free access into the garden and ground floor welfare facilities, the house will stay a home for longer.

##### **Environmental**

The extension itself replaced a poor quality extension which was built in part in single skin brickwork. The overall construction was inherently leaky to air and lacked any real insulation value. Overall the environmental performance was very poor.

To decrease the Carbon footprint, we employed several 'within budget' mechanisms.

##### *Thermal Envelope*

Our proposal removed the original extension and replaced it with a more sustainable form. Materially we used locally sourced stock brickwork as the facing material to the cavity walls, with insulating blockwork to the inner face. 120mm of insulation filled the void, taking the thermal performance beyond Building Regulations Part L standards.

##### *Heating*

Underfloor heating was used to provide a low energy heating source.

##### **Conclusion**

On balance, The Copper House achieves more than is required from the statutory regulations. It goes beyond the thermal requirements for energy loss and provides a low energy heating source to compliment it. Materially it uses low Carbon recycled materials (stock brickwork), recyclable noncorrosive Copper externally and 'A rated' materials where feasible elsewhere.

Sociologically the extension of the family dwelling will bring key welfare uses to the ground floor ensuring the house continues to function as a home for years to come; improving its 'Lifetime Home' credentials.

For these reasons, we believe this is a sustainable response to the clients brief.