



400sqm residential self-build project in the heart of Edinburgh for Mr & Mrs Murray

Project Brief

Mr & Mrs Murray wanted to replace their unlisted 1960s bungalow with a 400sqm contemporary townhouse in the heart of Edinburgh. The original bungalow had been constructed from pre-fabricated concrete panels, and was poorly insulated.

The clients had very specific ideas about what they wanted from their design - an open plan minimalist home to suit their lifestyle, in a contemporary style that would contrast with the traditional Georgian townhouses in the surrounding area. The ground floor design comprised of an open plan living space with the kitchen merging into the dining room and on into the living area, which could be divided into smaller living spaces by moveable walls. The upper floor continued the open plan theme.



Project Type/Application

The design for the ground floor called for large spans of panel supported by two full height structural internal walls, which did not extend the full width of the building. The clients wanted to use a technology that would combine high levels of insulation with the design flexibility to create the large open plan living spaces of their minimalist design; the strength of the steel and SIPs structure allowed the clients to achieve this design.

SIPs Industries structural insulated panels were used for the full thermal envelope of the building, including the external walls, roof, floor and structural internal walls.





Outcome/Result/Success Factors

The house was shortlisted for the 2010 Saltire Housing Society Design Awards in the category Private Dwelling – New Build, as well as being on the RIAS shortlist for the 2010 RIBA awards.

The original bungalow had been built from pre-fabricated concrete panels, and had poor levels of insulation, while the replacement is much more energy efficient. By using 217mm panels for the thermal envelope the clients were able to achieve a U-value of 0.15 W/m²K, the precision of the off-site construction method meant that they also achieved high levels of airtightness.

The design was very minimalist, with a flat roof and large internal spaces to make the most of the light achieved by having large window openings. The clients wanted open plan spaces, which could be closed off into smaller areas as required.

SIPs Industries structural insulated panels allowed a degree of design flexibility which would not have been possible with more traditional building methods. The combination of SIPs and steel achieved the space that the client required as two internal full height ground floor SIPs walls were the only support for the first floor. Using SIPs Industries panels also allowed the clients to make the most of the available light by having full height windows on the first floor.



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