

Case Study Robert Burns Museum



The building was designed as a state-of-the-art museum and visitor centre to honour Scotland's national bard, the great Robert Burns. It was intended that the structure would meet the highest standards of energy efficiency and also be straightforward to build.

The building frame was constructed using locally sourced Douglas fir supplied by Carpenter Oak and Woodland Timber.

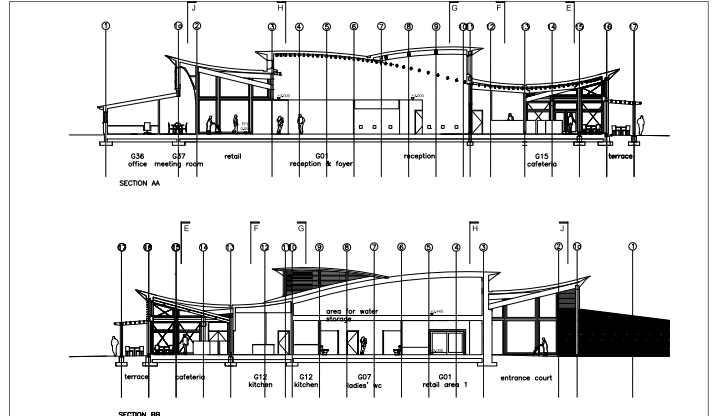
JJI-Joists and JJ-Glulam beams have been used throughout the ground, first floor and roof structures to allow for a lightweight structure with high levels of insulation and a low carbon footprint. The overall project uses 5,700 lm of JJI-Joists and 170 lm of JJ-Beam. The ground floor construction incorporates 350mm JJI-Joists and the first floor 400mm JJI-Joists and 195mm JJ-Beams. The JJI-Joists alone account for over 23 tonnes of CO₂E.

To help reduce the building's energy inputs the structure incorporates a striking, wave-shaped sedum roof, constructed using 220mm JJI-Joists and 300mm JJ-Beams, and 12 ground source heat pumps. Externally the timber cladding emphasises the building's environmental credentials.

The project was supported by the National Trust, The Heritage Lottery Fund, Scottish Enterprise, South Ayrshire Council and the Scottish Government.



JJI-Joists used to create curved roof



Section view by Simpson & Brown

-23313kg CO₂ is the amount of CO₂ saved using JJI-Joists. Find out more at: www.jamesjones.co.uk/pas-2050

CLIENT	NATIONAL TRUST FOR SCOTLAND
ARCHITECT	SIMPSON & BROWN
CONTRACTOR	BORDER CONSTRUCTION
JJI-JOISTS	5700LM 220A, C, D, 300B, 350C + D, 400C+D
ENGINEER	BURO HAPPOLD
ENGINEERED TIMBER SUPPLIER	ALEXANDER TIMBER DESIGN

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JJI-Joists are the UK's market-leading I-Joist and the brand most specified by architects. JJI-Joists are the only UK manufactured I-Joist with FSC Certification and a carbon negative impact figure to PAS:2050 standards



Robert Burns
1759 to 1796



JJI-Joists are capable of large spans. They are light-weight, long and strong. Suitable for floors, walls and roof projects

The JJI-Joist system relies on a unique combination of engineered products designed to complement each other and deliver outstanding performance



Images courtesy of Simpson & Brown Architects and Buro Happold

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the National Trust
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