

BEST USE OF TIMBER 2014 SHORTLIST

AS PART OF THE ANNUAL RIAS AWARDS SCHEME, FORESTRY COMMISSION SCOTLAND AND WOOD FOR GOOD HAVE COMBINED TO SPONSOR A NEW AWARD AIMED AT ENCOURAGING INNOVATIVE AND CREATIVE USE OF TIMBER IN NEW BUILDINGS IN SCOTLAND



Wood for Good
Challenge your perceptions.



RIAS



Forestry Commission Scotland
Coimisean na Coilltearachd Alba

Architecture & Design Scotland
Ailtgearachd is Dealbhadh na h-Alba

EDINBURGH CENTRE FOR CARBON INNOVATION

Location: Edinburgh
Date Completed: September 2013
Building Type: Academic
Architect: Malcolm Fraser Architects

Client: University of Edinburgh
Contract value: £6.1M
Main Contractor: Graham Construction
Timber Supplier: Metsäwood

THE PROJECT

The Edinburgh Centre for Carbon Innovation (ECCI) is a research and teaching facility focusing on climate related challenges facing society. The ECCI is accommodated within the refurbished and extended Category B listed Old High School building in Edinburgh's Old Town. The project brief included adjoining buildings, and the land within the High School Yards. The accommodation includes refurbished teaching/seminar space, lecture/conferencing facilities; meeting rooms; staff offices; a Master's student hub and a café.

The repair and renewal of this significant building is appropriate for the ECCI. The regeneration of the landscape removes all parking and introduces external spaces with similarities to the nature of internal spaces with further improvement of the site's permeability and engagement with the city.

The existing linking stair between the front school building and the rear lecture hall building was not conducive to ECCI's knowledge sharing demands. The linking stair was removed to create a generous central circulation space. All spaces have a direct connection to this atrium and their presence is visually legible.

The ECCI is the first listed building to achieve BREEAM Outstanding at design stage it is designed to be 38% better (CO2 emissions) than if it were a new building

USE OF TIMBER

Using timber was a principle design decision as it is a natural material, which locks in more carbon than it takes to produce. The use of timber has informed the aesthetic, the structure and consideration of the detailed construction methods.

The primary structure, inserted within the atrium and all new construction, is a Cross Laminated Timber frame (CLT) and floor panel system. CLT is used within the new building structure, including floors, roof, columns, beams and the main stair. Much of the structure is hidden within the construction, however exposed CLT was used with a higher surface finish in public areas.

The external wall construction is supported by deep composite timber studs, timber is also used for internal partitions. While this may not appear ground breaking, a decision was made to avoid the use of aluminium studs and wall lining systems, which are often used due to their low initial capital cost. However, with regard to embodied energy, robustness and lifespan, timber performs better.

Timber products were also used internally: flexible woodfibre batts and rigid fibreboard insulation with an Orientated Strand Board (OSB) airtight layer. The wall construction is vapour open benefitting the health of building users. All external wall construction is specified as low in Volatile Organic Compounds and all timber is FSC.



