

MATERIAL
CONSIDERATIONS
A NATURAL FACTORY

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CASE STUDY
GREAT GLEN HOUSE







With thanks to Keppie Design for photography.

Timber technologies

The building is designed to reflect the ethos and values of Scottish Natural Heritage. The materials used reflect the ethos of the organisation and respond to the natural, organic qualities of the setting, connecting the building to its environment.

Scottish larch from Novar Estate was used for all external timber cladding, louvres and internal atrium linings. Douglas fir was used for light and acoustic raft frames, skirtings and office architraves. A feature staircase has stair treads made from slow-grown Douglas fir. Timber glulam columns and beams forming the atrium structure and library structure are in Swedish whitewood.

The building seeks to minimise the use of energy through its design. Passive design and orientation of the main spaces maximises opportunities for heating, cooling, ventilation and natural daylight. Energy use is further reduced by increased insulation and reduced air leakage through the building fabric. A natural ventilation system is supplemented by openable windows allowing the occupant to control the local temperature.

Special timber-related features

The external cladding is all untreated, and is intended to grey down over time, softening the building and blending with the existing beech and birch woodland.

The external horizontal and vertical cladding and louvres were based on a 145mm x 25mm dressed larch module resulting from the drying and milling process. All details were based on these dimensions to minimise wastage, either as single units or butted together to create deeper sections.

Single units were used for the vertical cladding to the library to follow the oval plan form. Two modules were butted together to form a deeper unit to the main horizontal cladding to achieve a greater depth.

Two modules were used together to form the timber louvres fixed to a galvanised steel frame to the west side of the atrium. These are spaced to allow external views whilst restricting direct sunlight.

CASE STUDY

GREAT GLEN HOUSE

Name of building

Great Glen House

Date completed

2006

Building type

Commercial

Location

Inverness

Architect

Keppie Design

Client

Scottish Natural Heritage

Main contractor / timber supplier

Robertson Northern

Bryceland Total Timber Solutions Ltd

Anticipated lifespan of building

75 years

Background to building

Great Glen House is the headquarters of Scottish Natural Heritage. It is set in the grounds of a Victorian hospital estate, on the edge of Inverness which overlooks the city centre, the Caledonian Canal and the Moray Firth.

This natural landscape has been adapted and enhanced, and is reflected in the use of timber as a cladding material both internally and externally. The existing landscape is extended up to, and brought into, the building with full height windows and openings connecting the interior and exterior.

The building consists of four elements: the offices (on three storeys), the library, the atrium and the steading courtyard, which houses the staffroom, a boardroom, meeting rooms and storage areas.

The spaces are organised around the central atrium to be functional and provide sufficient levels of privacy. The atrium also provides the heart and focus of the building, as well as driving the natural ventilation for the offices and library, and primary circulation linking all the main elements.

Material Considerations

A Natural Factory

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