



Picture of Cannock Tree House Centre

Case Study: Mitigation – using more wood in building

Wooden buildings at Cannock, Dalby and Westonbirt

Cannock Chase

A brand new education building, the 'Tree House Centre' was opened in Cannock Forest in 2008 funded by CEMEX. The building has two large classrooms, each of which can accommodate up to 60 students, covering 347m² in total.

The building is constructed entirely from FSC timber and supported by 64 oak posts, reducing the ground impact and the amount of concrete used. The building has a living sedum roof, and a rainwater harvesting system that collects water from the roof and uses it for toilet flushing, saving on mains water use.

The building is heated by a wood pellet system and has a large overhanging roof structure to reduce overheating in summer. In addition because the building is constructed from wood, it is very well insulated—helping it to stay

warm in winter and cool in summer. Passive solar heating is also achieved by extensive south facing windows.

Dalby

April 2007 saw the opening of a state-of-the-art visitor centre at Dalby Forest in the heart of the North York Moors. The striking £2.6m building has been constructed from natural materials and nestles into the wooded valley. It enhances the distinct character of the forest.

The construction of the all-timber building uses new techniques that enhance quality while lessening the impact on the surrounding area. It is clad in locally-sourced timber shingles made from Yorkshire larch. Being made of wood, the building is naturally well-insulated. It is powered by energy from photo-voltaic panels and a wind turbine. Heating is provided by a biomass boiler.

Westonbirt

The new craft barn at Westonbirt was built during a training course in traditional woodworking techniques and raised in one day in October 2008. The barn demonstrates the use of timber from our native woodlands and provides a shelter for courses and demonstrations in green woodworking.

All the timber for the barn was harvested from the arboretum, including the oak and chestnut shingles for the roof. The oak for the frame itself came from mature woodland trees felled during Westonbirt's programme of coppice restoration. The natural durability of oak means that the barn should be around for at least 500 years – long after a new generation of oaks have grown and been harvested to make another one!