

THE ARTS CENTRE - SHERBORNE GIRLS SCHOOL

Designed to benefit the school and wider Sherborne community

Project: The Arts Centre, Sherborne Girls School

Company: B&K Structures

Sector: Education

Technology: Cross Laminated Timber (CLT)

Overview:

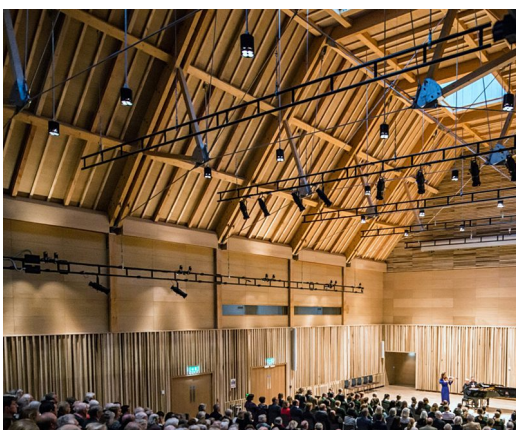
Sherborne Girls School is an independent day and boarding school in North Dorset, attended by approximately 500 students.

The new Arts Centre required a recital hall with 350 fixed seats; conversion of the current music centre to create a new drama school; and a link building that joins music, drama and art facilities, providing an attractive display area and a multifunctional social space for a range of events, from guest speakers and exhibitions to social events. New roads, paths and communal areas were also required, including the planting of trees to reinforce the campus feel of this 20-acre site. The £6 million transformational project has been designed to benefit the school and wider Sherborne community. The Arts Centre is the final project in the school's 'Growing for the Future' development programme and is driven by multiple needs and aspirations.

Designed by architects Burrell Foley Fischer, the building has been constructed from 4,753m² of cross laminated timber and features 35.19m³ of spruce glulam beams, manufactured by Stora Enso. All engineered timber elements were designed, engineered and installed by B&K Structures. Not only do the exposed cross laminated timber panels and glulam beams provide a striking interior, but the enhanced acoustic properties of the engineered timber transformed both practice and performance areas, providing high acoustic quality recital spaces, soundproofed practice rooms and fully equipped recording studios. The use of CNC technology to cut the prefabricated elements generated the high dimensional accuracy of the CLT, which not only helped to realise the design but allowed the early procurement of window and door components. The Art Centre's internal finishes are predominantly exposed engineered timber, which generates a warm and welcoming environment for the students. Clever utilisation of the structural properties of CLT greatly assisted in achieving the desired layouts and spatial design arrangements.

Cross laminated timber was chosen for the superstructure due to its sustainability credentials, robustness, high-grade aesthetic properties when left exposed and its potential for freedom in the architectural implementation of the design. CLT delivers maximum programme benefits, reduces capital and life cycle costs and minimises environmental impact. Engineered timber is used as a positive means of enhancing educational environments. Strong evidence is now emerging, particularly from the educational sector, about the role CLT can play in creating comfortable internal spaces. Engineered timber is becoming the material of choice for specifiers because of its inherent structural qualities, such as speed and accuracy of construction, airtightness and carbon sequestration. Being a largely prefabricated offsite solution, CLT is factory manufactured to exceptional levels of accuracy, ensuring minimal defects. This improves procurement, construction and project delivery timescales, reduces costs and maximises efficiency on all levels.

Cross laminated timber offers high strength-to-weight ratios that, in many cases, equal those of reinforced concrete. The use of sustainably sourced



cross laminated timber panels and glulam beams reduces the weight of the superstructure, which decreases foundation requirements, resulting in an overall reduction in the volume of concrete used for the groundworks when compared to traditional methods, reducing the impact on the environment. This offsite method of construction leads to safer, cleaner, quieter sites, with a reduced number of workers and consequently less nuisance to pupils and staff. Using engineered timber as a core structural component reduces site construction time, making project planning less weather-dependent and more predictable, therefore reducing programme risk. Internal works can proceed earlier to make the critical path run more smoothly, improving construction productivity and delivery time, reducing costs and maximising efficiency on all levels.

Shortlisted for the Structural Timber Awards Education Project of the Year, the Arts Centre provides an inspirational space for the whole school to congregate, complete with dedicated performance and arts facilities that offer scope for advancing the music curriculum. The centre meets the long-held objective of giving Sherborne Girls School a stimulating space to promote social and educational development.