



TATA STEEL



ComFlor® and RoofDek case study Ellesmere Port and Chester Campuses

Client: West Cheshire College

Structural Engineer: Gifford

Decking contractor: Fisher Engineering

Decking system: ComFlor® 80/RoofDek D135

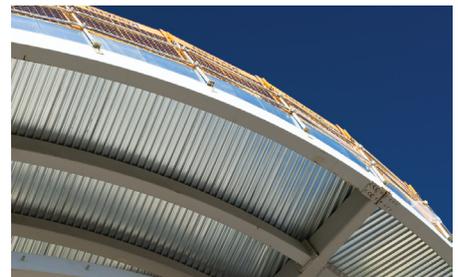
West Cheshire College has committed to building two new high-quality campuses at Ellesmere Port and Cheshire.

As part of the new build programme, 11,000m² of ComFlor® 80 composite floor decking was specified for both campuses.

Alongside this, 2,300m² of RoofDek D135 structural roof decking was selected.

The large spans achieved have resulted in less structural steel being required.

The new facilities will improve vocational opportunities for young people and extend the range of opportunities for adults to develop skills.



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The Ellesmere Port Campus involves the construction of a 19,500m² new build art, design and media, hospitality and catering and hairdressing and beauty block. Running in parallel, the Chester Campus construction programme consists of a 6,000m² science and technology teaching facility. The main focus of both campuses is an internal project court where vocational students of different trades are able to work alongside one another in building a house, within the project court itself. As part of the new build programme, 11,000m² of ComFlor® 80 composite floor decking was specified for both campuses. Alongside this, 2,300m² of RoofDek D135 structural roof decking was specified.

Ian Cochrane, Managing Director, Fisher Engineering commented: "A key requirement for the two new build projects is to ensure the finished structures provide a flexible space that can easily accommodate a dynamic and busy educational environment, whilst achieving optimum acoustic performance. RoofDek from Tata Steel is inherently strong, can achieve long spans and performs extremely well acoustically.

"We were able to achieve the structural overhangs required whilst avoiding the requirement for propping at a height. The system enabled us to create an architecturally striking and structurally robust building."



RoofDek is ideal for creating contemporary roofing systems. It uses structural metal decking and membranes to provide a flat roofing solution.

The profiled decks provide long spanning capabilities that allow the contractor to reduce secondary supports, eliminating the requirement for inplane roof bracing – ensuring a visually pleasing and architecturally-sensitive finished structure can be achieved.

James Drew, Structural Engineer, Gifford, commented: "A core part of the development is the circular rotunda building with its spiral ramp. By specifying the Tata Steel ComFlor® 80 composite decking system, we were able to achieve the structural overhangs required whilst avoiding the requirement for propping at a height. The system was the ideal choice for the West Cheshire College Campuses as it enabled us to create an architecturally striking and structurally robust building."

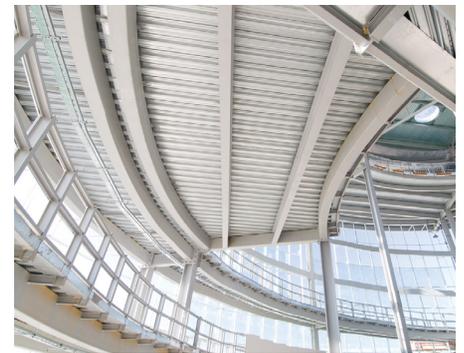
He continued: "Furthermore, the composite decking systems have enabled us to facilitate a quick and easy installation process that has benefitted us in terms of bringing overall cost savings to the project."

ComFlor® 80 is a shallow composite profile with an unpropped spanning capability of 4.2 metres. Supported, spans of over 5.0 metres can be achieved.

In the case of the campuses at West Cheshire College, the large spans achieved have resulted in less structural steel being required – providing cost-effectiveness.

By offering a comprehensive range of steel composite floor and roof decking systems, Tata Steel was in the unique position of being able to meet all of the roofing and flooring requirements for the College project.

The composite systems also benefit from the use of prefabricated components that can be rapidly installed, enabling construction programme predictability that will ultimately allow the College to benefit from quicker occupation.



When constructing an educational establishment, there are many factors that need to be considered.

In the case of the Ellesmere Port and Chester Campuses at West Cheshire College, the finished structures have to be architecturally striking learning environments that will provide a flexible and structurally robust space where educational and vocational students will be able to happily sit alongside each other – inspiring students for generations to come.

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