

## Innovation In Access

### Safespan – Tinsley Viaduct, Sheffield

Turner Access Ltd have recently successfully completed what must be the biggest single access contract in this country, to provide what are definitely the two longest single working platforms ever built (now claimed as an official world record). The Tinsley Viaduct Bridge Renovation Project in Sheffield proved to be very rewarding.

In the 10<sup>th</sup> year of the “Quality in Construction Awards” 2006, this major project was recognised as a **Finalist** in the Category of “Major Project of the Year”. The judges said “This is the hardest kind of work you can do, but they delivered a quality job despite many challenges”.

In the category of “Project Safety” the project was **Highly Commended**. The judges said “This was a high-risk job – you’d expect accidents. Their record of management speaks volumes”.

At the “Specialists in Construction Awards in 2005”, Turner Access Ltd were also awarded “The Scaffolding & Access Specialists of the Year” award for their input into this project.

Turner Access used a form of access equipment which was entirely new to the European market – Safespan. They have been appointed as exclusive distributors and consequently have established a specialist division named “Safespan Europe”.

Safespan's properties, for bridge maintenance were essential for the Tinsley Viaduct bridge access especially as tight clearance was needed to keep the traffic flowing. The access platforms allowed the bridge rehabilitation to proceed at very quick pace.

The two complete access platforms, each approximately a full Kilometre long by approximately 35m in width (70,000m<sup>2</sup>), were suspended under the M1 Motorway and below the A631 on the 2 tier Tinsley Viaduct at Sheffield.

The safe and efficient installation of this patented system, developed in the USA in the mid-1990s, enabled the £85 million Highways Agency contract to run successfully throughout.



Two levels of Safespan 1 Kilometre long x 35 m wide on the Tinsley Viaduct in Sheffield

On completion of the project 2.8 million man-hours had resulted in only eight reportable (3-day) accidents. Two extended periods of 800,000 and 1,400,000 hours were recorded without a single accident occurring, during a period of time when health and safety in the construction industry is under the microscope. No serious accidents occurred.

Turner Access using Safespan and PlusEight system scaffolding were integral in the project also winning **RoSPA** awards and a **WWT** (Working Well Together) award.

The strong safety record on the scaffolding and access part of the project was founded on pre-site entry assessment, training on the use of Safespan in combination with Plus Eight Modular Scaffolding. Regular safety review & briefings and daily inspection were also in place throughout.

When working on the Safespan platform one has no concept of height; **the project is effectively brought to the ground.**

Only the climb using the 20m high PlusEight access stair towers serve to remind you that you are so high off the ground.

The top tier had to be installed above one of the busiest traffic routes in the country on the A631 and one of the main benefits recognised was the fact that nothing hung below the platform level. This meant that the **traffic clearance gap could be maximised**, allowing the road system to remain open.

The Safespan platform systems much lower self-weight in comparison to traditional scaffolding also limited the load imposed on the bridge, which in the 1990's had spectacularly failed an assessment carried out by the consulting engineers 'Owen Williams' for compliance with an EU Directive for load bearing capacity.

Traffic operating below the bridge, once Safespan was installed, was not the only problem Turner Access had to deal with on the Tinsley Viaduct.

The bridge is situated right next to the two cooling towers from the old Blackburn Meadows Power Station, which are well known landmarks.

The upper tier on the east side carries gas and water mains and is in close proximity to these towers. Next to the towers is Yorkshire Water's largest sewage treatment works and the land beneath the bridge is owned by five separate tenants, with only 20% belonging to the Highways Agency.

All of these obstacles were overcome and there can be no doubt that Turner Access made a significant contribution to this project, overall.