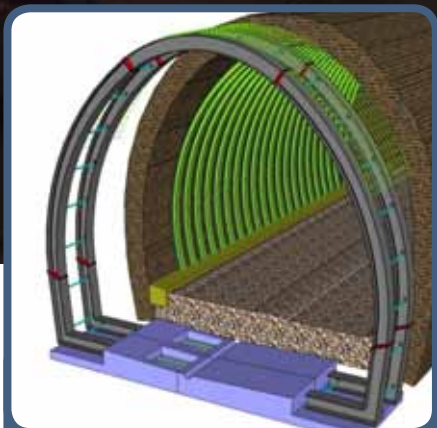


Starting in November 2013 and finishing in March 2014, Network Rail carried out major engineering work to strengthen and repair Holme Tunnel between Hebden Bridge and Burnley.

A key part of this work has been the bending and fabrication of all the structural steel for the project, nearly 100 elegant but extremely strong arches made specifically to fit inside the tunnel which has been pushed out of shape over the years since its creation.

New Steel for Holme Tunnel

Case Study: 005 New Steel for Holme Tunnel



The solution was to replace the existing masonry lining with a reinforced concrete lining and strengthening steel.*

Trusted Supplier

By using a trusted supplier to weld, assemble and finish the structural steel arches, the primary contractor was able to outsource a crucial part of the project. This allowed it to concentrate on sourcing the materials and components and the bending part of the process which it specialises in for large civil and architectural projects.

Solution

ECS Engineering Services provided the ideal solution, operating from the company's new 50,000 sq ft Fullwood fabrication site; ECS was able to accept the bent arch sections, additional arch support pieces, flanges and feet as component parts. Using its drilling, welding and finishing facilities, ECS was over half way through the assembly and construction of the archways by October 2013.

Comment

John Cotterill, ECS Fabrication Director comments, 'As two truly international businesses it's easy to see how our two companies worked well together; Barnshaws, having just completed the world's largest ever cold bent arches for the Sopot's Forest Opera in Poland and ECS having just completed the supply of structural steel

fabrications for the new and stunning Paris Philharmonic building.'

'The final elements of this part of the Holme tunnel project were despatched from ECS in December 2013. By operating a delivery and collect service between the main contractor and ECS, the efficiency of moving the materials around was also maximised. In addition to using the key service offerings of both businesses to their maximum operational efficiency, the project costs have also remained under control and we have been able to guarantee both timing and quality.'

Adding Value

ECS was also able to provide added value to the order by passing the initial drawings through the experienced ECS design office, converting the drawings to CAD files and double-checking all the dimensional details for the bespoke curved arches that are being created. By doing this work before fabrication began the end customer, Network Rail, was able to confirm shapes and tolerances before steel was welded, providing an additional layer of reassurance for the customer, especially important since the task is retrofitting supports to an old and slightly oddly shaped tunnel.

*Image courtesy of Network Rail



Engineering Services ■■

Water Control ■■ Site Services ■■
Environmental ■■ Fabrications ■■

