



Centregreat Engineering Bridges Overview

Case Study



Overview

Centregreat Engineering is a metallic structures fabrication, restoration and coating specialist, delivering critical infrastructure projects for foot, road and rail bridge structures, piers and jetties, water control structures and slipways.

Operating from our 160,000sqft of workshops in Cardiff we have capacity to design, 3D-model, detail, fabricate, blast, paint and partial erect structures off site prior to transportation and final erection in situ.

Centregreat Engineering has been awarded several awards including:

- Ashton Avenue Swing Bridge, Bristol: 2017 ICE South West Award for a Refurbishment & Strengthening project valued at over £1m.
- Polperro Tidal Gate Repair: 2020 ICE South West Civil Engineering Award for Project Under £3m (Re-Engineered)

Project Delivery

Centregreat Engineering has completed over 50 new, replacement and existing bridge structure projects in the past 5 years.

Network Rail Footbridges for Centregreat Rail

Centregreat Engineering, working collaboratively with Centregreat Rail, has delivered 27 Network Rail bridge refurbishments in the last five years, including both in situ and removal to our in-house workshop-based fabrication and painting facilities. This has equipped our teams with extensive knowledge of managing the interface with critical infrastructure and managing all stakeholder expectations and communication.

These projects include associated civils works such as remedial strengthening to abutments

at Ludlow Station and replacement of expired timber elements with new GRP materials at Pembrey Station.



Network Rail footbridges for Other Clients

Cadoxton Access for All (AfA) Station Footbridge

As part of Network Rail's Access for All (AfA) Programme we completed all detailed drawings, fabrication, blasting, painting, and successful installation of the new bridge and lift shafts. Appointed by Alun Griffiths, Centregreat Engineering completed all detailed drawings, fabrication, blasting and painting and successful installation of the structure. Following lessons learnt in relation to cladding during night possessions, we developed a solution to clad 3 three sides of the lift towers prior to transportation to site, alleviating programme constraints and overcoming a known project challenge.



Kevin Collins – Project Director for Network Rail:



“A great team effort has seen a successful first time handback of the new Access for All scheme at Cadoxton Station on the BRY line.”



Other Bridge Structures

Landmark Cable-Stayed Bridge, Pontypridd
Contracted by Knights Brown, Centregreat Engineering was responsible for carrying out steel deck and tower manufacture and installation for this landmark cable-stayed bridge, to provide a new pedestrian route in the town of Pontypridd.

The bridge incorporates a tapered 25m high tower and a slender deck, fabricated and installed by Centregreat Engineering, which is then supported by a total of 16 locked coil cable assemblies, manufactured by Redaelli and installed by Tensology.

The new cable-stayed crossing links the town's new Llys Cadwyn development with Ynysangharad War Memorial Park. The Llys Cadwyn development is a major project in the town centre comprising of three state of the art buildings which together will bring hundreds of new jobs to the South Wales town.



Victoria Bridge, Bath

Delivered for Balfour Beatty, Centregreat Engineering completed the required works to

reinstate the listed Victoria Bridge Structure in Bath back to its former glory.

Thorough Early Contractor Involvement we were able to give the client confidence in the ability of our team to manage and deliver removal of the supporting Mabey system and bridge restoration within their budget and timeframe.

The project included dismantling the existing structure and delivering sections to our Cardiff workshops where individual components were given identification marks for reference to retain as much of the existing structure as Possible.

Existing structure components were blasted back to bare metal to remove traces of lead paint and the complete structure painted to the client's specification. This project was a success.



Ashton Avenue Swing Bridge, Bristol

This Grade II listed structure was originally built in 1906 and was closed in 2015 restoration to become part of the new Bristol Metrobus route.

The contract was won by Volker Laser who approached us, having been made aware of previous proposal and methodology for carrying out the restoration works. The project required keen planning and a detailed sequencing of works with tide and time constraints playing a major factor.

Centregreat initially carried out steelwork strengthening to the existing structure to enable temporary works to be installed before the main restoration could begin. The project involved the blasting and painting of the existing structure with a completely new deck being manufactured and installed in manageable sections due to the access restrictions.