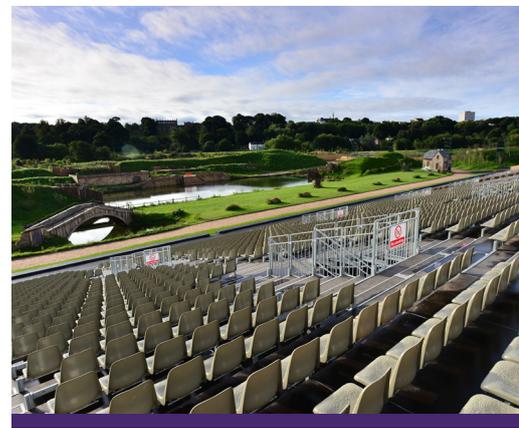
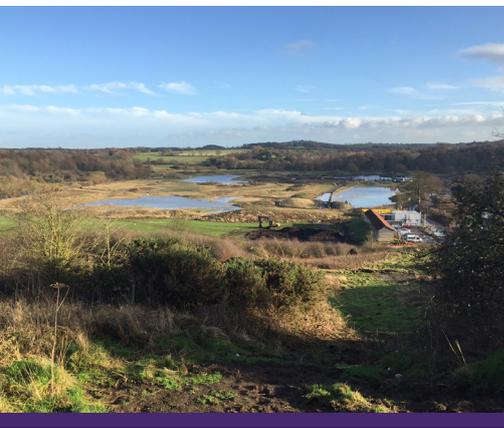




# CASE STUDY ELEVEN ARCHES: KYNREN



## HEADLINES

**LARGEST**

live outdoor family event in the UK

**8,000**

people watch every show

**7.5 ACRES**

installed with a state-of-the-art M&E infrastructure across the site

**14**

ancillary buildings also powered by G&H

**TWO 20KV**

high voltage transformers installed



## KEY FACTS

Project title: Eleven Arches, Kynren  
 Location: Bishop Auckland, County Durham  
 Client: Kynren  
 Services: Mechanical and Electrical design and build infrastructure package

Contractor: Caddick Construction  
 Value: £2 million  
 Duration: 28 weeks  
 G&H divisions: Building Services

# CASE STUDY HOW WE DID IT



The Eleven Arches spectacular called 'Kynren – An Epic Tale Of England', re-creates 2,000 years of Britain's history through 23 acts in just 90 minutes. It is the largest outdoor family event in the UK spanning 7.5 acres, which is the equivalent of five football pitches. Kynren is dependent on the success of the mechanical and electrical infrastructure so resilience to services was built in to guard against failures.



Two 20,000 volt transformers distribute power to low voltage panels throughout the site. This not only provides services for the show to take place but for the daily running of the venue. A 'temporary permanent' approach was taken giving the site management team the ability to work at low power when the show is not being performed.



Kynren sees spectators (8,000 watch every show) sitting in the dark in a grandstand amphitheatre known as The Tribune with our M&E services providing power for evocative surround-sound music as a 1,000-strong cast presents pyrotechnics, spectacular lighting and water effects. The shows also feature a 400m wide stage, trains, horses and an artificial lake with full-size boats and water jets.

As well as powering the show, we provided services to 14 ancillary buildings including a clubhouse, toilets, farmhouse, stables, actors' changing areas, refreshment kiosks, ticket office, train shed and technology suites. Hot and cold water supplies, a large scale lighting network across the entire site, a lake hydrant system and drainage solutions were also designed and installed.

We worked to a tight deadline as the first show took place on 2 July and all the tickets had been sold. Managing schedules was vitally important especially in the early part of the project given the heavy and persistent rainfall experienced in the winter of 2015/16 and it being an outdoor venue. Careful programme planning and excellent on-site supervision was crucial.

Extensive liaison with the design team including the main contractor, Caddick Construction, and Eleven Arches' French parent company, Puy du Fou, was also vital in ensuring we delivered a right first time scheme. Furthermore, it ensured total clarity and nothing was lost in translation due to the different languages spoken.



## KEY CONTACT

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