

Experts in Structural Repair,
Strengthening, Protection and
Refurbishment

2023



Business Profile

- Structural Repair, Strengthening, Protection & Refurbishment of Civil Structures and Buildings
- Transport, Power & Energy Sectors
- Management and care of existing assets
- Principal Contractor or Specialist Sub Contractor
- Innovative Technical Solutions



Balvac Value Proposition

As a trusted expert, we sustainably extend the life of our nation's infrastructure. We deliver innovative structural repair, strengthening, protection and maintenance solutions providing our customers with the opportunity to return their assets to full capacity and extend their working life.





Our People

- 30+ directly employed skilled personnel
- 40+ staff
 - Senior Management Team
 - Project / Contract Managers
 - Engineering / Technical / Commercial
 - Work Winning
 - Administration / Support

Our Customers

- Approx 75% of business is for external customers
- > 90% of projects are through negotiation or frameworks
- Our customers value the expert service we provide





Our Services

- Concrete Repair & Resin Injection
- Structural Strengthening
- Corrosion Management & Cathodic Protection
- Leaksealing Injection & Grouting
- Concrete Road Rehabilitation (VVG & Slab Lifting/Levelling)
- Post Tensioning, Stressing & Duct Grouting
- Bridge Jacking & Bearing Replacement
- Structural Health Monitoring & Testing
- Noise, Vibration & Air Quality Monitoring
- Pile Testing



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Testal & Balvac

- Pile Testing
- Noise, Vibration & Air Quality Monitoring
- Structural Monitoring
- Diagnostic Survey & Structure Testing
- 3D Laser Scanning / Photogrammetry
- Drone surveys





Why Choose Balvac?

- Technical expertise and excellence
- Broad experience over many years
- Adaptable
- Innovative
- In house skilled resources



Why have early engagement?

- Early involvement enables us to drive innovation and best value
- Encourages cost savings
- Promotes more effective programming and project delivery
- Allows for improved risk mitigation and safer delivery



ECI Capabilities

Skills and Experience

- Survey, Inspection and Testing Services
- Method Led Optioneering and Optimization
- Buildability reviews
- Budgeting & cost indications
- Planning & Programming
- Temporary Works Design & Coordination
- Review of specifications
- Approval In Principle and Technical Approvals
- Third Party Liaison and Consent Applications



ECI Capabilities

Knowledge of relevant standards and guidance documents

- Design Manual for Roads & Bridges
- Specification for Highways Works
- Network Rail Standards
- Technical Approvals Processes – NWR & Highways
- Concrete Society Technical Reports
- CIRIA Guidance
- BS EN 1504 – Products and systems for the protection and repair of concrete structures
- BS EN ISO 12606 – Cathodic protection of steel in concrete



Summary

- Expert Structural Repair, Strengthening, Protection & Refurbishment
- Management & Care of Existing Assets
- Innovative Technical Solutions



Project Profiles

A61 Dronfield Viaduct

Key Facts:

- Customer Derbyshire County Council
- Principal Contractor Balvac
- Project Value: £1,400K
- Duration: 90 Weeks
- Completion: April 2017

Scope:

- Removal/replacement of 132no. bridge bearings
- Hydrodemolition & structural concrete repairs
- Works over Midland Mainline Rail
- Significant scaffold structure over railway (33 x 6hr weekend possessions to construct)
- 30t of temporary support steelwork installed to facilitate jacking of the bridge



Mandale Road Bridge

Key Facts:

- Customer: Balfour Beatty Reg Civils
- Project Value: £0.9M
- Duration: 38 Weeks
- Completion: February 2022

Scope:

- Structural concrete repair - sprayed concrete
- Impressed current cathodic protection installation (mesh & overlay and discrete anodes)
- Vacuum Assisted Resin Injection to West Abutment
- 34 Weekend Rail Possessions
- Collaborative working through Scape GEN 2 feasibility & pre-construction
- Leading on CP Design & Buildability



Brow Wood – Rail Bridge

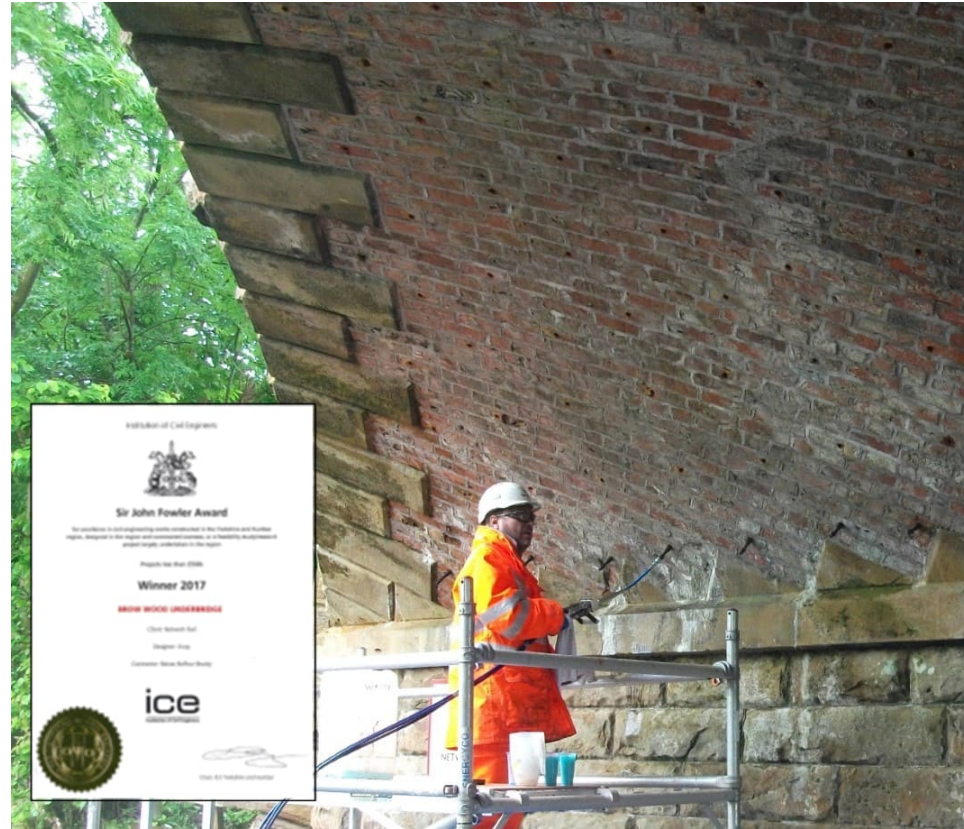
Winner of ICE Yorkshire and Humber Sir John Fowler Award 2017

Key Facts:

- Customer: Network Rail
- Specialist Contractor: Balvac
- Project Value: £0.26M
- Completion: July 2016

Scope:

- Cross pinning and stitching to brickwork arch rings
- Spot replacement of missing bricks
- Re-pointing of the structure
- Design and installation of a bespoke 'kicker plate' to prevent ballast spilling over the North Parapet
- De-vegetation of the entire structure
- Injection of a specialist waterproofing resin through the arch intrados
- Installation of a drainage system



Halton Bridge Maintenance Partnership

Key Facts:

- Principal Contractor Balvac
- Framework Value: £23M
- Duration: 4 + (2 year extension)
- Completion: March 2015

Scope:

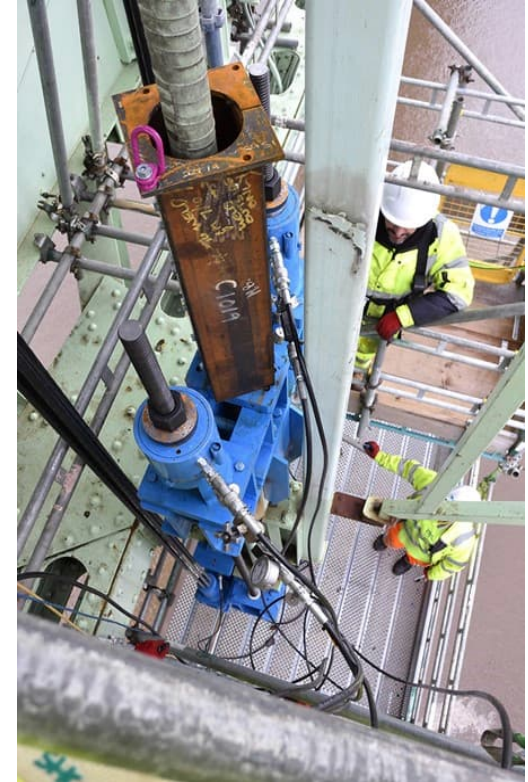
- The repair and refurbishment of the Runcorn approach viaducts, Silver Jubilee Bridge and associated structures
- 33 task orders delivered ~ £23M total value
- Largest Task Order – approx. £5.5M



Halton Borough Council Continued capital spend through Scape Civils Framework



- April 2015 to date ~ £17M+
- Concrete Repair & Deck Refurbishment to SJB Approach Viaducts
- Maintenance Painting to SJB Top Arch
- Replacement of hanger cable



National Highways Scheme Delivery Frameworks (SDF)

- 2022 to 2028
 - Area 7 East Mids
 - Area 13 North Lancs & Cumbria
 - Area 14 – North Yorks & NE
 - Areas 6 & 8 (East) – starts 2024
- Area 10 North West – Existing CWF continues to March 2023
- Collaborative Working – ISO44001
- Structural Concrete Repair & Cathodic Protection
- Principal Contractor Role



Swanswell Viaduct

Key Facts:

- Customer: Coventry City Council
- Project Value: £4.5M
- Duration: 32 Weeks
- Completion: November 2021

Scope:

- Removal of existing 'white spar' fascia panels and reinforced concrete edge beam
- Construction of new reinforced concrete parapet edge beam using a combination of in situ construction and pre-cast units
- Installation of new N2 containment bridge parapet vehicle restraint system
- Replacement of bridge deck and sub-surface drainage including connections into surface level drainage network



Elvet New Bridge

Key Facts:

- Customer: Balfour Beatty Reg Civils
- Project Value: £2.2M
- Duration: 67 Weeks
- Completion: November 2021

Scope:

- Structural concrete repair - sprayed concrete and hand placed
- Impressed current cathodic protection installation (mesh & overlay and discrete anodes)
- Grouting of structural joint
- Hydrodemolition of bridge half joint (c 130m3)
- Collaborative working through Scape GEN 2 feasibility & pre-construction
- Good collaborative team working throughout project delivery



Regent St Flyover

Key Facts:

- Customer: Balfour Beatty Reg Civils
- Project Value: £1.0M
- Duration: 60 Weeks
- Completion: July 2021

Scope:

- Structural concrete repair - sprayed concrete & hand placed
- Protective Coatings to Retaining Walls
- Removal of existing concrete columns using UHP Hydrodemolition to retaining existing reinforcement



Holme Lacy Bridge

Key Facts:

- Customer: Balfour Beatty Living Places
- Project Value: £0.2M
- Duration: 6 Weeks
- Completion: March 2020

Scope:

- Temporary jacking of road deck
- Access from underslung scaffold to mitigate flood risk
- Removal of existing bearings to West Abutment and installation of new elastomeric bearings
- Design and installation of lateral support steelwork to replace the existing guided bearing
- Associated concrete repairs on the road joint
- Replacement of existing road expansion joint
- Works completed on time despite extensive flooding



M60 Palatine Road Bridge

Key Facts:

- Customer: National Highways Area 10
- Principal Contractor: Balvac
- Project Value: £10M+
- Duration: 4 years
- Completion: March 2023

Scope:

- Significant bridge propping scheme
- Phased concrete breakout by hydrodemolition and flowable/spray concrete repairs
- Anode mesh and spray concrete overlay impressed current cathodic protection system
- 16m CP string anodes installed in cored longitudinal holes through Crosshead Beams



A52 Clifton Bridge Nottingham

Key Facts:

- Customer: National Highways Area 7
- Principal Contractor: Balvac
- Project Value: £3M+
- Duration: 15 months
- Completion: April 2021

Scope:

- Investigation and concrete repair works within box beam construction
- Emergency reactive works following identification of Post Tensioning defects
- Temporary works, structural monitoring and strengthening



M6 Hassall Green Bridges

Key Facts:

- Customer: National Highways Area 10
- Principal Contractor: BBMMJV
- Project Value: £1M
- Duration: 28 Weeks
- Completion: February 2018

Scope:

- Temporary propping of adjacent road and rail bridges carrying M6
- Phased breakout of defective concrete using PAM Pneumatic Breaker and High Pressure Water Jetting
- Hand placed and Dry Spray Concrete Repairs ~ 14m³
- Impressed Current Cathodic Protection System (Titanium mesh & spray concrete overlay)



A1 Twyford Overbridge – Concrete Repairs & CP

Key Facts:

- Customer: National Highways Area 7
- Principal Contractor: Balvac
- Project Value: £0.6M
- Duration: 26 Weeks
- Completion: November 2018

Scope:

- Phased concrete breakout by hydrodemolition and spray concrete repairs
- Anode mesh and spray concrete overlay impressed current cathodic protection system to soffit strip
- Discrete anodes inserted vertically into drilled holes at half joint locations



ZEROHARM
MAKE SAFETY PERSONAL



Balvac

Balfour Beatty