

## Bearing replacement and concrete repairs

St Albans Road, South Mimms, Hertfordshire

### Client

Jackson Civil Engineering (JCE)

### Designer

Atkins

### Principal Contractor

Jackson Civil Engineering (JCE)

### Works Commenced

February 2021

### Works Completed

April 2021



St Albans road bridge crosses the A1(M) near Potters Bar. Regular monitoring inspections by the Client had indicated that the bridge bearings had reached their designed life span and were showing signs of deterioration. There was also evidence of concrete spalling, exposed reinforcement and cracking of the abutments.

Freyssinet was engaged to replace 12 mechanical bearings and carry out repairs to the concrete defects.

Freyssinet's scope included:

- Bearing design, manufacture and installation
- Temporary works design
- Management of hydro demolition and sprayed concrete sub-contractors
- Working within static traffic management, assisting with TM design to confirm works requirements.

Once on site, Freyssinet's works process included:

- Installation of temporary works
- Hydro demolition of the spalled concrete and temporary works pockets
- Installation of the temporary works (guided bearings, rocker bearings, sand boxes, hydraulic jacks, and flat jacks)
- Jacking of the abutments (north abutment followed by south abutment) using two separate jacking arrangements
- Replacement of bearings
- De-jacking of the bridges (north abutment followed by south abutment)
- Replacement of corroded reinforcement
- Reinstatement of concrete repairs combination of hand repairs and sprayed concrete repairs)

The Client pushed for early completion to release the road space traffic management back to Highways England and Freyssinet was able to oblige by completing the scheme two weeks ahead of programme

Client praised Freyssinet's professionalism and dedication and was satisfied with the completed project.