



**Gloucestershire Warwickshire Steam Railway Plc**  
**Risk Assessment for Replacement of Stanley Pontlarge Bridge metal latticework - Infrastructure**

**Risk Assessment - Replacement of Stanley Pontlarge Bridge metal latticework**

Reference No: INF-45833-57

Version No: 1

Assessment Approver: Kevin Jarvis

Old cast corroded latticework needs to be removed and replaced with a new steelwork frame.  
(x2)

Department: Infrastructure

Date Of Assessment: 25 June 2025

Review Due Before: 07 July 2028

Lead Assessor: Ian Carpenter

Team: Kevin Jarvis, Geoff Goring, Paul Fuller, Mark Young,  
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**Replacement of metal latticework**

| Type              | Hazard Cause  | Persons Affected | Control Measures  | L Overall  | S T | Additional Control Measures   | L Overall  | S T | Owner/Action |
|-------------------|---|------------------|---|--|-----|---|--|-----|--------------|
| Health and Safety | Injury to workers, damage to property<br>Slips, trip, fall, fire, impact, collision | Everyone         | 1) CRITICAL - Engineering: No ladders or steps to be used. - Effective<br>2) CRITICAL - Engineering: All work activity to take place at the bridge deck and track level. - Effective<br>3) CRITICAL - Engineering: Rivets to be burnt off in small numbers (approx 10) and then punched out using a rivet buster/extractor. - Effective<br>4) CRITICAL - Engineering: 80-90% of securing rivets to be removed, leaving sufficient rivets in place to keep the metal work secure. - Effective<br>5) CRITICAL - Engineering: Nuts and bolts will be securely fitted in several locations of removed rivets to secure the structure in place whilst the final remaining rivets are removed. - Effective<br>6) CRITICAL - Engineering: The pneumatic rivet extractor will be sufficiently controlled so as not to eject the rivets sideways or in any other direction where they may cause an issue. - Effective<br>7) CRITICAL - Engineering: The new latticework must be secured at the pillar ends first to reduce fall risk. - Effective<br>8) CRITICAL - Engineering: If the open sides are left unattended they must be clearly marked with barrier tape and all staff likely to visit that area informed of the fall risk. - Effective<br>9) CRITICAL - Engineering: When the latticework is removed, a temporary handrail will be fitted to remove the fall hazard until the new lattice work is installed. - Effective<br>10) CRITICAL - Engineering: Scaffolding will be erected by competent persons and used for repairing the parapets and pilaster. - Effective<br>11) CRITICAL - Engineering: Hazard warnings signs will be in place at ground level to warn the public of the work activity. - Effective<br>12) CRITICAL - Administrative: Diesel shunter and brake van or GWSR pick-up truck to be used to transport staff and equipment to site. - Effective<br>13) CRITICAL - Administrative: GWSR Rule Book to be followed at all times. - Effective<br>14) CRITICAL - Administrative: Engineering track possession to be in place. - Effective<br>15) CRITICAL - Administrative: When the latticework is removed, workers must remain behind the bridge pillars and away from the open edges. - Effective<br>16) CRITICAL - Administrative: The new and old lattice work must be carried and secured to a suitably rated RRV trolley. - Effective<br>17) CRITICAL - PPE: Safety footwear, glasses, fire retardant clothing, ear defenders and gauntlets to be used for rivet extraction process. - Effective | 2 x 3 = 6<br>Medium - Risk to be minimised and controlled so far as is reasonably practical. | 6   | 1) Engineering: Consider using local hydrants for fire fighting protection. - Effective | 2 x 3 = 6<br>Medium - Risk to be minimised and controlled so far as is reasonably practical. | n/a |              |



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|-------------------|---|--------------------|--|--|----------|---|-----------------------------|--|----------|---|--------------|
| Health and Safety | Falling materials - impact to public<br>The activities involve working at or near the edges of the bridge, so there is risk of materials (sparks and hot metal) falling from the bridge into the road | Public             | 1) CRITICAL - Engineering: Hazard warnings signs will be in place at ground level to warn the public of the work activity. - Effective<br>2) CRITICAL - Engineering: The road must be closed when lifting operations are taking place. - Effective<br>3) CRITICAL - Engineering: No work activities are to be undertaken at any time when the public or traffic are in the vicinity of the bridge. - Effective<br>4) CRITICAL - Engineering: Sheeting to be erected to control molten metal spray. - Effective<br>5) CRITICAL - Engineering: Ejected rivets to be caught in a secured fire resistant bucket. - Effective<br>6) CRITICAL - Administrative: Traffic lookouts to be in place below the bridge to stop road traffic movements and/or engineering operations. - Effective<br>7) CRITICAL - Administrative: The Infrastructure Manager will liaise with local residents to inform them of the work activity. - Effective                         | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 1 =<br>1 | 1 | None                        | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 1 =<br>1 | 1 | n/a          |
| Health and Safety | Lifting operations<br>Lack of awareness, training or knowledge  | Everyone           | 1) CRITICAL - Engineering: The RRV operator (or manager) will produce a suitable lift plan for the structures (approx 500kg each). - Effective<br>2) Engineering: RRV to be used to remove and replace the bridge capping stones. - Effective<br>3) CRITICAL - Engineering: The metal work will be securely held in place by strops from the RRV before the last bolts are removed and lifting commences. - Effective<br>4) CRITICAL - Administrative: RRV to be used for lifting operations and all equipment use to be suitably rated and 'in ticket'. - Effective<br>5) CRITICAL - Administrative: RRV to be operated by fully competent staff. - Effective<br>6) CRITICAL - Administrative: The road must be closed when lifting operations are taking place. - Effective<br>7) PPE: Hard hats must be worn when lifting operations are taking place. - Effective  | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 =<br>3 | 3 | None                        | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 =<br>3 | 3 | n/a          |
| Health and Safety | Hot works<br>Use of oxy propane torch   | Volunteers & Staff | 1) CRITICAL - Elimination: The rivets will only be removed once cold & caught in bucket - Effective<br>2) CRITICAL - Engineering: Ensure that gas bottles are stood securely and can not topple over. Consider using restraining chains etc. - Effective<br>3) CRITICAL - Administrative: Users should be experienced and competent to use hot work equipment. - Effective<br>4) CRITICAL - Administrative: Ensure no flammables are within the work area - Effective<br>5) CRITICAL - Administrative: Work should cease and a 'fire watcher' be in place for 30 mins afterwards in case any stray sparks or other hot materials cause a fire. - Effective<br>6) CRITICAL - PPE: Safety footwear, glasses, fire retardant clothing, ear defenders and gauntlets to be used for rivet extraction process. - Effective<br>7) CRITICAL - PPE: Fire fighting equipment including extinguishers and drums of water will be present in case of fire. - Effective | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 =<br>3 | 3 | None                        | 1 x<br>Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level. | 3 =<br>3 | 3 | n/a          |

### **COSHH Assessments**

There are no COSHH assessments associated with this risk assessment.

### **Reference Documents**

- Bridge Drawing -
- 2025 Bridge 28 scope of repair works Rev 1 - Details scope of works & Task Briefing for the removal of rivets

Ends