Risk Assessment - Replacement of Stanley Pontlarge Bridge metal latticework

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

Department: Infrastructure
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Replacement of metal latticework

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Injury to workers, damage to property Slips, trip, fall, fire, impact, collison	Everyone	1) CRITICAL - Engineering: No ladders or steps to be used. - Effective 2) CRITICAL - Engineering: All work activity to take place at the bridge deck and track level. - Effective 3) CRITICAL - Engineering: Rivets to be burnt off in small numbers (approx 10) and then punched out using a rivet buster/extractor. - Effective 4) CRITICAL - Engineering: 80-90% of securing rivets to be removed, leaving sufficient rivets in place to keep the metal work secure. - Effective 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 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 7) CRITICAL - Engineering: The new latticework must be secured at the pillar ends first to reduce fall risk. - Effective 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 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 10) CRITICAL - Engineering: Scaffolding will be erected by competent persons and used for repairing the parapets and pilaster. - Effective 11) CRITICAL - Engineering: Hazard warnings signs will be in place at ground level to warn the public of the work activity. - Effective 12) CRITICAL - Administrative: Diesel shunter and brake van or GWSR pick-up truck to be used to transport staff and equipment to site. - Effective 13) CRITICAL - Administrative: GWSR Rule Book to be followed at all times. - Effective 14) CRITICAL - Administrative: Engineering track possession to be in place. - Effective 15) CRITICAL - Administrative: When the latticework is removed, workers must remain behind the bridge pillars and away from the open edges. - Effective 16) CRITICAL - Administrative: The new and old lattice work must be carried and secured to a suitably rated RRV trolley. - Effective 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 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Engineering: Consider using local hydrants for fire fighting protection. - Effective	2 x 3 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	n/a

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

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Falling materials - impact to public 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 2) CRITICAL - Engineering: The road must be closed when lifting operations are taking place. - Effective 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 4) CRITICAL - Engineering: Sheeting to be erected to control molten metal spray. - Effective 5) CRITICAL - Engineering: Ejected rivets to be caught in a secured fire resistant bucket. - Effective 6) CRITICAL - Administrative: Traffic lookouts to be in place below the bridge to stop road traffic movements and/or engineering operations. - Effective 7) CRITICAL - Administrative: The Infrastructure Manager will liaise with local residents to inform them of the work activity. - Effective	1 x 1 = 1 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 1 = 1 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Health and Safety	Lifting operations 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 2) Engineering: RRV to be used to remove and replace the bridge capping stones. - Effective 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 4) CRITICAL - Administrative: RRV to be used for lifting operations and all equipment use to be suitably rated and 'in ticket'. - Effective 5) CRITICAL - Administrative: RRV to be operated by fully competent staff. - Effective 6) CRITICAL - Administrative: The road must be closed when lifting operations are taking place. - Effective 7) PPE: Hard hats must be worn when lifting operations are taking place. - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Health and Safety	Hot works Use of oxy propane torch	Volunteers & Staff	1) CRITICAL - Elimination: The rivets will only be removed once cold & caught in bucket - Effective 2) CRITICAL - Engineering: Ensure that gas bottles are stood securely and can not topple over. Consider using restraining chains etc. - Effective 3) CRITICAL - Administrative: Users should be experienced and competent to use hot work equipment. - Effective 4) CRITICAL - Administrative: Ensure no flammables are within the work area - Effective 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 6) CRITICAL - PPE: Safety footwear, glasses, fire retardant clothing, ear defenders and gauntlets to be used for rivet extraction process. - Effective 7) CRITICAL - PPE: Fire fighting equipment including extinguishers and drums of water will be present in case of fire. - Effective	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	1 x 3 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	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