Case study

18.154

SWART & SONS

Lewis Bandt Bridge, Geelong

Swart & Sons were contracted by the South West Alliance (VicRoads) in 2018 to remediate approximately 480 metres of the metalwork railing on the outbound lane of the Lewis Bandt Bridge, located over the Moorabool River, approximately 11 kilometres from Geelong.

Problem

After only six years, the top coat on the bridge's metalwork had started to detach and fail.

The river below the bridge needed to be protected from debris entering the river system.

Solution

To ensure that no debris entered the river, our workers conducted all stages of the work, from initial washing and sanding, to the final paint coat using hand tools only.

Result

No debris from the works entered the river system and the metalwork on the bridge has been protected for many years to come, using a state-of-the-art, high-tech protective coating system.

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The project scope

The entirety of the bridge metalwork was cleaned - by hand - using nothing more than water and scouring pads to ensure there was no adverse environmental impact.

Where areas of corrosion were found, treatment was carried out to repair the corrosion. These areas were subject to spot removal of the corrosion using mechanical abrasion and the application of a zinc-filled primer.

Once the primer had been applied and cured, two further coats (intermediate and final) were applied, via brush or roller, to the entirety of the metalwork we were contracted to remediate.

A start-of-the art, high-tech protective coating system from an industry leader in advanced coatings technology was used.

Selected from their line of high-performance industrial maintenance coatings, the chosen products provided exceptional levels of corrosion protection and all products met or exceeded current industry VOC standards.

Quality control

Daily coating inspections were completed by our on-site supervisor during the course of the works to ensure correct conditions before any coatings were applied.

Once coatings had been applied the wet film thickness (WFT) was checked to ensure conformity with the product specifications.

Metalwork on the outbound lane of the bridge showing signs of deterioration

Metalwork cleaned and, where required, spot treated and primed, in preparation for the protective coating

Workers applying the final coat to the bridge metalwork

Service checklist

These services were utilised in the planning and implementation of this project:

Passive fire protection

- [ ] Fire-rated sealouts
- [ ] Fire-rated ductwork
- [ ] Petrochemical fire-proofing
- [ ] Fire sprays

Concrete repairs

- [ ] Building maintenance
- [ ] Coating and protection for concrete structures
- [ ] Epoxy injection
- [ ] Slabjacking
- [ ] Concrete repair

Waterproofing

- [ ] Water seepage control
- [ ] Torch-on membranes
- [ ] Liquid membranes
- [ ] Water-reactive polyurethane injection
- [ ] Hyperlon membranes

Floor treatments

- [ ] Floor sealants
- [ ] Epoxy-based coatings

Other services

- [ ] Industrial grouting
- [ ] Abrasive blasting
- [x] Specialty protective coatings
- [ ] Heritage restoration

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