



M8 WHITE CART VIADUCT

Project Location: Renfrewshire, Scotland

Project Timeframes:
April 2016 to November 2016

Client: Scotland TranServ

AmcoGiffen Discipline/Sector:
Infrastructure, maintenance

Project Overview

As part of the maintenance contract for the trunk road and motorway network in South West Scotland, we installed a suspended access walkway under the deck of the M8 White Cart Viaduct, which crosses the tidal section of the White Cart Water river in Renfrewshire.

AmcoGiffen's Scope of Works

The walkway was designed to provide a fixed access to the twin box girders between piers 12 and 13 on the viaduct for inspection and maintenance purposes, with access taken from new galvanised steel staircases at either side of the river, spanning 76m at a 21m height.

AmcoGiffen collaborated with Scotland TranServ to secure all necessary approvals. Key stakeholders included Transport Scotland, Renfrewshire Council and Marine Scotland.

Our overall scope of works included:

- Design development and client technical approvals
- Foundations preparation for staircase structures
- Fabrication of the Fibreglass Reinforced Polymer (FRP) walkway structures
- Fabrication of the spiral staircases
- Installation of fixing points on traverse beams
- Assembly of walkway and staircase structures
- Installation of the walkway and staircase structures

An additional culvert replacement package was introduced to take advantage of the economies of scale and make full use of the Marine Licence secured by Scotland TranServ:

- Removal of an existing culvert and headwall
- Temporary drainage and environmental protection
- Permanent protection sheet piling
- Erosion protection with rock armour
- Installation of a 900mm surface water culvert
- New concrete culvert headwall (precast and insitu works)
- Embankment restoration



Receiving gratitude from the client, we're proud to have delivered an innovative solution for TranServ, which reduces a long standing access issue for this iconic bridge.

AmcoGiffen



Innovation Applied

The walkway was constructed from Fibreglass Reinforced Polymer (FRP) – reducing the weight of the suspended structures and providing increased durability over steel, given that this is a marine environment. The substantially reduced weight enabled the scale of the fixing components to the underside of the deck to be reduced, saving time.

As an alternative to scaffolding, and based on our extensive experience with railway structures, a rope access specialist was employed to assist with the fixing operations. Prefabrication and assembly at ground level substantially reduced the number of colleagues engaged in working at height.

Benefits Provided

With all planned and additional works completed safely, on time, to specification and within budget, the mutual project success has led to repeat business with Scotland Transerv.

Benefits of the project included:

- Essential maintenance to the viaduct, preventing potential issues
- Easier walkway access across the major river
- Increased safety of the structure

Further benefits provided by AmcoGiffen:

- A robust and comprehensive understanding of the technical scope
- A strong commitment to around the clock health and safety
- The ability to promptly adjust to project modifications
- A client-first commitment and excellence driven philosophy



Project Contact

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