CASE STUDY

A465 Carriageway & Bridge Stone Cladding







A465 carriageway and bridge - stone cladding project

Provision of temporary access to support GT Jones installing 15000 sqm of stone cladding between sections 5 and 6 Dowlais Top to Hirwaun.

Location: South Wales





Approximately 1-kilometre* stretch of continuous scaffolding to support the A465 carriageway stone cladding project.

The A465 Heads of the Valleys road was constructed in the 1960s to connect communities between Abergavenny and Neath. The busy route is an essential link to the Midlands and an alternative parallel route to the M4. The Welsh Government recognises the importance of improving the transport route to attract inward investment from private investors to an economically deprived area in Wales that was once a thriving industrial landscape. The overall cost to upgrade the Head of the Valleys route (sections 1-6) is estimated at £1bn and the biggest road infrastructure project ever commissioned by the Welsh Government, with the final sections five and six a 17.7km (11-mile) stretch of road between Dowlais Top and Hirwaun being converted to a dual carriageway at the cost of £590m to improve traffic flows.

The main contractor, Future Valleys Construction (FCC), is responsible for completing sections 5 and 6 of the project, which involves challenging ground conditions and environmental considerations. The project encompasses 13 single-span and three two-span concrete bridges, six single-span steel plate girder bridges, three steel truss footbridges, five precast underpasses, 38 culverts, and 28 retaining walls.

^{*}The scaffolding was erected and dismantled in sections along the carriageway between sections 5 and 6 Dowlais Top to Hirwaun to support stone cladding activities at various locations along the route.





Project Summary

To support Future Valleys Construction (FCC) and local subcontractor GT Jones based in Abergavenny, South Wales, appointed to install stone cladding to carriageway embankment retaining walls and around bridge piers along the route. Enigma erected multiple two- and three-lift scaffolds fitted with loading bays alongside the live carriageway so stone masons could work safely without interrupting the traffic flow below. This included approximately a continuous 1-kilometre stretch on either side of the carriageway between the Prince Charles Hospital and Dowlais junctions. Additionally, at roundabouts and link roads beneath the main carriageway, including Baverstock junction, Enigma has provided temporary platforms up to 3 and 4 lifts to enable stone cladding installation and permit safe access/egress over steep terrain.





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Value Engineering

To ensure any traffic disruption is minimised, the Welsh Government can impose fines on contractors deemed to be unnecessarily obstructing the flow of vehicles travelling between Sections 5 and 6 of the A645. So, to overcome this challenge and support GT Jones with delivering materials to stonemasons operating onsite, we have installed loading bays along the scaffolds.

Additionally, our operations team liaised with all key stakeholders, including Future Valleys Construction, throughout the project to coordinate the erection and dismantling of section phases to ensure scheduled road openings were successfully achieved before specified deadline dates, while often operating in adverse weather conditions.















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EMK-2909 ENI/5/11/24V1

