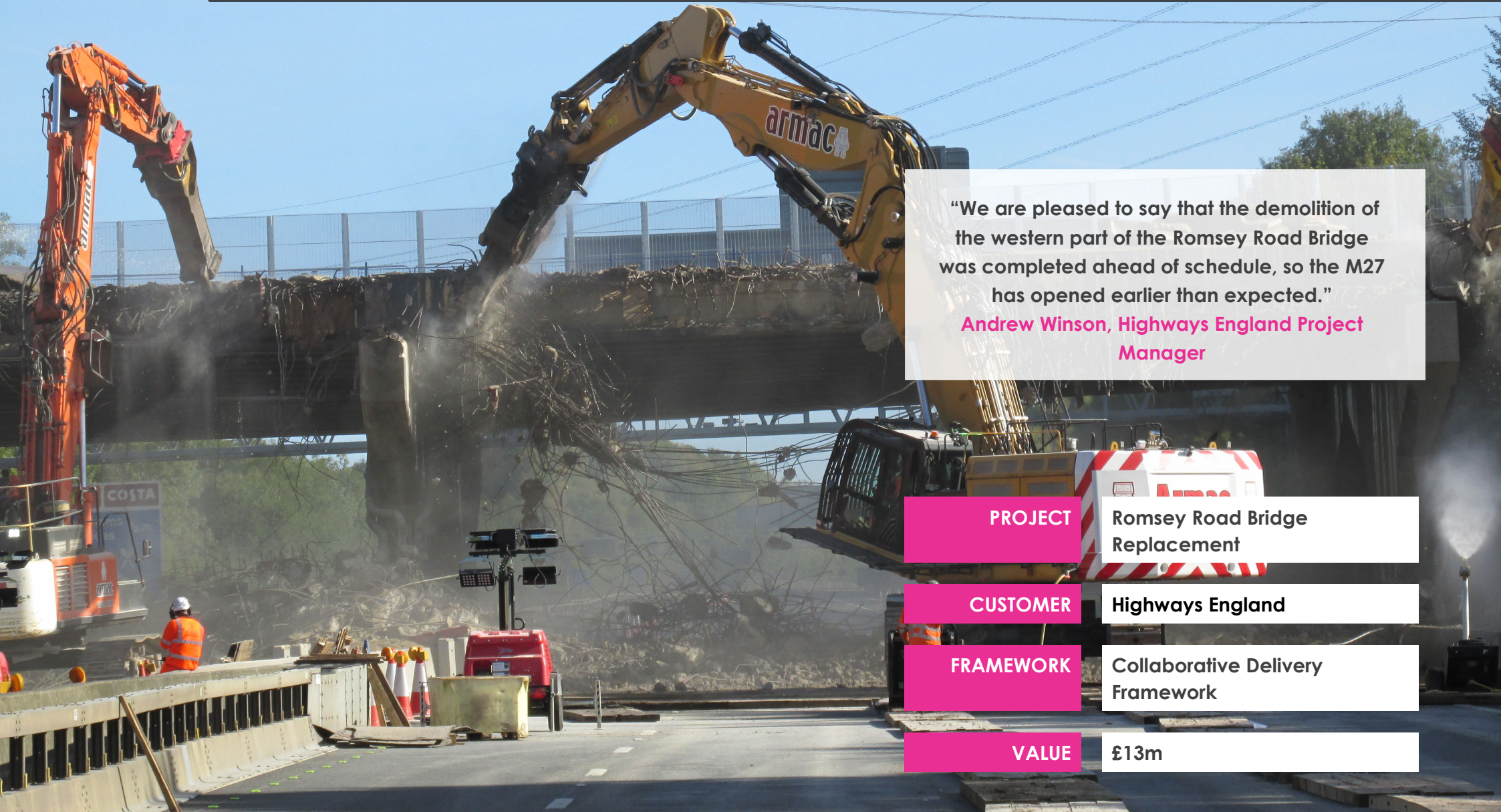




M27 reopens 16 hours early – Romsey Bridge



“We are pleased to say that the demolition of the western part of the Romsey Road Bridge was completed ahead of schedule, so the M27 has opened earlier than expected.”

Andrew Winson, Highways England Project Manager

PROJECT

Romsey Road Bridge Replacement

CUSTOMER

Highways England

FRAMEWORK

Collaborative Delivery Framework

VALUE

£13m

Issue

Replacing a bridge over a motorway can be highly disruptive to the travelling public and to local residents. Where motorway closures are necessary, the road user impact must be understood and controlled.

At Romsey, on the M27 near Southampton, 3 weekend motorway closures were proposed to demolish 2 existing structures and install a new overbridge. With the work taking 18 months and a 60 mile diversion required for each closure, it was critical the solution was predictable both in terms of safety and time.

The first demolition closure would set the benchmark.

Solution

So how did we safely remove the bridge, keep traffic moving and re-open the motorway 16 hours early?

Micro-planning, collaboration, communication, competent supply partners and a proven technical solution guaranteed success.

Recognising similarities to our rail possession work we utilised the 'Delivery Work Within Possession (DWWP)' approach. Planning was imperative and commenced from day one. Our expert team drew upon their detailed road and rail bridge knowledge to ensure every activity was identified, planned and de-risked.

Demolition of the pre-stressed bridge would be complex and time critical so industry leaders Armac Demolition were engaged. In collaboration we developed a progressive fragmentation method which replaced the pre-tender 'cut and lift' proposal. In this way we de-risked activities and sped up demolition.

'Peer reviews' validated assumptions, calculations, sequencing and micro-programming to provide surety ahead of the weekend motorway closure.

Every aspect of the demolition was considered and planned along with

contingency arrangements. Video footage from similar demolition was interrogated to confirm timings, approach, safety and protection.

Predictability was key so advance works included removal of bridge deck surfacing and asbestos, and erection of edge protection and movement monitoring equipment.

With the closure in place managing traffic across the network was imperative. *(separate case study shares approach)*

The focus was on reducing disruption!

Outcome

The M27 was re-opened 16 hours early.

Shared learning, expert resources and micro-planning all de-risked demolition. Combined this was an effective communication and traffic management that reduced delays and disruption.

The outcome was safe predictable execution of the works for the benefit of the travelling public and residents with the motorway re-opened early.