

A47 Sutton Heath Case Study



Client

Ringway



Project Cost

£100 k



Services

Smarcraft® & VRS



Start Date

December 2020



End Date

December 2020



Location

A47 Sutton Heath

The Project

A47 Sutton Heath

This project was on hold for several years due to difficulties in finding a barrier foundation solution. Alongside this, a lorry had previously gone through the existing Vehicle Restraint System (VRS) and it now needed a major repair.



The Challenge

This location was compromised due to a very steep embankment with a narrow verge and poor foundations, which meant that traditional VRS installations were not suitable.

There had been several attempts to find a barrier solution that would work, but all ended in failure. There was not sufficient or stable enough grounds to install a barrier system as it stood.

Situated on a major trunk road we had to ensure that traffic flow would not be restricted throughout the project, so all of the work would be carried out during the night.



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The Solution

Arbus removed sections of the existing barrier and excavated the verge down 400mm to good ground. We then built up the verge with type 1 granular material, to a depth of 200mm below road level, which we then compacted to give stability.

Smarcraft®, our off-site prefabricated, modular concrete foundation, was the perfect solution for this project. Installing Smarcraft® as the N2 W2 VRS foundation, our trained crews were able to immediately erect compliant safety barrier on the newly installed foundations.

The new safety barrier was then connected to the existing barrier at the end of each shift until works were completed.

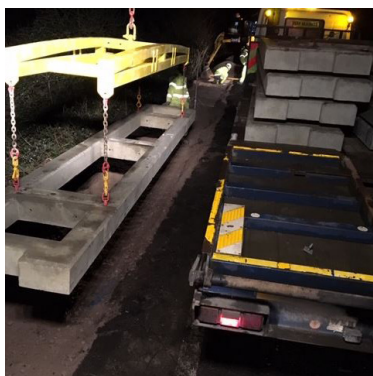


The Result

Smarcraft® offered a unique solution that surpassed all destructive load testing requirements. With the Flexbeam Plus VRS system installed, it passed all industry testing requirements where previous attempts had not been able to. It now helps to keep road users safe along this busy stretch of carriageway.

It also allowed traffic to flow at full speed at peak times during the construction phase, with a fully compliant barrier system in place to protect any potential errant vehicles.

If you are looking to replace an existing, or install a new barrier system, without impacting traffic flow during peak hours, then Smarcraft® could be the perfect solution.



Feedback

“This scheme had challenged conventional approaches to barrier restraints. Working in collaboration with Arbus and Highways England, the team developed a really innovative approach that is already creating a safer environment for all.

Arbus were innovative in their approach to designing this barrier solution and it was exciting to be involved following a long term relationships with the teams.”

Mike Thompson, Divisional Manager - Ringway



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