



A87 SHIEL BRIDGE DECK REPLACEMENT

This contract, undertaken for the Scottish Executive, consisted of the demolition of the existing reinforced concrete bridge deck, alterations to the existing abutments and the construction of a new composite bridge deck together with the associated approach roads.

In order to maintain traffic throughout the works a temporary Bailey type bridge was installed on reinforced earth abutments. Considerable earthworks went into the construction of the approach embankments due to the height of the existing road and the limited space available.

Careful demolition of the existing structure was undertaken using a 33 tonne excavator equipped with a hydraulic cracker. Particular attention was given to preserving the original piers and foundations which were to be retained for re-use in the new structure.

On completion of the demolition an access scaffold over the whole area of the new deck was installed, the central span utilised ladder beams

to span the river Shiel which is prone to flash flooding in that area.

The existing abutments were to be reduced to allow for the greater depth of the new composite deck. This was achieved by diamond track sawing below the required level then forming a new bearing platform using an acrylic repair mortar.

The steel beams were installed together with the new bearings and the formwork installed for the new deck. A propriety formwork system was utilised which allowed the large cantilever and mid sections to be suspended from the top flange of the steelwork. This greatly reduced the amount of falsework required and maintained the tight construction programme. The insitu topping slab was poured in five separate pours.

On completion of the works the temporary bridge, abutments and approaches were removed.

The site was then landscaped to blend in with the surrounding area.



CLIENT

Scottish Executive

CONTRACT VALUE

£460,000

DURATION OF WORKS

December 2000 – August 2001