

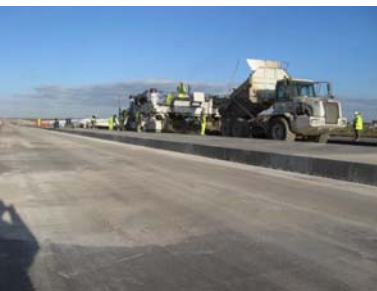
RAF Waddington Western Taxiway Repair

Client :
Defence Estates

Designer :
Arup

Location :
Lincolnshire

Date :
2007 - 2008



Bovis Lend Lease awarded BAM Nuttall the contract for the repair of the Western Taxiway at RAF Waddington as part of Defence Estates Regional Prime East delivery programme. RAF Waddington is an important airbase situated 5 miles south of Lincoln.

Prior to work starting, BAM Nuttall completed the associated enabling works contract, comprising an access road, establishment of site compound, establishment of concrete batching plant and Pavement Quality Concrete (PQC) trial areas.

The works

The taxiway was a composite of leanmix, PQC, tarmac and bituminous macadam, built up over 60 years. The contract comprised the removal of the existing 18m wide x 2km long taxiway, re-profiling the pavement and replacing it with pavement quality concrete (to comply with new military aerodrome codes). The 9m wide shoulders of the taxiway were planed out by 40mm, widened by 1m and resurfaced with asphalt.

Approximately 2.7km of aerodrome ground lighting (AGL) was replaced and a new electrical substation was constructed. New gullies were installed along the length of the taxiway and connected into the existing drainage system.

Sustainable construction

The existing taxiway was removed in layers by road planers and the materials segregated for recycling off site. The tar based materials were reused locally in a foamed bitumen recycling plant for cold asphalt production. This provided considerable environmental benefits with regard to landfill and haulage impacts.

Overcoming operational challenges

A major constraint of this project was that the Airbase had to remain operational at all times. This was achieved by completing the project in 5 major phases, although some ran concurrently, and allowing the RAF access to critical operational areas throughout the life of the project. Two of the phases adjacent to the runway involved extensive weekend and night working when the RAF movements were restricted, to minimise the impact on military operations.

The phasing and good communication with air traffic control meant that the project was completed with minimal disruption to Airbase activities.