

Manchester Airport - Juliet Echo Reconstruction

Client:

Allied Infrastructure Management Limited

Full-Depth Taxiway Reconstruction

Project Overview & Scope

Gill Civil carried out a full-depth reconstruction of the Juliet Echo taxiway stands at Manchester Airport, delivered across two phases totalling 1,153m² (Phase 1: 643m², Phase 2: 510m²). Works comprised breaking out existing PQC and CBGM, excavating clay subgrade, and installing geotextile, 200mm Type 1 sub-base, 150mm Wet lean concrete and 400mm PQC with a brushed finish and trowelled edges. The scope also included forming a 50mm top to the 252lm perimeter, UKAS concrete testing, and 70LM of secondary AGL ducting, all delivered via daytime working.

Challenges and Execution

During excavation, areas of soft subgrade were encountered, requiring additional stabilisation and sub-base preparation to provide a suitable foundation for the lean mix concrete. Restricted airside access and delays at the access gate also presented a risk to concrete deliveries and continuity of the pours. To maintain progress and avoid interruptions to the concrete pours, additional concrete delivery capacity was mobilised at short notice, while site teams were positioned ahead of the daily operational window to secure early airside access and maximise productive working time across the restricted operational windows of the 1,153m² programme.

Benefits and Outcomes

The completed reconstruction transformed the taxiway Juliet Echo and stands, delivering a robust and durable pavement solution designed to support continued safe and reliable airfield operations. Challenging ground conditions and restricted airside access were effectively managed without compromising quality or programme delivery, with works carefully coordinated within a live operational airfield environment. Through proactive planning, early mobilisation and precise sequencing, the team maximised productivity during restricted daytime working windows, enabling the project to be delivered safely and efficiently while meeting the exacting requirements of a live operational airfield.

