

CASE STUDY

CLIENT

Lagan Aviation & Infrastructure Ltd were appointed Principal Designer and Contractor for the Stansted Runway Rehabilitation project which commenced on site in January 2023.

Lagan Aviation were responsible for the overall delivery of:

- Completion of detailed design and approval for the works
- Full depth reconstruction of the runway pavement with grooved Marshall Asphalt requiring 70,000T of asphalt material. 3km runway resurfacing.
- Construction of upgraded runway edge and filter drainage comprising 5.5km of new drains
- Replacement of runway airfield ground lighting including 100km of new cables and 1,500 new LED energy-efficient AGL fittings to be installed
- Reconstruction of Taxiway Romeo and Sierra.

To deliver these works within the timeframe required by the Client over 200,000 site project hours were worked in 4 months across the whole project.

At peak production on the Lagan Aviation & Infrastructure Project there were over 260 operatives and 150 vehicles working on the runway during each shift.

CHALLENGE

LAML were contracted by Lagan Aviation & Infrastructure Ltd to carry out the removal of the existing AGL seating pots and back fill prior to the planning and resurfacing works.

On completion of the resurfacing the LAML team reinstated new AGL seating pots into the existing. Due to the age of the existing sub-structure of the some of the lower layers on the runway shelving and stabilisation had to be carried out before the new seating pots could be set.

The majority of lights required cable chasing with saw cutting and sealing carried out in the binder course layers prior to the new surface course being laid.

The works took place in three phases, during night possessions to maintain operational capacity on the runway. The initial works on the central 3000m of the runway was carried out during full night closure possessions.

During phases two and three of the project the runway was temporarily shortened with a displaced threshold, complete with temporary threshold lighting, stop bar lights and edge lights, as well as a 300m Runway End Safety Area (RESA) to ensure the safety of operations and our staff. The LAML team were required to assist with the coring and chases required for this element of the works, and operated with 17 personnel on site for the majority of the project ensuring we were able to work in line with the surfacing programme with the removal of the existing AGL lights and the required saw cutting and cable chasing.

In addition to the AGL removal and installation of 1500 seating pots LAML carried out cold applied fuel resistant sealant removal (Thioflex 555) on the concrete Hotel Taxiway along with a number of Maxi-Crete flexible concrete repairs to prolong the life of the taxiway surface.

BENEFITS

The four months of working nights on a different weekday/weekend pattern was demanding particularly in the winter months, however our Team delivered an excellent quality project and ensured the LAML works package was completed within programme with no lost time incidents or non-conformances/defects.

