

Client: Ministry of Public Works and Transport, Lesotho

Value: R60.5 million

Services: Airport planning and design; technical site support

Project Duration: Jan 2010 – August 2015

## Mejametalana Airport, Lesotho

Airport Upgrade: Detail Design and Construction

### The Task

Aurecon, together with Nurizon, was appointed to undertake an initial assessment of the existing airside infrastructure at the airport, with the view that the aircraft movement areas be upgraded to suit CASA CN235 aircraft operations. The existing runway had a poor longitudinal profile and sight distances, due largely to the steep site topography; and was not compliant in terms of International Civil Aviation Organization (ICAO) standards and recommendations for the CN235 aircraft.

### Design Services

Site survey confirmed that the existing runway and runway strip profiles required modifications to align with ICAO standards and recommendations. Improvements to the runway strip profile could only be undertaken within the confines of the existing site boundary and cognisance was taken of two taxiway tie-in points, which had to remain largely unchanged in terms of vertical levels. The cross-sectional profile of the runway was also redesigned from a crossfall to a camber, to better stormwater runoff and runway turn pads were included in the design to facilitate aircraft turnarounds.

The existing pavement structure was in a severely distressed condition and required a complete reconstruction, which added further support to the requirement to re-profile the runway. A new pavement structure was proposed to accommodate the CN235 predicted traffic loadings over a 20 year design life. Positive stormwater drainage infrastructure was designed (and installed) across the site.



At a later stage, the project scope of works increased to include taxiway and concrete aircraft apron reconstructions and the installation of LED runway edge, end and threshold lights (to replace an obsolete lighting system); and new PAPIs on runway's the northern approach.

## The Result

The runway and associated strip was successfully re-profiled (and reconstructed) to accommodate new aircraft operations at the airport.



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