

Client: AVIC International Flight Training Academy

Value: R11 million

Services: Airport planning, design and construction; financial modelling

Project Duration: Nov 2013 – April 2015

Karoo Gateway Airport, Beaufort West

Airport Upgrade: Detail Design and Construction

The Task

As part of an EPC appointment, Nurizon was tasked to upgrade the existing Karoo Gateway Airport, located in Beaufort West South Africa, to accommodate flight school training operations. Nurizon was familiar with the site and had previously undertaken concept designs as part of an earlier project (and for a different client), in which domestic airline operations were the main driver for the upgrade concept.

Design Services

A financial modelling exercise together with various concept design drawings were initially undertaken, due to the fact that the client had limited funds for the capital and operational expenditure outlays. Due to the relative remoteness of the site and limited funds, this challenged the team to source a workable solution for the preliminary construction phase of the upgrade.

As part of the detail design, a 1485m long and 30m wide runway was constructed. A double seal (19mm and 6.7mm) 18m-wide keel area was proposed in order to reduce the runway construction costs, with the non-keel areas of runway and other airside pavement areas (apron, partial parallel taxiway and turning loop), surfaced with a 6.7mm single seal. The partial parallel taxiway and turning loop served opposing runway ends in order to maximise the runway's capacity, specifically when performing 'touch and go' training circuit operations. A basic apron solution provided self-maneuvring stands for 12 flight school training aircraft.

LED runway edge, end and threshold lights were installed as part of the construction works, as well as



APAPI units for both runway approaches.

The Result

A challenging project, in terms of available capex funding, logistical issues, tight deadlines and extremely cold weather experienced during the surfacing operations. Despite some setbacks due to workmanship issues, the facility opened in time to accommodate the new intake of flight students, with snag items addressed during student ground school times and on the weekends.



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