

Client: HBD VIDA BOA Ltd

Value: €16 million

Services: Airport planning and design; stormwater design
Project Duration: 2009 – predicted completion 2015 (end of)

Principe International Airport

Airport Upgrade: Planning and Detail Design

The Task

Aurecon, together with Nurizon, was appointed to undertake an assessment of the existing airside infrastructure at the airport and propose a solution to enable the safe operation of the client's Global Express business jet to/from the facility. The design solution had to ensure that airport runway could remain operational throughout any proposed upgrade works.

Design Services

The assessment of the runway revealed that apart from being too short to accommodate the operational stage length requirements of the aircraft, the existing runway surfacing and subgrade were poor and would require a complete rebuild. This, together with a non-ideal runway profile and topographical considerations, e.g. large valleys at either end of the existing runway, necessitated a realignment of the runway by ~12 degrees about a defined pivot point.

Despite the realignment, a complex, 20m high, tiered embankment structure was required to accommodate the runway starter extension. The design had to account for the high stormwater runoff volumes (MAP 2-7m) with integral channels and downpipe infrastructure. Bulk earthworks fill volume (~500,000m³) was generated entirely through site re-profiling design.



The Result

A complex project in terms of logistics, operational aspects and site environment. Construction works were undertaken with minimal disruption to existing airport operations, with a seamless transfer across to the first phase runway construction, before completion of the remainder of the runway, link taxiway and enlarged apron facility.



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