



GRANTLEY ADAMS INTERNATIONAL AIRPORT



Grantley Adams International Airport is located in the centre of the capital city of Bridgetown, Barbados and operates as a major gateway to the Easter Caribbean. It has earned its accolades as the “Caribbean’s Leading Airport” at the World Travel Awards. The \$130 million upgrade designed by Canadian architecture firm Queen’s Quay Architects International Inc. included the expansion of the terminal building, refurbishment and remedial work to the runway and new parking facilities. The new 70,000ft² terminal provides more than 50% increase of space for immigration processing. The new building also includes a new baggage claim with four large carousels which allows for processing of five wide bodied jets every 20 minutes. A new departure lounge gives passengers a higher level of comfort as well as a new retail concourse and airside food court. Other additions to the terminal building include a new medical facility, a new chapel on the mezzanine level and new executive sky lounges.

The HIDI Group provided mechanical, electrical and plumbing design services for the expansion which remained fully operational during its seven years of construction. As part of the new additions to the airport came the introduction of a new central building automation system to control all the equipment, as well as chilled water system and air conditioning. The electrical system required the installation of emergency back-up power (three 1250 kW diesel generators) for the entire airport facility, runway lighting design, power distribution, finger



DISCIPLINES MECHANICAL
ELECTRICAL
PLUMBING
LIGHTING DESIGN
COMMUNICATIONS & AV
SECURITY & RISK
COMMISSIONING
ENERGY SERVICES



imprint identification, lighting, lighting controls and lighting protection, fire alarm, parking control, CCTV and access control.

Challenges

The project posed unique scheduling and logistical challenges due to a lack of local materials and a corrosive (salt water) atmosphere that prohibited storage. This was overcome via detailed bi-monthly material forecasting. In addition, detailed solutions and training was provided to educate the construction team regarding North American processes with relation to standards such as Health & Safety, Quality Control, etc. The most significant challenges faced were in the deployment of new system design concepts and technology in the region. Previous expertise throughout the island was, and still is, in standalone rooftop type equipment.

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LOCATION: Barbados, West Indies
CLIENT: Barbados Government
OWNER: Grantley Adams International Airport Inc.
ARCHITECT: Queen's Quay Architects International Inc.
SIZE: 300,000 ft² / 28,000 m²
CONSTRUCTION VALUE: \$130 Million CAD
PROCUREMENT TYPE: Design Bid Build
COMPLETION YEAR: 2006
MARKET SECTOR: Transportation
