Midfield Terminal - Abu Dhabi Airport

BIM Beyond 2.0

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Midfield Terminal Building (MTB)

Area **700,000 m2**
Cost **$3.0 billion**
Target **Support the Plan Abu Dhabi 2030 / dynamic passenger growth / contribute to the long-term success of the aviation sector in the Emirate of Abu Dhabi**

General Figures

The Midfield Terminal Building will be the largest in the Emirate of Abu Dhabi and will be visible from more than 1.5km away

30 million passengers per year, with a capacity of handling up to **8,500** passengers per hour

156 chec
48 self-se

27 Kilometres long Baggage Handling System capable of processing over 19,000 bags per hour

65 aircraft gates

28,000 square metres of Retail and Food & Beverage space

transit hotel with
oms

Structural

- In situ Concrete Volume : 560,000 m^3
- Pre-Cast Concrete Volume : 312,000 m^3
- Steel Rebar Tonnage : 135,000 tns
- Structural Steel Tonnage : 69,000 tns

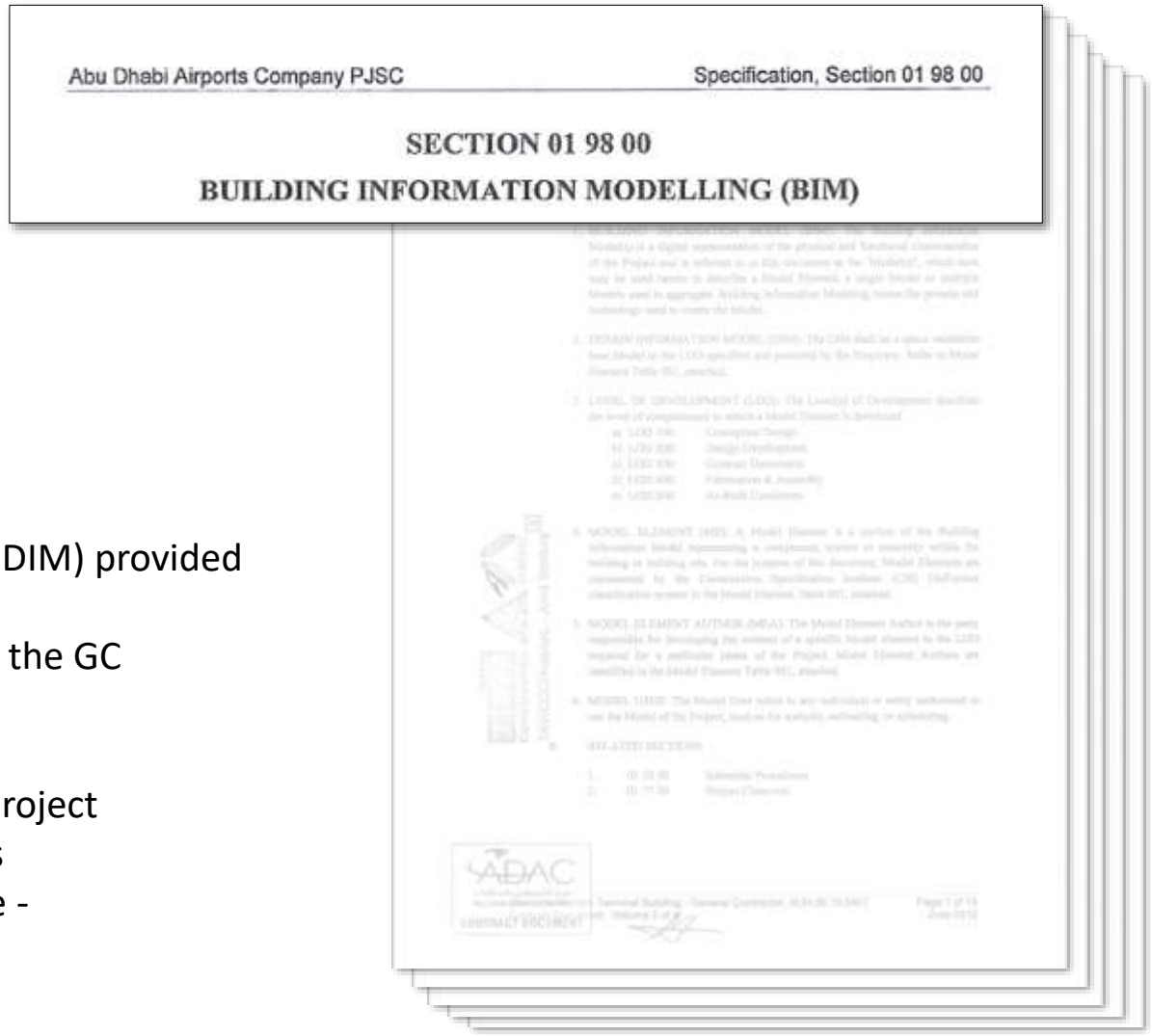
Architectural

- Blockwork : 230 000 m^2
- Flooring: 325,000 m^2 stone
- External Glazing: 115,000 m^2
- Aluminum Cladding: 275,000 m^2
- Roof Span: 319m widest point

CONSTRUCTION AND ARCHITECTURAL

SUSTAINABILITY

BIM SPECIFICATIONS


Abu Dhabi Airports Company PJSC Specification, Section 01 98 00

SECTION 01 98 00

BUILDING INFORMATION MODELLING (BIM)

- Design Information Model (DIM) provided by the Employer
- BIM Services required from the GC
- BIM Submittals
- Quality Assurance
- BIM Operation during the Project
- Communication Procedures
- Technological Infrastructure - Software for Modeling

BIM REQUIREMENTS

Video Curtesy: Abu Dhabi Airports

Engineering

- → Clash Mitigation and Design Coordination
- → Develop and Implement an RFI system
- → Extract and Support the development of Shop drawings
- → Realistic digital mock-ups

Contractual & Quantity Surveying

- → Quantity Take-Off and Measurements
- → Variation orders management and visualization

Project Controls / Planning

- → Cost Estimation
- → 4D studies, link to Primavera, Optimize Construction Schedule
- → Show Project resources (labor, material and equipment)
- → Progress monitoring and control

Manufacturing

- → Digital fabrication

Handing over

- → As – Built
- → GIS Integration
- → FM / AM Integration
- → O&M Integration

CHALLENGES

- Change management process for most of the stakeholders
- Forcing the construction team to report construction deviations/as-built conditions to the BIM The lack of proper BIM education and training in the market
- The lack of having specialized subcontractors/ manufacturers
- Interoperability, data management and systems integration