



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 longterm success of the aviation sector in the Emirate of Abu Dhabi







GENERAL FIGURES





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

1



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





156 chec 48 self-se



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



65 aircraft gates

3



2

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



transit hotel with)ms







Structural

Pre-Cast Concrete Volume : 312,000 m³ Steel Rebar Tonnage : 135,000 tns Structural Steel Tonnage : 69,000 tns

In situ Concrete Volume : 560,000 m³

Architectural

Blockwork : 230 000 m² Flooring: 325,000 m² stone External Glazing: 115,000 m² Aluminum Cladding: 275,000 m² Roof Span: 319m widest point

CONSTRUCTION AND ARCHITECTURAL





SUSTAINABILITY





Abu Dhabi Airports



BIM SPECIFICATIONS



- 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

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BIM REQUIREMENTS



Engineering

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

Contractual & Quantity Surveying

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

Project Controls / Planning

- \rightarrow 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

- \rightarrow As Built
- \rightarrow GIS Integration
- \rightarrow FM / AM Integration
- \rightarrow **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

