



# *BIM Projects*

## Middle East



[pinnacleinfotech.com](http://pinnacleinfotech.com)



**Pinnacle  
Infotech**

Construct  
Certainty, with  
Technology

# Mission

Help the AEC industry optimize resources, cost and quality through innovative use of technology for:

- Sustainable and efficient design
- Collaborative pre-construction planning
- Agile construction process
- Reliable facility management

# Vision

Lead the global AEC industry to certainty and efficiency using technology.

## Associations:



# Our Values

- E Excellence**  
We take pride in our passion for excellence. It is a way of life for us.
- A Agility**  
We are always at the edge of technology and driven by agile transformations.
- R Reliability**  
We have ISO-certified processes and workflow to produce consistent and reliable performance.
- T Teamwork**  
Pinnacle provides an environment where teams collaborate effectively to excel.
- H Honesty**  
We win the trust of our stakeholders through integrity, straightforwardness, and transparency.

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# Lusail Stadium

Lusail, Qatar



Lusail Iconic Stadium is a football stadium in the Lusail city of Qatar. The stadium is to host the final game of the 2022 FIFA World Cup. Owned by the Qatar Football Association, it is the biggest stadium in Qatar and is one of the eight stadiums being converted for the 2022 FIFA World Cup.

## Achievements

- We've developed 1400+ BIM Models, 35000+ Shop Drawings, and 20000+ As-built drawings for this iconic project
- Over 8000 official submissions were done
- More than 3000 Data sheets were prepared (QTO Schedules)
- 2202K+ Asset Elements Model & QR Code were generated

## Challenges & Solutions

- **For such a huge project, delivering 1400+ BIM models up to LOD 500 with 35000+ Shop Drawings for 30 disciplines was the biggest challenge**  
*Solutions* — We Reviewed IFC documents by implementing a BIM walk-through to identify design and construction issues with all the stakeholders. Proper BIM execution plan, MIDP, and 300 BIM professionals worked together.
- **1M+ Sq.mt. of the logistic area with 10 nos Tower crane to manage during construction**  
*Solutions* — We managed full logistics planning through BIM according to the project stages
- **High-end finish requirement of more than 900+ types from 180+ subcon tractors and Material availability and delivery on time during the endemic**  
*Solutions* — Precise Modeling was done to quantify the material requirements. An alternate material proposal with quantity was given.

*Apart from that, on-time delivery with quality to reduce rework, COBie, and Assets for FM were delivered.*

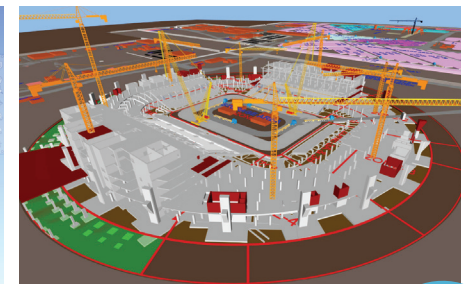
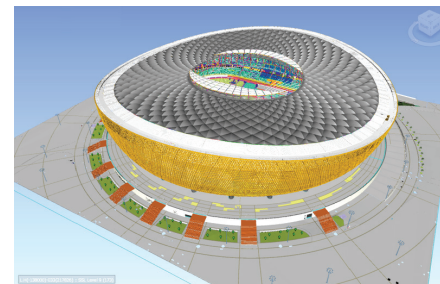
Project Area	196,410 sq m
Owner	Supreme Committee for Delivery & Legacy
Architects	Fosters and Partners
Main Contractor	HBK-CRCC JV
Vertical	Architecture, Structure & MEPFP
LOD	300 - 500
Gross Seating Capacity	93,000 Seats
BIM Start Date	April, 2017
BIM End Date	September, 2022

## Scope of Work

- Design: IFC Review, BIM Collaboration, and Walkthrough on IFC submission, Topography Data, Rendered Images
- Planning: 4D Construction Planning Sequence, 5D Quantity Take Off, 3D construction progress
- Construction: Logistics Planning, Tower Crane Coordination, Turf Shadow Calculation, Shop Drawing Production, and Site Coordination.
- As built: 3D Laser Scanning
- Facility Management: Asset Information Model, COBie Data Sheet
- Project Handover: BIM 360 GLUE, BIM 360 FIELD

## Pinnacle's Value Addition

- Saved cost by eliminating risks and mitigating the probability of rework
- Centralized procurement
- Reduction of wastage
- Effective collaboration
- Centralized control process
- Opportunities for expanding information across the project's lifecycle
- Sustainable LEAN
- Digital Project Handover with 220K Assets



# Museum of The Future

Commercial | Dubai, UAE



Pinnacle executed the project - Museum of the Future, having the motto 'See the future, create the future' in line with the new approach towards innovation. The museum, instead of displaying exhibits or publishing reports, will use design, technology, prototyping and foresight to create real changes. The museum will represent a leading example of entrepreneurial governments, embracing change and creating futuristic visions for a better world.

The museum will also be the permanent home for the world's greatest innovations to stimulate and incubate imaginative solutions to the challenges of future cities. As an integrated environment, the museum will bring together researchers, designers, inventors and financiers from across the world together under one roof. Creatives and entrepreneurs will test, fund and market their ideas for futuristic prototypes and service. The building will be built in part using 3D printing technologies and will change over time to test and reflect the latest advancements in various fields.

## Project Speciality

It's a complex structure, out of which 25 to 30% of the interior and exterior will be 3D printed. The museum's curved steel-clad exterior will feature an Arabic poem by Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai.

## Scope of Work

Pinnacle executed 4D Construction Phasing/Simulation Video of 4 minutes duration. The video included the modeling of Surrounding Buildings and Structures (Emirates Towers, Metro via Duct and Station) and the Models of the Temporary Structures (Tower Crane, Site Facilities, etc.).

## Challenges & Solutions

**Challenge:** Client provided the model in a different software "Rhino", converted in 3Ds max by Pinnacle.

**Solutions** — Pinnacle incorporated modern structural methodology in this video.

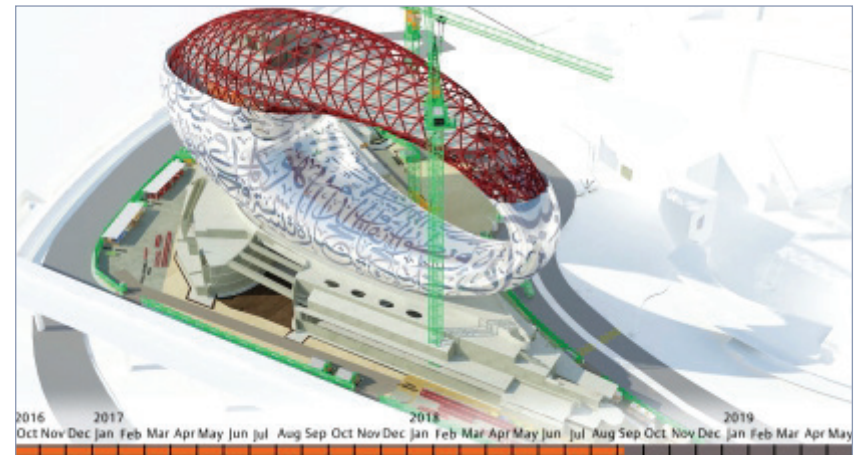
- **Trades Covered:**  
**Architecture and Civil**
- **Software Used:**  
**Revit 2015, 3DS Max 2015**

*"Overall, very good performance. Technically competent and co-operative."*  
**Chief Engineer | BAM Higgs & Hill LLC**

<b>BIM Start Date</b>	<b>July, 2016</b>
<b>BIM End Date</b>	<b>August, 2016</b>
<b>Project Area</b>	<b>328,784 Sq ft</b>
<b>Team Size</b>	<b>6 Engineers</b>
<b>Architect</b>	<b>Killa Design</b>
<b>General Contractor*</b>	<b>BAM Higgs &amp; Hill LLC</b>



4D Construction Phasing



4D Construction Phasing

# Dubai Metro Route 2020

Infrastructure | Dubai, UAE



Pinnacle executed the 3D Modeling, Video Presentation and 4D simulation of Dubai Metro Urban Rail System, which consists of a total length of 75 kilometers.

The Dubai Metro Project is the world's longest driverless rail system including the construction of viaducts, tunnels, 45 stations, depots and car parks. The Dubai Metro network is a fully automated and driverless system running on two lines, the Red Line and the Green Line, the majority of which are elevated. Both lines consist of underground sections where they run through Dubai's Central Business District (CBD) and the lines cross the Creek to link the south and north banks.

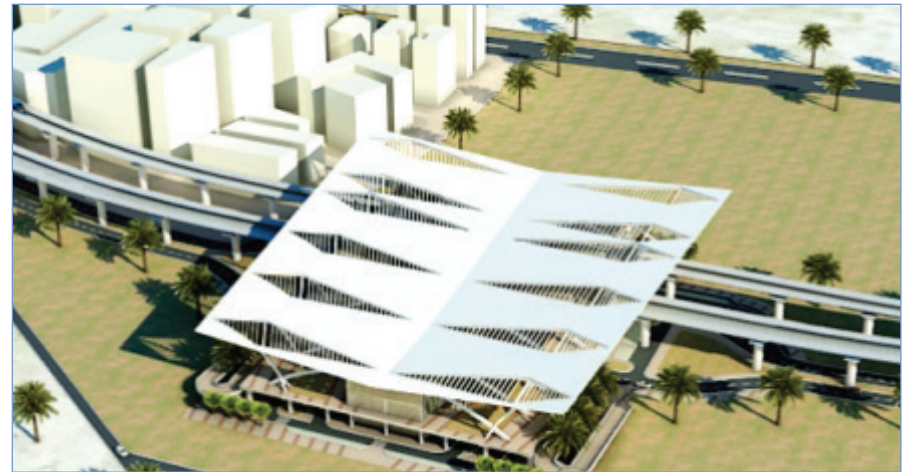
## Scope of Work

*Pinnacle's scope of work for the project included:*

1. 3D modeling of the architectural and structural element of the expo station and other elevated stations
2. A video presentation of route 2020 showing the construction methodology
3. 4D simulation of the expo station, ending with a walk-through showing the proposed condition.

- **LOD: 200**
- **Trades Covered: 3D Max, Architecture, Structure**
- **Software Used: Revit, 3Ds Max**

<b>BIM Start Date</b>	<b>November, 2015</b>
<b>BIM End Date</b>	<b>January, 2016</b>
<b>Project Area</b>	<b>484,000 Sqft</b>
<b>Team Size</b>	<b>6 Engineers</b>
<b>General Contractor*</b>	<b>Obayashi</b>
<b>Developer/Owner</b>	<b>Roads and Transport Authority (Dubai)</b>



3D BIM Model



3D BIM Model

# Katara Tower

Hotel | Doha, Qatar



Iconic Katara Tower in Doha will be of 211 m / 692 ft height with 40 floors above the Ground, consisting of 614 hotel rooms. The pincer-shaped twin towers in the Lusail district will host hotels and branded apartments for permanent residents.

- **LOD: 300**
- **Software Used: Revit 2016, 3DS Max 2016**
- **Trades Covered: Architectural**

## Scope of Work

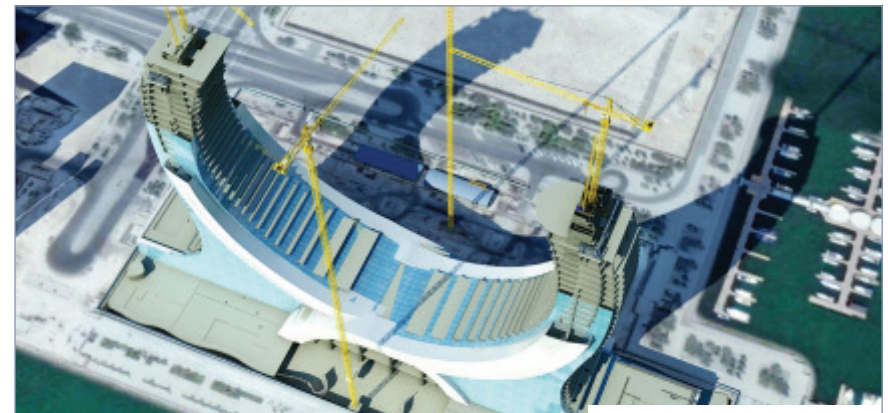
*Our scope of work for the project included:*

1. Architectural 3D Model Creation for Exterior Trades & Site (Villa, Mosque, Super Market, Club House, Health Center, School, Kindergarten, Tiltup Wall)
2. Constructability Review
3. Animation 4D Simulation/Phasing
4. As-Built Updation

## Pinnacle's Value Addition

1. 4D Construction animation depicted the sequence of construction as per schedule
2. Animation showed the building development and surrounding including the parking structure, hotel, plaza and more with the movements of logistics - Cranes, Dumpers, Cars & traffic management
3. Reviewed interdisciplinary coordination, floor to floor alignment or continuation to other areas

<b>BIM Start Date</b>	<b>September, 2017</b>
<b>BIM End Date</b>	<b>October, 2017</b>
<b>General Contractor</b>	<b>HBK Contracting Company*</b>
<b>Architect</b>	<b>Kling Consultant</b>
<b>Lead Consultant</b>	<b>DAR</b>
<b>Owner/Developer</b>	<b>Katara Hospitality</b>
<b>Other Consultant</b>	<b>Wacker Ingenieure</b>



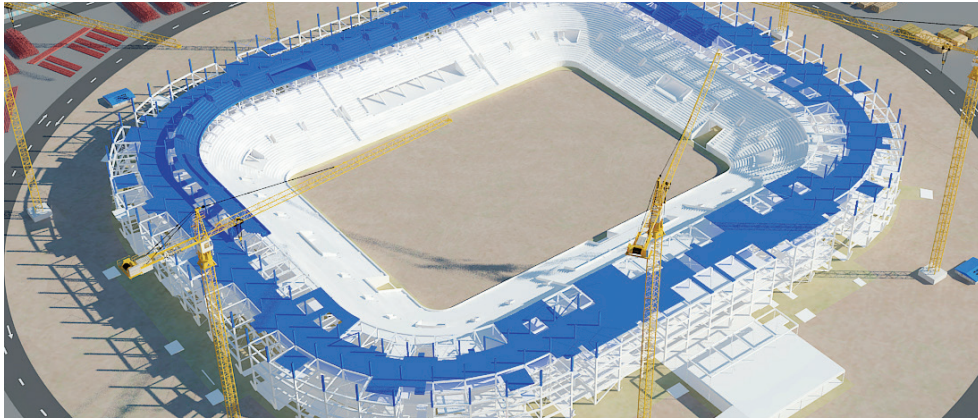
*4D Construction Phasing*



*Architectural BIM Model*

# 40K Stadium

Doha, Qatar



40K Stadium Project located in Doha, Qatar is an iconic stadium to be built for Fifa World Cup Qatar 2022. The general layout of the 40k stadium is a modular, buildable, transportable, functional and iconic architecture warranting an economic and optimum solution. The idea of the stadium inspires synergy and modularity which is simple yet compelling. Containers are the essence of the design and the main elements which conformed the Stadium. Adding the designed containers into the structure is indeed a big job. Despite the industrial nature it does not compromise with the architectural quality/aesthetic values of Stadium. Every portion of the stadium consisted of a regular and repetitive steel frame system, and adding the new cutting edge concept by using containers rather than typical architectural concept made it a complete paradigm shift. This revolutionary idea gave a new perspective to the architectural philosophy with emphasis on the value of time and cost. 40K stadium follows the rule of modern architecture that is "Truth of materials" which is reflected through exposed services, allowing full access at all time.

## Project Speciality

Future Usability/ Flexibility - Mobility Transportable Football for All - Re-Use, Reduce & Re-built (Lego Building Blocks)- Flexibility is the key concept behind the design of the stadium, which can be split into pieces and easily moved - 40K stadium iconic design concept of plug and play can be re-configured and easily re-adapted to a new future usage, making it the new best practice for the world that began with a game.

## Scope of Work

Our scope of work for the project included 4D Simulation & Phasing for Site Logistics of 40 K Stadium Project. (4D Phasing Video Length was over 180 and the size of the Render Image was UHD)

1. 4D Construction Animation depicted the sequence of construction as per the schedule - Our animation showed the building development and surrounding including the parking structure, hotel and plaza with the movement of logistics including cranes, dumpers, cars and the traffic management
2. Final Delivery included a video of 10 minutes
3. Animated views represented the stadium with adjacent landscaping and periphery buildings both in night and day
4. Required 3D model integration taken up as per requirement to bolster animation equipment

- **Trades Covered:**  
**Architecture**
- **Software Used:**  
**3DS MAX 2016, Newforma**

<b>BIM Start Date</b>	<b>June, 2017</b>
<b>BIM End Date</b>	<b>June, 2017</b>
<b>Average Team Size</b>	<b>6 Engineers</b>
<b>Owner/Developer</b>	<b>Hamad Bin Khalid (HBK) Contracting Company*</b>



## Challenges & Solutions

Challenge - Presenting Base Bid and Value Engineering Models together Solution - Overlapping Bas Bid Model with Value Engineering, reducing cost

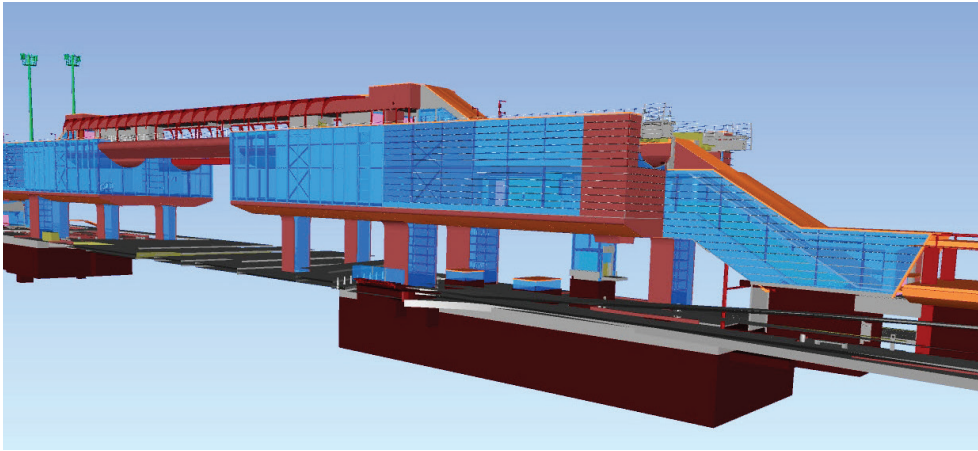
## Pinnacle's Value Addition

1. While showing the site, we have applied the unique concept of transporting the entire stadium without hampering the essence of football and have shown the future of master planning in advance
2. In order to build this massive structure planning the logistics is a major step. We have shown each of the Site logistical planning from construction materials, construction equipment, labour camps and welfare facilities in minute details and have placed on site which in turn helped in delivering the world class construction
3. We have shown the construction work with the excavation on site as per the planning followed by the the foundation works, placed the steel members on completion of foundation works, plugged the containers into the steel structure and build the bleachers followed by the roof structure. The roof stands as a lightweight element with simple appearance on the containers covering every seat and delivering the boastful atmosphere to all. Moreover, the field preparation and soft-scaping are being done by us.
4. With the help of innovation and engineering, the stadium became more cost-effective by reducing the size without compromising with the standards of FIFA World Cup stadium. We created the sitting space in bowl cozier by using no cantilevered structural element and every element joined the other ones on endpoints, facilitating constructability and reducing cost.



# Riyadh Metro Station

Riyadh, Saudi Arabia



Riyadh Metro Station (Qasr Al Hokm Downtown Metro Station) will become an icon for the renaissance of the city of Riyadh. Building upon the principles of sustainability, the station highlights a new consciousness of this generation, to build a future that recognizes the value of natural resources and its important role in urban regeneration, based upon the principals of sustainable urbanism. The Downtown Metro station is designed as an urban plaza with a large canopy providing shade to the surrounding public spaces and channeling daylight down into train station below ground. The polished stainless steel canopy functions as a landmark signaling the station's entrance. The Metro Station's design is sustainable on multiple levels – environmentally sustainable in providing energy, water conservation, daylight harvesting, natural shading and ventilation; economically sustainable in providing an efficient public transport hub in a densely populated city to reduce traffic congestion, and above all socially sustainable, providing a vibrant public space for all the citizens of Riyadh to enjoy.

## Project Speciality

**Stage - 1 (Team Member's QA)** - Using checklists while modeling, Reviewing all latest document & markups with other trades.

**Stage - 2 (Team Lead's QA)** - Reviewing accuracy, families, correctness, checklists, visual & aesthetic check, client data input, latest drawings, addendums, client comments

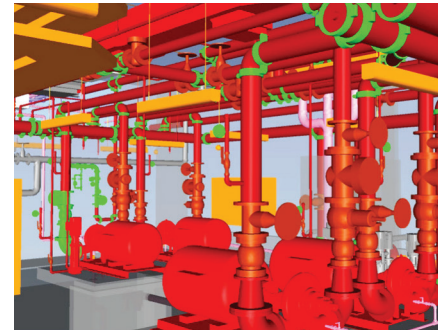
**Stage - 3 (Project Lead's QA)** - Reviewing interdisciplinary coordination, floor to floor alignment or continuation to other areas, Aesthetic Check, Title Block, Match lines, Deliverables, Constructability Review, Client Data, Overall Project Design, Reviewing against client discussions, Value Engineering

## Scope of Work

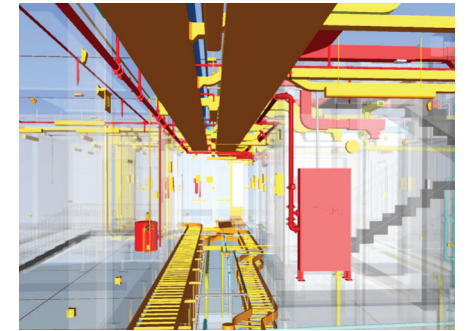
*Our scope of work for the project included:* 1. 3D Model Creation of MEP-FP Services (LOD 400) for 3 Stations ( Service Level, Mezzanine Level, Entrance & Platform Levels) - 1J1, 1G1, 1H2 in Revit 2. Coordination 3. Shop Drawing/2D Drawings - Preparation of detailed Shop Drawings, Riser Diagrams, Elevations, Sections, Coordination Drawings, Builders Work, Panel Board Schedule as per Subcontract Document and Tender Drawings 4. As-Built Updation - LOD 500 5. BOQ

- **LOD: 400, 500**
- **Software Used:**  
**Revit - 2017,**  
**Navisworks 2017**
- **Trades Covered:**  
**Plumbing, Electrical,**  
**Fire Protection, HVAC,**  
**Mechanical Piping**

<b>BIM Start Date</b>	<b>May, 2017</b>
<b>BIM End Date</b>	<b>September, 2017</b>
<b>Project Area</b>	<b>286,374 Sq.Ft.</b>
<b>Average Team Size</b>	<b>10 Engineers</b>
<b>Architect &amp; Engineer</b>	<b>AECOM</b>
<b>General Contractor</b>	<b>BACS</b>
<b>Sub Contractor</b>	<b>Sharqawi Company Electromechanical Contractor*</b>



Mechanical Room Model



Coordinated BIM Model

## Challenges & Solutions

**Challenge 1:** Design Mismatch - Position of Earthing Bar mismatched with IFC PDF and Revit Model  
**Solution** — Requested client to review and suggest which document (Revit model or IFC Pdf) to be followed for further consideration.

**Challenge 2:** Marked Riser Cable Tray Clashing with Structural Beam  
**Solution** — Requested client to suggest whether to move tray or not to resolve clash

**Challenge 3:** Cable Trays Clashing with Stair Railings in the downward portion -  
**Solution** — We requested proper type and size of cables and conduits for Lighting and Power drawings.

## Pinnacle's Value Addition

1. Checked with respect to the latest architectural & structural back ground files
2. Checked missing & mismatch with respect to the latest contract document
3. Showed UP/DN positions properly
4. Checked over lapping of dimensions
5. Showed AHU Valve connection details in the drawings
6. Reviewed over all aesthetic view of the drawings
7. Showed proper plinth for all the AHU,RTU & ODU
8. Showed dimensions for Rectangular duct from Edge of the duct to the nearest gridline
9. Showed the Duct break with the Hatch

# Shams Marina

mixed Use development | Abu Dhabi, UAE



Pinnacle created the Design Documentation Drawings for Shams Marina - a mixed use developmental project for Short, Medium and Long Term stay accommodation. The Residential project has to achieve a “Silver Standard” and the overall development should have a 2 Pearl Estidama rating for design. The purpose of construction is to develop 4 towers over 2 separate podiums with 2 full and 1 half level basements along with a separate Beach Club Building on an amalgamated plot. The ground plane will incorporate a public walkway connecting the Marina and Coastal Walks of the site. Recreation and outdoor areas including Gym and BBQ are incorporated into the design. The plot area encompasses 43,078 sq. m. Moreover, the project covers 26,140 sq. m residential area, 3,984 sq. m. retail space, 57,316 sq. m. hotel area, 8,138 sq. m entertainment space and 400 sq. m. area for public amenities. The maximum height of the building is 180m. Furthermore, the Essential Tower Zones consist of Tower A North Boundary with 35-45 Floors, Tower C South Boundary with 35-45 Floors and Podium B with 3-6 Floors.

## Project Speciality

We have prepared the Design Documentation Drawings with high level detailing including various designs ranging from 7 star hotel, platinum rated residential apartments to high rise concrete tower construction. A wonderful mix of ACP and glazing for towers and stone cladding for podiums has been used. We have created LOD 400 model for all the towers including high level interior furniture modeling for hotels and service apartments. We also did code analysis, fenestration analysis and area analysis.

## Scope of Work

Our scope of work is to prepare as per client delivery schedule which involved completion of 50% Design Document, 100% Design Document & Tender drawings. We delivered drawings based on our client input.

- **Trades Covered:**  
**Construction Drawing Sheet for Architecture & Interior in compliance with NSA, GFA, UPC**
- **LOD: 400**
- **Software Used: Revit, Autocad**

## Challenges & Solutions

**1. Input Inconsistency:** Receiving input from client was a big issue as several input came late and so deliverables could not be produced on time.

**BIM Start Date**

**January, 2016**

**BIM End Date**

**November, 2016**

**Project Area**

**190,000 Sq ft**

**Team Size**

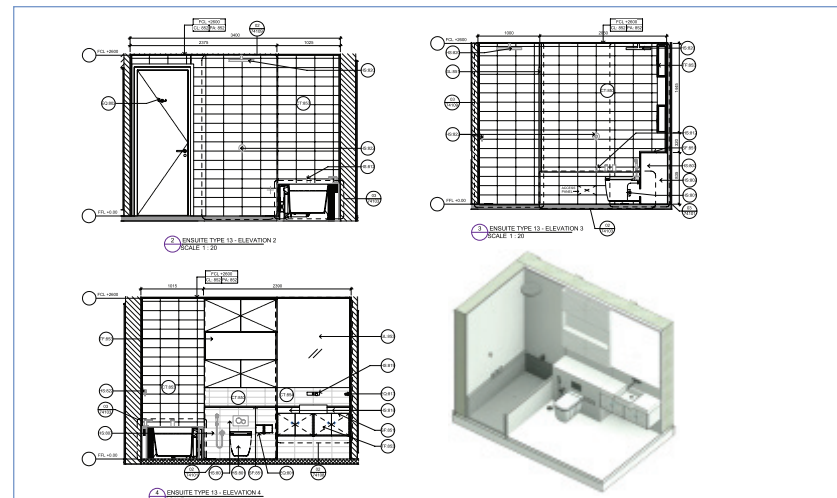
**20 Structural Engineer**

**Architect**

**Woods Baggot**

**Developer/Owner**

**Al Dar**



3D BIM Model

**Solution —** We requested RFIs from the client through conducting online Webex meetings to receive the missing information.

**2. Design Issues:** Design Change before submission was a big challenge in this project, resulting in huge impact on the already prepared sheets. Moreover, client asked us to develop several new facilities like high level of interior furniture detailing which was a challenge in itself for completing within the given time frame.

**Solution —** We have to take the reference from hand sketches and other projects. We have deputed 2 onsite members as a point of contact for us and our client. Our team members coordinated and incorporated necessary design changes and new facilities successfully within the given time frame.

## Pinnacle Value Addition

Our Construction drawings produced through 3d Modeling helped our client to visualize the project interiors catalogue wise and get the real feel through 3D BIM, ensuring a design vision, before the beginning of the construction. We have used Revit and AutoCAD to meet the exact business requirement of our client.

# Cultural Forum

Arts & Entertainment | Doha, Qatar



Pinnacle executed the 3D modeling of the QR20-billion Msheireb Downtown - a cultural forum in Doha, Qatar, deploying 49 Engineers for the project. This art and entertainment centre is the first of its kind in the Middle East and is located adjacent to Al-Baraha with an area of 600,000 sq. ft. The purpose of this cultural forum is to host a wide array of cultural events, including arts, performances and educational programmes. The community centre is extended over an area of 18,996 square meter and serves a versatile venue for public art exhibitions and lessons in dance, music and fine arts, attracting local and international visitors at the heart of Qatar's capital. We offered complete BIM coordination and clash detection that helped our client to get all information needed to identify and solve interference between various building systems effectively. We delivered the final model after resolving all clashes, by working closely with all stakeholders, including the architect, MEP contractor, owner and the project consultant. We used Revit for 3D Modeling & Coordination and generated Clash Report in Navisworks. Our shop drawings are created in CAD and the accurate quantities of all materials are generated in the BIM.

## Scope of Work

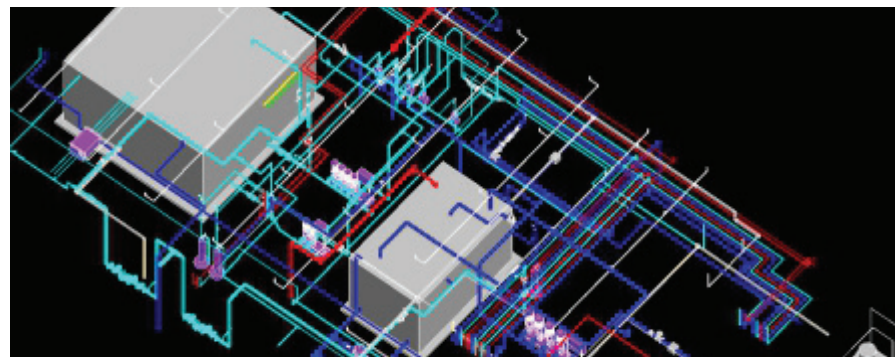
Pinnacle's scope of work included 3D Model creation in Revit, Co-ordination, Clash Report generation in Navis, Shop drawing in Cad Format with CSD and BOQ generation.

## Challenges & Solutions

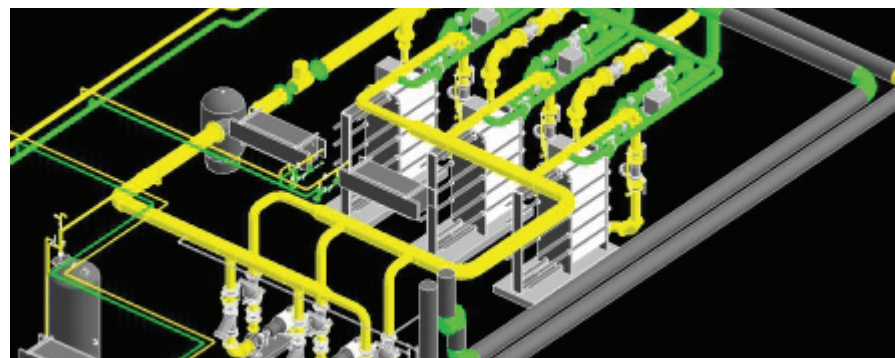
Initially, Pinnacle followed the client's instruction and created the 3D Model, based on the shop drawings and elevation. However, it generated a lot of coordination issues and we informed the client about this concern through RFIs. Ultimately, our BIM Engineers resolved this problem as per client's advice.

Pinnacle faced another challenge of solving the double height or void area issue in several places where IFC drawings were running.

<b>BIM Start Date</b>	<b>July, 2013</b>
<b>BIM End Date</b>	<b>August, 2013</b>
<b>Project Area</b>	<b>600,000 Sq.Ft.</b>
<b>Team Size</b>	<b>49 Engineers</b>
<b>Client</b>	<b>Trans Gulf International Electro Mechanical W.L.L</b>
<b>Architect</b>	<b>John Mcaslan &amp; Partners + Burns &amp; Mcdonnell, Inc.</b>
<b>MEP Contractor/ Consultant</b>	<b>Trans Gulf International Electro Mechanical W.L.L</b>
<b>Owner</b>	<b>Msheireb Properties</b>
<b>Project Consultant</b>	<b>HBK Contracting Co. WLL</b>



3D BIM Model



3D BIM Model

# Kingdom Tower

Mixed Use Commercial Center | Jeddah, Saudi Arabia



Kingdom Tower is a Super tall skyscraper currently under construction in Jeddah, Saudi Arabia, becoming the tallest building in the world, as well as the first structure to reach the one-kilometer-high mark with more than 200 floors and three-sided building is standing from the Arabian desert floor. The design of the skyscraper tower is made smooth and elegant and inspired by the roll shoots on young plants that live in the desert. Shoots grow from the bottom as a whole and then split up when soaring in the sky.

## Scope of Work

Pinnacle is providing the 3D BIM Modeling and Shop Drawing for MEPFP services for this supertall skyscraper. The shop Drawing services include Mechanical (CHW & Duct works), Plumbing (Drainage & water supply), Electrical (Light, power, fire alarm & containment), Fire Protection, Builder works - (Slabs and Wall Penetration) & coordinated service drawings and not limited to schematics / Riser diagram & Enlarged plan. For Architectural Concrete Structure part, Pinnacle extend over to 3D BIM Modeling.

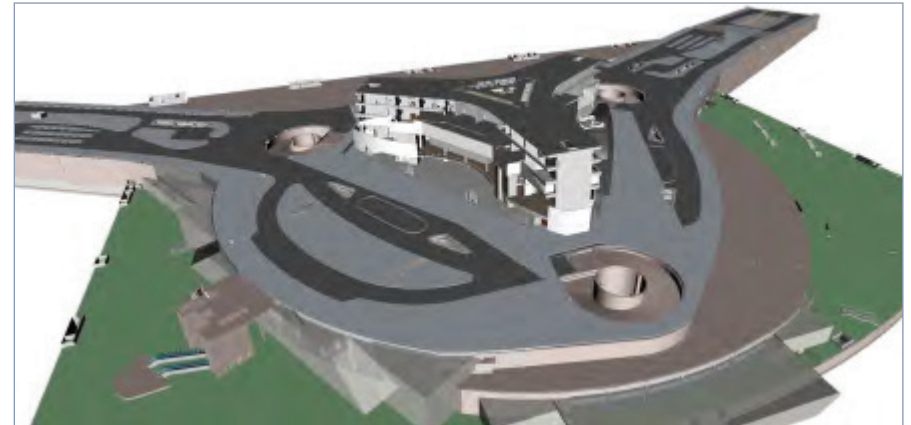
## Pinnacle's Value Addition

Pinnacle is working in a central file model which adds a great value in saving the time and cost, also it enforces an advantage of working in different services at a particular time. The Multi-discipline work in single central file brings all users to improve the coordination and communication among the entire system.

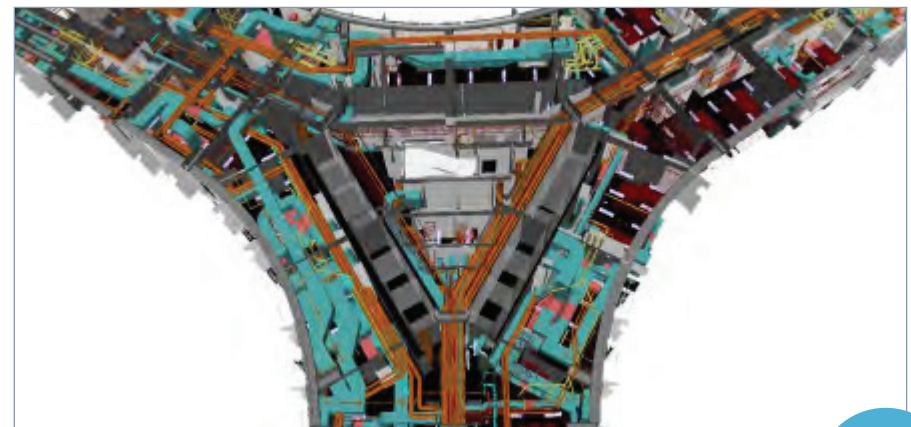
Pinnacle is performing MEPFP services intensively with clash free BIM supports before construction and help to save time and cost.

We are providing the details for the equipment's/Fixtures which will support during the site coordination and installation. Also providing the cable tray size and routing for the Electrical containment services with proper validation as per the required design standard. The riser diagram, scheduling, Schematics / SLD with the respect to services has been validate and updated based on the requirement to comply with the Engineering Standards.

<b>BIM Start Date</b>	<b>May, 2014</b>
<b>Project Area</b>	<b>4,57,840 sq m</b>
<b>Team Size</b>	<b>40 Engineers</b>
<b>Architect</b>	<b>Adrian Smith + Gordon Gill Architecture</b>
<b>Engineer</b>	<b>Langan International</b>
<b>MEP Contractor</b>	<b>INMA</b>
<b>General Contractor</b>	<b>Saudi Binladin Group</b>
<b>Owner</b>	<b>Jeddah Economic Company</b>



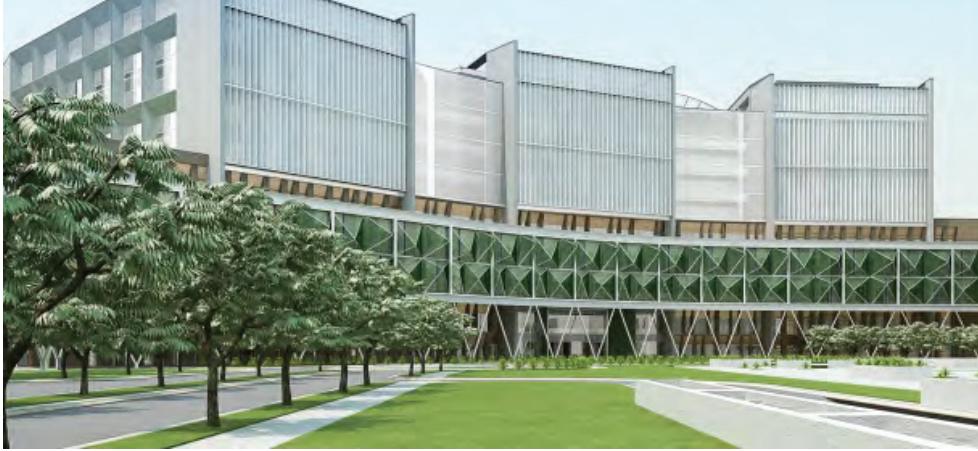
3D BIM Model



3D BIM Model

# King Faisal Hospital

Riyadh, Saudi Arabia



The King Faisal Hospital is a 985-bed tertiary/quaternary care and referral hospital based in Riyadh, Saudi Arabia. It is the national referral center for oncology, organ transplantations, cardiac surgery, genetic diseases, and more.

This project originally of 107,626 Sq.M being constructed at Riyadh, Saudi Arabia. The Project size has been revised twice since then and the current project size is 276448 SQ.M. The project consists of 5 basements. Three separate towers arise after the 6th floor. The feature roof is included in BIM scope.

## Scope of Work

Scope of BIM was to provide design assistance, 3D modeling and Coordination, Constructability Review and Design Validation, Value additions in terms of cost reduction, 2D drawing generation and Technical Scheduling.

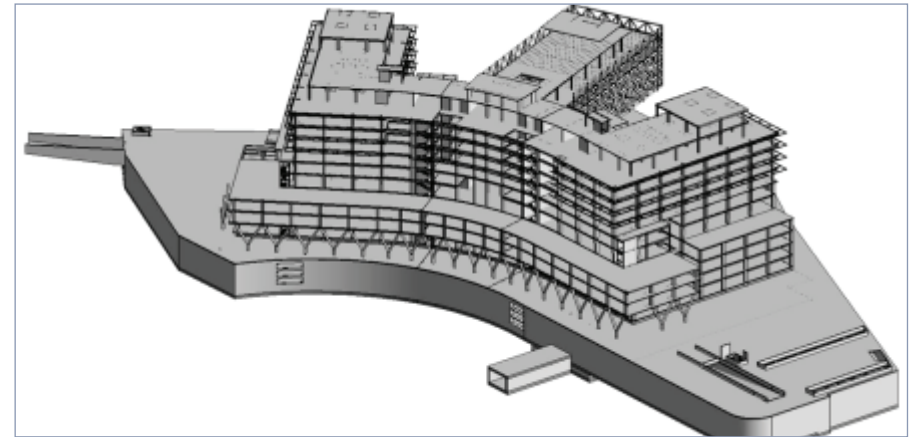
## Pinnacle's Value Addition

Design of MEP systems from Excel sheets, Verbal inputs and hand sketches, 3D modeling, optimized routing and Cost control suggestions.

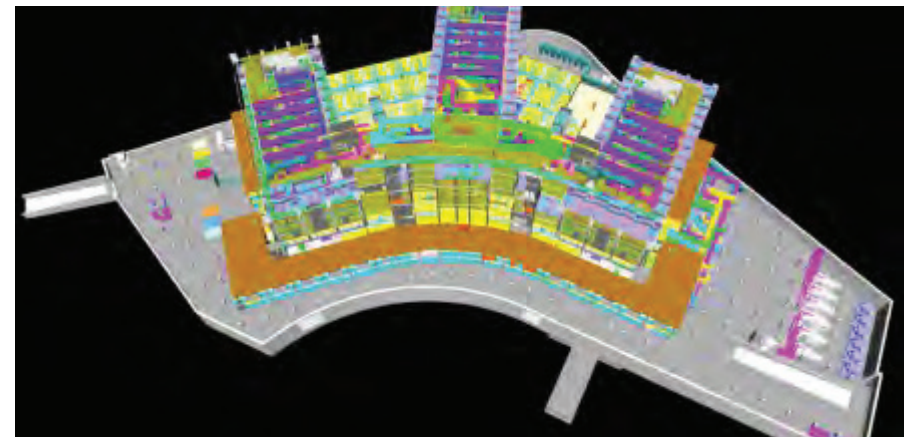
## Challenges Faced

No proper Input Data, Managing Huge size central Models and maintaining technical intelligence, Last minute rush, Constant architectural changes.

<b>BIM Start Date</b>	<b>October, 2013</b>
<b>BIM End Date</b>	<b>December, 2014</b>
<b>Project Area</b>	<b>287,000 sq m</b>
<b>Team Size</b>	<b>20 - 40 Engineers</b>
<b>Client</b>	<b>Stantec LLC</b>
<b>Owner</b>	<b>Govt. of Saudi Arabia</b>



3D BIM Model



3D BIM Model

# ISF Camp

Residential Complex | AL Duhali, Qatar



The total project involves construction of a residential development consisting of 330 buildings spread over an area of 4 Million Sq.M. At this stage the project is done for 4 zones (zone- 03, 05, 10 & 16) with 9 Barracks, 2 Headquarters and others building like Service block, Store, Parking & Guardhouse.

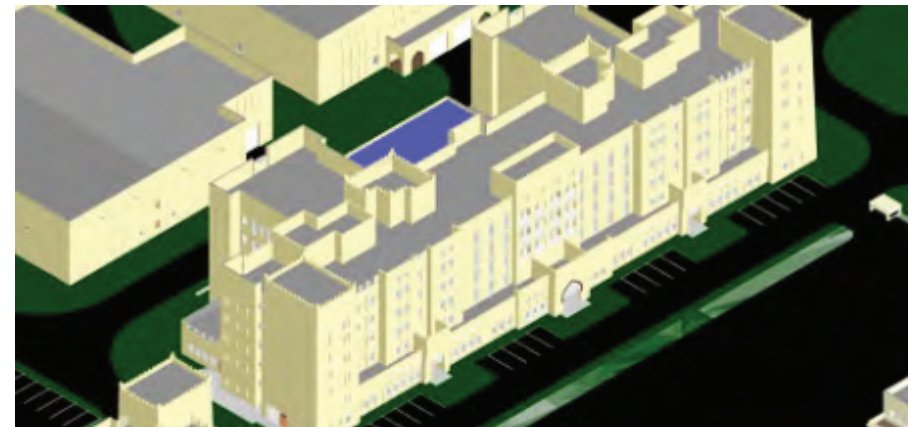
## Scope of Work

Undertaking basic 3D modeling of Architecture, Structure, Site and Site logistics for presentation 4D construction Simulation with video.

## Pinnacle's Value Addition

- Completed the big project within short time duration.
- Created high quality rendered images and video files for presentation.

<b>BIM Start Date</b>	<b>June, 2013</b>
<b>BIM End Date</b>	<b>July, 2013</b>
<b>Project Area</b>	<b>427,079 sq m</b>
<b>Team Size</b>	<b>20 Engineers</b>
<b>Client</b>	<b>Al Khayyat Contracting &amp; Trading</b>
<b>Engineer</b>	<b>Arab Engineering Bureau</b>
<b>Project Management Consultant</b>	<b>Qatar Project Management</b>



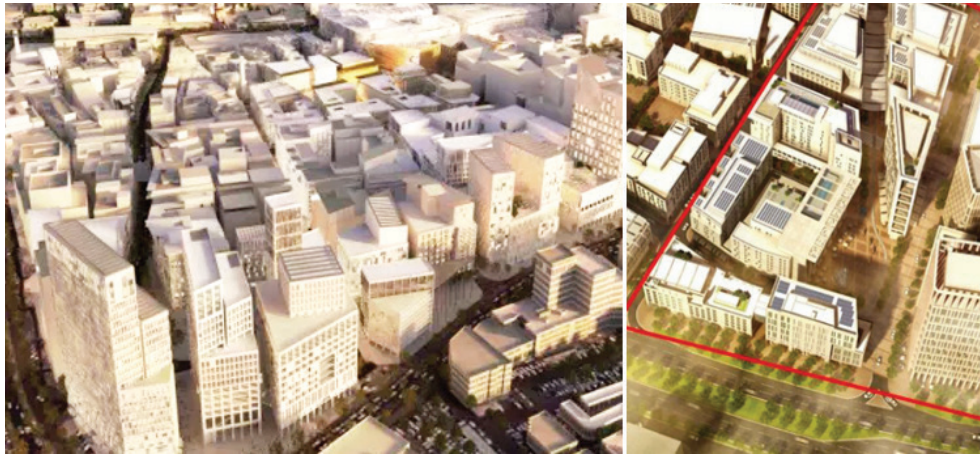
3D BIM Model



3D BIM Model

# Msheireb Downtown Doha (Phase 4)

Mixed Use Residential Township | Doha, Qatar



Msheireb Downtown Construction Phase Four will be a major urban mixed-use regeneration project in the centre of Doha, Qatar consisting of a major public plaza and 12 (or 14) mixed-use buildings. The proposed buildings will include commercial office buildings, residential and retail space, a hotel and a group of medical office buildings containing clinical and administrative programs. The construction will comprise of theatre, museum, a number of hotels, schools as well as a tram system. 6 basements will extend over the entire site area for underground parking access for service vehicles. All buildings are designed with the aim of achieving a LEED Gold rating. The Heart of Doha will even have an entire underground city. The project aims to transform the old commercial and business district into the new architectural language based on community living.

## Project Speciality

Site Installation, Process Installation - BOQ (please specify the speciality and the uniqueness) The uniqueness of this project is interface with Doha Msheireb Metro Station and the existing Msheireb Downtown Construction Phases Includes district cooling plant and automatic waste collection system Asset tagging of each and individual elements to install the elements in the site as per the asset code

## Scope of Work

*Our scope of work for the project included –*

1. Design Validation
2. 3D Model Creation for Architectural, Structural, Mechanical and Electrical Trades
3. Clash Coordination
4. Shop Drawings/ 2D Drawing Creation for all Trades
5. As-Built Updates as per mark-up drawings
6. Facility Management vi. BOQ vii. Animation/4D/Renderings

- **Trades Covered:**  
**Architectural, Structural, Mechanical and Electrical**
- **LOD: 500**
- **Software Used:**  
**Revit 2015, Navisworks**

<b>BIM Start Date</b>	<b>March, 2017</b>	<b>General Contractor</b>	<b>TCC / CCC JV</b>
<b>BIM End Date</b>	<b>August, 2018</b>	<b>Developer/Owner</b>	<b>Msheireb Properties</b>
<b>Project Area</b>	<b>301,230 sq m</b>	<b>Lead Consultants</b>	<b>HOK</b>
<b>Team Size</b>	<b>130 Engineers</b>	<b>Supervision Consultant</b>	<b>CEG International</b>
<b>Architect</b>	<b>Mossessian &amp; Partners</b>	<b>Client/Company Name</b>	<b>Consolidated Consultants Group*</b>
<b>Engineer</b>	<b>Ramboll</b>		

## Challenges & Solutions

**Challenge** - Pinnacle was appointed to convert the 2D set of IFC drawings into a BIM Model and raise RFI/BIM Queries through the process where there was conflict with the coordinated set of drawings received from the Consultant. Room data sheets were also verified to ensure the constructability of the Drawing Set. Pinnacle worked in coordination with the Consultant to resolve coordination issues before issuing the Final IFC drawings to the General Contractor.

**Solution — Pinnacle's Approach — 1.** Pinnacle created BIM Models from the drawings issued for construction and performed interdisciplinary design coordination. We created and kept a running log of BIM RFIs/Queries that arose during the exercise. These RFIs/Queries consisted of system coordination errors or omissions along with missing information in the drawings that would limit the Contractor's ability to construct the element.

**2.** Pinnacle documented any conflicting information that occurred either on plan or in the Room Data Sheets. The RFI/BIM Query log was updated on a weekly bases and was given to the Consultant to review, answer and resolve the issue by providing documentation or an addendum for Pinnacle to properly model.

**3.** The Consultant also revised the drawings and provided addendum to the General Contractor as the Final IFC drawing set. Workshops with the Consultant were held on a monthly bases to assist in resolving open items that needed more discussion. Moreover, it provided time to coordinate further as a team. The Model was used to highlight and eliminate conflicts among various trades.

**Challenge** - Design Mismatch - Pipe Invert Level & Specified Invert Level in IFC drawing was not matching | **Solution —** Rerouted pipe to pass in the IFC drawing with 0.5% slope

**Challenge** - Missing Information - Fit out Plan layout for offices not provided for level-1 in IFC Plan drawings | **Solution —** We requested client to provide the same

**Challenge** - Coordination Problem - Due to addendum changing column clashing with FWP pipe  
**Solution —** Resolved the issue based on our expertise after taking confirmation from the client.

## Pinnacle's Value Addition

- The BIM models provided visual references, which improved awareness and understanding of the constructability of the project and the key issues that the client will face while approaching the project - The 3D model provided a realistic representation of the project and acted as a tool for reference by the contractor to understand the RFI/Query Log, addendum and Final IFC drawing set
- Pinnacle was able to identify problematic areas before executing the construction work. This helped to manage the Client's expectations and assisted in the decision making process to resolve design coordination issues that would be a cost factor on the project
- The BIM Audit of the IFC drawings saved the time of the contractor and the money of the owner by rectifying issues prior to construction rather during the construction phase. The use of BIM on this project resulted in substantial cost and schedule savings

- Newforma streamlined p | [pinnacleinfotech.com](http://pinnacleinfotech.com) | Construct Certainty, with Technology

# Northgate Mall

Doha, Qatar



North Gate Mall is one of the finest malls in Qatar. It comprises of some unique spaces, like the Crystal Garden and Shamal Hall with its unique architectural features. Northgate offers absolutely everything to its customers. As a regional shopping center situated on the North Riding area in the heart of Doha, Qatar, it is no wonder that the centre caters to over 1.2 million shoppers every month. The center prides itself on being a safe, family friendly environment, which offers its shoppers consistent entertainment, superior food and a diverse shopping experience all the year round!

## Scope of Work

Pinnacle was responsible for the modeling of the entire mall area site along with the six associated office buildings. A walk through presentation was done based on the Architectural and Structural elements to show the key areas as requested by the client.

Bill of Quantity (BOQ) of the Architectural and Structural elements were generated from the model. 4D phasing was also done as per the requirement.

- A) Constructability review of the 2D contract drawings from BIM model.
- B) BIM support for the Architectural and Structural shop drawings.

## Pinnacle's Value Addition

Pinnacle imparted Structural Value Engineering model with comparative data showing savings between IFC and VE model.

<b>BIM Start Date</b>	<b>November, 2011</b>
<b>BIM End Date</b>	<b>March, 2012</b>
<b>Project Area</b>	<b>417,500 sq m</b>
<b>Team Size</b>	<b>32 Architectural / Civil Engineers</b>
<b>Consultant</b>	<b>Callison (Design)</b>
<b>PMC</b>	<b>Associated Consulting Engineers - Qatar</b>
<b>Contractors</b>	<b>Al Habtoor Leighton (Construction), Voltas Limited (MEP)</b>
<b>Owner</b>	<b>Equinox</b>



*Bird's eye view of exterior 3D Model*



*Interior 3D Model*



# Military Technical College

Muscat, Oman



The college will offer a robust learning framework that will enable Students to progress from Foundation through National Diploma (ND) to Higher National Diploma (HND) and beyond, and will be sufficiently Flexible to allow training to be tailored to the specific needs of the Students.

## Scope of Work

- Basic Architectural & Structural model
- MEP model with coordination
- Fire Fighting model & coordination
- LPG Distribution
- Compressed Air
- Lighting
- Small power
- Containment
- Builder's Work
- Shop drawing creation
- Coordinated MEP service

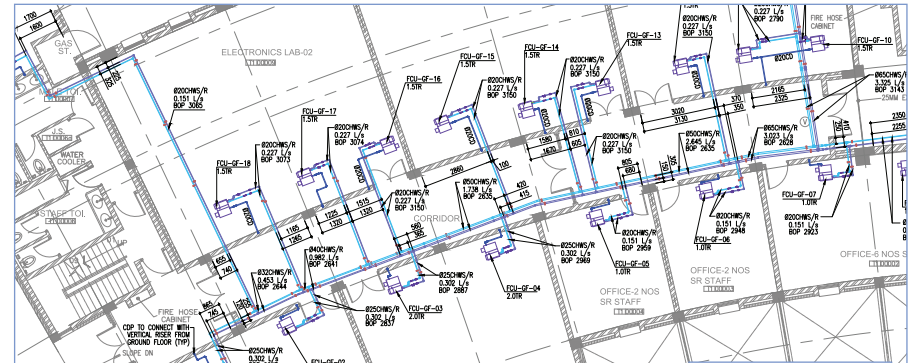
## Pinnacle's Value Addition

The shop drawing creation is a major challenge, as the documents were tough to understand and feeding into the model. The clash coordination report as per the clients requirement was also provided.

<b>BIM Start Time</b>	<b>July, 2012</b>
<b>BIM End Time</b>	<b>October, 2012</b>
<b>Project Area</b>	<b>32,516 sq m</b>
<b>Team Size</b>	<b>14 Engineers</b>
<b>Client</b>	<b>Drake &amp; Scull International</b>
<b>Architect</b>	<b>Sundaram Architects Pvt Ltd.</b>
<b>General Contractor</b>	<b>OSCO &amp; Douglas OHI</b>
<b>Owner of the Project</b>	<b>Sultanate of Oman</b>



3D BIM Architectural Model



Piping Plan Layout

# Muscat International Airport

Muscat, Oman



Muscat International Airport is the largest airport in Oman. This is Also the main hub of the national carrier Oman Air., situated 32 km away from the capital of Oman, Muscat.

The airport currently has got one terminal, now adding with the new one, due to be completed in 2014. The new terminal will have the capacity of 12 million passengers in a year.

A new air control tower as well as an Area Control Centre (ACC) with RADAR, a glide path and an omnidirectional equipment & receivers to cater to the increased traffic, up to 12 million passengers annually.

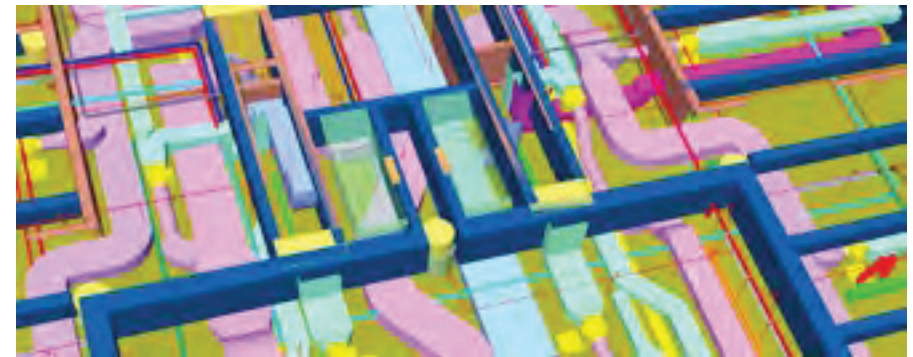
The airport will also have a new power station and a separate building for meteorological services to house weather forecasters and observers.

## Scope of Work

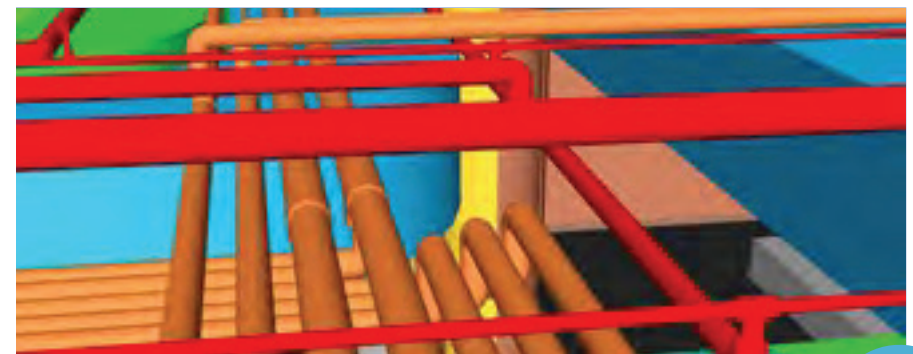
Pinnacle was responsible to provide BIM modeling and coordination services for the Mechanical, Plumbing, Fire Protection and Electrical trades.

MEP coordination for all the piers were completed which involved an area of 13,935 Sq.M. for each of the three piers. Coordination of the entire model was done in Navisworks and the final output was delivered in Revit.

<b>BIM Start Date</b>	<b>February, 2012</b>
<b>BIM End Date</b>	<b>March, 2012</b>
<b>Actual Project Area</b>	<b>3,34,995 sq m</b>
<b>Area Covered by Pinnacle</b>	<b>1,09,625 sq m</b>
<b>Team Size</b>	<b>46 Engineers</b>
<b>Consultant</b>	<b>1. COWI &amp; Partners 2. Larsen Architects &amp; Consulting Engineers 3. National Engineering Services &amp; Partners</b>
<b>PMC</b>	<b>Aeroports de Paris Ingenierie</b>
<b>Contractor</b>	<b>1. Consolidated Contractors Company 2. TAV</b>
<b>Client</b>	<b>Bahwan Engineering Company L.L.C</b>
<b>Owner</b>	<b>Ministry of Transport &amp; Communications</b>



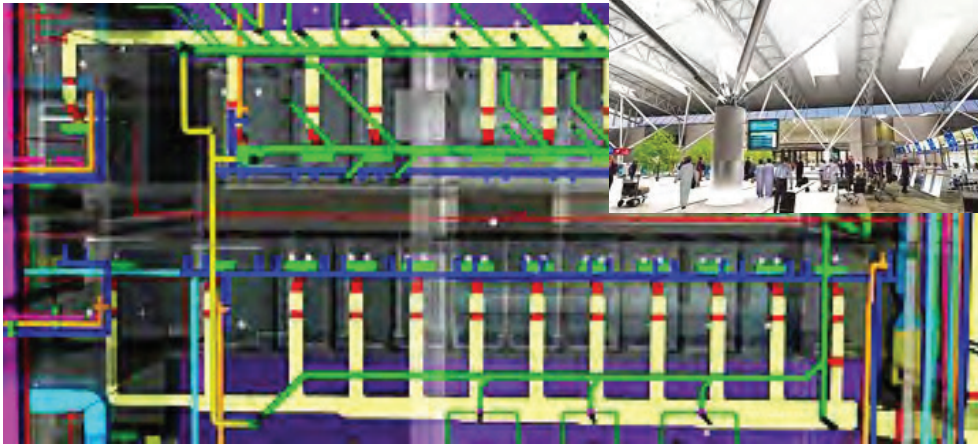
*Mechanical BIM Model*



*Plumbing BIM Model*

# Muscat International Airport

Passenger Terminal Building (PTB) Level 8.5 | Muscat, Oman



The Muscat International Airport development project is the largest project to ever be undertaken in the history of Oman. The design is based on an initial capacity of 12 million annual passengers. COWI-Larsen Joint Venture is main consultant on the project. A Bechtel-led consortium consists of Bechtel, Enka, and Bahwan Engineering Company of Oman is building a new terminal at Muscat International Airport in Oman. Their search for a seasoned world class AEC service provider ended with Pinnacle. The project started on 2011 and will complete on 2014. It includes two office buildings, a four-star hotel, two five-level parking garages, and other support structures and roadwork.

## Scope of Work

Pinnacle was responsible to provide BIM modeling and coordination services for the Mechanical, Plumbing, Fire Protection and Electrical trades. Coordination of the entire model was done in Navisworks and the final output was delivered in Revit. We also provided the sectional details in corridor area & mechanical room.

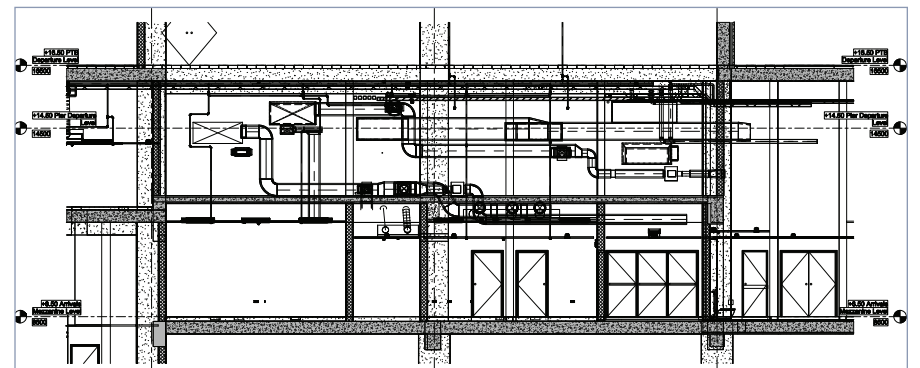
## Pinnacle's Value Addition

1. We have to complete the coordinated model of Level 8.5 Passenger Terminal Building within constraint time frame.
2. We have identified critical area or zone (like corridor, mechanical room, toiler room) where lots of services (Duct, pipe or cable tray) are running, marked in navis view point, resolved the clashes by rerouting or by change in elevation.
3. We have created the RFI with 3D snap shot for unresolved critical clashes.

<b>BIM Start Date</b>	<b>March, 2012</b>
<b>BIM End Date</b>	<b>June, 2012</b>
<b>Project Area</b>	<b>3,34,995 sq m</b>
<b>Team Size</b>	<b>16 Engineers</b>
<b>Client</b>	<b>Bahwan Engg. Co. LLC</b>
<b>MEP Contractor</b>	<b>1. COWI &amp; Partners 2. Larsen Architects &amp; Consulting Engineers 3. National Engineering Services &amp; Partners</b>
<b>General Contractor</b>	<b>1. Consolidated Contractors Company 2. TAV</b>
<b>Owner of the Project</b>	<b>Ministry of Transport &amp; Communications</b>
<b>Total Cost of the Project</b>	<b>US \$ 1.8 billion</b>



3D BIM Model



Sectional Detail Drawing

# Salalah Airport

Salalah, Oman



Salalah Airport is the second gateway of the Sultanate of Oman, located on the Salalah coastal plain, 5.5 kilometers northeast from Salalah's city centre. The airport is being expanded and modernized. The new terminal will be able to accommodate 2 million passengers per year. Once the airport gets fully expanded it would be able to handle 10 million passengers. The project will also comprise the construction of a sea cargo terminal and the up gradation of the runway and taxiway system.

## Scope of Work

Pinnacle was responsible for the 3D BIM modeling and coordination services for both the Air Traffic Management Building (ATM) block and the Passenger Terminal Building (PTB) block. Mechanical ducting & piping system modeling was also included within the services. A standard dash board report was generated for the ATM block. Shop drawings were also delivered for both the blocks.

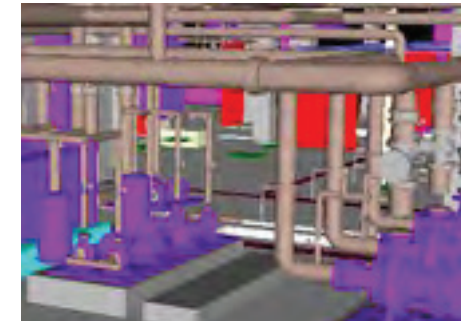
## Pinnacle's Value Addition

Pinnacle was able to solve some of the extremely challenging coordination problems related to connecting gallery, corridors and catwalk areas. Pinnacle contributed with lot of insight while finalizing the coordination layout & meeting odd schedules.

<b>BIM Start Date</b>	<b>July, 2011</b>
<b>BIM End Date</b>	<b>April, 2012</b>
<b>Owner</b>	<b>Ministry of Transport and Communications</b>
<b>Area Covered by Pinnacle</b>	<b>93,050 sq m</b>
<b>Team Size</b>	<b>38 Engineers</b>
<b>Consultant</b>	<b>1. Larsen Architects and Consulting Engineers 2. COWI and Partners</b>
<b>Contractors</b>	<b>1. Galfar Engineering &amp; Contracting Company 2. Larsen &amp; Toubro</b>
<b>Client</b>	<b>Bahwan Engineering Company LLC</b>



Interior Model



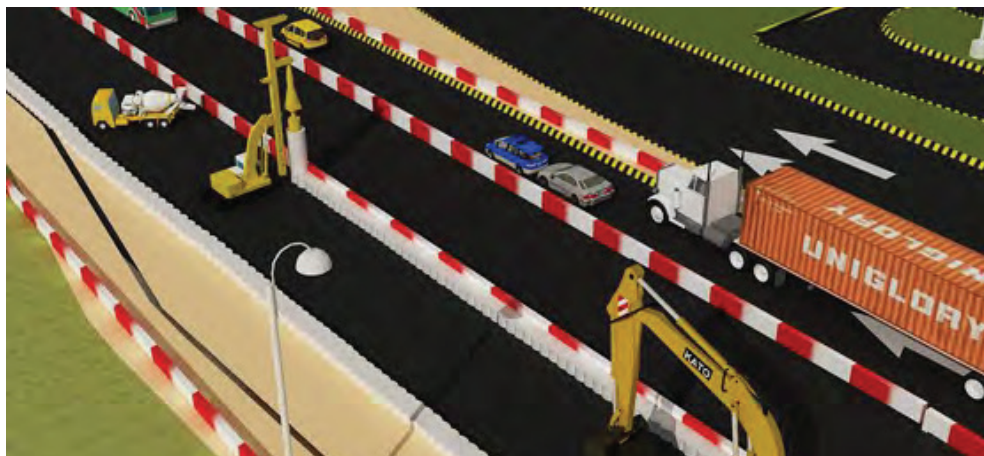
Mechanical BIM Model



3D BIM Model

# Highway Infrastructure

Darsail Al Wadi Kabir Project | Muscat, Oman

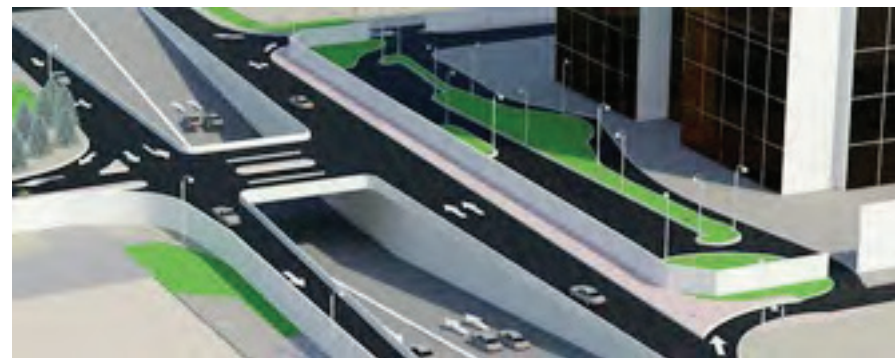


A road development project was undertaken in 2011 between Darsait to Wadi Kabir, in the city of Muscat. The project included flyovers, underpasses, signalized junctions, bridge extensions, and additional lanes along with a 5 km stretch. All these would help in easing traffic flows through the capital's commercial hub. The three parts covered were Wadi Kabir, Sheraton & Star Cinema. Few months later again few updation on the BIM services was done on the project.

## Scope of Work

A 3D BIM model was created for bid presentation. Architectural and Structural areas were taken care of. Different stages of the construction for underpass and flyovers was depicted in the model. An area of 2 km in and around Wadi Kabir, Sheraton Hotel and Star Cinema was covered. The final output was delivered in PowerPoint & AVI format.

<b>BIM Start Time</b>	<b>February 2011</b>
<b>BIM End Time</b>	<b>April 2012</b>
<b>Actual Project Area</b>	<b>10,000 m in Length</b>
<b>Area Covered by Pinnacle</b>	<b>2,776 m in Length</b>
<b>Team Size</b>	<b>8 Engineers</b>
<b>Client</b>	<b>Larsen &amp; Toubro LLC</b>
<b>Owner</b>	<b>Muscat Municipality</b>



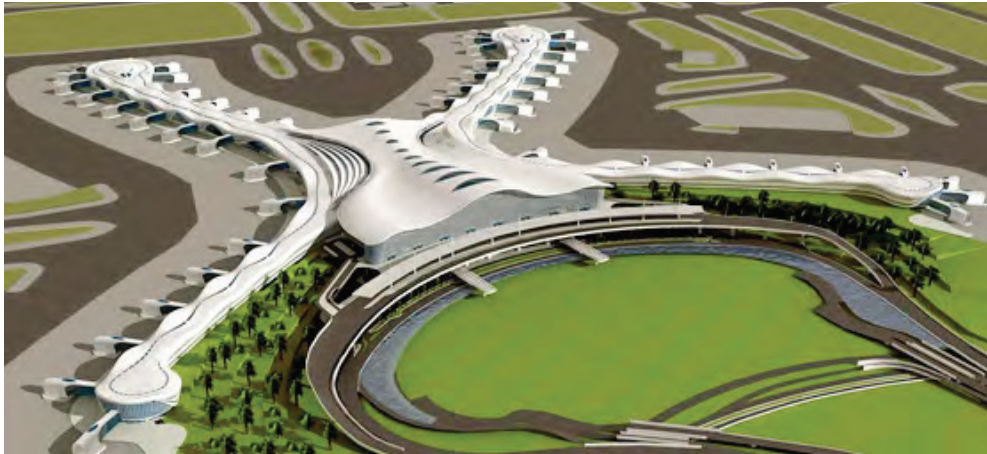
*Highway Underpass Model*



*Signal Junction Point Model*

# Abu Dhabi International Airport

Abu Dhabi, UAE



Abu Dhabi International Airport is one of the fastest growing airports in the world in terms of passengers. The airport is now undergoing a major expansion. In Jan 2012 it had 53 airlines and 85 destinations in 49 countries. Abu Dhabi airport is the second largest in the UAE, serving 11 million passengers in 2010. The newest terminal, (Terminal 3), opened in January 2009, enabling the airport to handle, approximately, 12 million passengers per annum. It is expected that passenger numbers will reach this level in 2011.

Development work has also started on a new passenger terminal, to be situated between the two runways and known as the Midfield Terminal. Upon completion in 2016, the Midfield Terminal will take the airport's passenger capacity to more than 20 million per year.

## Scope of Work

Pinnacle was responsible to create a bid presentation model for Abu Dhabi International Airport. Both interior and exterior architectural and structural elements as well as the MEP items were taken care of in the presentation. An AVI presentation of the 4D phasing for the entire project was delivered.

## Pinnacle's Value Addition

Critical areas and corners were taken care of. Timely completion was one of the major challenges.

<b>BIM Start Date</b>	<b>August, 2011</b>
<b>BIM End Date</b>	<b>December, 2011</b>
<b>Project Area</b>	<b>7,00,000 sq m</b>
<b>Team Size</b>	<b>25 Engineers</b>
<b>Client</b>	<b>Larsen &amp; Toubro Ltd.</b>
<b>Owner</b>	<b>Abu Dhabi Airports Company</b>



MEP Model



Interior 3D Model

# Dubai International Airport

Expansion - Phase 3 | Dubai, UAE



Dubai International Airport, awarded as the Best Airport in the Middle East for four consecutive years; is the 13th busiest Airport in the world based on passenger traffic. Now they have phase 3 (Terminal 3) expansion.

Terminal 3 includes a multi-level underground structure, first-class lounges, dedicated counters, restaurants, check-in counters, and underground parking spaces. The expansion program was divided into three major projects:

- Expansion of passenger facilities, including Terminal 3, concourse 2 & 3
- The expansion of cargo facilities, including the mega terminal
- Expansion of airfield infrastructures, such as new aprons, taxiways, roads, tunnels, and runway extensions.

Dubai International Airport is currently having a 47 million passenger capacity.

## Challenges & Solutions

### Challenges

- Large volume of work with aggressive deadline
- Inconsistencies in IFC design document
- Implementing unique module support system

### Solution

- PIS engaged a team of more than 70 engineers (including off-site and on-site) to work on this project. It was broadly divided into three groups - one for the apron level and the other two for the departure and arrival levels. Each group had its sub-group of 6-8 engineers with defined targets.
- Module support expertise was deputed at PIS (Pinnacle Infotech Solutions) India. PIS Engineers checked and reviewed the module standards and access clearance for inconsistencies (for example, the maximum length, width, and height of module support were 6m, 2.4m, and 2.4m, respectively, depending on MEP service load. Distance between two hoops was 1200 mm, and clearance between G-bracket to MEP services was 75 mm minimum.).
- The design validation engineers checked and compared the IFC design documents for inconsistencies (for example, the capacity of an FCU given in the plan should match with the same mentioned in the equipment schedule, riser diagram, and submittal) and recalculated the data (size of pipes and ducts, fluid flow rate, etc.).

*Over 100 RFIs were raised, where the client's decision was considered necessary. The RFIs were vetted by the client, who in turn escalated the same to the consultant for a probable solution.*

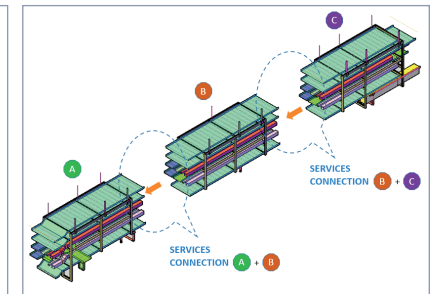
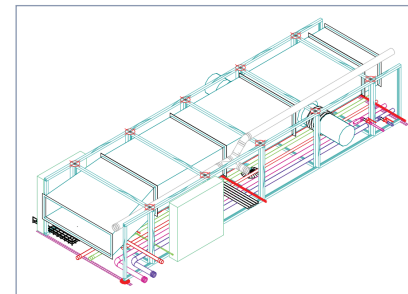
Project Area	33,184,222 sq. m.
Owner	Dubai Civil Aviation Authority
Area Covered by Pinnacle	60,387 sq. m.
Client	DAEP (Dubai Aviation Engineering Projects)
Project Value (USD)	1,320,000,000
Vertical	Architecture, Structure & MEPF
Team Size	70 Engineers
Software	Revit, Navisworks, AutoCAD
LOD	400 & 500
Services	3D modeling, Coordination, Shop drawing, BOQ (Bill of Quantity), As-Built Drawings, Asset Information Management & COBie Data, Laser Scan
BIM Start Date	May, 2019

## Scope of Work

- 3D BIM model (LOD 500) for MEP and fire protection trades
- Coordination (clash detection & mitigation, visualization)
- Constructability review
- Detailed quantity take-off
- Shop drawing creation of mechanical, plumbing, electrical, fire protection & builder work
- Coordinated service drawings for complete coordination among all trades
- Builder's Work drawings for MEP penetrations through structural slab and walls

## Pinnacle's Value Addition

- Reduced clashes and saved time and money for the project
- Over 100 RFIs were raised about missing and conflicting data and constructability/aesthetic, maintenance, and accessibility issues
- Resolved over 1000 total clashes (including 750 critical clashes)



# New York University

Abu Dhabi, UAE



The NYU Abu Dhabi campus on Saadiyat Island, scheduled to open in 2014. The Abu Dhabi campus was planned by New York University, and the funding mainly came from the Government of the United Arab Emirates. The campus will consist of state-of-the-art classroom, library, and information technology facilities, laboratories, academic buildings, dormitories, faculty and residential housing, student services; and athletic and performance facilities.

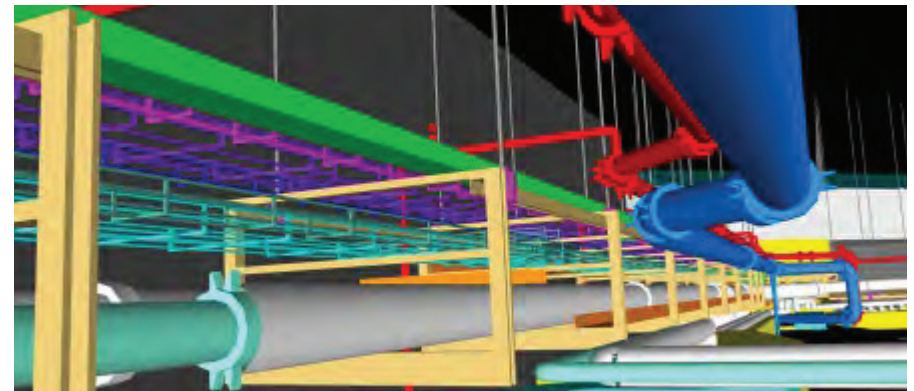
## Scope of Work

Pinnacle created the 3D model on this prestigious project covering the trades of Architecture, Structure and MEP FP services. Pinnacle provides its services by doing clash coordination of all trades, Quantity Take- Off and Constructability review. We have created rendered images of all the trades by doing value engineering. Dump Sheet drawing was created which consisted of all MEP on the client's request.

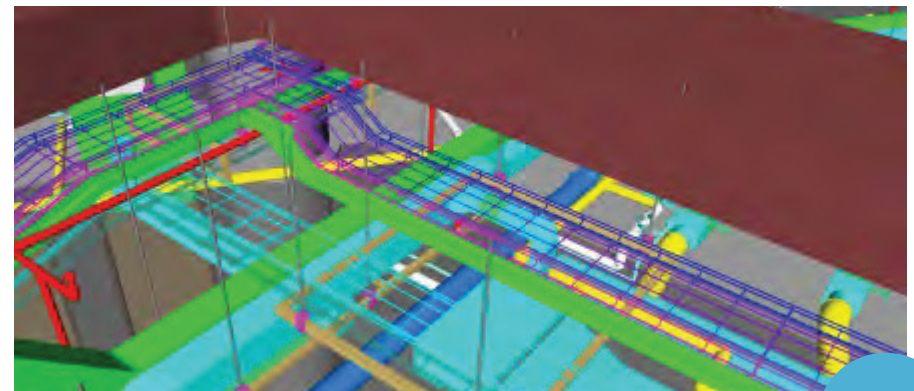
## Pinnacle's Value Addition

As there was enough ceiling space in the project, Pinnacle applied the modularization concept in a 3D modeling which generated a 2D sketch which is used by the client for pre fabrication in offsite. Constructability review was additionally given to the client as per the requirement.

<b>BIM Start Date</b>	<b>August, 2012</b>
<b>BIM End Date</b>	<b>December, 2012</b>
<b>Project Area</b>	<b>301,247 sq m</b>
<b>Team Size</b>	<b>50 Engineers</b>
<b>Client</b>	<b>Power Transmission Gulf (BK Gulf)</b>
<b>Architect</b>	<b>Raphael Vinoly Architects</b>
<b>Engineer</b>	<b>WSP</b>
<b>General Contractor</b>	<b>Al-Futtaim Carillion</b>
<b>Owner of the Project</b>	<b>Mubadla</b>



3D BIM Model



3D BIM Model



# Well Pharma Medical Solution Plant

Abu Dhabi, UAE



Wellpharma Medical Solutions, an Intravenous Solutions manufacturing and distributing plant, would be located within Abu Dhabi's Industrial district.

Wellpharma Medical Solution is an Intravenous Solutions for manufacturing and distributing pharmaceutical equipment & operation of production lines.

The plant will be established on an area of 7,500 sq m with operations expected to commence in 2012 further to completion of the development phase.

Expansion plans within the pharmaceutical industry are already being considered by 'Abu Dhabi Investment House' ADIH under Wellpharma healthcare initiative with a focus on advanced diagnostic centers, medical labs and state-of-the art medical clinics.

## Scope of Work

3D BIM coordinated model for the Architectural, Structural, Plumbing and HVAC trades were created by Pinnacle as per the requirement of the client. A team of 12 Engineers and Architects worked in this 6038 sqm project and completed the project in about 4 months. Shop drawings and spool drawings were created and provided to the client as the final deliverables.

## Pinnacle's Value Addition

Critical areas of HVAC was taken care off. and quality of the project deliverable had been a challenge.

<b>BIM Start Time</b>	<b>November, 2011</b>
<b>BIM End Time</b>	<b>February, 2012</b>
<b>Actual Project Area</b>	<b>7,500 sq m</b>
<b>Area Covered by Pinnacle</b>	<b>6,038 sq m</b>
<b>Team Size</b>	<b>12 MEP Engineers</b>
<b>Client</b>	<b>Omnix International LLC</b>
<b>MEP Contractor</b>	<b>Ian Banham and Associates</b>
<b>Owner</b>	<b>ZonesCorp</b>



*Cleaning Device Room (BIM Modeling)*



*Construction at the Site*

# Dubai Festival City

Hotel & Mall | Dubai, UAE



Dubai Festival City is a 1300 acre, premier waterfront urban community. It is an Al-Futtaim Group Real Estate development project which covers 5.2 million square metres and stretches 3 km along the historic Dubai Creek. It comprises of three distinct districts and connected by a 30 kilometers internal road network and creek side promenade. This existing community offers freehold villas and apartments for sale and lease which combine traditional and contemporary architecture. Upon completion, the community will be home to 50,000 residents living in 20,000 villas and apartments, and ideal place to work for 50,000 office staff.

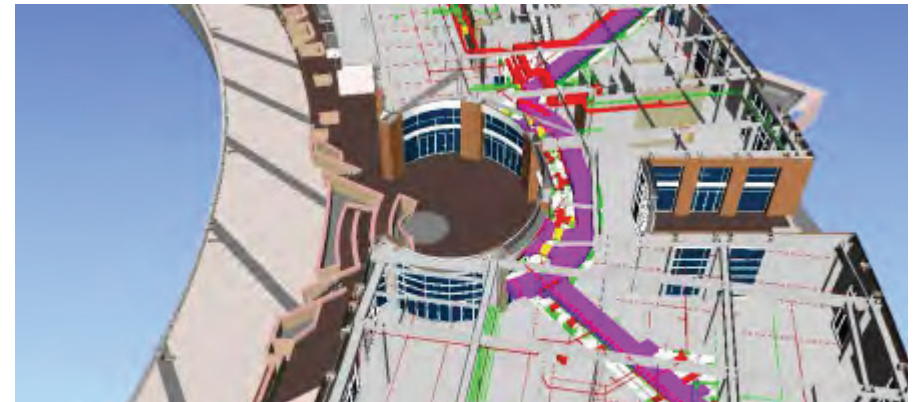
## Scope of Work

- As-Built model creation of Architecture, structure and MEP of the existing mall.
- As-Built updates based on documents.
- Co-ordination between each Trades.

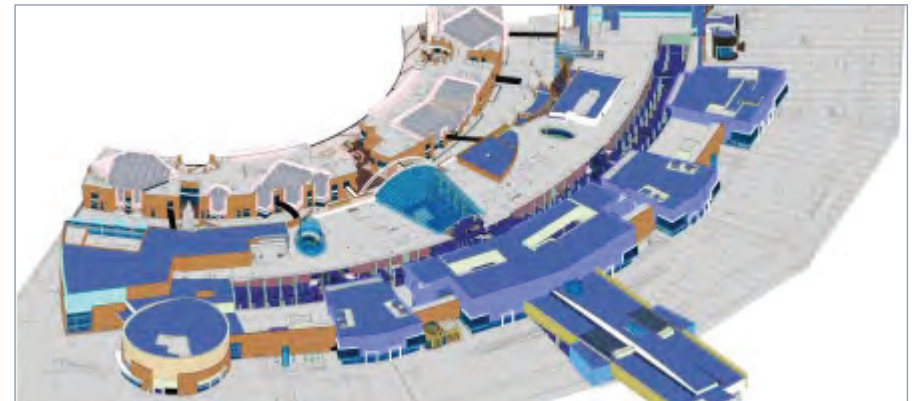
## Pinnacle's Value Addition

- We identified the differences between As-built drawings & actual building and marked in view point by Navis Works, for client reference.
- Also resolved the clashes by rerouting or changing elevations, where we were unable resolve by client provided solutions.

<b>BIM Start Date</b>	<b>April, 2014</b>
<b>BIM End Date</b>	<b>Ongoing</b>
<b>Project Area</b>	<b>3,40,000 Sq.M.</b>
<b>Team Size</b>	<b>25 Engineers</b>
<b>Architect</b>	<b>HOK</b>
<b>Engineers</b>	<b>Hyder Consulting Middle East</b>
<b>General Contractor</b>	<b>Al-Futtaim Carillion</b>
<b>Owner</b>	<b>Dubai Festival City LLC</b>



3D BIM Model



3D BIM Model

# Dubai Festival City

Residential | Dubai, UAE



Dubai Festival City is a 1300 acre, premier waterfront urban community. It is an Al-Futtaim Group Real Estate development project which covers 5.2 million Sq.M. and stretches 3 km along the historic Dubai Creek. It comprises of three distinct districts and connected by a 30 km internal road network and creek side promenade.

This existing community offers freehold villas and apartments for sale and lease which combine traditional and contemporary architecture. Upon completion, the community will be home to 50,000 residents living in 20,000 villas and apartments, and ideal place to work for 50,000 office staff.

## Scope of Work

- Architecture and Structure BIM Model Creation.
- 40% and 100% Schematic Drawings Creation.
- Tender Drawing Creation.

## Pinnacle's Value Addition

- All Towers model preparation, Schematic and Tender Drawing preparation based stipulated time frame. Drawing correction/constructability reviews.
- Continuous interaction with client for generating the quality product.

<b>BIM Start Date</b>	<b>April, 2014</b>
<b>Project Area</b>	<b>1, 60,000 sq m</b>
<b>Team Size</b>	<b>10 Engineers</b>
<b>Architect</b>	<b>HOK</b>
<b>Engineers</b>	<b>Hyder Consulting Middle East</b>
<b>General Contractor</b>	<b>Al-Futtaim Carillion</b>
<b>Owner</b>	<b>Dubai Festival City LLC</b>



3D BIM Model



3D BIM Model

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### Madurai

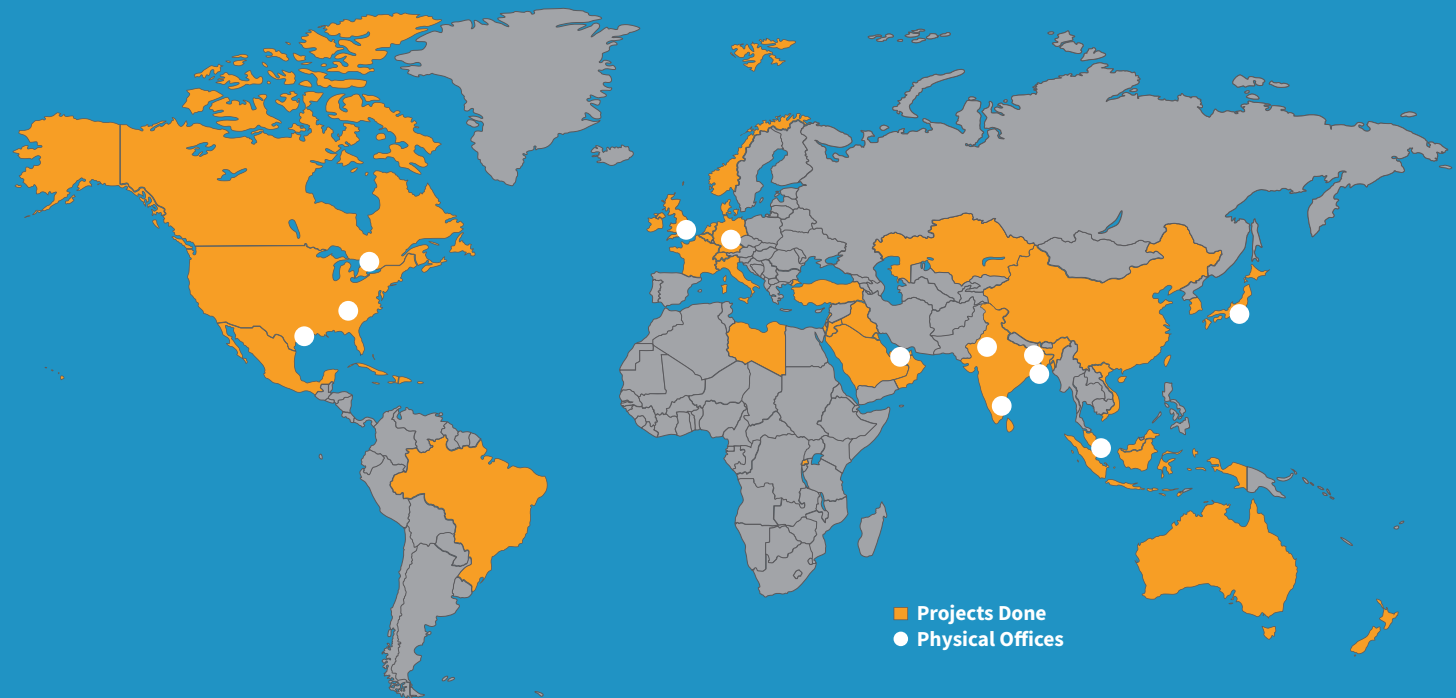
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