



Specialized CONSTRUCTION
COMPANY KSA

PROVIDING GENUINE VALUE BEYOND EXPECTATION



BIM

COMPANY PROFILE

KNOWLEDGE PARTNER TO THE AECO INDUSTRY WORLDWIDE

شركة
عربية

Ashkal Arabia | Introduction:

This is one of prominent companies contributing to the designing and construction of the BIM for contracting business in KSA.

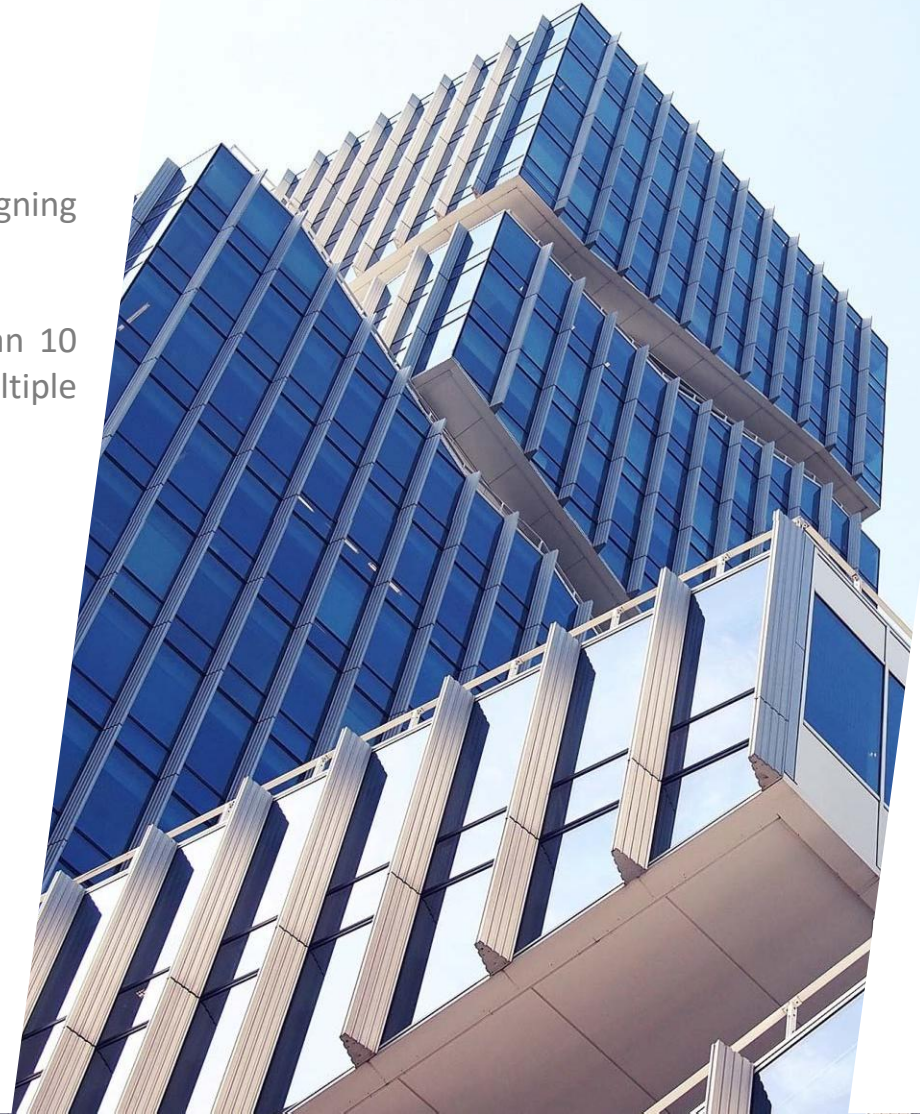
The team of Ashkal Arabia has been working for more than 10 years in project management designing & carrying out multiple projects in a variety of industries. It includes:

- **Residential**
- **Healthcare**
- **Industrial**
- **Hospitality**

BIM

INTRODUCTION

- About BIM
- BIM capabilities
- BIM for project Cost control

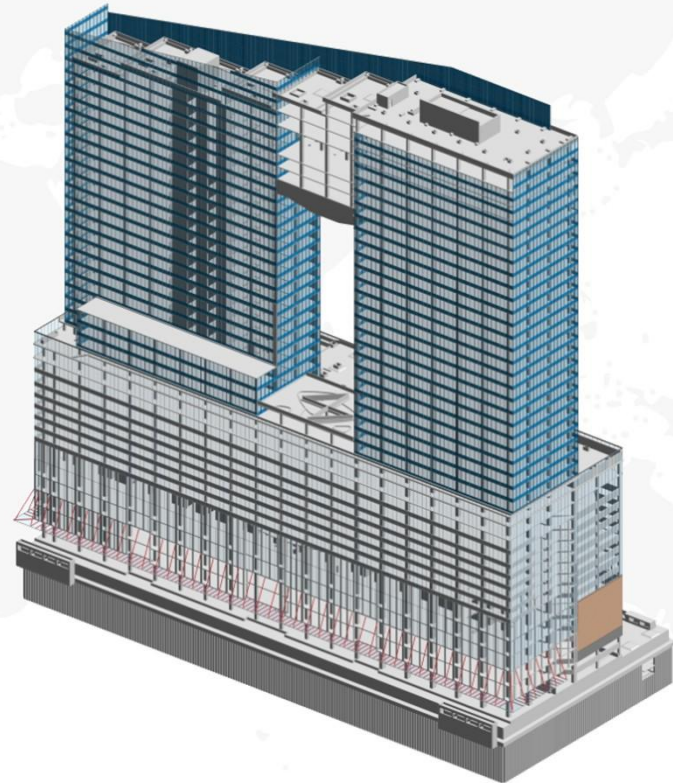


What is BIM

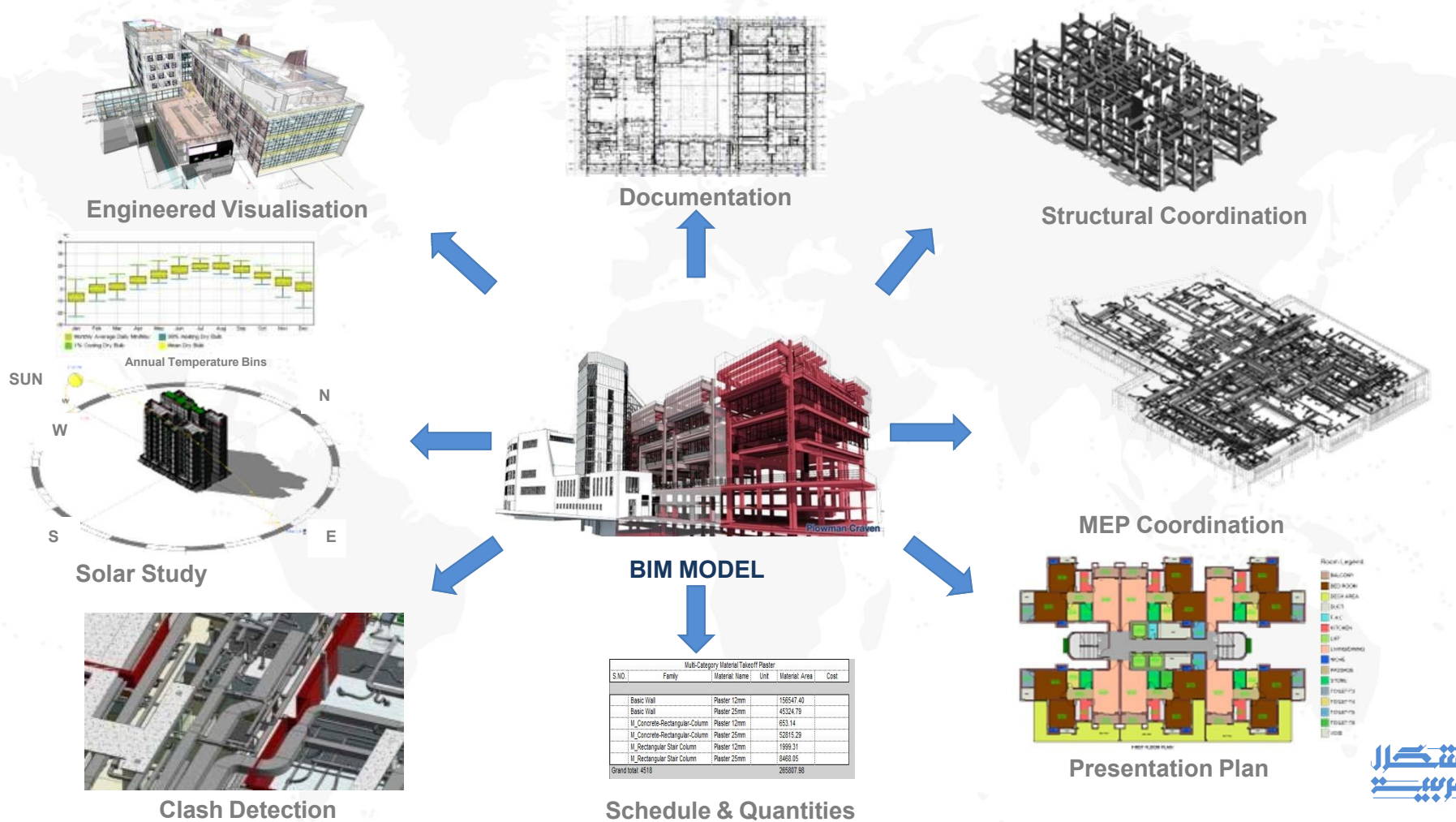
BIM or Virtual Design and Construction (VDC) is “digital representation of the physical and the functional characteristics of a facility”. Building Information Modeling (BIM) helps in generating and managing building data during its life cycle. It uses three-dimensional, real-time, dynamic building modeling technology to **increase Productivity, Coordination and Efficiency** in Building Design, Construction and Facility Management.

BIM services include:

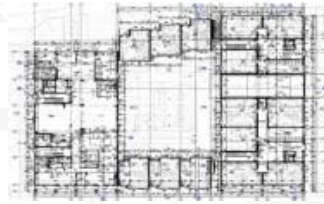
- Architectural BIM Services
- Structural BIM Services
- MEP BIM Services
- Coordination / Clash Detection Services
- Content Creation / Revit Libraries
- Energy Analysis / LEED Certificate facilitation
- BIM Integration with Project Management Tools –4D
- Quantity Surveying and Cost Management



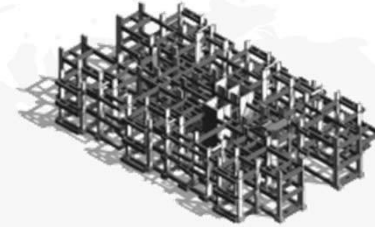
Single BIM Database



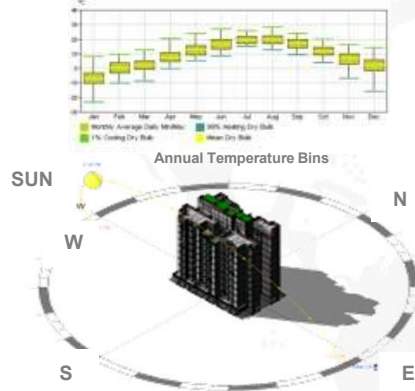
Enginered Visualisation



Documentation



Structural Coordination



Solar Study



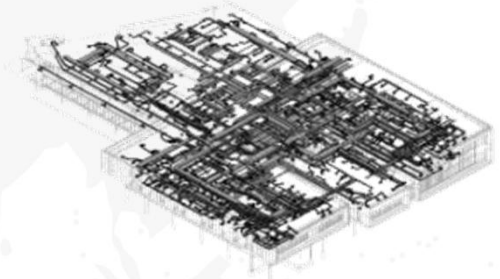
BIM MODEL



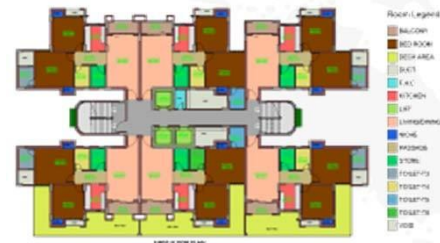
Clash Detection

Multi-Category Material Takeoff Plaster					
S.NO.	Family	Material Name	Unit	Material Area	Cost
	Basic Wall	Plaster 12mm		199547.40	
	Basic Wall	Plaster 25mm		45324.79	
	M_Concrete-Rectangular-Column	Plaster 12mm		653.14	
	M_Concrete-Rectangular-Column	Plaster 25mm		52815.29	
	M_Rectangular Stair Column	Plaster 12mm		1999.31	
	M_Rectangular Stair Column	Plaster 25mm		8469.05	
Grand total:	4518			253907.98	

Schedule & Quantities



MEP Coordination

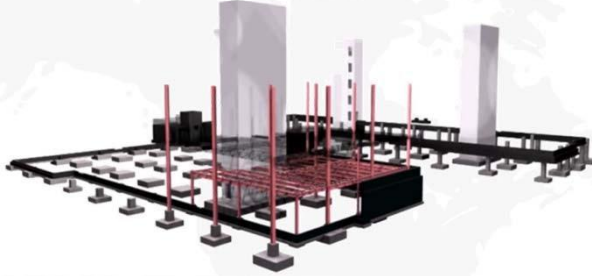


Presentation Plan



Construction Sequencing

INTRODUCTION



Phase - 1

Foundation, column, raft slabs, shear walls in first phase



Phase - 2

Slabs and beams added in phase 2



Phase - 3

Upper level slabs and slabs in building 2 starts



Phase - 4

Bricks and finishing works for lower floors begins in phase 4



Phase - 5

Facade and interior works starts in phase 5



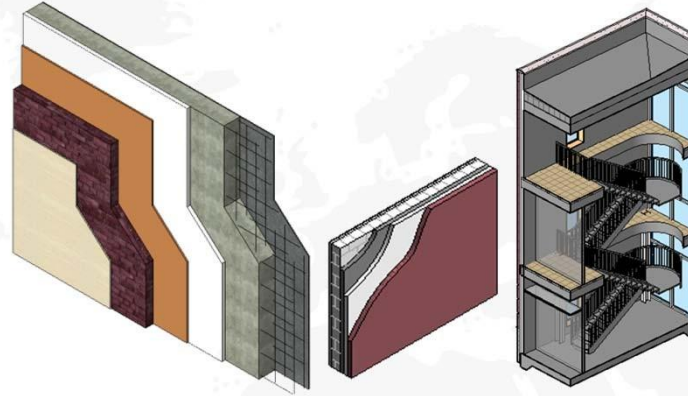
Completion/Handover

Completed building with integrated facility management

Detailed Quantities

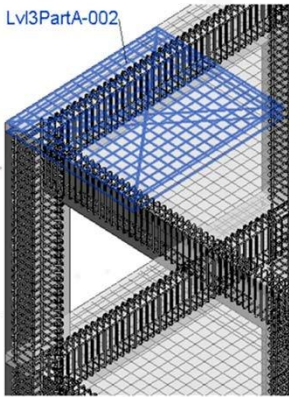
EXTRACTION OF ITEM WISE QUANTITY

Multi-Category Material Takeoff Cubic Meter						
L5 Description	L4 TITLE	Material: Unit	QTY.	Material: Cost	Material: Volume	Amount
Earth work in excavation in foundation trenches or drains, lift upto 1.5 m, lead of 50 m : all types of soil	Excavating , Trench	CUM	1	130.27	6.37 m³	829.99
Earth work in excavation in foundation trenches or drains, lift upto 1.5 m, lead of 50 m : all types of soil	Excavating , Trench	CUM	1	130.27	14.16 m³	1,844.42
P/L cement concrete with coarse sand, aggregate 40mm in foundation & footings of mix : 1:5:10	Concrete Filled Mix	CUM	1	2,737.47	1.46 m³	4,008.20
P/L cement concrete with coarse sand, aggregate 40mm in foundation & footings of mix : 1:5:10	Concrete Filled Mix	CUM	1	2,737.47	0.39 m³	1,068.46
P/L cement concrete with coarse sand, aggregate 40mm in foundation & footings of mix : 1:5:10	Concrete Filled Mix	CUM	1	2,737.47	2.48 m³	6,782.70
Brick work including scaffolding in cement mortar 1:5 in Foundation and plinths 1.5 m below and upto 1.2 m	Brick Work, Conventional Brick	CUM	1	2,102.85	4.76 m³	10,397.97
Filling excavated earth (excluding rock) in trenches, plinths, sides of foundations, lead up to 50 m	Back Fill	CUM	1	42.15	13.96 m³	508.44



Multi-Category Material Takeoff SQFT									
S.NO.	IPMG L4 CODE	IPMG L5 Code	L5 Description	L4 TITLE	Material: Description	Dwg.No.	Material: Name	Unit	SQFT
1	02210 500	02210 500 0200	Chemical analysis of soil samples	Laboratory Testing			Soil Testing	SO M	
2	02360 000	02360 000 1120	Pre-construction anti-termite treatment Using Chloropyriphos Emulsifiable concentrate 0.2%.	Termite Treatment	At Excavation	2	ANTI TERMITE TREATMENT	SO M	
2	02360 000	02360 000 1120	Pre-construction anti-termite treatment Using Chloropyriphos Emulsifiable concentrate 0.2%.	Termite Treatment	Before Flooring	2	ANTI TERMITE TREATMENT	SO M	
8	07110 300	07110 300 0200	Providing and mixing waterproofing material in cement concrete work @ 1.8 kg per 50 kg	DPC	Water Proofing at DPC	8	Damp Roof Course	SO M	
8	07110 300	07110 300 0200	Providing and mixing waterproofing material in cement concrete work @ 1.8 kg per 50 kg	Damp Roof Course	Water Proofing at DPC	8	WATER PROOFING AT D.P.C	SO M	
9	07110 300	07110 300 0250	Applying a coat of residual petroleum bitumen of penetration 80/100 @ 1.70 kg/sq. on DPC.	Damp Roof Course		9	Residual Petroleum	SO M	

Lvl3PartA-002



Multi-Category Material Takeoff Cubic Meter												
S.NO.	IPMG L4 CODE	IPMG L5 Code	L5 Description	L4 TITLE	Material: Description	Material: Dwg.No.	Material: Unit	No.	L	B	H	QTY.
3	02315 900	02315 900 4110	Earth work in excavation in foundation trenches or drains, lift upto 1.5 m, lead of 50 m : all types of soil	Excavating , Trench		3	CUM	4				2
4	03305 200	03305 200 0210	P/L cement concrete with coarse sand, aggregate 40mm in foundation & footings of mix : 1:5:10	Concrete Filled Mix	Cement Concrete	4	CUM					3
5	04210 130	04210 130 3610	Brick work including scaffolding in cement mortar 1:5 in Foundation and plinths 1.5 m below and upto 1.2 m	Brick Work, Conventional Brick	Brick work in Foundation	5	CUM	4				1
6	02315 100	02315 100 3100	Filling excavated earth (excluding rock) in trenches, plinths, sides of foundations, lead up to 50 m	Back Fill		6	CUM	1				1
10	02315 505	02315 505 2550	P/L 40 mm thick DPC with cement concrete 1:2:4, aggregate 12.5 mm including side shattering	Fill		10	CUM	1	10' 6"	10' 6"	6"	1
11	04210 130	04210 130 3620	Brick work including scaffolding in cement mortar 1:5 in Superstructures upto 20.0 m above plinth level	Brick Work, Conventional Brick	Brick Work in Superstructure	11	CUM					4



3D

BIM MODELING

- Existing Conditions Models
- Laser Scanning
- Ground Penetration Radar(GPR)conversions
- Safety & Logistics Models
- Animations, rendering, walkthroughs
- BIM driven prefabrication
- Laser accurate BIM driven field layout



SCHEDULING

- Project Phasing Simulations
- Lean Scheduling
- Last Planner
- Just In Time(JIT)
- Equipment Deliveries
- Detailed Simulation
- Installation
- Visual Validation for Payment Approval

4D

5D

ESTIMATING

- Real time conceptual modeling and cost planning (DProfiler)
- Quantity extraction to support detailed cost estimates
- Trade Verifications from Fabrication Models
- Structural Steel
- Rebar
- Mechanical/Plumbing
- Electrical
- Value Engineering
- What-if scenarios
- Visualizations
- Quantity Extractions
- Prefabrication Solutions
- Equipments rooms
- MEP systems
- Multi-Trade Prefabrication
- Unique architectural and structural elements

SUSTAINABILITY

- Conceptual energy analysis via DProfiler
- Detailed energy analysis via EcoTech
- Sustainable element tracking
- LEED tracking

6D

7D

FACILITY MANAGEMENT

- Life Cycle BIM Strategies
- BIM As-Built
- BIM embedded O&M manuals
- COBie data population and extraction
- BIM Maintenance Plans and Technical Support
- BIM file hosting on Lend Lease's Digital Exchange System

Value Addition

Using BIM Technology

BIM provides safe and reliable design solutions that satisfy the specified performance criteria at the optimum cost & budget.

- Design Feasibility Analysis
- Co-ordination between ASMEP services
- Structural Analysis
- Energy Analysis/Sun Study
- Quantity Surveying

INPUT RECEIVED

DESIGN DATA

MODEL CREATION

BUILDING
INFORMATION
MODEL

BIM OFFERS

- Design Visualization
- Design Analysis
- Detail Drawings
- Energy Analysis
- Analytical Simulations
- Sustainable Design Study

Benefits of BIM

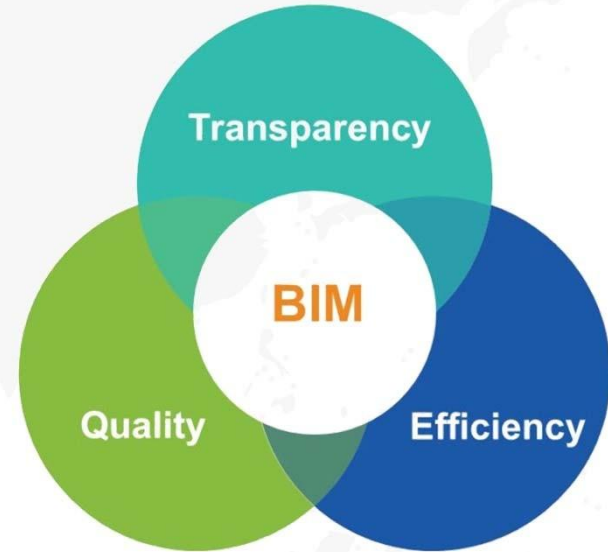
Over conventional process

Problem Points

- Design Conflicts
- Understanding of Design Intent
- Design Changes (Onsite / Offsite)
- Huge no. of RFI's
- Actual Vs Planned Progress
- Cost Overrun
- Schedule Overrun
- Fractured Visualization
- Unmatched As- Built Drawings

BIM Advantage

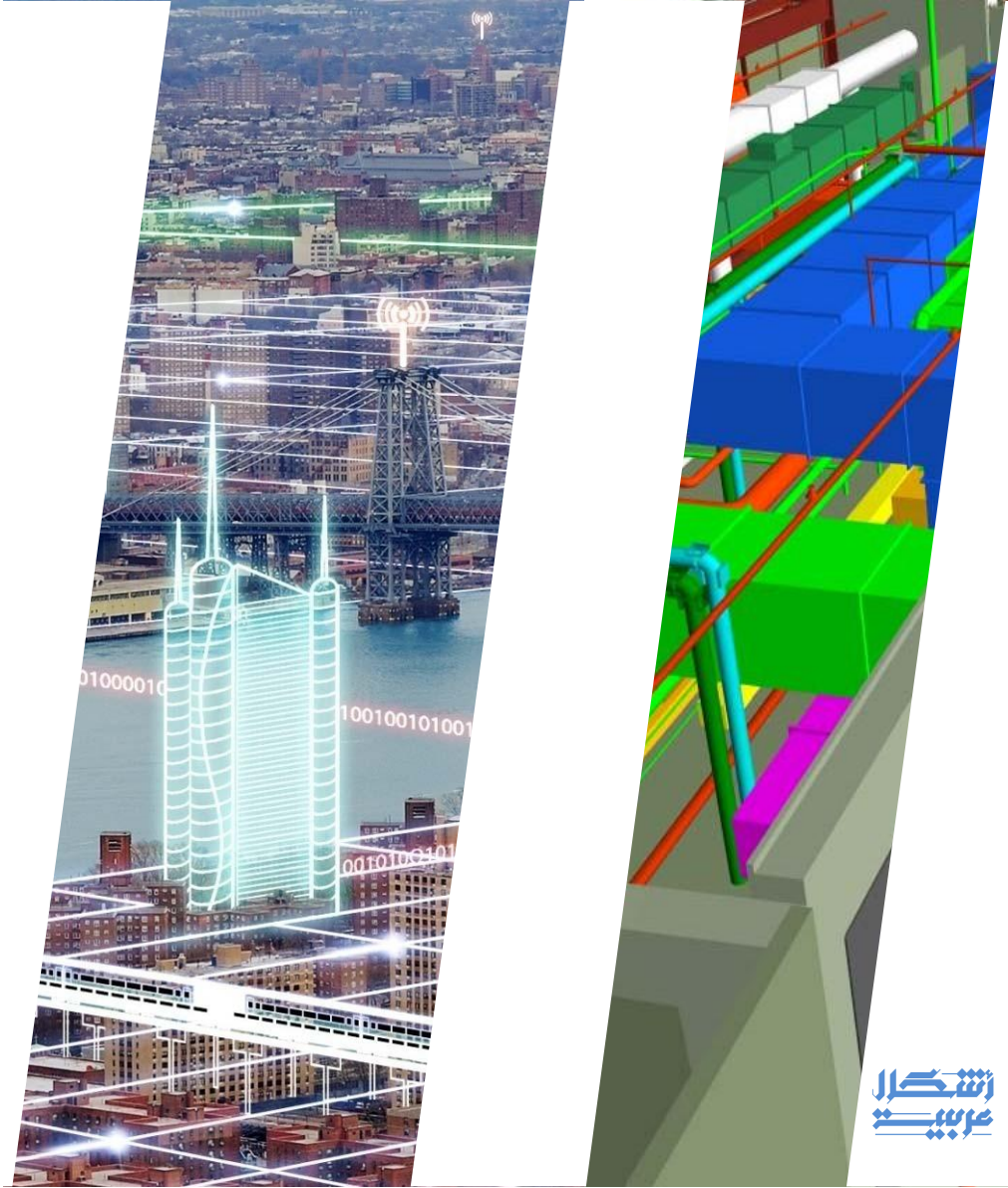
- Designs are Pre Coordinated
- Clear understanding of Design Intent
- Minimal Design Changes
- Reduced no of RFI's
- Actual Vs Planned Progress through 4D
- Cost estimation and control
- Reduced Schedule/ BOQ changes
- Accurate Engineered Visualization
- Accurate As- Built Drawings
- FM solutions
- Collaborative working environment



CENTROID

ADVANTAGE

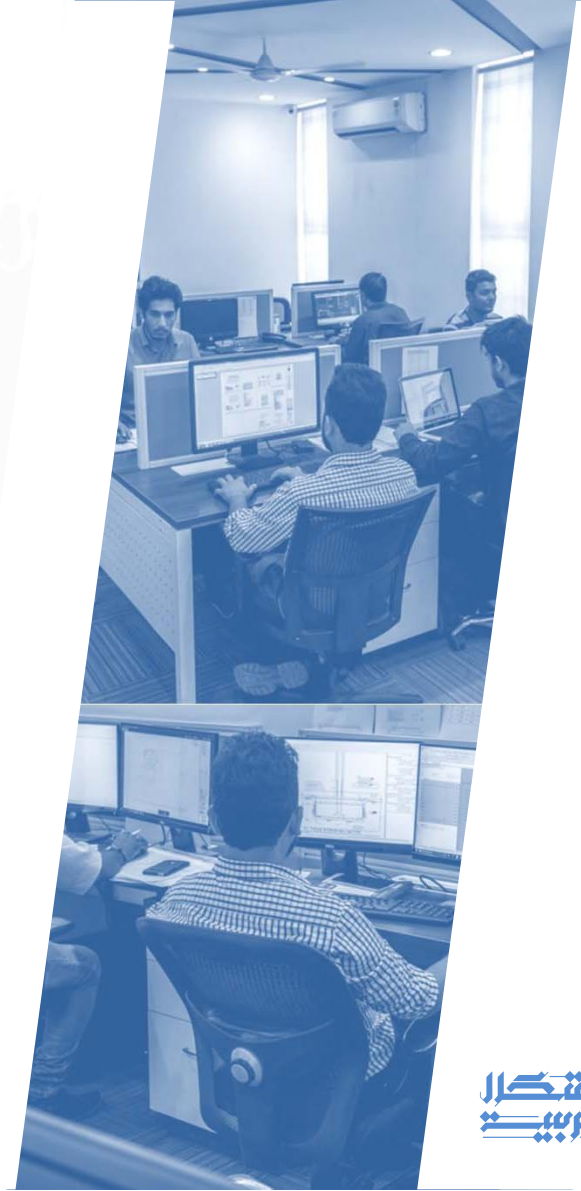
- Global Experience of Ashkal Arabia
- Embracing technology, adding value to the project
- On time project delivery with best industry quality
- US, UK & EU Standard Compliance
- Implementing Industry Best Practices
- One Stop Solution for Technology in AEC Domain
- Resource flexibility
- Reduce cost and Faster ROI
- Location Advantage
- Shorter time to market
- Explore & Engage in new markets
- Sound Quality Governance
- Select using “testable” and “measurable” criteria



ASHKAL ARABIA

OFFICE INFRASTRUCTURE

- Fully equipped office in Dammam, KSA.
- 3000 sq. ft. of office space.
- All BIM workstations are Dual Xeon processors with 64GB or more RAM and High-end Graphics adaptors
- The WAN/ Internet connectivity is on 1 GBPS dedicated.
- Web meeting applications for live screen shares across geographies and conducting Web Meetings with spread across teams
- All staff members working on global projects connected on IM platforms such as Skype, G-Talk, etc. for quicker short interactions
- Well experienced with document management platforms and version management systems
- Qualified and experienced staff with relevant market and technological exposure
- Best professional network
- Diverse experience of Ashkal Arabia in global market (US, UK, Middle East, AU, NZ)
- Exposure to globally renowned projects



QUALITY ASSURANCE

REVIEW & AUDIT

Audits and reviews will be performed in accordance with standards, best practices and checklists. These audits will actually be at every milestone & deliveries.

We ensure to deliver the best to our clients.

We review and record all information at each and every phase in well-defined procedures and guidelines, and our Quality Management Group audits our projects at regular intervals. Working on international guidelines and standards laid by various prestigious organizations actively involved in BIM Standardization globally

ISO 12006-2:2015

2015 - Building construction -- Organization of information about construction works -- Part 2: Framework for classification

ISO 16739:2013

2013 - Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries

ISO/TS 12911:2012

2012 - Framework for building information modelling (BIM) guidance

ISO 12006-3:2007

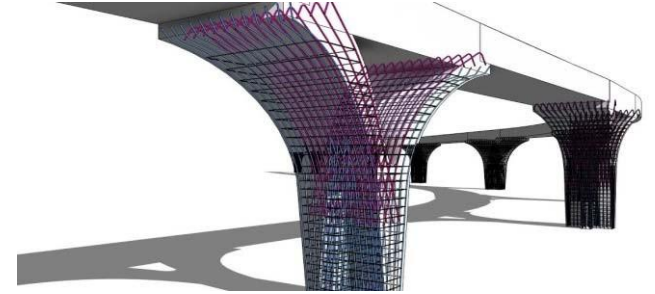
2007 - Building construction -- Organization of information about construction works -- Part 3: Framework for object-oriented information

ISO 29481

Building information modelling -- Information delivery manual



BIM FOR YOU



PMC & PROJECT OPERATORS

- BIM Specification and Consulting
- COBie Integration and Output
- BIM implementation, Modeling, Consolidation of Models
- Visualization support and Value Engineering
- FM integration; maintenance & hosting
- BIM Integration with Project Management Tools –4D
- Quantity Surveying and Cost Management –5D

ARCHITECTS & ENGINEERS

- Design Development Services
- Modelling Services
- Interference check and analysis
- Drawing extraction and documentation
- 4D/5D implementation
- Visualization support
- Energy Analysis / LEED Certificate facilitation
- Quantity Take Off from BIM models

CONTRACTORS & SUB-CONTRACTORS

- Project Definition and Implementation Plan
- Construction Model Creation & Integration
- Design Coordination support (mixed on-off-site)
- BIM Production: Shop Drawing, QTO, Project Tracking
- As Built Models

SURVEYORS & COST CONSULTANTS

- Quantity Take Off models
- Point Cloud BIM Conversion
- LIDAR Model To BIM Model
- Scan to BIM

BUILDING PRODUCT MANUFACTURERS

- Content Creation
- Family creation

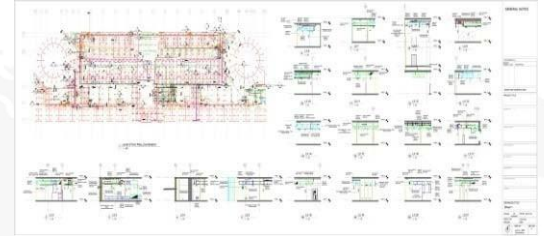
ASHKAL ARABIA'S BIM SERVICES



Preliminary Design Modeling



Integration & Coordination



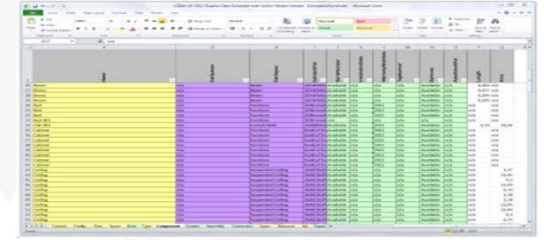
Construction Documentation



Structural Modeling & Integration



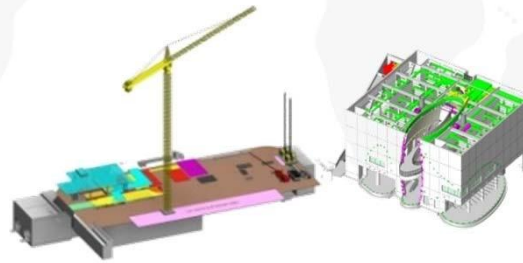
LIDAR / Scan to BIM - Point Cloud



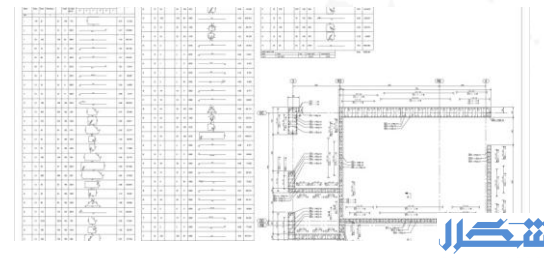
COBie



Technology Integration

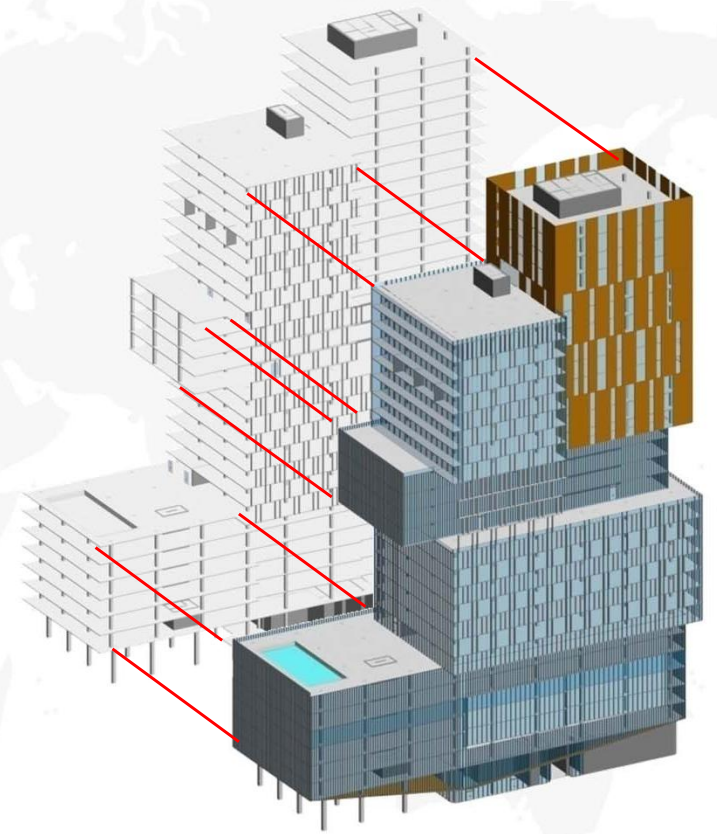


VDC - IPD & Simulation



Quantity Calculation

SELECTED
WORKS



BIM PROJECTS

GLOBAL COVERAGE

UNITED STATES OF AMERICA
UNITED KINGDOM
CANADA
INDIA
MIDDLE EAST
AFRICA
AUSTRALIA
NEWZEALAND



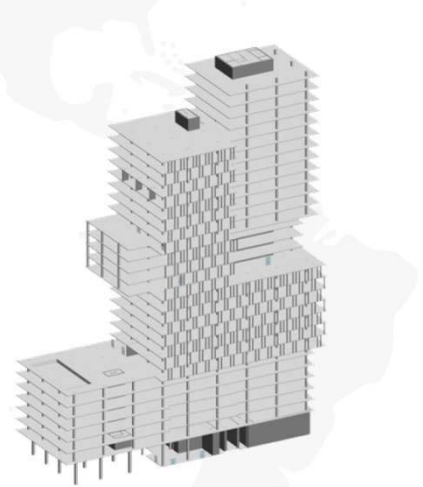
OVER **190** PROJECTS DELIVERED



SELECTED PROJECTS

TRIBUNE TOWER

Location: California, USA
Area: 0.7 million sqft
Type: Commercial



STRUCTURAL MODELING &
QUANTITY TAKEOFF



ARCHITECTURAL MODELING &
STRUCTURAL GLAZING



TRANSIT INTEGRATION



4D BIM / CONSTRUCTION
SIMULATION



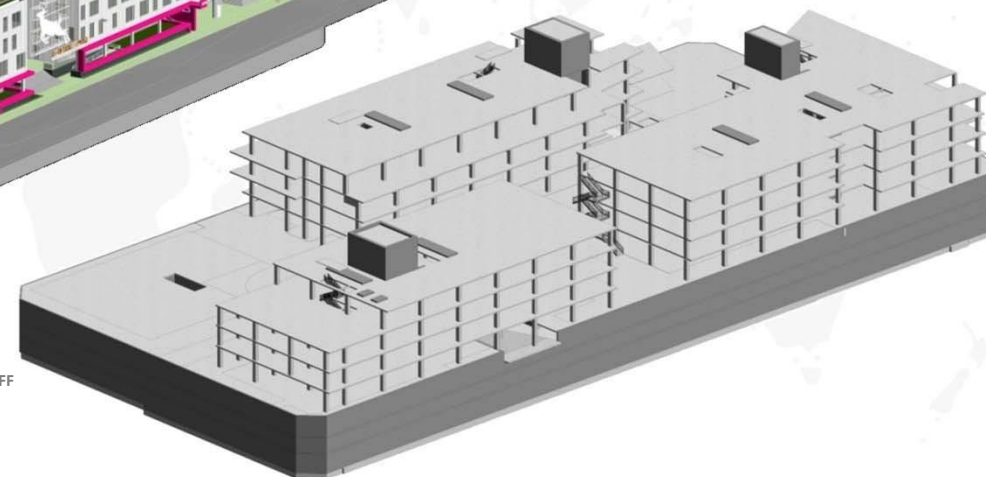
SELECTED PROJECTS

ACADEMY SQUARE

Location: California, USA
Area: 1 million sqft
Type: Commercial



ARCHITECTURAL MODELING AND STRUCTURAL GLAZING



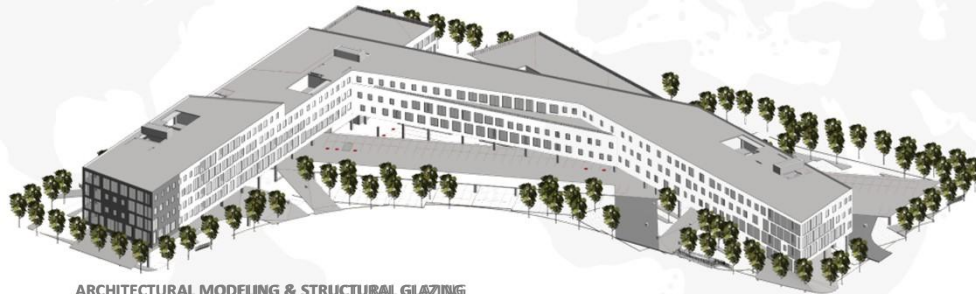
STRUCTURAL MODELING & QUANTITY TAKEOFF



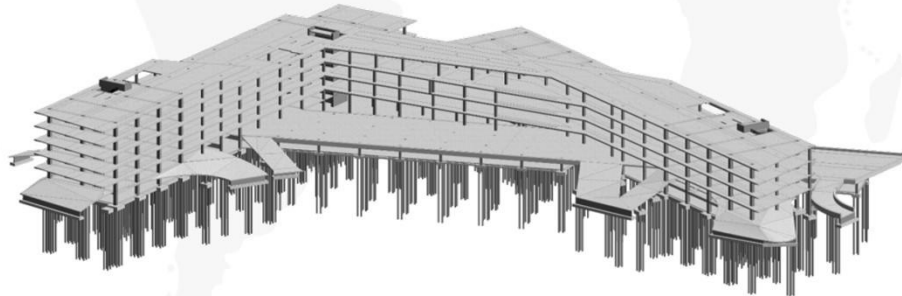
SELECTED PROJECTS

PLAYA VISTA

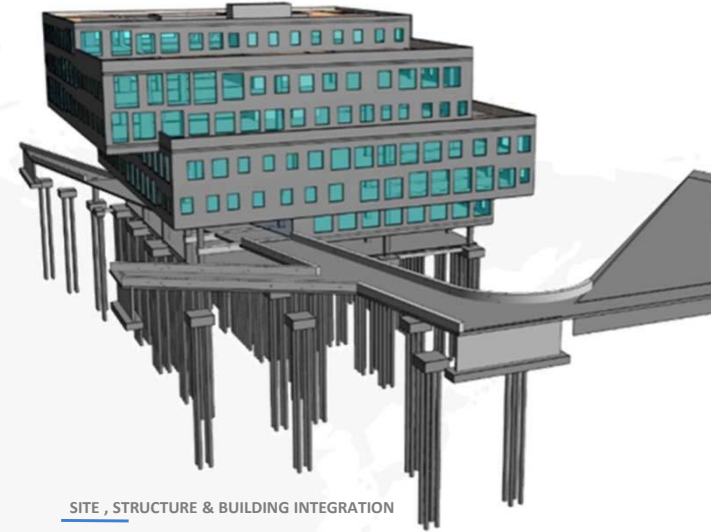
Location: Los Angeles, USA
Area: 1.2 million sqft
Type: Commercial



ARCHITECTURAL MODELING & STRUCTURAL GLAZING



STRUCTURAL MODELING & QUANTITY TAKEOFF



SITE , STRUCTURE & BUILDING INTEGRATION



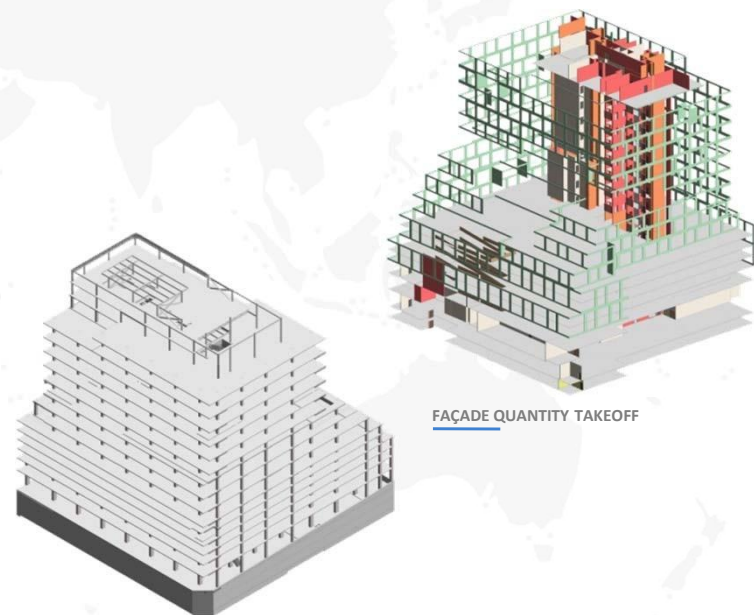
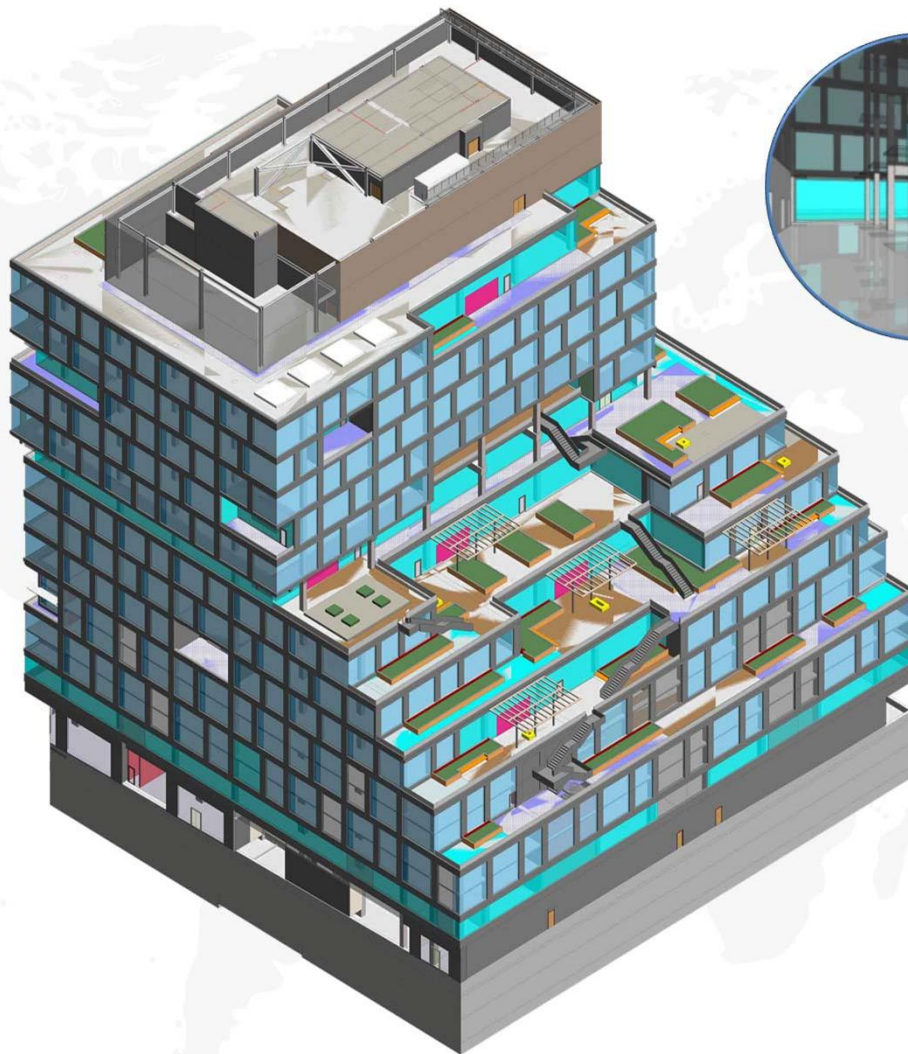
FAÇADE QUANTITY TAKEOFF



SELECTED PROJECTS

5901 SUNSET

Location: Los Angeles, USA
Area: 0.3 million sqft
Type: Institutional



ARCHITECTURAL MODELING & STRUCTURAL GLAZING

STRUCTURAL MODELING & QUANTITY TAKEOFF



SELECTED PROJECTS

HEALTH POINT

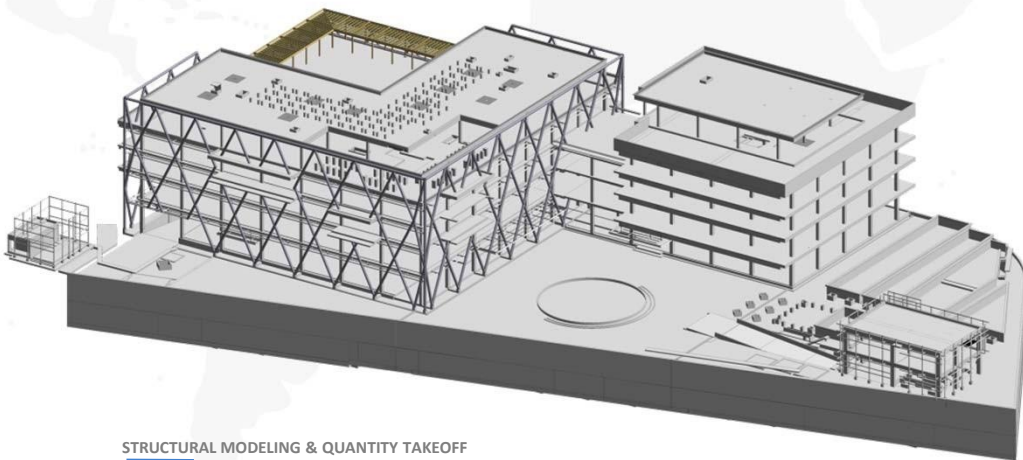
Location: Qatar , ME
Area: 1 million sqft
Type: Healthcare



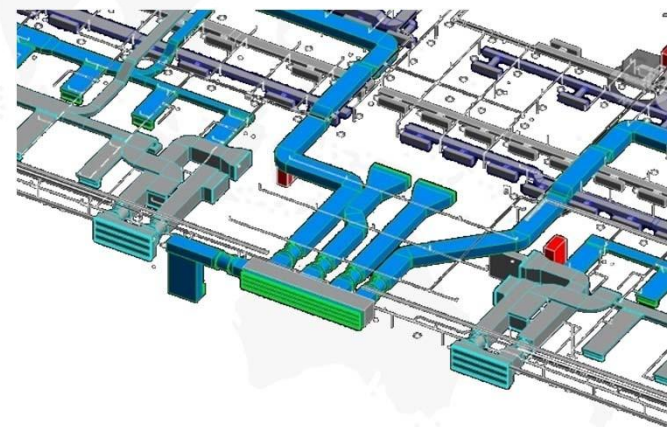
ARCHITECTURAL MODELING & STRUCTURAL GLAZING



STRUCTURAL FACADE



STRUCTURAL MODELING & QUANTITY TAKEOFF

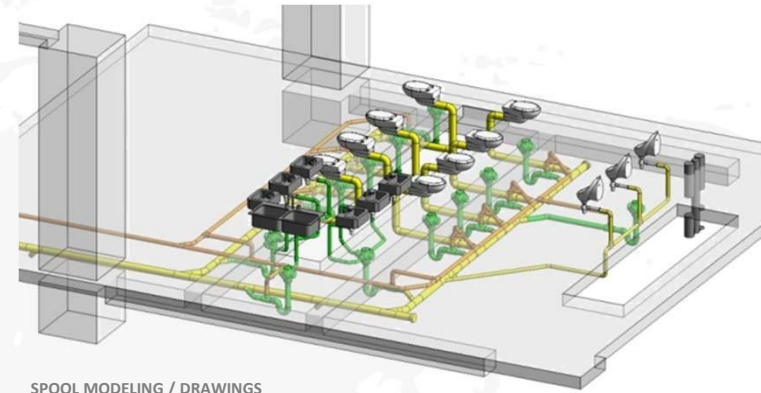


MEP (SERVICE COORDINATION & CSD)

SELECTED PROJECTS

GIFT CITY

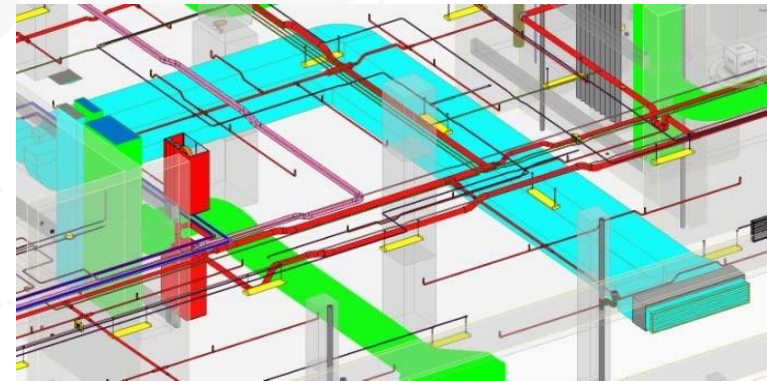
Location: Gujarat, India
Area: 1.2 million sqft
Type: Mixed-Use



ARCHITECTURAL MODELING & STRUCTURAL GLAZING



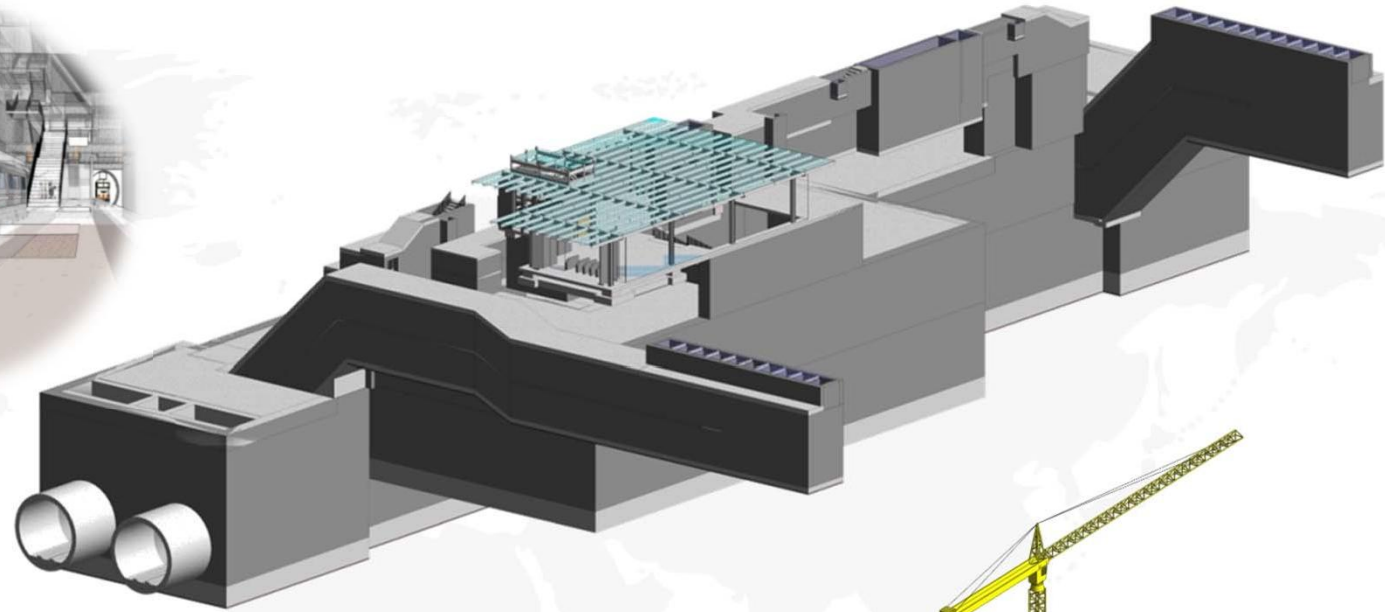
ARCHITECTURAL MODELING & STRUCTURAL GLAZING



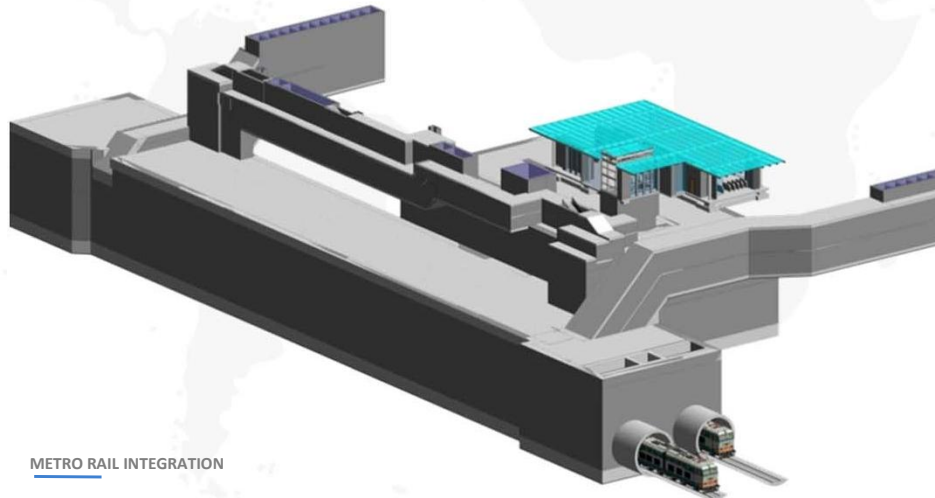
SELECTED PROJECTS

BROADWAY METRO STATION

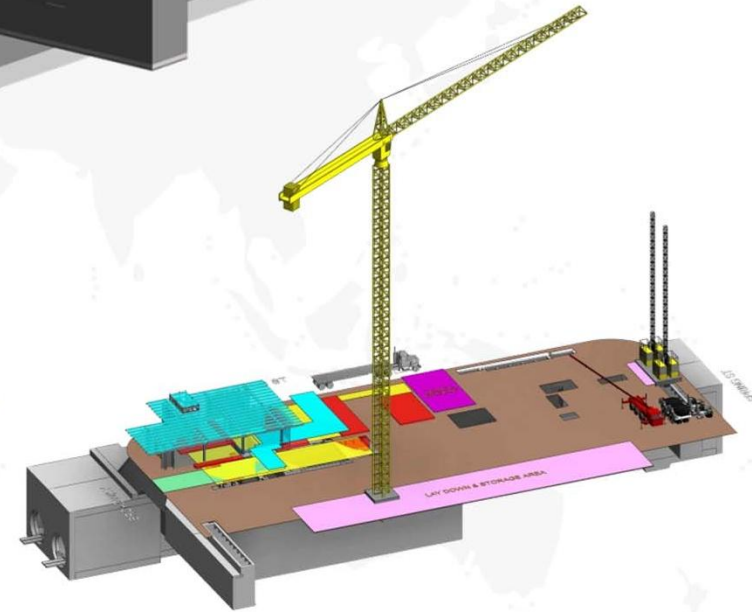
Location: Los Angeles, USA
Area: 0.3 million sqft
Type: Transportation



STRUCTURAL MODELING & QUANTITY TAKEOFF



METRO RAIL INTEGRATION



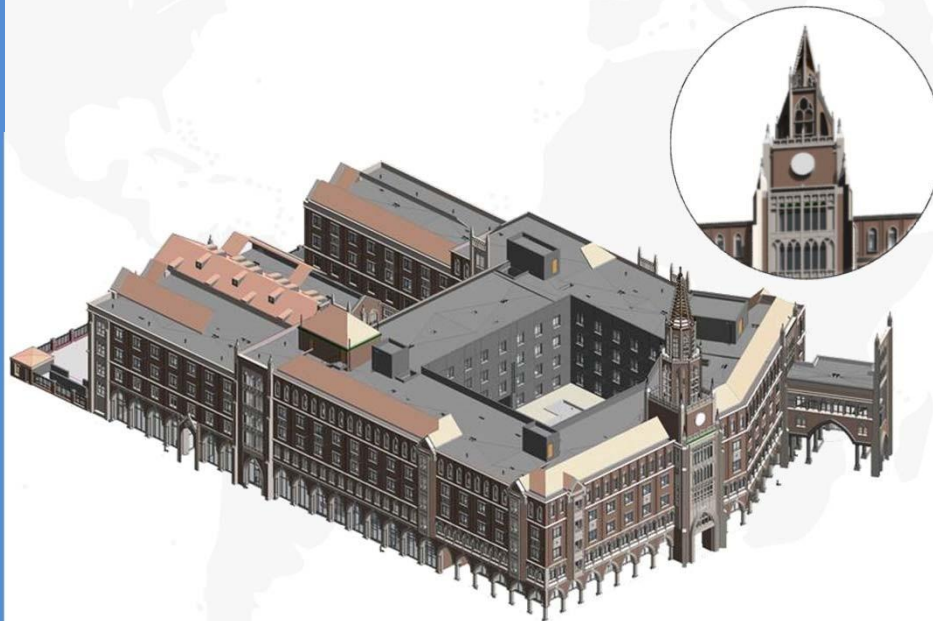
CONSTRUCTION SCHEDULING



SELECTED PROJECTS

USC - VILLAGE

Location: California, USA
Area: 0.7 million sqft
Type: Institutional



BLOCK-2 ARCHITECTURAL MODELING & FAÇADE QUANTIFICATION



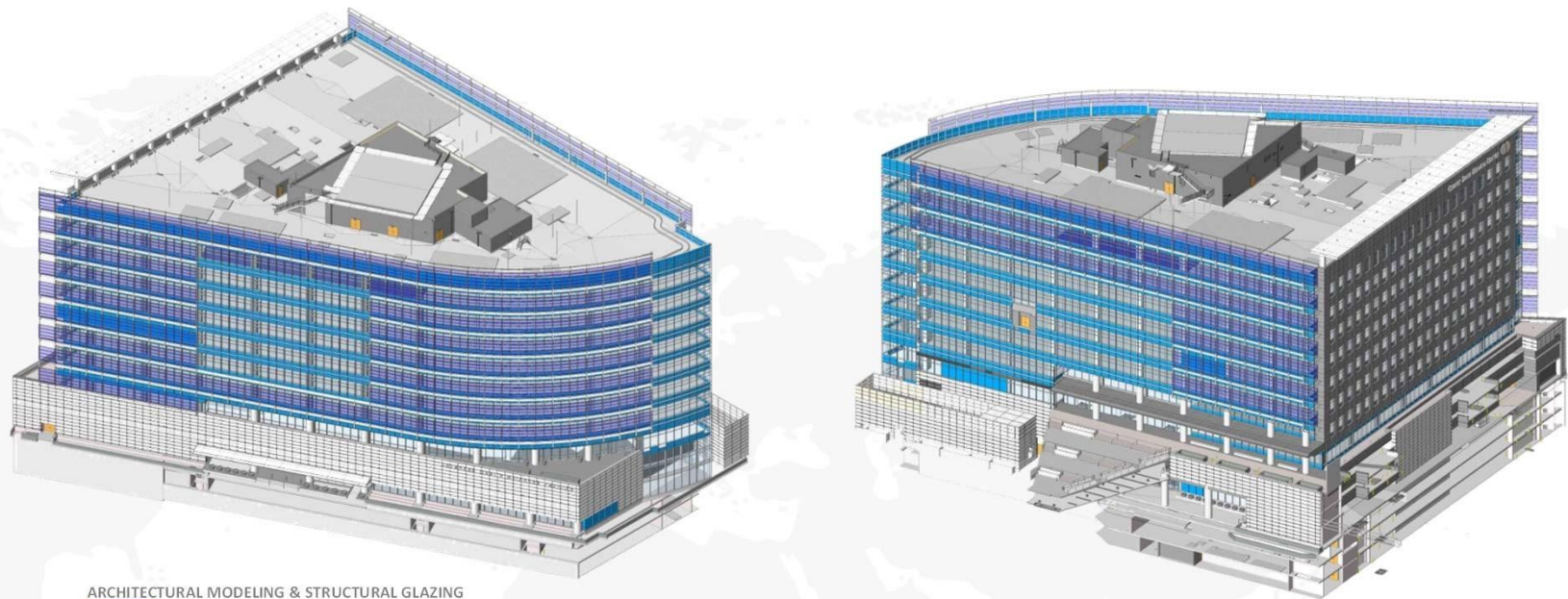
BLOCK-2 ARCHITECTURAL MODELING & FAÇADE QUANTIFICATION



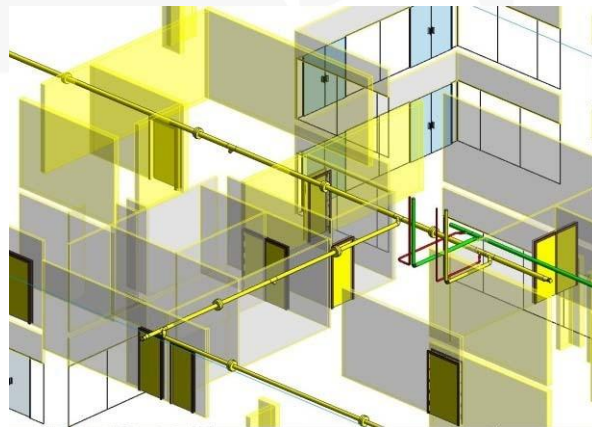
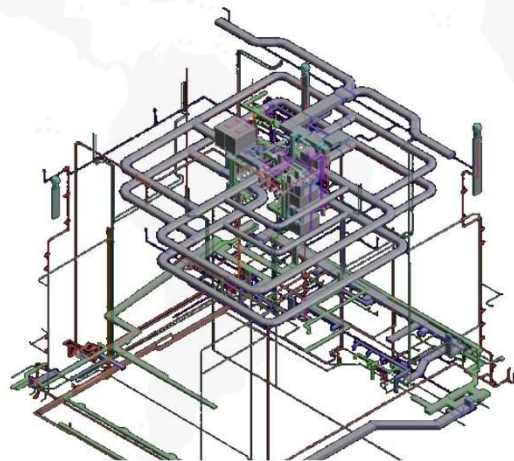
SELECTED PROJECTS

MULTI SPECIALTY HOSPITAL

Location: Los Angeles, USA
Area: 0.8 million sqft
Type: Healthcare



ARCHITECTURAL MODELING & STRUCTURAL GLAZING



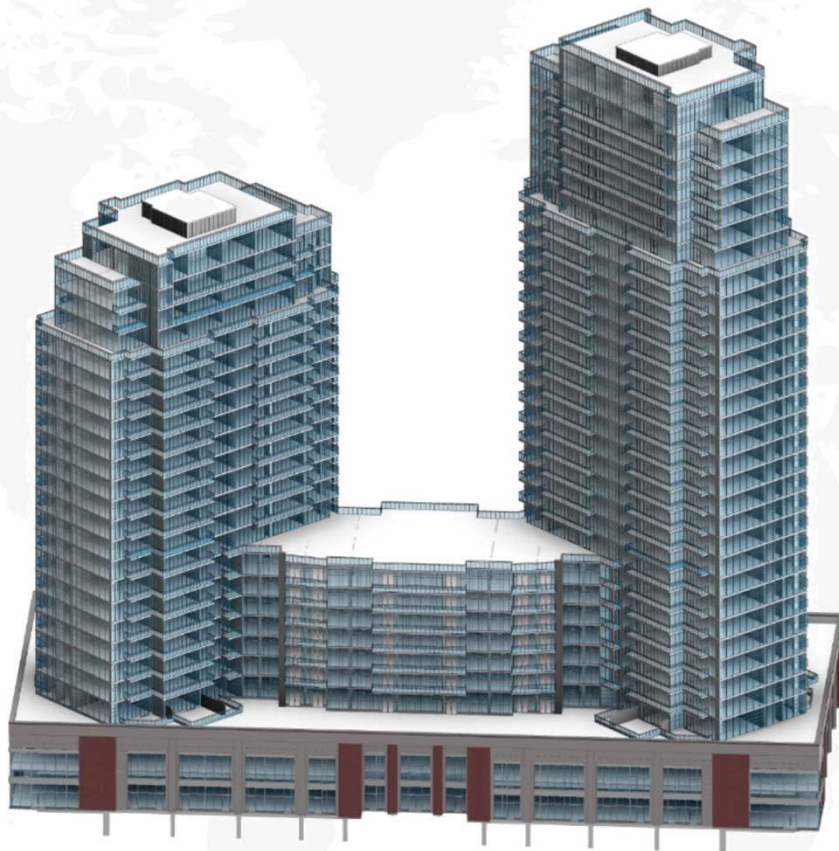
MEP MODELING & CLASH COORDINATION (CFC)



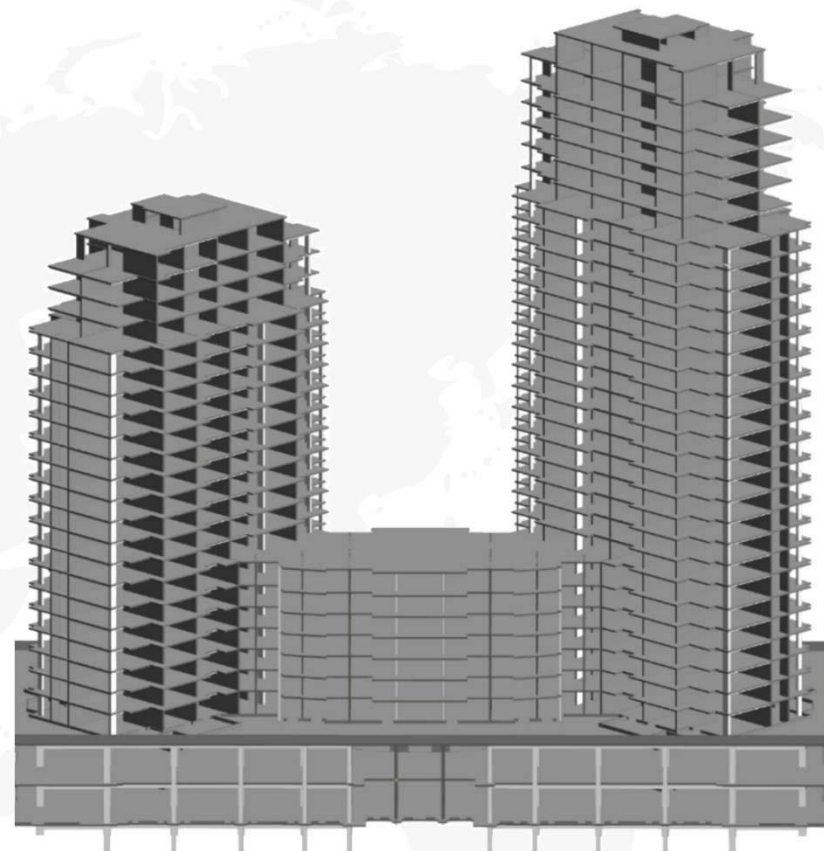
SELECTED PROJECTS

21 SEAVIEW

Location: Toronto, Canada
Area: 0.6 million sqft
Type: Mixed-Use



ARCHITECTURAL MODELING & STRUCTURAL GLAZING



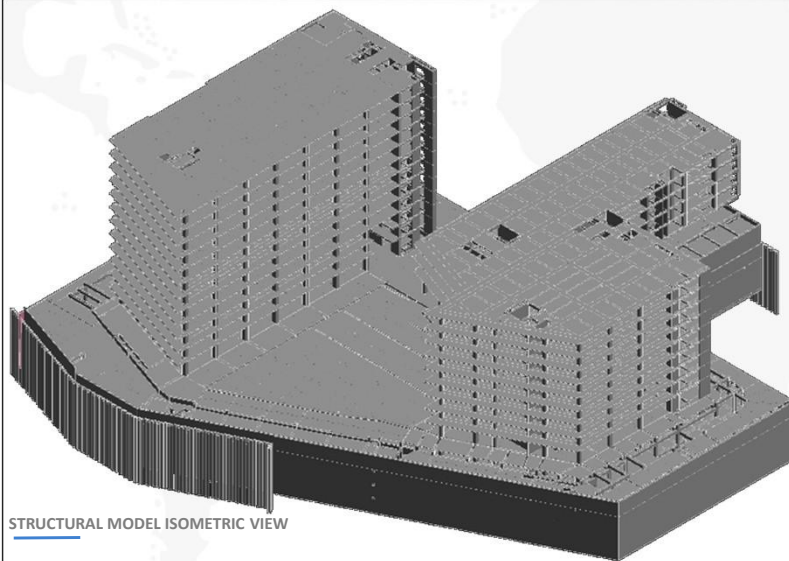
STRUCTURAL MODELING & QUANTITY TAKEOFF



SELECTED PROJECTS

AIPL- AUTOGRAPH

Location: Gurgaon, India
Area: 1.3 Million, sqft
Type: Workplace



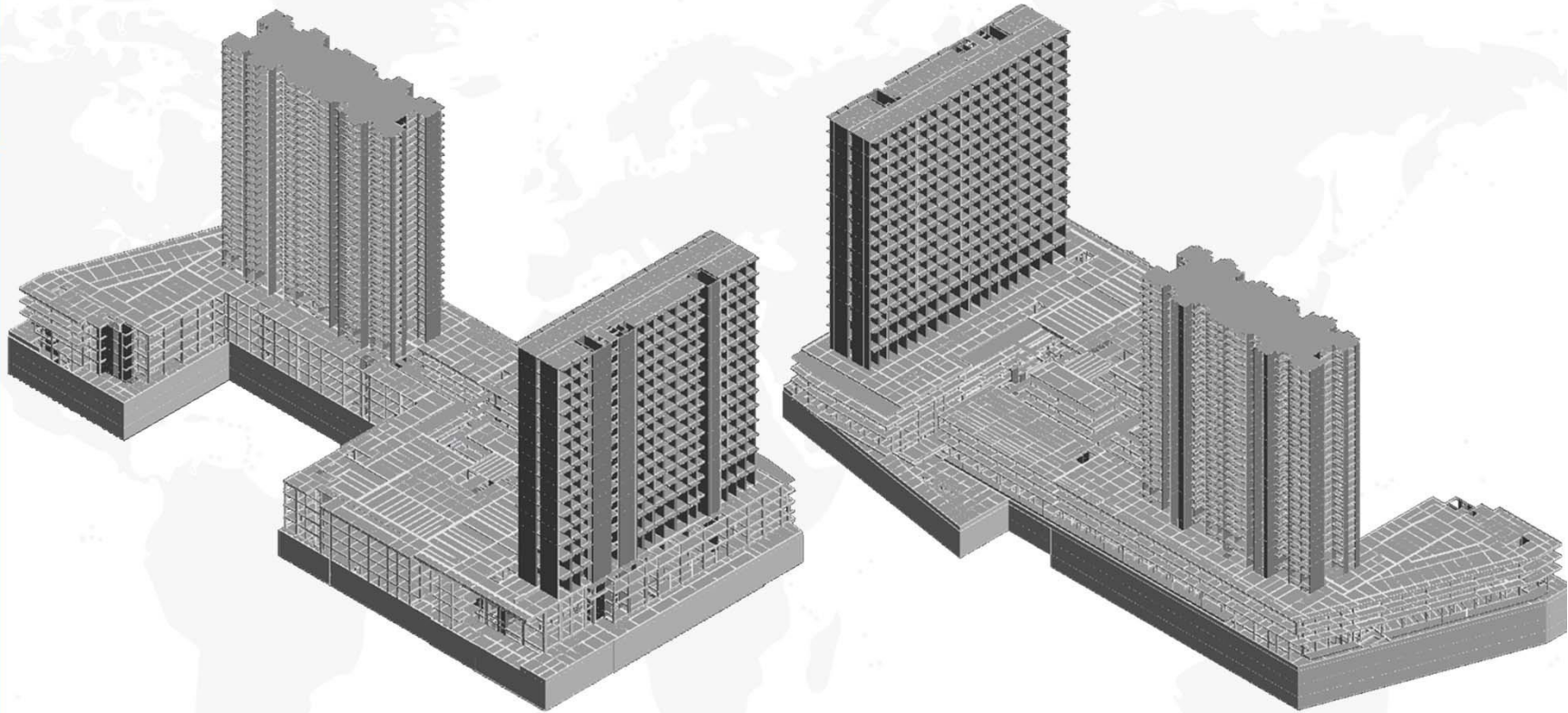
STRUCTURAL MODEL ISOMETRIC VIEW



SELECTED PROJECTS

M3M CORNER WALK

Location: Gurgaon, India
Area: 2 million sqft Type:
Workplace



STRUCTURAL MODEL ISOMETRIC VIEW



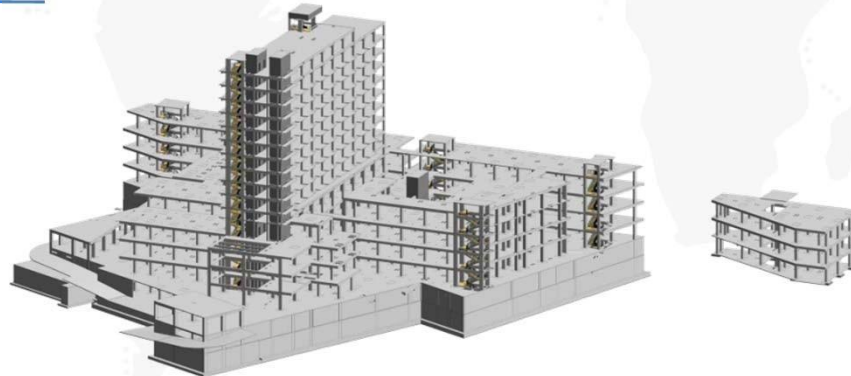
SELECTED PROJECTS

MARKET CITY

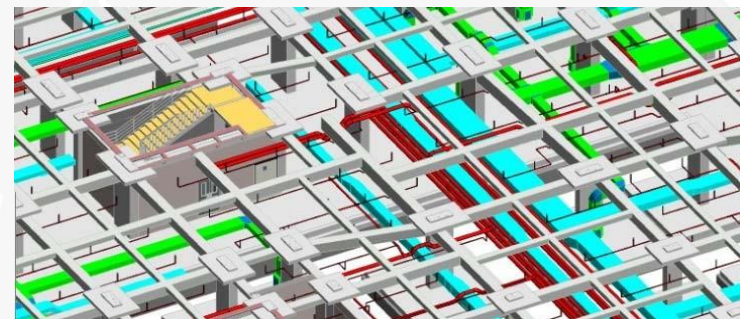
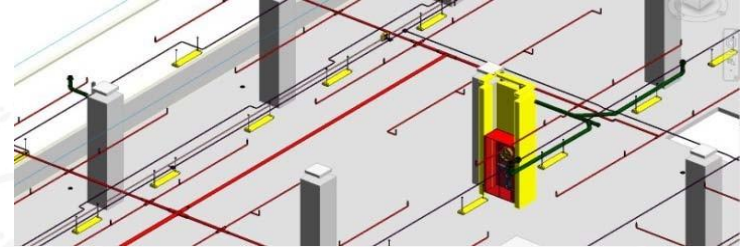
Location: Gurgaon , India
Area: 0.6 million sqft
Type: Commercial



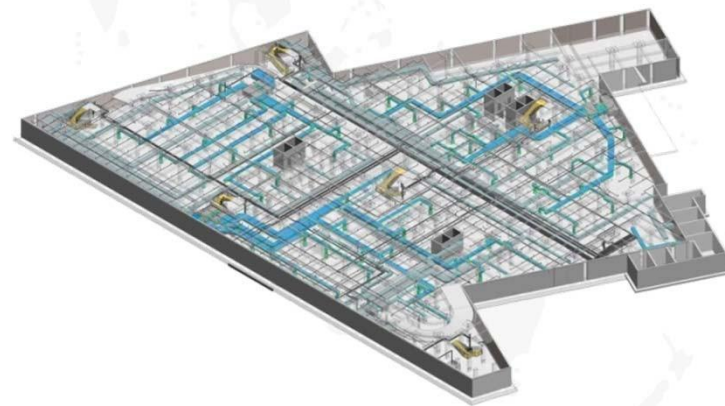
ARCHITECTURAL MODELING & STRUCTURAL GLAZING



STRUCTURAL MODELING & QUANTITY TAKEOFF



MEP COORDINATION & SPOOL



BASEMENT SERVICE COORDINATION



SELECTED PROJECTS

WAVE ONE

Location: Noida, India
Area: 2.1 million sqft
Type: Commercial



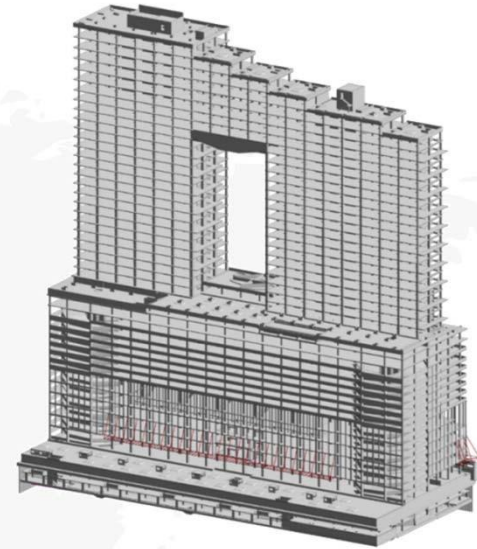
ACTUAL PHOTOGRAPH



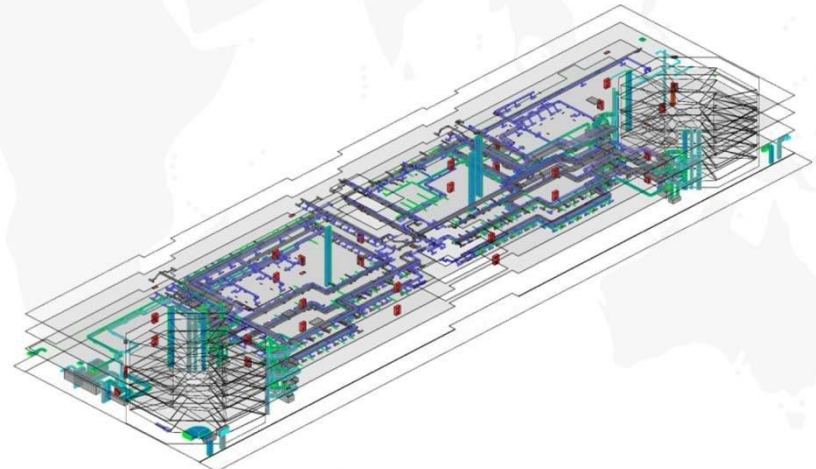
ACTUAL PHOTOGRAPH



ARCHITECTURAL MODELING & STRUCTURAL GLAZING



STRUCTURAL MODELING & QUANTITY TAKEOFF

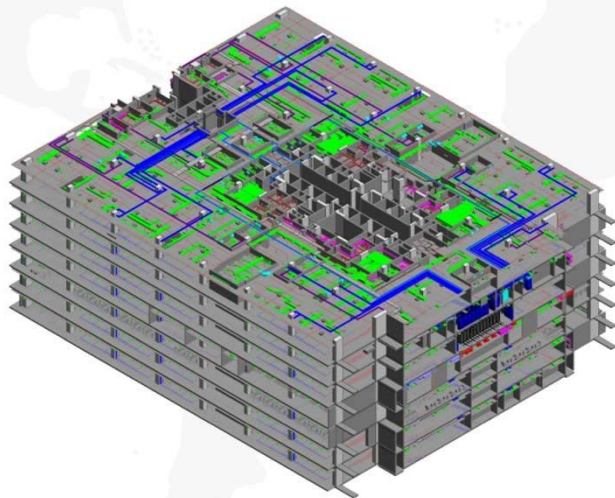
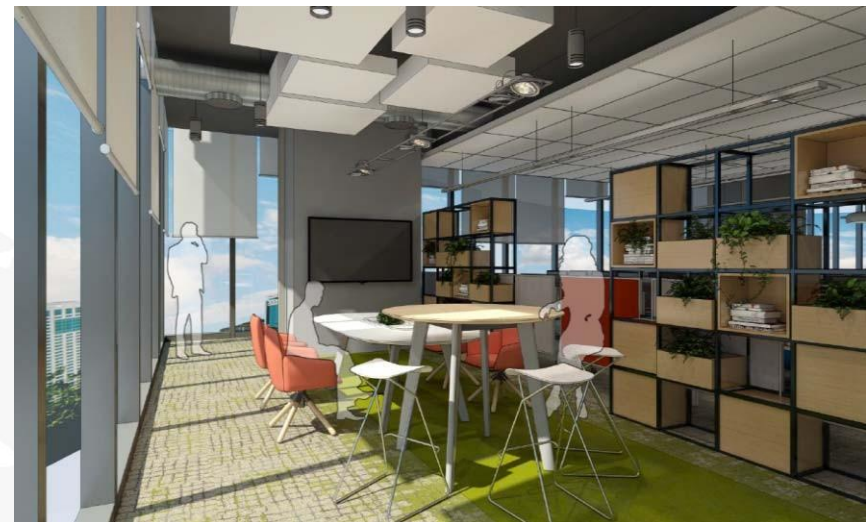


MEP MODELING & CLASH COORDINATION (CFC)

SELECTED PROJECTS

BANK OF AMERICA

Location: Gurgaon, India
Area: 0.45 million sqft
Type: Workplace



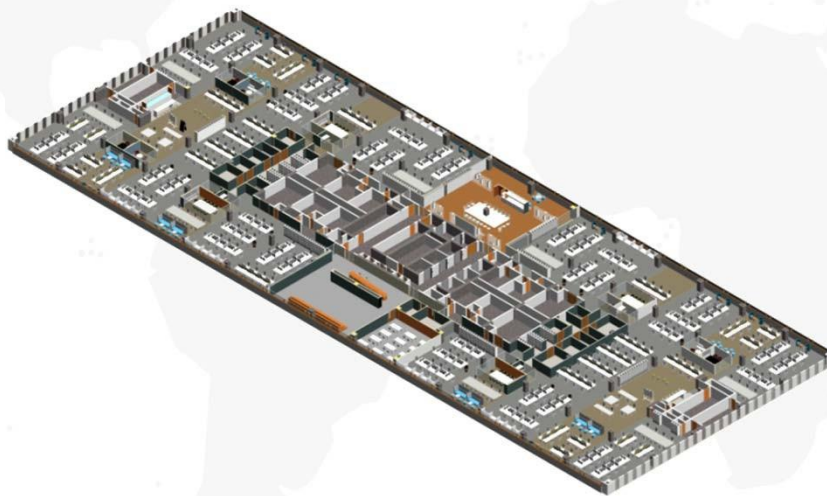
ISOMETRIC VIEW



SELECTED PROJECTS

CITI BANK

Location: Chennai, India
Area: 100,000 sqft Type:
Workplace



ISOMETRIC VIEW INTERIOR MODEL



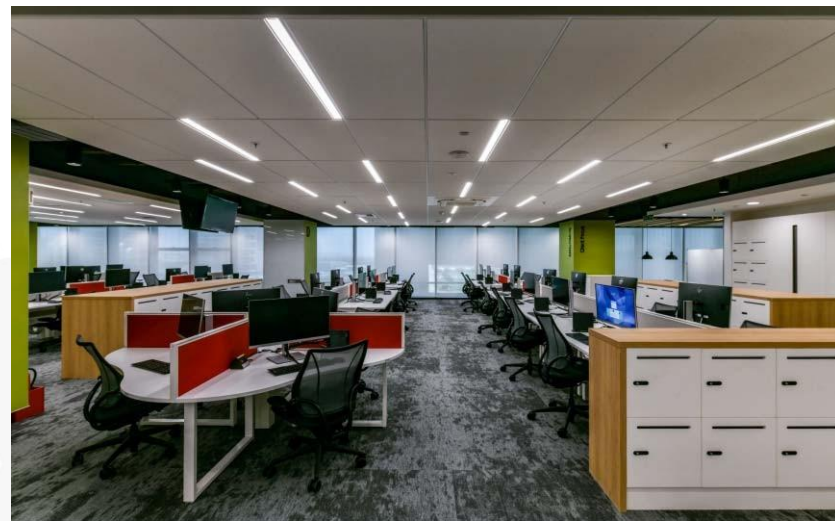
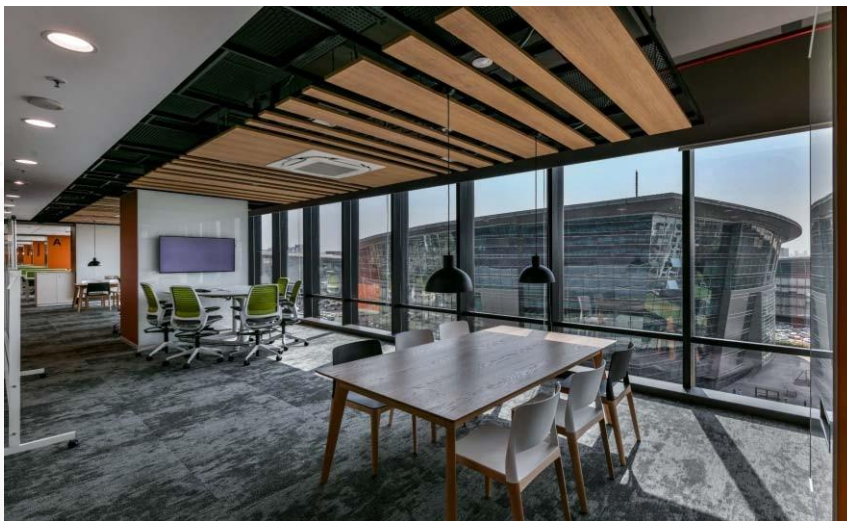
COORDINATED SERVICES



SELECTED PROJECTS

CREDIT SUISSE

Location: Pune, India
Area: 65,000 sqft
Type: Workplace



ISOMETRIC VIEW INTERIOR MODEL



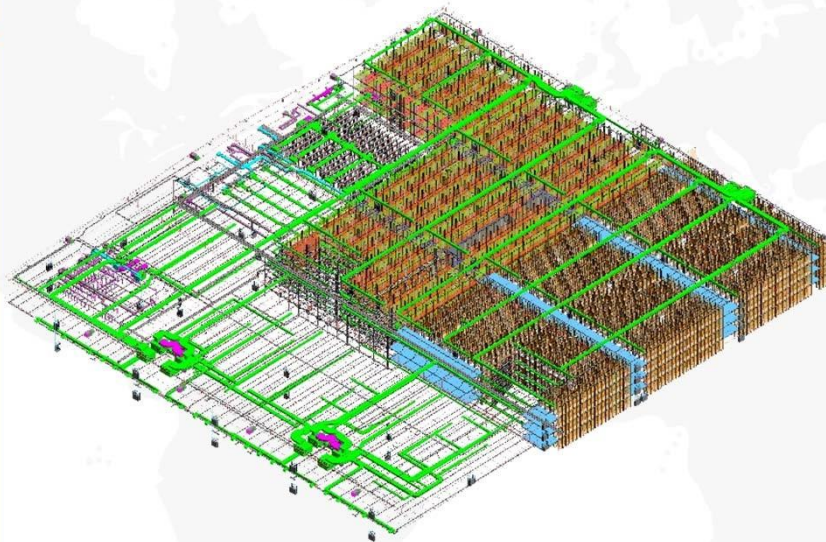
COORDINATED SERVICES



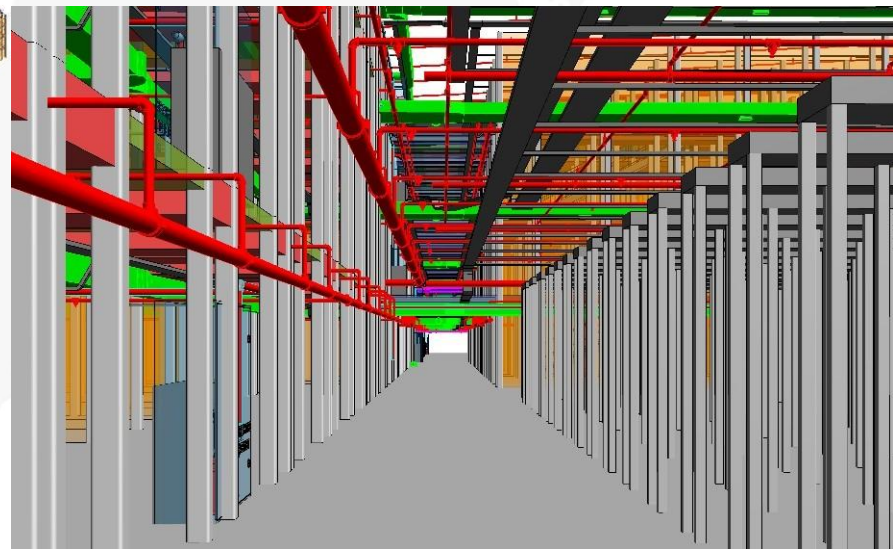
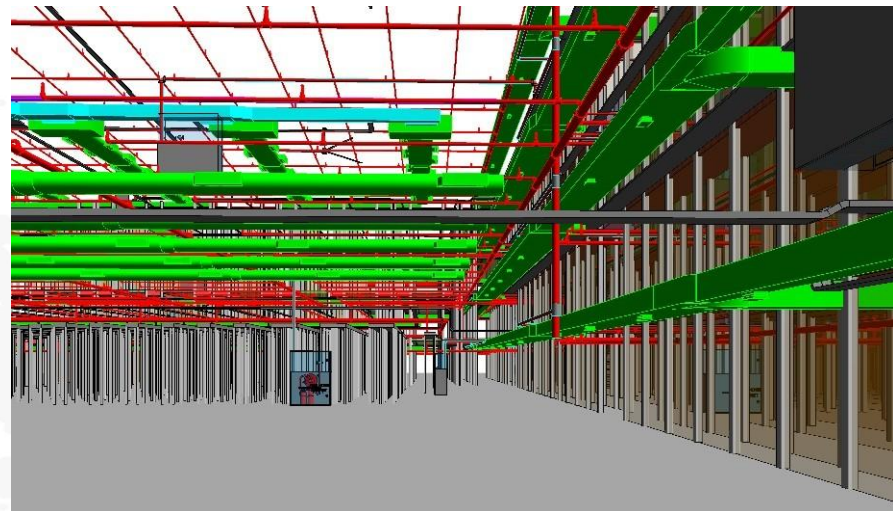
SELECTED PROJECTS

AMAZON FULFILLMENT CENTER

Location: Ahmedabad, India
Area: 0.4 million sqft
Type: Workplace



ISOMETRIC VIEW



OTHER PROJECTS



CSUSB - CALIFORNIA UNIVERSITY



PA-17 IT-CENTRE



400 SPECTRUM CENTRE



VERMONT



TCUC BUILDING



VATIKA AFFORDABLE GROUP HOUSING



ROWLAND HALL



IDS HEADQUARTERS



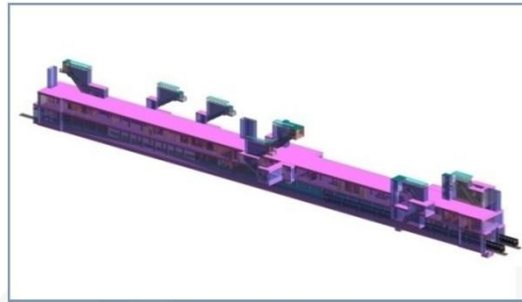
BHARAT HEALTH HOSPITAL



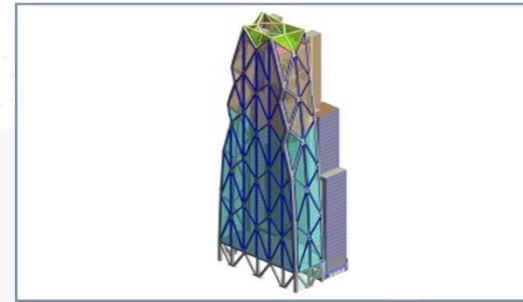
OTHER PROJECTS



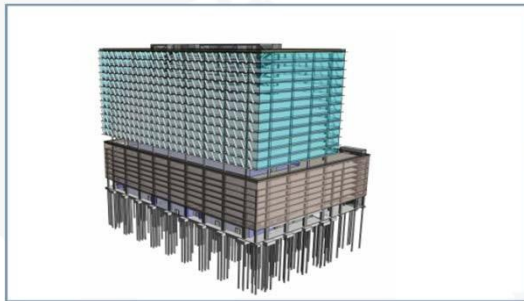
RICHMOND COMMERCIAL



MUMBAI METRO



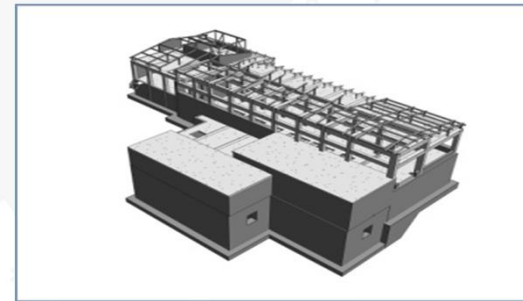
MISSION TOWER



VERMONT HEADQUARTERS



17th GRAND



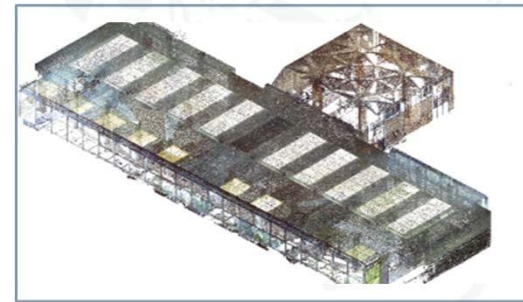
WAREHOUSE FACILITY



WATERLOO LUXURY CONTINUUMS



LONGBAY POINTCLOUD



FMG - POINTCLOUD



OUR
CLIENTS



شركة
عربية
مخصصة

Specialized CONSTRUCTION
COMPANY KSA

