TXG
TECHNICAL XPERTS GROUP

Digital Delivery Partner

2025

COMPANY PROFILE

BIM SERVICES

CAFM SOLUTIONS

DIGITAL TWIN SOLUTIONS

REALITY CAPTURE

GEOGRAPHIC INFORMATION SYSTEM (GIS)

60+
ICONIC
BIM
PROJECTS

AWARD
CONSTRUCTION WEEK TECHNOLOGY 2024

Shortlisted for Digital Project of the year Award 2024 for proving the importance of BIM and Digital Twin in Facility Management

A DECADE OF EXCELLENCE

Pioneering digital transformation in the construction industry

ABOUT US

Since 2013, the Technical Xperts Group (TXG) has been a prominent International Digital Delivery partner in the AEC (Architectural Engineering and Construction) sector, boasting a decade of industry-leading expertise. Our innovative approach, leveraging Digital Twin technology, has played an integral role in creating some of the world's most renowned and celebrated landmarks.

WHY TXG

TXG is committed to delivering solutions and services for leading companies worldwide. Our values and professionalism in creating world-class support have their benchmark. Our comprehensive and collaborative support increases efficiency and sustainability, improves operational performance, maximizes profit value, and ensures seamless incorporation of future technologies. TXG supports customer growth through our customized solutions and strategies, which help us to deliver commitments. The expertise of our team, along with a strong network, is the key to our success.

- Deployment of innovative technology solutions and partnership
- Optimal and most cost-effective design and planning.
- Comprehensive resource management and training support.
- Efficient operations from multiple locations
- Building long-term partnerships through collabo ration and tailored solutions.

Pioneering Digital Construction Excellence

A Decade of Innovative Excellence

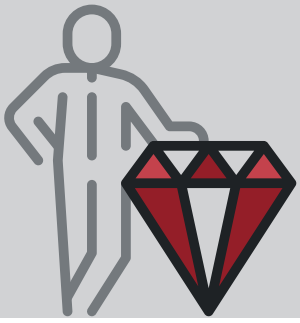
Expertise in Cutting-Edge Technologies

Global Reach and Impact

Core Values and Unwavering Commitment

CONTENTS

VALUES MISSION & VISION



WHAT WE **VALUE** MOST

- Quality
- Teamwork
- Precision
- Excellence
- Commitment
- Integrity

OUR **MISSION**

Empowering construction excellence with innovative digital delivery solutions

OUR **VISION**

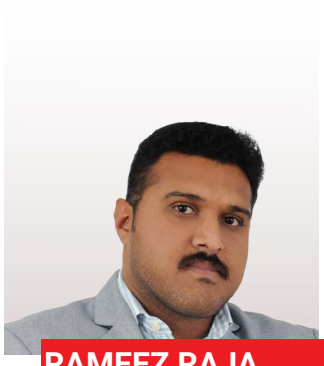
Redefine the construction industry by integrating advanced BIM methodologies and cutting-edge digital delivery solutions seamlessly.

MEET OUR TEAM

RAVEENDRAN K V
FOUNDER
Great Leader, where vision thrives.

SURAJ K V
MANAGING DIRECTOR
Visionary, energising the future with simplicity, structure, and boundless energy.

Meet our passionate team, transforming visions into reality with expertise, innovation and collaborative excellence



RAMEEZ RAJA
OPERATIONS MANAGER
Action is the foundation key to all success.

BINESH BABU
TECHNICAL MANAGER
Leading the Digital Revolution

160+
SUCCESSFUL PROJECTS
spanning Saudi Arabia

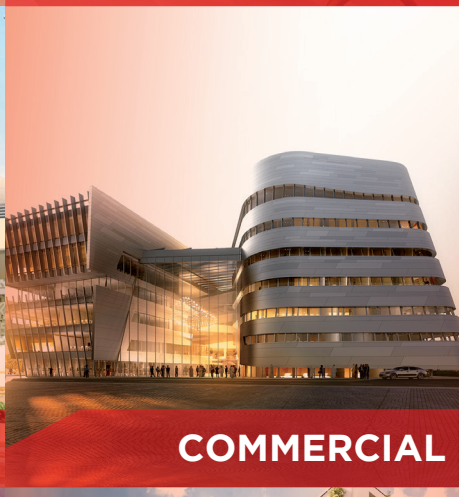
300+
EXPERIENCED BIM ENGINEERS
within our team

10 M+ SQ.M
Area spanning
PROJECTS EXECUTED

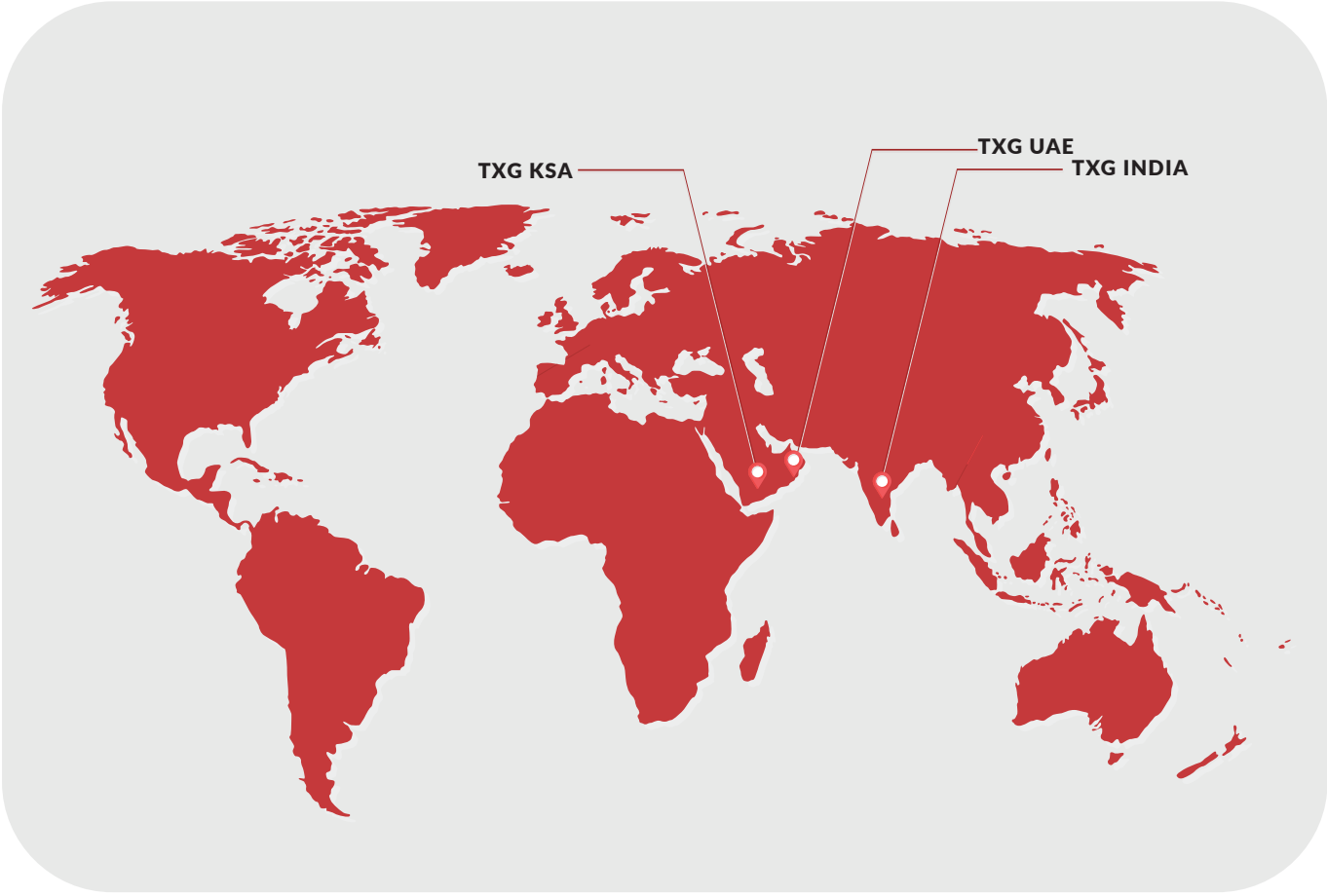
TEAM TXG KSA

TEAM TXG INDIA

SECTORS WE SERVE



OUR FOOTPRINTS



TXG KSA

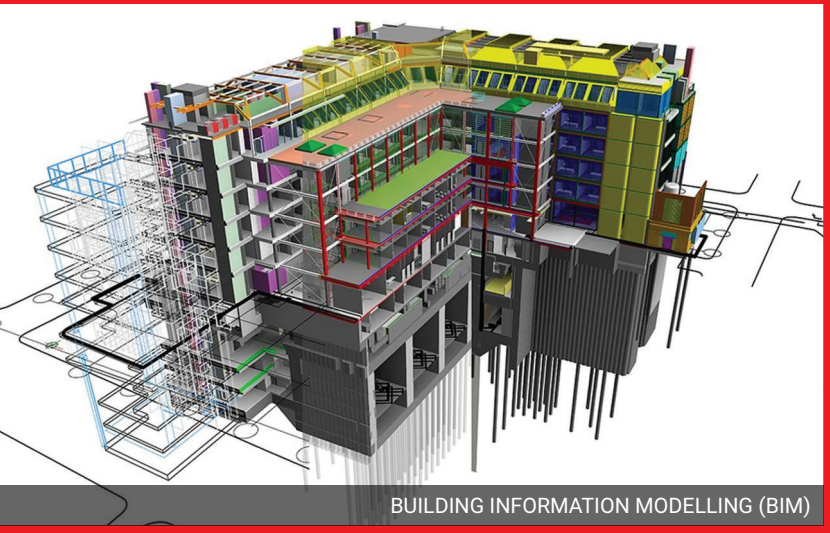
TXG – TECHNICAL XPERT GROUP
ROOM NO 108, SECOND FLOOR,
AL KHALEEJ BUILDING -
SADA BUSINESS CENTER
P. O BOX. NO 69806
OLAYAA STREET, RIYADH – 11557.
KINGDOM OF SAUDI ARABIA

TXG UAE

TXG UAE TECHNICAL XPERTS GROUP
SAIF-ZONE PO BOX - 513153
SHARJAH, UAE

TXG INDIA

TECHNICAL XPERTS GROUP
GROUND FLOOR, UNIT NO.6,
SAHYA BUILDINGS, CYBERPARK
KOZHIKODE, KERALA, INDIA -673016



BUILDING INFORMATION MODELLING (BIM)

DIGITAL CONSTRUCTION SOLUTIONS

REALITY CAPTURE

CAFM IMPLEMENTATION

GIS INTEGRATION

STAFFING SERVICES

DIGITAL CONSTRUCTION CONSULTANCY

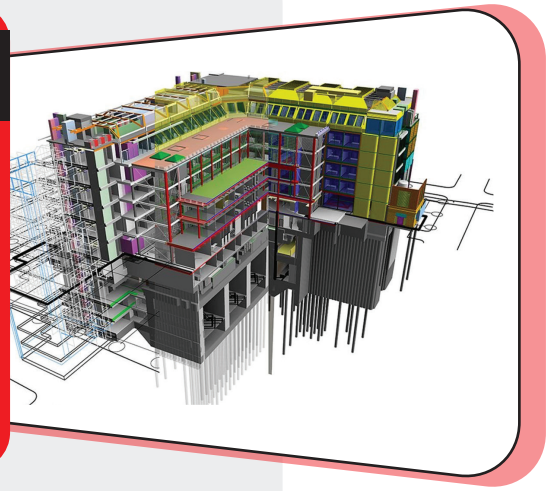
DIGITAL TWIN

OUR SERVICES

OUR SERVICES

BUILDING INFORMATION MODELLING (BIM) IN DESIGN

- BIM for Visualisation.
- BIM for Coordination & Clash Resolution.
- BIM For Quantification.
- BIM For Manufacturing & Fabrications.
- High Quality Renderings.
- Virtual Walkthroughs.
- Design Analysis.



DIGITAL CONSTRUCTION SOLUTIONS

- BIM to Fields (Digital Work Inspections)
- LiDAR Scanning for As-built Documentation, quality inspection & Progress monitor.
- BIM for immersive solution like Augmented, Virtual & Extended reality.
- Common Data Environment setup and implementation as per ISO 19650 standards.
- 4D - Construction Sequencing Simulation, Planning & Progress Monitoring & Reporting.
- 5D - Project Cost Model Simulation.

CAFM IMPLEMENTATION
(Computer Aided Facilities Management)

- Streamlined reactive maintenance and work order management.
- Optimised preventive and planned maintenance.
- Effective asset management and reduced maintenance costs.
- Powerful reporting and data visualisation.
- Multi-site and portfolio management.
- CAFM and BIM integration.
- Increased tenant satisfaction.
- Asset tagging Service

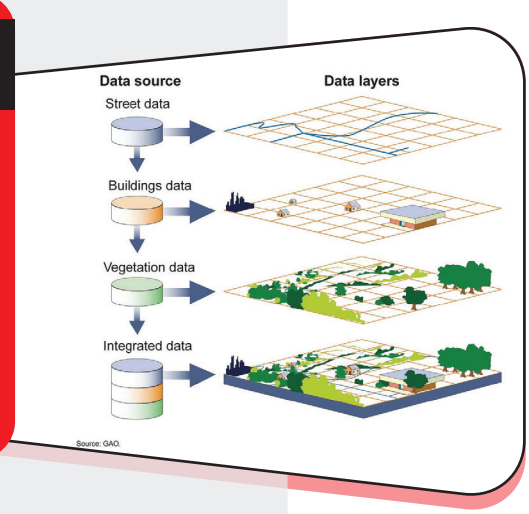
DIGITAL TWIN FOR SMART BUILDING IMPLEMENTATION & INTEGRATION
(BMS & IoT Devices Integrations)

- Accelerated risk assessment and production time.
- Predictive maintenance.
- Real-time remote monitoring and interactions with built environments.
- Real-time integration with IOT and BMS.

GIS INTEGRATION AND SMART CITIES

GIS is a technology that is used to create, manage, analyze, and map all types of data.

- Building web-based applications for the use cases
- Data Management
- Mapping & Visualization
- Spatial analysis
- Communication



DIGITAL CONSTRUCTION CONSULTANCY TO CLIENTS

- Setting-up strategy and guidelines
- RFP/Tender support by understanding client vision & project requirements etc.

OUR SERVICES

REALITY CAPTURE

- LiDAR Scanning
- Photogrammetry
- Mobile Mapping
- Aerial Survey

STAFFING SERVICES

- staffing services for BIM professionals

01 Building Information Modeling (BIM) in Design

At Technical Xperts Group (TXG), we specialize in Building Information Modeling (BIM) services that transform the design and construction landscape. Our offerings include BIM for visualization, coordination, clash resolution, quantification, manufacturing, fabrications, high-quality renderings, virtual walkthroughs, and design analysis. Utilizing cutting-edge BIM software, we create precise 3D models that integrate every aspect of a project, enhancing collaboration, streamlining decision-making, and ensuring project accuracy and efficiency. Our services encompass advanced design simulations and predictive analytics to identify potential issues early and optimize solutions proactively. From concept through completion, our BIM solutions reduce errors, minimize costs, and enhance sustainability, delivering tailored results that meet our clients' unique requirements. Additionally, our BIM models seamlessly integrate with other digital construction tools, ensuring a cohesive and comprehensive project approach.

02 Digital Construction Solutions

TXG provides a suite of digital construction solutions designed to revolutionize project workflows. Our services include BIM to fields (digital work inspections), LiDAR scanning for as-built documentation, quality inspection, progress monitoring, and immersive solutions like augmented, virtual, and extended reality. We establish common data environments compliant with ISO 19650 standards and offer 4D construction sequencing simulation, planning, progress monitoring, and reporting. Our 5D project cost model simulation further enhances project management by providing real-time cost analysis and forecasting. By adopting our innovative digital construction solutions, you can enhance communication, coordination, and productivity, ensuring efficient and successful project delivery. Our solutions also feature automated clash detection, real-time progress tracking, and predictive maintenance scheduling, ensuring projects remain on schedule and within budget.

Computer-Aided Facility Management (CAFM) Implementation

Our Computer-Aided Facility Management (CAFM) implementation services at TXG are designed to optimize facility management processes. We offer streamlined reactive maintenance and work order management, optimized preventive and planned maintenance, effective asset management, reduced maintenance costs, and powerful reporting and data visualization. Our multi-site and portfolio management capabilities ensure cohesive oversight and control across all facilities. Our solutions increase tenant satisfaction by ensuring efficient and cost-effective operations. By integrating our CAFM services, you can enhance space utilization, maintenance tracking, and overall operational efficiency. Additionally, our CAFM systems support sustainability initiatives by optimizing energy use and reducing the environmental impact of your facilities.

04

Digital Twin for Smart Building Implementation & Integration

TXG's digital twin solutions provide an advanced approach to smart building implementation. We create virtual replicas of your buildings for real-time monitoring and optimization of building performance. Our services include accelerated risk assessment and production time, predictive maintenance, real-time remote monitoring, and interactions with built environments. We offer seamless integration with IoT and BMS, ensuring your buildings are intelligent, responsive, and efficient. Our digital twin technology facilitates predictive maintenance, energy management, and an enhanced occupant experience. Through real-time data analytics, our digital twins provide actionable insights that help improve operational efficiency, reduce costs, and increase sustainability. Our solutions also support disaster recovery planning by providing detailed simulations of potential scenarios and their impacts.

GIS Integration & Smart Cities

TXG's GIS integration services are designed to enhance urban planning and management. GIS technology is utilized to create, manage, analyze, and map all types of data. We develop web-based applications for various use cases, including data management, mapping and visualization, spatial analysis, and communication. Our GIS solutions support infrastructure development, environmental monitoring, and resource management, facilitating the creation of sustainable and resilient cities. From mapping and analysis to implementation, we provide end-to-end GIS solutions that help you build smarter, more sustainable urban environments. Our services also include real-time data integration, automated reporting, and scenario modeling, enabling informed decision-making and proactive management of urban resources.

06

Digital Construction Consultancy to Clients

TXG offers digital construction consulting services to guide you through the adoption and implementation of digital construction technologies. We assist in setting up strategy and guidelines, provide RFP/tender support by understanding client vision and project requirements, and provide tailored advice on strategy development, technology selection, and project execution. We work closely with you to understand your specific needs and goals, offering customized solutions that enhance your construction processes. Our consulting services ensure successful digital transformation, improved efficiency, reduced costs, and high-quality project delivery. Additionally, we provide training and support to ensure your team is proficient in the latest digital construction tools and methodologies, ensuring long-term success and adaptability.

07

Reality Capture

TXG's advanced reality capture services employ laser scanning and photogrammetry to create precise 3D models of your projects. We offer LiDAR scanning, photogrammetry, mobile mapping, and aerial surveys. These detailed digital representations enhance design accuracy and construction workflows, improving project planning and reducing errors. Whether for renovation or new construction, our reality capture services facilitate informed decision-making and superior project outcomes. Our services also include point cloud processing, 3D modeling from scan data, and integration with BIM platforms, ensuring a seamless transition from reality capture to project execution. By leveraging our reality capture solutions, you can enhance project accuracy, reduce rework, and improve overall project efficiency.

08

Staffing Services

TXG provides specialized staffing services to ensure the success of your projects. We offer staffing solutions for BIM professionals, including skilled experts experienced in the latest digital construction technologies. Our extensive network and rigorous selection process guarantee that you find the best candidates to meet your project needs. Whether for temporary roles or long-term positions, our staffing solutions are flexible and tailored to your requirements. With TXG, you can build a capable team that drives project success and meets your organizational goals. We also provide continuous training and development for our staff, ensuring they remain at the forefront of industry advancements and contribute effectively to your projects.

OUR KEY CLIENTS

KAFD
مركز الملك عبدالله المالي

NEOM

STOWE

SEVEN
SAUDI ENTERTAINMENT VENTURES

المسار الرياضي
Sports Boulevard

Red Sea Global

MBL
Modern Building Leaders
شركة قادة البناء الحديث

ICAD
المقاولون المبتكرون للمعايير المتطورة
INNOVATIVE CONTRACTORS for ADVANCED DIMENSIONS

SAMSUNG
SAMSUNG C&T

First Fix
شركة التركيبات الأولية للأعمال الكهربائية المحدودة
The Fundamental installation for electric work

Shapoorji Pallonji

iFAS

BAUMAT

مجموعة بن لادن السعودية
SAUDI BINLADIN GROUP

Contracting & Construction Enterprises

HATCO هاتكو
TRADING & CONTRACTING CO.

GIOFORMA

RSG
Rock Solid Group

HUTA GROUP

MIDAD
REAL ESTATE
INVESTMENT & DEVELOPMENT CO. LTD.

صندوق الاستثمارات العامة 1971
Public Investment Fund

مستشفى الموسى التخصصي
Almoosa Specialist Hospital

Nesma & Partners نسما وشركاهم

OUR TECHNOLOGY PARTNERS

AUTODESK

IBM maximo®

Bentley®

BEXEL

YOU BIM®
BIM for FM. Simple

ecodomus

Unity

Meta

Leica

Trimble

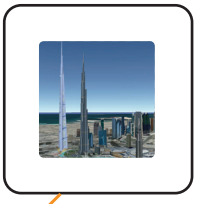
esri

TIMELINE HISTORY

2013
TXG
WAS ESTABLISHED
IN INDIA

2013

2015
TXG WAS ESTABLISHED
IN UAE, EXTENDED ITS
OPERATIONS TO KSA
WITH KINGDOM TOWER,
KSA



2015

2016
STARTED BIM
4D&5D SERVICES

2016

2018
TADAWUL TOWER,
KSA

2018

2019
RIYADH METRO,
KSA

2019

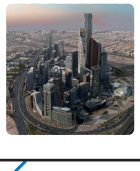
HUMBLE BEGINNINGS,

2020

2020
KING ABDUL AZIZ INTERNATIONAL AIRPORT (KAIA) `

2021
KING SALMAN PARK, KSA
&
RUA AL MADINAH, KSA

2021

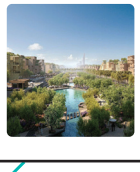


2022

2022
KING ABDULLAH FINANCIAL DISTRICT(KAFD), KSA

2023
NEOM BAY AIRPORT T1, T2

2023



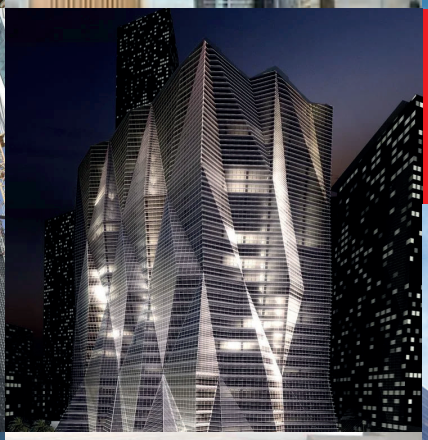
2024

2024
SPORTS BOULEVARD, KSA

OUTSTANDING CREDENTIALS

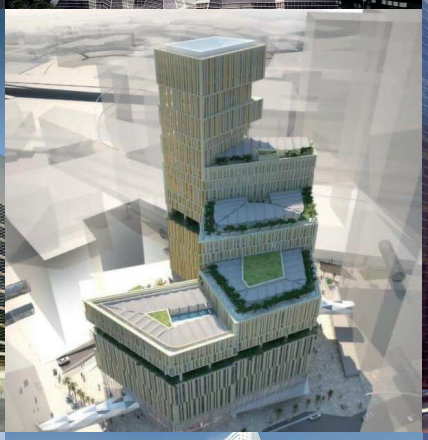
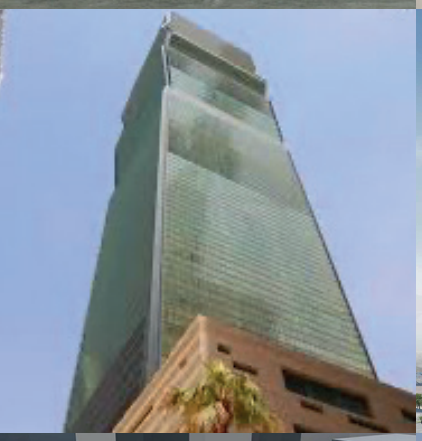




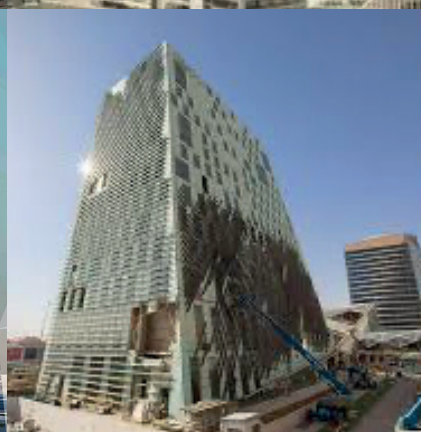
PROJECTS AT A GLANCE

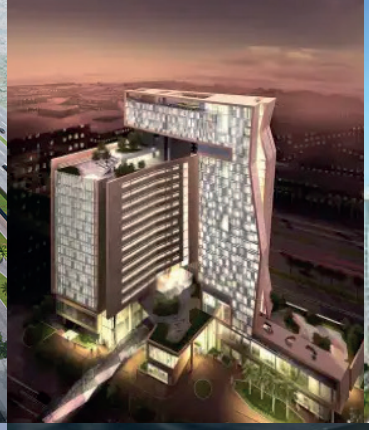




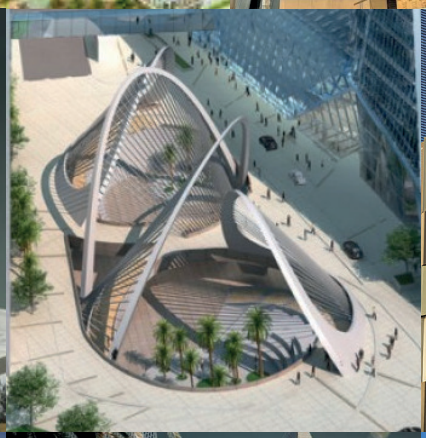
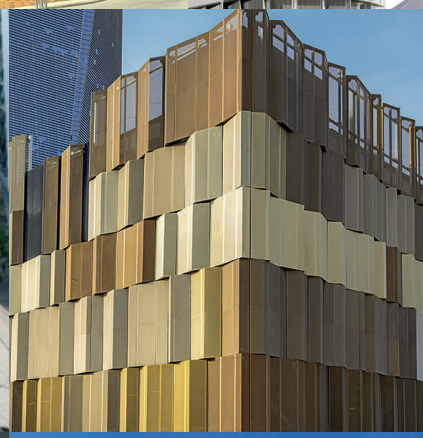
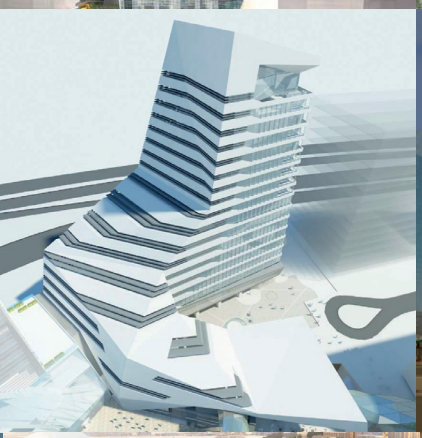


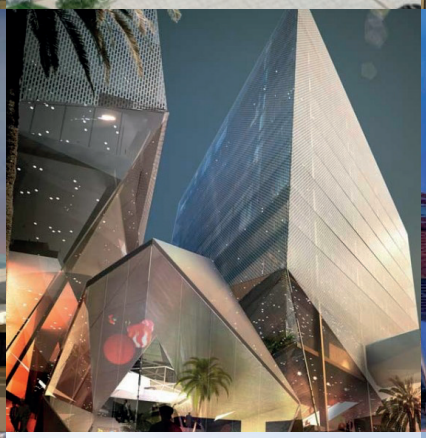



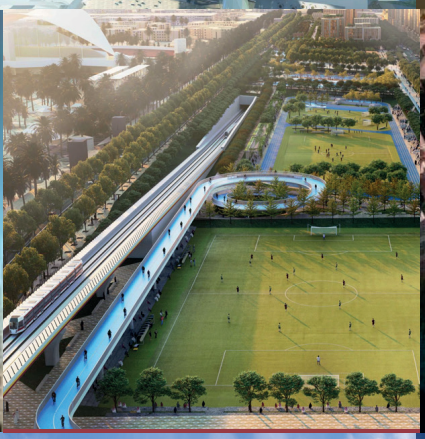
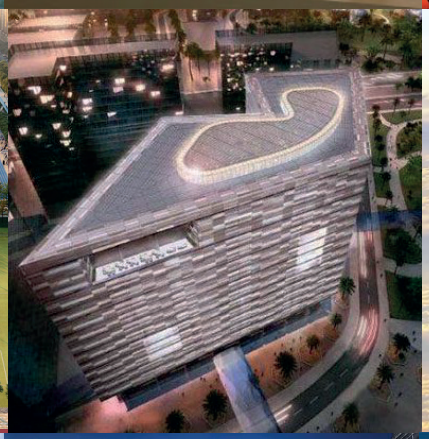





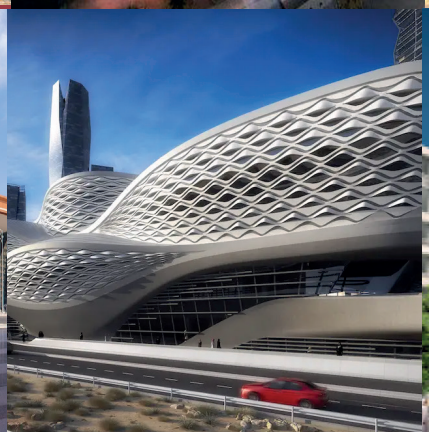







MORE THAN
160
PROJECTS

COMPUTER AIDED FACILITY MANAGEMENT (CAFM) & DIGITAL TWIN

CONTENTS

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

The collaboration with King Abdullah Financial District (KAFD) showcased our expertise in revolutionizing enterprise architecture, highlighting our contribution using advanced technologies like Scan to BIM and Asset Information Modelling, culminating in the seamless integration of the client's Common Data Environment (CDE) with their operational systems.

We addressed the King Abdullah Financial District's (KAFD) critical need for As-Built documentation and asset information by deploying a strategic two-phase approach, utilizing LiDAR technology for creating detailed 3D Building Information and Asset Information Models. These initiatives provided vital operational and facilities management data, integrated into a Common Data Environment (CDE) to ensure a centralized, reliable data source. This transformation significantly enhanced operational efficiency, data accuracy across maintenance and leasing activities, and set new standards for asset management.

The collaboration propelled KAFD to the forefront of operational excellence, showcasing a pioneering model for asset and facilities management integration.

QUICK OVERVIEW

- 1Million + Critical Assets Modelled.
- 32Million + Total Attributes Added.
- 15,000 + Total Spaces / Units Defined.
- Project Duration : 2 years.
- Manpower : 55 Engineers Onsite & 220 BIM Engineers Off site.

Services

- 3.3 million Square Meters of LiDAR data capture.
- 47 Building for LiDAR scanning, LOD500 Modelling .
- 6 Operational Asset Information Models to LOD500.

Integration

- Integration of Common Data Environment .
- Maximo Integration
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 1.16

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Working with King Abdullah Financial District (KAFD), TXG demonstrated its ability to revolutionize enterprise architecture. We used Scan to BIM and Asset Information Modelling to integrate their Common Data Environment (CDE) with operational systems. By deploying LiDAR technology in a two-phase strategy, we created detailed 3D models essential for effective operations and facilities management. This transformation significantly improved operational efficiency and data accuracy, enhancing maintenance and leasing activities. Our collaboration set new benchmarks in asset management, showcasing KAFD as a model of operational excellence.

QUICK OVERVIEW

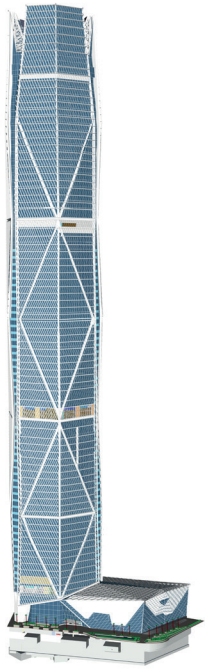
- Zone : Area 01
- GFA : 201, 260 Sqm.
- Height : 385 m/1263 ft.
- Total Floor : 76
- Total Duration : 120 Days.

Services

- LiDAR scanning, LOD500 Modelling .

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



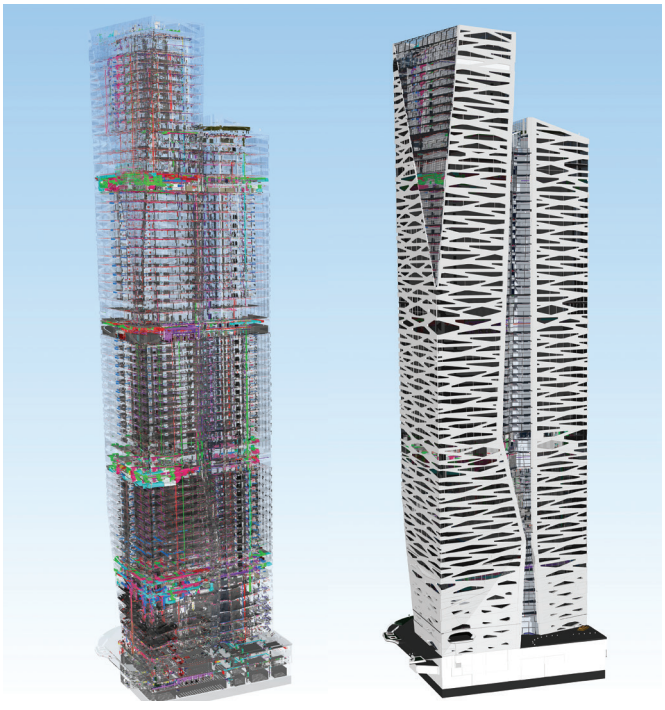
PARCEL 1.15

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

At the core of our partnership with King Abdullah Financial District (KAFD) was a mission to transform enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) with operational systems seamlessly. Our meticulous two-phase approach employed LiDAR technology to develop intricate 3D models, enhancing operational efficiency and data accuracy. This project not only addressed KAFD's critical needs but also set new industry standards in asset management, positioning them as leaders in operational excellence.



QUICK OVERVIEW

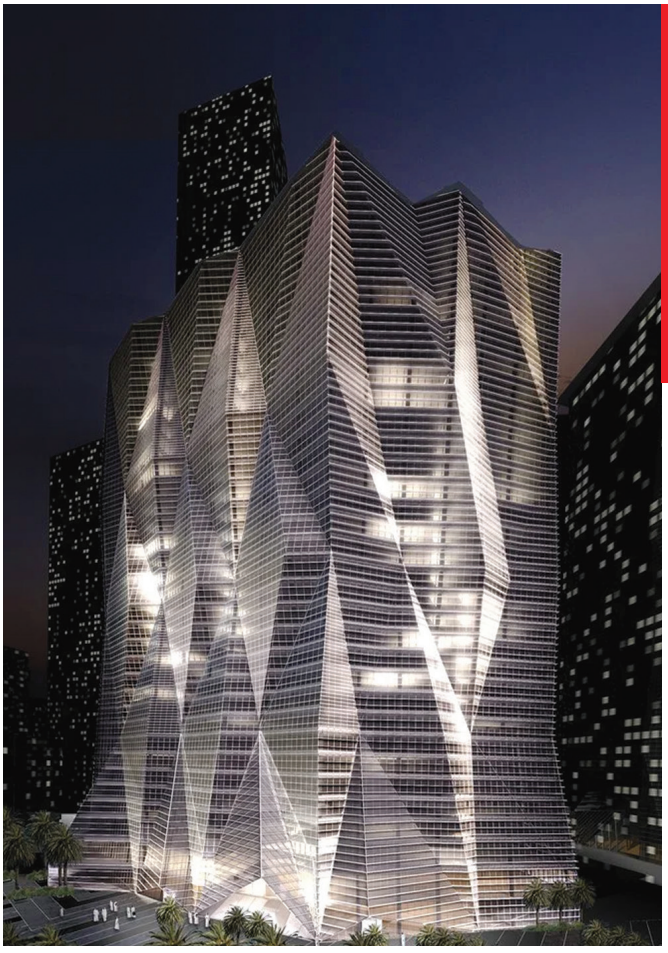
- Zone : **Area 01**
- GFA : **139,303 Sqm.**
- Height : **304 m/997 ft.**
- Total Floor : **67**
- Total Duration : **90 Days.**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 1.09

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's collaboration with King Abdullah Financial District (KAFD) underscored our capabilities in enterprise architecture innovation. By utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our strategic two-phase approach with LiDAR technology produced detailed 3D models, significantly enhancing operational efficiency and data accuracy. This project established new standards in asset management and positioned KAFD as a pioneer in operational excellence.

QUICK OVERVIEW

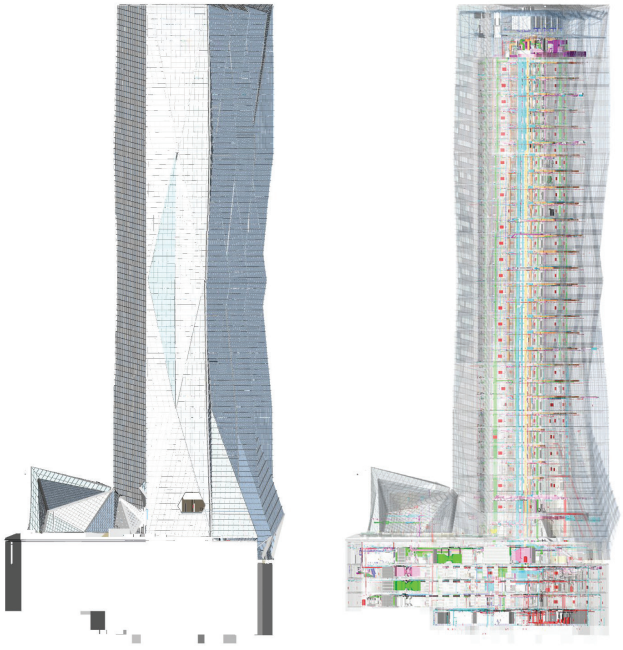
- Zone : Area 01
- GFA : 105,538 Sqm.
- Height : 157 m/515 ft.
- Total Floor : 36
- Total Duration : 90 Days

Services

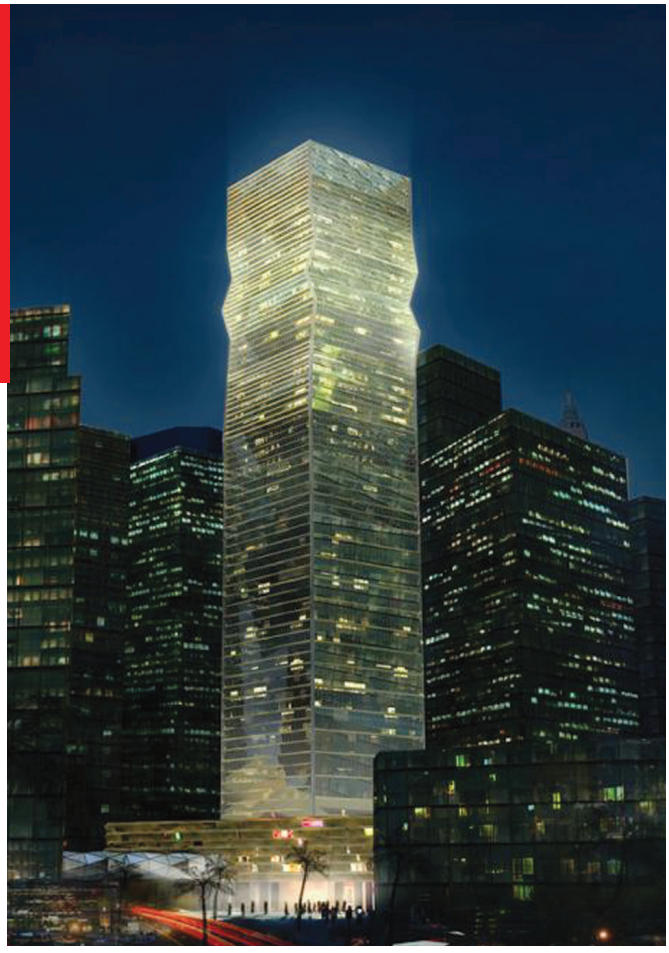
- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 1.10

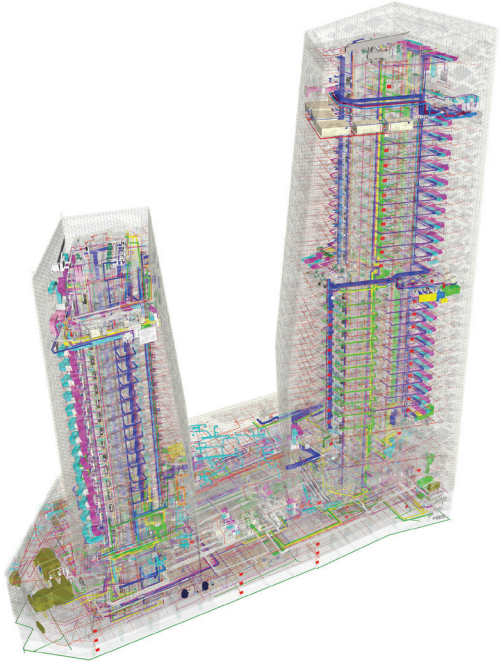


KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

King Abdullah Financial District (KAFD) faced a pressing need for accurate As-Built documentation and asset information. TXG addressed this by deploying a two-phase strategy using LiDAR technology, resulting in detailed 3D Building and Asset Information Models. These models were integrated into their Common Data Environment (CDE), providing a centralized, reliable data source. The outcome was a significant enhancement in operational efficiency and data accuracy, setting new standards in asset management and positioning KAFD as a leader in operational excellence.



QUICK OVERVIEW

• Zone	:	Area 01
• GFA	:	100,437 Sqm.
• Height	:	135 m/443 ft.
• Total Floor	:	26
• Total Duration	:	90 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 1.04

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) showcased TXG's ability to deliver substantial benefits through advanced technologies. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. The strategic use of LiDAR technology in a two-phase approach yielded detailed 3D models, enhancing operational efficiency and data accuracy. This project not only improved maintenance and leasing activities but also set new benchmarks in asset management, propelling KAFD to the forefront of operational excellence.

QUICK OVERVIEW

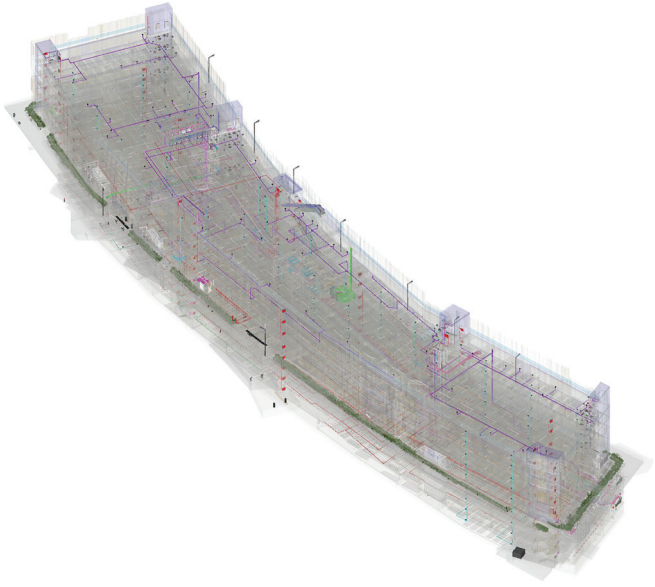
- Zone : **Area 01**
- GFA : **98,986 Sqm.**
- Total Duration : **90 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



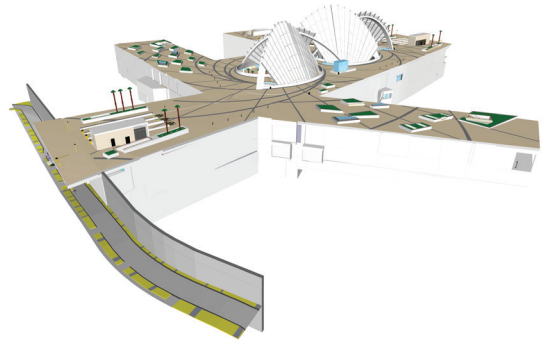
PARCEL 1.19

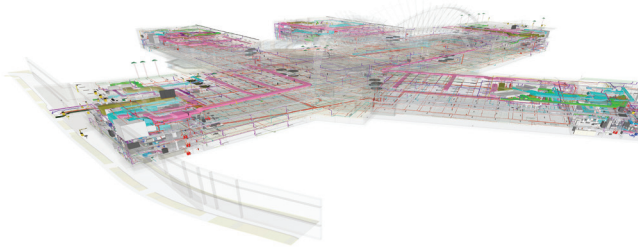
KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

In our collaboration with King Abdullah Financial District (KAFD), TXG implemented a comprehensive approach to modernize their enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our two-phase strategy involved using LiDAR technology to create precise 3D Building and Asset Information Models. This ensured a centralized data source, significantly improving operational efficiency and data accuracy in maintenance and leasing activities, setting new industry standards in asset management.





QUICK OVERVIEW

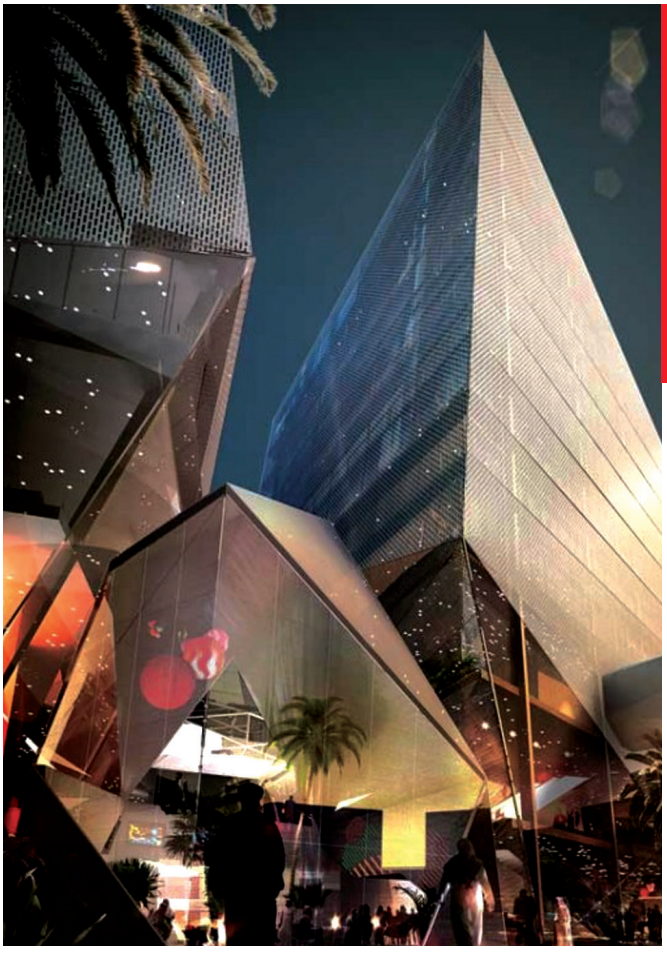
- Zone : **Area 01**
- GFA : **79,364 Sqm.**
- Total Duration : **90 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 2.10

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

The partnership with King Abdullah Financial District (KAFD) demonstrated TXG's significant impact on enterprise architecture. Employing advanced technologies such as Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) seamlessly with operational systems. Our strategic use of LiDAR technology in a two-phase approach resulted in detailed 3D models, enhancing operational efficiency and data accuracy. This transformation set new standards in asset management and established KAFD as a leader in operational excellence.

QUICK OVERVIEW

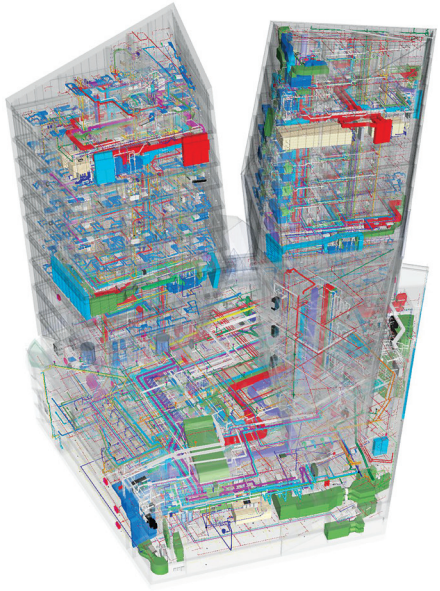
- Zone : **Area 02**
- GFA : **35,332 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 2.14

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) highlighted TXG's achievements in transforming enterprise architecture. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Utilizing LiDAR technology in a strategic two-phase approach, we developed comprehensive 3D models. This effort significantly enhanced operational efficiency and data accuracy, setting new standards in asset management and establishing KAFD as a leader in operational excellence.

QUICK OVERVIEW

- Zone : Area 02
- GFA : 69,553 Sqm.
- Height : 104 m/180 ft
- Total Floor : 19
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 2.12

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's partnership with King Abdullah Financial District (KAFD) underscored our innovative approach to enterprise architecture. Leveraging advanced Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Through a two-phase strategy using LiDAR technology, we created detailed 3D models that provided vital data for operations and facilities management. This innovation significantly improved operational efficiency and data accuracy, setting new benchmarks in asset management and positioning KAFD at the forefront of operational excellence.

QUICK OVERVIEW

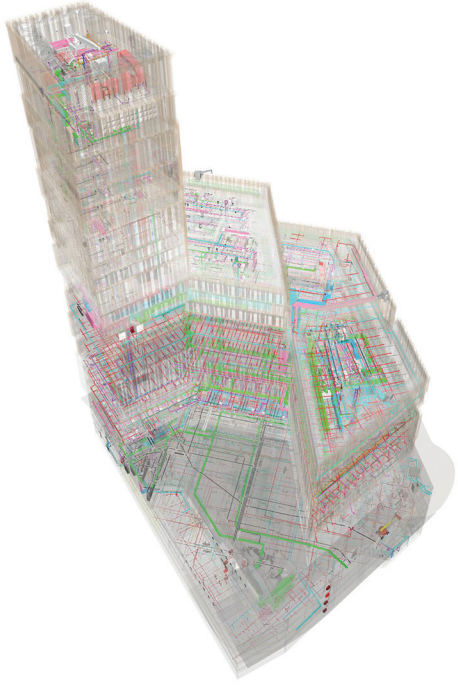
• Zone	:	Area 02
• GFA	:	72,910 Sqm.
• Height	:	105 m/144 ft
• Total Floor	:	23
• Total Duration	:	60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



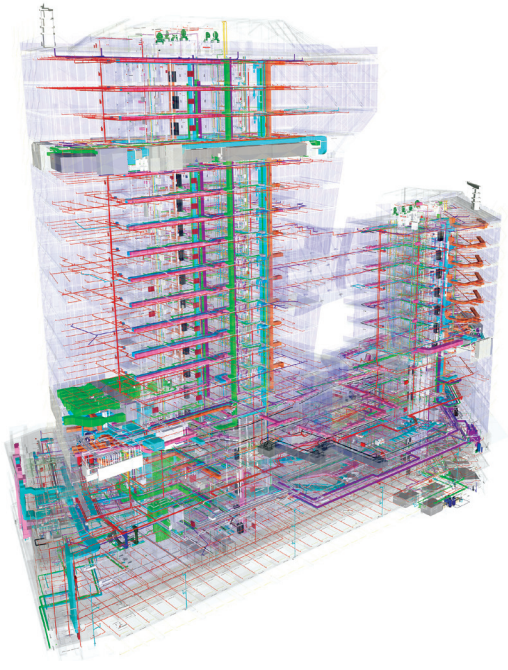
PARCEL 1.11

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with the King Abdullah Financial District (KAFD) highlighted TXG's expertise in enterprise architecture. We employed advanced technologies like Scan to BIM and Asset Information Modelling, seamlessly integrating their Common Data Environment (CDE) with operational systems. Through a strategic two-phase approach using LiDAR technology, we developed detailed 3D Building and Asset Information Models. These initiatives provided essential data for operations and facilities management, ensuring a centralized, reliable data source. The transformation significantly enhanced operational efficiency and data accuracy, setting new standards for asset management and positioning KAFD at the forefront of operational excellence.



QUICK OVERVIEW

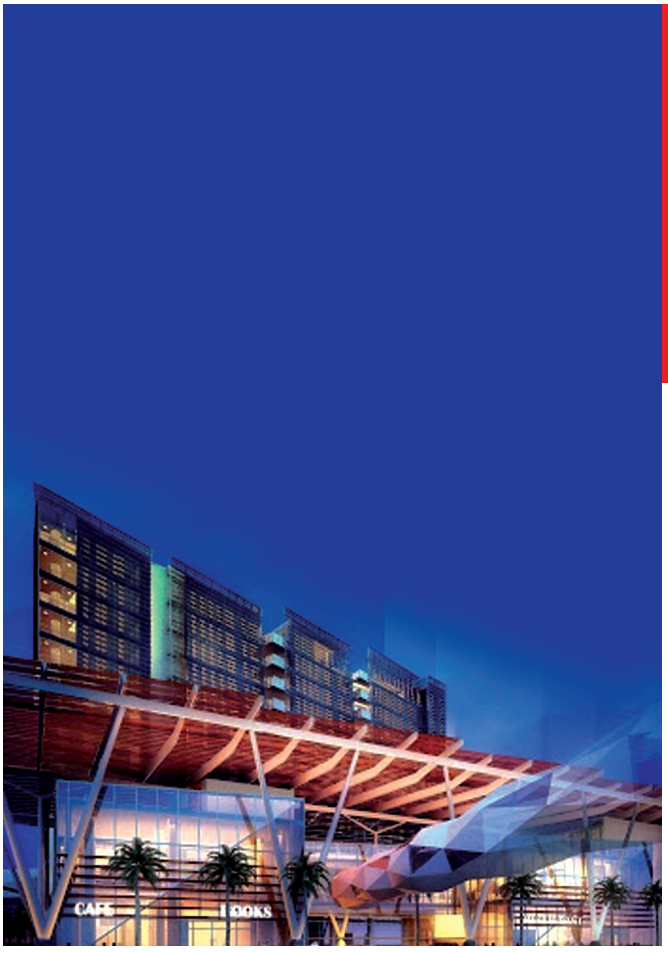
- Zone : Area 01
- GFA : 57, 376 Sqm.
- Height : 83 m/ 272 ft
- Total Floor : 18
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 2.11

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Working with King Abdullah Financial District (KAFD), TXG demonstrated its ability to revolutionize enterprise architecture. We used Scan to BIM and Asset Information Modelling to integrate their Common Data Environment (CDE) with operational systems. By deploying LiDAR technology in a two-phase strategy, we created detailed 3D models essential for effective operations and facilities management. This transformation significantly improved operational efficiency and data accuracy, enhancing maintenance and leasing activities. Our collaboration set new benchmarks in asset management, showcasing KAFD as a model of operational excellence.

QUICK OVERVIEW

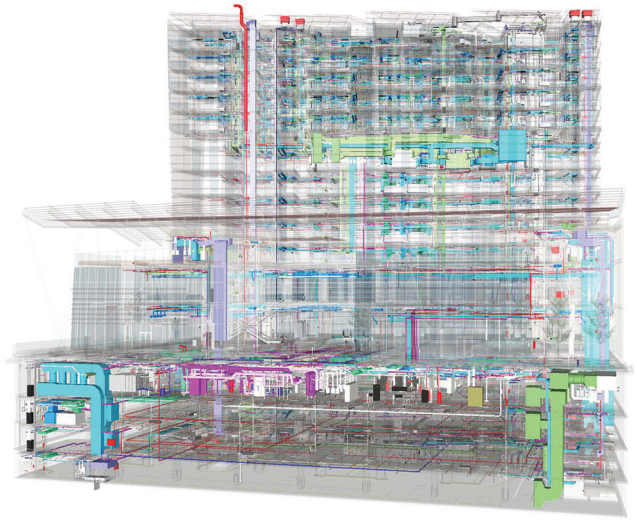
- Zone : Area 02
- GFA : 53,806 Sqm.
- Height : 55 m/180 ft
- Total Floor : 11
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



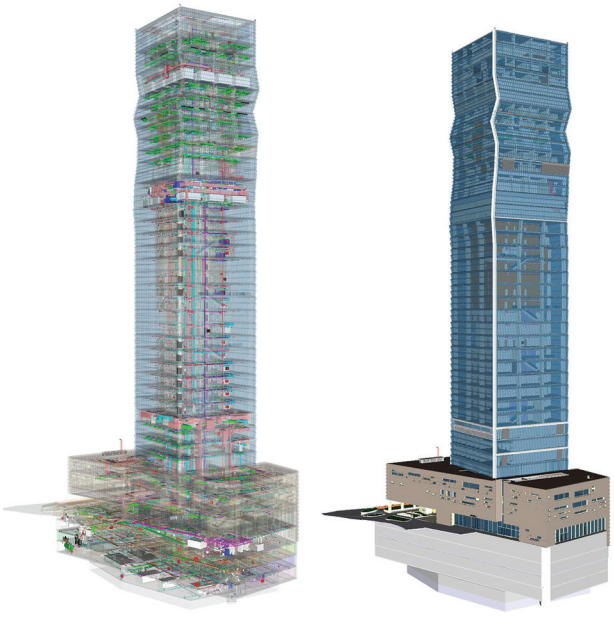
PARCEL 2.13

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Working with King Abdullah Financial District (KAFD), TXG demonstrated its ability to revolutionize enterprise architecture. We used Scan to BIM and Asset Information Modelling to integrate their Common Data Environment (CDE) with operational systems. By deploying LiDAR technology in a two-phase strategy, we created detailed 3D models essential for effective operations and facilities management. This transformation significantly improved operational efficiency and data accuracy, enhancing maintenance and leasing activities. Our collaboration set new benchmarks in asset management, showcasing KAFD as a model of operational excellence.



QUICK OVERVIEW

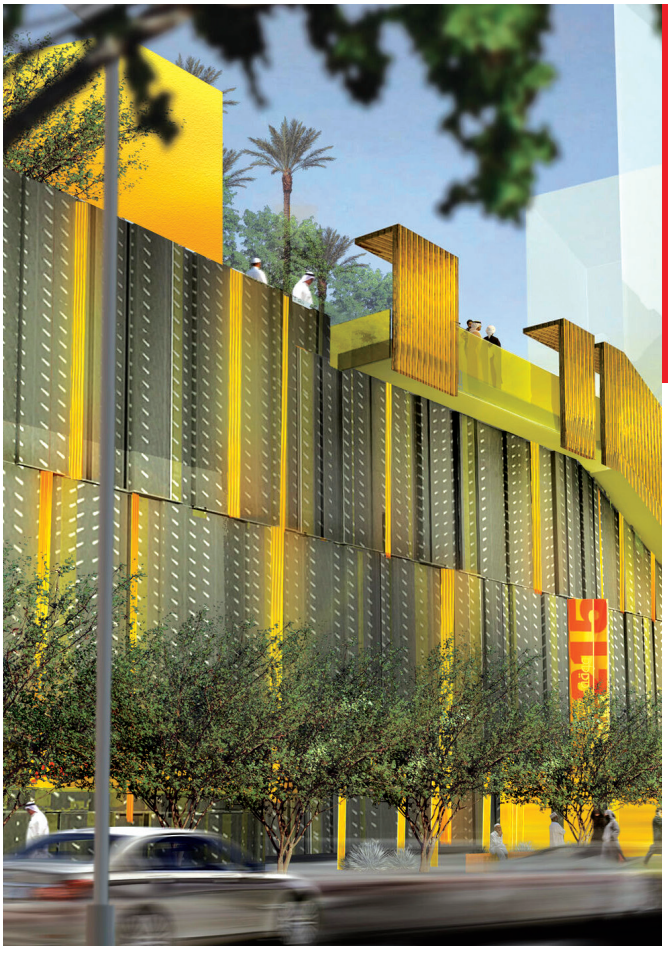
- Zone : **Area 02**
- GFA : **45,493 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 2.15

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

At the core of our partnership with King Abdullah Financial District (KAFD) was a mission to transform enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) with operational systems seamlessly. Our meticulous two-phase approach employed LiDAR technology to develop intricate 3D models, enhancing operational efficiency and data accuracy. This project not only addressed KAFD's critical needs but also set new industry standards in asset management, positioning them as leaders in operational excellence.

QUICK OVERVIEW

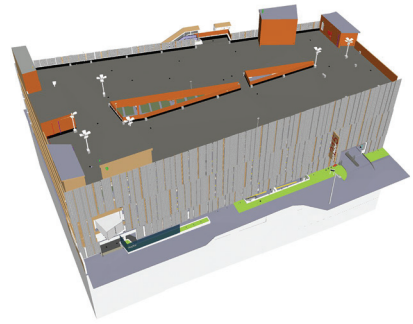
- Zone : **Area 02**
- GFA : **33,971 Sqm.**
- Total Duration : **30 Days**

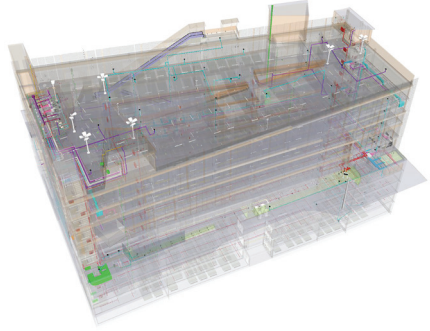
Services

- LiDAR scanning, LOD500 Modelling.

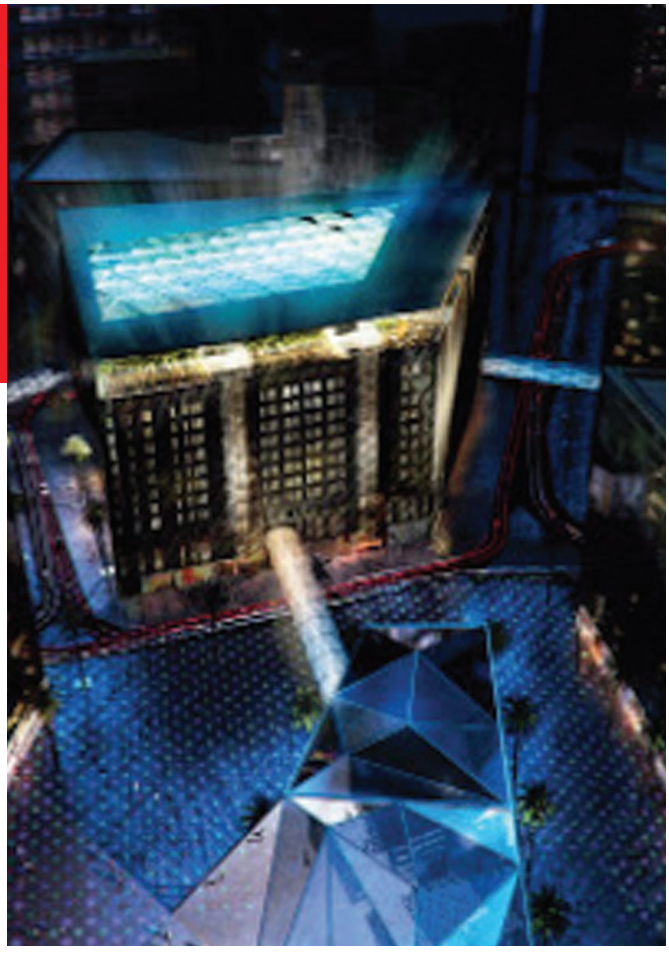
Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.





PARCEL 2.07

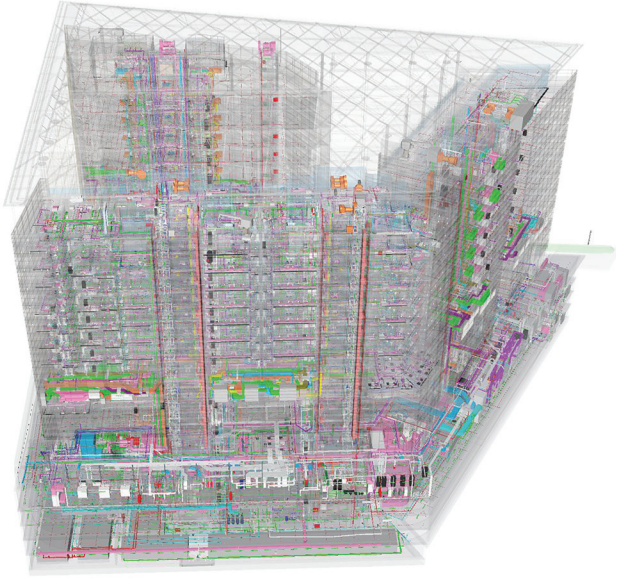


KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's collaboration with King Abdullah Financial District (KAFD) underscored our capabilities in enterprise architecture innovation. By utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our strategic two-phase approach with LiDAR technology produced detailed 3D models, significantly enhancing operational efficiency and data accuracy. This project established new standards in asset management and positioned KAFD as a pioneer in operational excellence.



QUICK OVERVIEW

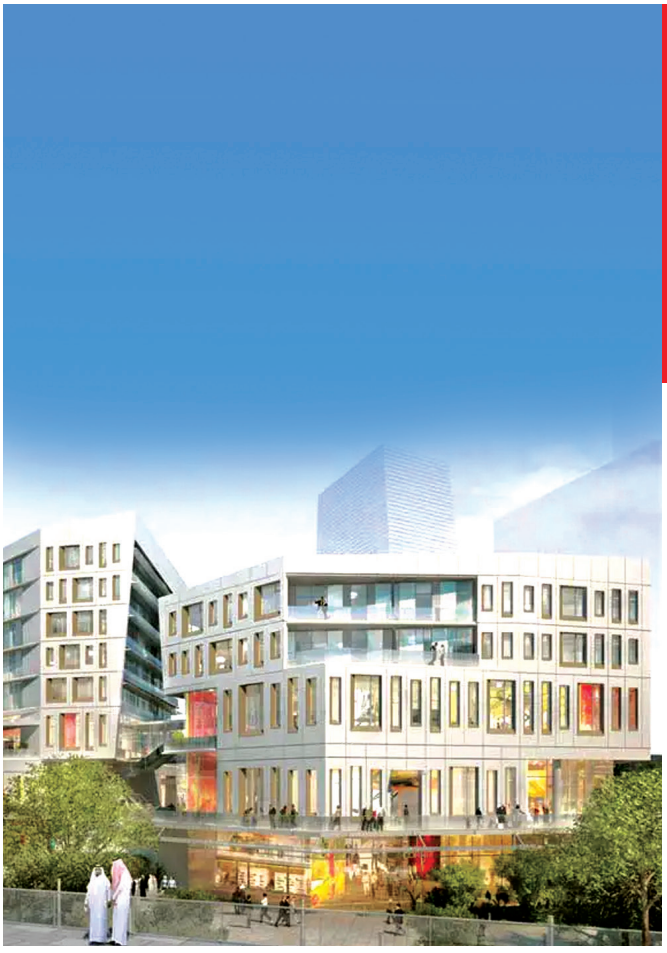
- Zone : **Area 02**
- GFA : **81,993 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



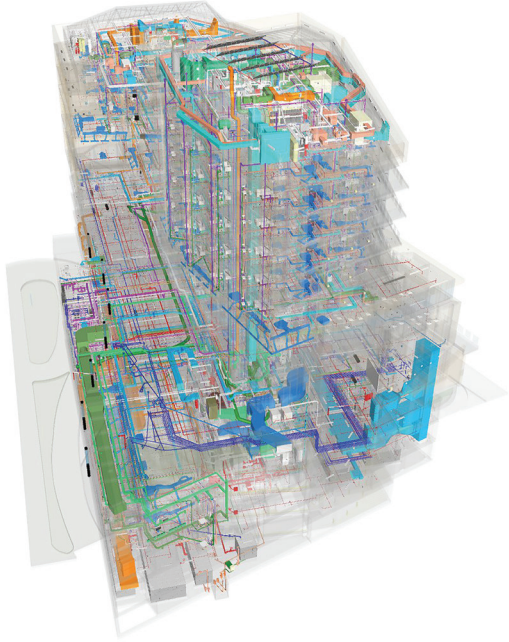
PARCEL 2.09

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

King Abdullah Financial District (KAFD) faced a pressing need for accurate As-Built documentation and asset information. TXG addressed this by deploying a two-phase strategy using LiDAR technology, resulting in detailed 3D Building and Asset Information Models. These models were integrated into their Common Data Environment (CDE), providing a centralized, reliable data source. The outcome was a significant enhancement in operational efficiency and data accuracy, setting new standards in asset management and positioning KAFD as a leader in operational excellence.



QUICK OVERVIEW

• Zone	:	Area 02
• GFA	:	25,725 Sqm.
• Height	:	34.5 m/113 ft.
• Total Floor	:	07
• Total Duration	:	30 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

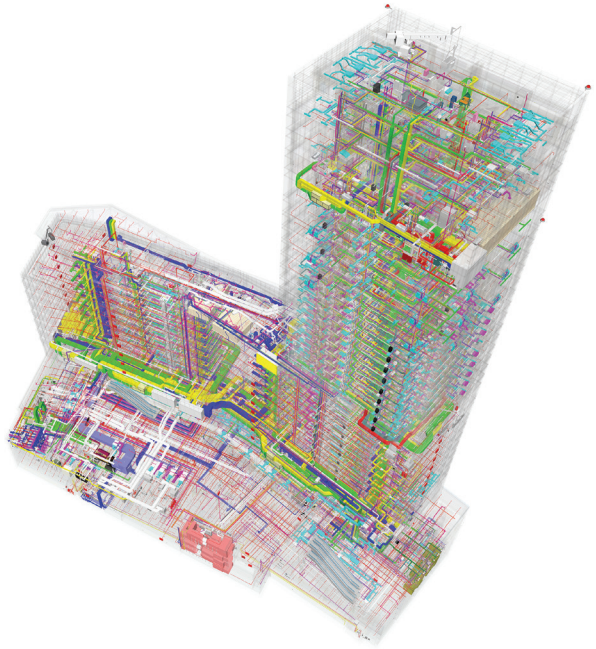
PARCEL 3.09

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) showcased TXG's ability to deliver substantial benefits through advanced technologies. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. The strategic use of LiDAR technology in a two-phase approach yielded detailed 3D models, enhancing operational efficiency and data accuracy. This project not only improved maintenance and leasing activities but also set new benchmarks in asset management, propelling KAFD to the forefront of operational excellence.



QUICK OVERVIEW

• Zone	:	Area 03
• GFA	:	89,429 Sqm.
• Height	:	138 m/453 ft.
• Total Floor	:	33
• Total Duration	:	60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 4.01

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

In our collaboration with King Abdullah Financial District (KAFD), TXG implemented a comprehensive approach to modernize their enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our two-phase strategy involved using LiDAR technology to create precise 3D Building and Asset Information Models. This ensured a centralized data source, significantly improving operational efficiency and data accuracy in maintenance and leasing activities, setting new industry standards in asset management.

QUICK OVERVIEW

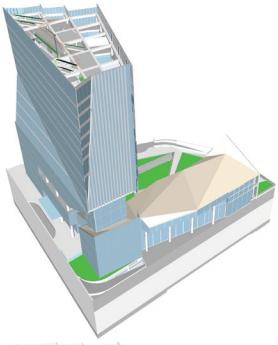
- Zone : Area 04
- GFA : 40,001 Sqm.
- Height : 82 m/269 ft.
- Total Floor : 21
- Total Duration : 30 Days

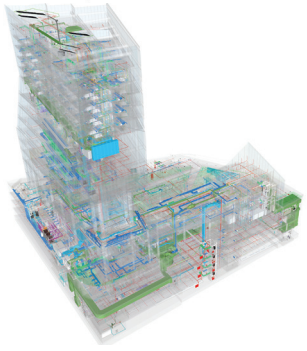
Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.





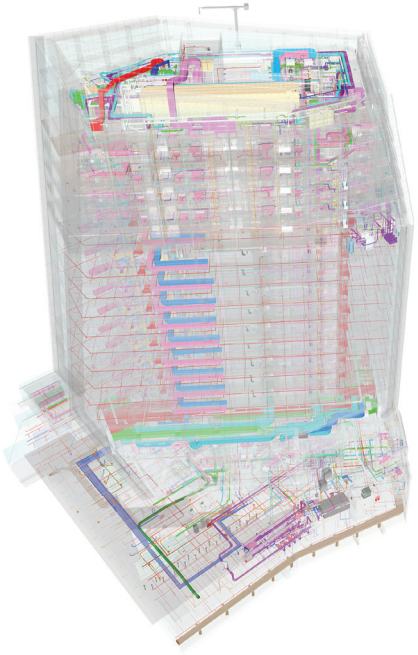
PARCEL 4.07

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

The partnership with King Abdullah Financial District (KAFD) demonstrated TXG's significant impact on enterprise architecture. Employing advanced technologies such as Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) seamlessly with operational systems. Our strategic use of LiDAR technology in a two-phase approach resulted in detailed 3D models, enhancing operational efficiency and data accuracy. This transformation set new standards in asset management and established KAFD as a leader in operational excellence.



QUICK OVERVIEW

• Zone	:	Area 04
• GFA	:	52,288 Sqm.
• Height	:	81 m/266 ft.
• Total Floor	:	19
• Total Duration	:	30 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 4.12

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) highlighted TXG's achievements in transforming enterprise architecture. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Utilizing LiDAR technology in a strategic two-phase approach, we developed comprehensive 3D models. This effort significantly enhanced operational efficiency and data accuracy, setting new standards in asset management and establishing KAFD as a leader in operational excellence.

QUICK OVERVIEW

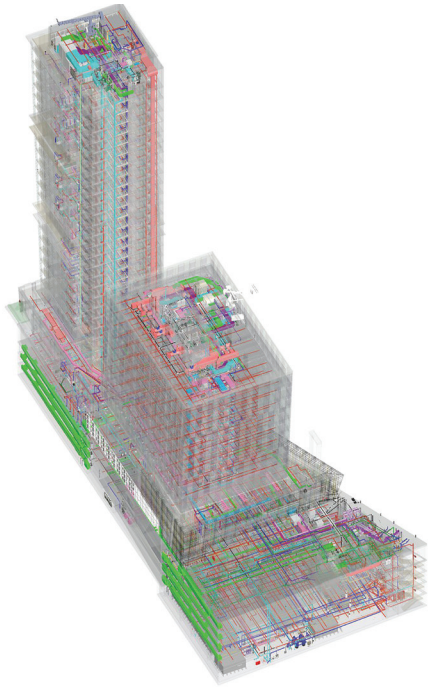
- Zone : **Area 04**
- GFA : **50,196 Sqm.**
- Total Duration : **30 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



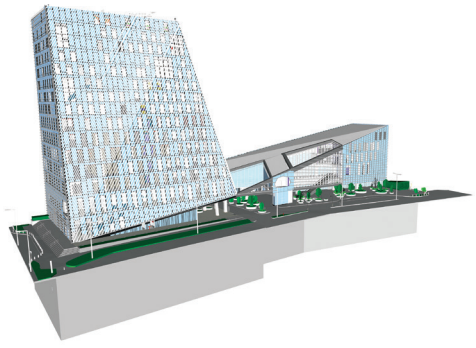
PARCEL 4.03

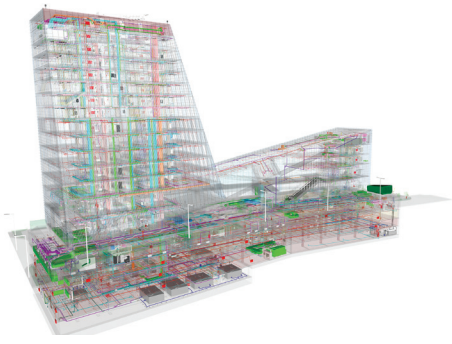
KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's partnership with King Abdullah Financial District (KAFD) underscored our innovative approach to enterprise architecture. Leveraging advanced Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Through a two-phase strategy using LiDAR technology, we created detailed 3D models that provided vital data for operations and facilities management. This innovation significantly improved operational efficiency and data accuracy, setting new benchmarks in asset management and positioning KAFD at the forefront of operational excellence.





QUICK OVERVIEW

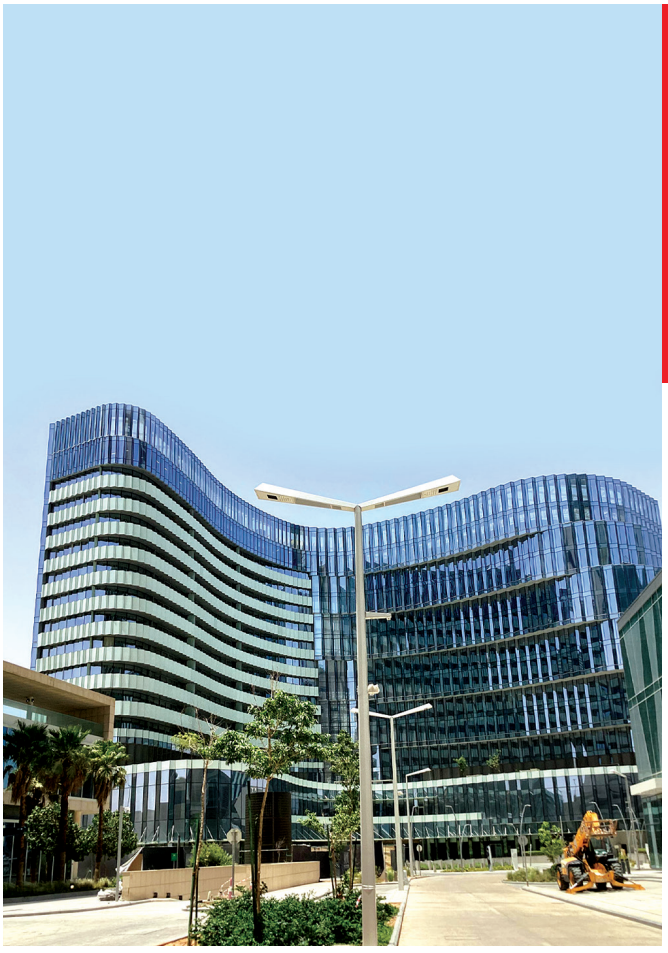
- Zone : **Area 04**
- GFA : **46,129 Sqm.**
- Total Duration : **30 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 4.11

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with the King Abdullah Financial District (KAFD) highlighted TXG's expertise in enterprise architecture. We employed advanced technologies like Scan to BIM and Asset Information Modelling, seamlessly integrating their Common Data Environment (CDE) with operational systems. Through a strategic two-phase approach using LiDAR technology, we developed detailed 3D Building and Asset Information Models. These initiatives provided essential data for operations and facilities management, ensuring a centralized, reliable data source. The transformation significantly enhanced operational efficiency and data accuracy, setting new standards for asset management and

QUICK OVERVIEW

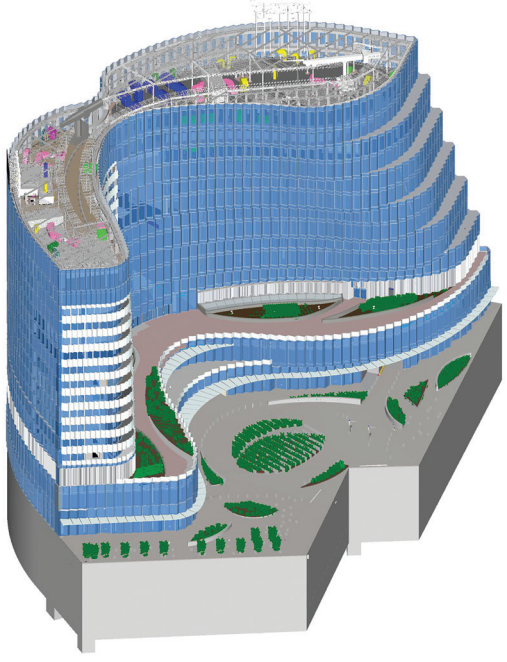
- Zone : **Area 04**
- GFA : **66,185 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 4.10

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Working with King Abdullah Financial District (KAFD), TXG demonstrated its ability to revolutionize enterprise architecture. We used Scan to BIM and Asset Information Modelling to integrate their Common Data Environment (CDE) with operational systems. By deploying LiDAR technology in a two-phase strategy, we created detailed 3D models essential for effective operations and facilities management. This transformation significantly improved operational efficiency and data accuracy, enhancing maintenance and leasing activities. Our collaboration set new benchmarks in asset management, showcasing KAFD as a model of operational excellence.

QUICK OVERVIEW

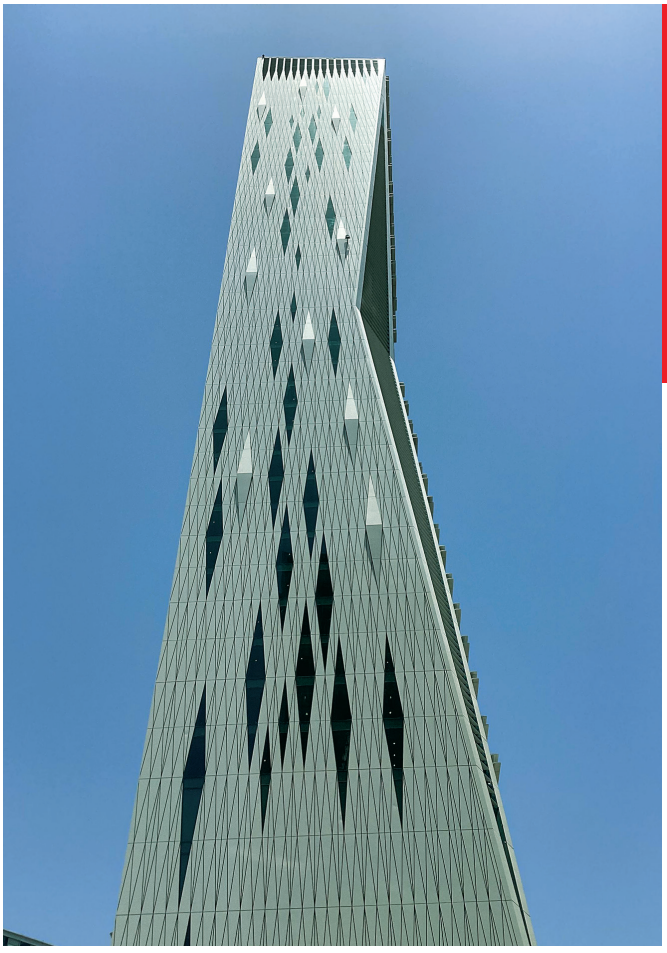
- Zone : **Area 04**
- GFA : **66,185 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 4.09

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

At the core of our partnership with King Abdullah Financial District (KAFD) was a mission to transform enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) with operational systems seamlessly. Our meticulous two-phase approach employed LiDAR technology to develop intricate 3D models, enhancing operational efficiency and data accuracy. This project not only addressed KAFD's critical needs but also set new industry standards in asset management, positioning them as leaders in operational excellence.

QUICK OVERVIEW

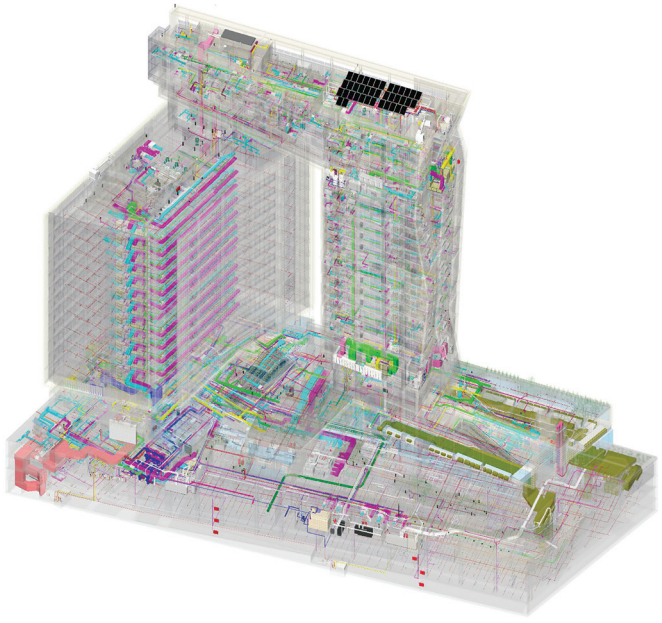
- Zone : **Area 04**
- GFA : **107,111 Sqm.**
- Total Duration : **90 Days**

Services

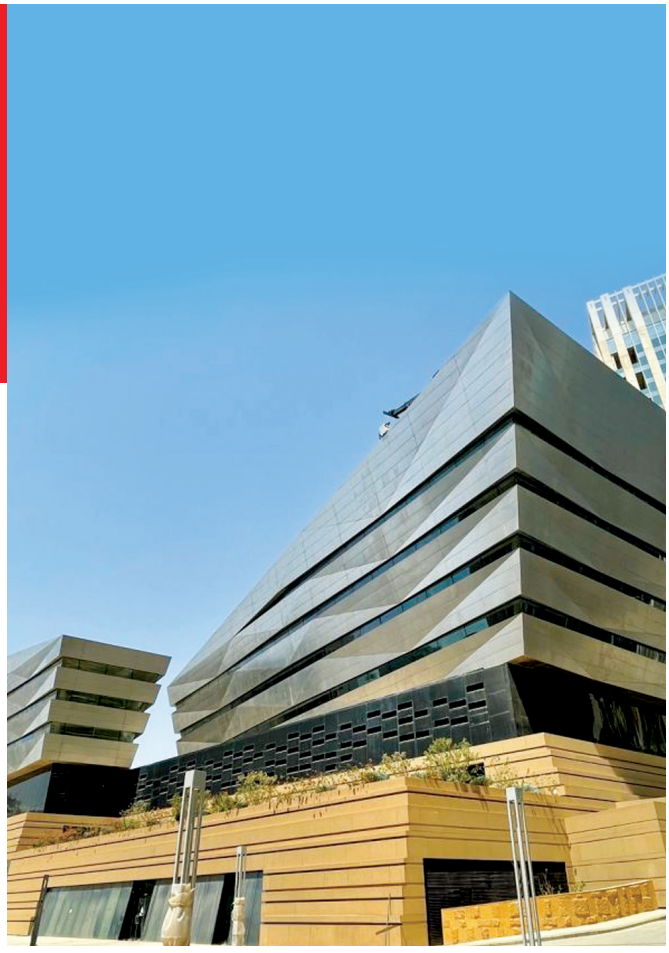
- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 4.02

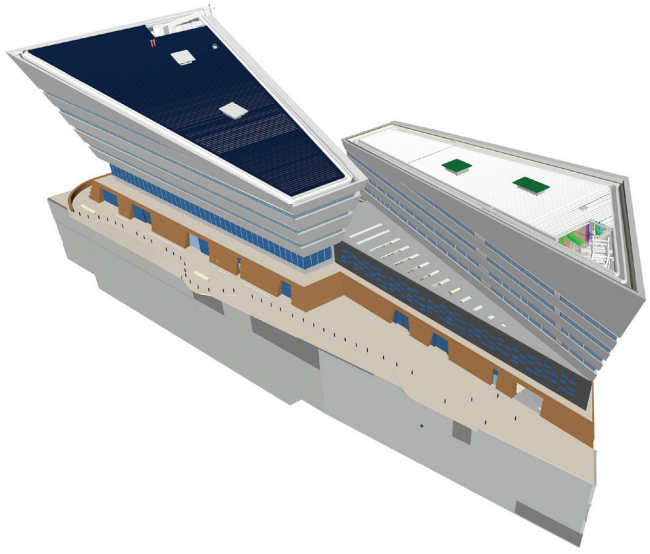


KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's collaboration with King Abdullah Financial District (KAFD) underscored our capabilities in enterprise architecture innovation. By utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our strategic two-phase approach with LiDAR technology produced detailed 3D models, significantly enhancing operational efficiency and data accuracy. This project established new standards in asset management and positioned KAFD as a pioneer in operational excellence.



QUICK OVERVIEW

- Zone : **Area 04**
- GFA : **35,943 Sqm.**
- Total Duration : **30 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 4.08

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

King Abdullah Financial District (KAFD) faced a pressing need for accurate As-Built documentation and asset information. TXG addressed this by deploying a two-phase strategy using LiDAR technology, resulting in detailed 3D Building and Asset Information Models. These models were integrated into their Common Data Environment (CDE), providing a centralized, reliable data source. The outcome was a significant enhancement in operational efficiency and data accuracy, setting new standards in asset management and positioning KAFD as a leader in operational excellence.

QUICK OVERVIEW

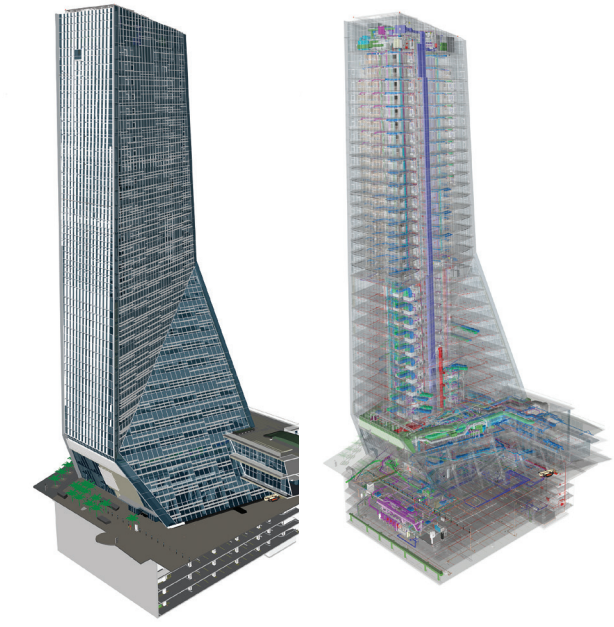
• Zone	:	Area 04
• GFA	:	53,137 Sqm.
• Height	:	81 m/266 ft.
• Total Floor	:	19
• Total Duration	:	90 Days

Services

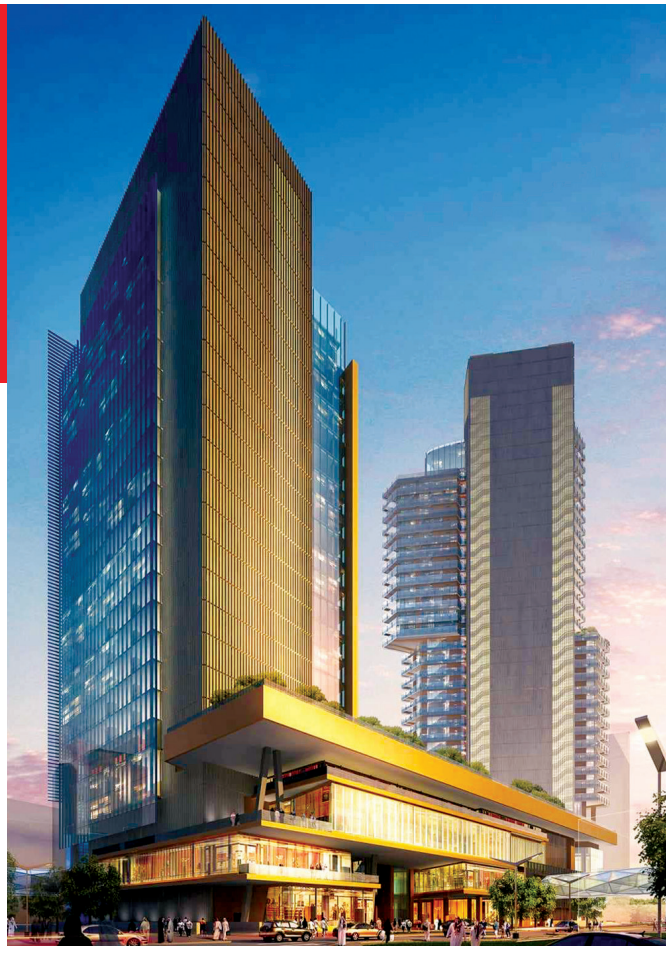
- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 5.05

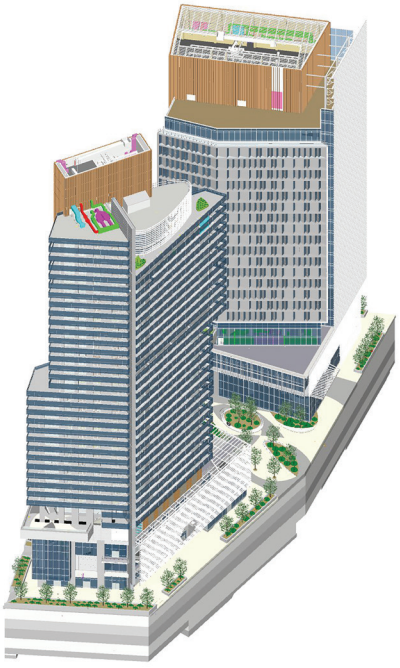


KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) showcased TXG's ability to deliver substantial benefits through advanced technologies. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. The strategic use of LiDAR technology in a two-phase approach yielded detailed 3D models, enhancing operational efficiency and data accuracy. This project not only improved maintenance and leasing activities but also set new benchmarks in asset management, propelling KAFD to the forefront of operational excellence.



QUICK OVERVIEW

- Zone : Area 05
- GFA : 95,839 Sqm.
- Height : 125 m/410 ft.
- Total Floor : 23
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 5.03

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

In our collaboration with King Abdullah Financial District (KAFD), TXG implemented a comprehensive approach to modernize their enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our two-phase strategy involved using LiDAR technology to create precise 3D Building and Asset Information Models. This ensured a centralized data source, significantly improving operational efficiency and data accuracy in maintenance and leasing activities, setting new industry standards in asset management.

QUICK OVERVIEW

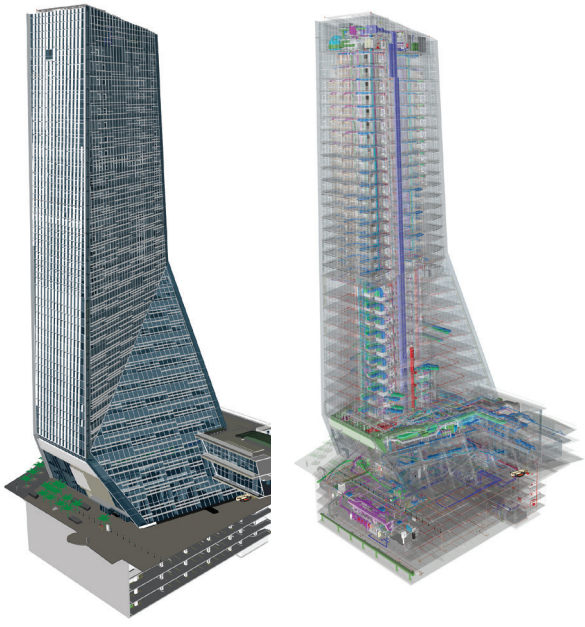
• Zone	:	Area 05
• GFA	:	65,688 Sqm.
• Height	:	105 m/344 ft.
• Total Floor	:	26
• Total Duration	:	60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



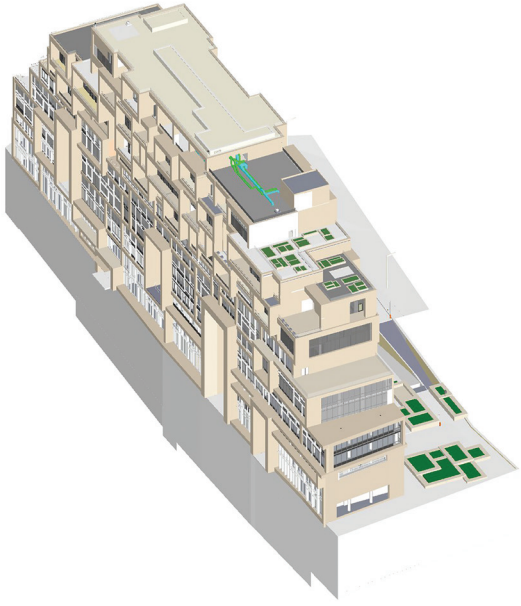
PARCEL 5.04

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

The partnership with King Abdullah Financial District (KAFD) demonstrated TXG's significant impact on enterprise architecture. Employing advanced technologies such as Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) seamlessly with operational systems. Our strategic use of LiDAR technology in a two-phase approach resulted in detailed 3D models, enhancing operational efficiency and data accuracy. This transformation set new standards in asset management and established KAFD as a leader in operational excellence.



QUICK OVERVIEW

• Zone	:	Area 05
• GFA	:	86,975 Sqm.
• Total Duration	:	60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 5.01

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with King Abdullah Financial District (KAFD) highlighted TXG's achievements in transforming enterprise architecture. By using Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Utilizing LiDAR technology in a strategic two-phase approach, we developed comprehensive 3D models. This effort significantly enhanced operational efficiency and data accuracy, setting new standards in asset management and establishing KAFD as a leader in operational excellence.

QUICK OVERVIEW

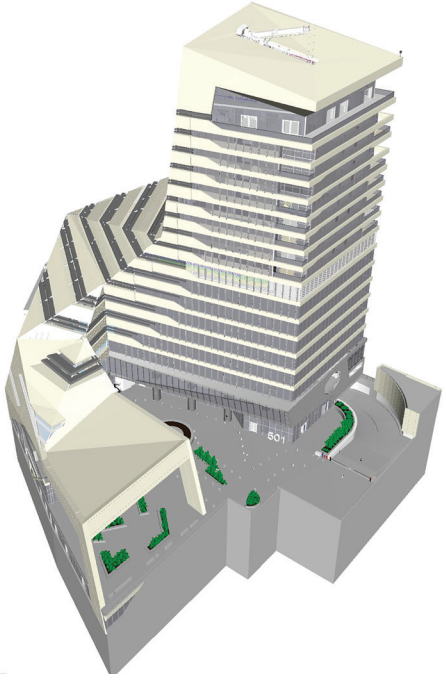
- Zone : **Area 05**
- GFA : **53,227 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



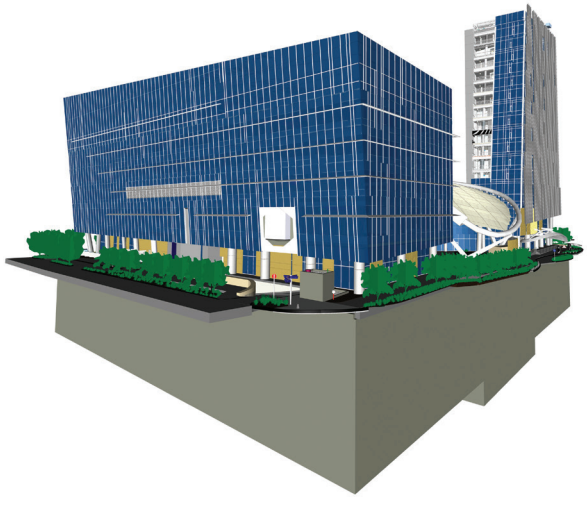
PARCEL 2.08

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Working with King Abdullah Financial District (KAFD), TXG demonstrated its ability to revolutionize enterprise architecture. We used Scan to BIM and Asset Information Modelling to integrate their Common Data Environment (CDE) with operational systems. By deploying LiDAR technology in a two-phase strategy, we created detailed 3D models essential for effective operations and facilities management. This transformation significantly improved operational efficiency and data accuracy, enhancing maintenance and leasing activities. Our collaboration set new benchmarks in asset management, showcasing KAFD as a model of operational excellence.



QUICK OVERVIEW

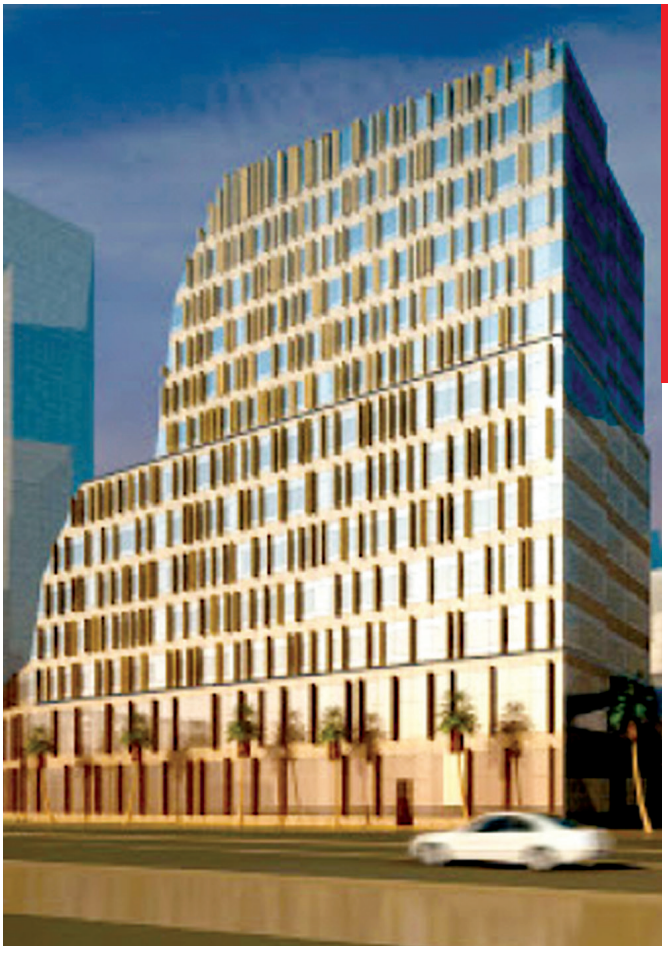
- Zone : **Area 02**
- GFA : **61,546 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



PARCEL 5.02

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's partnership with King Abdullah Financial District (KAFD) underscored our innovative approach to enterprise architecture. Leveraging advanced Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Through a two-phase strategy using LiDAR technology, we created detailed 3D models that provided vital data for operations and facilities management. This innovation significantly improved operational efficiency and data accuracy, setting new benchmarks in asset management and positioning KAFD at the forefront of operational excellence.

QUICK OVERVIEW

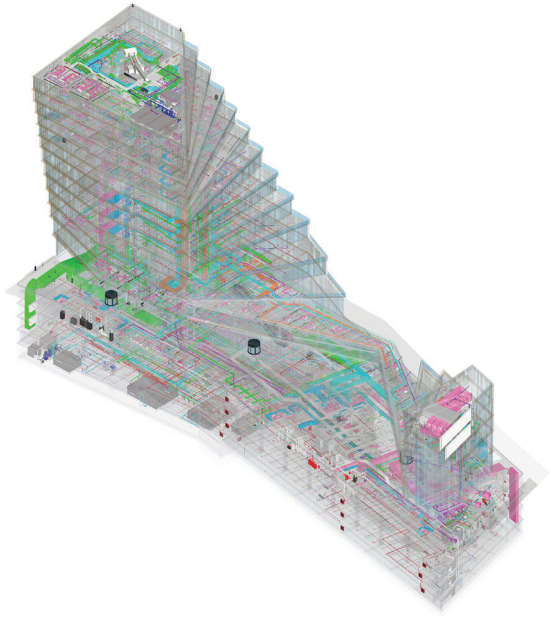
- Zone : **Area 05**
- GFA : **53,227 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.



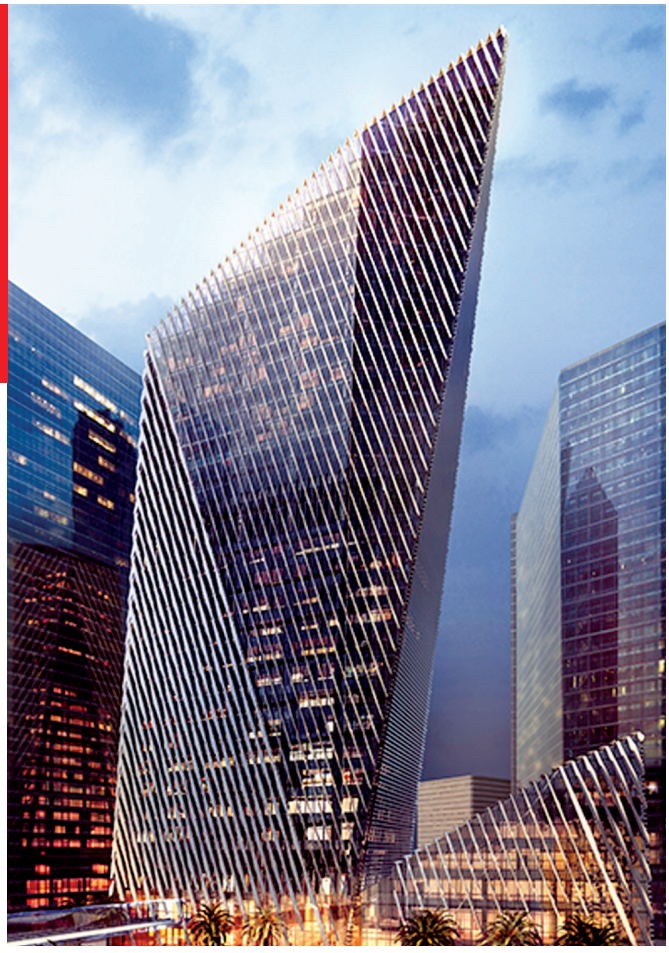
PARCEL 4.06

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

Our collaboration with the King Abdullah Financial District (KAFD) highlighted TXG's expertise in enterprise architecture. We employed advanced technologies like Scan to BIM and Asset Information Modelling, seamlessly integrating their Common Data Environment (CDE) with operational systems. Through a strategic two-phase approach using LiDAR technology, we developed detailed 3D Building and Asset Information Models. These initiatives provided essential data for operations and facilities management, ensuring a centralized, reliable data source. The transformation significantly enhanced operational efficiency and data accuracy, setting new standards for asset management and positioning KAFD at the forefront of operational excellence.



QUICK OVERVIEW

- Zone : Area 04
- GFA : 63,798 Sqm.
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 3.10

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

At the core of our partnership with King Abdullah Financial District (KAFD) was a mission to transform enterprise architecture. Utilizing Scan to BIM and Asset Information Modelling, we integrated their Common Data Environment (CDE) with operational systems seamlessly. Our meticulous two-phase approach employed LiDAR technology to develop intricate 3D models, enhancing operational efficiency and data accuracy. This project not only addressed KAFD's critical needs but also set new industry standards in asset management, positioning them as leaders in operational excellence.

QUICK OVERVIEW

- Zone : Area 03
- GFA : 57,504 Sqm.
- Total Duration : 60 Days

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

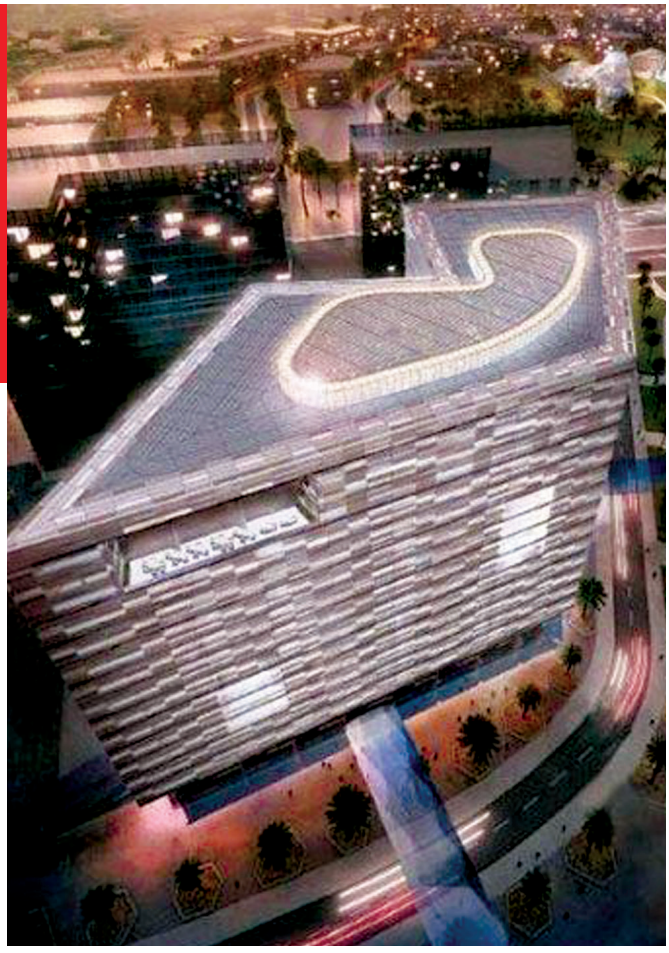
PARCEL 5.06

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

TXG's collaboration with King Abdullah Financial District (KAFD) underscored our capabilities in enterprise architecture innovation. By utilizing Scan to BIM and Asset Information Modelling, we seamlessly integrated their Common Data Environment (CDE) with operational systems. Our strategic two-phase approach with LiDAR technology produced detailed 3D models, significantly enhancing operational efficiency and data accuracy. This project established new standards in asset management and positioned KAFD as a pioneer in operational excellence.



QUICK OVERVIEW

- Zone : **Area 05**
- GFA : **63,019 Sqm.**
- Total Duration : **60 Days**

Services

- LiDAR scanning, LOD500 Modelling.

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

PARCEL 6.27, 6.20, 6.23, 6.40, 6.26

KING ABDULLAH FINANCIAL DISTRICT (KAFD)

Computer Aided Facility Management (CAFM) & Digital Twin

Client	Contractor	Location
KAFD	**ICAD**	**Riyadh, KSA**

King Abdullah Financial District (KAFD) faced a pressing need for accurate As-Built documentation and asset information. TXG addressed this by deploying a two-phase strategy using LiDAR technology, resulting in detailed 3D Building and Asset Information Models. These models were integrated into their Common Data Environment (CDE), providing a centralized, reliable data source. The outcome was a significant enhancement in operational efficiency and data accuracy, setting new standards in asset management and positioning KAFD as a leader in operational excellence.

QUICK OVERVIEW

- Zone : **Area 03**
- Parcel 6.40 – Data Centre
- Parcel 6.27 – District Cooling
- Parcel 6.23 – District Cooling
- Parcel 6.20 – Utilities – Water Supply
- Parcel 6.26 – Utilities – Water Supply

Integration

- Integration of Common Data Environment.
- Maximo Integration.
- Digital Twin - Ecodomus Integration.
- CAFM Support with COBie Integration.

BIM SERVICES

CONTENTS

NEOM AIRPORT- T1T2

Digital Delivery Partner

Client : **Neom**

Contractor : **ICAD**

Location : **Neom, KSA**

NEOM is a bold and visionary project launched by Saudi Arabia to build a new, futuristic city from the ground up and position it as a hub for innovation, technology, and sustainability. TXG has been privileged to become the digital delivery partner for the ground-breaking NEOM Airport T1T2 project.

Our focus was on the present and on laying a robust foundation to support future requirements for Computer-Aided Facility Management (CAFM) and Digital Twins, ensuring a resilient and adaptable digital backbone for NEOM.

Additionally, adding Geographic Information System (GIS) to our project brought more detail and excitement. This step was key for planning and understanding the airport's location, creating a sophisticated and connected digital setup.

TXG's journey with NEOM Airport T1T2 is a testament to our relentless pursuit of excellence and commitment to shaping the future through innovative digital solutions.

QUICK OVERVIEW

- 7K square Meters Built up area
- Project Duration : 8 Months
- Manpower : 5 Engineers Onsite & 30 BIM Engineers Off site.
- Systems - Structure, Architecture, Interior, MEP, ELV, and SAS.

Services

- LOD 300 till LOD 500 Modelling.
- Asset Information Model with COBie.

Integration

- Integration of Common Data Environment.

SPORTS BOULEVARD

BIM Modeling and Coordination

Client : **Sports Boulevard Federation (SBF)**

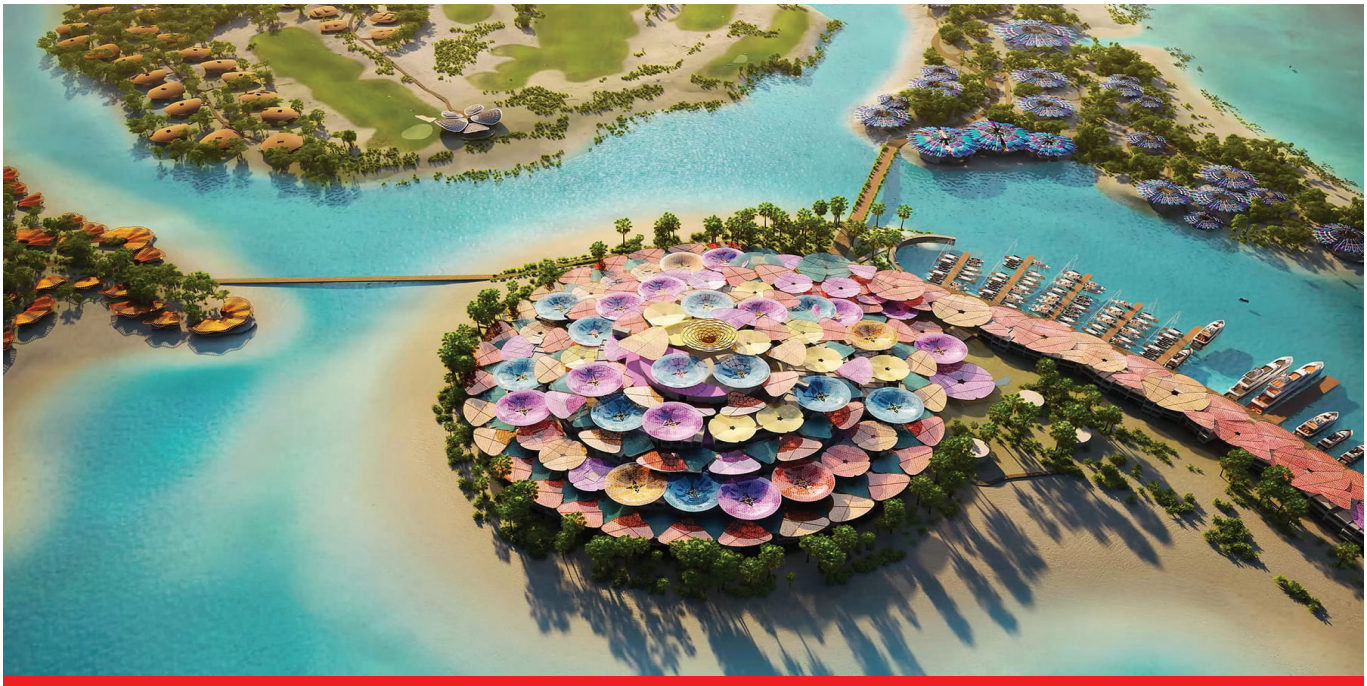
Contractor : **ICAD**

Location : **Riyadh, KSA**

The Sports Boulevard is a significant initiative in line with Saudi Vision 2030 aimed at encouraging a healthy lifestyle in Riyadh. It spans 135 km and links Hanifah Valley to Al Salai Valley, featuring green pathways, cycling routes, horseback riding paths, and sports facilities, including a Sport Tower. Covering over 4.2M sqm of green space and a 20 sq km desert park, the project also features event venues, museums, theaters, and public art, blending recreational, cultural, and investment opportunities to elevate Riyadh's global ranking.

QUICK OVERVIEW

- Pre-Construction Phase – Design BIM Model, As-Built Documents including 2D Drawings.
- Incorporation of deviation, modification, and element addition from the design into the As-Built BIM Model.
- Documentation of deviation – Design Drawing vs. As-Built Drawings.
- Extraction of 2D As-Built drawings showing the Asset Tagging.
- Extraction of COBie data sheet from Models.
- Creation of Asset Register.
- Spot verification to confirm the accuracy of Models and Information.



SHURA HC-1, THE TAIL MARSA VILLAGE

ELV System BIM Implementation

Client : **Red Sea Global**

Contractor : **ICAD**

Location : **Red Sea, KSA**

The Shura HC-1 The Tail Marsa Village project is a prestigious development in the Red Sea region of Saudi Arabia. TXG was entrusted with the BIM modeling and coordination of the Extra Low Voltage (ELV) systems for this project, ensuring that all aspects met the highest industry standards. Our team developed the ELV systems up to LOD 400, providing precise shop drawings and detailed simulations to facilitate the seamless integration of these systems within the overall project framework.

QUICK OVERVIEW

Services

- Development of LOD 400 / D05 BIM model implementation.
- Creation and integration of exact system families.
- Extraction and submission of 2D shop drawings.

AL NAHDA ENTERTAINMENT COMPLEX, EXIT 15

BIM professionals staffing services

Client : **Seven Entertainments**

Contractor : **Shapoorji Pallonji**

Location : **Riyadh, KSA**

The Al Nahda Entertainment Complex, located at Exit 15 in Riyadh, Saudi Arabia, stands as a state-of-the-art facility designed to redefine leisure and recreation. This dynamic destination combines innovation and entertainment, offering a wide range of experiences for families and individuals. Featuring cutting-edge design and modern amenities, the complex emphasizes sustainability and a seamless blend of technology and architecture. Its strategic location makes it a hub for social gatherings, cultural events, and world-class entertainment, setting a benchmark for excellence in the entertainment industry.

QUICK OVERVIEW

Services

- BIM professionals staffing services

MELBOURNE AIRPORT

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

The Melbourne Airport Northern Infill project aims to improve passenger flow and enhance baggage screening using advanced CT scanning technology. The design focuses on flexibility for future expansion while minimizing disruptions to ongoing operations. Key features include increased capacity at the international gate lounge located at Pier C, an expanded outbound baggage hall, and improved duty-free retail spaces.

TXG played a crucial role in the Melbourne Airport expansion, leveraging our BIM expertise to enhance operational efficiency and improve the overall passenger experience in one of Australia's busiest airports.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

BANKSIA CSL

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

Australia's modern biotech facility, Project Banksia, is located in Tullamarine. This facility will support both pandemic responses and seasonal immunization campaigns by serving as the exclusive source of cell-based influenza vaccines in the Southern Hemisphere. With its sophisticated PC2 and PC3 labs, extensive administrative offices, and cafeteria, the facility is well-positioned to grow its market share in both the home and foreign markets.

At the CSL Project, TXG's BIM solutions were instrumental in meeting the rigorous design and operational standards required for such a high-tech environment.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

THOMAS EMBLING HOSPITAL

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

Thomas Embling Hospital is a secure forensic mental health hospital, providing care and treatment for people living with a serious mental illness in, or at risk of entering, the justice system. The expansion of Thomas Embling Hospital is poised to revolutionize Victoria's forensic mental health system. The Stage 1 expansion project will deliver an additional 82 secure mental health beds – including a new dedicated 34-bed Women's Precinct, a 48-bed medium security Men's Facility and clinical administration facilities.

TXG's contributions to the Thomas Embling Hospital Project ensured that the facility's infrastructure met the highest standards of safety, comfort, and operational efficiency, tailored specifically for the healthcare sector.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

CHADSTONE SHOPPING CENTER

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

Chadstone – The Fashion Capital, Australia's largest shopping centre, is undergoing a significant expansion to transform it into a premier lifestyle destination. Located in Malvern East, Victoria, the redevelopment focuses on refreshing and repurposing existing spaces within the center's footprint. The project will introduce a new entertainment and dining precinct, upgrade the Market Pavilion fresh food precinct, construct a nine-story commercial office building, and expand parking facilities. The expansion aims to enhance Chadstone's status as a luxury shopping destination, create thousands of jobs, and elevate the visitor experience with new dining, retail, and wellness services.

In the Chadstone Shopping Centre Project, TXG's expertise helped create an energy-efficient and vibrant retail environment, enhancing the shopping experience in one of Australia's most prestigious retail centers.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

MICROSOFT DATA CENTER MEL07

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

The MEL07 data center in Melbourne is a pivotal component of Microsoft's ambitious infrastructure investment in Australia. This facility is integral to enhancing the nation's hyper-scale cloud computing infrastructure, advancing cybersecurity measures, and supporting Microsoft's commitment to sustainability goals, including becoming carbon-negative, water-positive, and zero waste by 2030. The MEL07 center has robust electrical infrastructure to ensure continuous, reliable operations, safeguarding critical data and supporting Australia's growing digital economy.

The Microsoft Data Centre MEL07 Project benefited from TXG's precision-driven BIM services, which ensured the facility's reliability, security, and ability to meet the demands of modern data processing and storage.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

GEELONG CONVENTION AND EVENT CENTER

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

The Geelong Convention and Exhibition Centre is set to become a premier destination, featuring a 1,000-seat convention center and a 3,700 square meter exhibition space. This development also includes a 200-room hotel with two large exhibition spaces, conference facilities, and flexible event areas. Additionally, the development will host retail spaces, commercial areas, public plaza, and a 200-room Crowne Plaza hotel.

TXG's role in the Geelong Convention and Event Centre Project focused on delivering versatile BIM solutions, supporting the creation of a dynamic space that is both functional and aesthetically appealing for a variety of events.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

AIRTRUNK SHELL HJKL

BIM Modeling and Coordination

Client/Contractor : **Stowe**

Location : **Melbourne, Australia**

AUSTRALIAN PROJECTS

The AirTrunk data center, located in Melbourne, Australia, is a top hyper-scale data center built to meet the enormous needs of digital processing and storage. It boasts excellent operational standards, including cutting-edge security, reliable data management technologies, and sustainability practices. It is a key hub for significant cloud providers and businesses, promoting digital transformation with an emphasis on environmental responsibility and cutting-edge technology.

This project highlight TXG's capacity to manage complex data center installations. Our collaboration with Stowe ensured that all project components were delivered with precision, meeting the high-security and reliability requirements of the facility.

QUICK OVERVIEW

Services

- Development of Lighting layout and Small power layout.
- Creating containment layout and coordination with MEP, Architectural and Structural services.
- Creating security and communication layout.
- Extraction of Trimble files.
- Exporting Revizto file for coordination.

AL MOOSA REHABILITATION & LONG-TERM CARE HOSPITAL

BIM Modelling & Computer Aided Facility Management (CAFM)

Client : **Al Moosa**

Contractor : First fix and Baumat

Location : **Al Ahsa, KSA**

In the eastern province of Saudi Arabia, a new hospital has been innovatively designed as a micro-village, mirroring the Al-Ahsa oasis's natural beauty, to cater to the specialized needs of rehabilitation and long-term care. The master plan and architecture promote healing by integrating nature, with a sustainable, evidence-based design approach across its two buildings: a three-story rehabilitation centre and a 15-story inpatient tower.

The use of natural materials like wood, stone, and glass, alongside modern healthcare design principles, aims to create a serene, therapeutic environment. This approach extends to patient and visitor experiences, offering hotel-like amenities such as a grand lobby, retail outlets, a pharmacy, dining options, a hanging garden, water features, and spacious rooms that facilitate family involvement in the healing process.

The design prioritizes cultural sensitivity, sustainability, and wellness, aiming to seamlessly blend hospital care with hospitality to enhance recovery outcomes

QUICK OVERVIEW

Services

- LOD 300 till LOD 500 BIM Modelling of Architecture, Structure, Interior and MEP.
- LOD detailing for Asset Management
- Production of Fully Coordinated Clash Zero Consolidated 3D Model.
- BIM Site Coordination.
- Extraction of 2D Drawings from 3D Model for the production of CSD.

JEDDAH TOWER

BIM Modelling & 4D Construction Simulation

Client : **SBG**

Contractor : **ICAD**

Location : **Jeddah, KSA**

The Jeddah Tower, eclipsing the Burj Khalifa by 180 metres, aims to be the world's tallest skyscraper at over 1,008.2 metres. As the centrepiece of Jeddah Economic City, it represents a leap in engineering, reshaping the urban landscape on a 5.2 square kilometre waterfront, 20 kilometres north of Jeddah

QUICK OVERVIEW

GFA : 243,866 Sqm.

Services

- 4D Construction Simulation.
- 3D Space Coordination.
- 3D Modelling and Coordination.
- Preparation of Shop Drawings.

HEGRA BOUTIQUE HOTEL

BIM Modelling & 4D Construction Simulation

Client : **Gioforma**

Contractor : **MBL**

Location : **AL-Ula, KSA**

The Hegra Boutique Hotel Al Ula is a modern luxury hotel that seamlessly integrates technology to assure visitor comfort and sustainability. Digital concierge services and improved security further enhance the guest experience. We at the Hegra Boutique Hotel are proud to provide state-of-the-art 4D construction simulation services together with Building Information Modeling (BIM) services.

QUICK OVERVIEW

Services

- BIM conversion.
- Archi-CAD to Revit Conversion of all Architecture Drawings.

KING ABDULLAH FINANCE CITY

BIM Modelling

Client : **KAFD**

Contractor : **ICAD**

Location : **King Abdullah Financial District Riyadh, KSA**

KAFD was inspired by King Abdullah's vision to create a new financial district that will take the economy of Riyadh to new heights. Following its acquisition by the Public Investment Fund (PIF) of Saudi Arabia, KAFD has evolved to become a prime business and lifestyle destination capturing the core values of Vision 2030.

King Abdullah Financial City acknowledged our proficiency in completing reality capture placing LiDAR scanning for as-built data validation.

QUICK OVERVIEW

- 47 nos. Iconic individual Building including prime 385mt/80floors skyscraper PIF
- GFA including Parking: **2723106 Sqm.**

Services

- Data Collection & Reporting.
- Perform LiDAR Scanning, Site survey & Validation.
- Develop LOD 300 BIM Models.
- Data drop based on the KAFD Asset Information Requirements (LOD 500).
- Issue BIM deliverables (Models, CAFM, LST, 2D extracted drawing for Asset tagging & Location).

INTEGRATION

- COBie datasets integrate with the operational CDE (Common Data Environment), IBM Maximo CAFM and property management solutions.
- CAFM data sheet integrate asset and location data with operational CDE and IBM Maximo CAFM solutions.
- YouBIM & EcoDomus.
- GIS & VR data.

TADAWUL TOWER

BIM Modelling

Client/ Contractor : **Samsung CCE JV**

Location : **King Abdullah Financial District Riyadh, KSA**

The Tadawul Tower in Riyadh, Saudi Arabia, is a symbol of both financial prominence and modern architectural quality, received our expertise in comprehensive BIM modeling for architecture, structure, interiors, and MEP systems. Our services included clash detection, multi-trade coordination, BIM site coordination, and 2D drawing extraction for Construction Sequence Diagrams (CSD), ensuring seamless construction and precision in Riyadh's financial hub.

QUICK OVERVIEW

Total Area : 140,000 Sqm.

Services

- BIM Modelling of Architecture, structure, Interior And MEP.
- Carrying Out Clash Detection and Multi trade Coordination.
- Production of Fully Coordinated Clash zero Consolidated 3D Model.
- BIM Site Coordination.
- Extraction Of 2D Drawings From 3D Model
- for the Production of CSD.

KING ABDUL AZIZ INTERNATIONAL AIRPORT

CAD and Engineering Support

Client : **GACA**

Contractor : **ICAD**

Location : **Jeddah, KSA**

The Kingdom of Saudi Arabia's General Authority of Civil Aviation launched a venture to expand and modernise Jeddah's King Abdul-Aziz International Airport (KAIA), one of the Kingdom's most important airports, into a regional hub and a multimodal international turntable. The planned expansion of KAIA in Jeddah is designed to increase the annual handling capacity in the new passenger terminal to 30 million passengers, with an ultimate phase capacity of 80 million. Under the terms of the new master plan, the first phase would accommodate 30 million passengers annually, the second phase 50 million passengers, all the way to 100 million passengers in its third phase by 2035.

QUICK OVERVIEW

Total Area : **105 square km.**

Services

- CAD Support.
- Shop Drawing Support.
- As built Drawing Support.
- CAD Standardisation.

RIYADH METRO

CAD and Engineering Support

Client : **High Commission for the Development of Ar-Riyadh**

Contractor : **ICAD**

Location : **Riyadh, KSA**

Riyadh Metro is a rapid transit system under construction in Riyadh, Saudi Arabia. It is a part of the Riyadh Public Transport Project (RPTP), which will be the largest public transport project.

The RPTP comprises the construction of a metro network, a bus system and other transport services in the capital city.

The metro project aims to transform Riyadh's public transportation infrastructure and provide a more efficient and sustainable means of commuting for residents and visitors alike.

Arriyadh Development Authority (ADA) is the owner and operator of Riyadh Metro

QUICK OVERVIEW

Services

- CAD Support.
- Shop Drawing Support.
- As built Drawing Support.
- CAD Standardisation.

FOUR SEASONS JEDDAH CORNICHE

BIM Modeling and Coordination

Client : **Midad Real Estate**

Contractor : **HATCO**

Location : **Jeddah, KSA**

The Four Seasons Hotel and Private Residences Jeddah at the Corniche is a joint venture between Four Seasons Hotels and Resorts and Midad Real Estate. Along with 64 individual residences, including two penthouses, this opulent beachside getaway will have 269 guest rooms and 21 serviced flats. The project integrates design, hospitality, and real estate innovation, elevating Jeddah's standing as a top worldwide destination at the New Jeddah Corniche with stunning views of the Red Sea.

QUICK OVERVIEW

Services

- BIM Modelling of Architecture, structure, Interior and MEP during Design stage
- Carrying Out Clash Detection and Multi trade Coordination
- Production of Fully Coordinated Clash Zero Consolidated 3D Model
- BIM Site Coordination
- Extraction Of 2D Drawings From 3D Model to Produce CSD

KING SALMAN PARK

Tender, Estimation and Engineering Support

Client/Contractor : **MBL**

Location : **Riyadh, KSA**

King Salman Park, part of Riyadh's Four Megaprojects, is set to become the world's largest urban park, spanning over 16 km². The park will feature extensive green spaces, cultural landmarks like the Royal Arts Complex and National Theater, and numerous recreational facilities, including a golf course, sports complex, and amusement parks. Strategically located with connections to major roads and public transport, the park aims to enhance the quality of life in Riyadh, aligning with Saudi Vision 2030 by promoting a vibrant, healthy society and elevating the city's global standing.

QUICK OVERVIEW

Services

- Tender Support
- BOQ Take off from Revit Model
- Estimation Support

RUA AL MADINAH

BIM Modeling and Engineering Support

Client/Contractor : **MBL**

Location : **Madinah, KSA**

Rua Al Madinah is a part of Saudi Vision 2030, an ambitious urban project located near the Prophet's Mosque. This project aims to enhance the spiritual and cultural experience for visitors while emphasizing environmental sustainability. It includes luxury hospitality, beautiful green spaces, and cultural centers, all of which draw inspiration from the city's rich heritage. Rua Al Madinah also incorporates modern green technologies such as energy-efficient shading, solar panels, and underground waste systems to create an eco-friendly environment.

QUICK OVERVIEW

Services

- Tender Support
- Modelling the Tunnel in Civil 3D
- Estimation Support

DIGITAL TRANSFORMATION CONSULTANCY SERVICES

GAP ANALYSIS

DIGITAL TRANSFORMATION TO MBL

At TXG, our consultancy team conducted a comprehensive Gap Analysis for Digital Transformation on an existing project where the client was encountering significant issues on BIM Development approach towards their project in construction phase. Our involvement is to ensure that every aspect of the project's process and systems was meticulously examined and provide comprehensive report on the existing process and the recommendation to streamline the BIM process. The findings of this analysis are crucial for driving forward digital transformation of their current and future projects.

Scope of Work: Gap Analysis

Conduct a comprehensive Gap Analysis for Giga projects with MBL, examining current processes and systems to identify gaps and recommend actionable steps. Define BIM goals, ensure BIM model compliance, and provide a strategic roadmap to drive digital transformation and enhance project performance.

Executive Summary

A concise overview presenting the key findings and recommendations, setting the stage for the detailed analysis that follows.

Methodology

An in-depth explanation of the approach and techniques employed during the gap analysis, demonstrating the robustness and reliability of our methods.

Current State Assessment

A detailed examination of the existing processes, systems, and requirements, highlighting the current operational landscape.

Desired State Definition

Clear definition of BIM goals and objectives, establishing the desired future state for the client's digital transfor mation journey.

Gap Analysis Findings

A comprehensive analysis of the identified gaps, meticulously categorized by priority and severity, provides a clear picture of areas needing improvement.

BIM Model Compliance Instructions

Specific instructions to be implemented on BIM models and workflows, ensuring alignment with industry standards and best practices.

Conclusion

Clear and actionable recommendations aimed at bridging the identified gaps and enhancing overall project performance.

Road Map

A suggested plan outlining the strategic steps to be taken, ensuring a structured approach to achieving the desired digital transformation.

This report not only highlights the meticulous work executed by TXG but also serves as a testament to our commitment to excellence and innovation in addressing our clients' challenges through digital transformation.


Trimble
100
90
80

LIDAR SCANNING AND REALITY CAPTURE

LiDAR Scanning and Reality Capture in Construction: Methodology and Benefits

Methodology

Planning: Define the objectives and scope of the scanning project. Determine the specific areas to be scanned and the required resolution.

Equipment Selection: Choose appropriate LiDAR equipment based on project needs, such as handheld, mobile, or terrestrial LiDAR scanners, depending on site conditions.

Data Acquisition: Position the LiDAR scanner at multiple points around the construction site. The scanner emits laser pulses, which bounce off surfaces and return to the sensor, recording the time it takes for each pulse to return.

Data Processing: Transfer the raw data to a computer, where specialized software processes the point cloud data. This involves filtering noise, aligning scans from different locations, and generating a detailed 3D model.

Integration: Combine the 3D model with other design tools and software (such as BIM) to enhance accuracy and enable better project visualization and planning.
Analysis and Application: Use the detailed 3D model for various purposes such as progress tracking, quality control, clash detection, and creating as-built documentation.

Benefits

Accuracy and Precision: LiDAR scanning provides highly accurate and detailed 3D representations of construction sites, reducing errors and ensuring precise measurements.

Efficiency: Rapid data collection speeds up the surveying process, saving time compared to traditional methods.

Cost Savings: By reducing the need for rework and minimizing errors, LiDAR scanning can lead to significant cost savings.

Safety: Non-intrusive scanning methods enhance safety by reducing the need for physical presence in hazardous areas.

Enhanced Visualization: Detailed 3D models improve communication among stakeholders, facilitating better decision-making and project planning.
Clash Detection: Identifying potential clashes or conflicts in the design phase helps avoid costly on-site issues.

Progress Tracking: Regular scans can monitor construction progress, ensuring adherence to timelines and identifying deviations early.

WHAT WE HAVE USED
Trimble X7 and Leica RTC 360

Trimble X7 3D LASER SCANNING SYSTEM

Simple

- Reliable field workflows suitable for all users
- Intuitive Trimble Perspective software to operate, manage, view, and validate scan data
- Fast image capture with Trimble VISION™ technology
- Compact and lightweight for easy transport and mobility

Smart

- Breakthrough innovations for reliable data collection
- New Trimble X-Drive deflection system enables automatic calibration to ensure accuracy on every scan with no downtime for calibration service
- Unique Trimble Registration Assist for automatic registration, refinement, and reports to leave the site with confidence
- Laser pointer for georeferencing and single-point measurements
- Automated survey-grade self-leveling

Professional

- Reliable IP55 rating and industry-leading 2-year warranty
- High-sensitivity time-of-flight EDM to effectively capture dark or reflective surfaces
- Flexible operation with tablet or one-button workflow
- Data integration with Trimble and non-Trimble software

Trimble X7 3D LASER SCANNING SYSTEM

GENERAL SPECIFICATIONS

Feature	Details
Weight and Dimensions	
Instrument (including battery)	5.8 kg (12.78 lbs)
Internal Battery	0.35 kg
Dimensions	178 mm (W) x 353 mm (H) x 170 mm (D)
Power Supply	
Battery Type	Rechargeable Li-ion battery 11.1V, 6.5Ah (Standard for Trimble Optical Instruments)
Typical Duration	4 hours per battery
Environmental	
Operating Temperature	–20 °C to 50 °C (–4 °F to 122 °F)
Storage Temperature	–40 °C to 70 °C (–40 °F to 158 °F)
Ingress Protection Rating	IP55 (dust protected and water jet)
Others	
Laser Pointer	Class 2 laser with a wavelength of 620–650 nm
Remote Control	Trimble T10 tablet or comparable Windows® 10 tablet or laptop via WLAN or USB cable
Push Button	One-button scan operation
Communications / Data Transfer	WLAN 802.11 a/b/g/n/ac or USB Cable
Data Storage	Standard SD Card (32GB SDHC included)
Accessories	• Backpack for easy transport and airline carry-on • Lightweight carbon fiber tripod with bell connector • Quick release adapter for X7 and carbon fiber tripod
Warranty	2 year standard

Trimble X7 3D LASER SCANNING SYSTEM

AUTOMATIC CALIBRATION

Feature	Details
Integrated Calibration System	Full auto-calibration of range and angular systems when required with no user interaction or targets
Angular Calibration	Applies a correction to the collimation error, i.e., the deviation of the horizontal, vertical or sight axis
Range Calibration	Applies a distance correction in the albedo and the distance measurement
Smart Calibration	Monitors environmental temperature, ambient light, vibration, instrument temperature and vertical speed for optimum performance

TRIMBLE REGISTRATION ASSIST

Feature	Details
Inertial Navigation System	IMU tracks instrument position, orientation and movement
Auto-Registration	Automatic scan orientation and alignment with last or pre-selected scan
Manual Registration	Manual alignment or split screen cloud to cloud
Visual Checks	Dynamic 2D and 3D viewing for QA
Refinement	Automatic registration refinement
Registration Report	Report with project and station average error, overlap and consistency results

Trimble X7 3D LASER SCANNING SYSTEM

SYSTEM OVERVIEW

Category	Details
Trimble X7	High-speed 3D laser scanner with combined servo drive/ oscanning mirror, integrated HDR imaging, automatic calibration, survey-grade self-leveling and laser pointer.
Trimble Perspective	Easy to use software for scanner control, 3D data visualization and processing. Capabilities include automated infield registration, annotations, measurements and georeferencing.

SCANNING PERFORMANCE

Feature	Details
GENERAL	
Scanning EDM Laser Class	Laser class 1, Eye safe in accordance with IEC EN60825-1
Laser Wavelength	1550nm, invisible
Field of View	360° x 282°
Scan Duration	Fastest in 2:34 sec with images, 1 min 34 sec without
Scan Speed	Up to 500 kHz
RANGE MEASUREMENT	
Range Principle	High speed, digital time-of-flight distance measurement
Range Noise	< 2.5 mm @ 30 m
Range	0.5m – 80 m
High Sensitivity Mode	Dark (asphalt) and reflective (stainless steel) surfaces
SCANNING ACCURACY	
Validation	Guaranteed over lifetime with auto-calibration
Range Accuracy[1.2]	2 mm
Angular Accuracy[1.5]	21”
3D Point Accuracy[1.5]	2.4 mm @ 10 m, 3.5 mm @ 20 m, 6.0 mm @ 40 m

Trimble X7 3D LASER SCANNING SYSTEM

SCANNING PARAMETERS

Scan Mode	Duration (min:sec)	Spacing (mm) @ 10 m	Spacing (mm) @ 20 m	Spacing (mm) @ 50 m	Number of Points (MPTS)	Max File Size (MB)
Standard	1:35	11	22	55	28	160
	3:43	5	10	25	55	420
	6:33	2.5	5	12	104	820
	13:34	1.5	3	7	209	1510
High Sensitivity	5:34	5	10	25	52	310
	10:59	2.5	5	12	104	570
	16:40	1.5	3	7	157	710

IMAGING PERFORMANCE

Feature	Details
Sensors	3 coaxial, calibrated 10MP cameras
Resolution	3840 x 2736 pixels for each image
Raw Image Capture	Fast: ~15 images - 185 MP - 1 minute - with HDR 3 minutes Medium: ~30 images - 315 MP - 2 minutes - with HDR 6 minutes
Settings	Auto Exposure and HDR Auto White Balance correction and indoor/outdoor presets

AUTOMATIC LEVEL COMPENSATION

Feature	Details
Type	Automatic Self-leveling, Selectable on/off
Range	10° (Survey Grade), 45° (Coarse)
Upside Down	10° (Survey Grade)
Survey Grade Accuracy	±3” = 0.3 mm @ 20 m

Trimble X7 3D LASER SCANNING SYSTEM

TRIMBLE PERSPECTIVE SOFTWARE

SYSTEM REQUIREMENTS	
Category	Details
Operating System	Microsoft® Windows® 10
Processor	Intel® 6th Generation Core™ i7 2.5 GHz processor or better
RAM	8GB or better
VGA Card	Intel HD Graphics 520 or better
Storage	256 GB Solid State Drive (SSD), (512GB or more for best performance)
FEATURES	
Scanner Operation	Remote control or cable
Trimble Registration Assist	Automatic and manual registration, refinement and reporting
Data Interaction	2D, 3D and Station View
In-field Documentation	Scan labels, annotations, pictures and measurements
Auto Sync	Automatic data sync from one-button operation
Georeferencing	Laser pointer for georeferencing and precision point measurement
Reports	Registration, Field Calibration and Diagnostics reports
Data Redundancy	Data stored on SD Card and tablet
Data Integration	Export formats to support Trimble and non-Trimble software File formats: TDX, TZF, E57, PTX, RCP, LAS, POD

Leica 360 REALITY CAPTURE SOLUTION

Fast

The Leica RTC360 laser scanner makes 3D reality capture faster than ever before. With a measuring rate of up to 2 million points per second and advanced HDR imaging system, the creation of coloured 3D point clouds can be completed in under 2 minutes. Plus, automated targetless field registration (based on VIS technology) and the seamless, automated transfer of data from site to office reduce time spent in the field and further maximise productivity.

Agile

Small and lightweight, the Leica RTC360 scanner's portable design and collapsible tripod mean it's compact enough to fit into most backpacks, ready to be taken anywhere. Once on-site, easy-to-use one-button operation makes for fast, hassle-free scanning.

Precise

Low noise data allows for better images, resulting in crisp, high-quality scans that are rich in detail and ready for use in a range of applications. Combined with Cyclone FIELD 360 software for automated registration in the field, the Leica RTC360 scanner offers outstanding precision that can be checked on-site.

Leica 360 REALITY CAPTURE SOLUTION

LEICA RTC360 PRODUCT SPECIFICATIONS

Category	Details
3D Laser Scanner	High-speed 3D laser scanner with integrated HDR spherical imaging system and Visual Inertial System (VIS) for real time registration
Data acquisition	< 2 min for complete full dome scan and spherical HDR image at 6mm @ 10m resolution
Real time registration	Automatic point cloud alignment based on real time tracking of scanner movement between setups based on Visual Inertial System (VIS) by video-enhanced inertial measurement unit
Double scan	Automatic removal of moving objects
Distance measurement	High-speed, high dynamic time of flight enhanced by Waveform Digitizing (WFD) technology
Laser Class	1 (in accordance with IEC 60825-1:2014), 1550nm (invisible)
Field of view	360° (horizontal) / 300° (vertical)
Range	Min. 0.5 - up to 130 m
Speed	Up to 2'000'000 pts / sec
Resolution	3 user selectable settings (3/6/12mm @ 10m)
Accuracy	Angular accuracy 18" Range accuracy 1.0 mm + 10 ppm 3D point accuracy 1.9 mm @ 10 m 2.9 mm @ 20 m 5.3 mm @ 40 m
Range noise	0.4 mm @ 10 m, 0.5 mm @ 20 m
Camera	36 MP 3-camera system captures 432 MPx raw data for calibrated 360° x 300° spherical image
Speed	1 minute for full spherical HDR image at any light condition

HDR	Automatic, 5 brackets
Visual Inertial System	Video enhanced inertial measuring system to track movement of the scanner position relative to the previous setup in real time
Tilt	IMU based, Accuracy: 3‘ for any tilt
Additional sensors	Altimeter, Compass, GNSS
On scanner	Touch-screen control with finger touch, full color WVGA graphic display 480 x 800 pixels
Mobile devices	Leica Cyclone FIELD 360 app for iPad or Android tablets including: - Remote control of scan functions - 2D & 3D data viewing - Tagging - Automatic alignment of scans
Wireless	Integrated wireless LAN (802.11 b/g/n)
Data storage	Leica MS256, 256GB exchangeable USB 3.0 flash drive
Housing	Aluminium frame and sidecovers
Dimensions	120mm x 240mm x 230mm / 4.7“ x 9.4“ x 9.1
Weight	5.35 kg / 11.7 lbs, nominal (w/o batteries)
Mounting mechanism	Quick mounting on 5/8“ stub on lightweight tripod / optional tribrach adapter / survey tribrach adapter available
Internal battery	2 x Leica GEB361 internal, rechargeable Li-Ion batteries. Duration: Typically up to 4 hours Weight: 340 g per battery
External	Leica GEV282 AC adapter
Operating temperature	5° to +40° C
Storage temperature	40° to +70° C
Dust/Humidity	Solid particle/liquid ingress protection IP54

PROJECT OVERVIEW

Project Name	Location	Client
King Abdullah Financial District (KAFD)	**Riyadh, Saudi Arabia**	**KAFD**

King Abdullah Financial District (KAFD) in Riyadh, Saudi Arabia, serves as a prime example of LiDAR scanning in action. The project utilized LiDAR technology to capture detailed 3D representations of the sprawling construction site.

Detailed Planning: The 3D models created from LiDAR scans allowed for precise planning and design adjustments, ensuring that the complex infrastructure of KAFD was accurately implemented.

Quality Control : Continuous scanning enabled real-time quality control, ensuring that construction was carried out according to the design specifications and identifying any deviations early.

Project Coordination : The integration of LiDAR data with Building Information Modeling (BIM) improved coordination among different teams, reducing misunderstandings and ensuring seamless collaboration.

The KAFD project demonstrated how LiDAR scanning could enhance construction efficiency, accuracy, and safety, setting a benchmark for future large-scale construction projects.

Lidar (Light Detection and Ranging) scanning is a remote sensing method that uses laser light to measure distances. Here's a detailed breakdown of the process:

Preparation and Planning

Objective Setting: Determine the purpose of the Lidar scan, such as topographic mapping, vegetation analysis, or infrastructure inspection.

Site Selection: Choose the area to be scanned and obtain necessary permissions if required.

Equipment Selection: Select appropriate Lidar equipment based on the project's requirements (e.g., airborne Lidar, terrestrial Lidar, mobile Lidar).

Data Acquisition

Deployment of Equipment: Set up the Lidar system on the chosen platform, which could be an aircraft, drone, vehicle, or stationary tripod.

Laser Emission: The Lidar system emits rapid pulses of laser light towards the target area. The wavelength typically used ranges from near-infrared to ultraviolet.

Reflection: The laser pulses hit objects (ground & buildings) and reflect back to the Lidar sensor.

Recording Return Time: The time taken for the laser pulse to return is recorded. This time is used to calculate the distance between the sensor and the object.

Point Cloud Generation: Each laser pulse generates a data point in a 3D space. Millions of such points create a "point cloud" representing the scanned area.

Data Processing

Initial Data Cleaning: Remove noise and outliers from the raw data to ensure accuracy.

Georeferencing: Align the point cloud data with geographic coordinates using GPS and IMU (Inertial Measurement Unit) data.

Point Classification: Classify points based on the type of surface they represent (e.g., ground, vegetation, buildings).

Digital Elevation Models (DEMs): Create DEMs by isolating ground points and generating a continuous surface representation of the terrain.

Feature Extraction: Identify and extract specific features such as buildings, roads, and vegetation.

Data Analysis and Interpretation

3D Modeling: Develop 3D models of the scanned area for visualization and further analysis.

Volume Calculations: Measure volumes of features such as stockpiles, excavations, or bodies of water.

Change Detection: Compare Lidar scans taken at different times to detect changes in the environment or structures.

Environmental Analysis: Analyze vegetation health, canopy structure, and other ecological parameters.

Application and Integration

GIS Integration: Import processed Lidar data into Geographic Information Systems (GIS) for mapping and spatial analysis.

CAD and BIM: Integrate Lidar data into Computer-Aided Design (CAD) and Building Information Modeling (BIM) software for detailed architectural and engineering projects.

Reporting: Generate detailed reports and visualizations for stakeholders, highlighting key findings and insights.

Maintenance and Updates

Regular Scanning: For dynamic environments, conduct regular Lidar scans to keep data updated.

System Calibration: Periodically calibrate the Lidar equipment to maintain accuracy.

Equipment Used

Lidar Sensors: These emit and receive laser pulses.

GPS/IMU Systems: Provide precise location and orientation data.

Computers and Software: For data processing, analysis, and visualization.

Benefits of Lidar Scanning

High Accuracy: Provides precise measurements and detailed 3D models.

Efficiency: Rapid data collection over large areas.

Versatility: Applicable in various fields such as forestry, urban planning, and archaeology.

Penetration: Can penetrate vegetation to map ground surfaces.

Physical Site Survey Team (As-Built)

Work Flow:

- While creating issues in the as-built drawing in BIM 360, issues should be located above the asset if issues are relocated after issue creation or while synchronizing from the asset. Red arrow mark-up should provide from the asset to issues.
- While creating an issue during the site survey "Title" in BIM 360, the Equipment type should be mentioned/copy pasted from AIR (without any additional characters).
- While creating an issue during the site survey enter "Description" in BIM 360, Equipment Site Tag should be entered as per site if the site tag is not available "No Tag" entered in the "Description".
- Permanent equipment site tag considered as Tag. Any temporary marking should consider as "No Tag".
- While creating issue site equipment photos should be uploaded in BIM 360 with a minimum of 2 no's clarity photos for each issue.
- Issues photos should cover the Site tag, Equipment Make, Model Number, Serial number, and Supplier if available.
- Each asset should be created for each issue.
- Photos of each asset must be taken separately except for fire alarm devices for fire alarm devices each floor typically one photo need to be taken for each type of device created with issues.
- As built drawing exiting asset if not found or no access to

check, create an issue in the description, should mention asset “Not found or Not visible or No Access”. Related location photos are to be uploaded in BIM 360.

- If any additional Asset is found at the site that location draws the red box above to create the issue with proper equipment type.
- If any new asset is found at the site that location draws the red box above the issue should be created with the title mentioned “New Asset”.
- New Asset Description mention as per the site. Once a new code is created issue should be updated as per the new AIR Equipment Type.
- Random Façade Images are to be taken to cover the building on all sides of the Facades Close and long-range photos with issues are to be created in ground floor plan drawing FAÇADE image folder (BIM360).
- All building Signages issues should be created mention the Title “Signage” Photos for the signages should be long & Close up with clear readable images.
- Signage issue creation Condition: -
  - Uploaded Signage drawing in the signage folder creates signage issue with minimum 2 no’s photos. If signages are not available as per the drawing location create the issue description “Not found”.
  - If a signage drawing is not available signage issue should be created in the floor plan drawing all Temporary & permanent signages are to be taken.
  - Following Signage like Rooms, Lift, Fire Hazard, common corridor, Staircase, Evacuation plan/Signage, etc. to be taken.
  - All Parking signage issues should be created except parking slot & Parking floor mark-ups.
- Once the as-built drawing Site survey is 100% completed (progress updated) in BIM 360 do not create any new issues without permission.
- With the Existing issues any correction or additional photo uploading should be informed before updating.

LiDAR Scanning Team:

Work Flow:

- Lidar 3D scan should be conducted on all floors including the roof, Ground level, and Elevation of the area around the project/Buildings.
- The scanning station should cover all areas of the building’s architecture.
- The scanning station should create the proper link for the next station to be scanned
- Need to add more stations for the service room for identifying pipes and assets clearly.
- The signage location needs to be scanned clearly or add one more station near the signage.
- All visible assets should be covered without any flaws.
- Once Scanning is completed, hand over the RAW file for registration.

LiDAR Scan Registration

Work Flow:

- Import the RAW data to the registration software
- Clean out the reflections of the stations in the specific scanner software
- Register the stations one by one with a minimum error of 1mm
- Export the point cloud in RCP format
- Upload the RCP, Archive, and RAW data in BIM 360
- Should be RCP file name as per the KAFD naming conversion
- Maintain the project wise RCP file documents log.

PROJECT OVERVIEW

Project Name	Location	Client
Crown Prince Private Affairs Building (L01)	**Riyadh, Saudi Arabia**	**MBL**

The Crown Prince's private affairs complex is a 20,500 square meter estate with four main zones that have been carefully planned. Grand halls and formal engagement offices are in the 5,000 square meter main edifice. The 3,500 square meter private home offers opulent living spaces as well as segregated lounge areas for small parties. Underlying this are 2,000 square meters of utility structures that house worker quarters and other services. Offering a tranquil haven, the 10,000 square meter outdoor spaces feature exquisitely designed gardens, courtyards, and leisure places. The Crown Prince's official and private demands are met by this large estate, which skillfully blends security, elegance, and utility.

Project Understanding

- We understand to provide our services "Lidar Scanning" solutions for your prestigious project and provide a complete scanning works of Main building interior areas to compare the structural and Steel support model and provide the deviation report.
- 3D Laser Scanners will be used for this project in order to capture 3D geometry of infrastructure, creating as built for the buildings or generating 3D data for integrating with Building Information Modelling.
- 3D scanning are techniques for collecting high density spatial imaging with millions of coordinates quickly and accurately.
- Using highly accurate 3D scan data generated with 3D scanning you can view as- built documentation in a virtual world. The point cloud data can also

be used by the design team to develop or update the as-built models.

- The raw output of buildings scan is "point cloud "data, which we can use as reference to create a fully parametric file in your design software.
- TXG Will provided the complete scanned data in. rcp format to Ms.MBL and deviation report between the Latest received BIM Model and As-built condition of Structural and Steel support model.
- TXG will provide the As-built updated BIM Model for the mentioned scanned areas of Structural and steel structural models.

Scope of Work and Deliverables

- TXG performed "Scan to BIM Service "for your project as per the area schedule provided with help of LiDAR scanners and complete post processing works will be done which will be used for
- Comparison of BIM Model with As-built condition for structural and steel support only
- Deviation report
- Updated As-built model for structural and steel support
- Scan Data (.RCP format) as per area schedule of Structural and Steel support only
- The Scope of works only include the interior part of Main building and the deviation report will be provided only for structural and steel support models between (Model vs Actual site condition).
- The above scope doesn't include the Façade areas, exterior areas and other buildings.
- The above scope doesn't include the MEP scanning, comparisons and deviations.

L01 - OFFICE BUILDING AREA SCHEDULE			
SL#	Levels	GIA	GFA
1	Basement Level	25,069	26,186
2	Ground Floor	13,265	13,919
3	Mezzanine Floor	4,002	4,234
4	First Floor	9,143	9,726
	Total	**51479**	**54,065**

GIS MAPPING SERVICES

GIS MAPPING SERVICES

With the use of cutting-edge geo spatial technology, our team of experts offers complete GIS mapping services that are intended to transform resource management, infrastructure development, and ur ban planning. Our services improve operational efficiency and decision-making by providing comprehensive spatial analysis, data visualization, and mapping solutions that are customized to match the specific requirements of our clients.

METHODOLOGY

Planning:

- **Objective Setting:** Define the objectives and scope of the GIS mapping project, including specific areas of interest and required data resolution.
- **Site Selection:** Choose the area for GIS mapping and if needed, secure the requisite permits.

Data Collection:

- **Remote Sensing:** Utilize satellite imagery and aerial photography for high-resolution spatial data collection.
- **Ground Surveying:** Conduct on-site data collection using GPS and other geospatial tools for accurate ground data.
- **Sensor Integration:** Integrate data from various sensors, including drones and IoT devices, for comprehensive spatial data collection.

Data Processing:

- **Data Cleaning:** Remove noise and outliers from raw data to ensure accuracy.
- **Georeferencing:** Align spatial data with geographic coordinates using GPS and other reference points.
- **Spatial Analysis:** Perform detailed analysis using GIS software to identify patterns, trends, and relationships in the spatial data.
- **Data Integration:** Combine data from different sources into a unified GIS database for comprehensive analysis.

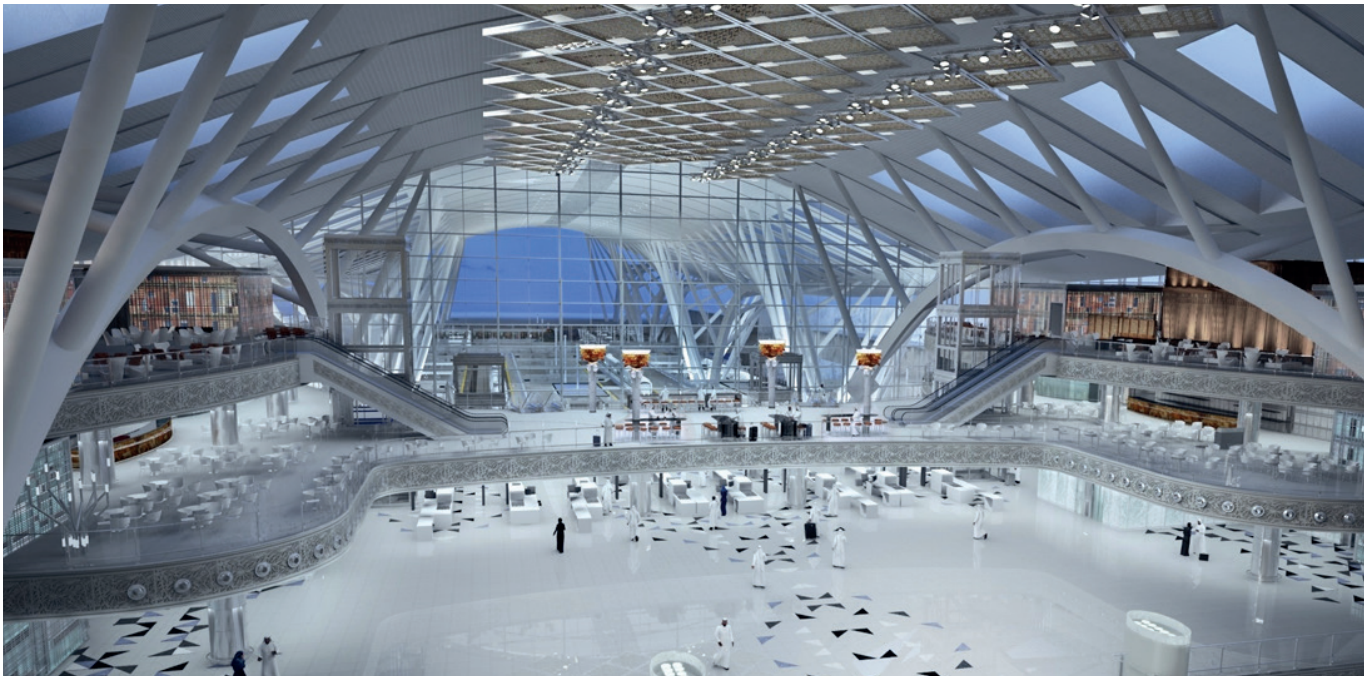
Mapping and Visualization:

- **Raster and Vector Mapping:** Create detailed raster and vector maps to represent various spatial features.
- **Thematic Mapping:** Develop thematic maps to visualize specific data themes such as land use, population density, and infrastructure.
- **Interactive Maps:** Create interactive web-based maps for real-time data visua lization and user engagement.

Analysis and Application:

- **Urban Planning:** Support urban planning and development proje cts with detailed spatial data and analysis.
- **Infrastructure Management:** Optimize infrastructure management through precise mapping and monitoring of assets.
- **Environmental Monitoring:** Conduct environmental assessments and moni tor ecological changes using spatial data.
- **Disaster Management:** Enhance disa ster preparedness and response through real-time spatial data integ ration and analysis.

PROJECT REFERENCE



Project Name	Location	Client
Neom Airport T1T2	**Saudi Arabia**	**Neom**

One of the most ambitious and innovative urban development projects in the world. Our team of experts provided advanced geospatial solutions, including dynamic mapping, raster imaging, and detailed spatial analysis, to support the project's vision of a smart, sustainable, and futuristic city. Integrating GIS technology facilitated efficient resource management, infrastructure planning, and environmental monitoring, contributing significantly to the project's overall success.

DELIVERABLES

Geodatabase Files (.gdb):

Robust databases for storing, querying, and managing geospatial data.

Workspace Documents (.xml):

Configuration files defining the workspace settings for GIS projects.

Raster Images (.tif or .jpg):

High-resolution georeferenced images for detailed spatial analysis.

Maps – Static (.pdf):

High-quality, printable maps for presentations and reports.

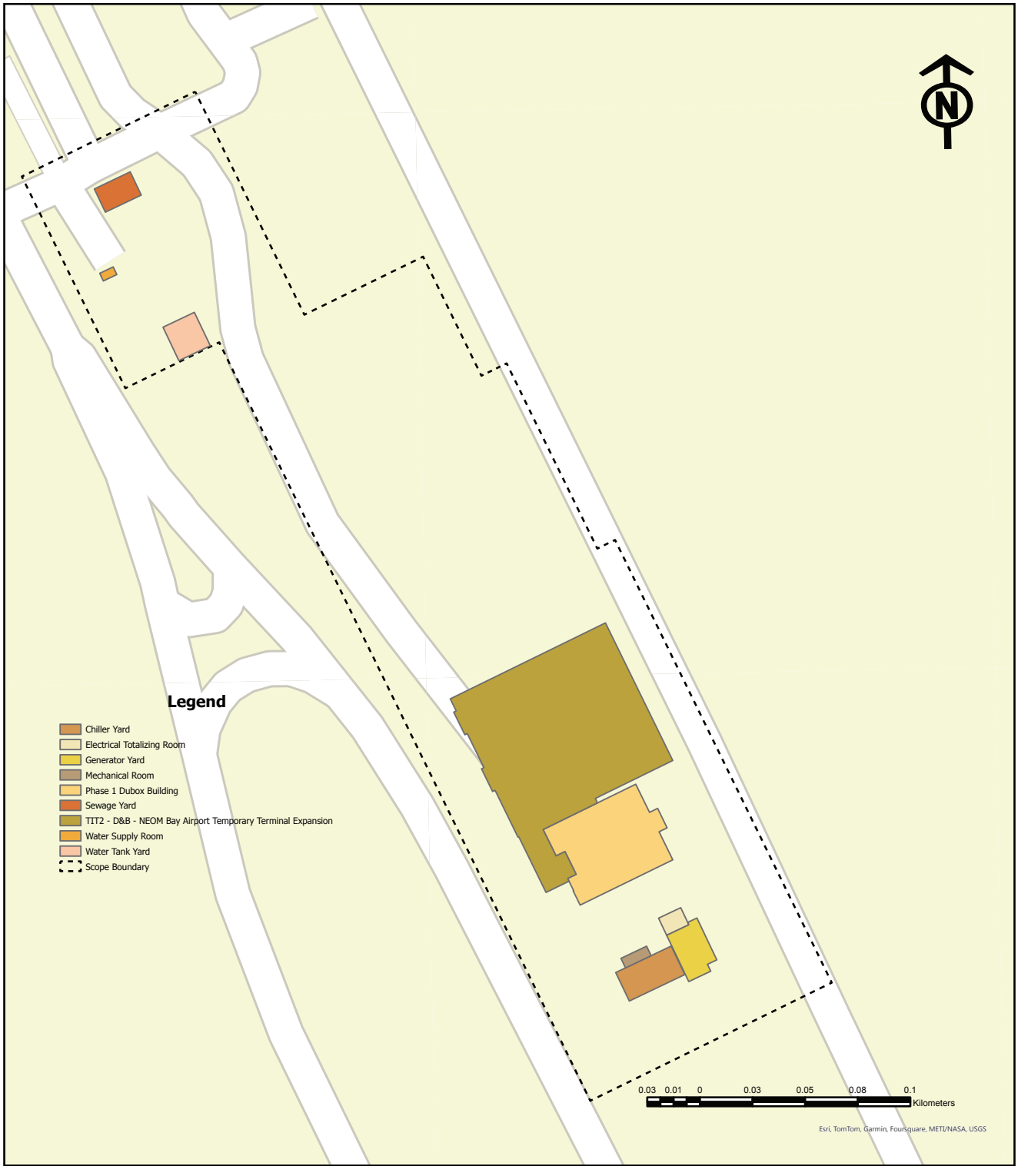
Maps – Dynamic (.aprx – ArcGIS Pro, .mxd ArcMap):

Interactive and customizable maps for in-depth geospatial analysis.

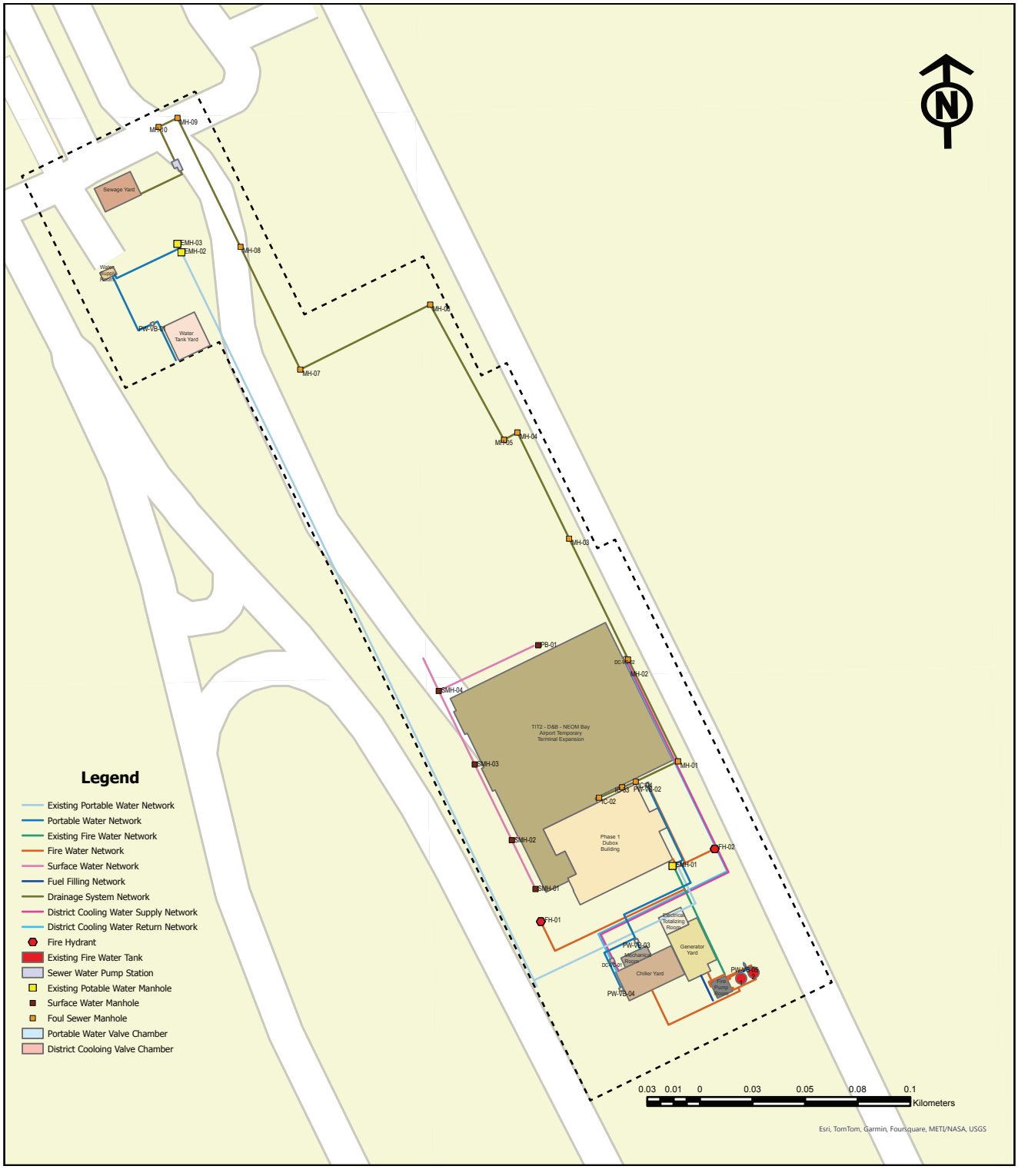
Metadata (.xml or .txt):

Comprehensive metadata files documenting the source, accuracy, and reliability of the geospatial data.

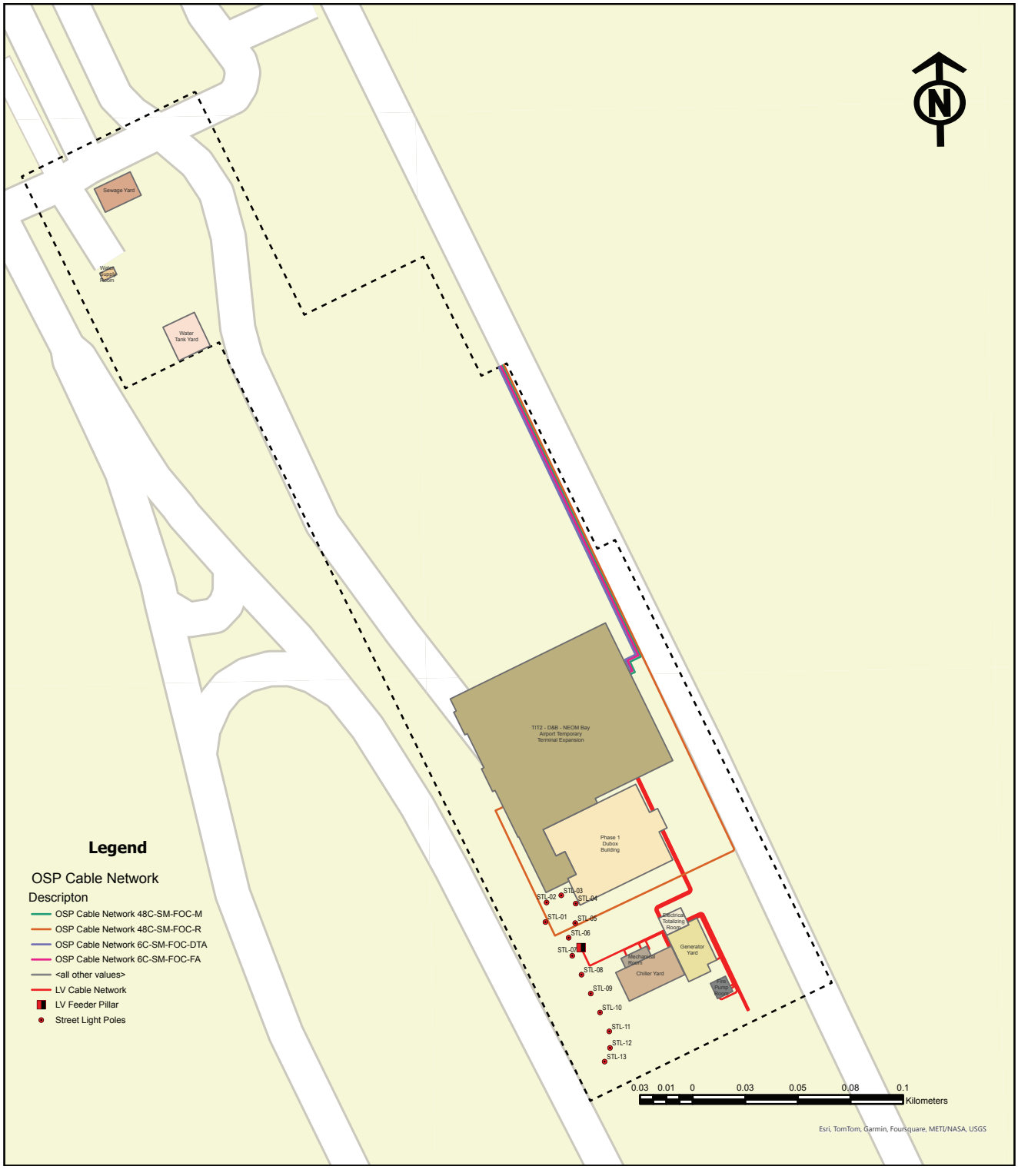
BUILDING LAYOUT



DRY UTILITIES



WET UTILITIES

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Signature
CERTIFIED
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LICENSE & CERTIFICATIONS

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Ministry of Commerce

رمزك التجاري QR Code

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رؤيـــة VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

شركة تيكنيكال اكيبرتس العالمية المحدودة شركة شخص واحد

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شهادة تسجيل الشركة
Company Registration Certificate

الرقم الموحد : ٧٠٣٣٧٥٥٧٩٩
رقم المنشأة : ٤٠٣٠٥٠٠٧٣٧
التاريـــــخ : ١٤٤٤/٠٧/١٦ هـ

الاسم التجاري للشركة : شركة تيكنيكال اكيبرتس العالمية المحدودة شركة شخص واحد (شخص واحد)

نوعها : ذات مسئولية محدودة — جنسيتها : سـعودي

مدة الشركة : ٢٠ سنة — تبدا من : ١٤٤٤/٠٧/١٦ هـ — وتنتهي في : ١٤٦٤/٠٧/١٦ هـ

مركزها الرئيسي : ٠٠٠٠ جدة ٠٠٠٠٠-٠٠٠٠

هاتف : ٠٠٠٠٠٠٠٠٠٠ — الرمز البريدي : ٠٠٠٠٠ — ص. ب :

النشاط : للاطلاع على بيانات الأنشطة الرجاء مسح الرمز التجاري — ملكية الشركة : خليجية

رأس المال : ٥٠٠,٠٠٠ ريال سعودي

المديرون :

1 مروان جان - الصايغ	2 سوراج كونومال فيتيل
3	4
5	6
7	8
9	10
11	12
13	14
15	16

سلطات المدير/المديرون : حسب ما نص عليه عقد الشركة

يشهد مكتب السجل التجاري بمدينة : جدة — بأنه تم تسجيل الشركة المذكورة أعلاه بمدينة : جدة

وتنتهي صلاحية الشهادات في : ١٤٤٧/٠٧/١٦ هـ — بموجب الإيصال رقم : ٥٣٦٩٤٨٠٧ — وتاريخ : ١٤٤٦/٠٥/٢٥ هـ

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TXG TECHNICAL XPERTS GROUP Digital Delivery Partner

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المنطقة الحرة لمطار الشارقة الدولي
SHARJAH AIRPORT INTERNATIONAL FREE ZONE

حكومة الشارقة
Government of Sharjah

شهادة ترخيص

License Certificate

LICENSE NO.	15117	١٥١١٧	رقم الرخصة
NAME	TECHNICAL XPERTS GROUP (FZC)		
		تيكنيكال اكبيرتس جروب () (ش.م.ح)	الاســـــــم
LEGAL STATUS	Free Zone Co. with Limited Liability	شركة منطقة حرة ذات مسؤولية محدودة	الشكل القانوني
TYPE OF LICENSE	Services	خدمية	نوع الرخصة
ACTIVITY(S)	Providing IT Services and Solutions	تقديم خدمات وحلول تقنية المعلومات	النشـــــــاط
OWNER(S)	Marwan Sayegh Raveendran Kunnummal Veettil Suraj Kunnummal Veettil	روان الصايغ رافيندران كونومال فيتيل سوراج كونومال فيتيل	المـــالـــــــك
MANAGER	Raveendran Kunnummal Veettil	رافيندران كونومال فيتيل	المدير المسؤول
SAIF-ZONE ADDRESS	Saif Office Q1-04-097/B P.O.Box 513153 Sharjah - U.A.E	مكتب مشترك كيو١-٠٤-٠٩٧/بي ص.ب. ٥١٣١٥٣ الشارقة - أ.ع.م	العـــنوان فـــي المنطقة الحرة
INCORPORATION DATE	24 March 2015	٢٤ مارس ٢٠١٥	تاريخ عقد التاسيس
ISSUE DATE	24 March 2024	٢٤ مارس ٢٠٢٤	تاريخ الاصدار
EXPIRY DATE	23 March 2025	٢٣ مارس ٢٠٢٥	تاريخ الإنتهـــــاء
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This is to certify that Quality Management System of

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8480 Wadi Al Thumamah 2804 Al Olaya Dist. 12213
RIYADH Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 9001:2015

(Quality Management System)

SCOPE

PROVIDING ELECTRICAL LOW VOLTAGE (ELV) TECHNOLOGY DESIGNING CONSULTANCY SERVICES FOR CAD/ REVIT/ BIM DEVELOPMENT

(IAF CODE - 34)

Certificate Number : **060125019623**

To verify certificate, visit at
www.iafcertsearch.org

Initial Registration Date : **06-Jan-2025**
1st Surveillance Date: **06-Dec-2026**
2nd Surveillance Date: **06-Dec-2027**
Certificate Expiry Date : **05-Jan-2028**

Accreditation No. : 51901390123

Issued by ARS

Managing Director

UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America :

CERTIFICATE OF REGISTRATION

This is to certify that Environmental Management System of

TECHNICAL XPERTS INTERNATIONAL LIMITED

8480 Wadi Al Thumamah 2804 Al Olaya Dist. 12213
RIYADH Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 14001:2015

(Environmental Management System)

SCOPE

PROVIDING ELECTRICAL LOW VOLTAGE (ELV) TECHNOLOGY DESIGNING CONSULTANCY SERVICES FOR CAD/ REVIT/ BIM DEVELOPMENT

(IAF CODE - 34)

Certificate Number : **060125029624**

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Initial Registration Date : **06-Jan-2025**
1st Surveillance Date: **06-Dec-2026**
2nd Surveillance Date: **06-Dec-2027**
Certificate Expiry Date : **05-Jan-2028**

Accreditation No. : 51901390123

Issued by ARS

Managing Director

UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America :

CERTIFICATE OF REGISTRATION

This is to certify that Occupational Health & Safety Management System of

TECHNICAL XPERTS INTERNATIONAL LIMITED

8480 Wadi Al Thumamah 2804 Al Olaya Dist. 12213
RIYADH Kingdom of Saudi Arabia

is in accordance with the requirements of the following standard

ISO 45001:2018

(Occupational Health & Safety Management System)

SCOPE

PROVIDING ELECTRICAL LOW VOLTAGE (ELV) TECHNOLOGY DESIGNING CONSULTANCY SERVICES FOR CAD/ REVIT/ BIM DEVELOPMENT

(IAF CODE - 34)

Certificate Number : **060125039625**

To verify certificate, visit at
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Initial Registration Date : **06-Jan-2025**
1st Surveillance Date: **06-Dec-2026**
2nd Surveillance Date: **06-Dec-2027**
Certificate Expiry Date : **05-Jan-2028**

Accreditation No. : 51901390123

Issued by ARS

Managing Director

UAF Address : 400, North Center Dr, STE 202, Norfolk, VA 23502, United States of America :

Universal Certification Ltd.

Certificate of Registration

This Certificate is issued to

International TXG Pvt. Ltd.

TXG Complex, Railway Station Road,
Vaniyambalam, PIN - 679 339, Malappuram Dist., Kerala, India.

after assessing Organization's Quality Management System
and finding it in compliance with

ISO 9001:2015

For the following Scope:

Providing Electrical Low Voltage (ELV) Technology Design,
CAD/ Revit/ BIM Development.

Certificate No: UCQ-2411685

Date of Registration:	**09 - 11 - 2024**
Date of Issue:	**09 - 11 - 2024**
Date of Expiry:	**08 - 11 - 2027**

(Subject to yearly surveillance audit)

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145 - 157, St. John Street, London,
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TXG Complex, Railway Station Road,
Vaniyambalam, PIN - 679 339, Malappuram Dist., Kerala, India.

after assessing Organization's Information Security Management System and finding it in compliance with

ISO 27001:2022

For the following Scope:

Providing Electrical Low Voltage (ELV) Technology Design, CAD/ Revit/ BIM Development.

Certificate No: UCQ-2501694

Date of Registration:	**25 - 01 - 2025**
Date of Issue:	**25 - 01 - 2025**
Date of Expiry:	**24 - 01 - 2028**

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CONSTRUCTION TECHNOLOGY CONFEX KSA 2024

Riyadh, 23rd October 2024

EVENTS / EXHIBITIONS

SAUDI AIRPORT EXHIBITION 2024

11 - 12th November 2024

SAUDI AIRPORT EXHIBITION 2023

Riyadh, KSA 19-20th December 2023

IFSEC INTERNATIONAL 2023

EXCEL LONDON, UK, 16-18 th May 2023

EVENTS / EXHIBITIONS

WORLD DEFENSE SHOW 2024

Riyadh, KSA, 4-8th February 2024

THANK YOU

CONTACT US

INFO@TXGLIVE.COM

WWW.TXGLIVE.COM

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