



CAPABILITY STATEMENT



We are ...

We are engineering professionals who are not limited by discipline, restricted by geography or held back by the technology of our time. Through our wealth of experience, we are perfectly positioned to provide the best of services.

We believe in keeping up the pace with time and technology. By maintaining an open-minded approach its our constant endeavour to find the best-possible solution for a problem, thereby saving time, saving money and reducing risk to our clients.

EXISTING CAPABILITIES

Leading multi-disciplinary engineering projects
 Civil Structural Engineering
 BIM Modeling
 Detailed construction and shop drawings
 Retrofitting & refurbishment
 Civil Infrastructure
 Geotechnical Engineering
 Electrical Engineering

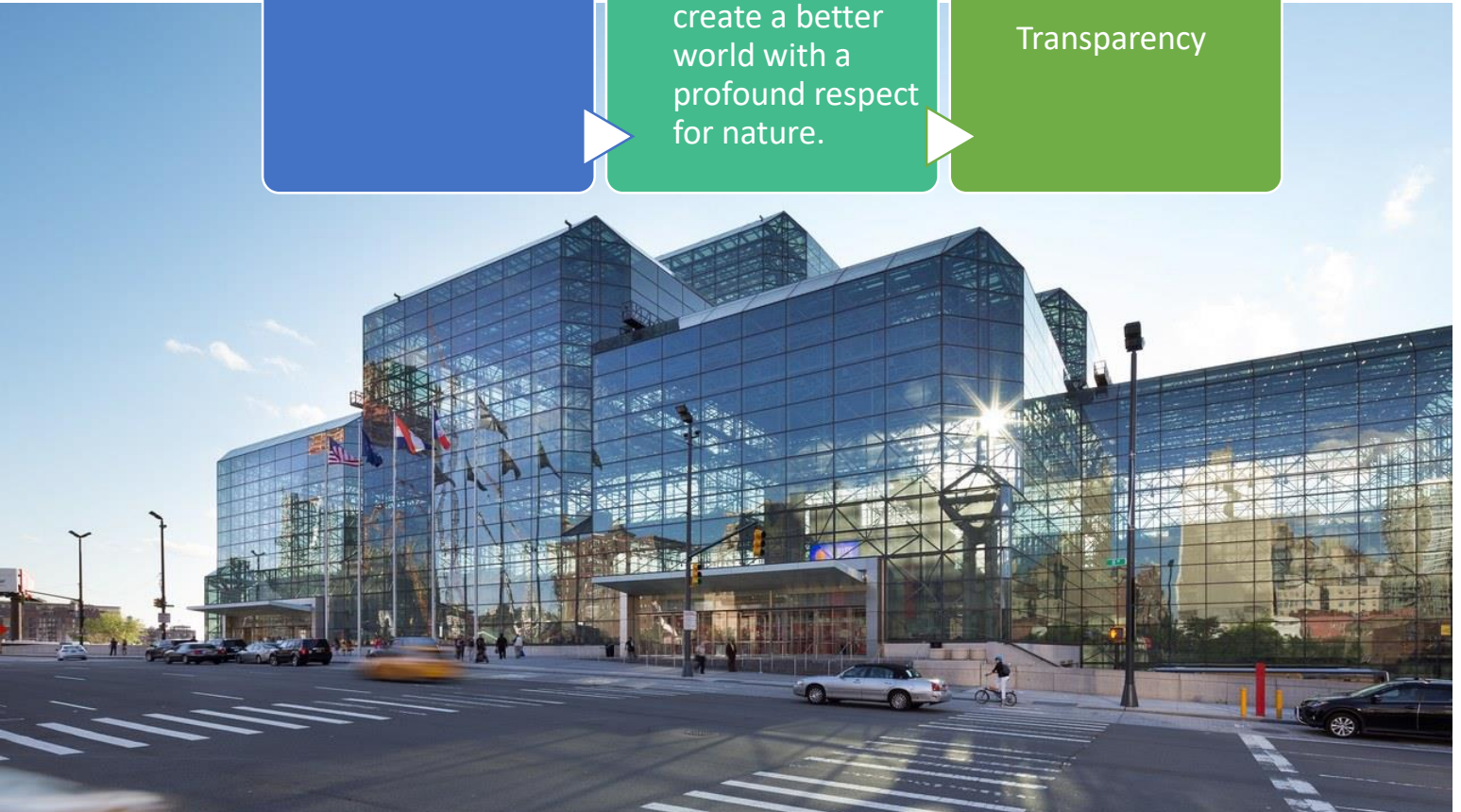
CAPABILITIES WE ARE DEVELOPING

Sustainable green/zero energy building
 Effective Asset management with Digital and Automation

Vision To be the most respected global company for engineering services.

Mission To empower every client across the globe with the right technology to create a better world with a profound respect for nature.

Values Innovation
 Quality
 Environment
 Trust
 Transparency



As a technical expert our commitment is to be creative in what we do yet be practical in the solutions we offer. We make sure to listen to our clients for understanding their needs, ensuring the most appropriate solutions are carefully evaluated from a cost, efficiency and technical viewpoint. We believe in involving ourselves very close with clients in projects in order to work as an integrated, powerful team which, altogether, drives project delivery.

From concept to creation...

In addition to technical expertise, we have the support of the best industry engineering management, CAD, BIM and computer modelling practices. Our job doesn't end when our designs are completed - we are with our clients at every step of the way, and see every project through to final completion

We

Create Seamless Efficiencies in Design

through an integrated insight which allows us to overcome potential issues

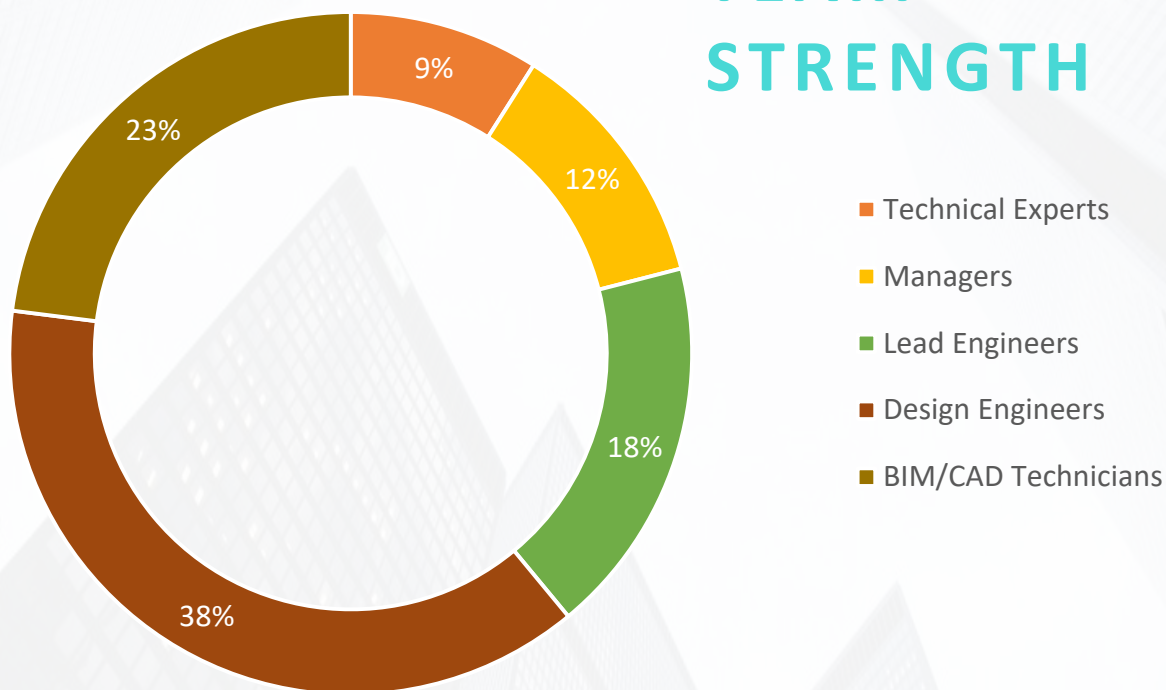
The F2i difference

brings a smarter approach to development and construction than most engineering firms dare. We consider every site's individual constraints as opportunities. We then leverage the best of our technology and all of our experience to ensure our clients get maximum value from their engineering.

We are the trusted partners to many of Middle East's most respected contractors, optimizing the designs of civil, structural and hydraulics on projects to minimize the time, costs and risks associated..



TEAM STRENGTH



5

Regions
Europe/UK | Middle East | USA
| Australia | India |

6

Technical Skills
Conforming to the following
standards: American |
Australian | British | Euro |
Saudi | Indian |

29

Employees

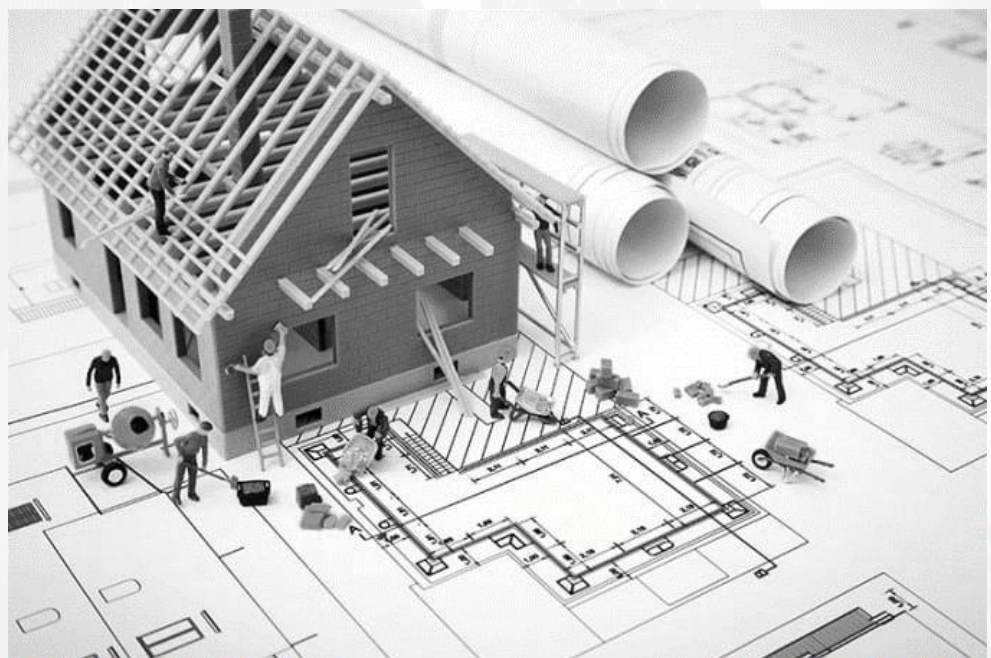


What we do

Structural Engineering
Roads
Geotechnical engineering
Electrical Engineering
Civil Infrastructure
Water conveyance systems
Repair/ rehabilitation of
structures
Shop drawings and bar bending
schedules (BBS)
Building Information Modelling
(BIM)

A multi-disciplinary service offering,

affords us a unique perspective and approach to design. We are able to confer with experts across Structural, Geotechnical, Architectural, Water, Infrastructure, Electrical, Construction Services departments under the same roof in order to deliver a complete solution to a project.



STRUCTURAL ENGINEERING

Responsive designs,
evolving at par with the
industry demands

We invest in developing innovative design which will make the project feasible and sustainable to our client. We have experience in both infrastructure/civil construction as well as design, allowing our team to provide design solutions that are conscious of safety in design, engineering integrity and constructability

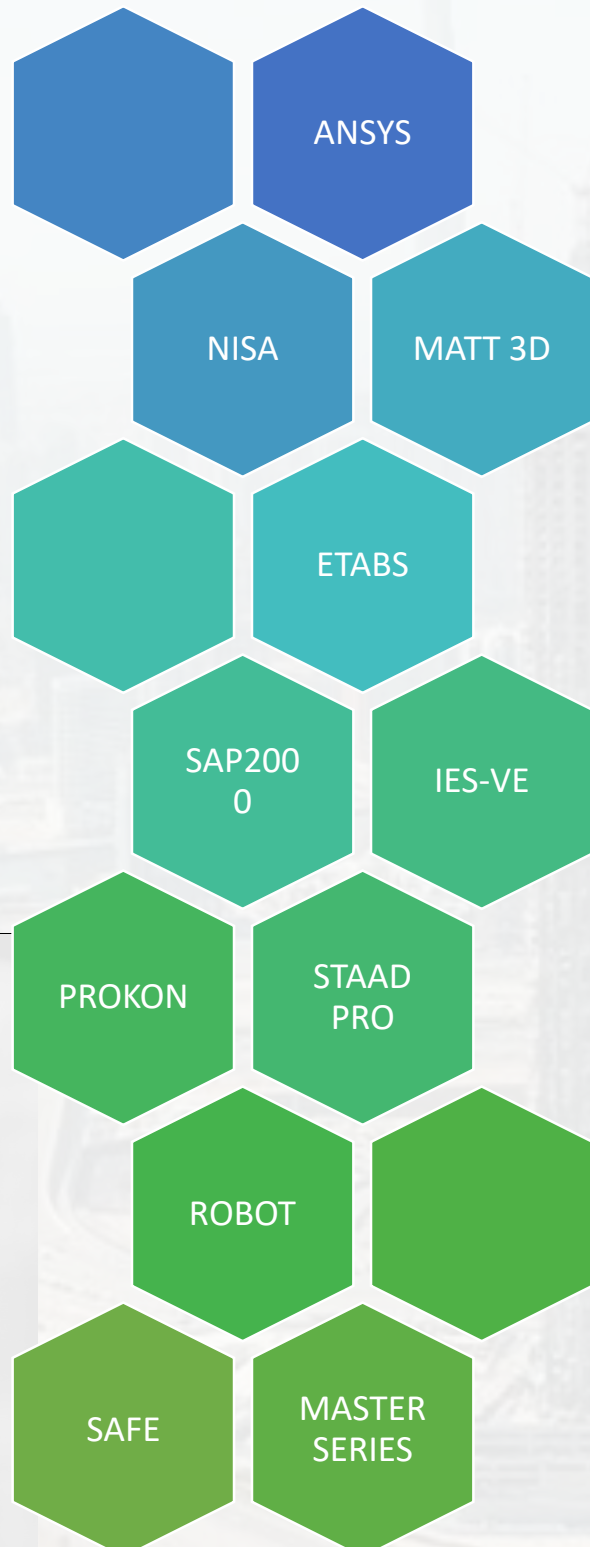
Program, materials qualities, cost, logistics and labour are all taken into consideration through the design process. We're often employed by contractors to redesign structures to be more cost-effective and considerate of the construction timelines and constraints they impose and our widely respected for this capability

We differentiate our offering through combining the latest technology, construction techniques and innovative ideas to provide unique solutions to complex projects. We have a track record of working closely with all levels of the project team including consultants, contractors and sub-contractors to develop the most suitable and effective outcome for all the stakeholders.

SERVICES

Industrial Structures
Steel and composite construction
Highway structures
Water retaining Structures
Marine Structure
Intake and Outfall Structure
Building Structure
Construction in high water tables
Stages or progressive strength analysis
Complex temporary works analysis
Dynamic and lateral analysis

Software Capabilities



REPAIR/ REHABILITATION OF STRUCTURE

Any repair/rehabilitation work can be carried out successfully if the reasons for distresses are known and well established. We at F2i identify the root cause reasons for distresses of the affected structure and propose the apt solution to enhance the life of the structure. Our experts have carried out various rehabilitation work for industrial structure, water retaining structures, highway structures, marine structures, building structures



GEOTECHNICAL ENGINEERING

Geotechnical engineering is a fundamental component of any civil engineering projects. F2i provide clients with a comprehensive range of specialty geotechnical services required for the planning, design, and implementation of ground engineering projects, as well as to manage the ground risks associated with all infrastructure projects. Some of the specialty services provided by our teams include:

- Preparation of Factual & Interpretative Reports
- Foundation type assessment
- Shoring and temporary work design
- Assessment of specialist ground treatment schemes and geotechnical processes with respect to weak natural and Made Ground
- Foundation bearing capacity and settlement appraisals
- Subsidence assessments
- Piled foundation assessment
- Piling mat design
- Earthworks design, specification and validation
- Earth retaining structure
- Slope stability assessment and design (Cuttings & Embankments, soil & rock)
- Supervision of specialist geotechnical processes contracts
- Tender assessment and advice



ELECTRICAL ENGINEERING

F2i's Electrical, Control and Instrumentation team has the experience and capability to provide a true seamless solution from concept through commissioning. Our group consists of dedicated engineers, designers and draughts men capable of providing all aspects of Electrical, Control and Instrumentation design for the utilities sector.

Our team is able to operate on individual discipline projects or as part of a multidiscipline team on complex projects. This includes front end design, detail design, plant layouts, equipment specifications, Protection coordination and design support during plant installation and commissioning.

Substation capabilities

The Electrical team has the experience and capability to provide all aspects of electrical design for substations (Both GIS and AIS from 11kV to 400kV)

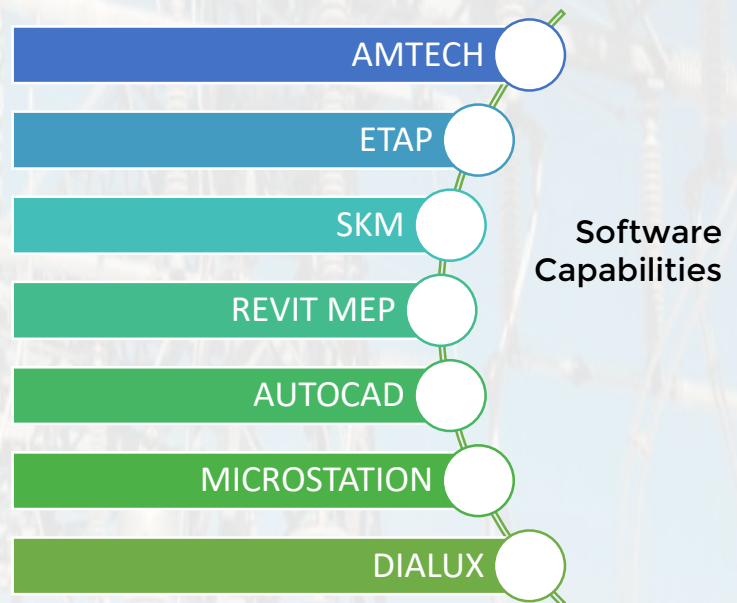
We can undertake large electrical substation installations for resource projects in areas such as power generation, transmission and distribution, oil and gas, mining, heavy industrial, process plants.

Power system study and relay system capability

The Electrical team has the experience and capability to provide all aspects of Power system study and protection relay setting and co-ordination electrical system studies. Our engineers are well conversant with ETAP and AMTECH software and have dealt with projects having complete gamut of protection from simple electromagnetic overcurrent relay to a complex numerical generator protection system. We have experience in doing the complete configuration of numerical protection as per approved schemes.

- ✓ Plant engineering covering
- ✓ Plan, layouts and sections
- ✓ Single line diagrams
- ✓ Equipment technical specifications
- ✓ DC battery systems
- ✓ LVAC systems
- ✓ Diesel generator systems
- ✓ Lighting design
- ✓ Lightning studies
- ✓ Power System Studies
- ✓ Equipment sizing (Transformers, Switchgear, Motor, Battery, etc.,)
- ✓ Cable Calculations, Routing and Sizing

What we do



CIVIL INFRASTRUCTURE

Large infrastructure projects require strong, interdisciplinary technical and management skills. F2i have developed alliances with several consultants in specialised areas such as roads, bridges, water treatment and conveyance system. Our team members have delivered designs in a range of industries from transport road & water conveyance infrastructure, and in doing so have a proven track record of excellence. Our experienced engineers and designers use a range of design packages to ensure optimal design solutions. We have experience in both infrastructure/civil construction as well as design, allowing our team to provide design solutions that are conscious of safety in design, engineering integrity and constructability.



WATER CONVEYANCE SYSTEM

F2i team has extensive knowledge and capabilities in hydraulic and hydrologic modelling for developing masterplan, long term control plans and watershed management strategies with plans for efficient management for land and water resources

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Hydrological & Hydraulic (H & H) Modelling For Storm Water

Unplanned growth of cities across the world has resulted in inundation of water at many places. This may be due to the absence of drainage system, improper management of existing ones, existing congested drains, encroachment of drainage area for the construction of roads, filling up of water body area. Hence it's important to include the storm water management during the initial planning stage of upcoming town/cities/commercial hubs. We have the capability to carryout H & H modelling to do the corrective measure for the existing cities.



ROADS

Complete planning, design and construction support of road and highway projects covering the following.

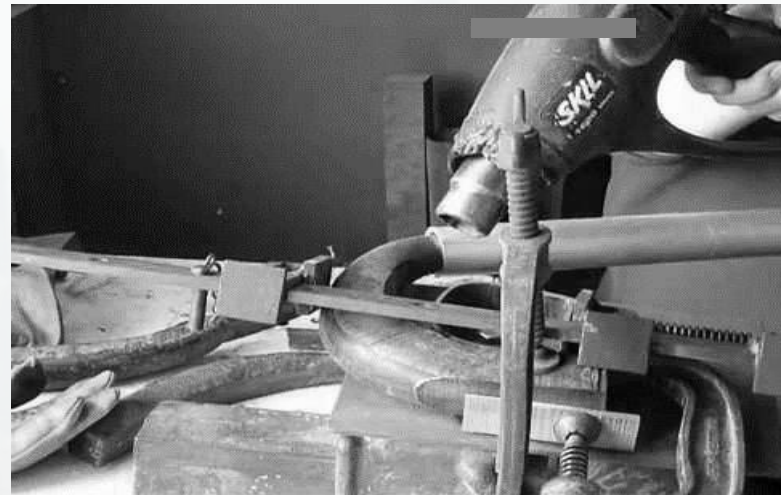
Urban roads, intersections and interchanges
 Rural roads, intersections and interchanges
 Road infrastructure for green field community developments and townships
 Access and parking for shopping destinations and commercial developments

Our road and highway engineering projects are developed through the application of following engineering processes with the help of state-of-the art hardware and software technology.

- Digital terrain model captured from terrestrial and aerial data
- Alignment and interchange options utilising the digital terrain model
- Dynamic and linked horizontal and vertical geometry
- Dynamic cross sections
- Hydrological analysis
- Utility impacts and right of way assessment
- Road safety assessments
- Pavement design
- Existing and proposed three-dimensional design models and drive-throughs'
- Accurate quantity take-off from design models
- Reliable engineering estimate
- Detailed construction specifications

By following all essential engineering processes and with adequate engineering details, our designs provide reliable construction drawings and documents for contractors and clients.

SHOP DRAWING AND BAR BENDING SCHEDULE (BBS)



The main intent of the shop drawing is to show how the contractor plans to meet the intent of contract's design requirements. This requires a clear understanding of the construction stages and sequences. We ask questions to understand and satisfy the requirements. At F2i we don't copy existing drawing set as shop drawings. We confirm that all the parties on the same page i.e. An architect, a structural engineer, a contractor and all disciplines are on the same page. We believe that the shop drawings exist for that reason.

F2i try to uncover potential non-conformance before materials are ordered and installed. Our services include the Civil, Structural, BBS, steel, shop drawing services. Our experienced engineering background CAD drafter team, which make it easier to interpret and clarify different areas in the shop drawings.

What we do

F2i as an organization provide BIM Solutions like BIM Authoring, BIM Documentation, Model Coordination, Client Collaboration, BIM Implementation and Management, BIM based Project Planning, Costing and Asset Management. Our team has 12+ years in the BIM Services and worked on projects across the globe.

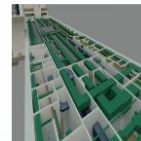
Key Competence

- Experience in Level 2 BIM Implementation in major projects
- Experience in creating LOD 100 to 500 and LOi 100 to 500 models.
- Creation of BIM Standards, Best practices and protocols for an organization implementing BIM.
- BIM Implementation from Concept design to Construction and operation phase.
- Experience in Multi-discipline collaboration projects.
- Expertise in Design and BIM Automation using Dynamo+Python.
- Experience in creating Asset Information Models(AIM) for facility Management.

Areas of expertise

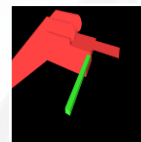
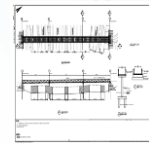
- ✓ Residential
- ✓ Commercial
- ✓ Health Care
- ✓ Metros
- ✓ Highways (Bridges & Roads)
- ✓ Railways (P- Way & Stations)
- ✓ Water treatment Plant
- ✓ Industrial Complex

BUILDING INFORMATION MODELLING (BIM)



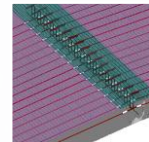
BIM Modelling

BIM Documentation



Clash Coordination

3D Reinforcement



Timeline animation (4D)

Project costing (5D)

Summary of Project Costing									
Item	Code	Description	Unit	Qty	Rate	Amount	Tax	Total	Remarks
1	101	Excavation and Backfill	m³	100	150	15000	1500	16500	
2	102	Foundation	m³	200	200	40000	4000	44000	
3	103	Structural Frame	m³	500	300	150000	15000	165000	
4	104	Roofing	m²	1000	100	100000	10000	110000	
5	105	Interior Finishes	m²	2000	50	100000	10000	110000	
6	106	Exterior Finishes	m²	1000	20	20000	2000	22000	
7	107	MEP Installation	m	500	40	20000	2000	22000	
8	108	Landscaping	m²	500	10	5000	500	5500	
9	109	Site Works	m²	1000	5	5000	500	5500	
10	110	Contingency	%	10	100000	10000	1000	11000	
Total						440000	44000	484000	



Content Creation

Asset info model



Rendering



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