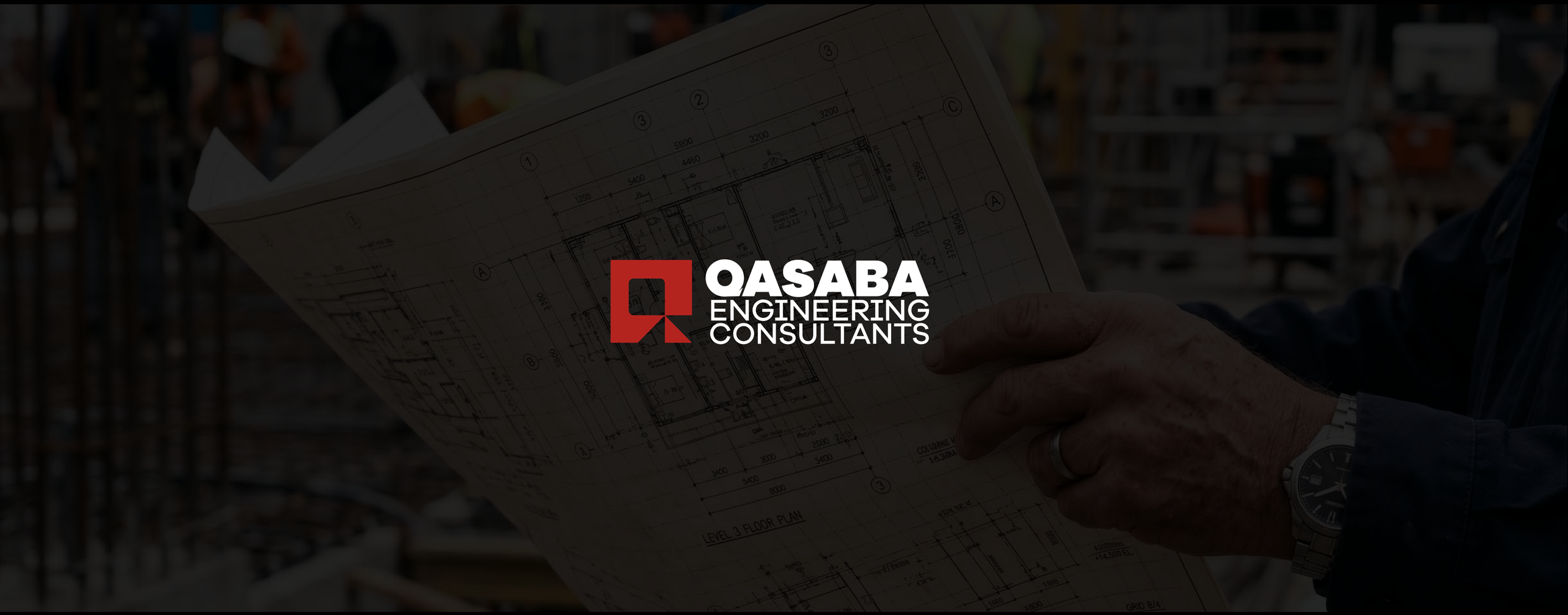
QASABA
ENGINEERING
CONSULTANTS
LEVEL 3 FLOOR PLAN

Internal Content

01 Who We Are

02 Vision & Objectives

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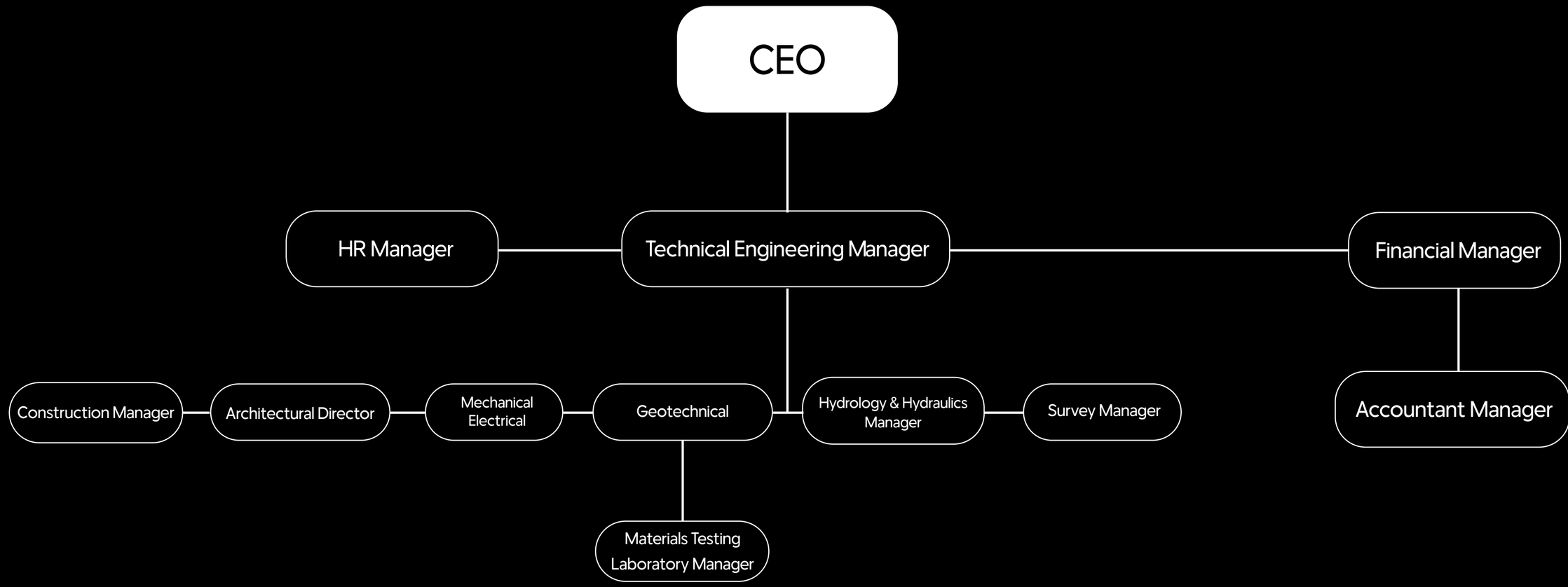
Who
We Are?

We are a Saudi engineering company specialized in engineering consultancy and project .management
We operate across the Kingdom of Saudi Arabia, providing comprehensive engineering solutions that meet the needs of various sectors. Our goal is to be a trusted partner in .delivering and developing projects of different scales

We believe that the success of any project depends on quality, professionalism, and commitment. Therefore, we work according to the highest local and international standards, contributing to the development of infrastructure and ,2030 in alignment with Saudi Vision .the engineering sector in a sustainable manner

Organization Charts



Our Consultancy Fields
& Services

Our company offers a wide range of specialized engineering consultancy services, including:
Construction Project Management:

Comprehensive management and supervision from the planning stage to final delivery, in accordance with clear scopes and approved standards.
Urban Planning & Infrastructure Consultancy:

Preparation and development of planning solutions that contribute to creating integrated urban environments and advanced infrastructure.
Government Entities & Facilities Consultancy:

Engineering solutions that support the requirements of government authorities in compliance with approved regulations and standards.

Our Consultancy Fields
& Services

Major Projects Consultancy (Public & Private):
Planning, design, and management of major facilities and projects, ensuring quality, efficiency, and optimal performance.
General Engineering Consultancy & Maintenance Management:
Development of maintenance methodologies and improvement of operational procedures to ensure asset sustainability and efficiency.

Occupational Health & Safety Consultancy (HSE):
Supporting facilities with safety standards and procedures to enhance workplace readiness and ensure a safe working environment.

Geotechnical Consultancy:
Detailed studies and analyses to support site safety and the quality of construction decisions.
We rely on a team of professional engineers who continuously strive for excellence and innovation, delivering high-quality services in every project we undertake.

Company Vision

Our company’s vision is to become the first and trusted choice in the Kingdom of Saudi Arabia in the fields of engineering consultancy and project management.

We strive to achieve excellence by delivering innovative and sustainable engineering solutions that meet the evolving needs of the market, support the development of advanced infrastructure, and align with Saudi Vision 2030. We are committed to quality, sustainability, and staying up to date with the latest engineering advancements across various disciplines.



Company Objectives

The objectives of Qubba Engineering Consultancy Company are to:

Strengthen the company’s role as a strategic partner in the construction and building industry, and achieve sustainable success across its projects.

Achieve leadership in managing construction projects and delivering advanced, high-efficiency engineering solutions.

Provide engineering consultancy services across various fields, including roads and bridges, modern networks, marine ports, wastewater systems, geotechnical works, and other related disciplines.

Promote innovation and develop work methodologies to enhance output quality and increase execution efficiency.

Achieve the highest levels of client satisfaction through compliance with international standards and best practices.

Ensure adherence to approved timelines and budgets without compromising quality.

Our Mission

To provide integrated and comprehensive engineering consultancy services, manage projects with professionalism, and deliver value-added solutions that ensure quality and sustainability.

We are committed to complying with international standards and systems, and to contributing to infrastructure development in alignment with Saudi Vision 2030.



Services

Qubba Engineering Consultancy Company is honored to provide its distinguished services to our valued clients across multiple fields, including:

Construction Project Management
Engineering Design for All Types and Stages
Engineering Design Phases
Soil Mechanics and Foundations
Hydrological Studies
Geological and Geotechnical Studies
Quality Control and Materials Testing
Engineering Consultancy for Roads, Bridges, and Tunnels
Engineering Consultancy for Railways
Engineering Consultancy for Marine Ports and Maritime Transport Facilities
Engineering Consultancy for Water and Wastewater Drainage
Marine Consultancy Activities
Geological Consultancy Activities

Construction Project Management

Construction project management services include a range of activities starting from the initial concept through to execution and delivery. This includes planning, organization, follow-up, and control of all project elements to ensure achievement of objectives within approved timelines and budgets, in accordance with the nature and size of the project.



01 – Project Planning and Analysis
Conducting preliminary studies and analyzing engineering and environmental requirements.
Preparing project schedules and determining appropriate durations for each phase.
Developing executive plans and programs and preparing feasibility studies when required.
Analyzing risks and expected challenges and developing integrated strategic plans to address them.

02 – Engineering Design and Execution Preparations
Preparing engineering designs and developing drawings and technical specifications required for execution.
Coordination among design teams, consultants, and contractors to ensure full compliance with approved standards.

03 – Team Management & Organization
Organizing work teams, defining responsibilities, and directing specialized teams of engineers, supervisors, and contractors.
Coordinating between different parties to ensure effective communication among contractors, suppliers, and consultants, and to ensure smooth workflow.

04 – Monitoring & Execution Supervision

Monitoring work progress and ensuring execution according to the approved schedule.

Quality control: ensuring compliance with quality standards and executing works according to required specifications.

Problem-solving and challenges: immediate intervention to address any obstacles that may affect project progress.

Periodic reports and evaluation: preparing regular reports to clarify work progress and performance level.

05 – Contract & Procurement Management

Contract preparation and management: organizing contracts and agreements with contractors and suppliers, and monitoring contractual obligations.

Procurement monitoring: following up on the supply of materials and equipment, ensuring quality, and adhering to the approved timeline.

06 – Compliance with Legal & Environmental Standards

Regulatory compliance: ensuring the application of all laws and regulations related to engineering projects.

Environmental impact assessment: ensuring project implementation in a manner that protects the environment and complies with approved environmental standards.

07 – Project Closure & Handover

Final handover: reviewing works and ensuring full execution in accordance with approved standards.

Final documentation: documenting project outputs and preparing final reports for submission to relevant authorities.

Final evaluation: analyzing project performance and extracting lessons learned to improve future projects.

08 -Change Management & Continuous Development

Performance evaluation: continuously monitoring project outcomes to ensure achievement of defined objectives on time.

Process improvement: developing work methods periodically and benefiting from previous experiences to enhance future performance.

09 – Documentation & Reporting

Project documentation: preparing periodic files and reports covering project progress, costs, schedules, risks, and achievements.

Final reports: providing comprehensive closing reports that clarify project details, results, challenges, and any related matters.

Construction Project Management services are a core element in ensuring the success of major and complex projects, as they contribute to proper planning and effective execution with high efficiency, while maintaining cost control, schedule adherence, .and quality

Engineering Design
(All Types & Phases)

Design is divided into:

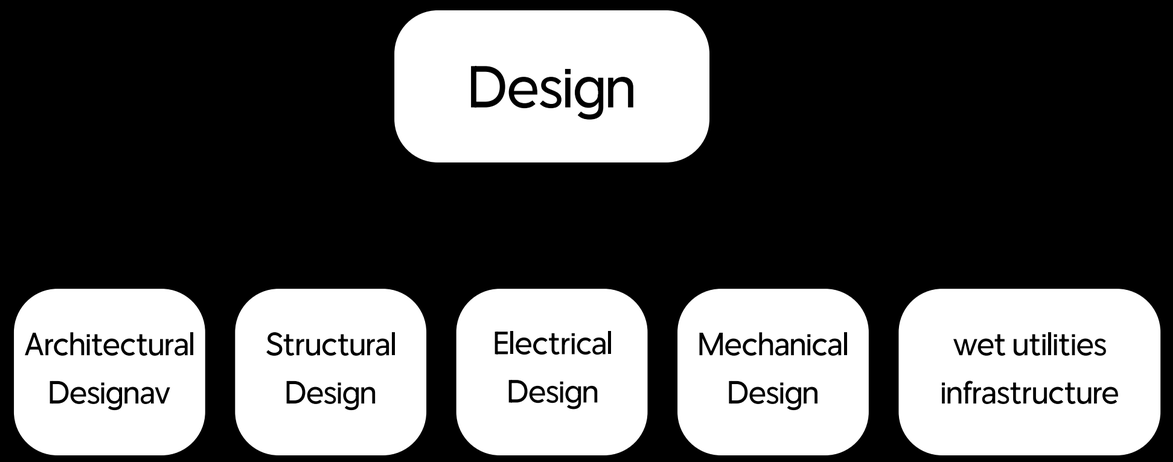
Architectural Design

Structural Design

Electrical Design

Mechanical Design

Wet utilities infrastructure



Engineering
Design Phases

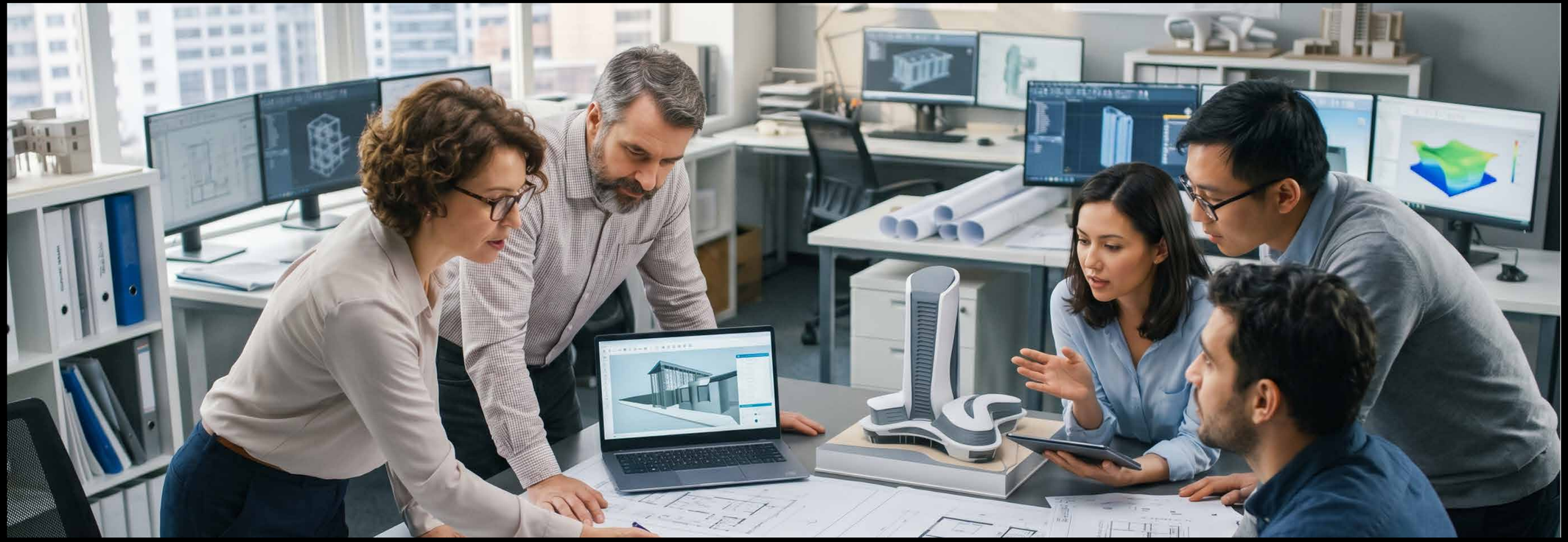
Design Phase

Design Review Phase

Design Verification Phase

Shop Drawing As Built Drawing

Construction Documents





ADVANCED FEA STRESS ANALYSIS: PLAN VIEW - CUBE-L2 - Z = 384 (in)

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Project: CUBE-L2
Project CUBE-L2

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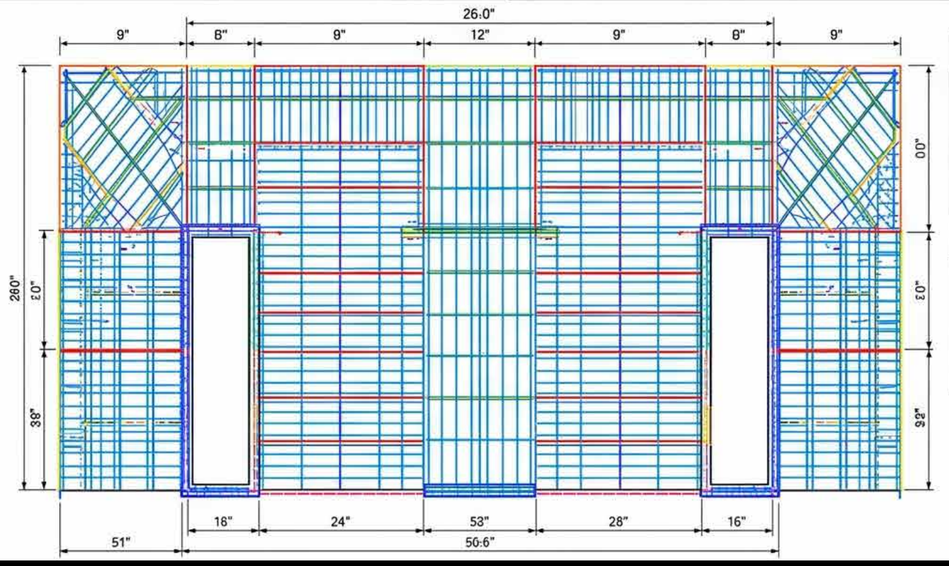
Plan View - CUBE-L2 - Z = 384 (in)



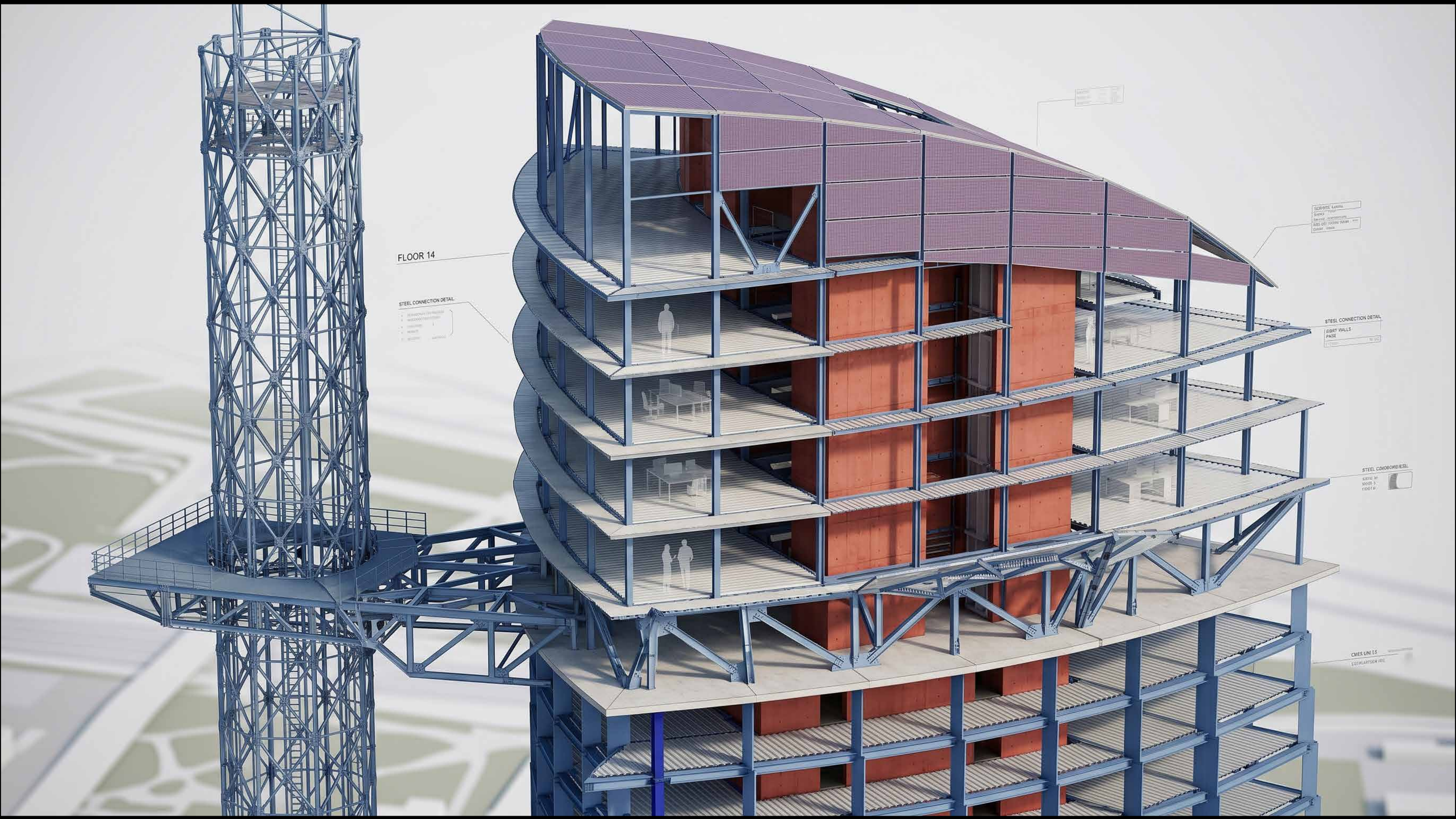
Rebar Schedule

TOP BAR MAT
#8 bars at 9" o.c.
#8 bars at 9" o.c.
#8 bars at 9" o.c.
#8 bars at 9" o.c.
#8 bars at 9" o.c.

BOTTOM BAR MAT
#8 bars at 9" o.c.
#8 bars at 9" o.c.
#8 bars at 9" o.c.
#8 bars at 9" o.c.



STRUCTURAL MODEL v4.0 - HIGH-FIDELITY RENDER | PROJ: GRAND AVENUE RESIDENCES
DETAIL RESOLUTION: ULTRA-HIGH | SCALE: N.T.S.


FLOOR 14
STEEL CONNECTION DETAIL
STESL CONNECTION DETAIL
EBRT VIALLS
PAISE

Soil Mechanics
& Geotechnical Engineering

- Soil investigation and testing works
- Foundation design, divided into:
- Shallow foundations
- Deep foundations
- Design of Shoring systems
- Design of dewatering systems, divided into:
- Surface dewatering (well Points)
- Deep dewatering (Deep Wells)
- Slope stability studies







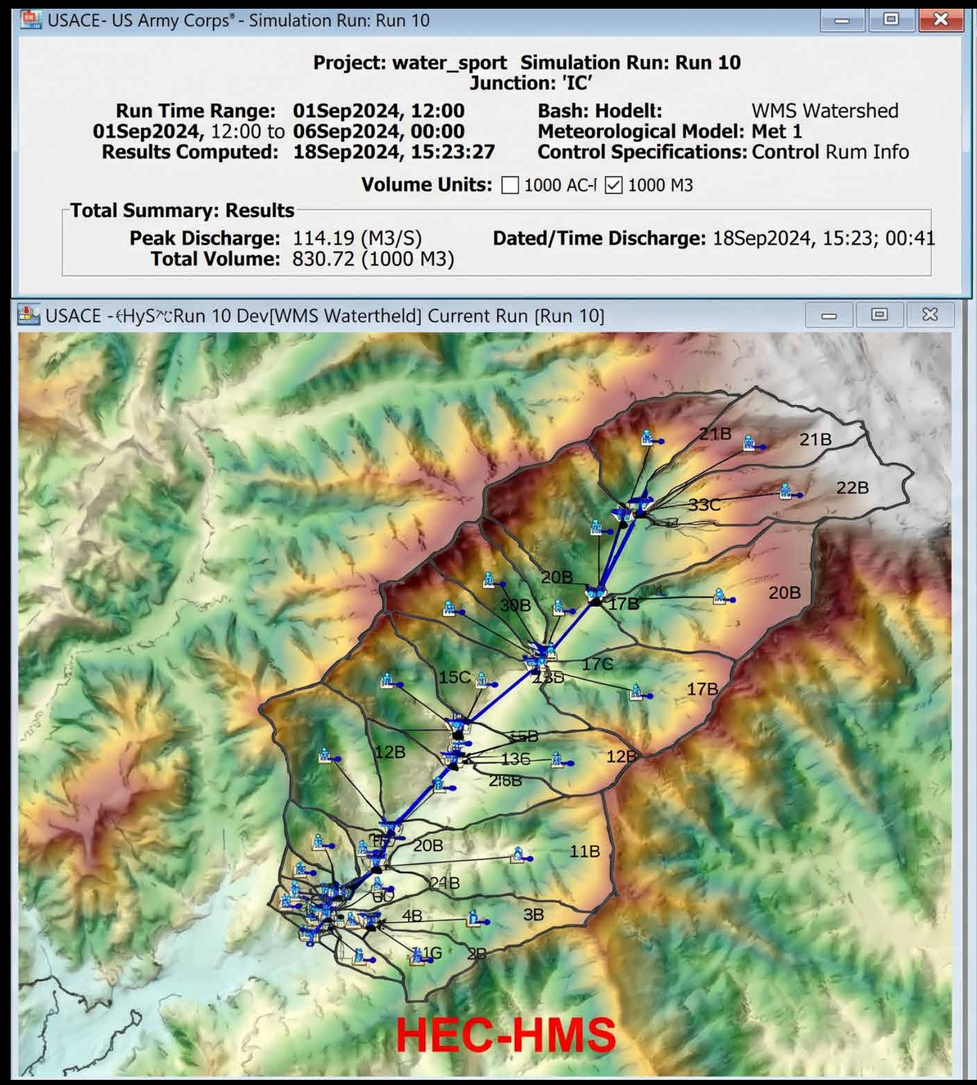
Hydrological Studies

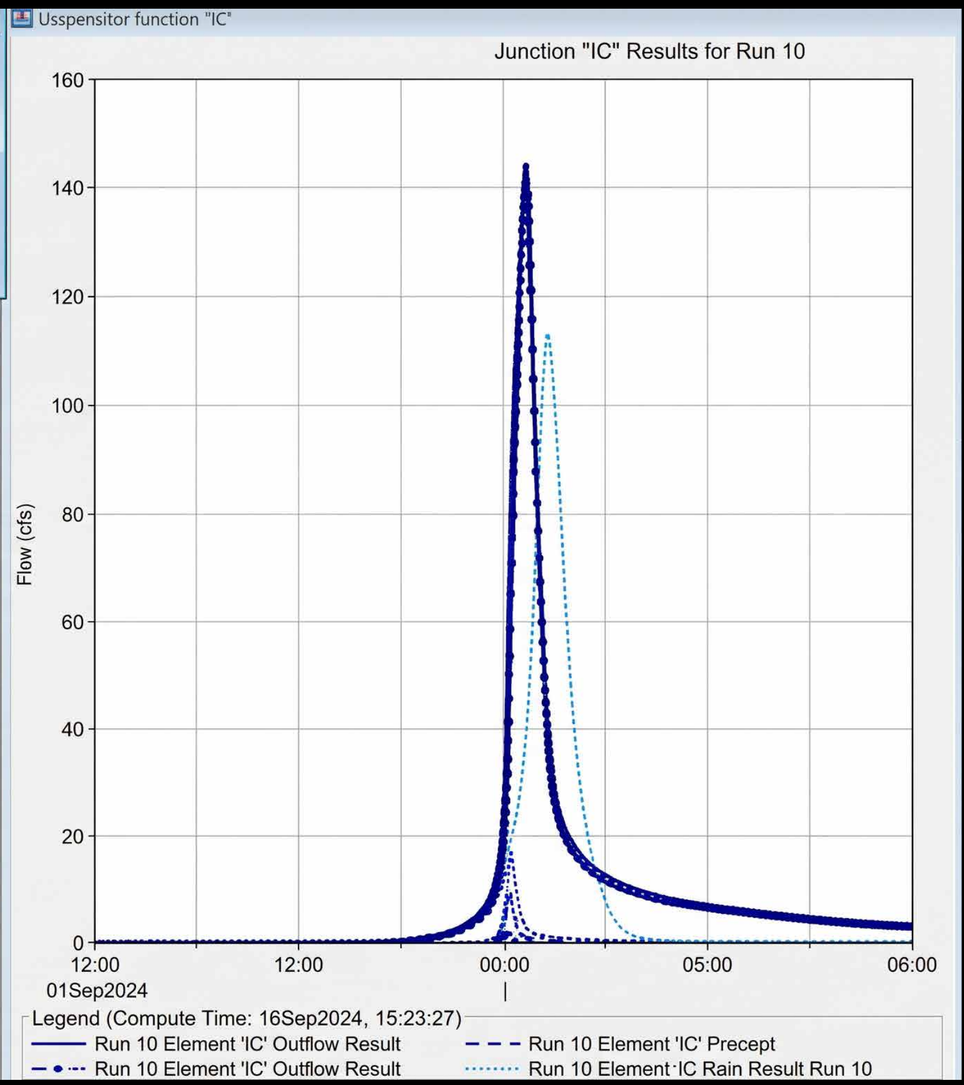
Hydrological studies include flood risk assessment and rainwater drainage analysis.
Hydrological studies aim to analyze rainfall amounts and intensities, study surface runoff behavior, and determine flood paths and their impact on existing and proposed facilities.
These studies include:

Analysis of rainfall data and return periods
Determination of hydrological characteristics of the study area
Modeling surface runoff and flood routes
Assessing flood risks to facilities
Proposing appropriate engineering solutions for flood protection and rainwater drainage (such as channels, culverts, dams, and various protection works)

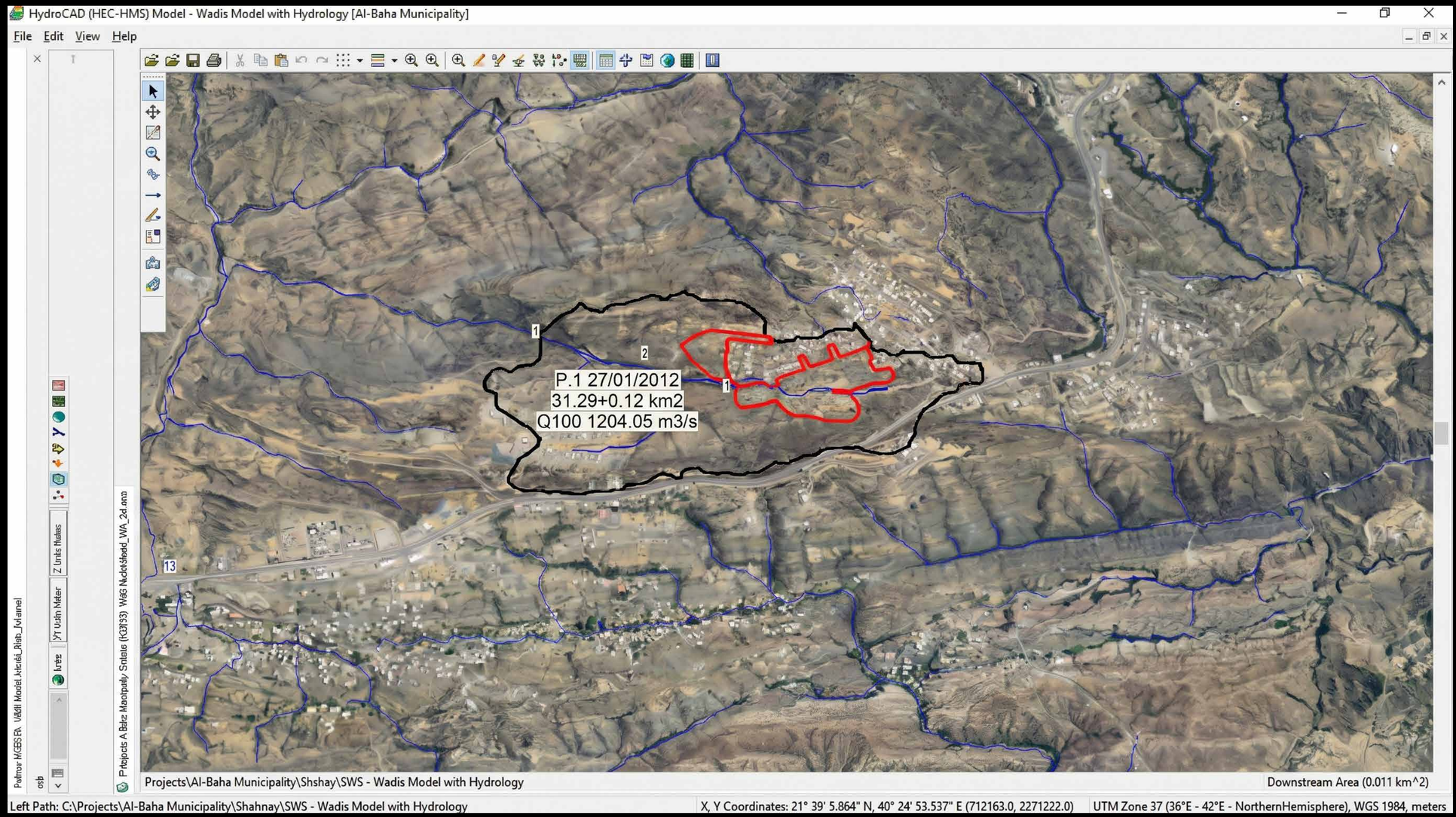


Sabaa Water Transfer Station





Shubra Regulatory Master Plan



Geological &
Geophysical Studies

The company carries out geological and geophysical studies required to assess site conditions and foundation systems, using advanced equipment and techniques, including subsurface investigation methods.



First: Geological Studies

- Describing surface and subsurface geological formations.
- Determining soil type and degree of weathering, fractures, and cavities.
- Evaluating site suitability for various construction works.

Second: Geophysical Studies

- Includes several methods such as:
- Ground-Penetrating Radar (GPR):
- Identifying buried utilities, voids, and near-surface anomalies.
- Seismic method:
- Determining seismic wave velocities, layer depths, and evaluating soil and rock properties.
- Electrical method:
- Studying layer continuity, determining groundwater levels, and identifying weak zones.

Ground-Penetrating Radar (GPR) Survey Works



Ground-Penetrating Radar (GPR) Survey Works



Quality Control
& Materials Testinga

The company provides integrated quality control and materials testing services in accordance with approved codes and specifications. This is carried out through equipped laboratories and specialized technical staff.
Below is an overview of some quality control and material testing services provided by the company, divided into:



Quality Control
& Materials Testinga

Soil Tests

- Laboratory soil tests
- (Liquid limit, plastic limit, bulk density, Direct shear test)
- Field soil tests :
- (plet load tests and various site tests)
- Evaluatin of soil suitability for foundations, backfilling, and roads

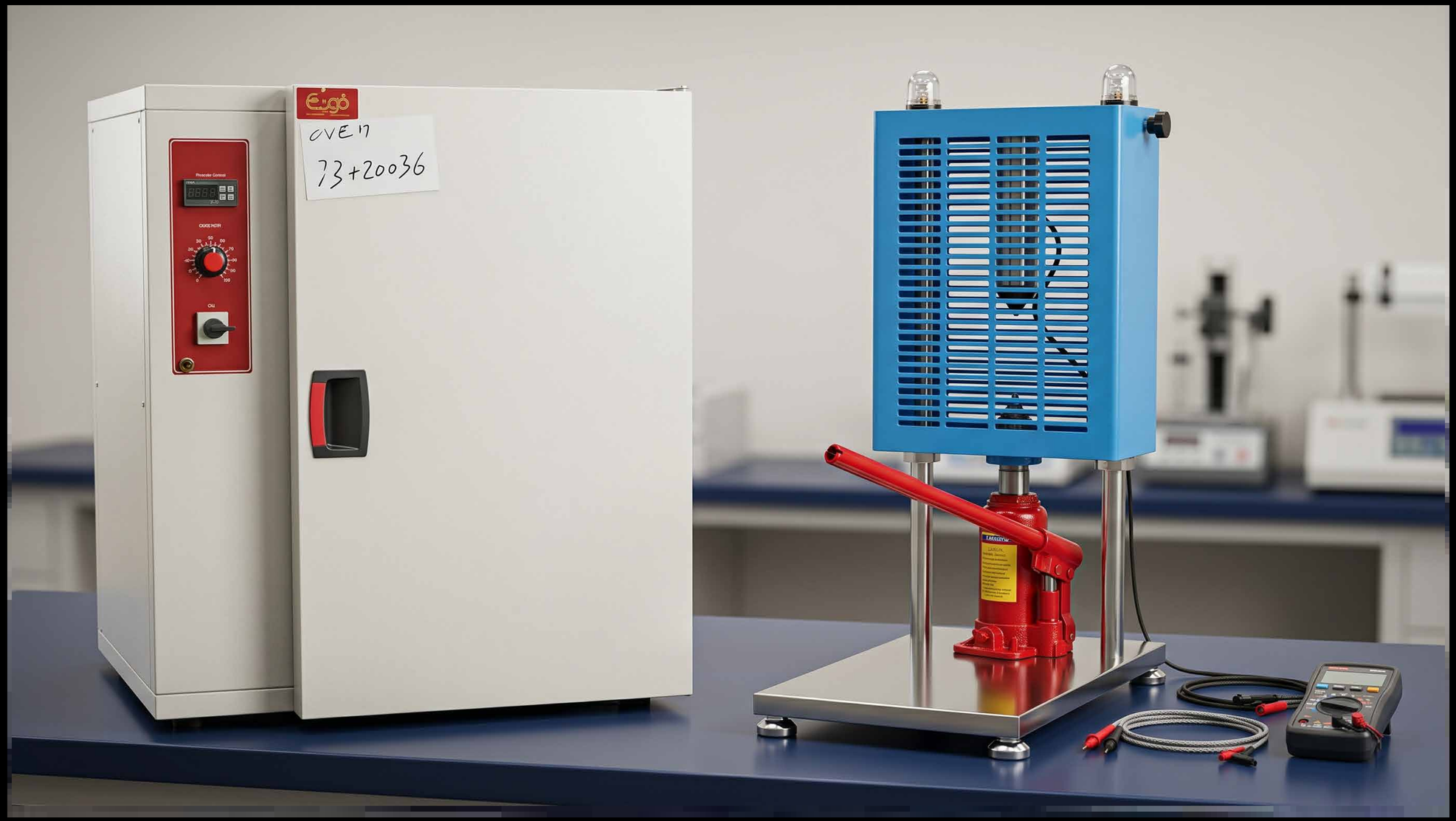
Concrete Tests

Includes a list of tests such as:
- Fresh concrete tests
- (Slump test, air content).
- Hard concrete tests
- (Compressive strength, tensile strength, flexural strength).
- Reinforced concrete core tests and evaluation of structural analysis.

Asphalt Tests

Includes a list of tests such as:
- Bitumen tests
- (Penetration, ductility, softening point).
- Asphalt mix Design tests
- (Density, stability, gradation).
- Field tests for asphalt works and quality control.

Laboratory Devices



Laboratory Devices



Laboratory Devices



Engineering Consultancy for Roads, Bridges & Tunnels

The engineering consultancy service for roads, bridges, and tunnels is one of the company’s core specializations. It focuses on delivering integrated and innovative solutions that ensure quality, safety, and sustainability, while achieving a balance between cost efficiency and environmental considerations throughout all project phases.

First Phase: Preliminary Feasibility Study & Requirements Analysis

1 Client Requirements Analysis

Holding meetings with stakeholders to define project objectives and requirements.

Collecting basic data on site location, traffic movement, and existing conditions.

2 Preliminary Studies

Site development using Geographic Information Systems (GIS).

Environmental and social impact assessment.

Estimation of preliminary costs and evaluation of project economic feasibility.



Engineering Consultancy for Roads, Bridges & Tunnels

Second Phase: Preliminary Engineering Design

01 -Preparation of Initial Layouts

Designing the general infrastructure and defining engineering standards.
Determining road, bridge, and tunnel alignments based on topographical studies.

02 -Selection of Materials & Technical Alternatives

Proposing suitable construction materials and execution techniques in compliance with project requirements and engineering standards.

03 - Preliminary Technical Report

Presenting a report that includes preliminary designs, cost estimates, and execution plans.

Engineering Consultancy for Roads, Bridges & Tunnels

Third Phase: Detailed Engineering Design

01 – Preparation of Detailed Drawings

Developing detailed drawings for roads, bridges, and tunnels, including all engineering components.

Designing drainage systems, traffic signals, and safety systems as required.

02 –Engineering Analysis

Conducting advanced structural analyses for bridges and tunnels.

Designing foundations and structural elements to withstand traffic loads and environmental factors.

03 – Project Documentation

Preparing project documents.

Issuing detailed drawings and technical specifications required for construction.

Engineering Consultancy for Roads, Bridges & Tunnels

Fourth Phase: Construction Supervision & Project Management

01 – **Execution Supervision**

Monitoring construction works to ensure compliance with specifications and designs.

Coordinating between contractors, suppliers, and consultants to ensure smooth execution.

02 – **Quality Control**

Conducting tests on used materials and ensuring compliance with standards.

Monitoring execution quality at all project stages.

03 – **Progress Reports**

Preparing periodic reports on work progress and resolving on-site challenges.

Engineering Consultancy for Roads, Bridges & Tunnels

Final Phase: Project Handover & Post-Execution Services

01 – Final Inspection

Conducting final inspections for roads, bridges, and tunnels prior to handover.

Verifying compliance with approved specifications.

02 – Project Handover

Delivering the project to the client with all final engineering documents.

Providing final reports and as-built drawings.

Post-Handover Support

Providing consultations and technical support after completion for any future improvements or modifications.

Engineering Consultancy for Railways

01 – Studies & Preliminary Planning

Conducting economic and technical feasibility studies for the project.

Evaluating proposed routes and alignments for railway lines.

Analyzing environmental and social impacts of the project.

Defining technical requirements and ensuring compliance with approved standards.

02 – Engineering Design

Route design (track alignment): determining optimal routes, stations, and related facilities.

Infrastructure design: designing bridges, tunnels, and crossings associated with the route.

Load analysis: ensuring the ability of tracks and structures to withstand static and dynamic loads.



Engineering Consultancy for Railways

03 - Construction Supervision

Monitoring project execution to ensure compliance with technical specifications and standards.

Quality control of materials and equipment used in construction.

Evaluating work progress and preparing periodic reports on progress and deviations.

04 - Control Systems & Signaling

Designing train control systems to ensure safe and efficient operation.

Defining signaling systems and monitoring operations to improve performance.

Studying operational safety requirements and reducing accident risks.

٥. Maintenance & Asset Management

Developing periodic maintenance plans to ensure operational continuity at the highest

Engineering Consultancy for Railways

05 - Maintenance & Asset Management

Developing periodic maintenance plans to ensure operational continuity at the highest efficiency.

Developing asset management programs to improve performance and reduce failures.

Analyzing faults and proposing technical solutions using modern technologies.

06 - Innovation & Sustainability

Proposing sustainable solutions that reduce environmental impact and increase operational efficiency.

Utilizing modern technologies to enhance infrastructure and operational performance.

Designing systems that reduce energy consumption and support future network efficiency.

Engineering Consultancy for Marine Ports & Maritime Transport Facilities

The company provides integrated engineering consultancy services in the field of marine ports and maritime transport facilities. These services include planning, design, supervision, and project management, ensuring safe and efficient port operations while meeting client requirements and achieving the highest levels of quality and sustainability.



Engineering Consultancy for Marine Ports & Maritime Transport Facilities

01 -Studies & Preliminary Planning

Conducting economic and technical feasibility studies for marine ports and maritime transport facilities.

Assessing suitable sites and marine environments for port infrastructure.

Studying the impact of marine projects on surrounding coastal and marine areas.

Preparing master plans for ports in accordance with international standards and future requirements.

02 – Engineering Design

Designing port facilities, terminals, and associated marine service structures.

Developing coastal protection structures such as breakwaters and quay walls.

Designing navigation channels, berths, and dredging works.

Designing marine utility systems and supporting infrastructure.

Engineering Consultancy for Marine Ports
& Maritime Transport Facilities

03 – Construction Supervision

Monitoring construction works and ensuring compliance with drawings and technical specifications.

Quality control of materials used and review of construction methods.

Evaluating work progress and addressing any technical or site-related challenges.

Ensuring compliance with safety and environmental standards during execution.

04 – Maritime Transport & Navigation Systems

Designing vessel traffic management and navigation aid systems.

Designing control systems to manage ship movements and improve operational efficiency.

Ensuring safe navigation and reducing maritime operational risks.

Engineering Consultancy for Marine Ports & Maritime Transport Facilities

05 – Dredging & Marine Works

Planning and supervising dredging works for navigation channels and port basins.

Reclamation works and development of coastal areas related to ports.

Monitoring marine works to ensure environmental protection measures are applied.

06 – Maintenance & Operation Management

Developing periodic maintenance plans for port facilities and marine structures.

Providing solutions to extend asset life and improve operational performance.

Developing operational procedures and enhancing efficiency according to best practices.

07 – Innovation & Sustainability

Adopting modern solutions that reduce environmental impact and support sustainability in marine facilities.

Designing systems to reduce energy consumption and improve operational efficiency.

Developing smart port solutions aligned with future maritime transport requirements.



Engineering Consultancy for & Wastewater

The company provides integrated engineering consultancy services in the field of water and wastewater projects. These services include studies, planning, design, supervision, and management of water supply and wastewater systems, in compliance with the highest standards of quality and environmental sustainability, and in accordance with approved technical and regulatory requirements.



01 – Studies & Planning

Conducting preliminary studies for water and wastewater projects and defining service areas.
Collecting and analyzing hydrological, geological, and geotechnical data as required.
Identifying optimal routes for networks and locations for treatment and pumping stations.
Preparing master plans, cost estimates, and project schedules.

02 –Engineering Design

Designing water supply and wastewater networks in compliance with approved standards and specifications.
Designing pumping stations, pipelines, and treatment facilities according to project requirements.
Designing stormwater drainage systems and flood protection solutions where required.
Developing solutions to improve efficiency and reduce operational and environmental impacts.

03 –Water Resources Management

Designing and developing systems for efficient distribution and management of water resources.
Conducting studies for water consumption, demand forecasting, and operational optimization.
Proposing solutions for treated water reuse and future resource sustainability.

04 -Construction Supervision

Monitoring execution of water and wastewater projects to ensure compliance with drawings and specifications.

Quality control of materials and equipment used in construction.

Reviewing work progress, solving site issues, and ensuring adherence to schedules.

Preparing periodic reports to clarify work progress and quality levels.

05 -Operation & Maintenance Management

Preparing periodic maintenance plans for water and wastewater facilities.

Providing solutions to reduce breakdowns and improve system efficiency.

Developing operating procedures and enhancing performance in accordance with best practices.

06 -Innovation & Sustainability

Applying modern technologies in water and wastewater treatment and reuse.

Developing innovative solutions to reduce environmental impact and energy consumption.

Designing systems that enhance sustainability and support future development.

Marine Consultancy Activities

The company provides a comprehensive range of marine consultancy activities that support the planning, design, and supervision of marine projects, ensuring optimal performance, safety, and environmental sustainability.

01 -Marine Studies & Planning
Analyzing marine sites and studying hydrodynamic, geological, and environmental conditions.
Conducting feasibility studies for marine projects.
Preparing master plans for marine facilities in accordance with project requirements.

02 -Marine Engineering Design
Designing marine structures such as quays, berths, and jetties.
Designing coastal protection works (e.g., breakwaters).
Developing designs for marine service facilities and utilities.
Designing navigation channels and dredging works.

Marine Consultancy Activities

03 -Marine Project Management

Planning and supervising the progress of marine project execution

Preparing schedules for marine works and monitoring site performance

Preparing periodic reports to ensure work progress and execution quality

Ensuring compliance with technical specifications and marine safety standards.

04 -Innovation & Sustainability

Providing sustainable solutions that reduce environmental impact on marine ecosystems

Designing systems that support emission reduction and environmental balance

Utilizing modern technologies to improve efficiency and reduce operational costs.

05 -Operation & Maintenance Management

Designing periodic maintenance plans for marine facilities and structures

Developing systems to monitor marine asset performance and improve efficiency

Providing solutions to extend asset life and support facilities using advanced technologies.

Geological Consultancy Activities

The company provides a comprehensive range of geological consultancy services to support planning, design, and implementation of engineering projects. These services aim to assess site conditions, ensure safety, and achieve sustainable development by relying on accurate geological and geotechnical data.

01 -Geological & Geotechnical Studies
Collecting and analyzing geological and geotechnical data to assess site conditions.
Studying soil layers, rock formations, and structural features.
Evaluating material suitability and potential use in construction works.

02 -Geotechnical Analysis
Conducting field and laboratory tests to determine soil and rock properties.
Analyzing bearing capacity, settlement, and slope stability.
Providing technical recommendations for foundation systems.

03 -Groundwater Studies
Studying groundwater levels and their impact on foundations and structures.
Analyzing groundwater flow and proposing appropriate protection solutions.
Providing solutions to control groundwater during construction.

Geological Consultancy Activities

04 -Environmental & Geological Risk Assessment
Identifying geological risks and potential hazards at project sites.
Assessing environmental impacts related to geological conditions.
Proposing mitigation measures to reduce risks and environmental effects.

05 -Natural Resources Management
Identifying natural resource sites and evaluating them to serve project requirements
Preparing plans for the safe and sustainable utilization of natural resources in accordance with environmental standards.

06 -Innovation & Sustainability
Utilizing modern technologies such as Geographic Information Systems (GIS) for site analysis
Providing sustainable engineering solutions that preserve the environment and reduce geological impact
Supporting projects by applying international best practices in geological studies.

Our Clients

شركة التصميم الرمادي للإستشارات الهندسية
GRAY DESIGN ENGINEERING CONSULTANCY COMPANY

شـركـــة أصداف للاستشـارات
الهندسية واستشارات السلامة
Asdaf Company for engineering
consultancy and safety consultancy

أعيان النخبة
للتجارة والمقاولات
Aayan al nokhba

edaratgroup
TECHNOLOGY & CLOUD

MHC

Golden Blocks

SAT
سابتكو السا للنقل
SAPTCO ALSA FOR TRANSPORTATION

أسلوب OSLOB

شركة سفراء النهضة
للمقاولات المعمارية وأعمال الكلادنج

شركة هيف
Haif Company

سمير المرزوقي

ضوئيات المتكاملة
INTEGRATED DAWIYAT
للاتصالات وتقنية المعلومات
For Telecom & Information Technology

موبايلي
mobily

أبعاد
ABARD
شركة أبعاد الخليجية للمقاولات
ABARD GULF CONTRACTING.CO

شركة خدمات المشاعر للمقاولات
Al Mashaeir Services Contracting Company

TBC

نسما وشركاهم
Nesma & Partners

البواني
AL BAWANI

شركة المياه الوطنية
National Water Company