



Celebrating 52 years in innovation in Engineering





**CONSER Consulting Engineering Services** started in 1969 in what is now the United Arab Emirates making us 52 Years Old in 2021. Currently we have active offices in the United Arab Emirates, Lebanon, the Sultanate of Oman, the sovereign country of Somaliland and Germany. CONSER presently employs over 230 technical staff; of highly qualified planners ,project managers, engineers of different specialization, architects and technicians. CONSER is a multi-disciplinary consulting engineering firm with our main strengths being in infrastructure and transportation engineering as well as water resource management. CONSER experience in dams and water resources is extensive in the UAE with the design and supervision of over 100 dams in the UAE and a further 20 dams elsewhere. Our dam experience has even allowed us to perform full turnkey design and build projects in Somaliland. Our reputation along with the generous outreach of the UAE government has also made us one of the leading partners for UAE water projects in other arid countries where water needs are high. Our all-round engineering skills include Masterplanning and architectural services as well as infrastructure services, all of which have enabled us to complete a host of urban and touristic projects many of which are in mountainous areas. Our approach to any project is based on 2 main pillars, Honesty and Innovation. With over 85% of our work being from repeat customers, their trust in us speaks volumes, and we look forward to adding you to our client base.

Postal Address: PO Box 65002, Dubai, United Arab Emirates. Contact: +971[4] 2824321; [www.conser.net](http://www.conser.net); [dubai@conser.net](mailto:dubai@conser.net); Registered Office: Unit 1402, Burj Al Salam Commercial Tower, Trade Centre First, Sheikh Zayed Road registered in Dubai, UAE Professional License Number 104266.

### Partners

**Azmi Haroun:** Chairman of the Board, B.Sc. Civil Eng. E.S.I.B. 1958

**Wassim Haroun:** Re-founder / Chief Executive Officer, B.Sc. Civil Eng. 1988

**Safouh Kabbara:** Re-founder / Managing Partner, M.Sc. in Transport Planning & Eng. 1989

### Associates

**Aziz Haroun:** Syria Branch Manager, B.Sc. Architecture 1975

**Tarek Sarakbi:** Associate / Oman Branch Manager.

### Affiliated Organisations

**WRA:** Water Resource Associates, based in UK.

**DEP:** Design Engineering Partners, based in Lebanon.

**MK:** Associates – Architects – Master Planners, based in Lebanon.

**ERECC:** Environmental & Water Resources Engineering Consultancy Company, based in Lebanon.

# Company Overview

# Areas of Experties

## Transportation

- > Feasibility / Corridor Studies
- > Transportation planning & modeling
- > Traffic simulation & forecast
- > Bridges, interchanges, port and harbor
- > Topographical, geological & geotechnical survey
- > Economic feasibility studies
- > Public Transport
- > Land acquisition / expropriation

## Infrastructure

- > Water and sewage treatment plants
- > Drainage and sanitation networks
- > Sea Outfalls
- > Pumping stations
- > Land reclamation
- > Optimization for water and irrigation
- > Water supply and distribution
- > Fire Networks
- > Electrical distribution
- > Telecommunications
- > Street lightning
- > Marine works
- > Innovative works

## Landscape

- > Town & master planning
- > Urban design and development
- > Subdivisions

## Construction Management & Contract Administration

- > Technical assistance during tender
- > Review of construction drawings and value engineering
- > Supervision of contract works
- > Monitoring contract costs
- > Managing claims and variation orders
- > Certification of Contractor's payments
- > Safety, Health, and Environmental Controls

## Water Resources Management

- > Hydrological and drainage studies
- > Water resources (planning & Development)
- > Flood control
- > Hydraulics
- > Dams Design & Supervision

## BIM

- > BIM Consultation & Implementation
- > BIM Execution Plan
- > BIM for Infrastructure
- > On site BIM Management & Training
- > BIM for Construction Management & Document

## Architectural

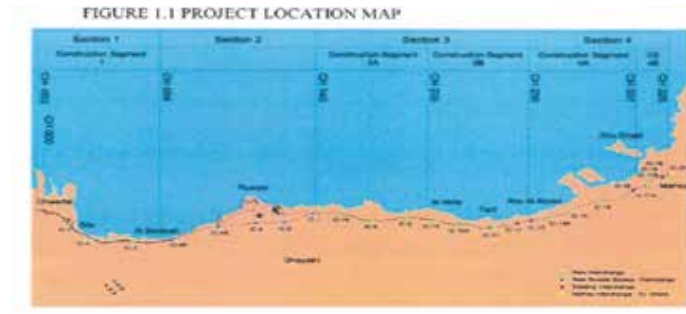
- > Hospitality projects (hotels, resorts, etc..)
- > Educational projects (schools, universities, etc..)
- > Cultural projects (museum & heritage buildings, etc..)
- > Residential projects (housing, residential towers, etc..)
- > Commercial projects (office towers, malls, restaurants, etc..)
- > Health projects (hospitals, clinics & spa, etc..)
- > Industrial projects (warehouses, factories, etc..)
- > Religious projects (mosques, churches, etc..)
- > Recreational projects (amusement center & park, etc..)
- > Public buildings projects

## Building Engineering

- > Structural Engineering
- > Electrical Engineering
- > Heating, medium and low voltage
- > Sanitary, plumbing and fire fighting
- > Power supply and generation
- > Lighting Engineering
- > Telecom & IT systems
- > Fire Engineering
- > Sustainability



# Transportation & Infrastructure



### Sheikh Khalifa Bin Zayed Road / Mafraq - Ghweifat Highway (Section 1B- Al Barakah-Sila)

**Scope:** Supervision Consultancy Services.

**Client:** MUSANADA

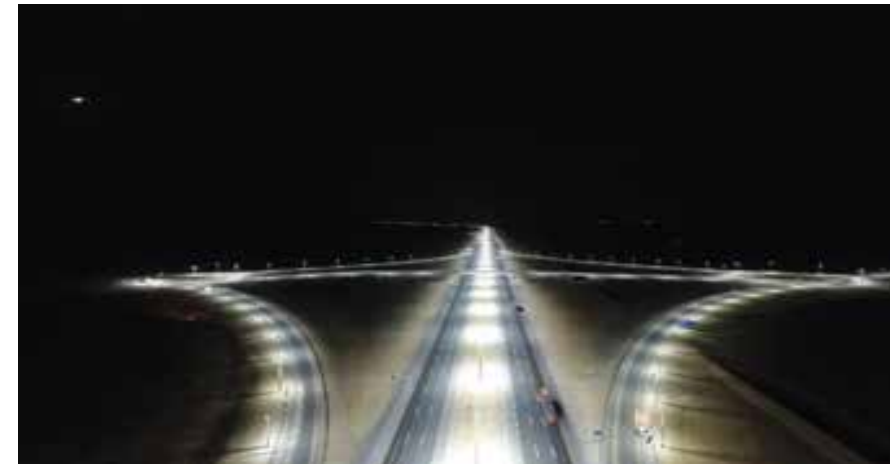
**Period of assignment:** Oct 2014

**Location:** Abu Dhabi - UAE

#### Project Description

Upgrading about 44 km of the E11 Road to be dual 3-lanes in both directions from Al Barakah to Al Sila's providing a new wider cross section with pavement surface for 30 years design life.

The Works included the Construction of two Dumbbell Interchanges, Relocation / Protection of existing services, Extension of existing contingency ducts and construction of new contingency ducts. In addition to Utility Networks (Construction of Lighting System, Construction of Storm Water Drainage, Construction of Road Furniture) and all the ancillary works required to complete the works.







## Somaliland Projects

**Scope:** Design & Supervision Consultancy Services

**Client:** Abu Dhabi Fund Development

**Period of assignment:** 2018

**Location:** Somaliland

### Project Description

The Project consist of Rehabilitation of Hargeisa - Berbera - Tog Wajale which includes Berbera Civil Airport. The corridor area is 5 km width and 250 km approximate road length, that need to be covered by Stereo Satellite Imagery, 0.5 km width of DTM and digital Orthophoto. Part of the project area is already covered by stereo satellite imagery taken by Digital Globe sensors for the total of 644sqkm, while the remaining area a total of 687 sqkm will be collected by Airbus sensors (Pleiades).



### INTERNAL ROADS, Al Jurf, Hamidiyah, Ajman Ph. 3

**Summary:** Design Consultancy Services  
**Client:** Ministry of Infrastructure Development  
**Period of assignment:** 2015  
**Location:** Ajman - U.A.E.

#### Project Description

The Scope of Work Study and Design Internal Roads in Al Jurf & Al Hamidiya – Ajman, with length of 24.68 km, which extends nearly 1 km of internal roads of single carriageways. Along with 7.7 km additional of dual carriageways roads, making a total length of roads single & dual equal to 31.4 km. The works comprised of Data gathering, Preliminary & Detailed Design, in addition to tendering services.

### ERC 0609/D1 – Link Roads to Small Industries Zone

**Summary:** Design & Supervision Consultancy Services  
**Client:** Ministry of Municipal Affairs & Agriculture Roads Department  
**Period of assignment:** 2003  
**Location:** Qatar

#### Project Description

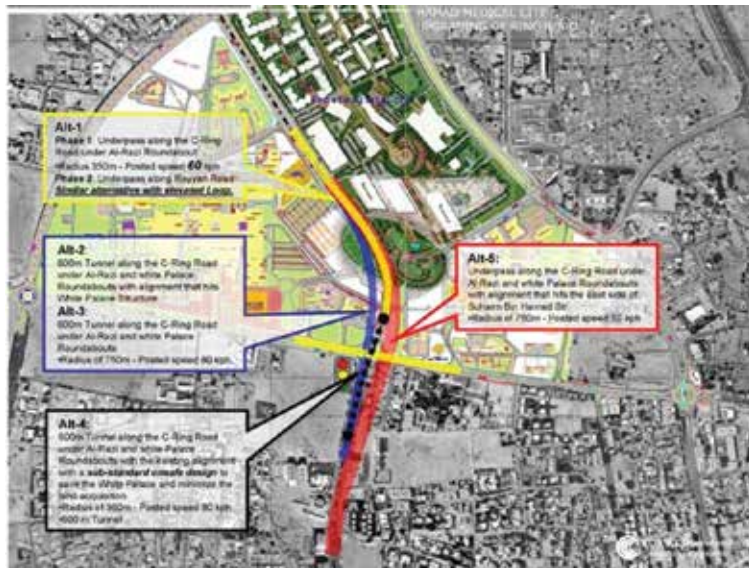
The works comprise the study and detail design plus preparation of tender and contract documents of the following:

- Major and minor roads within and linking the Small Industries Zone to the existing road network, and to the Doha Industrial area. These main elements of the project include:
- A major 6-lane link between Junction 17 on Salwa Road and small Industrial Zone Road 8, a roundabout junction with Road 33, and a service roads on both sides between Road 33 and Road 8;
- A major 6-lane extension of Road 33 between East Industrial Street and the new roundabout referred to above;
- A major 6-lane link between Route 55 and Small Industries Zone Road J, including a trumpet interchange at Route 55 and two roundabouts.
- Minor and service roads linking Small Industries Zone Road 1 with Doha Industrial Area Roads 36 and 41.

In addition to the works included the review of the concept design, by others, of all adjacent roads and carry out the necessary amendments to the design during the development of the scheme.







## Hamad Medical City – Upgrading of C Ring Road

**Summary:** Plannig & Design Consultancy Services

**Client:** FEDCON / Building Engineering Department

**Period of assignment:** 2003

**Location:** Qatar

### Project Description

As part of the Hamad Medical City, the project consists of the upgrading of the “C” Ring Road between the Rayyan Road and the Bin Omran R/A. Several alternatives were studied and the selected alternative was subject to the detailed design and subsequently the supervision of the construction.

## Design of West Murrah

**Summary:** Plannig & Design Consultancy Services

**Client:** Ministry of Municipal Affairs & Agriculture Roads Department

**Period of assignment:** 2001

**Location:** Qatar

### Project Description

The project comprises the preparation of the detailed design of the complete infrastructure works for Zone 55 (approximately 300 Hectares in area), located south east of city of Doha. The zone is currently experiencing fast pace residential development. The works included the preparation of the detailed design of the new infrastructure works (roads, storm water network, foul sewerage networks including house connections, electricity (MV and LV), potable water and telephone networks, treated sewage effluent network for irrigation of landscaped areas, in addition to assessment of any existing networks and its required upgrading. Works included in the undertaking the complete topographic surveys, geotechnical investigation program, traffic study, road network plan and road corridor plans.



### Al Marjan Islands

**Scope:** Design & Supervision Consultancy Services

**Client:** RAKEEN

**Period of assignment:** 2006 – 2011

**Location:** RAK - UAE

#### Project Description

Al Marjan Island 4 Development was to be primarily developed for residential and commercial uses with all supporting facilities. The Government of Ras Al Khaimah has selected an area which directly attaches Umm Al Quwain Emirate to the south west as a location of its proposed Al Marjan Island 4 Development.

The development area is located within the Ras Al Khaimah (RAK) Emirate and directly adjoins Umm Al Quwain Emirate to the south west. It is approximately 267Ha of filled and reclaimed land, located around 25 km south of Ras Al Khaimah Old and New Towns and will face the new Gateway development on the mainland.

The project comprised of design of Al Marjan Island Development including 4 islands as well as a peninsula. The engineering services required from CONSER included the design of water and fire fighting, sewerage, treated sewage effluent (TSE) and Irrigation, power, and telecommunication Services for the Proposed Development. The scope included the design and supervision of the project works.





### Dualization of Bausher Amerat Road

**Scope:** Supervision Consultancy Services

**Client:** Muscat Municipality

**Period of assignment:** 2009

**Location:** Oman

#### Project Description

The Project consists of Dualization of Bausher Amerat road consists of two lane dual carriageway between AlAmerat to Bausher. The total length of the project is 14km approximately.

Also having 2 nos. post tensioned Wadi Bridges of span 60m & 360m with a bridge underpass + an underpass. 26 box culverts of various sizes. Heavy duty concrete safety barriers etc.







### Al Hilal Development

**Scope:** Design & Supervision Consultancy Services

**Client:** AL HILAL PROPERTIES

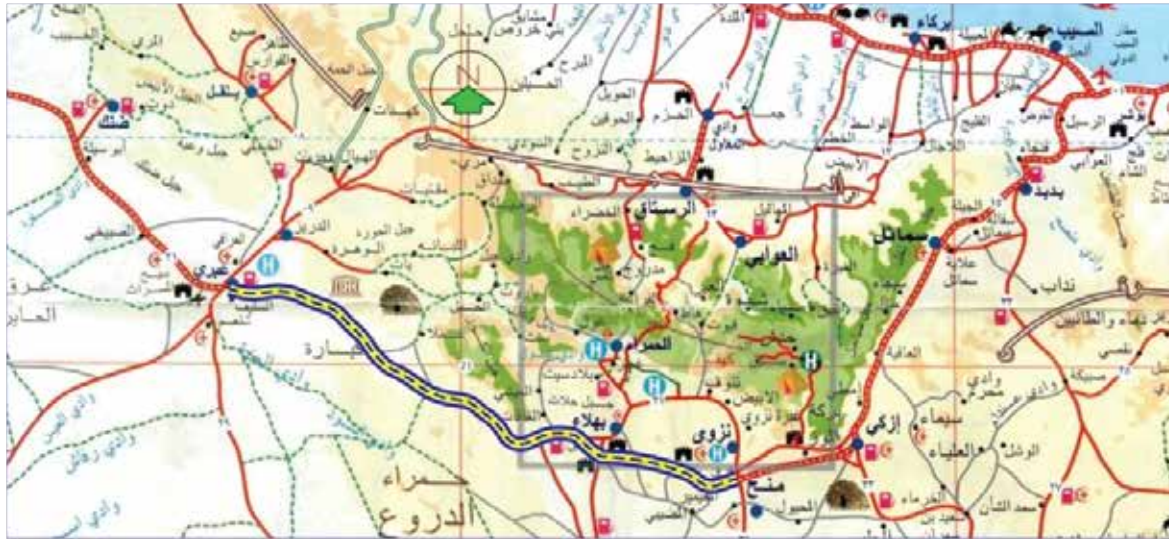
**Period of assignment:** 2008

**Location:** Fujairah - UAE

#### Project Description

Al Hilal Development was to be primarily developed for residential and commercial uses with all supporting facilities. To attach North of Fujairah as a location of the proposed Al Hilal Development. The development area is located within the Fujairah Emirate and directly adjoins Sharjah (Khorfakkan) Emirate to North. It is approximately 100Ha of land, located North of Fujairah Old Towns and facing the new Gateway development on the mainland.





### Nizwa – Ibri Road

**Scope:** Design and Supervision

**Client:** Ministry of Transport & Communications - Oman

**Period of assignment:** 2009

**Location:** Oman

#### Project Description

The Project comprises the design & supervision of the dualization of Nizwa – Jabrin road, expanding 32 km, with 2 lanes dual carriageway. In addition to totally new dual carriageway for 90 km from Jabrin to Ibri. The work includes complete geometric design of 6 interchanges, a wadi bridge, 300 multi-cells pipe and box culverts. It also includes signing and road marking, relocation and protection of existing utility. Along with seven underpasses to facilitate the movement of habitants and traffic from the surrounded villages.





## Dibba Massafi Road

## Scope: Design & Supervision Consultancy Services

**Client:** Ministry of Public Works and Housing – Dubai

**Period of assignment: 2009**

**Location:** Dubai - U.A.E.







### Mrah Sreij – Bakhoun – Haklit – Taran – Hazmieh bridge

**Scope:** Design & Supervision Consultancy Services

**Client:** Council for Development & Reconstruction – Lebanon

**Period of assignment:** 2000

**Location:** Lebanon

#### Project Description

The project constitutes the construction and upgrading of Four Roads in Sir Dinnieh region at the North of Lebanon. These roads are located in the mountainous east of the city of Tripoli. The Design works included Traffic collection of ATC, MCC, TMC, Conducting a traffic study to forecast the traffic generation along the new proposed road, Preliminary design, final design and preparation of tender documents, & were followed by supervision of construction works

### Zaharani – Qana Highway (Section 1: Zahrani – Babliyah Section 2: Babliyah - Abu Aswad)

**Scope:** Supervision of construction and Design Technical Support

**Client:** Council for Development and Reconstruction (C.D.R) - Lebanon

**Period of assignment:** 1997

**Location:** Lebanon

#### Project Description

The Project consisted of two sections Zahrani - Babliyah / Babliyah - Abu Aswad. Each section consist of 8 kms of dual Freeway & Service Roads, includes (1) Interchange along with 2 underpasses, and (3) overpasses. Works also included supervision & providing Design support for the construction of Drainage structure & retaining wall.



### Musaffah Bridge

**Scope:** Design & Supervision Consultancy Services

**Client:** Public Works Department

**Period of assignment:** 1974

**Location:** Abu Dhabi U.A.E.

#### Project Description

This largest bridge in the Abu Dhabi Emirate links Abu Dhabi Island with the Mainland. It is located 2 km to the West of Maqta Bridge and links the new highway parallel to the Airport Road with Al Musaffah Industrial City and with Abu Dhabi - Al Ain highway. Particular attention was paid to solve the problems relating to foundations, as the subsoil consists of silt-sand and sabkha materials. Mass foundation depth is 8 m. The new Bridge was designed for heavy load traffic generated by the Industrial City of Musaffah. The new Bridge is considered as a masterpiece of architectural esthetics and engineering design. This bridge is 500 m long (10 spans x 50m) and 25 m wide, with a three-lane dual carriage-way. It was constructed using post-tensioned concrete beams supported on "V" shape piers.



### Abu Dhabi Airport Road Bridge

**Scope:** Design & Supervision Consultancy Services

**Client:** The Rulers Council

**Period of assignment:** 1978

**Location:** Abu Dhabi U.A.E.

#### Project Description

The increasing traffic density on the cross-roads of a major ring highway intersecting with Abu Dhabi Airport Road, made it necessary to build this important 4-lanes and 360m long interchange bridge (12 spans x 30m). The design and supervision of construction of this major project was assigned to CONSER, and had to be carried out in a very short period of time. The bridge was constructed using prestressed elements and post-tensioned concrete beams. The consultant had to organize the scheduling of construction in such a way to allow traffic during all the construction period.



# Alleviation of Traffic Congestion in Al-Khuwair and Al-Ghubbrah Area

**Scope:** Design & Supervision Consultancy Services

**Client:** Muscat Municipality

**Period of assignment:** 2000

**Location:** Oman

### Project Description

This Urban project consists of developing a cost effective solution for the alleviation of traffic congestion in the Al-Khuwair and Al-Ghubbrah Areas, where commercial and residential areas are lying on both sides of Al-Sultan Qaboos Highway, to perform a detailed traffic study and analysis to validate the proposed solution up to year 2020, and then to carryout the detailed design (roadway, drainage, signing & marking, street lighting and landscaping and irrigation) and to prepare the tender documents.

The proposed solution included:

- Two – one way bridge ramps connecting the Sultan Qaboos Highway with Al-Khuwair Area.
- A new 1.20 km dual carriage way on the Western side of Wadi Al-Khuwair.
- A new 1.00 km single carriage way with bridge over Sultan Qaboos connecting Al- Khuwair area with Al-Wazzarat Street.
- Dualizing the existing Dohat Al-Adab Street.
- A new interchange connecting the coastal highway and Al- Wazzarat Street in Al- Ghubbrah with the Sultan Qaboos highway.
- Dualization of the existing Al-Wazzarat Street from the new interchange to the existing Shiraa Roundabout







### Al Ashkara Shanna Road

**Scope:** Design & Supervision Consultancy Services

**Client:** Ministry of Transport & Communications - Oman

**Period of assignment:** 2002

**Location:** Oman

#### Project Description

The contract comprises the design & supervision of new single carriage way from Al Ashkharah to Shanna in the south. The total length of the proposed road is 145 km divided into two sections. Section-1 about 60 km length and Section-2 about 85 km. The design work included the complete roadway design (horizontal and vertical alignments), road marking & signs, existing utilities protection and/or relocation and provisions for future lines). Also it included a comprehensive hydrology study of Wadis crossing.





### Sinaw Mahoot Duqm Road

**Scope:** Design & Supervision Consultancy Services

**Client:** Ministry of Transport & Communications - Oman

**Period of assignment:** 2009

**Location:** Oman

#### Project Description

The contract comprises the design & supervision for the upgrading of existing Sinaw – Muhut – Duqm Road of approximately 345 km length of 2 lanes, one in each direction. The project road was designed for 120 km/hr speed. The road runs through flat and rolling terrain and crosses numerous wadis. Hydrology studies were performed and sizing and designing of all hydraulic structures (box culverts, Irish bridges) was undertaken within the scope of the project. The design works included studies (technical and economic) for alignment selections for Sinaw Bypass.

### Ibri – Hafeet Road

**Scope:** Design & Supervision Consultancy Services

**Client:** Ministry of Transport & Communications - Oman

**Period of assignment:** 2002

**Location:** Oman

#### Project Description

The contract comprises the design & supervision of the upgrading of approximately 114Km existing road the Sultanate of Oman with the U.A.E borders at Hafeet into a dual divided 2x2 highway. The new road was designed for 120 Km/hr speed. The design works included the design of an interchange at Dhank. (interchange will not be constructed due budget limitation). Design works hydrology studies of Wadis crossing the highway and sizing and design of numerous hydraulic structures, safety measures and road furniture. The construction of the project has started on 1/5/2002.





### Saadiyat Development Project

**Scope:** Design of roads, wet and dry utilities including domestic water, irrigation and sewage networks as well as electrical, data networks and street lighting. In addition, preparation of tender documents, construction supervision works as well as assistance in project management.

**Client:** M1 Real Estate

**Period of assignment:** 2016

**Location:** Lebanon

#### Project Description

A real estate development project in Saadiyat, area ~284,275 m<sup>2</sup> with around 4.5 Km of roads, divided into small plots suitable for residential villas and buildings with a complete infrastructure, roads networks and services.

### King Abdullah Petroleum Studies & Research Center (KAPSARC), Residential Zones A & B

**Scope:** Design and shopdrawings of roads and grading, hardscape and landscape, infrastructure works consisting of electrical systems, storm and water pumping in addition to sewerage treatment stations.

**Client:** Saudi Government, Ministry of Petroleum & Mineral Resources

**Period of assignment:** 2010

**Location:** KSA







### King Abdulaziz International Airport

**Scope:** Design, shop drawings, engineering procurement and construction management for the following apron services:

- Potable water treatment plants and potable water piping from Tech. rooms to PCA pits.
- Blue water treatment plants and blue water piping from Tech. rooms to vacuum pits.
- Vacuum receiver plants and piping from blue water pits to plant rooms to sewer drainage lines.
- PCA air handling units installed in node building.
- PCA air ducting from node buildings to PCA pits
- Glycol water piping from node buildings to Tech. room
- Glycol chillers systems in Tech. rooms
- PCA/Potable water pits
- Vacuum/Blue water pits
- 400Hz pits/GPU 400 Hz units installed in node buildings/GPU coils installed under the PBB

**Client:** Saudi Government/General Authority of Civil aviation

**Period of assignment:** 2012

**Location:** Jeddah, KSA

### Saudi Arabian National Guard military facility of Khashm Al-Aan (SANG-II)

**Scope:** Re-design, shopdrawings and site engineering assistance for all civil (including pavement, grading and earthworks), structural, architectural, electrical, mechanical and infrastructure networks (including storm, sewer, fire hydrant, lighting, electrical and communication/IT), airfield lighting, navigational aids and all related systems.

**Client:** SANG (KSA)

**Period of assignment:** 2011

**Location:** Riyadh, KSA

#### Project Description

A military airbase consisting of 80 buildings such as brigade headquarters, support buildings & facilities, runways, taxiways, aprons, hardstands/pads, helipad and other aviation facilities.





### New Doha International Airport

**Scope:** Detailed Design.  
**Client:** CDC Takenaka - JV  
**Period of assignment:** 2008  
**Location:** Doha, Qatar

#### Project Description

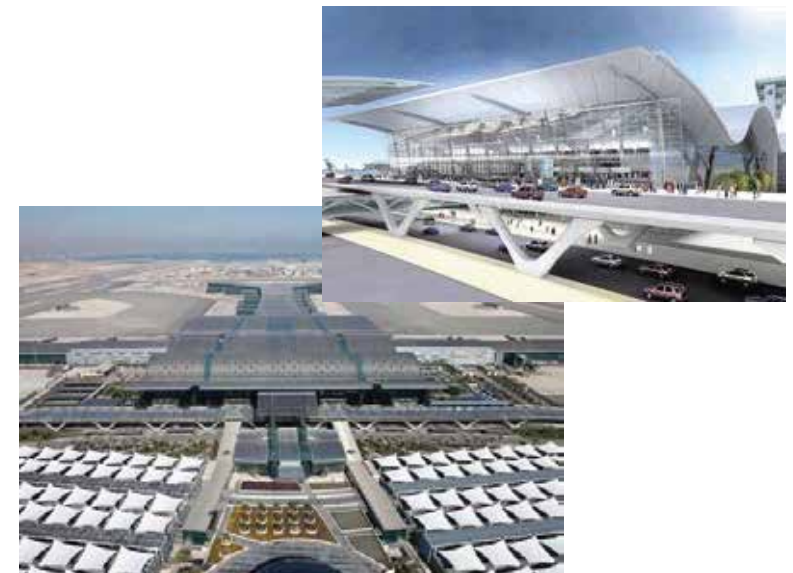
The project site is located on the coastal strip of Qatar approximately 6km to the east of Doha City and immediately to the east of existing airport. The airport will serve as a regional air transportation hub and the home base of Qatar Airways. CONSER was commissioned to design the complete roadway, utilities, underpass, podium, car park facilities and hardscape for EMIRI VIP Pavillion to be used by the Emir, his family, ministers and visiting dignitaries. Additional works done were design of all civil infrastructures for all utilities in the apron including electrical supply to aircraft bays, stormwater systems and lighting for airside and landside and large scale utility manholes in the apron.

### New Doha International Airport, Emiri Terminal & Control Tower

**Scope:** MEP Design  
**Client:** ADPI (France)  
**Period of assignment:** 2008  
**Location:** Qatar

#### Project Description

The project include the design of Emiri Terminal, Control Tower and Central Utility Plot which includes chillers, substations, generator farm and pumps.





### New Bahrain International Airport

**Client:** HILL INTERNATIONAL

**Period of assignment:** 2010

**Location:** Bahrain

#### Project Description

Design Review and assesment of all airfield, infrastructure, fuel, non-visual navigational aids systems.

### Abu Dhabi International Airport Free Trade Zone

**Scope:** Complete master plan study, Infrastructure and buildings

**Client:** Department of Civil Aviation (DCA), UAE

**Period of assignment:** 2008

**Location:** Abu Dhabi, U.A.E.

#### Project Description

The Abu Dhabi International Airport project includes the complete master planning and urban planning, as well as Phase 1 design of a 4 Km<sup>2</sup> Free Trade Zone for light industries. The Project consists of light industrial units/warehouses, cargo facilities, courriers facilities, high end offices and amenities.





## Emirate of Ras Al Khaima Internal Roads (Stage I)

**Summary:** Design and Supervision Consultancy Services

**Client:** The Municipality of Abu Dhabi & Town Planning – Road Section.- UAE

**Period of assignment:** 2001

**Location:** Ras Al Khaima – U.A.E.

### Project Description

Complete detailed design of 180 km of internal roads in different residential areas of the Emirate. The design work included the complete roadway design (horizontal and vertical alignments, road marking & signs, existing utilities protection and/or relocation and provisions for future lines). The design works also included the development of the concept for the storm water drainage system.

## Emirate of Ras Al Khaima Internal Roads (Stage II)

**Summary:** Design and Supervision Consultancy Services

**Client:** The Municipality of Abu Dhabi & Town Planning – Road Section.- UAE

**Period of assignment:** 2005

**Location:** Ras Al Khaima – U.A.E.

### Project Description

Complete detailed design of 201 km of internal roads in different residential areas of the Emirate. The design work included the complete roadway design (horizontal and vertical alignments, road marking & signs, existing utilities protection and/or relocation and provisions for future lines). The design works also included the development of the concept for the storm water drainage system.

## List of some similar projects

**Project name:** FOIZ Road - Main Road & Service Road,  
Qidfa Bypass, Quarry Road  
**Client:** CMW  
**Contract Date:** 2012  
**Scope:** Design & Supervision

**Project name:** Improvement & Upgrading of the Intersection  
of Fujairah - Khorfakkan Road & Yabsa - Fujairah Port Road  
**Client:** Ministry of Public Works UAE  
**Contract Date:** 2014  
**Scope:** Design & Supervision

**Project name:** Duqm Town Master Plan Roads  
**Client:** Supreme Committee for Town Planning  
**Contract Date:** 2012  
**Scope:** Design & Supervision

**Project name:** Dualization of Jabrin - Ibri road  
**Client:** Ministry of Transport & Communications  
**Contract Date:** 2012  
**Scope:** Design

**Project name:** Design of Dibba Masafi – Stage 3 – Truck Ring Road.  
**Client:** Ministry of Public Works UAE  
**Contract Date:** 2011  
**Scope:** Design

**Project name:** Design of Khorfakkan Truck Ring Road  
**Client:** Ministry of Public Works UAE  
**Contract Date:** 2011  
**Scope:** Design

**Project name:** Maintenance of Roads in Different Parts of the Emirates  
**Client:** Ministry of Public Works UAE  
**Contract Date:** 2011  
**Scope:** Studies, Design & Supervision

**Project name:** Construction of Ashkhara - Shanna Road  
**Client:** Ministry of Transport & Communications  
**Contract Date:** 2011  
**Scope:** Design & Supervision

**Project name:** Mudeirej Bridge  
**Client:** Baker Engineers  
**Period of assignment:** 2006  
**Scope:** Damage Assessment and Site Supervision of  
construction work

**Project name:** Dualization of Ma'amurah - Taqah road  
**Client:** Ministry of Transport & Communications  
**Contract Date:** 2010  
**Scope:** Design

**Project name:** Dualization of Ghala - Ansab road  
**Client:** Ministry of Transport & Communications  
**Contract Date:** 2010  
**Scope:** Design

**Project name:** Mamura - Taqa Highway  
**Client:** Ministry of Communication - Muscat  
**Contract Date:** 2003  
**Scope:** Design & Supervision

**Project name:** Razat Farm Junction  
**Client:** Ministry of Transport & Housing - Oman  
**Contract Date:** 2001  
**Scope:** Design & Supervision

**Project name:** RUSSAYL - NIZWA HIGHWAY (Phase 1)  
**Client:** Capital Municipality - Muscat  
**Contract Date:** 1992  
**Scope:** Design & Supervision

**Project name:** Salalah town roads & Salalah souk roads  
**Client:** Ministry of Communication - Muscat  
**Contract Date:** 1993  
**Scope:** Design & Supervision

**Project name:** RUSSAYL - NIZWA HIGHWAY (Phase 2)  
**Client:** Ministry of Communication - Muscat  
**Contract Date:** 1996  
**Scope:** Design & Supervision

**Project name:** Flight Simulator Facility  
**Client:** Department of Civil Aviation (DCA), UAE  
**Period of assignment:** 2008  
**Scope:** Complete master plan study, Infrastructure and buildings

**Project name:** EIC 0545/D9 – WAKRAH INDUSTRIAL AREA  
**Client:** Ministry of Municipal Affairs & Agriculture Roads  
Department - Qatar  
**Period of assignment:** 2001  
**Scope:** Design & Supervision

**Project name:** Design of Rayyan Road & Roads in Zones 38 & 39  
**Client:** Ministry of Municipal Affairs & Agriculture Roads  
Department - Qatar  
**Period of assignment:** 2001  
**Scope:** Design & Supervision

**Project name:** Al Rayyan Compound  
**Client:** Sh. Hmad Bin Fahed - Qatar  
**Period of assignment:** 2003  
**Scope:** Design & Supervision

## List of some similar projects

**Project name:** Al Rayyan Compound

**Client:** Sh. Hmad Bin Fahed - Qatar

**Period of assignment:** 2003

**Scope:** Design & Supervision

**Project name:** CASINO DU LIBAN INTERCHANGE

**Client:** CONSEIL EXECUTIF DES GRANDS PROJETS  
(C.E.G.P.) - Lebanon

**Period of assignment:** 1997

**Scope:** Design & Tender Documents

**Project name:** Al Akaba Bridge

**Client:** Public Works Department

**Contract Date:** 1979

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Al Hili Bridge

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1979

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Haza Al Maqam Bridge

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1976

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Widening of 10 Bridges

**Client:** Al Ain Municipality

**Contract Date:** 1980

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Six Bridges in Al Ain

**Client:** Al Ain Municipality

**Contract Date:** 1981

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Airport Road between Al Qurm RA and Burj  
Al Sahwa RA:

**Client:** Ministry of Communications - Sultanate of Oman

**Contract Date:** 1981

**Scope:** Complete Design and Supervision

**Project name:** Fujairah Town Roads of various sectors

**Client:** Fujairah Municipality

**Contract Date:** 1973

**Scope:** Design and Supervision

**Project name:** Mousaffah Town Roads

**Client:** Abu Dhabi Municipality

**Contract Date:** 1973

**Scope:** Design and Supervision

**Project name:** Suwaihan – Al Ain Road

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1972

**Scope:** Design and Supervision

**Project name:** Al Ain – Al Hair Road

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1972

**Scope:** Design and Supervision

**Project name:** Dana Island Roads

**Client:** Abu Dhabi Municipality

**Contract Date:** 1972

**Scope:** Design and Supervision

**Project name:** Hamad Street

**Client:** Abu Dhabi Municipality

**Contract Date:** 1972

**Scope:** Design and Supervision

**Project name:** Construction and Maintenance of Remote  
Area Roads

**Client:** M.O.T.C

**Contract Date:** 1980

**Scope:** Supervision

**Project name:** Haza Bin Sultan Bridge

**Client:** Al Ain - U.A.E.

**Contract Date:** 1979

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Airport Road between Al Qurm RA and  
Burj Al Sahwa RA

**Client:** Ministry of Communications - Sultanate of Oman

**Contract Date:** 1981

**Scope:** Complete Design and Supervision

**Project name:** Al Jaw Bridge

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1979

**Scope:** Preliminary & Final Design and Supervision of  
Construction

**Project name:** Al Daoudi Bridge

**Client:** Department of Public Works of Abu Dhabi

**Contract Date:** 1979

**Scope:** Design and Supervision of construction



## List of All Projects Undergoing by the Consultant

**Project name:** Al - Nakfa Bridge

**Client:** Public Works Department - U.A.E.

**Contract Date:** 1974

**Scope:** Preliminary & Final Design and Supervision of Construction

**Project name:** Hilton Bridge

**Client:** Public Works Department - Abu Dhabi

**Contract Date:** 1974

**Scope:** Preliminary & Final Design and Supervision of Construction

**Project name:** Dualization of Jabrin - Ibri road, Section – 2

**Client:** Ministry of Transport & Communication

**Contract Completion:** March 2019

**Scope:** Supervision

**Project name:** Upgrading of Sinaw-Muhut-Duqm Road, Section-1

**Client:** Ministry of Transport & Communication

**Contract Completion:** July 2019

**Scope:** Supervision

**Project name:** Upgrading of Sinaw-Muhut-Duqm Road, Section-2

**Client:** Ministry of Transport & Communication

**Contract Completion:** July 2019

**Scope:** Supervision

**Project name:** Construction of Dhank - Khubayb road

**Client:** Ministry of Transport & Communication

**Contract Completion:** November 2019

**Scope:** Supervision

**Project name:** Construction of Hitam - Ajaiz road

**Client:** Ministry of Transport & Communication

**Contract Completion:** Tender Stage

**Scope:** Design & Supervision Consultancy Services

**Project name:** Construction of Hitam - Al Burr road

**Client:** Ministry of Transport & Communication

**Contract Completion:** Tender Stage

**Scope:** Design & Supervision Consultancy Services

**Project name:** Construction of Al Gaez, Hailshe & Kerab roads

**Client:** Ministry of Transport & Communication

**Contract Completion:** Tender Stage

**Scope:** Design & Supervision Consultancy Services

**Project name:** Construction of Al Aflaj road

**Client:** Ministry of Transport & Communication

**Contract Completion:** Project in tender stage and internal roads Completed

**Scope:** Design & Supervision Consultancy Services

**Project name:** FOIZ Road – Main Road & Service Road, Qidfa Bypass, Quarry Road

**Client:** Fujairah Municipality CMW

**Contract Completion:** November 2019

**Scope:** Design & Supervision Consultancy Services

**Project name:** INTERNAL ROADS, Al Jurf, Hamidiyah, Ajman Ph. 3

**Client:** Ministry of Infrastructure Development

**Contract Completion:** March 2020

**Scope:** Design & Supervision Consultancy Services

**Project name:** FUJAIRAH PORT (MOID)

**Client:** Ministry of Infrastructure Development

**Contract Completion:** August 2020

**Scope:** Design & Supervision Consultancy Services

**Project name:** Somaliland Projects

**Client:** Abu Dhabi Fund Development

**Contract Completion:** 2020

**Scope:** Design & Supervision Consultancy Services









# Master Planning, Architectural & Building Engineering





## Concord Wahhoud Resort

**Scope:** Master Plan Design and Construction Supervision

**Client:** Concord Wahhoud Group – Damascus

**Period of assignment:** 2008

**Location:** Syria

### Project Description

Master Plan Design and Supervision of Concord Resort, The resort is 180,000 sq.m plot area & 260,000 sq.m built up area. Includes (53) Residential Buildings, along with (2) Residential Towers, and a Shopping Mall, Health club, 5 Stars Hotel, (22) Chalets, (130) Cabins, and a Food court.



## Crowne Plaza Hotel

**Scope:** Design Consultancy Services

**Client:** SILKTON

**Period of assignment:** 2005

**Location:** Turkey

### Project Description

The Hotel is a 5 star hotel of 20,000 sq.m. Comprising of 220 rooms and a banquet hall. The scope of works include the complete design, preparation of tender drawings and interior design.





## Blu Mirage Resort

**Scope:** Design and Construction Supervision Consultancy Services

**Client:** Pure Real Estate

**Period of assignment:** 2007

**Location:** RAK - U.A.E.

### Project Description

Furnished and unfurnished Apartment Buildings. 129,000 m2 built up area.





## Metropolitan City Center

**Scope:** Design & Supervision Consultancy

**Client:** Habtoor Properties

**Period of assignment:** 2001

**Location:** Sin El Fil – Beirut – Lebanon

### Project Description

The Project is 120,000 m<sup>2</sup> consisting of a shopping Mall and a Hotel of 200 rooms, 2000 sq.m banquet hall, in addition to 6 basements and 36 floor tower. The works included Complete Design, Tender Documents and Construction Supervision





## Riviera Resort

**Scope:** Master Plan Concept Design

**Client:** Osman Al -Aidi – Syria

**Period of assignment:** 2006

**Location:** Lattakia - Syria

### Project Description

Master plan Concept Design for Riviera Resort, 250,000 sq.m plot area and 350,000 sq.m built up area. It includes 5 & 4 stars hotel, residential tower, luxurious villas and town houses, chalets, supermarket and water park.

## Royal Palace Resort (Golden Bay)

**Scope:** Master plan, Complete Design and Tender Documents

**Client:** Olympic Tours – Moscow/Russia

**Period of assignment:** 2007

**Location:** Lattakia - Syria

### Project Description

Master plan, Preliminary & Detailed Design of Royal Palace Resort, 228,000 m<sup>2</sup> plot area and 90,000 m<sup>2</sup> built up area. It includes 5 stars hotel 520 rooms (Spa banquet 750 people), Mall 16 000 total on 6 levels, Chalets – 4 types (studio, 1,2,3 beds, +3 bed, Deluxe (100 – 350 m<sup>2</sup>)), Water park, Diving club, Marina and yacht club, Restaurants, Sports, Infrastructure, and 4 swimming pools.





## 8th Gate – Business & Sales Center

**Scope:** Complete Design, Tender Documents and Construction Supervision

**Client:** EMAAR IGO - Damascus

**Period of assignment:** 2006

**Location:** Yaafour, Damascus - Syria

### Project Description

Design and Supervision of 8 office towers at the Eight Gate, 100,000 sq.m built up area.

## Office towers development at the Eight Gate

**Scope:** Complete Design, Tender Documents and Construction Supervision

**Client:** EMAAR – U.A.E

**Period of assignment:** 2006

**Location:** Yaafour, Damascus - Syria

### Project Description

Design and Supervision of 8 office towers at the Eight Gate, 100,000 sq.m built up area.





## 45 floors office tower, Marina Dubai

**Scope:** Design and Construction Supervision Consultancy Services

**Client:** Al Habtoor – Dubai

**Period of assignment:** 2005

**Location:** Dubai – U.A.E.

### Project Description

The Office Tower of 50,000 m2 comprising of 45 floors, 2 Podiums + GF 2 Basements.





## Villas Pied dans L'eau

### Scope:

**Client:** Hamra Real Estate

**Period of assignment:** 2010

**Location:** Ras Al Khaimah – U.A.E.

### Project Description

The gorgeous 13 water villas feature a unique and breathtaking view, giving you the feeling that your villa is floating on the sea. The Pied Dans L'eau is located at the water's edge, with private sun deck, stairs into the sea and a spectacular view. Works included Complete Design, Tender Documents and Construction Supervision

## Royal Palace ResPalace of his Highness Crown Prince of Fujairah

**Scope:** Preliminary Design

**Client:** His Highness Ruler of Fujairah

**Period of assignment:** 2007

**Location:** Fujairah – U.A.E.

### Project Description

10,000 sq.m built up area of palace construction.



## Dead Sea Golf and Beach resort, Business and Sales Center

**Scope:** Design Development and Tender Documents

**Client:** EMAAR - UAE

**Period of assignment:** 2005

**Location:** Kingdom of Jordan

### Project Description

2800 m2 one story highly decorated and finished business and sales center. The center comprises: sales Hall, sales offices and space for mockup apartments.



## Moscow Hotel and Commercial Center

**Scope:** Preliminary Design

**Client:** SILKTON

**Period of assignment:** 2006

**Location:** Moscow - Russia

### Project Description

Project of 70,000 m2 comprises: 1 Office Tower 21 floors (20000 m2), 1 Hotel (320 RS) 21 floors (20000 m2), Shopping Mall 6000 m2, Parking 18000 m2.





## Sea Front Development Project

**Scope:** Detailed Master Plan in association with ACE (Associated Consulting Engineers) and AS&P of Germany

**Client:** Muscat Municipality – Oman

**Period of assignment:** 2002

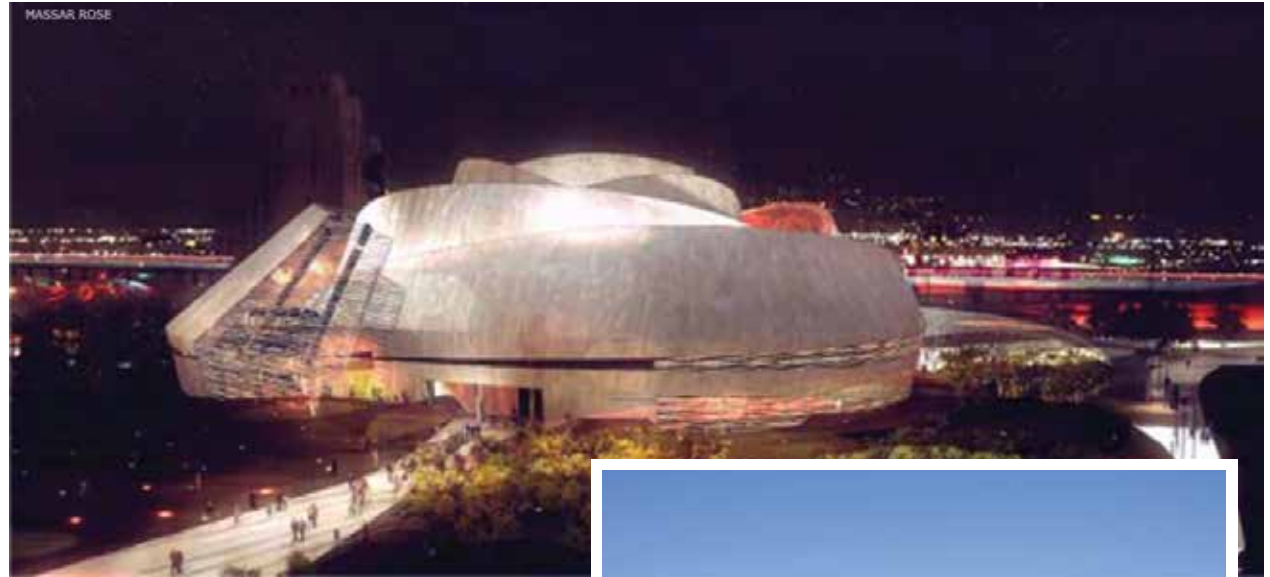
**Location:** Oman

### Project Description

A vital and major project that responds to the distinguished characteristics of the site, which is a strip of the last pieces of developable land along the coastline between SEEB and Muscat, which will be, integrated in the development of nationally important tourism projects. The project extends around 7,000 m of attractive seashore near Muscat stretching from Al-Athaiba to Al-Mawaleh.

It includes 5 and 4 stars hotel, residential & office towers, administration building, villas, supermarket, museum, amphitheater, restaurants, themed village, etc... The total project area is 300ha approximately of which 8ha are reclaimed from the sea.



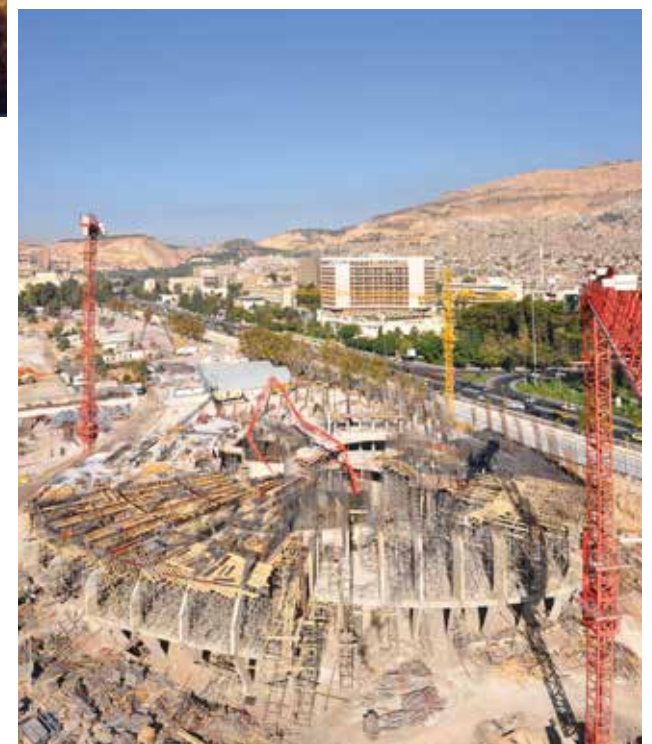


## Massar Rose Children Discovery Museum

**Scope:** Supervision of Construction  
**Client:** Governorate of Damascus Syria  
**Period of assignment:** 2008  
**Location:** Syria

### Project Description

Supervision of Massar Rose project 29'770sq.m plot area that includes a building designed in a form of a Rose 15'400sq.m total built up area surrounded by landscaping areas. The building includes 10 floors where 6 floors were dedicated to various educational Museums. The concept design was done by the International company HLA (Henning Larsen Architects) and the detailed design was developed by ACE (Associated Consulting Engineers) the local company.





## Agora Mall

**Scope:** Preliminary Design  
**Client:** Suburban Development s.a.r.l  
**Period of assignment:** 2004  
**Location:** Lebanon

### Project Description

The project comprises 3 basement level car park decks, 3 levels of retail plus a roof top cinema. The shape of the mall is a traditional dumbbell anchored at the northern and southern ends. The single straight mall is serviced by three major vertical transport hubs in the centre nodes facilitating pedestrian movement between the basement carparking and level 1. All loading facilities are primarily located on the eastern side of the centre.







## JW Marriott Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N6C, with a built-up area of 75,000 m<sup>2</sup>, consisting of two towers housing 573 guestrooms in total, over a multifunctional podium including 3 restaurants, the hotel related FOH and BOH areas in addition to independent private apartments.

## Marriott Courtyard Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2013

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project zone N6B, with a built-up area of 37,300 m<sup>2</sup>, consisting of one tower housing 396 guestrooms, over a multifunctional podium including 3 restaurants and the hotel related FOH and BOH areas.





## Hyatt Place & Hyatt House Hotels

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2013

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project zone N6B, with a built-up area of 33,250 m<sup>2</sup>, consisting of one tower and two hotels housing 266 guestrooms, studios and hotel apartments in total, over a multifunctional podium including 2 restaurants and the hotel related FOH and BOH areas.

## Radisson Blu Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N5, with a built-up area of 24,000 m<sup>2</sup>, consisting of one tower of 25 stories, housing 287 guestrooms, over a multifunctional podium including a parking, 2 restaurants and the hotel related FOH and BOH areas.





## Crowne Plaza Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N5, with a built-up area of 22,000 m<sup>2</sup>, consisting of one tower of 25 stories, housing 287 guestrooms, over a multifunctional podium including 2 restaurants and the hotel related FOH and BOH areas.

## Holiday Inn Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N5, with a built-up area of 21,000 m<sup>2</sup>, consisting of one tower of 26 stories, housing 320 guestrooms, over a multifunctional podium including 3 restaurants and the hotel related FOH and BOH areas.







## Four Points by Sheraton Hotel

**Scope:** Full Architecture & Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N5, with a built-up area of 33,000 m<sup>2</sup>, consisting of one tower of 26 stories, housing 496 guestrooms, over a multifunctional podium including a parking, 2 restaurants and the hotel related FOH and BOH areas.

## Marriott Hotel

**Scope:** Architectural, Engineering Design and shopdrawings services, Interior Architecture shopdrawings in addition to site engineering assistance.

**Client:** JODC (KSA)

**Period of assignment:** 2011

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N2, with a built-up area of 80,000 m<sup>2</sup>, consisting of two towers housing 426 guestrooms in total, over a multifunctional podium including a parking and 3 restaurants along with the related FOH and BOH amenities.



## Master Planning, Architectural & Building Engineering



### Meeza MSI

**Scope:** Design, shop drawings and Architectural fit out design

**Client:** MEEZA

**Period of assignment:** 2016

**Location:** Doha, Qatar

#### Project Description

The project consists of two Tier III Data Centers (DC) and one Command & Control Center (CCC) in addition to 5 remote support offices. Each DC comprises forty dual power input 42U 19" racks mounted on raised floor, cooled via redundant water cooled precision units and fed through isolated UPS configuration via static bypasses. The CCC houses 31 operators' desks distributed in front of two wall screens for property management and monitoring.

## KHOUR AL ZUBAIR POWER PLANT Turbine Inlet Air Cooling Plant and system (TIAC)

**Scope:** Design

**Client:** Ministry of Electricity

**Period of assignment:** 2016

**Location:** Basrah, IRAQ

#### Project Description

Khour al Zubair Power Station in Iraq involves two existing ALSTOM 13D gas turbines, having an 81.2MW capacity each. The scope was to provide a full detailed design study and shop drawings for a cooling system that would cool the inlet air to the gas turbines to increase their efficiency. This specialized technology enables the government to increase the production without interruption of the operation. The design included 3D mechanical model for the mechanical plant rooms and structural design for the steel structure for the filters and piping support. This project consists of installing two chiller plants, composed of 2 chillers each, generating a total of 7000 TR cooling water. These water cooled chillers, will provide the necessary chilled water to the "filter houses", where the turbines inlet air will be cooled to reach a temperature of less than 15deg.C at the turbine suction side.





## Petrorabigh P-II Polymer & Monomer Laboratory

**Scope:** The detailed engineering and design services along the necessary efforts to secure the design approval from Aramco and Sumitomo for the laboratory building and associated above-ground, underground facilities and tie-ins including architectural, HVAC, plumbing and drainage, electrical, fire protection and technical gazes.

**Client:** Saudi Aramco (KSA)

**Period of assignment:** 2014

**Location:** Rabigh, KSA

## MATELEC 220-20-11 KV SUBSTATIONS Ashrafieh, Dahieh and Bahsas

**Scope:** Architectural, structural and mechanical design of three substations Ashrafieh, Dahieh and Bahsas in addition to the coordination between the different trades. DEP was also , the Architect and Engineer of record for the project in charge of obtaining the permit for the three substations. Each substation has 3 x 70 MW HV transformers and ties within an urban context. The challenge was to integrate the highly demanding technical requirements within this context.

**Client:** Matelec (Lebanon)

**Period of assignment:** 2013

**Location:** Lebanon







## NDIA CENTRAL UTILITY PLANTS (CUPs) - CP60 Package

**Scope:** Architectural, Civil and Structural foundation design and shopdrawings, P&ID drawings for fuel oil system and compressed air system, electrical equipment layout and earthing mesh drawings, electrical single line diagrams for 11kV, HVAC and plumbing layouts, piping general arrangement layouts, sectional views, pipe support details, and miscellaneous details in addition to site engineering assistance

**Client:** UDC(Qatar)

**Period of assignment:** 2009

**Location:** Qatar

### Project Description

The project consists of three CUPs serving the New Doha International Airport housing water cooled centrifugal chillers, primary and secondary chilled water circulation pumps, counter flow cooling towers, MV diesel generator sets with remote radiators and medium voltage switchgears and MCCs.

## QATALUM Project - Package T-013 in Mesaieed Industrial City

**Scope:** : Architectural building services design, complete shopdrawings and site engineering assistance

**Client:** QATALUM

**Period of assignment:** 2008

**Location:** Doha, Qatar

### Project Description

The Project consists of five different buildings including a mosque, service building including laboratories, canteen and data centers, administration bldg. and heavy workshop bldg. located within the industrial compound of Qatalum.





## Saudi Railways Project

**Scope:** Complete structural, electrical and mechanical systems design, shop drawings works of trains maintenance complexes and the relevant site infrastructure.

**Client:** Saudi Railways Organization (SRO)

**Period of assignment:** 2008

**Location:** KSA

### Project Description

The project is divided into two sites: Running Repair Shed Complex Al-Malaz (RRS), and Heavy Repair Workshop Al-Kharj (HRW). These facilities are comprised of large steel structure workshops and ancillary buildings used for the maintenance of coaches, inspection, washing plant, stock areas, wheel lathe shed and repair of the trains. project will be supplying a university and a developed area around it. The footprint area of the RRS and the HRW is about 50000 m<sup>2</sup> and 210,000 m<sup>2</sup> respectively. Along with the main services, supporting buildings such as offices, technical areas, Prayer Rooms, warehouses and guard houses are within each complex.

## Integrated district cooling plant in Pearl of Doha

**Scope:** Architectural, civil and structural foundation design and shopdrawings, P&ID drawings, electrical equipment layout and earthing mesh drawings, electrical single line diagrams for 11kV, HVAC and plumbing layouts, piping general arrangement layouts, sectional views, pipe support details, and miscellaneous details in addition to site engineering assistance.

**Client:** UDC / Qatar Cool

**Period of assignment:** 2006

**Location:** Qatar

### Project Description

One of the World's largest District Cooling Plant, with 203m(L)x75m(W)x34m(H) and 48,000 m<sup>2</sup> B.U.A., consisting of 130,000 tons of refrigeration produced by 52 chillers, 52 pumps and 26 cooling towers distributed via 120 ETS & HEX rooms and necessitating 35,000m<sup>3</sup> per day RO plant. The plant main electrical components consist of 170 MVA HV/MV substation (3 nos. 60/50 MVA transformers) supplying through 3 nos. 11 kV feeders 26 nos. 5.9 MVA & 8 nos. 1.6 MVA step down transformers feeding a number of 3.3kV & 415V MCCs.





## Shopping Mall, JODP Zone N3

**Scope:** Architectural, Interior Architecture, Engineering Design and shopdrawings services in addition to site engineering assistance

**Client:** JODC (KSA)

**Period of assignment:** 2011

**Location:** KSA

### Project Description

Two-stories luxurious shopping mall located in Jabal Omar Development Project zone N3, few hundred meters from the Holy Haram, directly accessible from Hilton Convention hotel.

## Shopping Mall, JODP Zone N5

**Scope:** Architectural, Interior Architecture and Engineering Design

**Client:** JODC (KSA)

**Period of assignment:** 2012

**Location:** KSA

### Project Description

Two-stories luxurious shopping mall located in Jabal Omar Development Project zone N5 directly accessible from the Radisson Blu hotel.





## Master Planning, Architectural & Building Engineering



## ISF Tactical Village & Forensic Center

**Scope:** Site Supervision  
**Client:** American Embassy Beirut  
**Period of assignment:** 2013  
**Location:** Aramoun, Lebanon

### Project Description

A training facility for the Lebanese Internal Security Forces (ISF) funded by the American Embassy of Lebanon.

## Abu Dhabi Presidential Place

**Scope:** Shopdrawings  
**Client:** Mosart International  
**Period of assignment:** 2013  
**Location:** Abu Dhabi, U.A.E.

### Project Description

The project is to become the headquarters of the government of United Arab Emirates and to house the offices of the president, the vice president, the Crown Prince and government ministers. The new palace will be constructed on the Ras Akhdar peninsula, near the Emirates Palace Hotel. The palace and related facilities will occupy a site of more than 150 hectares to become the largest administrative center in the United Arab Emirates. ICON/DEP scope consisted in the preparation of the interior design and hardscape shop drawings for an area of 350,000 m<sup>2</sup>.





## **Pershing Luxury Beach Apartments (4B+G+41 & G+6), Dubai Waterfront Plot no. WFMA-B09B2**

**Scope:** Full Architecture & Engineering design

**Period of assignment:** 2008

**Location:** Dubai, U.A.E.

## **Ferretti Luxury Beach Apartments I and II (4B+G+43), Dubai Waterfront Plot no. WFMA-C12A1&C12A2**

**Scope:** Full Architecture & Engineering design

**Period of assignment:** 2008

**Location:** Dubai, U.A.E.





## BORJ AL-SAQR Residential Tower (G+43)

**Scope:** Full design

**Period of assignment:** 2007

**Location:** Ras Al Khaimah, U.A.E

### Project Description

A residential tower of 85,000 m<sup>2</sup> total built-up area consisting of 249 flats, 173m high and 40 stories building including restaurants and health club.

## Olympus Residential Tower (JVC16AHRG002 /2B+G+50)

**Scope:** Full design

**Period of assignment:** 2007

**Location:** Dubai, U.A.E

### Project Description

Located in Jumeirah Village South consisting of 50 stories and 333 flat







## University Of Dammam (UOD) - Female Campus

**Scope:** Master Planning and design from concept up to design development phase for all architectural and engineering trades

**Client:** University Of Dammam (UOD)

**Period of assignment:** 2011

**Location:** KSA

### Project Description

An extension of the existing male campus extending over 1,000,000 m<sup>2</sup> of reclaimed land & consisting of a medical faculty, a business administration faculty, a design faculty, building administration, residential units for the staff and students and all supporting utilities.

## AL-BROOQ RESIDENTIAL TOWER (2B+G+M+43)

**Scope:** Full Design

**Client:** H.E. Abdul Rahman Al Attiyah

**Period of assignment:** 2007

**Location:** Qatar

### Project Description

A luxurious residential tower of 43 stories consisting of 258 flats located in the West Bay area of Doha.



## Makkah Holy Mosque Hospital (MHMH)

**Scope:** : Design review for all systems with regard to the concept as well as full electrical power calculations on ETAP software, acoustic calculations and a comprehensive design review report, in addition to the shopdrawings development of the risers and all technical spaces.

**Client:** Dar Al-Handasah (Shair & Co.)

**Period of assignment:** 2015

**Location:** KSA

### Project Description

The Makkah Holy Mosque Hospital is a full-service hospital located in Makkah approximately one kilometer north of the Grand Mosque (Masjid al-Haram). Makkah Holy Mosque Hospital consists of a podium of 9 floors comprising outpatient services, hospital support and parkings. The Project consists as well of an inpatient bed tower of 5 floors rising above the podium and a residential tower of 13 floors rising above the bed tower with a Helipad on top of tower.



## Master Planning, Architectural & Building Engineering



### Ecuador Island in the World

**Scope:** Concept Design  
**Client:** ACI (UAE)  
**Period of assignment:** 2008  
**Location:** Dubai, U.A.E.

#### Project Description

In one of the World's most prestigious projects, the Ecuador island consists of the “PACHA” Club as the core of its development along with residential developments, at the site perimeters, including four stories serviced apartments, two stories independent villas, water bungalows and a resort type hotel of two stories with a variety of restaurants in different locations.

### Khasab Family Resort

**Scope:** Master Plan and Infrastructure studies  
**Client:** Majan Gulf Properties (Oman)  
**Period of assignment:** 2006  
**Location:** Oman

#### Project Description

Consisting of a residential area, leisure spaces, hotels, hospitality and recreational areas in the attractive tree-lined mountain area.







## Hilton Convention Hotel

**Scope:** : Architectural, Engineering Design and shopdrawings services, Interior Architecture shopdrawings in addition to site engineering assistance.

**Client:** JODC (KSA)

**Period of assignment:** 2011

**Location:** Makkah, KSA

### Project Description

Located in Jabal Omar Development Project Zone N3, with a built-up area of 128,000 m<sup>2</sup>, consisting of two towers housing 783 guestrooms in total, over a multifunctional podium including a parking, a convention hall for 1300 seats, an auditorium of 292 seats, 4 restaurants along with the related FOH and BOH areas.

## La Cigale Hotel, Doha Oasis

**Scope:** : design from concept to tender

**Client:** Halul Real Estate Investment Company (Qatar)

**Architect:** Nabil Gholam Architecture & Planning (Lebanon)

**Period of assignment:** 2011

**Location:** Qatar

### Project Description

Located in the luxurious Doha Oasis complex, consisting of one tower of 33 stories, housing around 130 luxurious guestrooms and the hotel FOH and BOH areas. The hotel also hosts various international cuisine restaurants with state of the art kitchen.





## Doha Oasis mixed use complex

**Scope:** Full Design

**Client:** Halul Real Estate Investment Co. (HREIC)

**Period of assignment:** 2011

**Location:** Qatar

### Project Description

Doha Oasis is a mixed-use development project with a total built up area of approximately 440,000m<sup>2</sup> and is currently under construction in the Mushaireb district in the heart of Doha, Qatar. The project is composed of 5 main components: (1) an elliptically shaped high end residential buildings compound sitting on (2) a four-story commercial/retail podium, (3) an indoor theme park, (4) a standalone hotel tower operated by La Cigale and (5) four basement levels of parking and support facilities.

## EMIRATES IDENTITY AUTHORITY in Service Point Building

**Scope:** Full design

**Period of assignment:** 2006

**Location:** Abu Dhabi, U.A.E.

### Project Description

The central headquarter for Al-Ain Identity Cards system consisting of a (B+G+4) building with a total of 20,000 m<sup>2</sup> built-up area.



## List of some similar projects

**Project name:** Holiday Inn Crown Plaza

**Client:** EPICO - Dubai

**Period of assignment:** 1990

**Scope:** Structural Design, Mechanical & Electrical Design, Supervision of Construction

**Project name:** Al-Rimal Furnished Apartment Building

**Client:** Anis Al-Jallaf - Dubai

**Period of assignment:** 1972

**Scope:** Structural Design, Mechanical & Electrical Design, Supervision of Construction

**Project name:** Al-Darwish Building

**Client:** Al-Darwish Contracting Company - Abu Dhabi

**Period of assignment:** 1972

**Scope:** Architectural Design, Structural Design, Mechanical & Electrical Design, Supervision of Construction

**Project name:** Qatar Navigation Tower

**Client:** Qatar Navigation Authority

**Period of assignment:** 2004

**Scope:** Concept Design Competition

**Project name:** Al Taif Master Plan

**Client:** Al Maknoon Development Company – KSA

**Period of assignment:** 2004

**Scope:** Master Plan Concept Design

**Project name:** Amman City Center

**Client:** King Hussein Office - Jordan

**Period of assignment:** 2005

**Scope:** Design Competition

**Project name:** Bata Airport

**Client:** PAC International – Bata, Guinea

**Period of assignment:** 2002

**Scope:** Conceptual and Preliminary Design

**Project name:** Salon Presidential – Bata Airport

**Client:** Government of Guinea

**Period of assignment:** 2004

**Scope:** Complete Design and Tender Documents

**Project name:** Central Park

**Client:** PAC International – Bata, Guinea

**Period of assignment:** 2005

**Scope:** Conceptual Master Plan

**Project name:** OUA Convention City

**Client:** PAC International – Bata, Guinea

**Period of assignment:** 2000

**Scope:** Conceptual Master Plan

**Project name:** Al Taif Master Plan

**Client:** Al Maknoon Development Company – KSA

**Period of assignment:** 2004

**Scope:** Master Plan Concept Design

**Project name:** Ajman City Center

**Client:** MED - Dubai

**Scope:** Concept Design in association with MED - Dubai

**Project name:** Al Taif Master Plan

**Client:** Al Maknoon Development Company – KSA

**Period of assignment:** 2004

**Scope:** Master Plan Concept Design

**Project name:** Harasta Shopping Center

**Client:** MED – Dubai

**Period of assignment:** 2006

**Scope:** Concept Design in association with MED - Dubai

**Project name:** Khams Shamat Visitor Gallery

**Client:** Majed Al Futaim - Syria

**Period of assignment:** 2010

**Scope:** Detailed Design in association with ACME Architects - England

**Project name:** Ritz-Carlton King Abdullah International

Conference Center Jeddah (KAICCCJ) Hotel

**Client:** Saudi Government, Ministry of Finance

**Period of assignment:** 2008

**Scope:** Structural and design from concept to construction documentation phases in addition to the construction follow-up, shopdrawings development and engineering assistance

**Project name:** Westin Hotel

**Client:** JODC (KSA)

**Period of assignment:** 2014

**Scope:** Design and shopdrawings services in addition to site engineering assistance

**Project name:** Sheraton Hotel

**Client:** JODC (KSA)

**Period of assignment:** 2014

**Scope:** Design and shopdrawings services in addition to site engineering assistance

**Project name:** Swissbell Salalah Resort

**Client:** Royal Court Affairs - Sultanate of Oman

**Period of assignment:** 2012

**Scope:** Concept Design

**Project name:** Intercontinental Hotel Jeddah,

Renovation design works

**Client:** Intercontinental Hotel, Jeddah

**Period of assignment:** 2016

**Scope:** Facades and site landscape/hardscape complete design along with the Design Development (DD) and Construction Documentation (CD) of the Interior Design of the hotel guestrooms, corridors, and public areas (FOH).



## List of some similar projects

**Project name:** Al Bustan Hotel and furnished appartments complex

**Client:** Majan Gulf Properties (Oman)

**Period of assignment:** 2006

**Scope:** Full architectural and engineering design

**Project name:** Sofitel, Best Western & Millennium Hotels

**Client:** JODC (KSA)

**Period of assignment:** 2014

**Scope:** Design review, engineering technical management and structural shopdrawings development

**Project name:** IBN SINA University Hospital (600 beds)

**Client:** Ministry of Higher Education and Scientific Research

**Period of assignment:** 2014

**Scope:** Structural, design and construction documentation phases in addition to the construction follow-up, shopdrawings development and engineering secondment

**Project name:** BABA HASSEN - Pediatric Hospital

**Client:** Health & Population Administration, Algeria

**Period of assignment:** 2010

**Scope:** Concept Design

**Project name:** Rehabilitation of Pump Station

**Client:** USAID / Lebanon Water and Wastewater Sector Support (LWWSS)

**Period of assignment:** 2012

**Scope:** Design and Supervision

**Project name:** Yemen 127 MW Power Plant

**Client:** NPWP (NSA)

**Period of assignment:** 2014

**Scope:** Engineering services and assistance in the contracting bid of a 127MW Gas Turbine with all the BOP systems and the relevant local control in addition to the design of HFO tanks farm and the fuel supply system

**Project name:** ERBIL 33/11 kV Mobile Substation Units

**Client:** Regional Ministry of Electricity in Kurdistan

**Period of assignment:** 2012

**Scope:** Full Architecture & Engineering design

**Project name:** Thika 87 MW HFO/DFO Thermal Power Plant

**Period of assignment:** 2011

**Scope:** Design for the buildings

**Project name:** Homs Substation Project

**Client:** Matelec (Lebanon)

**Period of assignment:** 2010

**Scope:** Full Architectural, Structural, MEP, civil works Design and detailed construction drawings

**Project name:** Najaf 55.3 MW Power Plant

**Client:** Ministry of Electricity, Iraq

**Period of assignment:** 2009

**Scope:** Civil works and structural foundation design in addition to the site engineering assistance

**Project name:** SOCIAL DEVELOPMENT CENTER

in Qatar Foundation Education City

**Client:** Qatar Foundation

**Period of assignment:** 2008

**Scope:** Design

**Project name:** CENTRAL LIBRARY

in Princess Nora Bint Abdulrahman University (PNU)

**Client:** Saudi Government, Ministry of Finance

**Period of assignment:** 2008

**Scope:** Shopdrawings and engineering secondment

**Project name:** Najaf Olympic Stadium

**Client:** Ministry of Youth & Sports, Iraq

**Period of assignment:** 2010

**Scope:** Concept design

**Project name:** VOX CINEMAS - Doha Oasis

**Client:** VOX Cinemas

**Period of assignment:** 2016

**Scope:** Consultant

**Project name:** Toyota ALJ vehicle processing center& logistic hub

**Client:** ALJ TOYOTA (KSA)

**Period of assignment:** 2015

**Scope:** Architectural and Engineering Design assistance and review, full electrical design, quantity surveying and cost estimation

**Project name:** KOALA Commercial Center

**Client:** KOALA Ghana

**Period of assignment:** 2014

**Scope:** Complete Design

**Project name:** Beirut business center (BBC)

**Client:** Real Estate Developers (RED)

**Period of assignment:** 2013

**Scope:** Full Architecture & Engineering design

**Project name:** Kaslik Commercial Complex

**Client:** Kaslik 1766 S.A.L.

**Period of assignment:** 2013

**Scope:** Concept Design

## List of some similar projects

**Project name:** Al Mawaleh Compound

**Client:** Al Noumani Group

**Period of assignment:** 2012

**Scope:** Concept Design

**Project name:** Zaatar W Zeit, Deek Duke, Bar  
Tartine & Roadster

**Client:** Breakfast & Co.

**Period of assignment:** 2010

**Scope:** Full design and site supervision

**Project name:** Toyota National Distribution Center

**Client:** GESTIM (Lebanon)

**Period of assignment:** 2007

**Scope:** Full design

**Project name:** La pointe noire, Harbor administration

**Client:** Maison Sans Frontières (MSF)

**Period of assignment:** 2009

**Scope:** Full Architecture & Engineering design

**Project name:** ROC DE TCHIKOBO - La Pointe Noire

**Client:** Maison Sans Frontières (MSF)

**Period of assignment:** 2009

**Scope:** Master Planning & animation

**Project name:** Vinnitsa Logistic City

**Client:** Government of Vinnitsa

**Period of assignment:** 2007

**Scope:** Conceptual Master Plan and Infrastructure studies

**Project name:** TECHNOPARK

**Client:** Government of Vinnitsa

**Period of assignment:** 2006

**Scope:** Complete Master Planning & Market Research Analysis

**Project name:** Al-Hada Villa Compound

**Client:** Prince Khaled Ben Salmen Bin Abdelaziz

**Period of assignment:** 2016

**Scope:** Concept, Schematic, detailed Design and  
tender documentation for Architecture, Interior Design,  
Structural and design services

**Project name:** Art Oasis, Riyadh

**Period of assignment:** 2015

**Scope:** Design and tender package preparation

**Project name:** Princess Noura New Guest Villas

**Client:** Urban Design Group (KSA)

**Period of assignment:** 2015

**Scope:** Architecture and interior design development,  
infrastructure, structural and design services,  
shopdrawings, project management and site supervision

**Project name:** Princess Noura Beach House

**Client:** Urban Design Group (KSA)

**Period of assignment:** 2014

**Scope:** Architecture and interior design development,  
infrastructure, structural and design services, shopdrawings,  
project management and site supervision

**Project name:** Jamhour Villas Compound

**Client:** La Villa

**Period of assignment:** 2009

**Scope:** Full Architectural and Engineering Design from  
concept to tender in addition to site supervision

**Project name:** MUHRA 1&2 (JVC13BMRA007 &  
JVC13BMRA007 /2B+G+4)

**Period of assignment:** 2007

**Scope:** Full design

**Project name:** Baghdad Private Villas

**Client:** Mr. Saadi Saihood

**Period of assignment:** 2013

**Scope:** Design and Supervision

**Project name:** La Pointe Noire - SCI House  
Apartments

**Client:** Maison Sans Frontières (MSF)

**Period of assignment:** 2008

**Scope:** Full Architecture & Engineering design

**Project name:** Silicon Height Residential Building  
(DSO 12-032 /B+G+8)

**Period of assignment:** 2007

**Scope:** Full design

**Project name:** Al Mannaai residential building  
(G+12)

**Period of assignment:** 2007

**Scope:** Full design

**Project name:** Majan Villas Compound

**Period of assignment:** 2006

**Scope:** Master Planning, Architecture & Engineering  
Design in addition to construction supervision









# Water Resources

# Water Resources

## Jabel Jais Flood Attenuation Dams

**Client:** Public Services Department Ras Al Khaimah UAE

**Period of assignment:** 2020

**Location:** Northern Emirates - UAE

**In collaboration with:** ERECC

### Background:

Jabel Jais is 1,934m high above sea and the UAE's highest mountain forms part of Hajar mountains in the eastern part of Ras Al Khaimah, United Arab Emirates and Sultanate of Oman. Wadi Jais is a major natural depression within the mountain range that collates and drains rainwater. The Government of Ras Al Khaimah, through their Works Agency, intends to construct two dams in predefined locations along the Wadi. These provisional locations are shown in Figure (1) above. They issued an invitation for tender to specialist consultants to carry out the relevant investigations, studies and designs in order to prepare tender contract documents for the project. The two dams Bi8 and Bi10 are proposed in Jabel Jais region aim to attenuate surface water and protect the proposed Jabel Jais Road upgrade road and Ras Al Khaimah City from floods.

CONSER conducted on the 14th of July 2021 a site visit to Jabal Al Jais by a team of experts in the fields of Environment and Geology. The team visited the main wadis and its tributaries that intersect and flow along Jabal Al Jais new road 4 kilometers downstream the proposed dams. The visit was also extended to include 15 kilometers of road above the dam Bi10.

### The aim of the site visit was to:

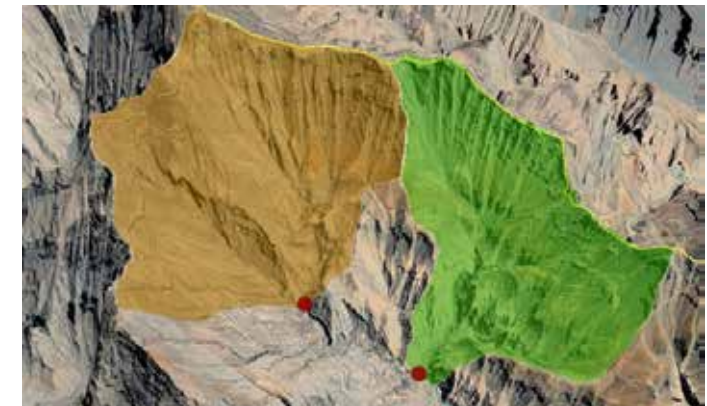
- Assess the existing hydraulic structures under the road.
- Determine the watermarks and scour depths in the areas where the streams pass in.
- Assess the existing protection measures in the wadi.

### Scope:

- Analysis of Collected Data.
- Dam type selection based on the best and reliable controlling factors.
- Detailed geotechnical analysis and design.
- Provide Dam drawings.



*Location of the Proposed Dams*



*Watersheds contributing flow to dams Bi8 and Bi10*

# Water Resources

## Design and Implementation of Stormwater Harvesting and Flood Protection Facilities

**Client:** Ministry of Energy & Infrastructure

**Period of assignment:** 2019

**Location:** Northern Emirates - UAE

**In collaboration with:** ERECC

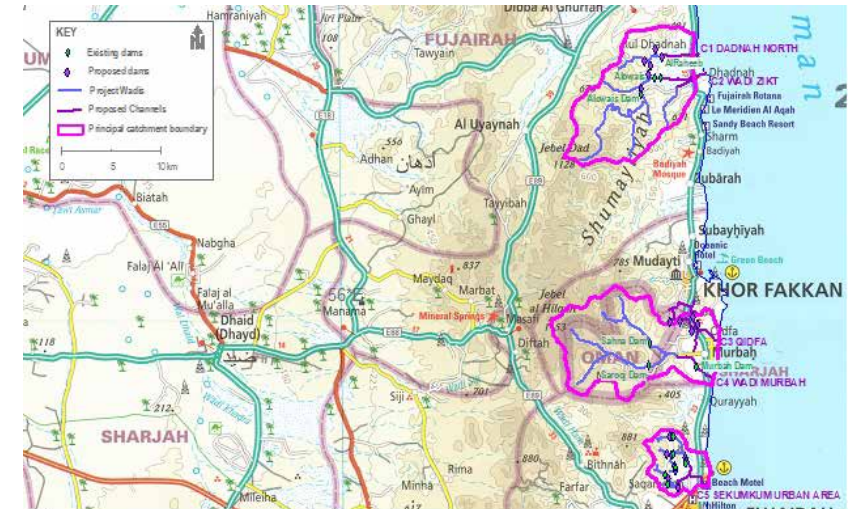
### Background:

There are five wadi systems in all, which discharge along new proposed drainage channels [C1-5] into the Gulf of Oman. Wadi Zikt and Wadi Murbah are the two high mountain catchments which will require significant storage to attenuate floods. The conceptual design reports mention that existing dams on these two wadis, identified as Al Owais Dam and Murbah Dam, need to be raised, but there is no detail regarding the feasibility of achieving this. These two wadi basins therefore, require a full-blown feasibility study to investigate dam options and outline the scheme(s) which will achieve the intended flood mitigation and can then be taken forward to engineering design.

The other wadis [Dadnah North, Qidfa and Sakamkam] drain small coastal catchments which essentially form part of the urban drainage system for clearing stormwater across the narrow coastal plain. The conceptual design studies identify numerous small dams in close proximity near the edge of the urban areas [total of 17 proposed in addition to existing six dams].

### Scope:

- Refinement of hydrological modelling, particularly for the larger two wadi basins, with improvement of rainfall data representation, climate change scenarios and PMF calculation.
- Detailed study of increasing the storage capacity of Murbah and Al Owais Dams, and search for alternative dam sites in these wadi basins, including offline flood attenuation reservoirs.
- Critical analysis for the recommendations of the concept report at Sakamkam.
- Geotechnical and geological assessment of storage sites and proposed channel routes.
- Construction of hydraulic models for each wadi system to map inundation and design drainage channels, including hydraulics of structures [culverts, drops, bends], dam breach studies and inundation mapping, with Particular attention to boundary conditions for sea outlet taking into consideration tides, wind and wave action
- Preliminary engineering design.
- Detailed engineering design and tender documentations.



Location of the Proposed East Coast Dam Project Areas



Overview of Dadnah Proposed Layout B



Overview of Murbah-Qidfa Proposed Layout



Overview of Sakamkam Proposed Scheme



# Water Resources

## Land Management and flood protection in the Wadi Shaam Basin

**Scope:** Flood risk and erosion protection study

**Client:** Government of Ras Al Khaimah

**Period of assignment:** 2013

**Location:** Northern Emirates - UAE

**In collaboration with:** WRA

### Background

Wadi Shaam is the most northerly wadi in the Emirate of Ras Al Khaimah, draining high mountains along the Musandam border, flowing directly through the small coastal town of Al Qir. There is a small recharge dam in the centre of the basin, and other breaker weirs which slow down surface runoff from steep rocky terrain after intense rainfall, inducing infiltration to groundwater rather than the rapid conveyance of the floodwaters into the sea.

### Scope of Work

Work involved hydrology and groundwater appraisal to assess the impact of floods, recharge and erosion in Wadi Shaam, so that planned expansion of the urban area and farming activities may proceed with an appropriate knowledge of the risks and extent of protection measures required. Increased numbers of people living in the wadi valley and coastal plain are at risk when flooding.

### Results

The Shaam Basin is dominated by grey dolomitic limestone with of the Musandam Group, with broad gravel fans and a flat alluvial corridor which start abruptly at the base of a massive limestone wall at the eastern end of the basin. Flood estimates included simulation of the 100 year flood for the using an MSF [Modified single Flow] model developed at Zurich University to predict the result of natural floods and also a dam breach. Erosion in the basin and dam sedimentation was simulated using GLEAMS [Groundwater Loading Effects of Agric Management Systems] predicting sediment load for different combinations of slope, land cover and geology which were mapped on a grid cell basis using ArcGIS and DTM supplied by the client. Mean annual sediment loads were calculated up to 33kg/ha. Slope stabilisation features were designed to minimise erosion and entry of sediment into the wadi channels, including netting, construction of concrete dykes, geo and bio-engineering solutions at key locations. Particular attention was given to stabilisation of loose talus, reduction of the down-valley movement of alluvium and gravel, and prevention of rockfall where close to highways or residential areas. Capparis cartilaginea was considered for erosion control, found naturally at a number of locations in Wadi Shaam, growing on rock and scree. In addition to using local vegetation, introduction of Carpobrotus edulis or similar species may be appropriate to bind together loose alluvial deposits.



*Flood discharge at Shaam Dam 1*



*MSF model output of 100 year flooded areas*



*Goats on massively mobile limestone scree slopes*



*Goats on massively mobile limestone scree slopes*



## Water Resources



*Lake at Wadi Shawkah Dam*

### Safety Review of Four Wadi Dams in the Hajar Mountains of United Arab Emirates

**Scope:** Review of geotechnical, hydrogeological and hydrological characteristics of existing dams, providing certification of dam safety

**Client:** UAE Ministry of Environment and Water

**Period of assignment:** 2010

**Location:** Dubai - UAE

**In collaboration with:** WRA

#### Background

WRA teamed up with Reservoir Safety Services Ltd and Conser Consulting Engineers to carry out a review of four operational dams in the Hajar Mountains: Tawiyaeen, Wurraya, Sifuni and Showkah. Potential safety problems were highlighted relating to leakage, settlement and hydrology, listing action and remedial measures required to ensure that dam safety is maintained.

#### The WRA Assignment

The assignment included field reconnaissance and visits with the director of dams, Salim Akram, and a desk review of documentation at the offices of the Ministry of Environment and Water. Whilst Wadi Shawkah was full, Wadi Tawiyaeen was empty and over two metres of accumulated sediment was being removed from the reservoir basin. Certificates of dam safety were provided on completion of the report and inspection. The report summarised the findings of the inspection and included recommendations for operation, maintenance, supervision and monitoring of the reservoir that should be carried into effect as soon as is practicable.

#### Conference on Dam Safety

The team members also spoke at a conference organised by the client in the Municipality of El Ain, delivering papers on flood estimation for wadi catchments and the dams in UAE, and international practice in the monitoring and supervision of dam safety.



*Desilting Operations at Wadi Tawiyaeen Dam*



*Spillway natural rock-chute and reinforced concrete stilling basin at Wadi Wurraya Dam*



# Water Resources

## Sayhut & Nouja Inspection and Safety Review of Recharge Dams in the Hajjar mountainsd Dam feasibility Studies, Yemen

**Scope:** Review of geotechnical, hydrogeological and hydrological characteristics of 10 existing recharge dams, providing an action list and report for dam safety certification on completion.

**Client:** Department of Dams

**Period of assignment:** 2010

**Location:** Northern Emirates, UAE

**In collaboration with:** WRA

### Background

WRA-CONSER were commissioned to carry out a review of the condition and safety of selected dams: Tawiyacen, Wurraya, Sifuni, Shawkah, Ham B, Ham C, Hayl, Mai, Buraq and Muzaira. Potential safety problems were highlighted relating to leakage, settlement and hydrology, listing action and remedial measures required to ensure that dam safety is maintained.

### The WRA Assignment

The assignment included field reconnaissance and visits with the Director of dams, Salim Akram, and a desk review of documentation at the offices of the Ministry of Environment and Water. The work was supported by a review of satellite imagery to assess catchment conditions and new developments downstream of the dams. Sifuni Dam was inspected in 2010, and a return visit was made to assess the causes of high level of seepage through the armoured embankment. Certificates of dam safety were provided on completion of the report and inspection. The report summarised the findings of the inspection and included recommendations for operation, maintenance, supervision and monitoring of the reservoir that should be carried into effect as soon as is practicable. The assignments were carried out by Paul Holmes, Ian Carter and Andy Sheerman-Chase, with the support of the client's and CONSER engineering staff.

### Talks on Dam Safety in Fujairah and Al Ain

The team members also spoke at a conference organised by the client in Al Ain Municipality on 6 December 2010, delivering papers on flood estimation for wadi catchments and the dams in UAE, and international practice in the monitoring and supervision of dam safety. Further presentations were made at a seminar in Fujairah for MOEW engineers, on dam safety and international standards, on 28 November 2011.



*Sifuni Dam 1*



*The Inspection team at Wadi Mai*



*Measuring see page at the V-Notch downstream of Sifuni Dam*



*Wadi Hayl fort: Historical residence of the emirates of Fujairah. Inspection was carried out of Wadi Hayl dam just downstream*

## List of some Water Resources Projects

**Project name:** Small Groundwater Recharge  
Dams at Wadi Sahtan (Dams 1 & 2) in Wilayat Rustaq  
**Location:** Sultanate of Oman

**Project name:** The Construction of Dams and Recharge  
Facilities in Several Wadis, Contract No. 114/2001  
**Location:** U.A.E.

**Project name:** The Construction of Dams and Recharge  
Facilities in Wadis HAM and AL-HAIL, Contract No. 44/2001  
**Location:** U.A.E.

**Project name:** The Construction of Dams and Recharge Facilities  
in several Wadis, Contract No. 91/2000  
**Location:** U.A.E.

**Project name:** The Construction of Dams and Recharge Facilities  
in several Wadis, Contract No. 98/3  
**Location:** U.A.E.

**Project name:** Dam Maintenance and Performance Monitoring Project  
**Location:** U.A.E.

**Project name:** Ajman Sewage & Sewerage Scheme, Contract 2, Foul  
Sewerage, Town Center  
**Location:** U.A.E.

**Project name:** Ajman Sewage & Sewerage Scheme, Contract 8, Foul  
Sewerage Network & House Connections; Gurf, Zahra, Hamidiya & Muhat Areas  
**Location:** U.A.E.

**Project name:** Al-Ain Storm Water Drainage & Sewerage Scheme, Low  
Cost Housing Areas  
**Location:** U.A.E.

**Project name:** Abu-Dhabi Storm Water Drainage & Sewerage Scheme,  
Low Cost Housing Areas  
**Location:** U.A.E.

**Project name:** Abu-Dhabi Storm Water Drainage & Sewerage Scheme  
**Location:** U.A.E.

**Project name:** Abu-Dhabi Defence Force Residential Area  
**Location:** U.A.E.

**Project name:** Review and Preparation of Design  
Technical Studies and Supervision of Sharm and  
Bidya Basins Dams  
**Location:** U.A.E.

**Project name:** Review and Preparation of Technical Design and Supervision  
of the Construction of Koob and Daid Dams  
**Location:** U.A.E.



# Building Information Modeling (BIM)



## Building Information Modeling (BIM)



CONSER Focuses on providing sustainable design and visualization using BIM and digital technology.

We at CONSER had the privilege of participating in iconic projects such as Warner Bros, Doha Red Line Metro, and Wafra.

We as a BIM Management, our main aim was to create seamless workflow through the association of BIM Methodology. Identify and implement the BIM strategy to ensure standards Monitor, review and report BIM compliance against the agreed BIM requirements. We developed and maintain the post contract BIM Execution Plan (BEP) and quality of deliverables .











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