



“Support with Value”



*Electro-Mechanical Consultants*  
**Grade (A)**

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## **I**ntroduction

DMG (previously known as R&A Design Team) is a consultant office specialized in Electro-Mechanical building services, working with architectural offices on variety of different type of projects since 1997.

DMG assures proper coordination between building and services through multi-disciplinary teams working in the divisions: power & low current, air conditioning, ventilation, fire-fighting and plumbing.

The team worked on a variety of projects including office buildings, hotels, industrial and residential buildings.

We are using CAD systems in the design of multi-size projects. The clients' needs and budget are taken into consideration and the advance technology is proposed and developed.

DMG announces that is now qualified consultant firm (Grade "A") for Electro-Mechanical consultant services in Qatar. DMG is fully ready to help customers all around Doha, Qatar & the entire Gulf region with their services based upon experience for more than 20 years in the fields of Design, Re-Design, Workshop-drawings, Supervision, Project-Management or Value Engineering.

## **E**ngineering Disciplines

### **Design work:**

Starting from design concept, calculation, preliminary design and working drawings as well as the preparation of tender documents related of the following electrical and mechanical services.

#### **- Electrical Design**

- Power Systems
  - Medium Voltage Switch Gear
  - Medium Voltage Ring Main Units
  - Power Transformers
  - Standby Emergency Generators
  - Main Low Voltage Distribution Boards
  - Power and Lighting Panelboards (Normal and Emergency)
  - Power Distribution Network
  - Static Uninterrupted Power Supply
  - Grounding and Bonding System
  - Protection of Structures Against Lightning
  - In-door Lighting Installations (Including Lighting Controls)
  - Outdoor Lighting Installation (Landscape and Façade)
  - Power Network Related to Mechanical Systems
  - Miscellaneous Electrical Devices
- Low Current System
  - Fire Detection and Alarm System
  - Access Card Control System
  - IP Telephone and Data Network
  - PABX and Telephone Network
  - Data Networking Active Component System
  - Closed Circuit TV System [Video Surveillance]
  - Public Address and Sound System
  - IPTV System
  - Audio Visual System
  - Master Antenna TV System
  - Intrusion System
  - Video Conference System
  - Parking Access Control
- Mechanical Transportation System [Lifts]

- Electrical Infrastructure
  - Prime Power Plant
  - Medium Tension Distributor
  - Medium Voltage Network (MV Cables)
  - Sub-Station including Transformers
  - Main Distribution Boards
  - Low voltage Network
  - Grounding and Bonding System
  - Out Door Lighting (Street and Landscape)
  
- **Mechanical Design**
  - Central Air Conditioning Systems
    - Condenser Water Pumps
    - Air Cooled Chillers
    - Water Cooled Absorption Gas Chillers
    - Water Cooled Chillers
    - Cooling Towers
    - Chilled Water Pumps
    - Duct Design
    - Pipe Design
    - Air Handling Units
    - Fan Coil Units
    - Load Calculations
    - BMS [Building Management System]
  - Air Conditioning Systems
    - Package Units
    - Split Units
  - Ventilation Systems
    - Industrial Ventilation
    - Domestic and Kitchen ventilation Systems
  - Fire Fighting
    - Fire Pumps
    - Fire Cabinets
    - Sprinkler Systems
    - FM-200 and CO2 Systems

- **Plumbing Design**

- Buildings Services
  - Water Tanks and Booster Pump Sets
  - Cold and Hot Water distribution Systems
  - Drainage Collection
  - Swimming Pools
  - Kitchen Services
- Infrastructure
  - Water Supply Networks
  - Drain and Rain water Collection
  - Lifting Stations
  - Fire Fighting Networks
  - Irrigation Networks
  - Infrastructure Utilities
  - Desalination Plants
  - Sewage Treatment Plants
  - Boiler Rooms
  - Laundries

### **Work-shop Drawings:**

- With **DMG** experience and knowledge, we can assure the Best coordination between different Electro-Mechanical tribes.
- In the sophisticated systems in buildings, the workshop drawings needs highly technical Engineers to coordinate between different services inside the buildings as rerouting cable trays and changing duct sizes, it was not only drawing, we as well revise submittals, and revising the entire design

### **Site Supervision**

### **Value Engineering**

### **List of selected Projects carried on by DMG in the next few pages>>>**

\*You can see more projects carried by DMG office on the website: [www.dmg-eg.com](http://www.dmg-eg.com)

**Project:** Centurion Petroleum Corporation Office building- new Cairo.

**Owner:** Centurion Petroleum Corporation Office building- new Cairo.



### Description

8 storey office building to accommodate centurion petroleum corporation offices in Cairo. Built up Area 14000 m<sup>2</sup> including management offices, meeting rooms information Technology rooms and visualization rooms.



### Scope of Service

Includes design of Electro-Mechanical systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, UPS systems, indoor and outdoor lighting.

Mechanical Design: Including central air conditioning systems, VAV diffusers, computerized A/C units, fire fighting system with booster pumps and sprinkler system, drainage and water supply system and BMS (building management system).

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**Project:** Halliburton New Head Office – Kattamia

**Owner:** Halliburton USA.



### Description

2 storey office building to accommodate HALLIBURTON offices in CAIRO.  
Built up Area 4000 m<sup>2</sup>.



### Scope of Service

Includes design of Electro-Mechanical systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, UPS systems, indoor and outdoor lighting.

Mechanical Design: Including central air conditioning systems, VAV diffusers, computerized A/C units, fire fighting system with booster pumps and sprinkler system, drainage and water supply system and BMS (building management system).

**Project: Travco Office Building, Hurghada**  
**Owner: Travco Group**



### Description

3 storey building including: main reception, chair-men section, meeting room, conference room, multipurpose hall and offices of various categories for the staff.

### Scope of Service

Includes the Design of Electro-Mechanical systems, including transformers and panel boards, public address system, and indoor, outdoor lighting. While in mechanical system package units and water drainage and supply systems.



**Project: Travco Office Building, Sharm El- Sheikh**  
**Owner: Travco Group**



### Description

3 storey building including: main reception, chair-men section, meeting room, conference room, multipurpose hall and offices of various categories for the staff.



### Scope of Service

Includes the Design of Electro-Mechanical systems, including transformers and panel boards, public address system, and indoor, outdoor lighting. While in mechanical system package units and water drainage and supply systems.

Scope of service

**Project:** Arado (Arab Administration Development Organization)

**Owner:** Arado (Arab Administration Development Organization)

**Architect:** CDC ( Dr. Abd El Haleem Ibrahim)

### Description

2 towers, 9 storey building and seven storey building having first basement (Conference hall plus three multipurpose halls), second basement (car park), ground floor (reception, library), in common, then different in the other floors.



### Scope of Service

Includes design of Electro-Mechanical systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, telephone network, fire detection and fire alarm systems, UPS systems, indoor and outdoor lighting.

Mechanical Design: Including central air conditioning systems (4 air cooled chillers), with variable speed pumps, VAV diffusers, computerized A/C units, fire fighting system with booster pumps and sprinkler system, drainage and water supply system.

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**Project:** Smash Tennis Academy

**Owner:** Omar Makram Partners

**Architect:** Maqd Massara

### Description

It Has 7 Tennis Playing Courts And 3 Storey Multi-Purpose Building, Swimming Pool, Squash Court, Restaurant Building And Two Tennis Courts.

### Scope of Service

Includes design of Electro-Mechanical systems.

With the court lighting and play ground irrigation systems and swimming pool heating systems and fountains.





**Project:** BNP Headquarter New Cairo.

**Owner:** BNP.

**Contractor:** ORASCOM



### Description

3 Basements and 6 storeys office building including.

### Scope of Service

Includes workshop drawing for the entire building.

In the sophisticated systems in building, the workshop drawings need highly technical Engineers to assemble the co-ordination between different services inside the buildings as rerouting cable trays and changing duct sizes, it was not only drawings we as well revising submittals, revising the entire design.



**Project:** EFG Hermes Headquarter in New Cairo.

**Owner:** EFG Hermes

**Contractor:** ORASCOM

### Description

3 Basements and 6 storeys office building including.

### Scope of Service

Includes workshop drawing for the entire building.

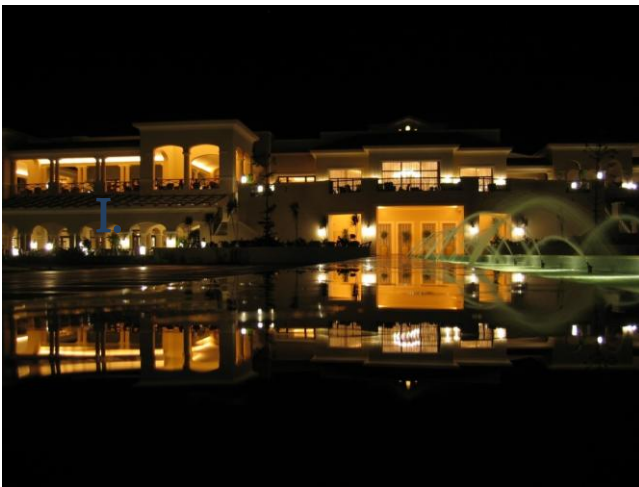
In the sophisticated systems in building, the workshop drawings need highly technical Engineers to assemble the co-ordination between Different services inside the buildings as rerouting cable trays and changing duct sizes, it was not only drawings we as well revising submittals, revising the entire design



**Project:** Mirabel – Sharm El-Sheikh

**Owner:** Moran for Investment and Touristic Management - Travco

**Architect:** Egyptian Architecture Studio



## Description

**Mirabel Beach Resort:** 643 rooms including 480 superior family rooms, 102 standard rooms, 18 superior rooms, 40 deluxe sea view rooms and 3 suites

**Sol Y Mar Mirabel Park:** 192 rooms

**Sol Y Mar Mirabel Club:** 158 rooms

**Sol Y Mar Mirabel Gardens:** 186 family rooms

## Scope of Service

Includes design of Electro-Mechanical systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards,

telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated and slide pools.



**Project:** Almaza – Marsa Matrouh, Egypt.

**Owner:** Travco

**Architect:** Egyptian Architecture Studio



### Description

The project of 1.8 m<sup>2</sup> Ras Hewala, near

Marsa Matrouh consists of:

400 guest rooms.

2 huge swimming pools, half of it heated.

Indoor swimming heated pool.

Utility area (Second Stage):

Power generation plant.

Sewage treatment plant 500m<sup>3</sup>/day.

Control storage water tank 4000m<sup>3</sup> capacities.

Control laundry serving up to 1200 rooms.

### Scope of Service

Includes design of Electro-Mechanical system

Electrical Design: Including Transformers,

Main and Sub distribution panel boards,

telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.



**Project:** Solaya Hotel  
**Owner:** Travco.

**Description**

4 Stars hotel with 325 GuestRoom.

**Scope of Service**

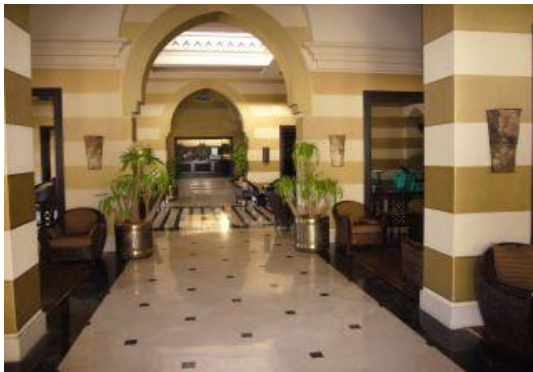
Includes MEP systems.

Electrical Design: Including

Transformers, Main and Sub distribution panel boards,

telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.



**Project:** Lamaya Hotel  
**Owner:** Travco

**Description**

4 Stars hotel with 400 GuestRoom.

**Scope of Service**

Includes MEP systems.

Electrical Design: Including Transformers,

Main and Sub distribution panel boards,

telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.

**Project:** Samaya Hotel  
**Owner:** Travco.



**Description**

4 Stars hotel with 325 Guest Room.

**Scope of Service**

Includes MEP systems.



Electrical Design: Including Transformers, Main and Sub distribution panel boards, telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.



**Project:** Lamaya Hotel  
**Owner:** Travco

**Description**

4 Stars hotel with 325 GuestRoom.

**Scope of Service**

Includes MEP systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.

**Project: Belvedere**  
**Owner: Travco**

**Description**

4 Stars - 325  
Guest Room  
Hotel



**Scope of Service**

Includes MEP systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.

**Project:** Dar New Premises (Dar el Handasa new office building in smart village)

**Owner:** Dar El Handasa

**Contractor:** Orascom



**Description:**

Green Building (LEAD) 5 storey and 3 basements, with a building area of 4000m<sup>2</sup>

Integrated in it the most sophisticated Electro-Mechanical systems,

**Scope of Service**

Includes workshop drawing for the entire building.

In the sophisticated systems in building, the workshop drawings need highly technical Engineers to assemble the co-ordination between different services inside the buildings as rerouting cable trays and changing duct sizes, it was not only drawings we as well revising submittals, revising the entire design.

**Project:** Makadi Bay infrastructure and more than 5 hotels including: Makadi Sun, Makadi Beach, Makadi Oasis, Makadi Marine, Makadi Oasis Family, Makadi star and the Spa building.

**Description:** more than 2500 Rooms, 4 stars. Plus the infra-structure for the entire project.

**Scope of Service**

Includes MEP systems.

Electrical Design: Including Transformers, Main and Sub distribution panel boards, telephone network, fire detection and fire alarm systems, indoor and outdoor lighting.

Mechanical Design: Including air conditioning systems, fire fighting systems with booster pumps , drainage and water supply system, Sewage treatment plant, swimming pools heated.





**Project:** Telal El Alamen  
**Owner:** Rooya Group

### Scope of Service

After designing the entire Project and by the time of constructing, the owner requested **Value Engineering** for the Electrical Design, after we redesigned it we decreased the budget by 20%.



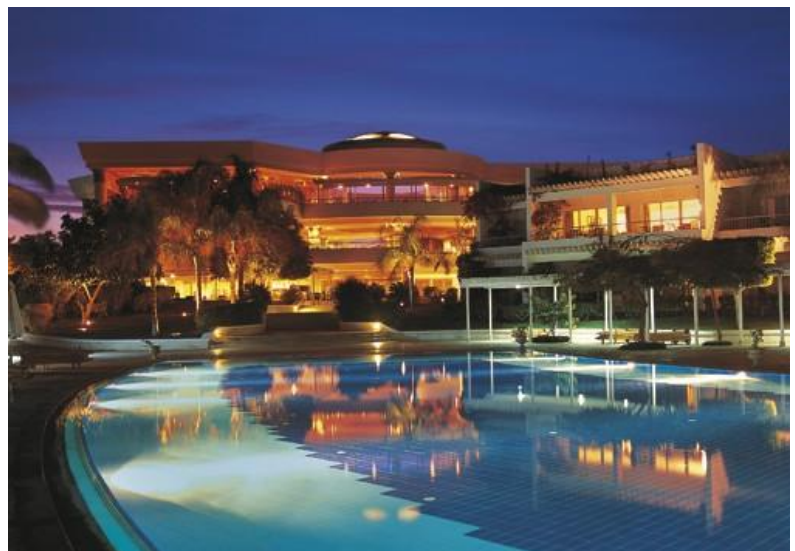
**Project:** Ritz Carlton  
**Owner:** Raja for travel & hotels, dr. Youssef el Raheb

### Scope of Service

#### Designing Power Plant & Desalination Plant

We Designed two power plants each of 4.5 MW, the first one is used to supply the needs of the entire project while the second one to supply the desalination plant which serves 6000m<sup>3</sup> each day.

The desalination plant includes: Water Tanks, Deep Wells, Raw Water Piping System, Brine Discharge System, Over Flow and Drainage System And Product Water Pumping Station.



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**Project:** Elmanaa Building (office Building)

**Contractor:** GENCO

**Location:** Doha, Qatar.

### Scope of Service

The owner wanted to change the activity of that building from an hotel to an office building, **DMG** was responsible to change the electro-mechanical design to fit for the new purpose.



**Project:** General Guards Department Project  
**Owner:** Ministry of Interior  
**Contractor:** HCC  
**Main Consultant:** EHAFA – Qatar  
**Location:** Doha, Qatar.



## Scope of Service

The project consists of 8 buildings scheduled to be constructed in two phases, as following

### **Phase one:**

the administration building, auditorium & office, store building, transportation building, private security, and occasion building in the first phase.

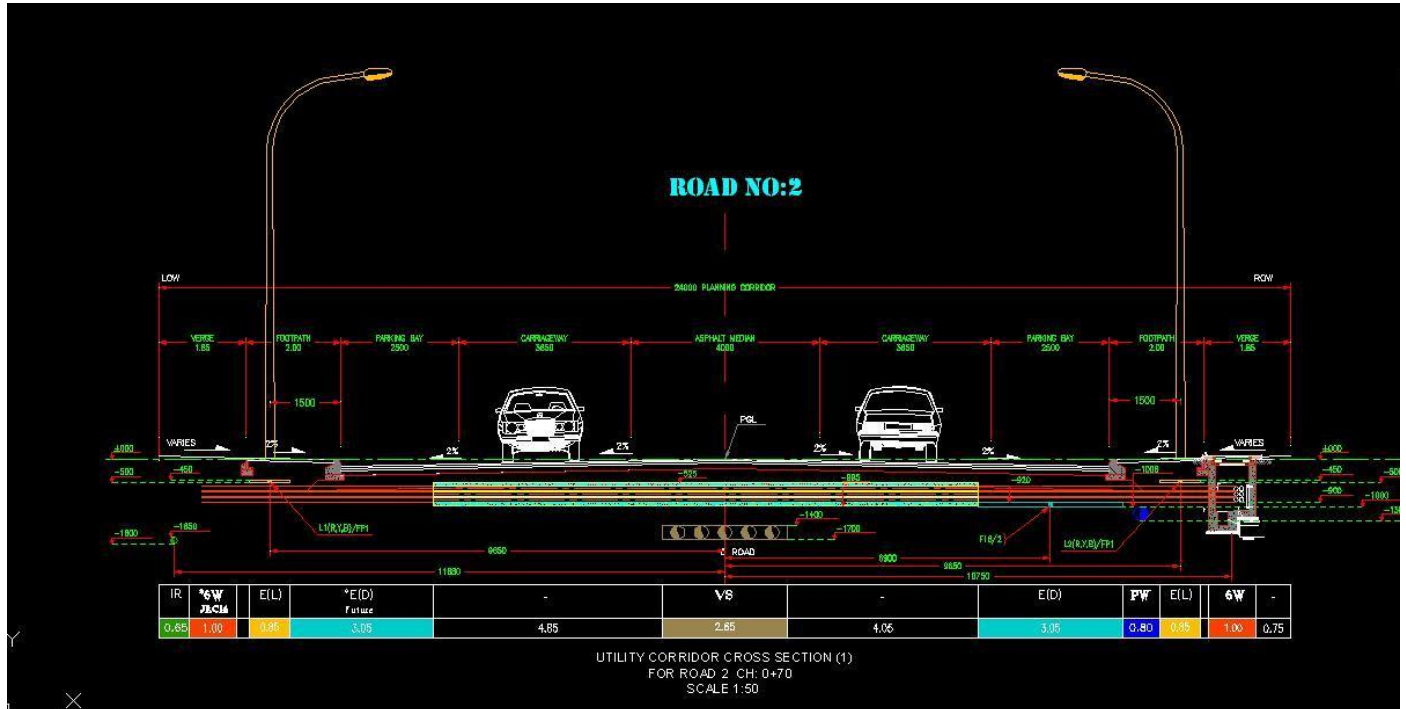
### **Second Phase:**

While guards' accommodation and mess hall.

The Design was for all the buildings internal Electro-Mechanical services, and external network for mechanical services; we did the Fire fighting network, irrigation network, potable water and drainage network. While electrical systems we did low voltage power network and extra low current systems

With a generator, transformers, central pumps room for all the entire project.

**Project:** BARZAN Camp  
**Contractor:** FCC Petroserv (JV)  
**Main Consultant:** EHAf – Qatar  
**Location:** Doha, Qatar.



## Scope of Service

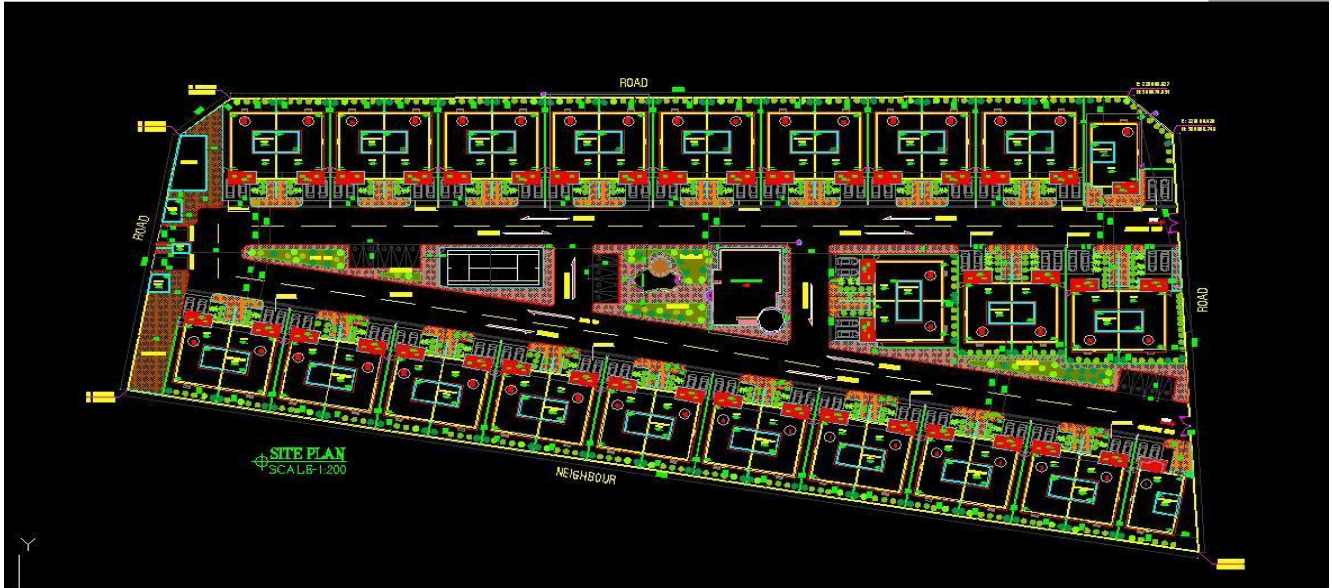
We were responsible for drawing the workshop drawings and coordination between various Electro-mechanical services for 14 different Road in Barzan Camp.

The electrical services includes: ELV (extra low voltage systems, EL (external street lighting), MV (medium voltage networks) and HV (high voltage network)

The mechanical services includes: IR (irrigation network), PW (potable water system), VS (vacuum sewage system), and storm water system.



**Project:** 42 Villas Camp Al Maamoura  
**Owner:** Khaled & Ahmed & Naser Hamad Ahmed Khaled Al-Thani  
**Architecture:** Arabian Arcitecture Group – Eng: Mohamed Hassan  
**Location:** Doha, Qatar.



### Scope of Service

We were responsible for Designing for the Electro-Mechanical systems and getting all the approvals from the authorities from KAHRAMAA, Q-Tel, QCD (Qatar civil Defense) and CSD (Customer service Department).



**DMG** (previously known as "*R&A Design Team*") is a qualified consultant firm for Electro-Mechanical consultant services. **DMG** is fully ready to help customers all around the Middle East with offices located in Cairo, Egypt and Doha, Qatar with experience for more than 20 years in the fields of  
*Design, Re-Design, Workshop-drawings, Supervision, Project-Management or Value Engineering.*

**DMG** offers services for any Electro-Mechanical projects in a defined time with an optimized cost and with a very high quality control according to the international standers and by its special team.



## "Support With Value"

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