ABCG



ABCG

A-B Consulting Group

CORPORATE OVERVIEW

AND CV OF KEY PERSONNEL

Date

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Corporate Overview

ABCG is an integrated consulting firm comprising eight departments: Architectural and interior design, Geotechnical, Surveying and Road design, Environmental, Structural, Quality Control, Industrial, Electro-mechanical and communications, and financial studies. The eight departments work either independently or in an integrated fashion to meet variety of project tasks and needs. ABCG is committed to provide state-of-the-art comprehensive engineering and financial consulting services and advanced up-to-date technologies to its clients in Egypt and the region. ABCG focuses on projects that need high technological background and new and innovative methods. The commitment extends to introducing new methods of construction and design to the Egyptian market and other consulting firms and contractors. In addition, the Quality management system and the Integrated Reliability Program are dedicated to clients who focus on the Financial sector.

Led by six Ph.D.s and four Senior Engineers, ABCG maintains a staff of over 50 experienced engineers and qualified laboratory technicians committed to provide timely and quality engineering services to our clients. ABCG owns and operates state-of-the-art soil and quality control laboratories and extensive computer facilities. Our contacts in North America are destined to transfer the latest technologies in the areas of Engineering and finance.

To better serve the financial sector in Egypt, ABCG has formed an alliance with a British Company specialized in valuation called "Valuation Consultancy" www.valuation-consultancy.co.uk. There expertise bring to the group a great deal of strength in the fields that require further discussion with multinational partners

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Architectural and Interior Design Department

Architectural and Interior design Department provides full scale design and site supervision services ranging from layout and landscape to interior design and including all aspects of Architectural Engineering in an artistic and useful manner. The architectural department focuses at customers with special needs such as private owners of own villas or compounds and Banks or Financial institutions with special requirements.

Geotechnical Department

Geotechnical and Topographical surveying Department provides full scale Geotechnical Engineering services such as, soil classification and site characterizations, side support, groundwater control, soil and rock improvement and stabilization, design of shallow and deep foundations, modeling ground water infiltration, slope stability. ABCG is the pioneer consulting firm in Egypt for using soil reinforcement, use of geosynthetics in different geotechnical applications including soil stabilization and seepage processes. Major advances and innovative methods of construction are provided to the Egyptian market including introducing the diaphragm wall method for deep excavation.

Topographical Surveying and Road design Department

The Surveying section maintains state-of-the-Art equipment and software including Total Stations, GPS, and RTK to be able to collect data static and dynamic and develop all required The surveying department also uses international software. Road design includes designing vertical and horizontal alignment of roads, structural design of roads and detailing.

Environmental Department

Environmental Department provides state-of-the-art technical services in the fields of: Environmental risk and impact assessment, solid and hazardous waste system planning, remedial investigation, design of solid waste facilities, storm water management, design of sanitary systems, soil erosion, modelling contaminant transport and soil remedy and design of water supply and distribution systems.

Structural Department

Structural department provides a wide range of technical services in the field of structural analysis and design for superstructures and geotechnical structures. Utilizing the ABCG extensive computer facilities, the department services include: Design of reinforced concrete and steel structures subjected to static and/or dynamic loads, Prestressed concrete geotechnical structures, bridge foundations, foundations of Transmission lines and Earth retaining structures. The department also provides technical services related to construction management and site inspection of construction projects through the on-site staff.

Quality Control/Quality Assurance Department
QC/QA department provides technical services in the field of Construction inspection, Quality control and non-destructive testing of concrete and steel elements and underground structure. The department maintains a staff of lab and site engineers who work in conjunction or independent of the Geotechnical, and Structural departments.

Industrial, Electro-mechanical and Telecommunication

The department works in the field of design of electromechanical works such as electrical design, air conditioning, sanitary works and others. One of the big areas of involvement is the field of telecommunication where the department has been the consultant of major Egyptian and regional companies in telecommunications. This is in the enterprise and carrier level including CDMA, GSM, WiFi, and WiMax installations in addition to normal wired lines and LAN. Main area now is VoIP.

Financial Consultancy and valuation Department

Feasibility studies department provides technical and economical services in the field of estimating the economic feasibility of intended and on going projects. In addition the department serves the Egyptian market through companies and assets valuation for banks, companies and individuals. The department in represents one of the major valuation companies in Europe which is Valuation Consulting (www.valaution-consulting.co.uk). This helps in adding the required but unavailable expertise in Egypt in the field of valuation. Valuation forms a great part of the feasibility study for several projects. The department studies different projects ranging from real





estate development and tourism to industrial and agricultural projects. The department also works as consultant for several banks in Egypt to study and evaluate the assets of the clients and the feasibility of their projects.



Financial Consultancy and Valuation Department

ABCG is committed to provide the Engineering market in Egypt with quality services and advanced upto-date technologies. The Financial studies Department provides state-of-the-art technical services in the fields of: Consultancy in several issues to different banks in Egypt and the region, Economic analysis of new projects, feasibility studies of different projects ranging from agricultural to industrial to real estate projects. Led by ex-top management of banks around Egypt, ABCG provides unprecedented services in the field of preparing studies of the clients to Egyptian and international banks at international standards.

The department in represents one of the major valuation companies in Europe which is Valuation Consulting (www.valaution-consulting.co.uk).

The department also is the consultant of several banks in Egypt for credit assessment. An over view of ABCG feasibility and economic activities are listed below:

- Preparation of feasibility studies for investors,
- Preparation of feasibility studies in different fields such as agricultural, industrial and real estate,
- Revision of the feasibility studies for banks
- Credit assessment of clients assets for banks,
- Preparation of due diligence studies for foreign and local companies for new projects
- Pre transaction business diagnostic
- Valuation
- Transaction structuring
- Supporting financing arrangement
- Transaction negotiation assistance
- Due diligence process management
- Post merger / acquisition 'programs' to support successful outcome.
- Hiring and HR for banks.
- Training of professionals.

The customers from the banking sector include the following:

- Misr International Bank (MiBank).
- (2)Barclays Bank
- $(\overline{3})$ Export Development Bank of Egypt.
- (4) (5) Industrial Development Bank of Egypt.
- Egyptian Arab Land Bank.
- (6)Blom Bank
- (7)Audi Bank
- (8)**HSBC**
- (9)Faisal Islamic Bank
- (10)Suez Canal Bank

The range of services in each bank is quite different.



Structural Department

Led by three Ph.D.s, the Structural Department provides complete engineering services to its clients. Included in the department services all projects related to: Design of reinforced concrete and steel structures subjected to static and/or dynamic loads, prestressed concrete and steel bridges, foundations for Reinforced concrete and steel shell type structures such as: tanks, silos, pressure vessels and nuclear power plants, Steel towers, Transmission lines, and Earth retaining structures such as: retaining walls and sheet piles.

On the basis of the project requirements, the following services are provided by the department:

- Finite element analysis of wide range of structures utilizing various commercial and in-house software.
- Design calculation sheets with the adequate Code references.
- Detailed Engineering drawings and layouts.
- Shop drawings of all structural elements and connections utilized.
- Site and construction supervision to ensure complete compatibility of construction with design plans and Code specification and to solve instantaneous problems that arise in the construction phase.
- As Built drawings are provided upon request of the client.

In house Capabilities:

Engineering Software:

ABCG is proud to use in-house customly developed software for design of shear walls, retaining walls, isolated and combined footings as per the ACI-318/95 Code of practice and the analysis of plate structure based on the boundary element. In addition, our staff is highly trained on engineering computer software such as:

SAP90P	General purpose finite element program for the static and dynamic analysis of skeletal and continuum structures under static and dynamic loads.
ANSYS	General purpose finite element program for the static and dynamic analysis of all types of structures incorporating material and geometric nonlinearity, fluid and soil structure interaction, and elastic and inelastic buckling.
STAAD	Analysis and design of skeletal type structures subjected to static loads. The program includes: Steel, Concrete and Timber design as per twenty internationally recognized Codes of practice.
PCA	Developed by the Portland Cement Association to design reinforced concrete beams, columns, slabs and frames as per the ACI-318/95 Code of practice.
CRSI	Developed by Concrete reinforcing steel institute (23 programs for solving all kinds of reinforced concrete structures).
AUTOCAD TURBOCAD	Software to generate all structural and architectural drawings. Software to generate architectural, sanitary and electrical prints of residential buildings and other structures.

Computer Facilities:

Twelve personal computers. Three laser printers. Colored inkjet printer. Colored flat bed scanner.



Concrete Laboratory equipment

A comprehensive concrete testing laboratories including concrete parameters equipment are available. The department owns and operates three laboratories in Egypt. The laboratories are available at Cairo, 6-October City, and Sharm El-Sheikh City. The laboratories have the capability of performing tests on concrete components, fresh concrete and hardened concrete. Each of the laboratories incorporate the following equipment:

Compression concrete strength machine with load of 2000 kN. Sieves for Sand grain size distribution Sieves for Gravel grain size distribution Shaker for Sand and gravel grain size distribution Set of scales for weighing ranging from 2 kg to 20 kg with accuracy of 0.01 to 1

gm.

Water content
Vicate equipment for testing the setting time of cement
Shaking table for preparing mortar cubes
Slump test
Temperature gauge.

Tests performed at the Concrete Laboratory

(a) Hardened Concrete Concrete compressive strength Core tests Schmidit Hammer

(b) Fresh Concrete Slump test Temperature of mix

(c) Concrete components
Grain size (sieve analysis)
Fines modulus
Dust Content
Moisture Content
Crushing strength of gravel
Cement setting time
Mortar cubes compressive strength.

(d) Chemical Analysis for aggregates and water samples

Chemical analysis for aggregate samples. Chemical analysis for water samples.



Architectural and Interior Design Department

ABCG is committed to provide the Engineering market in Egypt with quality services and advanced up-to-date technologies. The Architectural Department provides state-of-the-art technical services in the fields of: Landscaping, Exterior Design, Interior design, Design of Villas and special structures interior design such as Banks, Financial institutions, and administrative buildings. An over view of ABCG Environmental activities are listed below:

- Analysis of the Architectural neighbourhood,
- Analysis of the required planning tools
- Defining the requirements of each customer,
- Helping the shaping the interior design based on customer requirement,
- Exterior Design with handcraft and artistic view,
- 3-D Virtual reality show,
- Prospective design,
- Interior design of banks and financial institutions,
- Design of administrative buildings,
- Design of Residential compounds,
- Design of tourist villages,
- Site supervision of all designed works
- Quality Control for architectural purposes

In house Capabilities:

Engineering Software:

Our staff is highly trained on many related computer software such as:

Adobe State of the art photo programs
Photoshop State of the art photo programs

AUTOCAD Software to generate all Geotechnical and environmental drawings.

Computer Facilities:

Twelve personal computers. Three laser printers. Colored inkjet printer. Colored flat bed scanner. Colored A0 size inkjet plotter.



Quality control/Quality Assurance Department

ABCG is committed to provide the Engineering market in Egypt with quality services and advanced up-to-date technologies. Led by two Ph.D holders, ABCG QA/AC team is supplemented by quality experienced senior engineers and qualified laboratory technicians. Services of QA/QS are offered for both the structural and geotechnical departments. These departments work either jointly or separately in projects according to the needs.

STRUCTURAL QA/QC:

For structural works, our department provides services in two different fields namely, steel structures and concrete structures. The following services are provided:

1.0 Concrete works:

(1) Consultancy and supervision

Supervising batch plant mixing Design of concrete mix Supervising and designing scaffolding Supervising concrete casting and curing

(2) Testing

A comprehensive concrete testing laboratories including concrete parameters equipment are available. The department owns and operates three laboratories in Egypt. Laboratories may be established at locations of new projects as may be required. The laboratories have the capability of performing tests on concrete components, fresh concrete and hardened concrete. Each of the laboratories incorporate the following equipment:

Compression concrete strength machine with load of 2000 kN.

Sieves for Sand grain size distribution

Sieves for Gravel grain size distribution

Shaker for Sand and gravel grain size distribution

Set of scales for weighing ranging from 2 kg to 20 kg with accuracy of 0.01 to 1

gm.

Water content

Vicate equipment for testing the setting time of cement

Shaking table for preparing mortar cubes

Slump test

Temperature gauge.

Tests performed at the Concrete Laboratory

(a) Hardened Concrete

Concrete compressive strength

Core tests

Schmidit Hammer

(b) Fresh Concrete

Slump test

Temperature of mix

(c) Concrete components

Grain size (sieve analysis)

Fines modulus

Dust Content



Flakiness of aggregates Moisture Content Crushing strength of gravel Cement setting time Mortar cubes compressive strength.

(d) Chemical Analysis for aggregates and water samples

Chemical analysis for aggregate samples. Chemical analysis for water samples.

(C) Chemical Analysis for soil and water samples

Chemical analysis for soil samples for geotechnical studies Chemical analysis for water samples for geotechnical and agricultural needs.

2.0 Steel works:

(1) Consultancy and supervision

Supervising and designing steel works Supervising steel placement and connections Workshop drawings issuing and revision

(2) Testing

Supervision of all required testing of steel works

Monitoring tests performed at the structural department

Strain gauges Rebar stress meter Load cells Joint meters and crack meters Tape extensometer

GEOTECHNICAL QA/QC:

For geotechnical works, our department provides the following services:

(1) Consultancy and supervision

Supervising geotechnical works such as tunneling, dewatering, side support Design of all temporary works and strutting

(2) Testing and monitoring

A comprehensive concrete testing laboratories and monitoring equipment are available. The department owns and operates monitoring equipment in different projects in Egypt. Three field laboratories are placed in Egypt. Laboratories may be established at locations of new projects as may be required. The laboratories have the capability of performing tests on compacted soil, different soil types, soil classification.

Each of the laboratories incorporate the following equipment:





Sieves for Sand grain size distribution Sieves for Gravel grain size distribution Shaker for Sand and gravel grain size distribution

Set of scales for weighing ranging from 2 kg to 20 kg with accuracy of 0.01 to 1

gm.

Water content Liquid limit test Pocket penetrometer Sandcone Standard and modified Proctor tests

Tests performed at the field Geotechnical Laboratory

Soil Classification Sand cone for in-situ dry density

Proctor for determination of maximum dry density and optimum moisture content

Monitoring Tests performed on the soil at the field

Piezometers (vibrating wire piezometers and stand up piezometers) for water level identification
Inclinometers
Load cells for earth pressure measurements
Strain gauges
Settlement cells

Monitoring Tests performed on the geotechnical structures at the field

Low strain tests on piles Cross hole sonic logging of piles Strain gauges for sidesupport systems or tunnels. Inclinometers and extensometers for sidesupport systems.



Geotechnical Department

ABCG is committed to provide the Engineering market in Egypt with quality services and advanced up-to-date technologies. Led by three Ph.Ds, ABCG team is supplemented by quality experienced senior engineers and qualified laboratory technicians. An overview of ABCG geotechnical activities are listed below:

Soil classification and site characterizations,

Design of side support systems,

Dewatering systems,

Design of roads and railway embankments and surfaces,

Ground water infiltration and seepage processes,

Soil improvements,

Soil stabilization,

Soil reinforcement,

Design and use of geosynthetics for different applications,

Hydrology and Hydrogeology,

Soil Grouting,

Slope Stability,

instrumentation,

Tunneling.

In house Capabilities:

Soil Laboratory equipment

A comprehensive soil testing laboratory including state of the art soil classifications and soil properties evaluation equipment. The department owns and operates three laboratories in Egypt. The laboratories are available at Cairo, 6-October City, and Sharm El-Sheikh City. The laboratories incorporate the following equipment:

(A) Soil Classification

Grain size distribution Water content Plastic Limit Liquid Limit Shrinkage Limit Specific Gravity Tore vane test Hydrometer

(B) Shear Strength and deformation parameters

Unconfined Compression tests on Cohesive samples Unconfined Compression tests on Intact Rock Samples, Consolidation of Cohesive Clayey samples, Pocket penetrometer. Laboratory Vane test.



(C) Chemical Analysis for soil and water samples

Chemical analysis for soil samples for geotechnical studies Chemical analysis for water samples for geotechnical and agricultural needs.

Field equipment:

(A) Drilling machines:

ABCG owns and operates field drilling machines for borehole drilling. Four machines are owned by ABCG to perform different tasks ranging from drilling in soft clay to drilling in concrete. Two of the borehole drilling rigs are state-of-the-art latest technology of drilling at angles and to depths reaching 100 m with a diameter reaching 40 cm in different soils.

(B) Testing equipment:

ABCG operates low strain sonic machine for testing of deep piles. ABCG also operates cross hole logging sonic tests for diaphragm walls and piles.

Engineering Software:

ABCG is the biggest owner, user and developer of engineering software in the field of Geotechnical Engineering in Egypt. The geotechnical engineering department uses inhouse custom developed software for analysis of slope stability, settlement assessment and design of dewatering systems. In addition, ABCG owns and operates latest developed and state-of- the-art engineering software and the staff is highly trained on these computer software such as:

PLAXIS	Finite Element model for soil, rock and geotechnical analysis including consolidation, groundwater, deformation analysis, tunneling and prestressing of anchors.
PLAXIS-3D	Three dimensional Finite element analysis of soil, rock.
FLAC	Fast Lagrangian computer program for geotechnical analysis
TENAX	Limit Analysis Software for Soil Reinforcement Design.
MSEW	Design of Mechanically stabilized walls using different
WISEW	international codes.
GEODD O	
GEOPRO	Limit Analysis code for geotechnical analysis.
BOSS GMS	Ground water modeling system.
BOSS SMS	Surface water modeling.
SAP90P	General purpose finite element program for the static and dynamic
	analysis of skeletal and continuum structures under static and
	dynamic loads.
ANSYS	General purpose finite element program for the static and dynamic
1111010	analysis of all types of structures incorporating material and
	geometric nonlinearity, fluid and soil structure interaction, and
	elastic and inelastic buckling.
AUTOCAD	Software to generate all structural and Geotechnical drawings.

Computer Facilities:

Fifteen personal computers. Full networking system. Four laser printers. Two colored inkjet printers. Colored flat bed scanner. Colored A0 size inkjet plotter.

ARCS



Topographical surveying and Road Design Department

The Surveying and roads department is led by a Ph.D. qualified University Professor, the department works inside and outside Egypt using quality software, engineers and qualified surveyors to produce road design and surveys that contains all required details. An overview of ABCG geotechnical activities are listed below:

Topographical Survey Dynamic GPS point allocation Static GPS point allocation, Design of vertical and horizontal roads alignment,

In house Capabilities:

Laboratory equipment

ABCG maintains comprehensive soil testing laboratory including state-of-the-art soil classifications and soil properties evaluation equipment. The department owns and operates three laboratories in Egypt. The laboratories are available at Cairo, 6-October City, and Sharm El-Sheikh City. The laboratories incorporate the following equipment:

(A) Soil Classification

Grain size distribution
Water content
Plastic Limit
Liquid Limit
Shrinkage Limit
Specific Gravity
Tore vane test
Hydrometer

(B) Shear Strength and deformation parameters

Unconfined Compression tests on Cohesive samples Unconfined Compression tests on Intact Rock Samples, Consolidation of Cohesive Clayey samples, Pocket penetrometer. Laboratory Vane test.

(C) Chemical Analysis for soil and water samples

Chemical analysis for soil samples for geotechnical studies Chemical analysis for water samples for geotechnical and agricultural needs.

Field equipment:

(A) Surveying Equipment

4 Sokia Total Stations 1 GPS Magellan RTK with two units.

(B) Drilling machines:

ABCG owns and operates field drilling machines for borehole drilling. Four machines are owned by ABCG to perform different tasks ranging from drilling in soft clay to drilling in concrete. Two of the borehole drilling rigs are state-of-the-art latest technology of drilling at angles and to depths reaching 100 m with a diameter reaching 40 cm in different soils.





(C) Testing equipment:

ABCG operates low strain sonic machine for testing of deep piles. ABCG also operates cross hole logging sonic tests for diaphragm walls and piles.

Engineering Software:

ABCG owns and develops surveying and Road software such as:

LAND Based on Autocad, land is the most powerful software that is

currently used by surveyors and road designers.

SURFER A Surveying software that draws the contour lines and calculates cut and

fill quantities.

Computer Facilities:

Five personal computers. Full networking system. One laser printers. Two colored inkjet printers. Colored flat bed scanner. Colored A0 size inkjet plotter.



Environmental Department

ABCG is committed to provide the Engineering market in Egypt with quality services and advanced up-to-date technologies. The Environmental Department provides state-of-the-art technical services in the fields of: Environmental risk and impact assessment, solid and hazardous waste system planning, remedial investigation, design of solid waste facilities, storm water management, design of sanitary systems, soil erosion, modeling contaminant transport and soil remedy and design of water supply and distribution systems. An over view of ABCG Environmental activities are listed below:

- Environmental Impact Assessments
- Analysis of Infiltration-Inflow to sewer systems,
- Sewer System Evaluation Survey,
- Sewage Treatment Plant Design and plant sizing recommendations,
- Sewage Treatment alternative analysis,
- Design of sewer collection systems,
- Stream water quality,
- Groundwater quality and quantity,
- Flood control systems and management.
- Design of landfills
- Hazard Waste management,
- Water distribution systems,
- Environmental instrumentation.
- Soil erosion,
- Water seepage and deep percolation.

In house Capabilities:

Engineering Software:

Our staff is highly trained on many related computer software such as:

FLOWD State of the art ground water quality and quantity, two and three

dimensional computer model.

EPA:SWMM Storm Water Management Model; State of the art Environmental

Protection Agency approved model for design and analysis of sanitary and storm systems; Model stream water quality and

quantity.

ANSWER United States Agricultural Department model for soil erosion and

stream water quality.

AGNSP A comprehensive watershed soil erosion model.

HEC-1 United States Corps of Engineer flood control model

AUTOCAD Software to generate all Geotechnical and environmental drawings.

MODFLOW State of the art program developed by the U.S. army Corps of

Engineers.

Computer Facilities:

Ten personal computers.
Three laser printers.
Colored inkjet printer.
Colored flat bed scanner.
Colored A0 size inkjet plotter.





PROJECTS PERFORMED BY ABCG

Presented below are some of the projects that are performed by ABCG during the past two years. ABCG is committed to serve the clients requesting high technology, modern facilities and innovative methods of construction for reducing costs and producing high quality work. We respect the opinions of the clients and work to reach their targeted quality and requirements for their jobs.

1. Tourist Villages, resorts and administrative buildings:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Marrassi Project, Sidi Abdel-Rahman	A tourist village compromised of 6 hotel and 1100 villas and about 2000 apartments, Marina and a Golf Course	Surveying, Road Design, Site Grading and Marina works	Emaar Misr
2	Uptown Cairo Project, Mokatam, Cairo	A Residential, commercial and administrative village compromised of 2 hotels, Mall, Administrative area, 1100 villas and about 2000 apartments in addition to a Golf Course.	Surveying, Road Design, Site Grading, slope stability, and site supervision	Emaar Misr
3	Allegria Project, Shiekh Zayed City, Cairo	A Residential village compromised of a hotel and 1100 villas and townhouses and a Golf Course.	Geotechnical Surveying, Road design, Site Grading, Side Reinforced soil retaining wall design Site Grading	SODIC
4	El-Daow Heights, Hurghada, Red Sea	A tourist village compromised of a hotel and private villas	Surveying, and Geotechnical investigations	Samcrete
5	New Cairo Project	A residential village of buildings compromised of 56 buildings.	Surveying, Geotechnical investigations	SODIC
6	Trust wise Project, Marsa Alam	A tourist village compromised of 2 hotels and several tourist villas and apartments.	Surveying, Geotechnical investigation, Road Design, Site Grading and Marina works	Trustwise
7	Windsor Village and Hotel (Sharm El- Sheikh)	A tourist village compromised of a hotel and villas on 60 feddans in Sharm El-Sheikh.	Soil investigation, Slope stability, Surveying works, and Struct. And Arch design.	Red Sea Company
8	Sahl Hashish Compound	A tourist village compromised of hotels.	Soil investigation, Structural design	Samcrete, Bechtel



			for roads	Project Manager
9	Marsa Alam Airport and compound	An Airport and tourist villages	Structural Design and supervision, Soil investigation, and recommendations	Kharafi and sons, Bechtel Project Manager
10	Marina Alamain Hotel	A hotel on 25 feddans at Marina, North coast	Architectural and Interior design and Soil investigation and structural design	Kharafi and sons
11	Extension of British Embassy	The construction of an extension of the British Embassy	Soil investigation, and topographical survey.	Ayala Middle East
12	Mena-4 Village, North Coast	A tourist village compromised of a hotel and villas on 40 feddans.	Soil investigation, Slope stability, retaining walls, Structural design.	Mena for tourist develop.
13	Taba Village, Taba, Sinai	A tourist village compromised of a hotel and villas on 80 feddans.	Soil investigation, Slope stability, retaining walls, Surveying works, Structural design.	IMBT
14	Orient Tours Hotel and village, Hurghada	A tourist village compromised of a hotel and villas on 60 feddans.	Architectural and Interior design, Soil investigation, road design, retaining walls, infra structure, Surveying works, Structural design.	Remco for tourist Dev.
15	Khatatba Compound, Khatatba	A Compound of 50 villas, each on 5 feddans green area.	Full Arch., geotech, STRUC., and electormech. design.	Ayoubco
16	Stella Di Marie, Ein El-Sokhna	A village on an area of 120 feddans of a hotel and villas	Geotech. investig. and design and structural design.	Ayoubco
17	Banana republic village, Cairo Alex Desert Road	A Compound of 20 villas, on 5 feddans green area.	Full Arch., Struc., geotech., and electormech. Design.	Mahmoud Boghdadi
18	Marsa Alam Compound, Marsa Alam	A village on an area of 120 feddans of a hotel and villas	Full Struc., electormech., and geotech. design.	Al-Bonian
19	Hurghada Center	Center Point of Hurghada	Full Architectural	AKA



	point, Hurghada	of 24 Towers, shopping mall, and free zone in the shape of a pyramid of total cost of 120 mil. LE.	, Struc., and geotech design.	group
20	Tarniema Village (El-Fayoum)	A Tourist village of hotel and villas on 500 feddans	Full Arch., Struc., electormech. and geotech design.	ЛСО
21	El-Hegaz Village (El-Ein El-Sokhna)	A Tourist village of hotel and villas on 500 feddans	Full Arch., Struc., electormech. and geotech design.	El-Hegaz Company
22	El-Togareen Village (El-Shorouk City)	A Compound of 50 villas on 20 feddans	Full Arch., Struc., and geotech design.	Dr. Mohamed Saied
23	Sadara Village (Raas Sedr)	A Tourist village of hotel and villas on 500 feddans	Full Arch., Struc., and geotech design.	Sadara for Develop.
24	El-Morshedien Paradise (Northern Coast)	A Tourist village of villas on 50 feddans	Full Struc., and geotech design.	EGENEX
25	The Mountain Compound, El- Sheikh Zaied	A Tourist village of villas on 50 feddans	Full geotechnical design and inv.	Dr. Mostafa El- Kafrawi
26	El-Gezira Diplomatic Compound, Katamia	A Tourist village of villas on 30 feddans	Full geotechnical design and inv.	El-Gezira Company
27	Riviera Sharm Village, Sharm El- Sheikh	A Tourist village of hotel and villas on 50 feddans	Full geotechnical design and inv.	Mr. Kamel Elba
28	Vinus Compound (Northern Coast)	A Tourist village of hotel and villas on 25 feddans	Full geotechnical design and inv.	El-Amar Company
29	Concorde Tourstic Project (Sharm El- Sheikh)	A Tourist village of hotel and villas on 50 feddans	Full geotechnical design and inv.	Mr. Kamel Elba
30	Fanara Village (Sharm El-Sheikh)	A Tourist village of hotel and villas on 20 feddans	Full geotechnical design and inv.	Magdi El- Saeed
31	Casablanca Village (Northern Coast)	A Tourist village of hotel and villas on 25 feddans	Full geotechnical design and inv.	El-Amar Company
32	Lagoon Club Village (Raas Sedr)	A Tourist village of hotel and villas on 15 feddans	Full geotechnical design and inv.	IMBT
33	Amigo Village (El- Ein El-Sokhna)	A Tourist village of hotel and villas on 50 feddans	Full Arch., geotechnical design and inv.	AMIGO Village
34	Palm Beach Village	A Tourist village of hotel	Full Arch., geotechnical	Palm Club



	(Sharm El-Sheikh)	and villas on 10 feddans	design and inv.	
35	Delta Village (Sharm El-Sheikh)	A Tourist village of hotel and villas on 15 feddans	Full geotechnical design and inv.	Delta Company
36	Falcon village (Sharm El-Sheikh)	A Tourist village of hotel and villas on 35 feddans	Full geotechnical design and inv.	Falcon Company
37	Nosseir Compound, Cairo-Alex. Road	A Compound of 6 villas and raising the level by about 15 m from ground level.	Full geotechnical design and inv. and design of retaining walls.	Medhat Abou- Zeid
38	Mena Ramora, Sharm El-Sheikh	A tourist village at Sharm El-Sheikh	Full geotechnical investigation	Mena for tour. dev.
39	SunShine village at Sharm El-Sheikh	A tourist village at Sharm El-Sheikh	Site supervision and geotech. inv.	Middle East for develop.
40	Beaurivage village, North Coast	A tourist village at the Northen coast of Egypt	Full Arch., geotechnical and structural Engineering Design	PIBIC
41	El-Yasmine Village	A tourist village at Ras Sedr, Sinai	Structural drawings and geotechnical investigation	El- Yasmine
42	El-Yasmine Village	A tourist village at Dahab, Sinai	Full geotechnical and structural investigation and design	El- Yasmine
43	Fantazia Village	A tourist village at Nemaa bay, Sharm El- Sheikh	Review of structural drawings and site supervision	Abou- Samra
44	Las Palmas Village	A compound of 50 villas and hotel and small flats on 50 hectars.	Full geotechnical investigation and design.	El-Nakhil company
45	La Stella Compound	A Compound of 80 villas and a hotel and flats	Full Arch., geotechnical investigation and recommendations	REMCO
46	Shahd compound at Dahab	A compound of villas and a hotel at Dahab, Sinai	Full geotechnical investigation and recommendations	El-Shahd company
47	Shahd compound at Dahab	Compound of villas and a hotel at Sharm El-Sheikh,	Full geotechnical investigation and recommendations	El-Shahd company
48	King Tut compound	A compound of villas	Full geotechnical investigation and	King Tut





	at Nabk, Sharm El- Shiekh	and a hotel at Sharm El- Sheikh, Sinai	recommendations	
49	Taba hieghts compound at Taba, Sinai	A compound of villas and a hotel at Taba, Sinai	Full geotechnical investigation and recommendations	Al- Mabany Int.
50	Meratex tourist village	A Compound of 40 villas and a hotel at Suez-Sokhna Road.	Full geotechnical design and inv.	Arch. Walaa Al- Alfi
51	Meratex tourist village	A Compound of 60 villas and a hotel at Kosair- Marsa Alam Road.	Full geotechnical design and inv.	Arch. Walaa Al- Alfi
52	Zahret El – Madaien compound	A Compound of 60 villas and a hotel at El-Sheikh Zayed	Full Arch., geotechnical and structural design.	Zahret El- Madaien and Arab Land Bank
53	Kalawi Resort at SAFAGA	A Compound of villas and a hotel at Safaga- Kosair Road	Full geotechnical investigation and design.	Megicon for tourist develop.
54	Paradise Inn Resort at Marsa Alam	A Compound of villas and a hotel South of Marsa Alam	Full geotechnical and structural design.	Arch. Walaa Al- Alfi
55	Host Mark Resort at Marsa Alam	A Compound of villas and a hotel at Marsa- Alam-Kosair	Full geotechnical investigation and design.	Arch. Walaa Al- Alfi
56	Abrag Baraka at Katamia	A Compound of towers at Katamia	Full geotechnical investigation and design.	Mashrak company
57	Abaza Compound, Cairo-Alex. Road	A Compound of 6 villas and raising the level by about 15 m from ground level.	Full geotechnical design and inv. and design of retaining walls.	Dr. Alaa El-Sayed

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2. Power Stations:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Borg El-Arab Power Plant	A Complete privately owned 10 MW Power Plant	Complete Design and site supervision including, Surveying, Geotechnical investigation, Arch., Civil, Electromechanical design	Kahraba
2	Port Said Power Station (EDF)	Infrastructure, footings and transmission lines found, fire fighting.	Soil investigation, Structural design, geotech. design.and monitoring at tender Stage	Orascom
3	Suez Power Station (EDF)	Infrastructure, footings and transmission lines found, fire fighting.	Soil investigation, Structural design, geotech. Design and monitoring at tender stage	Orascom
4	Port Said Power Station (EDF)	Infrastructure, footings and transmission lines found, fire fighting.	Monitoring and pile ultrasonic testing	Misr- Raymond
5	Suez Power Station (EDF)	Infrastructure, footings and transmission lines found, fire fighting.	Monitoring and pile ultrasonic testing	Misr- Raymond
6	Maghagha substation 220/66/33/11 kv	Infrastructure, footings and transmission lines found, fire fighting.	Soil investigation, Structural design, geotech. design.	ABB High voltage
7	Ein-El Sokhna Substation	Extension of the existing substation	Design of the foundation of the towers and transmission lines	ABB High voltage
8	Karmouz Substation	Building a new substation at Karmouz, Alexandria	Design of the foundation of all the buildings and the towers	AEG
9	El-Nozha S/St., 66/11 kv, Alexandria	A control building next to the existing building	Soil investigation, retaining walls, Surveying works, Structural design.	ABB





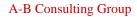
2. Wastewater Treatment Plants, tunnels, and undercrossing:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	El-Salam Syphon	A syphon crossing under Suez Canal.	Design of slope stability, dewatering sys., retaining wall.	CMC/ BESIX
2	El-Sheikh Zaid Intake structure and conveying tunnels	Building an intake structure and two conveying tunnels to take water from El-Behairy canal to El-Sheikh Zaid pumping station	Full geotechnical design including the full design of diaphragm walls and cofferdams	MC Int.
3	Kom Osheem Undercrossing	A water treatment tunnel undercrossing	Soil investigation, Structural design, geotech. design	MC int.
4	Ezbet El-Borg treatment plant	A water treatment plant, intake, distribution wells, administrative units.	Soil investigation, Structural design, geotech. design	EGYCO
5	Sewer Line No. 9 (Mansora)	Installation of new sewer line	Soil investigation and recommendation	EGYCO
6	Abdel-Salam Aref tunnel, Mansoura	A traffic tunnel to undercross railway at Mansoura.	Geotech. Investigation, design of the cut and cover tunnel.	Nile for roads and bridges.
7	El-Sheikh Saaud Bridge, Jedda, Saudia Arabia	A traffic bridge of 60 m length to cross a canal.	Complete design of foundations, approaches and abutments	FECO
8	New Quena plant intake structure	Sewer line undercrossing and intake structure.	Geotech. Invest., design of the side support system, dewatering system, effect of jacking on an exising structure.	EAC
9	Hew plant intake structure, Naga Hammadi.	Sewer line undercrossing and intake structure.	Geotech. invest., design of the side support system, dewatering system.	EAC
10	Gerga Undercrossing, Gerga	Undercrossing of an existing canal	Geotech. invest., design of the side support system, dewatering system.	EAC
11				



	Kom-Ombo, Kalabsha Undercrossing	Undercrossing of an exisiting canal	Geotech. invest., design of the side support system, dewatering system.	EAC
12	Inclination line, Damitta	Inclination line in Damitta.	Geotechnical Inv and recommendations.	EGYCO
13	Cairo-Fayoum highway and Wahat Undercrossing	Undercrossing of two main highways	Full geotechnical design including the full design of Soldier pile wall and tunneling.	MC Int.
14	El-Sheikh Zaid Pumping Station	Pumping station for El- Sheikh Zaid city	Design of the station for tendering including the diaphragm walls	MC int.
15	Upgrading of the emergency Canal	Two alternatives for the construction and upgrading of the emergency canal.	Full design, analysis, monitoring for tendering stage	MC int.
16	El-Gabal El-Asfar Village waste water upgrade	Performing the full network of pipes including two undercrossing with pipes of diameters ranging between 2" and 2000 mm.	Full site supervision and recommendations for shoring and dewatering.	Found. Eng.
17	GABCO waste water system (Dahshour)	Developing and enhancing the waste water system and treatment	Complete design and supervision	GABCO Petroleum Company
18	Moharam Beck under-crossing	Undercrossing of water way underneath a main road	Complete design of the shafts and the tunnels for dewatering and side support	Alexandri a for tunnels
19	Suez sweet water canal under-crossing	Undercrossing of the sweet water canal at Suez	Complete design of the shafts and the tunnels for dewatering and side support	Alexandri a for tunnels
20	New Kena treatment plant	A complete water treatment plant of capacity 600 L/sec(intake, districution wells, precipitators, filters,)	Geotechnical design	ТСВ
21		Covering of the	Geotechnical	MC Int.







	Emergency Canal and the sewer line from Nasr City to Emergency Canal	Emergency Canal at Nasr city and the sewer line to the area	investigation, design of different options including culvert, berlin wall, and drag box	
22	Madinat Al-Salam Sewer line	Construction of a new sewer line including all the temporary and permanent works	Design of the line and the permanent chambers	MC int.
23	Luxor Wastewater treatment plan	Full new waste water treatment plant	Geotech. Inv., design of side support system and dewatering, and the prediction of the settlement of the railway at tender stage	Morison Knudsen
24	Alexandria Wastewater treatment plant extension	Extension of Existing wastewater plant	Geotech. Inv., design of side support system and dewatering, and the prediction of the settlement of the railway at tender stage.	Morison Knudsen
25	Kima Railway Undercrossing	Undercrossing of an existing railway by a sewer tunnel	Geotech. Inv., design of side support system and dewatering, and the prediction of the settlement of the railway.	EAC



Industrial and Oil and Gas facilities:

No.	trial and Oil and Gas fa PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	TriOcean workshop at Adabia	Construction of a workshop in Adabia industrial Zone on 30 thousand sq. meter including a marina, and backfilling in the sea	Full arch., electromech., geo, and struc. design and site supervision	TriOcean
2	Ras Issa Oil Terminal	Construction of a full service oil terminal and compound in Ras Issa, Yemen	Surveying, Geotechnical investigations, financial advisory, and structural design	Ras Issa Oil terminal
3	Raolo Factory at May City	Construction of a complete factory for ball bearings	Full arch., electromech., geo, and struc. design and site supervision	Raolo, Greece
4	Polyol Tanks at Gesr El-Suez Street, for Industrial Foam	Construction of Polyol tanks.	Full arch., electromech., geo, and struc. design and site supervision	Shell Int.
5	Polyol Tanks at Hawamdia, for Horse foam	Construction of Polyol tanks	Full arch., electromech., geo, and struc. design and site supervision.	Shell Int.
6	Polyol Tanks at Borg Al-Arab for Alexandria Foam	Construction of Polyol tank	Full arch., electromech., geo, and struc. design and site supervision.	Shell Int.
7	Polyol Tanks at Tenth of Ramadan City for Taki Foam	Construction of Polyol tank	Full arch., electromech., geo, and struc. design and site supervision.	Shell Int.
8	Cargo search system at Sokhna	Construction of a 2000 m ² hunger including complex electromechanical implementation	Full arch., electromech, geo, and struc. Design and site supervision	American Science and Eng.
9	Cargo search system at Noweibaa	Construction of a 2200 m ² hunger and an administrative area including complex electromechanical implementation	Full arch., electromech, geo, and struc. Design and site supervision	American Science and Eng.



10	Kama Glass factory	Construction of a 4000 m ² factory at 10 th of Ramadan	Full arch., electromech, geo, and struc. Design and site supervision	Kandil Industries
11	Sika Misr Factory	Construction of Polychemical factory	Geotechnical investigation and foundation recommendation	Sika Misr
12	El-Ezz steel factory at Ein-Sokhna	Construction of a main factory at Ein-Sokhna	Full geotechnical design and recommendations	El-Ezz
13	Lucas wiring systems Factory at the free zone	Construction of a British factory at the free zone for manufacturing cables for cars	Full geotechnical and environmental investigation and recommendation	Ayala Middle East
14	Suzuki Service station	Design of Suzuki service station, Cairo Alex. Road	Soil invest. and recommend and struc. design	Modern Motors
15	Granite Factory at 6 Oct. city	Construction of a new steel structure granite factory on an area of about 10,000 m ²	Full arch., electromech., geo, and struc. design and site supervision.	Nile Valley
16	Granite and marble Factory at Katamia city	Construction of a new steel structure granite factory on an area of about 5,000 m ²	Full arch., electromech., geo, and struc. design and site supervision.	Bright Stone Company
17	Wheat mills factory at Kaliobia	New large extension of a wheat mill factory including all silos, factory, tunnels for water transmission	Arhc., Geotechnical investigation and design, structural design and site supervision	Nabil Edris
18	Brick Factory at 6 Oct. City	Construction of a new steel structure brick factory on an area of about 5,000 m ²	Geotech. invest., design of the side support system, dewatering system.	Nile Valley Company
19	Compound of Small factories at 6 Oct.	Construction of 12 compounds of small factories at 6 Oct.	Structural design and site supervision.	El-Amal
20	Electrical gauges factory, Abou- Rawash	Construction of a new gauges factory for electricity	Full arch., electromech., geo, and struc. design and supervision.	El- Seweedy
21	Sharkia for Tobacco, Bass-Bar crossing	Construction of an overcrossing of the bass-	Design and site supervision of the	El- Sweedy





		bar crossing above Ahram Street.	steel frames, foundations and bridges.	
22	Cement brick factory at Abou-Rawash	Construction of a new cement brick factory at Abou-Rawash	Full geotechnical and struc. design.	Heshmat Abou- ElKeir
23	Electrical gauges factory, 6 Oct.	Construction of a new factory	Full geotechnical and struc. Design for repair.	El- Sweedy
24	DSD steel factory (Ferro-Metallica)	Construction of a large scale factory for DSD at Belbis-10 Ramadan Way	Full geotech. investigation	
25	Polyol tank at Hawamdia	Construction of a large steel polyol tank	Full arch., electromech., geo, and struc. design and site supervision.	Shell Int.
26	Paper Factory at Northern Suez industrial zone	Construction of a new Paper factory	Full geotech. And land surveying Investigation	Kharafi and sons
27	Messer Gas factory at Northern Suez industrial zone	Construction of Gas Factory	Full structural and geotechnical design during tender stage	Orascom
28	Green Valley Food industries Factory	Construction of an onion drying and Food processing Factory	Full geotech. And structural investigation	Green Valley
29	Petrogas Factory	Construction of PetroGas Factory	Full geotech. investigation	Dr. Hamad



5. Schools and educational facilities:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Nahdet Masr School, Shorouk City	Construction of an elementary and secondary school	Full Arch., struc, and geotech design.	Dr. Abdel- Hamid Abed
2	Extension of new Kasr El-Einy Hospital, Cairo University	Construction of the external clinic and the extension of the hospital.	Full Struc. and geotechnical design.	Dr. Amr Sherif Neuman
3	El-Mansora University Library Building	Construction of a new library at Mansora University	Full Structural Design	Mansora University
4	Adel-Eisa and Company School	Construction of a school at El-Sherouk City	Full Arch., struc, and geotech design.	Adel-Eisa and Company
5	Shorouk Elementary and Preparatory school, Fayoum	Construction of a school in El-Sherouk City	Geotech. and struc. design.	Dr. Assem Abou-ouf
6	Rod El-Farag School, Rod El- Farag	Construction of a school in Rod El-Farag	Soil invest., dewatering and side support system	Bakir Co.

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6. Shopping Centers:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Cairo Gate Project, Cairo Alexandria Desert Road	A Mall comprised of more than 400 outlets at kilometre 26 Cairo Alex desert road.	Surveying, and Geotechnical investigations	Emaar Misr
2	El-Nakheel Center, 6 Oct., City.	Construction of a shopping center at 6 Oct.	Full Arch., struc, and geotech design.	Modern Eng. Co.
3	El-Nakheel(2) Center, 6 Oct., City.	Construction of a shopping center at 6 Oct.	Full struc, and geotech design.	Modern Eng. Co.
4	Yasmine Center, El- Obour City	Construction of a Shopping center at El- Obour City	Arch., Geotech. and struc. design	New Buildg Co
5	Hurghada Center point	Construction of a new free-market at Hurghada in the shape of a pyramid	Full Arch., geotechnical and structural drawings	AKA
6	Hurghada mall and administrative area	Construction of four separate buildings to form a shopping and administrative center in Hurghada	Design and supervising the works of the piling and foundations	ETAC
7	Mena Center at Moaskar Romani at Alexandria.	Construction of a shopping mall of 3 stories and two underground basements and 7 typical floors	Full geotechnical design for dewatering, side support, and soil investigations.	Mena for tourist develop.
8	Lolat Zayed	Construction of a shopping center at Sheikh Zayed city.	Full Arhc., geotechnical design for dewatering, side support, and soil investigations in addition to quality control.	Project develop. Company
9	Lolat Borg Al-Arab	Construction of a shopping center, administrative, and residential area at Borg Al-Arab.	Full geotechnical design for dewatering, side support, and soil investigations in addition to quality control.	Project develop. Company
10	Mena Center at Omar Ebn-El Khatab St., Heliopolis	Construction of a shopping mall of 3 stories and two underground basements and 7 typical floors	Soil invest., dewatering and side support system	Mena Misr for Develp.

ABCG



7. Main Residential and administrative towers with underground multi storey garages

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Saray El-Hadayek, Hadayek El-Koba, Cairo	Construction of an admin., resid., and commercial center at Hadayek El Koba with three under ground floors.	Full Arch., struc, and geotech design including diaphragm wall with anchors and grouting and site supervision.	Al- Mohadson Co.
2	Four Seasons Hotel, at Nile Plaza	Construction of hotel and an admincommercial, center at with Four under ground floors.	Geotech design review and method of work. Including diaphragm wall with anchors and waterproofing and concrete and steel quality control (Third Party).	Bechtel Inter.and Hyundai Const.
3	Meridian Galleria	Construction of an admin. And commercial, center at with Four under ground floors.	Geotech and struct. design of work, concrete and steel (Contractor's consultant).	Bechtel Inter.and Hyundai Const.
4	ABB headquarters, El-Nozha	Construction of an admin., center at with two under ground floors.	Geotech design. Including diaphragm wall, tangent piles or berlin wall options with anchors. The executed is berlin wall with two rows of anchors.	ABB
5	Tourgoman Building	Construction of an underground multi-storey Garage and a superstructure at tourgoman building	Full struc, and geotech design including diaphragm wall with different methods of construction for tendering purposes.	Samsung Constructi on
6	Diplomat Club at Giza	Construction of a building with two storey of which one is underground and partly under Nile water.	Full struc, and geotech design including side support.	Mancon



7	El-Kamel Mohamed Tower, Zamalek	Construction of an admin., resid., and commercial center at Zamalek with five under ground floors.	Full struc, and geotech design including diaphragm wall with anchors and grouting.	Nile Valley Company
8	Sabri Abou Alam Tower, Cairo	Construction of an admin., resid., and commercial center at Bab El-Louk with five under ground floors.	Full struc, and geotech design including diaphragm wall with anchors and grouting.	Fouda Company
9	Delta Bank Tower	Construction of an admin., resid., and commercial center at Cairo with three under ground floors.	Full struc, and geotech design including diaphragm wall with anchors and grouting (tender study).	Middle East for Tourist develop.
10	Tawfikia Tower	Construction of an admin., resid., and commercial center at Tawfikia with three under ground floors.	Full struc, and geotech design including diaphragm wall with anchors and grouting (design for Contractor)	Middle East for Tourist develop.
11	Nile City Tower	Construction of an admin., resid., and commercial center at Tawfikia with two under ground floors.	Full geotechnical design for dewatering, side support including diaphragm wall with anchors, and soil investigations.	Samcrete
12	Bank Societe General, Down Town	Construction of an admin., and commercial center at Cairo with three under ground floors.	Full struc, and geotech design including diaphragm wall with anchors and grouting (design for Contractor)	Samcrete
13	El-Sefarat Compound	A group of 6 buildings each on 650 m ² with two basements each.	Full geotechnical and structural design and side support system.	Canadian- Egyptian Co.
14	Syndicate of Applicants, Damiatta	Construction of an admin., resid., and commercial center at Tawfikia with two under	Soil invest., dewatering and side support system of strutted	Middle East for Tourist develop.





ground floors.	Berlin type wall.	





8. Underground and above ground multi storey garages

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	El-Gezira Garage	Construction of an underground multi-storey Garage at Gezira sporting Club	Full struc, and geotech design with diaphragm wall with different shoring methods for tendering	Industrial and Enginrng Enterprise (IEE)
2	El-Tahrir Garage	Construction of an underground multi-storey Garage at Tahrir square	Full struc, and geotech design with diaphragm wall with different shoring methods for tendering.	EMAK (Kharafi & sons)
3	Shooting Club Garage (Nadi Al Sheid)	Construction of an underground multi-storey Garage at Shooting Club	Full struc, and geotech design including diaphragm wall with different methods of construction for tendering purposes.	Samsung Constructi on
4	Gamat Al-Doal Al- Arabia Garage	Construction of an underground multi-storey Garage at Gamat Al-Doal St.	Full struc, and geotech design including diaphragm wall with different methods of construction for tendering purposes.	Consort. Of Nasharty, Siac, Bauer
5	El-Mesaha Garage	Construction of an underground multi-storey Garage at Mesaha square	Full struc, and geotech design including diaphragm wall with different methods of construction for tendering purposes.	El- Mostakbal
6	Mostafa Mahmoud Garage	Construction of an underground multi-storey Garage at Mostafa Mahmoud square	Full struc, and geotech design including diaphragm wall, secant pile wall with different methods of construction for tendering purposes.	Eggitto Mec





9. Heavy construction (bridges and tunnels):

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	El-Borolos Bridge	A bridge along the northern coast of Egypt	Full struc, and geotech design for the contractor	Samcrete
2	26 th of July Corridor	A highway connecting downtown Cairo with 6 th of Oct. City including flyovers, walkways and retaining walls	Geotechnical design and soil investigation.	Hassan Alam
3	Prince Saud Bridge	A bridge above a canal in Saudi Arabia	Full structural and geotechnical design for the contractor.	FECO
4	El-Salam Canal	Stabilization of the slope at the banks of the canal	Full geotechnical design and recommendations for the methods of stabilization at tender stage	Eggitto Mec
5	Marsa Alam Marina	Construction of a Marina including all the Marine works and the bridges.	Full struc, and geotech design including diaphragm walls, piling and bridges.	Huta-Sete
6	Marsa Alam Marina Phase II	Construction of a Marina including all the Marine works and the bridges.	Full struc, and geotech design including diaphragm walls, piling and bridges.	Marsa Alam Developm ent Company
7	Marsa Alam Airport	Construction of the first private airport in Egypt.	Geotechnical investigation, structural analysis and crack monitoring	Marsa Alam for Airport manageme nt
8	Abdel-Salam Araf Tunnel and bridge	Comparison between the cost of construction of a tunnel (cut and cover) and a bridge.	Full struc, and geotech design including diaphragm walls, piling and bridges.	Nile Company for roads and bridges



In addition to the above mentioned projects, ABCG in its full capacity or Dr. Sherif Abdel-Baki, the president, as an individual, are assigned to design several other projects in Egypt and the Middle East as sub-consultant. These projects may be presented as follows:

No.	PROJECT	DESCRIPTION	SCOPE OF WORK	CLIENT
1	Bibliotheca Alexandrina, Alexandria	Construction of an admin., buildings and a library with three under ground floors.	Full geotech design including diaphragm wall, dewatering and grouting.	Hamza Associates
2	Central Bank of Egypt.	Construction of an admin. center with three under ground floors.	Geotech design. including diaphragm wall, barrets, and grouting.	Hamza Associates
3	Golden pyramids Plaza.	Construction of an admin., resid., and commercial center at Nasr city with three under ground floors.	Geotech design including soil reinforcement	Hamza Associates
4	Alexandria waste water program.	Construction of shafts for tunneling using diaphragm walls, caisson sinking or berlin wall.	Full struc, and geotech design including diaphragm wall with anchors and grouting.	EAC/MC int.
5	Quena Abou-Tartour Road	Construction of road and railway between Quena and Abou-Tartour.	Full geotech design including road design, retaining wall, reinforced soil retaining wall.	ТСВ
6	Kaha Sewerage treatment plant	A complete sewerage treatment plant with discharge of 40,000 m ³ /day	Full struc, and geotech design.	ТСВ
7	Bridges along Quena-Safaga railway line	About 100 R.C. railway bridges and culverts with lengths ranging from 6 to 16 m	Full geotechnical design and soil investigations.	ТСВ
8	Internal roads for the Schlumberger workshop	Construction of the internal roads of the workshop to carry all kinds of trucks	Design of roads and embankments.	Eng. Medhat Abou- Zeid



Sherif Abdel-Baki, PhD,

President

Education:

Ph.D., Civil Engineering, Queen's University.
M.S., Civil Engineering, Queen's University.
Business Administration Diploma, Harvard Business School
B.S., Civil Engineering, Cairo University.
Appraisal Institute Courses

Awards:

First prize winner, Canadian geotechnical Society, Ph.D. thesis award (1993)
First prize winner, Canadian geotechnical Society, M.Sc. thesis award (1990)
First prize winner, Canadian geotechnical Society, Ottawa section, geotechnical paper award, 1991
McChlaglin Excellence Award, Queen's University, Kingston, Ontario

Dr. Abdel-Baki is an assistant professor at Cairo University. His professional expertise is mainly in the areas of engineering and financial consultancy. He developed several projects with regional and multinational groups including valuation of companies to acquire, negotiations for bank loans, financial structure of several deals and feasibility studies of new projects. Dr. Abdel-Baki is a registered Real Estate appraiser with several banks and in the Egyptian Ministry of Investment. He is also appointed as consultant for the reform and the modernization of some banks such as the Industrial development bank of Egypt and the Export Development Bank of Egypt. Dr. Abdel-Baki is the consultant of several banks in the field of asset valuation and feasibility studies.

Dr. Abdel-Baki is involved in a wide range of projects utilizing state-of-the-art models for foundation analysis soil improvements and groundwater modeling. He also supervised the design and construction of excavation, side support, de-watering, piling, grouting, and soil reinforcement of several projects in Egypt including Bibliotheca Alexandrina. He has wide experience in the field of deep excavation using diaphragm walls, secant and tangent piles, and Berlin wall. Tunneling is also an area of interest and experience of Dr. Abdel-Baki. Another main area of interest of Dr. Abdel-Baki is soil improvement and soil stabilization.

At Queen's University, Dr. Abdel-Baki led a team of engineers to study and design the main highway between Ontario and Montreal. The project included the design and construction of the retaining walls and seepage systems of the highway. During this project he developed many new method of construction and design that are used after him by the engineers and staff at Queen's university and other Canadian universities. At the Royal Military College of Canada (RMC), Dr. Abdel-Baki developed a two and three dimensional Finite element program to analyze the geotechnical and structural components of many projects.

Dr. Abdel-Baki has designed and supervised many civil and geotechnical projects including:

- Road and railway construction,
- Soil classification and site characterizations,
- Design of side support systems,
- Dewatering systems,
- Ground water infiltration and seepage processes,
- Soil improvements,
- Soil reinforcement,
- Design and use of geosynthetics for different applications,
- Hydrology and Hydrogeology.
- Soil Grouting,
- Slope Stability,
- instrumentation,
- Tunneling,
- Deep excavation,
- Side support systems,
- Soil stabilization of the sides of hills using soil reinforcement and pitching.



Mohamed Abdel-Latif, Ph.D., PE, PH, REM, REP

Senior Vice President

Education:

Ph.D., Civil Engineering, Ohio State University. M.S., Civil Engineering, Cairo University. B.S., Civil Engineering, Cairo University.

Registration and certificates

Registered Professional Civil Engineer at Ohio State (PE)
Certified Professional Hydrologist at the American Institute of Hydrology (PH)
Registered Environmental Professional at National Registry of Environmental
Professionals (REP)

Registered Environmental Manager at National Registry of Environmental Professionals (REM)

Certified Groundwater Professional at the National Groundwater Association Full member of SIGMA XI – the scientific Research Society

Dr. Abdel-Latif is bringing more than 19 years on Civil Engineering expertise to ABCG. His professional experience has been concentrated in the areas of geotechnical and environmental engineering with emphasis in the development and application of computer models. Dr. Abdel-Latif has been involved in a wide range of projects utilizing state-of-the-art models for foundation analysis and groundwater quality and quantity. He supervised the dewatering required for the deep construction of the New Esna Barrage. Dr. Abdel-Latif supervised the dilapidation survey and geotechnical design team for the Alexandria sewage system in 1994 with EAC-MC.

At Ohio State University, Dr. Abdel-Latif led a team of researchers to study a 124 square mile watershed located in Glenoma and Mineral Quadrangles in Lewis County, Washington. The research project is a holistic watershed approach to analyze the impact of storm systems on the watershed such as flooding, erosion, steam water quality and landslides. Dr. Abdel-Latif also modeled the infiltration/inflow process to the sanitary sewer system of the city of Columbus considering spatial and temporal variability of rainfall. Duties included monitoring sewer and storm flows in the main sewer, collecting rainfall data from a rain gauge network, and modeling the dynamic flows in the sewer system using USEPA SWMM and XPSWMM models.

During the period from 1996-1997 and working at EMH&T at Columbus, Ohio, Dr. Abdel-Latif supervised a team for the dilapidation survey for the structures near the sewer Dublin Tunnel. This involved evaluation of the current status of the buildings and re-evaluate the status during and after the tunnel construction.

At Metcalf and Eddie consulting firm, Dr. Abdel-Latif worked on a numerous environmental engineering projects that involved flooding, contaminant transport, landfill design, soil erosion, and dewatering systems.

Dr. Abdel-Latif has designed and supervised many geotechnical and environmental projects dealing with the following:

- Soil Classification and site characterizations,
- Design of side support systems,
- Dewatering systems,
- Groundwater infiltration and seepage processes,
- Soil erosion,
- Modelling of contaminant transport and soil remedy,
- Spatial and temporal variation of storm systems
- Dilapidation survey and monitoring for structures
- Infiltration/inflow process to the sanitary sewer systems
- Hydrology and Hydrogeology.



Sherif Safar, Ph.D.,

Vice President

Education:

Ph.D., Civil Engineering, Iowa State University. M.S., Civil Engineering, Cairo University. B.S., Civil Engineering, Cairo University.

Dr. Safar=s professional experience is concentrated in the field of structural engineering with emphasis on dynamic analysis and steel structures. Dr. Safar expertise include the development and application of computer programs utilizing state-of-the-art models for structural analysis and soil structure interaction. He has shared in designing several steel structure, concrete shells, elevated tanks and large span factories.

At Iowa State University, Dr. Safar analyzed in 3-D using finite elements and designed the AP600 (nuclear reactor) concrete shield building. Dr. Safar also shared in the Buckling analysis of System 80^{+TM}. The analysis incorporated using 3-D finite element model to account for local effects of penetrations and stress concentration at support.

Dr. Safar has designed and supervised many structural and soil structure projects including:

- Design and supervision of reinforced concrete structures,
- Design and supervision of steel structures,
- Composite structures,
- Quality control for concrete and steel structures,
- Structural design of side support structures,
- Structural design of caissons,
- Modeling of concrete and steel structures using finite element models.





Ahmed El-Ragy, Ph.D.

Head of Environmental and Quality Control Depts.

Education:

Ph.D., Environmental Engineering, Syracuse University. M.Sc., Civil Engineering, Cairo University. B.Sc., Civil Engineering, Cairo University.

Experience

Assistant Professor, Cairo University, Fayoum Branch

Feb. 2001 - Present

 Teaching structural analysis and mechanics graduate and undergraduate courses in the School of Engineering as well as graduate courses in the School of Oral and Dental Medicine.

Department Manager, ABCG

Jan. 2005 - Present

Administration and technical responsibility on engineering projects.

Vice President, Lagx, LLC

April 2004 - Jan. 2005

- Full technical responsibility for all development divisions.
- Full administration Responsibility on the Cairo branch
- Programming almost all USA building codes, concrete, steel, loads, etc.

Vice President, EnR Solutions, LLC

Dec. 2003 - April 2004

- Full technical responsibility for all development divisions.
- Full administration Responsibility on the Cairo branch
- Programming almost all USA building codes, concrete, steel, loads, etc.

Technical Manager, EnR Solutions, LLC.

June 2003 - Dec. 2003

- Full technical responsibility for all development divisions and the graphics division.
- More than nine products are released including EnR Diamond, Steel Smart System,

Division Manager, EnR Solutions, LLC.

March 2003 - June 2003

• Full responsibility for the software development division,

Project Manager EnR Solutions, LLC.

July 2001 - March 2003

Responsible for the development of a number of projects including Steel Smart System, EnR Steel, EnR Seismic, EnR Wind, EnR Snow

Research Assistant Syracuse University, Syracuse, NY.

Jan. 1999- Jan. 2001

- Working in the Geofoam Research Center.
- Numerical modeling & analyzing geotechnical projects.
- Modeling geotechnical projects using the Finite Difference Analysis Software FLAC.
- Material testing, correlating engineering equations.
- Interstate 15 Highway, Salt Lake City, Utah, 80,000 cubic meters of geofoam below the highway above the soft ground to reduce settlement and speed construction
- Rt23A, New York, slope stabilization utilizing geofoam.
- Other soil structure interaction projects utilizing geofoam in the USA.
- Sharing in teaching geofoam courses.



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Participating as a lecturer in geofoam seminars in the USA.

Teaching Assistant State University of New York, Syracuse, NY. Sep. 1995- May 2000

Assisting in teaching structural analysis and mechanics of materials.

Civil Engineer ACE (Moharram-Bakhoum), Cairo.

Feb. 1993- Aug 1995

- Analysis and design of super and substructures.
- Coordinating with clients, architectural and electrical engineers.
- Designing a number of projects including buildings, under ground tunnel stations, high rise structures, elevated and underground tanks, complex buildings, etc.
- Preparing both the structural drawings and the calculation sheet.
- Designing using a number of standards like; UBC, ACI, BS.
- Supervision and site investigation for the new and current projects.

Structural Engineer IDEA, Cairo.

April 1993-Aug. 1995

- Structural design of a number of projects in Saudi Arabia, including schools, residential buildings of different structural systems.
- Preparing both the structural drawings and the calculation sheet.

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Civil Engineer Structural Engineering Group, Cairo.

June 1990- March 1993

- Coordinating with the client, architectural, electrical engineers.
- Designing projects including residential and office building, buildings rehabilitation, etc.
- Preparing both the structural drawings and the calculation sheet.

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Civil Engineer Cairo Trading and Engineering Co. Cairo.

Aug. 1987-May 1990

- Coordinating with the architectural, the electrical engineers.
- Preparing both the structural drawings and the calculation sheet.
- Supervision and site investigation for the new and current projects.

Teaching Assistant Cairo University, ElFayoum.

Sep. 1987- Aug. 1995

Assisting in teaching structural analysis, structural dynamics, concrete and steel design.

Education

Ph.D. State University of New York, Syracuse, NY

December 2000

- Environmental and Resource Engineering
- GPA 3.93/4.00
- Studying a new super lightweight geotechnical engineering material
- Dissertation Topic: "Selected Engineering Properties and Applications of EPS Geofoam"

MS Cairo University, Cairo.

September 1992

 Structural Engineering. Thesis Topic, "Empirical Formula for Evaluating the Fundamental Natural Period of Frame Wall Structures"

B.Sc. Cairo University, Cairo.

July 1987



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- Civil Engineering.
- Distinction with Honor Degree
 Rank 8 out of 480

Softwares Skills

FLAC, ETABS, SAFE, ANSYS, SAP, PCA Column, PCA Beam, REDO, COSMOS, GeoSlope, REAME, RISA3D, AutoCAD, etc.

Selected Projects

The Underground Cairo Metro Phase II, Cairo.

A double track section tunnel passes twice below the Nile. Three under ground stations each of three levels. Area of each level is 150m X 21m, side walls are 45m deep

Le Meridian Hotel, Cairo.

- Three structures connected at selected levels consist of a reinforced concrete tower with mat foundation on piles, a garage on isolated footing on piles and a podium.
- Static and dynamic analysis using SAP90, SAFE and ETABS, design according to UBC.

Wide Body Airplanes Hanger Foundations, Cairo.

Shallow foundations of an 80m span steel trusses

Rawabi Agyad Complex, Mecca, Saudi Arabia.

Two multistory buildings, a Mosque and a Banquet Hall. A four-story garage connects the four structures.

Minaret El-Riyadh School, Riyadh, Saudi Arabia.

 Buildings, swimming pools, stadium and underground tanks. Structural systems include: hollow blocks, flat slabs, paneled beams,

Strengthening Reinforced Concrete Structures, Cairo.

• After the 1992 earthquake, columns, beams, and footings.

Multipurpose Hall in the Russian Residency, Cairo.

To reduce dead load, aluminum and wood trusses are utilized as the floor and the roof systems on the top of the 22-story building.

Other Projects

The National Bank, Fayed; International Misr Bank, Samouha; Kuwait Group Consortium Tower, Zamalek; Minaret Al Khobar School, Saudi Arabia; etc.

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Monal Abdel-Baki, Ph.D.,

Head of Business and Valuation Group

Education:

Business Administration Lecturer at American University of Cairo
Ass. Prof. At Sadat Academy of Administration sciences
Ph.D., Business Administration.
M.A., Economics, American University of Cairo.
B.A., Economics, American University of Cairo (with highest honours).

Dr. Monal Abdel-Baki's professional experience is concentrated in the field of banking and business administration. The experience is gained from working at the bank of Credit and Commerce for nearly 6 years as a credit officer and dealing room officer. She then quit and joined the consulting profession for business administration and feasibility studies. Her Ph.D. concentrated on the Total Quality Management in Banks and its applications. The focus was on the Egyptian banks. More than 10 banks were thoroughly studied and evaluated in the study.

Dr. Abdel-Baki has been appointed by several banks as a consultant for studying different issues including Quality assurance of some departments, credit assessment methodology and others.

Dr. Abdel-Baki helped several clients either to drop or join projects by introducing feasibility studies to them. She also assisted in recommending to customers a refinancing scheme that proved beneficial. Her expertise are mainly focused on the following:

- Real estate and companies Appraisal
- Company valuations
- Valuation of company shares
- Debt restructuring
- Performance and review of Feasibility studies
- Quality assurance in companies





Amgad Fouad Sultan, PhD,

Head of Electromechanical Department

Ph.D., Industrial Management, MiddleHam University B.Sc. in Electrical eng.

Post graduate studies in Applied Chemical Eng, Cairo University.
Intensive Corporate Training in Business, Marketing,
Finance, Project, Human Resources, Distribution, and Risk Management.
Intensive Functional training in Manufacturing,
Logistics, Quality Assurance, Purchasing, Industrial
Health and Safety, Environment Protection, and Operations.

A global, results oriented consultant with experience in business, distribution, supply chain, HR and commercial affairs management. Turned companies around from loss to market leaders, delivered on operations optimization, Marketing, HR restructure and development, distribution & sales, purchasing, financial control, and savings.

Managed organizations and projects in the USA, Russia, Italy, Hungary, Kenya, Syria, Sweden and Egypt for Procter & Gamble, Clorox, and Henkel.

- Marketing and promoting the company.
- > Develop products and services.
- > Managing company resources.

Key achievements include supporting clients by:

- ➤ Developing business strategies to achieve focus and improve profitability.
- > Introduce new products.
- > Optimize sales operations for more coverage and productivity.
- Optimize manufacturing operations for efficiency and savings.
- > Restructure and develop HR capabilities.

Key Customers that he worked with include:

Rickett Benkaiser, Nestle, A to Z foods, Afri Medical, IBM, JD Edwards, ANSDK, and Misr International Plastics.

June 1995 to March 2002: THE CLOROX/HENKEL INTERNATIONAL COMPANY

Held three key positions;

June 1995 – May 1999 **DEPUTY GENERAL MANAGER CLOROX EGYPT**

> Developed company Objectives, Goals, Strategies, and Measures.

- Managed company Marketing, Sales, Supply Chain, and HR functions.
- Contributed to the regional development of Clorox in Yemen, Hungary, and Russia.

Key results included

- > Introduction of three new brands into Egypt.
- ➤ Increased sales by 30%.
- ➤ Increased manufacturing efficiency thus reducing cost of product by 48%.

As Deputy General Manager, my management role was:



Marketing: Working with the marketing director and the marketing team;

- >Approve marketing research objectives and outcome analysis.
- >Agree Brand Positioning and Advertising Strategy.
- >Agree commercial story boards, and attended commercials shooting.
- >Agree Brand Support Budget, and Activities (store events, road shows, etc.).

Sales: Also working with the sales director and the merchandizing team;

- >Review distributor performance and manage distributor.
- >Set sales and trade targets, define sales routes, and sales reports.
- >Audit distributor implementation of agreed plans.
- >Plan and Manage sales budget and sales force bonus system.

Product Supply: Through the supply chain team;

- >Manage plant.
- >Lead all material purchasing contracts negotiations.
- >Direct and manage all manufacturing operations.
- >Direct and manage all logistics networks.

Human Resources:

- >Developed Clorox Human Resources manual including all company HR policies and procedures.
- >Restructured company organization, promoted six managers.
- >Developed and implemented Clorox's "strengthening organizational effectiveness" program.

May 1999 to May 2001:

STRATEGY PROJECTS MANAGER THE CLOROX COMPANY SAN FRANCISCO, USA

Responsible for:

- (1) Establish and develop the supply chain business for Clorox in Russia. Results included:
- ➤ Leading the due-diligence team and manage the consultant (Deliott & Touche) to acquire a Russian chemicals plant in Volgagrade.
- > Defining distribution strategy.
- ➤ Recruiting the key supply chain management positions.
- (2) New product commercialization and launch (Clorox Ready Mop) in the USA, and Canada.
- ➤ Coordinated all project aspects; R&D, Consumer Research, Manufacturing, Assembly, Distribution, Sales, and Customer Service.
- > Presented the team with upper management.
- Managed project schedule, risk assessment, and budget.
- (3) New logistics strategy following the acquisition of First Brands.
- Lead the strategy team to develop an improved base line of Clorox's logistics strategy.
- ➤ Developed all possible scenarios to integrate the First Brands network.
- ➤ Coordinated logistics analysis of all developed scenarios.
- Recommended and presented to upper management the scenario that was most feasible and delivered a significant saving.

ABCG



- (4) Implementing JDEdwards enterprise planning software.
- Lead a supply chain team to define all supply chain related measures to be produced from the system and categorize them for every management level in the company.
- ➤ Conducted, together with my team, interviews that included all supply chain management in the USA, and a great number of engineers, and technicians.
- > Supported the overall projects team in defining the new work processes as Clorox is planning to move to a process oriented structure versus functional.

May 2001 to March 2002: **DIRECTOR OF COMMERCIAL AFFAIRS HENKEL EGYPT**

Responsible for Purchasing, Contracting, and Cost Control.

- ➤ Lead the Henkel Mediterranean region to develop regional purchasing strategy, and managed the regional contract negotiations for three key raw materials thus delivering significant savings.
- ➤ Reviewed all Henkel Egypt contracts for commercial efficiency including distribution contracts, toll manufacturing contracts, and service contracts.
- ➤ Lead the cost control process that resulted in serious material utilization improvements and expenses savings.
- Restructured the purchasing team for more efficiency.

Jan 1990 to June 1995:

PROCTER & GAMBLE – EGYPT QUALITY ASSURANCE MANAGER PAPER PROCESS MANAGER

Joined Procter & Gamble Egypt as paper process engineer responsible for the commissioning and qualification of the paper production lines in Sweden, Germany, and the USA, their installation and start up in Egypt. Following start up, I was appointed paper process manager responsible for the production of paper products (Always and Pampers). Following this assignment was appointed Quality Assurance manager responsible for Paper, Health & Beauty Care, and Detergents. Responsibility also included raw material and packaging development.

Key achievements:

- > Start up and launch of P&G's paper products into Egypt.
- ➤ Build the paper operation organization.
- ➤ Delivered significant cost savings following start up.
- Restructured the Quality Assurance organization.
- Qualified a large number of local suppliers and material resulting in enormous savings.
- ➤ Developed the QA business and was ranked among P&G's top 10% for quality capability worldwide.



SAID EL-KHOULY, PhD,

Engineering development Group Leader

Education:

Ph.D., Civil Engineering, University of Tokyo. M.S., Civil Engineering, Cairo University. B.S., Civil Engineering, Cairo University.

Awards:

Best Scientific Paper award JSCE "Japanese Society of Civil Engineering" (2005) First Rank Graduate, MSc, Cairo University

Dr. El-Khouly is an assistant professor at Cairo University, Fayoum Branch. His professional expertise is mainly in the areas of structural and earthquake engineering. He developed several computer programs to solve different engineering issues. His work with the Engineering society both in Egypt and Japan has provided him with a wide area of expertise in some of the most critical issues and especially earthquake engineering where he published more than 10 papers dealing with solution of engineering problems subject to earthquake.

Dr. El-Khouly has also worked with all major commercial softwares to develop engineering models for different structures. He has the expertise to develop programs in several computer languages.

During his past year at ABCG, he was able to lead a team of engineering programmers to develop a unique computer program that develops the design and workshop drawings of Telecommunication towers just by entering very few items that define the tower. The input of the program is in not more than 5 minutes and develops up to 200 A0 drawings of details of the tower and a complete list of parts.

Dr. El-Khouly has wide experience in many areas including:

- Analytical Modeling of Reinforced Concrete and steel Structures Subjected to Earthquake Loading,
- Earthquake-resistant Design of Reinforced Concrete and steel Structures,
- Performance-based Design of Structures,
- Numerical Analysis of Structural Collapse
- Improved Applied Element Methods (he is the founder of the method)
- Discrete Element Methods
- Lattice Element Method
- Finite Element Method.



Amr Ragy

Technical Manager

Education

B.SC., Civil Engineering, Helwan University.

Mr. Ragy's experience include several projects and a variety of geotechnical works. Mr. Ragy has participated in the design and supervision of several geotechnical projects among Egypt including Bibliotecha Alexandrina, Cairo Metro and Wastewater systems. His scope of work at Bibliotecha Alexandrina included the design and supervision of the diaphragm wall, piling, base and shaft grouted piles, grouting in sand and rock, instrumentation of d-walls, piles, and neighboring buildings. Some other projects that Mr. Ragy has participated in are

- Rearrangement and Demolishing of a part of the rock cliff above the road to Mokkatam.
- Contract 15 of Greater Cairo Wastewater Project (Tunneling, Caisson Sinking, Open Cut and Dewatering).
- Contracts 27 and 24 of Greater Cairo Wastewater Project (Side Support and Dewatering).
- Alexandria Wastewater Project (Diaphragm Wall, Tunnels and Dilapidation Survey).
- Instrumentation Monitoring (Inclinometers, Strain Gauges, Extensometers and Vibrating Wire Piezometers) for Greater Cairo Metro Line 2 Phase 1.
- Darrasa Reservoirs (Operation and Interpretation for Pile loading Tests and Design of Recharge Wells).
- El-Arish Wastewater Plant (Dewatering and Slope Stability).
- Daar El-Salaam Wastewater Project.
- Raas Gharib Jetty Project (Sheetpiling).
- Transmission Mains (Foundation Design).
- Under Crossings of Transmission Mains (Shafts and Tunnels).
- Cairo West Power Plant Units 5 and 6 (Dewatering and Sheetpiling).
- Cairo South Power Plant (Piles and Dewatering).
- El-Talbia Tunnel (Shafts and Tunnel).
- El-Manzala Lake Embankment (Slope Stability).
- Greater Cairo Metro Line 2 Phase 1 (Vibration Monitoring).
- El-Salaam Syphon, Under Suez Canal, Project (Piling)



Ramadan H. Abdel-Maguid

Head of Surveying and Road Design Department

Profile

A successful and talented Senior expert with extensive backgrounds in civil engineering, surveying, photogrammetry, GIS, and GPS. Works well under pressure and achieves clients' deadlines. He demonstrated experience in planning, developing and implementing engineering solutions and training programs. He has experience with GPS Ashtech, Trimble Products, Total station instruments and Analytical photgrammetric workstation. He has experience with many GIS, GPS, Surveying and Drafting software.

Education History

1992-1996

Of public

- **Ph. D**, Cairo University, Faculty of Engineering, Dep.
- Works (Major in Surveying)

Thesis Title: " On the Use of Photogrammetry and Satellite Positioning to Support Land

Information Systems"

- 1994 1995 *Visiting Scholar*, Purdue University, IN, USA
- Doing Research works and Experiments in GPS, Photogrammetry,
- digitizing and scanning for GIS applications
- Works (Major in Surveying)

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- 1982-1986 Civil
- **B. Sc.**, Cairo University, Faculty of Engineering,
- Engineering Dep.

Career History

2/2006 to Date *QA Division Manager*, SOFTORIA, Cairo Branch

Responsibilities include: develop planning strategies for the company, provide technical data for company website. Implementing Quality Assurance techniques for many projects that include Automating structural Engineering drawings software, Structural Analysis software.

2/2006 to Date Surveying Department Manager, ABCG, Egypt

Responsibilities include: Supervision of the surveying and Road design

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team. The responsibilities included the introduction of new GPS system and the integration of a new GIS team.

Director of Surveying & Roadway Works, Namaa 10/1998 to 2/2006 for Engineering Consultations & Testing

Responsibilities include: planning, managing of survey works for many projects. Working with data downloads, conversions, computations, drafting and mapping. Develop spread worksheets for roadway testing materials. Re-design of existing runway levels. Conducting technical reports for roadway material tests and asphalt mixes. Build quality control system for the company with full technical details. Offering GIS courses for civil and Surveying Engineers.

Managing a GIS based project as project coordinator, for developing Cairo - Aswan Western Desert Roadway. The Managing process of the Roadway GIS project includes managing of several technical studies that include Preliminary, Surveying, Transportation, Roadway Development, Financial studies.

10/2001 to Date Surveying Lab Director – Cairo University, Fayoum **Branch**

Responsibilities include: planning, managing of survey works for surveying projects. Drafting, calculating and mapping works in many projects including:

1/1998 to Now Technical expert - Capital Authority

Responsibilities include: Appraisal of Assets (land, Buildings, Equipment,...) for many Companies

Academic **Experience**

- 2005 Date Associate Professor. Fayoum University, Faculty of Eng., Fayoum,
- Egypt
- 1996 Date Assistant Professor, Cairo University, Fayoum Branch, Fayoum,
- Egypt
- Responsibilities include: Preparing and teaching undergraduate and Postgraduate
- Students (Diplam level in Ain Shams University)many courses that
- include:
 - Plane surveying
 - Geodesy and Photogrammetry,



- Surveying (Selective course),
- Surveying project (2005 2006 2007)
- Computer (DOS Windows),
- Computer Applications (using FelixCAD),
- Digital Mapping for GIS, Diploma level in GIS.
- 1987 1994 Graduate Instructor & Assistant Lecturer, Cairo University,
- Fayoum Branch, Fayoum, Egypt
- Responsibilities include: Assisting in teaching for undergraduate students, Plane
- Surveying, Geodesy, Photgrammetry, Statistics, Transportation.

Tools

- Operating Systems: Dos, Microsoft Windows 95 / 98, Windows XP
- Excel, Quatro-Pro,
- WordPerfect, Microsoft Word
- office automation software such as Microsoft Word, Excel, PowerPoint, Project

Skills

- DBASE Server
- Autocad,
- FelixCAD,
- Surfer,
- ArcView, ARCGIS
- Geomedia, Geomedia web
- Ashteh dimension,
 Zextereme receivers
- Trimble receivers
- Ashtech Solutions, trimble software
- Mapinfo, Mapxtreme
- Fortran language
- Matlab,
- Basic



Publications

Abdel-Maguid, R. H. and EL-Shazly, A., 1998, "Rapid and Precise Surveying with GPS for GIS/LIS Applications", First International Conference on Civil Engineering, Helwan University, Cairo, Egypt

Abdel-Maguid, R. H. and Shendi, M. M., 2000, "Building Geographic Information System for the South Egypt Development Project in TOSHKA Area: I- A Pilot Planning and Development Strategies", 2nd International Conference on Earth Observation and Environmental Information", 11-14 November, Cairo, Egypt.

Abdel-Maguid, R. H., 2001, "Framework for the Mobile Mapping System within the Egyptian Roadway Environment", Civil Eng. Research Magazine, Al-Azhar University, Vol. 23, No. 2, April, pp. 427-443

Abdel-Maguid, R. H., 2002, "Towards the Fully Utilization of Large Scale Digital Orthophotos for Engineering Planning and Visualization", Scientific Bulletin, Ain Shams University, vol. 37, No. 1, March 31, pp. 203-218

EL-Shazly, A. H. and Abdel-Maguid, R. H., 2003, "Evaluation of GPS Relative Positioning Errors Due to Multipath Effects", Scientific Bulletin, Ain Shams University, vol. 37, No. 2, June 30, pp. 181-199

Abdel-Maguid, R. H., 2004 "development of Knowledge-Based Map Matching for Intelligent Land vehicle navigation", Civil Eng. Research Magazine, Al-Azhar University, Vol. 25, No. 1, January, pp. 401-421

Baraka, M. M., Abdel-Maguid, R. H. and EL-Shazly, A. H., 2004, "Minimal Distortion Conformal Map Projection for Engineering Projects", Scientific Bulletin, Ain Shams University, Vol. 39, No. 4.

Abdel-Maguid, R. H.; El-Manadily, Yasser S. and EL-Shazly, A. H., 2005, "A Rapid and Cost-Effective Technique for Planimetric Mapping of Small Villages in Developing Countries", FIG Working Week 2005 and GSDI-8, Cairo, Egypt April 16-21.

Abdel-Maguid, R. H., 2007, "Improving GPS Surveying Accuracy using Continuously Operating Reference Stations (CORS) Infrastructur", under preparation.

Books

Authored Books

Dr. Ramadan Abdel-Maguid, "Fundamentals of Geodetic Engineering", 1st and 2nd part- Faculty of Engineering, Cairo University, Fayoum Branch, 1999.

Ramadan Abdel-Maguid, "Fundamentals **Geomatics** Engineering", Faculty of Engineering, Cairo University, Fayoum Branch, 2001.

Short courses lecture notes in GPS, GIS, Surveying

Short Courses

- Offering a short course in "GPS and Advanced Surveying", Ministry of Housing and Electricity, Muscat, Sultanate of Oman, 1-12



March 2003.

- Offering a short course in "GPS", Ministry of Housing and Electricity, Muscat, Sultanate of Oman, 21 Feb-3 March, 2004
- Offering a short course in "Geographic Information System", Ministry of Housing and Electricity, Muscat, Sultanate of Oman, 7-18 August, 2004
- Offering a short course in "surveying & planning of Residential Areas", Ministry of Housing and Electricity, Muscat, Sultanate of Oman, 20-25 August, 2005

Awards received

Outstanding Paper Award for the paper entitled, "Building Geographic Information System for the South Egypt Development Project in TOSHKA Area: I- A Pilot Planning and Development Strategies", 2nd International Conference on Earth Observation and Environmental Information", 11-14 November, 2000, Cairo, Egypt.

Background Information

- excellent technical skills
- excellent verbal and written communication skills
- Team Leader
- Professional computer skills
- Sex: Male
- Date of birth: 02/21/1963

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Wael ElRashidy

Design Manager

Education

B.SC., Civil Engineering, Cairo University.

Mr. ElRashidy's experience include several projects and a variety of geotechnical and structural works. Mr. ElRashidy has participated in the design and supervision of several geotechnical and structural projects among Egypt including Bibliotecha Alexandrina, Greater Cairo Metro and Wastewater projects in Cairo and Alexandria. His scope of work at Bibliotecha Alexandrina included the design, tender evaluation of diaphragm wall, piling, base and shaft grouted piles, grouting in sand and rock, instrumentation of d-walls, piles, and neighboring buildings. Some other projects that Mr. ElRashidy has participated in are

- Greater Cairo Metro Line 2 Instrumentation Monitoring.
- Darrasa Reservoirs (Operation and Interpretation for Pile loading Tests and Design of Recharge Wells).
- El-Arish Wastewater Plant (Dewatering and Slope Stability).
- El-Talbia Tunnel (Shafts and Tunnel).
- Preparing settlement prediction for Greater Cairo Metro line 2.
- Supervision of Raba ELAdawia project at nasr city
- Design of Administration building of ELMassryn factory for milk products.
- Participating in design of BIM-BIM factory (10 Ramadan city)
- Preparing precautionary and preventive measures reports for the critical buildings and utilities for Greater Cairo Metro line 2 (102 Shubra street, CWO tunnel at K.p 5.5, Leroy building, Al-Azhar bridge, Lot 7D2).
- Bibliothica Alexandrina Project, geotechnical works, Tender Package 1(Diaphragm Walls, piles, grouted piles, dewatering system and others).
- Bibliothica Alexandrina Project, Tender package 1 evaluation (technical and financial evaluation).
- Esna Barrage, design of slope stability.
- El-Kuriemat Power station, calculation of settlement effect to the discharge and intake structures.
- Engineered Wetland at Lake Manzala, design of embankment slope, calculation of settlement to embankments and calculation of bearing capacity and settlement of shallow foundations of the administration buildings.
- AGOSD project in Alexandria, calculation of the effect of tunneling to the nearest buildings.
- Settlement effect to El-Esraa Tower in Port-Said.
- Supervision of the buildings surrounding the Metro stations and lots.
- Evaluating the conditions of these buildings to the construction stages and how sensitive are they?
- EL-Moneeb Bridge over the Nile.
- EL-Maroutia bridge.
- The site Engineer for the Meet-Ghamr Bridge (land and marine piles)
- Preparing the design of the foundations for the studied projects for tenders and for the site
- Design of 3 schools which are belong to 100 school project at Ismailia & Kantara and Arish.
- Revision of some projects such as Elauitty villa and Elkanater prison.
- Design of a big residential city in Albania.
- Design of the new reception clinic of El-Kaser El-Ainy Hospital.
- Several residential towers and villas.



Hamdy Abdel Wahab

Laboratory Manager

Education

B.SC., Geology 1983, Cairo University.

Mr. Abdel Wahab's experience include several projects and a variety of geotechnical works. Mr. Abdel Wahab has participated in the supervision and execution of on-shore and off-shore boreholes, short and deep piezometers, water level monitoring. Supervising pile drilling and casting. Drilling and installation of deep wells. Performing all field and laboratory tests for the soil and materials. Mr. Abdel Wahab has participated in the following projects:

- Greater Cairo Metro Line 2.
- ElDfreswar Chalets.
- Zagazig-Kafr Sakr Transmision Line.
- El Meuia Maqousa Transimision Line.
- Kafr Saad Transimision Line.
- El Amira El Dekhala Transimision Line.
- El Tore Housing Project.
- Ras Messala elevated tanks and pumps.
- Damitta Steam power plant.
- Damitta Dam.
- Damitta Port.
- Abu Minqar Island tourist village.
- Port Said Container terminal.
- Suez Thermal power plant.
- New Esna Barrage.
- Cairo Wastewater Project contracts (20A, 23A, 24A, 27A)
- El Tiebien Abu Zabal Transmision Line.
- Damitta Sugar silo port.
- Golden Pyramids Tourist Center.
- Kafr El Shiekh elevated tanks.
- Cairo South power plant.
- El Salam Syphon under Suez Canal.
- El-Kurimat Power Plant.
- Damanhour power plant.
- El Omaied Transformer Station.
- Assuit Power Plant.
- El Walidia Power Plant.
- El Dabaa Housing Project.
- Nile Plaza Complex.
- Nile City Towers.
- Port Said Gas Facilities.
- El Sukhna Industrial Zones and Port.
- Toshka New Valley Pumping Station.