MAHMOUD ABDELFATTAH BUREAU

COMPANY PROFILE

2026 EDITION

GEOTECHNICAL · QUALITY CONTROL · STRUCTURAL DESIGN

Soil investigation, testing laboratories and specialized geotechnical contracting — more than 5,000 projects across Egypt since 1985.

ABOUT THE BUREAU

FORTY-ONE YEARS OF READING THE GROUND.

MAB — Mahmoud Abdelfattah Bureau — was founded in Alexandria in 1985 by Prof. Dr. Mahmoud Abd El Fattah Mahmoud, Professor of Soil Mechanics and Foundation Engineering at Alexandria University. What began as a consulting practice has grown into an integrated geotechnical house: consulting, contracting, and accredited testing laboratories under one roof.

1985 — THE CONSULTANCY

Founded as a consulting firm for geotechnical and quality-control engineering, serving owners, contractors and structural designers across Egypt.

1995 — CONTRACTING & LABORATORIES

Convinced that sound advice needs excellent sampling and testing behind it, MAB built its own geotechnical contracting department and material-testing laboratories, continuously upgraded since.

TODAY — THE INTEGRATED BUREAU

An S.A.E. company with more than 5,000 projects logged — from Alexandria's towers to the Western Desert gas fields — now backed by a digitized project archive and a live public project map.

41	5,000+	70 m	10	500 t
YEARS IN PRACTICE	PROJECTS LOGGED	MAX DRILLING DEPTH	ROTARY BORING RIGS	PILE LOAD TESTING

We care about soil types, groundwater conditions and local materials — and about solving the problems they create. MAB participates as a member of the project team through every phase, from preliminary design to completion, focused on practical, cost-effective geotechnical recommendations. All investigations follow the Egyptian Code of Practice; other codes are applied on request.

I — GEOTECHNICAL CONSULTING DEPARTMENT

ADVICE A FOUNDATION CAN REST ON.

The consulting department provides critical information for the owner, the contractor and the structural design engineer: what the ground is, what it can carry, and what it will cost to build on. Findings and recommendations are delivered as complete geotechnical reports.

SERVICES

- Complete geotechnical investigation reports
- Foundations and underground structural design
- Highways, bridges and airport foundation design
- Permanent and temporary earth-retaining structures
- Slope stability analysis
- Geotechnical and quality-control testing programs
- Underground water control and dewatering design
- Earth works
- Ground improvement — design and monitoring
- Arbitration, evaluation and rehabilitation reports

WHO IT SERVES

OWNERS

A realistic assessment of foundation and earthwork cost before commitment.

STRUCTURAL ENGINEERS

Parameters for an economical but sound foundation design.

CONTRACTORS

A competitive but realistic price for excavation, embankment and foundation work.

THE PROJECT

Five thousand projects of local experience applied to yours.

II — GEOTECHNICAL CONTRACTING DEPARTMENT

DRILLING, SAMPLING, AND DRY EXCAVATIONS.

BOREHOLES & DRILLING

Ten Acker rotary boring machines drill all soil types down to 70 m, operated by engineers and technicians averaging 15 years in the field, supported by strong transport utilities and a deep spare-parts stock.

- Offshore and onshore borehole drilling
- Soil sampling — disturbed and undisturbed
- S.P.T. field tests
- Vane shear tests
- R.Q.D. measurements
- Groundwater table measurement and sampling
- Piezometer and well drilling
- Underground instrument installation
- Drilling jobs up to 0.5 m diameter

GROUND WATER CONTROL — DESIGN & CONTRACTING

Our newest branch treats dewatering as an engineering problem, not a pumping job: systems designed to control groundwater with the least pumped water, protecting adjacent buildings and the environment.

- Deep well systems
- Well point systems
- Shallow (surface) dewatering systems
- Piezometer works

Reference works: Marseilia Florance, Mandara (10,000 m², six 10-storey towers over one basement) · Smouha Entrance Tower (6,000 m², five towers) · Burullus main compression pump station, Phase VII — groundwater lowered 10 m.

III — MAB TESTING LABORATORIES

MEASURED, NOT ASSUMED.

SOIL LABORATORY

- Grain size — sieve and hydrometer
- Atterberg limits
- Permeability — falling and constant head
- Standard and modified Proctor compaction
- Consolidation, collapse and swelling (6 odometers)
- Direct shear, tri-axial and pocket penetrometer
- Unconfined compression — soil and rock
- Unit weight, specific gravity, water content

CONCRETE LABORATORY

- Aggregate physical and mechanical properties
- Cement fineness, setting, soundness, mortar strength
- Steel reinforcement — yield, tensile, ductility, grade
- Fresh concrete — slump, unit weight, air, setting
- Hardened concrete — cubes, cylinders, Schmidt, cores

HIGHWAY & ASPHALT LABORATORY

- Grain size analysis
- Asphalt separation and Marshall tests
- Standard and modified Proctor
- California bearing ratio (C.B.R.)

CHEMICAL LABORATORY

- Mixing and curing water analysis
- Fine and coarse aggregate analysis
- Cement analysis and compound composition
- Admixtures and hardened concrete analysis
- Aggregate soundness

CALIBRATION SERVICES

Indoor and field calibration of concrete mixing plants (manual and automatic), compression machines and proving rings, hydraulic jacks, and all volumetric, weight, soil and concrete apparatus.

IV — FIELD & IN-SITU LABORATORIES

THE LAB GOES TO THE SITE.

Site laboratories equipped to the task at hand, run by highly trained technicians, control fill material and compaction as the work progresses — so quality is verified while it can still be corrected.

COMPACTION & SETTLEMENT QUALITY CONTROL

- Sand cone and balloon density tests
- Plate loading tests
- Dutch cone (static penetration) tests
- Hydrostatic profiler — settlement and heave monitoring beneath embankments and foundations

DEEP FOUNDATIONS QUALITY CONTROL

- Vertical pile load tests — up to 500 tons
- Horizontal pile load tests
- Static Dutch cone — end bearing and side friction
- Pile integrity testing (P.I.T.) — ultrasonic detection of defects, necking and abnormal sections

STANDARDS

All field tests and drilling jobs are carried out according to the Egyptian Code of Practice; ASTM and other codes are applied upon client request. MAB is a member of the Egyptian bureau for civil responsibility insurance.

V — THE PEOPLE

PROFESSORS, ENGINEERS, AND DRILLERS.

FOUNDER

Prof. Dr. Mahmoud Abd El Fattah Mahmoud — Professor of Soil Mechanics and Foundation Engineering, Alexandria University; Ph.D. Southampton University (1985). Member of the permanent committee for updating the Egyptian Code of Practice for Soil Mechanics and Foundation Engineering; head of the subcommittee for earthwork and groundwater control. Licensed consulting engineer (Syndicate cert. 1465/1) — consulting office in soil mechanics and foundations.

CONSULTANT PROFESSORS

- **Prof. Hassan Mohammed Abo Saeda** — soil mechanics & foundation engineering, Alexandria University; Ph.D. Rice University; offshore and seismic specialist
- **Prof. Aly Abd El Hakam Aliabdo** — material testing, structural engineering department, Alexandria University
- **Prof. Dr. Khalil Abo Ahmed** — roads and airports engineering, transportation department, Alexandria University

ENGINEERING STAFF

- **Eng. Karim Mahmoud Abd El Fattah** — consultant engineer (reg. 7847/1), leading the bureau's practice
- **Eng. Khaled Mohammed Ismael** — consultant engineer
- Professional engineers: Eng. Mostafa Mohammed Fathy el Marassi · Eng. Mahmoud Hossam el Din Mostafa · Eng. Omneya Mahmoud Abd El Fattah

FIELD & LABORATORY FORCE

Two staff geologists, six drilling technicians and seven laboratory technicians — the crews who bring the samples up and the numbers in.

VI — TRACK RECORD

FOUR DECADES, LOGGED.

MARQUEE CLIENTS

Alexandria Petroleum Company · Khalda Petroleum · Petrojet · Petrobel · Wepco · El-Nasr Petroleum · LNG Company · Sedpec · Alexandria Shipyard — alongside towers, resorts and public works across Egypt.

SELECTED WORKS

- Gas Oil Maximization Project — Alexandria Petroleum
- 25 storage tanks (5,000–20,000 m^3) — Alexandria Petroleum
- Qasr Gas — Khalda — Petrojet, Western Desert
- Burullus main compression, Phase VII — Petrojet
- Northern Pipe Compression Project — Khalda — Petrojet
- Ethylene & polyethylene projects — El-Amriya — Petrojet
- Blue Horizon Tower (20 storeys) — El-Mandara
- Alexandria Towers (four towers, 13 storeys) — El-Souef
- Two Smouha High Class towers (18 storeys)
- Marseilia Beach Village — Km 75, North Coast
- Sant-Katrin Village — North Sinai
- Golden Five Resorts lift line — Hurghada
- Piling retaining wall (10 m) — Electronic Institute, Cairo–Ismailia Rd.
- Piling works — Central Cotton Palace, El-Manshia
- Marine passenger station rehabilitation — Alexandria Port
- Gymnasium hall rehabilitation — Marsa Matrouh

VII — RECENT WORKS · 2025–2026

WHAT WE'RE READING RIGHT NOW.

PROJECT	LOCATION	SCOPE
"The One" residential towers	Smouha, Alexandria	71-boring investigation; CFA pile design — 21 m, 110 t working load
Port warehouses W07–W08, W02-2–W03-2	Damietta Port	Soil studies; vibro-flotation and replacement alternatives
Amwaj resort village	Sidi Abdel Rahman, North Coast	Ongoing earthwork QC — 20+ compaction reports
Corniche rehabilitation, Marina 8	North Coast	Investigation; rock-fill replacement design
Boughaz 5 retaining walls, Marina 6	North Coast	Investigation and replacement-layer QC
Medical center, Plot 7, Zone 35	Sadat City	9-boring investigation; footing design at 5.5 m
Central grandstands building	Alexandria National University, Abis	Earthwork compaction QC — 14-point testing
Battery rooms, Coca-Cola plants	El-Amriya	Investigation and compaction QC series
National Bank of Egypt branch	Abu Qir	Plate-loading QC and remedial verification
GASCO protection line	El-Amriya	Geotechnical investigation
Pharma Plast & Blend Pro plants	Borg El-Arab	Investigations and staged earthwork QC
National Vegetable Oils silos	Borg El-Arab	Settlement repair investigation and QC
Shaltout village mosque — Km 64	Alex–Matrouh road	Strauss pile foundation design — 13 m
Sewage & storm networks, Morouj Plot 45	Smouha, Alexandria	Long-running QC program — 540+ report series

A sample from the live ledger — every logged project appears automatically on the public map at mab-egypt.com/projects.

VIII — THE DIGITAL BUREAU

A 5,000-PROJECT MEMORY, ONE SEARCH AWAY.

Since 2026, MAB has been digitizing four decades of project records into a structured archive — because the fastest way to read the ground is to have read it before, fifty meters away.

THE ARCHIVE

The complete project ledger since 1985, indexed and searchable — report recommendations preserved in Arabic, exactly as issued.

THE LIVE MAP

Every logged project appears automatically on the public map at **mab-egypt.com/projects** — location, scope and record.

THE CLIENT PORTAL

Clients follow their projects and receive reports through a secure portal on mab-egypt.com, with notifications by email and messaging.

WHY IT MATTERS

Prior investigations near your site inform boring programs, foundation options and cost — before the first rig arrives.

END OF BORING — 297.00 MM

LET'S READ YOUR GROUND.

Send us the site, and we'll tell you what's under it — and what it will honestly cost to build on.

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REGISTRATION

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