



مختبرات حجاوي الإنشائية
Hijjawi Construction Labs
SINCE 1994



www.hcl.com.ps



Company Profile



Brochure - 2024

Brief History

Hijjawi Construction Labs (HCL) was established in 1994, and since establishment has provided its clients with wide range of services in the fields of Geotechnical Engineering and Soil Testing (Geotechnical site investigations), Concrete, Asphalt, Materials testing and Quality Control services for various important projects in different areas of Palestine.

Hijjawi Construction Labs (HCL), based on many years of experience and in-depth know how of national and international projects was quickly recognized and accredited by various governmental authorities and international agencies in Palestine as a professional testing laboratory.

In March 1997, the laboratory has been accredited by the Palestinian Standards Institution (PSI) as a construction laboratory, which meets the requirements of PSI and the relevant requirements of ISO - Guide 25 (later ISO-17025) and ISO 9000 series of standards.

In May 2000, the Quality System at Hijjawi Construction Labs has been registered by SGS - European Quality Certification Institute - UK as a system complying with ISO-9001 - Total Quality Management (TQM) requirements.

Quality Policy

It is the policy of **Hijjawi Construction Labs** to:

- Provide its client, at all time, with services complying with the highest standards of quality for all aspects of work.
- Meet the defined needs and expectations of its clients.
- Ensure that its standards and reputation for high quality services are maintained and enhanced, through full employee involvement and their commitment to excellence.
- Ensure that all policies, operational procedures, and work instructions are most effective, optimized and practical through a process of continuous improvement.
- Investigate new and updated technologies in the field of material testing, testing equipment, and testing standards, to ensure that these technologies are effectively and economically used in the delivery of all services provided by the labs.

To achieve this aim, **Hijjawi Construction Labs'** have developed and shall maintain and implement procedures for all functions according to the requirements of **ISO-17025** standard. These procedures are subjected to scheduled audits and to a periodic review.

The intention behind these procedures is to direct the staff of the lab with regard to their duties, and to provide adequate assurance that the work undertaken by the lab shall achieve fitness for purposes in every service, by cost effective and systematic methods.

The top management and the employees of **Hijjawi Construction Labs'** are strongly committed to ensure compliance to this policy.

The policy is implemented through the labs' **ISO** quality system, which covers the Lab's operational procedures and applies to all Lab personnel.



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**Hijjawi Construction Labs' Drill rig (Type Mobile Drill – Type B-34)
and Field Quality Control Activities**



Laboratory Tests Performed By H.C.L

Soil Testing:

- 1- Sieve analysis (gradation)
- 2- Hydrometer analysis
- 3- Moisture content
- 4- Specific gravity
- 5- Atterberg limits (Liquid & Plastic)
- 6- Linear Shrinkage
- 7- Free Swelling
- 8- Field density
- 9- Consolidation
- 10- Percent Swell
- 11- Swelling Pressure
- 12- Direct Shear
- 13- Compaction (Standard & Modified)
- 14- California Bearing Ratio (C.B.R)
- 15- Plate Bearing Test
- 16- Standard Penetration Test (S.P.T)
- 17- Electrical Resistivity Test
- 18- In-situ Penetration Test
- 19- Sulphate content
- 20- Chloride content
- 21- PH value
- 22- Electrical Resistivity (Corrosivity).

Aggregates & Materials Testing:

- 1- Sieve analysis (gradation)
- 2- Specific gravity
- 3- Water absorption
- 4- Los Angeles abrasion
- 5- Aggregate Crushing Value (ACV)
- 6- Soundness (MgSO₄ or Na₂SO₄)
- 7- Clay lumps & friable particles
- 8- Flakiness Index
- 9- Elongation Index
- 10- Sand Equivalent
- 11- Ten Percent fines
- 12- Bulk density, voids & bulking
- 13- Sand compaction factor
- 14- Chert content of coarse aggregate
- 15- Lightweight pieces in coarse aggregate
- 16- Fineness modulus of sand for concrete
- 17- Sulphate Content in coarse & fine aggregates
- 18- Chloride Content in coarse & fine aggregate

Concrete Testing:

- 1- Concrete Mix Design
- 2- Compressive strength
- 3- Slump
- 4- Non-destructive Hammer Test
- 5- Non-destructive Ultrasonic testing
- 6- Shrinkage testing
- 7- Core Test
- 8- Pile Integrity Test

Reinforcing Steel Testing:

- 1-Yield and Tensile Strength
- 2-Elongation

Concrete Block Testing:

- 1- Compressive strength
- 2- Water absorption
- 3- Specific gravity

Tile Testing:

- 1- Measurements
- 2- Visual examination
- 3- Surface water absorption
- 4- Total water absorption
- 5- Transverse strength

Asphalt Testing:

- 1- Asphalt Hot Mix Design (Marshall)
- 2- Bitumen content (Extraction)
- 3- Gradation of aggregates in asphalt mix
- 4- Theoretical maximum specific gravity
- 5- Density of Marshall specimens
- 6- Marshall Stability & Flow
- 7- Coating & Stripping test
- 8- Coring of paved asphalt
- 9- Condition Assessment of Existing Pavement
- 10- Pavement Thickness Design (AASHTO Guide 1993).

Cement Testing (strength, setting time, soundness, fineness & consistency).

Note: HCL is ready to arrange for the carrying out of any other tests not mentioned in the above list.

RELEVANT EXPERIENCE

Hijjawi Construction Labs (HCL) qualifications in the fields of soils and materials testing are based on the experienced staff of engineers and technicians, supported by **Eng. Fares S. Hijjawi**, the Acting General Manager of HCL, who runs and supervises the testing and reporting activities with 12 years of experience in the field of geotechnical and material testing. Also, HCL relies on the continuous support of **Dr. Sami A. Hijjawi** as an associate consultant who has been involved in testing and QC activities for several important projects since 1983 in Jordan, Yemen and Palestine and acted as geotechnical and material engineer in different projects of consultancy services.

MAJOR PROJECTS AND CLIENTS

Hijjawi Construction Labs (HCL) has been involved in geotechnical site investigations, materials, concrete and asphalt testing and quality control services for different projects funded and /or implemented by different authorities and agencies in Palestine, such as:

- Ministry of Public Works and Housing
- Palestinian Water Authority (PWA)
- Palestinian Economic Council for Development & Reconstruction (PECDAR)
- United States Agency for International Development (USAID)
- Japan International Cooperation Agency (JICA)
- German Development Bank (KFW)
- German Development Agency (GTZ)
- Ministry Of Education
- United Nations Relief Works Agency (UNRWA)
- Palestinian Housing Council (PHC)
- United Nations Development Program (UNDP)
- Municipalities
- Private Sector companies.



HCL's testing and quality control services are also rendered to different well-known local and international contracting and consulting engineering firms working in Palestine, in addition to quality control services for different concrete and concrete products factories (Concrete block, tile, curb stone...).

خدمات مختبرات حجاوي الإنشائية Hijjawl Construction Labs' Services	
Geotechnical Site Investigations	• تحريات الموقع وفحوصات التربة
Construction Materials Laboratory and Field Testing	• الفحوصات المخبرية والحقلية للمواد الإنشائية
Roads & Highway Laboratory and Field Testing	• فحوصات مواد الطرق المخبرية والحقلية
Quality Control	مراقبة النوعية (ضبط الجودة)
Consulting Services in Testing & Materials :	• استشارات في مجال الفحوصات والمواد :
- Evaluation of existing structures	- تقييم المنشآت القائمة
- Slope Stability Analysis	- تحليل اتزان المنحدرات
- Study & design of retaining structures	- دراسة وتصميم الإنشاءات الاستنادية
- Evaluation of quarries	- تقييم ودراسة مواد الكسارات والمقالع
- Training in soil & materials testing activities	- التدريب في مجالات فحوصات التربة والمواد
- Design & implementation of quality control systems for construction products factories	- تصميم وتنفيذ برامج مراقبة النوعية (ضبط الجودة) لمصانع المنتوجات الخرسانية والاسفلتية

PERSONNEL

Highly qualified and experienced engineers and laboratory technicians are involved in field and laboratory activities of **Hijjawi Construction Labs**. The following table shows the permanent members of **HCL's** technical team:

Name	Position	Qualification	Years of Experience
Fares S. Hijjawi	Acting General Manager- Geotechnical & Material Engineer	M.Sc (Civil Eng.)	12
Maher O. Jabr	Administration Manager	Project Management & Computer Programming	28
Basel S. Hijjawi	Human Resources Manager	B.A (Business Administration)	5
Wala'a Al Ahmad	Civil Engineer QA/QC	B.Sc (Civil Eng.)	15
Mohammad Bzour	Civil Engineer/ Lab. Technician	B.Sc (Civil Eng.)	10
Mu'ath Al Khatib	Civil Engineer/ Lab. Technician	B.Sc (Civil Eng.)	8
Ghassan Bzour	Senior Laboratory Technician (Technical supervisor)	Diploma (Civil Eng.)	28
Nael Sawafta	Senior Lab. Technician	Diploma (Civil Eng.)	27
Ahmad Sama'neh	Admin. Assistant	B.A (Business)	22
Nidal Masoud	Assistant Lab. Technician	Training in field testing	20
Mohamad Tayseer	Assistant Lab. Technician	"	19
Mahmoud Abu Dayyeh	Assistant Lab. Technician	"	16
Mustafa M. Sawafta	Assistant Lab. Technician	"	17
Abdulsalam Hneini	Senior driller – sampling officer	19 years experience in drilling and soil sampling	

For more information: visit HCL's website (www.hcl.com.ps)