

Laboratory Certification For

Shakib Dastaghir Construction & Design Company (S-CAD)-KBL

Lab ID: LCP-031

Issue date: Aug 15th, 2018

Expiry date: Aug 14th, 2019

This letter confirms the completion of inspection and certification for the S-CAD Lab, which is located at street # 19, Eistgahe Danish, Hesa 3 of Khair Khana, District 15, Kabul, Afghanistan. This laboratory should now be considered as certified for use by the US Army Corps of Engineers Transatlantic Afghanistan District (USACE TAA) and other clients, for all tests listed in Table 1 to Table 5, as attached to this letter. This certification will be included with records that are maintained at the ABA and USACE TAA Headquarters in Bagram Airbase, Afghanistan. Retaining the certification will require yearly inspections by the ABA. This certification is also contingent upon the following conditions:

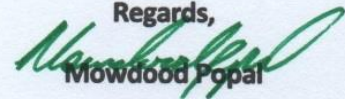
- A. Continued employment of the below individual while without his oversight, the laboratory will require recertification:
 - a. Eng. Ghulam Dastaghir the laboratory manager;
- B. If the calibration certificates of equipments expire or become invalid as per the relevant standard;
- C. If the laboratory is moved to a new location, it will require recertification; and
- D. If the laboratory fails to comply by the approved lab quality management plan, safety standards, and other criteria set forth in the most up-to-date ABA lab certification manual, the lab certification may be suspended.

For verification and good standing of this certification please check our online directory of laboratories at http://aba.af/lcp_directory.php. The inspection and certification process for the S-CAD adhered to procedures outlined by the Materials Testing Center (MTC), which is located at the Geotechnical and Structures Laboratory (GSL), U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, USA. The MTC is the USACE-authorized agency for certifying laboratories for use in quality control testing for USACE construction projects. To facilitate construction in Afghanistan, the USACE TAA has authorized the ABA to conduct laboratory certifications with strict adherence to MTC protocol. Qualifications of the authors for conducting these certifications include: 12 years of laboratory experience, 12 years of teaching classes on construction materials, and six years of teaching university-level construction classes.

Certified to perform 47 tests, as shown on attached sheets and summarized as:

- Table 1: 9
Table 2: 8
Table 3: 14
Table 4: 11
Table 5: 5

Regards,



Mowdood Popal

President of Afghanistan Builders Association



S-CAD-KBL Certified Laboratory Tests

Table 1. List of Soil Tests

No	Test Method	Test Procedure Title
1	ASTM D421	Dry Preparation for Particle Size Distribution & Soil Constants
2	ASTM D422	Standard Test Method for Particle-Size Analysis of Soils
3	ASTM D854	Specific Gravity of Soils
4	ASTM D1556	Density & Unit Weight by Sand Cone
5	ASTM D1557	Compaction Characteristics by Modified Effort
6	ASTM D1883	California Bearing Ratio (CBR)
7	ASTM D2216	Water Content
8	ASTM D4318	Liquid & Plastic Limits & Plasticity Index
9	ASTM D4944	Standard Test Method for Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester Method

Table 2. List of Aggregate (Fine and Course) Tests

No	Test Method	Test Procedure Title
1	ASTM C29	Unit Weight and Voids in Aggregate
2	ASTM C117	Material Finer than 75 μm (No. 200) Sieve
3	ASTM C127	Specific Gravity & Absorption in Coarse Aggregate
4	ASTM C128	Specific Gravity & Absorption in Fine Aggregate
5	ASTM C131	Los Angeles Abrasion Resistance on Small-Size Coarse Aggregate
6	ASTM C136	Sieve Analysis of Aggregates
7	ASTM C566	Total Moisture Content
8	ASTM D4791	Testing Aggregates. Methods for Determination of Particle Shape Flakiness Index and Elongation Index for Coarse Aggregate.

Table 3. List of Concrete Tests

No	Test Method	Test Procedure Title
1	ASTM C31	Making and Curing Test Specimens in the Field
2	ASTM C39	Compressive Strength of Cylindrical Specimens
3	ASTM C143	Slump
4	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
5	ASTM C231	Standard Test Methods for Air Content of Freshly Mixed Concrete by the Pressure Method
6	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
7	ASTM C42	Obtaining and Testing Drilled Cores and Sewed Beams of Concrete
8	ASTM C78	Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
9	ASTM C174	Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
10	ASTM C192	Making and Curing Test Specimens in Laboratory

No	Test Method	Test Procedure Title
11	ASTM C617	Capping Cylindrical Specimens
12	ASTM C642	Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
13	ASTM C684	Standard Test Method for Making, Accelerated Curing, and Testing Concrete Compression Test Specimens
14	ASTM C805	Rebound Number of Hardened Concrete

Table 4. List of Bituminous Tests

No	Test Method	Test Procedure Title
1	ASTM D2172	Quantitative Extraction
2	ASTM D2726	Bulk Specific Gravity and Density
3	ASTM D2950	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods
4	ASTM D3203	Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
5	ASTM D2489	Standard Test Methods for Estimating Degree of Particles Coating of Asphalt Mixtures
6	ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate
7	ASTM D979	Sampling Bituminous Paving Mixtures
8	ASTM D3549	Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens
9	ASTM D5361	Standard Practice for Sampling Compacted Bituminous Mixtures for Laboratory Testing
10	ASTM D6926	Preparation of Bituminous Specimens Using Marshall Apparatus
11	ASTM D6927	Marshall Stability and Flow of Bituminous Mixtures

Table 5. List of Masonry & Cement Tests

No	Test Method	Test Procedure Title
1	ASTM C140	Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
2	ASTM C188	Standard Test Method for Density of Hydraulic Cement
3	ASTM C1019	Standard Test Method for Sampling and Testing Grout
4	ASTM C1552	Standard Practice for Capping Concrete Masonry Units, Related Units and Masonry Prisms for Compression Testing
5	ASTM C170	Standard Test Method for Compressive Strength of Dimension Stone