

اتحادیه شرکت های ساختمانی افغانستان بیایید افغانستان را با هم بسازیم

Laboratory Certification For

Venco Imtiaz Construction Company

Lab ID: LCP-010

Issue date: May 28th, 2020 Expiry date: May 27th, 2021

This letter confirms the completion of inspection and certification for the VICC CMT Lab, which is located in Spin Ghar Road, Hod Khail, District #9, Pol-e-Charkhi, Kabul, Afghanistan. This laboratory should now be considered as **Certified for a period of 12-months** from the date of this letter. 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 7, 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. Mr. Noorullah Mashwani 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 VICC 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 93 tests, as shown on attached sheets and summarized as:

 Table 1: 16

 Table 2: 19

 Table 3: 23

 Table 4: 23

 Table 5: 6

 Table 6: 3

 Table 7: 3





VICC CMT Laboratory Certified 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 | Particle Size Analysis |
| 3 | ASTM D698 | Compaction Characteristics by Standard Effort |
| 4 | ASTM D854 | Specific Gravity of Soils |
| 5 | ASTM D1140 | Material Finer than 75 mm (No. 200) Sieve |
| 6 | ASTM D1556 | Density & Unit Weight by Sand Cone |
| 7 | ASTM D1557 | Compaction Characteristics by Modified Effort |
| 8 | ASTM D1883 | California Bearing Ratio (CBR) |
| 9 | ASTM D2487 | Standard Practice for Classification of Soils |
| 10 | ASTM D3282 | Standard Practice for Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purpose |
| 11 | ASTM D4318 | Liquid & Plastic Limits & Plasticity Index |
| 12 | ASTM D4643 | Determination of Water (Moisture) Content of Soil by the Microwave Oven Heating |
| 13 | ASTM D4718 | Standard Practice for Correction of Unit Weight and Water Content for Soil Containing Oversize Particles |
| 14 | ASTM D6951 | Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications |
| 15 | AASHTO T93 | Standard Method of Test for Determining the Field Moisture Equivalent of Soils |
| 16 | AASHTO T224 | Standard Practice for Correction for Coarse Particles in the Soil Compaction Test e (Fine and Course) Tests |

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 C40 | Organic Impurities in Fine Aggregates for Concrete |
| 3 | ASTM C70 | Surface Moisture in Fine Aggregate |
| 4 | ATSM C88 | Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate |
| 5 | ASTM C117 | Material Finer than 75 μm (No. 200) Sieve |
| 6 | ASTM C127 | Specific Gravity & Absorption in Coarse Aggregate |
| 7 | ASTM C128 | Specific Gravity & Absorption in Fine Aggregate |
| 8 | ASTM C131 | Los Angeles Abrasion Resistance on Small-Size Coarse Aggregate |
| 9 | ASTM C136 | Sieve Analysis of Aggregates |
| 10 | ASTM C142 | Clay Lumps |
| 11 | ASTM C535 | Los Angeles Abrasion Resistance on Large Size Coarse Aggregate |
| 12 | ASTM C566 | Total Moisture Content |
| 13 | ASTM C702 | Standard Practice for Reducing Samples to Testing Size |



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| No | Test Method | Test Procedure Title |
|----|--------------------|--|
| 14 | ASTM C1252 | Standard Test Methods for Uncompacted Void Content of Fine Aggregate (as Influenced by Particle Shape, Surface Texture, and Grading) |
| 15 | ASTM D75 | Standard Practice for Sampling Aggregate |
| 16 | ASTM D2419 | Sand Equivalent Value |
| 17 | ASTM D4791 | Flat or Elongated Particles |
| 18 | ASTM D4944 | Field Determination of Water (Moisture) Content of Soil by The Calcium Carbide Gas Pressure Tester |
| 19 | ASTM D5821 | Percentage of Fractured Particles in Coarse Aggregate |

Table 3. List of Cement, Grout, Mortar, & Concrete Tests

| No | Test Method | Test Procedure Title |
|----|-------------|---|
| 1 | ASTM C31 | Standard Practice for Making and Curing Test Specimens in the Field |
| 2 | ASTM C39 | Compressive Strength of Cylindrical Specimens |
| 3 | ASTM C42 | Obtaining and Testing Drilled Cores and Sewed Beams of Concrete |
| 4 | ASTM C109 | Compressive Strength of Hydraulic Cement Mortars |
| 5 | ASTM C143 | Slump of Hydraulic –Cement Concrete |
| 6 | ASTM C172 | Standard Practice for Sampling Freshly Mixed Concrete |
| 7 | ASTM C174 | Measuring Thickness of Concrete Elements Using Drilled Concrete Cores |
| 8 | ASTM C187 | Amount of Water Required for Normal Consistency of Hydraulic Cement Paste |
| 9 | ASTM C188 | Density of Hydraulic Cement |
| 10 | ASTM C191 | Time Setting of Hydraulic Cement by Vicat Needle |
| 11 | ASTM C192 | Standard Practice for Making and Curing Test Specimens in Laboratory |
| 12 | ASTM C204 | Fineness of Hydraulic Cement by Air-Permeability Apparatus |
| 13 | ASTM C231 | Air Content of Freshly Mixed Concrete by the Pressure Method |
| 14 | ASTM C232 | Bleeding of Concrete |
| 15 | ASTM C430 | Fineness of Hydraulic Cement by the 45-um (No.325) |
| 16 | ASTM C451 | Early Stiffening of Hydraulic Cement (Paste Method) |
| 17 | ASTM C617 | Standard Practice for Capping Cylindrical Specimens |
| 18 | ASTM C642 | Density, Absorption and Voids in Hardened Concrete |
| 19 | ASTM C666 | Resistance of Concrete to Rapid Freezing and Thawing |
| 20 | ASTM C805 | Rebound Number of Hardened Concrete |
| 21 | ASTM C1019 | Sampling and Testing Grout |
| 22 | ASTM C1064 | Temperature of Freshly Mixed Hydraulic-Cement Concrete |
| 23 | ASTM C1437 | Standard Test Method for Flow of Hydraulic Cement Mortar |



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Table 4. List of Asphalt Cement and Asphalt Concrete Tests

| No | Test Method | Test Procedure Title |
|----|-------------|---|
| 1 | ASTM D5 | Penetration of Bituminous Materials |
| 2 | ASTM D36 | Softening Point |
| 3 | ASTM D70 | Density of Semi-Solid Bituminous Materials (Pycnometer Method) |
| 4 | ASTM D92 | Flash and Fire Points by Cleveland Open Cup Tester |
| 5 | ASTM D113 | Standard Test Method for Ductility of Bituminous Material |
| 6 | ASTM D140 | Standard Practice for Sampling Bituminous Materials |
| 7 | ASTM D546 | Sieve Analysis of Mineral Filler for Bituminous Paving Mixtures |
| 8 | ASTM D979 | Standard Practice for Sampling Bituminous Paving Mixtures |
| 9 | ASTM D2041 | Theoretical Maximum Specific Gravity & Density (Rice) |
| 10 | ASTM D2042 | Solubility by Trichloroethylene |
| 11 | ASTM D2172 | Quantitative Extraction |
| 12 | ASTM D2489 | Estimating Degree of Particle Coating of Bituminous- Aggregate Mixtures |
| 13 | ASTM D2726 | Bulk Specific Gravity and Density |
| 14 | ASTM D3203 | Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures |
| 15 | ASTM D3549 | Thickness or Height of Compacted Bituminous Paving Mixtures Specimens |
| 16 | ASTM D3665 | Standard Practice for Random Sampling of Construction Materials |
| 17 | ASTM D5361 | Standard Practice for Sampling Compacted Bituminous Mixtures for Laboratory Testing |
| 18 | ASTM D5444 | Mechanical Size Analysis of Extracted Aggregate |
| 19 | ASTM D6926 | Standard Practice for Preparation of Bituminous Specimens Using Marshall Apparatus |
| 20 | ASTM D6927 | Marshall Stability and Flow of Bituminous Mixtures |
| 21 | AASHTO T79 | Flash Point with Tag Open-Cup Apparatus for Use with Material Having a Flash Less Than 93.3°c (200°F) |
| 22 | AASHTO T182 | Coating and Stripping of Bitumen-Aggregate Mixtures |
| 23 | AASHTO T230 | Determining Degree of Pavement Compaction of Bituminous Aggregate Mixtures |

Table 5. List of Bricks, Stone, & CMU's Tests

| | | Mixtures |
|------|-----------------------|--|
| able | 5. List of Bricks, St | one, & CMU's Tests |
| No | Test Method | Test Procedure Title |
| 1 | ASTM C67 | Sampling and Testing Brick and Structural Clay Tile |
| 2 | ASTM C90 | Load Bearing Concrete Masonry Units |
| 3 | ASTM C97 | Absorption and Bulk Specific Gravity of Dimension Stone |
| 4 | ASTM C140 | Sampling and Testing Concrete Masonry and Related Units |
| 5 | ASTM C170 | Compressive Strength of Dimension Stone |
| 6 | ASTM C 1552 | Capping CMU/Related Units/Masonry Prisms for Compression Testing |
| | | |



Table 6. List of Advanced Soil Tests

| No | Test Method | Test Procedure Title |
|------|-----------------------|---|
| | | Repetitive Static Plate Load Tests of Soils and Flexible Pavement |
| | | Components, for Use in Evaluation and Design of Airport and Highway |
| 1 | ASTM D1195 | Pavements |
| | | Non-Repetitive Static Plate Load Tests of Soils and Flexible Pavement |
| | | Components, for Use in Evaluation and Design of Airport and Highway |
| 2 | ASTM D1196 | Pavements |
| 3 | ASTM D1586 | Penetration Test and Split-Barrel Sampling of Soils |
| | | The second se |
| able | 7. List of Steel Test | |

Table 7. List of Steel Tests

| No | Test Method | Test Procedure Title |
|----|-------------|---|
| 1 | ASTM A370 | Test Methods and Definitions for Mechanical Testing of Steel Products (Bend & Tensile) |
| 2 | ASTM E8 | Tension Testing of Metallic Materials |
| 3 | AASHTO T285 | Bend Test for Bars for Concrete Reinforcement |