



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AVILES ENGINEERING CORPORATION  
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Valid To: November 30, 2017

Certificate Number: 0035.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests:

CONSTRUCTION MATERIALS ENGINEERING

ASTM: C1077 (Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation);  
 D3666 (Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials);  
 D3740 (Standard Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction);  
 E329 (Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection)

CONSTRUCTION MATERIALS TESTING

<u>Test Method:</u>	<u>Test Description:</u>
<b><u>Aggregates:</u></b>	
ASTM C29	Bulk Density (“Unit Weight”) and Voids in Aggregate
ASTM C40	Organic Impurities in Fine Aggregates for Concrete
ASTM C70	Surface Moisture in Fine Aggregate
ASTM C117	Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C127	Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C128	Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
ASTM C136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C142	Clay Lumps and Friable Particles in Aggregates
ASTM C566	Total Evaporable Moisture Content of Aggregate by Drying
ASTM C702	Reducing Samples of Aggregate to Testing Size
ASTM D75 <sup>2</sup>	Sampling Aggregates
ASTM D2419	Sand Equivalent Value of Soils and Fine Aggregate
<b><u>Bituminous:</u></b>	
ASTM D5	Penetration of Bituminous Materials
ASTM D979 <sup>1</sup>	Sampling Bituminous Paving Mixtures

<b><u>Test Method:</u></b>	<b><u>Test Description:</u></b>
ASTM D1188	Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples
ASTM D1856	Recovery of Asphalt From Solution by Abson Method
ASTM D2041	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D2171/D2171M	Viscosity of Asphalts by Vacuum Capillary Viscometer
ASTM D2726	Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D2950 <sup>1</sup>	Density of Bituminous Concrete in Place by Nuclear Methods
ASTM D3203	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
ASTM D3549 <sup>1</sup>	Thickness or Height of Compacted Bituminous Paving Mixture Specimens
ASTM D3665	Random Sampling of Construction Materials
ASTM D5444	Mechanical Size Analysis of Extracted Aggregate
ASTM D6307	Asphalt Content of Hot-Mix Asphalt by Ignition Method
ASTM D6926	Preparation of Bituminous Specimens Using Marshall Apparatus
ASTM D6927	Marshall Stability and Flow of Bituminous Mixtures
AASHTO T30	Mechanical Analysis of Extracted Aggregate
Tex-200-F	Sieve Analysis of Fine and Coarse Aggregates
Tex-201-F	Bulk Specific Gravity and Water Absorption of Aggregate
Tex-202-F	Apparent Specific Gravity of Material Finer Than No.50 Sieve
Tex-203-F	Sieve Analysis of Fine and Coarse Aggregates
Tex-205-F	Laboratory Method of Mixing Bituminous Mixtures
Tex-206-F	Compacting Specimens Using the Texas Gyratory Compactor (TGC)
Tex-207-F	Determining Density of Compacted Bituminous Mixtures
Tex-208-F	Test for Stabilometer Value of Bituminous Mixtures
Tex-210-F	Determining Asphalt Content of Bituminous Mixtures by Extraction
Tex-211-F	Recovery of Asphalt from Bituminous Mixtures by the Abson Process
Tex-217-F	Determining Deleterious Material and Decantation Test for Coarse Aggregates
Tex-222-F	Sampling Bituminous Mixtures
Tex-225-F	Random Selection of Bituminous Mixture Samples
Tex-227-F	Theoretical Maximum Specific Gravity of Bituminous Mixtures
Tex-236-F	Determining Asphalt Content from Asphalt Paving Mixtures by the Ignition Method
<b><u>Concrete:</u></b>	
ASTM C31/C31M <sup>1</sup>	Making and Curing Concrete Test Specimens in the Field
ASTM C39/C39M	Compressive Strength of Cylindrical Concrete Specimens
ASTM C42/C42M	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C78/C78M <sup>1</sup>	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
ASTM C138/C138M <sup>1</sup>	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C143/C143Mv	Slump of Hydraulic-Cement Concrete
ASTM C172/C172M <sup>1</sup>	Sampling Freshly Mixed Concrete
ASTM C173 <sup>1</sup>	Air Content of Freshly Mixed Concrete by the Volumetric Method

*Peter Abson*

<b><u>Test Method:</u></b>	<b><u>Test Description:</u></b>
ASTM C174/C174M	Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
ASTM C192/C192M	Making and Curing Concrete Test Specimens in the Laboratory
ASTM C231/C231M <sup>1</sup>	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C293/C293M	Flexural Strength of Concrete (Using Simple Beam With Center-Point Loading)
ASTM C495	Compressive Strength of Lightweight Insulating Concrete
ASTM C496/C496M	Splitting Tensile Strength of Cylindrical Concrete Specimens
ASTM C567	Determining Density of Structural Lightweight Concrete
ASTM C617	Capping Cylindrical Concrete Specimens
ASTM C642	Density, Absorption, and Voids in Hardened Concrete
ASTM C803	Penetration Resistance of Hardened Concrete
ASTM C805/C805M	Rebound Number of Hardened Concrete
ASTM C823/C823M	Examination and Sampling of Hardened Concrete in Constructions
ASTM C1064/C1064M <sup>1</sup>	Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1231/C1231M	Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
ASTM C1435/C1435M	Molding Roller-Compacted Concrete in Cylinder Molds Using a Vibrating Hammer
<b><u>Masonry:</u></b>	
ASTM C109/C109M (Compressive Strength Only)	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
ASTM C780 (Section A6 Only)	Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
ASTM C1019	Sampling and Testing Grout
ASTM C1314	Compressive Strength of Masonry Prisms
<b><u>Soils:</u></b>	
ASTM D421	Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
ASTM D422	Particle-Size Analysis of Soils
ASTM D558	Moisture-Density (Unit Weight) Relations of Soil-Cement Mixtures
ASTM D559	Wetting and Drying Compacted Soil-Cement Mixtures
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort
ASTM D854	Specific Gravity of Soil Solids by Water Pycnometer
ASTM D1140	Amount of Material in Soils Finer than No. 200 (75- $\mu$ m) Sieve
ASTM D1556	Density and Unit Weight of Soil in Place by Sand-Cone Method
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort
ASTM D1632 (Curing only)	Making and Curing Soil-Cement Compression and Flexure Test Specimens in the Laboratory
ASTM D1633	Compressive Strength of Molded Soil-Cement Cylinders
ASTM D2216	Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2488 <sup>1</sup>	Description and Identification of Soils (Visual-Manual Procedure)
ASTM D3282	Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes
ASTM D3665	Random Sampling of Construction Materials
ASTM D4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils

*Peter M. Meyer*

<b><u>Test Method:</u></b>	<b><u>Test Description:</u></b>
ASTM D4718	Unit Weight and Water Content for Soils Containing Oversize Particles
ASTM D4832	Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders
ASTM D6913	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
ASTM D6938 <sup>1</sup>	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
Tex-100-E	Surveying and Sampling Soils for Highways
Tex-101-E	Preparing Soil and Flexible Base Materials for Testing
Tex-103-E	Determining Moisture Content in Soil Materials
Tex-104-E	Determining Liquid Limits of Soils
Tex-105-E	Determining Plastic Limit of Soils
Tex-106-E	Calculating the Plasticity Index of Soils
Tex-108-E	Determining the Specific Gravity of Soils
Tex-110-E	Particle Size Analysis of Soils
Tex-111-E	Determining the Amount of Material in Soils Finer than the 75 m (No. 200) Sieve
Tex-112-E	Admixing Lime to Reduce Plasticity Index of Soils
Tex-113-E	Laboratory Compaction Characteristics and Moisture-Density Relationship of Base Materials
Tex-114-E	Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade, Embankment Soils, and Backfill Material
Tex-115-E (Part II)	Field Method for Determining In-Place Density of Soils and Base Materials
Tex-117-E	Triaxial Compression for Disturbed Soils and Base Materials
Tex-118-E	Triaxial Compression Test for Undisturbed Soils
Tex-120-E	Soil-Cement Testing
Tex-121-E	Soil-Lime Testing
Tex-127-E	Lime Fly-Ash Compressive Strength Test Methods
Tex-128-E	Determining Soil pH

<sup>1</sup> This laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these tests.



## *Accredited Laboratory*

A2LA has accredited

**AVILES ENGINEERING CORP.**

*Houston, TX*

for technical competence in the field of

## Construction Materials Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 30<sup>th</sup> day of December 2015.

A handwritten signature in black ink, reading "Peter Abney".

President & CEO  
For the Accreditation Council  
Certificate Number 0035.01  
Valid to November 30, 2017

*For the tests to which this accreditation applies, please refer to the laboratory's Construction Materials Scope of Accreditation.*