



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

OTTO ROSENAU & ASSOCIATES, INC.  
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Valid To: February 28, 2019

Certificate Number: 0823.01

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

**CONSTRUCTION MATERIALS ENGINEERING**

- ASTM: C1077 (Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation);  
 C1093 (Standard Practice for Accreditation of Testing Agencies for Masonry);  
 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);  
 E543 (Agencies Performing Nondestructive Testing)
- AASHTO: R18 (Practice for Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories)

**CONSTRUCTION MATERIALS TESTING**

Test Method:	Test Description:
<b>Aggregates:</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 C88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
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 C131	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C142	Clay Lumps and Friable Particles in Aggregates
ASTM C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

<b>Test Method:</b>	<b>Test Description:</b>
ASTM C566	Total Evaporable Moisture Content of Aggregate by Drying
ASTM C702	Reducing Samples of Aggregate to Testing Size
ASTM D75 <sup>1</sup>	Sampling Aggregates
ASTM D2419	Sand Equivalent Value of Soils and Fine Aggregate
AASHTO T002	Sampling of Aggregates
AASHTO T011	Test for Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
AASHTO T019	Bulk Density ("Unit Weight") and Voids in Aggregate
AASHTO T021	Organic Impurities in Fine Aggregates for Concrete
AASHTO T027	Sieve Analysis of Fine and Coarse Aggregates
AASHTO T084	Specific Gravity and Absorption of Fine Aggregate
AASHTO T085	Specific Gravity and Absorption of Coarse Aggregate
AASHTO T096	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
AASHTO T112	Clay Lumps and Friable Particles in Aggregate
AASHTO T176	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
AASHTO R76	Reducing Samples of Aggregate to Testing Size
AASHTO T255	Total Evaporable Moisture Content of Aggregate by Drying
<b>Bituminous:</b>	
ASTM D979 <sup>1</sup>	Sampling Bituminous Paving Mixtures
ASTM D2041	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
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 D3549 <sup>1</sup>	Thickness or Height of Compacted Bituminous Paving Mixture Specimens
ASTM D5444	Mechanical Size Analysis of Extracted Aggregate
ASTM D6307	Asphalt Content of Hot-Mix Asphalt by Ignition Method
AASHTO T30	Mechanical Analysis of Extracted Aggregate
AASHTO T166	Bulk Specific Gravity of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface-Dry Specimens
AASHTO T168	Sampling Bituminous Paving Mixtures
AASHTO T209	Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)
AASHTO T308	Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
<b>Cement:</b>	
ASTM C109/C109M (Compression only)	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
ASTM C490/C490M	Use of Apparatus for the Determination of Length Change of Hardened Cement Paste, Mortar, and Concrete
ASTM D1633	Compressive Strength of Molded Soil-Cement Cylinders
AASHTO T106 (Compression Only)	Compressive Strength of Hydraulic Cement Mortar (Using 50-mm or 2-in. Cube Specimens)



<b>Test Method:</b>	<b>Test Description:</b>
<b>Concrete:</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/C143M <sup>1</sup>	Slump of Hydraulic-Cement Concrete
ASTM C157/C157M	Length Change of Hardened Hydraulic-Cement Mortar and 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
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 C567 <sup>1</sup>	Determining Density of Structural Lightweight Concrete
ASTM C617	Capping Cylindrical Concrete Specimens
ASTM C642	Density, Absorption, and Voids in Hardened Concrete
ASTM C805/C805M <sup>1</sup>	Rebound Number of Hardened Concrete
ASTM C873	Compressive Strength of Concrete Cylinders Cast in Place in Cylindrical Molds
ASTM C878/C878M	Restrained Expansion of Shrinkage-Compensating Concrete
ASTM C1064/C1064M <sup>1</sup>	Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1140	Preparing and Testing Specimens from Shotcrete Test Panels
ASTM C1231/C1231M	Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
ASTM C1611/1611M	Slump Flow of Self-Consolidating Concrete
ASTM C1758/C1758M	Fabricating Test Specimens with Self-Consolidating Concrete
ASTM D4832	Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders (Compression Only)
ASTM E1155	Determining FF Floor Flatness and FL Floor Levelness Numbers
AASHTO R60	Sampling Freshly Mixed Concrete
AASHTO T022	Compressive Strength of Cylindrical Concrete Specimens
AASHTO T023	Making and Curing Concrete Test Specimens in the Field
AASHTO T097	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
AASHTO T119	Slump of Hydraulic Cement Concrete
AASHTO T121	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
AASHTO T126	Making and Curing Concrete Test Specimens in the Laboratory
AASHTO T152	Air Content of Freshly Mixed Concrete by the Pressure Method
AASHTO T177	Flexural Strength of Concrete (Using Simple Beam with Center-Point Loading)
AASHTO T196	Air Content of Freshly Mixed Concrete by the Volumetric Method
AASHTO T231	Capping Cylindrical Concrete Specimens
AASHTO T309	Temperature of Freshly Mixed Hydraulic Cement Concrete

<b>Test Method:</b>	<b>Test Description:</b>
<b>Fireproofing:</b>	
ASTM E605	Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members
ASTM E736	Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
<b>Masonry:</b>	
ASTM C109/C109M (Compressive Strength Only)	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
ASTM C140	Sampling and Testing Concrete Masonry Units and Related Units
ASTM C1019 <sup>1</sup>	Sampling and Testing Grout
ASTM C1314	Compressive Strength of Masonry Prisms
AASHTO T106	Compressive Strength of Hydraulic Cement Mortar (Using 50-mm or 2-in. Cube Specimens)
<b>Soils:</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 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 <sup>1</sup>	Density and Unit Weight of Soil in Place by Sand-Cone Method
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort
ASTM D2216	Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2217-85 (1998) (Withdrawn 2007) <sup>2</sup>	Wet Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
ASTM D2419	Sand Equivalent Value of Soils and Fine Aggregate
ASTM D4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D6938 <sup>1</sup>	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
AASHTO T089	Determining the Liquid Limit of Soils
AASHTO T090	Determining the Plastic Limit and Plasticity Index of Soils
AASHTO T099	Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop
AASHTO T100	Specific Gravity of Soils
AASHTO T180	Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop
AASHTO T191	Test for Density of Soil In-Place by the Sand-Cone Method
AASHTO T310	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
WSDOT T310	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
<b>Steel (Shop &amp; Field)<sup>1</sup>:</b>	
AWS D1.1 (Clause 6, Inspection)	Structural Welding Code – Steel
<b>Test Method:</b>	<b>Test Description:</b>

AWS D1.3 (Clause 6, Inspection)	Structural Welding Code – Sheet Steel
AWS D1.4 (Clause 6, Inspection)	Structural Welding Code – Reinforcing Steel
AWS D1.5 (Clause 6, Inspection)	Bridge Welding Code
AWS D1.8 (Clause 7, Inspection)	Structural Welding Code – Seismic Supplement
AISC 360 (Chapter N5.6 Inspection of High Strength Bolting)	Specification for Structural Steel Buildings
RCSC (Section 9, Inspection)	Specification for Structural Joints Using High Strength Bolts
<b>Nondestructive<sup>1</sup>:</b>	
ASTM E114	Pulse-Echo Straight-Beam Contact Testing
ASTM E164	Contact Ultrasonic Testing of Weldments
ASTM E587	Ultrasonic Angle-Beam Contact Testing
ASTM E165	Liquid Penetrant Examination for General Industry
ASTM E709	Magnetic Particle Testing (Wet & Dry Methods with Yoke in AC/DC Mode)

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

<sup>2</sup> This laboratory’s scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered “historical” and not that the laboratory’s accreditation for the method has been withdrawn.





## *Accredited Laboratory*

A2LA has accredited

**OTTO ROSENAU & ASSOCIATES, INC.**

*Seattle, WA*

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 13<sup>th</sup> day of March 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 0823.01  
Valid to February 28, 2019

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