Building Nationwide Network through Dedication

A Comprehensive Approach to any Project by:

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- Laboratory Examinations of Samples
- Comprehensive Analysis & Report
- Expert Services

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Construction Materials Consultants, Inc.

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4727 Route 30
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724-834-3551 (Tel)
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Email: jana@cmc-concrete.com
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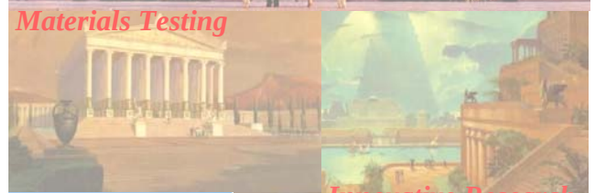
Setting the Standards for Excellence

Construction Materials Consultants, Inc.

Failure Investigation



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WHY CONSIDER CMC?

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- Industry Reputation
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- State-of-the-art Laboratory Facilities
- CMC Quarterly Newsletter
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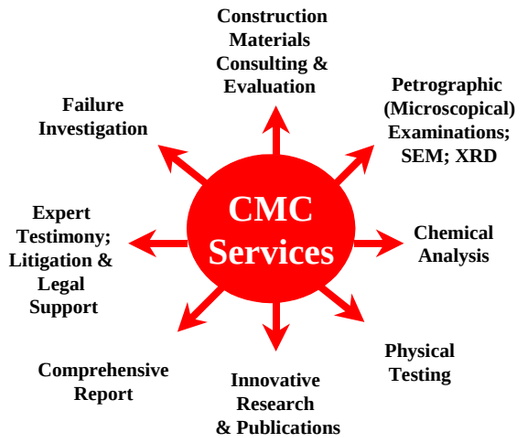
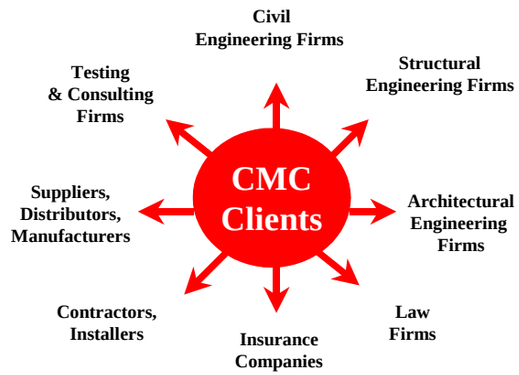
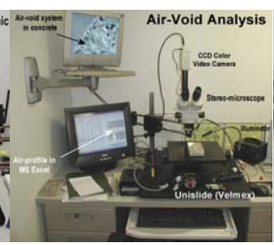
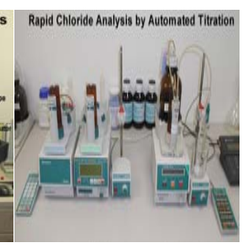
Serving the Industry through Testing, Investigation, Evaluation, & Research









CMC
Construction Materials Consultants, Inc.

CMC, Construction Materials Consultants, Inc., is a reputable, full-service, independent consulting and testing firm dedicated to providing services to the cement, aggregate, concrete, masonry, mortar, stone, and tile industries.

CMC has three divisions—**Cement, Aggregate and Concrete Division**; **Masonry and Mortar Division**; and **Stone and Tile Division**. Each division takes an integrated approach of materials evaluation and failure investigation for a broad range of construction materials for customers ranging from manufacturers, distributors, suppliers, contractors, homeowners, testing companies, Civil, Architectural and Structural Engineering Companies, Insurance Firms, and Law Firms. CMC also provides litigation support and expert testimony. The quarterly newsletter of CMC focuses on the current issues of our industry.

What sets CMC apart from other testing laboratories is the expertise in failure investigation of various construction projects in the field. CMC has years of experience of whether or not a particular problem is related to improper materials, installation procedures, design, maintenance, or environment.

CMC is the nation's leading consulting firm on petrographic (microscopical) examinations of construction materials for materials evaluation and forensic investigations.

Following are some commonly requested laboratory tests and failure investigations, Call us with your questions or concerns. We will be more than happy to help you!

Cement, Aggregate, and Concrete Division

Materials Evaluation

Cement—Chemical Analysis, Reference Tests for Portland Cement, Specifications of Pozzolans (Fly Ash, Natural Pozzolans, Silica Fume), Blast-Furnace Slag, Petrographic Examinations, X-ray Diffraction, and Analyses of Gypsum & Lime Products.

Aggregate—Conformance to Specification, Petrographic Examinations, Alkali-Aggregate Reactivity, Sulfate Soundness, Specific Gravity and Absorption, Sieve Analysis, Deleterious Constituents, and Miscellaneous Specific Tests.

Hardened Concrete—Petrographic Examinations, Air-Void Analysis, Abrasion Resistance, Alkali-Aggregate Reactivity, Cement Content, Chloride Content, Rapid Chloride Permeability Test, Density, Absorption, Volume of Permeable Voids, Freeze-Thaw Durability, Length Change Measurements, Deicing Salt-Scaling Resistance, Compressive Strength, Flexural and Tensile Strengths, Sulfate Analysis, and Miscellaneous Project-Specific Tests.

Failure Investigation

Concrete Surface Distress (Scaling, Spalling, Dusting, Discoloration, Blisters, Delamination, Abrasion, Staining, Popout, Mortar Lift-Off), Concrete Cracking, Alkali-Aggregate Reactions, Frost Attack, Fire Attack, Chemical Attacks (Acid, Alkali, Sulfate, Chloride) , Strength Loss, Slump Loss, Slow Setting, Cement and Concrete Burns, Coating Failure, Moisture-Related Problems, Corrosion of Steel in Concrete, Paint Failure from Concrete, Stucco, and Drywall.

Masonry and Mortar Division

Quality Assurance of Masonry Units and Mortars

Masonry Units—Specifications of Clay, Concrete, and Stone Masonry Units, Absorption and Saturation Coefficient, Efflorescence, Freeze-Thaw Durability, Initial Rate of Absorption, Modulus of Rupture, Compressive Strength, Splitting Tensile Strength, Drying Shrinkage, Bond Strength, Accelerated Weathering (Heating-Cooling, Wetting-Drying, Freezing-Thawing) Tests, Petrographic Examinations, Chemical Analysis, Miscellaneous Project-Specific Physical and Chemical Tests, Tests for Detection of Sealer & Water Tightness of Masonry Units.

Mortar and Grout for Unit Masonry—Specifications of Masonry Cements, Mortars, Grouts, and Aggregates for Mortars, Compressive Strength, Petrographic Examinations, Chemical Analysis, Drying Shrinkage, Classification (M, S, N, O, K), Determination of Mortar Composition for Matching Existing Mortar, and Miscellaneous Project-Specific Tests.

Masonry Failure Investigation

Efflorescence, Cracking, De-Bonding, Discoloration, Staining, Mortar Disintegration, Dusting, Water Penetration, Moisture-Related Damage, Cyclic Freezing-Related Damage, Over-sanded Mortar, Frozen Mortar, Mortar Shrinkage, Low Strength, Stucco Failure, Grout Expansion, and other miscellaneous failures.

Stone and Tile Division

Stone and Tile Evaluation

Dimension Stones—Conformance to Specifications of Limestone, Marble, Granite, Quartz-Based Stone, Slate, and Roofing Slate, Abrasion Resistance, Absorption and Specific Gravity, Freeze-Thaw Durability, Petrographic Examinations, Compressive Strength, Flexural Strength, Modulus of Rupture, Weather Resistance, and Accelerated Weathering.

Natural Stones—Compressive Strength, Freeze-Thaw Durability, Water Absorption, Chemical Analysis, and Petrographic Examinations.

Ceramic and Other Tiles—Slip Resistance (Static Coefficient of Friction), Abrasive Hardness, Bond Strength, Breaking Strength, Chemical Tests, Crazing, Facial Dimension, Flexural Strength, Freeze-Thaw Durability, Impact Test, Mohs Hardness, Moisture Expansion, Robinson Test, Stain Tests, Thermal Shock, Thickness, Warpage, Water Absorption, Wedging, and Petrographic Examinations.

Mortars and Grouts—Conformance to Specifications, Chemical Analysis, and Petrographic Examinations.

Forensic Investigation

Cracking of Jointing Grout and Setting Bed Mortar, De-Bonding, Discoloration, Staining, Bumps and Blisters, Dusting, Fracturing, Disintegration, Curling, Dishing, Bowing, Thermal Expansion, Moisture-Related Damage, Cyclic Freezing-Related Damage, Deviations from ANSI, TCA, or MIA Specifications, and other miscellaneous failures.