

AECON MATERIALS ENGINEERING

Since 1996, AME has been meeting the needs of public and private sector clients with a wide range of integrated, multi-disciplinary consulting and engineering services. Our in-house experts include professional engineers, geologists, technologists and technicians, each equipped with specialized training in their respective disciplines and ready to tackle even the most complex project deliverables.

CONSTRUCTION, MATERIALS ENGINEERING & TESTING

AME is a recognized leader in construction and materials engineering and design, hot mix design and mixture analyses. We operate two laboratory-equipped offices, one in the Greater Toronto Area, and one in Ottawa. Each is fully equipped to provide our clients with in-depth design, analysis and testing of a complete range of asphaltic concrete, Portland cement concrete, aggregate and soil. AME also offers the convenience of seven mobile hot mix and aggregate testing laboratories for easy portability to any work site.

Construction & Materials Engineering & Testing Services Include:

- // Hot, warm and cold mix designs
- // Marshall and superpave, hot mix design
- // Mix design verification and compliance testing
- // Expanded asphalt recycled mix design
- // Penetration and viscosity, aggregate evaluation
- // Process design
- // Soil classification, proctor density, permeability, strength parameters, atterberg limits, unit weight
- // Petrographic analysis of aggregates
- // Freeze thaw, microdeval and soundness testing
- // Concrete compressive and flexural strength
- // Concrete mix design

PAVEMENT TECHNOLOGY

Over the years, the AME pavement engineering team has developed a logical, efficient and economical approach to solving pavement challenges. We provide pavement design, consulting and evaluation services to clients all across Ontario, including local government agencies and airport authorities, as well as commercial, industrial and residential developers. Our pavement engineers are RAQS-certified and have successfully delivered numerous designs for MTO Long-Term Warranty and Minimum Oversight (Min-O) contracts. Our specialty rests in the selection of cost-effective rehabilitation treatments, most notably, in-place recycling of asphalt pavements.

Our pavement technology services include:

- // Pavement design using AASHTO, asphalt institute and MTO methods
- // Runway & apron design using ICAO & Transport Canada methods
- // Pavement condition assessment
- // Rehabilitation selection & pavement preservation
- // Construction inspection, quality control and testing
- // Forensic evaluation of premature failures
- // Advanced testing of HMA mixtures using superpave
- // Simple performance test
- // Dynaflect pavement structural analysis
- // Pavement smoothness testing using laser profilers
- // Ground penetrating radar thickness evaluation
- // Expanded asphalt and cold in-place recycling
- // Design and testing
- // Contract administration and project management