

Working Together

The Mobile Asphalt Testing Trailer (MATT) encourages technical interaction among transportation professionals with onsite field testing to benefit FHWA, State, and local agencies. One of the MATT's greatest assets is to introduce new technology into real-world construction, assist agencies with positive change, and promote innovation within the asphalt industry. Onsite activities can include:

- Validating equipment
- Evaluating asphalt mixtures
- Introducing and implementing new performance-related specification standards, equipment, and materials
- Presenting project's findings at industry conferences, showcases, universities, and State agencies
- Publicizing our technical studies in reports and conference proceedings

Mix Preparation in Laboratory



Asphalt Mixture Sampling

Contacts

If you are interested in the Mobile Asphalt Testing Trailer's services, contact your FHWA Division Office within your State or our Mobile Asphalt Testing Trailer Program staff directly:

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The FHWA Mobile Asphalt Testing Trailer meets AASHTO R-18 requirements and has been continuously AASHTO accredited since 2002.

**Federal Highway Administration
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www.fhwa.dot.gov/pavement

FHWA Mobile Asphalt Testing Trailer Program



**Bringing Asphalt Pavement
Technology and Innovation to
Your Doorstep**



U.S. Department of Transportation
Federal Highway Administration

Purpose and Goals

The Mobile Asphalt Testing Trailer (MATT) is one of the tools employed by the Federal Highway Administration's (FHWA), Office of Asset Management, Pavements, and Construction to assist the advancement and implementation of new technologies for long life pavements. We have a longstanding history of providing technical assistance to state Departments of Transportation (DOT), highway agencies, and industry partners with the implementation of new and innovative design procedures, materials, and testing methods. We promote real innovation by interacting with transportation partners, FHWA Division Offices and Resource Center, Expert Task Groups (ETG), and Technical Working Groups (TWG).

- Develop, test, evaluate, refine, and implement Superpave performance prediction tests on a national scale
- Work with transportation partners to resolve national issues related to the implementation of new and innovative pavement technology
- Refine and validate performance-related construction specifications



Inside of the
FHWA MATT

Development Activities

Advanced Performance Testing

The Mobile Asphalt Testing Trailer helps refine and improve performance-related specifications, such as fine tuning test protocols and quality assurance procedures.

The trailer is equipped with state-of-the-art performance testing equipment, such as, the Asphalt Mixture Performance Tester (AMPT), to conduct several performance tests: Dynamic Modulus (E^*), Cyclic Fatigue, and Flow Number. The Aggregate Imaging Measurement System (AIMS) is used to determine fine and coarse aggregate shape, texture, and angularity.

Finding a mechanistic fatigue test has been a main topic of national conversation. One of the fatigue tests that recently received significant attention within the asphalt pavement community is the AMPT cyclic fatigue test (AASHTO TP 107). The MATT is leading the evaluation and refinement of this innovative and mechanistic test method.



AMPT
testing device

Mixture Cracking
Evaluated with the AMPT
Cyclic Fatigue Test



Improved Specifications

The traveling laboratory facilitates data collection, testing, and evaluation at project sites. New equipment is available to perform "shadow-testing" validation of mixture and aggregates at plants, laboratories, and construction sites. The collected test data helps evaluate test repeatability and refine test procedures.

The MATT provides technical support to national research initiatives and onsite projects that involve Hot-mix Asphalt (HMA), Warm-mix Asphalt (WMA), Reclaimed Asphalt Pavement (RAP), Reclaimed Asphalt Shingles (RAS), and Ground Tire Rubber (GTR) modified binders and mixtures. The MATT also introduced the concept of field management for asphalt mixtures by employing Superpave volumetric-based quality control procedures.



Aggregate Imaging Measurement System