



INSIDE MASSDOT'S RESEARCH AND MATERIALS LAB

Building the Future of Transportation at MassDOT

Why Innovators, Builders, and Problem-Solvers Choose to Work Here



WHO WE ARE:

- MassDOT's central materials testing laboratory; AASHTO Accredited
 - Conduct research projects to improve quality of construction materials
 - Serve on national committees that set material standards and policy goals
 - Approval of all concrete and HMA mix designs for use across the Commonwealth
 - Evaluate material laboratories and prequalify construction materials
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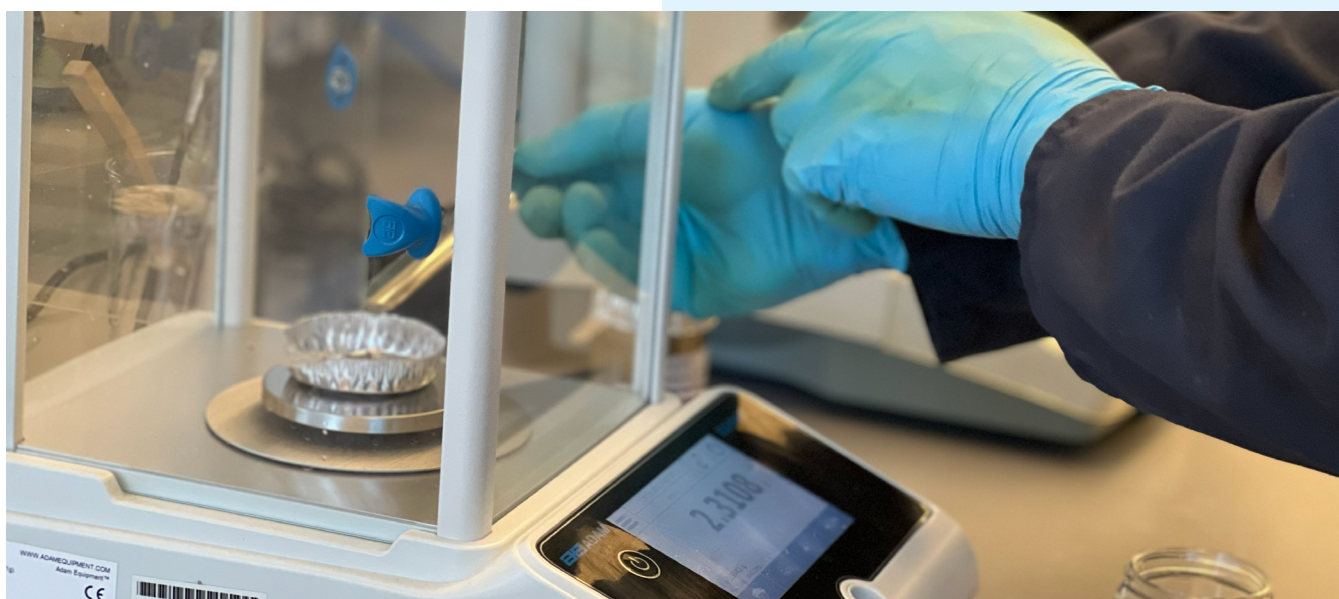
MASSDOT RESEARCH AND MATERIALS LAB

Mission

The MassDOT Research and Materials Lab supports the safety and quality of transportation infrastructure across Massachusetts. Our team tests construction materials, approves all concrete and asphalt mix designs, conducts research, verifies quality on active projects, and evaluates materials before they are used statewide. As an AASHTO accredited lab, we ensure the materials that build our roads and bridges meet the highest standards.

What We Do

- Test asphalt, concrete, soils, and other construction materials
- Provide quality assurance and verification for statewide projects
- Approve all concrete and Hot Mix Asphalt mix designs
- Conduct research to improve material performance and durability
- Evaluate and prequalify construction materials for statewide use
- Support field sampling and on-site verification
- Operate as an AASHTO accredited laboratory



Materials Testing

In the state-of-the-art laboratory we test more than 3,000 material samples each year. The lab provides objective, analytical data on the quality of materials and products used in construction. We also actively participate in the development and refinement of new and revised AASHTO and ASTM standard test methods.

Quality Assurance and Verification

We verify that contractors and suppliers follow state and federal standards. This includes checking material quality, confirming performance, and reviewing documentation for compliance.

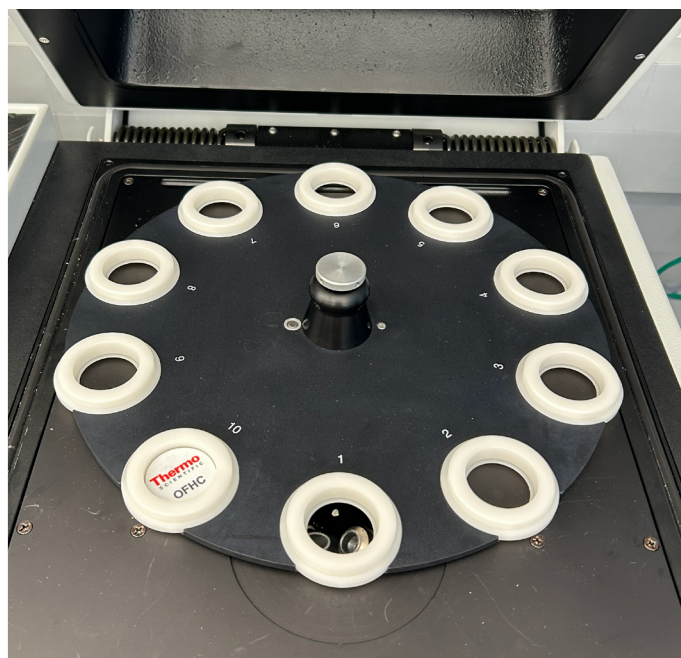
Mix Design Approval

We review and approve all concrete and Hot Mix Asphalt (HMA) mix designs used across Massachusetts. This ensures that roadways, bridges, and other infrastructure are built with safe and reliable materials.

Research and Innovation

We conduct research projects that improve the performance and durability of construction materials. Our work helps MassDOT adopt new technologies, update standards, and strengthen long-term pavement and structure performance.





Evaluation and Prequalification of Materials

Before materials can be used in state-funded construction, our lab evaluates and prequalifies them. This process ensures that only high-quality materials are used across the Commonwealth.

Aggregate Source Licensing Program

In coordination with the Massachusetts State Geologist, the Research and Evaluation unit manages the Aggregate Source Licensing Program, which licenses quarries that supply aggregate for concrete in Massachusetts. It ensures that aggregate used in concrete does not contain pyrite or pyrrhotite, which are minerals that cause concrete to crack and fail over time.

Field Control

Our team performs field sampling, site inspections, and on-site verification of materials during construction to confirm they match approved standards.

AASHTO Accreditation

As an AASHTO accredited laboratory, we follow nationally recognized procedures and maintain high-quality standards in all testing and reporting.

Learn more about the Research and Material Lab [here](#).