



FACT SHEET

NETC 15-4 Quick Response: Quality Assurance (QA) Processes for Asphalt Pavement Construction in the Northeast

RESEARCH PROJECT TITLE

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STUDY TIMELINE

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MORE INFORMATION

<https://www.newenglandtransportationconsortium.org/wp-content/uploads/NETC-QR-15-4-Final-Report.pdf>

The New England Transportation Consortium, a cooperative effort of the transportation agencies of the six New England States, funded this research. Through the Consortium, the states pool professional, academic and financial resources for transportation research leading to the development of improved methods for dealing with common problems associated with the administration, planning, design, construction, rehabilitation, reconstruction, operation and maintenance of the region's transportation system.

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Introduction or What was the Problem?

The federal code of regulation (23 CFR 637) requires all state DOTs to adhere to the QA procedures set forth by FHWA for all construction activities conducted through the federal aid. Furthermore, FHWA recommends that the DOTs use the same QA procedures for all other non-federal aid work. Under the federal requirements, each DOT is required to develop and implement a QA program to ensure that the materials and workmanship in highway construction projects conform to the approved plans and specifications. Such a QA program requires the DOTs to maintain qualified staff and a central testing laboratory to administer the program. The QA program consists of three major components: (1) Acceptance Program; (2) Independent Assurance; and, (3) Preparation of Materials Certification. Quality assurance (QA) specifications can be used to meet the requirements of 23 CFR 637.

For regions such as New England, a significant cost savings can be realized if uniform QA processes are acceptable to all states, as this enables sharing of QA resources and streamlines producer and construction contractor operations. At present, a large number of asphalt producers and paving contractors serve multiple New England State Transportation Agencies. The New England region already has a nationally recognized example of successful collaboration in the form of the Northeast Transportation Technician Certification Program (NETTCP). Through uniform QA processes and procedures for asphalt pavements, the training program can be simplified and the QA resources can be shared, resulting in cost savings for agencies.

Methodology or What was done?

A review of the current asphalt pavement QA requirements in all the New England states was conducted through specification review, a survey of agencies, and the Technical Advisory Committee kickoff meeting. From the review, various discrepancies and cross-border issues were identified, contractors were surveyed and issues were further discussed in a workshop to determine possible steps towards the unification of QA processes.

Conclusion or What are the next steps?

An initial roadmap was developed that leads towards the establishment of uniform QA processes for asphalt pavement construction in New England region. Next steps towards implementing the recommendations include:

- Agencies need to reach a consensus to adopt the recommendations by going through an iterative process via additional workshops and pilot projects.
- A draft of common QA specs will be required for New England agencies (including optional/alternate processes as appropriate).
- Further education and training will be required for QA personnel (both contractor staff and agency inspectors).
- A cost sharing model needs to be developed to be able to appropriately allocate the cost of inspection.
- A pilot plan need to be implemented so as to document cost savings and efficiency gains for agencies and contractors as well as to refine the common QA specifications.
- Pertinent approvals need to be obtained from FHWA.

What are potential impacts?

The recommendations from this study provide initial framework towards unification of QA specifications. If implemented, will ensure NE agencies adhere to best QA practices in an efficient and economical manner.