

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

AUTHORS: Jo Sias Daniel, Eshan V. Dave, Chibuike Ogbo, Kacie Ferraro, Alan Perkins REPORT # NETCR112

#### ABSTRACT

The use of quality assurance (QA) systems in highway infrastructure is critical to ensure durable, safe, and economical transportation operations. These processes ensure that the desired level of quality is maintained throughout the manufacturing and construction processes. 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. The primary objective of this study was to provide a framework to ascertain that the delivered products meet the required standards while all the New England State Transportation Agencies follow a uniform QA procedure for asphalt pavement construction. Through literature review and survey of agency and contractor personnel, various discrepancies in the QA specifications that are currently in use by the six New England Transportation agencies for asphalt pavements were identified and an initial roadmap was developed that leads towards the establishment of uniform QA processes for asphalt pavement construction in the region.

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### DATA

- Literature review was done to identify best practices for the QA programs/processes.
- Survey was administered to contractors to gather information regarding quality control (QC testing requirements presented here).



# ANALYSIS

- Review of the QA specifications in the New England region was done to identify similarities and differences in the QA processes.
- Through QA process review and administered surveys, cross border opportunities and issues that could hinder the unification of the QA specifications were identified.
- Kickoff meeting was held with the Technical Advisory committee to further discuss the cross-border opportunities and issues.
- Workshop was organized to discuss possible actions to help resolve these issues.
- Based on findings, recommendations were developed regarding possible steps towards the unification of the QA specifications.

## CONCLUSIONS

An initial roadmap was developed that leads towards the establishment of uniform QA processes for asphalt pavement construction in New England region. The recommendations cut across the aspects of the QA specification in which cross-border challenges were identified. Next steps towards implementing these recommendations will require agencies to reach a consensus to adopt the outlined recommendations by going through an iterative process via additional workshops and pilot projects. Subsequently, 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. Finally, pertinent approvals need to be obtained from FHWA.

• Survey was administered to agency personnel to gather information regarding QA processes (Acceptance testing requirements presented here).



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