

NICHOLAS J. TENNYSON Secretary

## MEMORANDUM

DATE:	July 15, 2016

TO: Division Engineers

FROM: Christopher A. Peoples, PE State Materials Engineer

DocuSigned by:

SUBJECT: Asphalt Roadway Densities

This memorandum is intended to clarify asphalt density sampling and testing requirements as outlined in Section 10 of the "Asphalt QMS Manual". These clarifications are related to the audit being performed by the State Auditor's Office. Please insure that proper attention is placed on this and review or forward appropriately.

Pavement is to be accepted for density on a lot by lot basis. A Quality Control (QC) lot will consist of one (1) day's production of a given job mix formula (JMF) on the contract, except that separate lots will be established whenever any of the conditions outlined in Subsection 10.3.3 occur. Note that the 2016 Asphalt QMS Manual slightly changed the situations when density is NOT required – reference should be made to Subsection 10.3.4. Also, note that the Engineer may still require occasional density sampling and testing to evaluate the compaction process.

Quality Assurance (QA) Verification testing is to be performed by Department personnel at random locations and at a frequency of ten percent (10%) of the required QC sampling and testing frequency. This minimum Department sampling frequency should be based on <u>mix type</u> using Verification and Dispute Resolution (DR) sampling and testing. As of January 1, 2016, "QA Comparison" cores are no longer required – roadway technicians only have to obtain V-cores and the corresponding DR-cores (which are to be cut from the same test section as the V-core, but at a separate and random location).

For pavements that are part of individual structure replacements and projects having 1,500 linear feet or less of roadway pavement, a Small Quantity density acceptance process shall be used. This process is outlined in Subsection 10.8.2. Particular attention should be given to the labeling, chain of custody rules, and HiCAMS data entry requirements for "SQ" cores.

As a reminder, on a quarterly basis, Materials and Tests will query HiCAMS Density data to determine if sampling/testing percentages are being met for QC and Verification densities. Whenever these queries reveal shortages in density data entered into HiCAMS, an automated email is generated and sent to the Resident Engineer assigned to the contract(s). Both Core and Gauge density data are queried and email notification sent whenever percentages in HiCAMS do not meet minimum sampling requirements as required by the QMS Manual Section 10.5 or 10.7.

✓Nothing Compares<sup>™</sup> ✓

If your staff has any questions, they can contact their local QA Supervisor or Mr. Todd Whittington, State Asphalt Materials Engineer at (919) 329-4060.

cc: Division Construction Engineers District Engineers Resident Engineers Roadway Construction Engineers QA Supervisors Pavement Specialists Mr. Jim Phillips, PE, FHWA Mr. Lamar Sylvester, PE Mr. Jack Cowsert, PE Mr. Todd Whittington, PE Mr. James Budday, PE Mr. Kelly Croft