

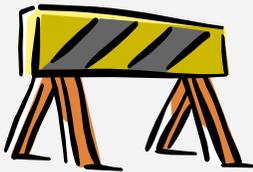
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BJO:DMG

Density Testing and Inspection

This construction advisory provides updated information to the department's density testing and inspection program. This advisory focuses on revisions to the *Density Control Handbook*, consultants conducting density testing, and timely submittal of density test reports.

The *Density Control Handbook* is now the *Density Testing and Inspection Manual*. Revisions to the density manual include:

- A Technician Qualification Section outlining the process for qualification and disqualification of testing technicians on projects with federal aid. Depending on the infraction, a technician's density testing qualifications can be suspended for a specified period of time, up to and including permanent disqualification from testing on all departmental or federal aid projects.
- A maximum distance for a retest has been specified. The maximum distance that a retest should be taken for a previous failed test should not exceed three feet. Every effort possible should be made to take the retest in close proximity of the original test.
- Prohibiting the addition of water to the in-place test location. Adding water to the grade to avoid running a Speedy moisture test is prohibited. If the in place material is too dry to obtain the maximum density from the chart, the material should be removed from the test location before adding water. Once removed, the sample should be thoroughly mixed with water, pound a cone and then run the Speedy test to obtain the moisture content. Use this moisture content on the appropriate chart to obtain the maximum density.
- Minimum testing frequency for shoulders. The minimum frequency of testing for shoulders will be 1000 feet per side of roadway.

Effective this construction season, all consulting firms conducting density testing on departmental and federal aid projects must provide a copy of their certificate of calibration and supporting calibration data for their nuclear gauges to the Lansing Density Technology Unit (LDTU). This requirement shall be met prior to the award of the contract, and be verified by the Contracts Services Division. The LDTU maintains a list of those consulting firms with current calibration data on file. The region Area Density Specialists (ADS) will have a copy of the list and verify consultant owned gauges have current calibration data on file during Independent Assurance Tests. Gauges not on the approved list shall be removed from the project until this requirement is met.

Timely submittal of density test reports is critical for early detection of reporting or procedural problems. Testing technicians, both departmental and consultant, are required to submit test reports daily to their respective office. These reports should be reviewed internally by appropriate staff and copies distributed weekly at a minimum to the LDTU and region ADS.