METHOD OF SAMPLING AND TESTING
MT 331-04
METHOD OF SAMPLING AND EVALUATING STRIPPING PAVEMENTS
(Montana Method)

1 Scope:

1.1 This method describes the procedure for sampling and evaluating asphalt pavements that are suspected of stripping.

2 Sampling Procedure:

2.1 4-Lane Roadway:

2.1.1 A minimum of 2 cores per mile of roadway, of which 1 core will be taken in the outside wheelpath of the driving lane and the other core in the passing lane.

Example

| ← 1 Mile → | ← 1 Mile → |
|------------|

Traffic ← D.L. ⊗ (core)

Traffic ← P.L. 0 (core) ⊗ (core)

Traffic → P.L. (core) ⊗ (core)

Traffic → D.L. ⊗ (core) ⊗ (core)

2.2 2-Lane Roadway

2.2.1 A minimum of 1 core per mile of roadway, of which each core will be taken in the outside wheelpath and in alternating lanes.

Example

| ← 1 Mile → | ← 1 Mile → |
|------------|

Traffic ← ⊗ (core)

Traffic → (core) ⊗

2.3 Cores should represent the pavement for the proposed project. Depending upon pavement condition, it may be necessary to modify the sampling frequency and location.

2.4 The exact locations of the cores within the 1 mile section should be determined by a random method.
3 Sample Identification:

3.1 Cores are to be marked for identification. If cores are not intact, rubble from the field has no useful purpose and should not be submitted. Field notes should be kept describing the appearance of the core. Describe where the intact portion was on the core; top, middle or bottom of the plant mix and submit it for stripping evaluation. Also describe the roadway condition and any other information that would be helpful in evaluating the cores and the in-place pavement.

4 Submitting of Samples:

4.1 The cores are to be submitted to the Materials Bureau for evaluation. Each core is to be accompanied by a completed Form 331. Observations and comments should be included on the Form 331.

5 Evaluation of Cores

5.1 Procedure:

5.1.1 The total core should be evaluated for stripping using the “control photographs” developed by the Materials Bureau. Split cores by indirect tensile loading in a press. Evaluate each lift or distinct layer of plant mix for stripping using the numeric rating system that corresponds to the reference photographs provided by the Materials Bureau.

5.1.2 Extract asphalt and do an abson recovery from a composite sample of plant mix from four complete cores. Determine the viscosity of this asphalt. This value is used in the Road Rater back calculation of Resilient Modulus.

6 Reporting Results:

6.1 At the completion of the evaluation, a report will be written by the Materials Bureau with test results and recommendations concerning extent of stripping, removal of stripped material and other test information. The report should evaluate each lift of plant mix for stripping.