

## Colorado Procedure 74-12

*Standard Practice for*

### Operating Inertial Profilers and Evaluating Pavement Profiles

(This procedure modifies AASHTO R 57-10. The current AASHTO R 57 is to be used in conjunction with this procedure.)

#### 1. SCOPE

1.1 This test method describes the procedures for operating and verifying the calibration of a profiler. This method also describes the evaluation procedures for the profiles that are generated to determine pay adjustments.

1.2 This test method is identical to AASHTO R 57 with the following exceptions.

#### 2. REFERENCED DOCUMENTS

Add the following to Section 2:

2.3 *Colorado Procedures:*

CP 78 Certification of High Speed Profilers.

2.4 *Other Referenced Documents:*

FHWA's ProVAL Help File. ProVAL can be downloaded at <http://www.roadprofile.com>. ProVAL will be used for determining localized roughness.

#### 5. EQUIPMENT

Delete Subsections 5.1, 5.3.1.1 and 5.3.1.1.1 and replace each with the following:

5.1 The inertial profiler shall meet the equipment requirements of CP 78. The inertial profiler shall be currently certified in accordance with CP 78.

5.3.1.1. Distance Calibration

5.3.1.1.1. The distance calibration shall be 1056 feet long and shall be on a relatively flat, straight section of pavement.

5.4 The operator of the profiling equipment

shall have a Current LABCAT Level S (Smoothness) certification.

#### 6. TEST PROCEDURE

Delete Steps 4 & 6 of Table 1 and replace with the following:

Step 4. Collect measurements in the direction of traffic. Three repeat runs will be collected for each lane. A lane shall only be tested three times. A lane may be retested only if the triggering system fails. The Contractor shall use automated triggering for the start and stop locations, and for the areas to be excluded. The locations of the triggers shall be painted on the pavement so that the Departments profiler can use the same trigger locations when the Contractor's profile data is verified.

Step 6. Immediately after data collection is complete, provide the Project Engineer with a CD or thumb drive with the data that was collected. Data shall be submitted in the manufacturer's native file format and a format readable by ProVAL. The CD or thumb drive will not be returned.

Add the following to Section 6:

6.3. A log sheet shall be submitted with the electronic data to the Project. The log sheet shall contain the following for each run:

- Project Number
- Project Code (sub-account number)
- Profiler Certification Identification Number
- Profiler Operator's name
- Highway number
- Lane number (Lanes are numbered from the left to the right in the direction of travel)
- Direction of travel
- File name
- Run Number (1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup>)
- Location of exclusions (In miles from the beginning of the test)

## **8. DATA ANALYSIS**

8.1 The Department will analyze the data with the profiler manufacturer's software or the latest version of ProVAL.