

* USE THIS STORED SPECIFICATION ON ANY PROJECT WHEN *
 * AN INCENTIVE/DISINCENTIVE PAYMENT FOR PAVEMENT *
 * SMOOTHNESS IS SPECIFIED IN THE MATERIALS MEMORANDUM. *
 * INSERT EXISTING SMOOTHNESS DATA IN 109.13(A) *
 * INSERT CORRECTION VALUE "CV" IN 109.13 (A) *
 * INSERT "XX", "YY", "IC", "DC", AND "MAX" (OR "LMAX") IN 109.13 (B) *

(109PAVSM, 12/15/04) |

SECTION 109 - MEASUREMENT AND PAYMENT: of the Standard Specifications is modified to add:

109.13 Measurement and Payment for Pavement Smoothness:

(A) General:

The final pavement surface shall be evaluated for smoothness by testing. When a surface treatment other than ACFC or AR-ACFC is placed as part of the project, the immediate underlying pavement surface will be evaluated for smoothness.

At the completion of paving, the contractor shall notify the Engineer in writing that the pavement is ready for testing. The Engineer will then evaluate the pavement to be tested. If the Engineer determines that additional pavement preparation is required, the contractor shall perform such preparation as directed by the Engineer. The contractor shall ensure that the pavement to be tested can be driven safely at the design speed. Testing will not be performed on any portions that cannot be made safe for testing at the design speed, or on any lanes of less than 0.30 miles in length. If requested by the Engineer, the contractor shall broom the pavement immediately prior to testing. No measurement or direct payment will be made for preparing the pavement, the cost being considered as included in the price of contract items.

The Actual Smoothness Value (AS) for each 0.1 lane-mile increment will be determined, by the Department, in accordance with the provisions of Arizona Test Method 829.

Testing will not be done when the ambient air temperature is less than 40 degrees F, or during rain or other weather conditions determined to be inclement by the Engineer.

Traffic control costs during the initial smoothness testing period will be reimbursed under the provisions of Section 701 of the Specifications. Any additional traffic control costs incurred, outside the normal scope of work, due to pavement repairs and subsequent pavement smoothness measurements shall be borne solely by the contractor.

The testing will be performed within ten days after the Engineer has accepted the pavement for testing. The Engineer will notify the contractor of the test results no later than ten days after the testing has been performed.

Testing will be performed on mainline traffic lanes, and will include the full length of the pavement placed under the contract. Unless otherwise specified in the contract documents, testing of distress lanes, shoulders, ramps, tapers, cross roads, and frontage roads will not be performed.

The existing pavement has the following smoothness values (inches per mile).

**** INSERT 0.1-MILE SMOOTHNESS VALUES HERE, IF AVAILABLE; ****
**** OTHERWISE DELETE ABOVE SENTENCE. ****

The Correction Value (CV) for this contract is **CV** inches per mile.

Any 0.1 lane-mile increment having an Actual Smoothness Value (AS) equal to or greater than the Correction Value (CV) shall be repaired by the contractor at no additional expense to the Department.

If repairs are required, the contractor shall prepare a written proposal detailing corrective actions and submit the proposal to the Engineer within ten working days after the contractor's receipt of test results. Within three working days, the Engineer will review the submitted proposal and either accept it, or reject it and ask for a new proposal. If rejected, the contractor shall, within ten working days, prepare and submit a new proposal for corrective action, based on discussions with the Engineer. The Engineer will review, and either accept or reject, the new proposal within three working days of receipt.

Upon completion of any necessary repairs, the 0.1 lane-mile increments containing repaired areas will be re-tested in accordance with the provisions of Arizona Test Method 829. Resultant values from re-testing will be used in determining the adjustment in payment to the contractor.

(B) Payment:

An adjustment in payment to the contractor will be made as follows.

The adjustment in payment, either incentive or disincentive, for each 0.1 lane-mile increment shall be determined using the following formulas:

When $AS < XX$:

$$\text{Incentive} = [(XX - AS) / (XX + 2)] \times IC$$

When $AS > YY$:

$$\text{Disincentive} = [(YY - AS) / (XX + 2)] \times DC$$

**** WHEN MORE THAN ONE SET OF INCENTIVE AND ****
**** DISINCENTIVE FORMULAS AND VALUES IS USED, INSERT THE ****
**** AREA WHERE EACH SET IS USED AND THE ADDITIONAL ****
**** INCENTIVE AND DISINCENTIVE FORMULAS AND VALUES. ****

The existing smoothness values, and the values (other than AS) which are utilized in the incentive and disincentive formulas, are determined prior to the contract bid opening date and are not subject to revision or dispute after the awarding of the contract.

**** USE ONE OF THE FOLLOWING TWO PARAGRAPHS, AS REQUIRED IN THE ****
**** MATERIALS MEMO, AND DELETE THE OTHER. ****

The total adjustment in payment to the contractor shall be the summation of the individual adjustments for the respective 0.1 lane-mile increments, except the maximum total incentive allowed for the project shall be **MAX**.

The total adjustment in payment to the contractor shall be the summation of the individual adjustments for the respective 0.1 lane-mile increments, except the maximum total incentive allowed shall be **LMAX** per tested lane-mile.

For projects where pavement is removed and replaced to grade, followed by an ACFC or an AR-ACFC overlay, no smoothness measurements will be made for the following areas:

Pavement placed within 35 feet of the termini of the project.

Pavement placed within 35 feet of the approaches and departures for bridge structures not being overlain as part of the project.

For projects where pavement is removed and replaced to grade, followed by an overlay, followed by an ACFC or an AR-ACFC overlay, no smoothness measurements will be made for the following areas:

Pavement placed within 100 feet of the termini of the project.

Pavement placed within 100 feet of the approaches and departures for bridge structures not being overlain as part of the project.

Bridges and their approaches and departures that are overlain as part of the project will be subject to the smoothness requirements.