

At approximate 500-foot intervals where designated by the Engineer the Contractor shall, with an approved stamp, indent the concrete surface near the right hand edge of the pavement with the stationing of the roadway.

#### **5-05.3(12) Surface Smoothness**

The pavement smoothness will be checked under supervision of the Engineer no later than 5:00 p.m. of the day following placement of concrete, with equipment furnished and operated by the Contractor. Smoothness of all pavement placed except shoulders, ramp tapers, intersections and small or irregular areas as defined by Section 5-05.3(3) unless specified otherwise, will be measured with a recording profilograph, as specified in Section 5-05.3(3), parallel to centerline, from which the profile index will be determined in accordance with WSDOT Test Method 807.

For the purpose of qualifying the equipment and methods used by the Contractor, a daily profile index will be computed. For pavement placed in a 12-foot width or less, the daily profile index will be the average of two profiles made approximately 3-feet from and parallel to each edge of the pavement. If the pavement is placed in a width greater than 12-feet, the daily profile index will be computed as the average of profiles made approximately 3-feet from and parallel to each edge and at the approximate location of each planned longitudinal joint.

The daily profile index of the finished pavement thus determined will be 7-inches per mile, or less. Only equipment and methods that consistently produce a finished surface meeting this requirement shall be used. Should the daily profile index exceed the rate of 7-inches per mile, the paving operations shall be discontinued until other methods or equipment are provided by the Contractor. Such revised methods and equipment shall again be discontinued if they do not produce a finished surface having a daily profile index of 7-inches per mile, or less. Operations shall not be resumed until the Engineer approves further changes in methods and equipment as proposed by the Contractor.

All areas representing high points having deviations in excess of 0.3-inch as determined by procedures described in WSDOT Test Method 807, shall be reduced by abrasive methods until such deviations do not exceed 0.1-inch as determined by reruns of the profilograph. High areas of individual profiles shall be reduced by abrasive means so that the profile index will not exceed 0.7-inch in any 0.1 mile section. All high areas in excess of 0.1-inch shall be reduced to 0.0-inch prior to reducing any high points of 0.1-inch or less. Low spots exceeding .25-inch shall be corrected in a manner approved by the Engineer.

When any of the daily profile indexes exceed 7-inches per mile, final acceptance of the pavement for smoothness parallel to the centerline will be based on profile indexes as measured with the profilograph, operating by the Contractor under the supervision of the Engineer, along a line parallel to the edge of pavement and each longitudinal joint and will not be averaged for acceptance purposes. The final acceptance profile indexes will be measured after all corrective work is complete and will demonstrate that all 0.1-mile sections on the project are within the 0.7-inch Specification.

When cement concrete pavement abuts bridges, the finished pavement parallel to centerline within 15-feet of the abutting joint shall be uniform to a degree that no variations greater than  $\frac{1}{8}$ -inch are present when tested with a 10-foot straightedge.

When paving intersections, small or irregular areas, as defined in Section 5-05.3(3), surface smoothness will be measured with a 10 foot straightedge no later than 5:00 p.m. of the day following the placing of the concrete. A 10 foot straightedge will be placed

parallel to the centerline so as to bridge any depressions and touch all high spots. Should the surface vary more than  $\frac{1}{8}$ -inch from the lower edge of the straightedge, the high portion shall be reduced by the Contractor to the  $\frac{1}{8}$ -inch tolerance by abrasive means at no expense to the Contracting Agency. It is further provided that if reduction of high portions of the surface involves breaking, dislodging, or other disturbance of the aggregates, such cutting will not be permitted until the pavement has achieved its design age. If in the opinion of the Engineer irregularities cannot be satisfactorily removed by such methods, the Contractor shall remove and replace the pavement at no expense to the Contracting Agency.

Smoothness perpendicular to the centerline will be measured with a 10-foot straight edge. The transverse slope of the finished pavement shall be uniform to a degree such that no variations greater than  $\frac{1}{4}$ -inch are present when tested with a 10-foot long straightedge laid in a direction perpendicular to the centerline. Any areas that are in excess of this specified tolerance shall be corrected by abrasive means.

### **5-05.3(13) Curing**

Immediately after the finishing operations have been completed and as soon as marring of the concrete will not occur, the entire surface of the newly placed concrete shall be cured in accordance with one of the following methods the Contractor may elect.

#### **5-05.3(13)A Curing Compound**

Liquid membrane-forming concrete curing compound Type 2 meeting the requirements of Section 9-23.2 shall be applied to the entire area of the exposed surface of the concrete with an approved mechanical spray machine. The spray fog shall be protected from the wind with an adequate shield. It shall be applied uniformly at the rate of one gallon to not more than 150 square feet.

The compound shall be applied with equipment of the pressure tank or pump type equipped with a feed tank agitator which ensures continuous agitation of the compound during spraying operations. The nozzle shall be of the two-line type with sufficient air to properly atomize the compound.

The curing compound shall not be applied during or immediately after rainfall. If it becomes necessary to leave the pavement uncoated overnight, it shall be covered with polyethylene sheeting, which shall remain in place until weather conditions are favorable for the application of the curing compound.

In the event that rain falls on the newly coated pavement before the film has dried sufficiently to resist damage, or in the event of damage to the film from any cause, the Contractor shall apply a new coat of curing compound in one or two applications to the affected area at the rate which, in the opinion of the Engineer, will result in a film of curing value equal to that specified in the original coat.

Before placing the curing compound in the spray tank, it shall be thoroughly agitated as recommended by the Manufacturer. The compound shall not be diluted by the addition of solvents nor be altered in any manner. If the compound has become chilled to the extent that it is too viscous for proper stirring or application or if portions of the vehicle have been precipitated from solution, it shall be heated to restore proper fluidity but it shall not be heated above 100°F. All curing compound shall have approval prior to placing in the spray tanks.