

Response To Comments Received

Bruce Trott

From: Bruce Trott
Sent: Wednesday, March 30, 2005 1:21 PM
Subject: RE: 3520080

My only comment is that this puts more onus on the Contractor and eliminates any potential of claim against the Department for thickness' that vary from plan, including those that are not the fault of the Contractor. For example, say the camber-deflection information is incorrect and the deck does not deflect as anticipated. Therefore it is likely that the deck profile is incorrect and additional grinding may be required. Under the new wording, we are not entitled to claim for any additional grinding to meet profile. Grinding subcontractors will likely claim against us however, as they will bid by the square yard at a specified average thickness.

Response:

The Profile Index (PI) is determined using a California type Profilograph (Florida Method 5-558).

The sensing wheel **records** the vertical deviations in inches, from a reference plane which is determined by the reference platform wheels, **over a 25 feet distance** (which is the footprint of the device. This is done over and over, for the entire length of the bridge, in both wheelpaths. The data for both wheelpaths is averaged and reported every 0.1 mile (528 feet).

The data is electronically filtered to remove any effects from long wave lengths like the camber of the bridge, and vertical slope. So it only considers those short features in excess of 0.3in in 25ft that excite the system (ie short wavelength). Besides, camber is built into the superstructure so it is offset by dead weight.

Larry Mosher

Re: Modification of Section 352 Grinding Concrete Pavement

I believe the proposed change from using "plan thickness of cement concrete pavement" to "plan surface area of cement concrete pavement" is an improvement to the specification.

I would like to propose a second change to this same portion of the specification that will make the available bonus more meaningful. From a grinding contractor's point of view the current bonus available is so small it justifies no extra effort to obtain the bonus. The following proposed change came from a three year maintenance contract for the Oklahoma Turnpike Authority. It provides for incentive to provide extra

smoothness and a penalty for profiles not quite as good as you like. With these schedules the grinding contractor can justify the extra cost and effort necessary to get the best ride possible, still the additional cost is well below the proven benefit realized from super smooth pavement.

ENGLISH

Incentive/penalty based on .1 mile segments – 1 lane wide = 704 SY of ground area

PI – 5,0 inches per mile required	Curvature radius > 2000'	PI – 7.0 inches per mile required	radius >1000 to <20000
Pi = 3/0 or less	Add \$200. per segment	Pi = 5.0 or less	Add \$200. per section
Pi = 3.1 to 5.0	Add \$100 per segment	Pi = 5.1 to 7.0	Add \$100. per segment
Pi 5.1 to 6.0	No Adjustment	Pi 7.1 to 8.0	No Adjustment
Pi 6.1 to 7.0	Deduct \$200 per segment	Pi 8.1 to 9.0	Deduct \$200.00 per segment
Pi over 7.0	Mist Correct	Pi over 9.0	Must Correct

METRIC

Incentive/Penalty based on .1 kilometer segments – 1 lane wide = 375 M2 of ground area

Pi – 80 mm/km	Curvature radius > 2000'	Pi – 100 mm/km	radius >1000 to <20000'
Pi = 30 or less	Add \$105 per segment	Pi = 50 or less	Add \$105 per segment
Pi >30 to <50	Add \$53.00 per segment	Pi = >50 to <70	Add \$53.00 per segment
Pi > 50 to <70	No adjustment	PI = > 70 to <90	No adjustment
Pi > 70 to <	Deduct \$105. per	Pi > 90 to <	Deduct \$105. per

100	segment		120	segment
Pi over 110	Must correct		Pi over 130	Must correct

Sincerely,
Larry G. Mosher

Response:

The proposed incentive/disincentive schedule above presumes that the method for deriving PI is accurate to 0.1 in/mile . The actual precision of the profilograph has yet to be determined (see ASTM E1274 , rev 03, article 12. Precision and Bias)