



# INDIANA DEPARTMENT OF TRANSPORTATION

*Driving Indiana's Economic Growth*

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**Mitchell E. Daniels, Jr., Governor**  
**Michael B. Cline, Commissioner**

August 2, 2011

## CONSTRUCTION MEMORANDUM 11-06

TO: District Deputy Commissioners  
District Construction Directors  
District Testing Engineers  
District Area Engineers  
District LPA Coordinators  
Field Engineers  
Technical Services Directors  
Project Engineers/Supervisors  
Office of Materials Management

FROM: Mark A. Miller, Director *Ma Miller*  
Division of Construction Management

SUBJECT: PCCP Dowel Basket Assembly Specification Revisions

At its July meeting, the Standards Committee passed specifications changes related to dowel basket assemblies used for D-1 contraction joints in PCCP. The new specifications differentiate between the protection requirements for the dowel bars used in these assemblies compared to those for epoxy coated bent and straight reinforcing bars. Also, the new specifications delete the requirement for the dowel assembly tie bars to be cut. The new specifications are attached to this memo.

These new specifications are scheduled to begin appearing in contracts as a recurring special provision with the November 2011 letting. However, the Department has decided that it would be appropriate for the changes to be implemented on active contracts as well. Research studies indicate that physical covering of epoxy coated dowel bars is not necessary and that uncut dowel bar assemblies provide better alignment of individual dowel bars at the contraction joint.

Contractors wishing to implement the specification changes attached to this memo on active contracts shall submit a written request by letter or e-mail to the PE/S. If District Construction personnel believe that there is a reason that the requested changes should not be implemented, the Division of Construction Management Field Engineer assigned to the District should be contacted for concurrence. Otherwise, the PE/S will then respond to the Contractor in writing by letter or e-mail indicating approval of the requested specification changes.

There is no need to process a change order to incorporate these specifications changes into the contract. The PE/S will maintain the Contractor request and Department response in the SiteManager Correspondence Log to serve as documentation of the specification change.

District Construction personnel with questions regarding the content of this memo should contact the Division of Construction Management Field Engineer assigned to the District.

Attachment

MAM/jgj

## 503-R-582 DOWEL BARS AND DOWEL BAR ASSEMBLIES

(Adopted 07-21-11)

The Standards Specifications are revised as follows:

SECTION 503, BEGIN LINE 25, DELETE AS FOLLOWS:

The epoxy coating on the ~~dowel bars and~~ bent and straight tie bars shall be protected in accordance with 703.04.

SECTION 503, BEGIN LINE 174, DELETE AND INSERT AS FOLLOWS:

- (c) Suitable struts or ties *wires* shall be provided to hold the assembly in correct position during installation. *The tie wires shall be size W 7.5 (7 mm) or smaller and there shall be a maximum of 5 tie wires for each dowel bar assembly.*
- (d) The assembly shall have an upright support welded to the spacer bar and a continuous bearing member at the end of each dowel.
- (e) If the upright support consists of a single vertical wire, the support shall be size W 7.5 (7 mm) or greater wire. Otherwise, the support shall be 1/4 in. (6 mm) or greater in diameter.
- (f) *At the time of placement, dowel bars shall be free of dirt, loose rust, or scale. If the Engineer suspects the epoxy coating has been damaged by exposure to ultraviolet light, a sample will be obtained and will be tested in accordance with 910.01(b)9.*
- (fg) The dowel bar assembly shall be held securely in place during placing, consolidating, and finishing the PCCP by means of metal pins. Pins used on granular subbase shall penetrate a minimum of 12 in. (300 mm) below the dowel bar assembly. Pins shall be size W 7.5 (7 mm) or greater wire and shall be provided with a hook or arm welded to the pin so that it shall secure the assembly in place. A minimum of 8 pins shall be used for each 10, 11, or 12 ft (3.0, 3.4, or 3.7 m) section of assembly. A minimum of 10 pins shall be used for assembly sections greater than 12 ft (3.7 m) and less than or equal to 16 ft (4.9 m).
- (gh) ~~After the dowel bar assembly is securely in place, all tie wires which parallel the dowel bars, and are welded to the 2 continuous parallel spacer bars, shall be cut near the center of the tie.~~ Dowel bars shall be coated with a bond breaking material and the coating shall be evident at the time of placement of the PCCP.
- (hi) Dowel bars shall be placed 6 in. (150 mm) from the edges of the pavement and spaced at 1 ft (0.3 m) on center across the joint.

SECTION 506, BEGIN LINE 29, DELETE AND INSERT AS FOLLOWS:

~~The epoxy coating on the dowel bars shall be protected in accordance with 703.04.~~ *Dowel bars shall be in accordance with 503.04(f).*

SECTION 507, BEGIN LINE 19, DELETE AND INSERT AS FOLLOWS:

~~The epoxy coating on the dowel bars shall be protected in accordance with 703.04.~~  
*Dowel bars shall be in accordance with 503.04(f).*

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