SUBJECT: Revisions to Standards for Roadway Construction RCs 23M and 24M

INFORMATION AND SPECIAL INSTRUCTIONS:

Incorporate the attached revisions into the April 2004 Edition of the Standards for Roadway Construction. These revisions should be adopted as soon as practical on all new and existing designs without affecting any letting schedules. Coordinate full implementation of these changes with Publication 218M, Change No. 5 and Publication 219M, Change No. 5.

The major revisions for each Standard Drawing are presented below. Since all minor changes may not be indicated, it is strongly advised that all recipients thoroughly examine the changes and revisions incorporated in this Change.

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APPROVED FOR ISSUANCE BY:

Allen D. Biehler, P.E. – Secretary of Transportation
By:

Brian G. Thompson, P.E.,
Acting Director of Bureau of Design, Highway Administration
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April 2004 Edition

See Change #1 for Mar. 30, 2006 Standard Revisions

* See Change #2 for Jul. 20, 2007 Standard Revisions
NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. U.S. CUSTOMARY UNITS IN ( ) PARENTHESES.

2. APPROACH SLAB SKEW ANGLE MUST BE GREATER THAN OR EQUAL TO 45 DEGREES. IF THE BRIDGE SKEW ANGLE IS LESS THAN 45 DEGREES DETAILS MUST BE SHOWN ON THE STRUCTURE DRAWINGS.

3. PROVIDE CLASS AA CEMENT CONCRETE IN THE APPROACH SLAB AND SLEEPER SLAB.

4. PROVIDE GRADE 420 DEFORMED EPOXY COATED REINFORCEMENT BARS IN ACCORDANCE WITH PUBLICATION 406, SECTION 709.1, 709.2 AND SECTION 709.3.

5. PROVIDE A MINIMUM LAP SPLICES IN ACCORDANCE WITH BC-736M.

6. PROVIDE A SUBGRADE DRAINAGE SYSTEM ON THE LOW SIDE OF THE SLEEPER SLAB. MEASURE AND PAY FOR AS SPECIFIED IN PUBLICATION 408, SECTION 612.

7. BURN OFF, TO TOP OF BEAM, REINFORCEMENT AND/OR LIFTING DEVICES PROTRUDING INTO THE APPROACH SLAB.

8. PROVIDE CLASS AA CEMENT CONCRETE IN THE APPROACH SLAB AND SLEEPER SLAB.

9. PROVIDE GRADE 420 DEFORMED EPOXY COATED REINFORCEMENT BARS IN ACCORDANCE WITH PUBLICATION 406, SECTION 709.1, 709.2 AND SECTION 709.3.

10. PROVIDE A MINIMUM LAP SPLICES IN ACCORDANCE WITH BC-736M.

11. PROVIDE A SUBGRADE DRAINAGE SYSTEM ON THE LOW SIDE OF THE SLEEPER SLAB. MEASURE AND PAY FOR AS SPECIFIED IN PUBLICATION 408, SECTION 612.

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BRIDGE APPROACH SLABS

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.
FOR JOINT DETAILS, SEE SHEET 1. FOR JOINT DETAILS, SEE SHEET 1. FOR JOINT DETAILS, SEE SHEET 1. FOR JOINT DETAILS, SEE SHEET 1.

140 (16") DECK SLAB PLUS 10 (1/2") HAUNCH MIN. WITHOUT CAMBER

140 (16") DECK SLAB PLUS 10 (1/2") HAUNCH MIN. WITHOUT CAMBER

140 (16") DECK SLAB PLUS 10 (1/2") HAUNCH MIN. WITHOUT CAMBER

P/S CONCRETE ADJACENT DECK BEAM, 160 (21") DEEP AND GREATER

P/S CONCRETE ADJACENT DECK BEAM, 160 (21") DEEP AND GREATER

P/S CONCRETE ADJACENT DECK BEAM, 160 (21") DEEP AND GREATER

120 (16") MIN. WITHOUT CAMBER

120 (16") MIN. WITHOUT CAMBER

120 (16") MIN. WITHOUT CAMBER

200 (16") MIN. DECK SLAB

200 (16") MIN. DECK SLAB

200 (16") MIN. DECK SLAB

BOND-BREAKER, 2-PLY BIT. PAPER

BOND-BREAKER, 2-PLY BIT. PAPER

BOND-BREAKER, 2-PLY BIT. PAPER

535 (21") TO 1675 (66") DEEP P/S CONCRETE ADJACENT COMPOSITE BOX BEAMS

430 (17") DEEP P/S CONCRETE ADJACENT COMPOSITE BOX BEAMS

P/S CONCRETE SPREAD BOX BEAMS

P/S CONCRETE I-BEAMS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

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BRIDGE APPROACH SLABS

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BRIDGE APPROACH SLABS

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NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. U.S. CUSTOMARY UNITS IN PARENTHESES.

2. PAVEMENT RELIEF JOINTS ARE APPLICABLE FOR ALL CEMENT CONCRETE PAVEMENTS.

3. WHERE BRIDGES ARE LOCATED LESS THAN 300 m (1900') APART, AS MEASURED FROM THE FACE OF THE NEAREST ABUTMENTS, DO NOT USE A RELIEF JOINT BETWEEN THE BRIDGES.

4. WHERE BRIDGES ARE LOCATED BETWEEN 300 m (1900') AND 450 m (1350') APART, AND THE PAVEMENT STRUCTURE IS CEMENT CONCRETE, PLACE ONE RELIEF JOINT PERPENDICULAR TO THE PAVEMENT. SEE SHEET 3 FOR DETAILS AND NOTES.

5. FOR JOINT DETAILS ON NEW CONSTRUCTION, SEE RC-20M. FOR JOINT DETAILS ON RECONSTRUCTION, SEE RC-26M. IF THE DISTANCE TO THE NEAREST JOINT IS LESS THAN 3.0 m (10'), REMOVE THE EXISTING PAVEMENT TO THE JOINT.

6. INCLUDE PORTIONS OF REINFORCING BARS WHICH ARE LOCATED OUTSIDE THE INDICATED PAY LIMITS IN BID PRICE FOR PAVEMENT RELIEF JOINT.

7. PROVIDE A SUBGRADE DRAIN (SEE RC-30M) ON THE LOW SIDE OF THE SLIPPER SLAB. MEASURE AND PAY FOR AS SPECIFIED IN PUBLICATION 408, SECTION 612.

8. TROWEL SMOOTH AND PLACE 2 LAYERS OF 0.1 mm (4 MIL) POLYETHYLENE SHEETING AS BOND BREAKER.

9. EPOXY COAT ALL REINFORCEMENT BARS.

10. WHEN THE PAVEMENT RELIEF JOINT IS ADJACENT TO A BRIDGE APPROACH SLAB, THE SLIPPER SLAB IS PAID WITH THE BRIDGE APPROACH SLAB.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

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BRIDGES LOCATED BETWEEN 300 m (1000') AND 450 m (1500') APART  MUST MATCH ROADWAY WIDTH

CONSTRUCTION JOINT

PAY LIMIT FOR PCC
PAVEMENT OR RCC PAYMENT

75

SEE NOTE 5 ON SHEET 1

SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PC 64-22, 3 TO 10 MILLION SHALS, 2.5MM-

TACK AS PER SEE 600, PAVEMENT RELIEF JOINT

50

SLEEPING SURFACE (TOP)
SEE NOTE 6 ON SHEET 1

12'

12'

SEE NOTE 5 ON SHEET 1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

NOTES
1. FOR NOTES, SEE SHEET 1.
2. WHEN BRIDGE APPROACH SLAB IS NOT ADJACENT TO THE PAVEMENT RELIEF JOINT THE SLEEPER SLAB AND REINFORCEMENT BARS ARE INCIDENTAL TO THE PAVEMENT RELIEF JOINT PAY ITEM.
3. PROVIDE CLASS AA CEMENT CONCRETE IN THE SLEEPER SLAB, AT CONTRACTOR'S OPTION, SLEEPER SLAB MAY BE HIGH EARLY STRENGTH CEMENT CONCRETE.

NOTE: EITHER ALL METRIC OR ALL ENGLISH VALUES MUST BE USED ON PLANS. METRIC AND ENGLISH VALUES SHOWN MAY NOT BE MIXED.

PAVEMENT RELIEF JOINT

SECTION D-D