


JOINT LEGEND (ALL SHEETS)

- B LONGITUDINAL BULKHEAD JOINT.
- B1 LONGITUDINAL BULKHEAD JOINT, EXCEPT OMIT SEALS AND LANE TIES, APPLY TWO ADDITIONAL COATS OF CURING COMPOUND, AS A BOND BREAKER, AT THE RATE OF 1 GALLON PER 100 SFT PER COAT.
- BD OPTIONAL B OR D JOINT.
- Cp TRANSVERSE CONTRACTION JOINT WITH LOAD TRANSFER DEVICE.
- C3p TRANSVERSE CONTRACTION JOINT WITHOUT LOAD TRANSFER DEVICE. (SHOULDERS)
- D LONGITUDINAL LANE TIE JOINT.
- W PLANE OF WEAKNESS JOINT.
- E2 1" TRANSVERSE EXPANSION JOINT WITH LOAD TRANSFER DEVICE.
- E3 1" TRANSVERSE EXPANSION JOINT WITHOUT LOAD TRANSFER DEVICE.
- E4 1" TRANSVERSE EXPANSION JOINT WITHOUT LOAD TRANSFER DEVICE. (SHOULDERS)
- E5 1" LONGITUDINAL SEALED EXPANSION JOINT (SEE STANDARD PLAN R-49-SERIES)
- L2 LONGITUDINAL BULKHEAD JOINT USING EPOXY ANCHORED LANE TIES.
- U TRANSVERSE PLANE OF WEAKNESS JOINT FOR CONCRETE BASE COURSE.

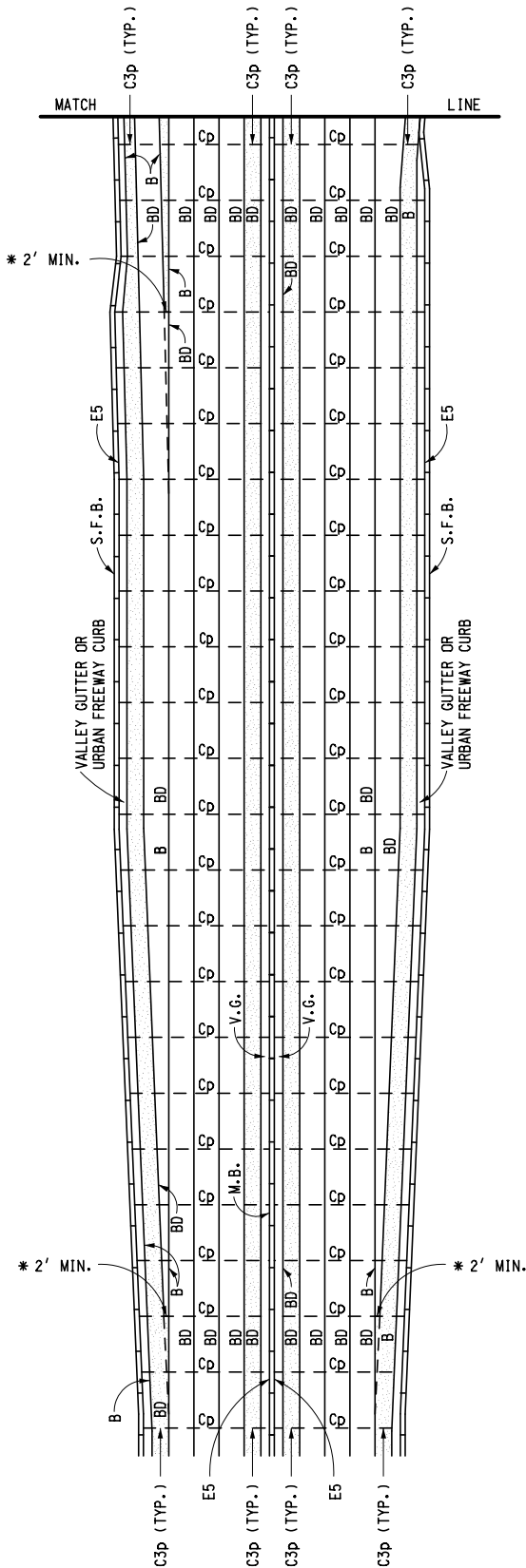
 SHOULDER

 EXISTING CONCRETE PAVEMENT

- C. & G. = CURB & GUTTER
- E.O.M. = EDGE OF METAL
- F.O.B. = FACE OF BARRIER
- M.B. = MEDIAN BARRIER
- S.F.B. = SINGLE FACE BARRIER
- V.G. = VALLEY GUTTER

* END GORE AND RAMP TAPERS SO THAT THE LAST SECTION ENDS WITH A MINIMUM 2'-0" CUT-OFF AND IT ALIGNS WITH A TRANSVERSE PAVEMENT JOINT. EXPANSION JOINTS SHALL BE PLACED AT THE END OF PAVED GORES AS SPECIFIED ON THIS PLAN.

SEE STANDARD PLAN R-43-SERIES FOR JOINT SPACING AND STANDARD PLAN R-39-SERIES FOR CONTRACTION JOINT DESIGNS.



JOINTS IN URBAN FREEWAY

12', 14', OR 16' JOINT SPACING FOR JOINTED PLAIN CONCRETE PAVEMENT

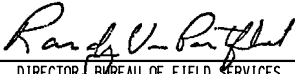


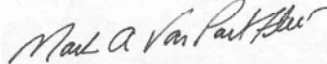
PREPARED BY
DESIGN DIVISION

DRAWN BY: B.L.T.

CHECKED BY: W.K.P.

DEPARTMENT DIRECTOR
Kirk T. Stuedle

APPROVED BY: 
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: 
DIRECTOR, BUREAU OF HIGHWAY DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

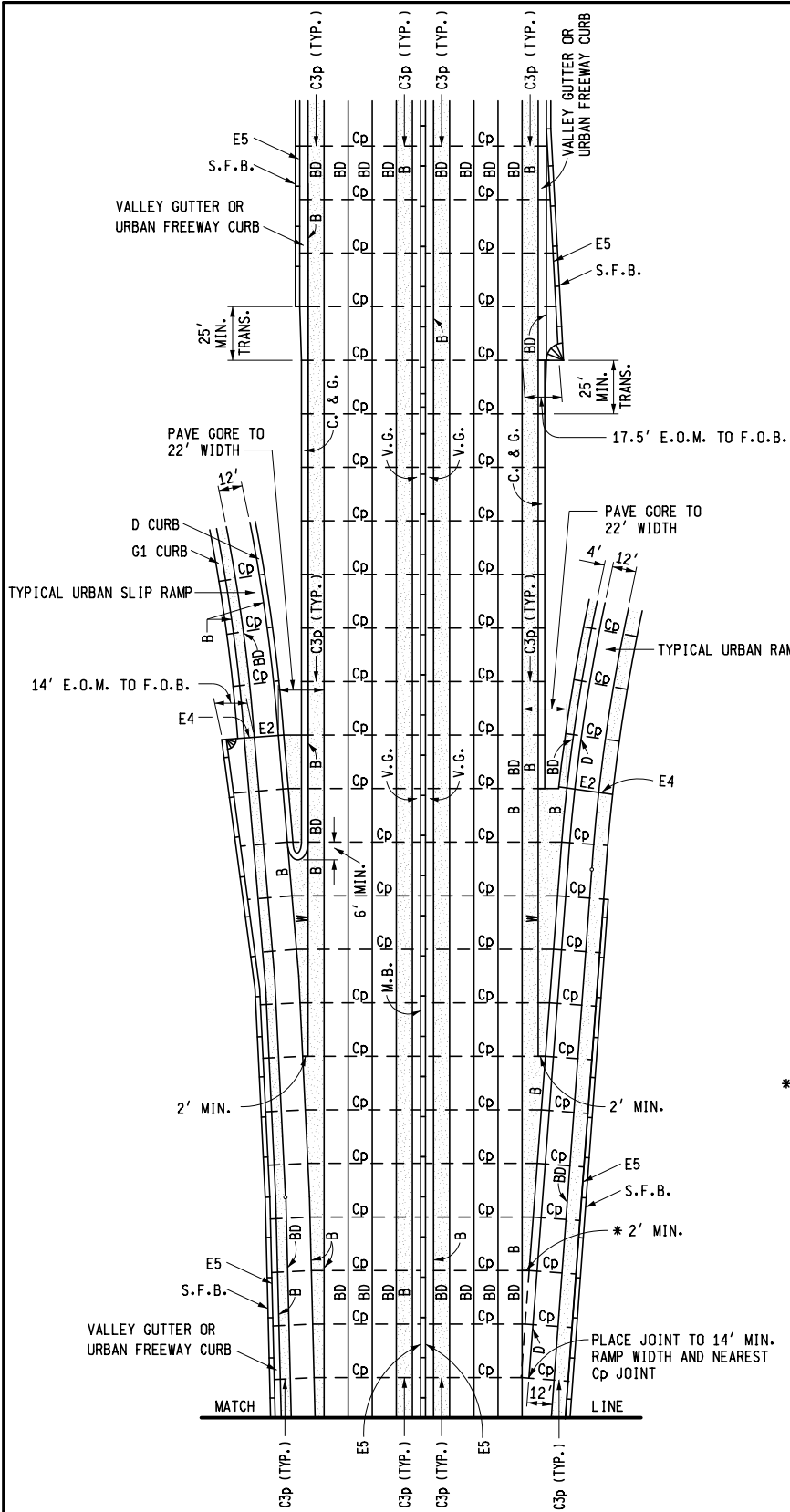
TYPICAL JOINT LAYOUTS FOR CONCRETE PAVEMENT

12-25-2013
F.H.W.A. APPROVAL

12-6-2010
PLAN DATE

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- C. & G. = CURB & GUTTER
- E.O.M. = EDGE OF METAL
- F.O.B. = FACE OF BARRIER
- M.B. = MEDIAN BARRIER
- S.F.B. = SINGLE FACE BARRIER
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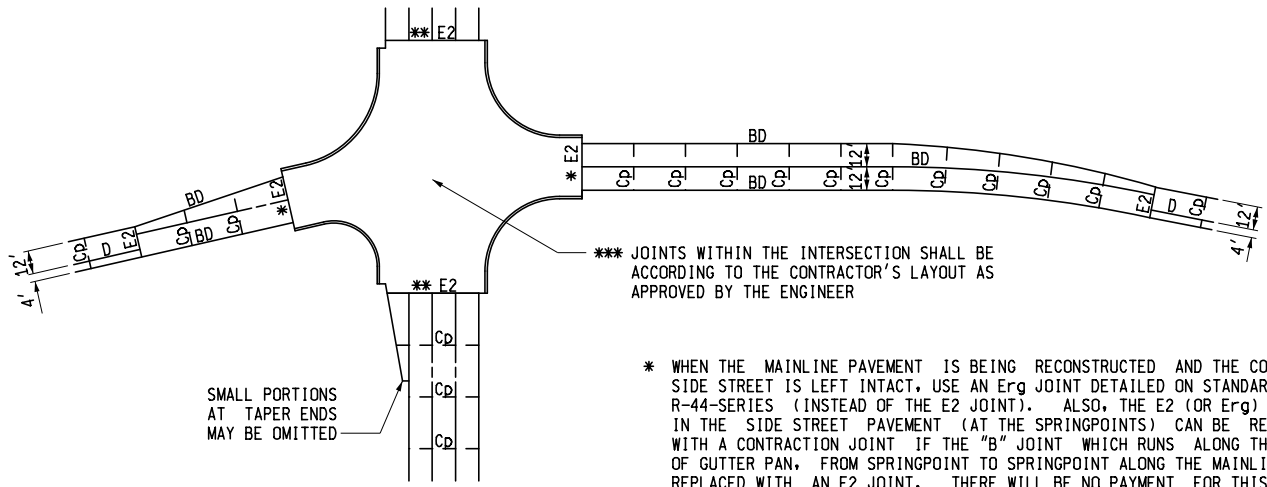
THE TAPER ON THE RAMP NOSE CONE (APPROACH OR DEPARTING END) SHALL BE AS SPECIFIED ON THE PLANS.

THE MINIMUM 2'-0" CUT-OFF ON CURB & GUTTER AND VALLEY GUTTER TRANSITION SECTIONS NEED NOT BE ALIGNED WITH TRANSVERSE PAVEMENT JOINTS.

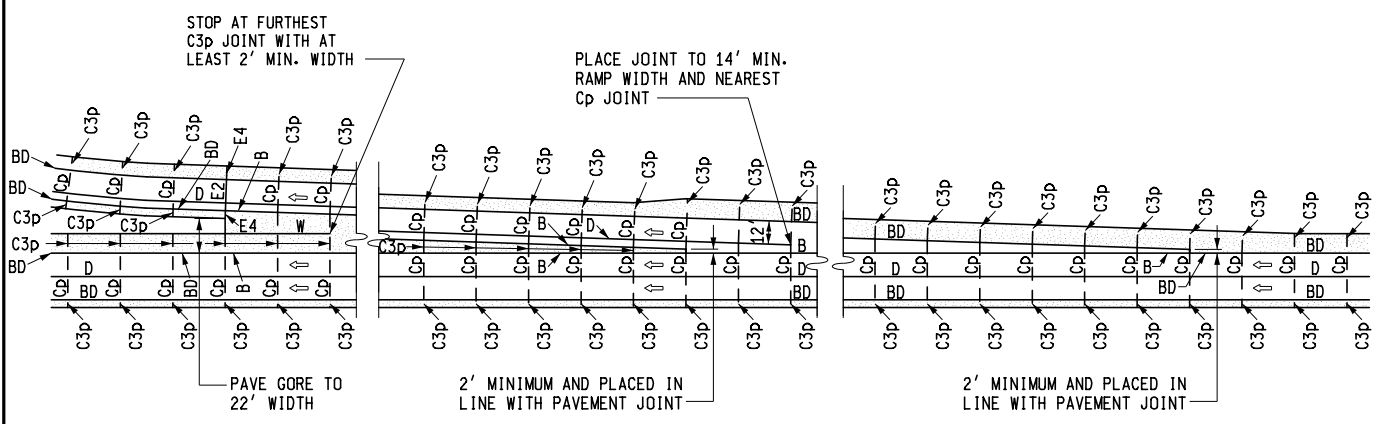
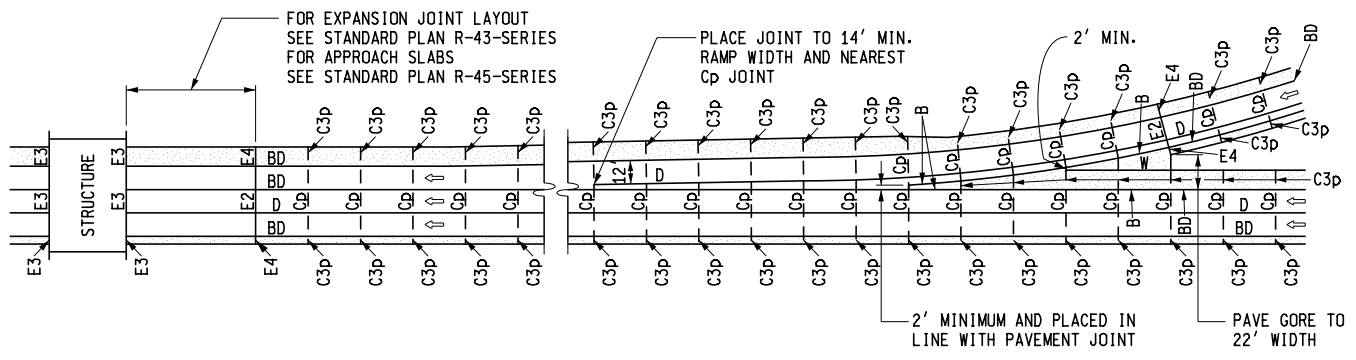
SEE STANDARD PLAN R-43-SERIES FOR JOINT SPACING AND STANDARD PLAN R-39-SERIES FOR CONTRACTION JOINT DESIGNS.

JOINTS IN URBAN FREEWAY
 12', 14', OR 16' JOINT SPACING FOR JOINTED PLAIN CONCRETE PAVEMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR	
TYPICAL JOINT LAYOUTS FOR CONCRETE PAVEMENT	
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- * WHEN THE MAINLINE PAVEMENT IS BEING RECONSTRUCTED AND THE CONCRETE SIDE STREET IS LEFT INTACT, USE AN Erg JOINT DETAILED ON STANDARD PLAN R-44-SERIES (INSTEAD OF THE E2 JOINT). ALSO, THE E2 (OR Erg) JOINTS IN THE SIDE STREET PAVEMENT (AT THE SPRINGPOINTS) CAN BE REPLACED WITH A CONTRACTION JOINT IF THE "B" JOINT WHICH RUNS ALONG THE EDGE OF GUTTER PAN, FROM SPRINGPOINT TO SPRINGPOINT ALONG THE MAINLINE, IS REPLACED WITH AN E2 JOINT. THERE WILL BE NO PAYMENT FOR THIS EXTRA LENGTH OF E2 JOINT WHEN IT IS MOVED FROM THE SPRING POINT TO THE EDGE OF GUTTER PAN.
- ** THE E2 JOINTS IN THE MAINLINE PAVEMENT (AT THE SPRINGPOINTS) CAN BE REPLACED WITH A CONTRACTION JOINT IF THE MAINLINE IS BEING PAVED THROUGH THE INTERSECTION IN THE SAME OPERATION AS THE NON-INTERSECTION MAINLINE.
- *** THE LONGITUDINAL JOINTS IN THE SIDE STREET PORTION OF THE INTERSECTION (SPRINGPOINT TO MAINLINE GUTTER PAN LINE) SHALL BE SYMBOL (S) JOINTS, WHEN THE E2 JOINT IS MOVED TO THE GUTTER PAN LINE SYMBOL "B" OR "D" JOINTS ARE TO BE USED.



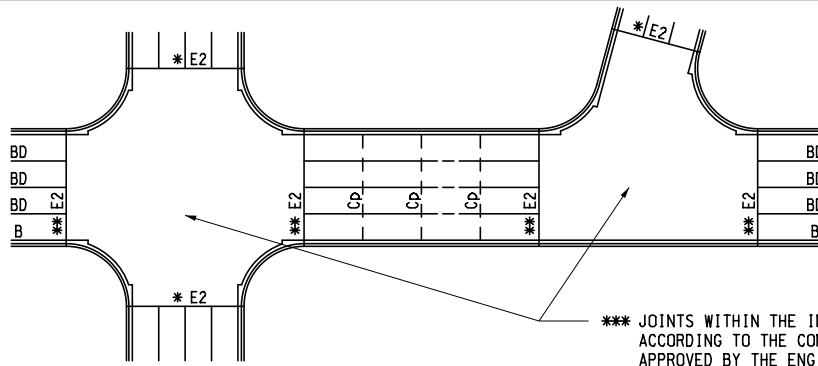
JOINTS IN RURAL FREEWAY
12', 14', OR 16' JOINT SPACING FOR JOINTED PLAIN CONCRETE PAVEMENT

SEE STANDARD PLAN R-43-SERIES FOR JOINT SPACING AND STANDARD PLAN R-39-SERIES FOR CONTRACTION JOINT DESIGNS.

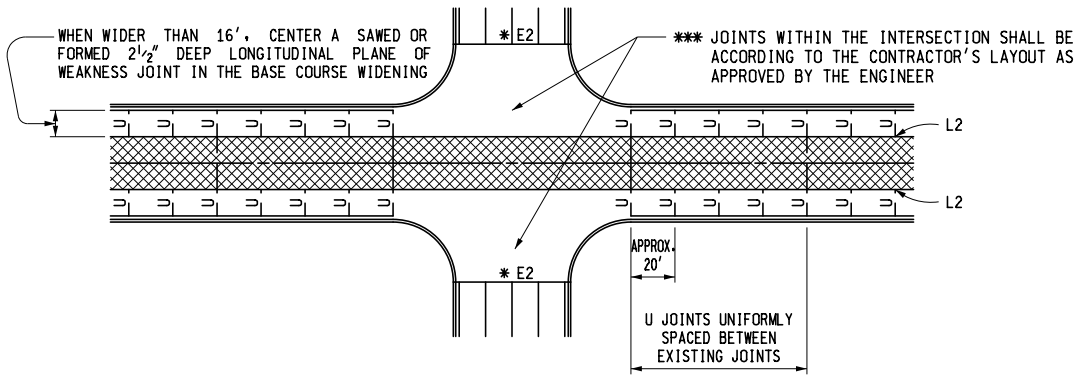
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR

**TYPICAL JOINT LAYOUTS
FOR CONCRETE PAVEMENT**

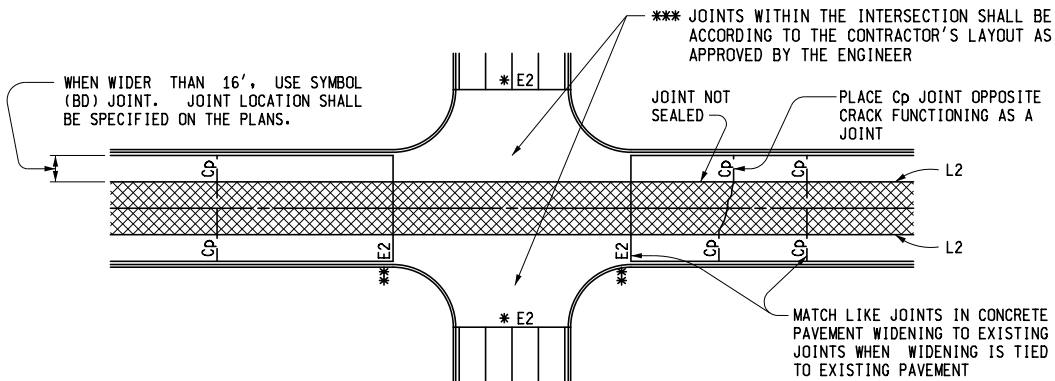
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JOINTS AT INTERSECTIONS



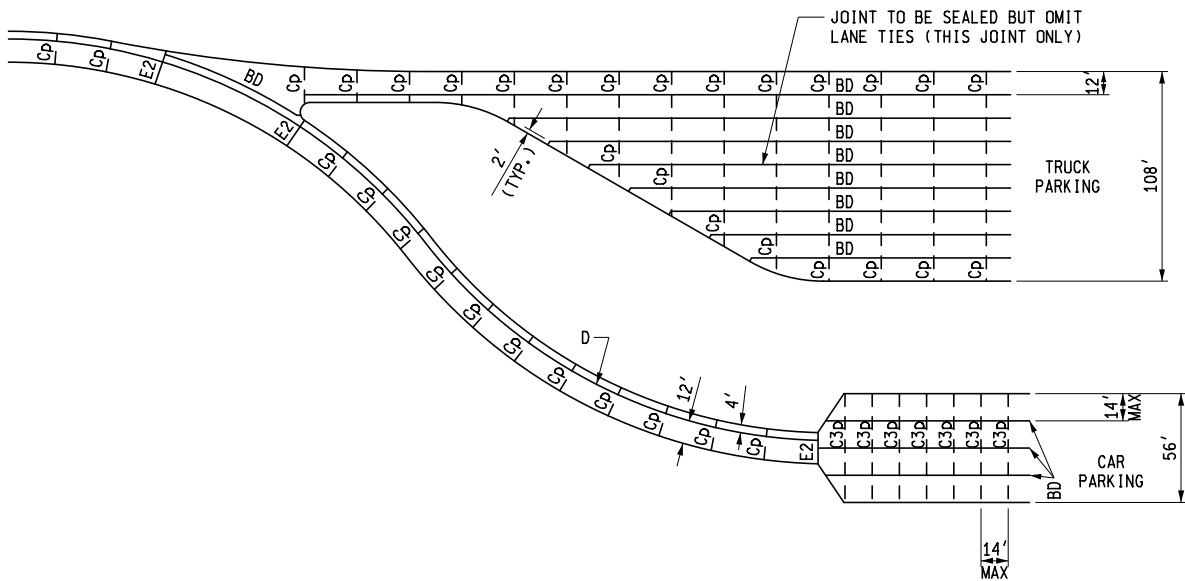
JOINTS FOR CONCRETE BASE COURSE WIDENING



JOINTS FOR CONCRETE PAVEMENT WIDENING

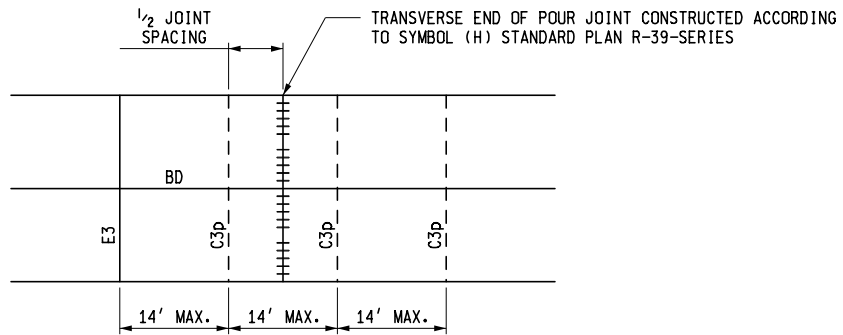
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MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN FOR		
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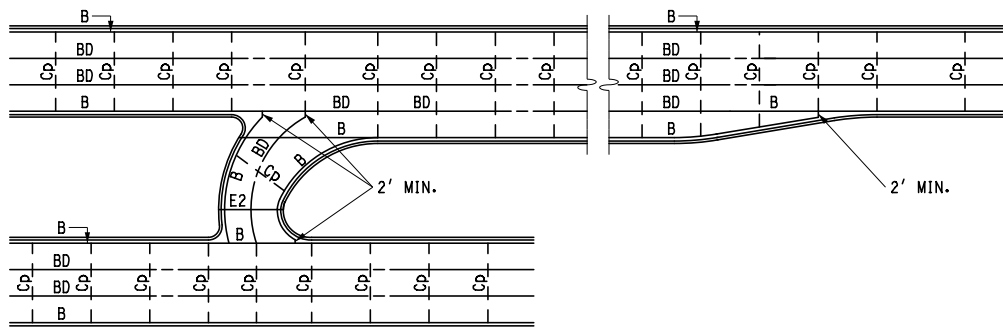


CONCRETE PARKING AREAS AND APPROACHES

(JOINT SPACING AS SPECIFIED IN TABLE ON R-43-SERIES)



LOCATION OF TRANSVERSE END OF POUR JOINT



JOINTS FOR CONCRETE PAVEMENT CROSSOVER

MICHIGAN DEPARTMENT OF TRANSPORTATION
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NOTES:

TRANSVERSE JOINT SPACING IN CONCRETE PAVEMENT AND CONCRETE SHOULDERS SHALL BE AS SPECIFIED IN THE PROPOSAL OR ON THE PLANS AND CONSTRUCTED ACCORDING TO STANDARD PLAN R-43-SERIES AND THIS PLAN, OR AS DIRECTED BY THE ENGINEER. THE PLACEMENT OF JOINTS IN CURB, CURB AND GUTTER OR VALLEY GUTTER SHALL BE PLACED AS SPECIFIED ON STANDARD PLAN R-30-SERIES AND R-33-SERIES. PAVEMENTS NOT CAST INTEGRALLY WITH CURB, CURB AND GUTTER, VALLEY GUTTER OR CONCRETE SHOULDER SHALL BE CONNECTED WITH A LONGITUDINAL SYMBOL (B) JOINT.

JOINTS SHALL BE CONSTRUCTED ACCORDING TO CURRENT STANDARD PLANS R-39-SERIES AND R-41-SERIES.

RAMP JOINTS SHALL BE ORIENTED 90 DEGREES TO THE ALIGNMENT EDGE OF THE RAMP UNTIL THE 2' POINT OF THE GORE. THEN, AS THE RAMP MERGES WITH THE MAINLINE, THE JOINTS SHALL BE ALIGNED 90 DEGREES TO THE MAINLINE.

BASE COURSES SHALL BE NONREINFORCED UNLESS OTHERWISE SPECIFIED ON THE PLANS.

THE LOCATION OF SYMBOLS (E2), (E3) OR (Cp) JOINTS SHALL BE ADJUSTED TO AVOID CONFLICTS WITH MANHOLES, CATCH BASINS, MONUMENT BOXES, WATER SHUT-OFFS, OR OTHER RIGID STRUCTURES. EITHER THE JOINT SHALL BE LOCATED TO INTERSECT AT THE MID POINT OF THE STRUCTURE OR THE STRUCTURE SHALL BE LOCATED IN THE CENTER OF THE PAVEMENT SLAB. SEE R-37-SERIES FOR ISOLATION JOINT DETAILS.

THE CONCRETE PAVEMENT IN THE TRUCK AND PASSENGER CAR PARKING AREAS OF REST AREAS SHALL BE TEXTURED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

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