

GENERAL: THIS DRAWING PROVIDES DESIGN AND GENERAL CONSTRUCTION DETAILS. THE PROJECT PLANS WILL SHOW LENGTH, SKEW, CURBS (IF ANY), ESTIMATED QUANTITY (SQUARE YARDS), AND SPECIAL NOTES AND DETAILS WHERE NECESSARY. FOR CONDITIONS OTHER THAN THOSE INDICATED HEREON, THE APPROACH SLAB SHALL BE ADAPTED TO FIT THE ENDS OF THE BRIDGE AND THE APPROACH PAVEMENT.

DESIGN SPECIFICATIONS: THIS STANDARD DRAWING CONFORMS TO THE "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2014 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA:
DESIGN LOADING: DEAD LOAD - 60 LB/FT² (F.W.S.)
LIVE LOAD - HL-93
CONCRETE - COMPRESSIVE STRENGTH = 4,500 PSI.
REINFORCING STEEL - MIN. YIELD STRENGTH = 60,000 PSI.

REINFORCING STEEL FOR SKEWED BRIDGES: THE A AND C BARS SHALL BE PLACED PARALLEL TO THE CENTER LINE OF ROADWAY AND THE B BARS SHALL BE PLACED PARALLEL TO THE ABUTMENTS.

LONGITUDINAL CONSTRUCTION JOINTS REQUIRED FOR STAGE CONSTRUCTION SHALL BE ACCORDING TO 511. PROVIDE 2'-6" LAP SPLICE OF B501 BARS OR PROVIDE MECHANICAL CONNECTORS PER C&MS 509.07.

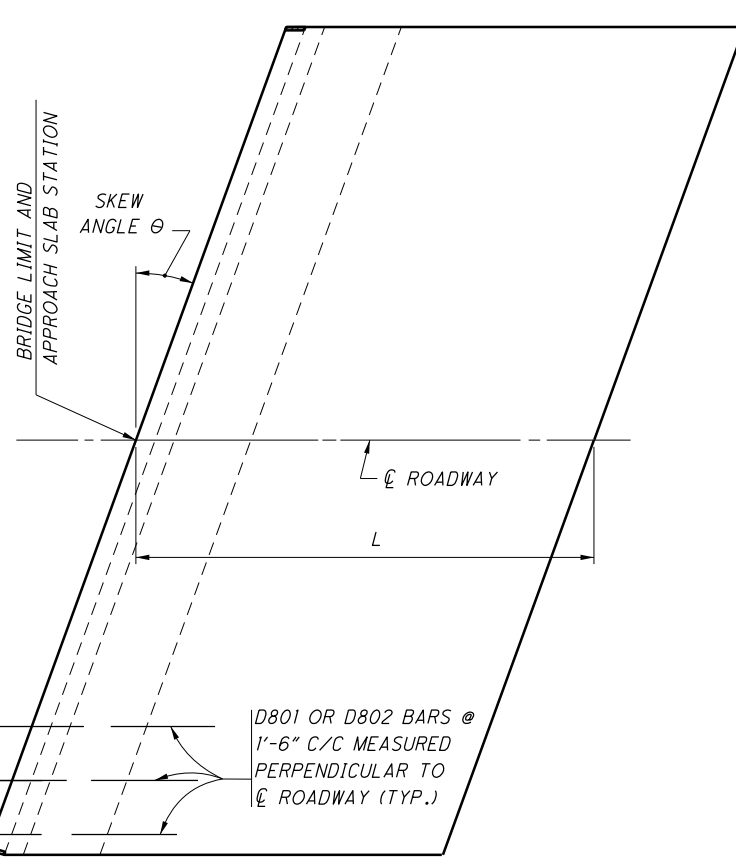
CURBS, BRIDGES WITH SIDEWALKS: FOR BRIDGES CONSTRUCTED WITH RAISED SIDEWALKS, DEFLECTOR PARAPETS OR OTHER TYPES OF CONSTRUCTION WHICH RETAIN ROADWAY SURFACE DRAINAGE, THE APPROACH SLABS SHALL EITHER INCLUDE INTEGRAL CURBS OR BE CONSTRUCTED IN CONJUNCTION WITH BRIDGE CURBS. CURB HEIGHT SHALL BE TRANSITIONED UNIFORMLY BETWEEN BRIDGE CURB HEIGHT AND ROADWAY CURB HEIGHT IN A LENGTH AS FOLLOWS: WHERE WINGWALL EXTENDS BEYOND END OF APPROACH SLAB, USE A MINIMUM LENGTH OF 10 FEET BEYOND END OF WINGWALL. WHERE THE APPROACH SLAB EXTENDS BEYOND THE END WINGWALL, TRANSITION IN THIS LENGTH. HOWEVER, THE TRANSITION LENGTH SHALL NOT BE LESS THAN 10 FEET AND THE TRANSITION SHALL EXTEND BEYOND THE END OF APPROACH SLAB IF NECESSARY.

APPROACH SLAB LENGTH (L): THE LENGTH SHALL BE SHOWN ON THE PROJECT PLANS.

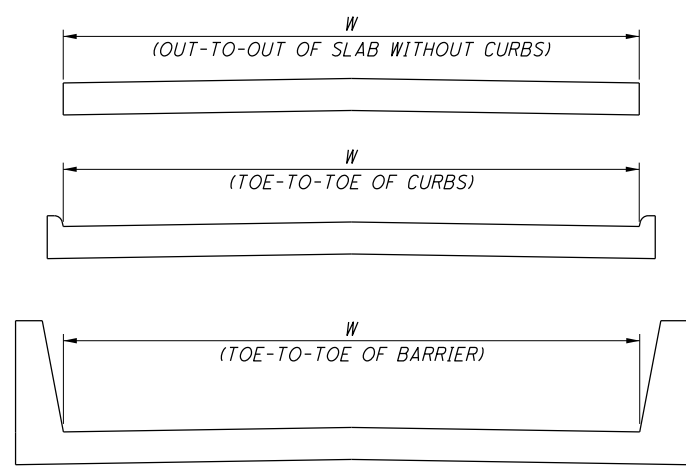
DECK CROWN AND SLOPE: THE LOCATION OF THE CROWN POINT AND THE RATE OF CROSS SLOPE ON THE APPROACH SLAB SHALL CONFORM TO THAT OF THE BRIDGE DECK AND APPROACH PAVEMENT. IF THE RATE OF CROSS SLOPE OF THE BRIDGE DECK DIFFERS FROM THAT OF THE APPROACH PAVEMENT, A SMOOTH TRANSITION SHALL BE PROVIDED WITHIN THE LIMITS OF THE APPROACH SLAB.

BASIS OF PAYMENT: A PAY ITEM FOR "ITEM 526 - REINFORCED CONCRETE APPROACH SLABS" SHALL BE SHOWN IN THE ESTIMATED QUANTITIES TABLE. IN ADDITION TO THE INCIDENTAL ITEMS LISTED IN 526.08, THE DEPARTMENT WILL INCLUDE THE FOLLOWING ITEMS FOR PAYMENT: ALL PREFORMED EXPANSION JOINT FILLER AND JOINT SEALER AT APPROACH SLAB JOINTS, THE TYPE "A" OR "E" WATERPROOFING, AND THE PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL AT THE BRIDGE LIMIT END OF THE APPROACH SLAB.

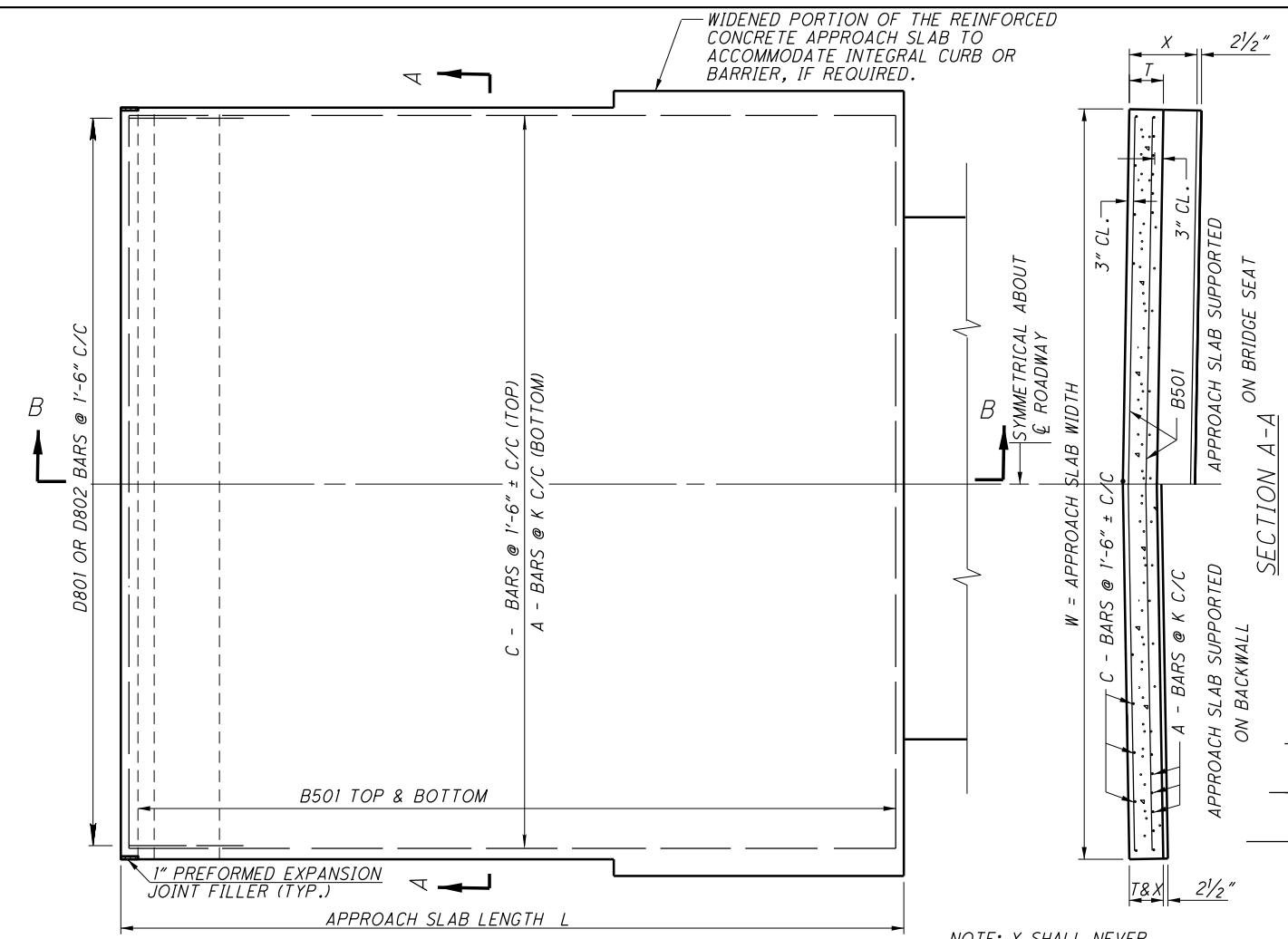
THE DEPARTMENT WILL PAY FOR ANCHOR BARS (D801 OR D802) SEPARATELY. THE DEPARTMENT WILL ALSO PAY FOR CONCRETE BARRIER AND ALL BARRIER REINFORCEMENT SEPARATELY.



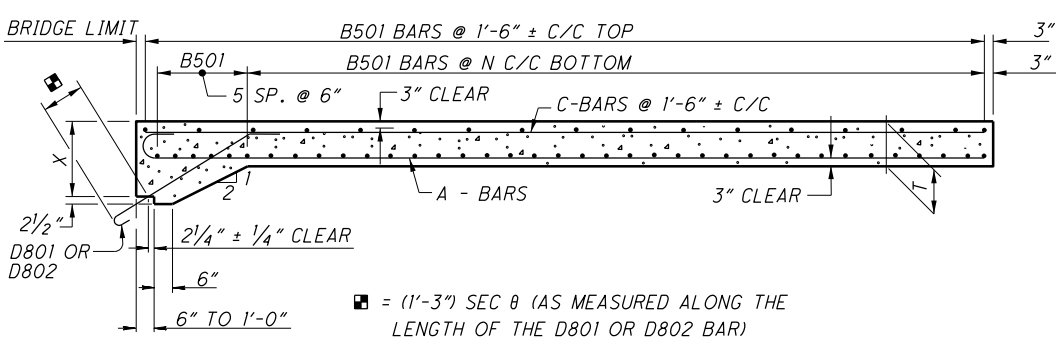
APPROACH SLAB FOR SKEWED STRUCTURE



APPROACH SLAB WIDTH DIMENSIONS



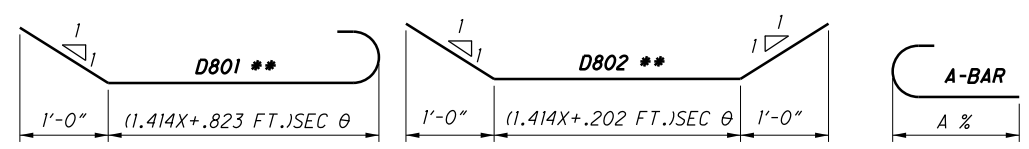
PLAN



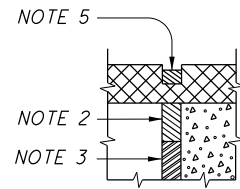
SECTION B-B

REINFORCING STEEL (FOR ONE APPROACH SLAB)														
LENGTH L	THICK- NESS T	A-BARS				B501 (BOTTOM)		B501 (TOP)		C-BARS				D801 OR D802 NO. REQ'D.
		SP'C'G K	MARK	LENGTH	DIMENSION A	NO. REQ'D.	* LENGTH	SP'C'G N	NO. REQ'D.	* LENGTH	NO. REQ'D.	MARK	LENGTH	
15'-0"	12"	10"	A1001	15'-11"	14'-6"	$\left[\begin{matrix} W-0.5 \\ K \end{matrix} \right] + 1$ $(W-0.5) \sec \theta$	9"	22	$(W-0.5) \sec \theta$	11	C501	14'-6"	$\left[\begin{matrix} W-0.5 \\ 18 \end{matrix} \right] + 1$	$\left[\begin{matrix} W-0.5 \\ 18 \end{matrix} \right] + 1$
20'-0"	13"	7 1/2"	A1002	20'-11"	19'-6"		8"	31		14	C502	19'-6"		
25'-0"	15"	7"	A1003	25'-11"	24'-6"		8"	39		18	C503	24'-6"		
30'-0"	17"	6 1/2"	A1004	30'-11"	29'-6"		8 1/2"	44		21	C504	29'-6"		

W = APPROACH SLAB WIDTH, IN FEET (SEE APPROACH SLAB WIDTH DIMENSIONS)
 theta = ANGLE OF SKEW
 K = A-BAR SPACING IN INCHES
 N = B-BAR SPACING IN INCHES
 X = APPROACH SLAB THICKNESS AT ABUTMENT END IN FEET
 % = OUT TO OUT



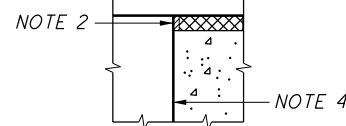
* AT THE OPTION OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE STATE, B501 BARS MAY BE LAPPED 2'-6" MINIMUM AT THE CENTERLINE OF ROADWAY IN LIEU OF PROVIDING FULL LENGTH BARS AS SHOWN.
 ** THE D801 OR D802 ANCHOR BARS SHALL BE DIMENSIONED IN THE CONTRACT PLANS AND INCLUDED WITH ITEM 509 FOR PAYMENT FOR EACH SPECIFIC BRIDGE. D801 BARS CANNOT BE USED AS SHOWN IF APPROACH SLABS ARE SUPPORTED ON BACKWALLS LESS THAN 14 INCHES THICK. D802 BARS SHALL BE USED ON PRESTRESSED CONCRETE BOX BEAM BRIDGES WITH APPROACH SLABS SUPPORTED ON BACKWALLS 11 INCHES THICK.



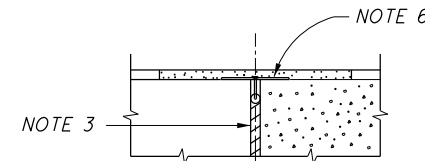
DETAIL A



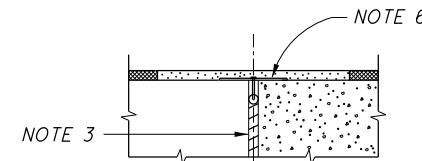
DETAIL B



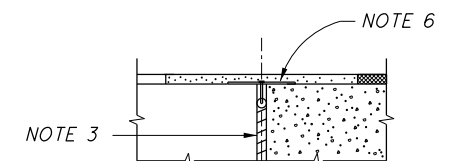
DETAIL C



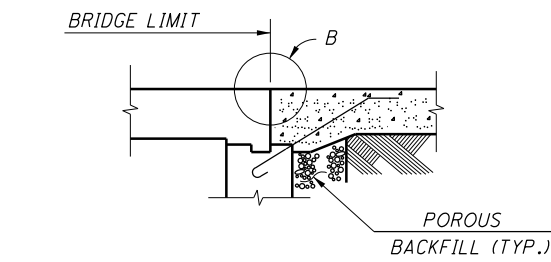
DETAIL D



DETAIL E

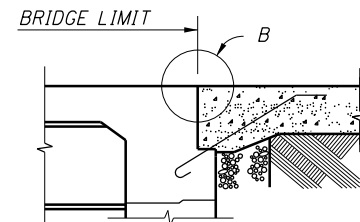


DETAIL F

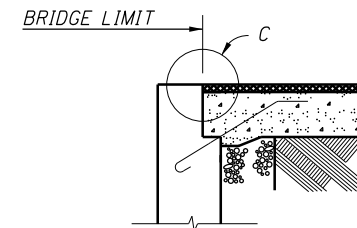


ON SLAB BRIDGES

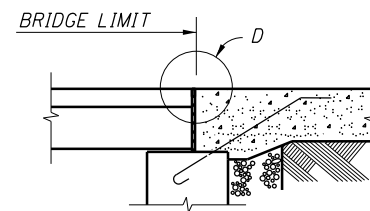
CONCRETE WEARING SURFACE ON BRIDGE DECK AND APPROACH SLAB



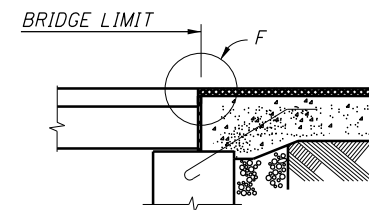
ON BRIDGES WITH INTEGRAL CONSTRUCTION (SEMI-INTEGRAL SIMILAR)



APPROACH SLAB SUPPORTED ON ABUTMENT BACKWALL

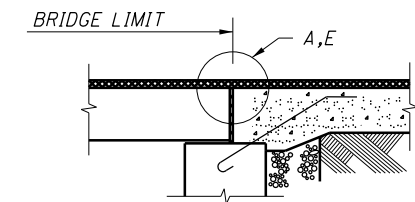


ON PRESTRESSED CONCRETE BOX BEAM BRIDGES



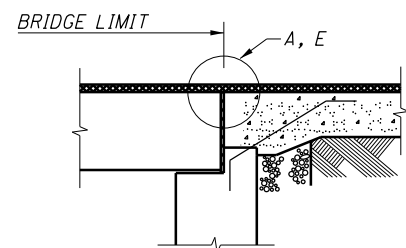
ON PRESTRESSED CONCRETE BOX BEAM BRIDGES

CONCRETE WEARING SURFACE ON BRIDGE DECK ONLY

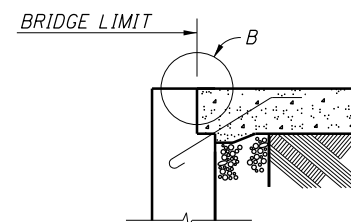


ON PRESTRESSED CONCRETE BOX BEAM BRIDGES

ASPHALT CONCRETE WEARING SURFACE ON BRIDGE DECK AND APPROACH SLAB



APPROACH SLAB SUPPORTED ON ABUTMENT BACKWALL



APPROACH SLAB SUPPORTED ON ABUTMENT BACKWALL

CONCRETE WEARING SURFACE ON BRIDGE DECK AND APPROACH SLAB

NOTE 1: PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL, 705.11 (1 1/4" WIDE FOR A 1/2" WIDE GROOVE) PLACED IN 1/2" x 2 1/4" GROOVE.

NOTE 2: 2" DEEP x 1" WIDE HOT APPLIED JOINT SEALER, 705.04.

NOTE 3: 1" PREFORMED EXPANSION JOINT FILLER, 705.03.

NOTE 4: TYPE "A" OR TYPE "E" WATERPROOFING.

NOTE 5: SEE C&MS ITEM 409 - SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS

NOTE 6: SEE SUPPLEMENTAL SPECIFICATION 846, "POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM"

TYPE "A" OR "E" WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE GROOVE INTO WHICH THE PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.

FOR PRESTRESSED CONCRETE BOX BEAM BRIDGES WITH ASPHALT CONCRETE ON BOTH BRIDGE DECK AND APPROACH SLAB, THE TOP OF APPROACH SLAB AT THE BRIDGE END SHALL BE CONSTRUCTED TO THE LEVEL OF THE TOP OF THE BEAMS TO FACILITATE WATERPROOFING OF THE JOINT. THE THICKNESS OF ASPHALT CONCRETE AT THE APPROACH END OF THE SLAB SHALL BE THE THICKNESS OF ASPHALT CONCRETE USED ON THE ROADWAY PAVEMENT. THE THICKNESS OF ASPHALT CONCRETE SHALL VARY UNIFORMLY, IF NECESSARY, IN THE LENGTH OF THE APPROACH SLAB. THE SUBGRADE (SUBBASE) SHALL BE GRADED TO PERMIT THE BOTTOM OF THE APPROACH SLAB TO BE PARALLEL TO THE TOP.

FOR STRUCTURES WITHOUT STRIP SEAL, COMPRESSION SEAL OR POLYMER MODIFIED ASPHALT EXPANSION JOINTS, THAT HAVE AN ASPHALT CONCRETE WEARING SURFACE ON BOTH THE BRIDGE DECK AND APPROACH SLAB, EXTEND THE DECK WATERPROOFING 2'-0" BEYOND THE BRIDGE LIMITS. FOR STRUCTURES WITH STRIP SEAL AND COMPRESSION SEAL EXPANSION JOINTS, END THE DECK WATERPROOFING AT THE PRESTRESSED BOX BEAM NOTCH. FOR STRUCTURES WITH POLYMER MODIFIED ASPHALT EXPANSION JOINTS, EXTEND THE DECK WATERPROOFING TO THE CENTERLINE OF THE JOINT.

⊕ - THE APPROACH SLAB SEAT FOR THIS PRESTRESSED CONCRETE BOX BEAM BRIDGE IS SHOWN AT THE SAME ELEVATION AS THE BEAM SEAT. HOWEVER, IT MAY ACTUALLY BE HIGHER OR LOWER THAN THE BEAM SEAT DEPENDING ON THE BOX BEAM DEPTH.