

**DESIGN SPECIFICATIONS:** THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 & 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

**DESIGN DATA:**  
DESIGN LOADING: HS25 AND THE ALTERNATE MILITARY LOADING.  
CONCRETE: SS899, CLASS 5 OR SS844, HIGH PERFORMANCE CONCRETE, MIX 3 OR 4 - COMPRESSIVE STRENGTH 4500 PSI. (CONCRETE SHALL MATCH THE DECK SUPERSTRUCTURE CONCRETE BEING USED. IF NO DECK CONCRETE IS BEING PLACED, CLASS 5 IS REQUIRED.)

**REINFORCING STEEL:** ASTM A615, A616 OR A617-GRADE 60; MINIMUM YIELD STRENGTH OF 60,000 P.S.I. AND SHALL BE EPOXY COATED.

**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.

**MISCELLANEOUS ITEMS:** THE PREFORMED EXPANSION JOINT FILLER AND JOINT SEALER AT THE CORNERS AND SIDES OF THE APPROACH SLAB, THE TYPE "A" WATERPROOFING AND THE PREFORMED ELASTOMERIC COMPRESSION JOINT SEAL SHOWN AT THE BRIDGE LIMIT END OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD FOR THE APPROACH SLAB FOR PAYMENT.

**LONGITUDINAL CONSTRUCTION JOINTS REQUIRED FOR STAGE CONSTRUCTION** SHALL BE AS PER SS842.09.

**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 OF 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 WIDTH (W):** APPROACH SLABS SHALL BE THE SAME WIDTH AS THE BRIDGE ROADWAY.

**APPROACH SLAB LENGTH (L):** THE LENGTH SHOULD BE BASED ON FACTORS SUCH AS THE SIZE AND AMOUNT OF EXCAVATION BEHIND THE ABUTMENTS, NEW OR EXISTING EMBANKMENTS AND SKEW OF THE BRIDGE. 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 WHENEVER POSSIBLE.

**WEARING SURFACE:** GENERALLY APPROACH SLABS SHALL HAVE AN ASPHALT CONCRETE WEARING SURFACE ONLY WHEN BOTH THE APPROACH PAVEMENT SURFACE AND THE BRIDGE WEARING SURFACE ARE ASPHALT CONCRETE.

**PRESSURE RELIEF JOINTS:** RELIEF JOINTS, TYPE A, ARE TO BE PROVIDED REGARDLESS OF ABUTMENT DESIGN AT ALL BRIDGE APPROACHES WHERE APPROACH PAVEMENT IS RIGID, OR COMPOSITE CONSISTING OF A RIGID BASE. SEE STANDARD CONSTRUCTION DRAWING BP-2.3 FOR DETAILS

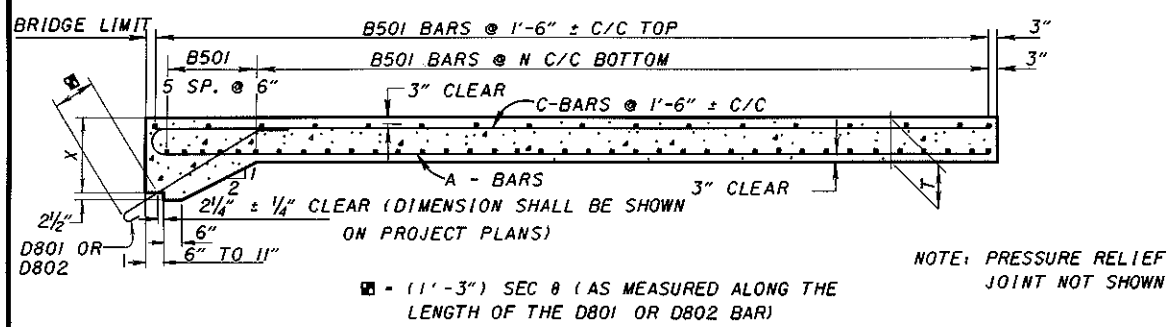
**APPROACH SLAB FOR SKEWED STRUCTURE**

**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.

ANCHOR BARS D801 OR D802 SHALL BE DETAILED FOR A SPECIFIC BRIDGE AND SHALL BE INCLUDED WITH THE RESPECTIVE ABUTMENT OR SUPERSTRUCTURE CONCRETE ITEM FOR PAYMENT.

D801 BARS CANNOT BE USED AS SHOWN WHERE APPROACH SLABS ARE SUPPORTED ON BACKWALLS LESS THAN 14 INCHES THICK. D802 BARS SHALL BE USED ON PRESTRESSED CONCRETE BOX BEAM BRIDGES WHERE THE APPROACH SLAB IS SUPPORTED ON AN 11 INCHES THICK BACKWALL.

\* 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, OR WHERE REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINTS, IN LIEU OF PROVIDING FULL LENGTH BARS AS SHOWN.



**SECTION B-B**

REINFORCING STEEL (FOR ONE APPROACH SLAB)

LENGTH L	THICKNESS 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.	
15'-0"	12"	10"	A1001	15'-11"	14'-6"	$(W-0.5) \sec \theta$ $\left[ \frac{W-0.5}{K} \right]$	9"	22	11	C501	14'-6"	$\left[ \frac{W-0.5}{18} \right]$
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, OUT TO OUT, IN FEET  
 θ - 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

