

**DESIGN SPECIFICATIONS:** THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1977, INCLUDING THE 1978, 1979, 1980 AND 1981 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

**DESIGN DATA**  
 DESIGN LOADING: MS18 AND THE ALTERNATE MILITARY LOADING.  
 CONCRETE CLASS C : COMPRESSIVE STRENGTH 28 MPa

**REINFORCING STEEL:** ASTM A615M, A616M OR A617M-GRADE 400; MINIMUM YIELD STRENGTH OF 400 MPa 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.

**PREFORMED EXPANSION JOINT FILLER,** TYPE "A" WATER PROOFING, AND SEALER AT THE CORNERS AND SIDES OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQUARE METER FOR THE APPROACH SLAB.

**PREFORMED ELASTOMERIC JOINT SEALER** SHOWN AT THE BRIDGE LIMIT END OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQUARE METER FOR THE APPROACH SLAB.

**LONGITUDINAL CONSTRUCTION JOINTS** REQUIRED FOR STAGE CONSTRUCTION SHALL BE AS PER 511.09.

**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 APPROACH CURB HEIGHT IN A LENGTH AS FOLLOWS: WHERE WINGWALL EXTENDS BEYOND END OF APPROACH SLAB, USE A MINIMUM LENGTH OF 3000 mm 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 3000 mm 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.

**THE LENGTH OF APPROACH SLABS** 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.

**CROWN** SHALL CONFORM TO THAT OF THE APPROACH PAVEMENT AND BRIDGE DECK. IF THE RATE OF CROWN OF THE BRIDGE DECK DIFFERS FROM THAT OF THE APPROACH PAVEMENT, A SMOOTH TRANSITION SHALL BE PROVIDED WITHIN THE LIMITS OF THE APPROACH SLAB.

**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.

**EXPANSION JOINT DETAILS** AT THE APPROACH PAVEMENT END OF THE APPROACH SLAB ARE USED ONLY IN CONJUNCTION WITH CONCRETE PAVEMENT OR CONCRETE BASE COURSE. PAYMENT FOR THE EXPANSION JOINT, INCLUDING DOWEL BARS, PREFORMED EXPANSION JOINT FILLER AND JOINT SEALER, IS INCLUDED IN THE PRICE BID PER SQ. METER FOR THE APPROACH SLAB.

**APPROACH SLAB FOR SKEWED STRUCTURE**

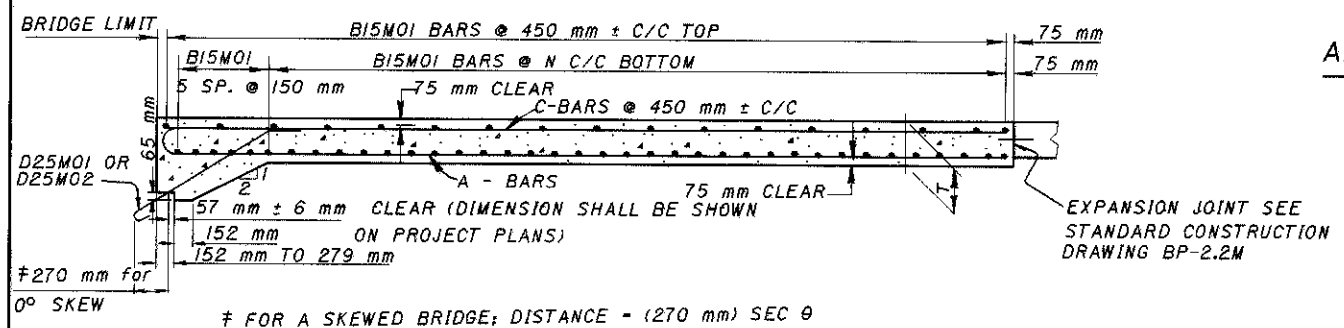
**GENERAL:** THIS DRAWING PROVIDES DESIGN AND GENERAL CONSTRUCTION DETAILS. THE PROJECT PLANS WILL SHOW LENGTH, SKEW, CURBS (IF ANY), ESTIMATED QUANTITY (SQUARE METER), AND SPECIAL NOTES AND DETAILS WHERE NECESSARY. FOR CONDITIONS OTHER THAN THOSE INDICATED HEREON, THE APPROACH SLAB SHALL BE ADAPTED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

**ANCHOR BARS D25M01 OR D25M02** SHALL BE DETAILED FOR A SPECIFIC BRIDGE AND SHALL BE INCLUDED WITH ITEM 509 UNDER ABUTMENTS OR SUPERSTRUCTURE FOR PAYMENT. D25M01 BARS CANNOT BE USED AS SHOWN WHERE APPROACH SLABS ARE SUPPORTED ON BACKWALLS LESS THAN 350 mm THICK. D25M02 BARS SHALL BE USED ON PRESTRESSED CONCRETE BOX BEAM BRIDGES WHERE THE APPROACH SLAB IS SUPPORTED ON AN 280 mm THICK BACKWALL.

**BAR SIZE IS INDICATED** IN THE BAR MARK. THE FIRST LETTER IDENTIFIES THE BAR LOCATION, NEXT TWO DIGITS AND LETTER INDICATES THE METRIC BAR SIZE DESIGNATION, AND THE REMAINING DIGITS ITS SEQUENCE NUMBER.

- EXAMPLE : A35M01  
 1) A = LOCATION OF THE BAR IN THE STRUCTURE  
 2) 35M = METRIC BAR SIZE DESIGNATION  
 3) 01 = SEQUENCE NUMBER

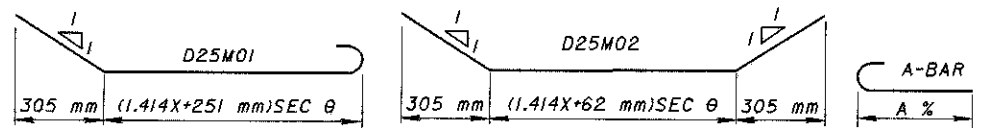
\* AT THE OPTION OF THE CONTRACTOR, B15M01 BARS MAY BE LAPPED 500 mm MINIMUM AT THE CENTERLINE OF ROADWAY, OR WHERE REQUIRED FOR LONGITUDINAL CONSTRUCTION JOINTS.



**SECTION B-B**

REINFORCING STEEL (FOR ONE APPROACH SLAB)												
LENGTH L mm	THICKNESS T mm	A-BARS		B15M01 (BOTTOM)		B15M01 (TOP)		C-BARS		D25M01 OR D25M02		
		SP'C'G K	MARK	LENGTH mm	DIMENSION A mm	NO. REQ'D.	LENGTH mm	SP'C'G N	NO. REQ'D.	LENGTH mm	NO. REQ'D.	NO. REQ'D.
4600	305	255	A35M01	4880	4450	230	22	11	C15M01	4425	1	
6100	330	190	A35M02	6380	5950	200	31	14	C15M02	5950	1	
7600	380	180	A35M03	7880	7450	200	39	18	C15M03	7450	1	
9150	430	165	A35M04	9430	9000	215	44	21	C15M04	9000	1	

W - APPROACH SLAB WIDTH, OUT TO OUT, IN mm  
 theta - ANGLE OF SKEW  
 K - A-BAR SPACING IN mm  
 N - B-BAR SPACING IN mm  
 X - APPROACH SLAB THICKNESS AT ABUTMENT END IN mm  
 % - OUT TO OUT



DESIGN AGENCY: BUREAU OF BRIDGES AND STRUCTURAL DESIGN  
 STATE OF OHIO DEPARTMENT OF TRANSPORTATION: 10-25-94  
 ENGINEER OF BRIDGES: B. D. [Signature]  
 CHECKED: JAW  
 DESIGNED: JFF  
 REVIEWED: LHW  
 DRAWN: JFF  
 STANDARD: REINFORCED CONCRETE APPROACH SLAB - METRIC  
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