

22"

17"

11"

8.5"

8.5"

11"

17"

22"

22"

17"

11"

8.5"

8.5"

11"

17"

22"

LOAD FREQUENCY	SPANS		SLAB DATA																				M - bars	N - bars											
			A, B, C, D, and E bars										F, G, and H bars																						
			A - bars		B - bars		C - bars		D - bars		E - bars		F - bars		G - bars		H - bars		J - bars		K - bars														
Mark	Spag	Lgth	dim	Mark	Spag	Lgth	dim	Mark	Spag	Lgth	dim	Mark	Spag	Lgth	dim	Mark	Spag	Lgth	dim	Mark	Spag	Lgth	dim	Mark	No	Sp	Lgth	No	Lgth						
CF = 30	16'-20" - 16'	9	A 700	14 1/2	19-3	B 700	29	15-0	14-2	C 700	29	13-4	12-6	D 700	29	14-8	E 700	29	10-8	F 700	12 1/2	12-6	G 700	25	8-0	4-0	H 700	25	7-0	3-6	J 601	48	16	41	44

LOAD FREQUENCY	SPANS		QUANTITIES PER FOOT OF WIDTH										GUARD RAIL	
			Concrete (Cu Yd)		Bitum Wearing Surface (Cu Yd)		Type 'C' Water-proofing (Sq Yd)		Reinf Steel (Lbs)		No of Full Panels (Ea Side)		Lin Ft Both Sides	
			Mono Wearing Surface	Separate Wearing Surface	2 1/2" Thick	1 1/2" Thick	Sq Yd	Sq Yd	Sq Yd	Sq Yd	No	Lin Ft	No	Lin Ft
CF = 30	16'-20" - 16'	9	1.71	1.54	0.41	0.31	5.9	4.04	8	107	41	44		

* Dimension "t" does not include monolithic wearing surface

BAR SIZE is indicated in the bar mark. The first digit where three digits are used and the first two digits where four are used, indicate the bar size number. For example, A700 is a No 7 size bar and A1014 is a No 10 size

* Average thickness of tapered portion
 Ⓢ Thickness for width of approach pavement

GENERAL: This drawing provides design and general construction details. The project plans for each structure will show span lengths, roadway width, load frequency, skew, curve and super-elevation (if any), elevations, wearing surface, substructure details, estimated quantities, reinforcing steel list and other necessary details and special notes.

SKREW: For bridges with skew, longitudinal bars shall be placed parallel to centerline of roadway and transverse bars parallel to piers and abutments. For skews of less than 10°, longitudinal reinforcement as shown for non-skewed bridges may be used. For skews from 10° to 30°, "F", "G", and "H" bars shall be lengthened and "K" bars shortened an amount equal to 1/10 x R x Sin θ. "F", "G", and "H" bars shall be placed as shown in Placement Diagram. For skew greater than 30° another type of bridge should be used.

RAILING: Transition between guard rail height on bridge and on approaches shall be made in a distance of 100 feet from each end of bridge.

REINFORCING STEEL CLEARANCE: from face of concrete shall be 1 1/2" for #11 bars, 1 1/4" for #9 and #10 bars and 1" for all smaller bars. (The above clearances do not include monolithic wearing surface.) Where two bars of different size are lapped, the clearance requirement for the larger bar shall also apply to the smaller bar.

DESIGN SPECIFICATIONS: This standard drawing conforms to the requirements of "Design Specifications for Highway Structures of the State of Ohio, Department of Highways, dated September 1, 1957, together with revisions thereof dated February 21, 1959, May 1, 1962 and December 20, 1963.

"R" = Width of slab in feet
 "S" = Length of middle span in feet
 "θ" = Skew angle

Upper hand rail and longer posts shall be provided if called for on the project plans.

REINFORCING STEEL: The "M" bars and "N" bars may be furnished in pairs of equal length, lapped thirty diameters at the centerline of roadway, or they may be furnished in pairs of different length in order to place the lap beyond a longitudinal construction joint at the centerline of roadway, at the option of the contractor. Determination of the quantity will be according to the number and length of bars as shown hereon unless otherwise called for on the project plans.

ADDITIONAL INTERIOR SPANS, similar to middle span, may be incorporated into the structure without change in slab thickness or area of reinforcing steel in case of added spans. The project plans will show revised details and estimated quantities.

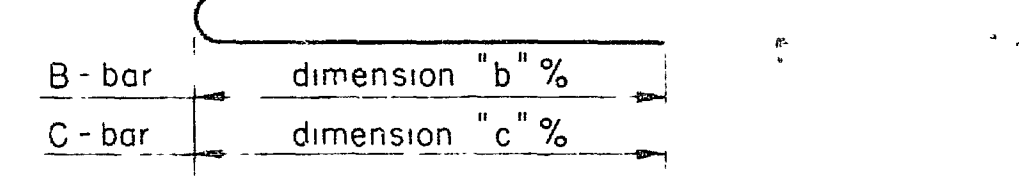
SUPERELEVATION: For bridges on curves, the entire slab shall be super-elevated to full width of deck at the same rate as the approach pavement. The bituminous wearing surface shall be of uniform thickness for the full width of the slab.

tabulated railing quantities for the length of railing within the overall length of slab. The price per linear foot of railing includes payment for guard rail, hand rail (if called for), posts, anchors, connections and galvanizing. It also includes those curved portions of the hand rail which project beyond the above stated limits.

CAMBER: of 1/800 of the span shall be provided in each span (in addition to that required for conformance with the profile of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for the deflection of falsework members.

MONOLITHIC WEARING SURFACE shall be of concrete quantities have been computed on this basis.

CONCRETE JOINTS: One construction joint in bridge slab shall be placed on transverse centerline of middle span or 1'-0" off transverse centerline if necessary to miss railing posts and transverse reinforcing bars. One longitudinal joint will be permitted on centerline of roadway.



TYPE "C" WATERPROOFING QUANTITY as determined from the table shall have added to it the number of sq yds on fascia of slab.

REVISIONS		STATE OF OHIO DEPARTMENT OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION BUREAU OF BRIDGES	
STANDARD CONTINUOUS SLAB BRIDGE			
WITHOUT CURBS AND WITH HIGHWAY GUARD RAIL MIDDLE SPAN 20 FEET TO 55 FEET LOAD FREQUENCY: CF = 30, CF = 130, CF = 400, CF = 2000			
APPROVED:	DATE: 6-1-65	ENGINEER OF BRIDGES	DRAWING NUMBER: CS-1-65
PREPARED:	TRACED:	CHECKED:	REVIEWED:
RHL, CEJ, CFB, JCM, WHR	CEJ	FWR	CSJ, BFC, CHA, AJF, OHO
			SHEET NO 2 OF 2 SHEETS