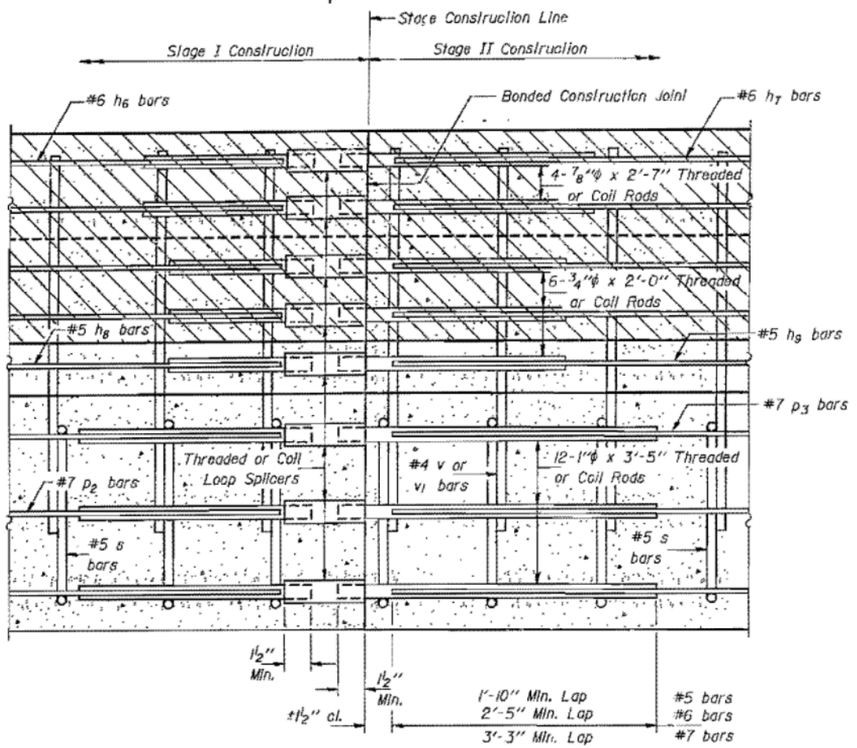
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

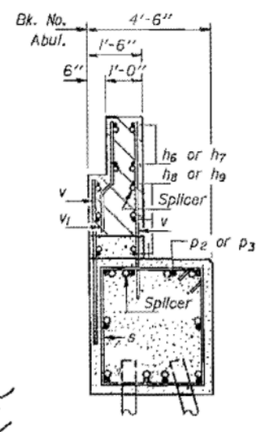
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 100	4	4-4	106	71
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 5
15 SHEETS

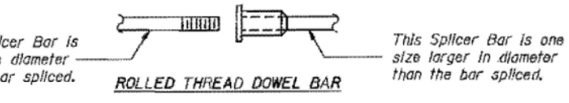


SECTION THRU NO. ABUTMENT

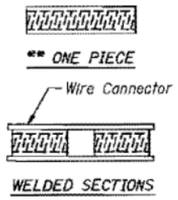
No epoxy coating required.
(Looking North)
No. Req'd.
6-#5 Bar Splicers
4-#6 Bar Splicers
10-#7 Bar Splicers



SECTION A-A
SPLICER DETAILS

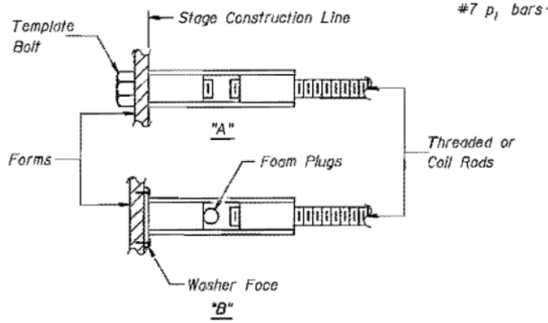


ROLLED THREAD DOWEL BAR



SPLICER ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set splicer by means of a template bolt.
"B" : Set splicer by nailing to wood forms or cementing to steel forms.

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.

Splicer rods shall extend minimum 1½ inches into the couplers.

All reinforcement bars shall be lapped and tied to the splicer rods.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

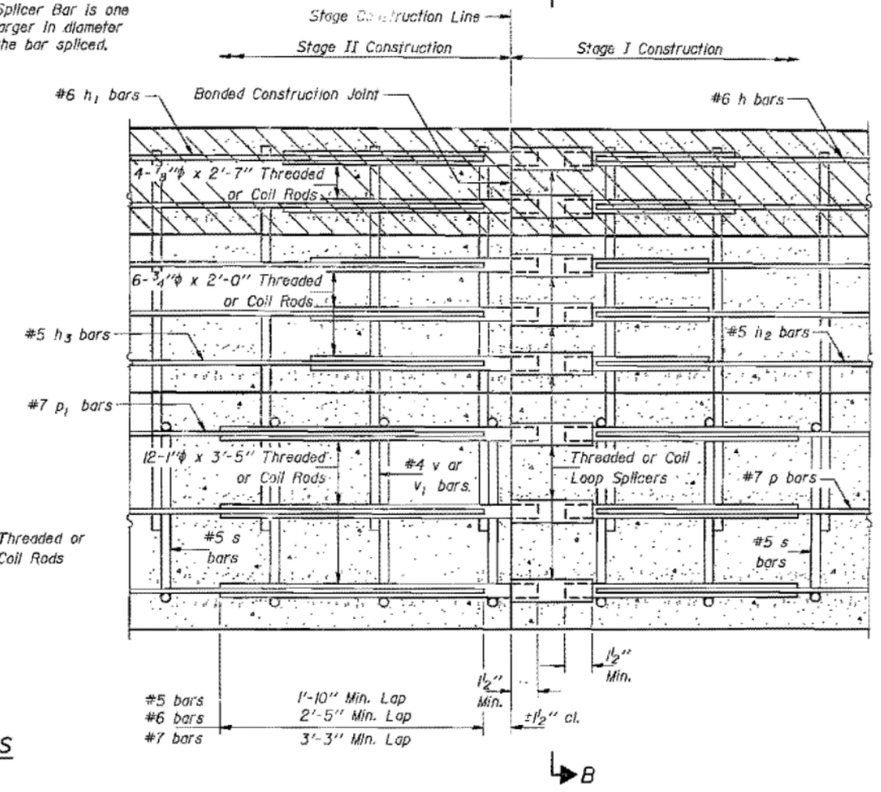
② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{s\,allow} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
$f_{s\,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

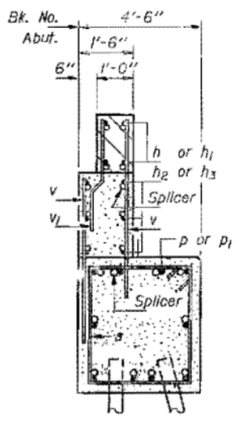
In Abutments:

#5 bar lap with $\frac{3}{4}$"ϕ Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension	Minimum Pull-out Strength = 9.2 kips-tension
#6 bar lap with $\frac{7}{8}$"ϕ Splicer (Coupler) x 2'-7" Splicer Rods	Minimum Capacity = 33.1 kips-tension	Minimum Pull-out Strength = 13.3 kips-tension
#7 bar lap with 1"ϕ Splicer (Coupler) x 3'-5" Splicer Rods	Minimum Capacity = 45.1 kips-tension	Minimum Pull-out Strength = 18.0 kips-tension



SECTION THRU SO. ABUTMENT

No epoxy coating required.
(Looking South)
No. Req'd.
6-#5 Bar Splicers
4-#6 Bar Splicers
10-#7 Bar Splicers



SECTION B-B
SPLICER DETAILS

Cost of furnishing and installing splicers and threaded or coil rods shall be incidental to "Reinforcement Bars".

FOR INFORMATION ONLY

BAR SPLICER (COUPLER) DETAILS AT STAGE CONSTRUCTION F.A. RT. 100 SECTION 110BR-1 GRUNDY COUNTY STATION 203+54.75

DESIGNED	YASARTIN ESMAIL		
CHECKED	VICTOR VELLA		
DRAWN	John F. Schneller Jr.		
CHECKED	I.M. Watkins		

BSD-1 12-1-83

May 22 1987
EXAMINED Raj D. Kaspar ENGINEER OF BRIDGE DESIGN
PASSED James T. Kyburm ENGINEER OF BRIDGES AND STRUCTURES
APPROVED DIRECTOR OF HIGHWAYS

FILE NAME = V:\3195\66B83 (South Section)\CADD Sheets\D366B83-sht-exstruct-16.dgn	USER NAME = bdecraene	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
SHT_PLAN	PLOT DATE = 8/6/2013	DATE - 7/15/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL. RTE. 47
EXISTING BRIDGE PLANS

SCALE: N/A | SHEET 16 OF 23 SHEETS | STA. N/A | TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	(110)R, BR & BR-1	GRUNDY	644	414
		CONTRACT NO. 66B83		
		ILLINOIS FED. AID PROJECT		