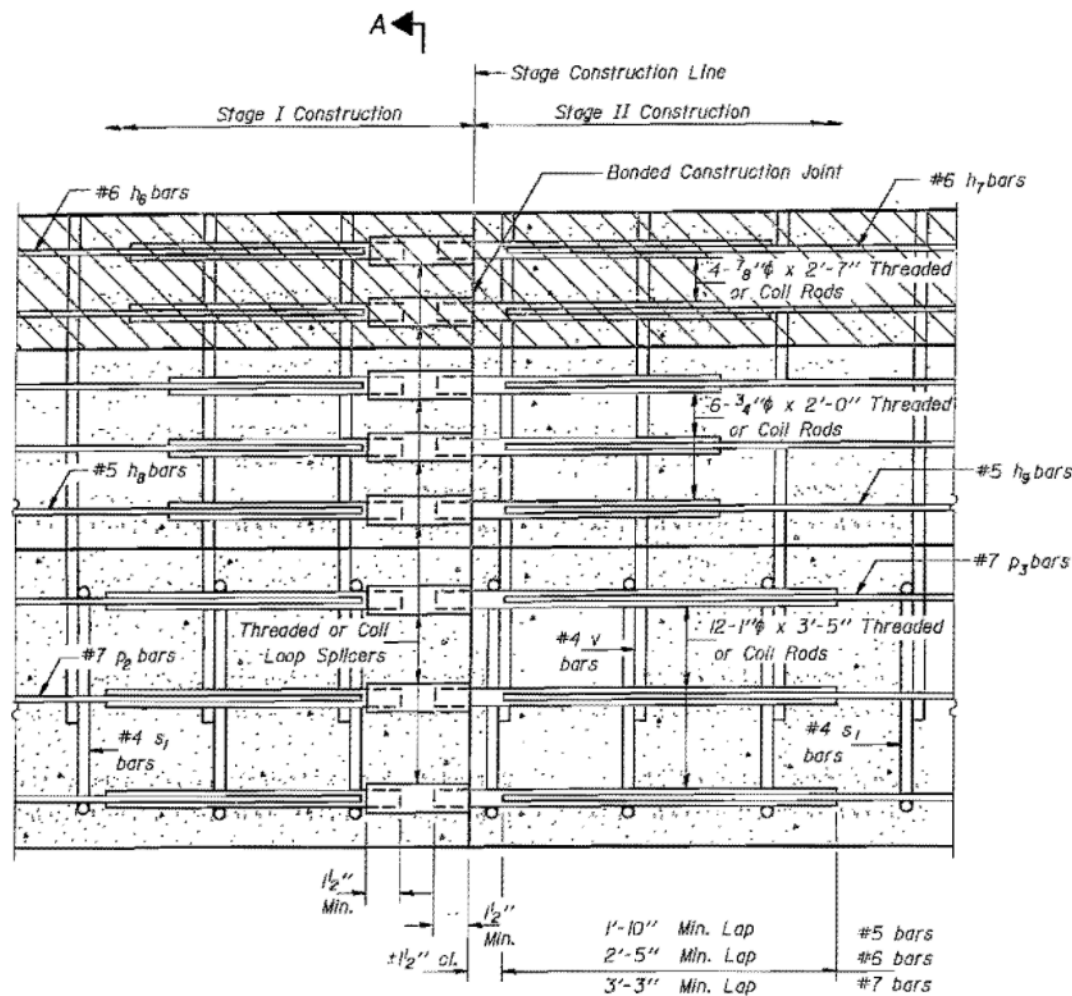


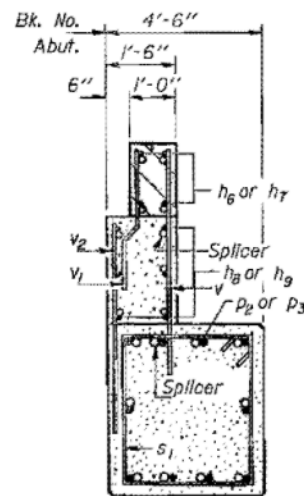
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	DISTRICT	COUNTY	SHEET NO.	SHEET
			10	55
SHEET NO. 5 15 SHEETS				



SECTION THRU NO. ABUTMENT

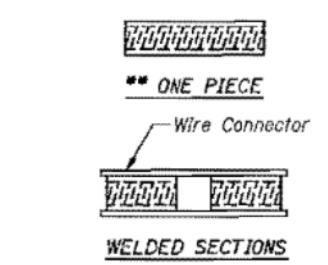
No epoxy coating required.
(Looking North)
Number Required
6- #5 bar splicers
4- #6 bar splicers
10- #7 bar splicers



**SECTION A-A
SPLICER DETAILS**

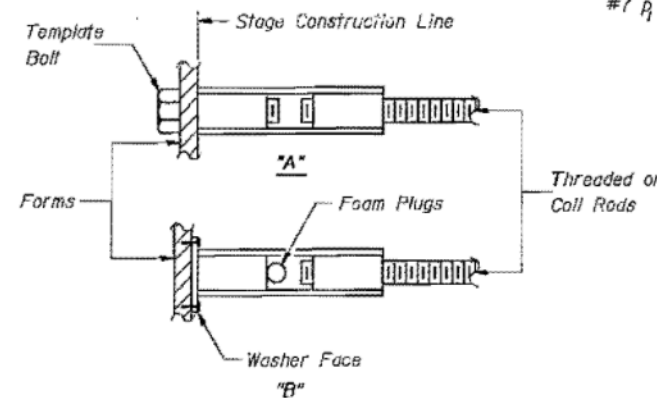
This Splicer Bar is the same diameter as the bar spliced.
ROLLED THREAD DOWEL BAR

This Splicer Bar is one size larger in diameter than the bar spliced.
WELDED SECTIONS



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

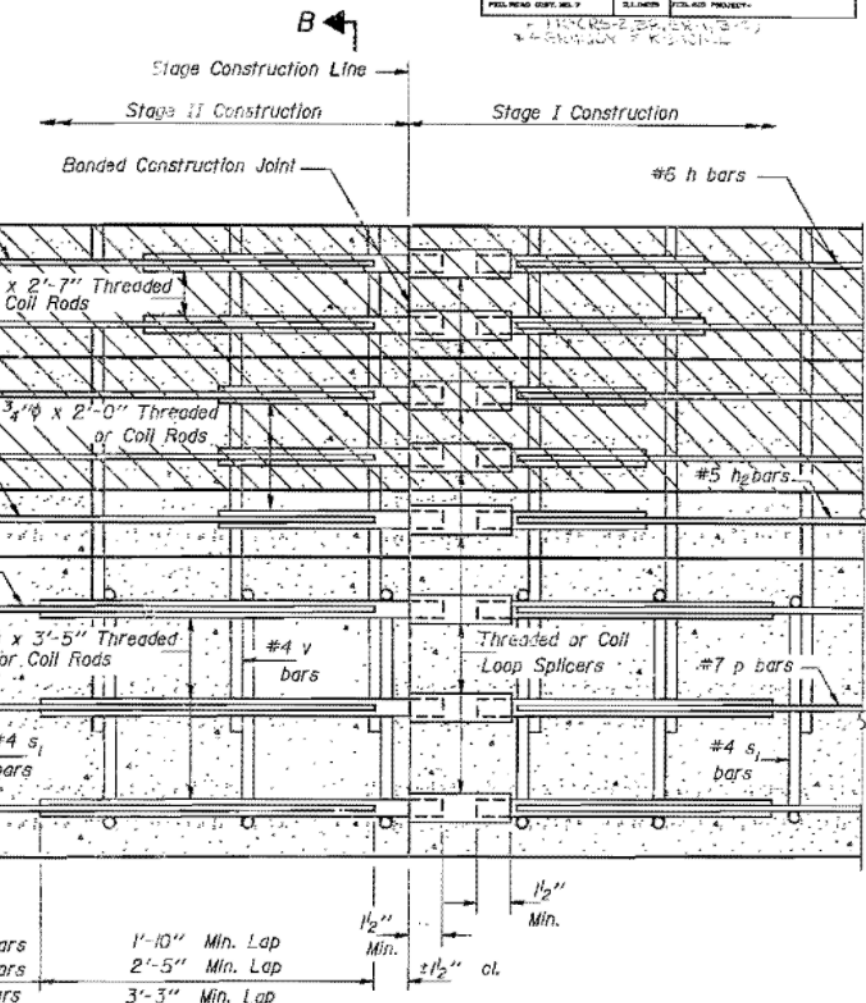
Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.
Splicer rods shall extend minimum 1/2 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:

- Minimum Capacity = $1.25 \times f_y \times A_1$
(Tension in kips)
- Minimum *Pull-out Strength = $1.25 \times f_{s\text{allow}} \times A_1$
(Tension in kips)

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s\text{allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_1 = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

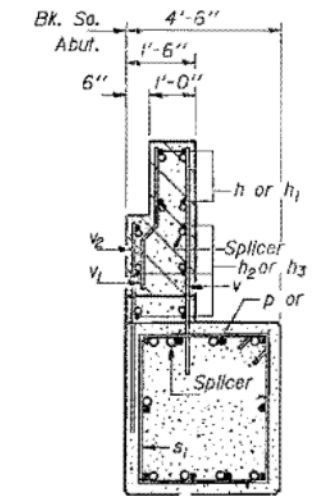
Typical Splicer (Coupler) Assembly Sizes:

In Abutment	#5 bar lap with 3/4" 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 7/8" 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" 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)
Number Required
6- #5 bar splicers
4- #6 bar splicers
10- #7 bar splicers



**SECTION B-B
SPLICER DETAILS**

FOR INFORMATION ONLY

**BAR SPLICER (COUPLER) DETAILS
AT STAGE CONSTRUCTION
F.A. RT. 100 SECTION 110BR
GRUNDY COUNTY
STATION 136+58.25**

DESIGNED Victor Vries
CHECKED Eric Handley
DRAWN Rita Williams
CHECKED V.V. [Signature]
BSD-1 12-1-83

EXAMINED [Signature]
PASSED [Signature]
APPROVED [Signature]