F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57/64	(41-3)HBK	JEFFERSON	518	293

STA.		TO STA.	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98963

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NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

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 bar splicer 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) $= 0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES		Strength Requirements	
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8''	14.7	7.9
#5	2'-0''	23.0	12.3
#6	2'-7''	33.1	17.4
#7	3'-5''	45.1	23.8
#8	4'-6''	58.9	31.3
#9	5'-9''	75.0	39.6
#10	7'-3''	95.0	50.3
#11	9'-0''	117.4	61.8

ROLLED THREAD DOWEL BAR

The diameter of this part is the same as the diameter of the bar spliced.
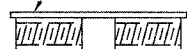
The diameter of this part is equal or larger than the diameter of bar spliced.

** ONE PIECE

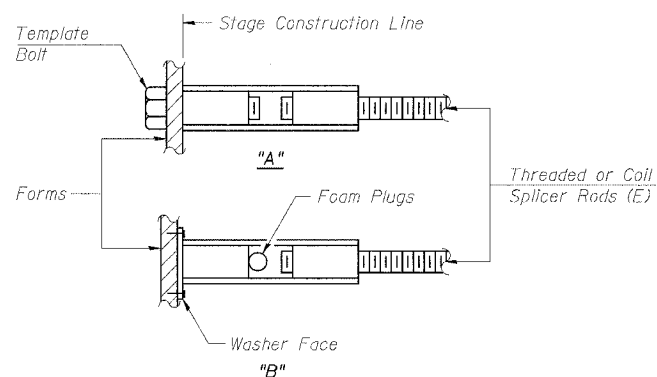Wire Connector

WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

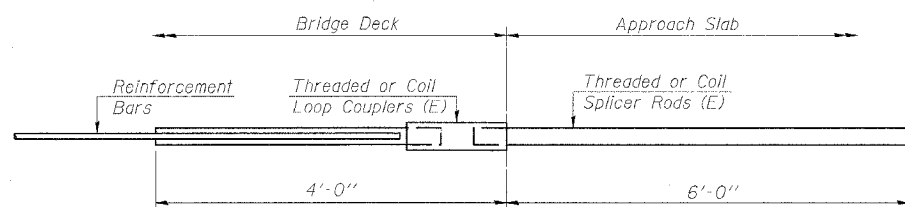** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

INSTALLATION AND SETTING METHODS

Stage Construction Line

Template Bolt

"A"

Forms

Foam Plugs

Threaded or Coil Splicer Rods (E)

"B"

Washer Face

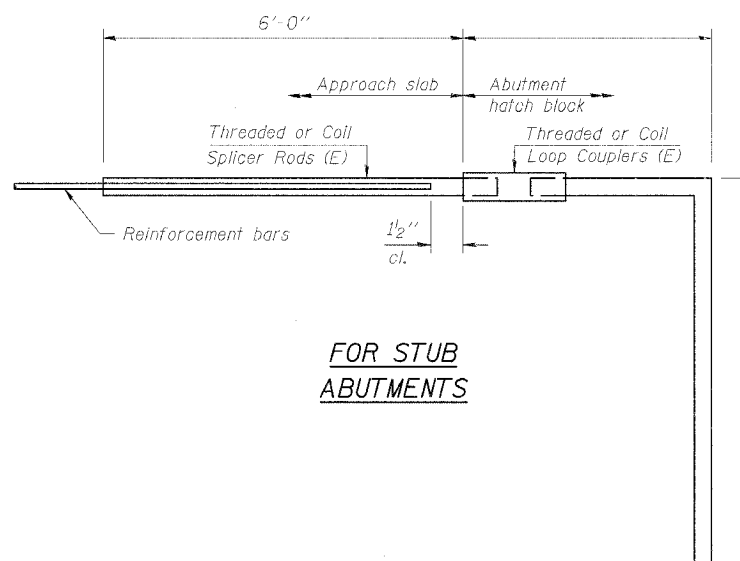"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
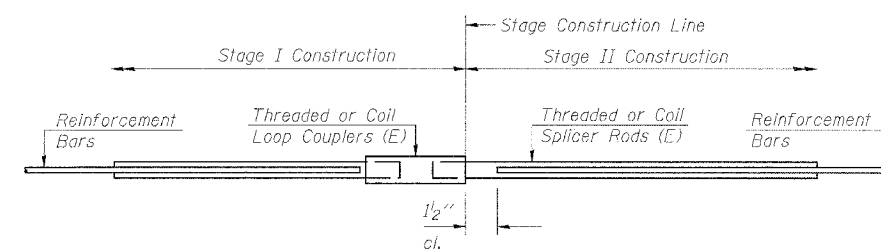(E) : Indicates epoxy coating.

FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bridge Deck

Approach Slab

Reinforcement Bars

Threaded or Coil Loop Couplers (E)

Threaded or Coil Splicer Rods (E)

4'-0''

6'-0''

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 174

FOR STUB ABUTMENTS

6'-0''

Approach slab

Abutment hatch block

Threaded or Coil Splicer Rods (E)

Threaded or Coil Loop Couplers (E)

Reinforcement bars

1½'' cl.

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =

STANDARD

Stage Construction Line

Stage I Construction

Stage II Construction

Reinforcement Bars

Threaded or Coil Loop Couplers (E)

Threaded or Coil Splicer Rods (E)

Reinforcement Bars

1½'' cl.

Bar Size	No. Assemblies Required	Location