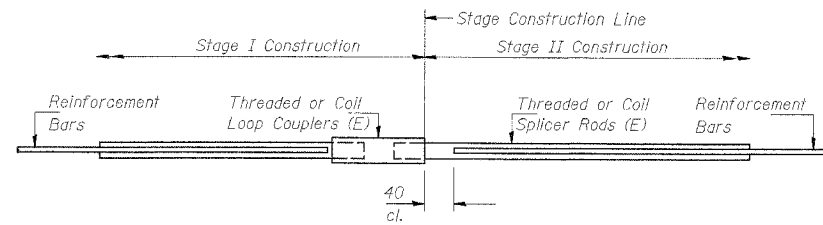


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20 WRS-6	LAKE	318	197
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62030				



BAR SPLICER ASSEMBLY DETAIL

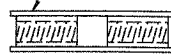
Bar Size	No. Assemblies Required	Location
#13	14	Bottom Slab
#16	9	Top Slab
#16	15	Side Walls

The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



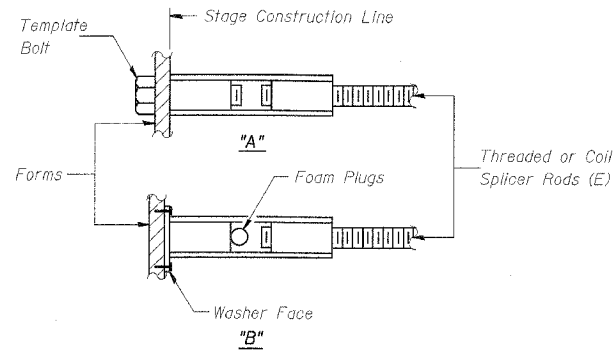
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

"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.

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 400 MPa 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 kN) = $1.25 \times 10^{-3} \times f_y \times A_f$
- ② Minimum *Pull-out Strength (Tension in kN) = $1.25 \times 10^{-3} \times f_{s\text{allow}} \times A_f$

Where f_y = Yield strength of lapped reinforcement bars in MPa.

$f_{s\text{allow}}$ = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)

A_f = Tensile stress area of lapped reinforcement bars (mm^2).

* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#13	510 mm	67	27
#16	610 mm	102	41

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

All dimensions are in millimeters (mm) except as noted.

REVISIONS	
NAME	DATE