STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



14 SHEETS

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:

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

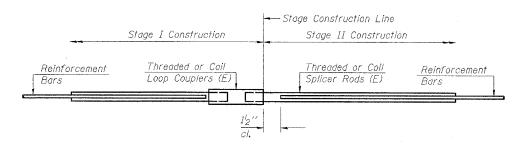
Minimum *Pull-out Strength = 1.25 x fs_{allow} x A_t (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.

fsallow = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load) A_t = Tensile stress area of lapped reinforcement bars. * = 28 day concrete

	BAR SPLIC	ER ASSEMBLI	ES
0 6: 4.	0	Strengt	h Requirements
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length		Min. Pull-Out Strength kips - tension
#4	1'-8''	14.7	5.9
#5	2'-0''	23.0	9.2
#6	2'-7''	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6''	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7′-3′′	95.0	38.0
#11	9'-0''	117.4	46.8

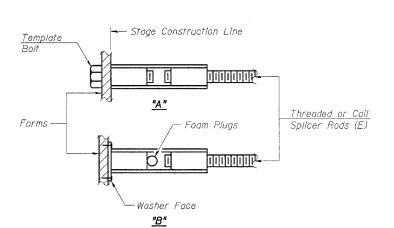
Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



STANDARD

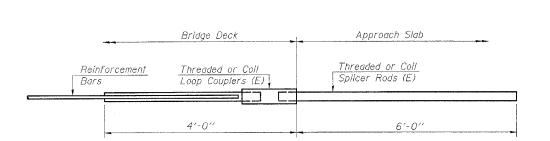
Bar Size	No. Assemblies Required	Location
#5	12	Expansion Joint

BAR SPLICER ASSEMBLY DETAILS F.A.P. ROUTE 817 - SECTION 106BR-1 WASHINGTON COUNTY STATION 690+00.00 STRUCTURE NO. 095-0028



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.



ROLLED THREAD DOWEL BAR

** ONE PIECE

WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM

A 563, Grade C, D or DH may be used.

-Wire Connector

The diameter of this part is equal or larger than the

diameter of bar spliced.

FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar	
Min. Capacity = 23.0 kips - tension	
Min. Pull-out Strength = 9.2 kips -	tension
No. Required =	

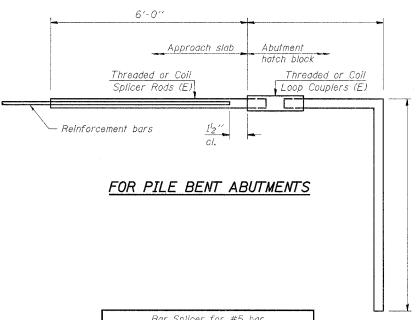
DESIGNED	EML	
CHECKED	NJM	
DRAWN	EML	
	NJM	

The diameter of this part

of the bar spliced.

is the same as the diameter





	Bar Splicer for #5 bar
Min.	Capacity = 23.0 kips - tension
Min	Pull-out Strength = 9,2 kips - tension