The diameter of this part is the same as the diameter of the bar spliced. ROLLED THREAD DOWEL BAR ** ONE PIECE -Wire Connector WELDED SECTIONS

Reinforcement

EXAMINED

PASSED

10-22-04

ENGINEER OF BRIDGE DESIGN

ENGINEER OF BRIDGES AND STRUCTURES

Bars

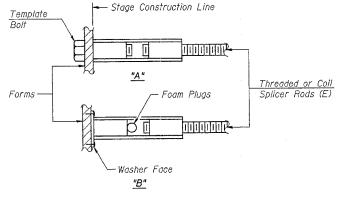
BAR SPLICER ASSEMBLY ALTERNATIVES

-The diameter of this part is

equal or larger than the

diameter of bar spliced.

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



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

INSTALLATION AND SETTING METHODS

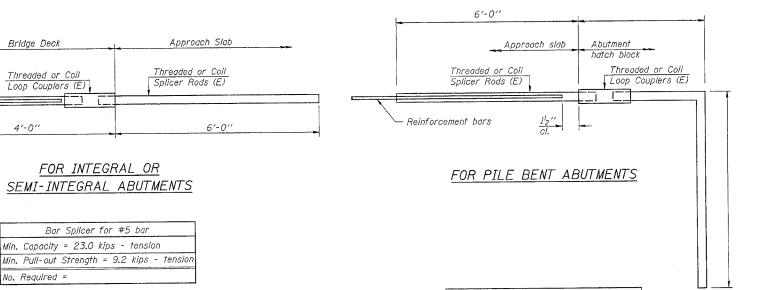
"A": Set bar splicer assembly by means of a template bolt. "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms. (E): Indicates epoxy coating.

Bar Splicer for #5 bar

Min. Pull-out Strength = 9.2 kips - tension

Min. Capacity = 23.0 kips - tension

No. Required = 70



SHEET NO. 9 **27** 9 SHEETS JO DAVIESS 45

Contract # 64B27

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 $\frac{1.25 \times fy \times A_t}{1.25 \times fy \times A_t}$ 1 (Tension in kips)

(Tension iii Alpo) Minimum *Pull-out Strength = $1.25 \times fs_{allow} \times A_t$

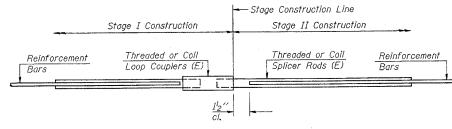
Where fy = Yield strength of lapped reinforcement bars in ksi.

 fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

= 28 day concrete

	BAR SPLIC	ER ASSEMBLI	ES
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
			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

1	ze	Required	Location
#	4	147	Deck
#	5 5	6	Deck Bm Blockout
#	5	4	South Abutment
#	5	4	North Abutment

BAR SPLICER ASSEMBLY DETAILS

IL. RTE. 78 OVER PLUM RIVER F.A. 642 SECTION (10BR-3)D & 11BR-8 JO DAVIESS COUNTY STA. 318+36.71 STRUCTURE NUMBER 043-0040

DATE : 12-21-05

DESIGNED JPM

CHECKED EMM

DRAWN JPM

CHECKED EMM

BSD-1