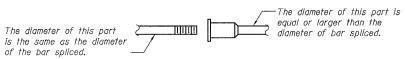
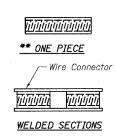
SECTION COUNTY 94/90 2003-0291 COOK 344 278 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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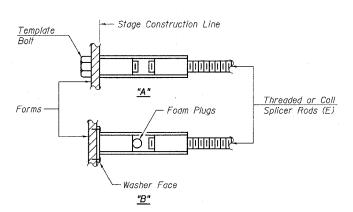


ROLLED THREAD DOWEL BAR



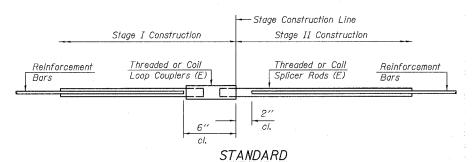
BAR SPLICER ASSEMBLY ALTERNATIVES

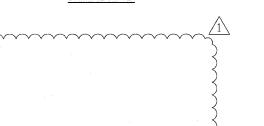
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nalling 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 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 = 1.25 x fy x A_f

Tension in Kips;

Minimum *Pull-out Strength = 1.25 x fs_{allow} x A_f

(Tension in kips)

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

fs_{allow}= 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		
		Strength Requirements			
	Splicer Rod or Dowel Bar Length	Min. Capacity kips - tension	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."

BAR SPLICER ASSEMBLIES

		LOCATION						
BAR SIZE	TOTAL NO. ASSEMBL. REQ'D	016-1117	016-1115	016-1062	016-1113	016-1112	016-0137	016-1067
#5	1,218	<i>1</i> 55	295	36	193	377	86	76
#6	59				5	5	16	33
#7	79						16	63
TOTAL	1,356	<i>1</i> 55	295	36	198	382	118	172

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	REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION			
\	NAME	DATE				
.\	ADDENDUM NO. 1	6/29/06	F.A.I. 94/90 (DAN	RYAN EXPRESSWAY)		
,			SB DAN RYAN ELEVATED BRIDGE			
			SB DAN RTAN E	LEVATED BRIDGE		
			REPAIR FROM 15TH	TO 28TH STREETS		
			BAR SPLICER AS	SSEMBLY DETAILS		
			SCALE: NTS	DRAWN BY: LM		
			DATE: 5/25/2006	CHECKED BY: BLU		

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