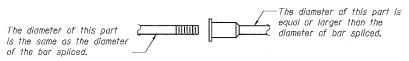
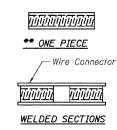


62580

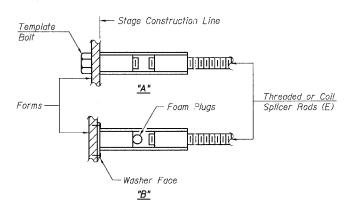


ROLLED THREAD DOWEL BAR



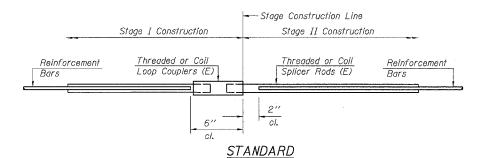
BAR SPLICER ASSEMBLY ALTERNATIVES

** 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 nailing to wood forms or cementing to steel forms. (E): Indicates epoxy coating.



Bar Size	No. Assemblies Required	Location	
#5	962	*	
#6	200	SN 016-1112	
Total	1162		

* See Table "TOTAL BILL OF MATERIAL" SHEET 131

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 x fy x A_t 1

Tension in Kips,

Minimum *Pull-out Strength = 1.25 x fs_{allow} x A_t 2

(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 SPLICER ASSEMBLIES				
	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."

> ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) |₹ NB DAN RYAN ELEVATED BRIDGE REPAIR FROM 15TH TO 28TH STREETS BAR SPLICER ASSEMBLY DETAILS SCALE: NTS DATE: 8/12/2005 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC. CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100