

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 338	34BR	IROQUOIS	49	35
STA	TO STA			
FED. ROAD DIST. NO. 3	ILLINOIS	FED. AID PROJECT		
DWG. NO. 12 OF 13				

CONTRACT NO. 66610

STRUCTURE INDEX OF SHEETS

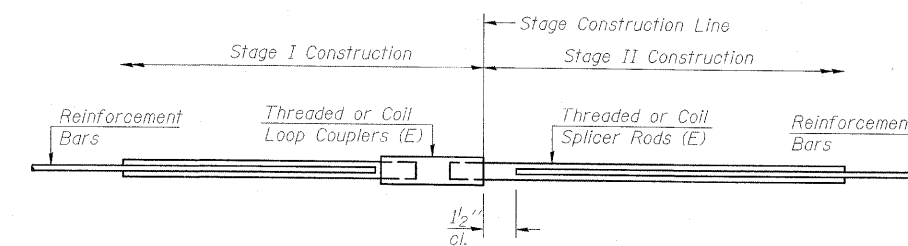
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NOTES

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:

- ① Minimum Capacity = $1.25 \times f_y \times A_s$
 (Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_s$
 (Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

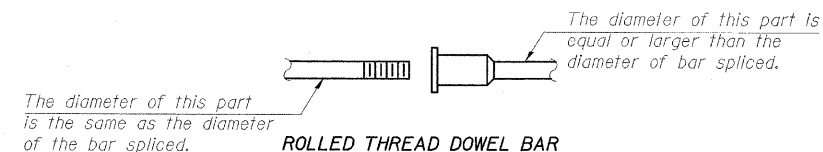
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



STANDARD

Bar Size	No. Assemblies Required	Location
#5	186	Superstructure
#7	10	N. Abutment
#7	10	S. Abutment
#5	24	Pier 1
#7	10	Pier 1
#5	24	Pier 2
#7	10	Pier 2

BAR SPLICER ASSEMBLY DETAILS
US ROUTE 45 OVER
SPRING CREEK
FAS ROUTE 338 - SECTION 34BR
IROQUOIS COUNTY
STATION 2146+00
STRUCTURE NO. 038-0214

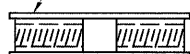


ROLLED THREAD DOWEL BAR



**** ONE PIECE**

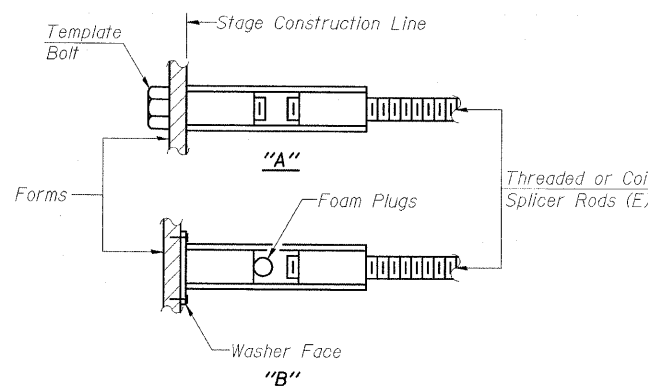
Wire Connector



WELDED SECTIONS

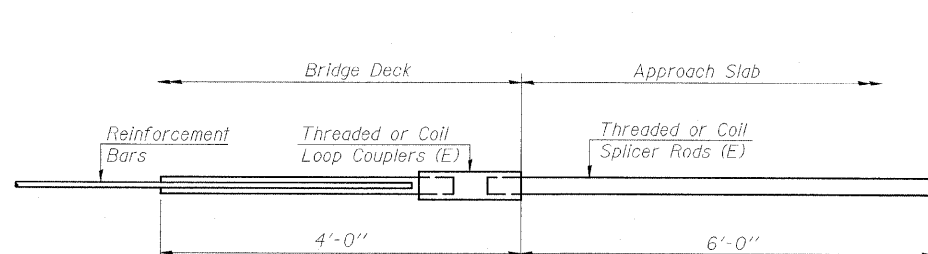
BAR SPLICER ASSEMBLY ALTERNATIVES

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



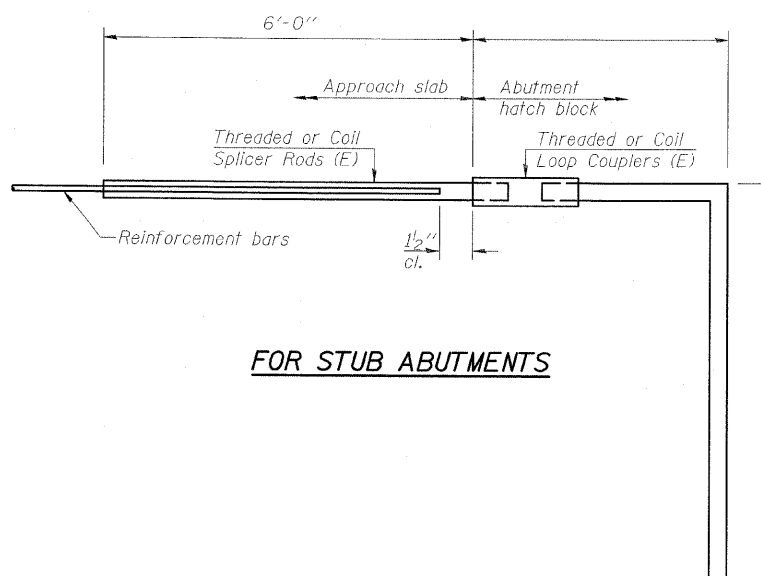
INSTALLATION AND SETTING METHODS

"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.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar		
Min. Capacity =	23.0 kips - tension	
Min. Pull-out Strength =	12.3 kips - tension	
No. Required =	0	



FOR STUB ABUTMENTS

Bar Splicer for #5 bar		
Min. Capacity =	23.0 kips - tension	
Min. Pull-out Strength =	12.3 kips - tension	
No. Required =	0	

ESCA
CONSULTANTS, INC.

DESIGNED BY:	ELH	12/04
DRAWN BY:	HAG	12/04
CHECKED BY:	ELH	09/08
APPROVED BY:	RDP	09/08

BSD-1

5-16-08