

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 10 SHEETS
F.A.P. 885	111BR-1	Johnson	94	85	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract #78030

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION THRU SLAB

SECTION A-A

SPLICER DETAILS
(No. Req'd.)

WELDED SECTIONS

SPLICER ALTERNATIVES
* Heavy Hex Nuts conforming to ASTM A563, Grade C, D or DH may be used.

INSTALLATION AND SETTING METHODS
"A" - Set splicer by means of a template bolt.
"B" - Set splicer by nailing to wood forms or cementing to steel forms.
(E) - Indicates epoxy coating, see Special Provisions.

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coated full length, and have effective tensile stress area equal or greater than that of the lapped reinforcement bars.

Splicer rods shall extend minimum 12 inches into the couplers.

All reinforcement bars shall be spaced and tied to the splicer rods.

Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with 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 splicer (coupler) assembly satisfies the following requirements:

- Minimum Capacity = 1.25 x A_s (Tension in kips)
- Minimum Pull-out Strength = 1.25 x A_s (Tension in kips)

Where A_s = Yield strength of lapped reinforcement bars in k.s.i.
 A_s = Tensile stress area of lapped reinforcement bars.
 f_c = 28 day concrete strength.

Typical Splicer (Coupler) Assembly Sizes:

In Slabs	#5 bar top with #4 Splice (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 23.0 kips-tension Minimum Pull-out Strength = 9.2 kips-tension
In Sub-structures	#7 bar top with #4 Splice (Coupler) x 3'-0" Splicer Rods	Minimum Capacity = 43.1 kips-tension Minimum Pull-out Strength = 17.0 kips-tension
	#8 bar top with #4 Splice (Coupler) x 4'-0" Splicer Rods	Minimum Capacity = 52.5 kips-tension Minimum Pull-out Strength = 23.6 kips-tension

Note: The Cost of Bar Splicers (Coupler) shall be incidental to Reinforcement Bars, as applicable.

SECTION THRU ABUTMENTS AND PIERS
No epoxy coating required.

SECTION B-B

SPLICER DETAILS
(No. Req'd.)

BAR SPLICER (COUPLER) DETAILS AT STAGE CONSTRUCTION

F.A. RT. 885 SEC. 111B-DR-3
JOHNSON COUNTY
STATION 513+00.00

DESIGNED: <i>R.P.S.</i>	EXAMINED: <i>MAY 26 1983</i>
CHECKED: <i>R.P.S.</i>	APPROVED: <i>[Signature]</i>
DRAWN: <i>R.P.S.</i>	DATE: <i>5-1-82</i>
CHECKED: <i>[Signature]</i>	DATE: <i>5-1-82</i>

Rev: RLP 05-15-83

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-52-0007-1 DATE: 04/02/08
DESIGNED: P.S.L. CHECKED: M.D.C. DRAWN: D.T.M.

EXISTING STRUCTURE PLANS

IL. ROUTE 146 OVER BELL POND
F.A.P. ROUTE 885 / SECTION 111BR-1
JOHNSON COUNTY
STATION 513+00
STRUCTURE NO. 044-0022