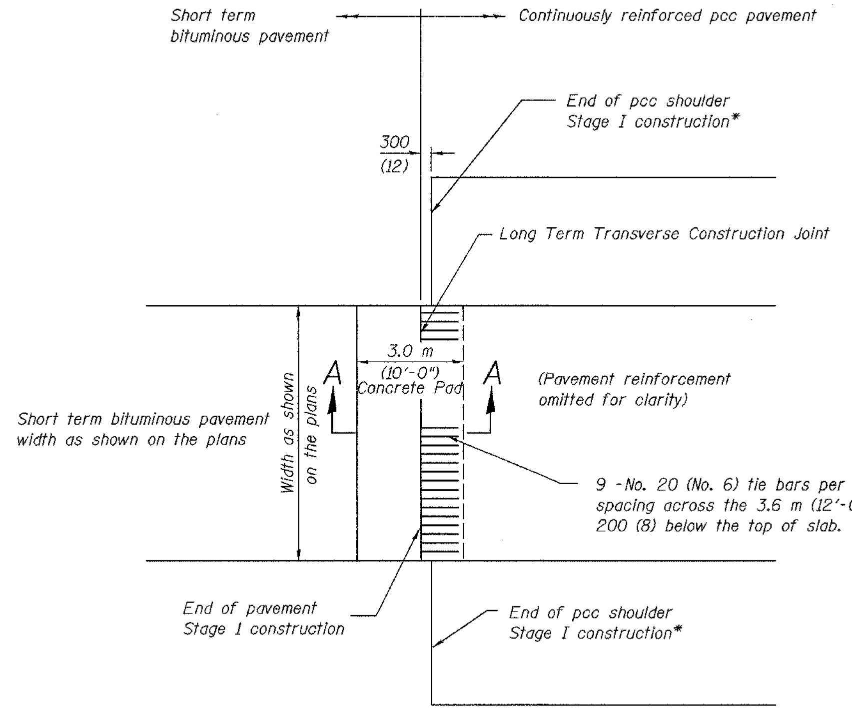
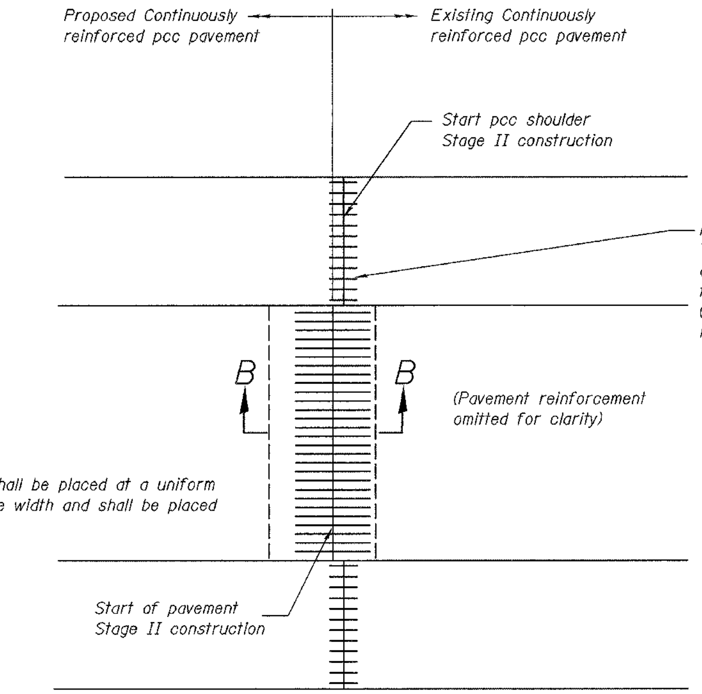
ALL DIMENSIONS IN METERS EXCEPT PAY ITEMS AND UNLESS NOTED OTHERWISE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2626.2-R-2	COOK/LAKE	1207	97
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62114		INDOT DES. NO. 0100987		



* Pcc shoulder as shown on the plans.

PLAN
(STAGE I CONSTRUCTION)



PLAN
(STAGE II CONSTRUCTION)

NOTES

Bar splicer assemblies shall be of an IDOT approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Bar splicers shall be of the "coupler" type, and shall not have flanges.

Splicer rods shall be of minimum 400 MPa 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 (Tension in kN) $= 1.25 \times 10^{-3} \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kN) $= 1.25 \times 10^{-3} \times fs_{allow} \times A_t$

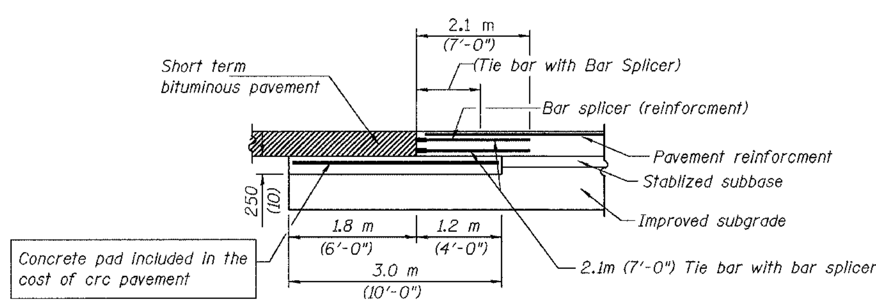
Where fy = Yield strength of lapped reinforcement bars in MPa.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)
A_t = Tensile stress area of lapped reinforcement bars (mm^2).
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN (kips)- tension	Min. Pull-Out Strength kN (kips) - tension
#15	610 mm	100	40
#20	790 mm	150	60
#22	1.04 m	200	80
#25	1.37 m	250	100
#30	1.75 m	350	140

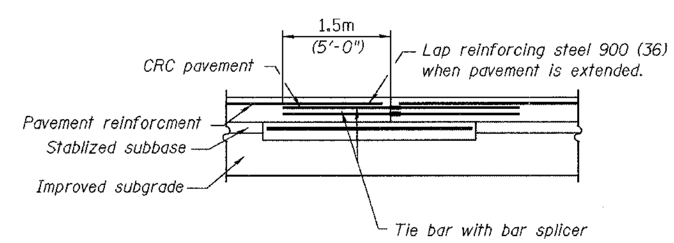
Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies for Stage I construction will be measured and paid for at the contract unit price each for "BAR SPLICERS, SPECIAL."

Stage I work will be paid for as BAR SPLICERS, SPECIAL. The concrete pad and reinforcement shall not be paid for separately but included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT PAVEMENT, of the thickness specified.

Stage II work includes obtaining, transporting the bar splicers for the second portion of the assembly from the IDOT Bishop Ford Maintenance facilty (708) 331-4339, and the installation of the bar splicers, payment for this work will be included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT of the thickness specified. Tie bars to be drilled and grouted shall not be paid for separately but included in the cost of PORTLAND CEMENT CONCRETE SHOULDERS, of the thickness specified.



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION A-A
(STAGE I CONSTRUCTION)



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION B-B
(STAGE II CONSTRUCTION)

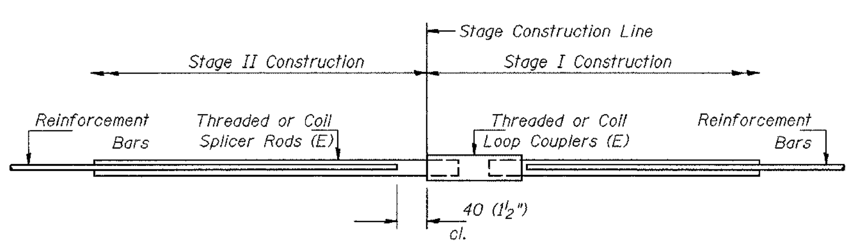
GENERAL NOTES

See Standard 421001 for details of CRC pavement reinforcment.

See Standards 420001 and 420401 for details of joints and tie bars not shown.

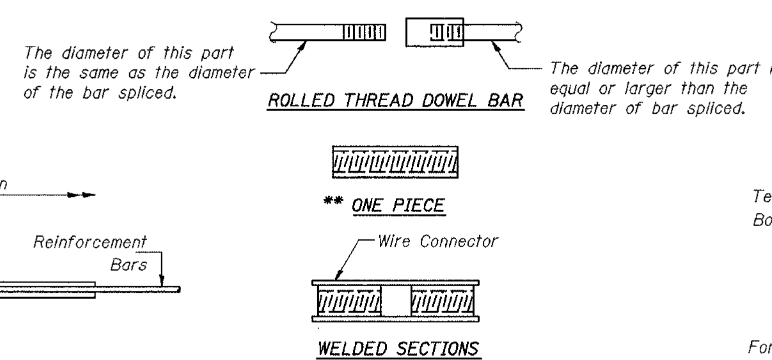
See Standards 421201 and 421206 for details of concrete pad and transverse terminal joint.

All dimensions are in millimeters (inches) unless otherwise noted.



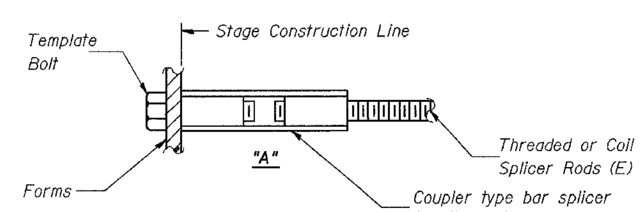
BAR SPLICER ASSEMBLY DETAIL

(E) : Indicates epoxy coating.



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

(E) : Indicates epoxy coating.

REVISIONS	
NAME	DATE
KFA	12/18/03
MDV	1/5/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41

LONG TERM TRANSVERSE CONSTRUCTION JOINT DETAILS

SCALE NONE — DRAWN BY
DATE 07/05 — CHECKED BY

AMERICAN CONSULTING ENGINEERS