

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
619	*	PUTNAM	77	46
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT-	
		* 120 BR, CR		

CONTRACT NO. 68740

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 400 MPa YIELD STRENGTH, THREADED OR COILED FULL LENGTH. ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER RODS OR DWEL BARS. BAR SPLICER ASSEMBLIES SHALL BE EPOXY COATED ACCORDING TO THE REQUIREMENTS FOR REINFORCEMENT BARS.

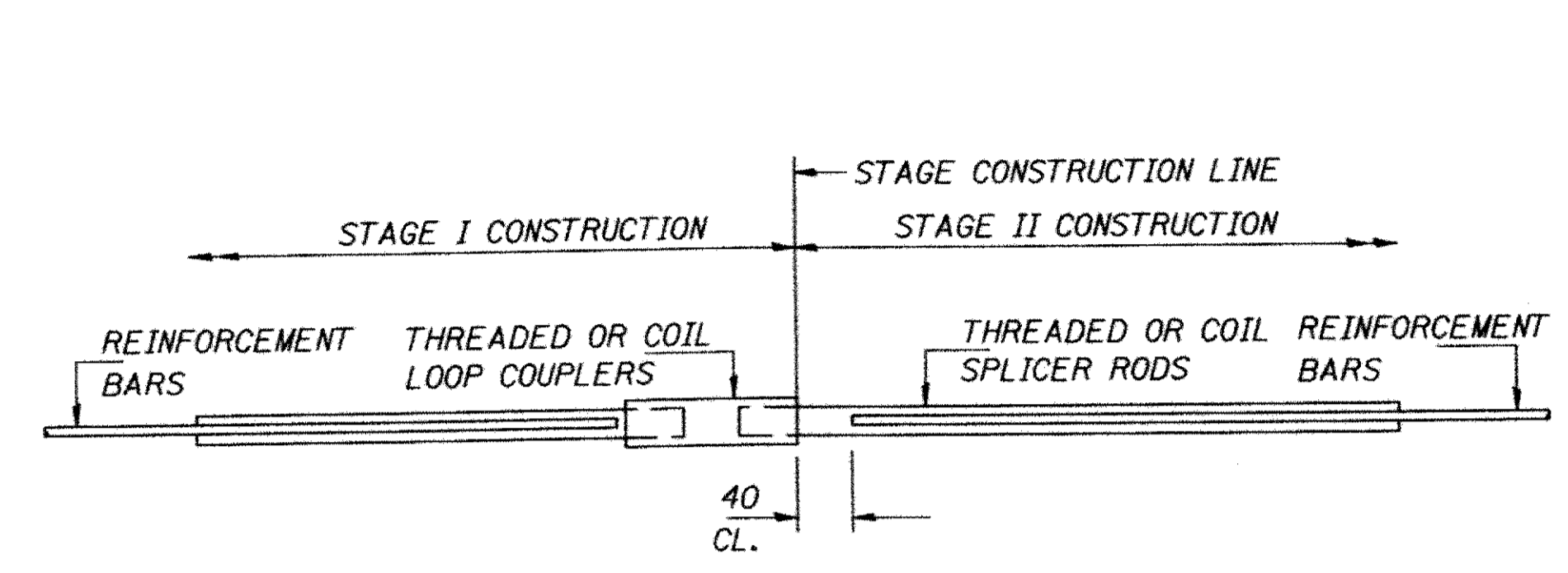
OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED BAR SPLICER ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENTS:

- ① MINIMUM CAPACITY (TENSION IN KN) = $1.25 \times 10^{-3} \times F_y \times A_t$
- ② MINIMUM *PULL-OUT STRENGTH (TENSION IN KN) = $0.66 \times 10^{-3} \times F_y \times A_t$

WHERE F_y = YIELD STRENGTH OF LAPPED REINFORCEMENT BARS IN MPa.
 A_t = TENSILE STRESS AREA OF LAPPED REINFORCEMENT BARS (mm²).
 * = 28 DAY CONCRETE

BAR SIZE TO BE SPLICED	SPLICER ROD OR DWEL BAR LENGTH	STRENGTH REQUIREMENTS	
		MIN. CAPACITY KN - TENSION	MIN. PULL-OUT STRENGTH KN - TENSION
#16	660 mm	100	55
#19	790 mm	150	80

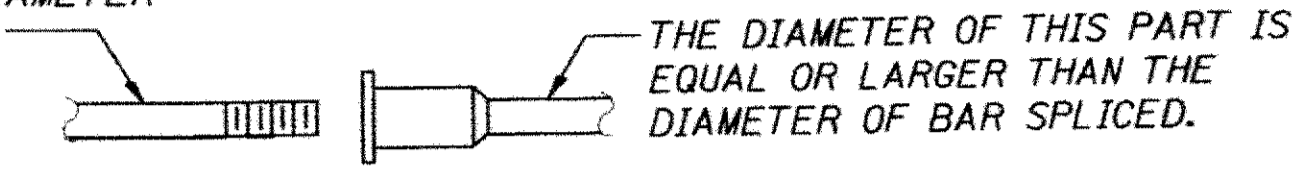
ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT AS NOTED.



BAR SPLICER ASSEMBLY DETAIL

BAR SIZE	NO. ASSEMBLIES REQUIRED	LOCATION
#16	90	CULVERT TOP & BOTTOM SLAB
#19	24	CULVERT WALLS

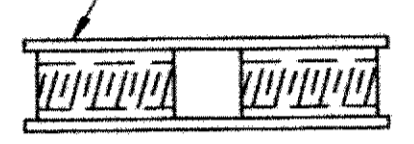
THE DIAMETER OF THIS PART IS THE SAME AS THE DIAMETER OF THE BAR SPLICED.



ROLLED THREAD DWEL BAR



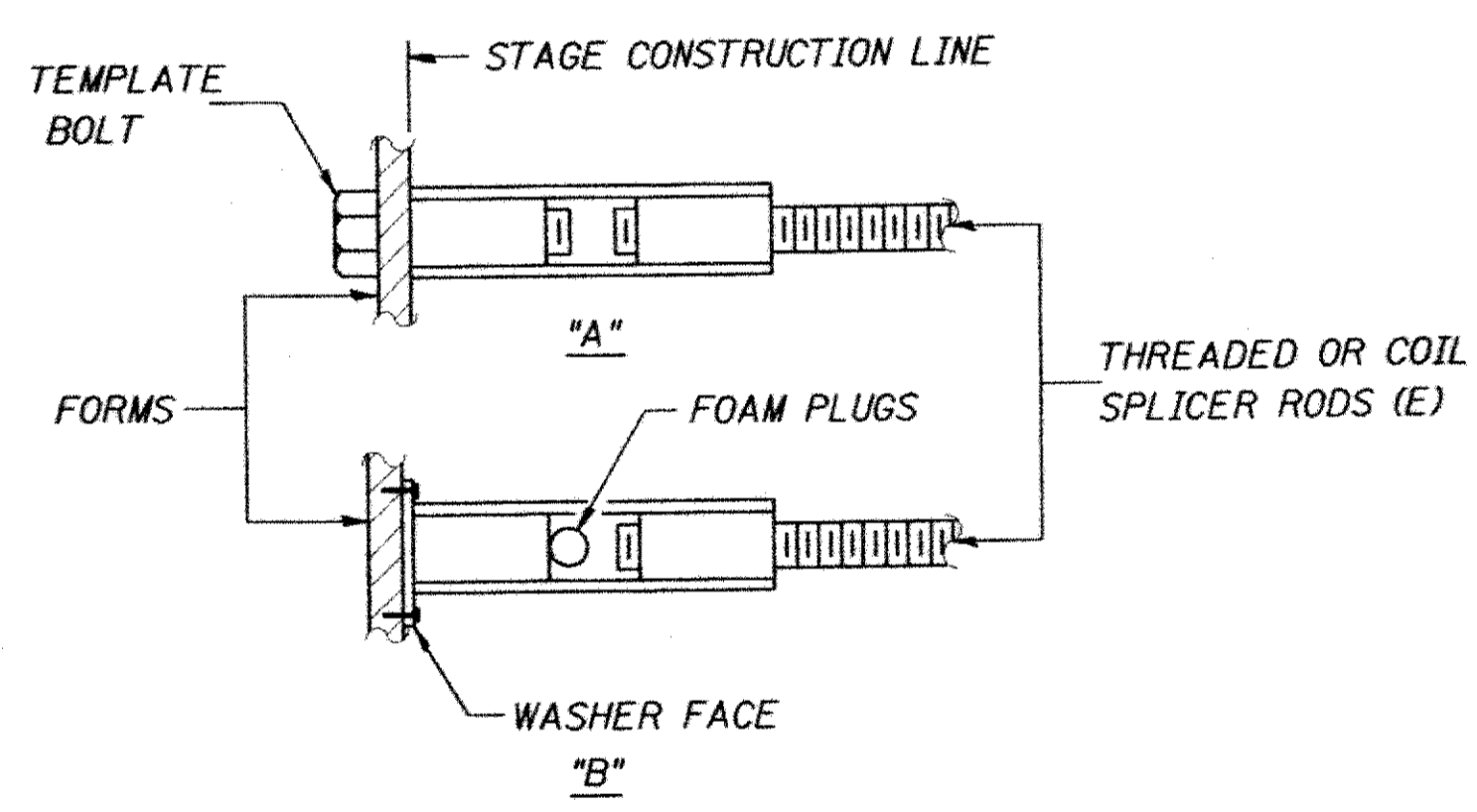
**** ONE PIECE WIRE CONNECTOR**



WELDED SECTIONS

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.
 "B": SET BAR SPLICER ASSEMBLY BY NAILING TO WOOD FORMS OR CEMENTING TO STEEL FORMS.

(E): INDICATES EPOXY COATING

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
 ILLINOIS ROUTE 71 OVER DRAINAGE DITCH
 F.A.P. RT. 619 - SECTION 120 BR
 PUTNAM COUNTY
 STATION 12+530
 STRUCTURE No. 078-2007

DATE: 09/21/09 DESIGNED BY: MV DRAWN BY: KDS
 CHECKED BY: SG CHECKED BY: MV

TranSystems