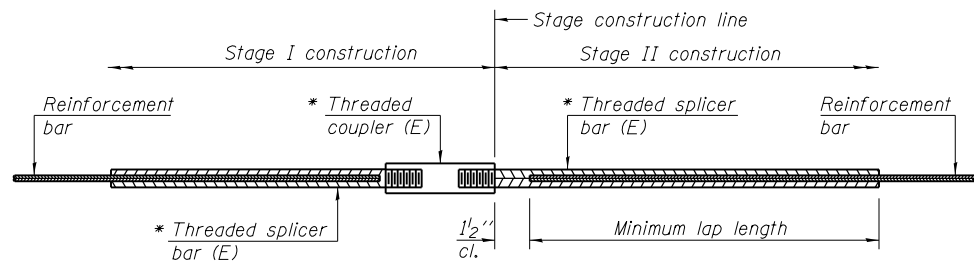


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STANDARD BAR SPLICER ASSEMBLY

Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

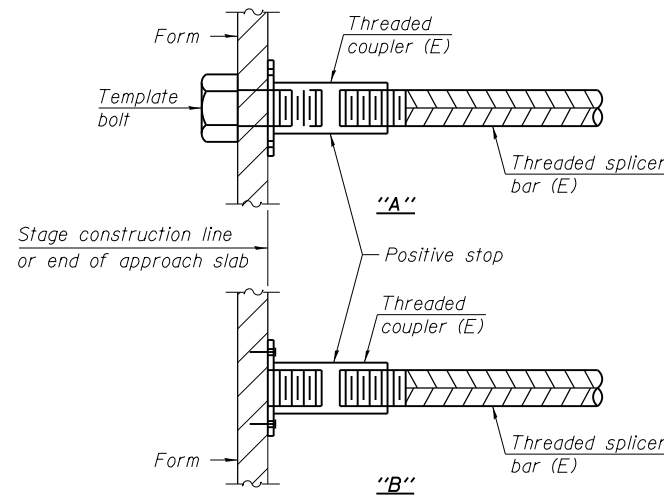
Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab	#6	7	1
Bottom Slab	#4	10	1
Walls	#5	4	2

NOTES

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.

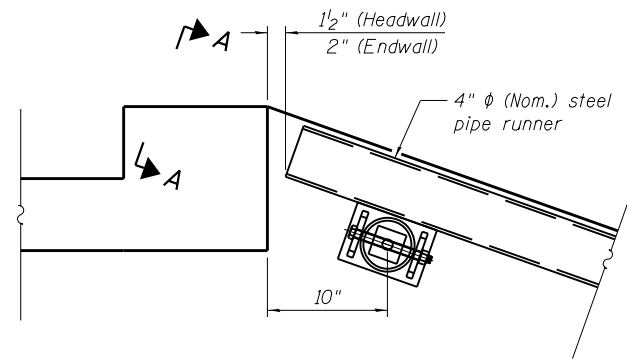


INSTALLATION AND SETTING METHODS

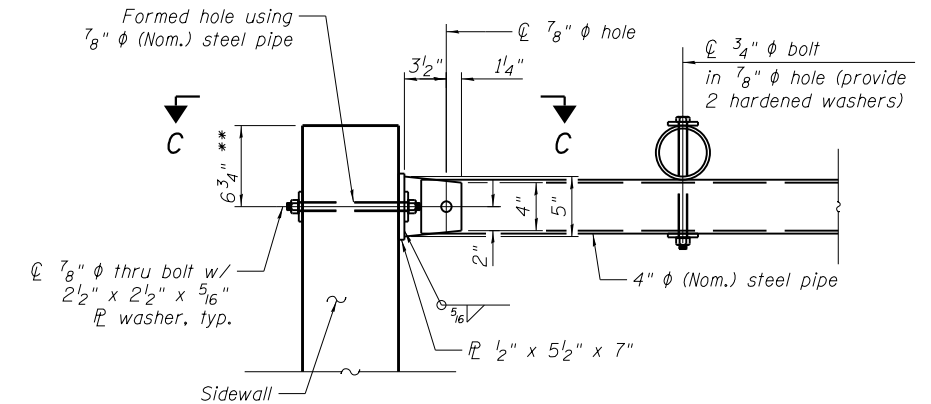
- "A" : Set bar splicer assembly by means of a template bolt.
- "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
- (E) : Indicates epoxy coating.

GENERAL NOTES

- Length and number of steel pipes shall be determined by the Contractor except as shown. All steel pipes shall be standard weight (Sch. 40) unless otherwise noted.
- All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 of M 232 as applicable.
- Fabrication of the Steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.
- Structural Steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.
- Bolts and thru bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications except threaded rods conforming to the requirements of ASTM F1554, Grade 105 may be used for the thru bolts.
- The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.
- Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.
- All cost associated with fabricating, furnishing and installing the Traversable Pipe Grate System shall be included in the contract unit price for Traversable Pipe Grate.

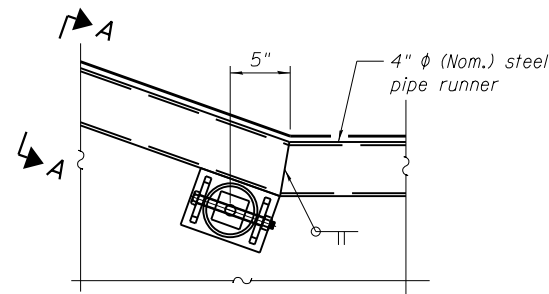


DETAIL A

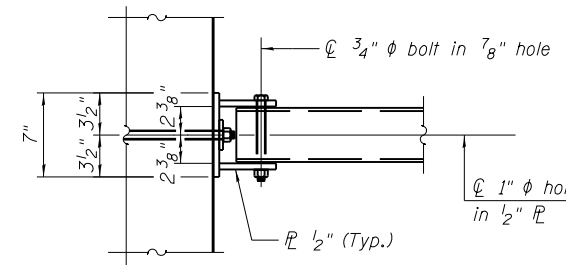


SECTION A-A

** Measured perpendicular to top of sidewall. In addition, formed hole shall be located a minimum of 6" measure horizontally from any vertical joints necessary for construction of the culvert end section



DETAIL B



VIEW C-C

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Bar Splicers	Each	21

EFK Moen, LLC
Civil Engineering Design
303 Fountains Parkway, Suite 240
Fairview Heights, IL 62208
Phone 618-206-4250

USER NAME = cdl	DESIGNED - CMC	REVISED -
PLOT SCALE = 0.2" = 1'	CHECKED - CTW	REVISED -
PLOT DATE = 8/7/2014	DRAWN - JAA	REVISED -
	DATE - 8/7/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
4'x2' BOX CULVERT - STA. 283 + 25

SHEET NO. 4 OF 4 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 749/752	101-2RS-1	JERSEY	438	284
			CONTRACT NO. 76789	
ILLINOIS FED. AID PROJECT				