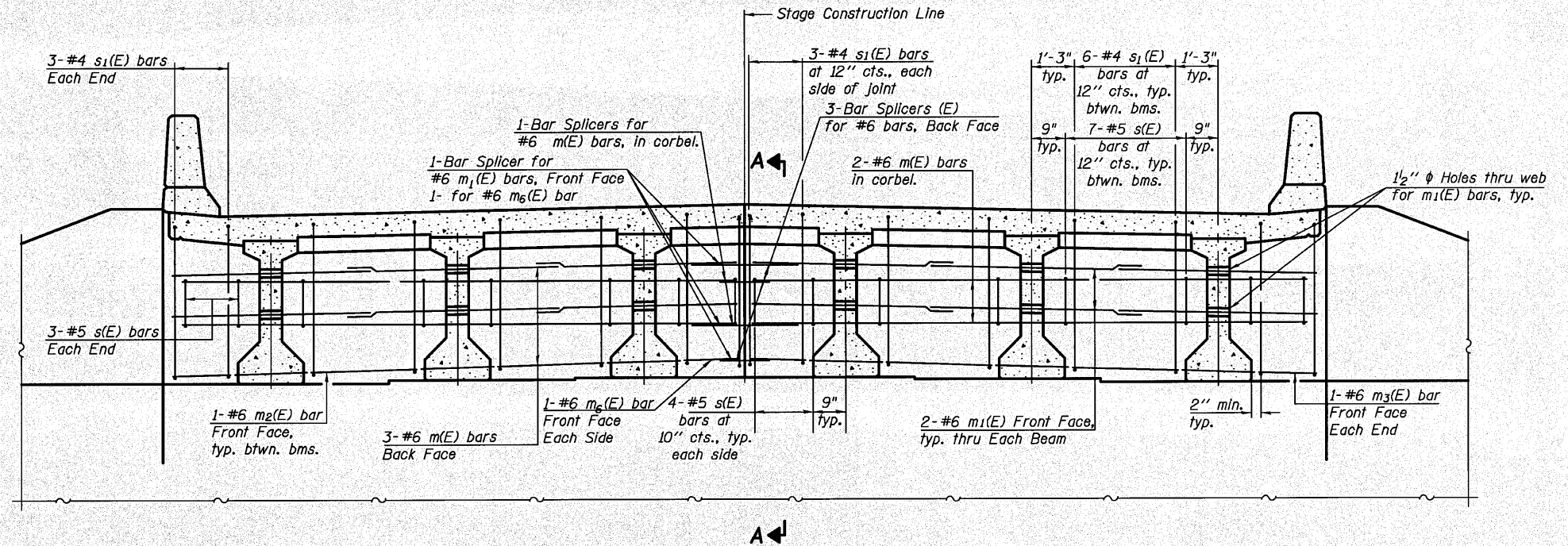
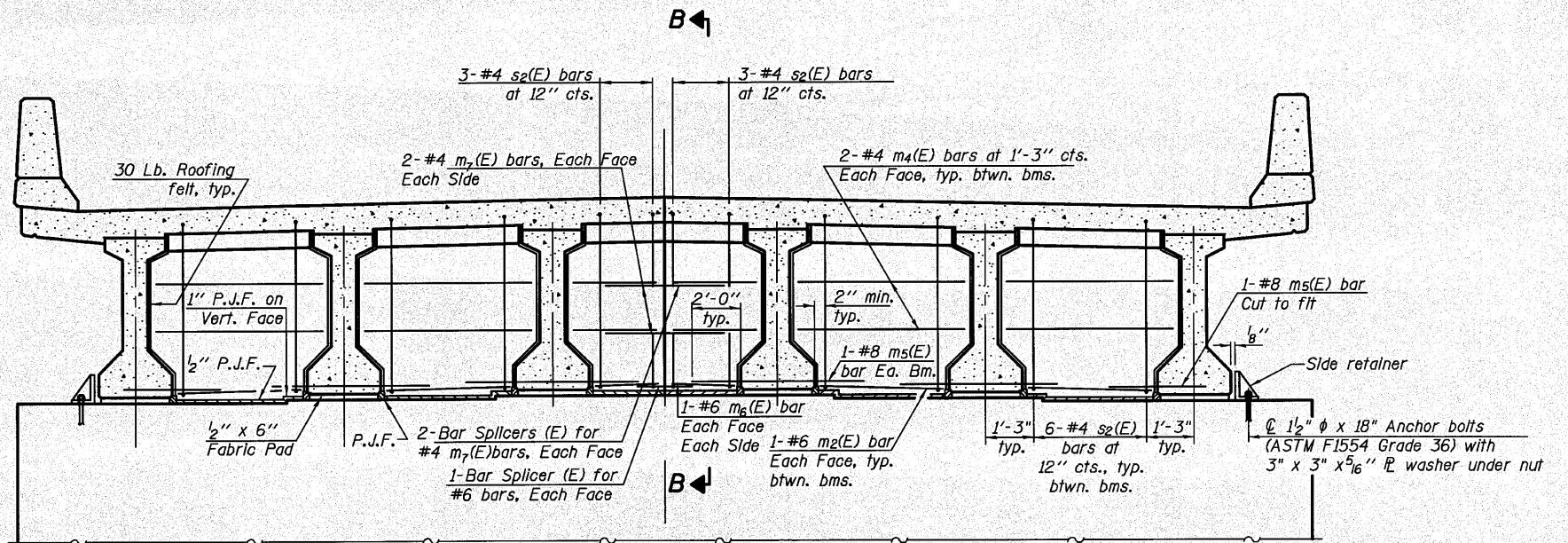


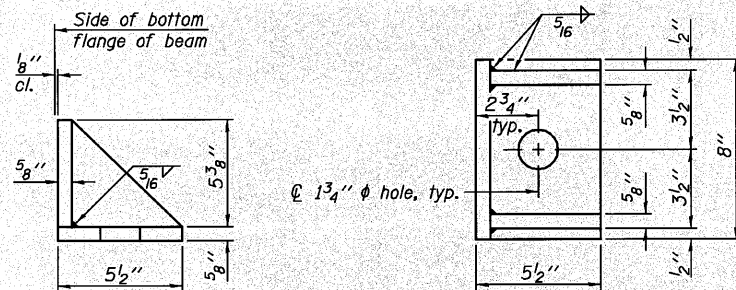
**Notes:**  
 Reinforcement bars in diaphragm are billed with superstructure on sheet 13 of 29.  
 Concrete in diaphragm is included with Concrete Superstructure on sheet 13 of 29.  
 For details of bars s(E) and s<sub>1</sub>(E) see sheet 13 of 29.  
 For details of bars s<sub>2</sub>(E), see sheet 13 of 29.  
 The s(E), s<sub>1</sub>(E) and s<sub>2</sub>(E) bars shall be placed parallel to the beams.  
 Spacing for these bars shall be at right angles to the beams.  
 See sheet 16 of 29 for Sections A-A and B-B.  
 Cost of 30 Lb. roofing felt is included with Concrete Superstructure.  
 The side retainer shall be galvanized after shop fabrication according to AASHTO M 111.  
 Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.  
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F<sub>y</sub>=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
 Anchor bolts for side retainers may be either cast in place or installed in holes drilled after the supporting member is in place and prior to pouring the deck.  
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
 Cost of side retainer and anchor bolts shall be included with Concrete Structures.



**DIAPHRAGM ELEVATION AT ABUTMENT**



**DIAPHRAGM AT PIER**



**SIDE RETAINER**  
 (2 required each side of pier).  
 Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

11/22/2010 10:07:05 AM C:\SIB\616-0779-144 D2 Bridges Phase 2\1102 CAD\Structures\Sheet\17076\_64025\_016\_Diaphragm.dwg:dlldp



DESIGNED - GPM	REVISD -
CHECKED - B.J.M	REVISD -
DRAWN - J.N.H./M.W.S	REVISD -
CHECKED - B.R.T	REVISD -

PLOT DATE = 11/22/2010

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS  
 STRUCTURE NO. 037-0176

SHEET NO. 17 OF 29 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
638	1298R-4	HENRY	93	38
CONTRACT NO. 64D25				
ILLINOIS FED. AID PROJECT				