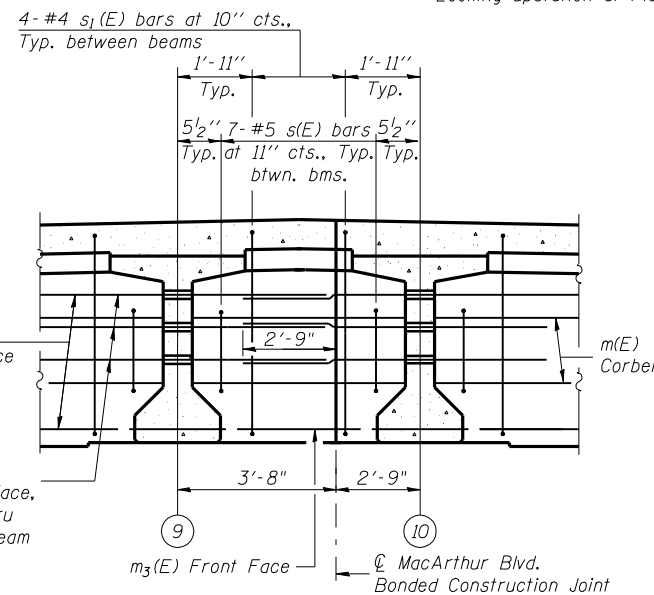


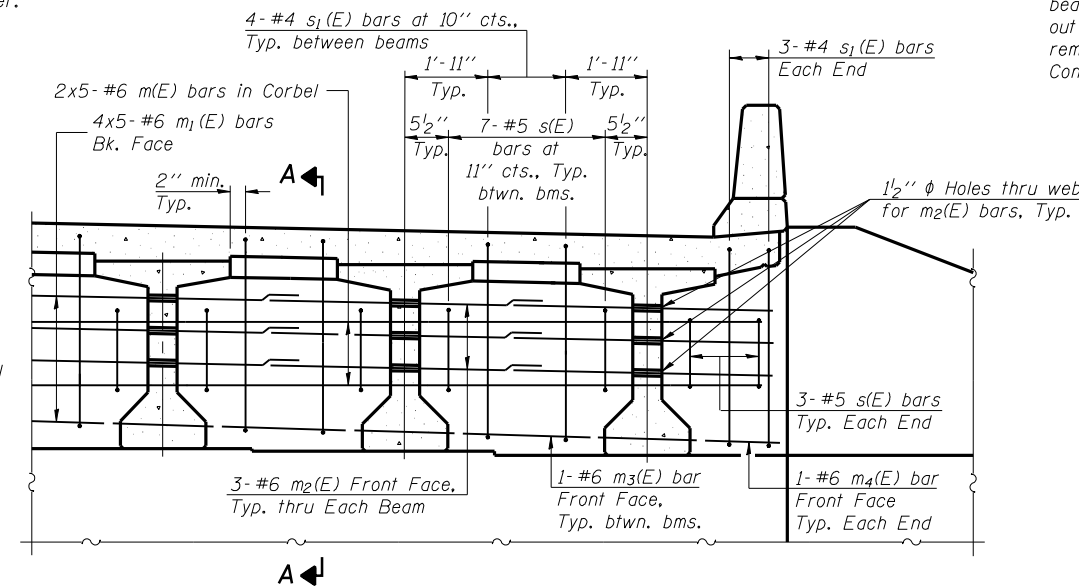
**DIAPHRAGM AT PIER**

(Expansion)  
 Dimensions perpendicular to Beams  
 Looking upstation at Pier.



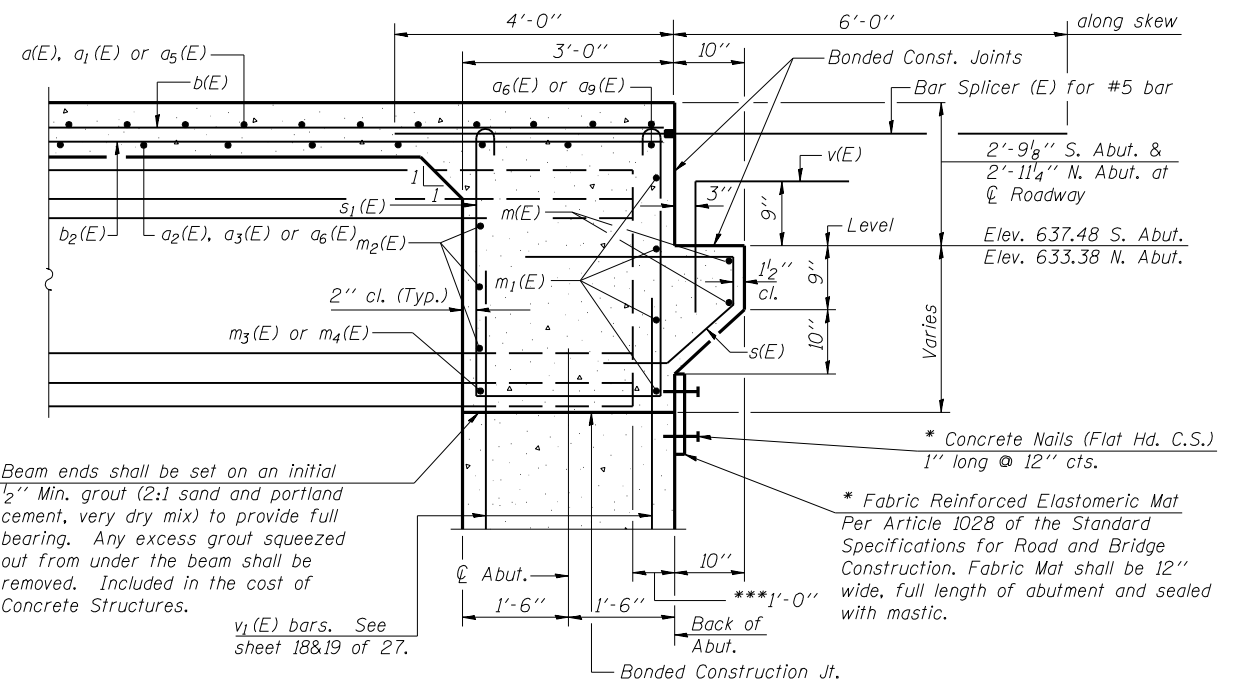
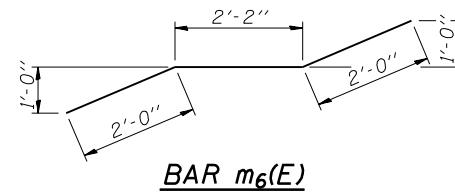
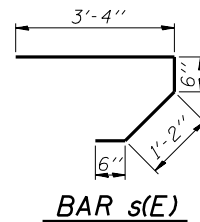
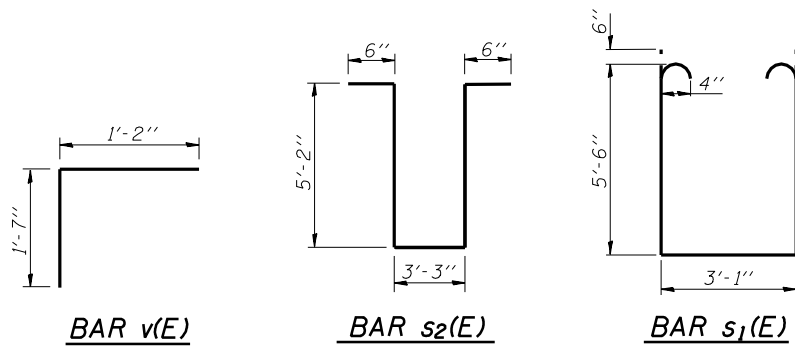
**DIAPHRAGM AT ABUTMENT**

Dimensions perpendicular to Beams  
 Looking upstation at Abutment.



**MIN. BAR LAPS**

#6 Bar - 2'-9"

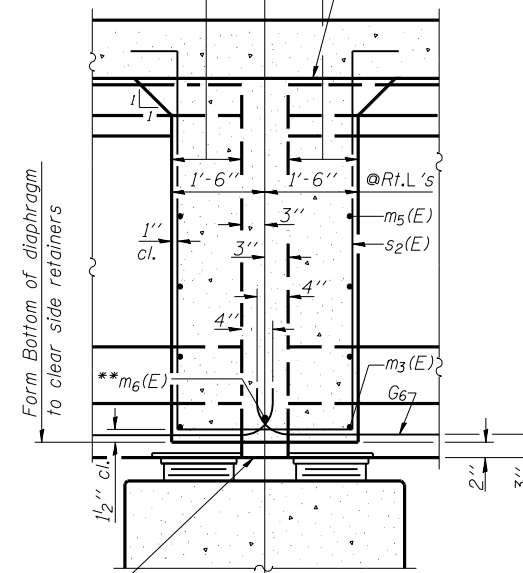


**SECTION A-A**

Dimensions at right angles to abutment, except as shown.  
 \*Cost included with Concrete Structures.  
 \*\*\*Along  $\phi$  Beam

Roofing felt shall be bonded to side of beam embedded into diaphragm.

Pour diaphragm flush with bott. of slab. Concrete in slab above this line shall be placed not less than 45 min. nor more than 90 min. after diaphragm has been poured.



**SECTION B-B AT PIER**

(Expansion)

\*\*Tightly fasten the #8 bars together with No. 9 wire ties. Dimensions along  $\phi$  of beam, except as shown.

Note:  
 Reinforcement bars in diaphragm are billed with Superstructure on sheet 10 of 27.  
 Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 27.  
 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.  
 Cost of 90 lb. roofing felt is included with Concrete Superstructure.  
 See sheet 23 of 27 for anchor bolt details.

Corporate License Number 184-001-084

**DIAPHRAGM DETAILS**  
 MACARTHUR BLVD. OVER N.S. R.R.  
 SECTION 02-00382-02-PV  
 SANGAMON COUNTY  
 STATION 800+69.78  
 STRUCTURE NUMBER 084-0512

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96S2002B

DATE: 10/30/05

MM 06/27/03  
 DAP 01/04/05  
 JMM 02/24/05  
 \$FILE\$ 12/16/2006