

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0361-01	2011	110	169

**MKEC**  
ENGINEERING  
CONSULTANTS, INC.  
411 N. WEBB ROAD  
WICHITA, KS. 67206  
316-684-9600

**LINCOLN STREET BRIDGE AND  
DAM IMPROVEMENTS OVER  
ARKANSAS RIVER**

**BOAT/FISH  
PASS  
DIAPHRAGM  
& WALL DETAILS**  
SHEET TITLE  
472-84883  
PROJECT NUMBER

DESIGN BY: JAG  
DRAWN BY: DPG  
CHECKED BY: KJS

ISSUED: 1/24/2011  
REVISED:

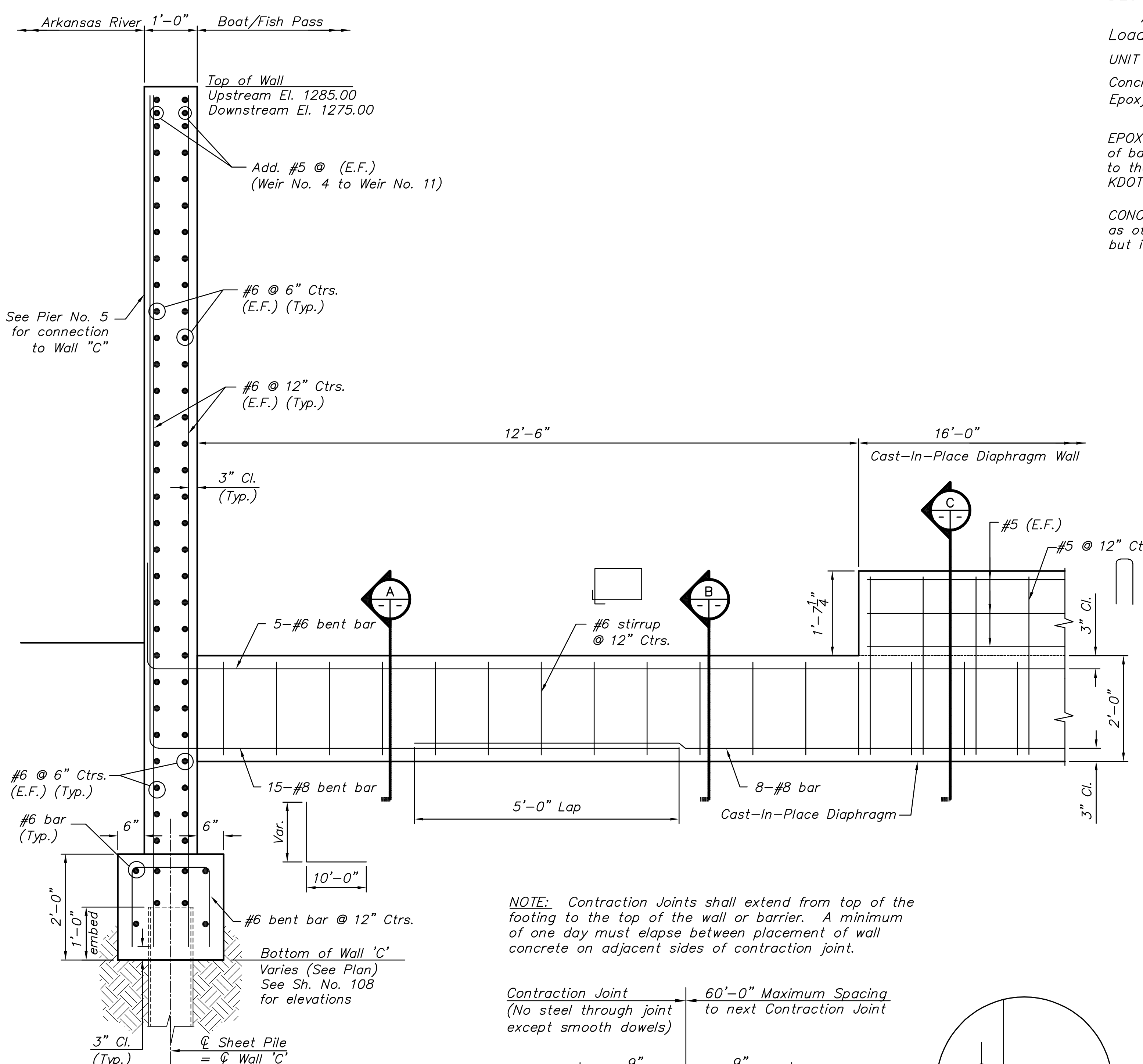
SHEET NO.  
**110 of 169**

**DESIGN SPECIFICATIONS:**  
AASHTO Specifications, 2007 Edition and latest Interim Specifications.  
Load and Resistance Factor Design

**UNIT STRESSES:**  
Concrete (Grade 4.0):  $f'_c = 4 \text{ ksi}$   
Epoxy-Coated Reinforcing Steel (Grade 60):  $f_y = 60 \text{ ksi}$

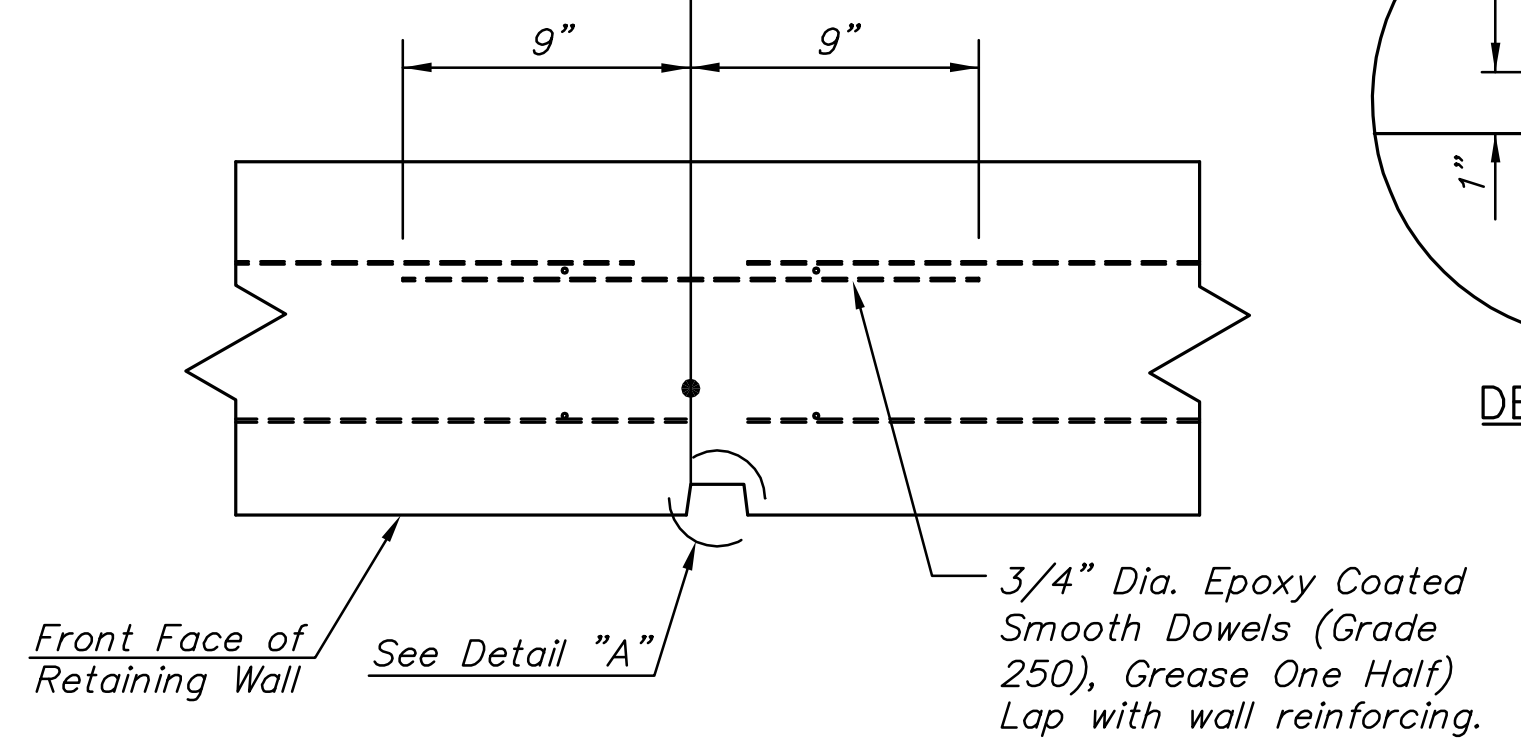
**EPOXY-COATED REINFORCING STEEL:** All reinforcing steel dimensions are to the centerline of bars unless otherwise noted. All reinforcing steel, except the spiral bars, shall conform to the requirements of ASTM A615, Grade 60. All reinforcing shall be epoxy coated per KDOT Specifications.

**CONCRETE:** Bevel all exposed edges of all concrete with a 3/4" triangular molding, except as otherwise noted on the plans. Construction joints are optional with the Contractor, but if used, place only at locations shown, or at locations approved by the Engineer.

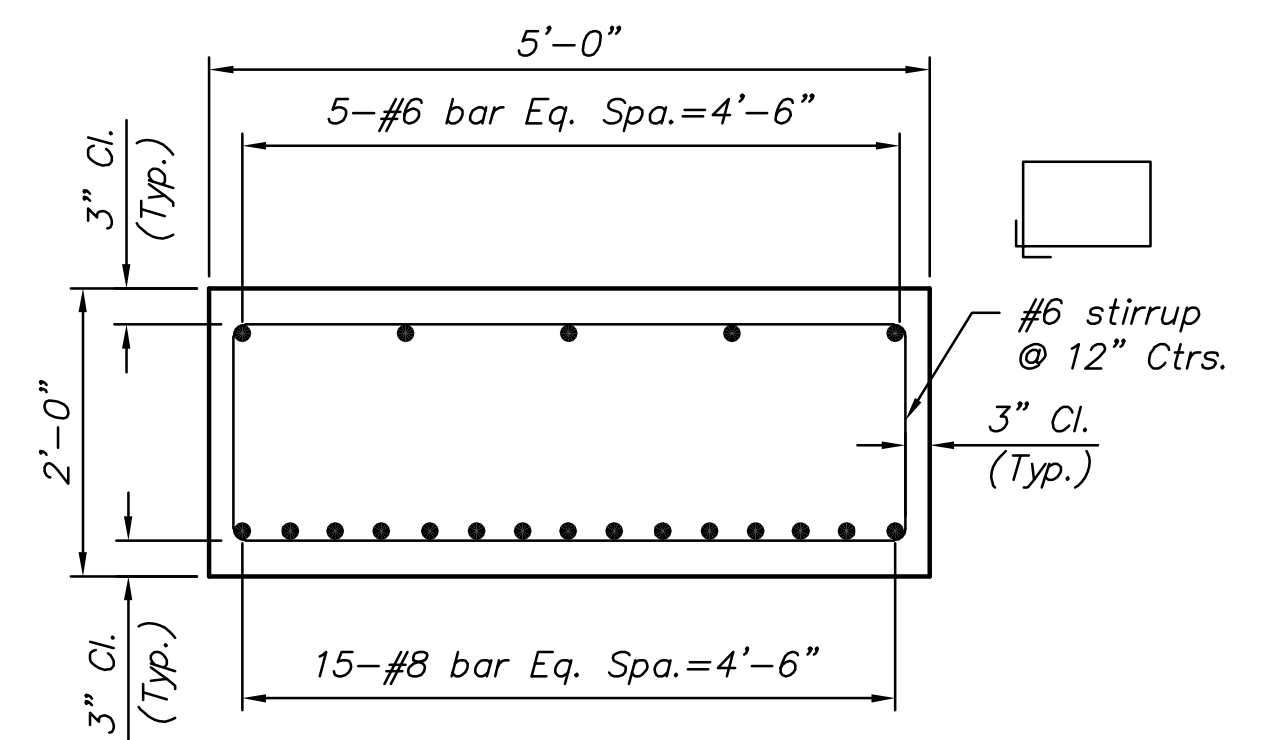


**BOAT/FISH PASS WALL 'C' SECTION**  
(Shown at diaphragm)

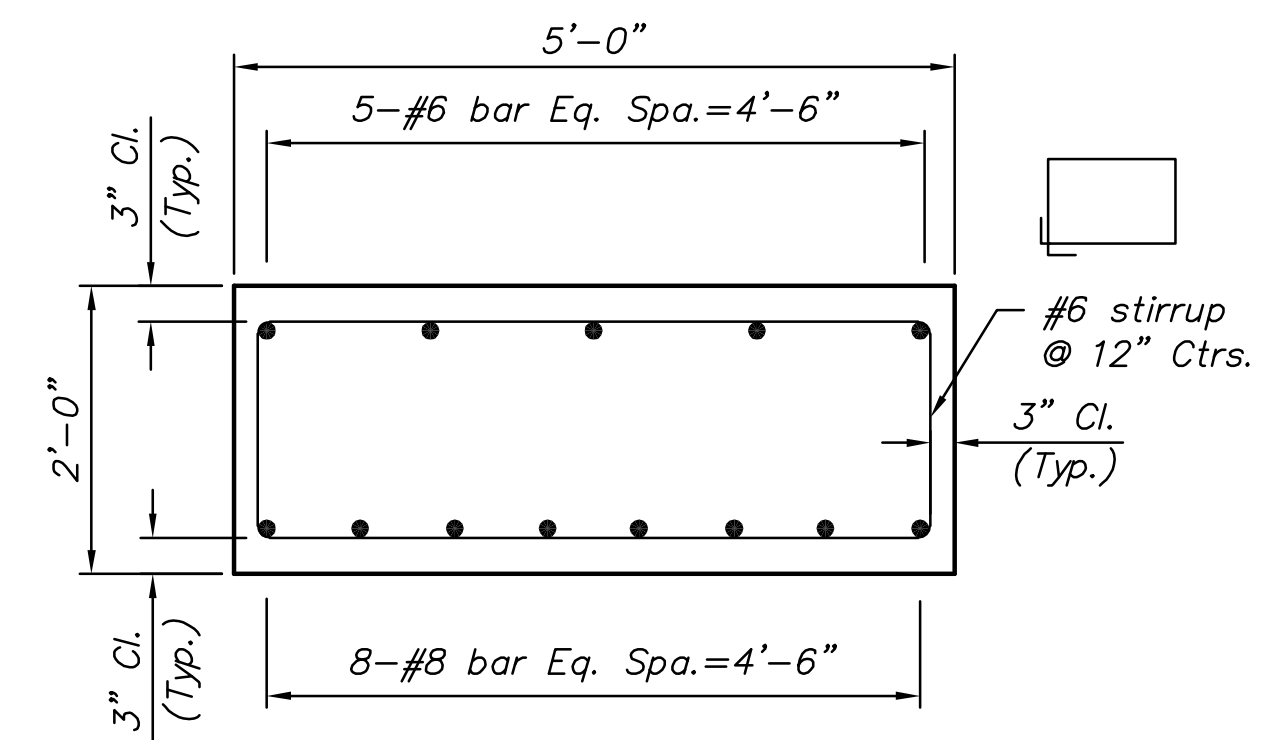
**CONTRACTION JOINT**  
(No steel through joint except smooth dowels)



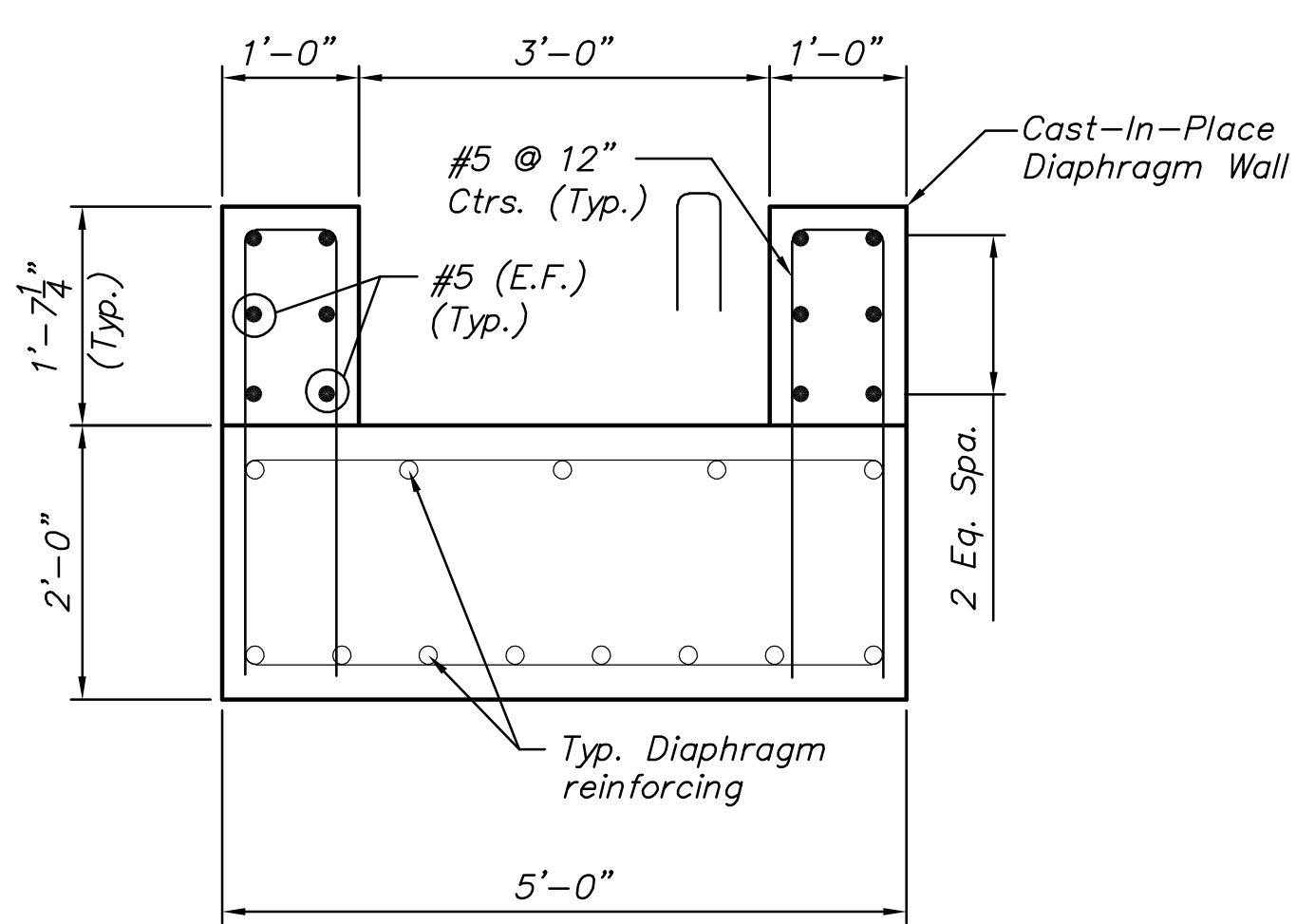
**TYPICAL WALL CONTRACTION JOINT DETAIL**



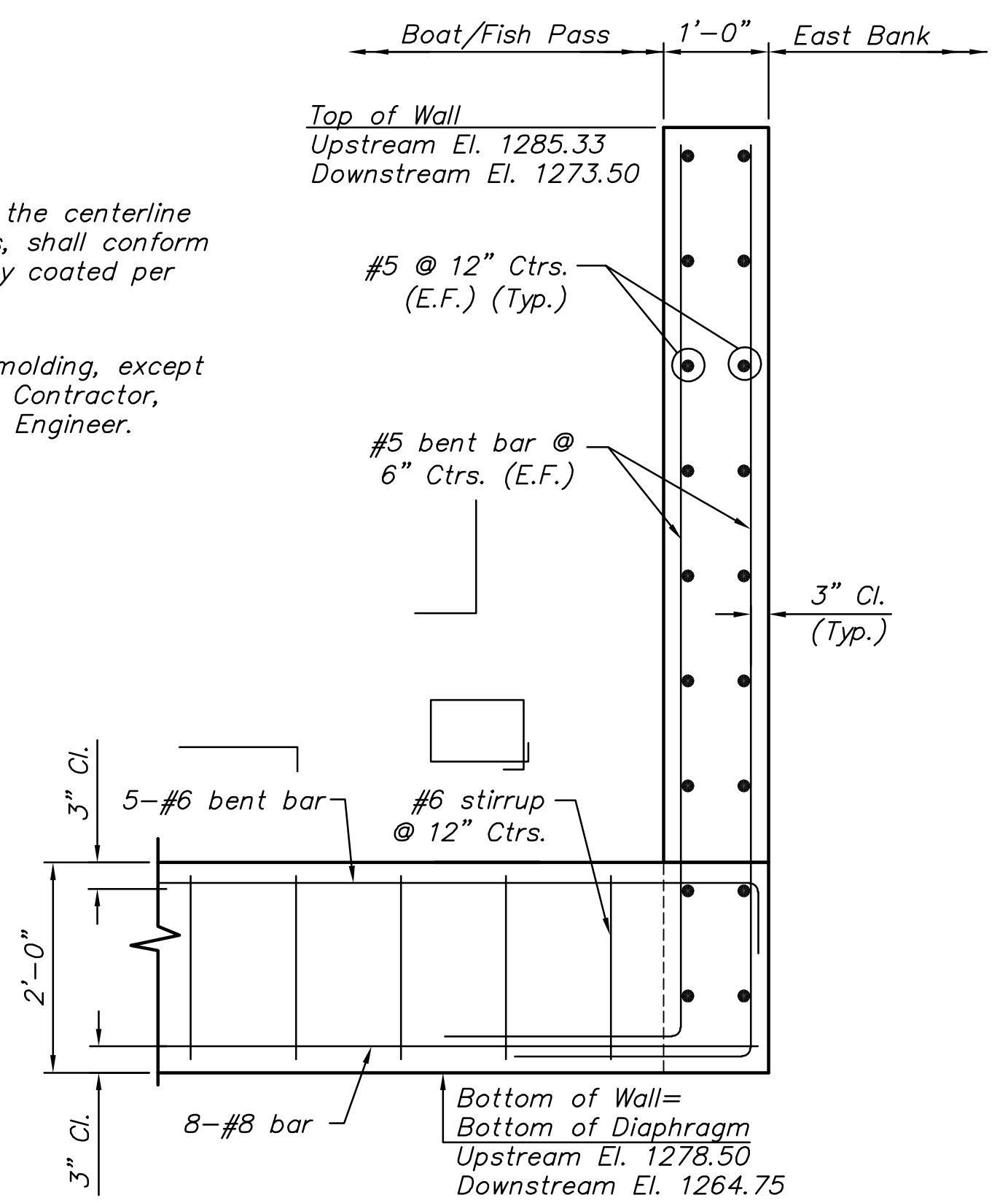
**SECTION A**



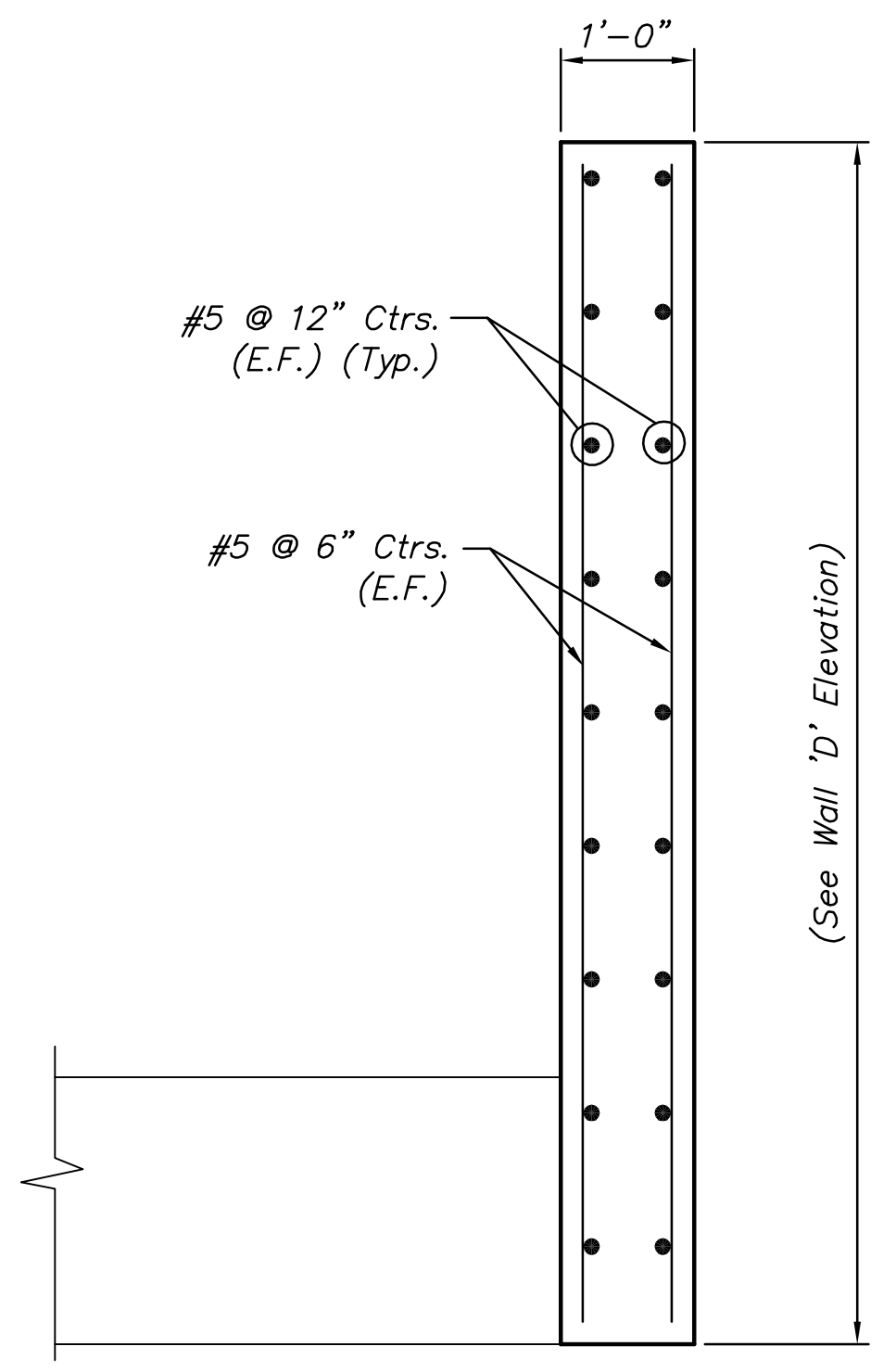
**SECTION B**



**SECTION C**



**BOAT/FISH PASS WALL 'D' SECTION**  
(Shown at diaphragm)



**BOAT/FISH PASS WALL 'D' SECTION**  
(Shown between diaphragm)

PLOTTER: Tandy, January 25, 2011 @ 08:40AM

J:\CIVIL\07433\DWG\DA\PLANS\07433 BOAT PASS DIAPHRAGM.DWG