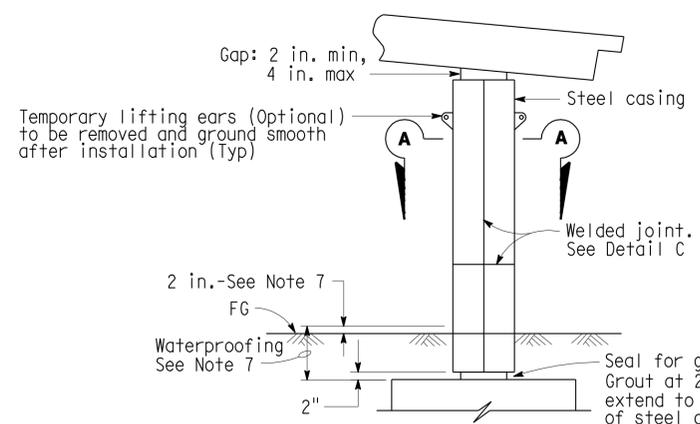


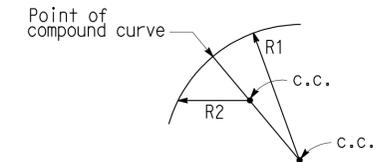
DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	57	16.2/18.6	867	960

Khaled Allam
 REGISTERED ENGINEER - CIVIL
 No. 67110
 Exp. 9/30/10
 CIVIL
 STATE OF CALIFORNIA

12-14-09
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

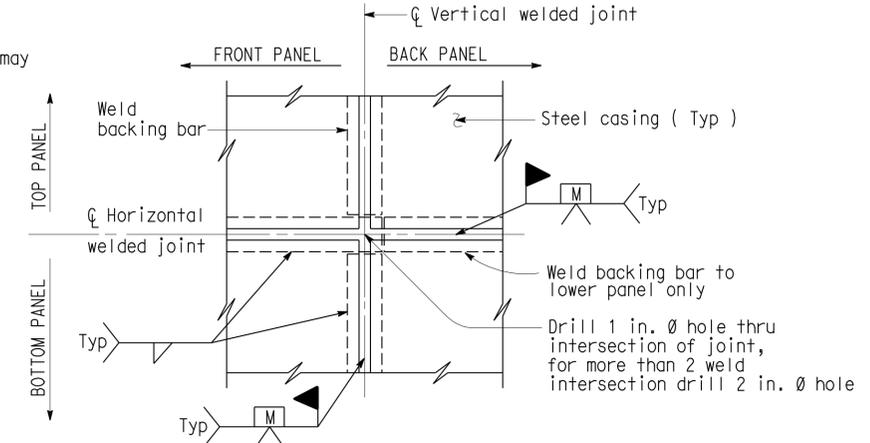


CLASS F COLUMN



ELLIPTICAL CASING DETAIL CLASS F AND P/F COLUMN

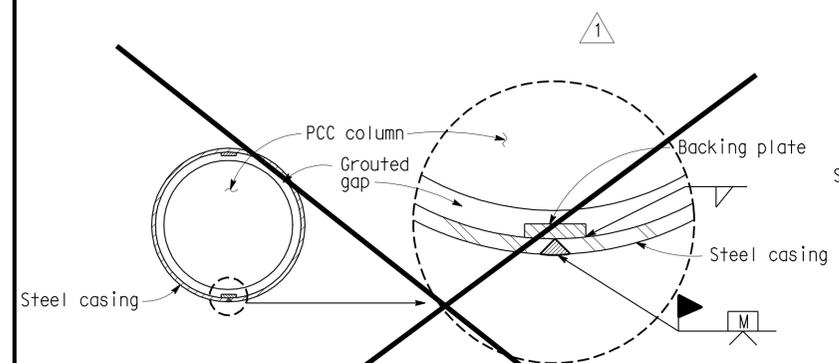
Radii R1 and R2 to be determined by the Contractor subject to the approval of the Engineer



**(TWO WELDED INTERSECTION JOINT)
DETAIL C**

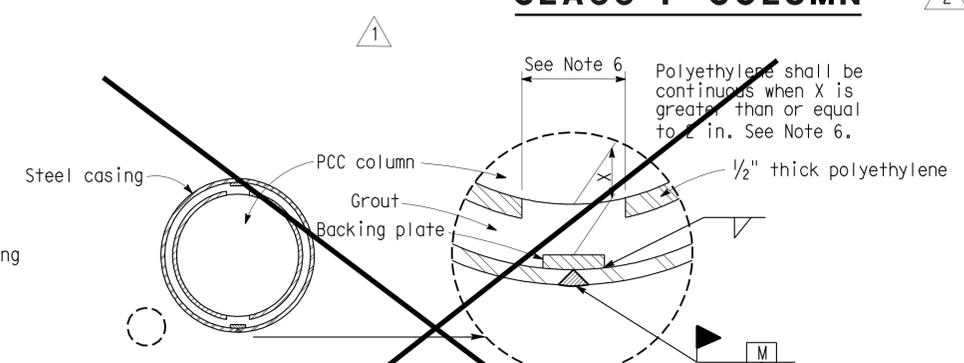
NOTES:

- 1) For varying thickness steel casing inside surface to remain flush. Minimum clearance from PCC column to casing shall be maintained.
- 2) Appropriate injection nozzles to be provided on casing, but removed and ground flush following completion of grouting operation.
- 3) All voids between steel casing and polyethylene (Class P/F), and steel casing and PCC column (Class F) to be filled with grout.
- 4) Location and number of vertical and horizontal welds to be determined by the Contractor, and subject to the approval of the Engineer. The location of casing welds are for illustration. No skip welds allowed.
- 5) Circular steel casing to be 1/4" thick minimum for casings with a 4'-4" diameter or less; all other steel casings to be 3/8" thick unless noted differently on contract plans. Backing plates to be the same thickness as casing up to maximum 1/2" thick.
- 6) Contractor shall remove 12 in. polyethylene strip behind backing plate if backing plate is closer than 2" from face of column.
- 7) Waterproof limits for steel casings. Typical for Classe "F" and "P/F".
- 8) For pipe extensions, opening shall be no more than 1/4" greater than the pipe extension diameter. For other openings, the opening diameter to be determined by the Engineer.



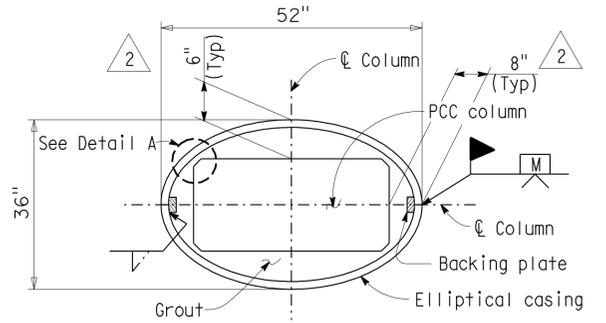
**SECTION A-A
ROUND COLUMN**

Minimum inside diameter of steel casing = 1/2" greater than nominal column diameter for Class P/F and 2 1/2" for Class F

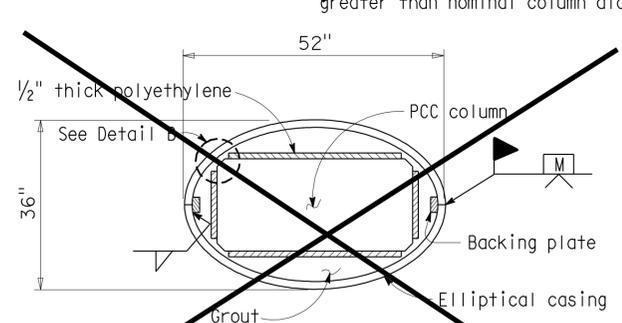


**SECTION B-B
ROUND COLUMN**

Minimum inside diameter of steel casing = 2 1/2" greater than nominal column diameter for Class P/F



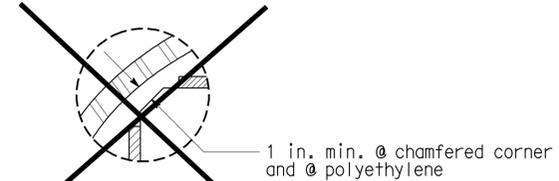
**SECTION A-A
RECTANGULAR COLUMN**



**SECTION B-B
RECTANGULAR COLUMN**



DETAIL A



DETAIL B

REVISED PER ADDENDUM No. 2 DATED JUNE 17, 2010

NO SCALE

STANDARD DRAWING			
RELEASE DATE 11-16-06	DESIGN BY <i>BRIAN MARONEY</i>	CHECKED <i>R.J. ZELINSKI</i>	RELEASED BY <i>Michael D. Keener</i>
FILE NO. xs7-010e	DETAILS BY <i>R. YEE</i>	CHECKED <i>PAT HIPLEY</i>	OFFICE CHIEF
	SUBMITTED BY <i>R.J. ZELINSKI</i>	DRAWING DATE <i>8/93</i>	

- 1 Deleted Detail
- 2 Revised Detail

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 55-0459	ORANGETHORPE AVE UC (WIDEN)
KILOMETER POST 16.4	
STEEL COLUMN CASINGS	