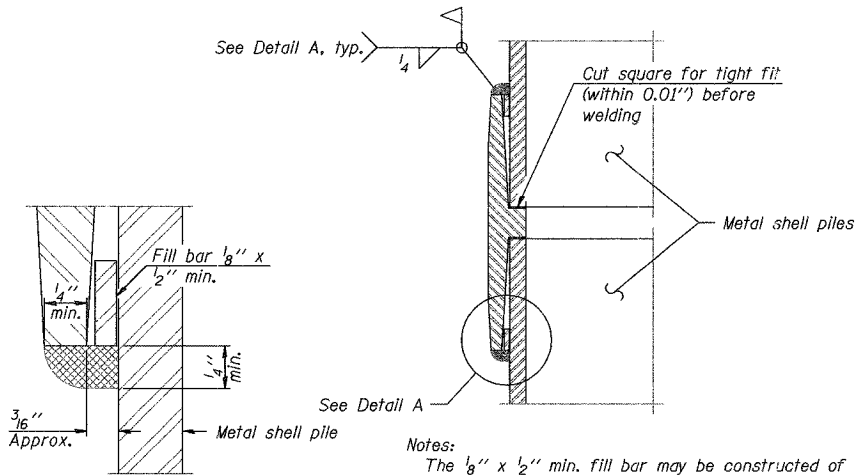


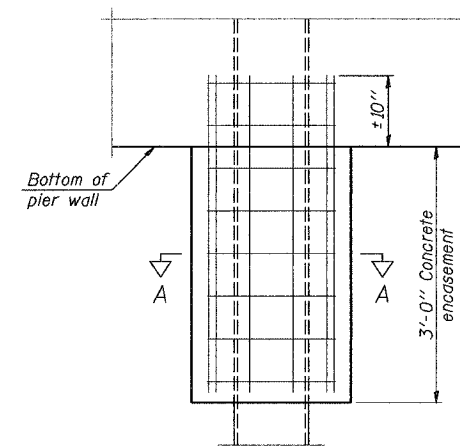
METAL SHELL PILE TABLE

Designation	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)	Encasement diameter A
PP12	0.179"	22.60	0.0274	30"
PP12	0.250"	31.37	0.0267	30"
PP14	0.250"	36.71	0.0368	30"
PP14	0.312"	45.61	0.0361	30"

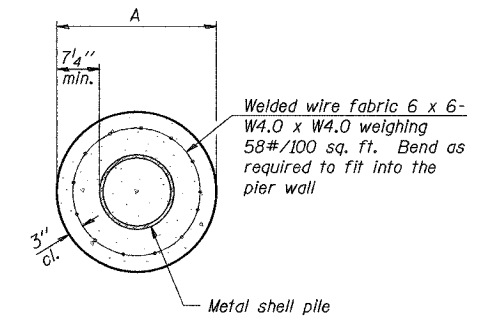


Notes:  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



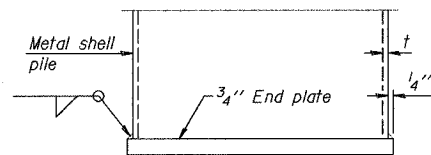
ELEVATION



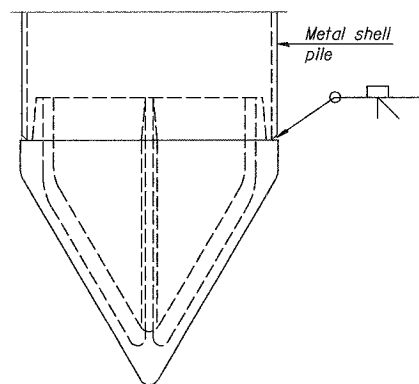
SECTION A-A

Notes:  
 See Metal Shell Pile Table for dimension "A".  
 Forms for encasement may be omitted when soil conditions permit.

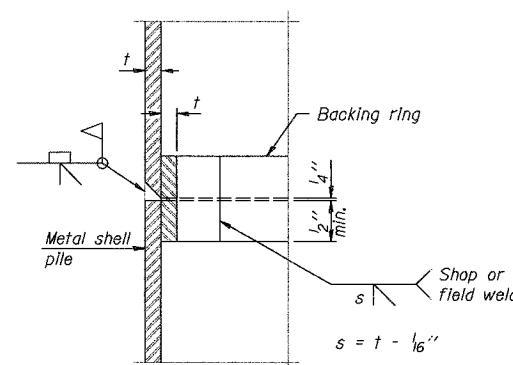
CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

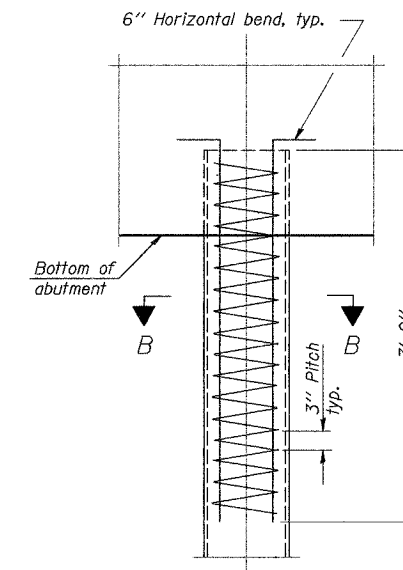


METAL SHELL PILE SHOE ATTACHMENT

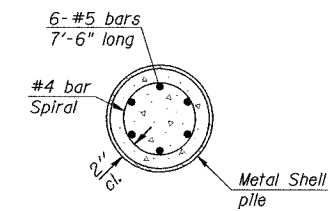


COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:  
 The metal shell piles shall be according to ASTM A 252 Grade 3.

DESIGNED	J.Z.
CHECKED	S.D.H.
DRAWN	M.S.M.
CHECKED	S.D.H.

F-MS 11-1-06

CONCRETE PILE DETAILS

IL Route 176 over the Kishwaukee River  
 F.A.P. RTE 533, SECTION 119R-2B  
 McHENRY COUNTY  
 STATION 10+00.00  
 S.N. 056-0078

DATE: 10-05-07

GRAEF, ANHALT, SCHLOEMER & ASSOCIATES INC  
 CHICAGO ILLINOIS