

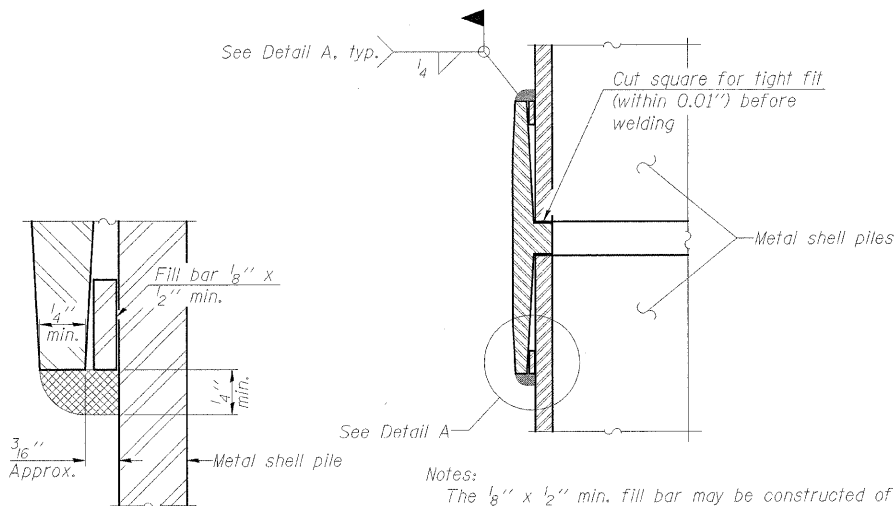
PROJECT	SECTION	COUNTY	SHEET	TOTAL SHEETS
5154	04-00343-00-BR	WINNEBAGO	92	65
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-BRM-5099(75)	

Structural Sheet 19B of 21B



**METAL SHELL PILE TABLE**

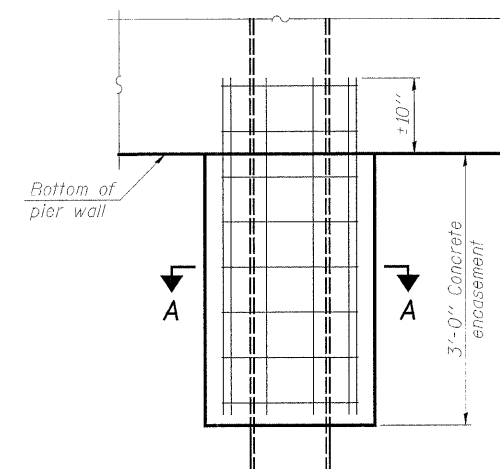
Designation and outside diameter	Wall thickness <i>t</i>	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



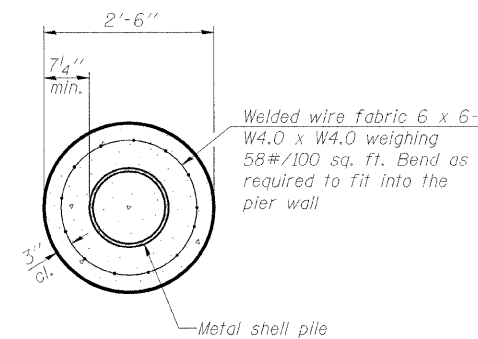
**DETAIL A**

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**



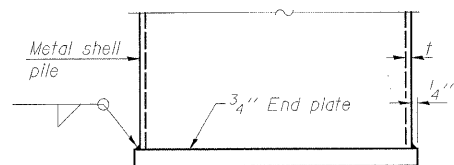
**ELEVATION**



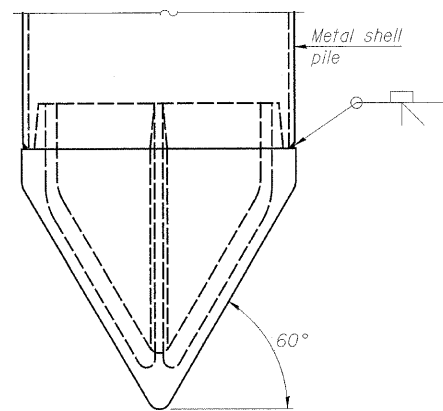
**SECTION A-A**

Note:  
 Forms for encasement may be omitted when soil conditions permit.

**CONCRETE ENCASEMENT AT PIERS**



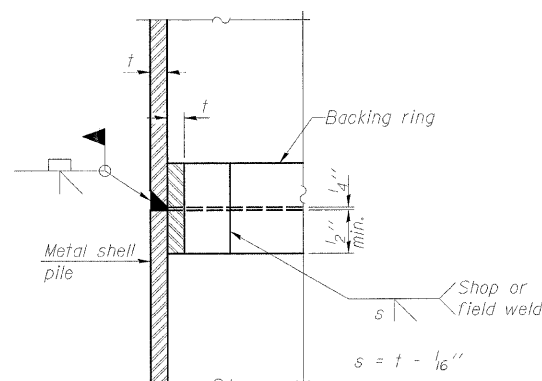
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

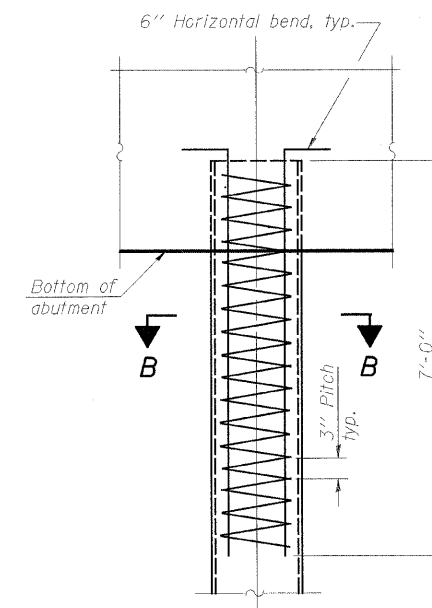
(See Note A)

Note A:  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

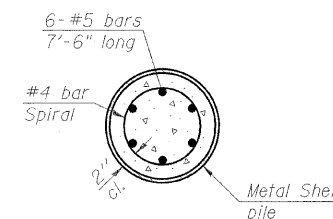


**COMPLETE PENETRATION WELD SPLICE**

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.

**METAL SHELL PILE DETAILS**  
**BELTLINE ROAD OVER KISHWAUKEE RIVER**  
**F.A.U. ROUTE 5154 SECTION 04-00343-00-BR**  
**WINNEBAGO COUNTY**  
**STA. 129+89 (S.N. 101-0171)**