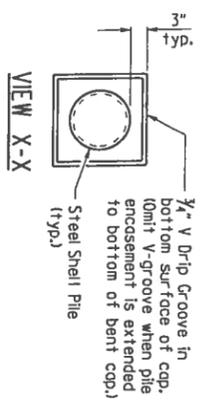
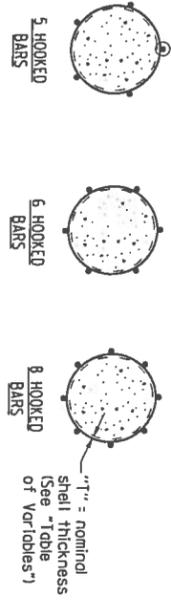
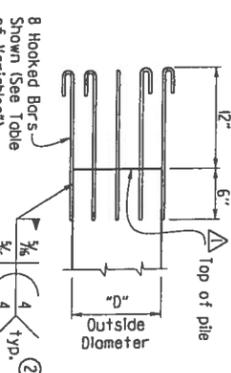


Note: Steel pile tip will not be paid for directly, but shall be subsidiary to the item "Steel Shell Piling".

- Pile anchorage shall be placed to minimize interference with anchor bolts and reinforcing in cap or footing.
- Welding shall comply with ANS/AWS D14 Structural Welding Code-Reinforcing Steel and applicable portions of ANS/AWS D15 Bridge Welding Code.

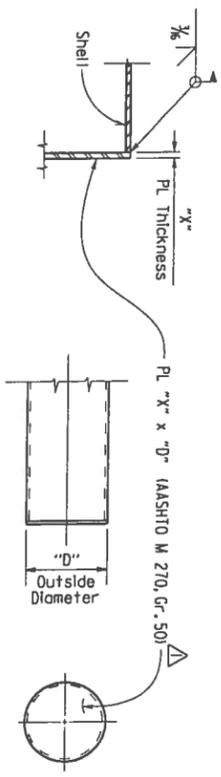


The Contractor may use No. 7 hooked reinforcing bars equally spaced around piles. Reinforcing bars shall be ASTM A706, Grade 60. See "Table of Variables" for number required.



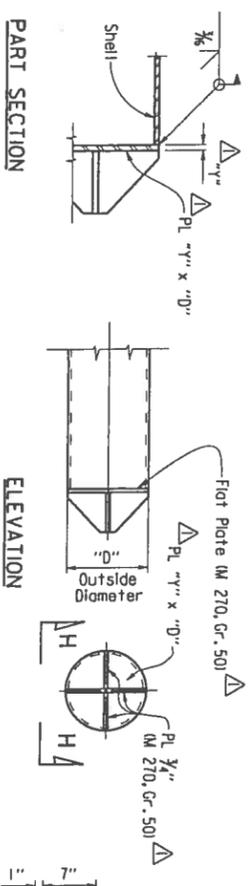
ALTERNATE PILE ANCHORAGE DETAIL

Note: Hooked bars shall be oriented to provide the required concrete clearances shown in the plans.

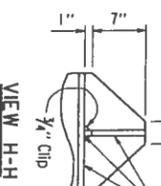


ALTERNATE FLAT TIP DETAIL

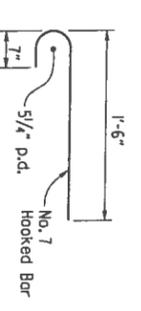
Note: The alternate flat tip detail shall not be used on steel shell piling to be driven through embankments constructed with internal geosynthetic reinforcement.



ALTERNATE VANED TIP DETAIL



HOOKED BAR DETAIL



GENERAL NOTES FOR CONCRETE FILLED STEEL SHELL PILES:

Steel shells shall conform ASTM A252, Grade 3 (fy = 45,000 psi). Concrete used for filling of steel shell shall be Class 5 with a minimum 28-day compressive strength, fc = 3,500 psi, and shall be poured in the dry. Steel shell piling that extends above the ground and is not protected by pile encasement shall be painted in accordance with Subsection 805.02. See Bridge layout for size and estimated length of steel shell piles and for driving information. Concrete, structural steel, reinforcing steel (including welding), and pointing shall not be paid for directly, but shall be considered subsidiary to the item "Steel Shell Piling".

TYPICAL SPLICE DETAILS

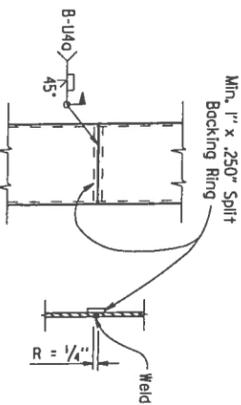
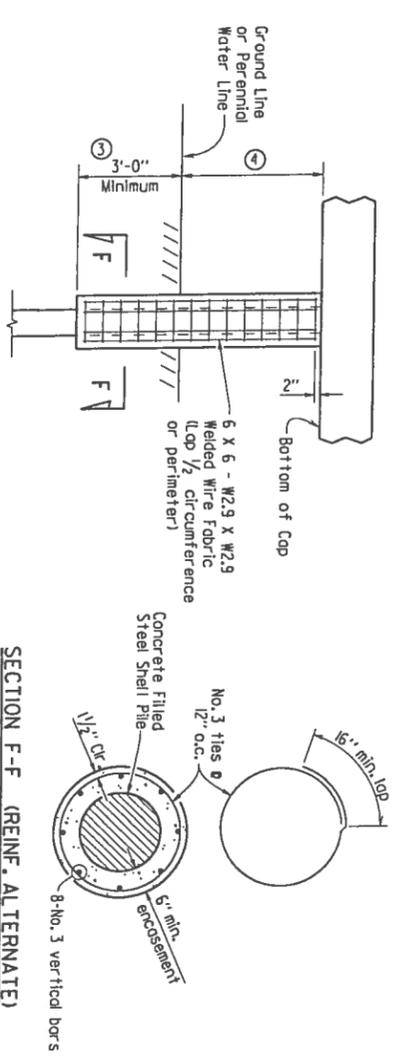


TABLE OF VARIABLES

OUTSIDE DIAMETER "D"	NOMINAL SHELL THICKNESS "t"	PLATE THICKNESS "x"	PLATE THICKNESS "y"	NO. OF HOOKED BARS FOR ALTERNATE PILE ANCHORAGE	MINIMUM CONICAL TIP DESIGN LOAD (KIPS)
14"	0.50"	2 1/4"	1 1/2"	5	859
16"	0.50"	2 1/2"	1 1/2"	5	986
18"	0.50"	2 1/2"	1 1/2"	6	1,114
20"	0.50"	2 1/2"	1 1/2"	6	1,241
24"	0.50"	2 3/4"	1 1/2"	8	1,495

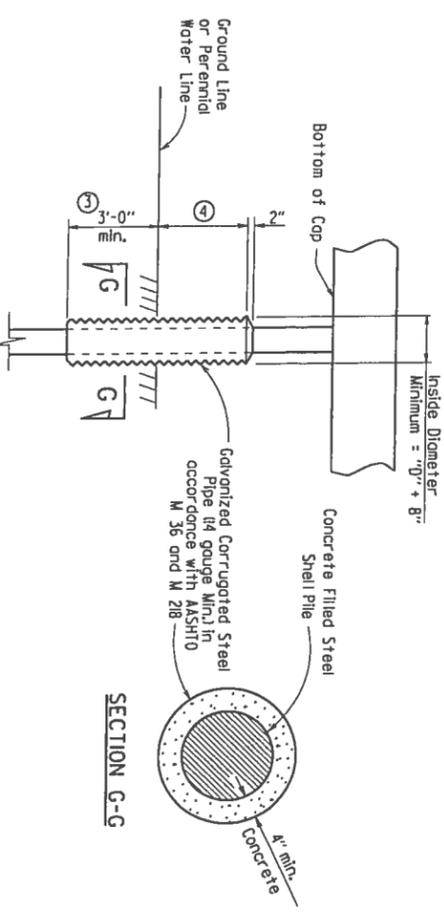
GENERAL NOTES FOR PILE ENCASEMENTS:

See Bridge layout for additional notes, any pile encasement restrictions and required location of pile encasements. Concrete shall be Class 5 with a minimum 28-day compressive strength, fc = 3,500 psi. If concrete cannot be placed in the dry, Seal Concrete may be used from top to bottom of encasement. Reinforcing steel shall be Grade 60 conforming to AASHTO M 31 or M 322, Type A. Welded wire fabric shall conform to AASHTO M 55 or M 221. Concrete, welded wire fabric or reinforcing steel and galvanized pipe shall not be paid for directly, but shall be considered subsidiary to the item "Pile Encasement".



PILE ENCASEMENT DETAIL FOR STEEL SHELL PILES

- Unless otherwise noted on Bridge layout.
- See Bridge layout for height of pile encasement (13'-0" Minimum).
- Pile encasement, when not extended to bottom of cap, shall have 2" concrete taper for water runoff as shown in the detail for partial height encasement.



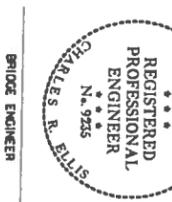
ALTERNATE PILE ENCASEMENT DETAIL FOR STEEL SHELL PILES

(Shown with Partial Height Encasement)

This document was originally issued and sealed by Charles R. Ellis, PE, No. 9235, on March 24, 2016. This copy is not a signed and sealed document.

STANDARD DETAILS FOR CONCRETE FILLED STEEL SHELL PILES AND PILE ENCASEMENTS

ARKANSAS STATE HIGHWAY COMMISSION



LITTLE ROCK, ARK.
 DRAWN BY: AMS, DATE: 2/27/2014, FILENAME: B55021.dgn
 CHECKED BY: B.E.F., DATE: 2/27/2014, SCALE: NO SCALE
 DESIGNED BY: S.D., DATE: _____
 DRAWING NO. 55021

DATE	DATE	DATE	DATE	DATE
REVISION	FILED	REVISION	FILED	REVISION
3/7/21/16				