DISCLAIMER:
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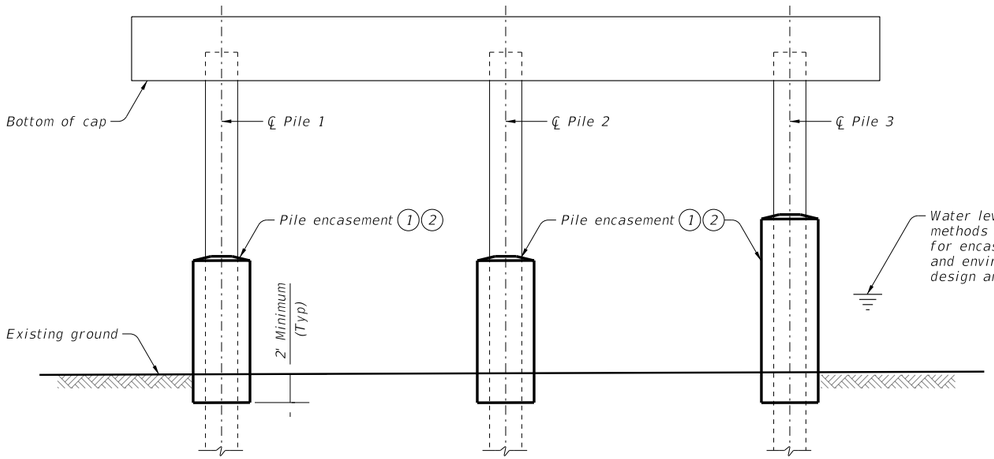
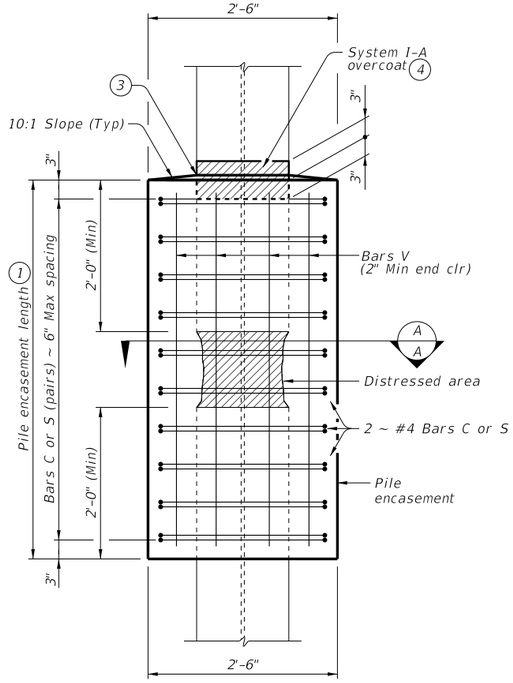
DATE:
FILE:



ELEVATION

(Looking upstation)



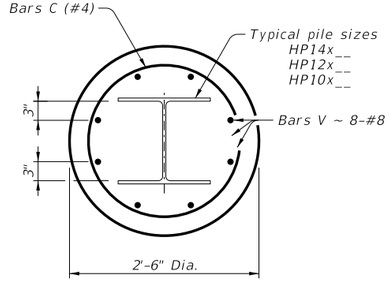
ELEVATION

(1) See Table of Pile Encasement Lengths.

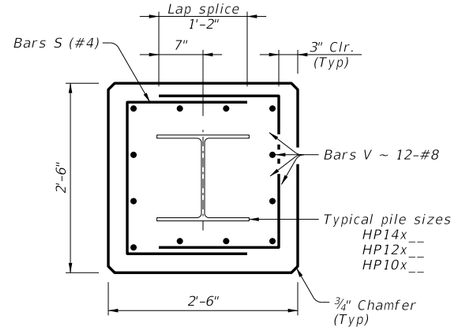
(2) Field adjust encasement length based on actual conditions.

(3) Seal gap with Class 4 or Class 7 joint sealant (DMS-6310).

(4) Apply System I-A overcoat (or alternate coating system, as specified) per Item 446, "Field Cleaning and Painting Steel" to an area covering 3" above and 3" below the top of concrete encasement as shown. Refer to Painting Notes for more information. Payment for this work is subsidiary to Item 420, "Concrete Substructures."

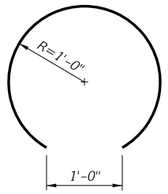


ROUND ENCASEMENT



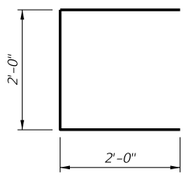
SQUARE ENCASEMENT

SECTION A-A



BAR C (#4)

Arrange Bar C pairs to provide 1'-0" opening on opposite faces:



BAR S (#4)

TABLE OF PILE ENCASEMENT LENGTHS

Bent	Pile	Length of Pile Encasement (ft)	Bent Total (ft)
		Total	

NOTE TO DESIGNER:
This sheet is to be used as a guide for retrofitting existing structures with deteriorated piles. Details with appropriate notes from this guide should be prepared for specific application. The intent of these details is not to increase or provide additional capacity to retrofitted pilings, but rather as a preventative measure to protect existing pilings from further deterioration.
Notes and details related to painting are optional and should be removed if painting is not necessary.
This sheet may not be used without modification. The details shown may need to be amended if the exact existing conditions are not covered. In all cases, details and notes not required must be crossed out or eliminated, and the phrase "Not to be used as a standard" must be removed. Sheet must be signed and sealed.

PILE ENCASEMENT PROCEDURE:

1) Verify channel line elevations and report to the Engineer for possible adjustments.
2) Submit a concrete mix design and procedures for casting the encasements for approval.
3) Clean mud, grease, loose rust, and paint off the section of H-piling to be encased with hand tools and high pressure water.
4) Place and secure the steel reinforcement and install formwork.
5) Place the concrete in the encasement per approved procedures and in accordance with Item 420, "Concrete Substructures."
6) Leave forms in-place for at least 48 hours.

PAINTING NOTES:

1) Clean the area to be painted with hand tools and high pressure water blasting.
2) Apply a minimum of 4.0 mils DFT coating conforming to DMS-8105 as shown.
3) Allow coating to cure a minimum of 24 hours prior to placing concrete.

GENERAL NOTES:

Verify dimensions for steel H-piling encasements and ground elevations. Pile Encasement Length may be adjusted by the Engineer based on actual channel and ground line elevations.

Existing conditions may be under water. Contractor is responsible for dewatering. Payment for dewatering is subsidiary to Item 420, "Concrete Substructures." The Contractor may submit a plan that adequately demonstrates the ability to perform the repairs without dewatering to the Engineer for approval. If approved, dewatering may be waived.

Obtain approval for the mix design and the construction procedures before beginning work.

If underwater placement is approved, concrete mix should be designed for underwater placement and may require the use of anti-washout admixtures.

Provide concrete for the H-piling encasement capable of attaining an average concrete compressive strength of 3,000 psi within 24 hours and consisting of coarse aggregate grades not greater than No. 5 ($\frac{3}{4}$"). Provide a concrete mix with 2 gallons of corrosion inhibitor per CY.

Pile encasement will be paid for per the unit bid price for each linear foot of encasement, per Item 420, "Concrete Substructures." Payment for collars is subsidiary to Item 420, "Concrete Substructures."

Provide Grade 60 reinforcing steel.

P.E. SEAL REQUIRED

PRELIMINARY

SUBJECT TO REVISION

This document is released for informational purposes under the authority of XXX XXX P.E. XXXXX on XX/XX/XX. It is not to be used for regulatory approval, permit, bidding, or construction purposes.

Texas Department of Transportation

Bridge Division

PILE ENCASEMENT DETAILS

(Not to be used as a standard)

NBI: XX-XXX-XXXX-XX-XXX

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