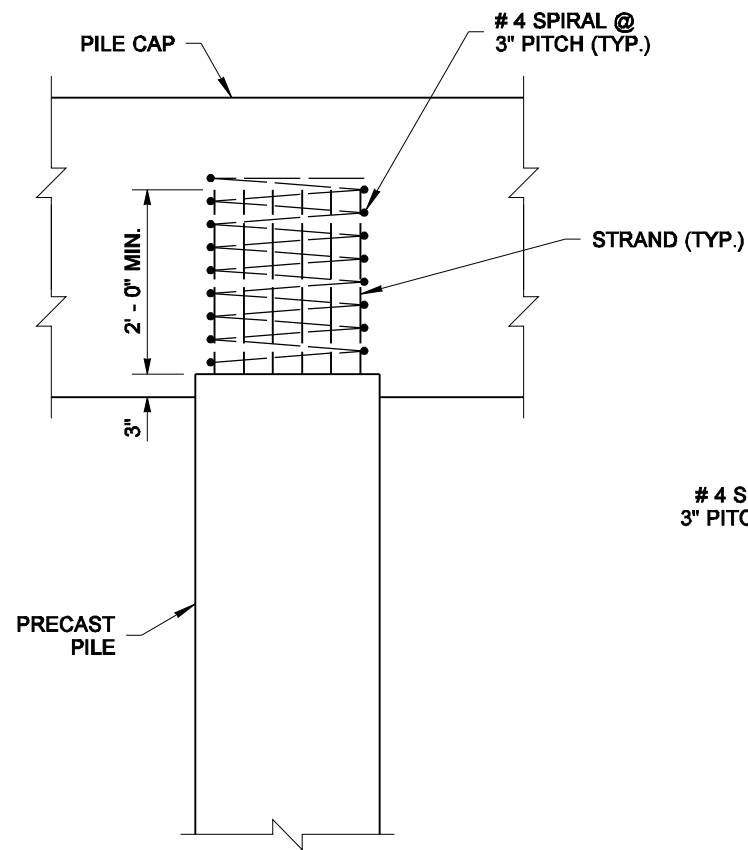
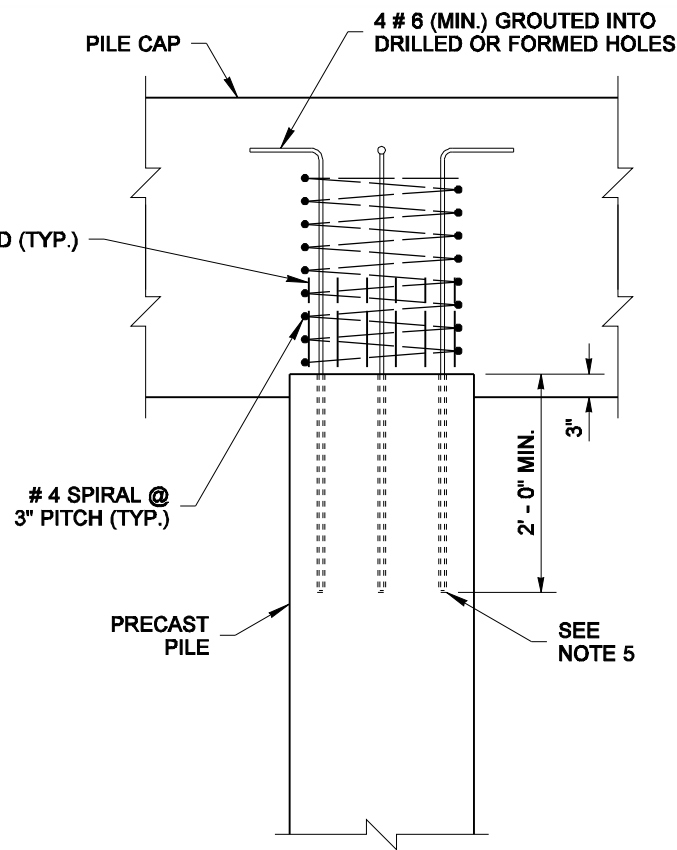


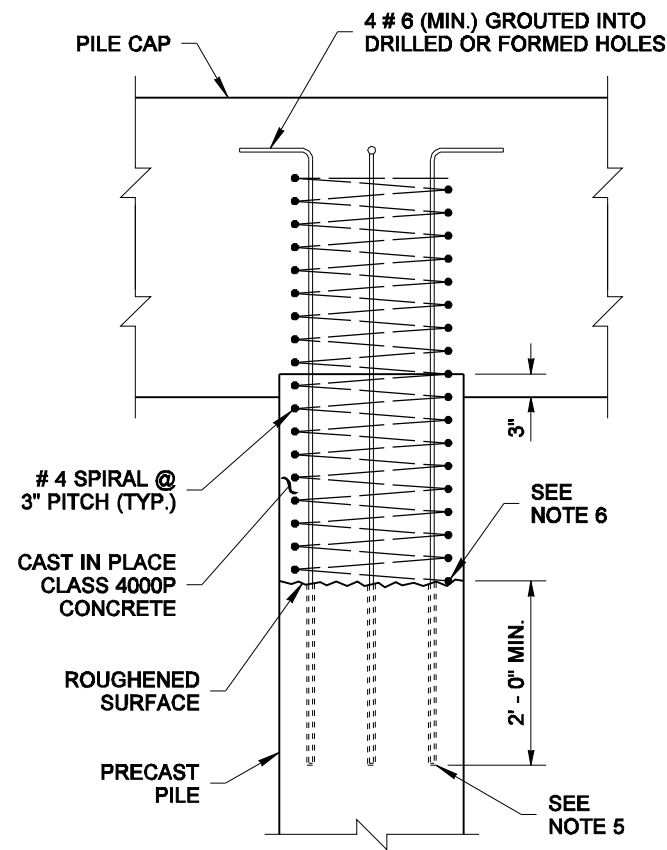
DRAWN BY: MARK SUJKA



**PILE CUTOFF WITH STRANDS
EXTENDING 2' - 0" MINIMUM**

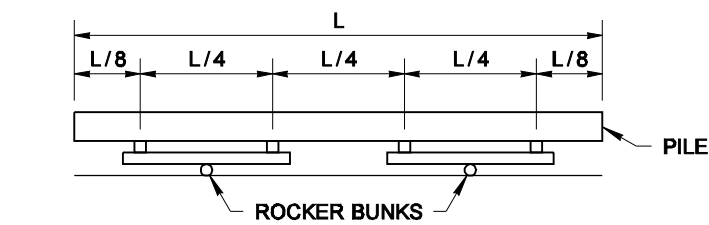


**PILE CUTOFF WITH STRANDS
EXTENDING LESS THAN 2' - 0"**

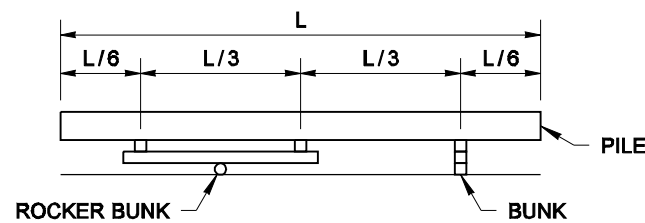


**BUILD-UP ON PILE
DRIVEN BELOW CUTOFF**

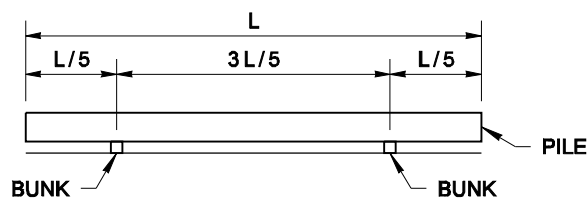
PILE TO PILE-CAP CONNECTIONS



"L" IS MORE THAN 90'

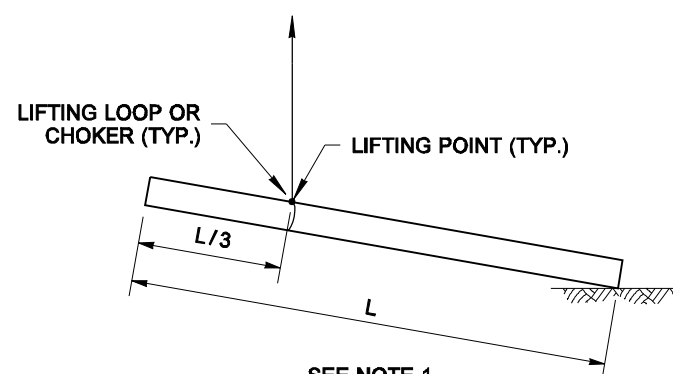


**"L" IS MORE THAN 70'
BUT NOT MORE THAN 90'**

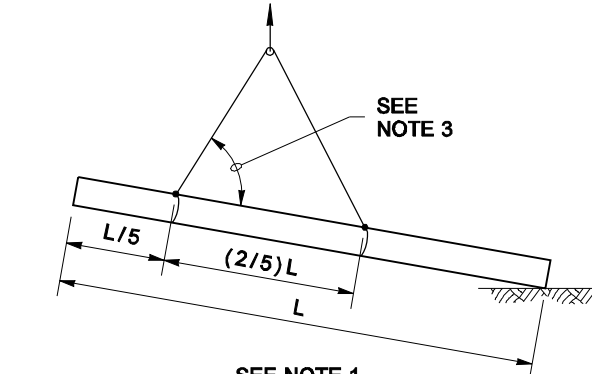


"L" IS 70' OR LESS

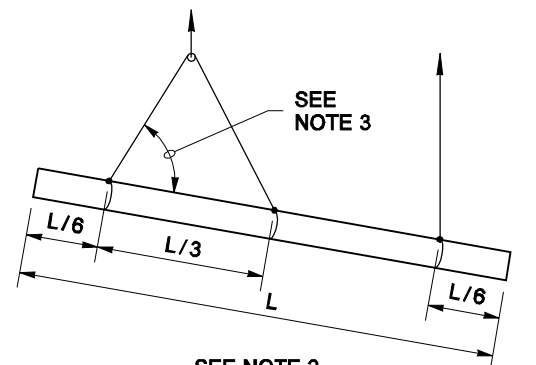
PILE BUNKING AND SHIPPING SUPPORT DIAGRAMS



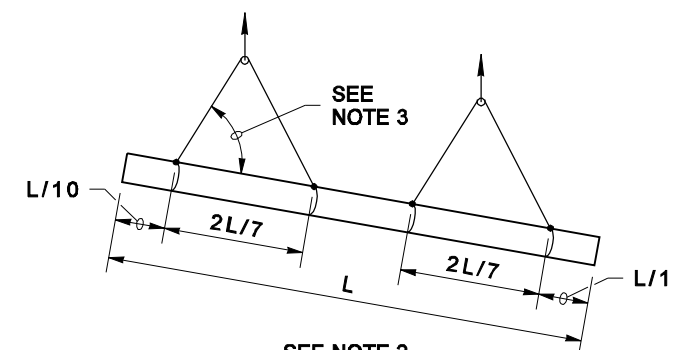
**SEE NOTE 1
WHEN "L" IS 50' OR LESS
CASE 1**



**SEE NOTE 1
WHEN "L" IS MORE THAN 50' BUT NOT MORE THAN 70'
CASE 2**



**SEE NOTE 2
WHEN "L" IS MORE THAN 70' BUT NOT MORE THAN 90'
CASE 3**



**SEE NOTE 2
WHEN "L" IS MORE THAN 90'
CASE 4**

PILE HANDLING DIAGRAMS

PRECAST PILES, HANDLING NOTES

1. For pile lifting Cases 1 and 2, do not allow pile tip to bear on other piling stored in a lower layer.
2. For pile lifting Cases 3 and 4, tilt the pile in the air, do not allow the pile to touch the ground.
3. The minimum angle between the pile and the lifting strap is 60° when the pile is in the horizontal position.
4. When directed to remove a lifting loop, cut it off at the bottom of the recess and patch the recess by filling it with 1:2 mortar, finishing it to the level of the pile face. The patch shall be allowed to cure at least 24 hours prior to driving the pile.
5. The length of the formed or drilled hole shall allow for potential cut-off and full development length of the steel reinforcement. The holes must be roughened and filled with epoxy resin.
6. Expose the spiral reinforcement at the pile head and splice with new spiral in accordance with Standard Plan E-4, Note 2.
7. For handling and bunking, the Prestressed piles shall have at least the minimum number of strands shown on Std Plan E4.
8. Piles stored on the ground should be bunked on level dunnage at no more than 20' on center, with a maximum overhang of 10'.



EXPIRES AUGUST 23, 2004

**PRECAST PRESTRESSED
CONCRETE PILES
HANDLING AND CAPPING
STANDARD PLAN E-4a**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Harold J. Peterfeso 08-27-03

STATE DESIGN ENGINEER

DATE



NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE. THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.