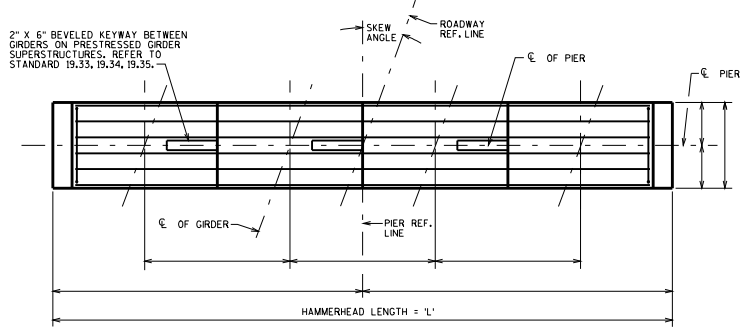
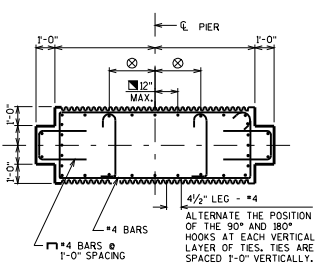


SECTION P1



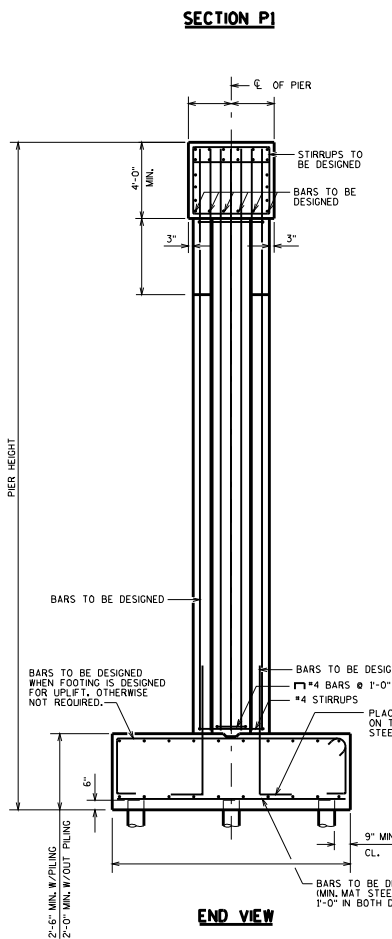
PLAN OF PIER CAP



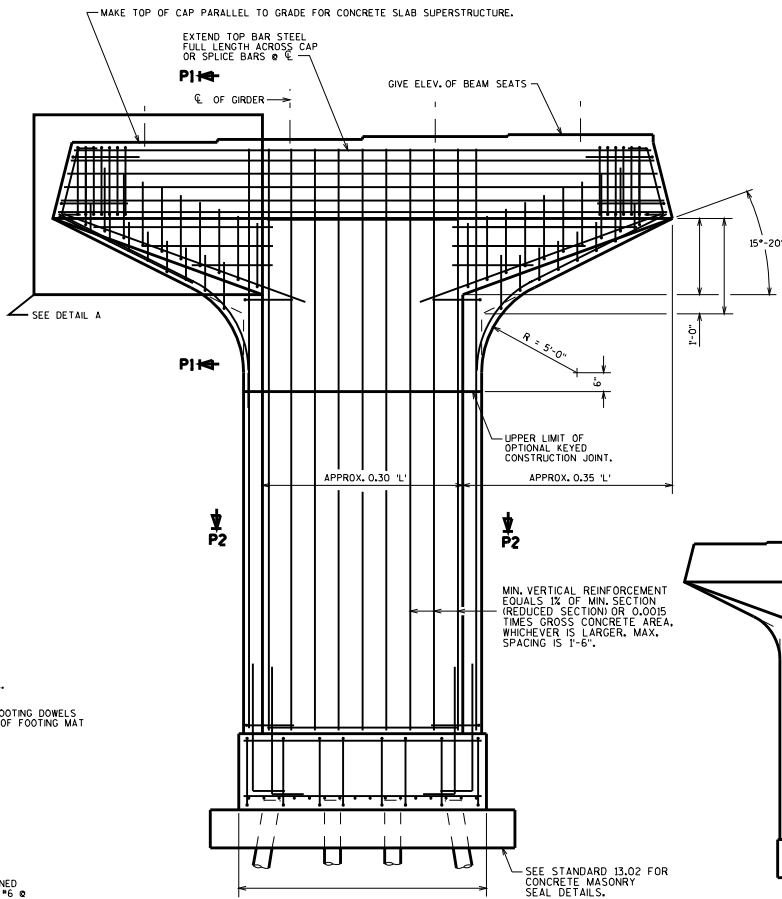
SECTION P2

GENERAL NOTES

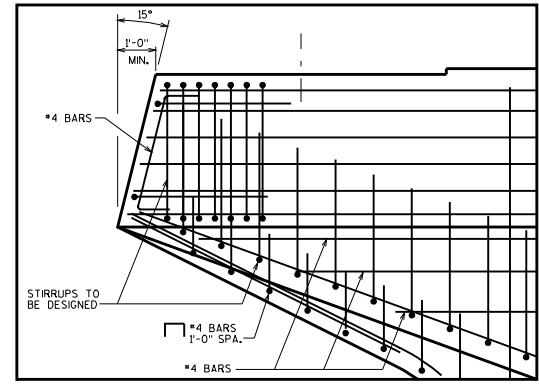
- ALL BAR SPLICES TO BE BASED ON "CLASS C" TENSION LAP SPLICE.
- OPTIONAL KEYED CONSTRUCTION JOINTS IN SHAFT SHALL BE PLACED APPROXIMATELY 2'-0" ABOVE NORMAL WATER ELEVATION. OPTIONAL KEYED CONSTRUCTION JOINT IN SHAFT SHALL BE USED IN ORDER THAT MAXIMUM HEIGHT OF POUR DOES NOT EXCEED 20'-0".
- KEYED CONSTRUCTION JOINTS SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0" LESS THAN LENGTH OF SHAFT. EXPOSED EDGES OF CONSTRUCTION JOINT SHALL BE FLUSH AND NOT BEVELED.
- SEE STANDARD 12.01 FOR ADDITIONAL REINFORCING STEEL IN BEARING AREA FOR BEAM SEATS THAT ARE 4" OR MORE ABOVE LOWEST BEAM SEAT.
- THIS MAXIMUM VERT. BAR SPACING APPLIES ONLY WHEN THE VERTICAL REINFORCEMENT IS 1X OR MORE OF THE GROSS CONCRETE AREA.
- FOR "HAMMERHEAD LENGTH" GREATER THAN 45'-0", CONSIDER A TWO SHAFT PIER FRAME RESEMBLING TWO HAMMERHEAD PIERS PLACED SIDE BY SIDE.
- SEE STANDARD 13.01 FOR MINIMUM OFFSETS FROM BEARINGS TO SIDES OF CAP AND TO ADJACENT BEARING SEAT STEPS.
- EPOXY COAT BAR STEEL DOWN TO TOP OF FOOTINGS IN ALL PIERS UNDER EXPANSION JOINTS AND ON ALL PIERS AT GRADE SEPARATIONS.
- MAXIMUM SPACING BETWEEN UNRESTRAINED VERTICAL BAR AND RESTRAINED (TIED ACROSS MEMBER) VERTICAL BAR IS 24 INCHES



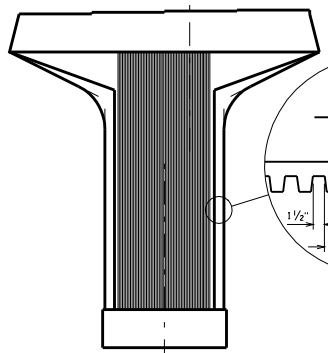
END VIEW



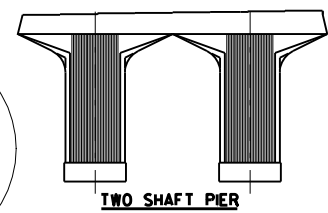
ELEVATION
LOOKING UP STATION



DETAIL A



TEXTURING LIMITATIONS OF PIER WALL
(EACH FACE)



TWO SHAFT PIER

HAMMERHEAD PIER - TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: **Scot Becker** DATE: 7-09