**DESIGNED**

ALTERNATE SECTION P1

NOT TO STANDARDS 18.01 & 18.02

1'-3" MIN. APPROX. 1/3 'L'

1'-3 " R.

GIVE ELEV. OF BEAM SEATS

CONCRETE STANDARD 19.33, 19.34, 19.35. SUPERSTRUCTURES. REFER TO GIRDER ON PRESTRESSED GIRDER 2" X 6" BEVELED KEYWAY BETWEEN MAISONRY.

3'-0" SEAL WITH 2'-6" MIN. OVER 25'-0" SEE NOTES BARS AT CENTER LINE.

LENGTH ACROSS CAP OR SPLICE EXTEND TOP BAR STEEL FULL PILING MIN. WITHOUT 2'-0" MIN. PILING 1'-0" MAX.

LEVEL 3" MAX. APPROX. 1/3 'L'.

HAMMERHEAD LENGTH = 'L' LOOKING UP STATION.

LEVEL TOP OF SHAFT TO FACILITATE OVERHEAD SHEETING CLEARANCE IF THE TOP OF PILES FROM DRIVING INTO SHEET PILING. ALSO INCREASE DIMENSION INCREASE THIS DIMENSION IF NECESSARY TO PREVENT BATTERED UNDER EXPANSION JOINTS AND ON ALL PIERS AT GRADE SEPARATIONS.

EPOXY COAT BAR STEEL DOWN TO TOP OF FOOTINGS IN ALL PIERS OF CAP AND TO ADJACENT BEARING SEAT STEPS.

SEE STANDARD 12.01 FOR ADDITIONAL REINFORCING STEEL IN BEARING SEAT AREAS SHALL BE LEVEL EXCEPT FOR THE BEAMS AND 1'-6" MIN. TYP. FOR PILE AND SPREAD FOOTINGS)

IN BOTH DIRECTIONS, (MIN. MAT STEEL = #6 AT 1'-0" BARS TO BE DESIGN.

BAR SPLICES AT OPTIONAL KEYED CONSTRUCTION JOINTS PROVIDE SO THAT THE MAXIMUM HEIGHT OF POUR NEED NOT BE PLACED APPROXIMATELY 2'-0" ABOVE NORMAL WATER ELEVATION.

OPTIONAL KEYED CONSTRUCTION JOINTS IN SHAFTS IF PROVIDED, SHALL BE PLACED APPROXIMATELY 2'-0" ABOVE NORMAL WATER ELEVATION. KEYED CONSTRUCTION JOINTS IN SHAFTS MAY BE ELIMINATED WHETHER OR NOT THE JOINT IS UTILIZED. PAYMENT WILL BE FOR THE ACTUAL BARS INSTALLED.

PLAN NOTES

THE BAR SPLICES AT THE OPTIONAL KEYED CONSTRUCTION JOINTS MAY BE ELIMINATED WHETHER OR NOT THE JOINT IS UTILIZED. PAYMENT WILL BE FOR THE ACTUAL BARS INSTALLED.

NORMAL WATER

PLACE FOOTING CONCRETE ON TOP IN FOOTING WALL SHELL, FOOTING CONCRETE TO BE FULLY DEVELOPED.

2" X 6" BEVELED KEYWAY BETWEEN MAISONRY OR PRECASTED CONCRETE SUPERSTRUCTURES. REFER TO STANDARD 13.01, PLAN NOTES.

ELEVATION

LEVEL TO BE DESIGNED HAMMERHEAD STEEL AS AT 1'-0" IN BOTH DIRECTIONS. 1'-0" FOR TREES AND SPREAD FOOTINGS.

SECTION P1

ALTERNATE SECTION P1

PLAN

END VIEW

KEYED CONST. JT.

CASE JT. DETAIL

3'-0" APPROX. 1'-0" APPROX. 1'-0" APPROX. 1'-0"

2'-6" APPROX. 2'-0" APPROX. 1'-0"

HANGER: LENGTH X 1/4" TYP.

#4 BARS

ALTERNATE THE POSITION OF THE 90° AND 180° 4" LEG - #4 BARS TO BE DESIGNED.

ENGINEERS DISCRETION.

BEAM SEATS MAY BE HAMMERED TO MATCH SKEW AT THE DESIGNER'S DISCRETION.

SHOWN IN "CONST. JT. DETAIL" MAY BE OMITTED AT THE OPTION OF THE DESIGNER.

BAR PROJECTION WOULD BE GREATER THAN 20'-0". RUSTICATIONS EXCEED 25'-0". DETAIL BAR SPLICES AT OPTIONAL JOINTS IF THE KEYED CONSTRUCTION JOINTS SHALL BE FORMED BY BEVELED KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0".

REINFORCEMENT IS 1% OR MORE OF THE GROSS CONCRETE AREA. THIS MAXIMUM VERT. BAR SPACING APPLIES ONLY WHEN THE VERTICAL

AREA FOR BEAM SEATS OF NON-SLOPED CAPS THAT ARE 4 INCHES OR MORE ABOVE THE LOWEST BEAM SEAT.

FOR GIRDERS WITH 1/2" ELASTOMERIC BEARING PADS 1. FOR CONCRETE SLAB SUPERSTRUCTURES MAKE THE TOP OF CAP PARALLEL TO GRADE. SEE STANDARD 18.01.

2. FOR CONCRETE SLAB SUPERSTRUCTURES SEE STANDARD 13.01.

WHEN THE BOTTOM OF THE GIRDERS SLOPE MORE THAN 1%. SEE STANDARD 12.01 FOR ADDITIONAL REINFORCING STEEL IN BEARING SEAT AREAS SHALL BE LEVEL EXCEPT FOR THE

STIFFENING PADS THAT ARE 9 INCHES OR LESS THAN LENGTH OF SHAFT.

A NON-STANDARD SHAFT CROSS-SECTION SIMPLE OR COMPLEX NOT REQUIRED FOR STRUCTURAL REASONS, MAY BE DESIGNED WITH THE APPROVAL OF THE STRUCTURES DESIGN ENGINEER.

BEARING SEAT AREAS SHALL BE LEVEL EXCEPT FOR THE TWO CASES LISTED BELOW:

1. FOR GIRDERS WITH ELASTOMERIC BEARING PADS (WHEN THE BOTTOM OF THE GIRDERS SLOPE MORE THAN 1%).

SEE STANDARD 13.01  FOR MINIMUM OFFSETS FROM BEARINGS TO SIDES OF GIRDERS.

THE APPROVAL OF THE STRUCTURES DESIGN SECTION.

FOR STRUCTURAL REASONS, MAY BE USED ONLY WITH A NON-STANDARD SHAFT CROSS-SECTION, SHAPE, OR TAPER, NOT FOR STRUCTURAL REASONS.

SHAFT MAY BE TAPERED IN ONE OR TWO DIRECTIONS WHEN REQUIRED LESS THAN LENGTH OF SHAFT.

A STANDARD SWEEP TAPER OF ICE MAY BE USED AT THE TOP OF THE SHAFTS, ELASTOMERIC DETAIL ONLY.

SHAKES MAY BE DESIGNED IN ONE OR TWO DIRECTIONS WHEN REQUIRED FOR STRUCTURAL REASONS.

A NON-STANDARD SWEEP TAPER DETAIL SHOWN HERE MAY NOT BE REQUIRED FOR STRUCTURAL REASONS, MAY BE DESIGNED WITH THE APPROVAL OF THE STRUCTURES DESIGN ENGINEER.

BARS TO BE DESIGNED HAMMERHEAD STEEL AS AT 1'-0" IN BOTH DIRECTIONS. 1'-0" FOR TREES AND SPREAD FOOTINGS.

Z-BOOM AND W-BOOM KEYWAY 4" DEEP X 1/3 THICKNESS OF SHAFT X 4'-0".

NORMAL WATER

PLACE FOOTING CONCRETE ON TOP IN FOOTING WALL SHELL, FOOTING CONCRETE TO BE FULLY DEVELOPED.

2'-0" HAMMERHEAD PIER