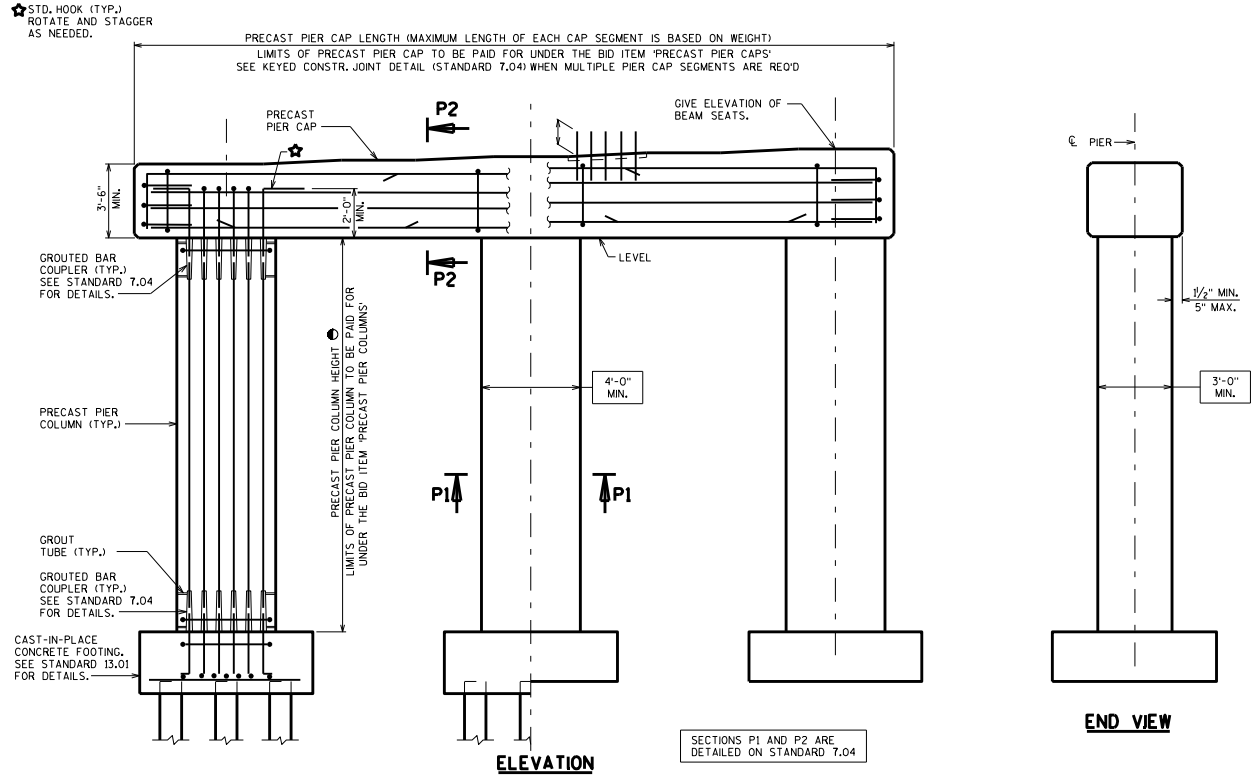
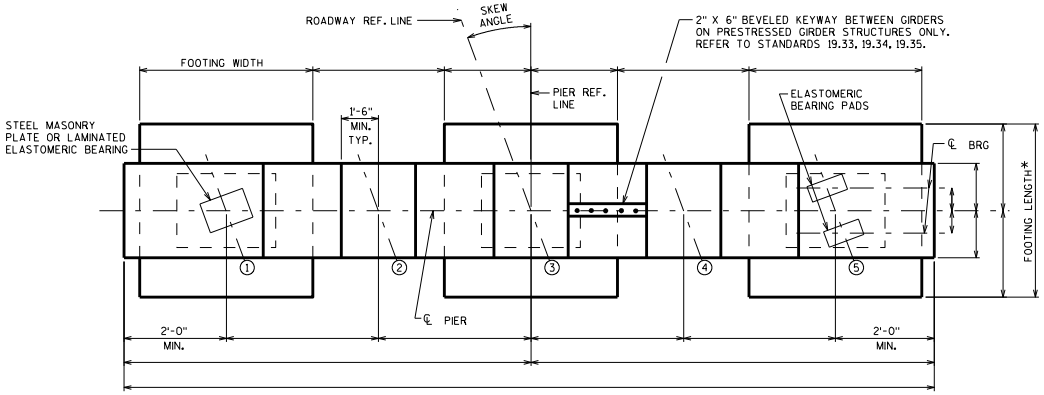


ELEVATION

LOOKING UP STATION

END VIEW



PLAN

*MAKE ALL FOOTING LENGTHS THE SAME WITHIN A GIVEN PIER

NOTES

PROVIDE A SUITABLE LIFTING DEVICE FOR THE PRECAST CAP AND COLUMN UNIT(S).

CAST-IN-PLACE ALTERNATIVE IS NOT ALLOWED.

STIRRUPS AT THE GROUTED COUPLERS ARE SIZED BASED ON A XX" OUTER DIAMETER COUPLER SLEEVE. ADJUST STIRRUP DIMENSIONS AS REQUIRED IF THE ACTUAL COUPLER SLEEVE DIAMETER DIFFERS.

◓ MANUFACTURER TO DETERMINE THE PRECAST PIER COLUMN LENGTHS ASSUMING ½" STEEL SHIMS AT THE TOP AND BOTTOM OF THE COLUMN.

BID ITEM "PRECAST PIER COLUMNS" PAID PER PLAN VALUE AS BOTTOM OF PIER CAP ELEVATION MINUS TOP OF FOOTING ELEVATION.

DESIGNER NOTES

PIERS SHALL BE SUPPORTED BY A MINIMUM OF 3 COLUMNS. WHEN MULTIPLE PIER CAPS ARE USED EACH SEGMENT SHALL BE SUPPORT BY A MINIMUM OF 2 COLUMNS.

THE FOLLOWING SPECIAL PROVISIONS SHALL BE USED:
- GROUTED BAR COUPLERS (SPV.0060.XXX)
- PRECAST PIER COLUMNS (SPV.0090.XXX)
- PRECAST PIER CAPS (SPV.0090.XXX)

THE MAXIMUM WEIGHT OF EACH PRECAST ELEMENT SHALL BE 90 KIP.

GROUTED COUPLER SLEEVES MAY BE OVERSIZED TO ALLOW FOR ADDITIONAL LATERAL TOLERANCE IN THE FIELD. STANDARD WISDOT PRACTICE IS TO OVERSIZE COUPLER SLEEVES BY 1 BAR SIZE. ADJUST SHEAR STIRRUPS AS NECESSARY TO ACCOUNT FOR LARGER DIAMETER COUPLER SLEEVES.

VERIFY SEVERAL MANUFACTURER'S COUPLER SLEEVE DIMENSIONS PRIOR TO DESIGN. ASSUME THE MAXIMUM DIAMETER OF COUPLER SLEEVE FOR COLUMN REINFORCEMENT DESIGN.

SEE STANDARDS 13.01 AND 13.07 FOR ADDITIONAL PIER NOTES AND DETAILS.

DETAILS AS SHOWN ON THIS STANDARD ARE INTENDED FOR REQUIRED PRECAST PIERS DESIGNED TO MEET PROJECT SPECIFIC REQUIREMENTS (REQUIREMENT FOR THE I-39/90 PROJECT). STATEWIDE WISDOT PREFERS ALLOWING PRECAST PIERS AS ALTERNATIVES TO CAST-IN-PLACE PIERS. SEE 7.1.4.1.2 IN THE BRIDGE MANUAL AND STANDARDS 7.05 AND 7.06 FOR ADDITIONAL GUIDANCE.

MATERIAL PROPERTIES:

CONCRETE MASONRY	f'c = 3,500 P.S.I.
BAR REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.

PRECAST PIER CAP AND COLUMNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: Bill Oliva

DATE: 1-15

STANDARD 7.03