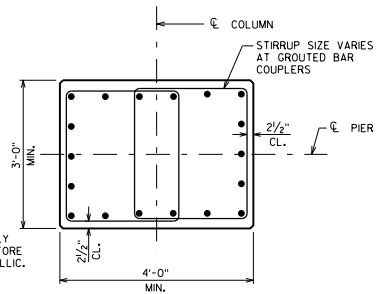


GROUDED BAR COUPLER DETAILS

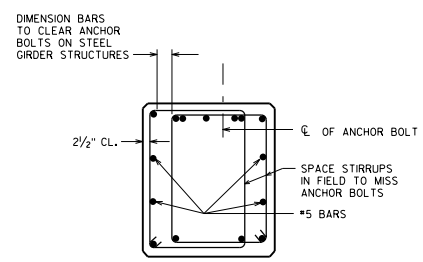
(PIER COLUMN/FOOTING CONNECTION SHOWN. PIER CAP/COLUMN CONNECTION SIMILAR)

1/2" ± NON-SHRINK GROUT AND STEEL SHIMS. BEDDING GROUT TO HAVE THICKNESS SLIGHTLY LARGER THAN SHIMS IF PLACED IN SEAT BEFORE COLUMN. BEDDING GROUT SHALL BE NONMETALLIC.



SECTION P1

(PRECAST PIER COLUMN REINF. TO BE DESIGNED BY DESIGN ENGINEER)



SECTION P2

(PRECAST PIER CAP REINF. TO BE DESIGNED BY DESIGN ENGINEER)

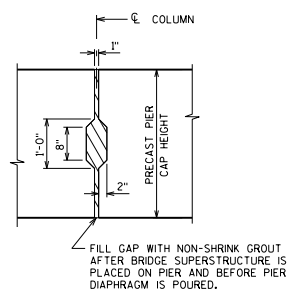
SECTIONS P1 AND P2 ARE CUT ON STANDARD 7.03

BILL OF BARS

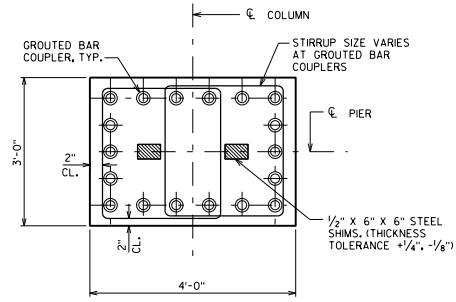
TOTAL COATED: XX LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION

NOTE: THIS BILL OF BARS IS SHOWN FOR INFORMATION ONLY. PAYMENT FOR REINFORCEMENT IN PRECAST COLUMNS AND PRECAST CAP IS INCLUDED IN THE BID ITEMS 'PRECAST PIER COLUMNS' AND 'PRECAST PIER CAPS'.



KEYED CONSTR. JOINT ELEVATION DETAIL
(FOR PRECAST PIER CAPS WITH MULTIPLE SEGMENTS)



GROUDED COUPLER PLAN AT TOP AND BOTTOM OF COLUMN

GROUDED SPLICE COUPLER CONNECTION SEQUENCE

FOLLOW THE WRITTEN INSTALLATION PROCEDURES OF THE COUPLER MANUFACTURER. THE FOLLOWING ARE GENERAL PROCEDURES THAT APPLY TO MOST COUPLER MANUFACTURERS:

- IT IS RECOMMENDED THAT THE ELEMENT WITH THE REINFORCEMENT BARS EXTENDING OUT BE FABRICATED WITH EXTRA BAR LENGTHS.
- SURVEY LOCATION AND ELEVATION OF LOWER ELEMENT.
- DETERMINE THE REQUIRED REINFORCING BAR EXTENSION LENGTHS AND THE REQUIRED SHIM HEIGHTS BASED ON THE SURVEY.
- CUT THE BAR EXTENSIONS TO THE REQUIRED LENGTH BASED ON THE SURVEY AND THE COUPLER MANUFACTURER'S RECOMMENDATIONS. FOR COATED BARS, THE ENDS OF THE BARS SHALL BE RE-COATED.
- PLACE BEDDING GROUT ON TOP OF LOWER ELEMENT. THE USE OF EXTRA GROUT THAT IS ALLOWED TO FLOW OUT DURING ELEMENT PLACEMENT IS RECOMMENDED. IN LIEU OF PRE-PLACEMENT OF BEDDING GROUT, THE BEDDING GROUT CAN BE FLOWED INTO PLACE AFTER ELEMENT ERECTION BUT PRIOR TO GROUING OF COUPLERS.
- ERECT UPPER ELEMENT TO WITHIN THE SPECIFIED ERECTION TOLERANCES INDICATED IN THE SPECIAL PROVISIONS. PREVENT BEDDING GROUT FROM FLOWING INTO COUPLER.
- MAINTAIN INTEGRITY OF GROUT BED DURING SETTING OPERATION. REPAIR GROUT THAT IS DISPLACED OR GAPS THAT DEVELOP IN THE GROUT JOINT USING HAND TOOLS.
- BRACE THE UPPER ELEMENT.
- INSTALL GROUT IN COUPLERS FOLLOWING THE MANUFACTURER'S WRITTEN PROCEDURES. IF THE COUPLER IS BELOW THE JOINT, COUPLER GROUT CAN BE INSTALLED PRIOR TO APPLICATION OF BEDDING GROUT.
- ERECTION OF SUBSEQUENT ELEMENTS ABOVE A CONNECTION SHALL NOT COMMENCE UNTIL THE CONNECTION HAS ACHIEVED ADEQUATE STRENGTH AS DETERMINED THROUGH STRENGTH TESTING OF THE GROUT. THE TIMING OF SUBSEQUENT CONSTRUCTION STEPS SHOULD BE SPECIFIED IN BRIDGE ASSEMBLY PLAN.

GROUDED COUPLER NOTES

- USE MATCHING TEMPLATES FOR THE LOCATION OF REINFORCEMENT AND GROUDED COUPLER PLACEMENT WITHIN THE ELEMENTS TO CONTROL CRITICAL DIMENSIONS AND ORIENTATION IN ALL DIRECTIONS.
- CONSULT MANUFACTURER OF THE GROUDED COUPLER FOR PROPER DIMENSIONS "B" AND "D" AND FOR TOLERANCE OF THESE DIMENSIONS. FIELD CUT FOOTING AND CAP DOWELS AS REQUIRED.
- BEFORE EXECUTING GROUDED COUPLER ASSEMBLIES, ALWAYS SEEK INSTALLATION RECOMMENDATIONS FROM THE MANUFACTURER OF THE GROUDED COUPLER USED.
- CONTRACTOR TO PROVIDE ADEQUATE BRACING OF COLUMNS UNTIL GROUDED COUPLER CONNECTIONS HAVE ACHIEVED ADEQUATE STRENGTH.
- ALL GROUDED COUPLERS SHALL BE EPOXY COATED.
- ADJUST SHIM STACK HEIGHT TO CONTROL ERECTION ELEVATIONS.
- SUPPLY REINFORCING BARS ACCORDING TO GROUDED COUPLER REQUIREMENTS FOR EMBEDMENT. BARS MAY BE FIELD CUT IF NEEDED.
- PRECASTER SHALL PROVIDE PORTS IN THE PRECAST ELEMENTS TO ALLOW THE COUPLERS TO BE GROUDED AFTER THE PRECAST ELEMENTS HAVE BEEN ERECTED.

PRECAST PIER CAP AND COLUMN DETAILS

BUREAU OF STRUCTURES

APPROVED: *Laura Shadewald* DATE: 1-14