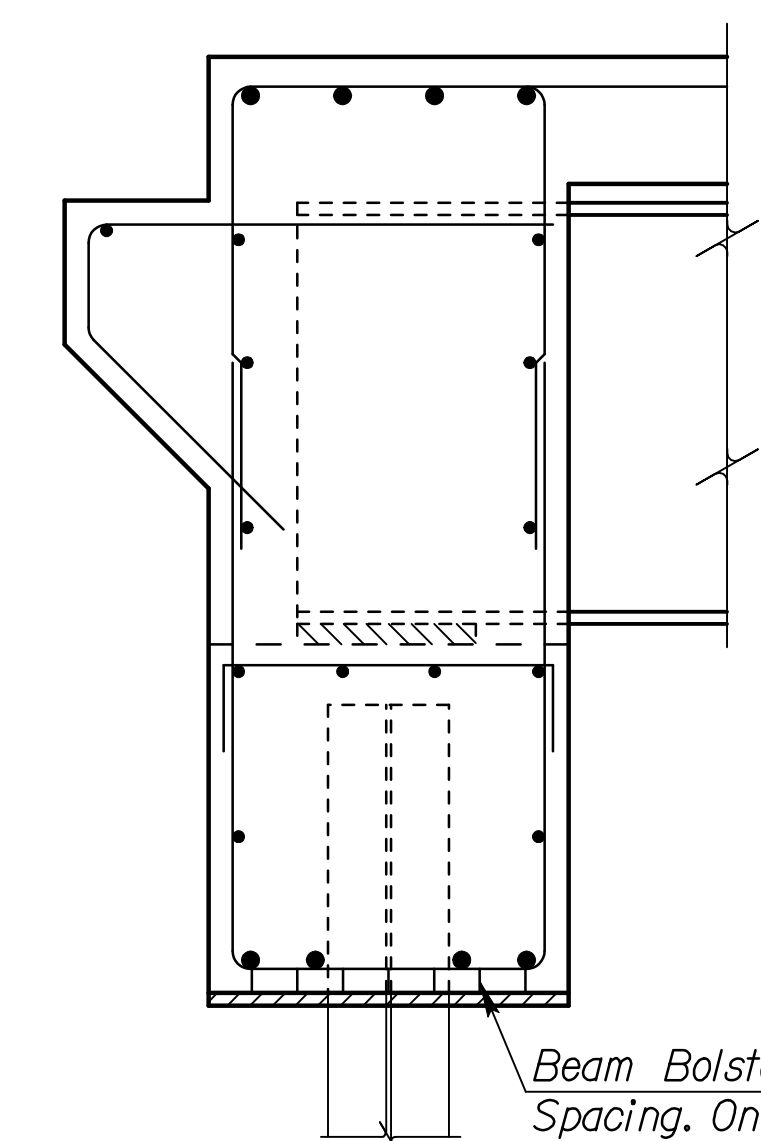
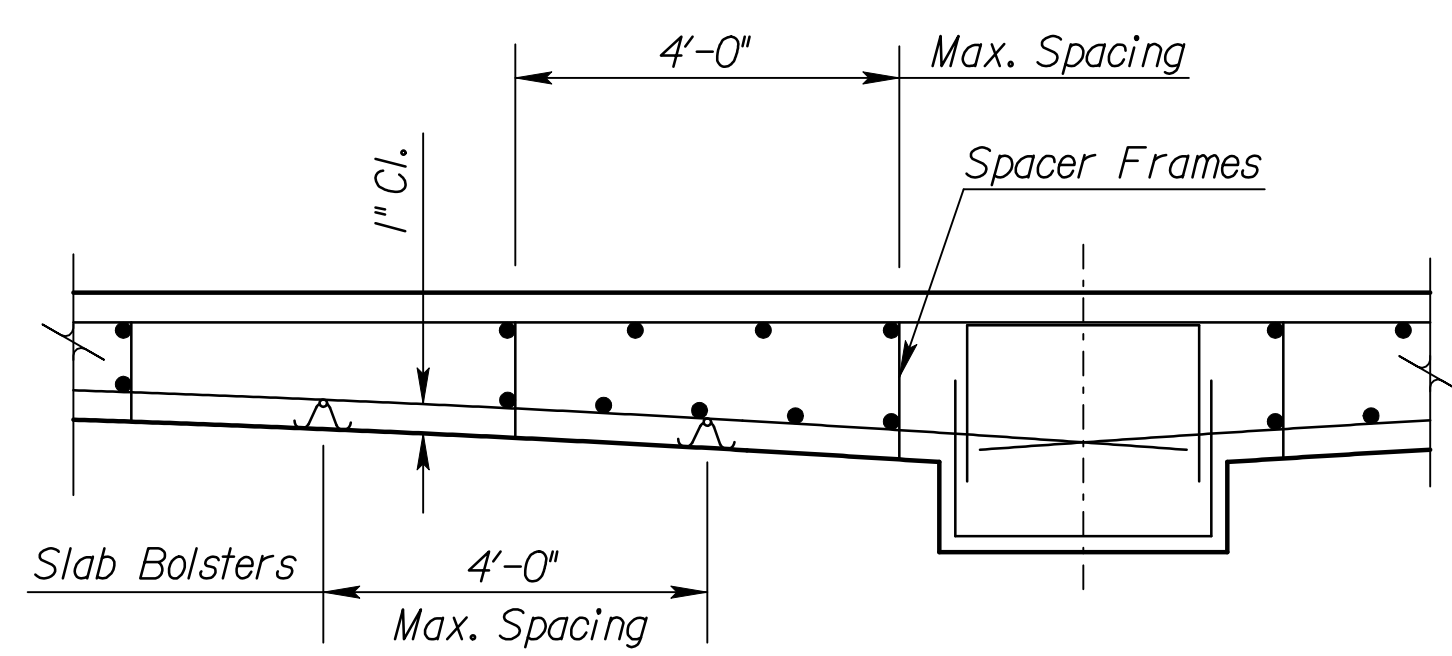
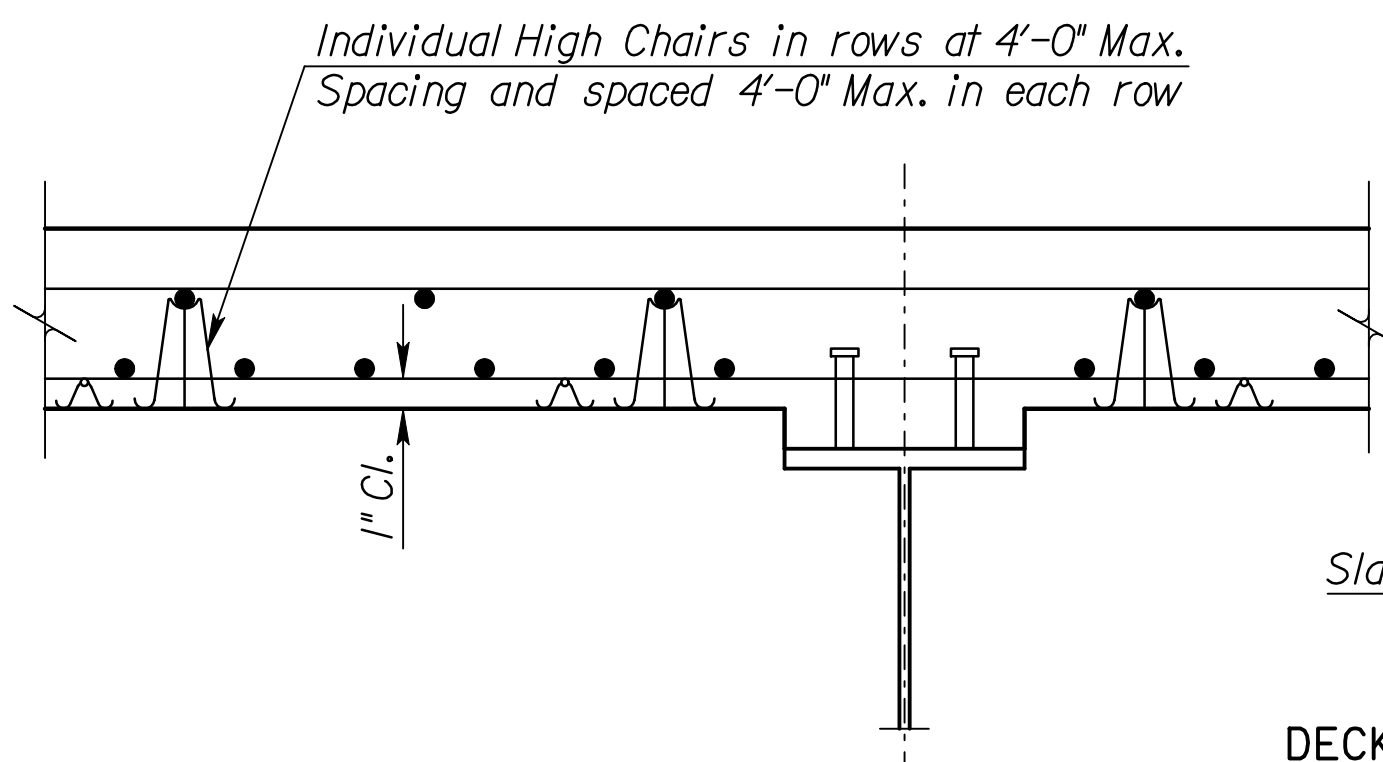


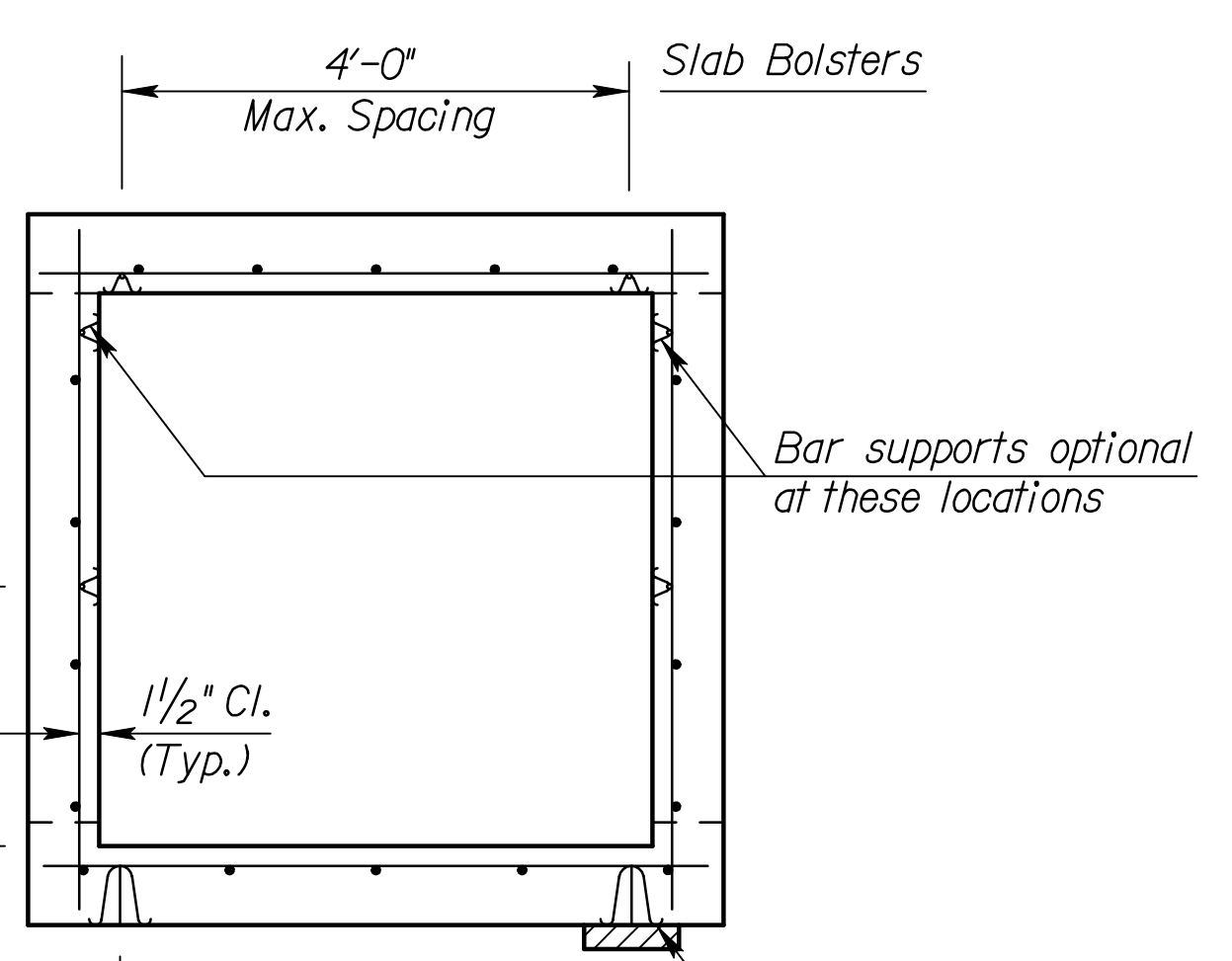
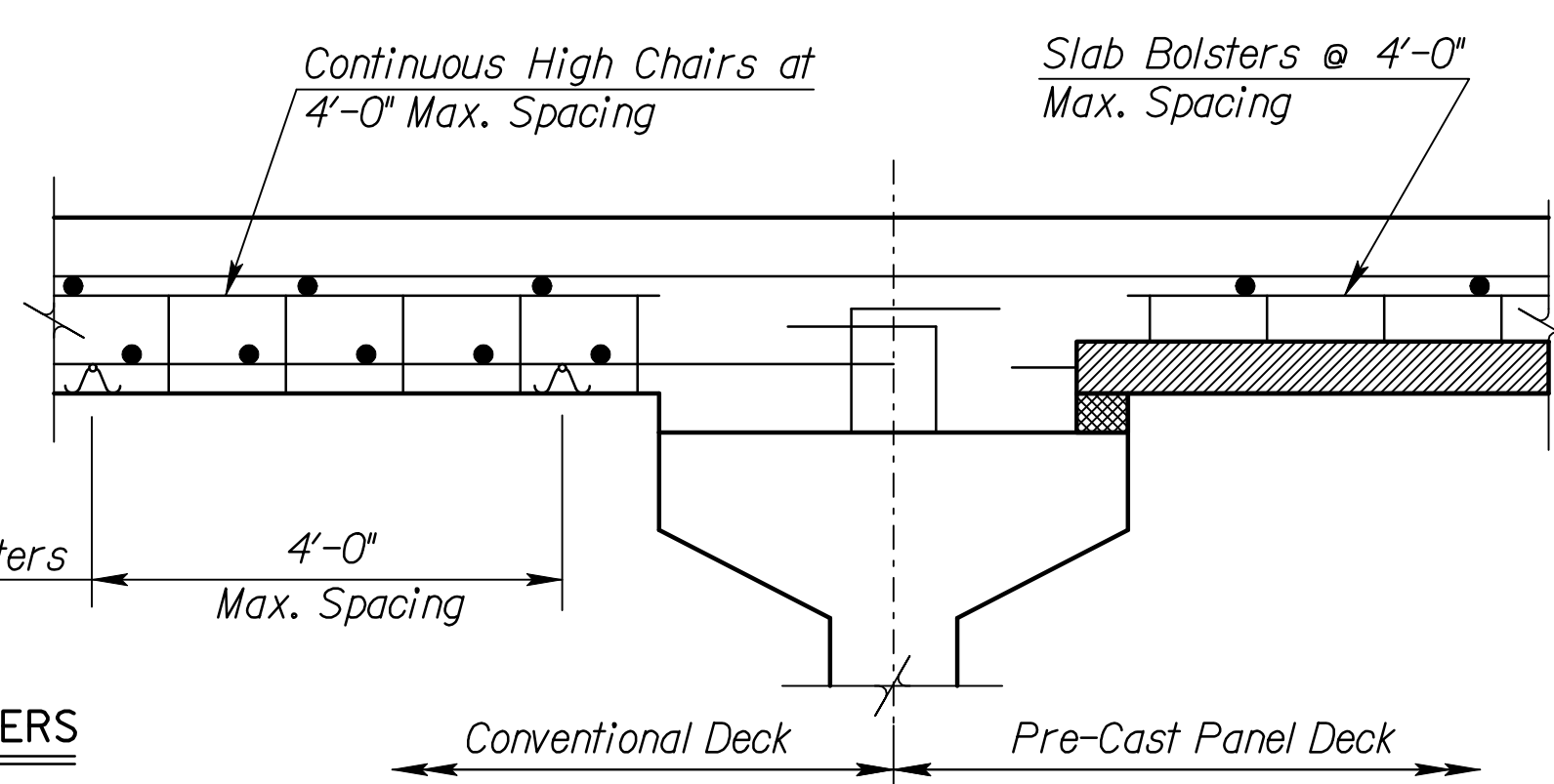
**CONTINUOUS HAUNCHED SLAB**



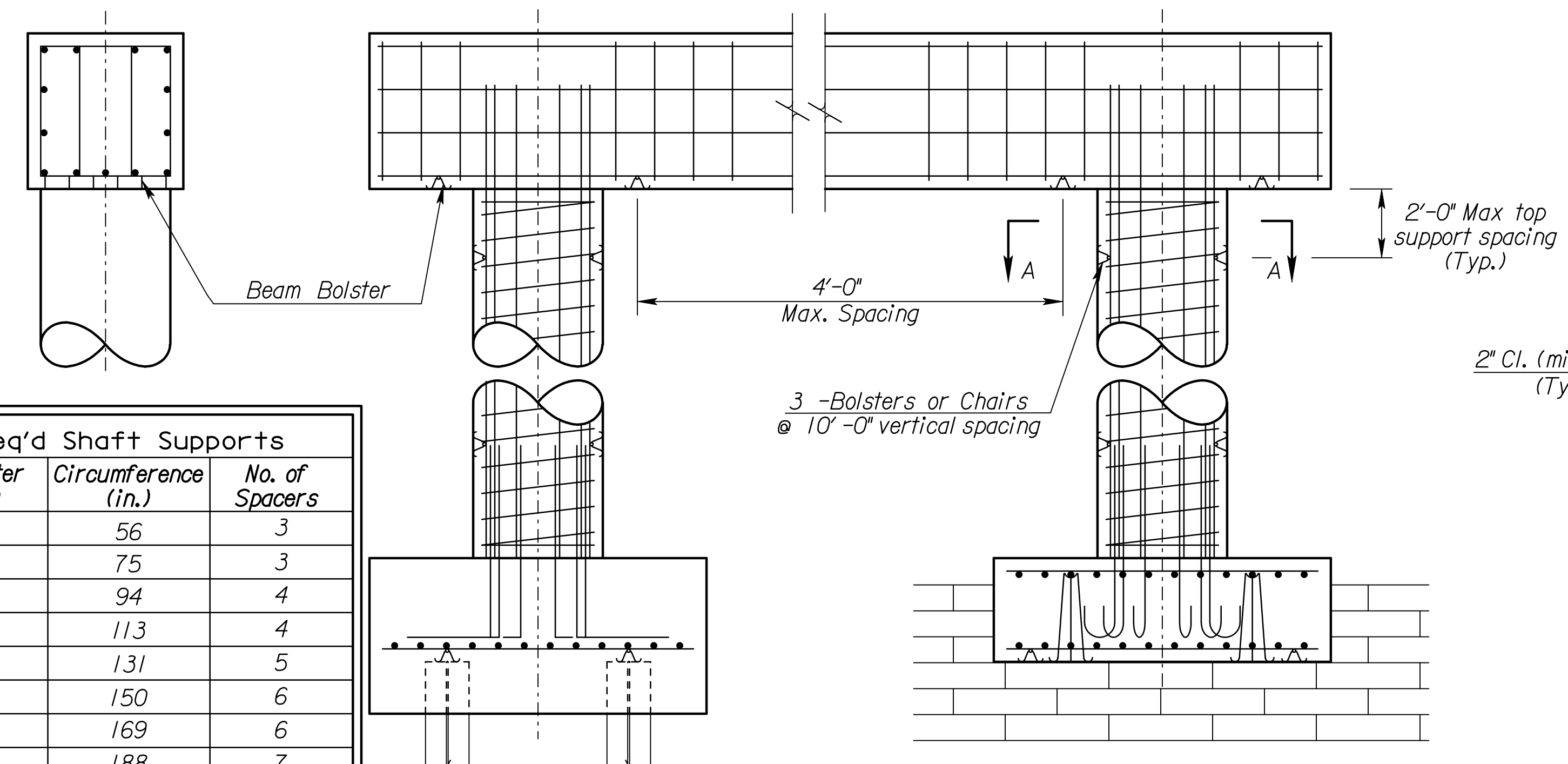
**ABUTMENT**



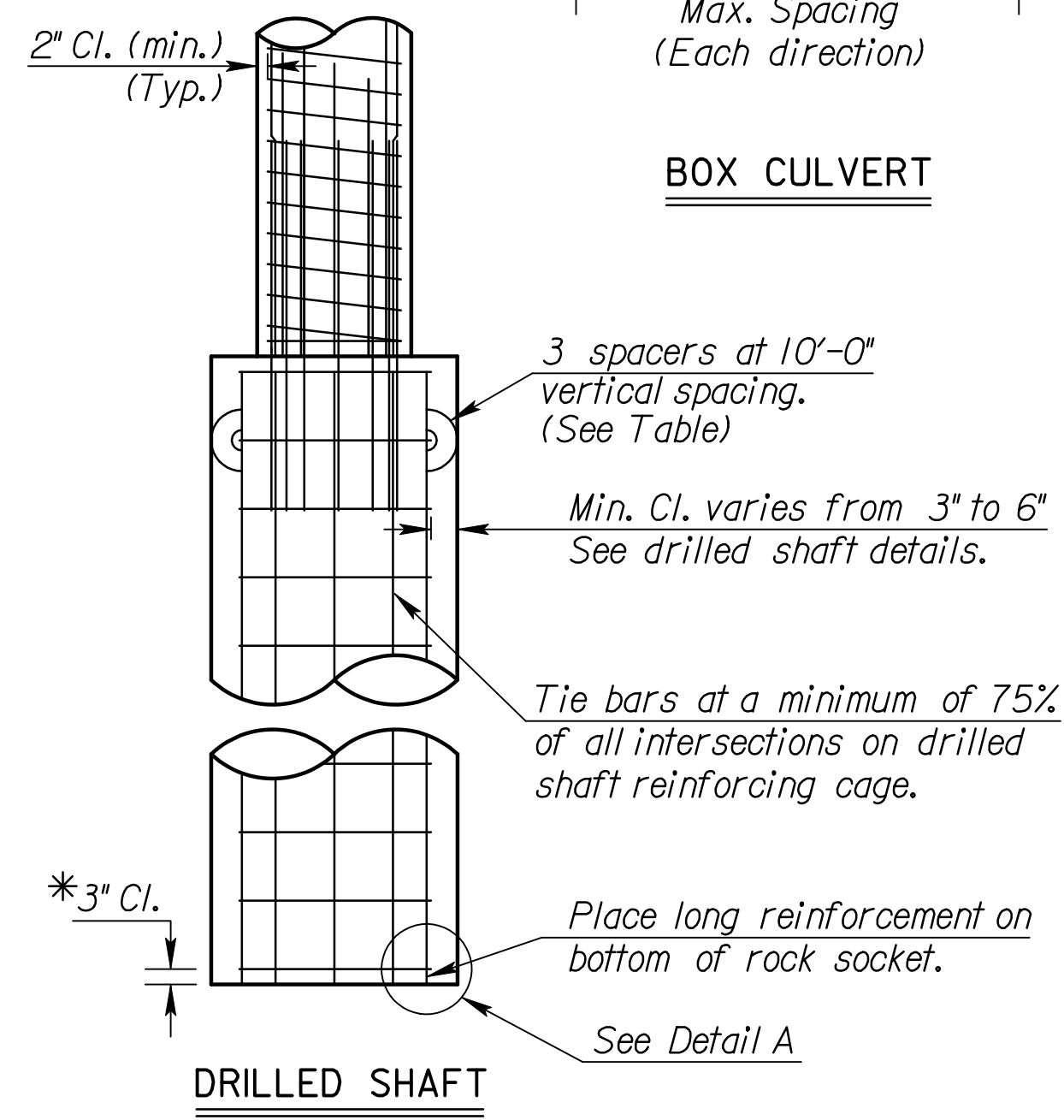
**DECK GIRDERS**



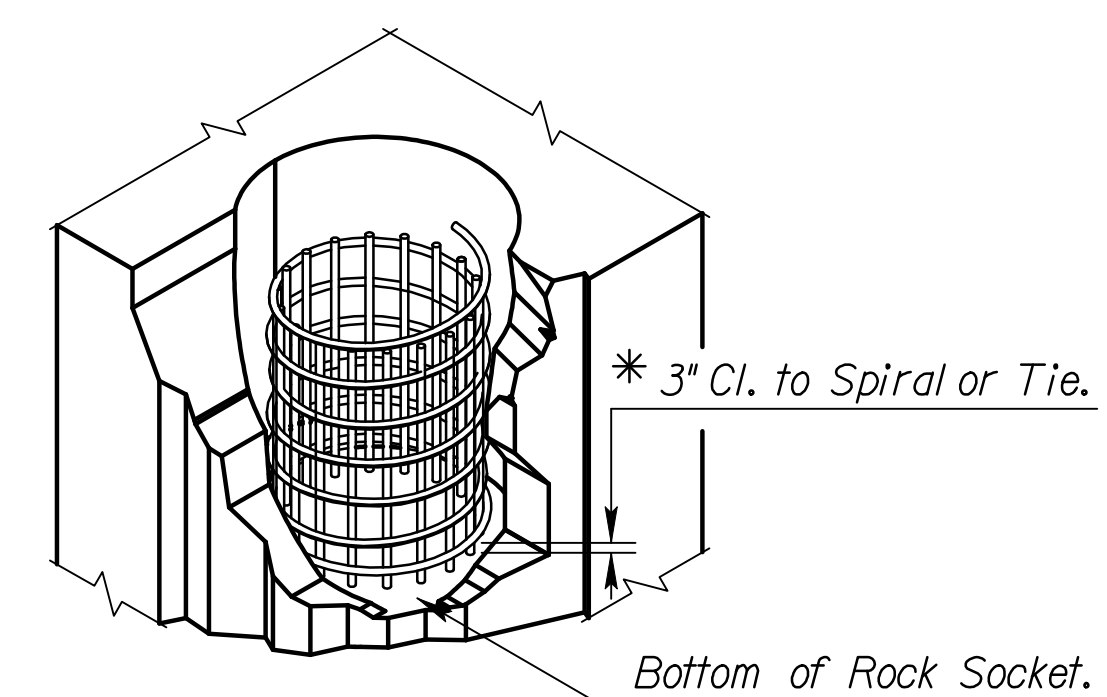
**BOX CULVERT**



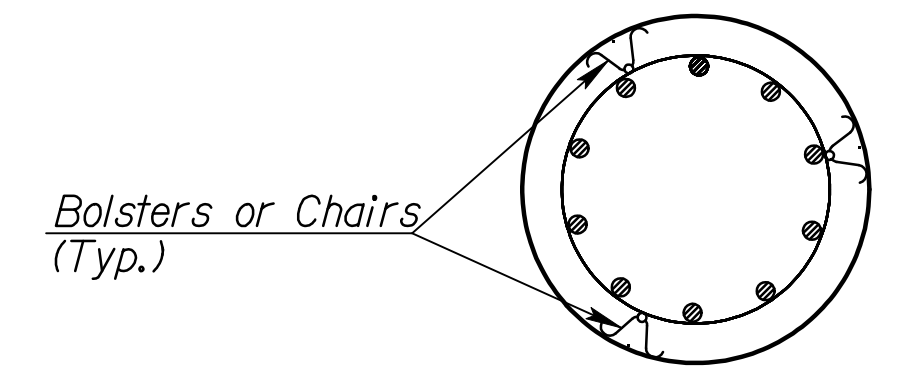
**PIER**



**DRILLED SHAFT**



**DETAIL A**



**SECTION A-A**

**TYPICAL SECTION**

Reference is made to the latest edition of the CRSI "Manual of Standard Practice" for recommended industry practices concerning reinforcing steel.

Use only the following types of bar supports:

- Wire Bar Supports:
  - Epoxy coated reinforcing: Class 1 Protection
  - Non-epoxy coated reinforcing: Class 1, 2, or 3 Protection
- Plastic Bar Supports
- Supplementary bars

When securing epoxy coated reinforcement, use tie wires or metal clips that are epoxy or plastic coated.

Do not weld reinforcing steel to bar supports or to other reinforcing steel. Shop weld spacer frames for haunched slabs.

Tie bars at all intersections around the perimeter of each mat and at not less than 2'-0" centers or at every intersection, whichever is greater.

Where more than one length of bar support is required, lap the end legs so they are locked or tied together.

Use proper height supports to maintain the distance between the reinforcing and the formed surface or the top surface of deck slabs within 1/4" of that indicated on the plans.

Spacings shown are maximums. Use sufficient supports, as determined by the Engineer, to retain the reinforcing steel in position.

Construct any platforms, required for the support of workers and/or equipment during concrete placement, directly on the forms and not on the reinforcing steel.

Designs and arrangements of Supports or Spacers other than as shown on this sheet, may be used with the permission of the Engineer.

Req'd Shaft Supports		
Diameter (in.)	Circumference (in.)	No. of Spacers
18	56	3
24	75	3
30	94	4
36	113	4
42	131	5
48	150	6
54	169	6
60	188	7
66	207	7
72	226	8
78	244	9
84	263	9
90	282	10
96	301	11
102	320	11
108	339	12

Std. Base File: br120.dgn  
 Plotted By: \$\$\$USERNAME\$\$\$  
 File: \$\$\$DGNFILE\$\$\$  
 Plot Date: \$\$\$STTIME\$\$\$

5	11-10-10	Column Bar Supports Req'd	JPJ	TLF
4	12-01-05	Drilled Shaft Spiral Steel Placement	JPJ	KFH
3	8-21-00	Added Pre-Cast Panel Detail	RAM	KFH
2	12-20-99	Added Haunched Slab Bolsters	RAM	KFH
1	12-09-99	Revised Drilled Shaft Clearance	RAM	KFH
NO.	DATE	REVISIONS	BY	APP'D

**KANSAS DEPARTMENT OF TRANSPORTATION**

**SUPPORTS AND SPACERS FOR REINFORCING STEEL**

BR120

FHWA APPROVAL	II-17-10	APP'D	Terry L. Fleck
DESIGNED	RAM	QUANTITIES	CADD
DESIGN CK.	LRRI	DETAIL CK.	RAM

CADconform Certify This File