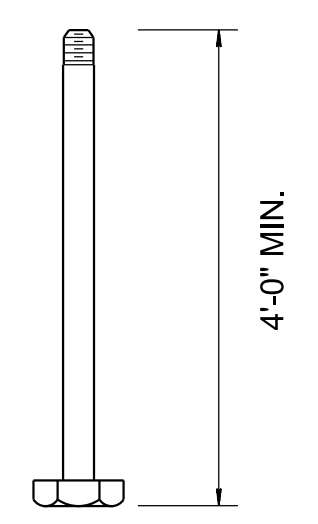


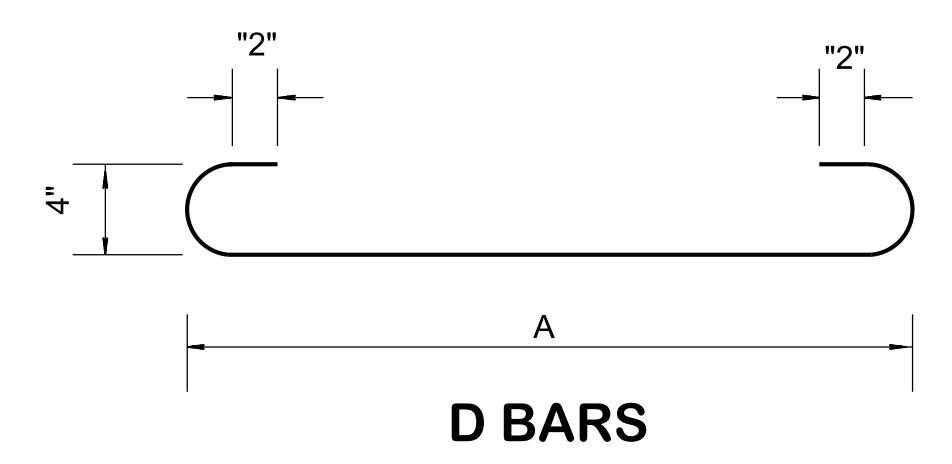
4/21/2020 9:46:13 AM P:\StandDraw\DESIGN STANDARDS\Standards Drawings Library\Standard Roadway Drawings - CURRENT\In Progress\10-106.00 Safety Design and Guardrails IP\SSSMB8-20

REV. 12-4-13: CHANGED ANCHOR BOLTS TO THREADED. ADDED BEARING AREA TABLE.  
 REV. 5-20-14: REVISED BILL OF STEEL.  
 REV. 05-01-20: REDREW SHEET.

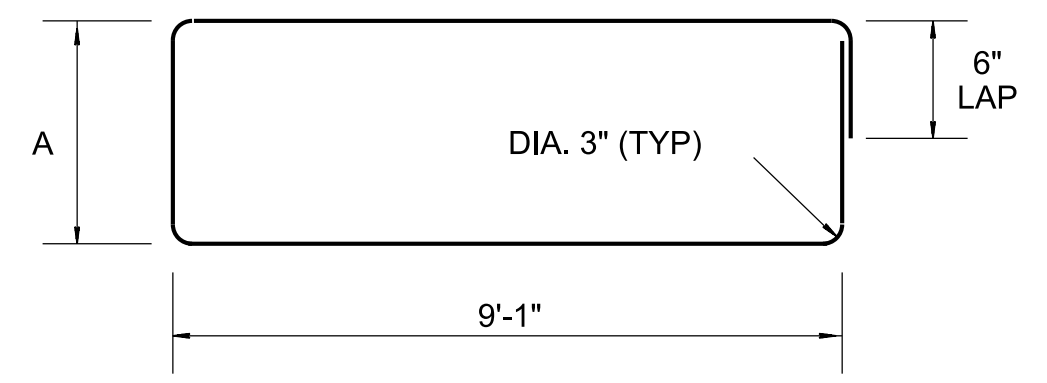


**ANCHOR BOLT DETAIL**

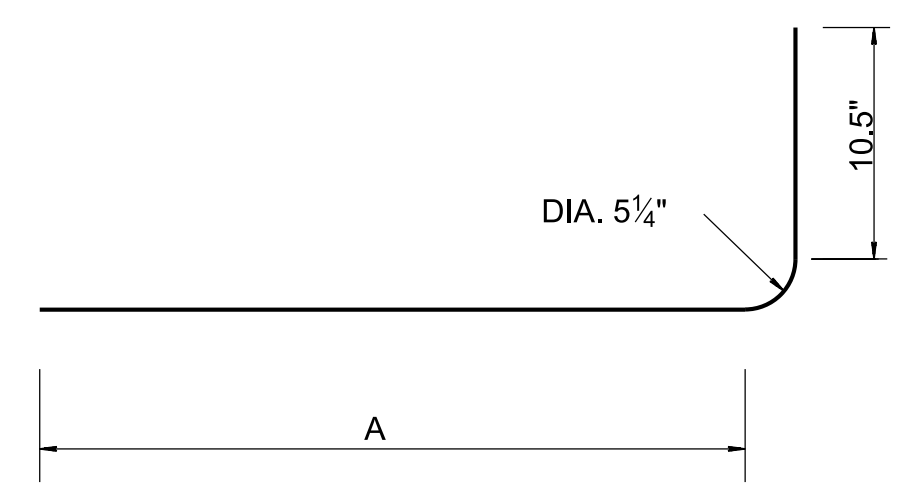
ASTM F1554 ANCHOR BOLTS (55KSI, HEADED OR THREADED/NUTTED) TO BE DESIGNED BY SIGN STRUCTURE MANUFACTURER



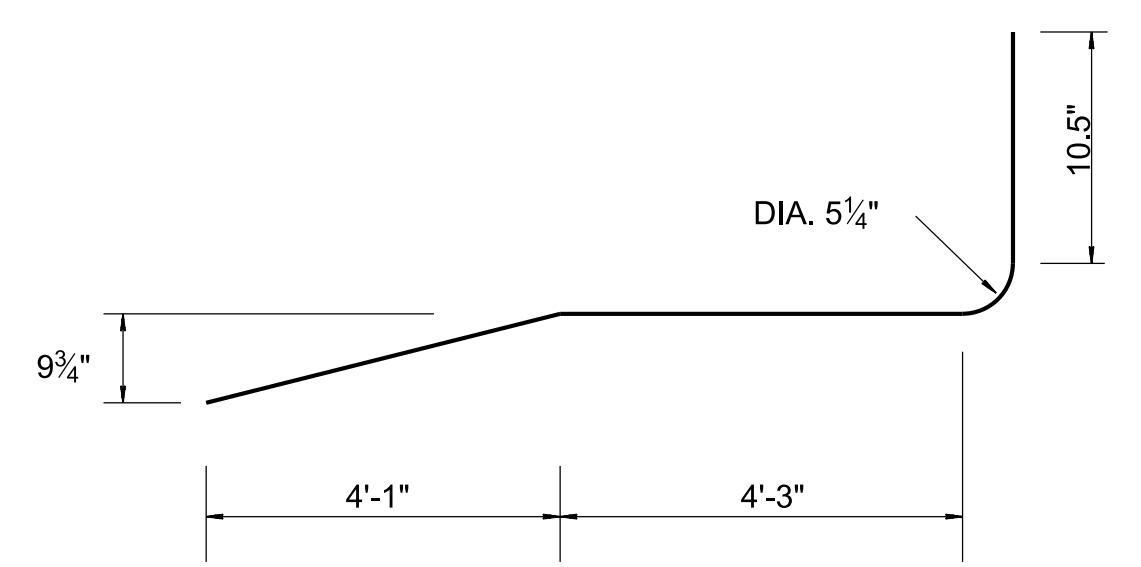
**D BARS**



**L BARS**

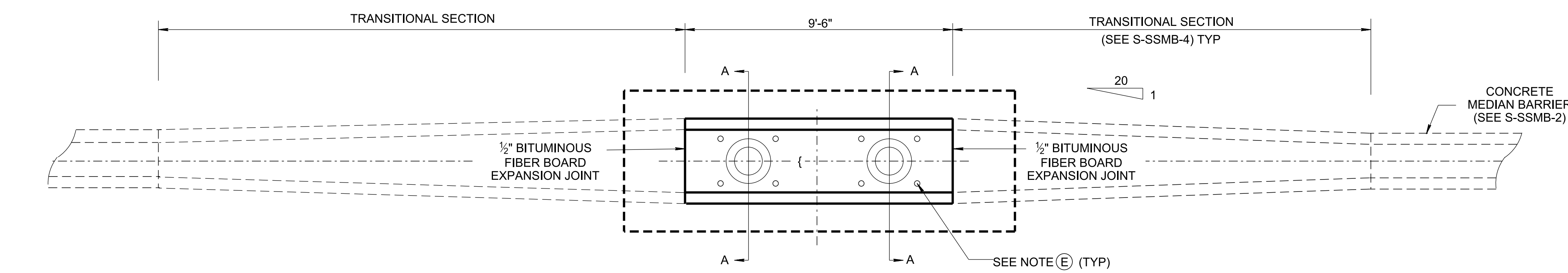


**C BARS**

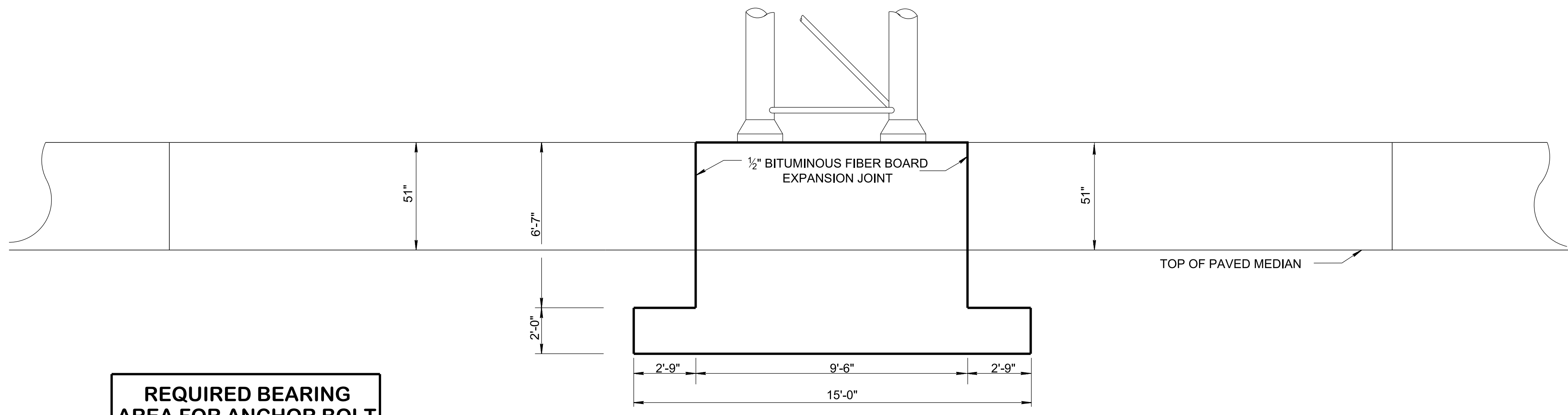


**BAR CA 700**

**BAR DETAIL**



**PLAN**

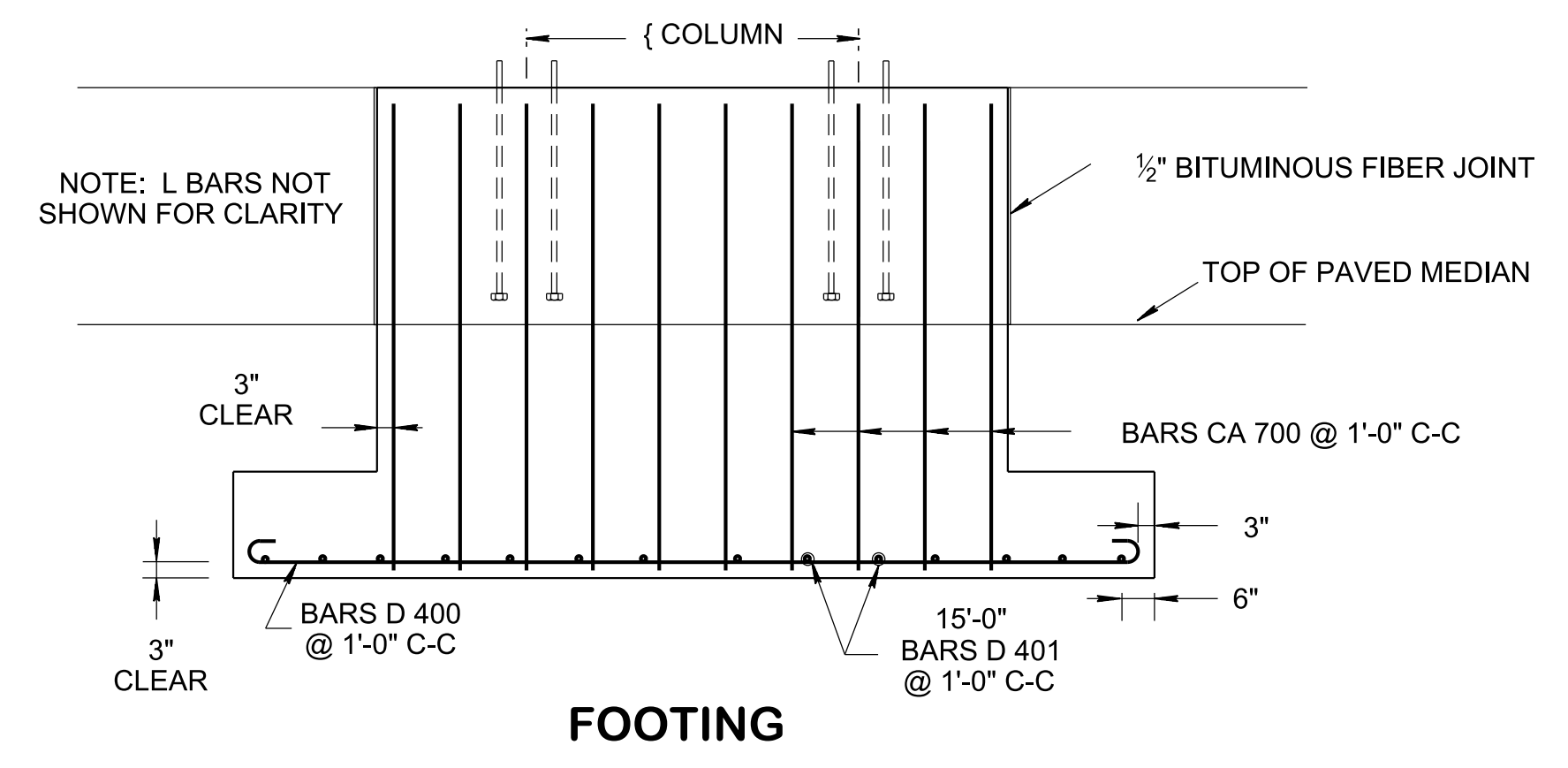


**ELEVATION**

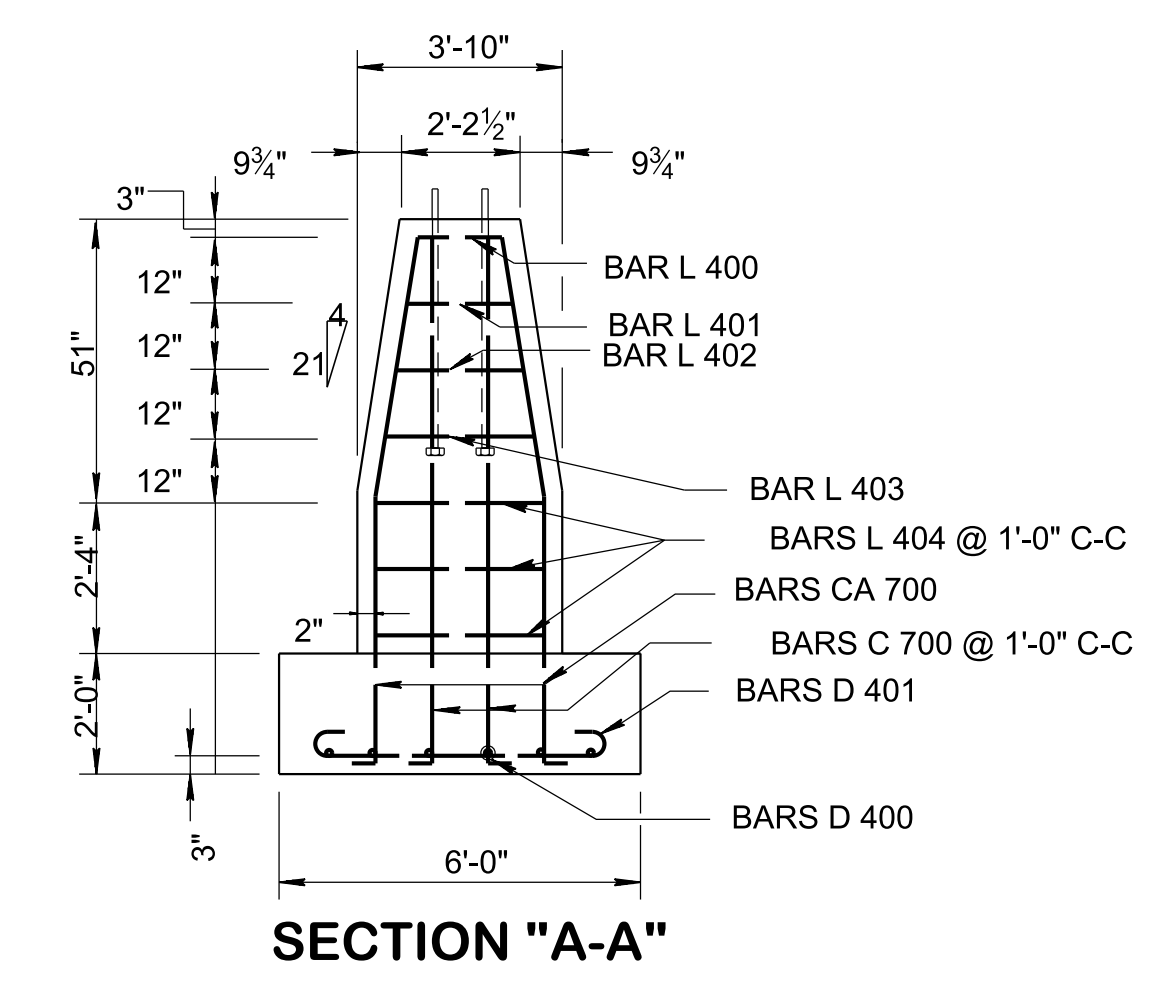
REQUIRED BEARING AREA FOR ANCHOR BOLT	
ANCHOR BOLT DIA(IN)	HEAD OR NUT AREA (SQ IN)
1"	1.800
1 1/4"	2.812
1 1/2"	4.050
1 3/4"	5.512
2"	7.199
2 1/4"	9.122
2 1/2"	11.249

BILL OF STEEL - PER FOOTING				
BAR	SIZE	NO. REQ'D.	DIM "A"	LENGTH
C 700	7	4	8'-2"	9'-4"
CA 700	7	20		9'-7"
D 400	4	6	14'-6"	15'-6"
D 401	4	15	5'-6"	6'-6"
L 400	4	1	2'-1 1/2"	22'-7"
L 401	4	1	2'-4 1/4"	23'-5"
L 402	4	1	2'-8 3/4"	24'-1 1/2"
L 403	4	1	3'-1 3/8"	24'-10 3/4"
L 404	4	3	3'-8"	25'-8"

QUANTITIES	
CLASS "A" CONCRETE	13.3 C.Y.
REINFORCING STEEL	710 LB.



**FOOTING**



**SECTION "A-A"**

**GENERAL NOTES**

- (A) FINISHED CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATIONS EXCEPT AS MODIFIED BY THE SPECIAL PROVISION NO. 130 REGARDING SECTION 604-CONCRETE STRUCTURES. A TEXTURED COATED FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO WHITE FEDERAL SPECIFICATION NO. 37778, A COLOR SAMPLE SHALL BE SUBMITTED TO THE MATERIALS AND TEST ENGINEER FOR APPROVAL.
- (B) EPOXY COATED DOWEL BARS WILL BE PERMITTED AS AN ALTERNATE TO PAINTED AND GREASED DOWEL BARS. THE EPOXY COATING SHALL BE AN APPROVED HIGH DENSITY POLYETHYLENE 17 MILS (± 2 MILS) BONDED TO THE BAR WITH AN APPROVED ADHESIVE 1 TO 8 MILS THICK (4 MILS NOMINAL).
- (C) IF A STORM DRAINAGE SYSTEM IS PLACED UNDER THE CENTER LINE OF THE MEDIAN BARRIER, THE PIPE SHALL BE SHIFTED HORIZONTALLY AROUND THE FOOTING.
- (D) OVERHEAD SIGN FOOTING COST IS TO BE INCLUDED IN THE COST OF THE OVERHEAD SIGN STRUCTURE.
- (E) LOCATION OF ANCHOR BOLTS TO BE DETERMINED IN THE FIELD BY THE ENGINEER TO MATCH SIGN STRUCTURE MANUFACTURERS SHOP DRAWING.
- (F) ANCHOR BOLTS, NUTS AND WASHERS ARE TO BE GALVANIZED STEEL.
- (G) CONCRETE: F<sub>c</sub> = 4000 POUNDS PER SQUARE INCH AT 28 DAYS.  
 REINFORCING STEEL: ASTM A615, F<sub>y</sub> = 60,000 POUNDS PER SQUARE INCH  
 ALL REINFORCEMENT IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

**STATE OF TENNESSEE**  
 STANDARD DRAWING  
 DEPARTMENT OF TRANSPORTATION

**FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL**

NOT TO SCALE