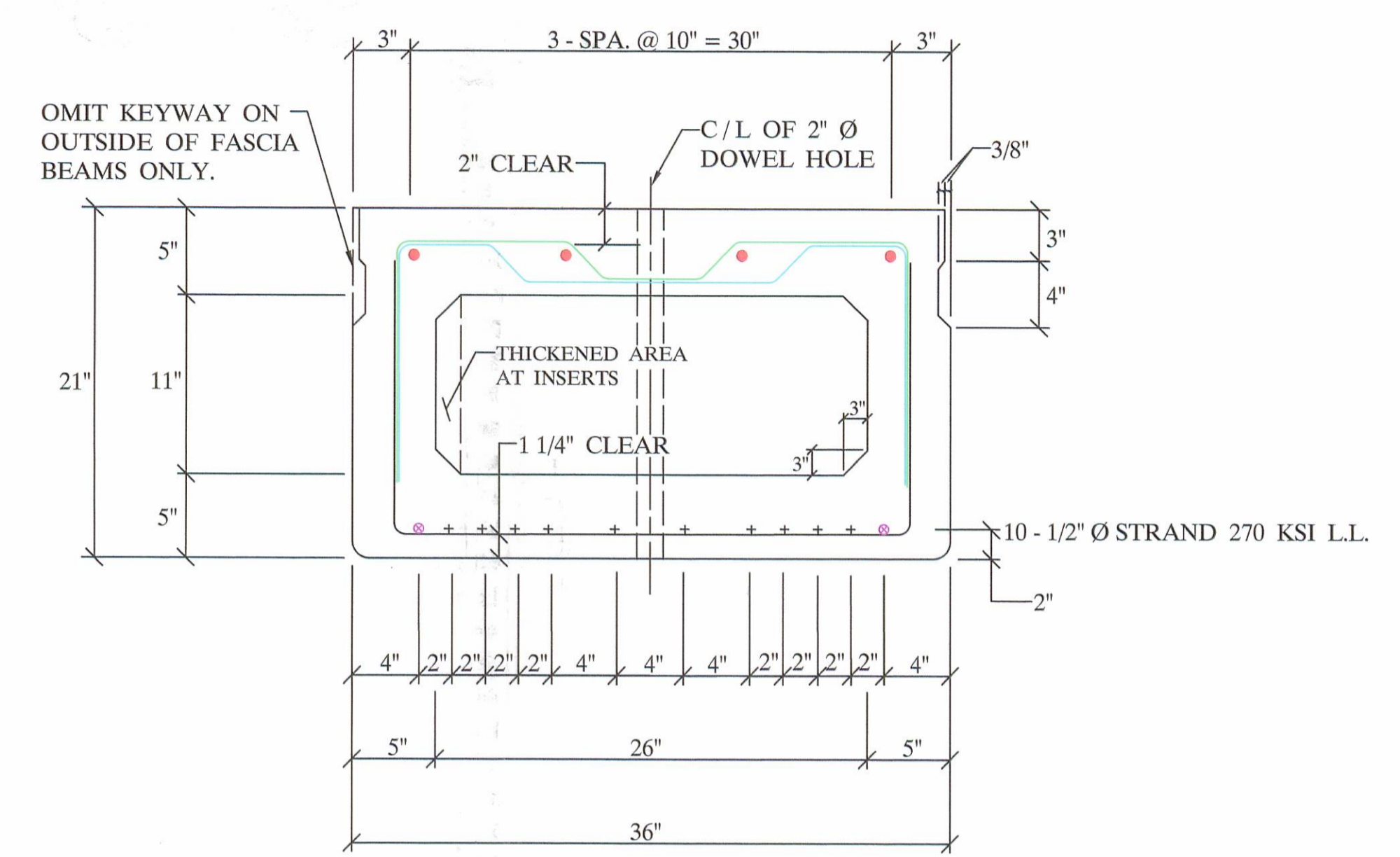


DECK PLAN

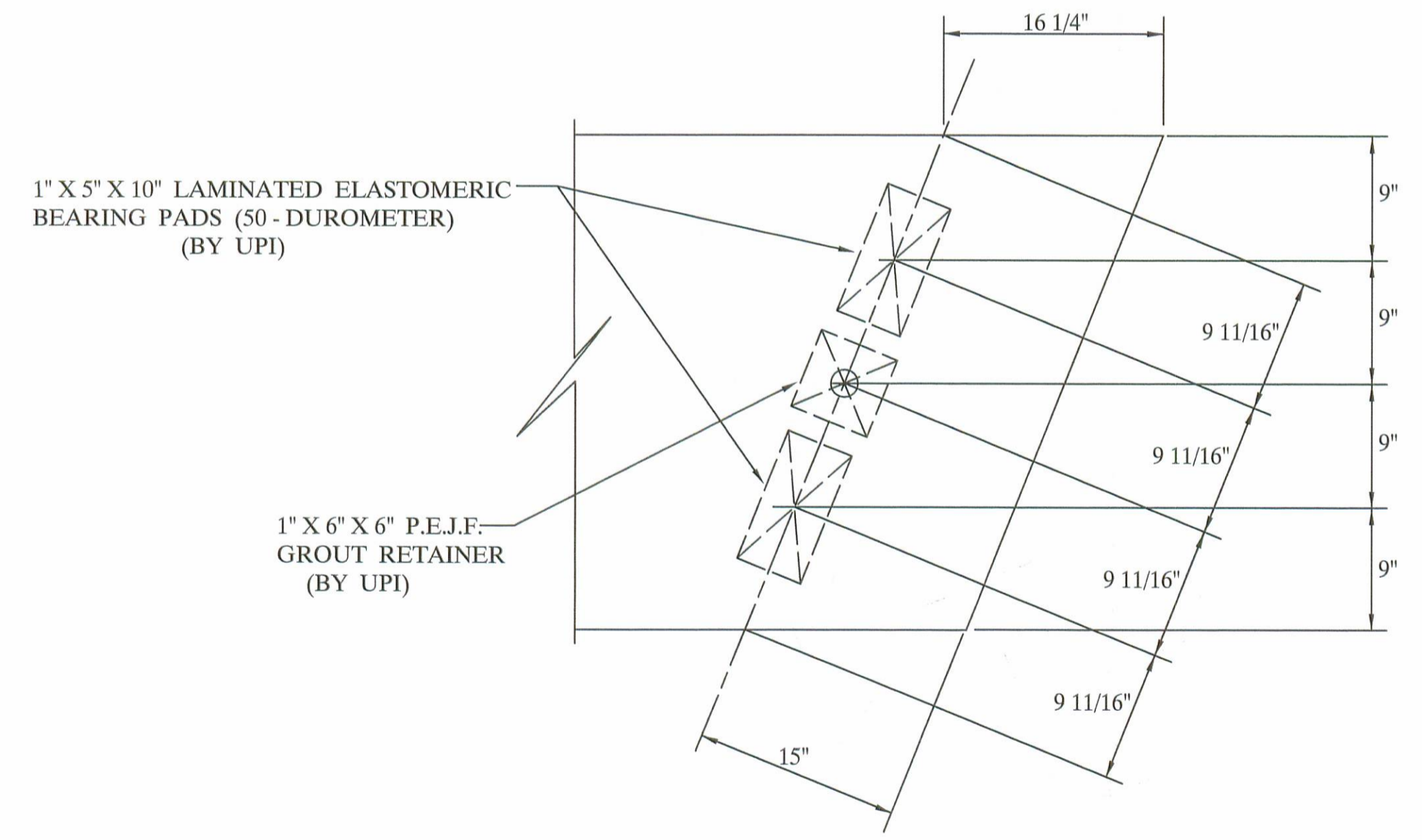


B21-36
(ELEVATION)

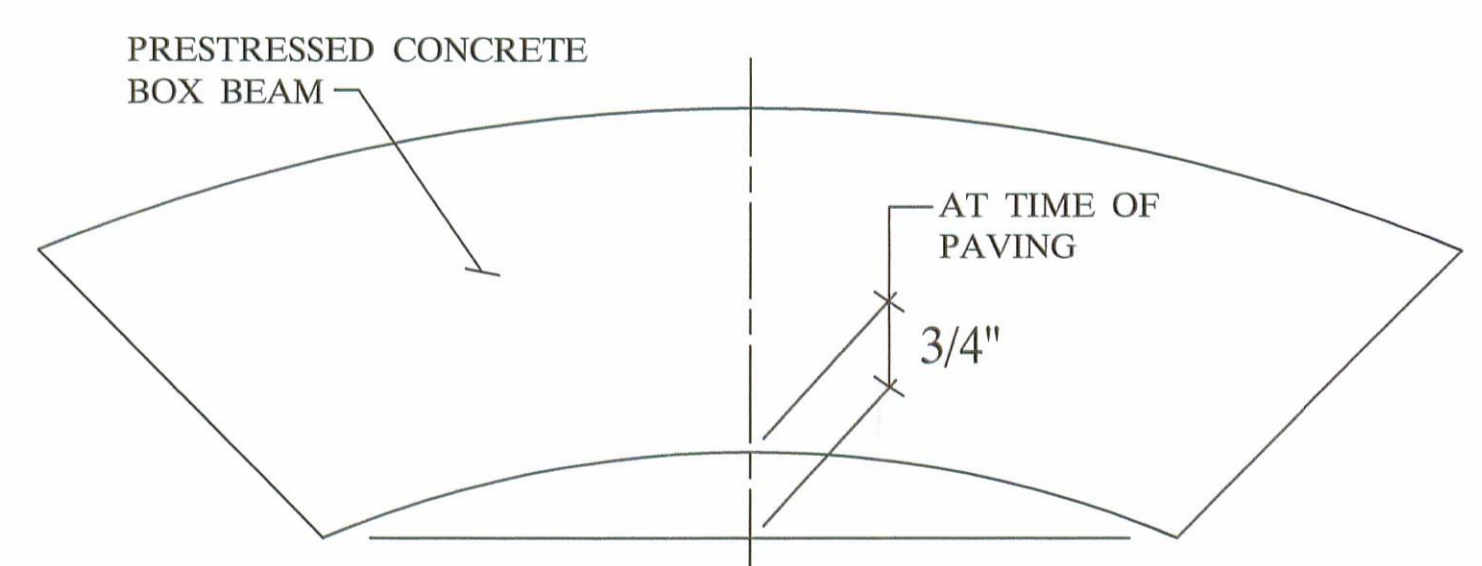
- 4 - #5 BARS FULL LENGTH RUN (TOP)
- ⊗ 2 - #5 BARS FULL LENGTH RUN (BOTTOM)

QUALITY CONTROL NOTE :

- STRAND AREA IS .153 SQ. IN.
- STRAND IS LOW LAX.
- INITIAL LOAD IS 30,982 # / STRAND.
- REBAR IS ALL GRADE - 60.
- STIRRUPS UNDER STRAND.
- CONCRETE STRENGTHS: 5500 PSI AT 28 DAYS
4000 PSI AT RELEASE
- O.D.O.T. 2002 SPECIFICATION.



BEARING PAD LAYOUT
(PLAN VIEW)



CAMBER DETAIL
(ELEVATION)

BILL OF MATERIALS

NO	ITEM	QTY / BEAM	NOTES	TOTAL
1	BEAM WEIGHT		22,963 #	
2	CONCRETE	5.5 CY.		38.5 CY.
3	MICROSILICA		5% BY WEIGHT OF CEMENT	1,354 #
4	CALCIUM NITRITE	22 GAL.	(D.C.I.) 4 - GAL. / CY.	154 GAL.
5	STRAND		1/2" Ø STRAND 270 KSI L.L.	6,720 L.F.
6	RE - STEEL		GRADE - 60	4,926 #
7	VOID		11" X 26"	218 L.F.
8	VOID DRAINS		3/4" Ø NON FERROUS	28 EA.
9	TIE RODS	6'-0"	1" Ø STEEL ROD	18 EA.
10	TIE ROD SLEEVES			108 L.F.
11	TYPE - B - ANCHORS			24 EA.
12	TYPE - C - ANCHORS			12 EA.
13	DOWELS & SLEEVES			14 EA.
14	WASSER		MC - TAR	0.5 GAL.
15	SILANE			1.8 GAL.
16	JUTE			240 L.F.
17	BEARING PADS		1" X 5" X 10", 1 - LAM.	28 EA.
18	GUARDRAIL POST		TYPE - 2	12 EA.
19	POST OFF DECK		(SHIP LOOSE)	8 EA.
20	GUARDRAIL ELEMENT			87.5 L.F.
21	TUBULAR BACK - UP			87.5 L.F.
22	NON SHRINK GROUT ADDITIVE		1 CY. GROUT - BY OTHERS	9 LBS.

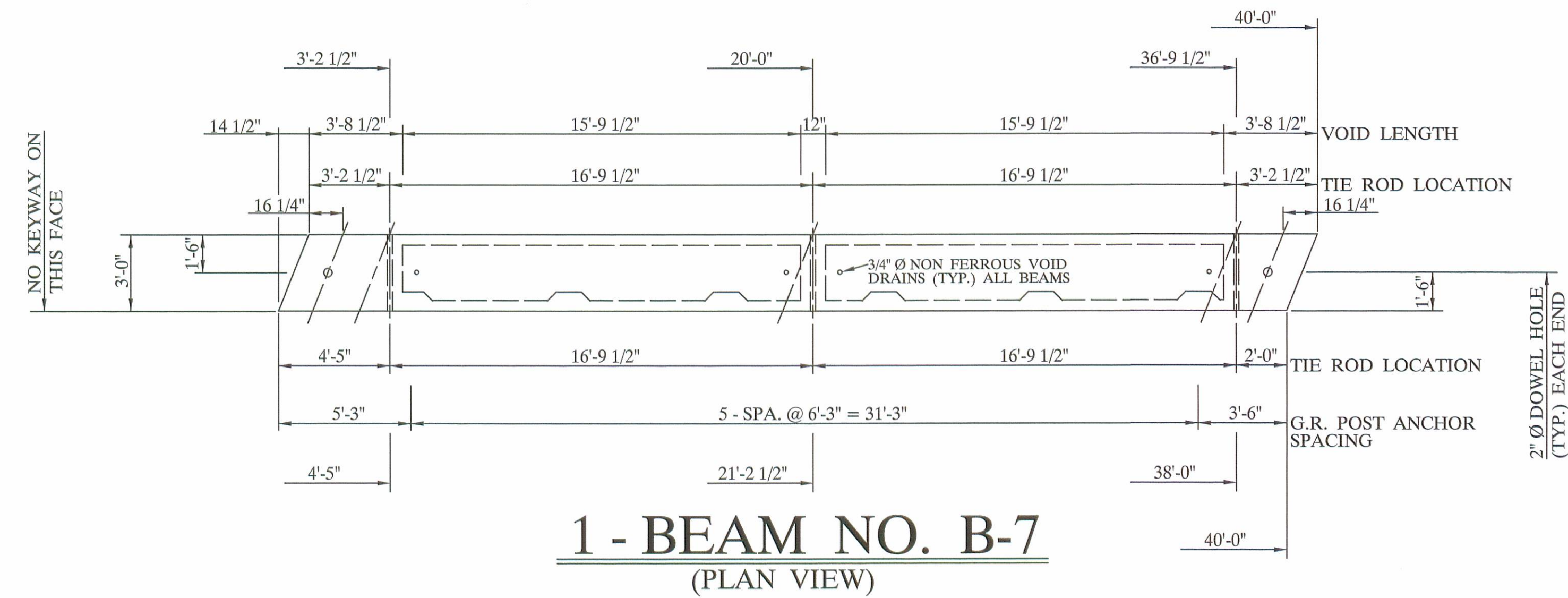
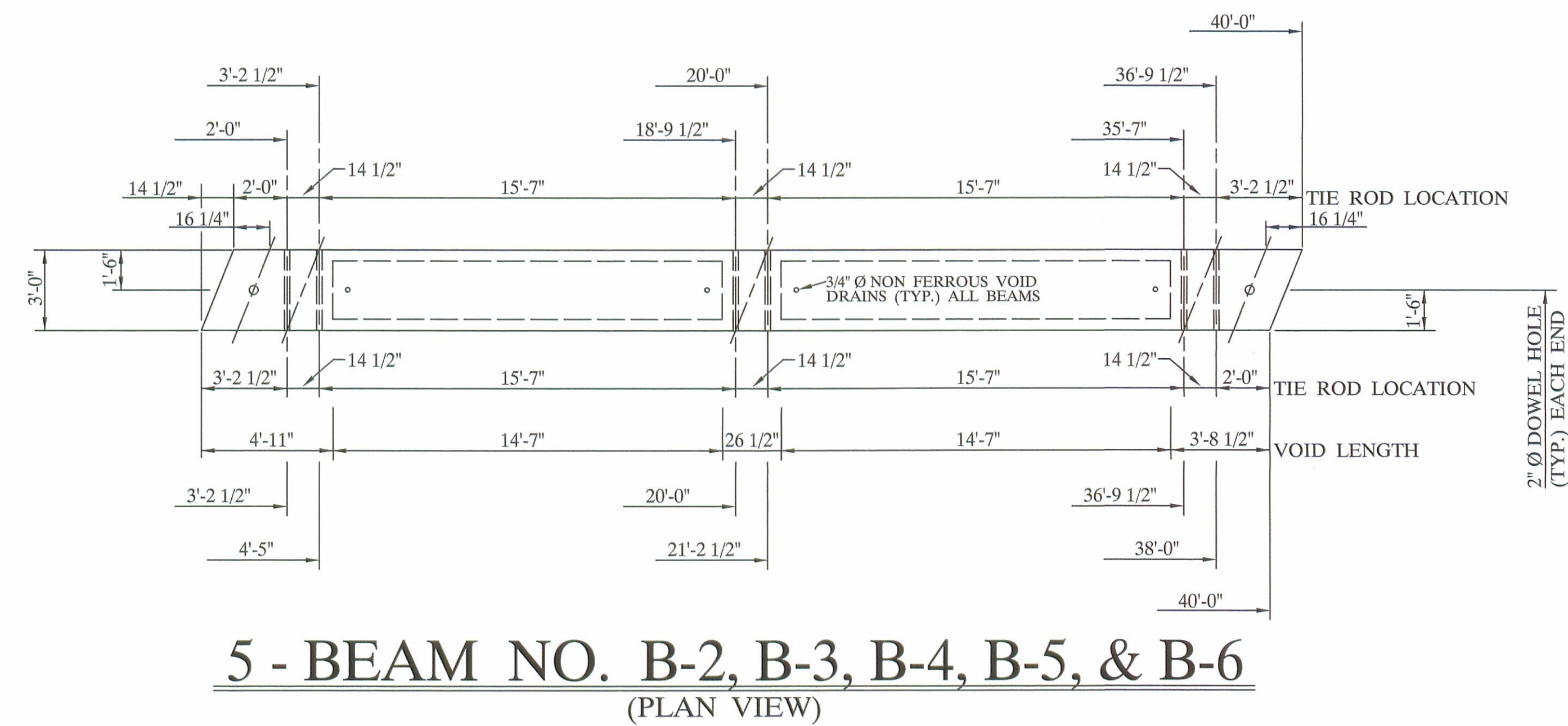
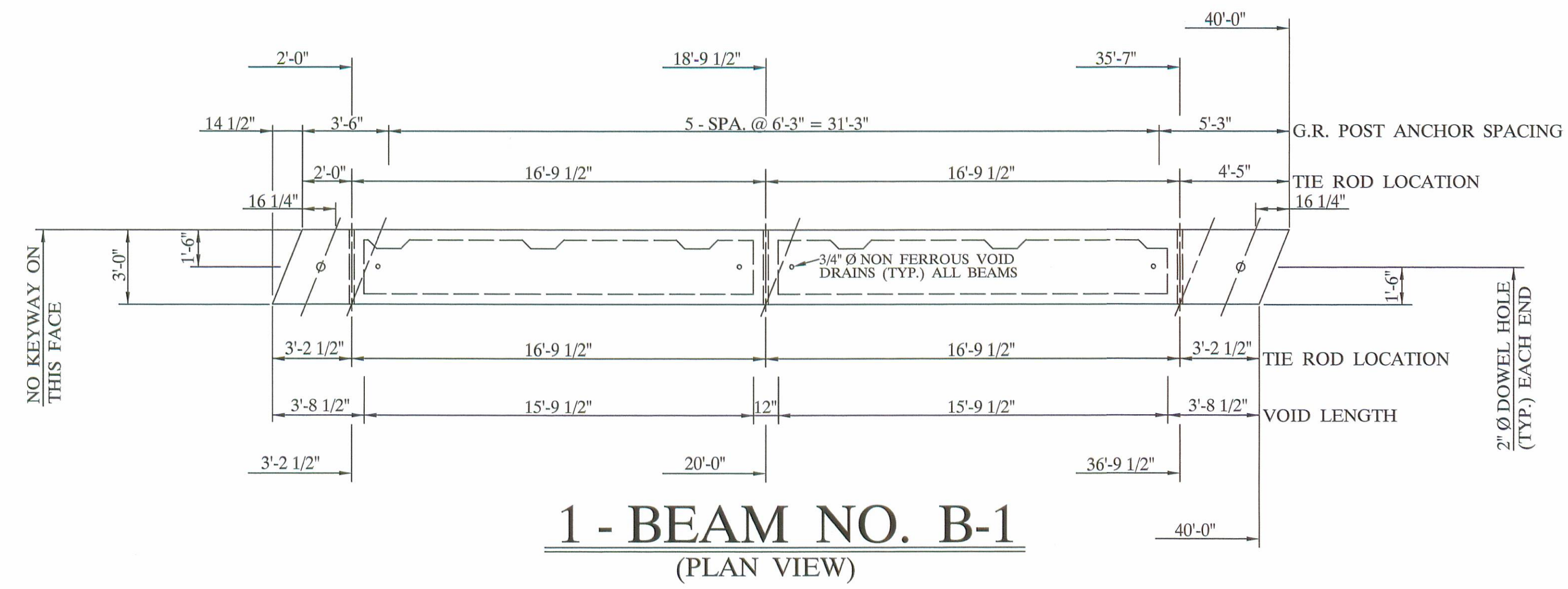
APPROVED
BY LOGAN CO. ENGINEER
Phil Sanders 2-7-05



UNITED PRECAST INC.
 ROUNDHOUSE LANE
 MOUNT VERNON, OHIO 43050
 PHONE : (740) 393-1121
 FAX : (740) 392-9708

RECEIVED
FEB - 1 2005
L.O. CO. ENGINEER

DESCRIPTION: BOX BEAM DETAILS	SCALE: -----	DRAWN BY: PHIL
JOB NAME: ITEM 515 BRIDGE NO. 76 - 1.27 LOGAN COUNTY	PROJECT NO. T.R. 76	REVISED:
DATE: JANUARY 2005	APPROVED BY: E.O.C. 1 / 28 / 05	DRAWING NO. 1 OF 4

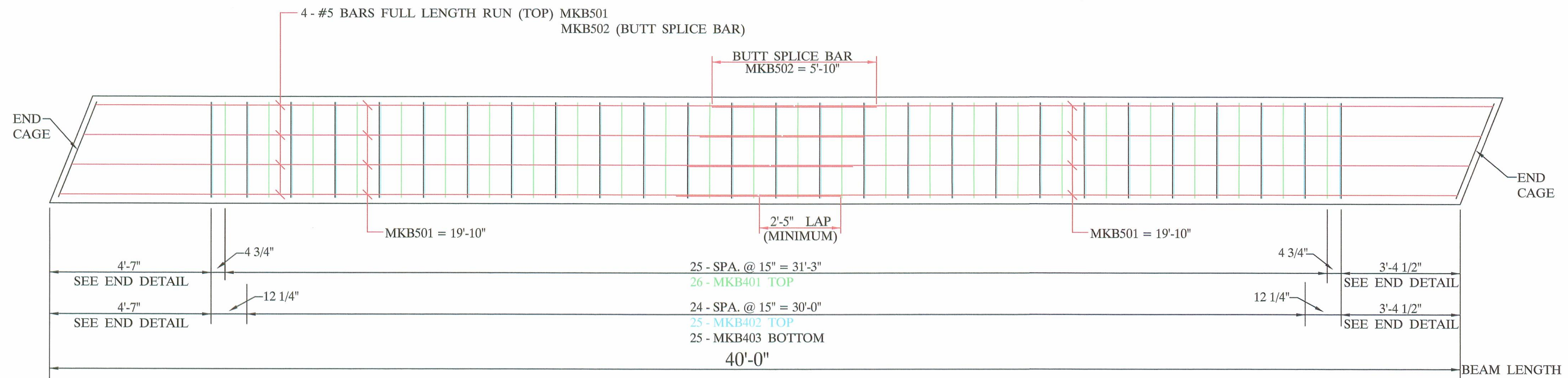


UNITED PRECAST INC.
 ROUNDHOUSE LANE
 MOUNT VERNON, OHIO 43050
 PHONE : (740) 393-1121
 FAX : (740) 392-9708

DESCRIPTION: BOX BEAM DETAILS		SCALE: -----	DRAWN BY: PHIL
JOB NAME: ITEM 515 BRIDGE NO. 76-1.27 LOGAN COUNTY		PROJECT NO. T.R. 76	REVISED:
DATE: JANUARY 2005	APPROVED BY: E.O.C.	1 / 28 / 05	DRAWING NO. 2 OF 4

NOTE :

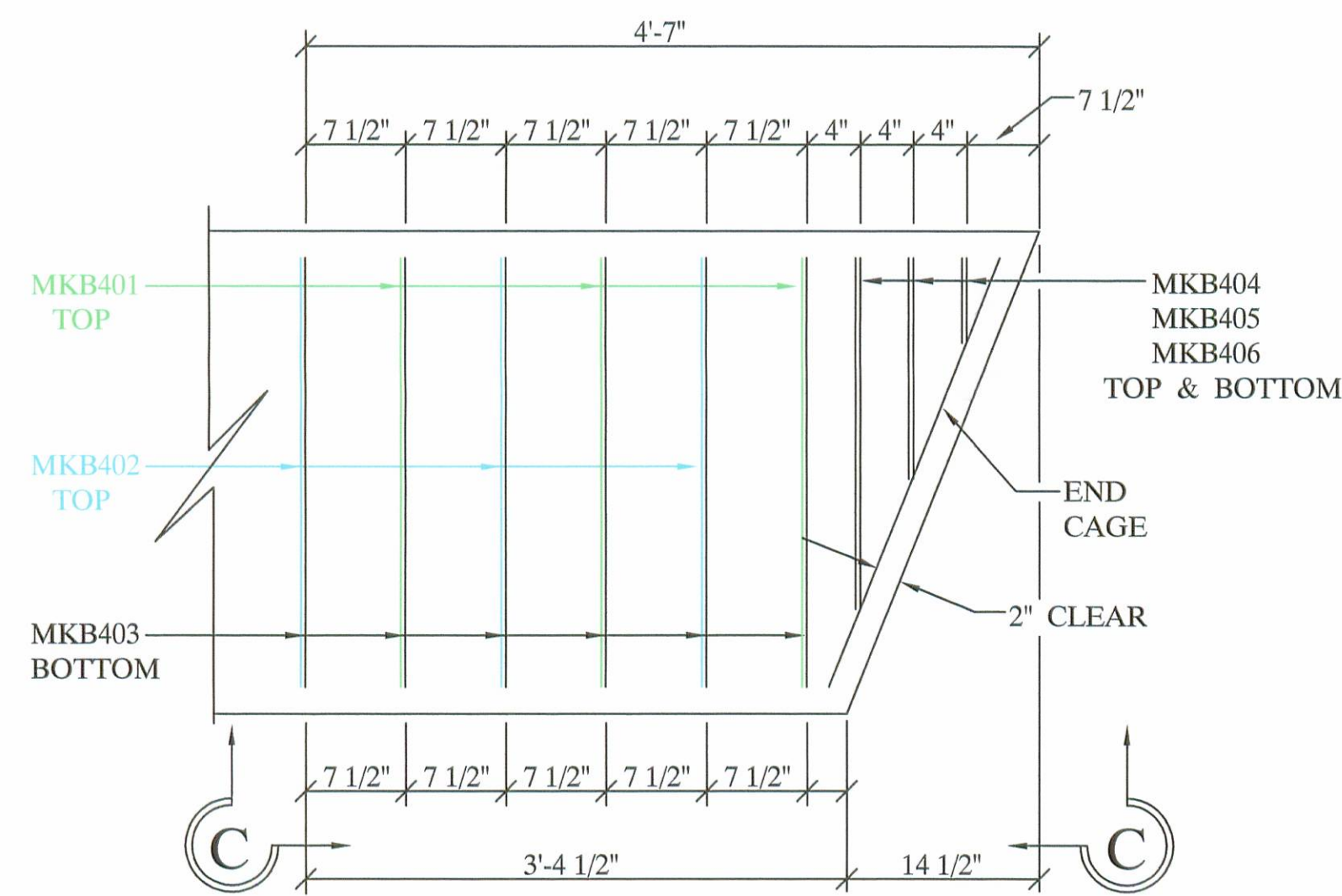
STIRRUPS IN CONFLICT WITH GUARDRAIL ANCHORS AND TIE ROD POCKETS, ARE TO BE SHOP ADJUSTED TO TOLERANCE OF ± 1", OR ANOTHER STIRRUP ADDED.



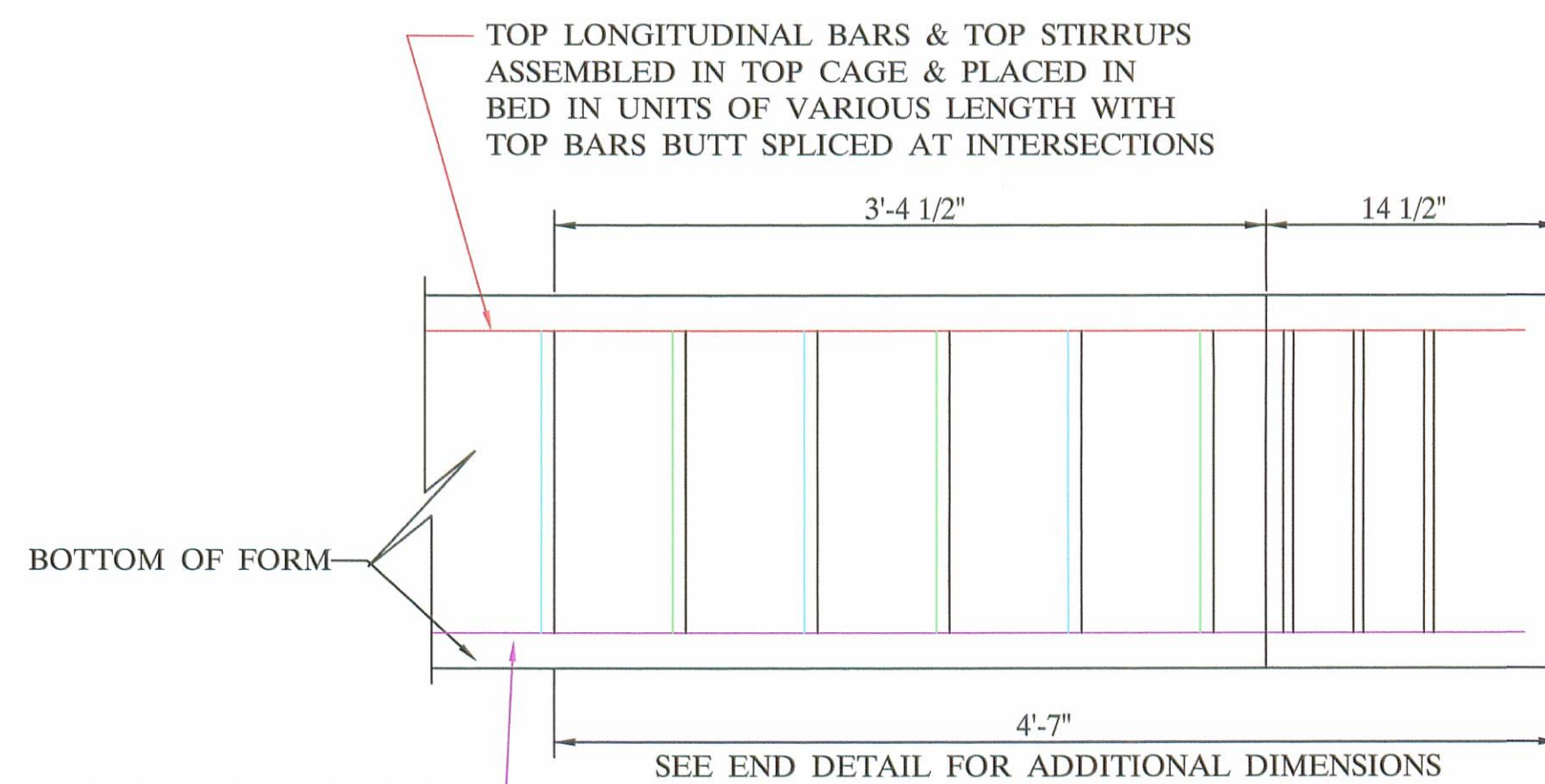
REINFORCING LAYOUT
(PLAN VIEW)

NOTE :

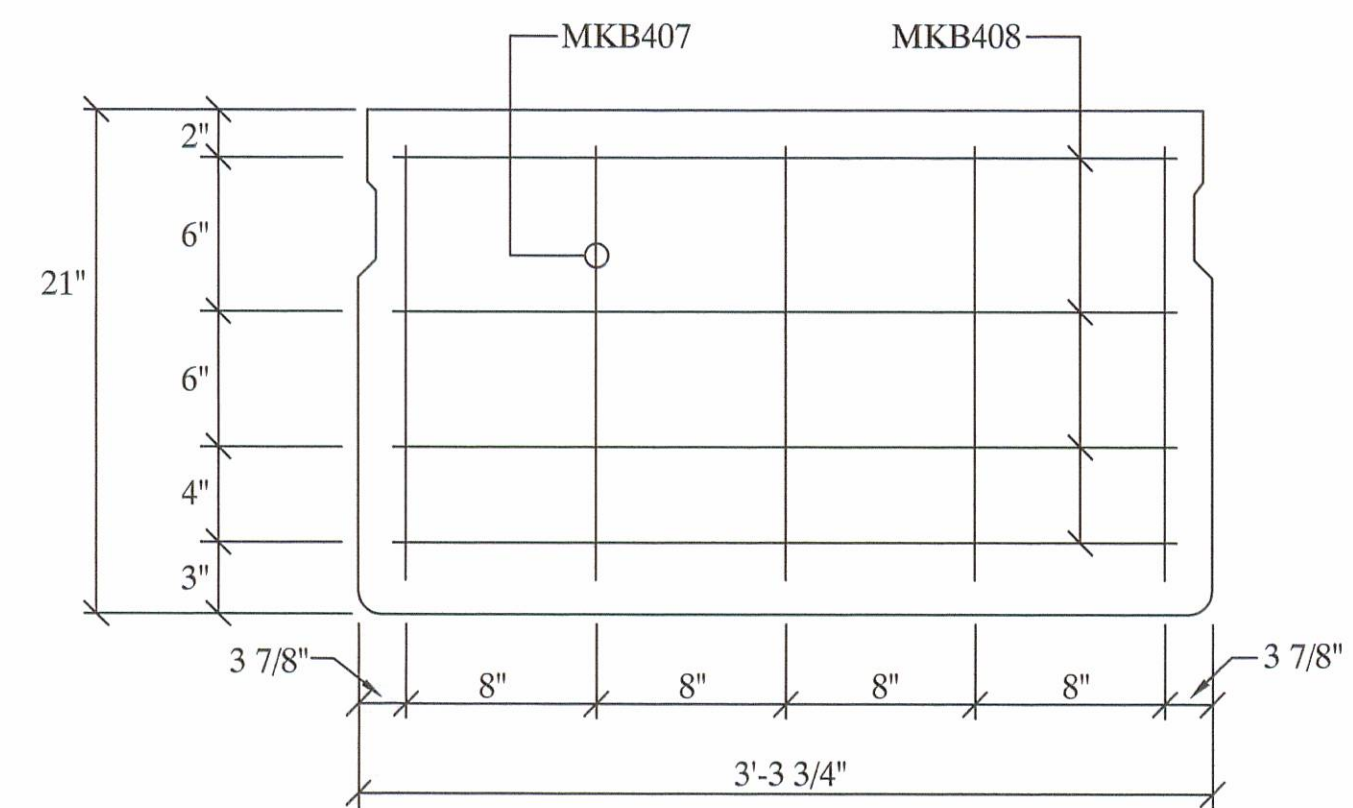
MINIMUM BUTT SPLICE LENGTH REQUIRED IF CAGE FIT UP IS PERFECT IS AS FOLLOWS:
#5, UNCOATED 58", 29" EACH SIDE



(TYP.) END DETAIL
(WITH SKEW)
(PLAN VIEW)



ELEVATION C-C

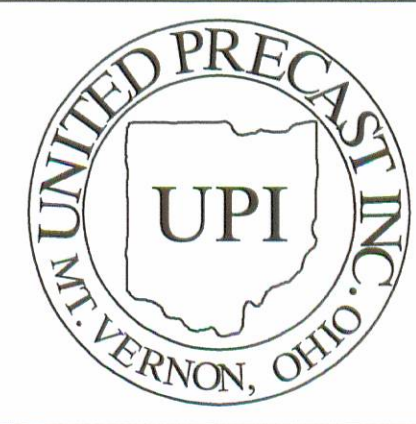


BEAM END CAGE
(WITH SKEW)
(ELEVATION)

7 - B21-36 X 40'-0" WITH 22° L.F. SKEW

BAR LIST

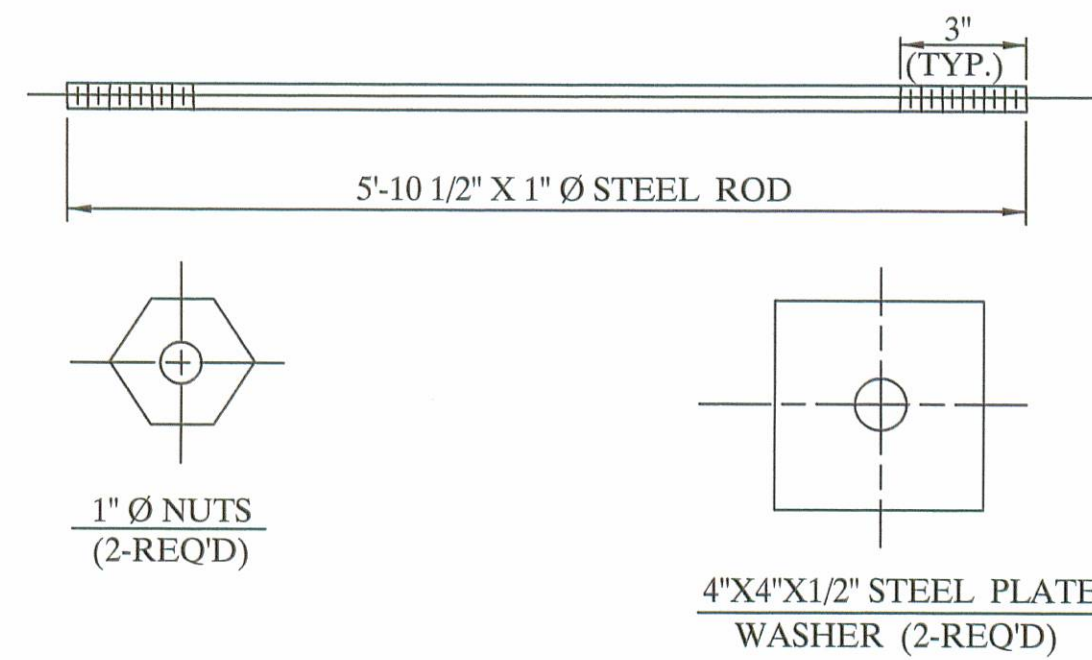
MARK	SIZE	LENGTH	QUANTITY	SHAPE	A	B	C	D	E
B401	4	5'-5"	224	TYPE - 1	31"	17"	10"	1 1/2"	8"
B402	4	5'-5"	217	TYPE - 1	31"	17"	4"	1 1/2"	20"
B403	4	5'-5"	259	TYPE - 2	31"	17"			
B404	4	3'-1 1/2"	28	TYPE - 2	6"	17"			
B405	4	3'-11 1/2"	28	TYPE - 2	16"	17"			
B406	4	4'-9 1/2"	28	TYPE - 2	26"	17"			
B407	4	1'-5"	70	TYPE - 3	17"				
B408	4	2'-9"	56	TYPE - 3	33"				
B501	5	19'-10"	84	TYPE - 3	19'-10"				
B502	5	5'-10"	42	TYPE - 3	5'-10"				



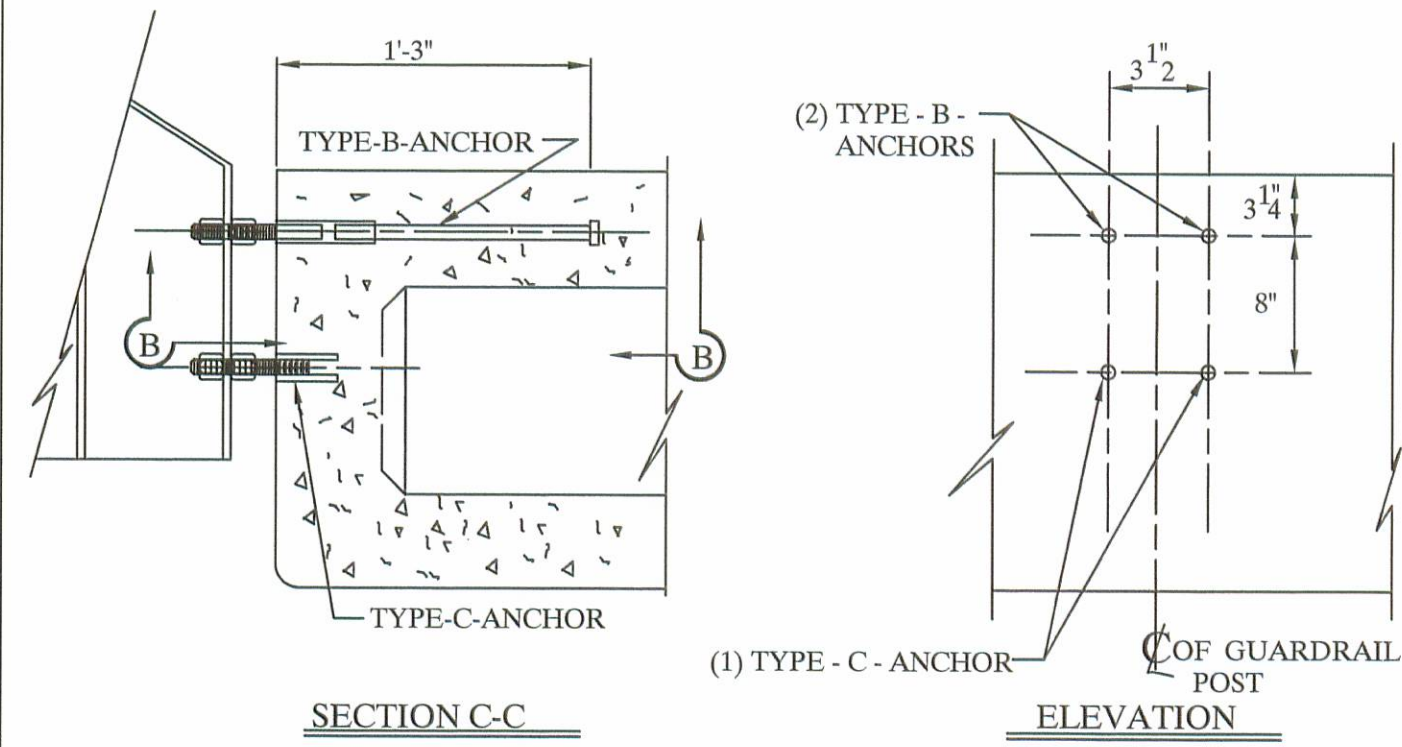
UNITED PRECAST INC.
 ROUNDHOUSE LANE
 MOUNT VERNON, OHIO 43050
 PHONE : (740) 393-1121
 FAX : (740) 392-9708

DESCRIPTION: REINFORCING DETAILS		SCALE: -----	DRAWN BY: PHIL
JOB NAME: ITEM 515 BRIDGE NO. 76 - 1.27 LOGAN COUNTY	PROJECT NO. T.R. 76	DATE: JANUARY 2005	REVISED:
APPROVED BY: E.O.C.		DATE: 1 / 28 / 05	DRAWING NO. 3 OF 4

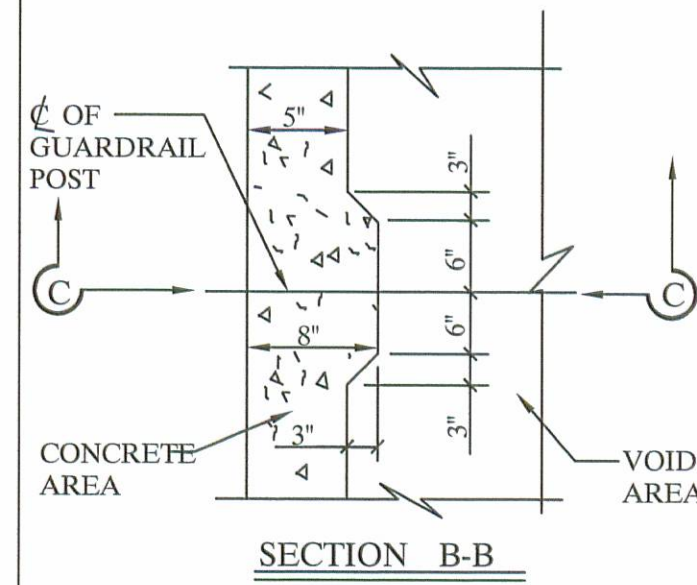
6'-0" TIE ROD ASS'Y



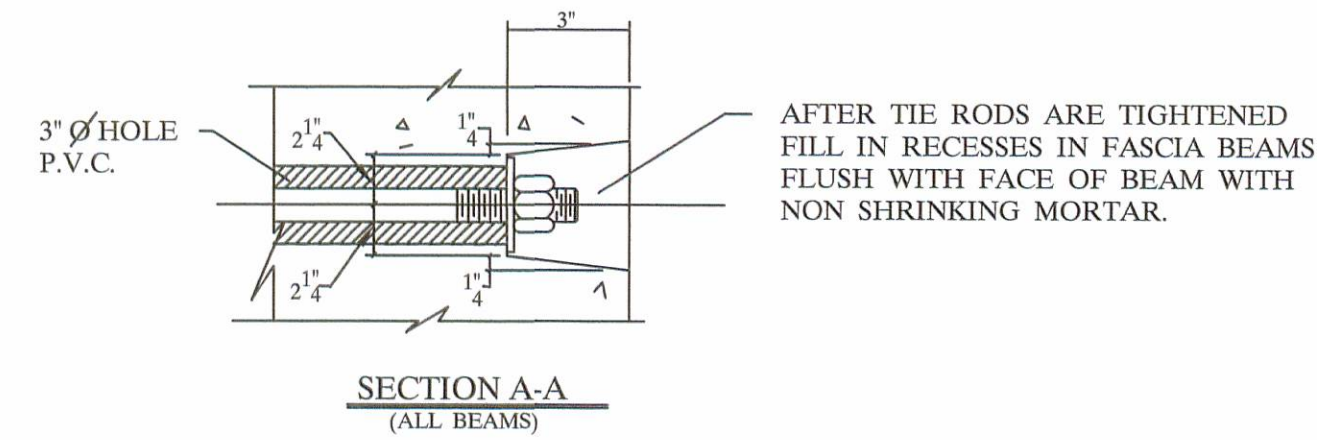
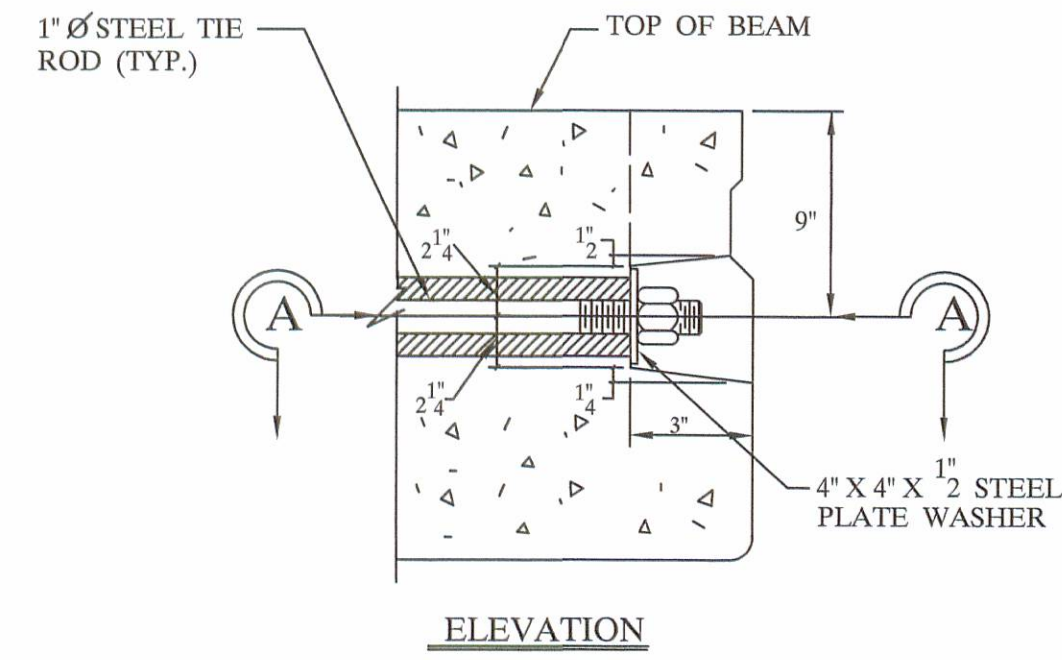
NOTE:
ALL ITEMS INCLUDING TIE RODS ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-123 OR 153. PER CMS 711.02, UNLESS OTHERWISE NOTED.



NOTE:
ONE TYPE "C" ANCHOR PROVIDE S FOR (2) STUDS (SEE BELOW).



NOTE:
TYPE B&C ANCHOR ASSEMBLIES SHALL CONFORM TO PHYSICAL PROPERTIES OF ASTM-A-325. EXCEPT MIN. ELONGATION SHALL BE 10%. THE CHEMICAL PROPERTIES ARE WAIVED.

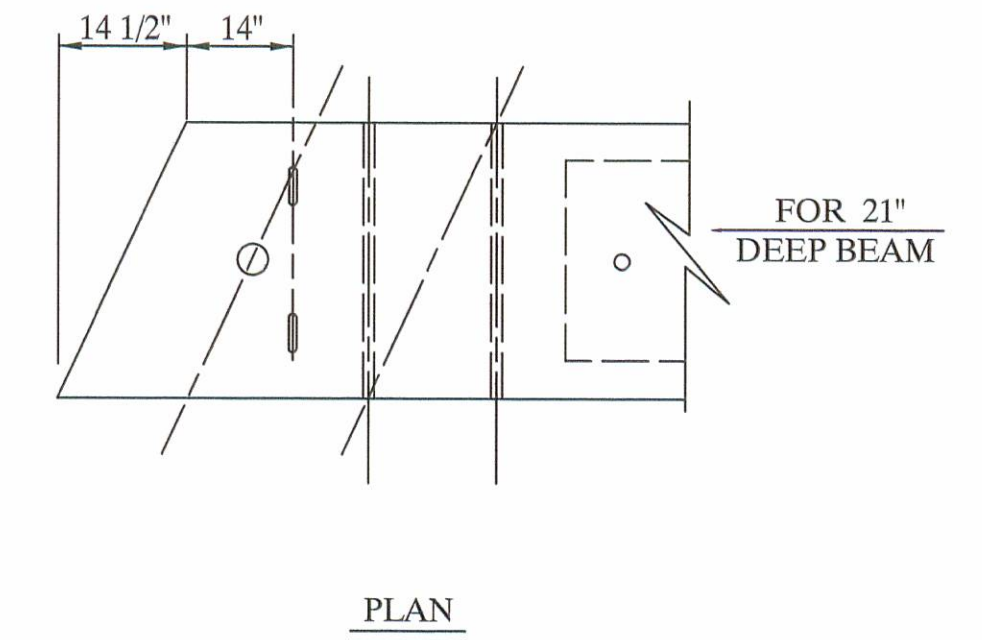
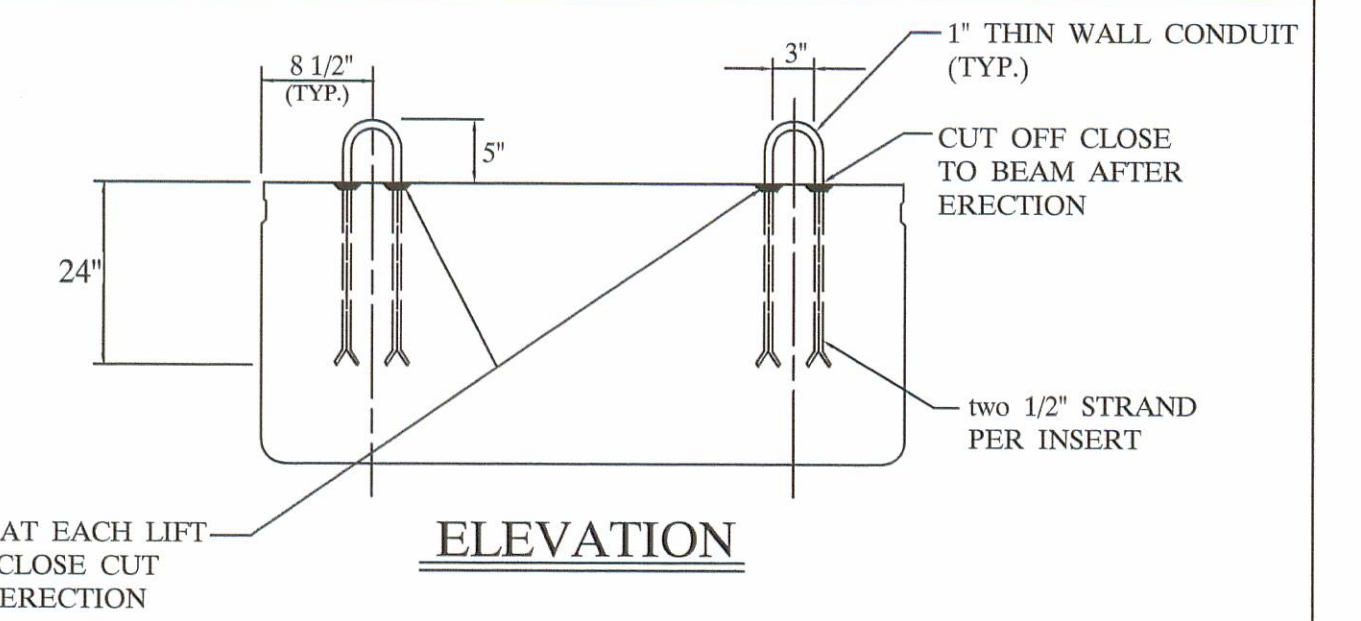


NOTE:
TIE RODS SHALL BE A311 - G1018 STEEL, OR A-36 MODIFIED.

END DETAIL OF TRANSVERSE TIE ROD ANCHORAGE

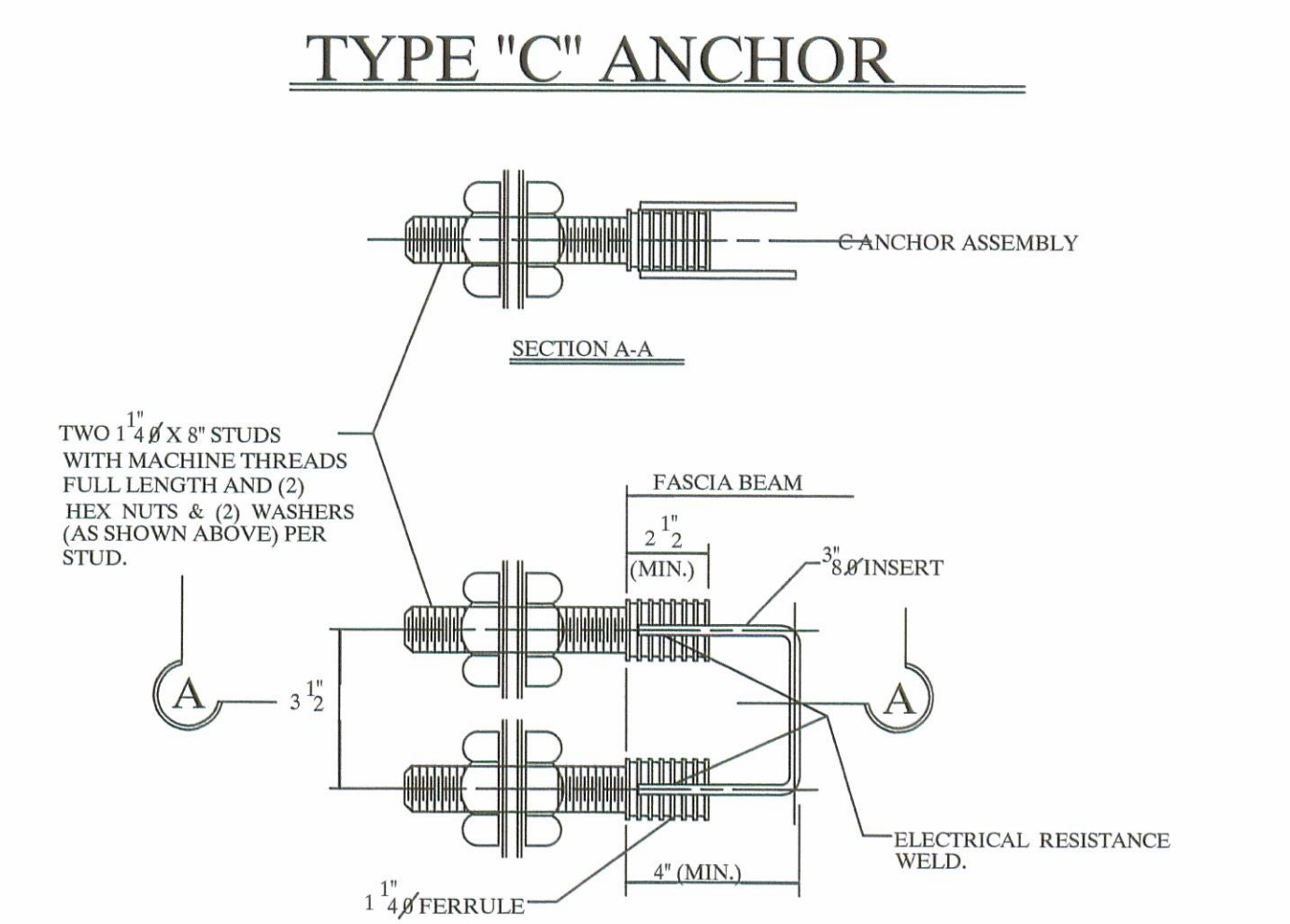
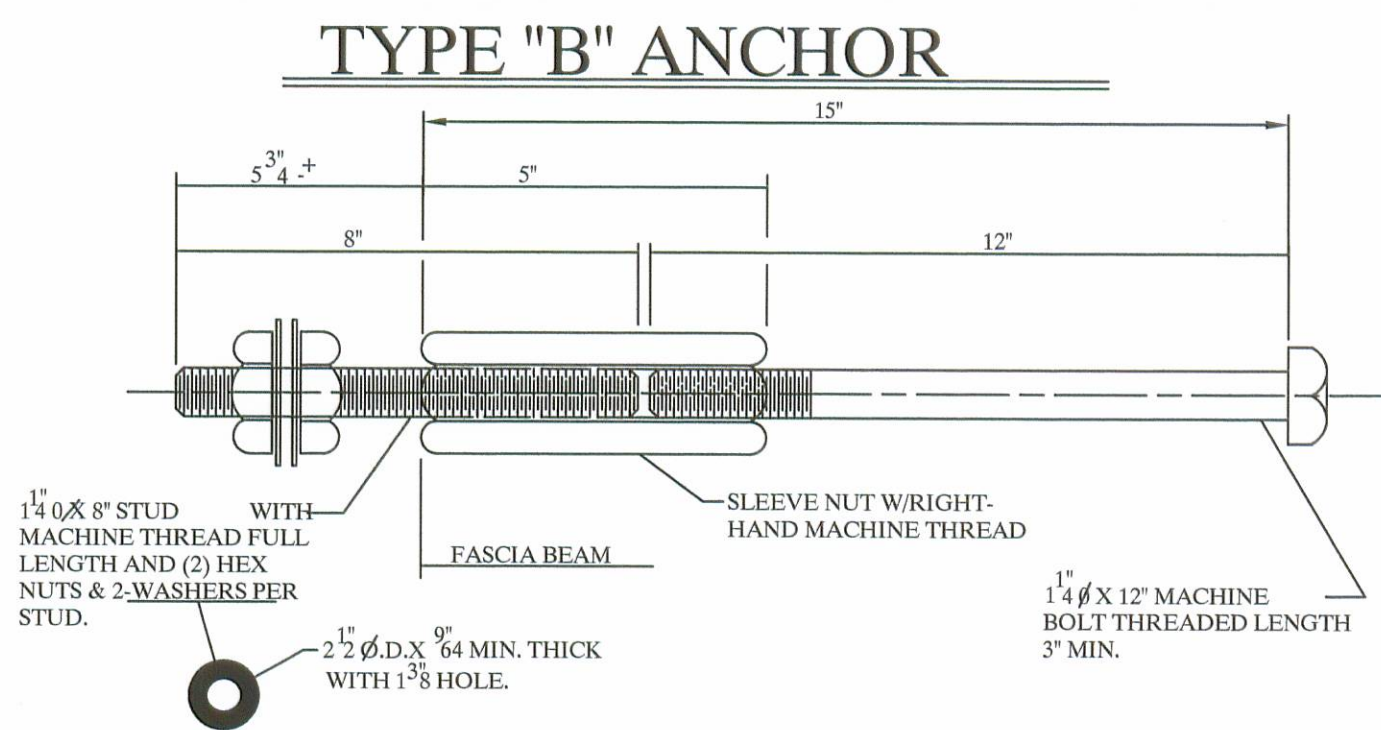
NOTE:

- 1) GALVANIZE ALL HARDWARE PER CMS. 711.02.
- 2) PROVIDE A BROOM FINISH ON TOP SURFACE OF BEAM SUITABLE FOR WATERPROOFING.
- 3) ADD D.C.I. TO CONCRETE (4 - GAL. / CUBIC YARD).
- 4) WATERPROOF BEAM ENDS.
- 5) DETENSION STRAND SYMMETRICALLY ABOUT CENTERLINE.



NOTE:
LIFTING INSERTS ARE HAND PLACED IN THE SHOP AND ARE TO BE ADJUSTED TO CLEAR REINFORCEMENT, ANCHOR DOWEL SLEEVES, TIE ROD SLEEVES, OR ANY ADDITIONAL EMBEDDED ITEMS IN THIS REGION.

LIFTING INSERT DETAIL



"B" & "C" ANCHOR DETAILS

SPECIFICATIONS

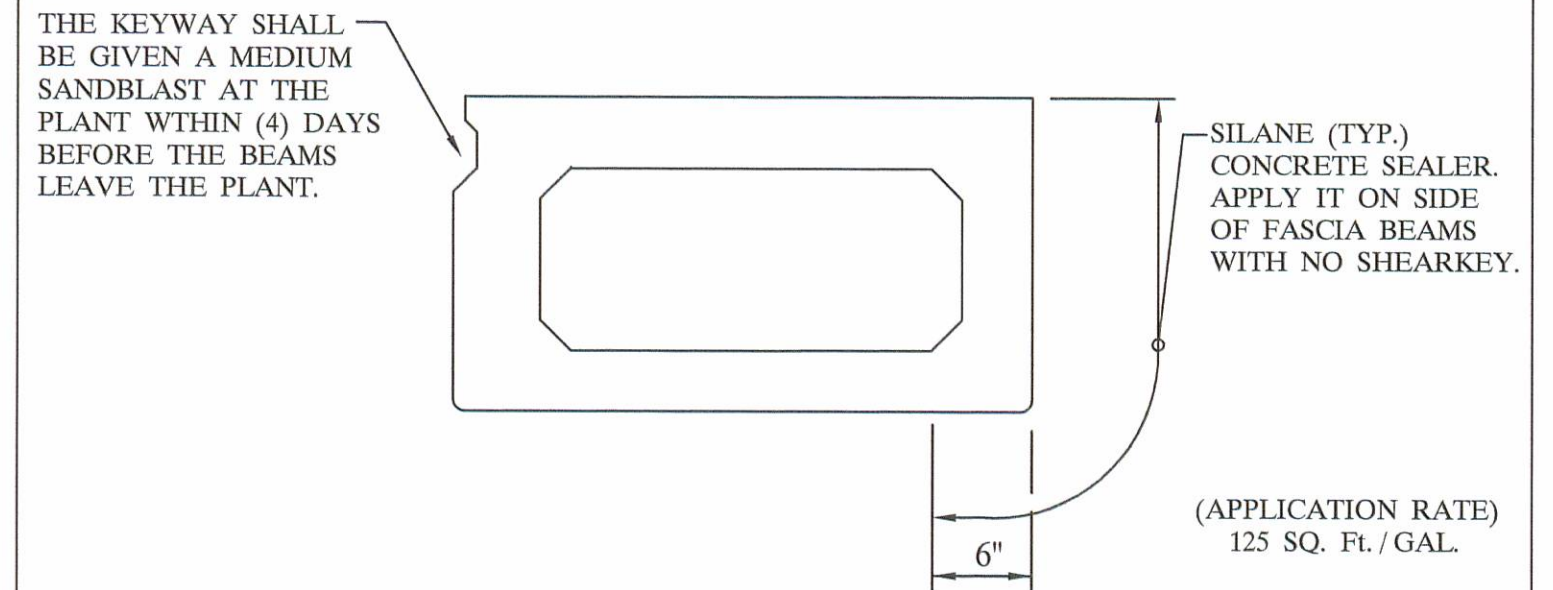
DESIGN LOADING: HS20-44 AND ALTERNATE MILITARY LOADING

CONCRETE: COMPRESSIVE STRENGTH, $f_c = 5500$ PSI @ 28 DAYS (SHIPPING).
 $f_c = 4000$ PSI @ RELEASE.

PRESTRESSING STRAND: ASTM A - 416 GRADE 270, 1/2" DIAMETER, SEVEN WIRE, UNCOATED LOW RELAXATION STRAND, $A_s = .153$ in. $f_s = 270$ KSI. INITIAL STRESS: $0.75 f_s = 202.5$ KSI.

REINFORCING STEEL: GRADE - 60: ASTM A - 615, ASTM A - 616, ASTM A - 617. UNIT STRESS 24,000 PSI.

NOTE:
PRESTRESSED CONCRETE BEAMS AND APPURTENANCES CONFORM TO O.D.O.T. STANDARD BRIDGE DRAWINGS PSBD - 1 - 93 SHEETS ONE, TWO, THREE, & FOUR.



TYPICAL FASCIA BEAM

BRIDGE NO. 76 - 1.27	PROJECT NO. T.R. 76	ITEM 515
LOGAN COUNTY		
UNITED PRECAST INC.		
ROUNDHOUSE LANE MT. VERNON, OHIO 43050 PHONE: (740)393-1121, FAX: (740)392-9708	SCALE -----	DRAWN BY: PHIL REVISED
DATE JAN '05	APPROVED BY: E.O.C.	DRAWING NO. 4 OF 4
	1 / 28 / 05	