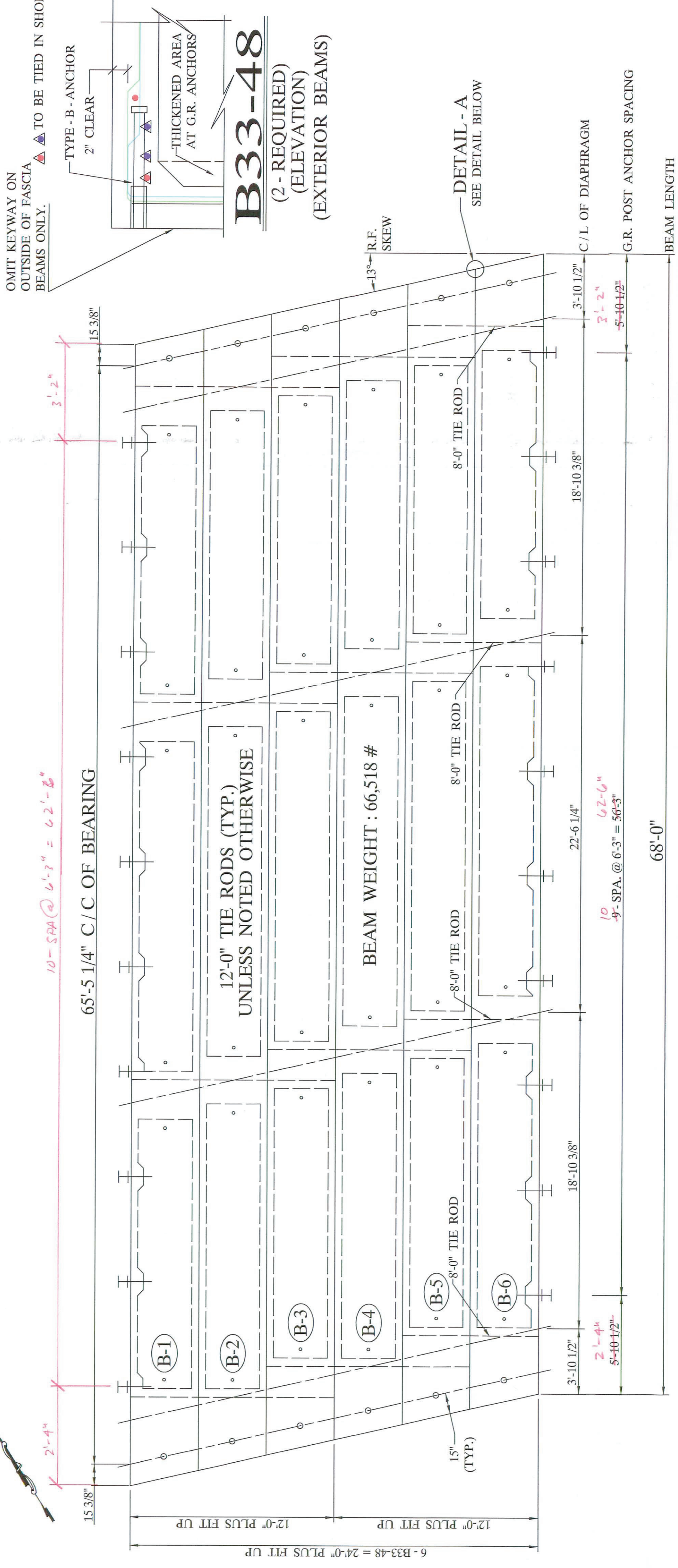
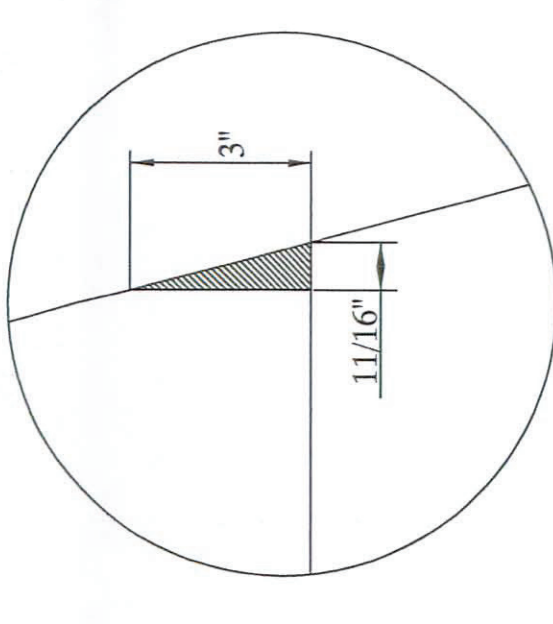


SPO. # 2017

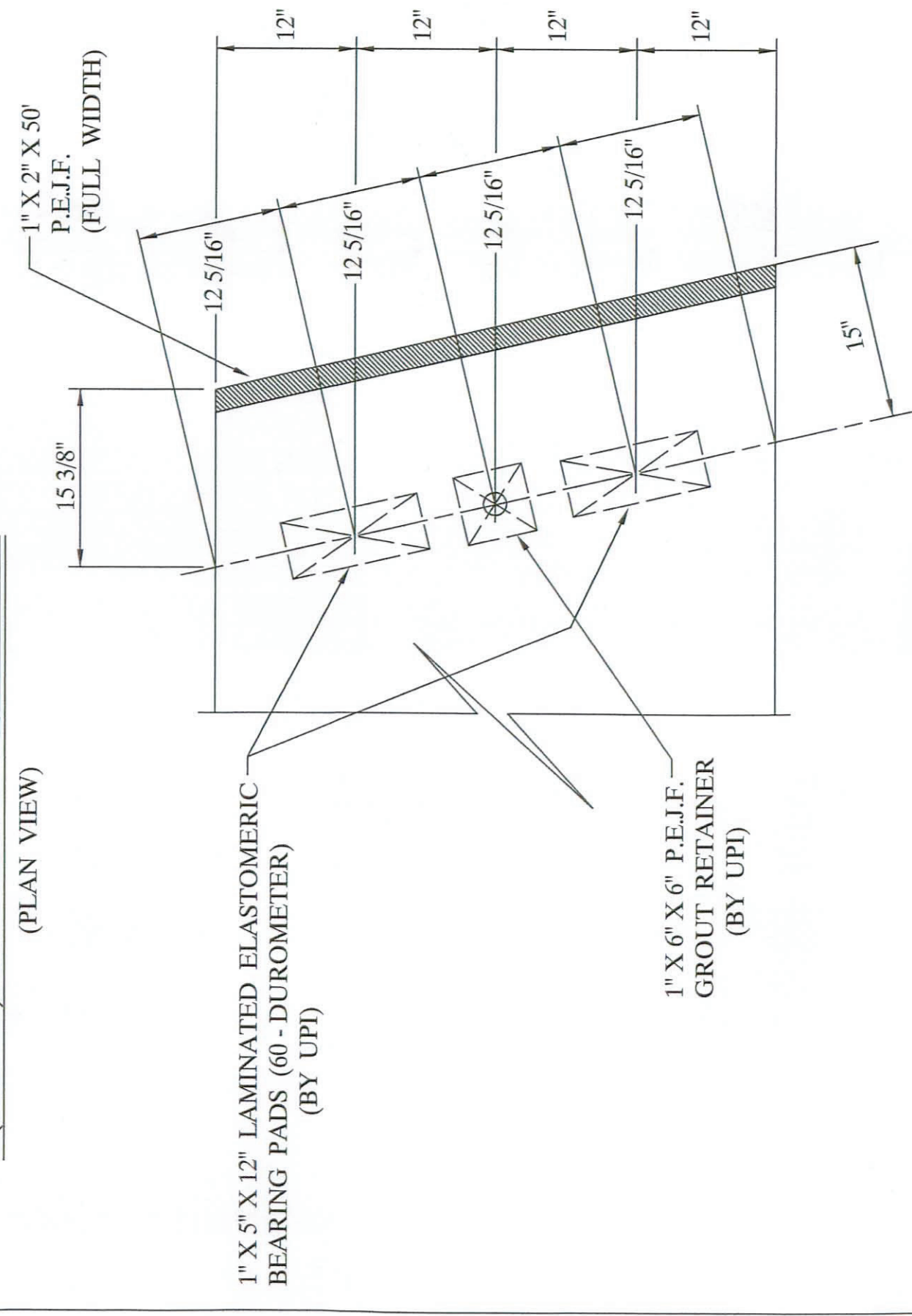
PLEASE MARK SPO. # ON TOP OF ALL BEAMS ALONG WITH COUNTY NAME



DECK PLAN



DETAIL - A
(TYP.) ACUTE CORNER
(PLAN VIEW)

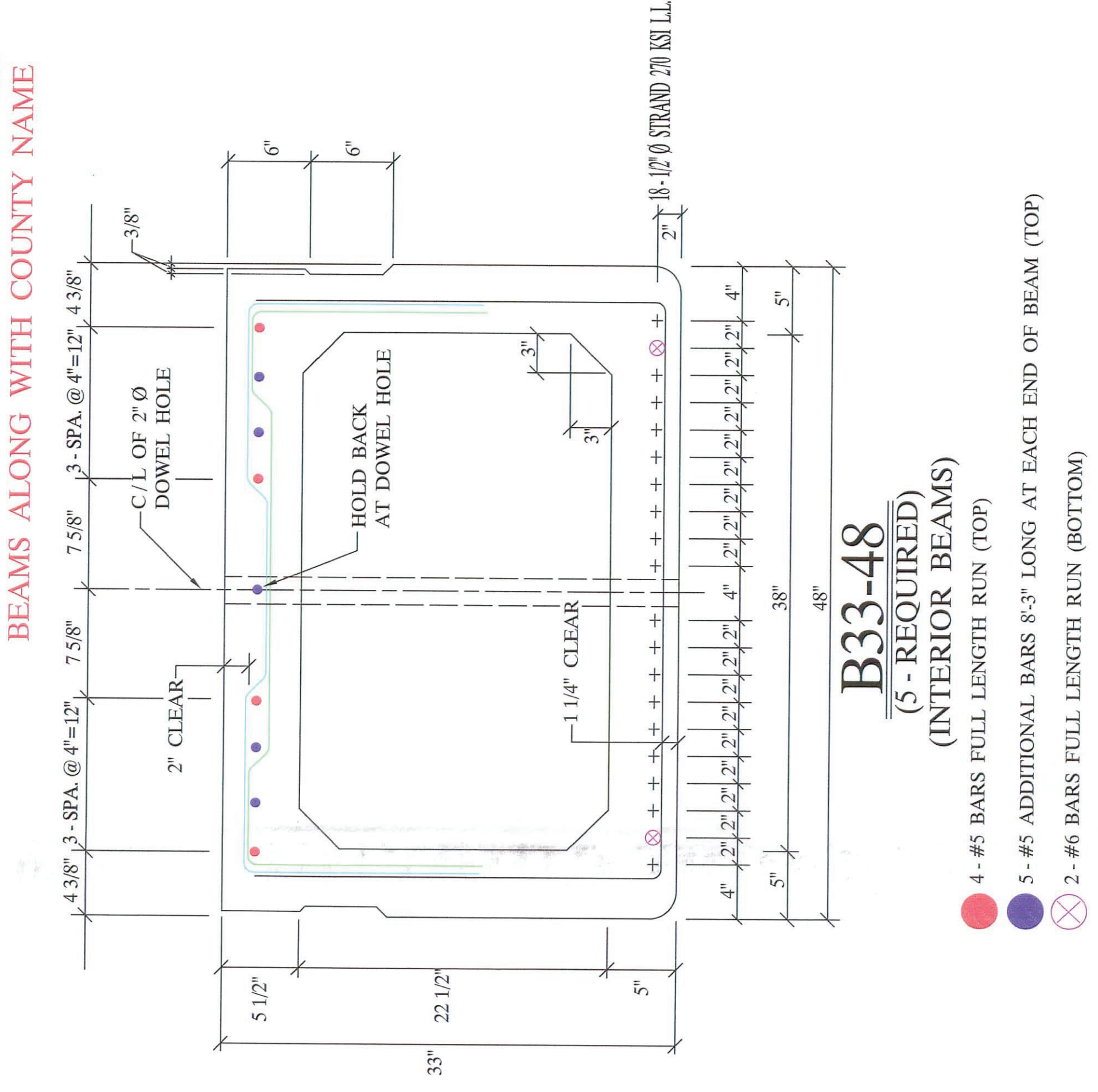
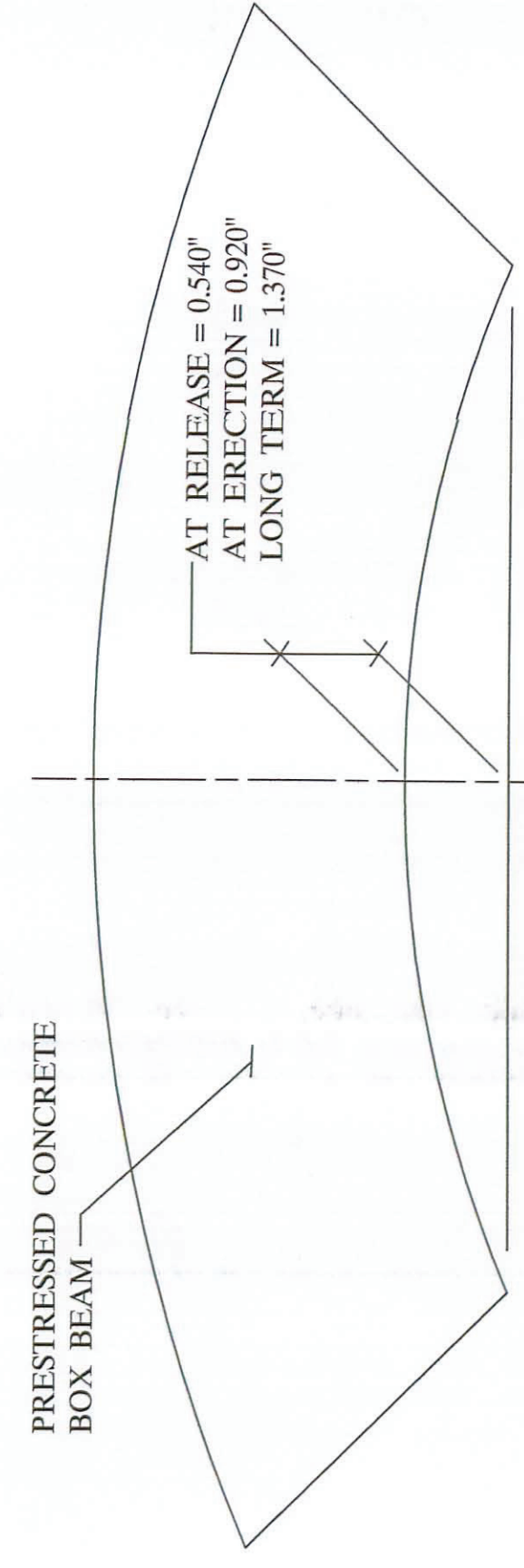


BEARING PAD LAYOUT
(PLAN VIEW)

QUALITY CONTROL NOTE :

- STRAND AREA IS .153 IN. SQ.
- STRAND IS LOW LAX.
- INITIAL LOAD IS 30,982 # / STRAND.
- STIRRUPS UNDER STRAND.
- REBAR IS ALL GRADE - 60.
- CONCRETE STRENGTHS : 5500 PSI AT 28 DAYS
4000 PSI AT RELEASE
- ODOT 2005 SPECIFICATION.

CAMBER DETAIL
(ELEVATION)



B33-48
(5-REQUIRED)
(INTERIOR BEAMS)

- 4 - #5 BARS FULL LENGTH RUN (TOP)
- 2 - #6 BARS FULL LENGTH RUN (BOTTOM)
- 5 - #5 ADDITIONAL BARS 8'-3" LONG AT EACH END OF BEAM (TOP)
- 2 - #6 BARS FULL LENGTH RUN (BOTTOM)

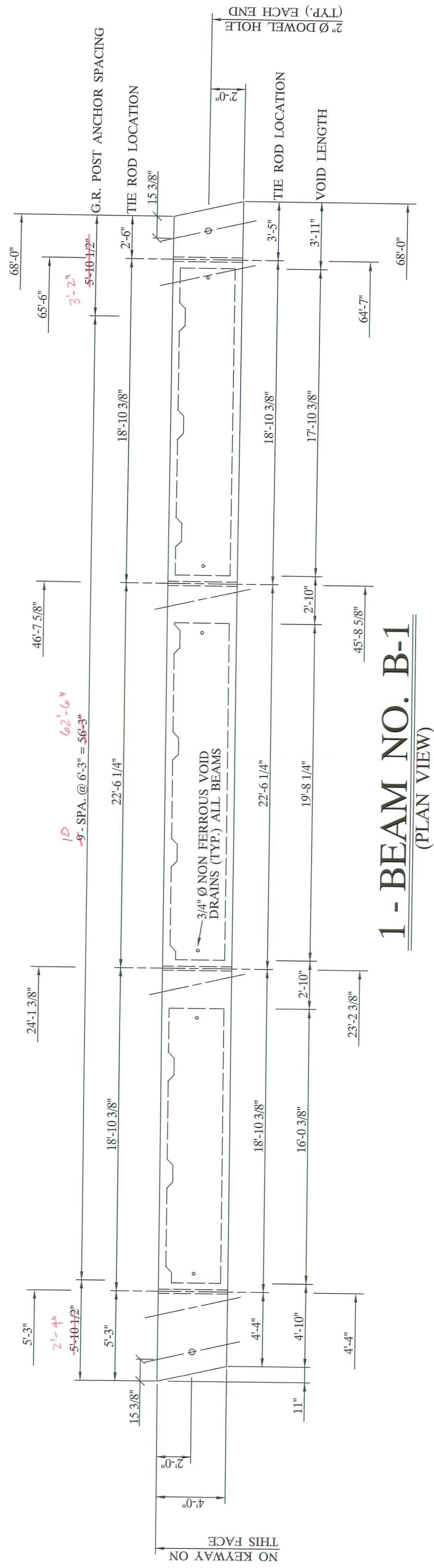
BILL OF MATERIALS

NO	ITEM	QTY / BEAM	NOTES	TOTAL
1	BEAM WEIGHT	66,518 #		
2	CONCRETE	15.9 CY.		95.4 CY.
3	CALCIUM NITRITE (D.C.I.)	63.6 GAL.		381.6 GAL.
4	STRAND	1/2" Ø STRAND 270 KSI L.L. GRADE - 60		9,360 L.F.
5	RE-STEEL	22 1/2" X 38"		10,573 #
6	VOID	3/4" Ø NON FERROUS		329 L.F.
7	VOID DRAINS	1" Ø STEEL ROD		36 EA.
8	TIE ROD	1" Ø STEEL ROD		4 EA.
9	TIE ROD SLEEVES	12" L.F.		128 L.F.
10	TYPE - B - ANCHORS	8" L.F.		4 EA.
11	TYPE - C - ANCHORS			128 L.F.
12	DOWELS & SLEEVES			44 EA.
13	WASSER			22 EA.
14	SILANE	MC - TAR		12 EA.
15	JUTE			4.3 GAL.
16	BEARING PADS			340 L.F.
17	GUARDRAIL POST			24 EA.
18	NON SHRINK GROUT ADDITIVE			20 EA.
19	OFF DECK POST			15.75 LBS.
20	GUARDRAIL ELEMENT			8 EA.
21	TUBULAR BACK-UP			150 L.F.
22	P.E.L.F.			150 L.F.
				8.5 S.F.

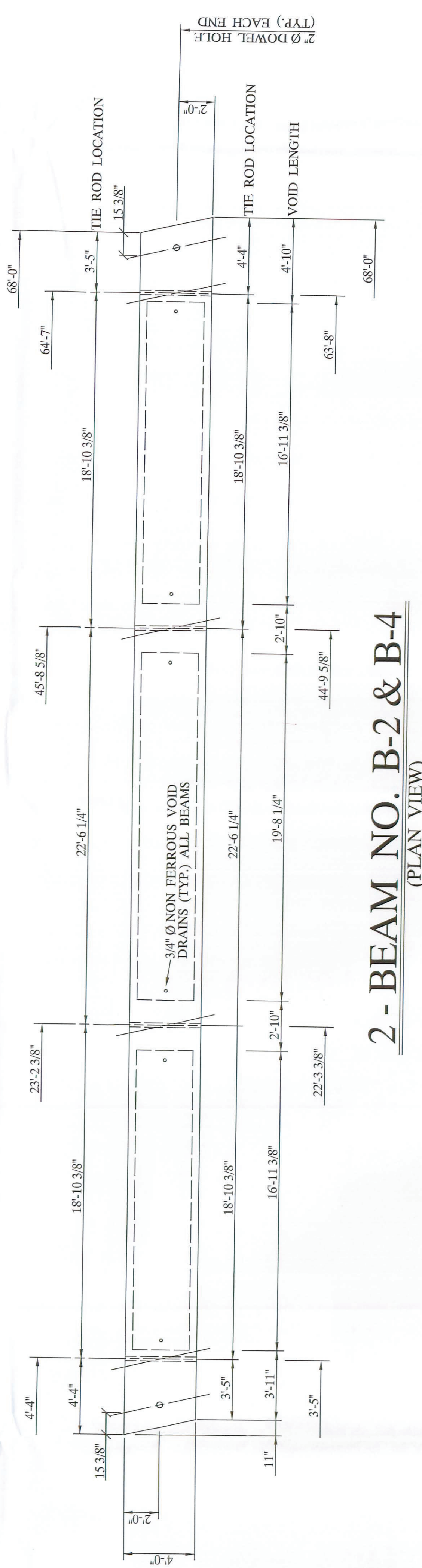
UNITED PRECAST INC.
 ROUNDHOUSE LANE 43050
 MOUNT VERNON, OHIO
 PHONE: (740) 393-1121
 FAX: (740) 393-0044

DESCRIPTION: **BOX BEAM DETAILS**
 SCALE:
 DRAWN BY: PHIL
 REVISIONS:
 JOB NAME: ITEM 515
 BRIDGE NO. LOG - BR221 - 020
 LOGAN COUNTY PROJECT NO. T.R. 221
 DATE: JULY 2007 APPROVED BY: E.O.C. 8 / 24 / 07
 DRAWING NO. 1 OF 5


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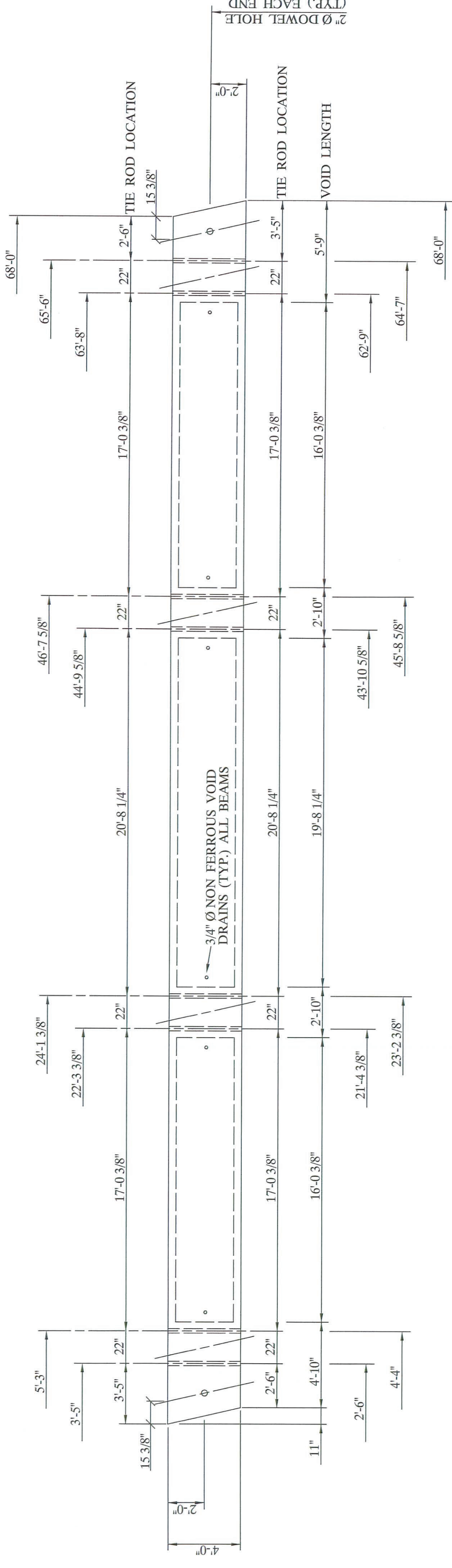
1 - BEAM NO. B-1
(PLAN VIEW)



2 - BEAM NO. B-2 & B-4
(PLAN VIEW)

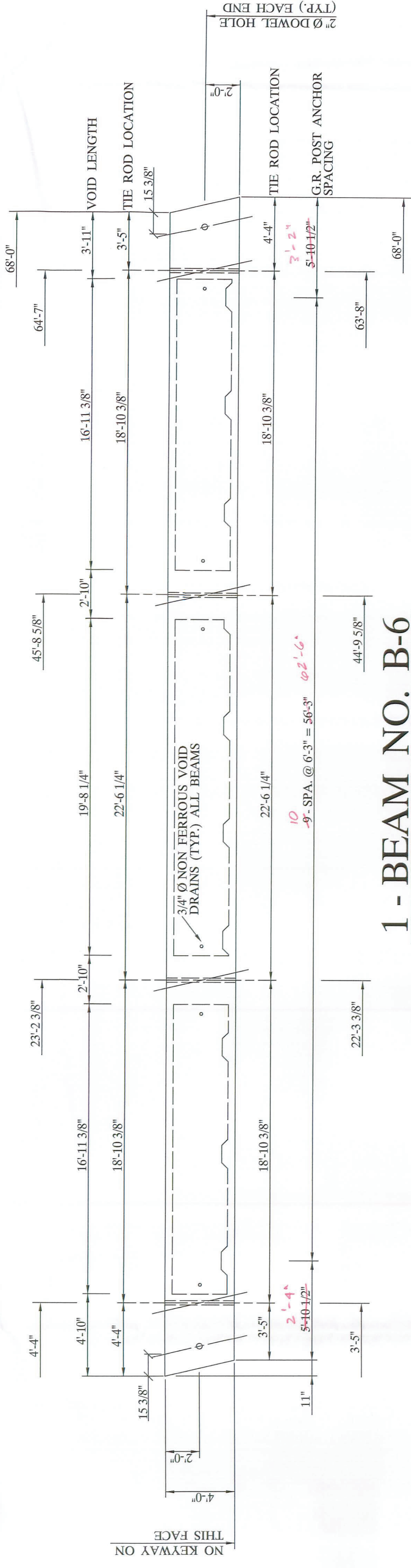
		UNITED PRECAST INC. ROUNDHOUSE LANE MOUNT VERNON, OHIO 43050 PHONE: (740) 393-1121 FAX: (740) 393-0044	
		DESCRIPTION: BOX BEAM DETAILS	SCALE:
JOB NAME: BRIDGE NO. LOG - BR221 - 0.20 LOGAN COUNTY	PROJECT NO. T.R. 221	APPROVED BY: E.O.C.	DATE: JULY 2007
DATE: JULY 2007	APPROVED BY: E.O.C.	PROJECT NO. T.R. 221	DRAWING NO. 2 OF 5

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2 - BEAM NO. B-3 & B-5

(PLAN VIEW)



1 - BEAM NO. B-6

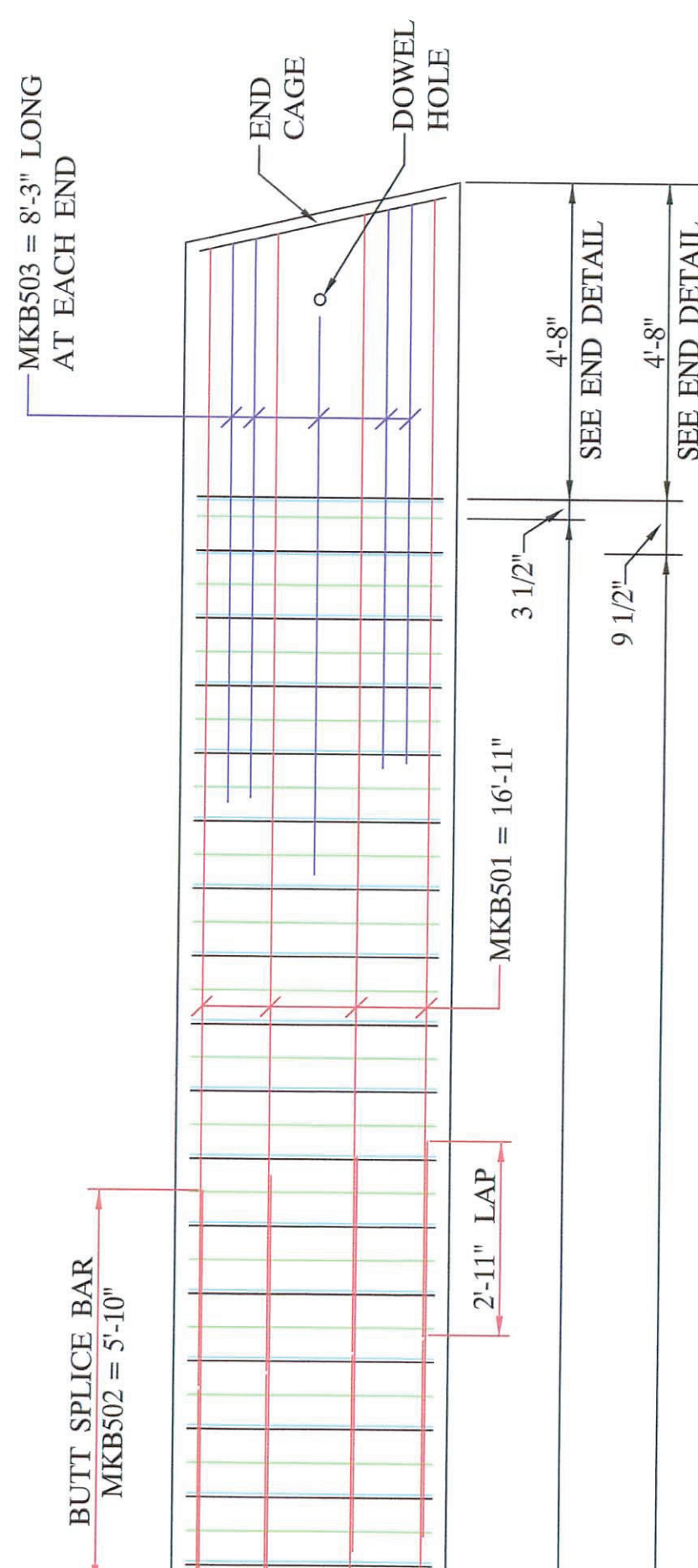
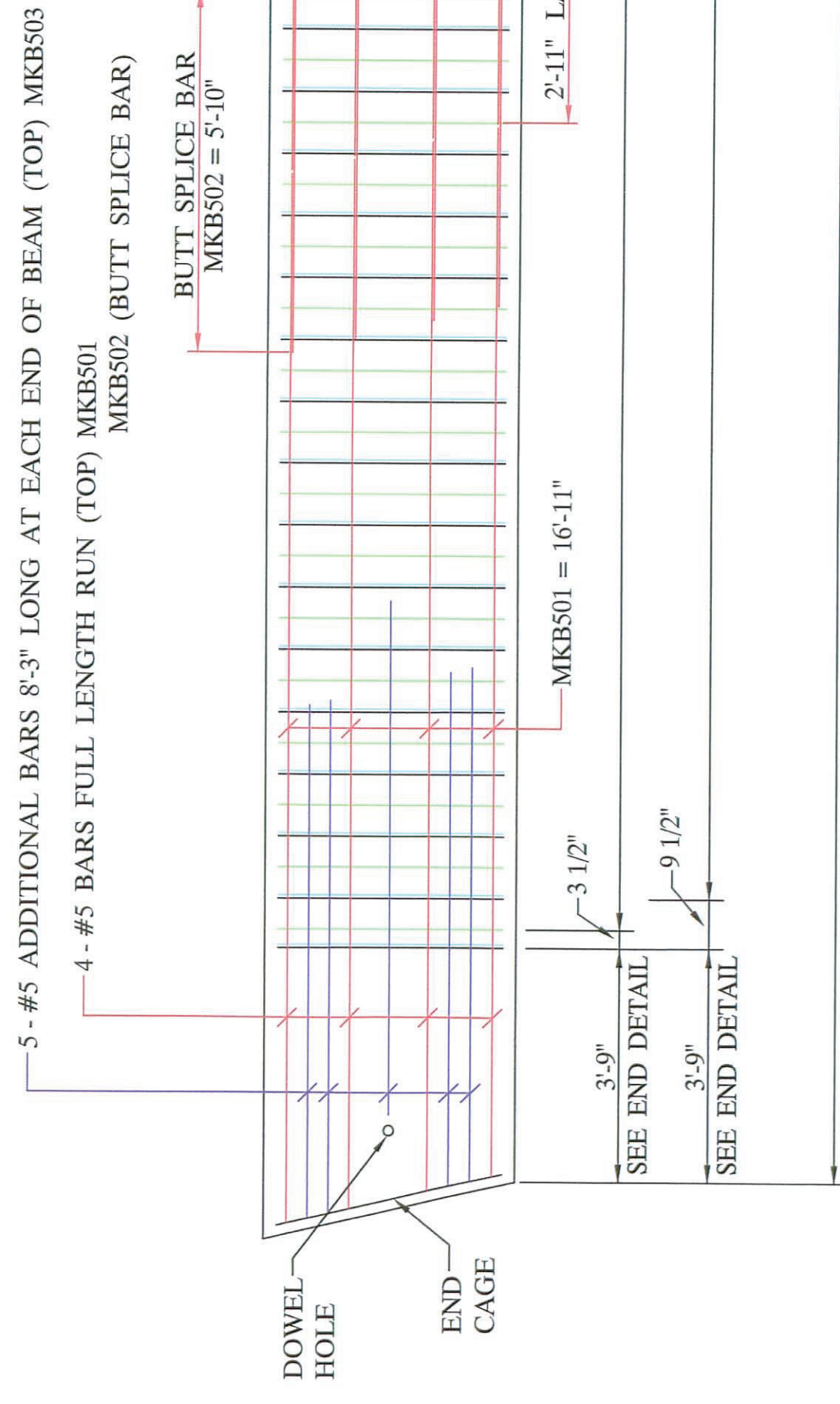
(PLAN VIEW)

	<p>UNITED PRECAST INC. ROUNDHOUSE LANE MOUNT VERNON, OHIO 43050 PHONE: (740) 393-1121 FAX: (740) 393-0044</p>	<p>DESCRIPTION: BOX BEAM DETAILS</p>	<p>SCALE:</p>	<p>DRAWN BY: PHIL</p>
	<p>JOB NAME: ITEM 515 BRIDGE NO. LOG - BR221 - 020 LOGAN COUNTY</p>	<p>PROJECT NO. T.R. 221</p>	<p>REVISED:</p>	<p>DRAWING NO. 3 OF 5</p>
<p>DATE: JULY 2007</p>	<p>APPROVED BY: E.O.C.</p>	<p>8 / 23 / 07</p>		

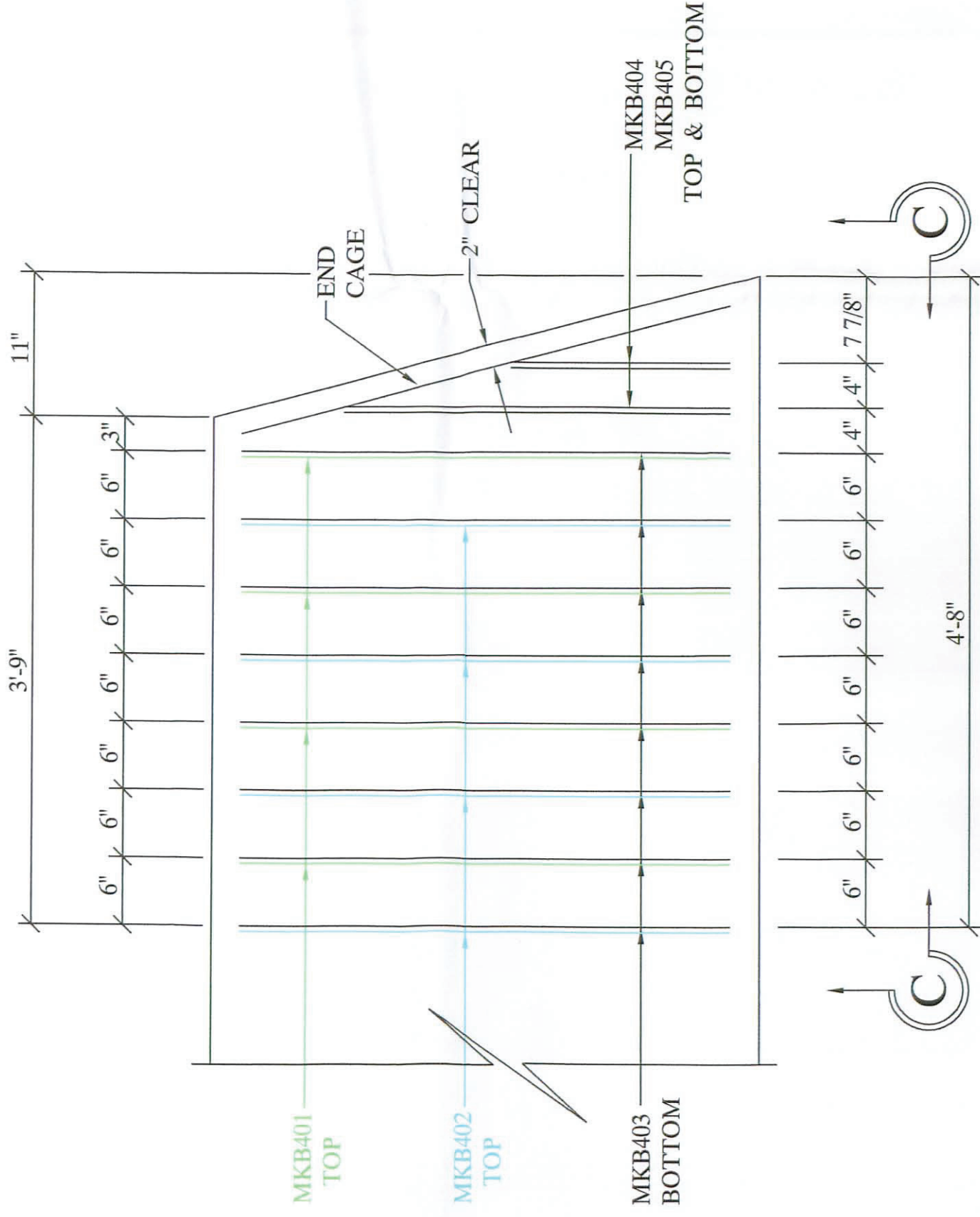
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NOTE:

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

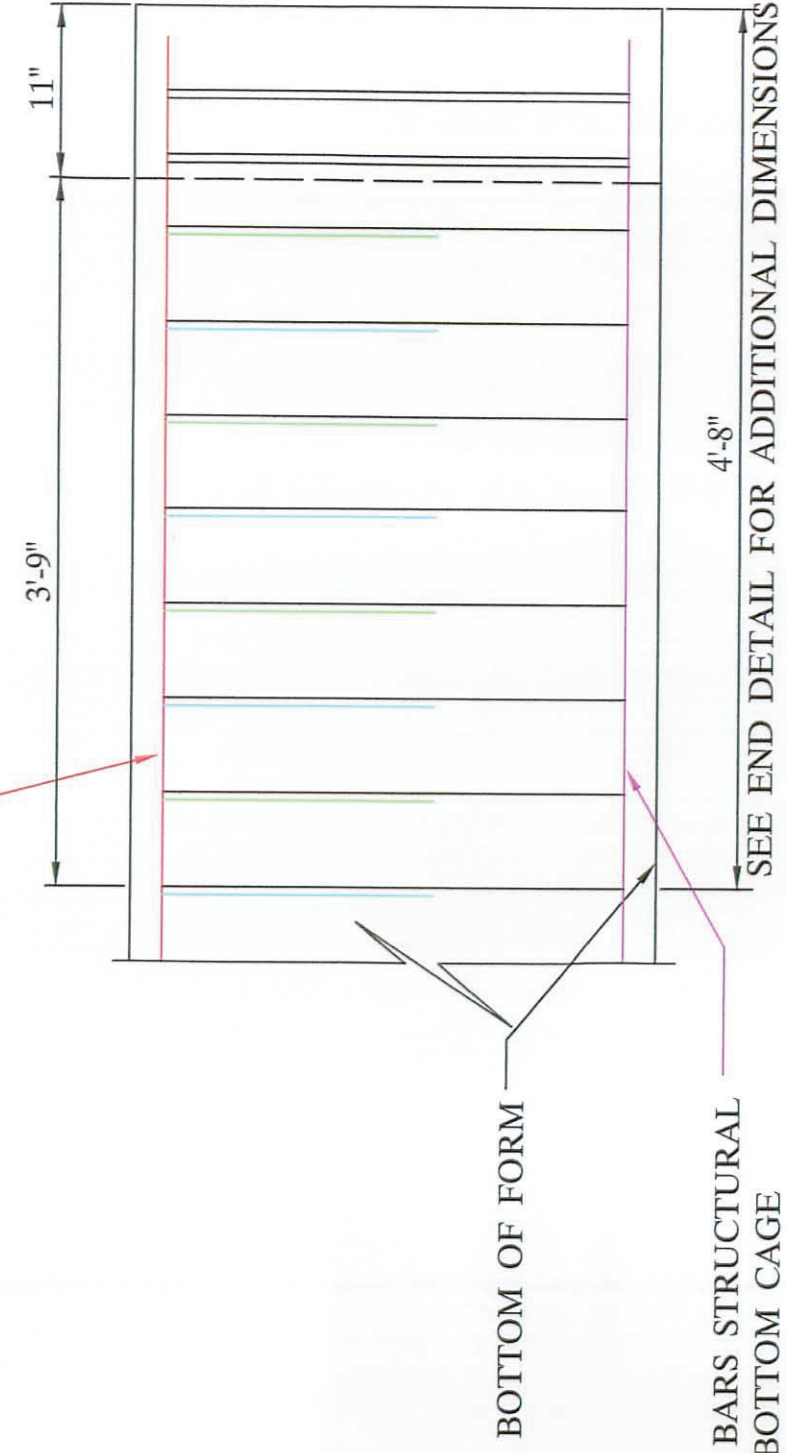


REINFORCING LAYOUT
(PLAN VIEW)



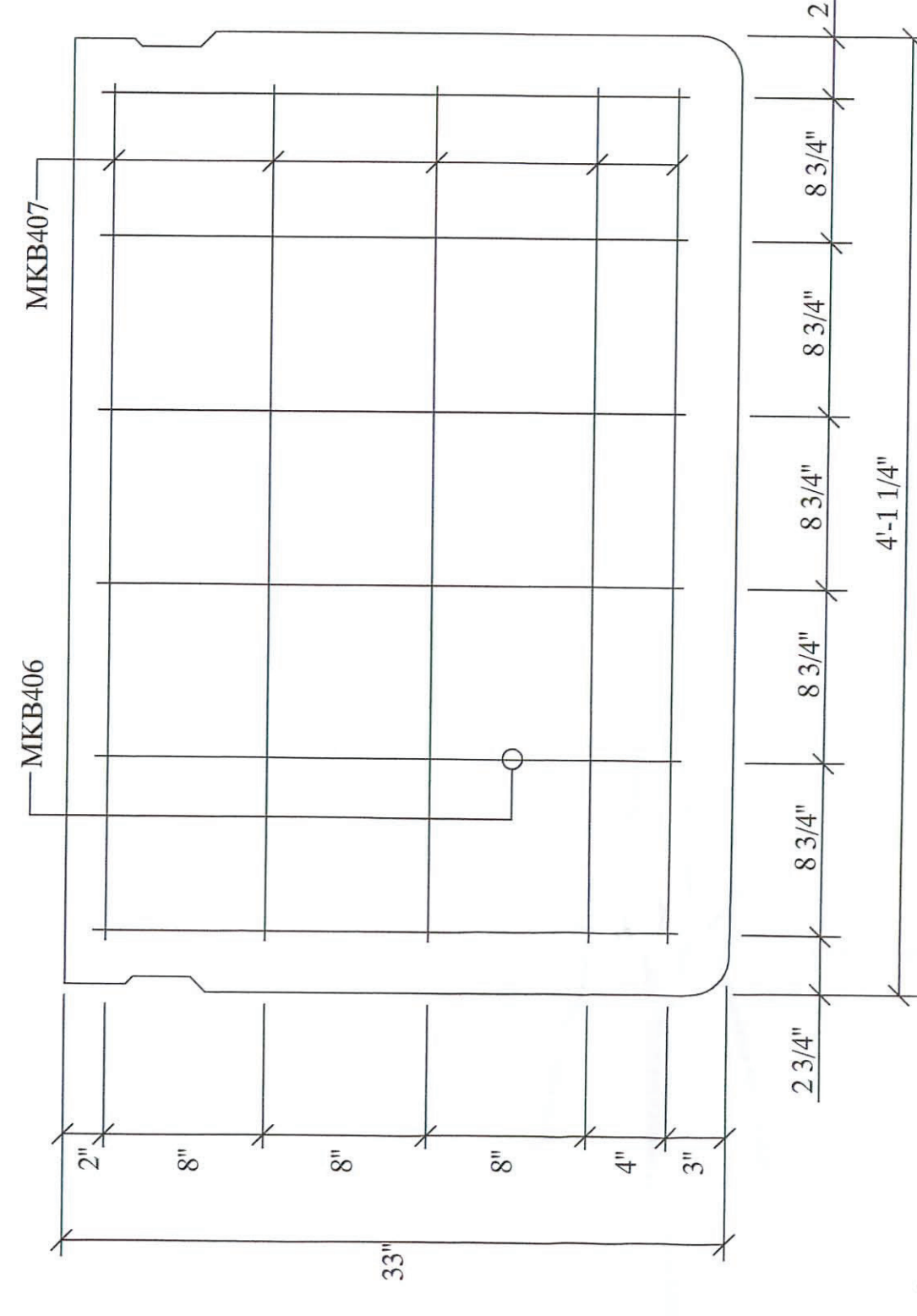
(TYP.) END DETAIL
(WITH SKEW)
(PLAN VIEW)

TOP LONGITUDINAL BARS & TOP STIRRUPS ASSEMBLED IN TOP CAGE & PLACED IN BED IN UNITS OF VARIOUS LENGTH WITH TOP BARS BUTT-SPLICED AT INTERSECTIONS.

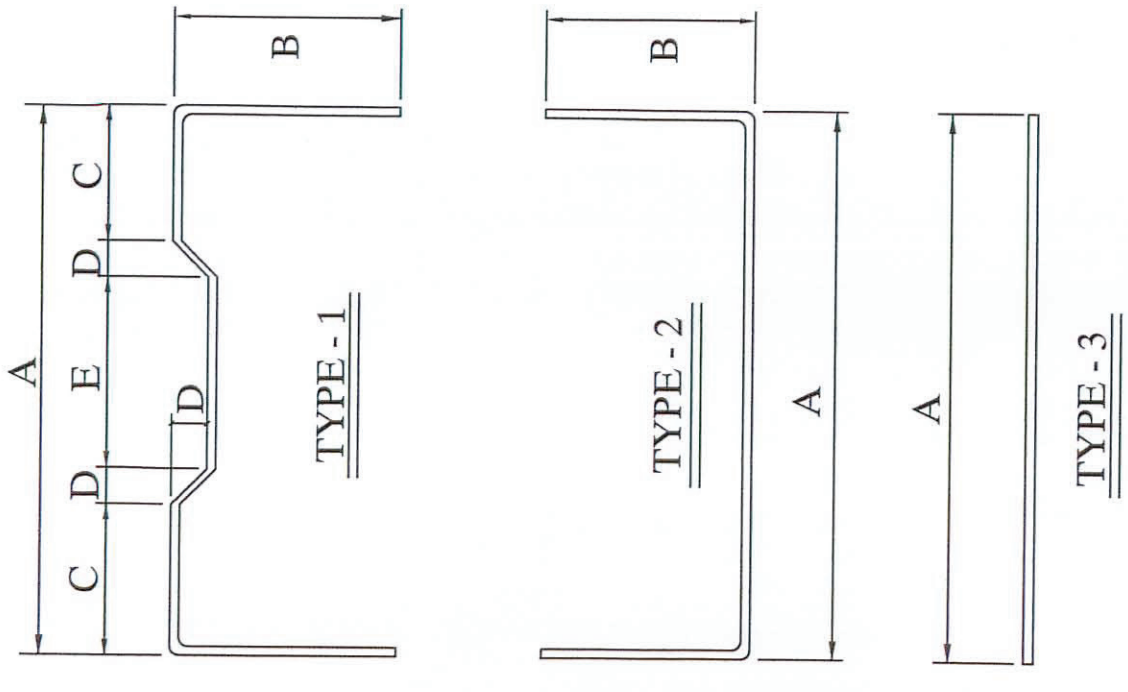


ELEVATION C-C

2-#6 BARS STRUCTURAL FOR BOTTOM CAGE MKB601 (FULL LENGTH BAR) MKB602 (BUTT SPLICE BAR)



BEAM END CAGE
(WITH SKEW)
(ELEVATION)



6 - B33-48 X 68'-0" WITH 13° R.F. SKEW

BAR LIST

MARK	SIZE	LENGTH	QUANTITY	SHAPE	A	B	C	D	E
B401	4	6'-2 1/2"	408	TYPE-1	43"	17"	13"	2"	13"
B402	4	6'-2 1/2"	402	TYPE-1	43"	17"	7"	2"	25"
B403	4	8'-2 1/2"	450	TYPE-2	43"	29"			
B404	4	5'-9 1/2"	24	TYPE-2	14"	29"			
B405	4	7'-2 1/2"	24	TYPE-2	31"	29"			
B406	4	2'-5"	72	TYPE-3	29"				
B407	4	3'-8 3/4"	60	TYPE-3	44 3/4"				
B501	5	16'-11"	96	TYPE-3	16'-11"				
B502	5	5'-10"	72	TYPE-3	5'-10"				
B503	5	8'-3"	60	TYPE-3	8'-3"				
B601	5	16'-11"	48	TYPE-3	16'-11"				
B602	5	6'-8"	36	TYPE-3	6'-8"				

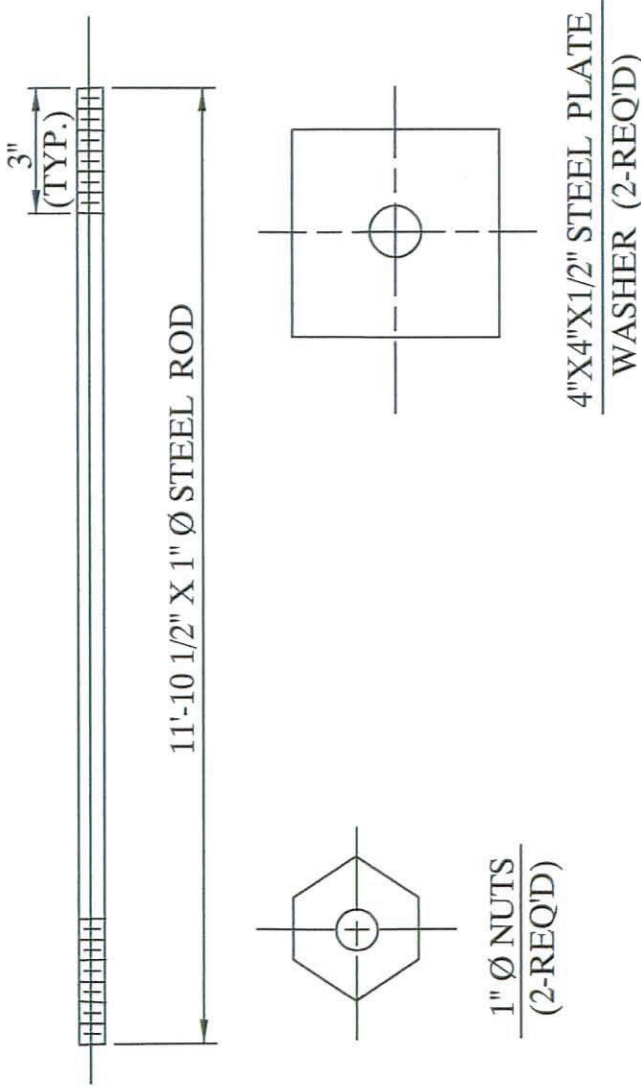
REINFORCING DETAILS		SCALE:	DRAWN BY:
DESCRIPTION:		PHIL
JOB NAME:	ITEM 515		REVISED:
BRIDGE NO. LOG - BR221 - 0.20	LOGAN COUNTY		
DATE:	APPROVED BY:	PROJECT NO. I.R.221	DRAWING NO.
JULY 2007	E.O.C.	8 / 23 / 07	4 OF 5

UNITED PRECAST INC.
ROUNDHOUSE LANE
ROUNDTOWN, OHIO 43050
PHONE: (740) 393-1121
FAX: (740) 393-0044

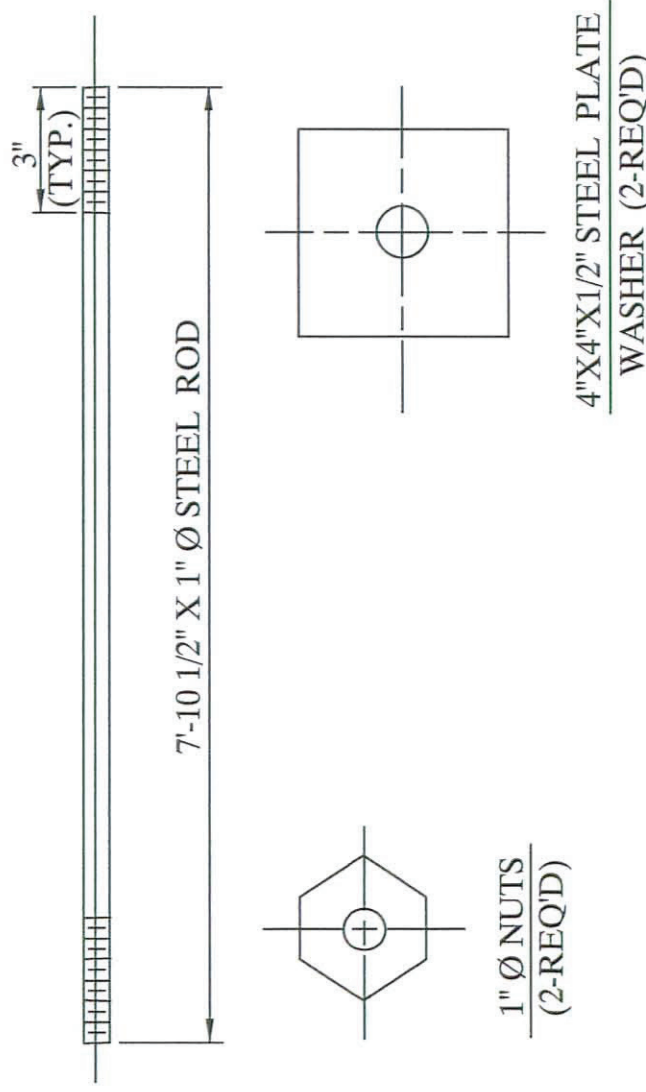


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12'-0" TIE ROD ASSY

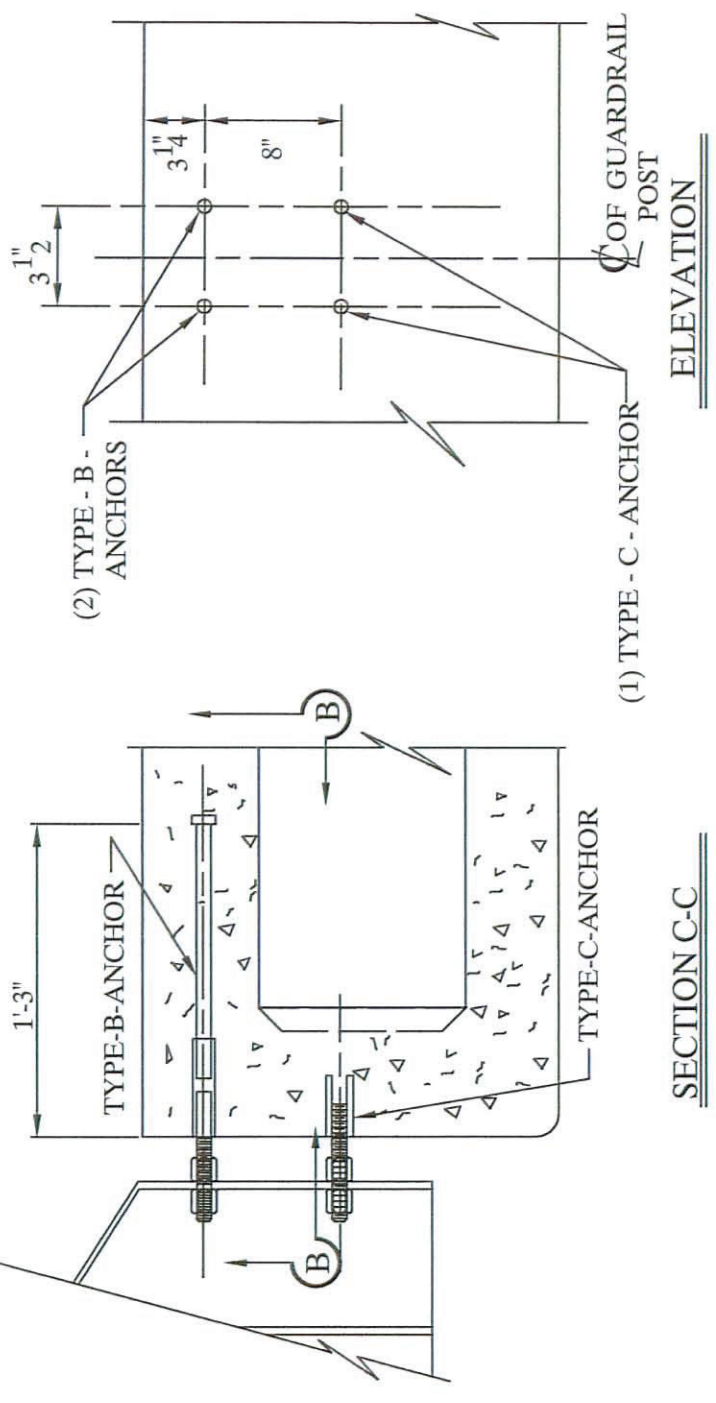


8'-0" TIE ROD ASSY



NOTE:

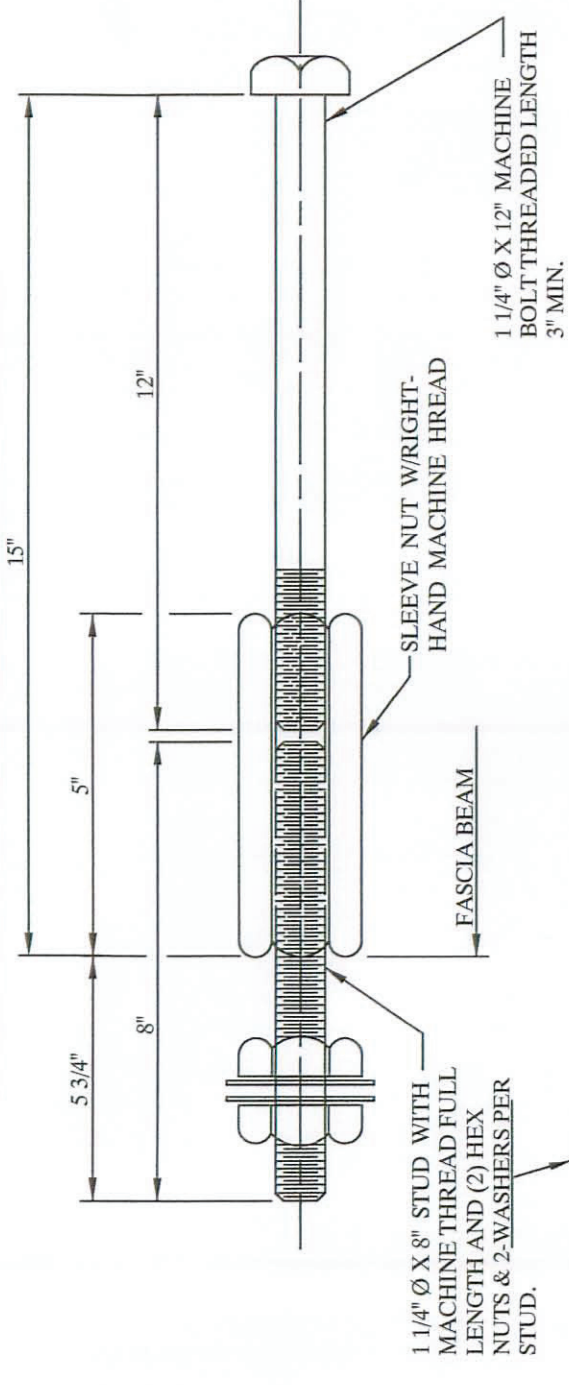
ALL ITEMS INCLUDING TIE RODS ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-A123 OR 153. PER CMS 711.02, UNLESS OTHERWISE NOTED.



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

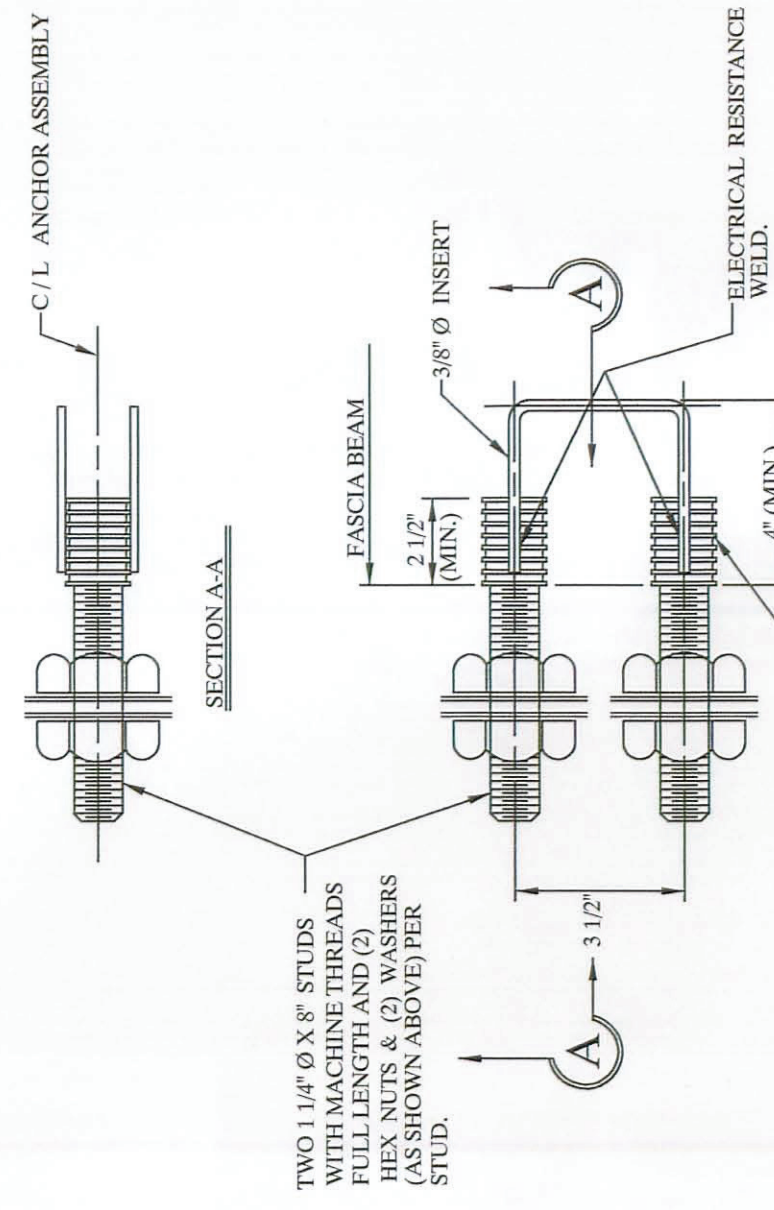
NOTE:
TYPE B&C ANCHOR ASSEMBLIES SHALL CONFORM TO PHYSICAL PROPERTIES OF ASTM-A-325, EXCEPT MIN. ELONGATION SHALL BE 10%. THE CHEMICAL PROPERTIES ARE WAIVED.

TYPE "B" ANCHOR

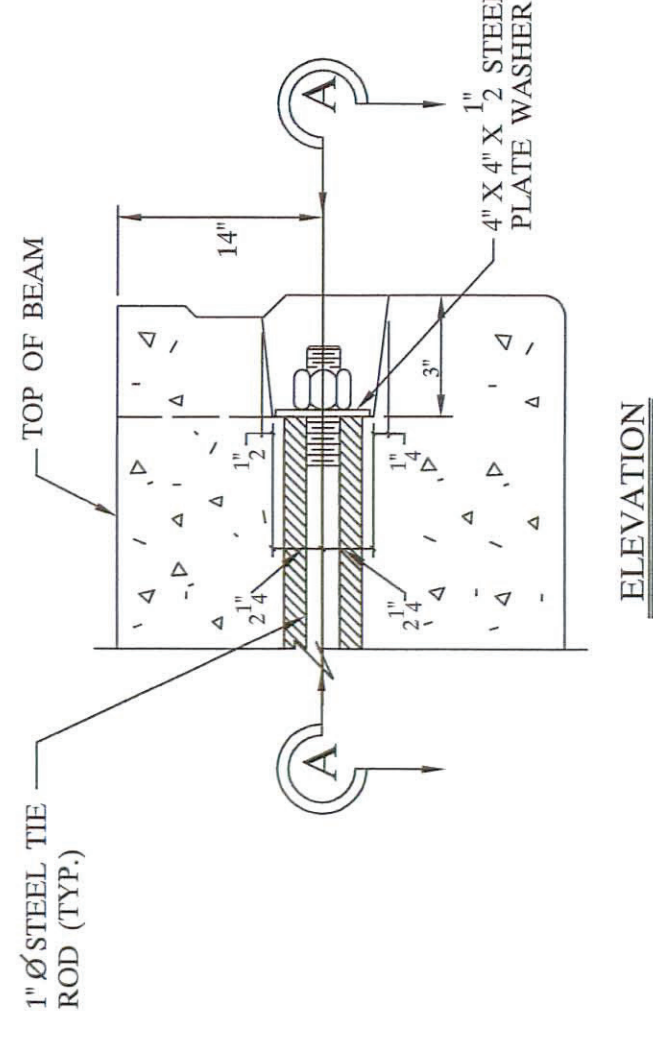


2-1/2" X 3-1/2" X 5/16" THICK PER DBR - 2-73

TYPE "C" ANCHOR



"B" & "C" ANCHOR DETAILS



AFTER THE RODS ARE TIGHTENED FILL IN RECESSES IN FASCIA BEAMS FLUSH WITH FACE OF BEAM WITH NON SHRINKING MORTAR.

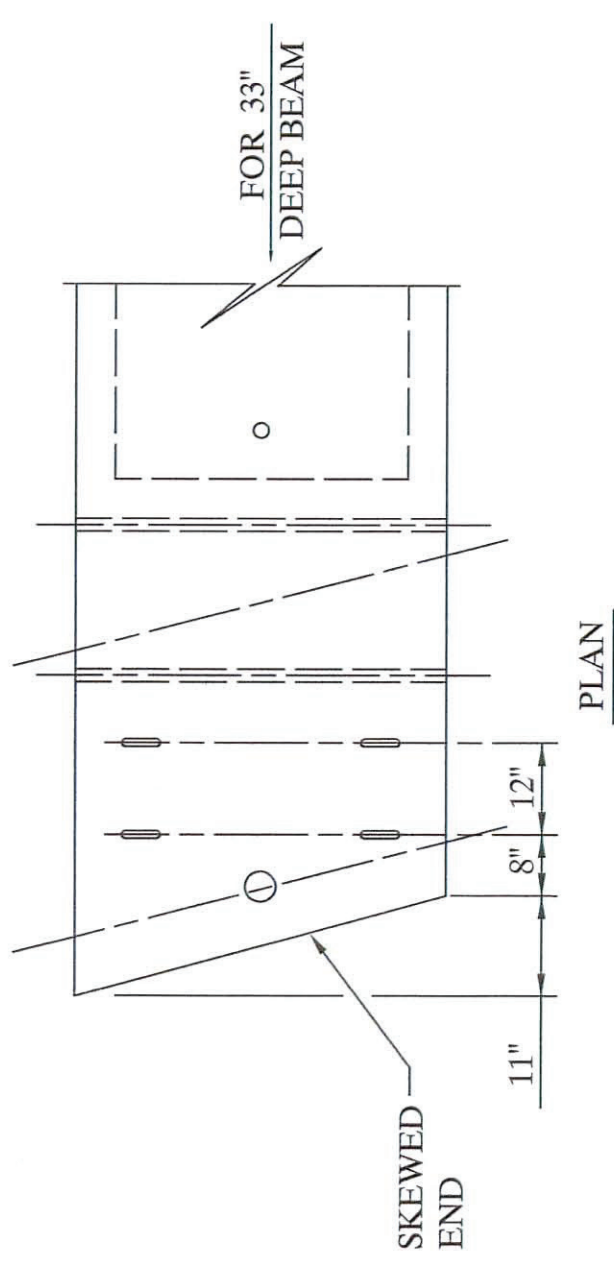
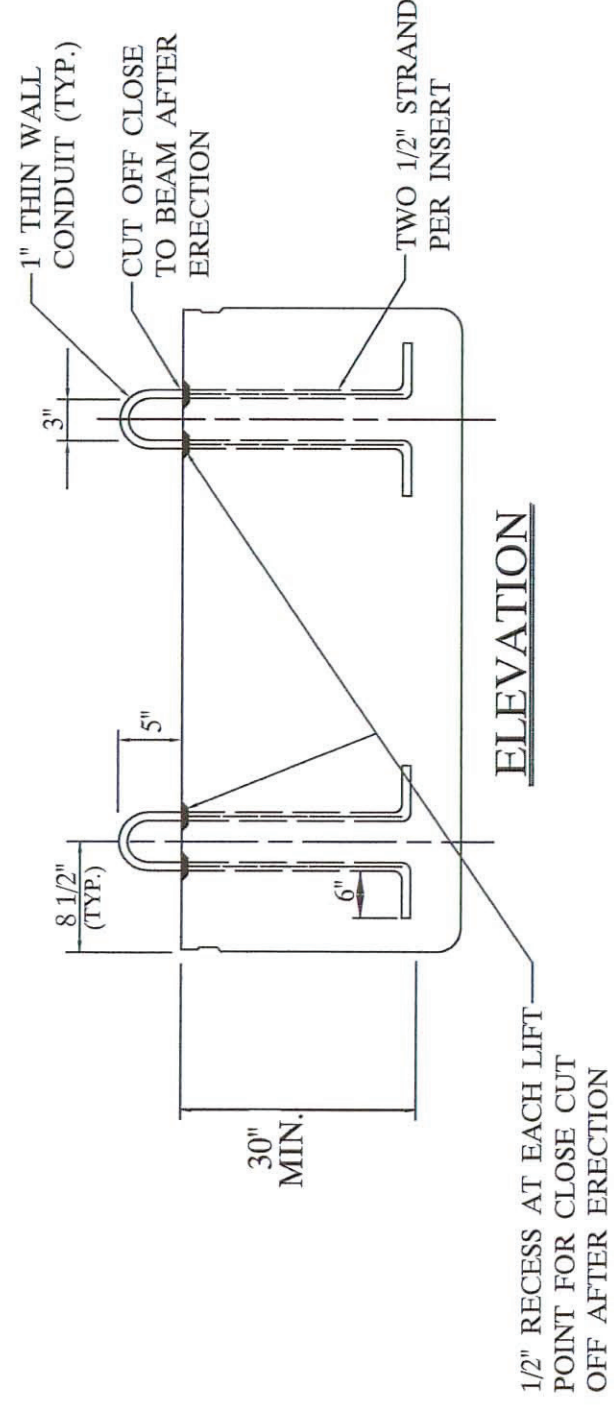
SECTION A-A (ALL BEAMS)

NOTE:
THE RODS SHALL BE ASTM - A308 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.



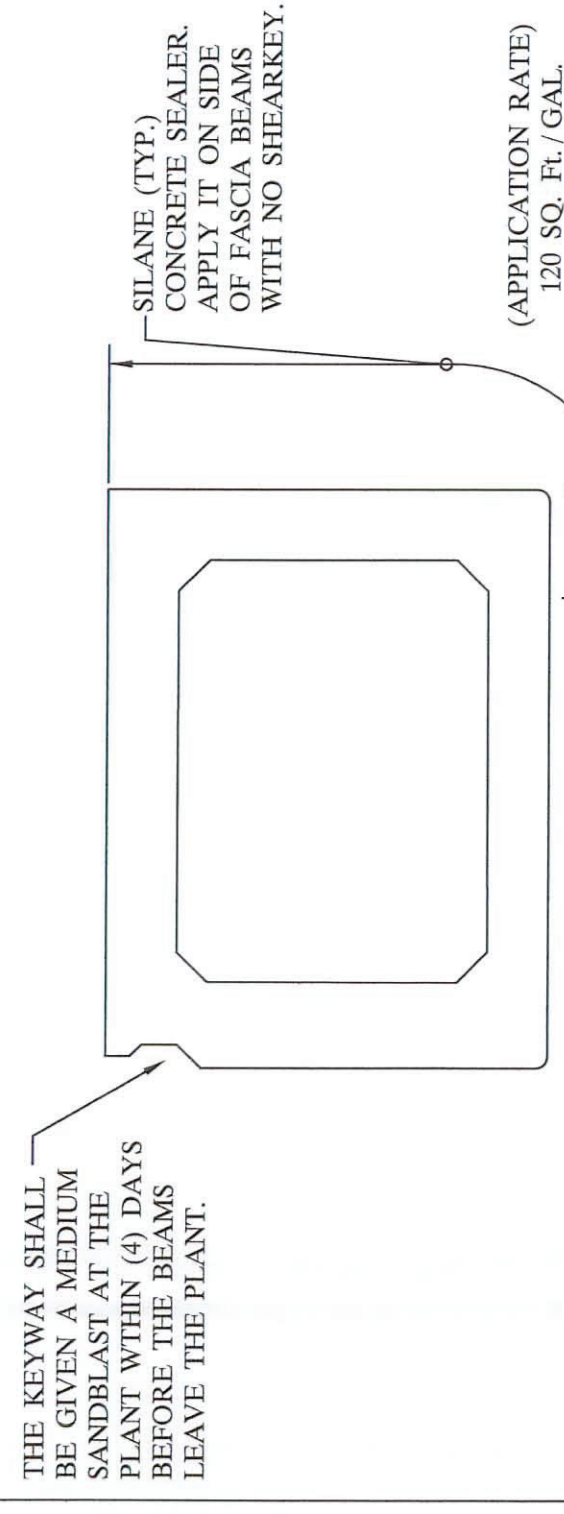
NOTE:
LIFTING INSERTS ARE HAND PLACED IN THE SHOP AND ARE TO BE ADJUSTED TO CLEAR REINFORCEMENT, ANCHOR DOWEL SLEEVES, TIE ROD SLEEVES, OR ANY ADDITIONAL EMBEDDED ITEMS IN THIS REGION.

LIFTING INSERT DETAIL

SPECIFICATIONS

- DESIGN LOADING: HB0-44 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 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. LOG - BR221 - 0.20

LOGAN COUNTY

ITEM 515

PROJECT NO. T.R. 221

UNITED PRECAST INC.

ROUNDHOUSE LANE

MT. VERNON, OHIO 43050

PHONE: (740) 393-1121, FAX: (740) 393-0044

DATE: JULY 2007

APPROVED BY: E.O.C.

8 / 23 / 07

DRAWN BY: PHIL

REVISED

DRAWING NO. 5 OF 5