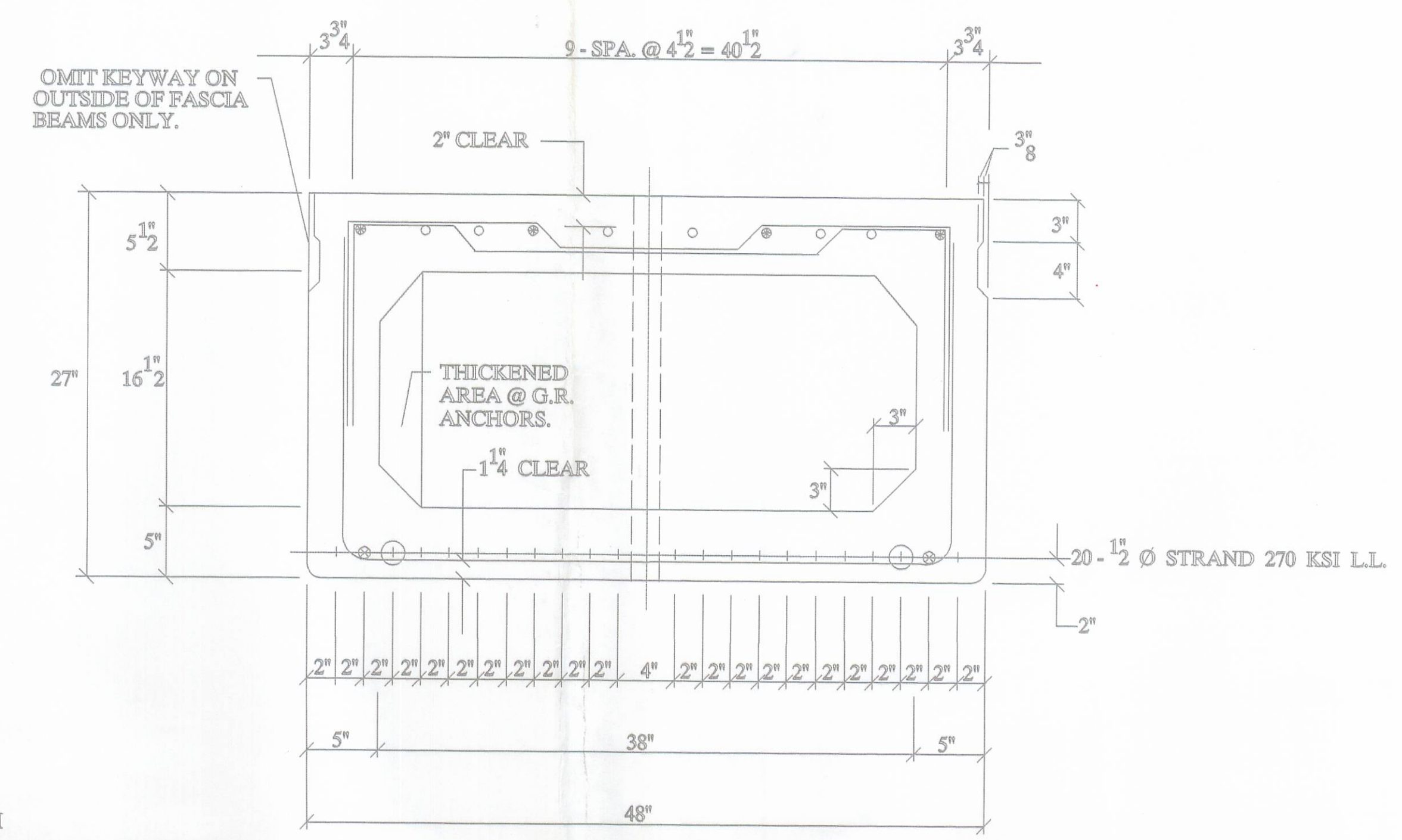


DECK PLAN



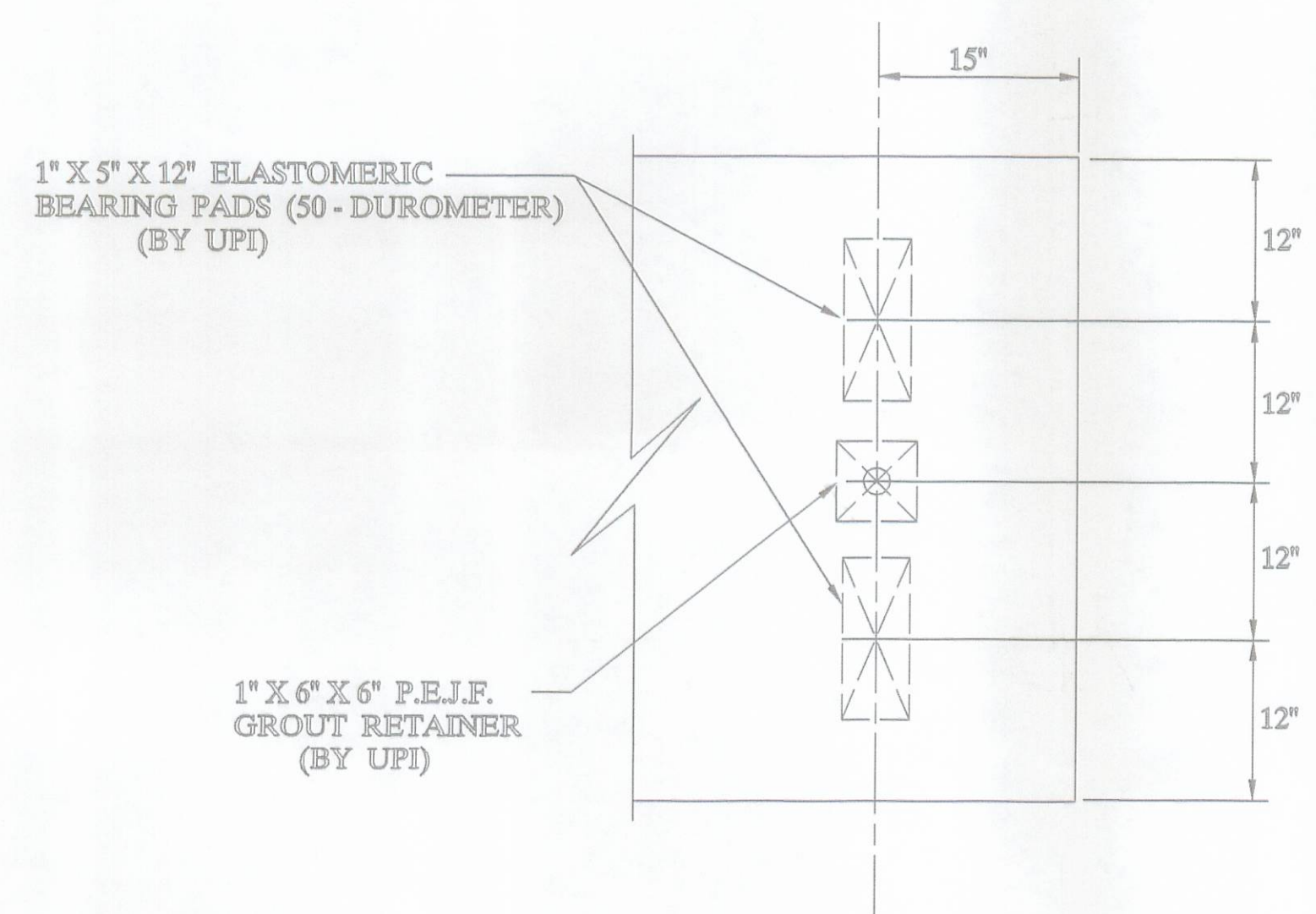
B27-48

- 4-#5 BARS FULL LENGTH RUN (TOP) MKB501 & MKB502 MKB503 (BUTT SPLICE BAR)
- 6-#5 ADDITIONAL BARS 9'-9" LONG @ EACH END OF BEAM (TOP) MKB504.
- ⊗ 2-#6 BARS FULL LENGTH RUN (BOTTOM) MKB601 & MKB602 MKB603 (BUTT SPLICE BAR)
- ⊕ DEBOND STRAND 1'-6" @ EACH END OF BEAM

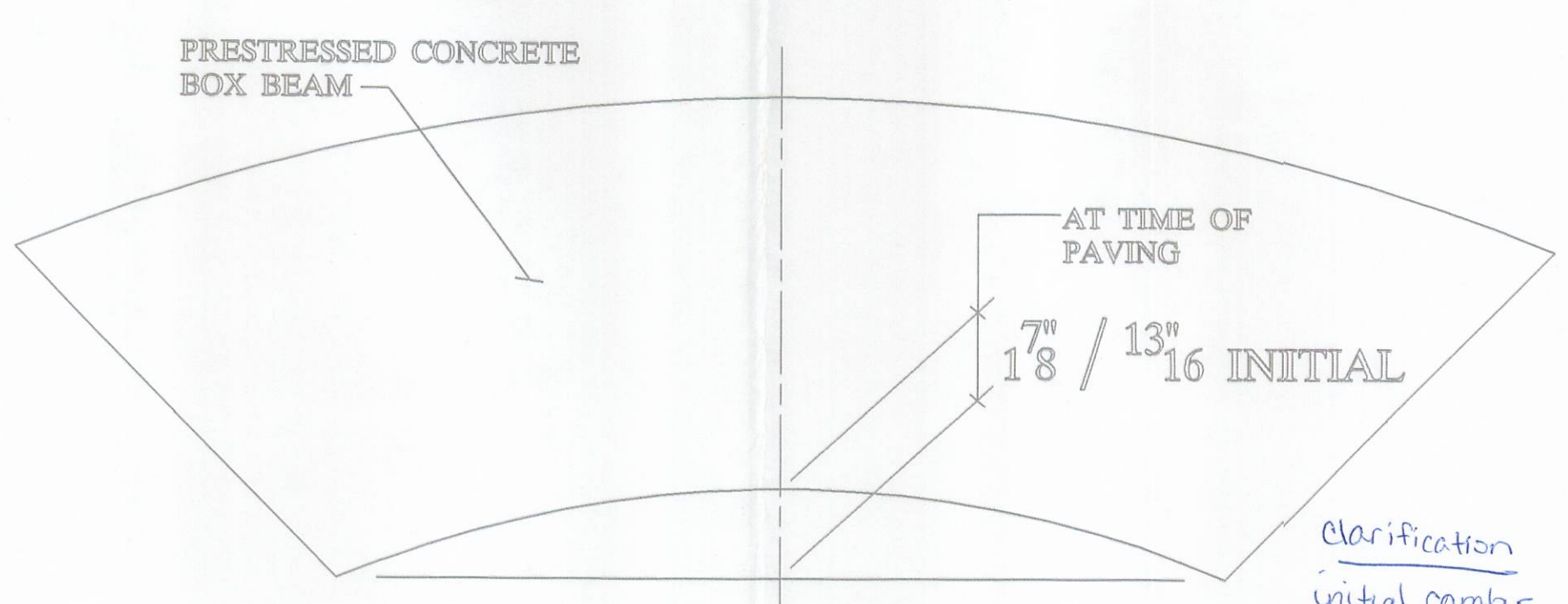
ENGINEER : PLEASE REVIEW G.R. LAYOUT. WE FELT THIS LAYOUT WORKED BETTER THAN WHAT YOUR DRAWING SHOWED. PLEASE ADVISE / COMMENT.

QUALITY CONTROL NOTE :

- STRAND IS LOW LAX.
- INITIAL LOAD IS 30,982 #.
- REBAR IS ALL GRADE - 60.
- STIRRUPS UNDER STRAND.



BEARING PAD LAYOUT

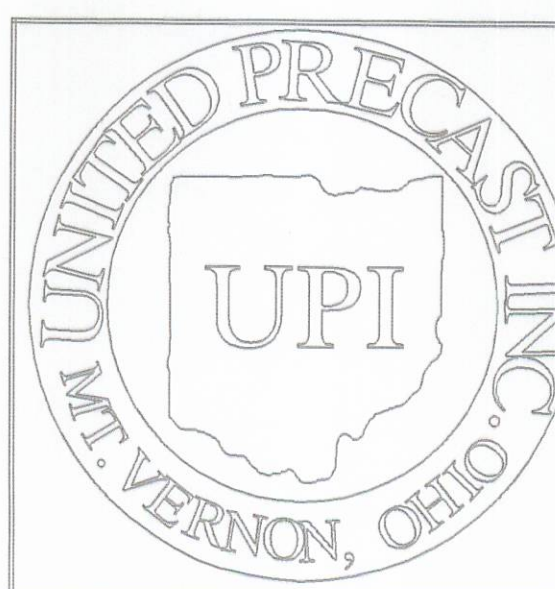


CAMBER DETAIL

BILL OF MATERIALS

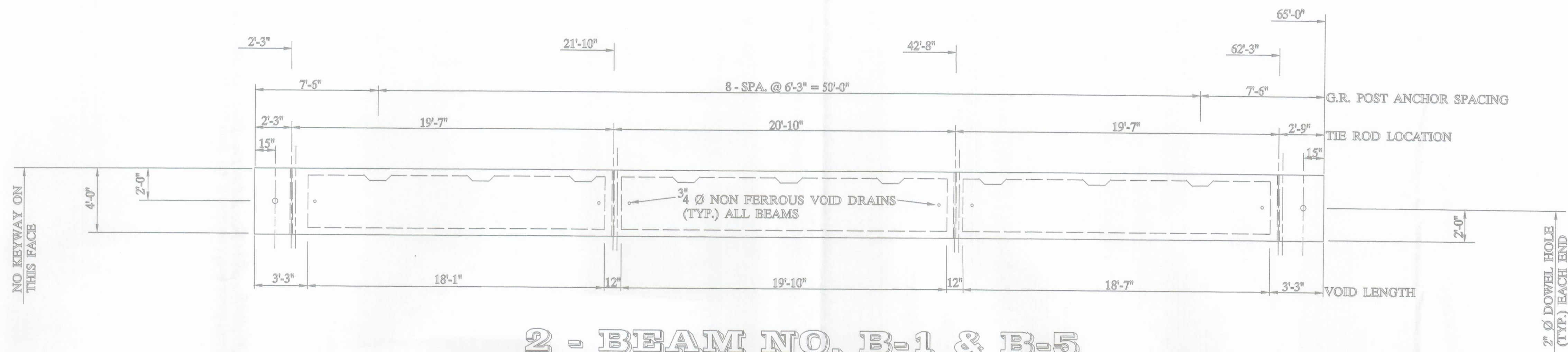
NO	ITEM	QTY / BEAM	NOTES	TOTAL
1	BEAM WEIGHT		54,942 #	
2	CONCRETE	13.1 CY.		65.5 CY.
3	CALCIUM NITRITE	52.4 GAL.		262 GAL.
4	STRAND		1 (D.C.I.) 4 - GAL. / CY.	
5	RE - STEEL		2 Ø STRAND 270 KSI LL.	8,800 L.F.
6	VOID		GRADE - 60	7,715 #
7	VOID DRAINS		3" 16" X 38"	273 L.F.
8	TIE ROD		4 Ø NON FERROUS	30 EA.
9	TIE ROD SLEEVES	12'-0"	1" Ø STEEL ROD	8 EA.
10	TYPE - B - ANCHORS			96 L.F.
11	TYPE - C - ANCHORS			36 EA.
12	DOWELS & SLEEVES			18 EA.
13	INTERTUF 132			10 EA.
14	SILANE			.6 GAL.
15	JUTE			3 GAL.
16	BEARING PADS			260 L.F.
17	GUARDRAIL POST		TYPE - 2	4 EA.
18	P.E.I.F.		1" X 3" X 40"	18 EA.
19	NON SHRINK GROUT ADDITIVE			10 S.F.

APPROVED BY LOGAN CO. ENGINEER 9-11-98

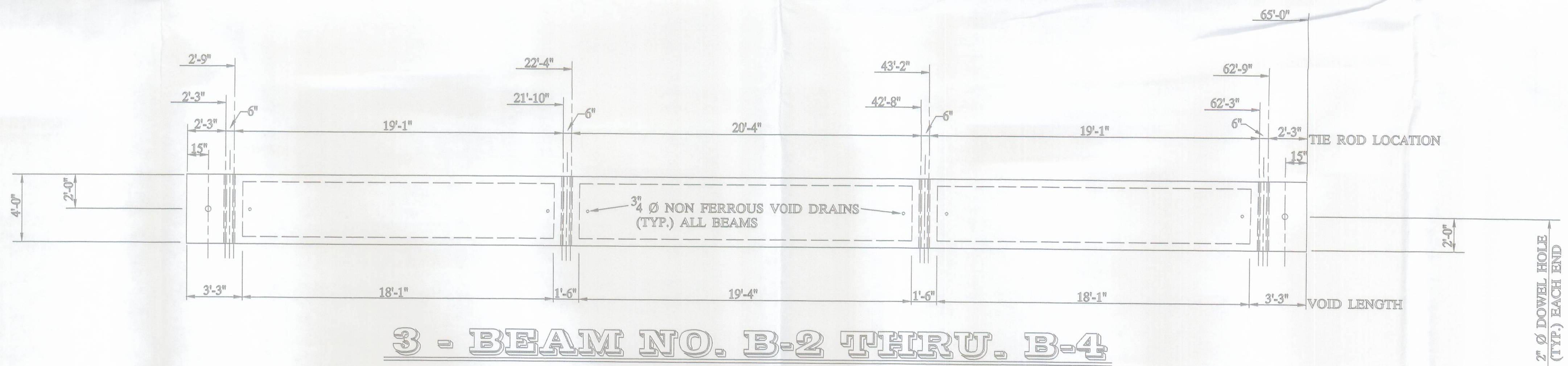


UNITED PRECAST INC.

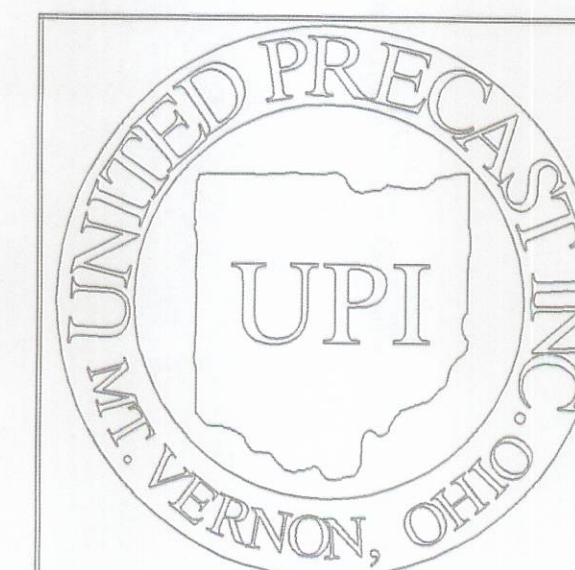
DESCRIPTION: BOX BEAM DETAILS	SCALE: -----	DRAWN BY: PHIL
JOB NAME: ITEM 515 BRIDGE NO. LOG - T.R. 129 - 3.20 LOGAN COUNTY	FERRY TOWNSHIP	REVISED:
DATE: SEPTEMBER '98	APPROVED BY: E.O.C. 9/15/98	DRAWING NO. 1 OF 4



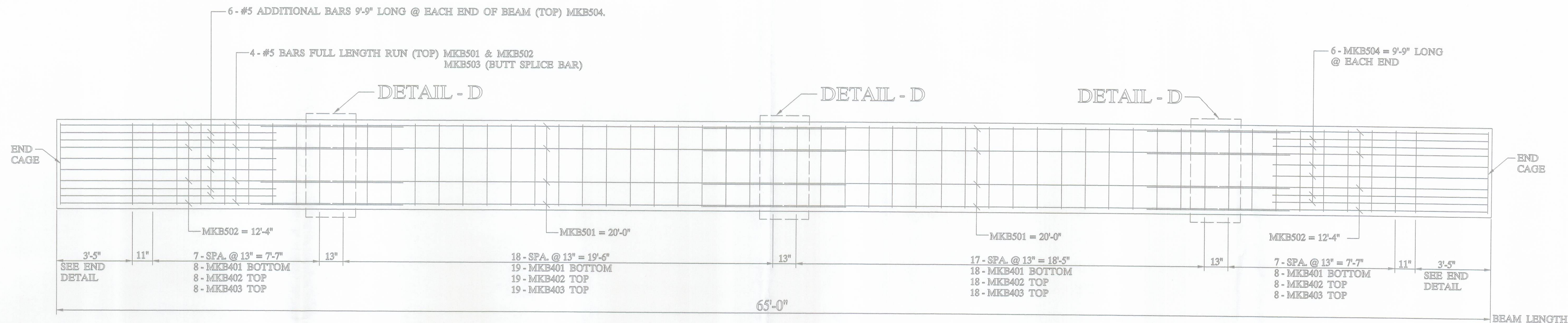
**2 - BEAM NO. B-1 & B-5
(SHOWING B-1)**



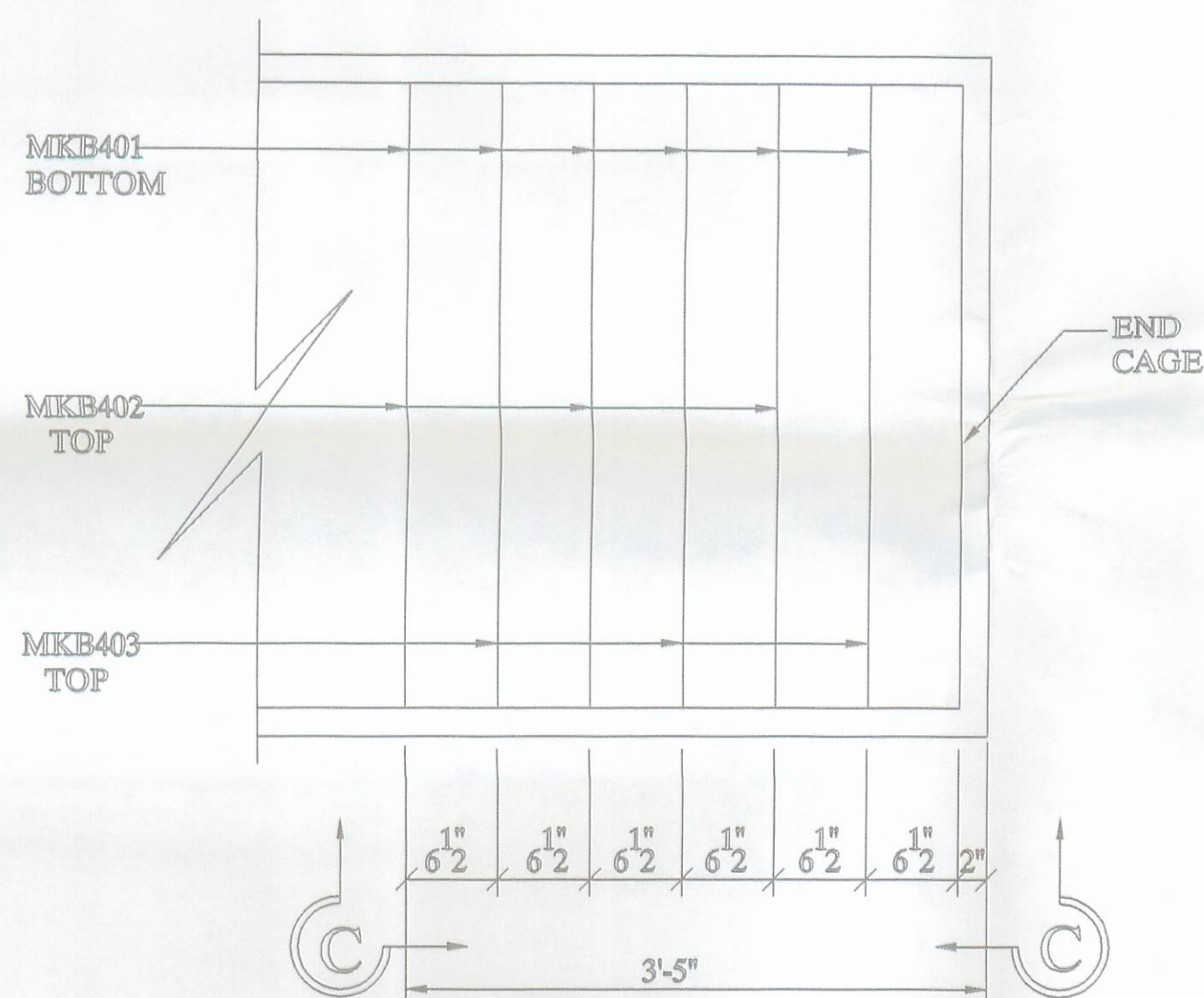
3 - BEAM NO. B-2 THRU. B-4



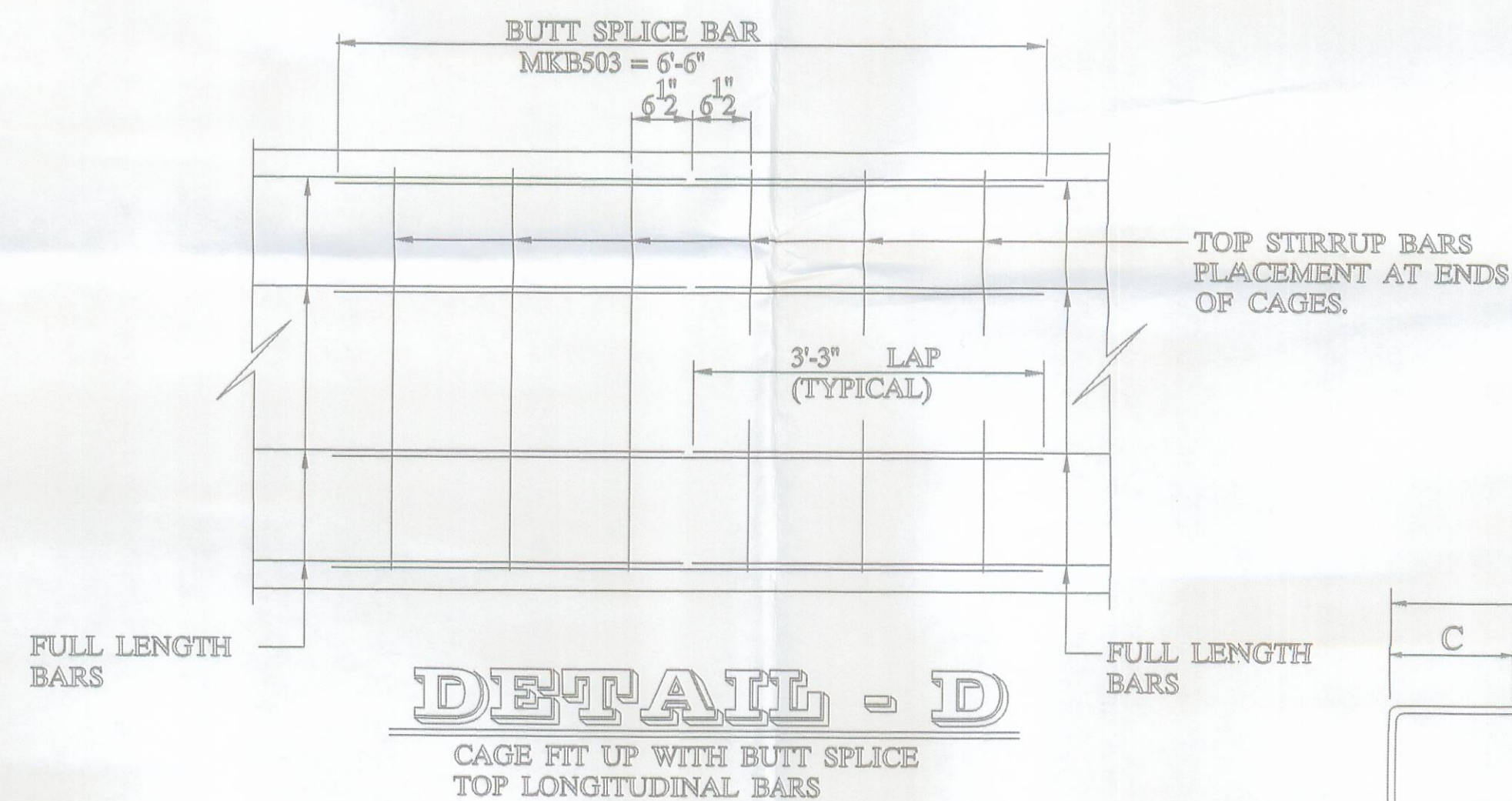
UNITED PRECAST INC.			
DESCRIPTION: BOX BEAM DETAILS	SCALE: -----	DRAWN BY: PHIL	
JOB NAME: ITEM 515 BRIDGE NO. LOG - T.R. 129 - 3.20 LOGAN COUNTY	FERRY TOWNSHIP	REVISED:	
DATE: SEPTEMBER '98	APPROVED BY: E.O.C.	9/15/98	DRAWING NO. 2 OF 4



REINFORCING LAYOUT

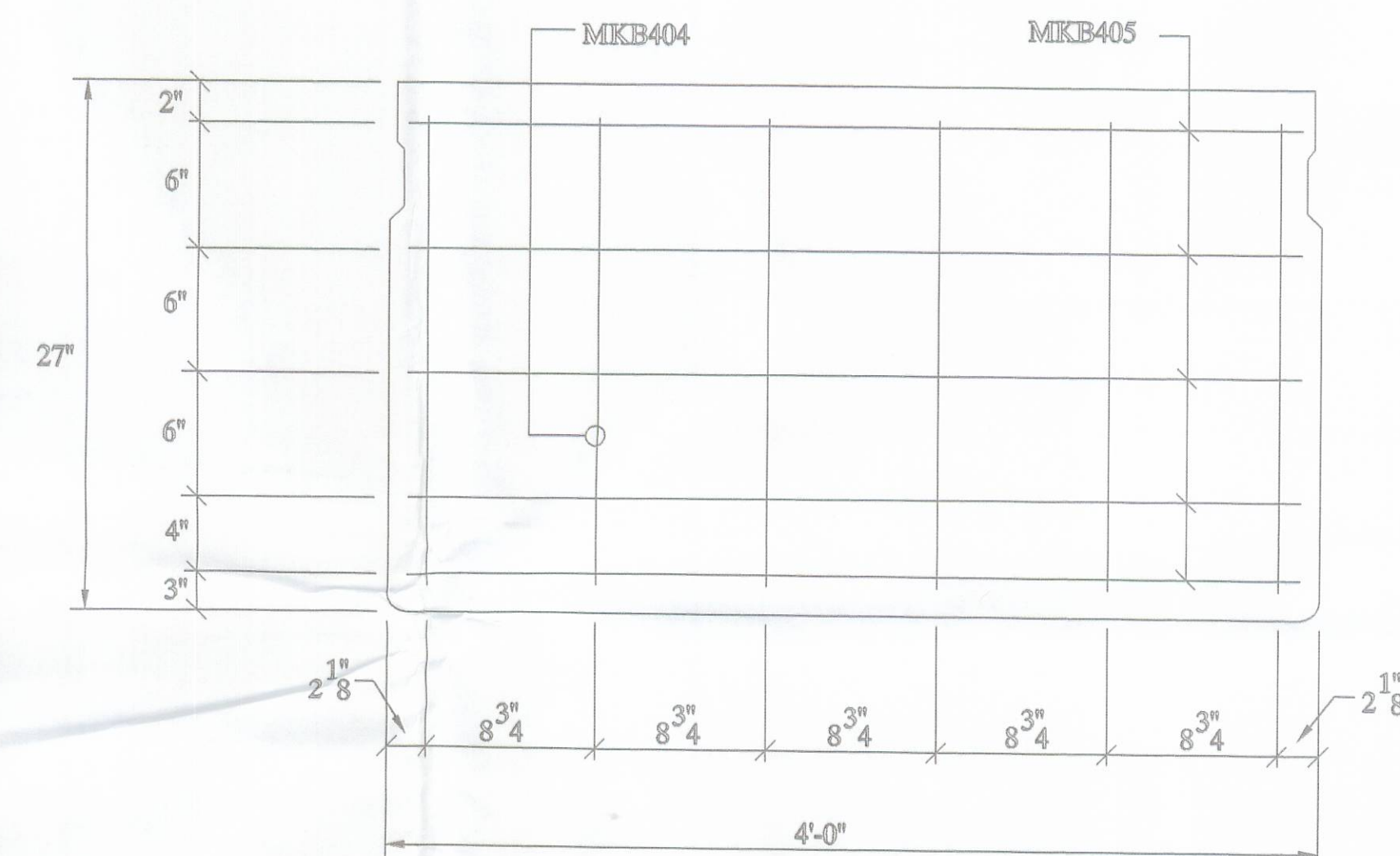


(TYP.) END DETAIL



DETAIL - D

CAGE FIT UP WITH BUTT SPLICE
TOP LONGITUDINAL BARS



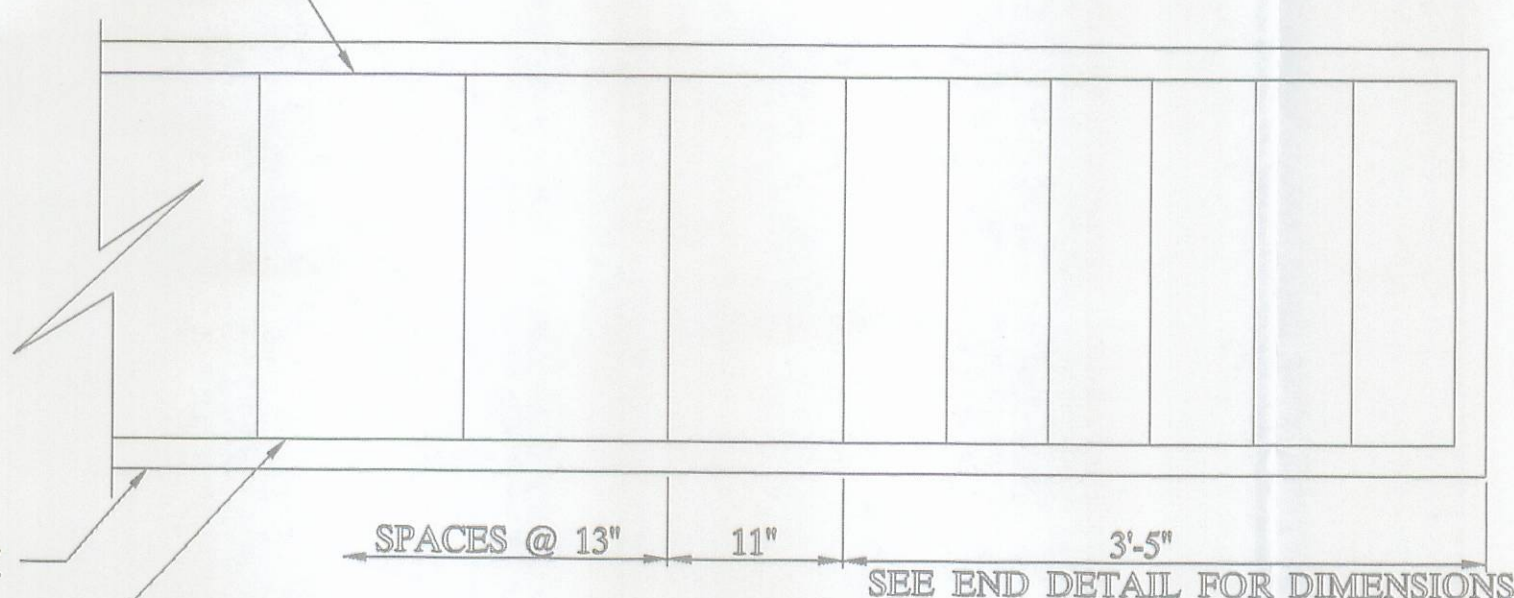
BEAM END CAGE

5-B27-48 X 65'-0" WITH NO SKEW

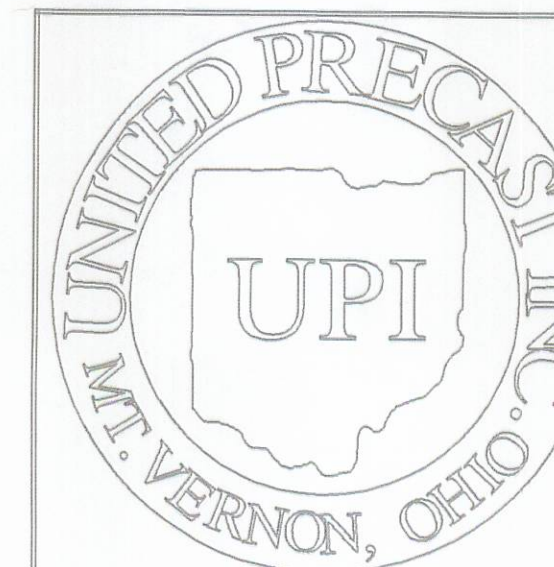
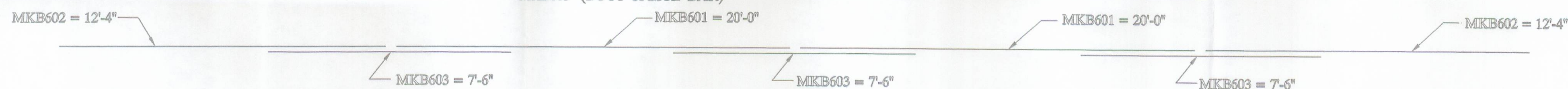
BAR LIST

MARK	SIZE	LENGTH	QUANTITY	SHAPE	A	B	C	D	E
B401	4	7'-2 1/2"	325	TYPE - 2	43"	23"			
B402	4	6'-2 1/2"	295	TYPE - 1	43"	17"	13"	2"	13"
B403	4	6'-2 1/2"	295	TYPE - 1	43"	17"	7"	2"	25"
B404	4	1'-11"	60	TYPE - 3	23"				
B405	4	3'-8 3/4"	50	TYPE - 3	44 3/4"				
B501	5	20'-0"	40	TYPE - 3	20'-0"				
B502	5	12'-4"	40	TYPE - 3	12'-4"				
B503	5	6'-6"	60	TYPE - 3	6'-6"				
B504	5	9'-9"	60	TYPE - 3	9'-9"				
B601	6	20'-0"	20	TYPE - 3	20'-0"				
B602	6	12'-4"	20	TYPE - 3	12'-4"				
B603	6	7'-6"	30	TYPE - 3	7'-6"				

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



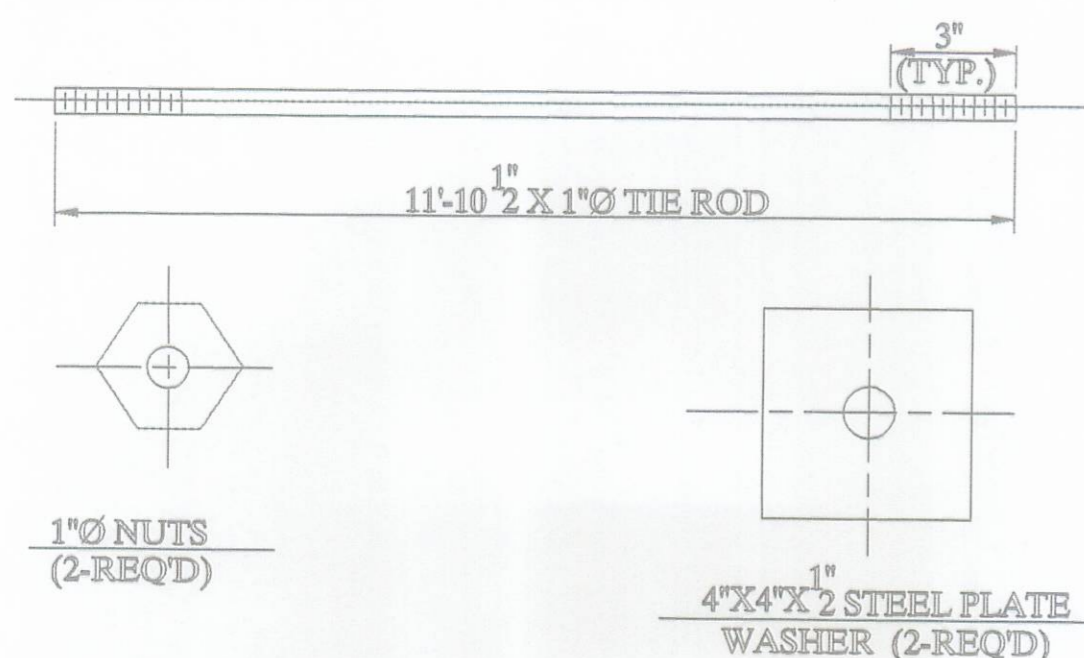
SECTION C-C



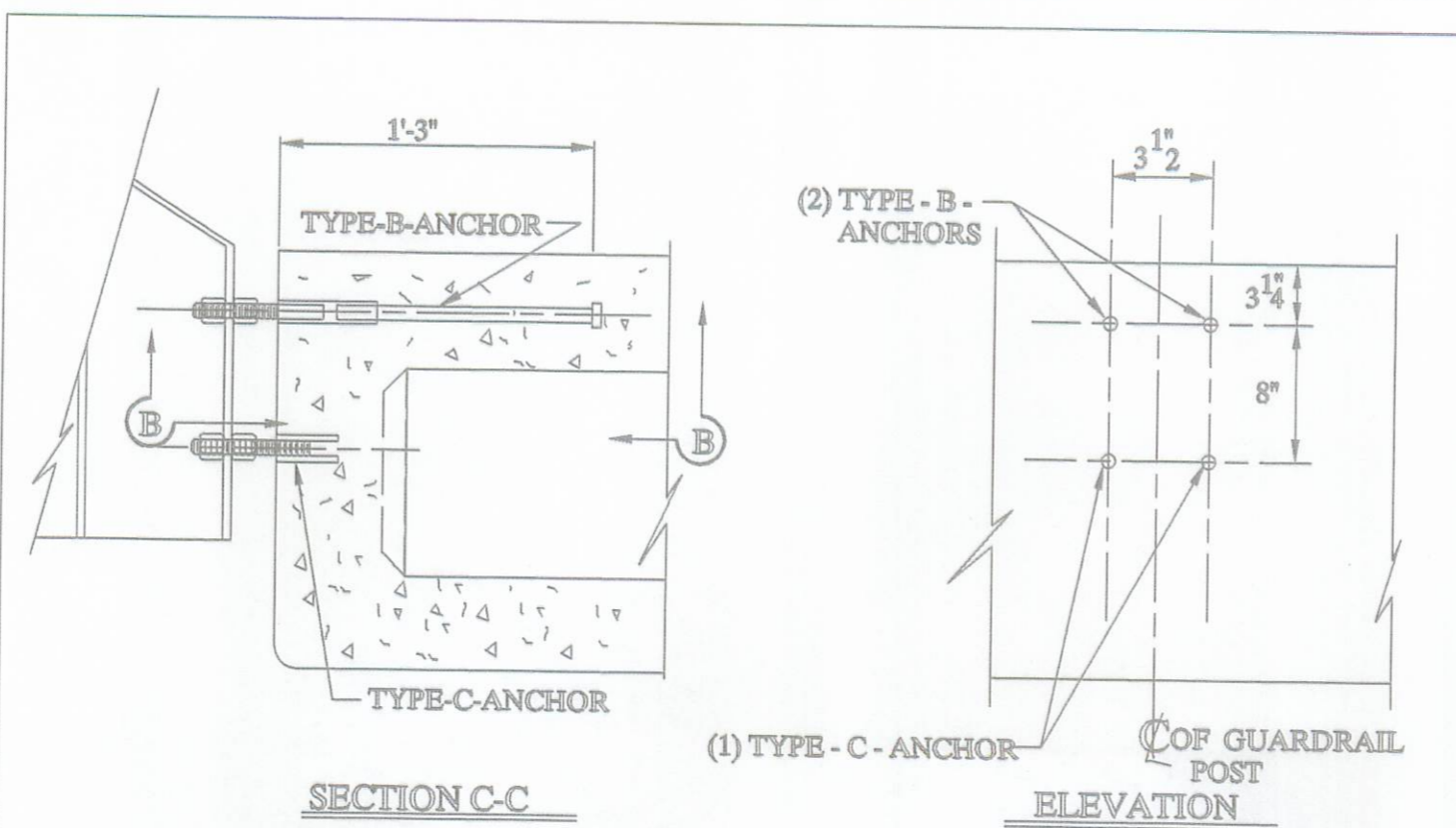
UNITED PRECAST INC.

DESCRIPTION: REINFORCING LAYOUT		SCALE: -----	DRAWN BY: PHIL
JOB NAME: ITEM 515 BRIDGE NO. LOG - T.R. 129 - 3.20 LOGAN COUNTY		PERRY TOWNSHIP	
DATE: SEPTEMBER '98	APPROVED BY: E.O.C.	REVISED:	
		9/15/98	DRAWING NO. 3 OF 4

12'-0" TIE ROD ASS'Y

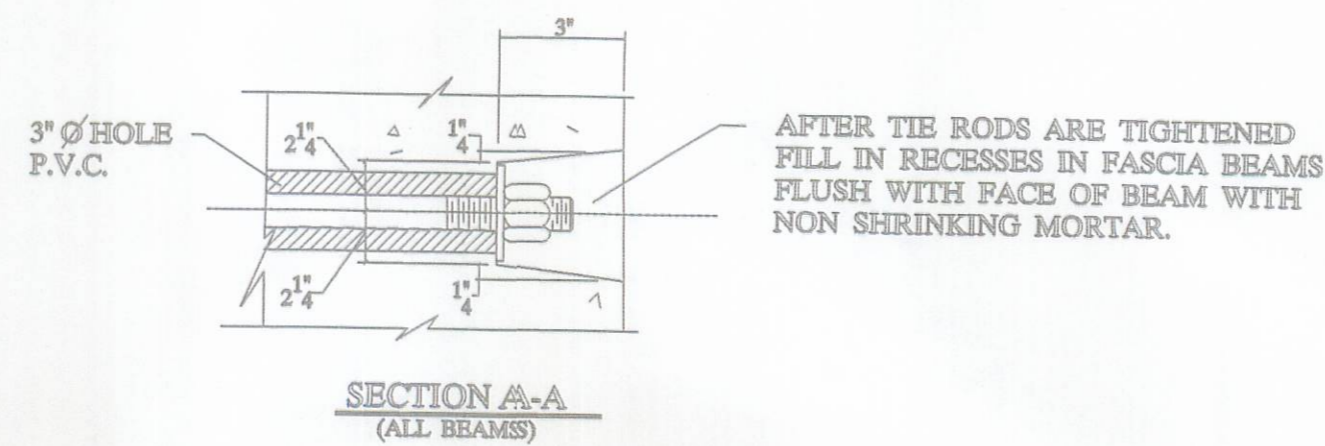
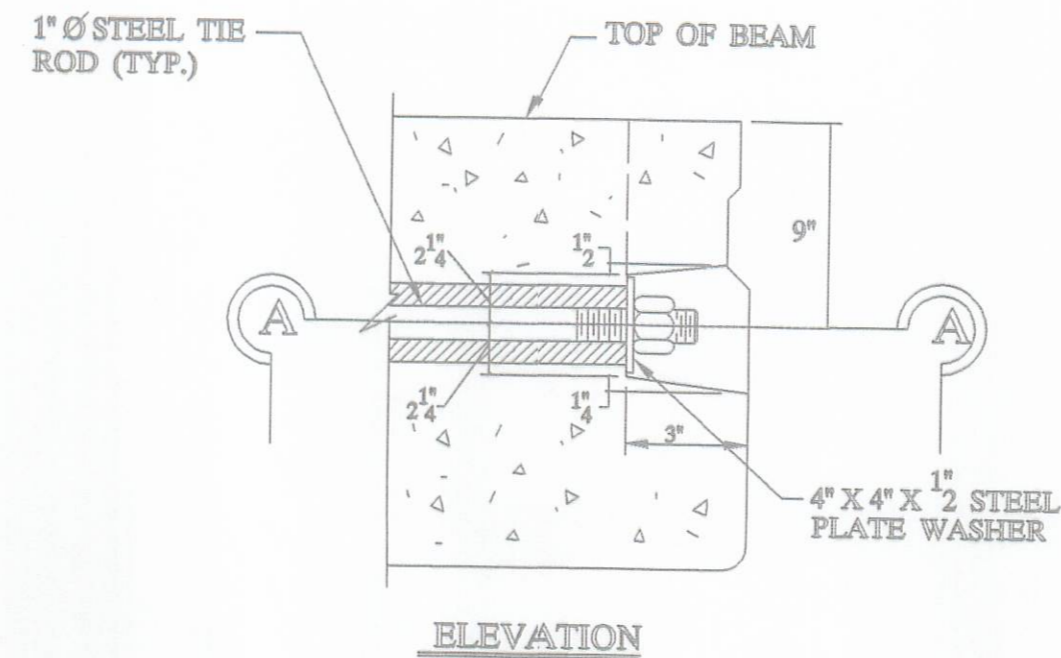


NOTE:
ALL ITEMS INCLUDING TIE RODS ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-123 OR 153. PER CMS 711.02, UNLESS OTHERWISE NOTED.



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

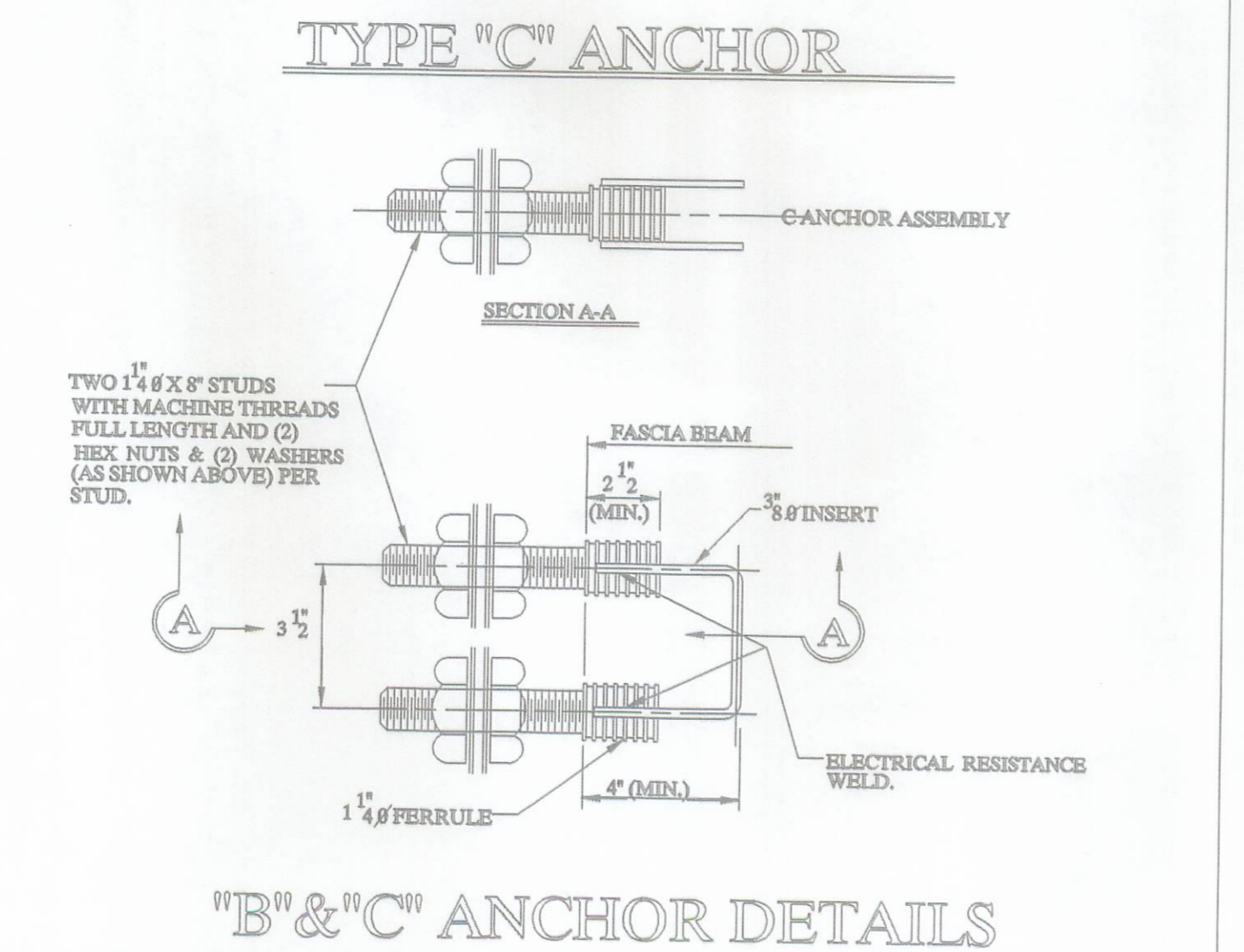
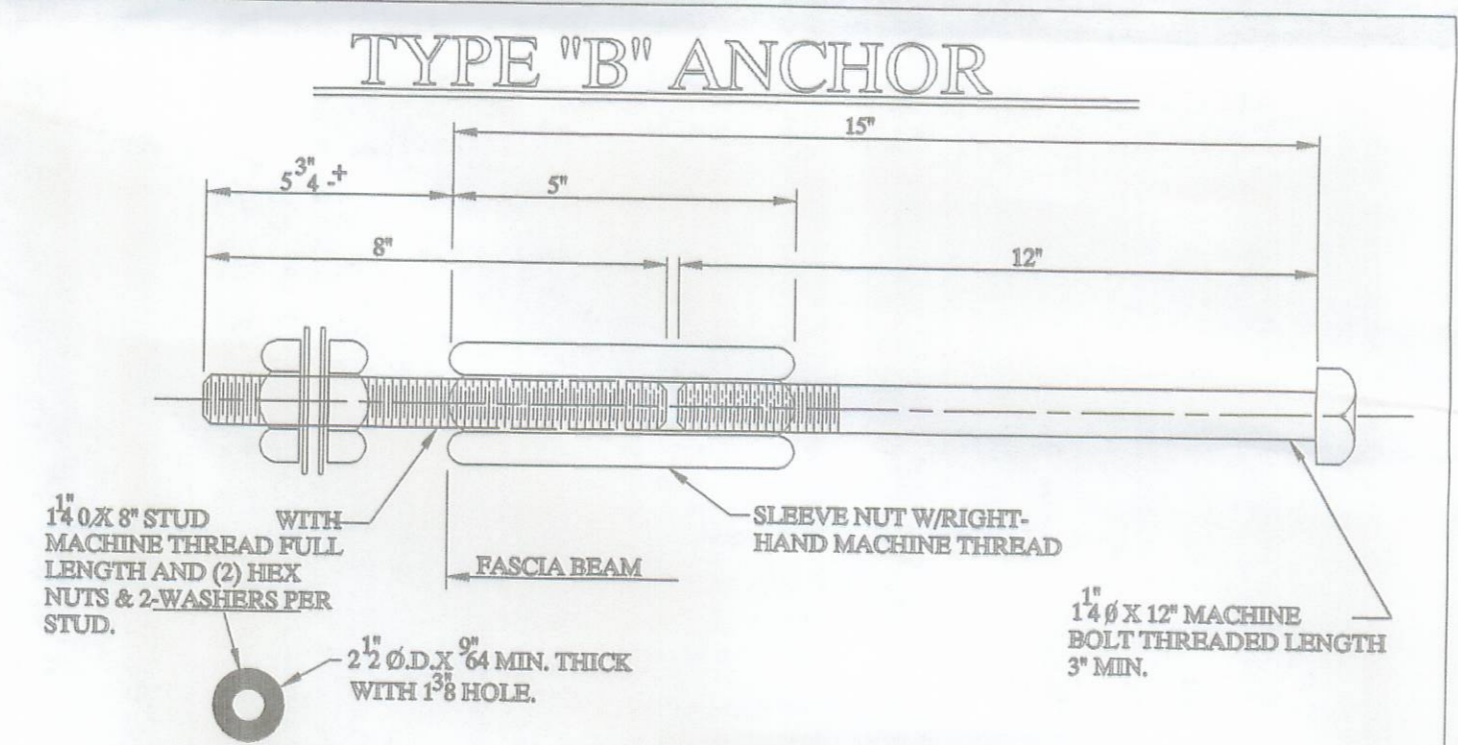
NOTE:
TYPE B & C ANCHOR ASSEMBLIES SHALL CONFORM TO PHYSICAL PROPERTIES OF ASTM-A-325, EXCEPT MIN. ELONGATION SHALL BE 10%. THE CHEMICAL PROPERTIES ARE WAIVED.



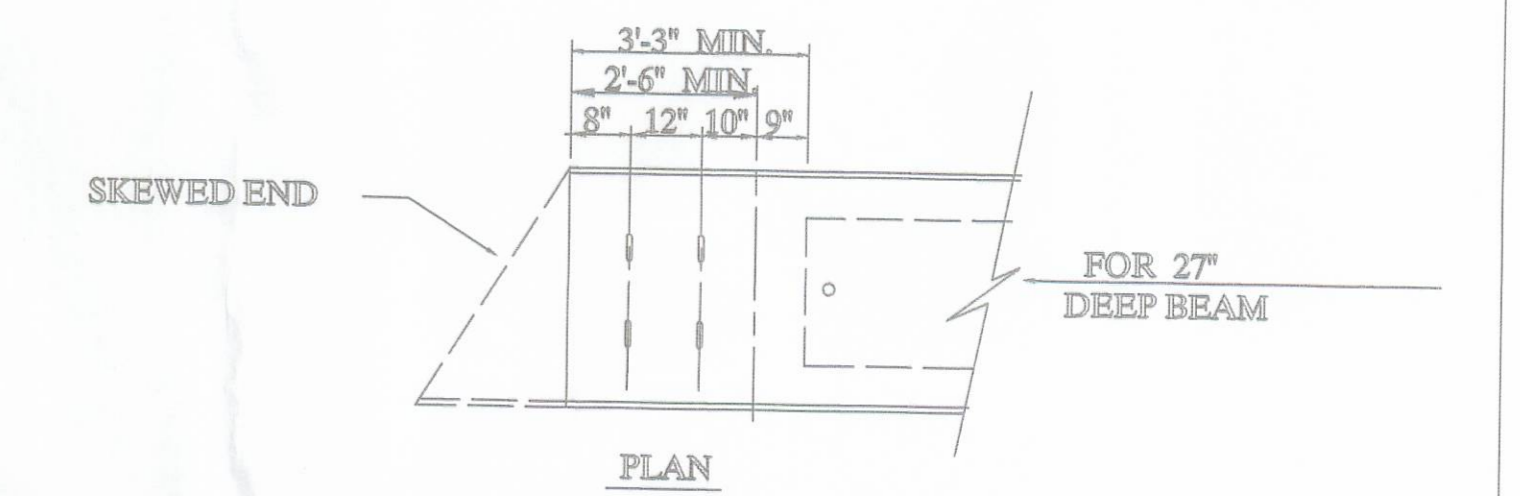
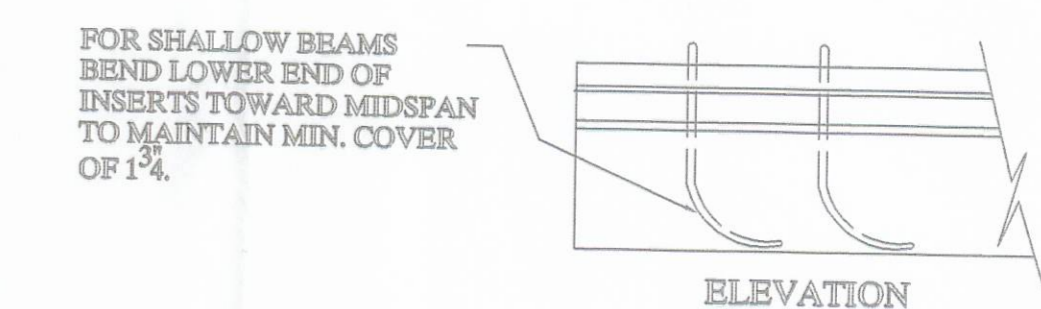
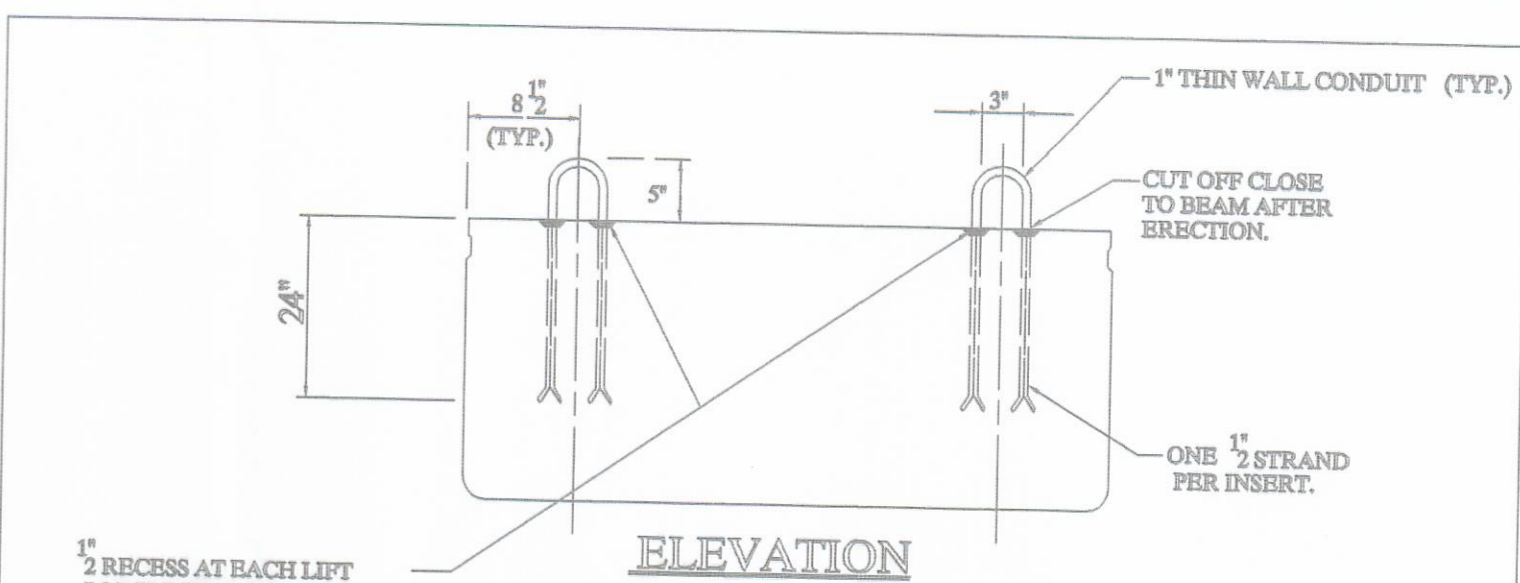
NOTE:
TIE RODS SHALL BE A311 - G1018 STEEL.

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.



"B" & "C" ANCHOR DETAILS

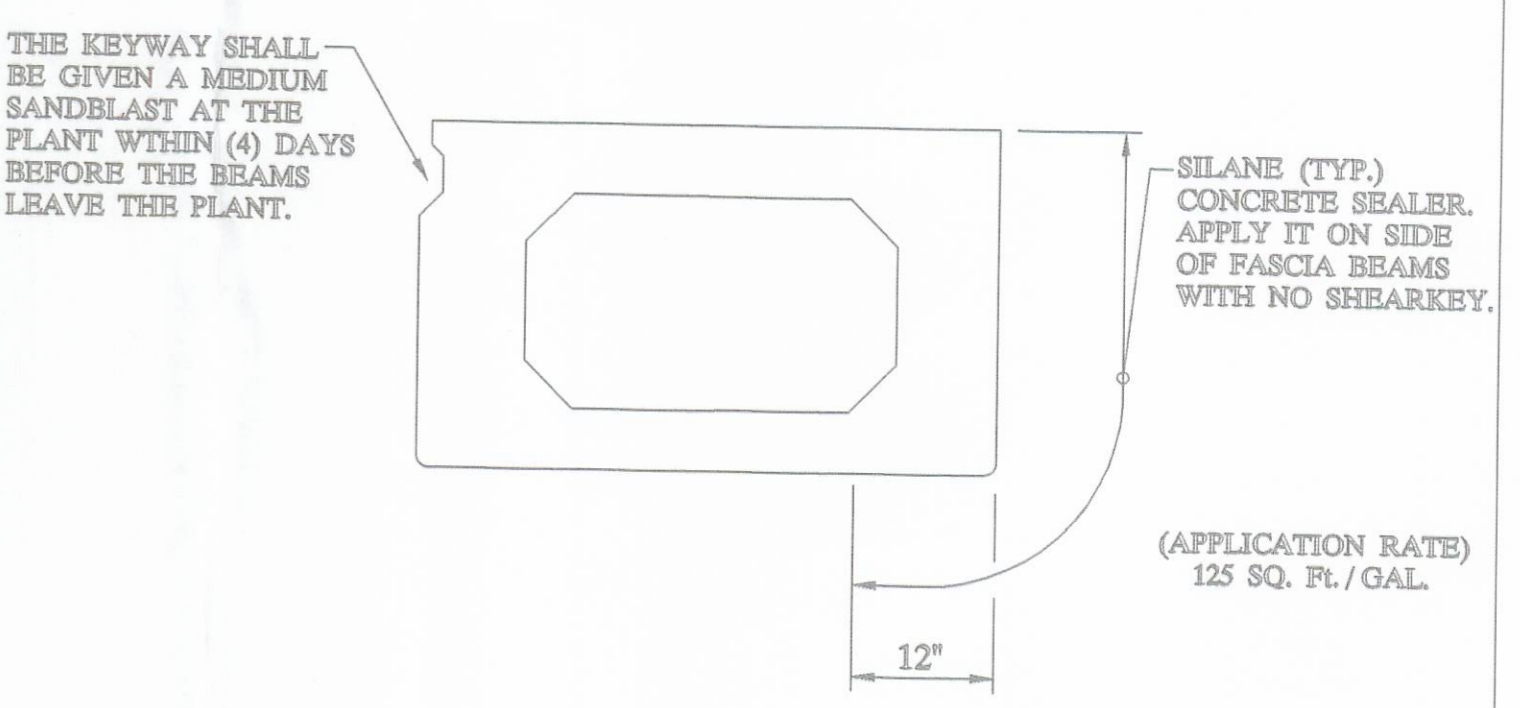


LIFTING INSERT DETAIL

SPECIFICATIONS

- DESIGN LOADING: HS20-44 AND ALTERNATE MILITARY LOADING.
48" SUPERIMPOSED DEAD LOAD 270 POUNDS PER. LINEAL Ft.
- 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. LOG - T.R. 129 - 3.20	PERRY TOWNSHIP
LOGAN COUNTY	ITEM 515
UNITED PRECAST INC.	
ROUNDHOUSE LANE MT. VERNON, OHIO 43050	SCALE ---
DATE SEPT. '98	DRAWN BY: PHIL REVISED
APPROVED BY: E.O.C.	DRAWING NO. 4 OF 4
9/15/98	