

**ESTIMATED QUANTITIES**

STATE OF OHIO DEPT. OF HIGHWAYS CONSTRUCTION AND MATERIAL SPECIFICATIONS

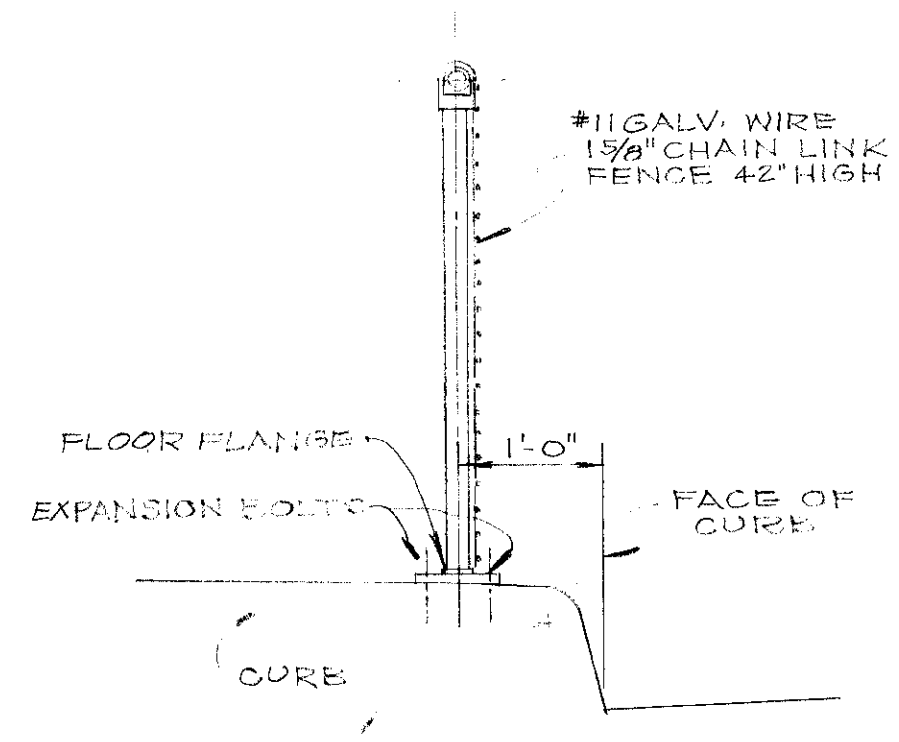
ITEM	DESCRIPTION	WEST ABUT	EAST ABUT	DECK	TOTAL	UNITS
I-1	ROADWAY EXCAVATION				120	CU.YDS.
I-2	COFFERDAMS, CURBS AND SHEETING				120	LUMP
I-3	UNCLASSIFIED EXCAVATION INCLUDING ROCK	128	118		246	CU.YDS.
I-4	CHANNEL EXCAVATION				95	CU.YDS.
I-5	CLASSIC CONCRETE SUPERSTRUCTURE BEARING END POSTS	08	08	42.6	44.2	CU.YDS.
I-6	CLASSIC CONCRETE ABUTMENT WALLS & WINGWALLS	437	575		1012	CU.YDS.
I-7	CLASSIC CONCRETE FOOTINGS	230	230		460	CU.YDS.
I-8	CLASSIC CONCRETE FOR CRADLES				1.7	CU.YDS.
I-9	FURNISHING AND ERECTING PRESTRESSED DECK BEAMS				58	LUMP
I-10	WATERPROOFING PREFORMED SEALING STRIP	28	30		58	LUMP
I-11	STRUCTURAL STEEL EXPANSION JOINTS INCLUDING ALL PAINTING				42	LUMP
I-12	1/2" PREFORMED EXPANSION JOINT FILLER				42	SQ.FT.
I-13	RAILING (STEEL)				1473	LINEAL FT.
I-14	POREOUS BACKFILL	23	21		44	CU.YDS.
I-15	REINFORCED CONCRETE APPROACH SLAB				108	SQ.YDS.
I-16	CONCRETE SLOPE PROTECTION				59	SQ.YDS.
I-17	42" STORM SEWER SEC. M-G. G(b)				4	LINEAL FT.
I-18	12" STORM SEWER SEC. M-G. G(b)				28	LINEAL FT.
I-19	4" GALVANIZED WOVEN WIRE FENCE				30	LINEAL FT.
I-20	CITY OF CLEVELAND STANDARD CATCHBASIN				2	EACH
I-21	6"x6" INTEGRAL CONCRETE CURB				53	LINEAL FT.
I-22	4" CONCRETE SIDEWALK				258	SQ.FT.
I-23	7" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT				258	SQ.YDS.
SP-1	36" GALVANIZED WOVEN WIRE FENCE ALONG CURB				186	LINEAL FT.
I-24	3" STD. SINGLE MANHOLE				4	LINEAL FT.
I-25	3" REINFORCED CONCRETE SIDEWALK AS PER DETAIL				492	SQ.FT.

PRICE BID FOR ITEM SPECIAL FURNISHING AND ERECTING PRESTRESSED DECK BEAMS SHALL INCLUDE PAYMENT FOR FURNISHING AND PLACING DOWELS INTO ABUTMENTS, BEARING PADS, AND THE ROAD AND FOR GROUTING SHEAR KEYS AND THE ROV RECESSED IN FACIAS.

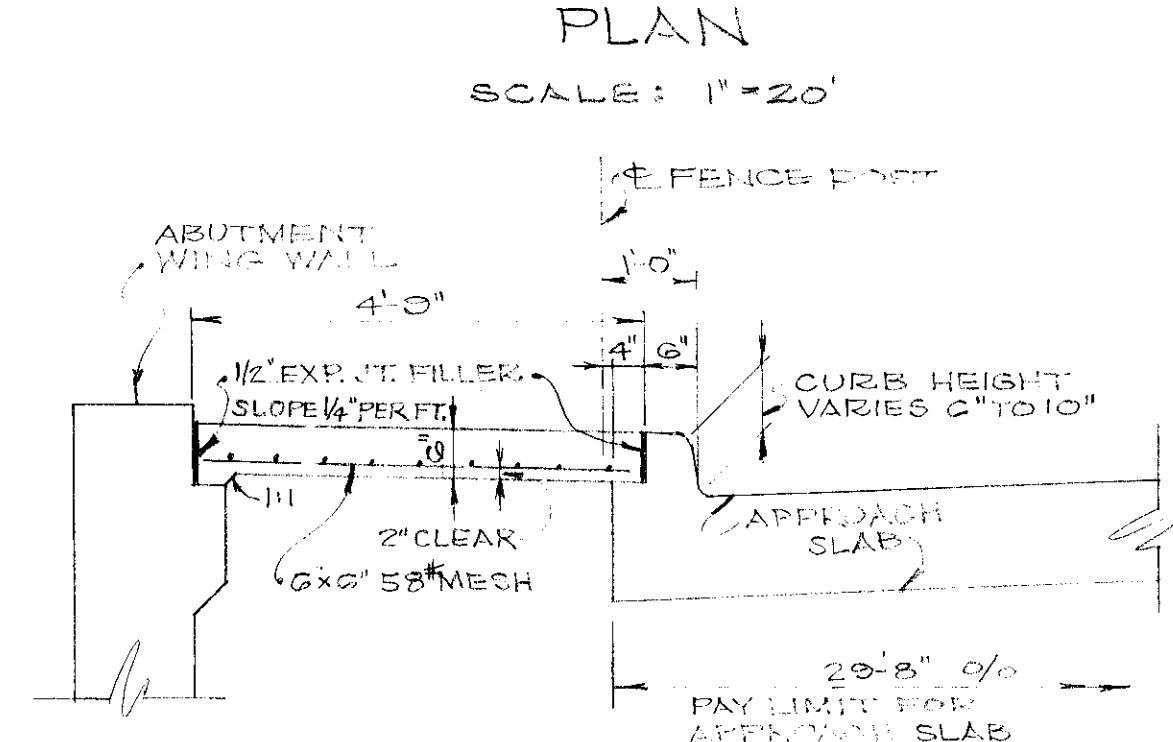
PAY LENGTH FOR ITEM I-14 RAILING (STEEL) IS MEASURED C/O OF STEEL END POSTS. PAYMENT UNDER THIS ITEM INCLUDES PAYMENT FOR PAINTING. CONCRETE END POSTS SHALL BE PAID FOR UNDER ITEM I-5.

REINFORCING STEEL SHALL MEET ALL REQUIREMENTS OF ITEM I-4 BUT SHALL BE INCLUDED FOR PAYMENT IN ITEM I-1.

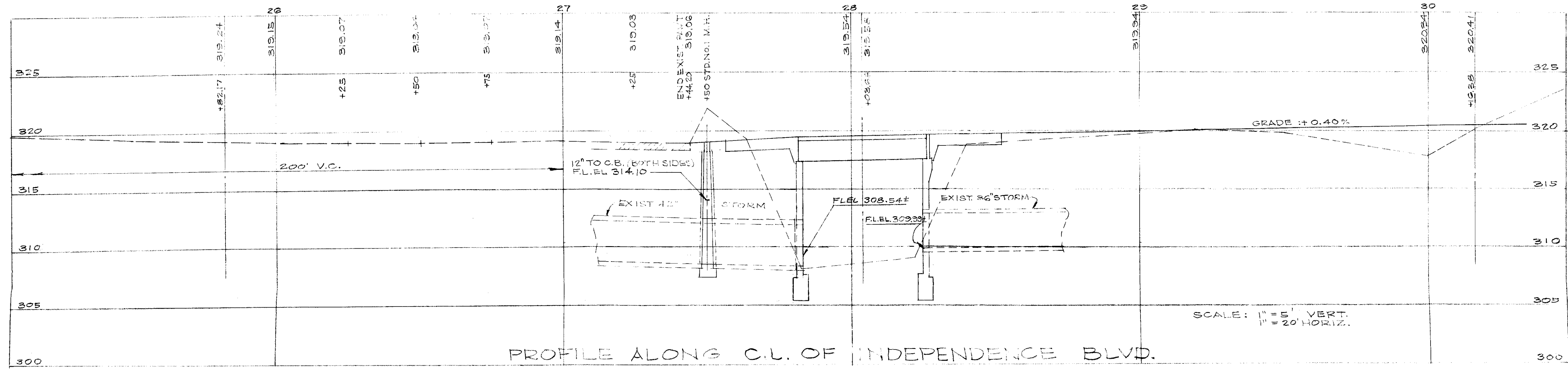
WIDTH FOR DETERMINING PAY / SQ. YD. FOR ITEM I-15 SHALL BE FROM BACK TO BACK OF CURB.



**DETAIL OF FENCE ALONG CURB**  
SCALE: 3/4" = 1'-0"



**DETAIL OF APPROACH SIDEWALK AND APPROACH SLAB MODIFICATION**  
SCALE: 1/2" = 1'-0"



**PROFILE ALONG C.L. OF INDEPENDENCE BLVD.**

**STANDARD DRAWINGS**  
THE FOLLOWING STANDARD DRAWINGS SHALL BE CONSIDERED AS PART OF THIS PLAN:  
OHIO HIGHWAY DEPT. BRIDGE BUREAU  
STD. DWG. AS 1-54 (MODIFIED BY PLAN CHG. 11)  
FRANK L. WOODRUFF & ASSOCIATES  
DETAILS OF CONCRETE PAVEMENT, SEWERS AND APPURTENANCES STD. SPEC. DET. 1.

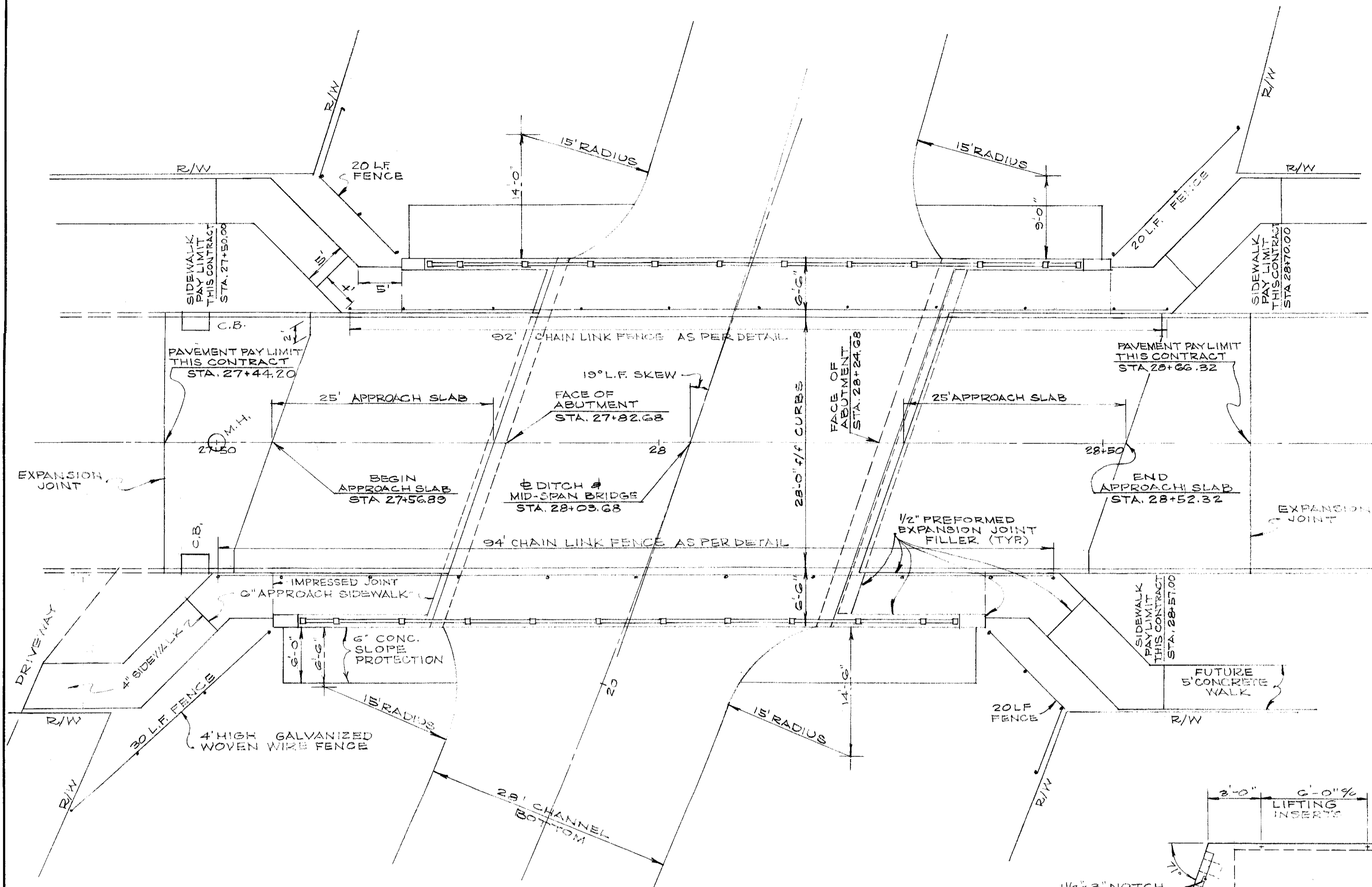
**FRANK L. WOODRUFF & ASSOCIATES**  
CONSULTING ENGINEERS  
3482 LEE ROAD - SHAKER HEIGHTS 20, OHIO

**CITY OF PARMA HEIGHTS**  
INDEPENDENCE BLVD. BRIDGE  
OVER BRANDYWINE CREEK (BIG CREEK)

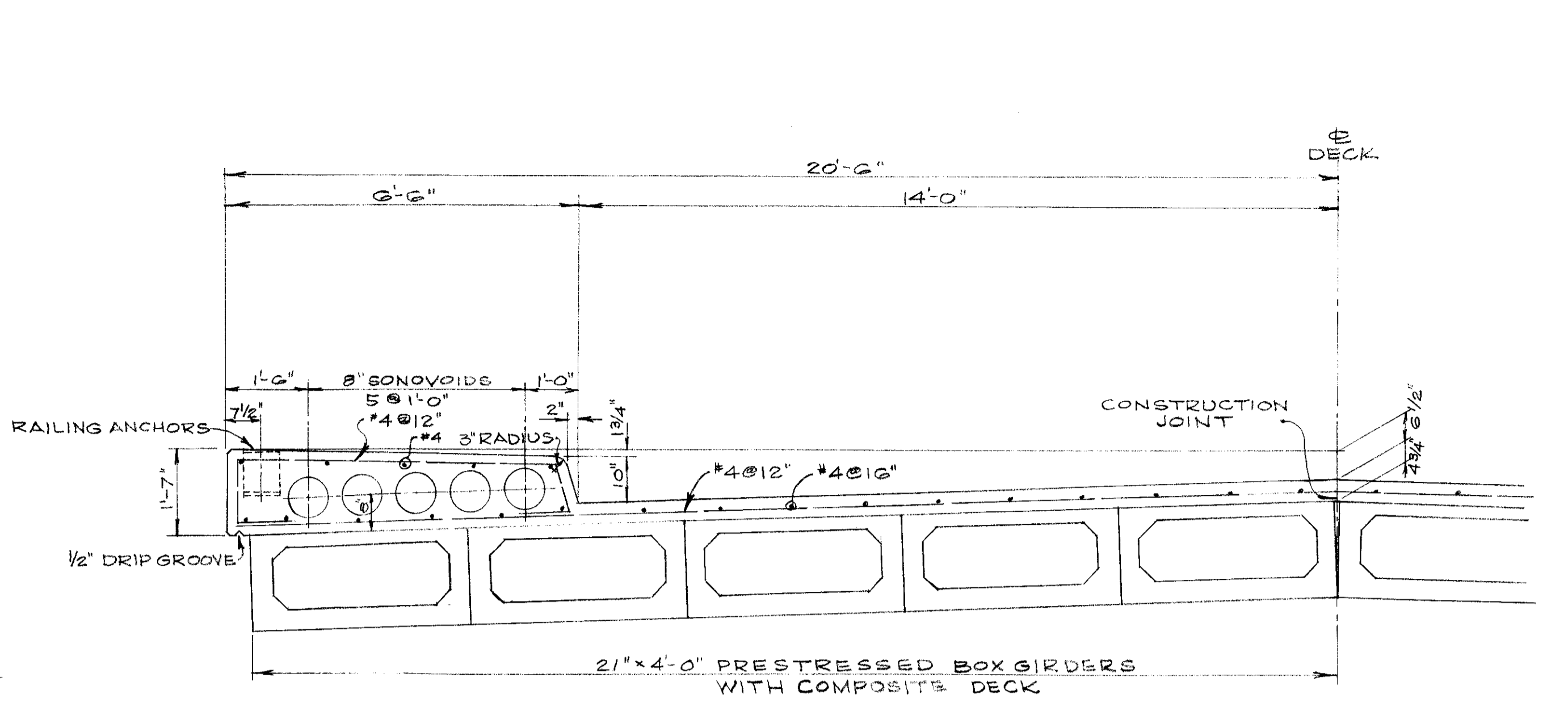
**SITE PLAN & ESTIMATED QUANTS.**

SCALE - HOR. VERT. = 1" = 20' / 1" = 5'	DATE: MAY 1963
APPROVALS: -	DRAWN BY: - J.N.F.
CITY ENGINEER: -	CHECKED BY: -
COUNCIL - RES. NO. DATE	REVISIONS: 2-14-63

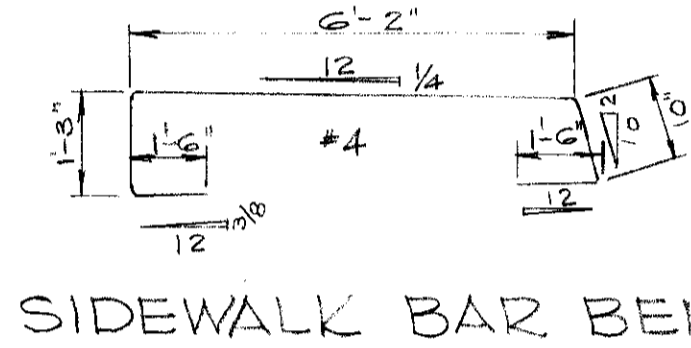
BENCH MARK: - O.M. #697 APPROX. 28' E. OF YORK RD. & 18' S. OF E. OF RIDGEWOOD DR. ELEV. 285.389



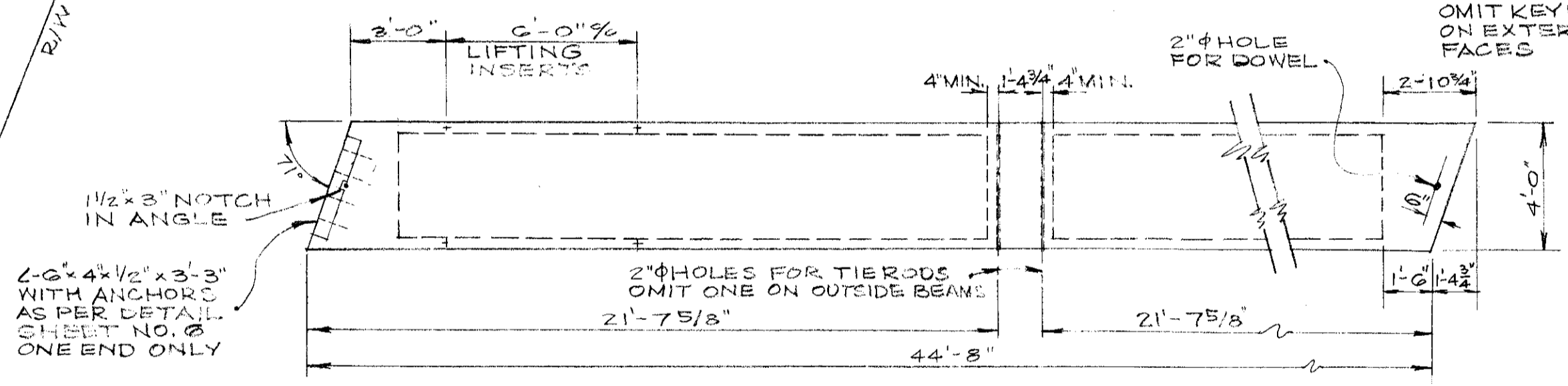
PLAN  
SCALE: 1/8" = 1'-0"



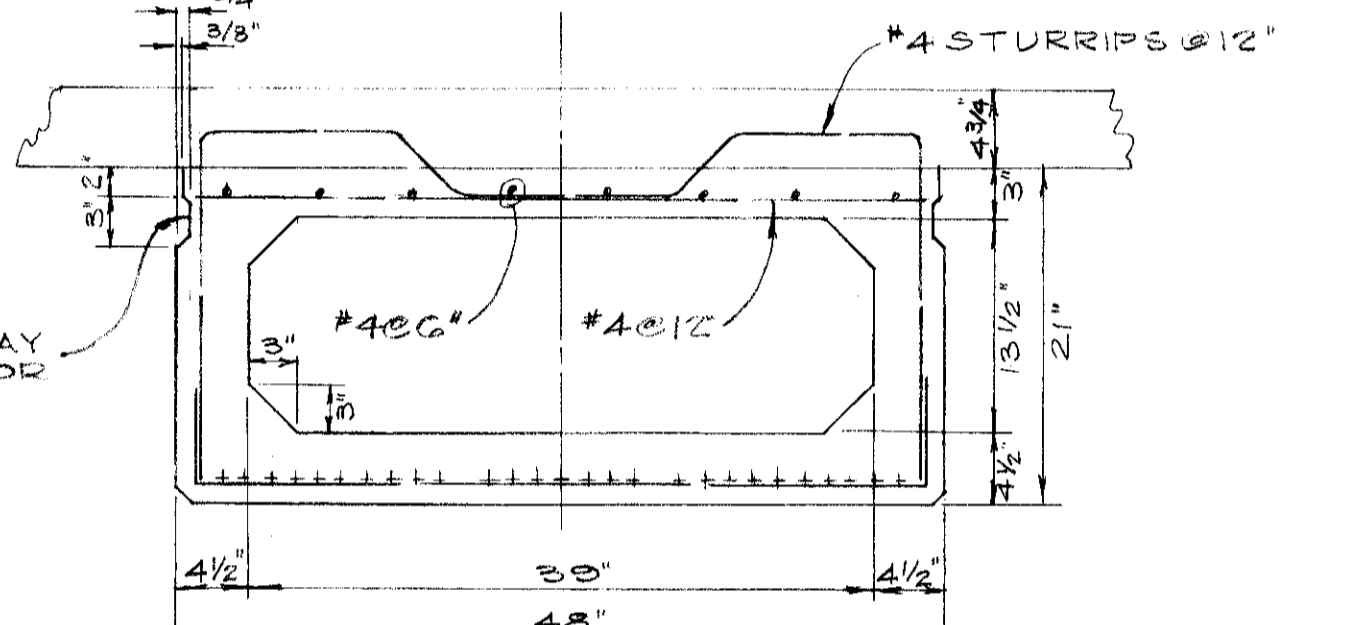
TYPICAL HALF SECTION OF DECK  
SCALE: 1/2" = 1'-0"



SIDEWALK BAR BENDS

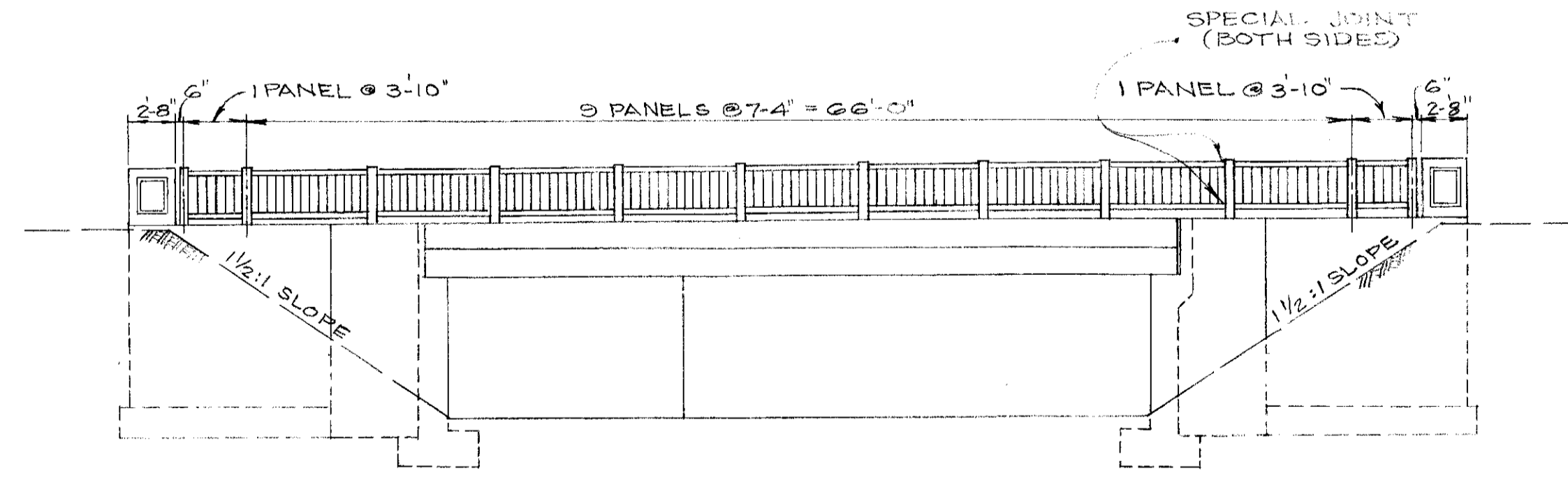


PART PLAN OF BEAM  
SCALE: 1/4" = 1'-0"

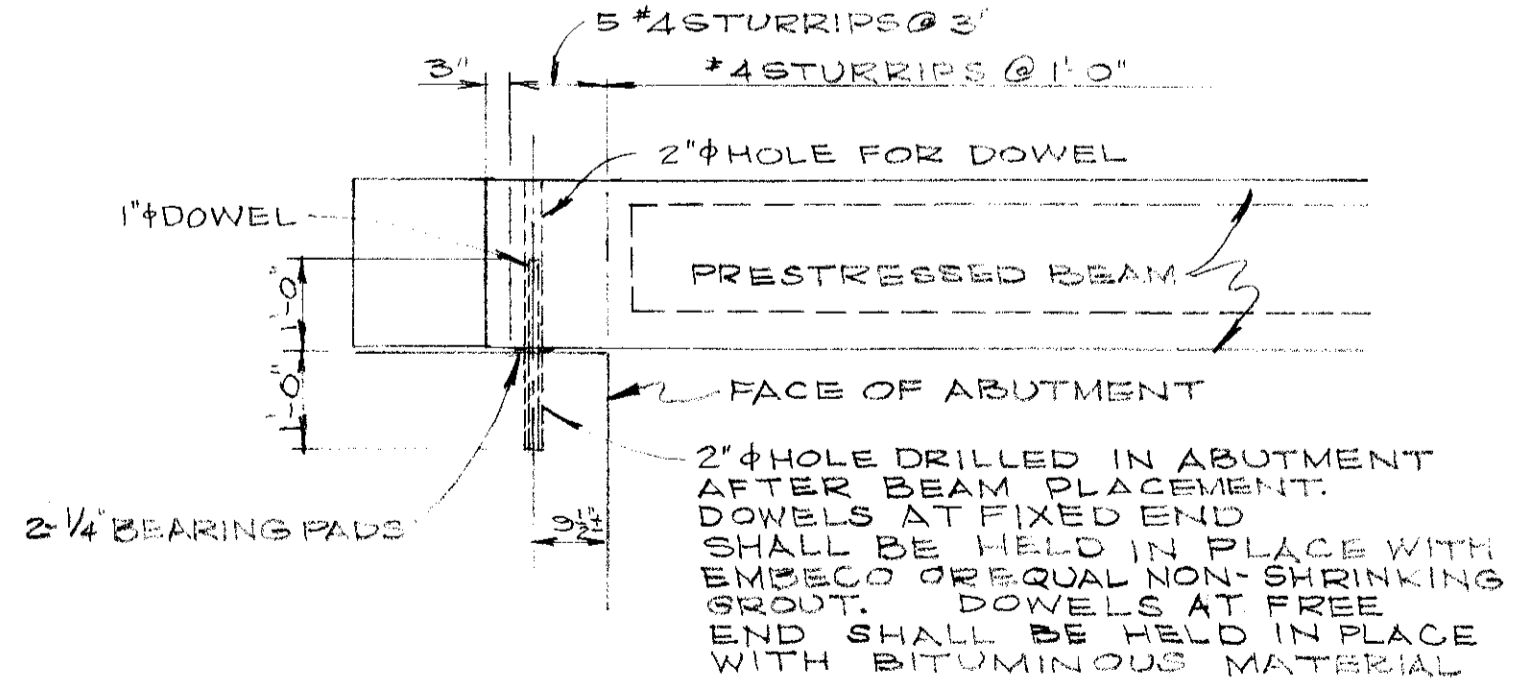


PRESTRESSING STEEL SHALL BE PLACED TO PROVIDE:  
INITIAL PRESTRESS FORCE = 378,000#  
CG OF STEEL TO BOTTOM OF BEAM = 1.75 IN.  
SHEAR KEYS SHALL BE PACKED WITH EMBECO OR EQUAL NON-SHRINKING GROUT AFTER BEAMS ARE ERECTED.  
BEAMS SHALL BE TIED TO ABUTTING BEAMS BY 1# RODS PLACED IN HOLES IN DIAPHRAGMS. CAVITIES FOR TIE RODS IN FACIALS SHALL BE FILLED WITH EMBECO OR EQUAL NON-SHRINKING GROUT.

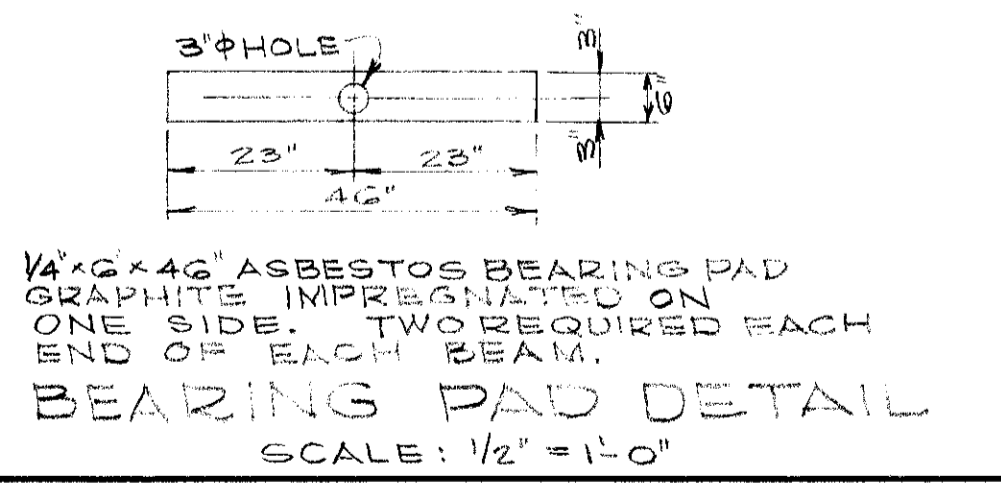
BEAM DETAIL  
SCALE: 1" = 1'-0"



ELEVATION  
SCALE: 1/8" = 1'-0"



PART ELEVATION OF BEAM  
SCALE: 1/2" = 1'-0"



BEARING PAD DETAIL  
SCALE: 1/2" = 1'-0"

**FRANK L. WOODRUFF & ASSOCIATES**  
CONSULTING ENGINEERS  
3482 LEE ROAD - SHAKER HEIGHTS 20, OHIO

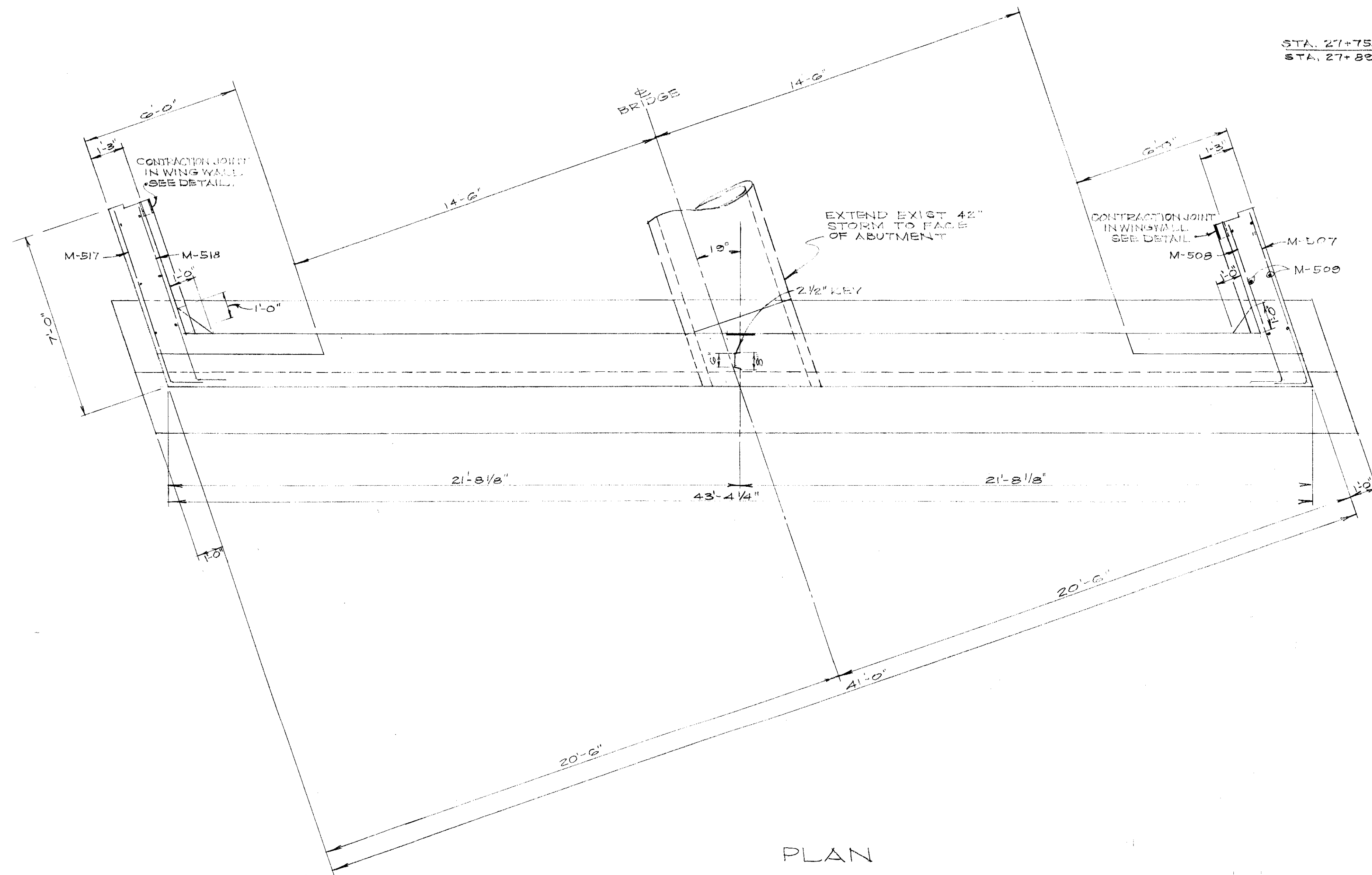
CITY OF PARMA HEIGHTS  
INDEPENDENCE BLVD. BRIDGE  
OVER BRANDYWINE CREEK (BIG CREEK)

PLAN & DECK DETAILS

SCALE: HOR. - AS SHOWN VERT. -	DATE: MAY 1960
APPROVALS: COUNTY-PLAN. ENG. CITY WATER-DEPT. COUNCIL - RES. NO. DATE	DRAWN BY: J.N.P. CHECKED BY: REVISIONS: 8-14-63

BENCH MARK: - O.M. # 697 APPROX. 25' E. OF E. OF YORK RD. & 18' S. OF E. OF RIDGEWOOD DR. ELEV. 289.285

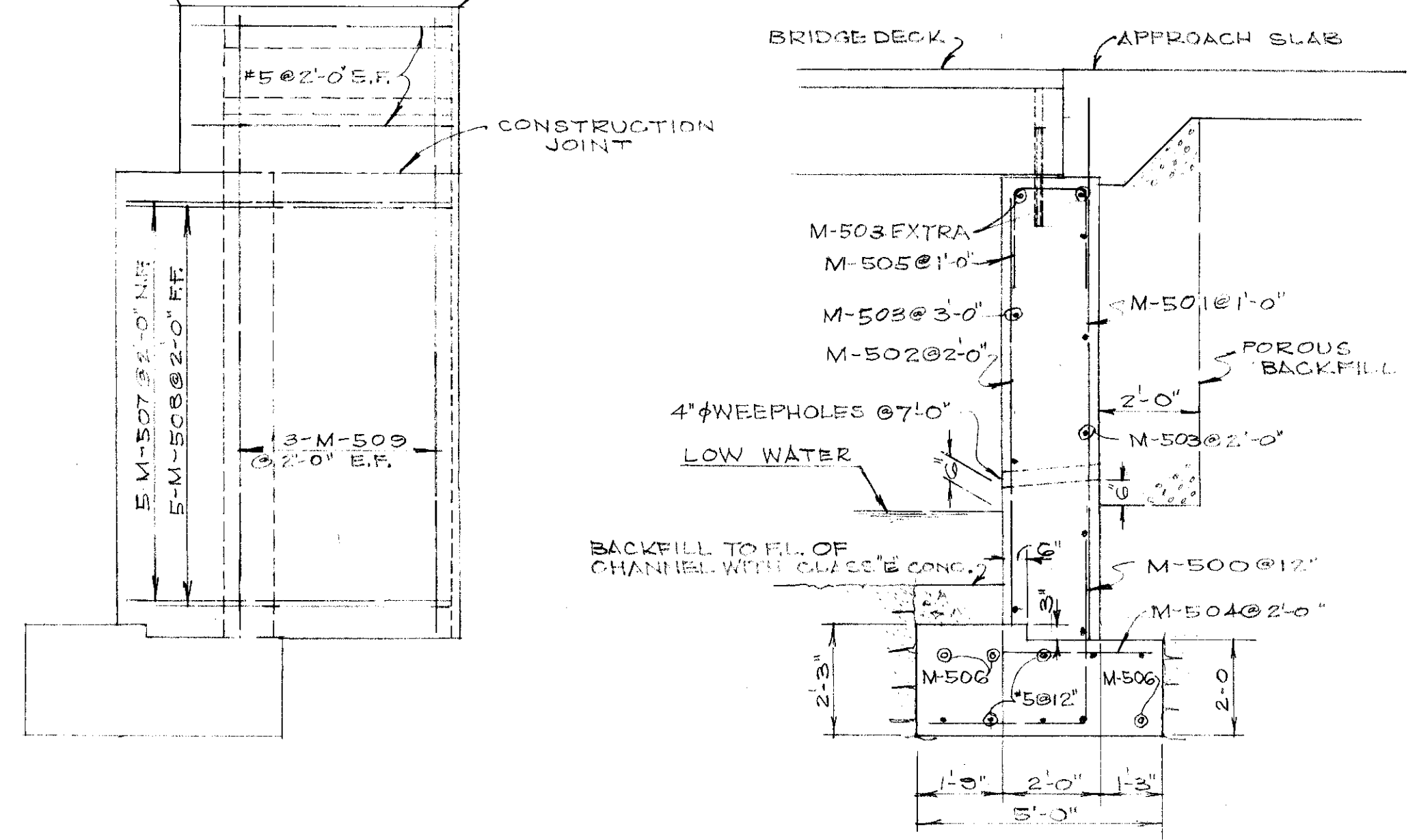
SHEET 2 OF 6



PLAN

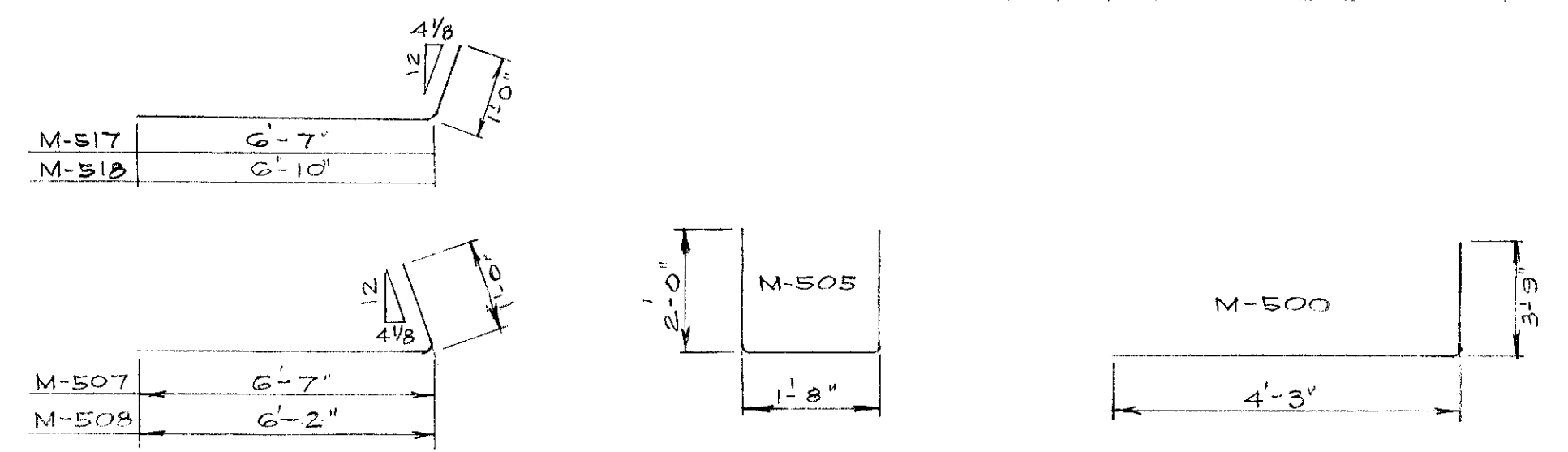
STA. 27+75.62 RT. ELEV. 319.39  
STA. 27+89.74 LT. ELEV. 320.05

STA. 27+08.62 RT. ELEV. 319.39  
STA. 27+82.74 LT. ELEV. 320.02

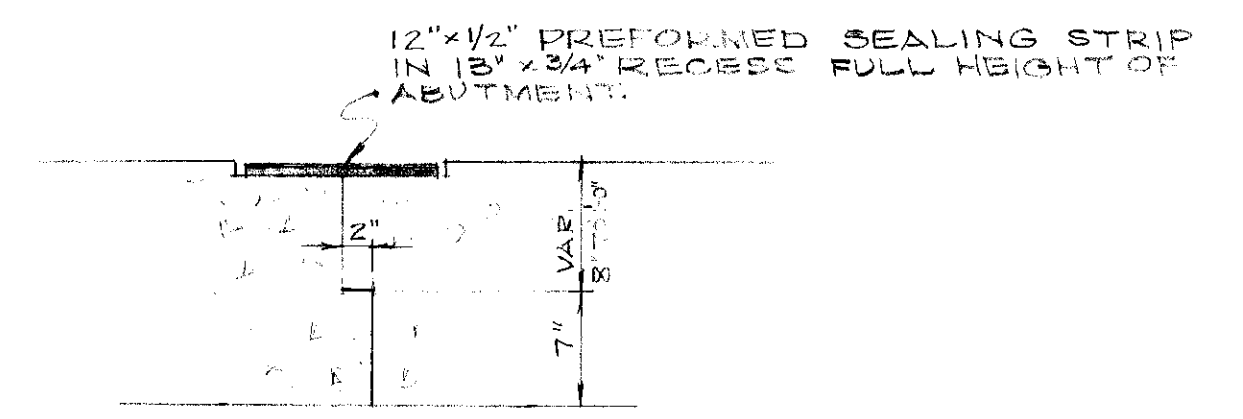


WING ELEVATION

TYPICAL SECTION

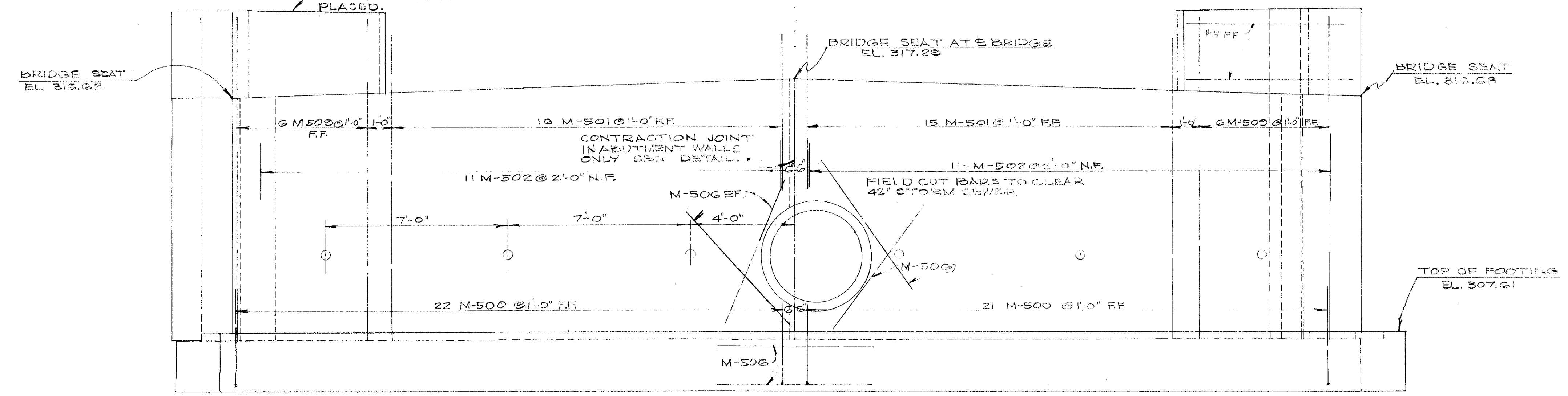


BAR BENDING DIAGRAMS

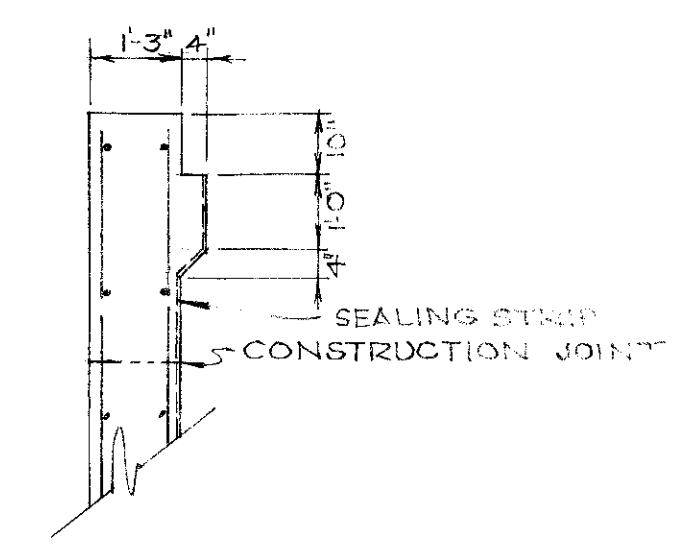


CONTRACTION JOINT DETAIL & WINGWALL KEY JOINT DETAIL  
SCALE: 1" = 1'-0"

NOTE: CONCRETE ABOVE BRIDGE SEAT ELEV. SHALL NOT BE POURED UNTIL DECK BEAMS AND DECK CONCRETE HAVE BEEN PLACED.



ELEVATION



PART SECTION OF WING

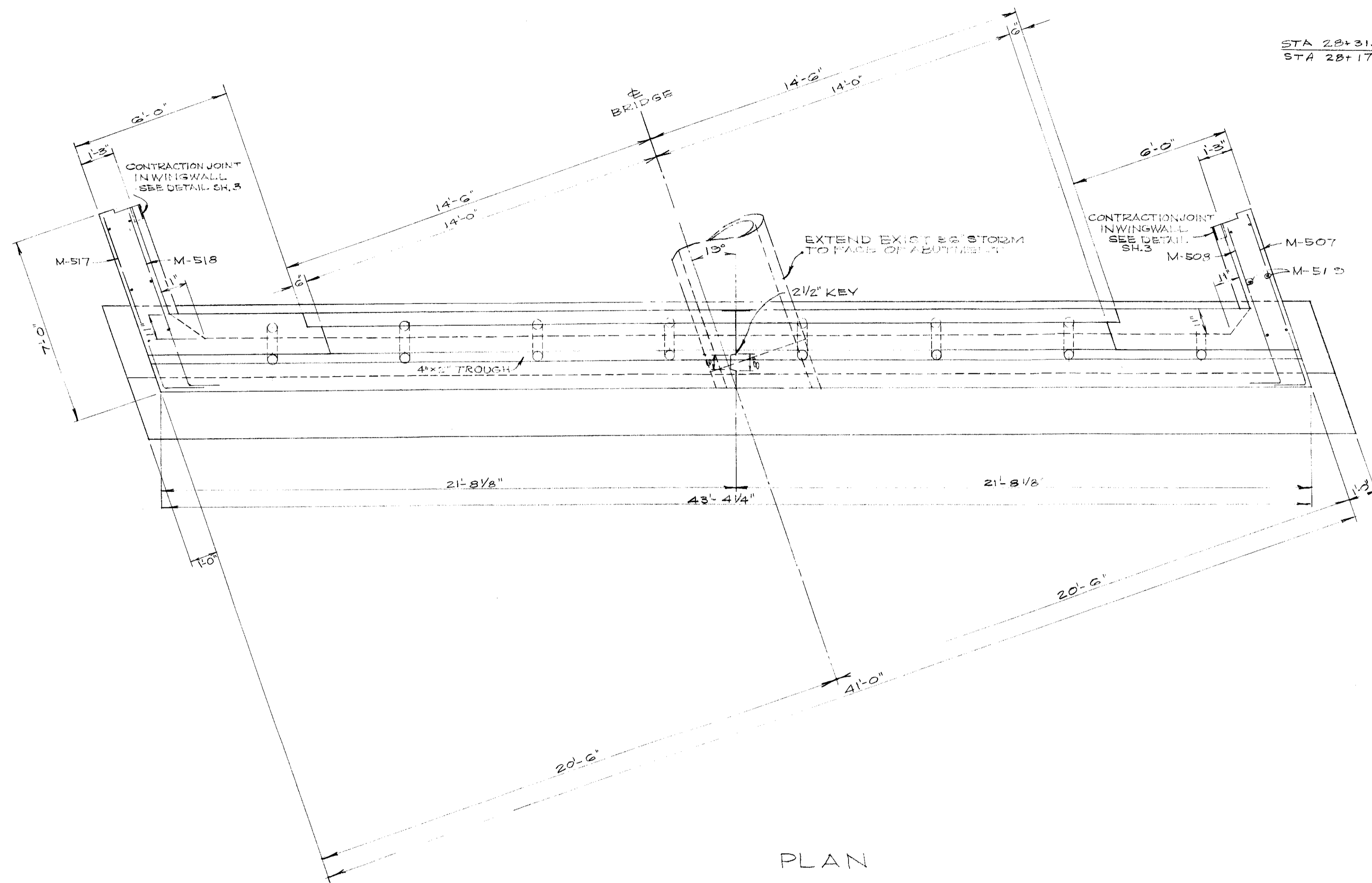
**FRANK L. WOODRUFF & ASSOCIATES**  
CONSULTING ENGINEERS  
3482 LEE ROAD - SHAKER HEIGHTS 20, OHIO

CITY OF PARMA HEIGHTS  
INDEPENDENCE BLVD. BRIDGE  
OVER BRANDYWINE CREEK (B13 CREEK)  
WEST ABUTMENT DETAILS

SCALE: HORIZ. - 3/8" = 1'-0" DATE: MAY 1960  
APPROVALS: COUNTY GEN. ENGR. DRAWN BY: J.L.P.  
CITY WATER DEPT. CHECKED BY: \_\_\_\_\_  
COUNCIL - RES. NO. REVISIONS: 8-14-63  
BENCH MARK: \_\_\_\_\_

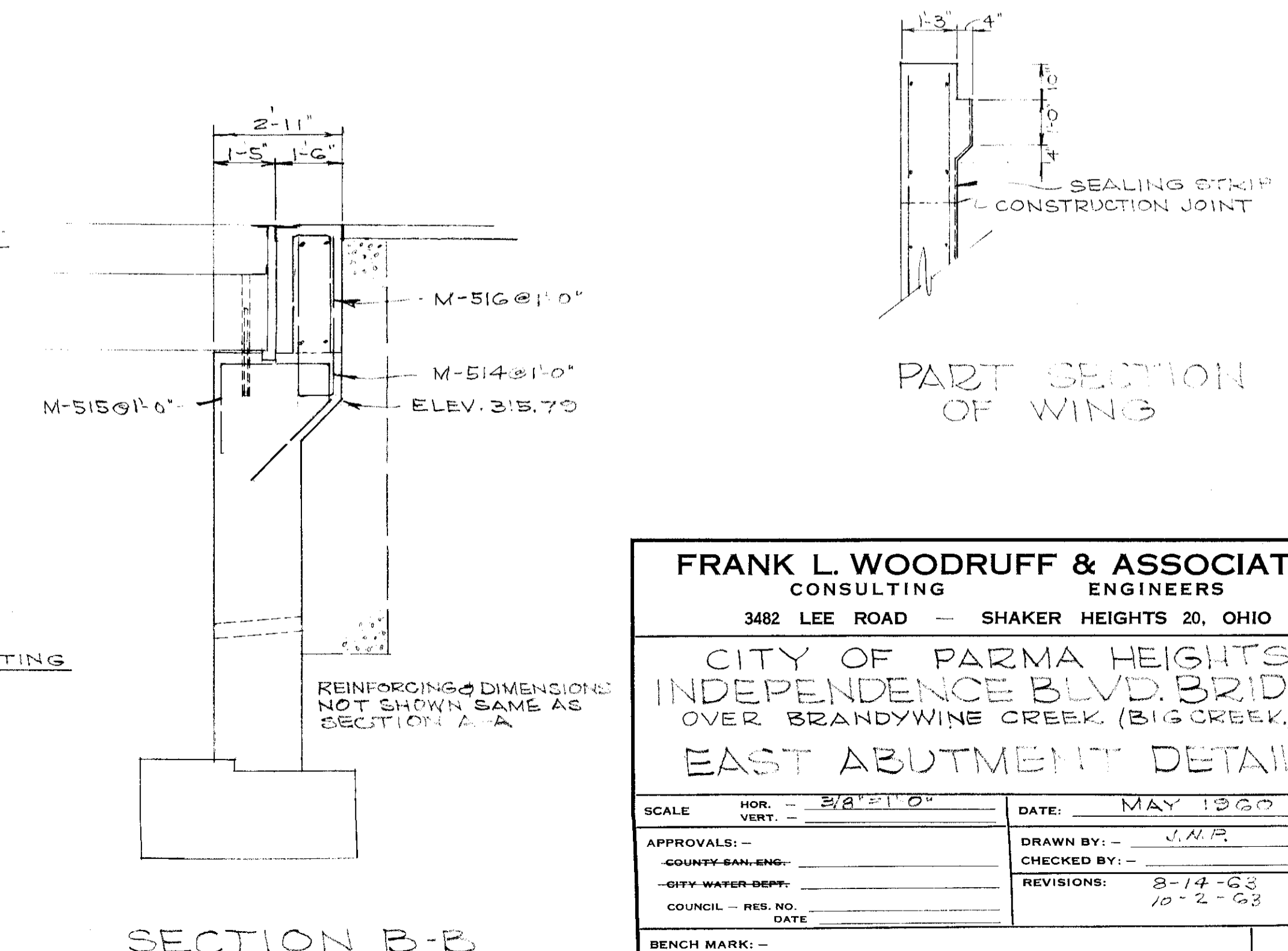
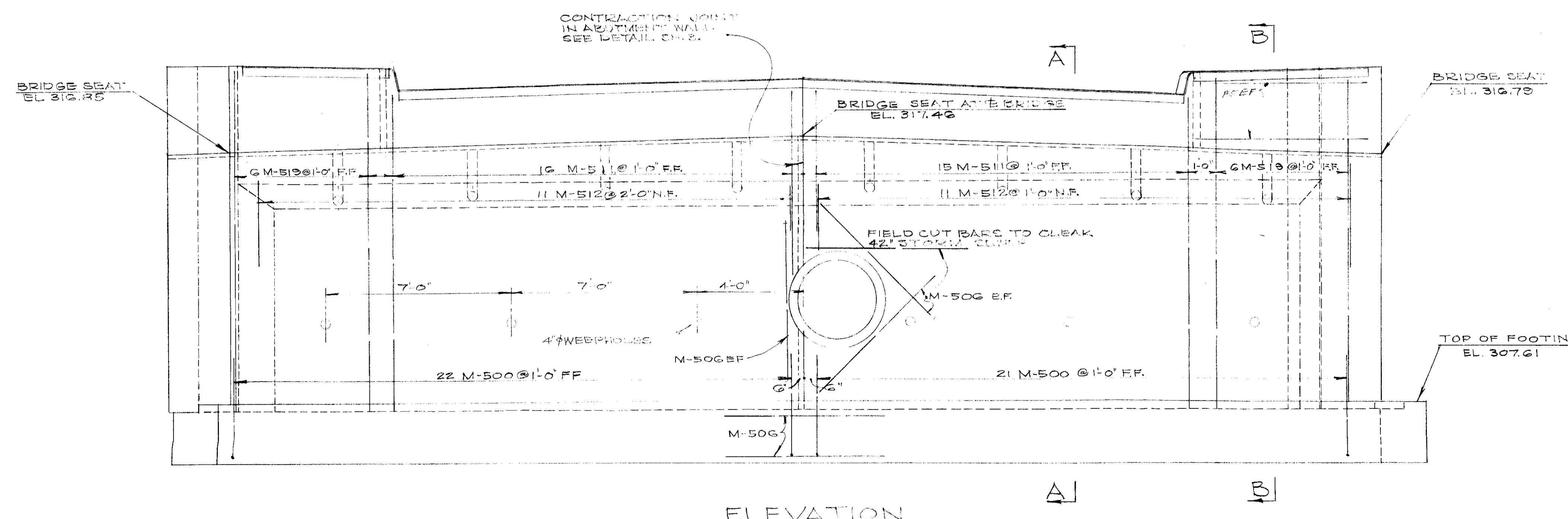
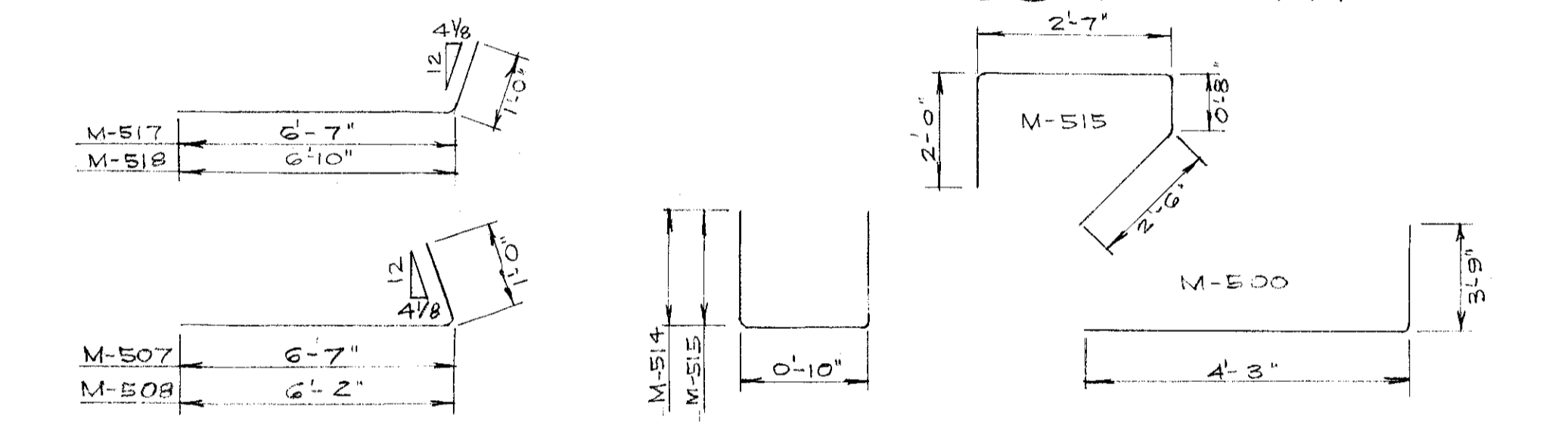
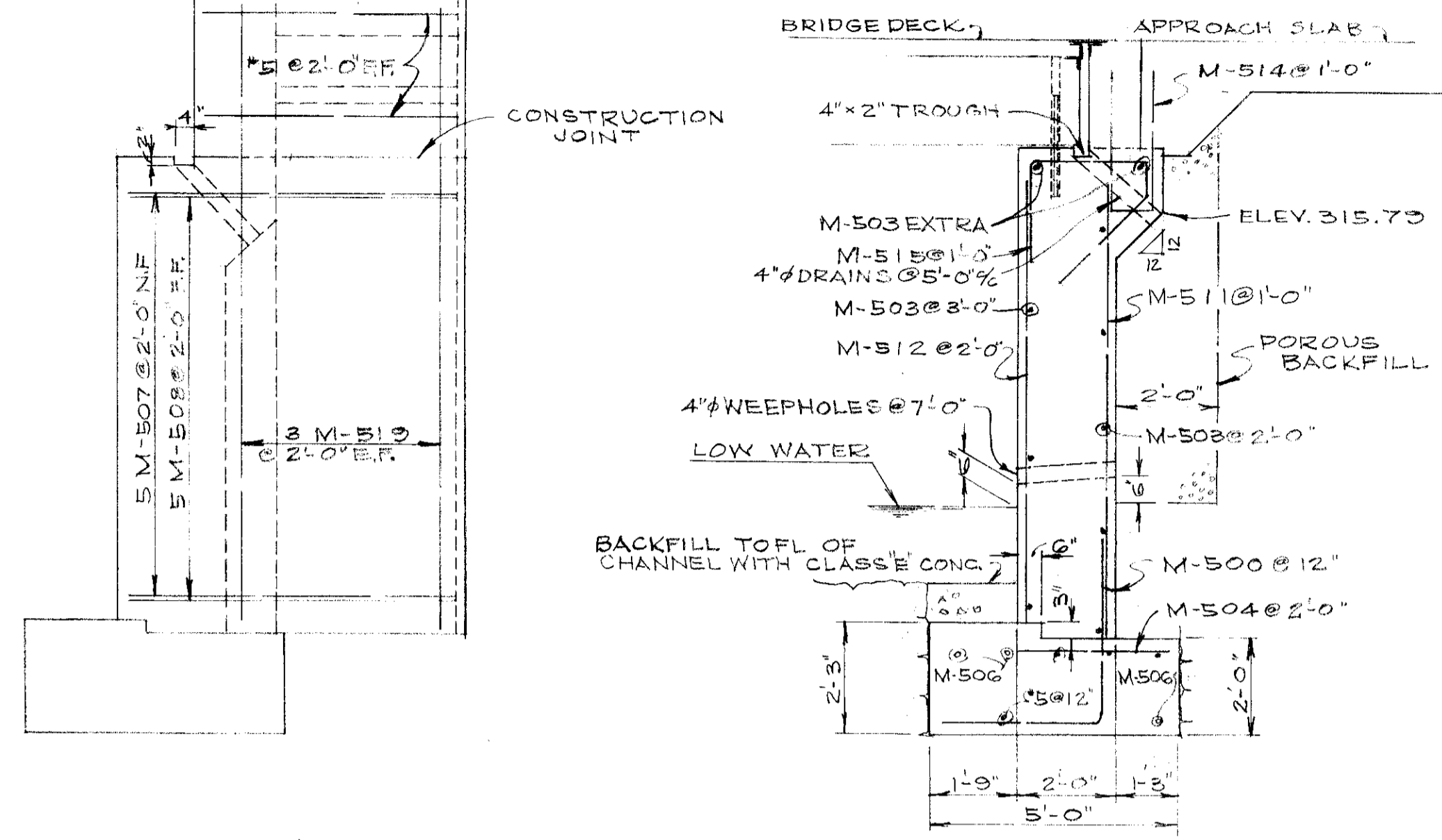
SHEET 3 OF 6



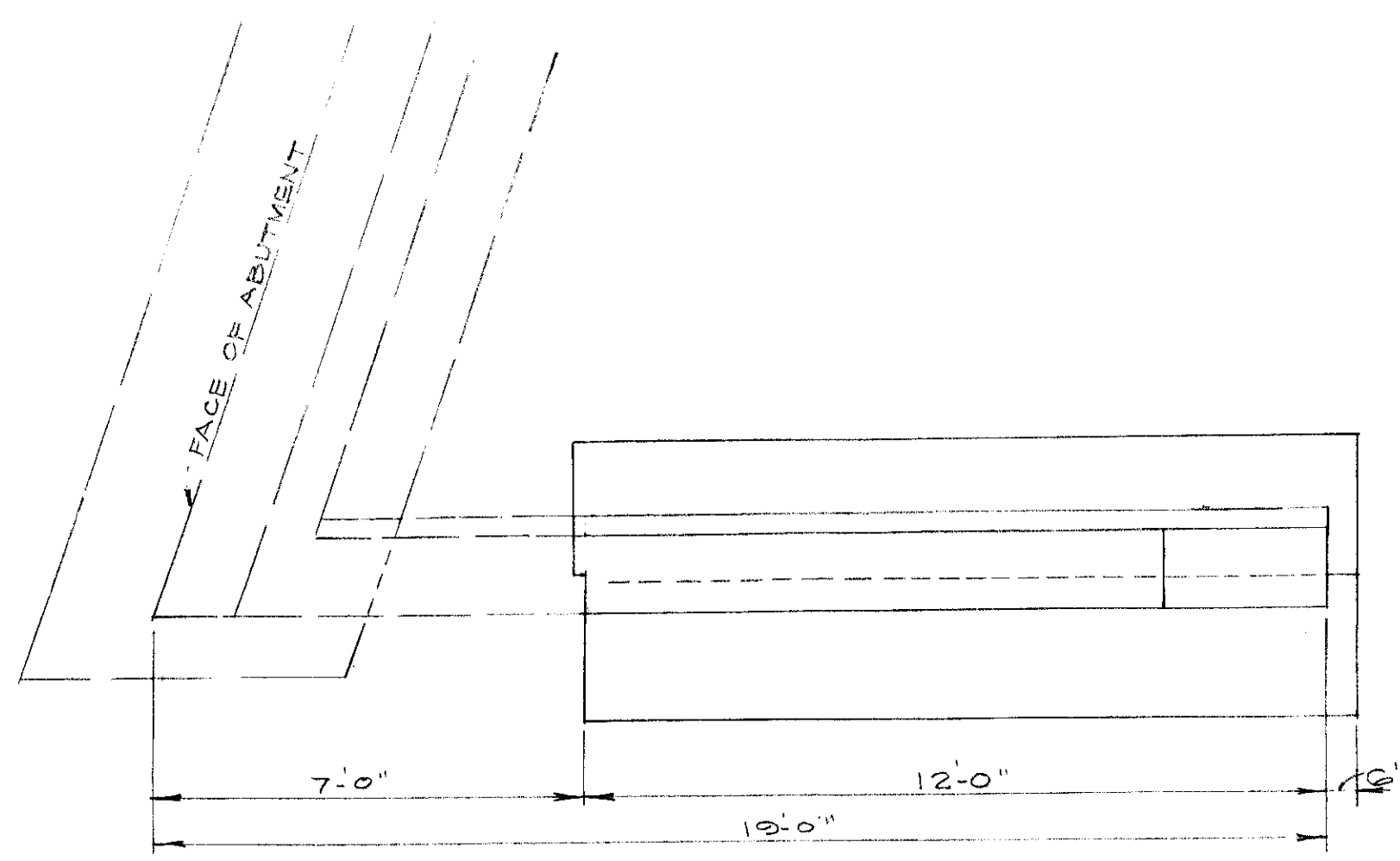


STA 28+31.74 L.T. ELEV. 320.21  
 STA 28+17.62 R.T. ELEV. 320.15

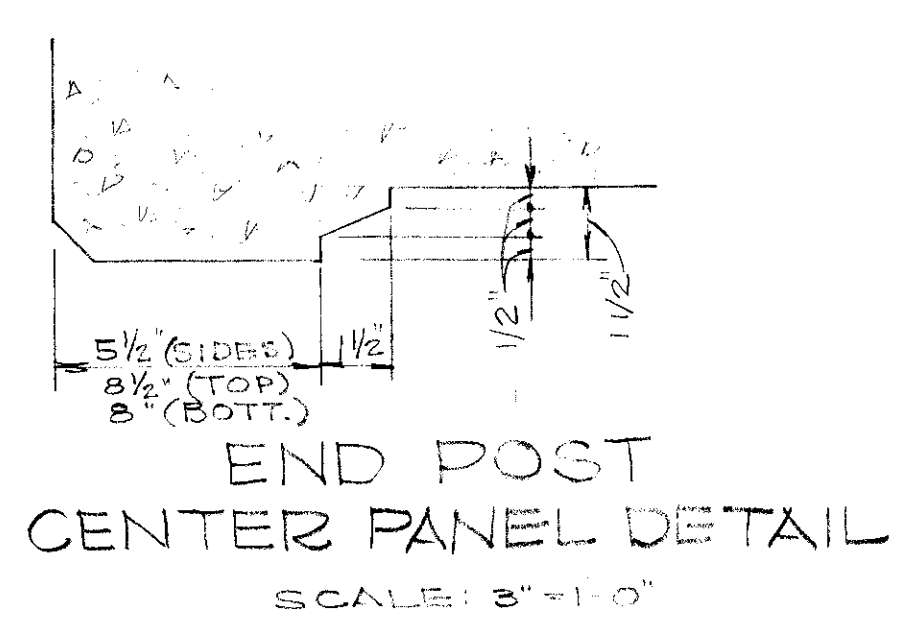
STA 28+38.74 L.T. ELEV. 320.23  
 STA 28+24.62 R.T. ELEV. 320.18



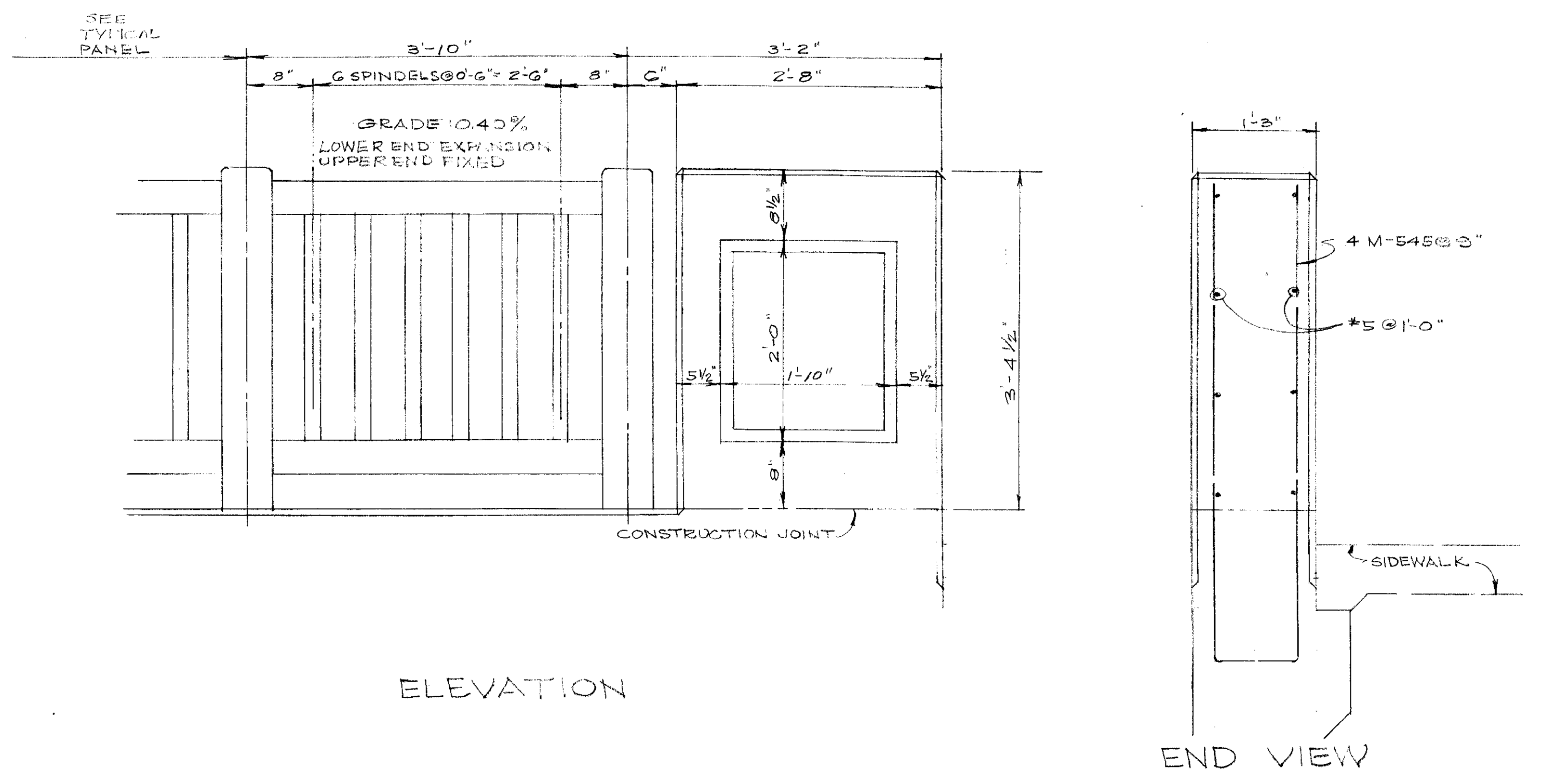
<b>FRANK L. WOODRUFF &amp; ASSOCIATES</b> CONSULTING ENGINEERS 3482 LEE ROAD - SHAKER HEIGHTS 20, OHIO			
CITY OF PARMA HEIGHTS INDEPENDENCE BLVD. BRIDGE OVER BRANDYWINE CREEK (BIG CREEK) EAST ABUTMENT DETAILS			
SCALE	HOR. - 3/8" = 1'-0"	VERT. - 1" = 1'-0"	DATE: MAY 1960
APPROVALS:	COUNTY SAN. ENG.:	CITY WATER DEPT.:	COUNCIL - RES. NO. DATE:
DRAWN BY: J.M.P.		CHECKED BY:	
REVISIONS: 8-14-63		10-2-63	
BENCH MARK: -			SHEET 4 OF 6



PLAN

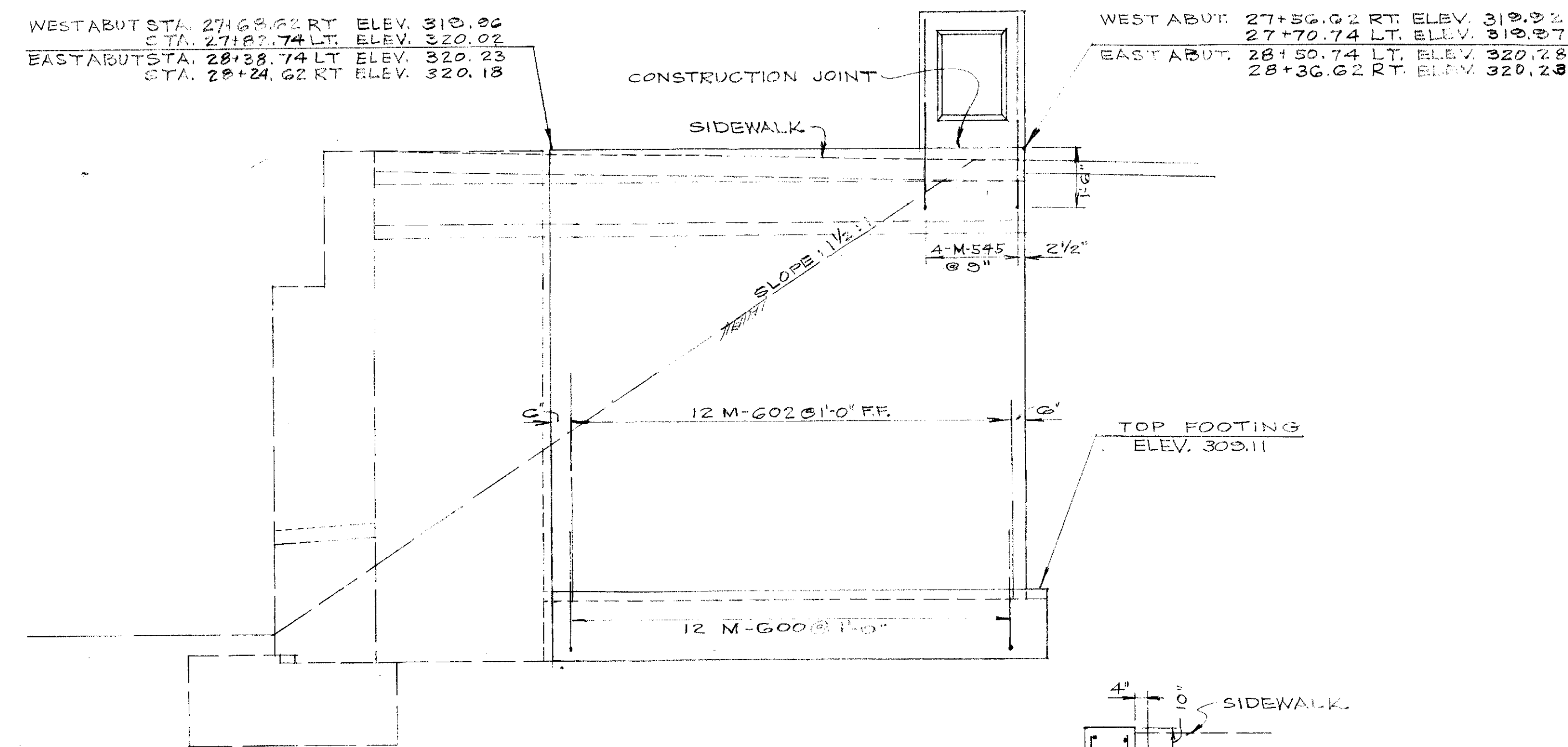


END POST CENTER PANEL DETAIL  
SCALE: 3" = 1'-0"



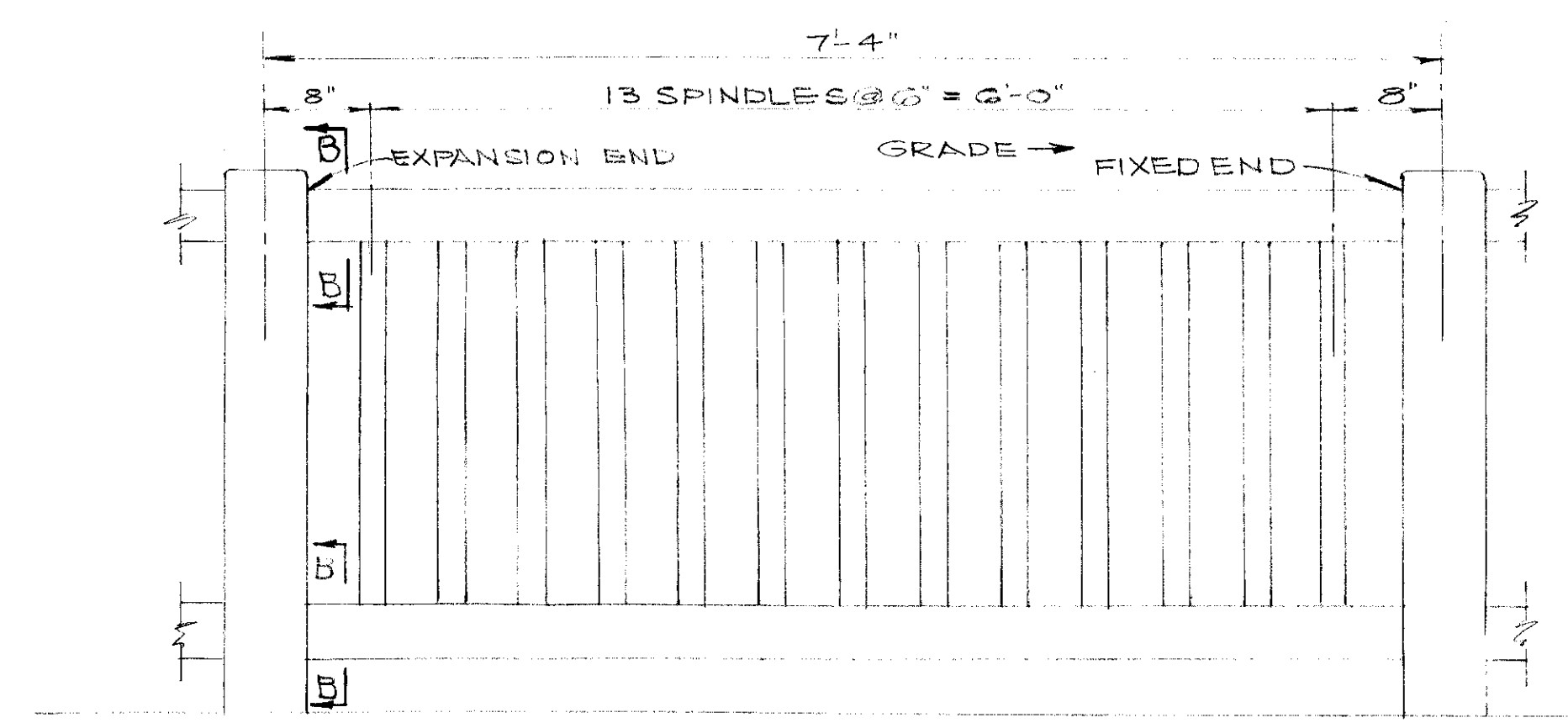
ELEVATION

END VIEW

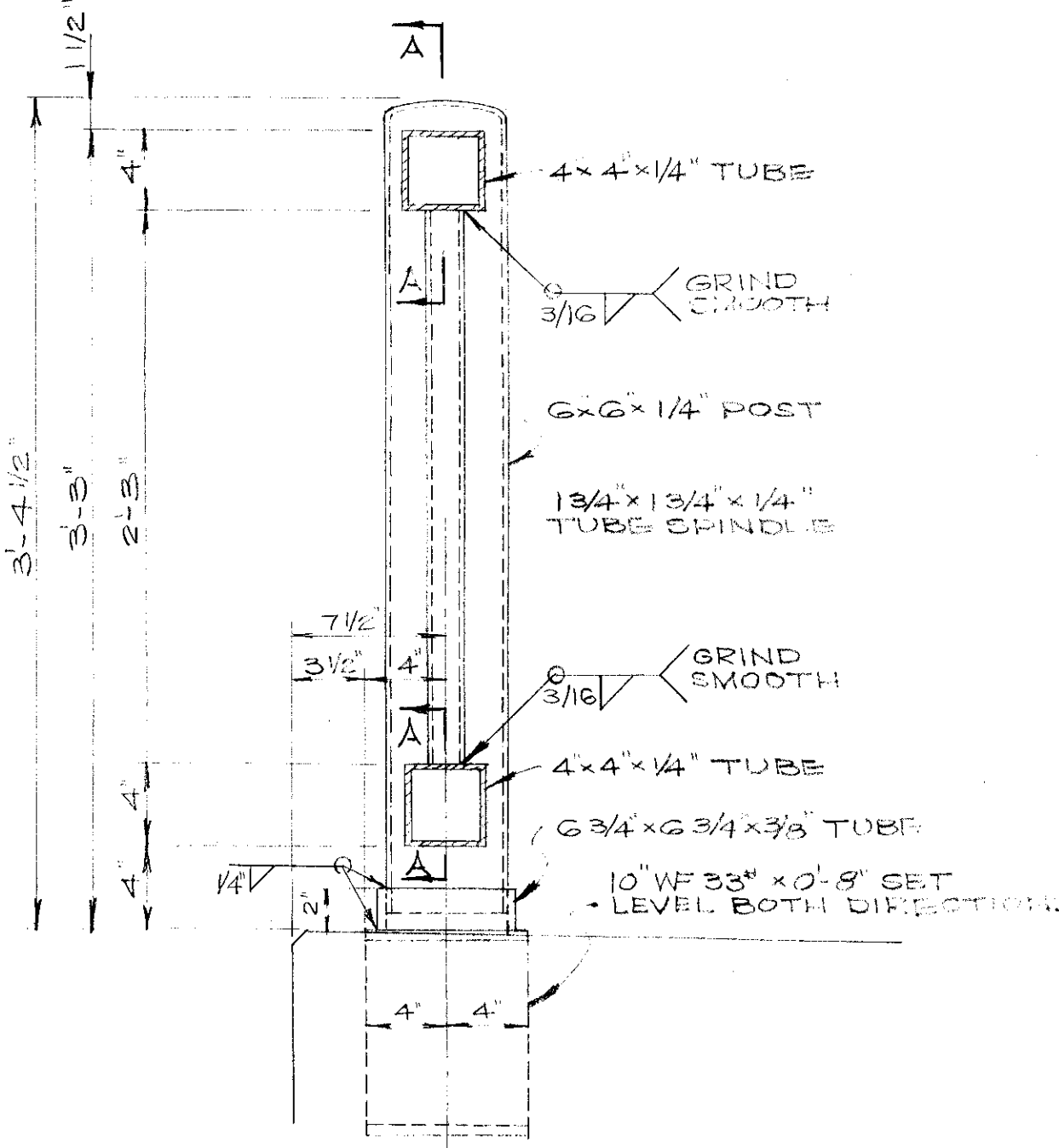


ELEVATION

END RAILING PANEL & CONCRETE END POST DETAILS  
SCALE: 1" = 1'-0"

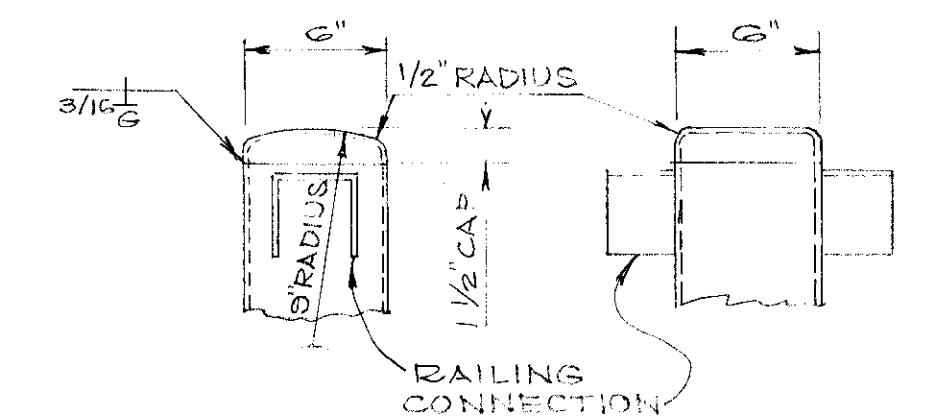


TYPICAL RAILING PANEL  
SCALE: 1" = 1'-0"

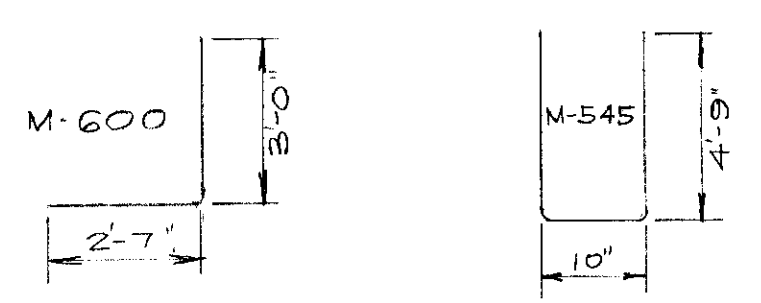


TYPICAL SECTION THRU RAILING  
SCALE: 1 1/2" = 1'-0"

NOTE: FINAL FIELD COAT OF PAINT FOR RAILING SHALL BE GREEN ENAMEL MEETING REQUIREMENTS OF C.C.C. M-2-22

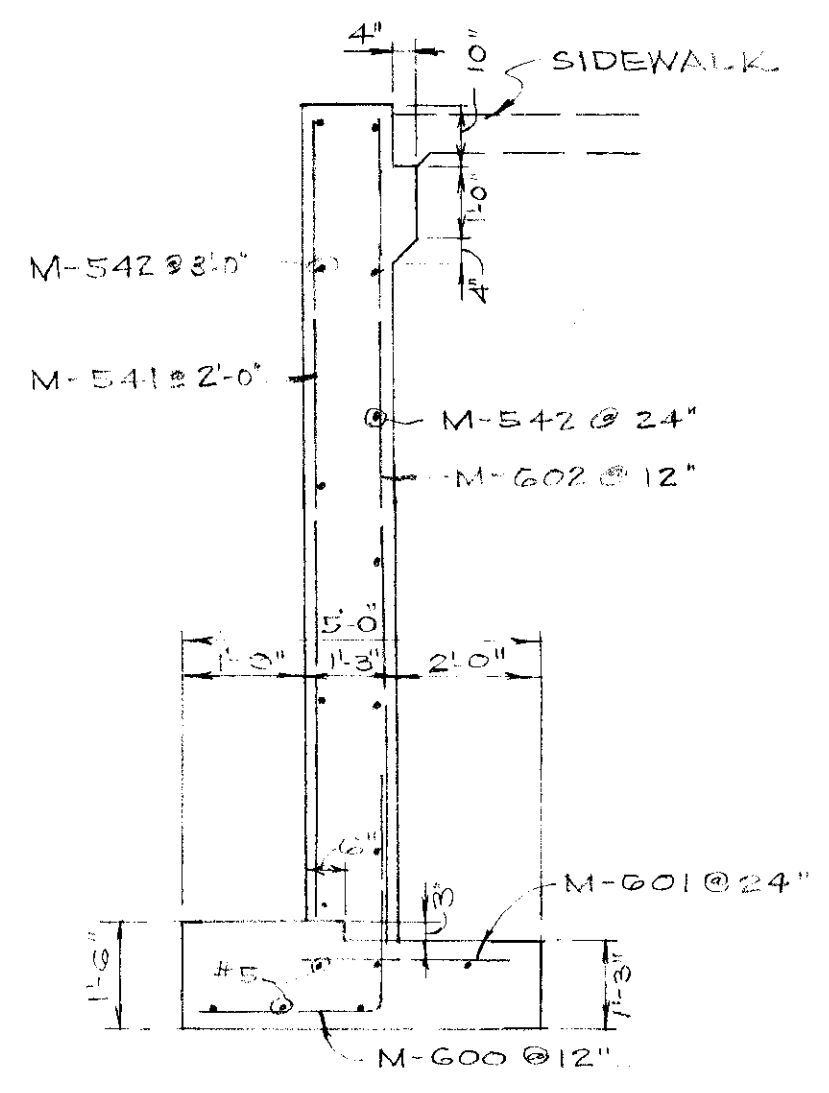


POST CAP DETAIL  
SCALE: 1 1/2" = 1'-0"

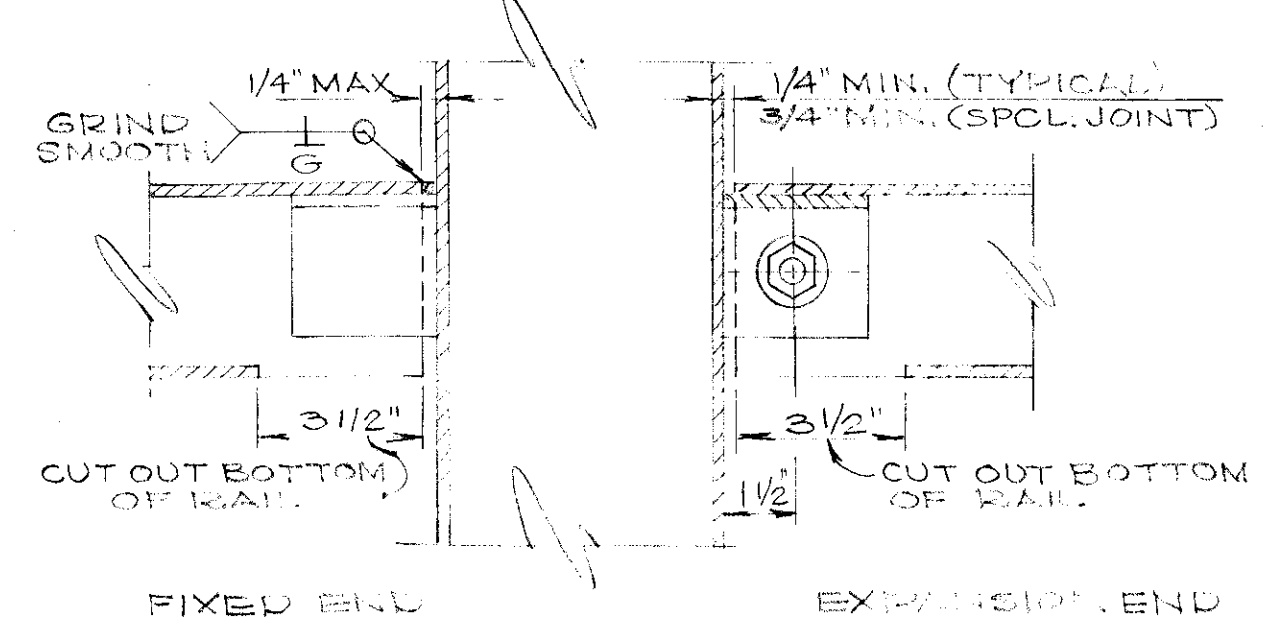


BAR BENDS

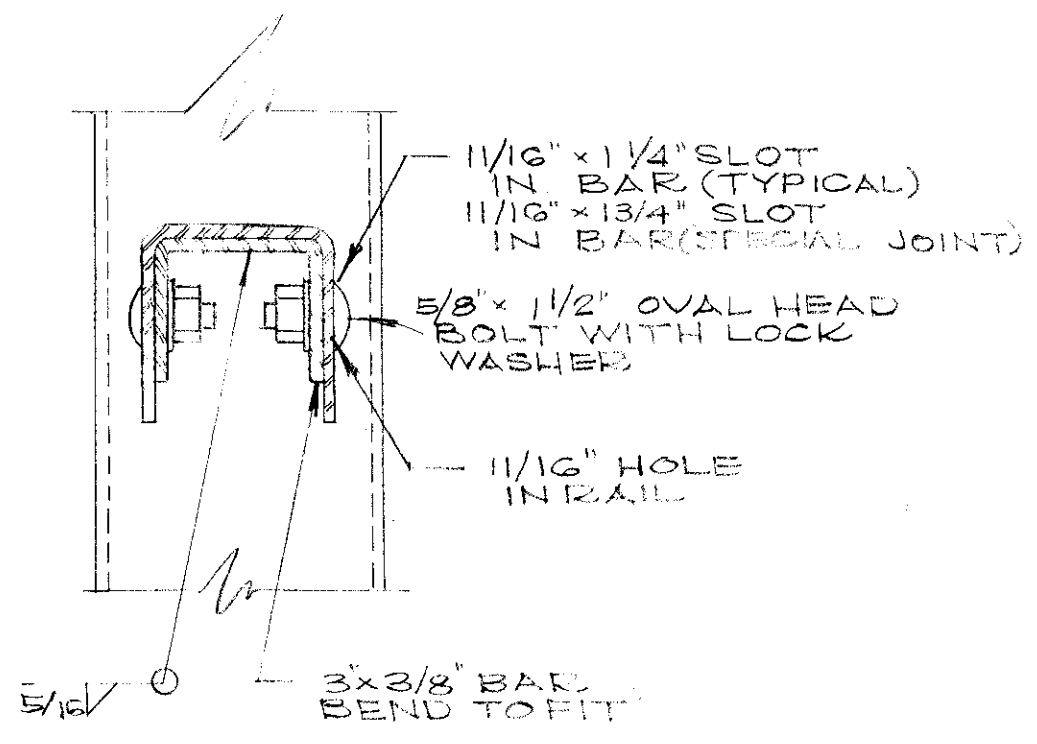
NOTE: STEM AND FOOTING SHALL BE CLASS "B" CONCRETE



TYPICAL SECTION



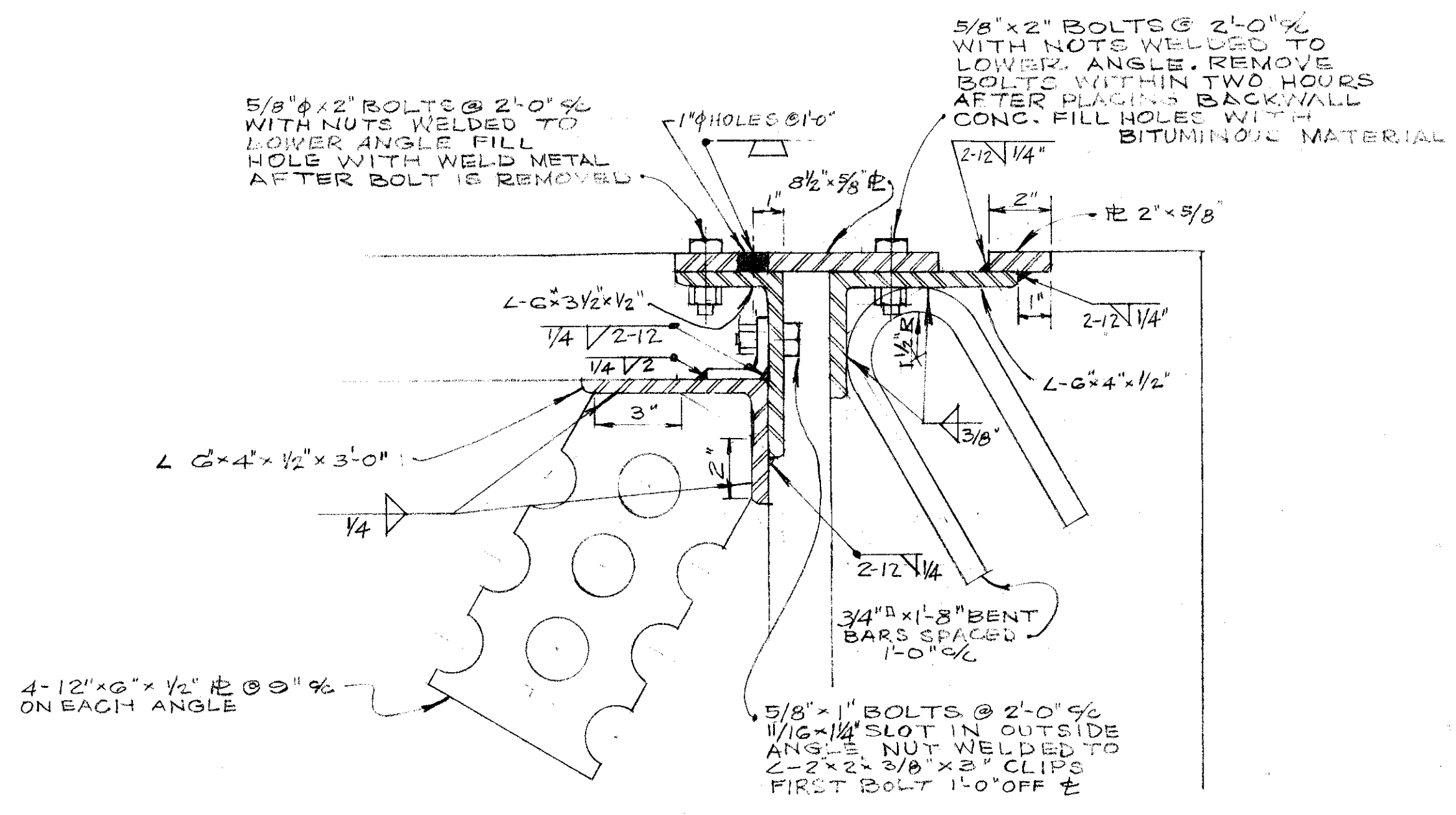
SECTION A-A  
SCALE: 3" = 1'-0"



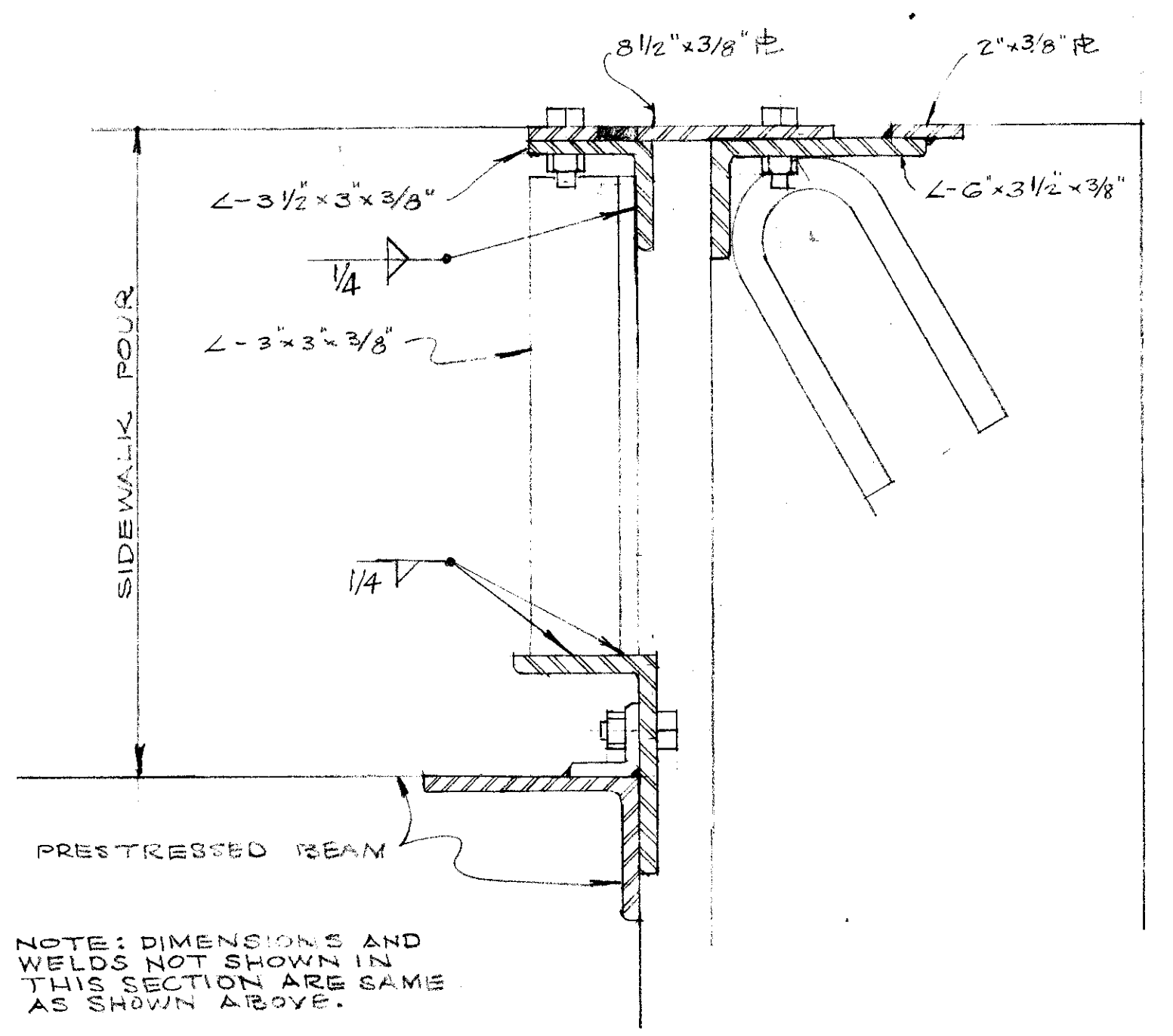
SECTION B-B  
SCALE: 3" = 1'-0"

WINDWALL DETAILS  
SCALE: 3/8" = 1'-0"

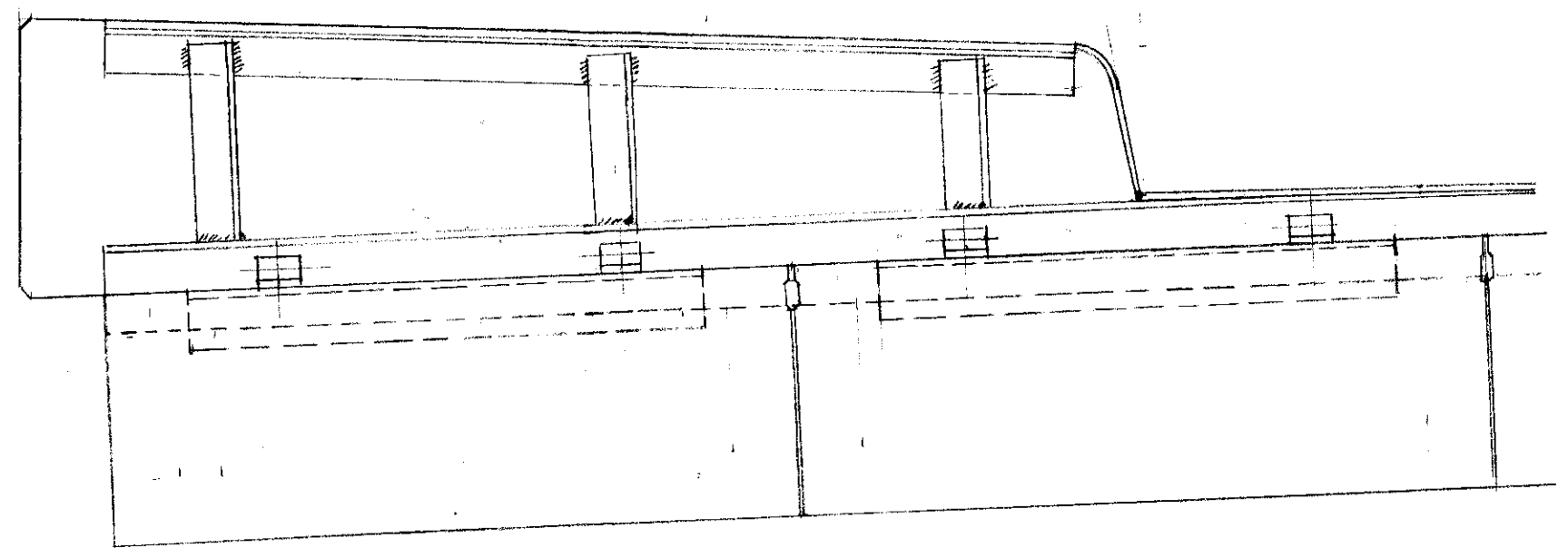
<b>FRANK L. WOODRUFF &amp; ASSOCIATES</b> CONSULTING ENGINEERS 3482 LEE ROAD - SHAKER HEIGHTS 20, OHIO			
CITY OF PARMA HEIGHTS INDEPENDENCE BLVD. BRIDGE OVER BRANDYWINE CREEK (BIG CREEK) MISCELLANEOUS DETAILS			
SCALE: AS SHOWN	HOR. VERT.	DATE: MAY 1960	
APPROVALS: _____	COUNTY-PAN-ENG: _____	CITY-WATER-DEPT: _____	COUNCIL - RES. NO. _____ DATE _____
DRAWN BY: J.N.P.		CHECKED BY: _____	
REVISIONS: 8-17-63			
BENCH MARK: _____			SHEET 5 of 6



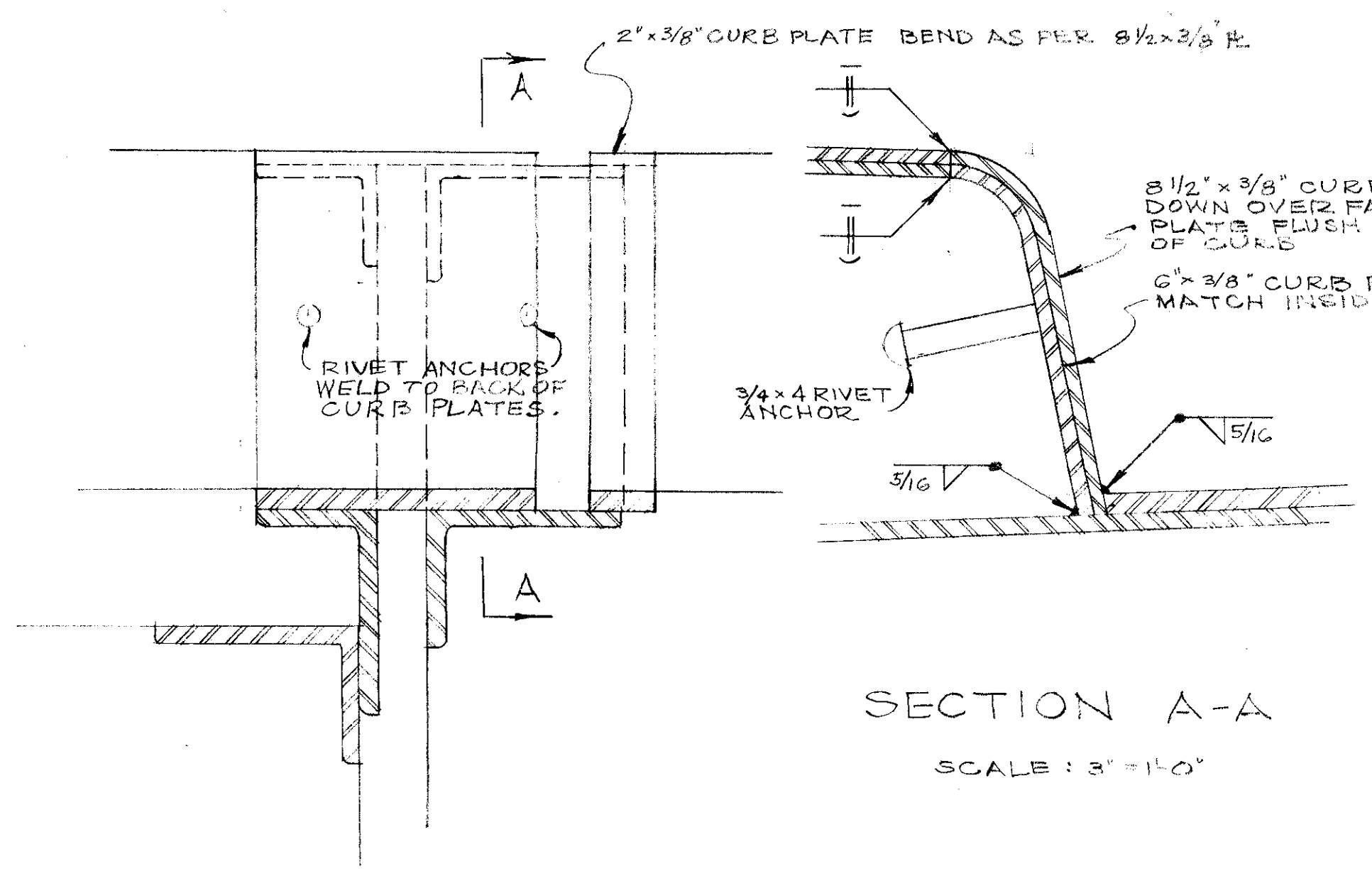
SECTION OF END FINISH IN ROADWAY  
SCALE: 3"=1'-0"



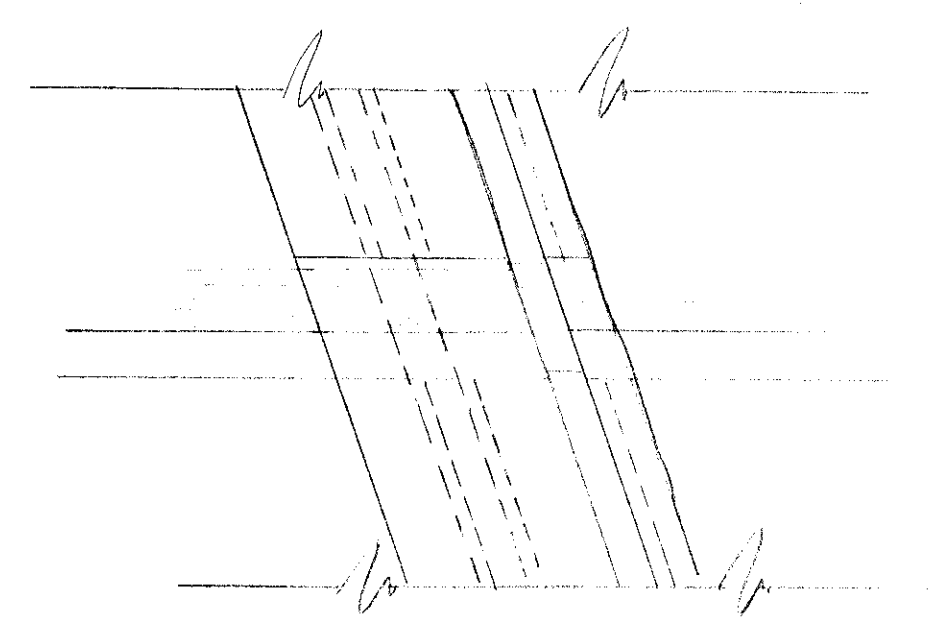
SECTION OF END FINISH IN SIDEWALK  
SCALE: 3"=1'-0"



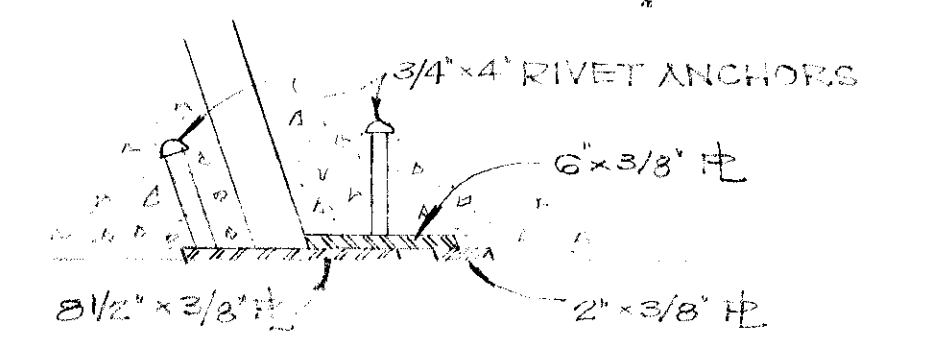
PART SECTION OF DECK AT END FINISH  
SCALE: 1"=1'-0"



SECTION A-A  
SCALE: 3"=1'-0"



PART PLAN AT CURB  
SCALE: 1/2"=1'-0"



SECTION THRU CURB  
SCALE: 1/2"=1'-0"

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CITY OF PADMA HEIGHTS INDEPENDENCE BLVD. BRIDGE OVER BRANDYVINE CREEK (P&B CREEK)		
<b>END FINISH DETAILS</b>		
SCALE	HOR. - AS NOTED VERT. -	DATE: MAY 1960
APPROVALS:	DRAWN BY: J.N.P.	CHECKED BY:
COUNCIL - RES. NO. DATE	REVISIONS: 8-14-63	
BENCH MARK: -		SHEET 6 OF 6