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- 84-DETAILS OF HANDRAIL

CONVENTIONAL SIGNS

State Line	County Line	City or Town Limits	Property Line	Fence	Retaining Wall	Existing Road	Proposed Road	Railroad	Levee or Embankment	Guard Rail	Point of Intersection (P.I.)	Truck Stop	Power Poles	Telephone or Telegraph Pole	Marsh	Forest	Shrub	Stumps	Buildings	Bridge	Concrete Box Culvert	Pipe Culvert	Drop Inlet and Culvert	Station on Center Line
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LEGEND

PROPOSED PROJECT
OTHER ROADS



SOUTH CAROLINA STATE HIGHWAY DEPARTMENT COLUMBIA

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

F.A.P. NO. I-IG-26-4(26)

FILE NO. 10.521.3

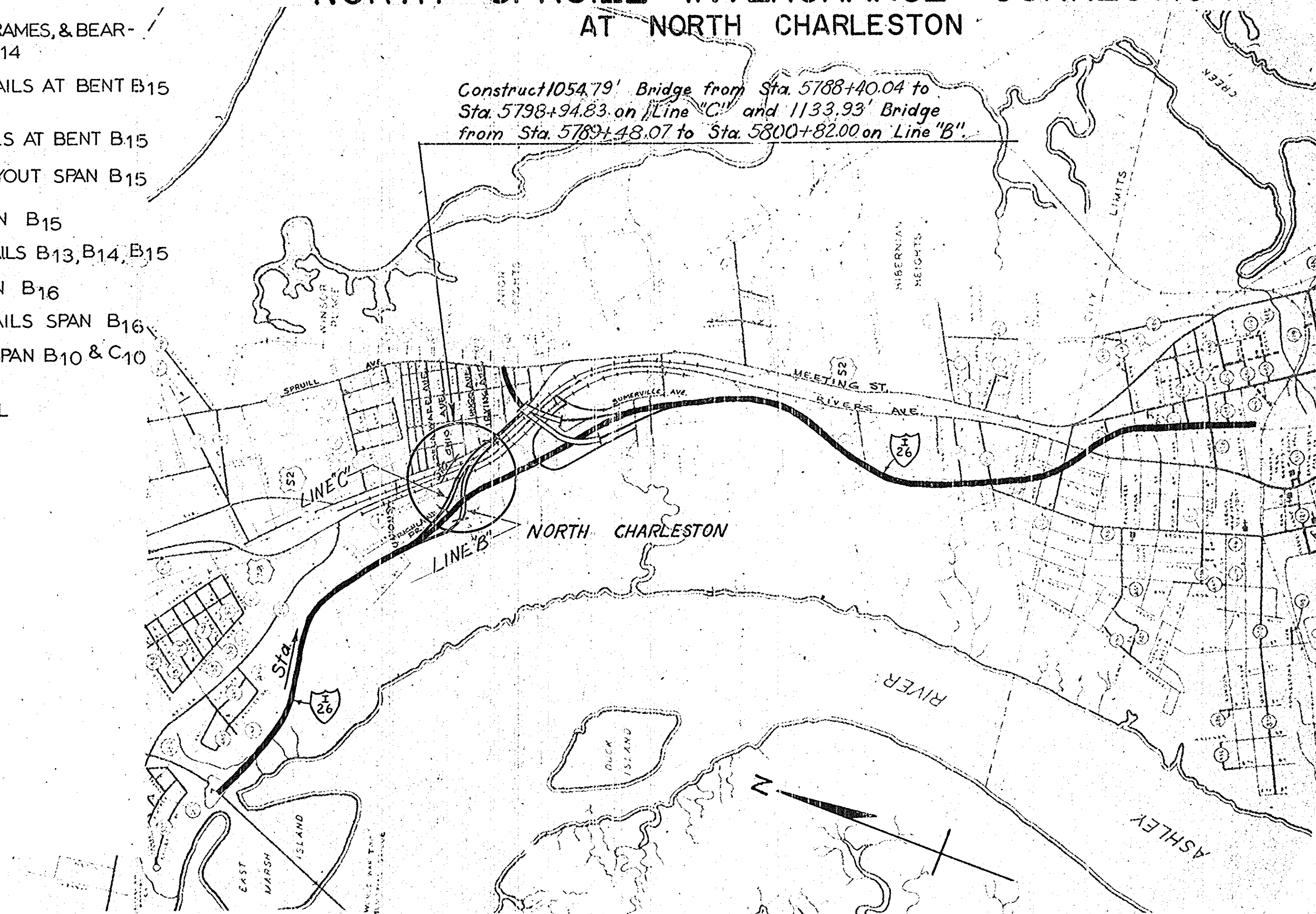
CHARLESTON COUNTY

ROUTE NO. I-26

UNDERPASS UNDER

NORTH SPRUILL INTERCHANGE CONNECTION
AT NORTH CHARLESTON

Construct 1054.79' Bridge from Sta 5788+40.04 to Sta 5798+94.83 on Line "C" and 1133.93' Bridge from Sta 5789+48.07 to Sta 5800+82.00 on Line "B"



Net Length of Bridge	0.000 Miles
Net Length of Approach	0.000 Miles
Net Length of Project	0.000 Miles
Length of Bridge	0.000 Miles
Gross Length of Project	0.000 Miles

NOTE: ALL WORKMANSHIP AND MATERIAL ON THIS PROJECT TO CONFORM WITH SOUTH CAROLINA STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION Edition of 1964.

FEL. ROAD D. NO.	STATE	COUNTY	FILE NO.	F.A.P. PROJ. NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	116-26-4(26)	I-26	1	84

SUMMARY OF ESTIMATED QUANTITIES

WET & DRY EXCAVATION	1,445	C.Y.
CONCRETE, CLASS "A"	2808.7	C.Y.
REINFORCING STEEL	539,805	LBS.
STEEL SUPERSTRUCTURES	* NECESSARY	L.S.
CREOSOTED TIMBER PILING	22,060	L.F.
STEEL BEARING PILING 12 BP 53	1,125	L.F.
FABRICATED METAL HANDRAIL (ALUMINUM-ALTERNATE 1)	3,679.61	L.F.
FABRICATED METAL HANDRAIL (STEEL-ALTERNATE 2)	3,679.61	L.F.
52'-6" PRESTRESSED CONCRETE BEAMS	20	E.A.
LOAD TEST PILES	2	E.A.

* APPROXIMATELY 1,426,600 LBS.

NOTE:

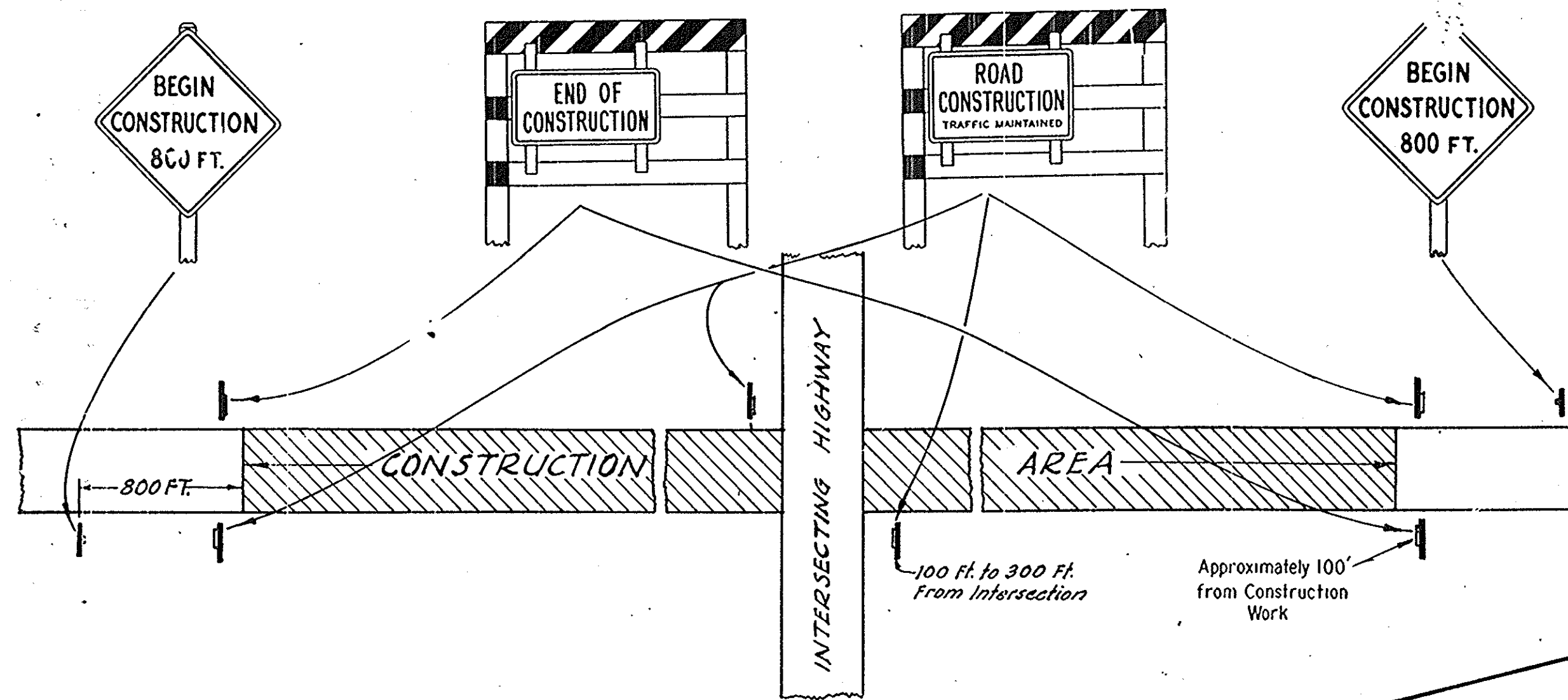
ALL STRUCTURAL STEEL FOR BEAMS, COVER PLATES & FOR MAIN GIRDERS SHALL COMPLY WITH THE LATEST A.S.T.M. SPECIFICATION A36. BEARING ASSEMBLIES, DIAPHRAGMS, CROSS FRAMES & OTHER SECONDARY MEMBERS MAY BE A7, A373, OR A36.

DURING CONSTRUCTION, REINFORCING STEEL QUANTITY TO BE INCREASED. FOR DETAILS OF CHANGE SEE NOTE ON SHEET 45.

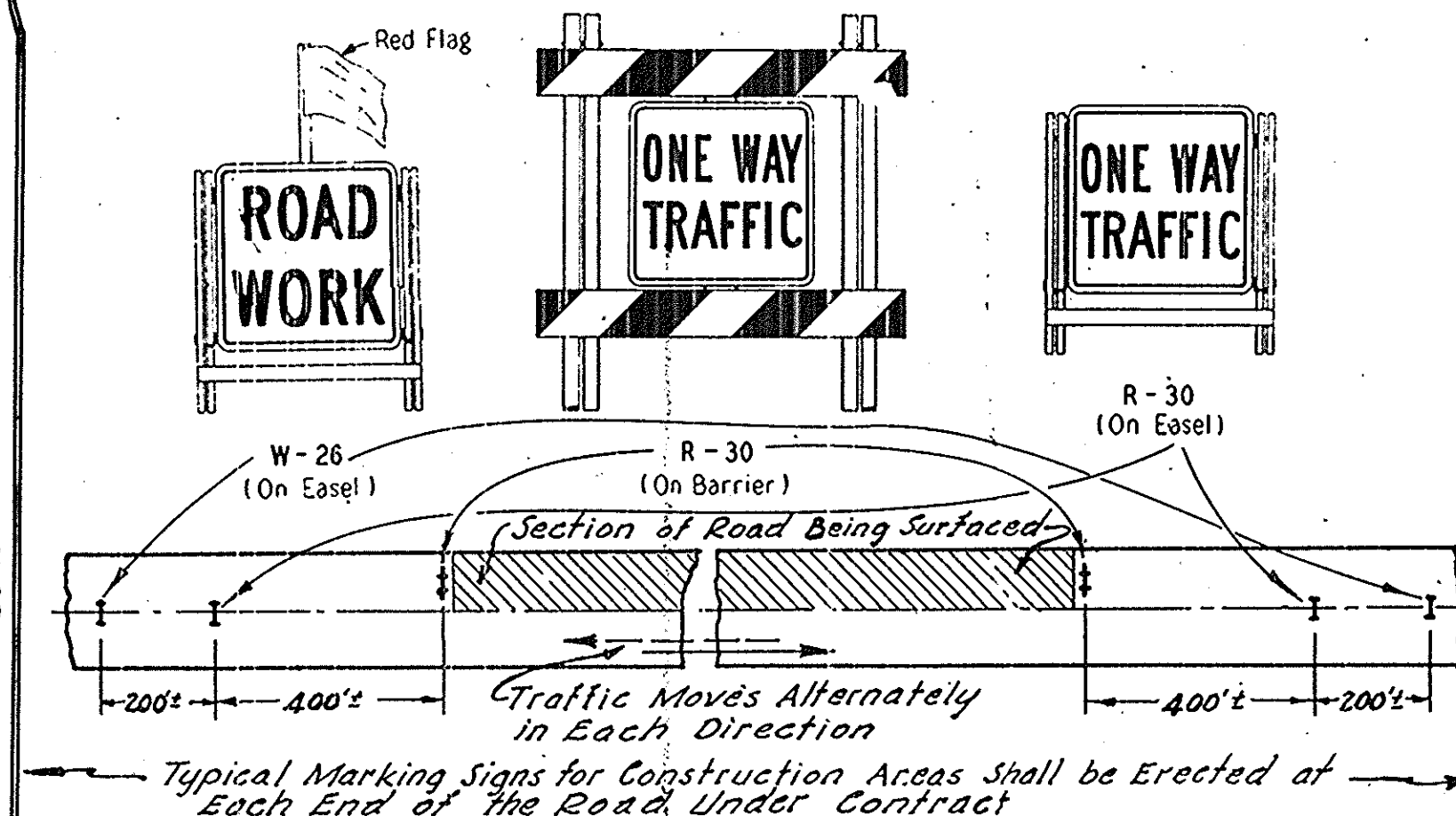
APPROVED:
STATE HIGHWAY ENGINEER
DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED:
DISTRICT ENGINEER
DATE

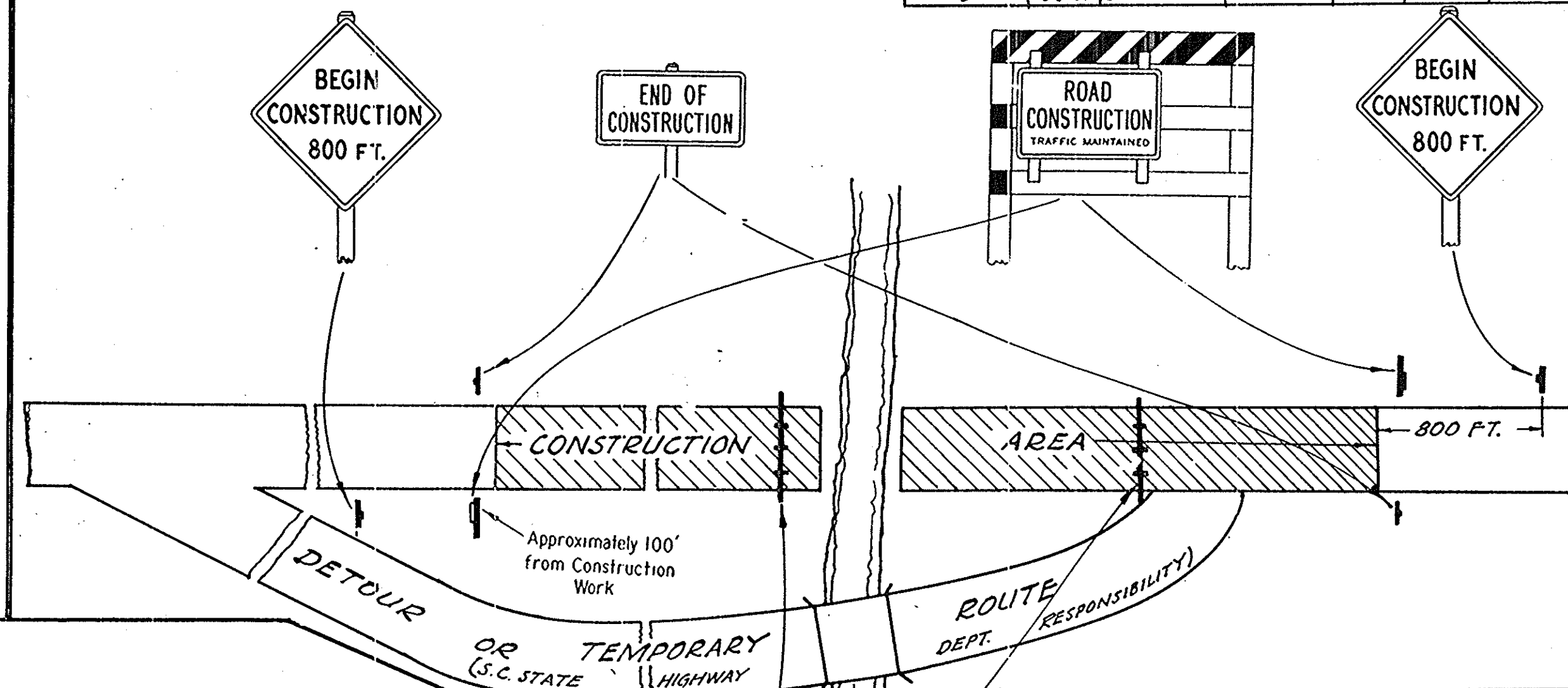
TYPICAL MARKING FOR CONSTRUCTION AREAS



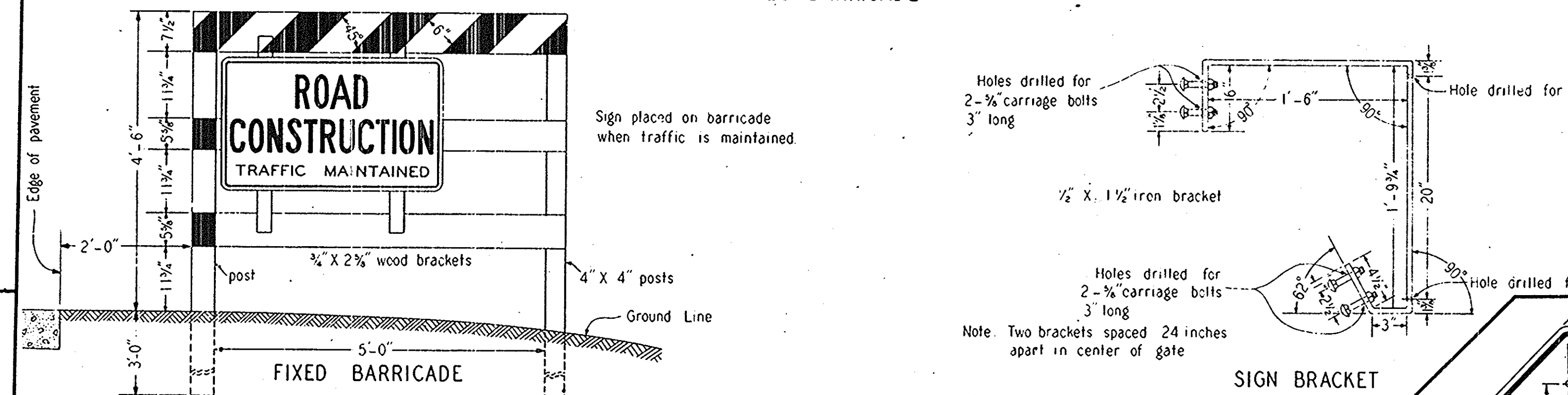
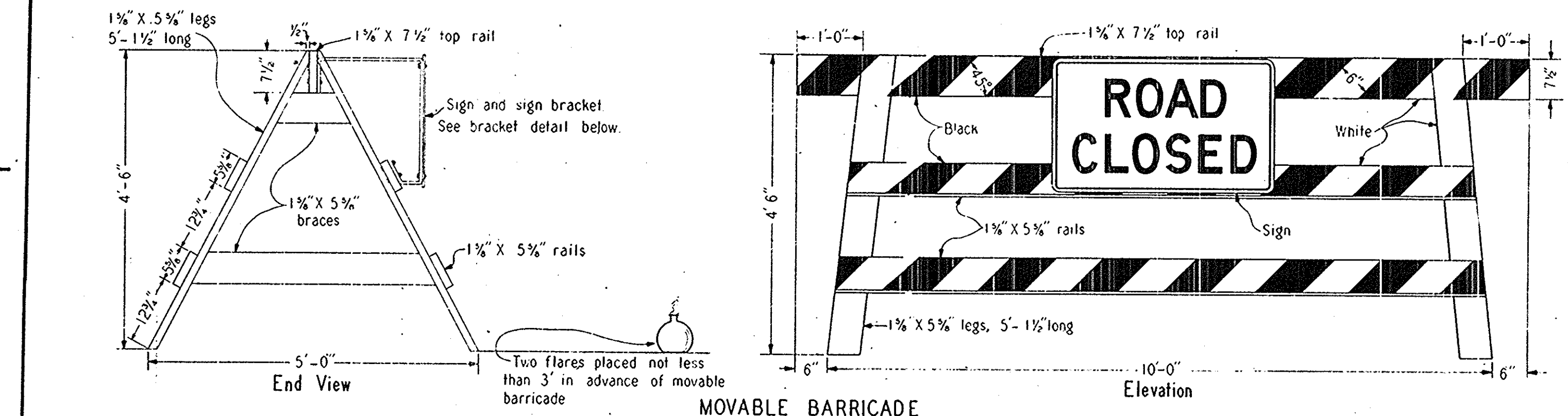
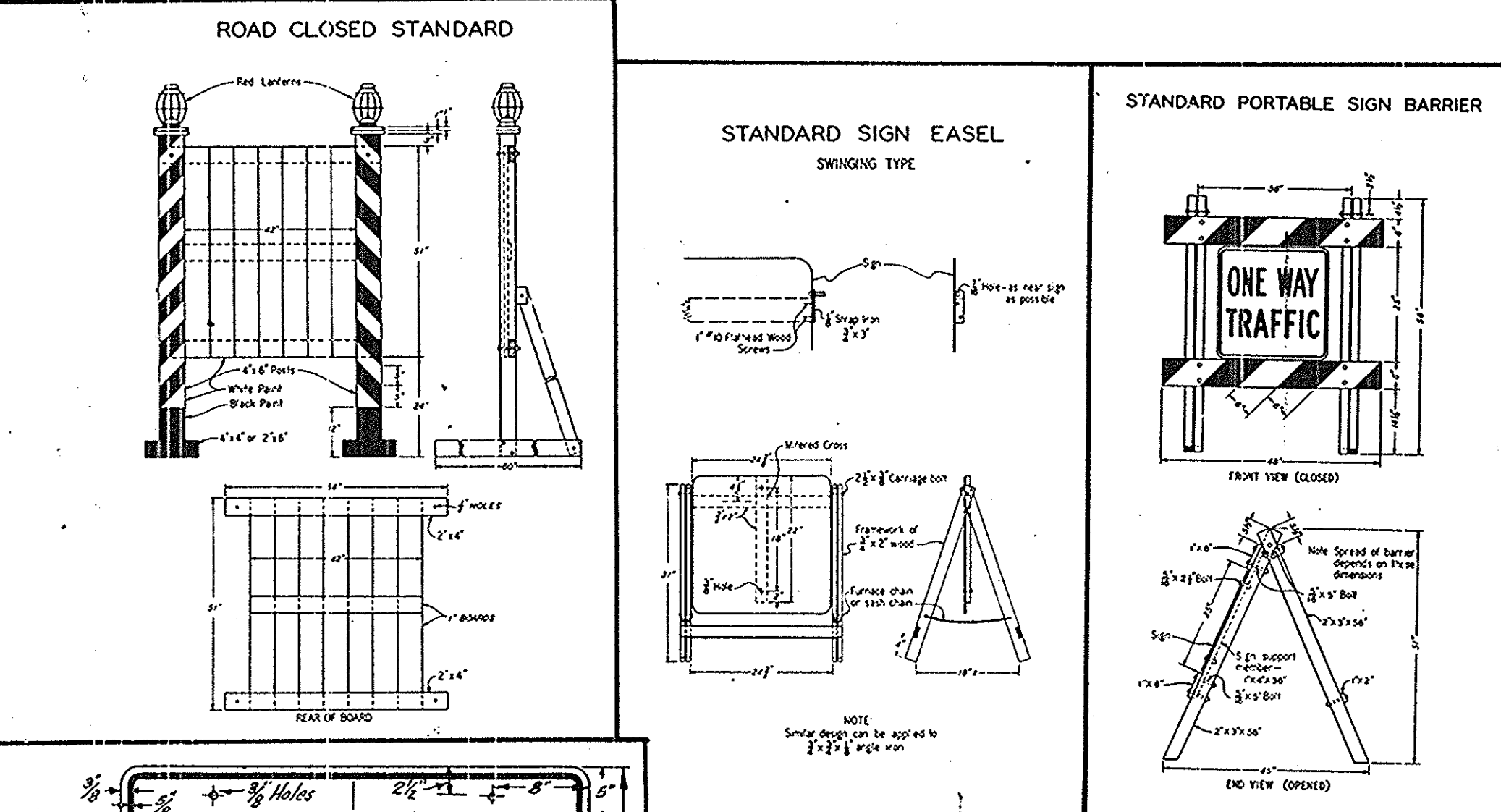
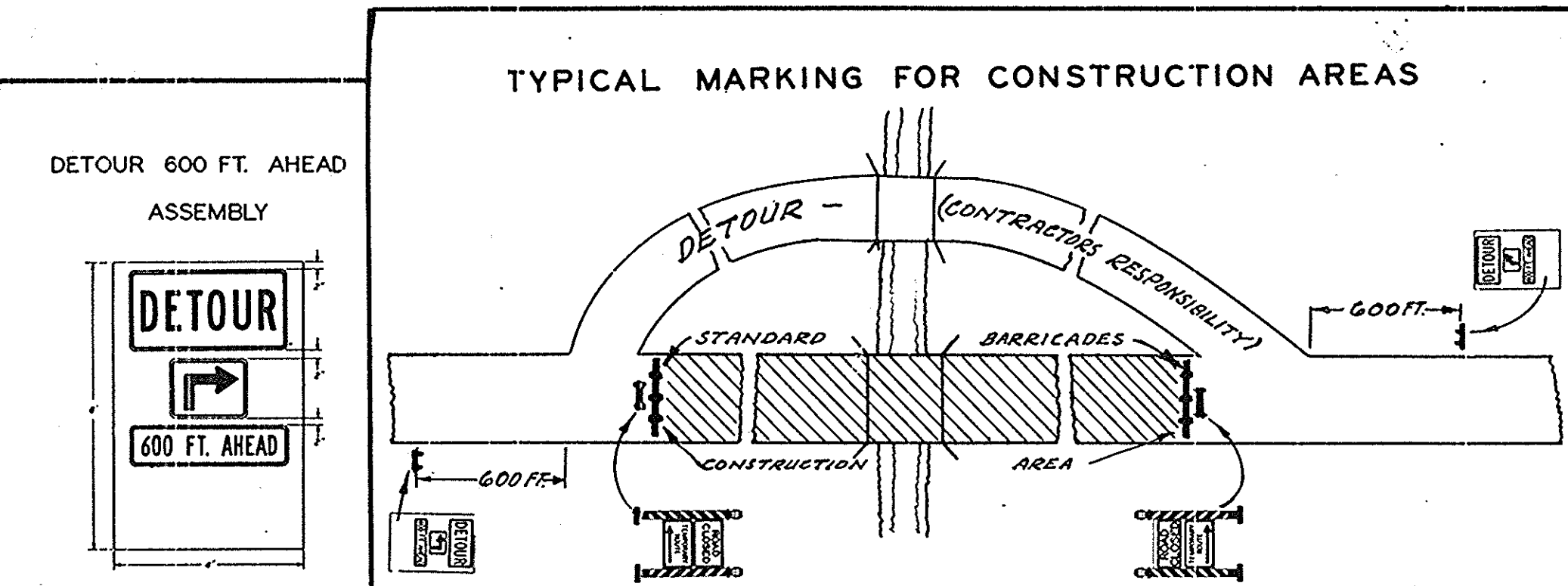
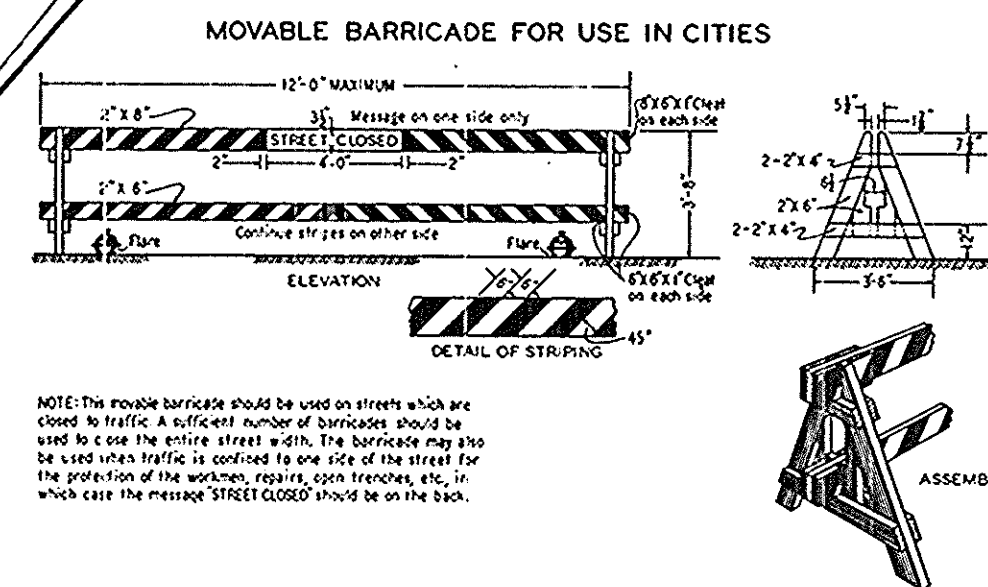
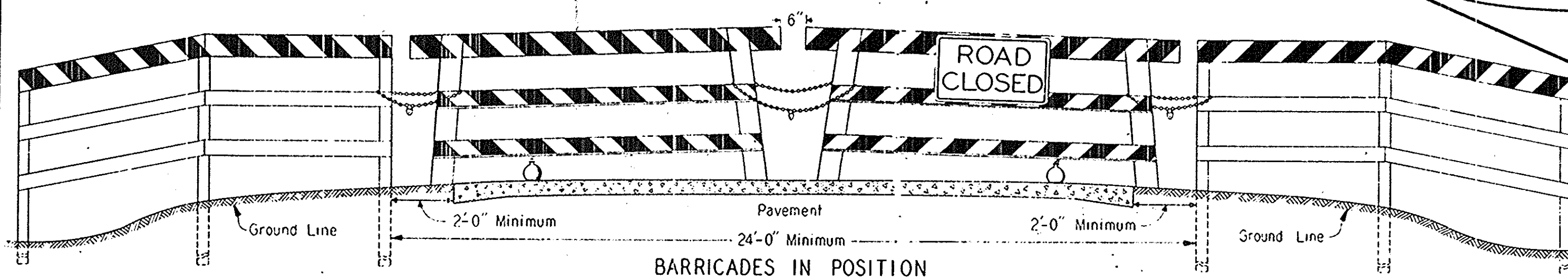
APPLICATION OF STANDARD SIGNS WHEN ROADWAY IS BEING SURFACED



TYPICAL MARKING FOR CONSTRUCTION AREAS



STANDARD BARRICADES



NOTES

ANY CONDITIONS NOT COVERED BY DETAILS AND SIGNS ON THIS DRAWING SHALL CONFORM TO THE LATEST S. C. STANDARD SPECIFICATIONS AND TO THE LATEST S. C. STANDARDS AND SPECIFICATIONS FOR UNIFORM TRAFFIC CONTROL DEVICES. THE LOCATION OF TYPICAL MARKINGS SHOWN HEREON MAY BE VARIED TO CONFORM TO FIELD CONDITIONS.

THE CONTRACTOR SHALL PROVIDE AND ERECT... PROPER SIGNS AND BARRICADES THE FIRST DAY ANY WORK IS PERFORMED OR AT THE TIME HE MOVES ANY MATERIAL OR EQUIPMENT ON TO THE PROJECT, WHICH EVER IS FIRST. HE SHALL MAINTAIN THESE SIGNS THROUGHOUT THE LIFE OF THE PROJECT UNTIL FINAL ACCEPTANCE OF THE CONTRACT, AT WHICH TIME THEY SHALL BE REMOVED.

WHenever surfacing work is being performed on the roadway and one-way traffic is being maintained through the section being surfaced, the standard signs shall be placed and, also, flagmen shall be posted at each end of the section of road being surfaced except in cases where traffic volume is light and high speeds do not prevail, or in cases where the section of road being surfaced is not more than 100 feet in length and the signs are clearly visible for a distance of 500 feet.

THE DEPARTMENT WILL ERECT AND MAINTAIN PROPER SIGNS IN ACCORDANCE WITH THE MANUAL FOR UNIFORM CONTROL DEVICES FOR ALL ROUTES OR TEMPORARY ROUTES THAT THE CONTRACTOR IS NOT REQUIRED TO MAINTAIN. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE AND MAINTAIN PROPER DETOUR SIGNS AT AND ALONG ALL DETOURS FOR WHICH HE IS RESPONSIBLE.

THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN AND RELOCATE, WHERE NECESSARY, ALL REGULATORY, WARNING AND GUIDE SIGNS IN PLACES, OR THOSE THAT MAY BE ERECTED BY THE DEPARTMENT, WITHIN THE LIMITS OF HIS CONTRACT.

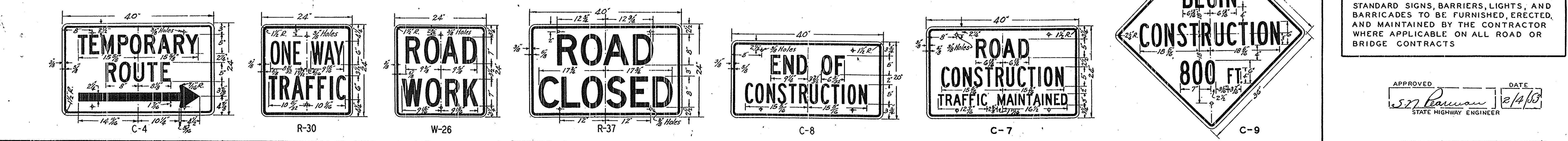
BETWEEN THE HOURS OF SUNSET AND SUNRISE, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TWO FLARES OR RED LANTERNS AT EACH BARRICADE, "ROAD CLOSED" SIGN, OBSTRUCTION OR AT SUCH OTHER POINTS AS ARE NECESSARY TO PROTECT THE TRAVELING PUBLIC.

ALL SIGNS SHALL BE REFLIGHTORIZED EXCEPT THOSE TEMPORARY SIGNS THAT ARE USED ONLY DURING DAYLIGHT HOURS. FRAMES SHOWING SIZES OF SIGNS, LETTERS AND NUMERALS ARE DETAILED HEREON. ALL SIGNS SHALL HAVE BLACK LETTERS OR NUMERALS ON A WHITE BACKGROUND EXCEPT THE "ROAD WORK" (W-26), "BEGIN CONSTRUCTION - 800 FT." (C-9) and "DETOUR" (C-5) SIGNS WHICH SHALL HAVE A YELLOW BACKGROUND.

THE "ROAD CONSTRUCTION - TRAFFIC MAINTAINED" (C-7) SIGN SHALL BE MOUNTED ON A BARRICADE ON EACH SIDE OF THE INTERSECTION FACING TRAFFIC AT ALL IMPORTANT ROAD INTERSECTIONS. ON MAJOR ROUTES BEING CONSTRUCTED, THE BARRICADE SHALL BE ON BOTH SIDES OF THE ROAD AT THE EXTREME LIMITS OF THE PROJECT BUT THE SIGN MAY BE OMITTED ON THE BARRICADE ON THE LEFT SIDE OF ROAD FACING TRAFFIC. THE "END OF CONSTRUCTION" (C-8) SIGN MAY BE PLACED ON THE BACK OF THIS BARRICADE INSTEAD OF ON A POST.

WHEN A BRIDGE IS UNDER CONSTRUCTION AND TRAFFIC IS MAINTAINED, THE WORD "BRIDGE" SHALL BE SUBSTITUTED FOR "ROAD" ON THE "ROAD CONSTRUCTION - TRAFFIC MAINTAINED" SIGN AND THE SIGN ERECTED IN A LIKE MANNER.

DRAWINGS SHOWING DIMENSIONS OF SIGNS

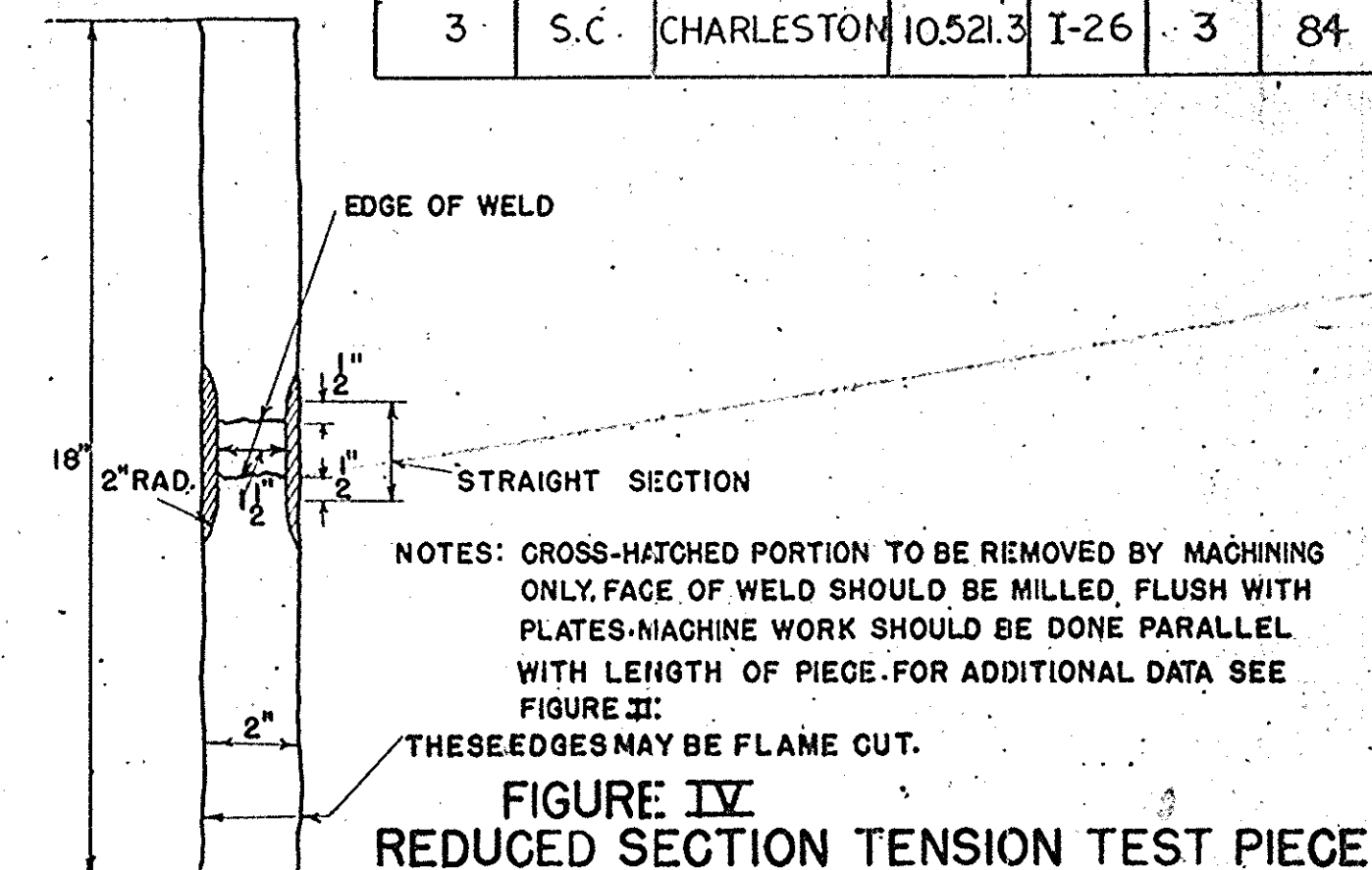


DETAILS SHOWING STANDARD SIGNS, BARRIERS, LIGHTS, AND BARRICADES TO BE FURNISHED, ERECTED, AND MAINTAINED BY THE CONTRACTOR WHERE APPLICABLE ON ALL ROAD OR BRIDGE CONTRACTS

APPROVED
577 Pearson
STATE HIGHWAY ENGINEER

DATE
2/4/63

FED. ROAD DIV. NO.	STATE	COUNTY	S.C. DOCK NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10.521.3	I-26	3	84



WELDING SYMBOLS										
TYPE OF WELD										
BEAD	FILLET	GROOVE					PLUG & SLOT	FIELD WELD	WELD ALL AROUND	FLUSH
		SQUARE	V	BEVEL	U	J				
LOCATION OF WELDS										
ARROWS(OR NEAR)SIDE OF JOINT				OTHER(OR FAR)SIDE OF JOINT				BOTH SIDES OF JOINT		
FIELD WELD SEE NOTE 5 				INCLUDED ANGLE 				SIZE INCREMENT LENGTH 		
FLUSH ROOT OPENING				SIZE ROOT OPENING SEE NOTE 5				OFFSET IF STAGGERED OF INCREMENT		

- THE SIDE OF THE JOINT TO WHICH THE ARROW POINTS IS THE ARROW(OR NEAR)SIDE.
- BOTH SIDES WELDS OF SAME TYPE ARE OF SAME SIZE UNLESS OTHERWISE SHOWN.
- SYMBOLS APPLY BETWEEN ABRUPT CHANGES IN DIRECTION OF JOINT OR AS DIMENSIONED (EXCEPT WHERE ALL AROUND SYMBOL IS USED).
- ALL WELDS ARE CONTINUOUS AND OF USER'S STANDARD PROPORTIONS, UNLESS OTHERWISE SHOWN.
- TAIL OF ARROW USED FOR SPECIFICATION REFERENCE (TAIL MAY BE OMITTED WHEN REFERENCE NOT USED).
- DIMENSIONS OF WELD SIZES, INCREMENTS, LENGTHS AND SPACINGS, IN INCHES.

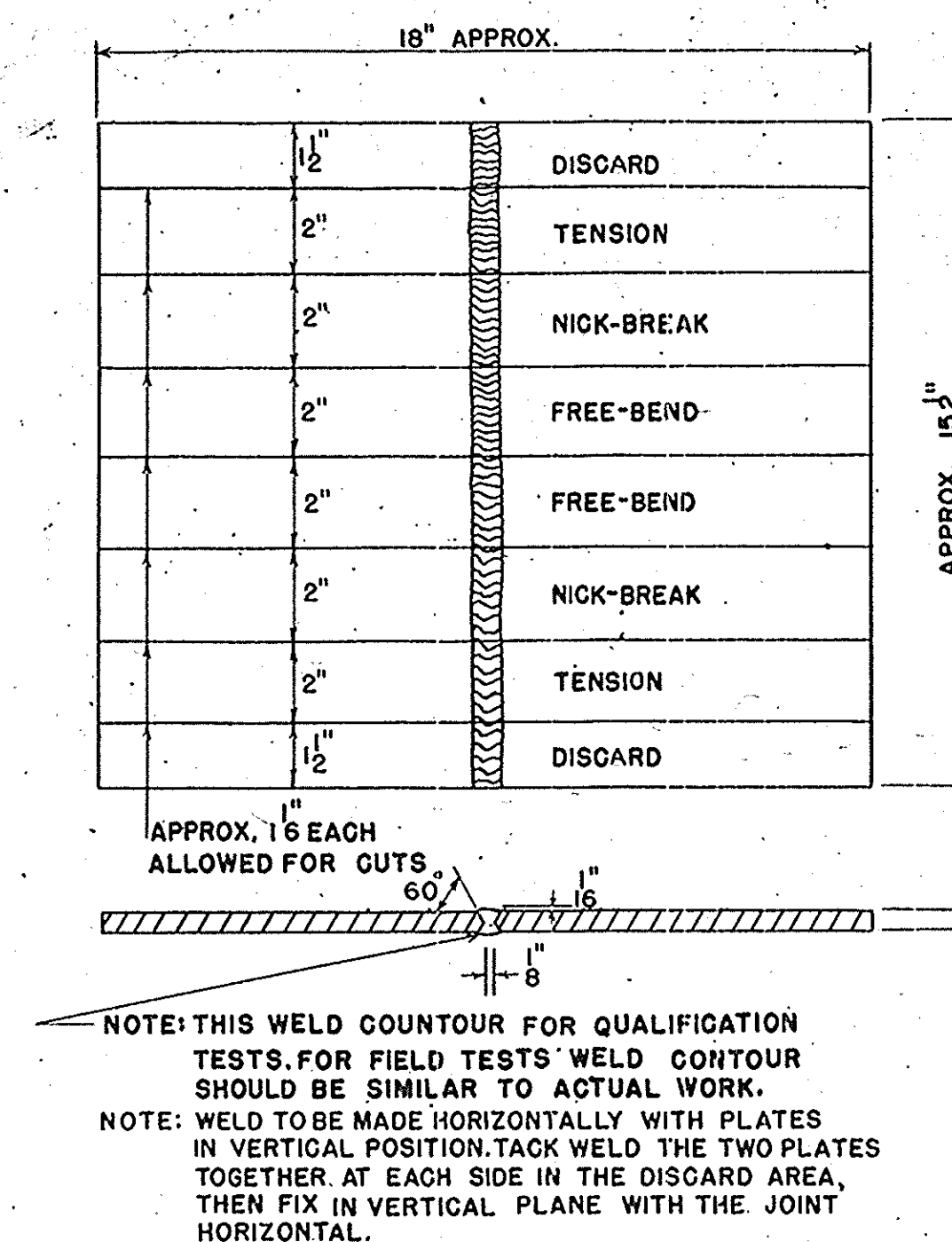
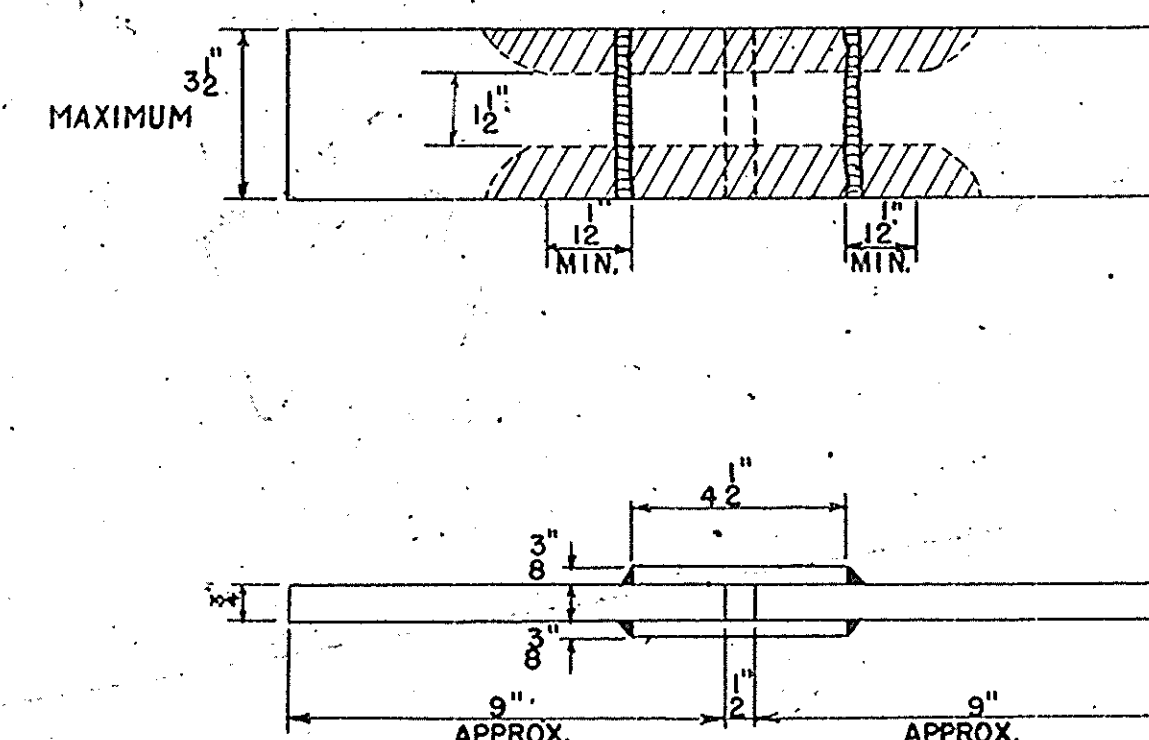


FIGURE II
BUTT WELD SPECIMEN

SPECIMEN TO BE CUT AS SHOWN AND SUBMITTED TO S.C.H.D. TESTING
LAB



NOTES: WELDS TO BE $\frac{1}{4}$ " FILLET. CROSSHATCHED PORTION TO BE REMOVED FOR TESTS. FINAL CUT TO BE MADE BY MACHINE. WELD TO BE GAGED BEFORE TESTING.

FIGURE III
TRANSVERSE FILLET WELD TEST
SPECIMEN

SPECIMEN AS SHOWN (UNCUT) TO BE SUBMITTED TO S.C.H.D. TESTING LAB

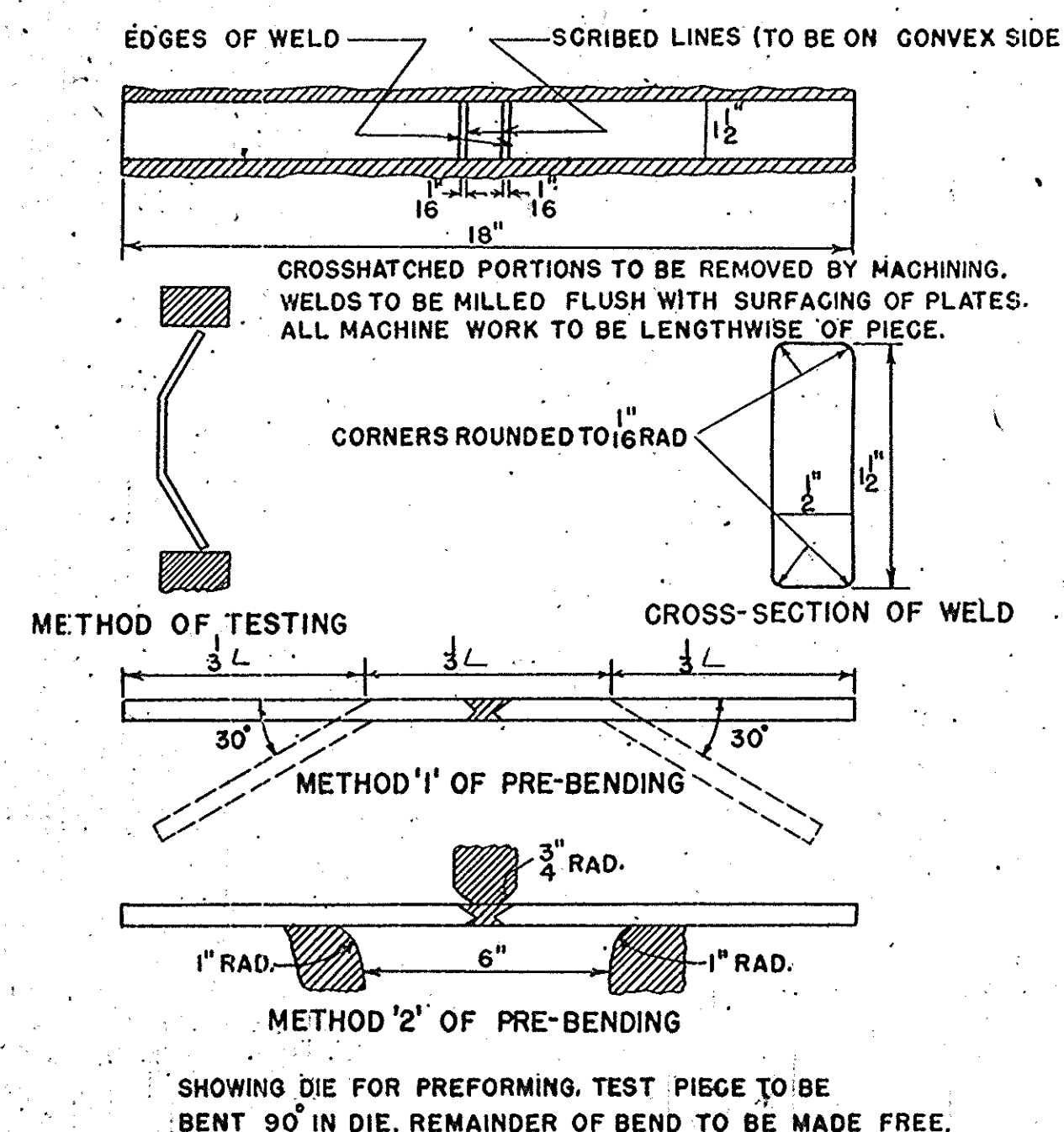


FIGURE V
FREE BEND TEST
PIECE

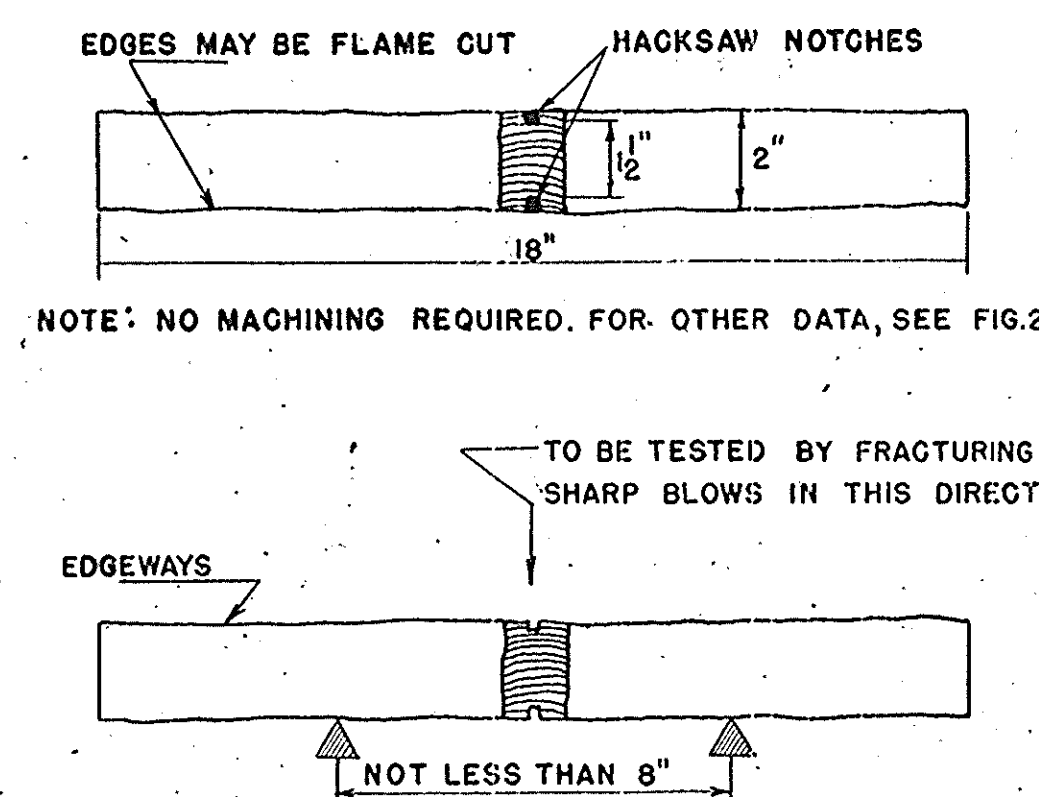
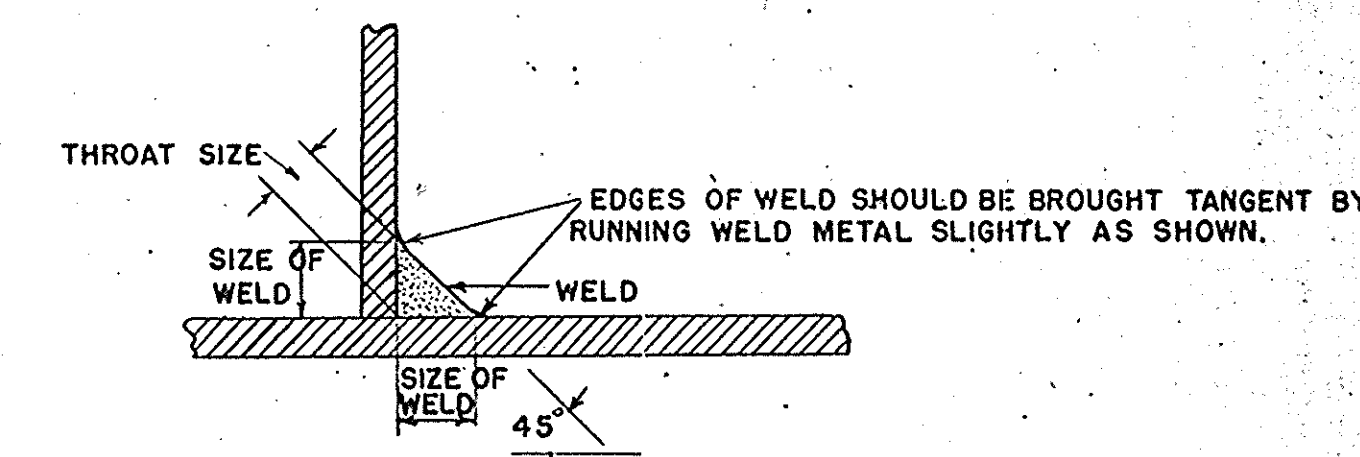


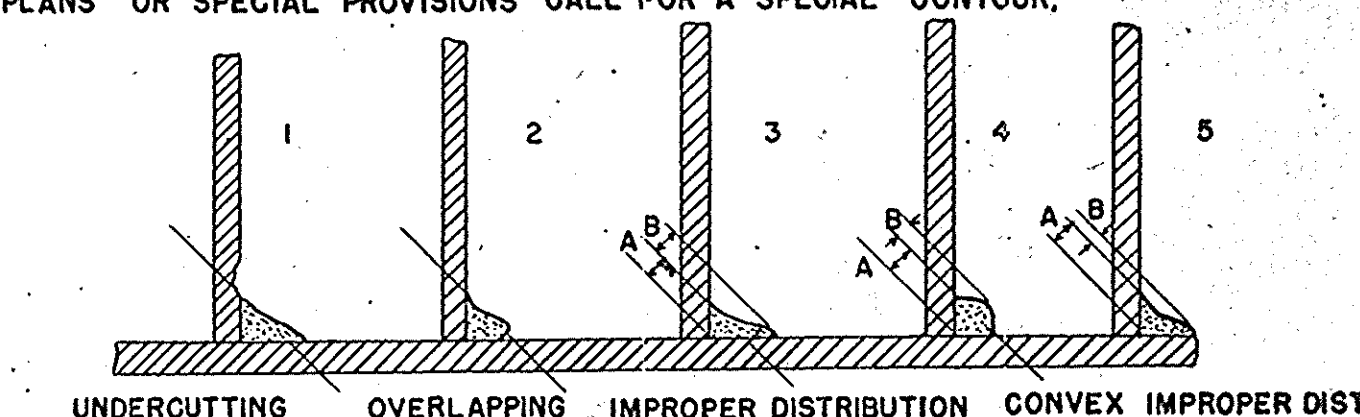
DIAGRAM SHOWING METHOD OF TESTING

FIGURE VI
NICK-BREAK TEST PIECE



DESIRABLE FILLET WELD CONTOUR

NOTE:
THE DESIRABLE FILLET WELD CONTOUR SHOWN SHALL BE CONSTRUCTED UNLESS
THE PLANS OR SPECIAL PROVISIONS CALL FOR A SPECIAL CONTOUR.



UNDESIRABLE FILLET WELD CONTOUR
1 AND 2 ARE NOT PERMITTED, 3, 4 AND 5 PERMITTED IF RATIO $\frac{B}{A}$ IS NOT OVER 40% (CONVEXITY RATIO) AND DIMENSIONS ARE WITHIN TOLERANCES ALLOWED.

FIGURE VIII

S. C. STATE HIGHWAY DEPARTMENT
COLUMBIA

WELD SYMBOLS AND TEST SPECIMENS

	A.A.B	L.B.	10-1
	Retraced		
	BY	CHECKED	DATE

DOCKET NO. 10.521.3 ROUTE NO. I-26
COUNTY CHARLESTON DATE 9-64

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	105213	I-26	4	84

WIDENING EXISTING CONCRETE STRUCTURES

Existing structure is indicated on the plans by light lines, new structure by heavy lines. All dimensions of new construction are subject to existing conditions.

Connecting surfaces of the old concrete shall be thoroughly roughened, cleaned of loose material, wetted and flushed with 1:2 cement mortar immediately before pouring new concrete, except as noted on other sheets of these plans.

All reinforcing steel protruding beyond surface after chipping shall be left in place and imbedded in new concrete if feasible. Reinforcing steel which cannot be imbedded in new concrete shall be cut off flush with surface of concrete where asphalt surfacing will cover. Where exposed the old reinforcing shall be cut off 12" below the exposed concrete surface and the hole patched with dry 1:3 mortar to the satisfaction of the Engineer.

The Contractor shall repair or replace at his own expense and in a manner satisfactory to the Engineer, any portion of the existing structure damaged as a result of his carelessness or negligence.

The entire cost of the above work including all drilling and chipping and removing and disposing of portions of old structure necessary to construct new structure shall be included in the unit price bid for Class "A" Concrete.

If expansion anchor bolts are called for they shall be similar and equal to Rawl's Multi-Calh Anchor or American Exp. Bolt and shall be installed in accordance with the manufacturer's directions.

Expansion anchor bolts will be paid for at unit price bid for reinforcing steel.

Unless otherwise specified in these plans or Special Provisions the Contractor shall provide necessary temporary supports for utilities attached to the bridge to maintain service during construction.

The owner will make all necessary changes in alignment and elevation of the utility and furnish permanent supports which shall be placed in the concrete by the Contractor.

All costs of the work to be performed by the Contractor shall be included in the unit price bid for Class "A" Concrete.

Any necessary repairs to the existing structure, in the opinion of the Engineer, are to be paid for as extra work.

SPECIAL NOTE

Generally, in case of discrepancy, this standard sheet of notes shall govern over the Specifications, but the remainder of the plans shall govern over notes hereon, and Special Provisions shall govern over all. See Standard Specifications paragraph 504.

EXCAVATION FOR PILE TYPE END BENT

All cost of excavation necessary to construct end bents and to remove material under superstructure to an elevation 1'-0" below tops of end bent caps shall be included in the unit price bid for Class "A" Concrete.

EXCAVATION FOR CONCRETE FTG. END BENT

If a concrete footing is used for the end bent, the excavation below that included for the cap and beam in the above paragraph will be paid for at the unit price bid for excavation. Excavation above this shall be included in the unit price bid for Class "A" Concrete.

DRIVING PILES THROUGH FILL

Where piles occur in fill exceeding 10 ft. in height, the fill shall be in place before piles are driven.

HAMMER FOR STEEL PILES

Steel piles where required bearing exceeds 30 tons shall be driven with a diesel, steam or air hammer having a minimum energy of 14,000 ft.-lbs.

HAMMER FOR CONCRETE PILES

Concrete Piles shall be driven with steam or air single-acting hammer or Diesel hammer of suitable size. The drop hammer allowed in para. 101.05 of the Standard Specifications may not be used.

ALLOWANCE FOR DEAD LOAD DEFLECTION AND SETTLEMENT

Bridges shall be built on the grade or vertical curve shown on plans. Handrails, slabs and curbs shall conform to the grade or curve.

In setting forms for structural steel or prestressed concrete beam bridges, an allowance shall be made for dead load deflections in addition to the elevations shown.

In setting falsework and forms for reinforced concrete spans an allowance shall be made for dead load deflections, settlement of falsework, and permanent camber which shall be provided for in addition to the elevations shown. After removal of the falsework, the finished structure shall conform to the elevations shown plus the allowance for permanent camber specified by the Engineer.

BRONZE EXPANSION PLATES

Bronze 12's to be self-lubricating Exp. 12's Manufactured from rolled bronze alloy complying with A.S.T.M. B100 - Alloy 1, or A.S.T.M. B22 - Alloy B casting, and to have special inserts consisting of graphite and metallic substances with a lubricating binder in top face only. Installation of 12's to be in accord with manufacture's directions. The Coef. of friction shall not exceed 0.1 The Bronze 12's shall be similar to those manufactured by Merriman Bros., Inc., 183 Amory St, Boston 30, Mass., or Whiteley Bearing Corporation Chicago, Ill, or an approved equal.

STRUCTURAL STEEL

Beams shall be cambered for vertical curve and dead load deflection either in mill or shop.

Layout dimensions and standard lengths of beams shown are horizontal dimensions and must have the additional lengths added for lengths along grade.

All rivets shall be 7/8" ϕ unless noted. All high-tensile-strength bolts shall be 7/8" ϕ unless noted.

All holes shall be 15/16" ϕ unless noted. Holes in all main member splices shall be sub-punched, the connecting members shop assembled in their proper positions, and the holes reamed to full size while assembled.

Floor beam connections shall be reamed to a metal template.

All stiffeners at floor beams and at pier reactions shall have fills. All interior stiffeners between floor beams shall be crimped or filled.

Shims shall be placed between beam flange and rocker plate where required and shall be adjusted to bring top of beam to theoretical grade.

Bearing plates and rocker plates to be rolled steel.

Nuts on Anchor Bolts at Expansion Ends to be tightened 1/8" clear to allow for movement.

Anchor bolt assemblies will be paid for as reinforcing steel and are included in the bent quantities unless specifically stated elsewhere as included in the structural steel quantities.

Mill and shop inspection of the structural steel will be performed by Froehling & Robertson, Inc., 814 West Cory St, Richmond, Virginia. The contractor shall notify that company of the name and address of the fabricator of the structural steel as soon as the fabricator has been given the contract to fabricate so that the inspection procedure can be set up. The contractor shall also stipulate in his order to the fabricator that Froehling & Robertson, Inc., will perform the mill and shop inspection of the structural steel.

COMPOSITE BEAMS

A 5 day interval shall be allowed between time of pouring slab and safety curb.

Tops of beam flanges shall not be painted.

All equipment, materials and workmanship for electric arc welded stud shear connectors shall be in accordance with the recommendations of the manufacturer and Special Provisions.

Alternate for welded studs: an approved alternate method of securing composite action between beams and slab may be used, at no additional cost to the Dept. Details must be submitted for approval in advance of making the change.

7/8" ϕ studs may be substituted for 3/4" ϕ studs. The 7/8" ϕ studs shall be placed with the same number in each transverse row as the 3/4" ϕ studs. The pitch of the 7/8" ϕ studs shall be equal to 1.36 times the pitch of the 3/4" ϕ studs. The 7/8" ϕ studs must be welded within the recommended area of an approved arc stabilizer cart.

PRESTRESSED BEAMS

Tops of beams shall be rough floated.

At the approximate time of initial set, entire top of beam shall be scrubbed with a coarse wire brush to remove all laitance, and to produce a roughened surface for bonding slab.

Membrane curing compound shall not be used on tops or ends of beams.

Concrete in prestressed beams shall be class "X" as described in the Special Provisions.

The prestressing strands, wire or bars, must be thoroughly cleaned of any loose rust, dirt, grease, form lubricant, or other deleterious substances, to the satisfaction of the Engineer, before the concrete is placed.

Beams shall not be transported to the bridge site until concrete has cured for at least 6 days.

Beam lengths given are based on horizontal span only. These lengths shall be increased to correct for concrete shrinkage, concrete shortening when the strands are cut, and for beams being on a grade.

CONCRETE

All concrete shall be Class "A" unless noted below or on other sheets of these plans.

Build-ups on bent caps shall be cast monolithic with cap unless shown or noted elsewhere on these plans.

Top of each build-up shall be level.

Payment for Concrete in slab will be based on theoretical plan quantity.

Any necessary adjustment for Camber shall be at the Contractor's expense.

All exposed edges shall be chamfered 3/4" unless otherwise noted.

For simple spans over 70 Ft. in length, the center portion (approximately 2/3 of the length) of the slab shall be poured first and allowed to cure for not less than 4 days before the remaining end sections are poured. However, when the temperature permits (in the opinion of the engineer) the entire slab may be poured provided a suitable retarding agent is used in such amounts that the slab concrete shall not have had its initial set prior to the completion of the casting of the slab concrete.

BEARINGS

For concrete beams bearing on concrete, the top of caps or tops of build-ups, under bearing areas of beams shall receive a steel trowel finish to insure a smooth and level bearing surface. See Standard Specifications paragraph 71D22.

DESIGN DATA

SPECIFICATIONS: A.A.S.H.O. 1961 with rev. thru 1964 and the latest Standard Specifications of the American Welding Society for Welded Highway and Railway Bridges with revisions and additions as set forth in the Special Provisions.

LIVE LOAD: HS20 -44 Includes provision for alternate loading of 2 axles 4' apart with each axle weighing 75% of rear loading for spans under 40'.

UNIT STRESSES

STRUCTURAL STEEL & REINFORCED CONCRETE:

* f_s (struct) = 20,000 psi - For A-36

f_s (rein) = 20,000 psi

CLASS "A" CONCRETE:

f_c = 1200 psi; n = 10; v = 225 psi; u = 300 psi

CLASS "X" CONCRETE:

~~f_c = 2,000 psi; n = 10; v = 375 psi; u = 350 psi~~

PRESTRESSED CONCRETE:

f_c = 5,000 psi; f_{ci} = 4,000 psi; f_c = 2,000 psi

PRESTRESSING STEEL:

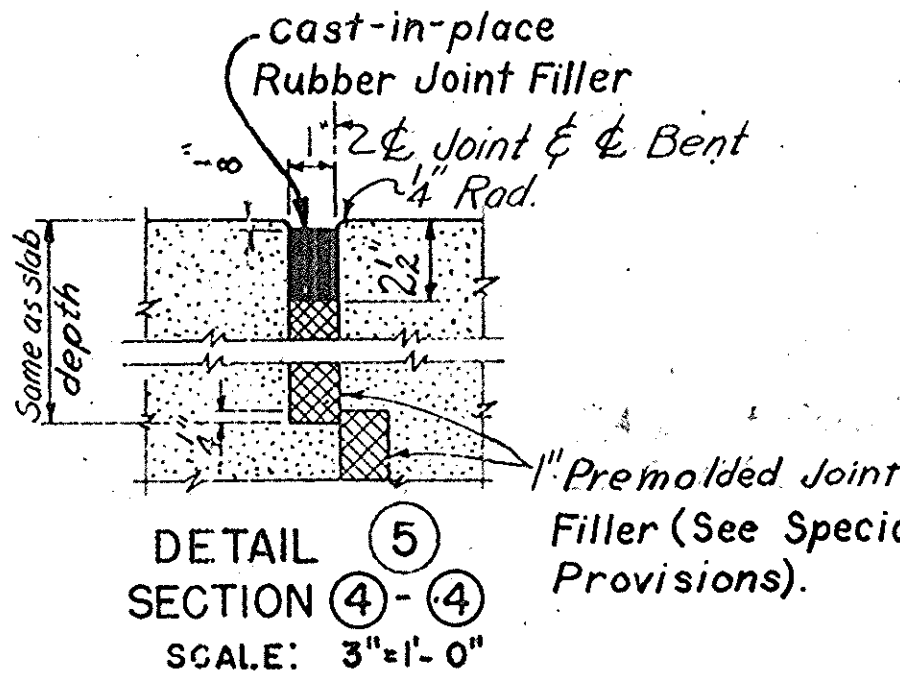
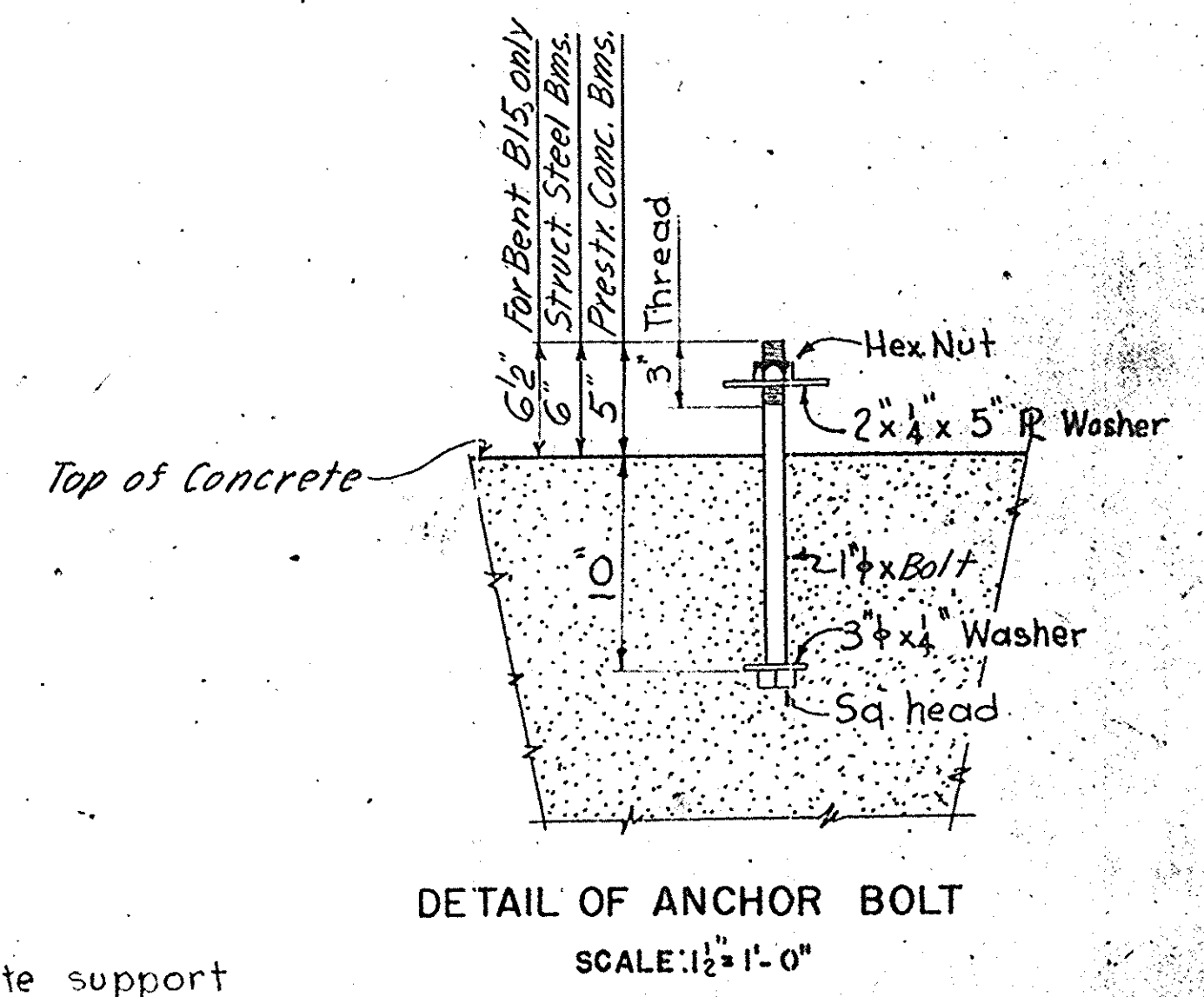
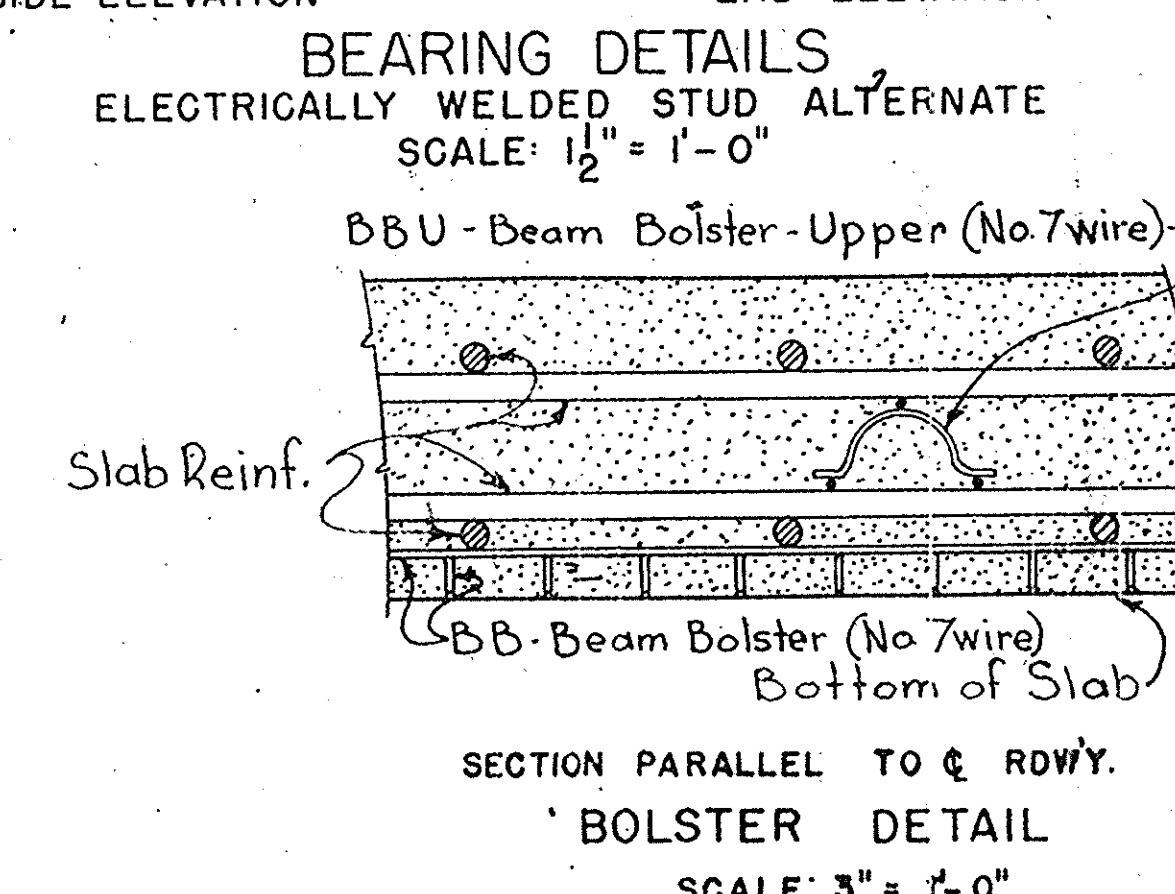
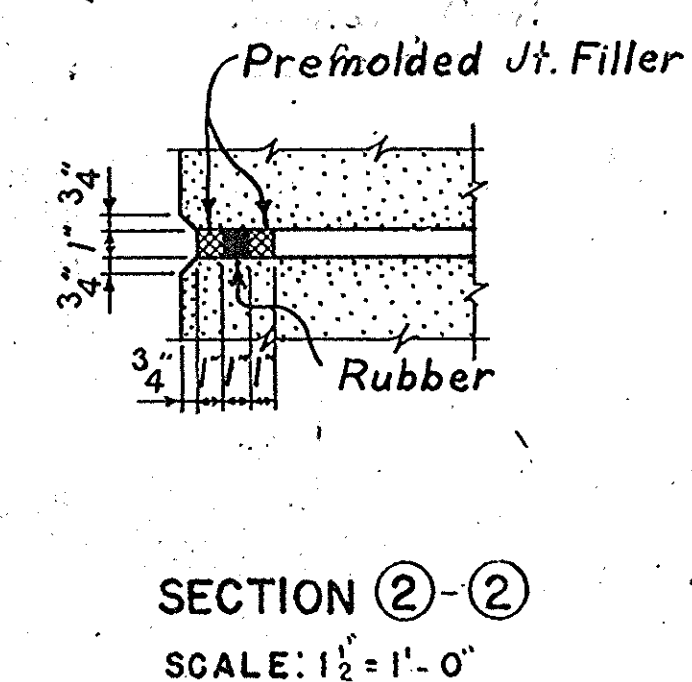
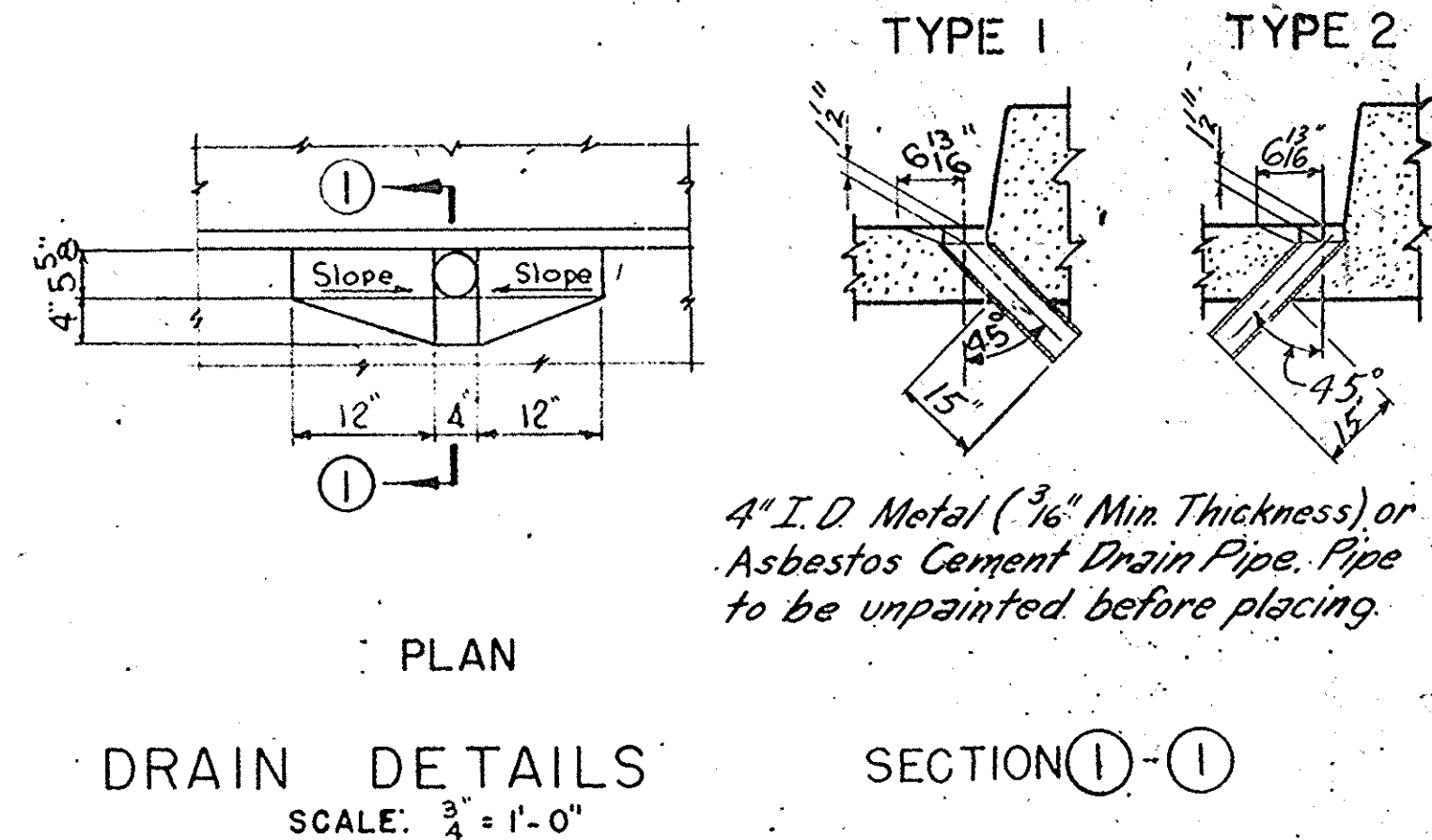
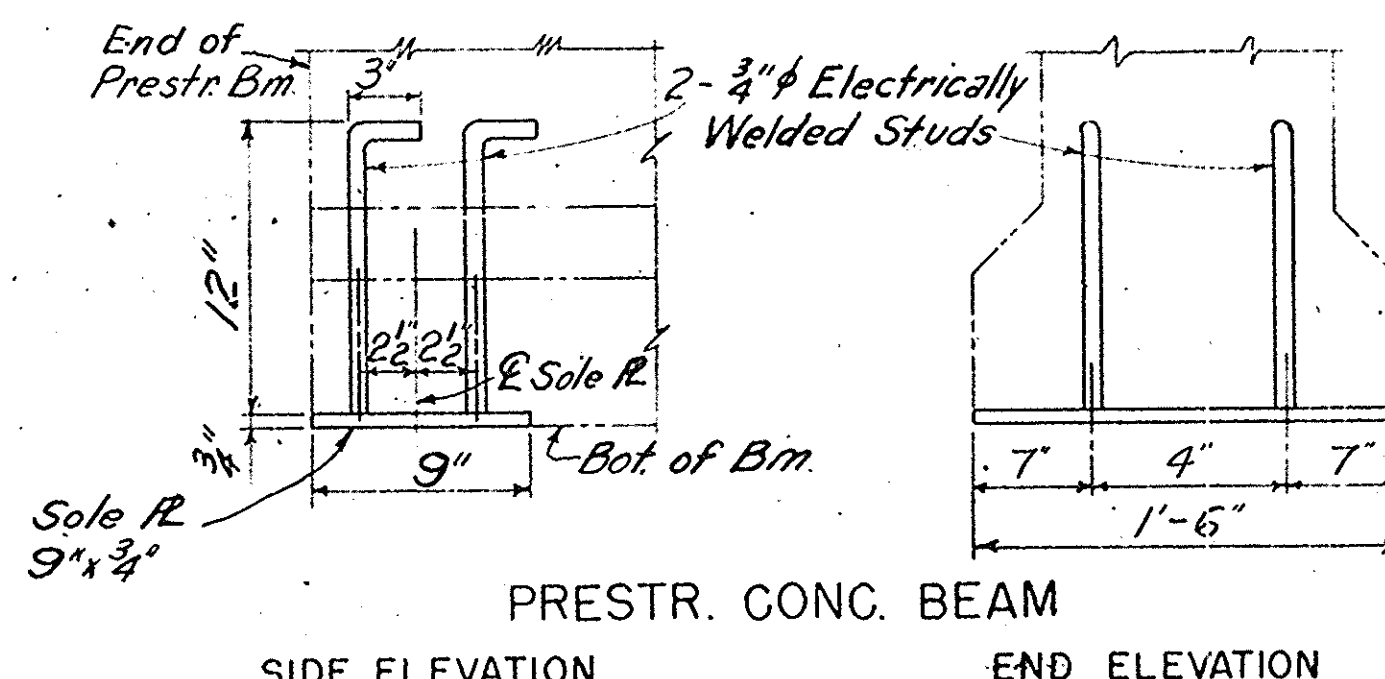
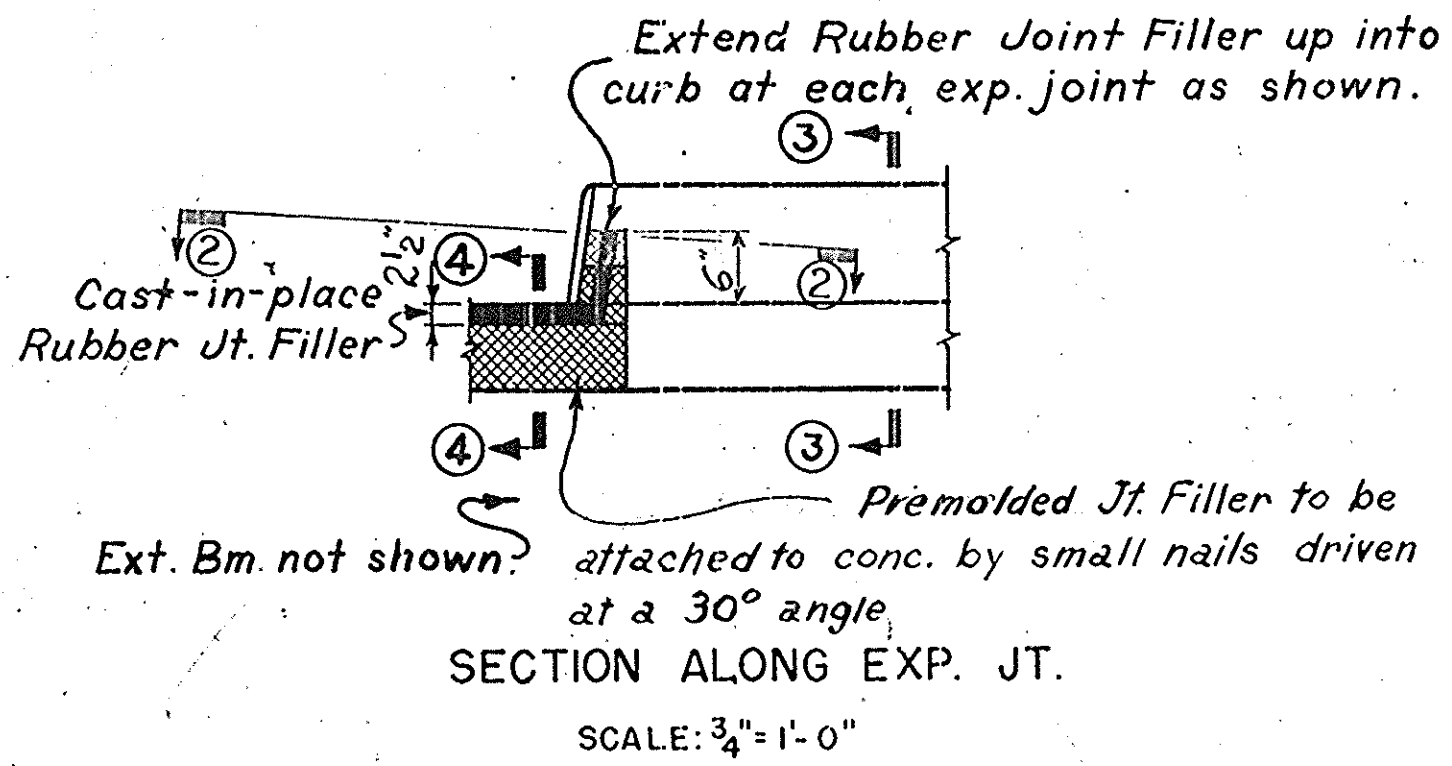
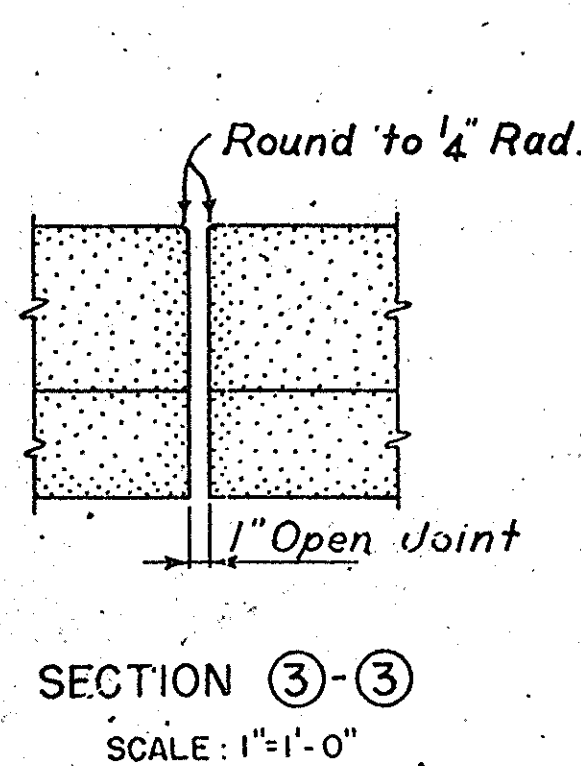
f_s = 250,000 psi; f_{si} = 175,000 psi

* 18,000 Psi - For A-7 or A-373

MATERIAL AND WORKMANSHIP

Except as may otherwise be specified on plans or in the Special Provisions, all material and workmanship shall be in accordance with the South Carolina Highway Department Standard Specifications for Highway Construction edition of 1964, 1965.

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA, S. C.			
REV.		STANDARD NOTES			
REV.		FOR UNDERPASS UNDER			
REV.		N. SPRUILL INTERCHANGE CONN.			
REV.	WHM/BAM/9-64	DOCKET NO.	COUNTY	ROUTE NO.	DATE
REV.	For Dk 10,521.3	10,521.3	CHARLESTON	I-26	9-64
REV.	IN CHARGE	APPROVED BY:			
QUAN.		BY CHODATE			
TR.	APD/RWH/4-61	BRIDGE DESIGN & PLANS ENGR.			
DR.	APD/RWH/4-61	BRIDGE ENGINEER			
DES.					

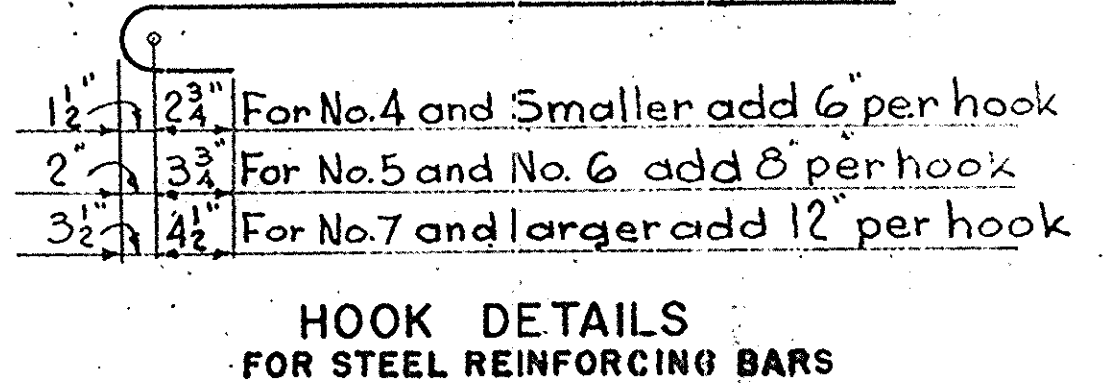


Note: Bolsters shall be spaced so that they provide adequate support for the slab reinforcing steel. The BBU bolsters shall be spaced at approx. 3'-0" ctrs. The BB bolsters shall be placed with one row near each edge of slab & with a max. spacing of approx. 3'-0" between.

Bolsters shall be equal to beam bolsters BB and BBU as Mfgd by Meadow Steel Co. or Richmond Screw Anchor Co.

The lengths of bolsters shown in reinforcing steel schedules are approximate. Weights are included in the reinforcing steel quantities and payment will be made at the unit price bid for Reinforcing Steel.

ANCHOR BOLT SCHEDULE				
Bent No.	No. per Bent	Size	Length	*Wt. per Bent Lbs.
B1	8	1"	1'-4"	43
B2-B10	16	1"	1'-4"	86
B11	28	1"	1'-4"	150
B12	22	1"	1'-4"	118
B13 or B14	20	1"	1'-4"	107
B15	20	1"	1'-4 1/2"	109
B16	20	1"	1'-4"	107
B17	10	1"	1'-4"	53
C1	10	1"	1'-3"	51
C2-C4	20	1"	1'-3"	102
C5	10	1"	1'-3"	51
C5	8	1"	1'-4"	43
C6-C10	16	1"	1'-4"	86



Note: Anchor Bolt Assemblies will be paid for as reinforcing steel and are included in the bent quantities, unless specifically stated elsewhere as included in the structural steel quantities.

* Complete Assembly

REV	AMZ HDL 4-59	Bearing Detail
REV	WEB MDS 12-58	Drain Detail
REV	AMZ RWH 1-58	Build-down Detail
REV	RWH VEH 7-57	Add Dowel Detail
REV	WHM BAM 9-64	For Dk. 10.521.3
REV	C.D.K. EAS 4-62	J.F. Details & New Foil
REV	C.D.K. MDS 4-60	Exp. Anchor Detail

IN CHARGE

QUAN

TR. WCF EAS 12-56

DR. JCW EAS 12-56

DES.

BY: CHK DATE

DOCKET NO. 105213

COUNTY CHARLESTON

ROUTE NO. I26

DATE 9-64

APPROVED BY: [Signature]

BRIDGE DESIGN & PLANS ENG.

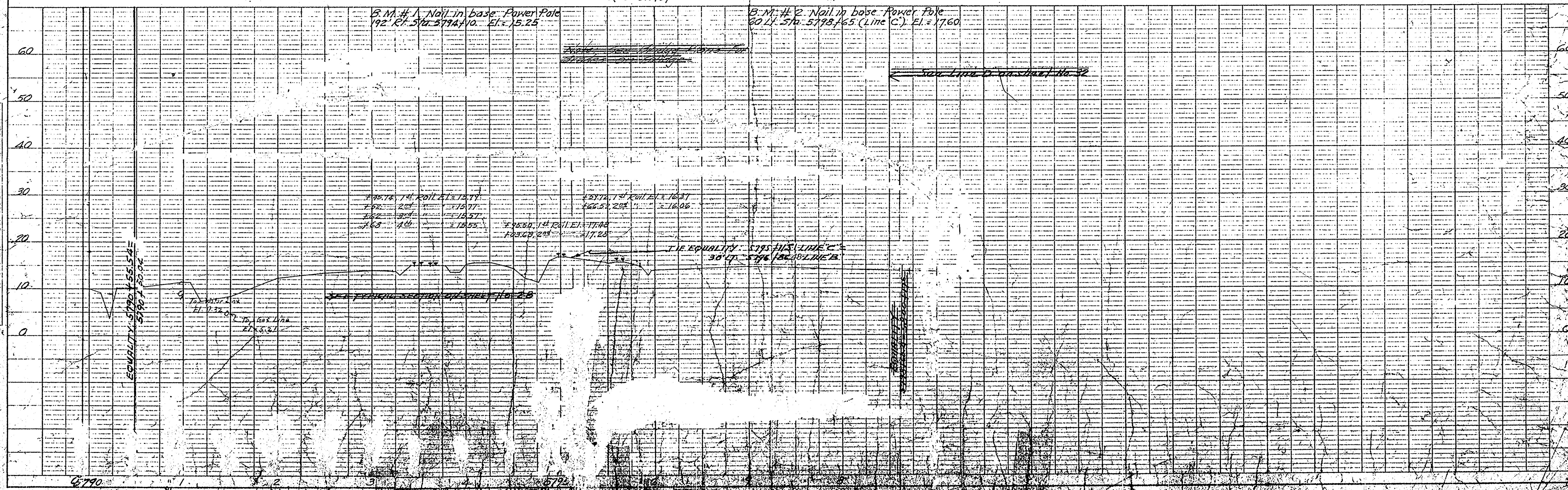
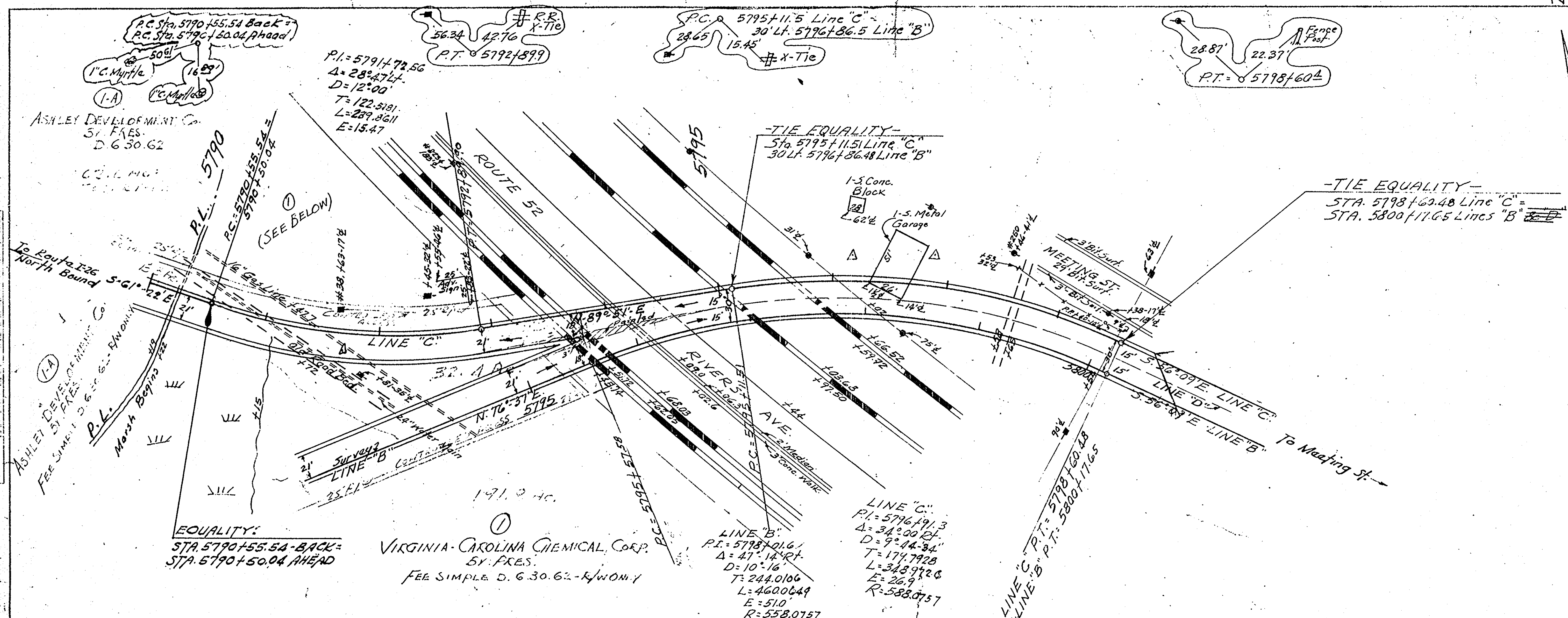
BRIDGE ENGINEER

190a

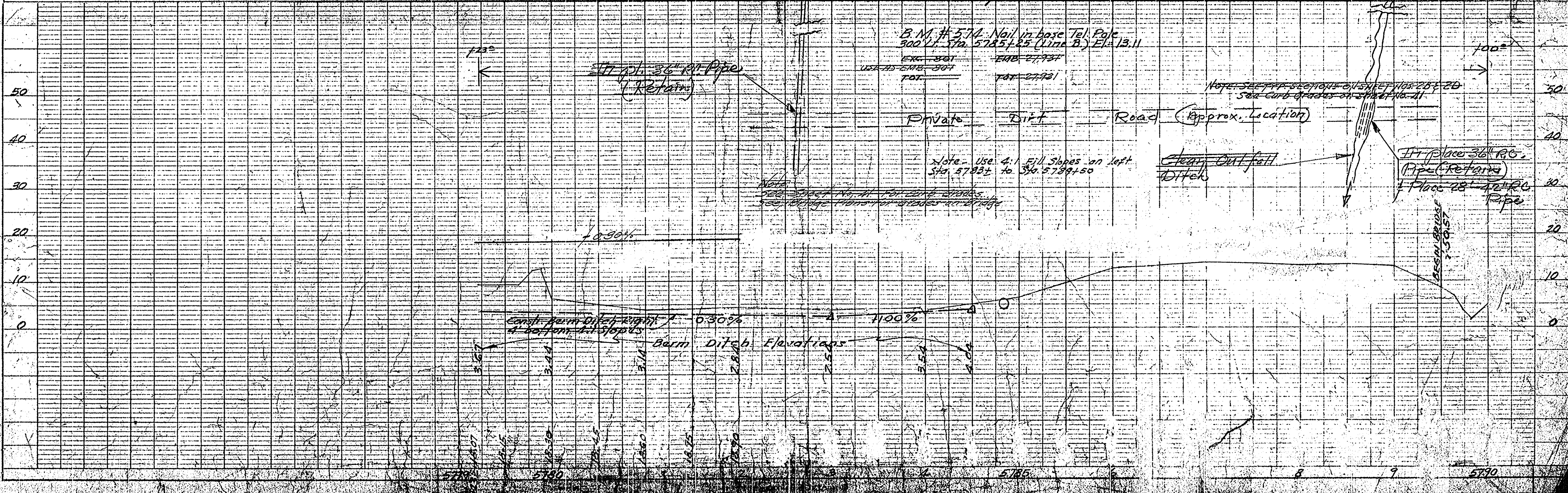
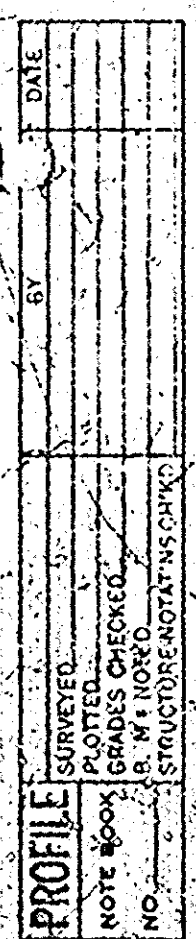
F.L.D. ROAD	STATE	COUNTY	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
1052.13	S.C.	Charleston	110.52.13	I-26	7	84

LINE "C"

20' 25' 29' 30' 31' 32' 33' 34' 35' 36' 37' 38' 39' 40' 41' 42' 43' 44' 45' 46' 47' 48' 49' 50' 51' 52' 53' 54' 55' 56' 57' 58' 59' 60' 61' 62' 63' 64' 65' 66' 67' 68' 69' 70' 71' 72' 73' 74' 75' 76' 77' 78' 79' 80' 81' 82' 83' 84' 85' 86' 87' 88' 89' 90' 91' 92' 93' 94' 95' 96' 97' 98' 99' 100'



PLAN	NO. 1	DATE	10/1/54
NOTE BOOK	NO. 2	DATE	10/1/54
NO	NO. 3	DATE	10/1/54

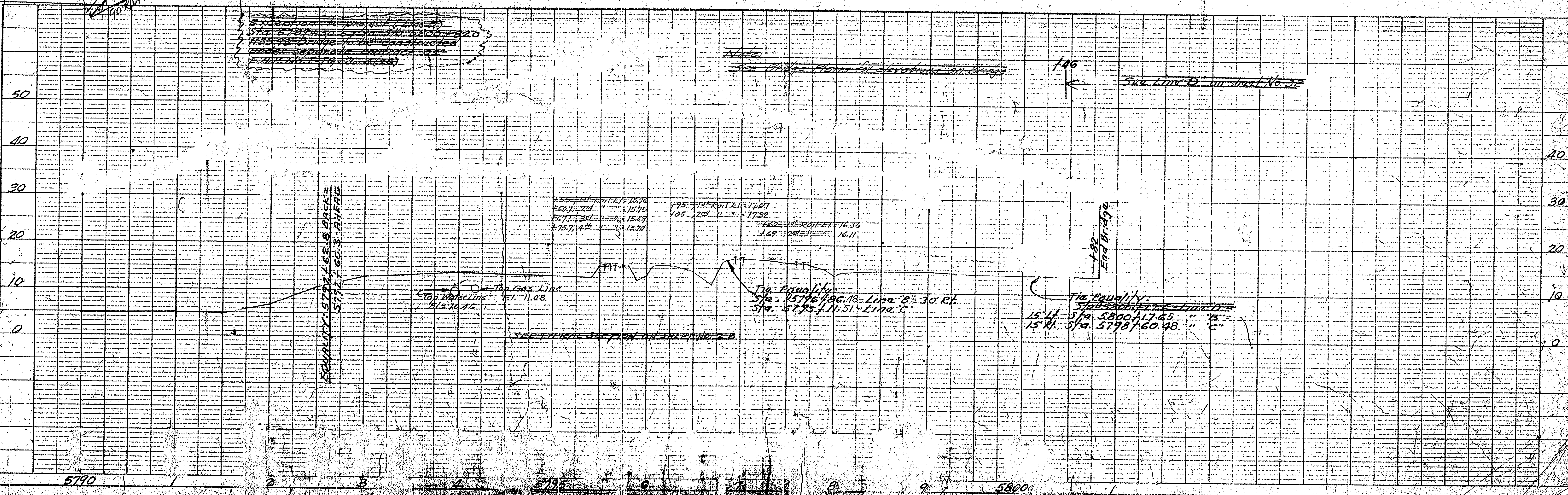
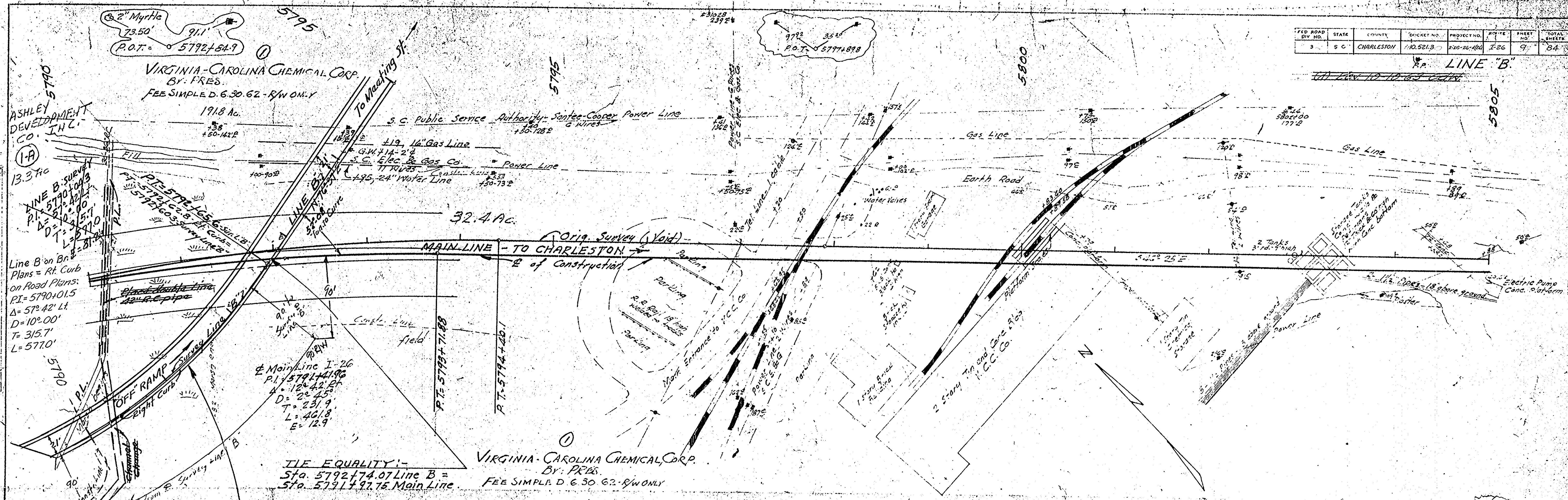


FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	110,521.3	130-26-100	9	84

LINE "B"

111 Elev. 112.12.63 2214

5805

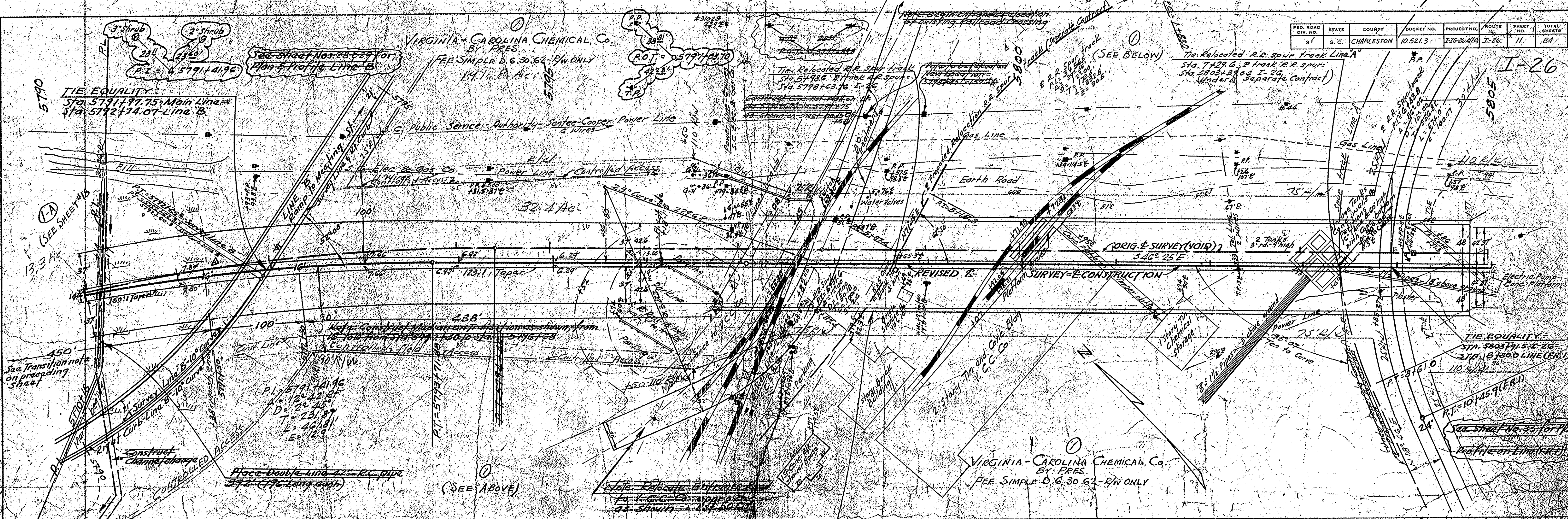


FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT NO.	PROJECT NO.	ROUTE	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10,521.3	116-26-400	I-26	11	84

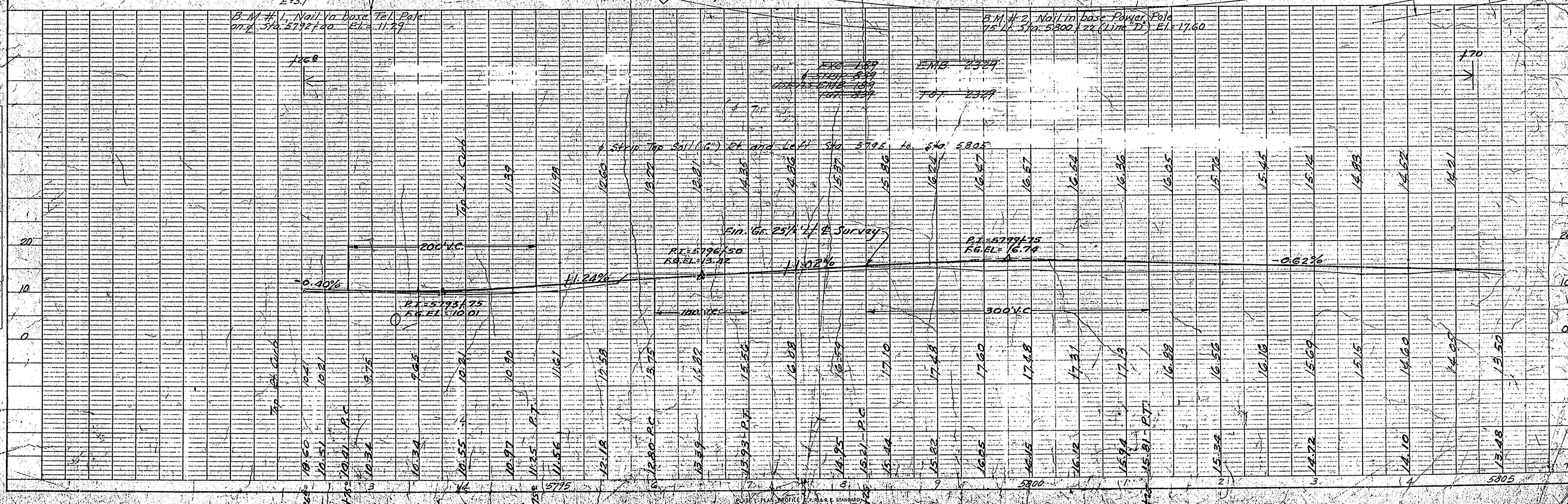
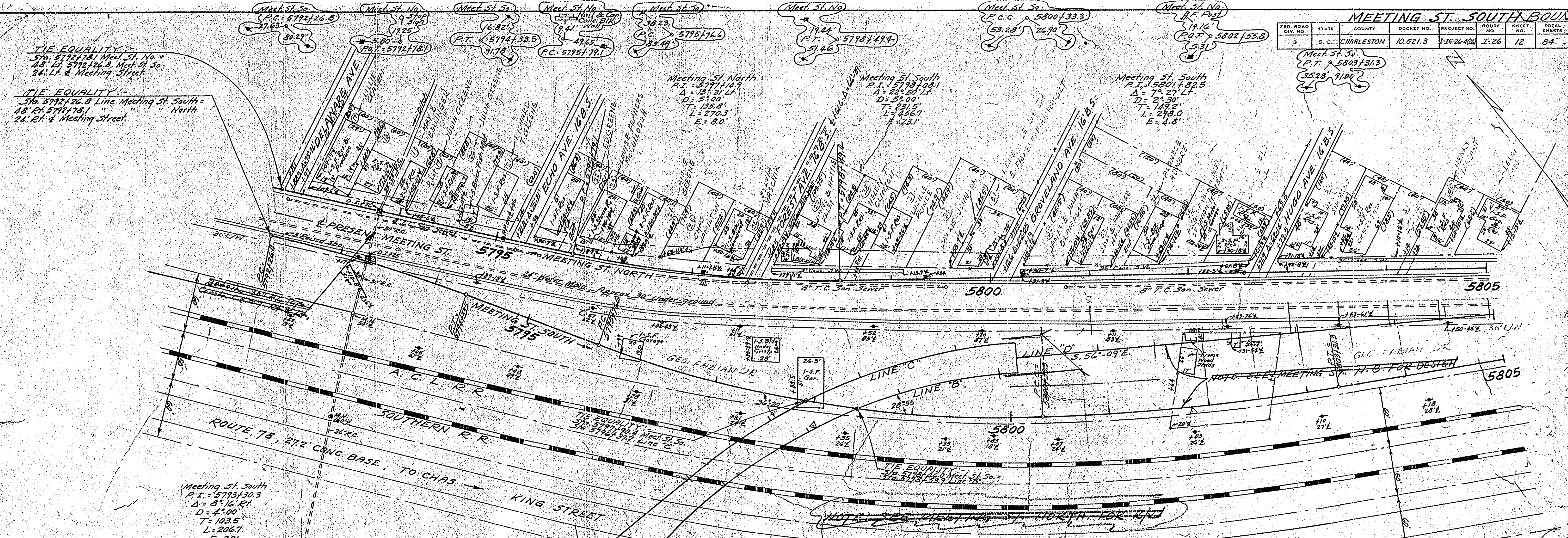
I-26

BY: [Signature]
CHECKED: [Signature]
DATE: [Date]

PROFILE
SURVEYED: [Signature]
NOTE: [Text]
SCALE: [Text]



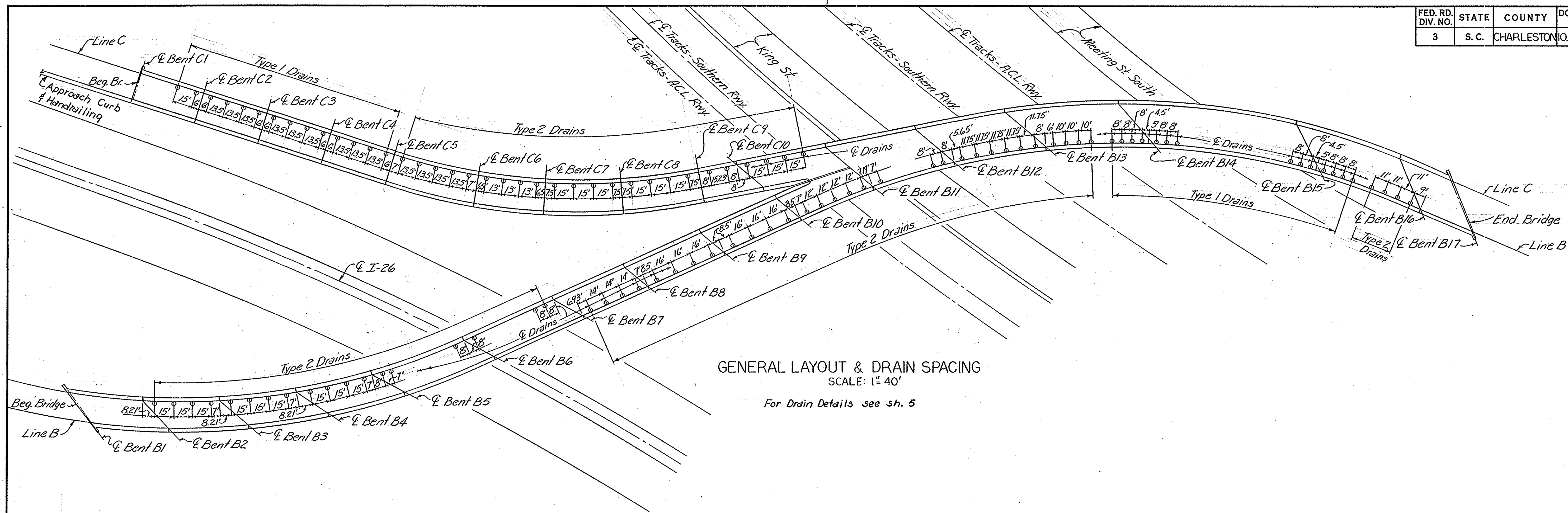
MEETING ST. SOUTH BOUND							
FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	I-16-26-1(6)	I-26	12	84



PLANT	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		1-2
NO.	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		

PROFILE	SURVEYED	RY	DATE
NOTE BOOK	PLOTTER		
	GRADES CHECKED		
	B. M. NOTED		
NO.	STRUCTURE NOTATIONS CHKD		

(C)
Meeting of 5/14/54
CHAS
MEETING OF



GENERAL LAYOUT & DRAIN SPACING
SCALE: 1" = 40'

For Drain Details see sh. 5

SUMMARY OF QUANTITIES

	Wet & Dry Excavation	Concrete Class "A"	Reinforcing Steel	Structural Steel	Cresosoted Timber Piling	Steel Bearing Piling 12 BP 53	Fab. Metal Handrailing (Aluminum)	52'-6" Prest. Concrete Beams	Load Test Pile			
	No.	C.Y.	C.Y.	LBS.	LBS.	L.F.	L.F.	L.F.	EA.	EA.		
LINE C												
Approach	1	—	48.5	6308	—	—	—	345.58	—	—	—	—
End Bent C1	1	—	6.1	891	—	—	425	—	—	—	—	—
Int. Bents C2-C10	9	430	394.1	50,433	—	6240	—	—	—	—	—	—
52'-6" End Span-C1	1	—	46.2	9145	—	—	—	105.00	5	—	—	—
52'-6" Int. Spans-C2-C4	3	—	① 130.1	③ 26,898	—	—	—	315.00	15	—	—	—
68'-0" Int. Span-C5	1	—	① 55.2	③ 13,813	53,500	—	—	138.99	—	—	—	—
52'-0" Int. Span-C6	1	—	42.2	10,660	34,600	—	—	106.29	—	—	—	—
60'-0" Int. Spans-C7 & C8	2	—	① 97.4	③ 24,468	84,600	—	—	245.28	—	—	—	—
31.23' Int. Span-C9	1	—	31.9	7746	26,700	—	—	79.97	—	—	—	—
71'-6" Int. Span-C10	1	—	① 52.1	③ 13,082	55,000	—	—	99.81	—	—	—	—
Total - Line C		430	903.8	163,444	254,400	6240	425	1435.92	20	—	—	—
LINE B												
End Bent B1	1	—	7.3	1039	—	—	340	—	—	—	—	—
End Bent B17	1	—	9.9	1711	—	—	360	—	—	—	—	—
Int. Bents B2-B16	15	1015	849.0	108,336	—	15,820	—	—	2	—	—	—
62'-6" End Span-B1	1	—	56.0	12,919	43,400	—	—	122.84	—	—	—	—
62'-6" Int. Span-B2-B4	3	—	① 146.6	③ 36,567	130,200	—	—	368.13	—	—	—	—
76'-0" Int. Span-B5 & B6	2	—	② 122.2	③ 30,333	135,800	—	—	306.75	—	—	—	—
55.93' Int. Span-B7	1	—	46.8	11,680	40,800	—	—	117.68	—	—	—	—
65'-0" Int. Span-B8 & B9	2	—	① 103.4	③ 25,688	92,400	—	—	260.00	—	—	—	—
62.19' Int. Span-B10	1	—	45.5	11,346	42,900	—	—	82.69	—	—	—	—
66.41' Int. Span-B11	1	—	① 76.9	③ 20,859	79,200	—	—	137.72	—	—	—	—
72.40' Int. Span-B12	1	—	① 72.4	③ 19,292	77,100	—	—	143.45	—	—	—	—
84'-0" Int. Span-B13	1	—	① 87.1	③ 22,903	125,400	—	—	168.65	—	—	—	—
133'-0" Int. Span-B14	1	—	② 138.5	④ 37,315	240,300	—	—	273.15	—	—	—	—
84'-0" Int. Span-B15	1	—	① 90.1	③ 23,644	129,100	—	—	174.71	—	—	—	—
44'-0" Int. Span-B16	1	—	① 53.2	④ 12,729	35,600	—	—	87.92	—	—	—	—
Total - Line B		1015	1904.9	376,361	1,172,200	15,820	700	2243.69	2	—	—	—
TOTALS												
		1445	2808.7	539,805	1,426,600	22,060	1125	3679.61	20	2	—	—

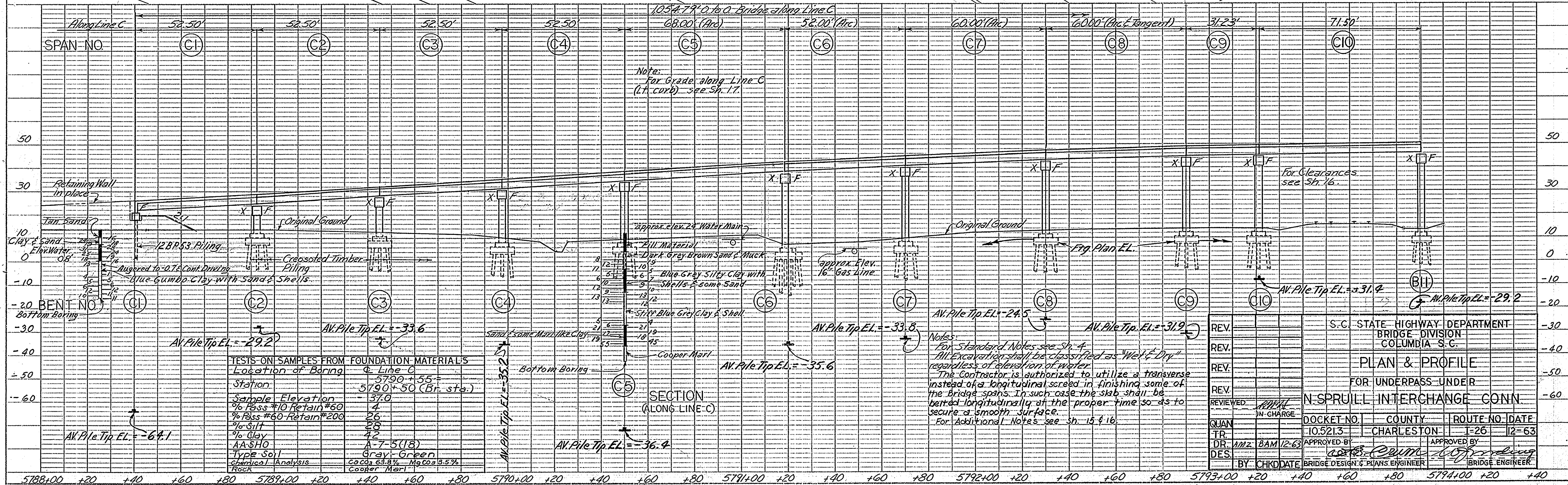
- ① Includes 0.2 C.Y. for Light Bracket.
- ② Includes 0.3 C.Y. for Light Brackets.
- ③ Includes 108 lbs. for Light Bracket.
- ④ Includes 216 lbs. for Light Brackets.

REV.				S. C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S. C.			
REV.				GENERAL LAYOUT - DRAIN SPACING AND SUMMARY OF QUANTITIES			
REV.							
REV.							
REVIEWED	IN CHARGE						
QUAN.	BAM	RWH	3-65	DOCKET NO.	COUNTY	ROUTE NO.	DATE
TR.				10521.3	CHARLESTON	I-26	1-65
DR.	AMZ	BAM	1-65	APPROVED BY		APPROVED BY	
DES.	RWH	BAM	1-65	BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER	
BY	CHK'D	DATE					

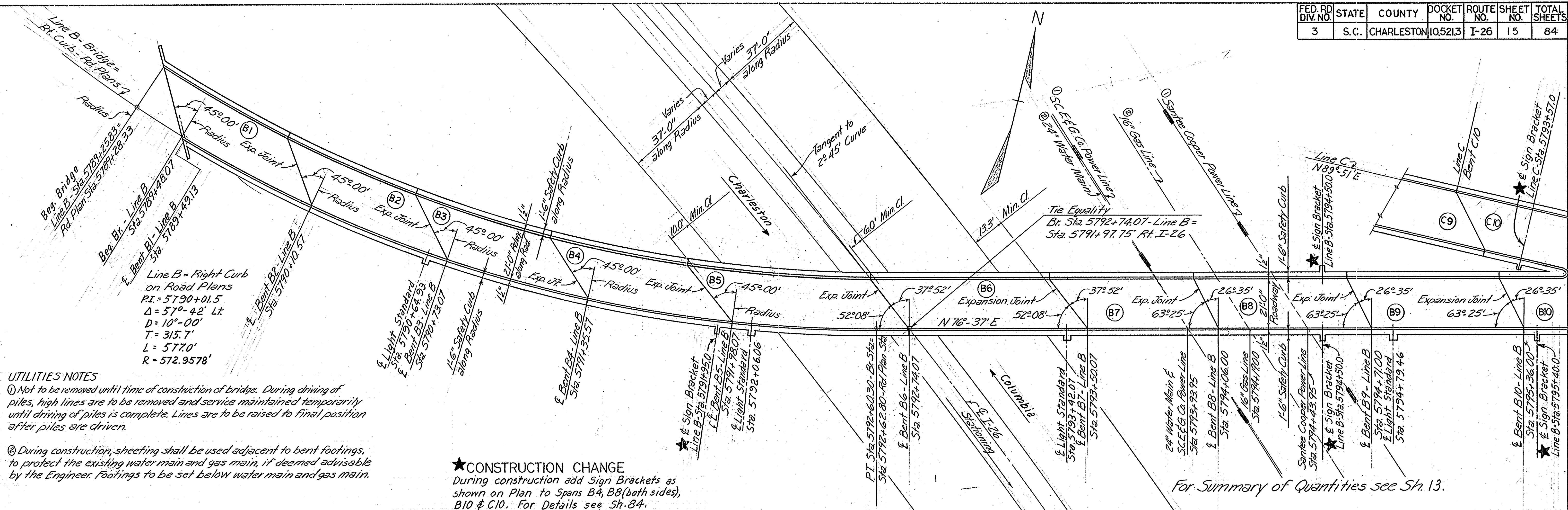
UTILITIES NOTES

① Not to be removed until time of construction of bridge. During driving of piles, high lines are to be removed and service maintained temporarily, until driving of piles is complete. Lines are to be raised to final position after piles are driven.

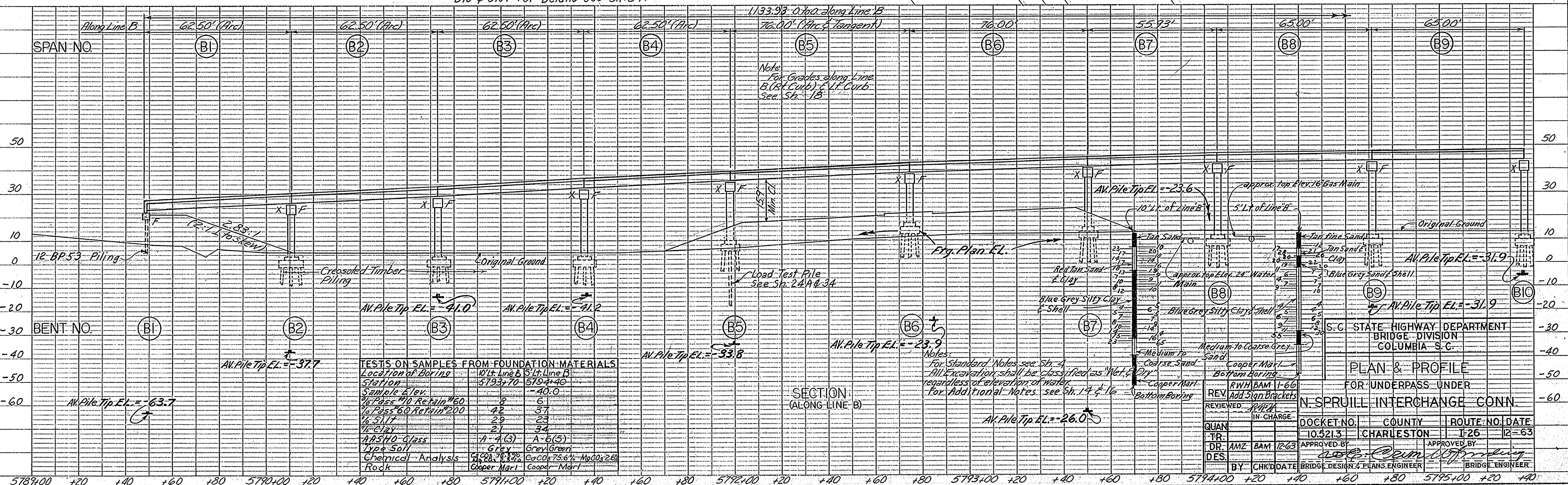
② During Construction, sheeting shall be used adjacent to bent footings, to protect the existing water main and gas main, if deemed advisable by the Engineer. Footings to be set below water main and gas main.



PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	DATE
	CHECKED	DATE
	BY	DATE

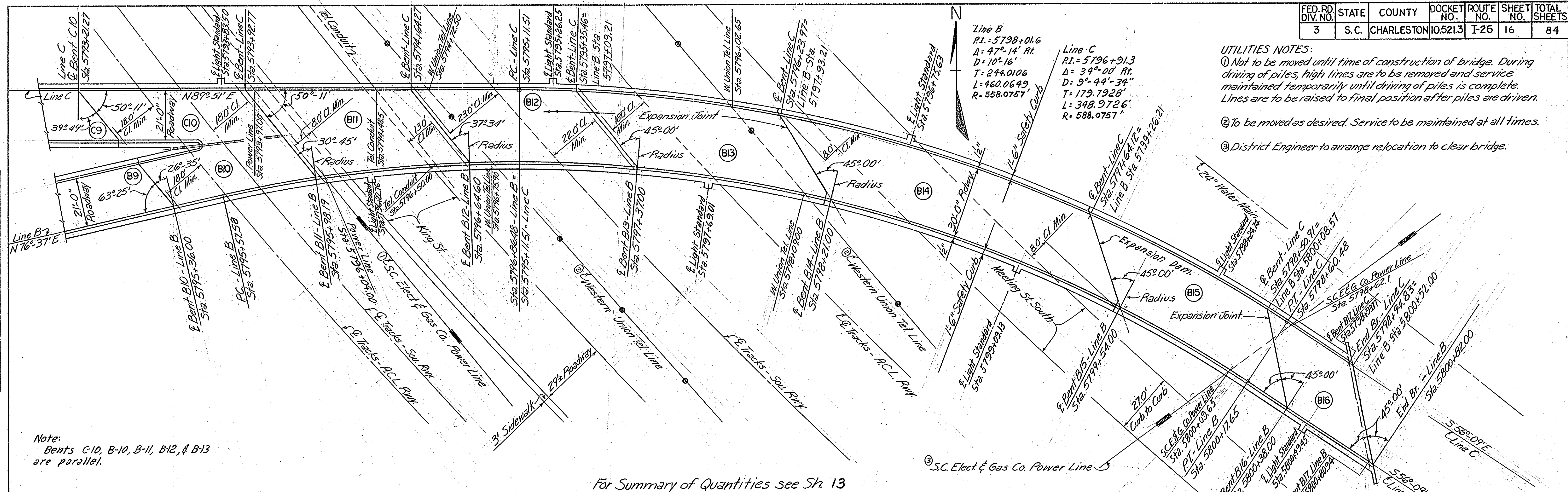


PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	DATE
	CHECKED	DATE
	BY	DATE

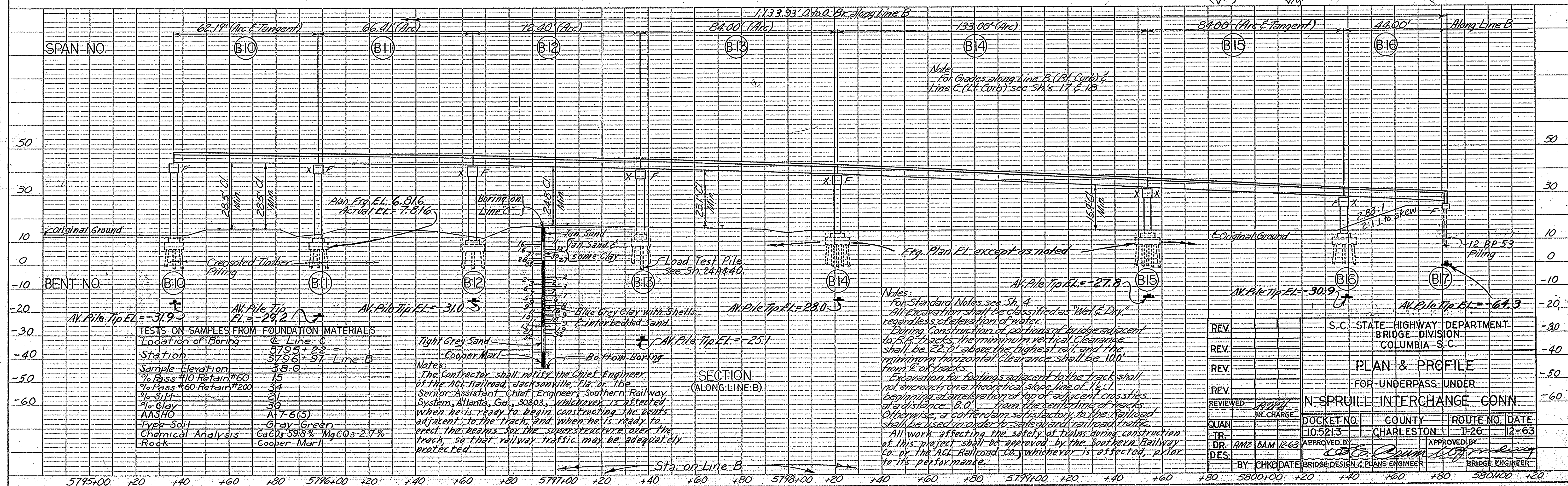


FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	105213	T-26	16	84

UTILITIES NOTES:
 ① Not to be moved until time of construction of bridge. During driving of piles, high lines are to be removed and service maintained temporarily until driving of piles is complete. Lines are to be raised to final position after piles are driven.
 ② To be moved as desired. Service to be maintained at all times.
 ③ District Engineer to arrange relocation to clear bridge.



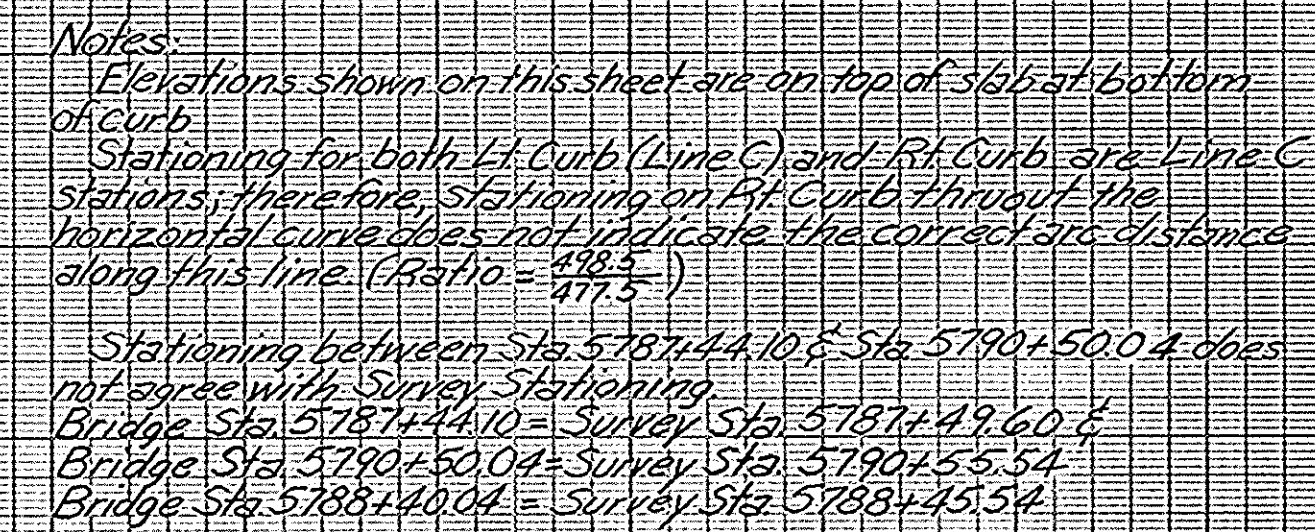
For Summary of Quantities see Sh. 13



SECTION (ALONG LINE B)

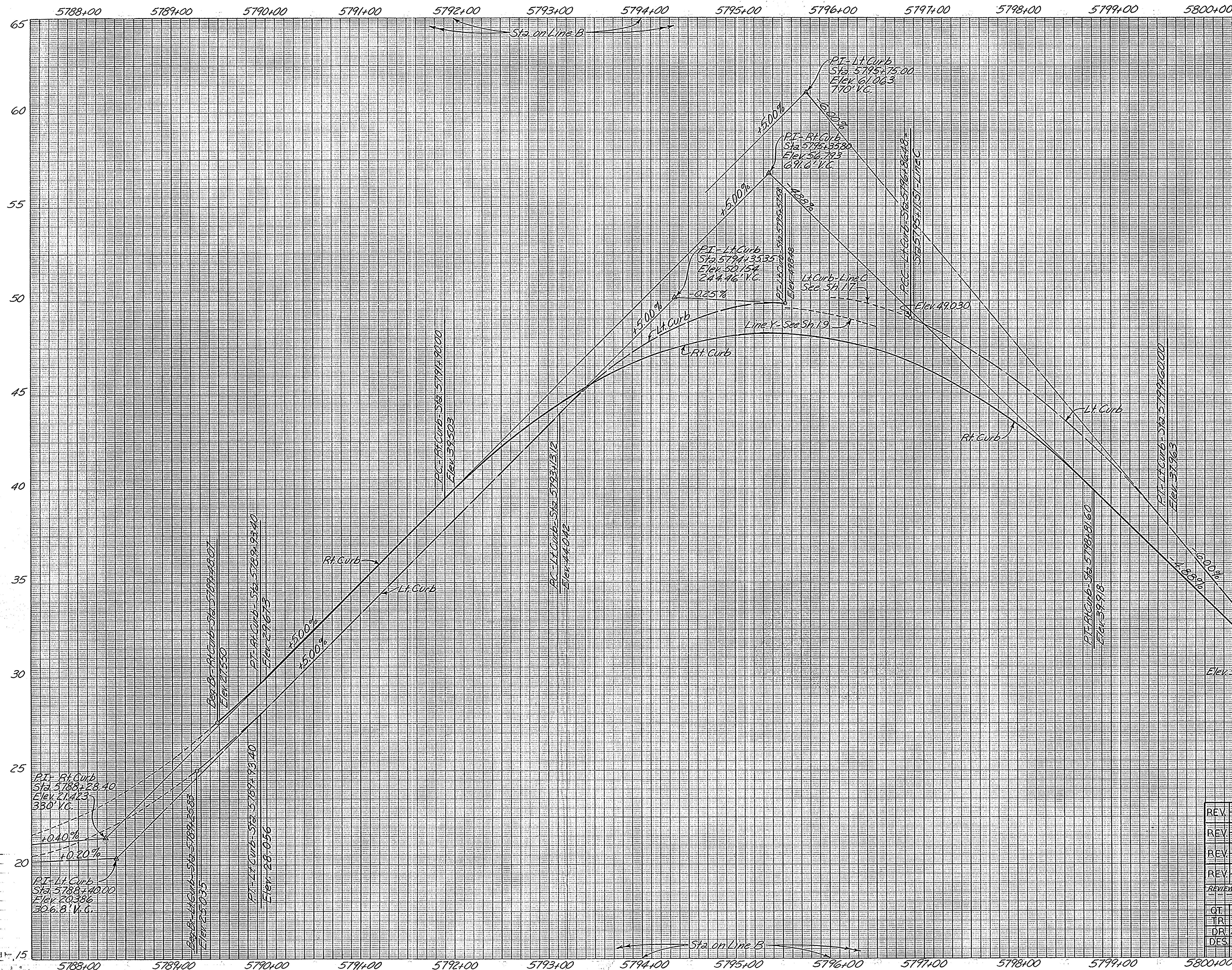
Notes:
 For Standard Notes see Sh. 4.
 All excavation shall be classified as "Wet & Dry," regardless of elevation of water.
 During construction of portions of bridge adjacent to R.R. tracks, the minimum vertical clearance shall be 22.0' above the highest rail, and the minimum horizontal clearance shall be 10.0' from E of tracks.
 Excavation for footings adjacent to the track shall not encroach on a theoretical slope line of 1 1/2:1 beginning at an elevation of top of adjacent cross-ties at a distance 8.0' from the centerline of tracks. Otherwise, a cofferdam satisfactory to the Railroad shall be used in order to safeguard railroad traffic.
 All work affecting the safety of trains during construction of this project shall be approved by the Southern Railway Co. of the ACL Railroad Co. whichever is affected, prior to its performance.

REV.		S.C. STATE HIGHWAY DEPARTMENT	
REV.		BRIDGE DIVISION	
REV.		COLUMBIA S.C.	
REV.		PLAN & PROFILE	
REV.		FOR UNDERPASS UNDER	
REVIEWED		N. SPRUIELL INTERCHANGE CONN.	
QUAN.		DOCKET NO. 105213	COUNTY CHARLESTON
TR.		ROUTE NO. T-26	DATE 12-63
DR.		APPROVED BY [Signature]	APPROVED BY [Signature]
DES.		BY CHKD DATE [Signature]	BRIDGE DESIGN & PLANS ENGINEER
			BRIDGE ENGINEER



REV		S.C. STATE HIGHWAY DEPARTMENT
		BRIDGE DIVISION
REV		COLUMBIA S.C.
		PROFILES
REV		FOR SUPERELEVATION
		LINE "C"
REV		FOR UNDERPASS UNDER
REVIEWED	<i>[Signature]</i>	N. SPRUILL INTERCHANGE CONN.
	IN CHARGE	
QUAN		DOCKET NO.
TR		COUNTY
DR		ROUTE NO DATE
DIST	1172 BAY 11-63	105213 CHARLESTON I-26 IO-6
	APPROVED BY	APPROVED BY
	<i>[Signature]</i>	<i>[Signature]</i>
	BY CHKDATE	BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER

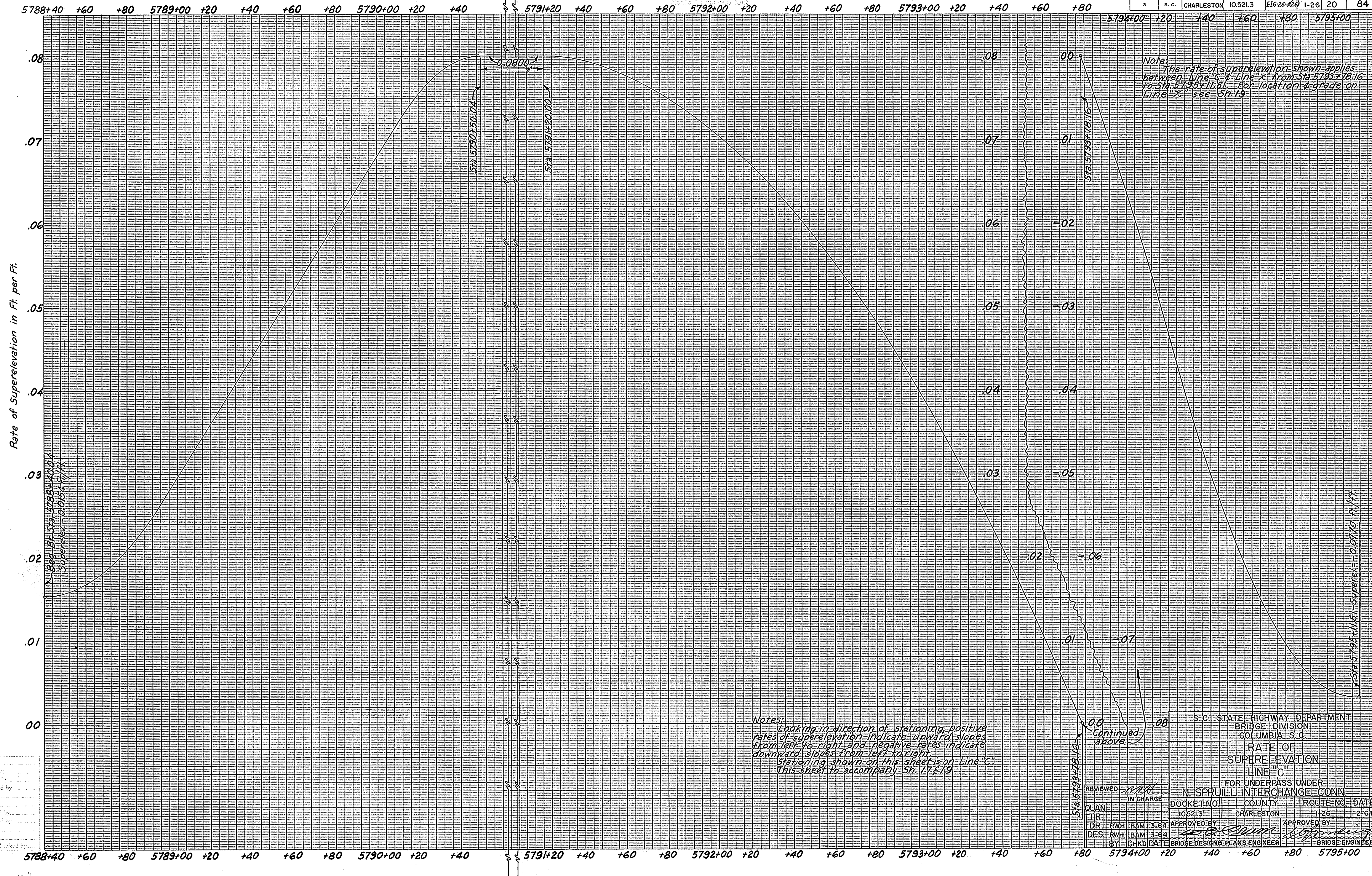
FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	F-16-28-16	I-26	18	84



Notes:
 Elevations shown on this sheet are on top of slab at bottom of curb.
 Stationing for both Rt Curb (Line B) and Lt Curb are Line B stations; therefore stationing on Lt Curb thruout this horizontal curves do not indicate the correct arc distance along these lines. (Ratio for 10° 0' curve = $\frac{556}{573}$ For 10° 16' curve = $\frac{558}{575}$)
 Stationing between Sta 5788+28.40 & Sta 5792+60.30 does not agree with Road Plan stationing.
 Bridge Sta 5788+28.40 = Road Plan Sta 5788+30.90
 Bridge Sta 5792+60.30 = Road Plan Sta 5792+62.80
 Bridge Sta 5789+25.83 = Road Plan Sta 5789+28.33
 Bridge Sta 5794+43.07 = Road Plan Sta 5794+50.57

Ground Surface Platted by _____
 " " Checked by _____
 Template Sections Platted by _____
 " " Checked by _____
 Areas by _____
 " " Checked by _____
 Template Sections Revised by _____
 " " Checked by _____
 Final Areas by _____
 " " Checked by _____
 Quantities Transferred and Inked by _____

REV. I	I	S. C. STATE HIGHWAY DEPARTMENT
REV. II	II	BRIDGE DIVISION
REV. III	III	COLUMBIA, S. C.
REV. IV	IV	PROFILES
REV. V	V	FOR SUPERELEVATION
REV. VI	VI	LINE "B"
REV. VII	VII	FOR UNDERPASS UNDER
REV. VIII	VIII	N. SPRUILL INTERCHANGE CONN.
REVIEWED BY	IN CHARGE	
Q. T.	DOCKET NO.	COUNTY
TR.	10.521.3	CHARLESTON
DES.	DATE	ROUTE NO.
	10-63	I-26
APPROVED BY	APPROVED BY	
BRIDGE DESIGNER	PLANS ENGINEER	BRIDGE ENGINEER



Notes:
Looking in direction of stationing, positive rates of superelevation indicate upward slopes from left to right and negative rates indicate downward slopes from left to right.
Stationing shown on this sheet is on Line 'C'.
This sheet to accompany Sh. 17 & 19.

REVIEWED		IN CHARGE	
QUAN	IRI	DES	BY
DR. RWB	BAM	3-64	3-64
DOCKET NO. 10.521.3		COUNTY	ROUTE NO. DATE
CHARLESTON		1-26	2-64
APPROVED BY		APPROVED BY	
BRIDGE DESIGNER		BRIDGE ENGINEER	

S. C. STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION
COLUMBIA S. C.
RATE OF
SUPERELEVATION
LINE "C"
FOR UNDERPASS UNDER
N. SPRUILL INTERCHANGE CONN.

General Surface	Checked by
Temporary Stationing	Checked by
Final Stationing	Checked by
Final Stationing	Checked by
Final Stationing	Checked by
Final Stationing	Checked by

APWD 3-5-64

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10521.3	116-264(28)	1-26	21	84

5789+00 +20 +40 +60 +80 5790+00 +20 +40 +60 +80 5791+00 +20 +40 +60 +80 5792+00 +20 +40 +60 +80 5793+00 +20 +40 +60

Rate of Superelevation in Ft. per Ft.

.08
.07
.06
.05
.04
.03
.02
.01
.00
-.01

Reg. Bz Sta 5789+25.83
Superelev = 0.075 ft/ft

Notes:
Looking in direction of stationing, positive rates of superelevation indicate upward slope from left to right and negative rates indicate downward slope from left to right.
Stationing shown on this sheet is on Line B.
This sheet to accompany Sh. 18, 19 & 22

Sta 5793+45.67
Matchline - See Sh. 22
Superelev = 0.0000 ft/ft

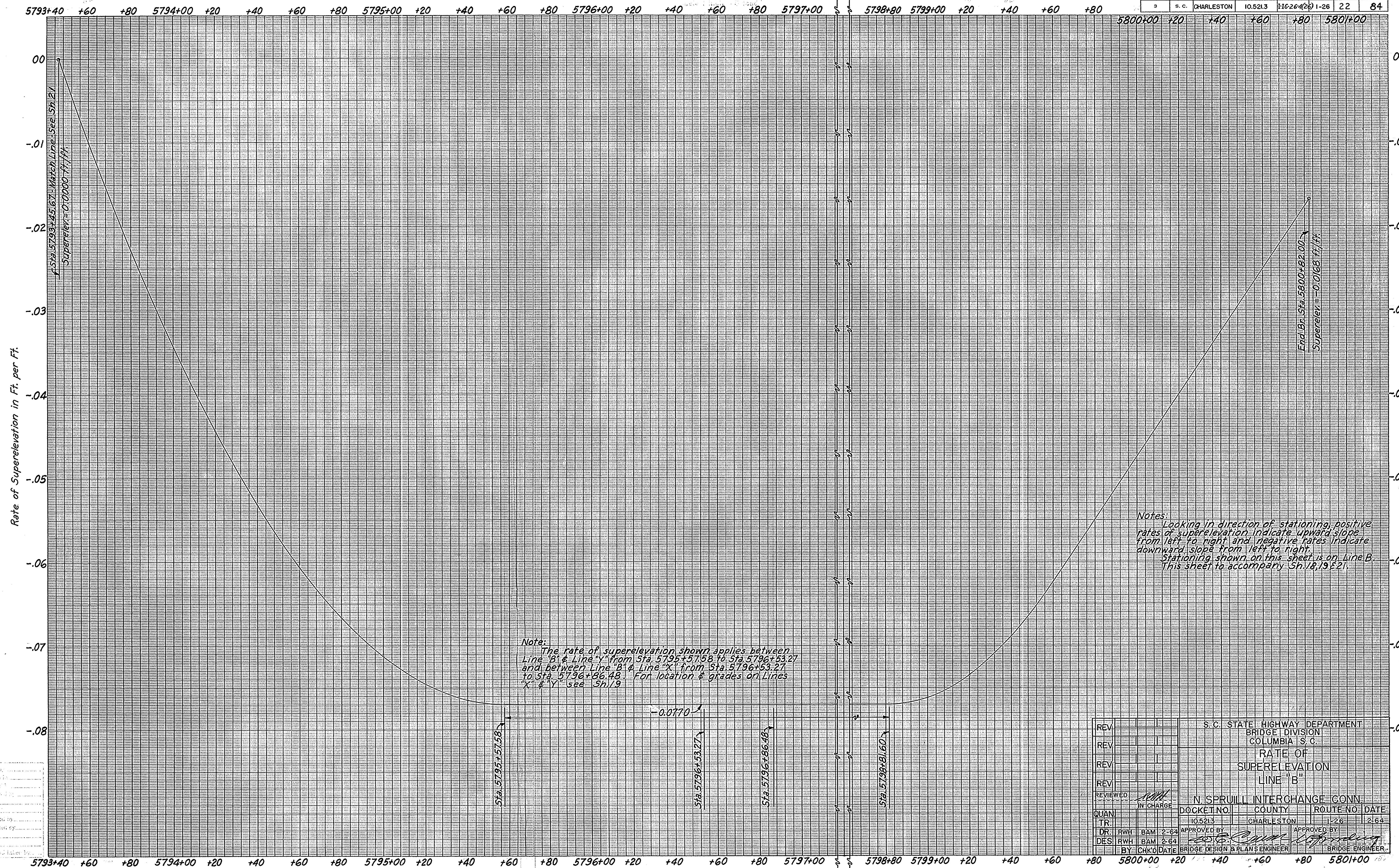
2-27-64

Checked by:	Checked by:
Checked by:	Checked by:
Checked by:	Checked by:
Checked by:	Checked by:
Checked by:	Checked by:

REV		S. C. STATE HIGHWAY DEPARTMENT	
REV		BRIDGE DIVISION	
REV		COLUMBIA S. C.	
REV		RATE OF SUPERELEVATION	
REV		LINE "B"	
REV		FOR UNDERPASS UNDER	
REV		N. SPRUILL INTERCHANGE CONN.	
REVIEWED	IN CHARGE	DOCKET NO.	COUNTY
QUAN		10521.3	CHARLESTON
TR.			
DR.	RWH	BAM	3-64
DES.	RWH	BAM	3-64
BY	CHK'D	DATE	
APPROVED BY		APPROVED BY	
BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER	

5789+00 +20 +40 +60 +80 5790+00 +20 +40 +60 +80 5791+00 +20 +40 +60 +80 5792+00 +20 +40 +60 +80 5793+00 +20 +40 +60 5794+00

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	1-16-26-4(26)	1-26	22	84



Notes: Looking in direction of stationing, positive rates of super-elevation indicate upward slope from left to right and negative rates indicate downward slope from left to right.
Stationing shown on this sheet is on line B. This sheet to accompany Sh 18, 19 & 21.

Note: The rate of super-elevation shown applies between Line "B" & Line "Y" from Sta. 5796+57.58 to Sta. 5796+53.27 and between Line "B" & Line "X" from Sta. 5796+53.27 to Sta. 5796+86.48. For location & grades on Lines "X" & "Y" see Sp/19.

REV				S.C. STATE HIGHWAY DEPARTMENT
				BRIDGE DIVISION
REV				COLUMBIA S.C.
				RATE OF
REV				SUPERELEVATION
				LINE "B"
REV				
REVIEWED	<i>[Signature]</i>			N SPRUILL INTERCHANGE CONN.
	IN CHARGE			
QUAN		DOCKET NO.	COUNTY	ROUTE NO DATE
TR.		105213	CHARLESTON	1-26 2-64
DR. RWH	BAM 2-64	APPROVED BY		APPROVED BY
DES. RWH	BAM 2-64	<i>[Signature]</i>		<i>[Signature]</i>
BY	CHK'D DATE	BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER

Ground Surface (Mount by _____)
 " " Checked by _____
 Longitude (Section Name) _____
 " " (City & State) _____
 Airphoto _____
 " Checked by _____
 Low, low Tides (Reviewed by _____)
 " " Checked by _____
 Plant Areas by _____
 " " Checked by _____
 (then this Translated and Index to _____)

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		

PROFILE	NO.	NOTE BOOK	SURVEYED _____	BY _____	DATE _____
			PLOTTED _____ COPIES CHECKED _____ B. M.'S NOTED _____ STRUCTURE NOTATIONS CHECKED _____		

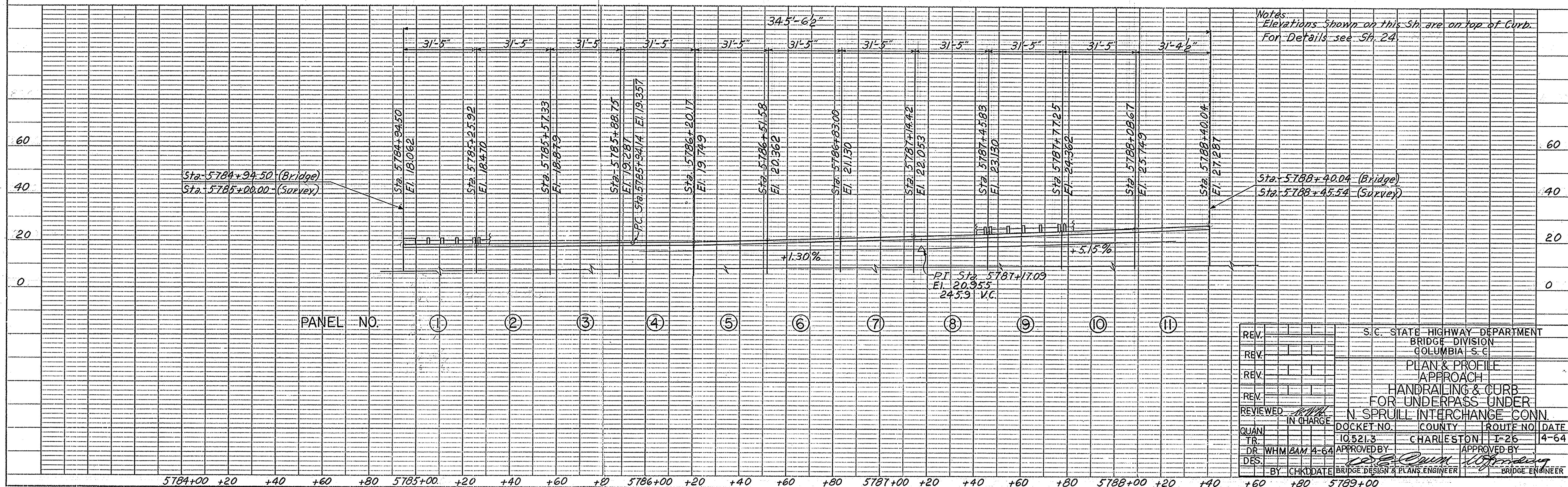
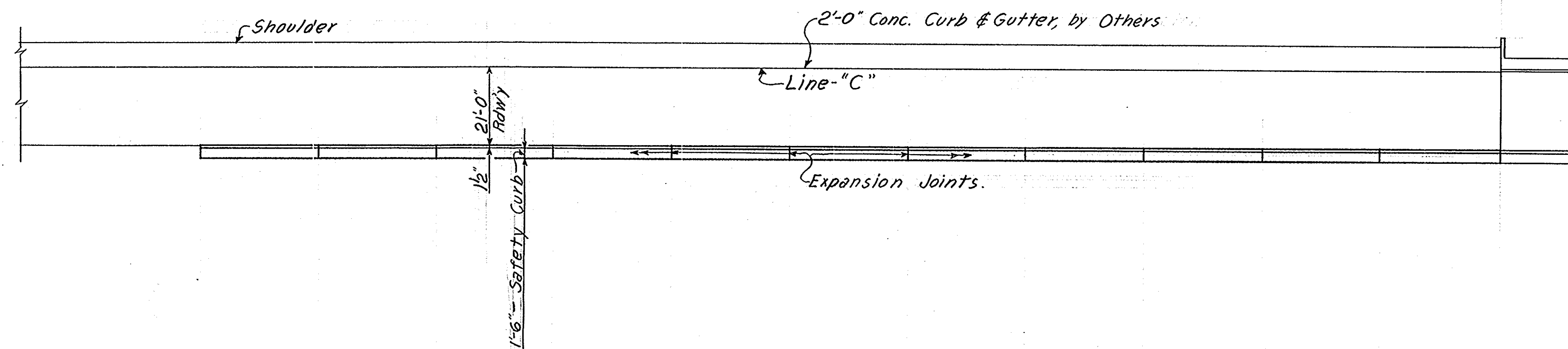


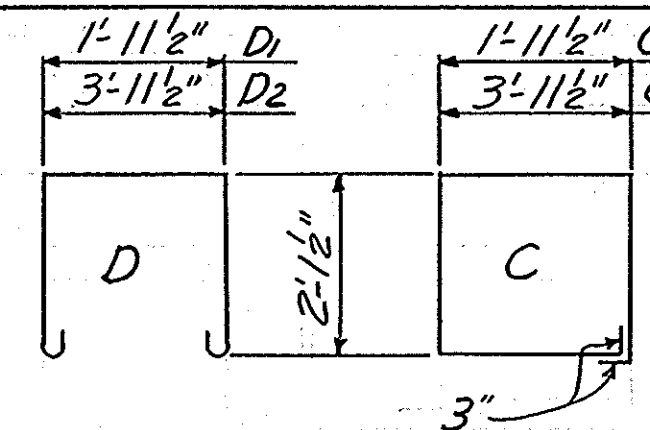
PLATE 1 - PLAN - PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10521.3	I-26	25	84

REINFORCING STEEL SCHEDULE

MARK	SIZE	NO. REQD	BENT: C-1	
			NO. REQD	LENGTH
A1	8	5	8	24'-0"
A2	4	5	2	24'-0"
B	9	5	2	8'-6"
C1	4	B	24	8'-8"
C2	4	B	4	12'-8"
D1	4	B	3	7'-3"
D2	4	B	1	9'-3"
E	4	B	10	5'-9"
F	4	S	4	2'-0"

BENDING DETAILS



For Hook Details see Sh. 5

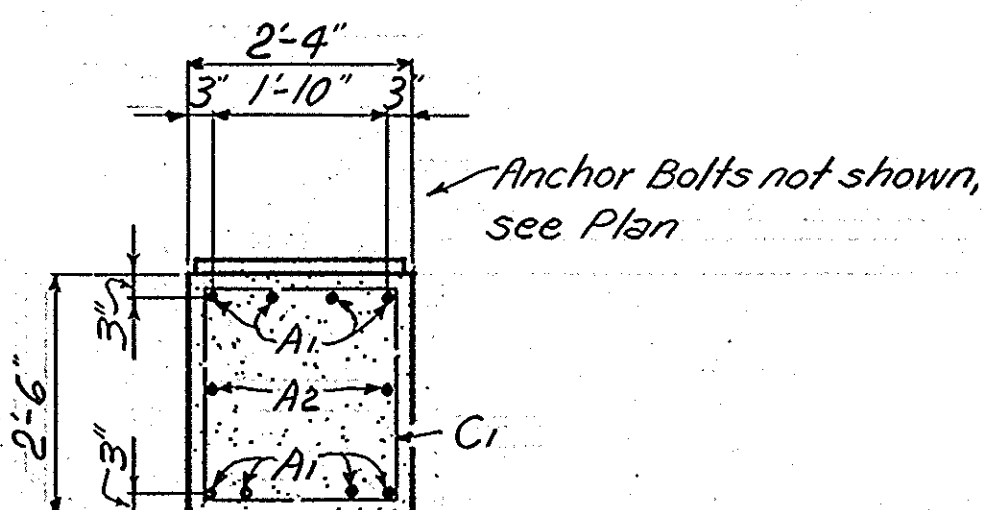
QUANTITIES

		BENT: G-1
Concrete Class "A"	C.Y.	6.1
Reinforcing Steel	Lbs. @	891
12 BP53 Piling	L.F.	425

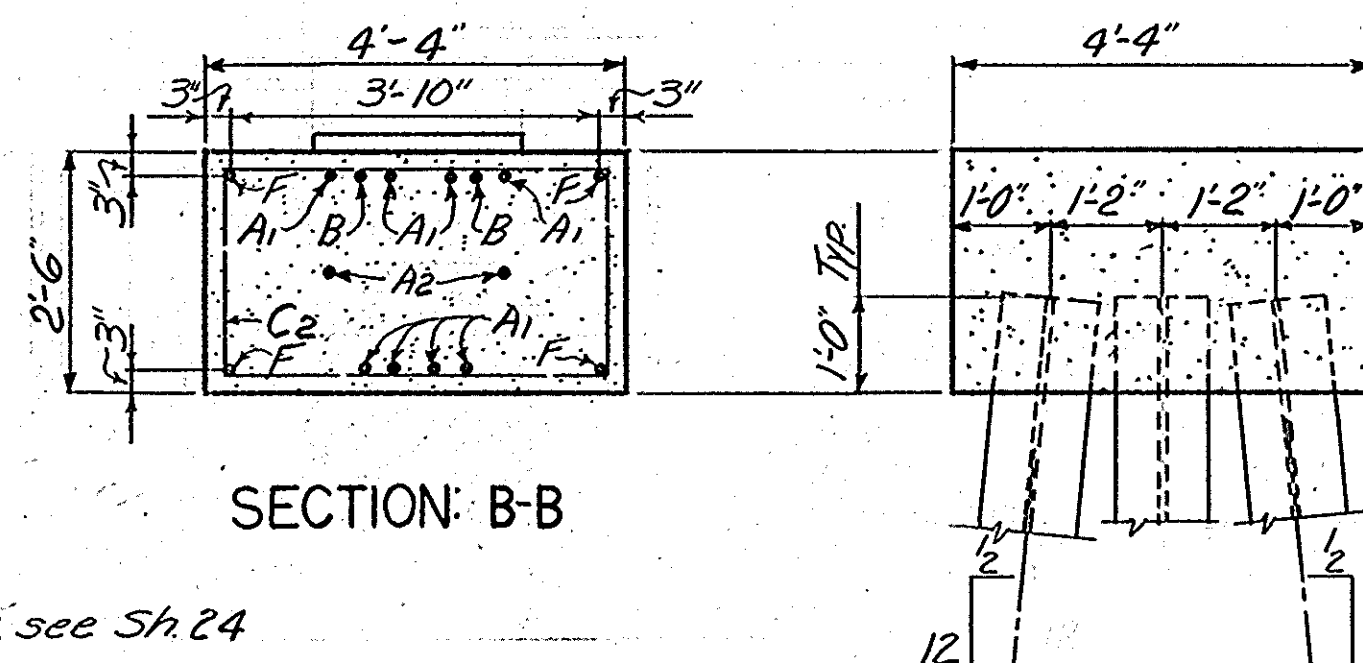
Includes 51 Lbs. for Anchor Bolt Assemblies.

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Anchor Bolt Details See Sh. 5

Note:
For location of Premolded Joint Filler, Tar Paper, Water stop-in-place, other dimensions and details, see Section showing Junction of Retaining Wall and Begin Bridge on Sh. 24



SECTION A-A



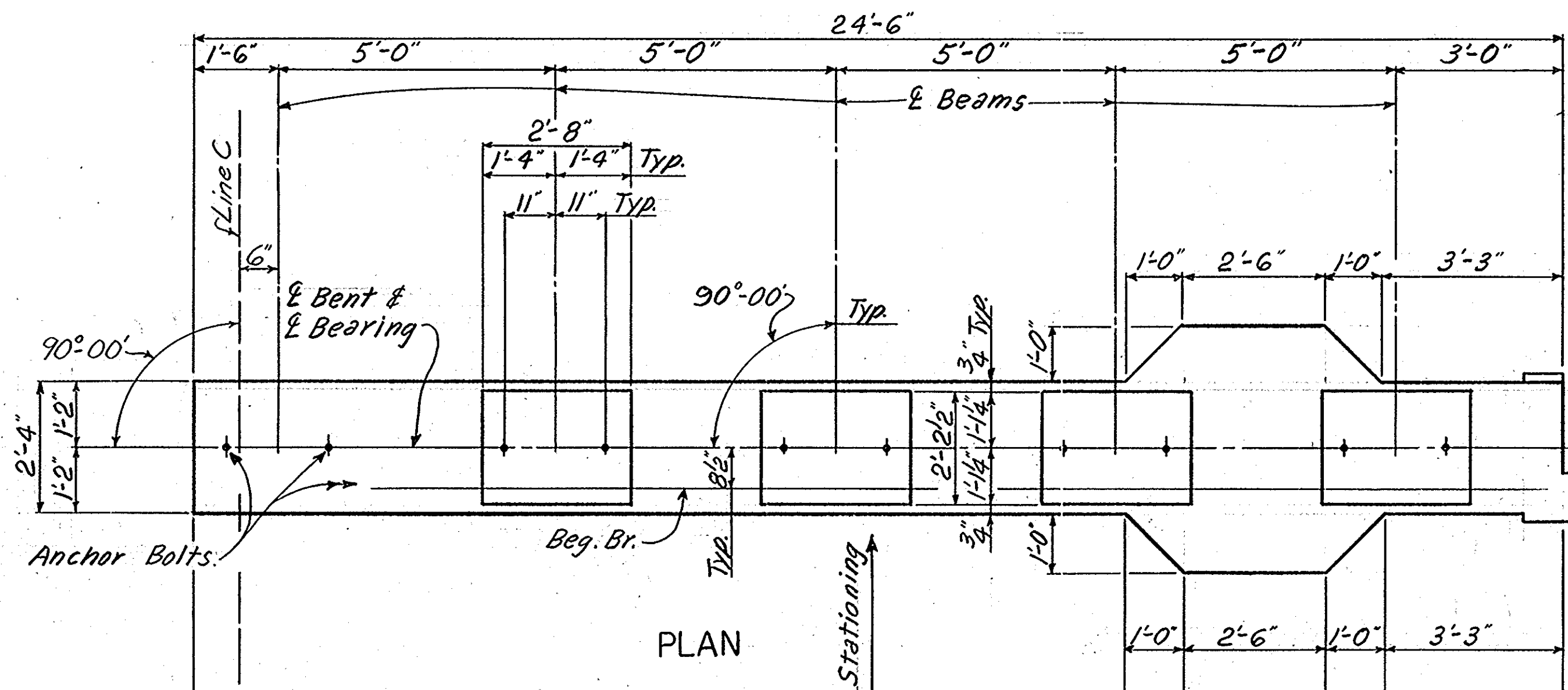
SECTION B-B

SECTION C-C

Note:
Max. Pile Bearing = 4.5 T/pile
Drive Piles to a minimum penetration of 2.5 ft. into Marl.

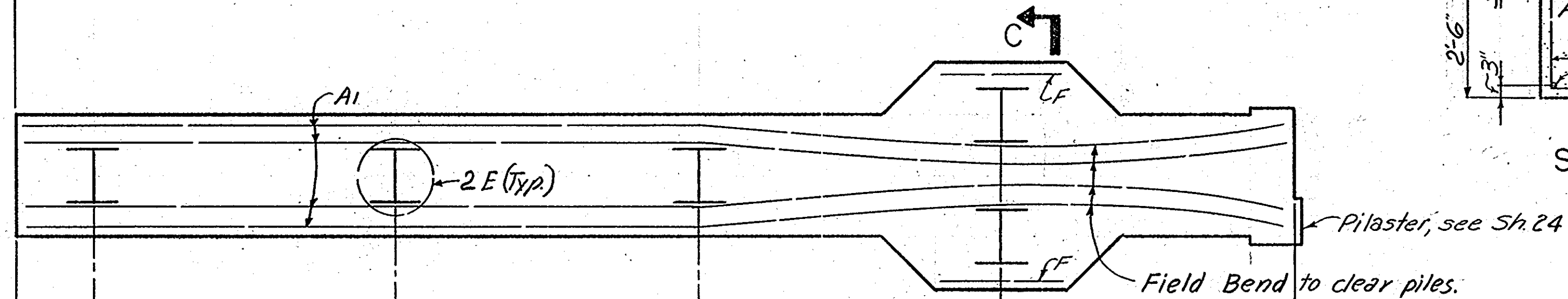
Scale: 1/2" = 1'-0"

REV.		S. C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S. C.
REV.		BENT-C-1
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REVIEWED	IN CHARGE	DOCKET NO.
QUAN. BY	ELLS	10.521.3
TR.		COUNTY
DR. WHM	BAM	1-65
DES. RWB	BAM	2-64
BY	CHK'D	DATE
		BRIDGE DESIGN & PLANS ENGINEER
		APPROVED BY
		BRIDGE ENGINEER

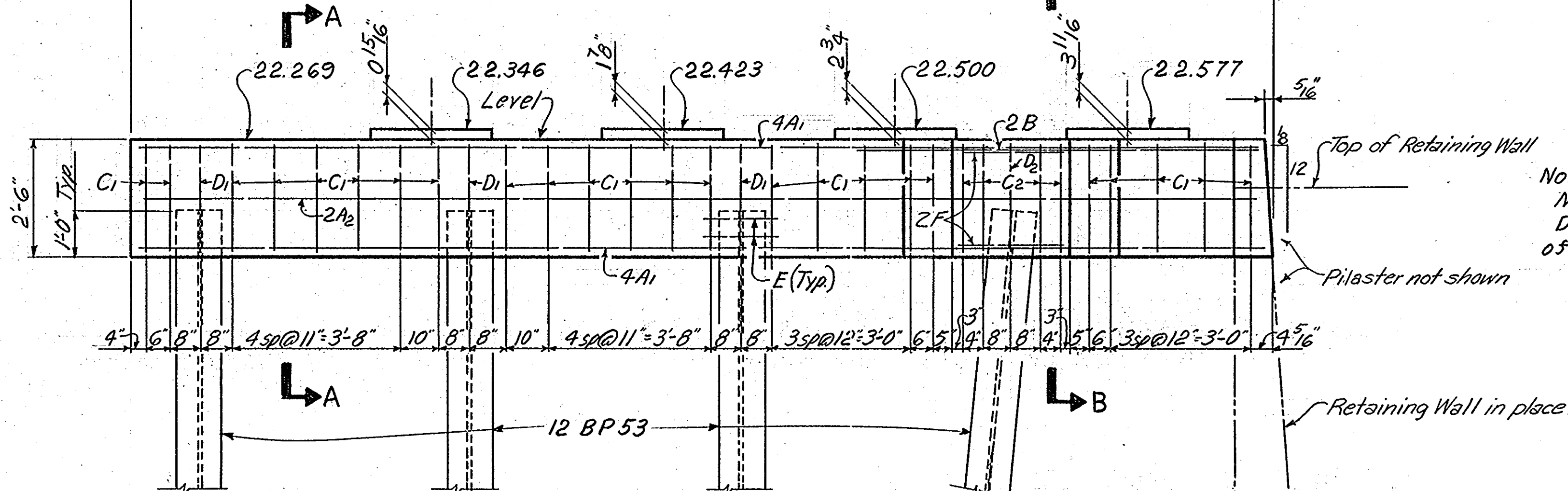


PLAN

PLAN-SHOWING TOP REINF. STEEL



PLAN-SHOWING BOTTOM REINF. STEEL



ELEVATION
(Looking in direction of Stationing)

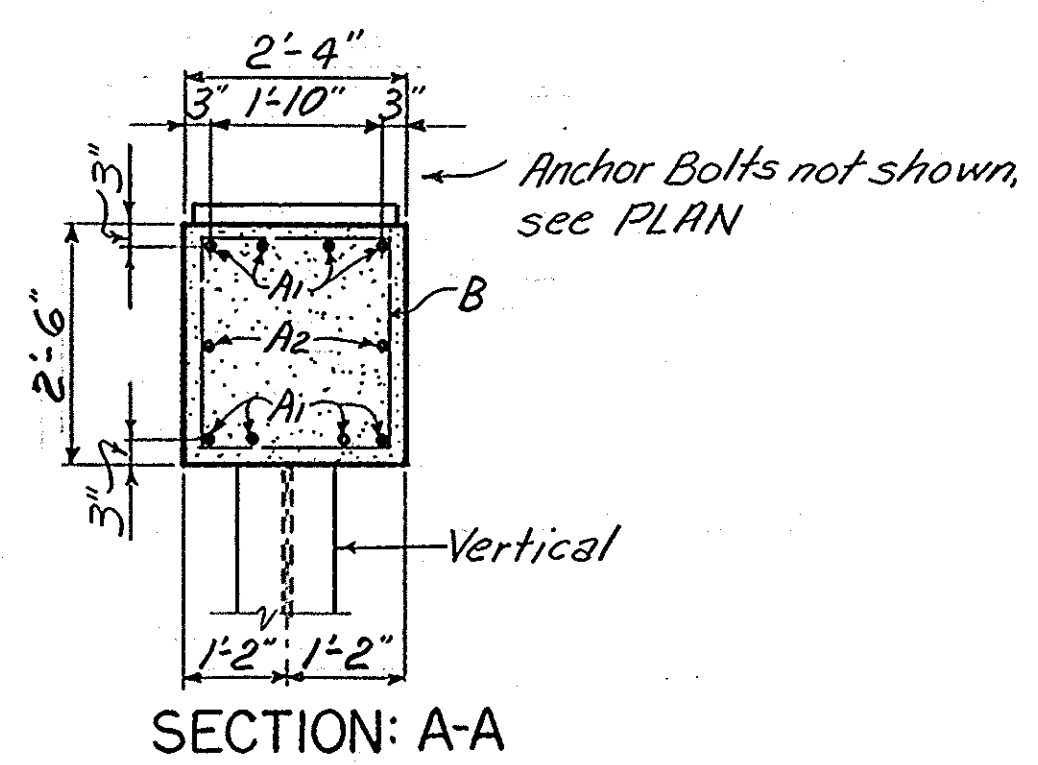
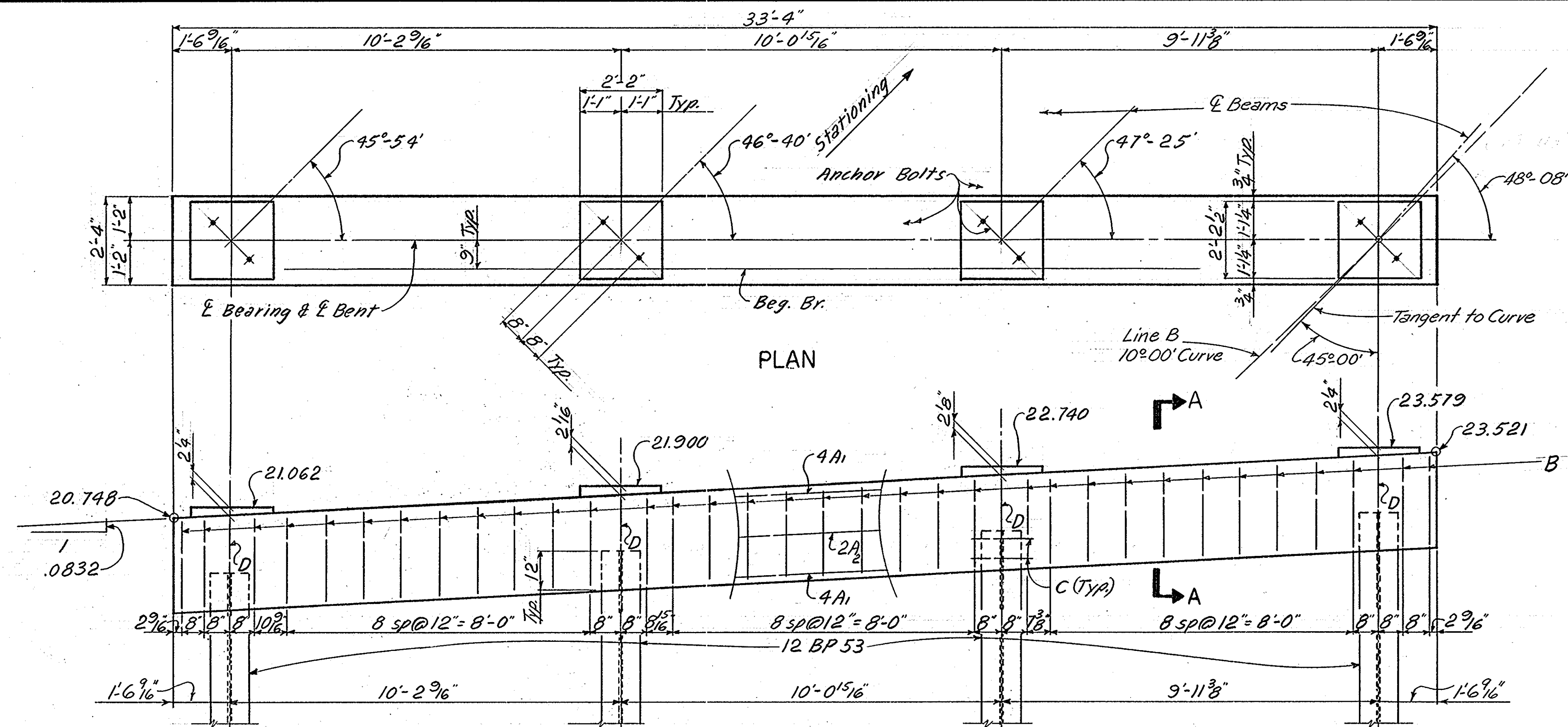
FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	I-26	26	84

BENDING DE TAILS				REINFORCING STEEL SCHEDULE			
<div> <div> <div>1'-11 1/2"</div> <div>1'-11 1/2"</div> </div> <div> <div>2'-1 1/2"</div> <div>3'-0"</div> </div> </div>				BENT: B-1			
MARK	SIZE	D	NO. REQD	LENGTH			
A1	8	S	8	33'-0"			
A2	4	S	2	33'-0"			
B	4	B	34	8'-8"			
C	4	B	8	5'-9"			
D	4	B	4	7'-3"			

QUANTITIES		
BENT: B-1		
Concrete Class A	C.Y.	7.3
Reinforcing Steel	Lbs.	1039
12 BP 53 Piling	L.F.	340

Includes 43 Lbs. for Anchor Bolt Assemblies.

Notes:
 For Standard Notes See Sh. 4
 For Standard Details See Sh. 5
 For Anchor Bolt Details see Sh. 5
 For Hook Details see Sh. 5

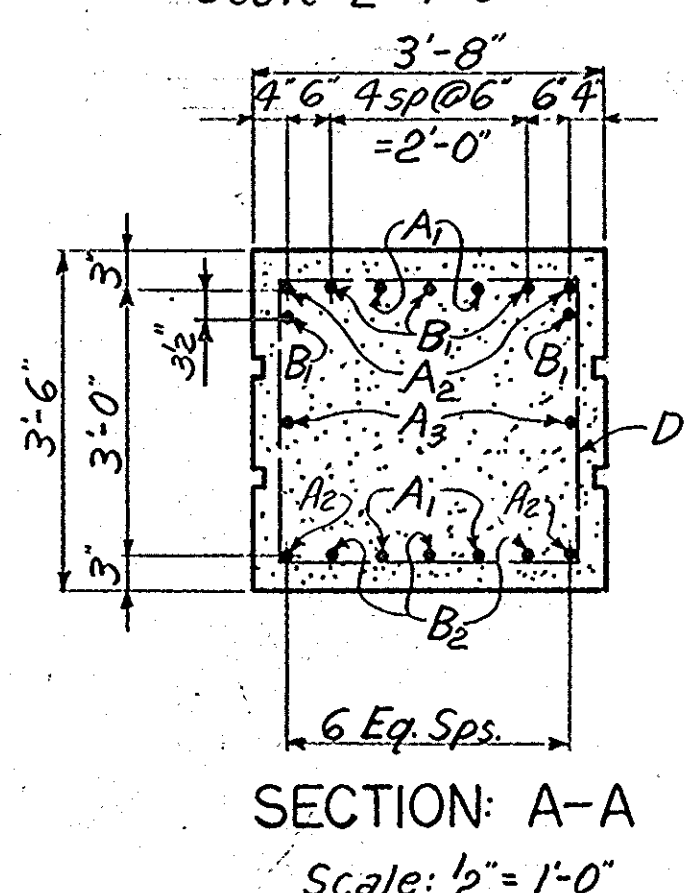
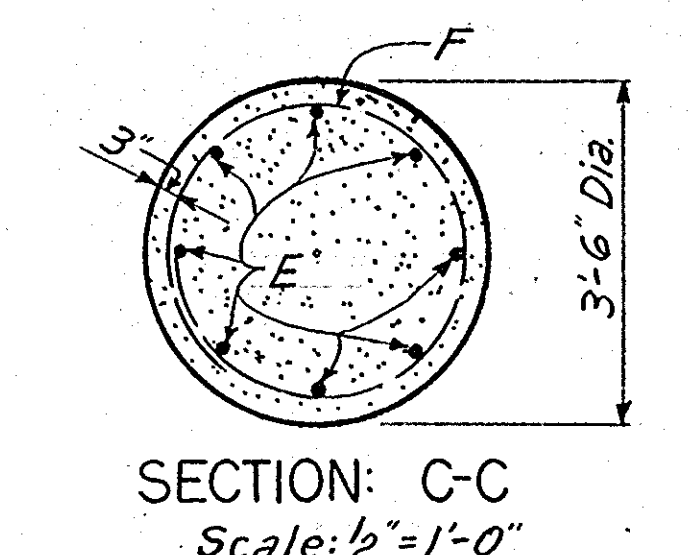
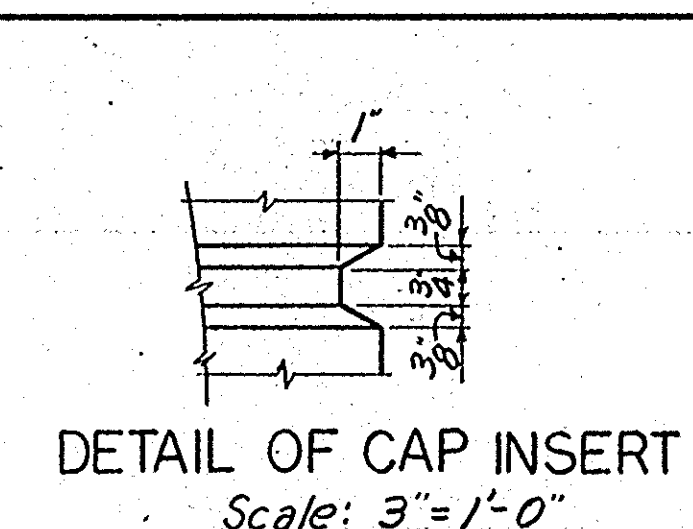
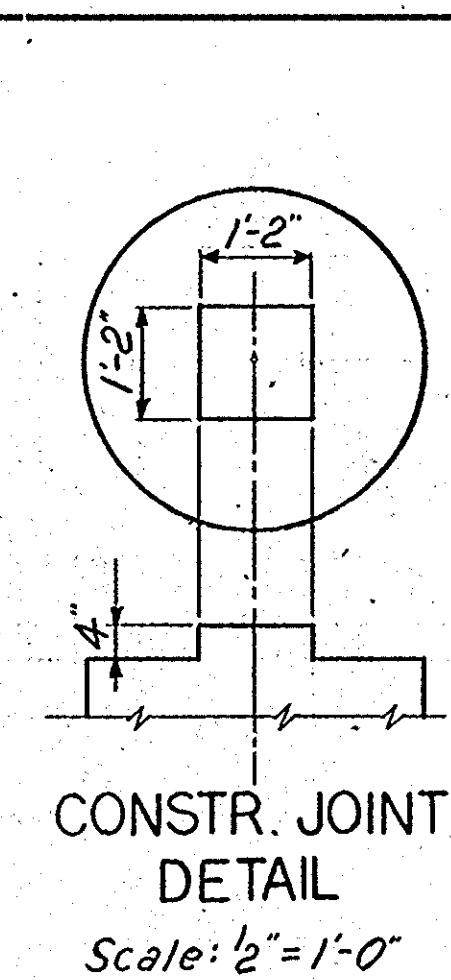
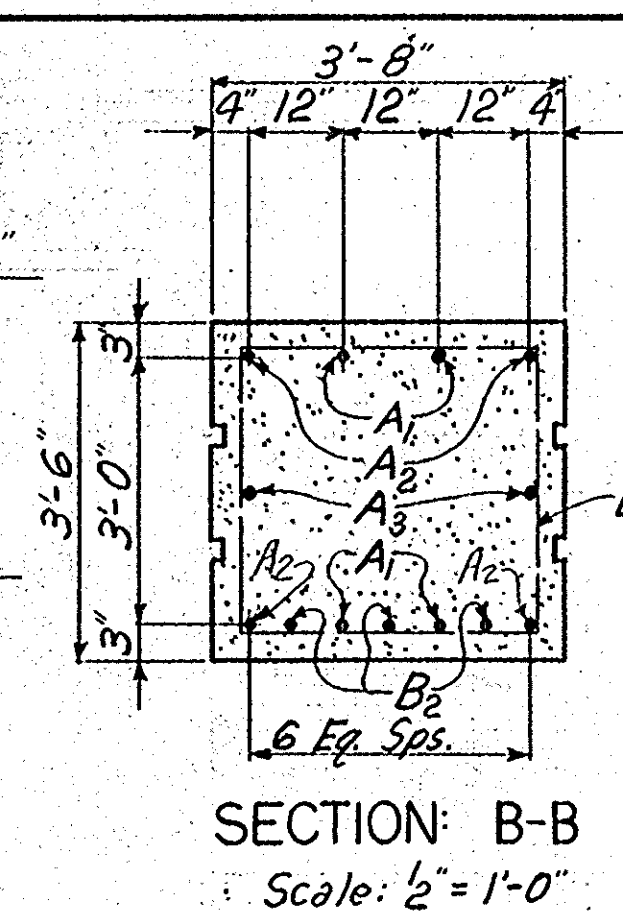
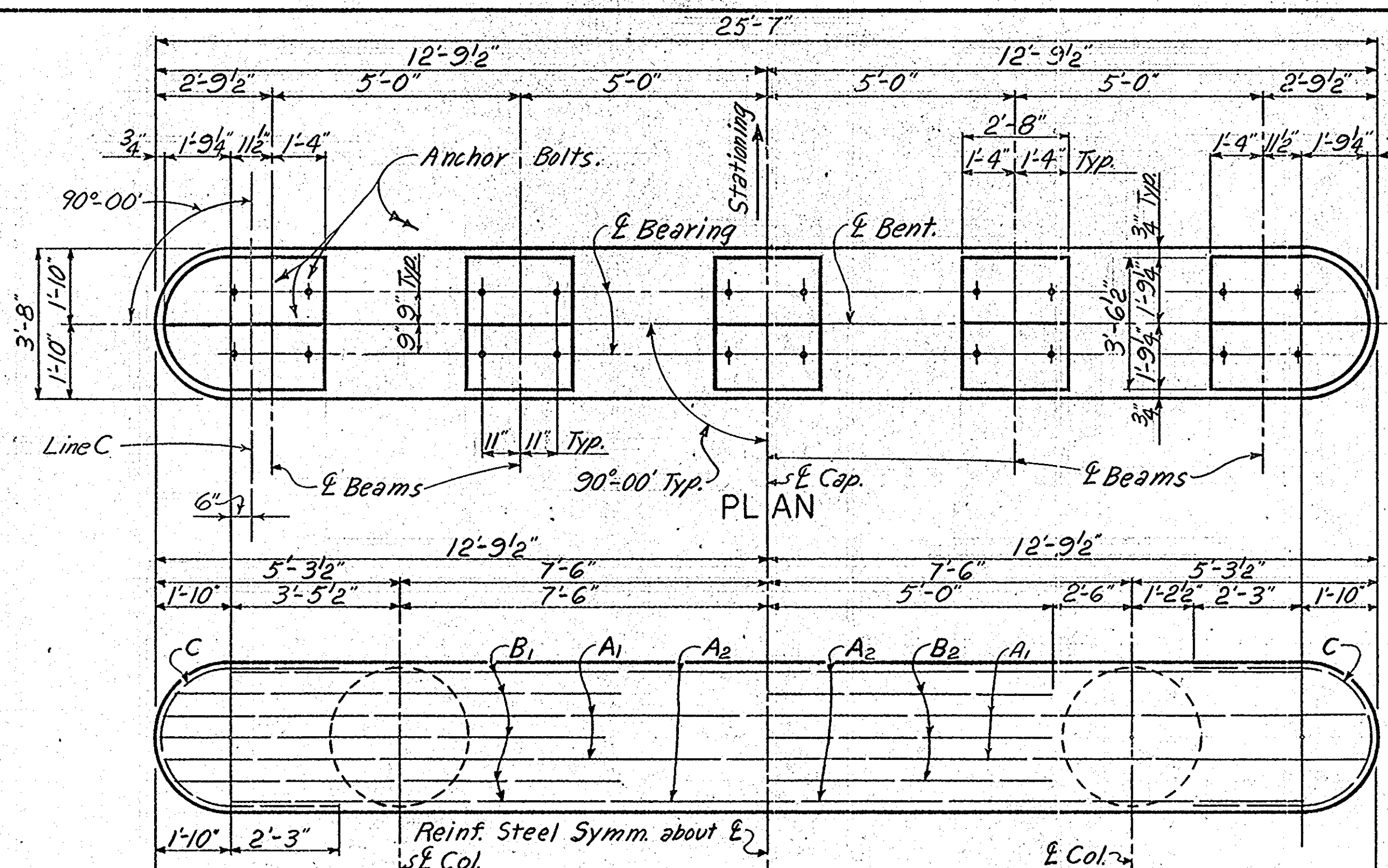


ELEVATION
 (Looking in direction of Stationing)

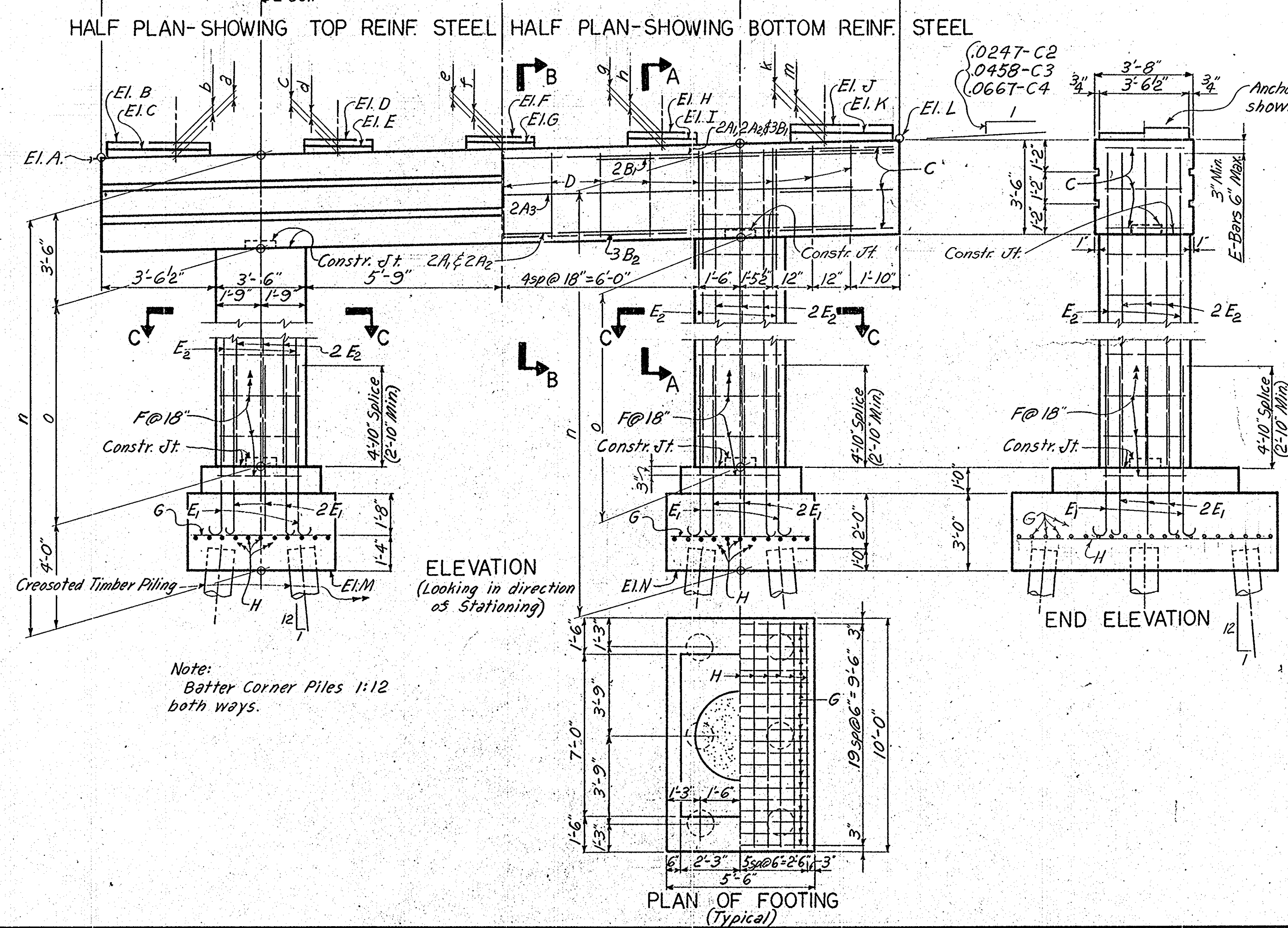
Note:
 Ave. Pile Bearing = 40 T/pile
 Drive Piles to a minimum depth of 25 ft. into marl.

Scale: 1/2" = 1'-0"

S. C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S. C.			
BENT: B-1			
FOR UNDERPASS UNDER N. SPRULL INTERCHANGE CONN.			
REV.		DOCKET NO.	10.521.3
REV.		COUNTY	CHARLESTON
REV.		ROUTE NO.	I-26
REV.		DATE	12-64
REVIEWED	IN CHARGE	APPROVED BY	APPROVED BY
QUAN. BY	E.L.S. 3-65	DES. BY	CHK'D BY
TR.	1-65	DATE	DATE
DES. BY	DATE	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER



ELEVATIONS				REINFORCING STEEL SCHEDULE								
	BENT-C2	BENT-C3	BENT-C4	MARK	SIZE	NO.	BENT-C2		BENT-C3		BENT-C4	
							REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH
A	24.900	28.023	31.084									
B	25.285	28.445	31.605									
C	25.116	28.359	31.520									
D	25.411	28.676	31.942	A1	10	S	4	25'-0"	4	25'-0"	4	25'-0"
E	25.239	28.588	31.853	A2	10	S	4	22'-0"	4	22'-0"	4	22'-0"
F	25.538	28.908	32.279	A3	4	S	2	22'-0"	2	22'-0"	2	22'-0"
G	25.363	28.817	32.187									
H	25.664	29.139	32.615	B1	9	S	10	10'-0"	10	10'-0"	10	10'-0"
I	25.486	29.046	32.520	B2	7	S	3	10'-0"	3	10'-0"	3	10'-0"
J	25.791	29.371	32.951	C	6	B	6	9'-6"	6	9'-6"	6	9'-6"
K	25.610	29.274	32.854	D	4	B	15	13'-1"	15	13'-1"	15	13'-1"
L	25.532	29.195	32.790	E1	11	B	16	8'-6"	16	8'-6"	16	8'-6"
M	7.531	6.265	3.937	E2	11	S	16	13'-3"	16	17'-9"	16	23'-3"
N	7.901	6.952	4.937	F	3	B	16	10'-5"	22	10'-5"	30	10'-5"
				G	7	S	40	5'-0"	40	5'-0"	40	5'-0"
				H	7	S	22	9'-6"	22	9'-6"	22	9'-6"



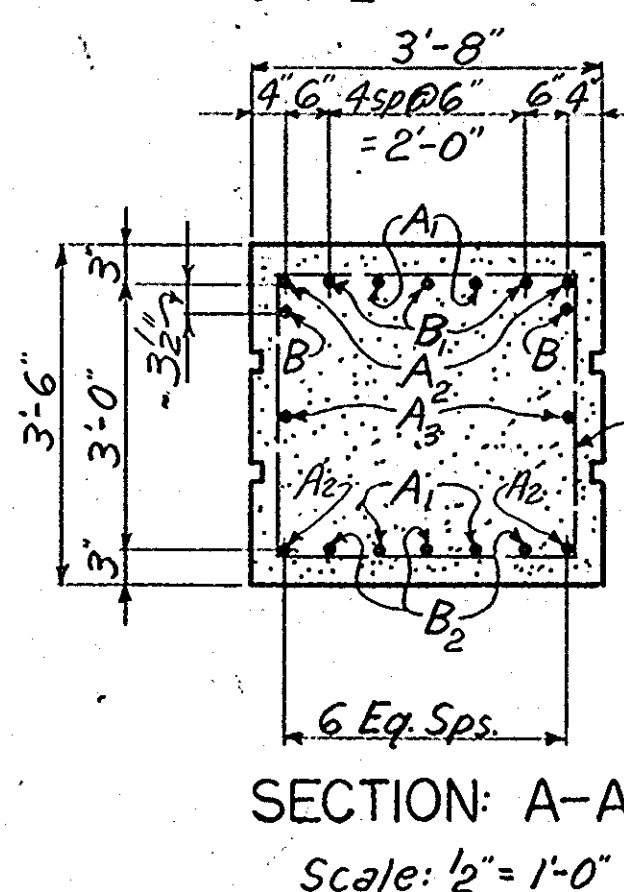
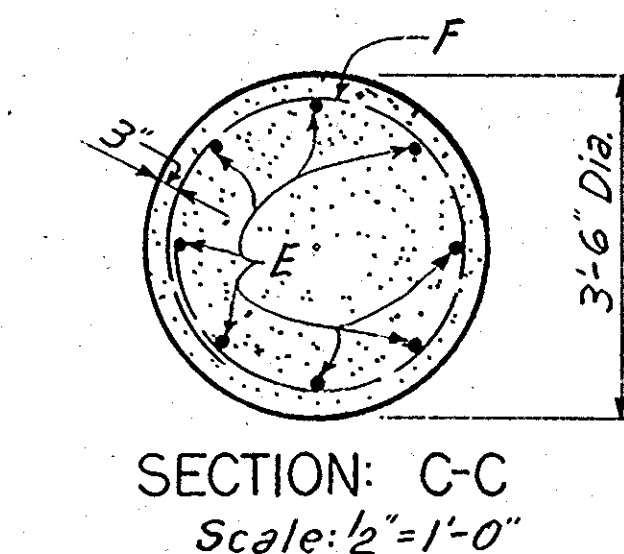
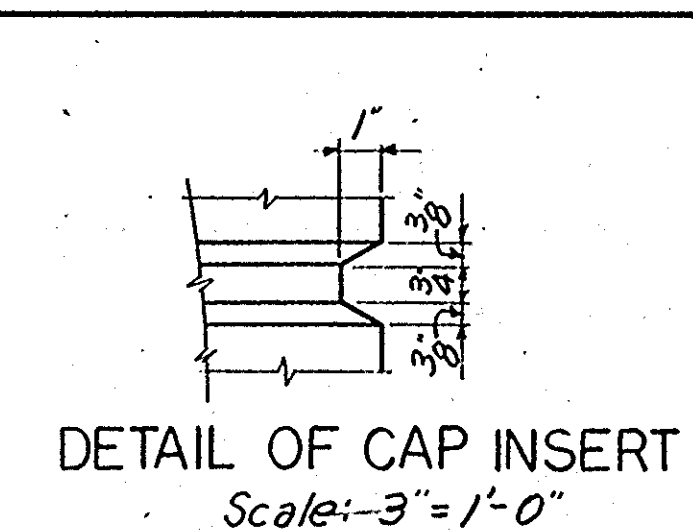
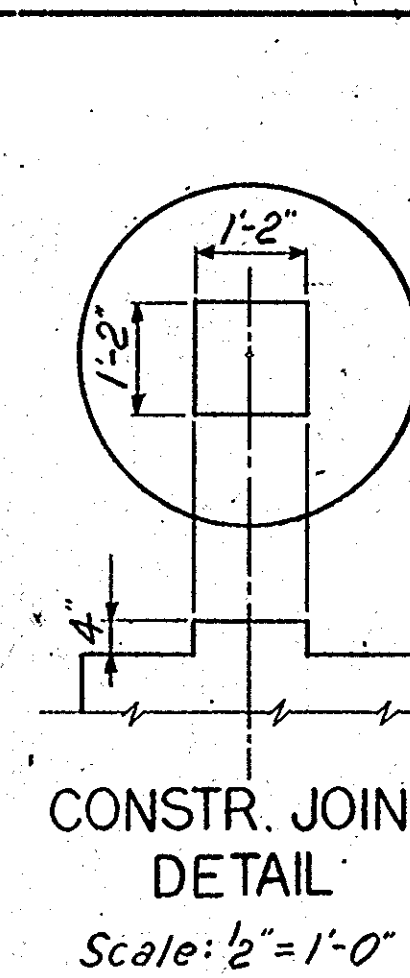
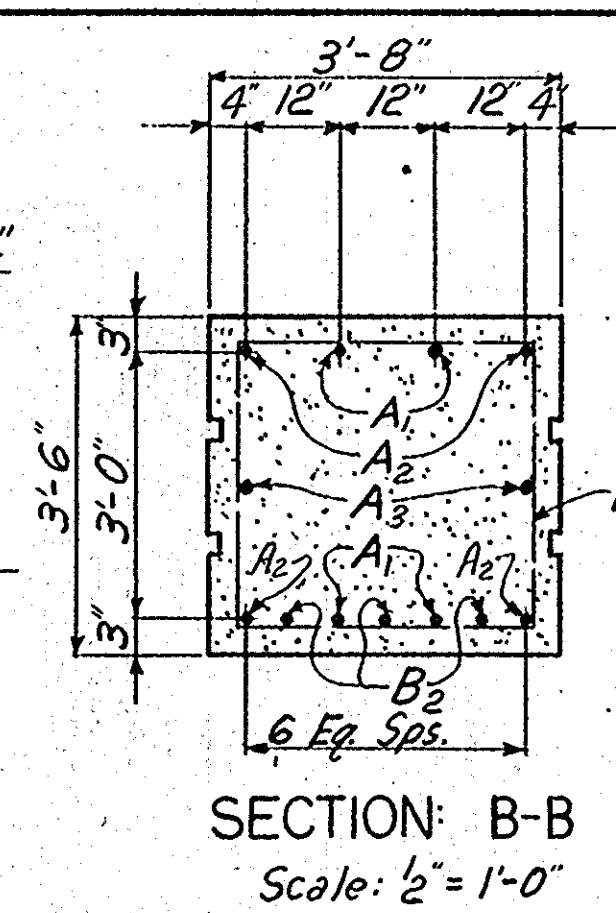
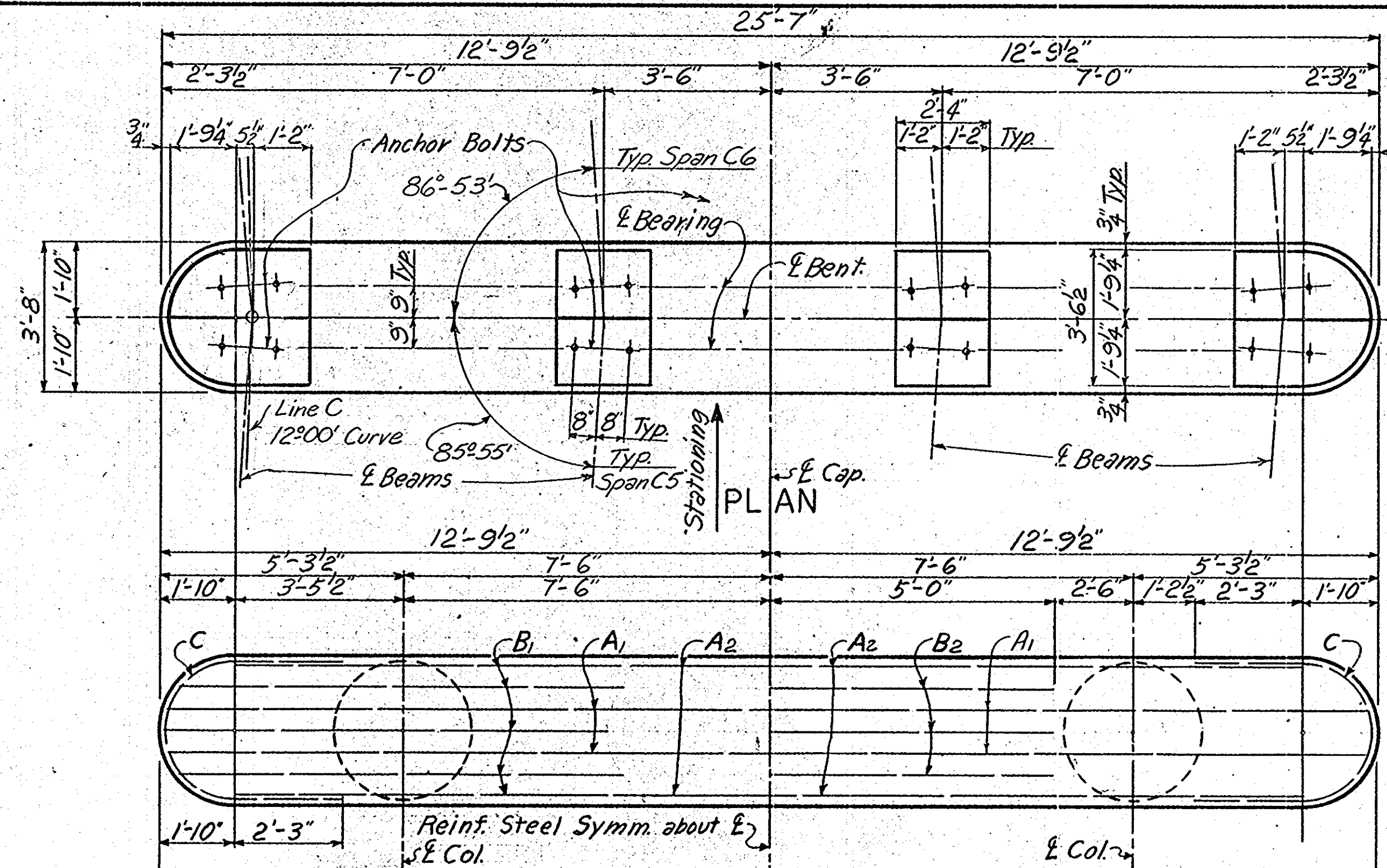
Note:
Drive Piles to a minimum depth of 11 feet into Marl

MAXIMUM PILE REACTION	
Dead Load-Superstructure	160K
Live Load	66K
Dead Load-Bent	83K
Back fill (3 ft)	14K
Total of Above	323K
Average Bearing	27 1/2/pile
MAX. PILE BEARING DUE TO WIND	
Wind	10 7/8/pile
MAX. CONDITION	
Average Bearing	27 1/2/pile
Wind	10 7/8/pile
Total (125% of Normal Bearing)	37 1/2/pile
Normal Bearing	30 1/2/pile

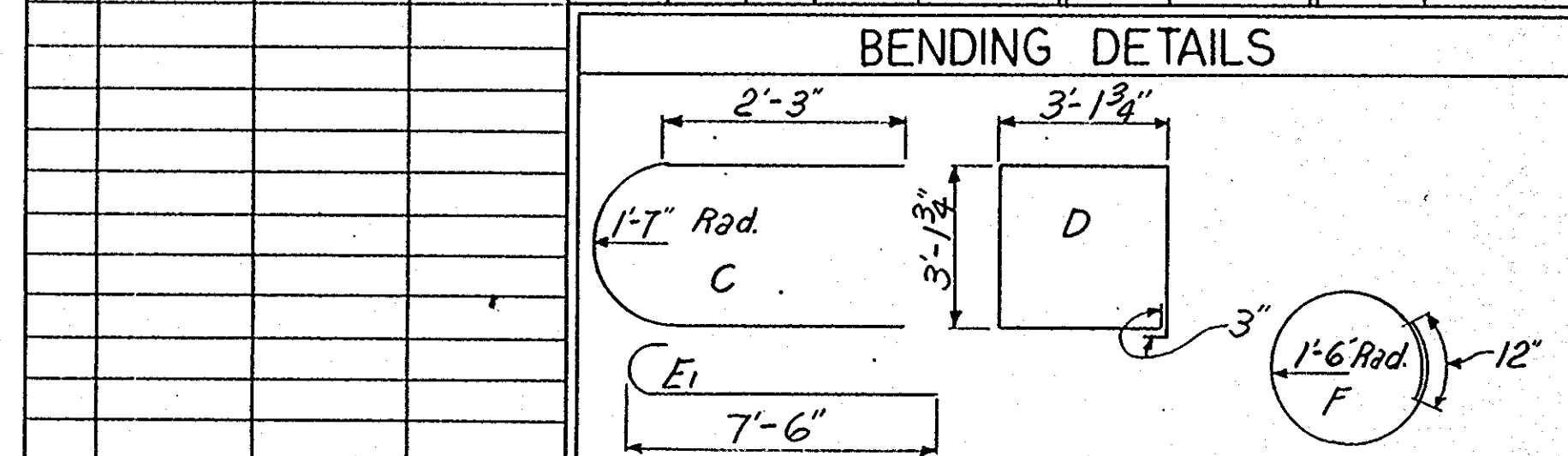
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details see Sh. 5

Scale: No Scale, or as noted.

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
BENTS: C2-C4			
FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.			
REV.			
REV.			
REV.			
REVIEWED	IN CHARGE	DOCKET NO.	COUNTY
QUAN.	EL.	10.5213	CHARLESTON
TR.		ROUTE NO.	DATE
DR.	WHM	8AM	10-64
DES.	RWH	WHM	6-64
BY	CHK'D	DATE	
APPROVED BY		APPROVED BY	
BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER	



ELEVATIONS			REINFORCING STEEL SCHEDULE							
	BENT-C6	BENT	MARK	SIZE	D	BENT - C6	BENT	BENT		
				NO.		NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D
A	37.910									
B	38.518									
C	38.343									
D	39.077		A1	10	5	4	25'-0"			
E	38.904		A2	10	5	4	22'-0"			
F	39.637		A3	4	5	2	22'-0"			
G	39.464									
H	40.196		B1	9	5	10	10'-0"			
I	40.025		B2	7	5	3	10'-0"			
J	39.957		C	6	B	6	9'-6"			
K	1.833		D	4	B	15	13'-1"			
L	3.033		E1	11	B	16	8'-6"			
			F2	11	S	16	32'-3"			
			F	3	B	42	10'-5"			
			G	7	S	40	5'-0"			
			H	7	S	22	9'-6"			

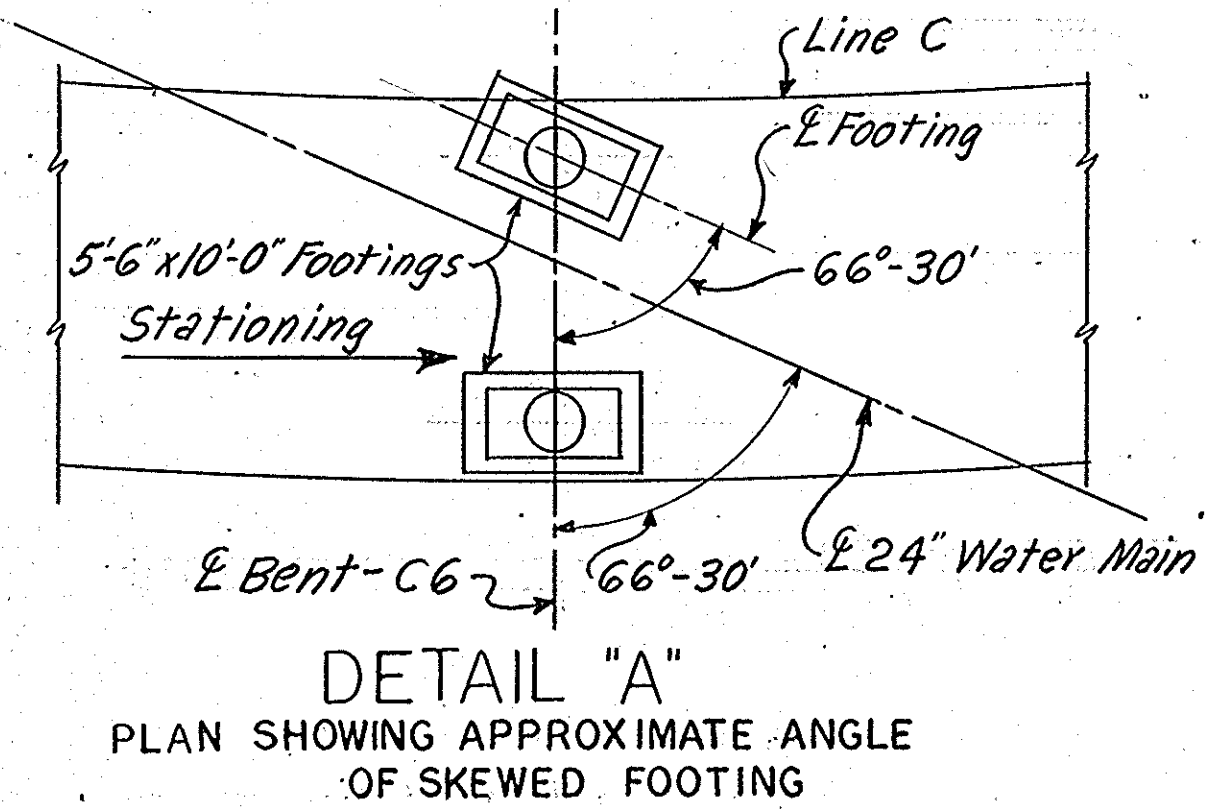
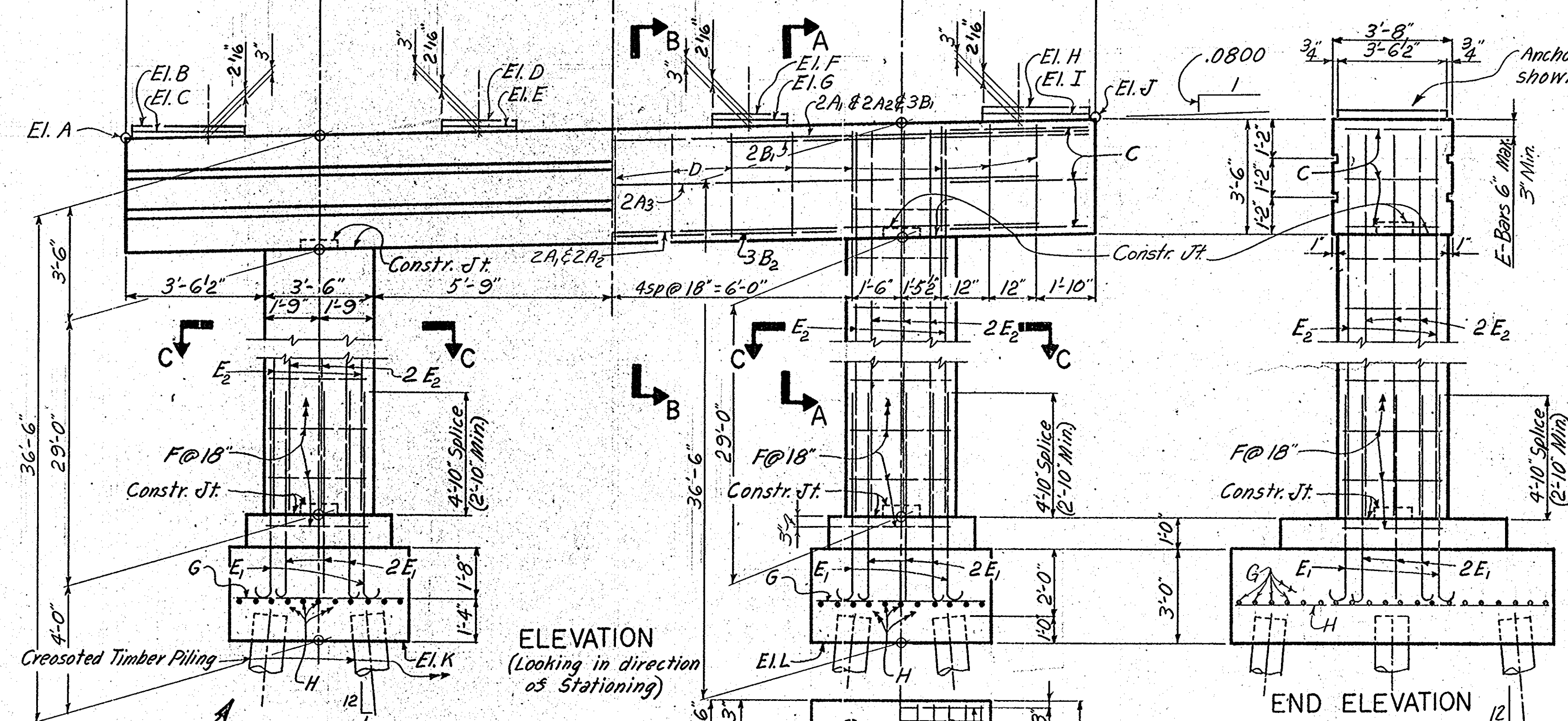


QUANTITIES			
	BENT-C6	BENT	BENT
Concrete Class "A"	C.Y.	471	
Reinforcing Steel	Lbs.	6007	
Wet & Dry Excavation	C.Y.	45	
Cresoted Timber Piling	L.F.	660	

Includes 86 Lbs. for Anchor Bolt Assemblies.

Notes:
 For Standard Notes See Sh. 4
 For Standard Details See Sh. 5
 Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
 For Anchor Bolt Details, see Sh. 5

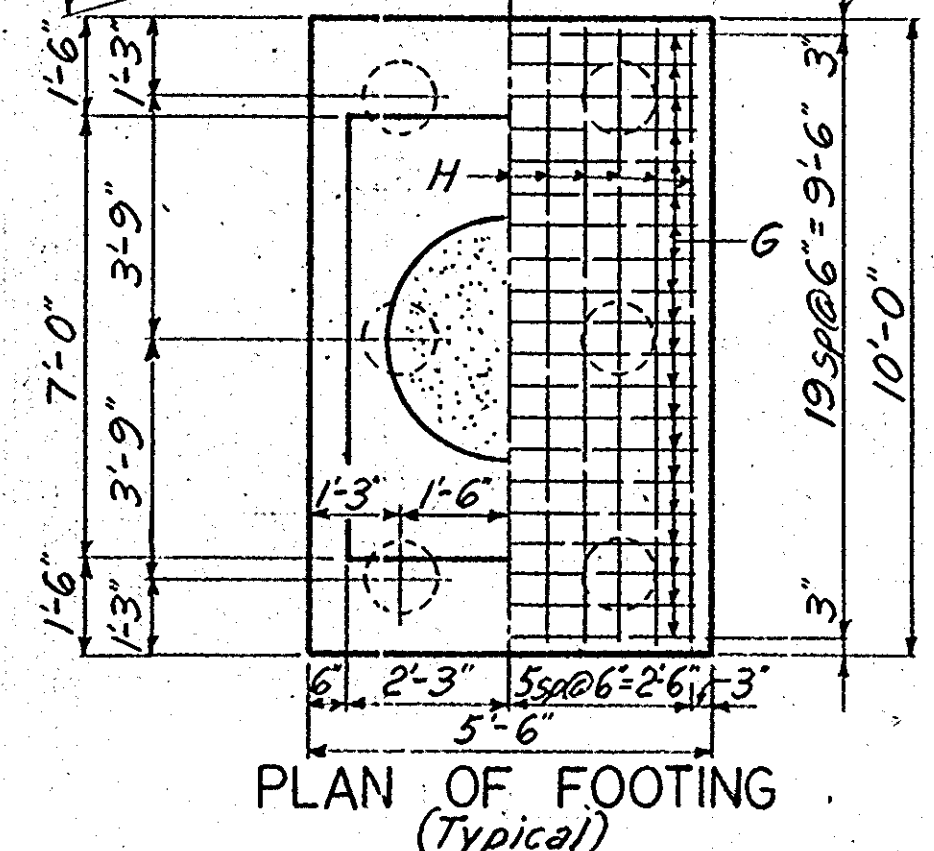
HALF PLAN-SHOWING TOP REINF. STEEL HALF PLAN-SHOWING BOTTOM REINF. STEEL



PLAN SHOWING APPROXIMATE ANGLE OF SKEWED FOOTING

MAXIMUM PILE REACTION	
Dead Load-Superstructure	140K
Live Load	80K
Dead Load-Bent	93K
Back fill (3ft)	14K
Total of Above	327K
Average Bearing	2.7/pile
MAX. PILE BEARING DUE TO WIND	
Wind	12/pile
MAX. CONDITION	
Average Bearing	27/pile
Wind	12/pile
Total (125% of Normal Bearing)	39/pile
Normal Bearing	31/pile

Note:
 Drive Piles to a minimum depth of 11 feet into Marl

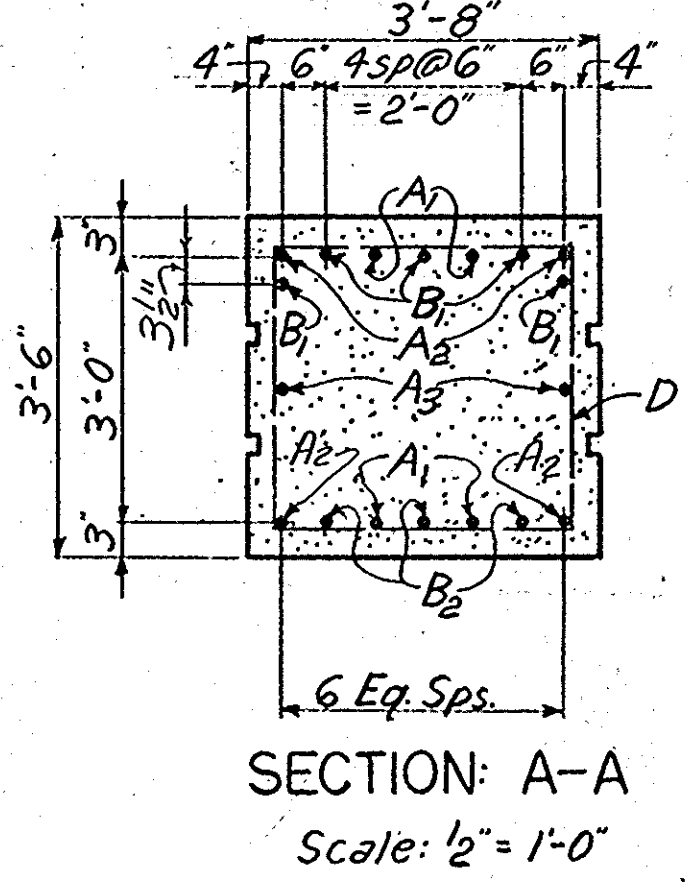
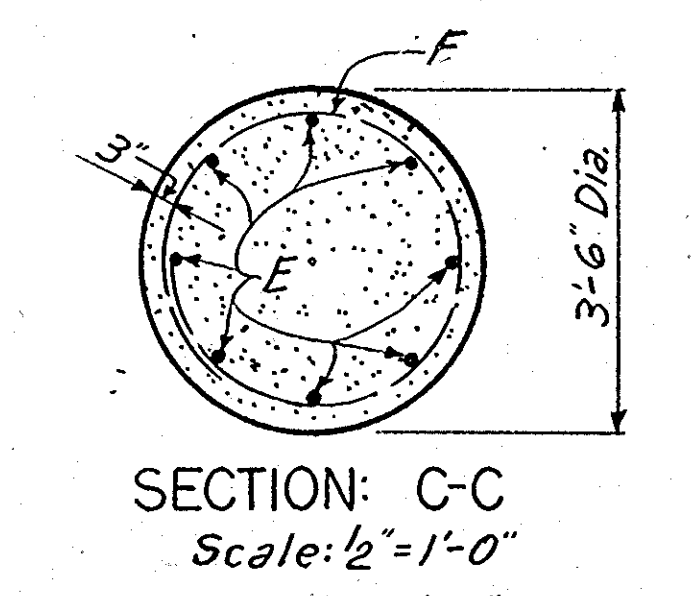
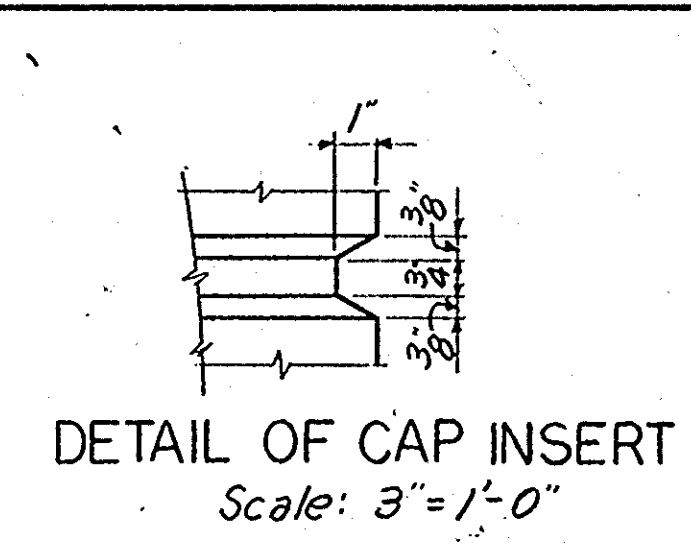
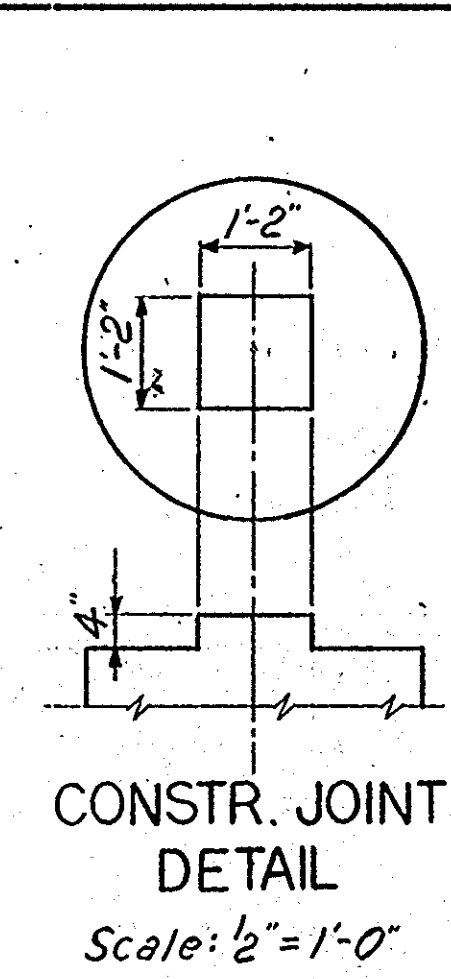
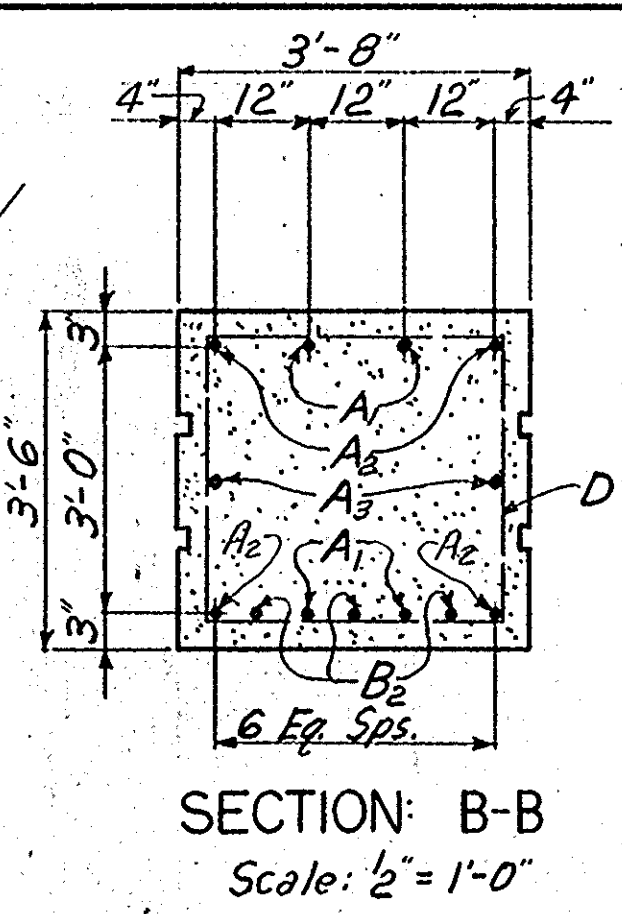
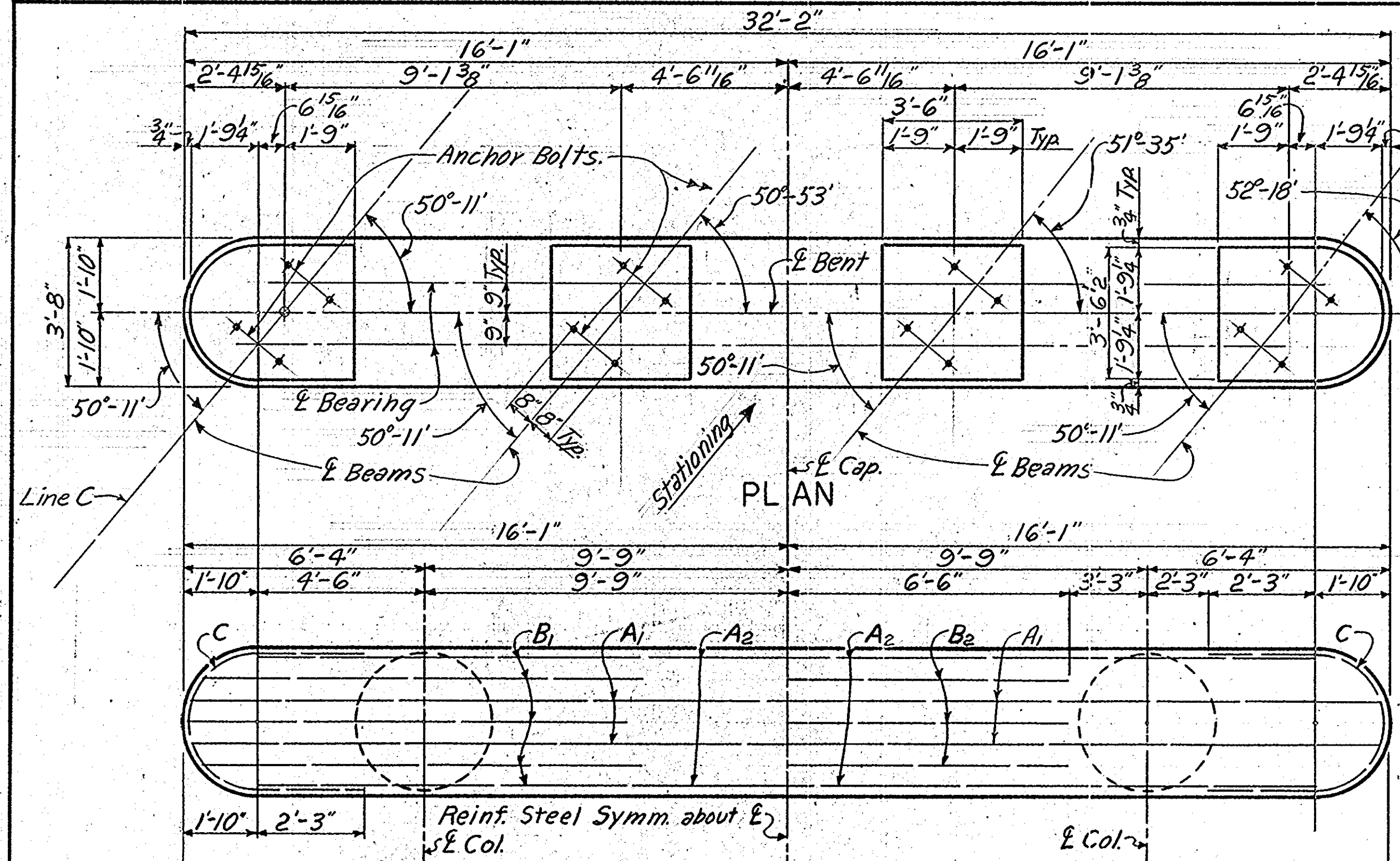


PLAN OF FOOTING (Typical)

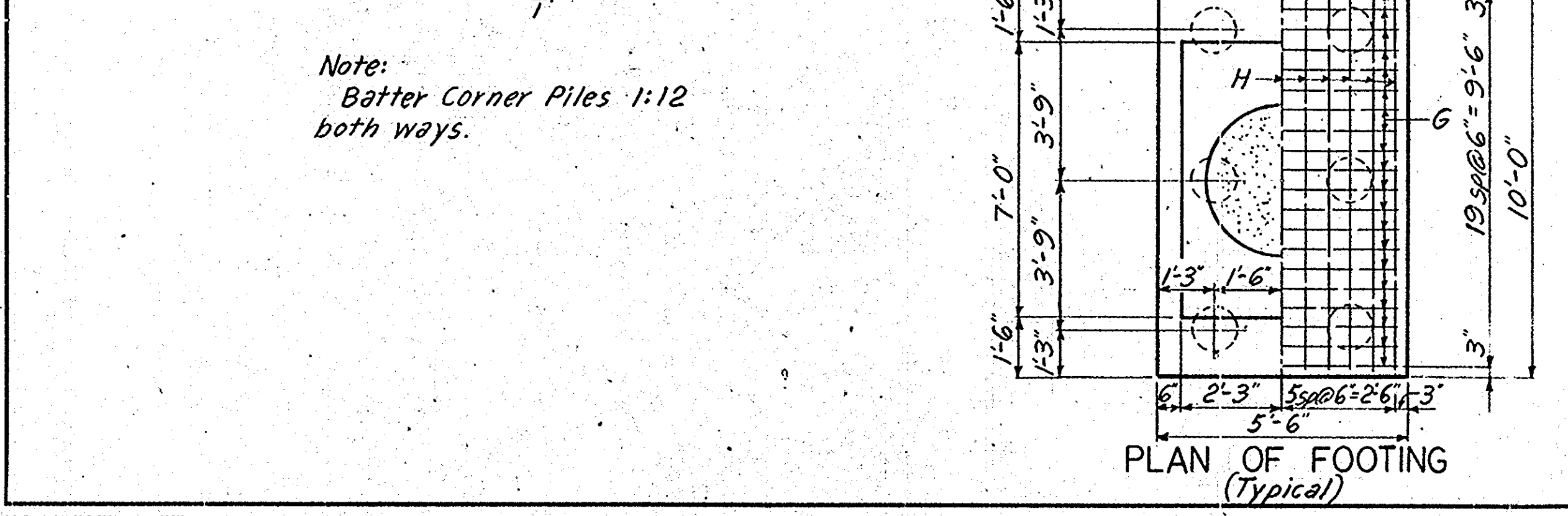
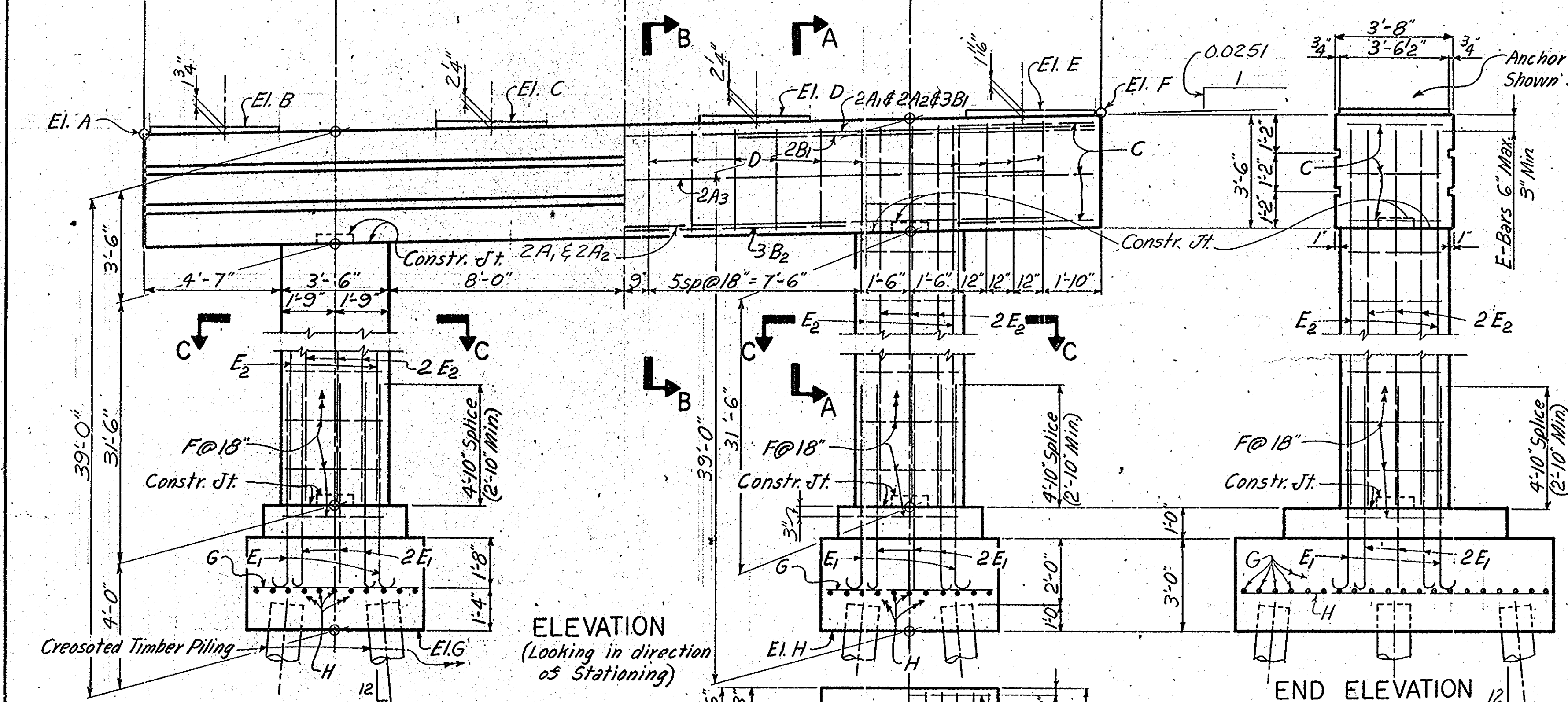
Note:
 Batter Corner Piles 1:12 both ways.

Note:
 Skew this Footing Parallel to 24" Water Main. See Detail "A"

Scale: No Scale, or as Noted			
REV.		S.C. STATE HIGHWAY DEPARTMENT	
REV.		BRIDGE DIVISION	
REV.		COLUMBIA S.C.	
REV.		BENT-C6	
REV.		FOR UNDERPASS UNDER	
REV.		N. SPRUILL INTERCHANGE CONN.	
REVIEWED		DOCKET NO.	COUNTY
QUAN.		10.5213	CHARLESTON
TR.		ROUTE NO.	DATE
DR. WHM	10-64	I-26	10-64
DES. RWH	5-64		
BY	CHK'D	DATE	



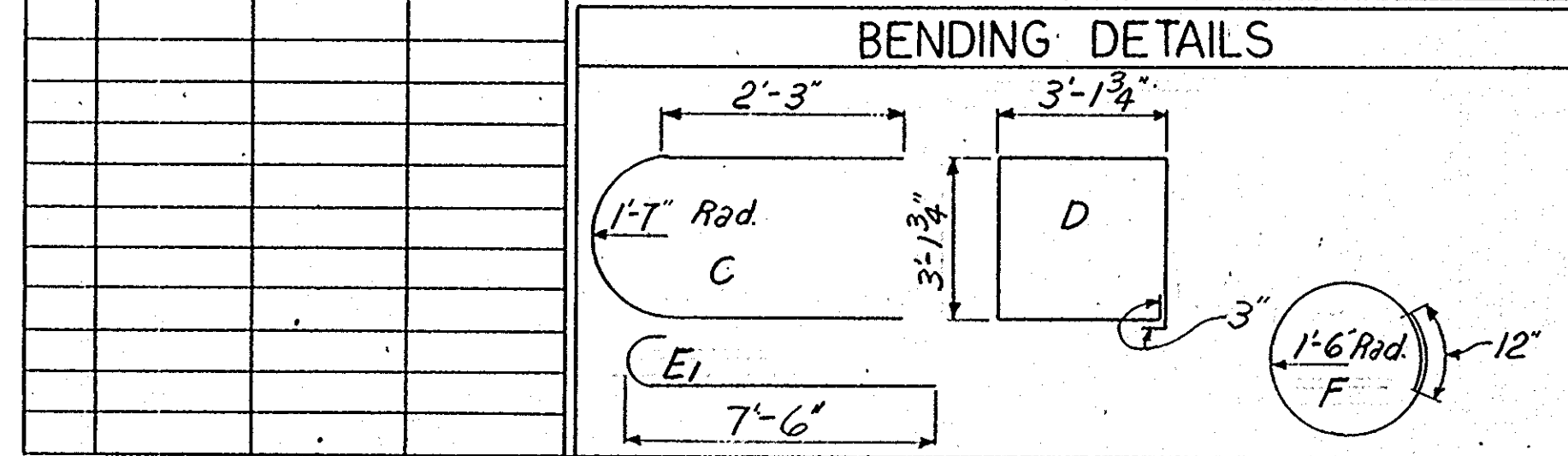
HALF PLAN-SHOWING TOP REINF. STEEL HALF PLAN-SHOWING BOTTOM REINF. STEEL



Note: Batter Corner Piles 1:12 both ways.

Note: Drive Piles to a minimum depth of 11 feet into Marl

ELEVATIONS			REINFORCING STEEL SCHEDULE							
BENT-CIO	BENT	BENT	MARK	SIZE	NO. REQD	LENGTH	NO. REQD	LENGTH	NO. REQD	LENGTH
A 45.325										
B 45.529										
C 45.804										
D 46.033			A1	10	5	4	31'-6"			
E 46.214			A2	10	5	4	28'-6"			
F 46.132			A3	4	5	2	28'-6"			
G 6.484			B1	9	5	10	12'-6"			
H 6.973			B2	7	5	3	13'-0"			
			C	6	8	6	9'-6"			
			D	4	8	20	13'-1"			
			E1	11	8	16	8'-6"			
			E2	11	8	16	34'-9"			
			F	3	8	46	10'-5"			
			G	7	5	40	5'-0"			
			H	7	5	22	9'-6"			



QUANTITIES			
	BENT CIO	BENT	BENT
Concrete Class "A"	C.Y.	51.8	
Reinforcing Steel	Lbs. ①	6615	
Wet & Dry Excavation	C.Y.	55	
Creosoted Timber Piling	L.F.	720	

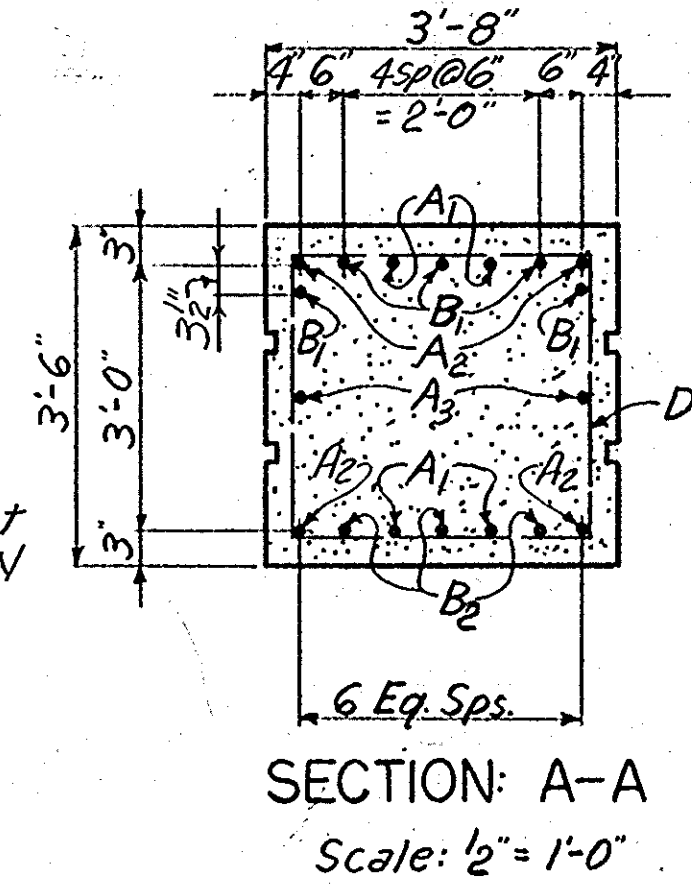
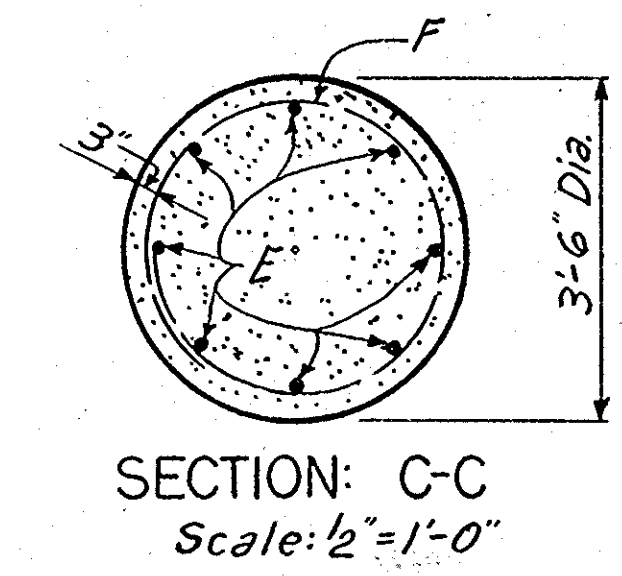
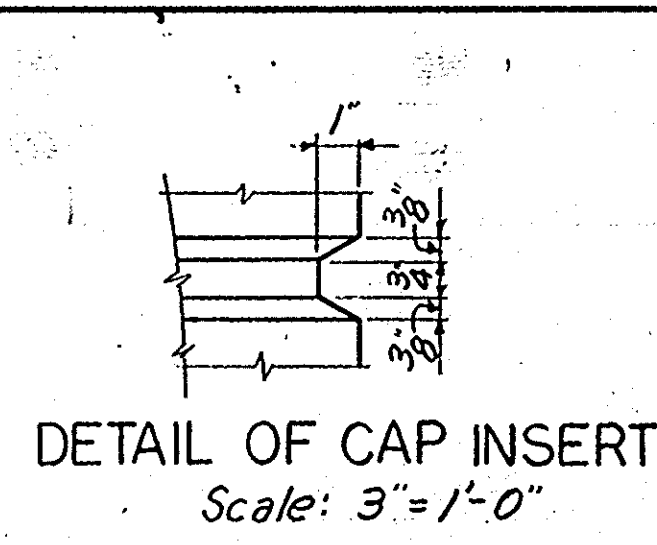
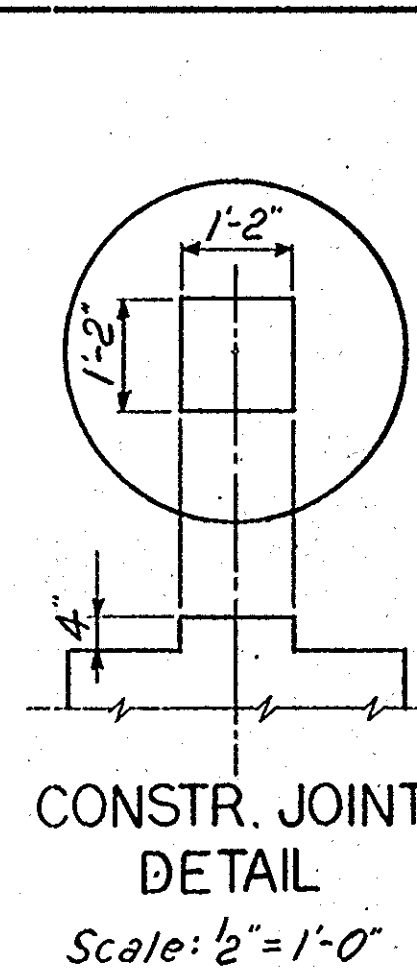
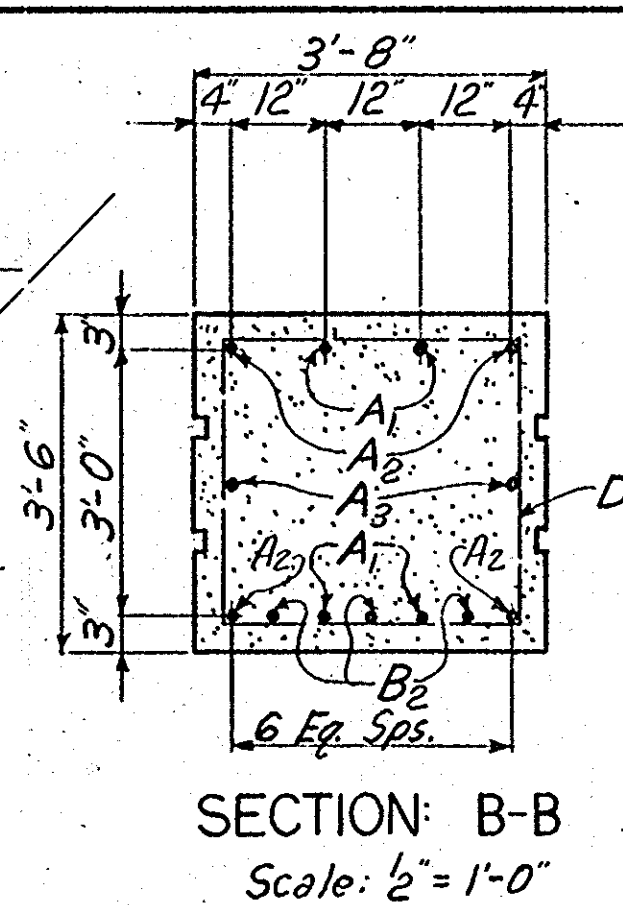
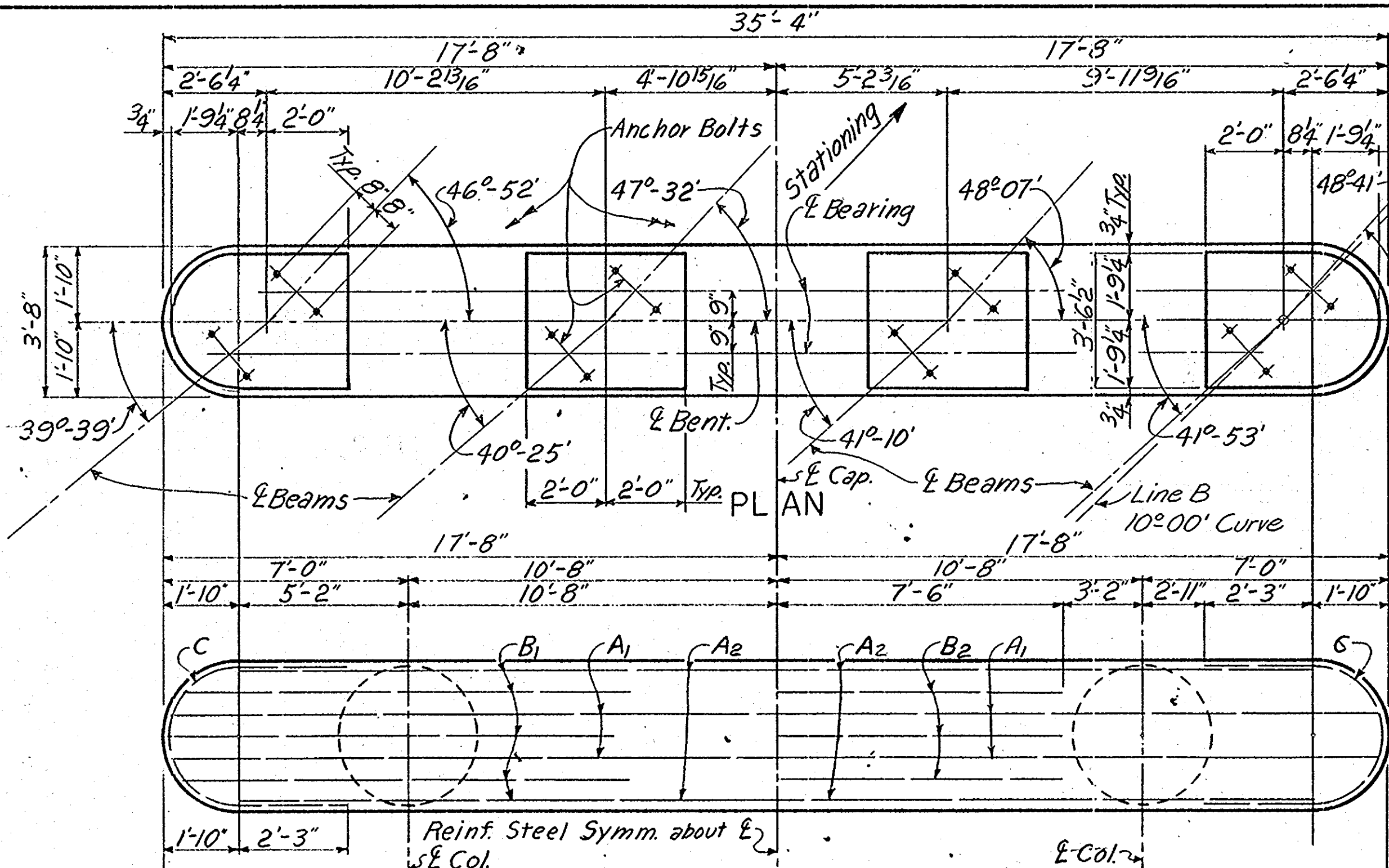
①Includes 86 Lbs. for Anchor Bolt Assemblies.

Notes:
For Standard Notes See Sh. 4.
For Standard Details See Sh. 5.
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details, see Sh. 5

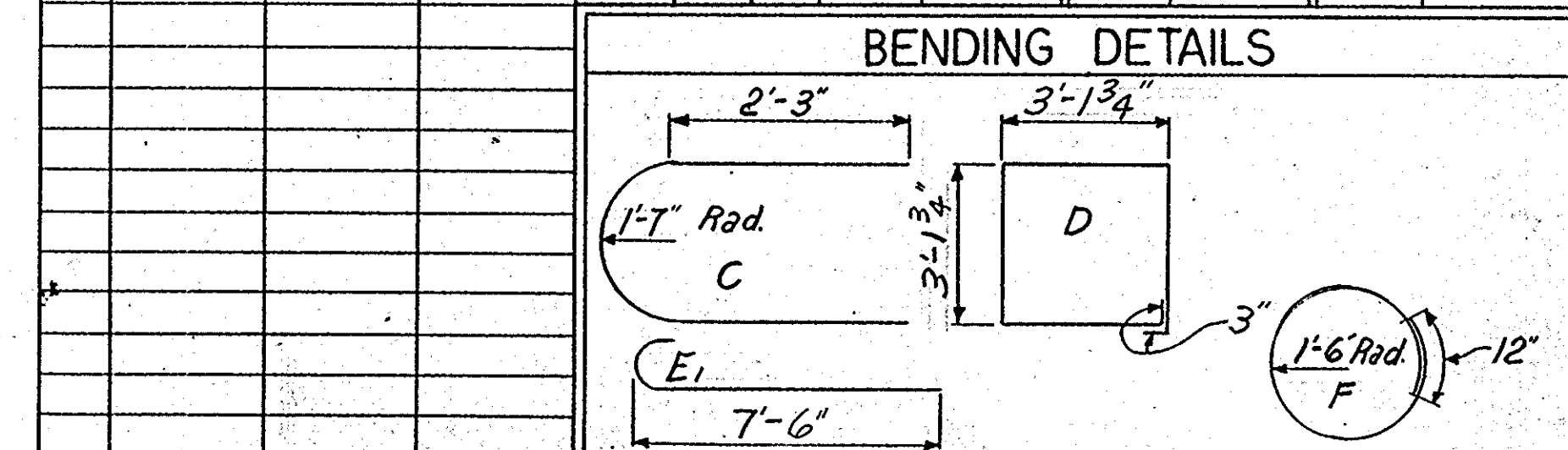
MAXIMUM PILE REACTION	
Dead Load-Superstructure	128K
Live Load	80K
Dead Load-Bent	105K
Back fill (3ft)	14K
Total of Above	327K
Average Bearing	27 1/2 pile
MAX. PILE BEARING DUE TO WIND	
Wind	12 1/2 pile
MAX. CONDITION	
Average Bearing	27 1/2 pile
Wind	12 1/2 pile
Total (125% of Normal Bearing)	39 1/2 pile
Normal Bearing	31 1/2 pile

Scale: No Scale, or as Noted

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		BENT-CIO
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REVIEWED		DOCKET NO. 10.5213
QUAN. BY	EL 3-65	COUNTY CHARLESTON
TR.		ROUTE NO. I-26
DR. WHM	BAM 10-64	DATE 10-64
DES. RWH	WHM 6-64	APPROVED BY
BY	CHK'D DATE	BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER



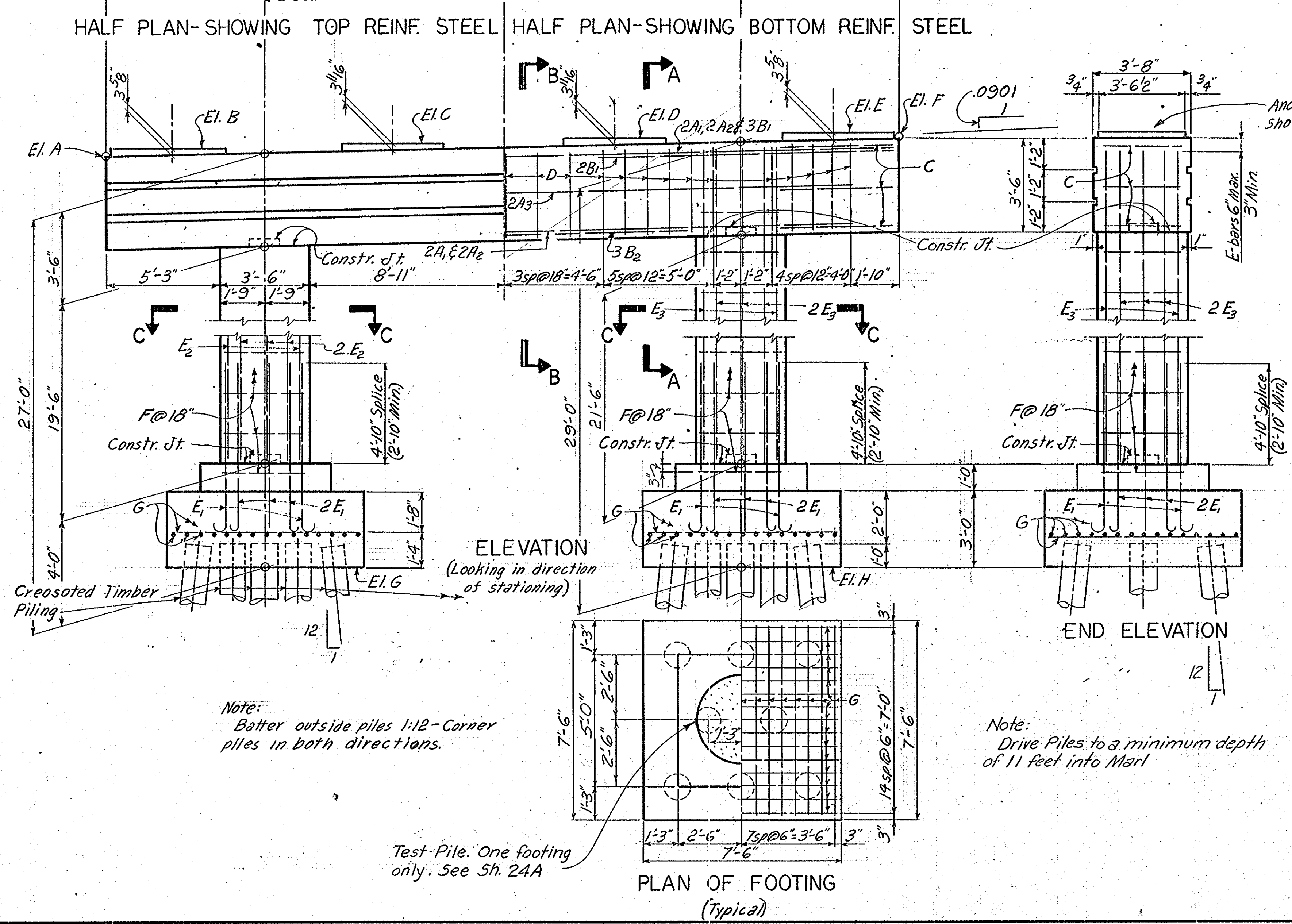
ELEVATIONS				REINFORCING STEEL SCHEDULE								
	BENT-B5	BENT	BENT	MARK	SIZE NO.	D	BENT-B5		BENT		BENT	
A	32.571						NO REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH
B	33.102			A1	10	S	4	34'-9"				
C	34.027			A2	10	S	4	31'-9"				
D	34.939			A3	4	S	2	31'-9"				
E	35.832											
F	35.754			B1	11	S	10	12'-0"				
G	6.202			B2	7	S	3	15'-0"				
H	6.124			C	6	B	6	9'-6"				
				D	4	B	27	13'-1"				
				E1	11	B	16	8'-6"				
				E2	11	S	8	22'-9"				
				E3	11	S	8	24'-9"				
				F	3	B	31	10'-5"				
				G	6	S	60	7'-0"				
	</											



QUANTITIES			
	BENT-B5	BENT	BENT
Concrete Class A	C.Y.	45.5	
Reinforcing Steel	Lbs. ①	5818	
Wet & Dry Excavation	C.Y.	80	
Creosoted Timber Piling	L.F.	960	

①Includes 86 Lbs. for Anchor Bolt Assemblies.

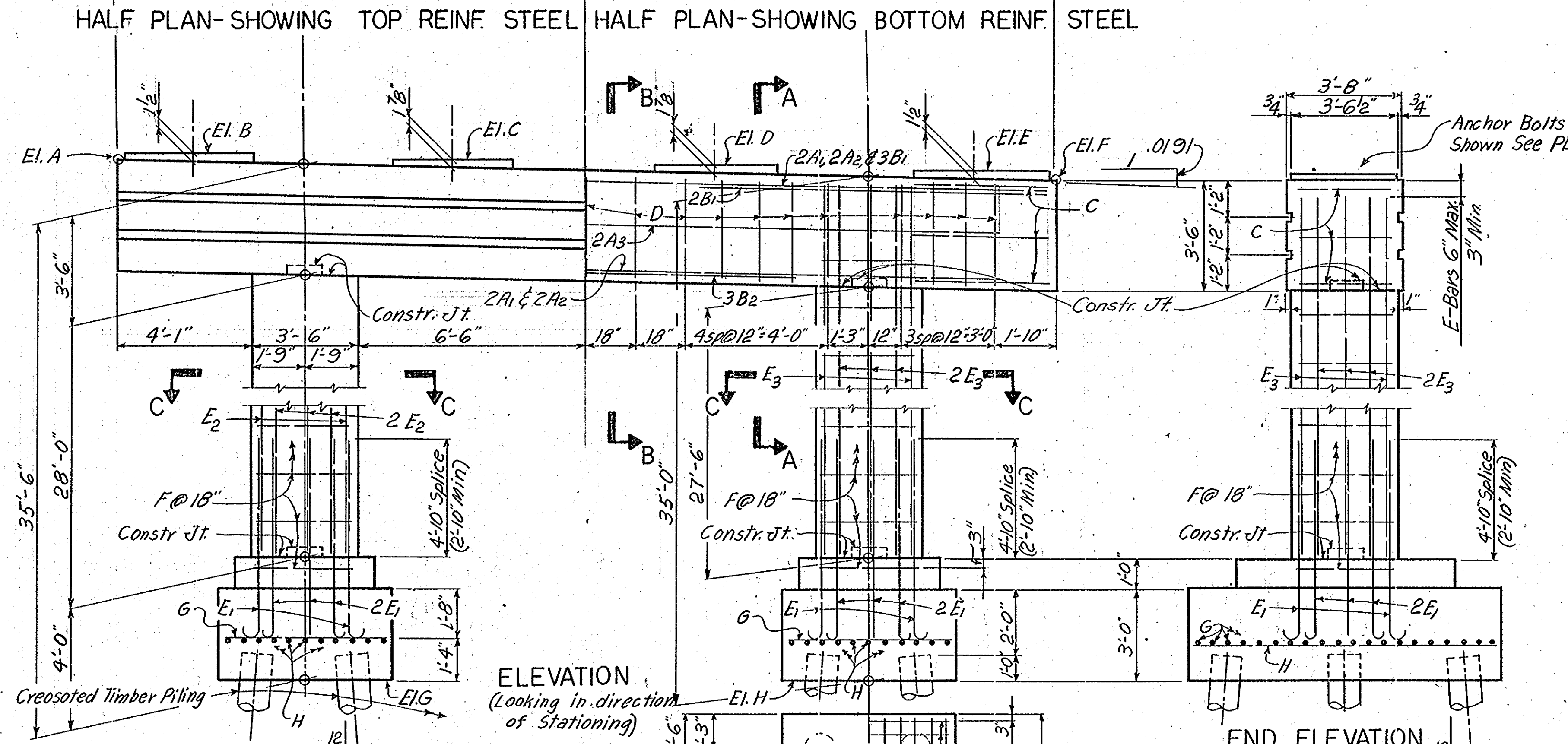
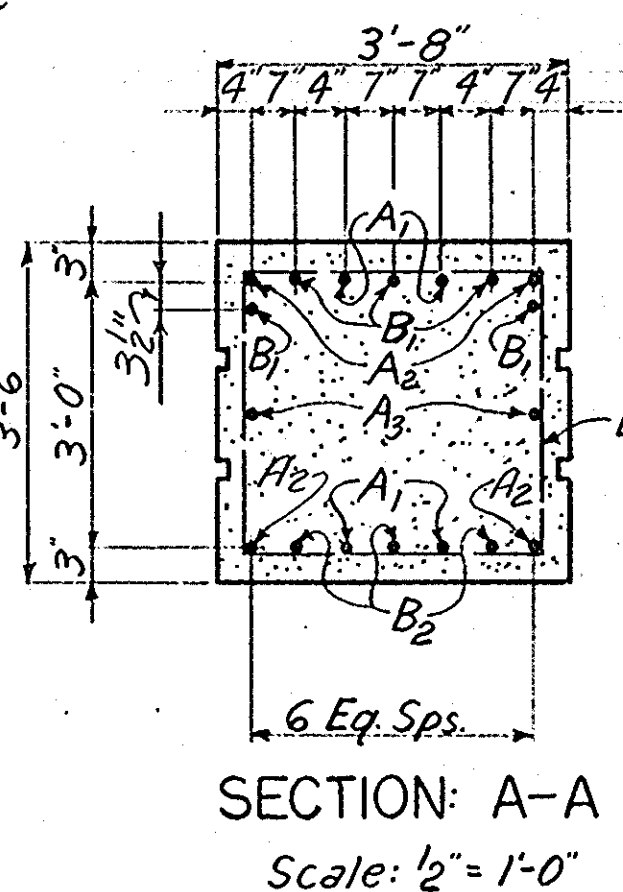
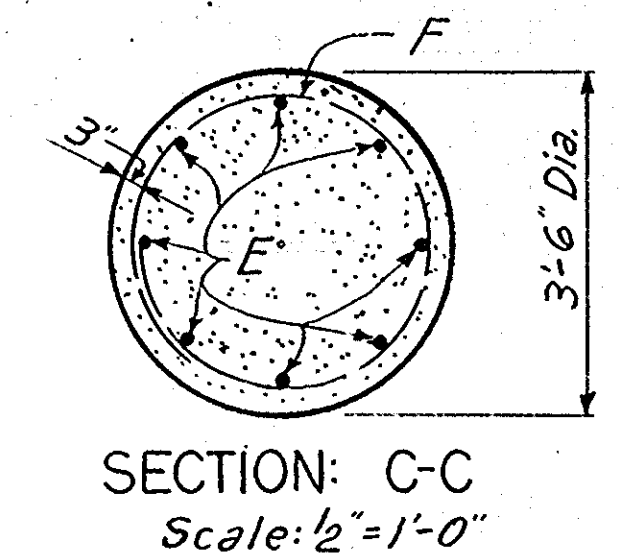
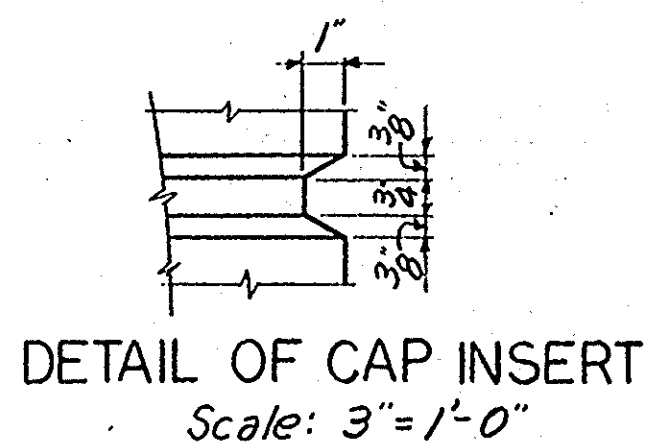
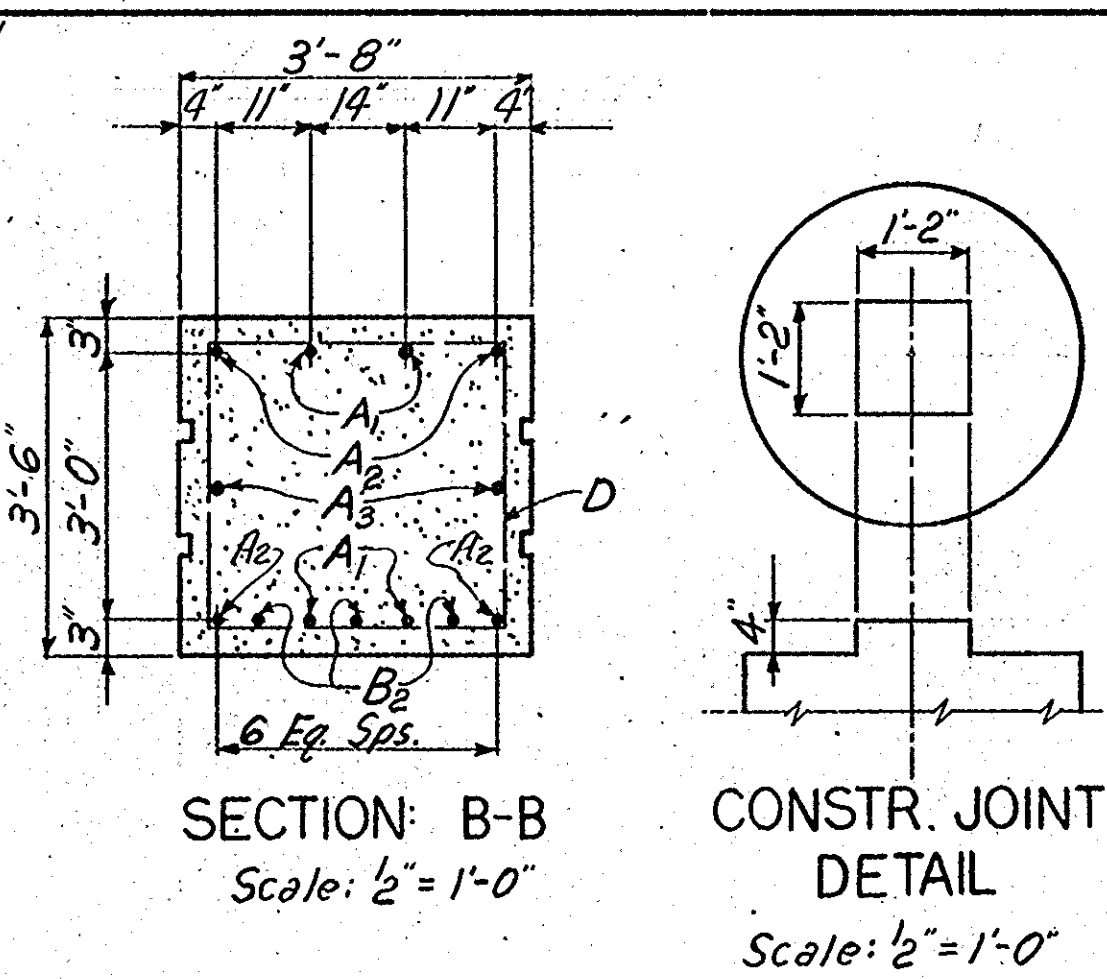
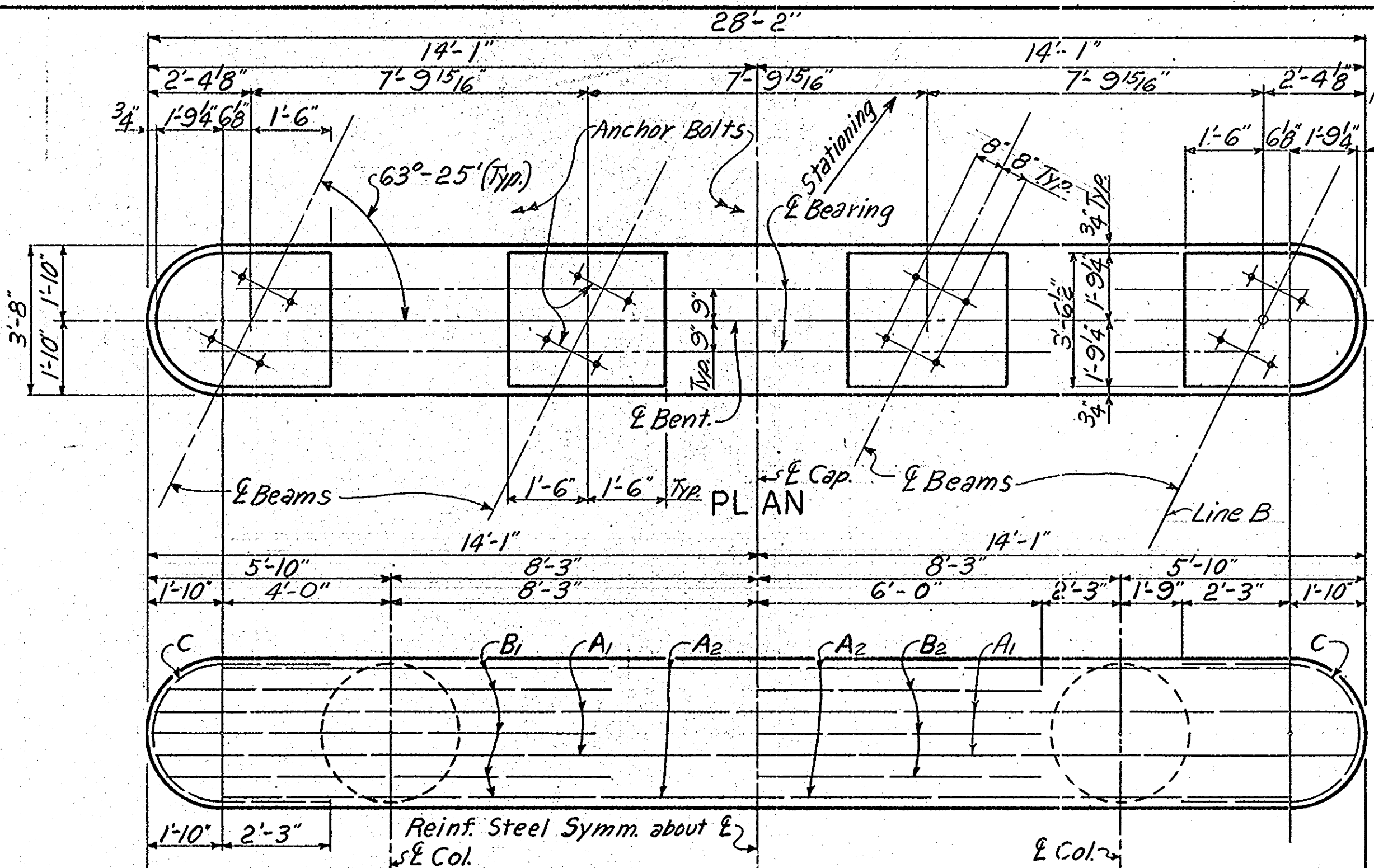
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details, see Sh. 5



MAXIMUM PILE REACTION	
Dead Load-Superstructure	164 ^K
Live Load	86 ^K
Dead Load-Bent	97 ^K
Backfill (5ft)	26 ^K
Total of Above	373 ^K
Average Bearing	23 ^{pile}
MAX. PILE BEARING DUE TO WIND	
Wind	14 ^{pile}
MAX. CONDITION	
Average Bearing	23 ^{pile}
Wind	14 ^{pile}
Total (125% of Normal Bearing)	37 ^{pile}
Normal Bearing	30 ^{pile}

Scale: No Scale, or as Noted

REV.	DATE	BY	CHK'D	DATE	BRIDGE DESIGN & PLANS ENGINEER
REV.					
REV.					
REV.					
REVIEWED					
QUAN. IN CHARGE					
TR.					
DES.					
BY					

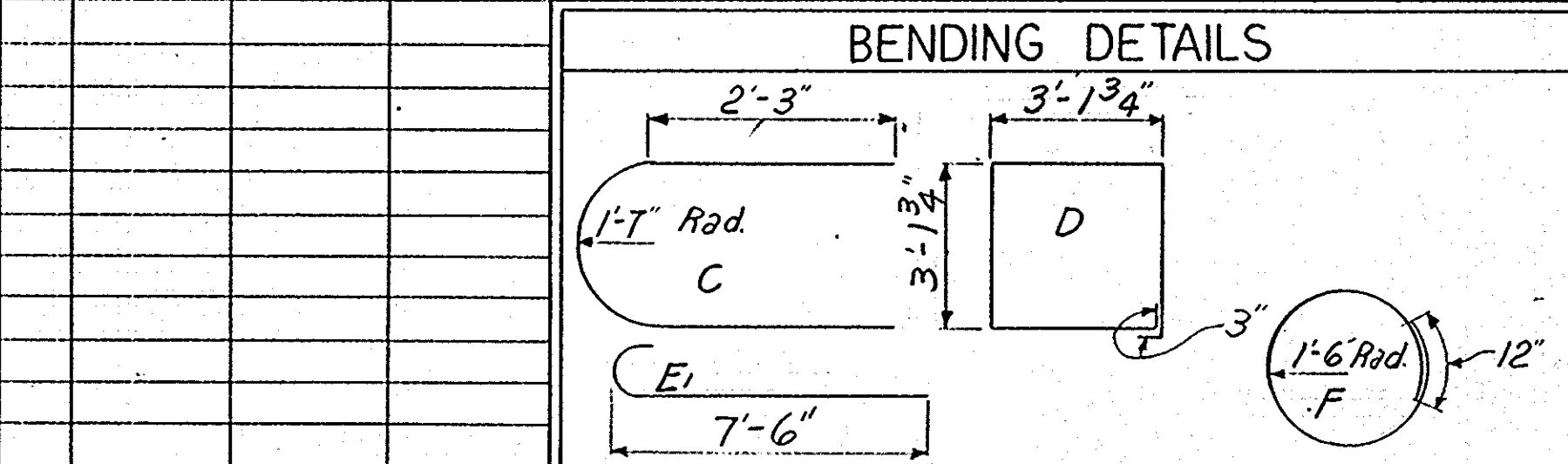


Note: Batter Corner Piles 1:12 both ways.

Note: Drive Piles to a minimum depth of 11 feet into Marl

MAXIMUM PILE REACTION	
Dead Load-Superstructure	140K
Live Load	80K
Dead Load-Bent	98K
Backfill (3ft)	14K
Total of Above	332K
Average Bearing	287/pile
MAX. PILE BEARING DUE TO WIND	
Wind	127/pile
MAX. CONDITION	
Average Bearing	287/pile
Wind	127/pile
Total (125% of Normal Bearing)	407/pile
Normal Bearing	327/pile

ELEVATIONS			REINFORCING STEEL SCHEDULE					
BENT-B8	BENT	BENT	MARK	SIZE NO.	D	BENT B8	BENT	BENT
A 43.311						NO. REQD	LENGTH	NO. REQD
B 43.393								
C 43.272								
D 43.122			A1	9	5	4	27'-7"	
E 42.944			A2	9	5	4	24'-7"	
F 42.773			A3	4	5	2	24'-7"	
G 7.700			B1	11	5	10	9'-6"	
H 7.884			B2	7	5	3	12'-0"	
			C	6	8	6	9'-6"	
			D	4	8	21	13'-1"	
			E1	11	8	16	8'-6"	
			E2	11	8	8	31'-3"	
			E3	11	8	8	30'-9"	
			F	3	8	40	10'-5"	
			G	7	5	40	5'-0"	
			H	7	5	22	9'-6"	



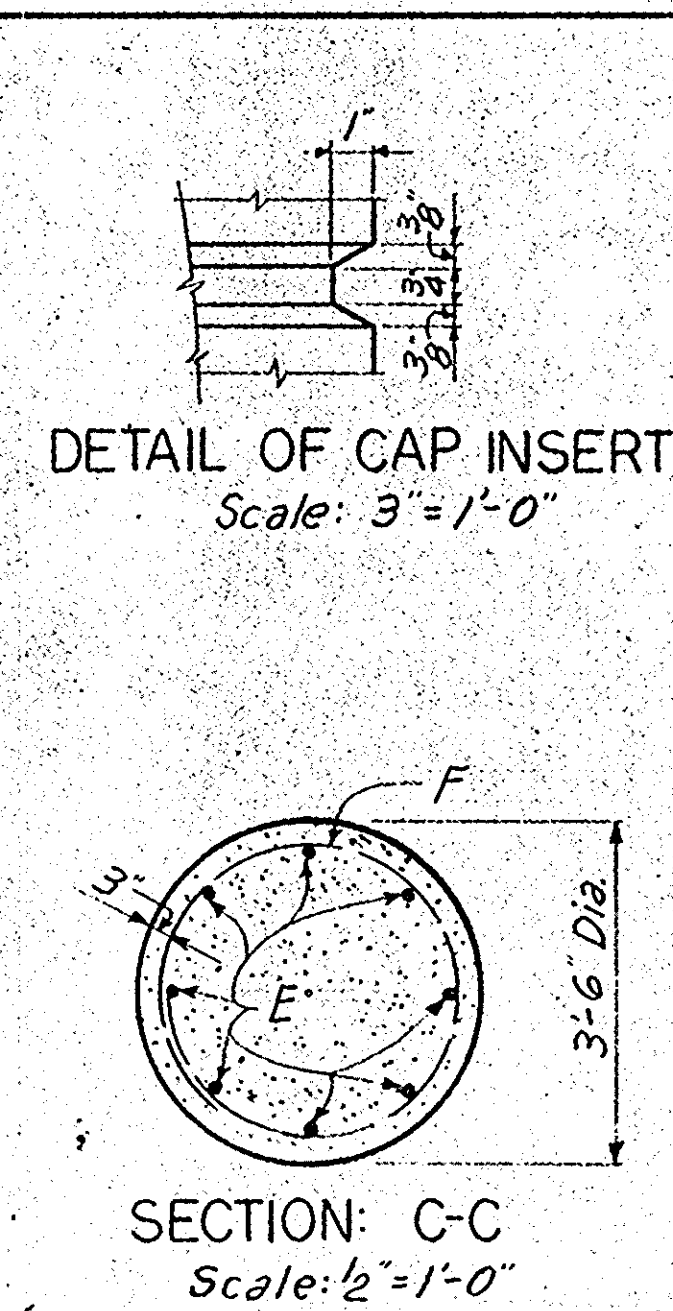
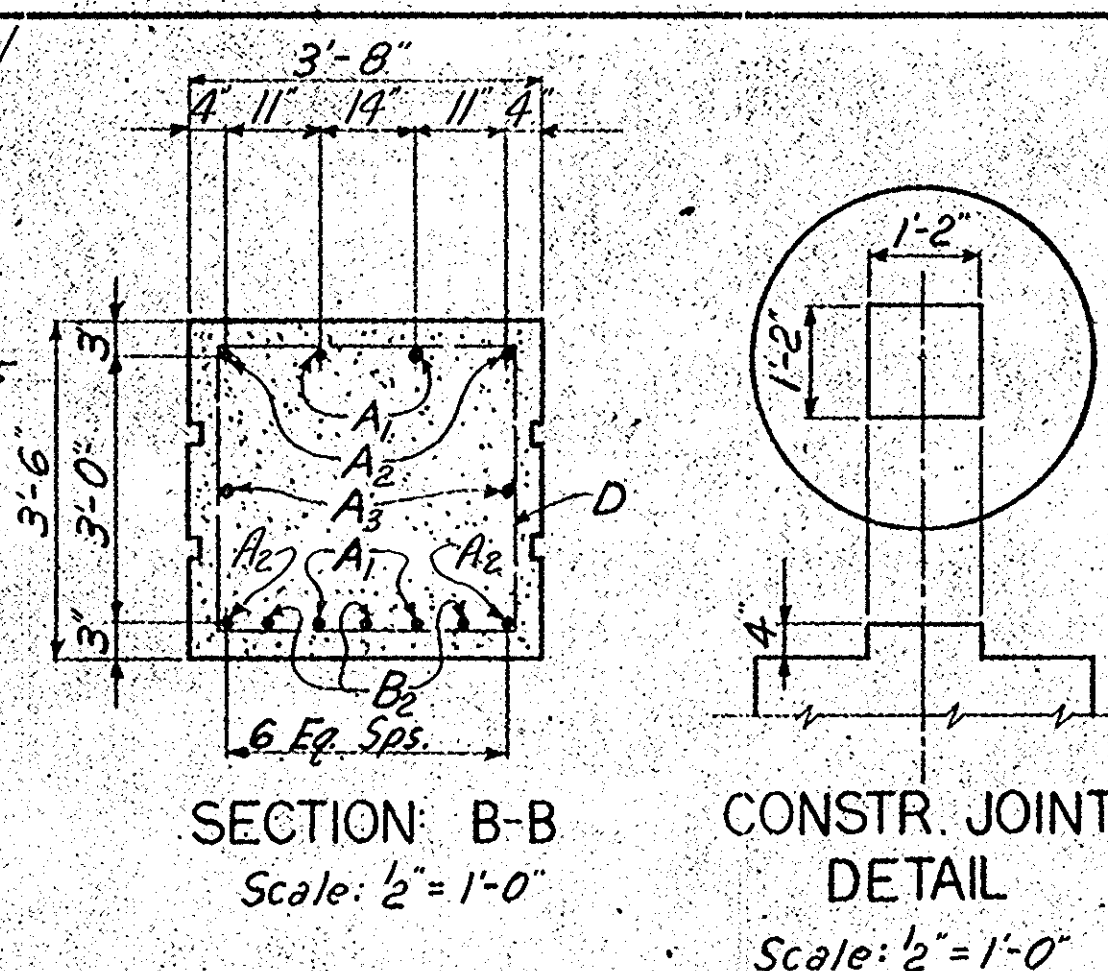
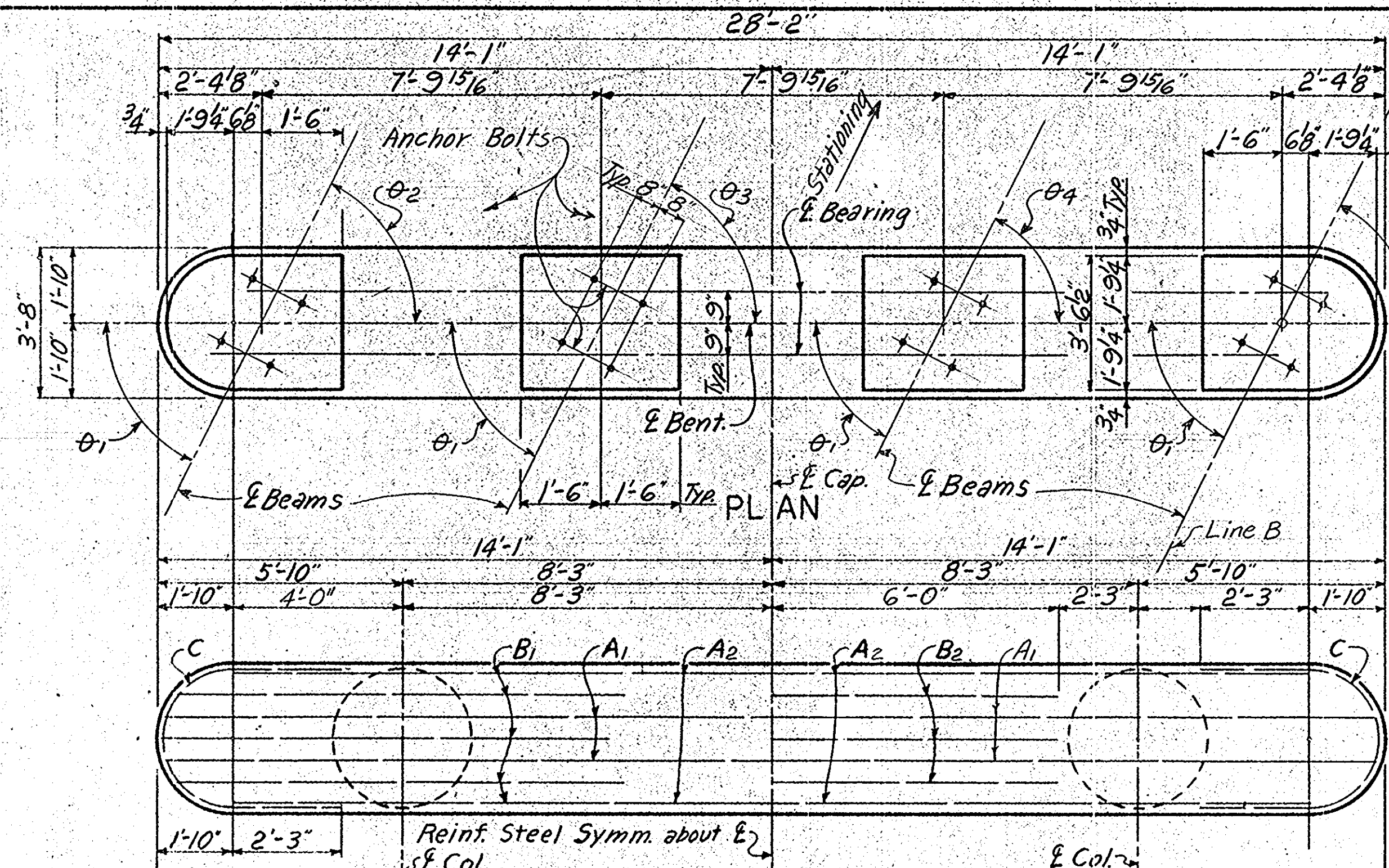
QUANTITIES			
	BENT B8	BENT	BENT
Concrete Class "A"	C.Y.	47.2	
Reinforcing Steel	Lbs.	6026	
Wet & Dry Excavation	C.Y.	50	
Crepsoated Timber Piling	L.F.	720	

Includes 86 Lbs. for Anchor Bolt Assemblies.

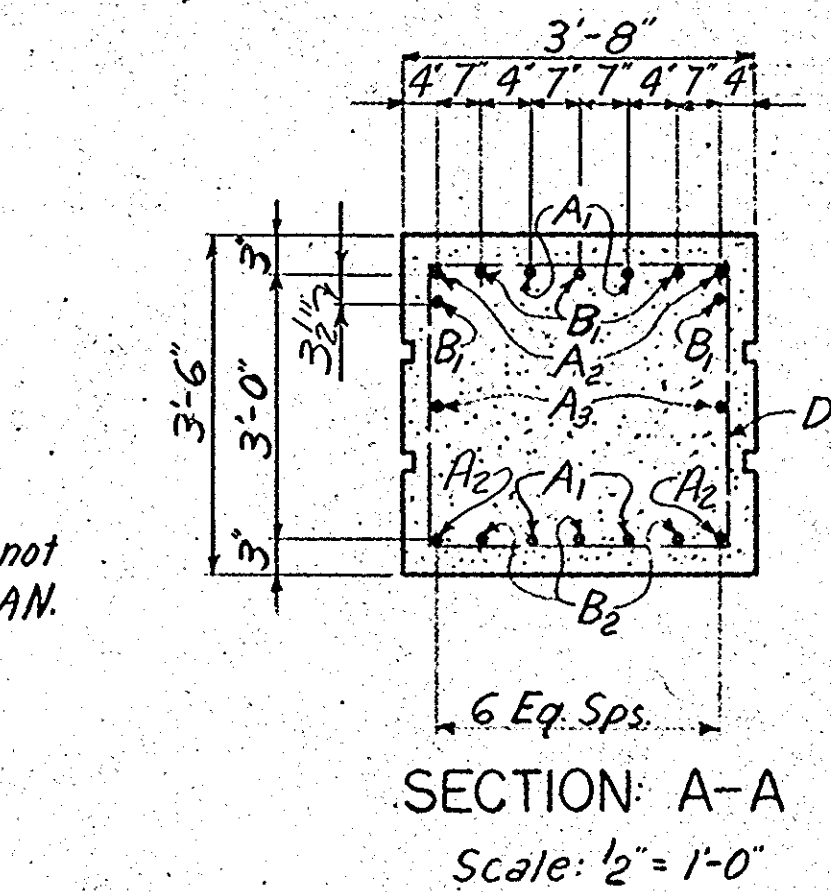
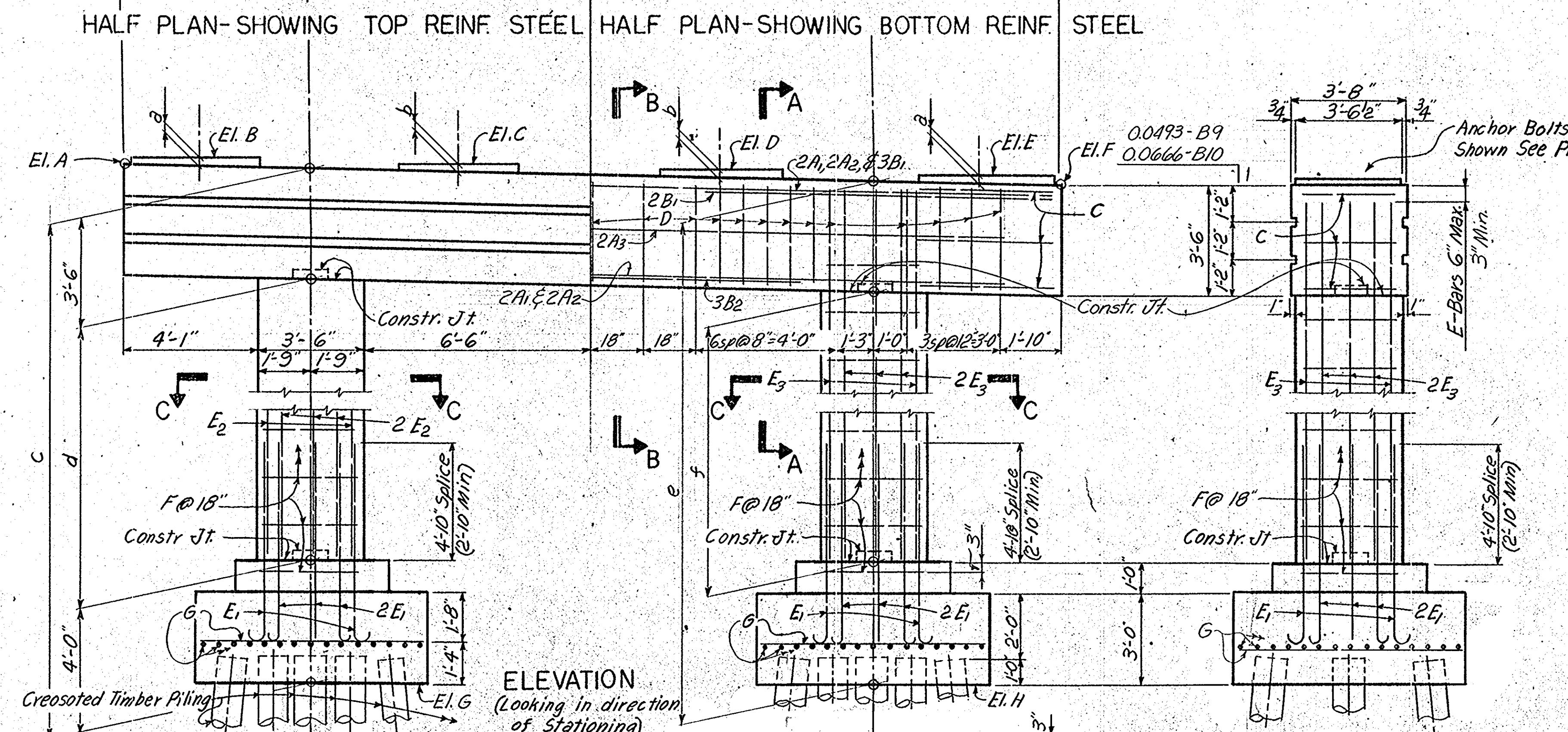
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details, see Sh. 5

Scale: No Scale, or as Noted.

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		BENT-B8
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REVIEWED	IN CHARGE	DOCKET NO. COUNTY ROUTE NO. DATE
QUAN. BY	ELC 3-65	10.5213 CHARLESTON I-26 10-64
TR.		APPROVED BY
DR. WHM	10-64	APPROVED BY
DES. RWH	WHM 6-64	BRIDGE DESIGN & PLANS ENGINEER
BY	CHK'D DATE	BRIDGE ENGINEER

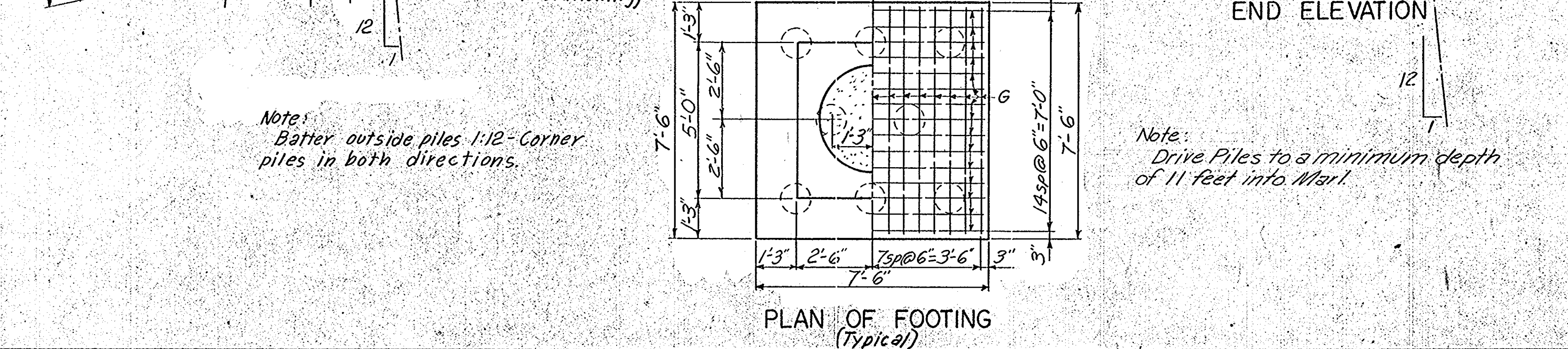


ELEVATIONS			REINFORCING STEEL SCHEDULE										
	BENT-B9	BENT-B10	BENT	MARK	SIZE	NO.	D	BENT-B9		BENT-B10		BENT	
								NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH
A	44.972	45.724											
B	45.052	45.803											
C	44.685	45.290											
D	44.298	44.768		A1	10	S	4	27'-7"	4	27'-7"			
E	43.894	44.240		A2	10	S	4	24'-7"	4	24'-7"			
F	43.583	43.848		A3	4	S	2	24'-7"	2	24'-7"			
G	7.684	6.835											
H	7.871	6.736		B1	11	S	10	10'-0"	10	10'-0"			
				B2	7	S	3	12'-0"	3	12'-0"			
				C	6	B	6	9'-6"	6	9'-6"			
				D	4	B	25	13'-1"	25	13'-1"			
				E1	11	B	16	8'-6"	16	8'-6"			
				E2	11	S	8	32'-9"	8	34'-3"			
				E3	11	S	8	31'-9"	8	33'-3"			
				F	3	B	42	10'-5"	44	10'-5"			
				G	6	S	60	7'-0"	60	7'-0"			
					</								



DIMENSIONS				BENDING DETAILS			
BENT-B9	BENT-B10	BENT					
a	2'-8"	2'-13/16"					
b	2'-9/16"	2'-13/16"					
c	3'-7'-0"	3'-8'-6"					
d	2'-9'-6"	3'-1'-0"					
e	3'-6'-0"	3'-7'-6"					
f	2'-8'-6"	3'-0'-0"					

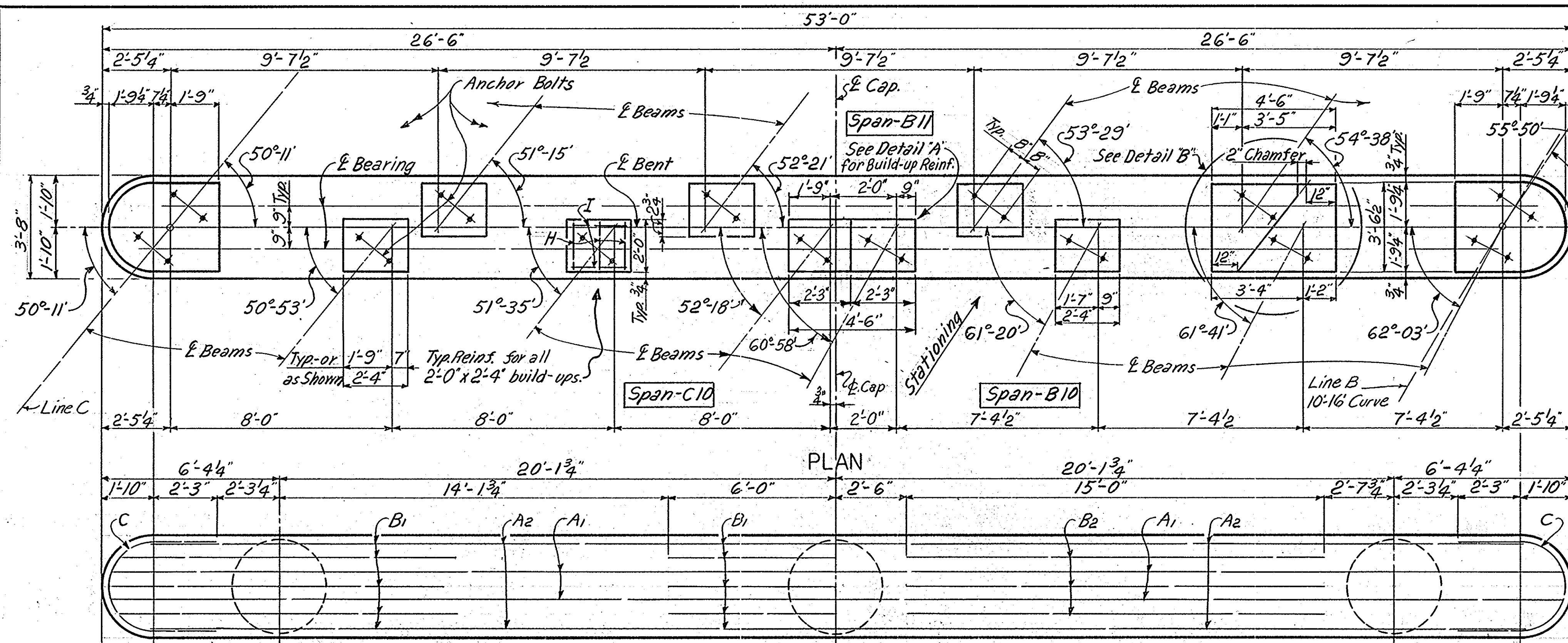
QUANTITIES			
	BENT-B9	BENT-B10	BENT
Concrete Class "A"	C.Y. 47.9	49.0	
Reinforcing Steel	Lbs. 6185	6320	
Wet & Dry Excavation	C.Y. 50	50	
Crested Timber Piling	LF 960	960	



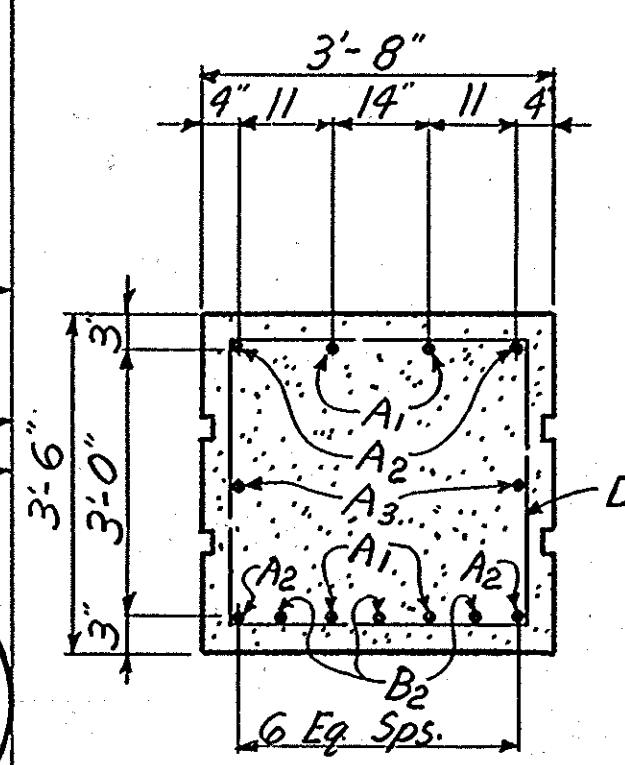
MAXIMUM PILE REACTION	
Dead Load-Superstructure	158K
Live Load	91K
Dead Load-Bent	97K
Backfill (3ft)	26K
Total of Above	372K
Average Bearing	237/pile
MAX. PILE BEARING DUE TO WIND	
Wind	137/pile
MAX. CONDITION	
Average Bearing	237/pile
Wind	137/pile
Total (125% of Normal Bearing)	367/pile
Normal Bearing	297/pile

Notes:
 For Standard Notes See Sh. 4
 For Standard Details See Sh. 5
 Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of splices.
 For Anchor Bolt Details, see Sh. 5

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
BENTS: B9 & B10			
FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.		DOCKET NO.	ROUTE NO. DATE
REV.		10.5213	CHARLESTON I-26 10-64
REV.			
REV.			
REVIEWED	IN CHARGE	APPROVED BY	APPROVED BY
QUAN. BY	ELLS 3-65	DR. WHM	AM 10-64
TR.		DES. RWH	WHM 7-64
BY	CHK'D DATE	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER



DETAIL "A"

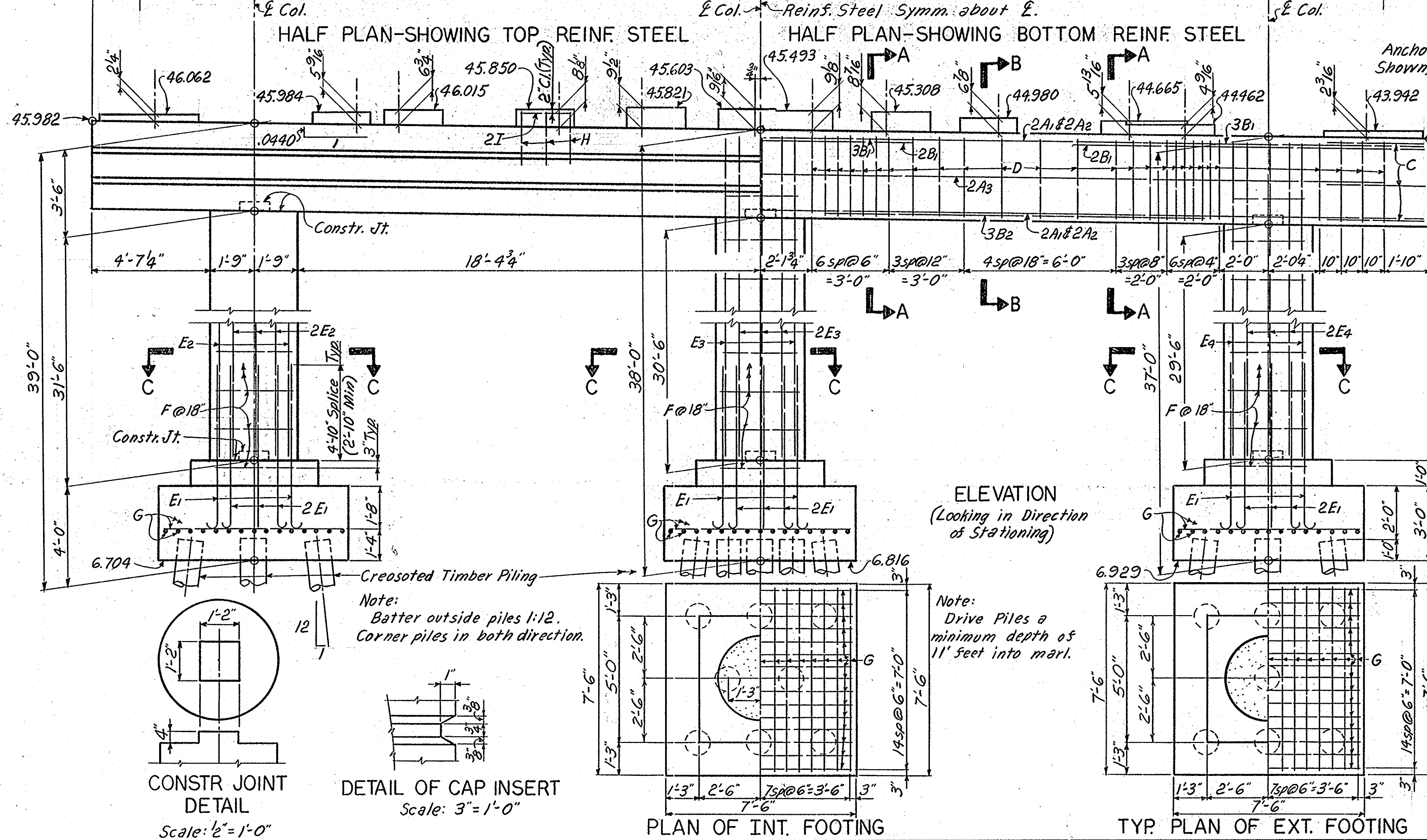


MAXIMUM PILE REACTION				INT.	EXT.	REINFORCING STEEL SCHEDULE				
Dead Load-Superstructure				217 ^K	158 ^K	BENT: B-II				
Live Load				124 ^K	82 ^K					
Dead Load-Bent				114 ^K	104 ^K	MARK	SIZE NO.	D	NO REQD	LENGTH
Backfill (3ft)				15 ^K	15 ^K					
Total of Above				470 ^K	359 ^K	A ₁	10	S	4	52'-5"
Average Bearing				29 ^{/pile}	26 ^{/pile}	A ₂	10	S	4	49'-4"
MAX. PILE BEARING DUE TO WIND						A ₃	4	S	2	49'-4"
Wind				9 ^{/pile}	10 ^{/pile}	B ₁	10	S	15	12'-0"
MAX. CONDITION						B ₂	9	S	6	15'-0"
Average Bearing				29 ^{/pile}	26 ^{/pile}	C	6	B	6	9'-6"
Wind				9 ^{/pile}	10 ^{/pile}	D	4	B	54	13'-1"
Total (125% of Normal Bearing)				38 ^{/pile}	36 ^{/pile}	E ₁	11	B	24	8'-6"
Normal Bearing				30 ^{/pile}	29 ^{/pile}	E ₂	11	S	8	34'-9"
BENDING DETAILS						E ₃	11	S	8	33'-9"
<p>2'-3"</p> <p>3'-1 3/4"</p> <p>1'-8"</p> <p>1'-7" Rad</p> <p>3'-1 3/4"</p> <p>2'-0"</p> <p>3"</p> <p>7'-6"</p> <p>1'-6" Rad</p> <p>12"</p>				E ₄	11	S	8	32'-9"		
				F	3	B	66	10'-5"		
				G	6	S	30	7'-0"		
				H	4	B	28	5'-8"		
				I	4	S	20	2'-0"		

QUANTITIES		
BENT: B-II		
Concrete Class "A"	C.Y.	79.6
Reinforcing Steel	Lbs.	10,330
Wet & Dry Excavation	C.Y.	80
Crested Timber Piling	L.F.	1320

Includes 150 Lbs. for Anchor Bolt Assemblies.

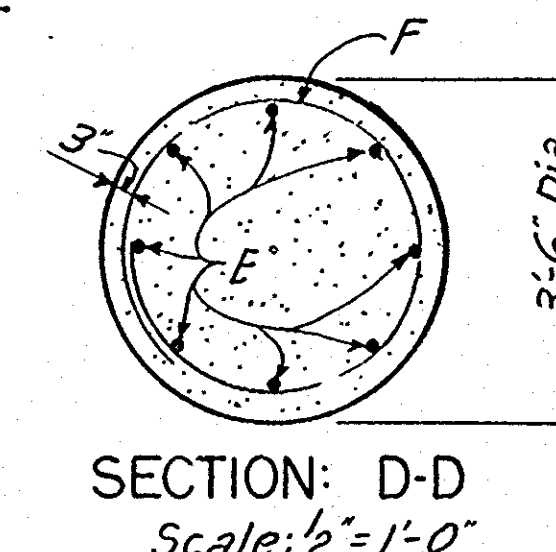
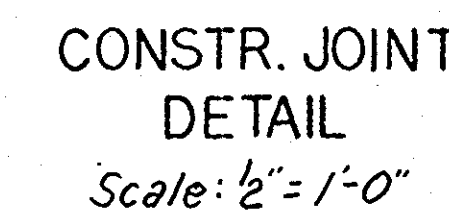
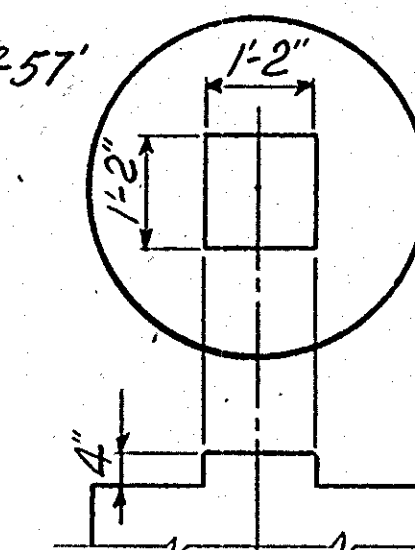
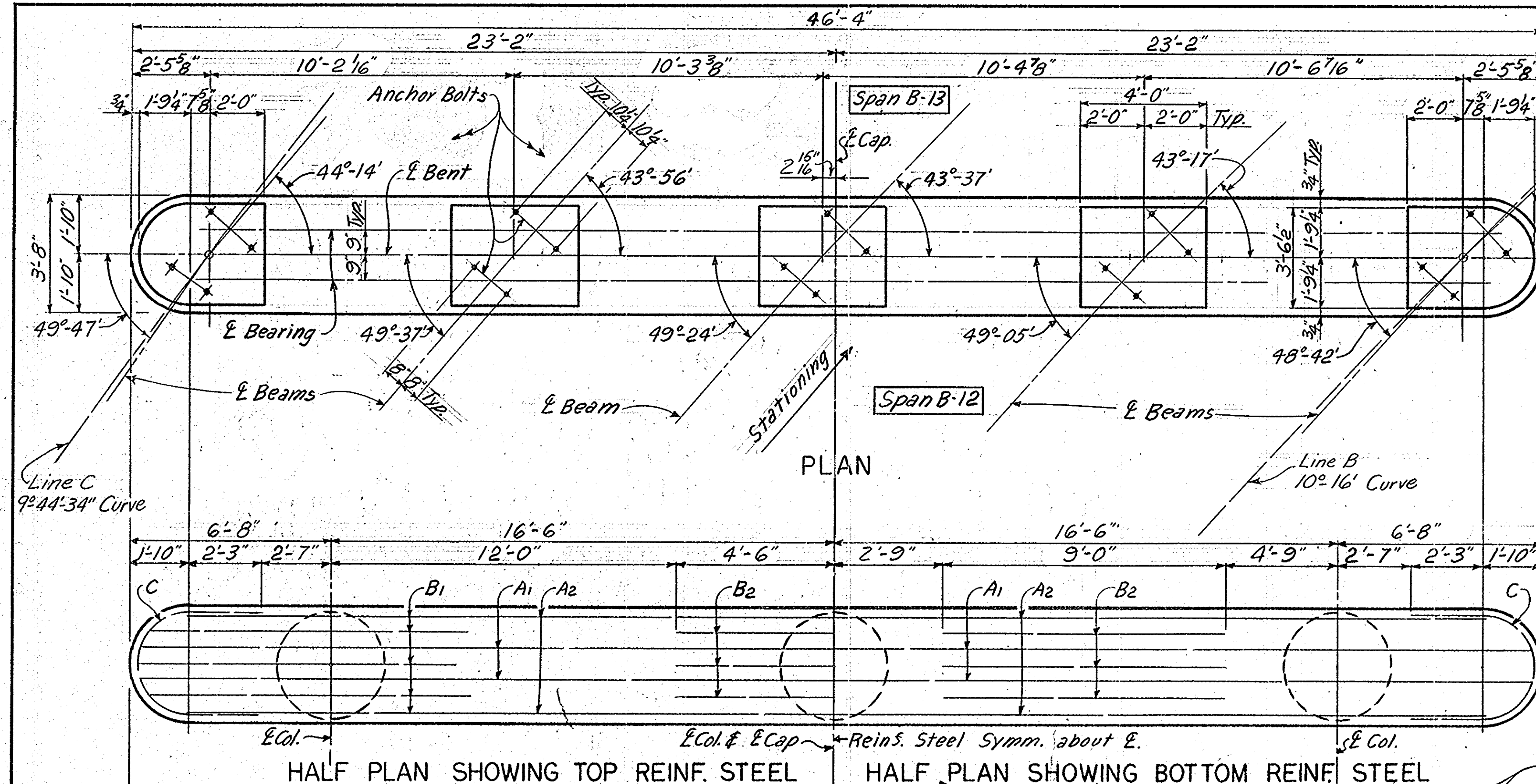
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details, see Sh. 5



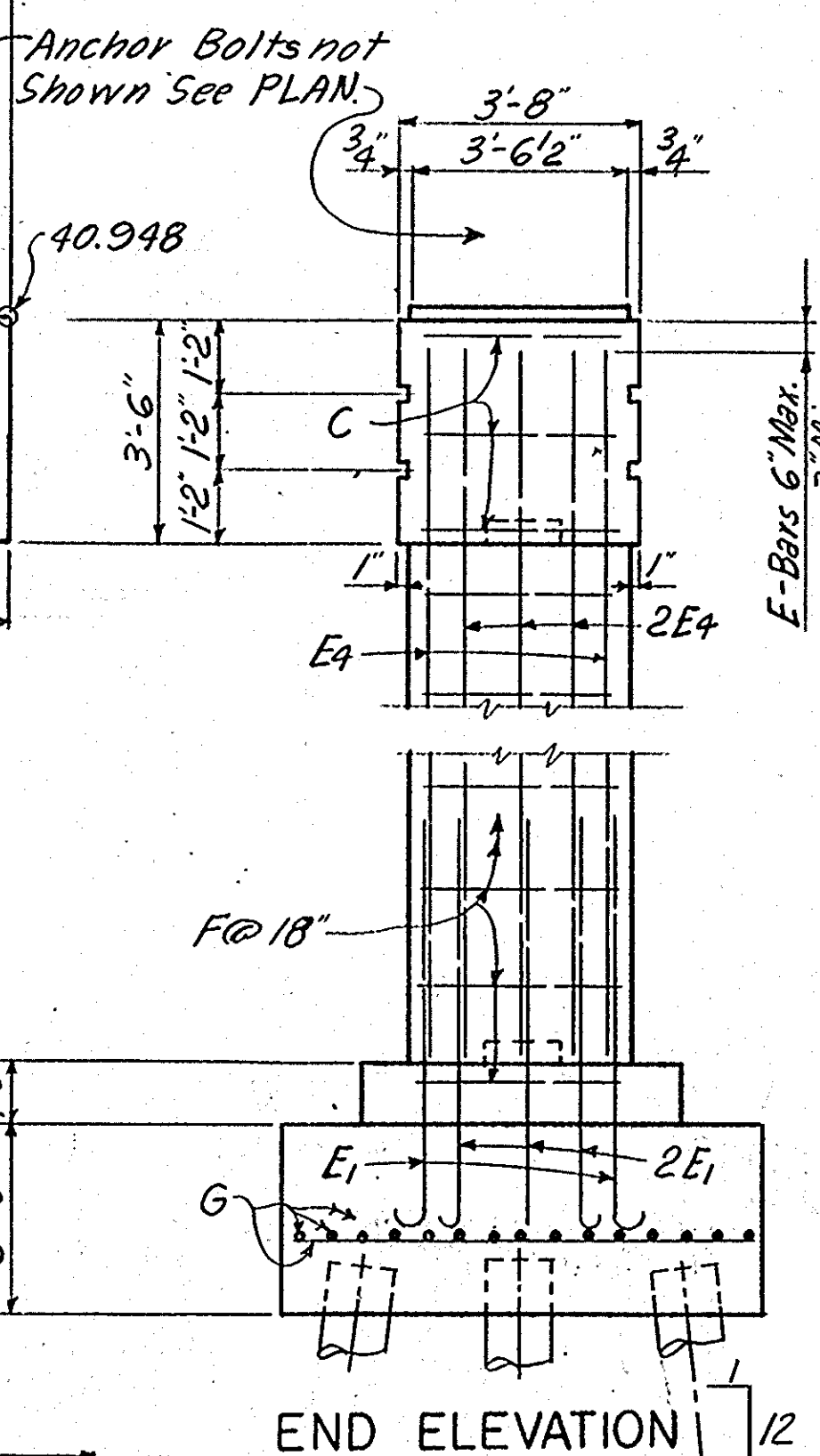
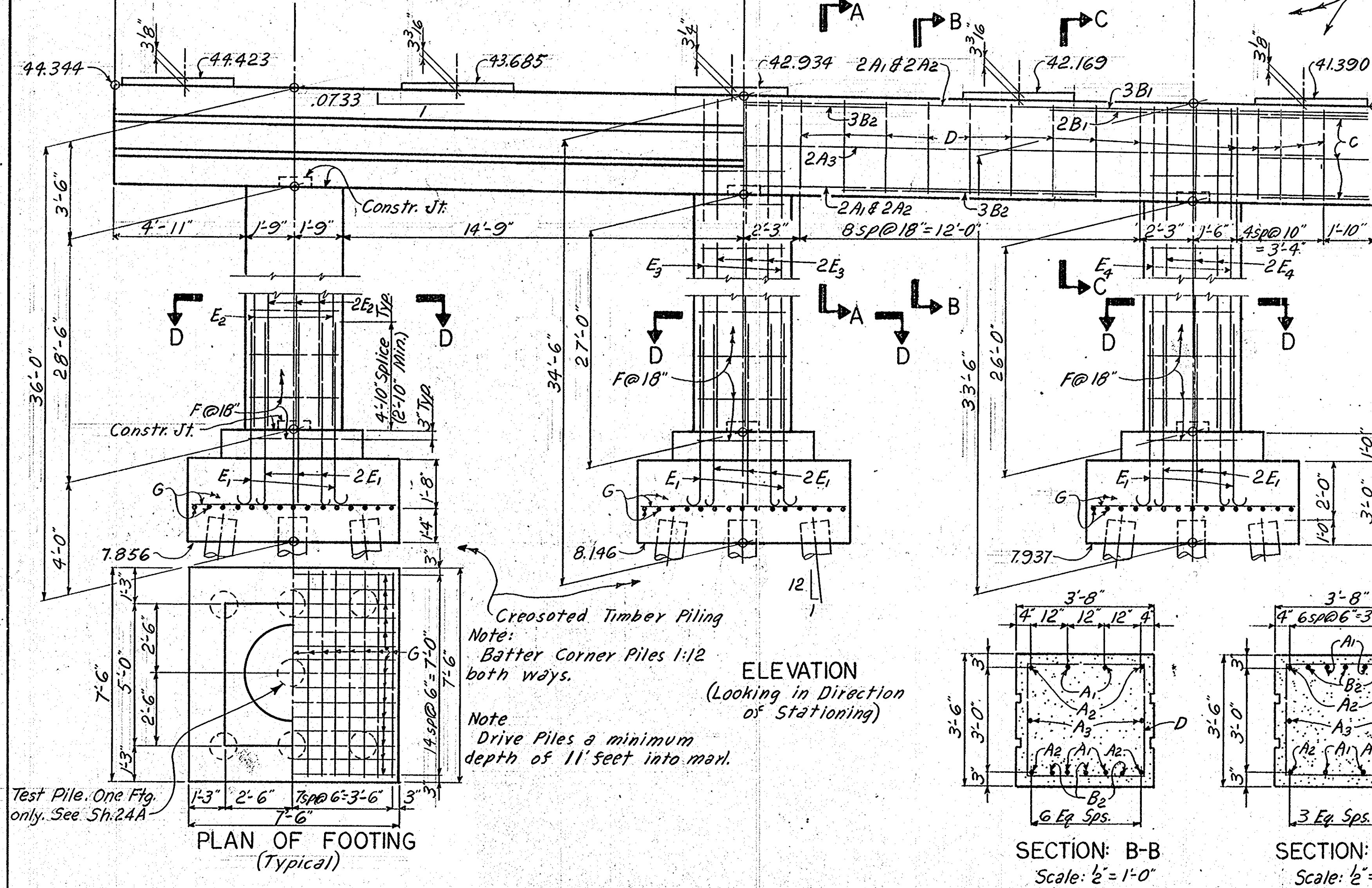
CONSTR JOINT DETAIL
Scale: 1/2" = 1'-0"

DETAIL OF CAP INSERT
Scale: 3" = 1'-0"

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
BENT-BII			
FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.	REV.	REV.	REV.
QUAN.	DATE	BY	CHK'D
DOCKET NO.	COUNTY	ROUTE NO.	DATE
10.521.3	CHARLESTON	I-26	10-64
APPROVED BY		APPROVED BY	
BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER	



MAXIMUM PILE REACTION		REINFORCING STEEL SCHEDULE	
Dead Load-Superstructure	183K	BENT: B-13	MARK
Live Load	70K		
Dead Load-Bent	97K		
Backfill (35%)	15K		
Total of Above	365K		
Average Bearing	26/pile	NO. REQD.	LENGTH
MAX. PILE BEARING DUE TO WIND			
Wind	11/pile		
MAX. CONDITION			
Average Bearing	26/pile		
Wind	11/pile		
Total (125% of Normal Bearing)	37/pile		
Normal Bearing	30/pile		
BENDING DETAILS			



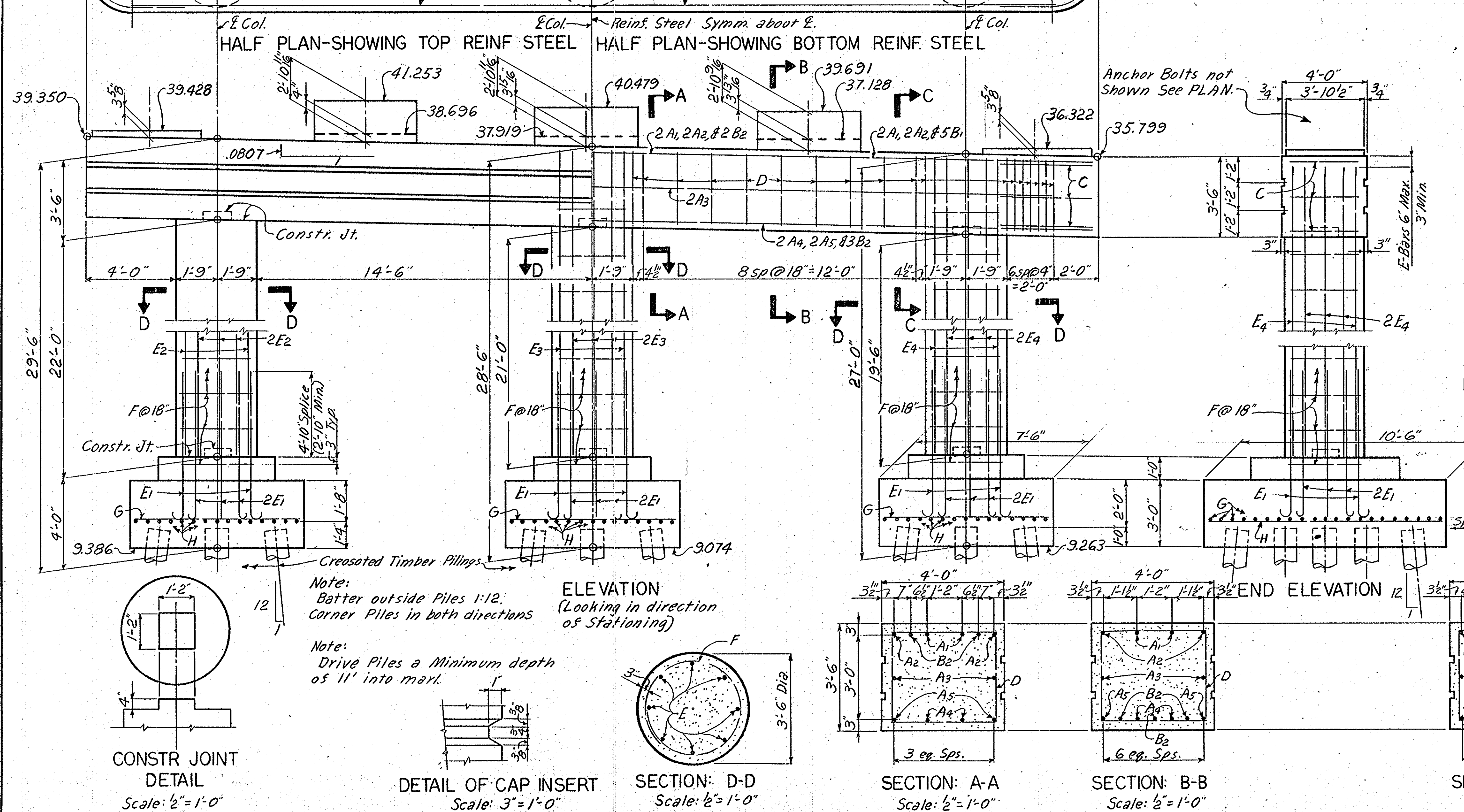
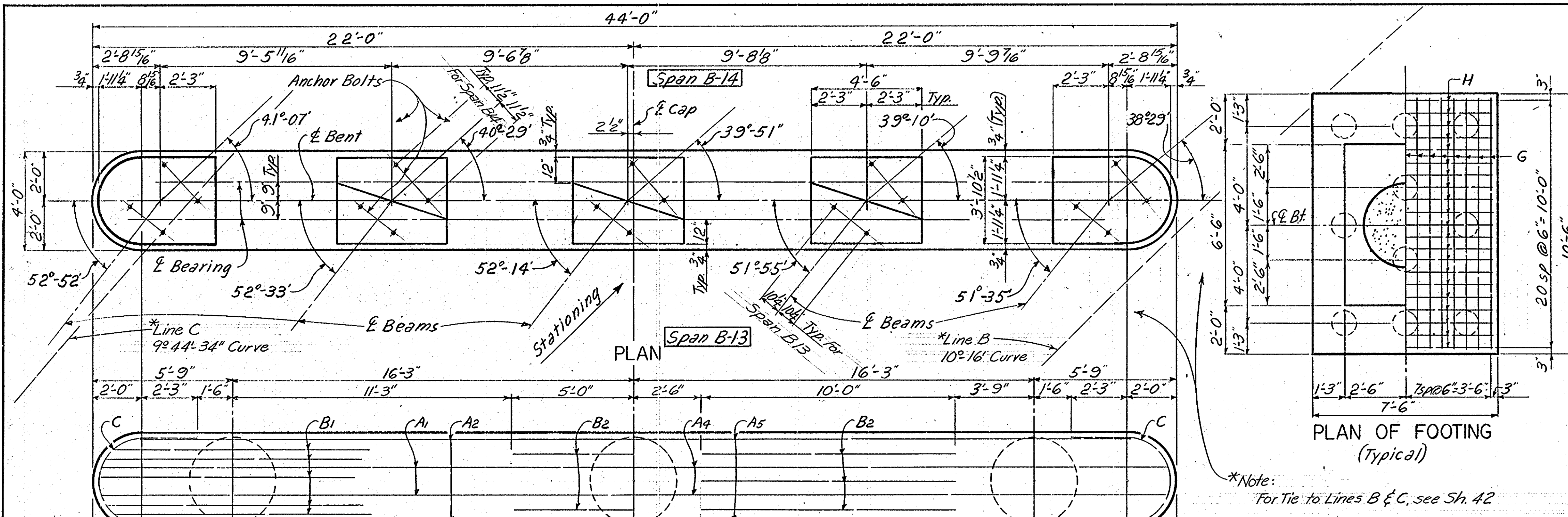
QUANTITIES		BENT: B-13
Concrete Class A	C.Y.	72.2
Reinforcing Steel	Lbs.	8670
Wet & Dry Excavation	C.Y.	95
Creosoted Timber Piling	L.F.	1260

Includes 107 Lbs. for Anchor Bolt Assemblies.

Notes:
 For Standard Notes See Sh. 4
 For Standard Details See Sh. 5
 Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of splices.
 For Details of Anchor Bolts, see Sh. 5

Scale: No Scale: or as Noted.

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		BENT-B13
REV.		FOR UNDERPASS UNDER
REV.		N. SPRULL INTERCHANGE CONN.
REVIEWED	IN CHARGE	DOCKET NO. COUNTY ROUTE NO. DATE
QUAN. BY	ELLS 3-65	10 521.3 CHARLESTON I-26 12-64
TR.		
DR. WHM/BAM 12-64	APPROVED BY	APPROVED BY
DES. RWH/BAM 8-64	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER
BY CHK'D/DATE		



MAXIMUM PILE REACTION		REINFORCING STEEL SCHEDULE						
Dead Load-Superstructure	279 ^K	MARK	SIZE NO.	D	BENT: B-14			
Live Load	113 ^K				NO. REQD	LENGTH		
Dead Load-Bent	100 ^K							
Backfill (35ft)	22 ^K							
Total of Above	514 ^K							
Average Bearing	26 ⁷ / _{pile}							
MAX. PILE BEARING DUE TO WIND		A ₁	11	S	2	43'-5"		
Wind	9 ⁷ / _{pile}	A ₂	11	S	2	40'-0"		
MAX. CONDITION		A ₃	4	S	2	40'-0"		
Average Bearing	26 ⁷ / _{pile}	A ₄	10	S	2	43'-5"		
Wind	9 ⁷ / _{pile}	A ₅	10	S	2	40'-0"		
Total (125% of Normal Bearing)	35 ⁷ / _{pile}	B ₁	11	S	10	10'-6"		
Normal Bearing	28 ⁷ / _{pile}	B ₂	11	S	8	10'-0"		
BENDING DETAILS		C	6	B	6	10'-0"		
<p>Diagram showing bending details for pile sections C, D, E, F, and I. Section C is a circle with a 1'-9" radius. Section D is a rectangle with a width of 2'-3" and a height of 3'-2". Section E is a rectangle with a width of 7'-6". Section F is a circle with a 1'-6" radius. Section I is a rectangle with a width of 3'-7" and a height of 4'-6". Reinforcement details are shown for each section, including bars and stirrups.</p>		D	5	B	36	14'-0"		
		E ₁	11	B	24	8'-0"		
		E ₂	11	S	8	25'-3"		
		E ₃	11	S	8	24'-3"		
		E ₄	11	S	8	22'-9"		
		F	3	B	47	10'-5"		
		G	8	S	45	10'-0"		
		H	8	S	63	7'-0"		
		I	4	B	24	5'-10"		
		J	4	S	21	4'-2"		

QUANTITIES	
Concrete Class "A"	C.Y. 77.1
Reinforcing Steel	Lbs. 10233
Wet & Dry Excavation	C.Y. 80
Creosoted Timber Piling	L.F. 1800

Includes 107 Lbs. for Anchor Bolt Assemblies.

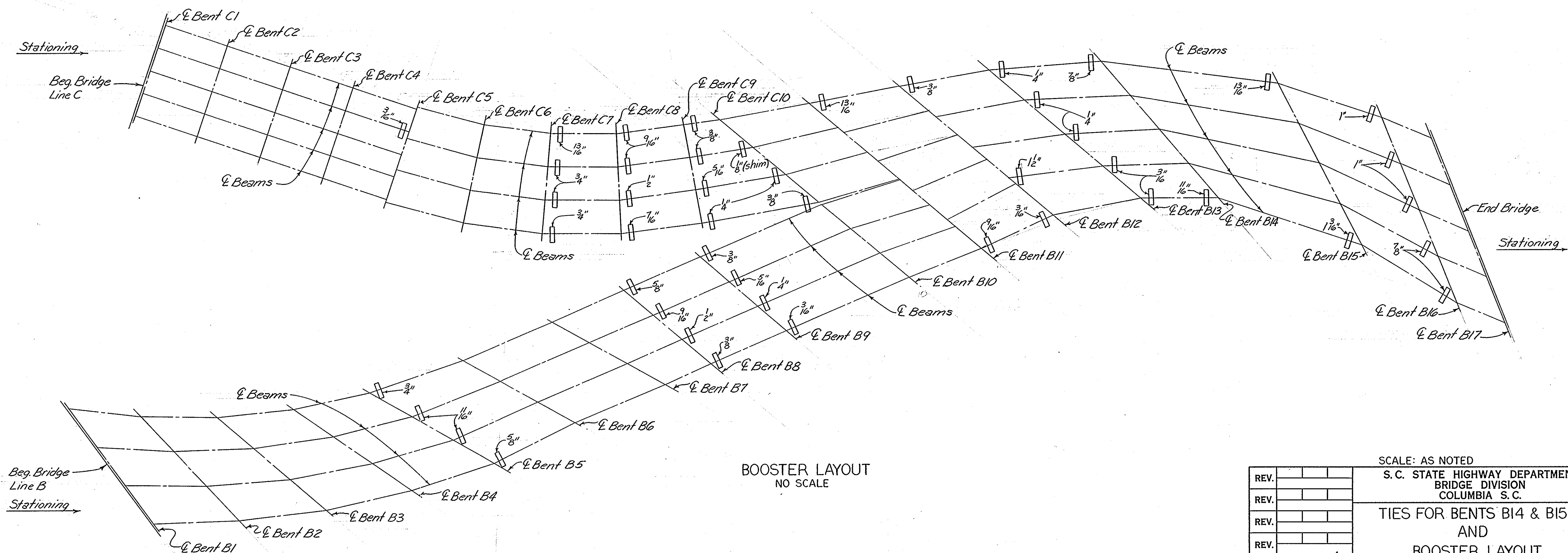
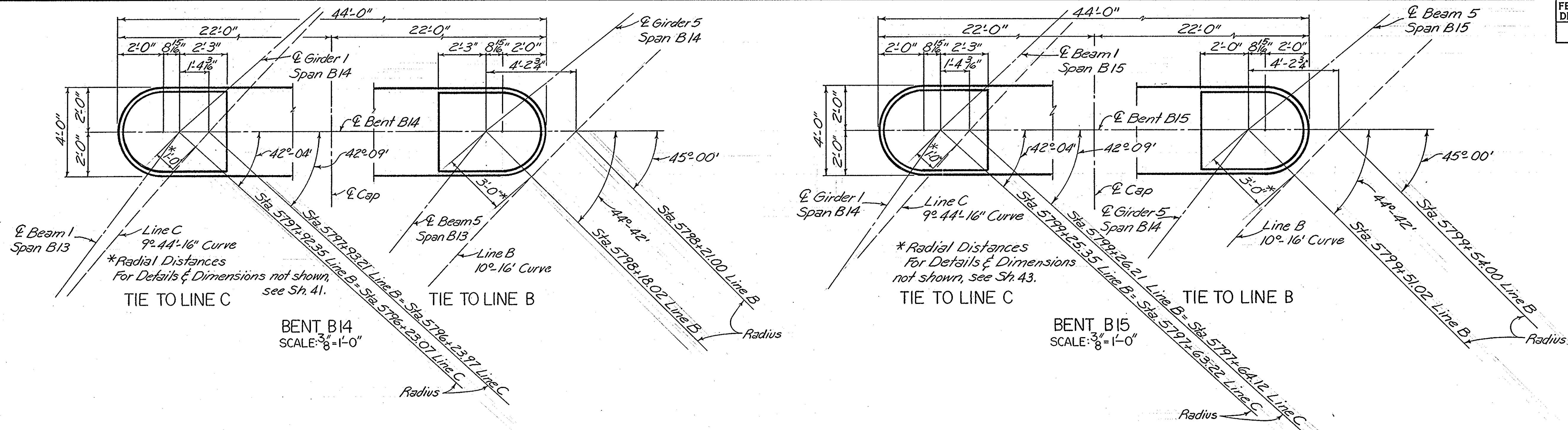
Notes:
 For Standard Notes See Sh. 4
 For Standard Details See Sh. 5
 Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
 For Anchor Bolt Details, see Sh. 5

SECTION: E-E
 DETAIL OF BUILD UP REINF.
 NO SCALE

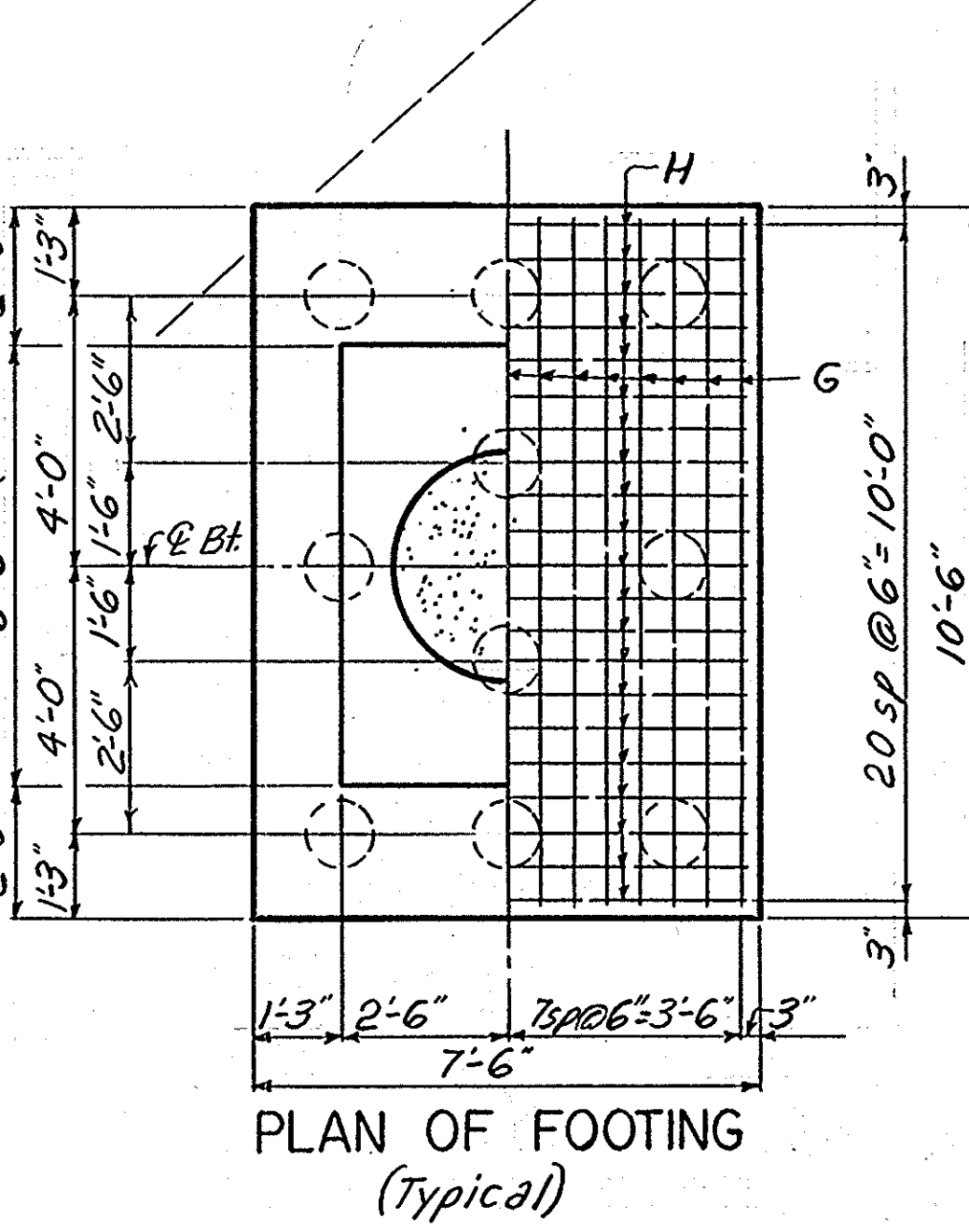
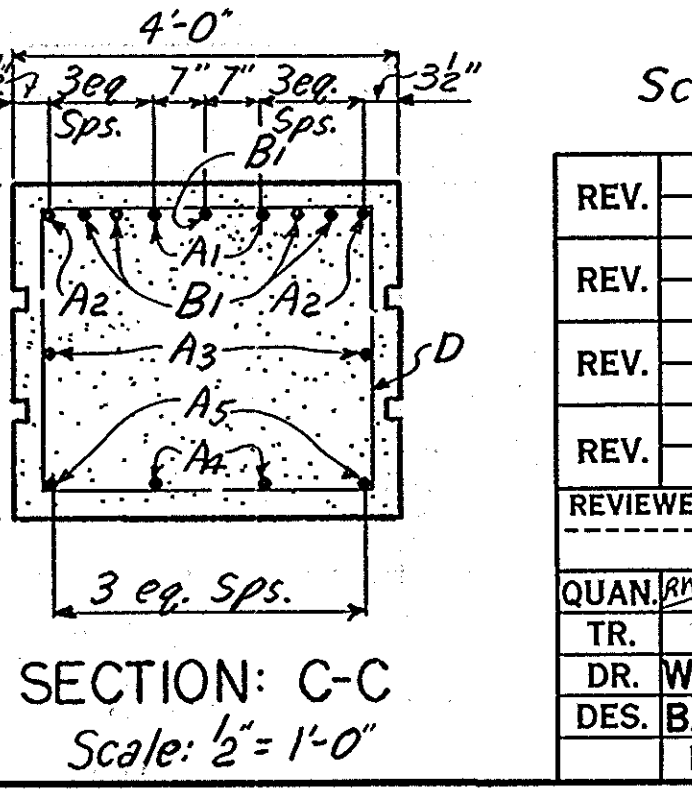
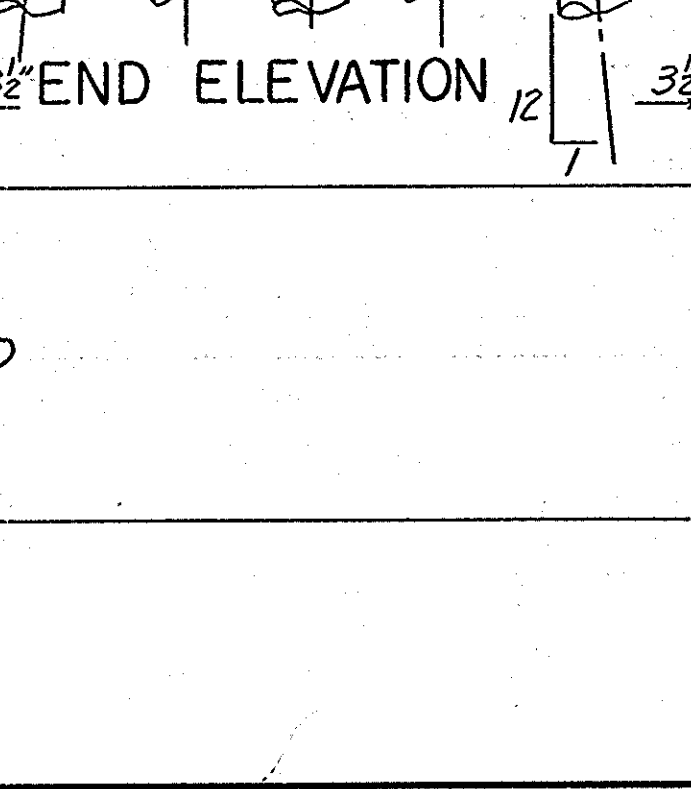
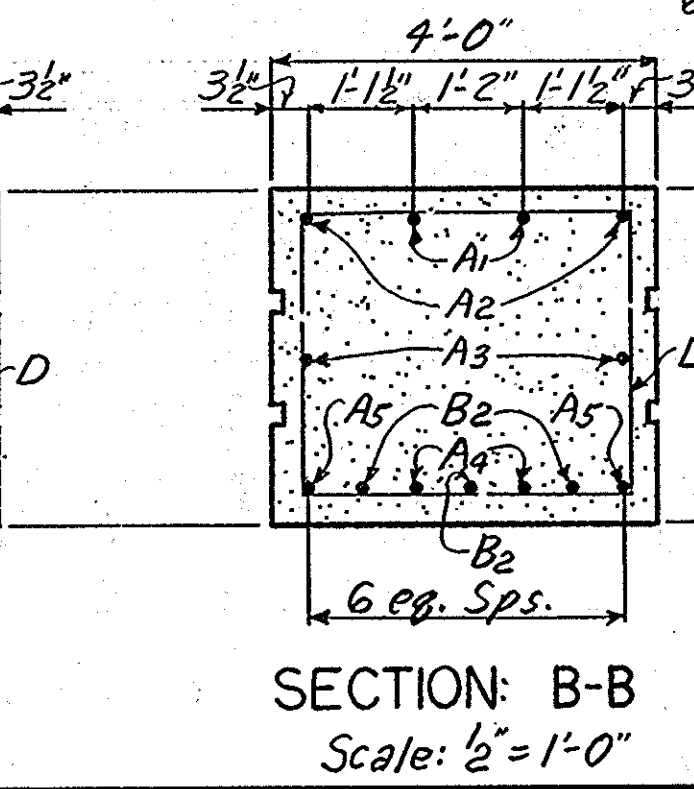
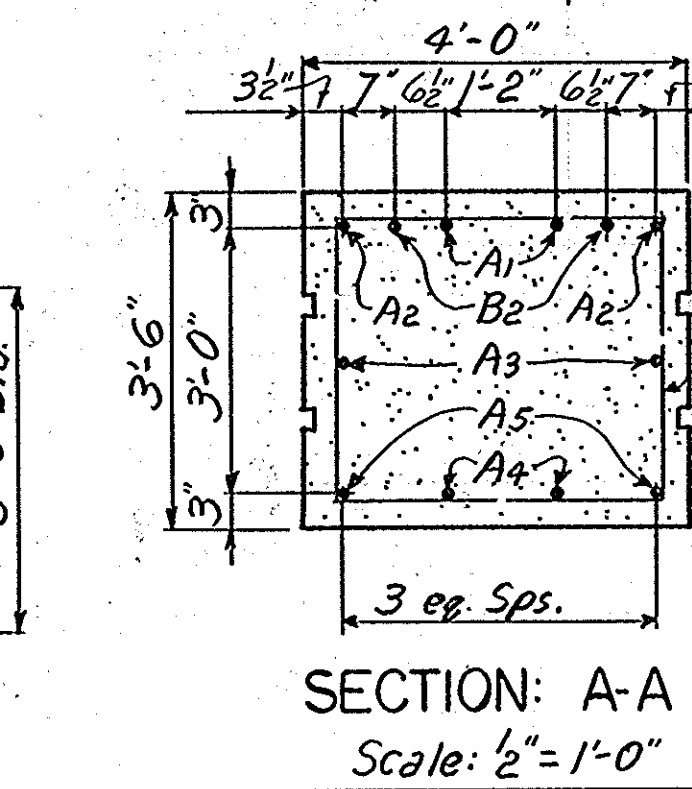
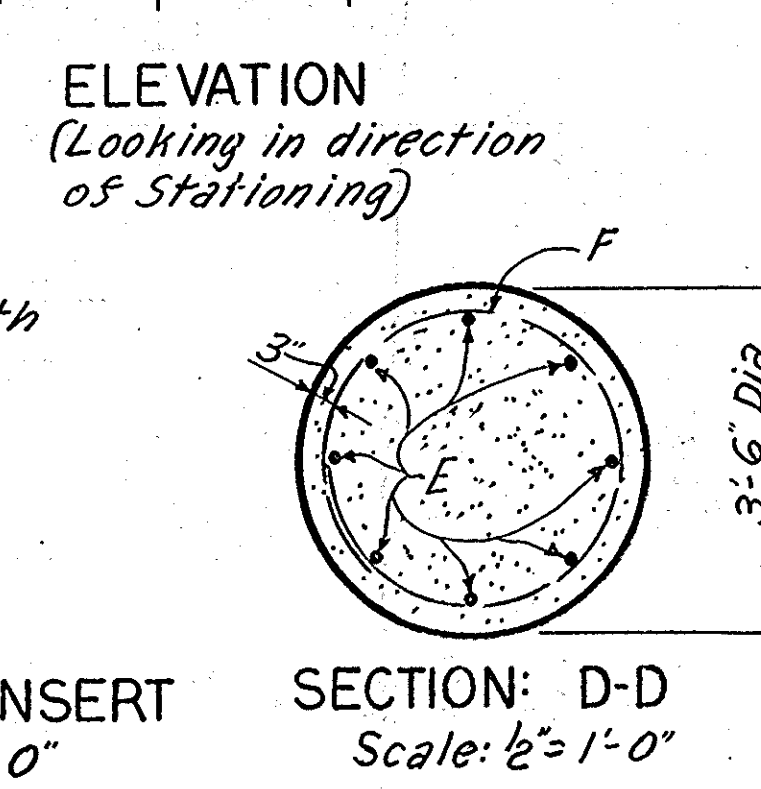
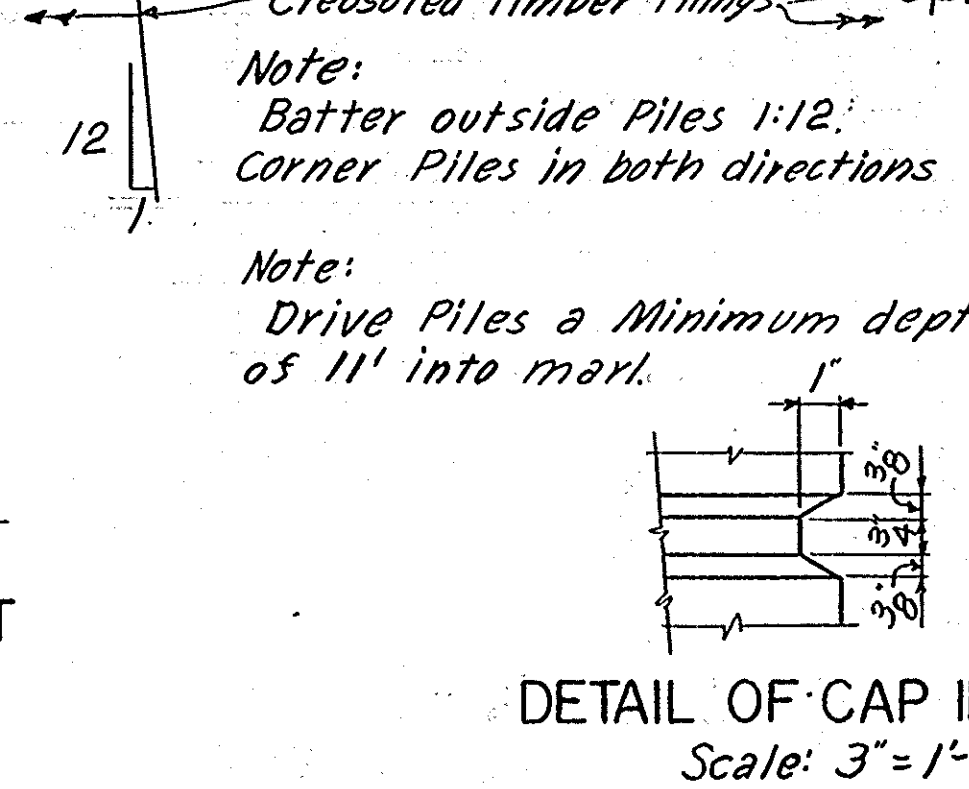
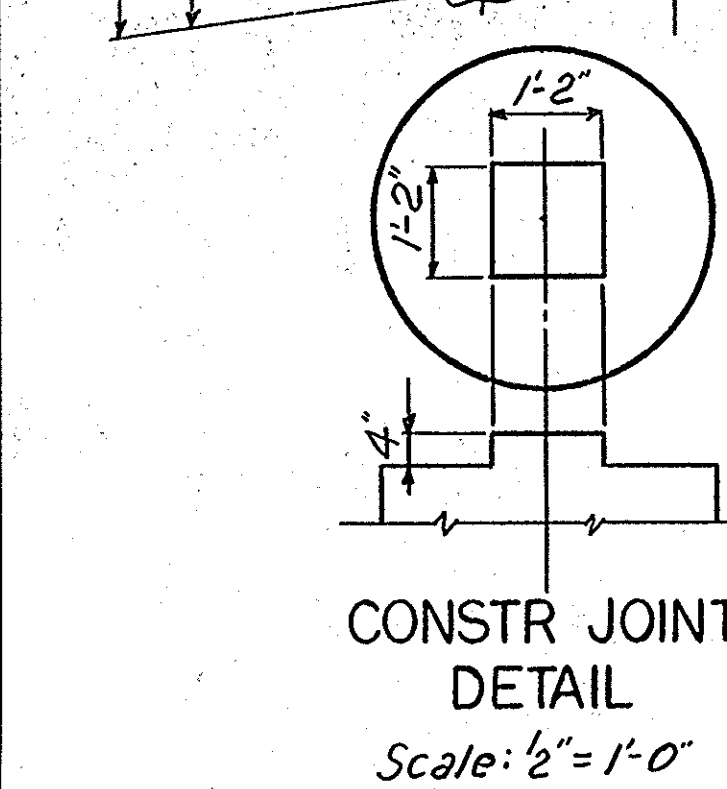
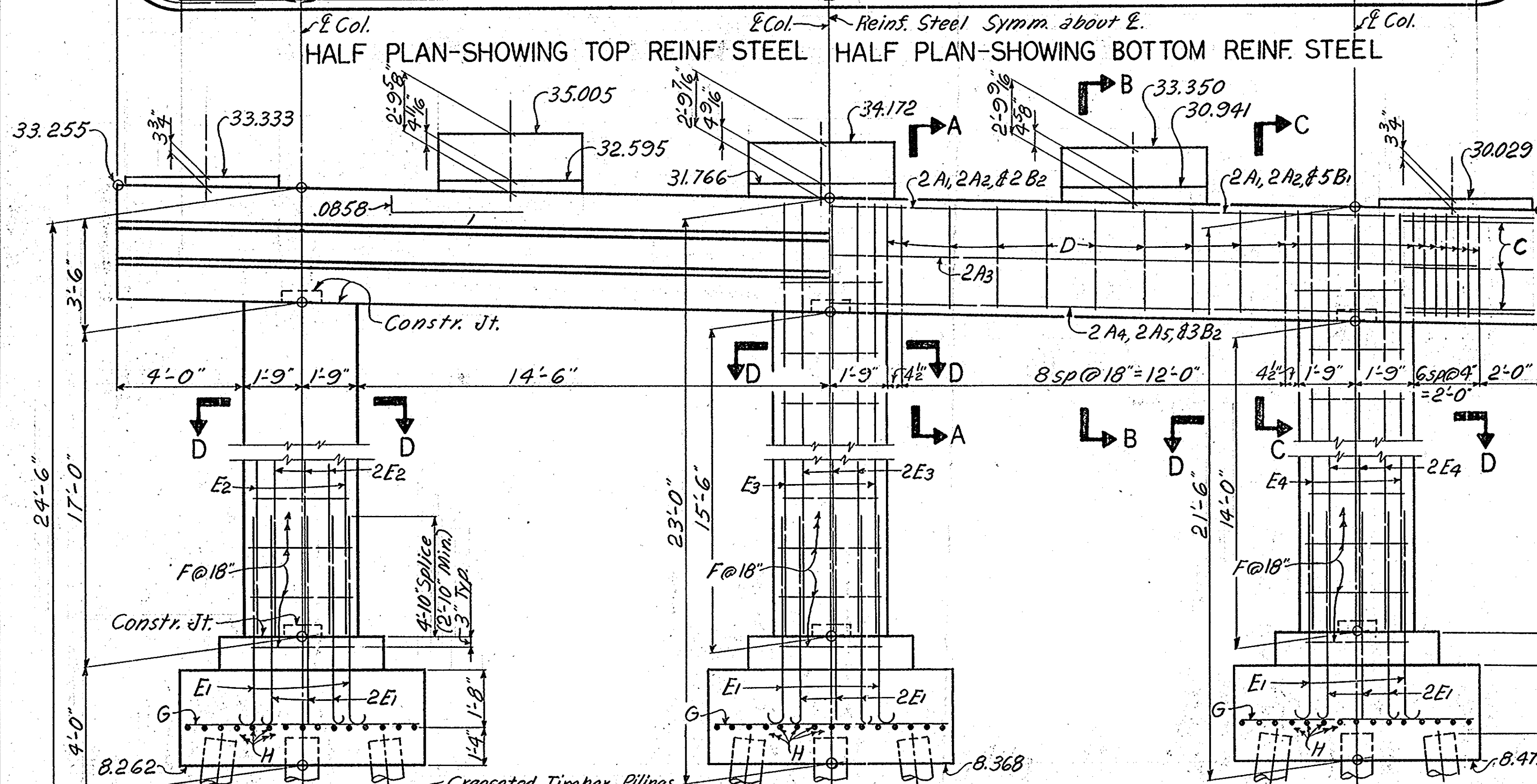
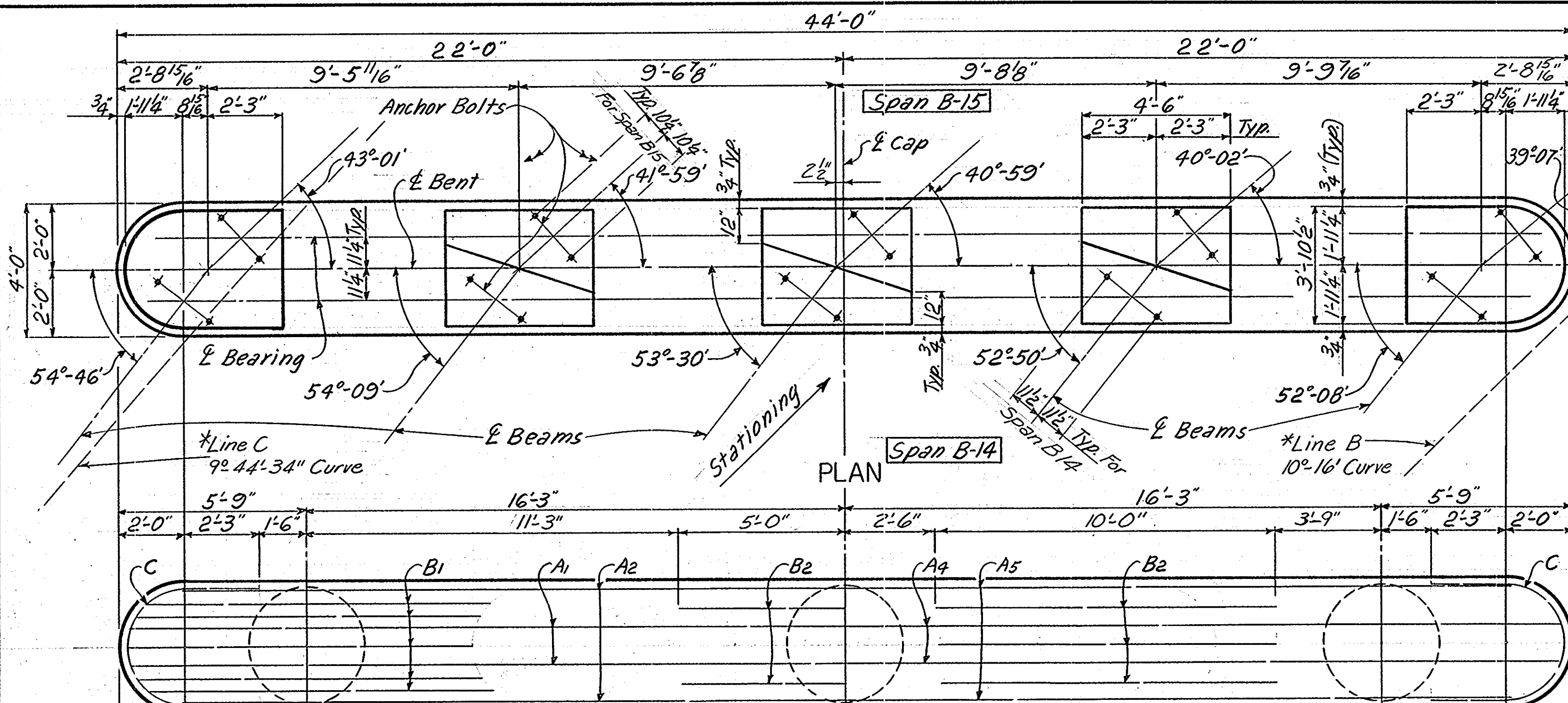
Scale: 3/8"=1'-0", or as Noted.

REV.		S.C. STATE HIGHWAY DEPARTMENT	
REV.		BRIDGE DIVISION	
REV.		COLUMBIA S.C.	
REV.		BENT-BI4	
REV.		FOR UNDERPASS UNDER	
REV.		N. SPRUILL INTERCHANGE CONN.	
REVIEWED	DATE	DOCKET NO.	COUNTY
QUAN. BY	DATE	IO. 521.3	CHARLESTON
TR.	DATE	ROUTE NO.	DATE
DR. WHM	12-64	I-26	12-64
DES. BAM	10-63		
BY	DATE	APPROVED BY	APPROVED BY
CHK'D	DATE	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10521.3	I-26	42	84



SCALE: AS NOTED			
S. C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S. C.			
TIES FOR BENTS B14 & B15 AND BOOSTER LAYOUT			
REV.		DOCKET NO.	COUNTY
REV.		10521.3	CHARLESTON
REV.		ROUTE NO.	DATE
REV.		I-26	1-65
REVIEWED	IN CHARGE	APPROVED BY	APPROVED BY
QUAN.		BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER
TR.			
DR. AMZ	8AM	1-65	
DES. RWB	BAM	1-65	
BY	CHK'D	DATE	

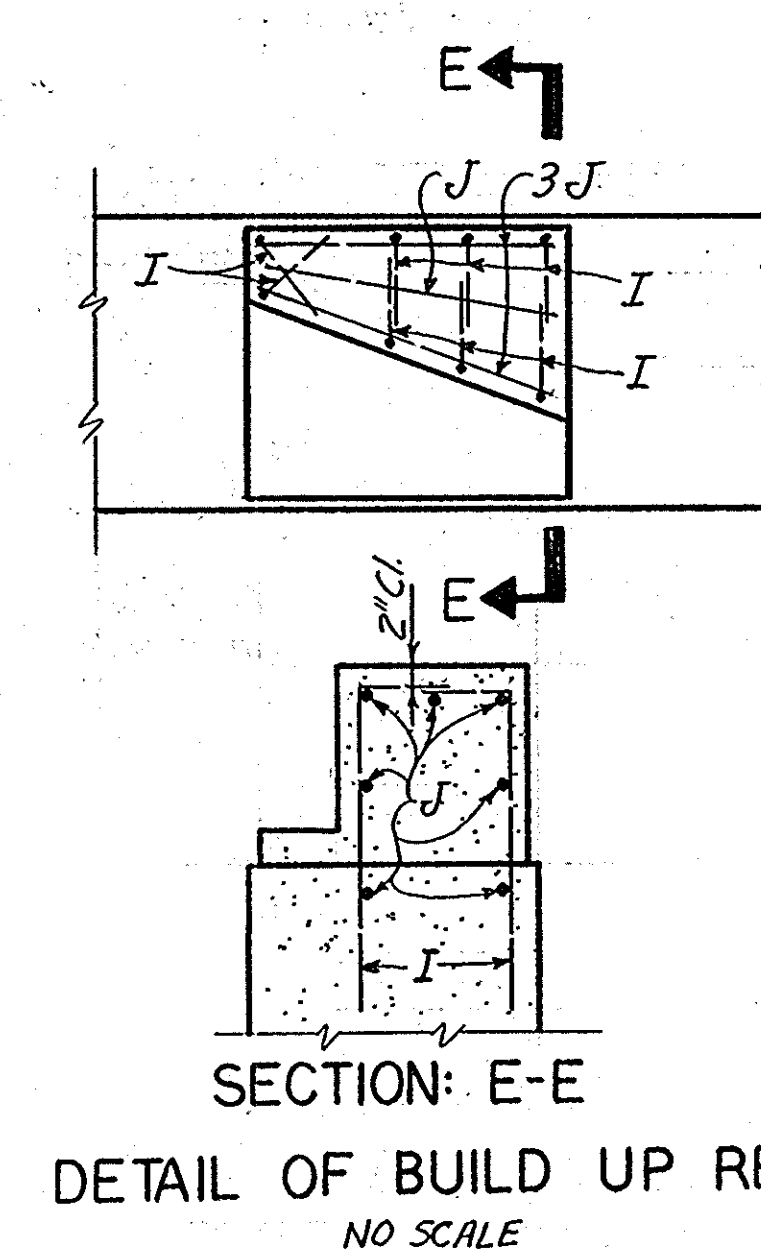


*Note:
For Tie to Lines B & C, see Sh. 42

MAXIMUM PILE REACTION		REINFORCING STEEL SCHEDULE	
Dead Load-Superstructure	279K	MARK	SIZE NO.
Live Load	113K	NO. REQ'D	LENGTH
Dead Load-Bent	98K	BENT: B-15	
Backfill (35ft)	22K	A1	11 S 2 43'-5"
Total of Above	512K	A2	11 S 2 40'-0"
Average Bearing	26.7/pile	A3	4 S 2 40'-0"
MAX. PILE BEARING DUE TO WIND		A4	10 S 2 43'-5"
Wind		A5	10 S 2 40'-0"
MAX. CONDITION		B1	11 S 10 10'-6"
Average Bearing		B2	11 S 8 10'-0"
Wind		C	6 B 6 10'-0"
Total (125% of Normal Bearing)		D	5 B 36 14'-0"
Normal Bearing		E1	11 B 24 8'-6"
BENDING DETAILS		E2	11 S 8 20'-3"
2'-3"		E3	11 S 8 18'-9"
3'-7"		E4	11 S 8 17'-3"
1'-4"		F	3 B 36 10'-5"
1'-9" Rad		G	8 S 45 10'-0"
C		H	8 S 63 7'-0"
3'-2"		I	4 B 24 5'-10"
7'-6"		J	4 S 21 4'-2"

QUANTITIES		BENT: B-15
Concrete Class "A"	C.Y.	71.4
Reinforcing Steel	Lbs.	9512
Wet & Dry Excavation	C.Y.	90
Creosoted Timber Piling	L.F.	1800

Includes 109 Lbs. for Anchor Bolt Assemblies.

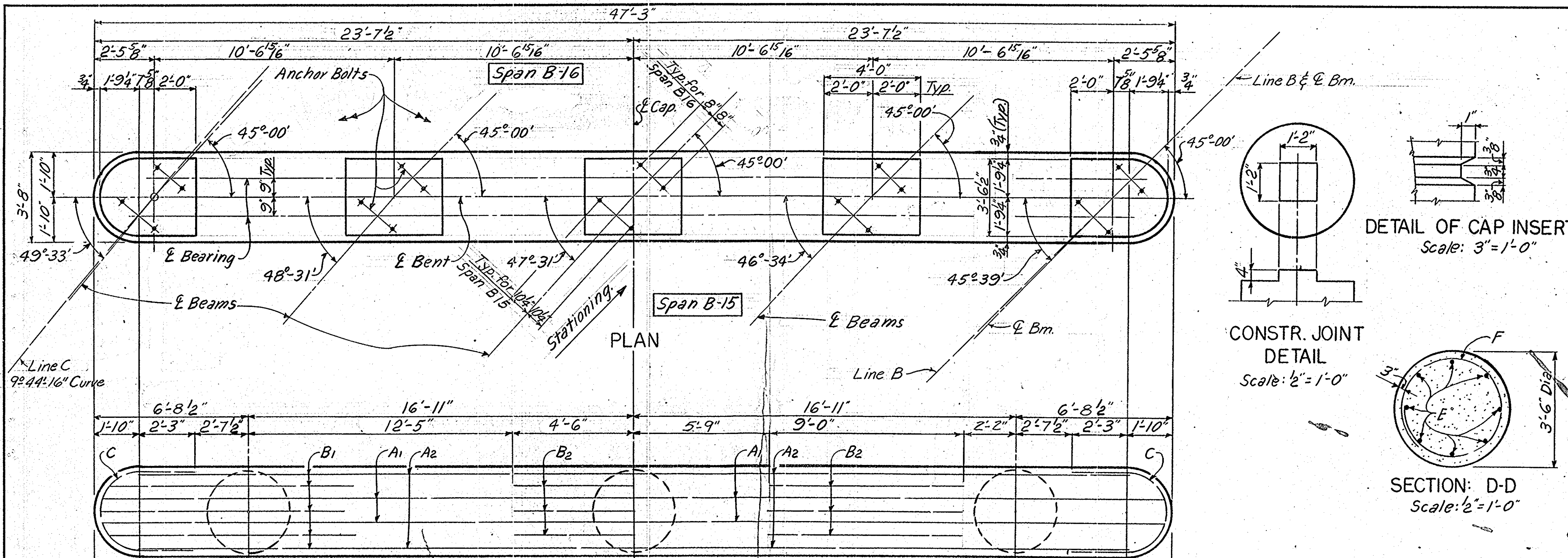


Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum of 2'-0" without providing additional vertical column steel by reducing length of Splices.
For Anchor Bolt Details, see Sh. 5

Scale: 3/8" = 1'-0", or as Noted.

REV.	REV.	REV.	REV.	REVIEWED	IN CHARGE	DOCKET NO.	COUNTY	ROUTE NO.	DATE
						10.521.3	CHARLESTON	I-26	12-64
QUAN.	REV.	TR.	DES.	BY	CHK'D	DATE	BRIDGE DESIGN & PLANS ENGINEER	APPROVED BY	BRIDGE ENGINEER
WHM	BAM	1-65	BAM	BMM	10-63				

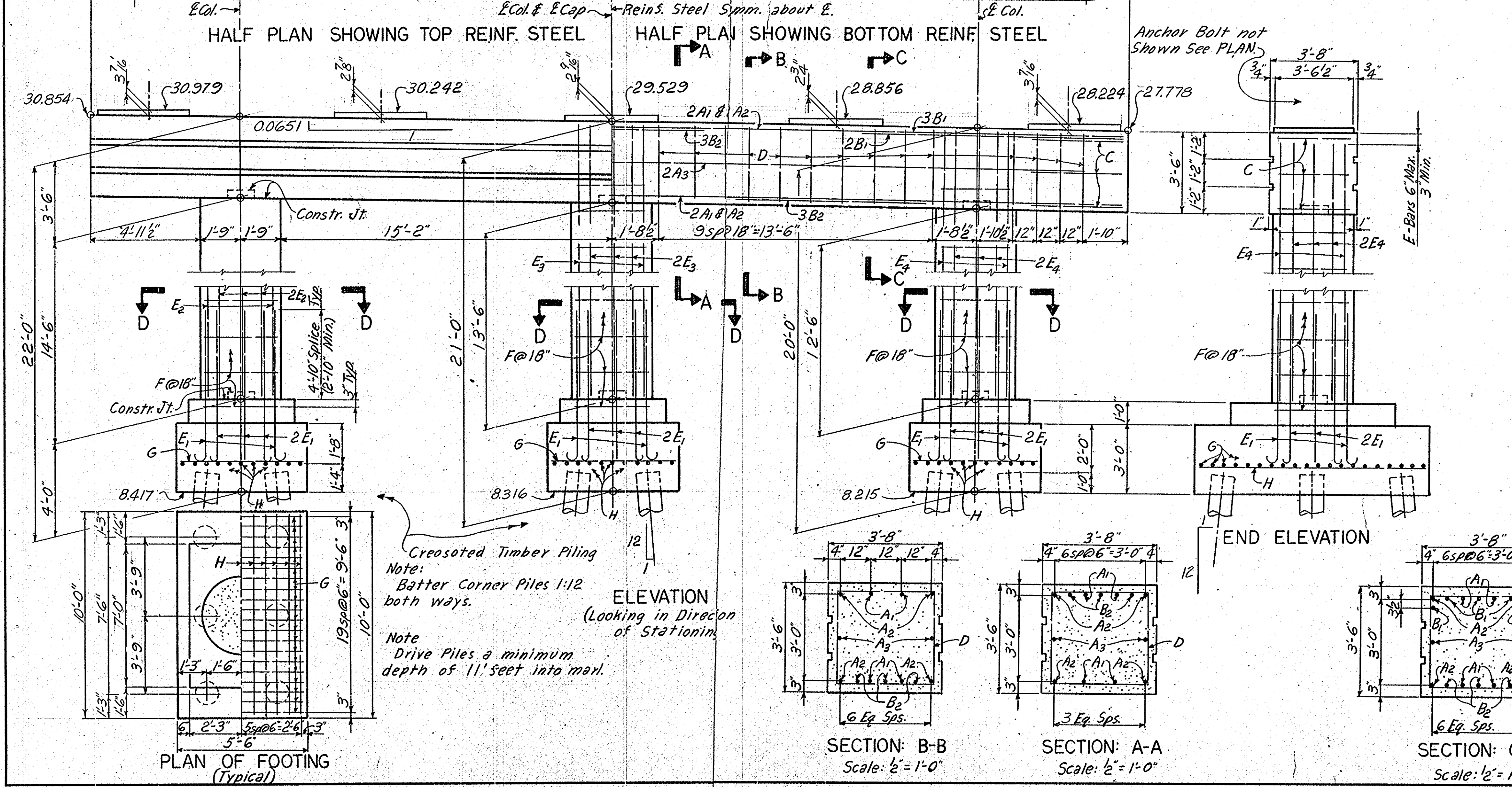
S.C. STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION
COLUMBIA S.C.
BENT-B15
FOR UNDERPASS UNDER
N. SPRUILL INTERCHANGE CONN.



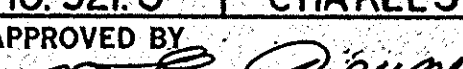

[illegible]

QUANTITIES		BENT: B-16
Concrete Class A"	C.Y.	584
Reinforcing Steel	Lbs.	① 6982 ✓
Wet & Dry Excavation	C.Y.	90
Creosoted Timber Piling	L.F.	1080

① Includes 107 Lbs. for Anchor Bolt Assemblies.

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Footings may be lowered a Maximum
of 2'-0" without providing additional
vertical column steel by reducing
length of Splices.
For Anchor Bolt Details, see Sh. 5



REV.				S. C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S. C.				
REV.								
REV.								
REV.								
REVIEWED	 IN CHARGE			BENT-B16 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.				
QUAN.		ELS	3-65	DOCKET NO.	COUNTY	ROUTE NO.	DATE	
TR.				10. 521. 3	CHARLESTON	I- 26	12- 64	
DR.	WHM	BAM	12-64	APPROVED BY				
DES.	RWH	BAM	9-64	APPROVED BY				
	BY	CHK'D	DATE	BRIDGE DESIGN & PLANS ENGINEER				

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10521.3	I-26	45	84

Note:
Light Bracket, for Span C3 only, not shown.
For Location See Sh. 14
For Details See Sh. 83

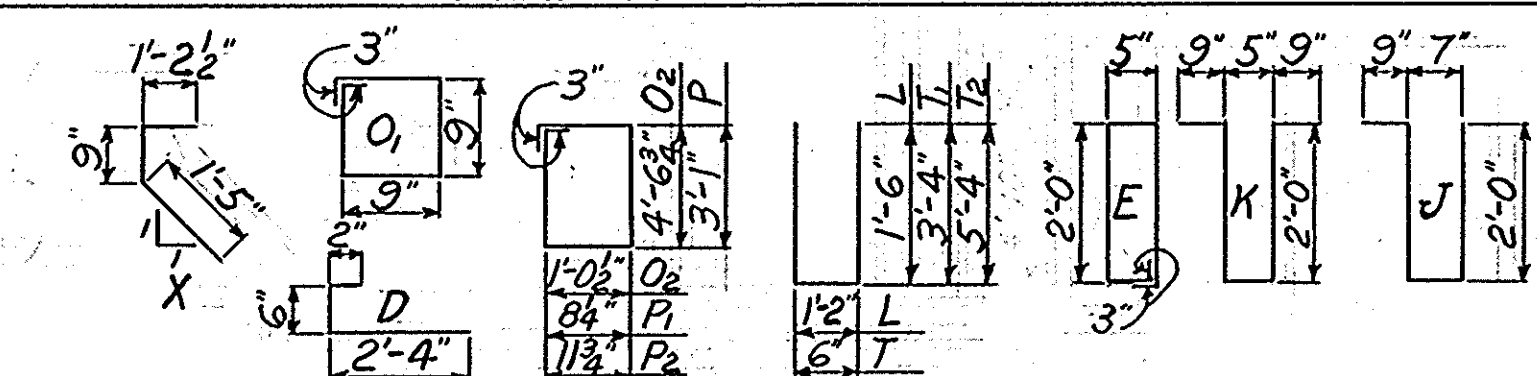
REINFORCING STEEL SCHEDULE

MARK	SIZE NO.	D	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH
A	4	S	250	26'-3"	254	26'-3"
B	4	S	64	52'-2"	64	52'-2"
C	5	S	108	0'-10"	108	0'-10"
D	4	B	80	3'-0"	80	3'-0"
E	4	B	93	5'-4"	96	5'-4"
F	4	S	27	7'-0"	36	7'-0"
G	4	S	9	5'-8"		
H	4	S	44	3'-8"	56	3'-8"
I	4	S	3	20'-8"	6	20'-8"
J	4	S	20	2'-7"	20	2'-7"
K	4	B	20	5'-4"	40	5'-4"
L	4	B	40	5'-11"	40	5'-11"
M	4	B	10	4'-2"	10	4'-2"
N	3	B	75	3'-6"	80	3'-6"
O	3	B	5	11'-9"		
P	4	B	30	8'-1"	32	8'-1"
Q	4	B	7	8'-8"		
R	4	S	2	31'-4"		
S	4	S	3	31'-0"		
T	4	S	12	3'-3"		
U	4	S	3	7'-5"		
V	4	S	2	6'-9"		
W	4	S	3	1'-9"		
X	4	B	20	7'-2"		
Y	4	B	7	11'-2"		
Z	5	S	6	0'-10"		
1/4" Tie Bar Assy						
B.B.	1"	Ht.	Req'd	84'0"	Req'd	84'0"
B.B.U.	2 1/4"	Ht.	Req'd	505'	Req'd	505'

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Details of Prest. Conc. Bms. See Sh. 46
Allow a five day waiting period after pouring slab before pouring safety curb. Wing below constr. dt. shall be cast monolithic with End Diaphragm.
The quantities for Concrete and Reinf. Steel shown on this sheet are exclusive of the Prest. Bm. quantities for which See Sh. 46
All costs of furnishing and placing bearing assemblies (except anchor bolts) shall be included in the price bid for prestressed concrete beams.
For method of payment for Parapet wall and Post quantities See Sh. 84
For Light Bracket Details and Quantities See Sh. 83
For Booster Layout See Sh. 42

Note:
Drains not shown.
For Location See Sh. 13
For Details See Sh. 5

BENDING DETAILS



QUANTITIES

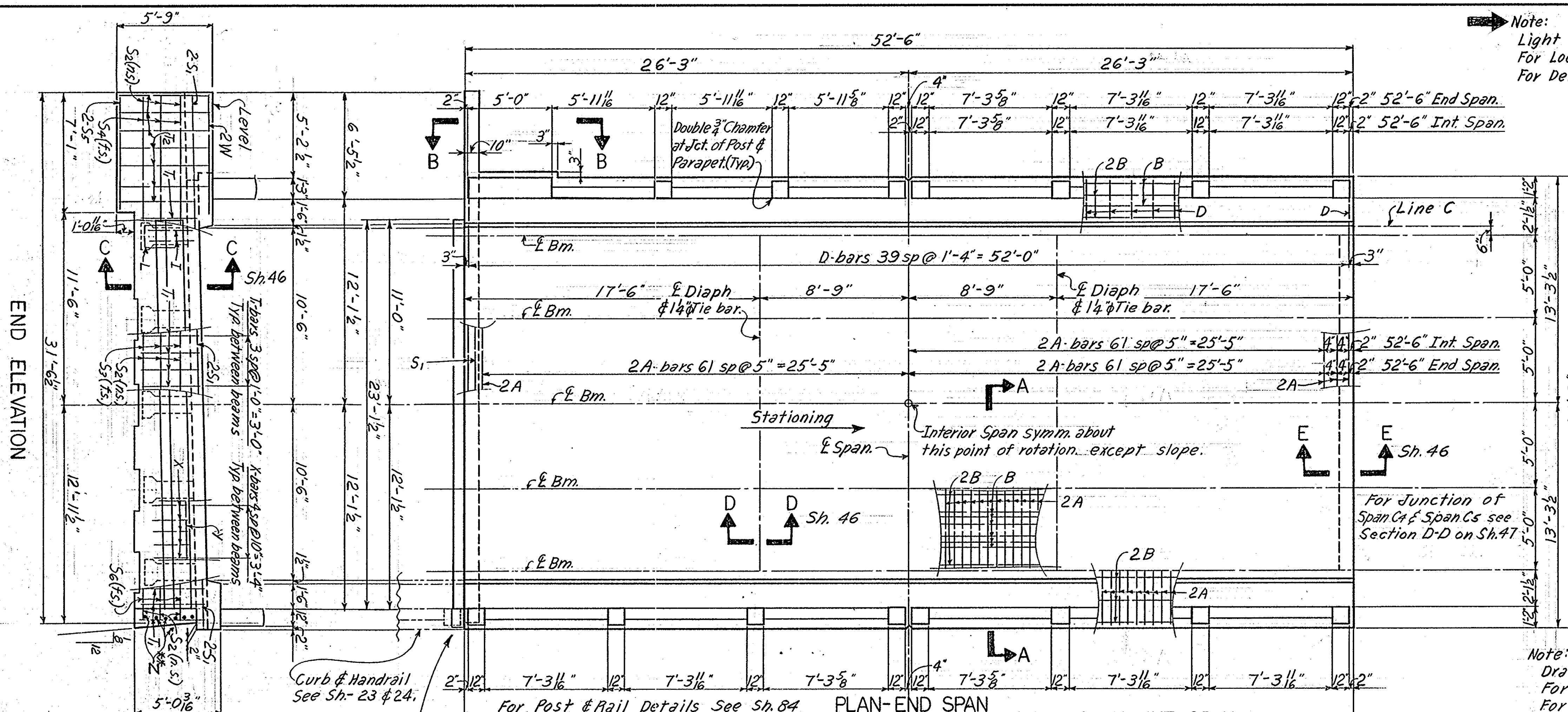
ITEM	52'-6" END SPAN	52'-6" INT. SPAN
Concrete Class "A"	C.Y. ① 46.2	② 43.3
Reinforcing Steel	Lbs. ③ 9145	③ 8930
52.5' Prestressed Concrete Beam	Ea. 5	5
Fabricated Metal Handrail	L.F. 105.00	105.00

- Does not include 5.1 C.Y. for Posts & Parapet
- Does not include 4.7 C.Y. for Posts & Parapet
- Includes 438 Lbs. for Bolsters & 182 Lbs. for Tie Bar Assemblies.
- Does not include Conc. & Reinf. Steel for Light Bracket on Span C3.
- During construction, extend F-bars thru interior posts and 10" into posts at ends of rail. Reinforcing steel quantities to be adjusted on final estimate. (Typ. all spans).

Scale: 1/4" = 1'-0" or as noted.

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		SUPERSTRUCTURE
REV.		FOR SPANS C1-C4
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
QUAN.	11-63	DOCKET NO. 10521.3
TR.	WHM	COUNTY CHARLESTON
DES.	WHM	ROUTE NO. I-26
BY	CHKD	DATE 11-63
		APPROVED BY [Signature]
		BRIDGE DESIGN & PLANS ENGINEER
		APPROVED BY [Signature]
		BRIDGE ENGINEER

This sheet to accompany Sh's. 46 & 84.

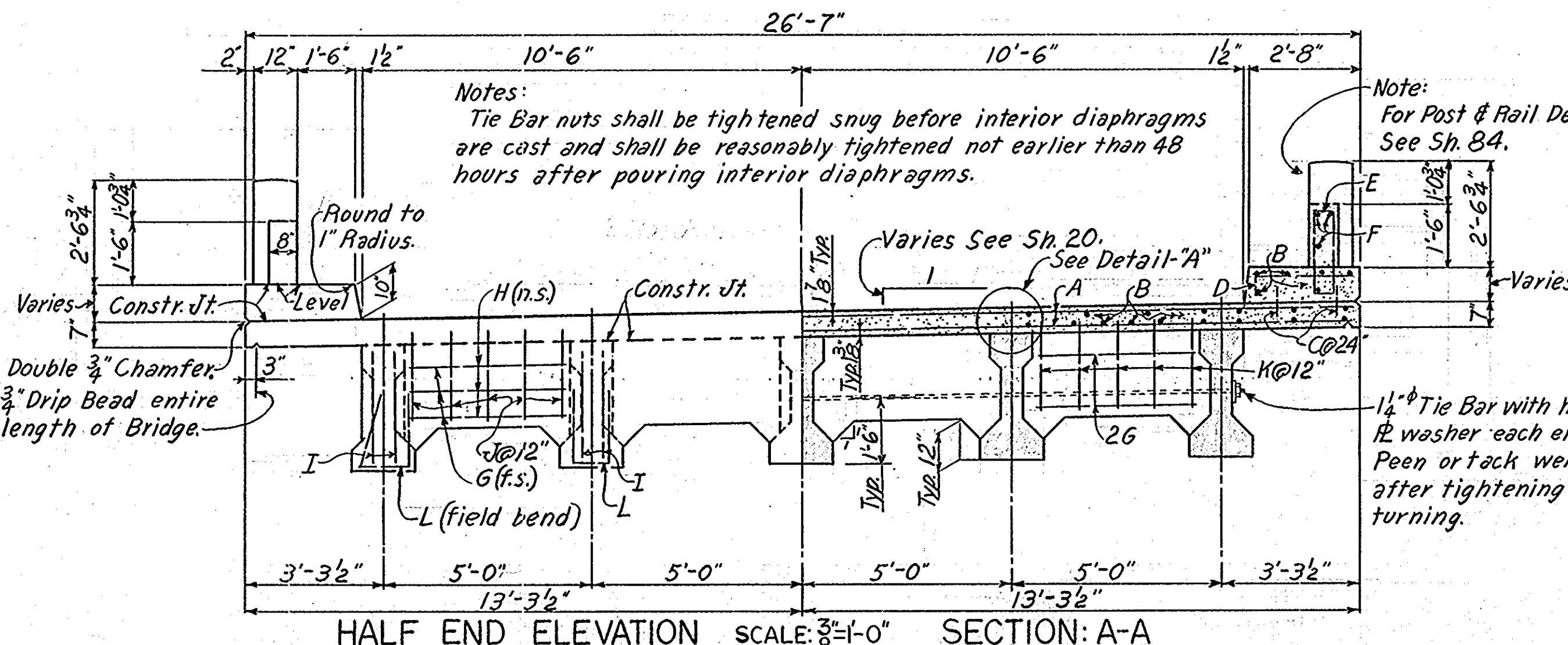
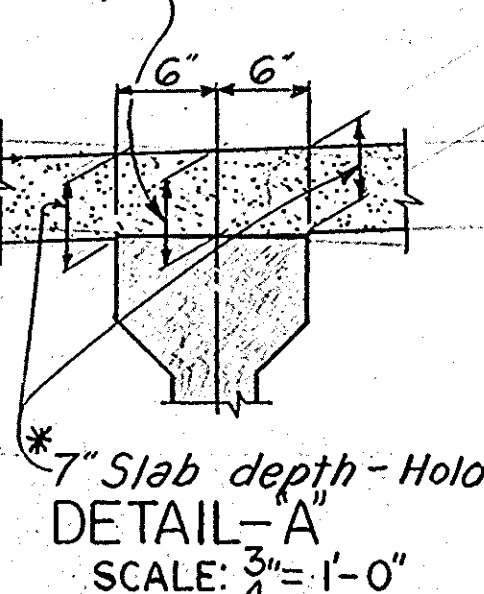


SECTION: B-B

For Junction of Retaining Wall & Beg. Br. See Sh. 24

** For Location of Z-bars See Sh. 24

7" at E Bearing for all Beams. (Vary in span to compensate for the variation in camber if necessary). * Theoretical slab thickness to be retained by lowering bottom of slab below or raising bottom of slab above top of beam if necessary.



Note:
Paint bar end, nut and washer before assembly with two coats of red lead. After tightening nuts, all exposed portions of bar, nut and washer shall be painted with two coats of aluminum paint.

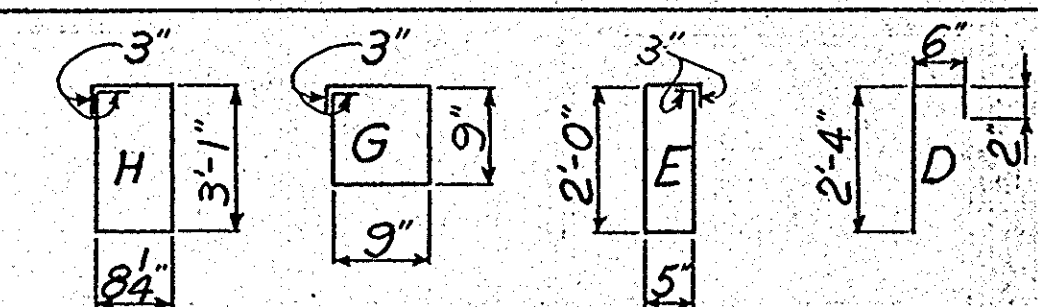
Note:
Diaphragms between beams shall be cast at least 7 days before the slab or diaphragms may be poured monolithic with slab provided the beams are temporarily strutted apart at top and bottom flanges and tie bars tightened snug during the slab and diaphragms pouring.

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10521.3	I-26	47	84

REINFORCING STEEL SCHEDULE

MARK	SIZE	D	NO. REQD	FOR SPAN C5	LENGTH
A	5	S	308	26'-2"	
B	4	S	144	35'-9"	
C	5	S	142	0'-10"	
D	4	B	120	3'-0"	
E	4	B	112	5'-4"	
F	4	S	24	6'-11"	
F ₂	4	S	24	7'-4"	
G	3	B	100	3'-6"	
H	4	B	40	8'-1"	
B.B.	1" Ht.	Reqd	900'		
B.B.U.	2 1/2" Ht.	Reqd	640'		

BENDING DETAILS



QUANTITIES

ITEM	SPAN	C5
④ Concrete Class "A"	C.Y. ①	55.0
④ Reinforcing Steel	Lbs. ②	13,705
Structural Steel	Lbs. ③	53,500
Fabricated Metal Handrail	L.F.	138.99

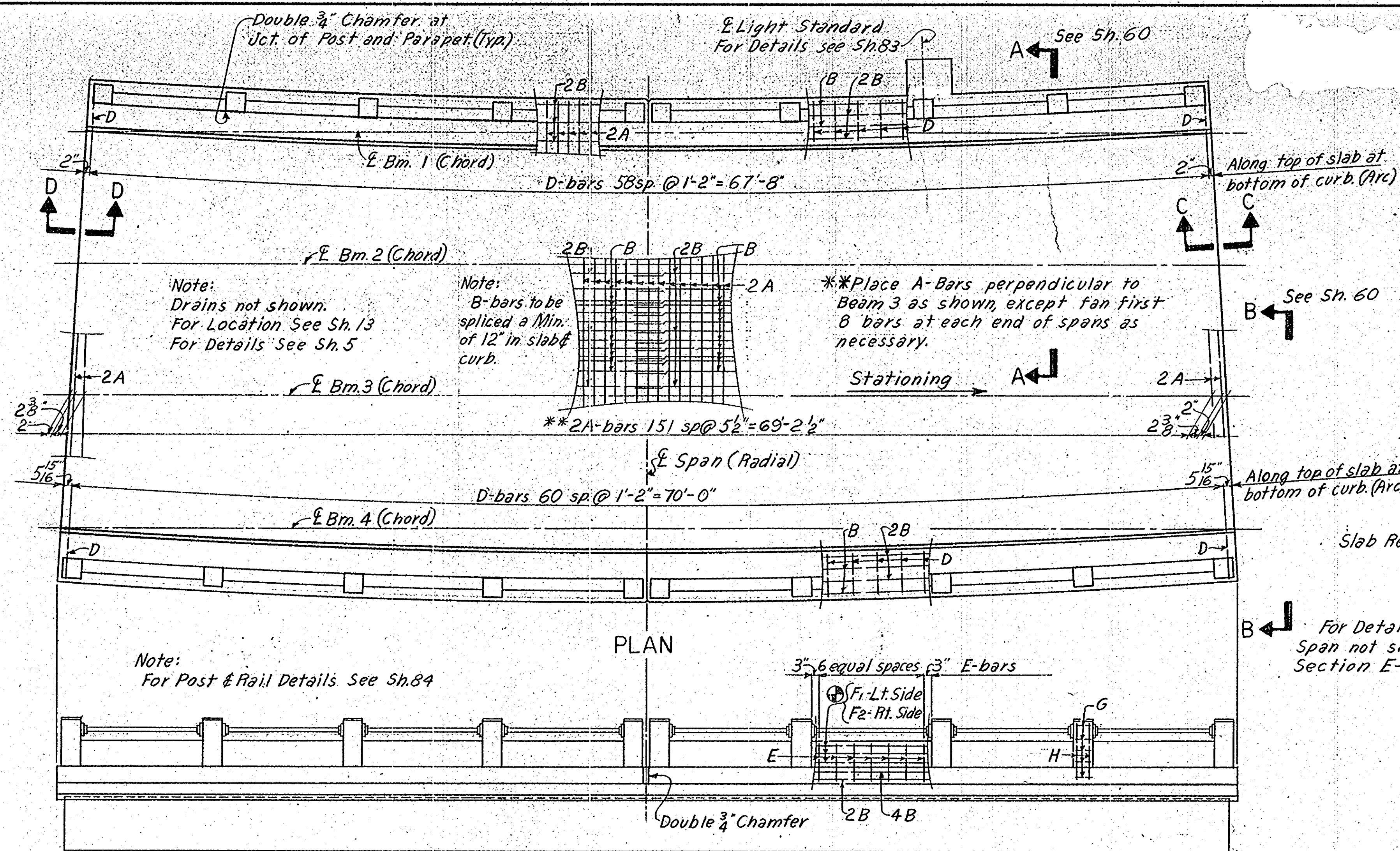
- Does not include 6.2 C.Y. for Posts & Parapet.
- Includes 521 Lbs. for Bolsters.
- Includes 900 Lbs. for Stud Connectors, & 140 Lbs. for Bronze Plates.
- Does not include Conc. & Reinf. Steel for Light Bracket.
- For note affecting Constr. Change see Sh. 45.

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For method of payment for Parapet wall and Post quantities See Sh. 84
For Light Bracket Details and Quantities See Sh. 83
Right & Left sides, where referred to in these Plans, apply only when looking in direction of Stationing.
For Booster Layout See Sh. 42
For Beam Details See Sh. 67 & 68.

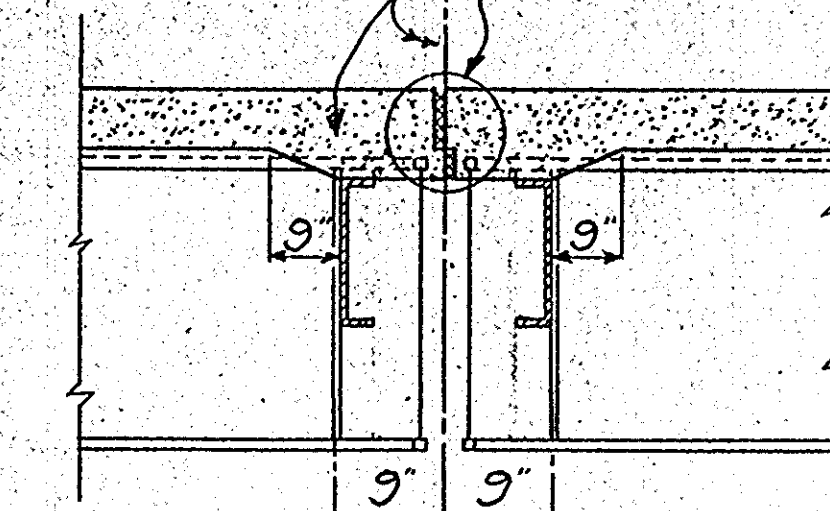
This Sh. to accompany Sh's. 60, 67, 68, 83 & 84.

No Scale, or as noted.

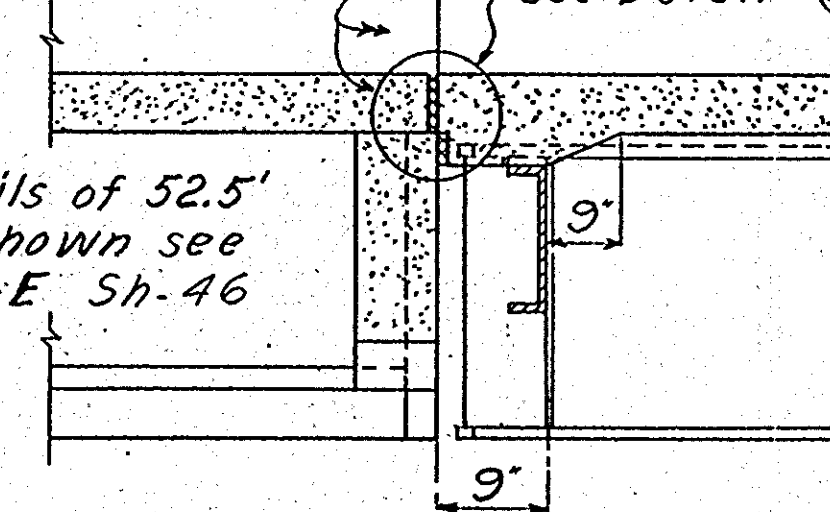
REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		SUPERSTRUCTURE
REV.		FOR SPAN - C5
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REVIEWED	IN CHARGE	DOCKET NO.
QUAN.	DATE	COUNTY
TR.	DATE	ROUTE NO.
DR.	DATE	DATE
DES.	DATE	DATE
BY	DATE	DATE



Slab Reinf. not Shown
Int. Bent & Joint.
See Detail ⑤ Sh. 5

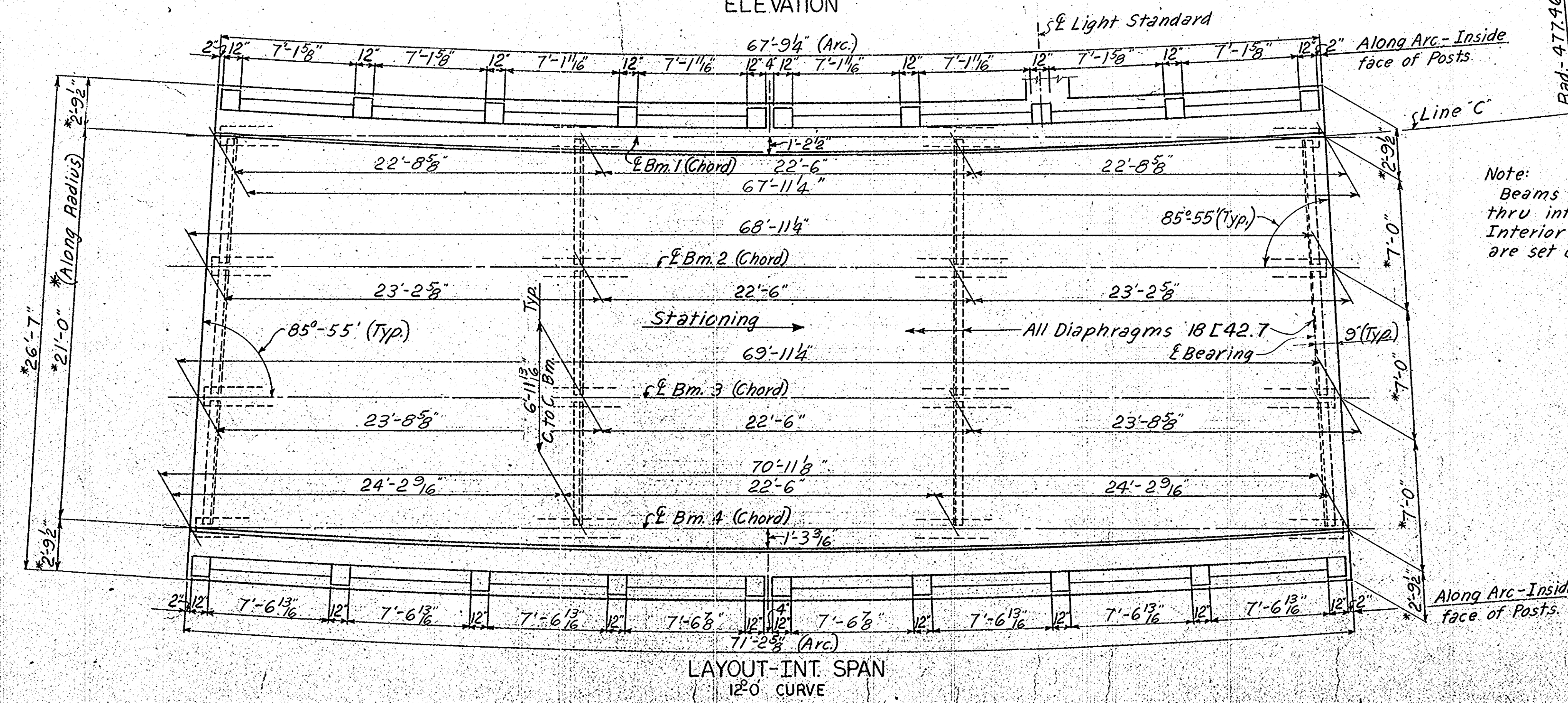


Slab Reinf. not Shown
Int. Bent & Joint.
See Detail ⑤ Sh. 5



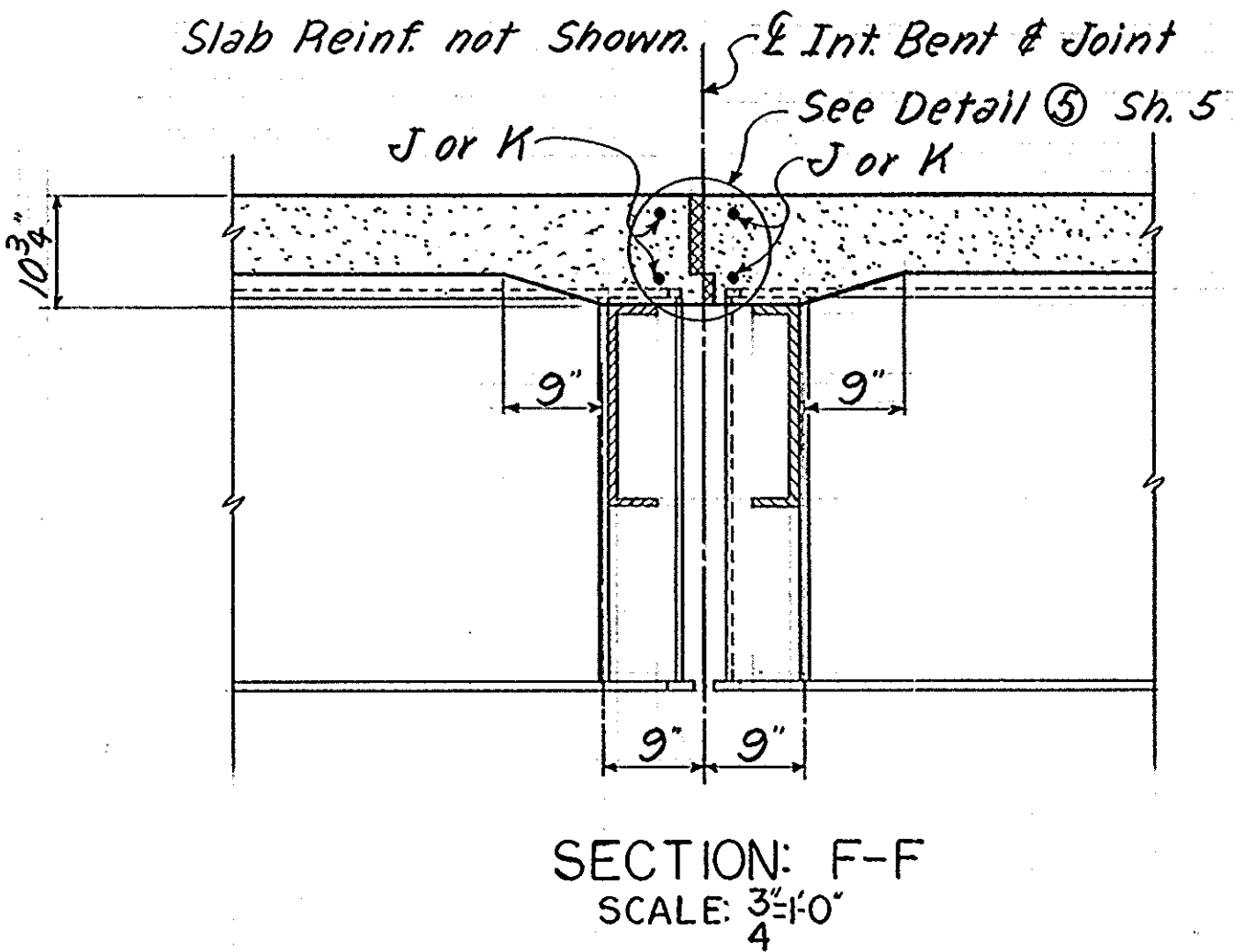
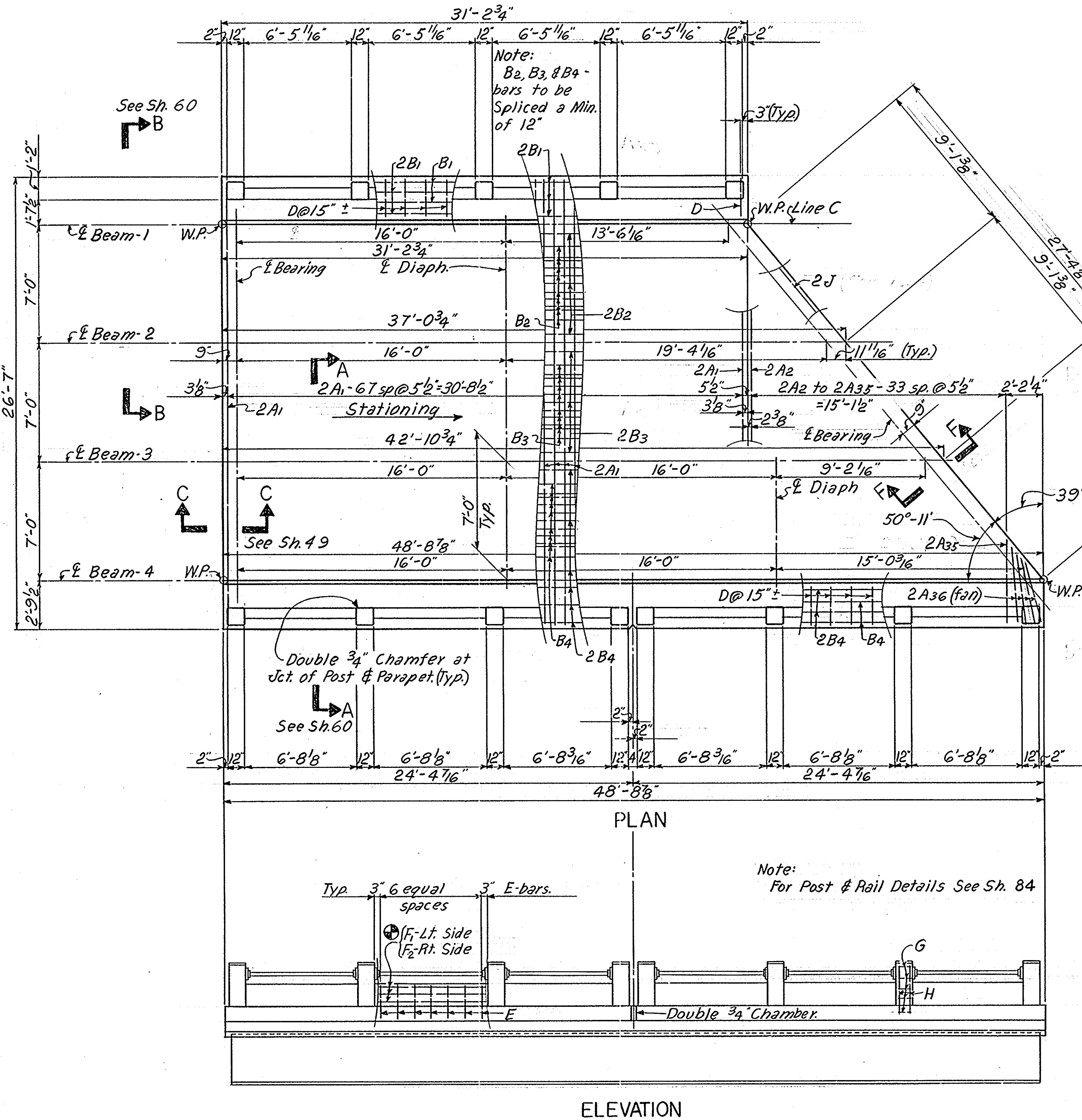
SECTION: D-D
SCALE: 1/2" = 1'-0"

Note:
Beams are set on chords drawn thru intersection of arcs and Interior Bents. Interior Bents are set on radial lines.



LAYOUT-INT. SPAN
12'0" CURVE

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	105213	I-26	50	84



REINFORCING STEEL SCHEDULE

MARK	SIZE	D	NO REQ D	SPAN - C9
A1	5	S	136	26'-3"
A2-A35	5	S	2ea	23'-3" to 5'-0" very by 6"
A36	5	S	8	4'-5"
B1	4	S	12	30'-10"
B2	4	S	32	18'-4"
B3	4	S	32	21'-3"
B4	4	S	44	24'-8"
C	5	S	82	0'-10"
D	4	B	66	3'-0"
E	4	B	70	5'-4"
F1	4	S	12	6'-0"
F2	4	S	18	6'-4"
G	3	B	65	3'-6"
H	4	B	26	8'-1"
J	5	S	2	28'-0"

B.B.	1' Ht.	Req'd	520
B.B.U.	2' Ht.	Req'd	375

QUANTITIES

ITEM	SPAN-C9
Concrete Class "A"	C.Y. ① 31.9
Reinforcing Steel	Lbs. ② 7,746
Structural Steel	Lbs. ③ 26,700
Fabricated Metal Handrail	L.F. 79.97

- ① Does not include 3.6 C.Y. for Posts & Parapet.
- ② Includes 304 Lbs. for Bolsters.
- ③ Includes 530 Lbs. for Stud Connectors.
- ⊕ For note affecting Constr. Changes see Sh. 45.

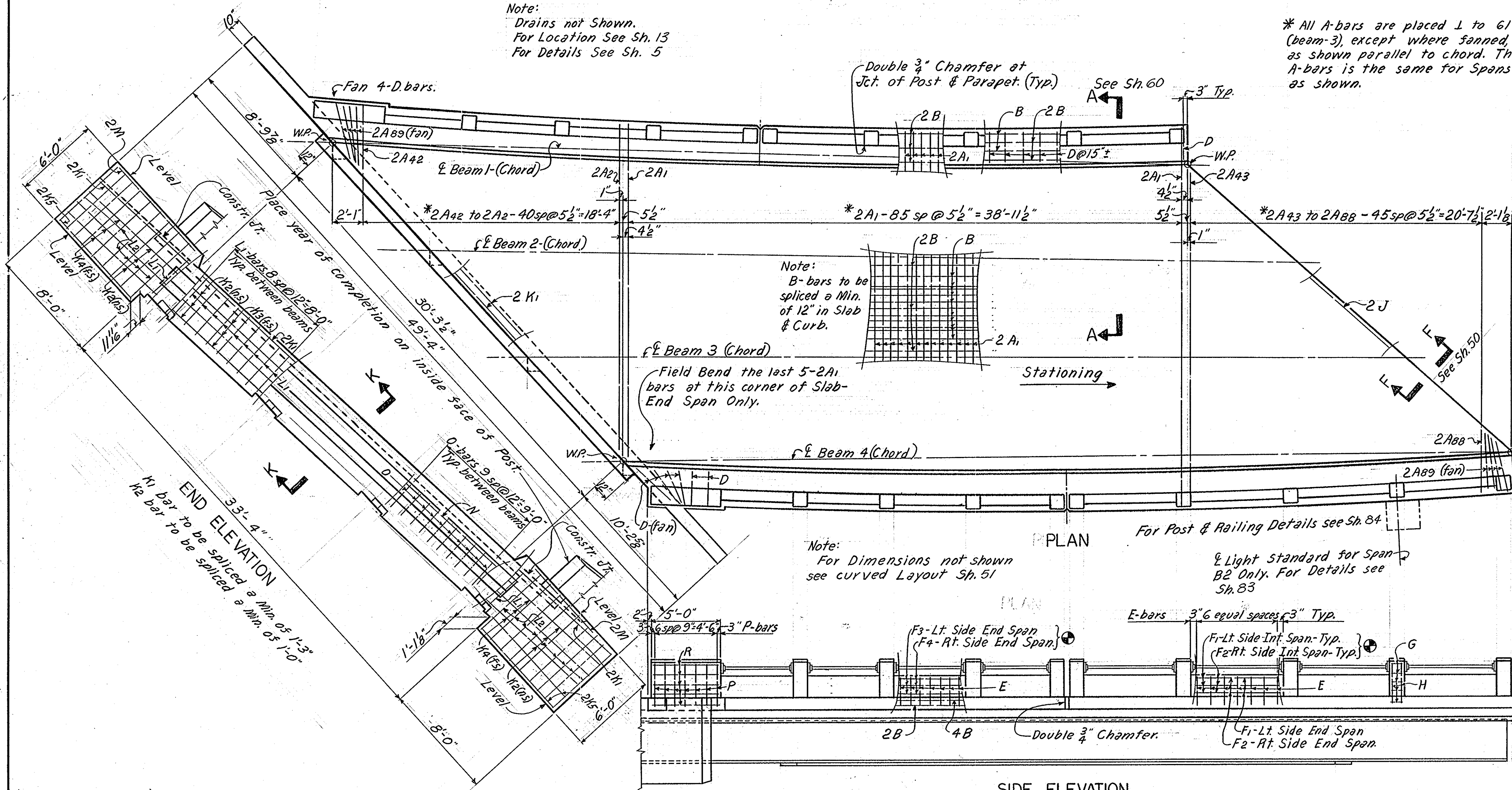
Note:
For Bending Details See Sh. 49

Notes:
For Standard Notes see Sh. 4
For Standard Details see Sh. 5
For Method of Payment of Parapet Wall and Post Quantities See Sh. 84
Right and Left sides, Where referred to in these Plans, apply only when looking in direction of Stationing.
For Booster Layout See Sh. 42
For Beam Details See Sh. 67 & 68.

This Sheet to Accompany Sh's. 60, 67, 68 & 84.

Scale: 1/4" = 1'-0"

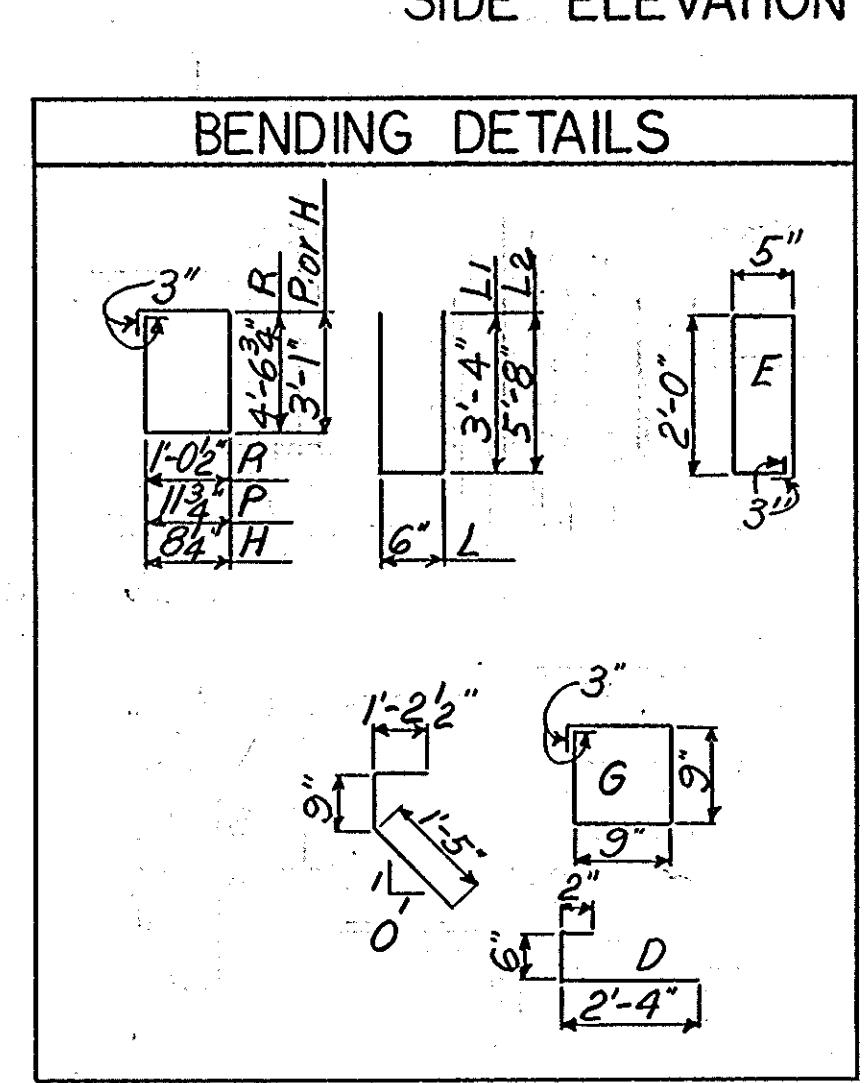
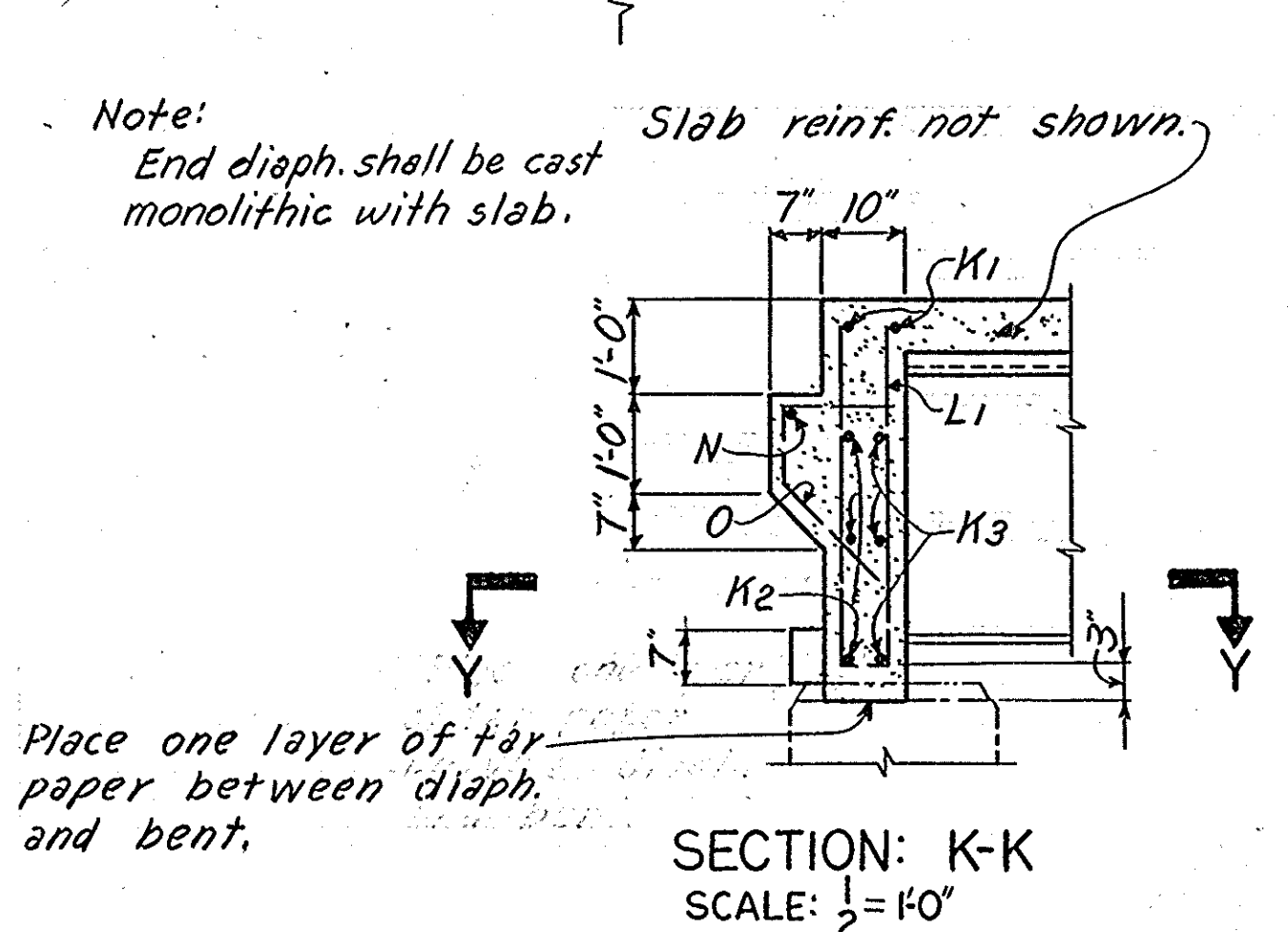
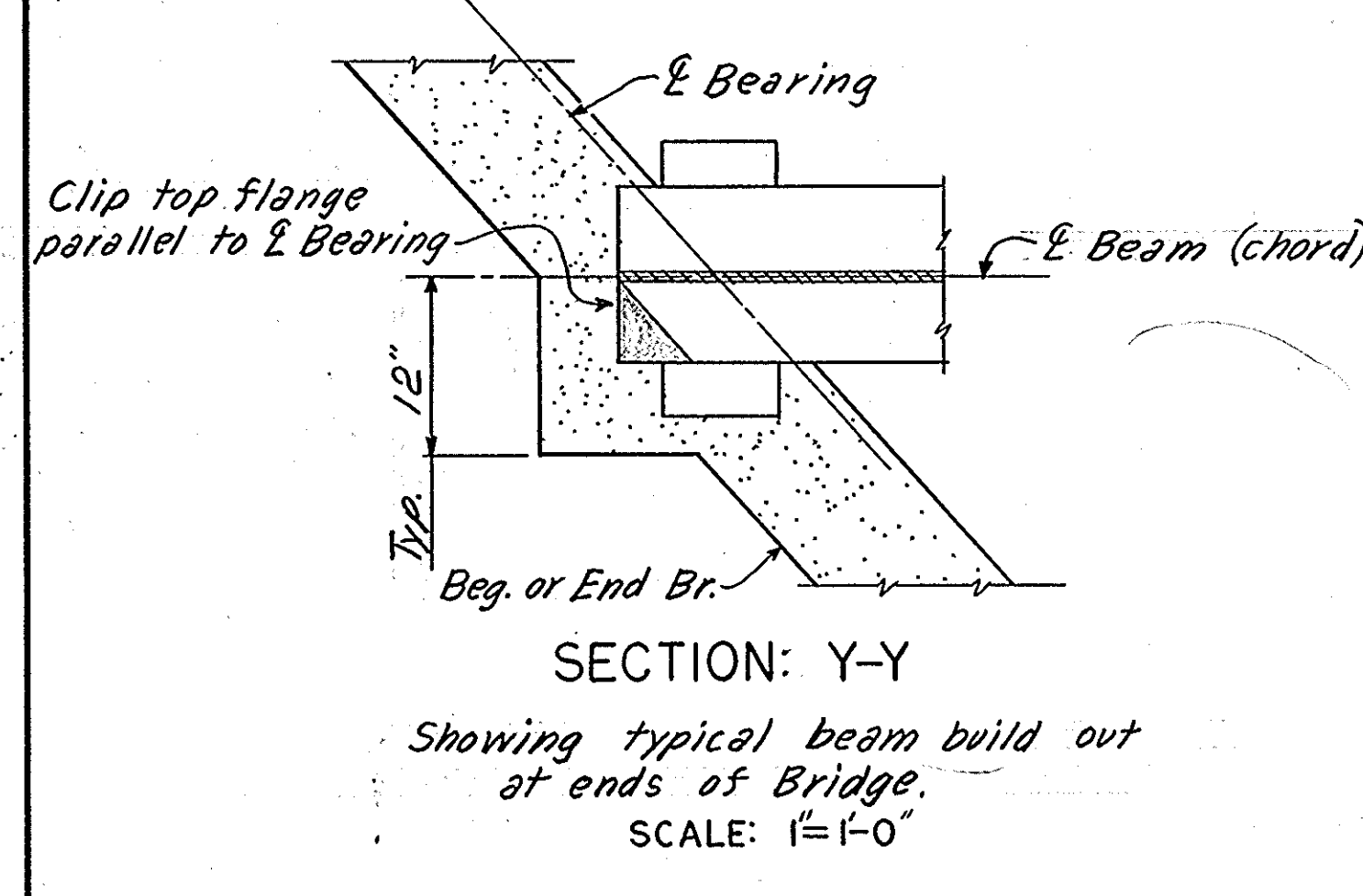
REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.
REV.		SUPERSTRUCTURE FOR SPAN C-9 FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REV.		
REVIEWED	IN CHARGE	DOCKET NO. COUNTY ROUTE NO. DATE
QUAN.	2-65	105213 CHARLESTON I-26 4-64
TR.		APPROVED BY
DR. WHM	BAM 4-64	APPROVED BY
DES. RWH	BAM 2-64	BRIDGE DESIGN & PLANS ENGINEER
BY	CHK'D DATE	BRIDGE ENGINEER



REINFORCING STEEL SCHEDULE									
MARK	SIZE	NO.	FOR END SPAN B-1	FOR INT. SPAN B-2, B-3 OR B-4	NO. REQ'D	LENGTH	NO. REQ'D	LENGTH	
A1	5	S	172	26'-2"	172	26'-2"			
A2	5	S	2ea	23'-4 1/2"	2ea	23'-4 1/2"			
A43-88	5	S	2ea	23'-4 1/2"	2ea	23'-4 1/2"			
A89	5	S	16	4'-3"	16	4'-3"			
B	4	S	144	31'-6"	144	31'-6"			
C	5	S	126	0'-10"	126	0'-10"			
D	4	B	100	3'-0"	100	3'-0"			
E	4	B	112	5'-4"	112	5'-4"			
F1	4	S	12	5'-10"	24	5'-10"			
F2	4	S	12	6'-2"	24	6'-2"			
F3	4	S	12	5'-4"					
F4	4	S	12	4'-9"					
G	3	B	90	3'-6"	100	3'-6"			
H	4	B	36	8'-1"	40	8'-1"			
J	5	S	2	31'-0"	4	31'-0"			
K1	5	S	4	25'-2"					
K2	4	S	6	25'-0"					
K3	4	S	9	9'-6"					
K4	4	S	6	9'-0"					
K5	4	S	6	7'-8"					
L1	4	B	29	7'-2"					
L2	4	B	18	11'-10"					
M	6	S	4	8'-5"					
N	4	S	1	31'-10"					
O	4	B	32	3'-5"					
P	4	B	14	8'-8"					
R	3	B	10	11'-9"					
B.B.	1"	Ht.	Req'd	800	Req'd	800			
B.B.U.	2 1/2"	Ht.	Req'd	560	Req'd	560			

QUANTITIES			
ITEM	SPAN-B-1	SPAN-B-2, B-3 OR B-4	
Concrete Class "A" (5)	C.Y. (1) 56.0	(2) 48.8	
Reinforcing Steel (5)	Lbs. (3) 12,919	(3) 12,153	
Structural Steel	Lbs. (4) 43,400	(4) 43,400	
Fabricated Metal Handrail	L.F. 122.84	122.71	

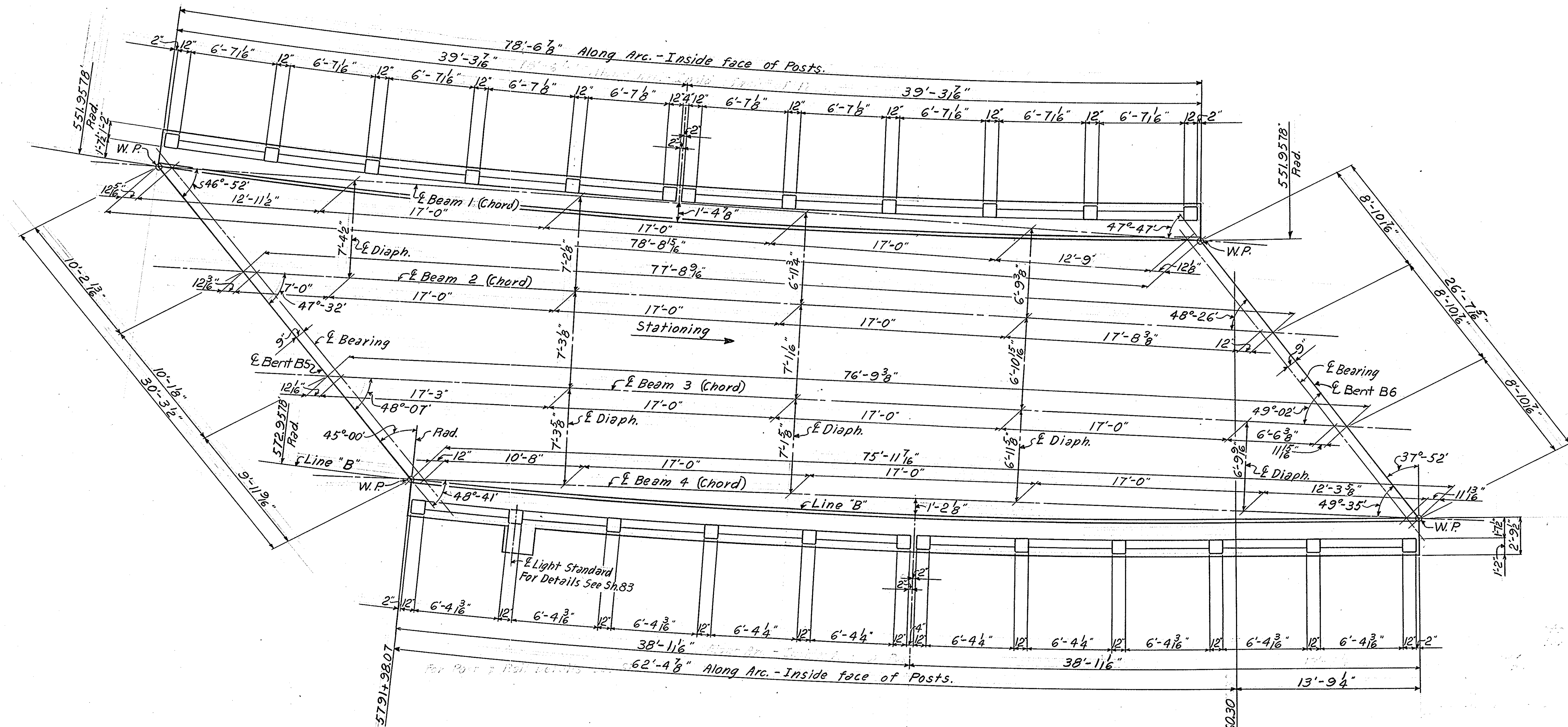
- ① Does not include 6.3' C.Y. for Posts & Parapet.
- ② Does not include 5.6' C.Y. for Posts & Parapet.
- ③ Includes 459 Lbs. for Bolsters.
- ④ Includes 820 Lbs. for Stud Connectors.
- ⑤ Does not include Conc. & Reinf. Steel for Light Bracket for Span B2.
- ⑥ For note affecting Constr. Change see Sh. 45.



Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Wings below Constr. Jt. shall be cast monolithic with End Diaphragm.
For method of payment for Parapet wall and Post quantities See Sh. 84.
For Light Bracket Details and quantities See Sh. 83
For Booster Layout See Sh. 42
Right & Left sides, where referred to in these Plans, apply only when looking in direction of Stationing.
For Beam Details see Sh. 67 & 68.

This Sh. to accompany Sh's 51, 60, 67, 68, 83 & 84
Scale: 1/4" = 1'-0", or as noted

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		SUPERSTRUCTURE
REV.		FOR SPANS B1-B4
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REVIEWED	MM	DOCKET NO. 10521.3
QUANTITIES	2-65	COUNTY CHARLESTON
TR.		ROUTE NO. I-26
DES.	WHM/BAM	DATE 4-64
BY	CHK'D	APPROVED BY [Signature]
		BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER



For Post & Rail Details See Sh.84

10°-00' CURVE - LINE B

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Beam Details See Sh. 67 & 68.

Scale: $\frac{1}{4}'' = 1'-0''$ This Sh. to accompany Shs. 54, 60, 67 & 68.

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
REV.		LAYOUT OF CURVED SPAN: B5			
REV.		FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.					
REVIEWED	RWH	DOCKET NO.	COUNTY	ROUTE NO.	DATE
IN CHARGE	BAM	10. 5213	CHARLESTON	I-26	3-64
QUAN.	RWH	APPROVED BY	APPROVED BY		
TR.	BAM	3-64	3-64		
DES.	RWH	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER		
BY	CHK'D	DATE			

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	10.521.3	I-26	56	84

REINFORCING STEEL SCHEDULE

MARK	SIZE	NO.	D	SPAN - B7	
				NO REQ'D	LENGTH
A1	5	S	198	26'-3"	
A2 - A21	5	S	2ea	22'-10 7/8" to 5'-5"	Var. by Bill
A22 - A53	5	S	2ea	4'-10 1/2" to 23'-1"	Var. by Bill
A54	5	S	8	4'-3"	
A55	5	S	6	4'-9"	
B1	4	S	56	31'-2"	
B2	4	S	32	30'-2"	
B3	4	S	56	29'-3"	
C	5	S	120	0'-10"	
D	4	B	96	3'-0"	
E	4	B	112	5'-4"	
F1	4	S	24	6'-0"	
F2	4	S	24	5'-4"	
G	3	B	100	3'-6"	
H	4	B	40	8'-1"	
J	5	S	2	27'-3"	
K	5	S	2	24'-2"	

Note:
For Bending
Details See Sh. 52.

B.B.	1" Ht.	Req'd	765'
B.B.U.	2 1/2" Ht.	Req'd	530'

QUANTITIES

ITEM	SPAN-B7
Concrete Class "A"	C.Y. ① 46.8
Reinforcing Steel	Lbs. ② 11,680 ✓
Structural Steel	Lbs. ③ 40,800
Fabricated Metal Handrail	L.F. 117.68 ✓

- ① Does not include 5.4 C.Y. for Posts & Parapet.
- ② Includes 436 Lbs. for Bolsters.
- ③ Includes 820 Lbs. for Stud Connectors.

⊕ For note affecting Constr. Change see Sh. 45.

This Sheet to Accompany Sh's. 60, 67, 68 & 84

Scale: 1/4"=1'-0"

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
REV.		SUPERSTRUCTURE FOR SPAN - B7 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.		DOCKET NO. COUNTY ROUTE NO. DATE			
REV.		10.521.3 CHARLESTON I-26 4-64			
REVIEWED	RWH	IN CHARGE	DOCKET NO.	COUNTY	ROUTE NO. DATE
QUAN.	RWH	2-65	10.521.3	CHARLESTON	I-26 4-64
TR.	WHM	BAM 4-64	APPROVED BY		APPROVED BY
DES.	RWH	BAM 2-64	DES. RWH	BAM 2-64	BRIDGE DESIGN & PLANS ENGINEER
BY	CHK'D	DATE			BRIDGE ENGINEER

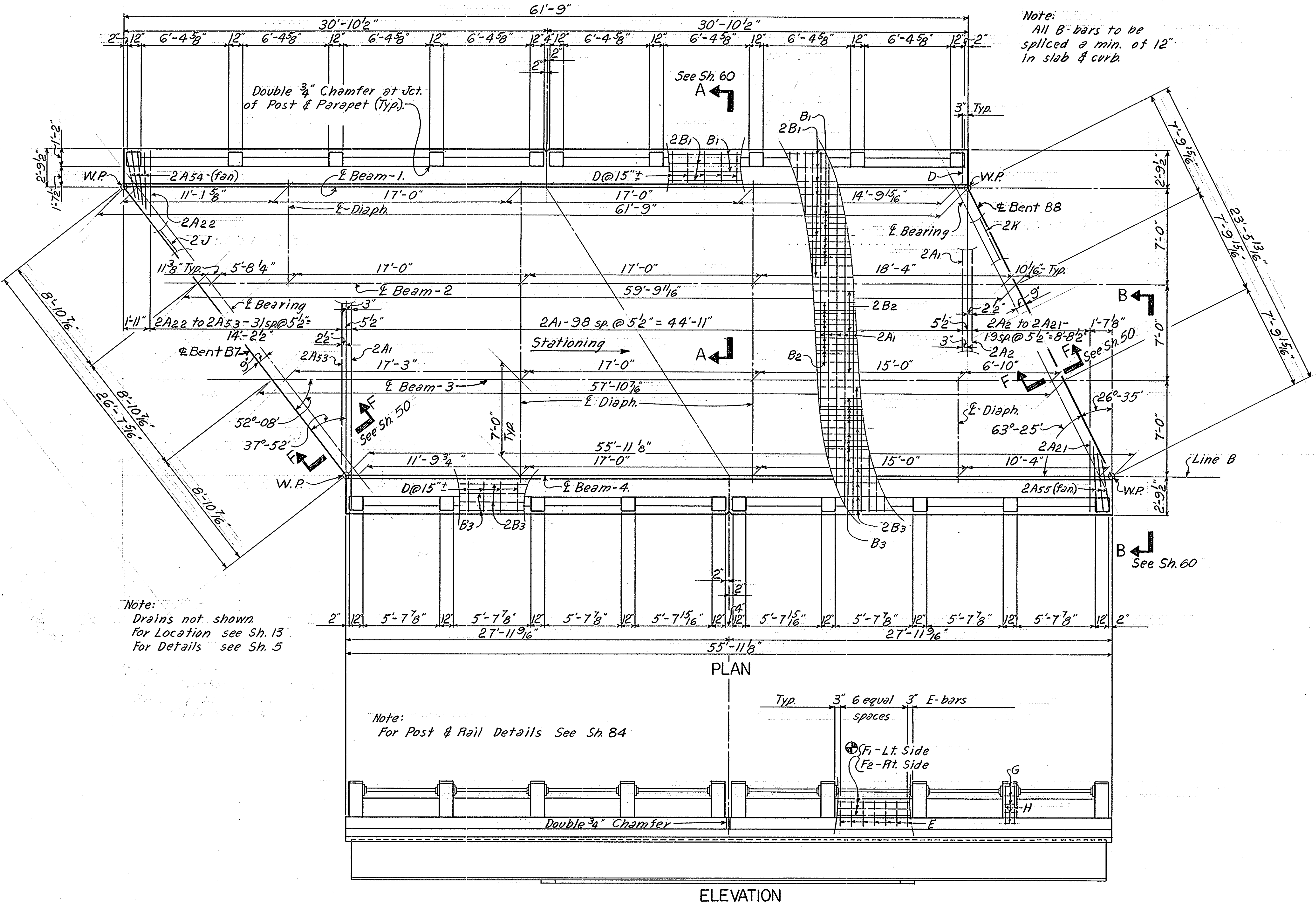
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Method of Payment of
Parapet Wall and Post Quantities
See Sh. 84
For Beam Details see Sh. 67 & 68.

Right & Left sides, Where
referred to in these Plans, apply
only when looking in direction
of Stationing.
For Booster Layout See Sh. 42

Note:
For Post & Rail Details See Sh. 84

Note:
Drains not shown.
For Location see Sh. 13
For Details see Sh. 5

Note:
All B-bars to be
spliced a min. of 12"
in slab & curb.



FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10.521.3	I-26	62	84

REINFORCING STEEL SCHEDULE

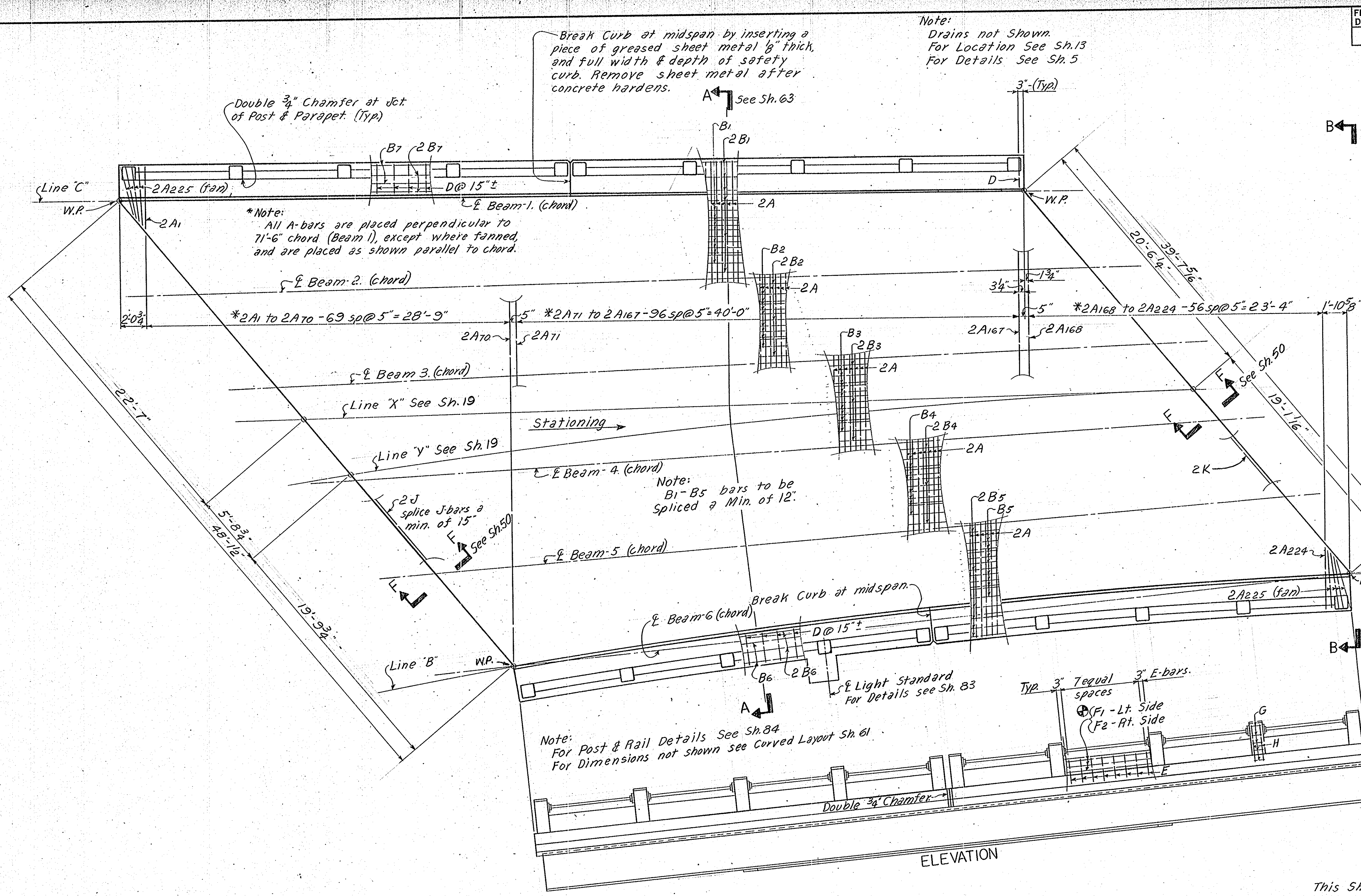
MARK	SIZE NO.	D	SPAN — B II	NO. REQ'D	LENGTH
A1-A70	5	S	2ea	4'-9" to 39'-3"	Var. by 6"
A71-A167	5	S	2ea	37'-0" to 41'-7"	Var. by 9"
A168-A224	5	S	2ea	34'-0" to 4'-11"	Var. by 6"
A225	5	S	16	4'-0"	
B1	4	S	44	36'-0"	
B2	4	S	32	35'-6"	
B3	4	S	32	35'-0"	
B4	4	S	32	34'-6"	
B5	4	S	44	34'-0"	
B6	4	S	12	32'-8"	
B7	4	S	12	35'-4"	
C	5	S	142	0'-10"	
D	4	B	112	3'-0"	
E	4	B	128	5'-4"	
F1	4	S	24	7'-3"	
F2	4	S	24	6'-7"	
G	3	B	100	3'-6"	
H	4	B	40	8'-1"	
J	5	S	4	25'-0"	
K	5	S	2	40'-3"	
B.B.	1' Ht.	Req'd	1360		
B.B.U.	2 1/2' Ht.	Req'd	990		

Note:
For Bending Details
See Sh. 52

QUANTITIES

ITEM	SPAN - B II
Concrete Class "A"	C.Y. (1) 76.7
Reinforcing Steel	Lbs. (2) 20,751
Structural Steel	Lbs. (3) 79,200
Fabricated Metal Handrail	L.F. 137.72

- Does not include 6.2 C.Y. for Post & Parapet.
- Includes 800 Lbs. for Bolsters.
- Includes 1330 Lbs. for Stud Connectors & 210 Lbs. for Bronze Exp. Plates.
- Does not include Conc. & Reinf. Steel for Light Bracket.
- For note affecting Constr. Change see Sh. 45.



Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Method of Payment of Parapet Wall & Post, quantities See Sh. 84
Right & Left Sides, where referred to in these Plans, apply only when looking in direction of Stationing.
For Booster Layout See Sh. 42
For Light Bracket Details & quantities See Sh. 83

This Sheet to Accompany Sh's. 61, 63, 67, 68, 83 & 84
Scale: 1/4" = 1'-0"

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.
REV.		SUPERSTRUCTURE FOR SPAN - B II FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
REV.		DOCKET NO. COUNTY ROUTE NO. DATE
QUAN.	2-65	10.521.3 CHARLESTON I-26 4-64
TR.		APPROVED BY
DR. WHM	4-64	DES. RWH
DES. RWH	4-64	BY CHK'D DATE
BY		BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10.521.3	I-26	65	84

REINFORCING STEEL SCHEDULE

MARK	SIZE	D	SPAN-B12	NO. REQD	LENGTH
A1-	5	S	2ea	32'-6"	4'-5" to 32'-6"
A58-	5	S	2ea	35'-9"	Var. 18.5' to 35'-9"
A98-	5	S	2ea	35'-2"	Var. 18.5' to 35'-2"
A99-	5	S	138	35'-3"	Var. 18.5' to 35'-3"
A100-	5	S	2ea	32'-0"	4'-11" to 32'-0"
A159-	5	S	16	4'-3"	Var. 18.5' to 4'-3"
B1	4	S	12	3'-5'-3"	
B2	4	S	152	36'-5"	
B3	4	S	12	3'-5'-10"	
C	5	S	148	0'-10"	
D	4	B	117	3'-0"	
E	4	B	128	5'-4"	
F1	4	S	24	7'-2"	
F2	4	S	24	7'-4"	
G	3	B	100	3'-6"	
H	4	B	40	8'-1"	
J	5	S	2	40'-3"	
K	5	S	2	42'-0"	
B.B.	1"	Ht.	Reqd	115.5'	
B.B.U.	2 1/8"	Ht.	Reqd	86.0'	

QUANTITIES

ITEM	SPAN-B 12
Concrete Class "A" (4)	C.Y. (1) 72.2
Reinforcing Steel (4)	Lbs. (2) 19,184
Structural Steel	Lbs. (3) 77,100
Fabricated Metal Handrail	L.F. 143.45'

Note:
For Bending Details
See Sh. 52

- ① Does not include 6.4 C.Y. for Post & Parapet.
- ② Includes 689 Lbs. for Bolsters.
- ③ Includes 1170 Lbs. for Stud Connectors & 180 Lbs. for Bronze Exp. Plates.
- ④ Does not include Conc. & Reinf. Steel for Light Bracket.
- ⑤ For note affecting Constr. Change see Sh. 45.

This Sheet to Accompany Sh's 64, 66, 67, 68, 83 & 84
Scale: 1/4"=1'-0"

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.
REV.		
REV.		SUPERSTRUCTURE FOR SPAN B-12. FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.
REV.		
REVIEWED	IN CHARGE	DOCKET NO. COUNTY ROUTE NO. DATE
QUAN.	2-65	10.521.3 CHARLESTON I-26 4-64
TR.	DR. WHM BAM 4-64	APPROVED BY
DES.	RWH BAM 4-64	APPROVED BY
BY	CHK'D DATE	BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER

Note:
Drains not Shown.
For Location See Sh. 13
For Details See Sh. 5

Break Curb at midspan by
inserting a piece of greased
sheet metal 8" thick, and full
width & depth of safety curb.
Remove sheet metal after
concrete hardens.

Double 3/4" Chamfer at Jct.
of Post & Parapet: (Typ)

Light Standard
For Details see Sh. 83

See Sh. 66

Note:
All A-bars are placed perpendicular to
71'-7 1/4" chord (Beam 3), except where fanned,
and are spaced as shown parallel to chord.

Note:
B2-bars to be
spliced a Min.
of 12".

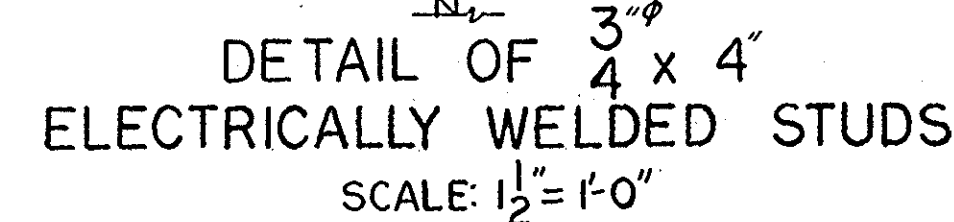
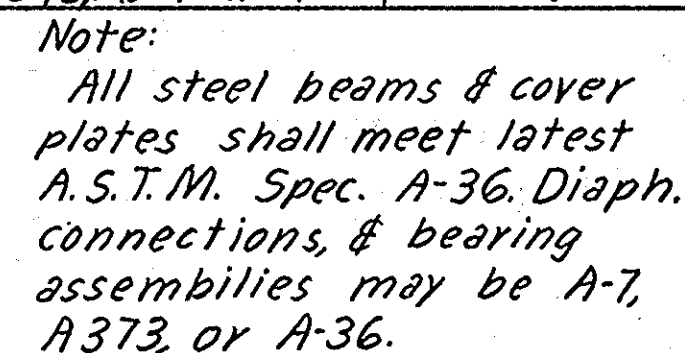
See Sh. 66

See Sh. 10

Note:
For Post & Rail Details See Sh. 84
For Dimensions not shown see Curved Layout Sh. 64

ELEVATION

Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Method of Payment of Parapet
Wall & Post Quantities See Sh. 84
Right & Left Sides, where referred
to in these Plans, apply only when
looking in direction of Stationing.
For Booster Layout See Sh. 42
For Light Bracket Details & Quantities
See Sh. 83
For Beam Details see Sh. 67 & 68.



Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
For Camber of Beams see Sh. 68
For Detail of 12 Located on
Outside of Exterior Bms, See Sh. 66, 70 & 82.

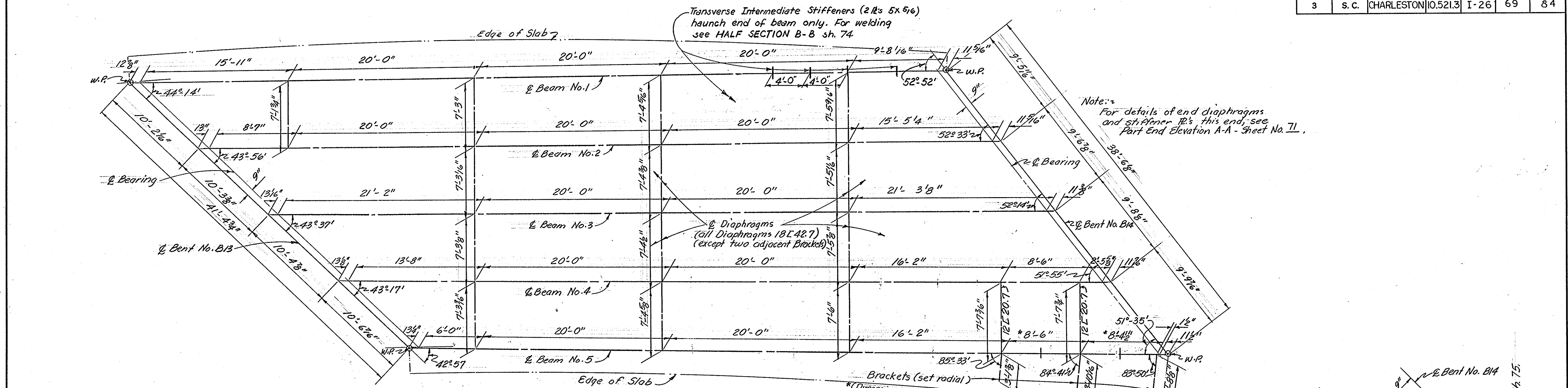
REV.				S. C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.
REV.				
REV.				
REV.				
REVIEWED	<i>RWH</i>			
	IN CHARGE			BEAM DETAILS SPANS B1-B12 B16 & C5-C10 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.
QUAN.	<i>RWH</i>	<i>BAM</i>	<i>2-65</i>	
TR.				
DR.	<i>WHM</i>	<i>BAM</i>	<i>10-64</i>	
DES.	<i>RWH</i>	<i>BAM</i>	<i>5-64</i>	
	BY CHK'D DATE			DOCKET NO. COUNTY ROUTE NO. DATE 10.521.3 CHARLESTON I-26 7-64
	APPROVED BY <i>[Signature]</i>			APPROVED BY <i>[Signature]</i>
	BRIDGE DESIGN & PLANS ENGINEER			BRIDGE ENGINEER

SPAN NO.		B1						B2-B4						B5						B6									
BEAM NO.		1		2 or 3		4		1		2 or 3		4		1		2		3		4		1		2		3			
CAMBER Max. Toler. $\pm \frac{1}{4}"$		$-\frac{13}{16}"$		$-\frac{1}{2}"$		$-\frac{5}{16}"$		$+\frac{1}{8}"$		$+\frac{5}{16}"$		$+\frac{7}{16}"$		$+\frac{9}{16}"$		$+\frac{1}{4}"$		$+\frac{1}{3}"$		$+\frac{2}{3}"$		$+\frac{1}{2}"$		$+\frac{2}{3}"$		$+\frac{1}{2}"$			
V.C. & S.E. ORD.		$-\frac{1}{16}"$		$-\frac{1}{16}"$		$-\frac{1}{2}"$		$-\frac{3}{4}"$		$-\frac{3}{4}"$		$-\frac{3}{4}"$		$-\frac{1}{4}"$		$-\frac{1}{16}"$		$-\frac{3}{16}"$		$+\frac{1}{4}"$		$+\frac{1}{4}"$		$+\frac{1}{16}"$		$+\frac{1}{16}"$			
D. L. DEFLECTION		D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.	D.L.	D.L.Defl.
	Steel	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.21 $\frac{1}{16}$ ft.	$\frac{7}{16}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$
	Slab.	0.53 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	0.53 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	0.48 $\frac{1}{16}$ ft.	$\frac{15}{16}"$	0.67 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	0.67 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	0.69 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$
	Superimposed D.L.	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{7}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$
	Totals	1.06 $\frac{1}{16}$ ft.	$\frac{7}{8}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.06 $\frac{1}{16}$ ft.	$\frac{7}{8}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.06 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.25 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.25 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.27 $\frac{1}{16}$ ft.	$\frac{1}{3}"$	1.24 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	1.24 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	1.24 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	1.24 $\frac{1}{16}$ ft.	$\frac{1}{8}"$

SPAN NO.		B6				B7				B8 or B9						B10						B11					
BEAM NO.		4		1		2 or 3		4		1		2 or 3		4		1		2		3 or 4		1		2		3 or 4	
CAMBER Max. Toler. $\pm 4"$		$+3\frac{1}{8}"$		$+2\frac{5}{16}"$		$+1\frac{1}{8}"$		$+1\frac{1}{16}"$		$+2\frac{5}{8}"$		$+2\frac{3}{8}"$		$+2\frac{1}{8}"$		$+1\frac{3}{4}"$		$+1\frac{5}{8}"$		$+1\frac{1}{16}"$		$+2\frac{15}{16}"$		$+2\frac{3}{8}"$		$+1\frac{9}{16}"$	
V.C. & S.E. ORD.		$+14"$		$+14"$		$+1\frac{15}{16}"$		$+1\frac{1}{16}"$		$+1\frac{3}{8}"$		$+1\frac{1}{8}"$		$+8"$		$+9\frac{1}{16}"$		$+7\frac{1}{16}"$		$+4"$		$+17\frac{1}{16}"$		$+8"$		$+8"$	
D. L. DEFLECTION		DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.	DL.	DL.Defl.
	Steel.	0.21 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.15 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.15 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.15 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.16 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.15 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.15 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.15 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.18 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.18 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.17 $\frac{1}{16}$ ft.	$\frac{1}{4}"$
	Slab.	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{5}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	0.66 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	0.63 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	0.63 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	0.63 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.66 $\frac{1}{16}$ ft.	$\frac{15}{16}"$
	Superimposed D.L.	0.37 $\frac{1}{16}$ ft.	$\frac{3}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{3}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.28 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.28 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.28 $\frac{1}{16}$ ft.	$\frac{1}{4}"$
	Totals	1.24 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	1.18 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	1.18 $\frac{1}{16}$ ft.	$\frac{15}{16}"$	1.18 $\frac{1}{16}$ ft.	$\frac{3}{4}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	1.19 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	1.15 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	1.15 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	1.15 $\frac{1}{16}$ ft.	$\frac{13}{16}"$	1.12 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	1.12 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	1.11 $\frac{1}{16}$ ft.	$\frac{1}{16}"$

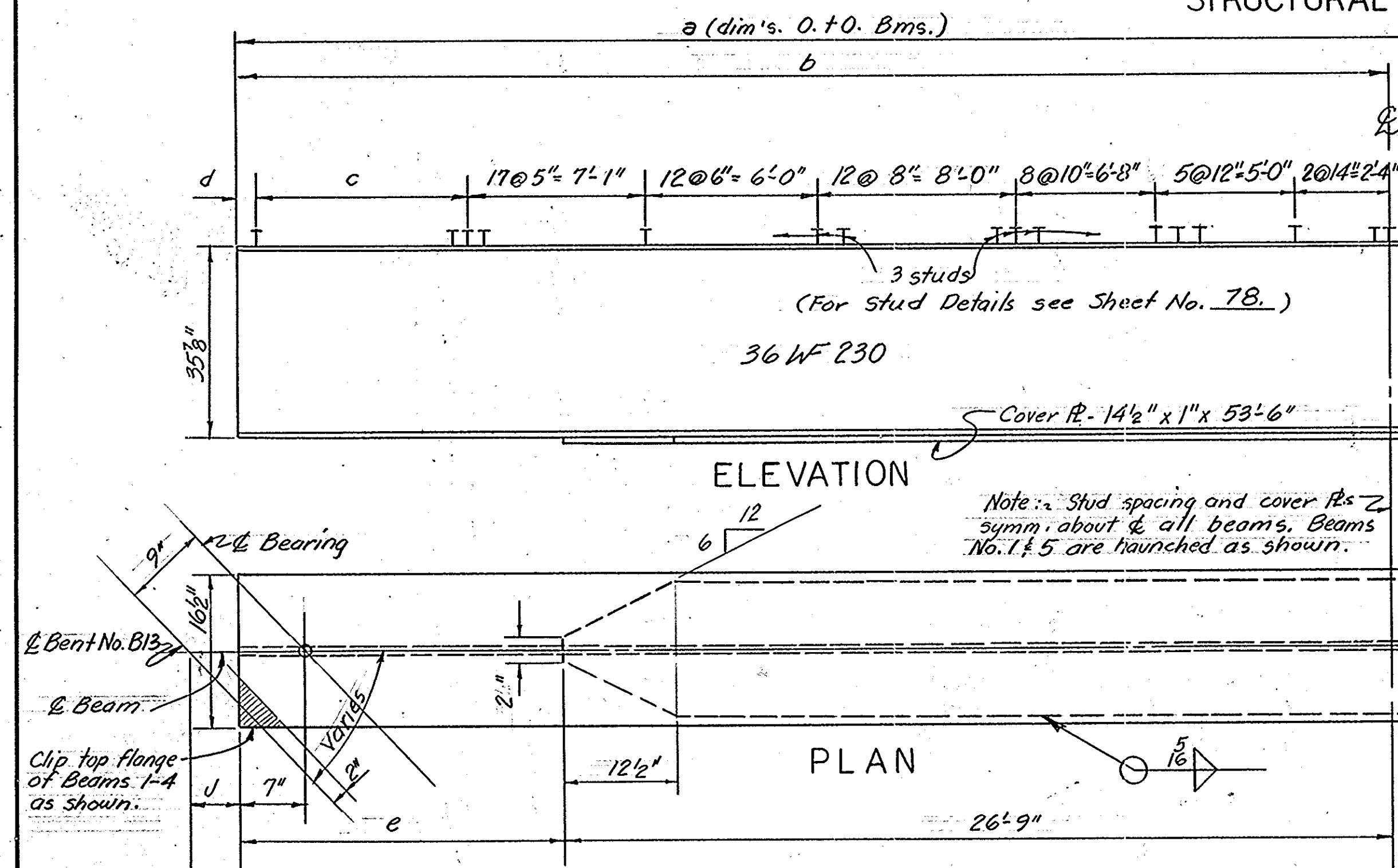
SPAN NO.		B11		B12				B16		C5		C6		C7				C8				C9					
BEAM NO.		5 or 6		1		2		3-5		All Beams		All Beams		All Beams		1		2-4		1		2-4		1		2	
CAMBER Max. Toler. ± 4"		+1 3⁄8"		+2 9⁄16"		+1 15⁄16"		+1 5⁄8"		+ 5⁄16"		+ 13⁄16"		+ 15⁄16"		+ 1"		+ 1 7⁄16"		+ 1 1⁄4"		+ 1 11⁄16"		+ 3⁄8"		+ 1 1⁄16"	
V.C. & S. E. ORD.		0		+ 15⁄16"		+ 5⁄16"		0		0		- 11⁄16"		+ 3⁄16"		+ 8"		+ 7⁄16"		+ 3⁄8"		+ 3⁄16"		+ 5⁄16"		+ 7⁄16"	
D. L. DEFLECTION.	D.L.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.	D.L.	DL.Defl.
	Steel.	0.16 1⁄16 ft.	4"	0.20 1⁄16 ft.	5⁄16"	0.20 1⁄16 ft.	5⁄16"	0.20 1⁄16 ft.	5⁄16"	0.14 1⁄16 ft.	1⁄16"	0.18 1⁄16 ft.	1⁄4"	0.14 1⁄16 ft.	1⁄8"	0.16 1⁄16 ft.	3⁄16"	0.16 1⁄16 ft.	3⁄16"	0.16 1⁄16 ft.	3⁄16"	0.16 1⁄16 ft.	3⁄16"	0.14 1⁄16 ft.	0	0.14 1⁄16 ft.	1⁄16"
	Slab.	0.66 1⁄16 ft.	7⁄8"	0.72 1⁄16 ft.	1 1⁄16"	0.72 1⁄16 ft.	1 1⁄16"	0.72 1⁄16 ft.	1 1⁄16"	0.70 1⁄16 ft.	3⁄16"	0.66 1⁄16 ft.	15⁄16"	0.66 1⁄16 ft.	1⁄2"	0.53 1⁄16 ft.	1⁄2"	0.66 1⁄16 ft.	1 1⁄16"	0.53 1⁄16 ft.	1⁄2"	0.66 1⁄16 ft.	1 1⁄16"	0.66 1⁄16 ft.	1⁄16"	0.66 1⁄16 ft.	1⁄8"
	Superimposed. D.L.	0.28 1⁄16 ft.	1⁄4"	0.33 1⁄16 ft.	1⁄4"	0.33 1⁄16 ft.	1⁄4"	0.33 1⁄16 ft.	1⁄4"	0.32 1⁄16 ft.	1⁄16"	0.37 1⁄16 ft.	5⁄16"	0.37 1⁄16 ft.	1⁄8"	0.37 1⁄16 ft.	3⁄16"	0.37 1⁄16 ft.	1⁄4"	0.37 1⁄16 ft.	3⁄16"	0.37 1⁄16 ft.	1⁄4"	0.37 1⁄16 ft.	0	0.37 1⁄16 ft.	1⁄16"
	Totals	1.10 1⁄16 ft.	1 3⁄8"	1.25 1⁄16 ft.	1 3⁄8"	1.25 1⁄16 ft.	1 3⁄8"	1.25 1⁄16 ft.	1 3⁄8"	1.16 1⁄16 ft.	5⁄16"	1.21 1⁄16 ft.	1⁄2"	1.17 1⁄16 ft.	3⁄4"	1.06 1⁄16 ft.	7⁄8"	1.19 1⁄16 ft.	1 1⁄8"	1.06 1⁄16 ft.	7⁄8"	1.19 1⁄16 ft.	1 1⁄8"	1.17 1⁄16 ft.	1⁄16"	1.17 1⁄16 ft.	1⁄4"

SPAN NO.		C9				C10			
BEAM NO.		3		4		1-3		4	
CAMBER Max. Toler. $\pm 4"$		$+7\frac{1}{8}"$		$+1\frac{3}{8}"$		$+3\frac{1}{8}"$		$+3\frac{1}{16}"$	
V. C. & S. E. ORD.		$+5\frac{1}{8}"$		$+7\frac{1}{8}"$		$+1\frac{9}{16}"$		$+2\frac{1}{8}"$	
D. L. DEFLECTION		D. L.	DL. Defl.	D. L.	DL. Defl.	D. L.	DL. Defl.	D. L.	DL. Defl.
	Steel.	0.14 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.14 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.18 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	0.18 $\frac{1}{16}$ ft.	$\frac{1}{4}"$
	Slab.	0.66 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.66 $\frac{1}{16}$ ft.	$\frac{5}{16}"$	0.63 $\frac{1}{16}$ ft.	1"	0.63 $\frac{1}{16}$ ft.	1"
	Superimposed D.L.	0.37 $\frac{1}{16}$ ft.	$\frac{1}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{1}{8}"$	0.37 $\frac{1}{16}$ ft.	$\frac{5}{16}"$	0.37 $\frac{1}{16}$ ft.	$\frac{5}{16}"$
	Totals	1.17 $\frac{1}{16}$ ft.	$\frac{1}{4}"$	1.17 $\frac{1}{16}$ ft.	$\frac{1}{2}"$	1.18 $\frac{1}{16}$ ft.	$1\frac{3}{16}"$	1.18 $\frac{1}{16}$ ft.	$1\frac{9}{16}"$



STRUCTURAL STEEL LAYOUT FOR SPAN B13

SCALE: 1" = 5'-0"



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

BEAM DIMENSIONS							
Beam No.	a	b	c	d	e	j	k
1	86'-9 1/8"	43'-4 3/16"	24 sp @ 4" = 8'-0"	3 3/16"	16'-7 9/16"	5' 8"	4 5/16"
2	85'-2 1/4"	42'-7 7/8"	22 sp @ 4" = 7'-4"	2 3/8"	15'-10 3/8"	6"	4 5/16"
3	83'-7 7/8"	41'-9 9/16"	19 sp @ 4" = 6'-4"	4 9/16"	15'-0 9/16"	6 1/16"	4 3/8"
4	81'-11 3/8"	40'-11 3/8"	17 sp @ 4" = 5'-8"	2 7/8"	14'-2 1/8"	6' 8"	4 7/8"
5	80'-4"	40'-2"	14 sp @ 4" = 4'-8"	5"	13'-5"	6' 4"	4 1/2"

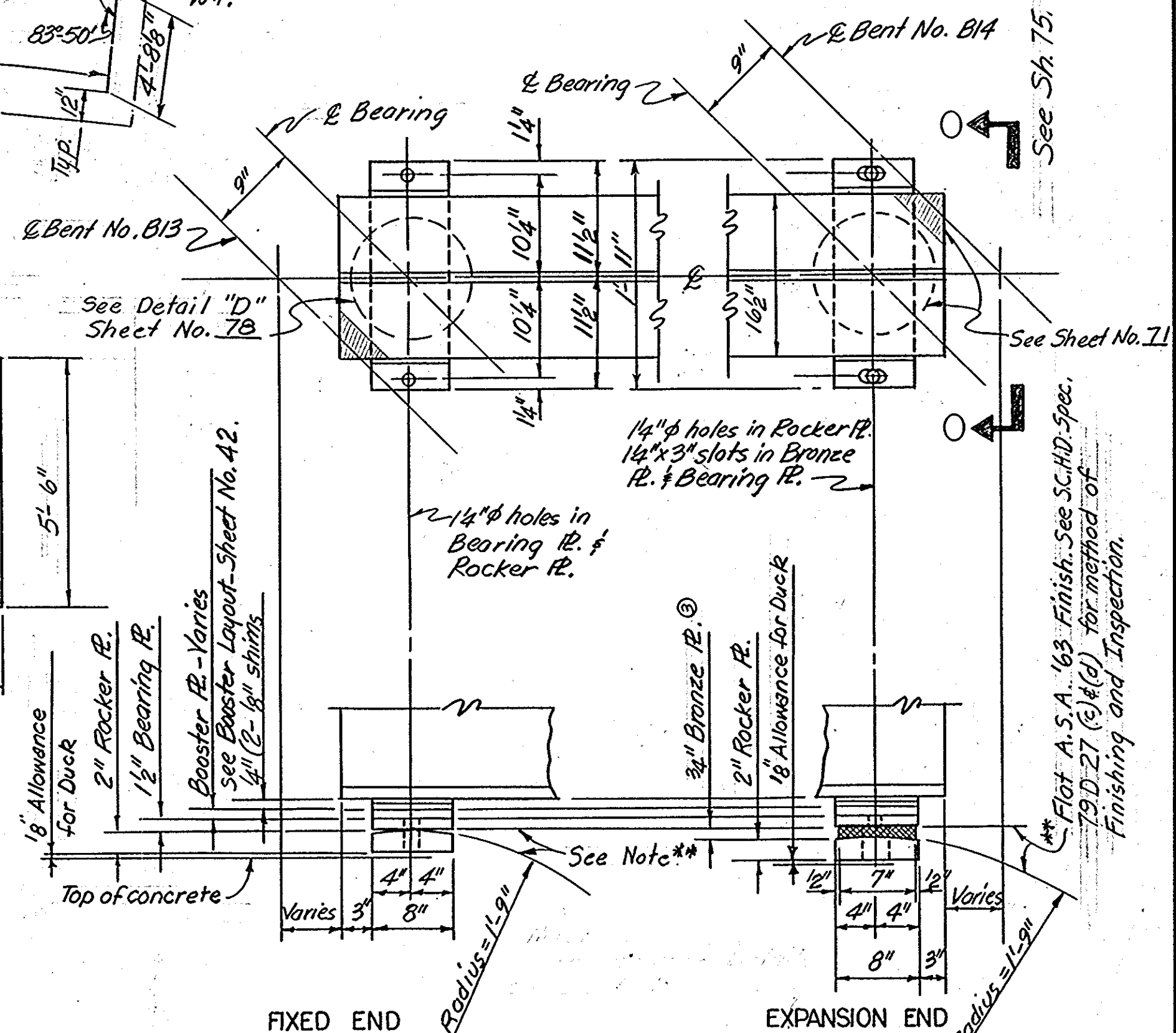
Note:
Transverse Intermediate Stiffeners not shown.
See Steel Layout.

HAUNCH DETAILS FOR BEAMS 1 & 5

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

Note:~
If desired, the haunch shown above may be formed by cutting web of beam 2 1/2" minimum above bottom flange, bending flange to conform to curves and welding inserted 3/4" web plate top and bottom with same type of weld as indicated above.

- ① Types of welds refer to Prequalified Welded Joints as shown in Fig. 215 & 216 of 1963 Specs. for Welded Highway & Railway Bridges by American Welding Society.
- ② Grind flush on outside of Beam and where necessary to clear stiffeners.
- ③ All cost of materials and workmanship for furnishing and placing Bronze Expansion Pls to be included in the Lump Sum Bid for Steel Superstructures. For Spec's of Bronze Exp. Pls see Sheet No. 4.
- ④ For typical Elevation of Bearing Details see Sheet No. 75.
- For Standard Notes see Sheet No. 4.
- For Standard Details see Sheet No. 5.
- All steel in beams and cover plates shall comply with the latest A.S.T.M. Spec. A-36. All diaphragm connections, bearing assemblies, and other secondary members and connections may be A-7, A-36, or A-373 Steel.
- Ends of beams and end diaphragm connection plates shall be vertical.



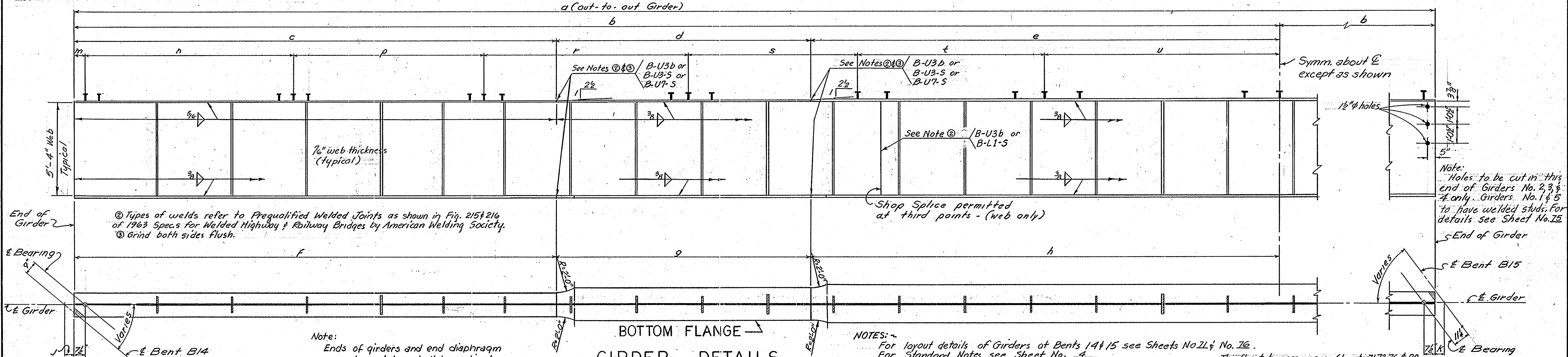
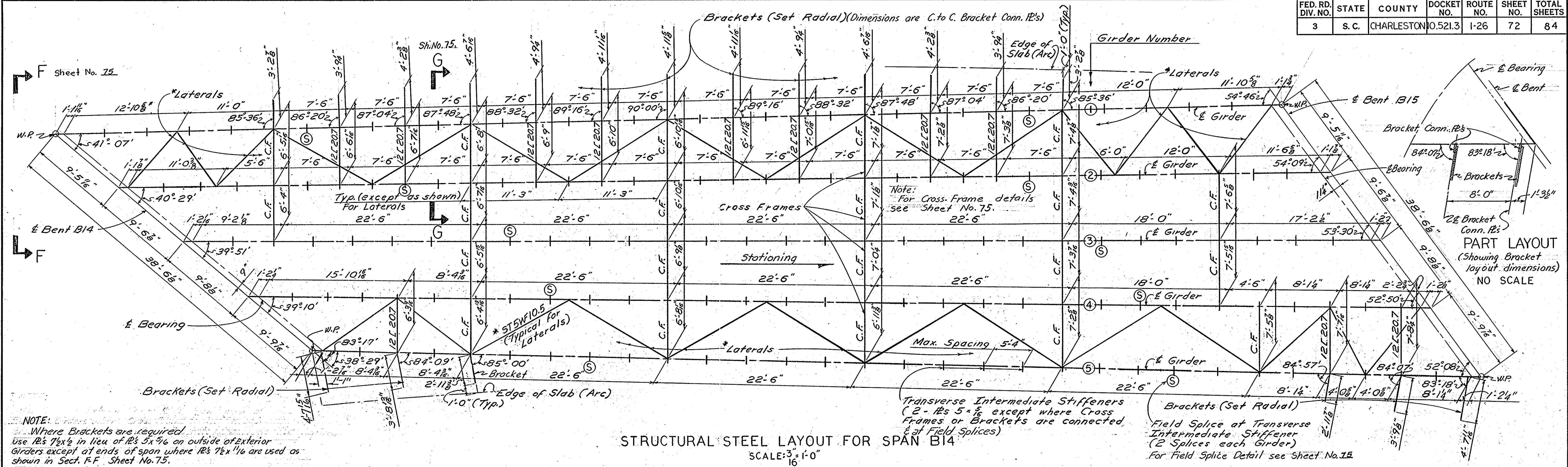
BEARING DETAILS

SCALE: 1" = 1'-0"

Estimated Weight of One Bronze Expansion Pl. = 44 Lbs.

REV.		S.C. STATE HIGHWAY DEPARTMENT		
REV.		BRIDGE DIVISION		
REV.		COLUMBIA S.C.		
REV.		STRUCTURAL STEEL LAYOUT		
REV.		BEAM DETAILS AND BEARING DETAILS		
REV.		SPAN NO. B-13		
REV.		FOR UNDERPASS UNDER		
REV.		N. SPRUILL INTERCHANGE CONN.		
REVIEWED		DOCKET NO.	COUNTY	ROUTE NO. DATE
QUAN/RWH	BAM 2-65	10.521.3	CHARLESTON	I-26 4-64
TR.		APPROVED BY		
DR.	GMP	BAM 3-64	APPROVED BY	
DES.	RWH	BAM 2-64	BRIDGE DESIGN & PLANS ENGINEER	
BY	CHK'D	DATE	BRIDGE ENGINEER	

This Sheet to accompany Sheets 70, 71, 74, 75 & 80



Girder Number	a	b	c (Top Flg. R)	d (Top Flg. L)	e (Top Flg. R)	f (Bot. Flg. R)	g (Bot. Flg. L)	h (Bot. Flg. R)	j	k	m	n	p	r	s	t	u
1	139'-0 1/2"	69'-6 1/2"	19" x 1 3/8" x 21'-6 1/2"	19" x 1 3/8" x 20'-6"	19" x 2" x 27'-6"	17" x 2" x 21'-6 1/2"	22" x 2" x 20'-6"	26" x 2" x 27'-6"	6 3/8"	6 1/2"	6 1/2"	19 Sps. @ 8" x 12'-8"	12 Sps. @ 10" x 10'-0"	10 Sps. @ 14" x 11'-8"	8 Sps. @ 15" x 10'-8"	6 Sps. @ 20" x 10'-0"	7 Sps. @ 24" x 14'-0"
2	137'-4"	68'-8"	19" x 1 3/8" x 28'-9"	19" x 1 3/8" x 13'-6"	19" x 1 1/2" x 26'-5"	17" x 1 1/2" x 28'-9"	22" x 1 1/2" x 13'-6"	26" x 1 1/2" x 26'-5"	6 3/8"	6 3/8"	5"	15 Sps. @ 9" x 11'-3"	do	14 Sps. @ 12" x 14'-0"	7 Sps. @ 15" x 9'-4"	7 Sps. @ 20" x 11'-8"	6 Sps. @ 24" x 12'-0"
3	135'-7 1/8"	67'-9 1/8"	19" x 1 3/8" x 27'-10 1/2"	19" x 1 3/8" x 13'-6"	19" x 1 1/2" x 26'-5"	17" x 1 1/2" x 27'-10 1/2"	22" x 1 1/2" x 13'-6"	26" x 1 1/2" x 26'-5"	6 3/8"	6 1/2"	3 1/2"	14 Sps. @ 9" x 10'-6"	do	do	do	do	do
4	133'-11 3/8"	66'-11 1/8"	19" x 1 3/8" x 27'-0 1/2"	19" x 1 3/8" x 13'-6"	19" x 1 1/2" x 26'-5"	17" x 1 1/2" x 27'-0 1/2"	22" x 1 1/2" x 13'-6"	26" x 1 1/2" x 26'-5"	6 3/8"	6 3/8"	2 1/2"	13 Sps. @ 9" x 9'-9"	do	do	do	do	do
5	132'-3 3/8"	66'-1 1/8"	19" x 1 3/8" x 26'-2 1/2"	19" x 1 3/8" x 13'-6"	19" x 1 1/2" x 26'-5"	17" x 1 3/8" x 26'-2 1/2"	22" x 1 3/8" x 13'-6"	26" x 1 3/8" x 26'-5"	6 1/2"	6 3/8"	1 1/2"	12 Sps. @ 9" x 9'-0"	do	do	do	do	do

REV.																	
REV.																	
REV.																	
REV.																	
REVIEWED	RWH																
IN CHARGE	BAM																
QUAN.	RWH	BAM	2-65														
TR.	BAM	BAM	1-64														
DES.	RWH	BAM	12-63														
BY	CHK'D	DATE															

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
STRUCTURAL STEEL LAYOUT AND GIRDER DETAILS SPAN NO. B14 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
DOCKET NO.	COUNTY	ROUTE NO.	DATE
10.521.3	CHARLESTON	1-26	4-64
APPROVED BY		APPROVED BY	
BRIDGE DESIGN & PLANS ENGINEER		BRIDGE ENGINEER	

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10.521.3	1-26	74	84

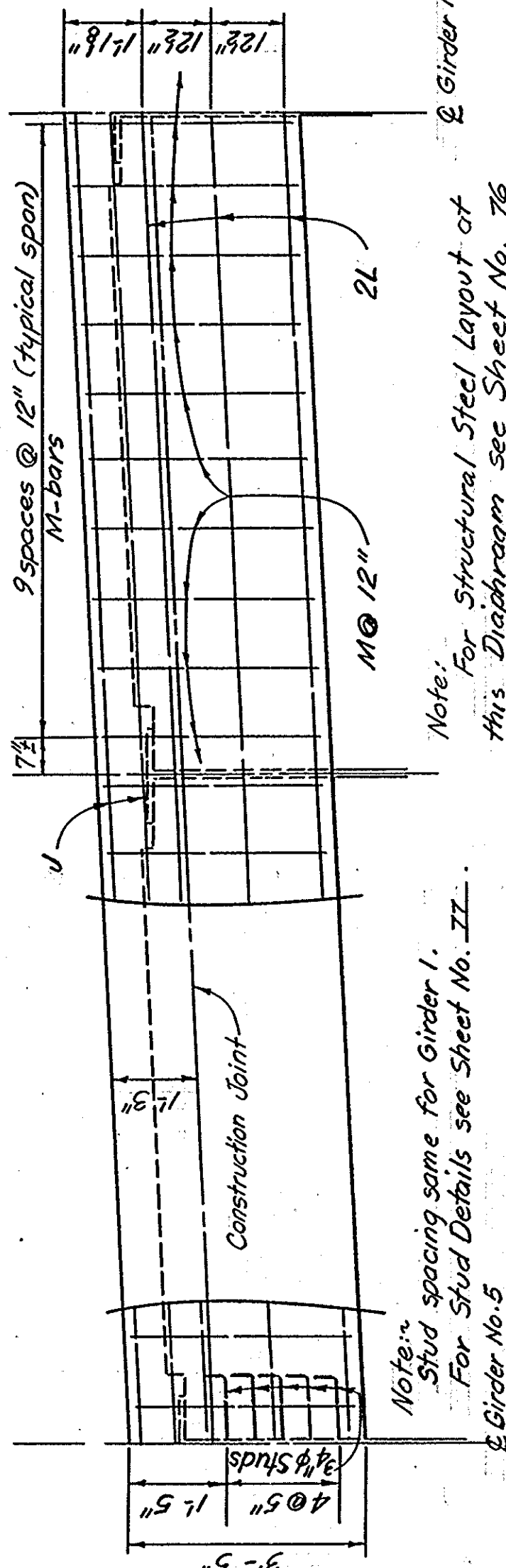
REINF. STEEL SCHEDULE				
MARK	SIZE NO.	NO. REQ'D.	LENGTH	D.
A ₁	5	528	35'- 3"	S
A ₂	5	2	31'- 3"	S
A ₃ to A ₆₄	5	2 ea.	29'3" to 4'9" Vary by 4 13/16"	S
A ₆₅	5	5	4'- 0"	S
A ₆₆ to A ₁₁₁	5	2 ea.	33'-1" to 10'-0" Vary by 6'8"	S
A ₁₁₂	5	6	9'- 6"	S
B ₁	4	120	47'- 6"	S
B ₂	4	108	46'- 0"	S
B ₃	4	24	35'-6"	S
B ₄	4	36	33'-6"	S
C	5	276	0'- 10"	S
D	4	218	3'- 0"	B
E	4	256	5'- 4"	B
F ₁	4	48	6'- 7"	S
F ₂	4	48	7'- 1"	S
G	3	200	3'- 6"	B
H	4	80	8'- 1"	B
J	5	4	39'- 3"	S
K	4	8	2'- 6"	B
L	6	6	38'-0"	S
M	4	40	7'-2"	B

BENDING DETAILS					

QUANTITIES	
④ CLASS "A" CONCRETE	① 138.2 C.Y.
④ REINFORCING STEEL	③ 37,099 LBS.
STRUCTURAL STEEL	② 240,300 LBS.
FABRICATED METAL HANDRAIL	273.15 L.F.
⑤ Includes 250 Lbs. for bronze expansion plates. ⑥ Does not include 12.3 C.Y. for Posts & Parapets. ⑦ Includes 1342 Lbs. for Bolsters. ⑧ Includes 1110 Lbs. for Stud Connectors & 1750 Lbs. for Exp. Dam.	

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
SUPERSTRUCTURE DETAILS AND BRACKET DETAILS SPAN NO. B 14 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
DOCKET NO.	COUNTY	ROUTE NO.	DATE
10.521.3	CHARLESTON	I-26	4-64
APPROVED BY		APPROVED BY	
DES. RWH		BRIDGE DESIGN & PLANS ENGINEER	
BY CHK'D		DATE	

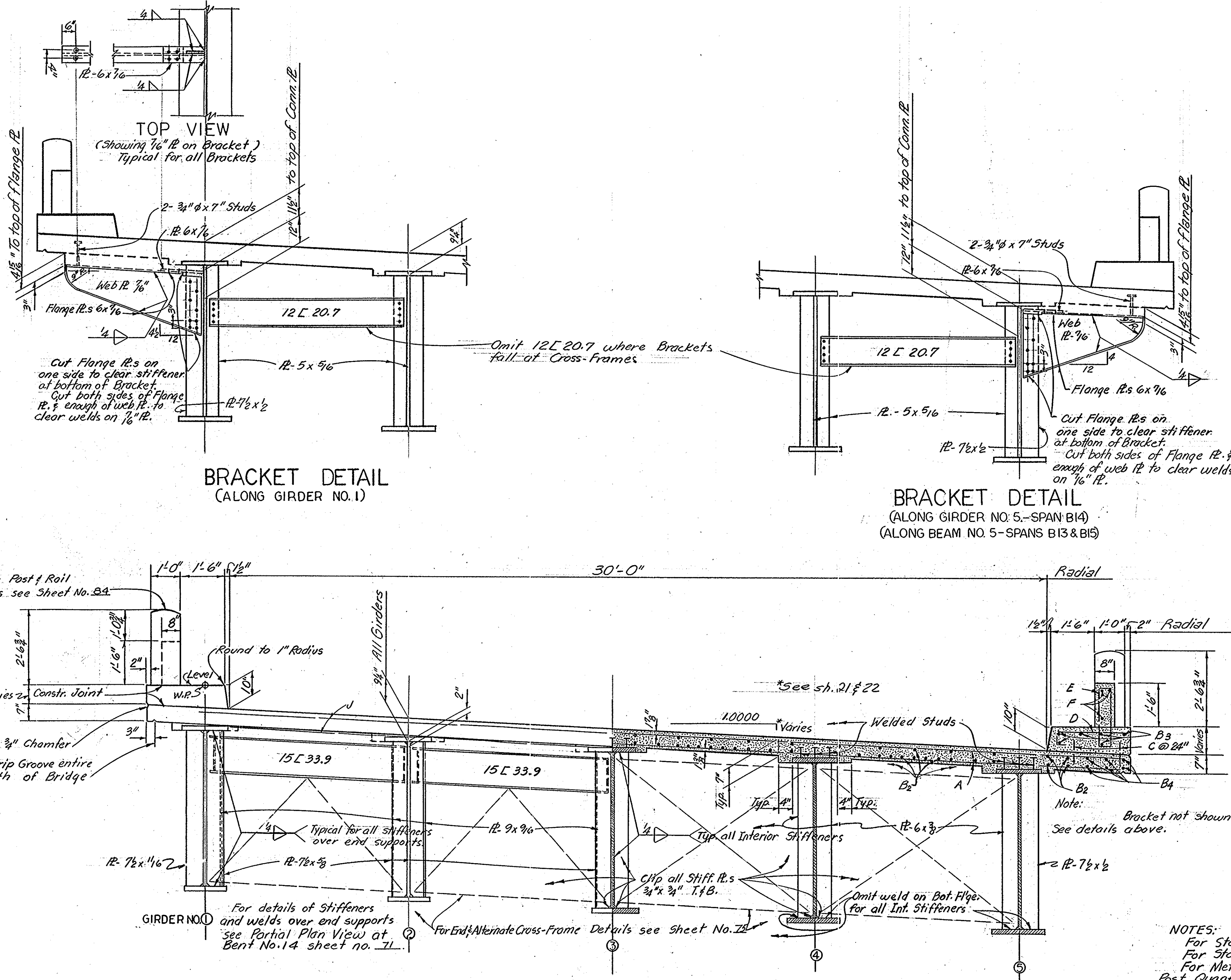
TYPICAL LAYOUT OF REINFORCING STEEL
FOR 9"X3'-5" R.C. DIAPHRAGM AT ENDS OF SPANS B14
AND B15 AT BENT NO. B15
SCALE: 1/2" = 1'-0"



NOTES:
For Standard Notes, see Sheet No. 4
For Standard Details see Sheet No. 5
For Method of Payment for Parapet Wall and Post Quantities see Sheet No. 84
This sheet to accompany Sheet 22, 73 & 78

④ Does not include Conc. & Reinf. Steel for Light Brackets.

Scale: 1/2" = 1'-0" or as noted.



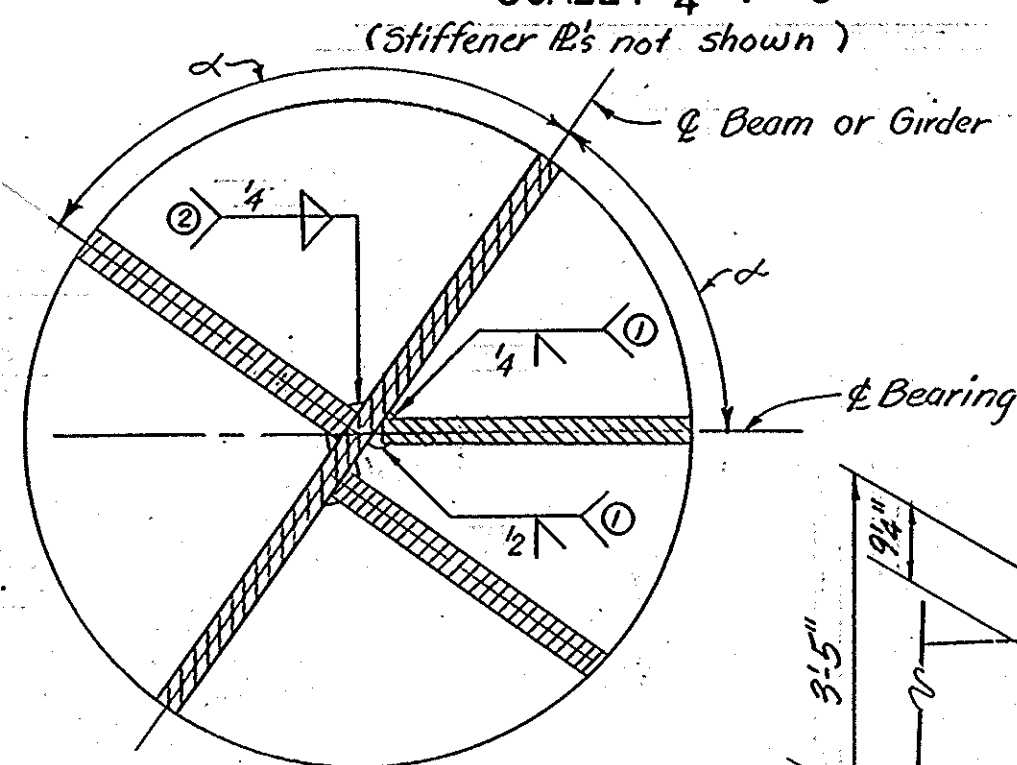
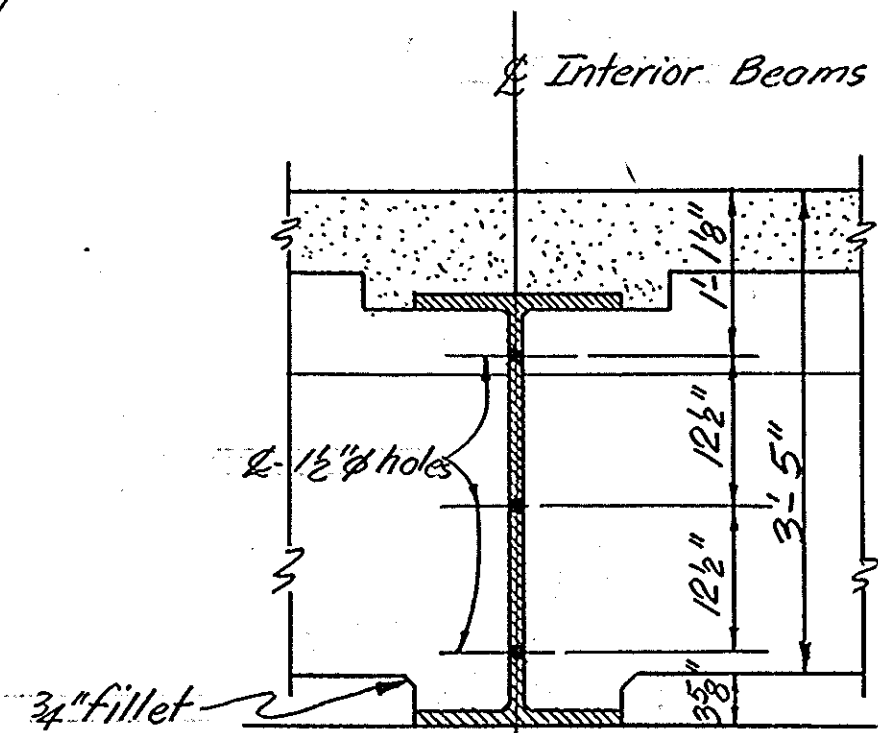
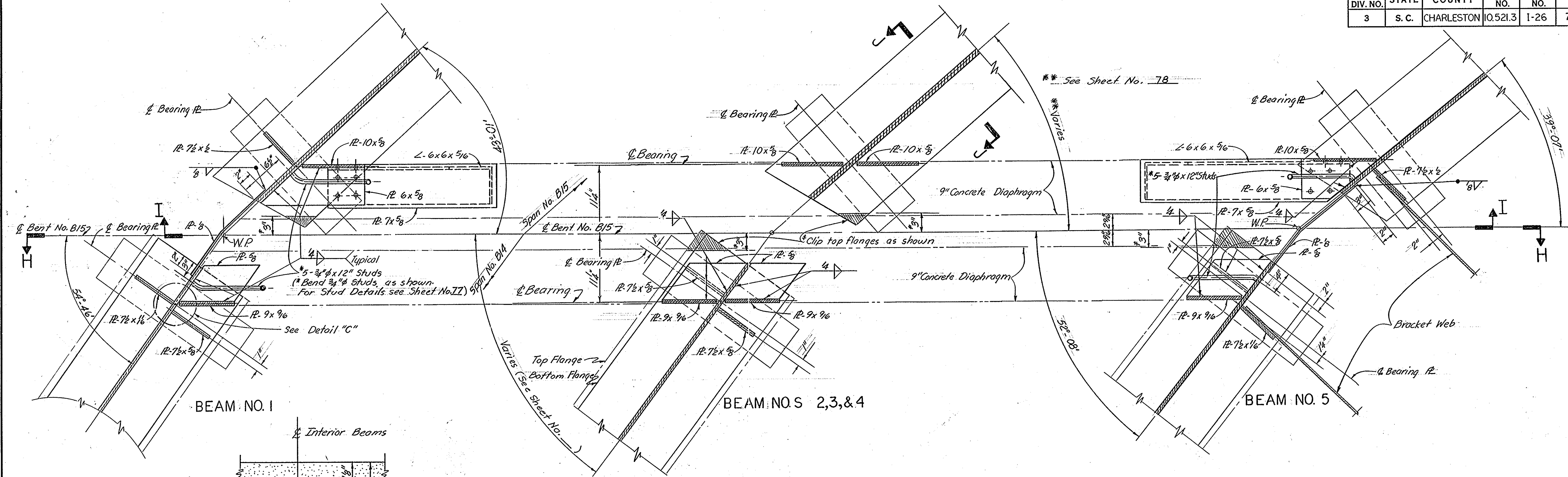
Note:
For Post & Rail
Details see Sheet No. 84

Double 3/4" Chamfer
3/4" Drip Groove entire
length of Bridge

For details of Stiffeners
and welds over end supports
see Partial Plan View at
Bent No. 14 sheet no. 71

For End & Alternate Cross-Frame
Details see Sheet No. 72

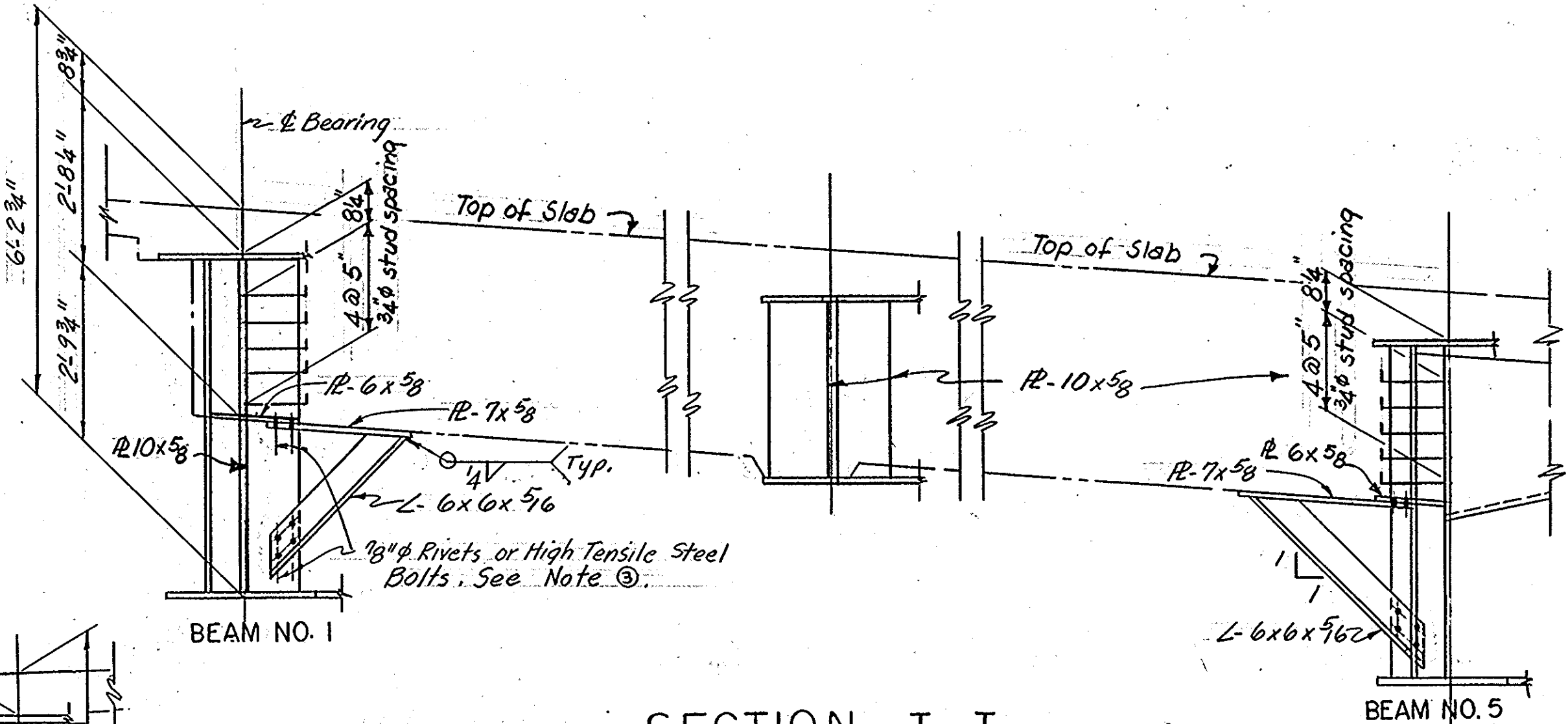
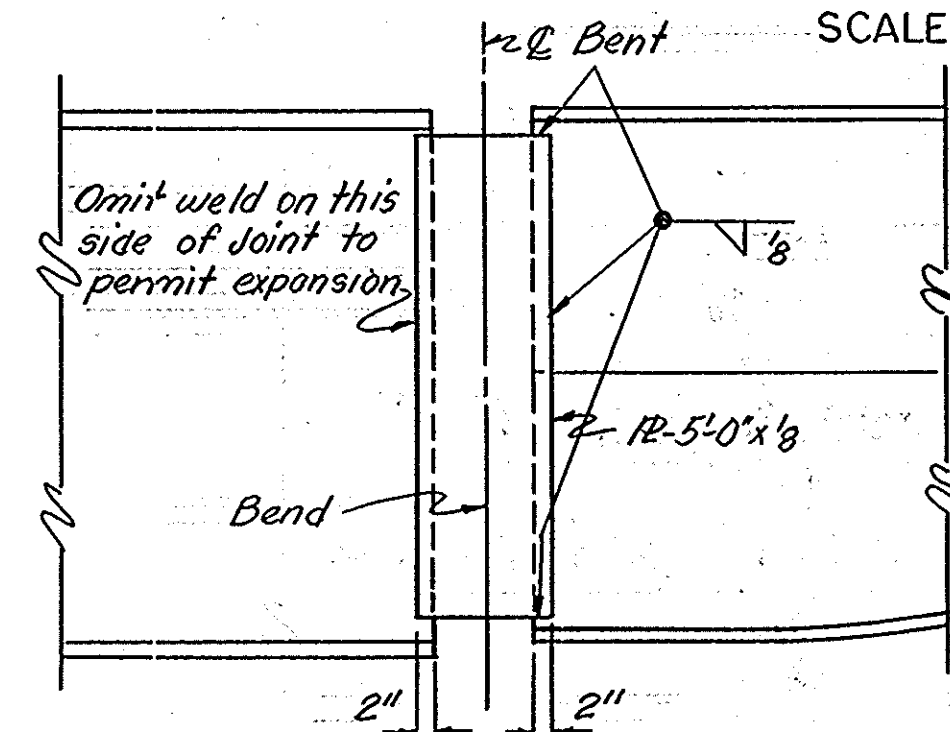
Note:
Bracket not shown.
See details above.



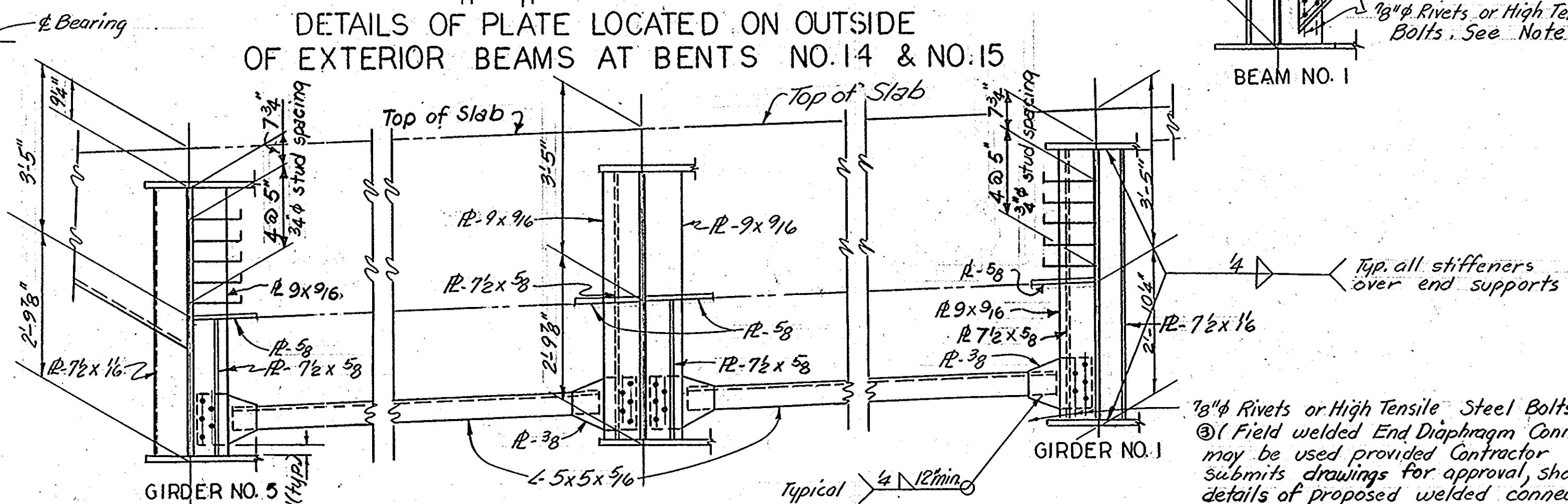
① Typical weld for all connection or stiffener plates with angle α less than 60°

② Typical weld for all connection or stiffener plates with angle α greater than 60°

PARTIAL PLAN VIEW AT BENT NO. B15
(CONCRETE NOT SHOWN)
SCALE: $\frac{1}{2}" = 1' - 0"$



For Standard Notes see Sheet No. 4
For Standard Details see Sheet No. 5

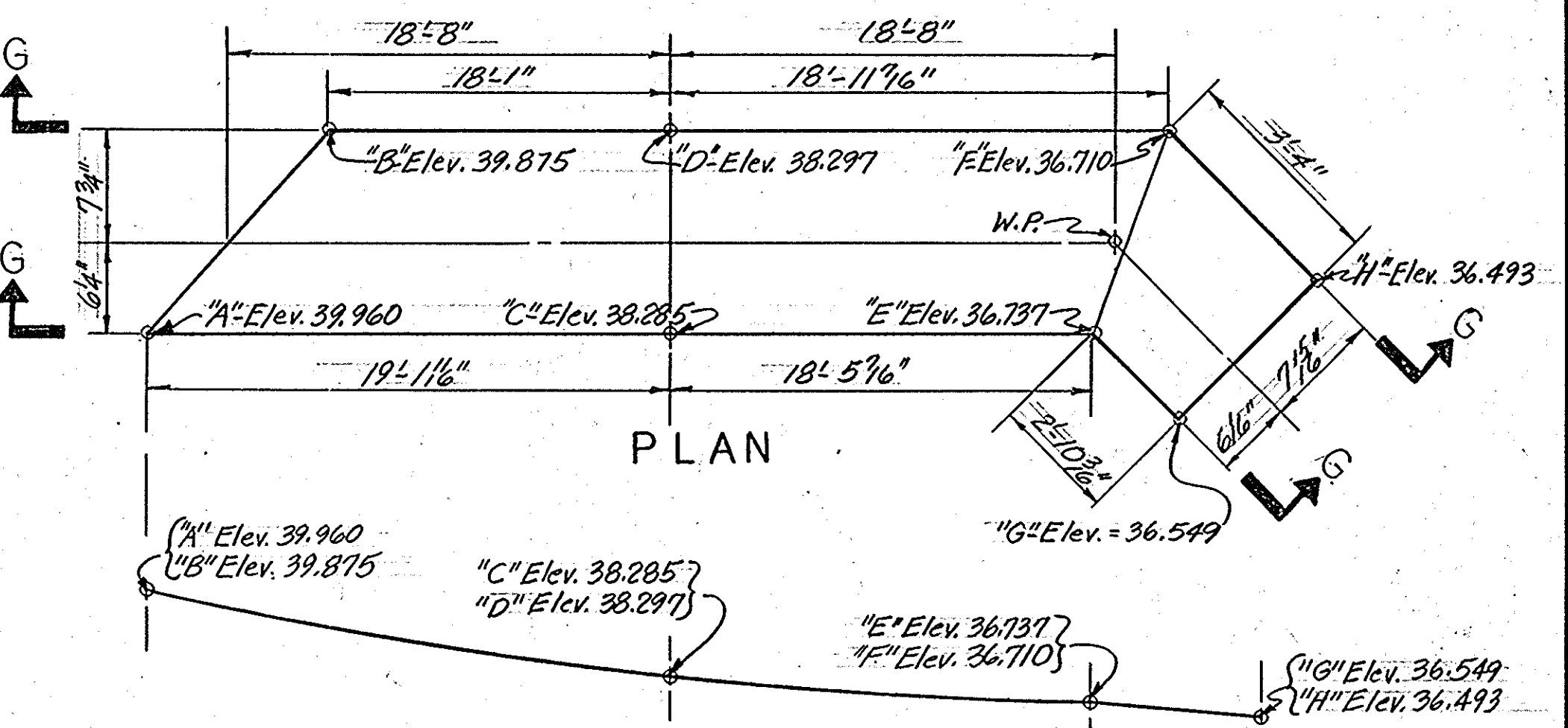
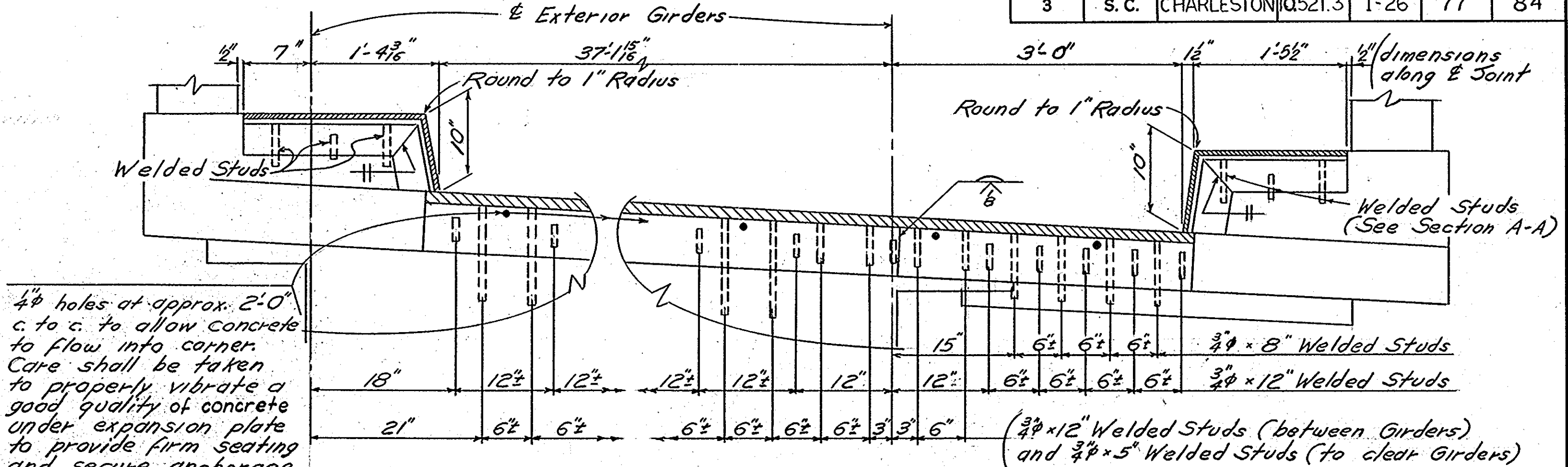
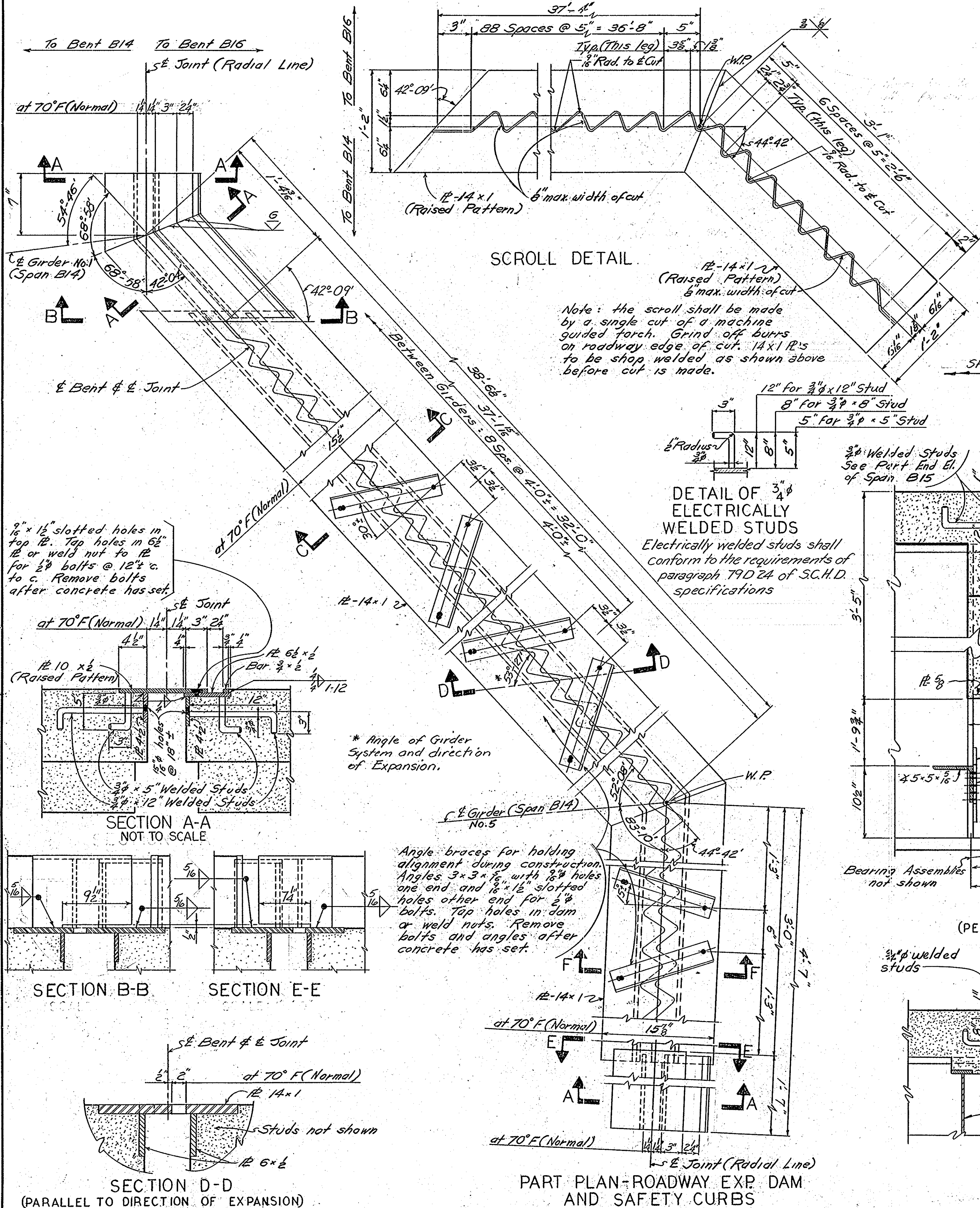


SECTION H-H
NO SCALE

SECTION I-I
SCALE: $\frac{1}{2}" = 1' - 0"$

S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
SUPERSTRUCTURE DETAILS AT BENT NO. B15 SPANS NO. B14 AND B15 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.		DOCKET NO.	ROUTE NO. DATE
REV.		10.521.3	CHARLESTON I-26 4-64
REV.			
REV.			
REVIEWED	IN CHARGE	APPROVED BY	APPROVED BY
QUAN. RWB	BAM 2-65	DR. GMP	BAM 3-64
TR.		DES. RUH	BAM 12-63
BY	CHK'D DATE	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER

FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	CHARLESTON	10521.3	I-26	77	84



QUANTITIES - ONE EXPANSION DAM	
STRUCTURAL STEEL	3,500 LBS.

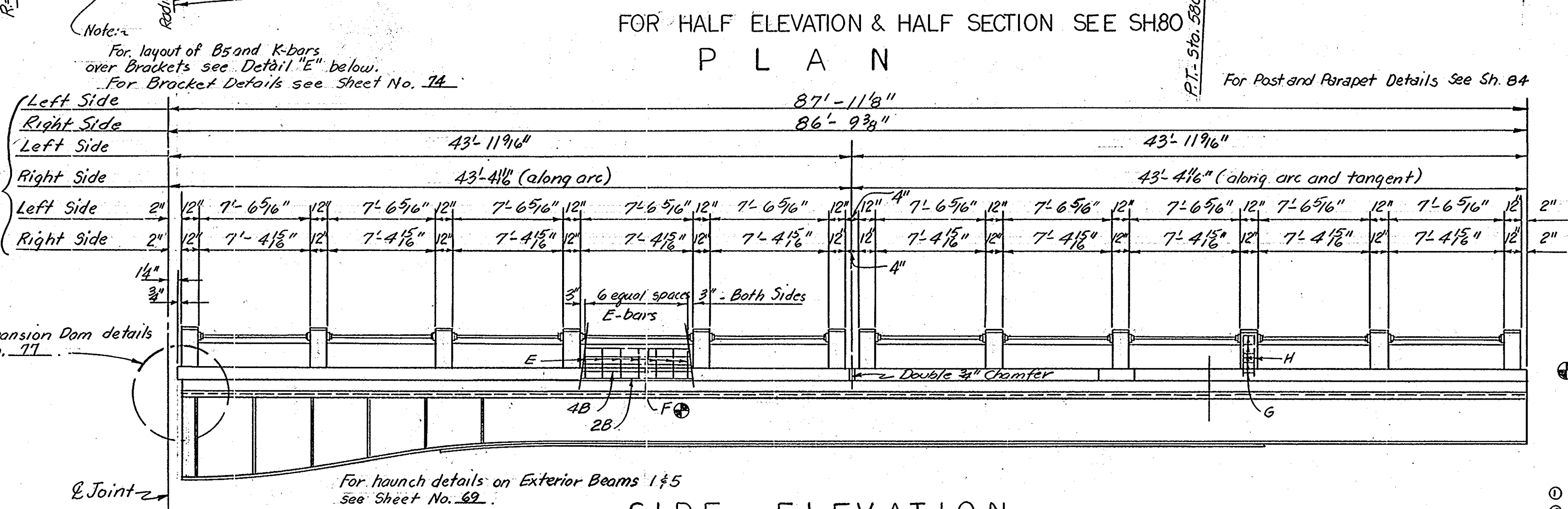
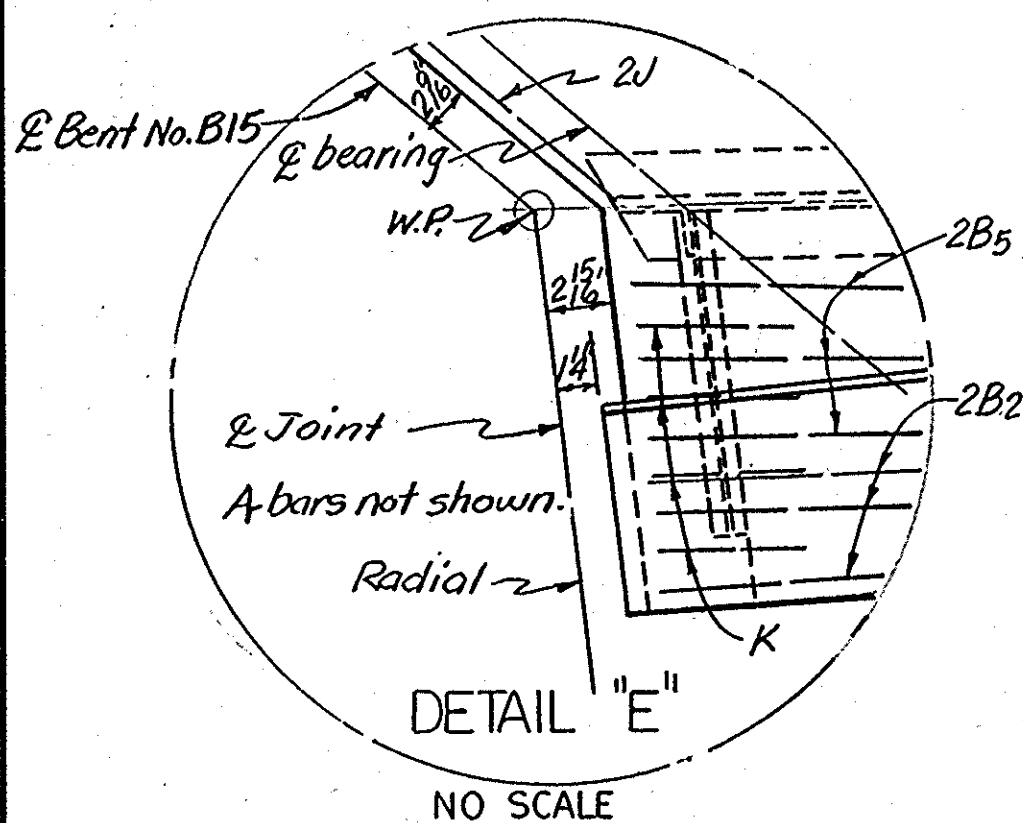
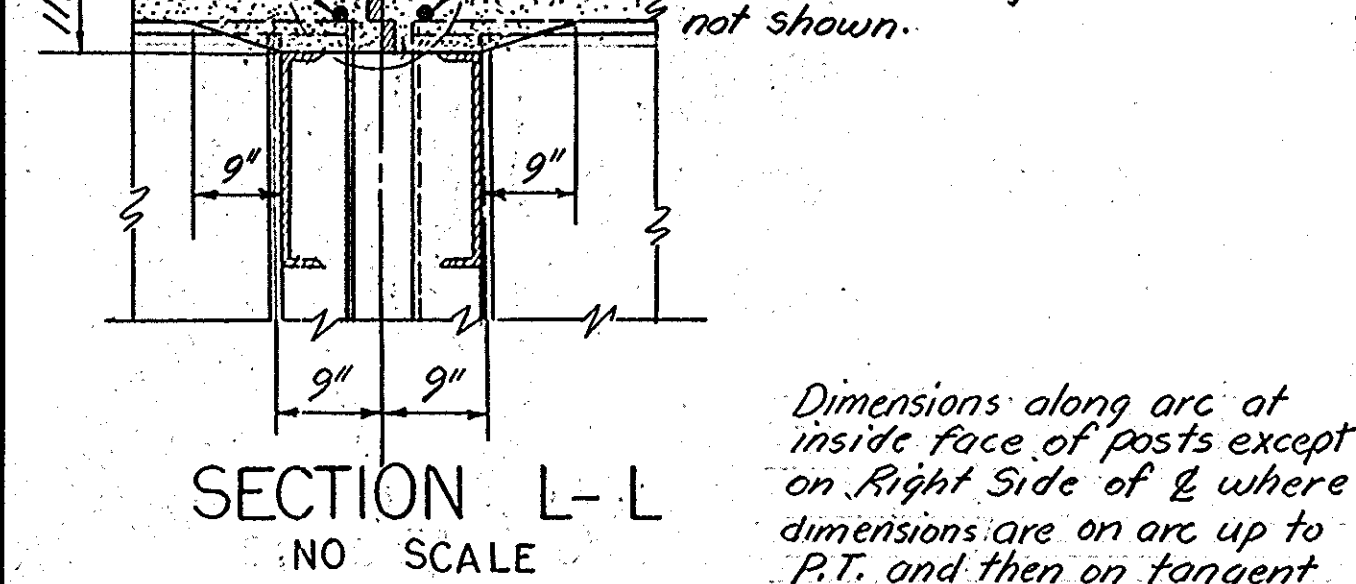
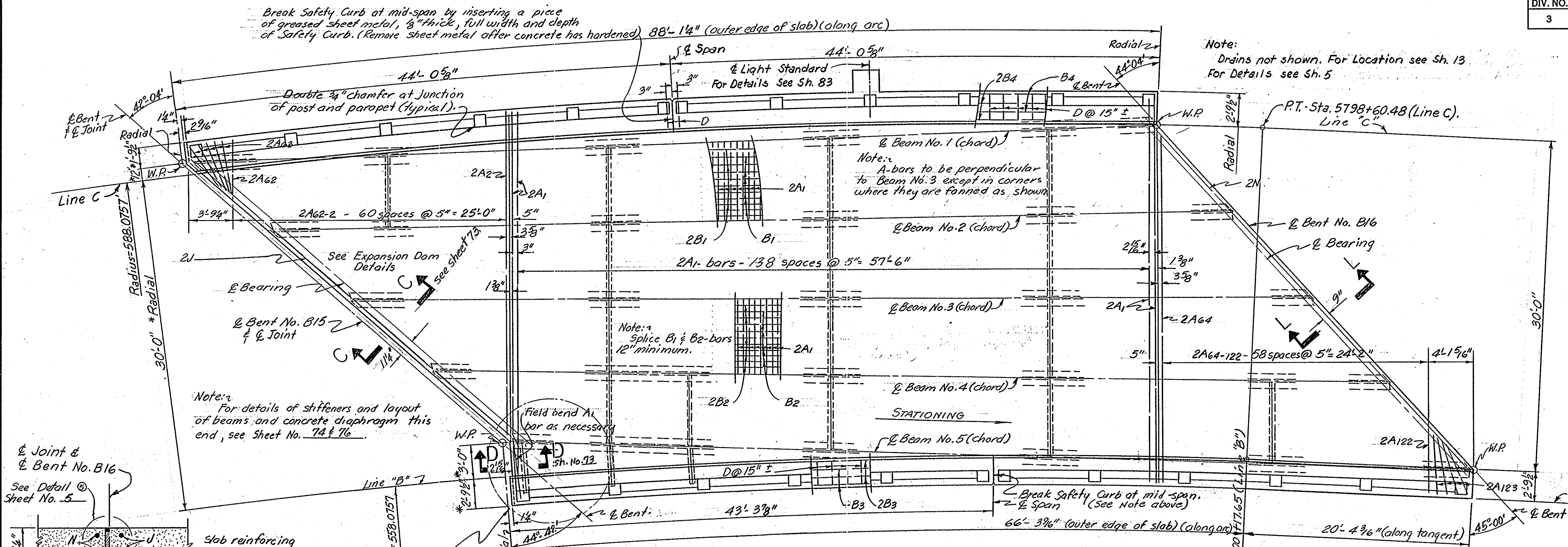
Includes both sides of the joint.

For Standard Notes see Sh. 4
For Standard Details see Sh. 5
This Sheet to accompany Sh. 73, 76 & 79
SCALE 1/2"=1'-0", OR AS NOTED.

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		EXPANSION DAM DETAILS
REV.		AT BENT NO. B15
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
QUAN.	RWH/BAM 2-65	DOCKET NO. 10521.3
TR.		COUNTY CHARLESTON
DR.	BMM/BAM 1-64	ROUTE NO. I-26
DES.	RWH/BMM 1-64	DATE 4-64
BY	CHK/DAT	BRIDGE DESIGN & PLANS ENGINEER
		BRIDGE ENGINEER

REINF. STEEL SCHEDULE

MARK	SIZE	NO. REQ'D.	LENGTH	D
A1	5	282	35'-3"	S
A2 to A62	5	2ea.	27'-3" to 5'-2"	S
A63	5	10	5'-0"	S
A64 to A122	5	2ea.	32'-0" to 6'-8"	S
A123	5	8	5'-6"	S
B1	4	76	44'-3"	S
B2	4	76	44'-0"	S
B3	4	12	43'-0"	S
B4	4	12	43'-8"	S
C	5	176	0'-10"	S
D	4	142	3'-0"	B
E	4	140	5'-4"	B
F	4	60	7'-2"	S
G	3	120	3'-6"	B
H	4	48	8'-1"	B
J	5	2	39'-3"	S
K	4	4	2'-6"	B
L	6	6	38'-0"	S
M	4	40	7'-2"	B
N	5	2	43'-0"	S
B5	4	6	30'-0"	S
BB	1 1/4"	Reg'd.	1,400'	
BBU	2 1/4"	Reg'd.	1,075'	



Notes:
For Reinforcing Bending Details see Sheet No. 74
For Standard Notes see Sheet No. 4
For Standard Details see Sheet No. 5
For Method of Payment for Parapet Wall and Posts see Sheet No. 84
Right and Left sides, where referred to in these plans, apply only when looking in the direction of stationing.

QUANTITIES

CLASS "A" CONCRETE	89.9 CY.
REINFORCING STEEL	23,536 LBS.
STRUCTURAL STEEL	129,100 LBS.
FABRICATED METAL HANDRAIL	174.71 L.F.

- Does not include 7.8 C.Y. for Posts and Parapets.
- Includes 852 Lbs. for Bolsters.
- Includes 1470 Lbs. for Stud Connectors.
- Does not include Conc. & Reinf. Steel for Light Brackets.
- Includes 220 Lbs. for Bronze Exp. Bts. & 1750 Lbs. for Exp. Dam.

This sheet to accompany sheets 74, 76, 77, 78, 80, 83 & 84

REV.		S.C. STATE HIGHWAY DEPARTMENT
REV.		BRIDGE DIVISION
REV.		COLUMBIA S.C.
REV.		SUPERSTRUCTURE
REV.		SPAN NO. B-15
REV.		FOR UNDERPASS UNDER
REV.		N. SPRUILL INTERCHANGE CONN.
QUAN.		DOCKET NO. COUNTY ROUTE NO. DATE
TR.		10.521.3 CHARLESTON I-26 4-64
DES.		APPROVED BY
BY		BRIDGE DESIGN & PLANS ENGINEER

Scale: 1"=5'-0" unless shown otherwise.

Note:
Drains not shown.
For Location See Sh. 13
For Details See Sh. 5

QUANTITIES			REINFORCING STEEL SCHEDULE			
ITEM	SPAN - B16		MARK	SIZE	D	NO. REQ'D
Concrete Class "A"	C.Y. ①	53.0				
Reinforcing Steel	Lbs. ②	12,621				
Structural Steel	Lbs. ③	35,600				
Fabricated Metal Handrail	L.F.	87.92				

SPAN - B16	NO. REQ'D	LENGTH
A1 - A71	5	2ea 4'-10" to 34'-0" Vary by 5"
A72	5	58 35'-2"
A73 - A139	5	2ea 32'-3" to 4'-9" Vary by 5"
A140	5	10 4'-3"
A141	5	5 4'-0"
B1	4	5 24 23'-0"
B2	4	5 128 22'-3"
B3	4	5 24 22'-0"
C	5	92 0'-10"
D	4	72 3'-0"
E	4	72 5'-4"
F1	4	5 6 9'-4"
F2	4	5 6 8'-6"
F3	4	5 6 7'-4"
F4	4	5 6 6'-6"
G	3	50 3'-6"
H	4	20 8'-1"
J	5	5 2 43'-0"
K1	5	5 4 31'-2"
K2	4	5 6 31'-2"
K3	4	5 12 9'-8"
K4	4	5 6 9'-0"
K5	4	5 6 7'-6"
L1	4	38 7'-2"
L2	4	18 11'-10"
M	6	5 4 8'-5"
N	4	5 2 22'-5"
O	4	38 3'-5"
P	4	14 8'-8"
R	3	10 11'-9"

- ① Does not include 4.6 C.Y. for Posts & Parapet.
- ② Includes 444 Lbs. for Bolsters.
- ③ Includes 840 Lbs. for Stud Connectors
- ④ Does not include Conc. & Reinf. Steel for Light Bracket.
- ⑤ For note affecting Constr. Change see Sh. 45.

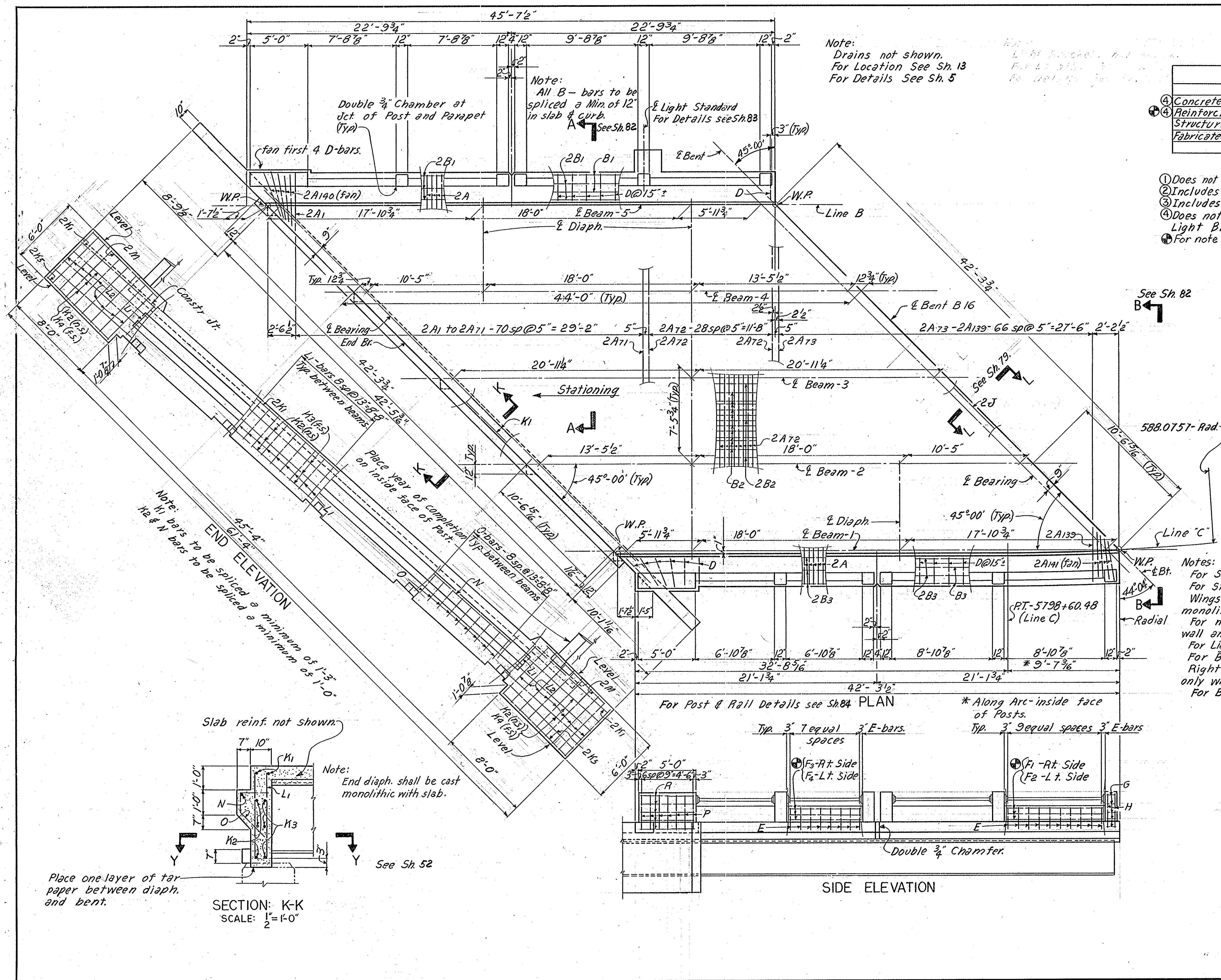
BENDING DETAILS			

B.B.	1" Ht.	Req'd	705
B.B.U.	2 1/2" Ht.	Req'd	570

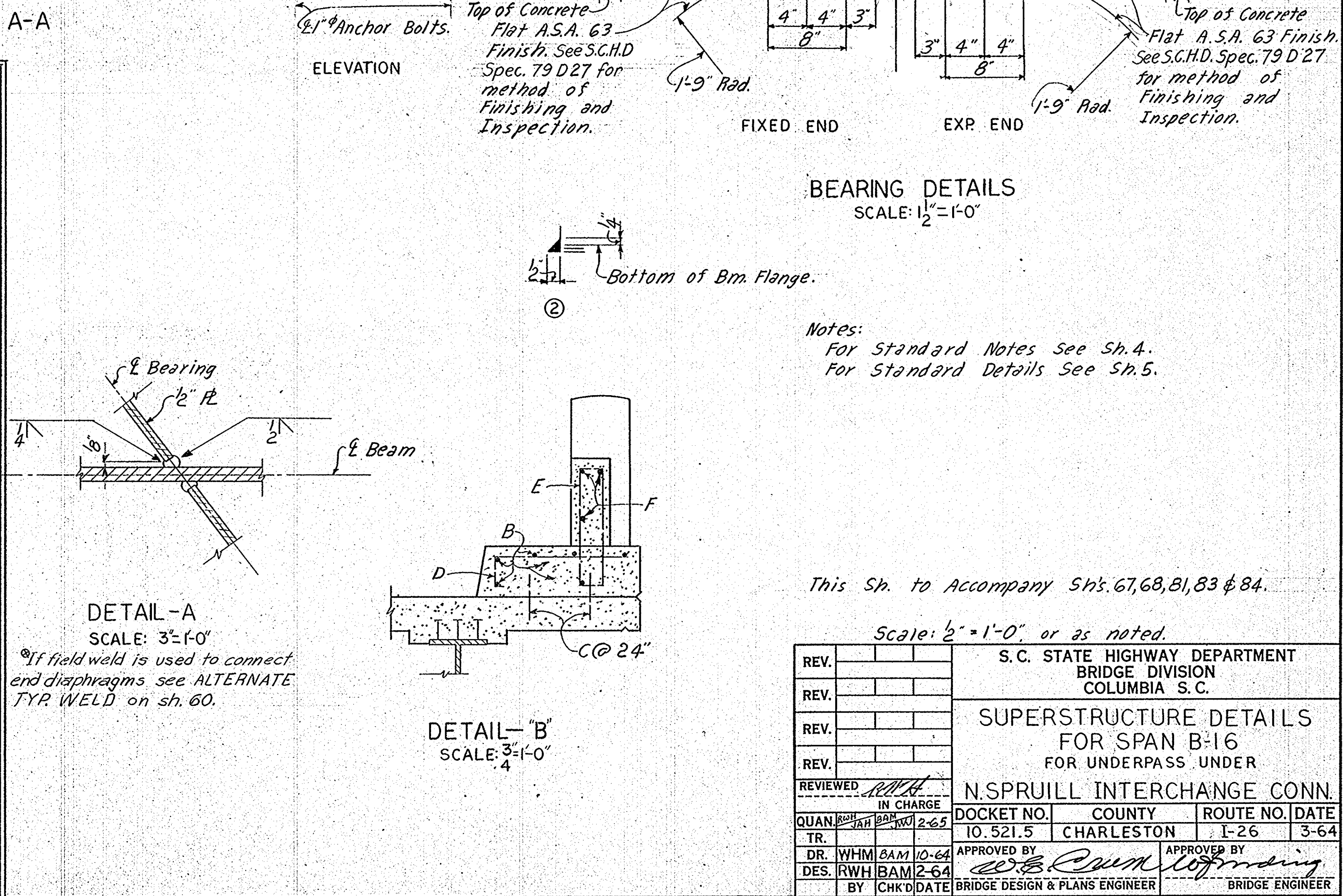
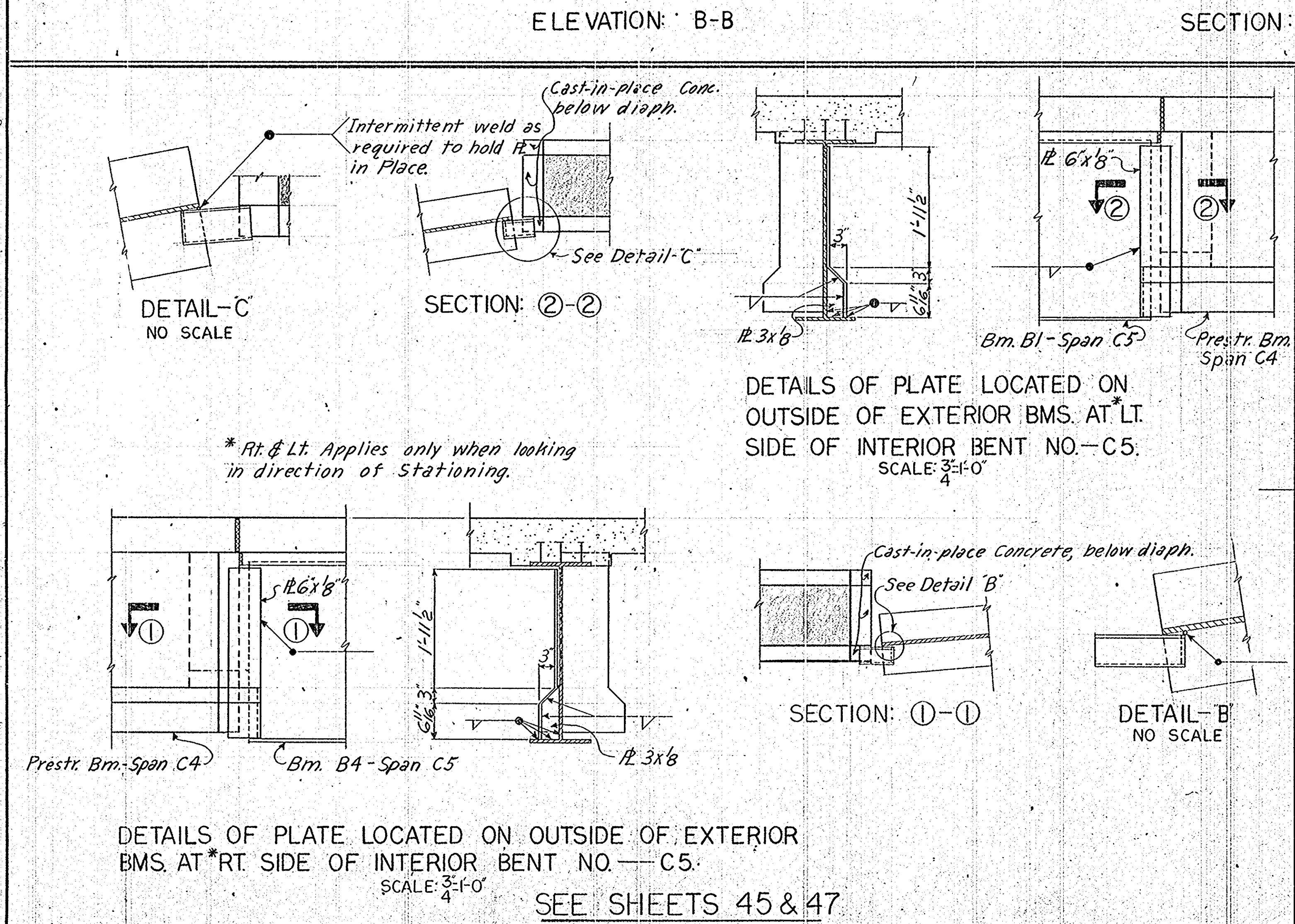
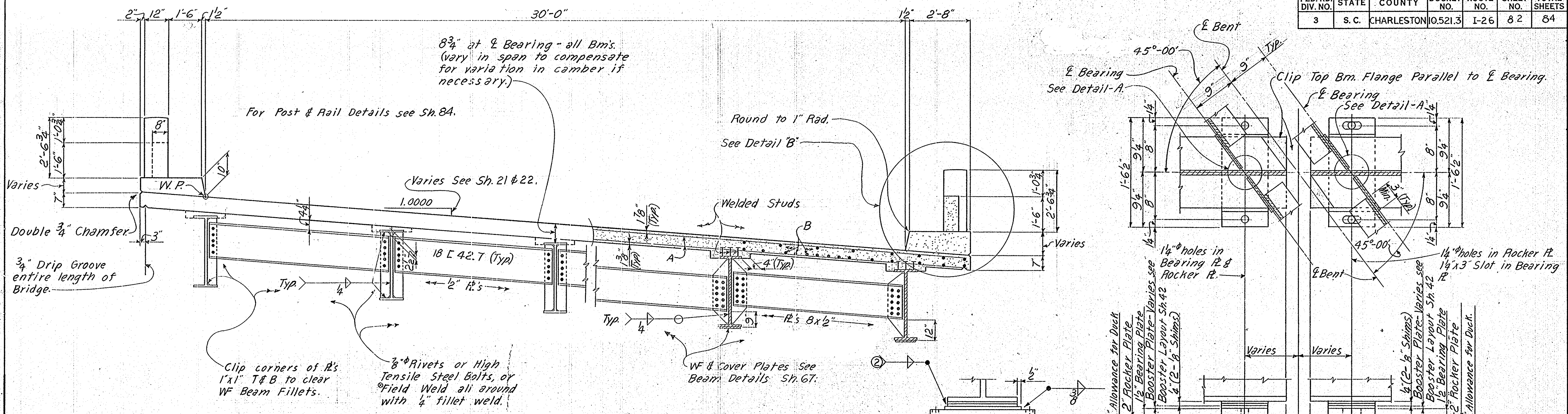
Notes:
For Standard Notes See Sh. 4
For Standard Details See Sh. 5
Wings below Constr. Jt. shall be cast monolithic with End Diaphragm.
For method of payment for Parapet wall and Post quantities See Sh. 84
For Light Bracket Details and quantities See Sh. 83
For Booster Layout See Sh. 42
Right & Left sides, where referred to in these Plans, apply only when looking in direction of Stationing.
For Beam Details see Sh. 67

This Sheet to Accompany Sheet's 67, 68, 82, 83, & 84
Scale: 4" = 1'-0", or as noted

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA S.C.			
REV.		SUPERSTRUCTURE FOR SPAN B-16 FOR UNDERPASS UNDER N. SPRUILL INTERCHANGE CONN.			
REV.		DOCKET NO.	COUNTY	ROUTE NO.	DATE
REV.		10.521.3	CHARLESTON	I-26	2-64
REVIEWED		IN CHARGE	APPROVED BY	APPROVED BY	
QUAN.		2-65			
TR.					
DR.	WHM	BAM	9-64		
DES.	RWH	BAM	1-64		
BY	CHK	DATE	BRIDGE DESIGN & PLANS ENGINEER	BRIDGE ENGINEER	



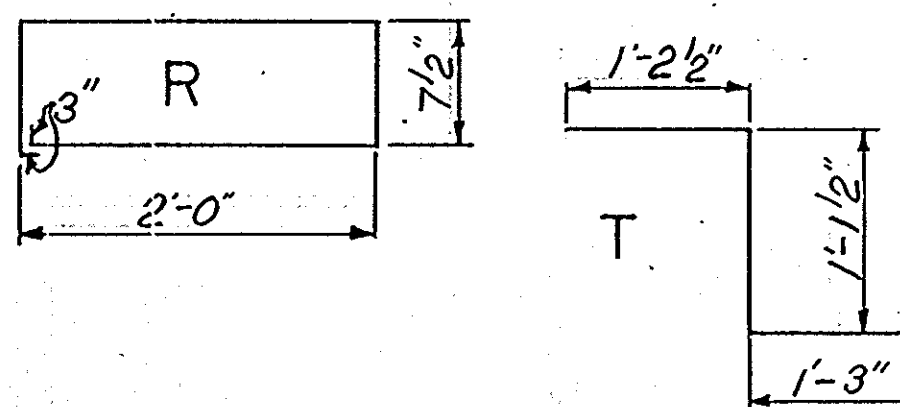
FED. RD. DIV. NO.	STATE	COUNTY	DOCKET NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S. C.	CHARLESTON	0.521.3	I-26	82	84



LIGHT BRACKET
REINFORCING STEEL SCHEDULE

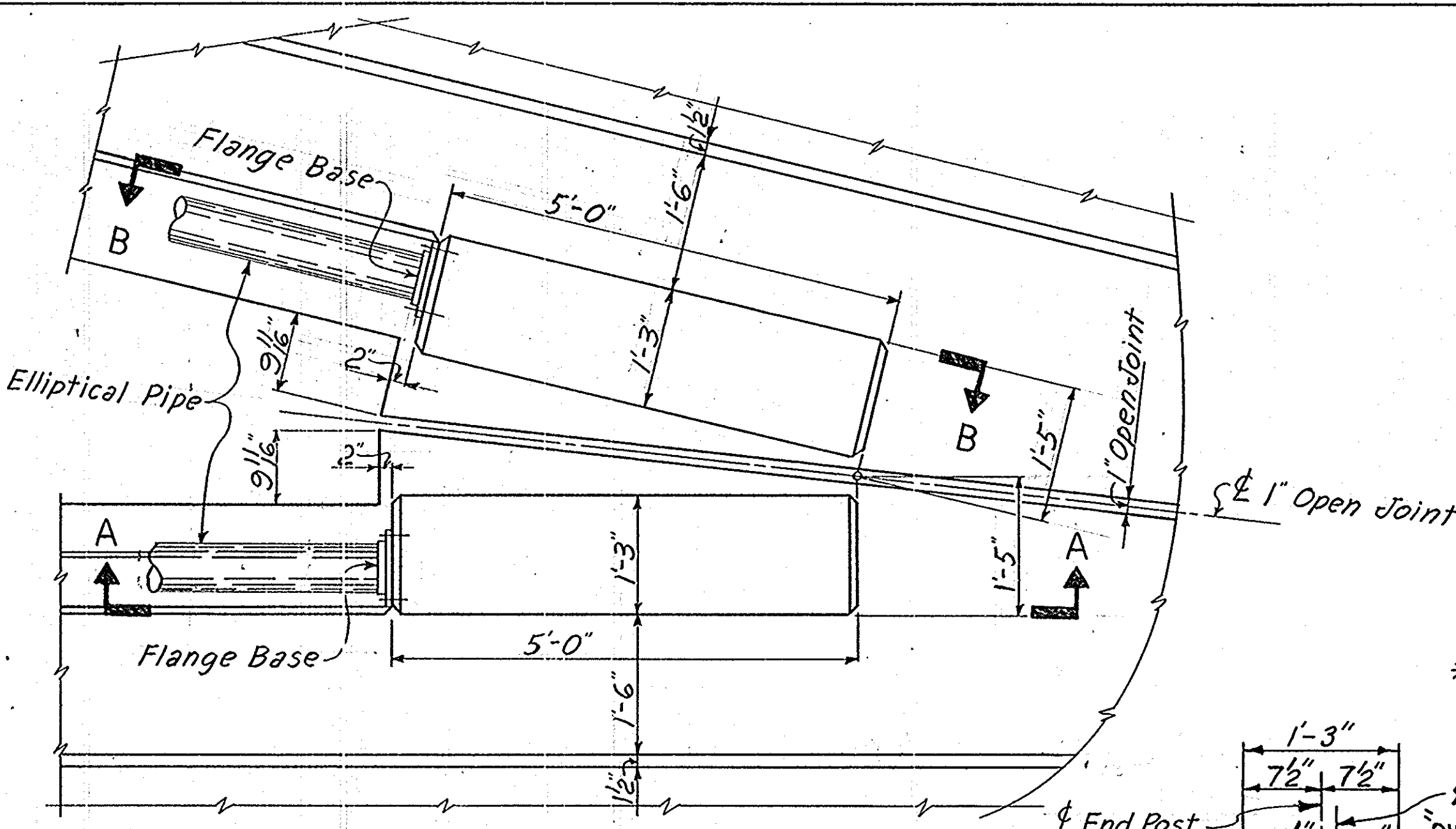
MARK	SIZE	D	NO. REQD.	LENGTH	NO. REQD.	LENGTH	NO. REQD.	LENGTH
R	5	B	7	5'-9"				
S	6	S	8	4'-3"				
T	5	B	4	3'-7"				

BENDING DETAILS



ESTIMATED QUANTITIES
(ONE BRACKET)

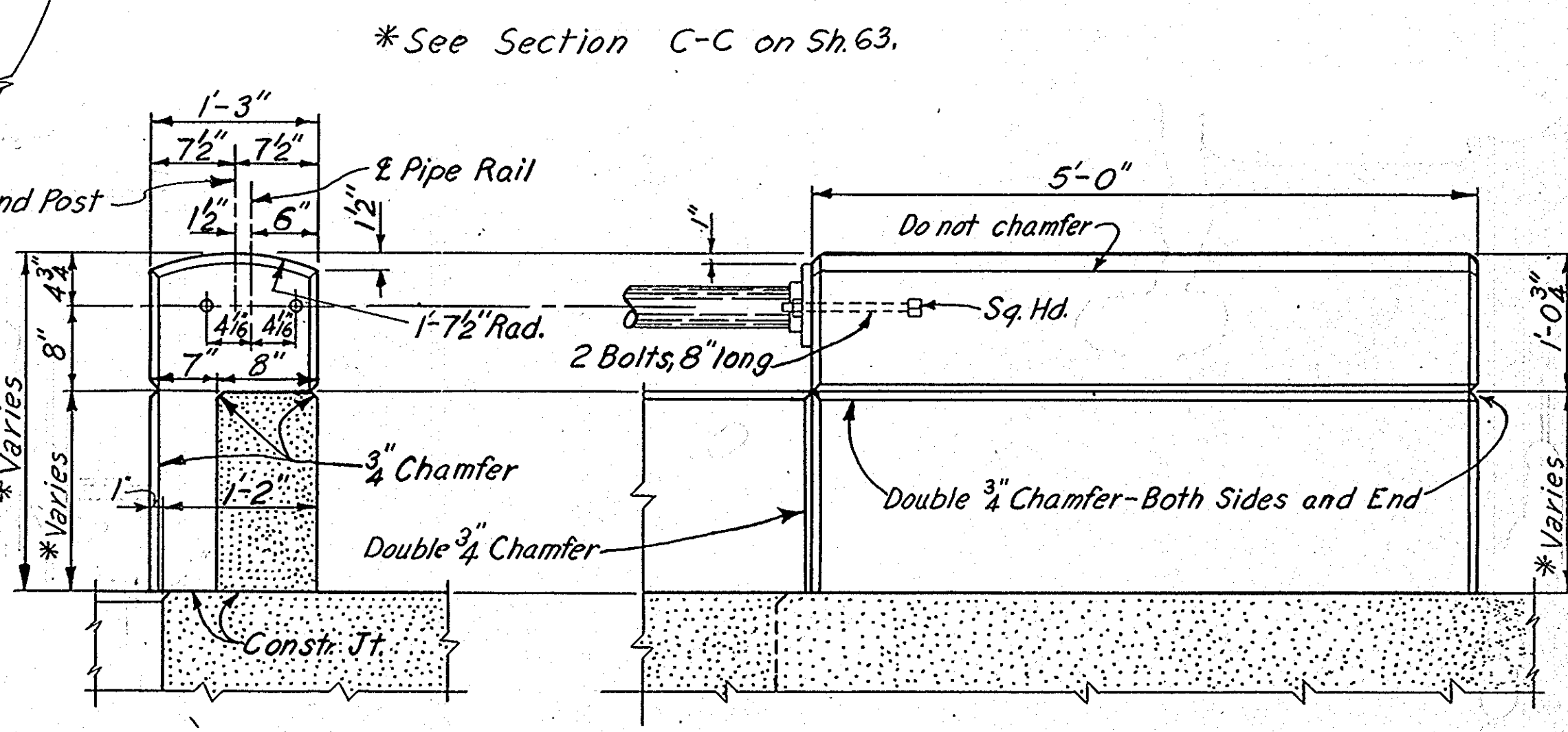
CONCRETE-CL. "A", C.Y.	0.15		
REINF. STEEL, LBS.	108.0		



PLAN OF END POSTS
SCALE: 3/4"=1'-0"

For additional details See Sh. 58, 59, 60 & 63.

Note:
For Interior Post Details & Elliptical
Flange Base Details See Sh. 84



SECTION THRU RAIL
SHOWING END POST
SCALE: 1"=1'-0"

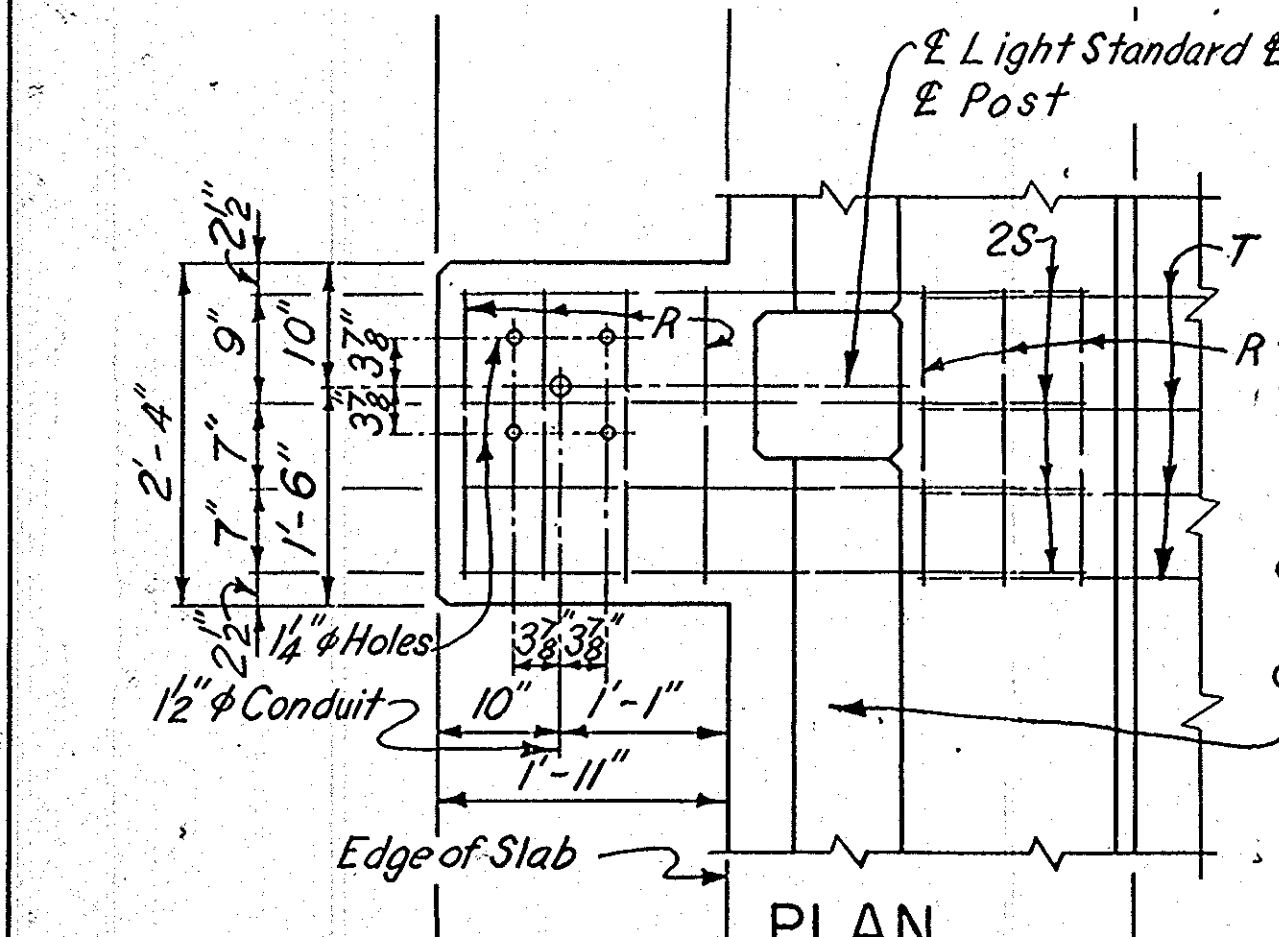
SECTION A-A (AS SHOWN)
SECTION B-B (OPP. HAND)
SCALE: 1"=1'-0"

END POST DETAILS
FOR SPANS BIO & CIO ONLY

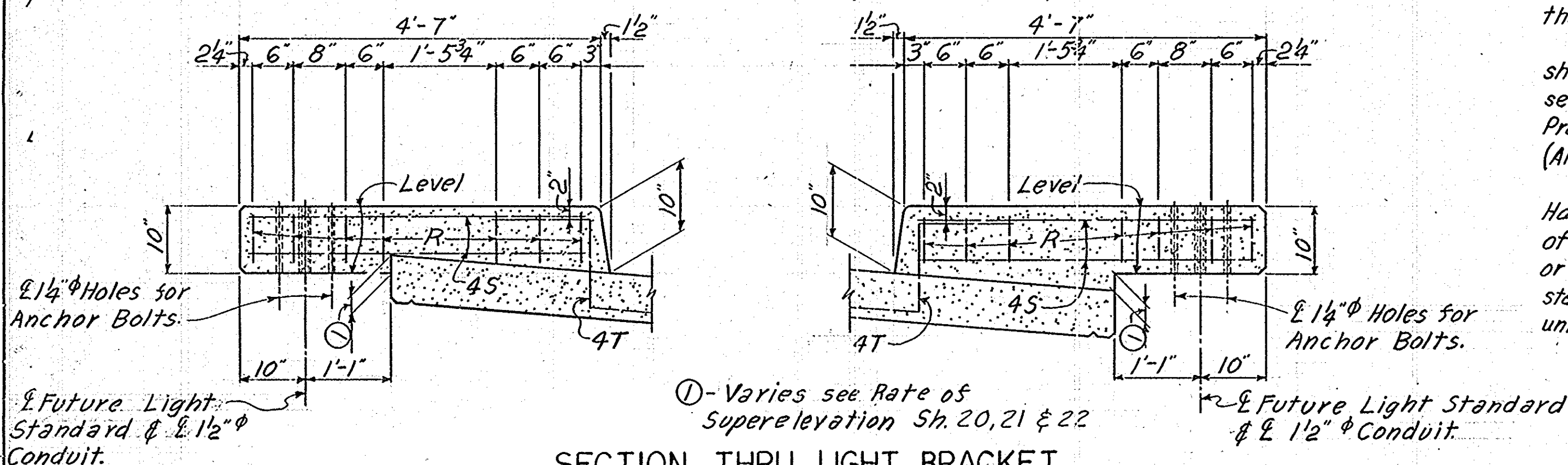
NOTE:
For location of Light Brackets see Sh. No. 14, 15, 16 &
Superstructure Plan Sheets (except Sh. 46).

Note:
Post, Rail & Parapet
Wall not shown.

NOTES:
For Standard Notes see Sh. No. 4
No construction joints other than
those shown shall be permitted.
All castings, extruded tube and shims
shall be aluminum alloy and all bolts, nuts and
set screws shall be stainless steel. See "Special
Provisions for Fabricated Metal Handrailing
(Aluminum)."
The unit price for Fabricated Metal
Handrailing shall include all that portion
of the railing above the top of Safety Curb
or Sidewalk except that all reinforcing
steel shall be measured and paid for at the
unit price bid for that item.



PLAN



SECTION THRU LIGHT BRACKET

① - Varies see Rate of
Superelevation Sh. 20, 21 & 22

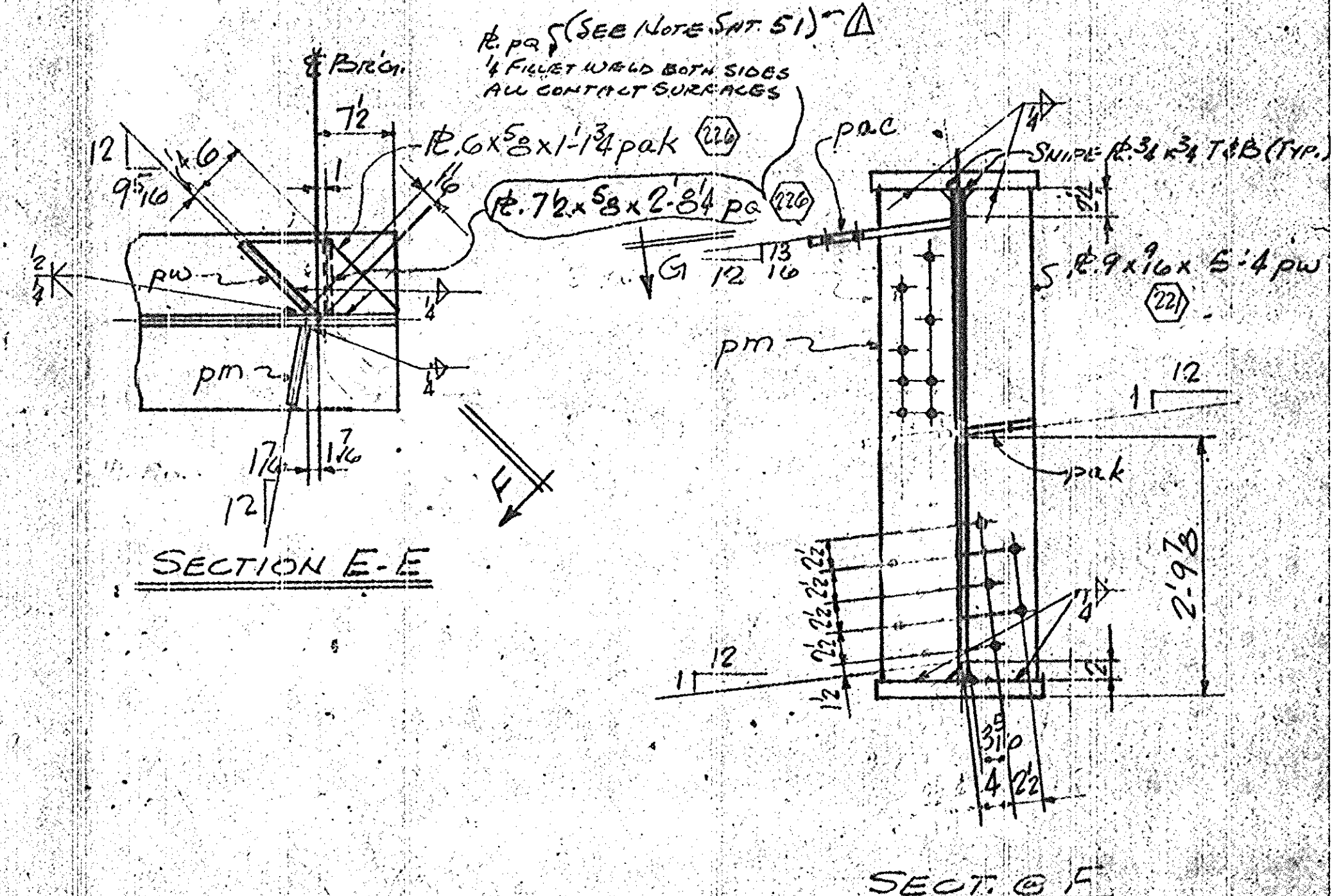
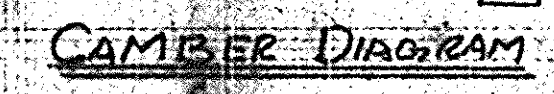
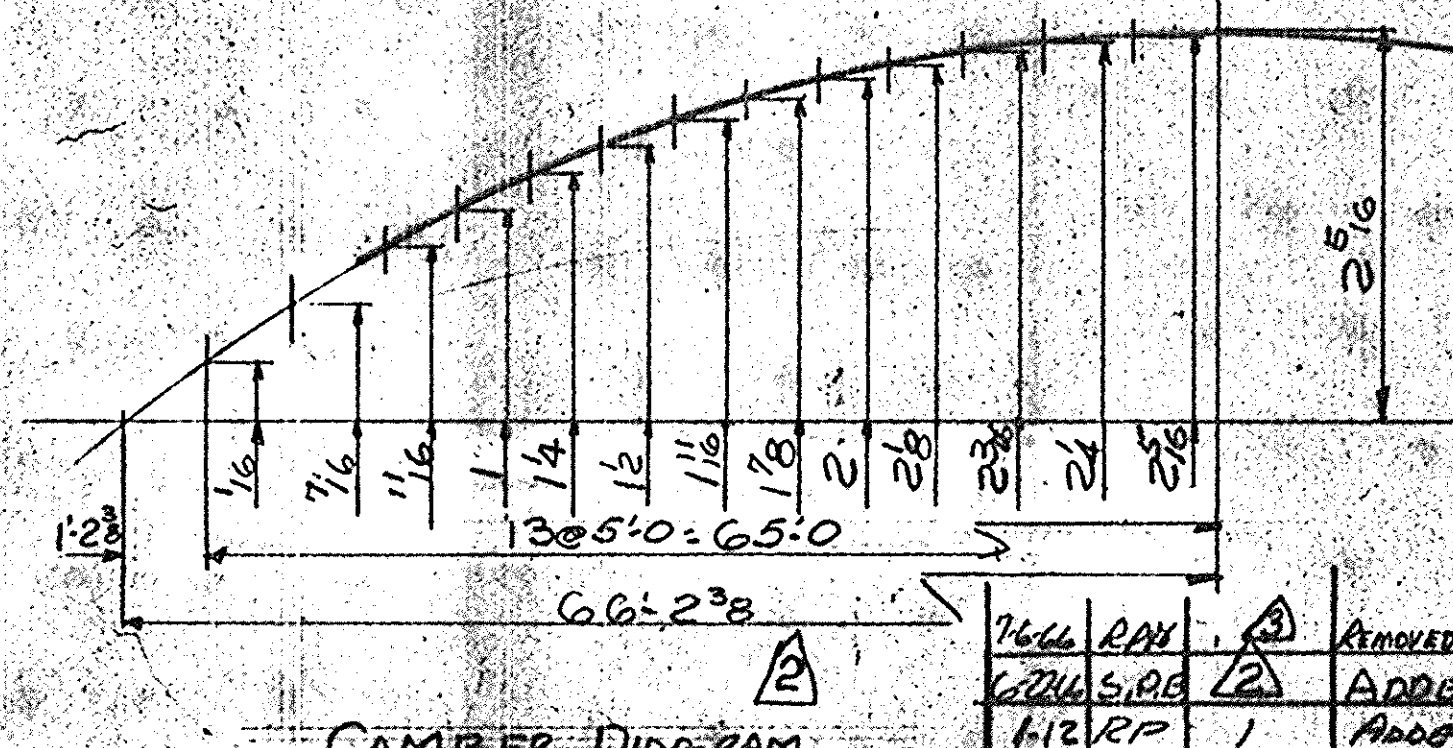
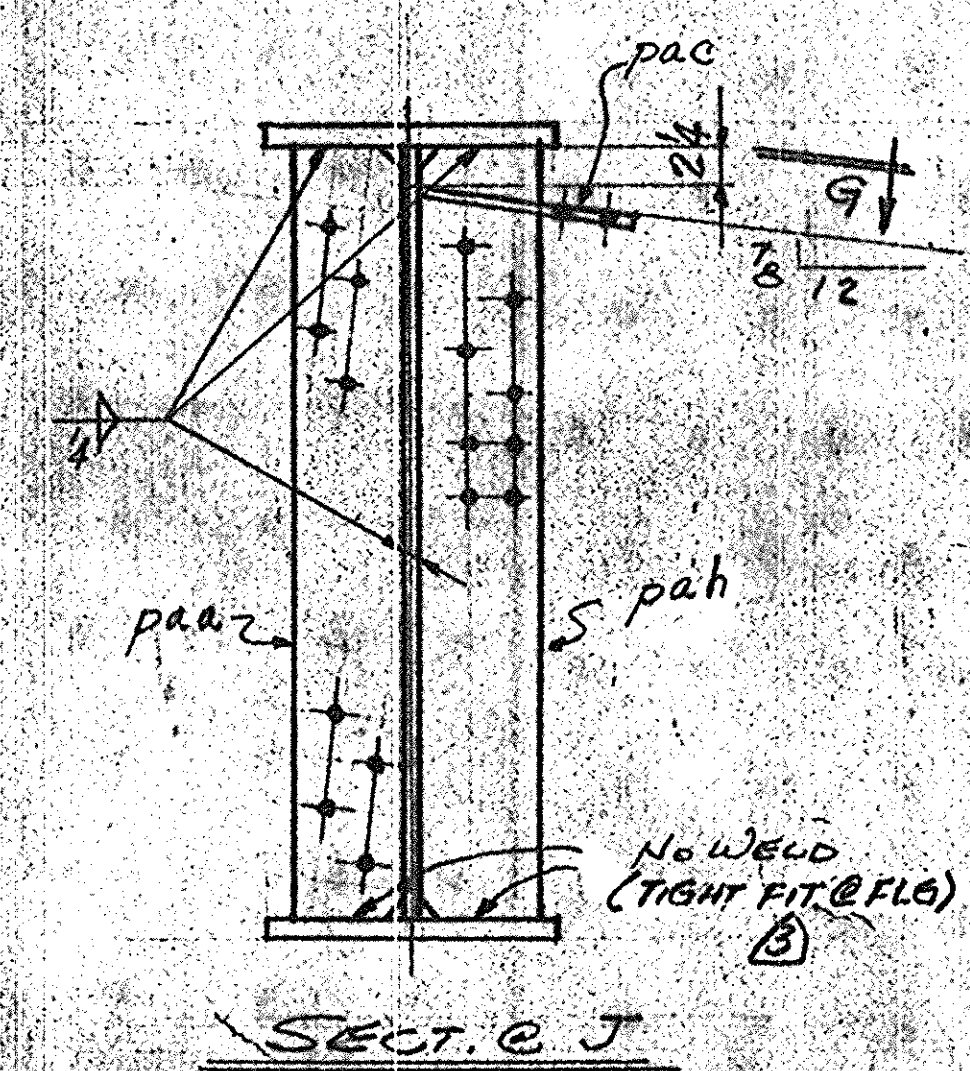
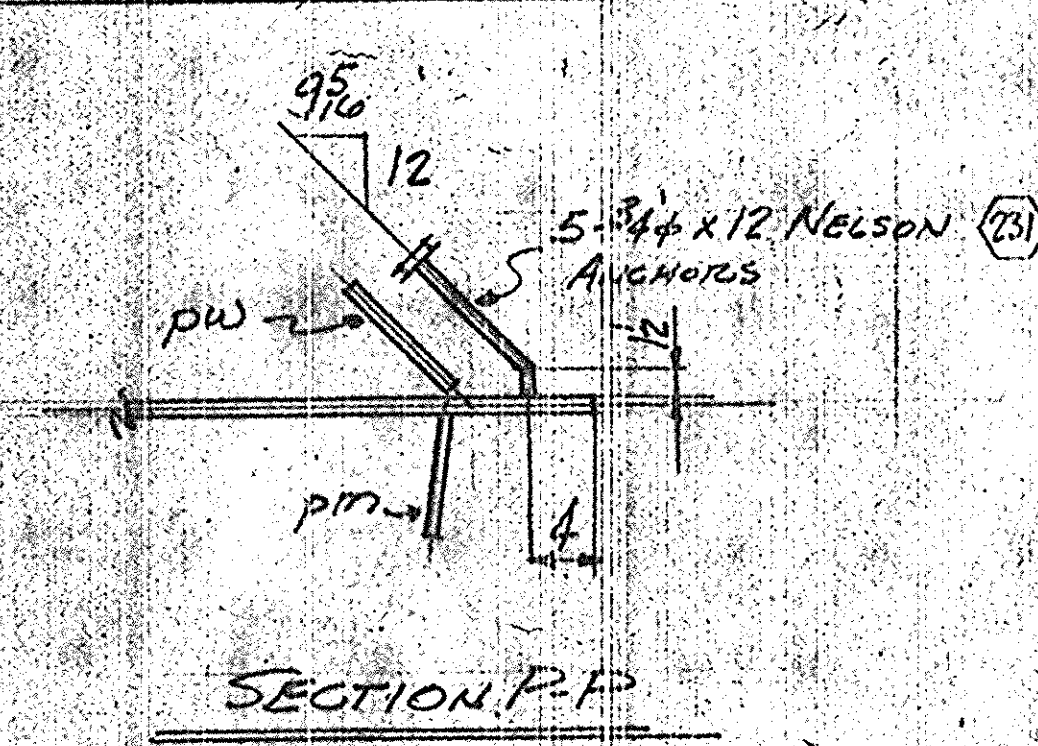
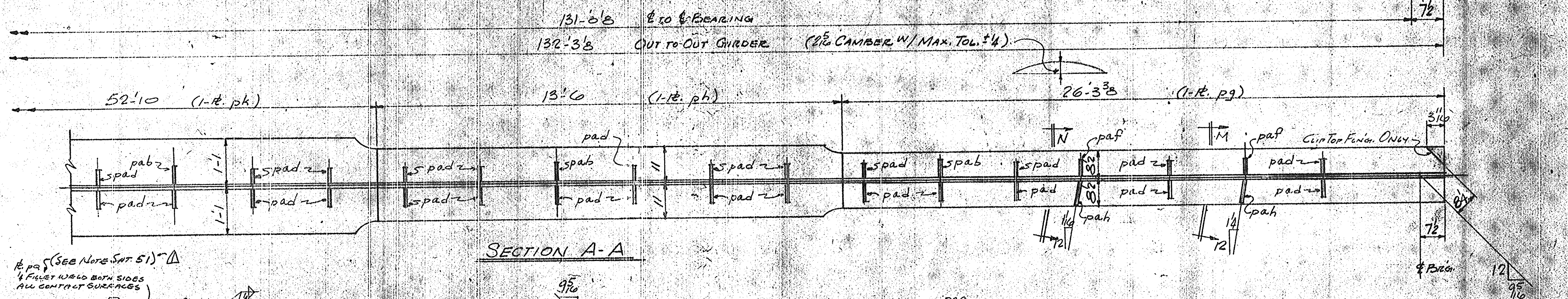
LIGHT BRACKET DETAILS

SCALE: 3/4"=1'-0"

REV.		S.C. STATE HIGHWAY DEPARTMENT BRIDGE DIVISION COLUMBIA, S.C.			
REV.		END POST DETAILS FOR SPANS BIO & CIO AND LIGHT BRACKET DETAILS			
REV.	WHM/BAM 10-64 For DR. 10.521.3	DOCKET NO.	COUNTY	ROUTE NO.	DATE
REV.	DR. R. R. W. R. 4-63 FROM SDWK RAIL	10.521.3	CHARLESTON	I-26	9-64
REVIEWED	IN CHARGE	APPROVED BY	APPROVED BY		
QUAN.	TR. DRR/RWR 3-63	DR. APD/EAS 1-61	BY CHK'D DATE		
DES.	BRIDGE DESIGN & PLANS ENGINEER				
BRIDGE ENGINEER					

SCALE AS NOTED

Parapet = 0.03704 CY/ft
1-End Post = 0.584 CY
1-Int. Post = 0.093 CY



7666 RAY	1	REMOVED "MILL TO BE" NOTE (BUILT DIFF)
7666 SIB	2	ADDED CAMBER DIAGRAM
112 RP	1	ADDED NARE SECT. E-E
DATE	BY	LOCATION
CUSTOMER STRUCTURES, INC.		REVISION
LOCATION GREENVILLE S.C.		
JOB SCHMIDWAY BRIDGE, P.O. BOX 535, CHARLESTON, S.C.		
B. L. MONTAGUE CO. INC.		
SUMTER, S.C. GREENVILLE S.C. / CHARLESTON S.C.		
SHOP ORDER 5-2751		CUSTOMER ORDER
DRAWN BY C.E.C.	CHECKED BY ML	APPROVED BY ML
SCALE 1/4"	DATE 10-18-63	
SHEET NO. 57 OF 64	DWG. NO. 10344-57	

WORK THIS SHEET WITH SHEET NO. 56

SEE SHEET No. 61

ONE 1/8 P 16	1-1 X 1 1/2	(63)
ONE 1/8 P 17	1-6 X 1 1/2	(67)
3/1/8 P 18	1-5 1/2 X 1	(63)
3/1/8 P 19	1-5 1/2 X 1	(64)
2/1/8 P 20	1-4 X 1 1/2	(61) (69)
ONE 1/8 P 21	1-6 X 1 1/2	(62)
4/1/8 P 22	1-1 X 3/4	(62)
2/1/8 P 23	1-1 X 1	(63)
ONE 1/8 P 24	1-5 1/2 X 1 1/2	(63)
2/1/8 P 25	1-1 X 3/4	(64)
4/1/8 P 26	1-1 X 1 1/2	(65) (68)
2/1/8 P 27	1-1 X 2	(66)
ONE 1/8 P 28	1-1 X 1 1/2	(67)
6/1/8 P 29	1-1 X 3/4	(68) (69)
2/1/8 P 30	1-1 X 1 1/2	(69)
3/1/8 P 31	1-1 X 1/4	(70)
3/1/8 P 32	1-5 1/2 X 1/4	(69)
3/1/8 P 33	1-1 X 3/4	(71) (76)
2/1/8 P 34	1-5 1/2 X 1 1/2	(67)
ONE 1/8 P 35	1-1 X 1/8	(72)

(STEEL)

Hand-drawn diagram of a road layout. The diagram shows a main road with a centerline and two side roads branching off. Dimensions are given in feet. Labels include 'FOR P58', 'FOR P57', 'FOR P56', 'FOR P59', 'NO PAINT P56, P57', and 'NO PAINT P58, P59'. A note '2 1/2' FOR P56, P58' and '2 1/2' FOR P57, P59' is also present. A 'DEVELOPER'S VIEW' is indicated with an arrow pointing to a section of the road. A 'ROAD LINE' is also labeled. A small circle with the number '13' is shown near the centerline.

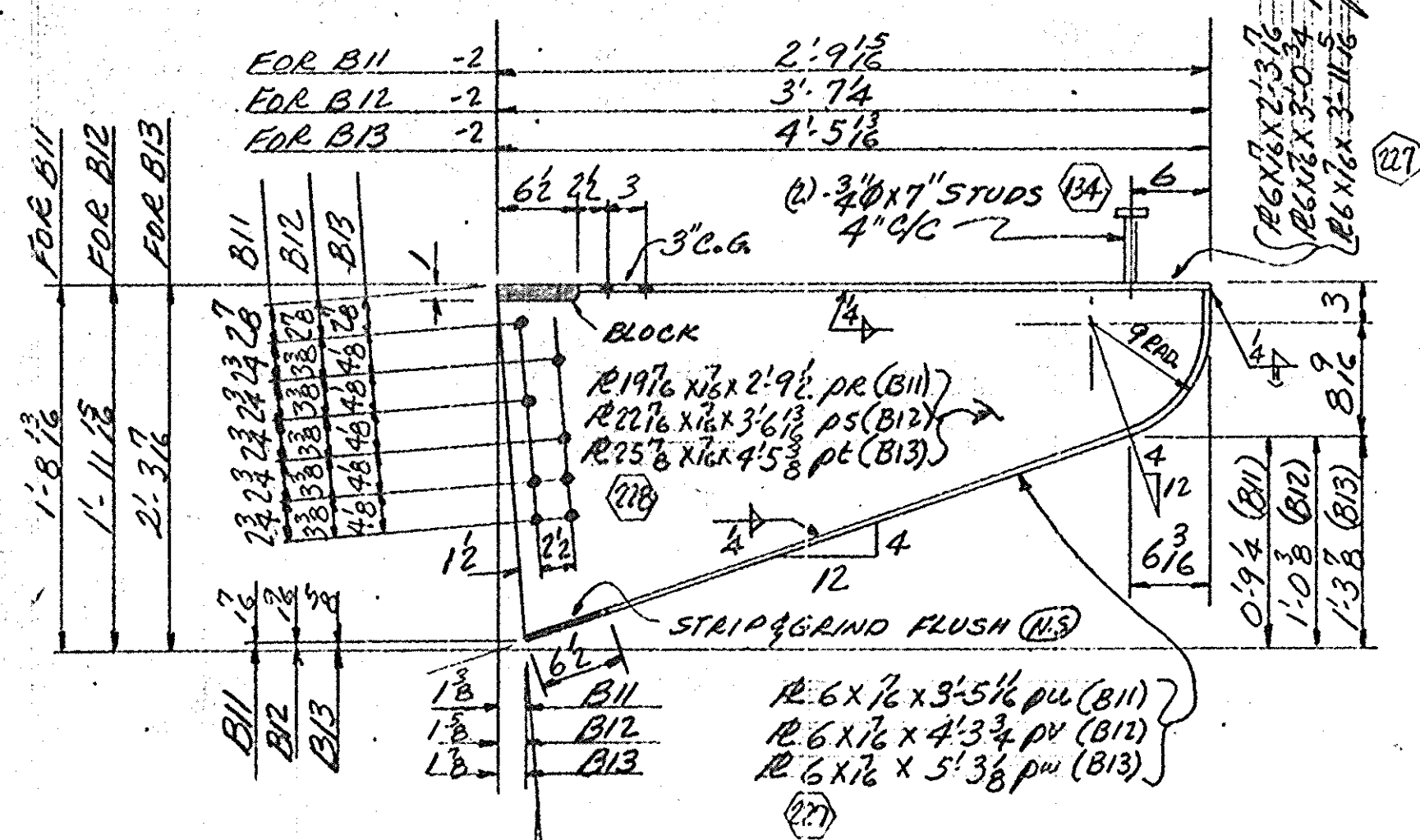
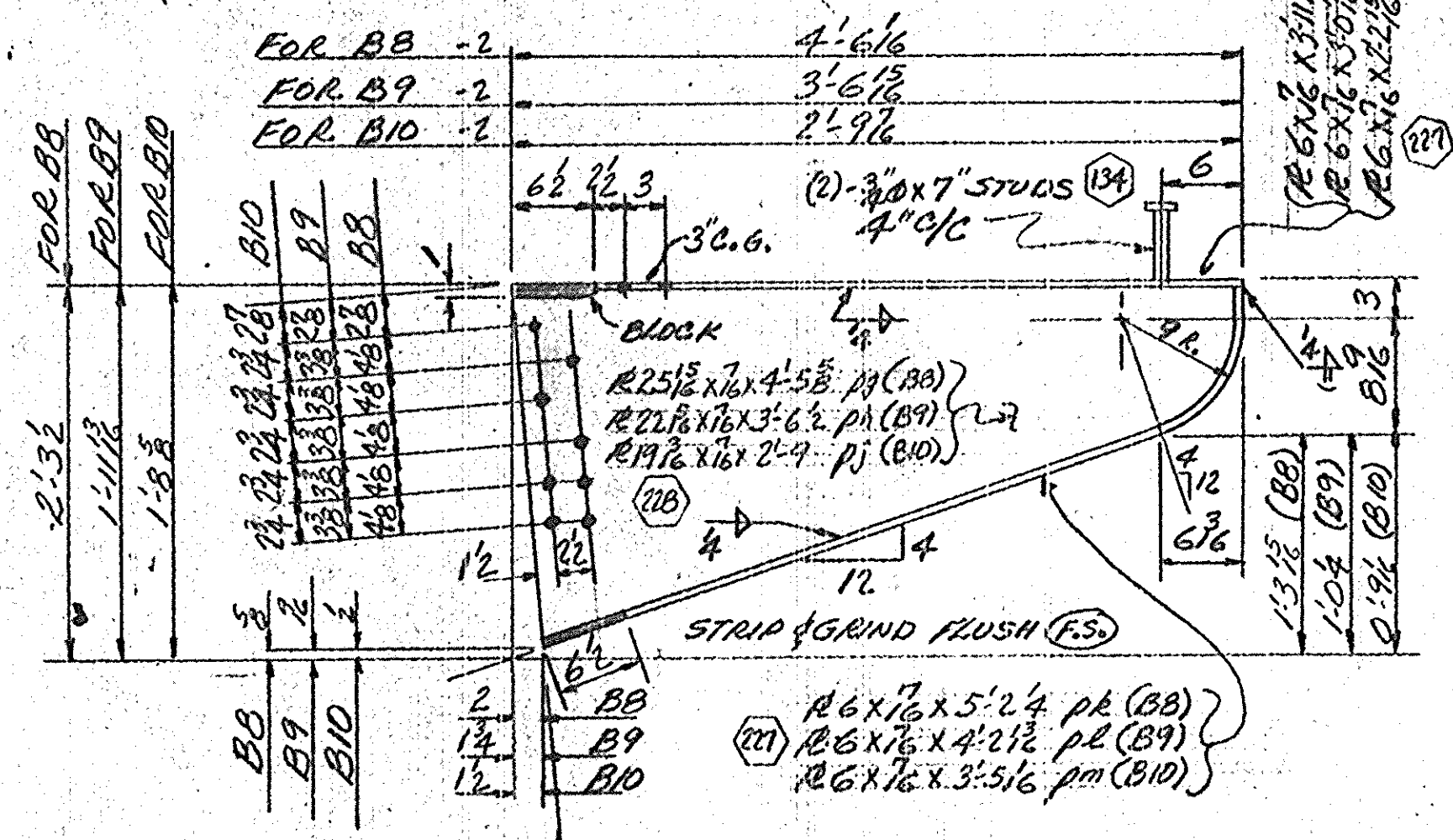
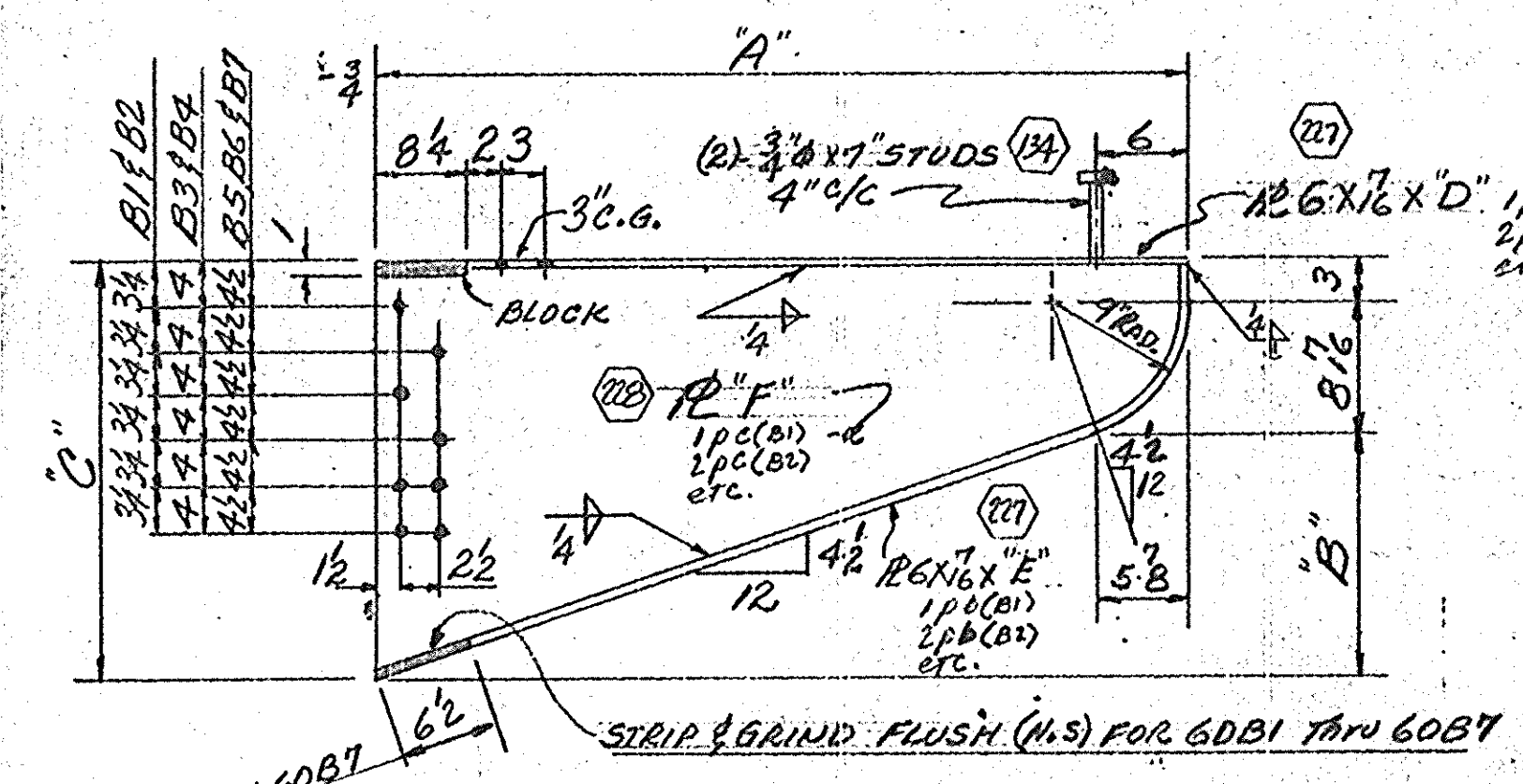
Diagram labels and dimensions:

- FOR P58
- FOR P57
- FOR P56
- FOR P59
- NO PAINT P56, P57
- NO PAINT P58, P59
- 2 1/2' FOR P56, P58
- 2 1/2' FOR P57, P59
- DEVELOPER'S VIEW
- ROAD LINE
- 13

ONE / 58D 1	185 42.7 X 71 7 1/2	(76)
ONE / 58D 2	71 6	(76)
ONE / 58D 3	71 5 3/4	(76)
ONE / 58D 4	71 5 3/8	(76)
ONE / 58D 5	71 5 1/8	(75)
ONE / 58D 6	71 4 1/2	(75)
ONE / 58D 7	71 4 1/8	(74)
ONE / 58D 8	71 4 3/8	(74)
ONE / 58D 9	71 4 1/4	(73)
ONE / 58D 10	71 3 3/4	(73)
ONE / 58D 11	71 3 1/2	(73)
ONE / 58D 12	71 3 1/4	(73)
ONE / 58D 13	71 3 1/8	(73)
ONE / 58D 14	71 3	(72)
ONE / 58D 15	71 2 3/4	(72)
ONE / 58D 16	71 2 1/2	(72)
ONE / 58D 17	71 2 1/4	(71)
ONE / 58D 18	71 2 1/8	(71)
ONE / 58D 19	71 2 1/16	(71)
ONE / 58D 20	71 1 1/2	(71)
ONE / 58D 21	71 1 1/4	(71)
ONE / 58D 22	71 1 1/8	(71)
ONE / 58D 23	71 1 1/16	(71)
ONE / 58D 24	71 1 1/32	(71)
ONE / 58D 25	71 1/8	(71)
ONE / 58D 26	71 1/16	(71)
ONE / 58D 27	71 1/32	(70)
ONE / 58D 28	71 1/64	(70)
ONE / 58D 29	71 1/128	(70)
ONE / 58D 30	71 1/256	(70)
ONE / 58D 31	71 1/512	(70)
ONE / 58D 32	71 1/1024	(70)
ONE / 58D 33	71 1/2048	(70)
ONE / 58D 34	71 1/4096	(70)
ONE / 58D 35	71 1/8192	(70)
ONE / 58D 36	71 1/16384	(70)
ONE / 58D 37	71 1/32768	(70)
ONE / 58D 38	71 1/65536	(70)
ONE / 58D 39	71 1/131072	(70)
ONE / 58D 40	71 1/262144	(70)
ONE / 58D 41	71 1/524288	(70)
ONE / 58D 42	71 1/1048576	(70)
ONE / 58D 43	71 1/2097152	(70)
ONE / 58D 44	71 1/4194304	(70)
ONE / 58D 45	71 1/8388608	(70)
ONE / 58D 46	71 1/16777216	(70)
ONE / 58D 47	71 1/33554432	(70)
ONE / 58D 48	71 1/67108864	(70)
ONE / 58D 49	71 1/134217728	(70)
ONE / 58D 50	71 1/268435456	(70)
ONE / 58D 51	71 1/536870912	(70)
ONE / 58D 52	71 1/1073741824	(70)
ONE / 58D 53	71 1/2147483648	(70)
ONE / 58D 54	71 1/4294967296	(70)
ONE / 58D 55	71 1/8589934592	(70)
ONE / 58D 56	71 1/17179869184	(70)
ONE / 58D 57	71 1/34359738368	(70)
ONE / 58D 58	71 1/68719476736	(70)
ONE / 58D 59	71 1/137438953472	(70)
ONE / 58D 60	71 1/274877906944	(70)
ONE / 58D 61	71 1/549755813888	(70)
ONE / 58D 62	71 1/1099511627776	(70)
ONE / 58D 63	71 1/2199023255552	(70)
ONE / 58D 64	71 1/4398046511104	(70)
ONE / 58D 65	71 1/8796093022208	(70)
ONE / 58D 66	71 1/17592186044416	(70)
ONE / 58D 67	71 1/35184372088832	(70)
ONE / 58D 68	71 1/70368744177664	(70)
ONE / 58D 69	71 1/140737488355328	(70)
ONE / 58D 70	71 1/281474976710656	(70)
ONE / 58D 71	71 1/562949953421312	(70)
ONE / 58D 72	71 1/1125899906842624	(70)
ONE / 58D 73	71 1/2251799813685248	(70)
ONE / 58D 74	71 1/4503599627370496	(70)
ONE / 58D 75	71 1/9007199254740992	(70)
ONE / 58D 76	71 1/18014398509481984	(70)
ONE / 58D 77	71 1/36028797018963968	(70)
ONE / 58D 78	71 1/72057594037927936	(70)
ONE / 58D 79	71 1/144115188075855872	(70)
ONE / 58D 80	71 1/288230376151711744	(70)
ONE / 58D 81	71 1/576460752303423488	(70)
ONE / 58D 82	71 1/1152921504606846976	(70)
ONE / 58D 83	71 1/2305843009213693952	(70)
ONE / 58D 84	71 1/4611686018427387904	(70)
ONE / 58D 85	71 1/9223372036854775808	(70)
ONE / 58D 86	71 1/18446744073709551616	(70)
ONE / 58D 87	71 1/36893488147419103232	(70)
ONE / 58D 88	71 1/73786976294838206464	(70)
ONE / 58D 89	71 1/147573952589676412928	(70)
ONE / 58D 90	71 1/295147905179352825856	(70)
ONE / 58D 91	71 1/590295810358705651712	(70)

NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF
MEMBERS AS DETAILED. ALL 1/2" HOLES
THIS DWG. ARE FOR 3" O. HT. FIELD BOLTS
ALL SUCH HOLES SHALL BE FREE OF
BURRS AND SHALL NOT BE PAINTED
WITHIN 5" OF SUCH OPEN HOLES.

DATE		BY	LOCATION	REVISION	
n. 45		RPV	Δ	REVISED NOTES RE. BEOMER RS REVISED DRAW 5BBB, B2, A3	
CUSTOMER <u>STRUCTURES, INC.</u>					
LOCATION <u>GREENVILLE, S.C.</u>					
JOB <u>S.C. HIGHWAY BRIDGE, PAPA 10-5213 CHARLESTON CO.</u>					
B. L. MONTAGUE CO. INC.					
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.					
RIB BOLTS		SHOP ORDER		CUSTOMER ORDER	
BOLTS <u>7/8" H.T.</u>		DRAWN BY <u>C.E.C.</u>		CHECKED BY <u>RPV</u> APPROVED BY	
RIVETS		SCALE <u>1"</u>		DATE <u>10-9-65</u>	
HOLES <u>1/8"</u> UNLESS NOTED.		SHEET NO. <u>5B OF</u>		DWG. NO. <u>43544-5B</u>	
PRIME <u>LET RED LEAD PAINT</u>					

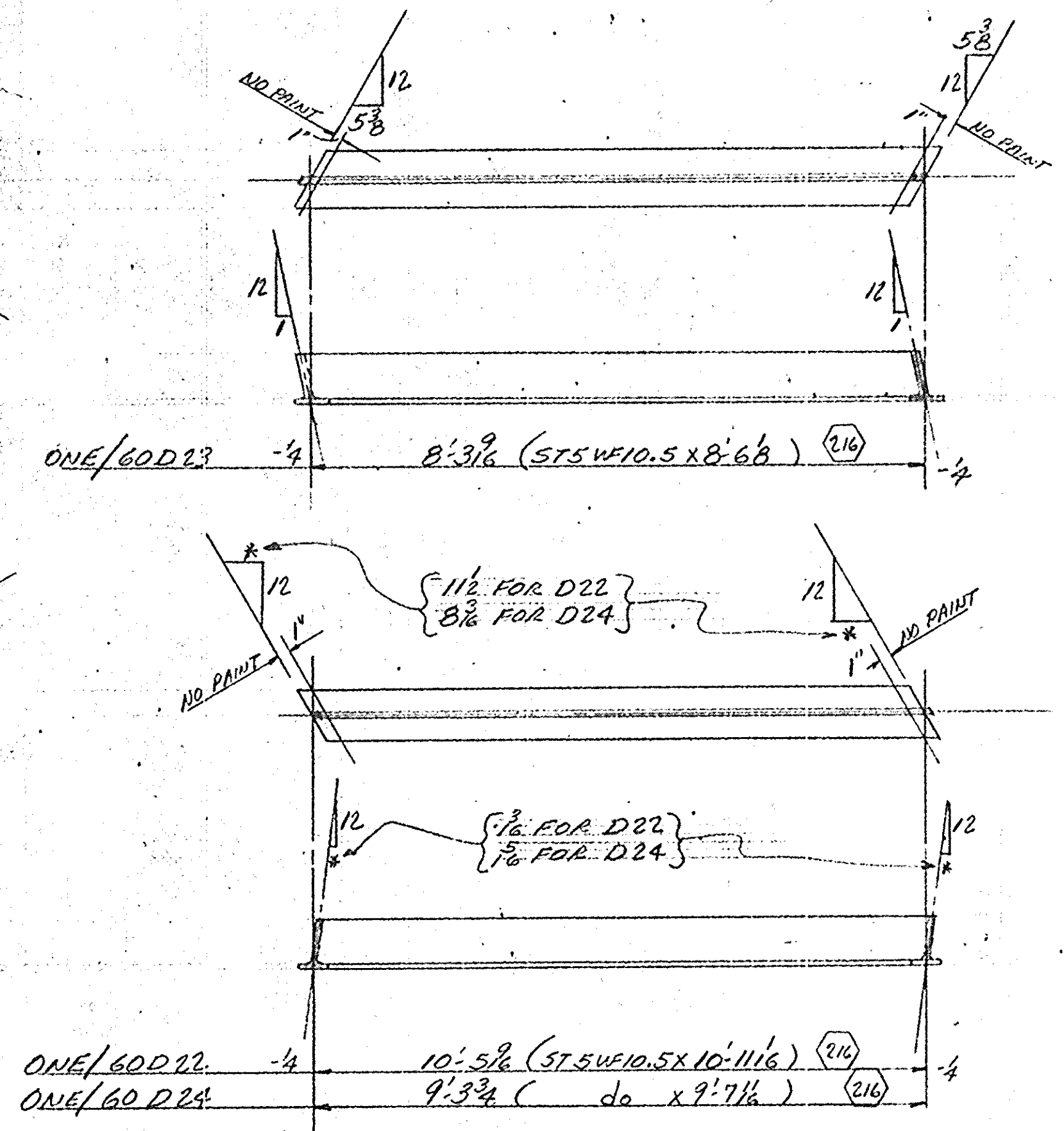
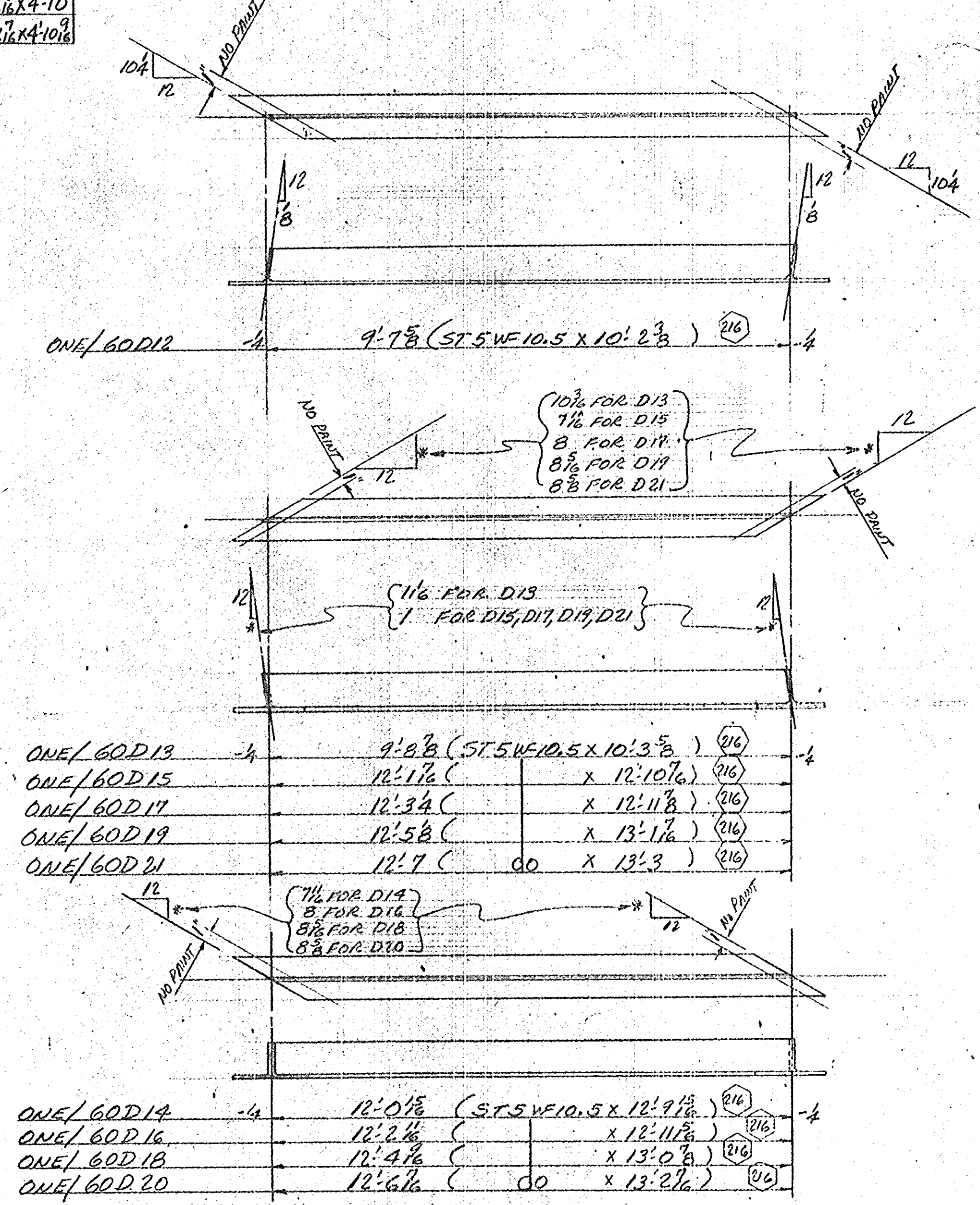


MARK	QUAN	A	B	C	D	E	F
GDB1	2	3'-2 1/2"	1'-0 1/2"	1'-11 1/2"	2'-5 1/2"	4'-0"	R22 1/2 x 7 x 3-1 1/2
GDB2	2	3'-8 3/8"	1'-2 1/2"	2'-1 1/2"	3'-0 3/8"	4'-6 7/8"	R25 1/2 x 6 x 3-8 3/8
GDB3	2	4'-1 3/4"	1'-4 1/2"	2'-3 3/8"	3'-5 1/2"	5'-0 3/8"	R27 1/2 x 6 x 4-1 1/2
GDB4	2	4'-5 1/2"	1'-5 1/2"	2'-5 3/8"	3'-9 1/2"	5'-4 1/2"	R28 1/2 x 7 x 4-5 1/2
GDB5	2	4'-8 3/8"	1'-7"	2'-6 1/2"	4'-0 3/8"	5'-7 1/2"	R29 1/2 x 8 x 4-8 3/8
GDB6	2	4'-10 1/2"	1'-7 1/2"	2'-7 3/8"	4'-2 1/2"	5'-9 3/8"	R30 1/2 x 8 x 4-10 1/2
GDB7	ONE	4'-11"	1'-7 1/2"	2'-7 3/8"	4'-2 3/4"	5'-10 3/8"	R30 1/2 x 8 x 4-10 3/8

ONE / GDB8
ONE / GDB9
ONE / GDB10

ONE / GDB11
ONE / GDB12
ONE / GDB13

ONE / GDB1	12 x 20.7 x 6'-11 1/2"	(217)
ONE / GDB2	x 6'-2 1/2"	(217)
ONE / GDB3	x 6'-4 1/2"	(217)
ONE / GDB4	x 6'-5 1/2"	(217)
ONE / GDB5	x 6'-7 1/2"	(217)
ONE / GDB6	x 6'-8 1/2"	(217)
ONE / GDB7	x 6'-10 3/8"	(217)
ONE / GDB8	x 6'-11 3/8"	(217)
ONE / GDB9	x 5'-11 1/2"	(217)
ONE / GDB10	x 7'-2 1/2"	(217)
ONE / GDB11	00 x 7'-3 3/4"	(217)

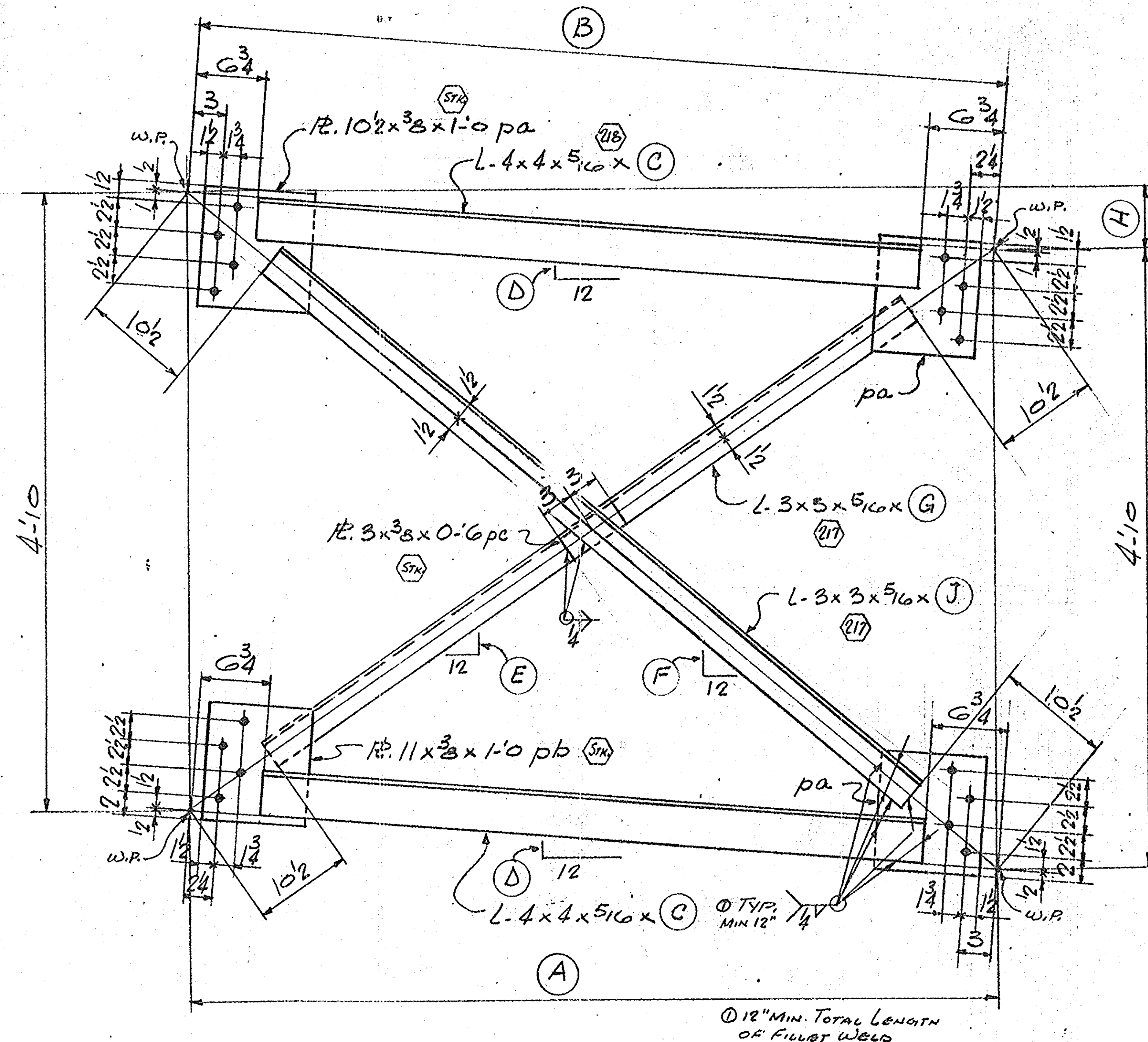


NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED. ALL 1/8" HOLES THIS DWG. ARE FOR 3/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

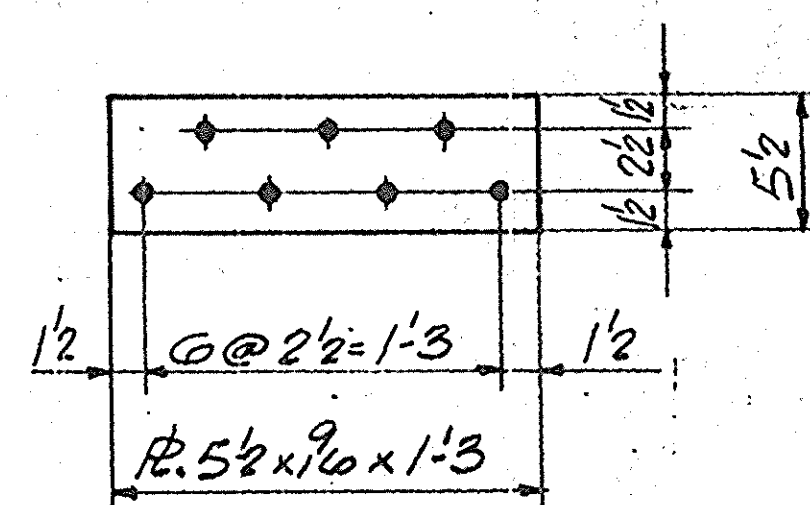
ONE / GDB14	12'-0 1/2"	(ST.5WF10.5 x 12'-9 1/2")	(216)
ONE / GDB16	12'-2 1/2"	x 12'-11 1/2"	(216)
ONE / GDB18	12'-4 1/2"	x 13'-0 3/8"	(216)
ONE / GDB20	12'-6 1/2"	00 x 13'-2 1/2"	(216)

SEE NOTE SHEET E1

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE PROJ. 10.521.3 CHARLESTON COUNTY			
B. L. MONTAGUE CO. INC.		SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.	
RIB BOLTS	SHOP ORDER 521751		
BOLTS 3/4"	CUSTOMER ORDER		
RIVETS	DRAWN BY CEC	CHECKED BY	APPROVED BY
HOLES 1/8"	UNLESS NOTED	DATE 10-30-65	
PRIME	SCALE	SHEET NO. 60 OF 64	DWG. NO. 43544-60



TYPICAL CROSS FRAME DETAIL
(INTERIOR)



4 FILLER PLATES - GIM22
(END CROSS FRAMES)

CROSS FRAME DIMENSION SCHEDULE															
MARK	(A)	(B)	(C)	MARK	(D)	(E)	(F)	(G)	MARK	(H)	(J)	MARK	(K)	(L)	(M)
GIM1	6'-5 1/16	6'-5 3/4	5'-5 3/4	aa	7/8	8 3/16	9 3/8	6'-0 1/16	aa	5 1/16	6'-0 3/8	ab	7/8	8 3/16	9 3/8
GIM2	6'-5	6'-5 3/16	5'-6 1/16	ab	7/8	7 1/2	9 1/16	6'-2 1/8	aa	5 1/8	6'-9 3/8	ab	7/8	8 3/16	9 3/8
GIM3	6'-10 1/8	6'-11 1/4	5'-9 1/8	ac	7/8	7 1/2	9 1/16	6'-4 1/8	aa	5 1/8	6'-11 3/8	ab	7/8	8 3/16	9 3/8
GIM4	7'-1 1/8	7'-2 1/8	6'-0 3/8	ad	7/8	7 1/2	9 1/16	6'-7 1/8	aa	5 1/8	7'-2 3/8	ab	7/8	8 3/16	9 3/8
GIM5	7'-4 1/8	7'-5 1/8	6'-3 3/8	ae	7/8	7 1/2	9 1/16	6'-9 1/8	aa	5 1/8	7'-4 3/8	ab	7/8	8 3/16	9 3/8
GIM6	6'-4	6'-4 3/16	5'-2 1/16	af	7/8	8 3/16	10	5'-11 3/8	aa	5 1/8	6'-6 1/8	ab	7/8	8 3/16	9 3/8
GIM7	6'-7 1/16	6'-7 3/4	5'-5 3/4	ag	7/8	7 1/2	9 1/16	6'-7 3/8	aa	5 1/8	6'-8 1/8	ab	7/8	8 3/16	9 3/8
GIM8	6'-10 1/16	6'-10 5/16	5'-8 1/16	ah	7/8	7 1/2	9 1/16	6'-4 1/16	aa	5 1/8	6'-11 1/8	ab	7/8	8 3/16	9 3/8
GIM9	7'-1 1/8	7'-1 3/8	5'-11 1/8	aj	7/8	7 1/2	9 1/16	6'-7 1/8	aa	5 1/8	7'-1 1/8	ab	7/8	8 3/16	9 3/8
GIM10	7'-4 1/16	7'-4 1/4	6'-2 1/4	ak	7/8	7 1/2	9 1/16	6'-9 3/8	aa	5 1/8	7'-4 3/8	ab	7/8	8 3/16	9 3/8
GIM11	7'-6 3/8	7'-6 3/4	6'-5 3/8	al	7/8	7 1/2	9 1/16	6'-11 3/8	aa	5 1/8	7'-6 3/8	ab	7/8	8 3/16	9 3/8
GIM12	6'-5 1/8	6'-6 1/8	5'-4 3/8	am	7/8	8 3/16	10	6'-0 3/8	aa	5 1/8	6'-7 3/8	ab	7/8	8 3/16	9 3/8
GIM13	6'-9 3/8	6'-9 3/4	5'-7 3/8	an	7/8	7 1/2	9 1/16	6'-3 3/8	aa	5 1/8	6'-10 3/8	ab	7/8	8 3/16	9 3/8
GIM14	7'-0 1/4	7'-0 1/2	5'-11 1/4	ap	7/8	7 1/2	9 1/16	6'-5 3/8	aa	5 1/8	7'-0 1/4	ab	7/8	8 3/16	9 3/8
GIM15	7'-5 1/16	7'-5 1/4	6'-2 1/4	aq	7/8	7 1/2	9 1/16	6'-8 3/8	aa	5 1/8	7'-5 1/16	ab	7/8	8 3/16	9 3/8
GIM16	7'-5 1/8	7'-6 1/8	6'-4 1/8	ar	7/8	8 3/16	10	6'-10 3/8	aa	5 1/8	7'-5 1/8	ab	7/8	8 3/16	9 3/8
GIM17	6'-4 1/8	6'-5	5'-3 1/8	as	7/8	8 3/16	10	6'-0 3/8	aa	5 1/8	6'-6 1/8	ab	7/8	8 3/16	9 3/8
GIM18	6'-8 1/8	6'-8 3/4	5'-6 3/8	at	7/8	7 1/2	9 1/16	6'-2 3/8	aa	5 1/8	6'-9 3/8	ab	7/8	8 3/16	9 3/8
GIM19	6'-11 3/8	6'-11 3/4	5'-10 3/8	au	7/8	7 1/2	9 1/16	6'-5 3/8	aa	5 1/8	7'-0 3/8	ab	7/8	8 3/16	9 3/8
GIM20	7'-2 3/8	7'-2 3/4	6'-1 3/8	av	7/8	8 3/16	10	6'-8 3/8	aa	5 1/8	7'-2 3/8	ab	7/8	8 3/16	9 3/8
GIM21	7'-5 3/8	7'-6 1/16	6'-4 1/16	aw	7/8	8 3/16	10	6'-10 1/16	aa	5 1/8	7'-5 3/8	ab	7/8	8 3/16	9 3/8

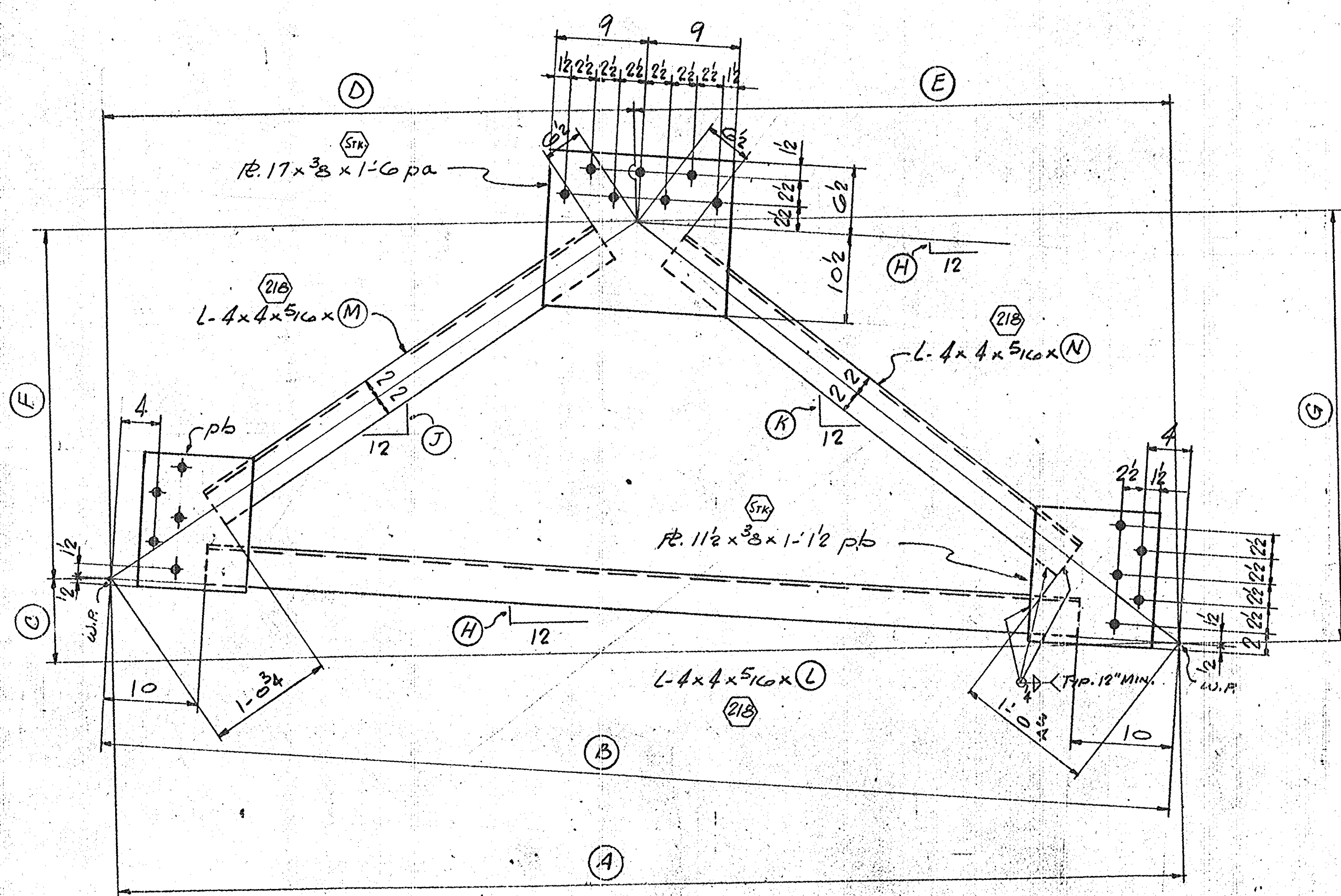
ONE - FRAME EA. MARK REQ.

8'-9 1/16	B1
8'-10 1/2	B2
8'-11 3/4	B3
9'-1 1/16	B4
6'-2 1/2 = 1'-3	
3'-11 1/8	B1
3'-11 3/4	B2
4'-0 3/8	B3
4'-1	B4
ONE-G1B1	9'-1 1/16 (15 L 33.9 x 9'-1 1/16) (20)
ONE-G1B2	9'-2 1/2 (15 L 33.9 x 9'-2 1/2) (20)
ONE-G1B3	9'-3 3/4 (15 L 33.9 x 9'-3 3/4) (22)
ONE-G1B4	9'-5 1/16 (15 L 33.9 x 9'-5 1/16) (20)

NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
ALL 1/2" & HOLES THIS DRAWING ARE FOR 7/8" & H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS & SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER STRUCTURES INC.			
LOCATION GREENVILLE S.C.			
JOB S.C. HIGHWAY BRIDGE, PROJ. 10-521-3, CHARLESTON, Cnty.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	BY	SHOP ORDER	CUSTOMER ORDER
BOLTS 7/8" H.T.	BY	5-21751	
RIVETS	BY	C.E.C.	CHECKED BY
HOLES 1/2" UNLESS NOTED	BY		APPROVED BY
PRIME 1/2" R.L. & O.L.	SCALE	7	DATE 11-5-65
	SHEET NO.	61 of 64	DWG. NO. 43544-61

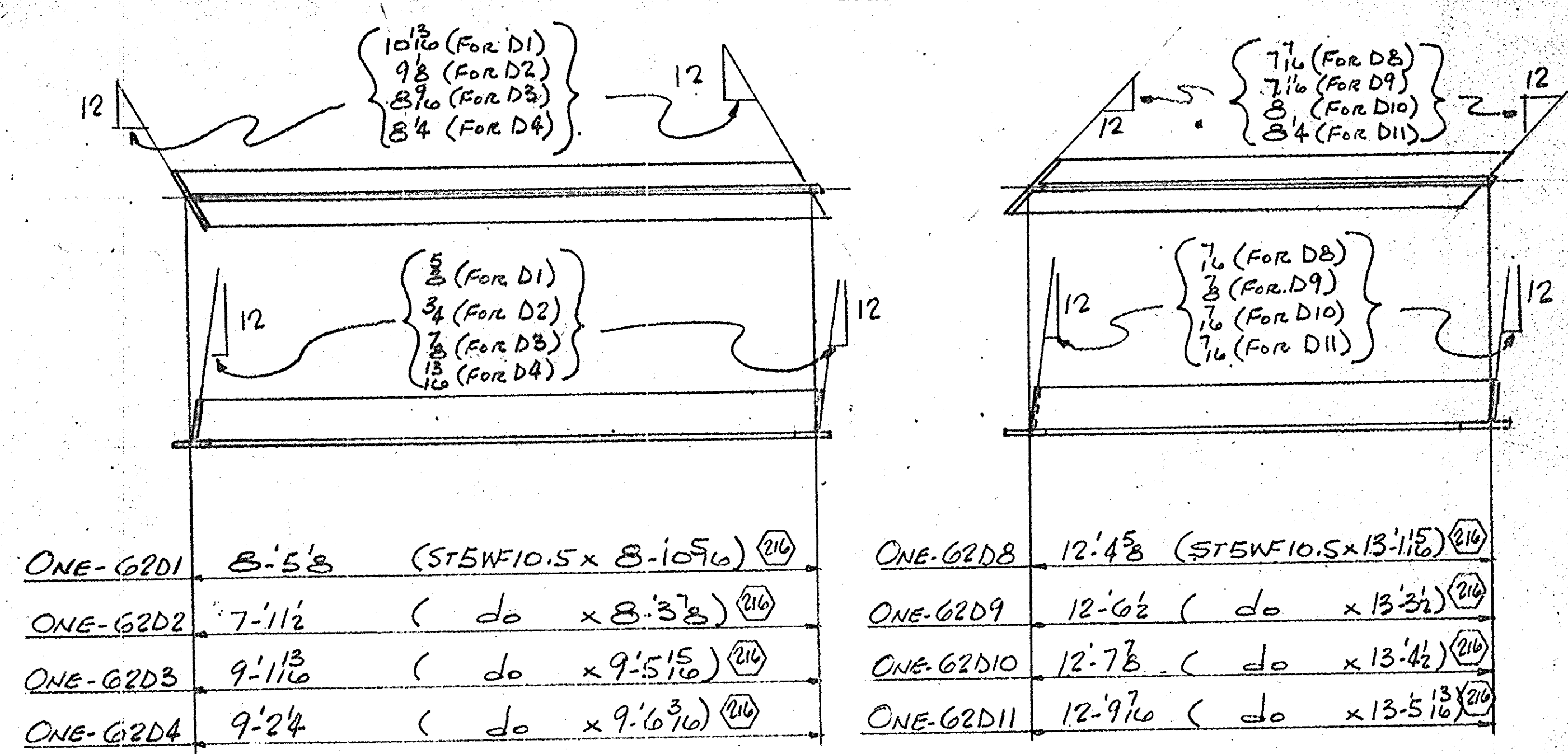
SEE NOTE SHT. E1



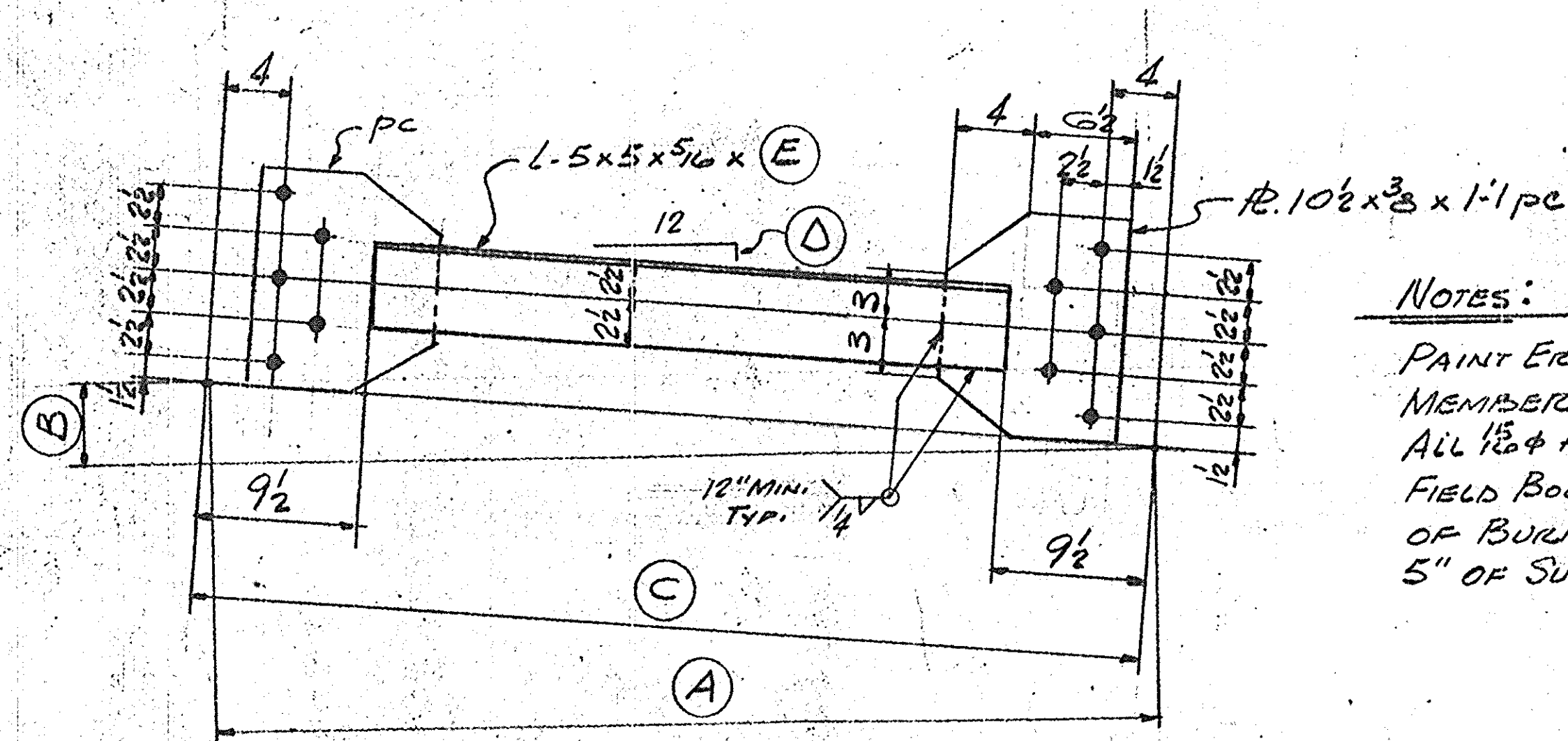
TYPICAL END CROSS FRAME DETAIL

CROSS FRAME DIMENSION SCHEDULE															
MARK	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)	(K)	(L)	MARK	(M)	(N)	MARK
G2M1	9'-5 1/2"	9'-6 5/8"	9'-6 7/8"	4'-8 1/2"	4'-9"	3'-4 1/2"	4'-1 1/2"	1'-8 1/2"	2'-2 1/2"	10'-10 1/2"	7'-10 1/2"	aa	4'-2 1/2"	ab	4'-8 5/8"
G2M2	9'-7 1/8"	9'-7 1/2"	9'-7 3/4"	4'-9 1/2"	4'-9 1/2"	3'-4 5/8"	4'-1 1/2"	1'-8 3/4"	2'-2 1/2"	10'-10 1/2"	7'-10 1/2"	ad	4'-3"	ae	4'-8 1/2"
G2M3	9'-8 3/8"	9'-8 3/4"	9'-8 3/8"	4'-10 3/8"	4'-10 3/8"	3'-4 1/2"	4'-1 1/2"	1'-8 3/4"	2'-2 1/2"	10'-10 1/2"	8'-0 3/4"	ag	4'-3 1/2"	ah	4'-9 1/2"
G2M4	9'-9 1/8"	9'-10 1/8"	9'-10 1/8"	4'-10 3/8"	4'-10 3/8"	3'-4 1/2"	4'-1 1/2"	1'-8 3/4"	2'-2 1/2"	10'-10 1/2"	8'-2 1/2"	am	4'-4"	an	4'-9 3/4"

ONE-FRAME EA. MARK REQ.



ONE-G2D1	8'-5 1/2"	(ST5WF10.5 x 8'-10 5/8")	(216)
ONE-G2D2	7'-11 1/2"	(do x 8'-3 3/8")	(216)
ONE-G2D3	9'-11 1/2"	(do x 9'-5 1/2")	(216)
ONE-G2D4	9'-24"	(do x 9'-6 3/8")	(216)
ONE-G2D5	7'-11 1/2"	(ST5WF10.5 x 8'-3 1/2")	(216)
ONE-G2D6	9'-1 1/2"	(do x 9'-5 1/2")	(216)
ONE-G2D7	9'-3 1/2"	(do x 9'-7 1/2")	(216)
ONE-G2D8	12'-4 5/8"	(ST5WF10.5 x 13'-11 1/2")	(216)
ONE-G2D9	12'-6 1/2"	(do x 13'-3 1/2")	(216)
ONE-G2D10	12'-7 1/2"	(do x 13'-4 1/2")	(216)
ONE-G2D11	12'-9 1/2"	(do x 13'-5 1/2")	(216)
ONE-G2D12	12'-4 5/8"	(ST5WF10.5 x 13'-11 1/2")	(216)
ONE-G2D13	12'-6 1/2"	(do x 13'-3 1/2")	(216)
ONE-G2D14	12'-7 1/2"	(do x 13'-4 1/2")	(216)
ONE-G2D15	12'-9 1/2"	(do x 13'-5 1/2")	(216)



ANGLE BRACE DETAIL

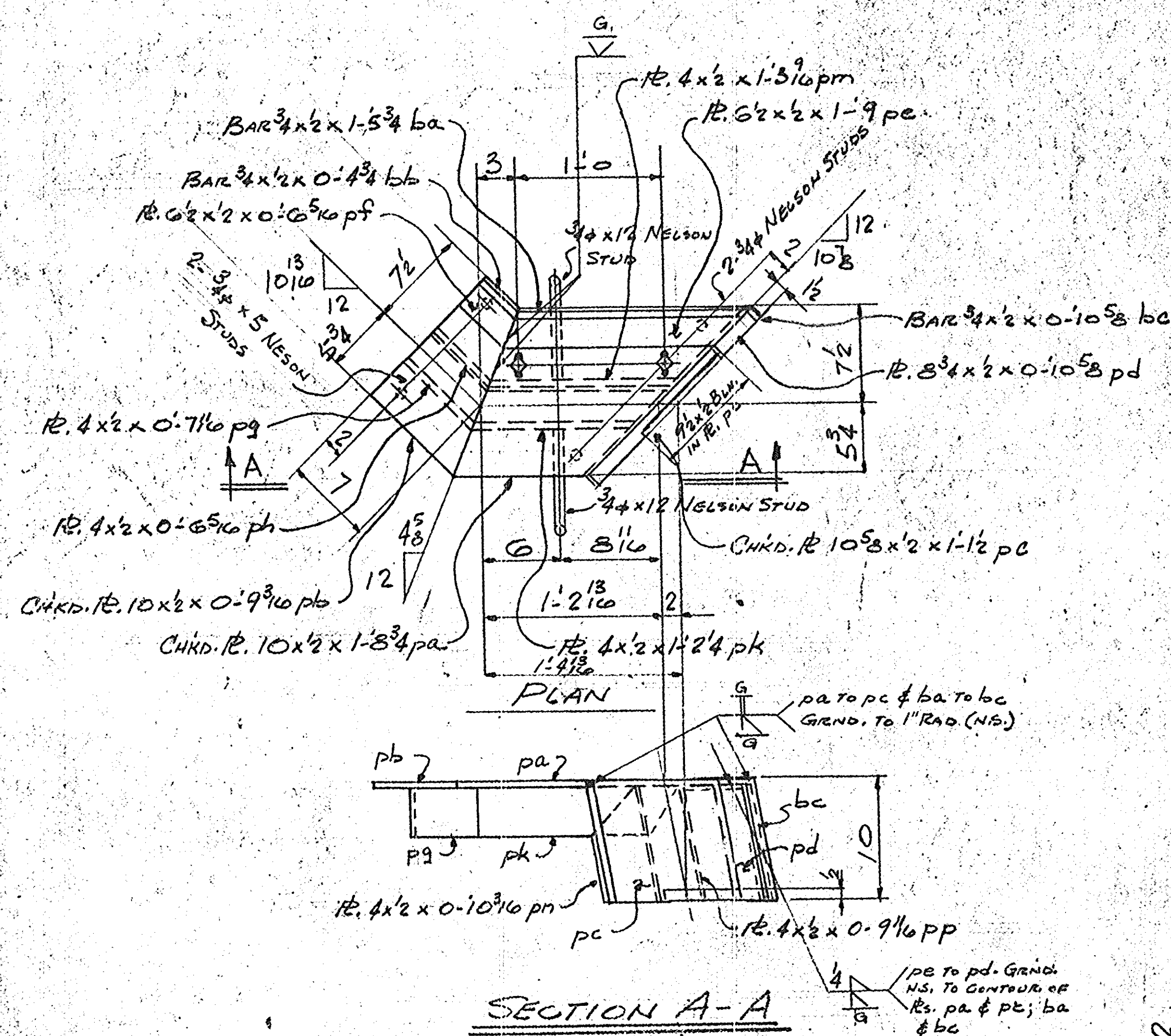
ANGLE BRACE DIMENSION SCHEDULE					
MARK	(A)	(B)	(C)	(D)	(E)
G2D16	9'-5 1/2"	8'-10"	9'-5 1/2"	8'-10"	7'-10 1/2"
G2D17	9'-6 1/2"	9'-10"	9'-7 1/2"	11'-0"	8'-10 1/2"
G2D18	9'-7 1/2"	9'-10"	9'-8 1/2"	11'-0"	8'-15 1/2"
G2D19	9'-9 1/2"	9'-10"	9'-9 1/2"	11'-0"	8'-2 1/2"

ONE-EA. MARK REQ.

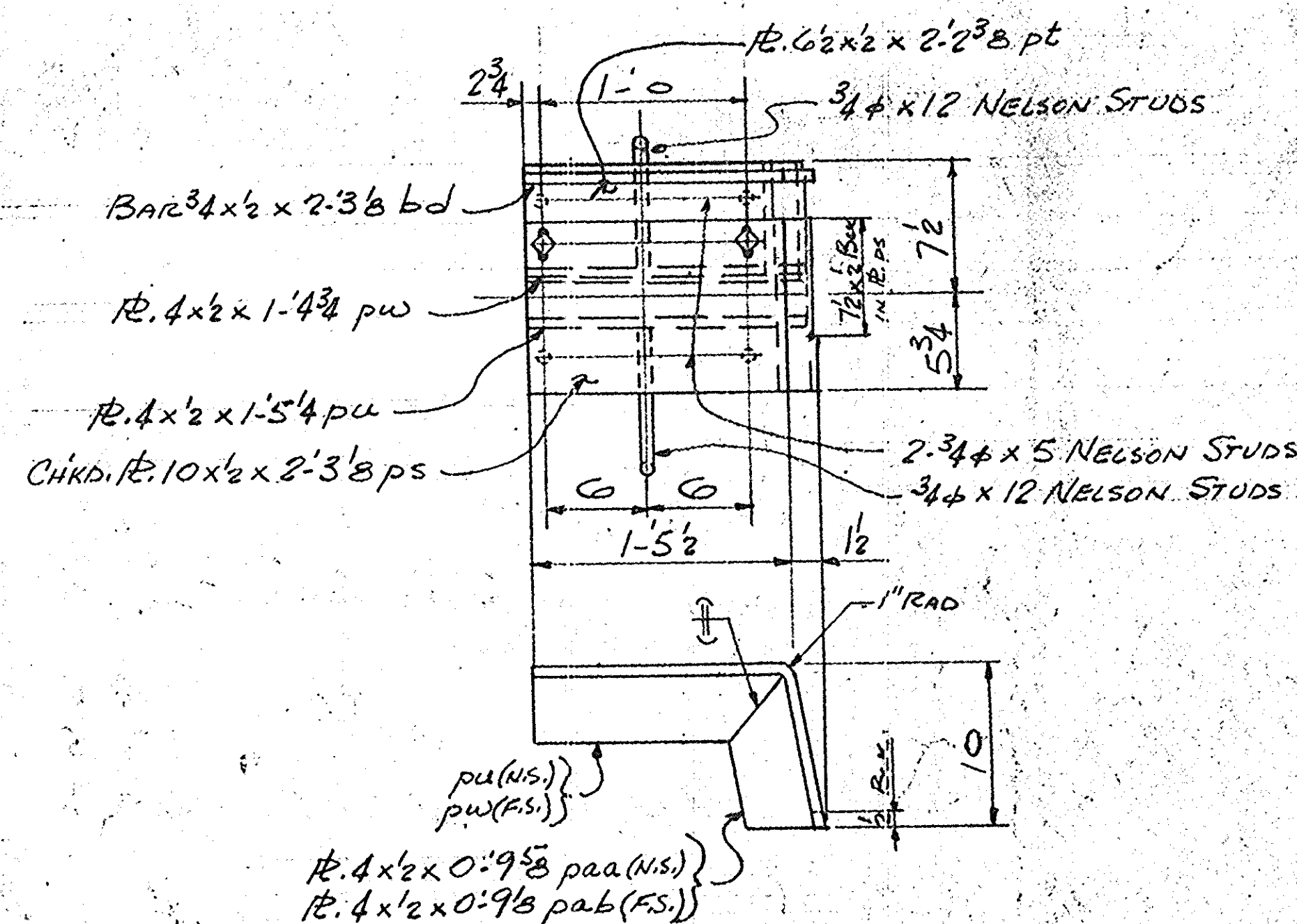
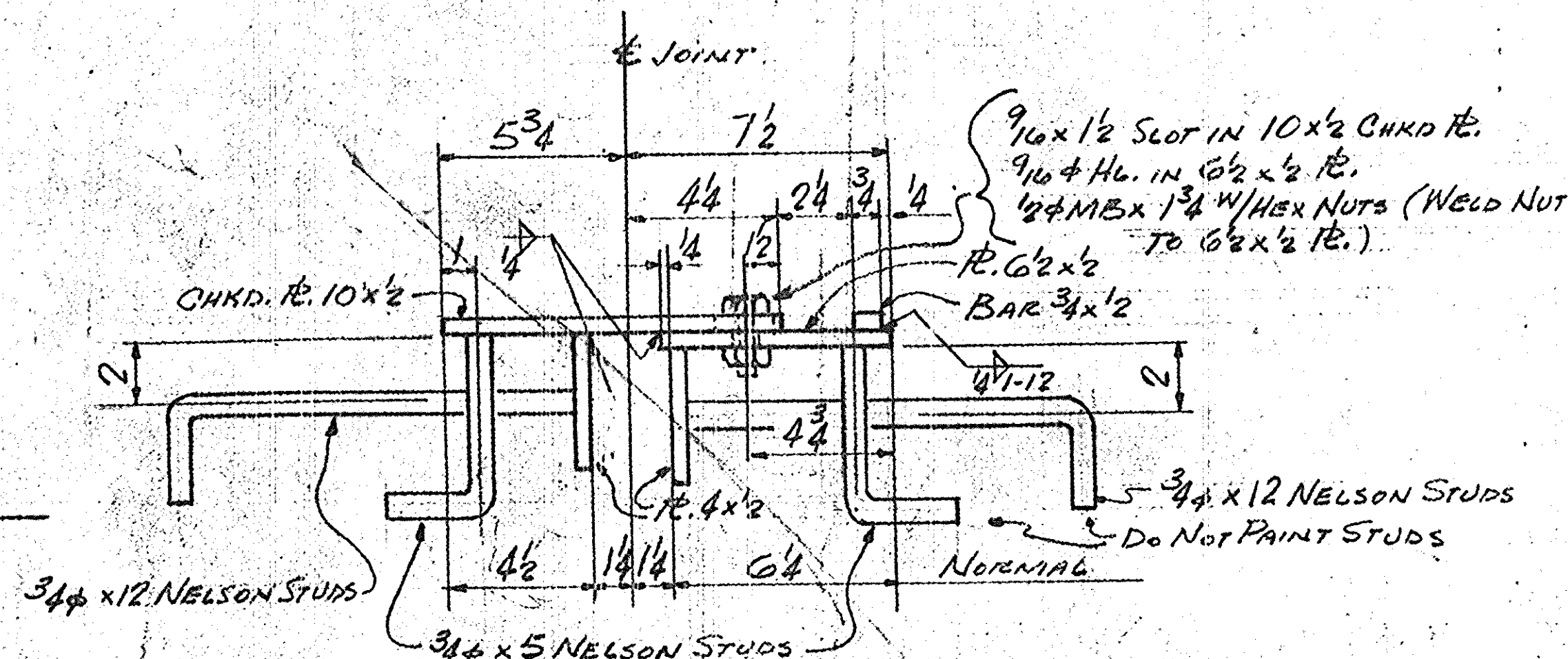
NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" & HOLES THIS DRAWING ARE FOR 3/8" & H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS & SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES INC.			
LOCATION: GREENVILLE S.C.			
JOB: S.C. HIGHWAY R.W. 10-521.3, CHARLESTON CNTY.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	SHOP ORDER	3-21751	CUSTOMER ORDER
BOLTS 3/8" & H.T.	DRAWN BY	C.E.C.	CHECKED BY
RIVETS	UNLESS NOTED		
HOLES 1/2" & H.T.	SCALE	1" = 4'-0"	DATE
PRIME	11-7-65		
SHEET NO.	62 OF 64	DWG. NO.	43544-02

FED. ROAD DIV. NO.	STATE	COUNTY	DOCKET	ROUTE
3	S.C.	CHARLESTON	10-521-3	126



ONE-WALKWAY EXPANSION DAM- G4 M1

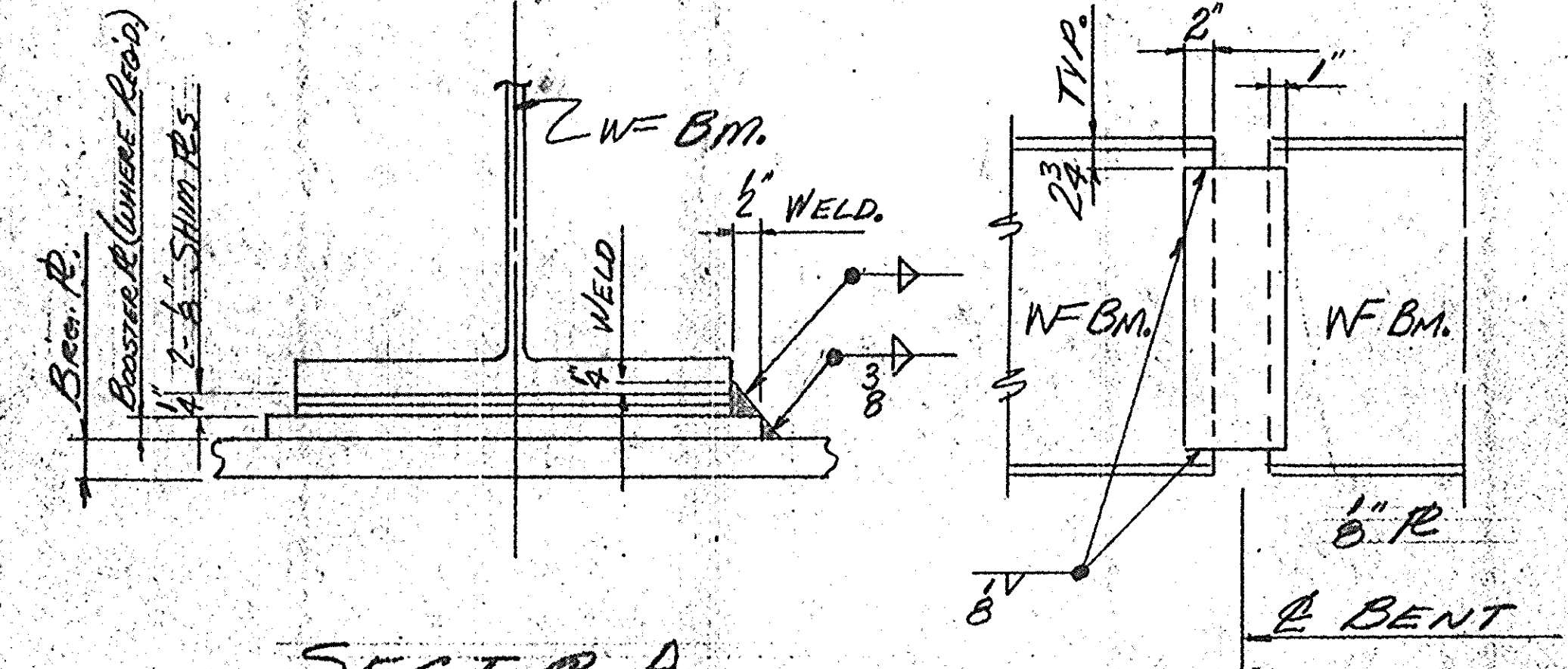


DATE	BY	LOCATION	REVISION

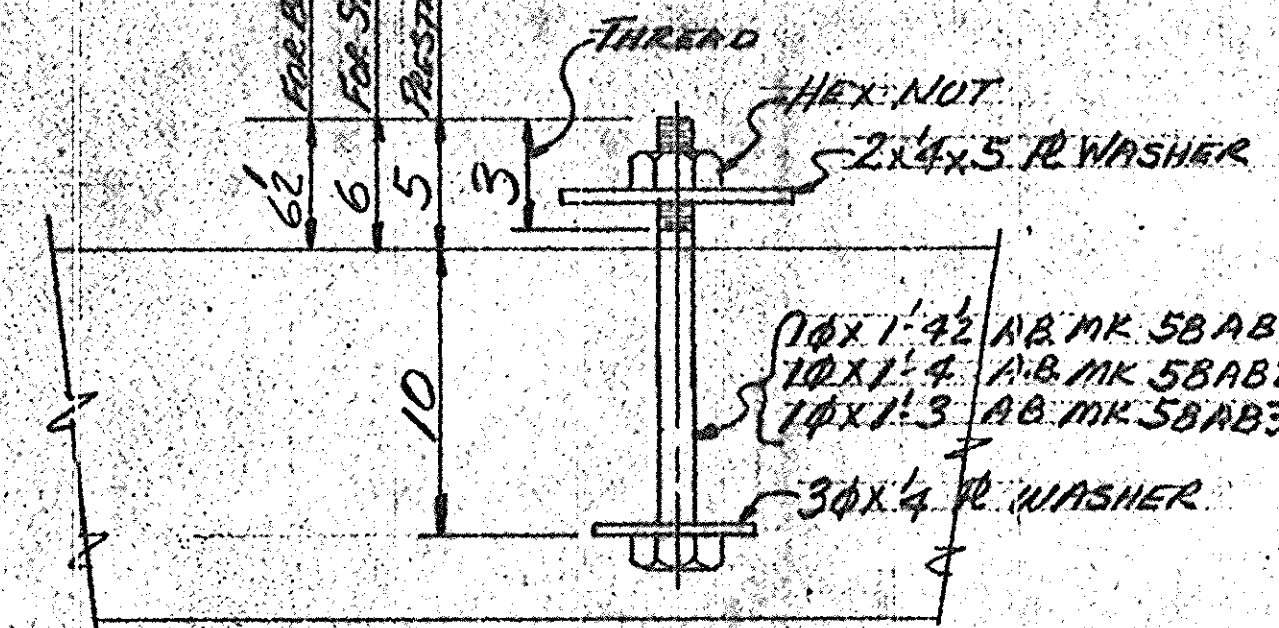
RIB BOLTS			
BOLTS			
RIVETS			
HOLES			
PRIME			
SCALE			
SHEET NO.			

SEE SHEET E1

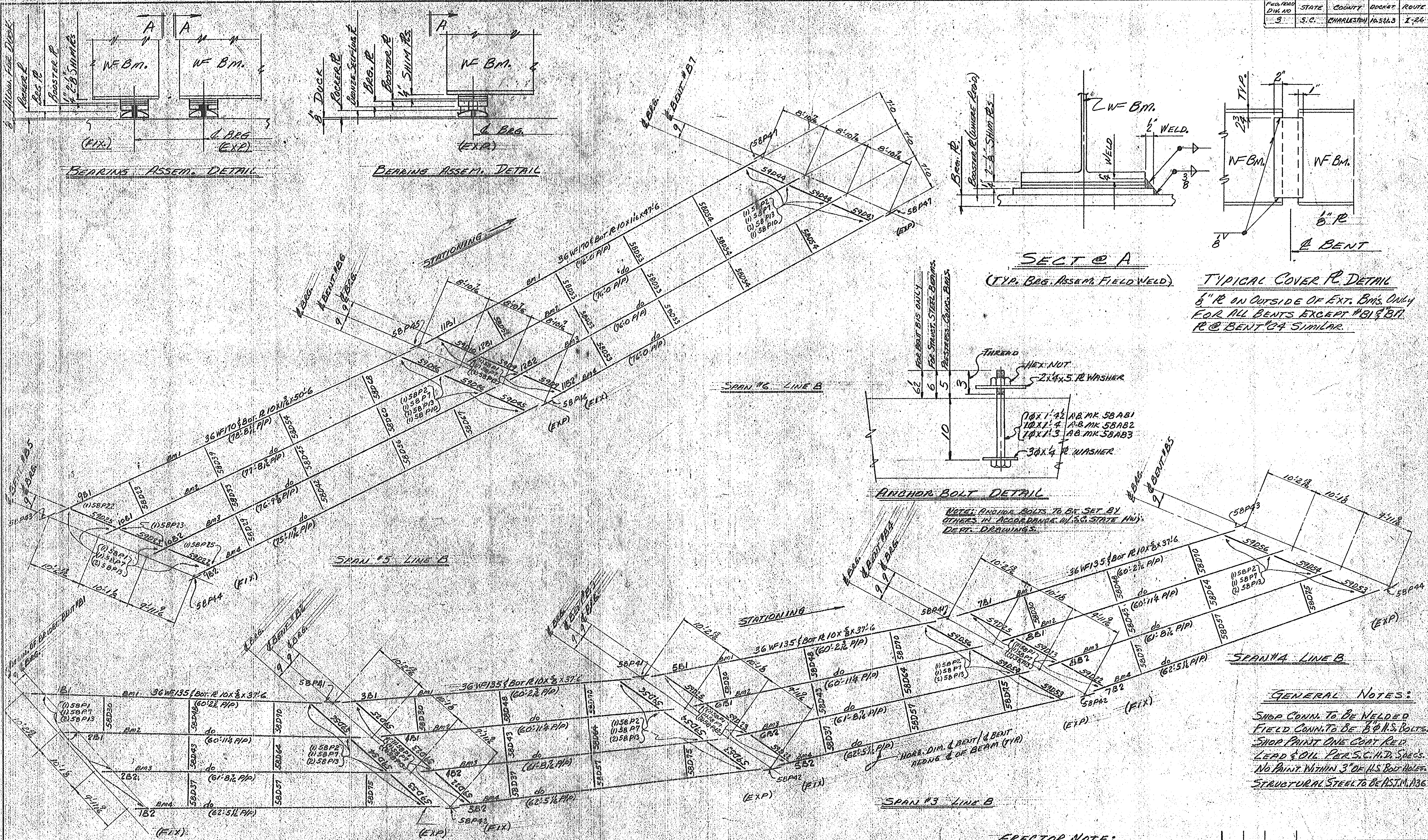
DATE	11-12-65
DWG. NO.	43544-04



TYPICAL COVER R DETAIL
8" R ON OUTSIDE OF EXT. BRIS ONLY
FOR ALL BENTS EXCEPT #B1 & B11
R @ BENT #24 SIMILAR.



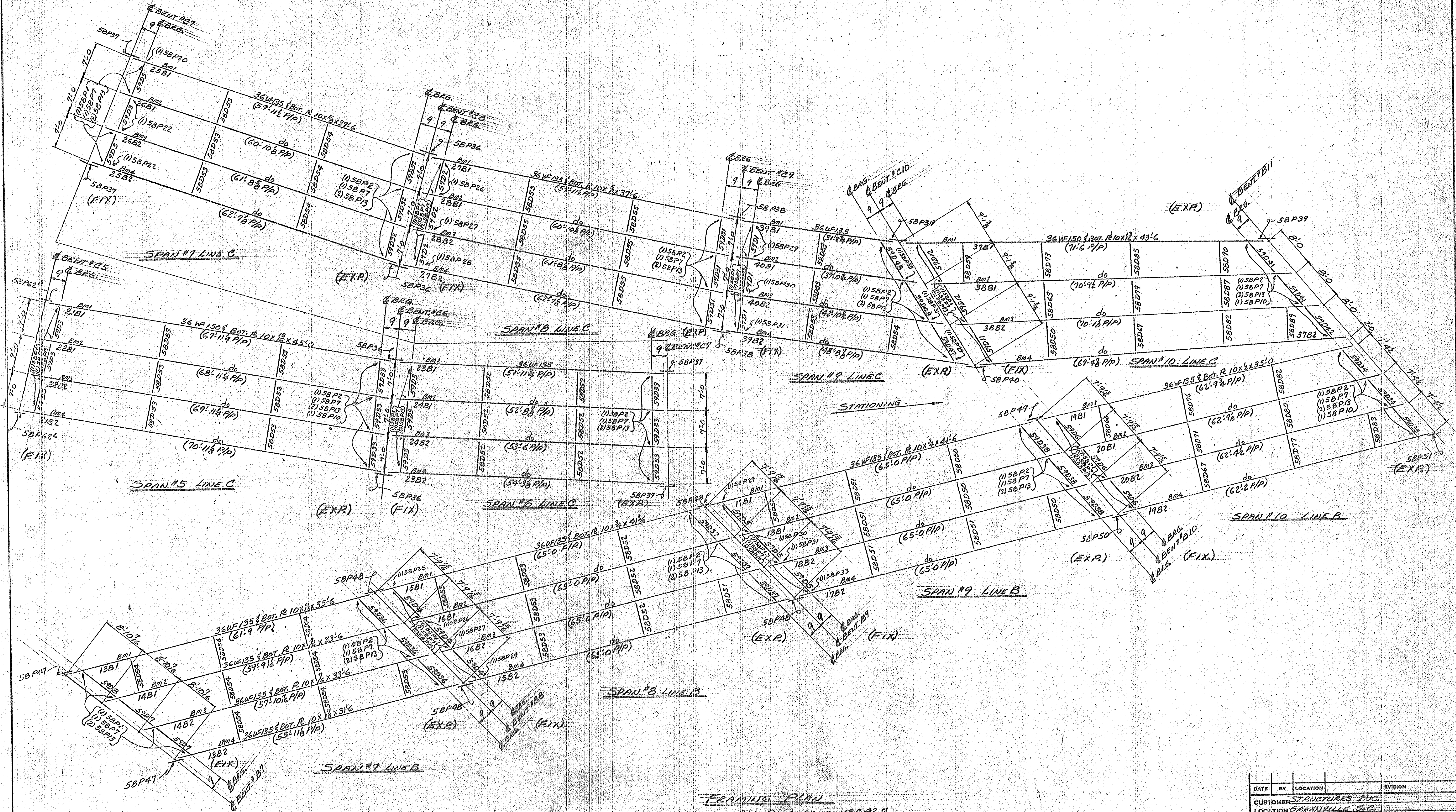
NOTE: ANCHOR BOLTS TO BE SET BY
OTHERS IN ACCORDANCE W/ F.C. STATE HWY.
DEPT. DRAWINGS.



SHOP CONN. TO BE WELDED
FIELD CONN. TO BE 3/4" H.S. BOLTS.
SHOP PAINT ONE COAT RED
LEAD & OIL PER S.C.H.D. SPEC.
NO PAINT WITHIN 3" OF H.S. BOLT HEADS.
STRUCTURAL STEEL TO BE ASTM A36

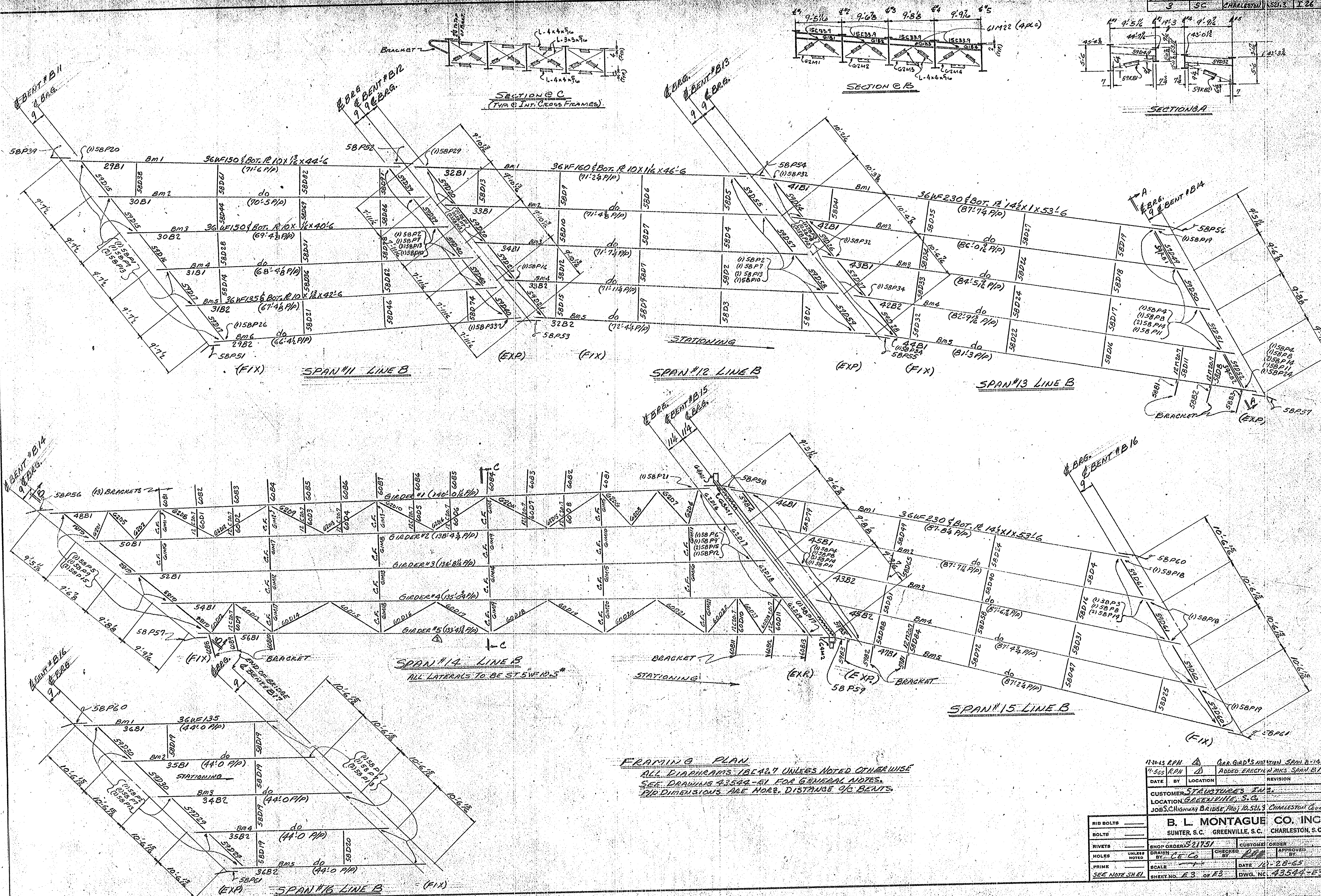
ERECTION MARKS PAINTED
ON THE LEFT END OF MEMBERS
AS SHOWN ON DETAIL DRAWINGS
SHALL BE ERECTED IN THE
RELATIVE POSITION INDICATED
ON THE ERECTION PLANS.

DATE		BY	LOCATION	REVISION
CUSTOMER <u>STRUCTURES INC.</u>				
LOCATION <u>GREENVILLE, S.C.</u>				
JOB <u>32 HIGHWAY 8, RDGE PROJ 10, 521, 3, CHARLESTON, Co.</u>				
B. L. MONTAGUE CO. INC.				
SUNTER S.C. GREENVILLE, S.C. CHARLESTON, S.C.				
RIB BOLTS				
BOLTS				
RIVETS				
UNLESS		CUSTOMER ORDER		
NOTED		BY		
HOLD		DATE		
PRIME		BY		
SEE NOTE ABOVE		DATE		
SCALE		DWG. NO.		
SHEET NO.		OF		

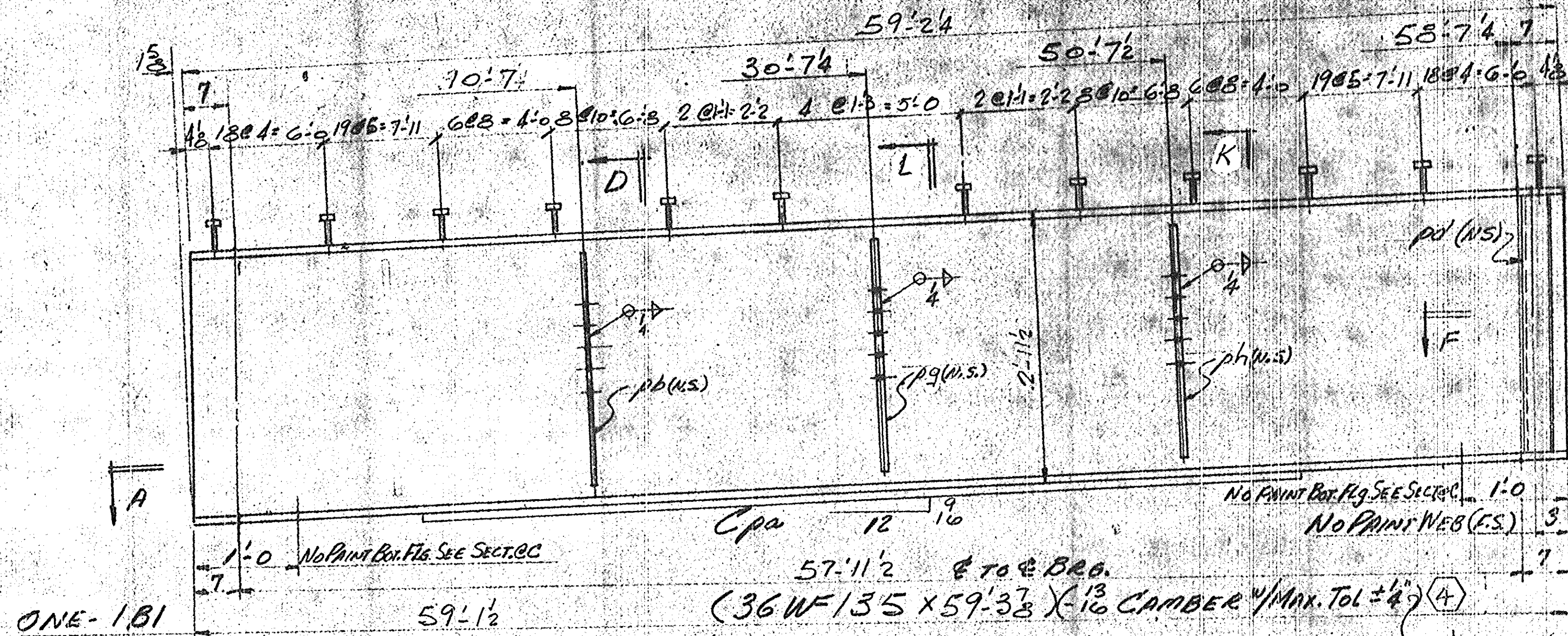


FRAMING PLAN
 ALL DIMENSIONS 1/8" = 1'-0"
 SEE DWG. 13544-B1 FOR GENERAL NOTES.
 P/P DIMENSIONS ARE HORIZ. DISTANCE 9/16 BENTS.

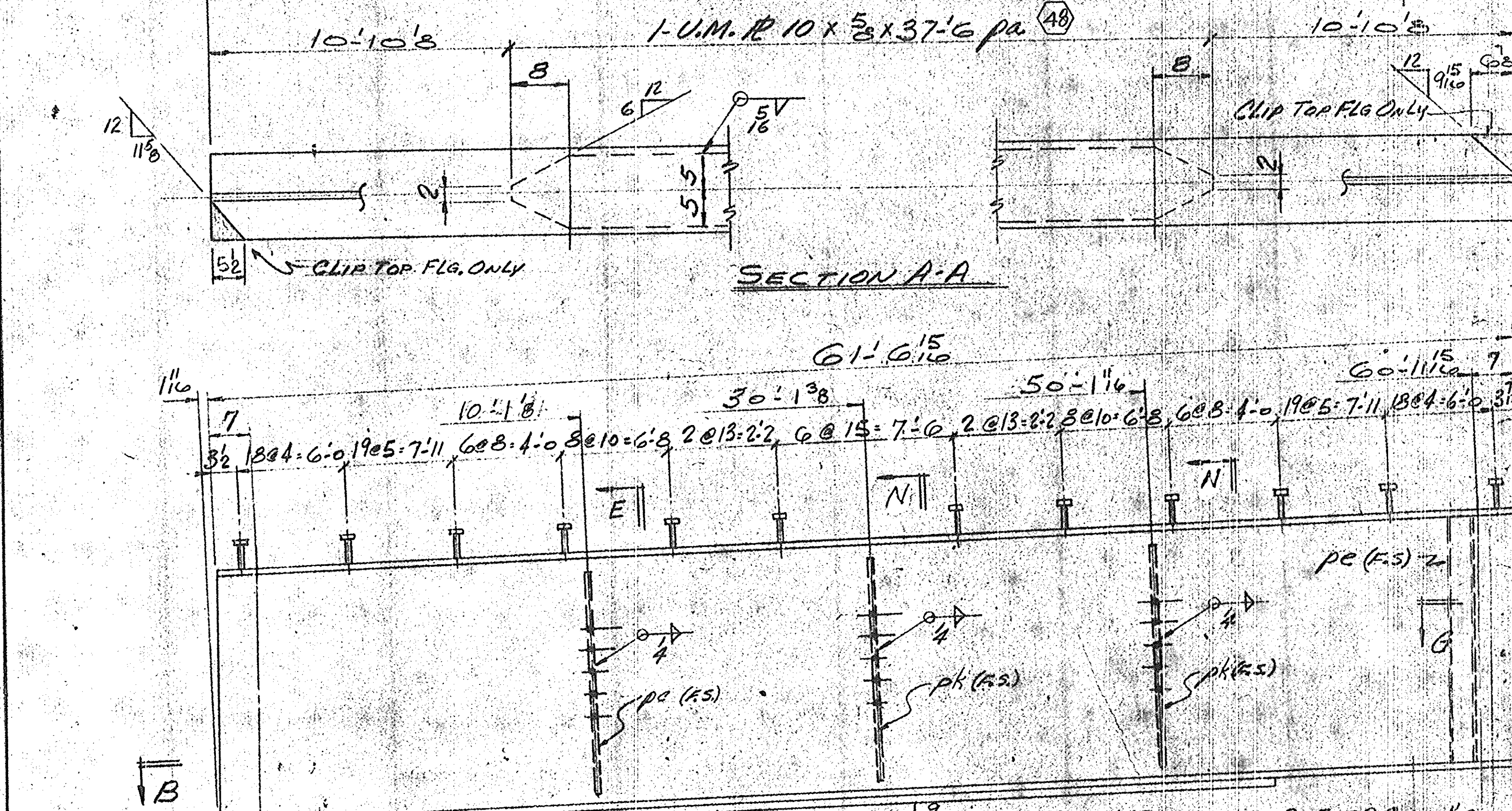
DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Proj. 10.54.3, Charleston Co.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	SHOP ORDER 5-21751	CUSTOMER ORDER	ORDER
BOLTS	DRAWN BY: J.E.C.	CHECKED BY: J.M.	APPROVED BY:
RIVETS	UNLESS NOTED	SCALE: 1" = 1'-0"	DATE: 10-27-65
HOLES	PRIME	SHEET NO. 12 OF 12	DWG. NO. 13544-B1
SEE NOTE SHEET 1			



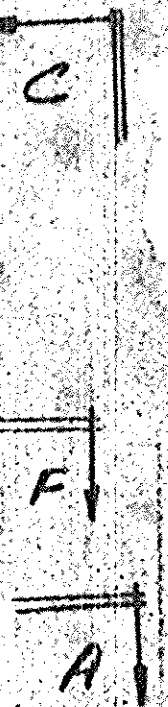
1.26-15 RPH	1.26-15 RPH	1.26-15 RPH	1.26-15 RPH	1.26-15 RPH
DATE	BY	LOCATION	REVISION	
CUSTOMER: STRUCTURES INC.				
LOCATION: GREENVILLE, S.C.				
JOB: S.C. HIGHWAY BRIDGE, PROJ. 10.521.3 CHARLESTON COUNTY				
B. L. MONTAGUE CO. INC.				
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.				
RIB BOLTS		SHOP ORDER	21751	CUSTOMER ORDER
BOLTS		DRAWN BY	1.26-15	CHECKED BY
RIVETS		DATE	11-28-65	APPROVED BY
HOLES		SCALE	1/4" = 1'-0"	DWG. NO.
PRIME		SHEET NO.	13 OF 13	43544-53
SEE NOTE SHEET				



SECTION A-A

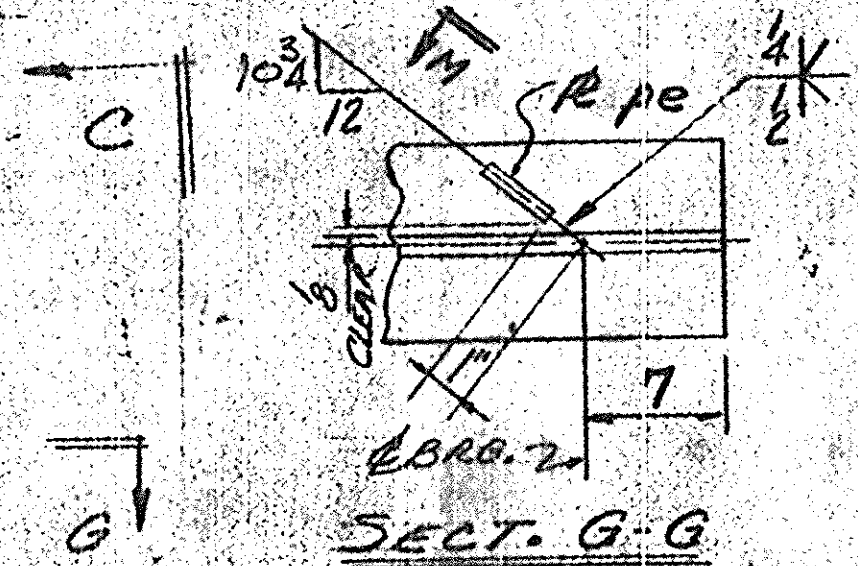


SECTION B-B

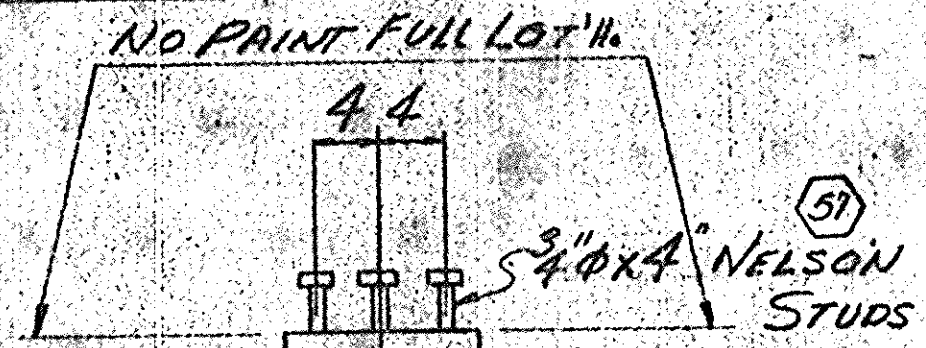


SECTION C-C

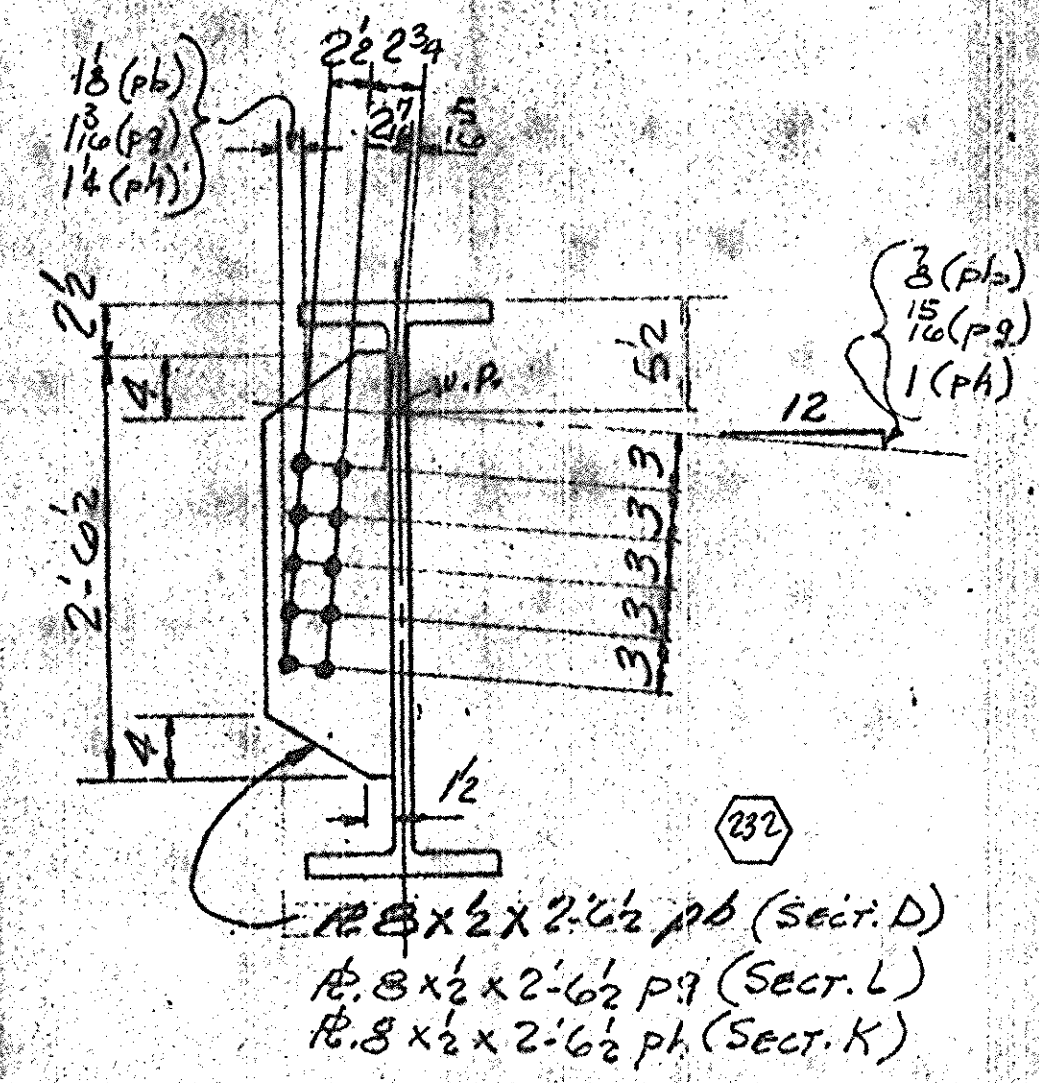
SECTION F-F



SECTION G-G



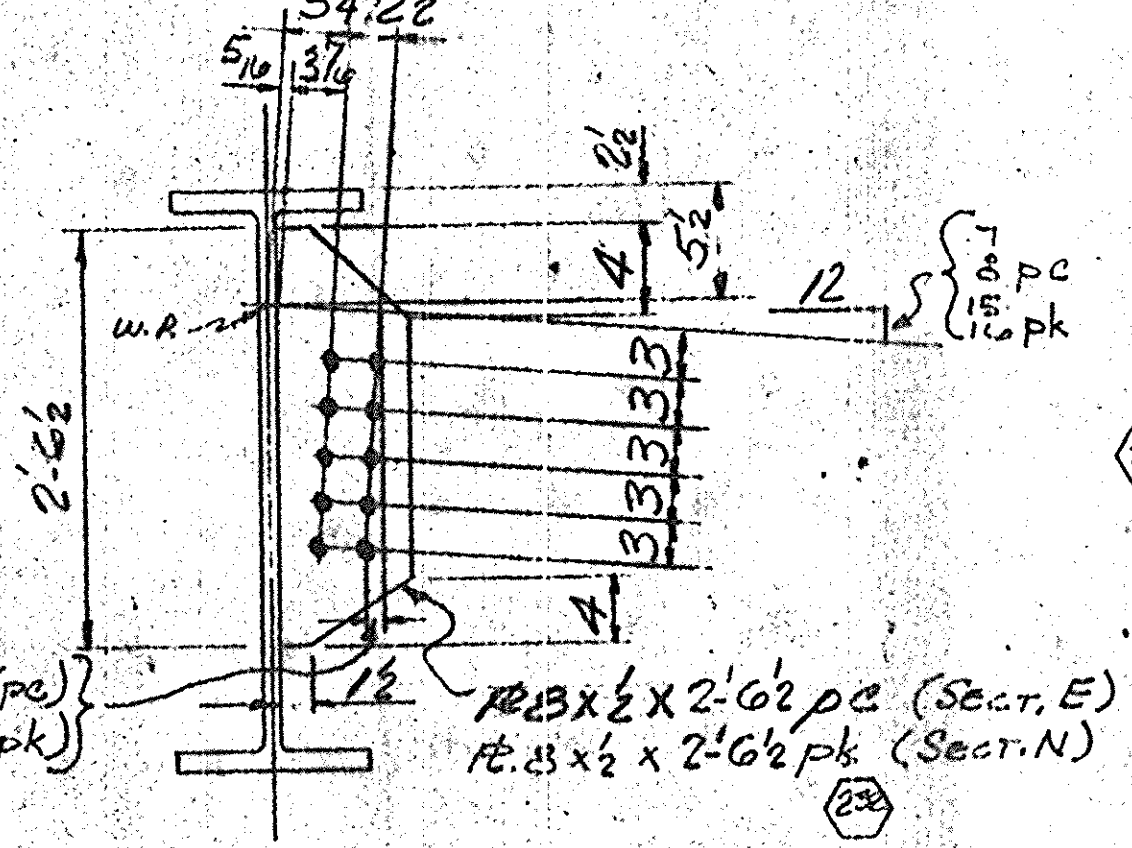
SECTION H-H



SECTION I-I

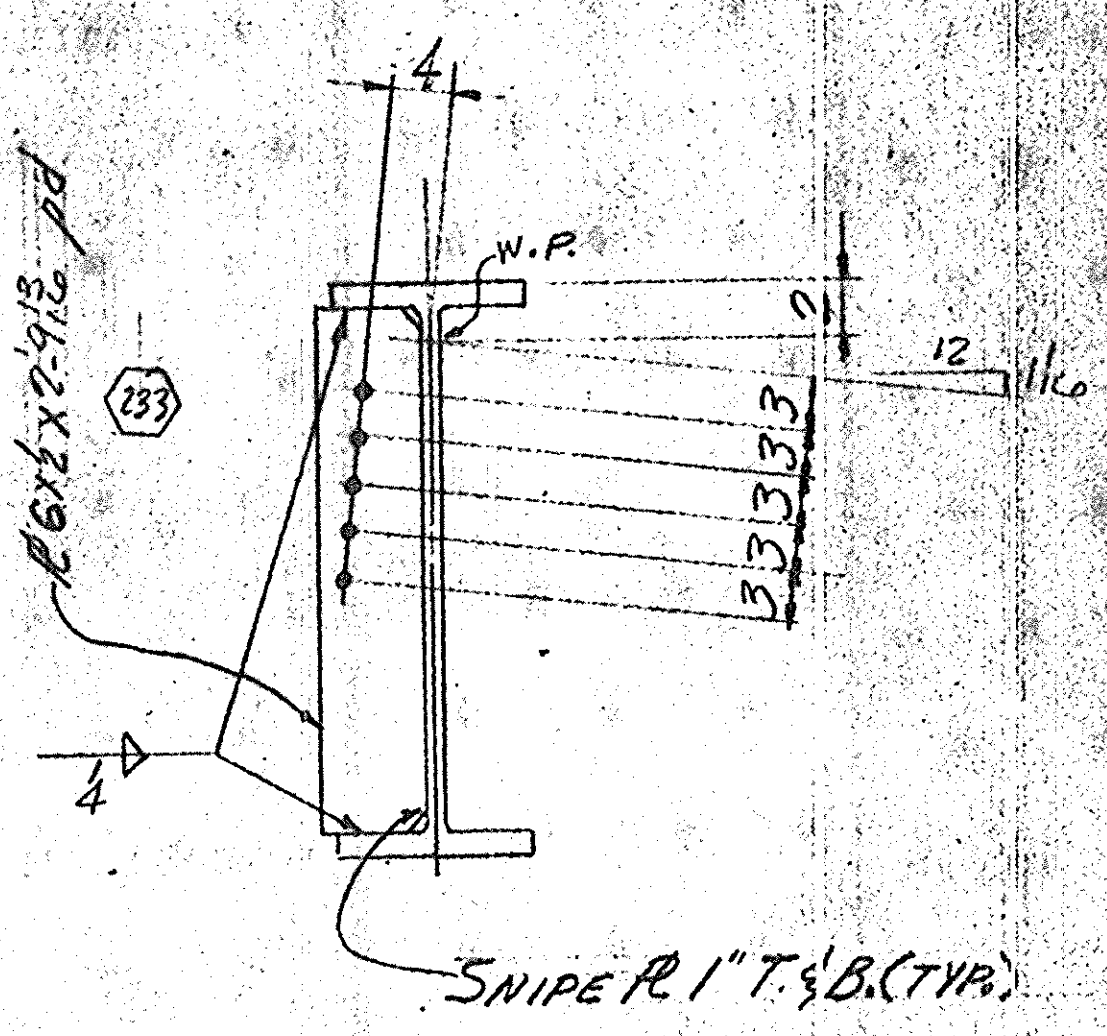
SECTION J-J

SECTION K-K



SECTION L-L

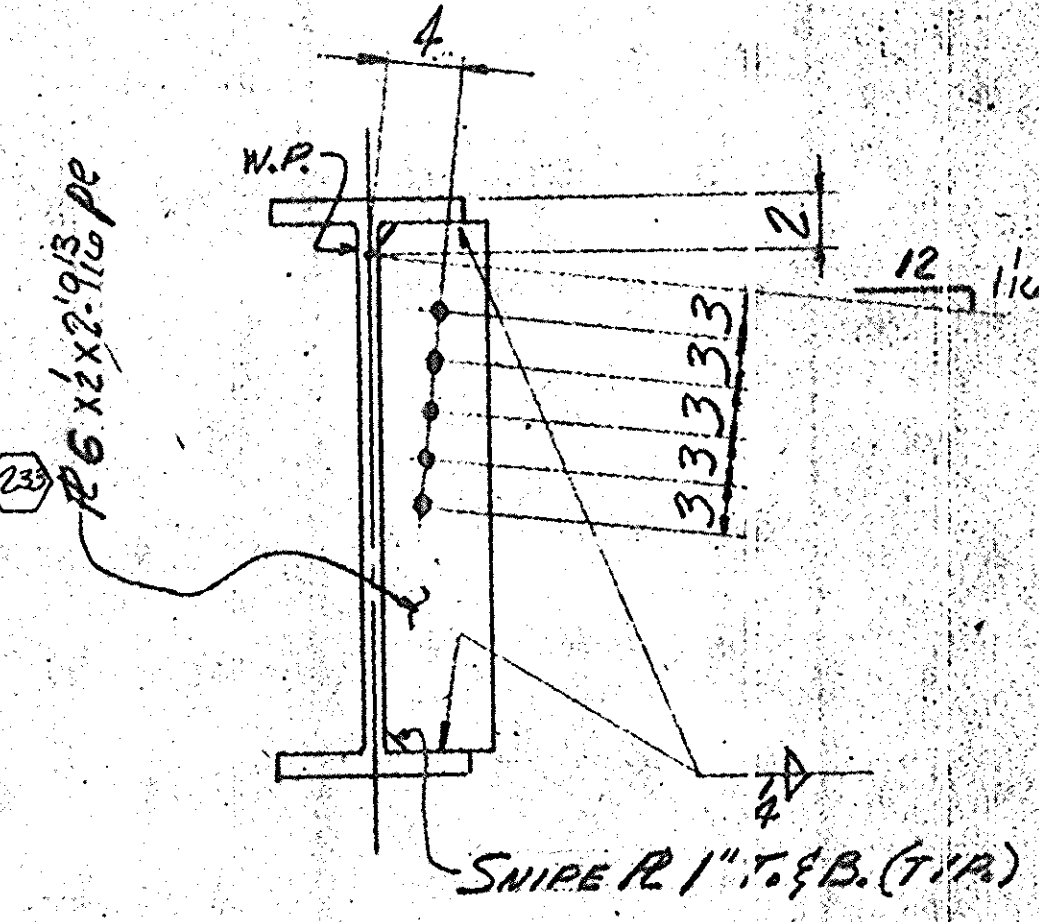
SECTION M-M



SECTION N-N

SECTION O-O

SECTION P-P



SECTION Q-Q

SECTION R-R

SECTION S-S

SECTION T-T

SECTION U-U

SECTION V-V

SECTION W-W

SECTION X-X

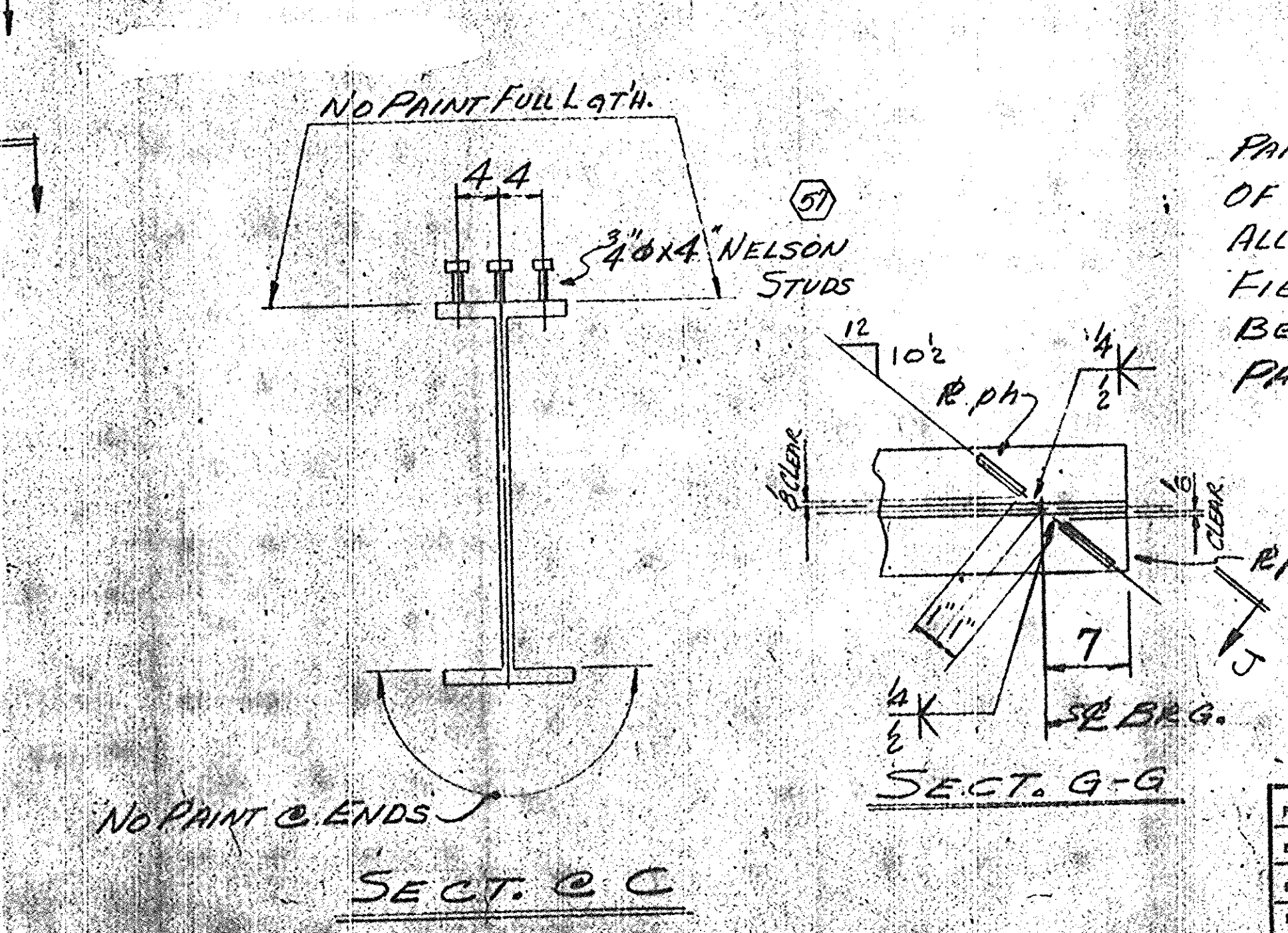
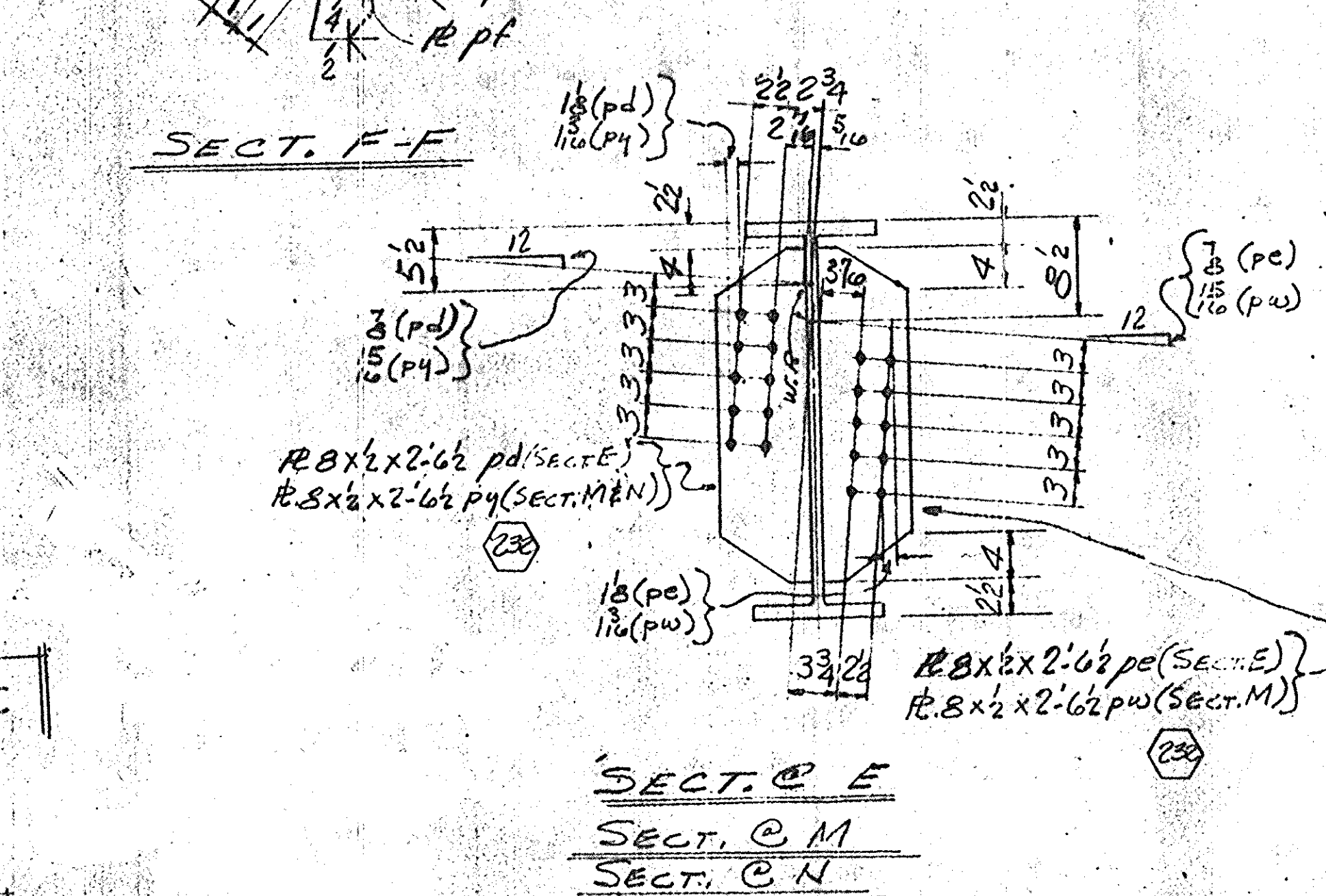
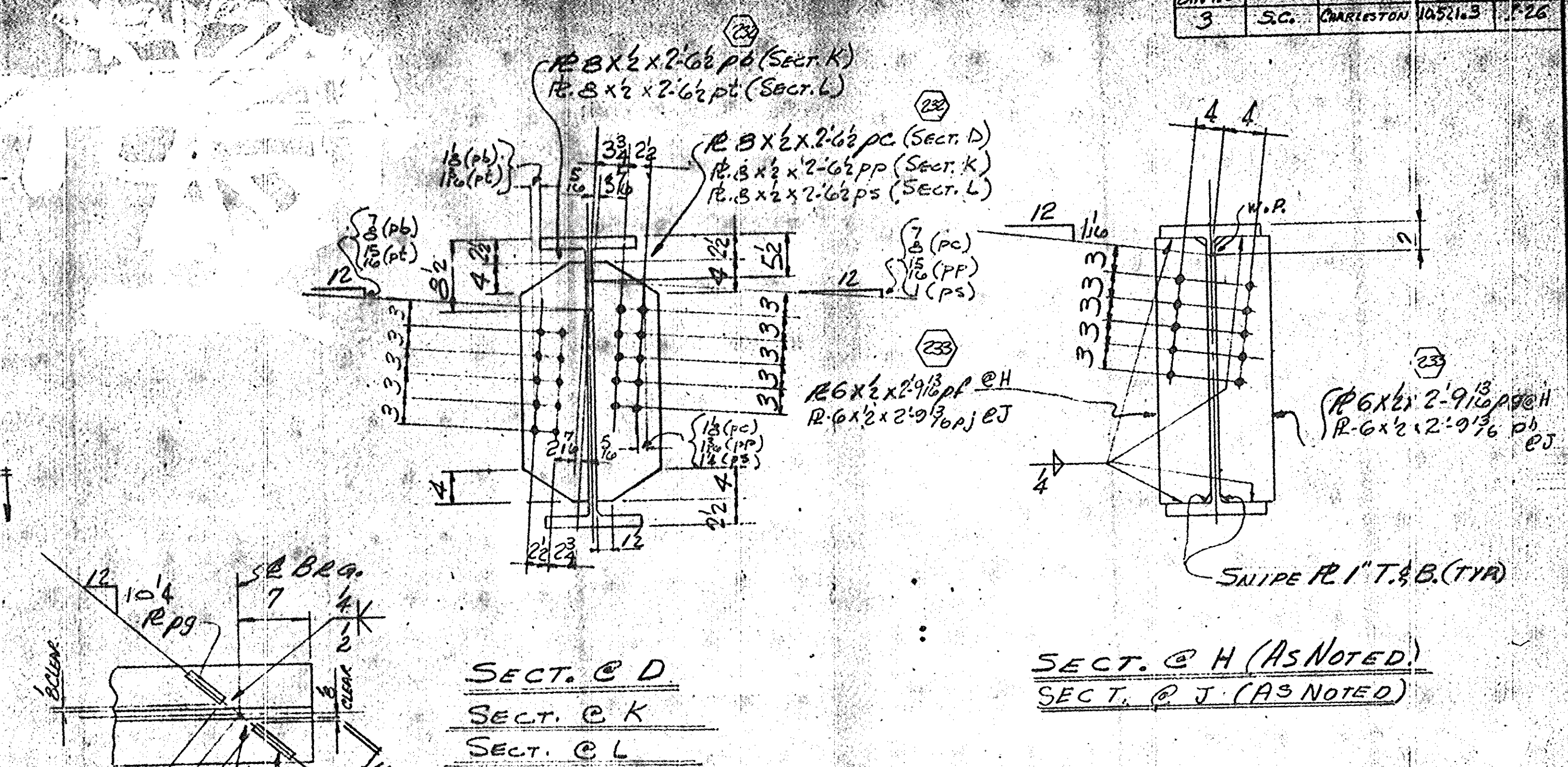
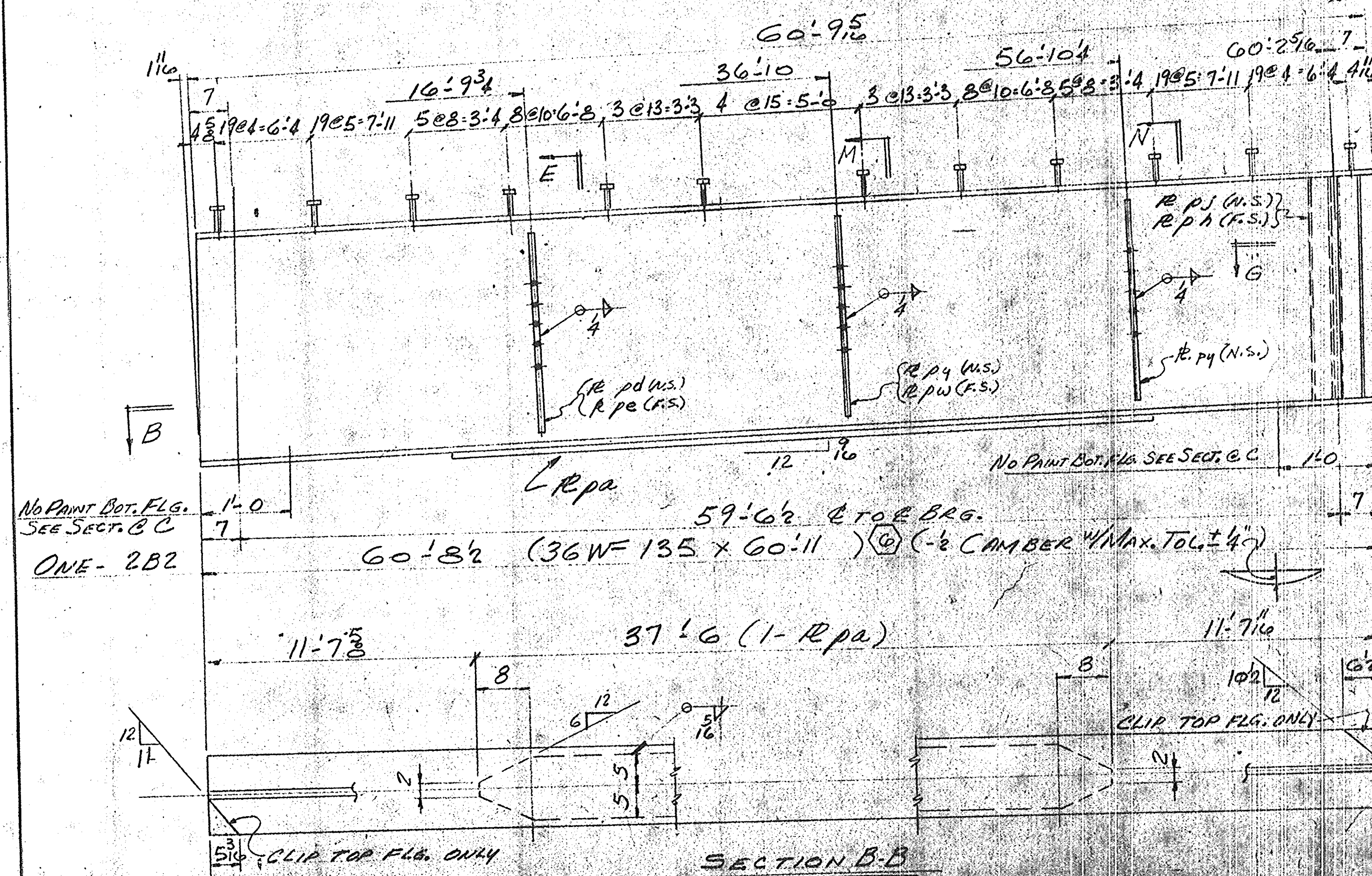
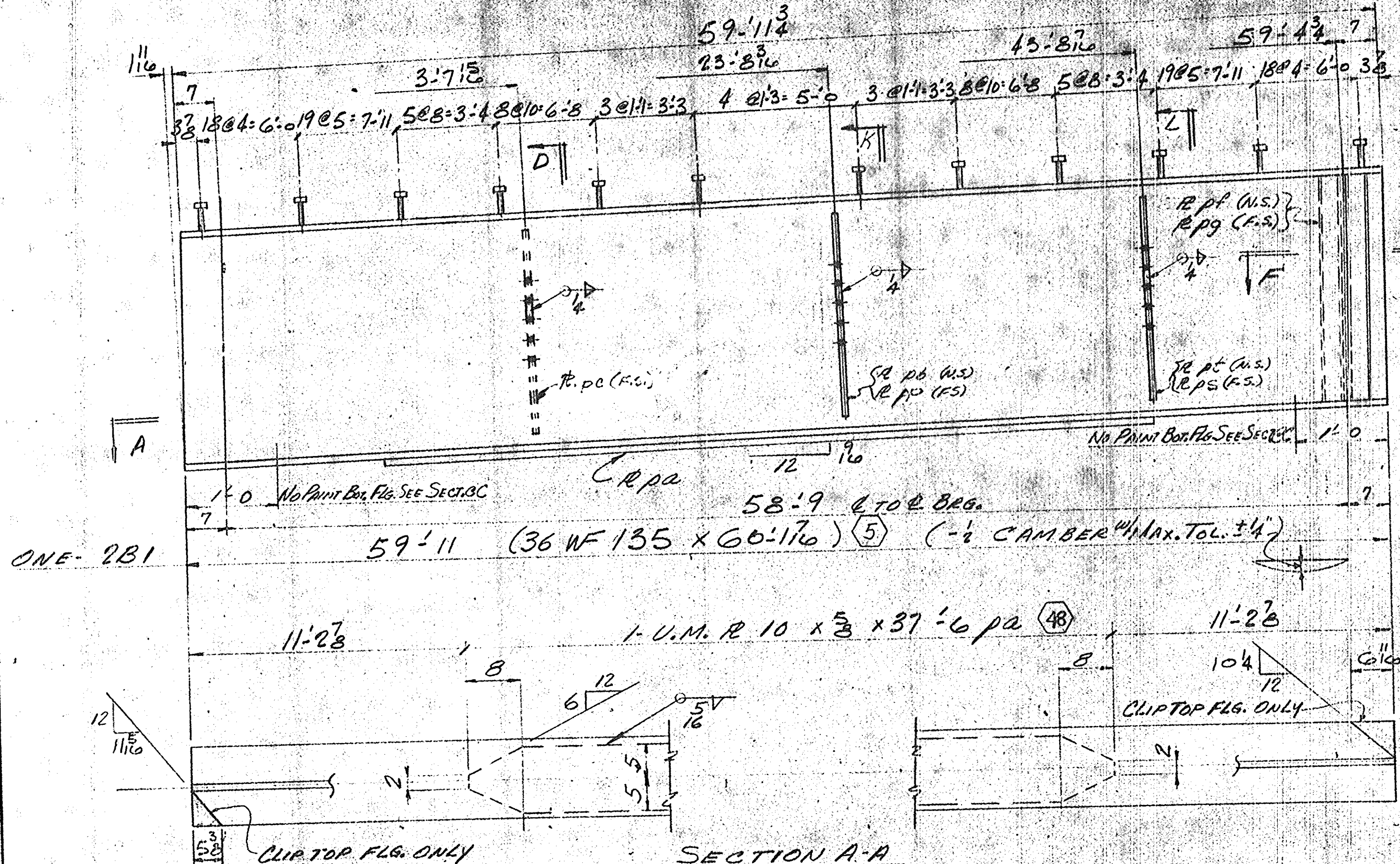
SECTION Y-Y

SECTION Z-Z

NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: C. H. HAWKINS BRIDGE, PHASE 1, S. 1/2, CHARLESTON CO., S.C.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	SHOP ORDER S-21751	CUSTOMER	ORDER
BOLTS 3/4" H.T.	DRAWN BY C.E.C.	CHECKED BY P.D.K.	APPROVED BY
RIVETS	UNLESS NOTED	DATE 9-2-65	DWG. NO. 13544-1
HOLES 1/2" UNLESS NOTED	SCALE 1" = 10'	SHEET NO. 1 OF 1	

See Note SH. E1

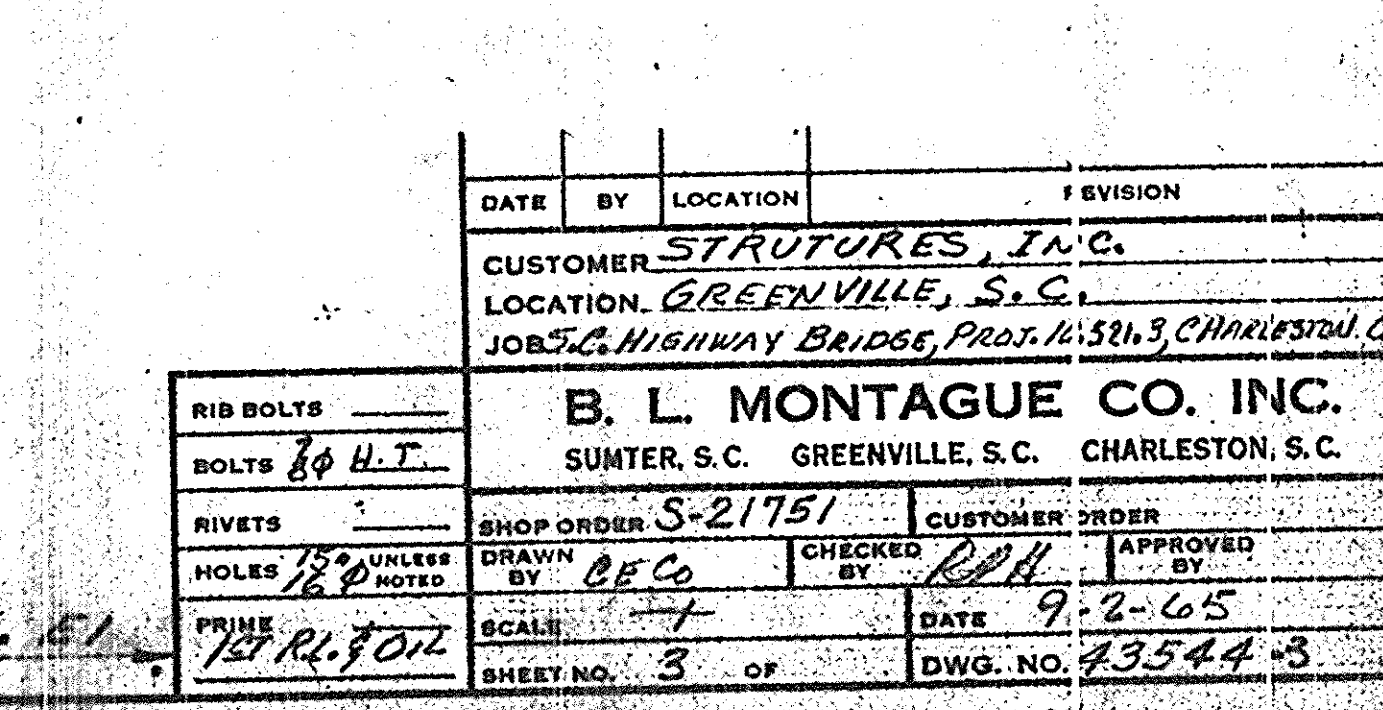
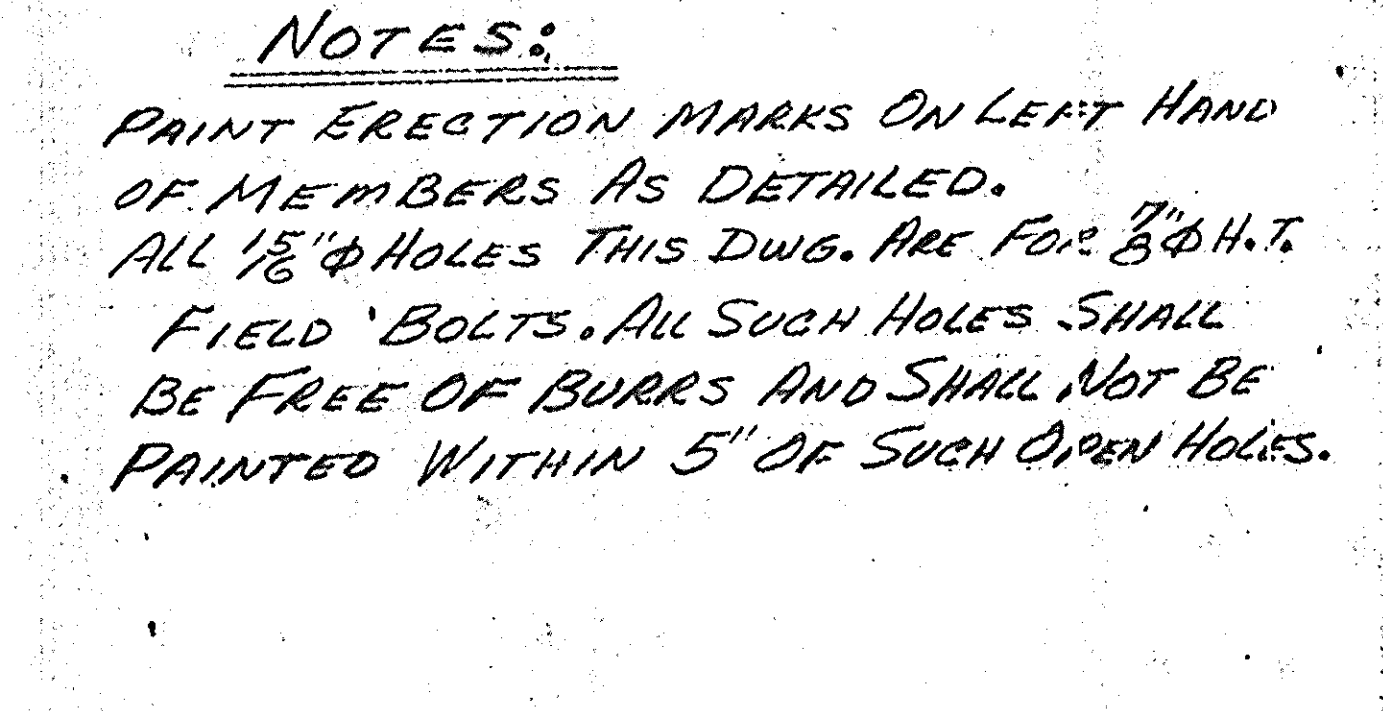
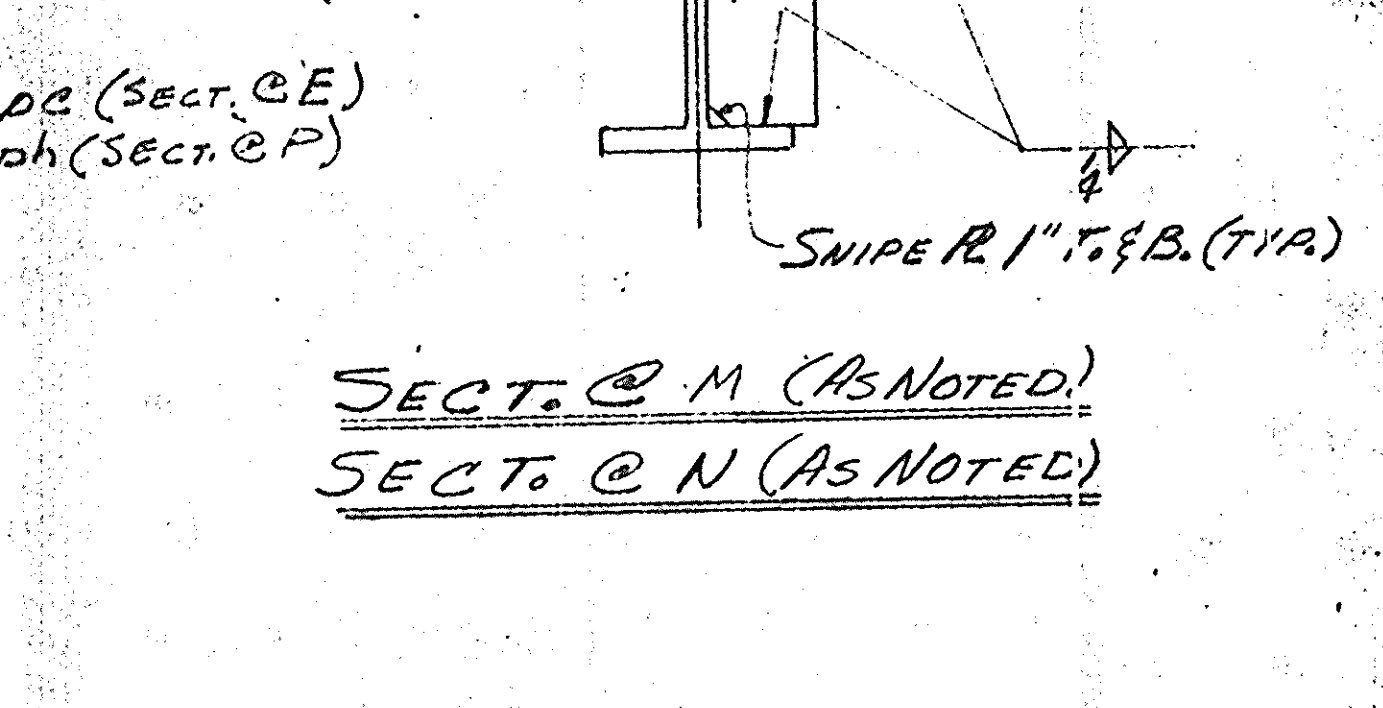
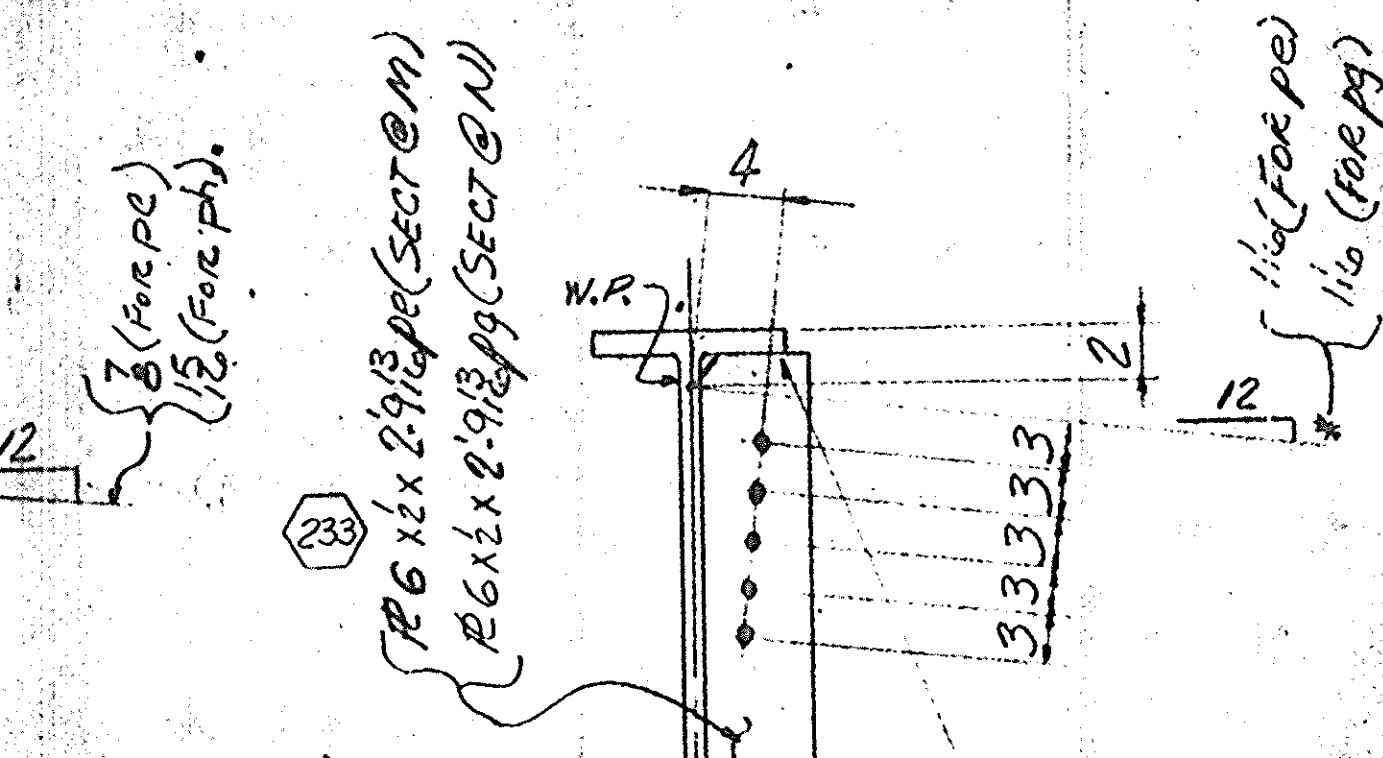
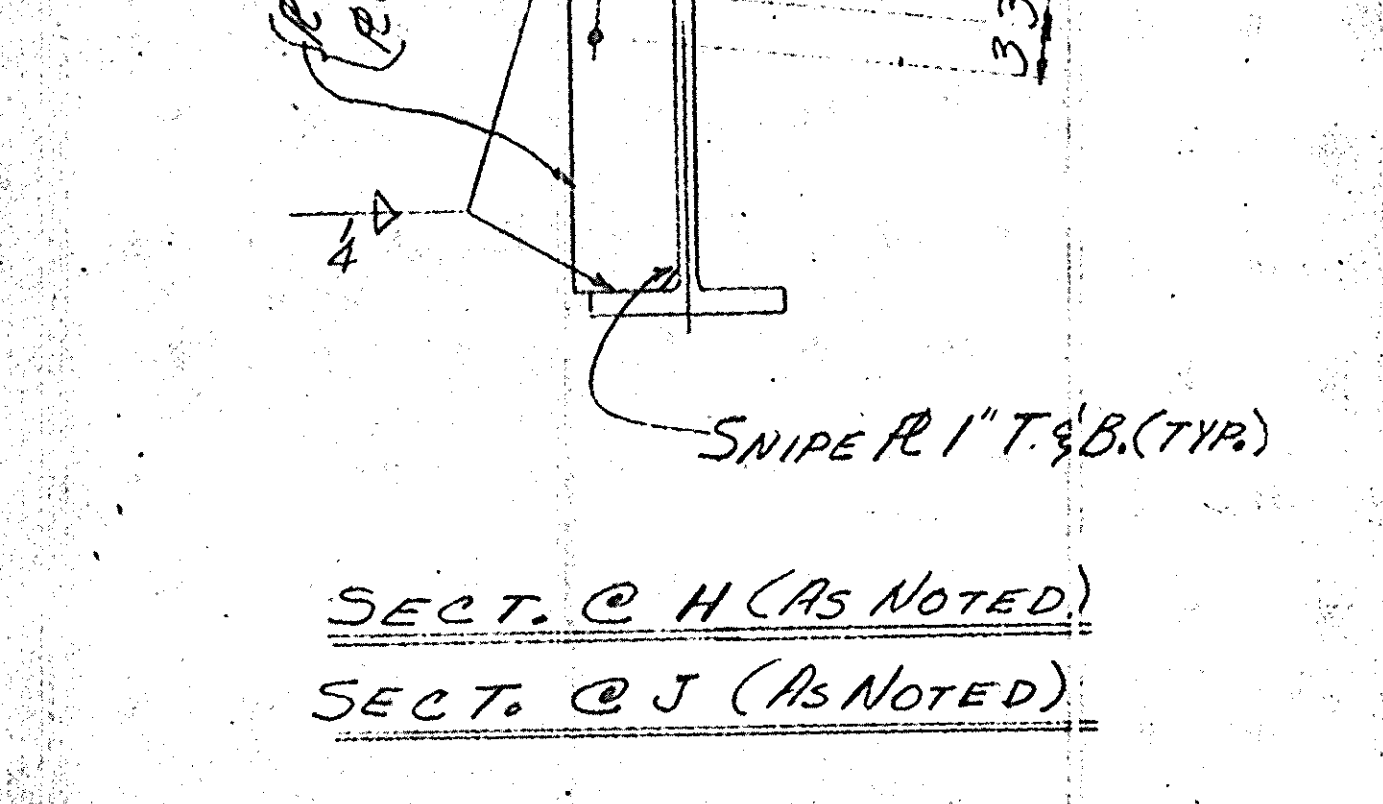
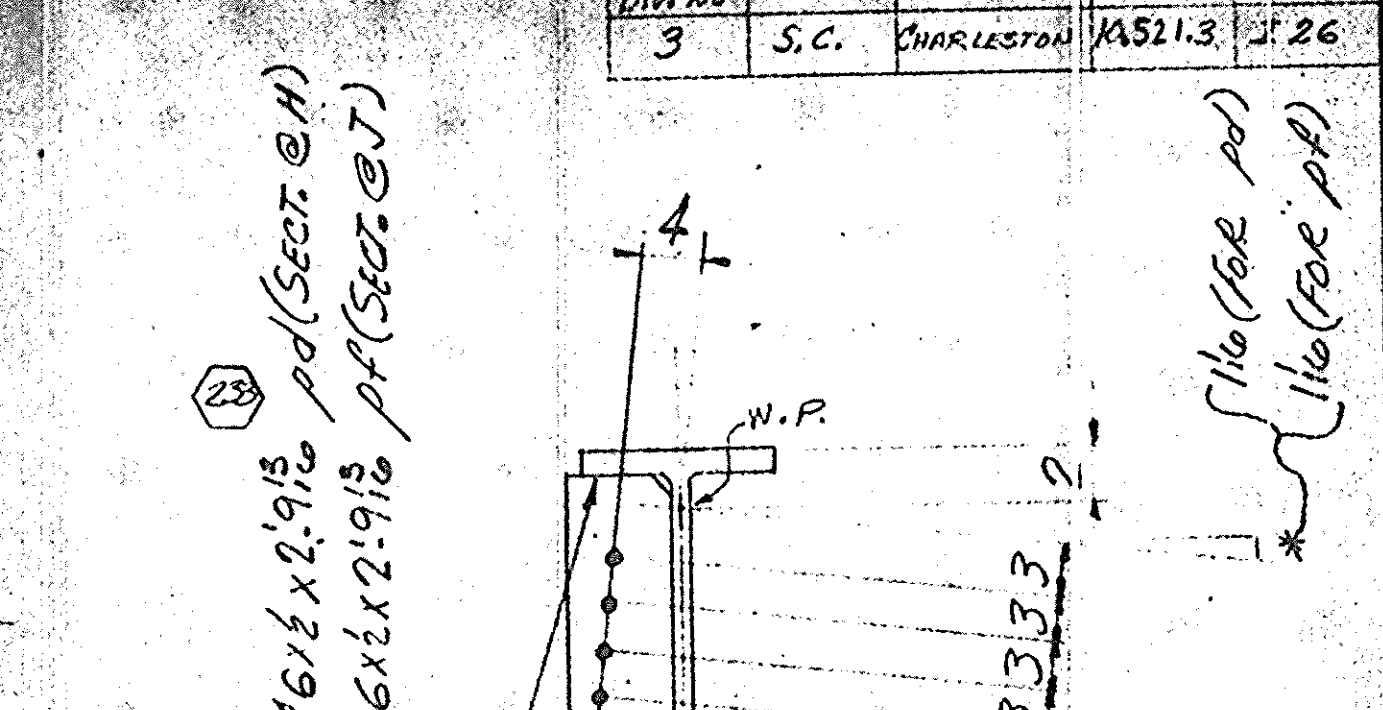
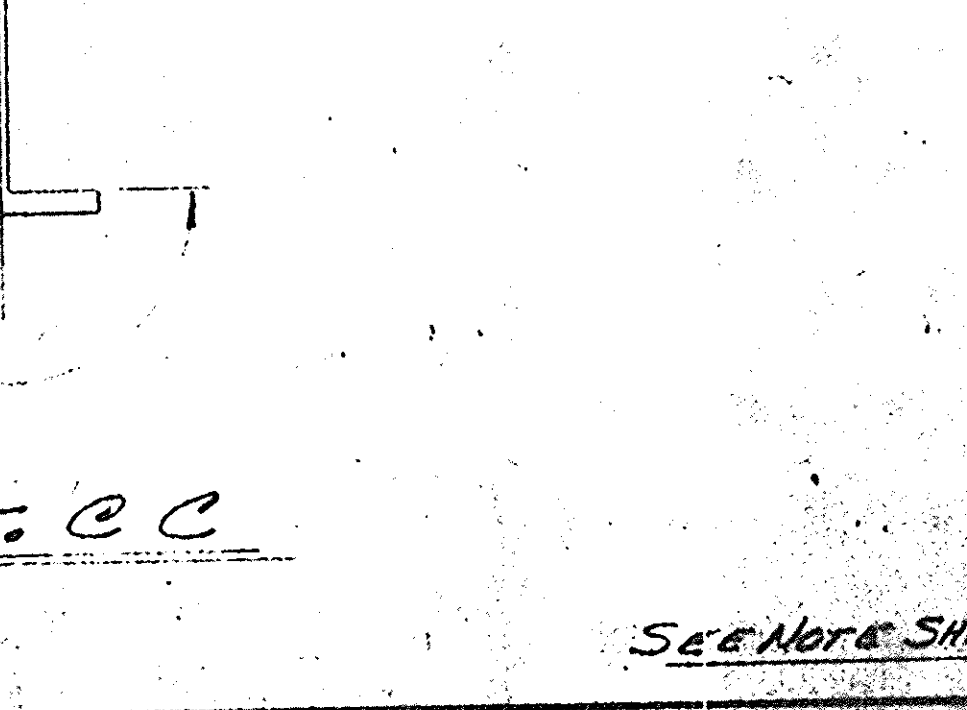
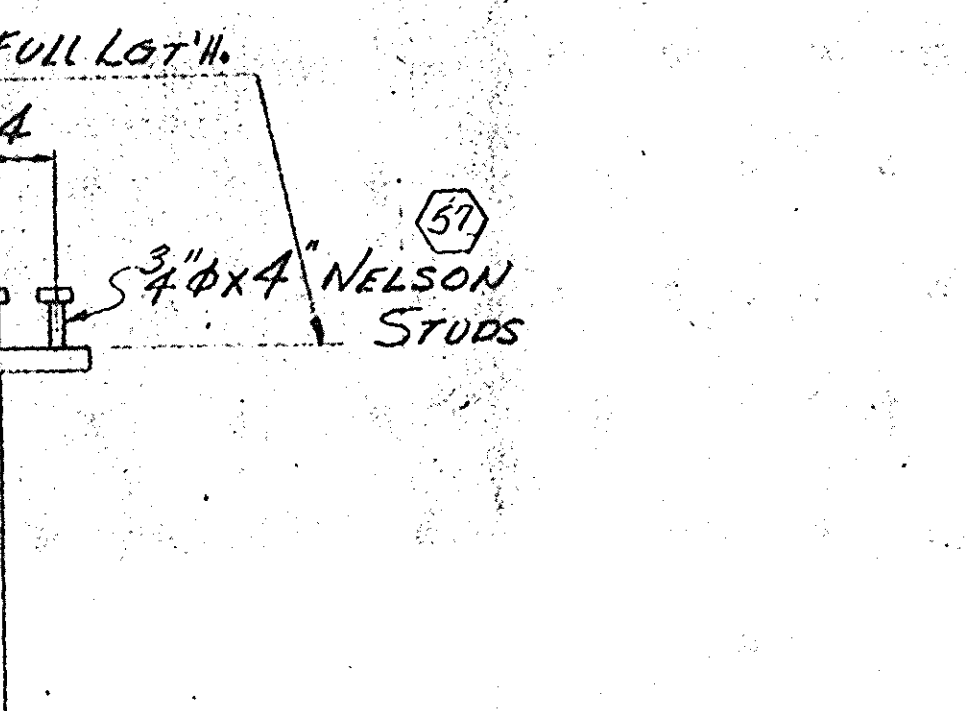
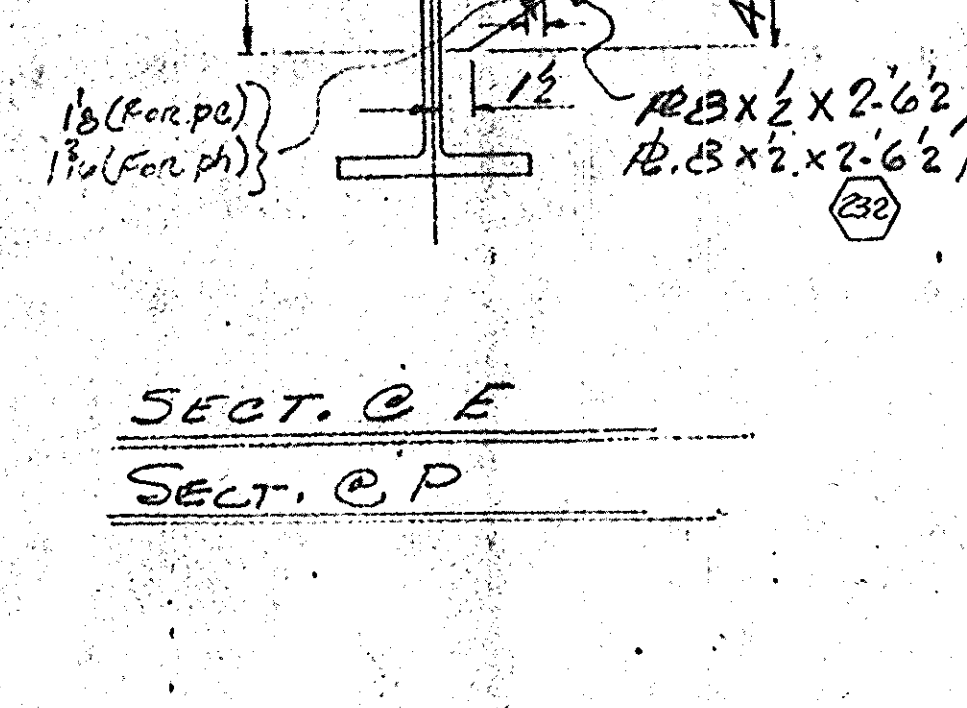
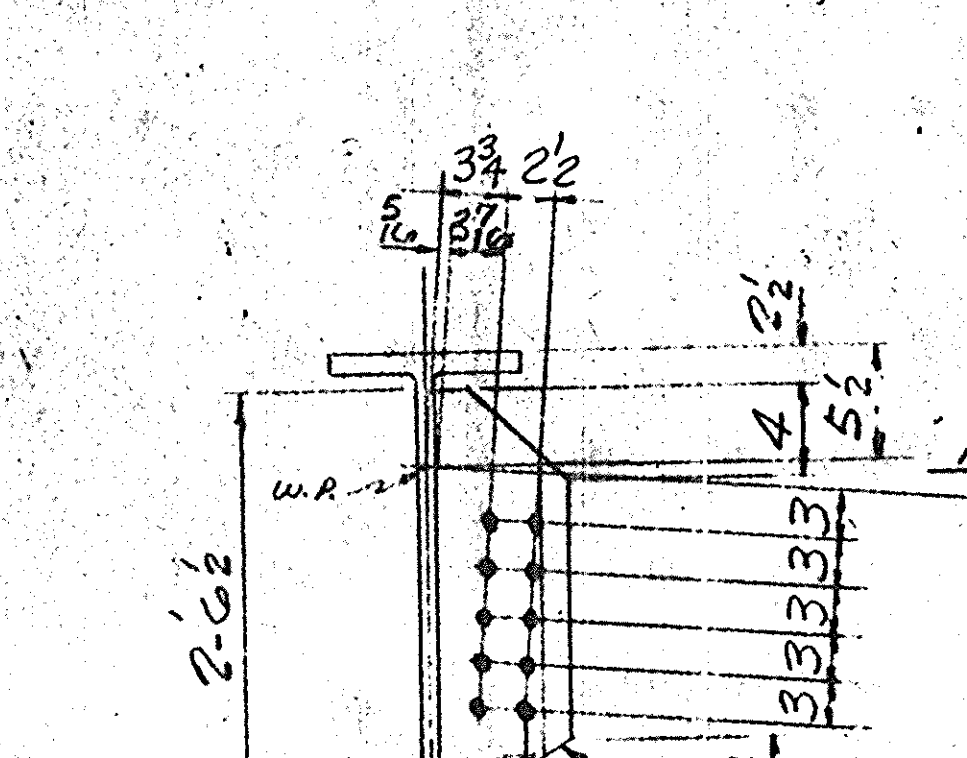
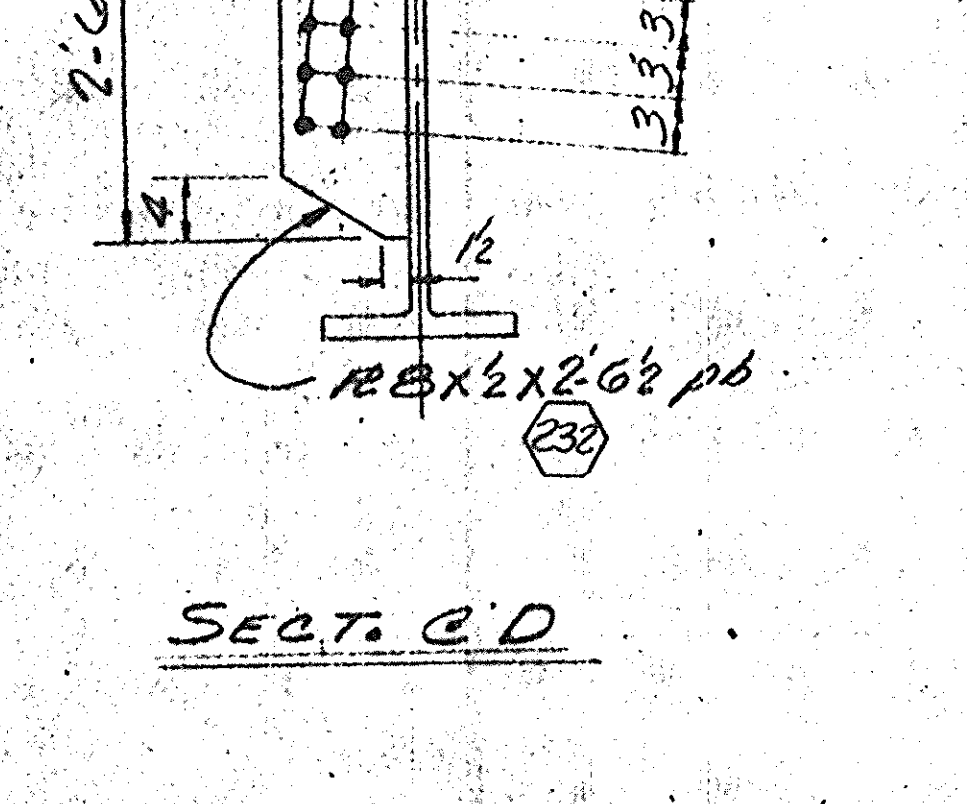
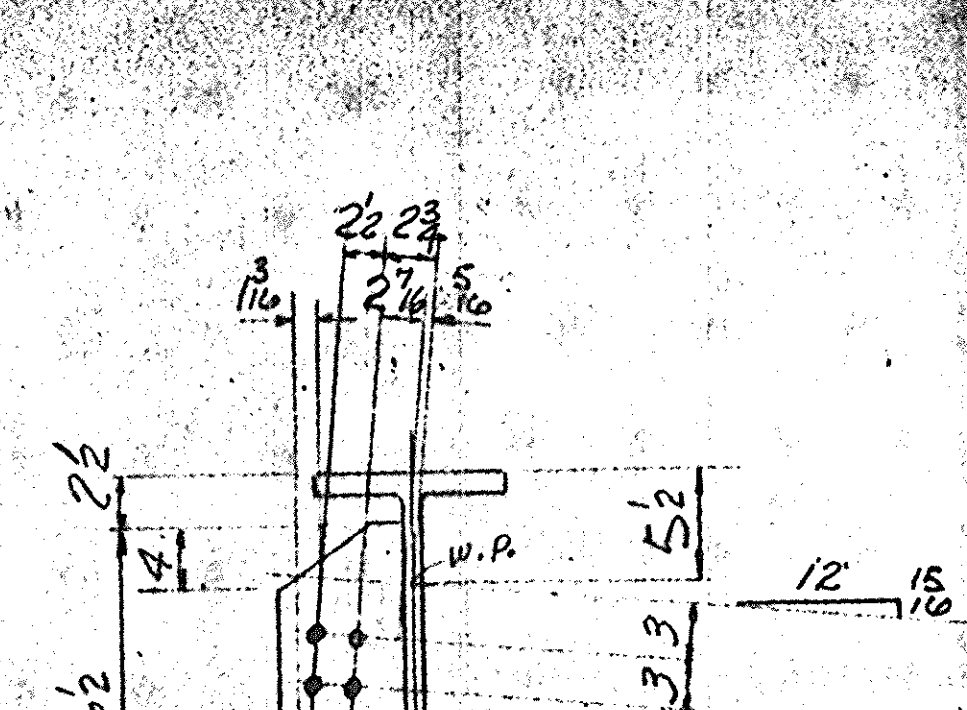
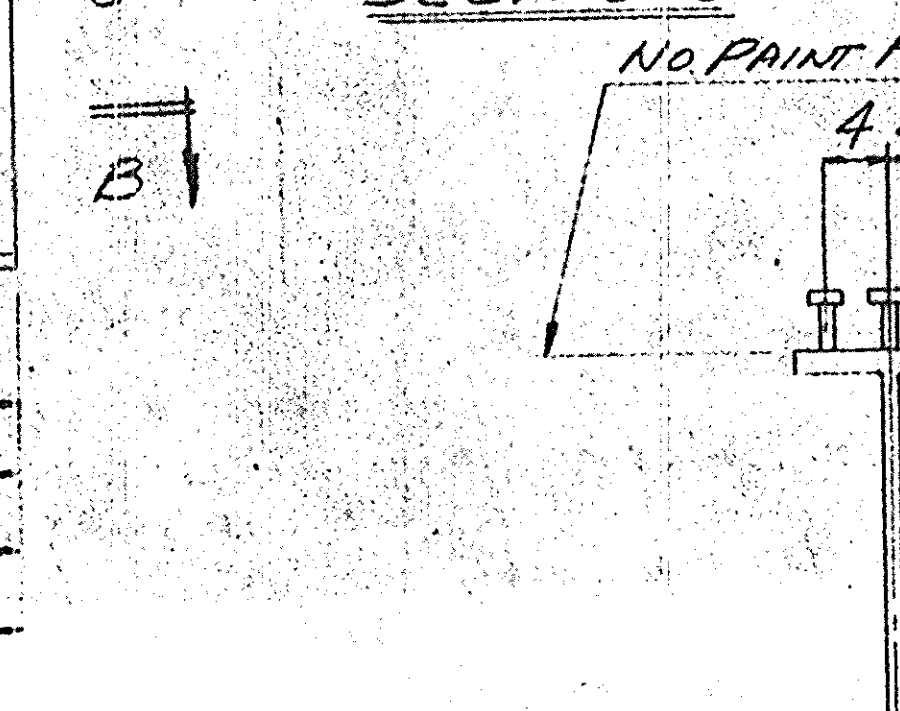
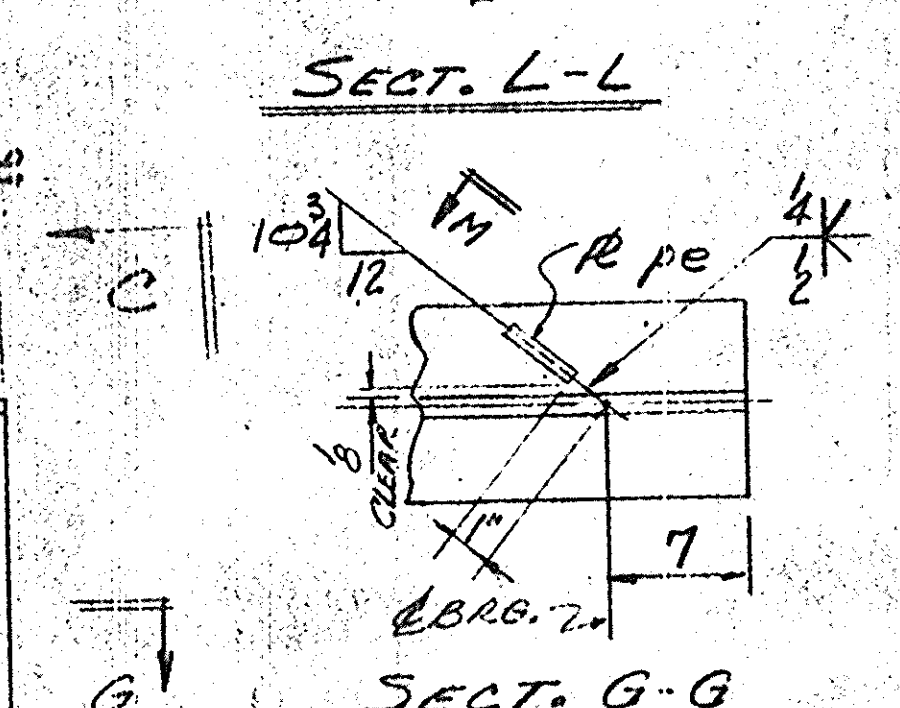
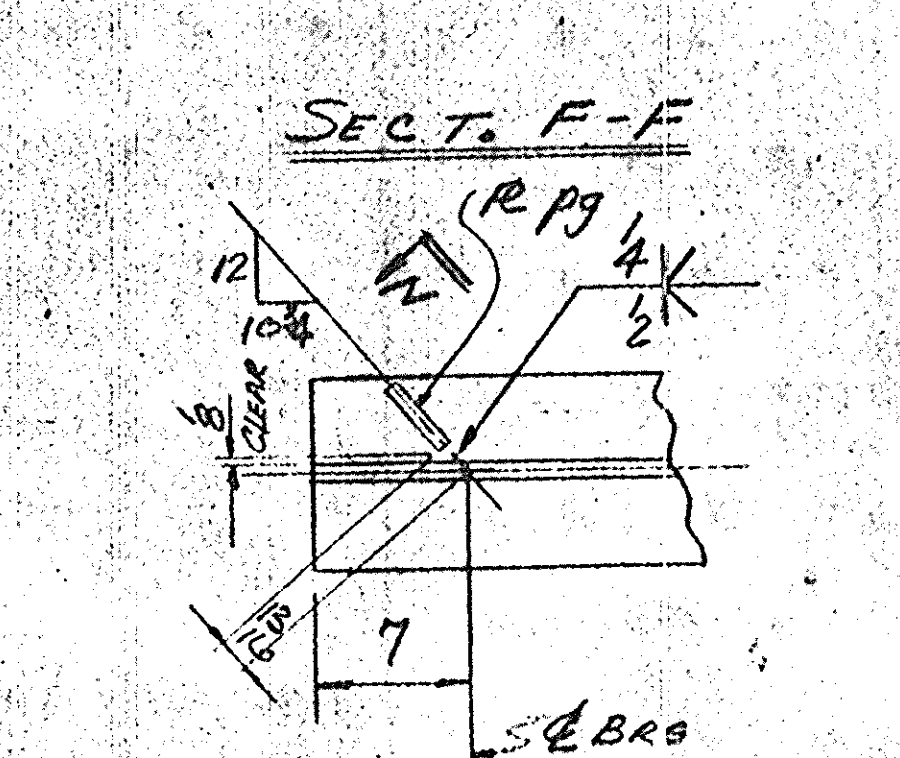
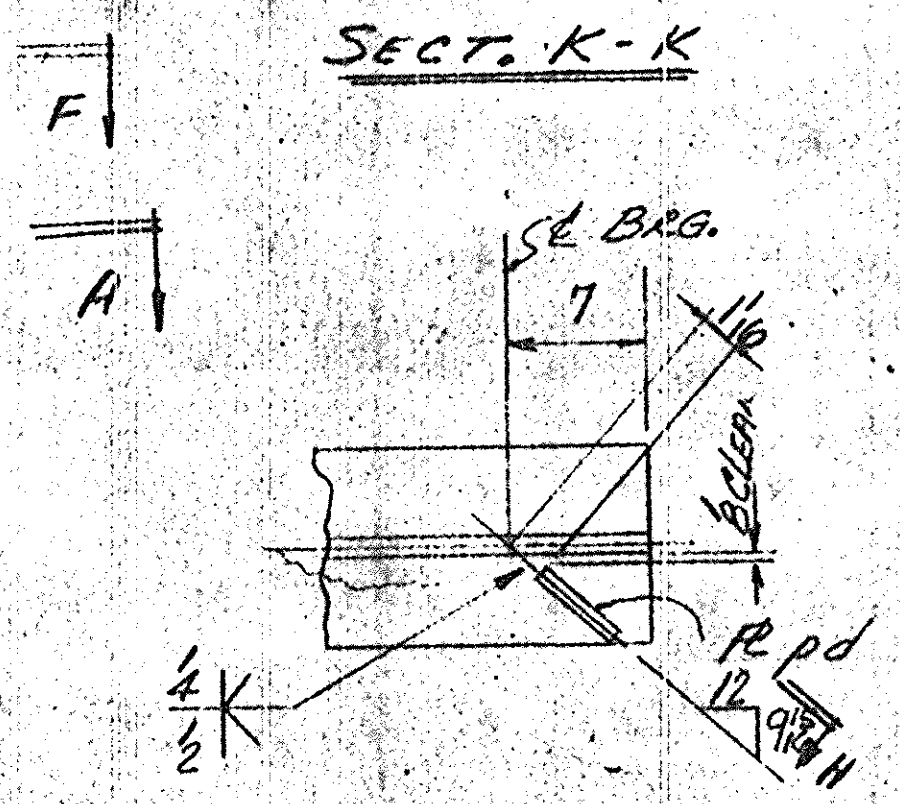
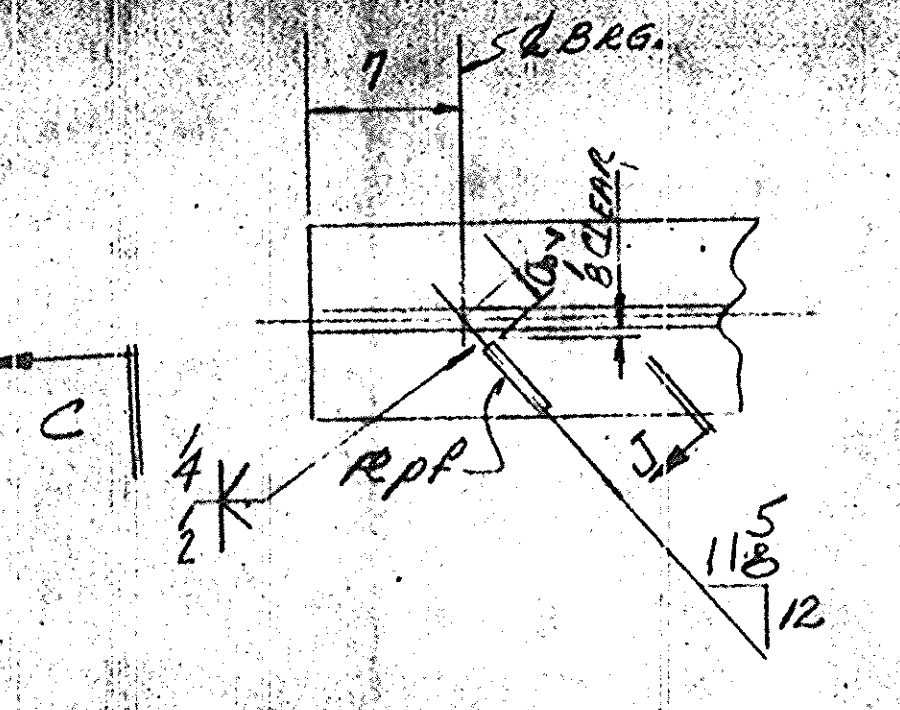
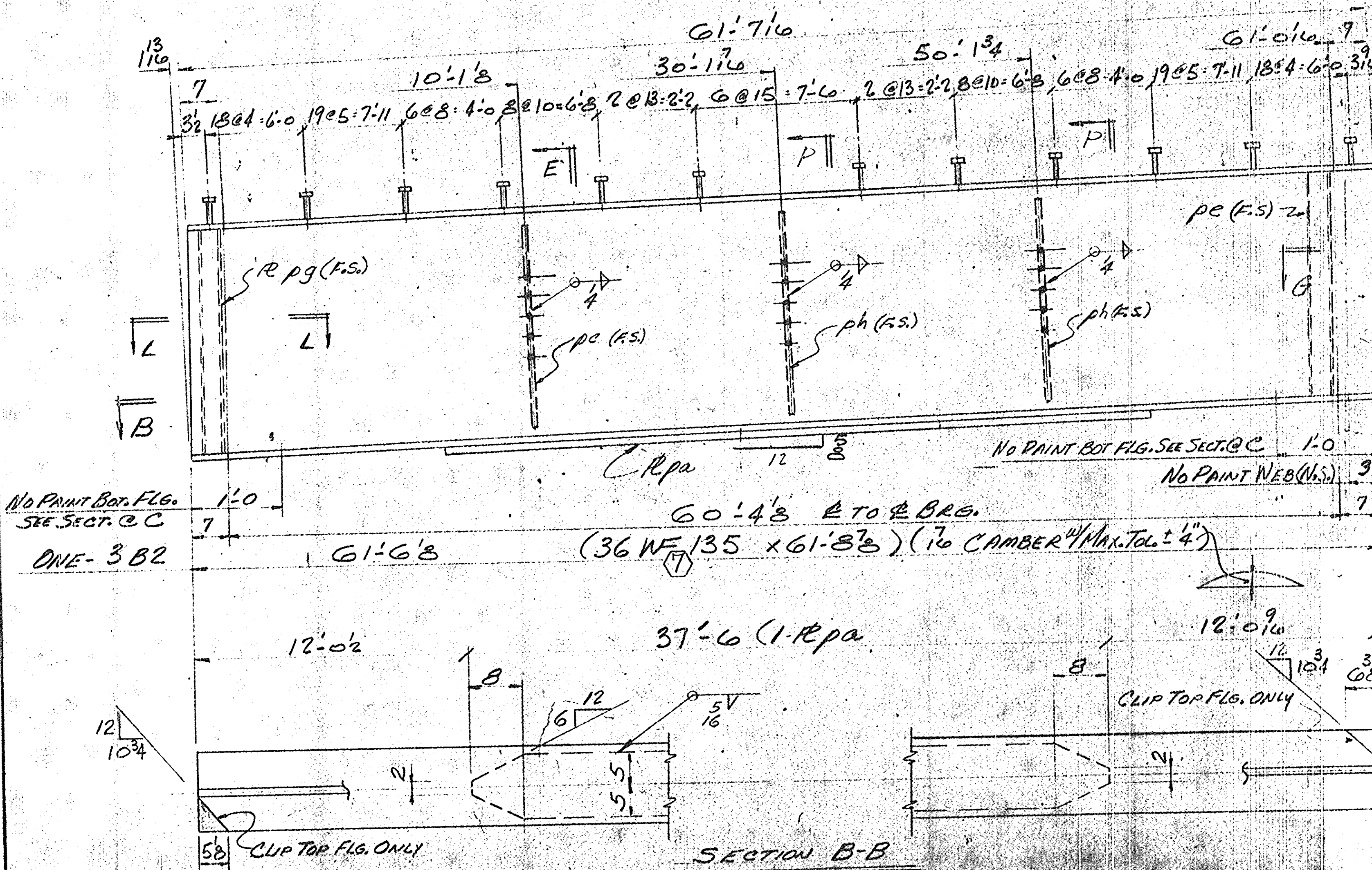
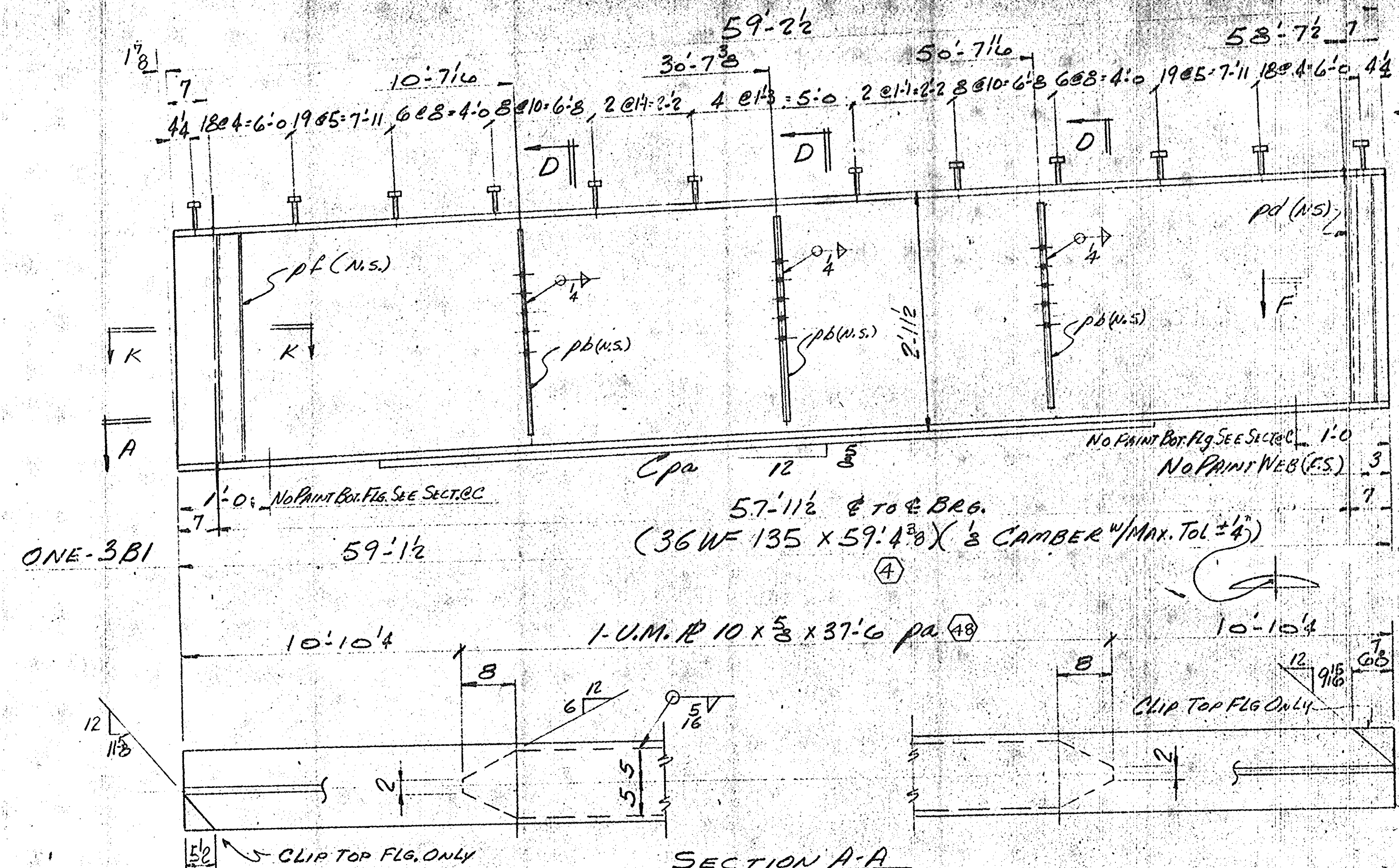


NOTES:

PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.

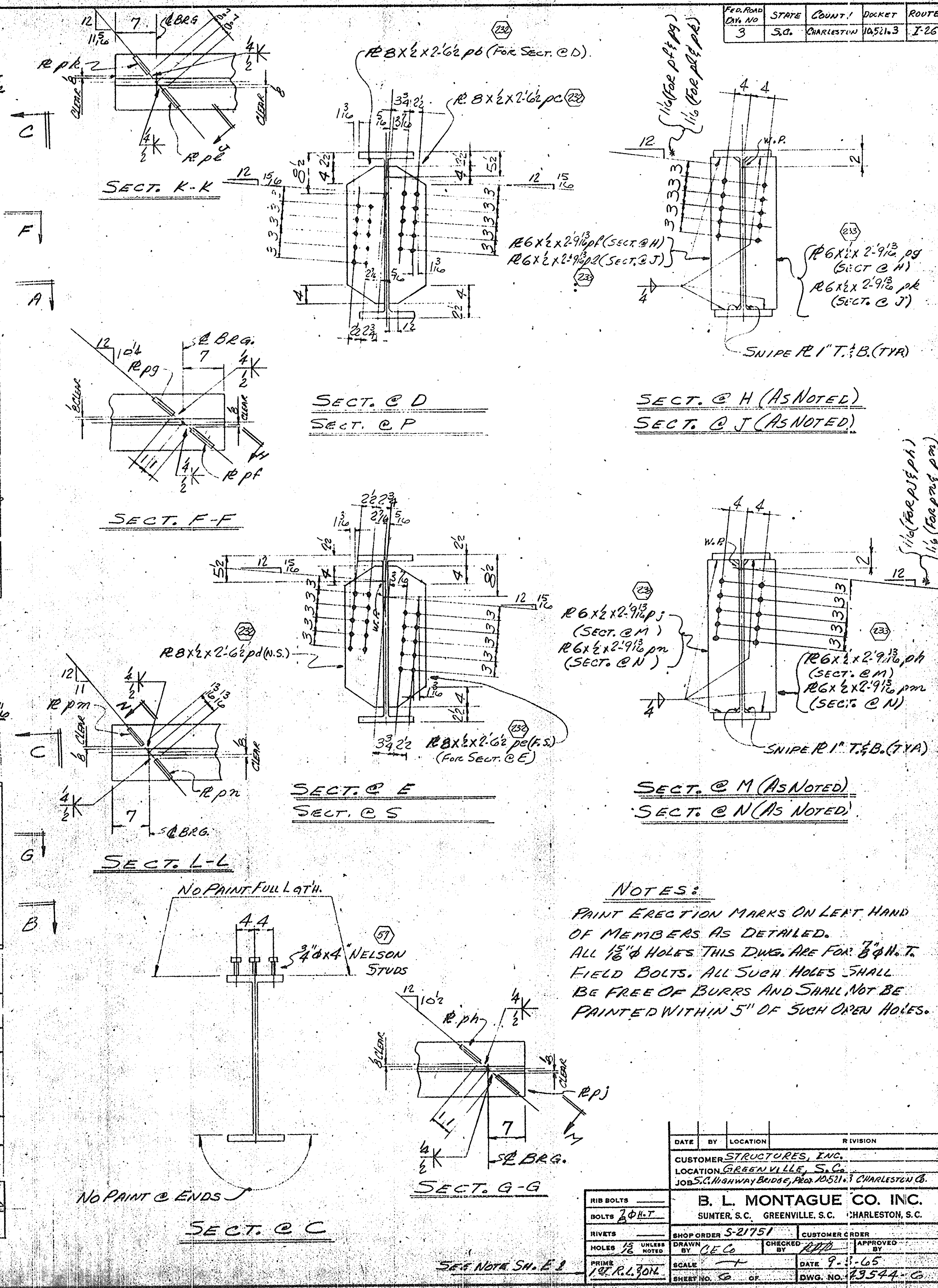
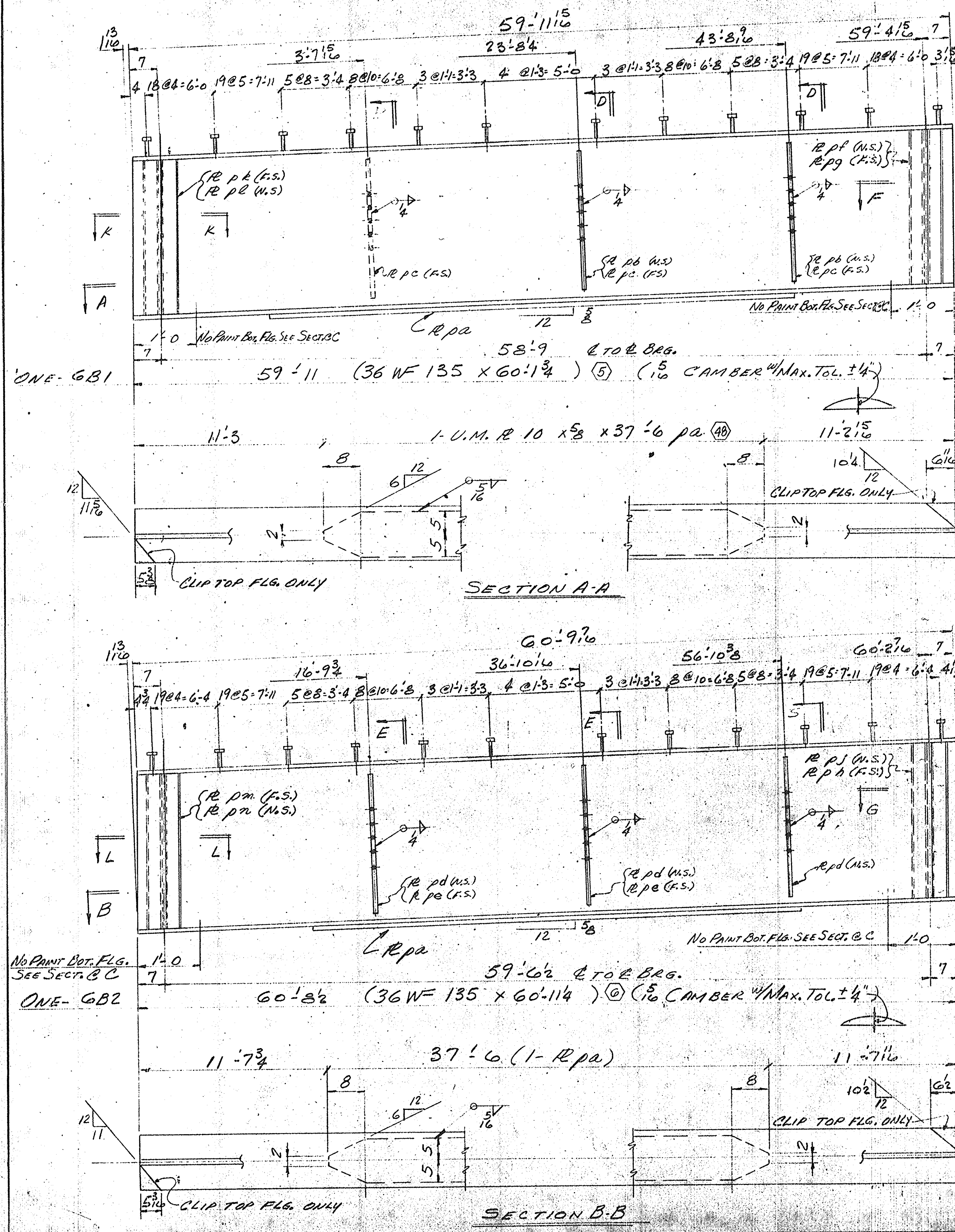
ALL 1/2" HOLES THIS DWG. ARE FOR 7/8" T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Proj. 10521.3 CHARLESTON CO.			
B. L. MONTAGUE CO. INC.		SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.	
RIB BOLTS	3-21751	CUSTOMER ORDER	APPROVED BY
BOLTS 20H.T.	Ceco	DATE	7-65
RIVETS	1/2	SCALE	1" = 10'-0"
HOLES 1/2 UNLESS NOTED	1/2	SHEET NO.	2 OF 2
PRIME 1/2 R.L. 901L		DWG. NO.	43544-2



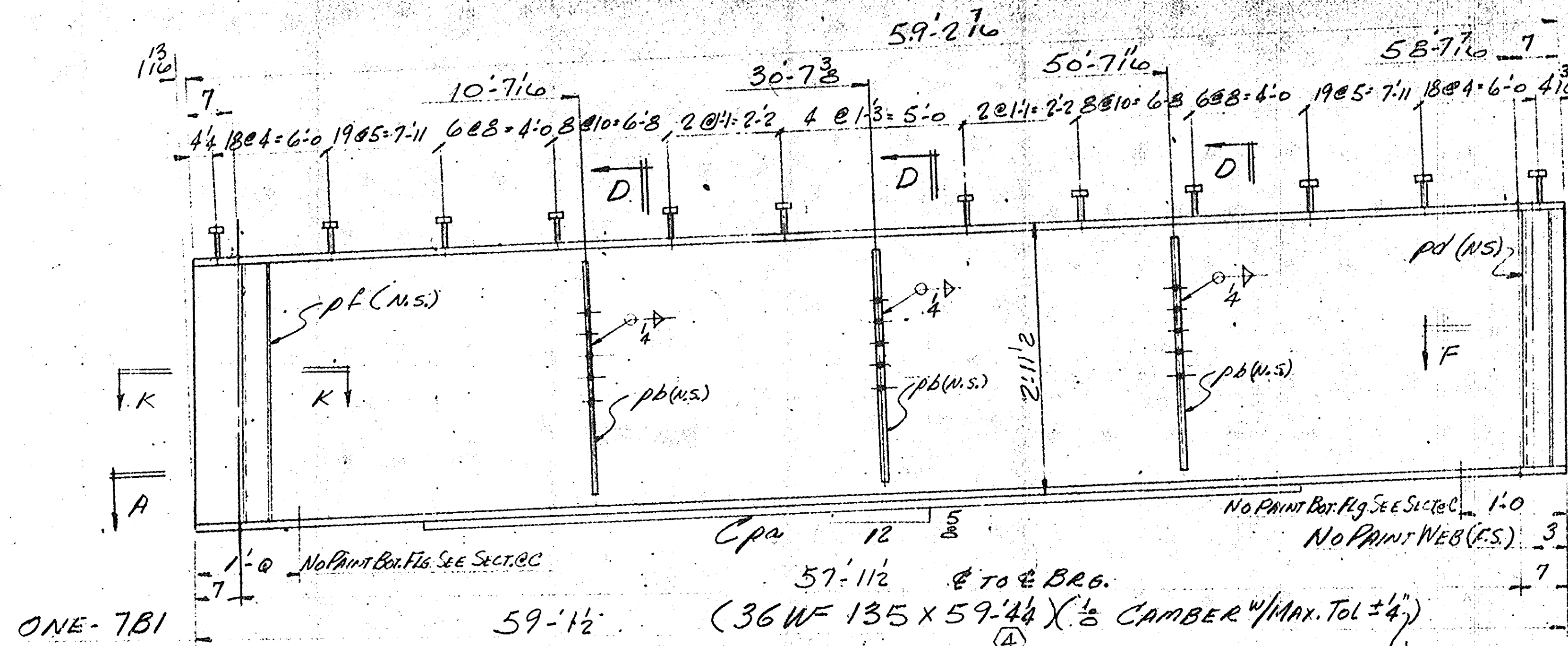
NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR 7/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: 56 HIGHWAY BRIDGE, PROS. 16.5113, CHARLESTON CO.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	SHOPS ORDER	CUSTOMER ORDER	
BOLTS 80 H.T.	BY BCO	BY BCO	
RIVETS	BY BCO	BY BCO	
HOLES 1/2" H.T.	BY BCO	BY BCO	
SCALE: 1" = 10'	DATE: 9-2-65	DWG. NO. 73544-3	
SHEET NO. 3			

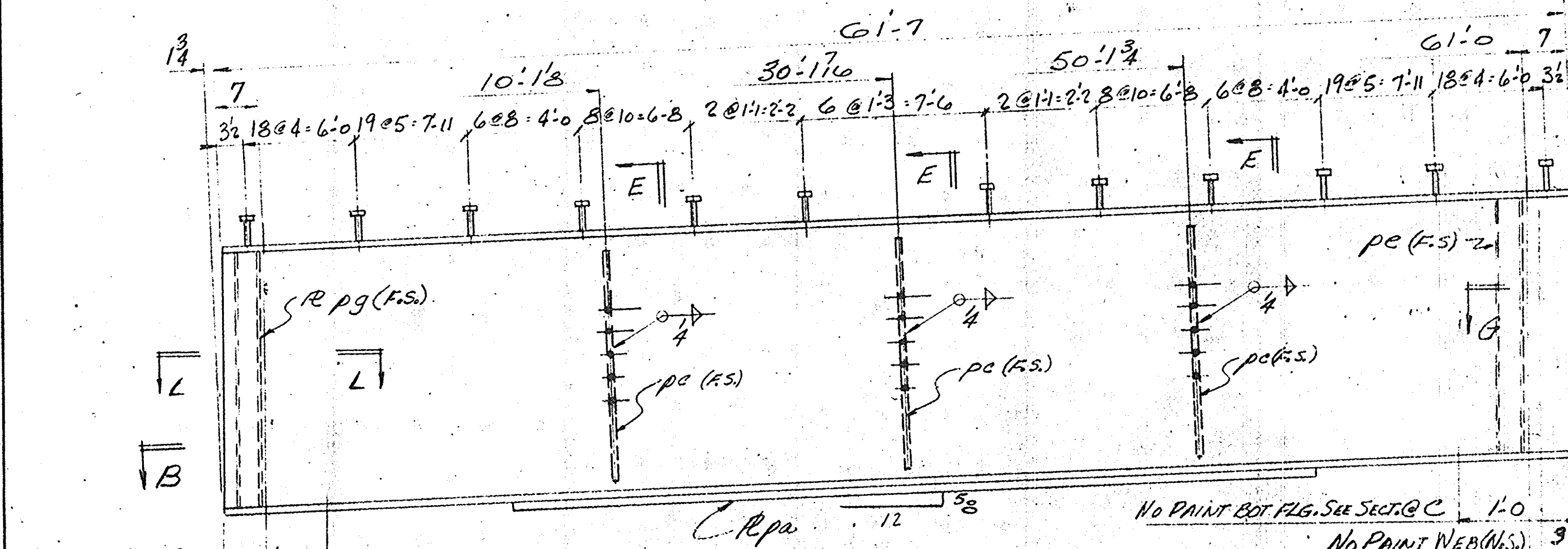


DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE, FROM 10521.3 CHARLESTON CO.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
SHOP ORDER 5-21751		CUSTOMER ORDER	
DRAWN BY CEC		CHECKED BY RPD	
APPROVED BY		APPROVED BY	
SCALE 1/4" = 1'-0"		DATE 9-1-65	
SHEET NO. 20		DWG. NO. 19544-G	

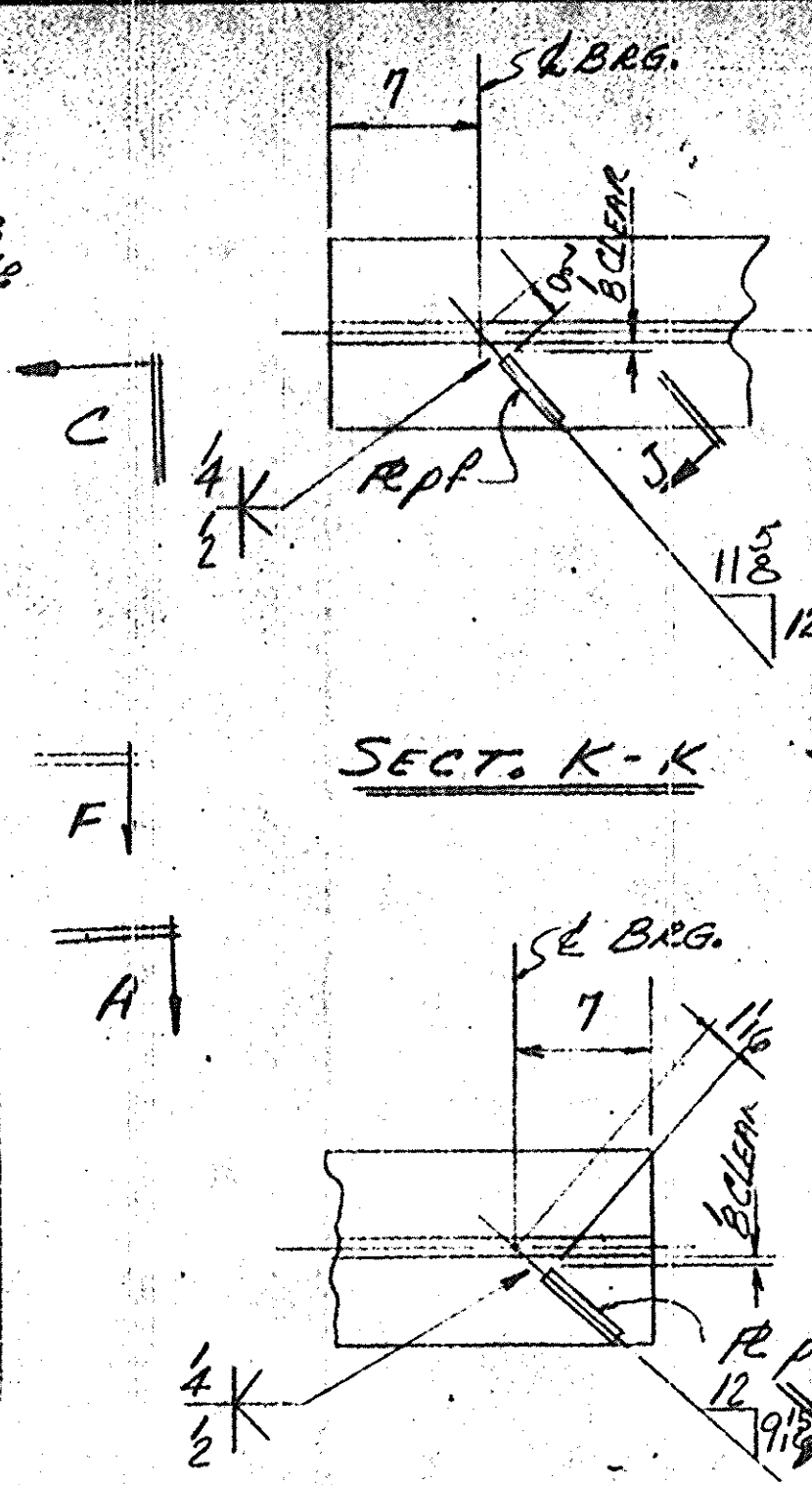
FED. ROAD DIV. NO.	STATE	COUNTY	PROJECT	POST
3	S.C.	CHARLESTON	1A521.3	F.26



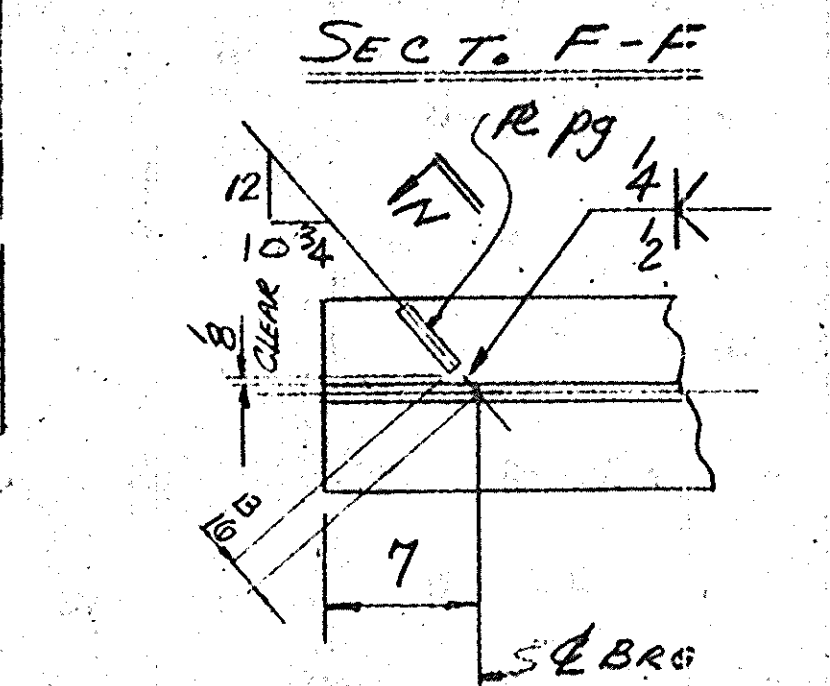
SECTION A-A



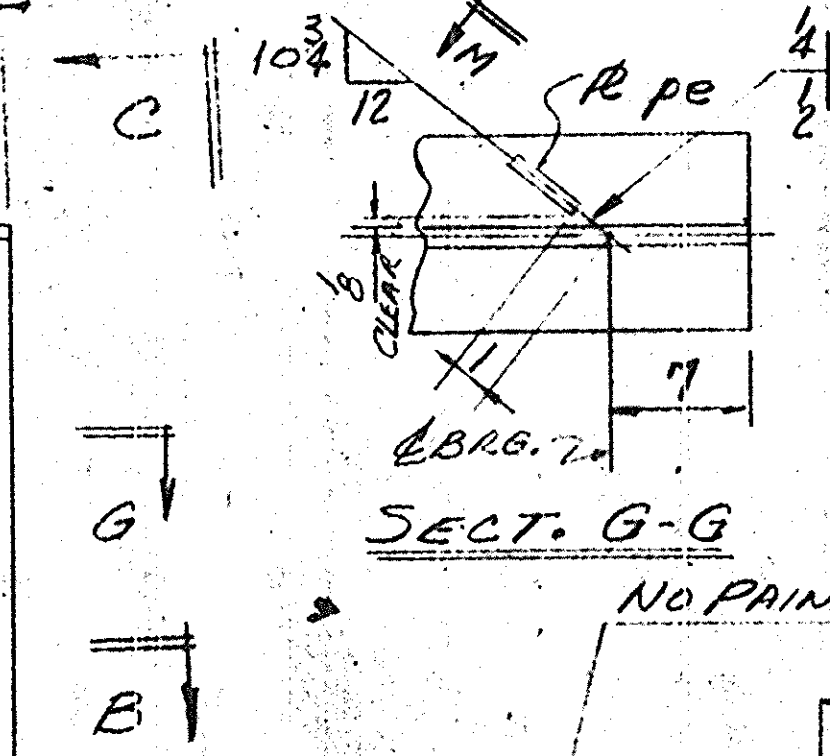
SECTION B-B



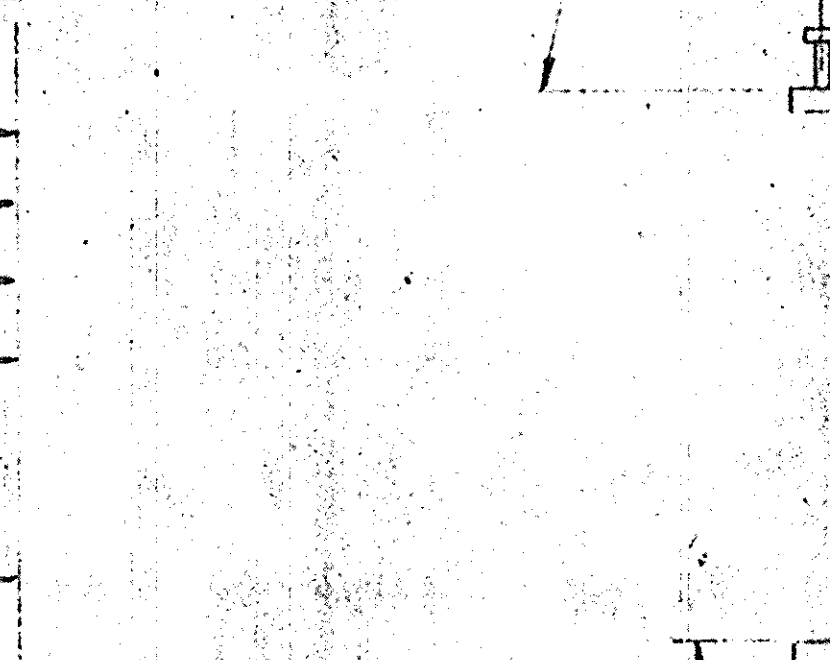
SECT. K-K



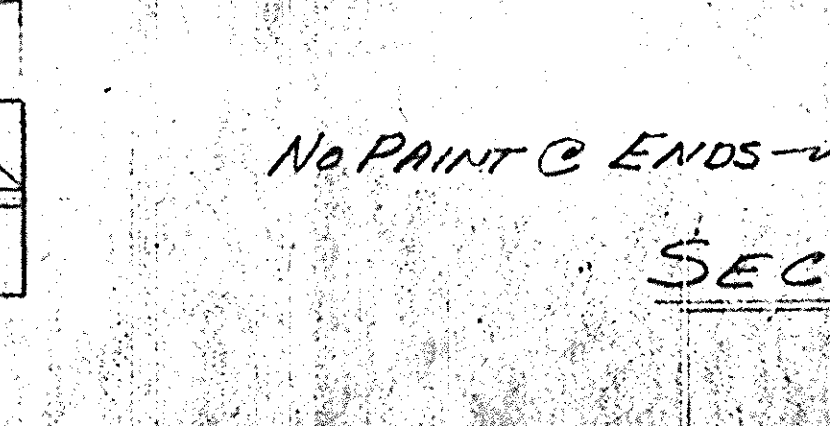
SECT. F-F



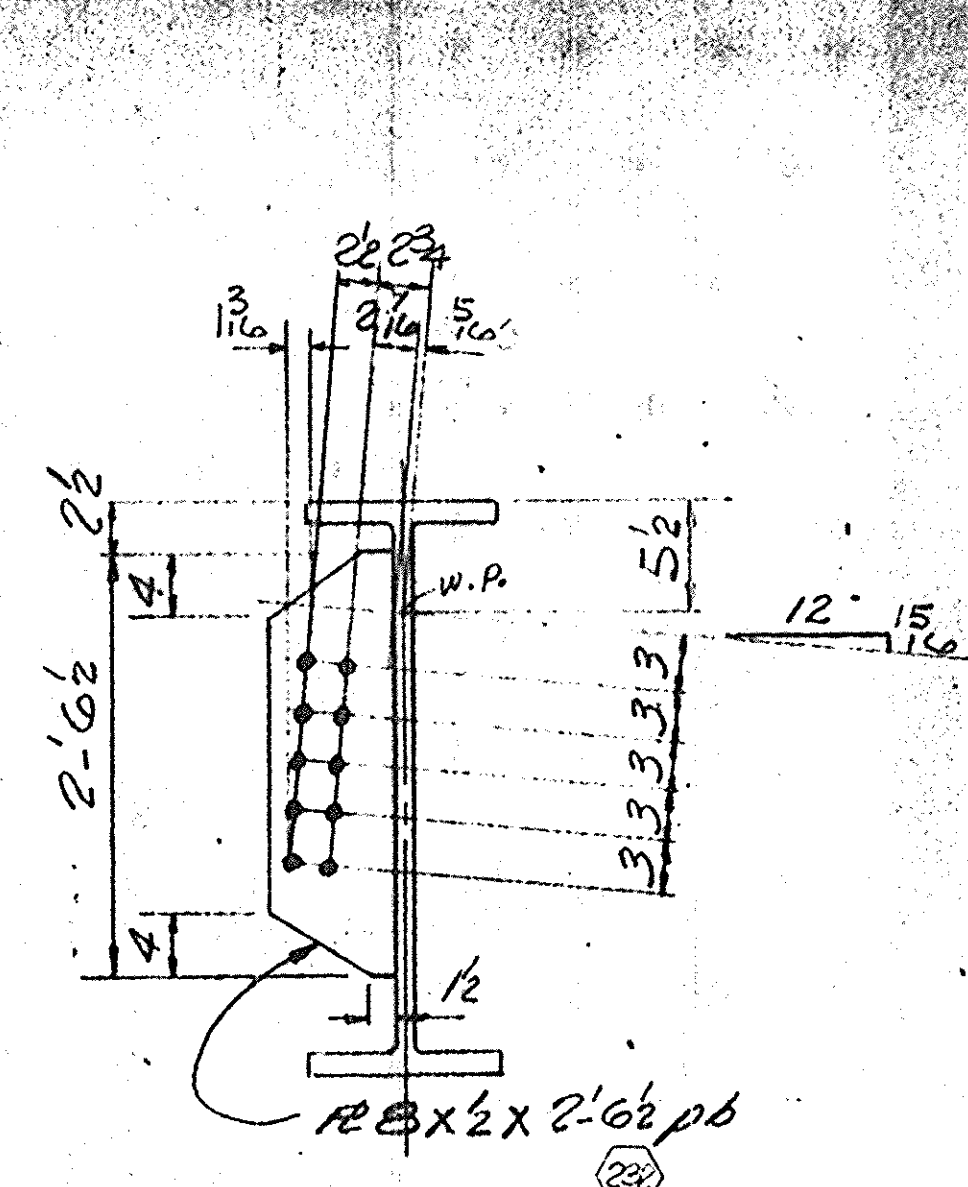
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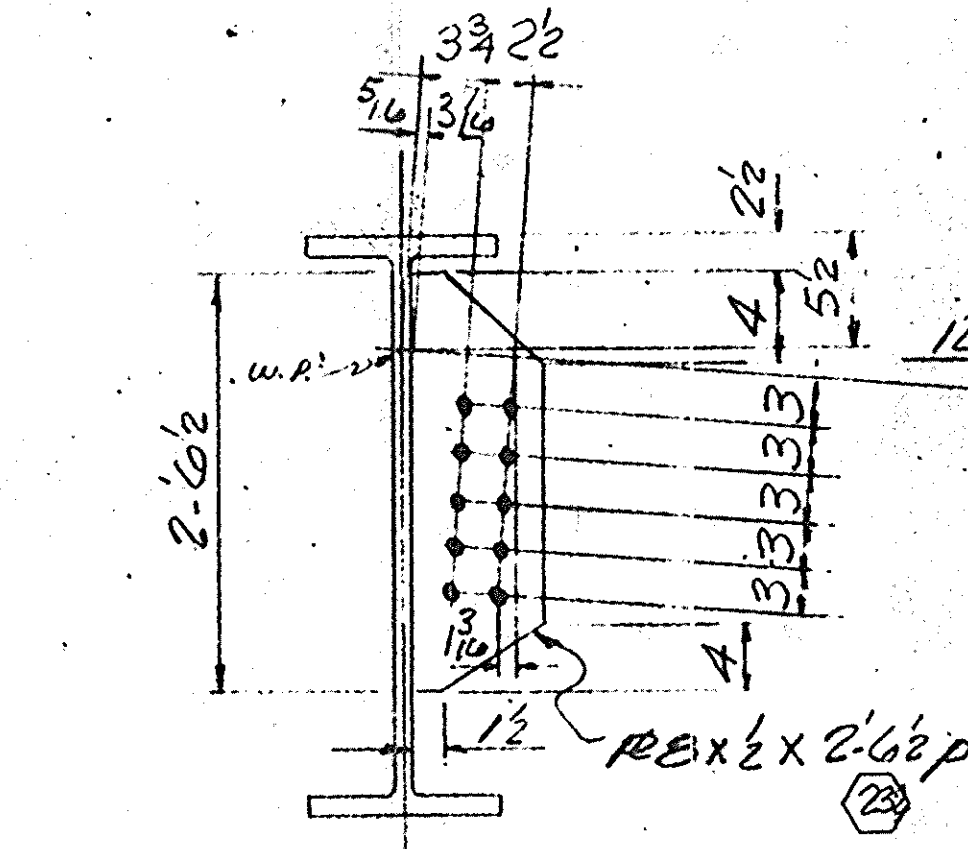
SECT. G-G



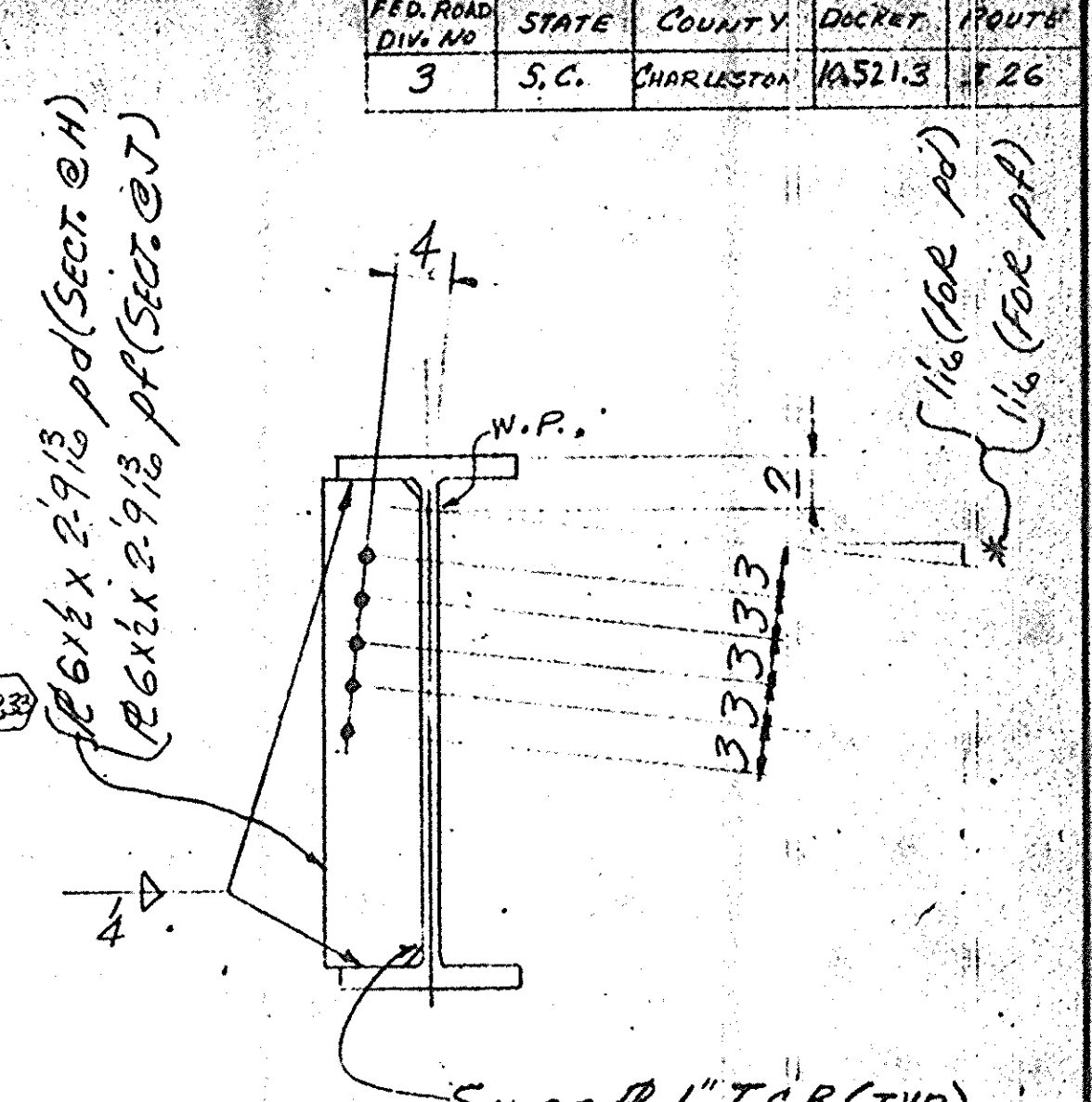
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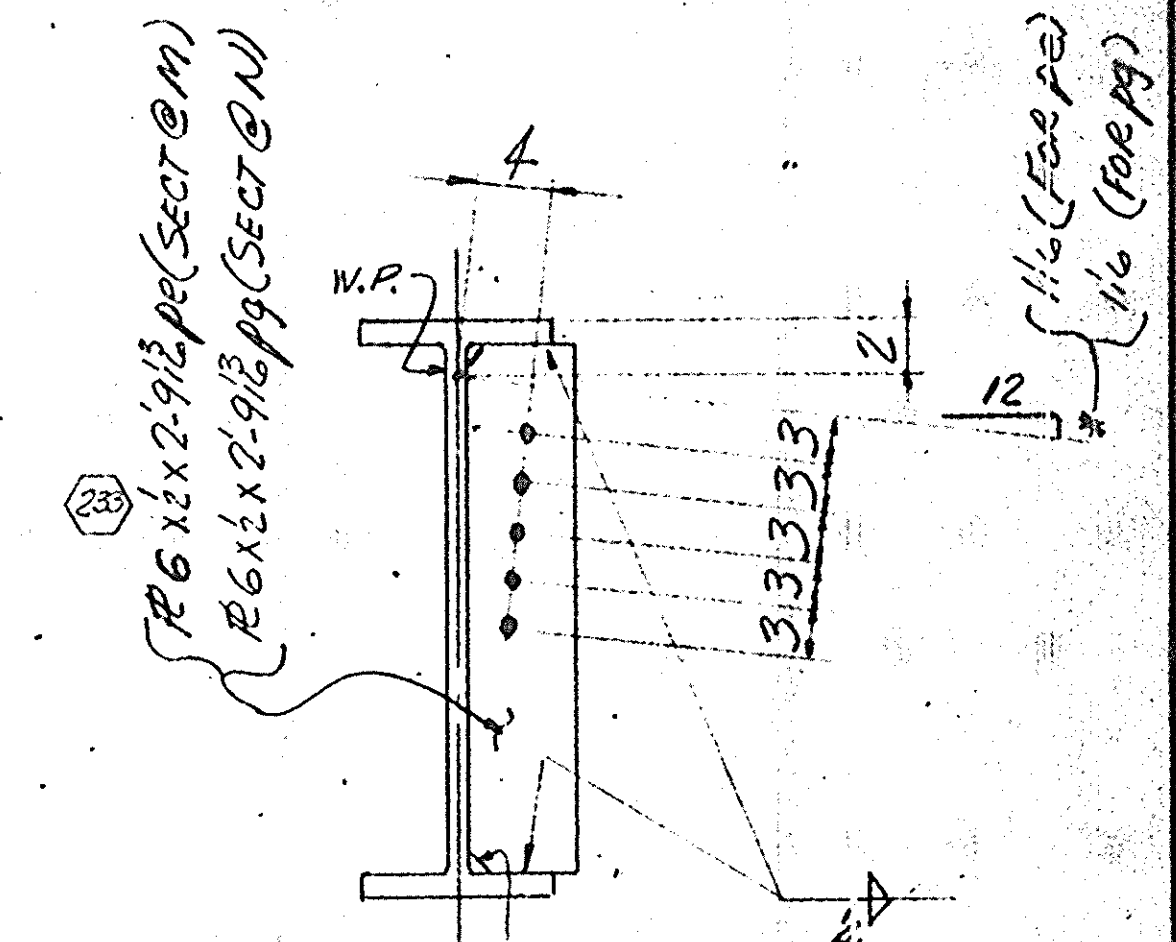
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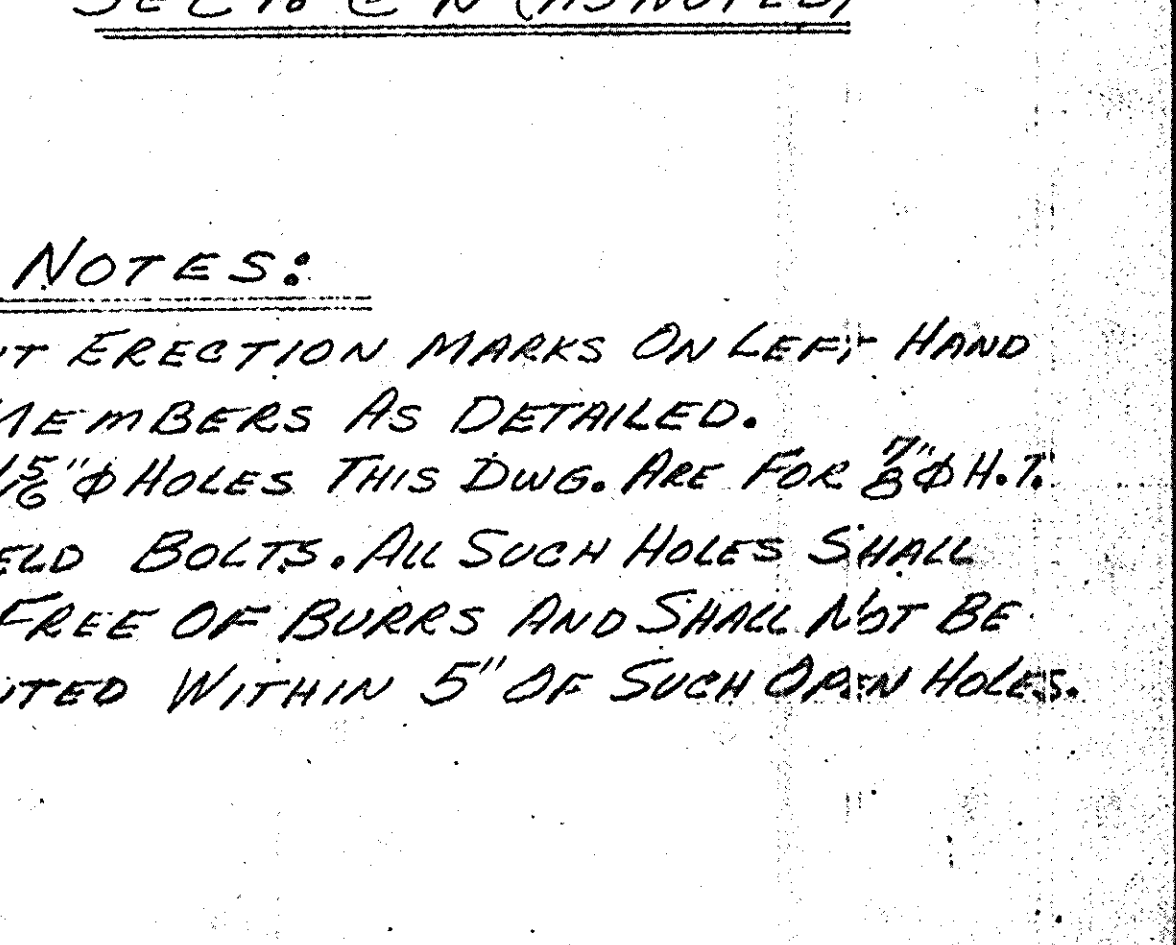
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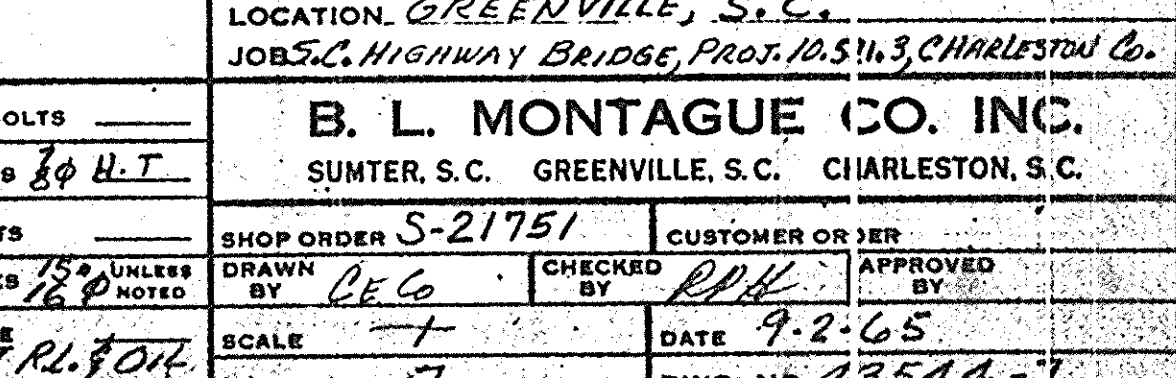
SECT. C-H (AS NOTED)



SECT. C-I (AS NOTED)



SECT. C-M (AS NOTED)

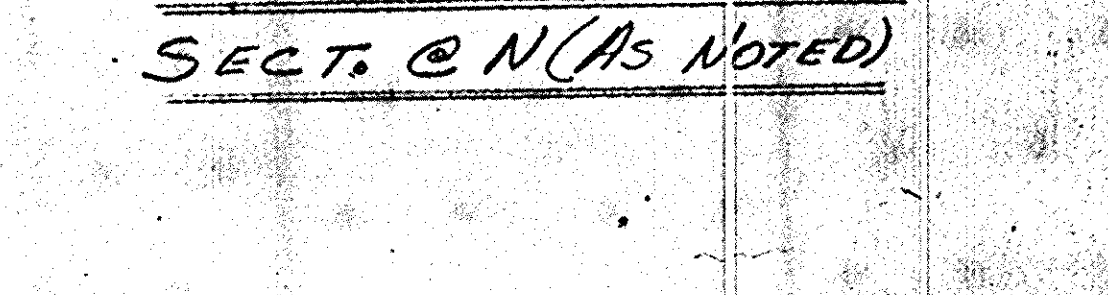
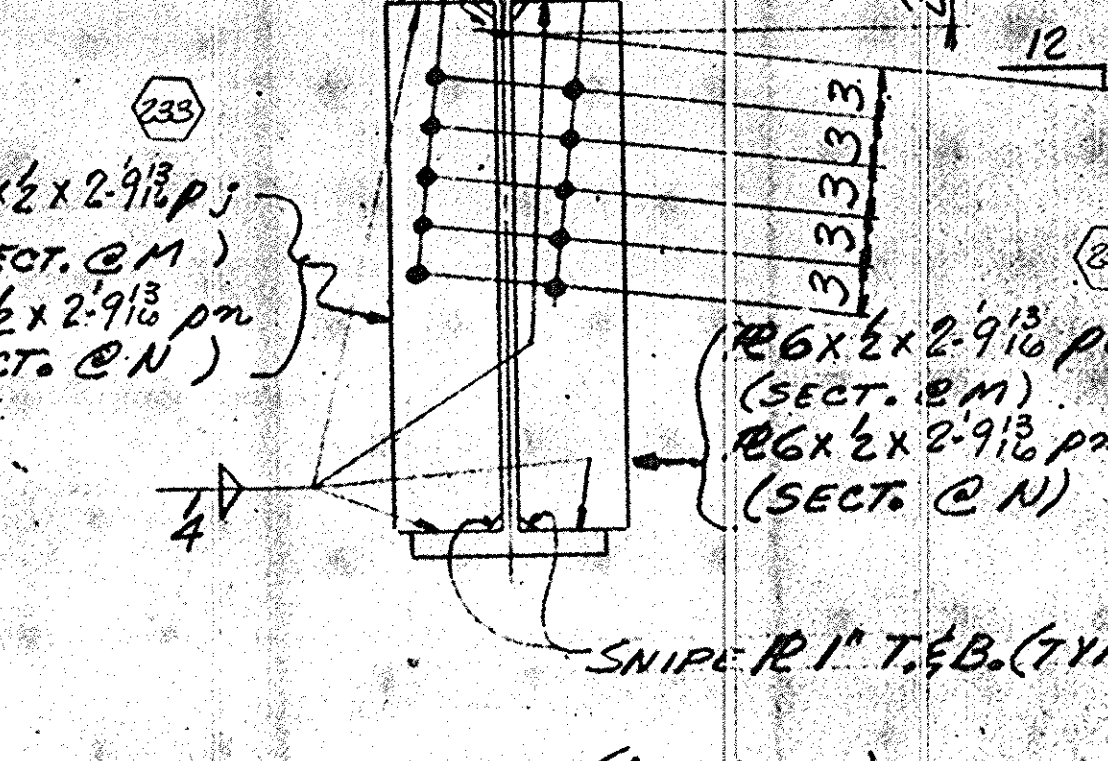
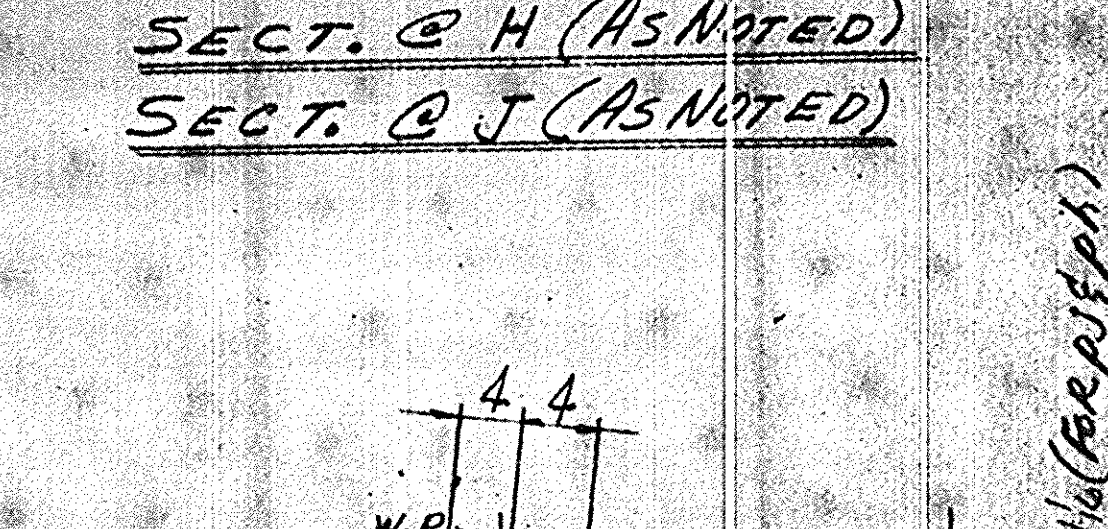
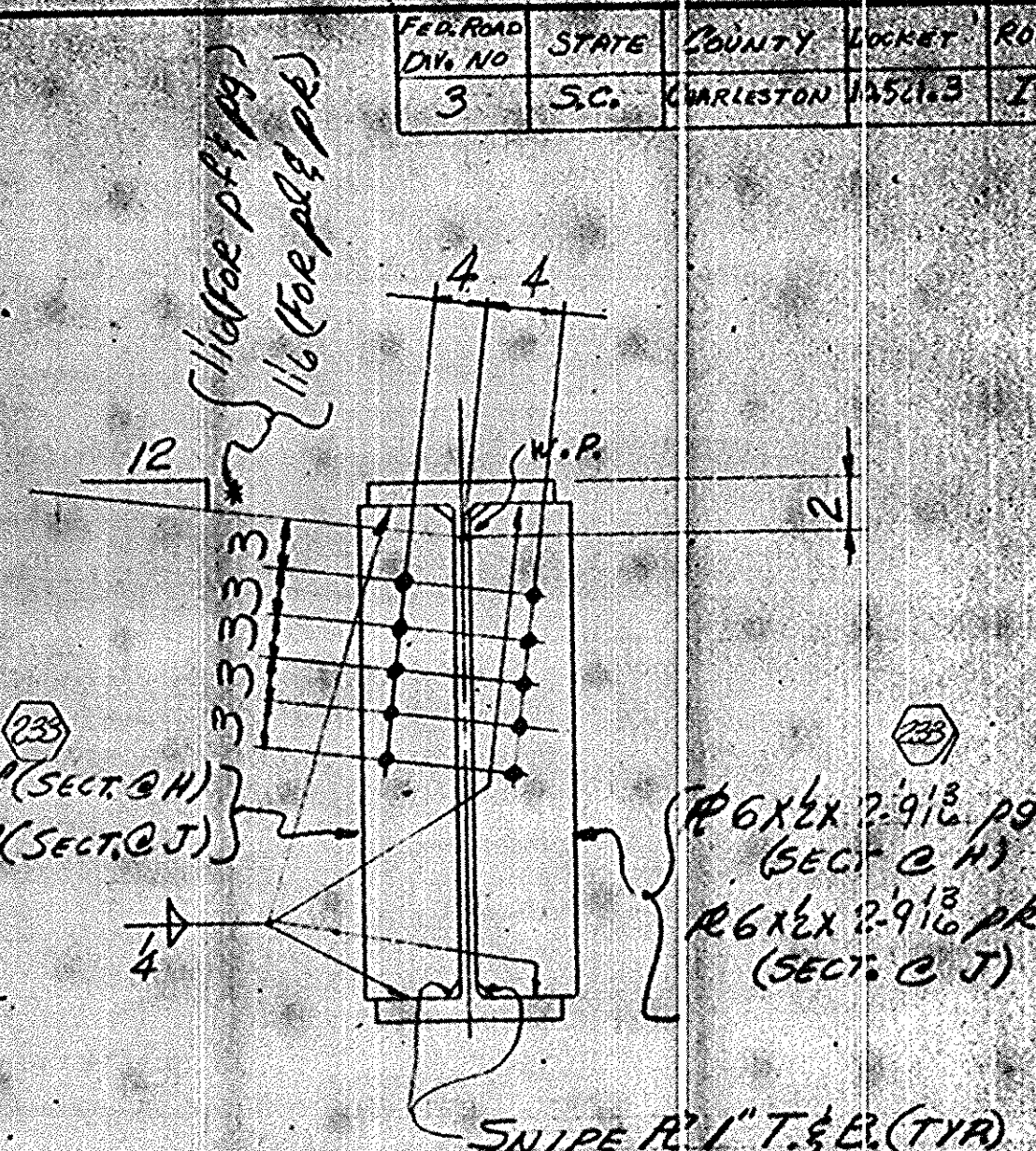
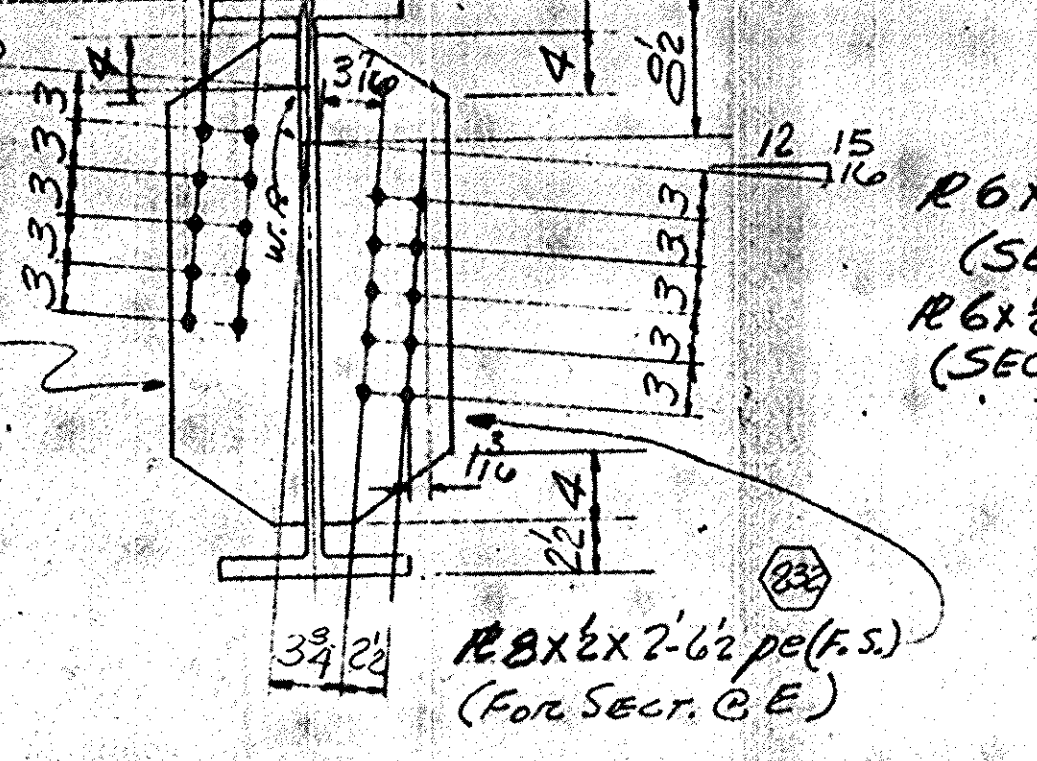
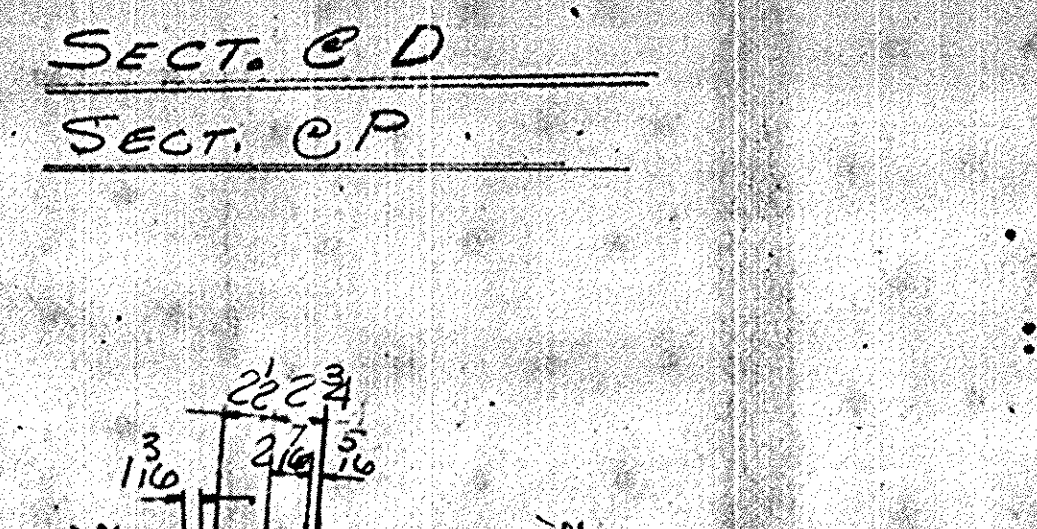
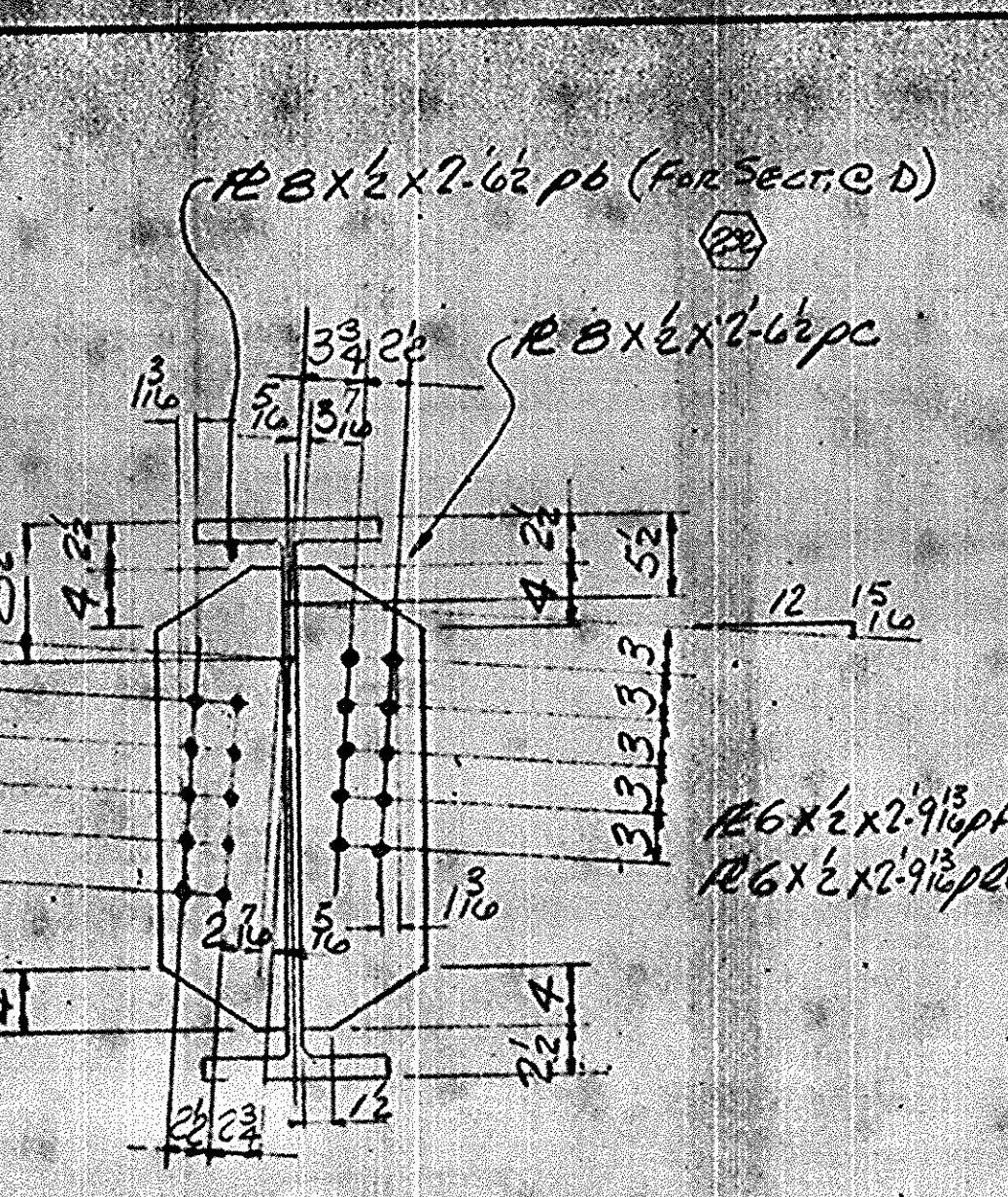
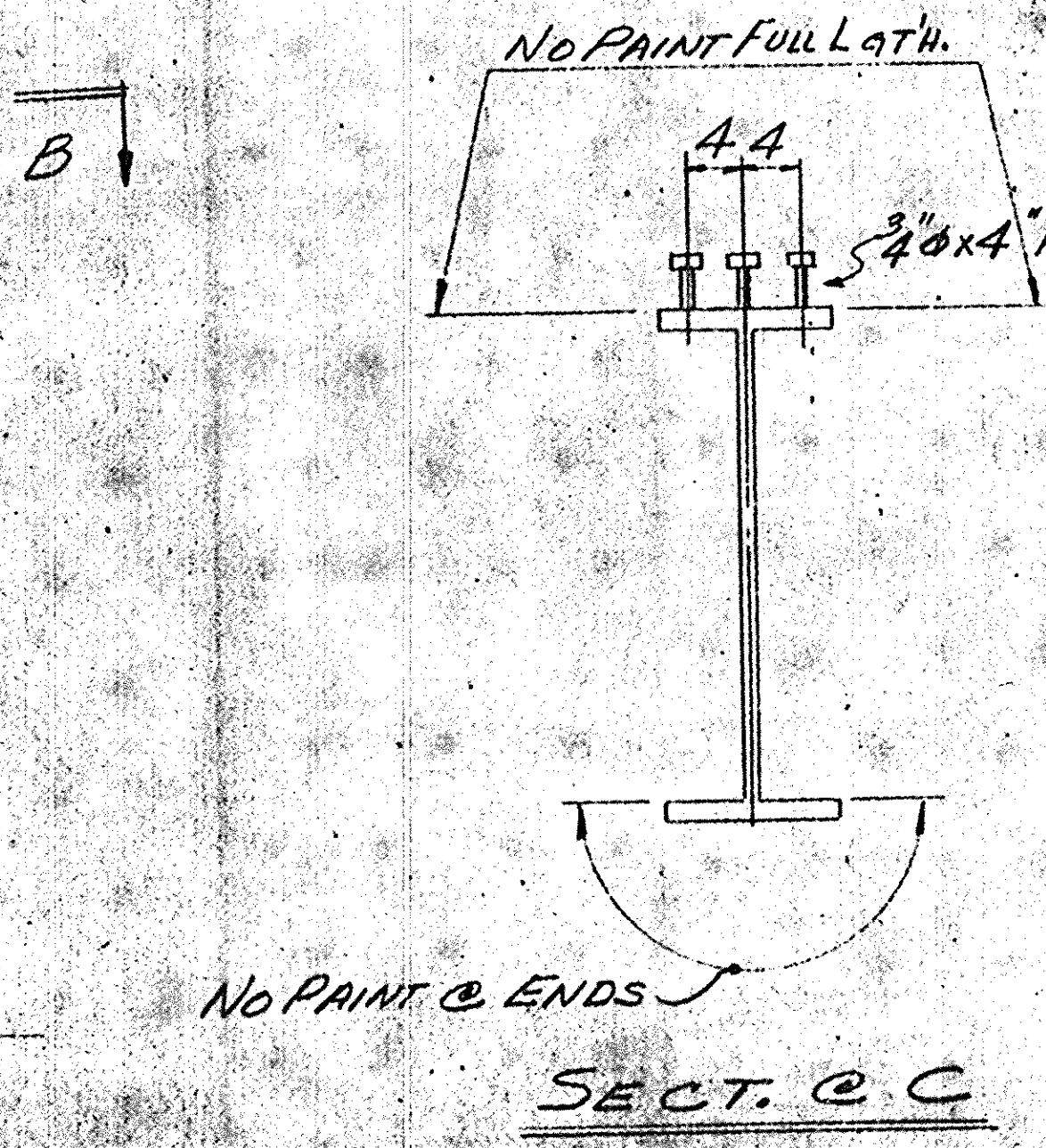
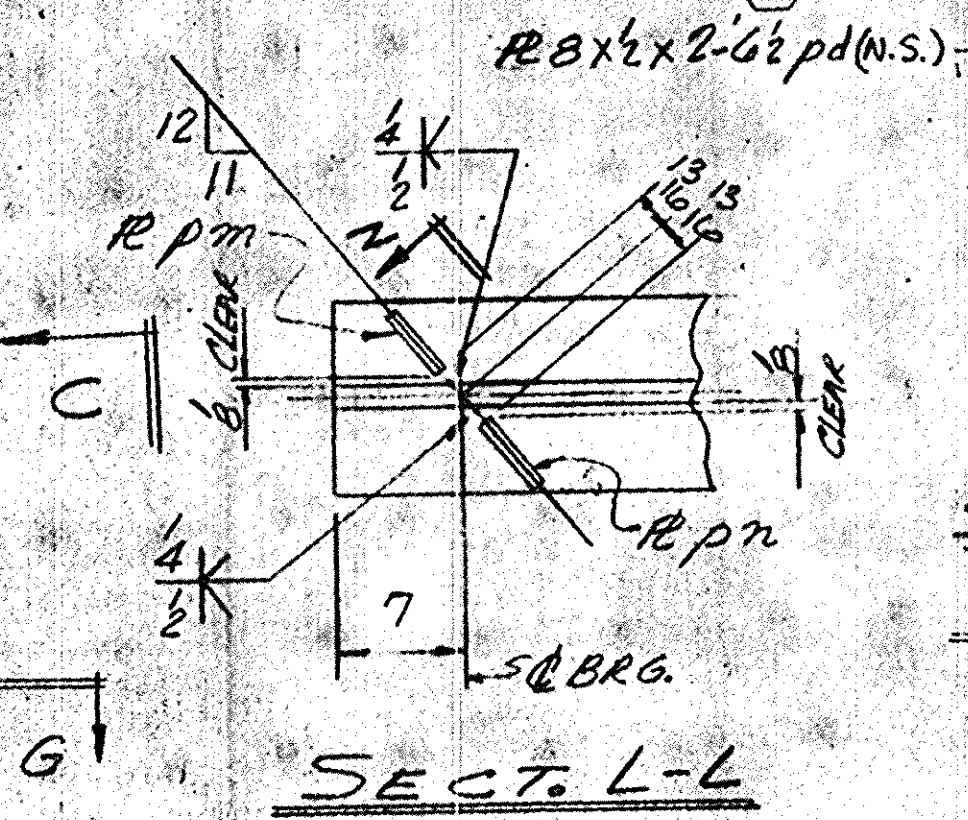
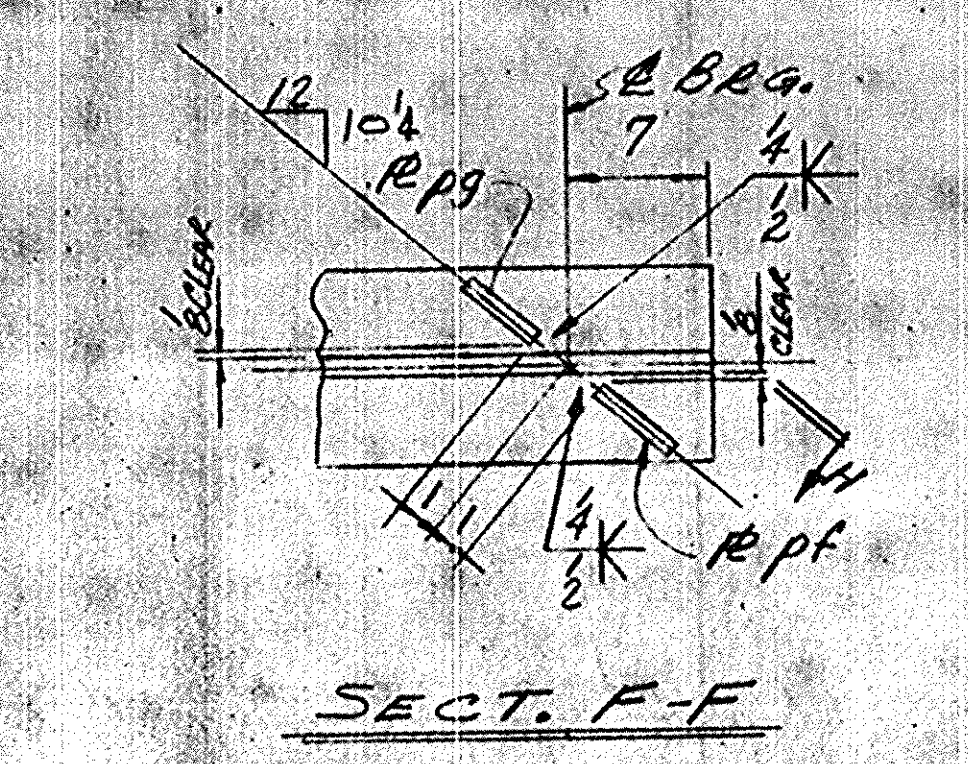
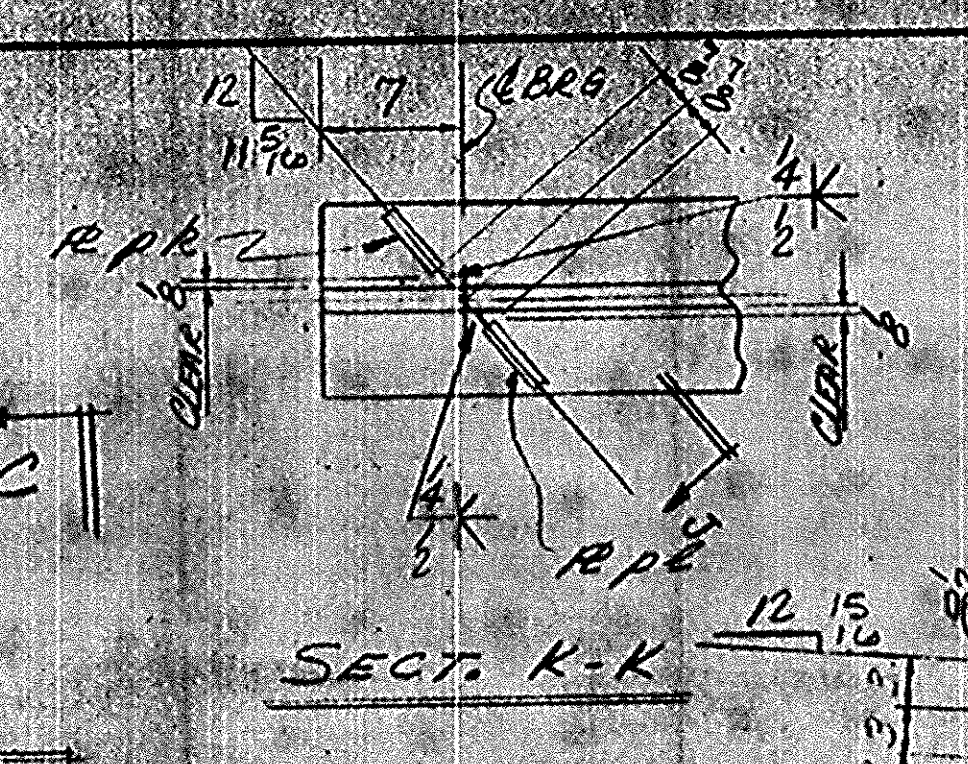
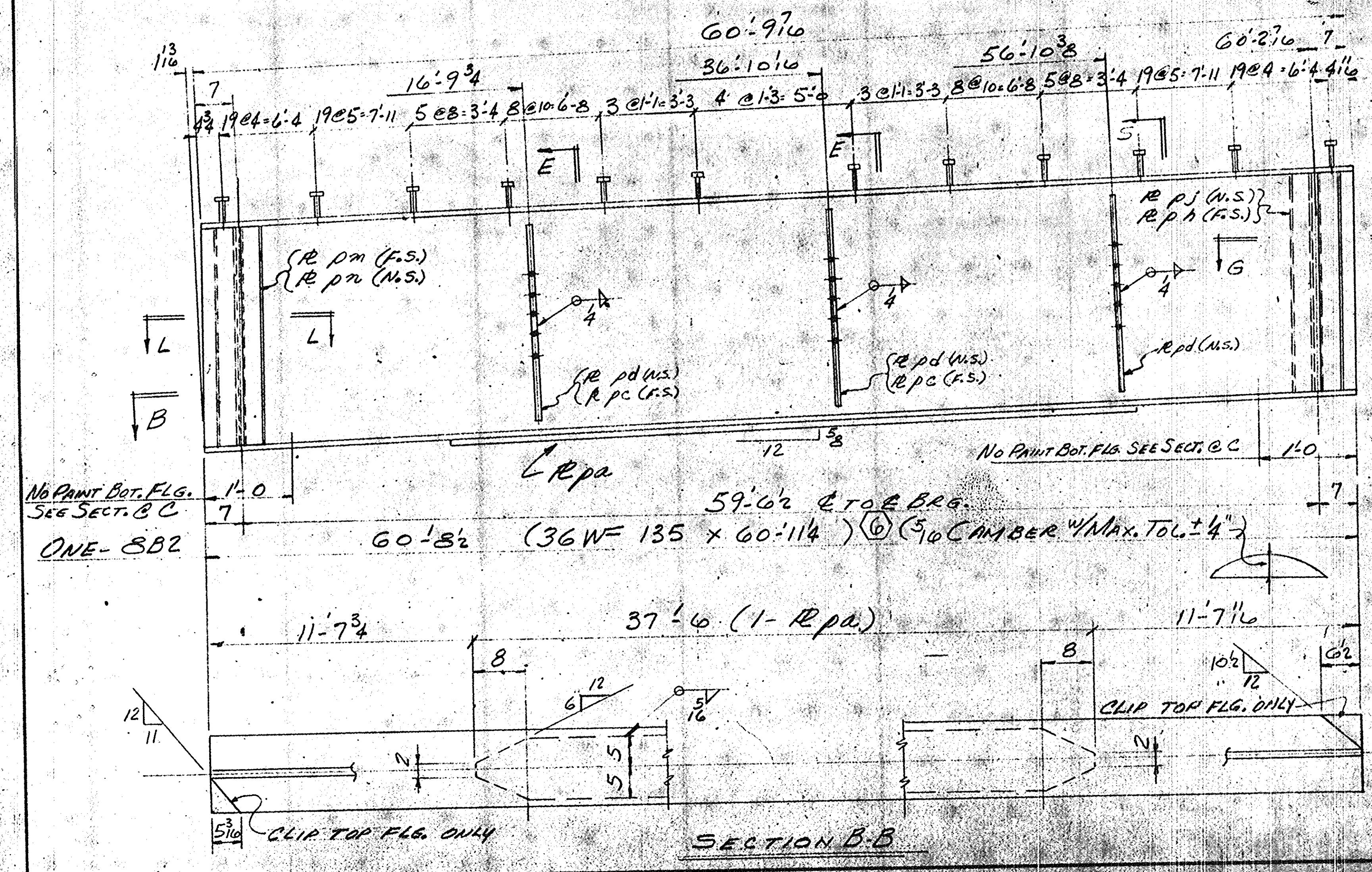
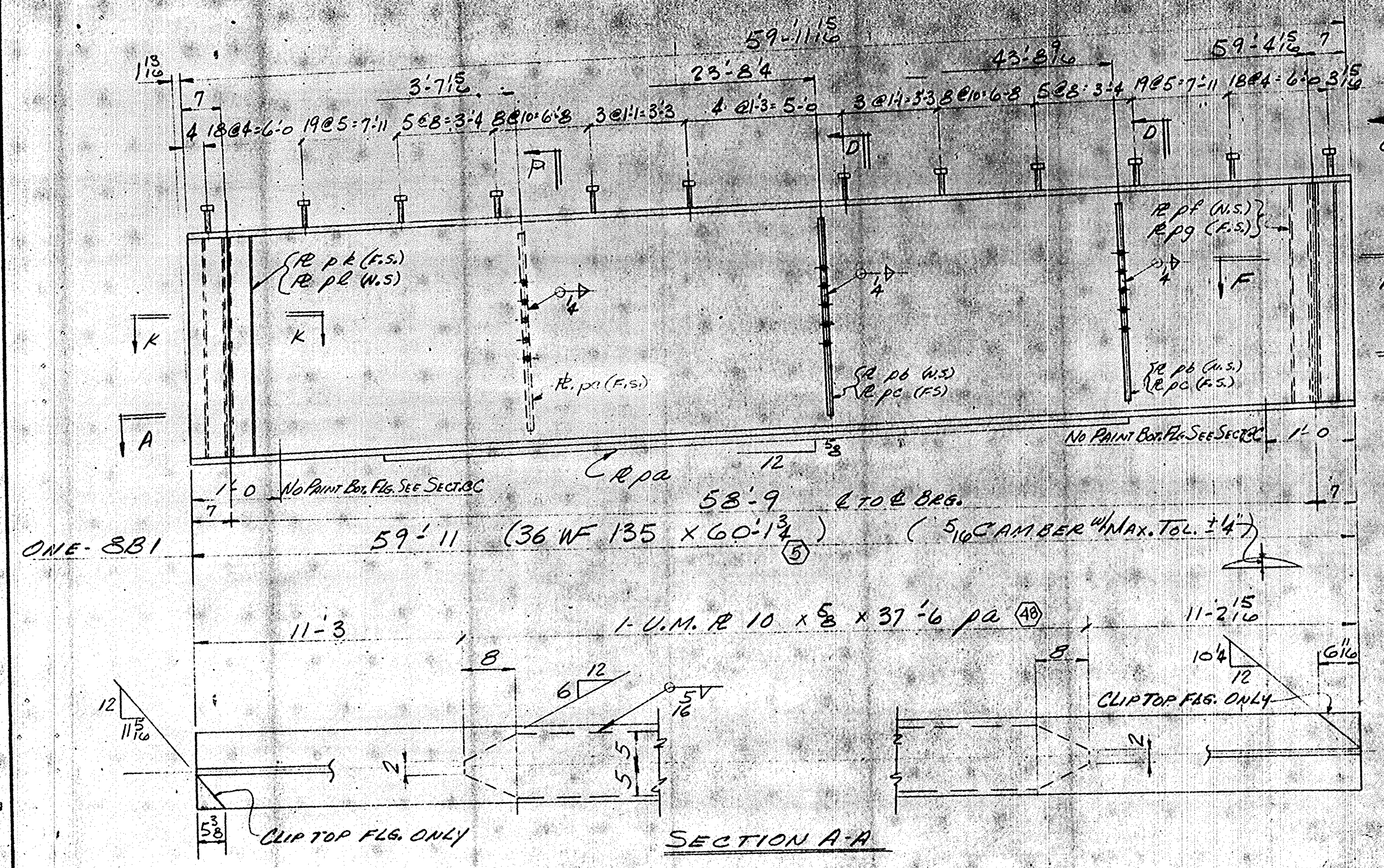


SECT. C-N (AS NOTED)

NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5' OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
		STRUCTURES, INC.	
		GREENVILLE, S.C.	
		JOB S.C. HIGHWAY BRIDGE, PROJ. 1A521.3, CHARLESTON CO.	
		B. L. MONTAGUE CO. INC.	
		SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.	
		SHOP ORDER S-21751	
		CUSTOMER OR JER	
		DRAWN BY	
		CHECKED BY	
		APPROVED BY	
		DATE	
		SCALE	
		SHEET NO.	

FED. ROAD DIST. NO.	STATE	COUNTY	LOCALITY	PROJECT NO.
3	S.C.	CHARLESTON	WIS. 113	1



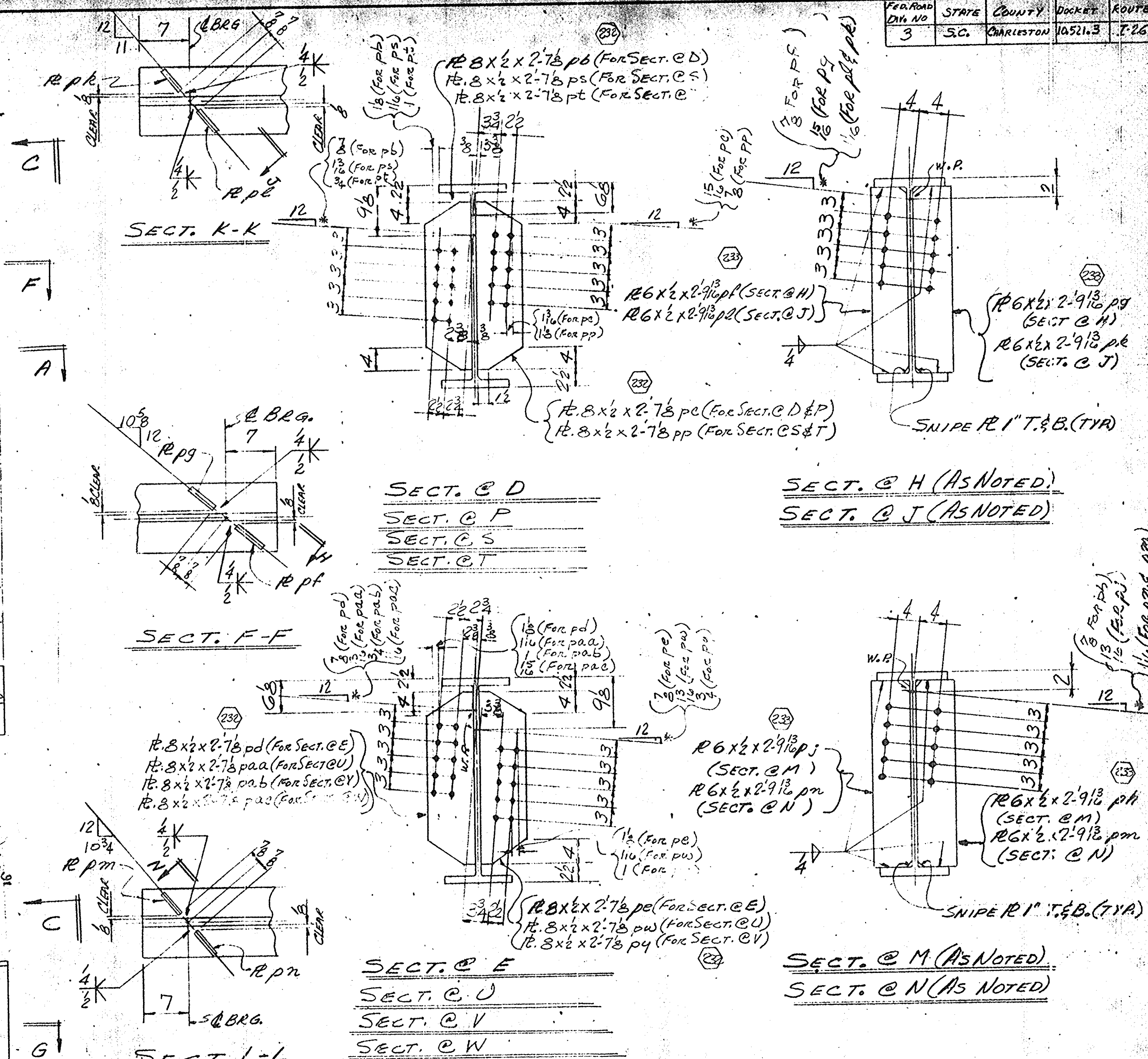
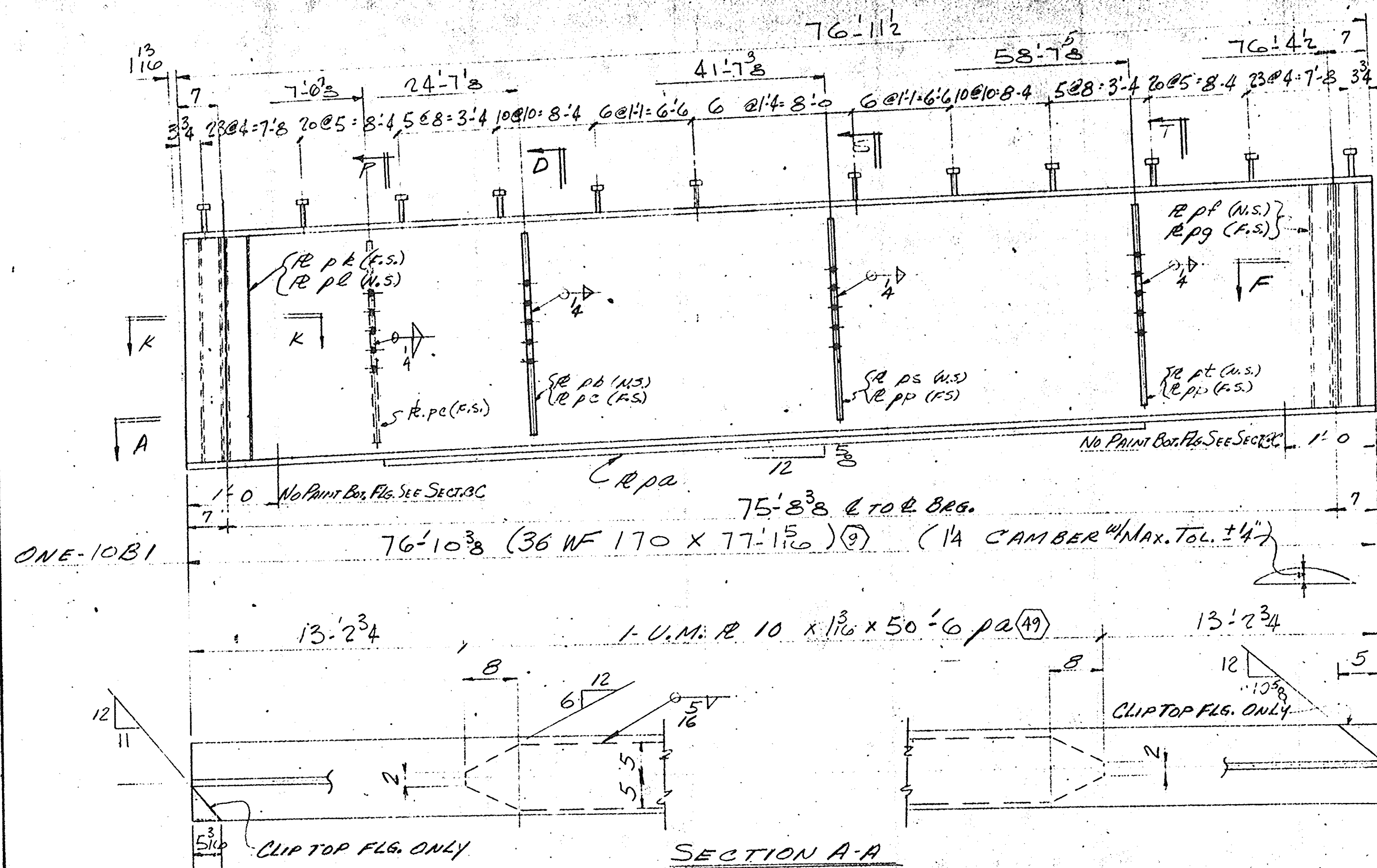
NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR B.F.H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
9-2-65	BY	GREENVILLE, S.C.	1

CUSTOMER	STRUCTURES, INC.
LOCATION	GREENVILLE, S.C.
JOB	Highway Bridge No. 1051.3 CHARLESTON

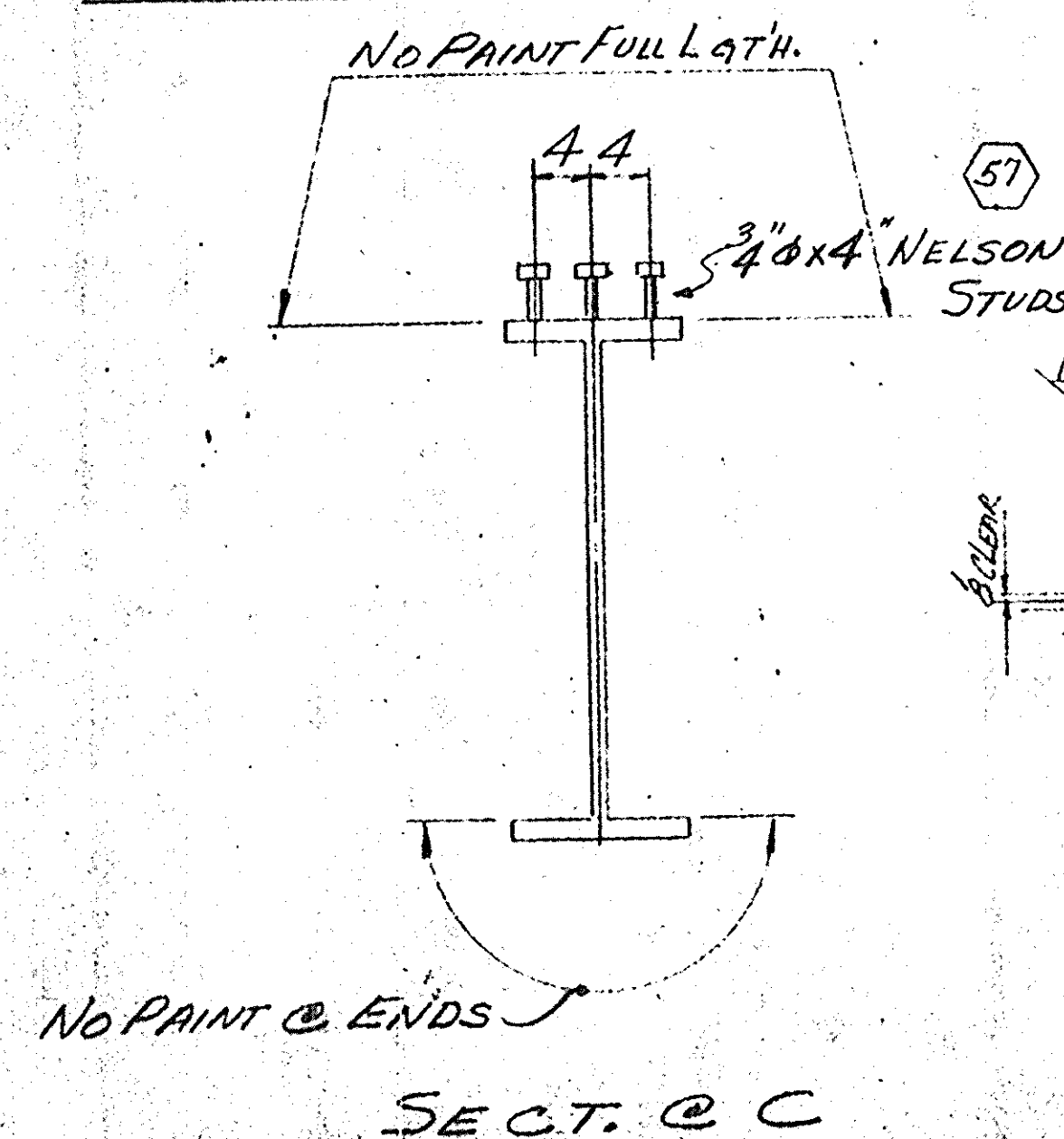
RIB BOLTS	2 1/2" x 4"
BOLTS	2 1/2" x 4"
RIVETS	2 1/2" x 4"
HOLES	1/2" UNLESS NOTED
SCALE	1" = 10'
SHEET NO.	3 OF 3

SHOP ORDER	5-21751
CHECKED BY	BY
DATE	9-2-65
DWG. NO.	43544-1

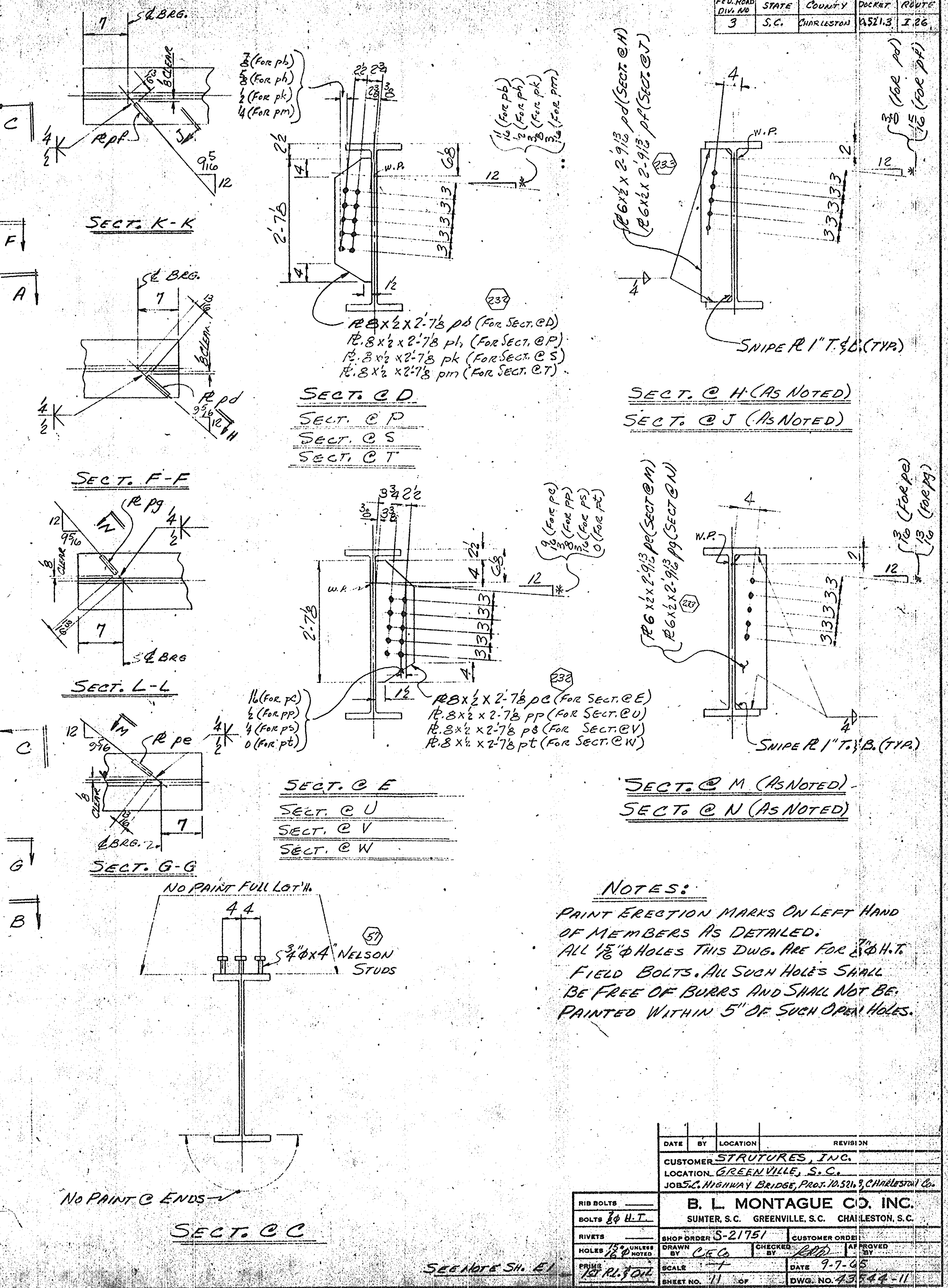
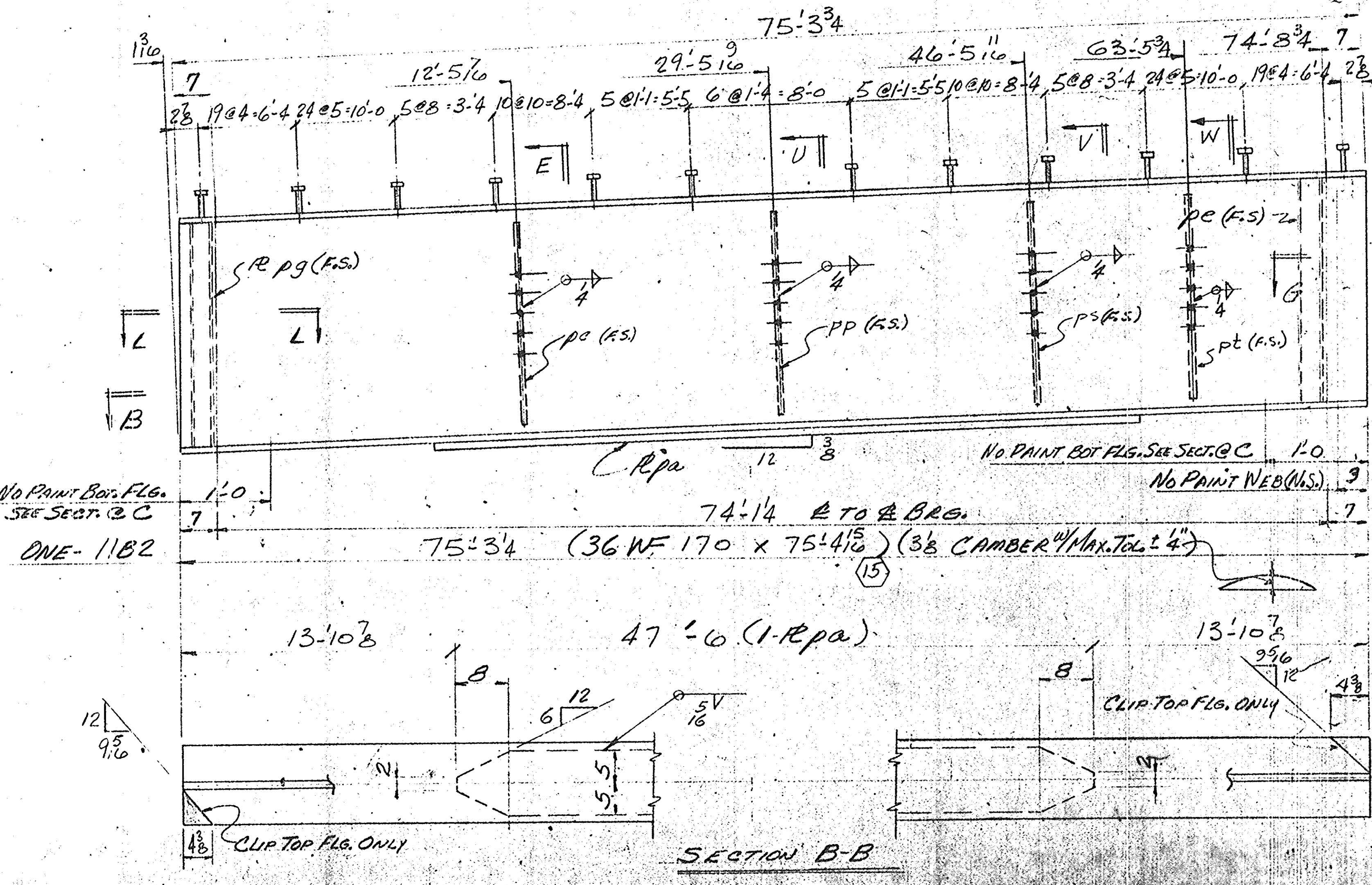
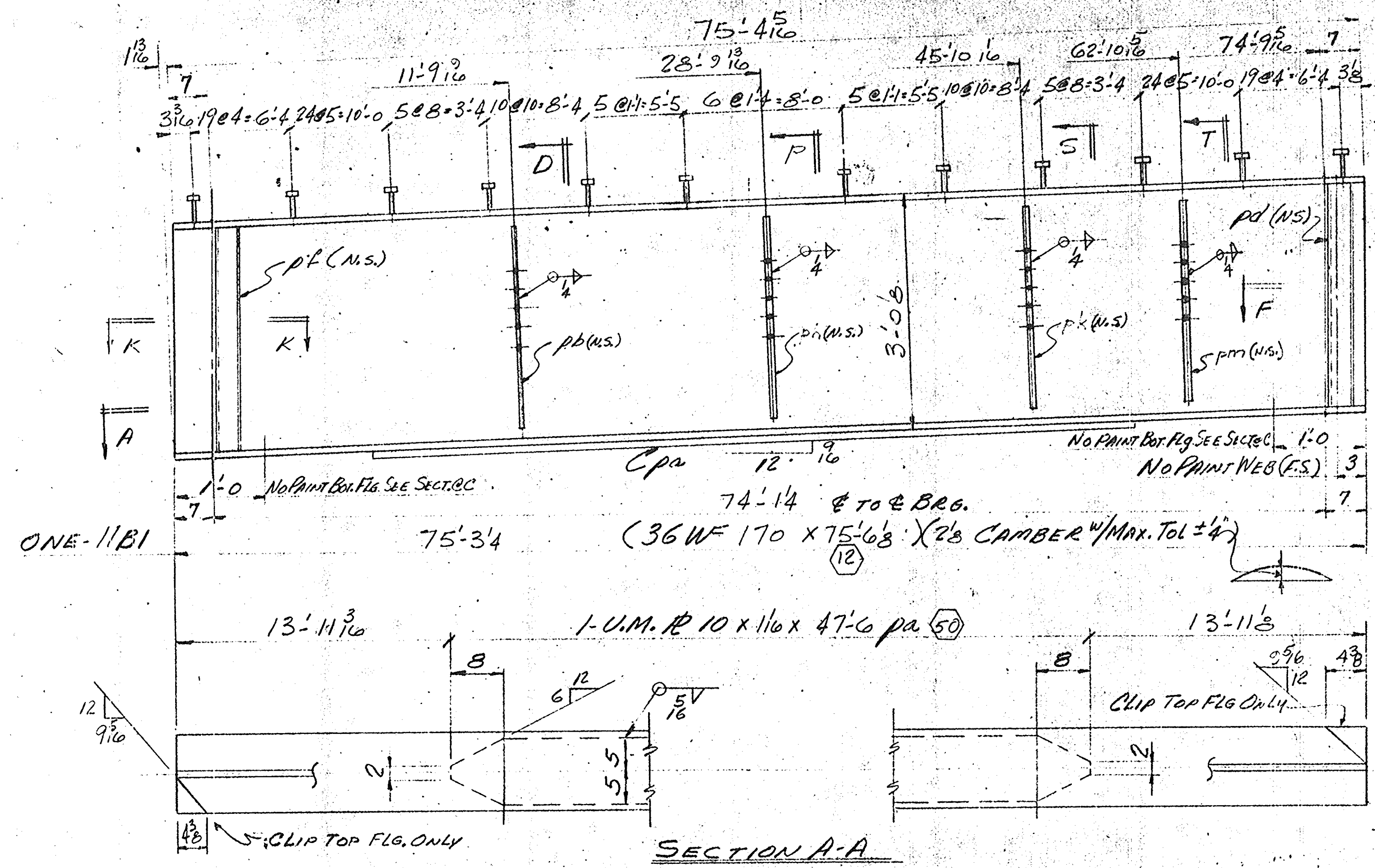


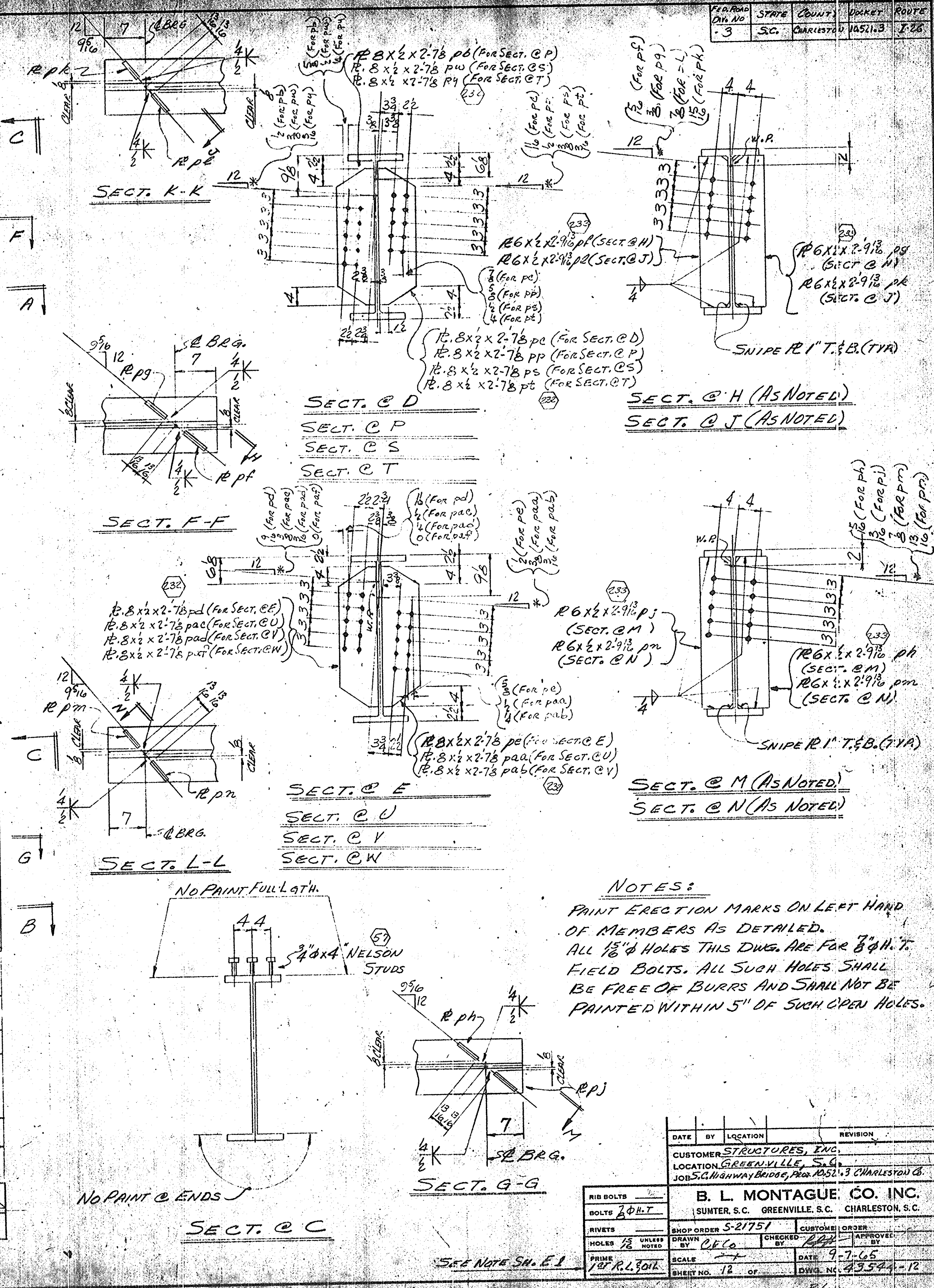
NOTES:

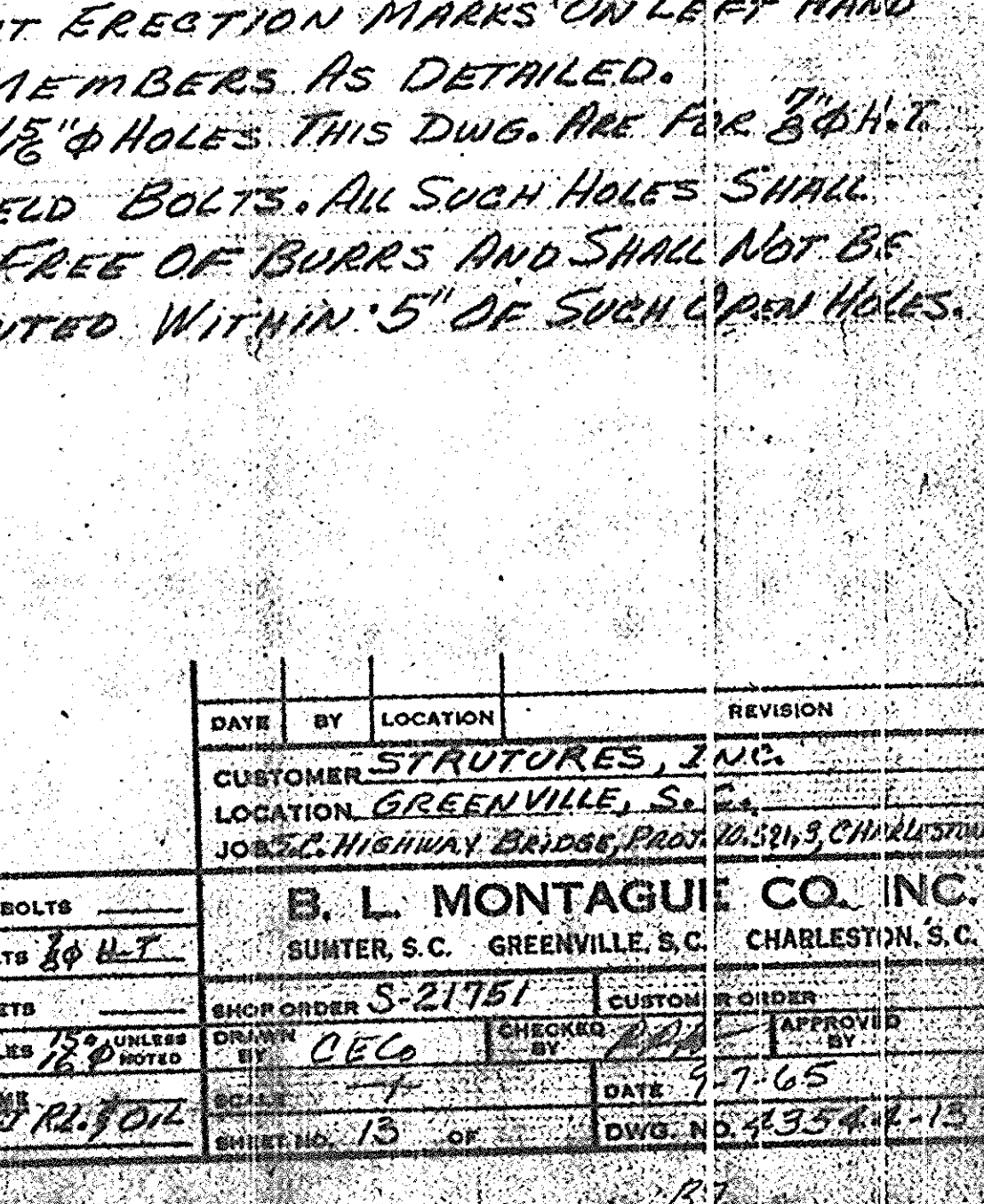
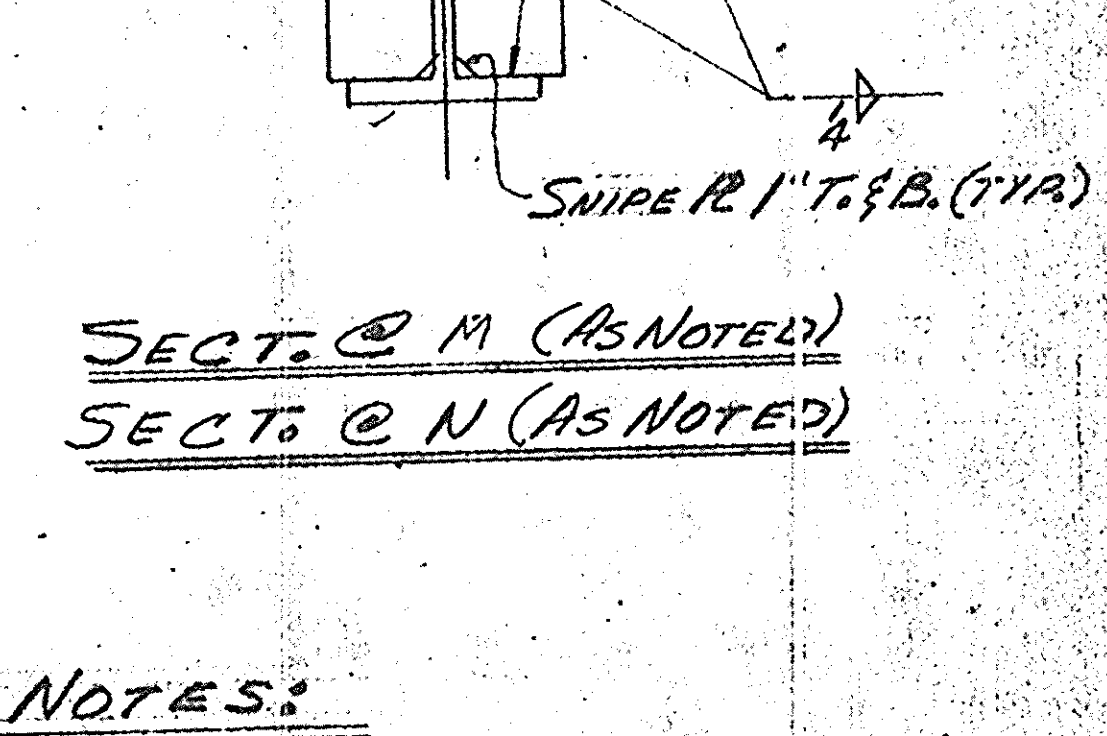
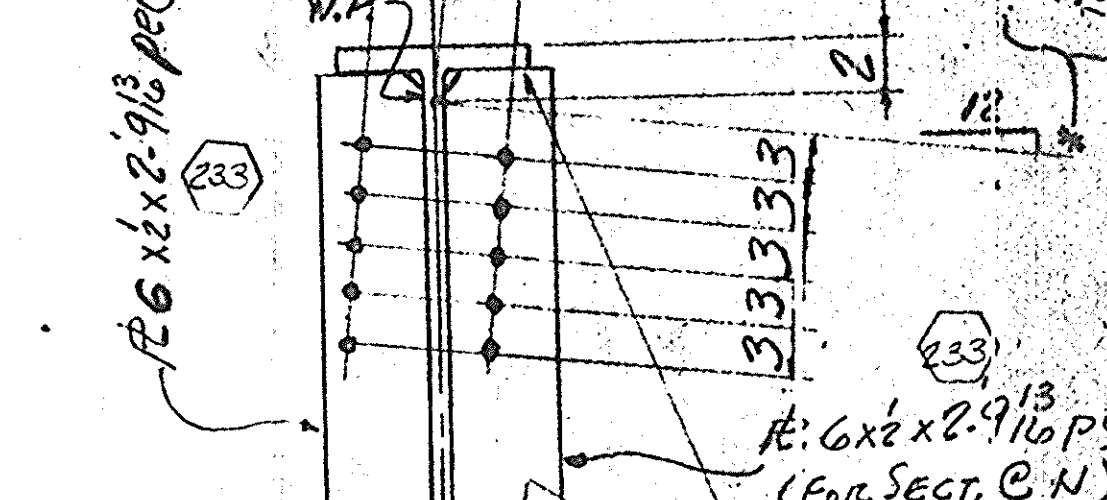
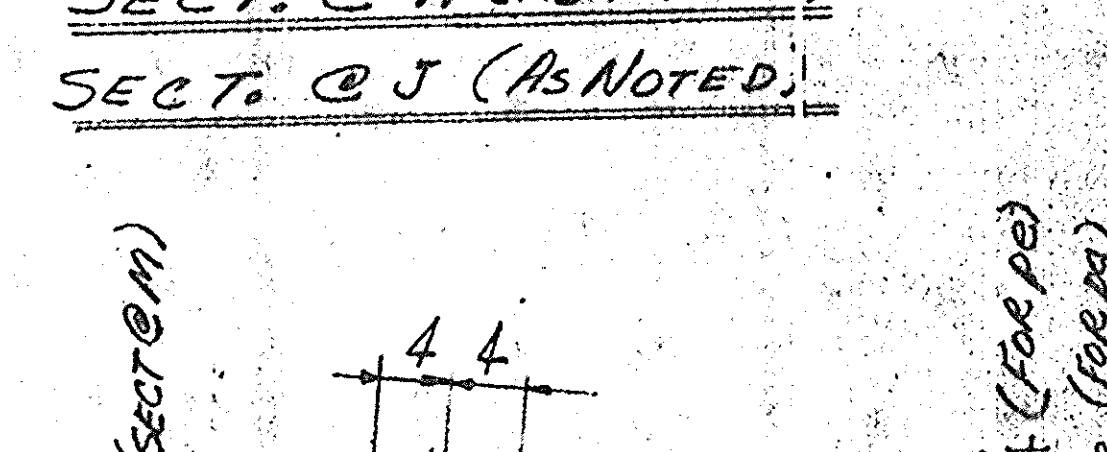
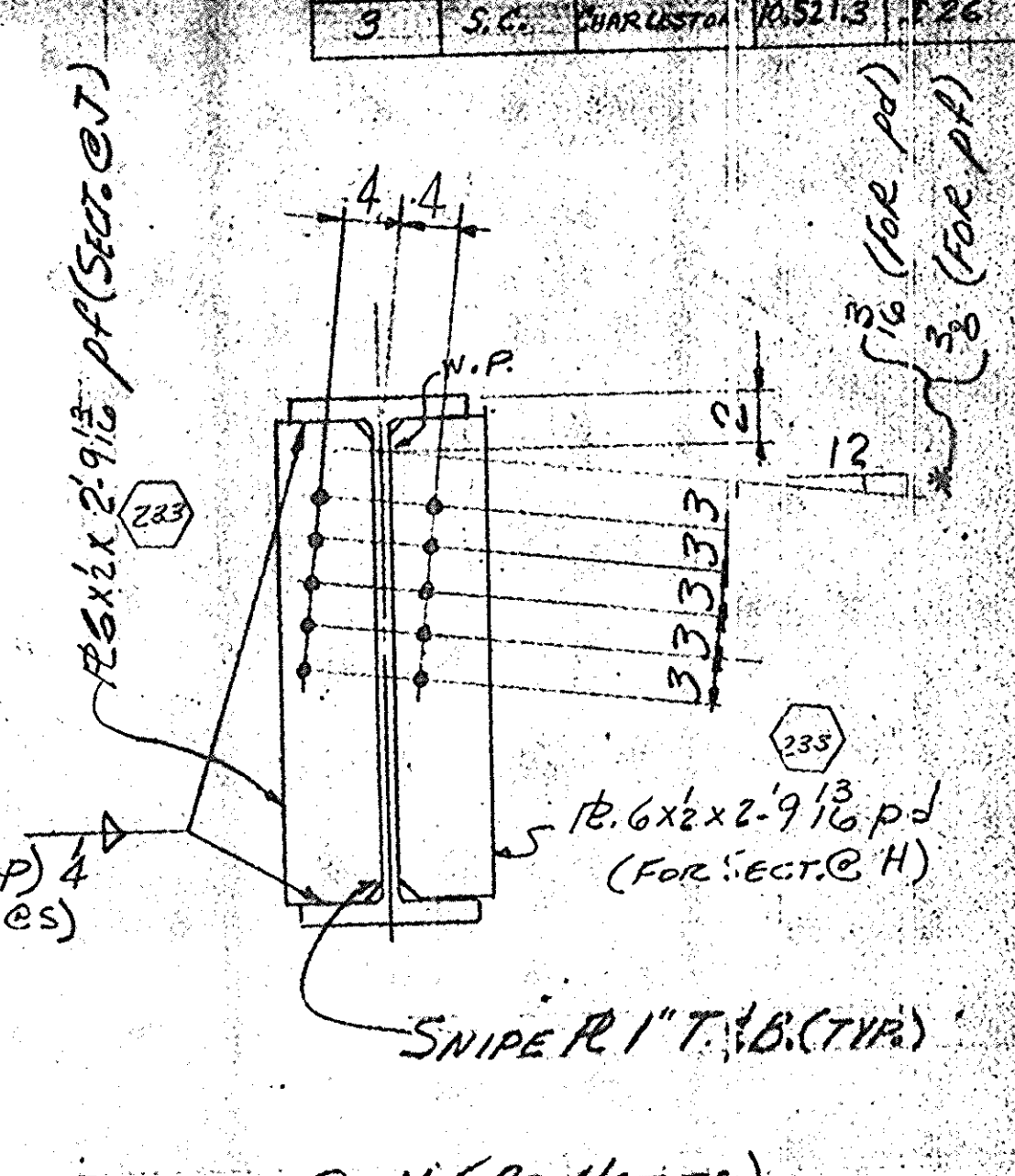
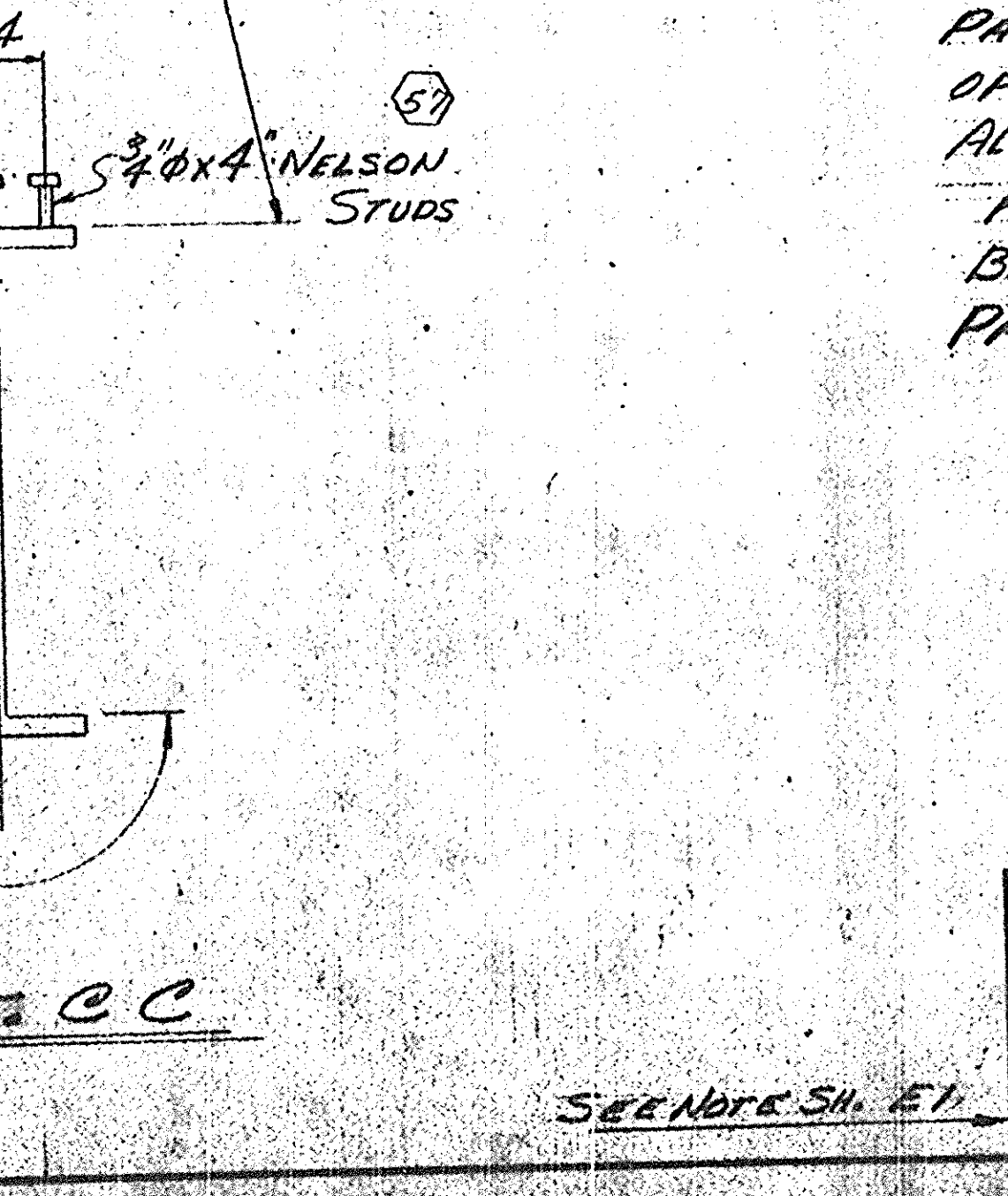
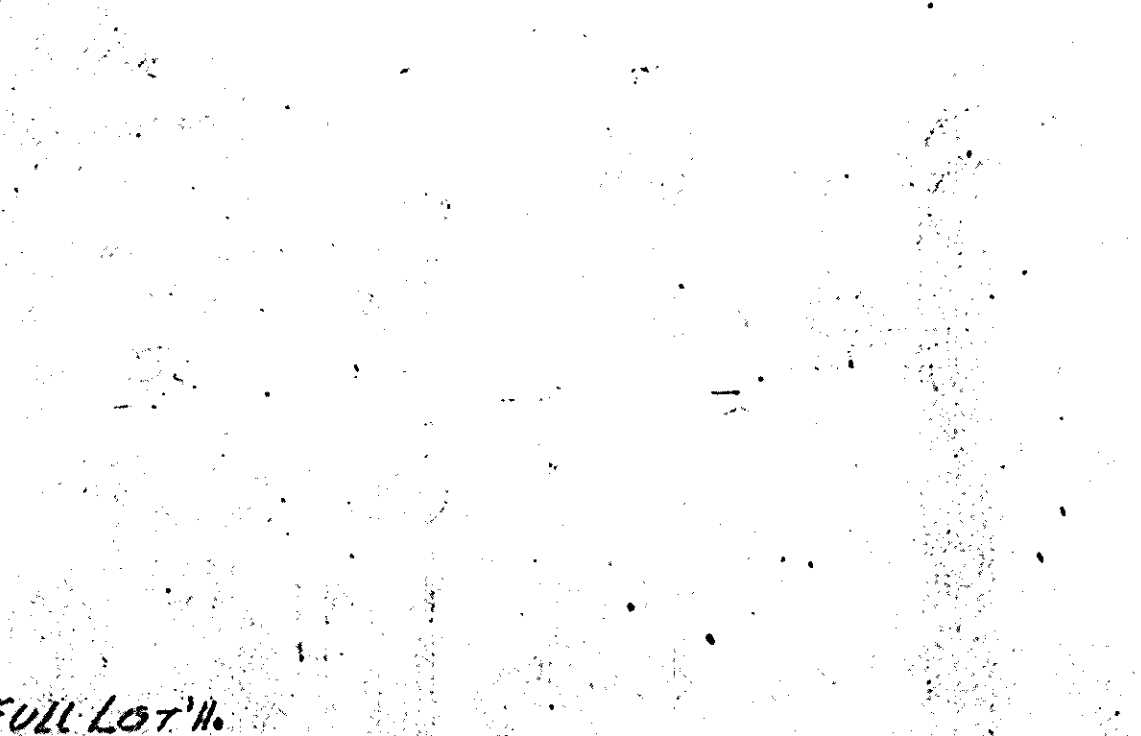
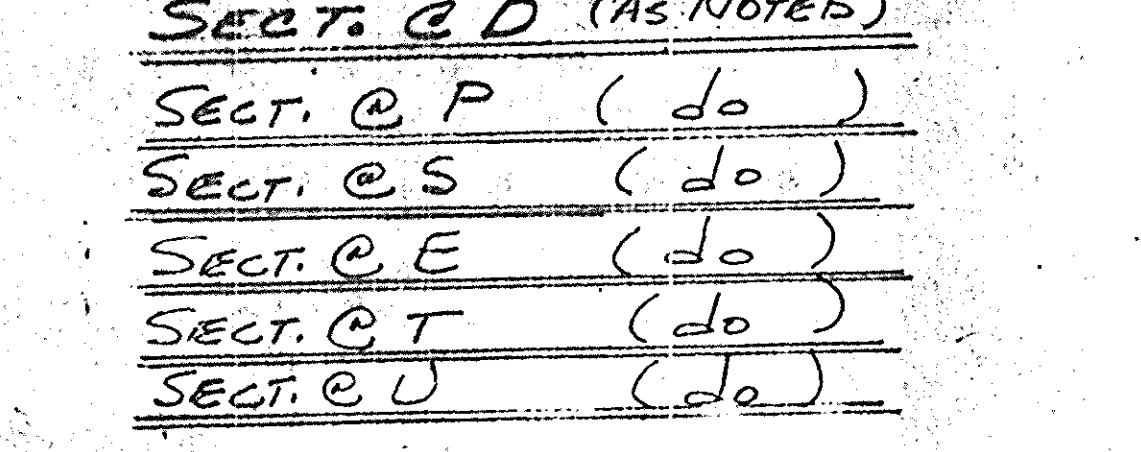
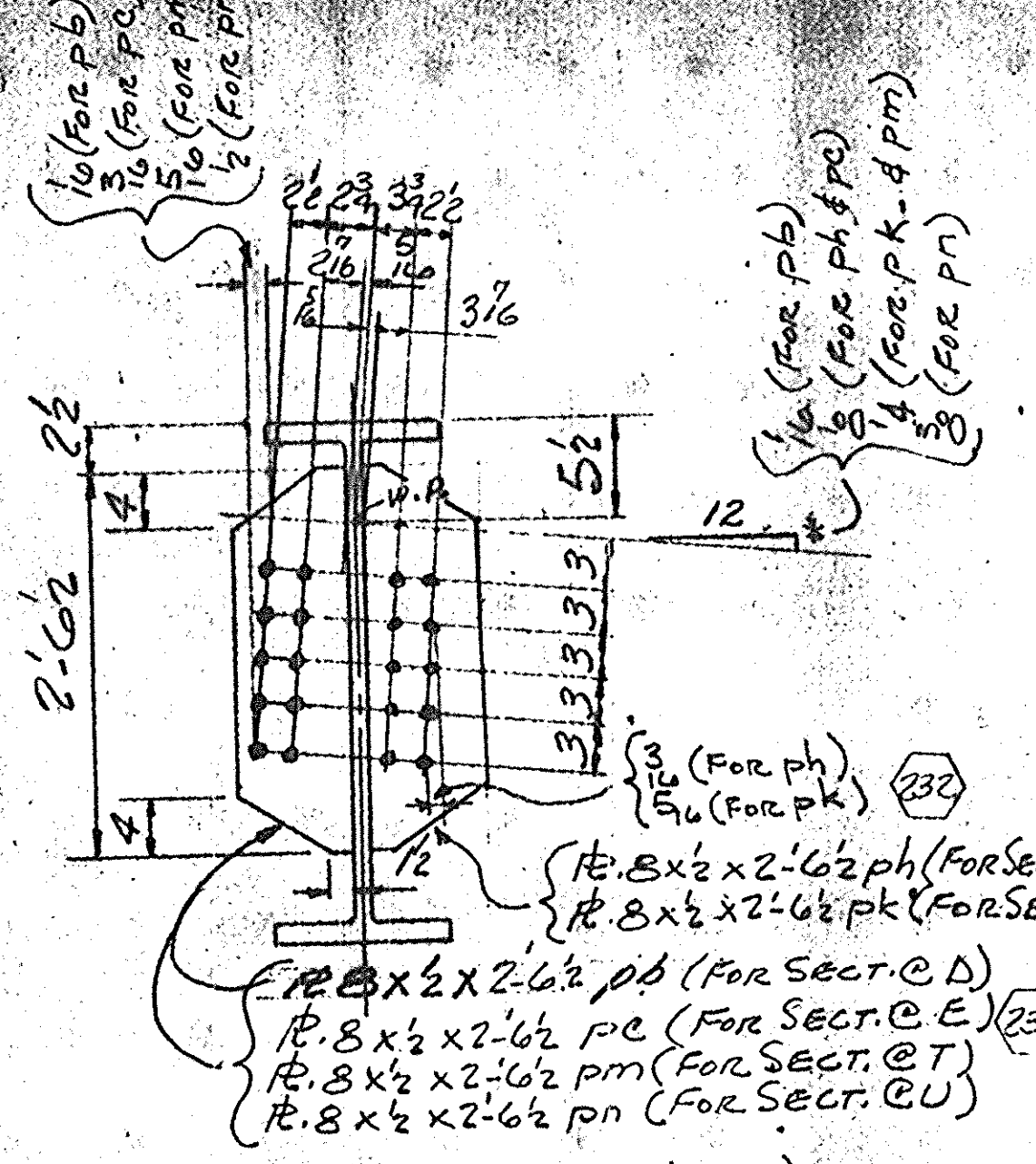
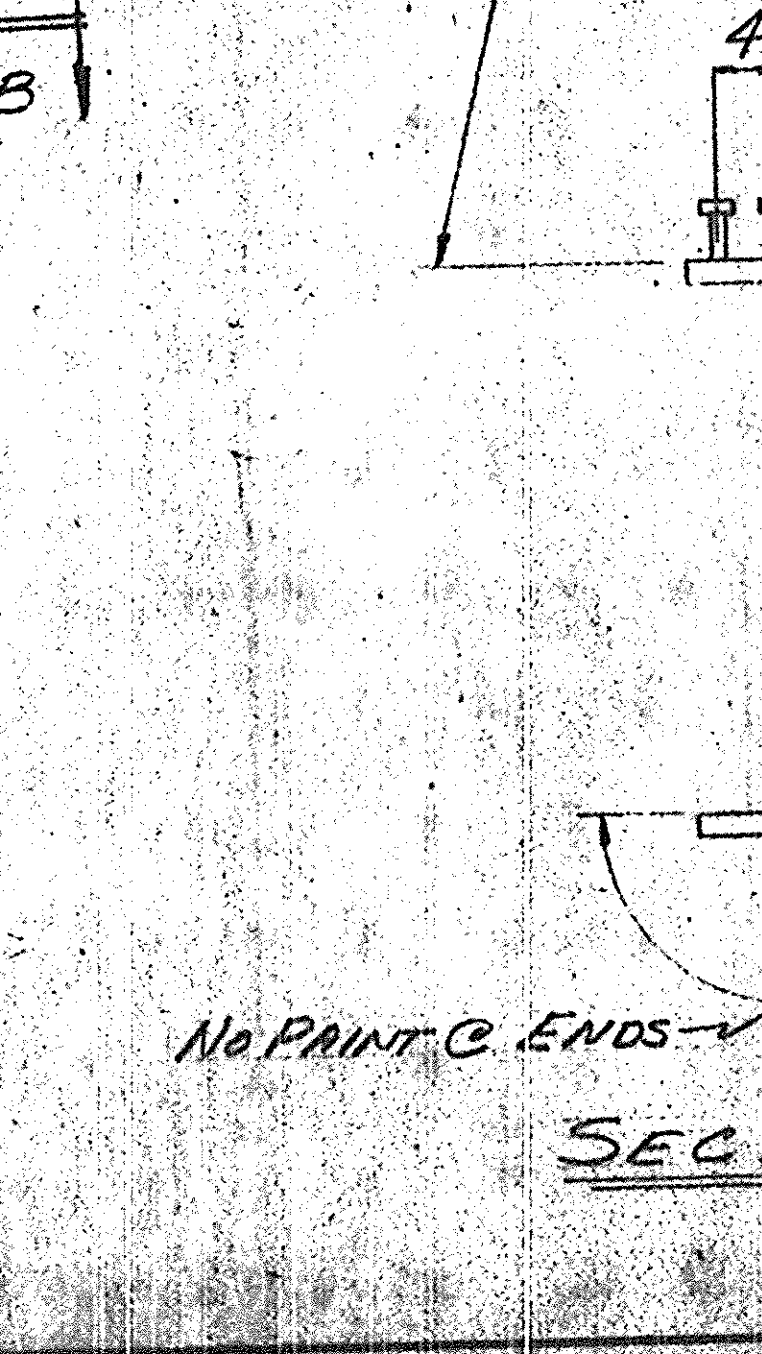
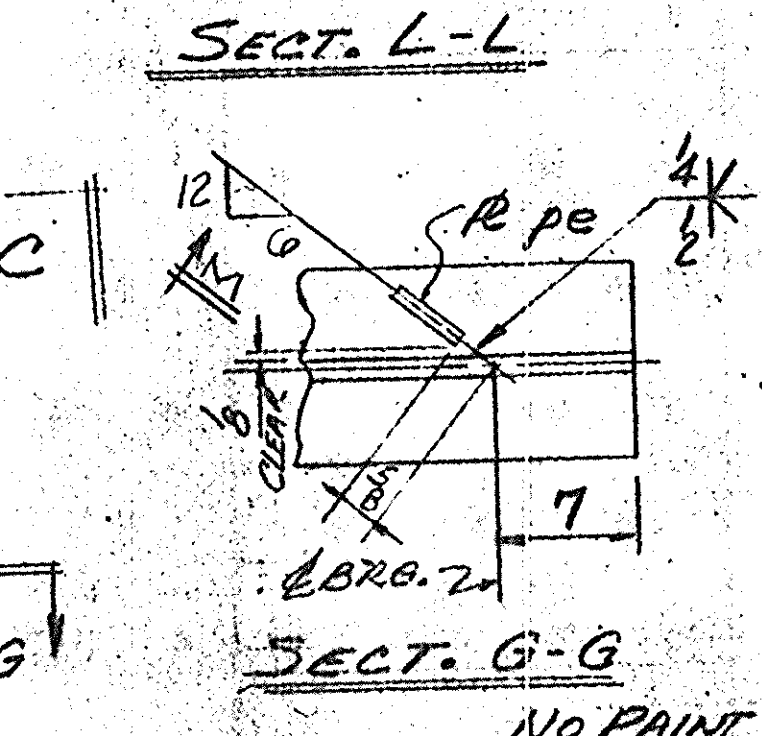
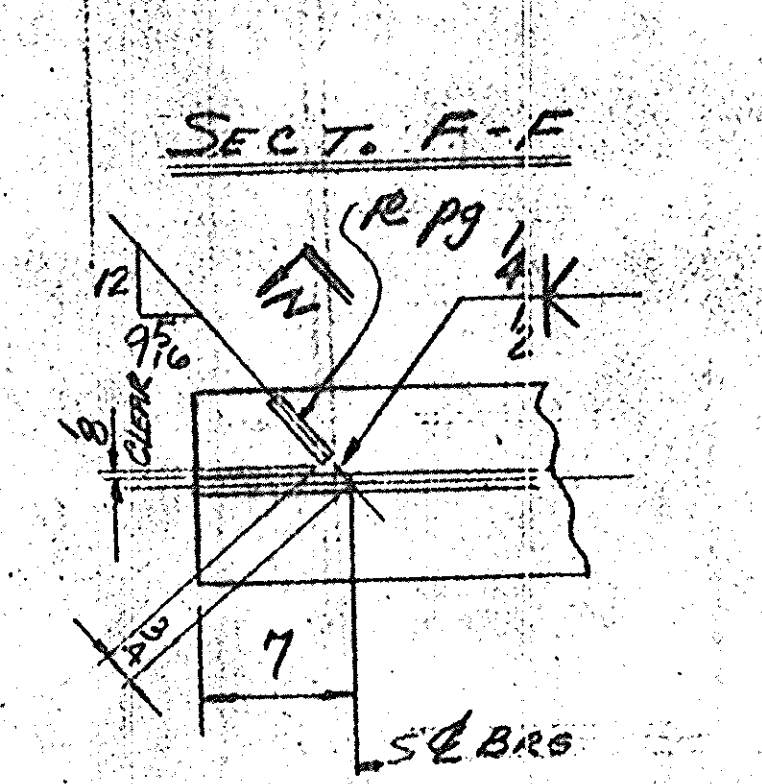
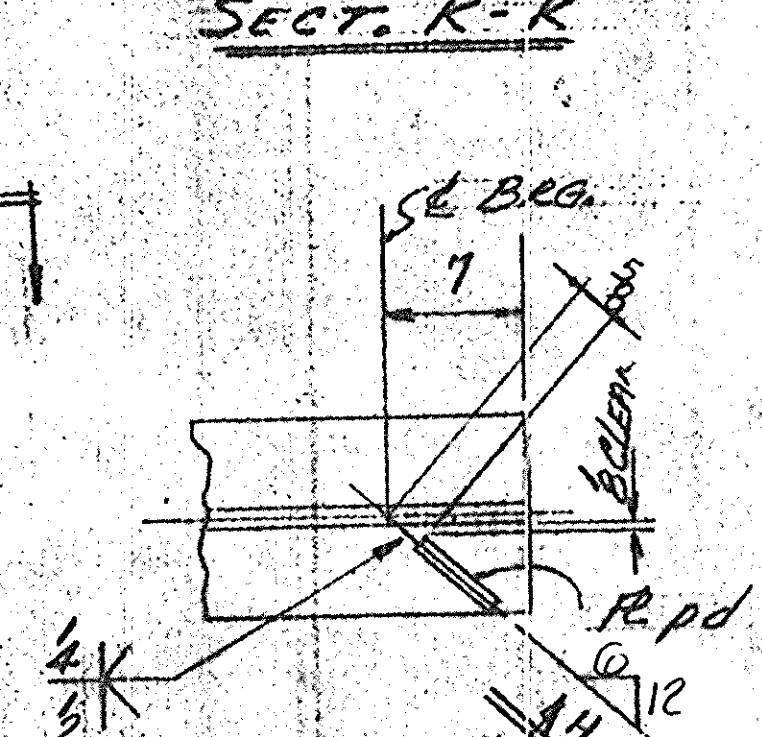
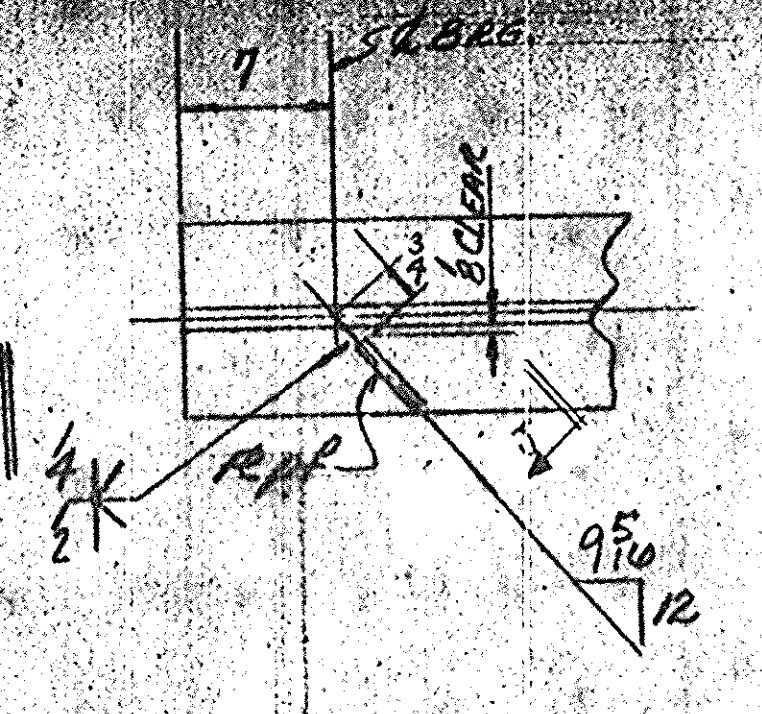
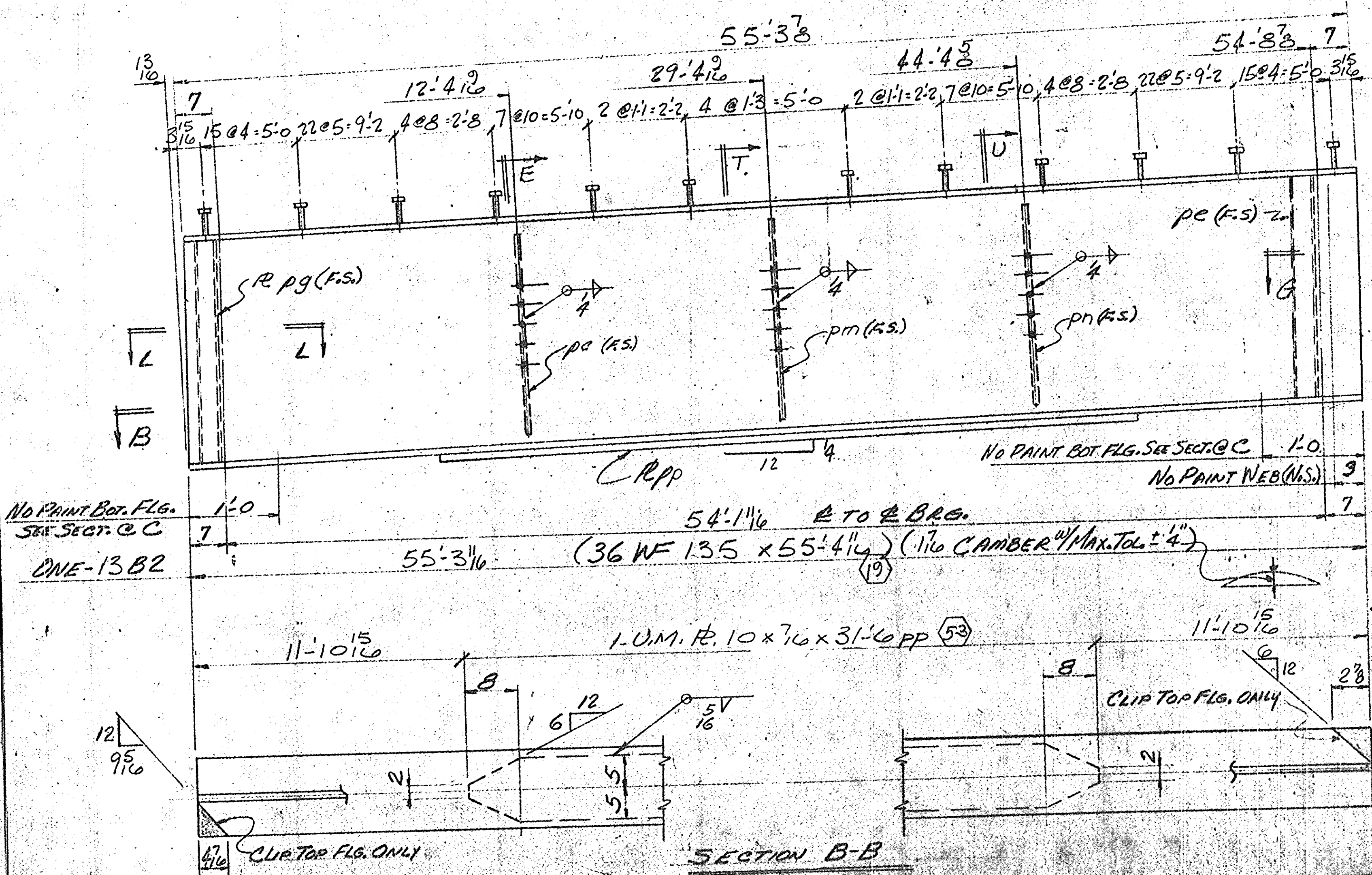
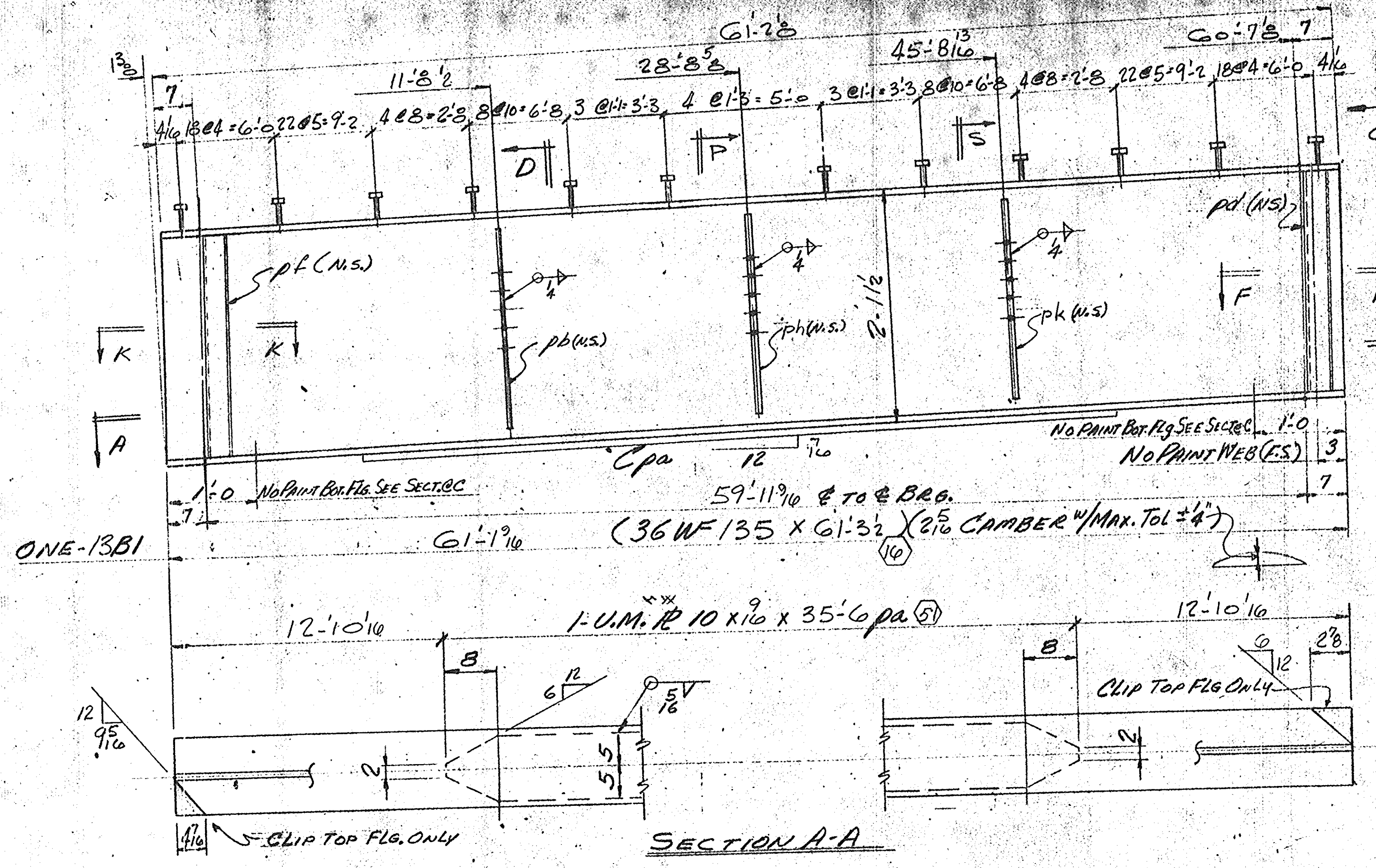
PAINT ERECTION MARKS ON LEFT HAND
OF MEMBERS AS DETAILED.
ALL 1 1/2" Ø HOLES THIS DWG. ARE FOR 3" Ø H. T.
FIELD BOLTS. ALL SUCH HOLES SHALL
BE FREE OF BURRS AND SHALL NOT BE
PAINTED WITHIN 5" OF SUCH OPEN HOLES.



DATE	BY	LOCATION	REVISION	
CUSTOMER <u>STRUCTURES, INC.</u>				
LOCATION <u>GREENVILLE, S.C.</u>				
JOB <u>S.G. Highway Bridge, Proj. 10511, Charleston C.</u>				
B. L. MONTAGUE CO. INC.				
SUNTER, S.C. GREENVILLE, S.C.			CHARLESTON, S.C.	
SHOP ORDER <u>5-21751</u>		CUSTOMER ORDER		
DRAWN BY <u>C.E.C.</u>	CHECKED BY <u>REB</u>	APPROVED BY		
SCALE <u>1" = 10'</u>	DATE <u>9-15-66</u>			
DWG. NO. <u>10</u>		DWG. NO. <u>13544-10</u>		

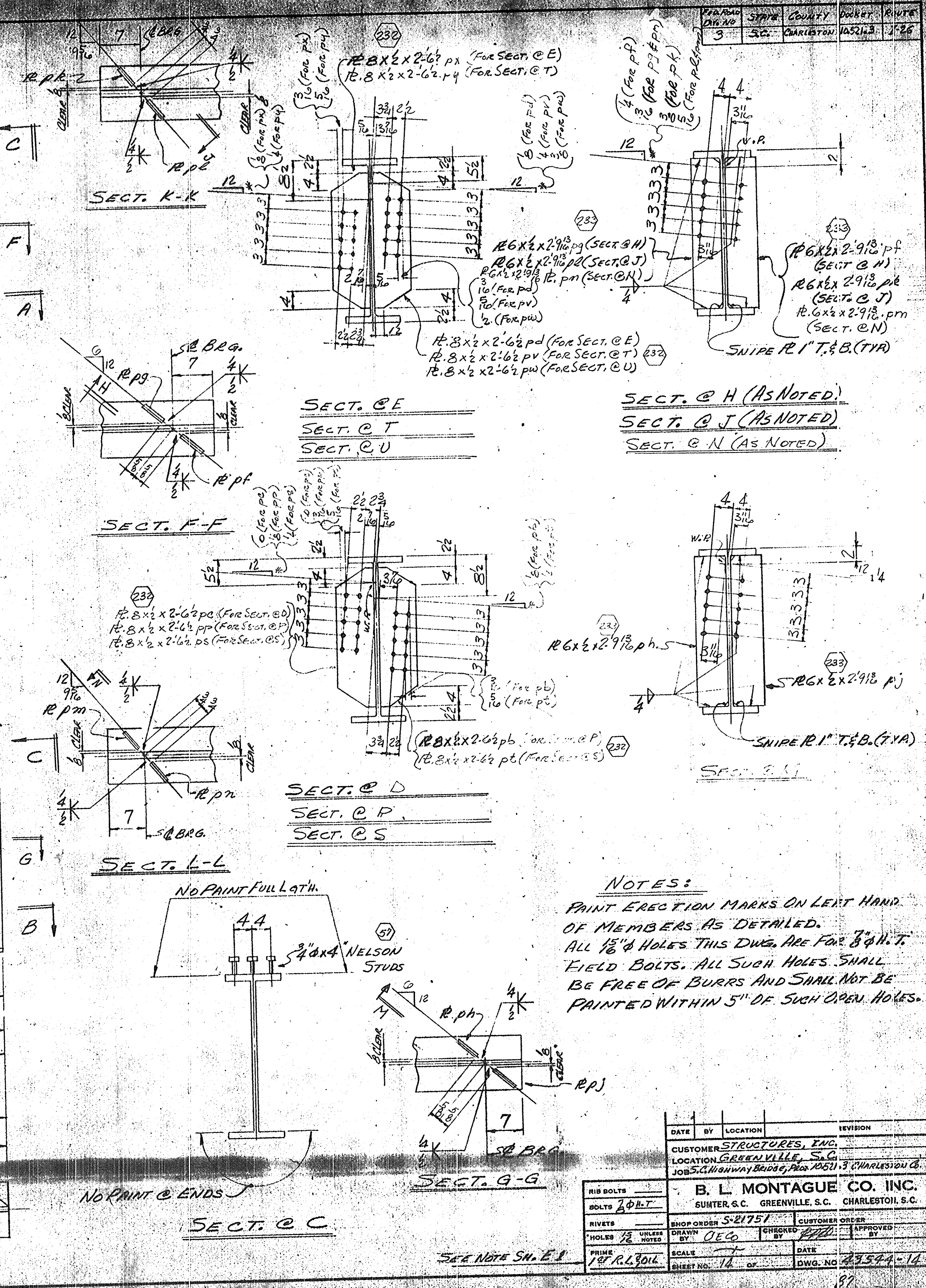
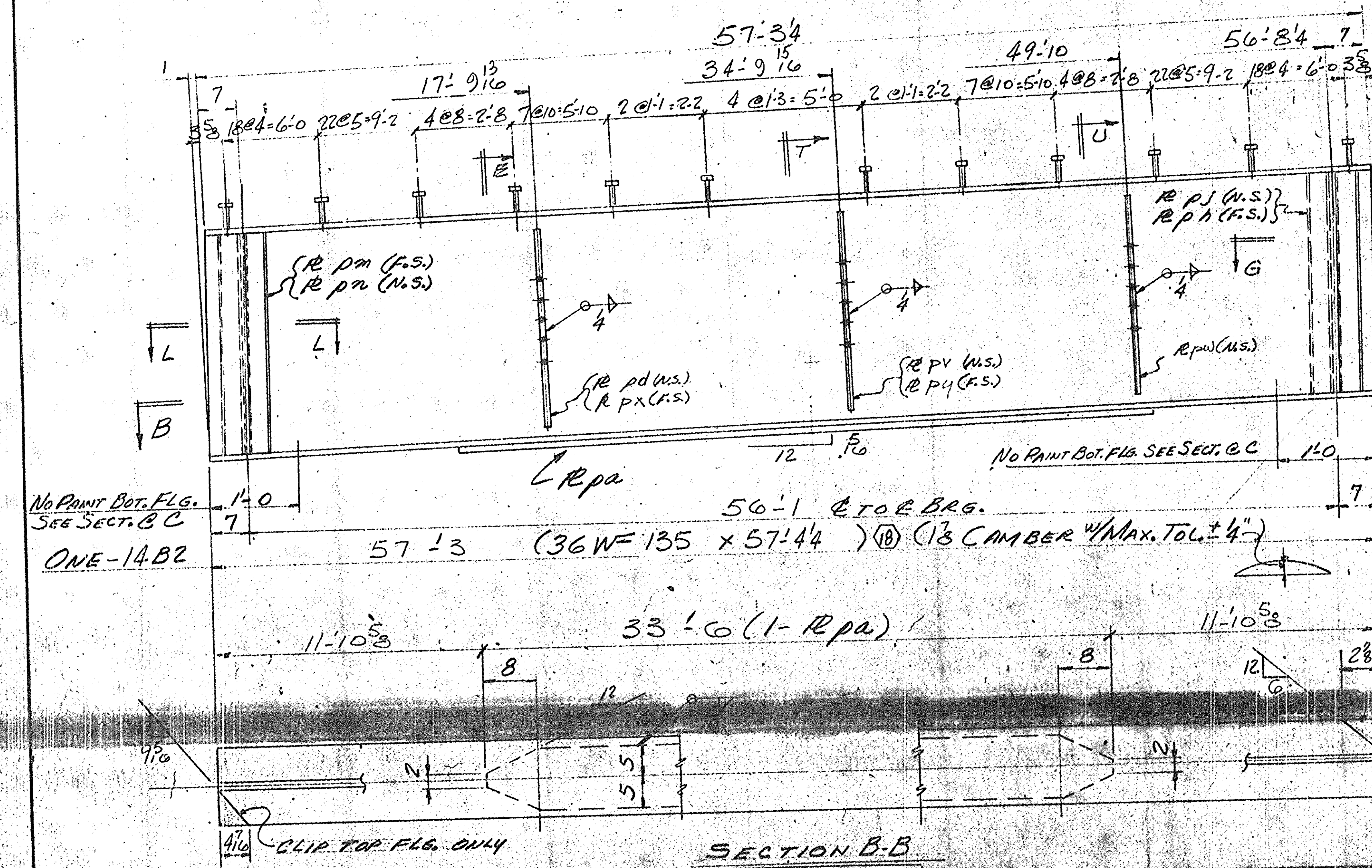
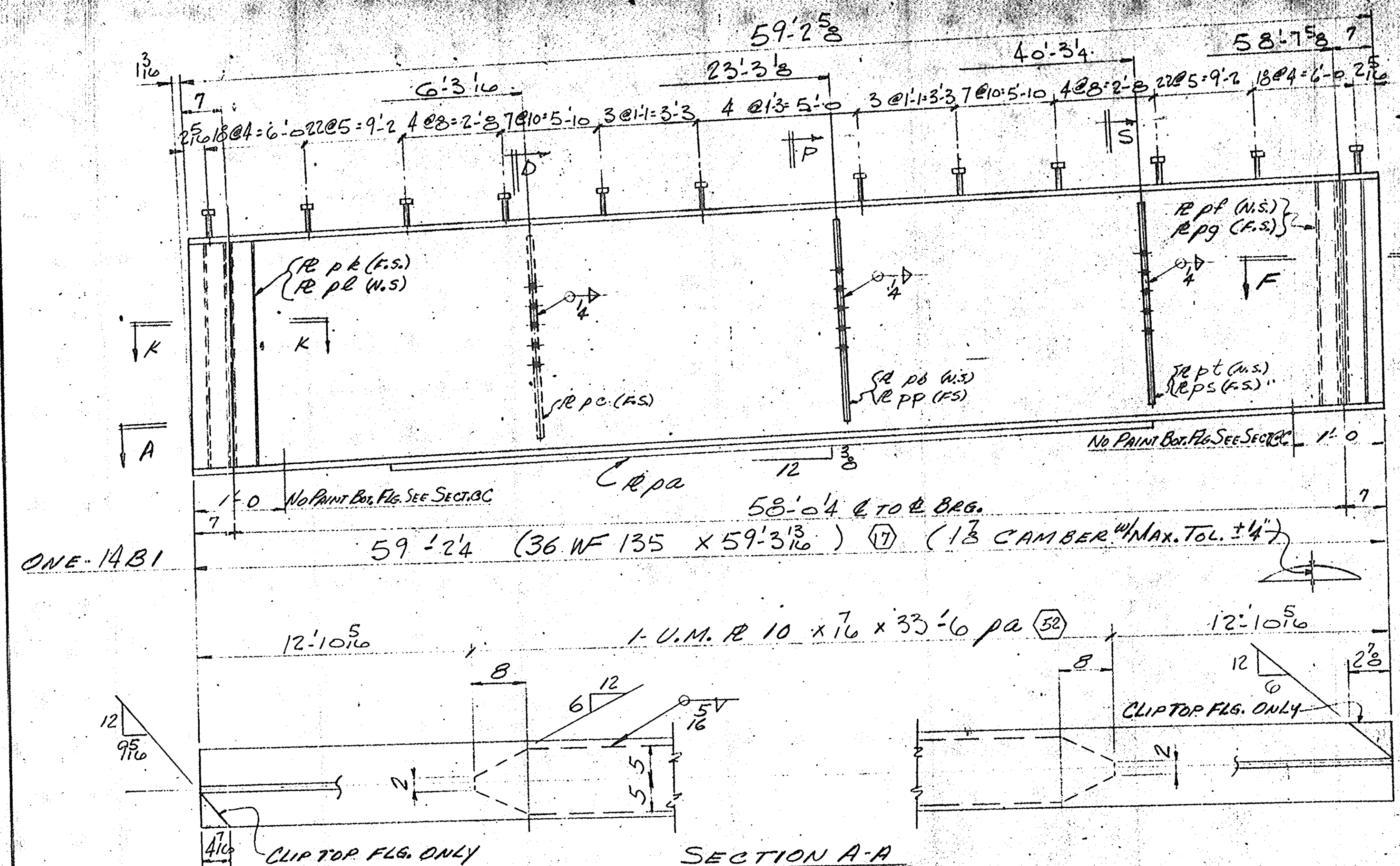






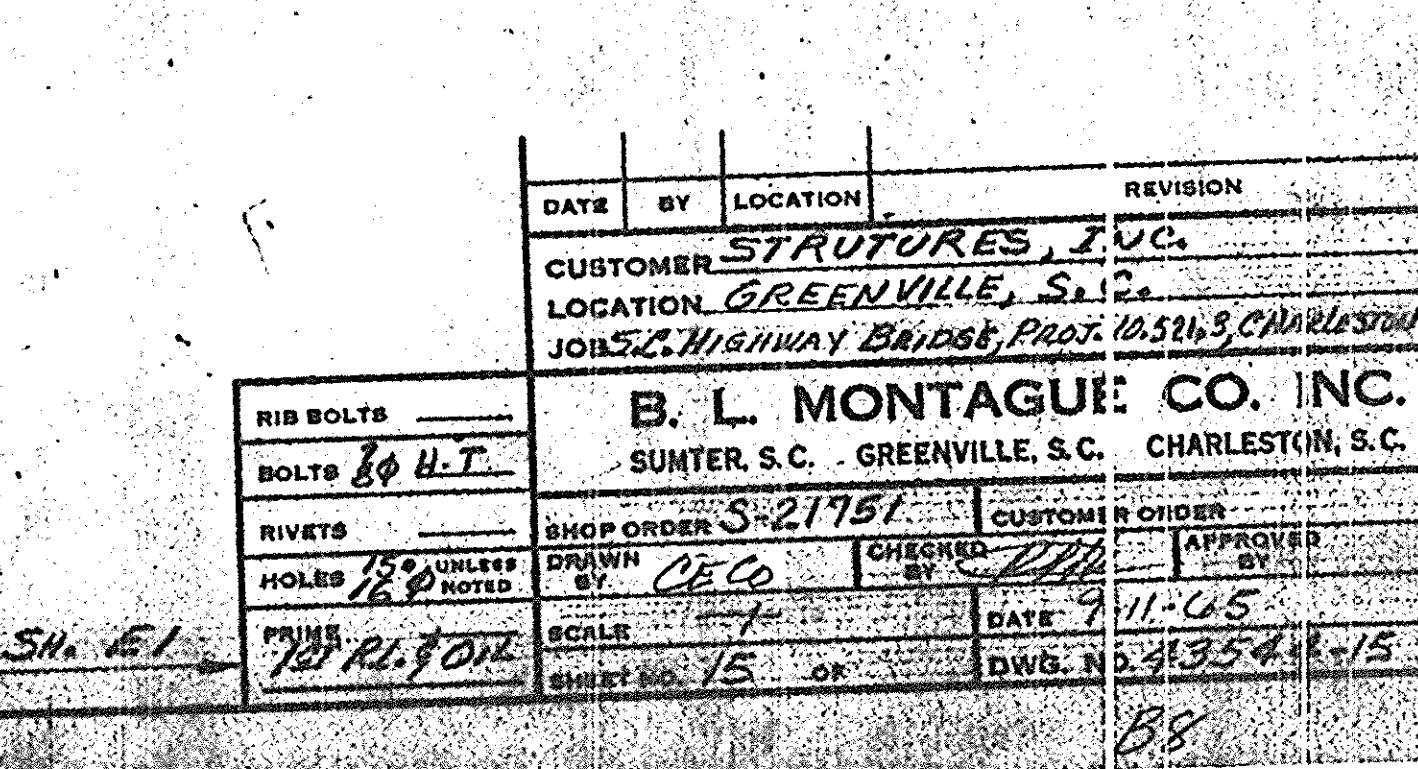
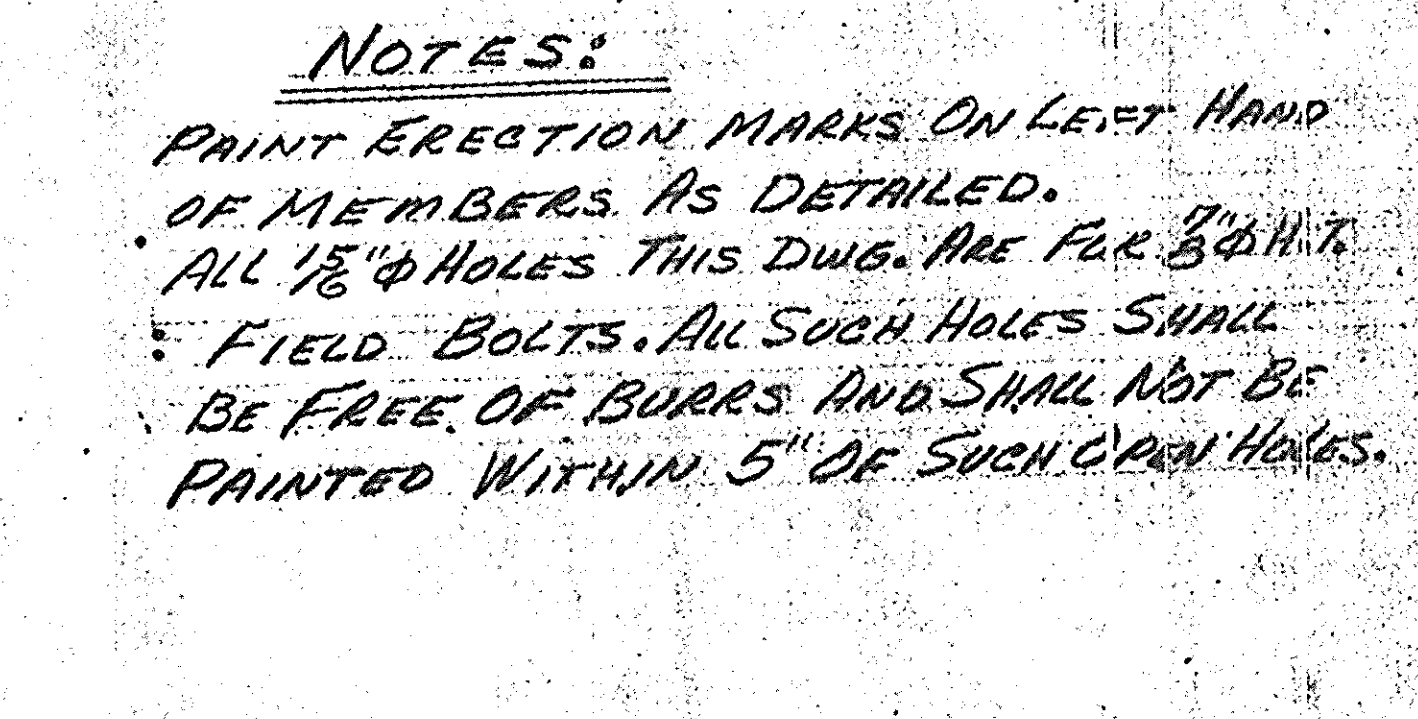
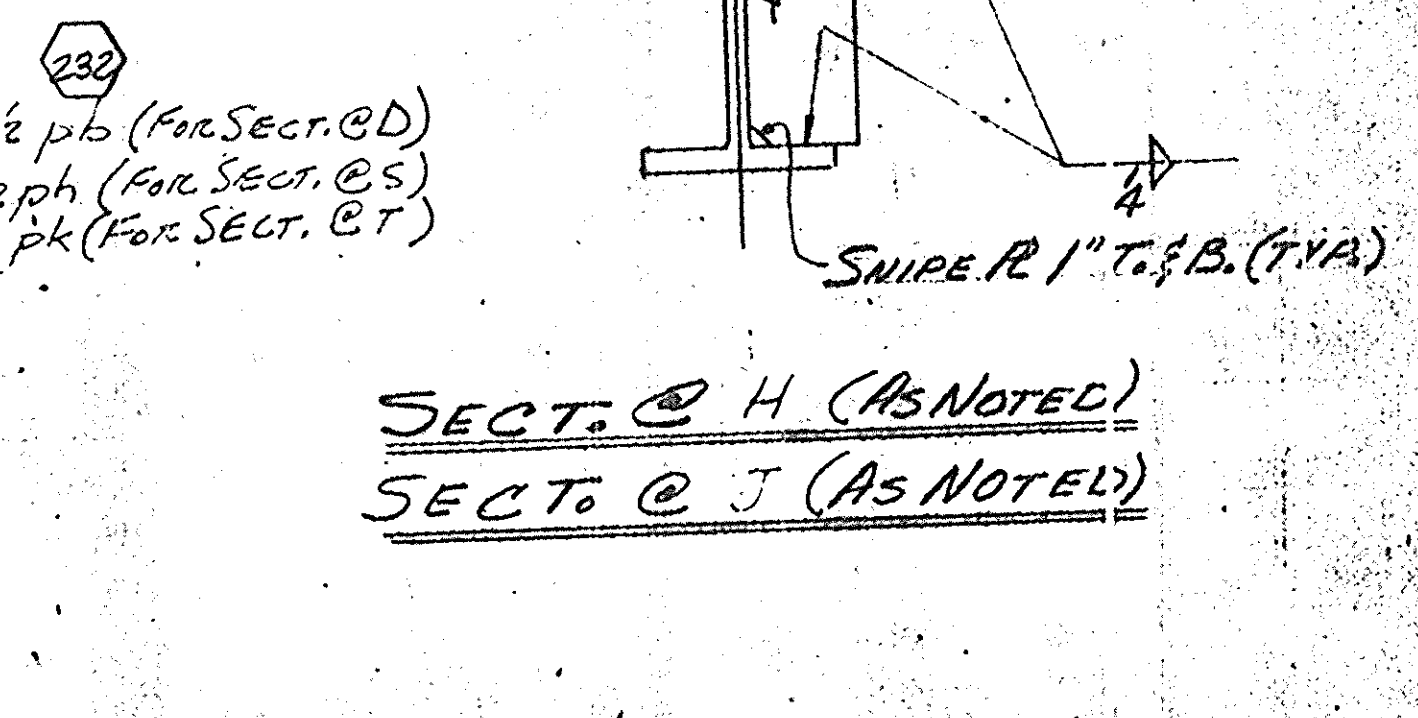
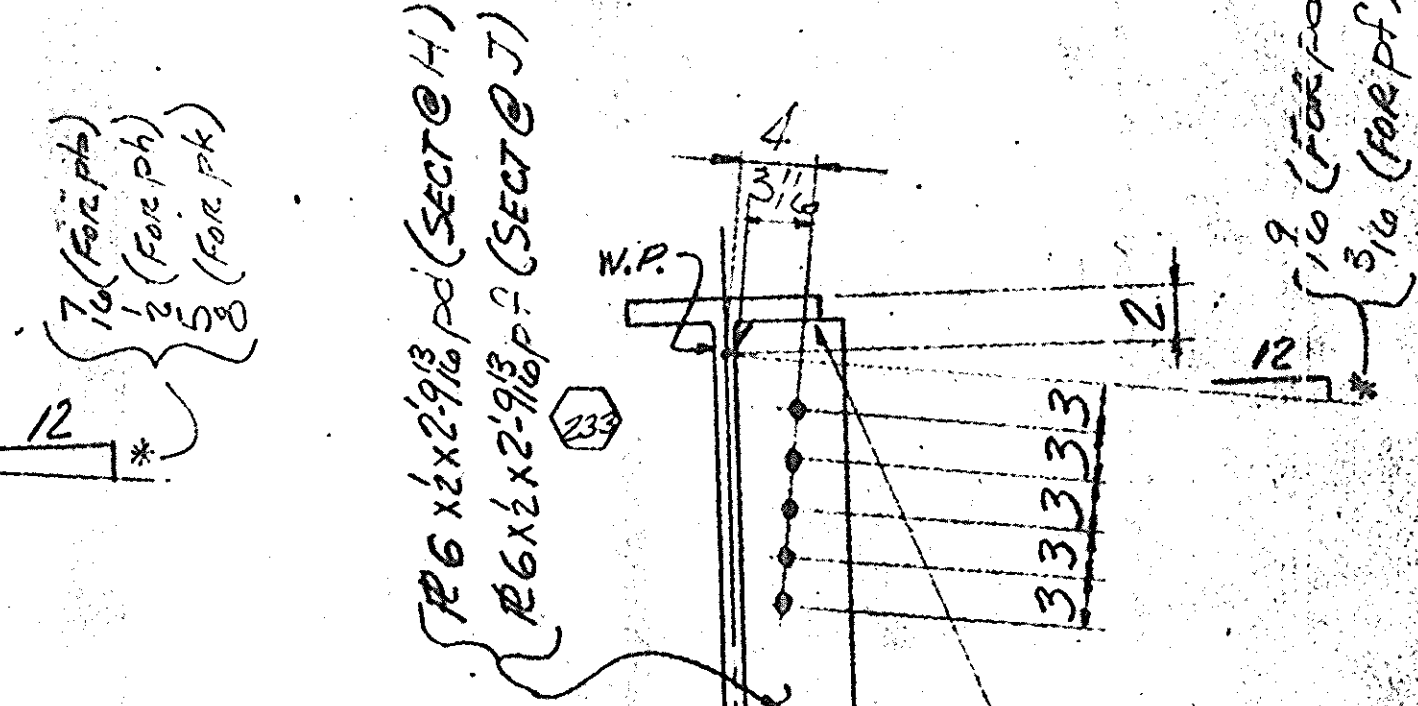
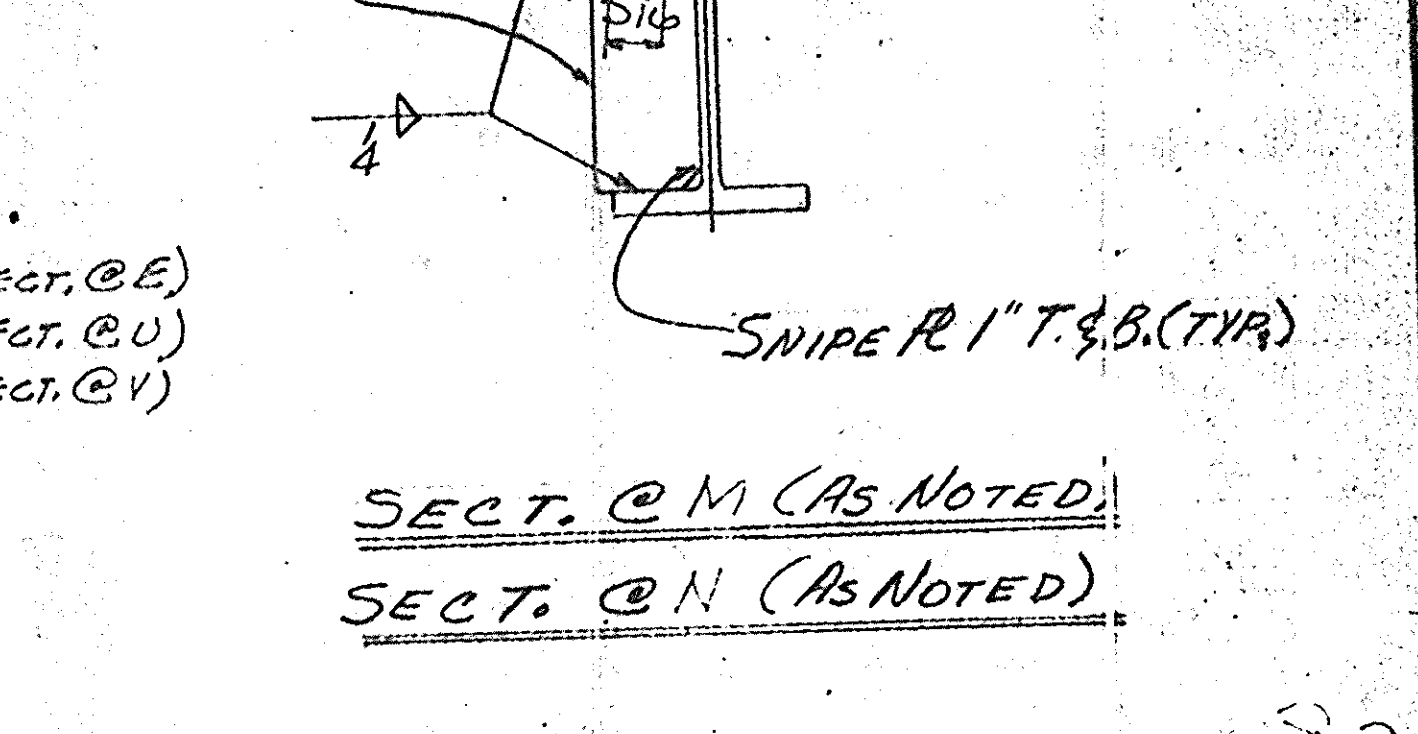
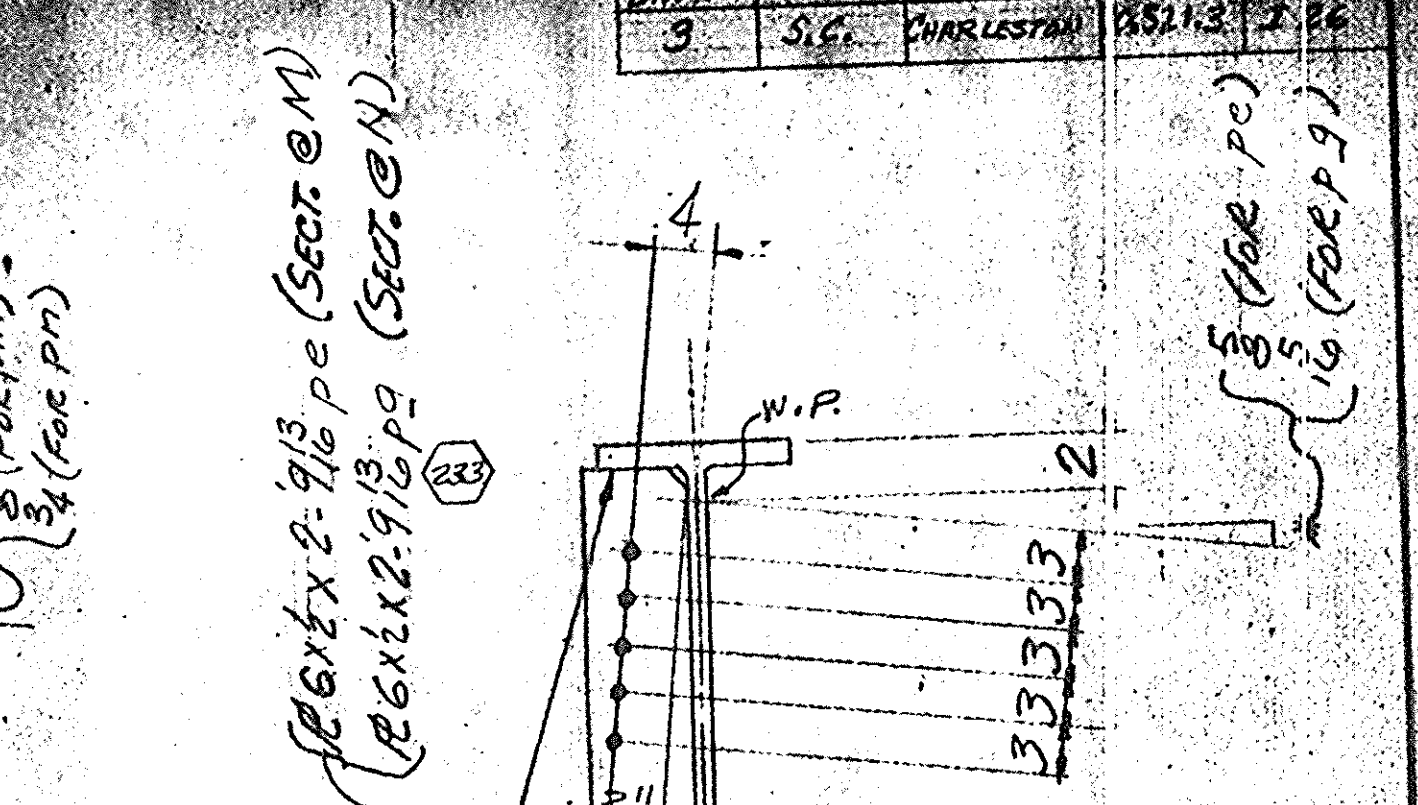
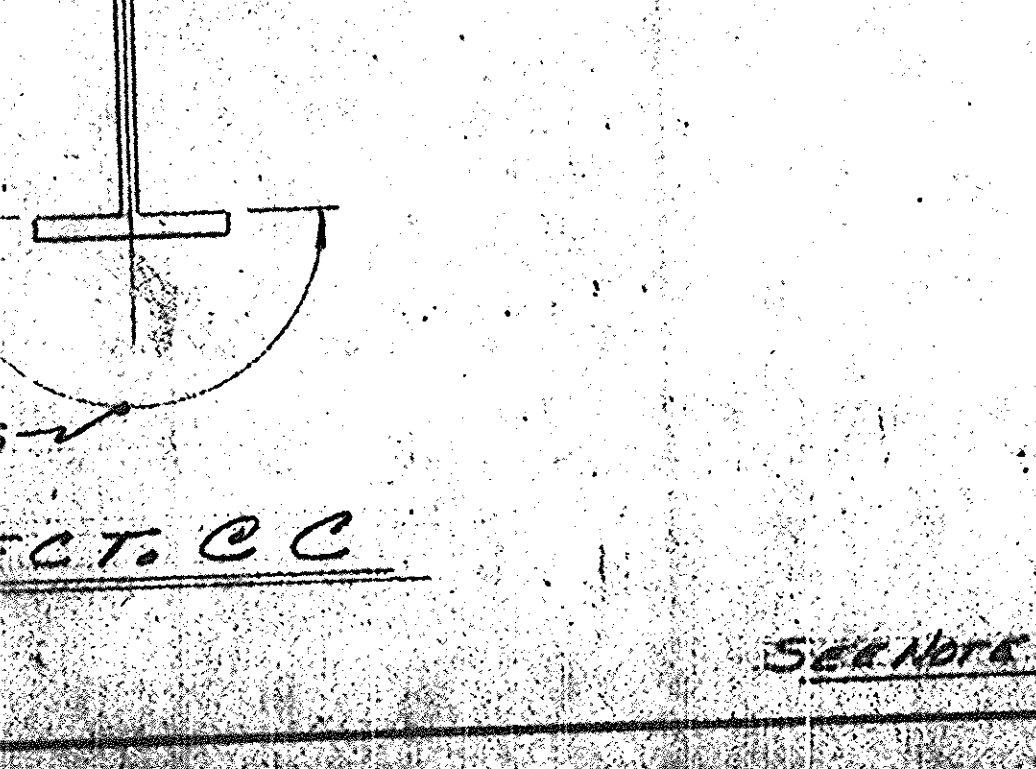
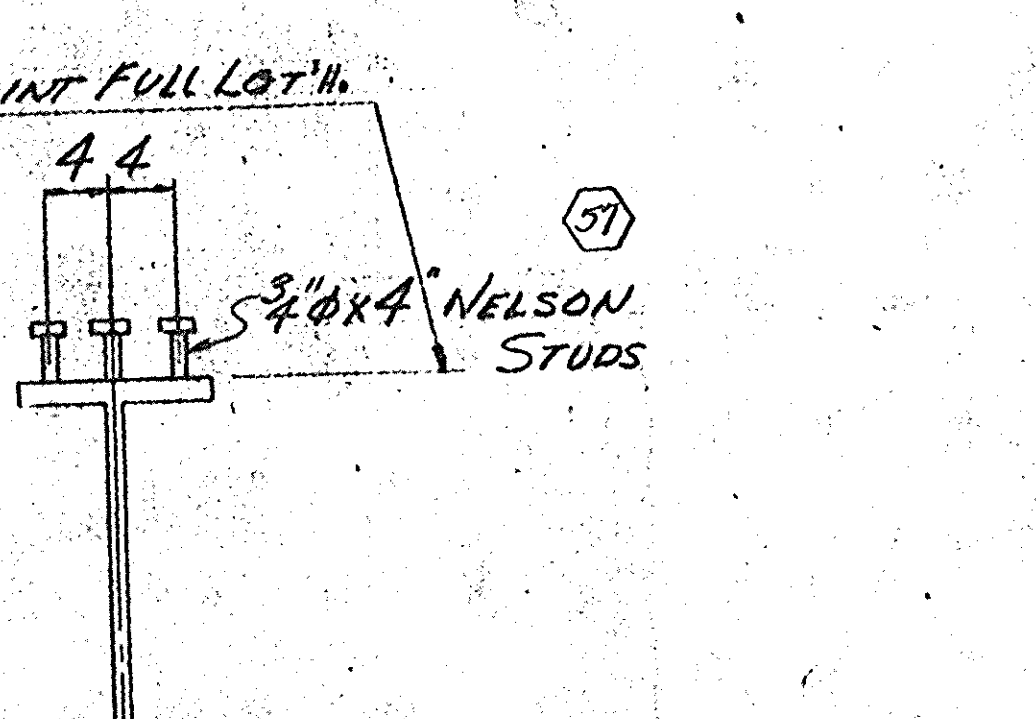
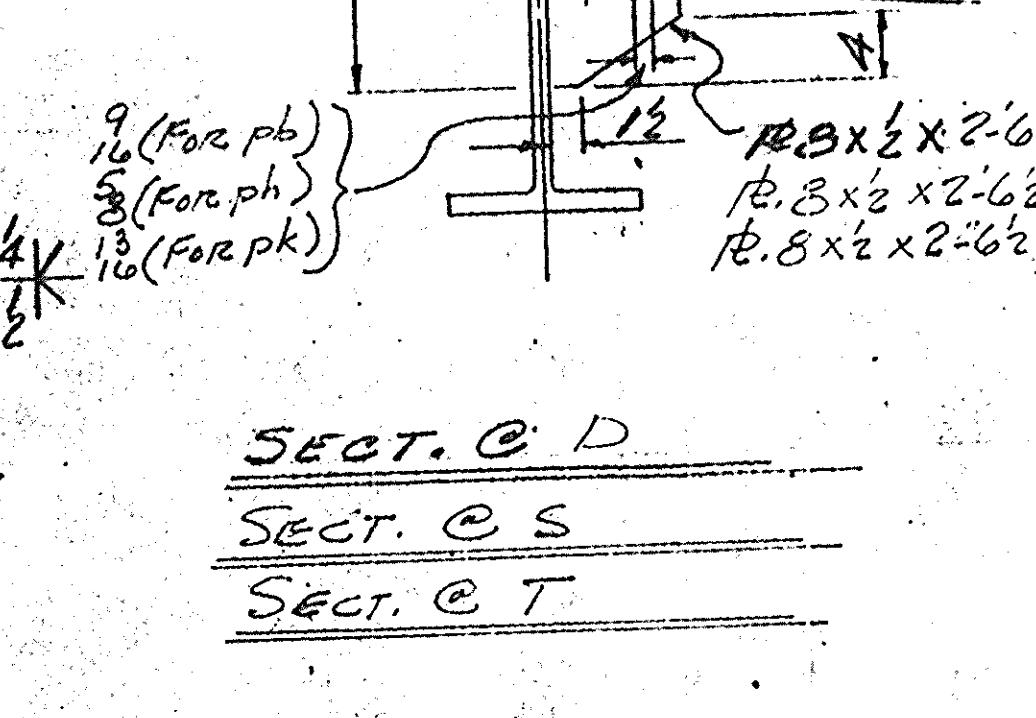
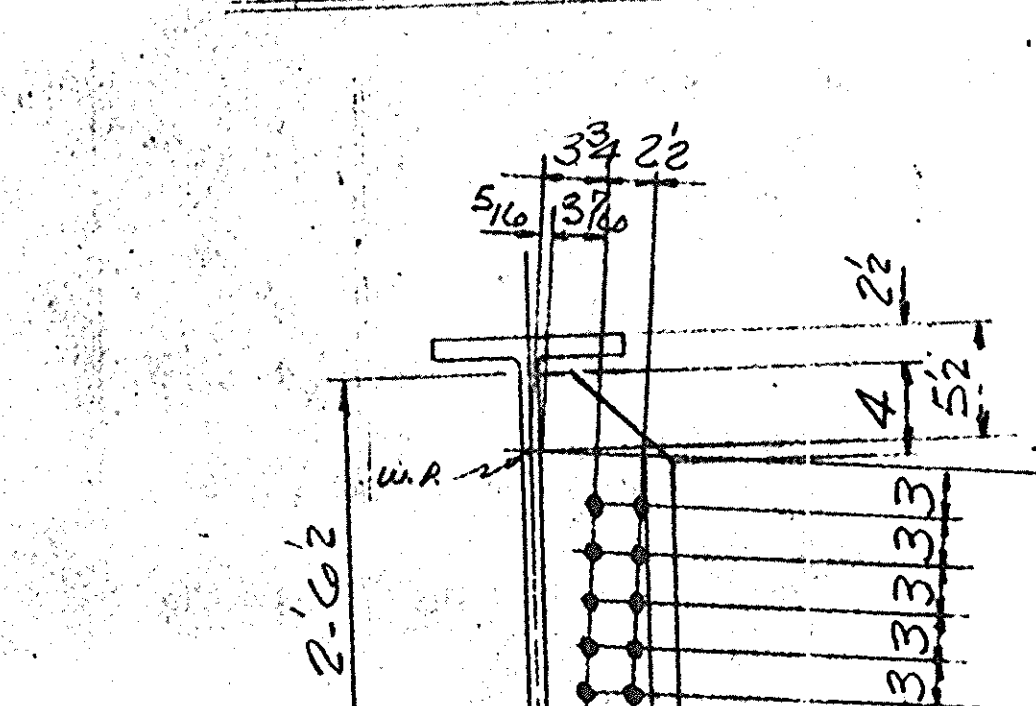
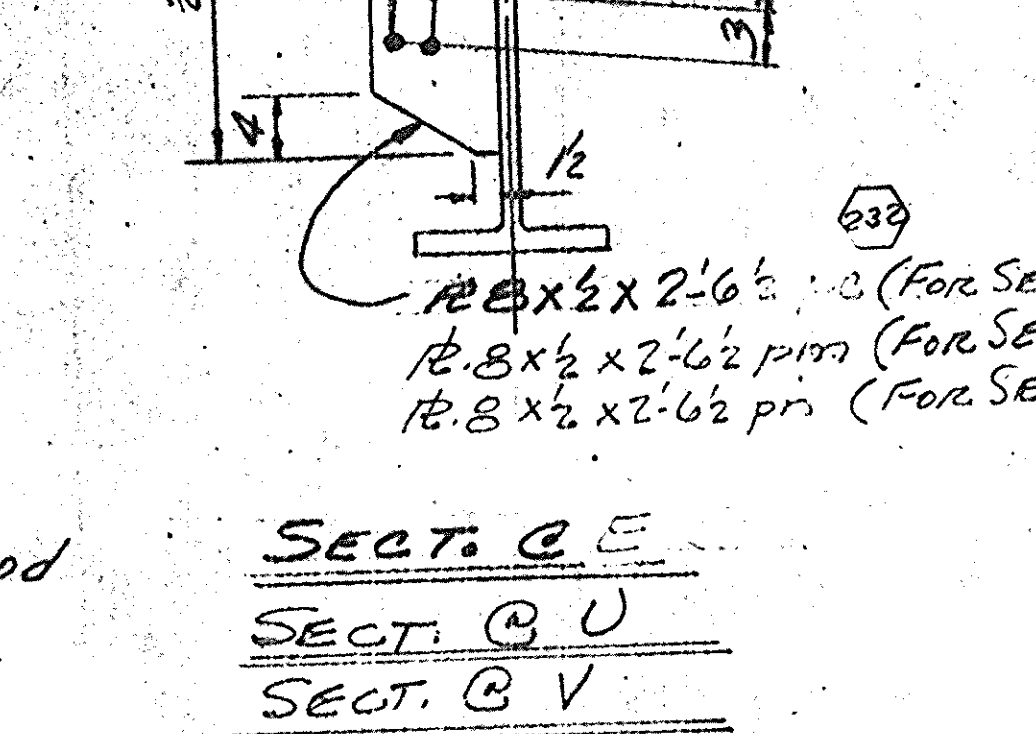
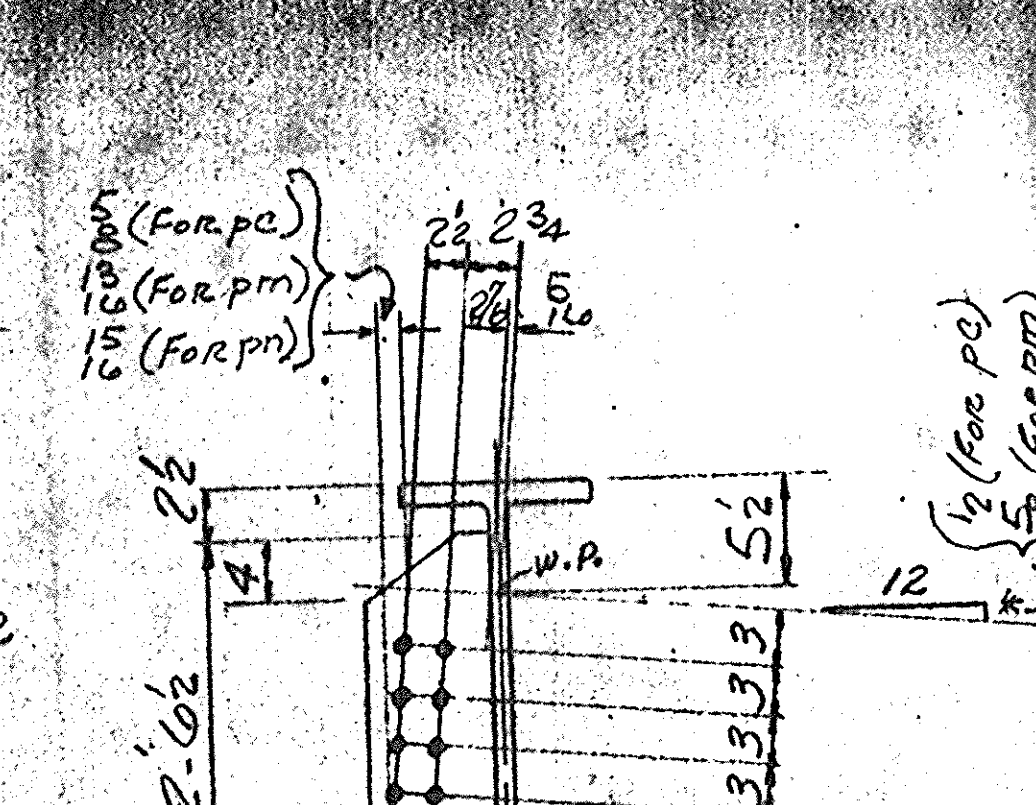
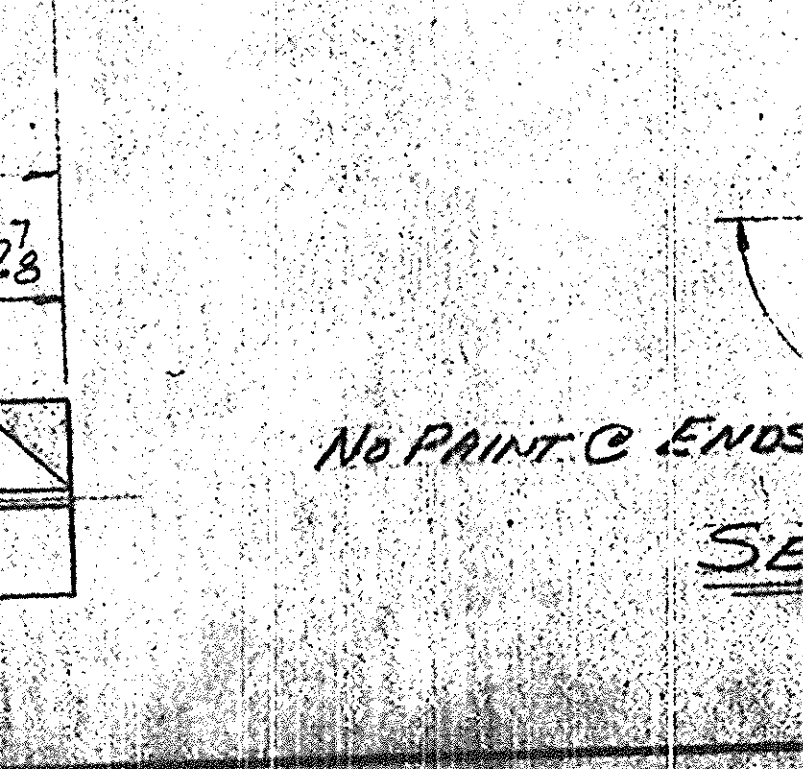
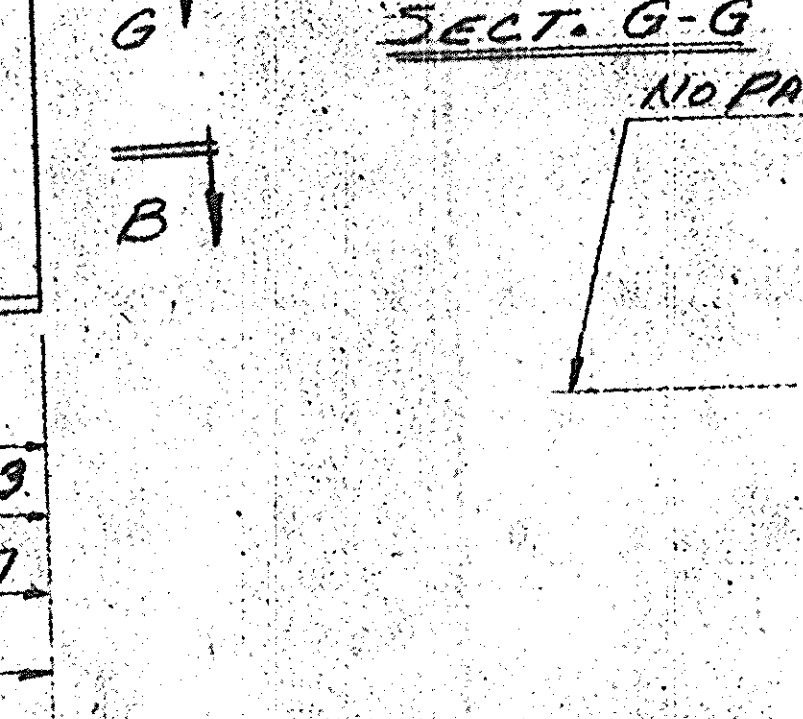
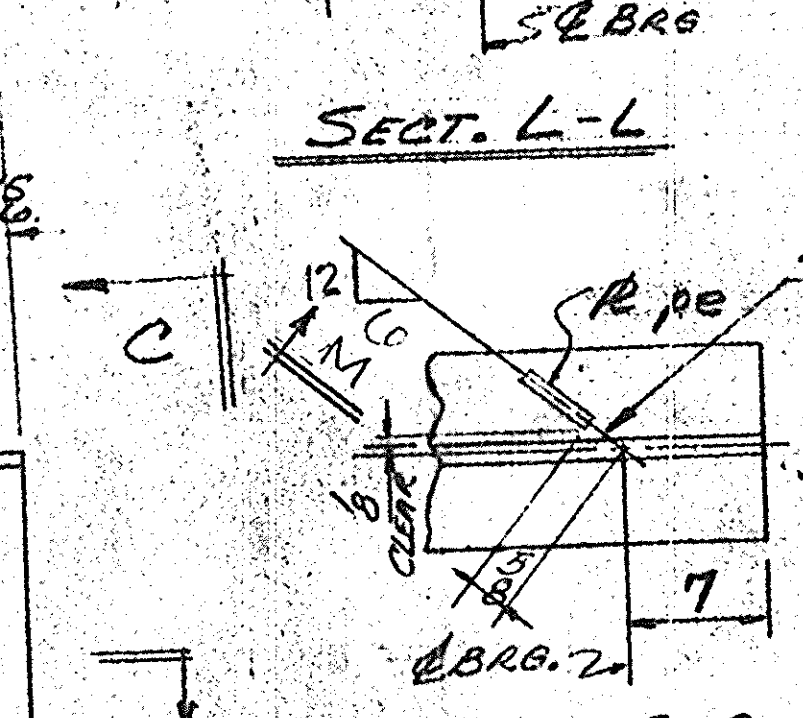
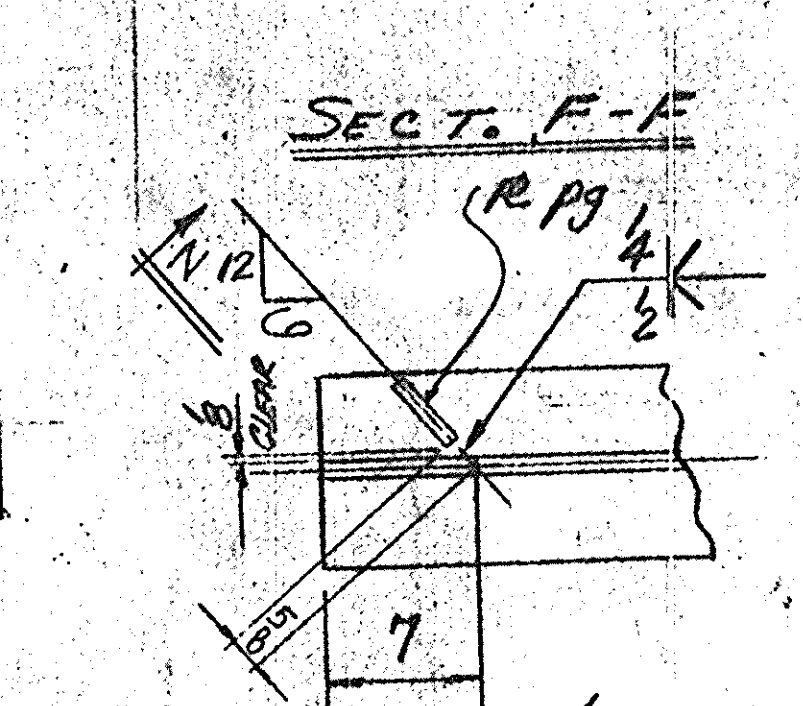
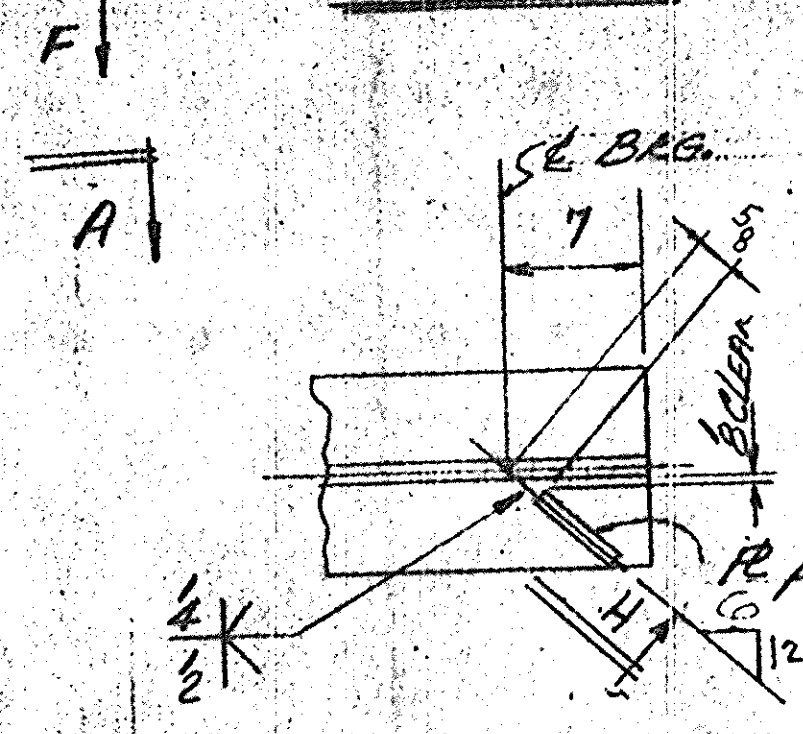
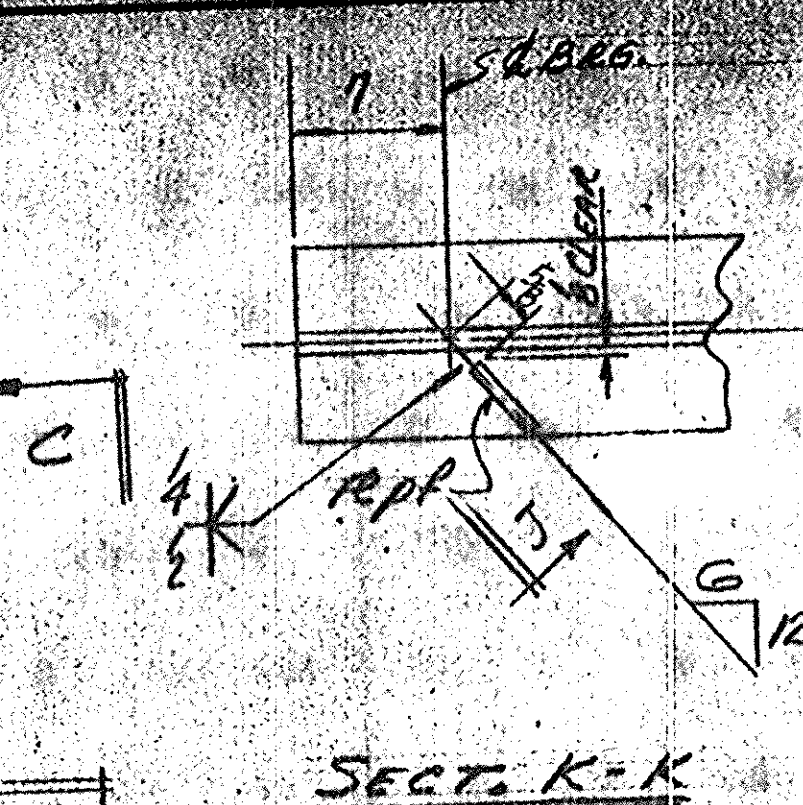
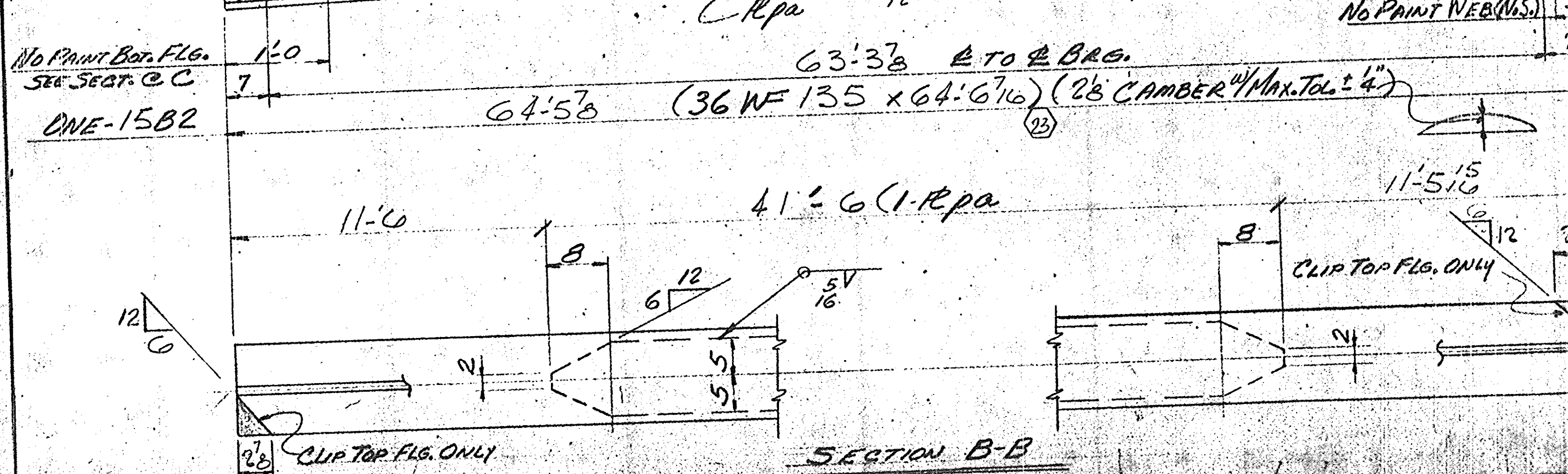
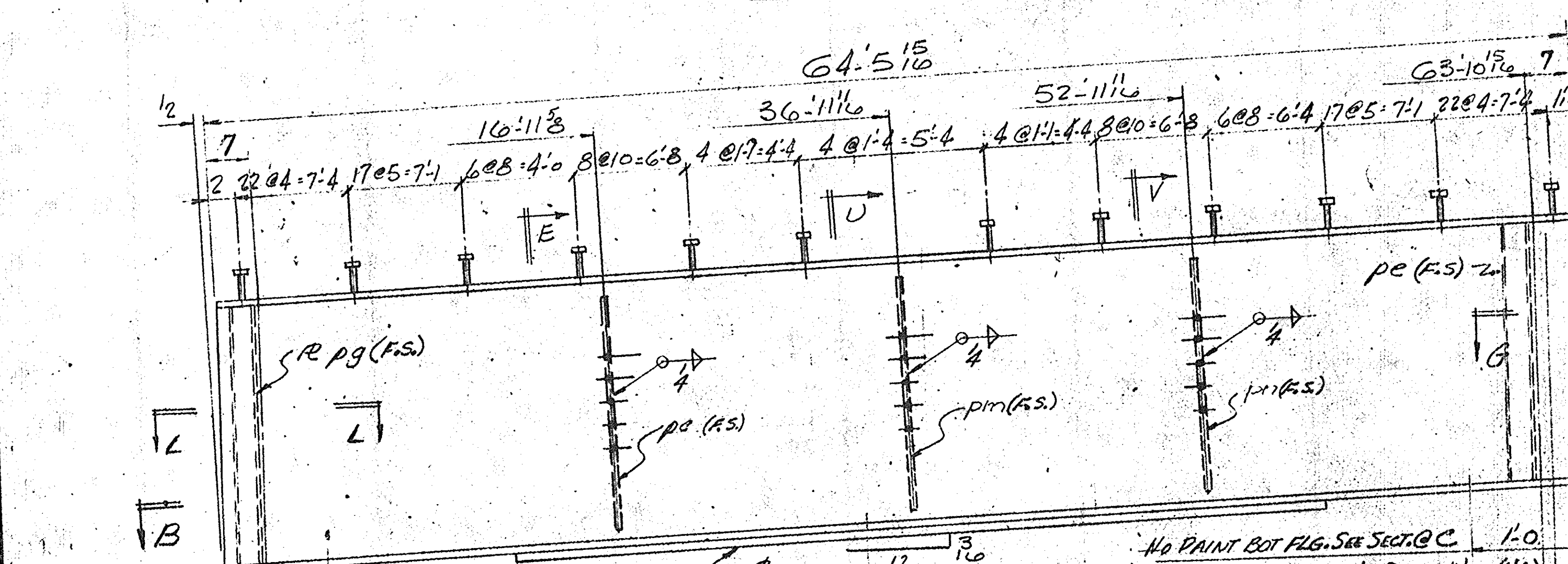
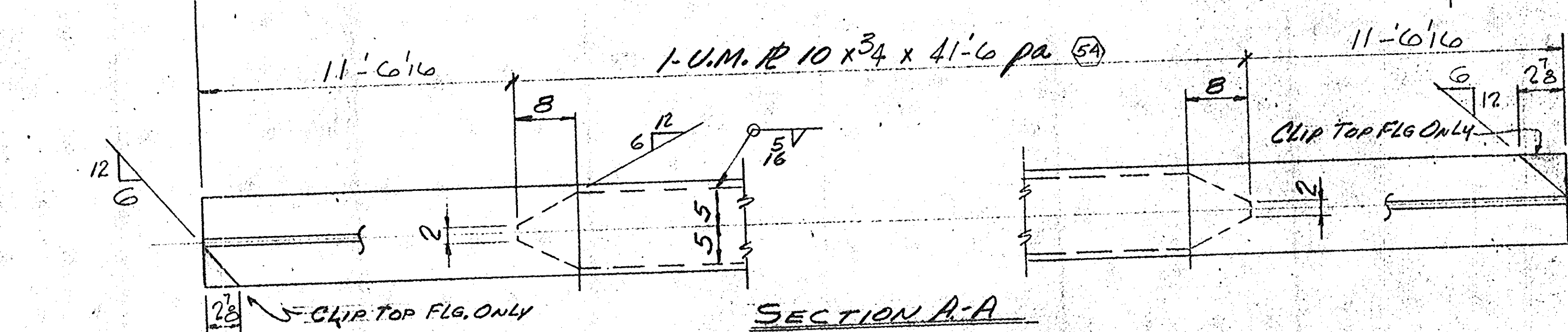
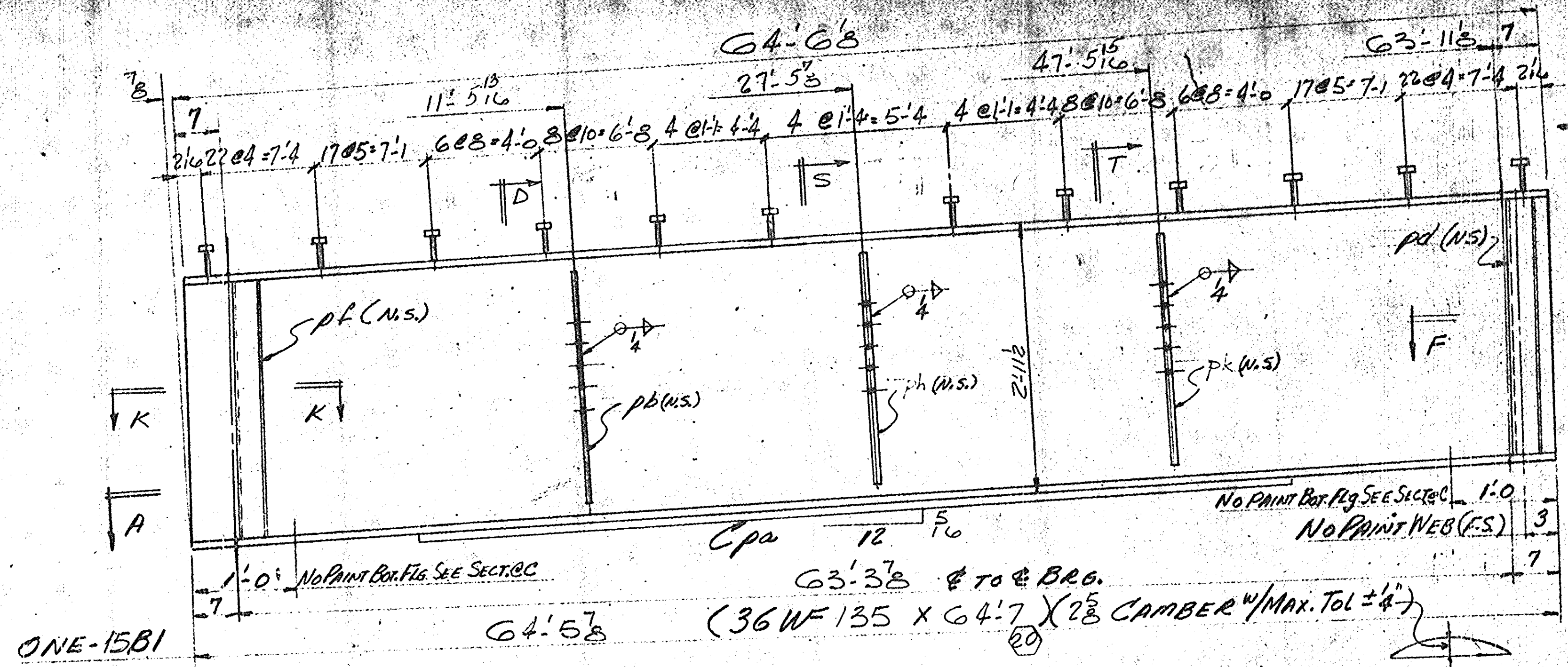
NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	1
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	2
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	3
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	4
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	5
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	6
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	7
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	8
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	9
10/1/65	STRUTURES, INC.	GREENVILLE, S.C.	10



DATE	BY	LOCATION	REVISION
		STRUCTURES, INC.	
		GREENVILLE, S.C.	
		JOB 511 Highway Bridge, Proj. 1951, 3, Charleston Co.	
		B. L. MONTAGUE CO. INC.	
		SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.	
		SHOP ORDER 5-21751	
		CUSTOMER ORDER	
		DRAWN BY: OEC	
		CHECKED BY: [Signature]	
		DATE: [Signature]	
		SCALE: 1" = 14'	
		DWG. NO. 43544-14	

NO.	DATE	BY	LOCATION	REVISION
3	5/1/65	S.E.	CHARLESTON	1

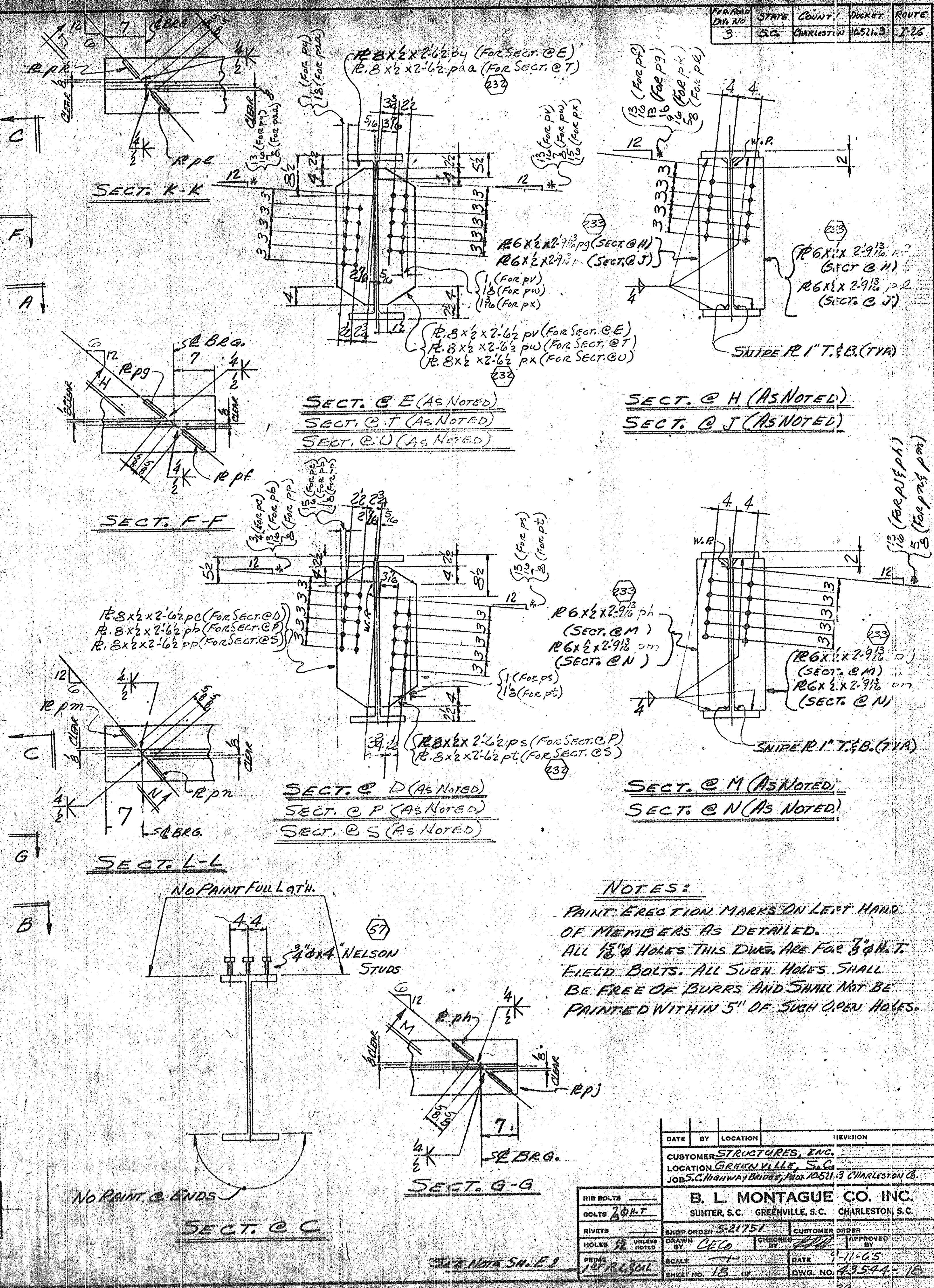
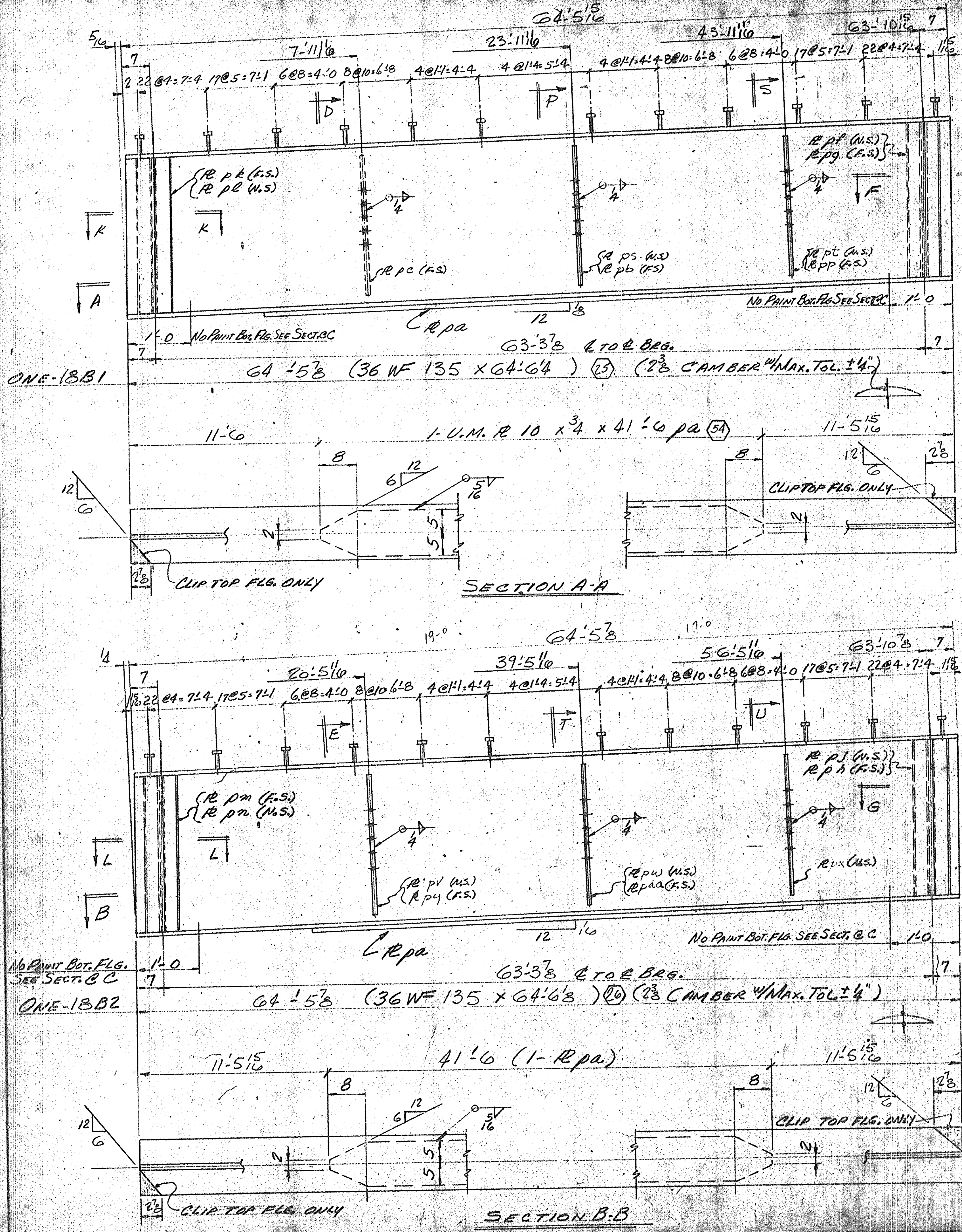


DATE	BY	LOCATION	REVISION
5/1/65	S.E.	CHARLESTON	1

RIB BOLTS	80 U.T.
BOLTS	80 U.T.
RIVETS	150 U.T.
HOLDS	150 U.T.
WELDS	150 U.T.
PAINT	150 U.T.

CUSTOMER	STRUCTURES, INC.
LOCATION	GREENVILLE, S.C.
JOB	5.2.1 Highway Bridge, Proj. 10.521, 3, Charleston Co.
DESIGNED BY	B. L. MONTAGUE
CHECKED BY	W. R. FORD
DATE	5/1/65
SCALE	1/4" = 1'-0"
SHEET NO.	15 OF 15
DWG. NO.	5.2.1-15

NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH HOLES.



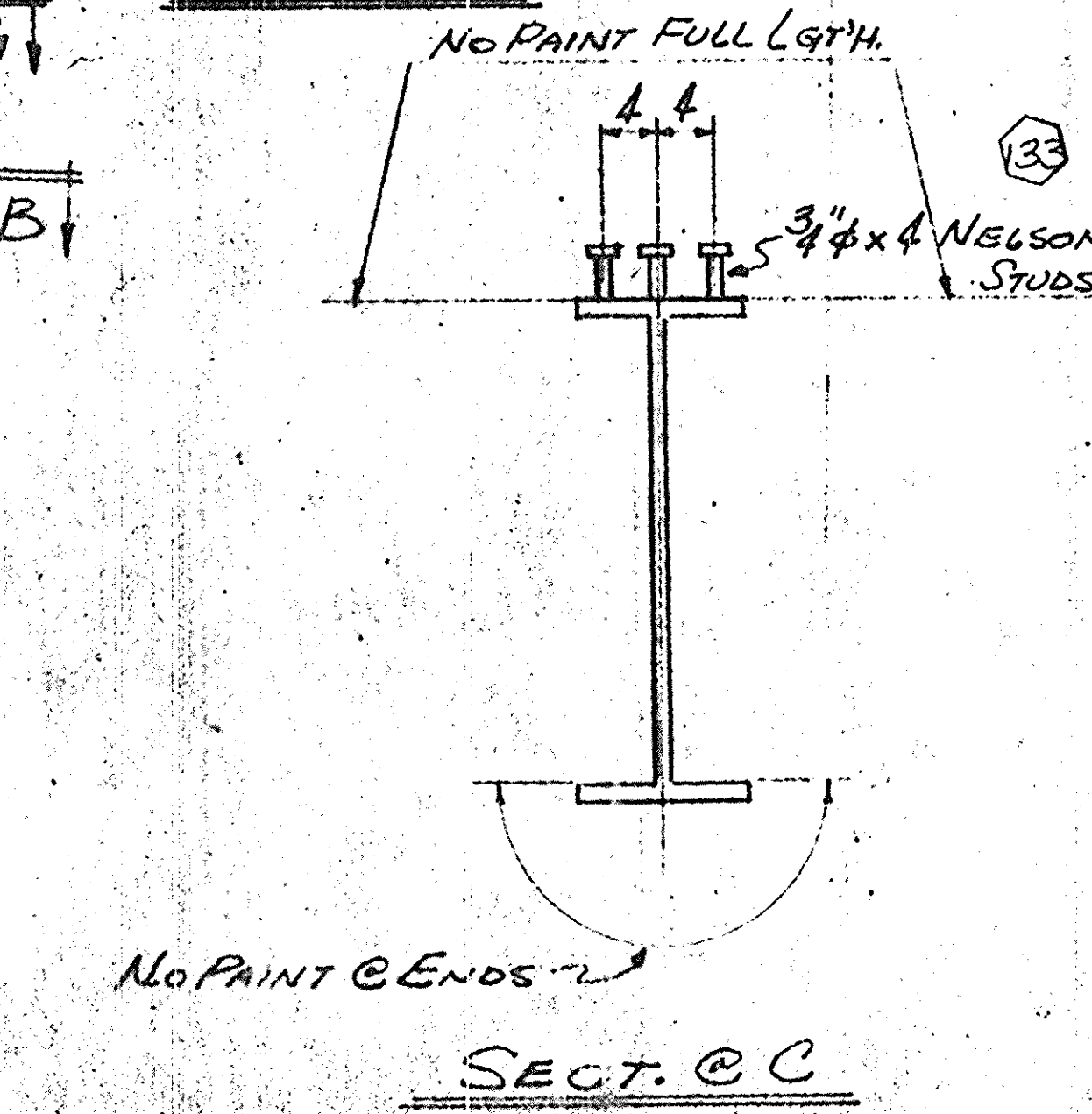
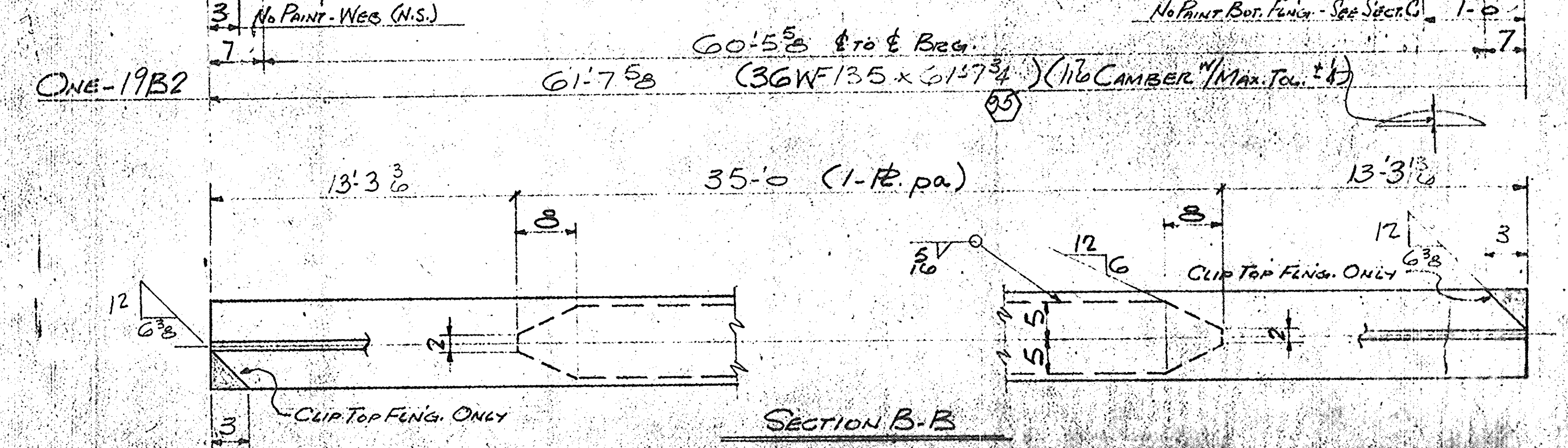
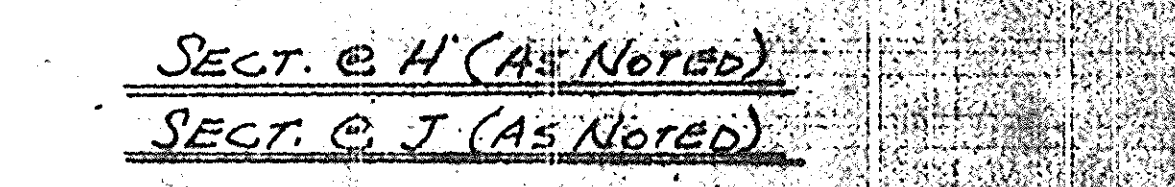
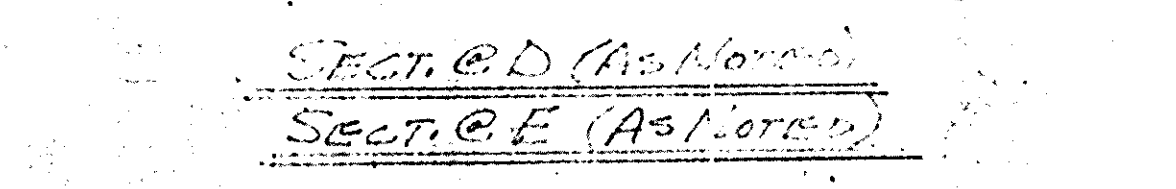
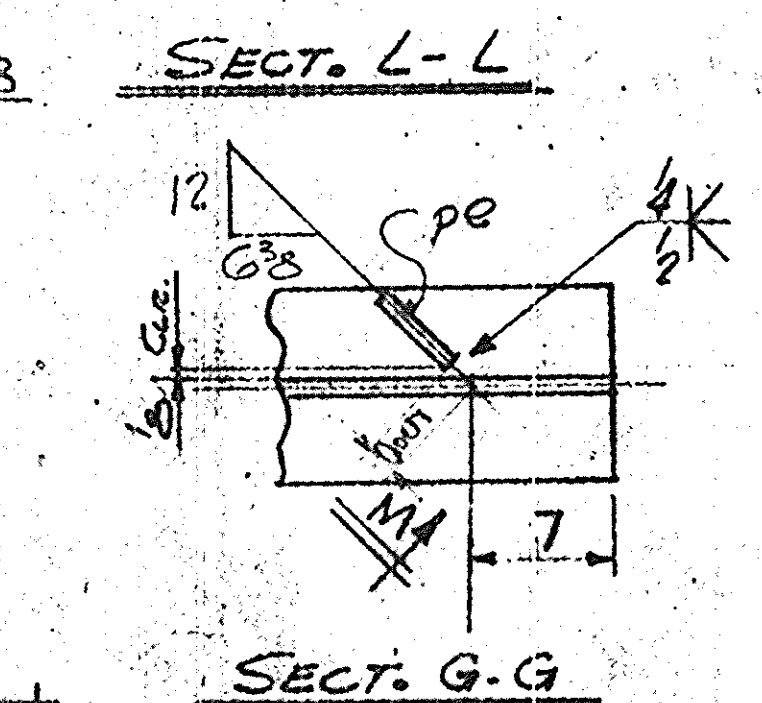
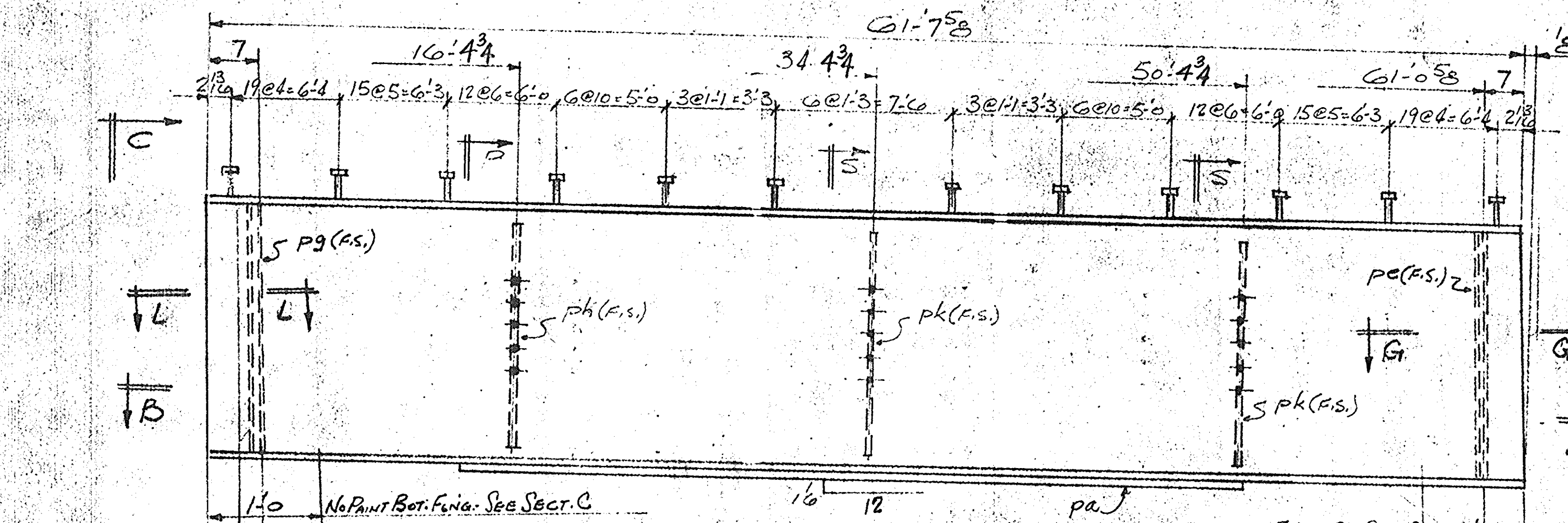
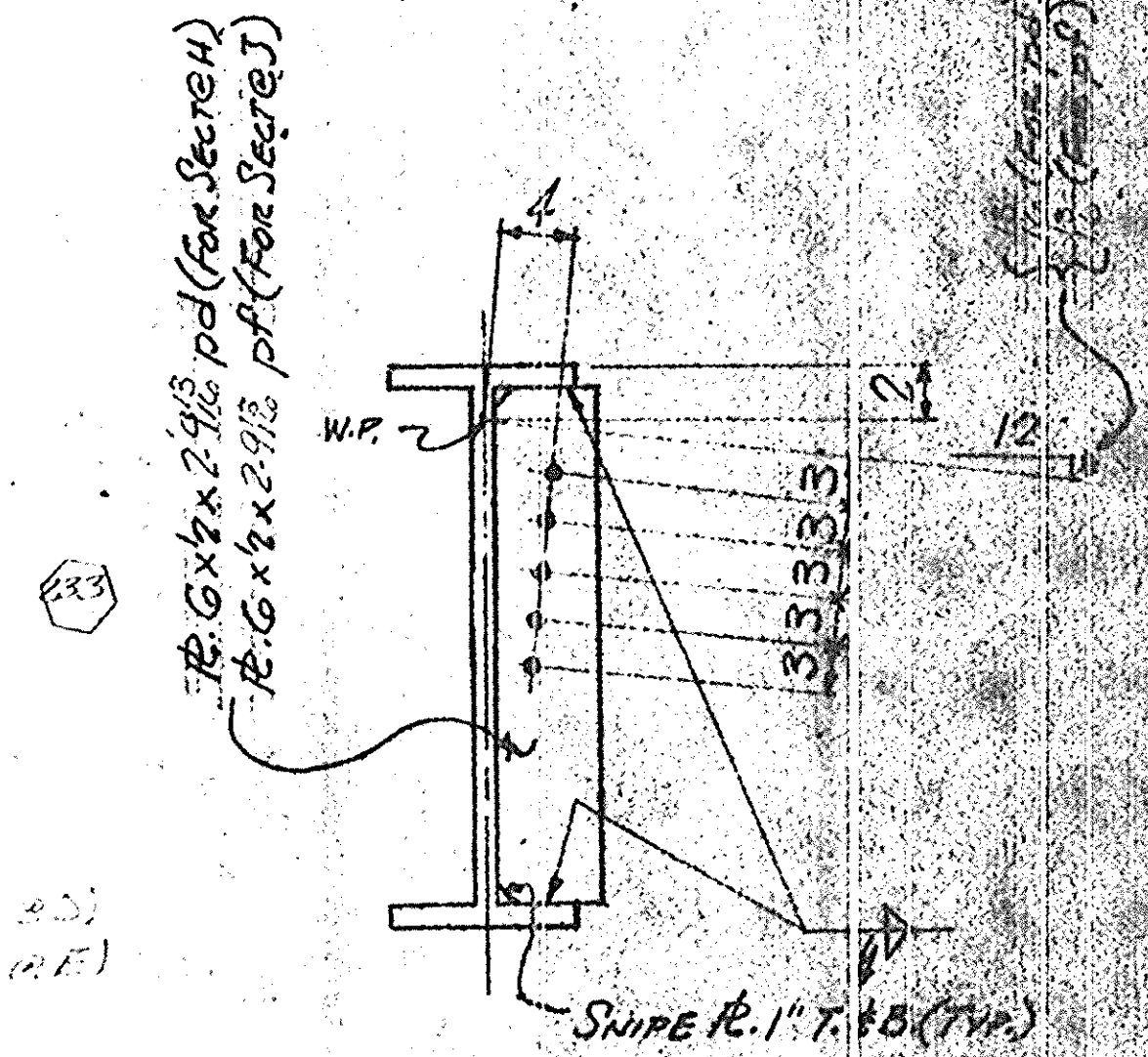
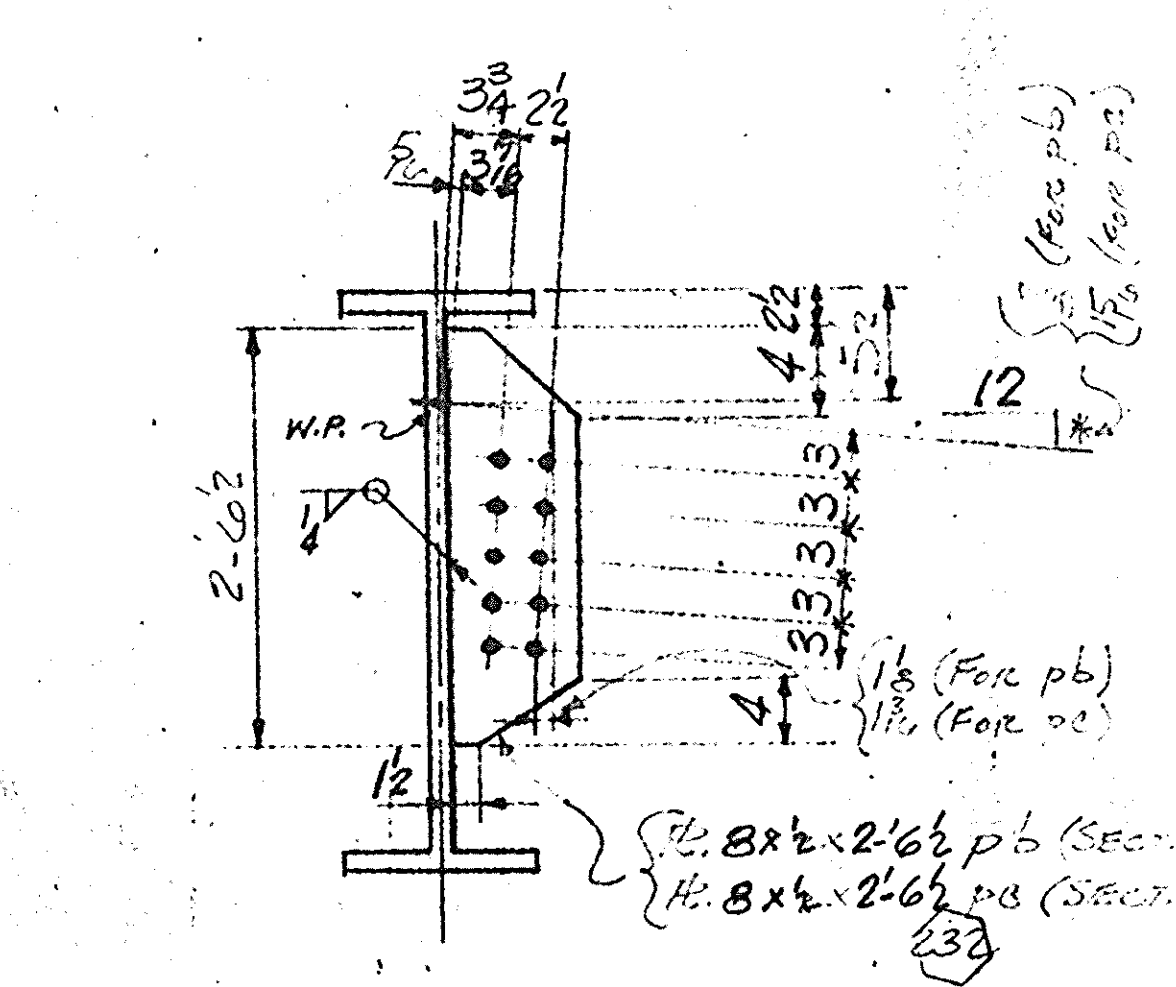
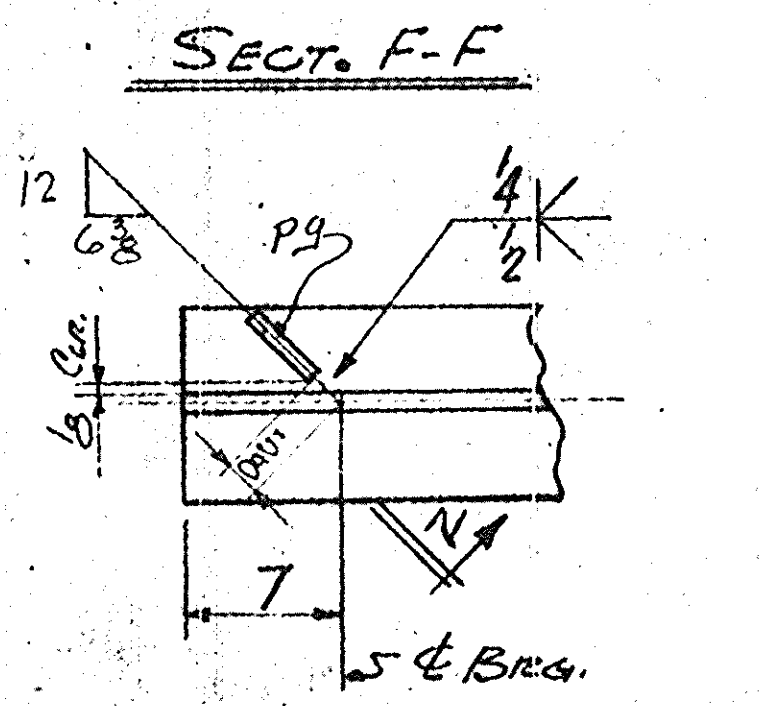
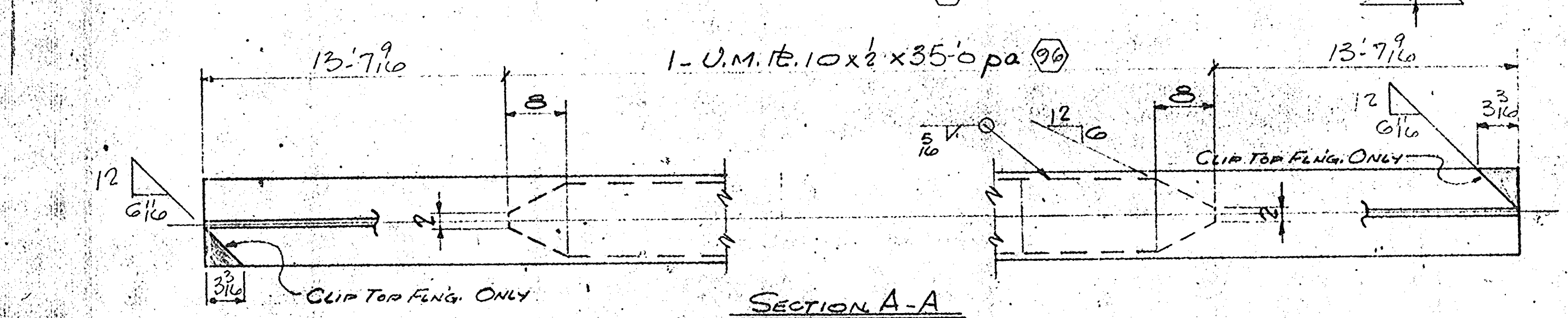
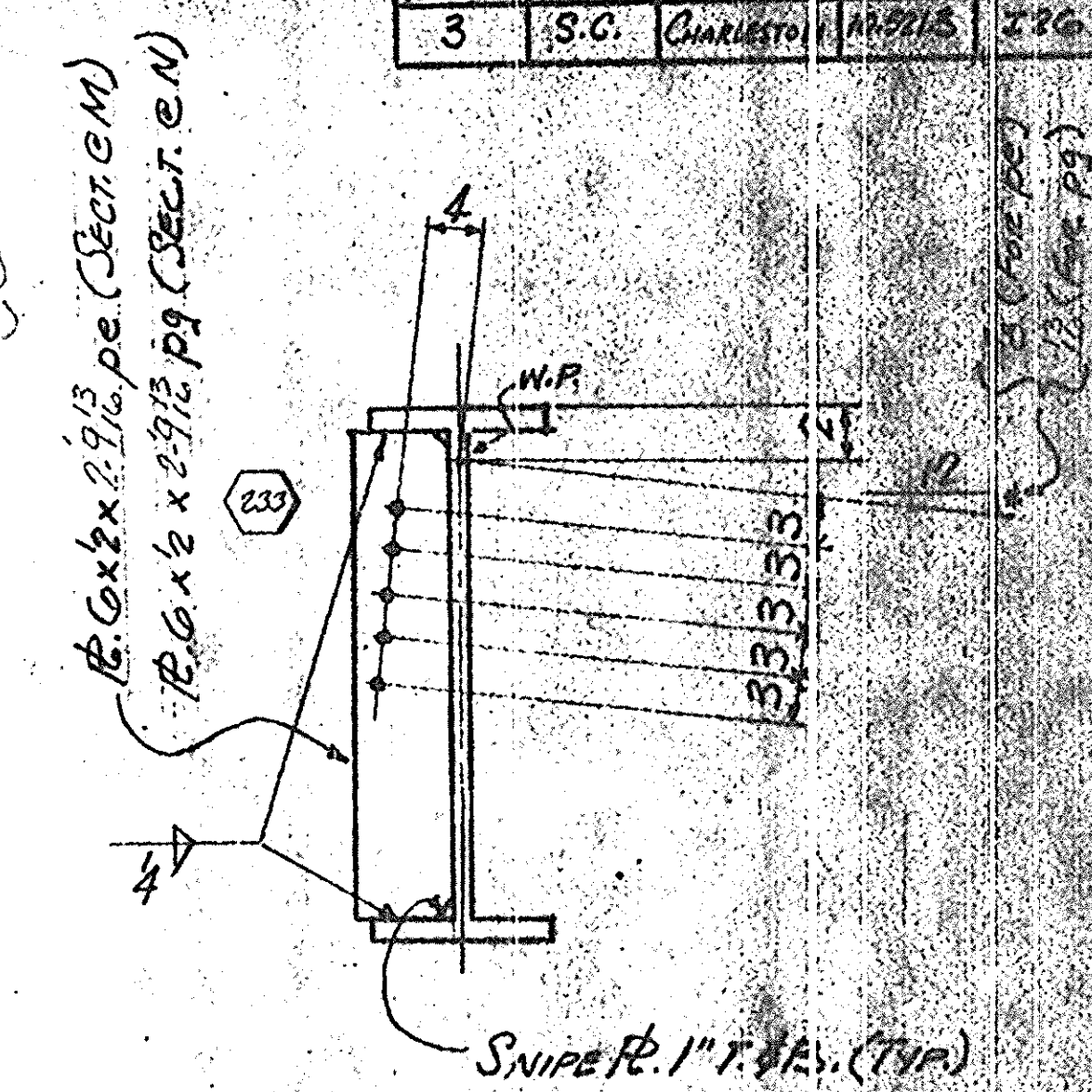
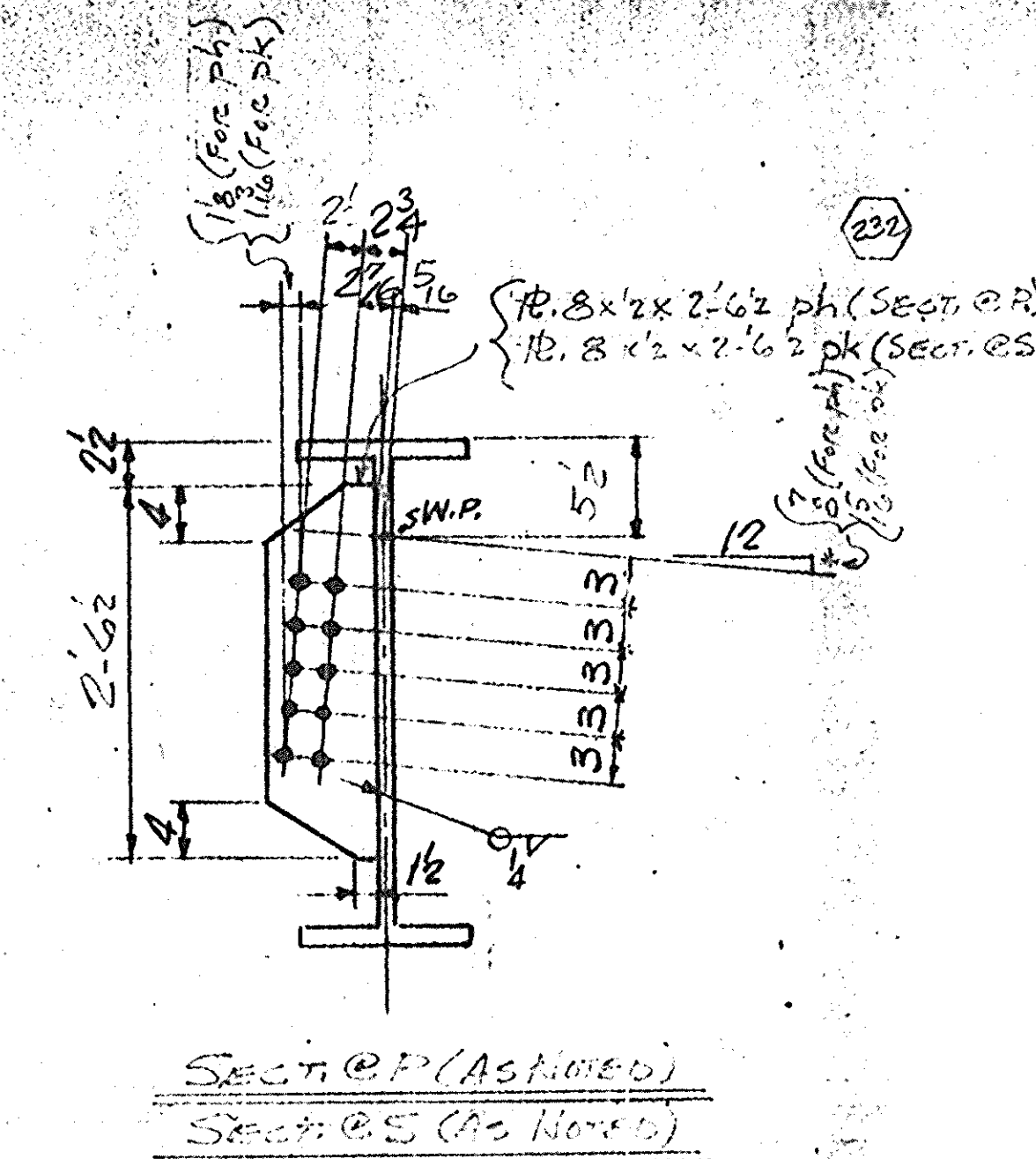
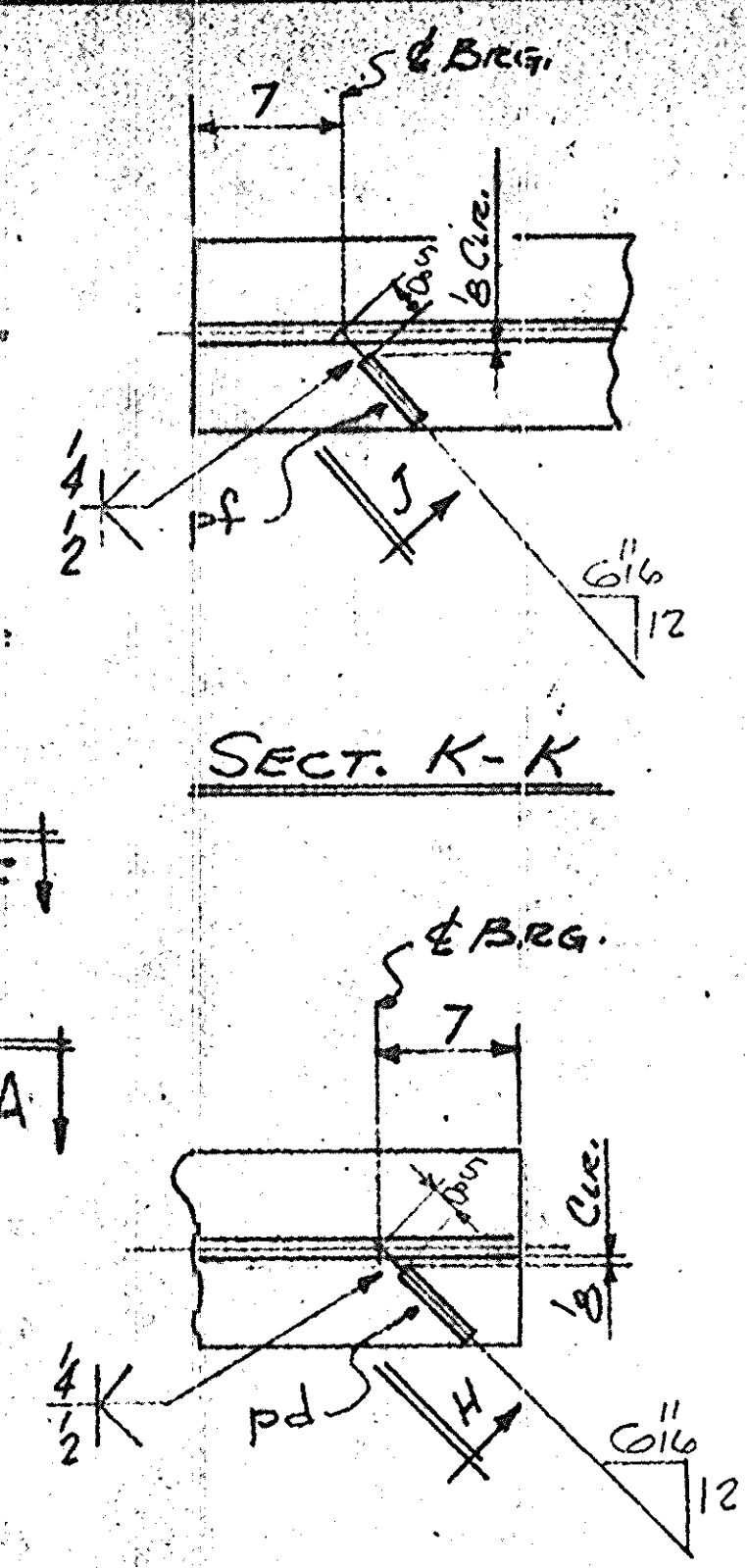
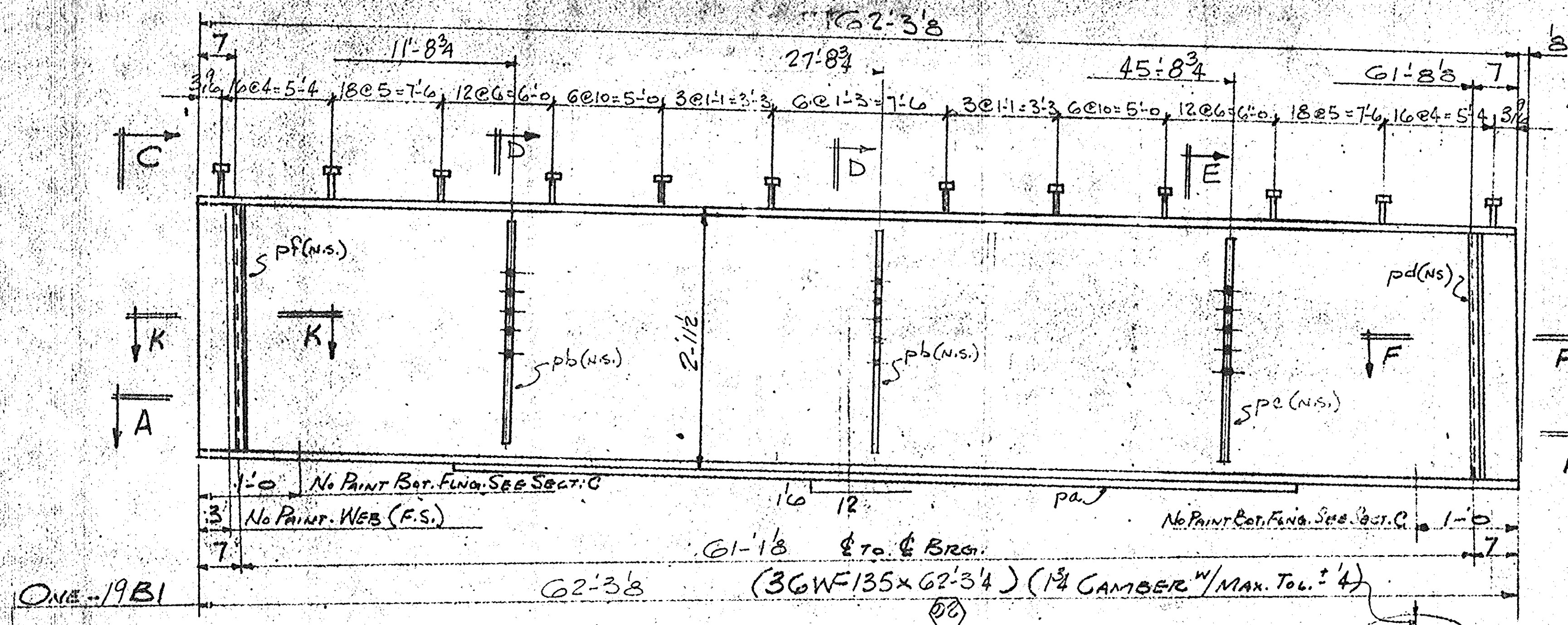
NOTES:

PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.

ALL 1/2" HOLES THIS DRAWING ARE FOR 3/4" T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Proj. 10521.3 CHARLESTON CO.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	20MT	SHOP ORDER 5-21751	CUSTOMER ORDER
DOLTS	20MT	CHECKED BY CEC	APPROVED BY
RIVETS	1/2	DRAWN BY	DATE 1-11-65
HOLES	1/2	SCALE	1" = 1'-0"
PRIME	1/2	SHEET NO. 18	DWG. NO. 13544-18

FED. ROAD DIV. NO.	STATE	COUNTY	LOCALITY	ROUTE
3	S.C.	CHARLESTON	AR-5213	176



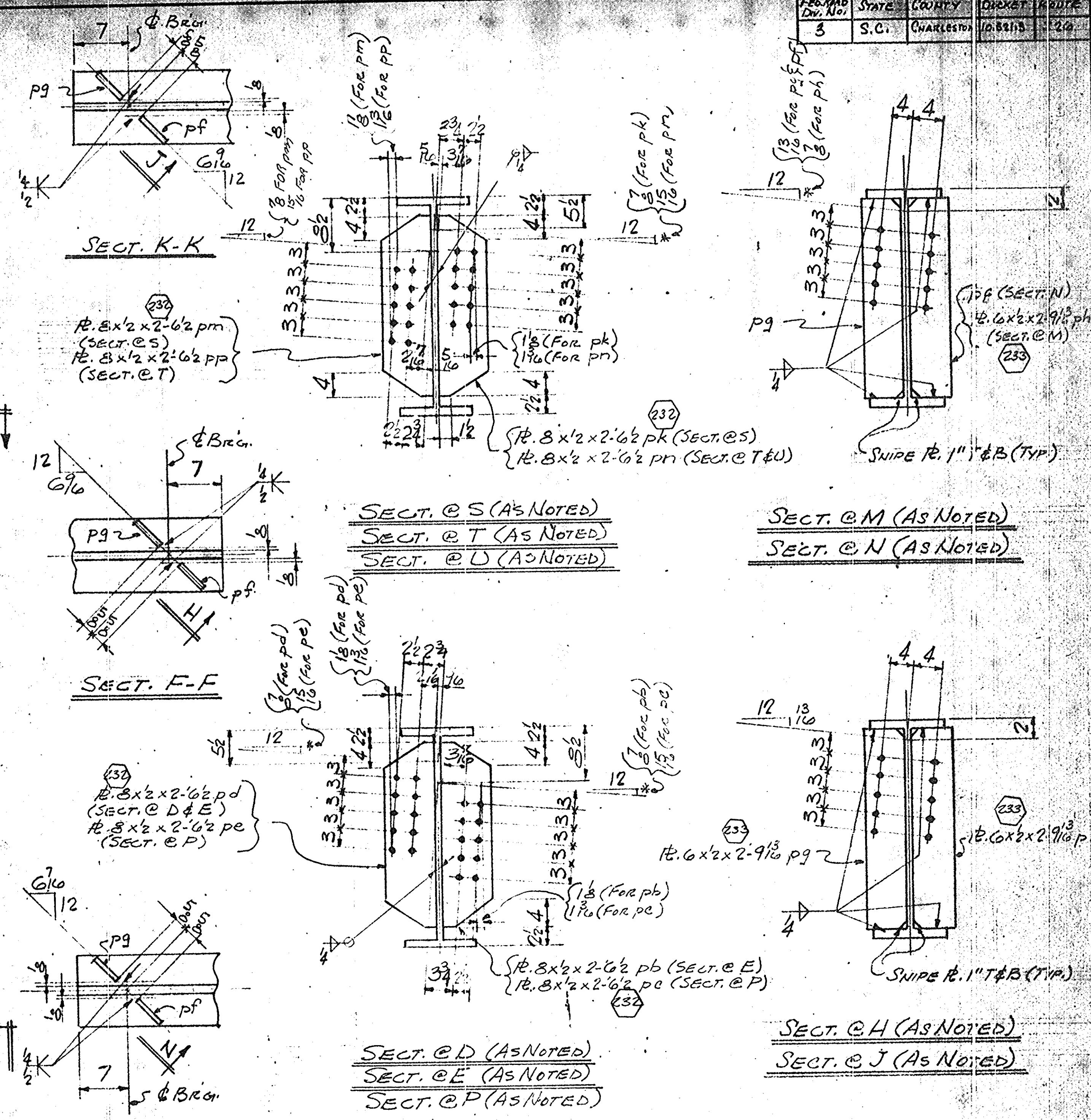
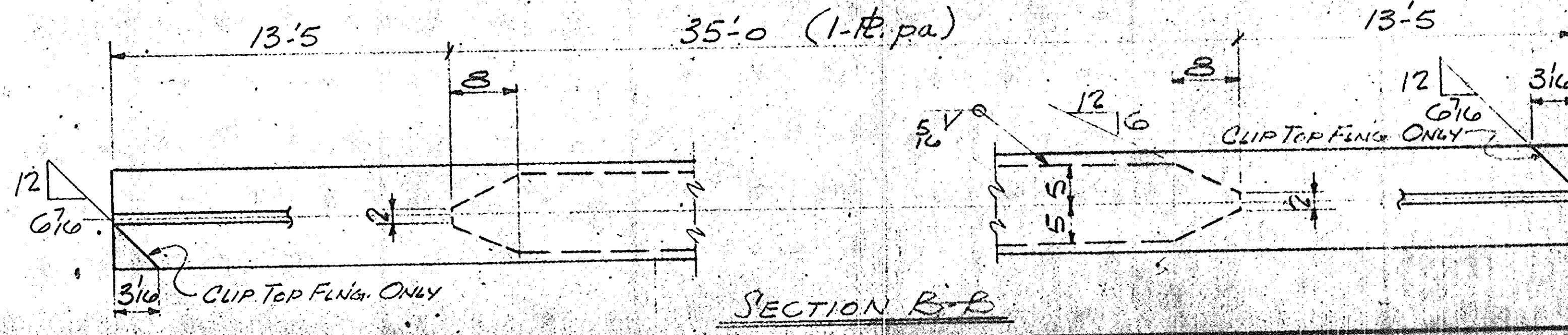
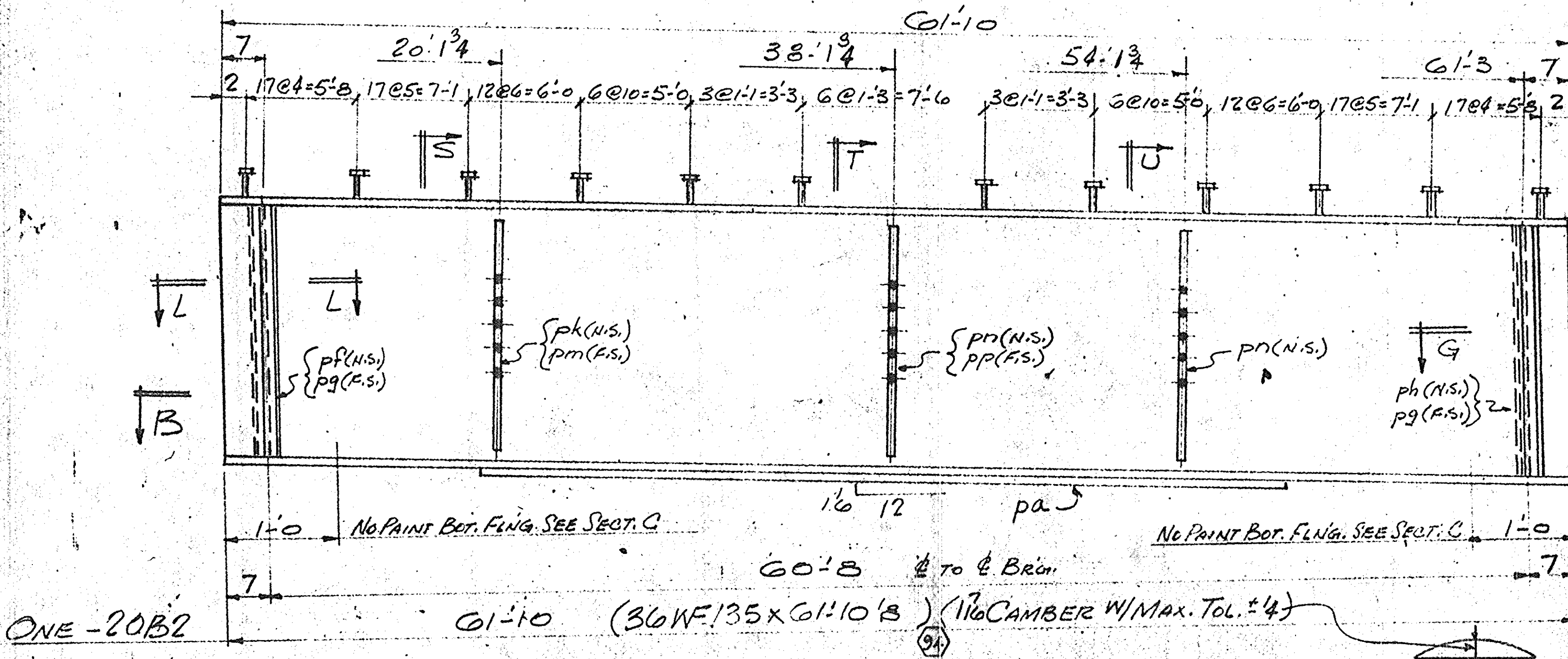
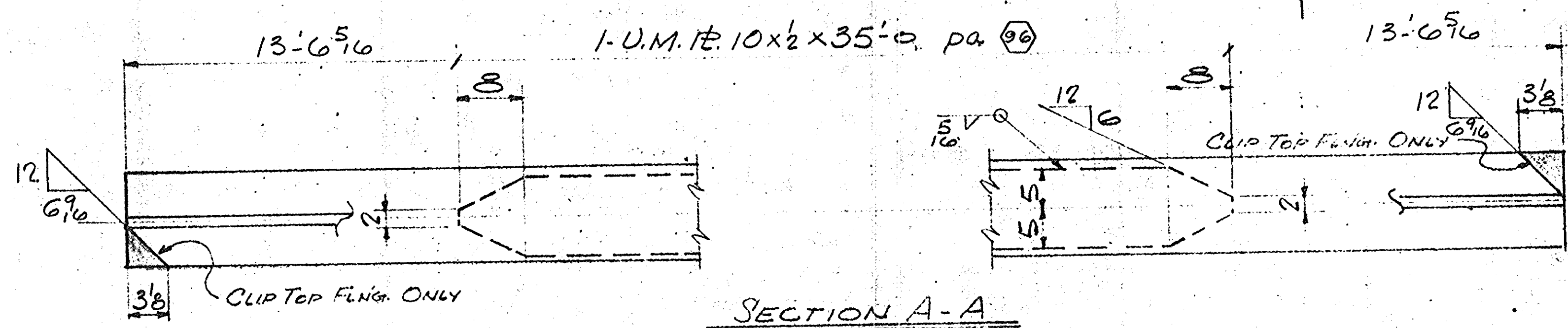
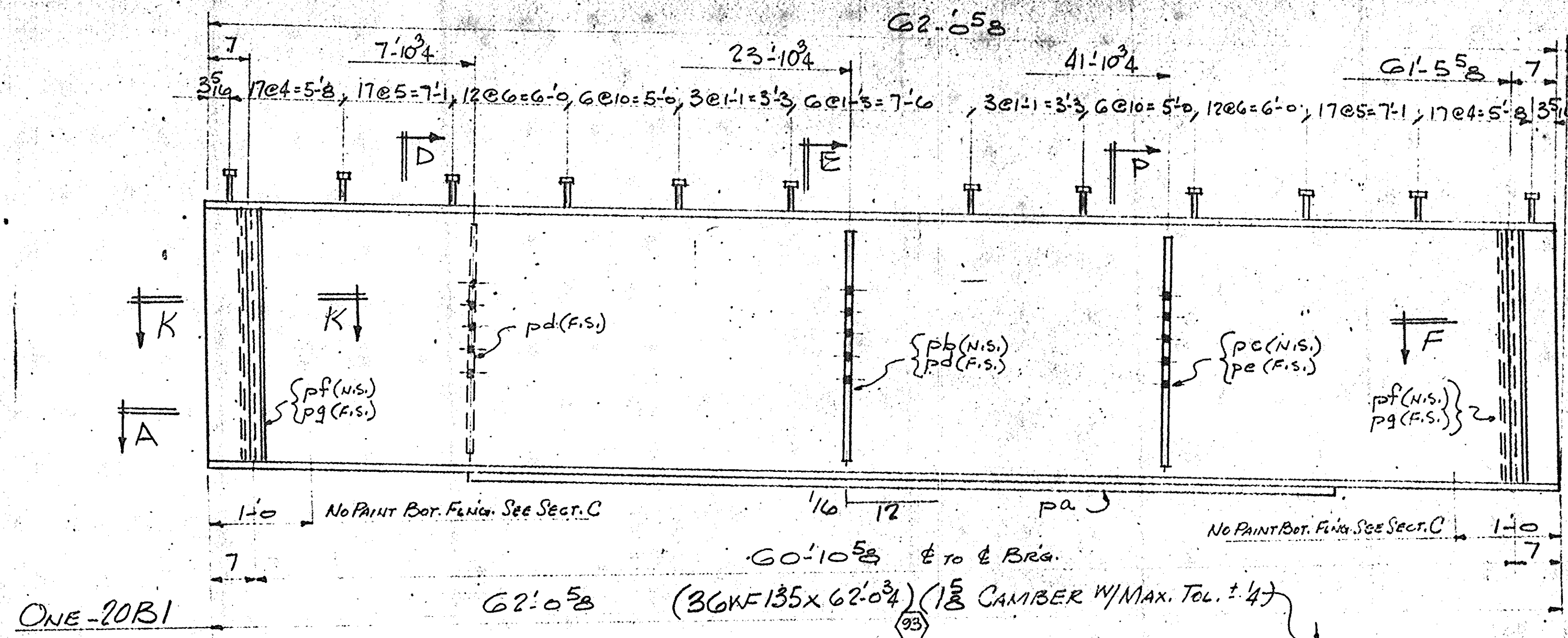
NOTES:

PAINT ERECTION MARKS ON LEFT HAND
OF MEMBERS AS DETAILED.
ALL $\frac{1}{2}$ " HOLES THIS DIA. ARE FOR 2" H.T.
FIELD BOLTS. ALL SUCH HOLES SHALL BE
FREE OF BURRS AND SHALL NOT BE PAINTED
WITHIN 5" OF SUCH OPEN HOLES.

DATE		BY	LOCATION	VISION
CUSTOMER		STRUCTURES INC.		
LOCATION		GREENVILLE, S.C.		
JOB		S.C. HIGHWAY BRIDGE, POOT 10.5		
RIB BOLTS		B. L. MONTAGUE CO. INC.		
BOLTS		SUNTER, S.C. GREENVILLE, S.C.		
RIBS		HARLESTON, S.C.		
RIVETS		SHOP ORDER	52175	CUSTOMER
HOLES		DRAWN BY	C.E.B.	CHECKED BY
PRIME		SCALE	1"	DATE
10" R/LF OK		SHEET NO.	19	DWG. NO.

See Note Sheet E1

(B10)



NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBER AS DETAILED
 ALL 1/4" & HOLES THIS DWG. ARE FOR 7/8" & H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

NO PAINT FULL LGTH.

NO PAINT @ ENDS

SECT. G-G

SECT. @ C

SEE NOTE SUR. E 1

DATE	BY	LOCATION	REVISION
3-21-51	W.C.	GREENVILLE S.C.	1

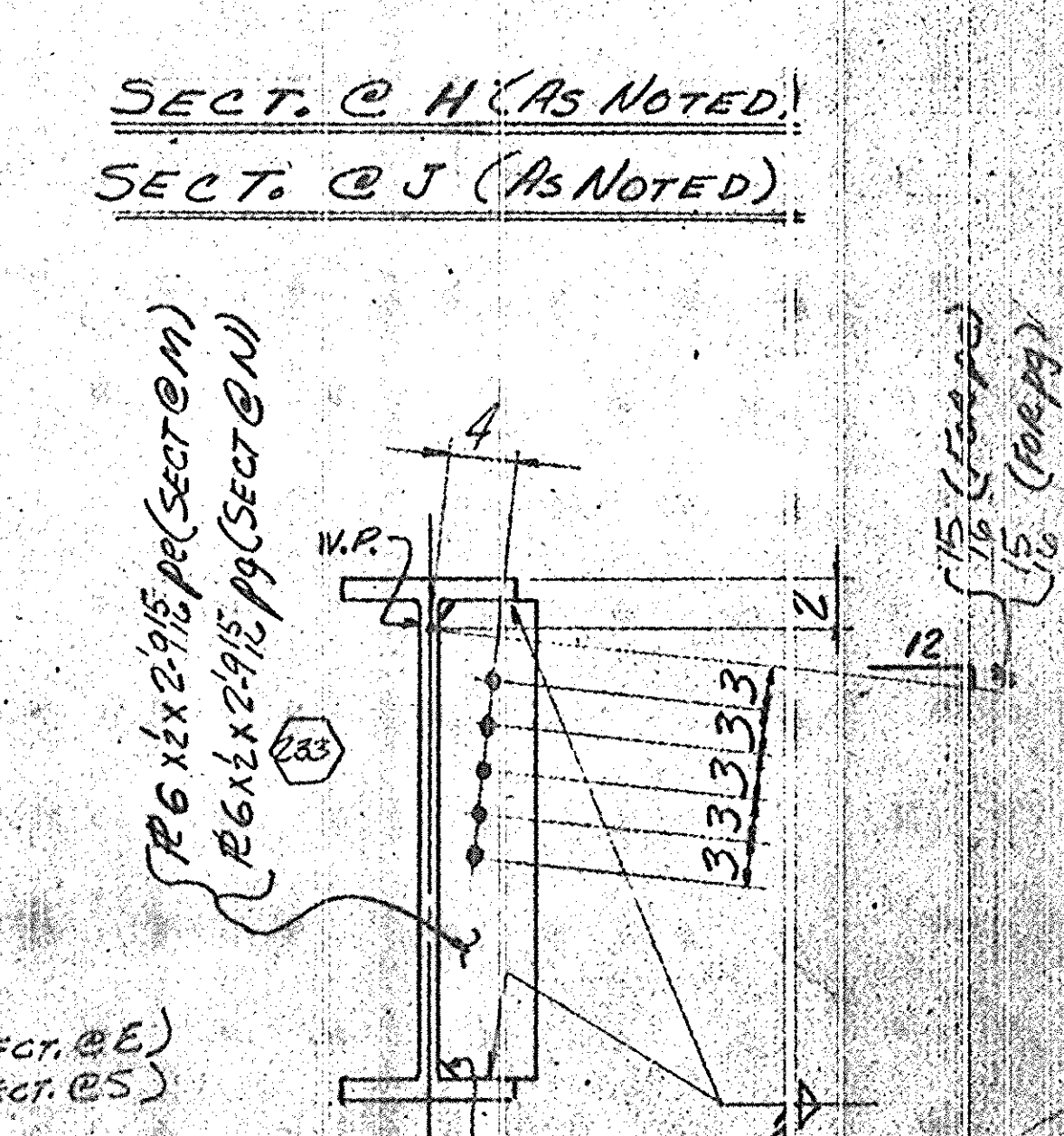
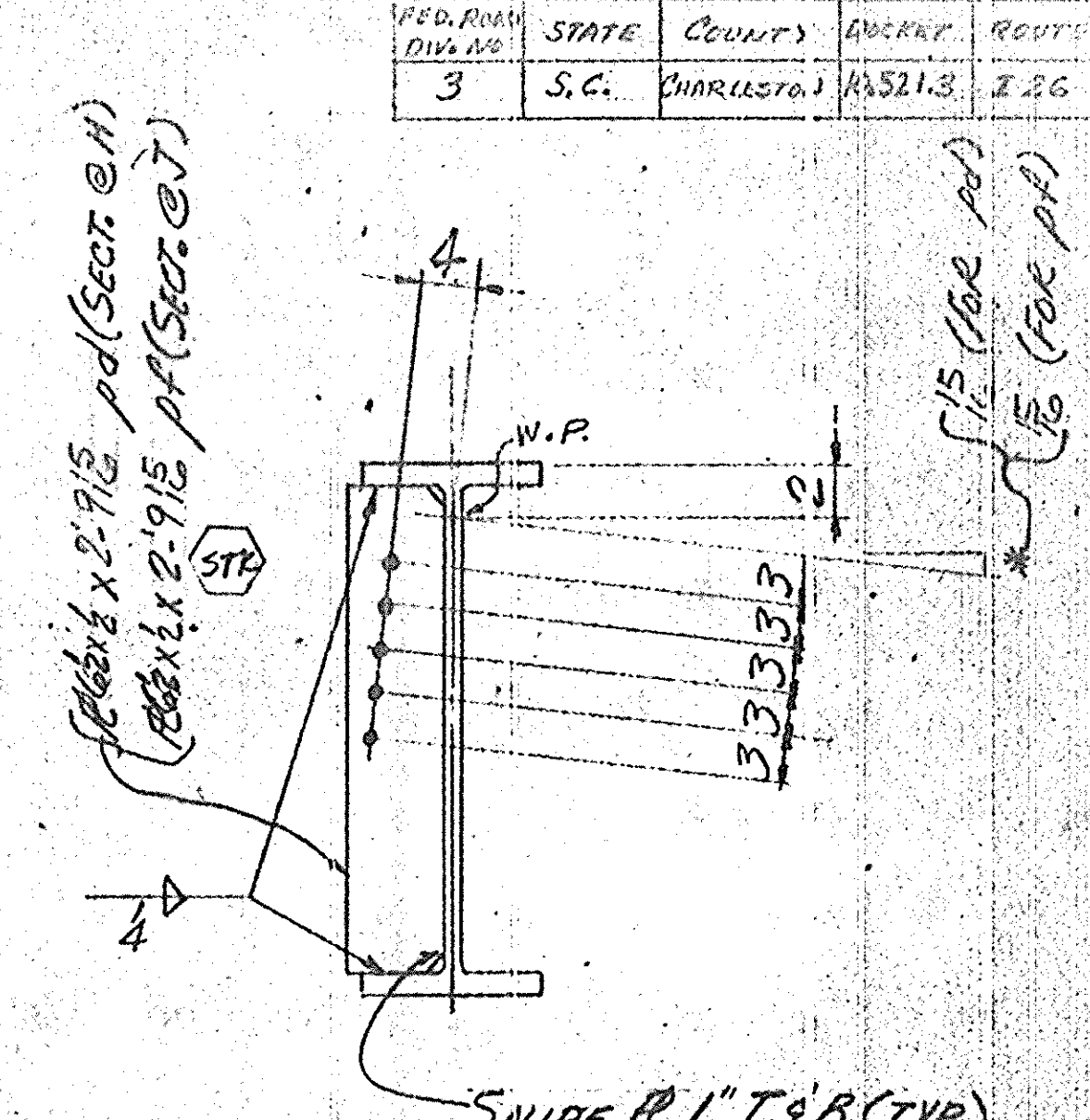
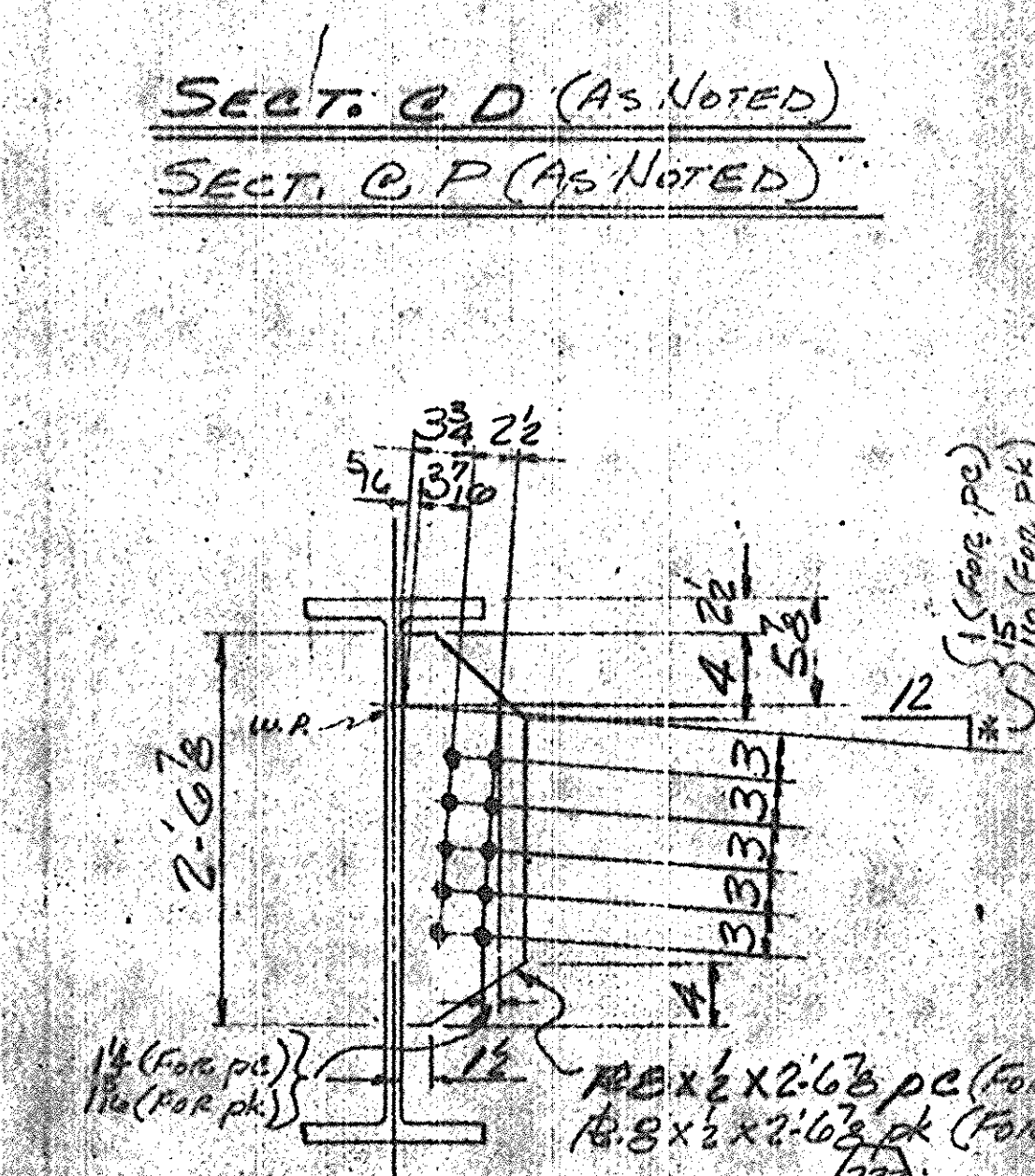
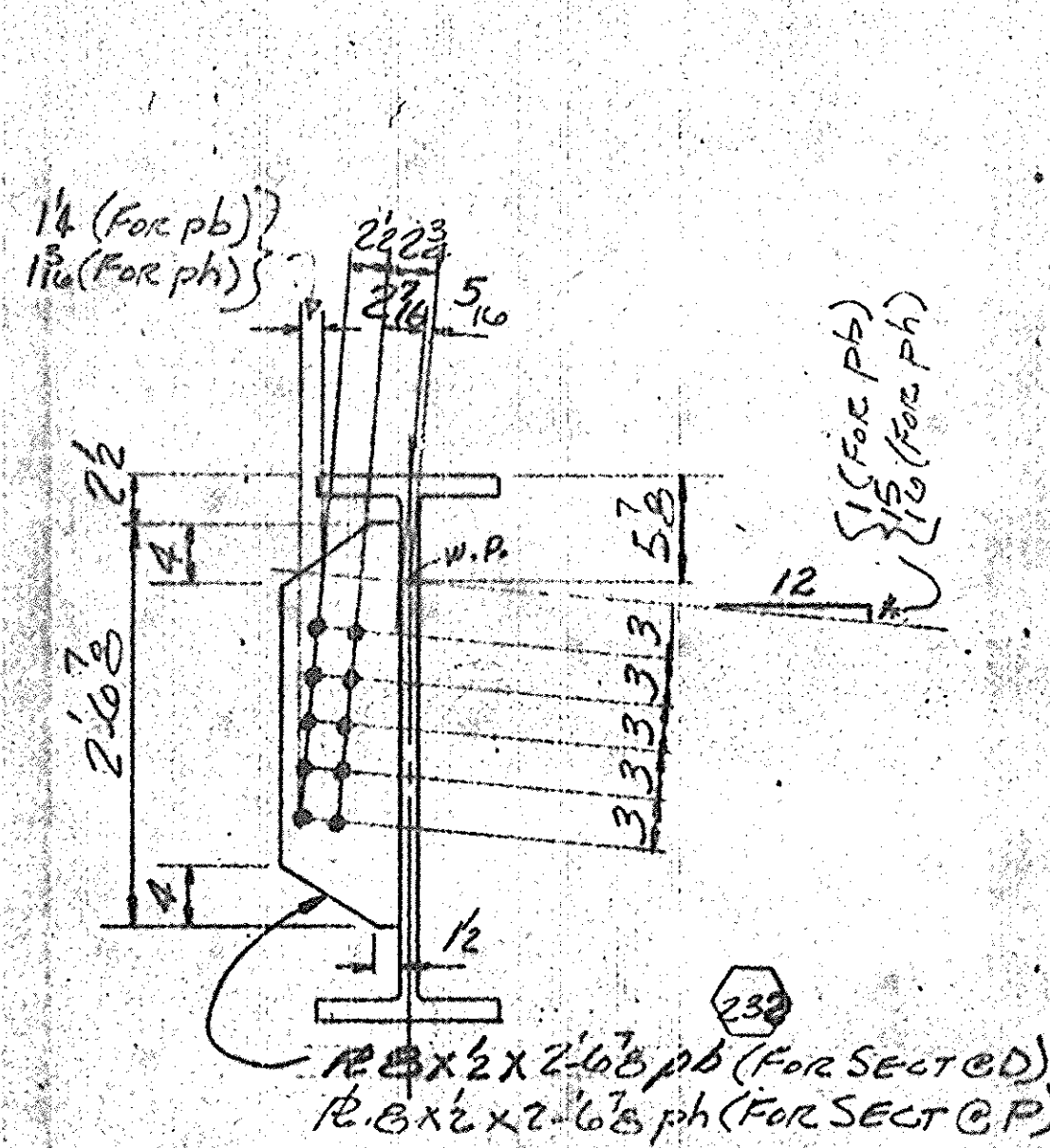
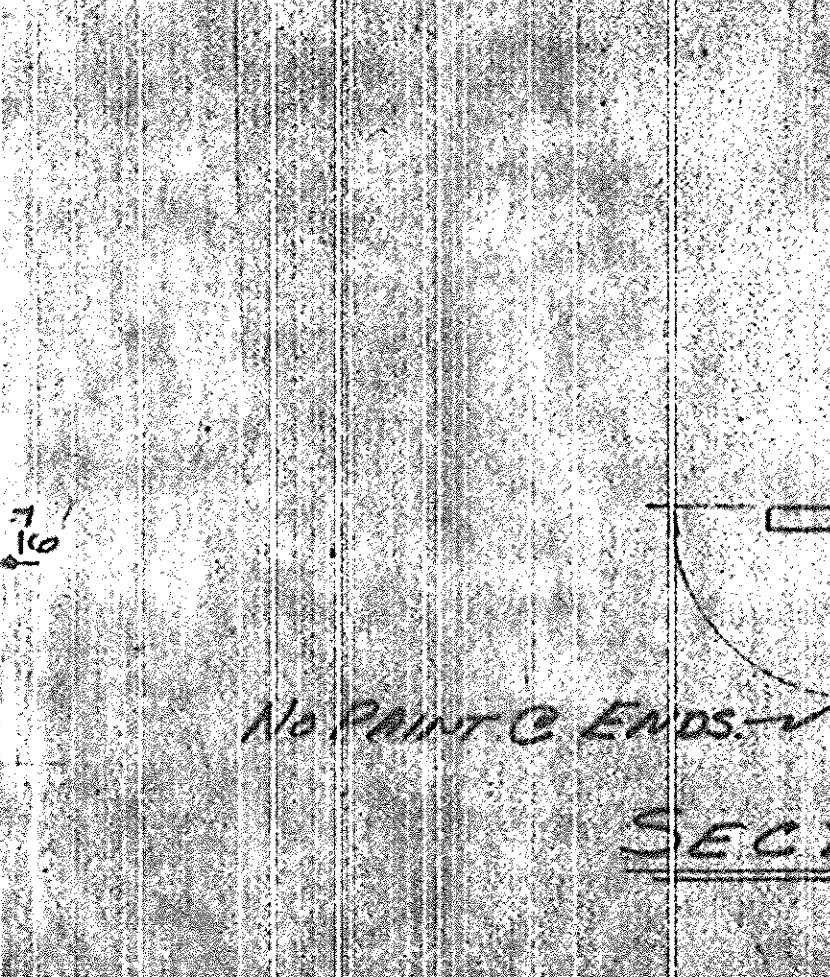
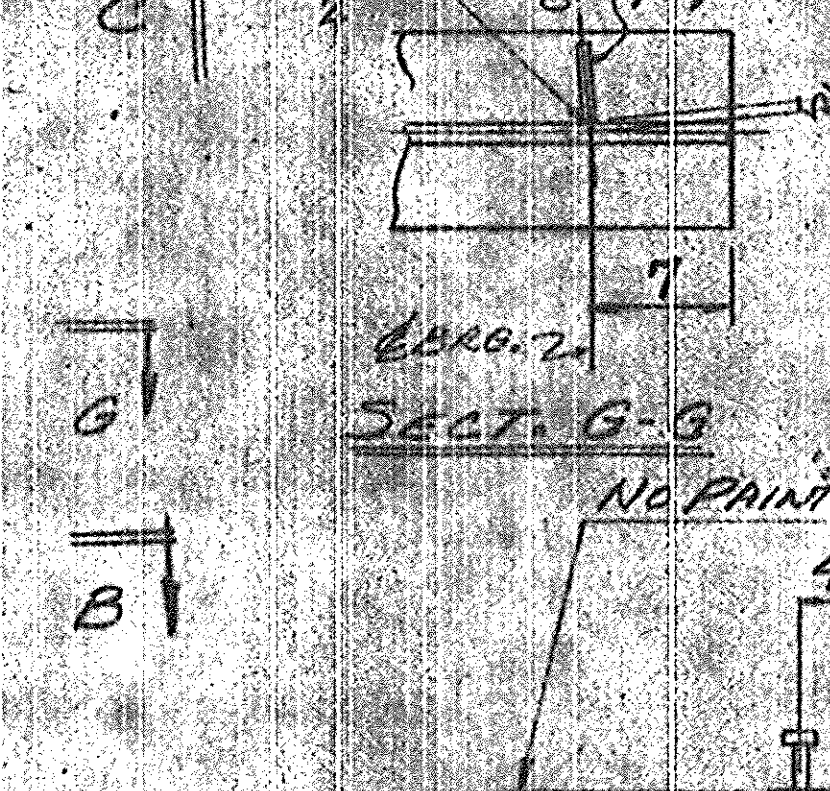
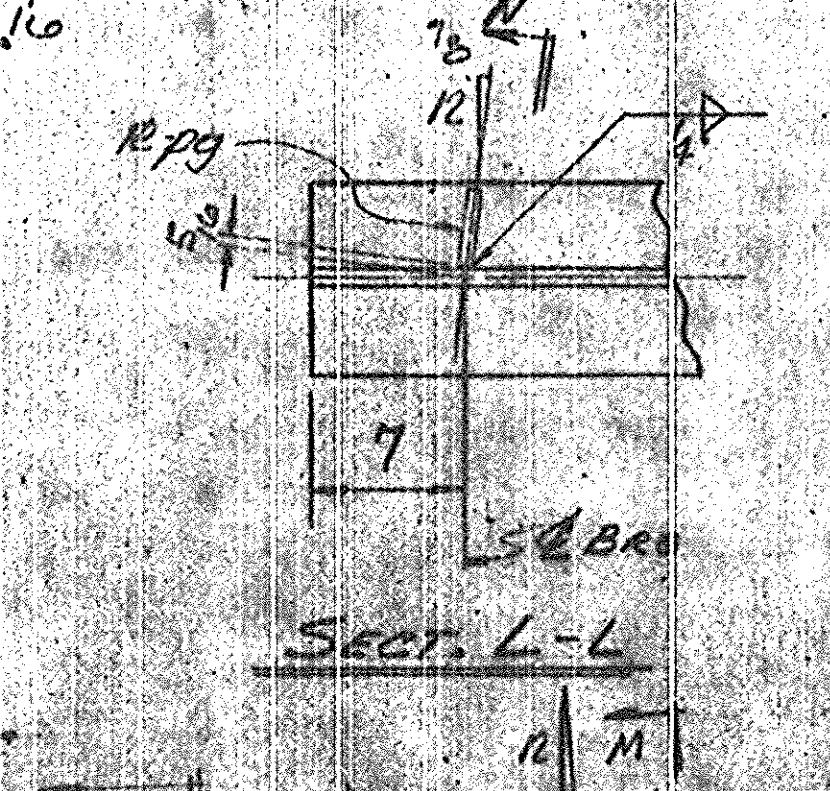
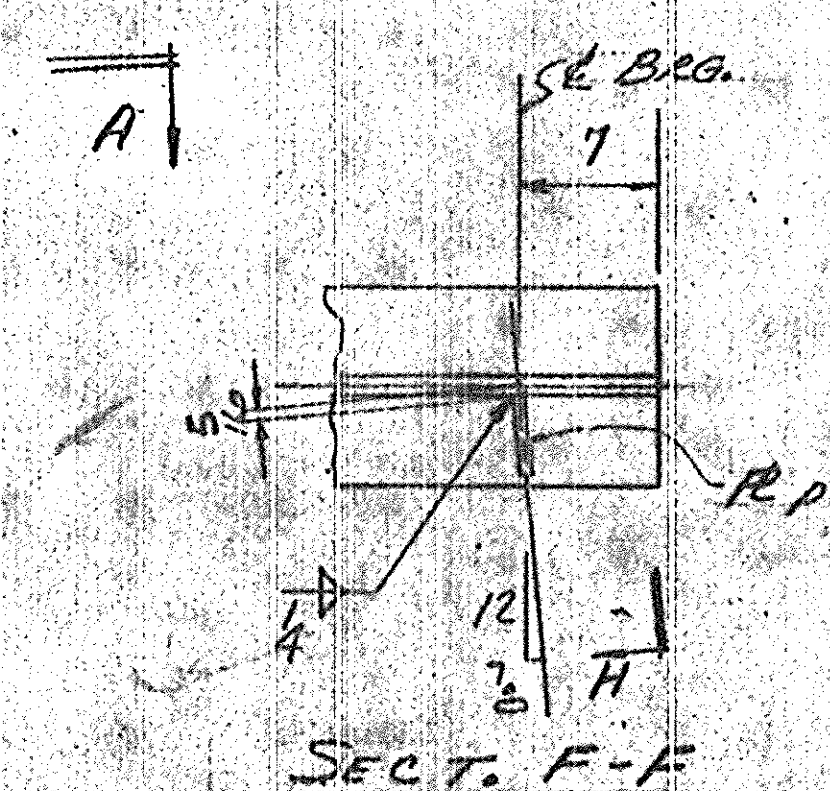
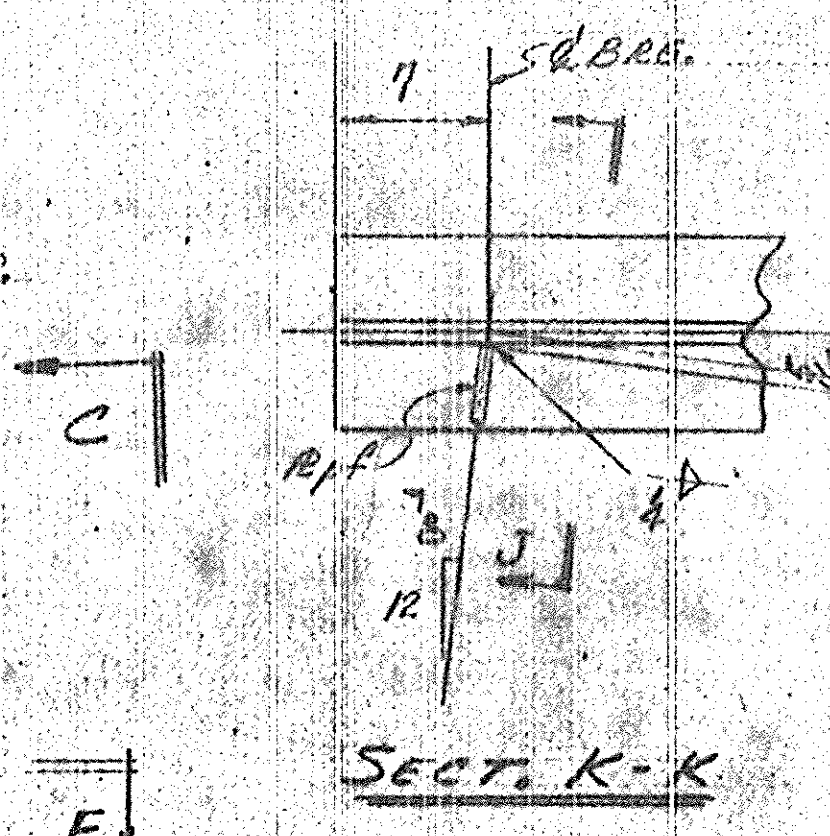
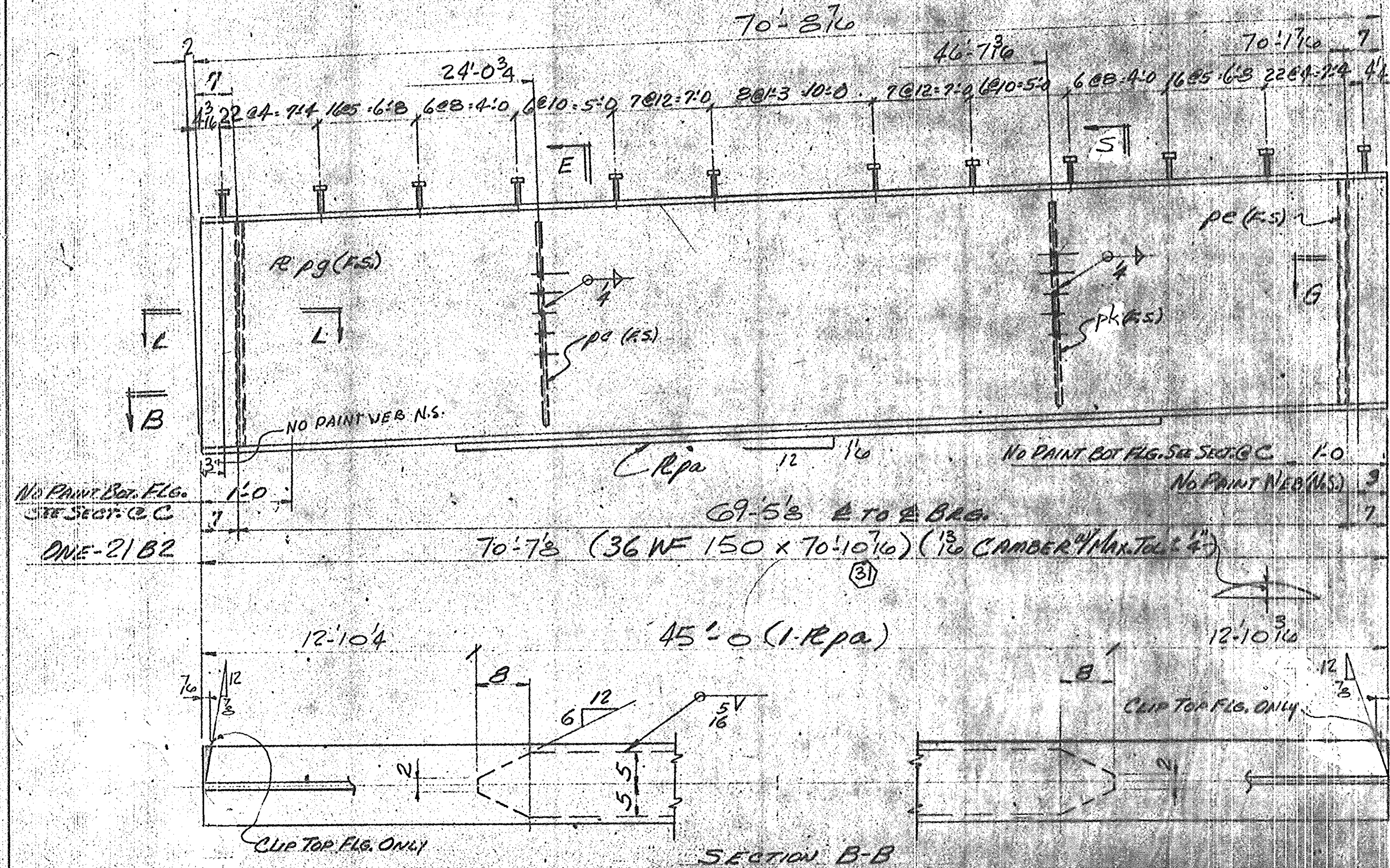
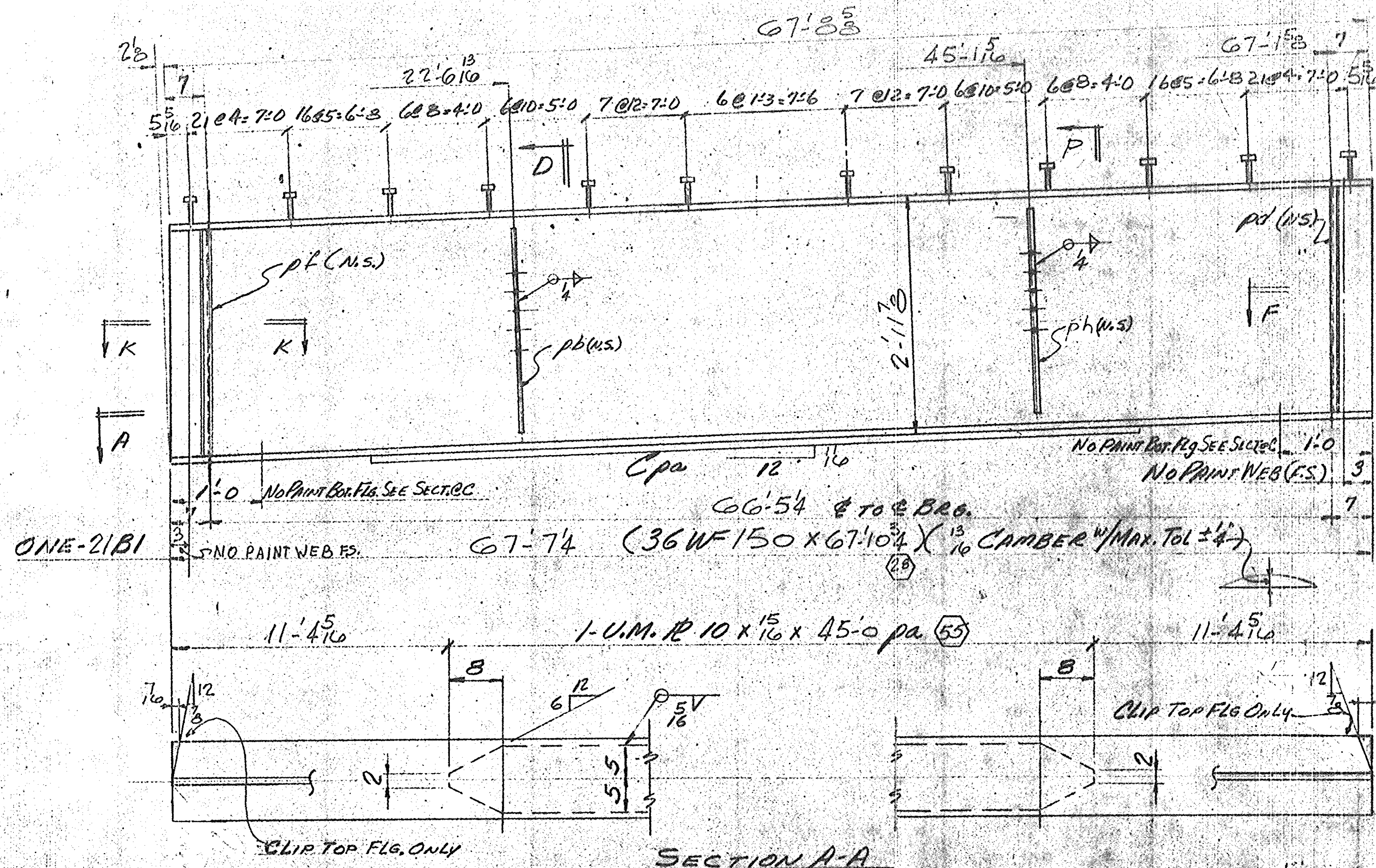
CUSTOMER: STRUCTURES, INC.
LOCATION: GREENVILLE S.C.
JOB: S.C. HIGHWAY BRIDGE, PROJ. 10-5513, CHARLESTON CNTY.

B. L. MONTAGUE CO. INC.
 SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.

RIB BOLTS	BOLTS	RIVETS	HOLES	PRIME	SCALE	SHEET NO.	OF	DWG. NO.
1/2" x 4" H.T.	1/2" x 4" H.T.	3/8" x 4" H.T.	1/2" x 4" H.T.	1/2" x 4" H.T.	1/2" x 4" H.T.	10	10	10-5513-20

(B10)

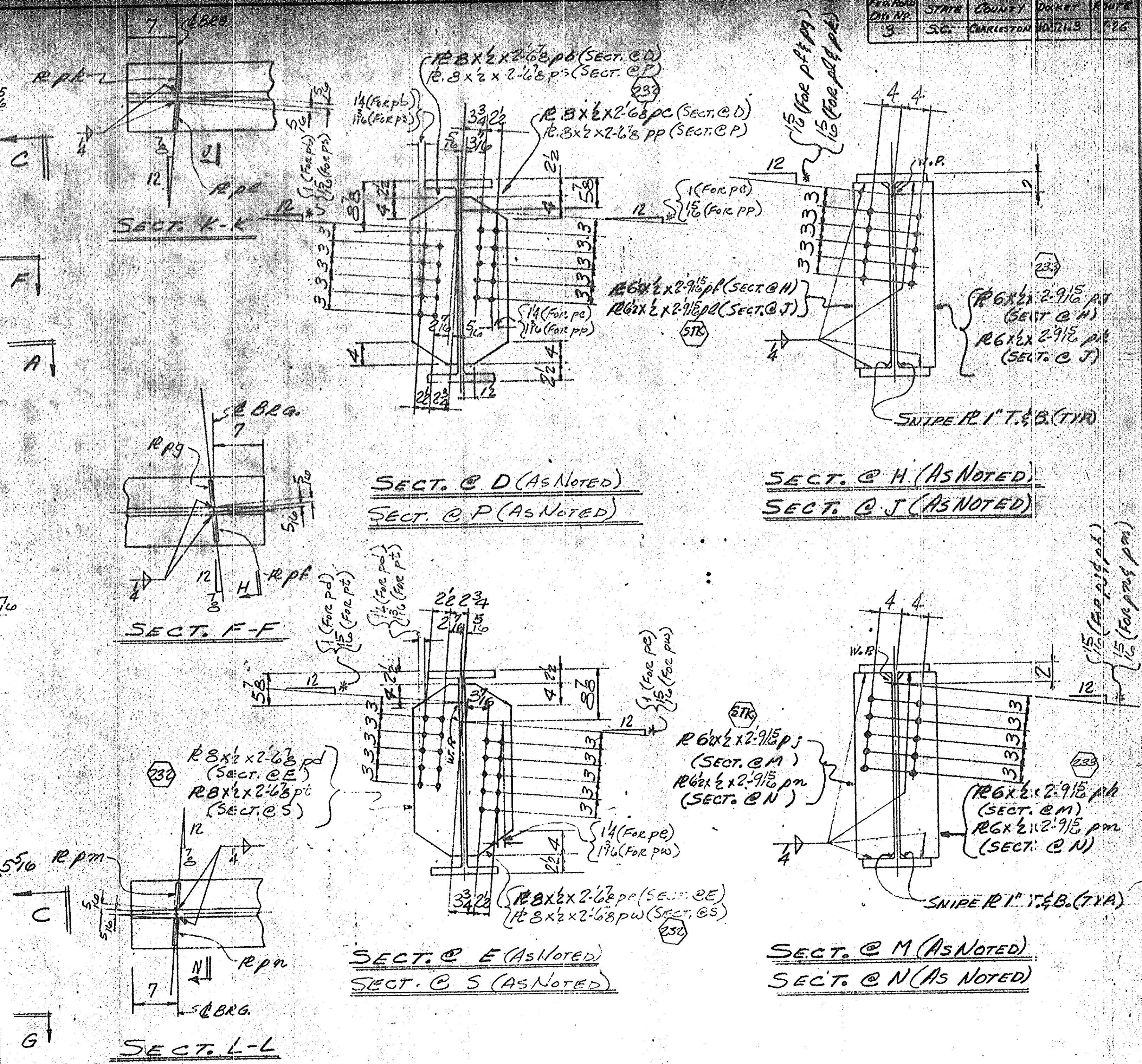
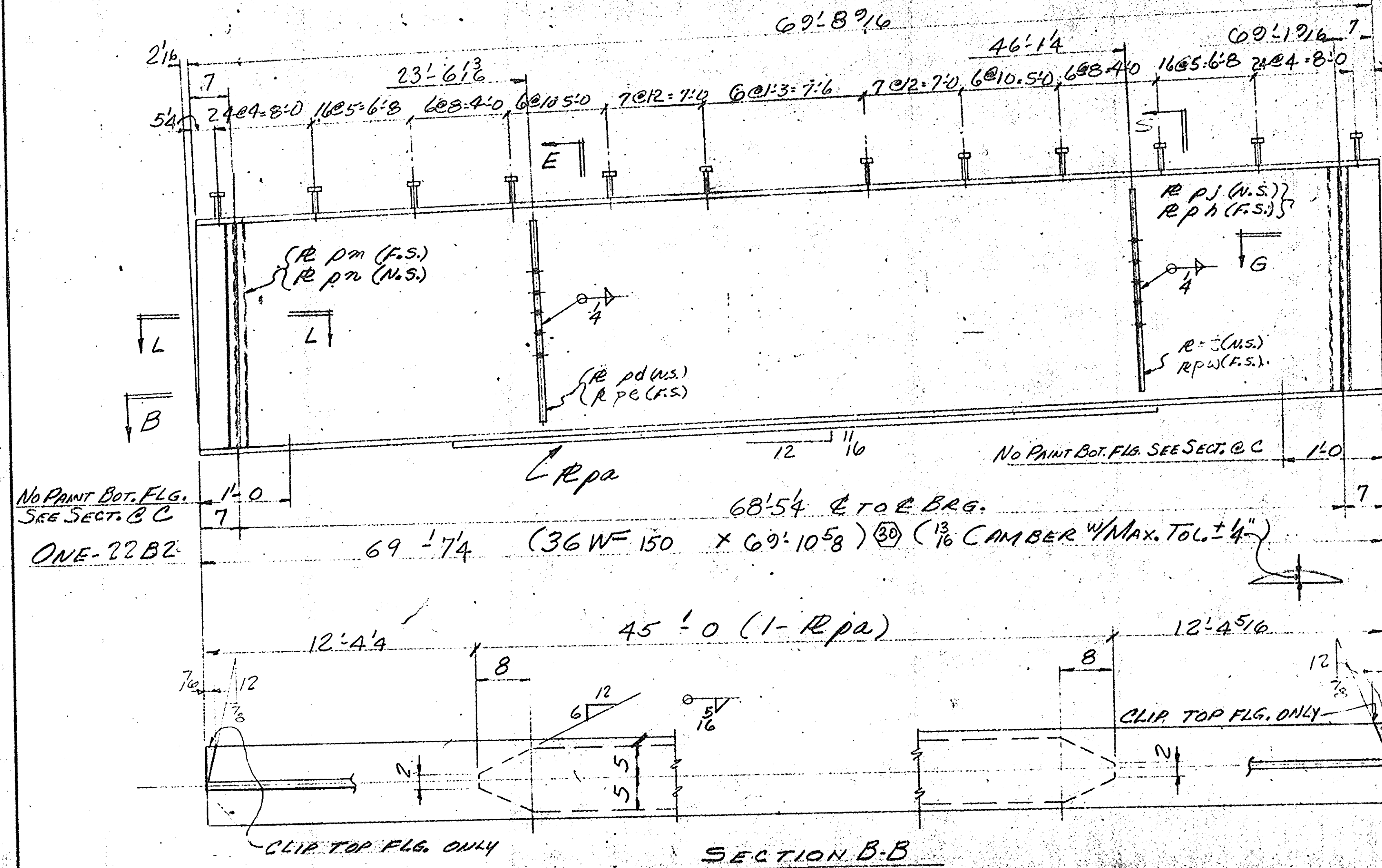
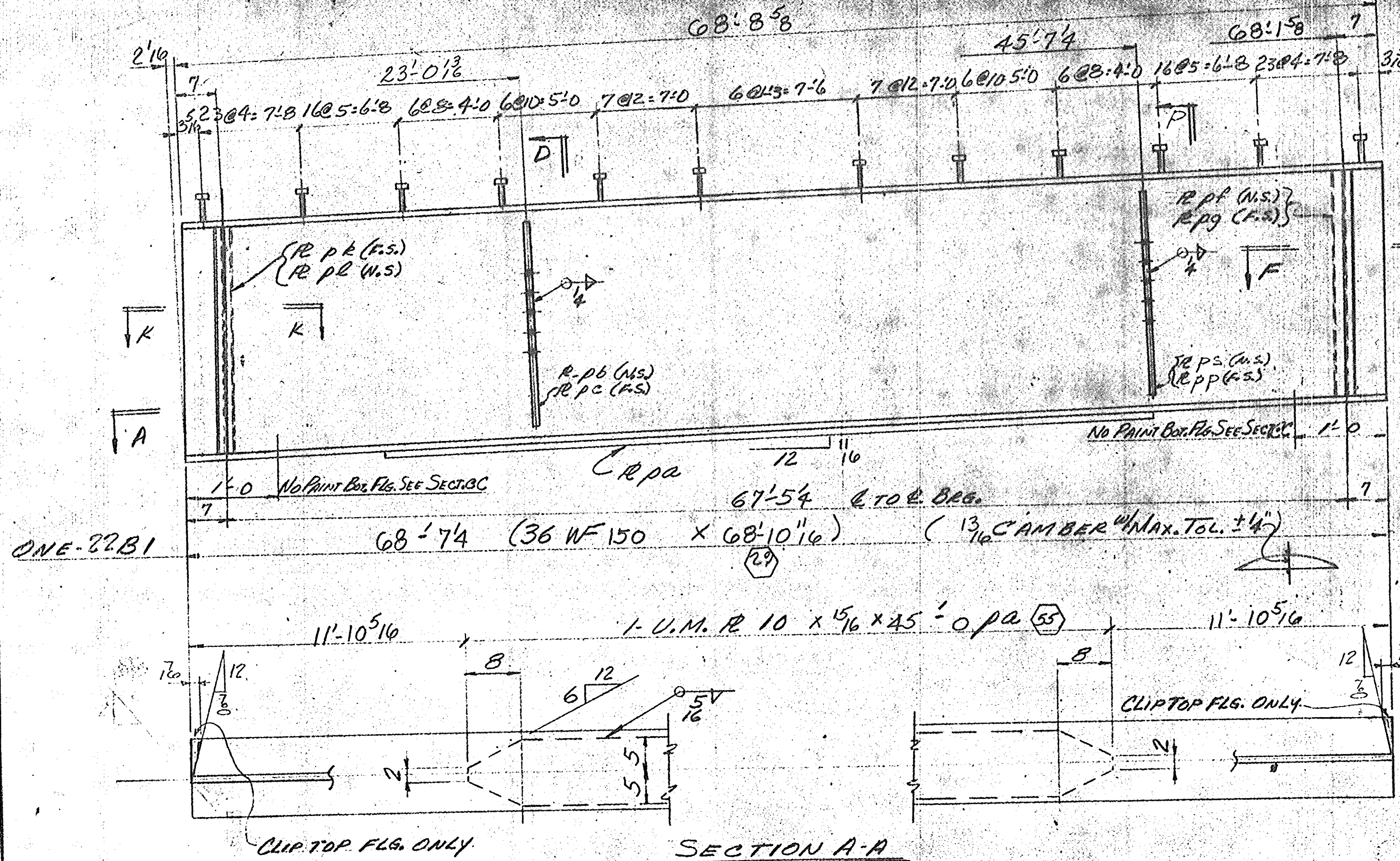
FED. ROAD DIST. NO.	STATE	COUNTY	DRAWN BY	REVISED
3	S.C.	CHARLESTON	AS 521.3	2.26



NOTES:
 PRINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
3-21-71	WLD	GREENVILLE, S.C.	
9-12-65	WLD	GREENVILLE, S.C.	
5-14-71	WLD	GREENVILLE, S.C.	

SEE NOTE SH. E1

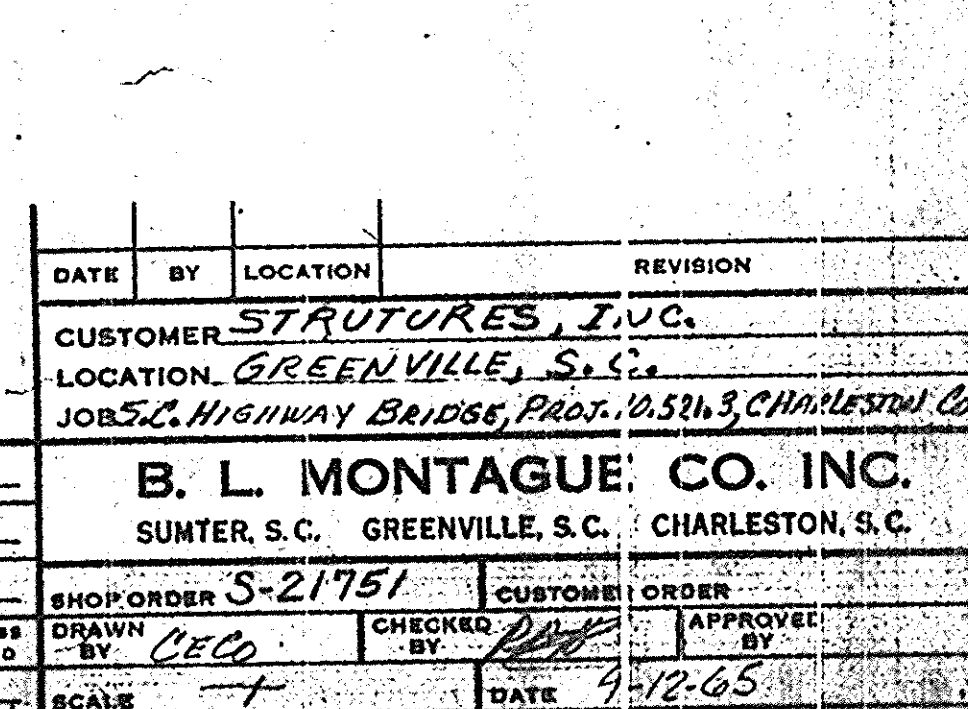
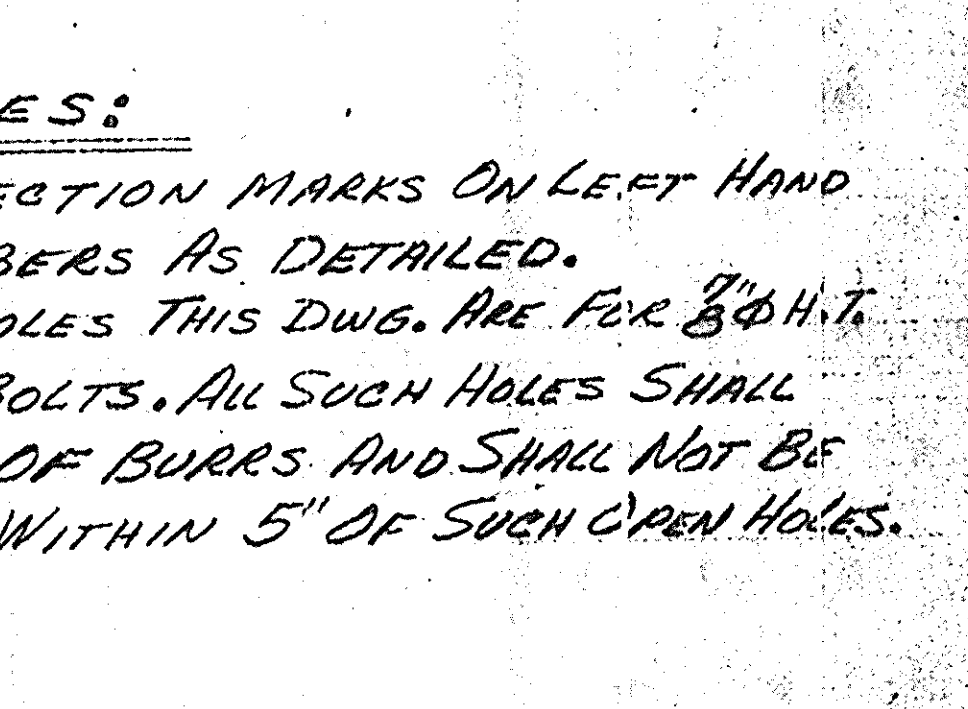
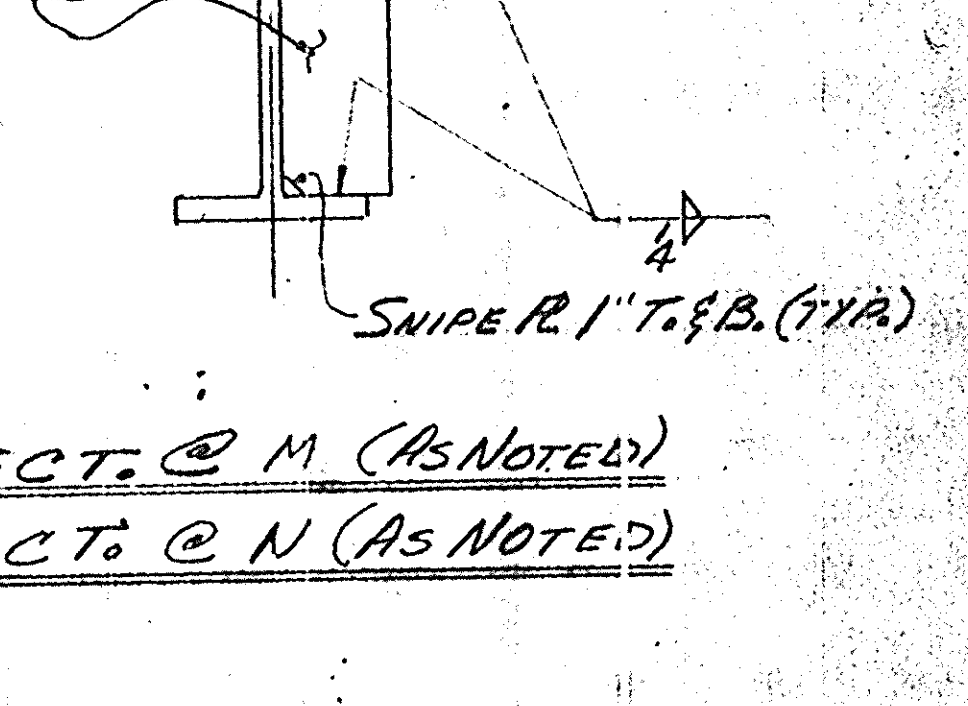
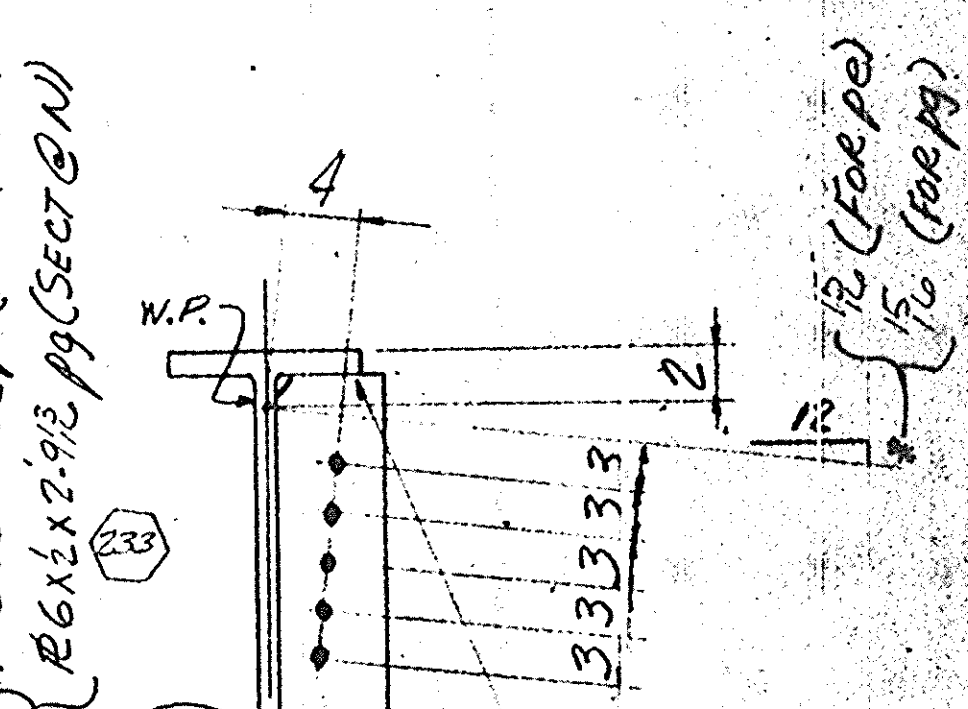
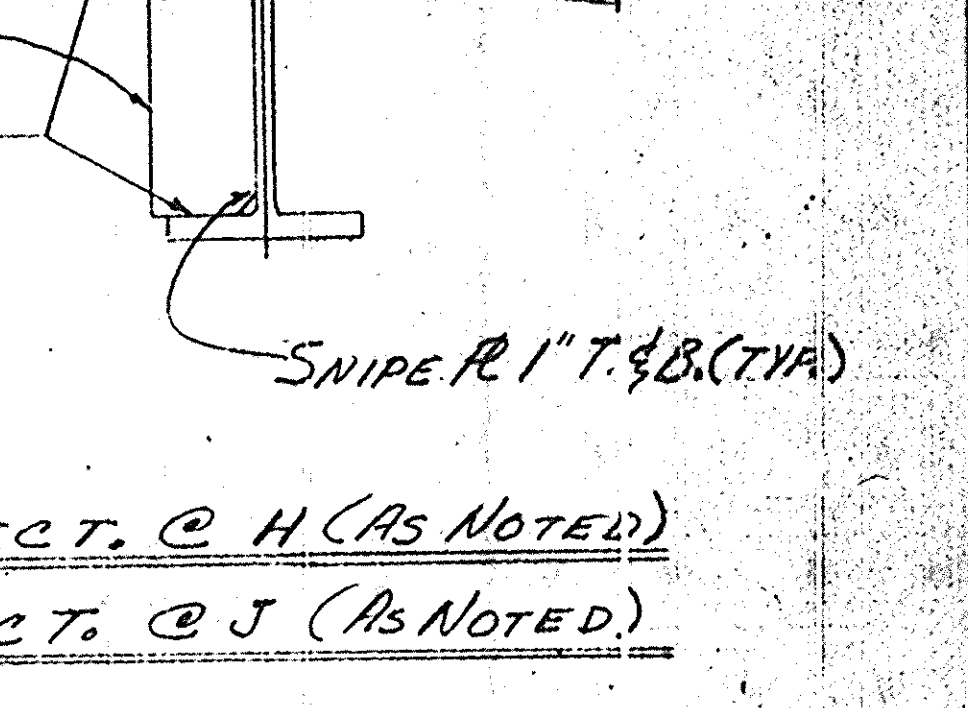
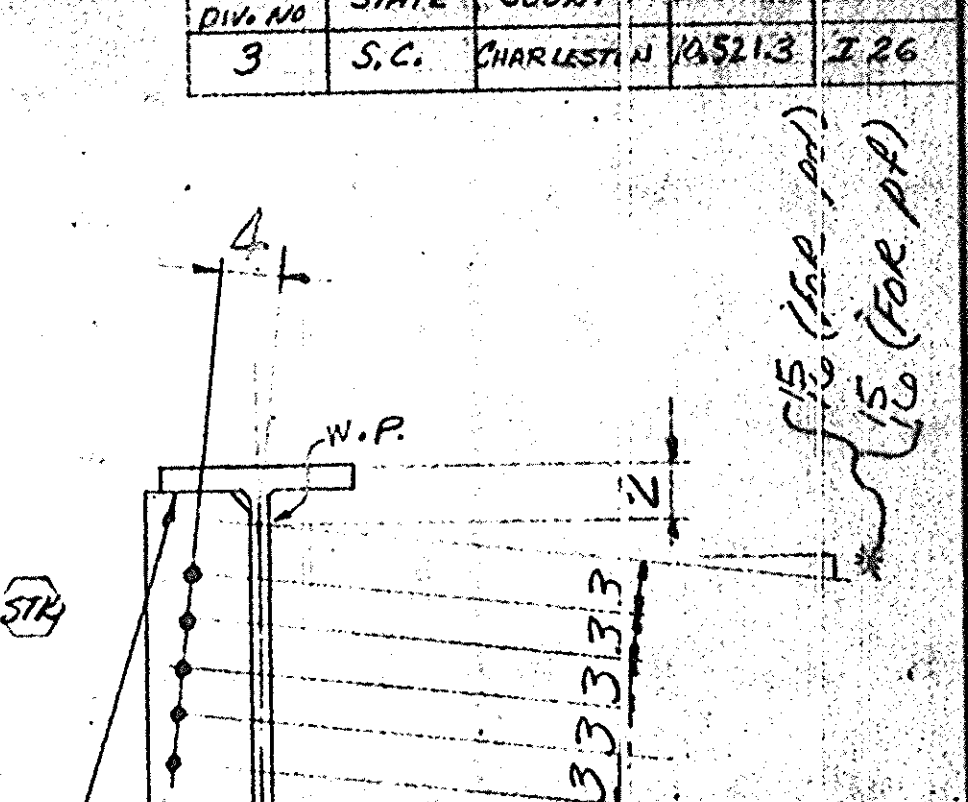
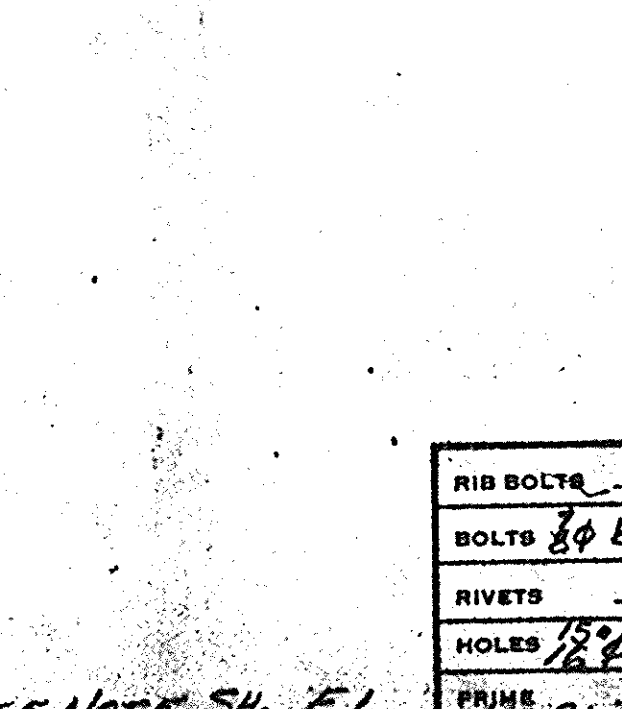
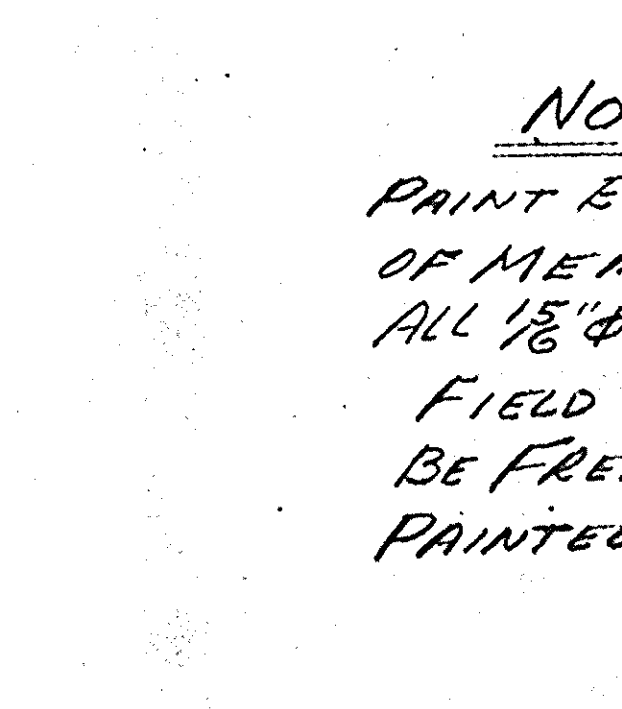
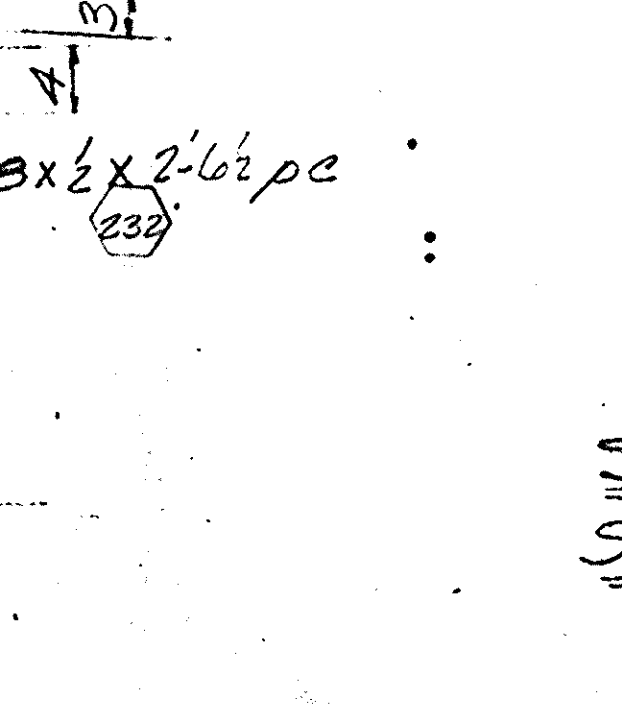
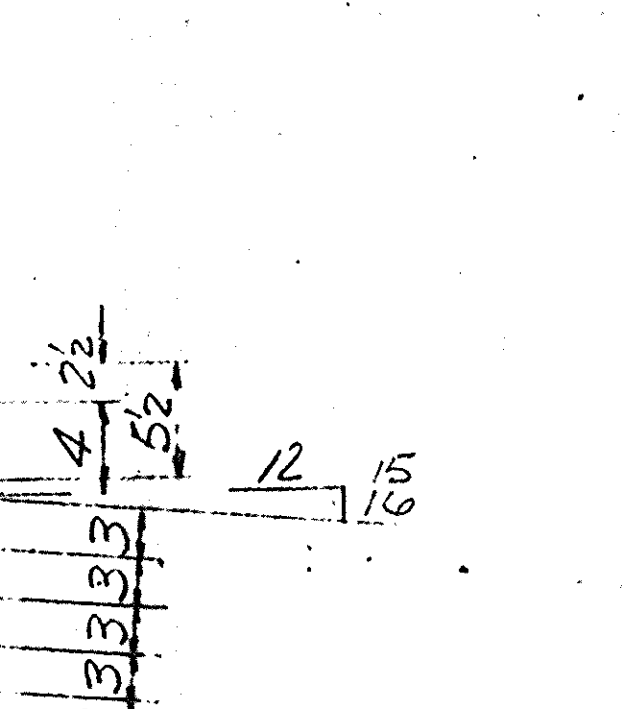
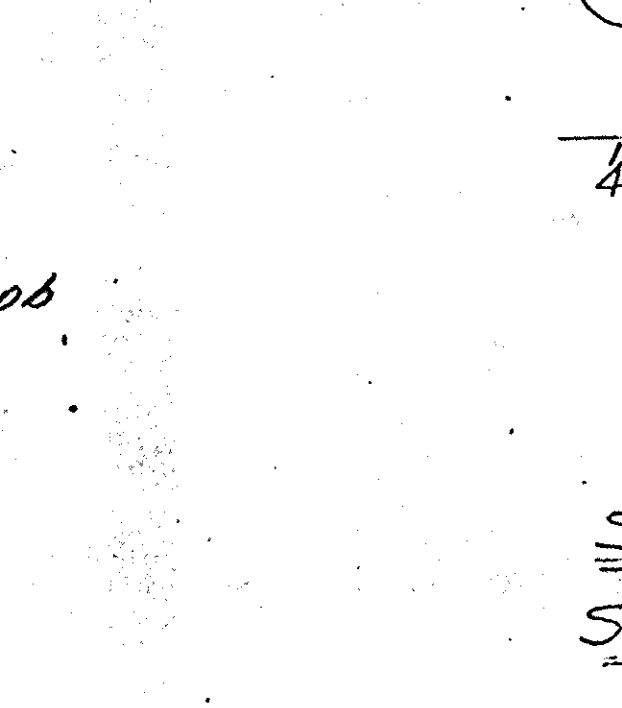
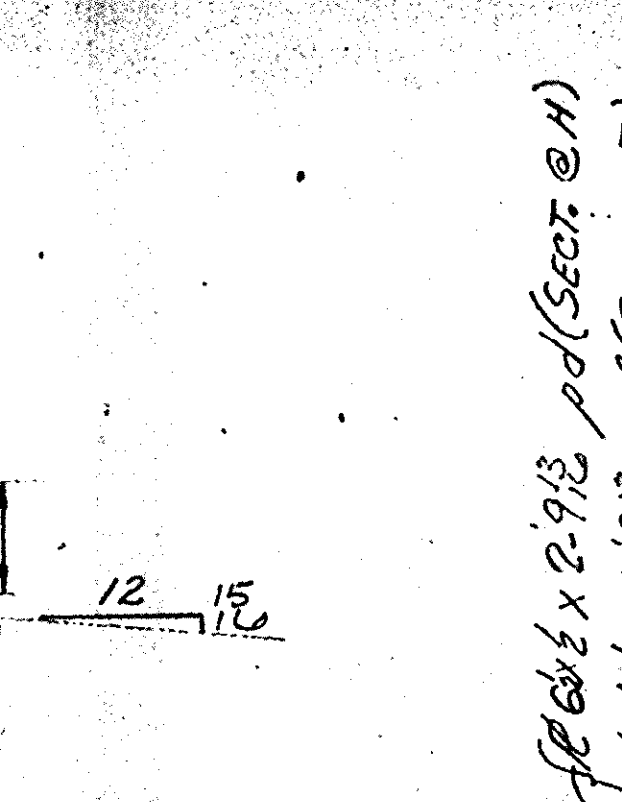
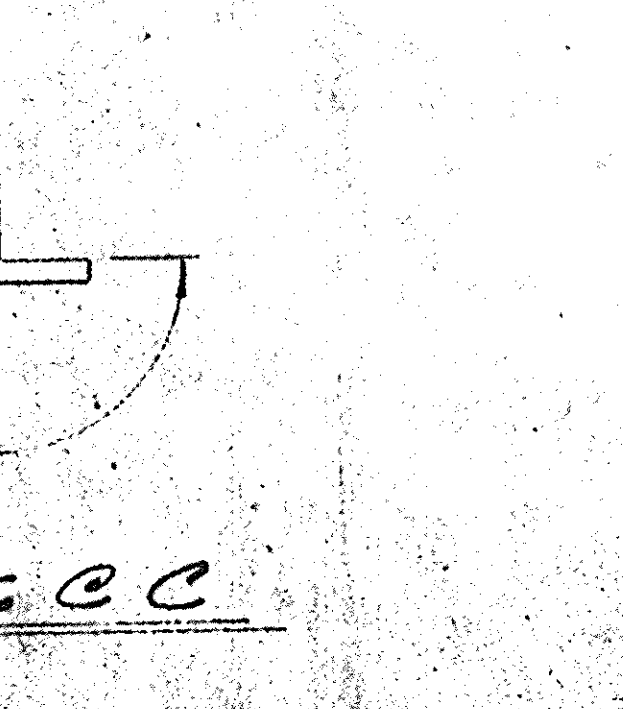
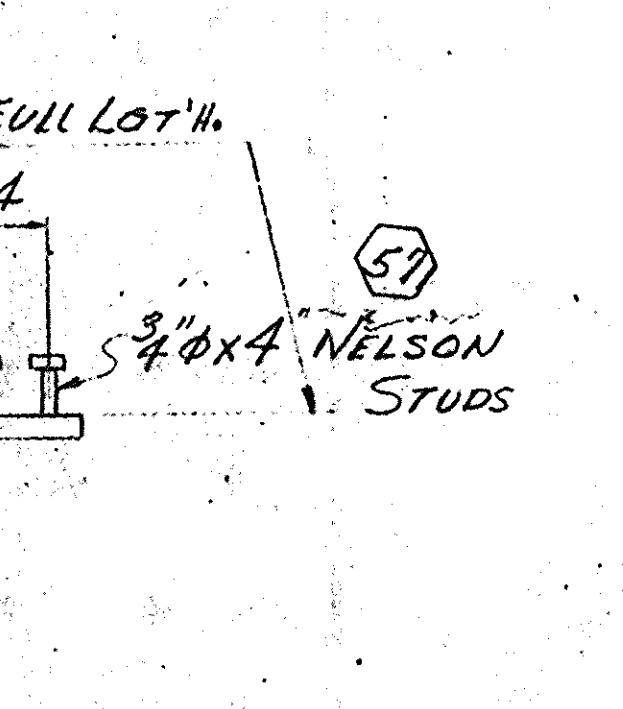
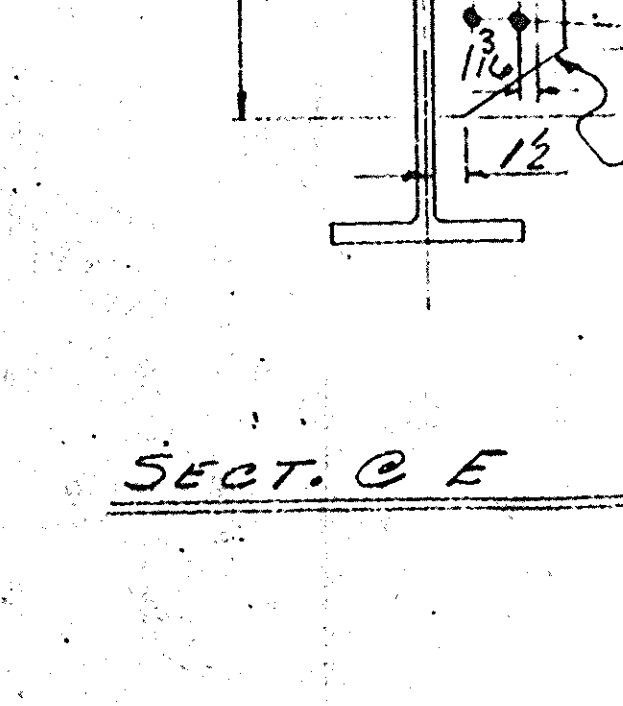
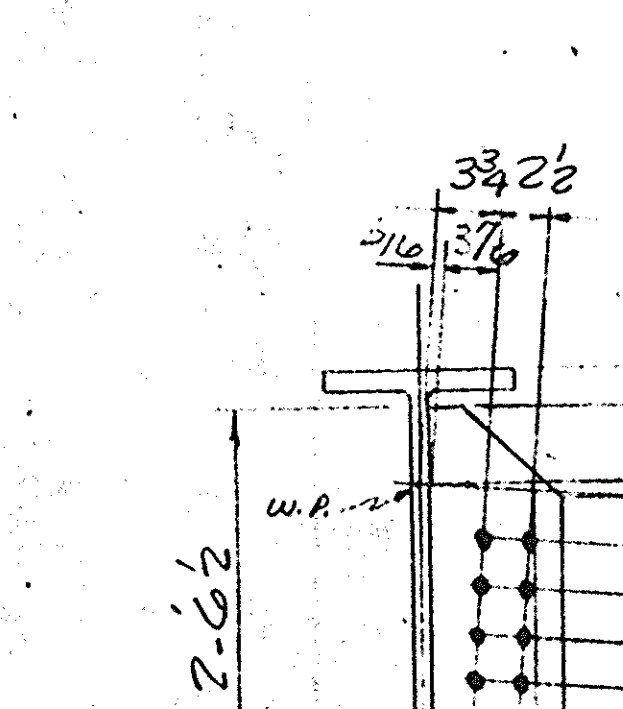
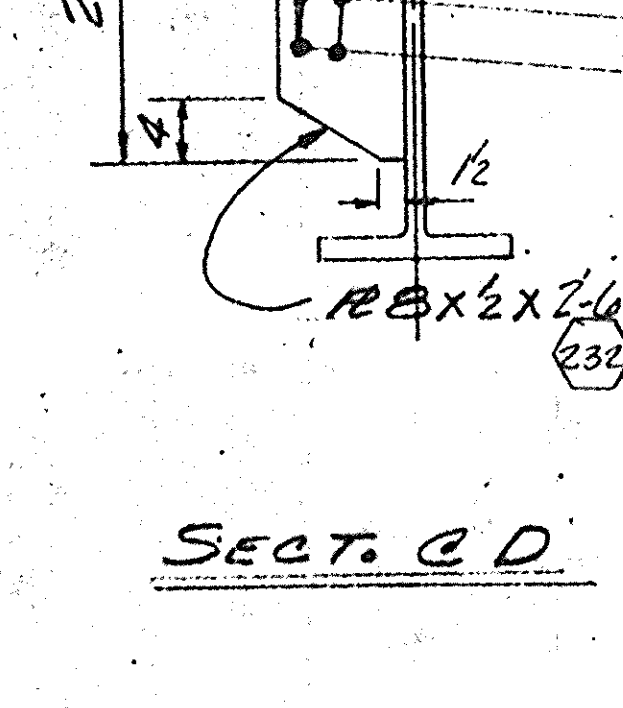
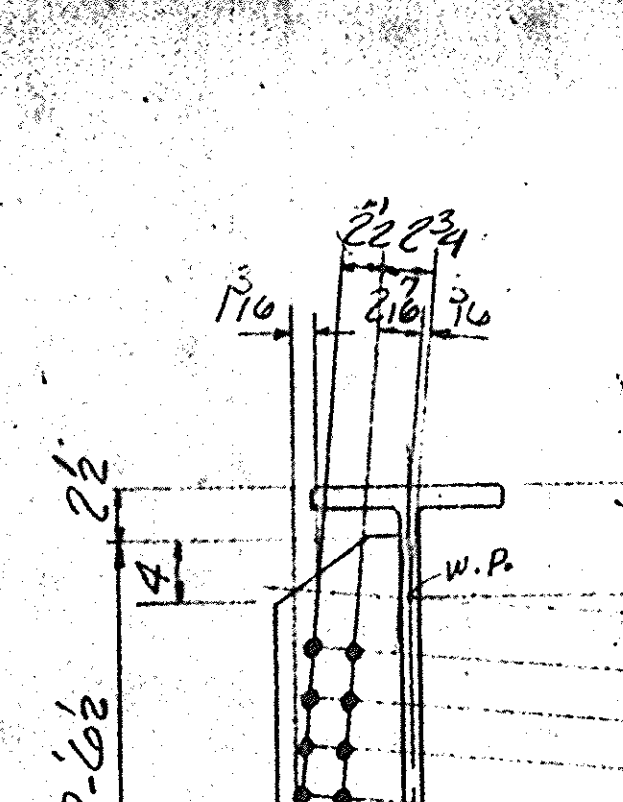
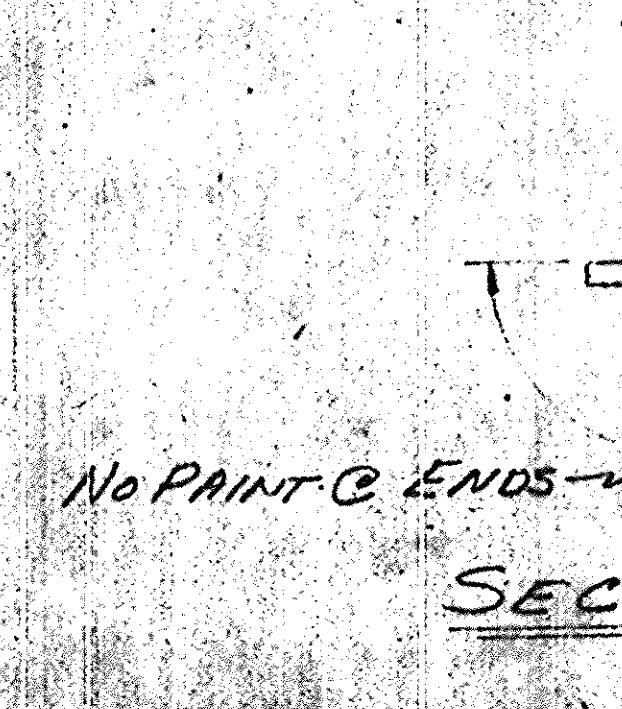
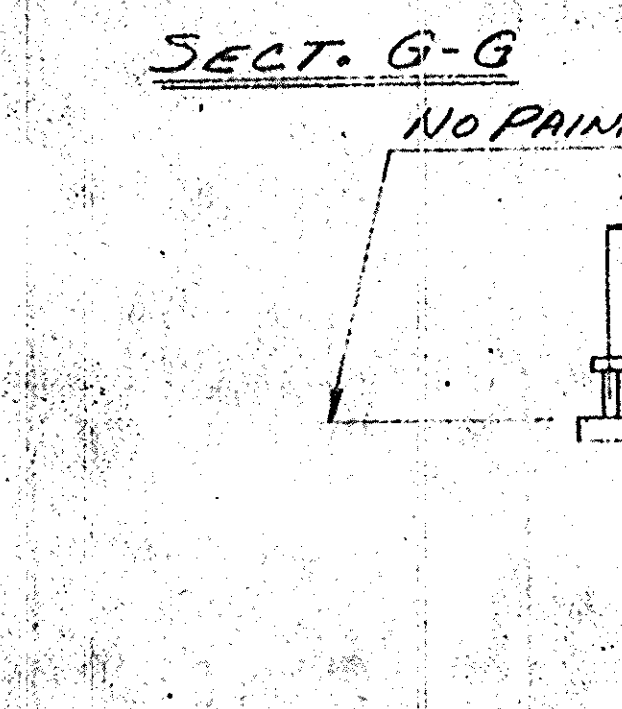
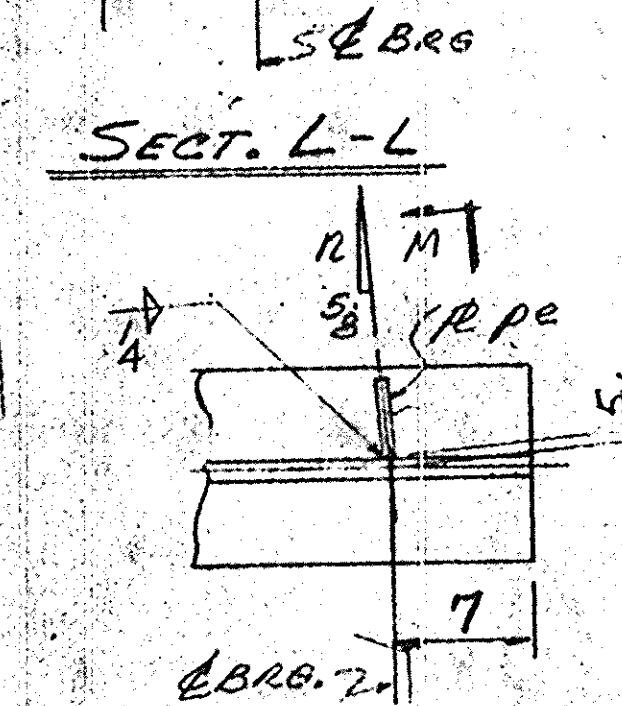
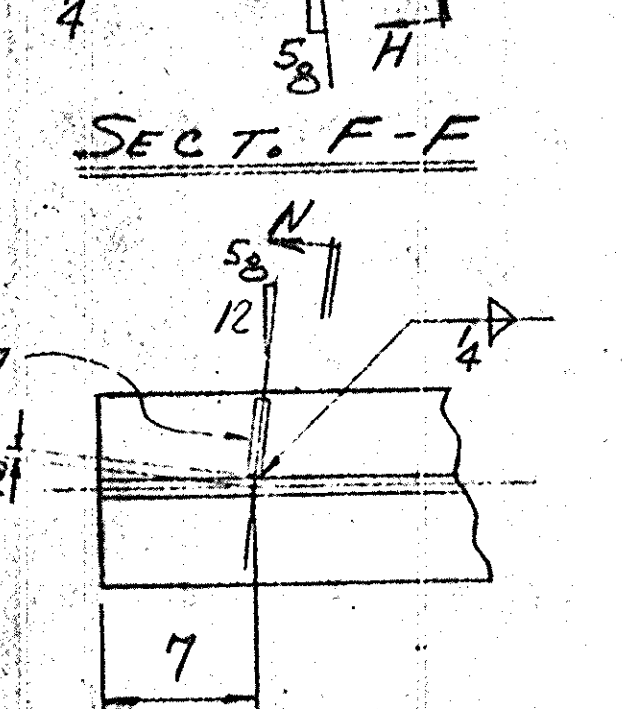
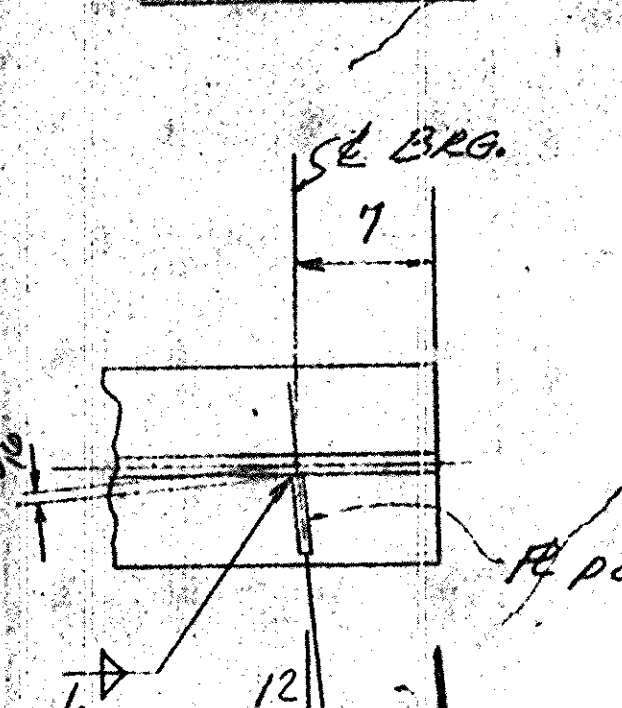
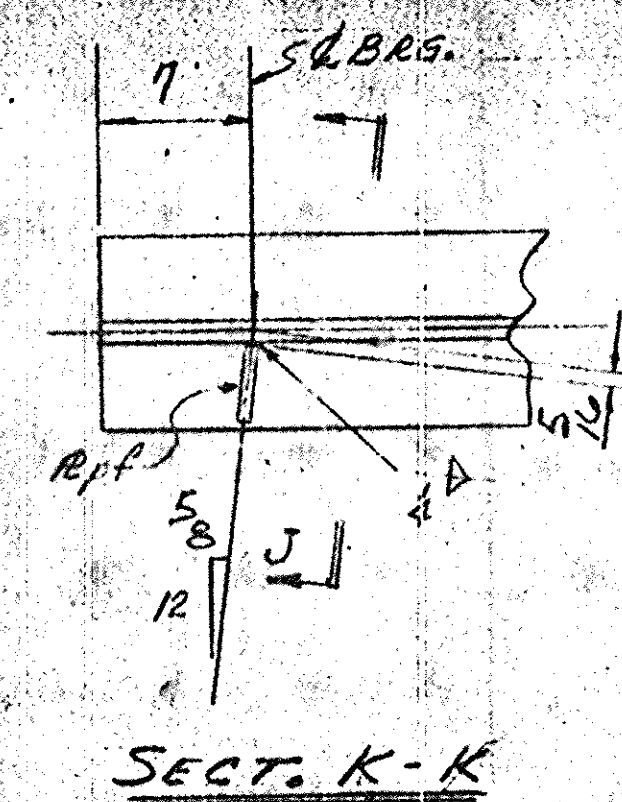
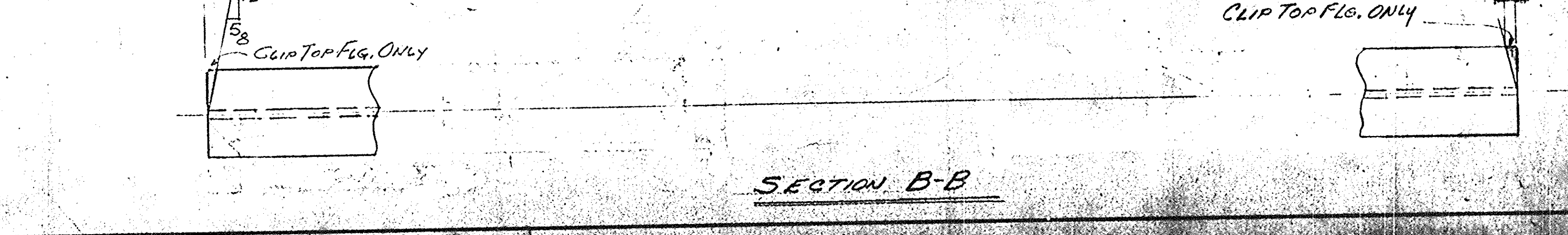
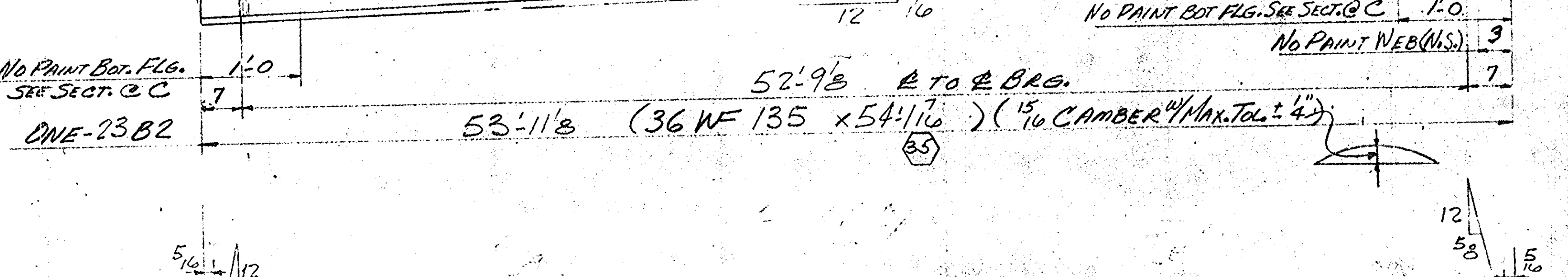
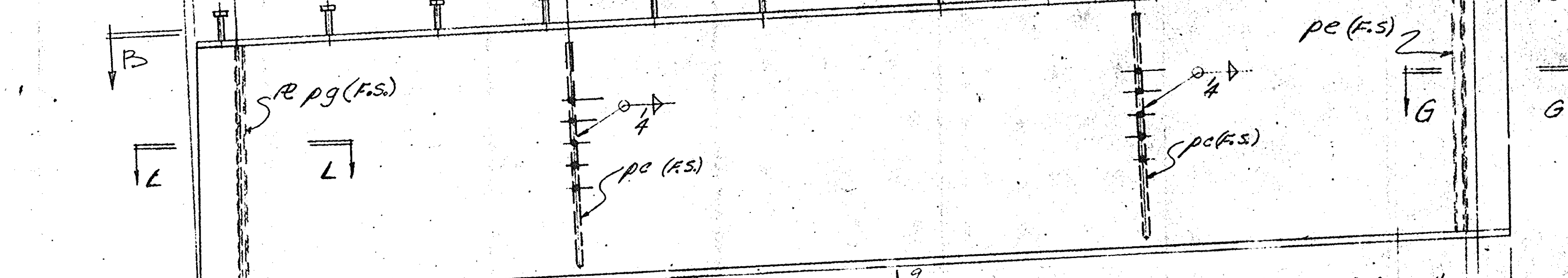
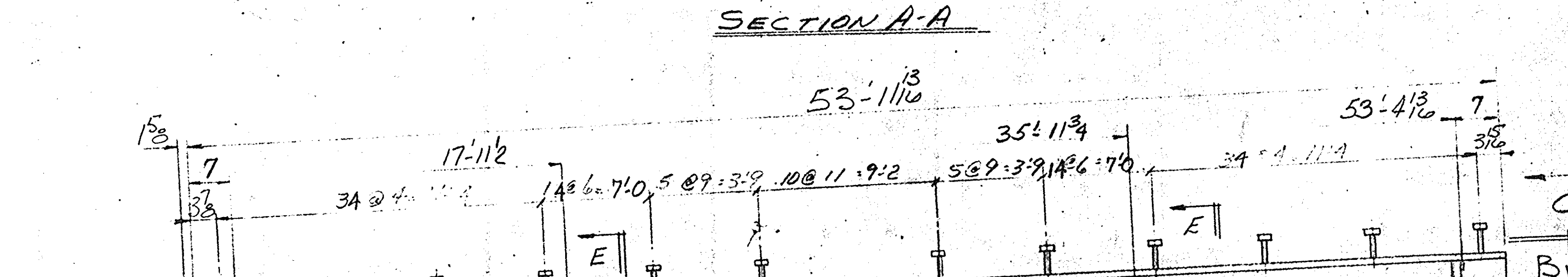
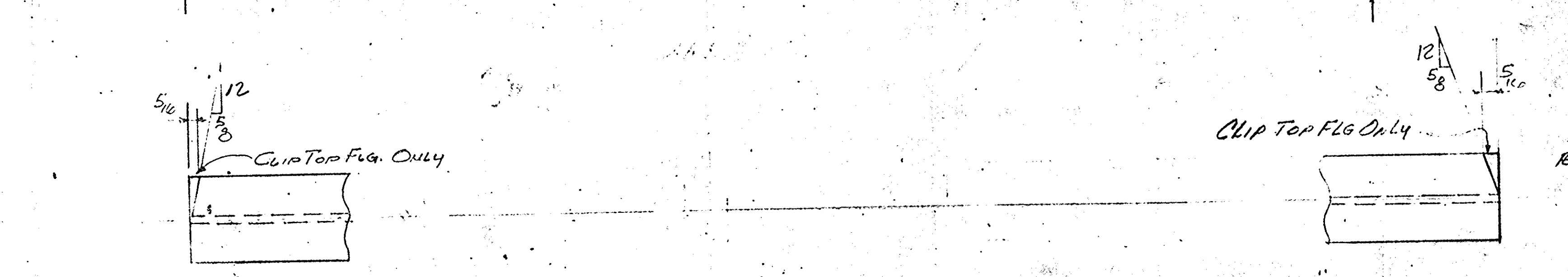
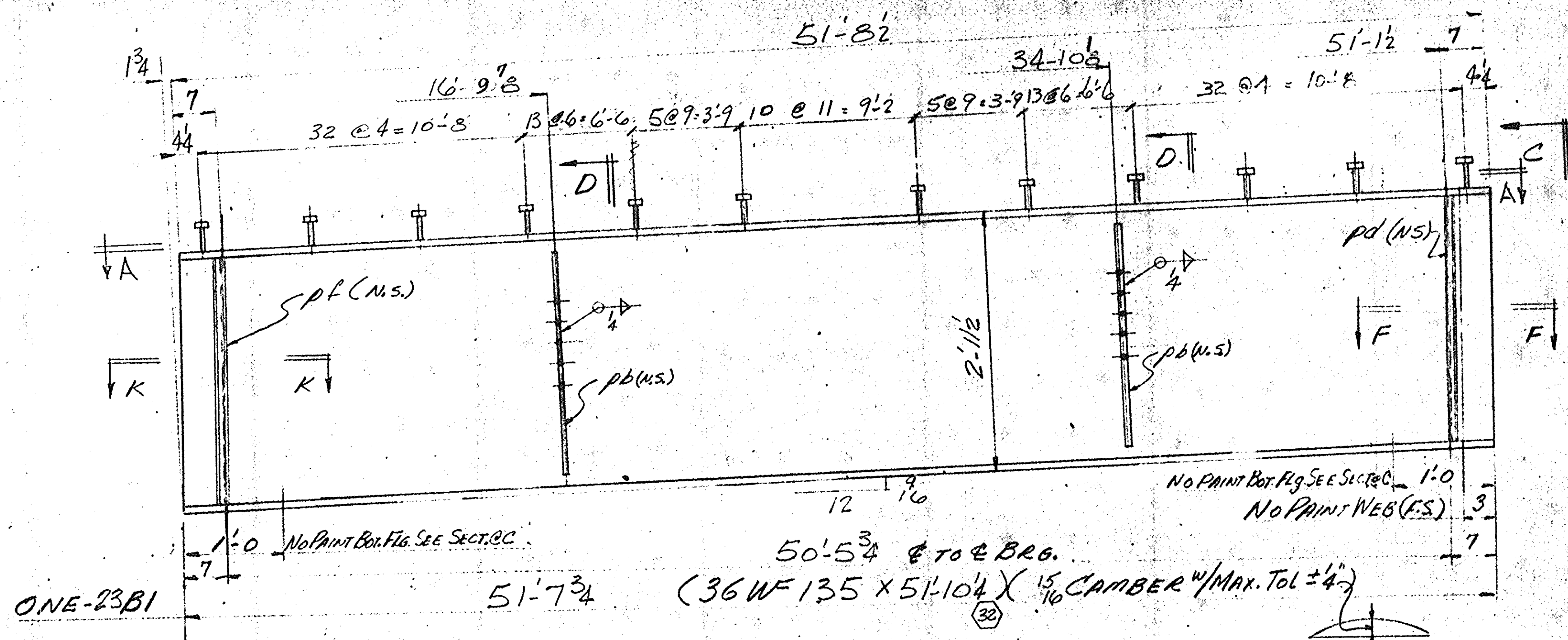


NOTES:

PRINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.

ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

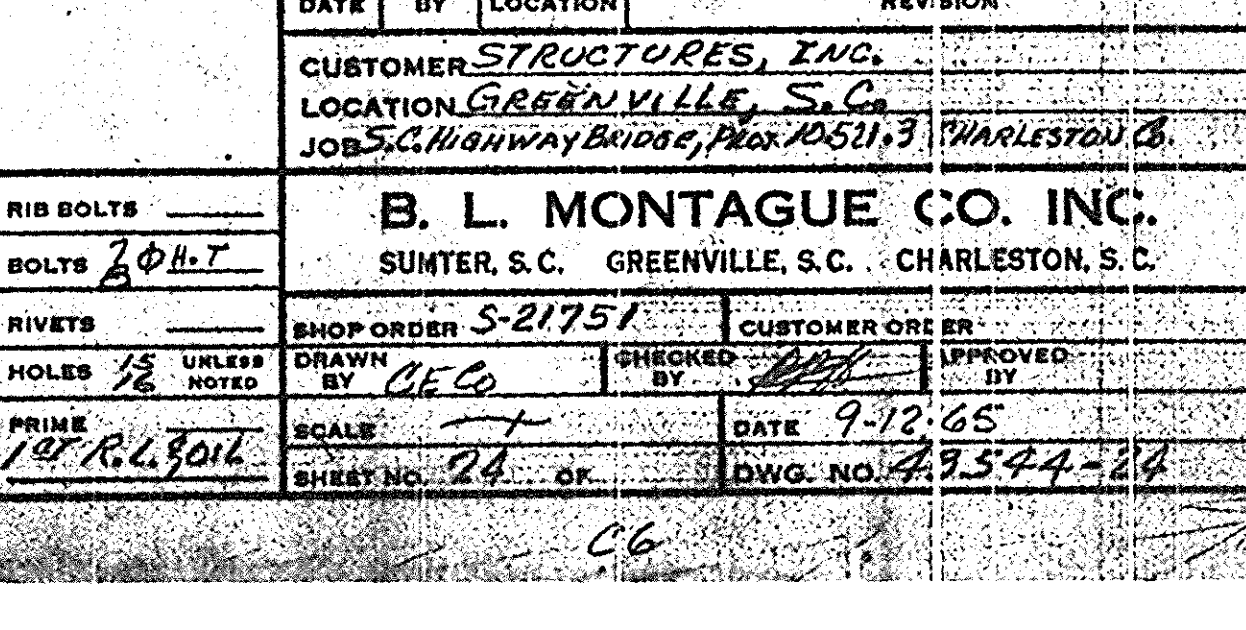
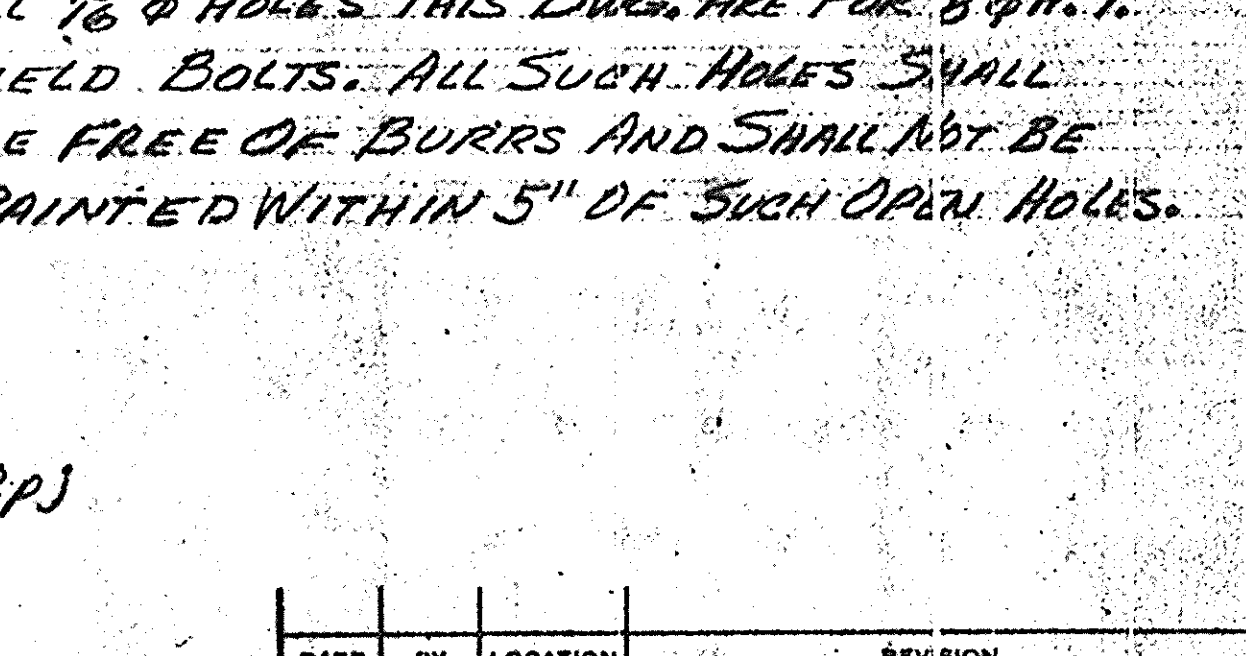
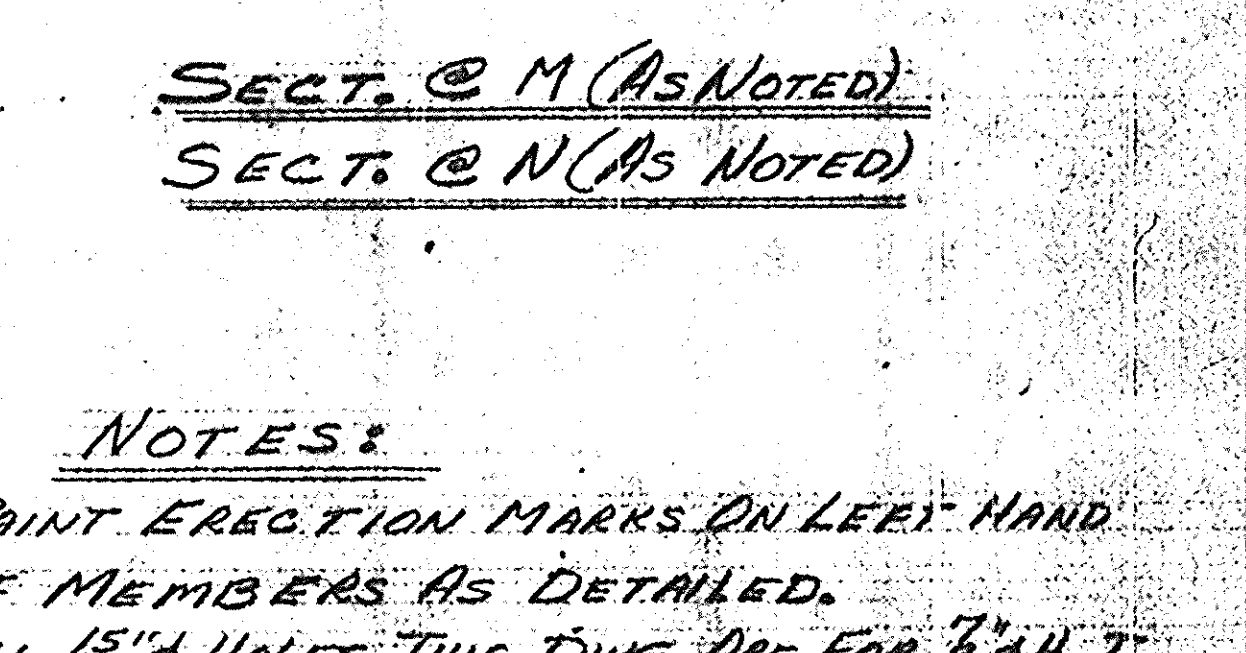
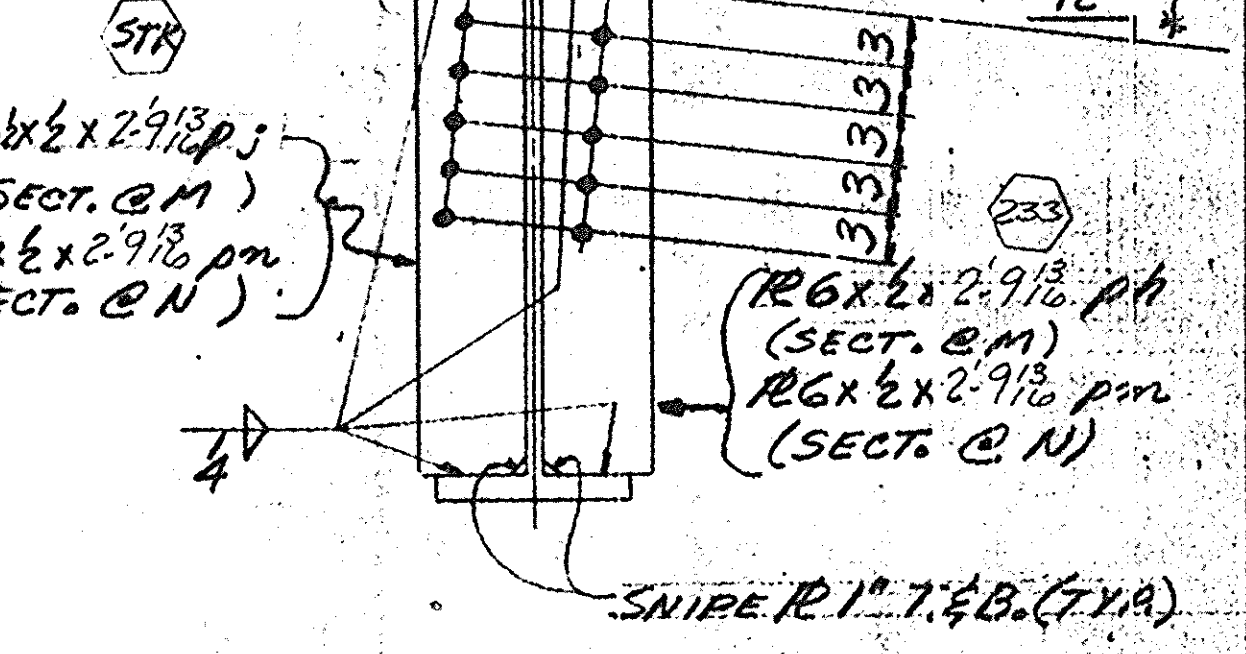
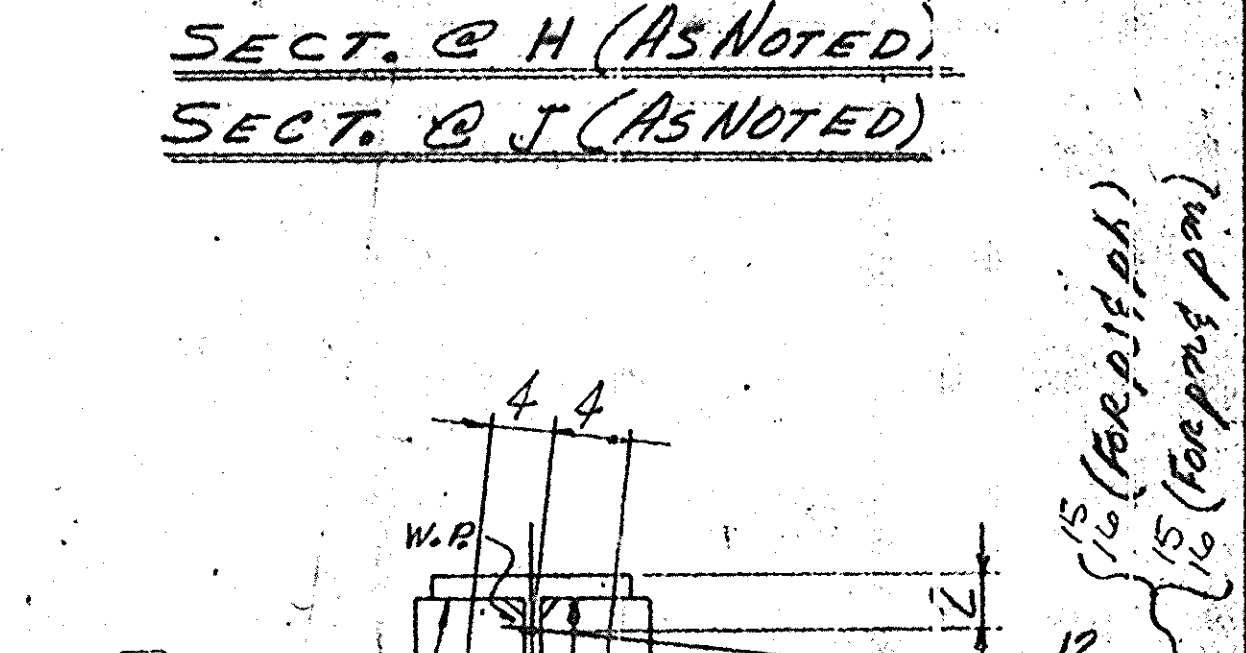
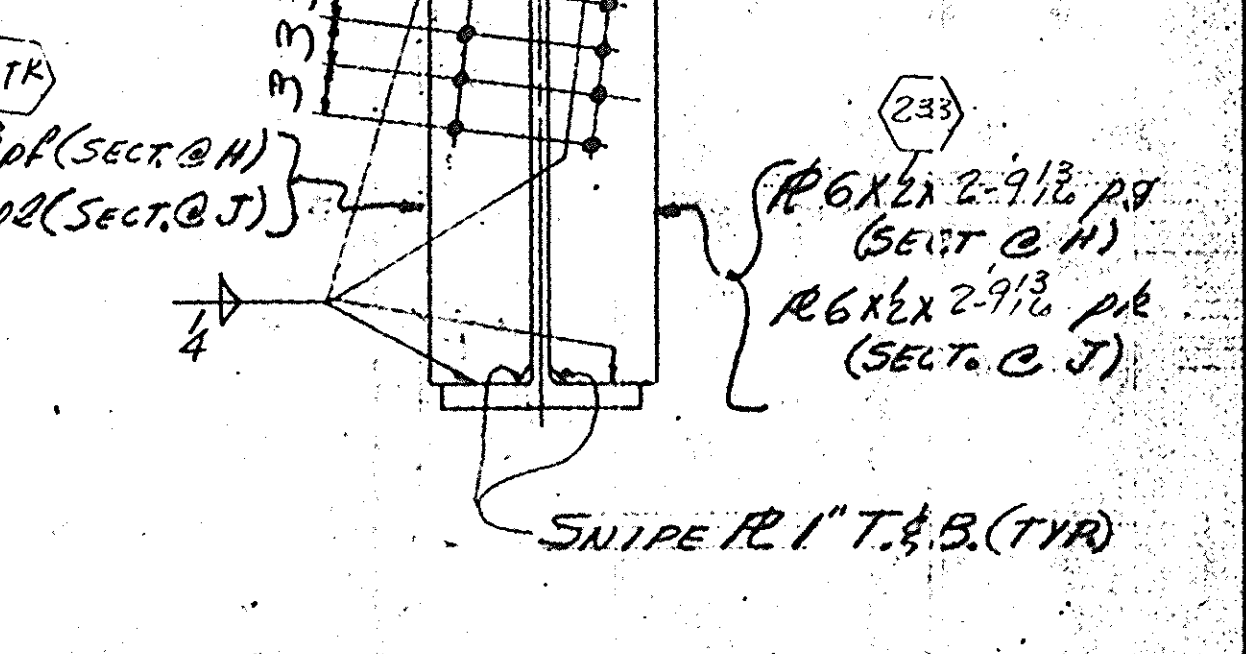
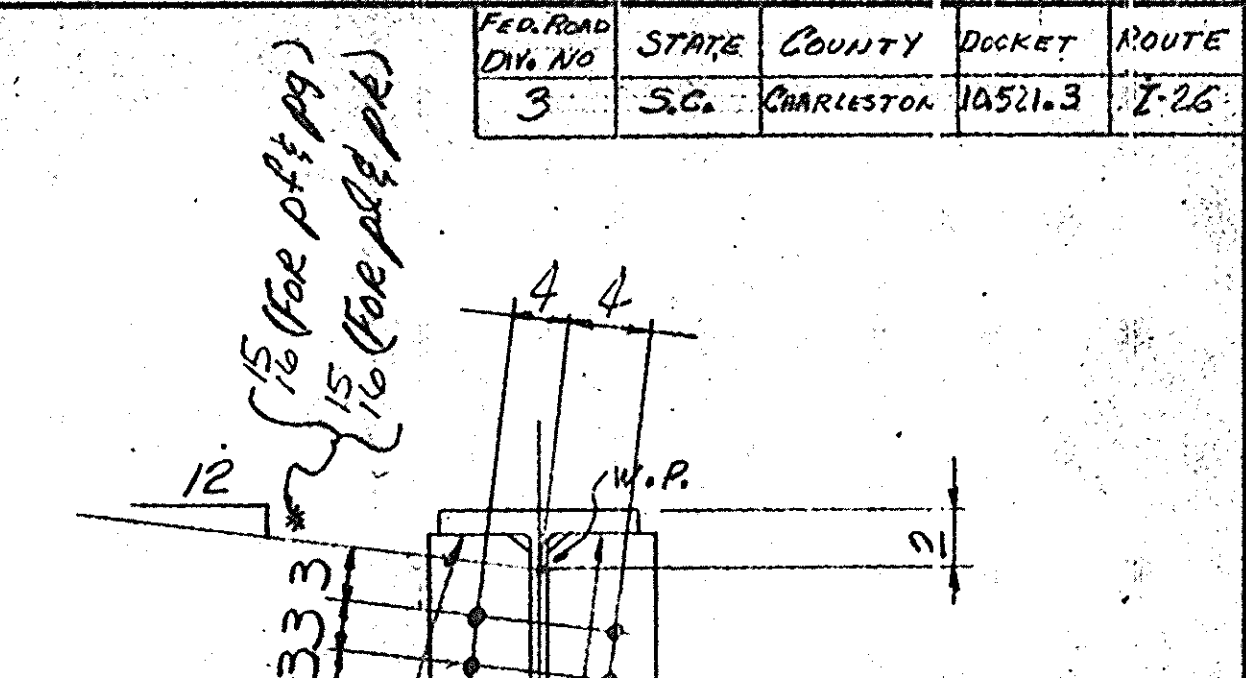
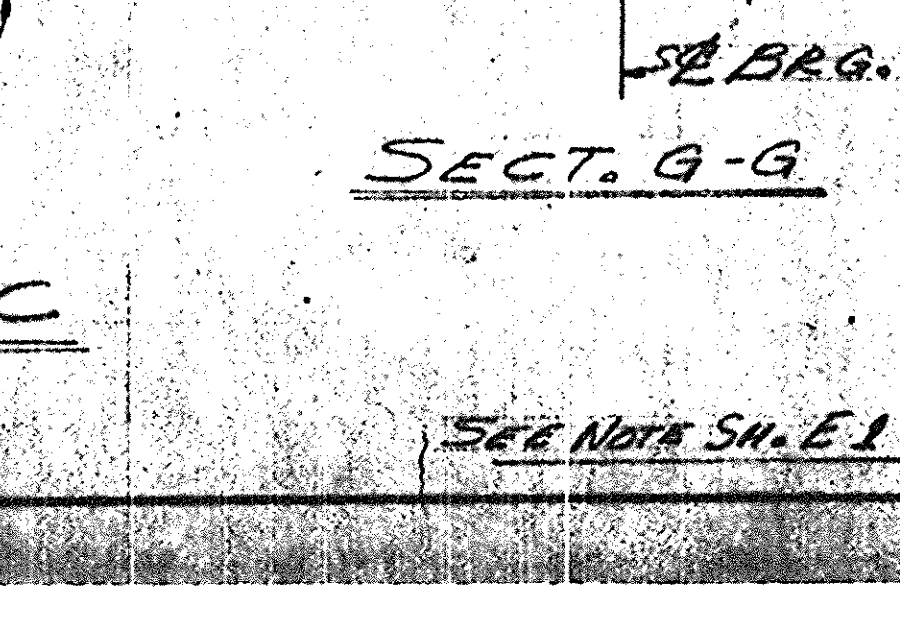
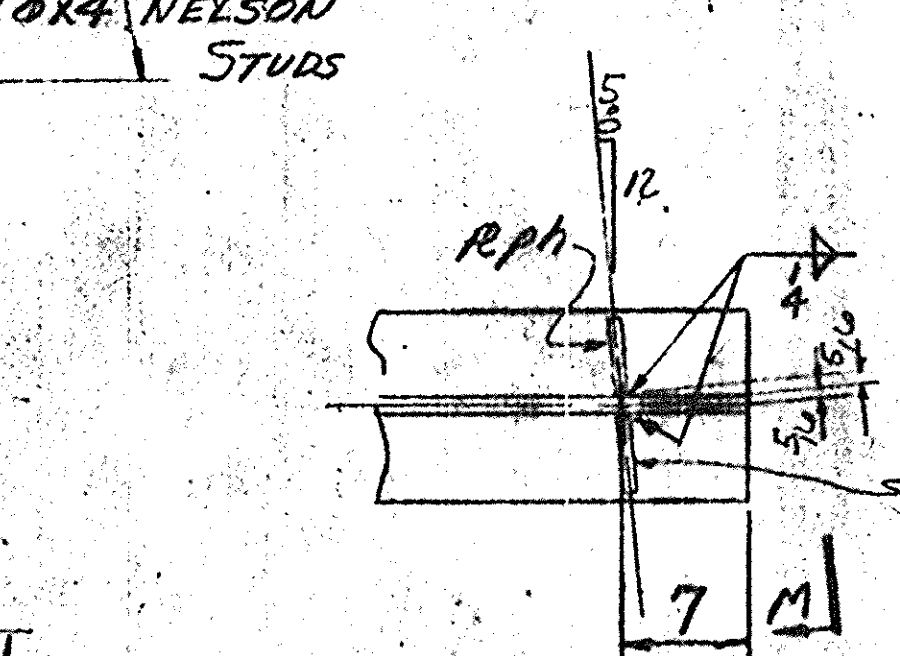
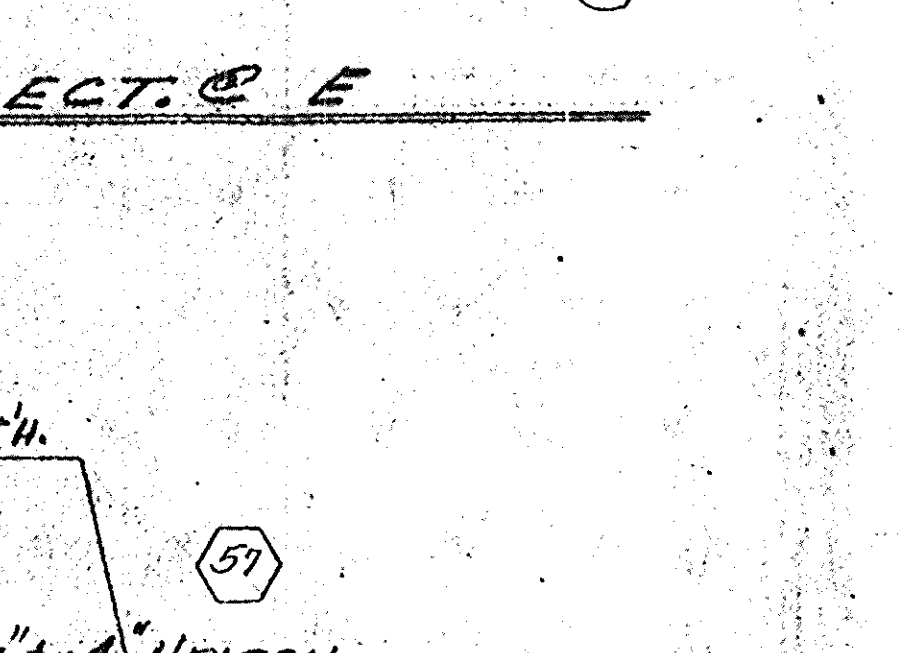
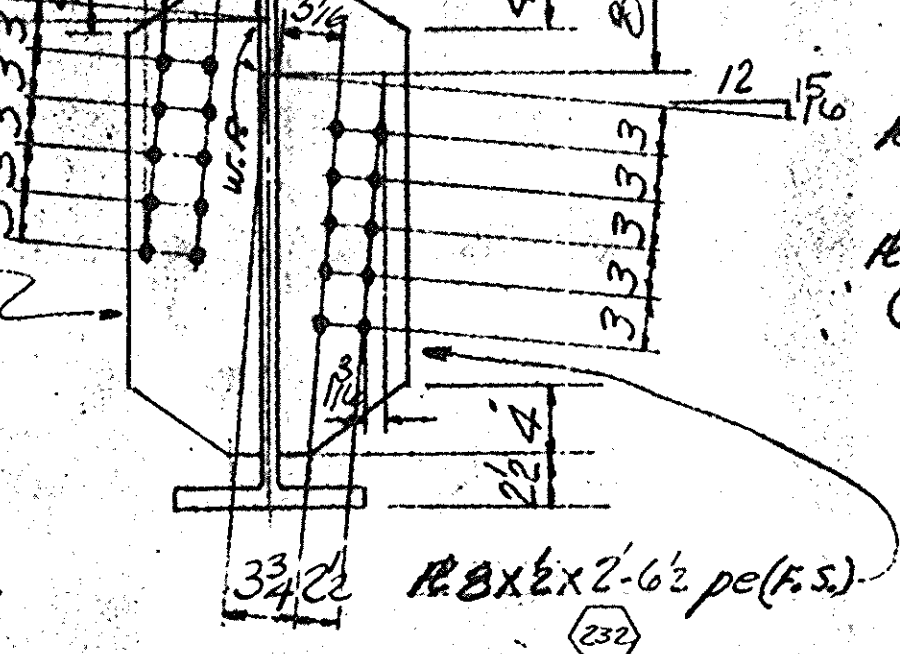
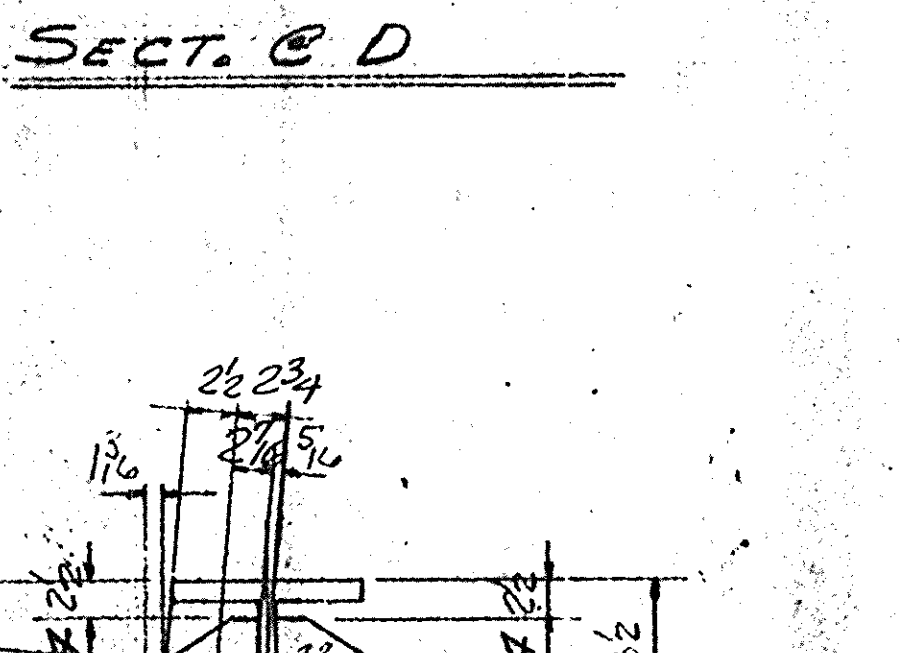
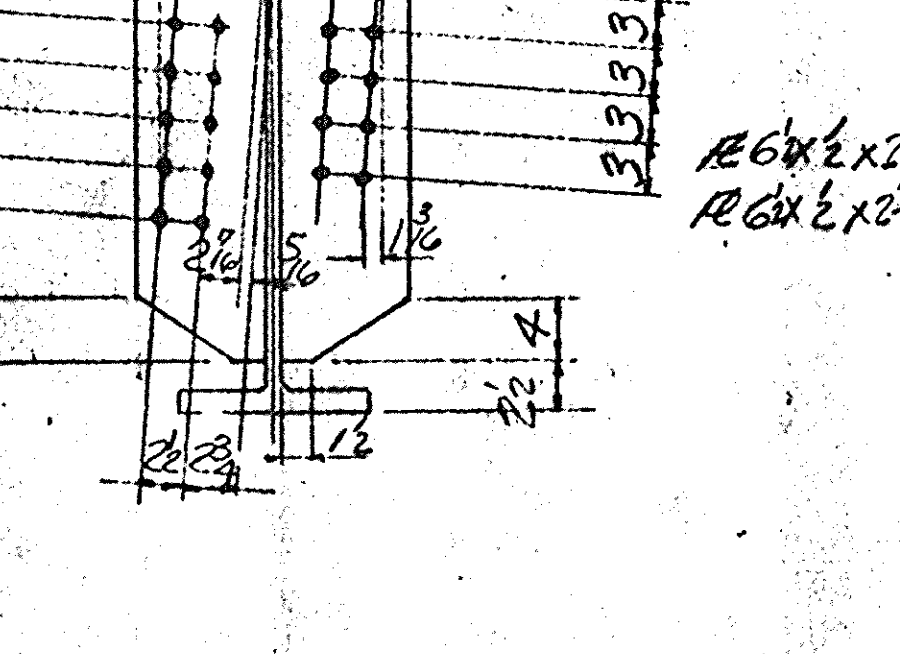
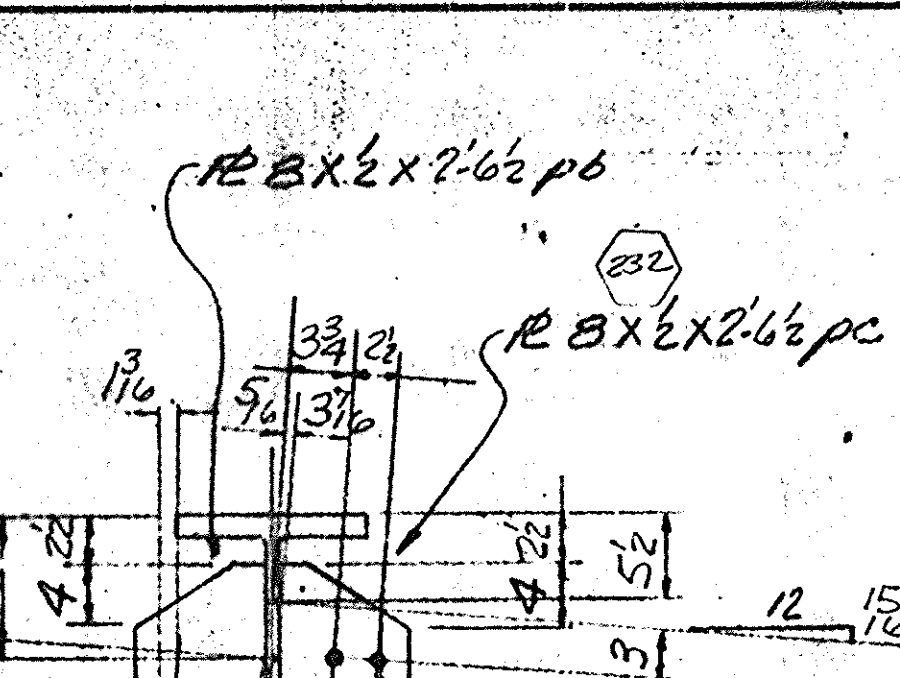
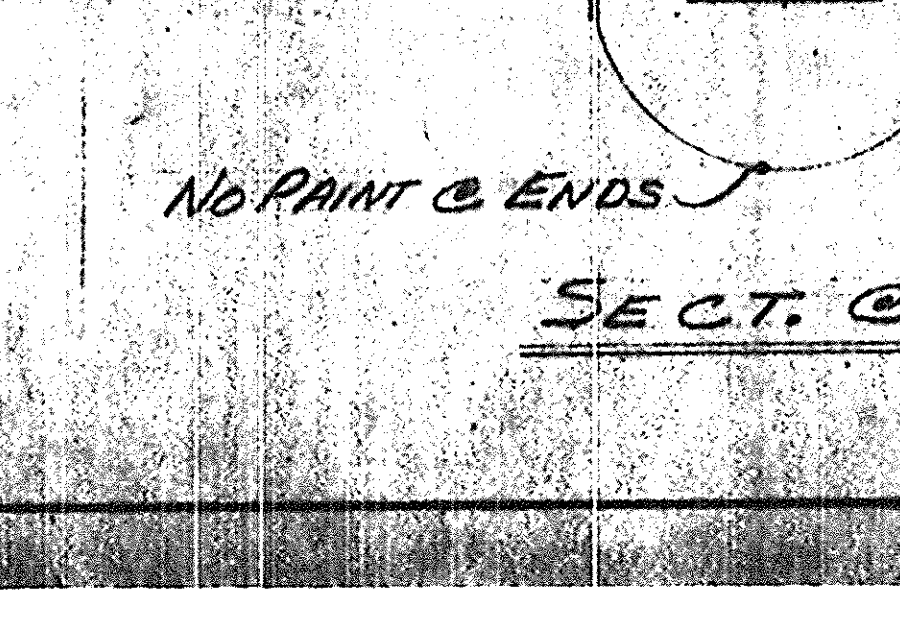
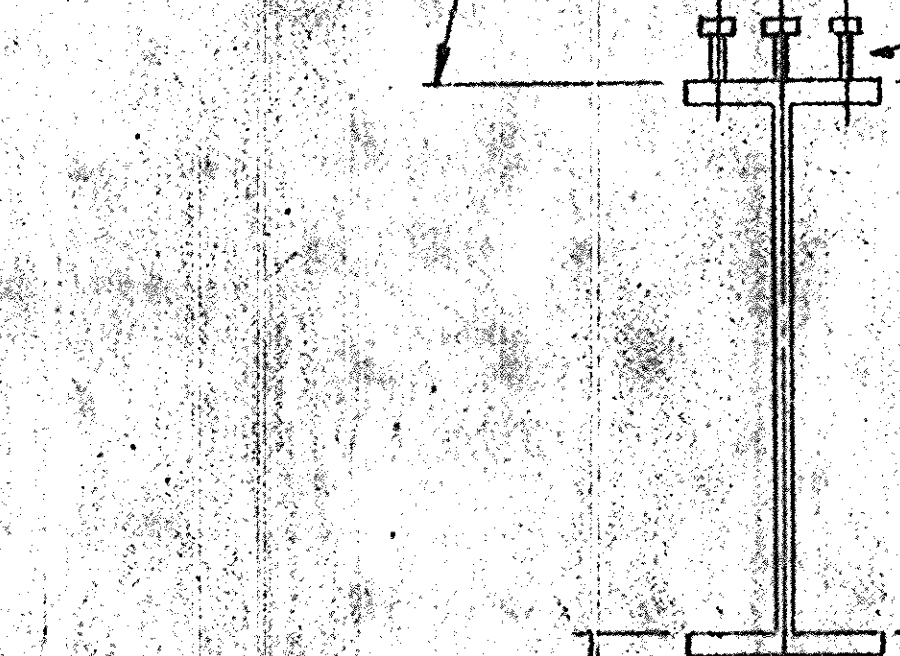
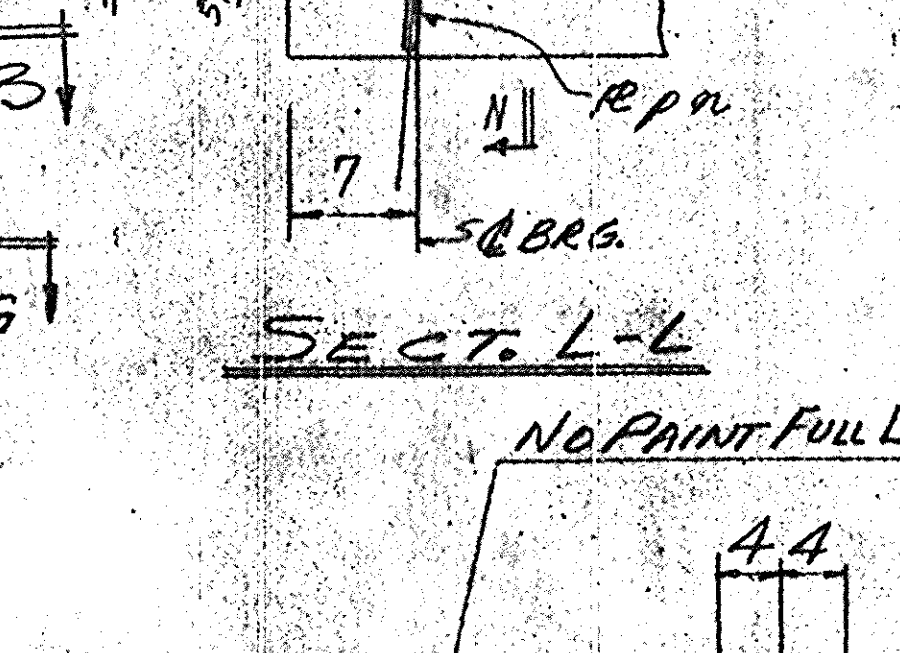
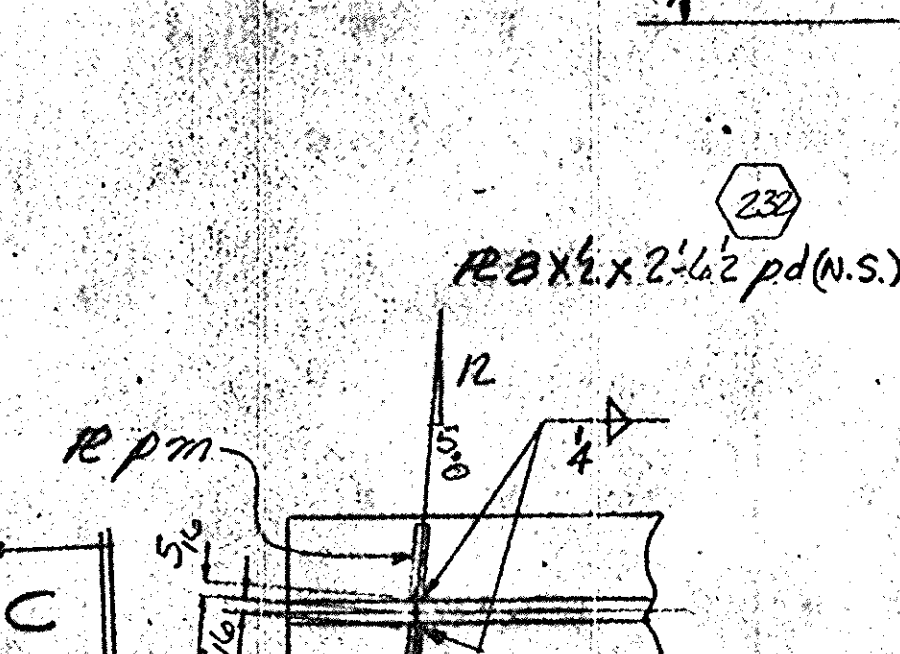
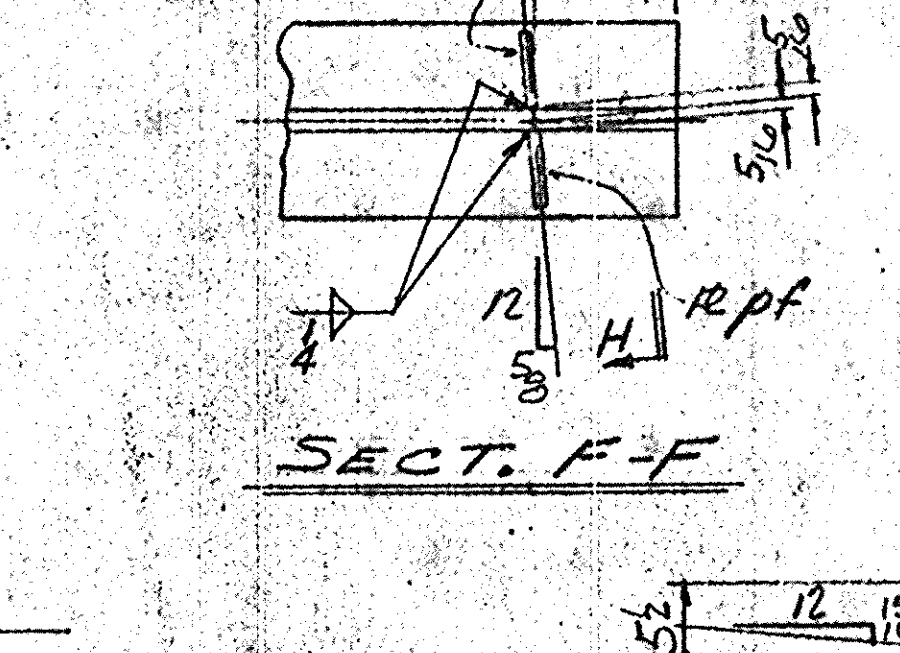
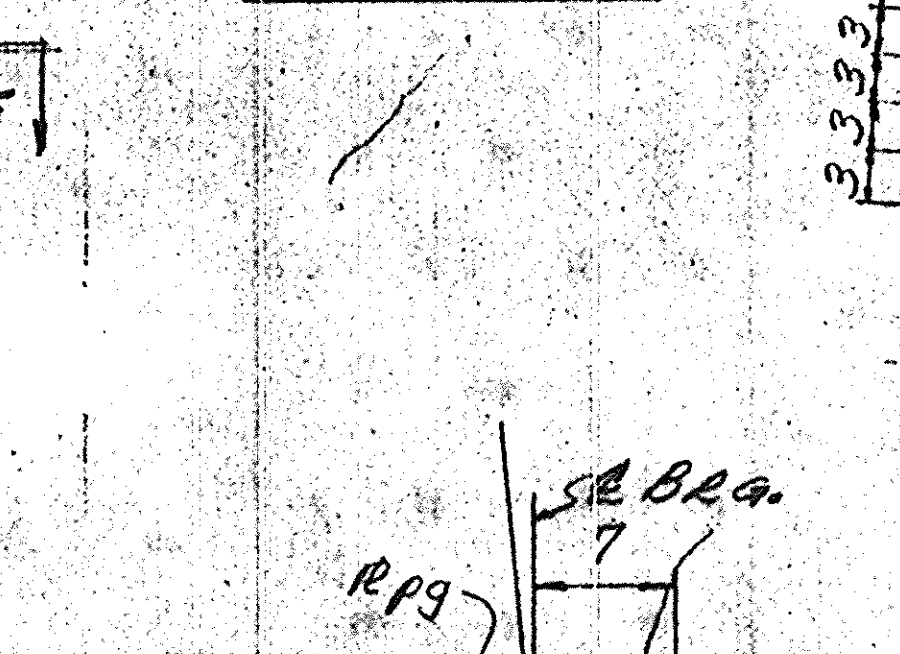
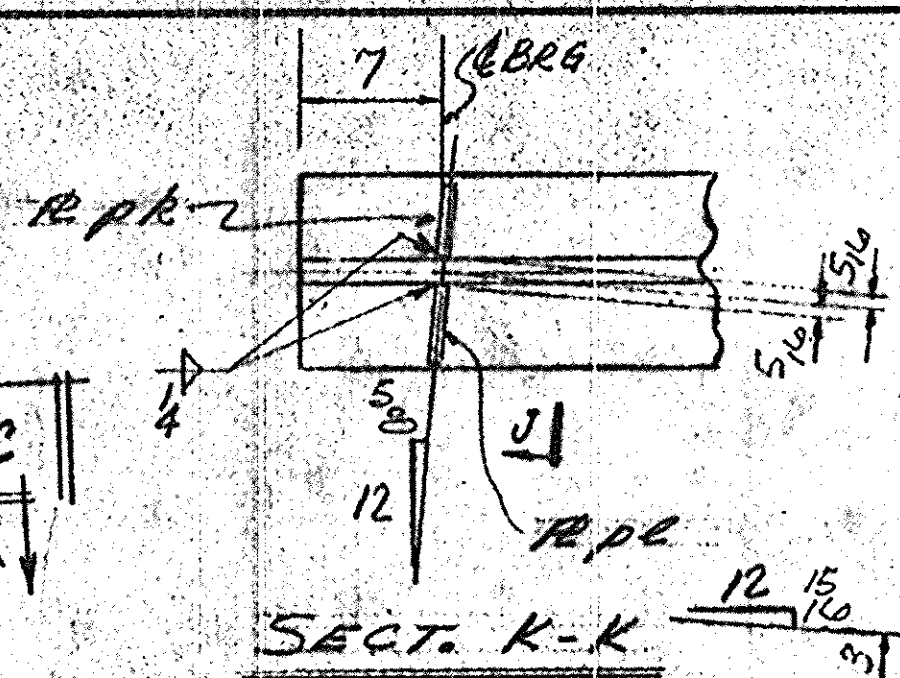
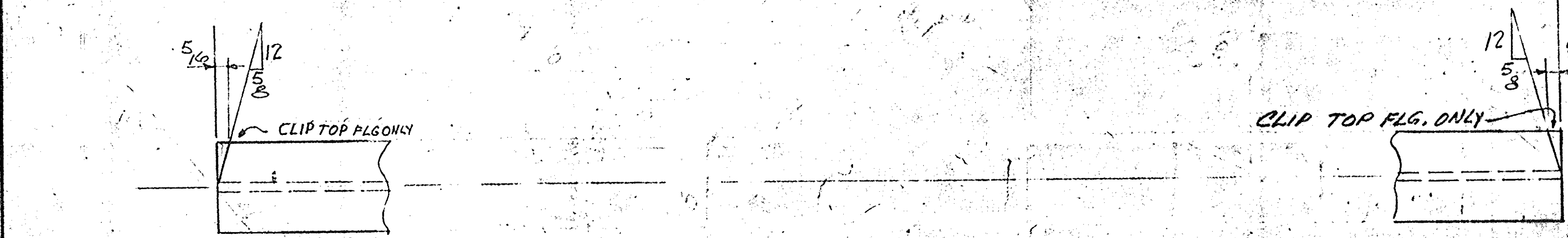
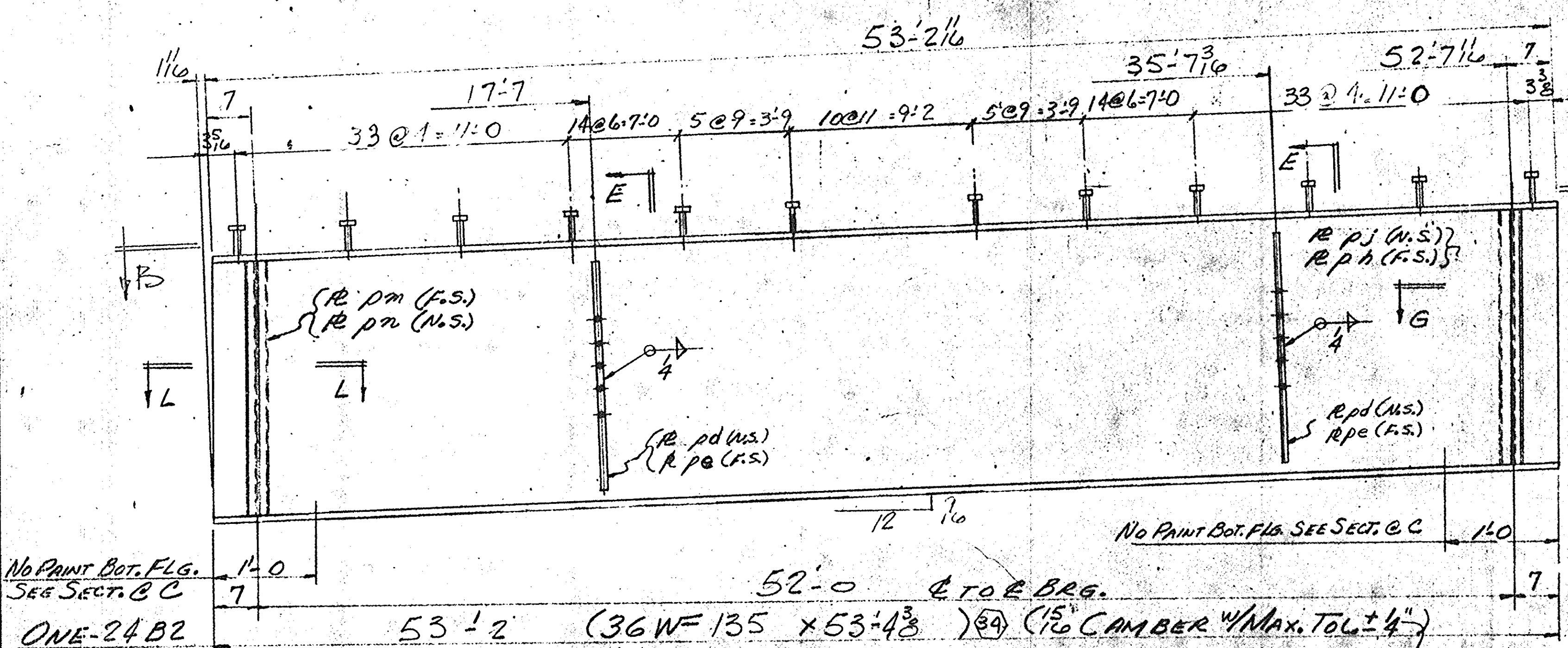
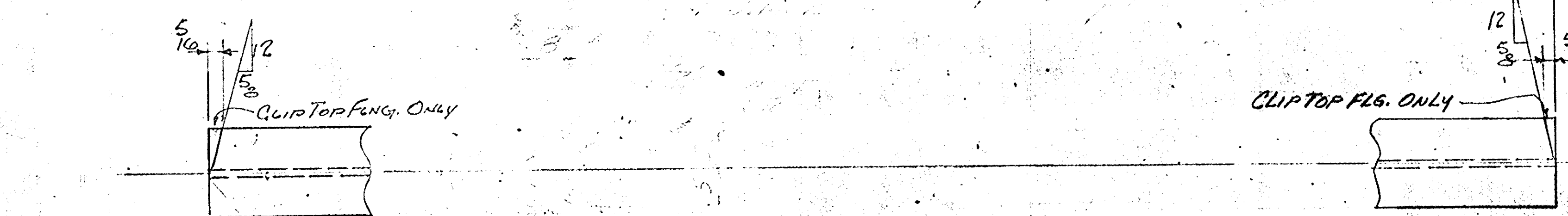
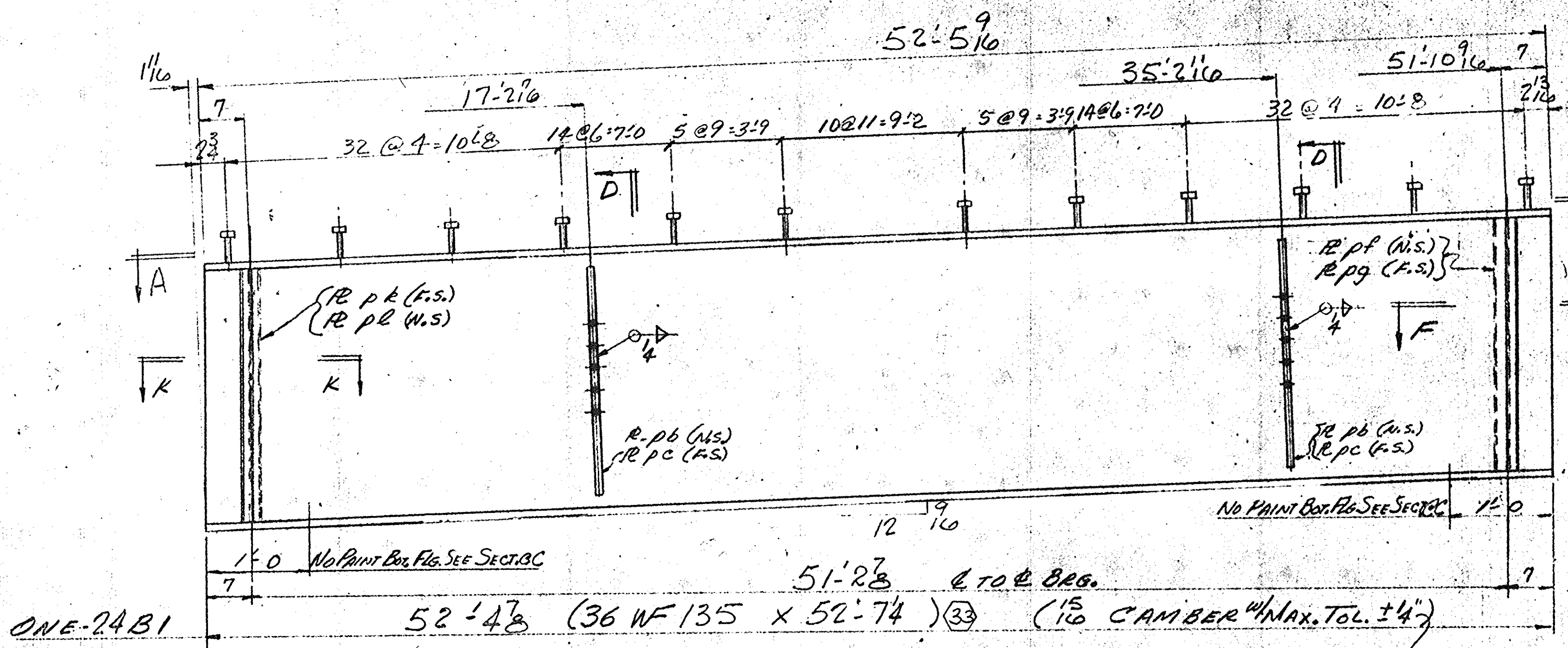
DATE	BY	LOCATION	REVISION
10/21/83	CEC	GREENVILLE, S.C.	1
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Pkwy. 10511, Charleston Co.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS		SHOP ORDER 5-21751	
BOLTS 3/4" x 7"		DRAWN BY CEC	
RIVETS		CHECKED BY RPH	
HOLES 1/2" UNLESS NOTED		APPROVED BY	
PRIME 181 R.L. 101		DATE 9-12-85	
SHEET NO. 22 OF		DWG. NO. 23544-22	



NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/8" HOLES THIS DWG. ARE FOR 3/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

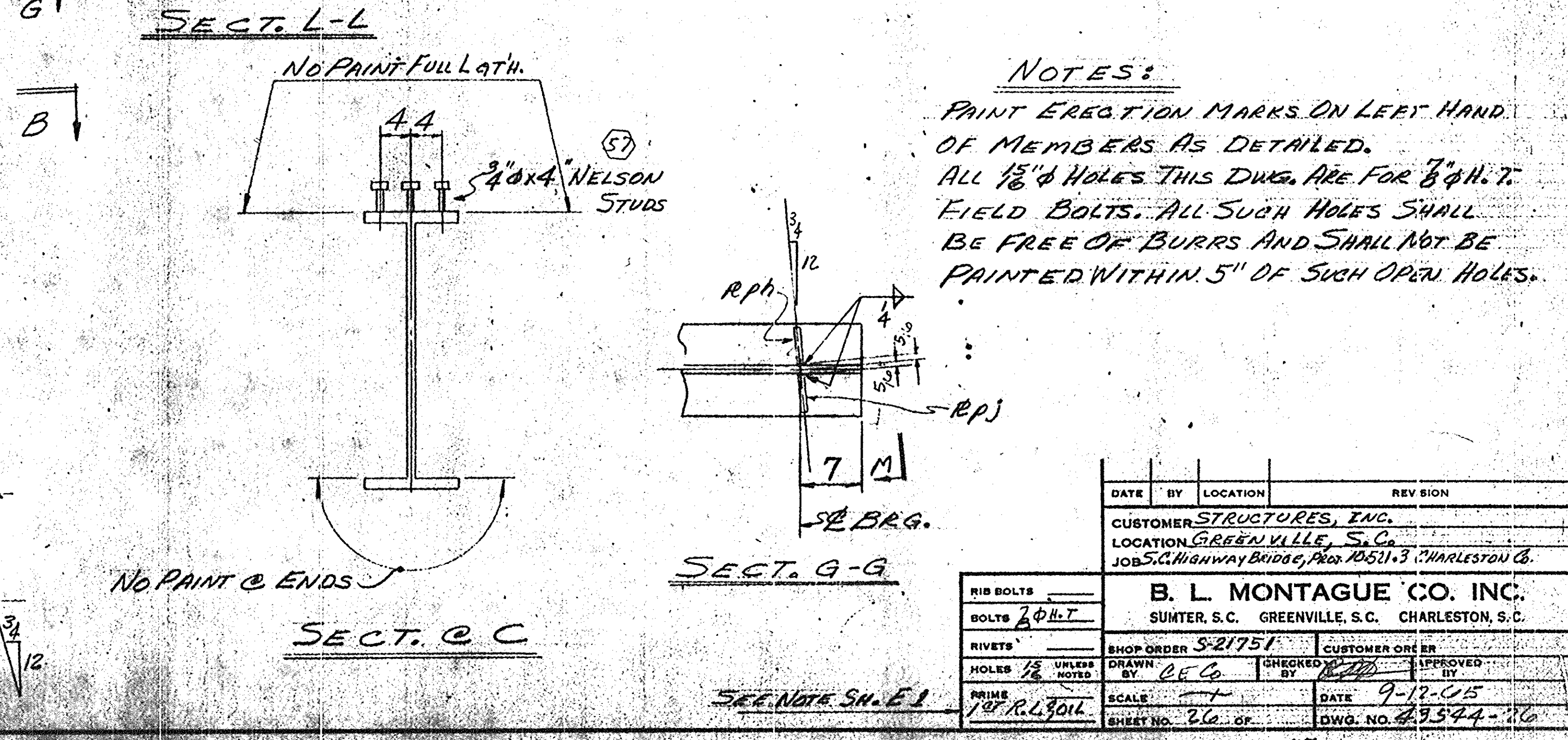
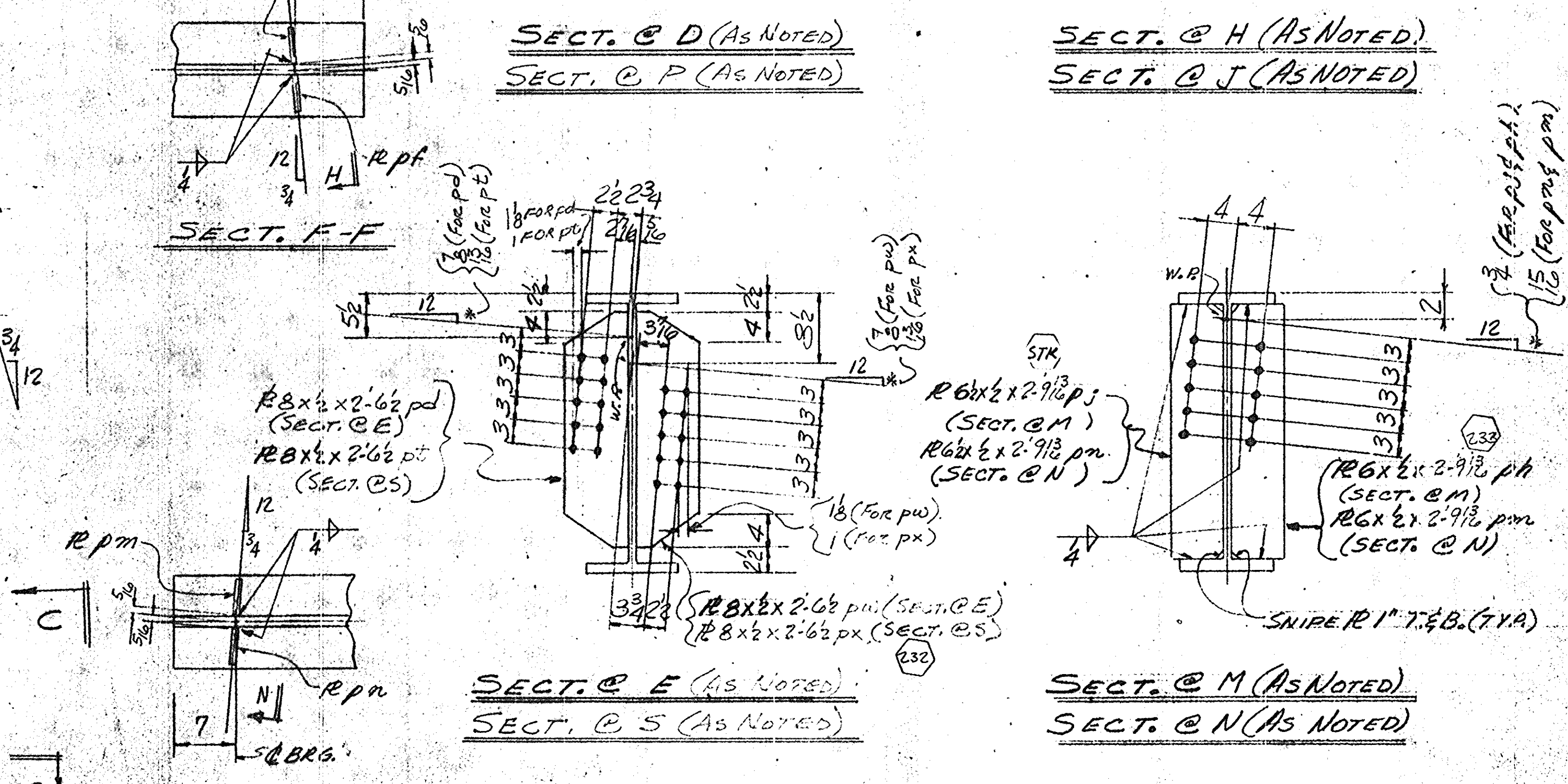
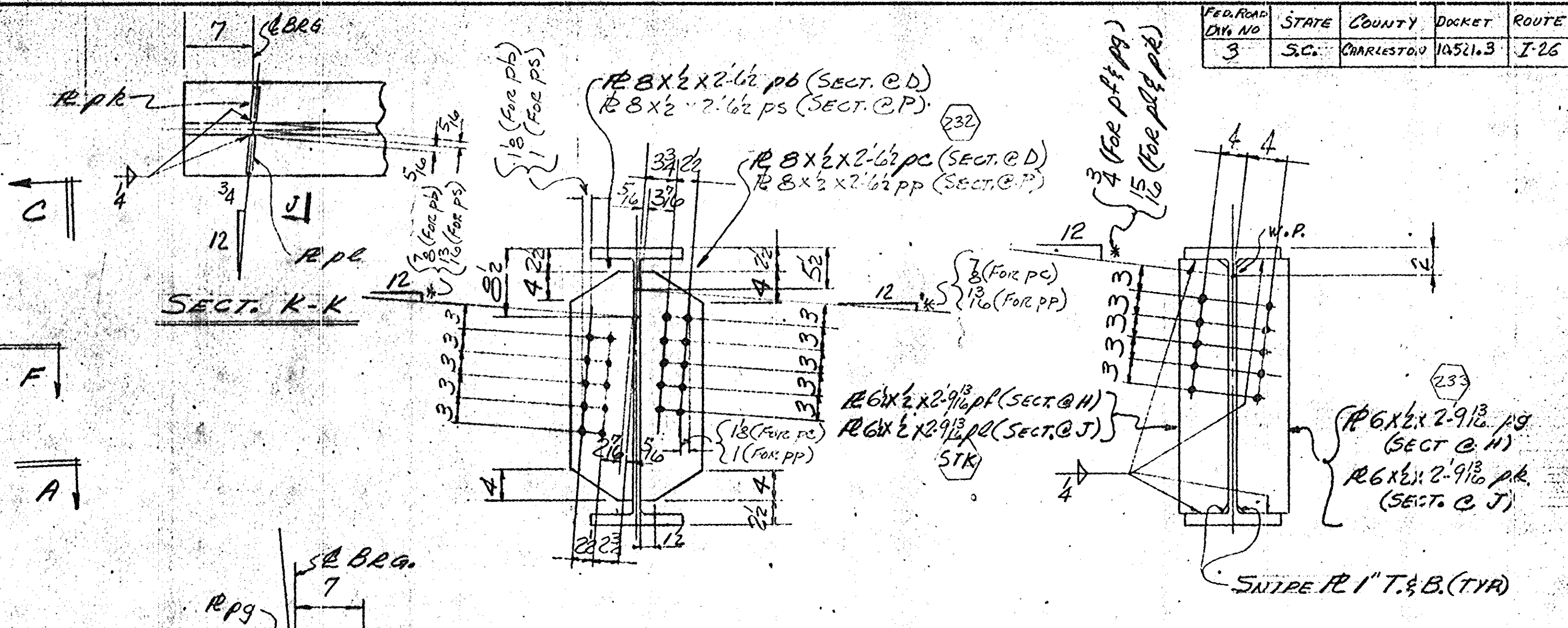
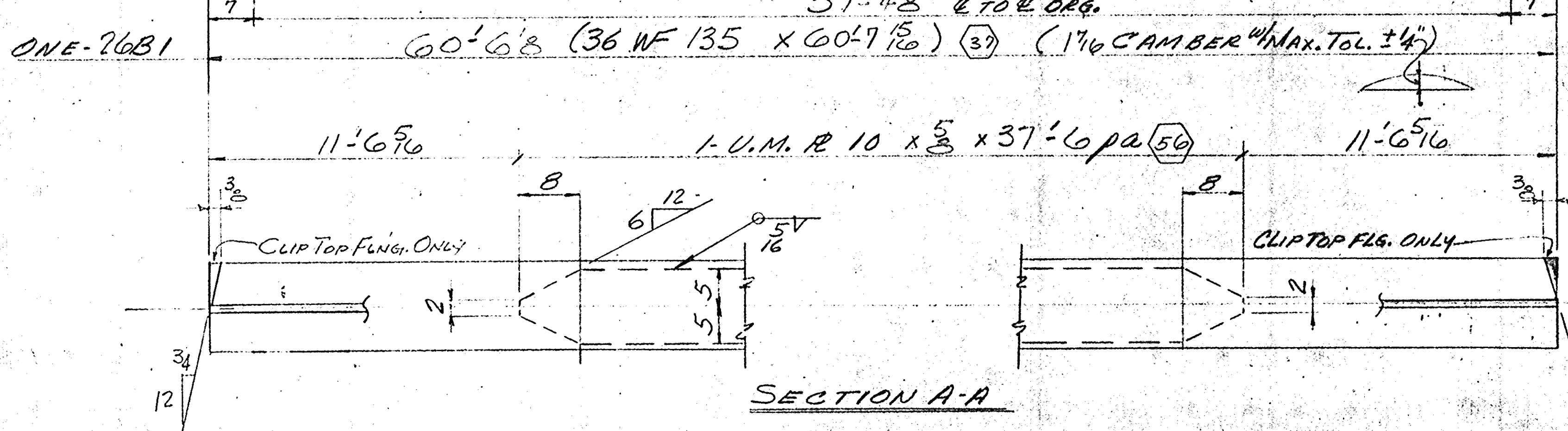
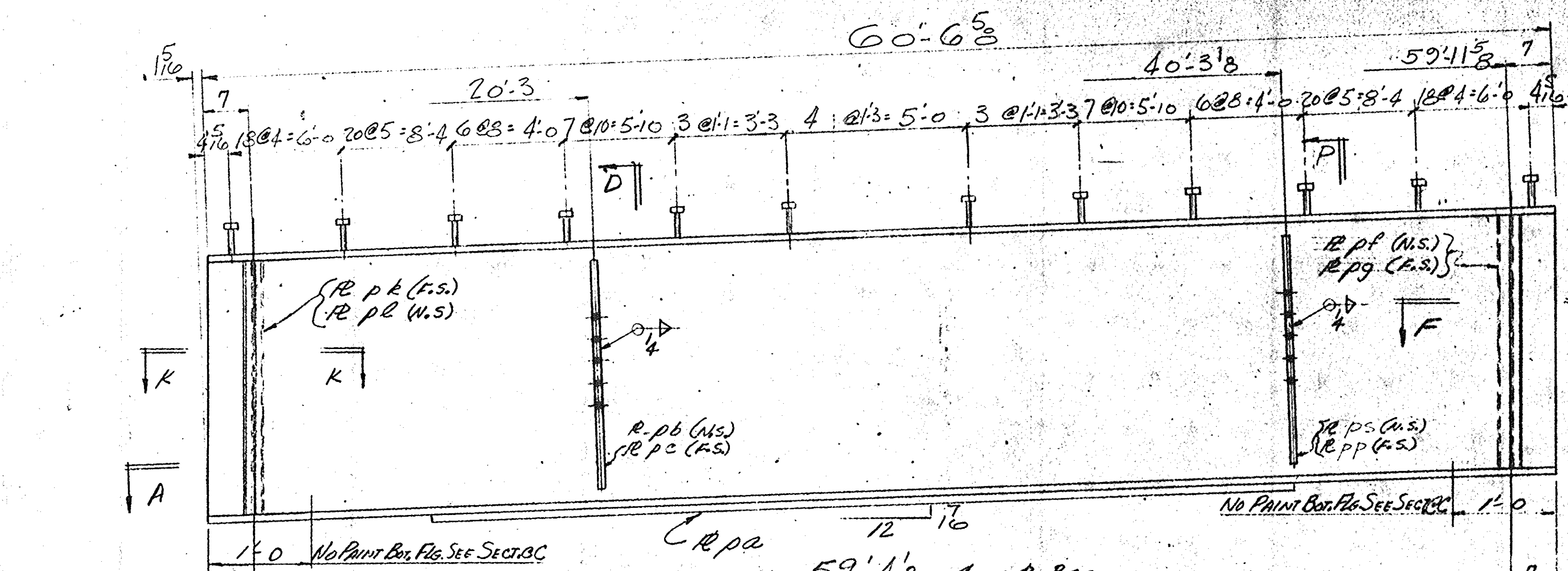
DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE, PROJ. 145213, CHARLESTON CO.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	BY	DATE	ORDER
BOLTS 3/8" H.T.	BY	DATE	ORDER
RIVETS	BY	DATE	ORDER
HOLES 1/8" UNLESS NOTED	BY	DATE	ORDER
SCALE	BY	DATE	ORDER
DATE	BY	DATE	ORDER
DATE	BY	DATE	ORDER

SEE NOTE SH. E1



NOTES:
 PRINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/8" HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Plan DS21.3 CHARLESTON, S.C.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	BOLTS 20 H.T.		
RIVETS	SHOP ORDER S-21751		
HOLES 1/8 UNLESS NOTED	DRAWN BY CEG	CHECKED BY	APPROVED BY
PRIME 1/4" R.C. BOLT	SCALE 1" = 16'-0"	DATE 9-12-65	DWG. NO. 29544-26
SHEET NO. 70 OF			

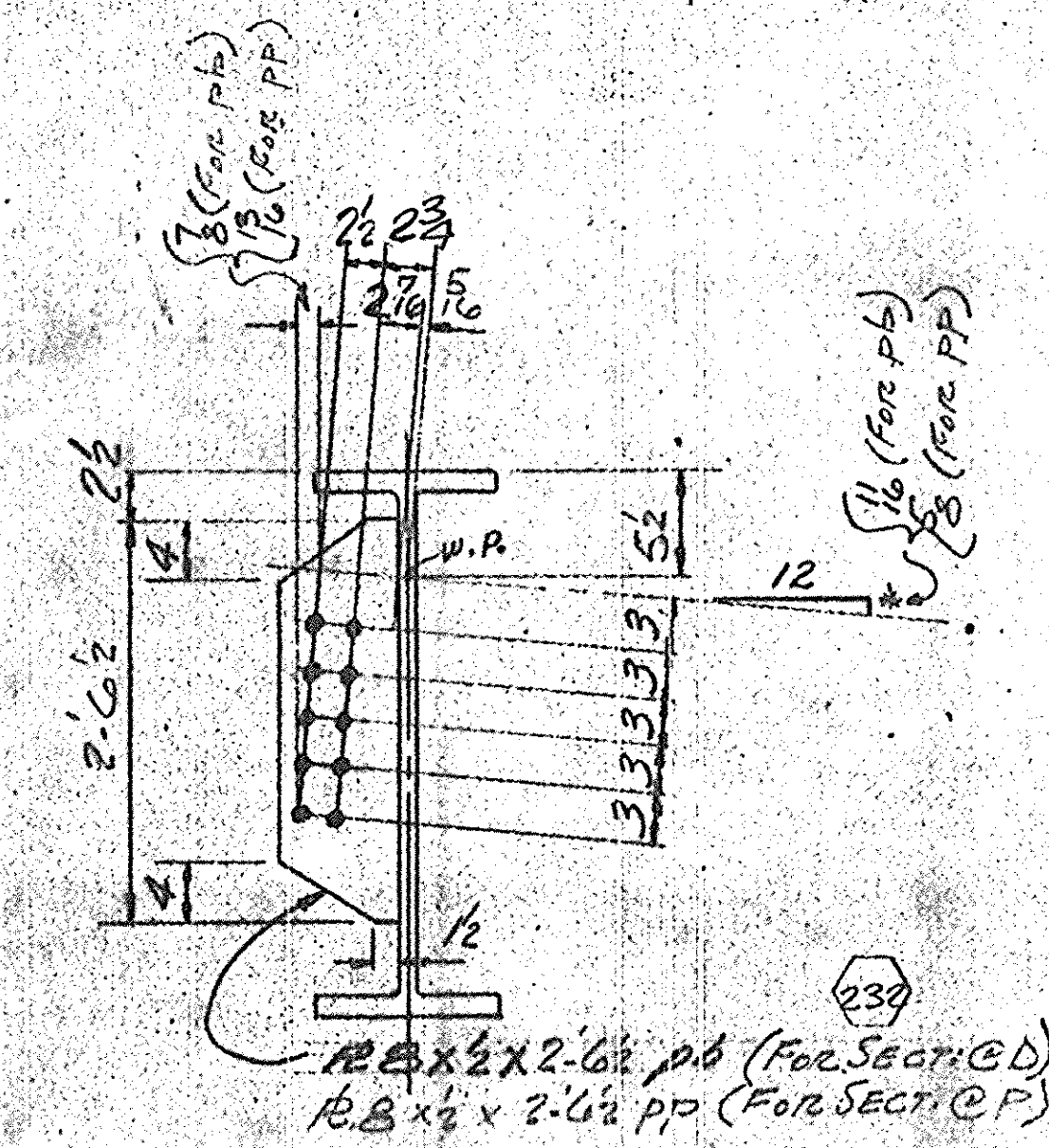
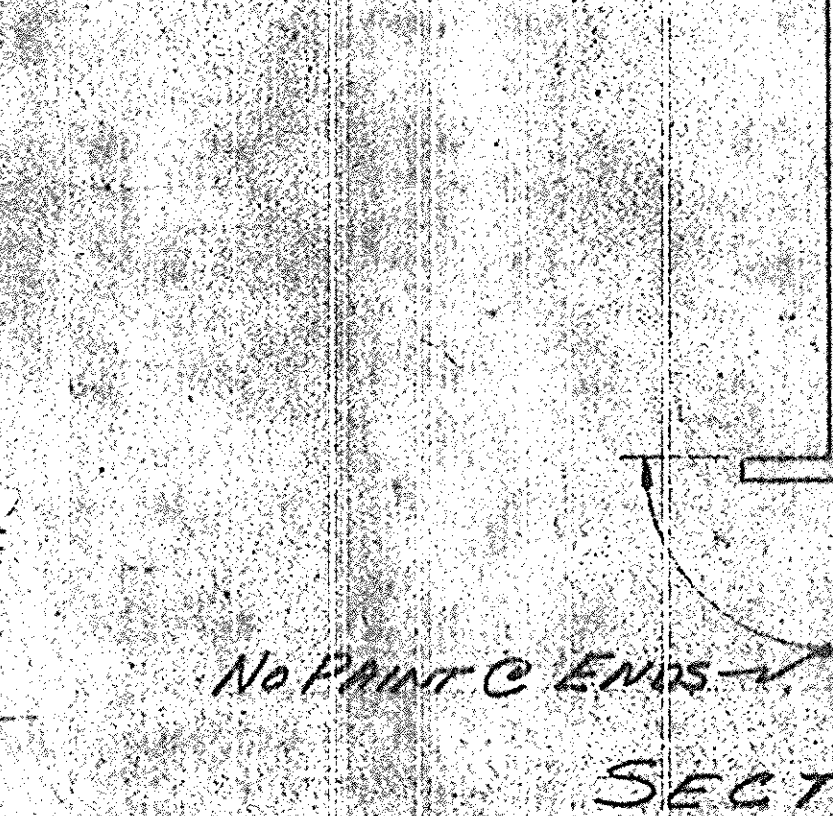
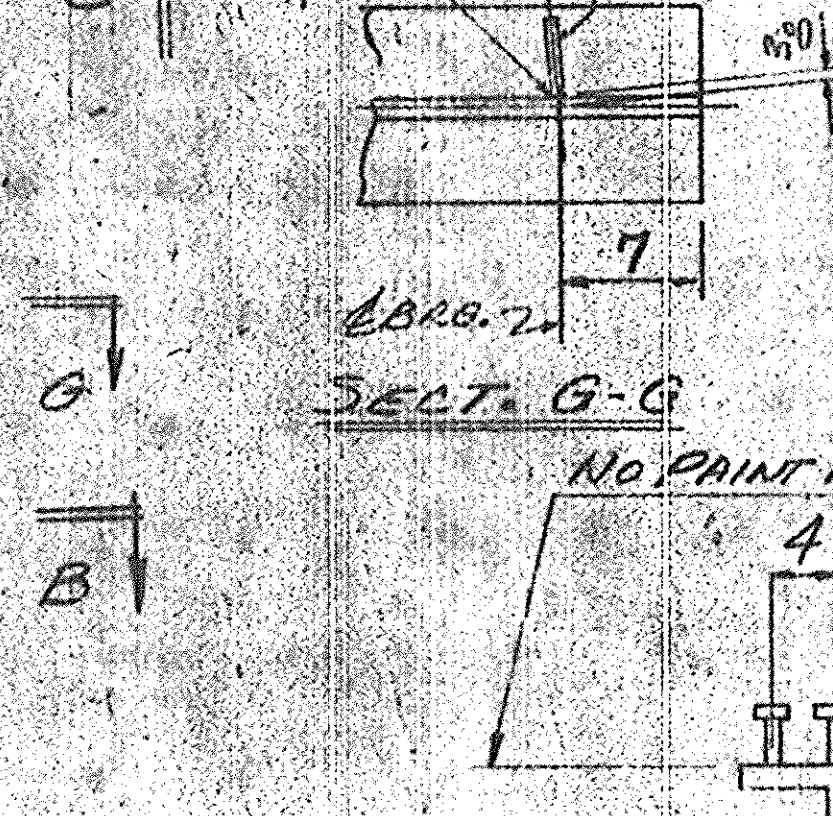
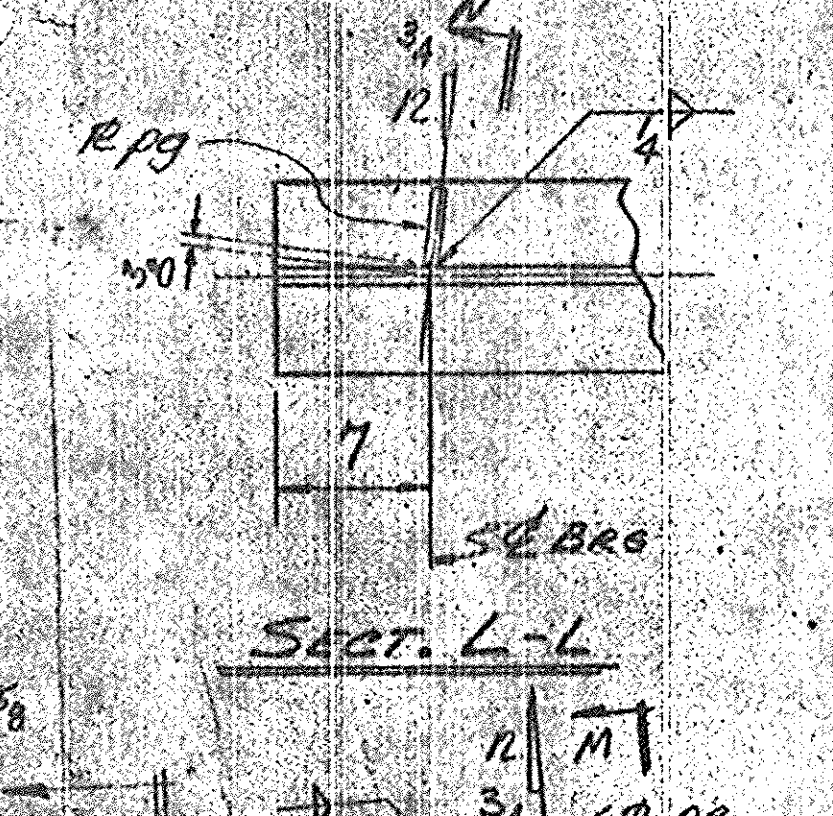
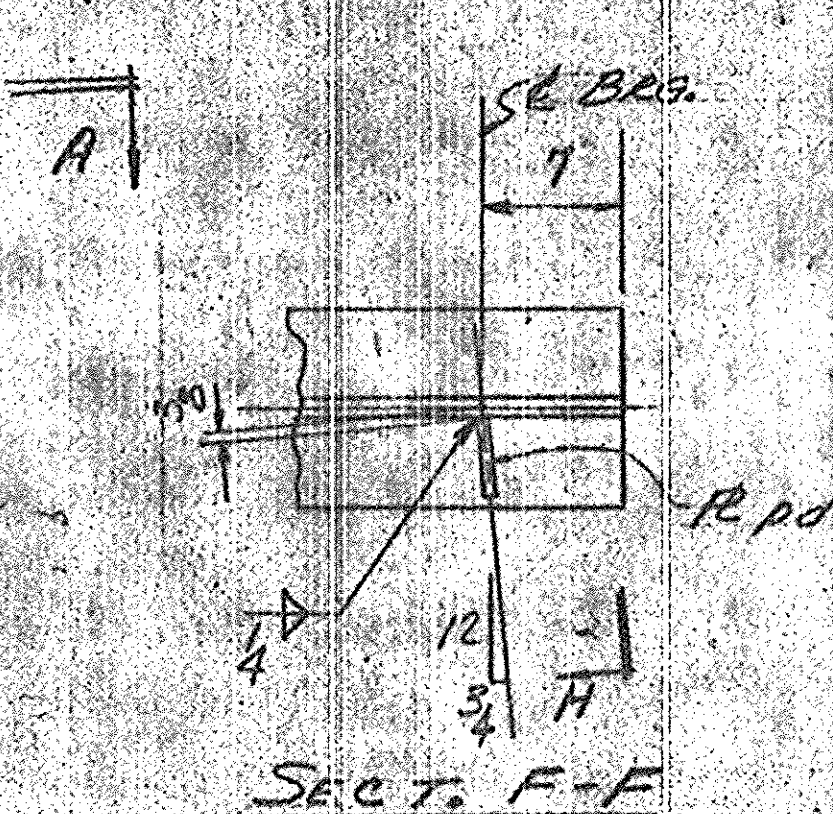
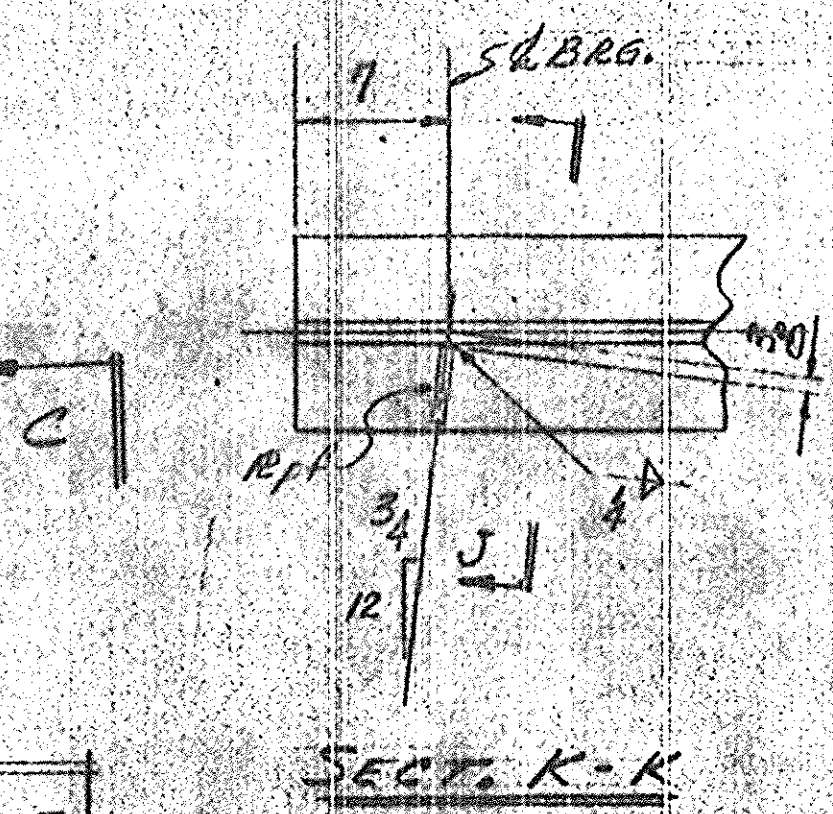
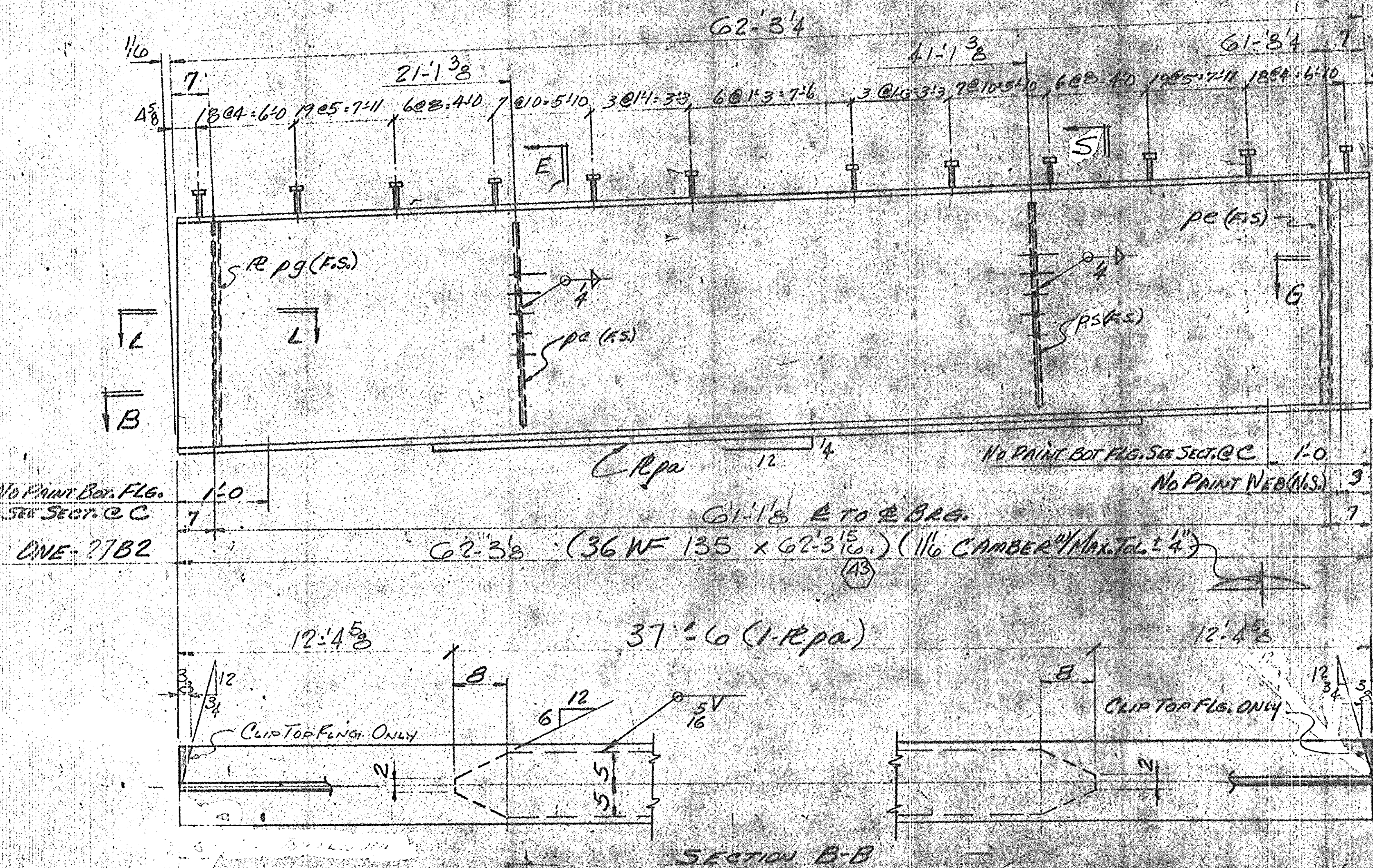
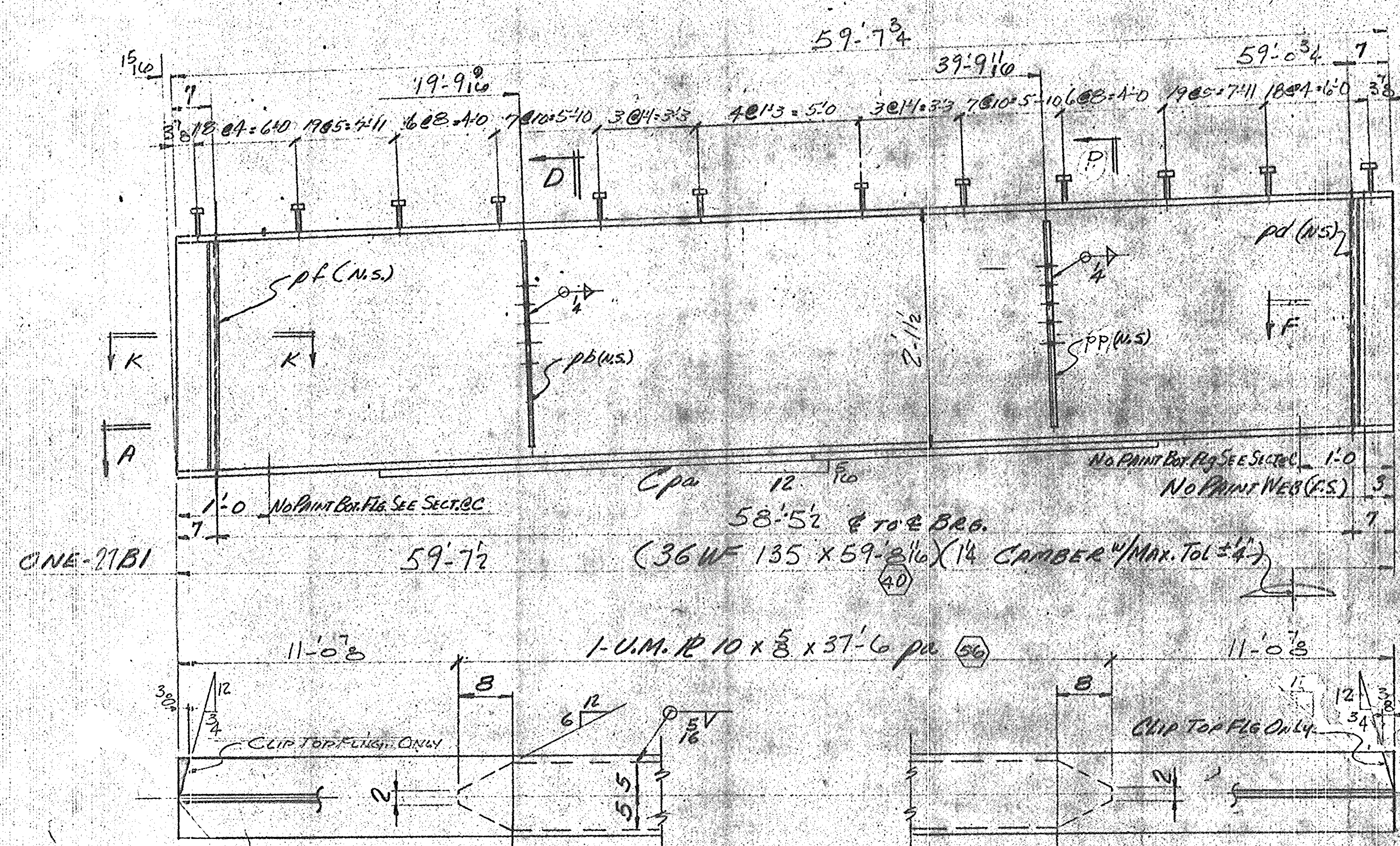


NOTES:

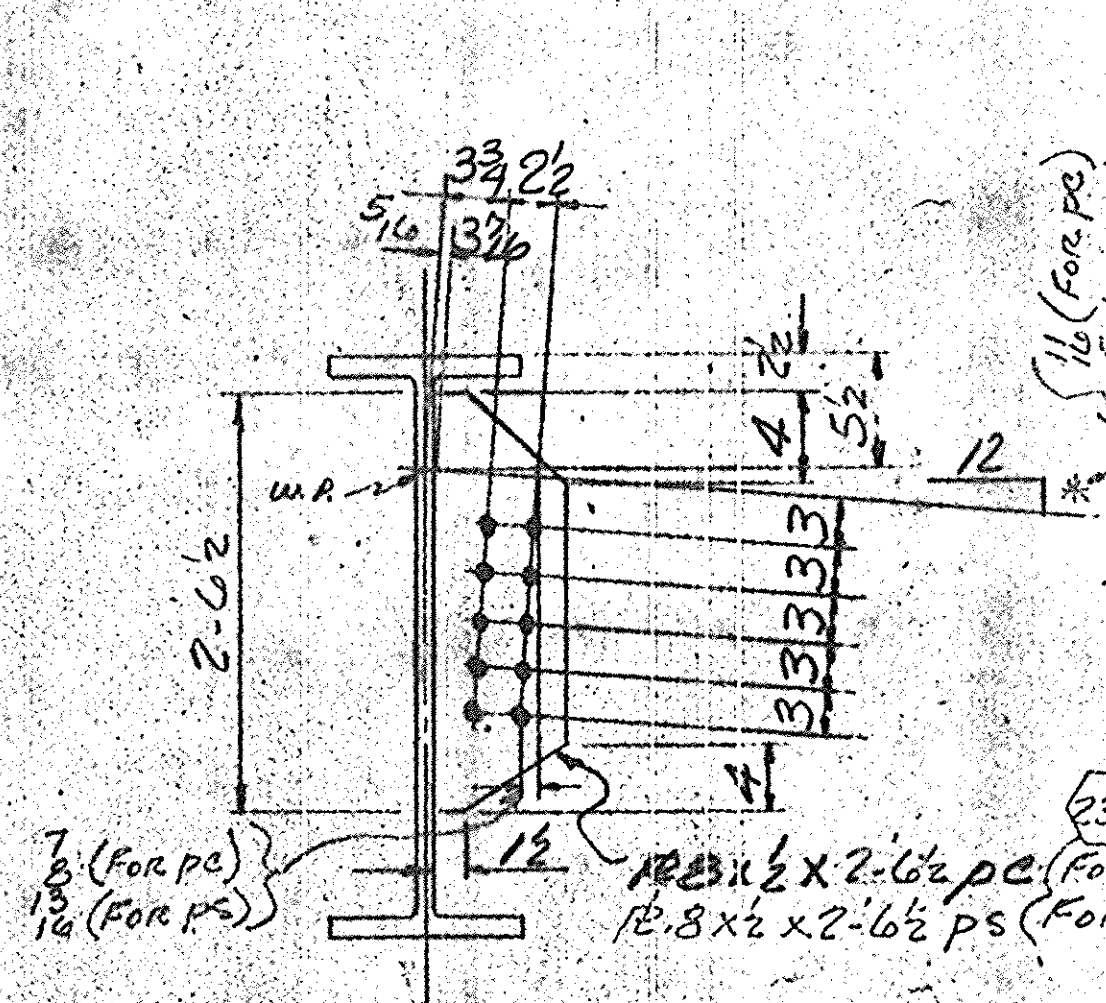
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.

ALL 1 1/2" HOLES THIS DWG. ARE FOR 7/8" H. T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

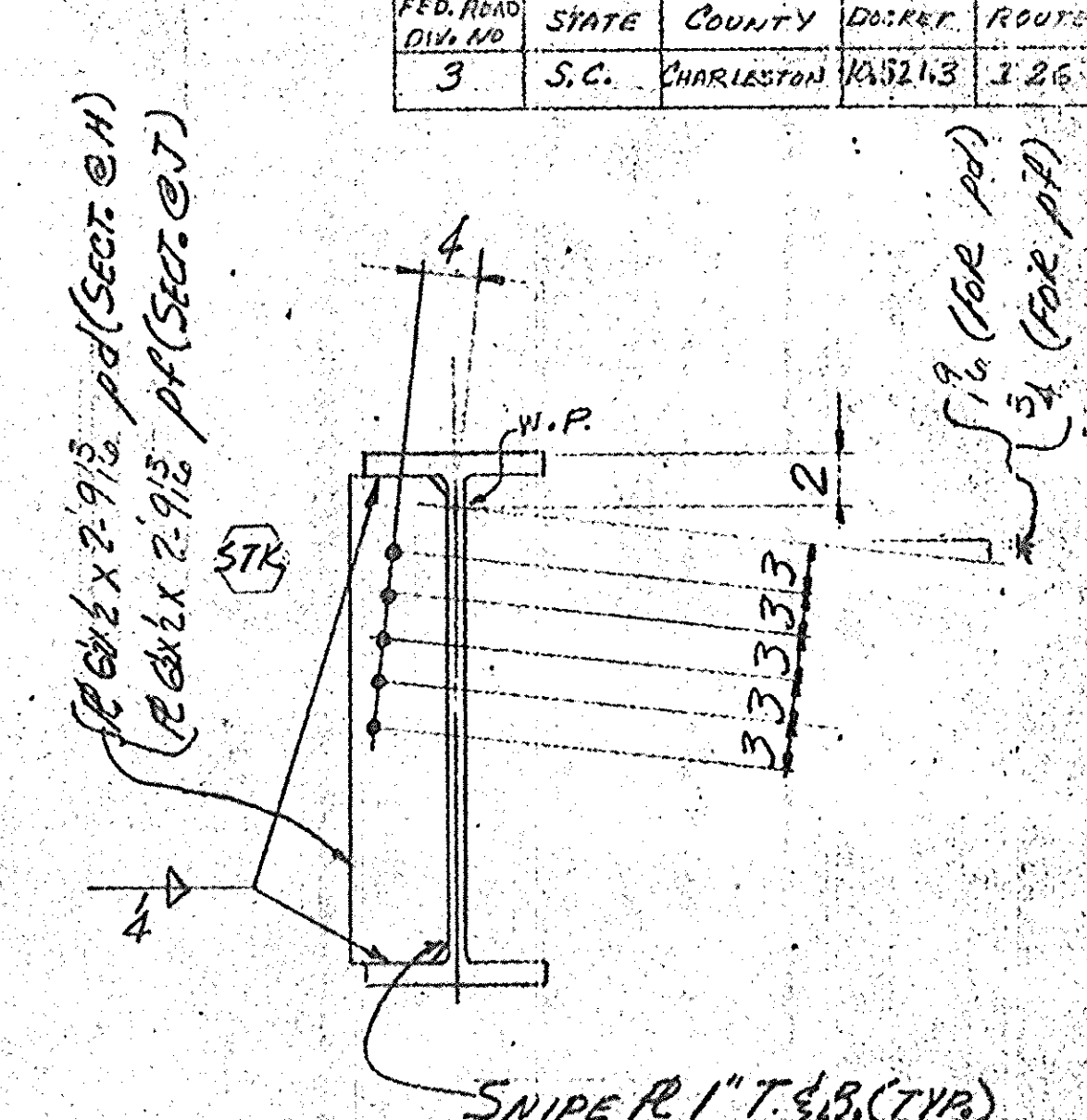
DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Proj. 10521.3, Charleston Co.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS			
BOLTS	2 1/2" x 7"		
RIVETS			
HOLES	1 1/2"		
PRIME	100% R.L. 3016		
SHOP ORDER	S-21751	CUSTOMER ORDER	
DRAWN BY	CEG	CHECKED BY	
SCALE	1" = 10'	DATE	9-12-05
SHEET NO.	26 OF 26	DWG. NO.	49544-16



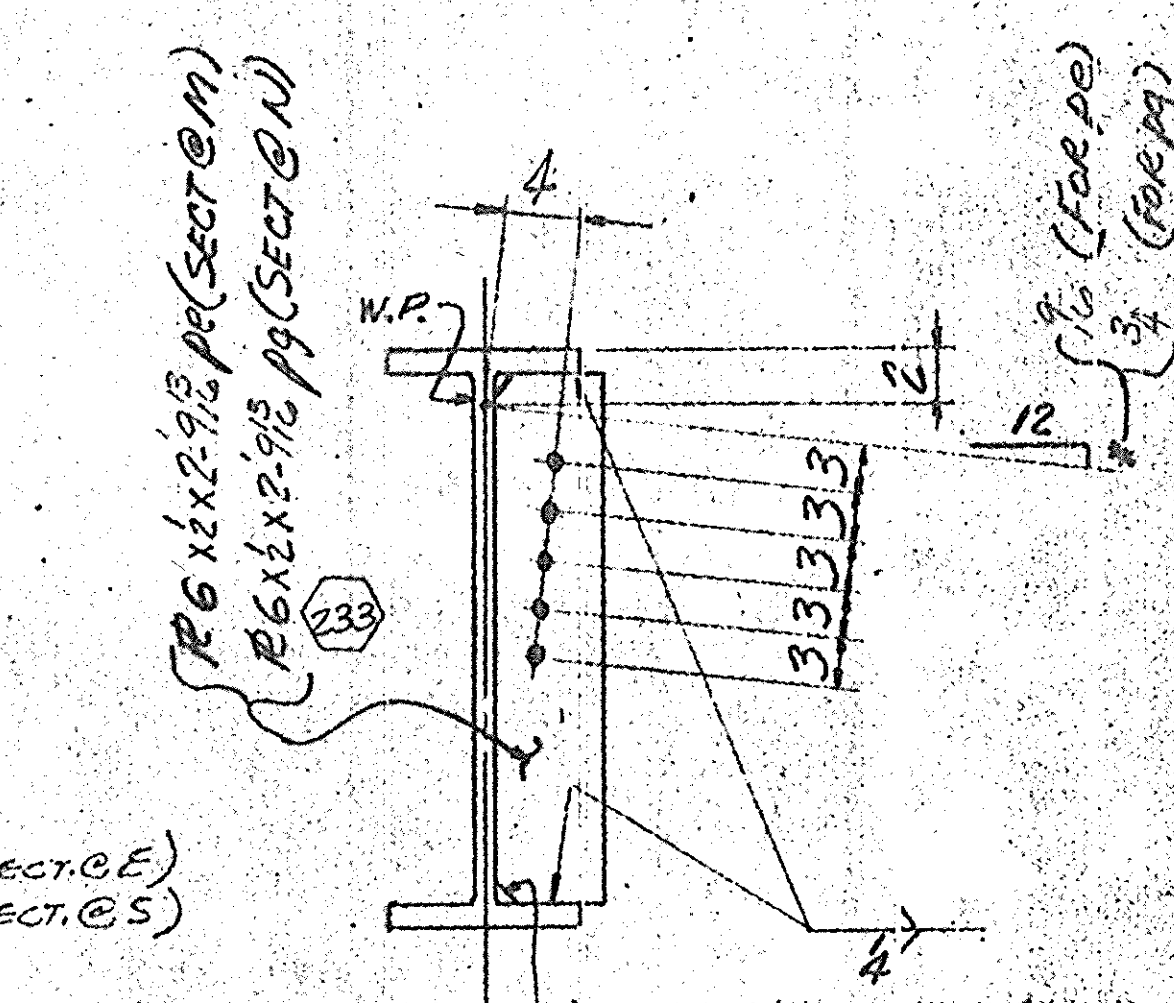
SECTION C-D (AS NOTED)
SECTION C-P (AS NOTED)



SECTION C-E (AS NOTED)
SECTION C-S (AS NOTED)



SECTION C-H (AS NOTED)
SECTION C-J (AS NOTED)



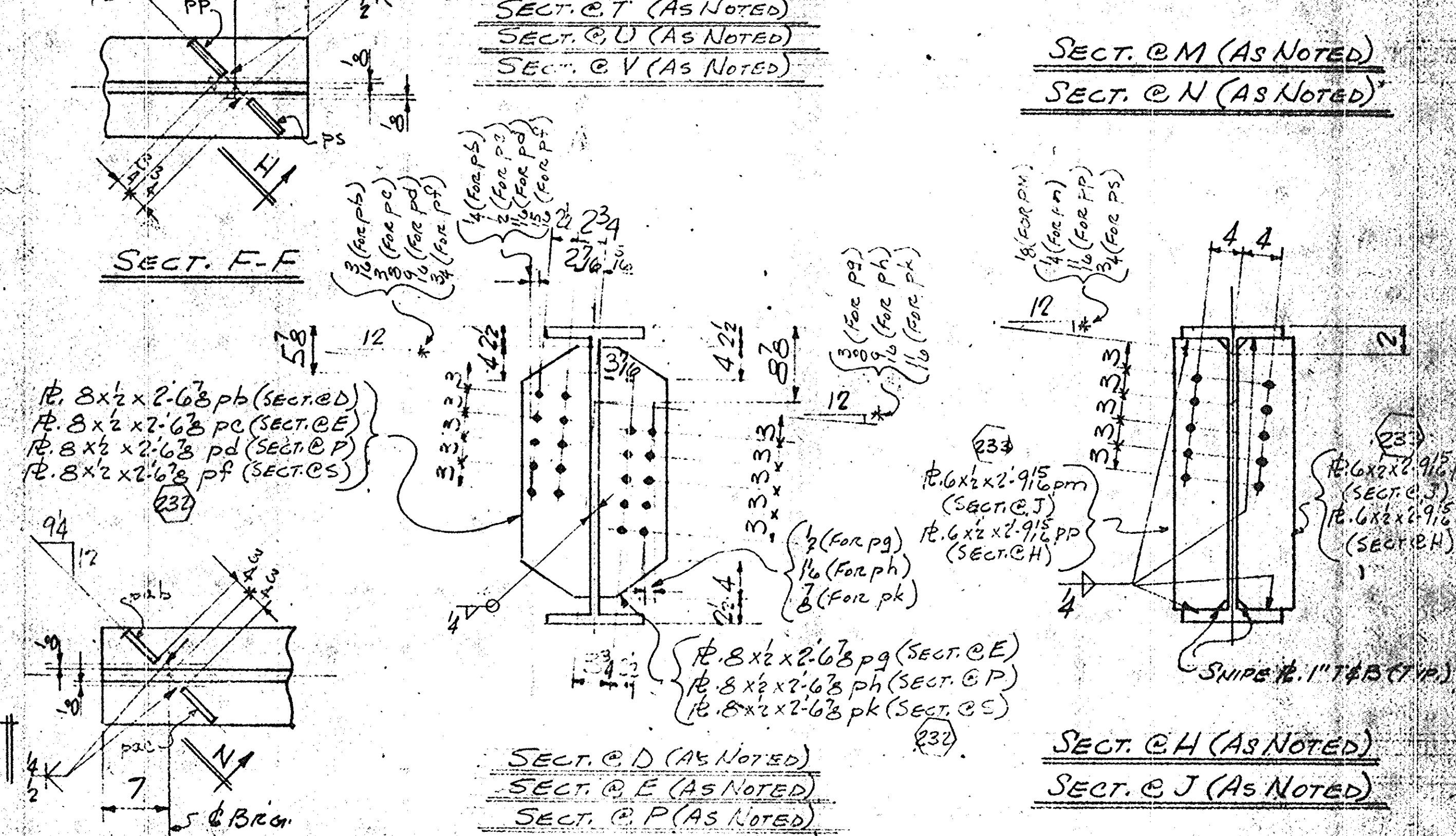
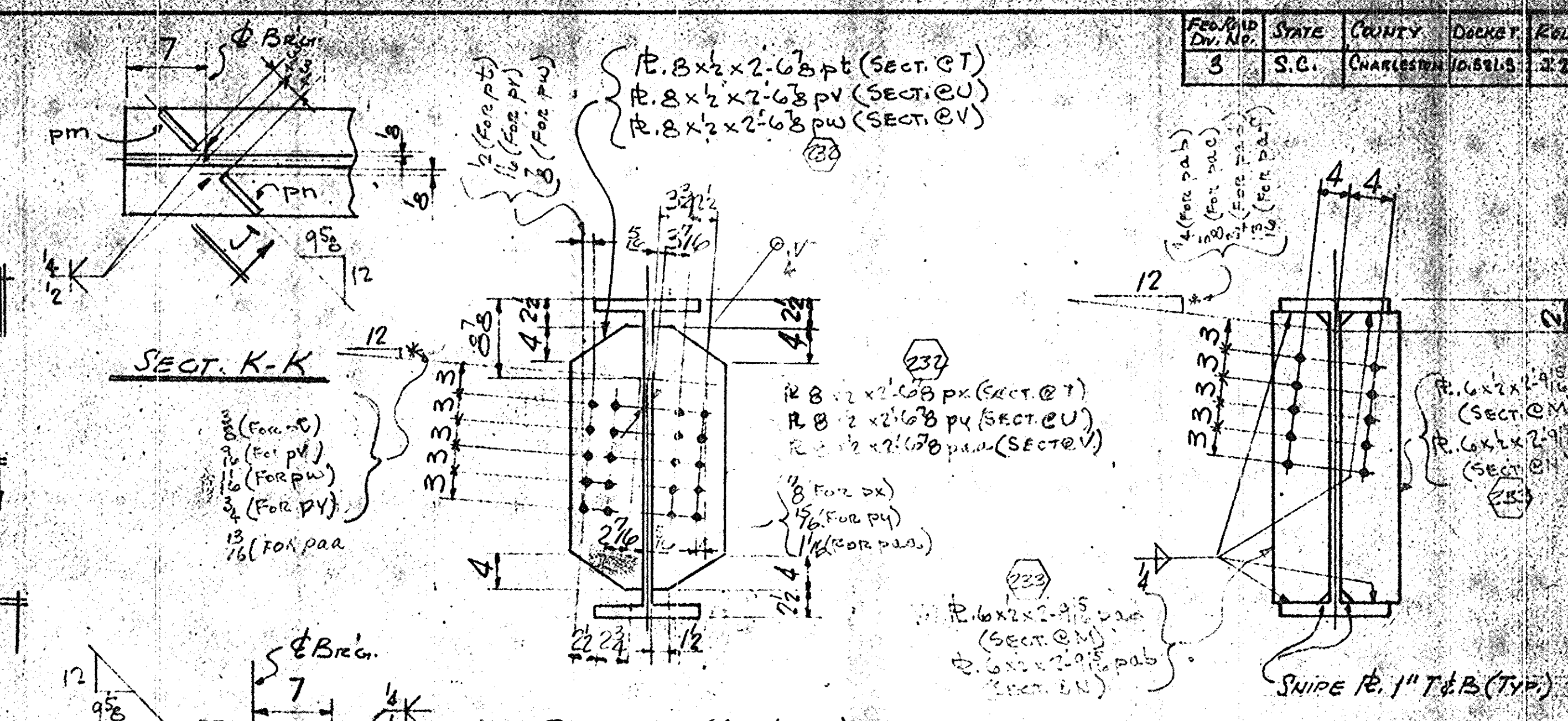
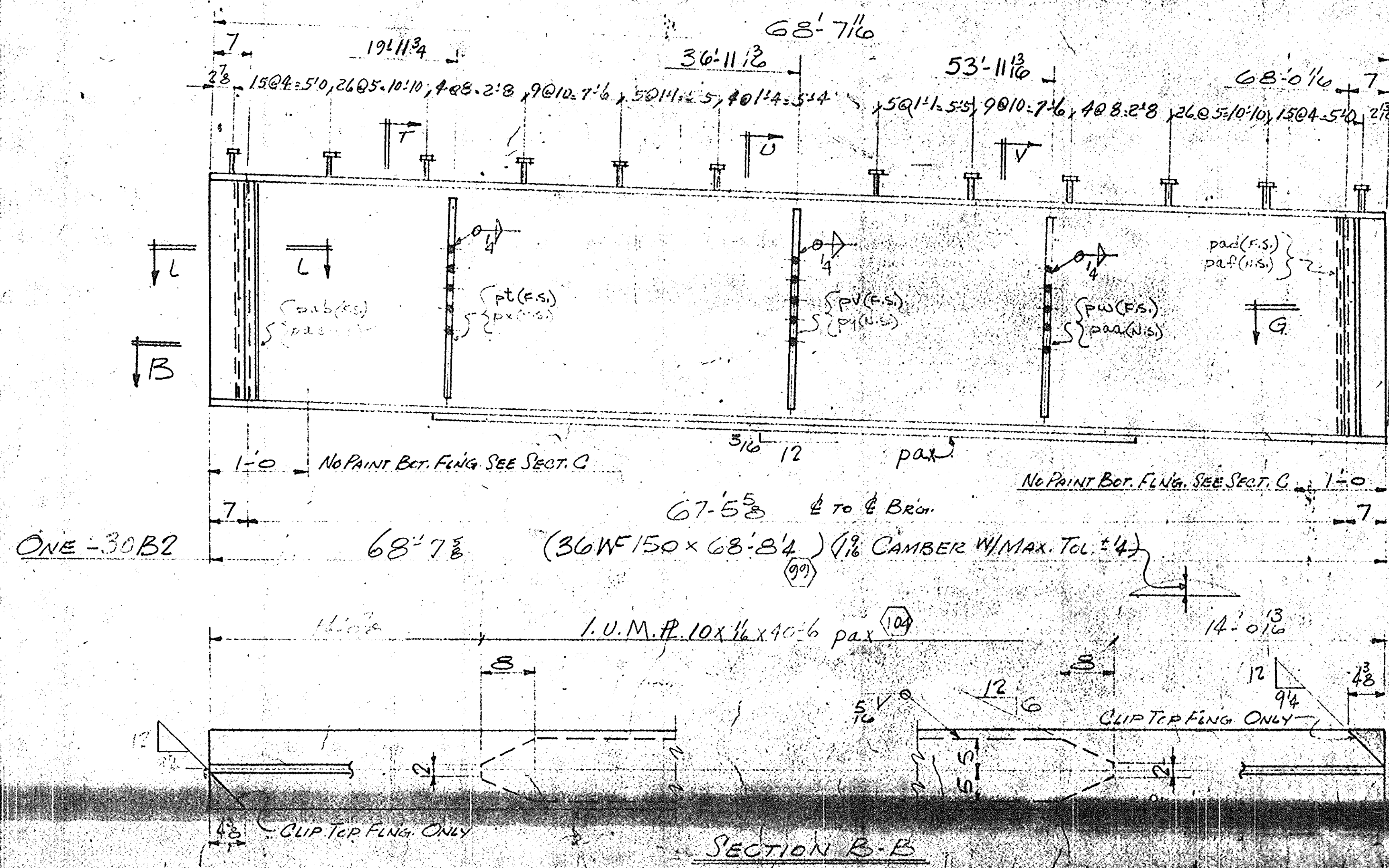
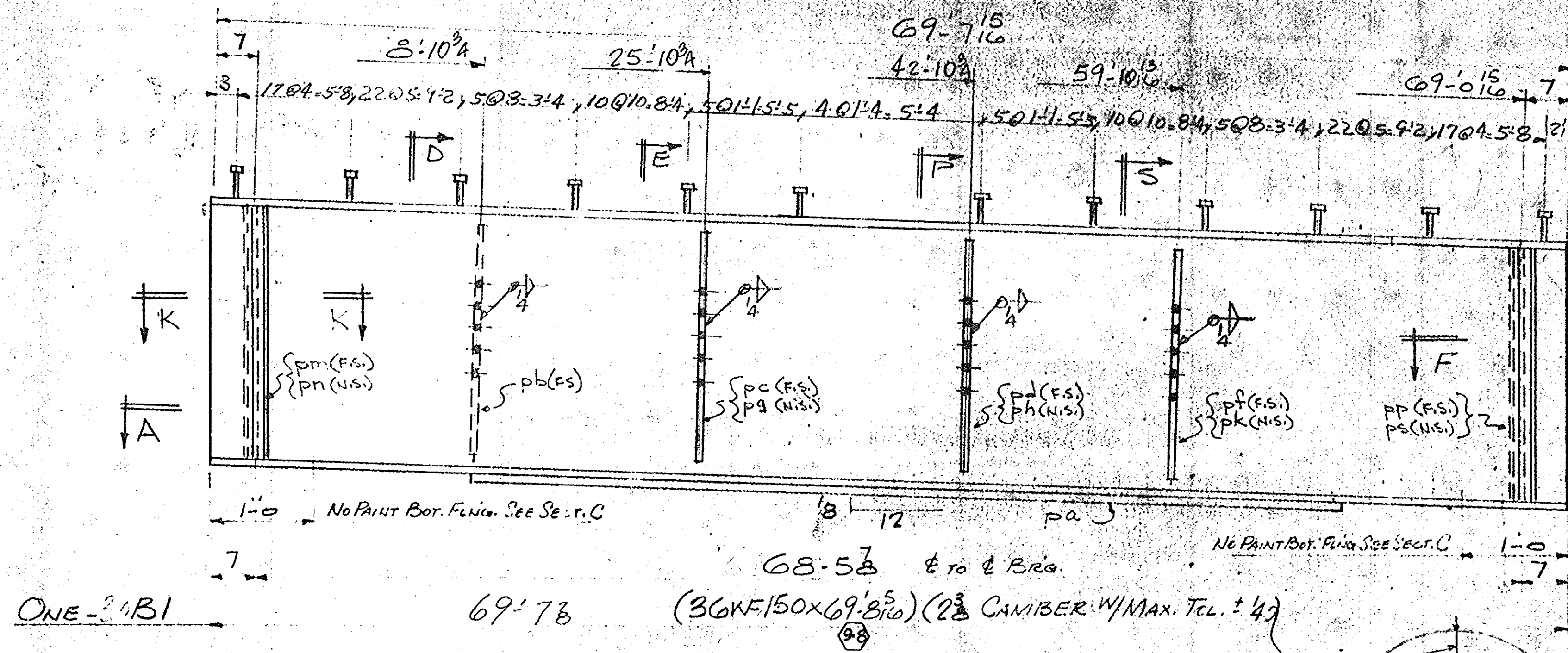
SECTION C-M (AS NOTED)
SECTION C-N (AS NOTED)

NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
ALL 1/2" HOLES THIS DWG. ARE FOR 3/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE, PROJ. 13213, CHARLESTON, S.C.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	3/8" H.T.	SHOP ORDER	5-21751
BOLTS	3/8" H.T.	CHECKED BY	DATE
RIVETS	1/2" UNLESS NOTED	APPROVED BY	DATE
HOLE	1/2" UNLESS NOTED	DATE	DATE
PRIME	1/2" UNLESS NOTED	DATE	DATE
SHEET NO.	27	OF	27
DWG. NO. 4-544-2			

DATE		BY	LOCATION	REVISION	
CUSTOMER <u>STRUCTURES, INC.</u>					
LOCATION <u>GREENVILLE, S.C.</u>					
JOB <u>5C Highway Bridge, Box 1051, Charleston, S.C.</u>					
E. L. MONTAGUE CO. INC.					
SUMTER S.C. GREENVILLE S.C. CHARLESTON S.C.					
RIB BOLTS					
BOLTS <u>30x17</u>					
BIVETS		SHOP ORDER <u>5-2175</u>		CUSTOMER ORDER	
MOLES <u>1/2</u>		DRAWN BY <u>CEC</u>		CHECKED BY <u>PHD</u>	
UNLES NOTED		BY		APPROVED BY	
PRIME		SCALE <u>1" = 10'</u>		DATE <u>9-21-65</u>	
<u>10 R.R. 201</u>		SHEET <u>78</u> OF		DWG. NO. <u>13-544-28</u>	

FED. RD. DIST. NO.	STATE	COUNTY	DISTRICT	ROUTE
3	S.C.	CHARLESTON	10, 51, 53	324



NOTES:

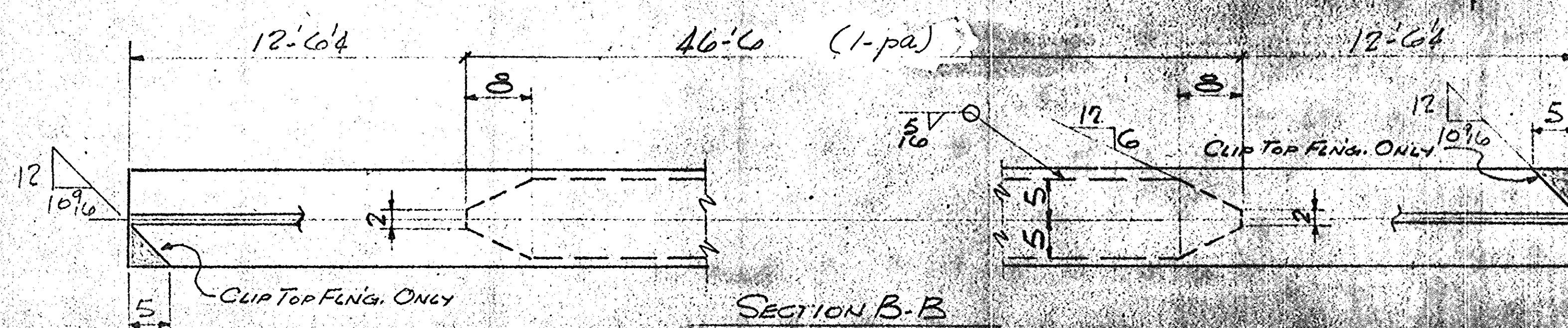
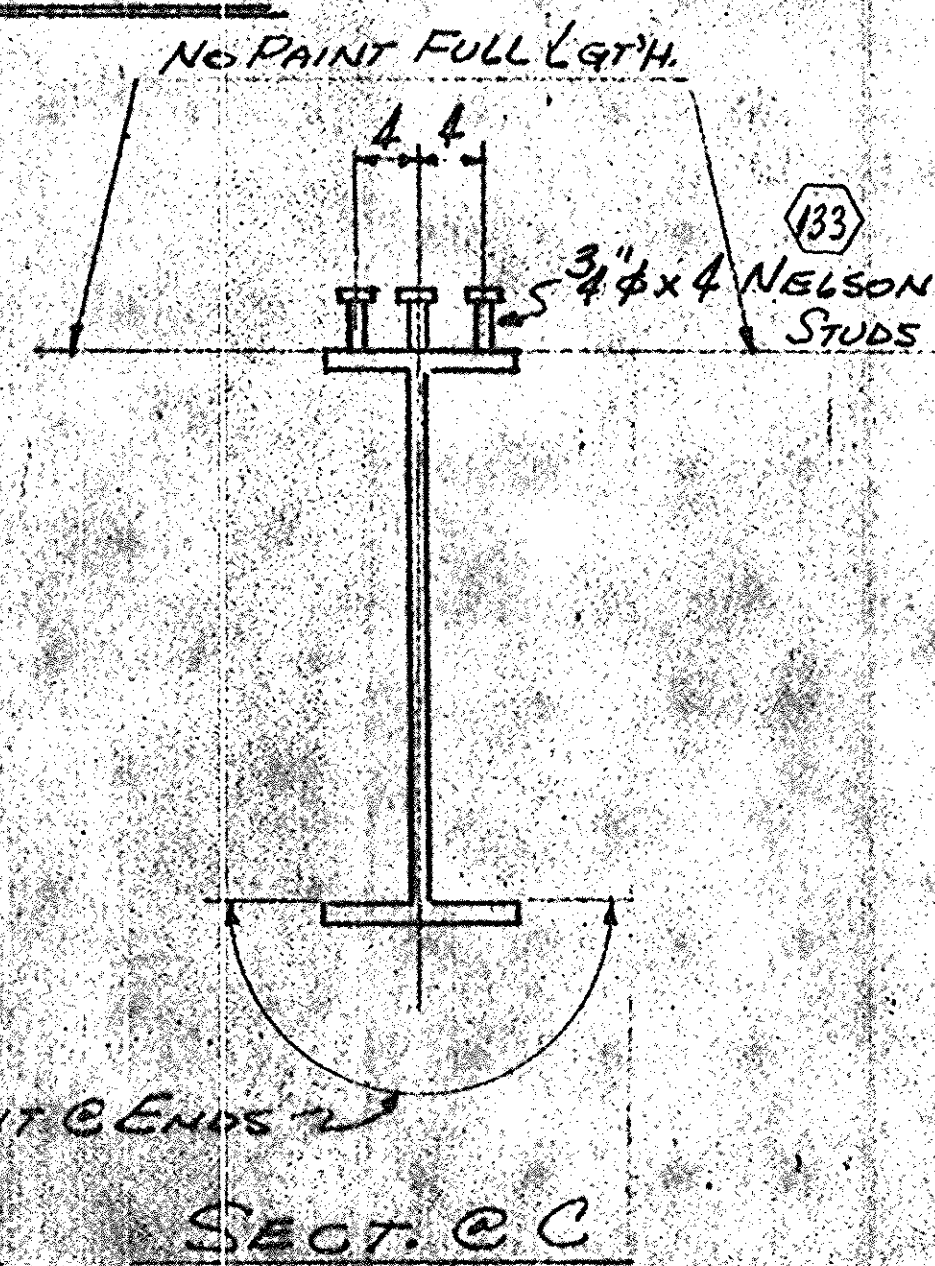
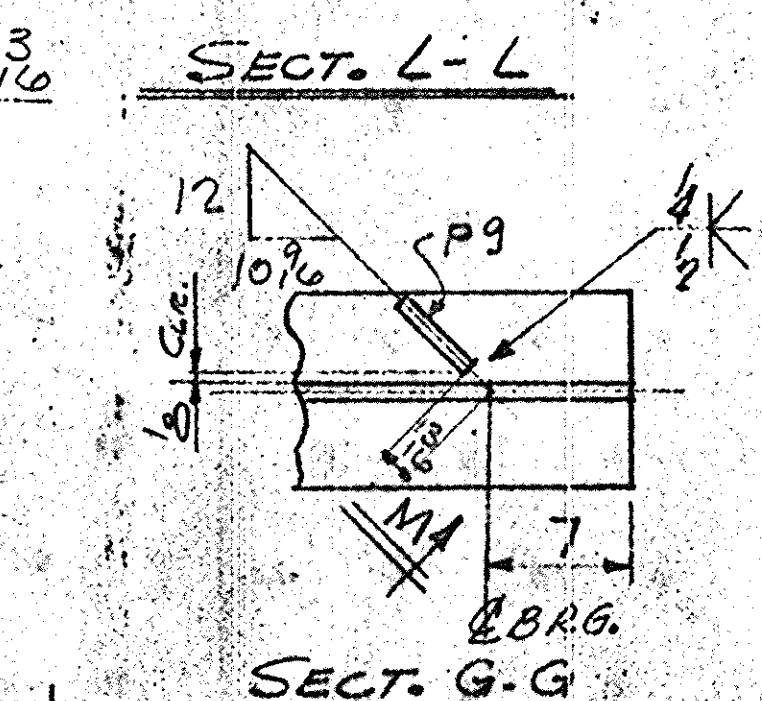
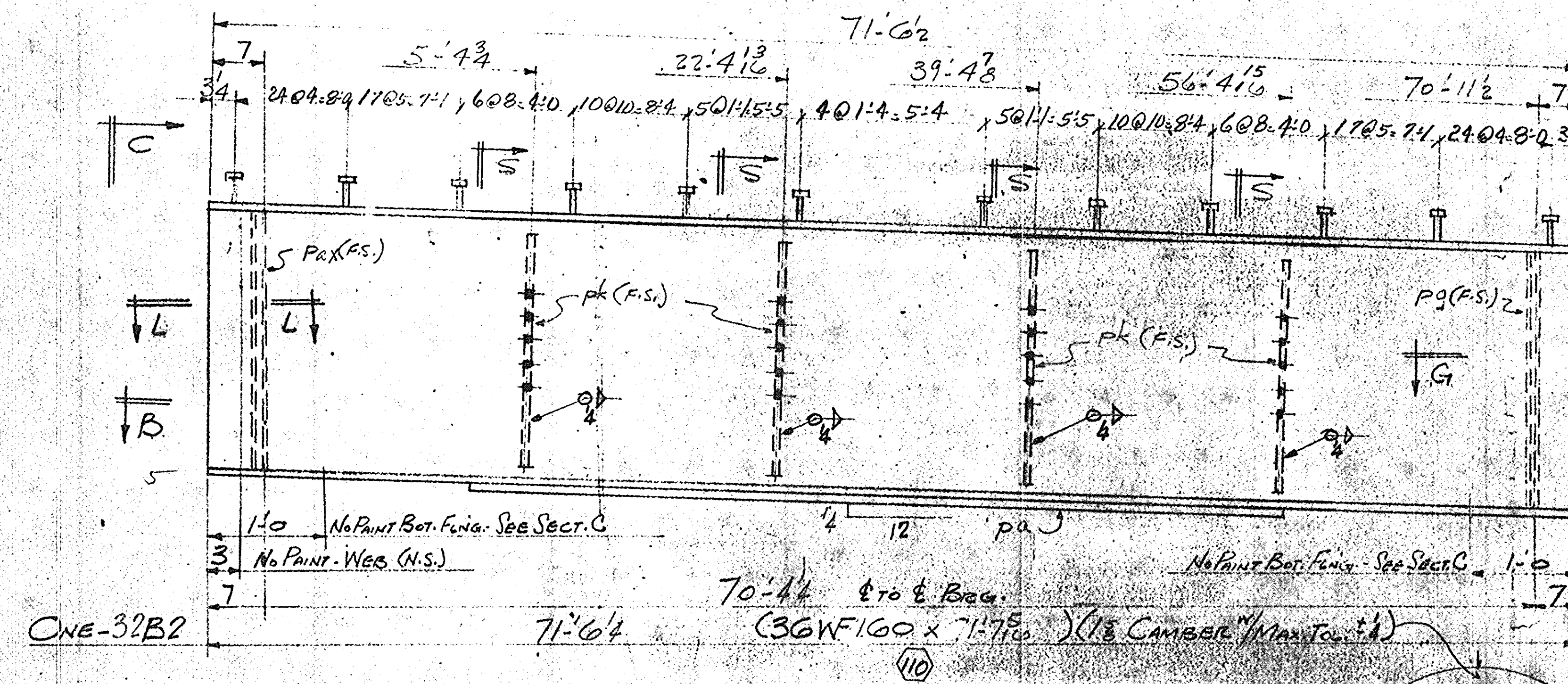
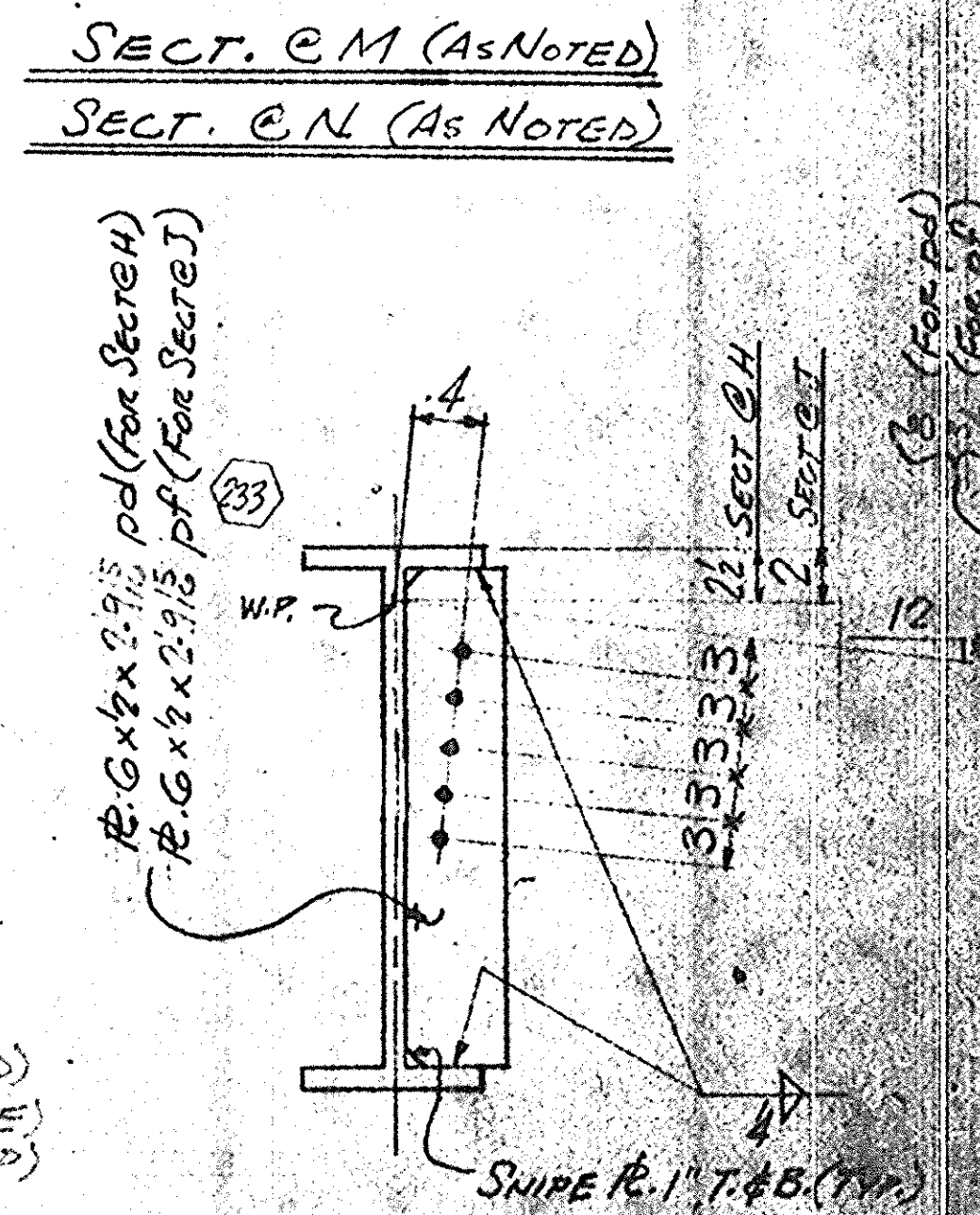
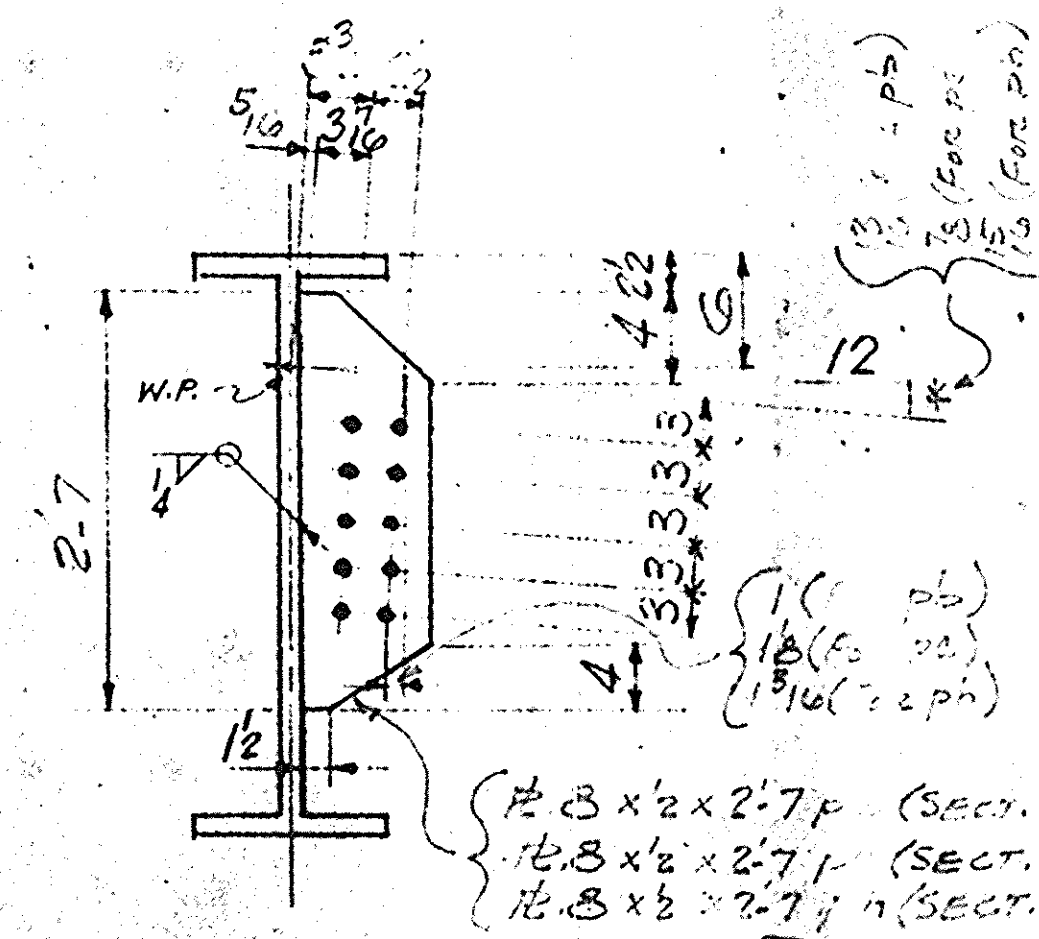
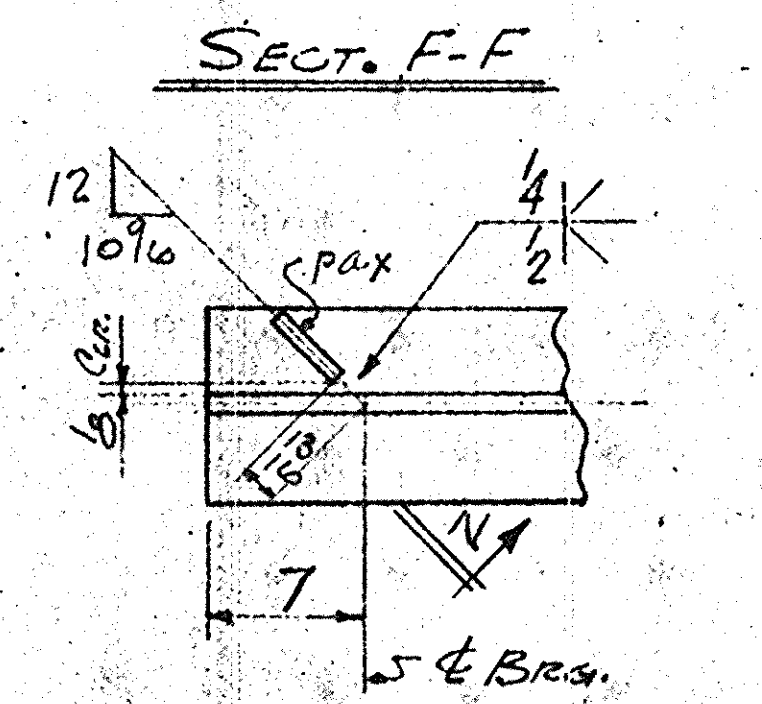
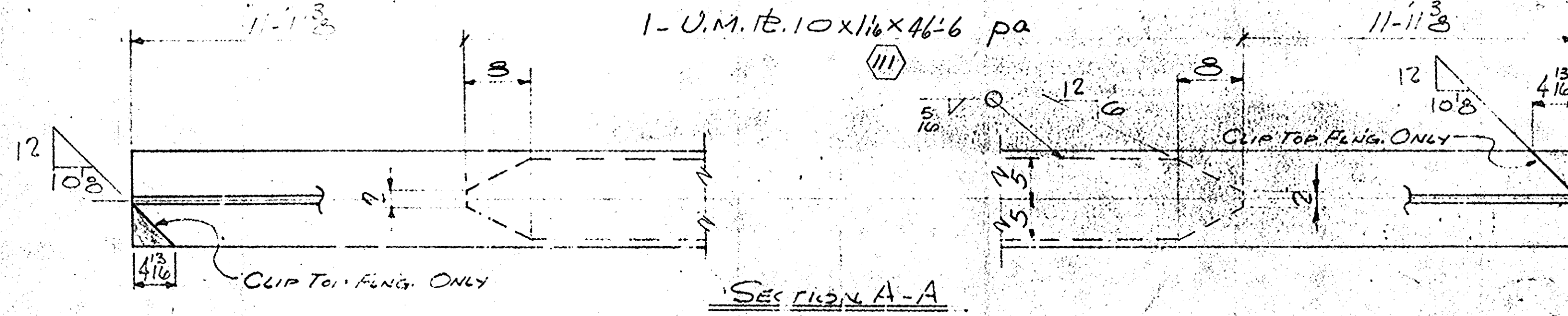
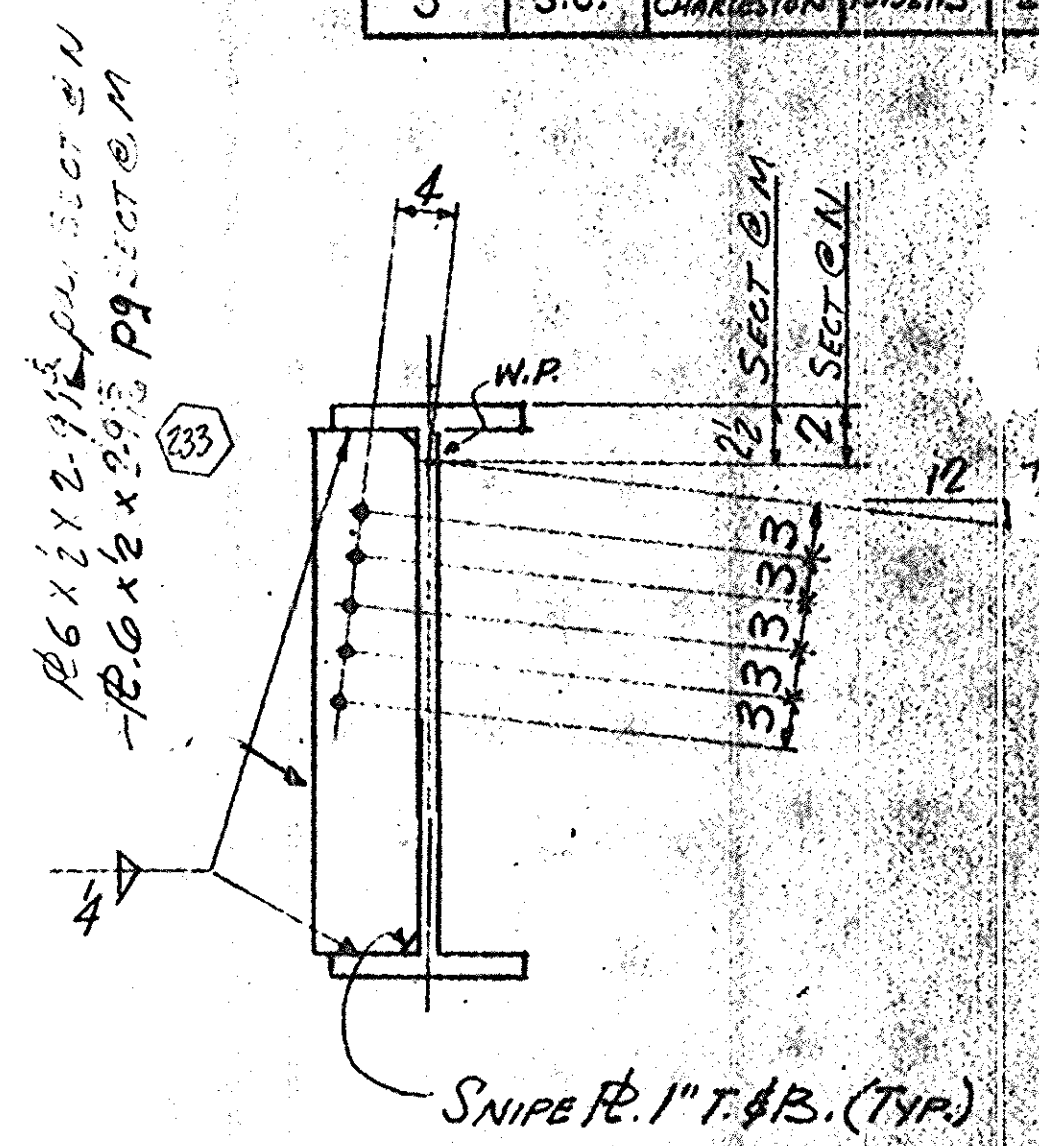
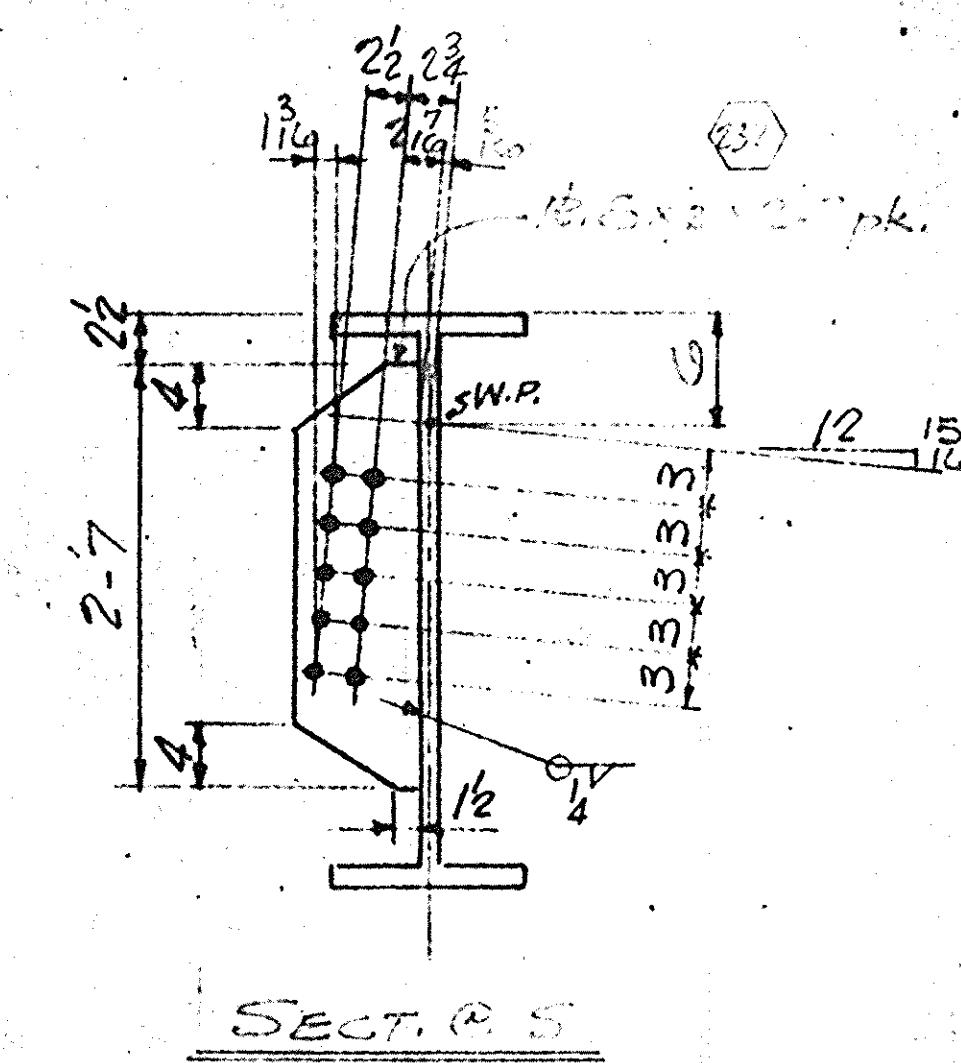
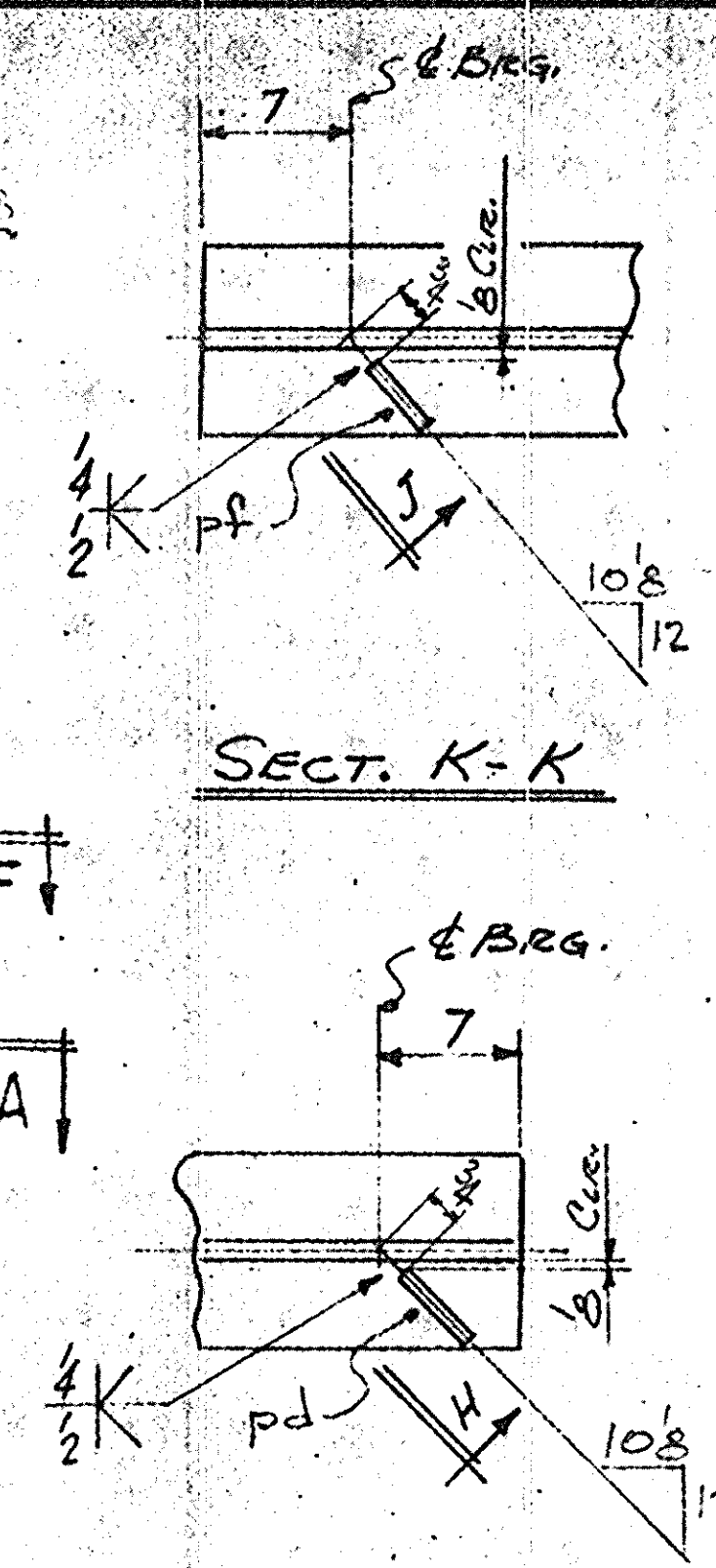
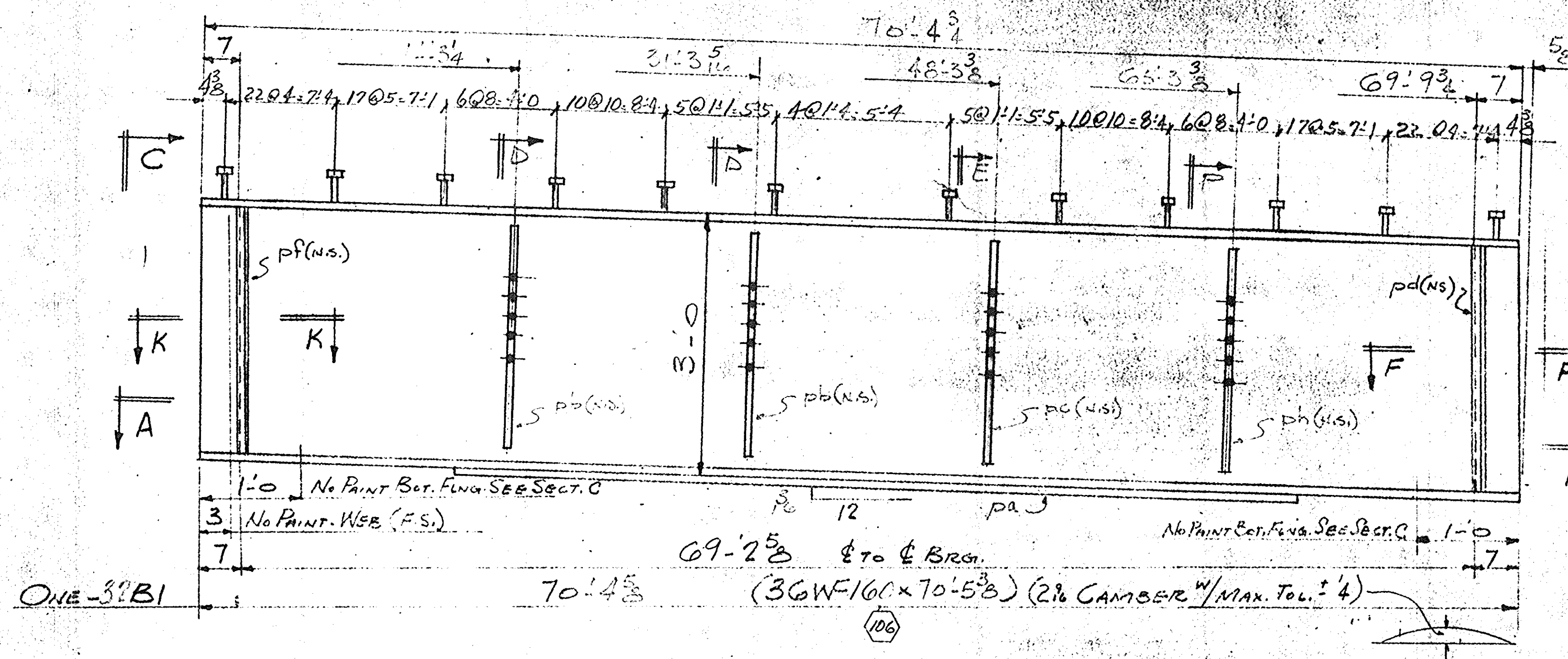
PAINT ERECTION MARKS ON LEFT HAND OF MEMBER AS DETAILED

ALL 1/2" & HOLES THIS DWG. ARE FOR 7/8" & H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION

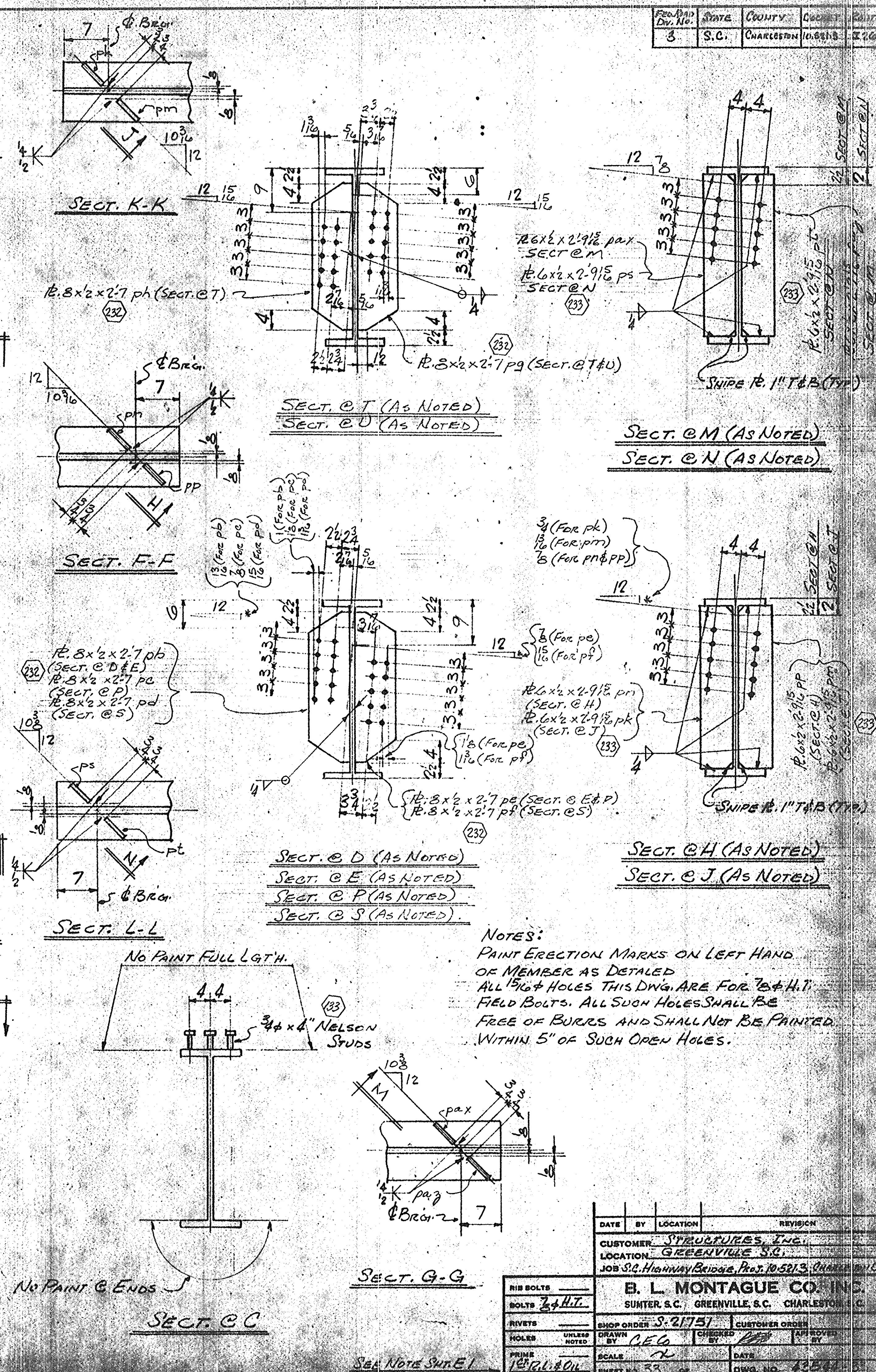
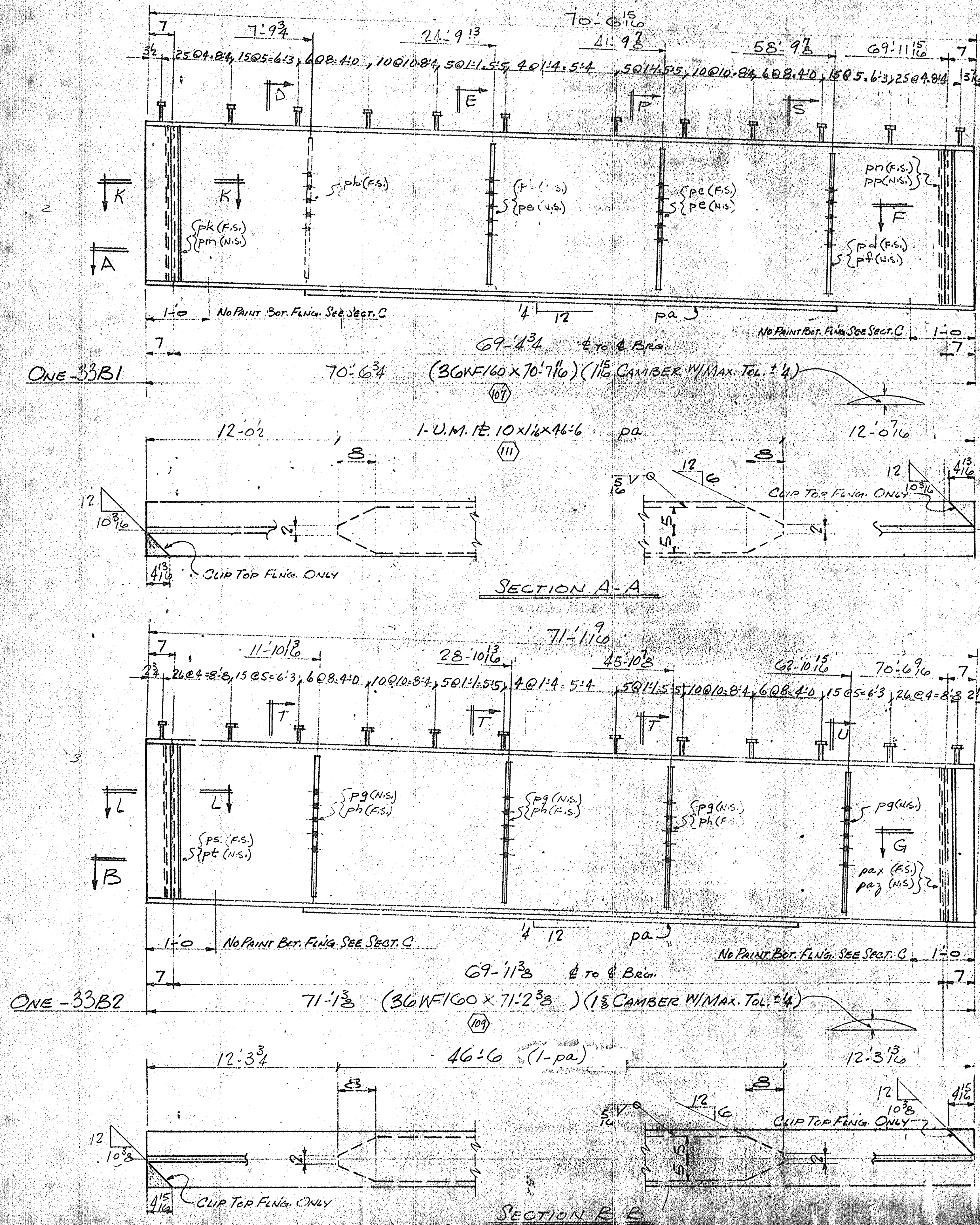
CUSTOMER	STRUCTURES, INC.
LOCATION	GREENVILLE S.C.
JOB	S.C. Highway Bridge, Proj. 10-5213, Charleston Div.
DESIGNED BY	B. L. MONTAGUE CO. INC.
CHECKED BY	
APPROVED BY	
DATE	
SCALE	1" = 10'-0"
SHEET NO.	30 OF 1
DWG. NO.	6-5502-3

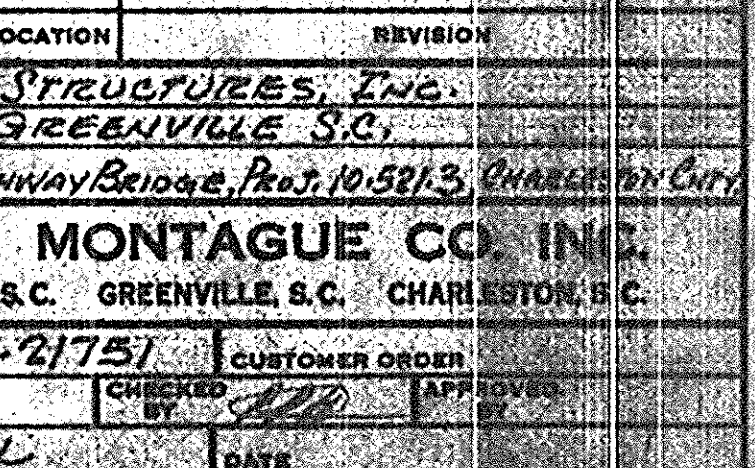
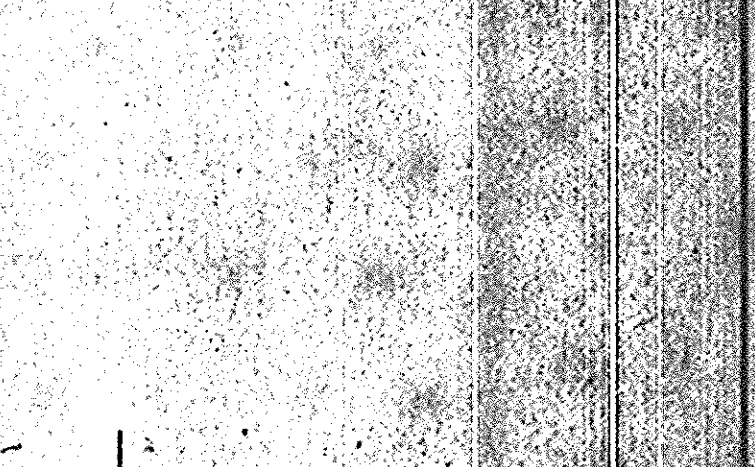
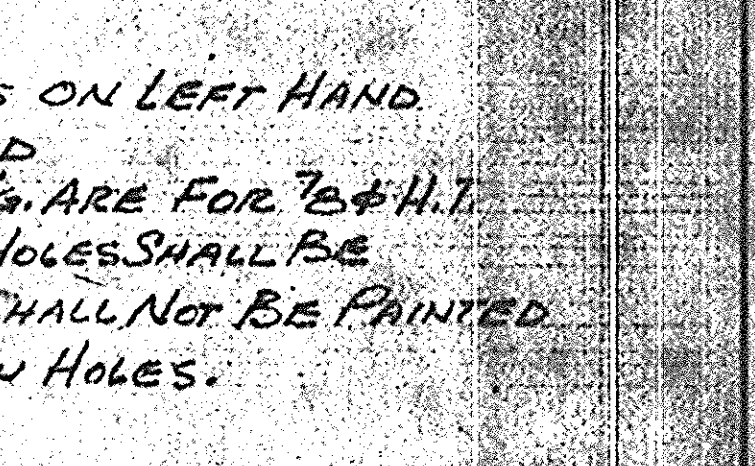
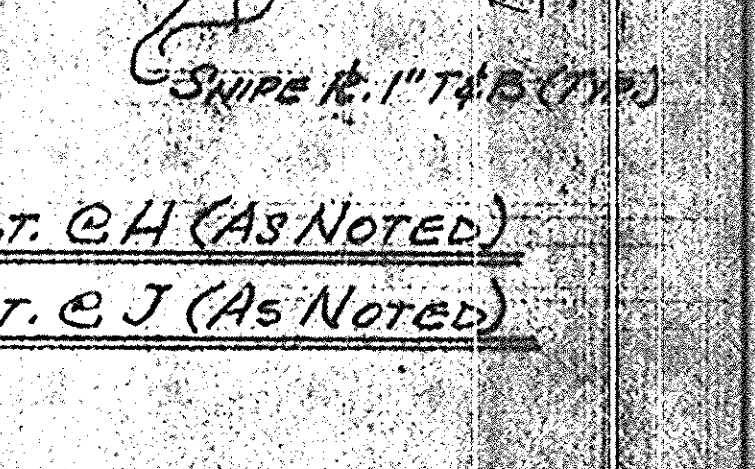
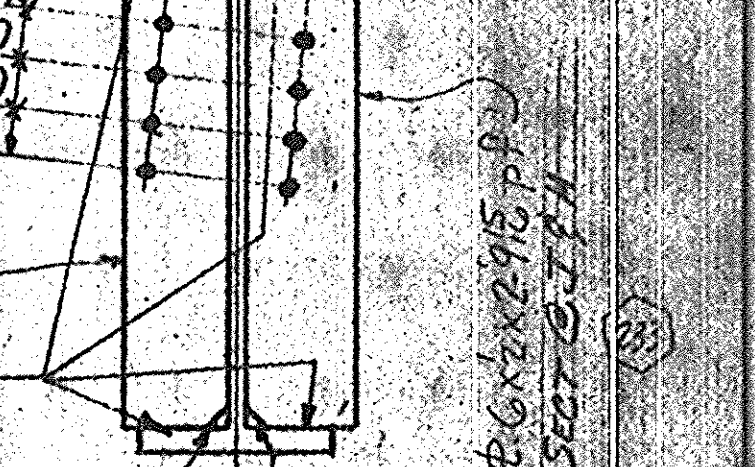
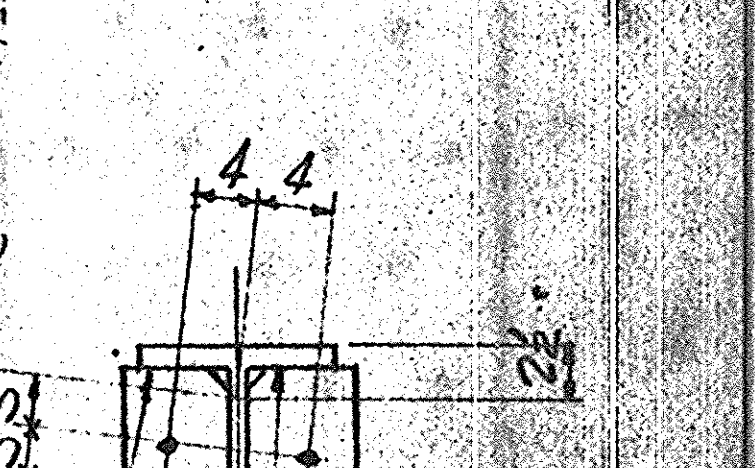
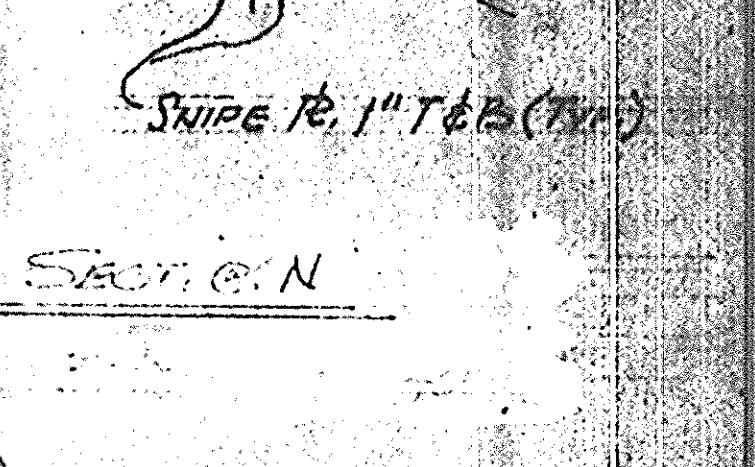
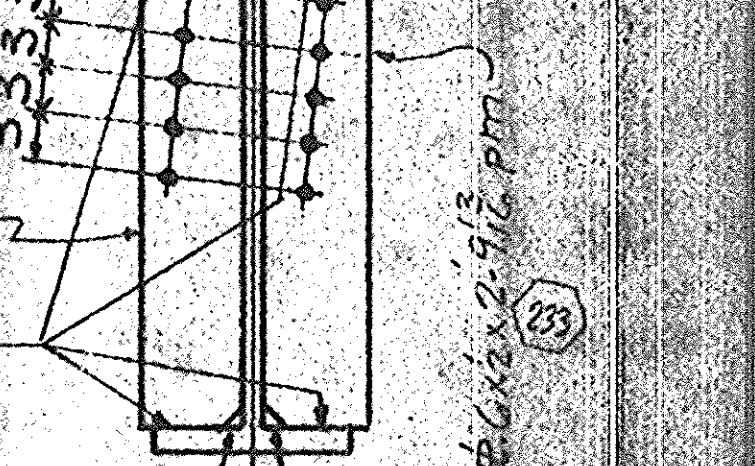
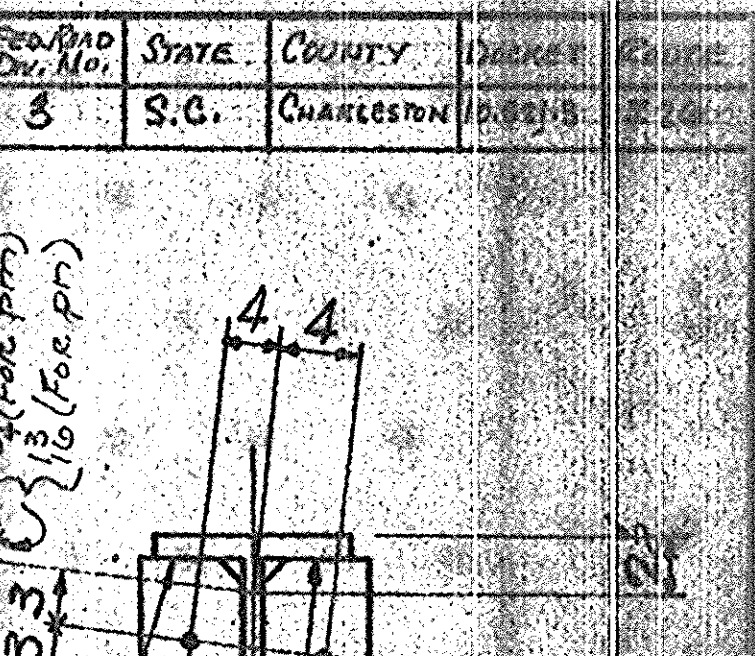
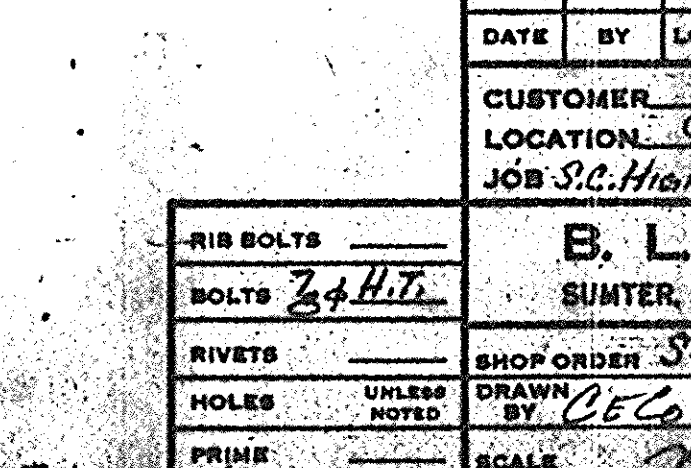
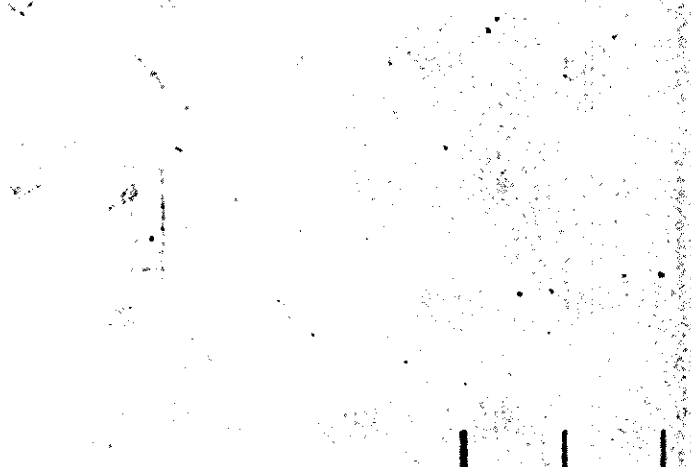
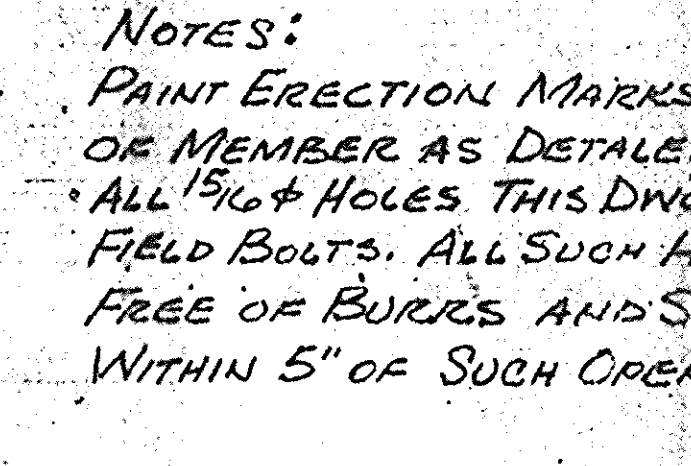
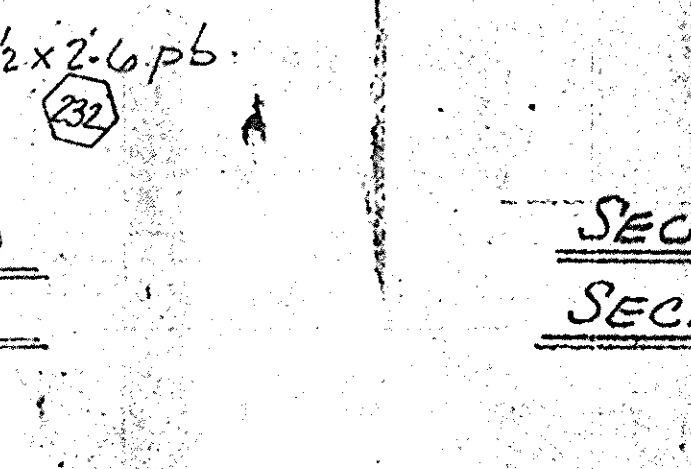
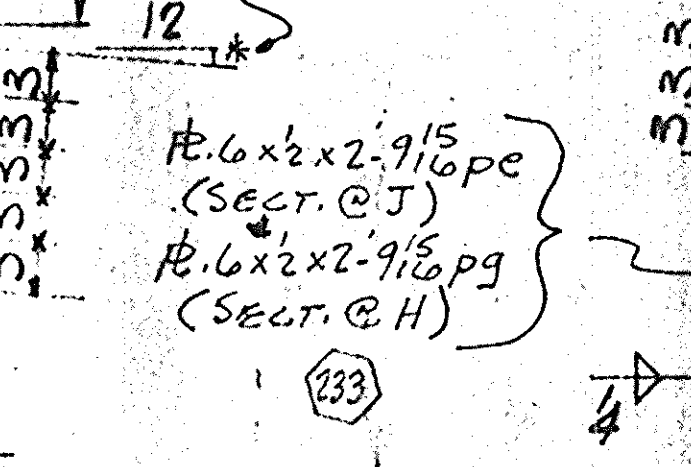
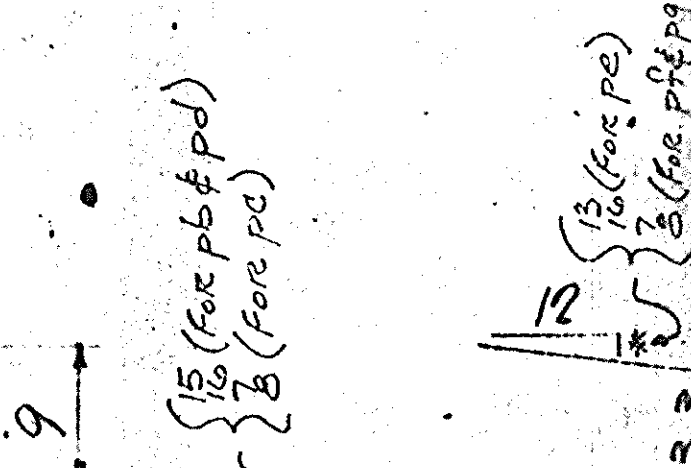
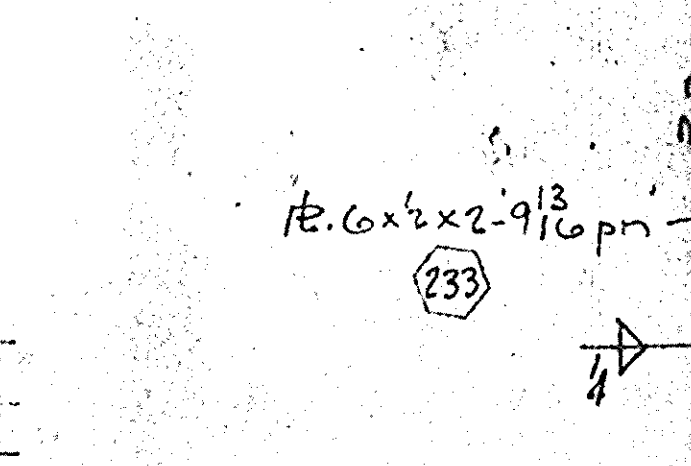
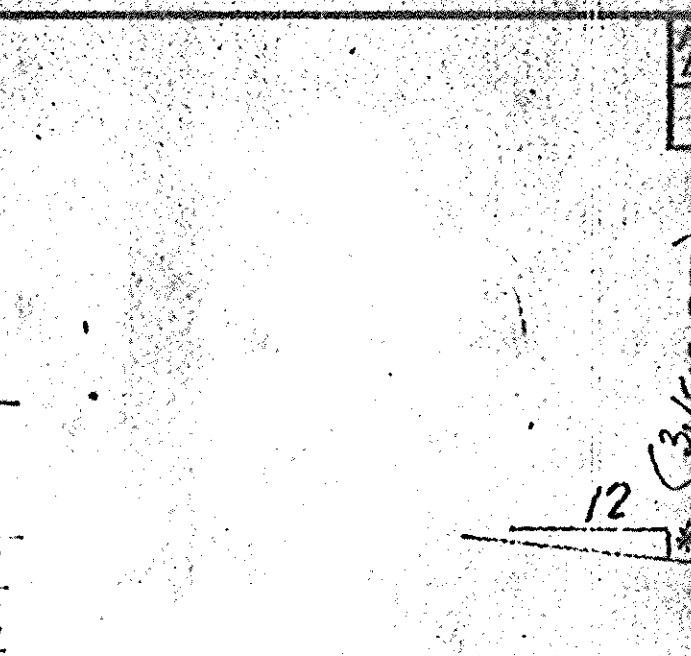
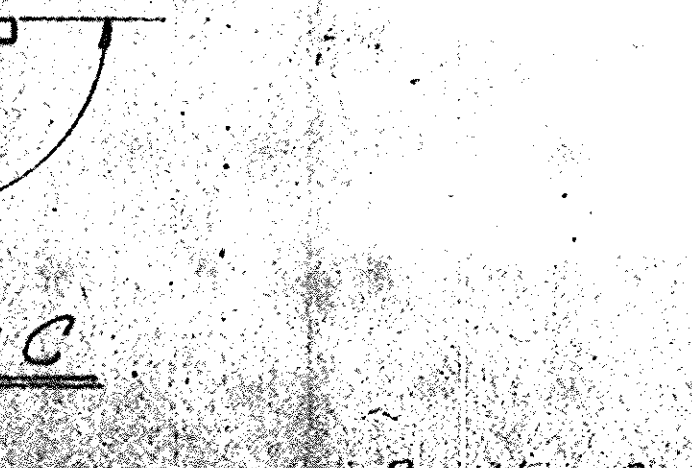
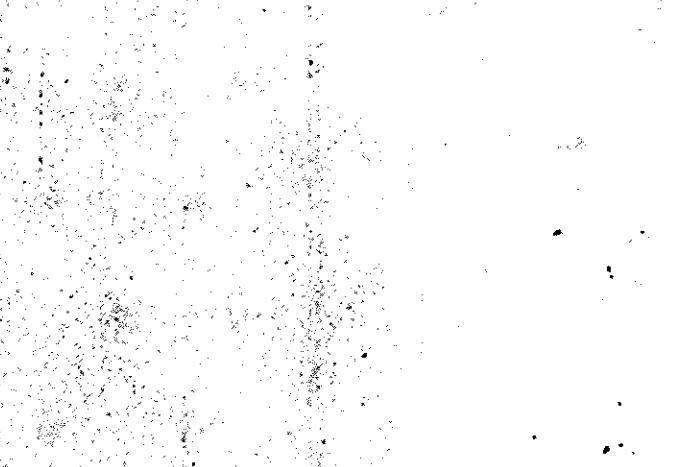
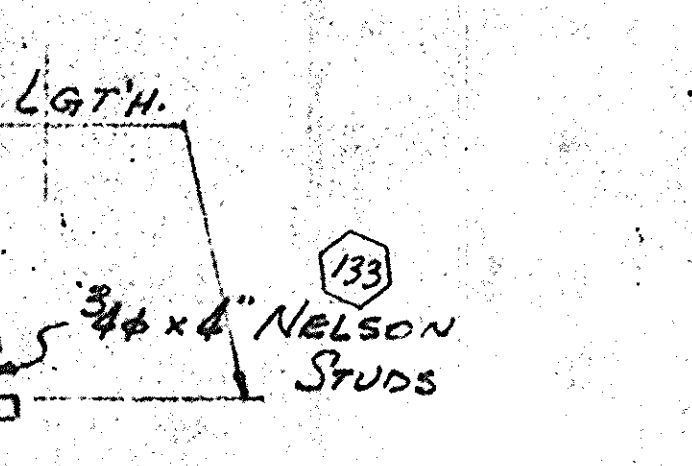
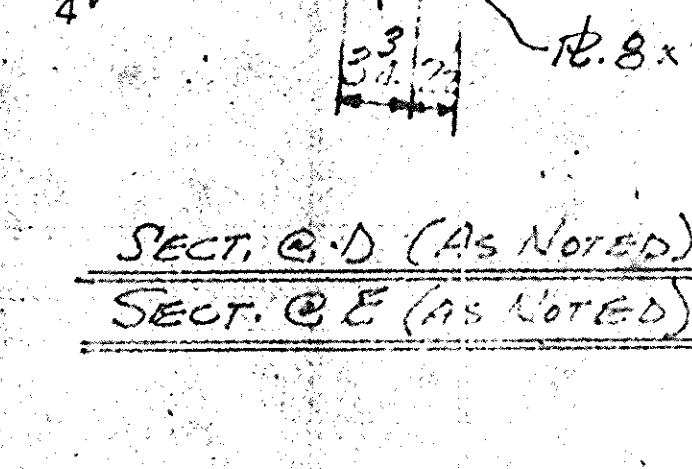
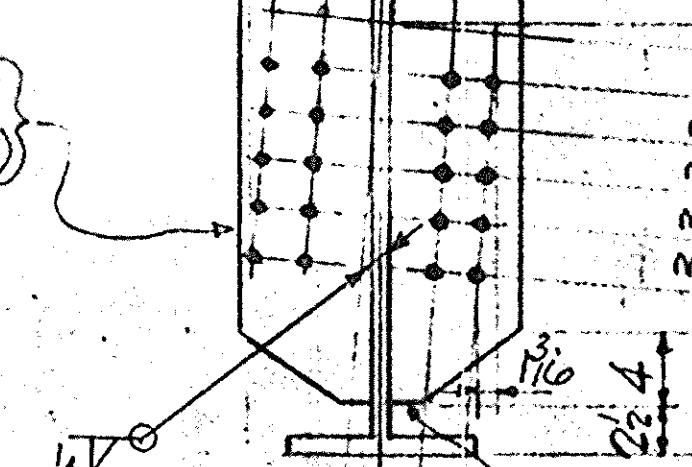
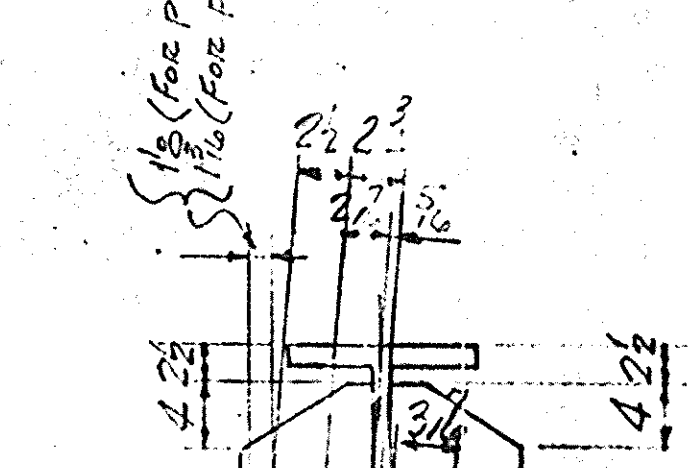
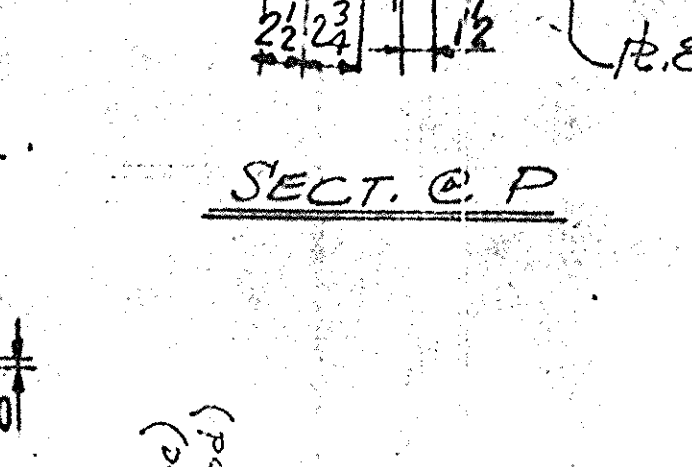
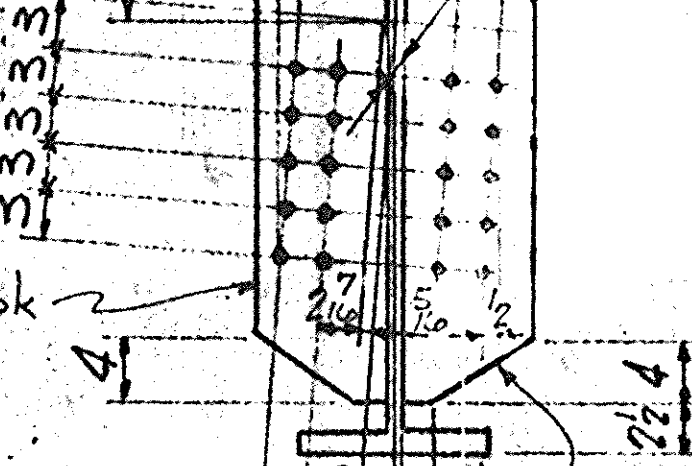
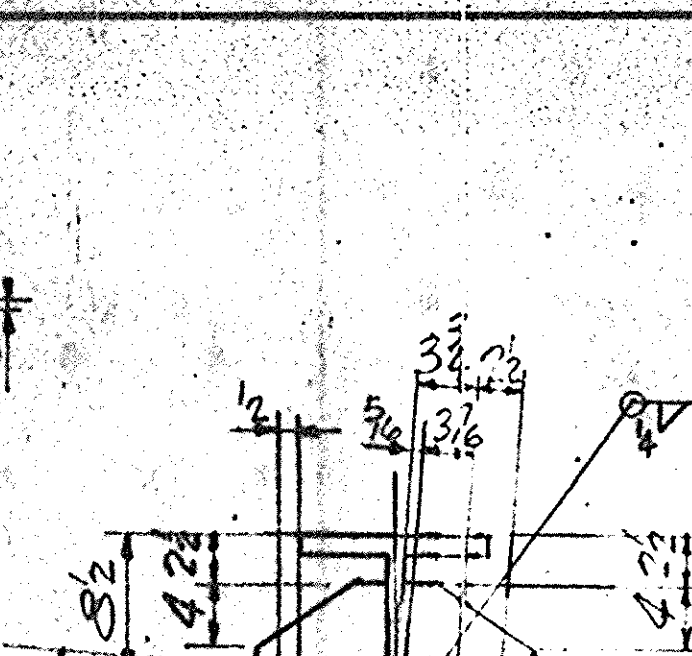
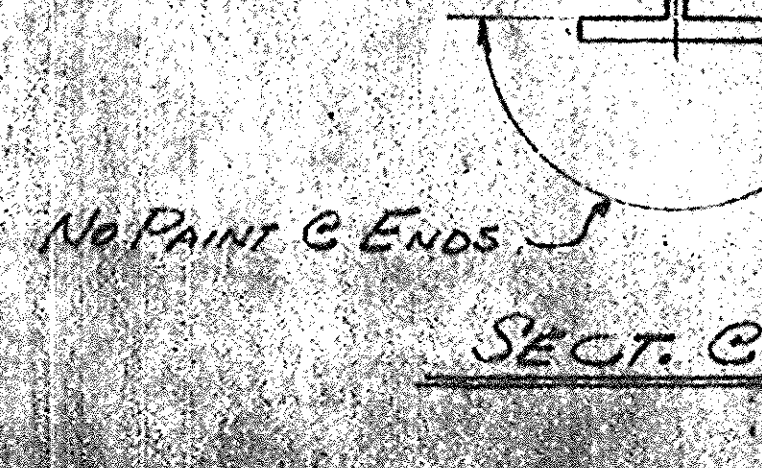
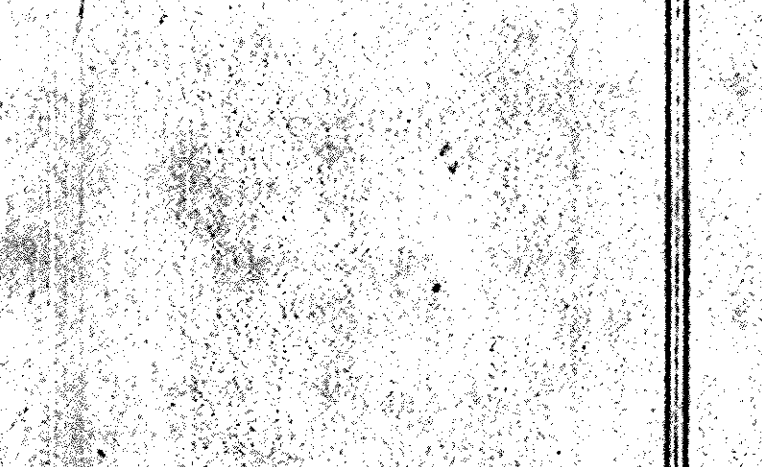
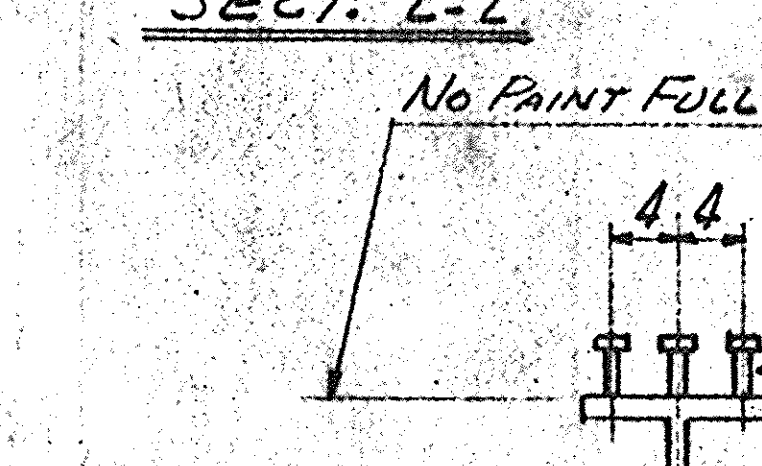
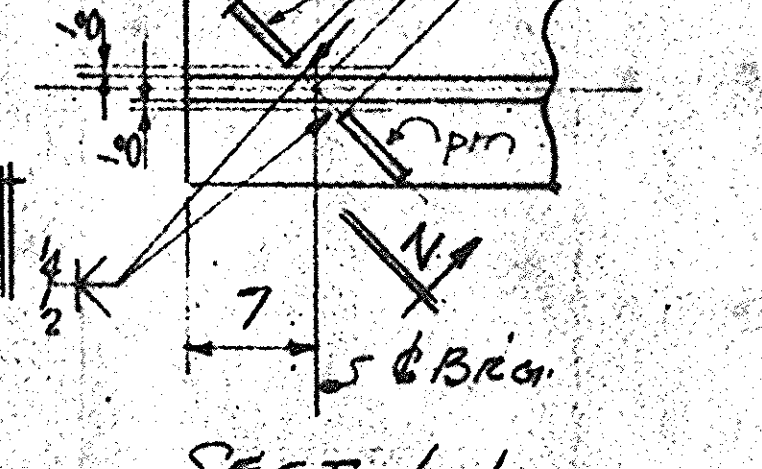
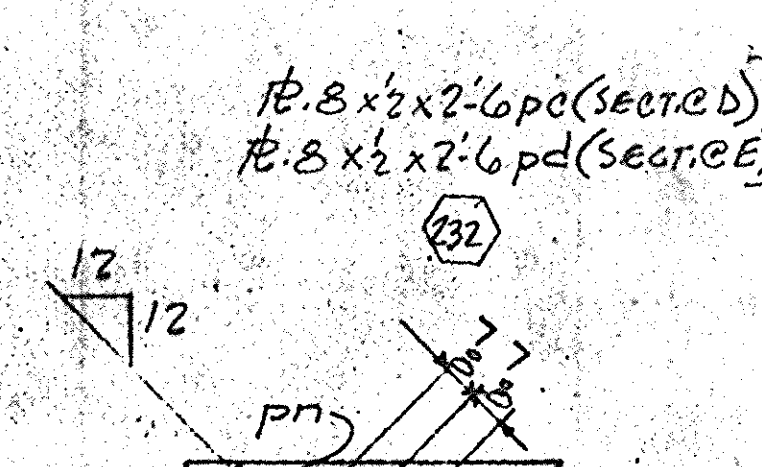
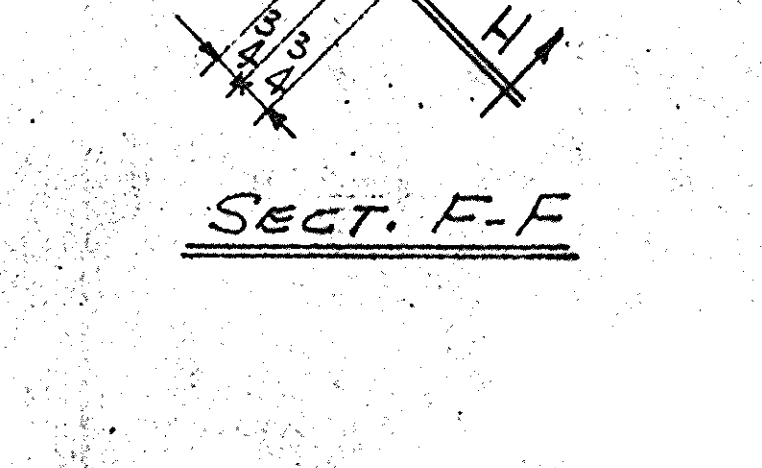
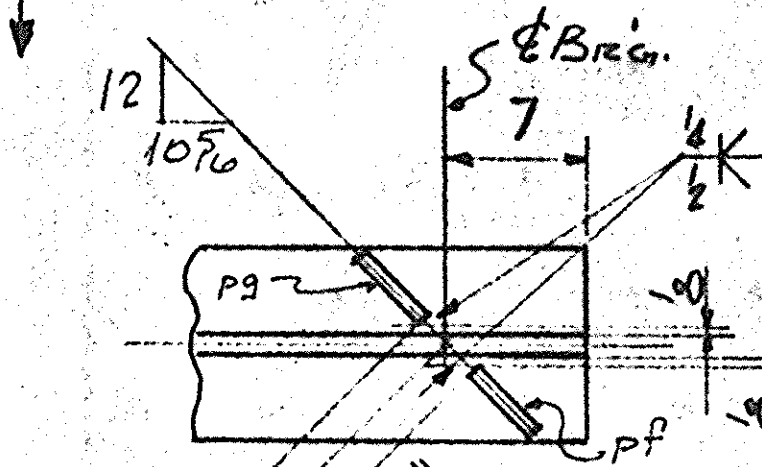
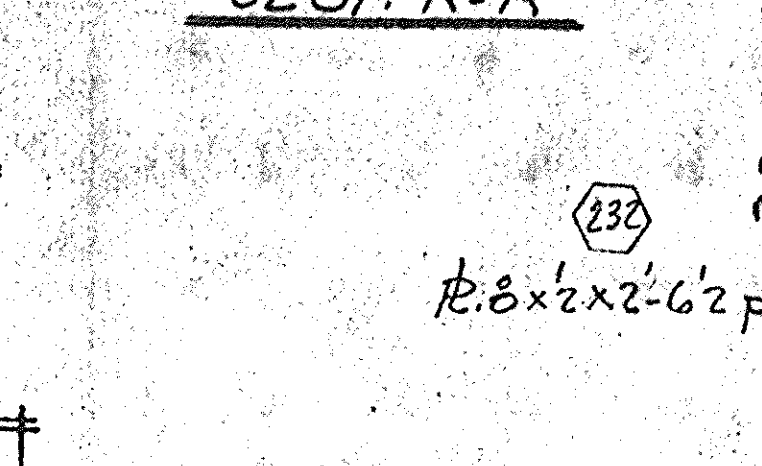
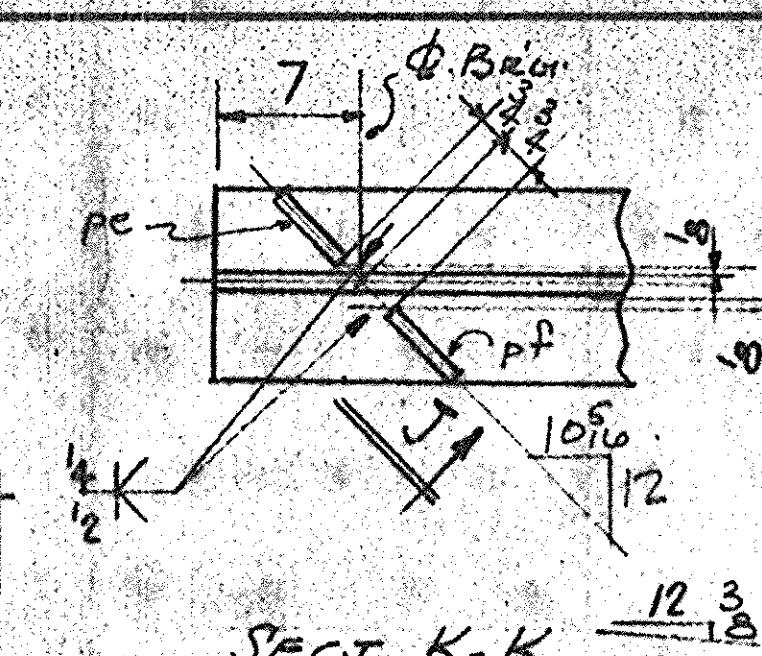
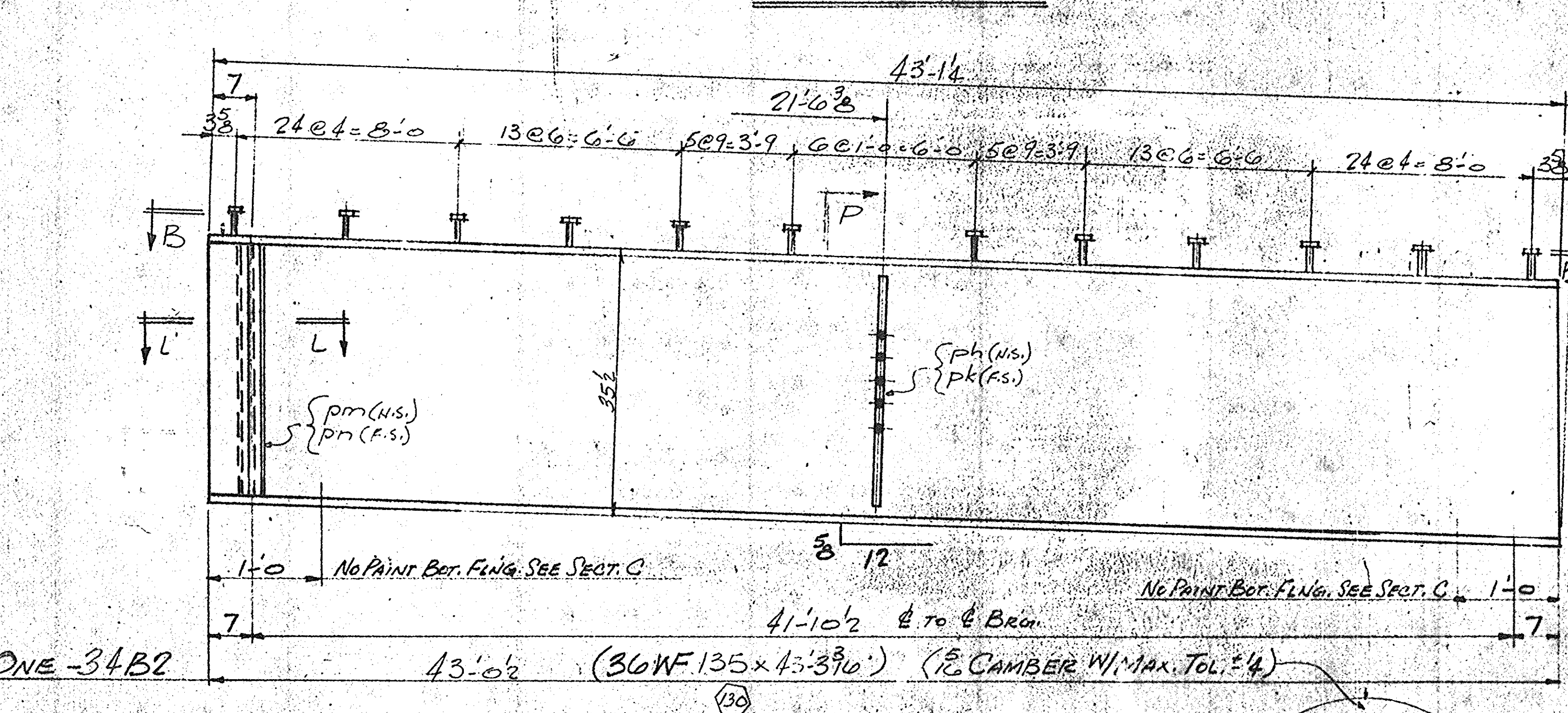
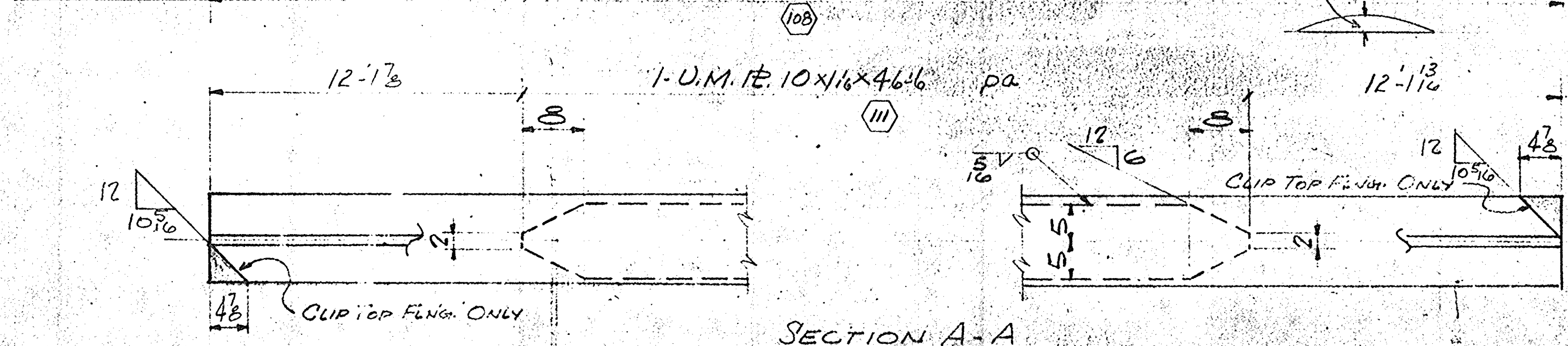
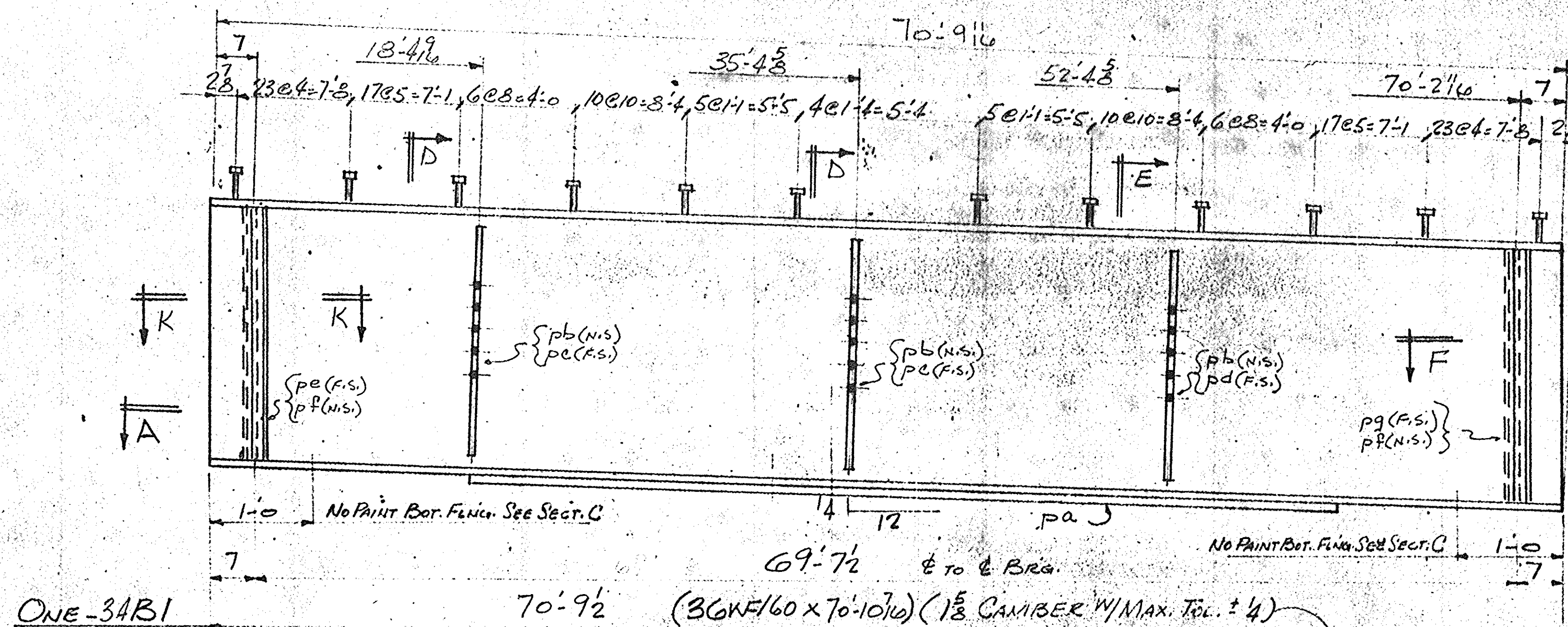
FED. ROAD DN. NO.	STATE	COUNTY	DOCKETS	ROUTE
3	S.C.	CHARLESTON	10.5215	126



NOTES:
PAINT ERECTION MARKS ON LEFT HAND
OF MEMBERS AS DETAILED.
ALL 1/2" HOLES THIS DWG. ARE FOR 3/4" H.T.
FIELD BOLTS. ALL SUCH HOLES SHALL BE
FREE OF BURRS AND SHALL NOT BE PAINTED
WITHIN 5" OF SUCH OPEN HOLES.

DATE		BY		LOCATION		REVISION	
CUSTOMER <u>STEWARTS INC.</u>							
LOCATION <u>GREENVILLE, S.C.</u>							
JOB <u>S.O. HIGHWAY BRIDGE, ROUTE 10 5218 CHARLESTON</u>							
<div> <div>E. L. MONTAGUE CO. INC.</div> <div>SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.</div> </div>							
RIB BOLTS		_____		BUSH ORDER		CUSTOMER ORDER	
BOLTS		<u>6 + 4 1/2</u>		DRAWN BY		CHECKED BY	
RIVETS		_____		BY <u>ALCO</u>		APPROVED BY	
HOLES		15 x UNLESS NOTED		SCALE		DATE	
PRIME		10" ALCO		SHEET NO. 39 OF		OWG. NO. 13	



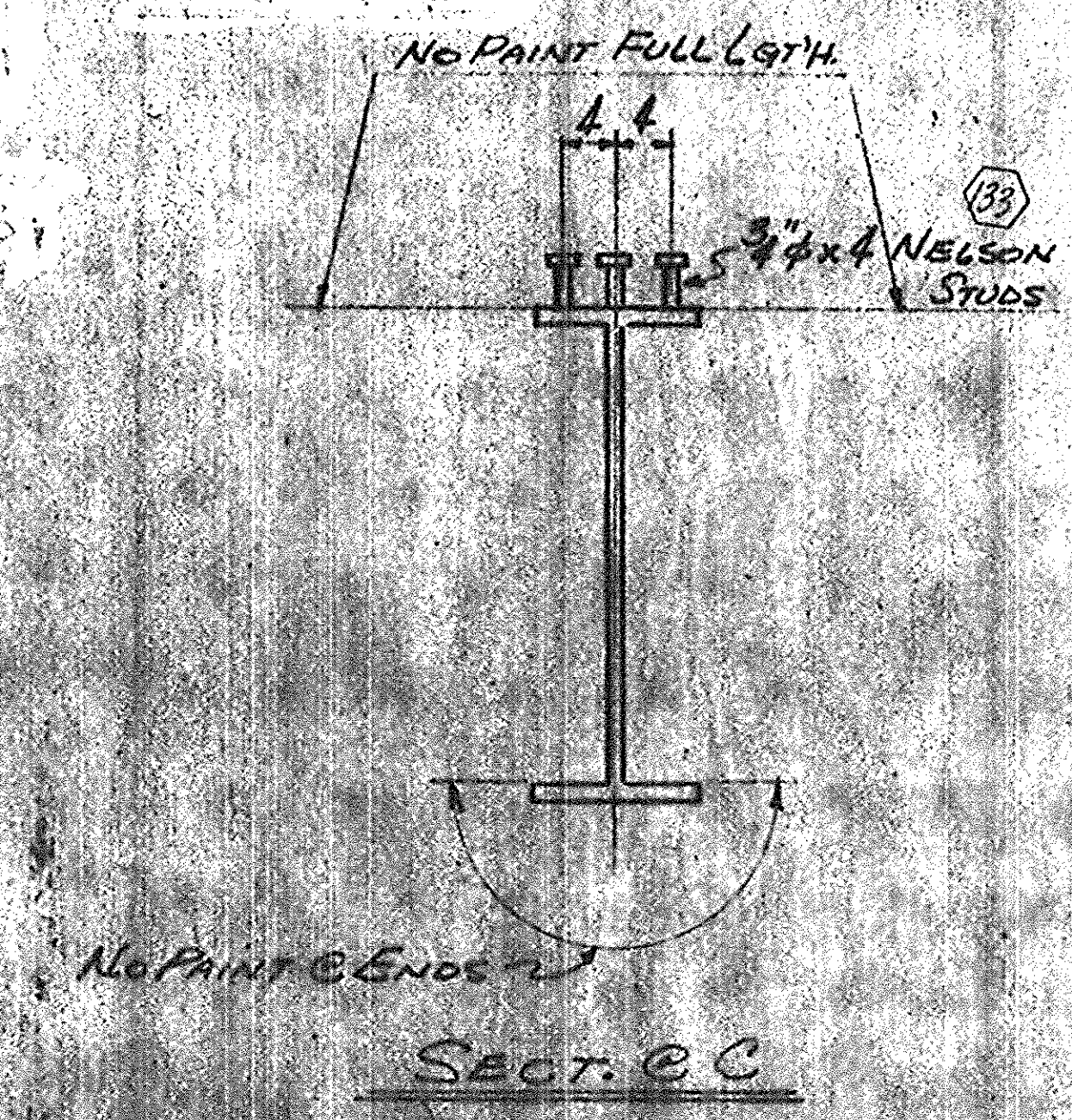
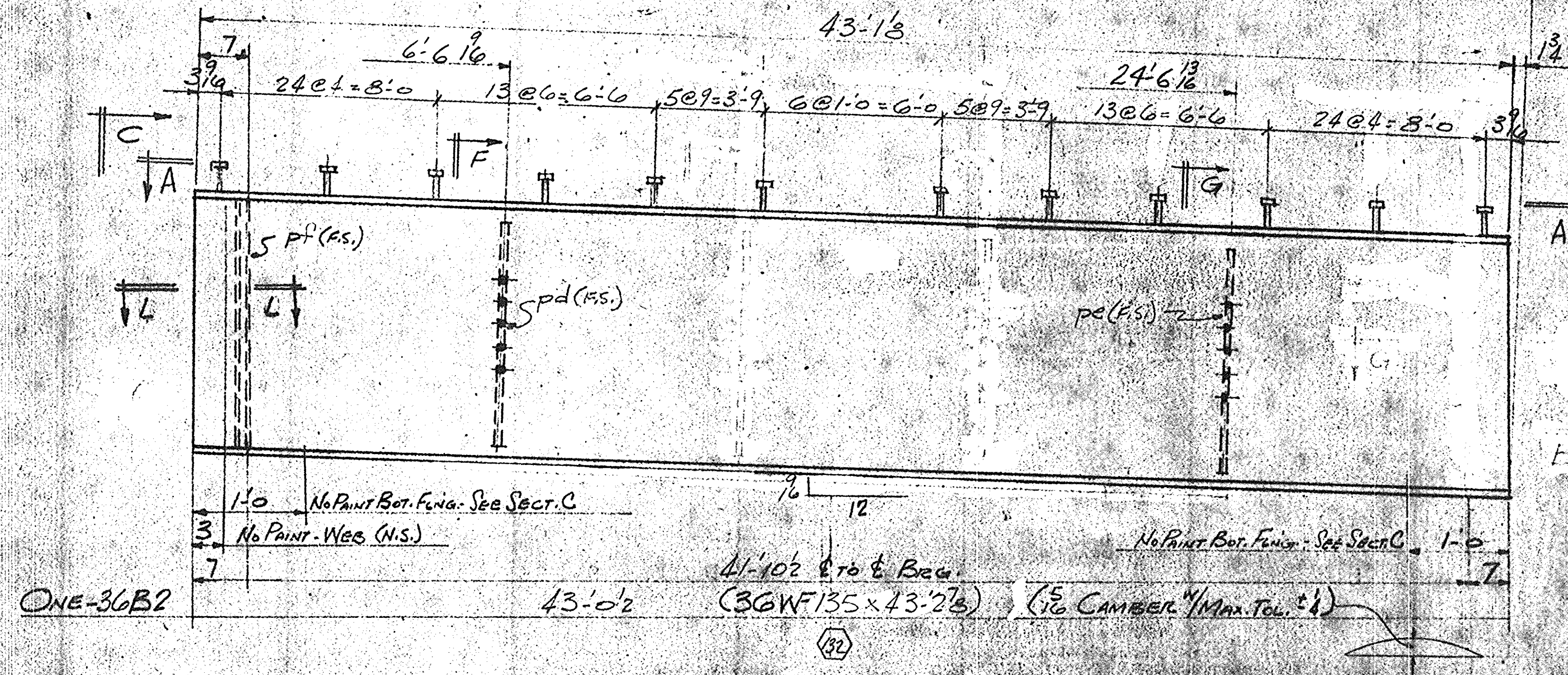
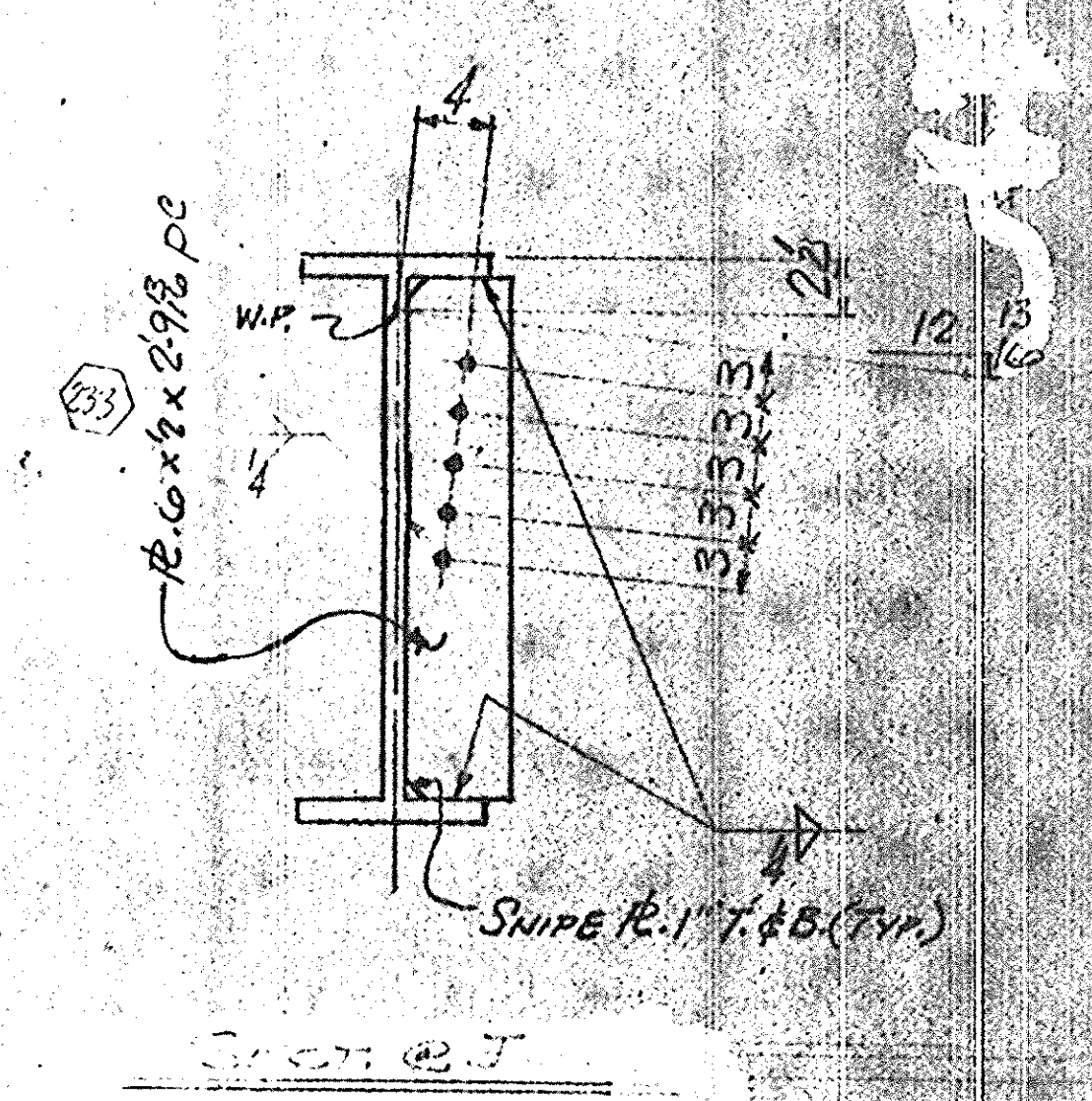
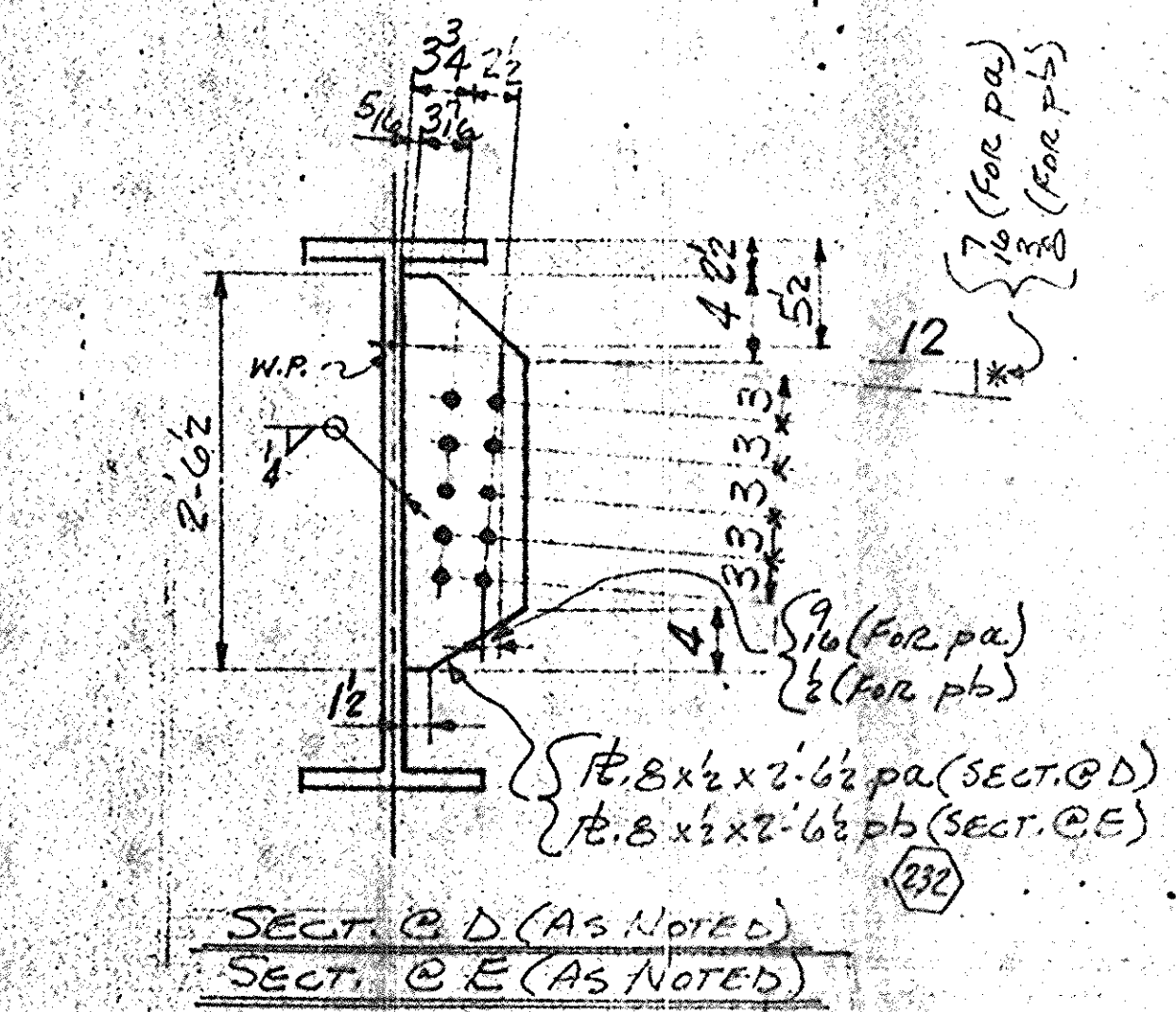
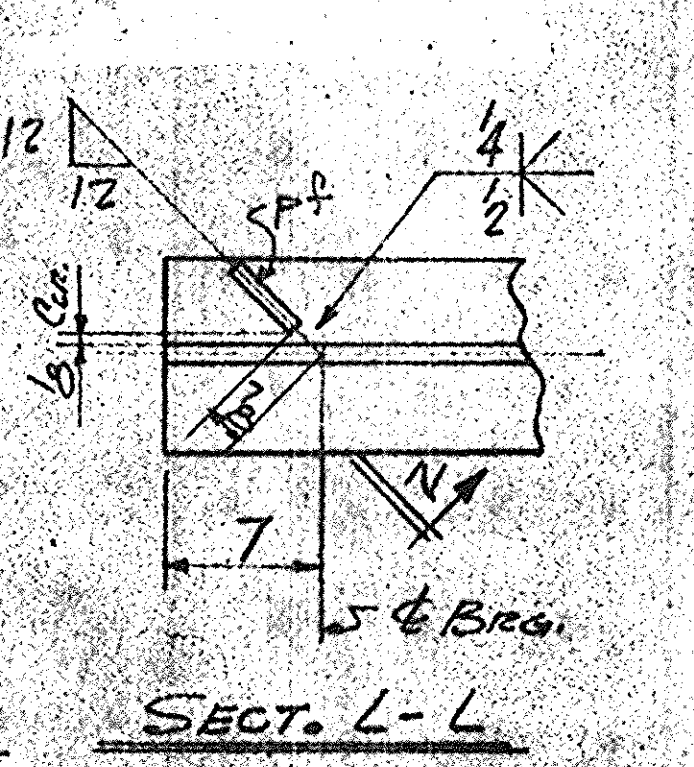
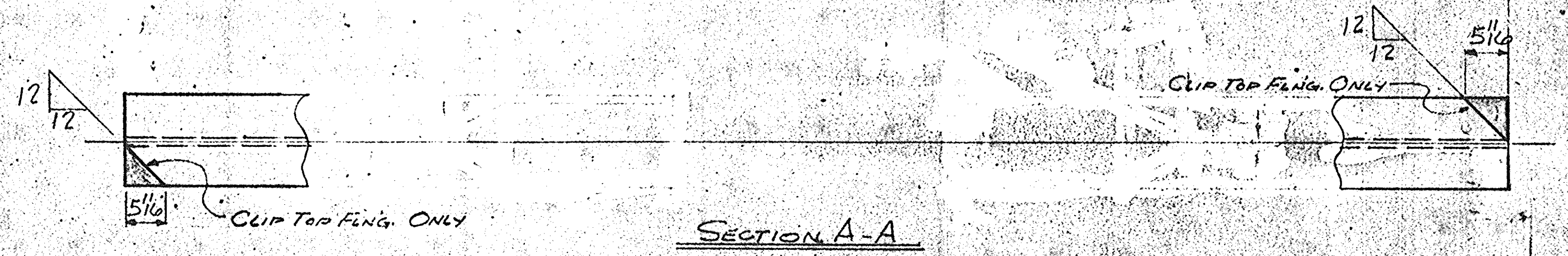
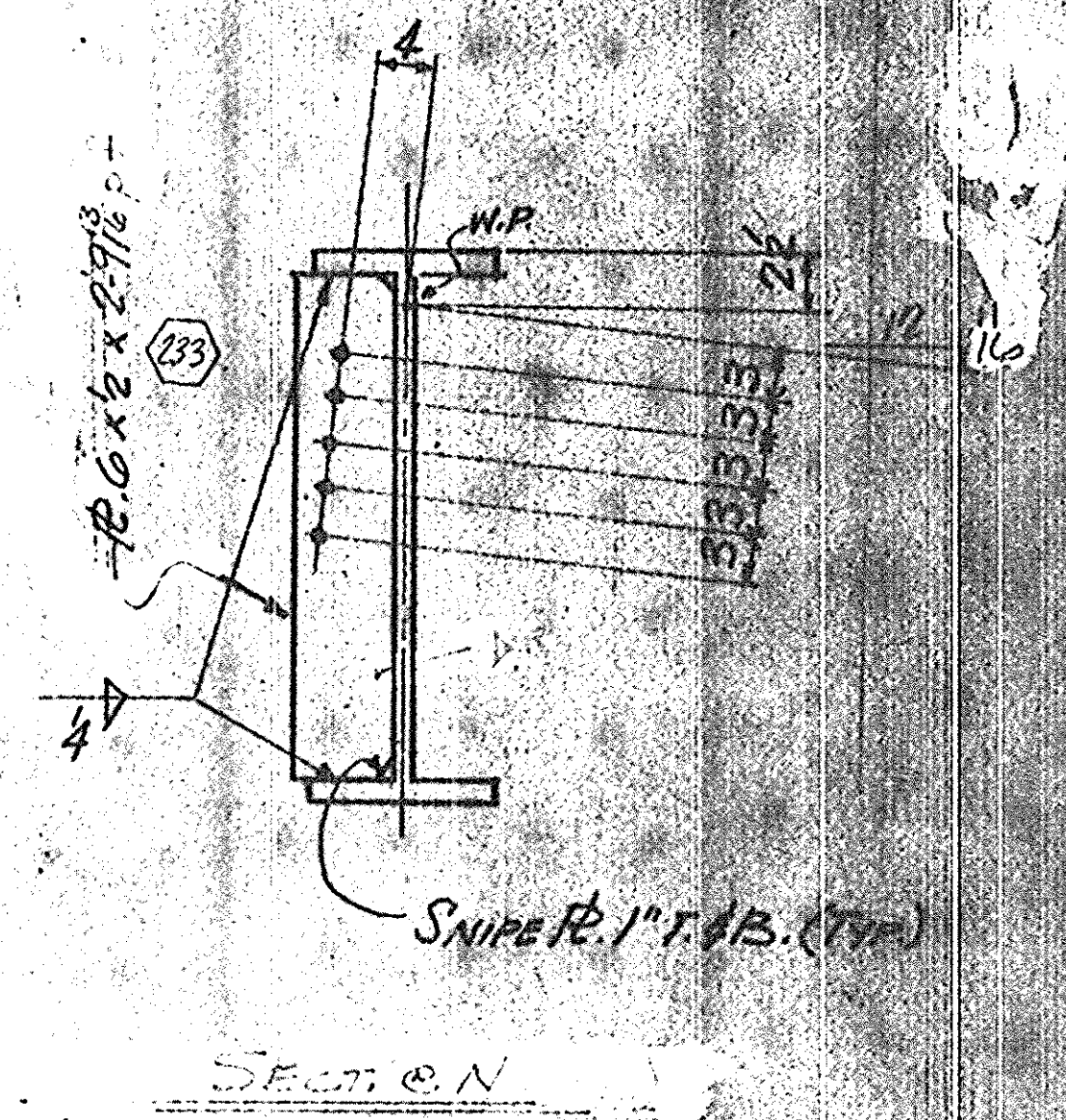
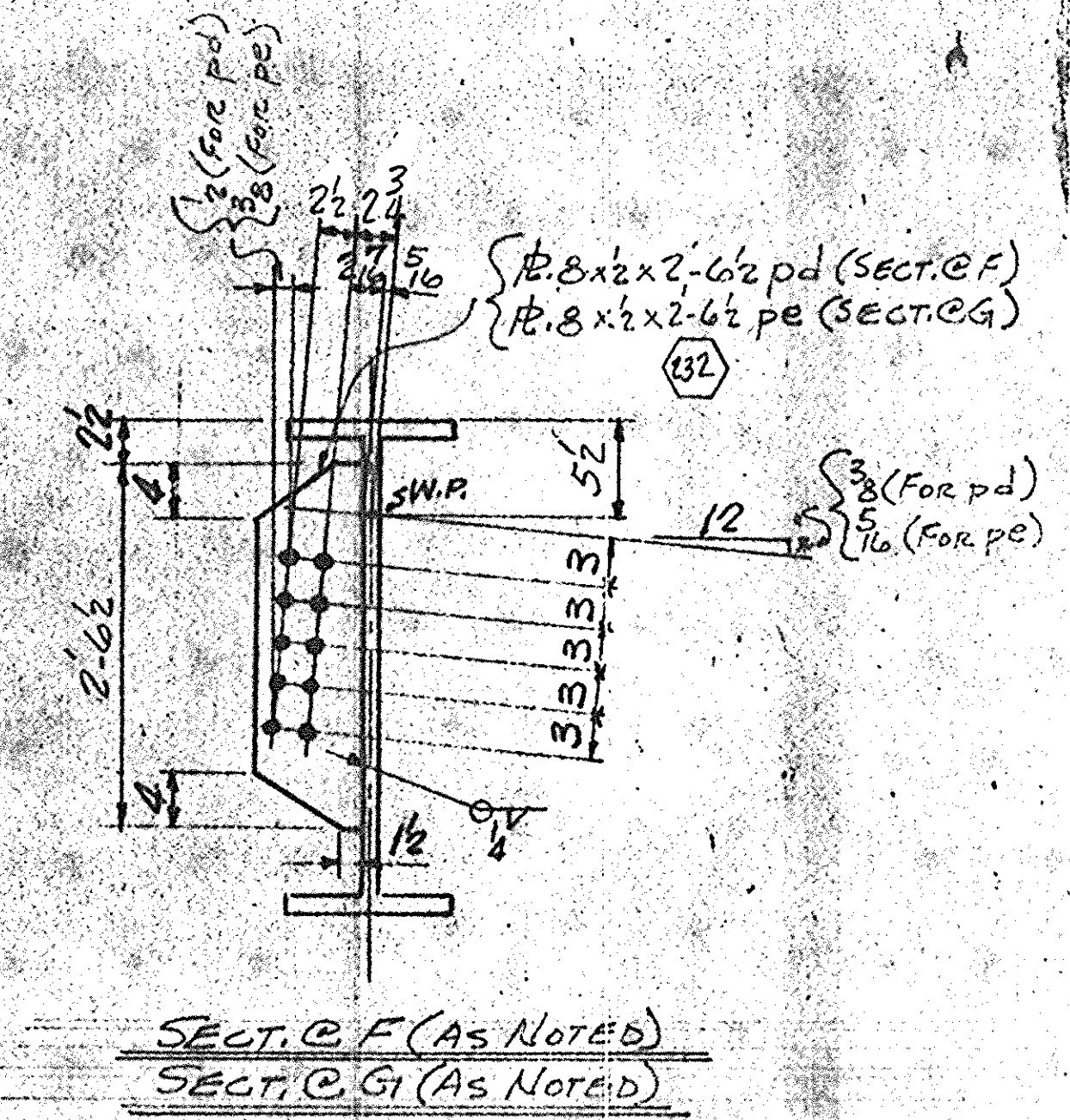
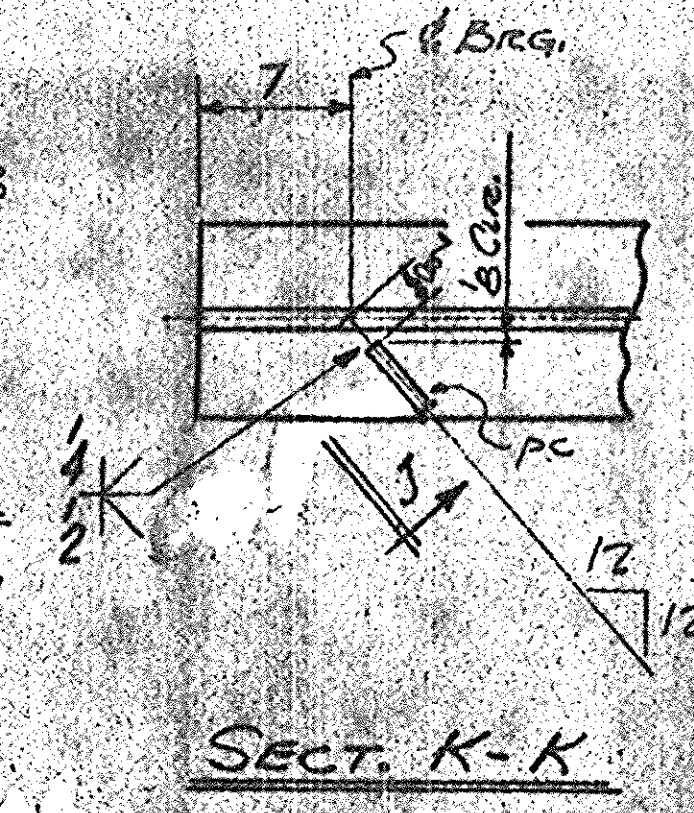
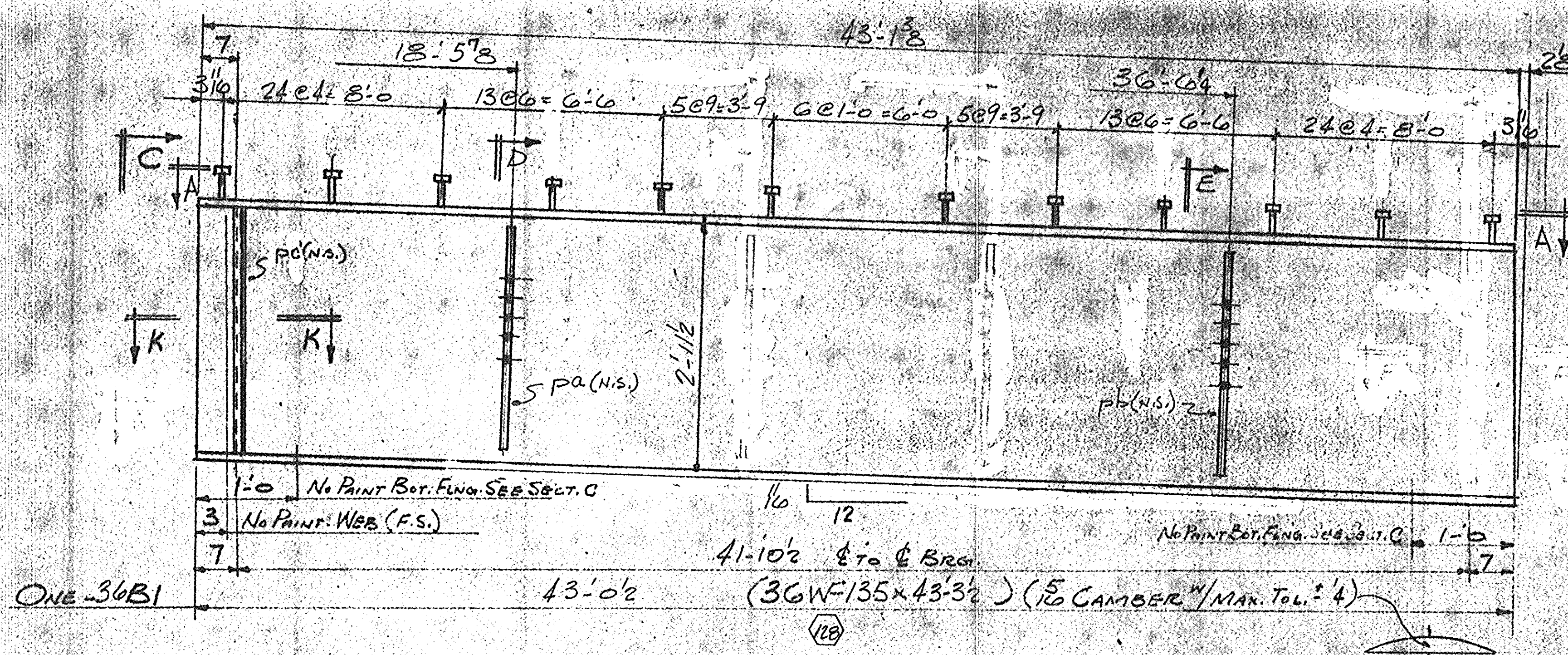


NOTES:
PAINT ERECTION MARKS ON LEFT HAND OF MEMBER AS DETAILED.
ALL 1 5/16" HOLES ARE FOR 7/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
10-21-53	B.L.M.	GREENVILLE, S.C.	1
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. Highway Bridge, Proj. 10-5213, CHARLESTON, S.C.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	3/4" H.T.		
BOLTS	3/4" H.T.		
RIVETS	3/4" H.T.		
HOLES	UNLESS NOTED		
PRIME	100% ZINC		
SCALE	1" = 2'-0"		
SHEET NO.	37		

DATE	BY	LOCATION	REVISION
CUSTOMER		STRUCTURES, INC.	
LOCATION		GREENVILLE, S.C.	
JOB S.C. Highway Bridge, Proj. 10-5213, Charleston, S.C.			

RIS BOLTS	B. L. MONTAGUE CO. INC.		
BOLTS	SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.		
RIVETS	SHOP ORDER	3-21751	CUSTOMER ORDER
HOLES	UNLESS NOTED	DRIVEN BY	CHECKED BY
PRIMER	SCALE	1" =	DAYS
1/2" GALV. 40L	SHEET NO. 55	OF	DWG. NO. 3-21751

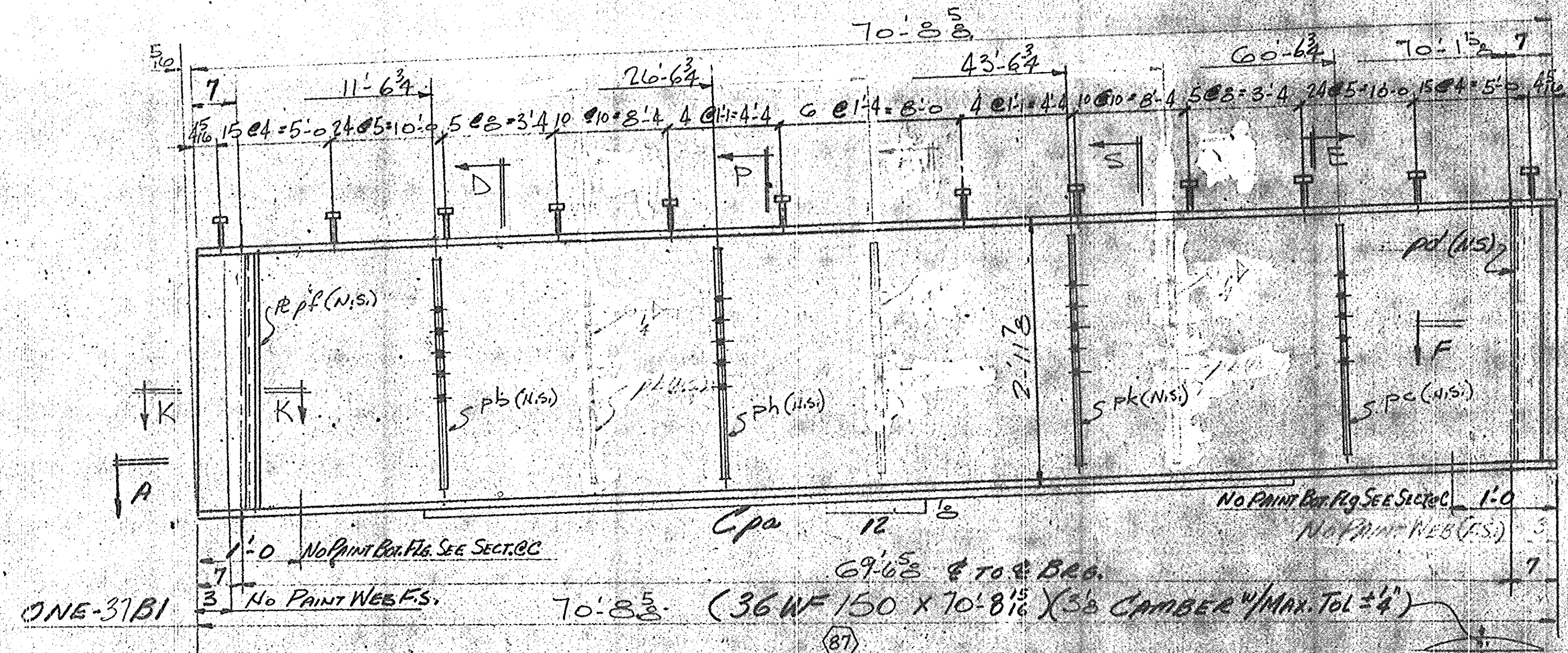


NOTES:

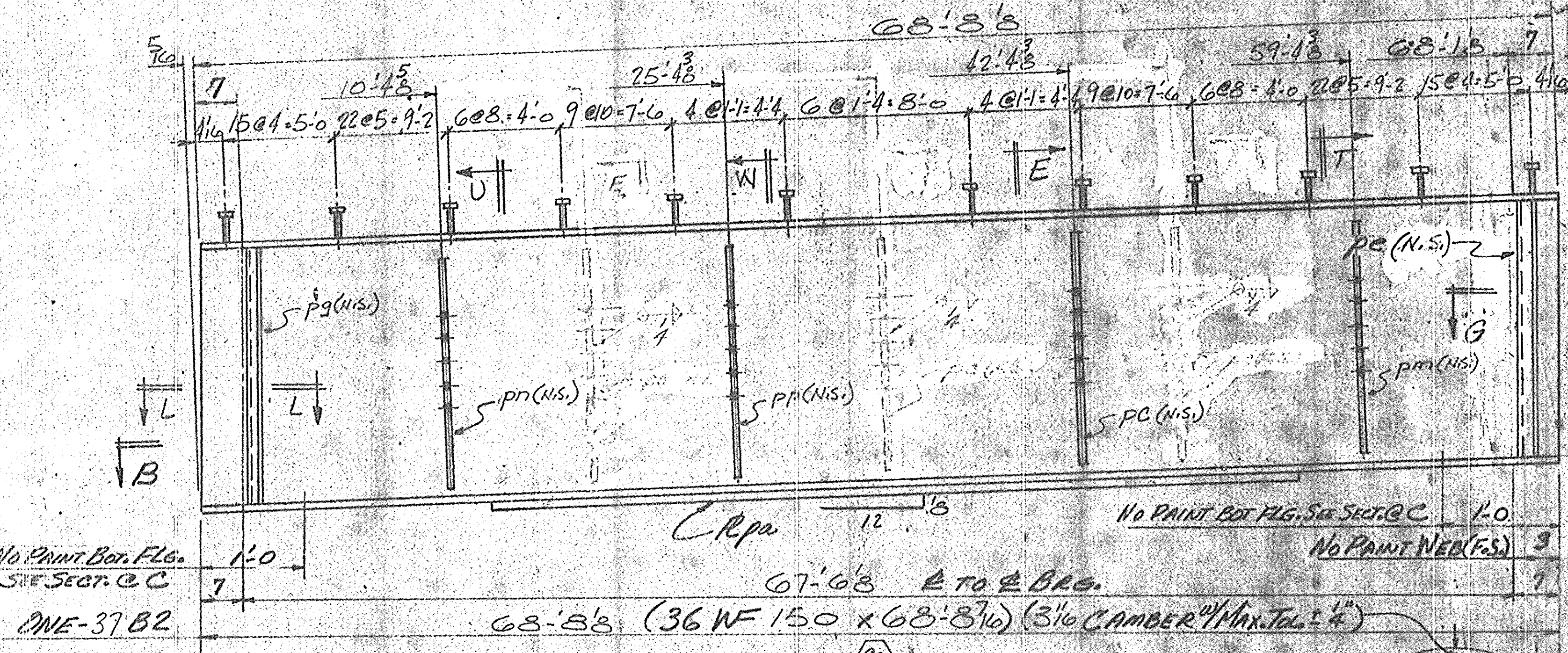
PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.

ALL 1/2" & HOLES THIS DWG. ARE FOR 3/4" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

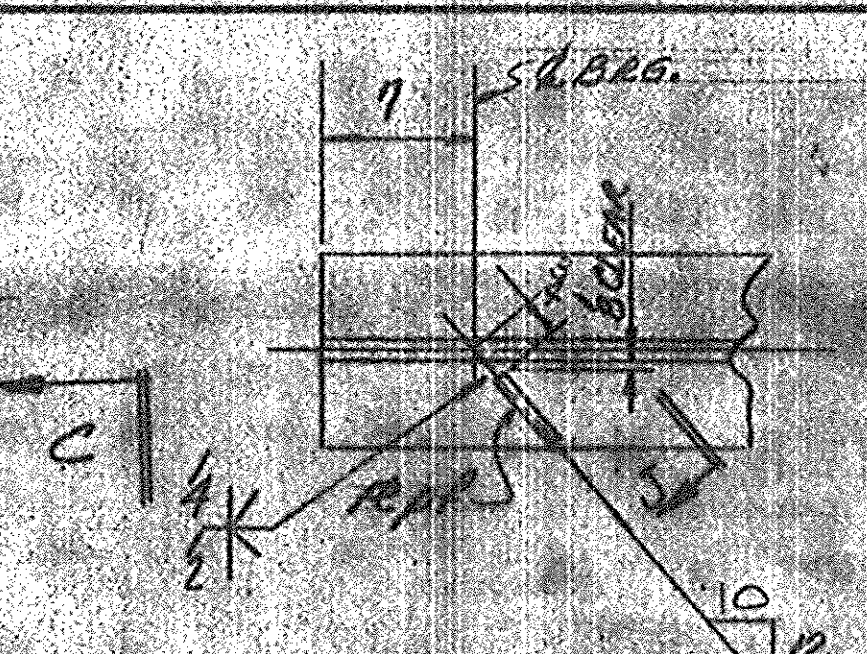
DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE, PROJ. 10-521-5, CHARLESTON, S.C.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS	BOLTS 7/8" H.T.		
RIVETS	UNLESS NOTED BY		
HOLES 1/2" &	UNLESS NOTED BY		
PRIME 1/4" R/L & O/L	UNLESS NOTED BY		
SHOP ORDER S21751	CHECKED BY	CUSTOMER ORDER	APPROVED BY
DRAWN BY	DATE	SCALE	DATE
SHEET NO. 36	OF	DWG. NO. 43544-36	



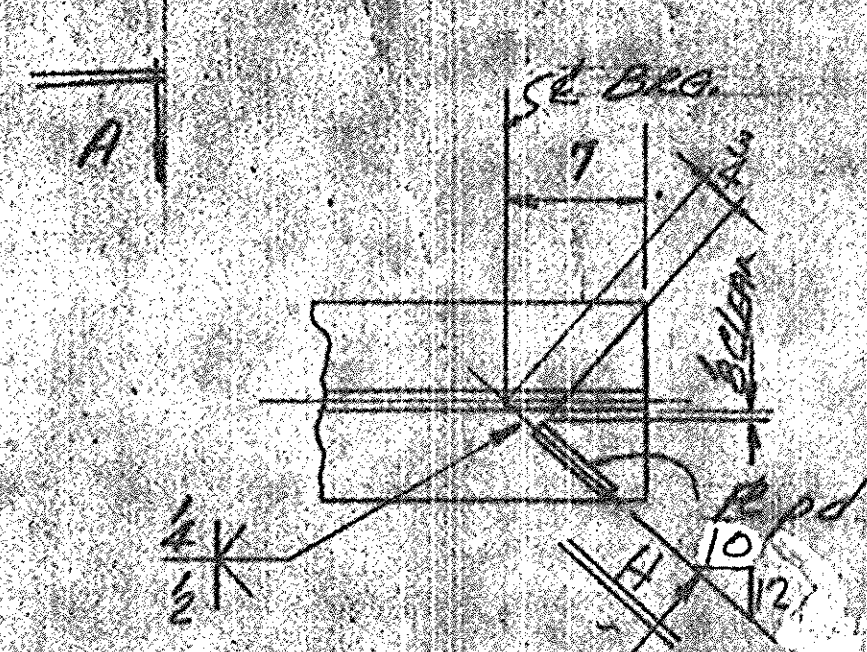
SECTION A-A



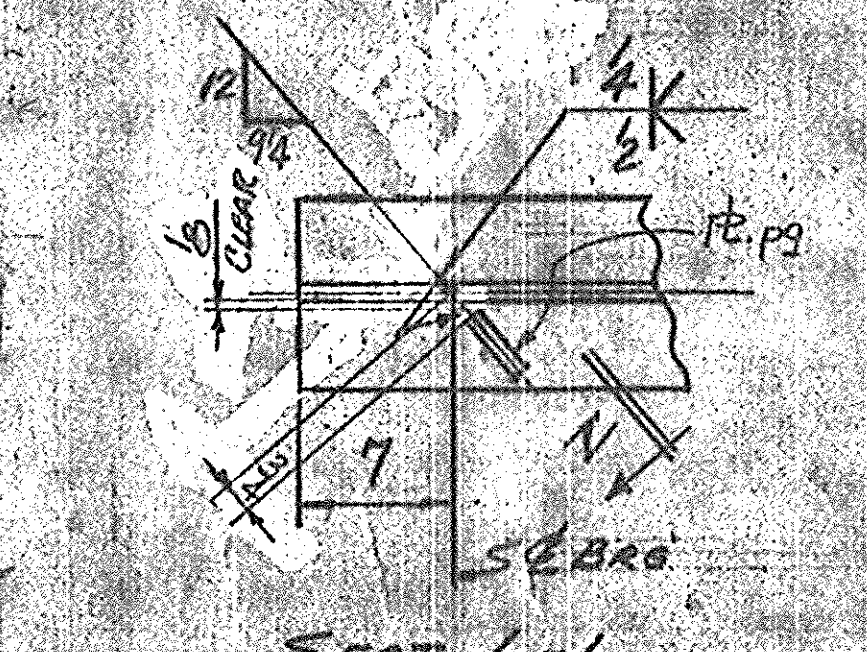
SECTION B-B



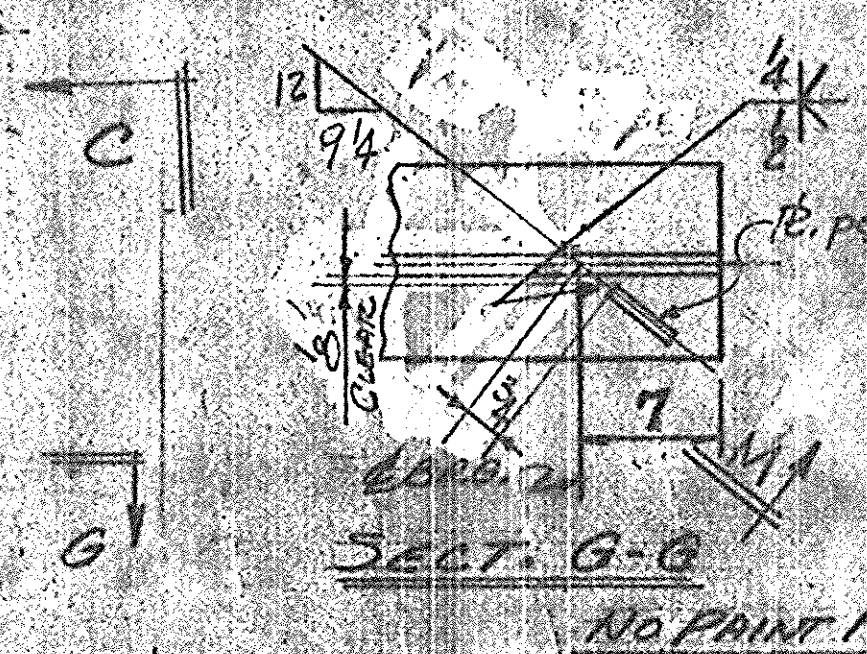
SECT. K-K



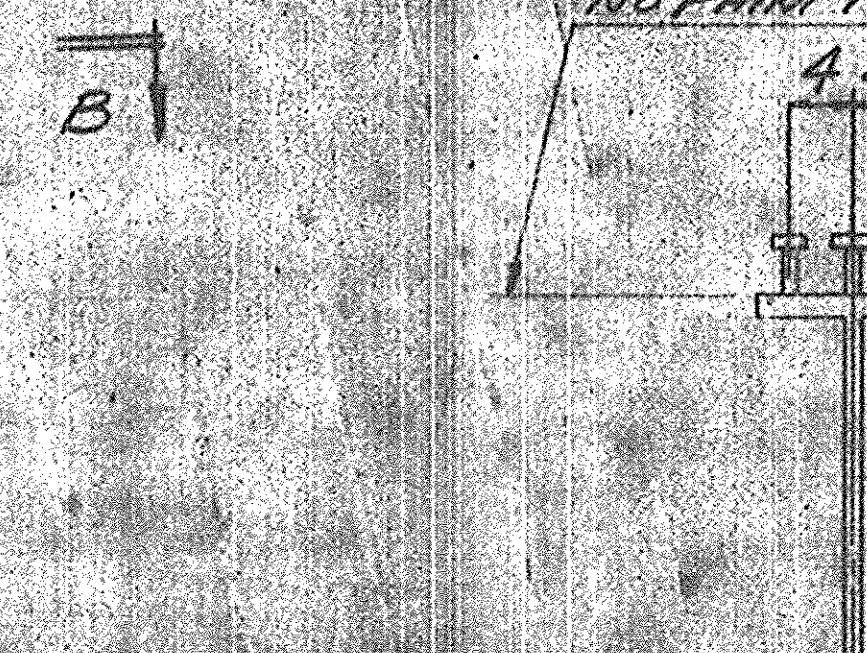
SECT. F-F



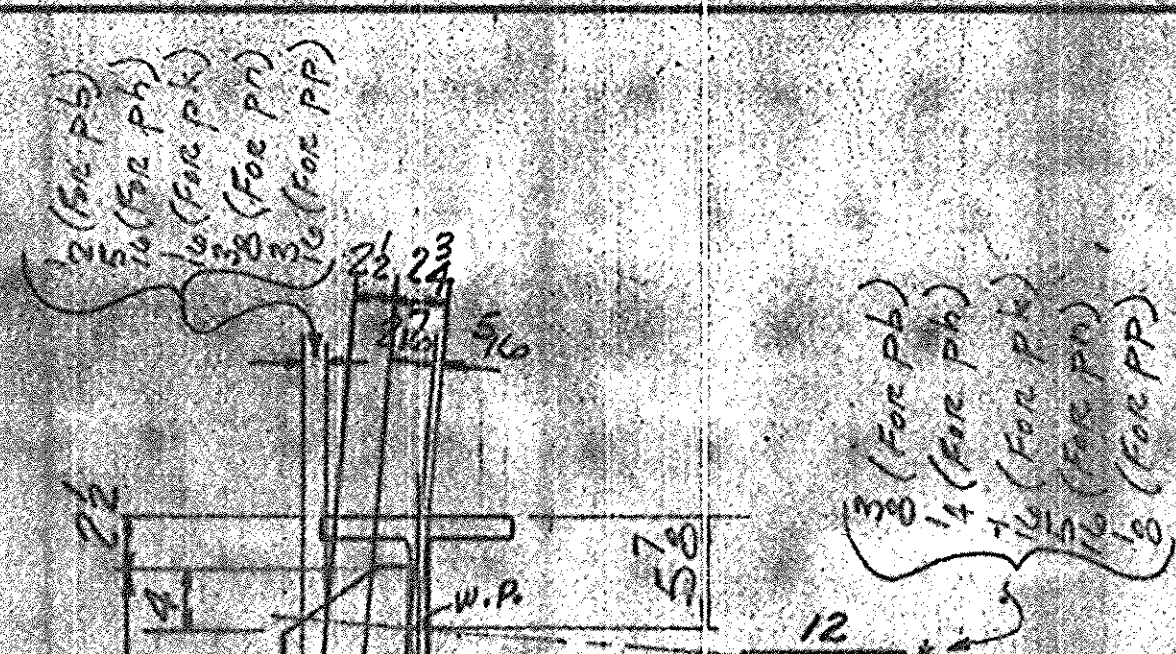
SECT. L-L



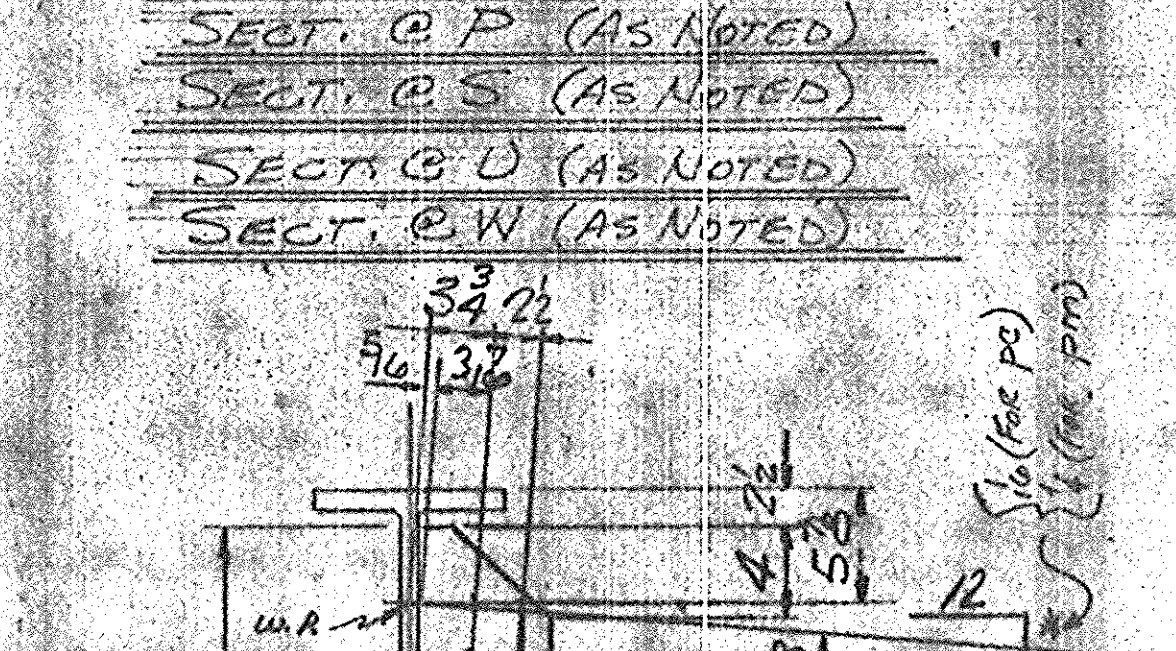
SECT. G-G



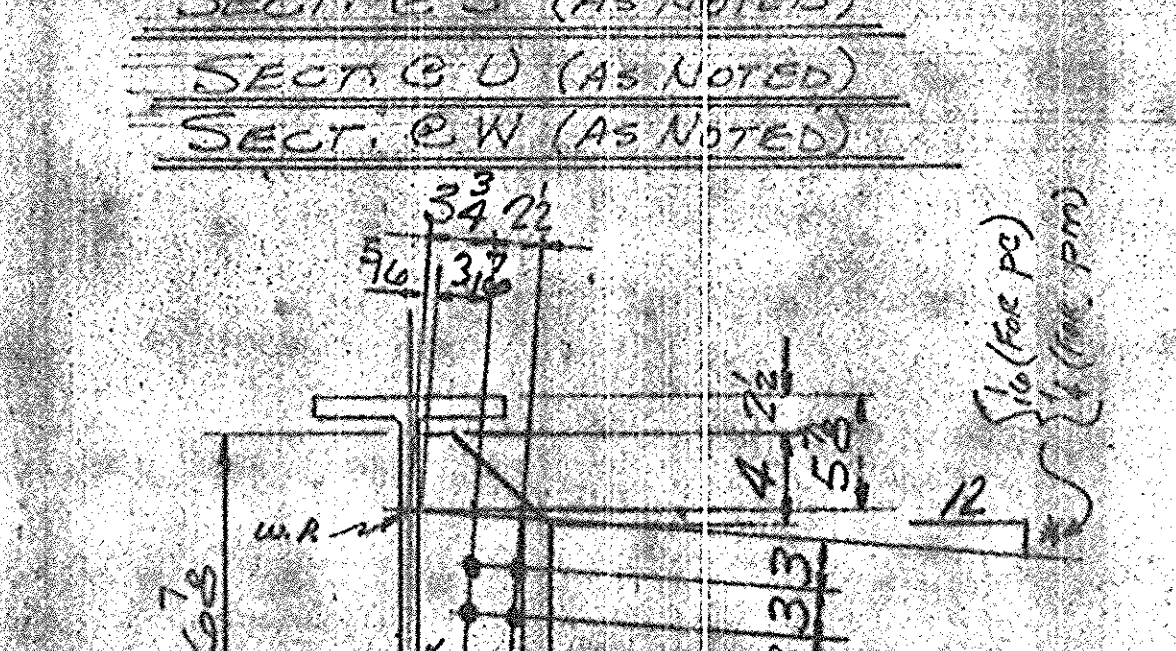
SECT. C-C



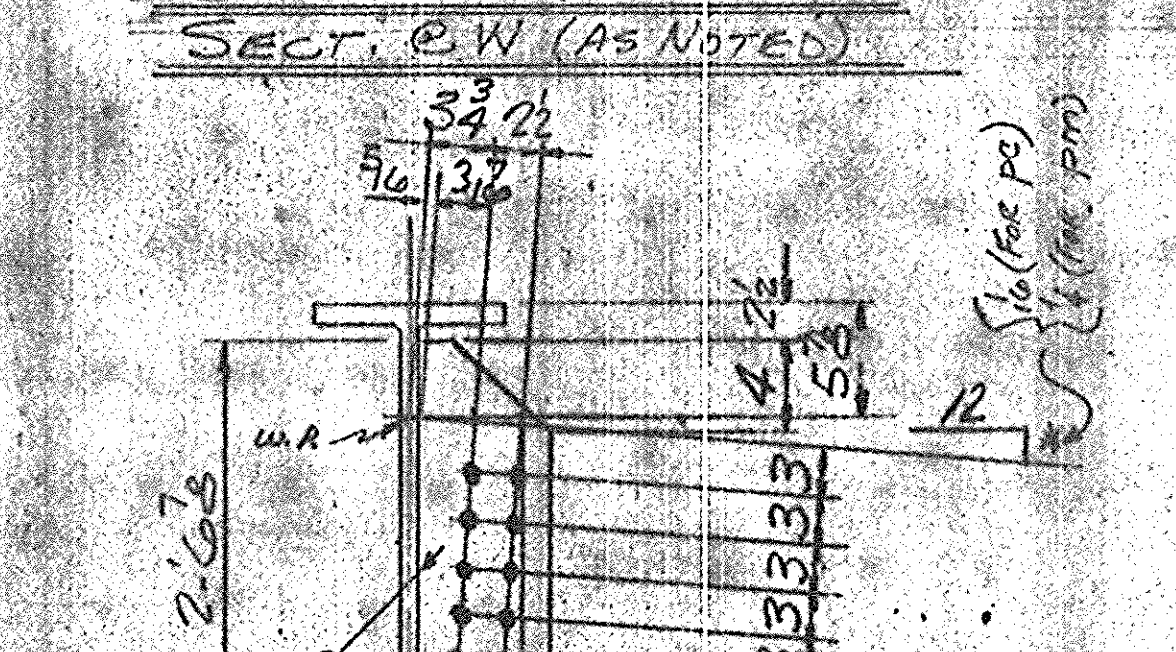
SECT. C-D (As Noted)



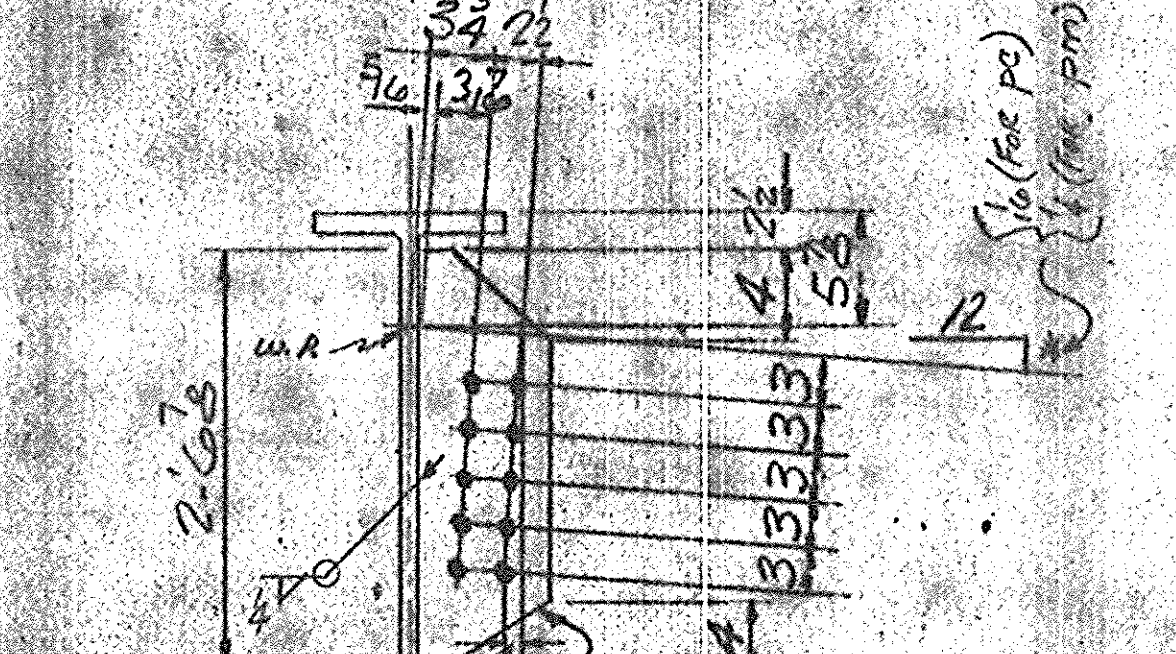
SECT. C-P (As Noted)



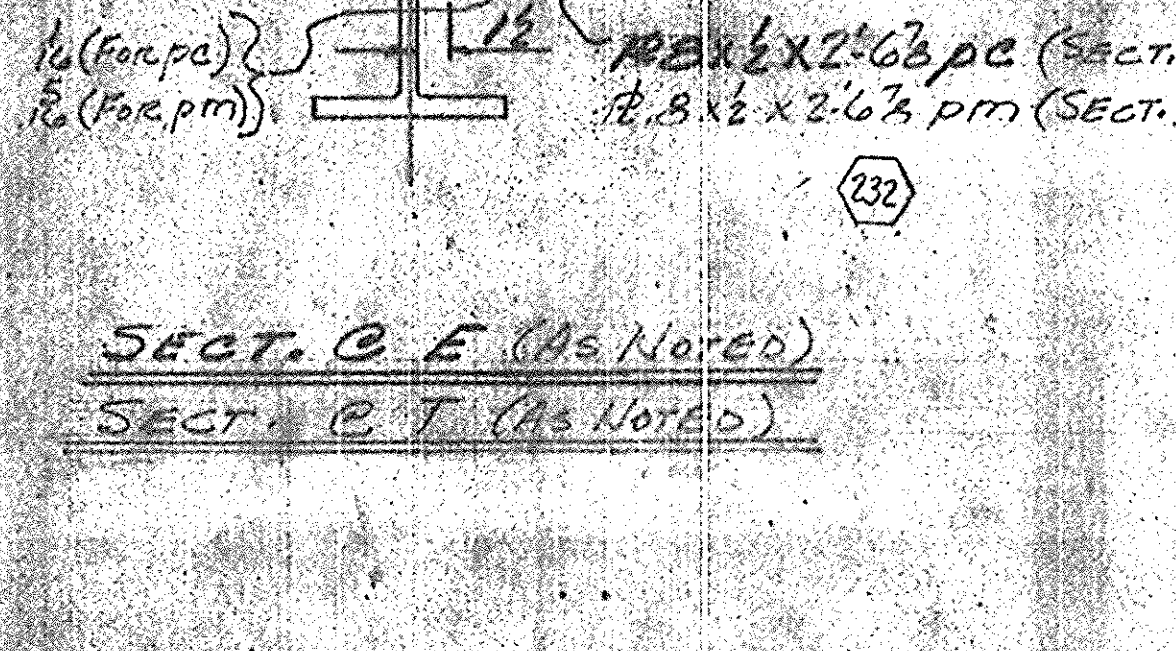
SECT. C-S (As Noted)



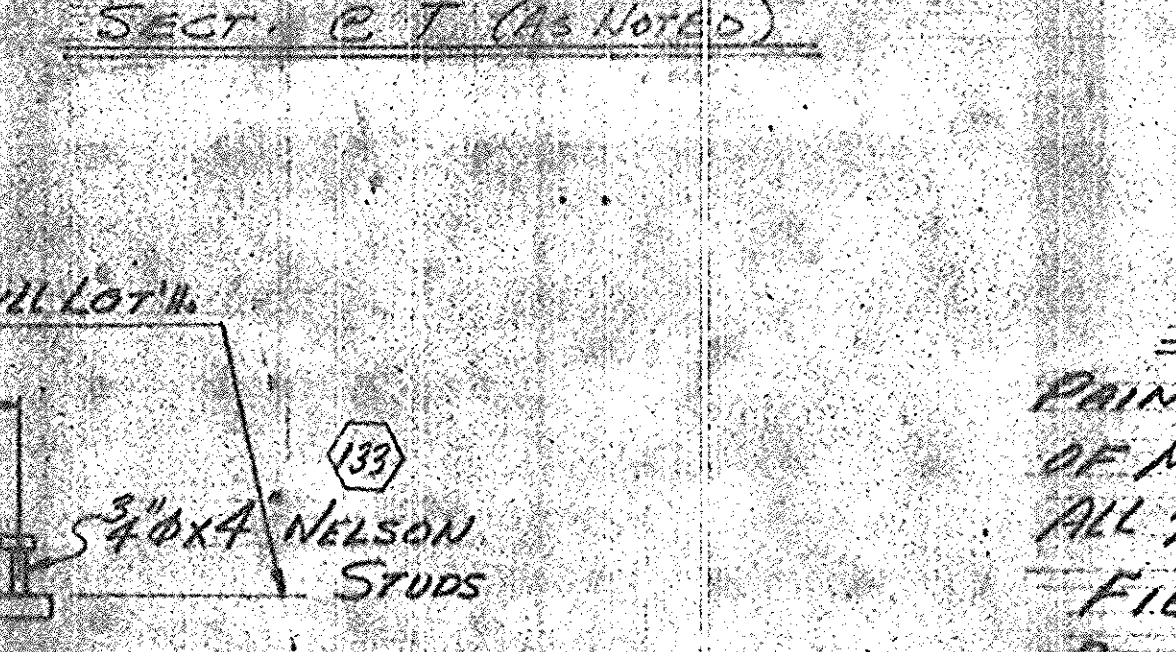
SECT. C-U (As Noted)



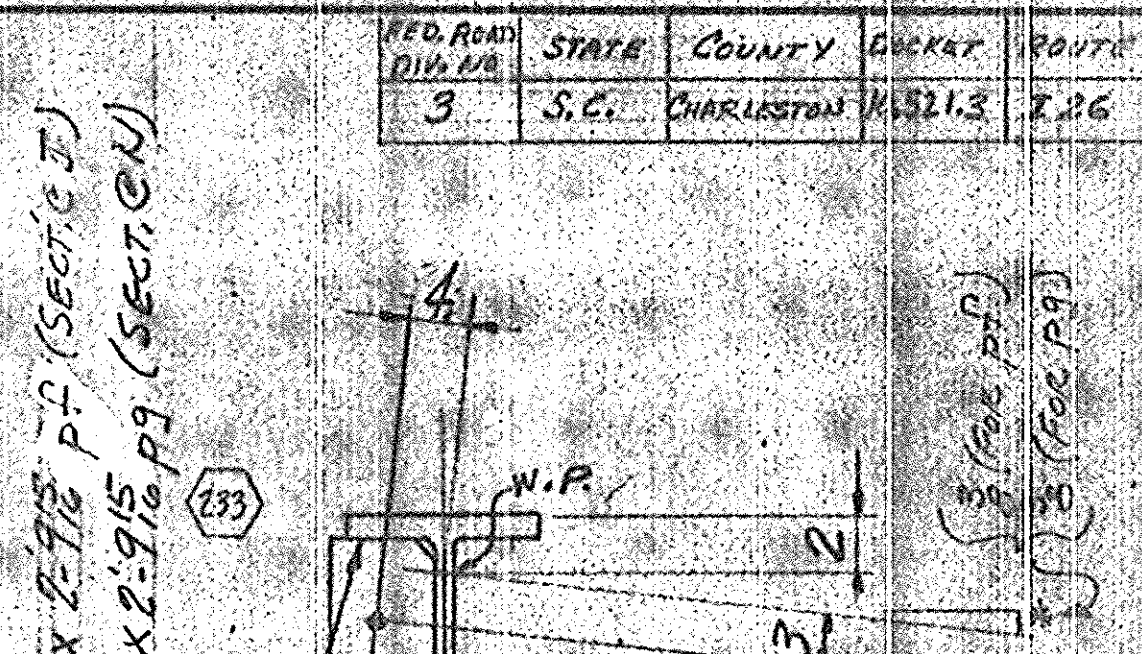
SECT. C-W (As Noted)



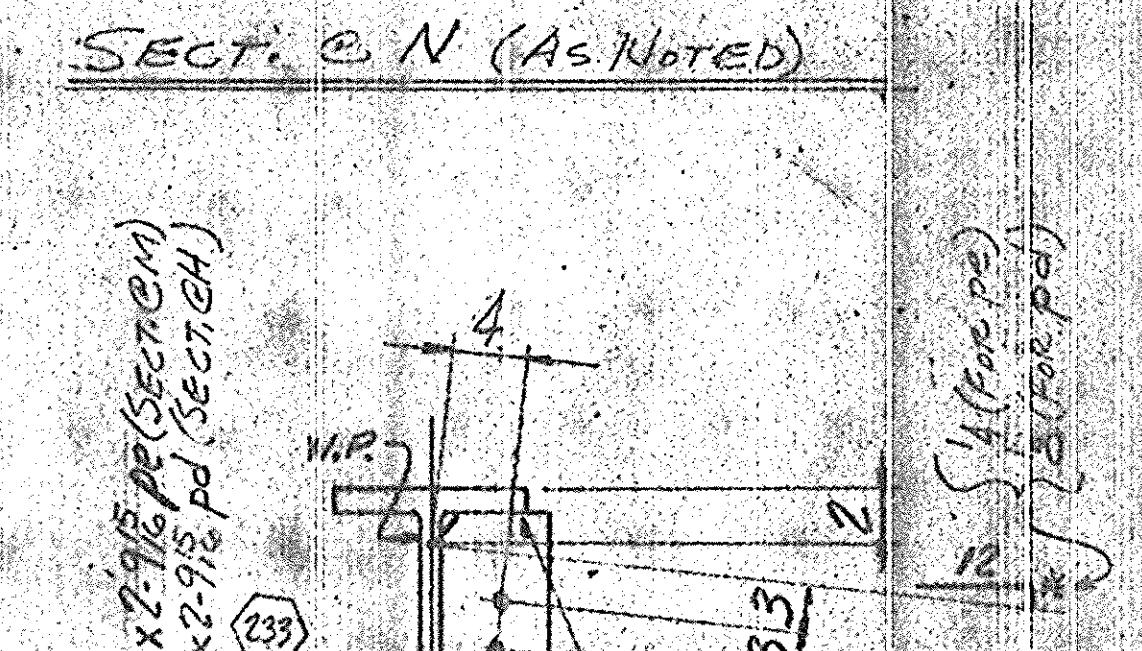
SECT. C-E (As Noted)



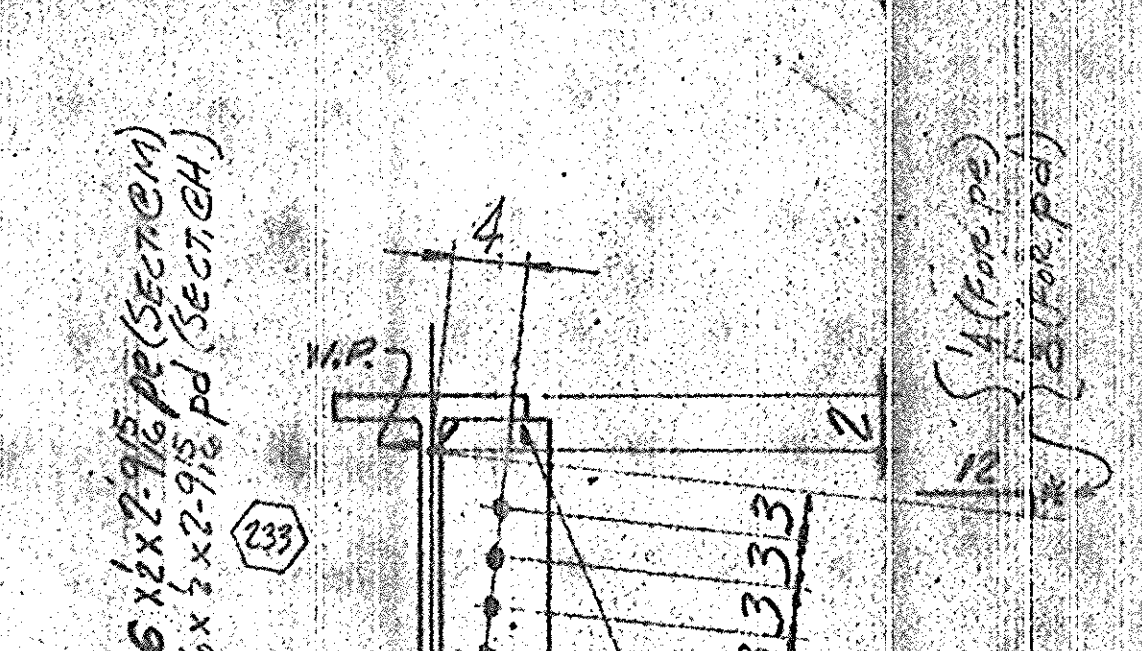
SECT. C-T (As Noted)



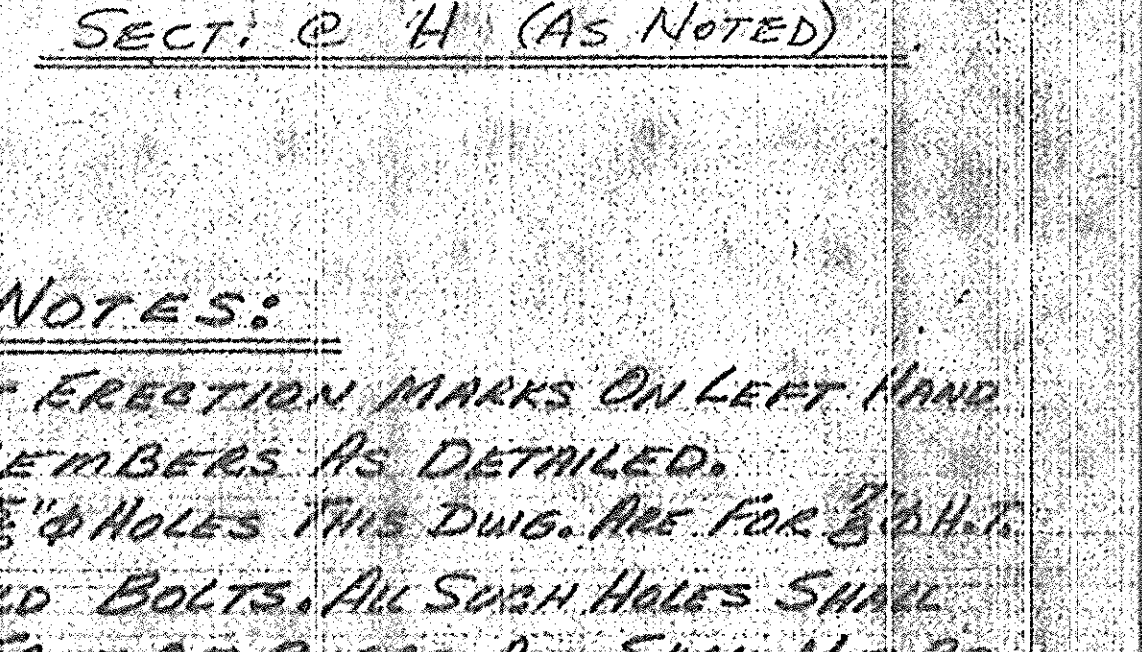
SECT. C-J (As Noted)



SECT. C-N (As Noted)



SECT. C-M (As Noted)



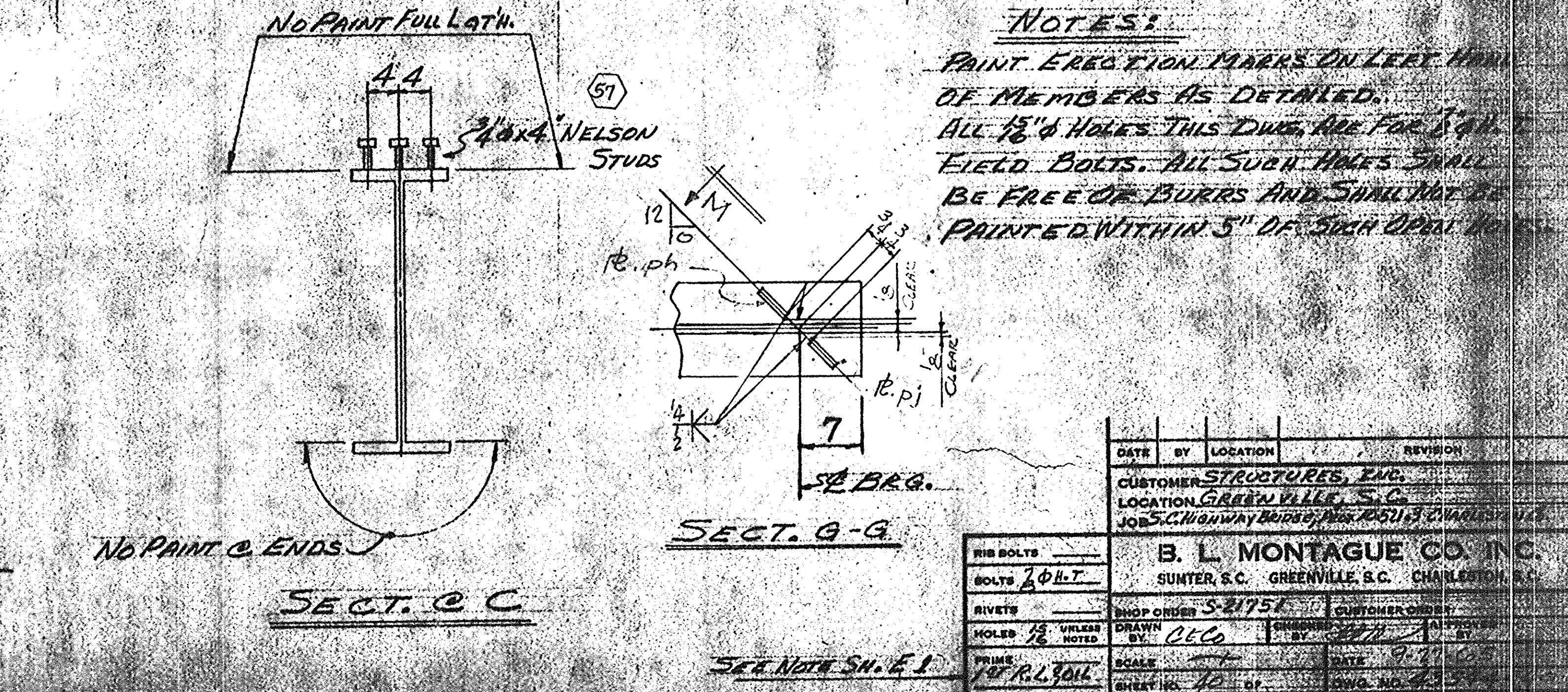
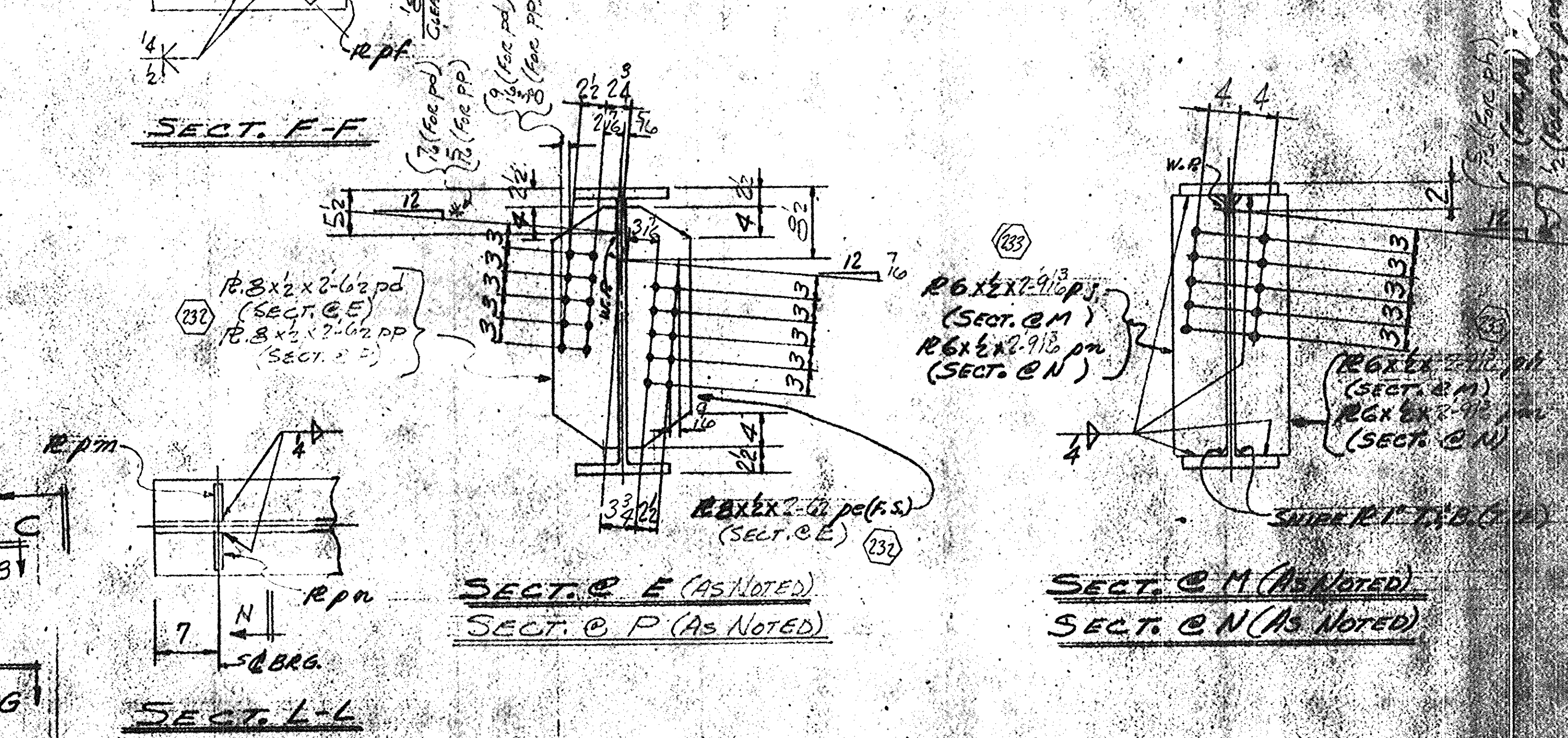
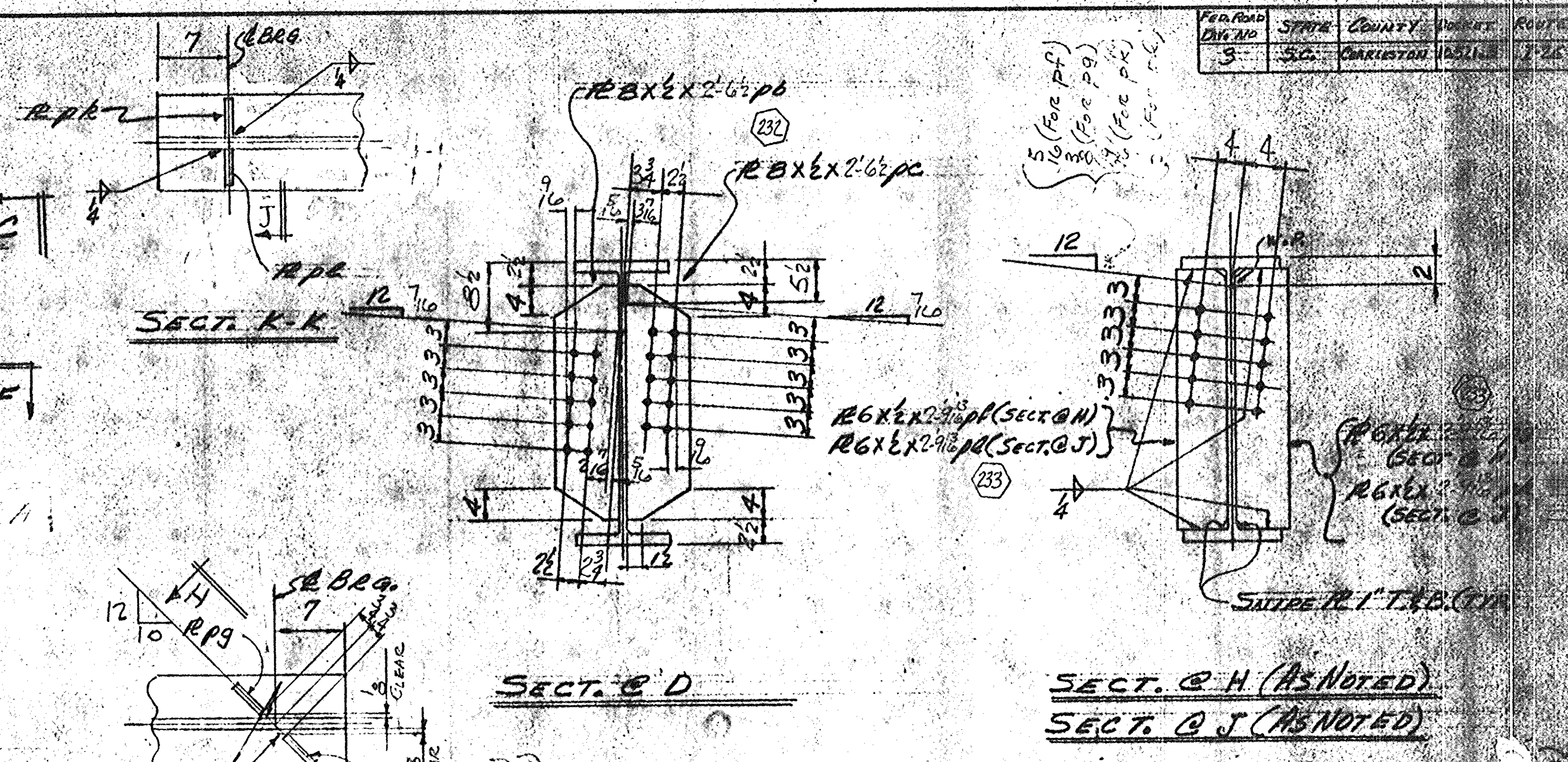
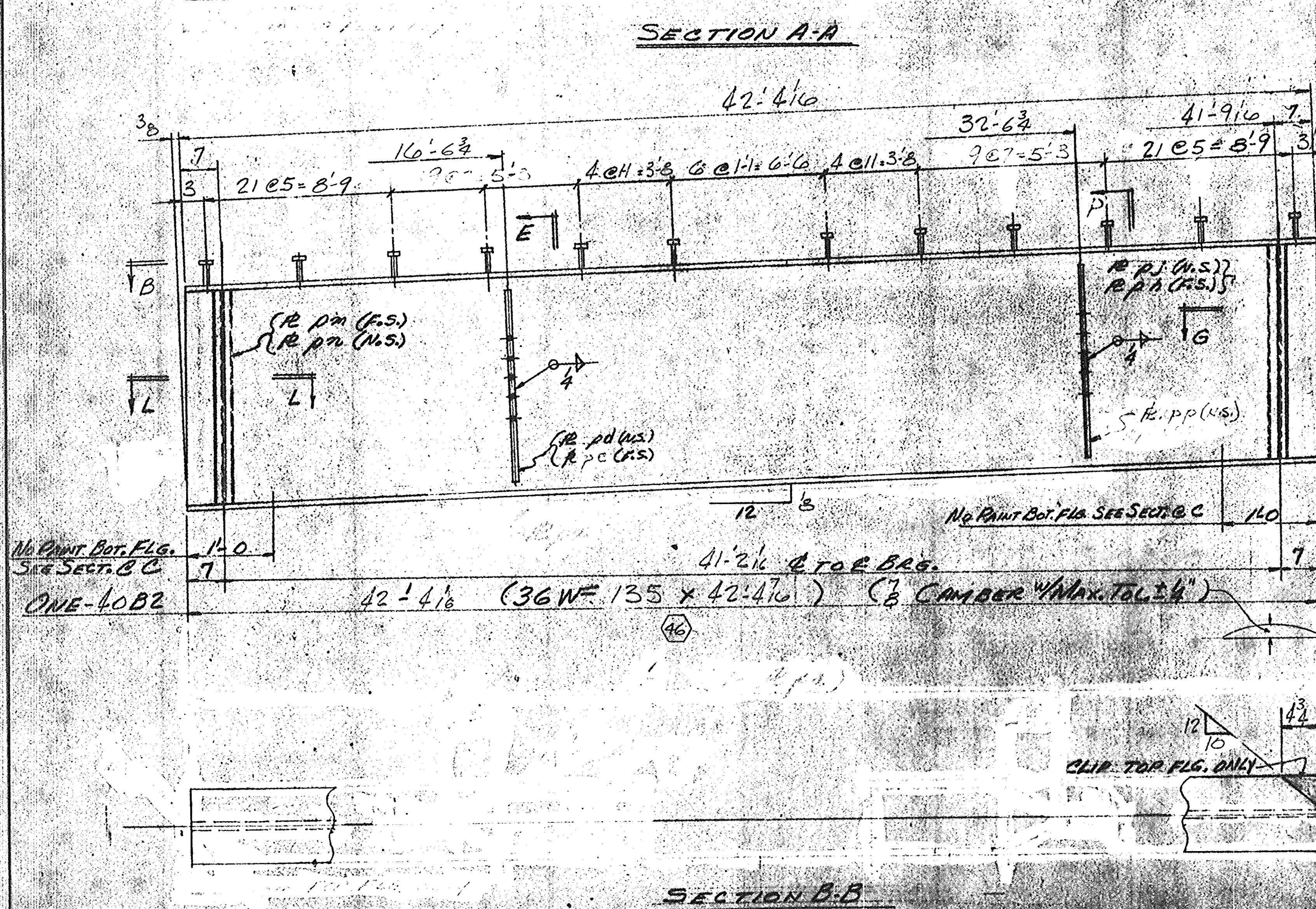
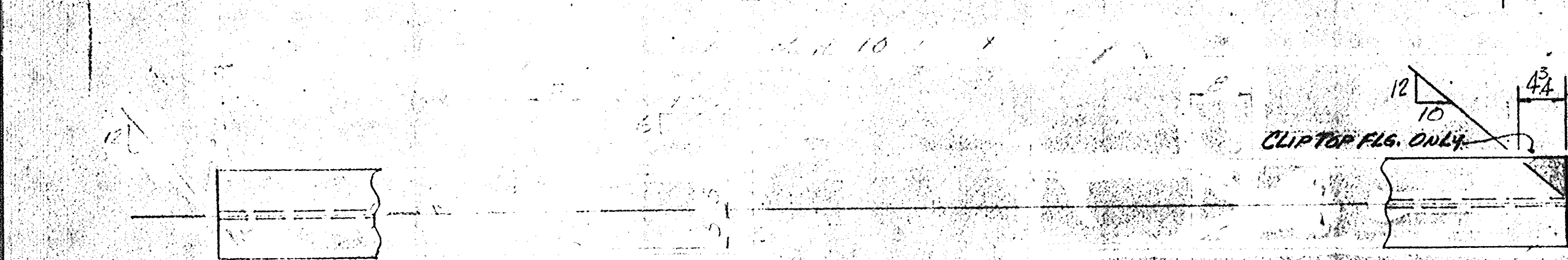
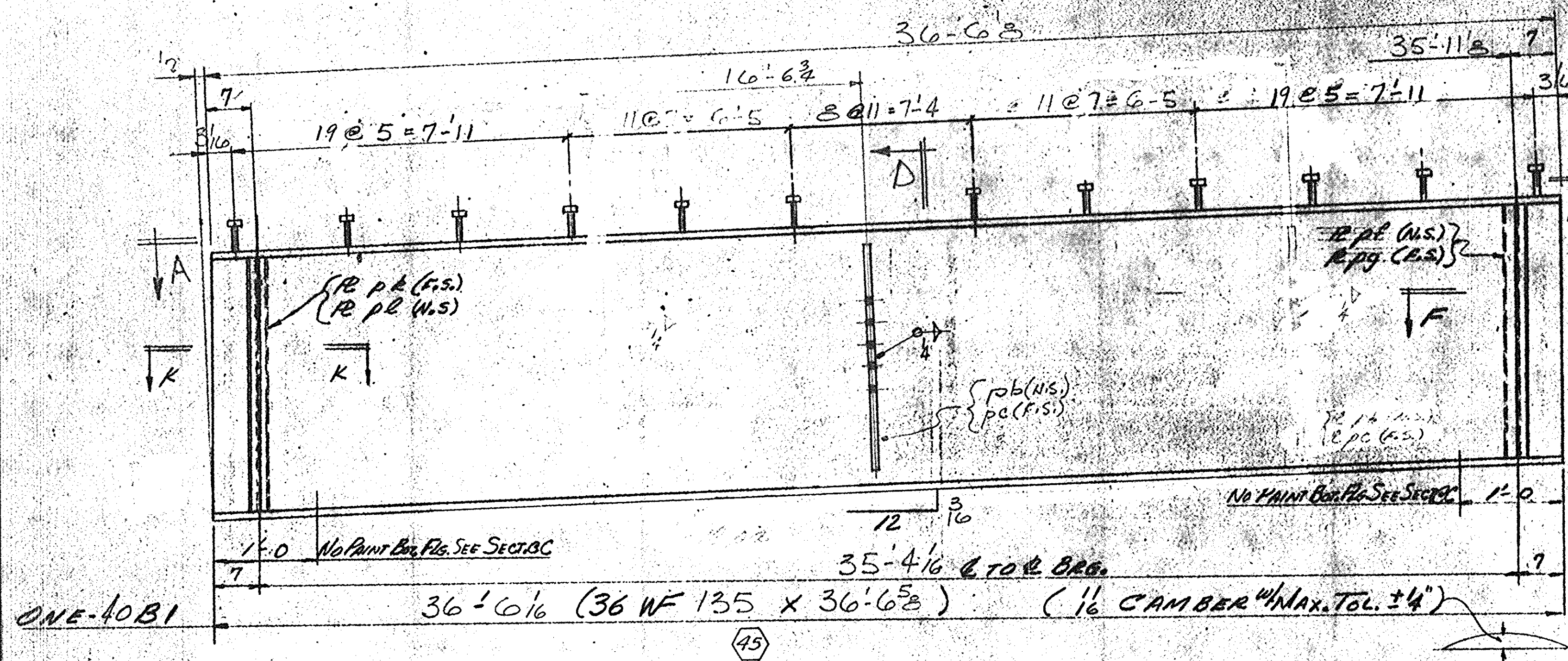
SECT. C-H (As Noted)

NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/8" HOLES THIS DWG. ARE FOR 3/8" DIA. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
CUSTOMER: STRUCTURES, INC.			
LOCATION: GREENVILLE, S.C.			
JOB: 221 HIGHWAY BRIDGE, PROJ. 13213, CHARLESTON, S.C.			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS		CUSTOMER ORDER	
BOLTS 1/2" DIA.		BY 21761	
NUTS 1/2" DIA.		BY 21761	
HOLES 1/2" DIA.		BY 21761	
FRAMES 1/2" DIA.		BY 21761	
SCALE: 1" = 1'-0"		DATE: 7-29-65	
SHEET NO. 31 OF 32		DWG. NO. 43514-31	

SEE NOTE SH. E1

FOR RAIL	SPRUE	COUNTY	ROUTE
3	50	CHARLESTON	12



NOTES:

PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAIL.

ALL 1/2" HOLES THIS DRAWING ARE FOR 1/2" FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 3" OF SUCH OPENING.

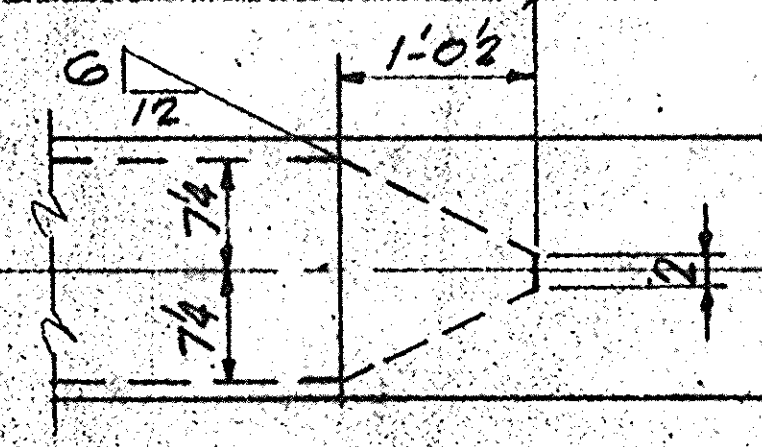
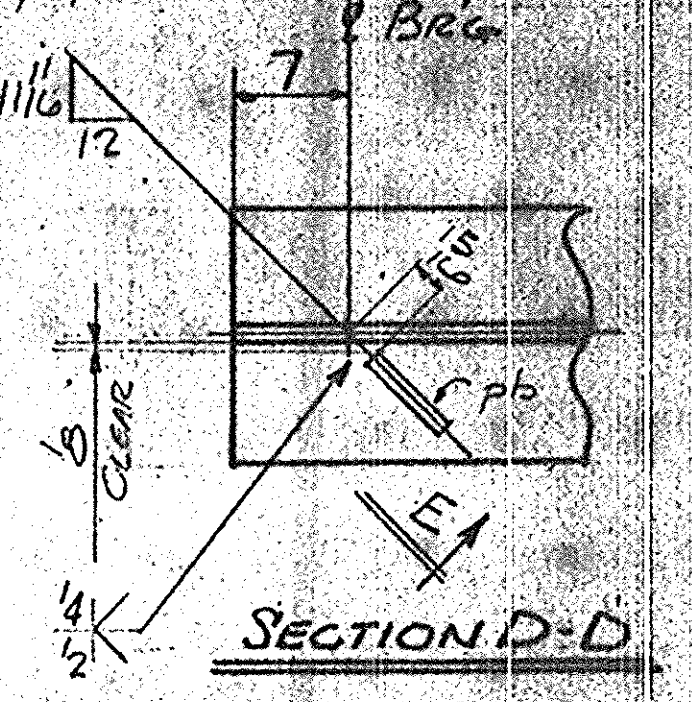
DATE	BY	LOCATION	REVISION
		STRUCTURES, INC.	
		GREENVILLE, S.C.	
		501 W. Mainway Drive, Greenville, S.C. 29601	

RIB BOLTS	BOLTS	RIVETS	HOLES	PRIMS
1/2"	1/2"	1/2"	1/2"	1/2"

DATE	BY	LOCATION	REVISION
		B. L. MONTAGUE CO. INC.	
		SUNTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.	

WORK ORDER	CUSTOMER ORDER
5-21751	

DATE	BY	LOCATION	REVISION
		SCALE	
		1" = 10'	

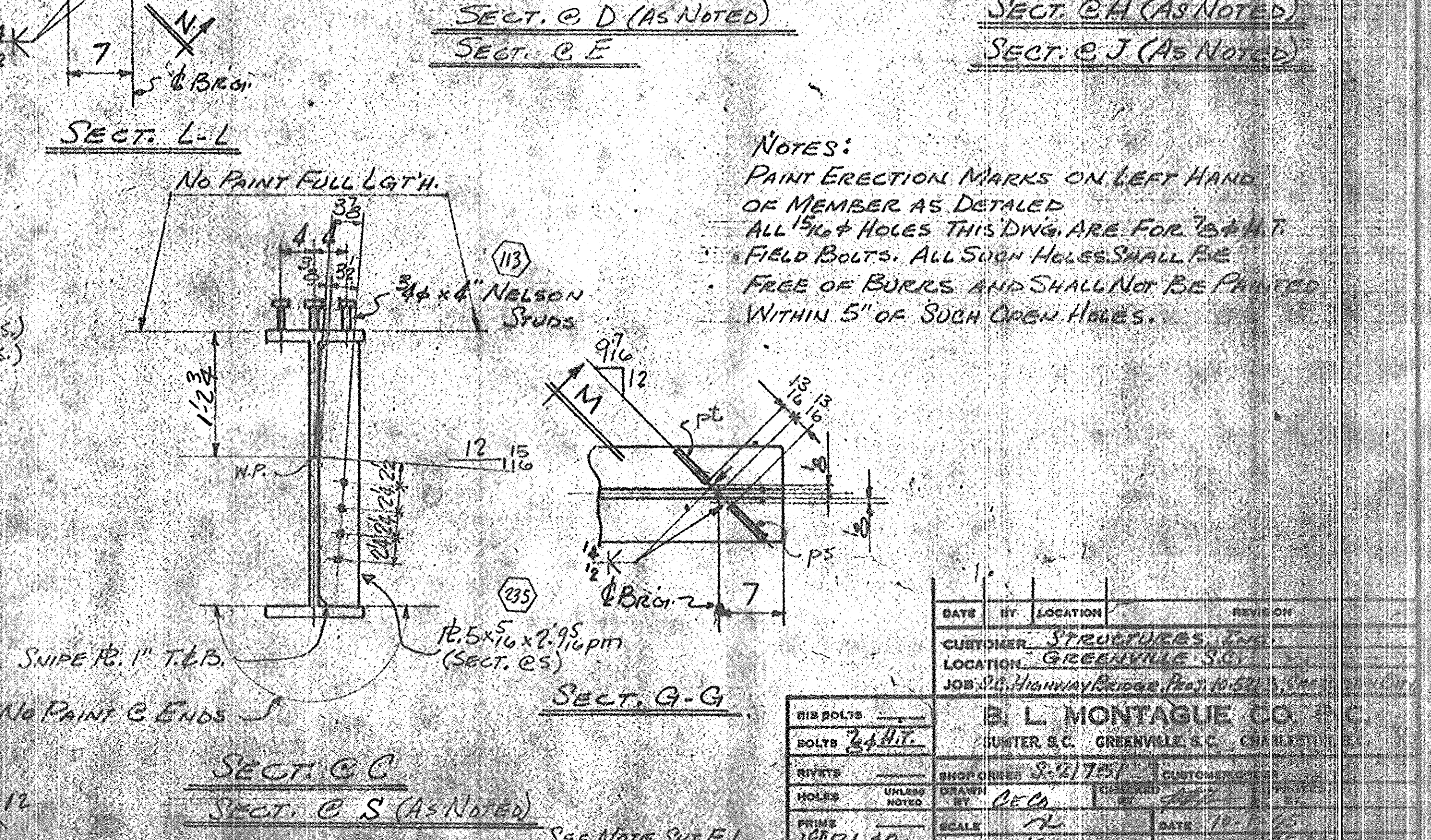
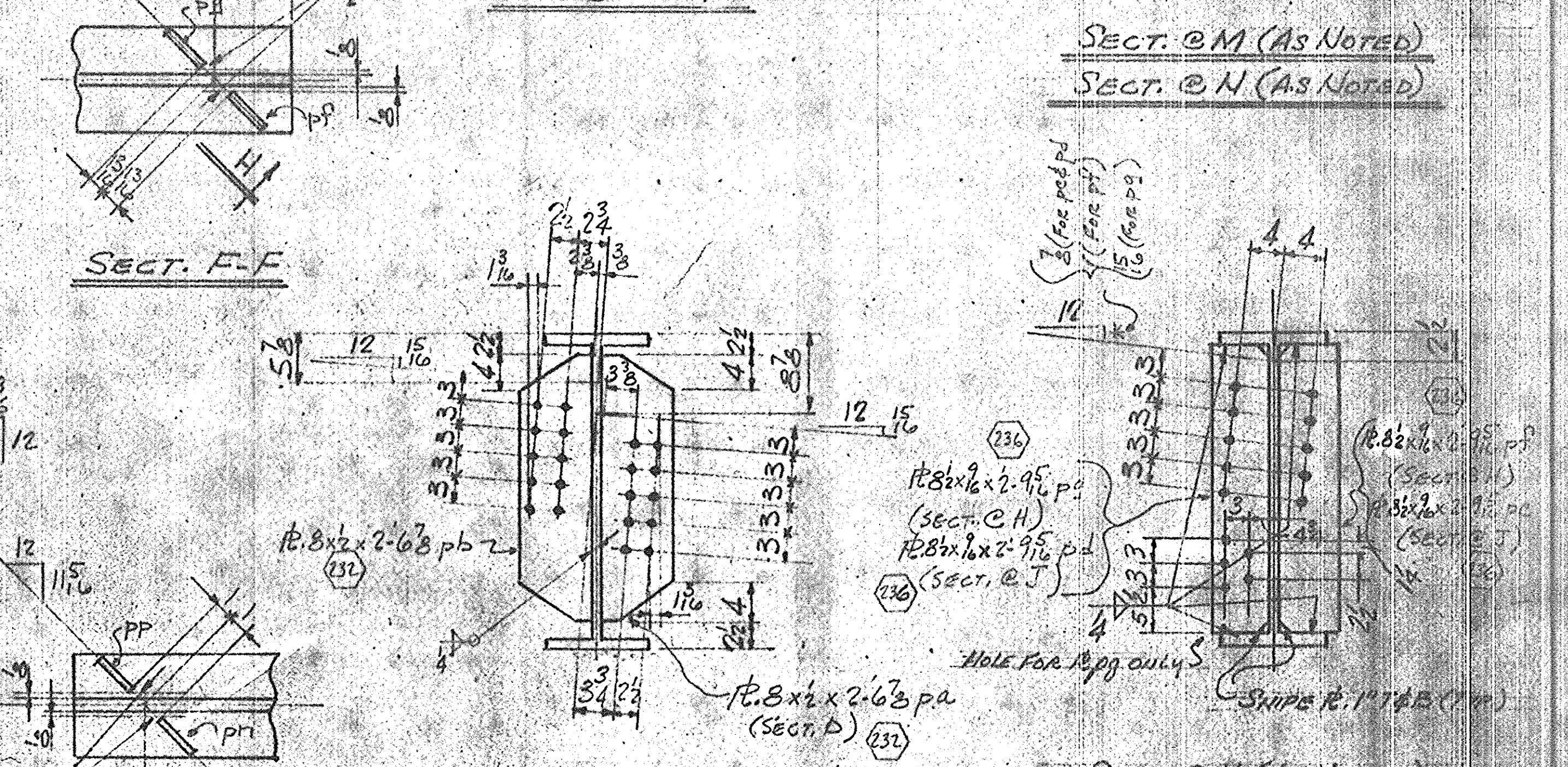
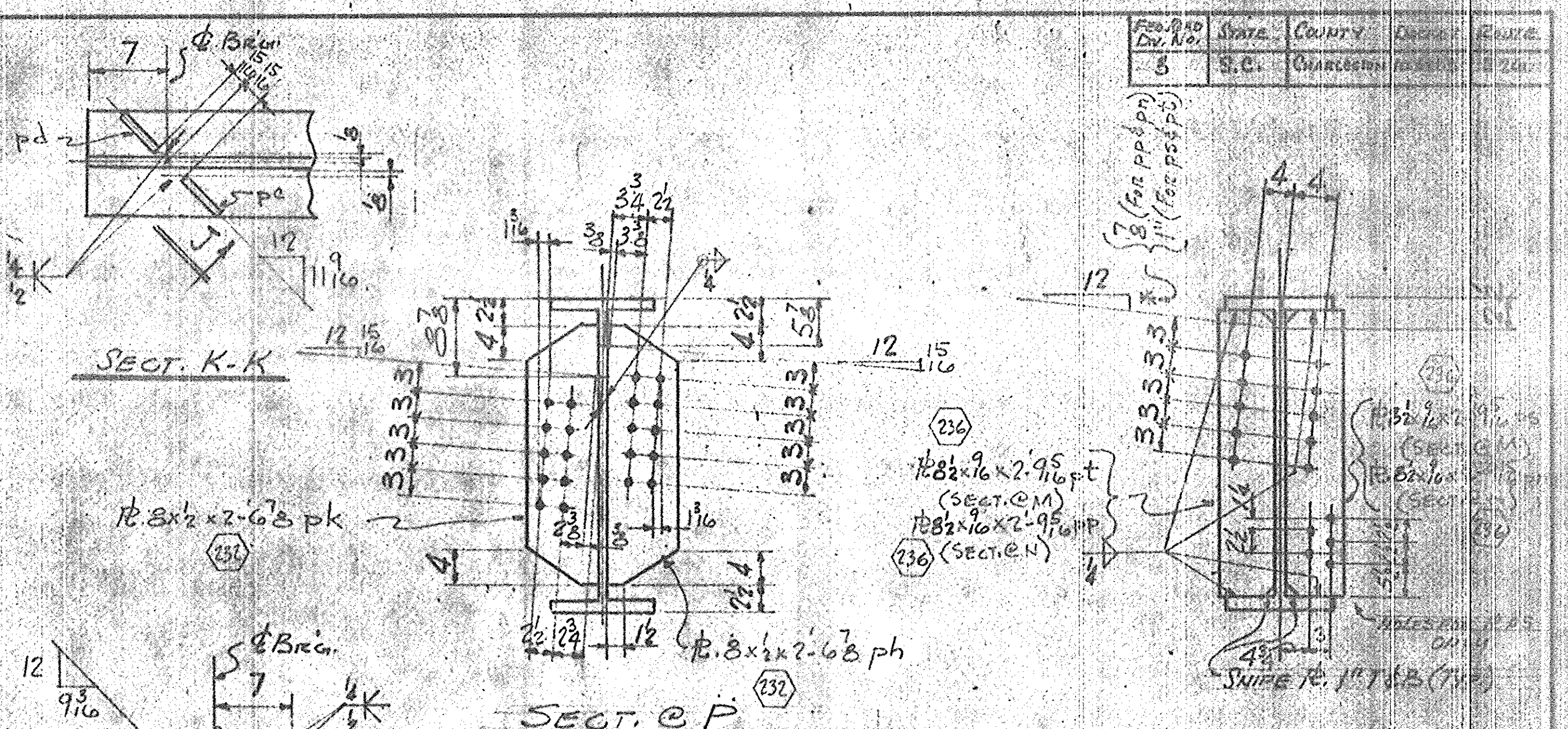
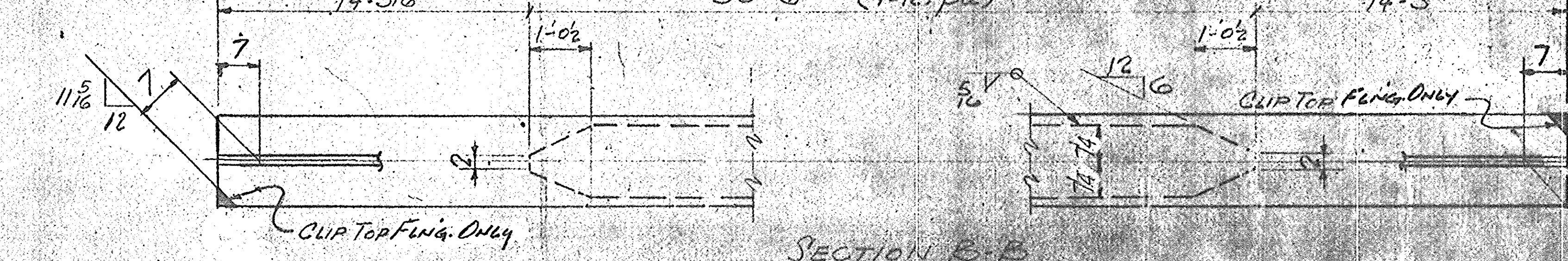
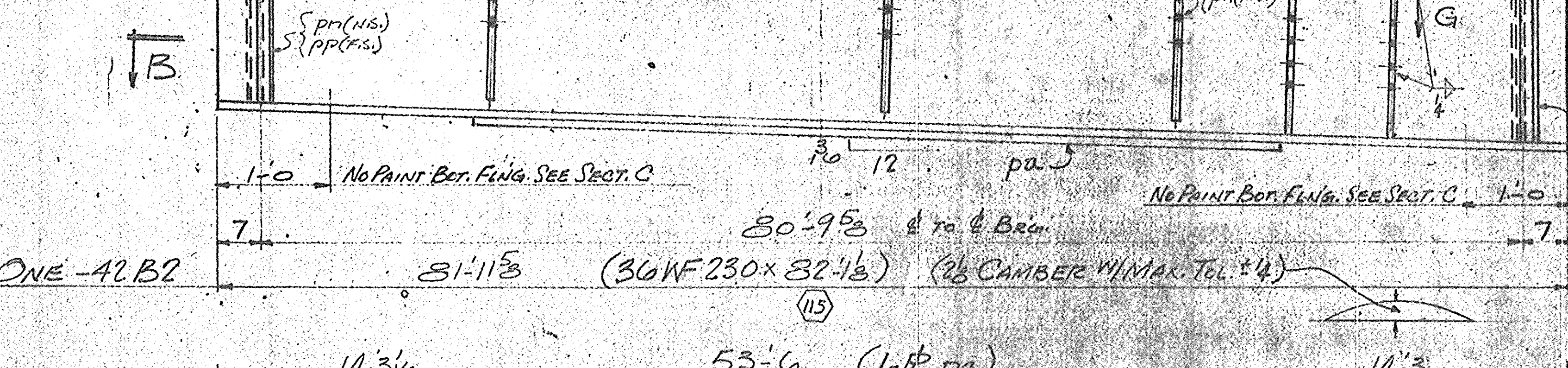
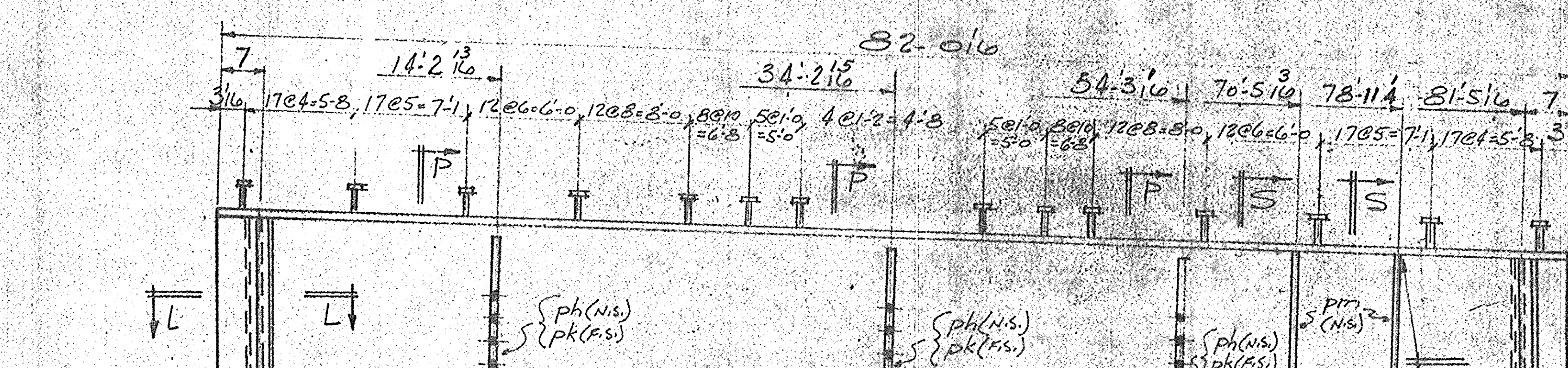
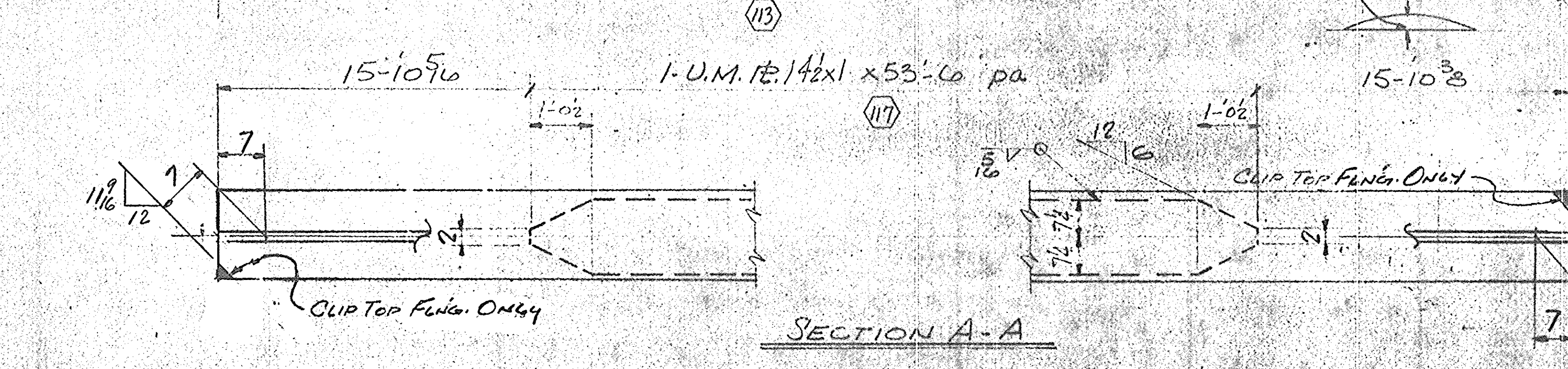
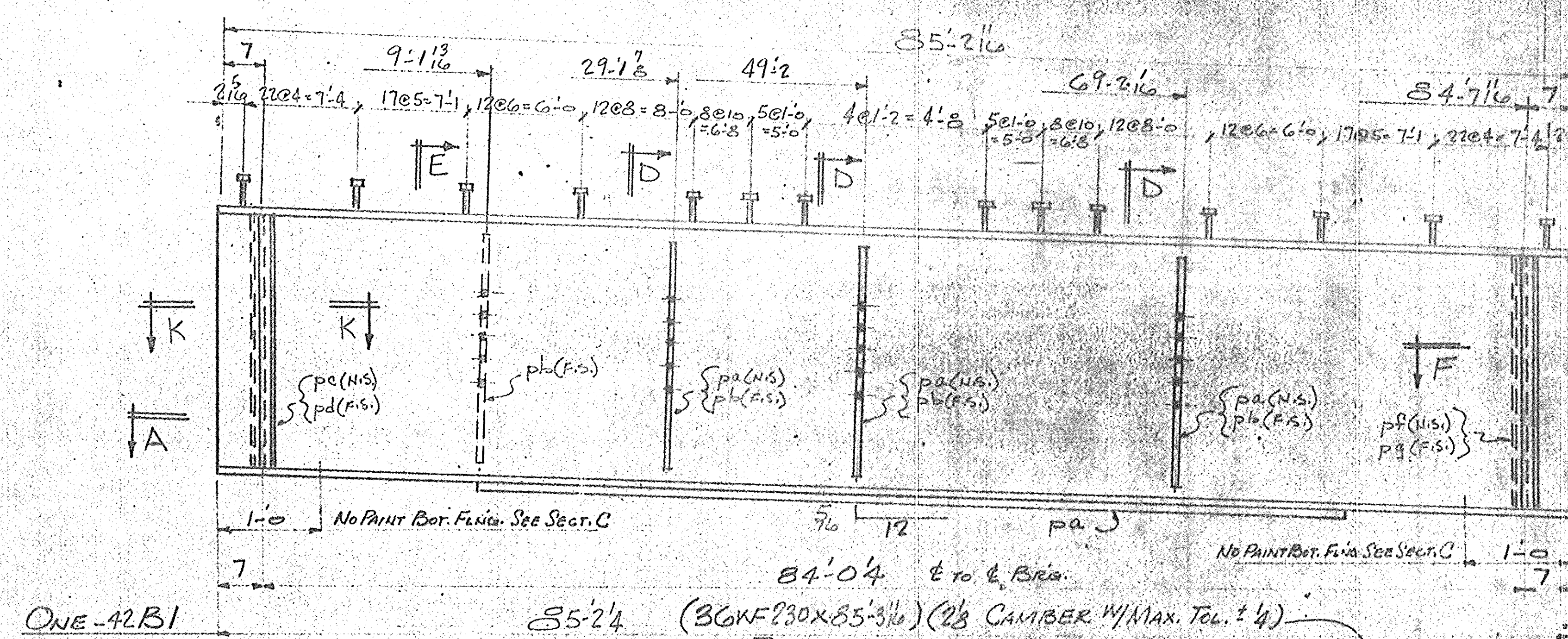


Notes:

[illegible]

DATE	BY	LOCATION	REVISION
<p>CUSTOMER <u>STRUCTURES, INC.</u></p> <p>LOCATION <u>GREENVILLE, S.C.</u></p> <p>JOB <u>S.C. Highway Bridge, Project 105113, Charleston, S.C.</u></p>			
<p>B. L. MONTAGUE CO., INC.</p> <p>SUNTER, S.C. GREENVILLE, S.C. CHARLSTON, S.C.</p>			
SHOP ORDER <u>S-21751</u>		CUSTOMER ORDER	
DRAWN BY <u>C.G.</u>	CHECKED BY <u>APP</u>	DATE <u>10/5/55</u>	
SCALE <u>1" = 10'</u>	DATE <u>10/5/55</u>		
SHEET NO. <u>41</u>	DWG. NO. <u>41544-41</u>		

DATE	BY	LOCATION	REVISION
5	S.C.	CHARLESTON	1



NOTES:

PAINT ERECTION MARKS ON LEFT HAND OF MEMBER AS DETAILED

ALL 3/16" & HOLES THIS DWG. ARE FOR 2 1/2" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

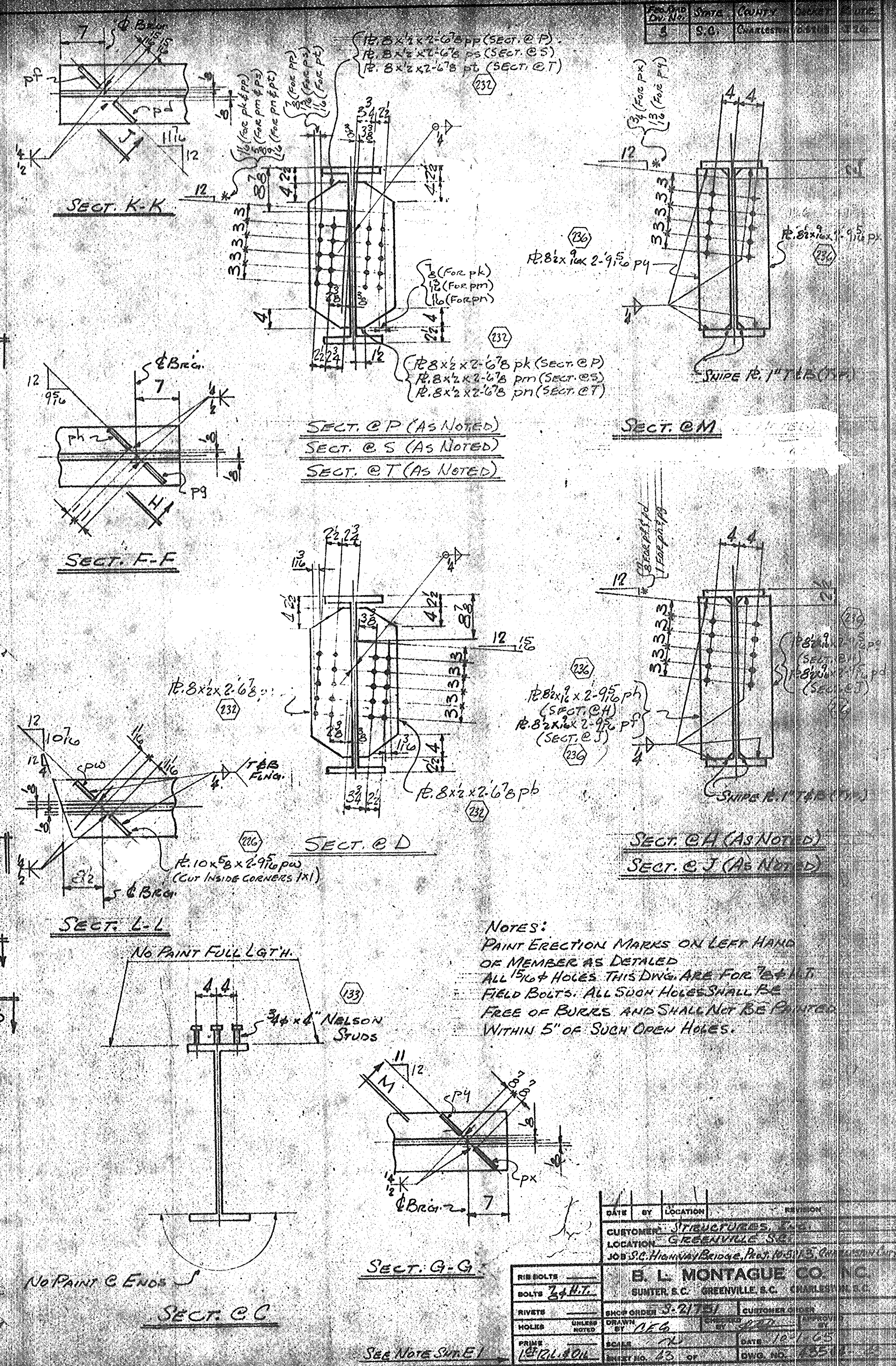
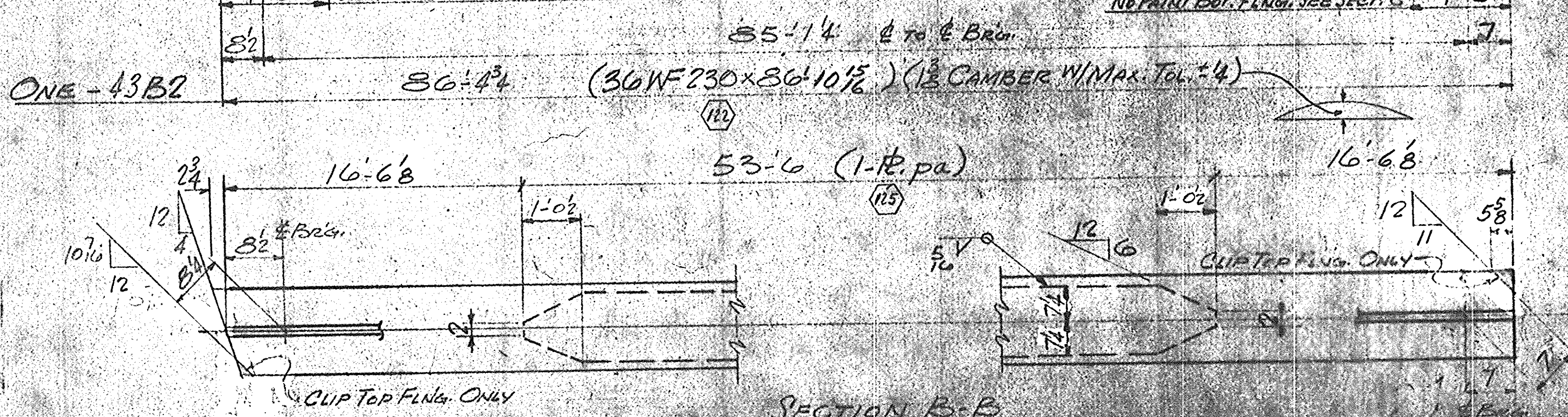
DATE	BY	LOCATION	REVISION
5	S.C.	CHARLESTON	1

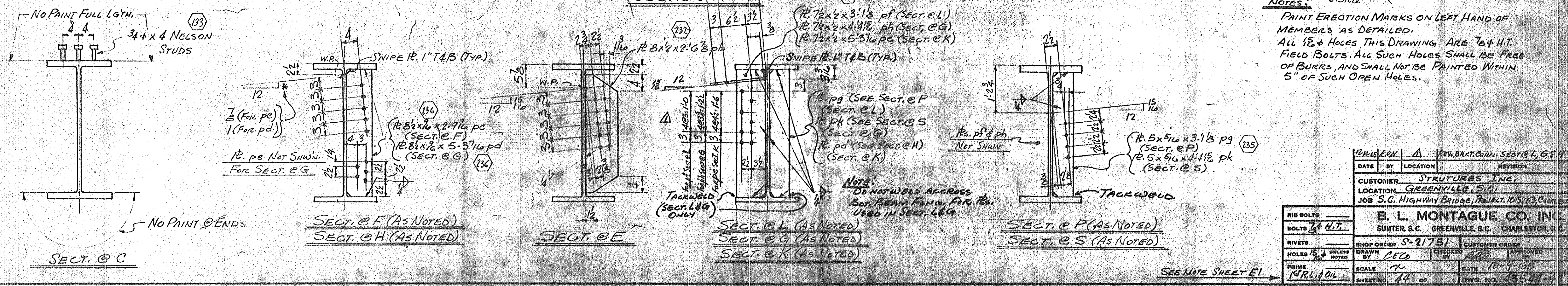
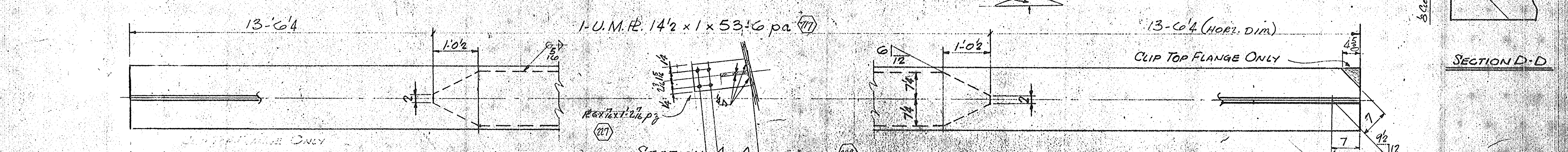
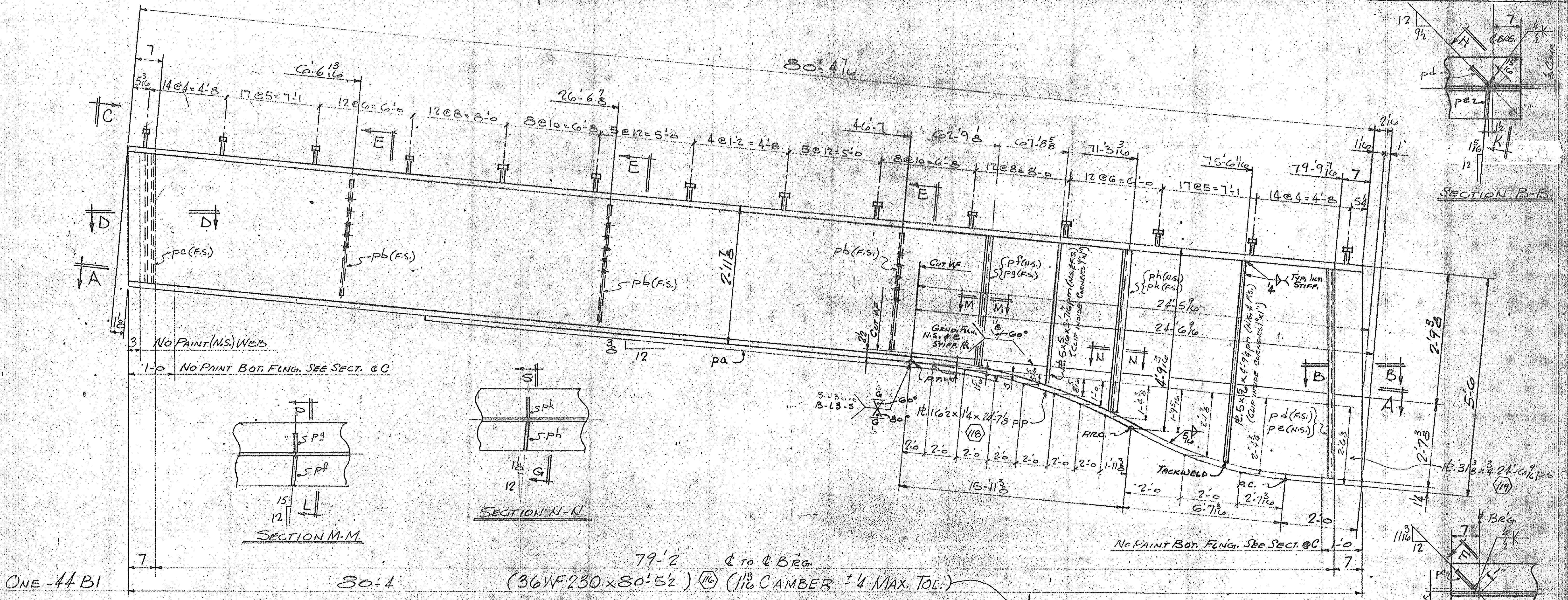
CUSTOMER	STRUCTURES, INC.
LOCATION	GREENVILLE, S.C.
JOB	22, Highway Bridge, from 10-50-13, Charleston

B. L. MONTAGUE CO. INC.	
HUNTER, S.C. GREENVILLE, S.C. CHARLESTON	

RIB BOLTS	2 1/2" H.T.
RIVETS	3/4" x 3/4"
HOLES	UNLAP NOTED
PAINT	1 1/2" ALUM.

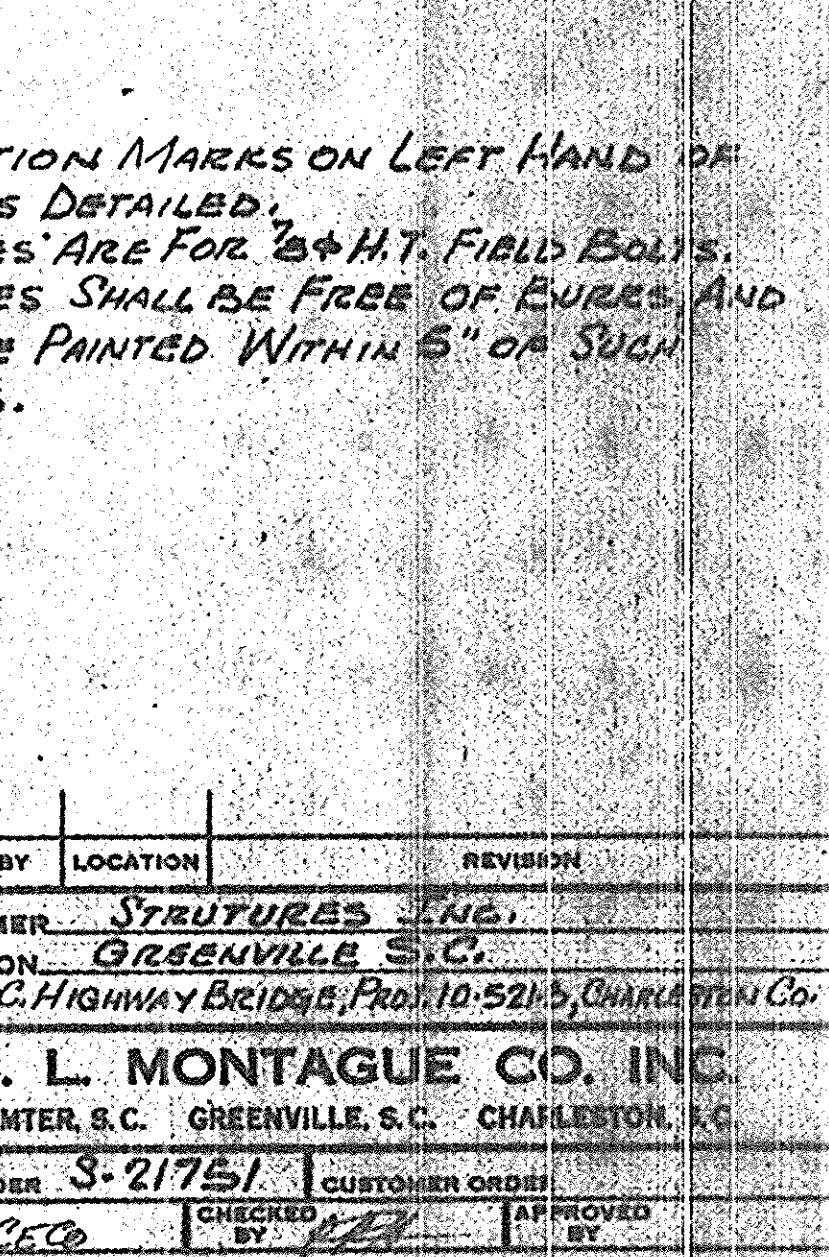
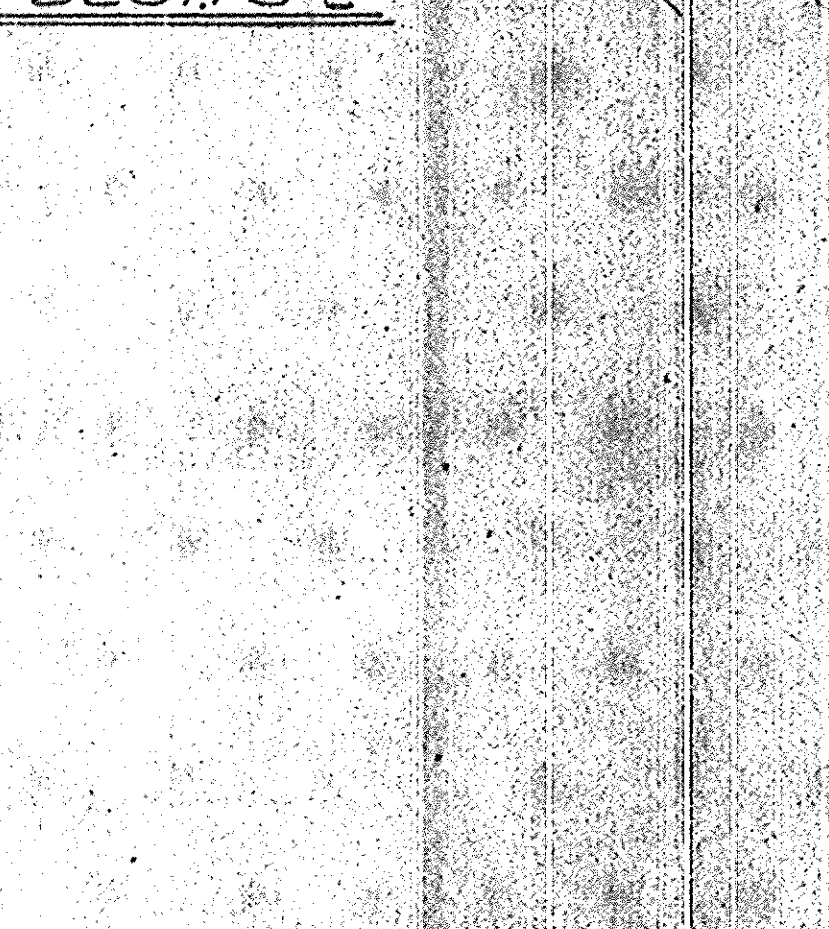
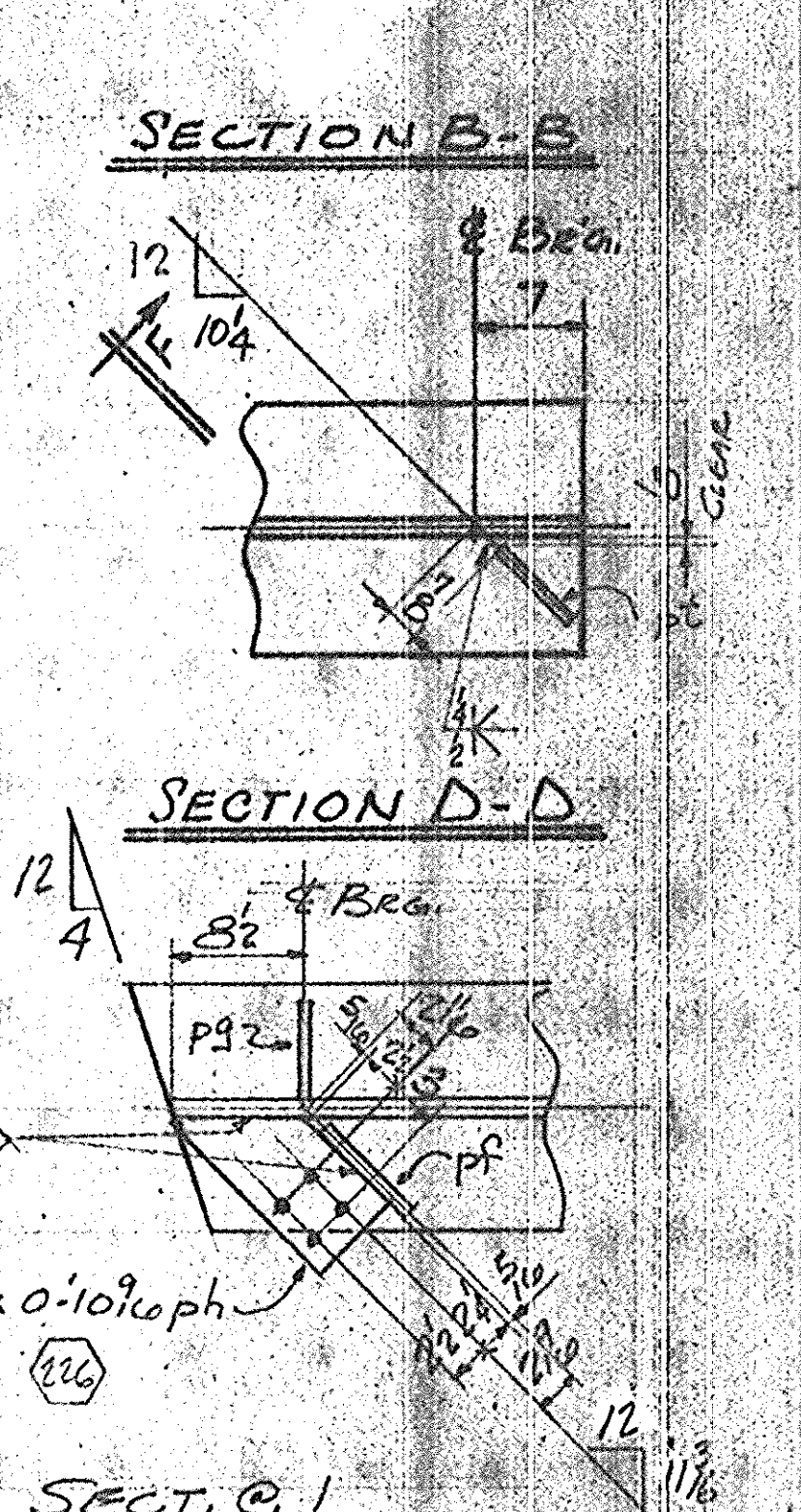
SHOP NUMBER	2-2175
CUSTOMER ORDER	2-2175
SCALE	1" = 1'-0"
DATE	11-1-55
SHEET NO.	42



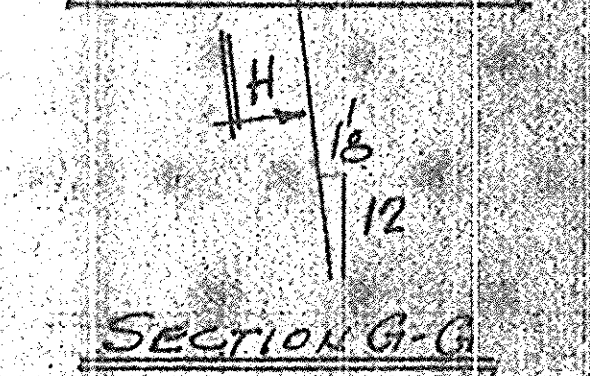
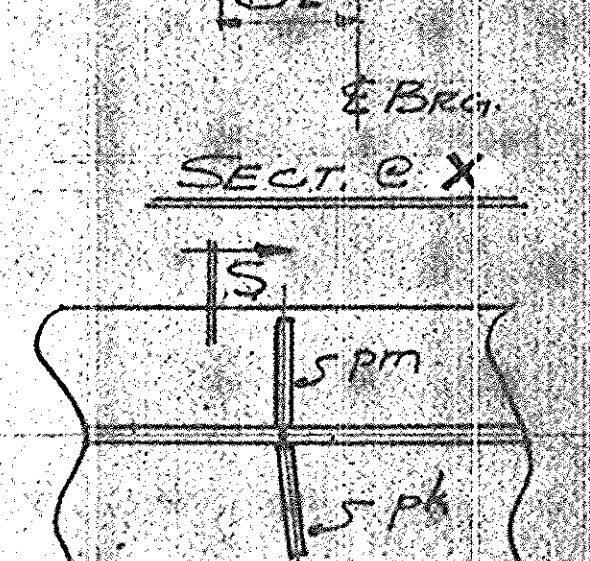
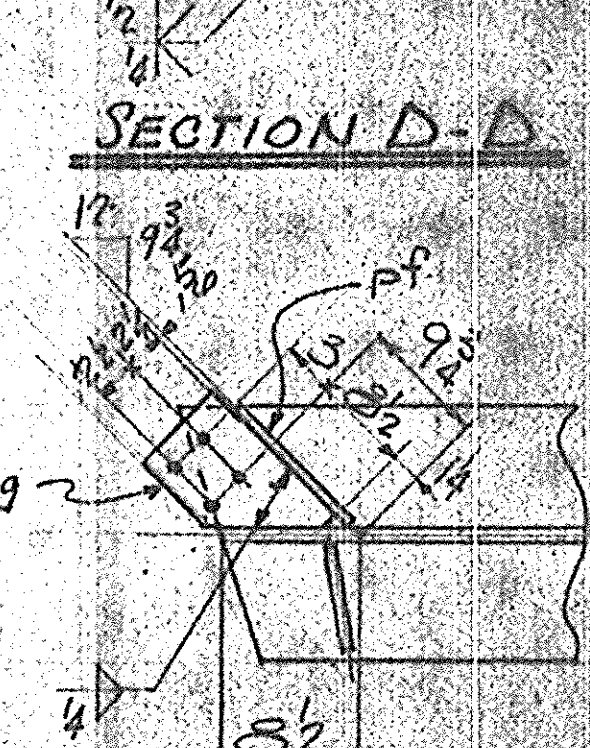
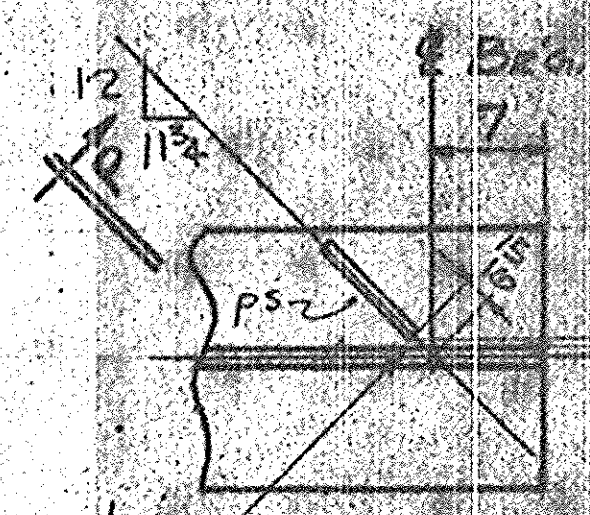


NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBERS AS DETAILED.
 ALL 1/2" HOLES THIS DRAWING ARE 7/8" H.T. FIELD BOLTS. ALL SUCH HOLES SHALL BE FREE OF BURRS, AND SHALL NOT BE PAINTED WITHIN 5" OF SUCH OPEN HOLES.

DATE	BY	LOCATION	REVISION
5-20-63	CHARLTON	10-11-63	7-26
CUSTOMER: STRUCTURES INC.			
LOCATION: GREENVILLE, S.C.			
JOB: S.C. HIGHWAY BRIDGE, PROJECT 10-11-63, CHARLTON			
B. L. MONTAGUE CO. INC.			
SUNTER, S.C. GREENVILLE, S.C. CHARLTON, S.C.			
SHOP ORDER	S-21731	CUSTOMER ORDER	
DRAWN BY	CEC	CHECKED BY	WJD
DATE	10-9-63	DATE	10-9-63
SCALE	1" = 10'	SCALE	1" = 10'
SHEET NO.	44	SHEET NO.	44

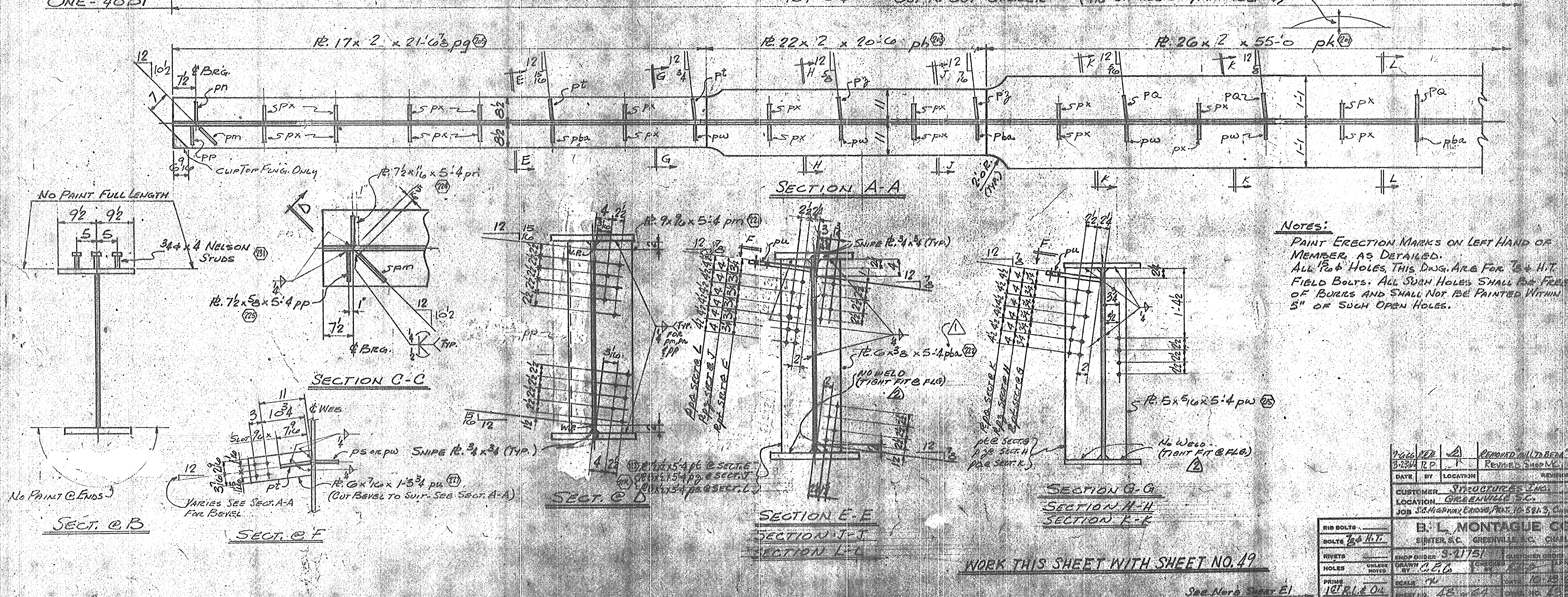


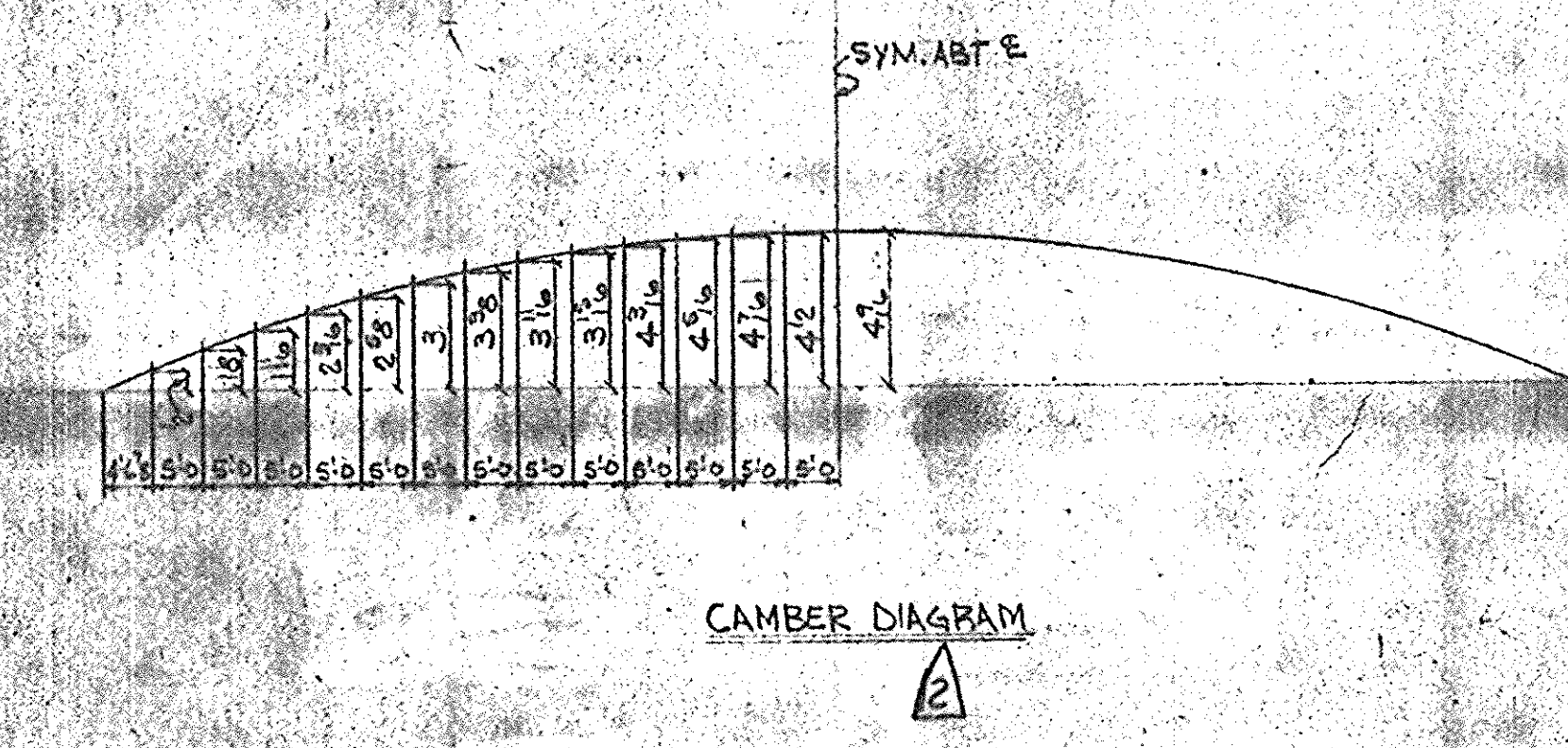
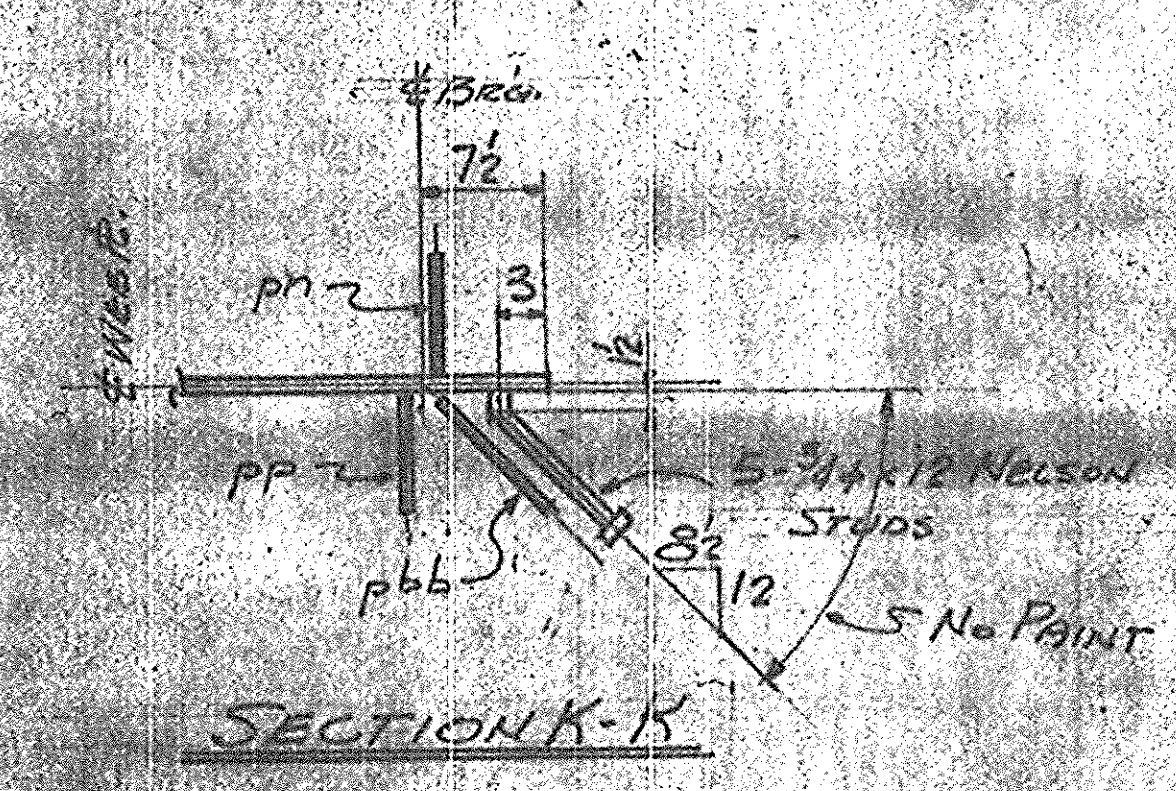
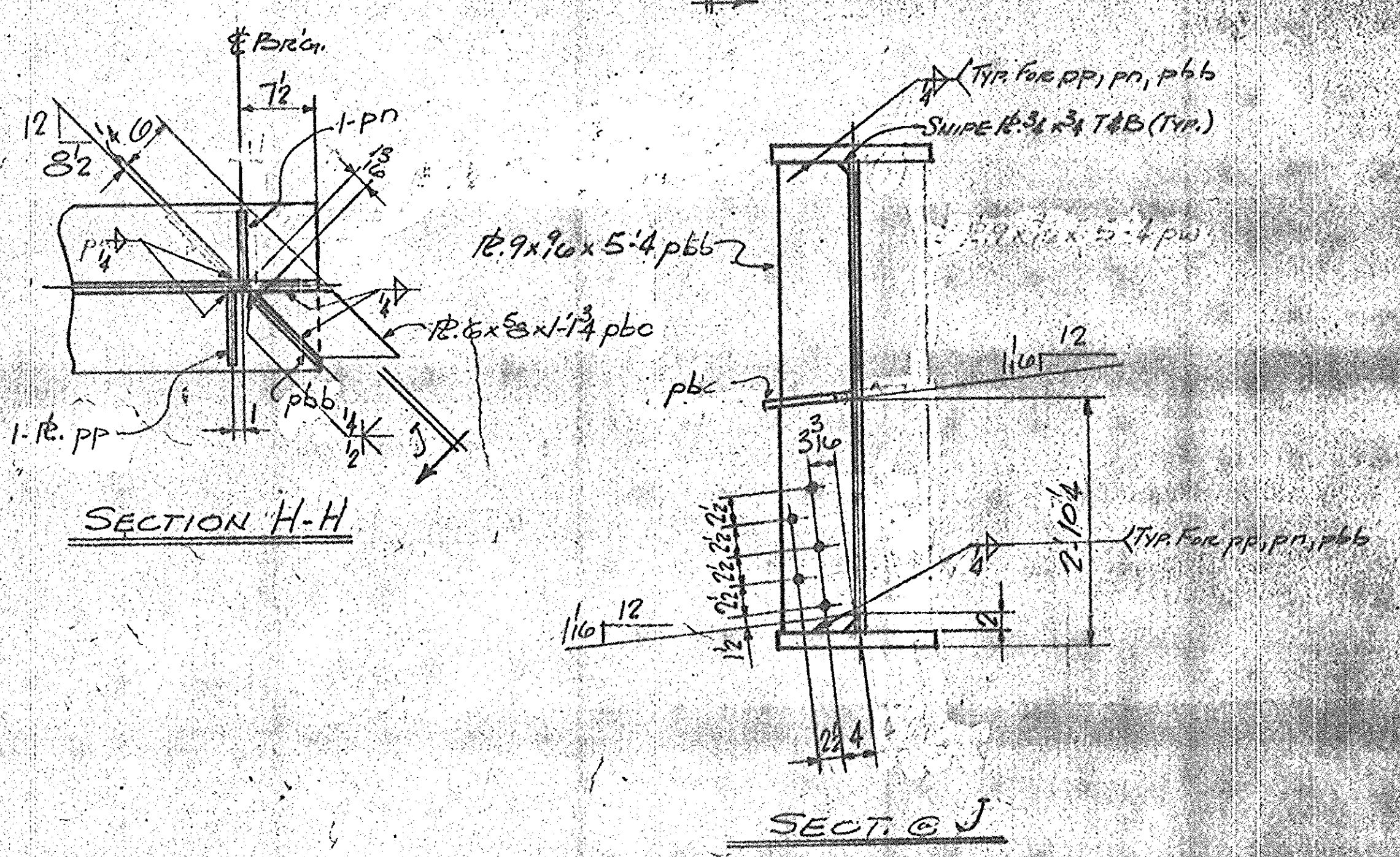
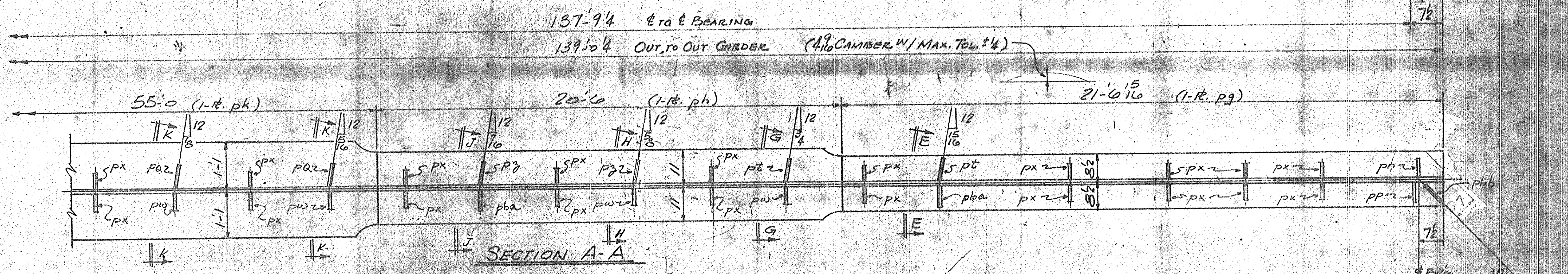
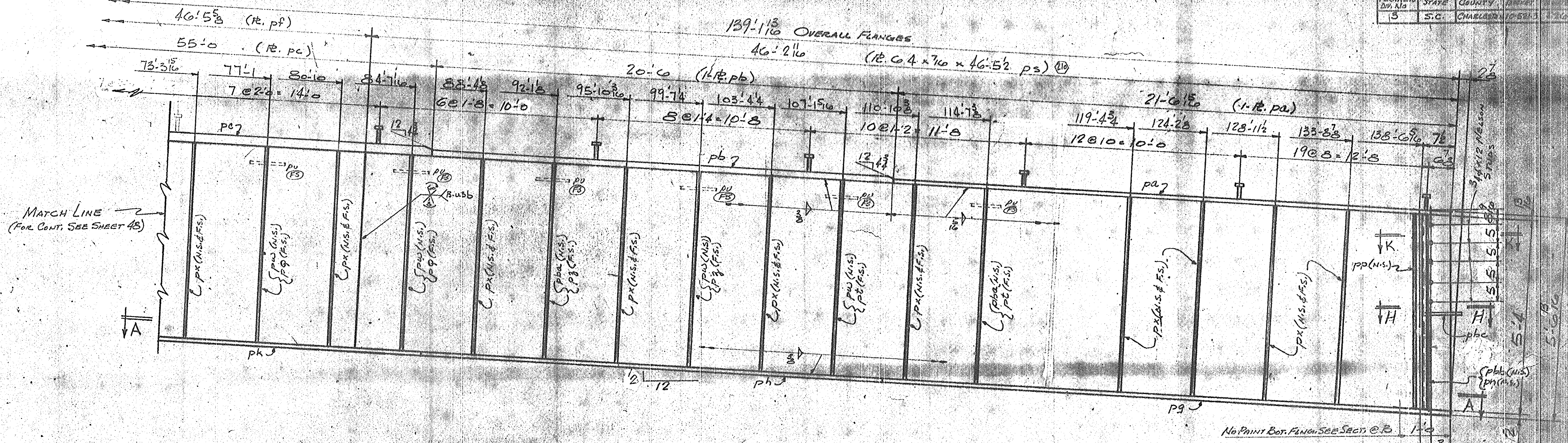
DATE	BY	LOCATION	REVISION
CUSTOMER <u>STRUCTURES INC.</u>			
LOCATION <u>GREENVILLE S.C.</u>			
JOB <u>P. C. HIGHWAY BRIDGE, PROJ. 10-5215, CHARLESTON CO.</u>			
B. L. MONTAGUE CO. INC. SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIS BOLTS			
BOLTS	<u>3/4" H.T.</u>		
RIVETS			
HOLES	<u>2" x 4"</u> UNLESS NOTED	DRAWN BY <u>CEC</u>	CHECKED BY <u>CEC</u> APPROVED BY
PRIME	<u>15" P.L. 10#</u>	SCALE <u>1"</u>	DATE <u>10-8-65</u>
	SHEET NO. <u>46</u> OF	DWG. NO. <u>43547-46</u>	



DATE	SY	LOCATION	REMARKS
		CUSTOMER	STRUCTURES INC.
		LOCATION	GREENVILLE S.C.
		JOB	P. O. HIGHWAY BRIDGE, PROJ. 10-52, S.C. DEPT. OF TRANSPORTATION

RIS BOLTS	B. L. MONTAGUE CO. INC.			
BOLTS <i>6 & 1/2</i>	SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIVETS	SHOP ORDER	<i>3-21751</i>	CUSTOMER ORDER	
NUTS <i>1/2</i> UNLESS NOTED	DRAWN BY	<i>CECO</i>	CHECKED BY	<i>422</i>
PRICE	SCALE	<i>1/2</i>	DATE	<i>10-2-65</i>
<i>18.1500</i>	SEALS	<i>47</i>	NO.	<i>10</i>





SECTION E-E

SECTION F-F

WELD DETAIL FOR 1/2" PA

Hand-drawn technical drawing of a column section, labeled "SECT. @ U". The drawing shows a vertical column with a central core and two side flanges. The top flange is labeled "12" and "7/8". The bottom flange is labeled "12" and "7/8". The central core is labeled "12" and "7/8". The side flanges are labeled "12" and "7/8". The drawing includes dimensions for the flange thickness (1/2 inch) and the core diameter (12 inches). A note "NO WELD (TIGHT FIT @ FLE)" is present. The drawing is signed "S. R. G. x 38 x 5.4 par".

Diagram illustrating the camber profile for a bridge section, labeled "CAMBER DIAGRAM".

The diagram shows a parabolic camber curve over a total length of 68' 8 $\frac{1}{2}$ inches. The curve is divided into 13 equal spans, each 5'-0" long, resulting in 14 vertical ordinates.

The ordinates (from left to right) are:

- 3' 8 $\frac{1}{2}$ " (at the left end)
- 5' 6"
- 1' 3"
- 1' 4"
- 2' 6"
- 2' 5"
- 2' 8"
- 3' 6"
- 3' 3"
- 3' 4"
- 3' 1"
- 3' 7"
- 3' 8"
- 3' 8 $\frac{1}{2}$ " (at the right end)

The maximum camber at the center is 3' 8 $\frac{1}{2}$ inches.

The diagram is labeled "SYMM. A.B.T." (Symmetrical About the Centerline) and includes a triangle symbol (Δ) indicating the camber profile.

WORK THIS SHEET WITH SHEET NO. 50

7-6-66 RPH		REMOVED "MILL TO BEAR" NOTE C IN "S. STIFF.	
6-22-66 S.P.B		ADDED CAMBER DIAGRAM	
11-24-66 R.P.		ADDED WELD DETAIL FOR R.P.P.	
DATE	BY	LOCATION	REVISION
CUSTOMER		STRUCTURES, INC.	
LOCATION:		GREENVILLE, S.C.	
JOB S.C. HIGHWAY BRIDGE, ROUTE 10-521.3, CHARLESTON COUNTY.			
B. L. MONTAGUE CO. INC.			
SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.			
RIB BOLTS _____			
BOLTS <u>4 1/2</u>			
RIVETS _____		SHOP ORDER 5-21751	
UNLESS NOTED		CUSTOMER ORDER _____	
HOLDS _____	DRAWN BY C.E.C.	CHECKED BY <u>R.P.</u>	APPROVED BY _____
PRIME _____	SCALE <u>1/2"</u>	DATE <u>10-18-65</u>	_____
SHEET NO. <u>51</u> OF <u>64</u>		DWG. NO. <u>4834-51</u>	

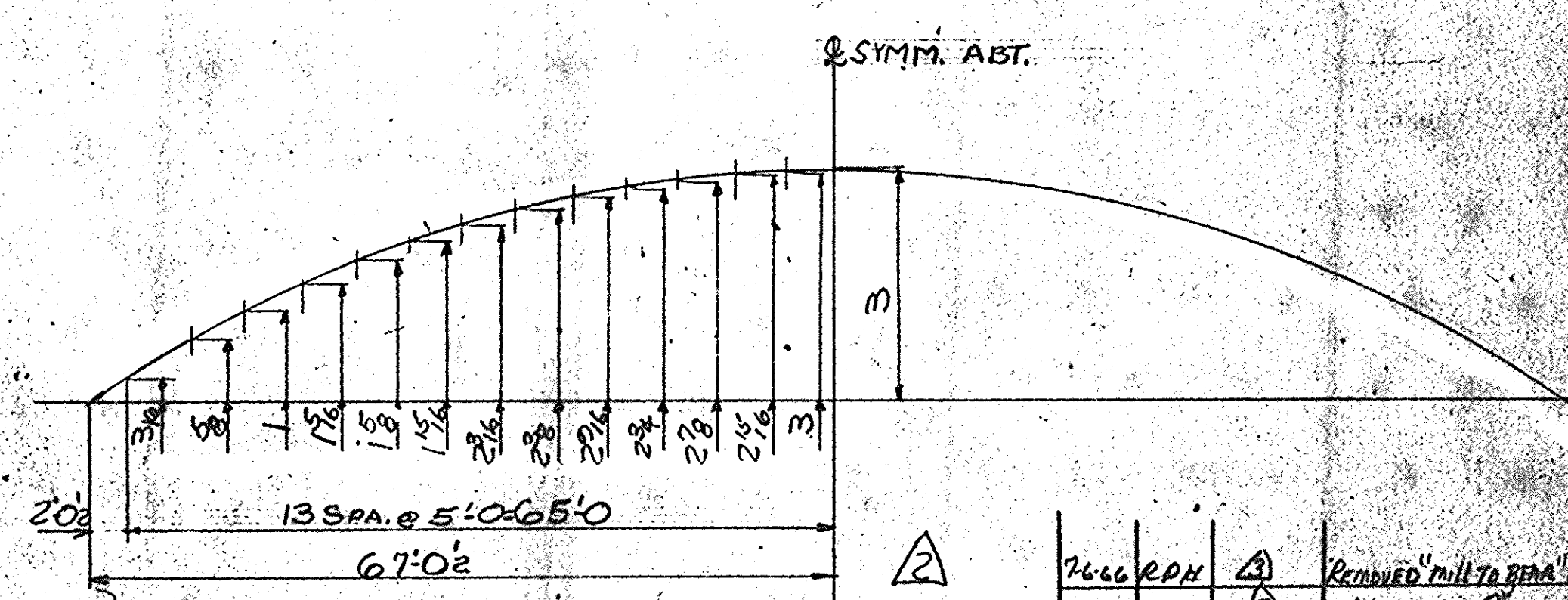
See Note Sheet E1

[illegible]

SECTION E-E

SECTION C-F

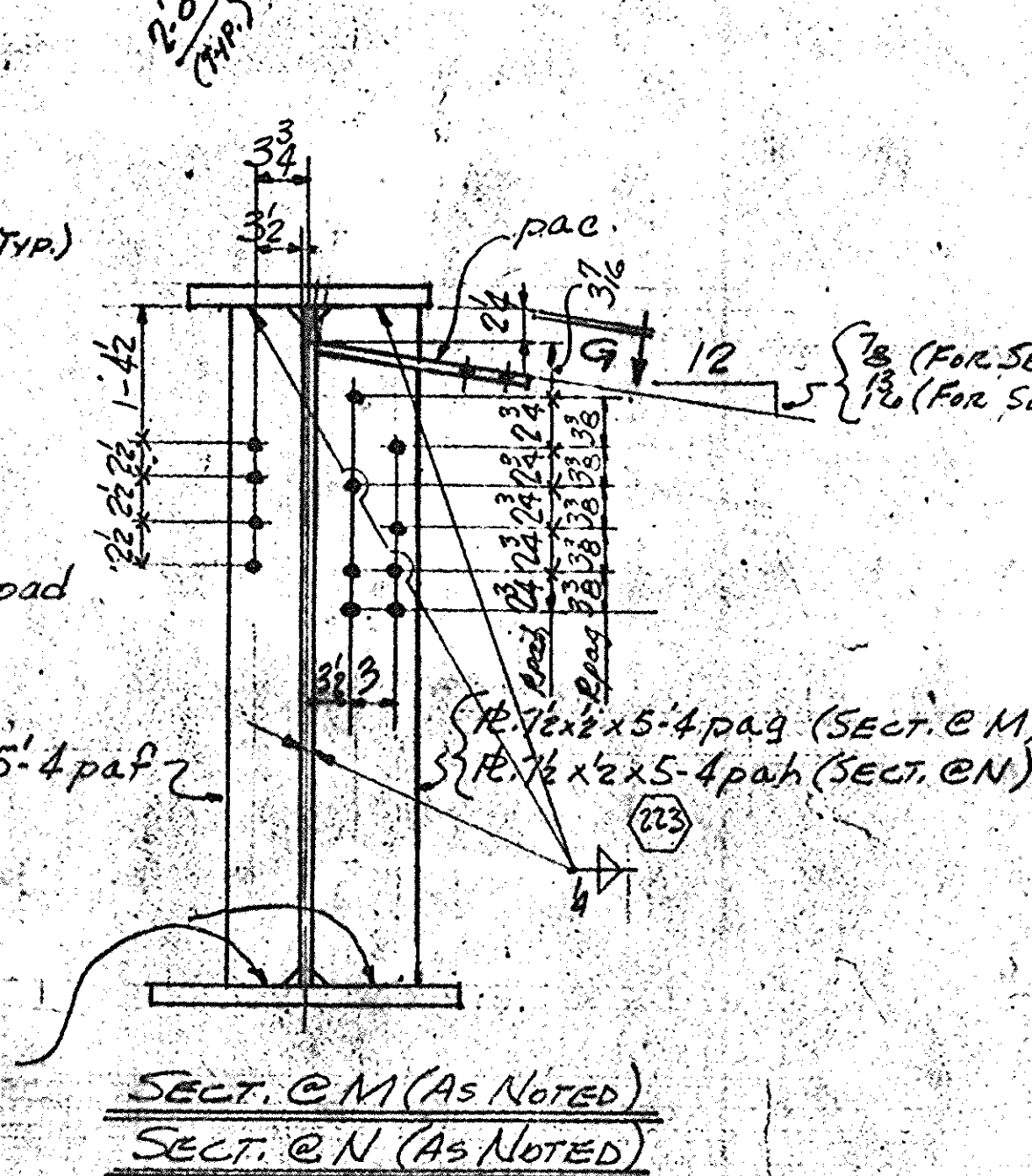
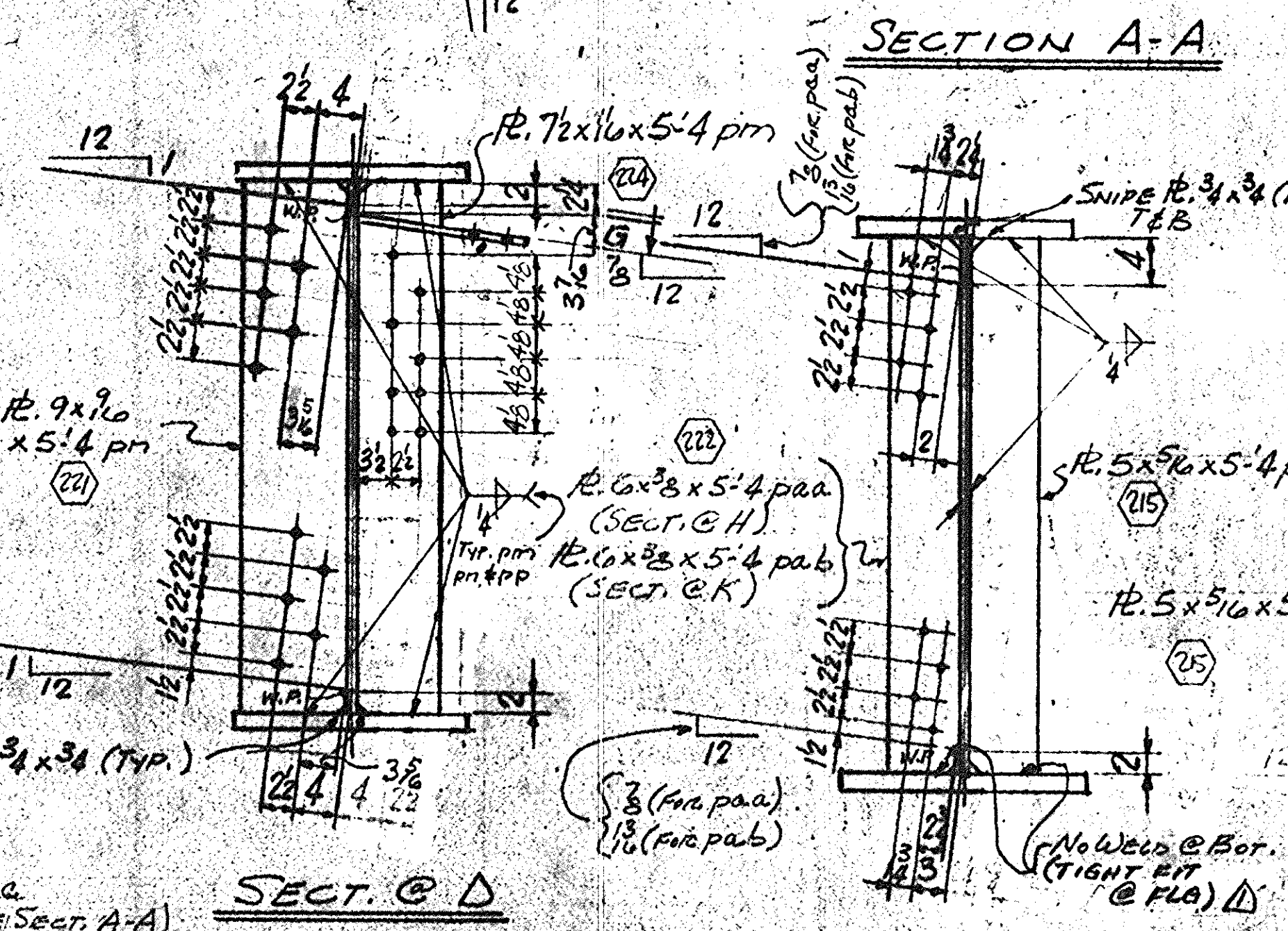
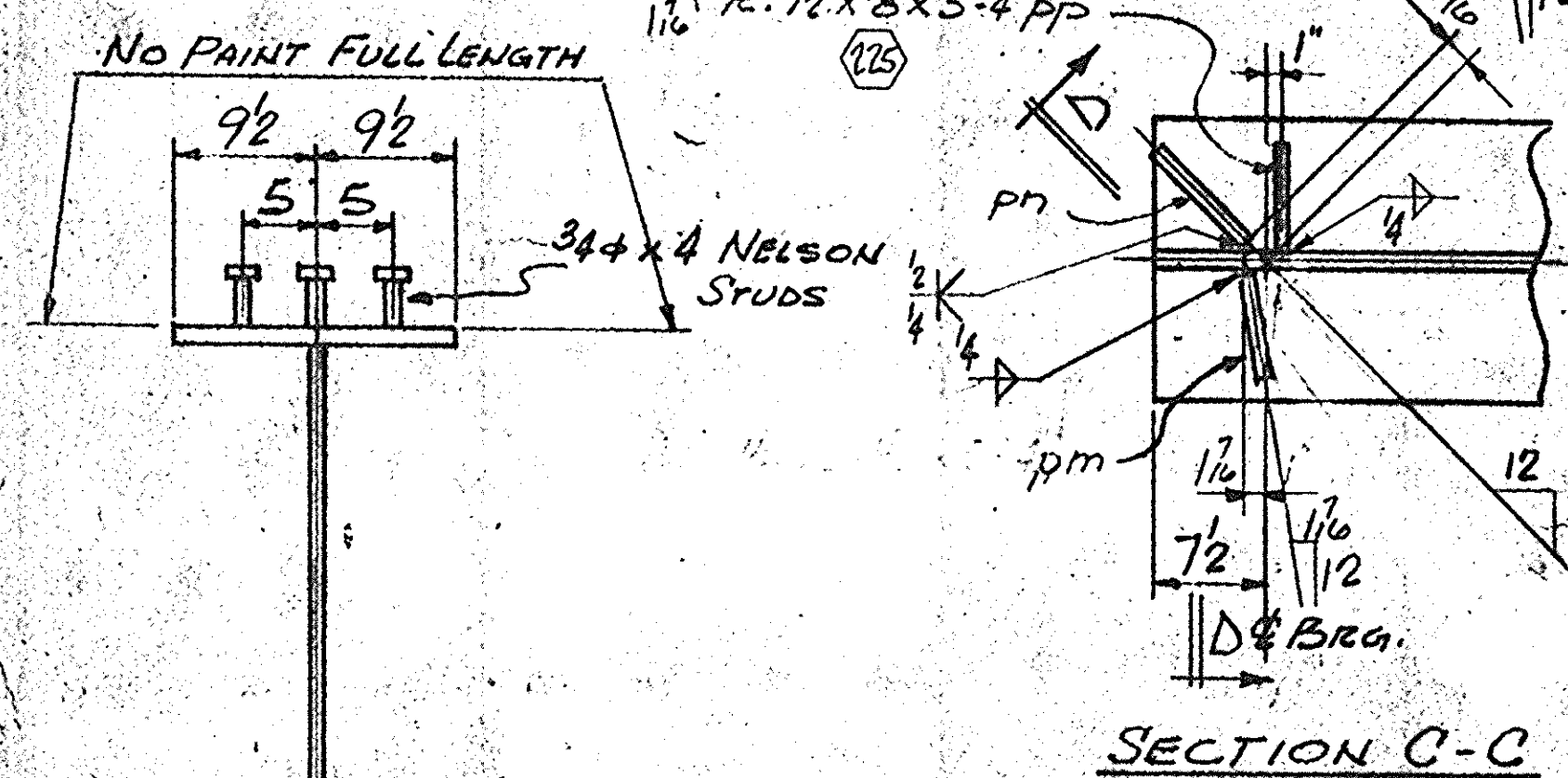
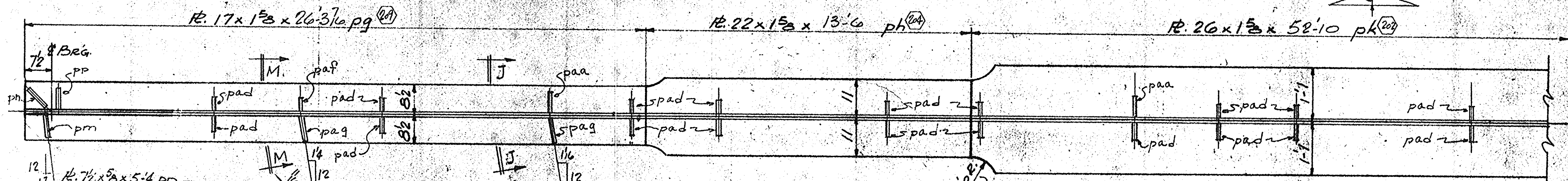
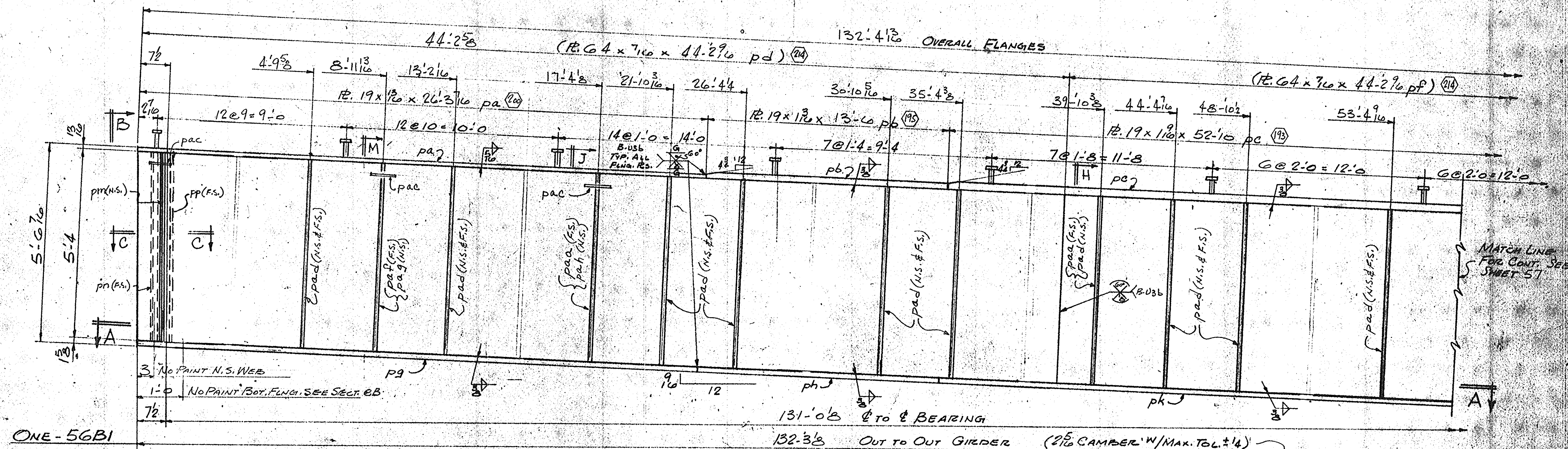
SECT. 25



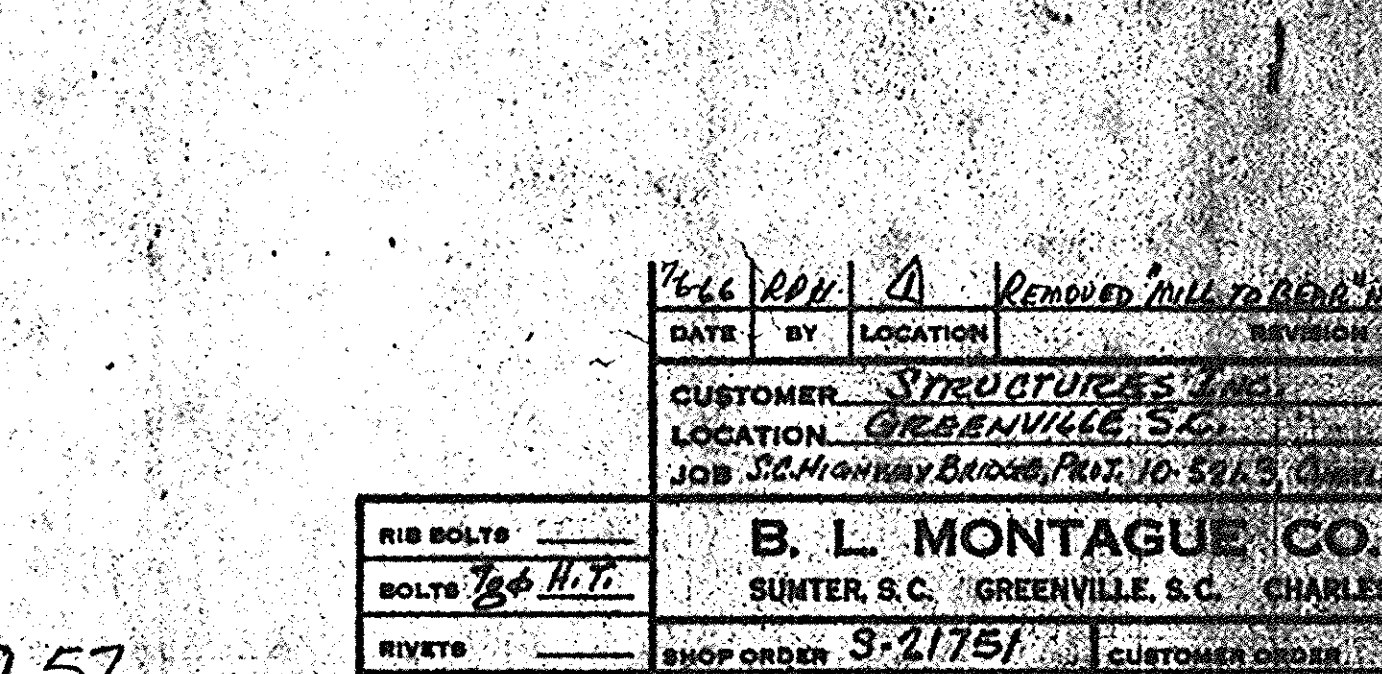
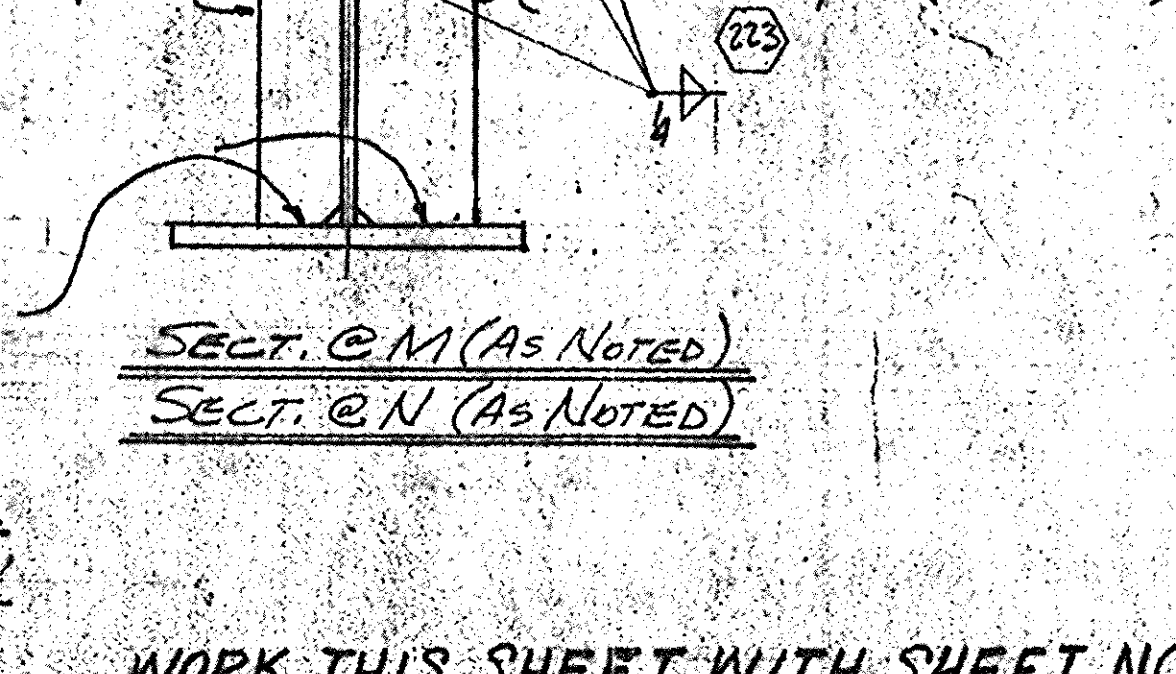
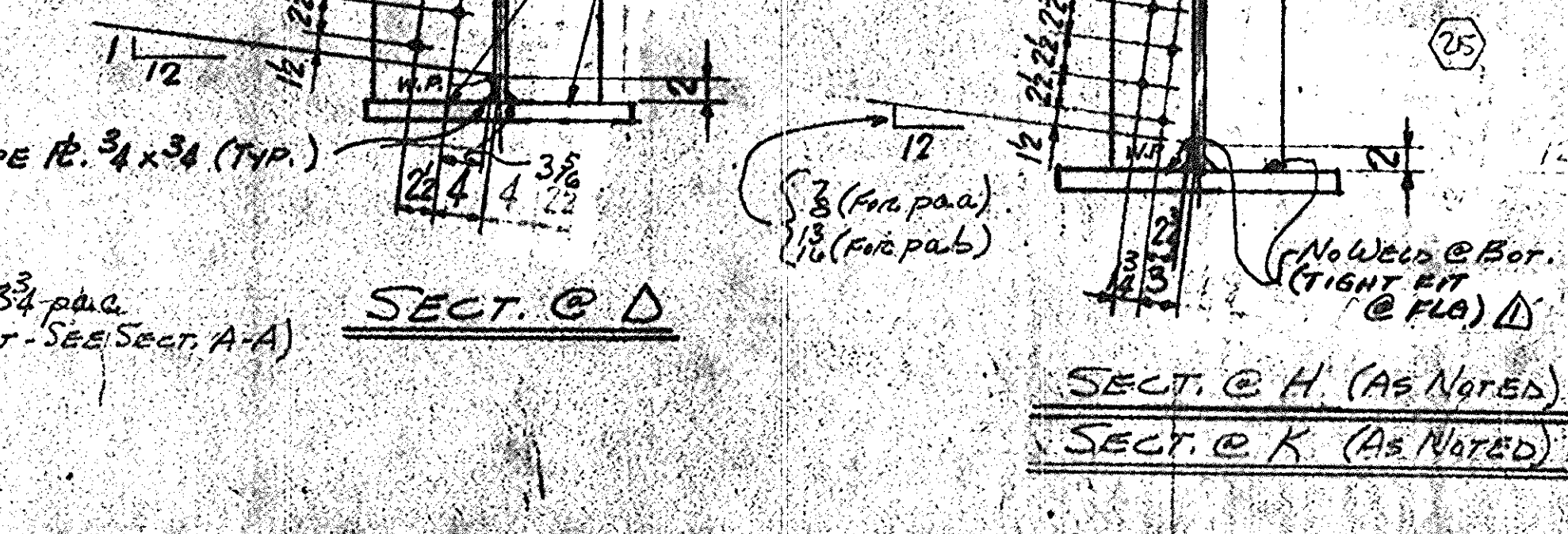
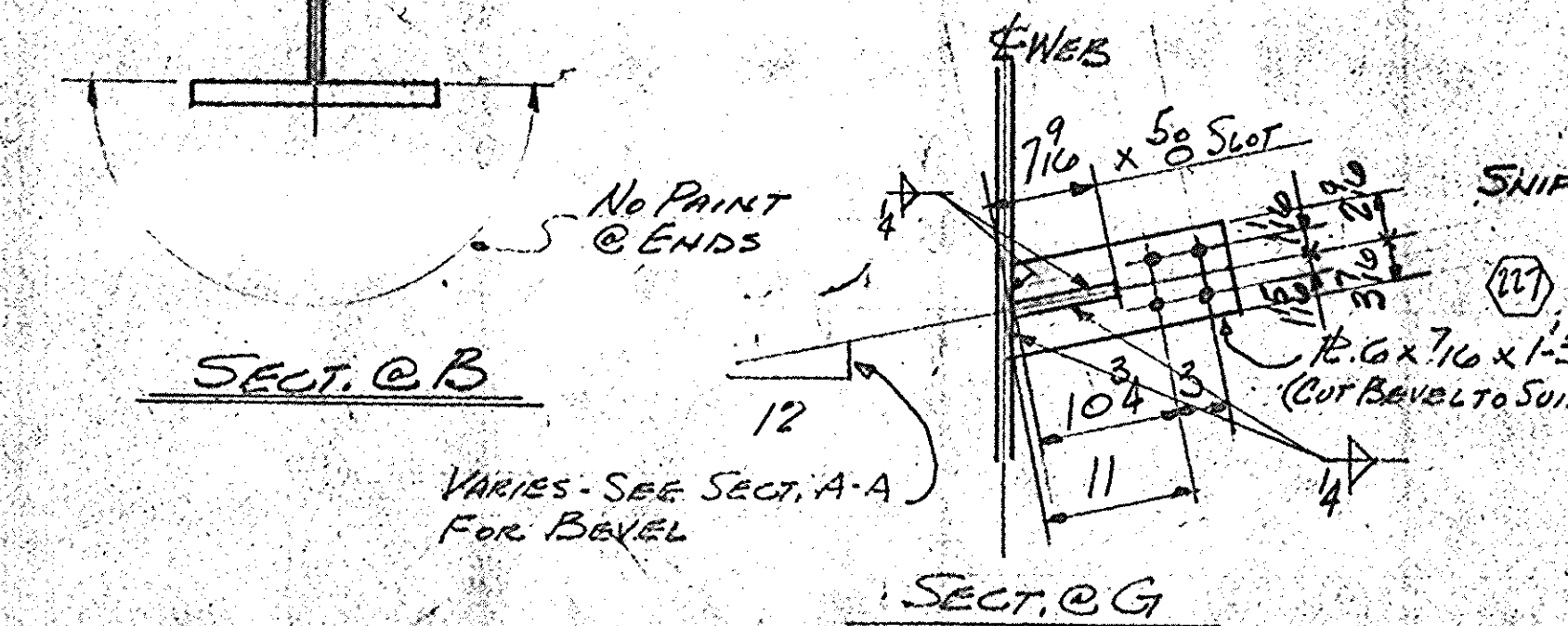
266 RDN	(A)	REMOVED MULTIPLE NOTE FROM STIFF	
624 S. PB	(B)	ADDED CAMBERG DIAGRAM	
1-124 RD	1	ADDED NOTE SECT. E-E	
DATE	BY	LOCATION	REVISION
CUSTOMER	STREIBER & SONS, INC.		
LOCATION	GREENVILLE, S.C.		
JOB	S.C. Highway Bridge, Bol. 10-531.3, CHARLESTON, S.C.		
B. L. MONTAGUE CO. INC.			
SUMTER, S.C.		GREENVILLE, S.C.	CHARLESTON, S.C.
SHOP ORDER	5-21751	CUSTOMER ORDER	
DRAWN BY	A.E.B.	CHECKED BY	MD
SCALE	1/4"	DATE	10-18-65
SHEET NO.	55 of 64	DWG. NO.	48544-55

WORK THIS SHEET WITH SHEET NO.54

SEE SHEET No. E



NOTES:
 PAINT ERECTION MARKS ON LEFT HAND OF MEMBER AS DETAILED.
 ALL HOLES THIS DWG. ARE FOR 3/4\"/>



WORK THIS SHEET WITH SHEET NO. 57

See Note Sheet E1

DATE	BY	LOCATION	REVISION
3-21-75	B.E.C.	GREENVILLE, S.C.	1

CUSTOMER: STRUCTURES, INC.
 LOCATION: GREENVILLE, S.C.
 JOB: S.C. Highway Bridge, Pkts. 10-5013, CHARLESTON COUNTY.

RIB BOLTS	BOLTS	HOLES	PRIME
1/2\"/>			

B. L. MONTAGUE CO. INC.
 SUMTER, S.C. GREENVILLE, S.C. CHARLESTON, S.C.

SHOP ORDER	CHECKED	CUSTOMER ORDER
3-21-75	B.E.C.	10-13-65

SCALE: 1/4\"/>