

Note: Contractor shall construct and maintain a detour bridge approximately 200' long with connecting ramps, approximately 50' upstream from proposed bridge, deck elevation 500.0. See S.R. 1007.

For R/W see Rdwy. Plans.

GENERAL NOTES

B.M. - U.S.C. & G.S. marker on east side Abutment No. 2, E.I. 513.51. Set new B.M. before abutment is remodeled.
The Contractor shall retain all existing piers and abutments and remodel them in accordance with detail drawings.
For details of Remodeling Piers see Dwg. No. 10135
For details of Remodeling Abutments see Dwg. No. 10134
For details of Pier No. 5 see Dwg. No. 10133
For details of Superstructure see Dwg. No. 5500P & 5500U

Loading: H-15 A.A.S.H.O. 1957.
Stresses: Class A Concrete 840 p.s.i.
Class S Concrete 1200 p.s.i.
Reinforcing Steel 20,000 p.s.i.
Structural Steel 18,000 p.s.i.
Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.

Concrete removed shall be placed along the slopes at the bridge ends as directed by the Engineer.
Contractor shall remove existing truss and I-beam span bridge superstructure. See S.R. 1007. All steel in existing spans 3, 4, 6, and 7 shall be stored on blocking at bridge ends for salvage by the State. All other material shall become the property of the contractor and the value of it shall be considered in the bid price.

New Pier Foundation Pressures = 5200 p.s.f. D.L. + L.L.

PLAN

Total Length Composite I-Beam Span Bridge = 453'-4" ; Level Deck El. 513.50

ELEVATION

Drainage Area = 335 Sq. Mi. ; C = 1.0

Note: Contractor shall make check measurements of existing bridge and make necessary adjustments to fit new work to existing structure. Eos of joints may be slightly off of Eos of piers. Footing of new pier is to be carried a minimum of one foot into hard blue shale.

Abut. No. 1 Existing

Pier No. 1 Existing

Pier No. 2 Existing

Pier No. 3 Existing

Pier No. 4 Existing

Pier No. 5 New

Pier No. 6 Existing

Pier No. 7 Existing

Abut. No. 2 Existing

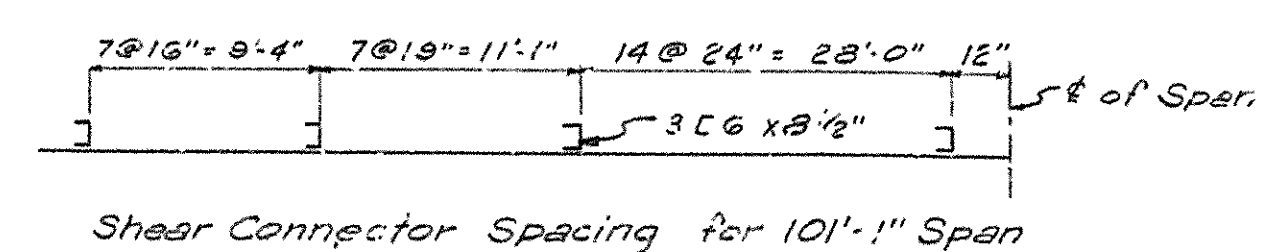
Data for 101'-1" Span (Also see Dwg. 5500P)

Beam	Cover	Pl.	Post	Spacing	Strut	"e"	D.L. Defl.
Requ.	Int.	Ext.	"a"	"b"	"n"	No. @ d"	Int. Ext.
36 WF 230	8"x11"	11"x11"	5'-7"	5'-11"	15	5 @ 20 1/2"	3' 4 5/8" 3' 5/8"

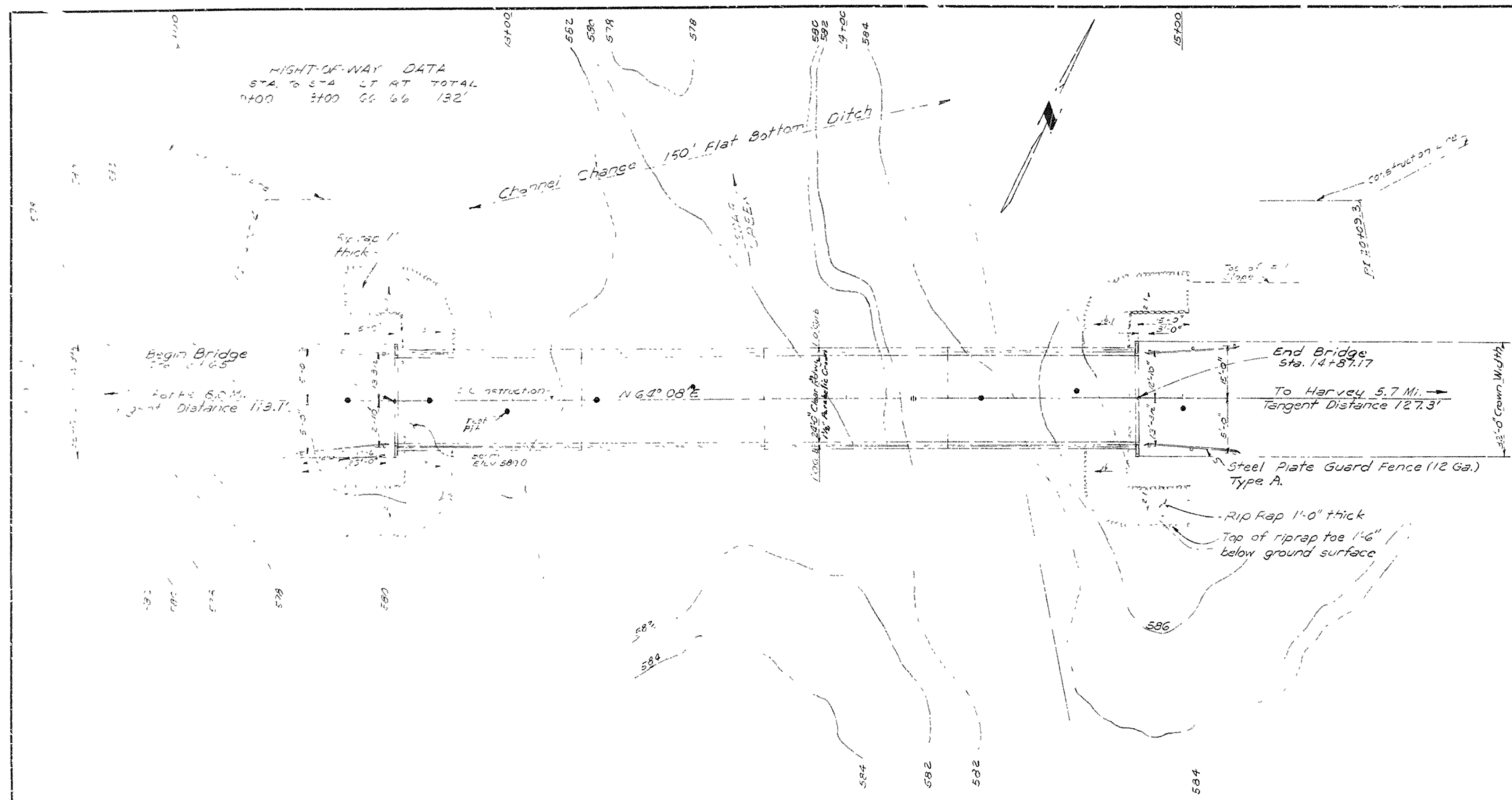
(Copy bottom flanges of expansion device channels 18" at each beam.)

Reinforcing for 101'-1" Span

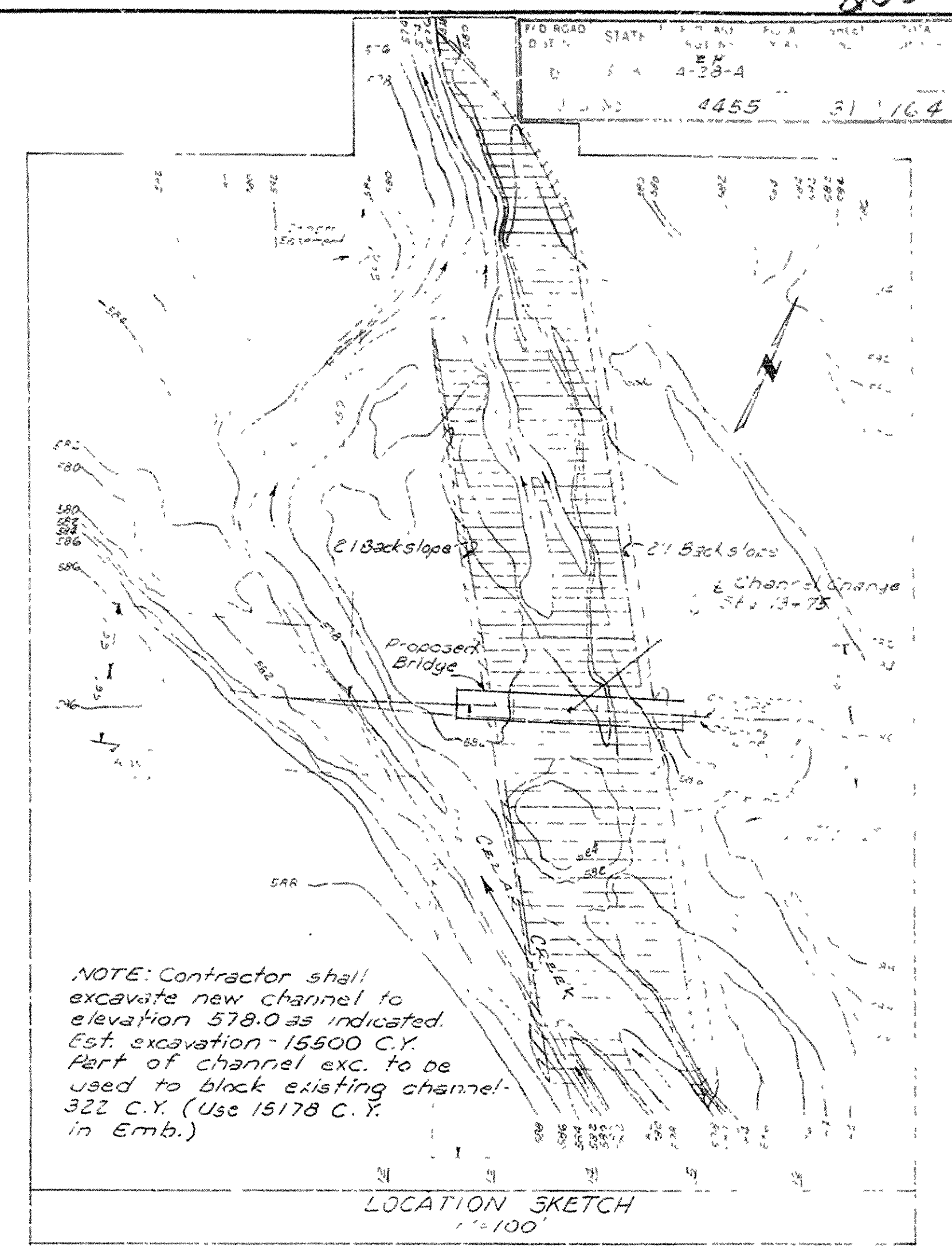
Mark	S1	S2	S3	S4	S5	PO1	PO2
Size	#5	#5	#4	#4	#4	#5	#3
No.	174	86	141	174	172	72	108
Length	See Dwg. 5500P for lengths and bending diagrams (5x101')						



LAYOUT OF BRIDGE OVER
FOURCHE LA FAVE RIVER
SCOTT COUNTY
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: R.L. DATE: 2-1-58
TRACED BY: DATE:
CHECKED BY: E.H.B. DATE: 2-5-58
BRIDGE NO. 1594 DRAWING NO. 10132

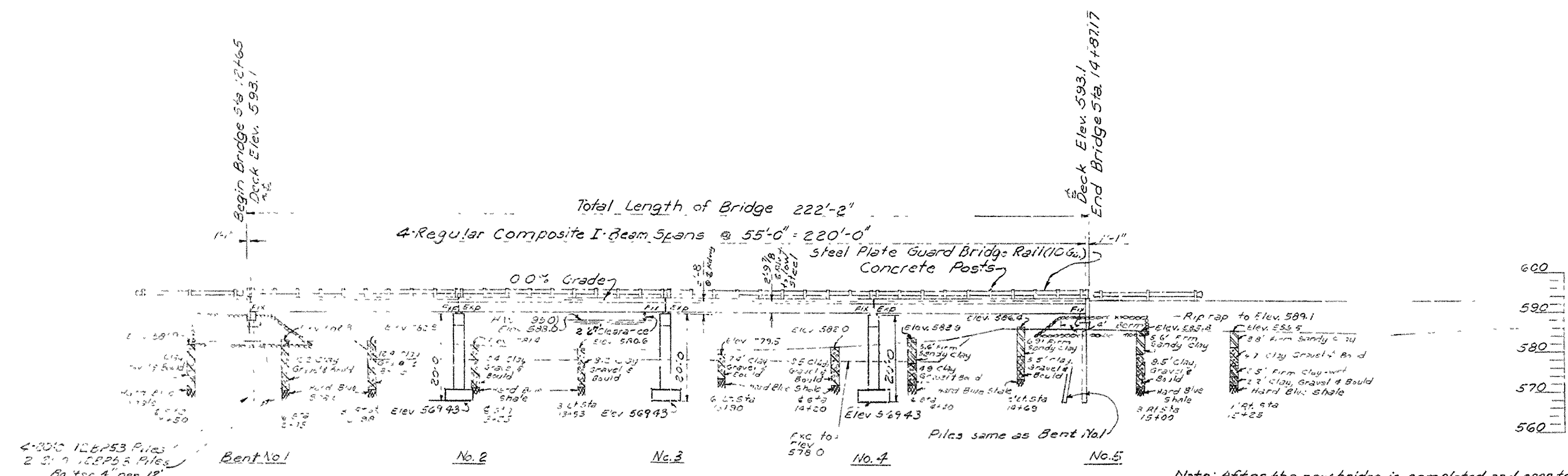


PLAN



LOCATION SKETCH
1" = 100'

GENERAL NOTES:
 All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.
 In general all construction joints in abutments and piers shall be horizontal and shall be provided with keys not less than 3 high covering the middle third of both dimensions.
 Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated faces of rock.
 For details of end bents, see Drawing No. 5460A.
 For details of int. bents see Drawing No. 10670.
 For details of Superstructure see Drawings 5460 & 5462.
 SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.
 All piling shall be 12BP53 Steel Bearing Piles, driven to refusal or to a minimum depth of two feet into the material designated as shale on the boring logs with a minimum bearing capacity of 36 tons per pile. Order lengths shown; cut-off or build-up, if necessary, to be paid for in accordance with SP-804. Piling shall be driven after embankment is in place.



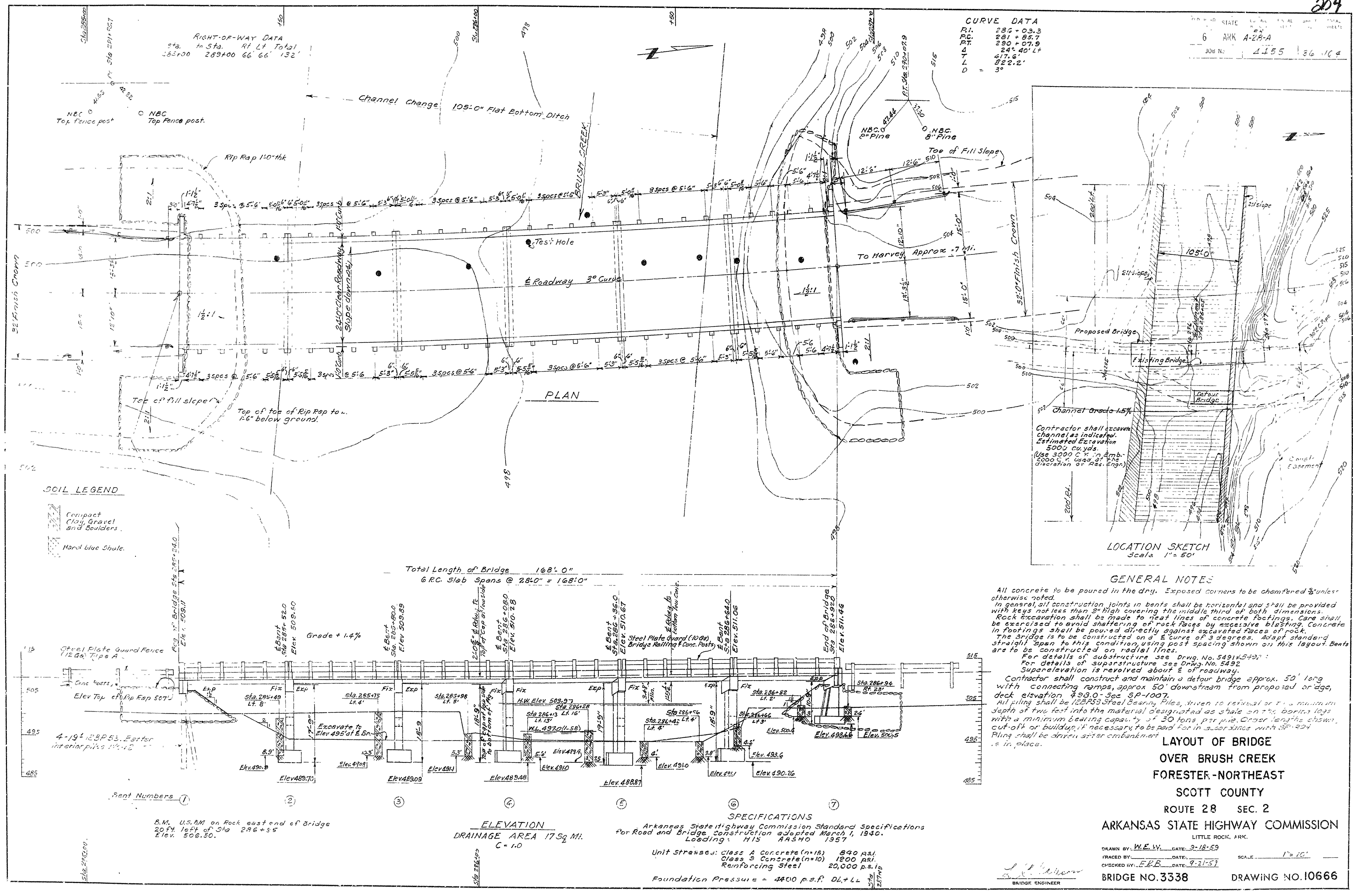
ELEVATION
 Drainage Area 41.5 Sq. Miles
 C = 1.0

MINIMUM SPECIFICATIONS AASHTO 1957
 LIVE LOADS H-15
 UNIT STRESSES
 Class A Concrete (f_c = 15) 8400 #/sq in.
 Class B Concrete (f_c = 10) 12000 #/sq in.
 Reinforcing Steel 20,000 #/sq in.
 Structural Steel 13,000 #/sq in.
 Foundation Pressure 4,400 #/sq ft.

LAYOUT OF BRIDGE
 OVER CEDAR CREEK
 FORESTER-NORTHEAST, SCOTT COUNTY
 ROUTE 28 SEC. 2
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

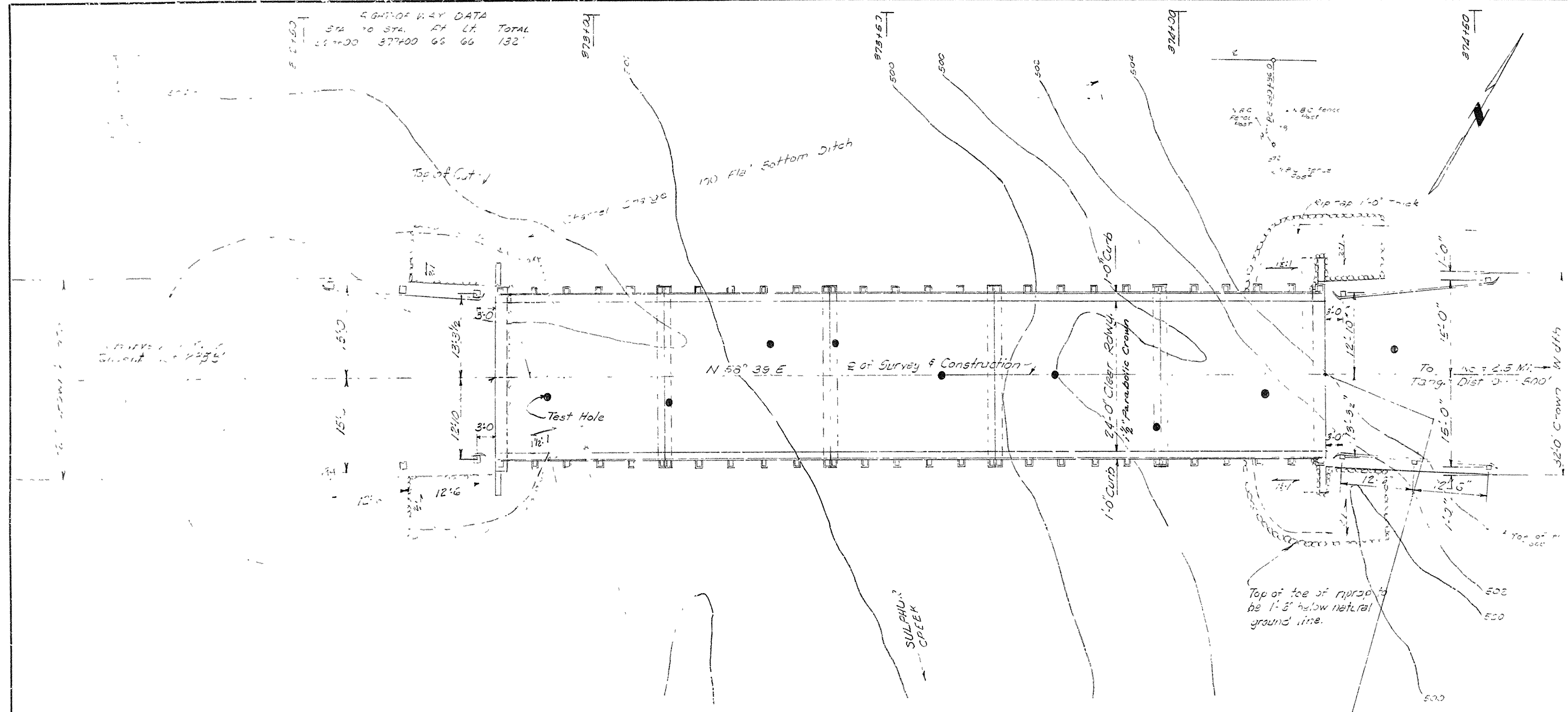
DRAWN BY: G.A.G. DATE: 1/17/59
 TRACED BY: G.A.G. DATE: 1/17/59
 CHECKED BY: G.A.G. DATE: 1/17/59
 BRIDGE NO. 3337
 DRAWING NO. 10665

BRIDGE DESIGN ENGINEER



RIGHT-OF-WAY DATA
STA TO STA AT LT TOTAL
11+00 37+00 66 66 132'

FILE NO. 37 164
SHEET NO. 205
DATE 4-28-44
BY G.E.S.



PLAN

Contractor to excavate the channel as indicated. Estimated excavation 2500 Cu Yds. (Use 2000 C.Y. in Emb. - 500 C.Y. used at the discretion of Res. Engr.)

LOCATION SKETCH

GENERAL NOTES

1. Concrete to be placed in the dry. Exposed corners to be finished by hand trowel. 2. General 3% camber from center line to outside edges. 3. Horizontal joints to be provided with rope joint. 4. Top of high covering the middle third of gully. 5. Reinforcement bars to be placed in concrete. 6. Footings to be extended to main centering. 7. All ties to be by extensive casting. 8. Concrete in footing to be placed directly against excavation. 9. For details of Substructure see drawing 141'4549-A. 10. For details of Superstructure see drawing 141'4549-B.

Specifications: Arkansas State Highway Commission
Standard Specifications for Road and
Bridge Construction Adopted March 1, 1940

All piling shall be 12" x 53" Steel Bearing Piles, driven to refusal or to a minimum depth of two feet into the material designated as shale on the boring log, with a minimum bearing capacity of 30 tons per pile. Order lengths shown cut after land up, if necessary, to be paid for in accordance with S.P. 304. Piling shall be driven after embankment is in place.

LAYOUT OF BRIDGE
OVER SULPHUR CREEK
FORESTER-NORTHEAST-SCOTT COUNTY

ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

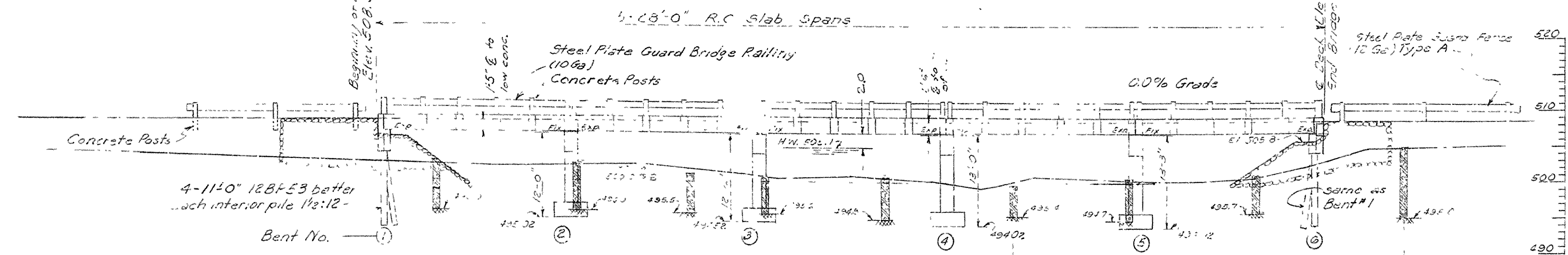
DRAWN BY: G.E.S. DATE: 4-28-44
TRACED BY: DATE: 2-17-59
CHECKED BY: J.W.P. DATE: 2-17-59
BRIDGE NO. 3339 DRAWING NO. 10667

Note: After the new bridge is completed and open to traffic the Contractor shall remove the existing 40' timber bridge. See S.P. 1007.

Total Length of Bridge 143'-0"

5'-08'-0" R.C. Slab Spans

Steel Plate Guard Bridge Railing (106a)
Concrete Posts



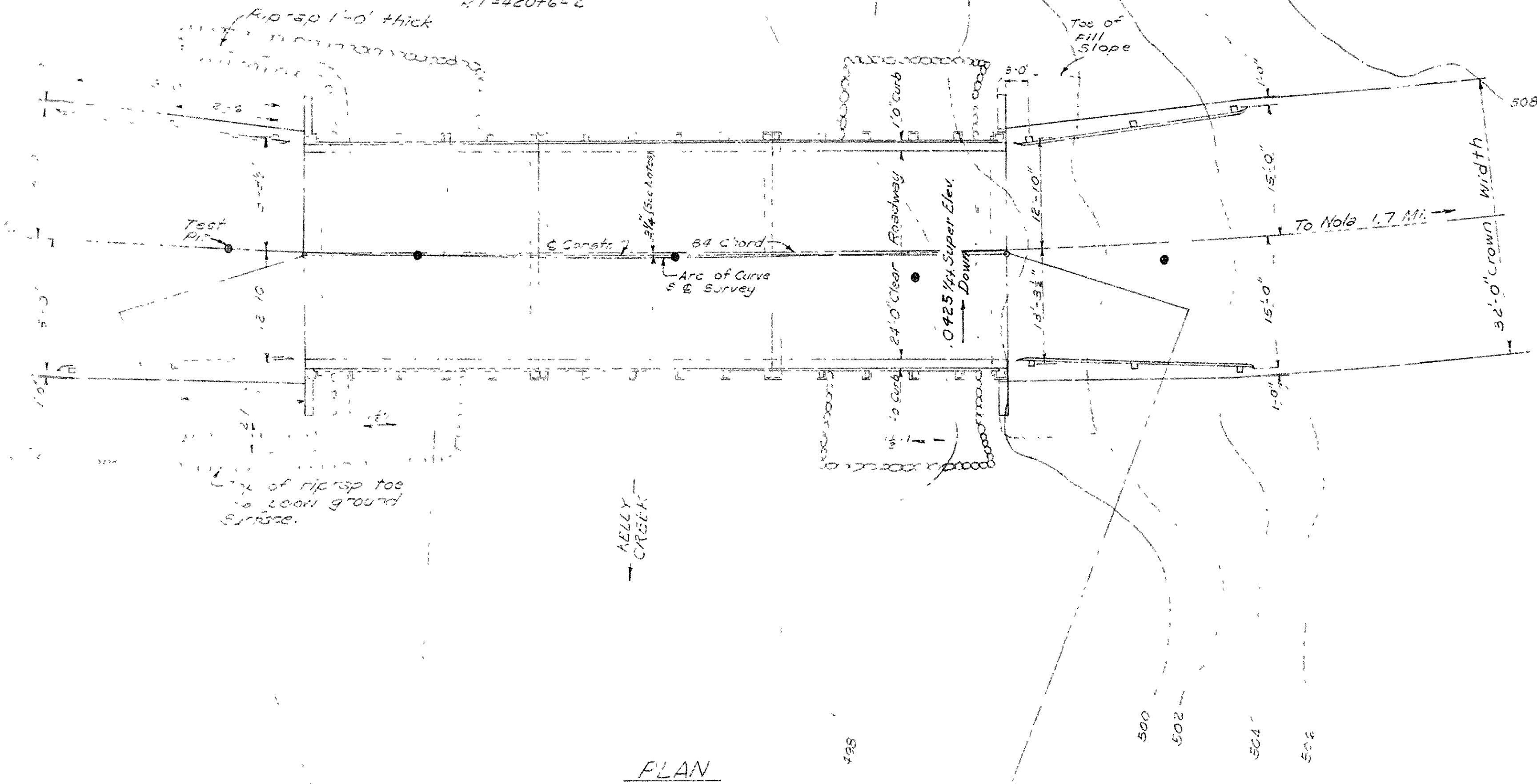
ELEVATION
Bridge Area = 6.5 sq. Mi.
C = 1.0

Design of Bridge - A-15
Unit - Concrete - 3400 psi
Steel - Concrete - 7-10
Reinforcing Steel - 20000 psi
Foundation Pressure DL+LL - 5,900 psi

FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1959-60	4455	38 164

RIGHT-OF-WAY DATA
STA TO STA AT LT TO RT
3074.00 416+00 66 66 '33'

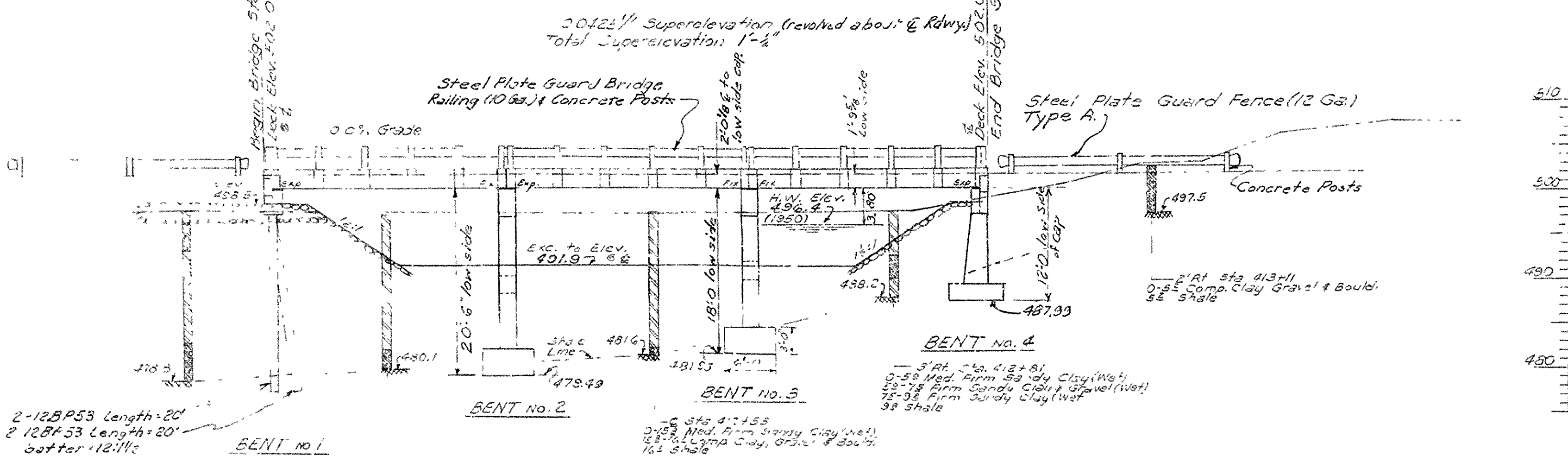
CURVE DATA
Δ = 67°00' LT
D = 3°50'
T = 1083.6'
L = 1914.5'
PC = 420+49.9
PT = 412+33.5
RT = 420+64.2



PLAN

Total Length of Bridge 84'-0"
3'-28'-0" R.C. Slab Spans

Note: After the new bridge is complete and open to traffic the Contractor shall remove the existing 20' timber bridge. See SP-1007.

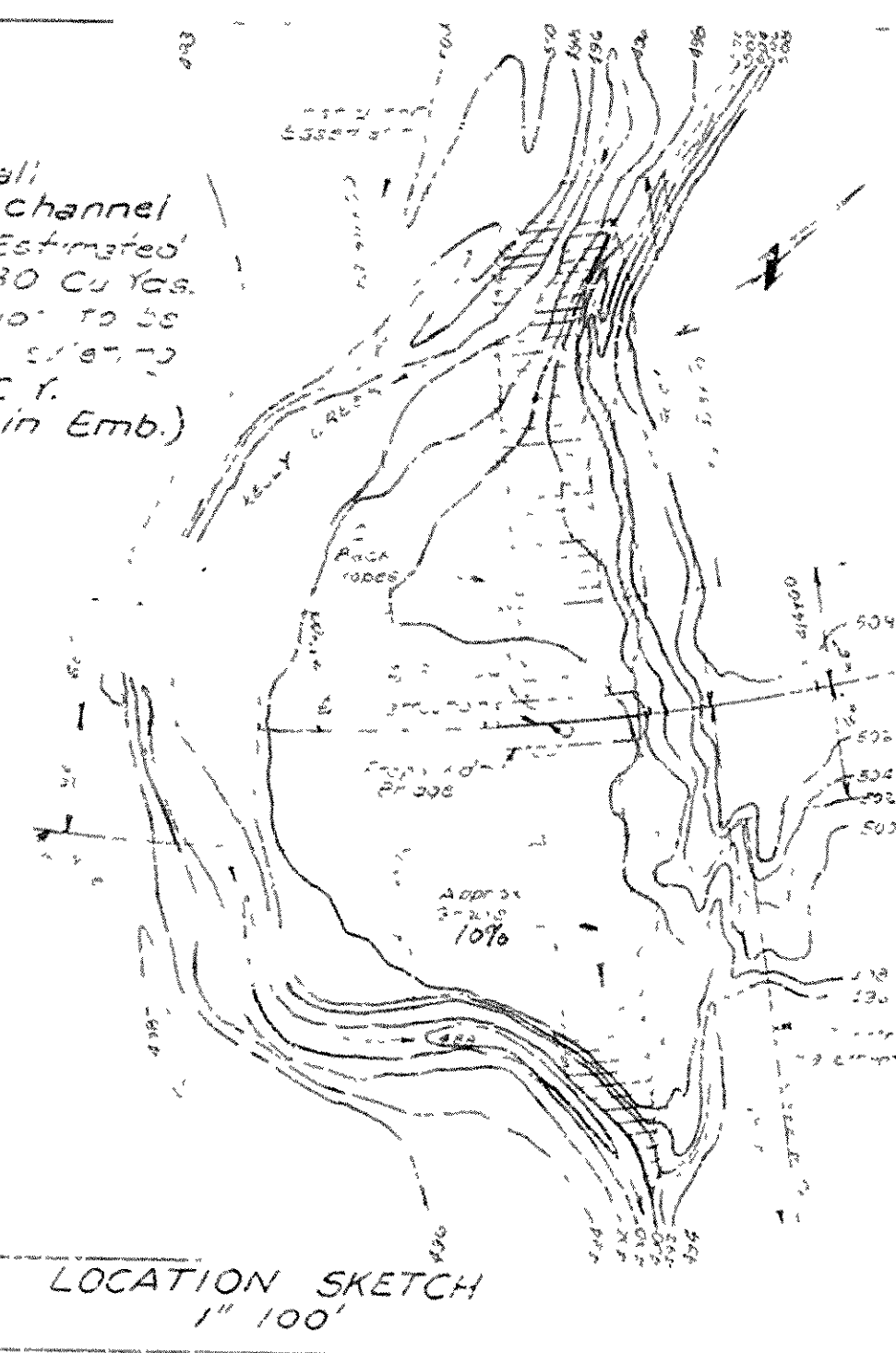


ELEVATION

Drainage Area = 2.75 Sq. Mi.
C = 1.0

DESIGN SPECIFICATIONS - AASHTO 1957
Loading H-15
Unit Stresses
Class A Concrete (n=15) 840 #/sq in
Class S Concrete (n=10) 1200 #/sq in
Reinforcing Steel 20,000 #/sq in
Foundation Pressure, DL+LL, 4,700 #/sq ft

Contractor shall excavate new channel as indicated. Estimated excavation = 7430 Cu Yds. Part of excavation to be used to block cut in channel - 1021 C.Y. (Use 6409 C.Y. in Emb.)



LOCATION SKETCH
1" = 100'

GENERAL NOTES

All concrete to be poured in the dry. Exposed corners to be chamfered 3/4" unless otherwise noted.
In general, all construction joints in piers and abutments shall be horizontal and shall be provided with keys not less than 3" high covering the middle third of both dimensions.
Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated faces of rock.
For Details of Substructure see drawing 5491#5492A
For Details of Superstructure see drawing 5492
Line of construction is a line connecting bridge ends, parallel to an 84' chord of a 3°30' curve and bisecting the mid-ordinate. All bents are normal to line of construction.
Superelevation is obtained by varying column heights.
See special superelevation details on drawing 5491#5492A.

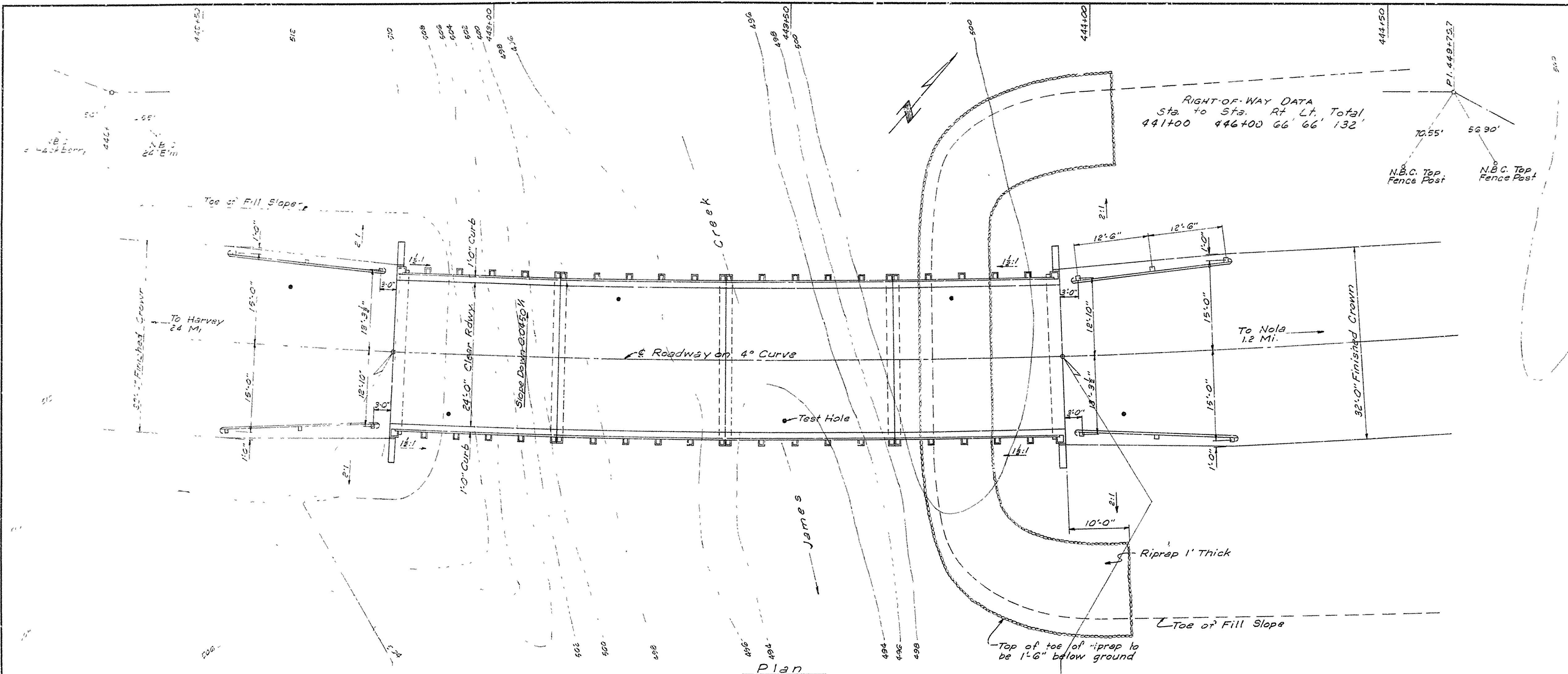
PILING

All Piling shall be 12BP53 Steel Bearing Piles, driven to refusal or to a minimum of two ft into the material designated as shale on the boring logs with a minimum bearing capacity of 30 tons per pile. Order the lengths shown, cut off or build up, if necessary, will be paid for in accordance with SP-807.

LAYOUT OF BRIDGE
OVER KELLY CREEK
FORESTER-NORTHEAST-SCOTT COUNTY
ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: G.A.B. DATE: 9-17-59
TRACED BY: DATE: 9-17-59
CHECKED BY: G.A.B. DATE: 9-17-59
BRIDGE NO. 3340 DRAWING NO. 10668

BRIDGE DESIGN ENGINEER



Curve Data.

$PI = 442 + 14.0$
 $PC = 438 + 63.7$
 $PT = 445 + 50.8$
 $\Delta = 27^\circ 29' 14''$
 $D = 4^\circ 00'$
 $T = 350.3'$
 $L = 687.1'$

General Notes

All concrete to be poured in the dry. Exposed corners to be chamfered $\frac{1}{2}$ " unless otherwise noted.

In general, all construction joints in bents shall be horizontal and shall be provided with keys not less than 3" high covering the middle third of both dimensions.

Rock excavation shall be made to neat lines of concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated faces of rock.

All piling shall be 12B-53 steel bearing piles, driven to refusal or to a minimum depth of two feet into the material designated as hard shale on the boring logs, with a minimum bearing capacity of 30 tons per pile. Order length shown; cut off or build-up, if necessary, to be paid for in accordance with SP-804. Piling to be driven after embankment is in place.

Bridge to be constructed on a $\frac{1}{2}$ curve of 4°. Adapt standard straight span to this condition, using past standard sheet piling on this layout. Bents to be constructed on radial lines.

For details of substructure see Drwg. No. 5491 & 5492-A. For details of superstructure see Drwg. No. 5492.

Super-elevation is revolved about roadway.

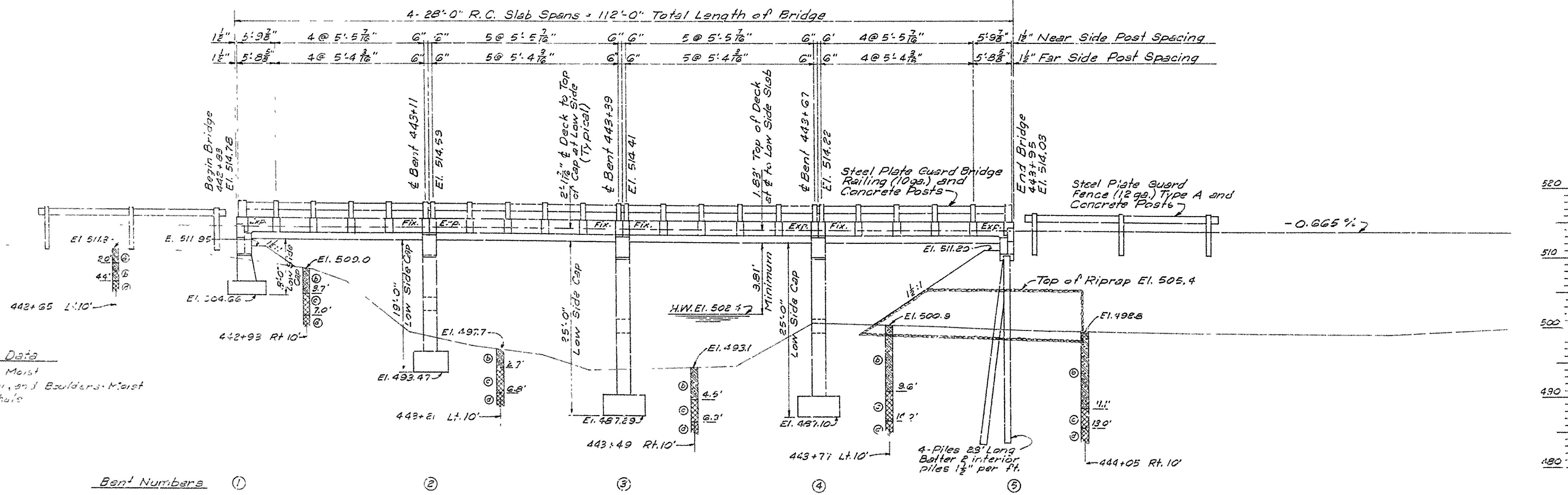
After bridge is completed and open to traffic, contractor shall remove existing 31 ft. timber bridge approximately 100 ft. downstream from new construction. See S.R.1007.

Specifications: Arkansas State Highway Commission
Standard Specifications for Road and Bridge Construction
adopted March 1, 1940.

Loading : H 15 A.A.S.H.O 1957

Unit Stresses: Class A Concrete ($n=15$) 840 p.s.i.
Class S Concrete ($n=10$) 1200 p.s.i.
Reinforcing Steel 20,000 p.s.i.

Foundation pressure = 5000 p.s.f. D.L. + L.L.



LAYOUT OF BRIDGE
OVER JAMES CREEK
FORESTER-NORTHEAST
SCOTT COUNTY

ROUTE 28 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: R.L.G. DATE: 10-18-59
 TRACED BY: _____ DATE: _____ SCALE: 1" = 10'
 CHECKED BY: W.E. VI. DATE: 10-18-59
 BRIDGE NO. **3341** DRAWING NO. **10669**

B.M. - Nail in 10" Snag
1' Rt. Sta. 443+70
El. 435.52

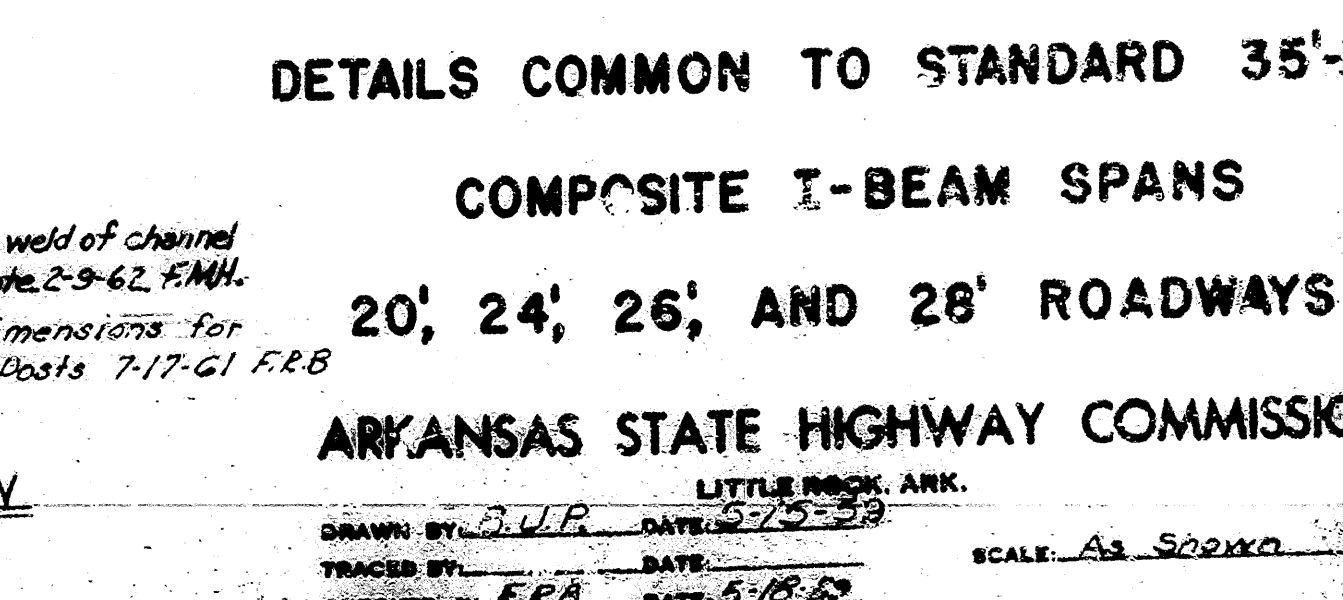
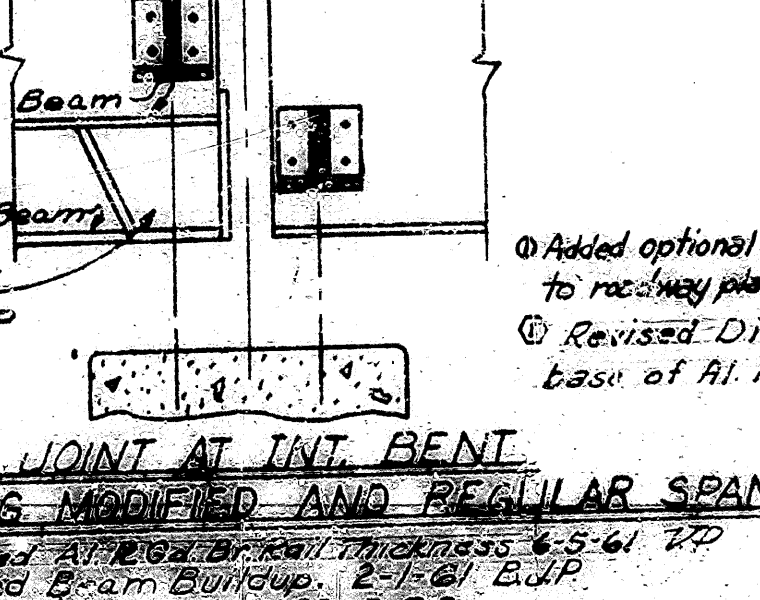
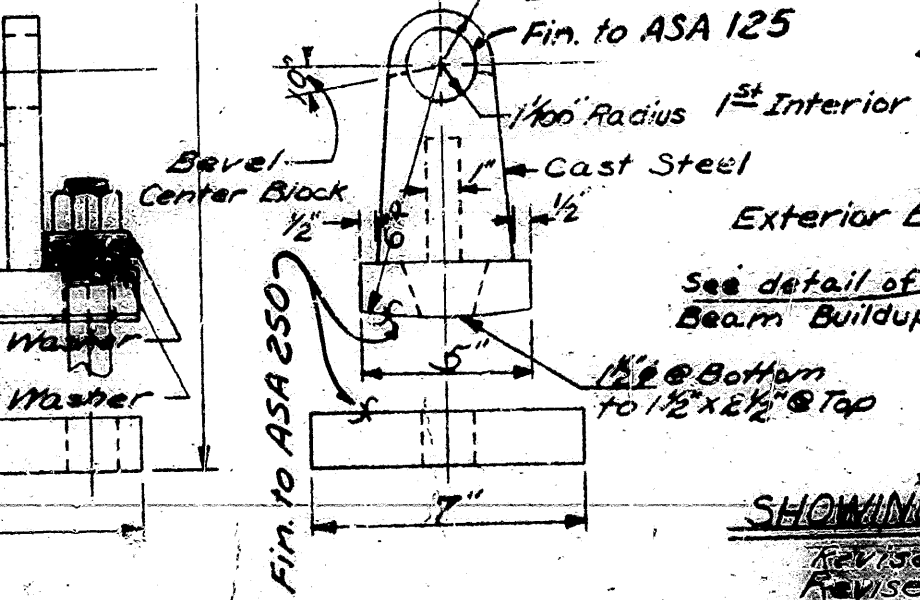
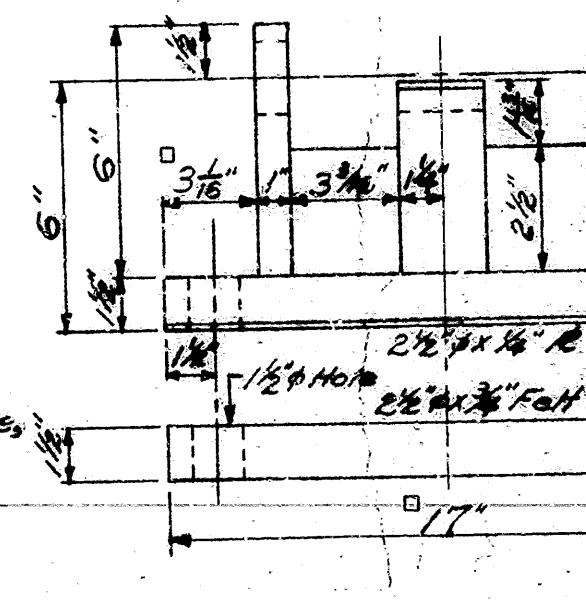
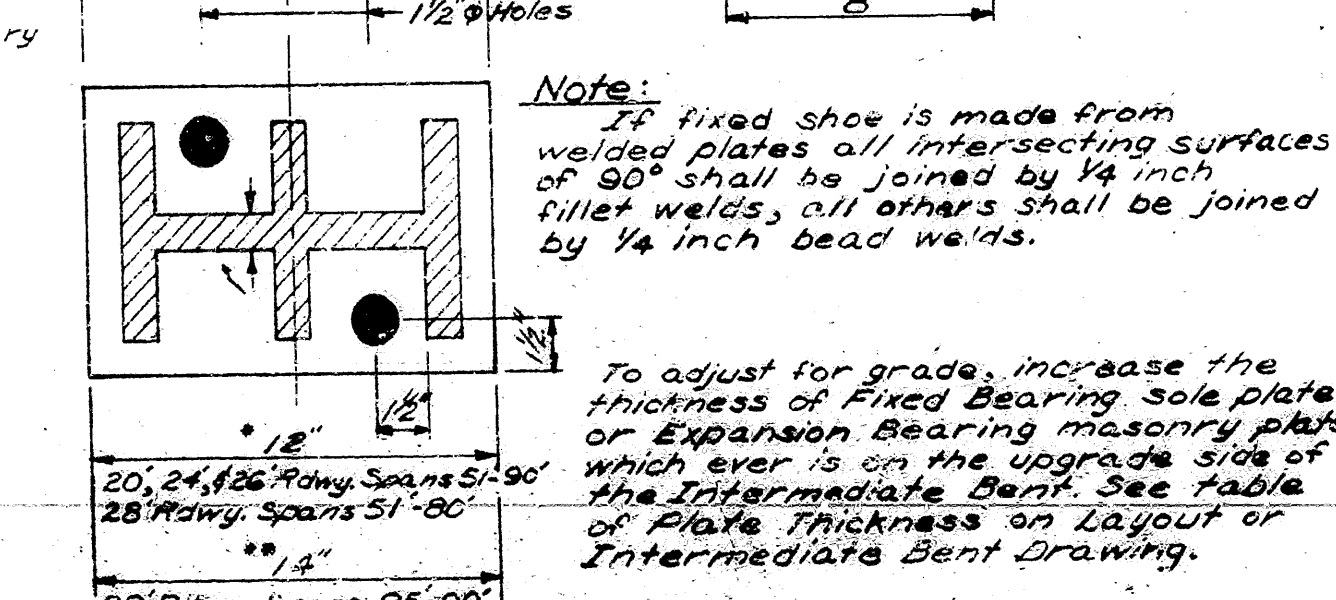
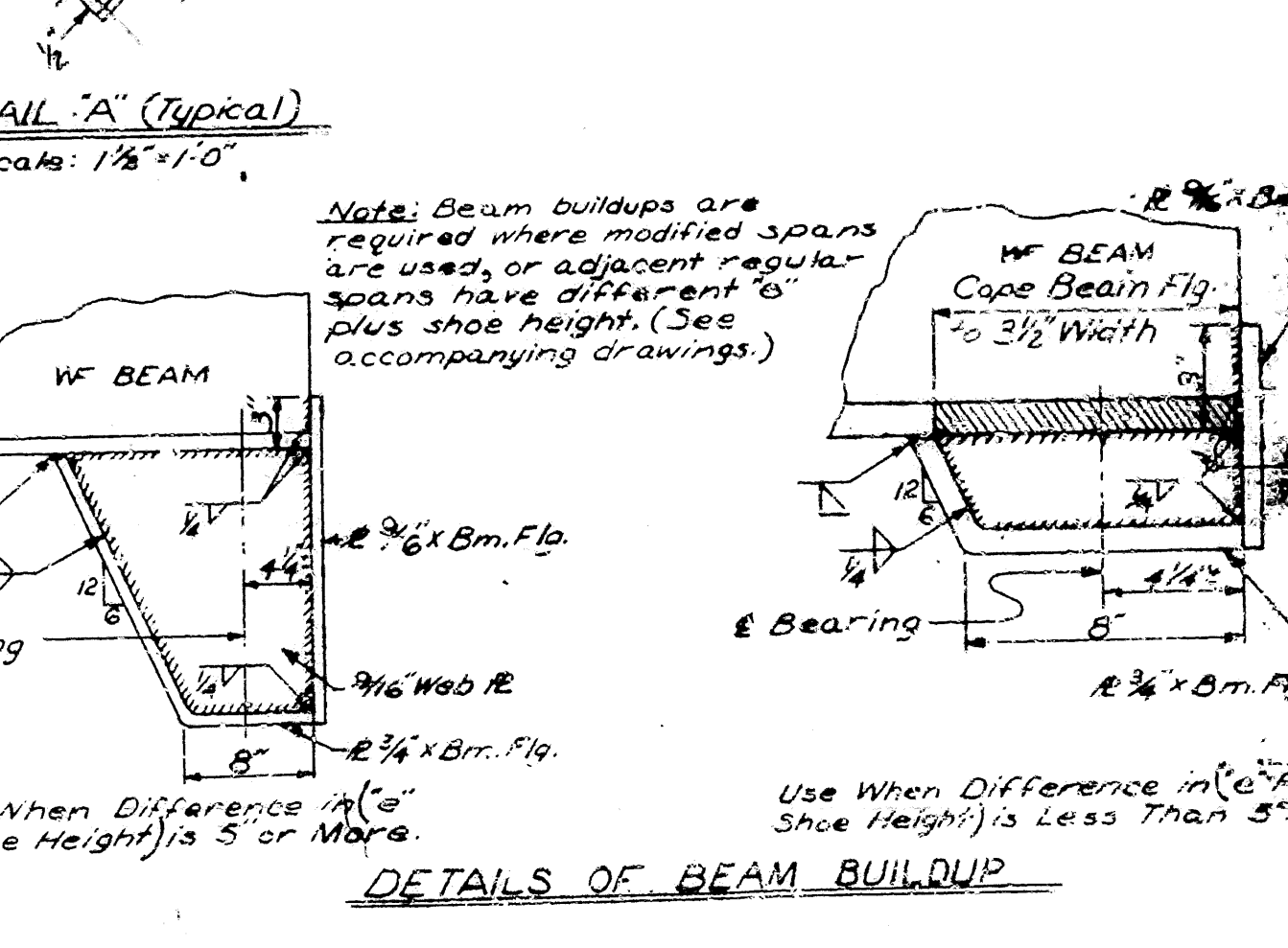
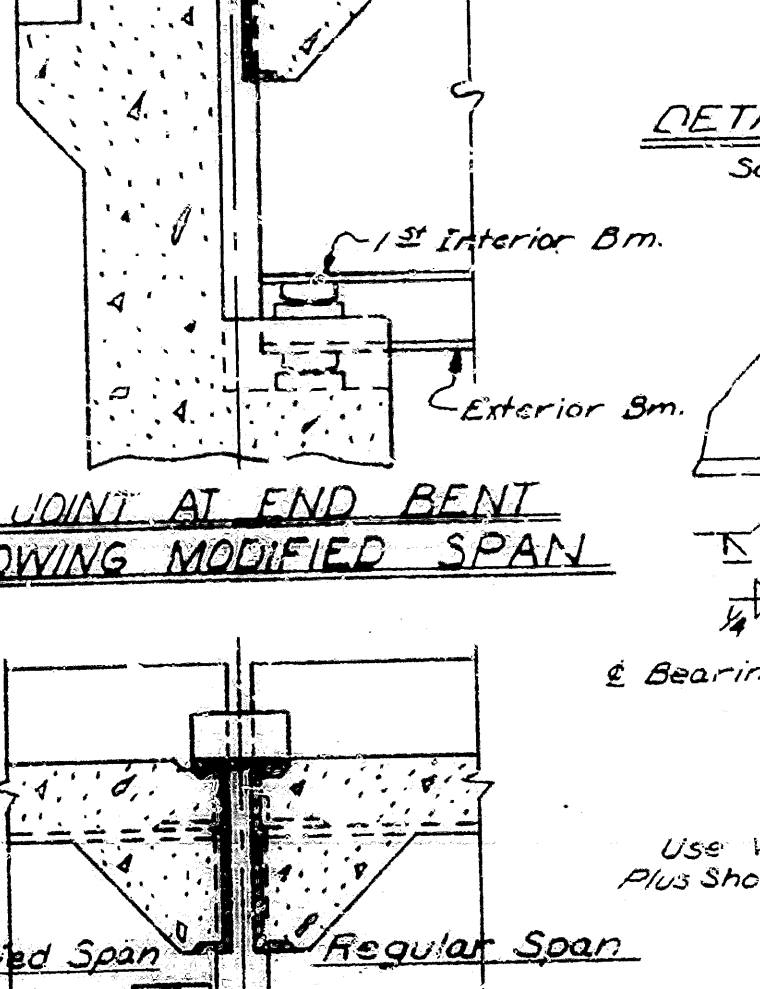
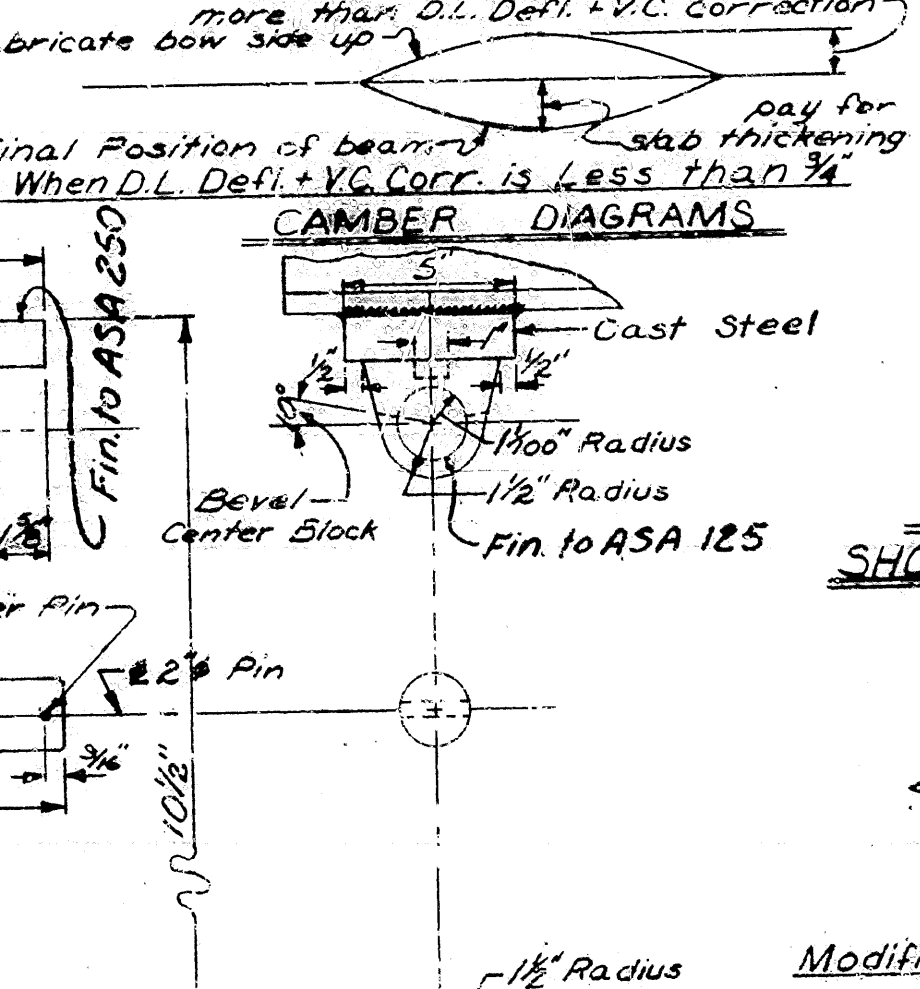
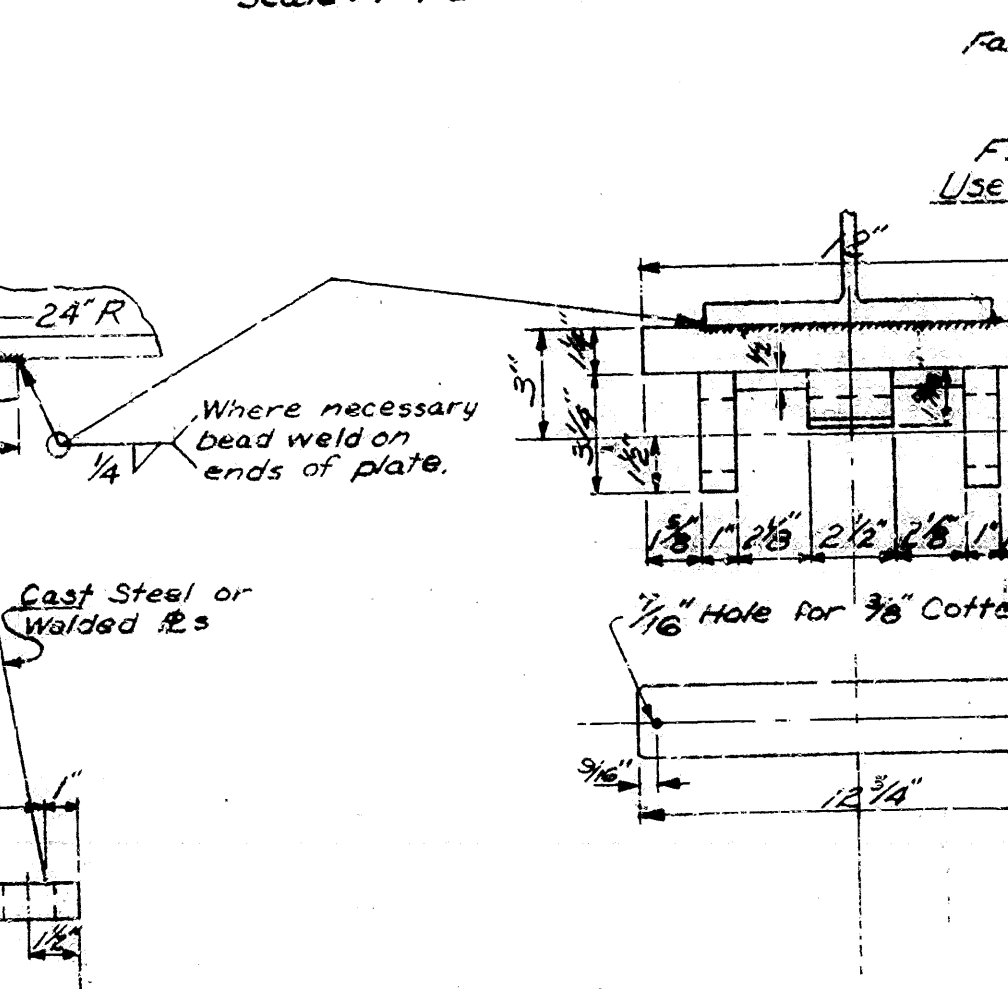
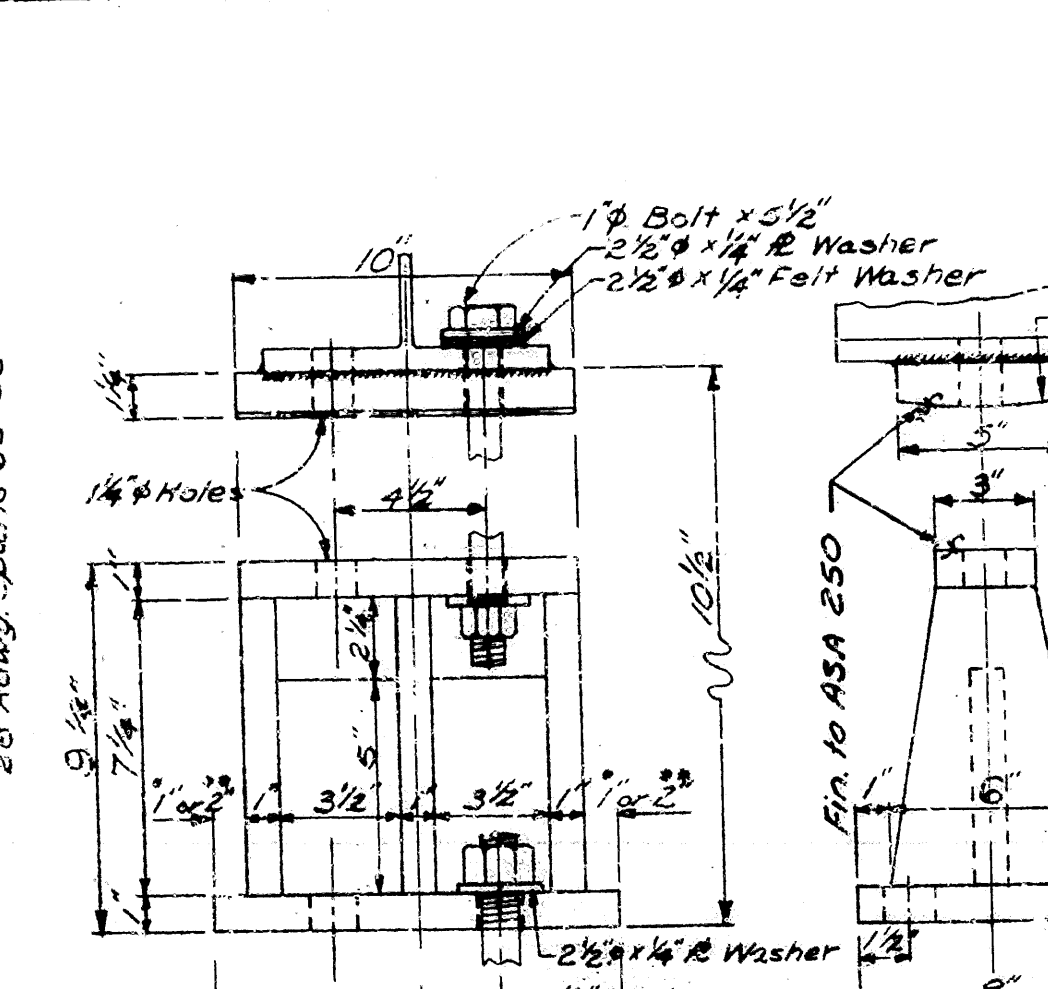
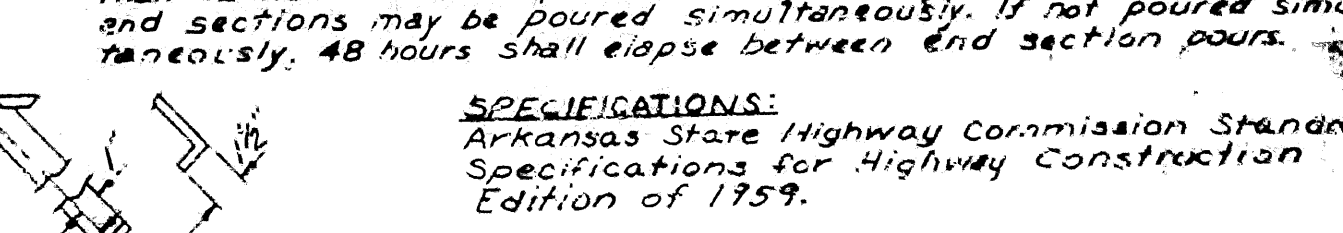
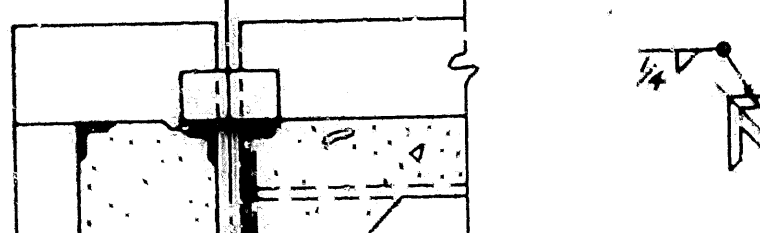
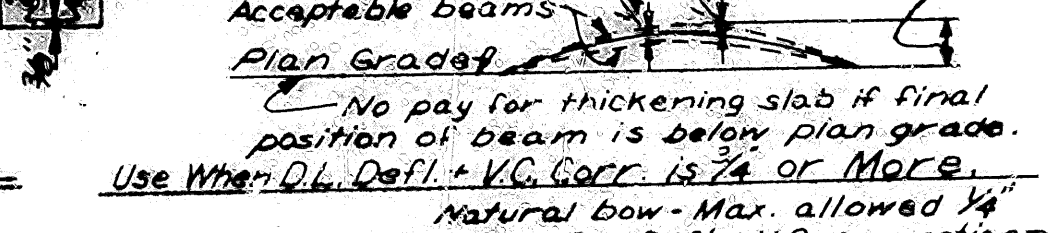
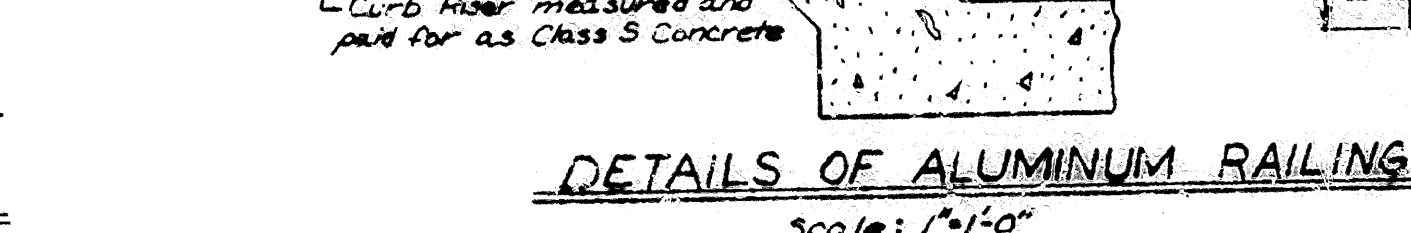
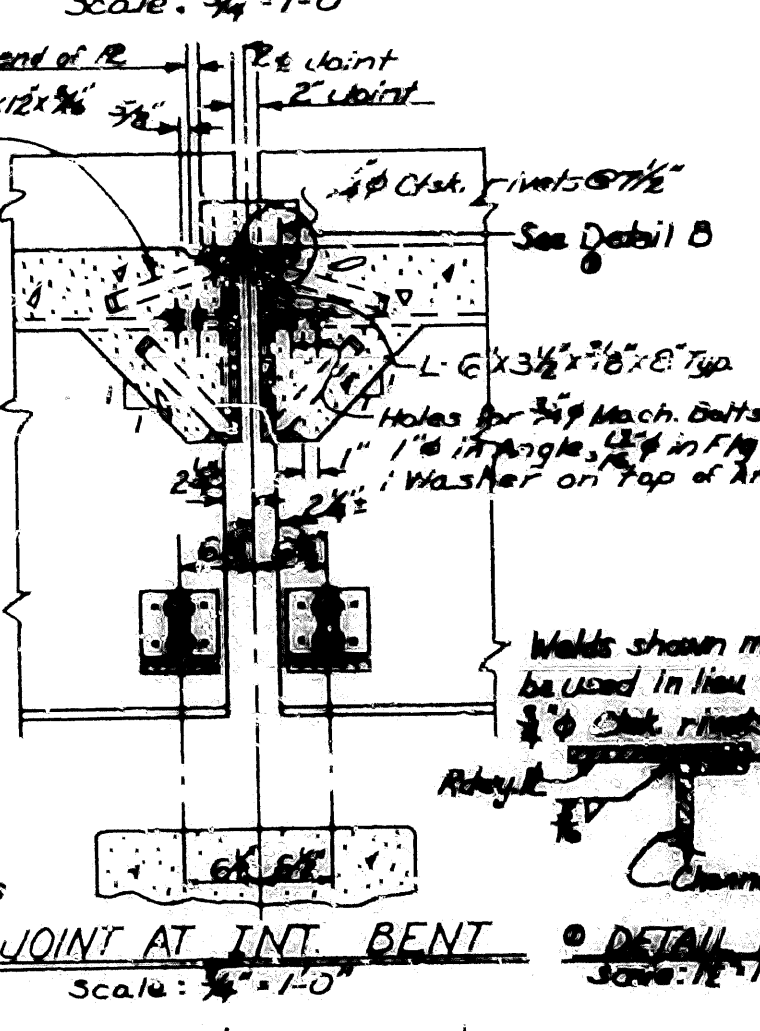
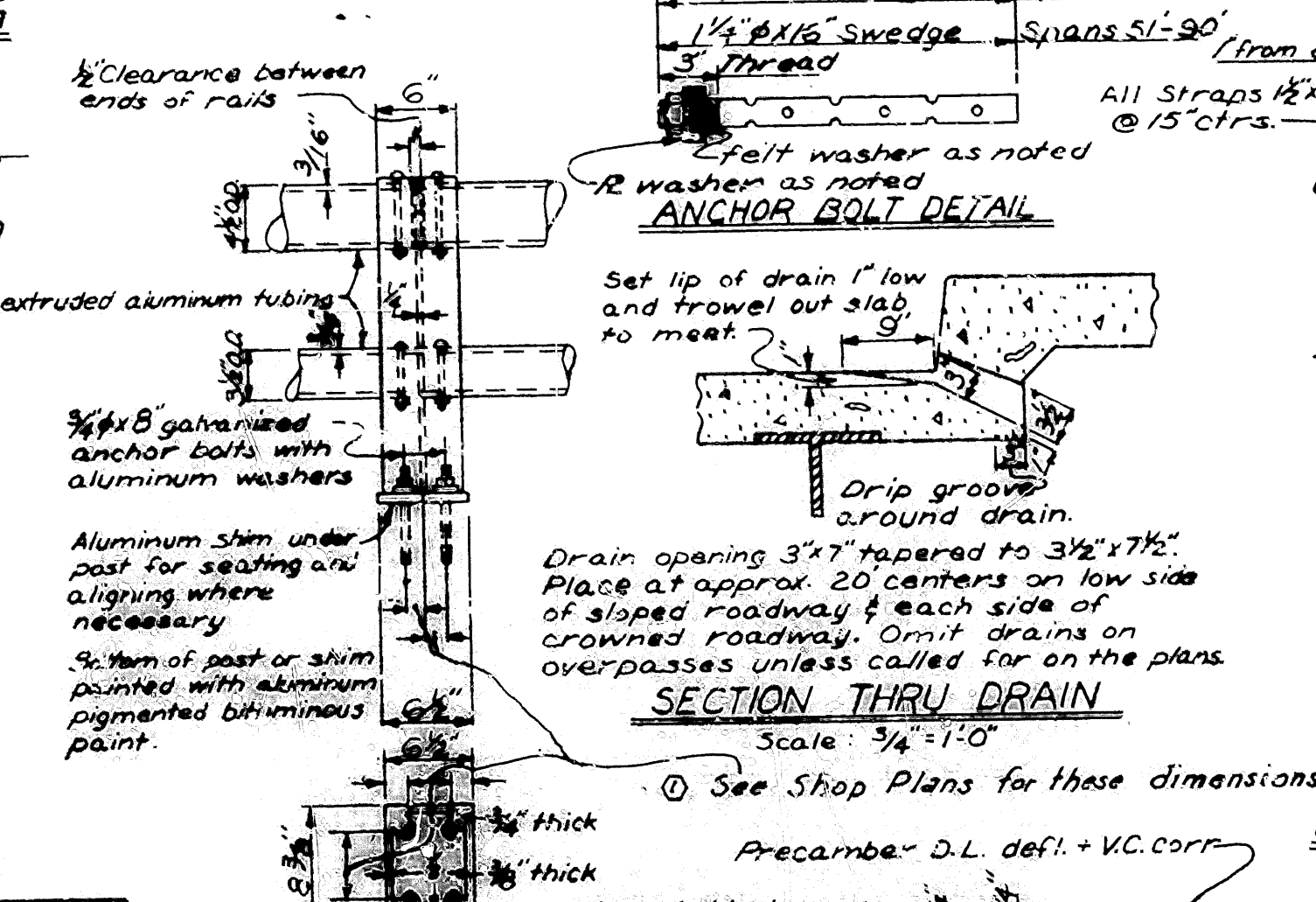
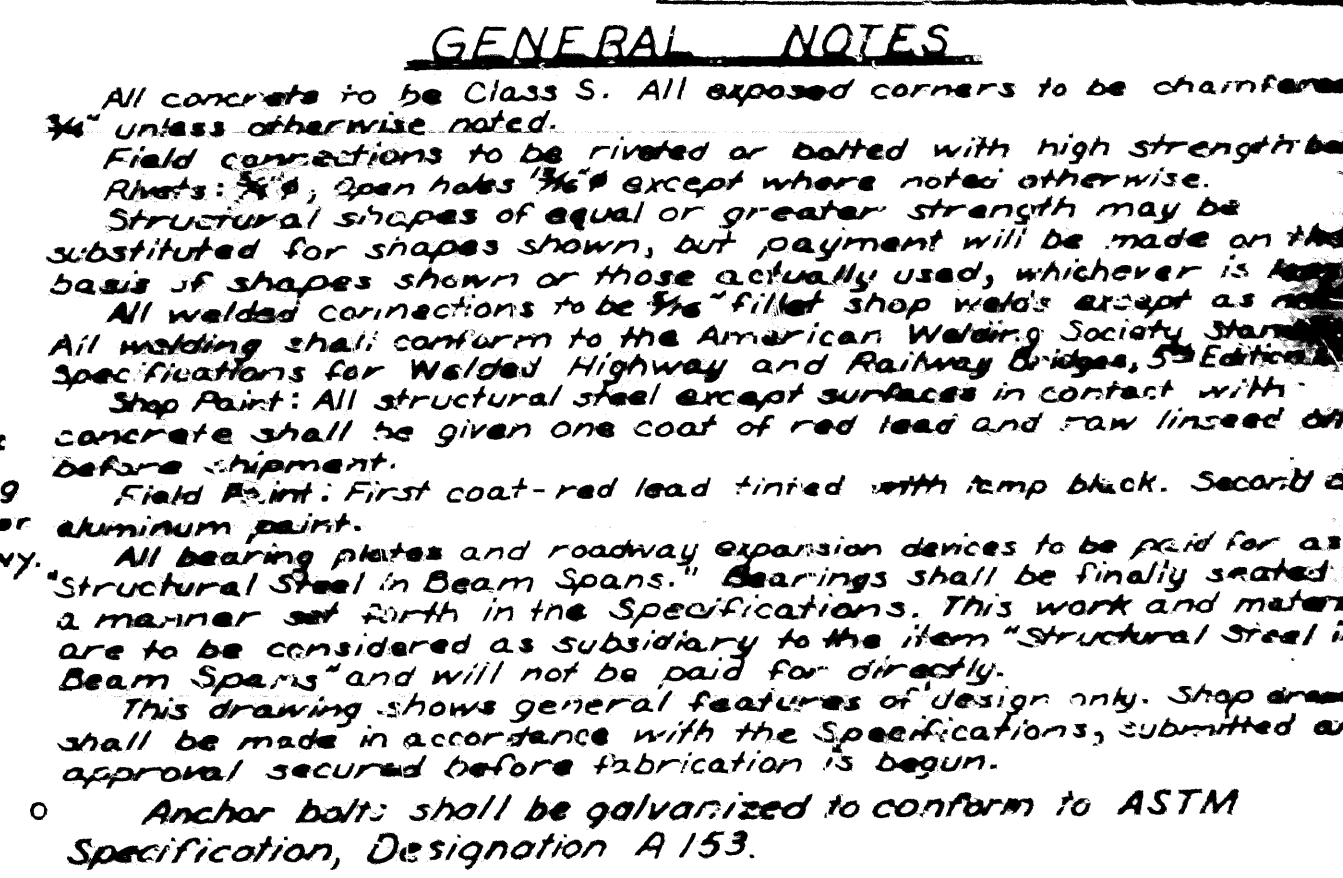
L. P. Carlson
BRIDGE ENGINEER

	10	0	4	4	6	5	6	6	1	7
"	16	16	14	14	17	17	17	17	17	17
"	1	2	3	3	3	3	3	3	3	3
2"	23"	19"	21"	23"	26"	21"	22"	22"	22"	22"
"	2	2	1	1	2	4	4	4	5	7
2"	24"	24"	24"	24"	23"	23"	24"	24"	24"	23"
"	0	0	12"	12"	0	0	10"	12"	11"	0

may be used in place of the channels
 2 inches of channel, 7/8" diameter
 long end automatically end
 flanges of the manufacturer.

structural steel in shear connectors.

MILLS OF STANDARD
 COMPOSITE I-BEAM SPANS
 RDWY. 1'-0" & 1'-1 1/2" CURBS
 ROUTE SEC.
 STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DATE 5-13-69
 BY TE-2139
 SCALE: 1/2" = 1'-0"
 DRAWING NO 5460

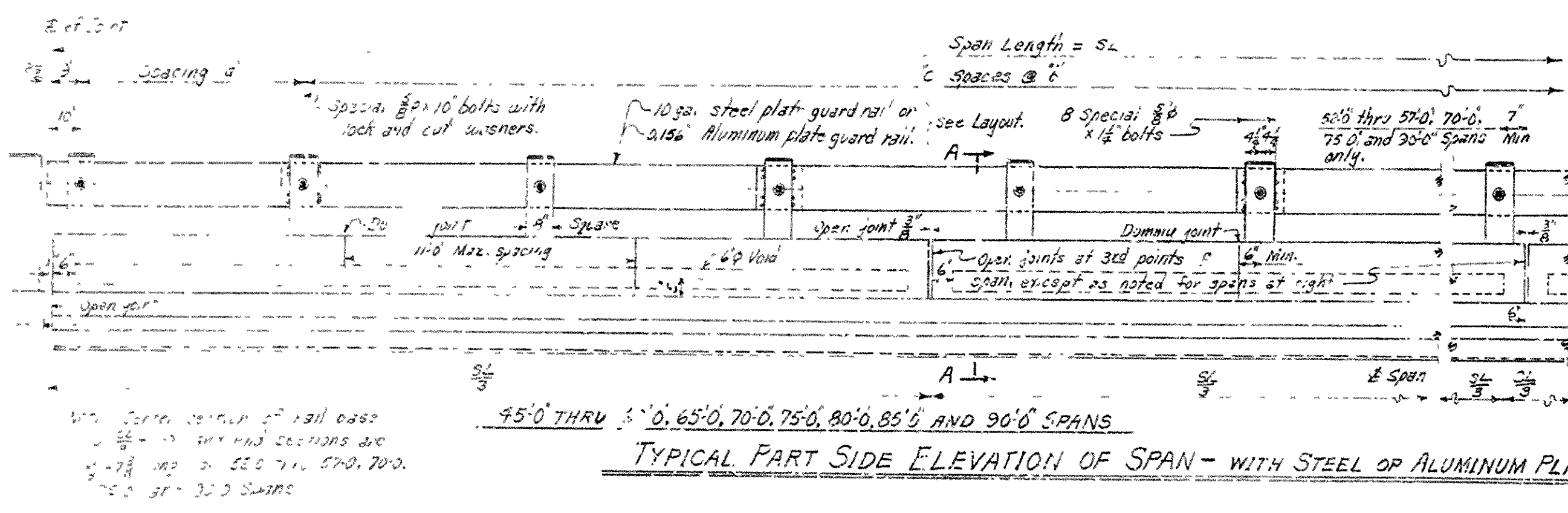


**DETAILS COMMON TO STANDARD 35'-
COMPOSITE I-BEAM SPANS
20', 24', 26', AND 28' ROADWAYS**

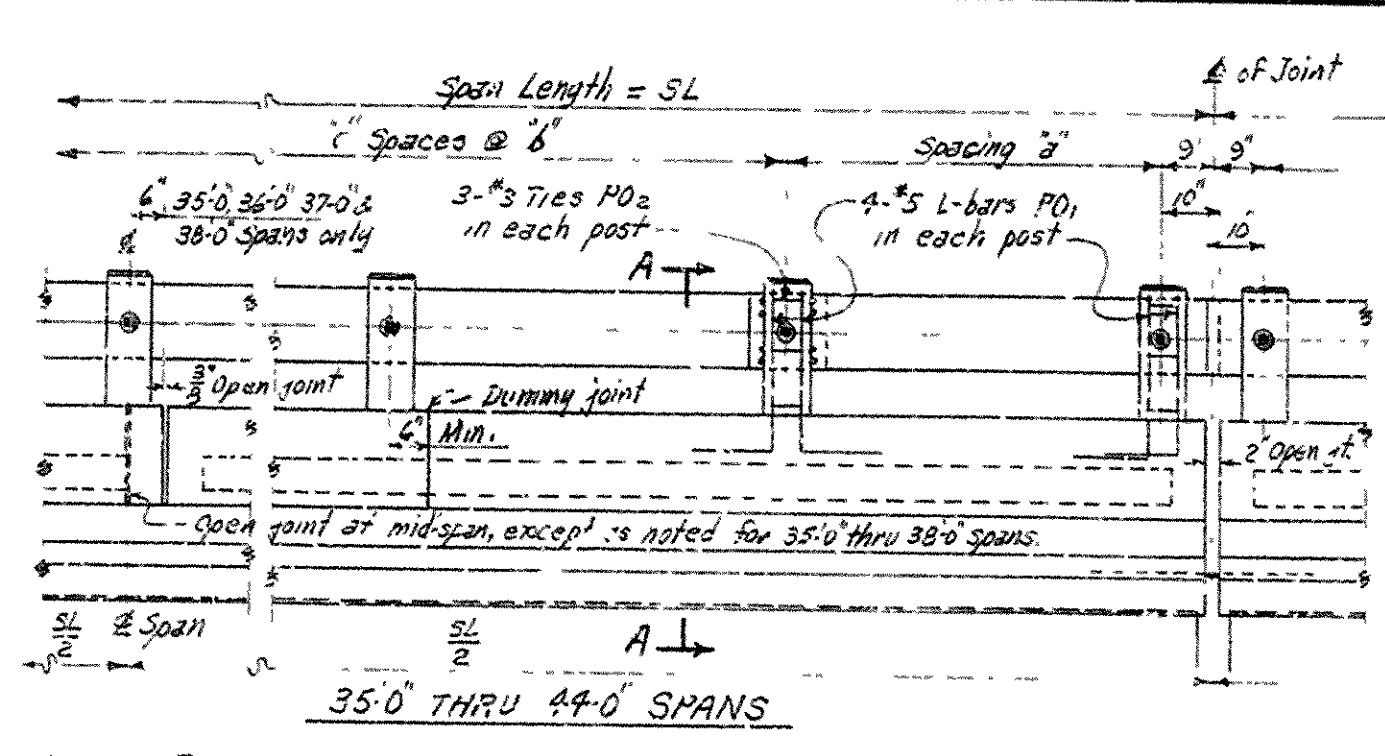
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: BUP DATE: 5-5-58
TRACED BY: EPA DATE: 5-18-58 SCALE: A3 5000'

CHECKED BY: 54 DATE: 5/1/54

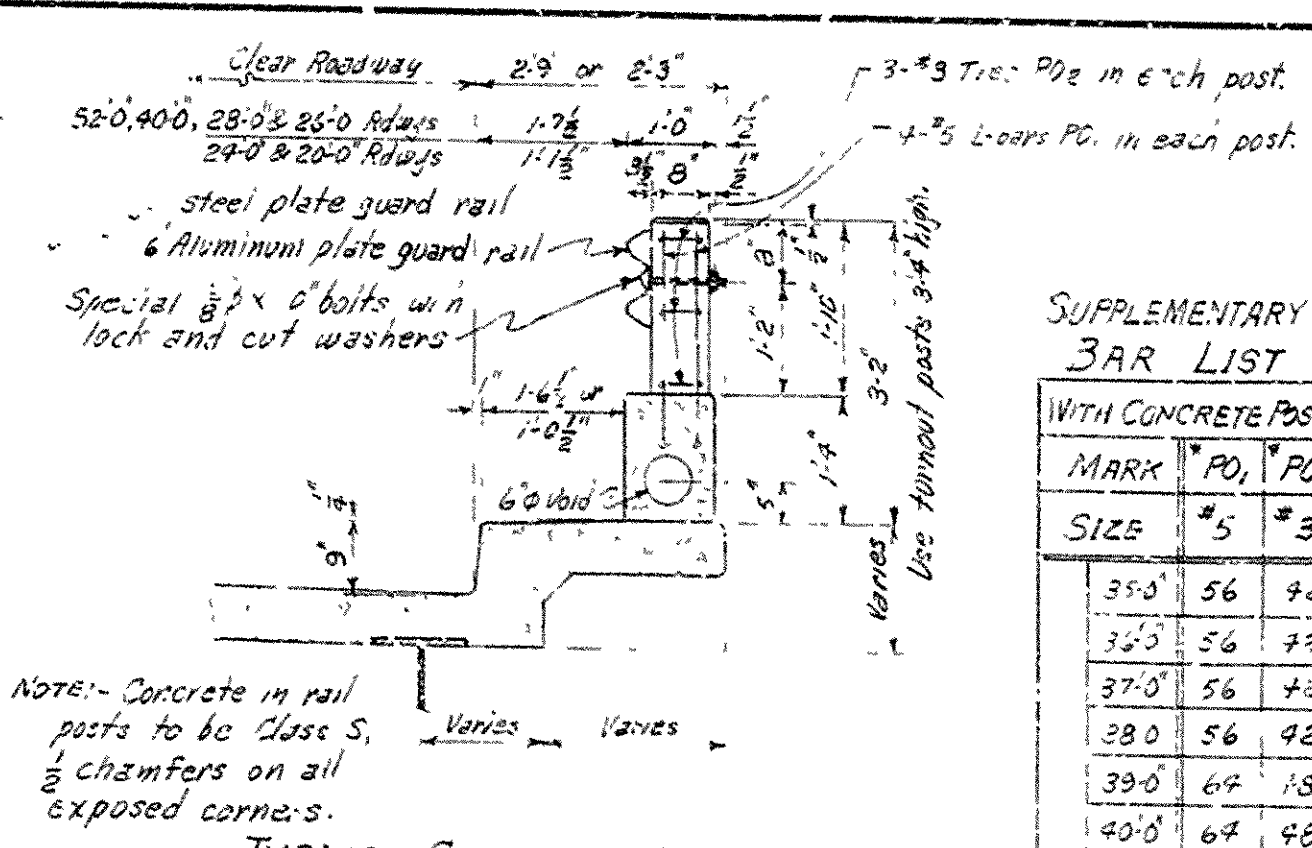
BRIDGE NO. 54 DRAWING NO. 54



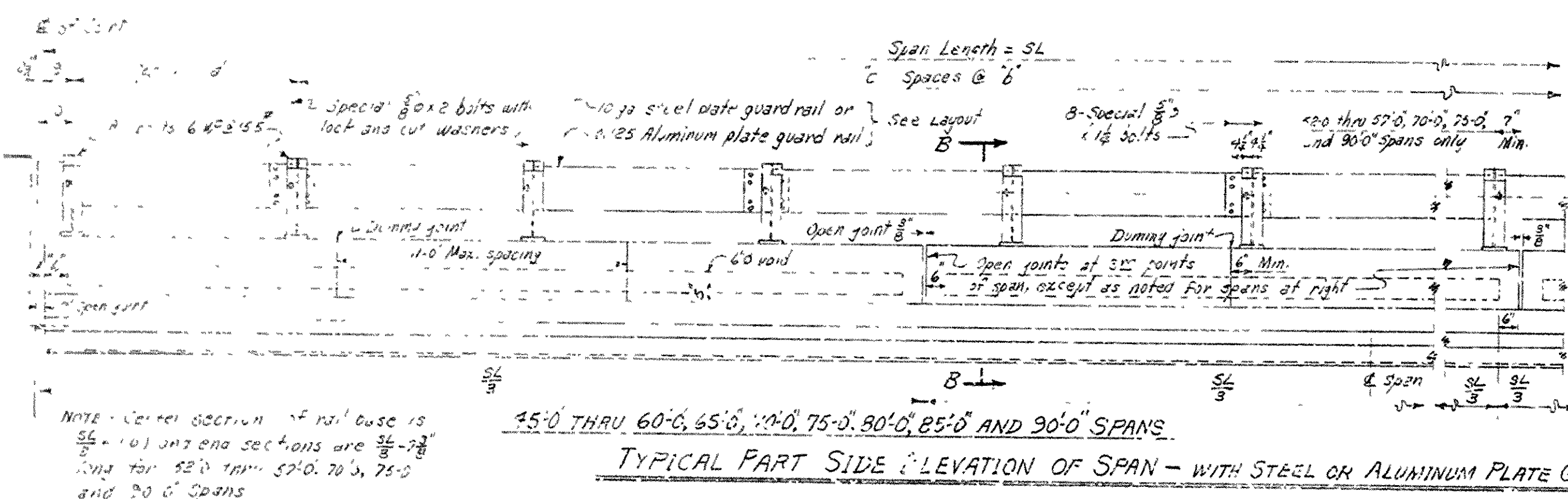
TYPICAL PART SIDE ELEVATION OF SPAN - WITH STEEL OR ALUMINUM PLATE GUARD RAILS AND CONCRETE POSTS



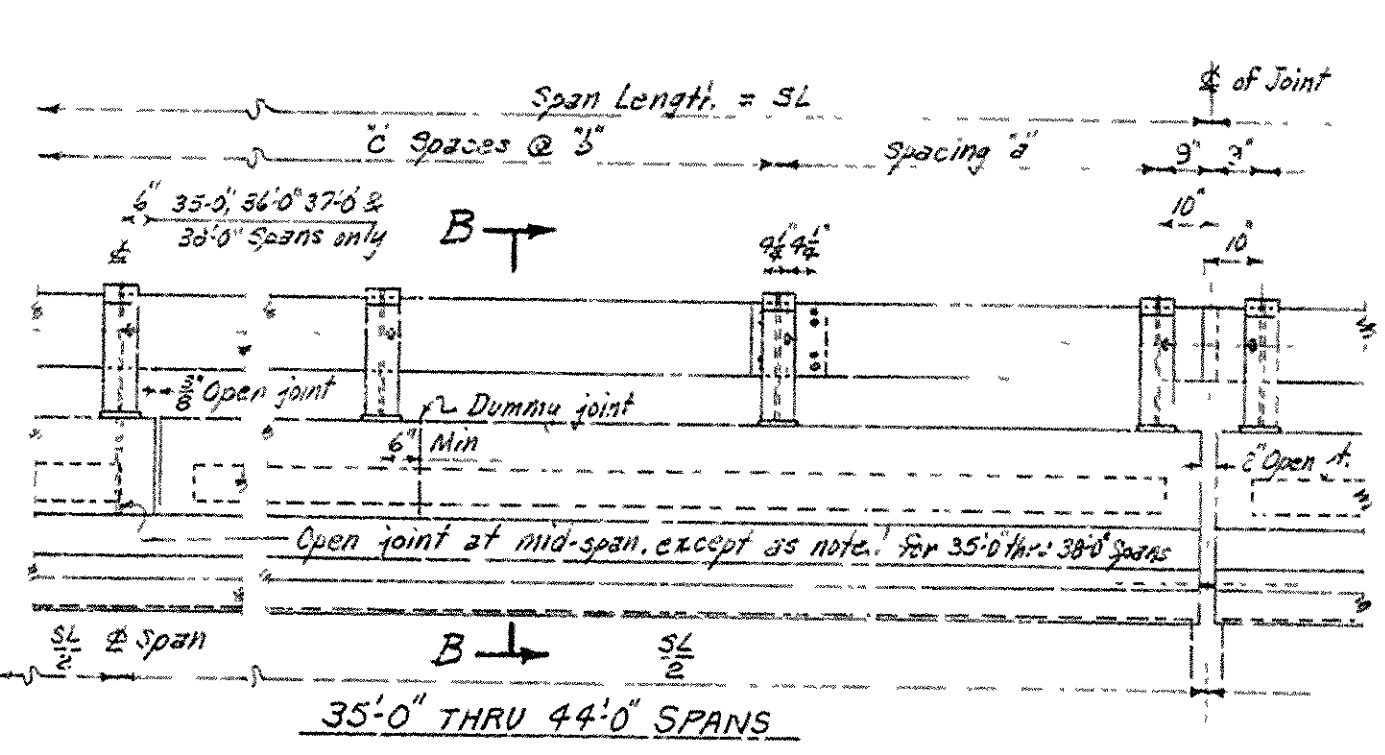
35'0" THRU 44'0" SPANS



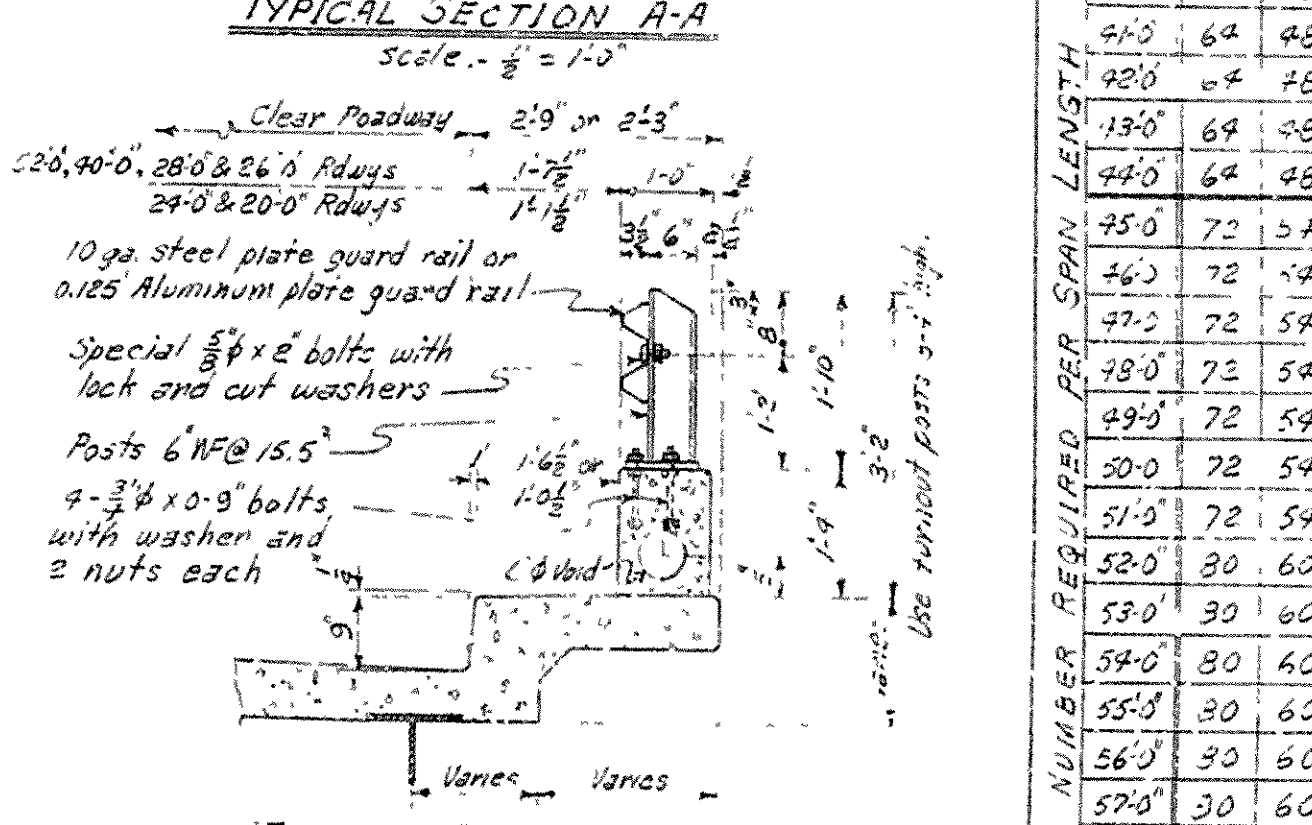
TYPICAL SECTION A-A



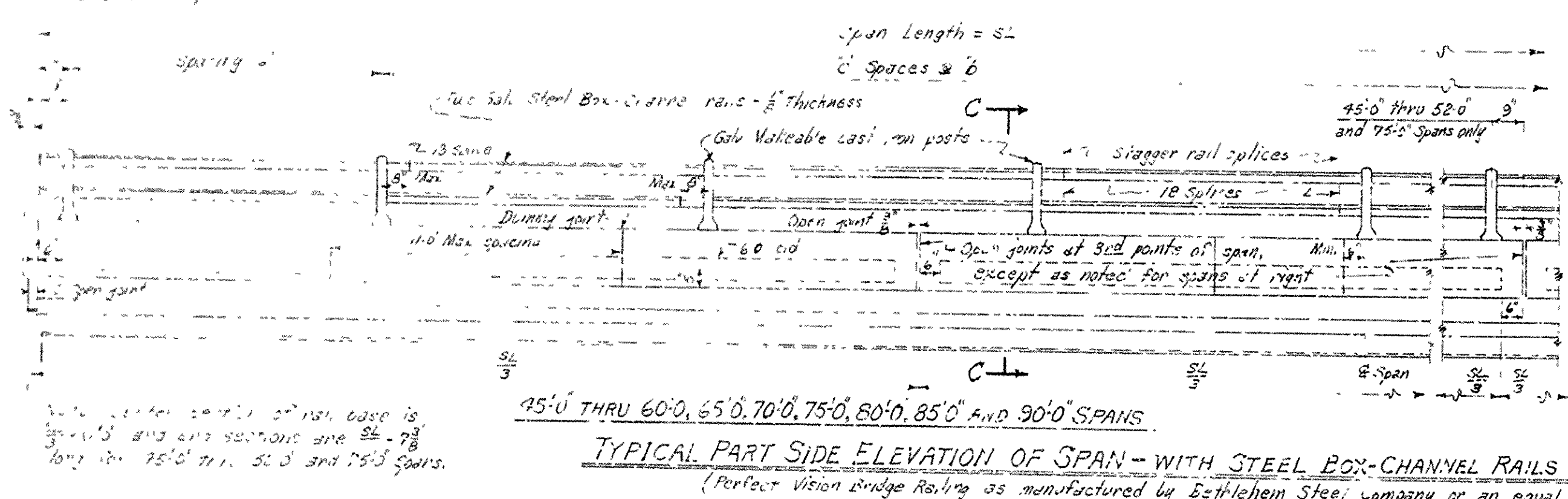
TYPICAL PART SIDE ELEVATION OF SPAN - WITH STEEL OR ALUMINUM PLATE GUARD RAILS AND STEEL POSTS



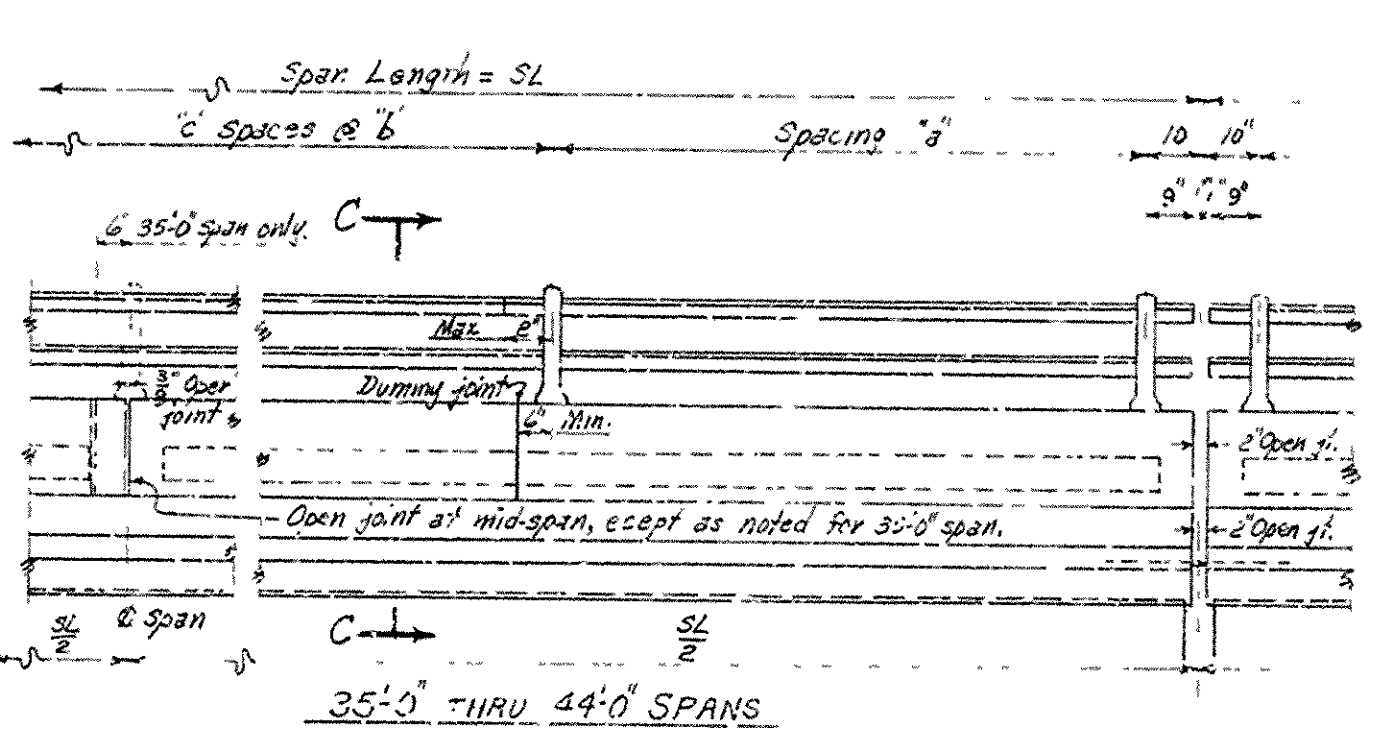
35'0" THRU 44'0" SPANS



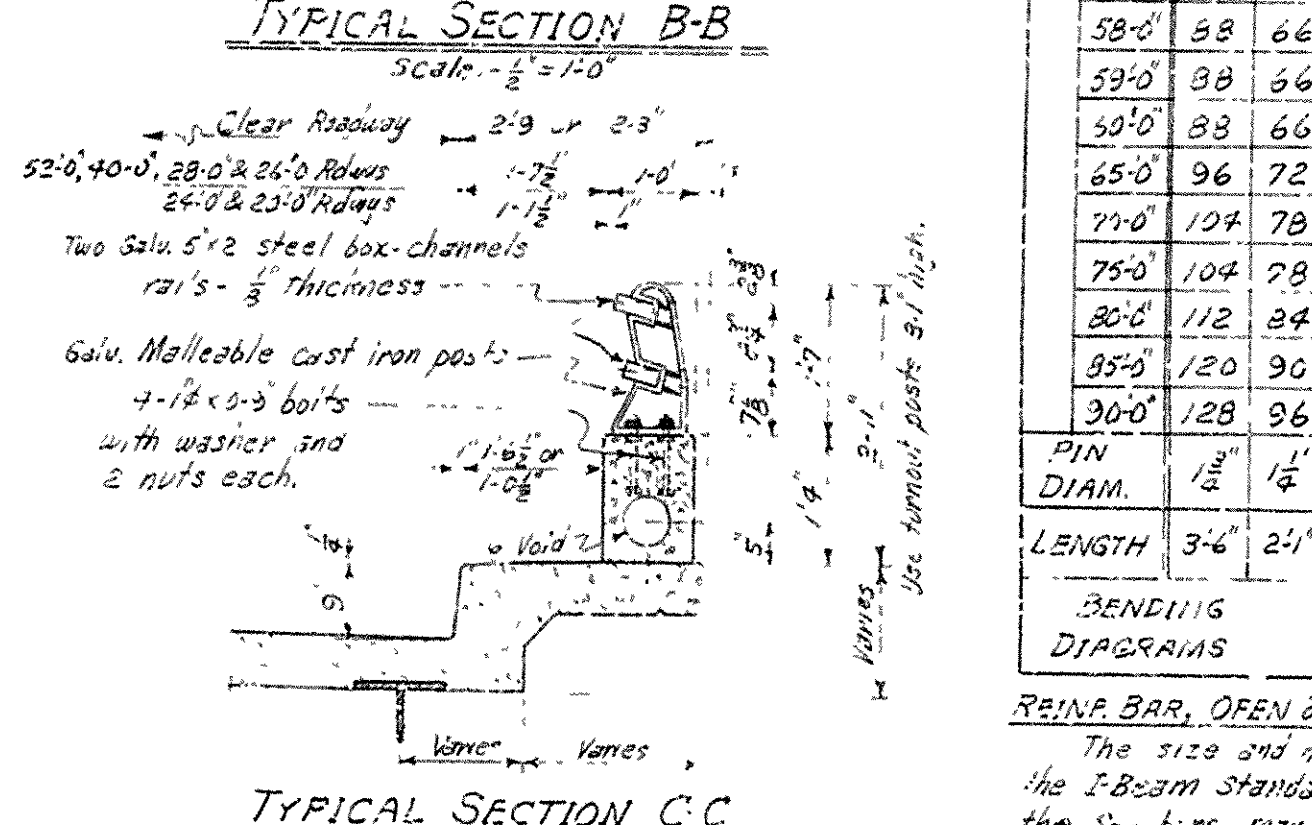
TYPICAL SECTION B-B



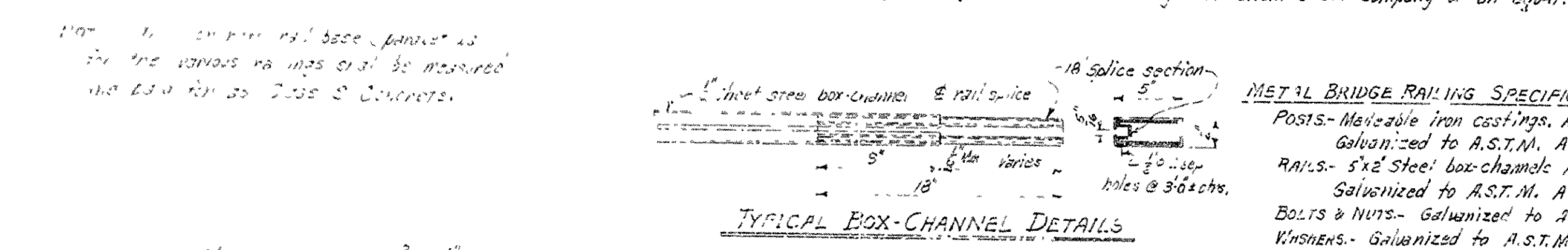
TYPICAL PART SIDE ELEVATION OF SPAN - WITH STEEL BOX-CHANNEL RAILS AND M.C.I. POSTS



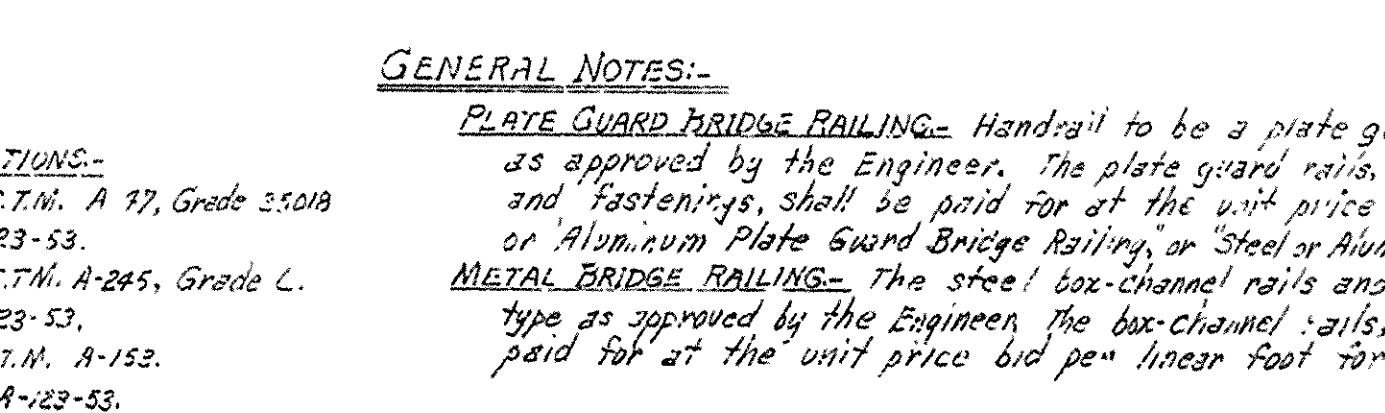
35'0" THRU 44'0" SPANS



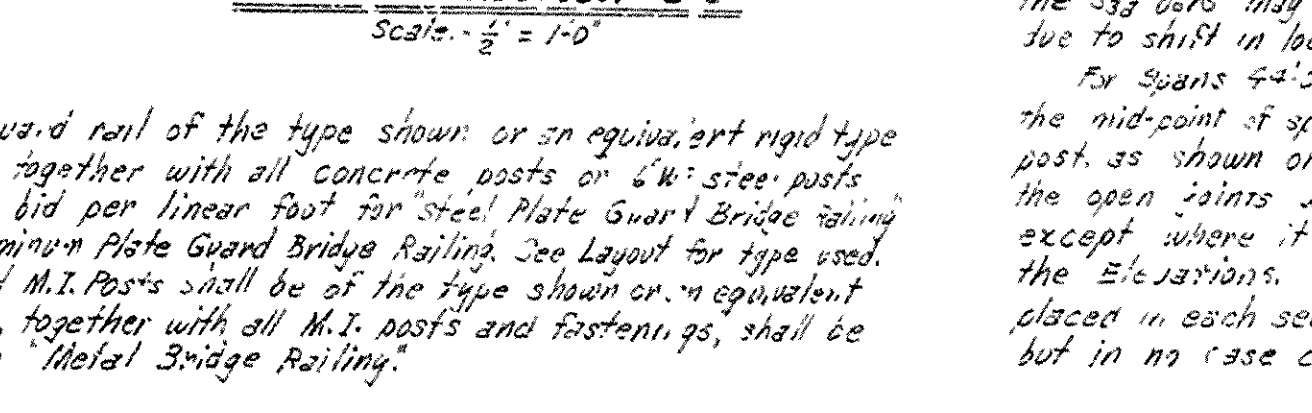
TYPICAL SECTION C-C



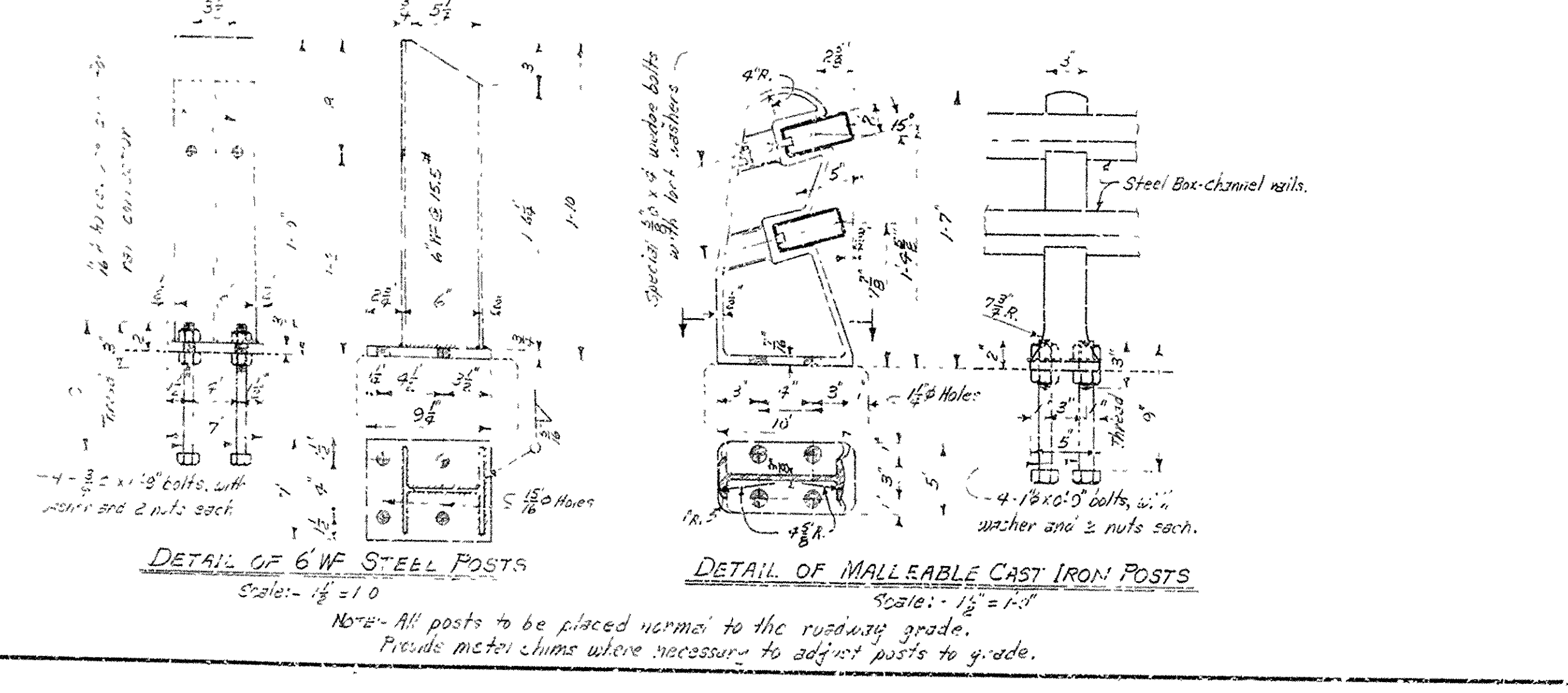
TYPICAL BOX-CHANNEL DETAILS



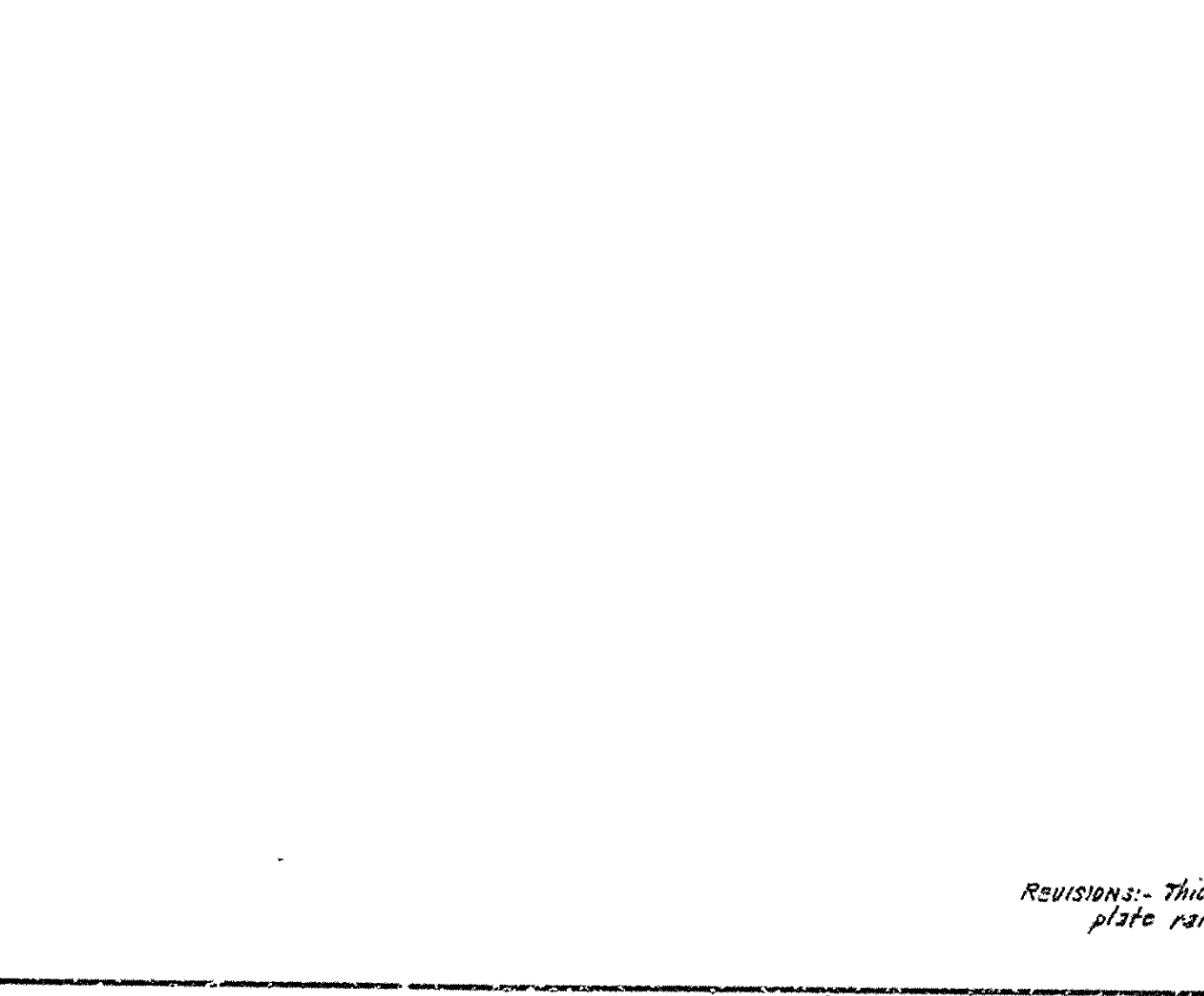
35'0" THRU 44'0" SPANS



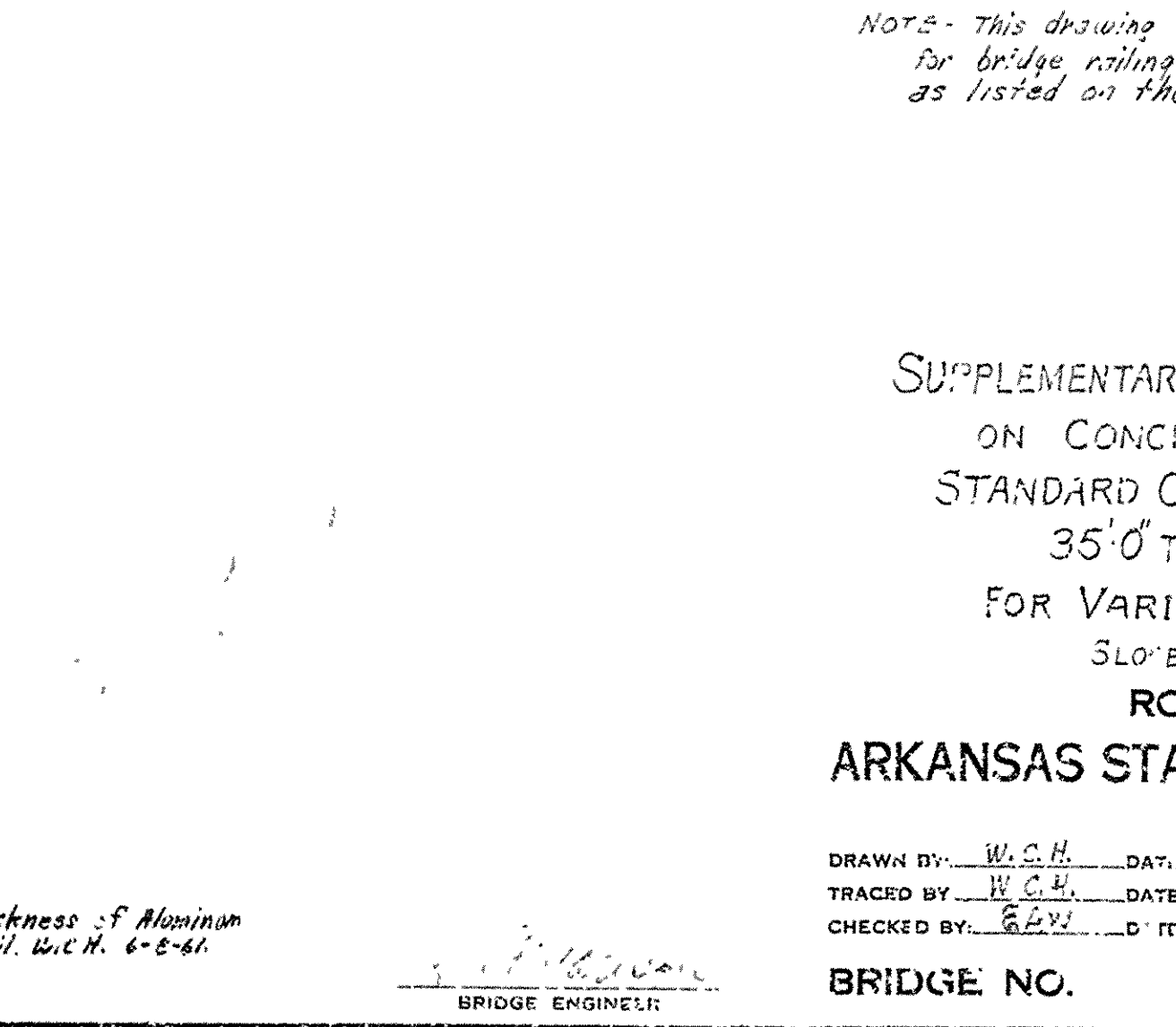
35'0" THRU 44'0" SPANS



DETAIL OF 6WF STEEL POSTS



DETAIL OF MALLEABLE CAST IRON POSTS



DETAIL OF MALLEABLE CAST IRON POSTS

SUPPLEMENTARY RAIL LIST

MARK	SPAN LENGTH	POST SPACING WITH PLATE GUARD RAILS	POST SPACING WITH BOX-CHANNEL RAILS	
			END	INTERIOR
55'0"	56'0"	4'0"	5'0"	4'0"
56'0"	57'0"	4'0"	5'0"	4'0"
57'0"	58'0"	4'0"	5'0"	4'0"
58'0"	59'0"	4'0"	5'0"	4'0"
59'0"	60'0"	4'0"	5'0"	4'0"
60'0"	61'0"	4'0"	5'0"	4'0"
61'0"	62'0"	4'0"	5'0"	4'0"
62'0"	63'0"	4'0"	5'0"	4'0"
63'0"	64'0"	4'0"	5'0"	4'0"
64'0"	65'0"	4'0"	5'0"	4'0"
65'0"	66'0"	4'0"	5'0"	4'0"
66'0"	67'0"	4'0"	5'0"	4'0"
67'0"	68'0"	4'0"	5'0"	4'0"
68'0"	69'0"	4'0"	5'0"	4'0"
69'0"	70'0"	4'0"	5'0"	4'0"
70'0"	71'0"	4'0"	5'0"	4'0"
71'0"	72'0"	4'0"	5'0"	4'0"
72'0"	73'0"	4'0"	5'0"	4'0"
73'0"	74'0"	4'0"	5'0"	4'0"
74'0"	75'0"	4'0"	5'0"	4'0"
75'0"	76'0"	4'0"	5'0"	4'0"
76'0"	77'0"	4'0"	5'0"	4'0"
77'0"	78'0"	4'0"	5'0"	4'0"
78'0"	79'0"	4'0"	5'0"	4'0"
79'0"	80'0"	4'0"	5'0"	4'0"
80'0"	81'0"	4'0"	5'0"	4'0"
81'0"	82'0"	4'0"	5'0"	4'0"
82'0"	83'0"	4'0"	5'0"	4'0"
83'0"	84'0"	4'0"	5'0"	4'0"
84'0"	85'0"	4'0"	5'0"	4'0"
85'0"	86'0"	4'0"	5'0"	4'0"
86'0"	87'0"	4'0"	5'0"	4'0"
87'0"	88'0"	4'0"	5'0"	4'0"
88'0"	89'0"	4'0"	5'0"	4'0"
89'0"	90'0"	4'0"	5'0"	4'0"

REIN. BAR, OPEN & DUMMY JOINT NOTES FOR RAIL BASE:-
The size and number of #3 bars will be the same as for the I-beam standard used. The number and length of the #3 bars may vary from that shown on the I-beam std. due to shift in location of open joints in the rail base.
For spans 44' and under the open joint will occur at the mid-point of span, except where it is shifted to clear post as shown on elevations. For spans 45' thru 90' the open joints will occur at the third-points of span, except where it is shifted to clear posts, as shown in the elevations. One or more dummy joints shall be placed in each section of the rail base, (1/4" min. spacing) but in no case closer than 6' from E or of pos. s.

NOTE: This drawing to be used as a supplementary drawing for bridge railing to the standard or special drawings as listed on the layout sheet of each bridge.

SUPPLEMENTARY DETAILS OF BRIDGE RAILING ON CONCRETE PARAPET WALL FOR STANDARD COMPOSITE I-BEAM SPANS 35'0" TO 90'0" SPANS INCL. FOR VARIOUS WIDTHS OF ROADWAYS SLOPED AND CROWNED ROADWAY

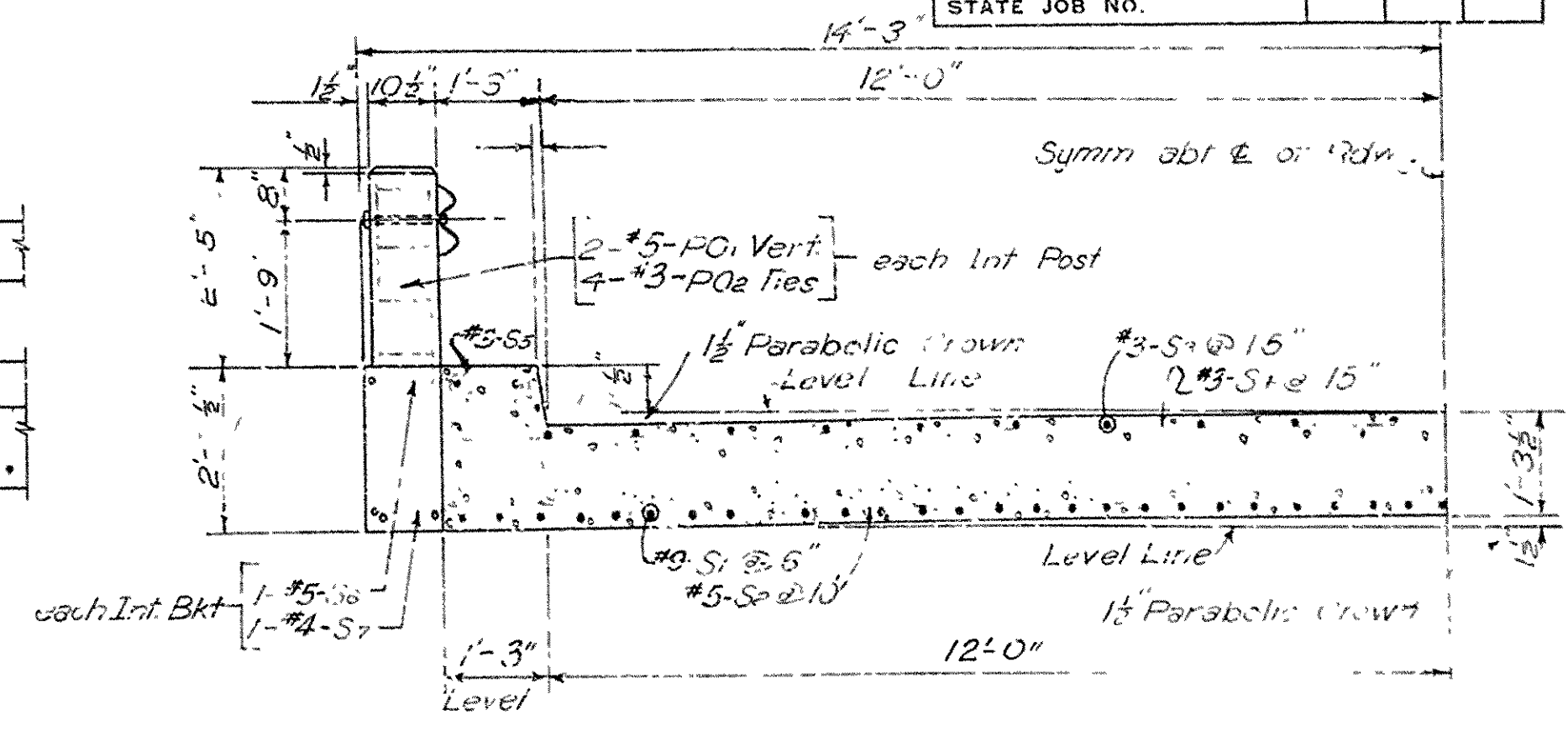
ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

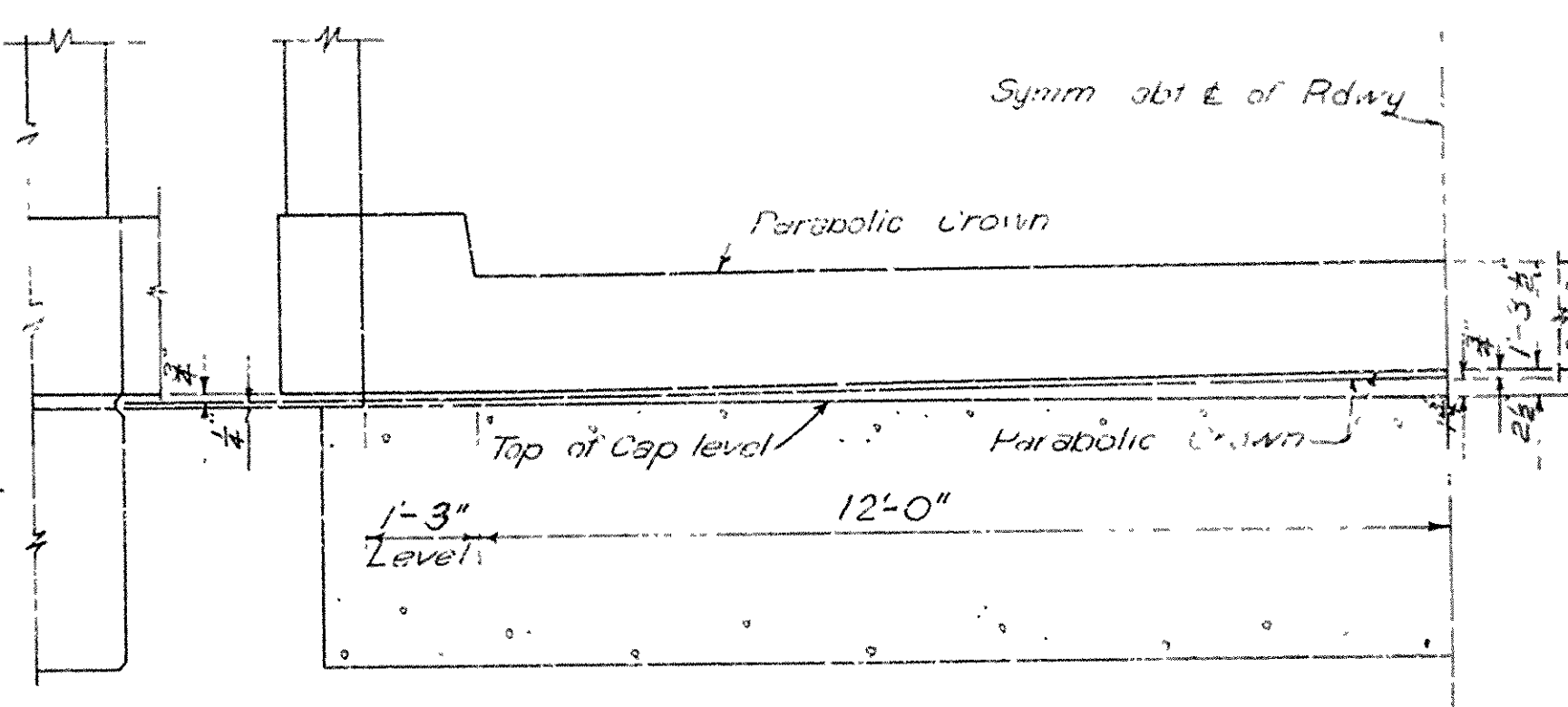
LITTLE ROCK, ARK.

DRAWN BY: W. C. H. DATE: 11-30-60
TRACED BY: W. C. H. DATE: 12-6-60
CHECKED BY: G. E. V. DATE: 1-2-61

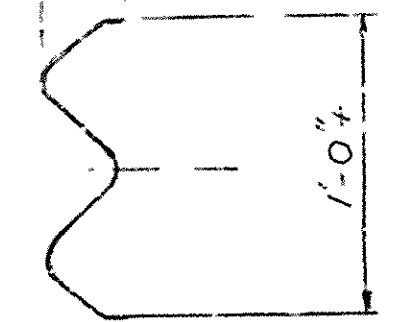
BRIDGE NO. DRAWING NO. 5462-4.



TYPICAL CROSS SECTION
SCALE $\frac{1}{2}$ " = 1'-0"



SHOWING HOW THICKNESS OF PARABOLIC SLAB IS
INCREASED AT BENT TO MEET LEVEL CAP.
SCALE $\frac{1}{4}'' = 1'-0''$



SECT. OF GUARD RAIL

MARK	SIZE	LENGTH	
S1	#9	27'-8"	Straight
S2	#5	26'-2"	
S3	#3	27'-8"	
S4	#3	26'-2"	
S5	#3	3'-10"	
S6	#5	10'-2"	
S7	#4	6'-7"	
S8	#5	2'-7"	
S9	#4	3'-6"	
PO1	#5	9'-1"	
PO2	#3	2'-10"	
PO3	#3	4'-4"	
PO4	#5	4'-3"	

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

Drip groove $3/4" \times 12"$ around drain hole.

DETAIL B
SECTION THRU DRAIN OPENING
SCALE: $\frac{3}{4}" = 1'-0"$

9-15-59 24'-0" CLEAR RDWY. 1'-0" CURBS
7-15-60

Drawn By: W.H.M. Date: 5-5-52
Traced By: L.W.H. Date: 6-15-55 Chd. PAF 6-17-55 Scale: As noted
Checked By: --- Date: 7-13-56
BRIDGE NO. DRAWING NO. 5492

FILED ROAD DIST. NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
0	ARK.				
STATE JOB NO.					

LIST OF REINFORCING STEEL									
Size	No. of Bars in Each Span					Length	Bending Diagram		
5	60	65	70	75	80	85	90	2'-4"	
5	104	112	120	130	138	146	154	2'-5"	Str
5	51	55	60	64	68	73	77	2'-5"	Str
4	141					3'-11"	Str	Symmetrical about C	
4	104	112	120	130	138	146	154	4'-6"	
4	102	110	120	128	136	146	154	3'-0"	
5	44	48	52	56	60	64	68	5'-4"	
3	66	72	78	84	90	96	102	2'-8"	

Dimensions shown are to centers of bars
* Non-Pay items

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered $\frac{1}{4}$ ".
Field connections for diaphragms to be riveted or bolted with high strength bolts. Open holes to be except where noted otherwise.
Structural shapes of equal or greater strength may be substituted for shapes shown but payment will be made on basis of shapes shown or those actually used, whichever is less.
All welded connections to be $\frac{1}{8}$ " fillet shop welds except as noted. All welding shall conform to the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, 5th Edition 1956.
Shop Paint: All structural steel except surfaces in contact with concrete shall be given one coat of red lead and raw linseed oil before shipment.
Field Paint: 1st Coat - Red lead lined with lamp black.
2nd Coat - Aluminum Paint.
All bearing plates and roadway expansion devices to be paid for as "Structural Steel in Beam Spans". Bearings shall be finally seated in the manner set forth in the Specifications. This work and material are to be considered as subsidiary to the item "Structural Steel in Beam Spans" and will not be paid for directly.
This drawing shows general features of design only. Shop drawings shall be made in accordance with the Specifications submitted and a, proper secured before fabrication is begun.

Reinforcing steel to be deformed bars of intermediate or hard grade; See Special Provisions. Steel to be accurately located in the forms and firmly held in place by means of steel wire supports, sufficient in number and size to prevent displacement during the course of construction. The wire supports will not be paid for directly but will be considered subsidiary to the item of Reinforcing Steel.
Shop lists and bending diagrams of reinforcing steel, including wire supports shall be submitted and approved before fabrication is begun.
Steel or Aluminum Plate Guard Bridge Railing shall be the type shown or an equivalent rigid type as approved by the Engineer. The railing including posts and fastenings shall be paid for at the unit price bid per linear foot for "Steel (10ga.) or Aluminum (0.25") Plate Guard Bridge Railing".
SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1955.

DESIGN SPECIFICATIONS - AASHTO 1957

Design Live Load H-15

LOAD DISTRIBUTION

	Interior Stringer	Exterior Stringer
Dead Load	14" Bm Action	122% + 1.1% (of Bm) 577% + 1.1% (of Bm)
Composite Bm Action	90%	60%
Live Load (Composite Beam Action)	Each Stringer 1045 Wheels + Impact or 0.52 Lanes + Impact	

DESIGN UNIT STRESSES

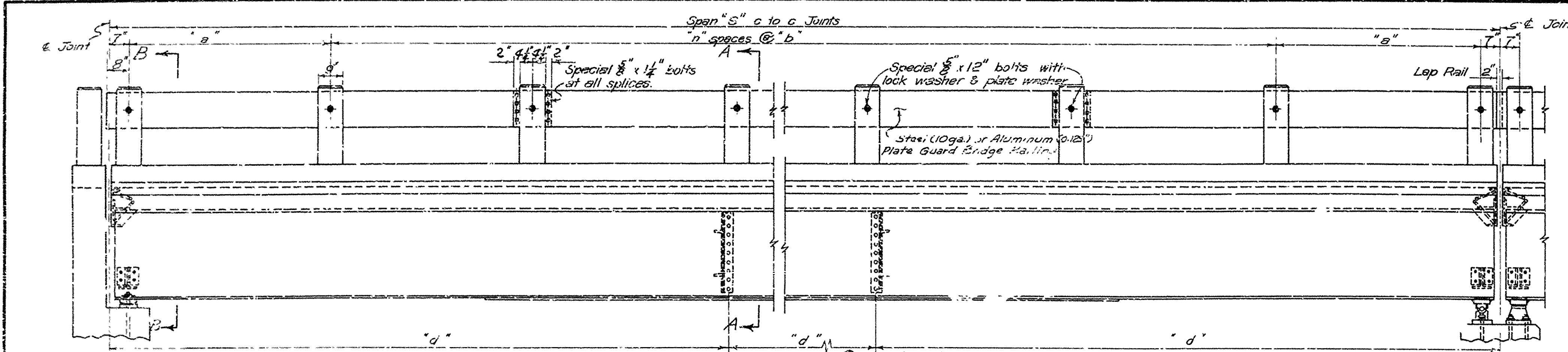
Class S Concrete (11-10)	1200 $\frac{1}{2}$ "
Structural Steel	18000 $\frac{1}{2}$ "
Reinforcing Steel	20000 $\frac{1}{2}$ "

Revisions: Expansion Shoe Detail 8-9-56 H.B.
Added Shear Connector Note 8-9-56 H.B.
General Notes to conform with new SP. 9-15-58 F.W.
Revised General Notes and Slab Pouring Note 8-11-56

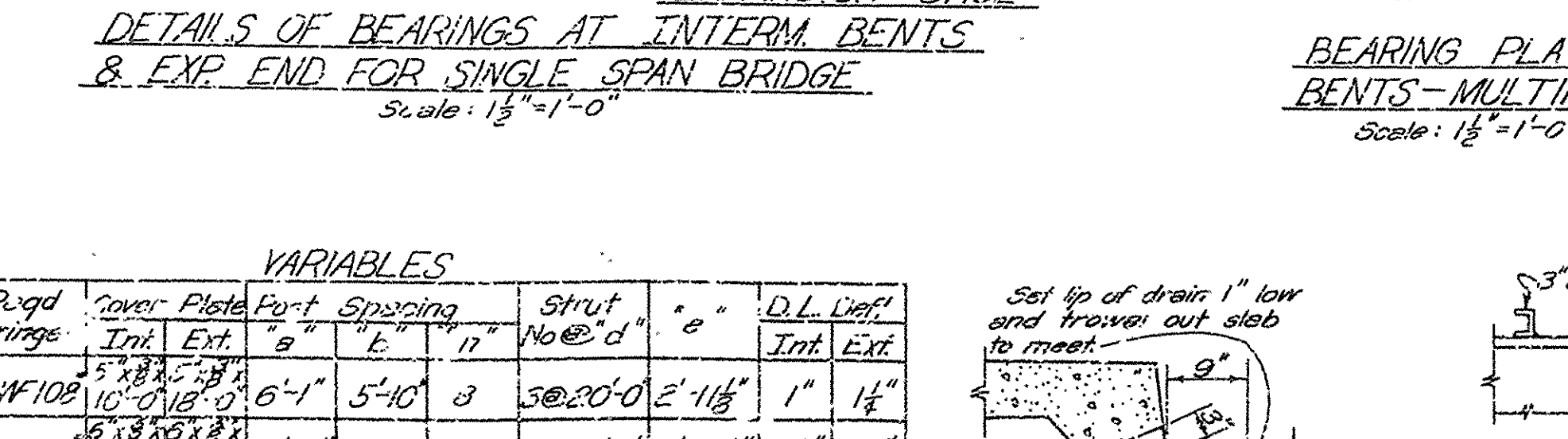
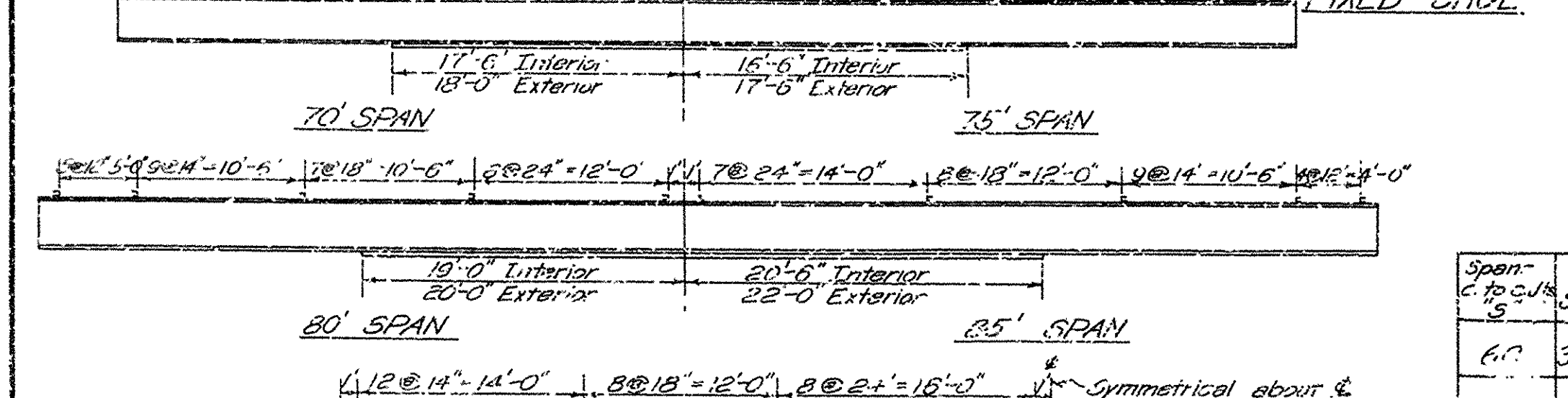
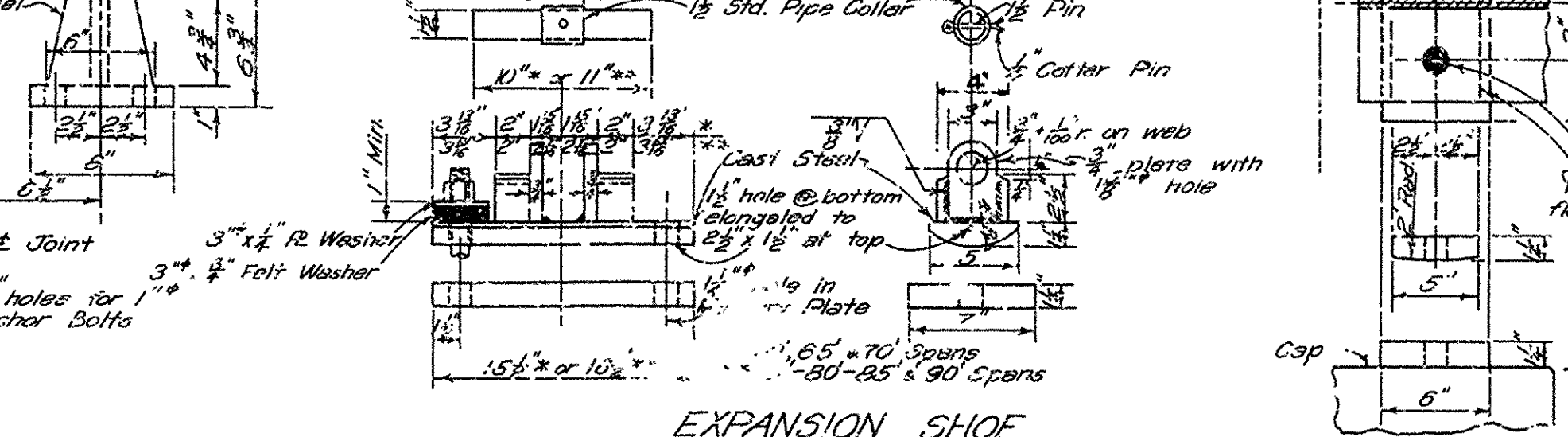
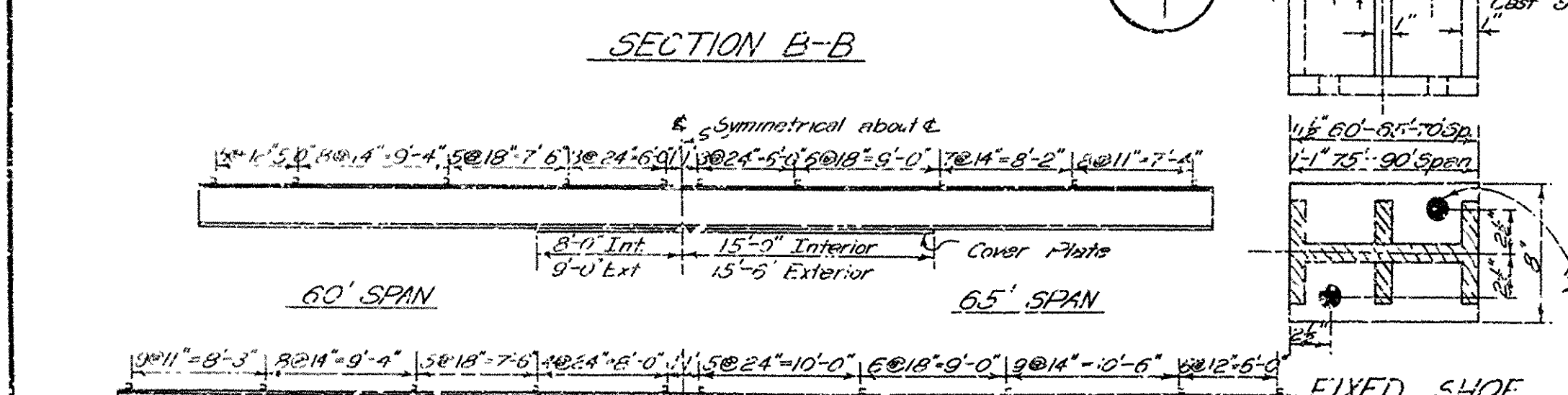
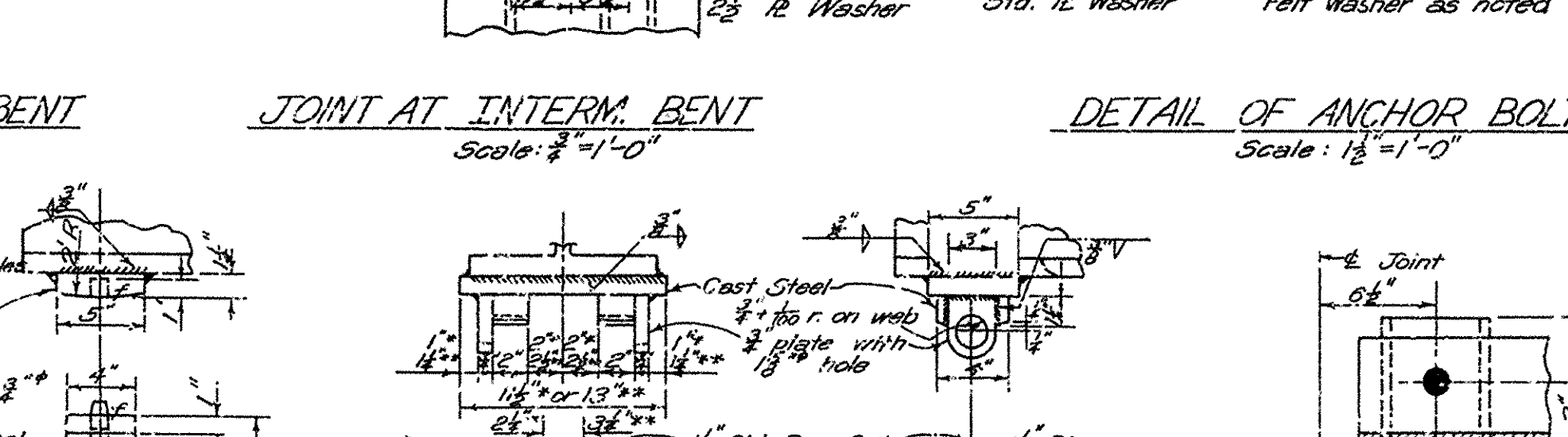
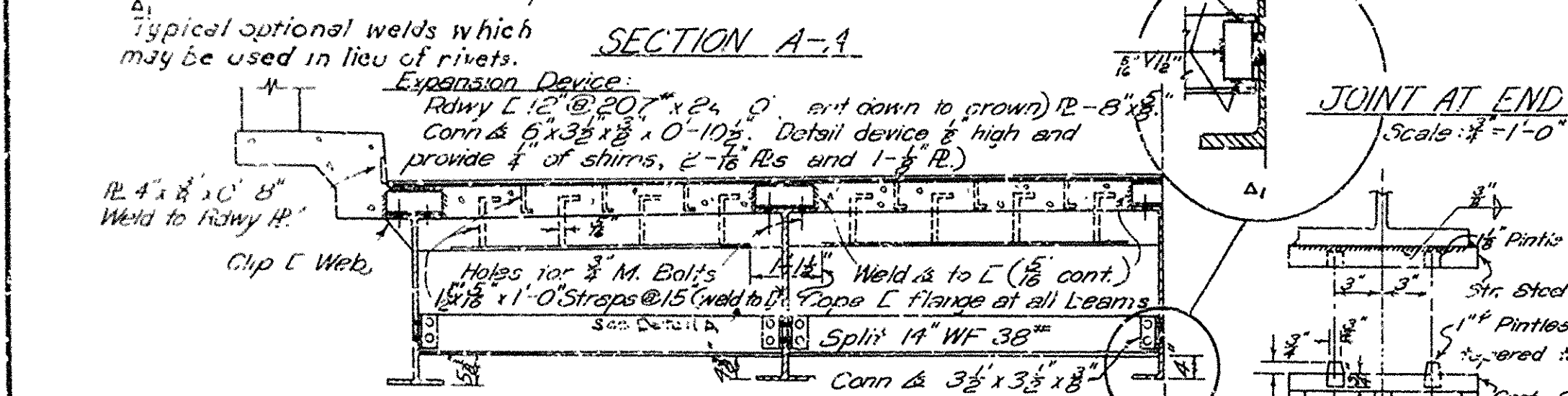
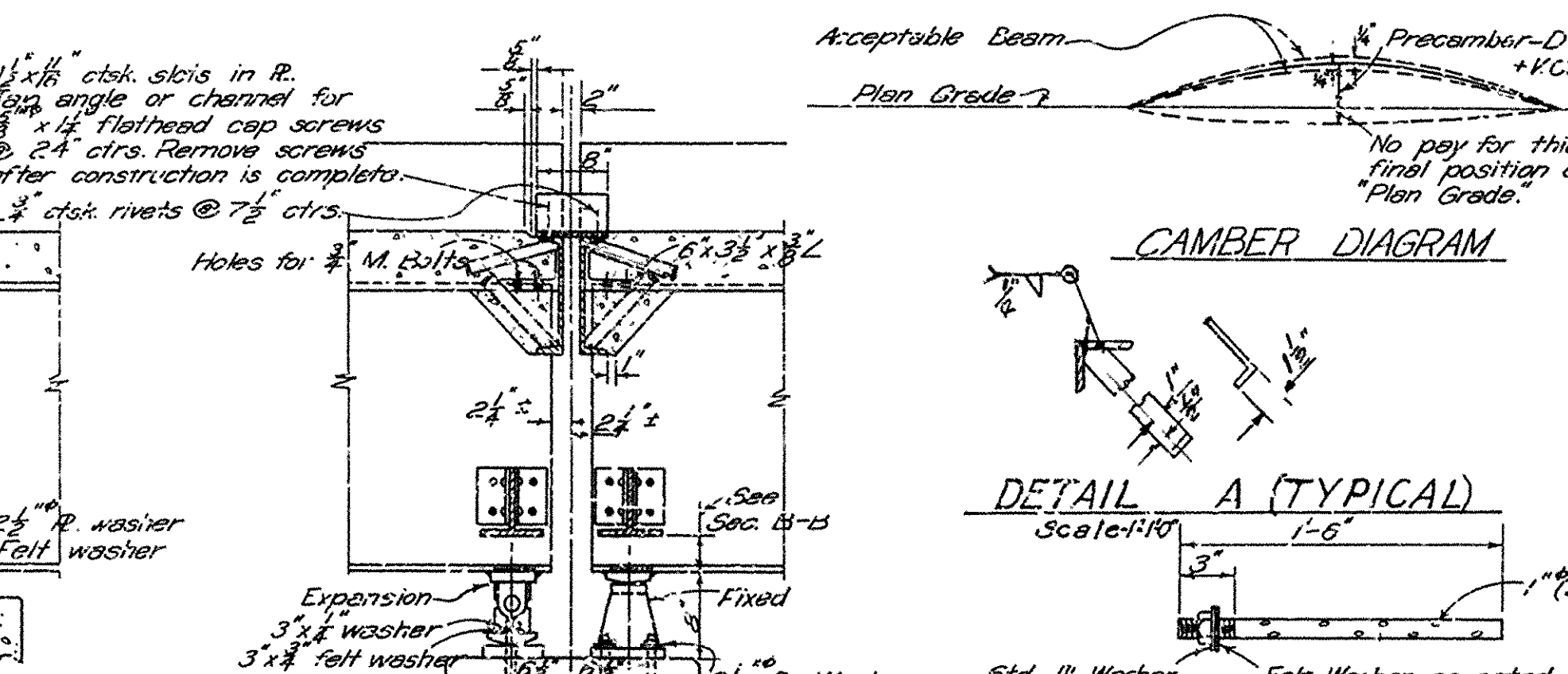
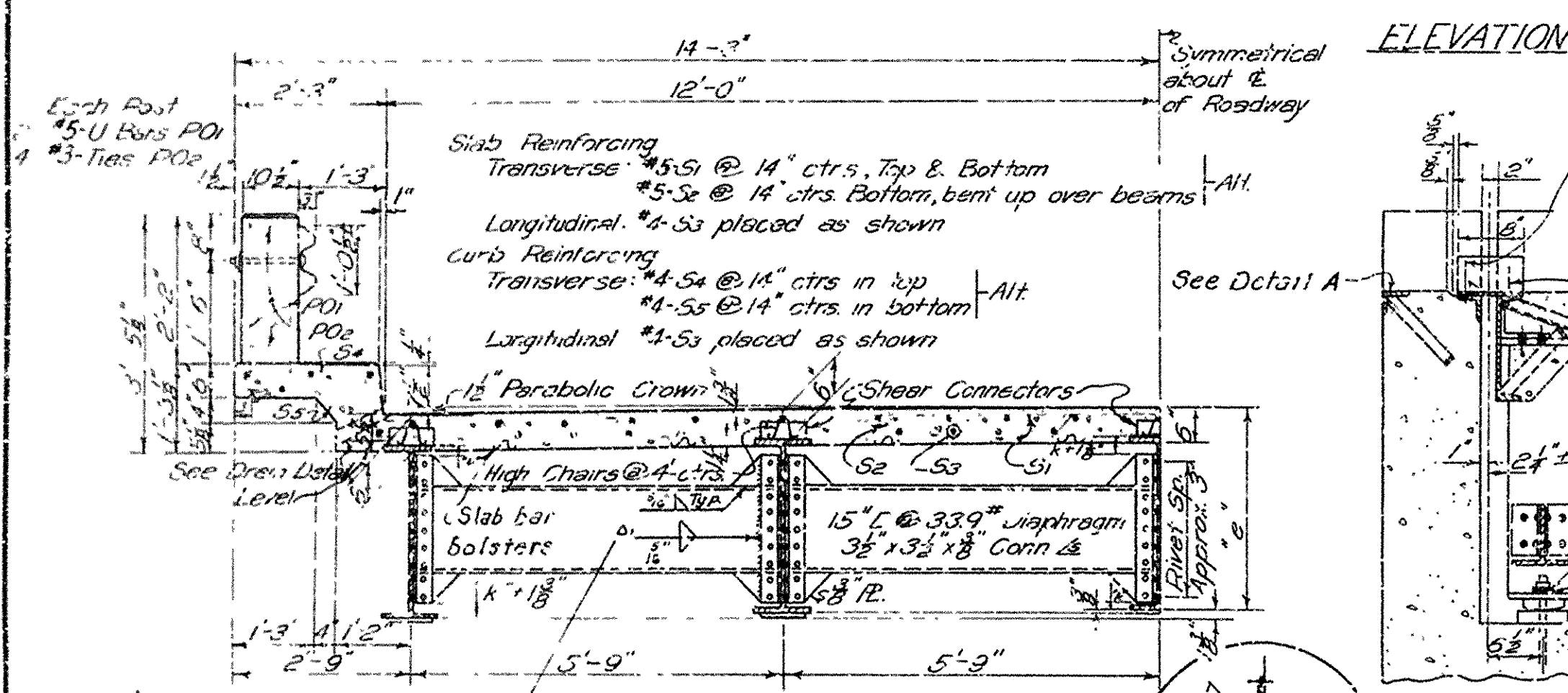
DETAILS OF STANDARD
60'-90' COMPOSITE I-BEAM SPANS
24'-0" CLEAR RDWY. 1'-0" CURBS

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Drawn By: J.W.B. Date: 8-30-55
Traced By: L.W.H. Date: 8-12-56
Checked By: J.W.B. Date: 9-22-55
BRIDGE No. 5500P
DRAWING No. 5500P



Slab Pouring Note: Floor slabs may be poured in one continuous operation with a strikeoff extending over the whole span length, or may be poured in increments with the center one-third to one-half span length poured first. After the center section is poured, not less than 72 hours shall elapse before pouring the end sections. The end sections may be poured simultaneously, if not poured simultaneously, 48 hours shall elapse between end section pours.

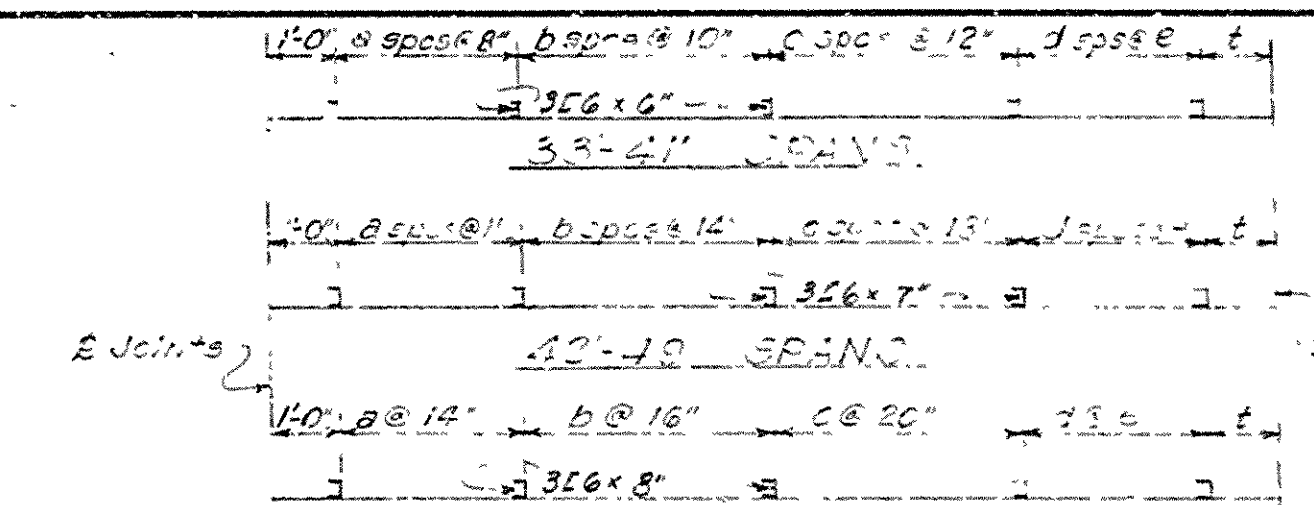


SPECIAL NOTE: Stud Shear connectors, granular flux filled solid fluxed, or equal may be used in place of the channels shown, at the following rates: 3/4\"/>

Span	Reqd. Stringer	Cover Plate	Port Spacing	Strut	D.L. Defl.
60	30W108	10'-0\"/>	6'-1\"/>	3	50'-0\"/>
65	30W108	10'-0\"/>	6'-1\"/>	9	48'-1\"/>
70	30W116	10'-0\"/>	6'-1\"/>	10	48'-1\"/>
75	33W120	10'-0\"/>	6'-1\"/>	10	48'-1\"/>
80	33W141	10'-0\"/>	6'-1\"/>	11	48'-1\"/>
85	36W120	10'-0\"/>	6'-1\"/>	12	50'-0\"/>
90	36W160	10'-0\"/>	6'-1\"/>	13	50'-0\"/>

Channel sections will be used as basis for measurement of structural steel in shear connectors.

REVISIONS: 5-18-57 Note on shear connectors J.E.H.
11-7-57 Revised bearing designation and added Detail A. NEW
8-4-58 Added Optional Stud Welding F.R.B.
5-4-59 Added Slab Pouring Note & Revised Gen. Notes B.L.P.

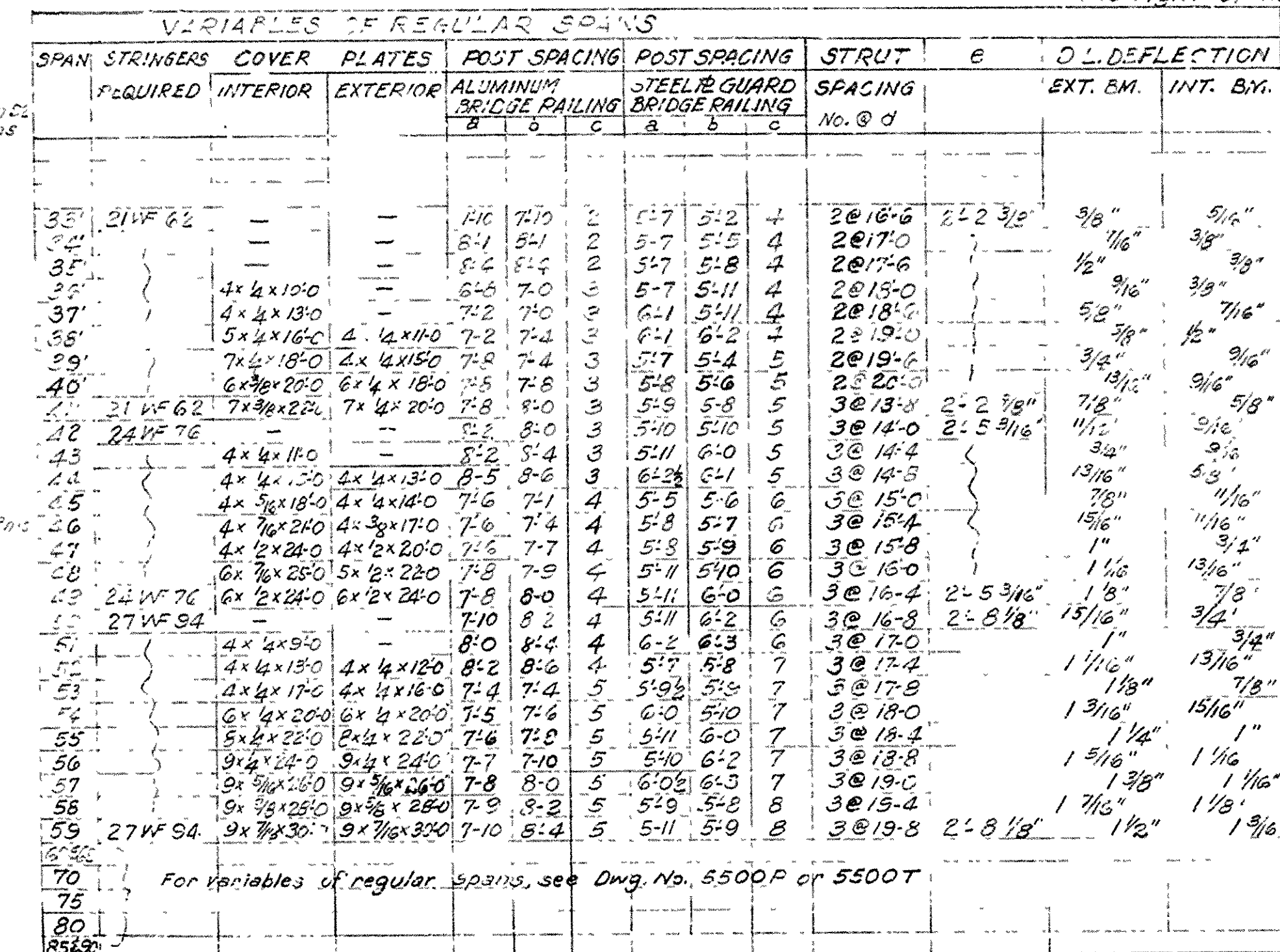


50'-59' SPANS
SHEAR CONNECTOR SPACING

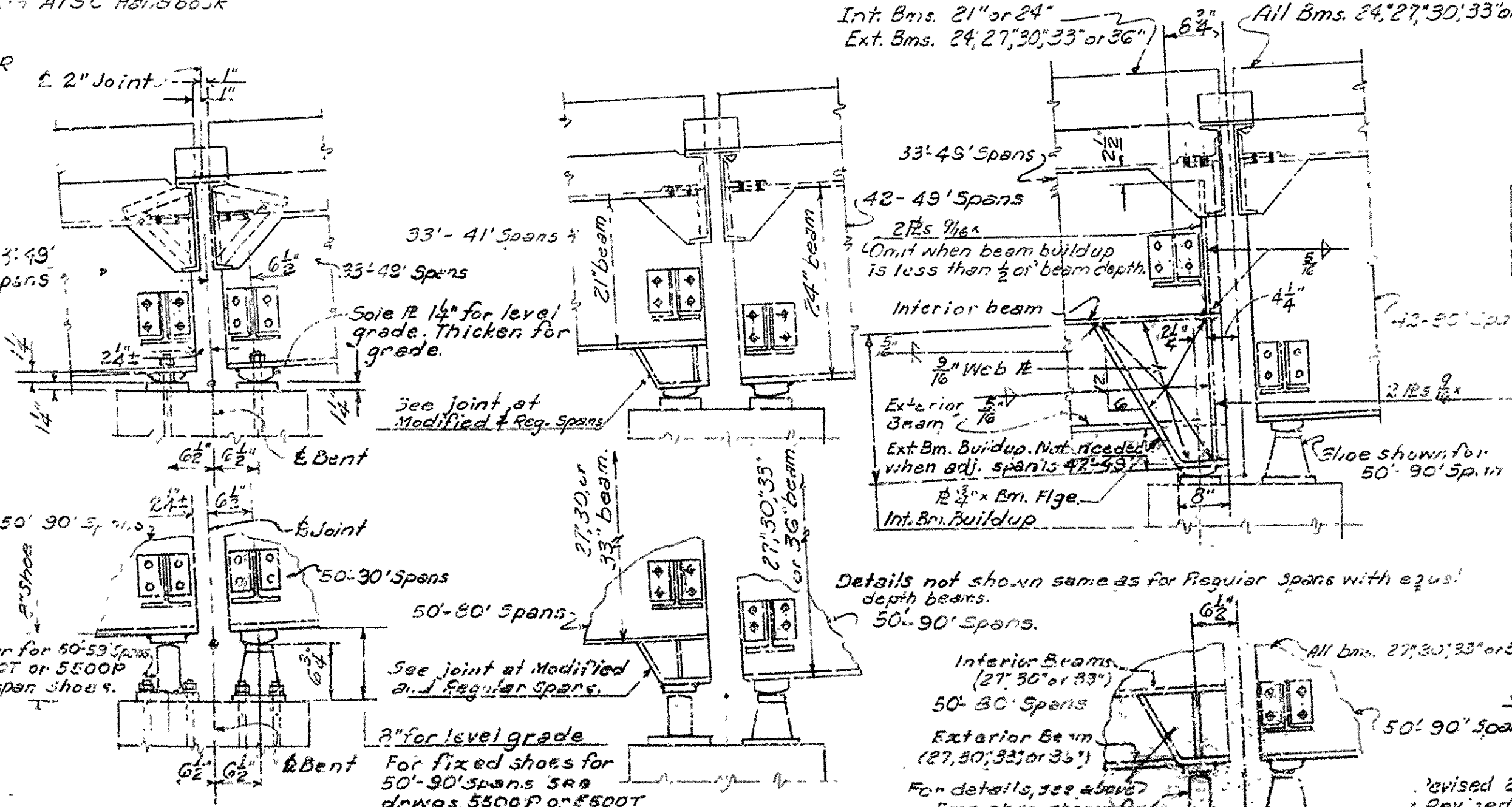
VARIABLES OF SHEAR CONNECTOR SPACING																														
31A	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
a	6	5	4	5	6	5	6	6	6	6	6	6	6	6	6	6	6	6	5	5	6	6	5	6	6	6	6	6	6	
b	5	4	5	5	4	5	6	6	6	6	7	7	7	2	9	9	5	5	5	5	5	5	6	5	6	6	6	6	6	
c	4	6	5	5	4	5	5	5	3	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	
d	2	2	2	2	4	4	3	4	6	2	1	2	2	1	1	1	1	2	3	3	3	3	3	3	3	3	3	3	3	
e	15	15	15	15	15	15	15	15	15	15	21	21	21	22	50	13	24	19	15	22	24	24	24	22	22	18	21	21	21	
f	10	10	10	10	10	10	10	9	0	0	12	12	12	12	0	0	0	0	12	12	10	10	10	10	0	0	11	7	13	10

Omit shear connectors on outside beams of modified spans, shown above and to the right of heavy line

Omit shear connectors on outside beams of modified spans, shown above and to the right of heavy line.

[illegible]

HALF SECTION B-B OF MODIFIED SPANS



NOTE - This drawing to be used with 5500P or 5500T

Fabricate bow side up

Natural bow - Max. allowed $\frac{1}{4}$ " more than D.L. def. + V.C. correction

PLAN GRADE

Final position of beams

Pay for slab thickening

USE WHEN DEAD LOAD DEFLECTION PLUS VERTICAL CURVE CORRECTION IS LESS THAN $\frac{3}{4}$ "

Acceptable beams

D.L. def. + V.C. corr.

Pre-camber plus natural bow

PLAN GRADE

Final position of beams

No pay for thickening slab

USE WHEN DEAD LOAD DEFLECTION PLUS VERTICAL CURVE CORRECTION IS $\frac{3}{4}$ " OR MORE

CAMBER DIAGRAMS

Details of Standard

33'-90' Composite I-Beam Spans

24'-0" Clear Rdwy. 1'-0" & 1'-1 1/2" Curbs

EXPANSION JOINT FOR 50'-59' SPANS

JOINT AT INT. BENT
REGULAR SPANS
UNEQUAL DEPTH BEAMS

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: WFW DATE: 2-11-58
CHECKED BY: DATE: SCALE: AS SHOWN
BRIDGE NO. ERR DATE: 2-12-58
DRAWING NO. 5500U

Revise before using