

# Bridge Inspection Report

**05354**  
**US64 OP WHITE**  
**over**  
**US 67 SEC 12 LM2.56**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

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Inspector:

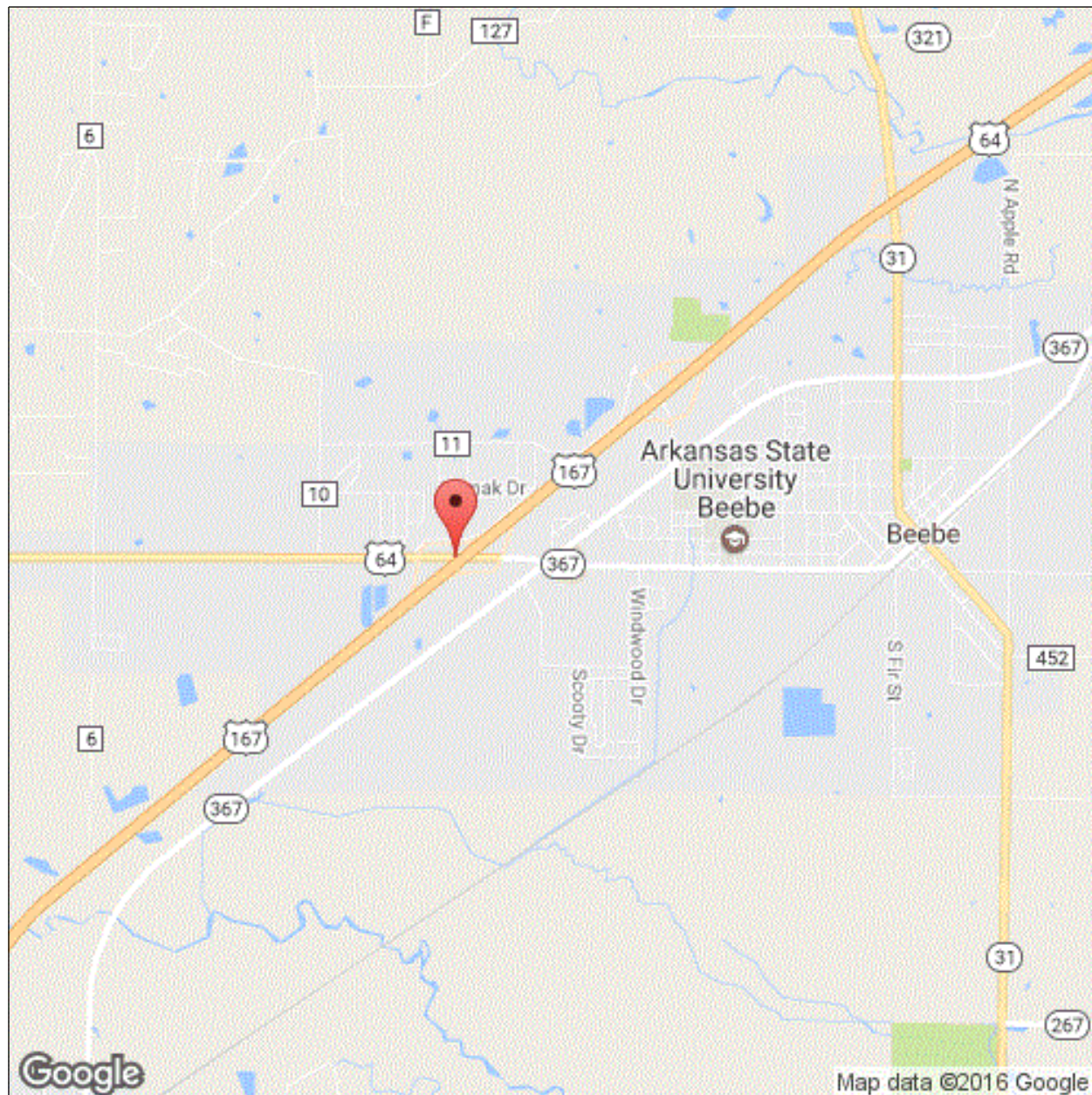
Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

### Location Map



Latitude: 35.06903

Longitude: -91.91663



Inspector:

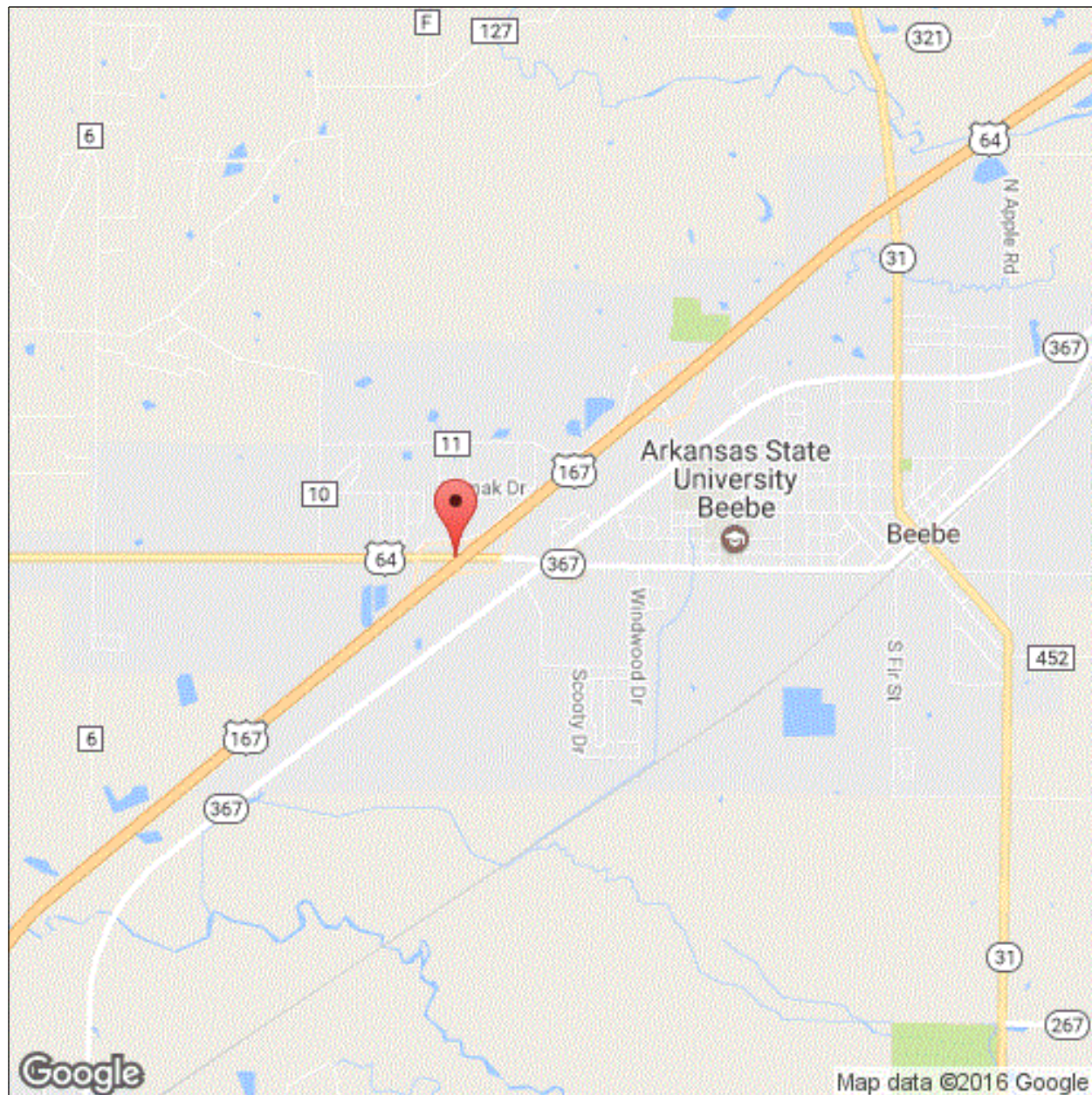
Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

### Bridge Inspection Report

### Location Map



Latitude: 35.06903

Longitude: -91.91663

Inspector:

Inspection Date:

Structure Number: 05354

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

### Executive Summary

Logmile looking East.

Construction Job 5608.

Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	12/21/2016
(8) STRUCTURE NUMBER	05354	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 64 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	05 (3) COUNTY CODE 145	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	US 67 SEC 12 LM2.56	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US64 OP WHITE		
(9) LOCATION	.21 MI W JCT SH 367		
(11) MILEPOINT 13.597	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000064100 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.06903	(17) LONGITUDE -91.91663		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	6
A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 7
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	N (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 4	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1973	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	5
(42) TYPE OF SERVICE ON 1 UNDER 1		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 04		(64) OPERATING RATING	60.0
(29) AVERAGE DAILY TRAFFIC 13000	(19) BYPASS DETOUR LENGTH 0	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	36.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 136	(49) STRUCTURE LENGTH (ft.) 420	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5 RIGHT 0.5		(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 43.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	8
(52) DECK WIDTH, OUT-TO-OUT (ft.) 45		(71) WATERWAY ADEQUACY	N
(32) APPROACH ROADWAY WIDTH (ft.) 44.0		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 51	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 44.0		36B) TRANSITIONS:	1
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	1
(54) VERTICAL UNDER CLEARANCE (ft.) H 16.92		36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) H 29.9		(113) SCOUR CRITICAL BRIDGES	N
(56) MIN LATERAL UNDER CLEARANCE (ft.) 98.8		SUFFICIENCY RATING	0 STATUS 99.0
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 13551	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	N
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

## National Bridge Inventory

## UNDER RECORD A

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 64
(3) COUNTY CODE	145	(8) STRUCTURE NUMBER	05354
(4) PLACE CODE	00000	(9) LOCATION	.21 MI W JCT SH 367
(5) INV. ROUTE (ON/UNDER)	A 2 1 67 3	(11) MILEPOINT	2.560 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	US 67 SEC 12 LM2.56	(13A) LRS INVENTORY ROUTE	0000067120 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	35.069 (17) LONGITUDE -91.9167777777778

## STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous  
 B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

## AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	6	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1973	(42) TYPE OF SERVICE	ON 1 UNDER 1
(28) LANES	ON 04 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	13500		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	17.8	(48) LENGTH OF MAXIMUM SPAN	136 (49) STRUCTURE LENGTH 420
(47) TOTAL HORIZONTAL CLEARANCE	82.7		

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

## UNDER RECORD B

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 64
(3) COUNTY CODE	145	(8) STRUCTURE NUMBER	05354
(4) PLACE CODE	00000	(9) LOCATION	.21 MI W JCT SH 367
(5) INV. ROUTE (ON/UNDER)	B 2 1 67 1	(11) MILEPOINT	2.560 (12) BASE HIGHWAY NETWORK 1
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(28) LANES	ON 04 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	13500		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.9	(48) LENGTH OF MAXIMUM SPAN	136 (49) STRUCTURE LENGTH 420
(47) TOTAL HORIZONTAL CLEARANCE	82.3		

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

Inspector:

Structure Number: 05354

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## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	18900	sq. ft.	12176	6509	215	0
	Transverse cracks to all spans. Few minor spalls @ Span 2 & 3. Most have been repaired.  Efflor. cracks to deck below & to Left & Right overhangs @ all spans. Large areas of map cracking (no efflor.) to deck below @ Spans 2, 3 & 4. Span 3 - 3' Spalls with rebar exposed to deck below between Girders 4-5.						
1080 - Delamination/Spall/Patched Area		3171			3171		
1090 - Exposed Rebar		1			1		
1120 - Efflorescence/Rust Staining		362			362		
1130 - Cracking (RC and Other)		3190			2975	215	
107 - Steel Open Girder/Beam	1- Ben.	2256	ft.	2219	24	13	0
	Abutment 1 - Rust to ends of girders 1-6 Girder 4 - Hole in web below paving haunch. Pack rust & section loss to bottom flange near end of span. Abutment 2 - Rust to ends of girder 1-6 Girder 3 - Hole in web below paving haunch.						
1000 - Corrosion		37			24	13	
515 - Steel Protective Coating		21432	sq. ft.	0	21080	228	124
3440 - Effectiveness (Steel Protective Coatings)		21432			21080	228	124
205 - Reinforced Concrete Column	1- Ben.	9	each	9			
215 - Reinforced Concrete Abutment	1- Ben.	140	ft.	130	0	10	0
	Abutment 1 & 2 - Cracks to abutments some with efflor. & rust. Debris on cap @ Abutment 2.						
1120 - Efflorescence/Rust Staining		10				10	
234 - Reinforced Concrete Pier Cap	1- Ben.	200	ft.	199	0	1	0
	Bent 1 - Spall with 3" rebar exposed to bottom of right end of cap. Bent 2 - Minor spalls with wire exposed to entire length of bottom of cap.						
1080 - Delamination/Spall/Patched Area		1				1	
301 - Pourable Joint Seal	1- Ben.	544	ft.	544			
303 - Assembly Joint with Seal	1- Ben.	136	ft.	136			
311 - Movable Bearing	1- Ben.	24	each	12	7	5	0
	Bearings @ Abutment 1 & 2 all have rust. Bearings 3, 4 & 5 @ Abutment 1 has pack rust with section loss. Bearings 2 & 3 @ Abutment 2 has pack rust with section loss.						
1000 - Corrosion		12			7	5	
515 - Steel Protective Coating		72	sq. ft.	36	0	0	36
3440 - Effectiveness (Steel Protective Coatings)		36					36



Inspector:

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Bridge Inspection Report

Element Inspection

313 - Fixed Bearing	1- Ben.	6	each	6			
515 - Steel Protective Coating		18	sq. ft.	18			
321 - Reinforced Concrete Approach Slab	1- Ben.	4760	sq. ft.	4760			
521 - Concrete Protective Coating		4760	sq. ft.	4760			
330 - Metal Bridge Railing	1- Ben.	1680	ft.	1680			
331 - Reinforced Concrete Bridge Railing	1- Ben.	840	ft.	840			
Heavy spall to end post @ Abutment 1 on right. Guard rail not attached.							

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## Bridge Inspection Report

Pictures

Inspector:

Inspection Date:

Structure Number: 05354

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

Sketches

Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 12/21/2016

Priority: D - Routine

Work Code:

---

Deficiency Description:

Unsealed transverse cracks to deck at all spans.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Open



PHOTO 1      Description      Unsealed transverse cracks to deck at all spans.



Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 12/10/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

Deficiency Description:

Impact damage to right approach guard rail & end post at Abutment 1.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1      Description      Impact damage to right approach guard rail & end post at Abutment 1.

Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 12/10/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Rust to ends of Girders 1 - 7 at Abutment 1 & 2

Hole in web of Girder 4 at Abutment 1 below paving haunch.

Hole in web of Girder 3 at Abutment 2 below paving haunch.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1      Description      Hole in web of Girder 3 at Abutment 2 below paving haunch.

Stage: Assigned



PHOTO 2      Description      Hole in web of Girder 4 at Abutment 1 below paving haunch.

Inspector:

Structure Number: 05354

Inspection Date:

Facility Carried: US64 OP WHITE

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 12/10/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Spalls with rebar exposed to deck below between Girders 4 - 5 at Span 3.

Transverse efflorescent cracks with some areas of map cracking to deck below.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1      Description      Typical of spalls with rebar exposed to deck below between Girders 4 - 5 at Span 3.

Transverse efflorescent cracks with some areas of map cracking to deck below.

Stage: Assigned



PHOTO 2      Description      Typical of transverse efflorescent cracks to deck below.



Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 12/10/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

Deficiency Description:

Spall with 3" rebar exposed to bottom right side of cap at Bent 1.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Assigned



PHOTO 1      Description      Spall with 3" rebar exposed to bottom right side of cap at Bent 1.



Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 12/10/2014 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Rust to bearings, some with section loss Abutments 1 & 2.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1      Description      Rust to bearings, some with section loss Abutments 1 & 2. (G2 at Abt. 2)

Stage: Assigned



PHOTO 2      Description      Rust to bearings, some with section loss Abutments 1 & 2. (G3 at Abt. 2)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	22-3-3		72	235
				JOB NO.		5608		5354 LAYOUT 16730	

# GENERAL NOTES

BENCH MARK - N.W. CORNER HEADWALL 15' LEFT, STATION 20+58, ELEVATION 227.10.

ALL CONCRETE TO BE POURED IN THE DRY

ALL PILING SHALL BE 10BP42 AND SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM CAPACITY OF 55 TONS PER PILE AND INTO THE MATERIAL DESIGNATED AS HARD BLUE SHALE ON THE BORING LOGS. LENGTHS OF PILE SHOWN ARE FOR ESTIMATING QUANTITIES ONLY. OVER LENGTHS SHOWN, CUT-OFF OR BUILD-UP, IF NECESSARY, TO BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO SUBGRADE IS IN PLACE.

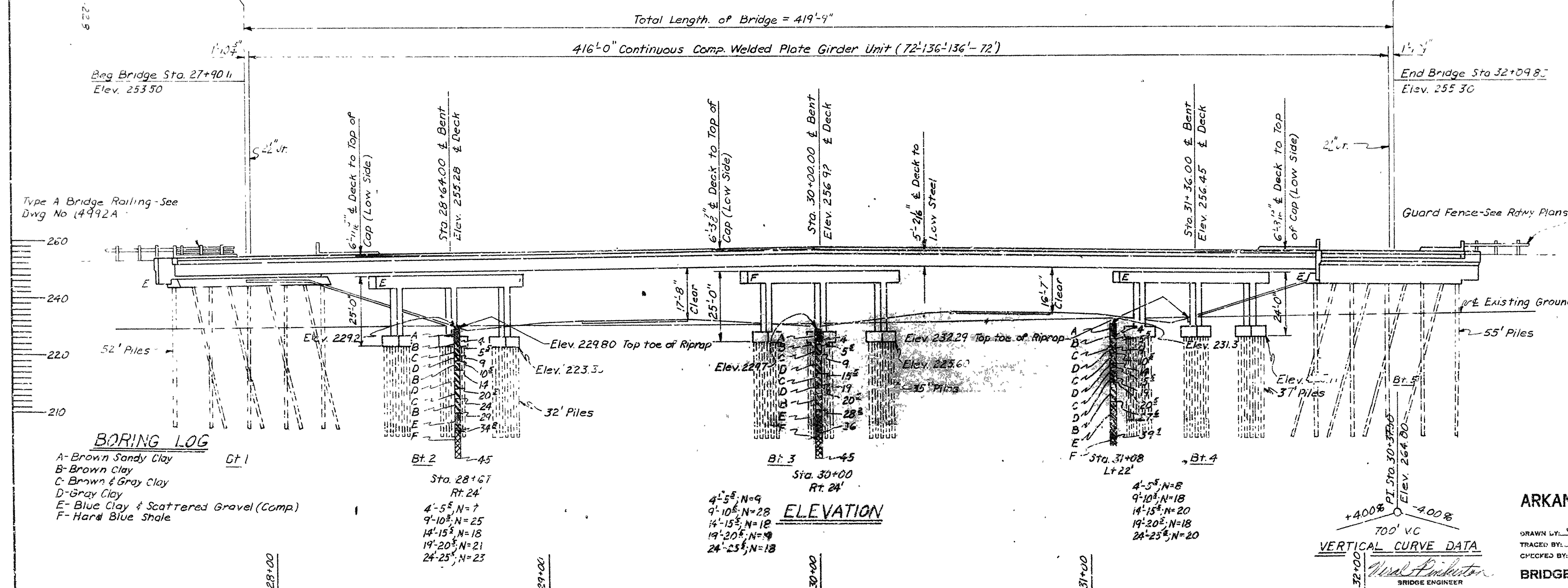
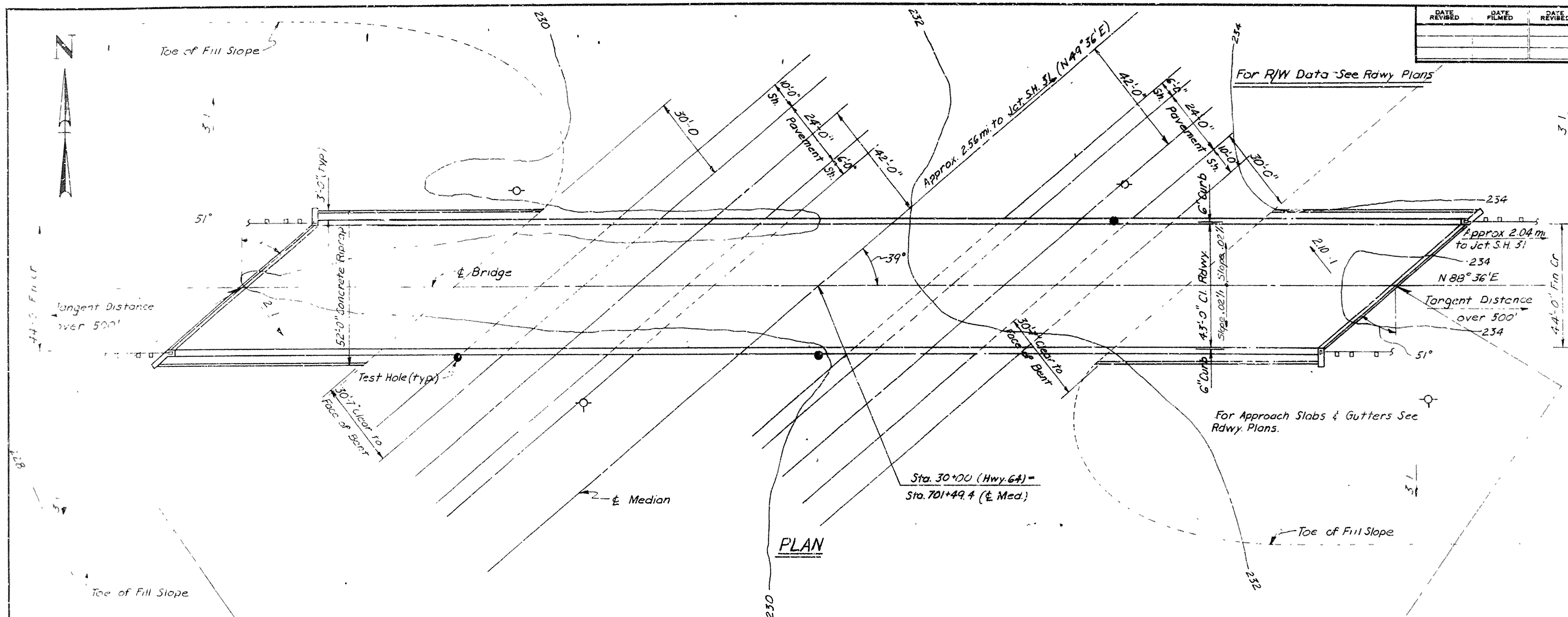
FOR DETAILS OF END BENTS SEE DWG. NO. 15730 FOR DETAILS OF INTERMEDIATE BENTS SEE DWG. NO. 15731

FOR DETAILS OF SUPERSTRUCTURE SEE DWG. NO. 16735

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1959, THE 1966 SUPPLEMENTAL SPECIFICATIONS, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1969

LIVE LOADING: HS20  
UNIT STRESSES: CLASS S CONCRETE (N=10) 1,200PSI  
REINFORCING STEEL 70,000PSI  
STRUCTURAL STEEL (A36) 26,000PSI  
STRUCTURAL STEEL (A572) 27,000PSI  
A572 STEEL GRADE 50

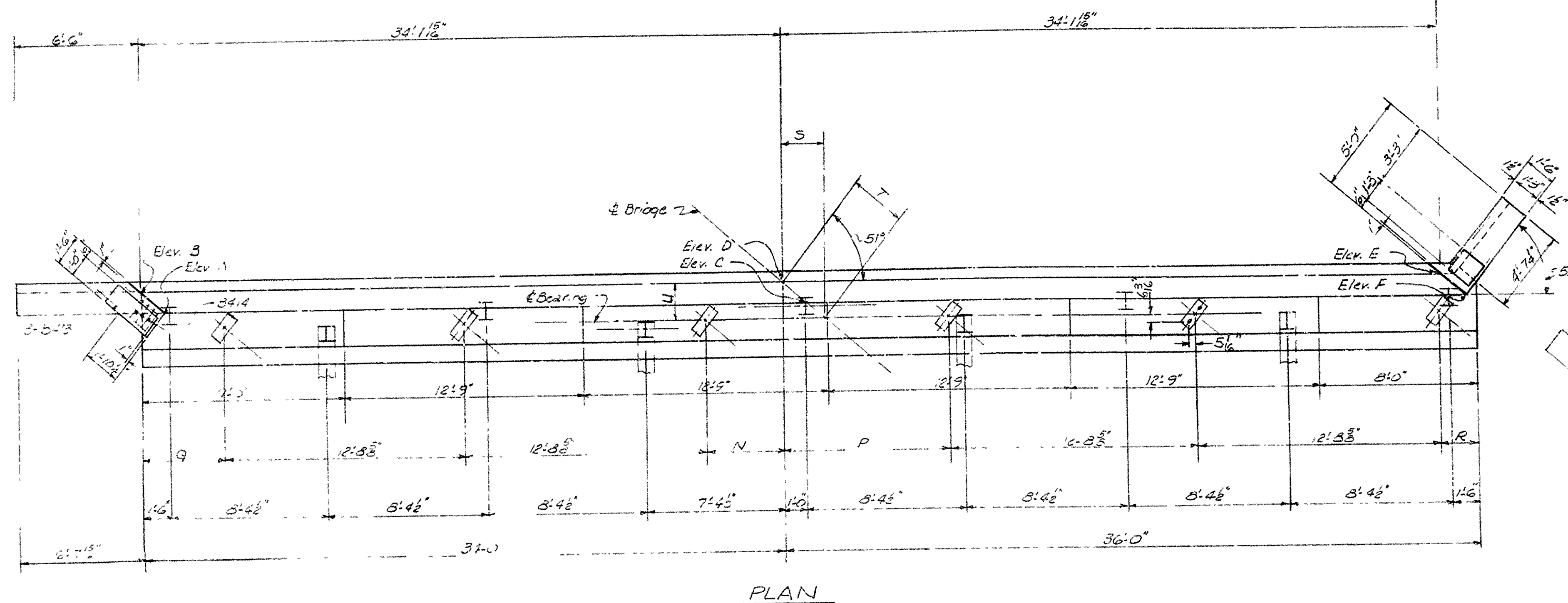


LAYOUT OF UNDERPASS  
HWY. 64 INTERCHANGE  
BEEBE-SEARCY BYPASS  
SURFACING & INTERCHANGES  
WHITE COUNTY  
ROUTE 67 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

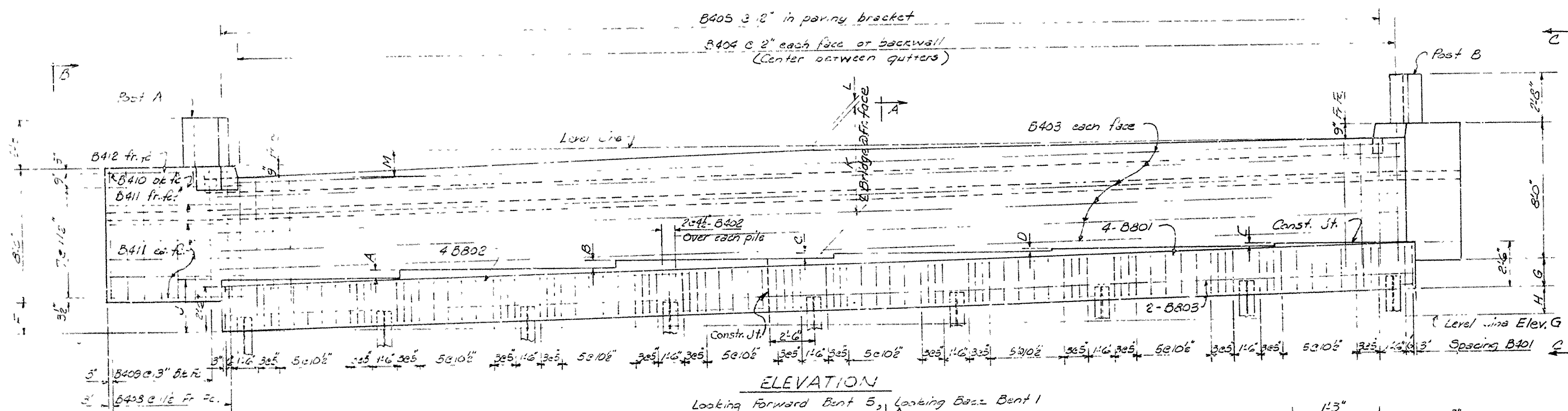
DRAWN BY: J.P.S. DATE: 10-16-69  
TRACED BY: DATE: 11-20-69  
CHECKED BY: D.F.L. DATE: 11-20-69  
BRIDGE NO. 5354 DRAWING NO. 15730



BAR LIST ONE SENT					BENDING DIAGRAM	
NK	No Req	LENGTH	A	B	IN DIA	
B301	4	32'-4"			Str	
B302	4	40'-8"			Str	
B303	8	36'-8"			Str	
B401	100	10'-6"			2"	
B402	27	6'-10"			2"	
B423	24	35'-5"			Str	
B404	139	7'-4"			3Hr	
B405	69	4'-0"			2"	
B406	3	4'-7"			2"	
B407	15	6'-6"	1'-8"	5'-10"	Str	
B408	14	7'-8"			Str	
B409	12	7'-10"	2'-3"	4'-11"	2"	
B410	2	5'-3"			Str	
B411	5	3'-2"			Str	
B412	1	6'-11"			2"	
B413	3	2'-11"	3'-5"	2'-8"	2"	
B414	3	2'-1"	1'-7"	1'-0"	2"	
B401	13	5'-0"			Str	
B402	5	2'-8"	0'-8"	5'-0"	5"	
B30	4	2'-9"	0'-32"	-5"	18"	
B302	2	2'-11"	0'-2"	1'-3"	12"	
B303	2	3'-1"	0'-5 1/2"	1'-5"	12"	



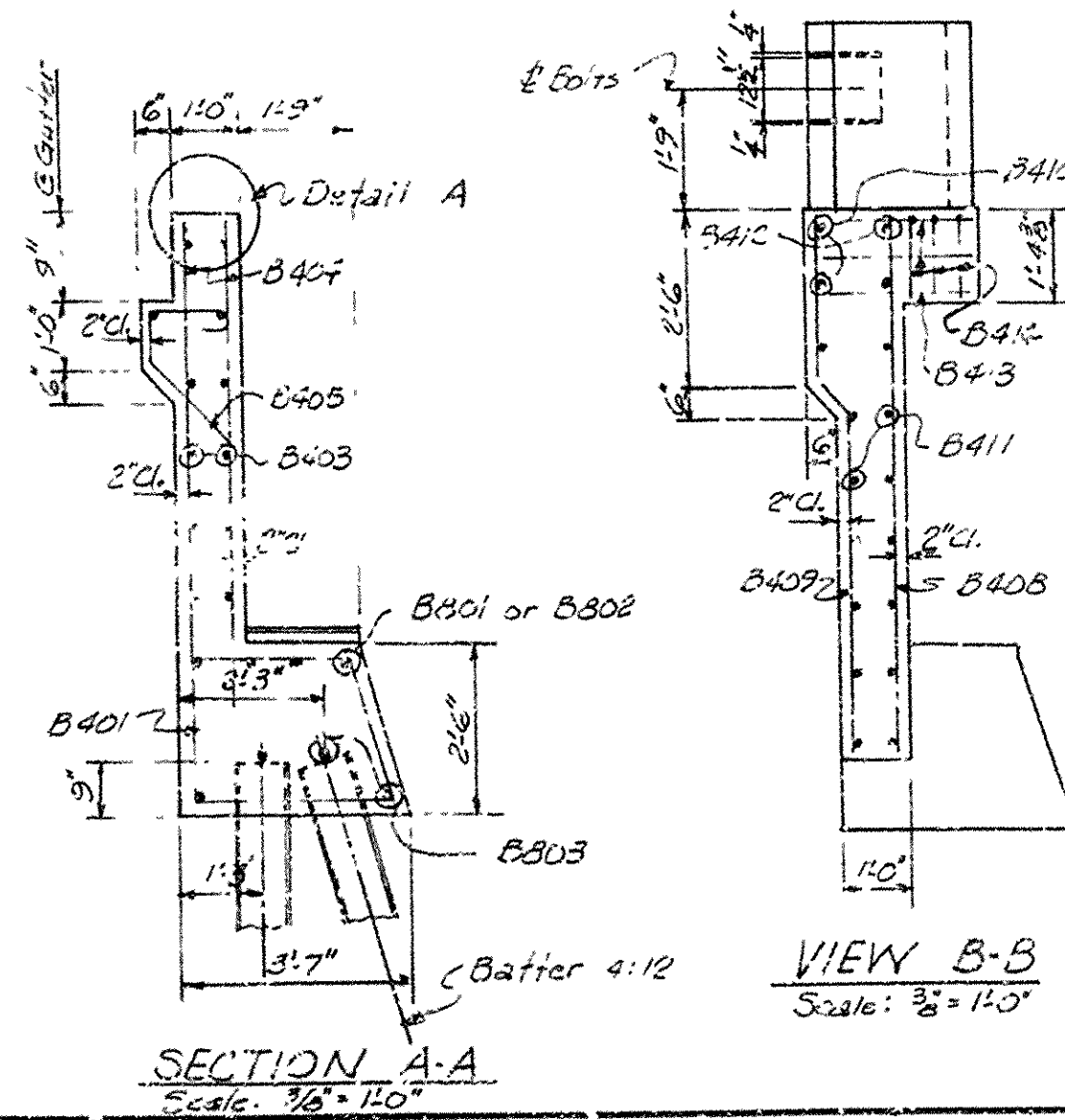
## PLAN



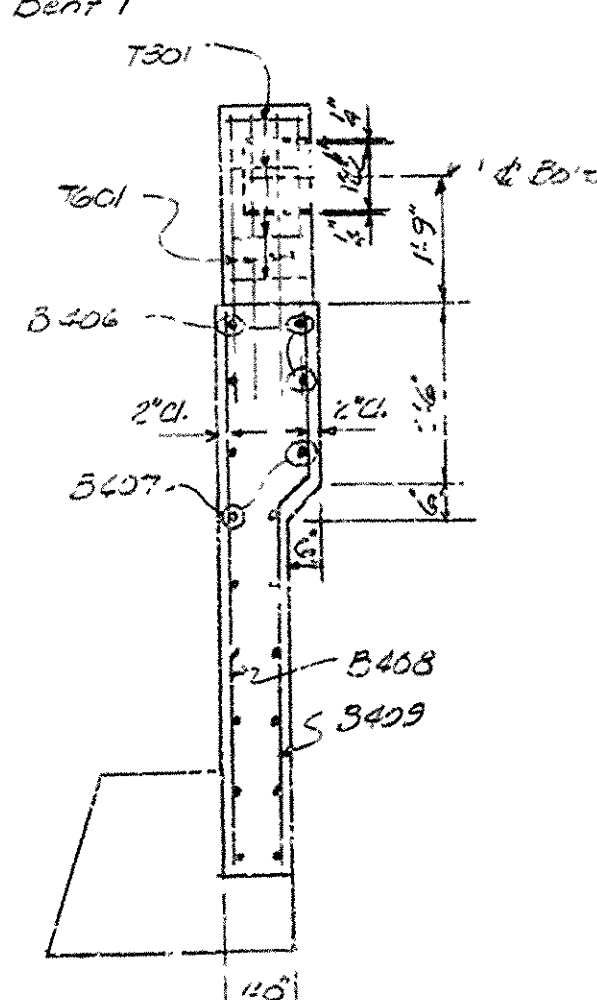
ELEVATION

### VARIABLES

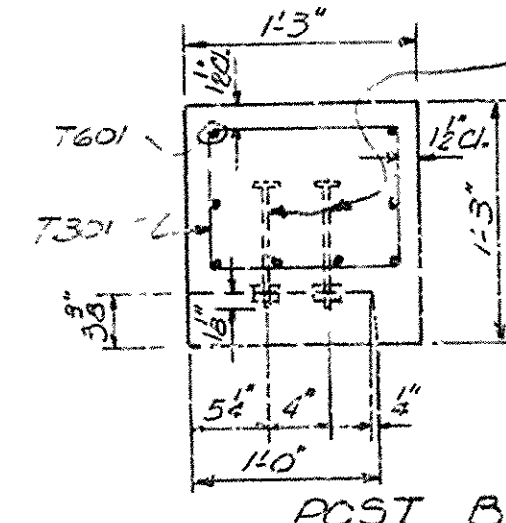
	DIMENSION		ELEVATION	
	DENT 1	BENT 5	DENT 1	DENT 5
A	58"	46"	252.93	254.35
B	58"	43"	252.23	254.31
C	38"	24"	253.55	255.33
D	14"	4"	253.50	255.30
E	13"	4"	253.72	255.36
F	14 1/2"	10 3/8"	253.82	255.30
G	17"	11"	243.99	252.05
H	47 1/2"	14 1/8"		
I	219 1/8"	218 1/8"		
J	51.01"	51.01"		
K	38"	38"		
L	146"	140 1/2"		
M	411 1/8"	411 1/8"		
N	317 1/8"	316 1/8"		
D	415 1/8"	415 1/8"		
O	415 1/8"	415 1/8"		
R	117 1/16"	117 1/16"		
S	213"	216 3/8"		
T	2140 1/8"	2140 1/8"		
LI	110 3/8"	119 9/16"		



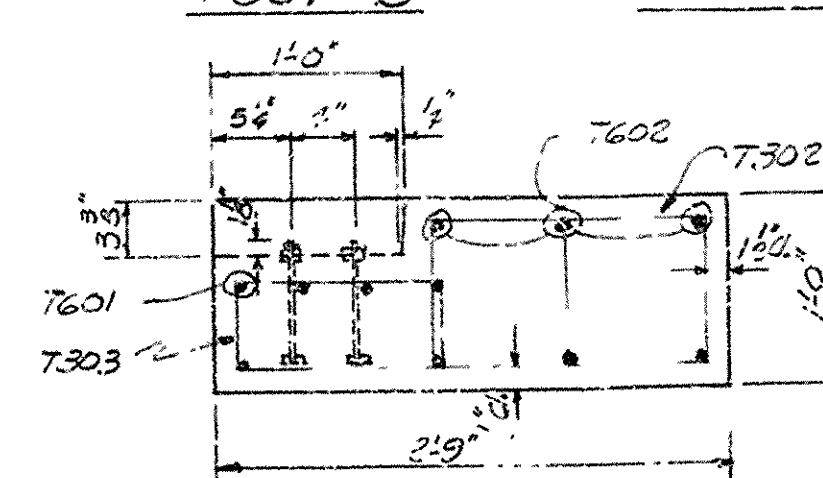
VIEW B-B  
Scale:  $\frac{3}{8}'' = 1'-0''$



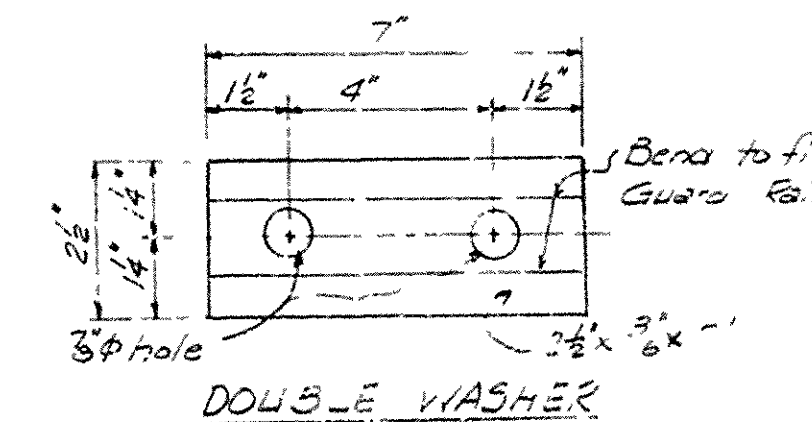
VIEW C-C  
Scale: 3" = 1'-0"



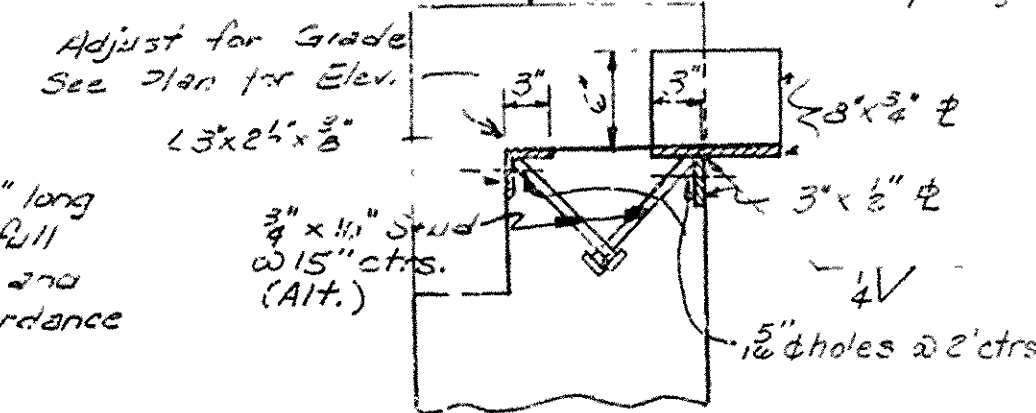
EST B



POST A  
Scale: 1" = 1'-0"



DOUBLE WASHER



DETAIL A  
Scale: 1" = 1'-0"

NOTES: All concrete shall be Class S. A curved corners to be chamfered  $\frac{1}{2}$ ". Reinforcing steel to be deformed bars of intermediate or hard grade. Shop lots with bearing capacity must be inspected and approved according to the information on plan. Buckling shall not be allowed until girders have been placed or bent.

All structural steel to be painted with Rizing and be 300°C Zinc Bearing files.

See drawing 1-15 for details of the "P" Reinforcing.

Piling shall bed down to a minimum bearing capacity of 55 tons per pile.

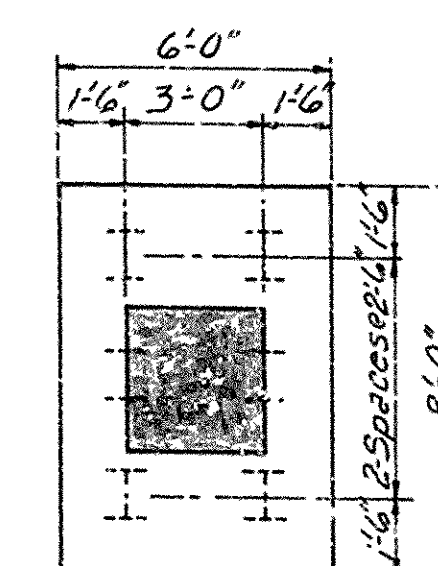
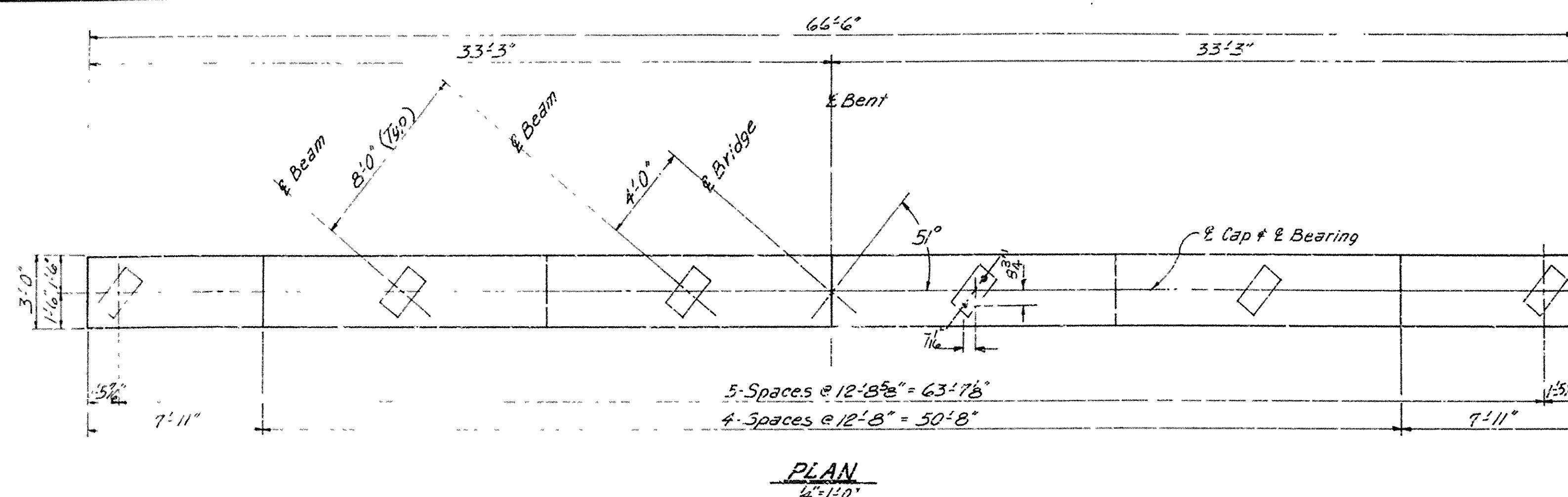
DETAILS OF END BENTS ! & 5  
HWY. 64 INTERCHANGE  
BEEBE-SEARCY BYPASS  
SURFACING & INTERCHANGES  
WHITE COUNTY  
ROUTE 67 SEC 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: CFL DATE: 1-27-70  
 TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: FMH DATE: 1-29-70  
 SCALE: 4" = 1'-0"  
 BRIDGE NO. 5354 DRAWING NO. 16734



102

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATION	FED. AID PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARLN	F-RF-021-8Q3		77	235
JOB NO. 5608								05354 INT. BENT 16735	



#### BAR LIST

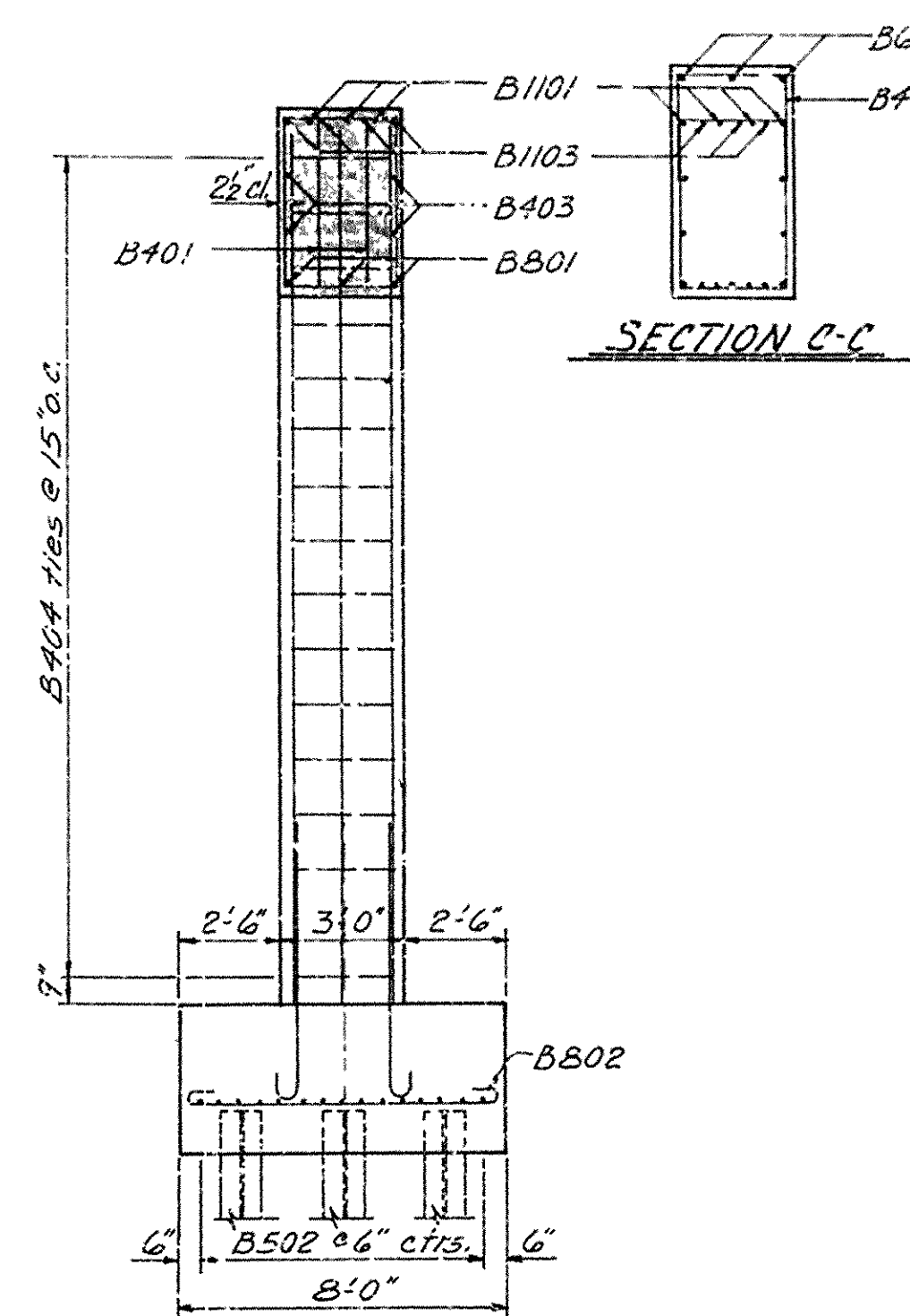
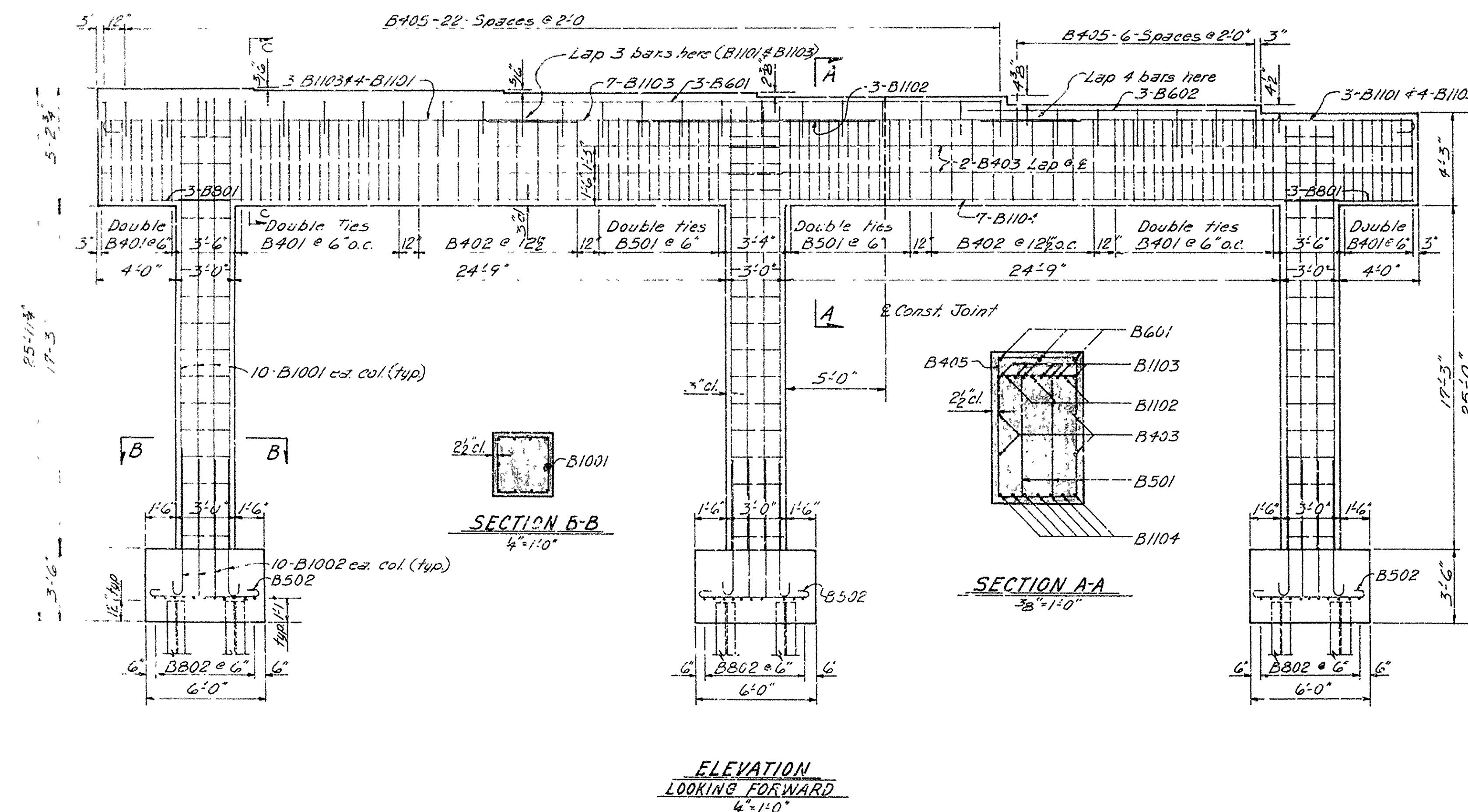
MARK	NO. REQ'D	LENGTH	A	B	PIN DIA.	BENDING DIAGRAMS
B1101	7	23'-0"	21'-5"	12"	1 1/4"	
B1102	3	12'-0"	-	-	5/8"	
B1103	7	51'-0"	49'-5"	12"	1 1/4"	
B1104	7	58'-6"	-	-	5/8"	
B1001	30	21'-0"	-	-	5/8"	
B1002	30	8'-1"	6'-6"	11"	10"	
B801	6	7'-11"	-	-	5/8"	
B802	33	9'-4"	7'-6"	8"	6"	
B601	3	45'-6"	-	-	5/8"	
B602	3	14'-0"	-	-	5/8"	
B501	52	12'-2"	1'-11"	3'-10"	2 3/8"	
B502	45	6'-8"	5'-6"	5"	3 3/4"	
B401	100	12'-0"	1'-11"	3'-10"	2"	
B402	18	13'-4"	2'-7"	3'-10"	2"	
B403	8	33'-11"	-	-	5/8"	
B404	51	10'-10"	2'-7"	2'-7"	2"	
B405	31	6'-2"	2'-7"	2'-0"	2"	

Dimensions are out to out of bars.  
Reinforcing shall be ASTM Designation A615-68 or A617-68 Grade 40.

#### NOTES:

ALL CONCRETE SHALL BE CLASS S. EXPOSED CORNERS SHALL BE CHAMFERED 3/4". REINFORCING STEEL SHALL BE DEFORMED BARS OF GRADE NOTED IN BAR LIST. SHOP LISTS AND BENDING DIAGRAMS SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

PILING SHALL BE 10BP42 STEEL BEARING PILES DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE.



#### END VIEW D-D

4'-10"

DETAILS OF BENT 2  
HWY 64 INTERCHANGE  
BEEBE-SEARCY BYPASS  
SURFACING & INTERCHANGES  
WHITE COUNTY  
ROUTE 67 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

BRIDGE ENGINEER

DRAWN BY: W.W.W. DATE: 1-18-70  
TRACED BY: DATE: SCALE: AS NOTED  
CHECKED BY: F.V.B. DATE: 1-27-70  
BRIDGE NO. 5354 DRAWING NO. 16735

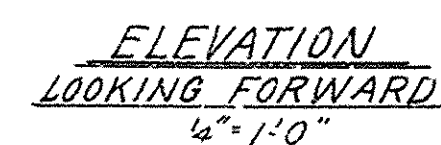
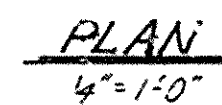




<u>BAR LIST</u>						
MARK	NO REQ'D	LENGTH	A	B	PIN DIA.	BENDING DIAGRAMS
B1101	7	23'-0"	21'-5"	12"	1 1/4"	
B1102	3	12'-0"			5/8"	
B1103	7	51'-0"	49'-5"	12"	1 1/4"	
B1104	7	58'-6"			5/8"	
B1001	30	20'-2"			5/8"	
B1002	30	7'-11"	6'-6"	11"	10"	
B801	6	6'-6"			5/8"	
B802	33	9'-4"	7'-6"	8"	6"	
B501	58	12'-2"	1'-11"	3'-10"	2 1/2"	
B502	45	6'-8"	5'-6"	5"	3 1/4"	
B401	100	12'-0"	1'-11"	3'-10"	2"	
B402	18	13'-4"	2'-7"	3'-10"	2"	
B403	8	33'-11"			5/8"	
B404	51	10'-10"	2'-7"	2'-7"	2"	
B601	3	45'-0"			5/8"	
B605	23	6'-7"	2'-7"	2'-0"	2"	

Dimensions are cut to fit of slabs

Reinforcing shall be A573M Designation A615-68 or A617-68 Grade 40



ALL CONCRETE SHALL BE CLASS S. EXPOSED CORNERS SHALL BE CHAMFERED 3/4". REINFORCING STEEL SHALL BE DEFORMED BARS OF GRADE NOTED IN BAR LIST. SHOP LISTS AND BENDING DIAGRAMS SHALL BE SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

PILING SHALL BE 106P42 STEEL BEARING PILES DRIVEN TO A MINIMUM BEARING CAPACITY OF 55 TONS PER PILE

ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: W.H.W. DATE: 1-13-70  
 \*RACED BY:          DATE:          SCA'          AS NOTED           
 CHECKED BY: EMH DATE: 1-27-70

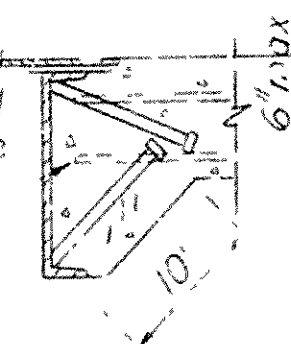
BRIDGE NO. 5354 DRAWING NO. 16737



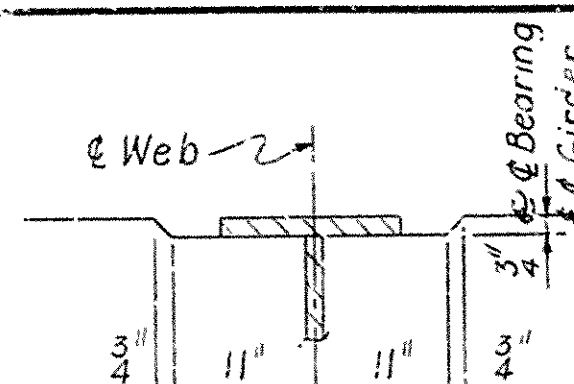
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID FISCAL	FISCAL YEAR	BHSET NO.	TOTAL SHEETS
				6	ARK.	F-RF-		80	235
						021-3(23)			
				JOB NO.	5608				

05354 SPAN DETAILS 16738

Hold end of longitudinal reinforcing steel as close to channel as possible



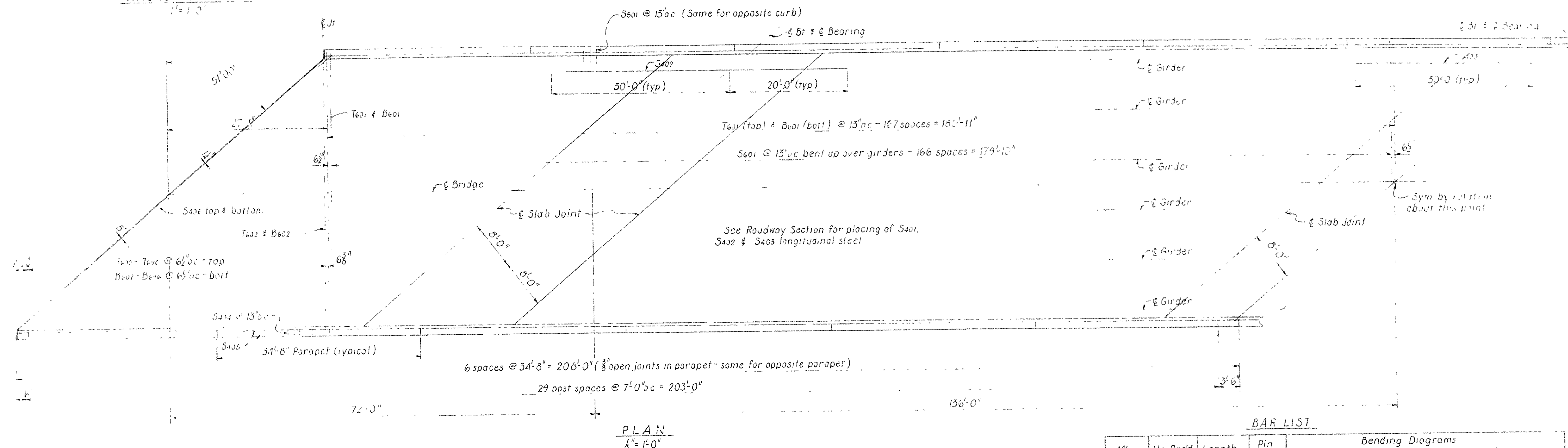
ANCHOR DETAILS



Dummy Joint  $\rightarrow$  4" x 1" Poured Asphalt Jt in slab & curb  
to be paid for as "Class 3 Concrete"

Note: See Plan View for location

SLAB JOINTS  
No Scale

BAR LIST

NK	No. Req'd.	Length	Pin Dia
T601	335	46'-7"	3"
B601	335	45'-8"	Str
S601	334	48'-1"	3"
S491	1485	39'-4"	Str
S402	84	50'-0"	Str
S493	42	50'-0"	Str
S404	768	4'-6"	2"
S495	48	34'-4"	Str
S501	768	4'-3"	2 1/2"
T602 TO T696	2 ea.	4'-3' to 3'-0"	3'
B602 TO B696	2 ea.	45'-10' to 2'-7"	Str
S406	4	36'-7"	Str

SHEET 1 OF 4

### DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT

HWY. 64 INTERCHANGE  
BEEBE-SEARCY BYPASS

## SURFACING & INTERCHANGES

WHITE COUNTY  
ROUTE 67 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK

DATE: 1-16-75

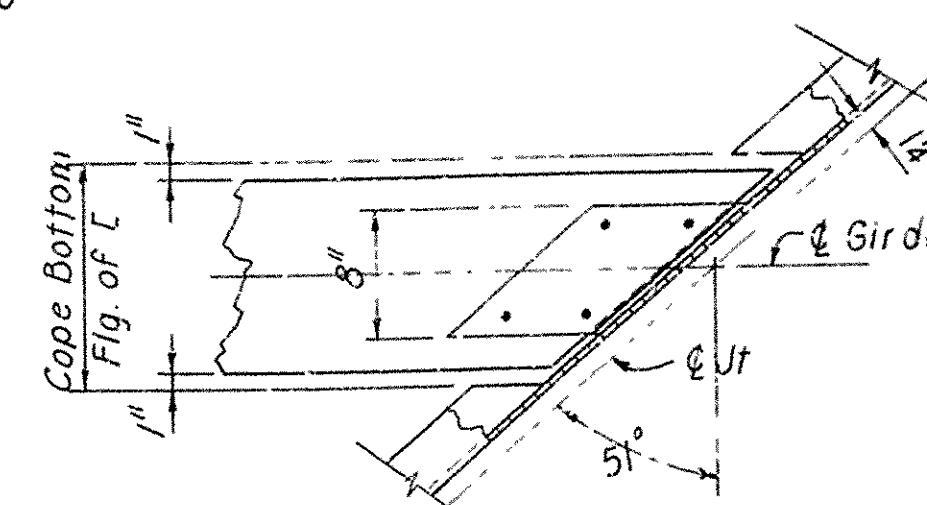
TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CHECKED BY: DFL DATE: E-3-70

BRIDGE NO. 5354

DRAWING NO. 16738

*Wesley Pinkerton*  
BRIDGE ENGINEER

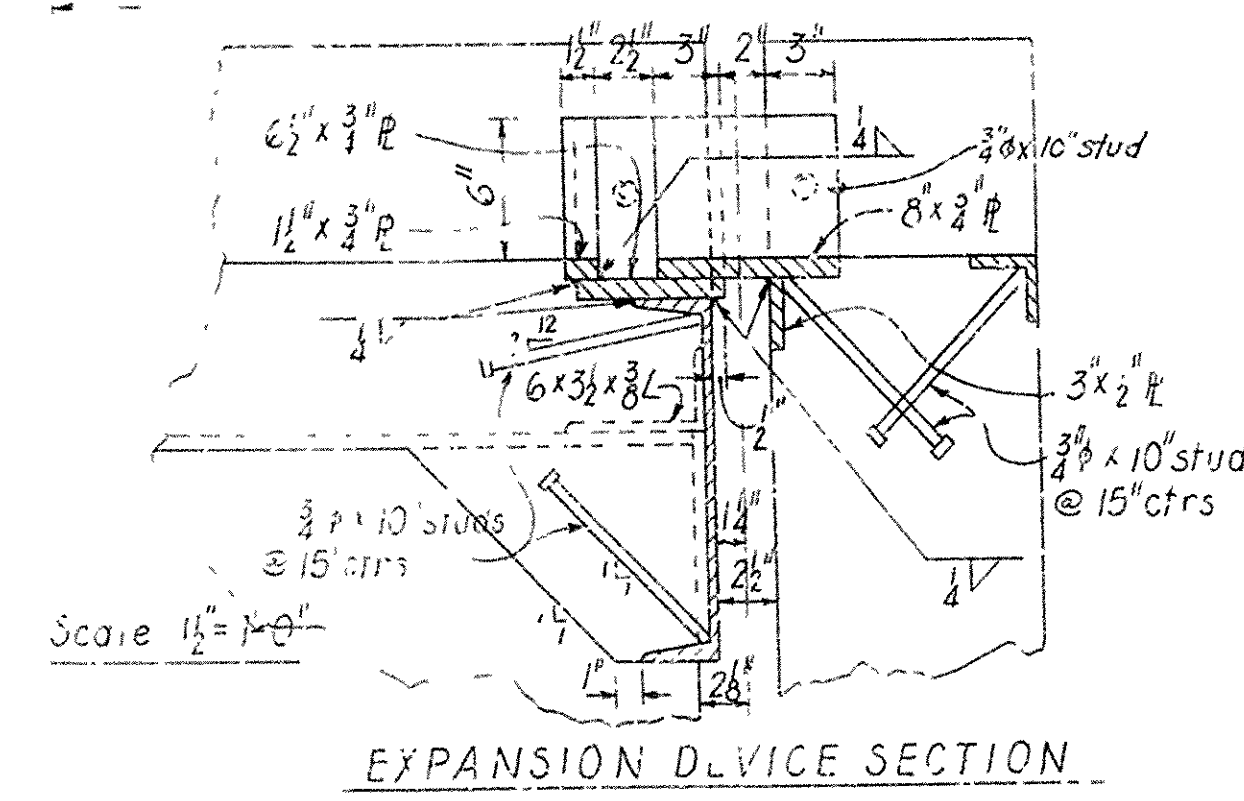
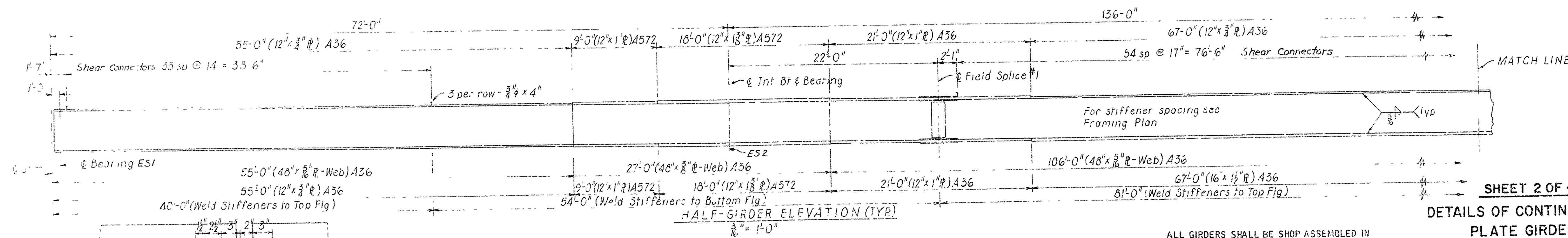
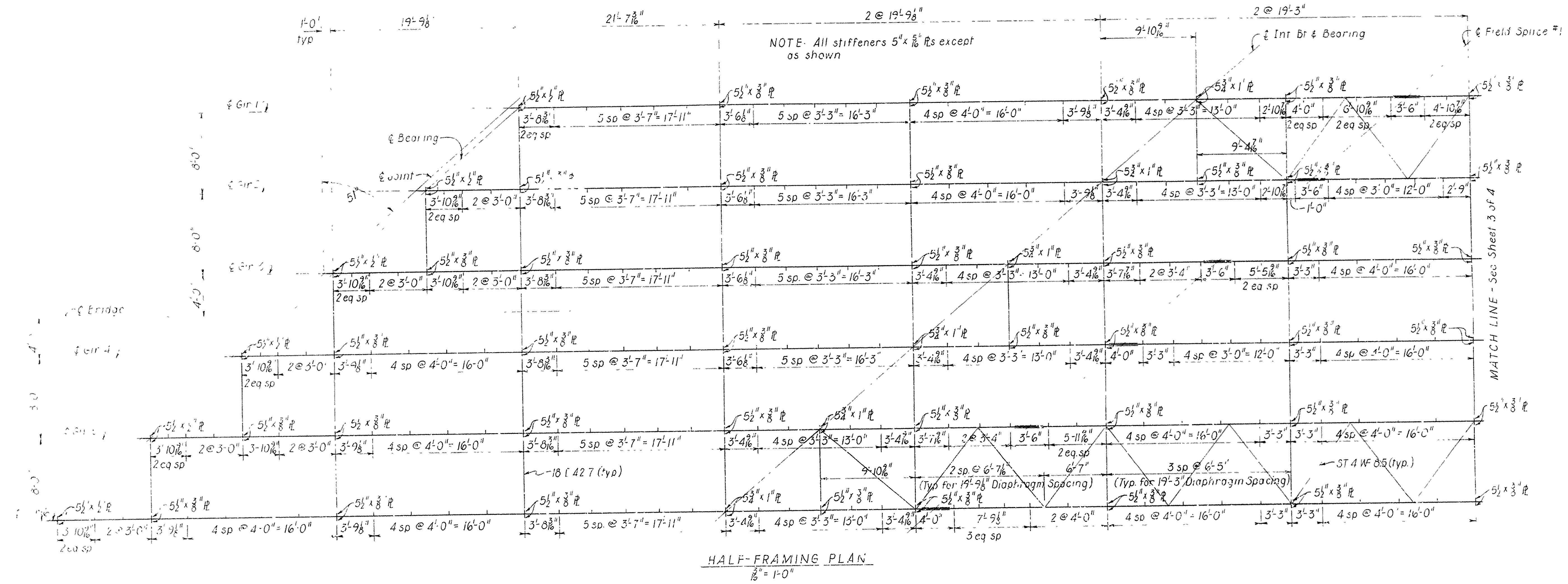


\* 4'-9 1/16" @ Bents 1 & 5  
4'-10 1/16" @ Bents 2 & 4  
4'-10 3/8" @ Bent 3

ROADWAY SECTION  
8" = 1'-0"

For slab pouring note, dead load deflection diagram and  
General Notes see sheet 4 of 4

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. YEAR	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
				6	ARK.	5-22-63 021-303		31	235
				JOB NO.		5608			
① 5354 SPAN DETAILS 16739									



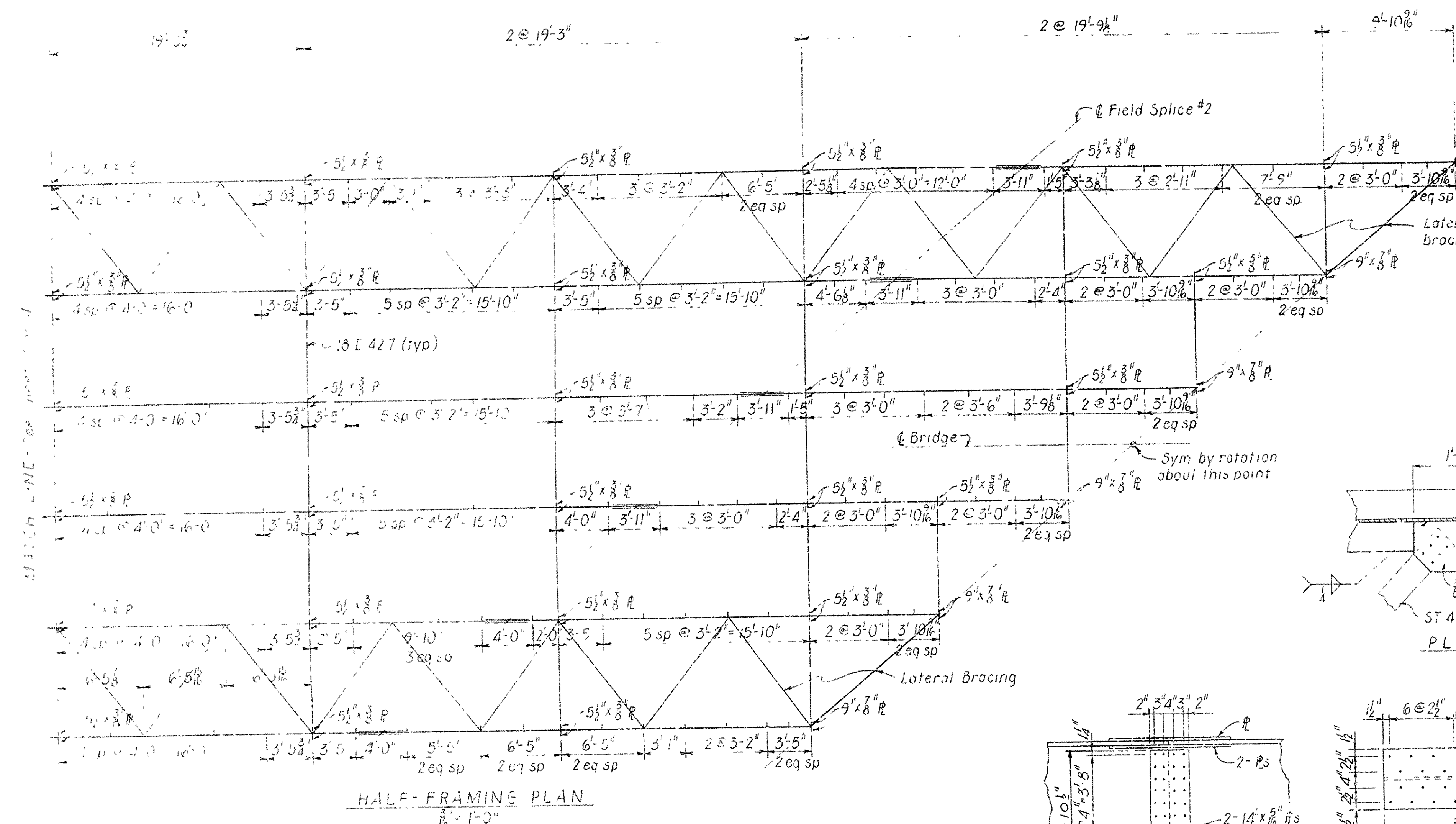
DESIGN SPECIFICATIONS:	AASHTO 1969
DESIGN LIVE LOADING:	HS20
LOAD DISTRIBUTION:	
DEAD LOAD TO GIRDER (INCLUDES 150#/FT. FOR WT. OF GIRDER)	855#/FY.
DEAD LOAD TO COMPOSITE GIRDER (INCLUDES 90#/FT. FOR FUTURE WEARING SURFACE)	169#/FY.
LIVE LOAD TO COMPOSITE GIRDER	1.455 WHEELS + IMPACT
UNIT STRESSES:	
CLASS 5 CONCRETE (N-10)	1,200 PSI
REINFORCING STEEL	20,000 PSI
STRUCTURAL STEEL (A 36)	20,000 PSI
STRUCTURAL STEEL (A 572)	27,000 PSI

ALL GIRDERS SHALL BE SHOP ASSEMBLED IN THEIR TRUE POSITION. FIELD CONNECTION HOLES REAMED AND ALL PARTS MATCH MARKED. THE SHOP ASSEMBLY SHALL HAVE A MINIMUM ASSEMBLED SEQUENCE OF 3 SECTIONS.

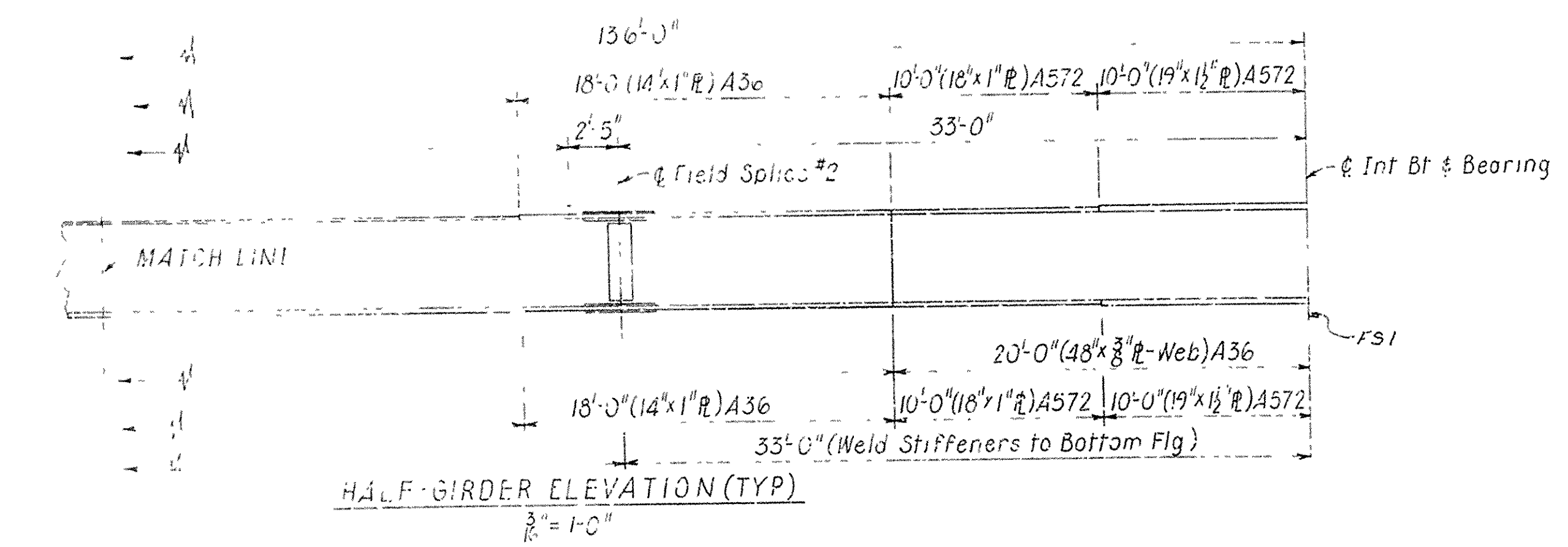
SHEET 2 OF 4  
DETAILS OF CONTINUOUS WELDED PLATE GIRDER UNIT  
HWY. 64 INTERCHANGE  
BEEBE-SEARCY BYPASS  
SURFACING & INTERCHANGES  
WHITE COUNTY  
ROUTE 67 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: *A. May* DATE: 1-26-70  
TRACED BY: *DFL* DATE: 5-8-70  
CHECKED BY: *DFL* DATE: 5-8-70  
BRIDGE NO. 5354 DRAWING NO. 16739



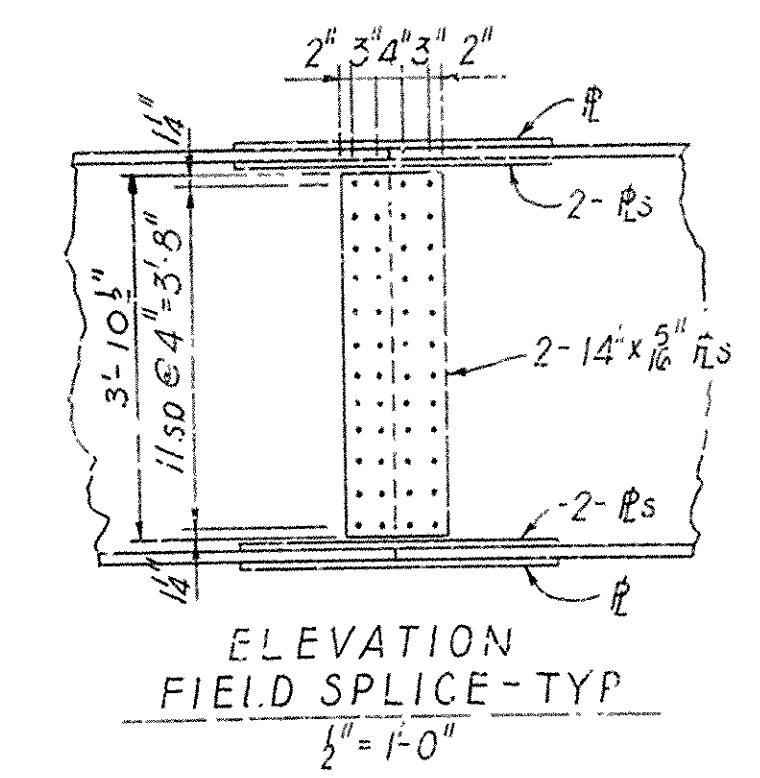
				107						23	
DATE REVISION	DATE FILLED	DATE REVISION	DATE FILLED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS		
				6	ARK.	REF- 921-9023		82	235		
				JOB NO.		5608					
05354 SPAN DETAILS 16740											



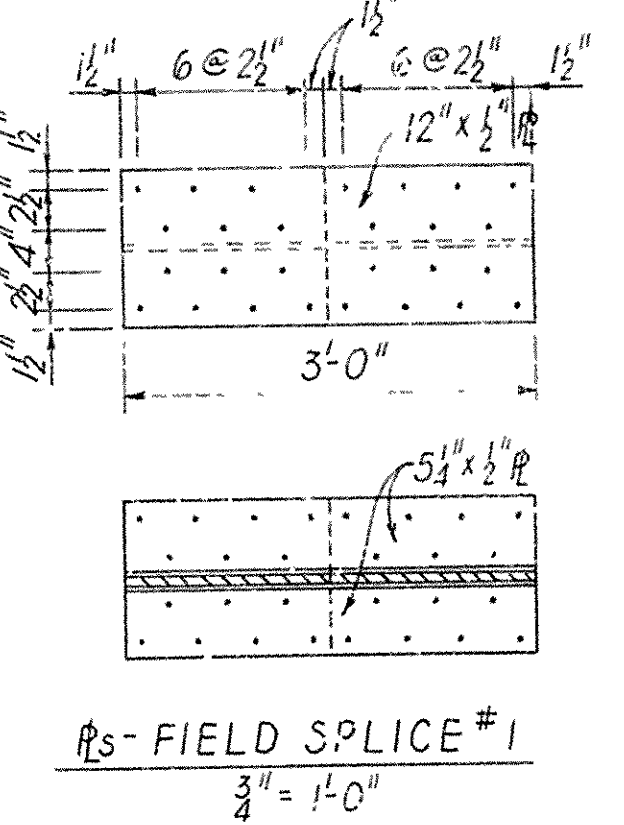
HALF-FRAMING PLAN  
1/8" = 1'-0"



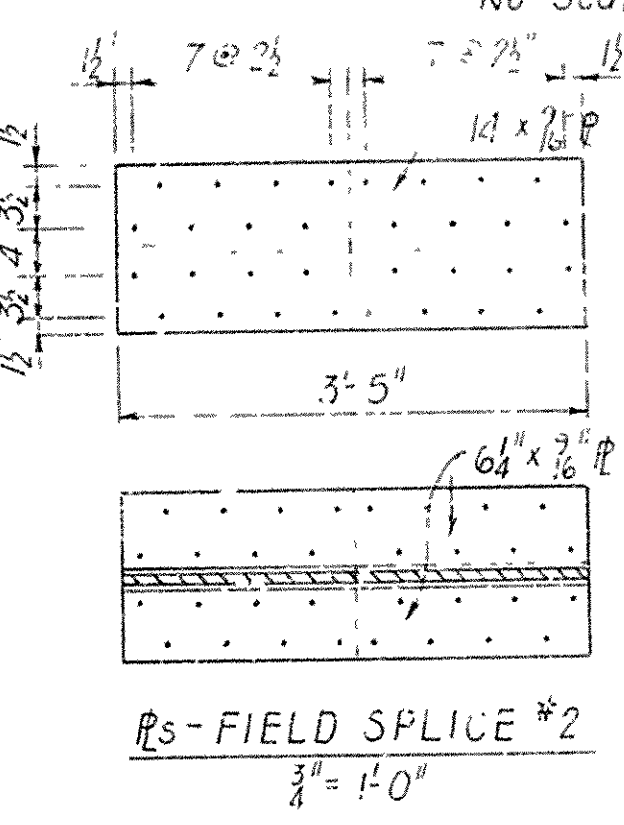
HALF-GIRDER ELEVATION (TYP)  
1/8" = 1'-0"



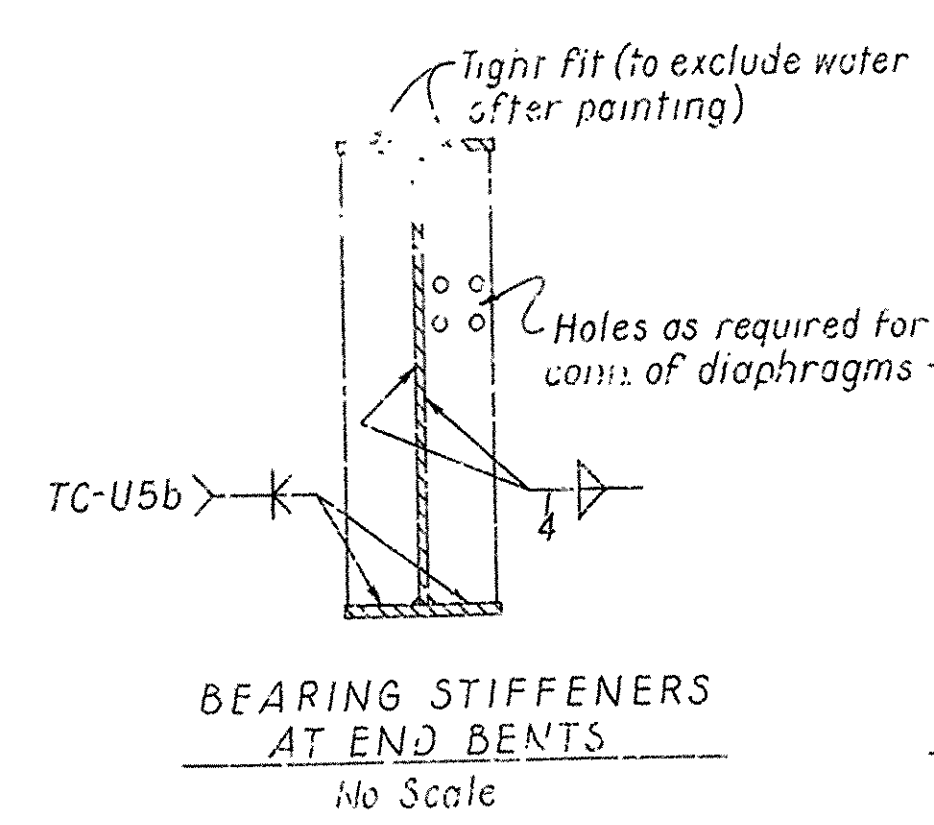
ELEVATION  
FIELD SPLICE-TYP  
1/2" = 1'-0"



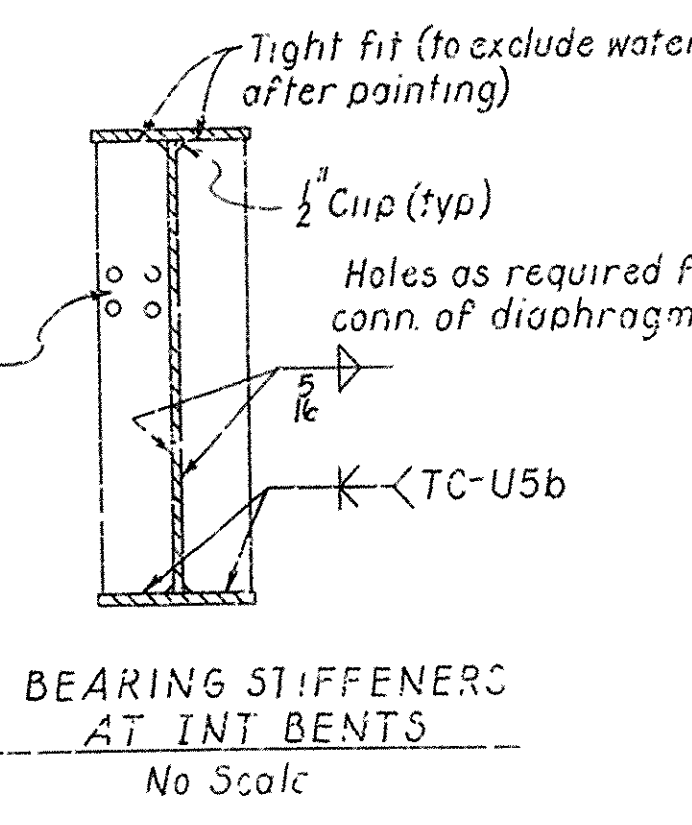
Rs-FIELD SPLICE #1  
3/8" = 1'-0"



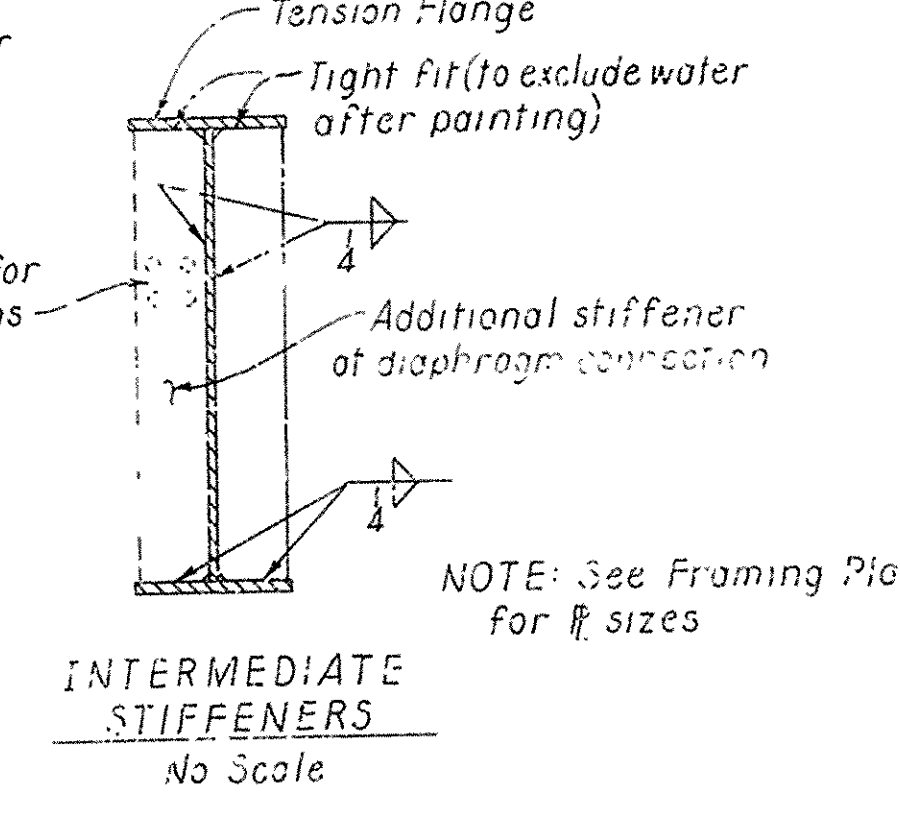
Rs-FIELD SPLICE #2  
3/8" = 1'-0"



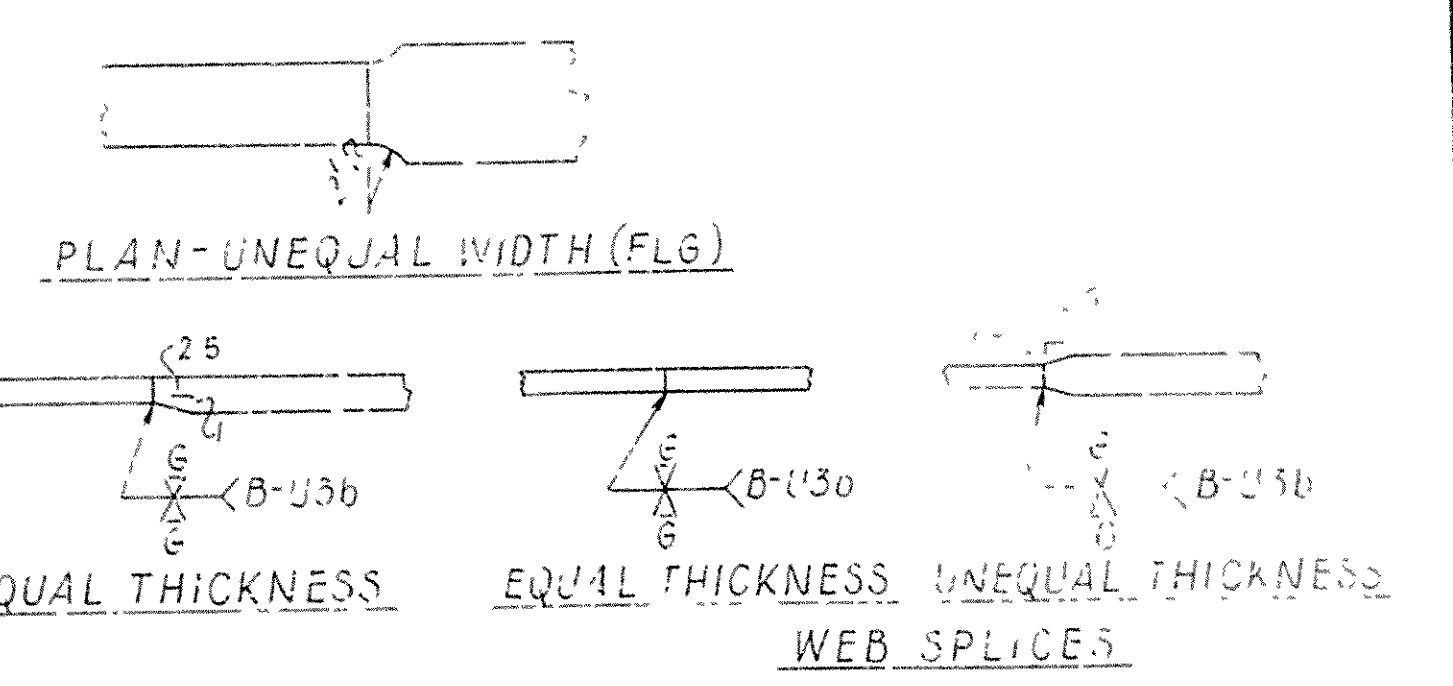
BEARING STIFFENERS  
AT END BENTS  
No Scale



BEARING STIFFENERS  
AT INT BENTS  
No Scale



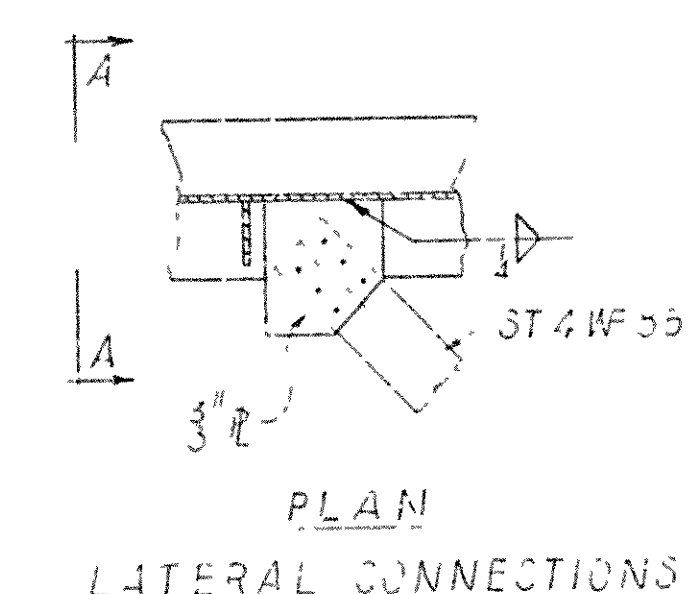
INTERMEDIATE  
STIFFENERS  
No Scale



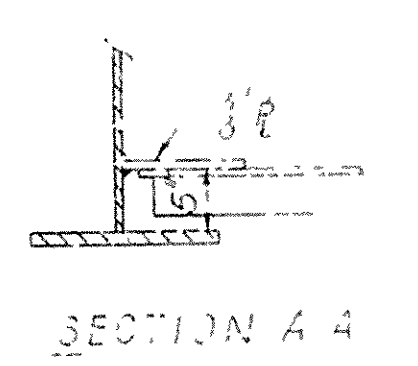
PLAN-UNEQUAL WIDTH (FLG)

BUTT WELD DETAILS  
No Scale

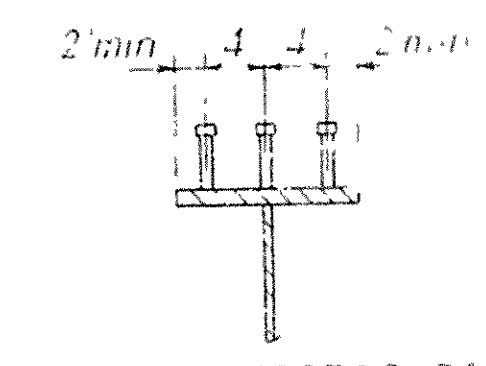
JOINTS SHOWN ARE FOR MANUAL SHIELDED METAL ARC WELDING. SUBMERGED ARC WELDING MAY BE USED, IN WHICH CASE, REFER TO CURRENT AMERICAN WELDING SOCIETY SPECIFICATIONS D2.0 FOR APPROPRIATE JOINT DESIGNATION



PLAN  
LATERAL CONNECTIONS  
No Scale



SECTION A-A



SHEAR CONNECTOR DETAIL  
No Scale

STUD SHEAR CONNECTORS SHOWN SHALL BE 4" LONG, GRANULAR FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY END WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUDS MAY BE SUBSTITUTED FOR THE 3/4" DIAMETER STUDS SHOWN AT THE RATIO OF 6.73 - 7/8" STUDS IN PLACE OF 1 - 3/4" STUDS. THE 3/4" STUDS SHALL BE USED AS THE BASIS OF PAYMENT OF 61.5 LBS PER ONE HUNDRED STUDS.

SHEET 3 OF 4  
DETAILS OF CONTINUOUS WELDED  
PLATE GIRDER UNIT  
HWY. 64 INTERCHANGE  
BEEBE-SEARCY BYPASS  
SURFACING & INTERCHANGES  
WHITE COUNTY  
ROUTE 67 SEC. 12  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: *W. J. P. Smith* DATE: 1-29-70  
TRACED BY: *D. E. Smith* DATE: 2-5-70  
CHECKED BY: *D. E. Smith* DATE: 2-5-70  
BRIDGE NO. 5354 DRAWING NO. 16740  
SCALE: As Shown







Metal railing including post and fasteners shall be paid for at the unit price bid for Metal (Aluminum or Steel) Bridge Railing. This railing system is for installation on parapet walls. For details of parapet walls, see span drawings. Parapet walls will be paid for at unit prices bid for concrete and reinforcing steel.

Railing components may be either aluminum or steel. Stainless steel fasteners shall be used on either aluminum or steel systems. Other than the exceptions noted herein and in the Material Data, no mixing of aluminum and steel parts is permitted. For lists of material designations & specifications of various parts, see Material Data.

Uniform section steel or aluminum tubing or pipe of equivalent strength and wall thickness with approved fasteners may be submitted for approval. Toggle bolt fasteners  $\frac{1}{8}$ " dia. with  $\frac{5}{8}$ " toggle pin may be used to attach uniform sections to posts.

Rail tubes, pipes or extrusions must be fabricated to attach to at least three posts. Shop drawings of railing shall be submitted and approval secured before fabrication is begun.

Steel rail members shall be galvanized in accordance with ASTM A123 after fabrication. Steel fasteners other than stainless steel shall be galvanized according to ASTM 153.

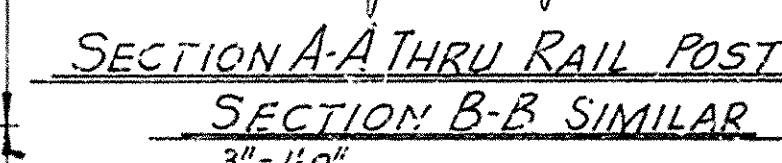
**SPECIFICATIONS:** Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959, the 1966 Supplemental Specifications thereto and applicable Special Provisions.

PART	ALUMINUM	STEEL
TUBING	Alloy 6061-T6	Specification Grade ASTM B221
PIPE	6061-T6	ASTM B241
EXTRUSIONS	6061-T6	ASTM B221
RAILING END CAPS	6061-T6	ASTM B221
CAST RAIL POSTS	3544-T4	Permanent Mold Castings
ANCHOR BOLTS & RAIL CLAMP SCREWS	Same as for Steel Railing	ASTM A193
WASHERS	Same as for Steel Railing	ASTM A193
* NUTS	Same as for Steel Railing	ASTM A193
TODGE BOLT ASSEMBLY	The entire assembly shall be capable of withstanding a tensile load of 9000 pounds applied through a 1" hole. The materials for components will be specified by recognized ASTM designation on shop drawings submitted for approval, and will be accepted by manufacturer's certification on approval by the engineer.	

- \* Threads on bolts, screws and nuts shall conform to American Standard coarse Series, Class 2A for screws, Class 2B for nuts, for ASA B.11.
- \* Minimum yield strength - 80,000 psi
- Commercial Designation 356 F
- Steel posts to be galvanized in accordance with ASTM A123
- \* Section 805 - Bridge Railing of 1966 Supplemental Specifications

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

DRAWN BY: J.S. DATE: 2-3-68  
 TRACED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: J.E.M. DATE: 8-9-68  
 SCALE: As Noted  
 BRIDGE NO. 5354-5357 DRAWING NO. 167



5/8" x 0'-8" stainless steel anchor bolts  
with stainless steel heavy hexagonal  
nut and washer with hot formed head  
or 4" additional bend anchor. Cast  
in place only.  
Place shims between bearing pad and  
post where necessary to align railing  
posts.  
All Fillets to have 1/4" R. unless otherwise shown.  
All outside corners to be 1/2" Radius  
Crafft 30° unless otherwise shown

[illegible][illegible]

6"

1" 4" 1"

RAIL POST CLAMP BAR

FULL SIZE

Diagram illustrating a lap joint configuration. Two plates of thickness  $t$  are joined by a stainless steel cap screw. The distance from the center of the cap screw to the edge of the plate is labeled  $L/2$ . The total length of the joint is indicated as  $\text{Length} = 5'' + \text{length of normal}$ .

A technical drawing of a railroad crossing gate assembly. The drawing shows a side view of the gate with various components and dimensions labeled.

- Top Section:** A horizontal rail member is shown with a dimension of  $1'-0"$  and a note: "Splice both rail members which extend across roadway, expansion joints, and at intermediate locations not to exceed 50' spacing." Below this, a dimension of  $2'-0"$  is labeled "Rail Splice 2'-0" long".
- Middle Section:** A horizontal member is shown with a dimension of  $2'-0"$  labeled "MAX." and a dimension of  $1'-6"$  labeled "Rail Splice 3'-0" long".
- Bottom Section:** A horizontal member is shown with a dimension of  $1"$  labeled "for Int. Splices".
- Left Side:** A vertical post is labeled "Post".
- Bottom Left:** A dimension of  $5/8" \times 8"$  is labeled "stainless steel Bolts".
- Bottom Right:** A note states: "Opening equal to width of roadway. Exp. Jt opening @ 60' F, min 1" where railing extends across roadway Jt."

The image contains three technical drawings of a flange joint:

- ELEV.**: A side elevation view of the flange. It shows a main body with a top flange. The top flange has a thickness of  $\frac{1}{2}$ " and a width of  $1\frac{1}{2}$ ". The main body has a thickness of  $\frac{1}{2}$ ". The top flange is tapered with a "2 or 3° Draft".
- PLAN OF OPEN JOIN**: A top-down view of the flange joint. It shows two flanges joined by a  $\frac{1}{2}$ " Chamfer. The outer diameter is labeled "Outside Dia. of Railing".
- PLAN OF DUMMY JOIN**: A top-down view of the flange joint. It shows two flanges joined by a  $\frac{1}{2}$ " Chamfer. The outer diameter is labeled "Outside Dia. of Railing".

Drill & Tap for  $\frac{1}{8}$ " stainless steel  
headless set screws -  $\frac{1}{2}$ " thread  
length - installed to interference

Expand or form bead at ends of  
splice member sufficiently to  
give snug fit only

Splice Member

CROSS SECTION OF LOWER RAIL  
SPLICE MEMBER & CLAMP BAR  
HALF SIZE

CROSS SECTION OF UPPER RAIL  
SPLICE MEMBER & CLAMP BAR  
RAIL SIZE

HALF SIZE