

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	WER 10		1	2
		STATE JOB NO. 8243			

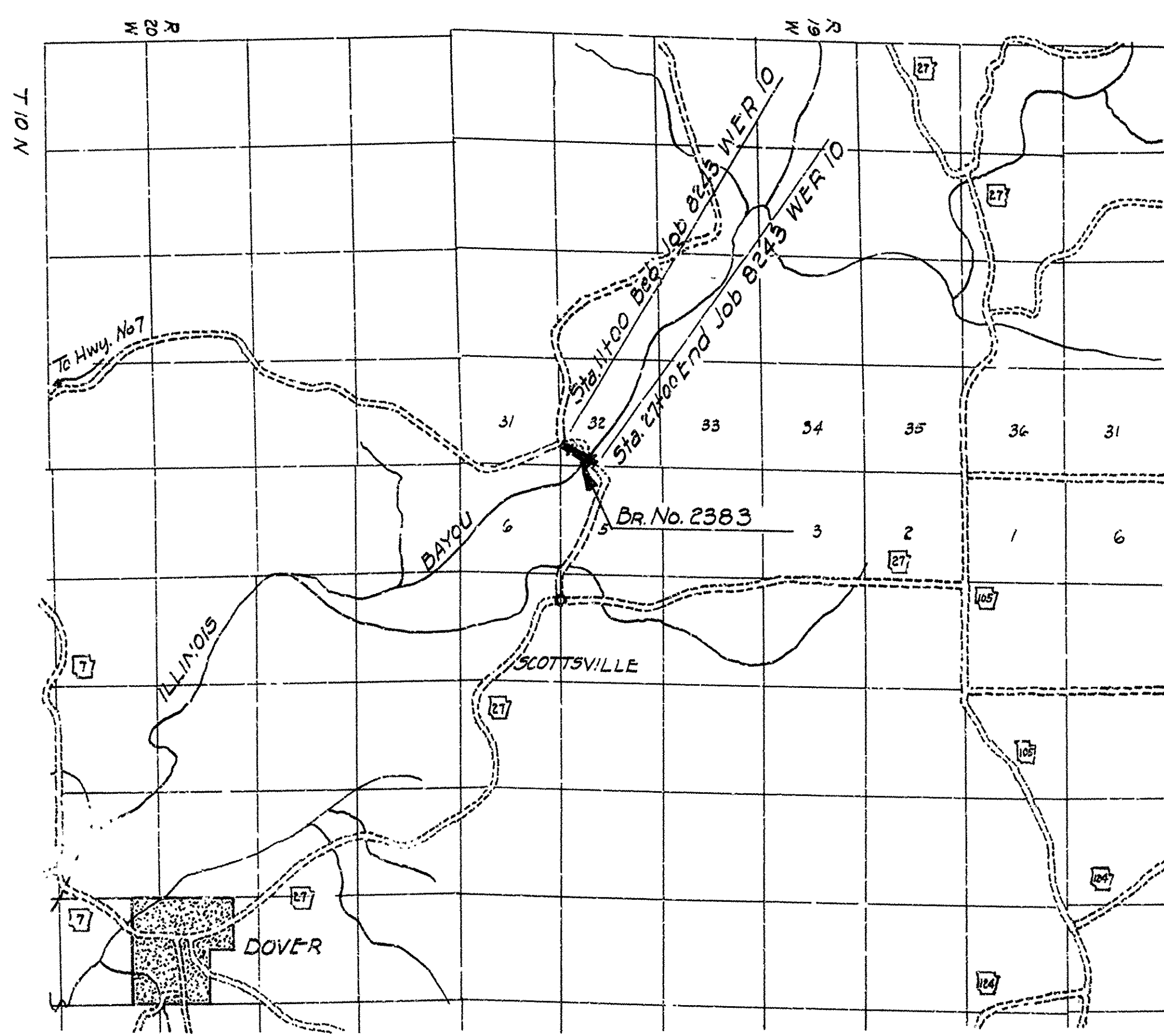
STATE OF ARKANSAS  
STATE HIGHWAY COMMISSION

INDEX OF SHEETS

SHEET No.	DRAWING No.	Title
1	6491	Title Sheet Job 8243
2	6492	Quantity Sheet "
3	6493	Layout of Bridge No. 2383
4	5272-A	Details of Berths
5	5272	Details of Standard 40' R.C.O.G. Spans
6	6494	Details of Piers
7	6495	Details of 100' Truss Spans
8	6496	Plan and Profile
9	6498	Typical Section of Grading
10	1888	Embankment Construction at Bridge Ends
11	1891	Basis for Computing Excavation for Structures
12	F.P.C.-7 Rev.	Pipe Culverts and Headwalls
13	142-A	Details of R.C. Box Culverts
14	144-A	Details for Extending Culverts
15	572	Superelevation for Ten Chord Transition
16-23	6497-6497-G	Cross Sections

QUANTITIES

**PLAN OF PROPOSED BRIDGE**  
**OVER ILLINOIS BAYOU**  
**SCOTTSVILLE - WEST COUNTY ROAD**  
**POPE COUNTY**  
**ROUTE SEC.**  
**JOB No 8243**  
**WER 10**



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

PAMPHLETS

- DIVISION I
- DIVISION II Parts 1, 8a, 8b, 8c, 9
- DIVISION III
- DIVISION IV

SPECIAL PROVISIONS

No.	Required Special Provisions	No. of Sheets
	Required Special Provisions (Approved 3-25-42)	14
	Equipment and Priority	1
	Wages of Labor	1
2-1	Rev. of Article 2.11 (Approved 2-8-41)	2
2-2	Equipment List Required	1
3-2	Award of Contract	1
4-1	Rev. of Art. 4.9	1
5-3	War Emergency Relief Projects off State Hwy. System	1
8-3	Employment Centers for Labor	1
9-5	Partial Payments	1
9-6	Common Carrier Rates	1
803-1	Rev. of Art. 803.21	1
807-3	Rev. of Art. 807.37	1
809-4	Rev. of Art. 809.22	2
830-1	Engineers Field Office	1
833-1	Machine Mixing	1
Job 8243	Removal of Existing Bridge and Erecting Truss Spans	1
902-1	Reinforcing Steel	1
104-14	Embankment Material	2

LAYOUT

Scale: 1 Inch = 1 Mile

LENGTH OF PROJECT= 1600 Feet or 0.303 Mile  
 LENGTH OF BRIDGES= 403 Feet or .776 Mile  
 LENGTH OF EMBANKMENT= 1197 Feet or 2.27 Mile  
 LENGTH OF JOB= 1620 Feet or .303 Miles

RECOMMENDED FOR APPROVAL  
 DISTRICT ENGINEER  
 PUBLIC ROADS ADMINISTRATION  
 FEDERAL WORKS AGENCY

APPROVED  
 COMMISSIONER  
 PUBLIC ROADS ADMINISTRATION  
 FEDERAL WORKS AGENCY

APPROVED  
 CHAIRMAN - STATE HIGHWAY COMMISSION

APPROVED  
 STATE HIGHWAY ENGINEER

*N.B. Lawrence*  
 PRINCIPAL OF FAY ENGINEERS (BRIDGE)

BRIDGE No. 2383

DRAWING No. 6491

FED. ROAD DIST. NO.	STATE	W.E.R. PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	10		2	23
STATE JOB NO. 8243				2	23

**CLEARING**

Sta.	Sta.	Acres
11+00	17+00	1.450
21+00	27+00	1.150
Total		2.600

**GRUBBING**

Sta.	Sta.	Acres
11+00	17+00	1.150
21+00	27+00	0.550
Total		1.700

**BRIDGE QUANTITIES  
CODE NO. 921**

ITEM No.	ITEM	UNIT	Bents	Bents	Piers	Pier	Spans	Spans	Totals
			1&5	2 to 4 Incl.	1&3	2	1-2-3-4-7	4&5	
103	Dry Excavation for Structures	Cu.Yd.			140				140
103	Wet Excavation for Structures	Cu.Yd.			94				94
103	Solid Rock Excavation for Structures	Cu.Yd.			30	15			45
SP&802	Class 'A' Concrete for Bridges	Cu.Yd.			88.24	48.63			136.87
SP&802	Class 'S' Concrete for Bridges	Cu.Yd.	15.88	8.07			132.25		156.20
SP&803	Reinforcing Steel	Lb.	1857	1395	7674	3731	27950		42607
804	Concrete Piling	Lin.Ft.	228	258					486
805	Concrete Railing	Lin.Ft.	14				400		414
SP&807	Metal Bearing and Roadway Expansion Devices	Lb.	382				3872		4254
SP&809	Untreated Bridge Timber	MFBM					9.636	9.636	
SP&809	Treated Bridge Timber	MFBM					11.200	11.200	
909	Rip Rap	Cu.Yd.	265						265
SP	Removal of Existing Bridge and Erecting Truss Spans	Complete Item							100%

**SUMMARY OF QUANTITIES**

ITEM No.	ITEM	UNIT	QUANTITY
101	Clearing	Acre	2.600
101	Grubbing	Acre	1.700
102	Solid Rock Excavation	Cu.Yd.	179
102	Common Excavation	Cu.Yd.	1122
103	Dry Excavation for Structures	Cu.Yd.	162
103	Wet Excavation for Structures	Cu.Yd.	94
103	Solid Rock Excavation for Structures	Cu.Yd.	47
SP104-M	Embankment Material	Cu.Yd.	8352
SP&802	Class 'A' Concrete for Bridges	Cu.Yd.	136.87
SP&802	Class 'S' Concrete for Bridges	Cu.Yd.	156.20
SP&803	Reinforcing Steel	Lb.	42607
804	Concrete Piling	Lin.Ft.	486
805	Concrete Railing	Lin.Ft.	414
SP&807	Metal Bearing and Roadway Expansion Devices	Lb.	4254
SP&809	Untreated Bridge Timber	MFBM	9.636
SP&809	Treated Bridge Timber	MFBM	11.200
301	Class 'A' Concrete	Cu.Yd.	3.36
301	Class 'B' Concrete	Cu.Yd.	1.88
SP&902	Reinforcing Steel	Lb.	432
906	24" Reinforced Concrete Pipe Culvert	Lin.Ft.	32
909	Rip Rap	Cu.Yd.	265
SP	Removal of Existing Bridge and Erecting Truss Spans	Complete Item	100%

**EXCAVATION**

Sta.	Sta.	Fill 10% Cu.Yds.	Backfill +10% Cu.Yds.	Common Excavation Cu.Yds.	Solid Rock Excavation Cu.Yds.	Solid Rock Excavation +25% Cu.Yds.	Embankment Material Cu.Yds.
11+00	18+18	6082		538			5544
	27+00	3591	24	584	179	223	2808
Totals		9673	24	1122	179	223	8352

**MINOR DRAINAGE STRUCTURES**

Sta.	Structure	Item No. 103 Dry Excavation for Structures Cu.Yds.	Item No. 103 Solid Rock Excavation for Structures Cu.Yds.	Item No. 901 Class 'A' Concrete Cu.Yds.	Item No. 901 Class 'B' Concrete Cu.Yds.	Item No. SP&902 Reinf. Steel Lbs.	Item No. 906 24" Reinf. Concrete Pipe Culvert Lin.Ft.
14+21	Construct 24" x 32" Reinf. Concr. Pipe Culvert Concr. Headwalls	7				62	32
24+67	3' x 5' x 26" Rubble Masonry Culvert in Place Extend 5' on Left with Sid. 3' x 3' R.C. Box.	15	2	3.36		370	
Totals		22	2	3.36		1.88	432

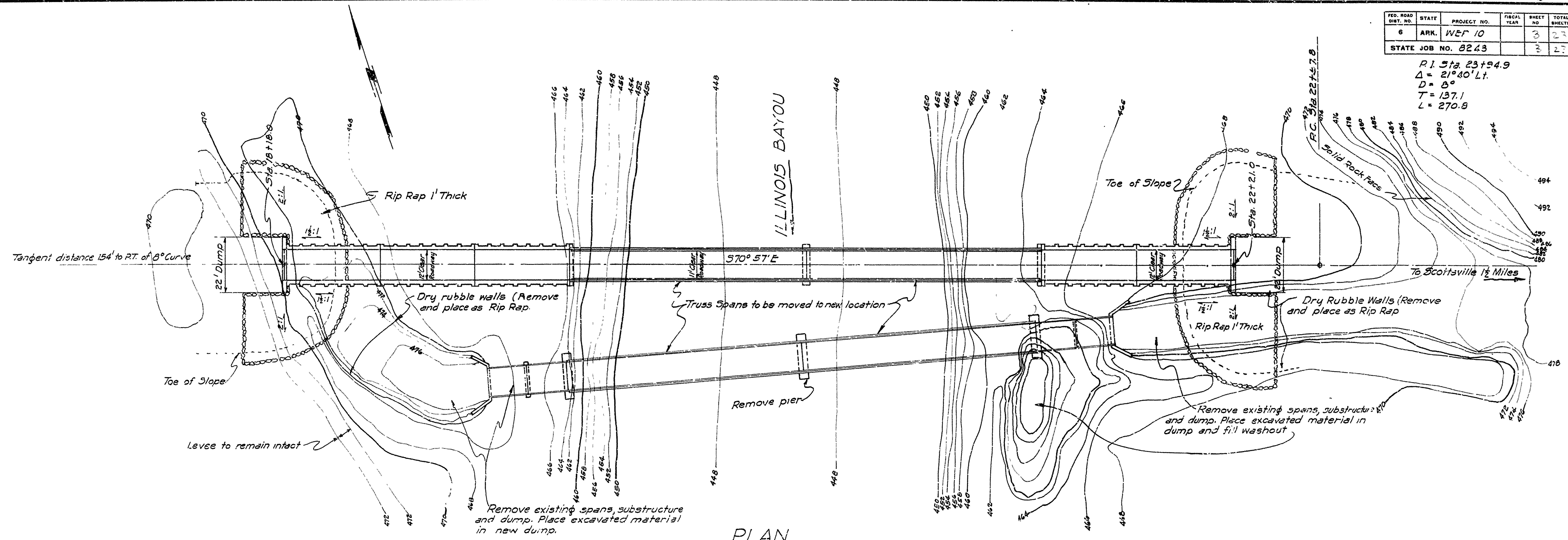
**SUMMARY OF QUANTITIES  
BRIDGE OVER ILLINOIS BAYOU  
SCOTTSVILLE-WEST ROAD  
POPE COUNTY**

**ARKANSAS STATE HIGHWAY COMMISSION**  
LITTLE ROCK, ARK.  
Drawn By: *L.P.C.* Date: 2-29-44  
Traced By: *E.A.M.* Date: 2-29-44  
Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
Scale: \_\_\_\_\_ in. = \_\_\_\_\_ ft.  
BRIDGE NO. 2383 DRAWING NO. 6492

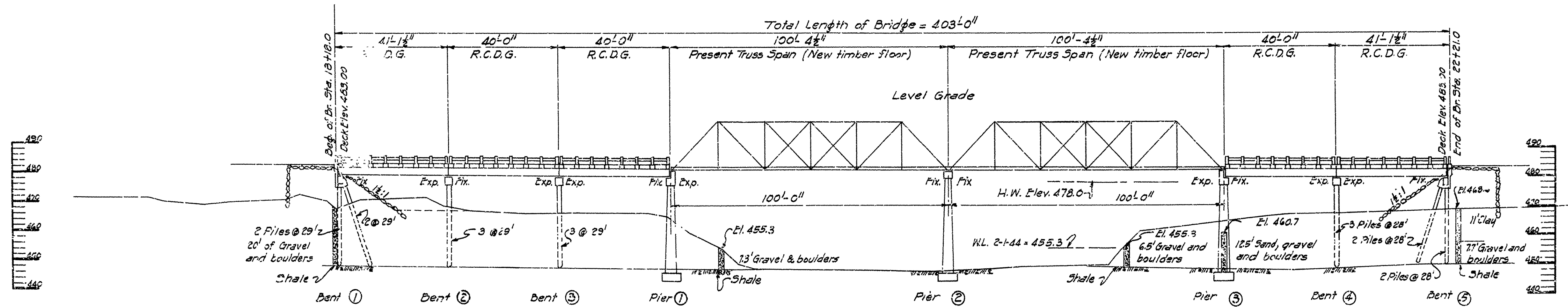
*H.B. Jones*  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	WEP 10		3	27
STATE JOB NO. 8243				2	27

R.I. Sta. 23+84.9  
 $\Delta = 21^{\circ}40' Lt.$   
 $D = 8^{\circ}$   
 $T = 137.1$   
 $L = 270.8$



PLAN



ELEVATION

B.M. Elev. 500.00 (Assumed) Nail in root  
 14" Red Oak 50' Lt. Sta. 5 + 50  
 B.M. Elev. 474.46 Nail in 14" White Oak  
 50' Lt. Sta. 22 + 65  
 Drainage Area 275 Sq. Miles C = 3.8 Reg. Waterway 7000<sup>sq</sup>  
 Lengths of 16" octagonal precast concrete piles shown  
 are for estimating purposes only. Actual lengths  
 to be determined in the field.  
 Loading H-10  
 Stresses  
 Structural Steel 18 000 #/sq  
 Reinforcing Steel 18 000 #/sq  
 "A" Concrete 650 #/sq  $n=15$   
 "S" Concrete 1000 #/sq  $n=10$   
 Timber 1400 #/sq

LAYOUT OF  
 BRIDGE OVER ILLINOIS BAYOU  
 SCOTTSVILLE-WEST COUNTY ROAD  
 POPE COUNTY  
 ROUTE SEC.

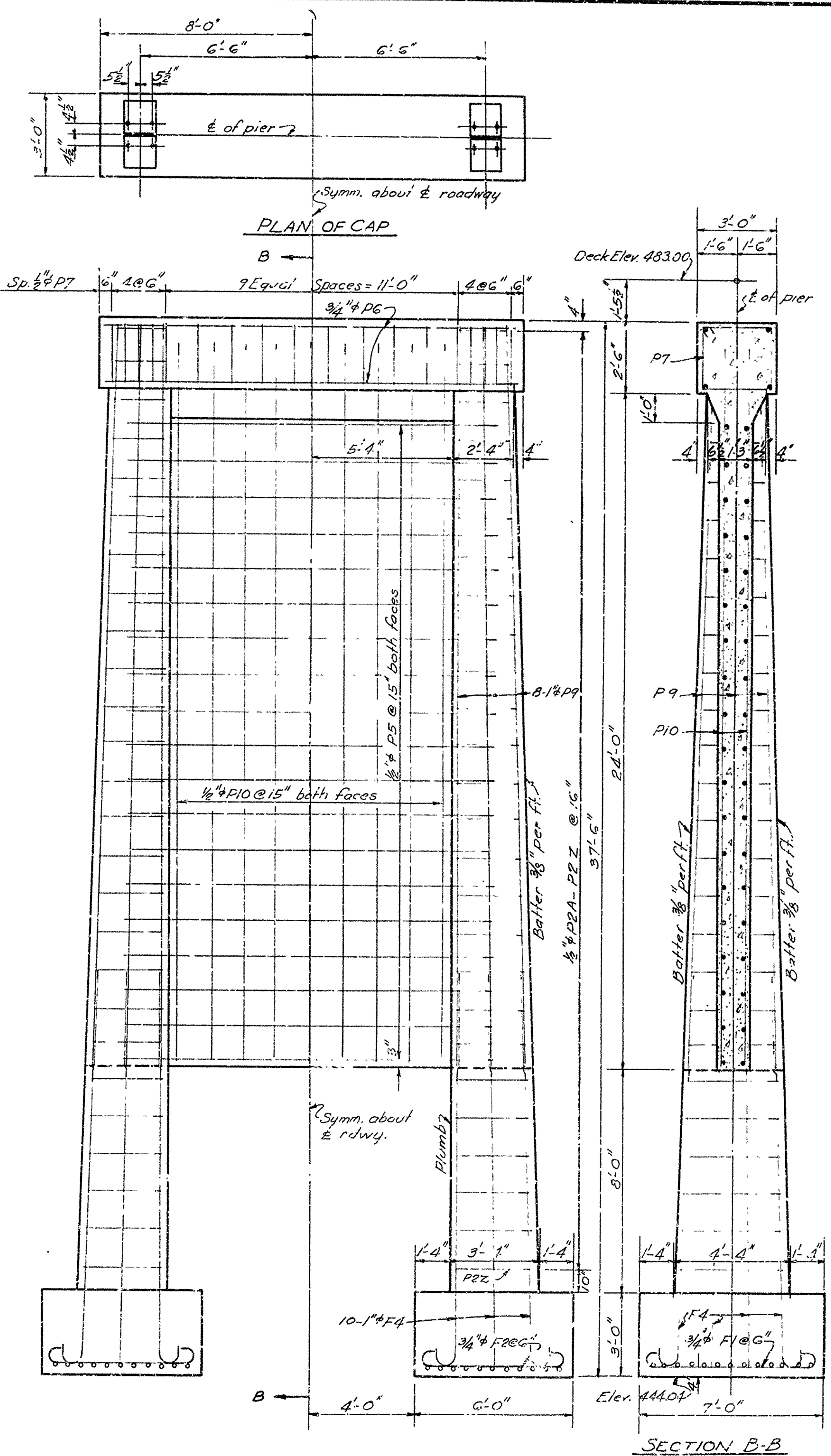
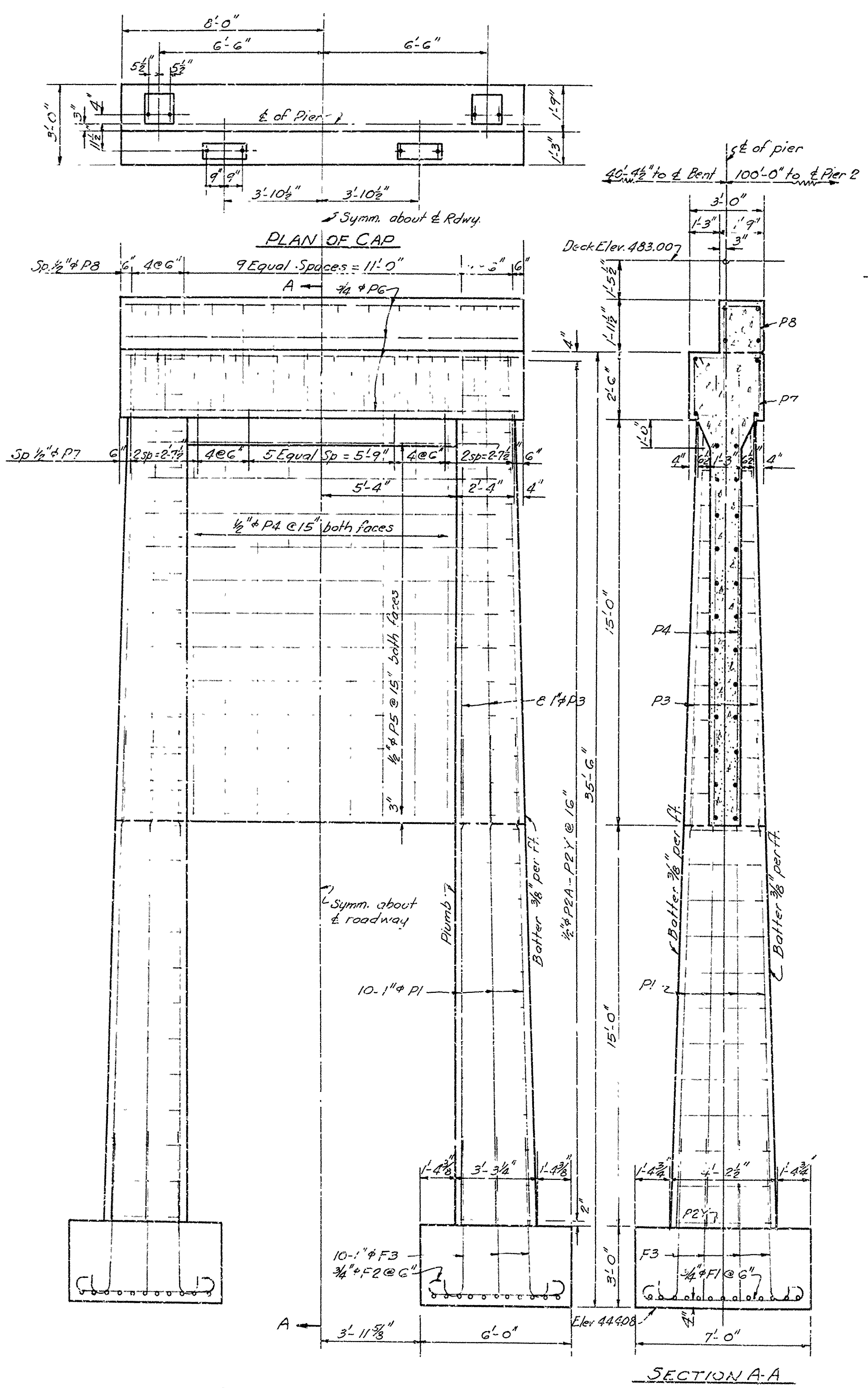
ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.

Drawn By: L.E.C. Date: 2-8-44  
 Traced By: L.A.M. Date: 2-11-44  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 BRIDGE NO. 2383 DRAWING NO. 6493

*H. B. Sawyer*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

Scale: 1 in. = 20 ft.

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	WER 10		23	23
STATE JOB NO. 243					23



**LIST OF BENT BARS**

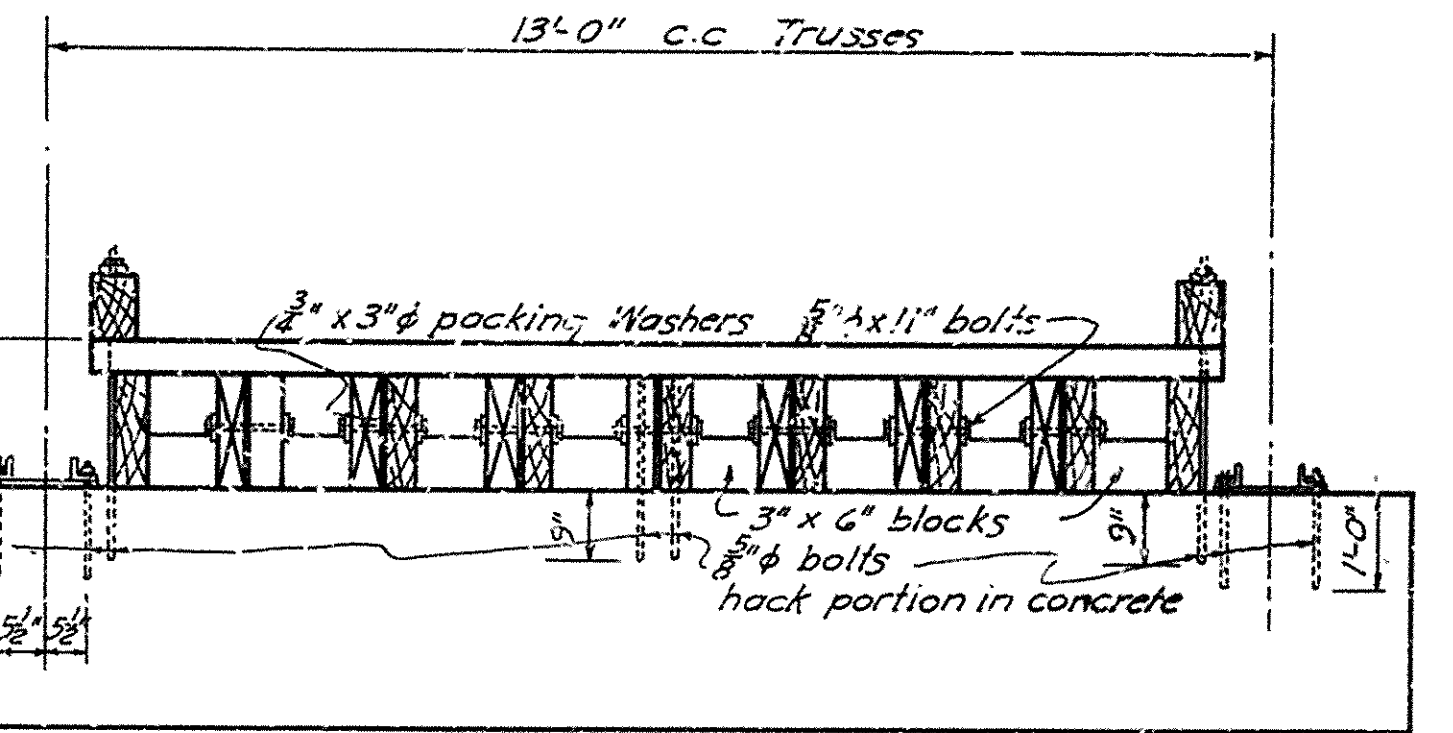
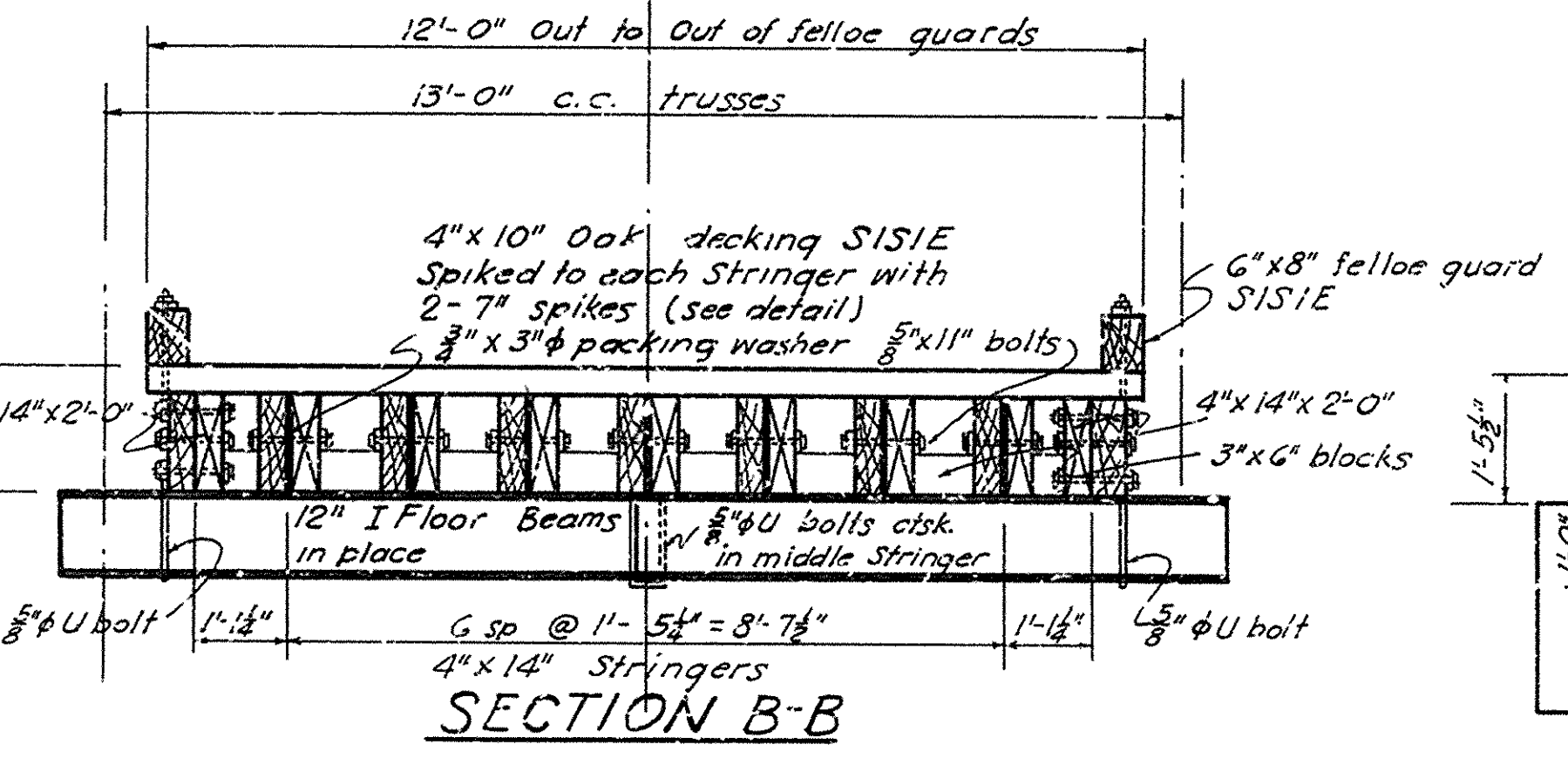
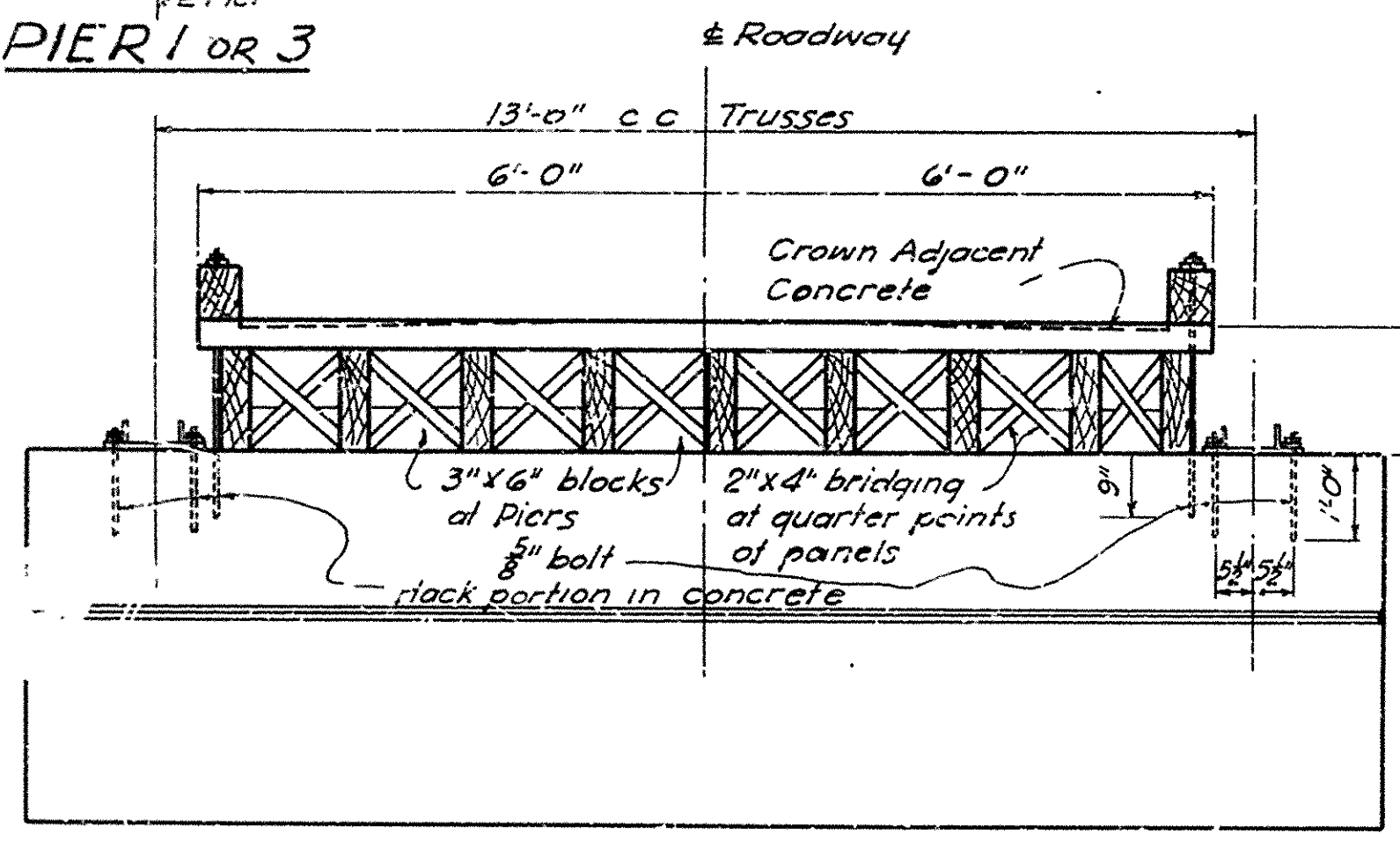
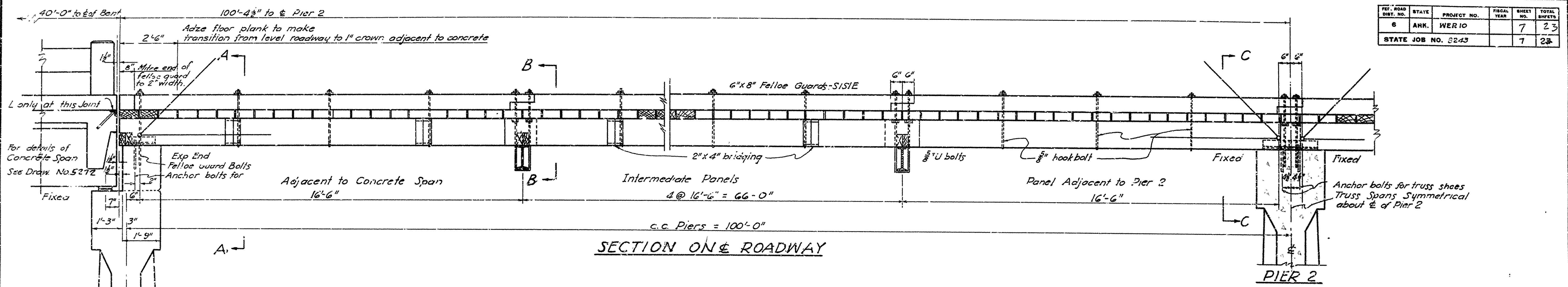
Mark	Size	Length	A	B	Bending Diagram
F1	3/4"	8'-0"	6'-6"	6'	
F2	3/4"	7'-0"	5'-6"	6"	
F3	1"	7'-0"	6'-0"	8"	
F4	1"	15'-0"	14'-0"	8"	
P2A to P2Z	1/2"	Ave. 11'-3 1/2"	Varies 1'-0" to 1'-10"	Varies 1'-10" to 2'-11"	
P7	1/2"	10'-3"	2'-7 1/2"	2'-1 1/2"	
P8	1/2"	8'-3"			

**General Notes**  
 All concrete to be Class A. All exposed corners to be chamfered 3/4". All concrete to be poured in the dry.  
 Construction joints where permitted, shall be provided with keys 3" high and shall be horizontal. Key in walls to be continuous and occupy the middle third of the width. Keys in columns to occupy the middle third of each dimension.  
 All dimensions relating to reinforcing steel are to centers of bars. Shop lists and bending diagrams shall be submitted by contractor and shall be approved before fabrication is begun.  
 Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction adopted March 1, 1940.  
 Loading: H10  
 Maximum bearing on footings 5000 #/sq ft.

**DETAILS OF PIERS**  
 BRIDGE OVER ILLINOIS BAYOU  
 SCOTTSVILLE WEST COUNTY ROAD  
 POPE COUNTY  
 ROUTE SEC.  
 ARKANSAS STATE HIGHWAY COMMISSION  
 LITTLE ROCK, ARK.  
 Drawn By: L.R.C. Date: 2-12-44  
 Traced By: L.R.C. Date: 2-25-44  
 Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
 BRIDGE NO. 2383 DRAWING NO. 6494

*N.B. Garner*  
 PRINCIPAL HIGHWAY ENGINEER (BRIDGES)

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	WER 10		7	23
STATE JOB NO. 6243					7



SECTION A-A

SECTION B-B

SECTION C-C

GENERAL NOTES

Live Load H10 Stresses  $f_s = 18000 \text{ psi}$   $f_t = 1100 \text{ psi}$

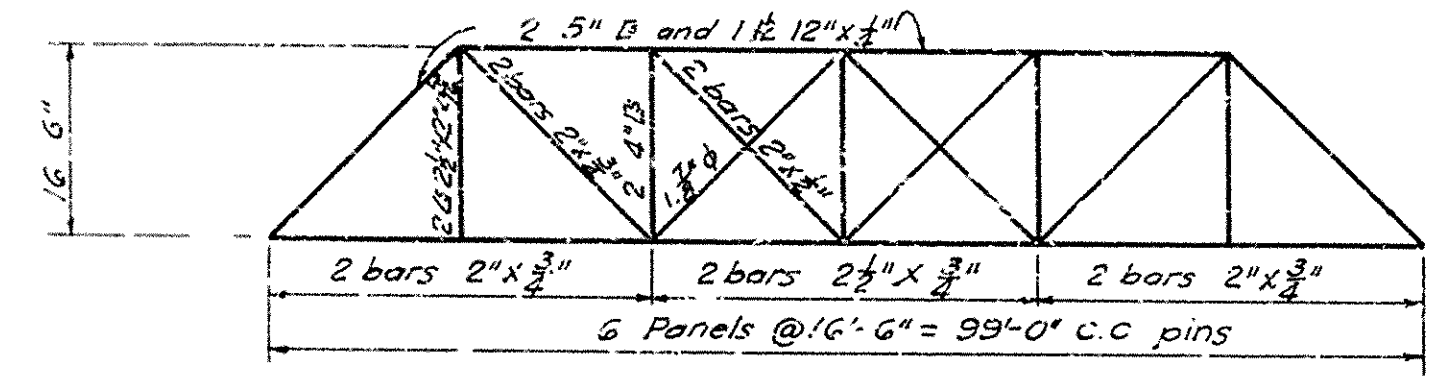
All timber stringers, felloe guards, blocks and bridging to be Douglas Fir, Longleaf Pine, Cuban Pine, or Shortleaf Pine, and shall be given a Ten (10) pound treatment of grade 1 creosote oil by the empty cell process. Timber to be framed and bored before treatment.

Oak planking shall be White Oak or its species. Thickness of planking shall be a maximum of  $4 \frac{3}{8}$ " and a minimum of  $3 \frac{3}{8}$ ". Adjacent planks shall not vary more than  $\frac{1}{8}$ " in thickness.

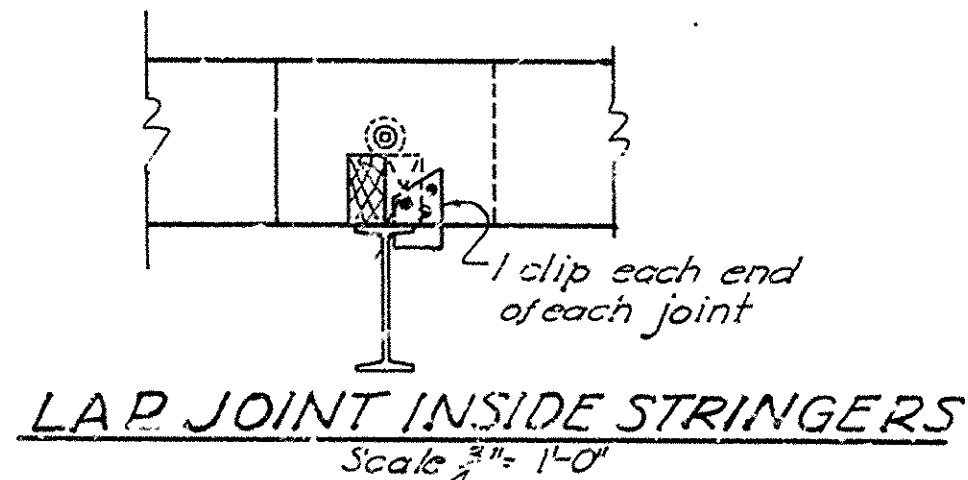
Malleable or cast iron washers to be used under all bolt heads and nuts bearing on wood. All bolts and hardware connections to be painted with red lead prior to construction, and all exposed portions of such bolts and hardware to be painted with black asphalt paint after construction is completed.

All hardware for timber and construction shall not be paid for directly but shall be included in the price bid for timber in place.

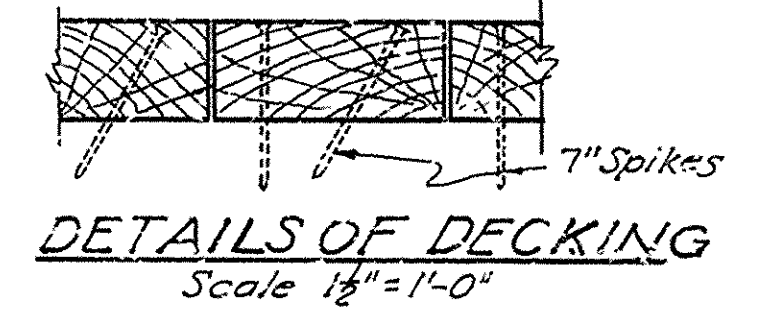
Field Paint for Structural Steel: Spot coat to cover portion where raw steel has been exposed. Second coat white lead tinted with lamp black. Specifications: Arkansas State Highway Commission Standard Specifications for Road and Bridge Construction, adopted March 1, 1940.



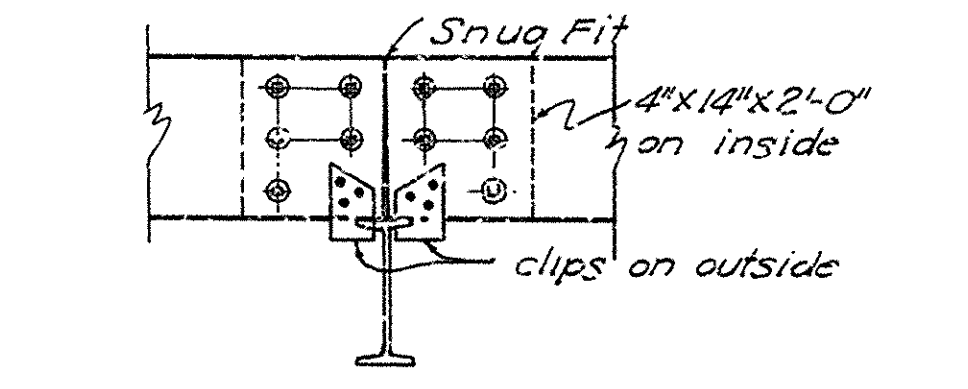
Truss spans to be moved to new piers See Special Provisions



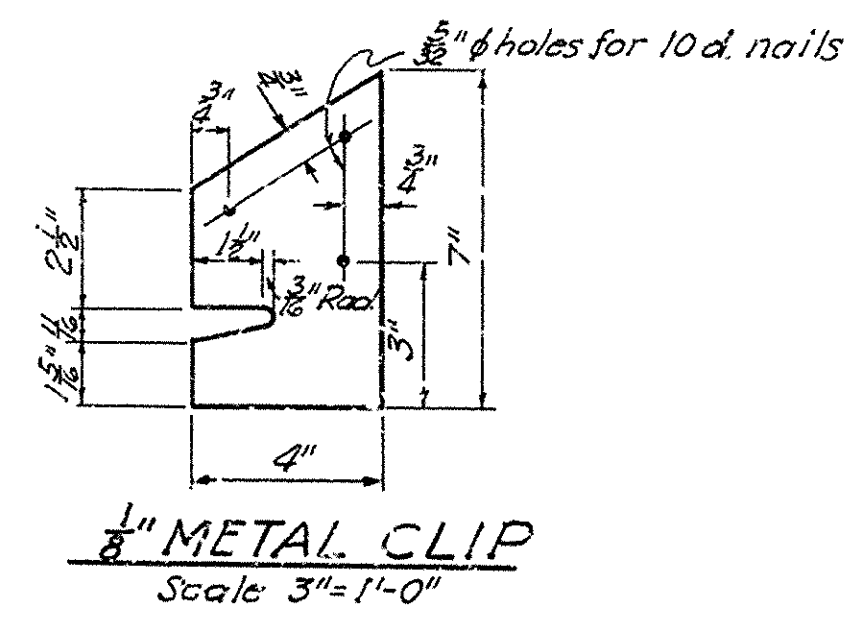
LAP JOINT INSIDE STRINGERS



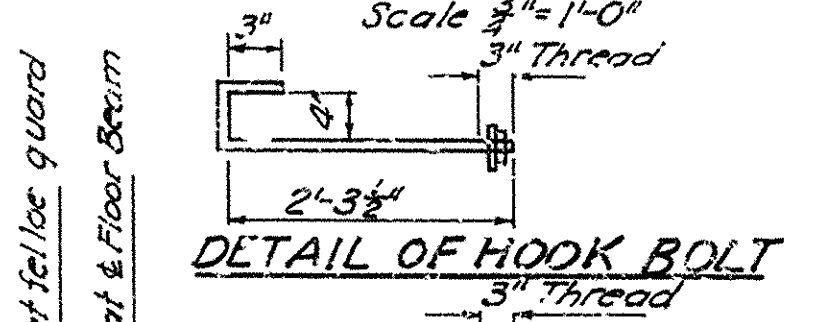
DETAILS OF DECKING



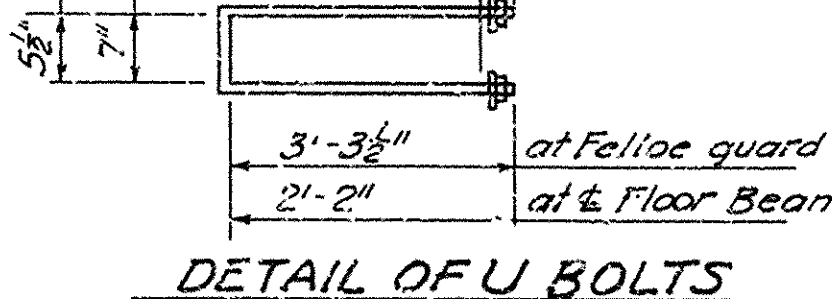
BUTT JOINT OUTSIDE STRINGERS



1/2" METAL CLIP



DETAIL OF HOOK BOLT



DETAIL OF U BOLTS

DETAILS OF NEW FLOOR  
100' TRUSS SPAN  
BRIDGE OVER ILLINOIS BAYOU  
SCOTTSVILLE-WEST COUNTY ROAD  
POPE COUNTY  
ROUTE SEC.

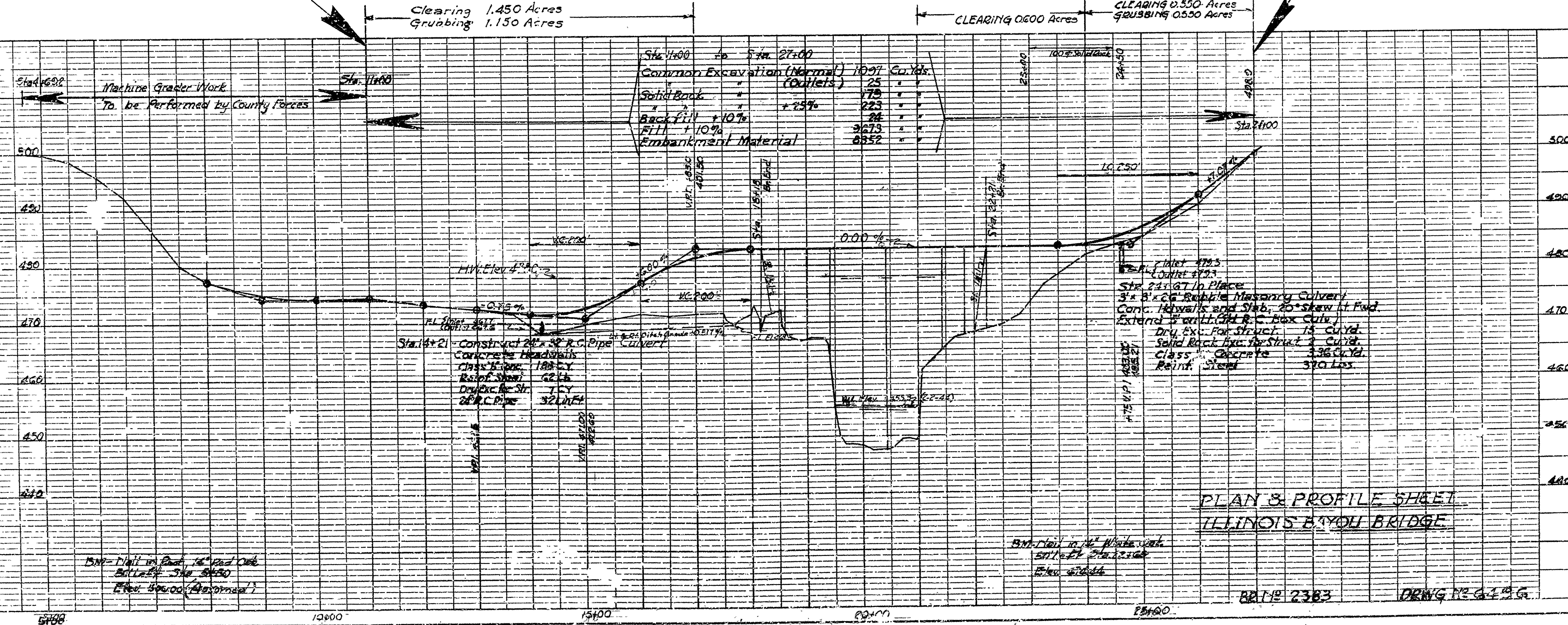
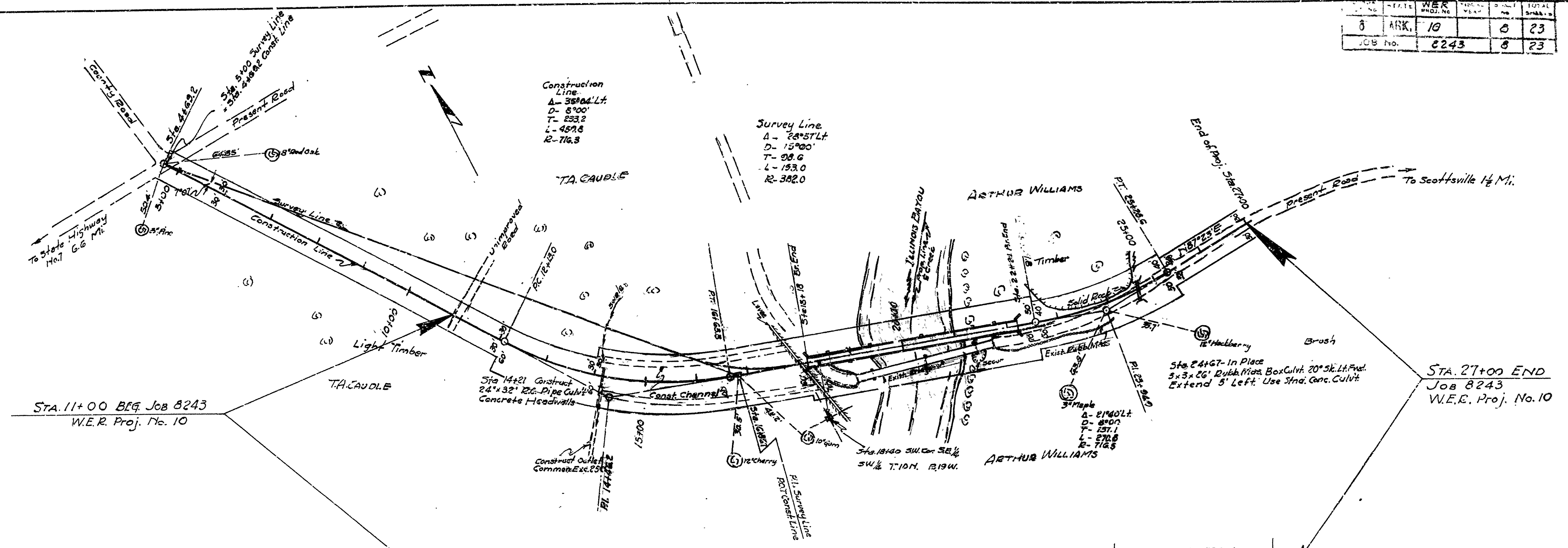
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

Drawn By: L.P.C. Date: 2-10-44  
Traced By: J.H. Date: 3-1-44  
Checked By: Date:  
BRIDGE NO. 2383 DRAWING NO. 6495

M.D. Lawler  
PRINCIPAL HIGHWAY ENGINEER (BRIDGE)

Scale: 1/2" = 1' ft. Except as Noted

NO.	STATE	W.E.R. PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	ARK.	10	8	23
JOB NO.		8243	8	23



PLAN  
DATE  
BY  
CHECKED  
NOTE: NO. OF ANY CHECKED

PROFILE  
DATE  
BY  
CHECKED  
NOTE: NO. OF ANY CHECKED

PLAN & PROFILE SHEET  
ILLINOIS BAYOU BRIDGE

BB-118 2383

DRWG. NO. G.I. 23 G.