

"A FULLY CONTROLLED ACCESS FACILITY"

STATE OF ARKANSAS

STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY SOUTH BLYTHEVILLE INTERCHANGE SOUTH BLYTHEVILLE FRISCO OVERPASS EAST BLYTHEVILLE FRISCO OVERPASS MISSISSIPPI

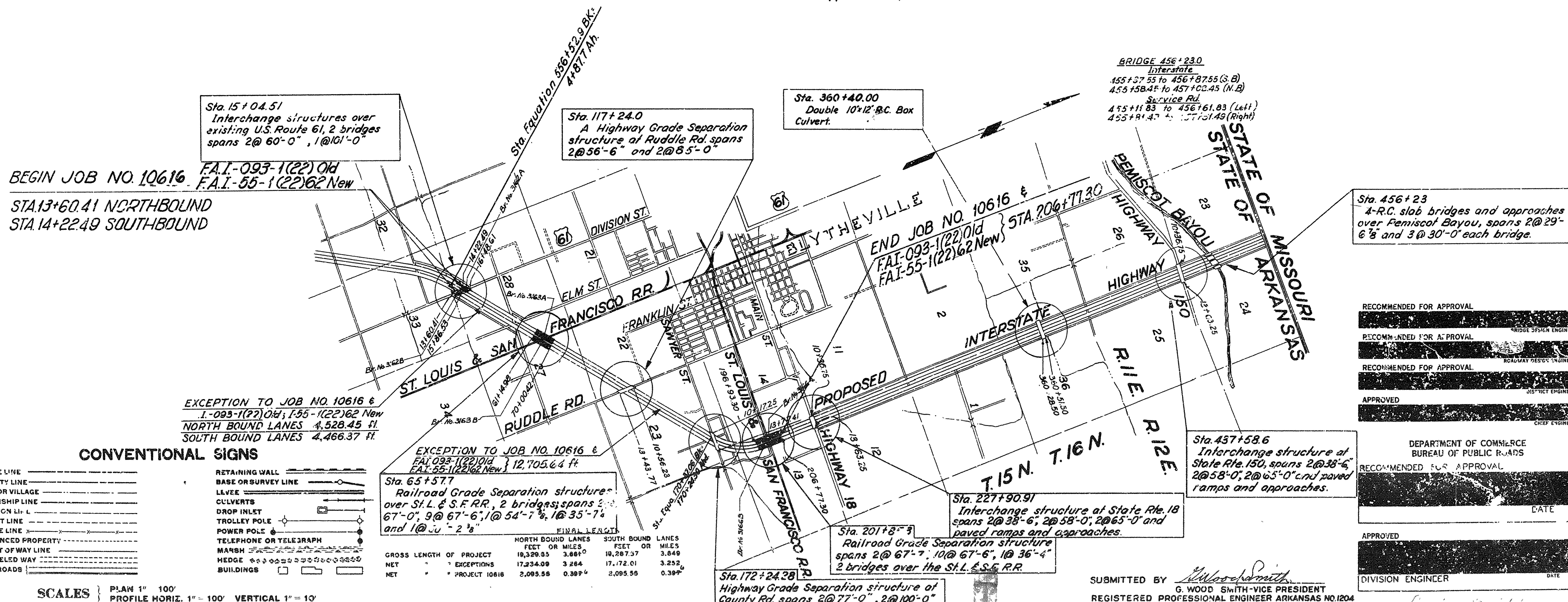
COUNTY

FAI. 55 SECTION V

FEDERAL AID PROJECT NO. I-093-1(22) OLD
I-55-1(22)62 NEW
JOB 10616

LAYOUT SCALE 1" = Approximately 2600'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	I-093-1(22) OLD I-55-1(22)62 NEW		1	347
JOB NO. 10616					



RECOMMENDED FOR APPROVAL

RECOMMENDED FOR APPROVAL

RECOMMENDED FOR APPROVAL

APPROVED

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

APPROVED

DIVISION ENGINEER

SUBMITTED BY *W. Wood Smith*
G. WOOD SMITH-VICE PRESIDENT
REGISTERED PROFESSIONAL ENGINEER ARKANSAS NO. 1204

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	15093-112210/d 155-112062 New		125	347
STATE JOB NO. 10616					

GENERAL NOTES

SPECIFICATIONS: Arkansas State Highway Commission (1940 Standard) and Special Provisions.

DESIGN: In accordance with the A.A.S.H.O. Standard Specifications for Highway Bridges, 1953 Edition.

Moment in concrete slab spans is distributed between slab and curb in accordance with University of Illinois Experiment Station Bulletin No. 346.

DESIGN LOADING:

Beam Spans: Live Load H20-S16-44
Concrete Slab Spans: 1956 Special Military Loading for Interstate Highways (see diagram)

DESIGN UNIT STRESS:

Concrete (Class "S") $f_c = 1200$ p.s.i. ($n=10$)
(Class "A") $f_c = 840$ p.s.i. ($n=15$)
Reinforcing Steel $f_s = 20,000$ p.s.i.
Structural Steel $f_s = 18,000$ p.s.i.

CONCRETE: All concrete in bent caps, abutments, wing walls, and superstructure shall be Class "S" air-entrained. Concrete in bent footings and columns shall be Class "A" air-entrained. All exposed corners of concrete shall be beveled $\frac{3}{4}$ " unless otherwise noted.

RUBBED FINISH: Exposed surfaces of wing walls and vertical surfaces of curbs and parapets shall receive a rubbed finish after removal of forms.

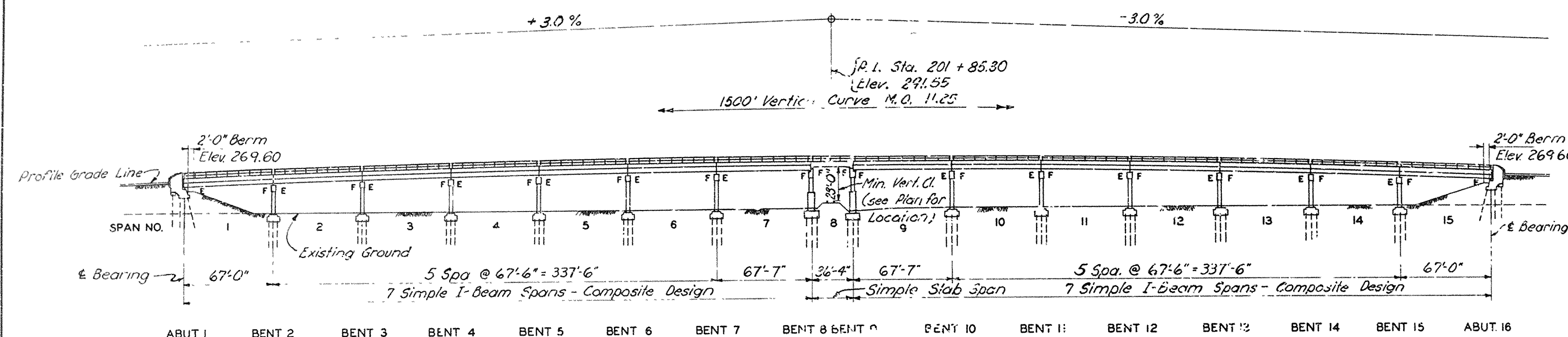
REINFORCEMENT: Reinforcing steel shall be intermediate grade. Dimensions to reinforcing steel on drawings are to face of bars, except where the clear distance is noted from the face of concrete. Bars shall be lapped a minimum of 30 diameters at splices unless otherwise shown or noted.

CONSTRUCTION JOINTS: Construction joints shall be made only where shown on the plans.

WELDING: All welding shall be in accordance with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, 1956 Edition. Qualification of welding operators will be required.

PILING: For type of piling see details and Special Provisions. Piles shall be driven to minimum capacity of 28 tons each at bents and 23 tons each at abutments. Minimum penetration into natural ground shall be 20 feet. Test piles shall be driven at locations shown on the Plans and loaded in accordance with the Special Provisions except loading tests may be waived by the Engineer if the formulae in the Special Provisions indicate that adequate capacity has been attained. The lengths for ordering standard piles shall be determined by the Engineer from the test piles.

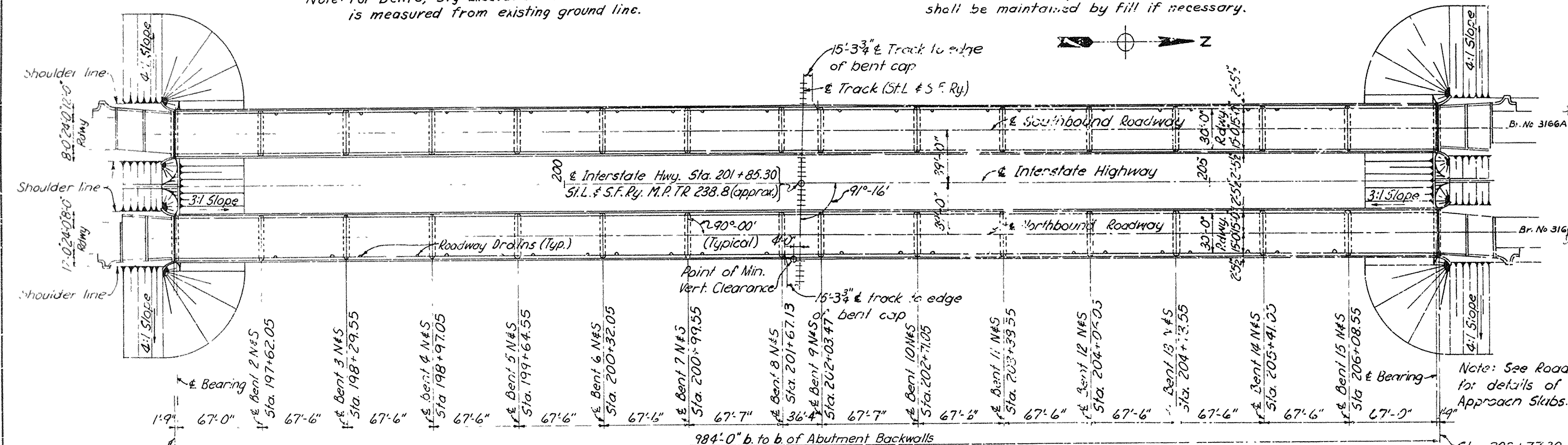
BRIDGE NAME PLATE: The name plate shall be furnished at the location shown on the Plans bearing the legend "East Blytheville Frisco Overpass" and showing year of construction. Details shall conform to Type "C" name plate shown on Arkansas State Highway Commission Drawing No 2389.



ELEVATION

Note: Footing elevations have been set from the best available information concerning existing ground. One foot of cover has been provided over top of footing. This cover shall be maintained by fill if necessary.

Note: For Bents, "Dry Excavation for Structures" is measured from existing ground line.



PLAN

Note: Stationing is measured along Interstate Highway.

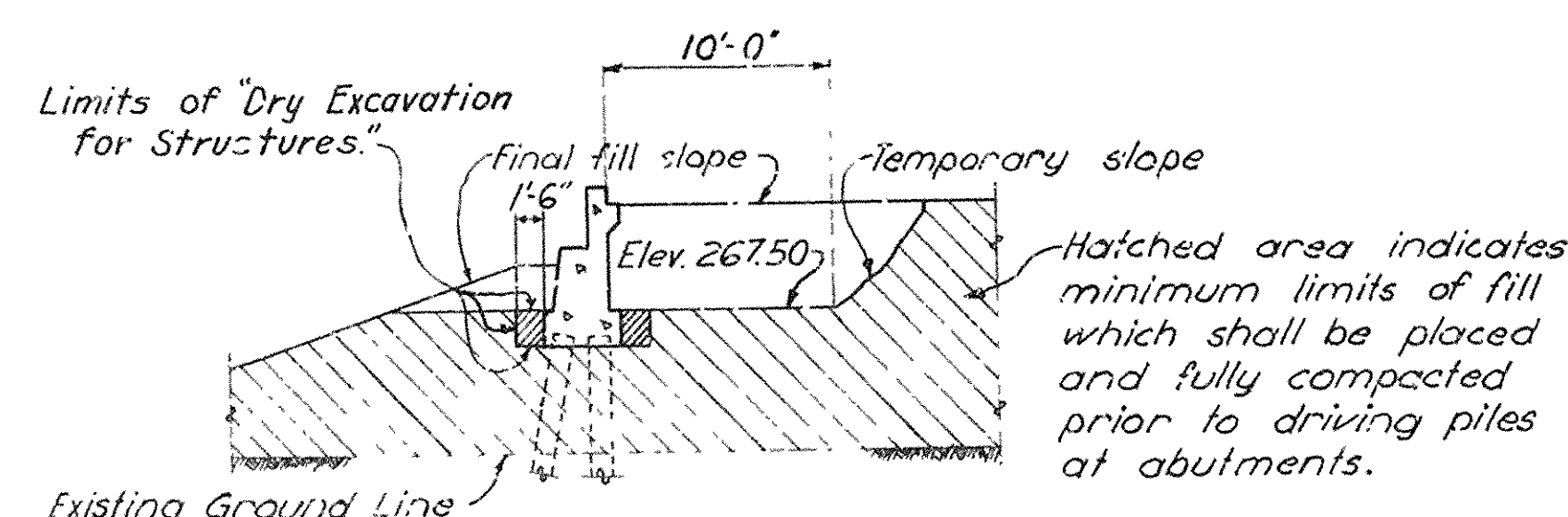
Note: N indicates Northbound Bridge. S indicates Southbound Bridge.

BENCH MARK: Top of angle iron in concrete block 100' Rt. of Sta. 202+25. Elev. 254.19.

INDEX OF DRAWINGS

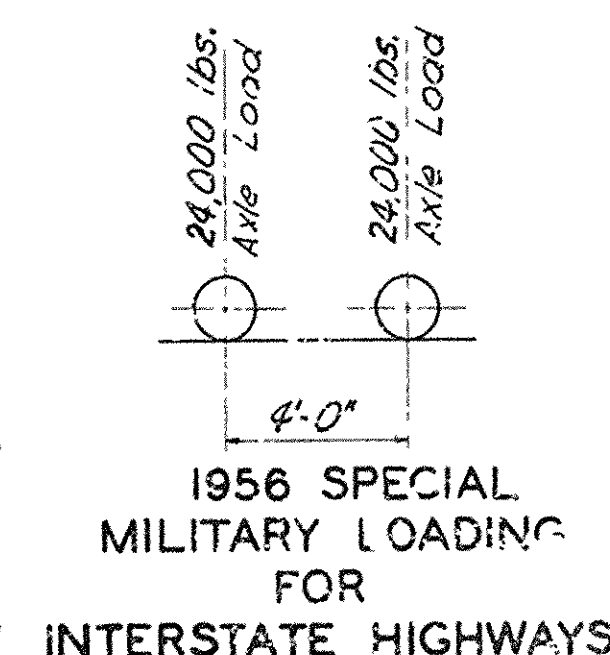
Drwg. No.

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FILL AT ABUTMENT

Note: Limits of Fill and Dry Excavation for Structures for footings under wing walls are similar.



SUBMITTED BY:

REGISTERED PROFESSIONAL ENGINEER
ARKANSAS NO. 629

SVENDRUP & PARGEL, INC.
ENGINEERS ARCHITECTS
ST. LOUIS, MO.

DRAWN BY: W.H.B. DATE: JULY, 1957 SCALE: NOT TO SCALE

TRACED BY: J.A.S. DATE: AUG., 1957

CHECKED BY: J.E.S. DATE: NOV., 1957

SHEET 1 OF 12

BRIDGE NO. 3166A & D DRAWING NO. 10202

EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201+85.30

GENERAL PLAN AND ELEVATION

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION 2

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

Note: Do not scale this drawing. Follow dimensions.

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1-093-1(22)0.d 1-55-1(20)02 NEW		126	347
STATE JOB NO.		10616			

JOB 10616

SUMMARY OF QUANTITIES

EAST BLYTHEVILLE FRISCO OVERPASS AT STA. 201 + 85.30

TWO BRIDGES

N.B. Br. No. 3166-B, S.B. Br. No. 3166-A

CODE TYPE X . 31

ITEM NO.	ITEM	UNIT	ABUTS. 1 & 16 - N & S	BENTS 2 THRU 7 & 10 THRU 15 N & S	BENTS 8 & 9 - N & S	SPANS 1 THRU 7 & 9 THRU 15 N & S	SPANS 8 - N & S	JOB TOTAL
SP801-2	DRY EXCAVATION FOR STRUCTURES	CU. YD.	93	2416	318	—	—	2,827
SP&802	CLASS "A" CONCRETE FOR BRIDGES	CU. YD.	—	1,386	332	—	—	1,718
SP&802	CLASS "S" CONCRETE FOR BRIDGES	CU. YD.	179	383	75	1764	158	2559
SP&803	REINFORCING STEEL	LB.	12,435	172,926	29,996	321,034	40,102	576,493
SP	ALUMINUM BRIDGE RAILING	LIN. FT.	—	—	—	3,780	146	3926
SP&807	STRUCTURAL STEEL IN BEAM SPANS	LB.	—	—	—	1,856,523	—	1,856,523
SP804-4	BEARING PILES (14" Sq. or 16" RND)	LIN. FT.	2410	16,570	2,765	—	—	21,745
SP804-4	LOADING TEST PILES	EACH	2	2	1	—	—	5
929	BRIDGE NAME PLATES (TYPE "C")	EACH	1	—	—	—	—	1

Note: Estimated quantity of Bearing Piles is based on 1" square precast reinforced concrete piles.

EAST BLYTHEVILLE FRISCO OVERPASS

AT STA. 201 + 85.30

TABLE OF QUANTITIES

MISSISSIPPI & CRITTENDEN COUNTIES

F.A.I. 55 INTERSTATE HIGHWAY

SECTION IV

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY S.T.S. DATE NOV. 1957 SCALE NOT TO SCALE

TRACED BY S.T.S. DATE NOV. 1957

CHECKED BY L.H.G. DATE DEC. 1957 SHEET 2 OF 12

SVERDRUP & PARCEL, INC.

ENGINEERS ARCHITECTS

ST. LOUIS, MO.

BRIDGE NO. 3166 A & B

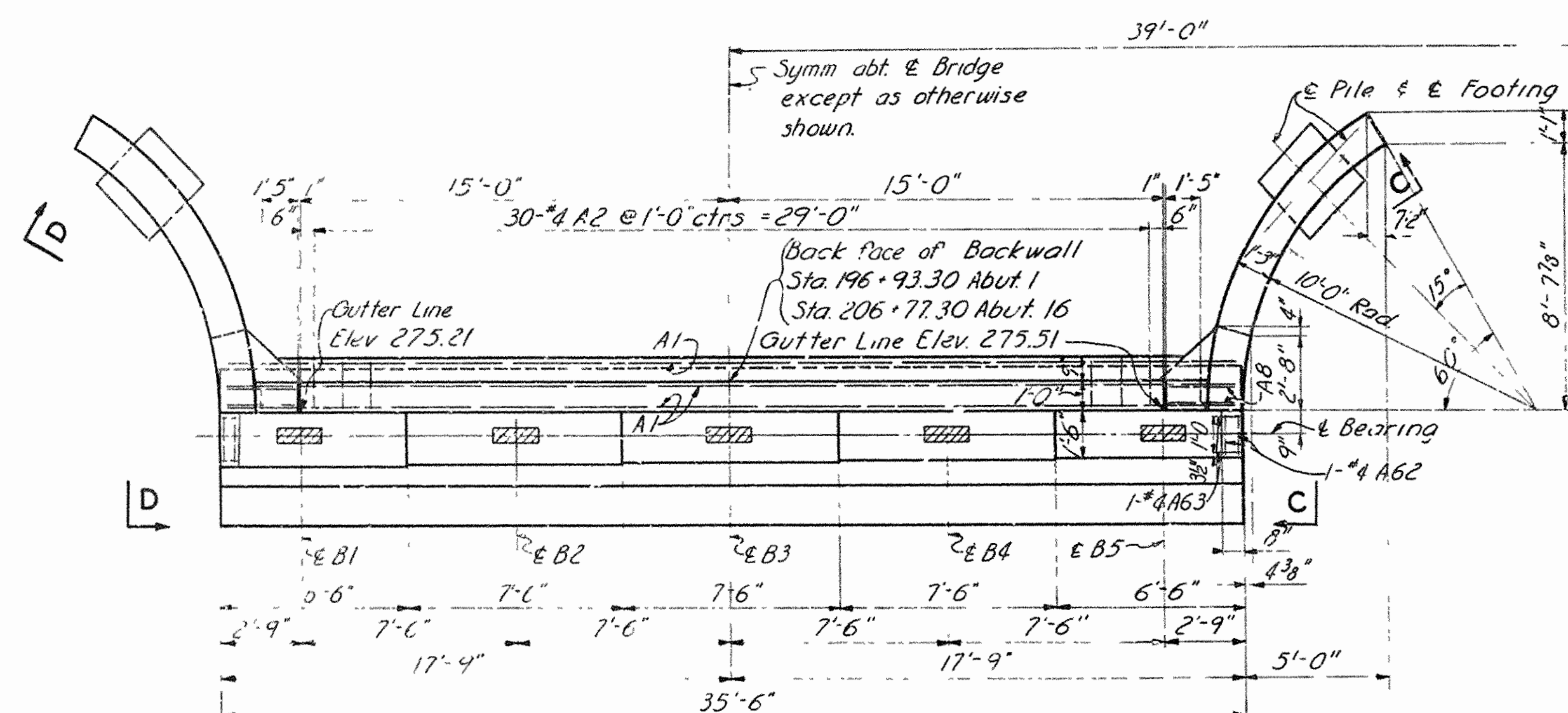
DRAWING NO. 10203

1343-5

5751386

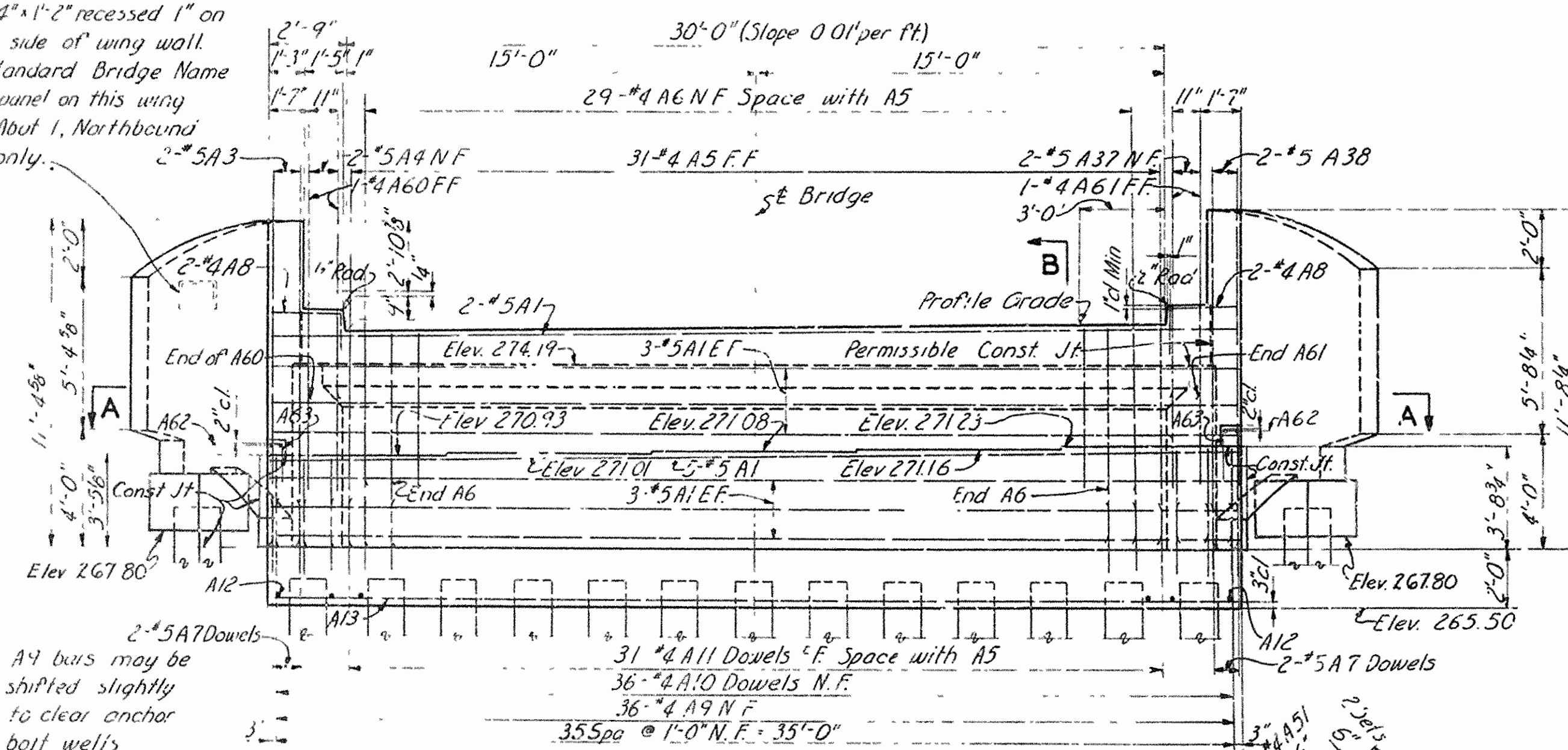
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1-083-1121 Old 1-53-112162 N.W.		127	347
STATE JOB NO. 10616					

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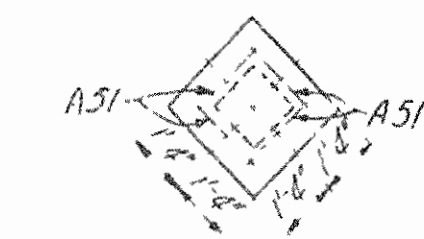
PLAN

Panel 1'-4" x 1'-2" recessed 1" on roadway side of wing wall. Place Standard Bridge Name Plate in panel on this wing wall of Abut. I, Northbound Bridge only.



ELEVATION

Note: A4 bars may be shifted slightly to clear anchor bolt wells.



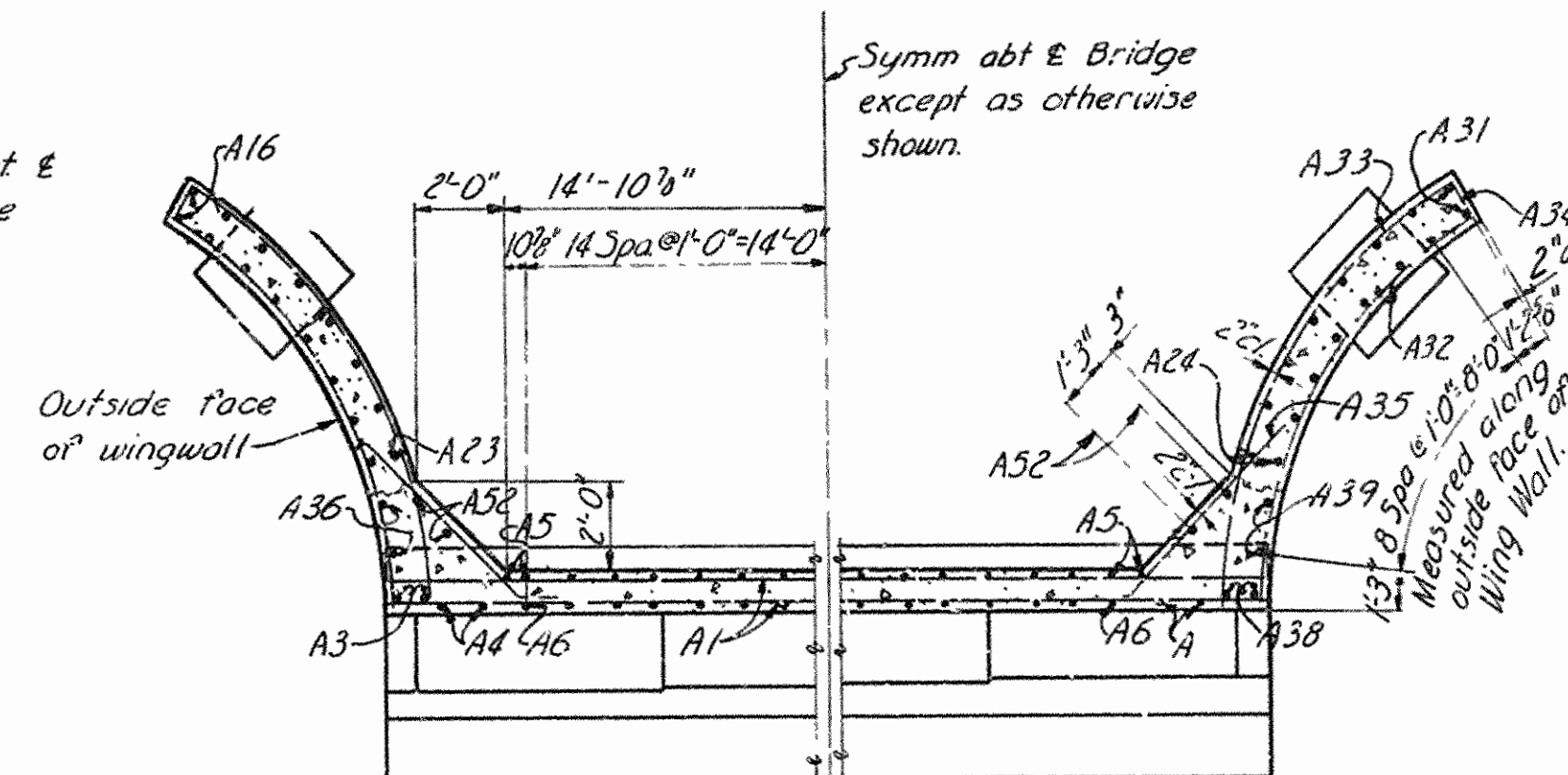
Note: Test pile in Abut. I, Northbound Bridge and Abut. 16, Southbound Bridge only.

ABUTMENT I NORTHBOUND BRIDGE
ABUTMENT 16 SOUTHBOUND BRIDGE

Abut. I, Northbound Bridge & Abut. 16, Southbound Bridge opposite hand.

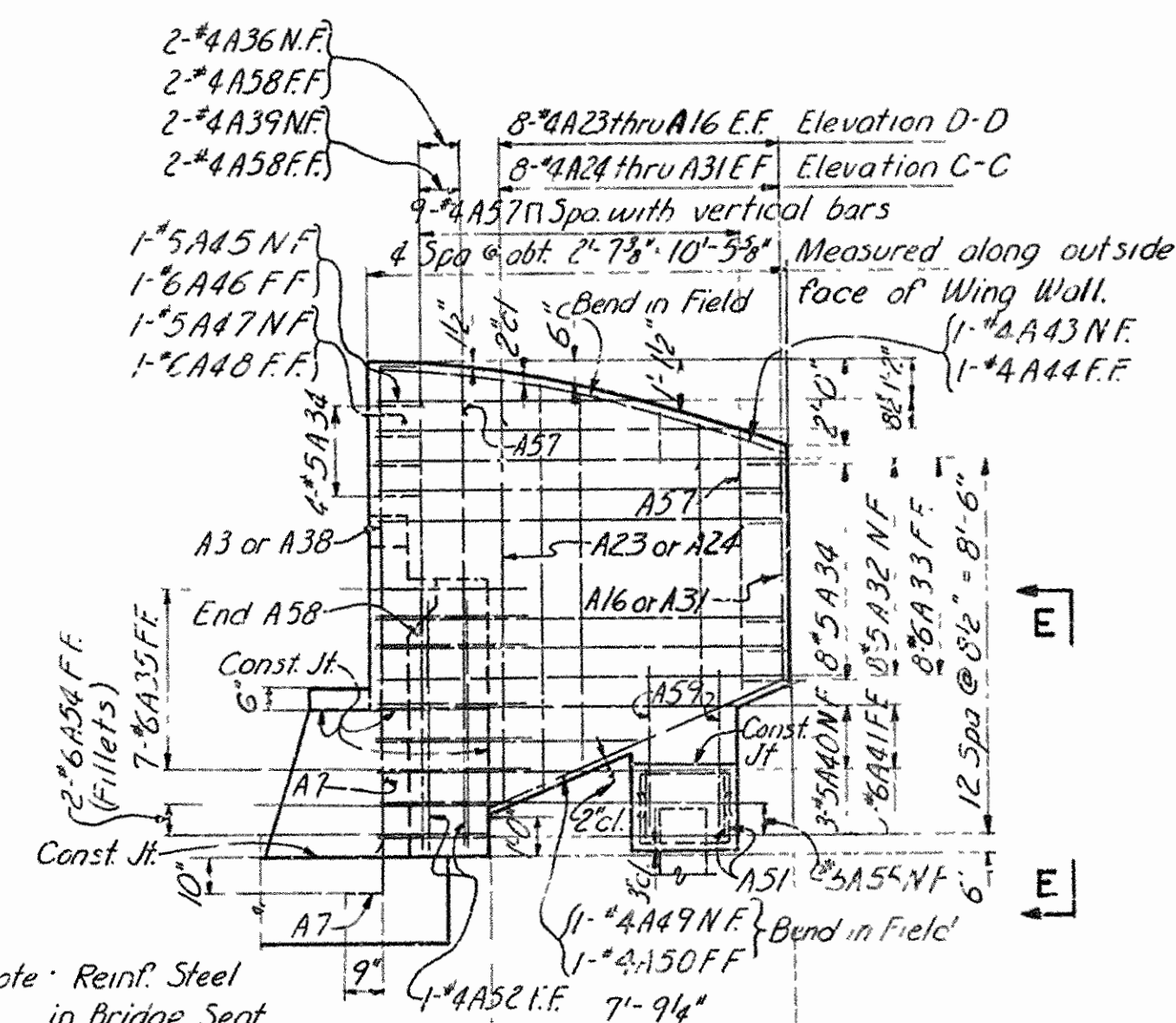
PILE DATA		
Abut.	No. of Piles	Est. Length
IN 15	29	40'
IN 16	1	45'
IN 16S	29	40'
16S	1	45'
Total	60	

* Indicates test pile
Note: Estimated lengths are based on 14" square precast reinforced concrete piles.
Note: Do not scale this drawing. Follow dimensions.



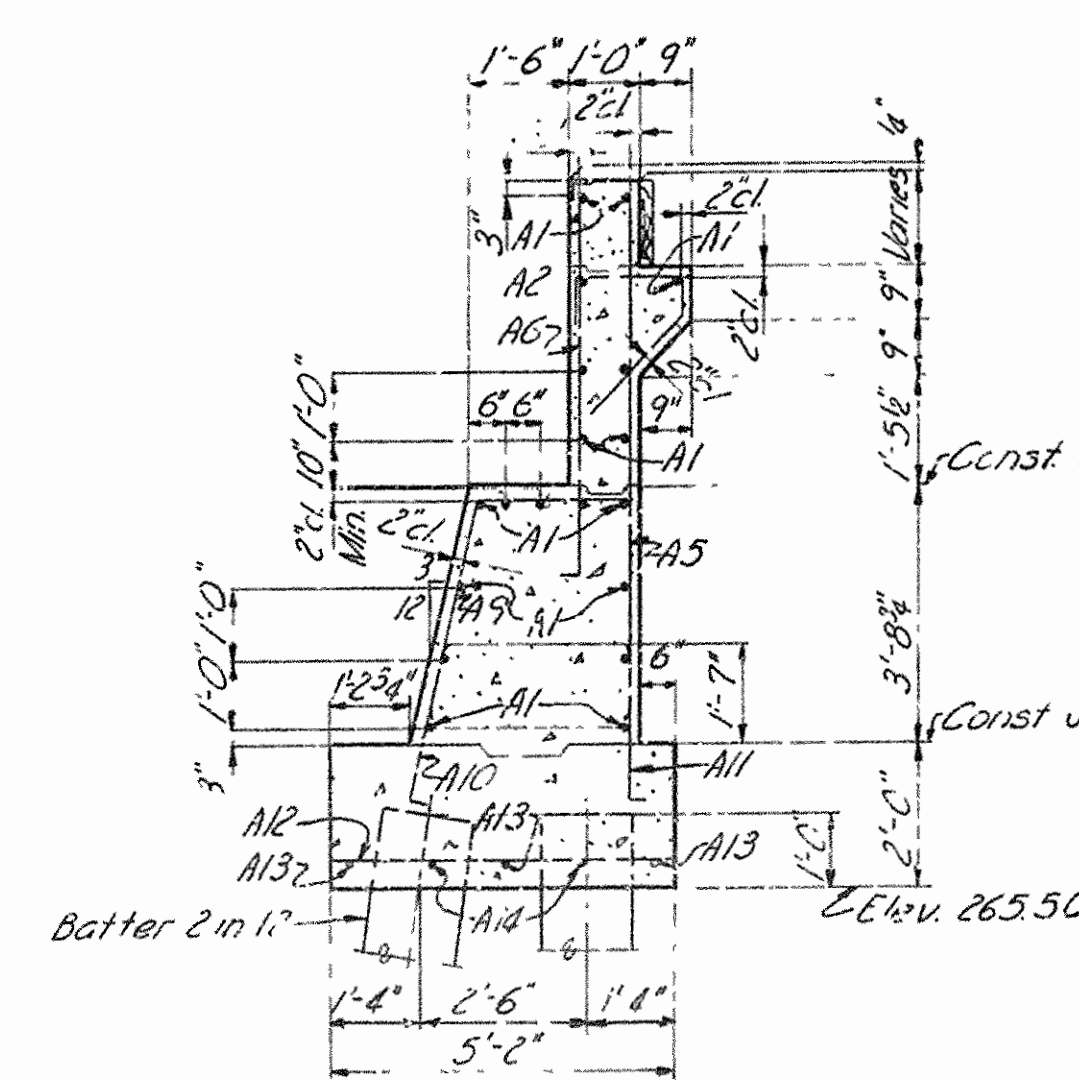
PART SECTION A-A

Note: N.F. indicates Near Face.
F.F. indicates Far Face.
E.F. indicates Each Face.



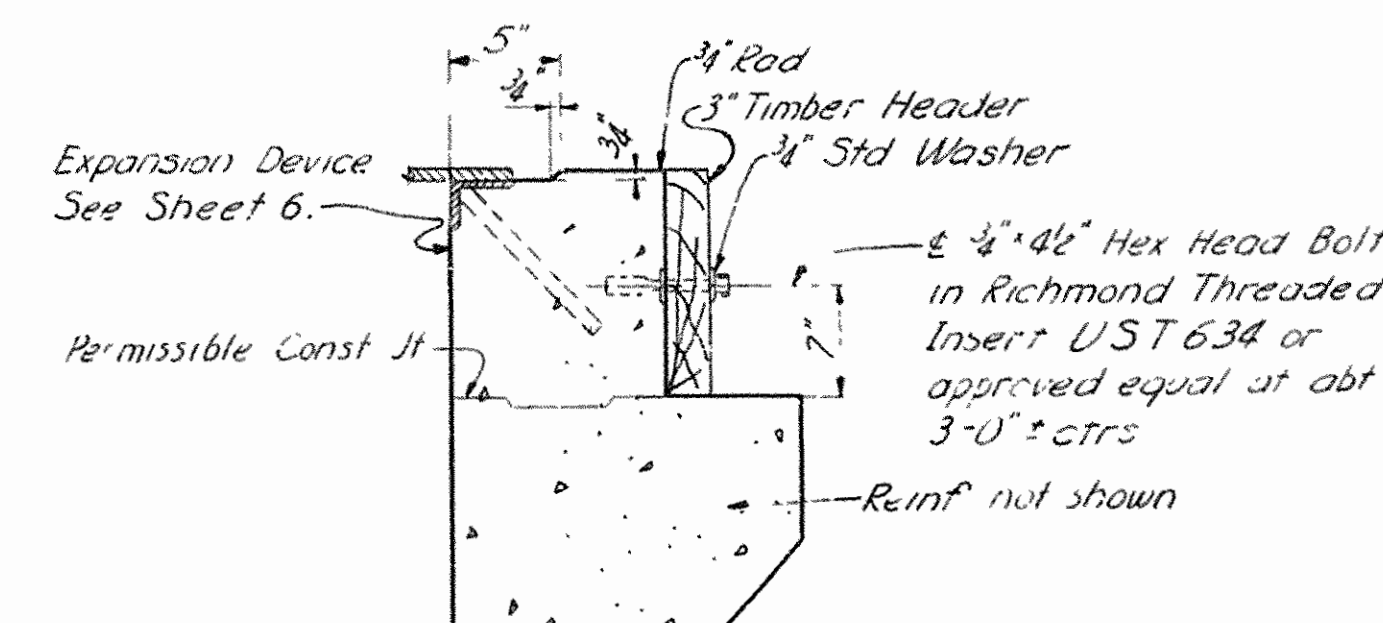
DEVELOPED ELEVATION C-C
Developed Elevation D-D opposite hand

Note: Reinf. Steel in Bridge Seat and Footing not shown except for A7 dowels.



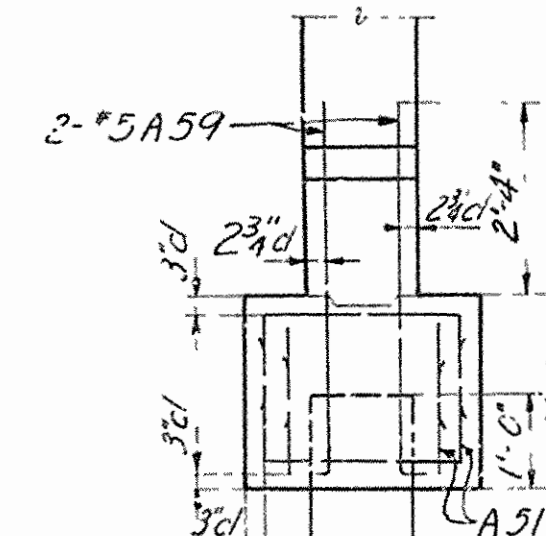
SECTION B-B

Note: N indicates Northbound Bridge.
S indicates Southbound Bridge.



TOP OF BACKWALL

Note: Timber Header shall remain in place until approach slab is placed. See Road Plans for permanent joint material. Cost of timber headers shall be included in unit price bid for other items.



VIEW E-E

EAST BLYTHEVILLE FRISCO OVERPASS STA. 201+85.30

ABUTMENTS 1 AND 16

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY

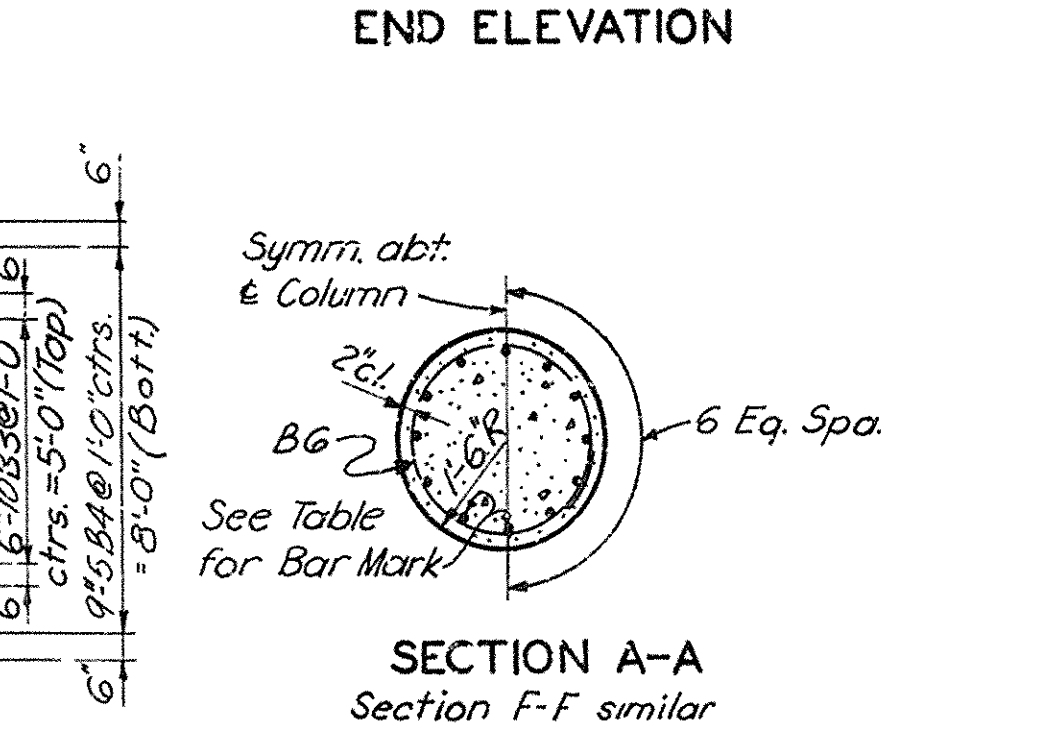
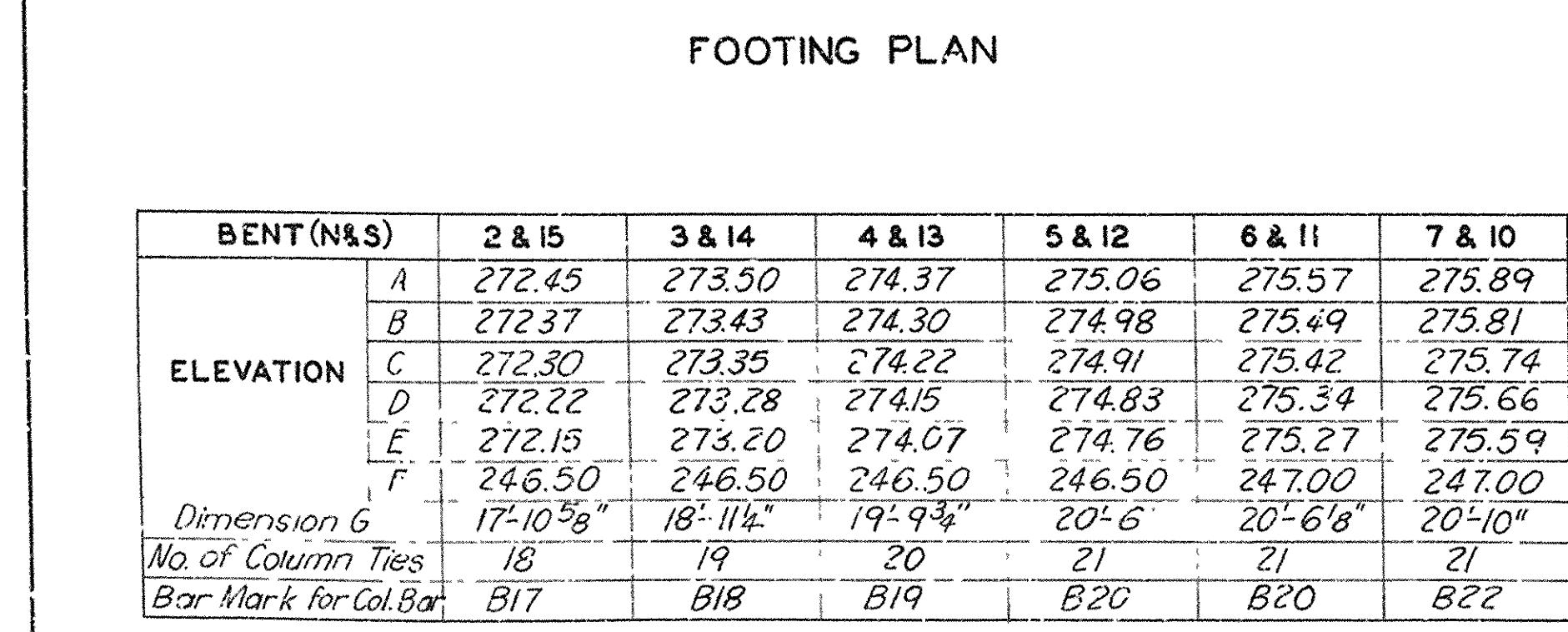
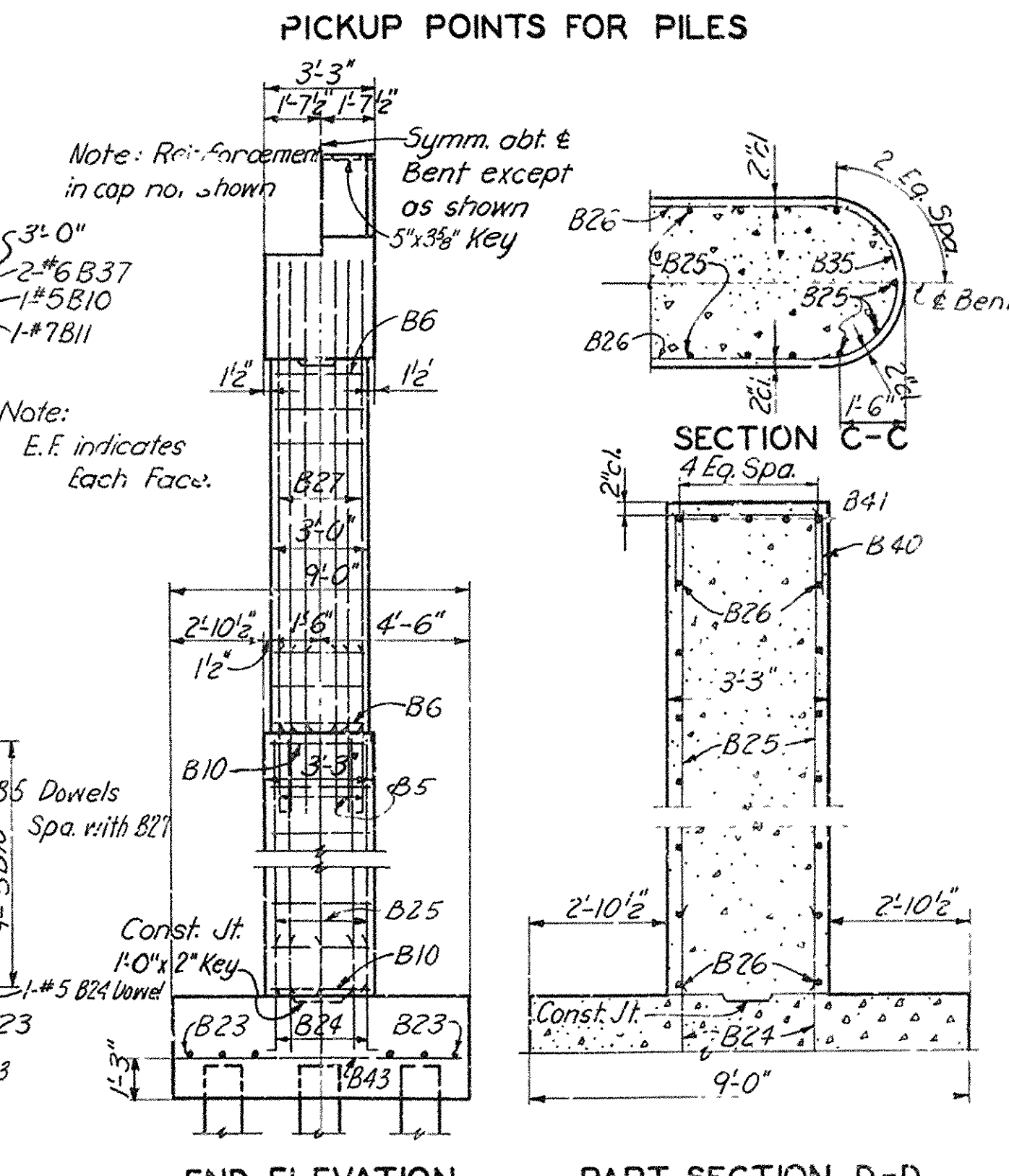
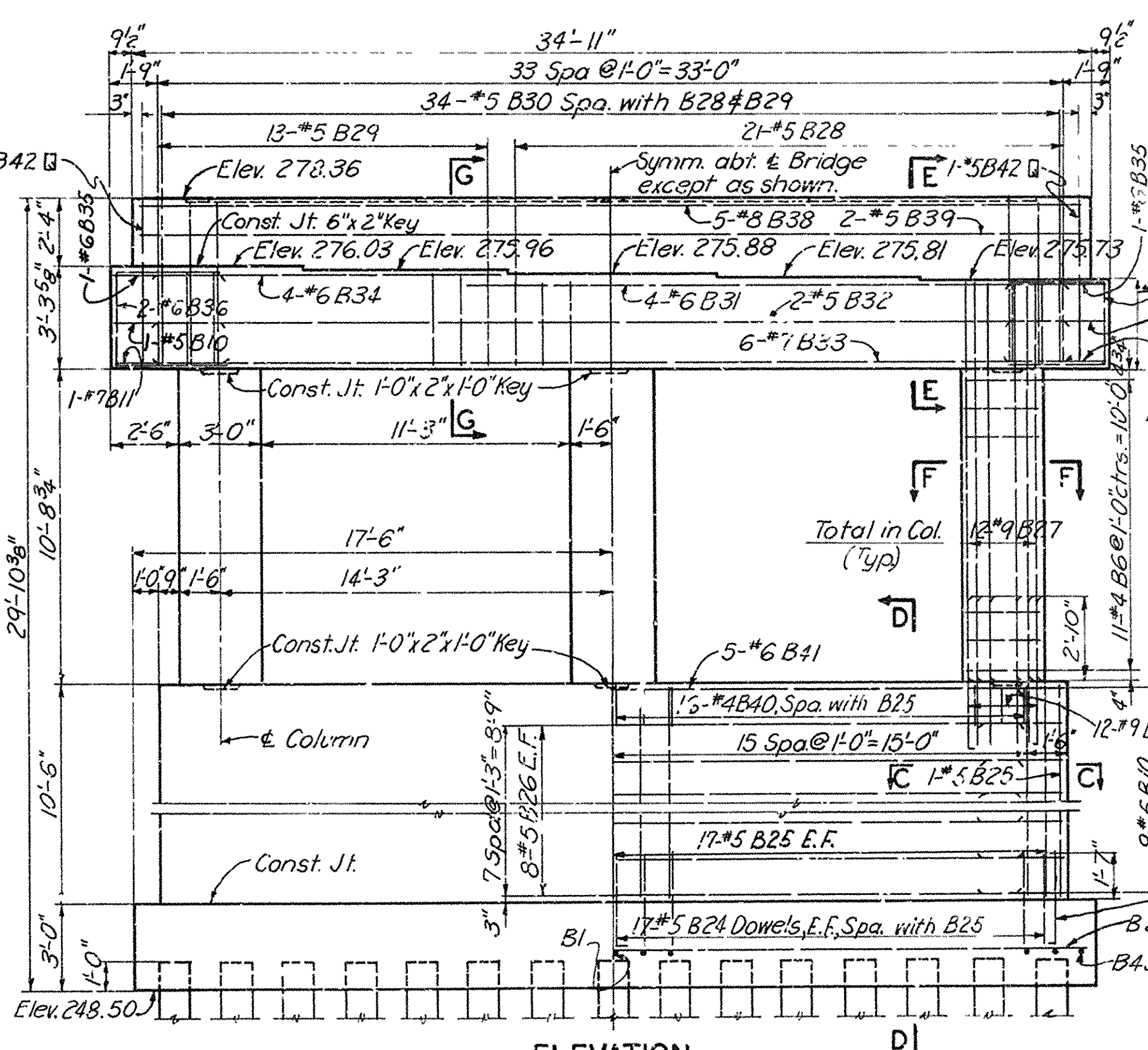
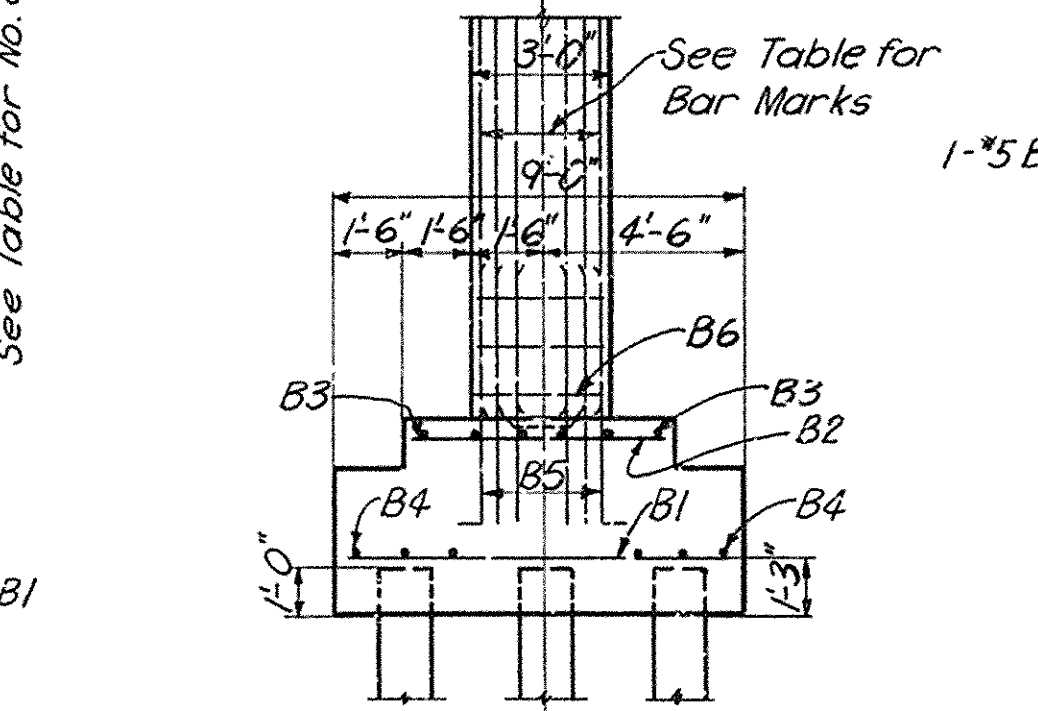
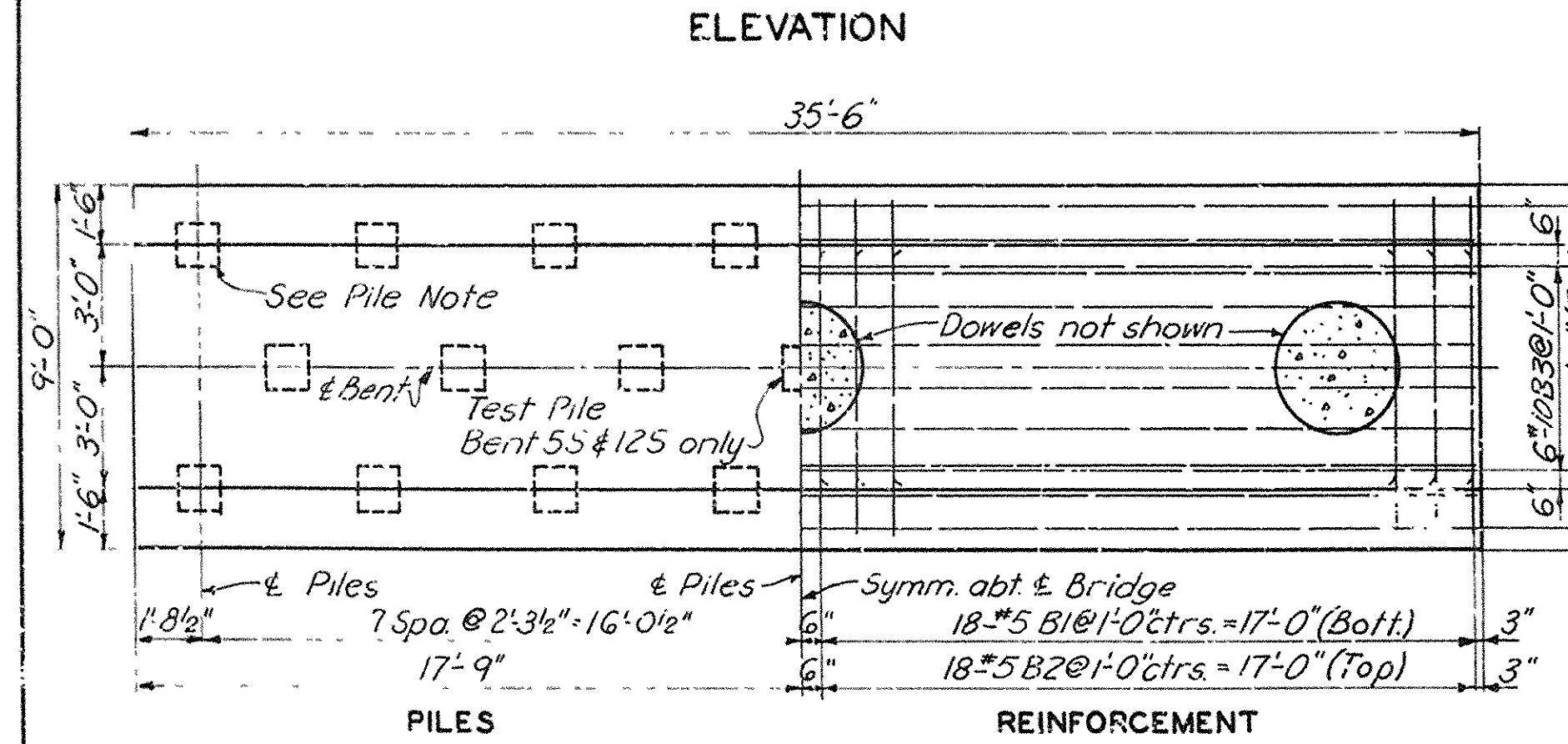
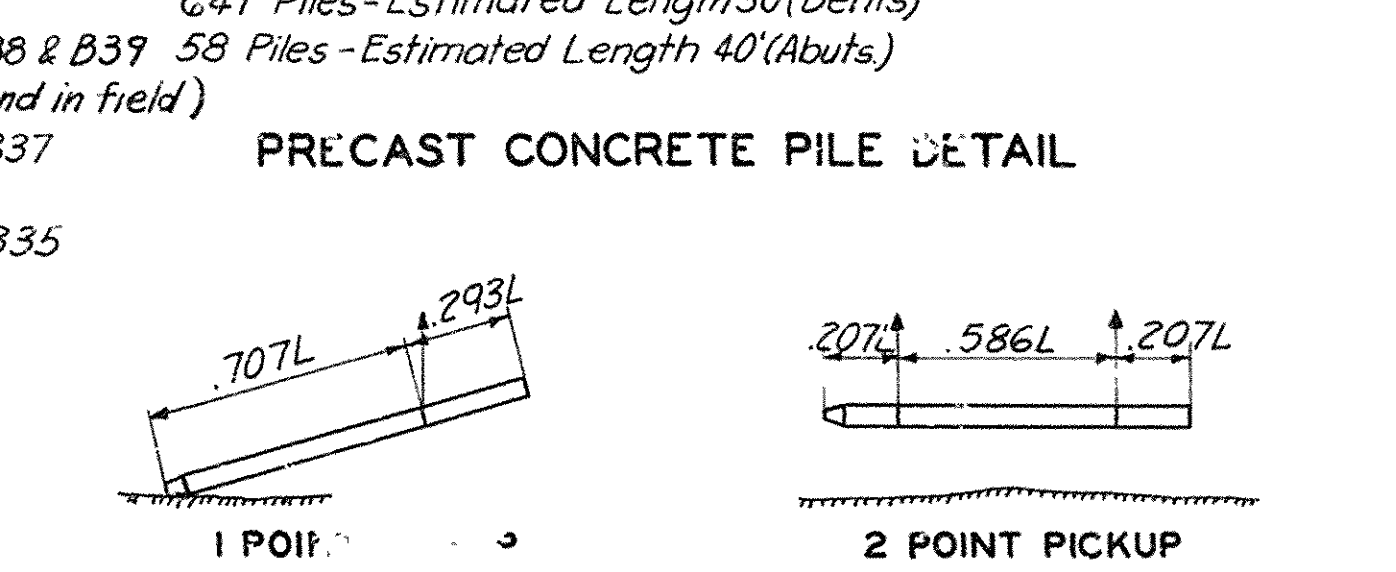
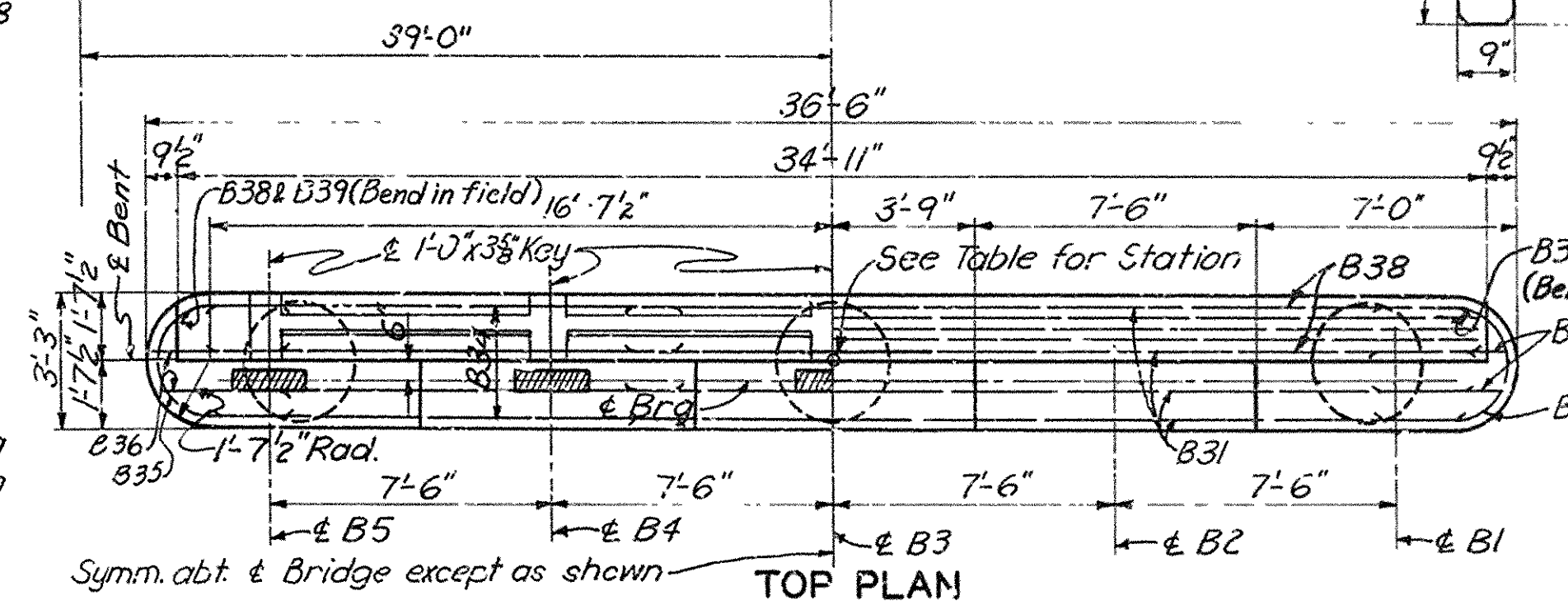
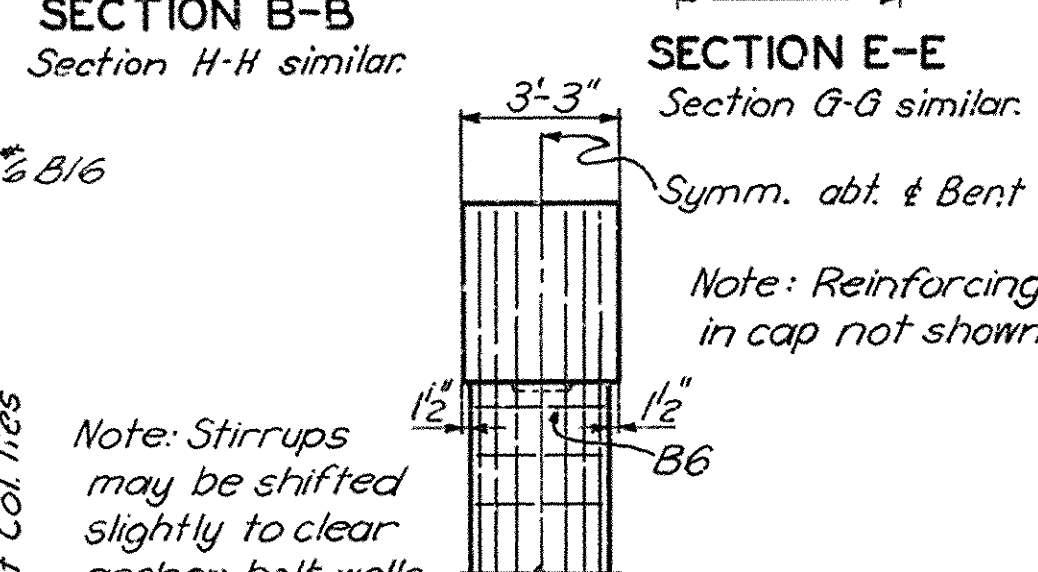
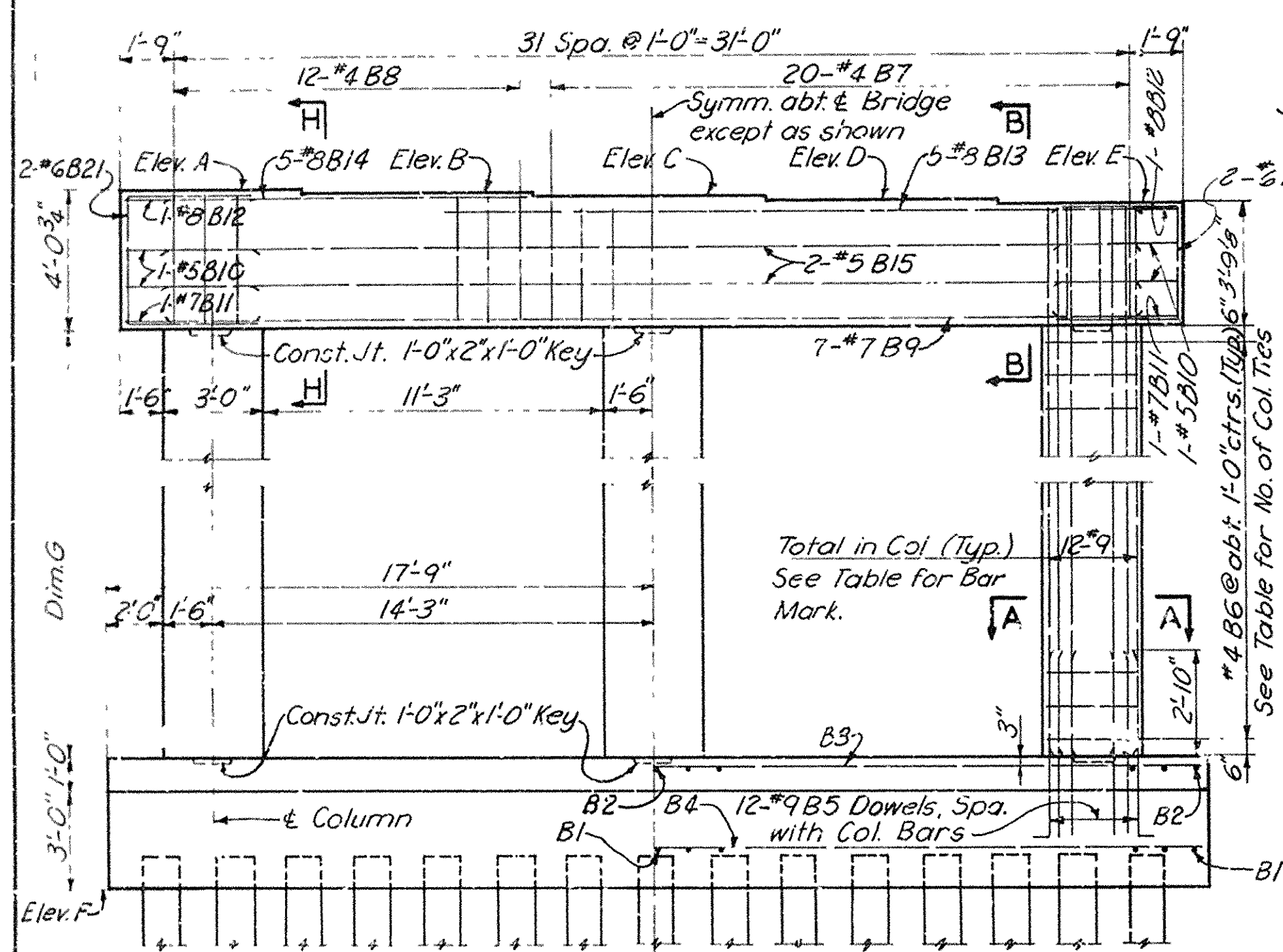
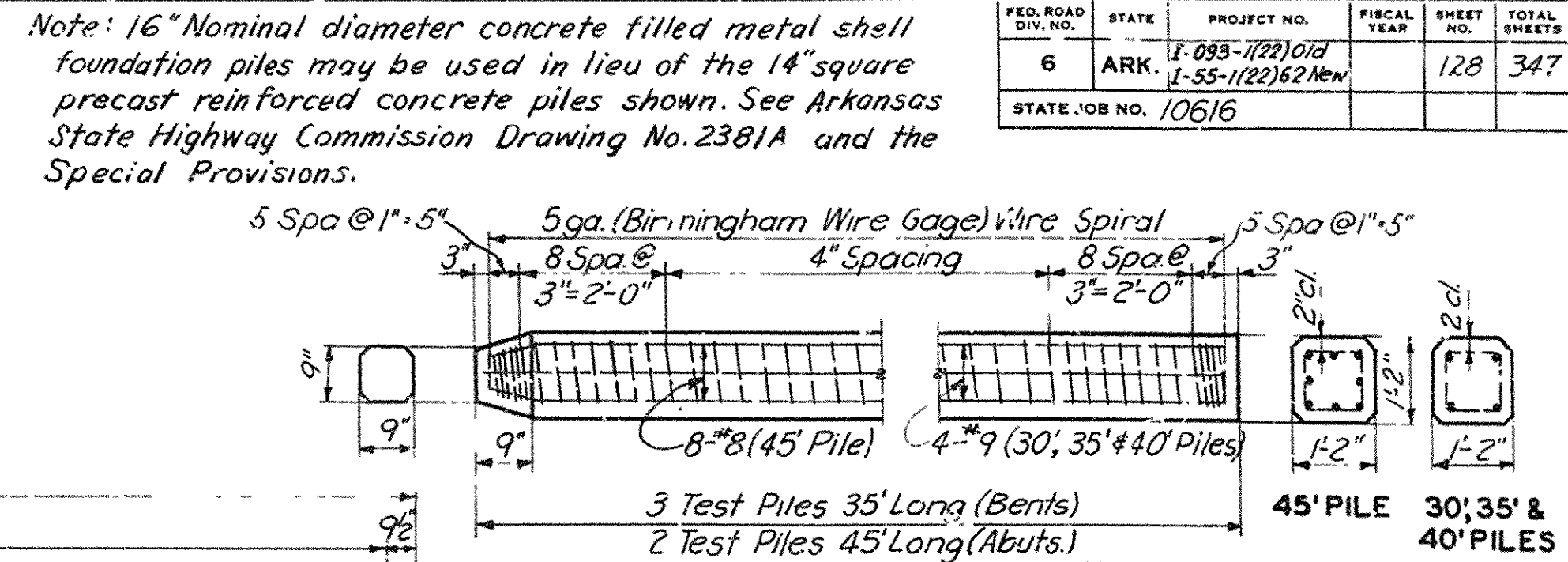
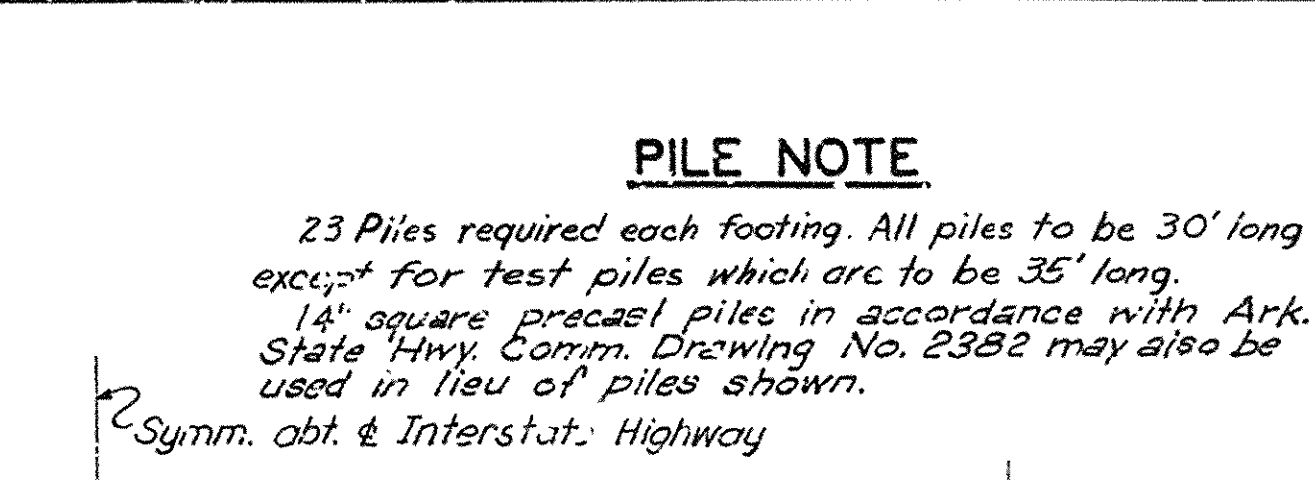
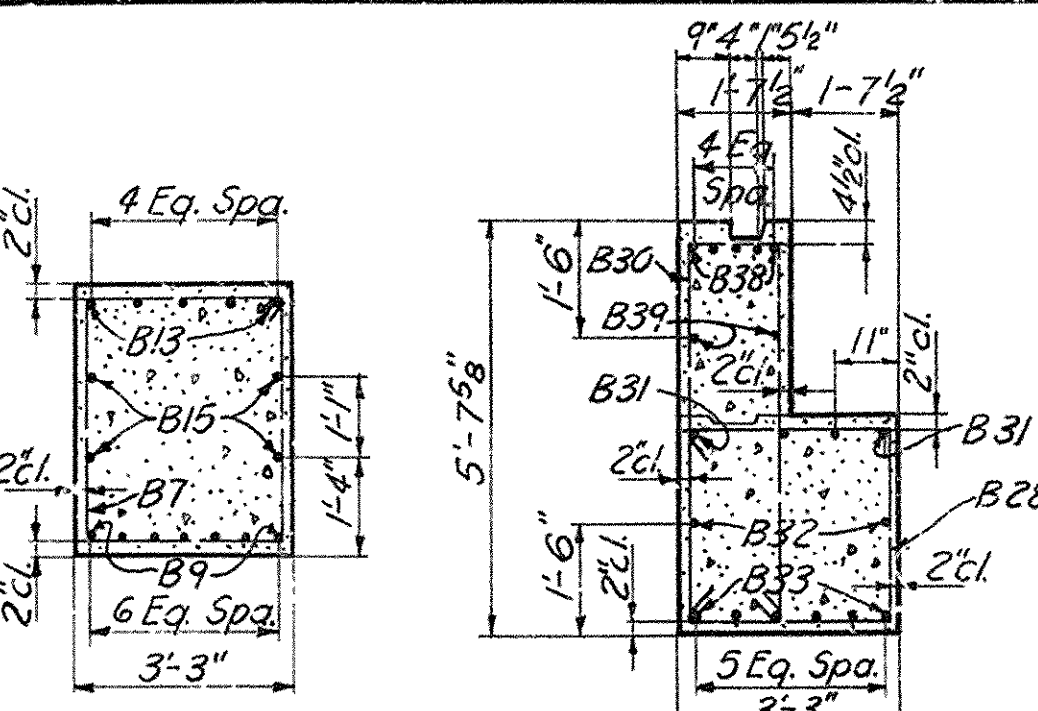
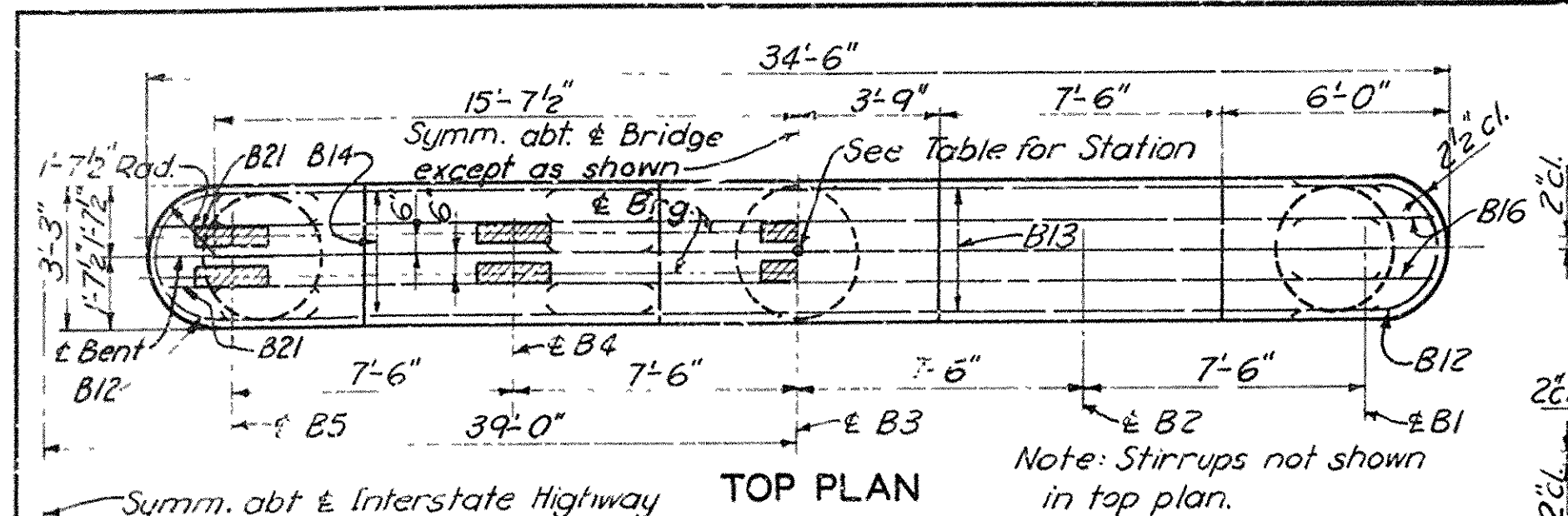
SECTION X ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.
DRAWN BY T.C. DATE AUG. 1957 SCALE NOT TO SCALE
TRACED BY R.L.O. DATE AUG. 1957
CHECKED BY L.H.G. DATE NOV. 1957 SHEET 3 OF 12

BRIDGE NO. 3166A 9 B DRAWING NO. 10204

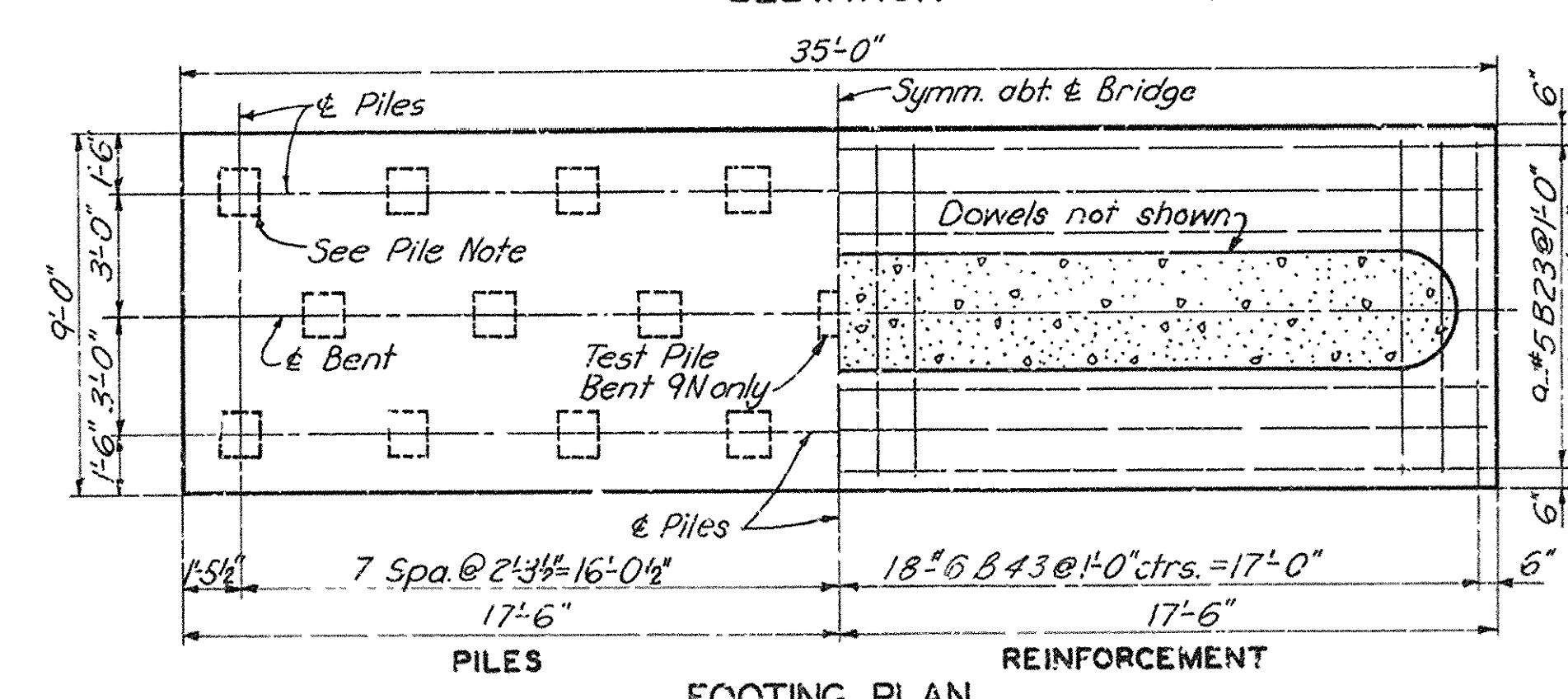
SVERDRUP & PARCEL, INC.
ENGINEERS ARCHITECTS
ST. LOUIS, MO.

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1-093-1(22)0/d 1-55-1(22)62 NEW		128	347
STATE JOB NO. 10616					



BENT(N&S)	STATION
2	197+62.05
3	198+29.55
4	198+97.05
5	199+64.55
6	200+32.05
7	200+99.55
8	201+67.13
9	202+03.47
10	202+71.05
11	203+38.55
12	204+06.05
13	204+73.55
14	205+41.05
15	206+08.55

BENT(N%S)		2 & 15	3 & 14	4 & 13	5 & 12	6 & 11	7 & 10
ELEVATION	A	272.45	273.50	274.37	275.06	275.57	275.89
	B	272.37	273.43	274.30	274.98	275.49	275.81
	C	272.30	273.35	274.22	274.91	275.42	275.74
	D	272.22	273.28	274.15	274.83	275.34	275.66
	E	272.15	273.20	274.07	274.76	275.27	275.59
	F	246.50	246.50	246.50	246.50	247.00	247.00
Dimension G		17'-10.58"	18'-11.4"	19'-9.36"	20'-6"	20'-6.68"	20'-10"
No. of Column Ties		18	19	20	21	21	21
Bar Mark for Col.Bar		B17	B18	B19	B20	B20	B22



NOTES

Concrete in Bent Caps to be Class S₃ air entrained.
All other concrete in Bents to be Class A, air entrained.
S indicates Southbound Bridge.
N indicates Northbound Bridge.

EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201+85.30

BENTS 2 THRU 15
MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION V
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: X.A. DATE: OCT. 1957 SCALE: NOT TO SCALE

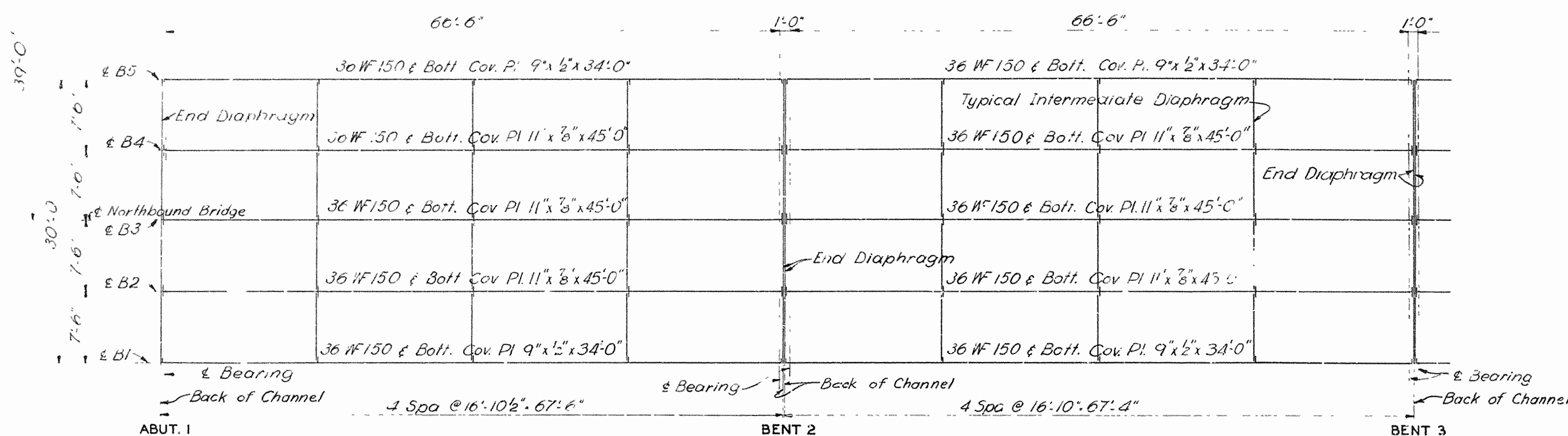
TRACED BY: L.A.R. DATE: OCT. 1957

CHECKED BY: L.H.G. DATE: NOV. 1957 SHEET 4 OF 12

BRIDGE NO. 3166 A & B DRAWING NO. 10205

BENTS 2 THRU 7 & 10 THRU 15 Revised 3-5-59, 14" Conc. Pile Note.
Bents for Northbound Bridge shown. Bents for Southbound Bridge opposite hand. Note: Do not scale this drawing. Follow dimensions.

BENTS 8 & 9
Bents for Northbound Bridge shown.
Bents for Southbound Bridge opposite hand.



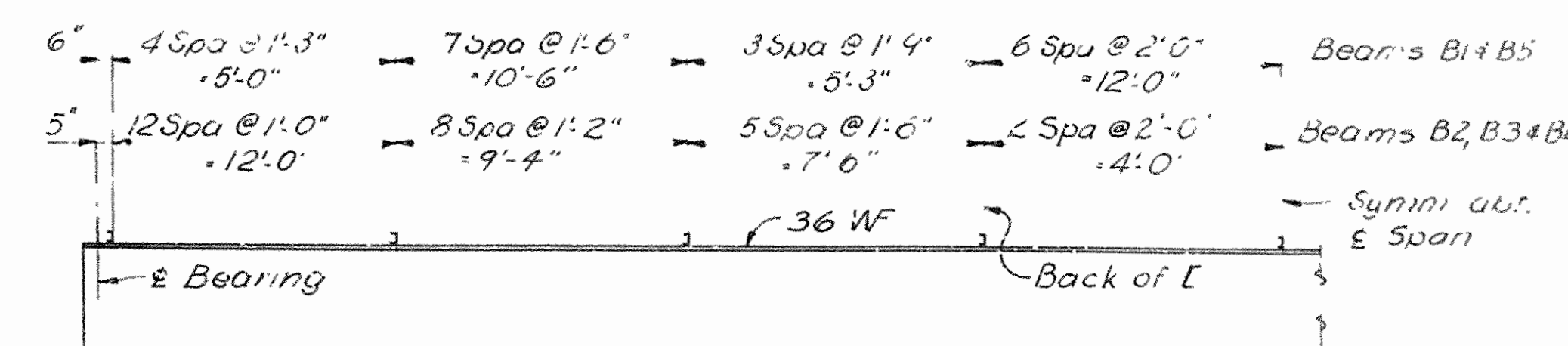
SPAN 1
Span 15 same.

PART STEEL FRAMING PLAN

Note: Dimensions to diaphragms are measured back to back of channels at top of beam.

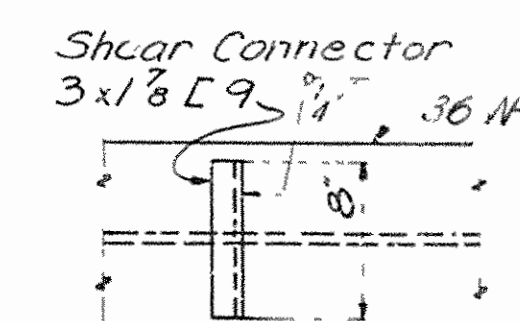
SPAN 2
Spans 3 thru 7 and
9 thru 14 same

Note: For Details of Span 8, see Sheet 8

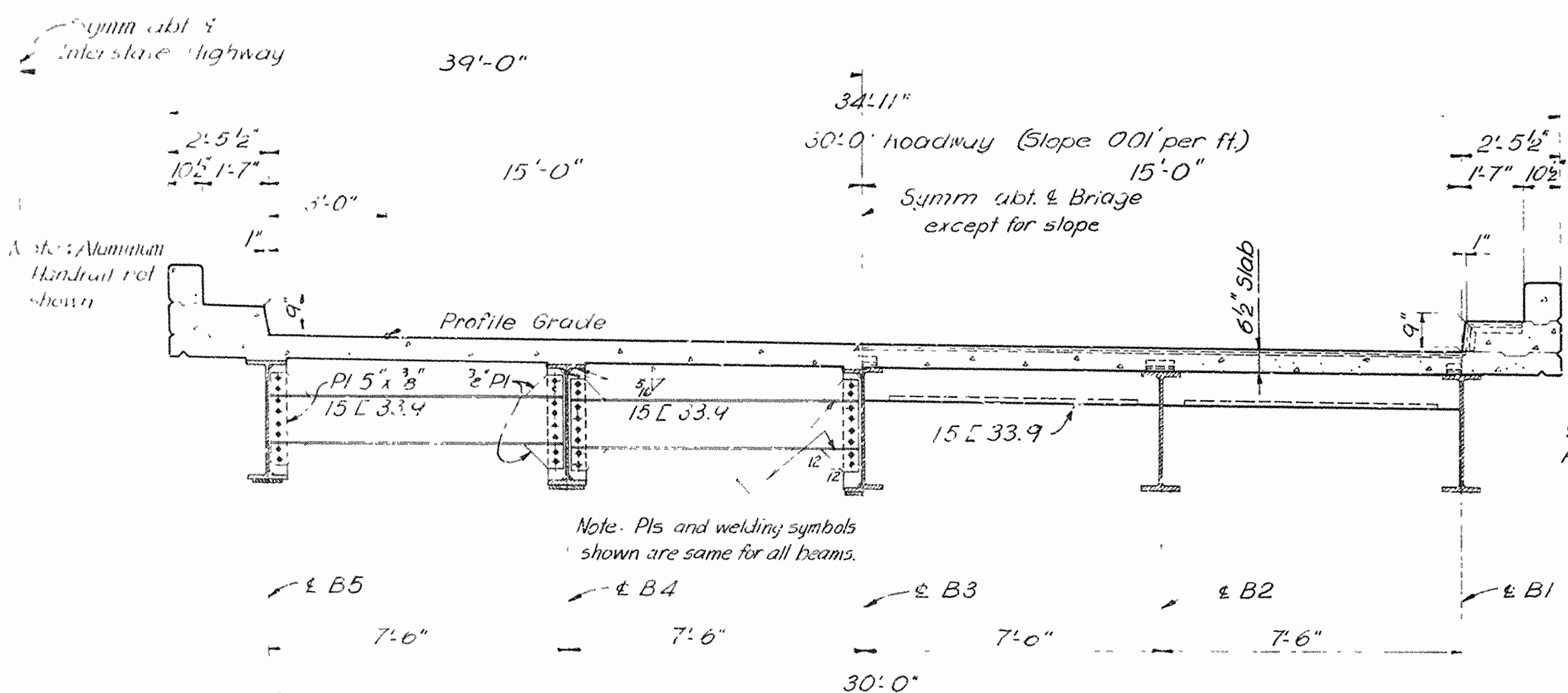


SHEAR CONNECTOR SPACING

Note: 4-7/8 x 4" long Nelson Full-Filled studs or equal may be used in place of each 3 x 1/2 x 9 as an alternate shear connector. Payment will be made on the basis of 3 x 1/2 x 9 connectors.



SHEAR CONNECTOR DETAIL



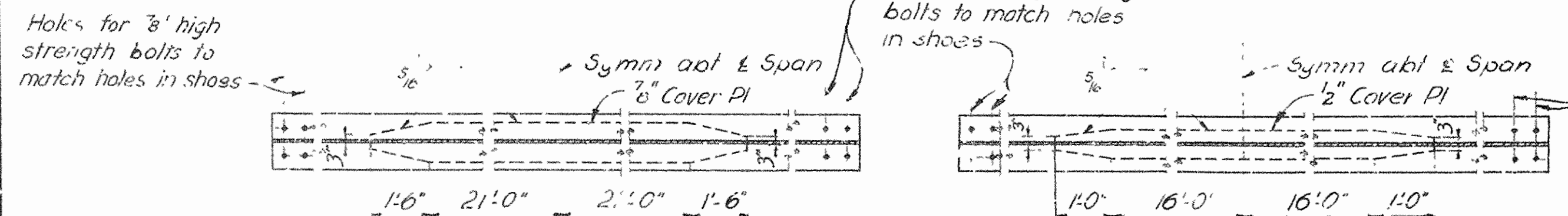
Note: PIs and welding symbols shown are same for all beams.

AT INTERMEDIATE DIAPHRAGMS

AT END DIAPHRAGMS

TYPICAL CROSS SECTION

Note: Field connections to be 7/8" high strength bolts



PLAN OF BOTTOM FLANGE BEAMS B2, B3 & B4

PLAN OF BOTTOM FLANGE BEAMS B1 & B5

TOP OF BEAM ELEVATIONS													
BEAM	SPANS 1 & 15		SPANS 2 & 14		SPANS 3 & 13		SPANS 4 & 12		SPANS 5 & 11		SPANS 6 & 10		SPANS 7 & 9
	Abut. Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents	Bents
B1	1+16	2+15	2+15	3+14	3+14	4+13	4+13	5+12	5+12	6+11	6+11	7+10	8+9
B2	274.69	275.90	275.92	276.95	276.96	277.82	277.83	278.51	278.52	279.02	279.02	279.34	279.48
B3	274.76	275.97	275.99	277.03	277.04	277.90	277.91	278.58	278.59	279.09	279.09	279.42	279.56
B4	274.83	276.05	276.07	277.10	277.11	277.97	277.98	278.66	278.67	279.17	279.17	279.49	279.63
B5	274.91	276.12	276.14	277.18	277.19	278.05	278.06	278.73	278.74	279.24	279.24	279.57	279.71
	274.98	276.20	276.22	277.25	277.26	278.12	278.13	278.81	278.82	279.32	279.32	279.64	279.78

DEAD LOAD DEFLECTION ORDINATES

Percentage of dead load deflection due to weight of steel only is 20%.

NOTES

All longitudinal dimensions shown are measured in a horizontal plane. For Structural Steel Notes, see Sheet 6. Drwg. No. 10207

EAST BLYTHEVILLE FRISCO OVERPASS AT STA. 201+85.30

STEEL FRAMING PLAN AND SECTIONS

MISSISSIPPI & CRITTENDEN COUNTIES

FAI 55 INTERSTATE HIGHWAY

SECTION X

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY G.J. DATE AUG, 1957 SCALE NOT TO SCALE
 RACED BY F.P.N. DATE SEPT, 1957
 CHECKED BY L.H.G. DATE NOV, 1957

BRIDGE NO. 3166A8B DRAWING NO. 10206

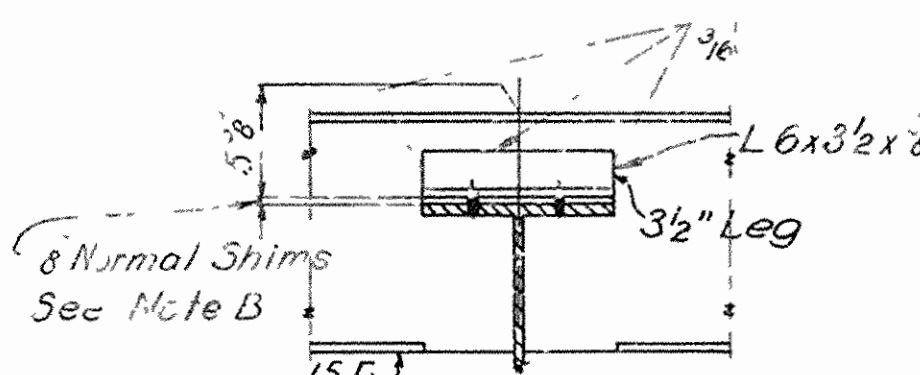
SVERDRUP & PARCEL INC.
 ENGINEERS - ARCHITECTS
 LOUIS MO.

Note: Do not scale this drawing. Follow dimensions.

10



Note: Expansion Device
and Open Jt.
dimensions are
shown at 60°F.

[illegible]

Hand-drawn structural diagram of a bent pile cap. The diagram shows a cross-section of the cap with reinforcement bars. Key dimensions and labels include:

- Dimensions:** 24' Bent Pile, 32' Cap, 12' spacing, 16' spacing, 2' spacing, 1' spacing, 1/2" spacing, 1/4" spacing, 1/8" spacing, 1/16" spacing, 1/32" spacing, 1/64" spacing, 1/128" spacing, 1/256" spacing, 1/512" spacing, 1/1024" spacing, 1/2048" spacing, 1/4096" spacing, 1/8192" spacing, 1/16384" spacing, 1/32768" spacing, 1/65536" spacing, 1/131072" spacing, 1/262144" spacing, 1/524288" spacing, 1/1048576" spacing, 1/2097152" spacing, 1/4194304" spacing, 1/8388608" spacing, 1/16777216" spacing, 1/33554432" spacing, 1/67108864" spacing, 1/134217728" spacing, 1/268435456" spacing, 1/536870912" spacing, 1/1073741824" spacing, 1/2147483648" spacing, 1/4294967296" spacing, 1/8589934592" spacing, 1/17179869184" spacing, 1/34359738368" spacing, 1/68719476736" spacing, 1/137438953472" spacing, 1/274877906944" spacing, 1/549755813888" spacing, 1/1099511627776" spacing, 1/2199023255552" spacing, 1/4398046511104" spacing, 1/8796093022208" spacing, 1/17592186044416" spacing, 1/35184372088832" spacing, 1/70368744177664" spacing, 1/140737488355328" spacing, 1/281474976710656" spacing, 1/562949953421312" spacing, 1/1125899906842624" spacing, 1/2251799813685248" spacing, 1/4503599627370496" spacing, 1/9007199254740992" spacing, 1/18014398509481984" spacing, 1/36028797018963968" spacing, 1/72057594037927936" spacing, 1/144115188075855872" spacing, 1/288230376151711744" spacing, 1/576460752303423488" spacing, 1/1152921504606846976" spacing, 1/2305843009213693952" spacing, 1/4611686018427387904" spacing, 1/9223372036854775808" spacing, 1/18446744073709551616" spacing, 1/36893488147419103232" spacing, 1/73786976294838206464" spacing, 1/147573952589676412928" spacing, 1/295147905179352825856" spacing, 1/590295810358705651712" spacing, 1/1180591620717411303424" spacing, 1/2361183241434822606848" spacing, 1/4722366482869645213696" spacing, 1/9444732965739290427392" spacing, 1/18889465931478580854784" spacing, 1/37778931862957161709568" spacing, 1/75557863725914323419136" spacing, 1/151115727451828646838272" spacing, 1/302231454903657293676544" spacing, 1/604462909807314587353088" spacing, 1/1208925819614629174706176" spacing, 1/2417851639229258349412352" spacing, 1/4835703278458516698824704" spacing, 1/9671406556917033397649408" spacing, 1/19342813113834066795298816" spacing, 1/38685626227668133590597632" spacing, 1/77371252455336267181195264" spacing, 1/154742504910672534362390528" spacing, 1/309485009821345068724781056" spacing, 1/618970019642690137449562112" spacing, 1/1237940039285380274899124224" spacing, 1/2475880078570760549798248448" spacing, 1/4951760157141521099596496896" spacing, 1/9903520314283042199192993792" spacing, 1/19807040628566084398385987584" spacing, 1/39614081257132168796771975168" spacing, 1/79228162514264337593543950336" spacing, 1/158456325028528675187087900672" spacing, 1/316912650057057350374175801344" spacing, 1/633825300114114700748351602688" spacing, 1/1267650600228229401496703205376" spacing, 1/2535301200456458802993406410752" spacing, 1/5070602400912917605986812821504" spacing, 1/10141204801825835211973625643008" spacing, 1/20282409603651670423947251286016" spacing, 1/40564819207303340847894502572032" spacing, 1/81129638414606681695789005144064" spacing, 1/162259276829213363391578010288128" spacing, 1/324518553658426726783156020576256" spacing, 1/649037107316853453566312041152512" spacing, 1/1298074214633706907132624082305024" spacing, 1/2596148429267413814265248164610048" spacing, 1/5192296858534827628530496329220096" spacing, 1/10384593717069655257060992658440192" spacing, 1/20769187434139310514121985316880384" spacing, 1/41538374868278621028243970633760768" spacing, 1/83076749736557242056487941267521536" spacing, 1/166153499473114484112975882535043072" spacing, 1/332306998946228968225951765070086144" spacing, 1/664613997892457936451903530140172288" spacing, 1/1329227995784915872903807060280344576" spacing, 1/2658455991569831745807614120560689152" spacing, 1/5316911983139663491615228241121378304" spacing, 1/10633823966279326983230456482242756608" spacing, 1/21267647932558653966460912964485513216" spacing, 1/42535295865117307932921825928971026432" spacing, 1/85070591730234615865843651857942052864" spacing, 1/170141183460469231731687303715884105728" spacing, 1/340282366920938463463374607431768211456" spacing, 1/680564733841876926926749214863536422912" spacing, 1/1361129467683753853853498429727072845824" spacing, 1/2722258935367507707706996859454145691648" spacing, 1/5444517870735015415413993718908291383296" spacing, 1/10889035741470030830827987437816582766592" spacing, 1/21778071482940061661655974875633165533184" spacing, 1/43556142965880123323311949751266331066368" spacing, 1/87112285931760246646623899502532662132736" spacing, 1/174224571863520493293247799005065324265472" spacing, 1/348449143727040986586495598010130648530944" spacing, 1/696898287454081973172991196020261297061888" spacing, 1/1393796574908163946345982392040522594123776" spacing, 1/2787593149816327892

Hand-drawn sketch of a mechanical assembly, likely a bracket or support structure. The drawing includes the following dimensions and labels:

- Dimensions:**
 - Overall width: $11.7"$
 - Overall height: $10.2"$
 - Top horizontal segment: $1"$
 - Vertical segment on the right: $1/2"$
 - Horizontal segment below the main body: $2"$
 - Vertical segment on the left: $1/8"$
 - Horizontal segment below the left vertical: $1/4"$
 - Horizontal segment below the main body: $1/4"$
- Labels:**
 - 2 Bent Pl. (Pointing to the top horizontal section)
 - $L32x2$ (Pointing to the vertical section on the right)
 - $3/4 \text{ Pl.}$ (Pointing to the bottom horizontal section)
 - $5/8 \text{ Bent Br.}$ (Pointing to the vertical section on the left)

[illegible]

1" x 5/16" x 1'-0" Bent Bar Weld to L.  6 12

Note A: 1/2"x1/8" shims in top
pl top angle or channel for 3/8"
cap screws @ abt 2'-0'/lrs
Remove screws after construction
is completed.
Note B: 6" Normal shims provide
2" o" shims with 2'-3" ris A: 1/2" o'

STRUCTURAL STEEL NOTES

Holes for $\frac{3}{8}$ " rivets and $\frac{3}{8}$ " machine bolts shall be $\frac{15}{16}$ " and holes for $\frac{7}{8}$ " high-strength bolts shall be $\frac{9}{8}$ ", unless otherwise noted.

Roadway expansion devices, shoes, and bearing plates shall be included for payment in "Structural Steel in Beam Spans."

Unless otherwise noted, material for structural steel plates and shapes shall conform to ASTM Spec. Designation A7 for Structural Carbon Steel.

Steel surfaces in contact with concrete and contact surfaces of all steel parts shall not be painted. All other steel surfaces shall receive one shop coat of red-lead paint before shipment, one field coat of white lead paint tinted with lamp black and a finish coat of aluminum paint.

Fabric pads at bearings shall be similar and equal to Fabreka as manufactured by Fabreka Products Co., Inc. Payment for fabric pads and rubber washers shall be considered included in unit prices bid for other items.

Connections for intermediate diaphragms to beam connection plates shall be made with $\frac{7}{8}$ " high-strength bolts. Each bolt shall be furnished with two hardened washers and one heavy hex nut. See Special Provisions.

Where $\frac{3}{4}$ " machine bolts are shown on the plans, each bolt shall be furnished with one std. hex nut and one std. plate washer.

Fabric pads at bearings shall be similar and equal to Fabreeka as manufactured by Fabreeka Products Co., Inc. Payment for fabric pads and rubber washers shall be considered included in unit prices bid for other items.

Connections for intermediate diaphragms to beam connection plates shall be made with 7/8" high-strength bolts. Each bolt shall be furnished with two hardened washers and one heavy hex nut. See Special Provisions

Where $\frac{3}{4}$ " machine bolts are shown on the plans, each bolt shall be furnished with one std. hex. nut and one std. plate washer.

41.51 701.25.0

MISSISSIPPI & CRITTENDEN COUNTIES

FAI 55 INTERSTATE HIGHWAY

SECTION V

SECTION 1
ARKANSAS STATE HIGHWAY COMMISSION

THE FIGHTING
LITTLE ROCK ARMY

DRAWN BY P.N. DATE AUG 1957 SCALE NOT TO SCALE

TRACED BY: 1001 DATE: JG 1957

CHECKED BY L.H.G. DATE NOV 1957 SHEET OF 2

BRIDGE NO. 3166A.B.B. DRAWING NO.

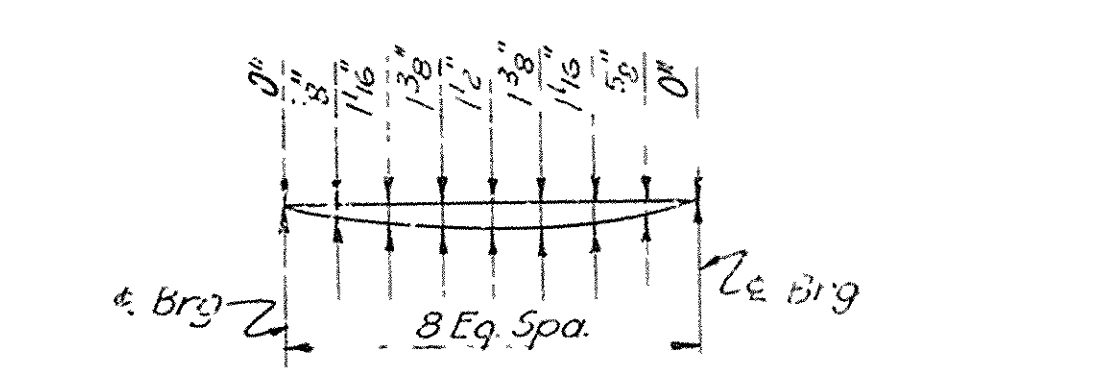
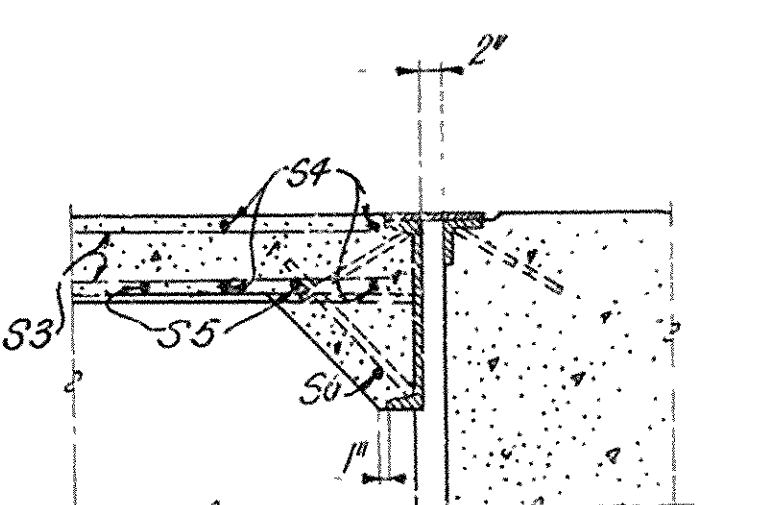
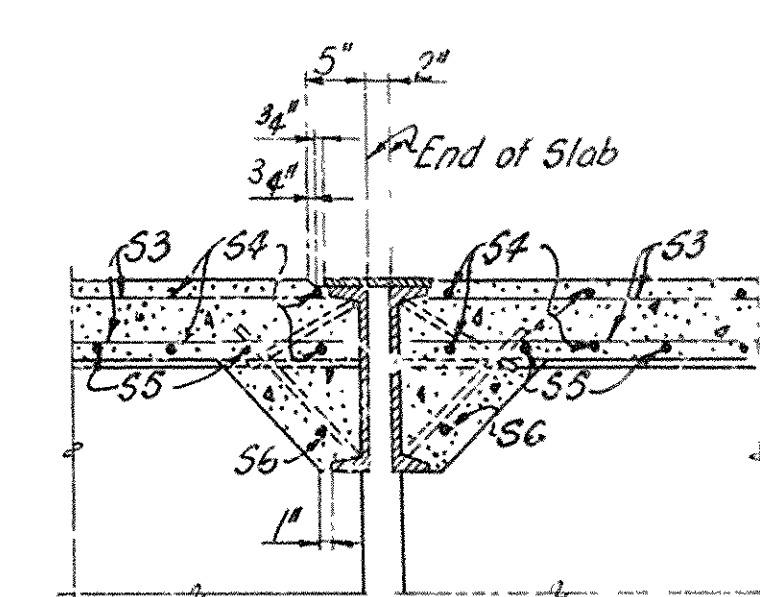
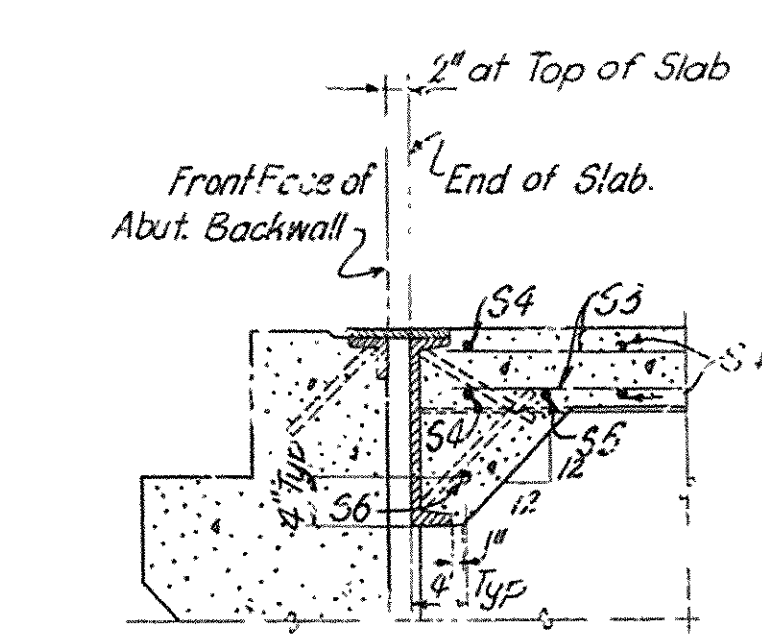
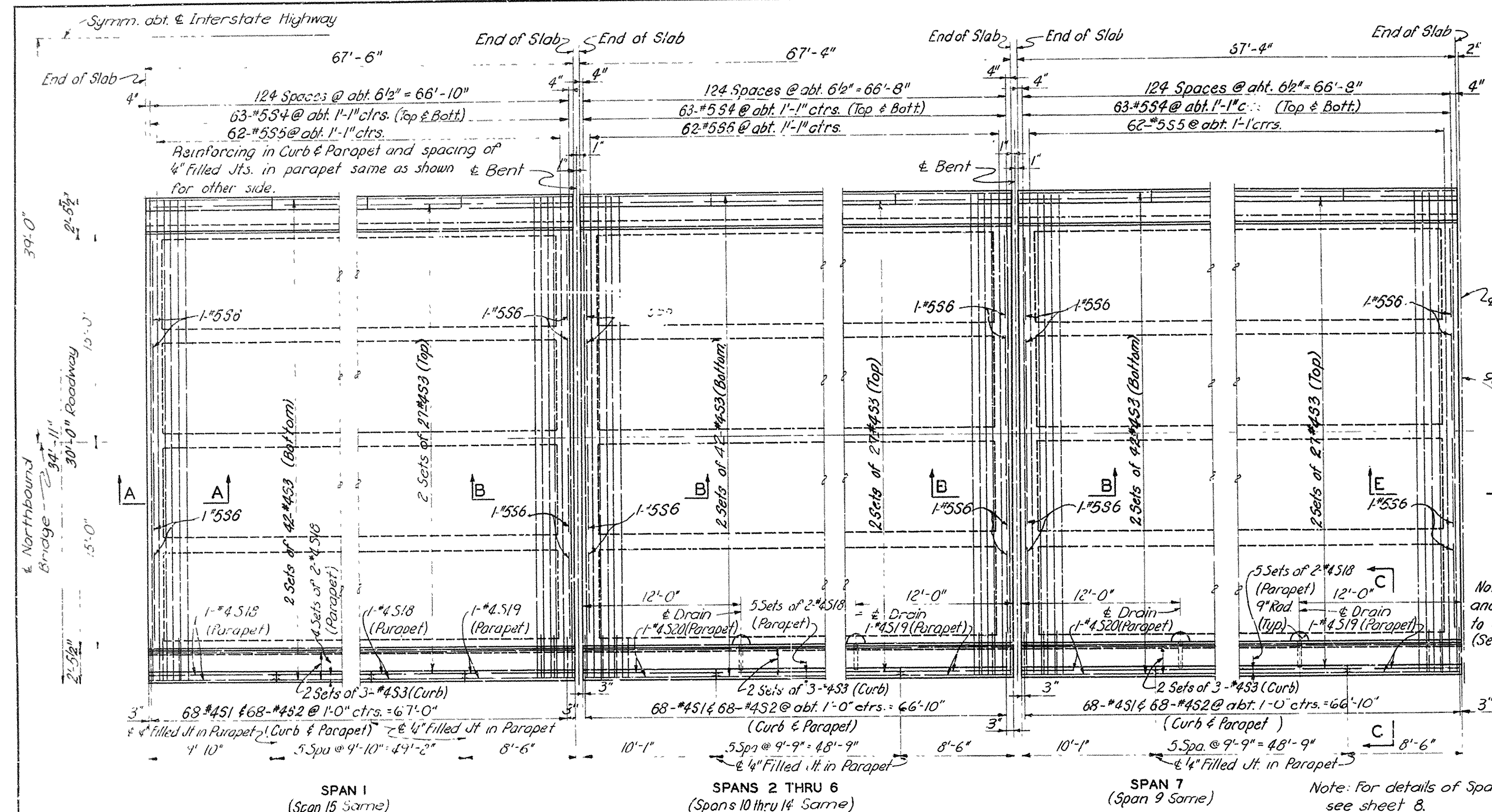
BRIDGE NO. 3166A & B DRAWING NO.

[illegible]

[Downloaded from ascelibrary.org by Washington State University on 06/09/14](#)

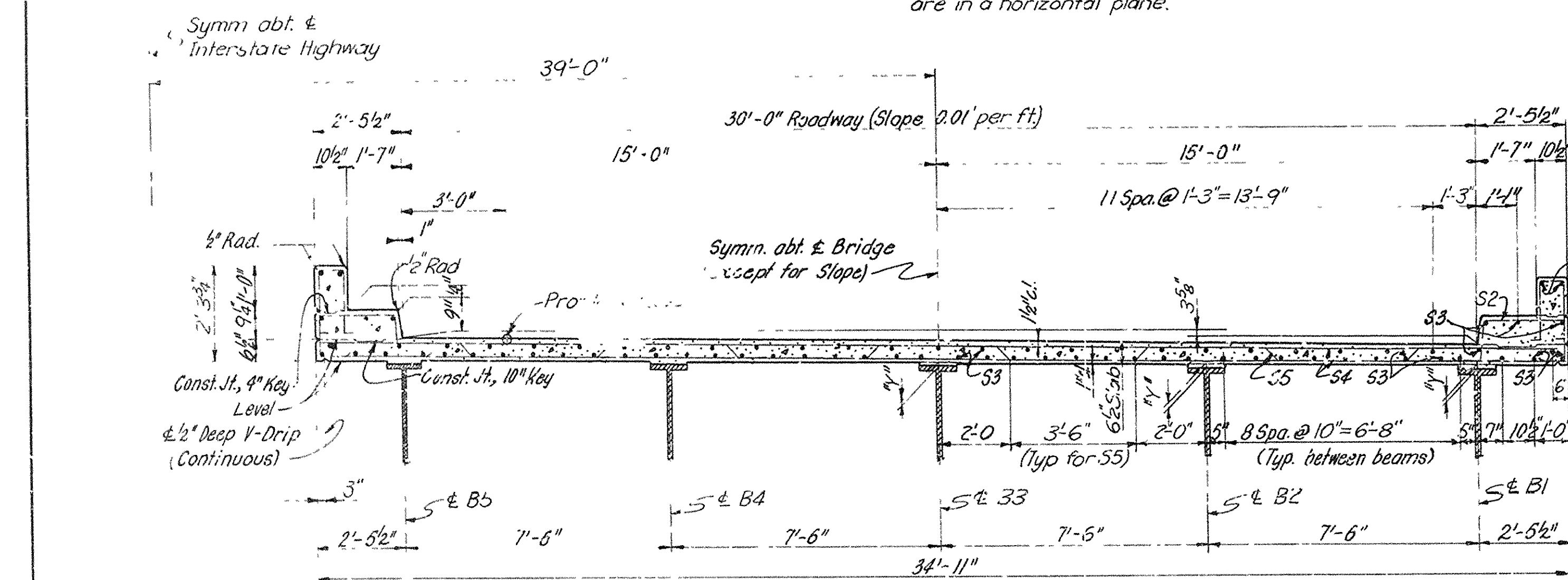
9. <https://doi.org/10.1016/j.jmb.2019.05.005>

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	ARK.	1-333-1122 Old 1-55-1129 New		131	347
STAT. JOB NO. 10616					



PART PLAN-NORTHBOUND BRIDGE

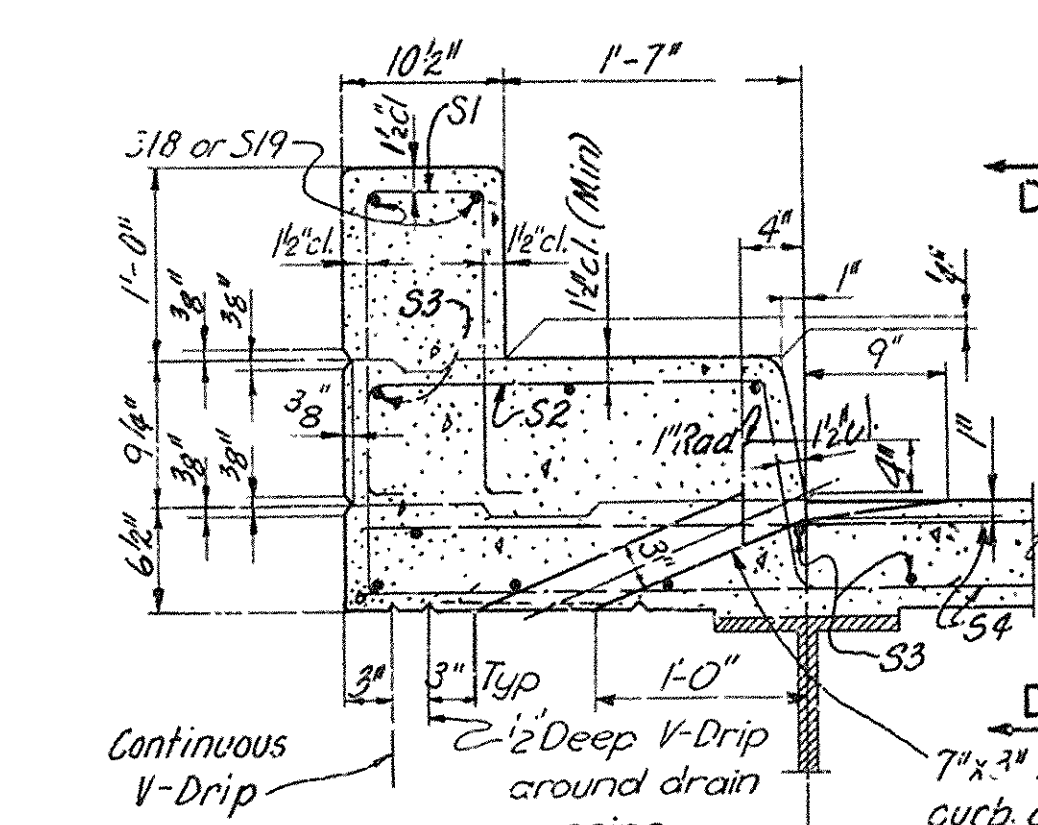
Note: All longitudinal dimensions are in a horizontal plane.



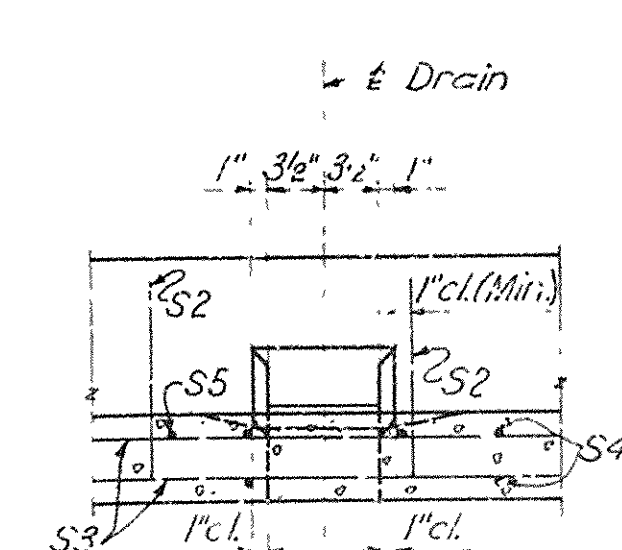
CROSS SECTION

NOTES

Beams are designed to carry all superstructure dead load during construction and temporary intermediate supports shall not be used.
Slab concrete for beam spans shall have cured for at least 7 days before curbs and parapets are placed.
For detail of 4" filled joint in parapet, see Sheet 8, Drwg. No. 10209.
Premolded joint filler shall conform to the requirements of A.A.S.H.O. Specification M153, Type III.
Payment for furnishing and placing joint filler shall be included in unit price bid for other items.



SECTION C-C



SECTION D-D

EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201+85.30

SLAB DETAILS--SPANS 1 THRU 7 & 9 THRU 15

MISSISSIPPI & CRITTENDEN COUNTIES
FAI. 55 INTERSTATE HIGHWAY

SECTION V
ARKANSAS STATE HIGHWAY COMMISSION

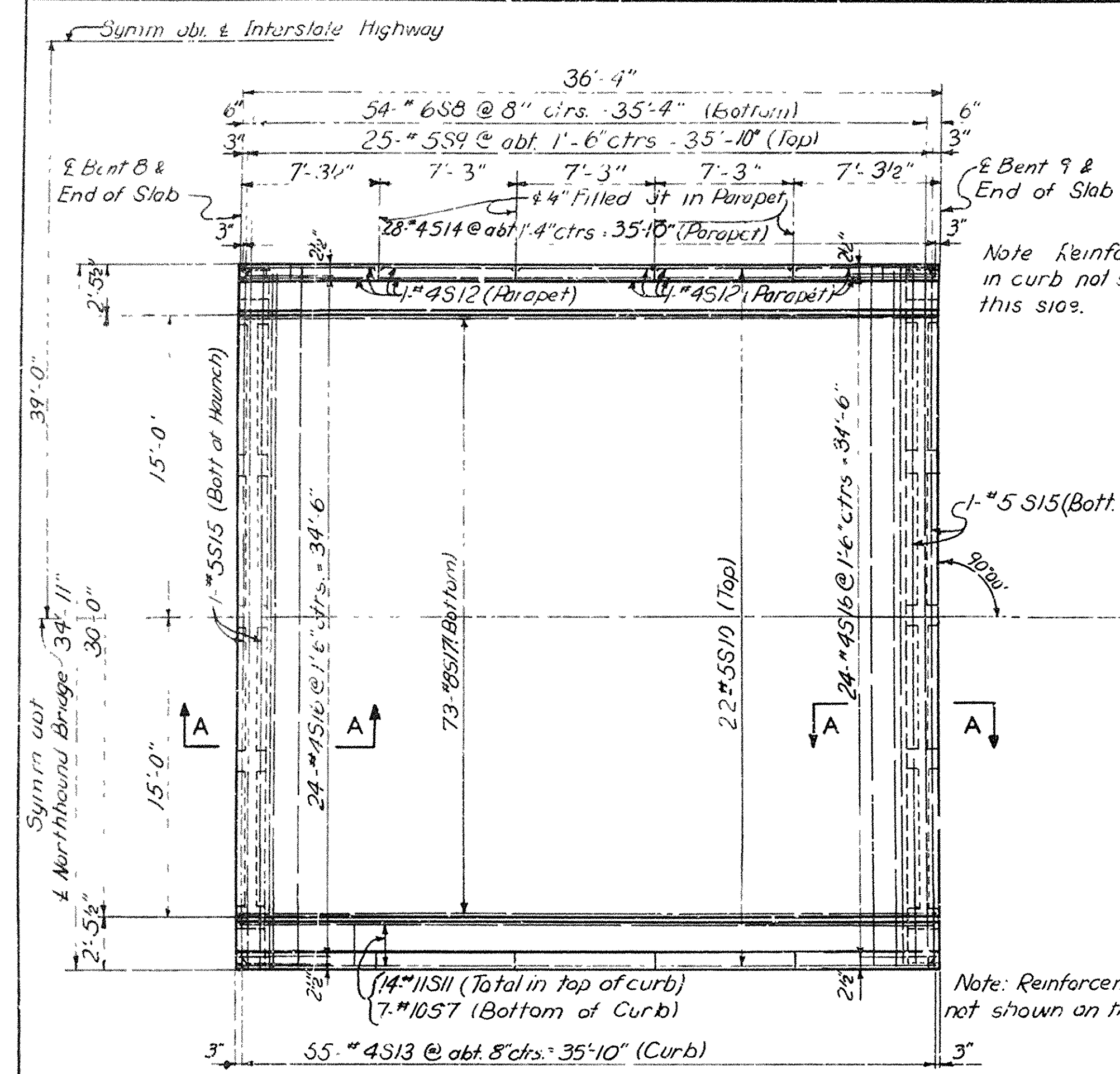
LITTLE ROCK, ARK.

DRAWN BY: S. C. DATE: AUG. 1957 SCALE:
TRACED BY: S. R. K. DATE: AUG. 1957
CHECKED BY: L. H. G. DATE: NOV. 1957 SHEET 7 OF 12

BRIDGE NO. 3166A & B DRAWING NO. 10208

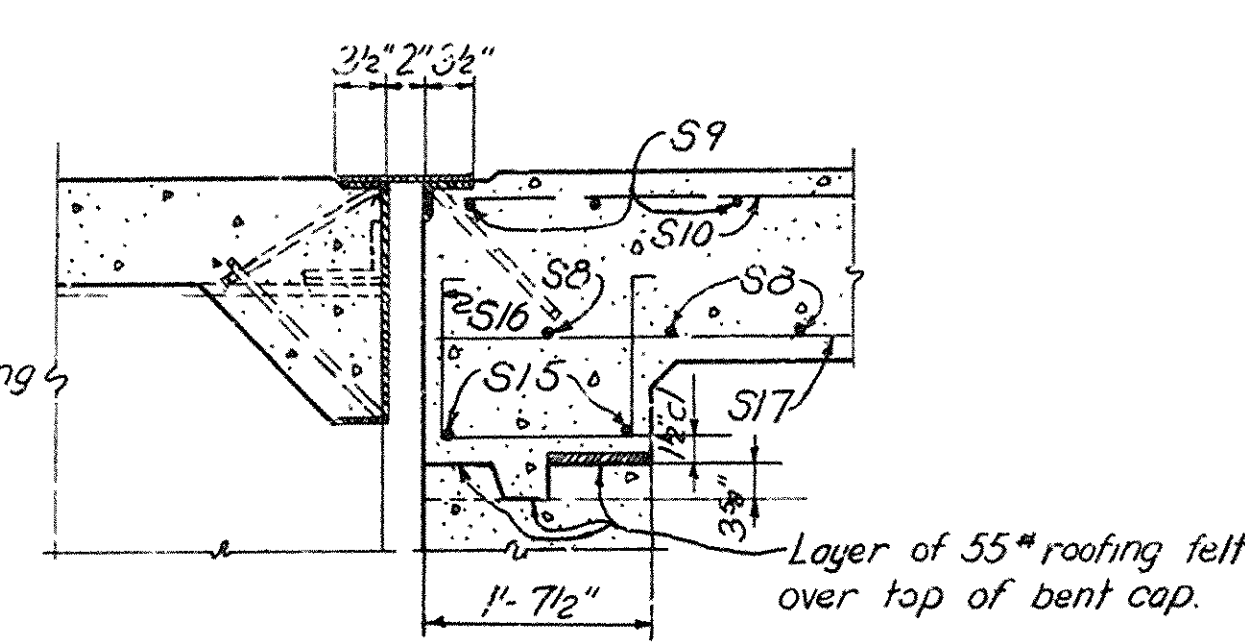
Note: Do not scale this drawing. Follow dimensions.

FED ROAD DIV NO	STATE	PROJECT NO	SHEET NO	TOTAL SHEETS
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STATE JOB NO. 10616				

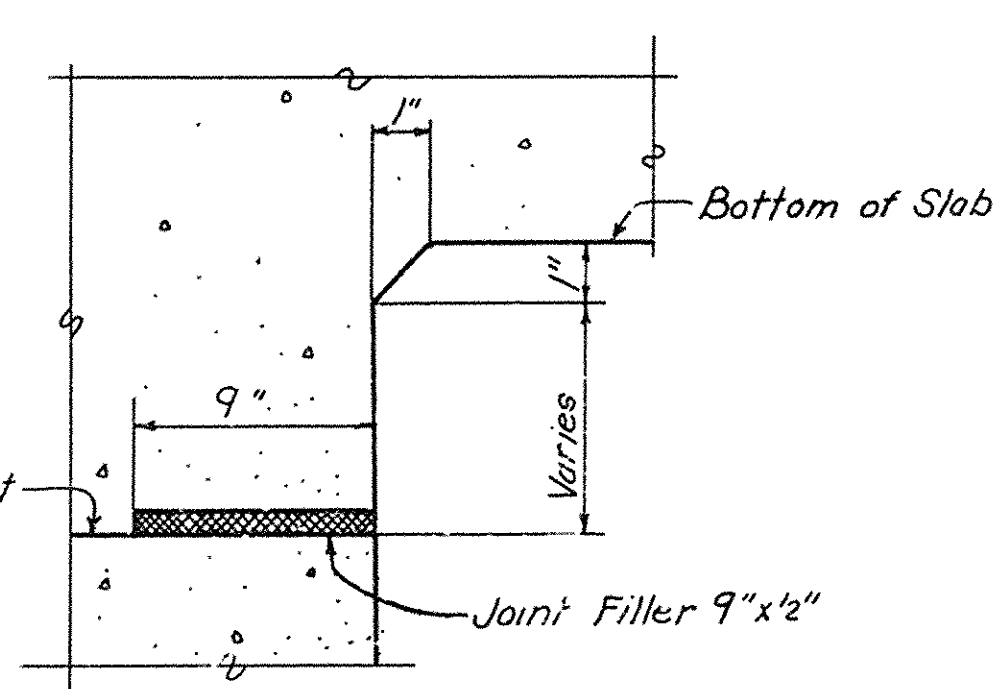


PLAN - NORTHBOUND BRIDGE
Note: All longitudinal dimensions are in a horizontal plane

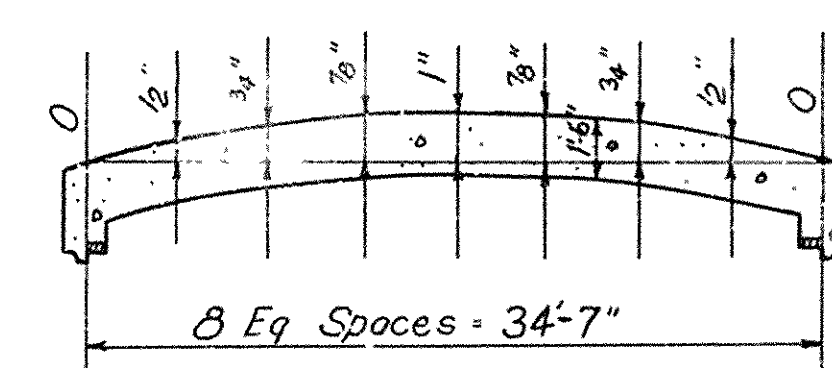
Note Reinforcement in curb not shown on this side.



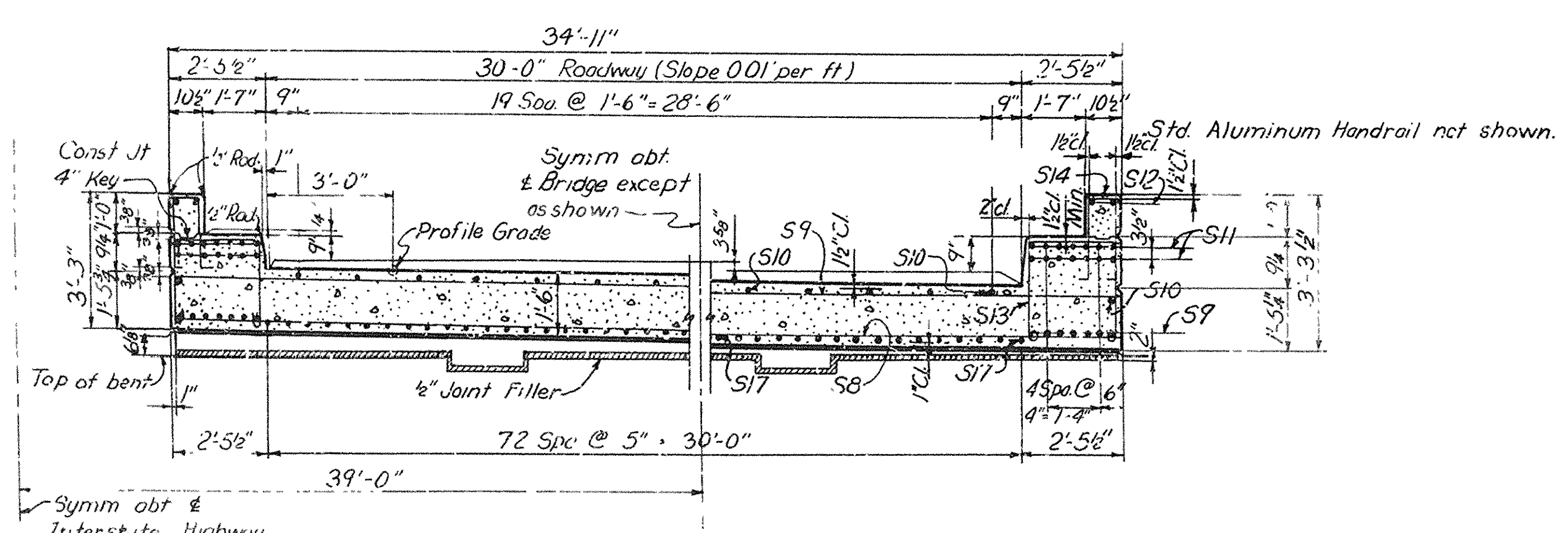
SECTION A-A



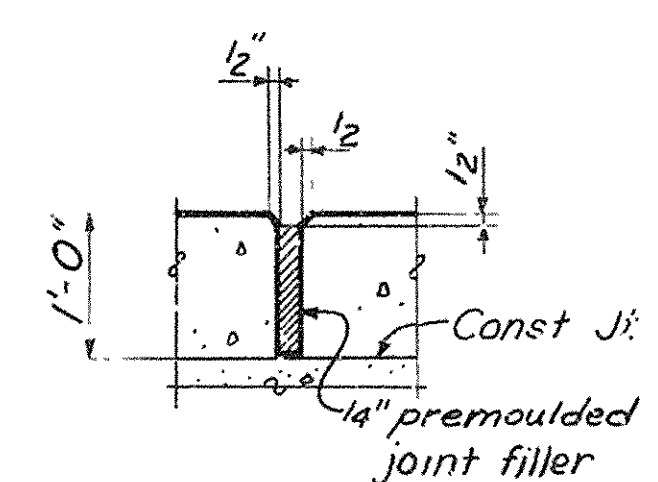
HAUNCH DETAIL



SLAB CAMBER DIAGRAM
The slab span shall be constructed with above camber. Ordinates include dead load deflection and vertical curve



PART CROSS SECTION



SECTION THRU 1/4" FILLED JOINT IN PARAPET

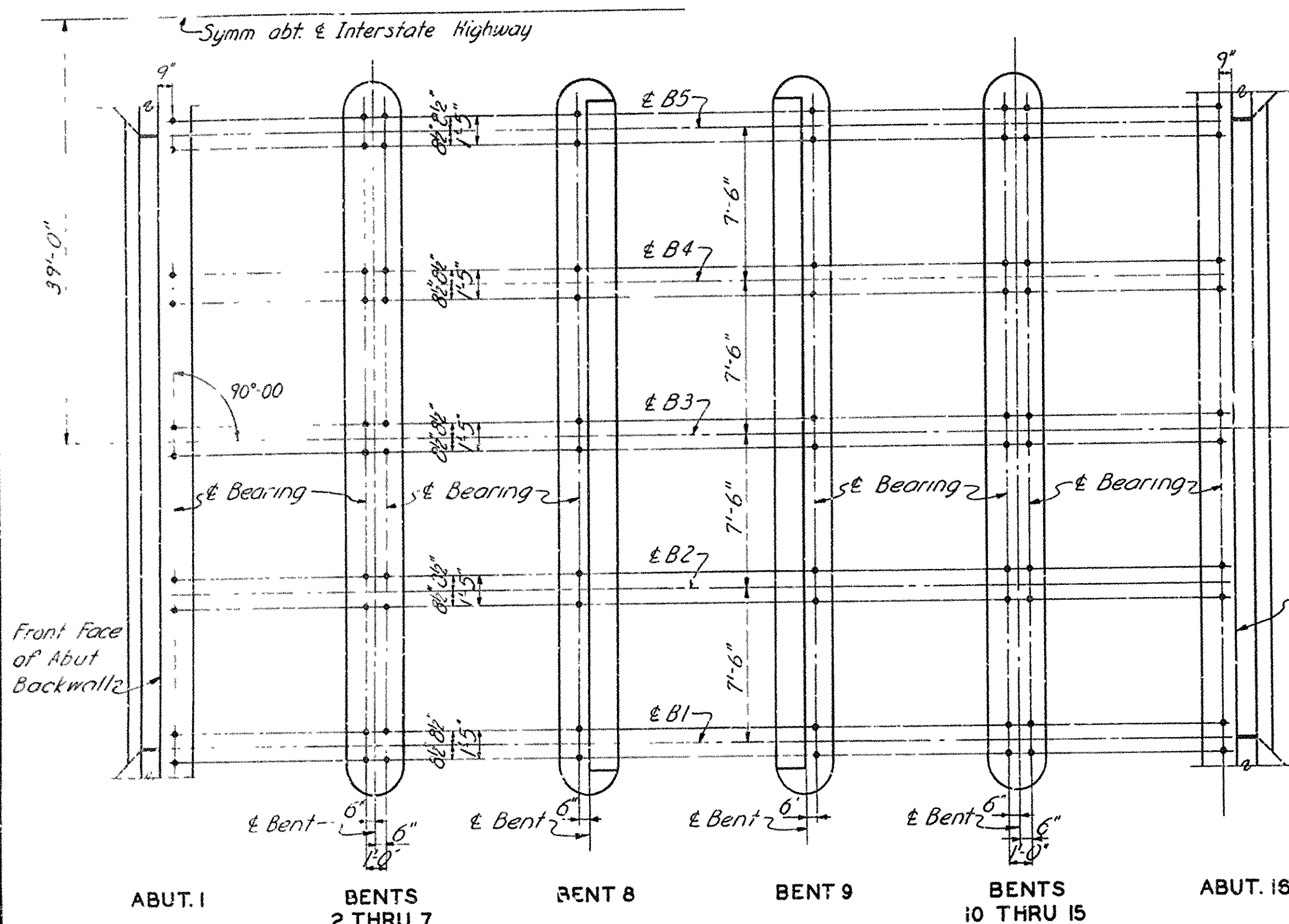
NOTES
Parapets are to be poured after slab falsework has been removed.
See Notes on sheet 7 concerning pre moulded joint filler. Drwg. No. 10206

EAST BLYTHEVILLE FRISCO OVERPASS
4+ STA. 201+85.30
SLAB SPAN DETAILS--SPAN 8

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION V
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

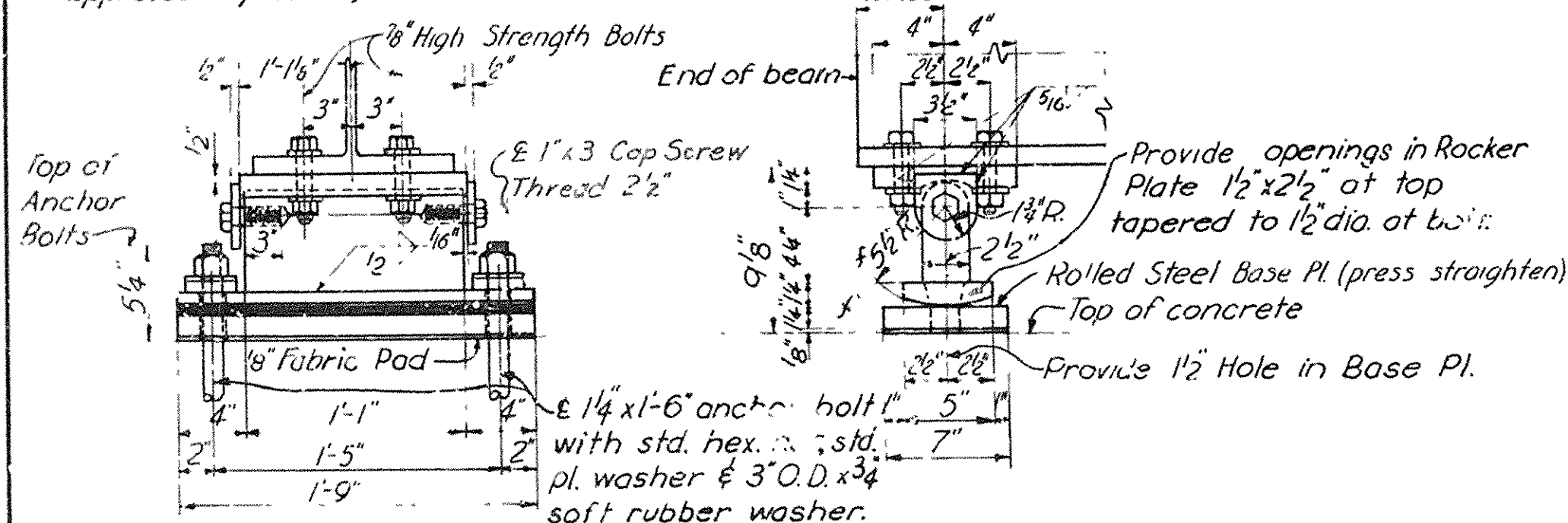
DRAWN BY: G.C. DATE: SEPT. 1957 SCALE: NOT TO SCALE
TRACED BY: J.A.S. DATE: OCT. 1957
CHECKED BY: L.H.S. DATE: NOV. 1957 SHEET 8 OF 12
BRIDGE NO. 3156A & B DRAWING NO. 10209

Note: Do not scale this drawing. Follow dimensions.



ANCHOR BOLT PLAN

Note: Anchor bolts for shoes shall be placed in wells 3" dia. x 1'-6" deep formed in substructure units and located as shown above. After placing anchor bolts, wells shall be completely filled with non-shrink grout containing a plasticizer or an approved equivalent.

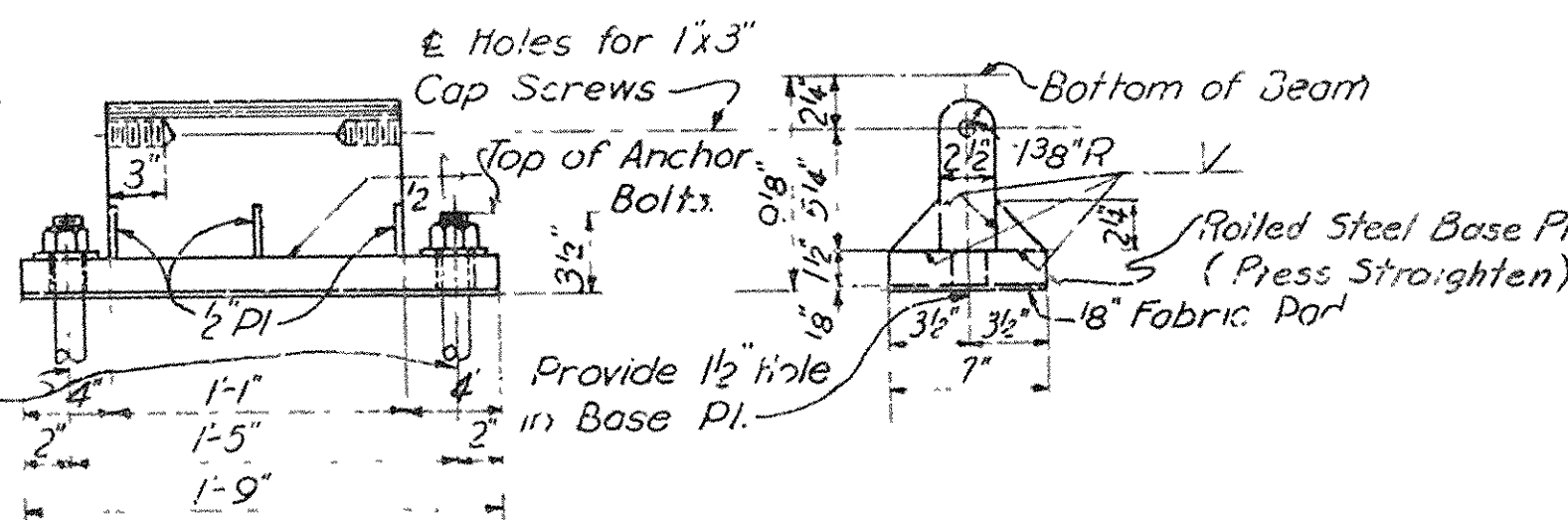


**PLAN OF
ROCKER ASSEMBLY**

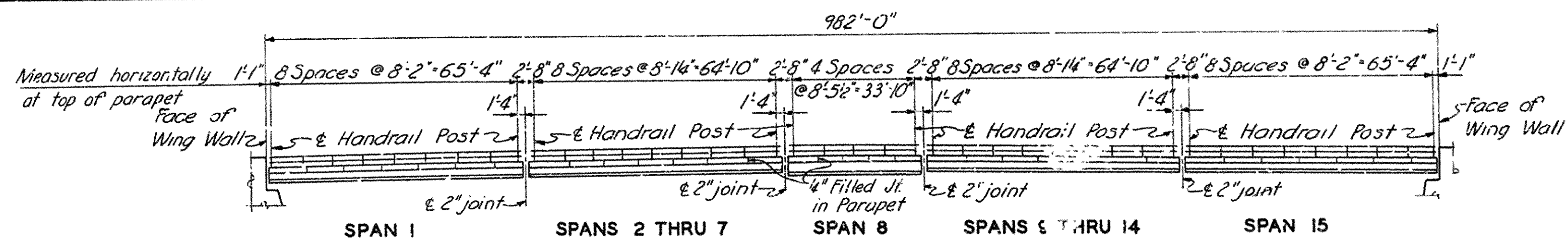
**EXPANSION SHOE ES-1
(140 Required)**

Note: Cap for Fixed Shoe FS-1 and other details not shown are same as for Expansion Shoe ES-1.

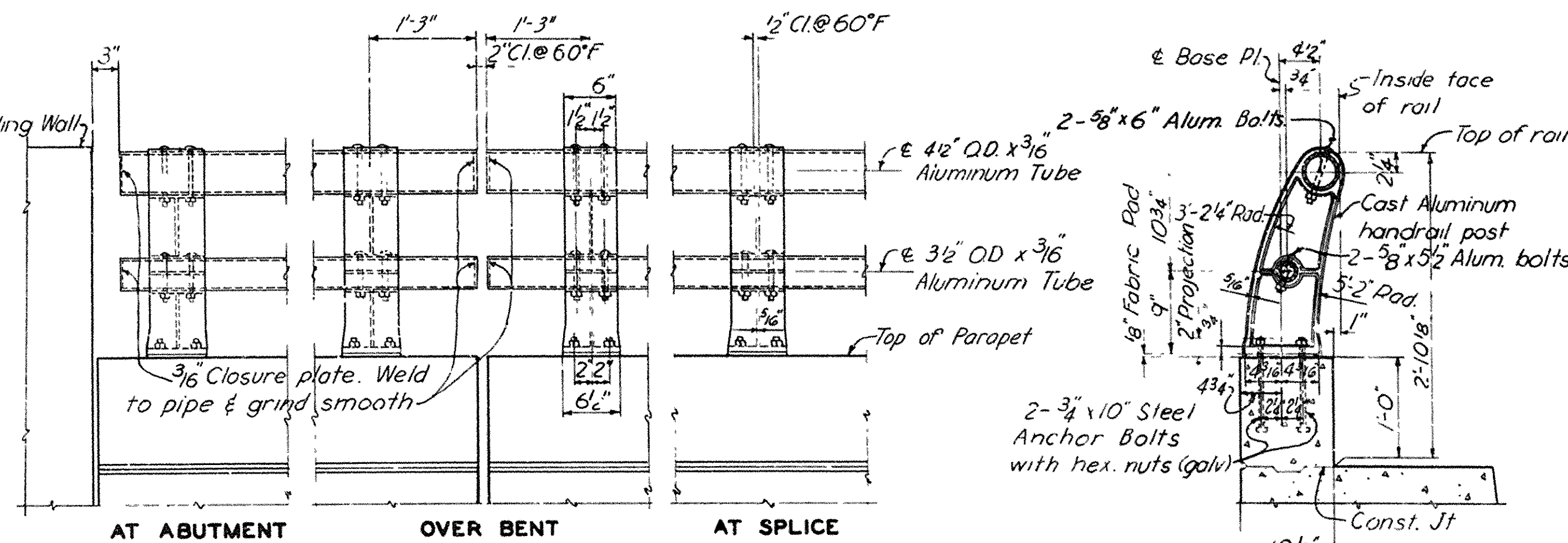
1/2" x 1'-4" Anchor Bolt with std. hex. nut & std. pl. washer



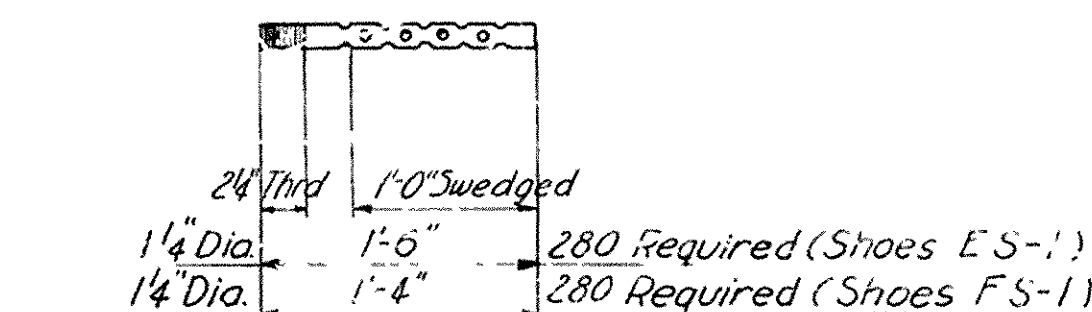
**FIXED SHOE FS-1
(140 Required)**



ELEVATION OF HANDRAIL

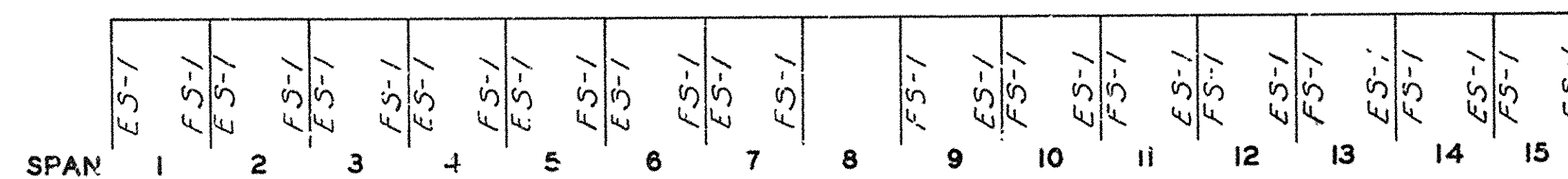


STANDARD ALUMINUM HANDRAIL



ANCHOR BOLTS

See Shoe Details for required nuts, pl. washers and rubber washers.



SHOE ARRANGEMENT

HANDRAIL NOTES

Aluminum bolts for rail connections shall be furnished with oval heads and hex. nuts. A rail connection utilizing set screws is an acceptable alternate, and may be supplied at the Contractor's option.

Outside surfaces of flanges of cast aluminum posts shall be given a No. 220 grit belt finish, after which all exposed surfaces of posts shall receive one coat of clear lacquer.

Handrail posts shall be set normal to grade. Aluminum washer shims (max. thickness 1/8") may be used between fabric pads and post bases for adjusting rail alignment. Where more tilting of the post is required, concrete bearing areas shall be ground down.

Fabric pads shall be similar and equal to Fabreeka as manufactured by the Fabreeka Products Co., Inc. and shall be cut to the exact size and shape of the post base with no overlap. Payment for fabric pads shall be considered included in unit price bid for other items.

SHOE NOTES

For shoes ES-1 and FS-1, contact surfaces between 2 1/2" web pl. and rocker or base pl. shall be finished to provide full contact prior to welding.

See Sheet 6 for Structural Steel Notes. Drwg. No. 10207

**EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201 + 85.30**

HANDRAIL, SHOES AND ANCHOR BOLT PLAN

MISSISSIPPI & CRITTENDEN COUNTIES
FAT 55 INTERSTATE HIGHWAY

SECTION V

ARKANSAS STATE HIGHWAY COMMISSION

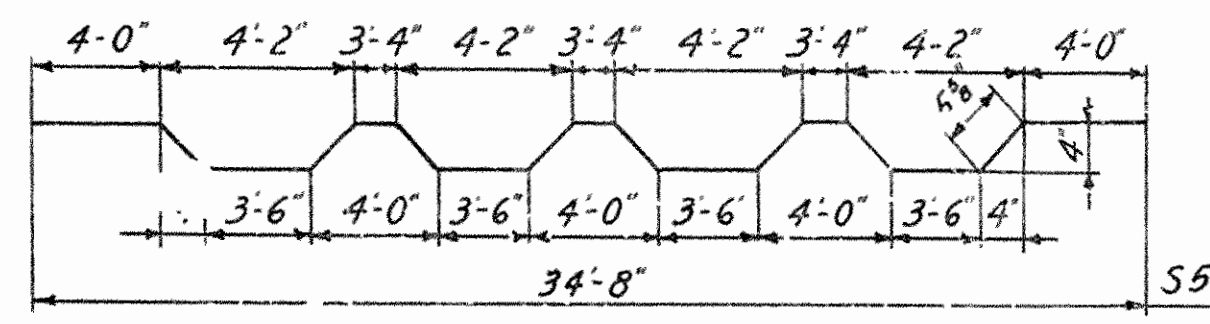
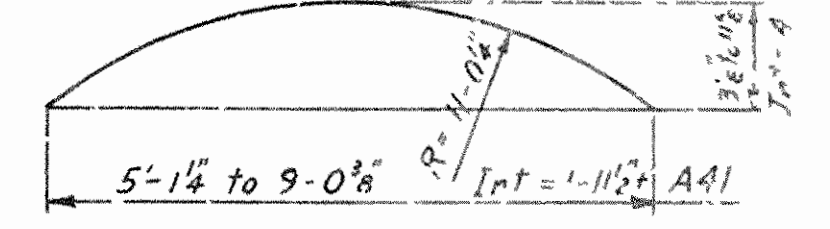
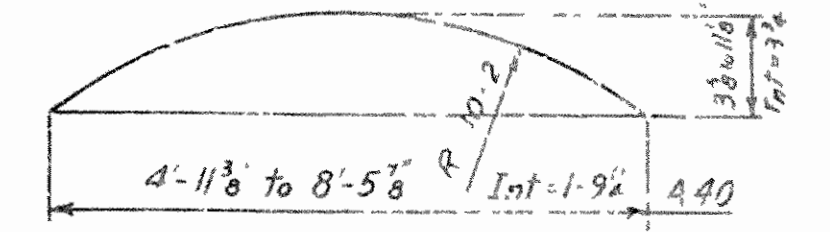
LITTLE ROCK, ARK.

DRAWN BY: R.L.O. DATE: AUG. 1957 SCALE: NOT TO SCALE
TRACED BY: R.L.O. DATE: AUG. 1957
CHECKED BY: L.G. DATE: NOV. 1957 SHEET 9 OF 12

BRIDGE NO. 3166A 8B DRAWING NO. 10210

Note: Do not scale this drawing. Follow dimensions.

A cutting diagram showing a single set of tracks. The diagram is a rectangle divided into two main sections by a diagonal line. The top section is labeled 'B' and 'C' with arrows indicating a rightward direction. The bottom section is labeled 'C' and 'B' with arrows indicating a leftward direction. A vertical line segment labeled 'K' is shown in the top section. The text 'CUTTING DIAGRAM' and '(One Set Shown)' is written below the diagram.



See Sheet II for Typical Bar Types and Hook Details
Dimensioning, bending, and hooks for special bending details shall conform to the standards as noted or shown on sheet 1 Drwg No. 10212

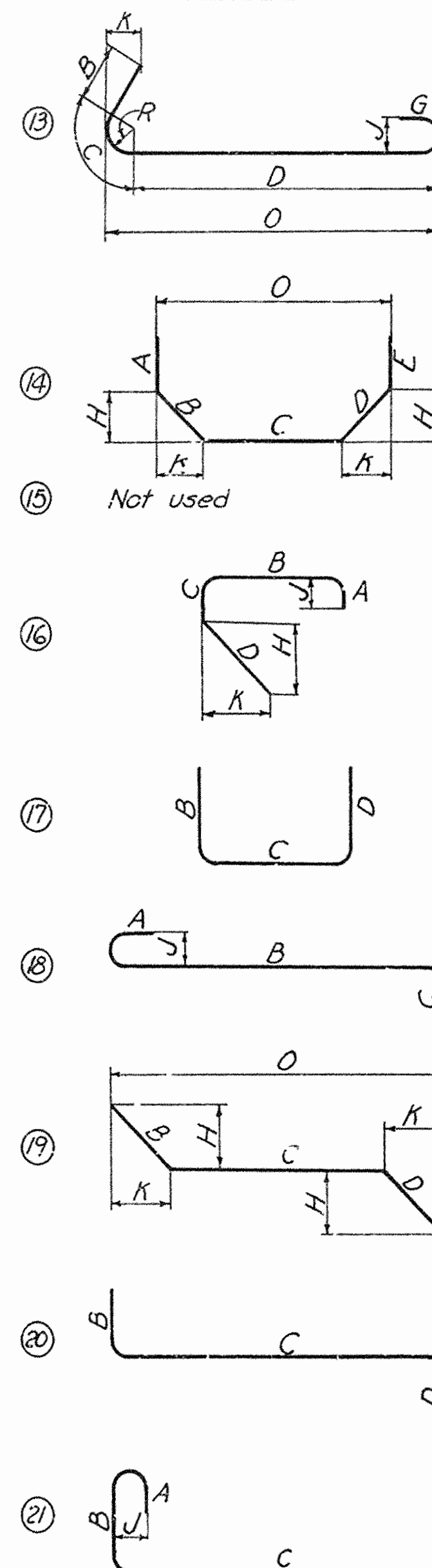
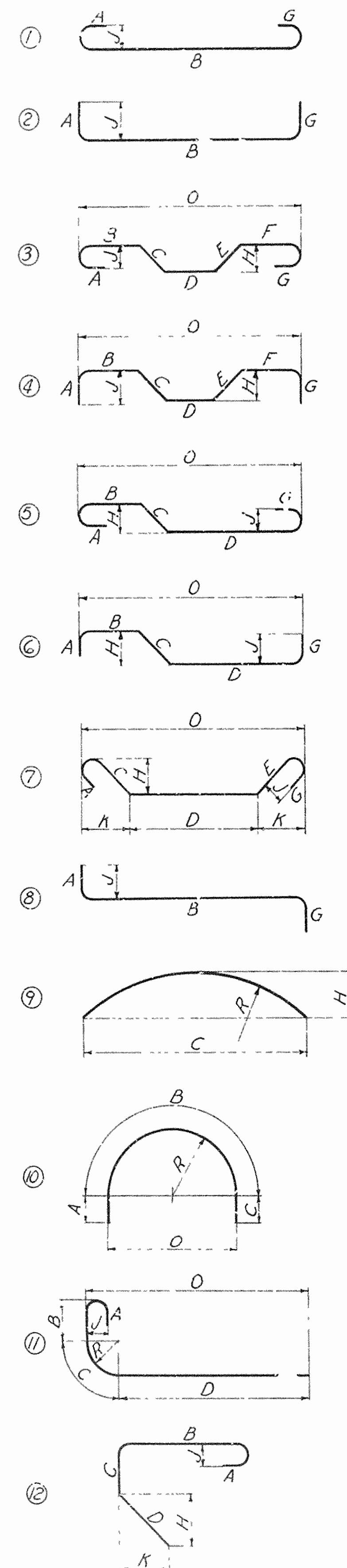
EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201 + 85.30

BAR LIST
MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION V
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY RFD DATE NOV. 1957 SCALE NOT TO SCALE
TRACED BY RFD. DATE NOV. 1957
CHECKED BY LHG DATE NOV. 1957 SHEET 10 OF 12

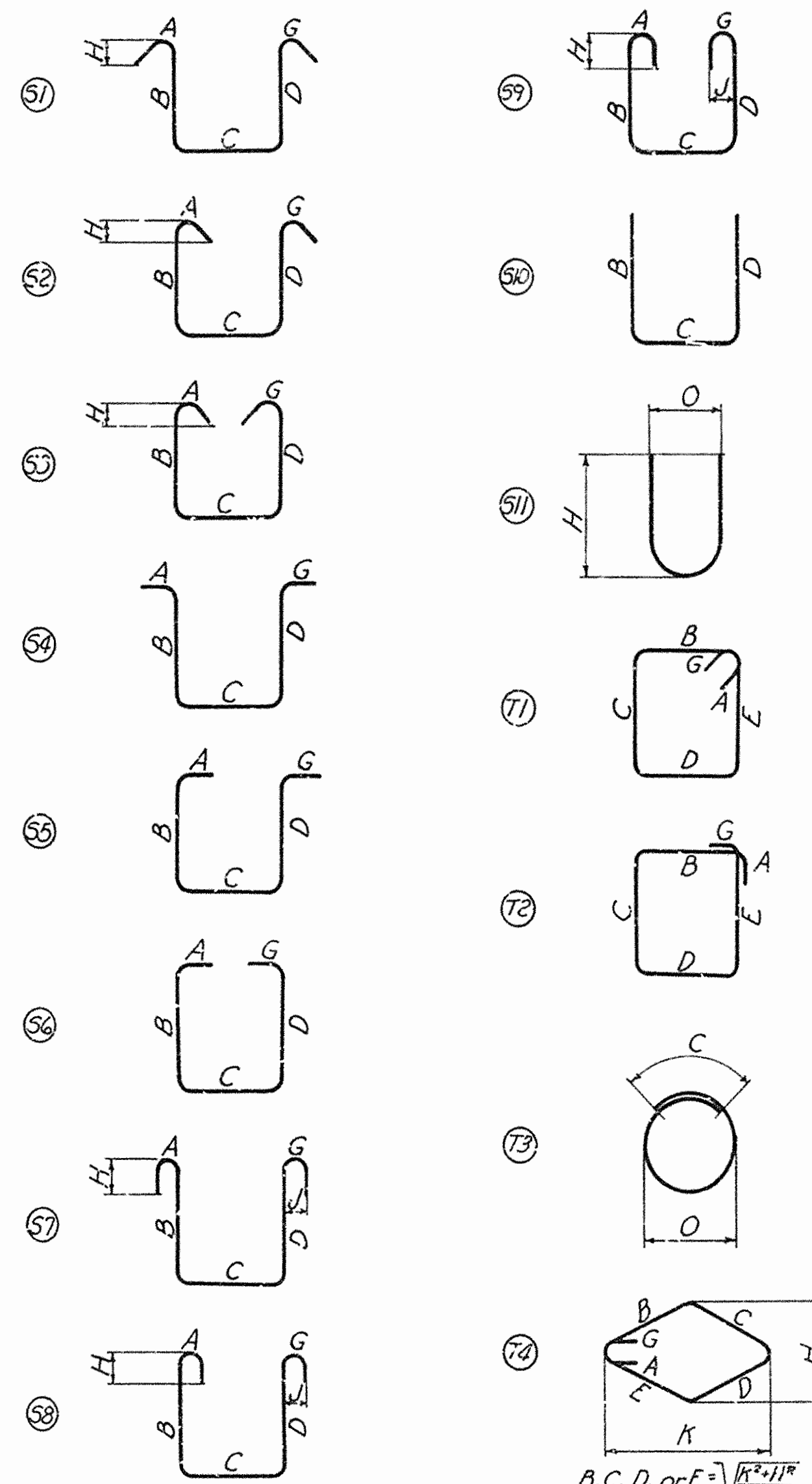
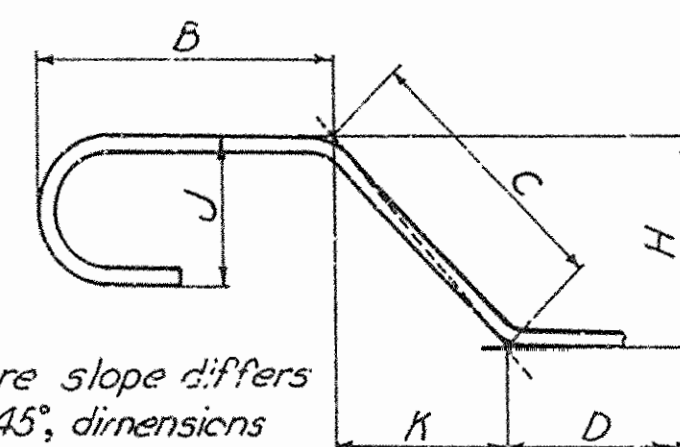
BRIDGE NO. 3166A.88 DRAWING NO. 10211

TYPICAL BAR TYPES



Where slope differs from 45°, dimensions "H" and "K" must be shown.

ENLARGED VIEW SHOWING BAR BENDING DETAILS

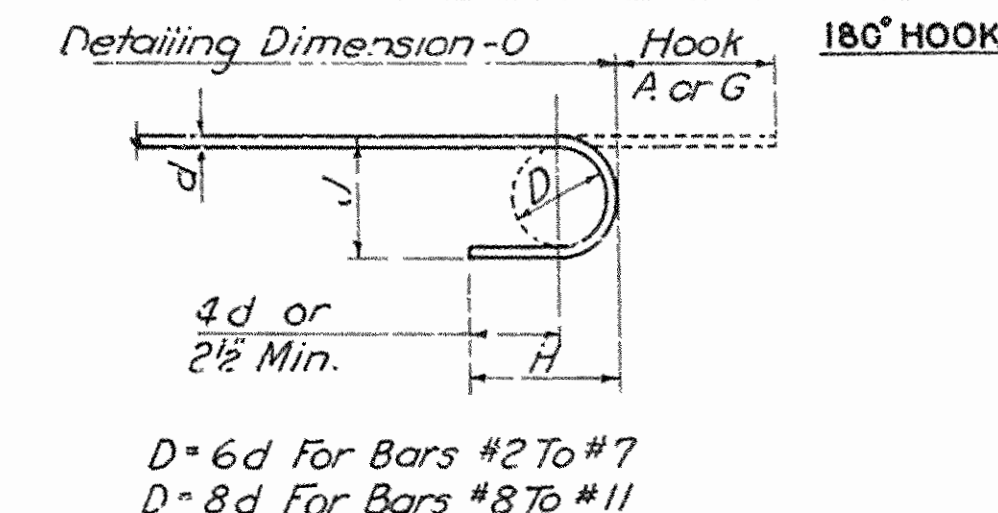


NOTES

1. All dimensions are out to out, except "R" which is inside of bend.
2. "J" Dimension on 180° hooks to be shown in Bar List only where necessary to restrict hook size, otherwise standard hooks are to be used.
3. Where "J" is not shown, "J" will be kept equal to or less than "H". Where "J" can exceed "H", it should be shown in Bar List.
4. "H" Dimension on stirrups to be shown on Bar List where necessary to restrict hooks.
5. Corrections in length, due to bending around a mandrel, will be made only when the radius "R" (as in types 11 and 13) exceeds the standard radii indicated in standard hook dimensions. However, the dimensions "A" or "G" shown for standard hooks have been corrected for curvature.
6. All bends shown are bent around a standard mandrel, except where radius "R" is indicated.
7. Figures in circles show bar types.
8. Where "R" is shown on bar types 9, 10, 11 and 13, the length of bend shall be measured along outside of bend. The length of bar type T3 shall also be measured along outside of bar.

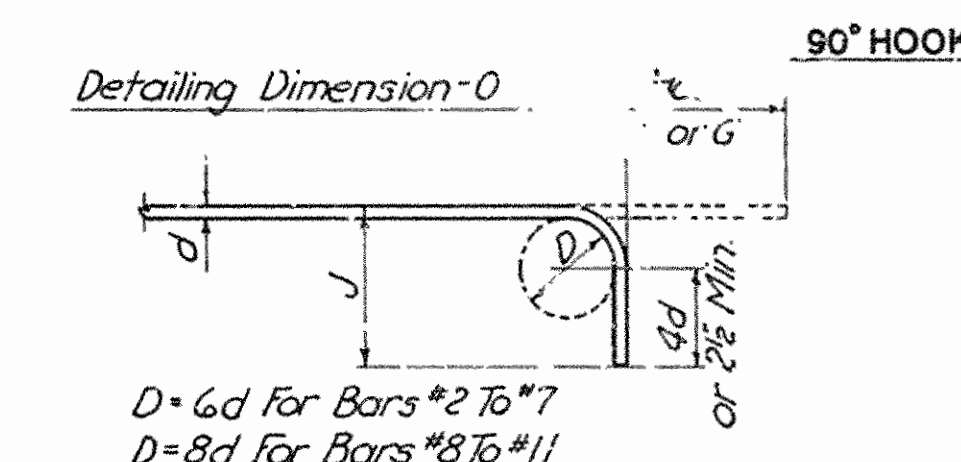
$$B, C, D, \text{ or } E = \sqrt{\frac{H^2 + J^2}{2}}$$

STANDARD HOOK DIMENSIONS



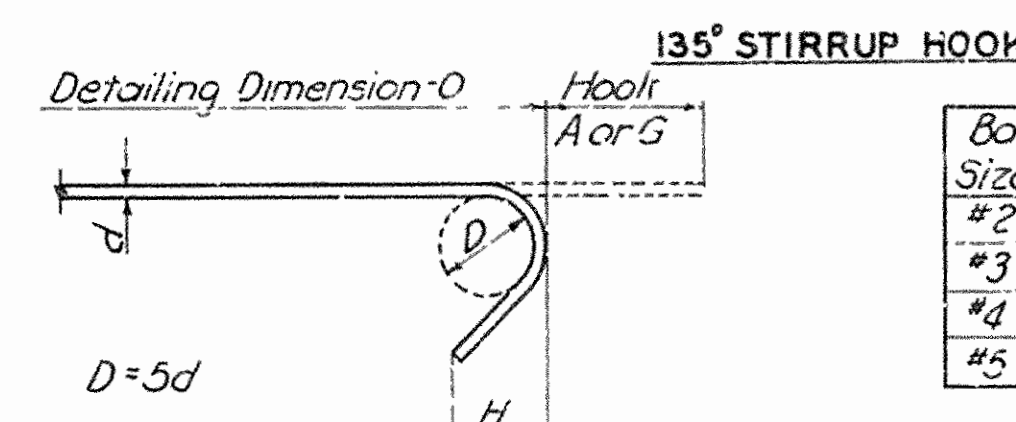
D = 6d For Bars #2 To #7
D = 8d For Bars #8 To #11

Bar Size	Hook A or G	J	Approx. H
#2	4"	2"	3 1/2"
#3	5"	3"	4"
#4	6"	4"	4 1/2"
#5	7"	5"	5"
#6	8"	6"	6"
#7	10"	7"	7"
#8	11"	10"	9"
#9	13"	11 1/2"	10 1/2"
#10	15"	13 1/2"	11 1/2"
#11	17"	15 1/2"	13 1/2"



D = 6d For Bars #2 To #7
D = 8d For Bars #8 To #11

Bar Size	Hook A or G	J	Approx. H
#2	3"	3 1/2"	3 1/2"
#3	3"	4"	4"
#4	3"	4 1/2"	4 1/2"
#5	4"	5"	5"
#6	4"	6"	6"
#7	5"	7"	7"
#8	6"	9"	9"
#9	7"	10"	10"
#10	8"	11 1/2"	11 1/2"
#11	9"	13 1/2"	13 1/2"



D = 5d

Bar Size	Hook A or G	H
#2	3 1/2"	2"
#3	4"	2 1/2"
#4	4 1/2"	2 1/2"
#5	5"	2 3/4"

BAR SIZE EQUIVALENTS

#2	6"	#7	7 1/8"
#3	3 1/8"	#8	1"
#4	1 1/2"	#9	1"
#5	3/8"	#10	1 1/8"
#6	3/4"	#11	1 1/4"

EAST BLYTHEVILLE FRISCO OVERPASS AT STA. 201+85.30 TYPICAL BAR TYPES AND HOOK DIMENSIONS

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION II
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: F.L.C. DATE: DEC. 1957. SCALE: NOT TO SCALE
TRACED BY: F.L.C. DATE: DEC. 1957.

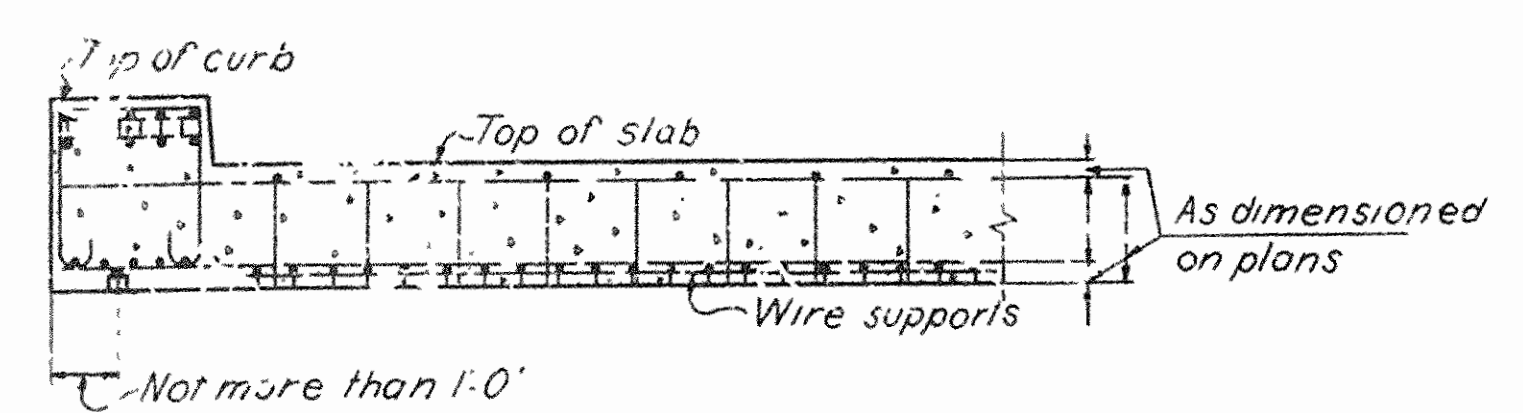
CHECKED BY: L.H.G. DATE: DEC. 1957. SHEET 11 OF 12

BRIDGE NO. 3162 A & B 3166 A DRAWING NO. 10212
3163 A & B

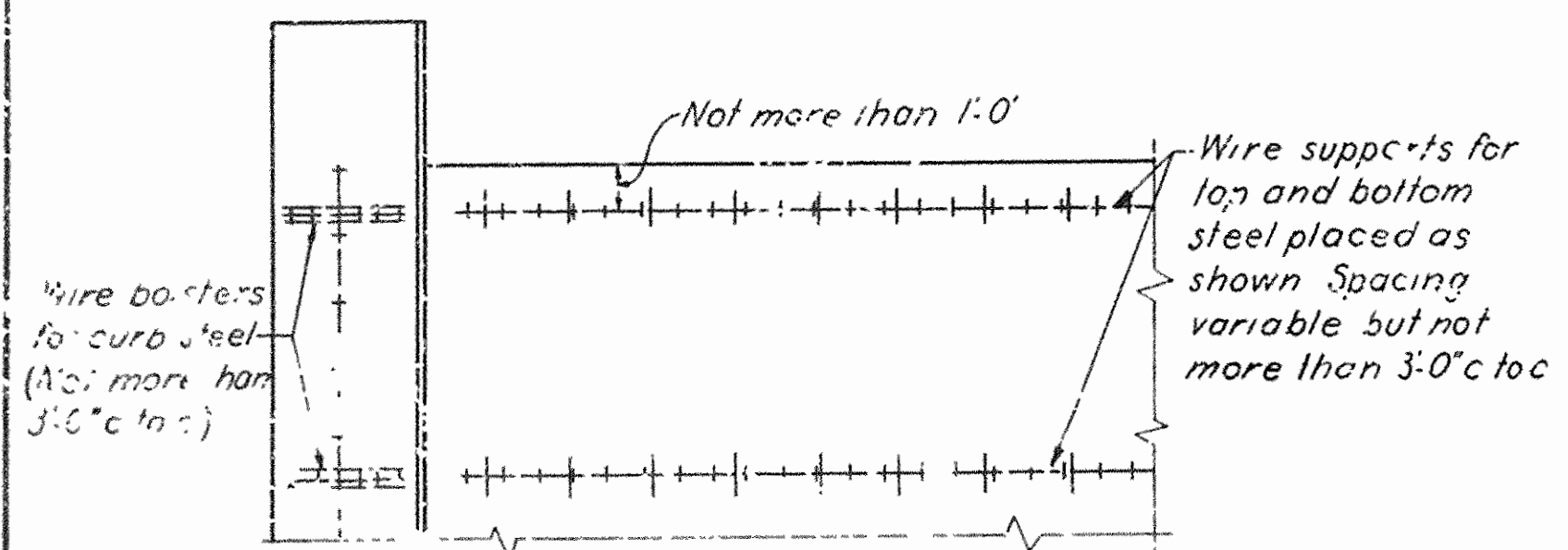
OVERCROW & PARJEL, INC.
ENGINEERS-ARCHITECTS
ST. LOUIS, MO.

1343-5
553461

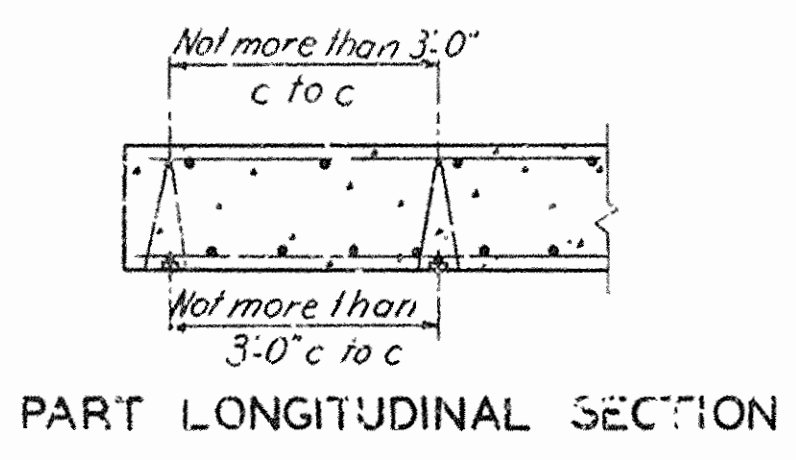
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.	1-193-11220-1	1-55-11220-1 New	136	347
STATE JOB NO. 10616					



PART SECTION

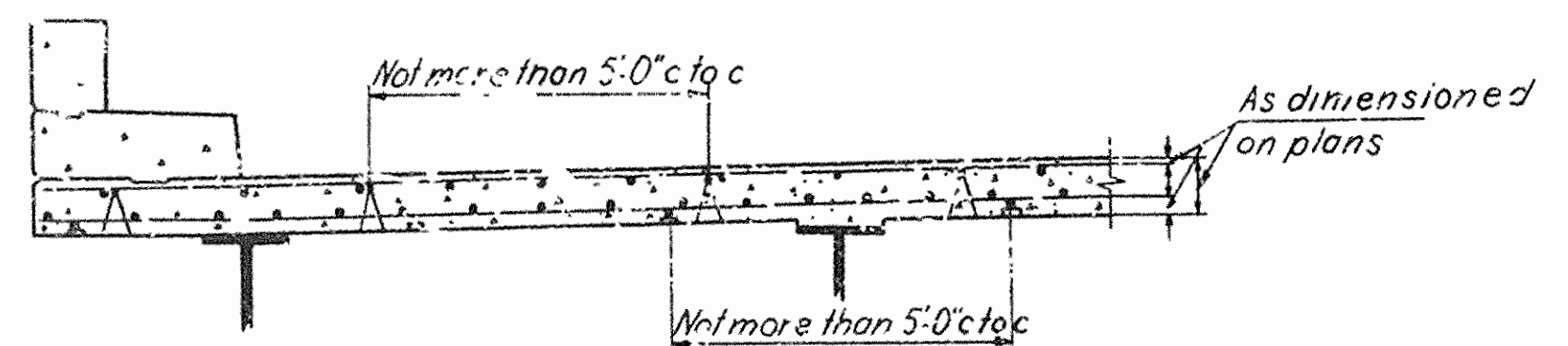


PART PLAN

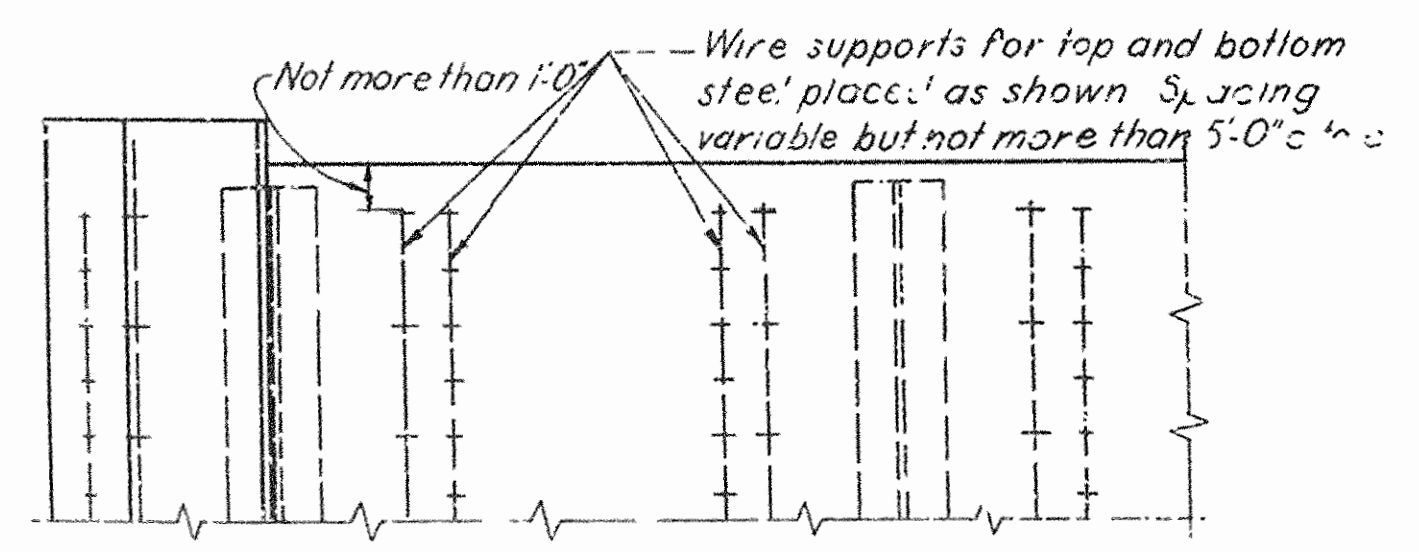


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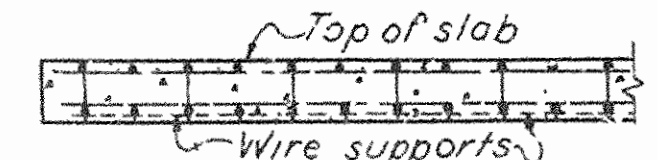
TYPICAL SLAB SPANS



PART SECTION

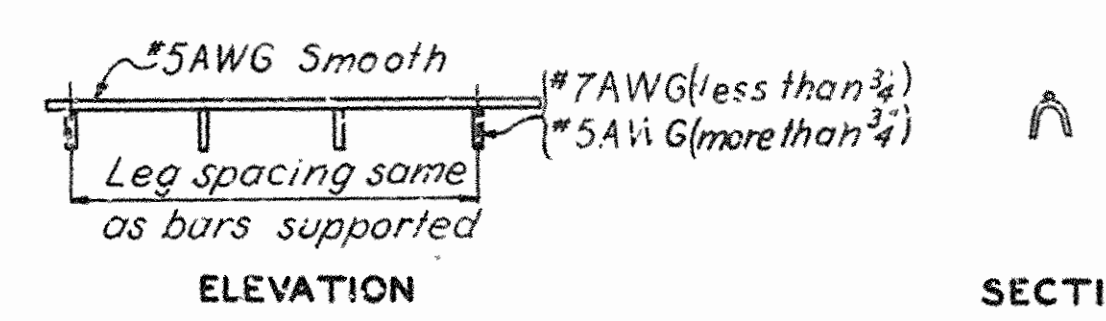


PART PLAN

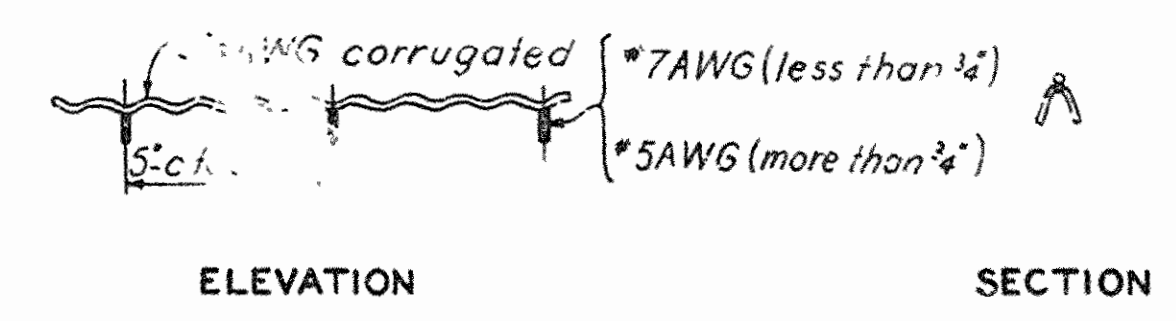


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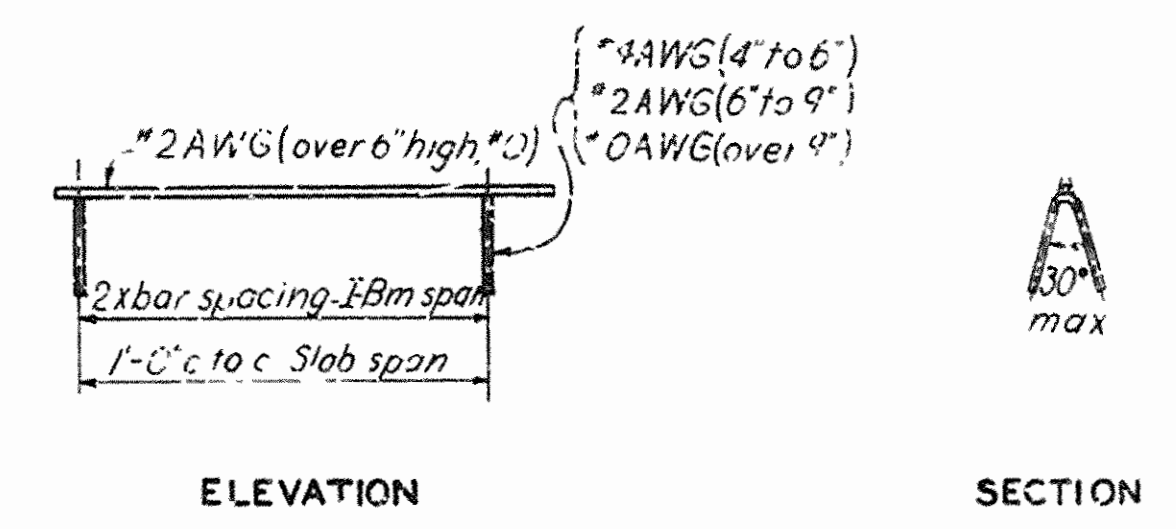
TYPICAL I-BEAM SPANS



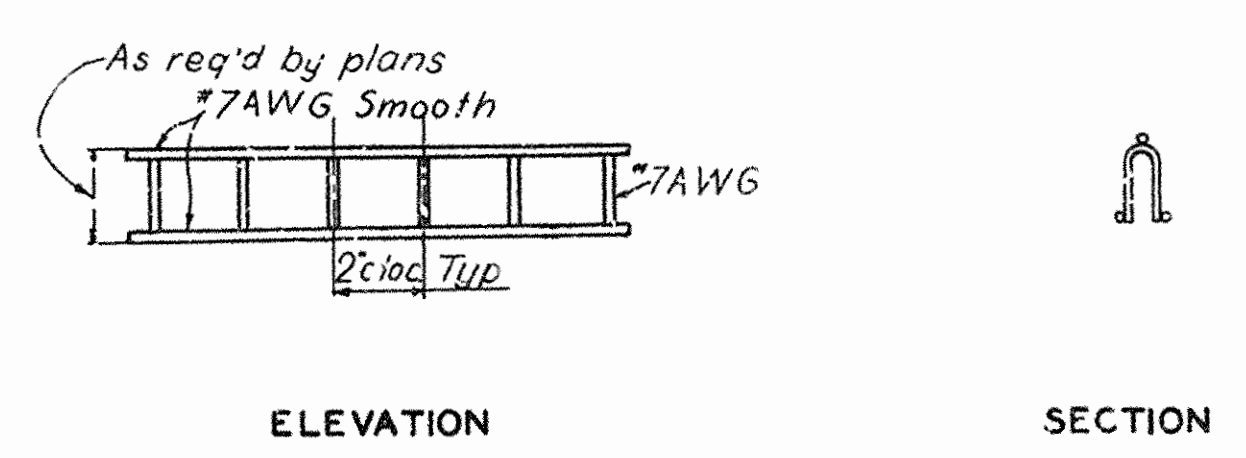
SLAB SPACER



SLAB BOLSTER



CONTINUOUS HIGH CHAIR



BEAM BOLSTER UPPER

NOTES

All reinforcing steel shall be accurately located in the forms and firmly held in place by means of steel wire supports, heights of which shall be sufficient to support bars in the exact positions dimensioned on plans. Spacing of wire supports shall be approximately as given on this sheet.

Details of wire supports shown are typical and supports of other design may be used, however, shop drawings of intended designs must be submitted for approval.

Payment for wire supports in place shall be considered to be completely covered by unit price bid for other items.

All gages are American Steel and Wire Company Gages.

All contact points shall be securely welded.

All wire supports shall be made such that only ends of supporting legs shall bear upon the forms.

All dimensions are given to E. of bars.

EAST BLYTHEVILLE FRISCO OVERPASS
AT STA. 201+85.30

TYPICAL DETAILS OF SUPPORTS
AND SPACERS FOR REINFORCING STEEL

MISSISSIPPI & CRITTENDEN COUNTIES
FAI 55 INTERSTATE HIGHWAY
SECTION V
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: B.G. DATE: FEB. 1957 SCALE: NOT TO SCALE
TRACED BY: F.N. DATE: FEB. 1957
CHECKED BY: J.G.N. DATE: FEB. 1957 SHEET 12 OF 12
BRIDGE NO. 3162 A & B, 3166 A & B, 3163 A & B, DRAWING NO. 10213

SVERDRUP & PARCELL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

Note: Do not scale this drawing. Follow dimensions.

13435
579204

JOB 10616
SUMMARY OF QUANTITIES

ITEM NO	ITEM	UNIT	TOTAL
SP-801-2	DRY EXCAVATION FOR STRUCTURES	CU. YD.	5,965
SP# 802	CLASS "A" CONCRETE FOR BRIDGES	CU. YD.	3,710
SP# 802	CLASS "S" CONCRETE FOR BRIDGES	CU. YD.	5,713
SP# 803	REINFORCING STEEL	LB.	1,263,905
JOB 10616	ALUMINUM BRIDGE RAILING	LIN. FT.	8,350
SP# 807	STRUCTURAL STEEL IN GIRDER SPANS	LB.	398,300
SP# 807	STRUCTURAL STEEL IN BEAM SPANS	LB.	3,511,420
SP-804-4	BEARING PILES (14" Sq or 16" End)	LIN. FT.	48,720
SP-804-4	LOADING TEST PILES	EACH	12
929	BRIDGE NAME PLATES (TYPE "C")	EACH	3

NOTE: Estimated Quantity of Bearing Piles
is based on 14" square precast reinforced
concrete piles.