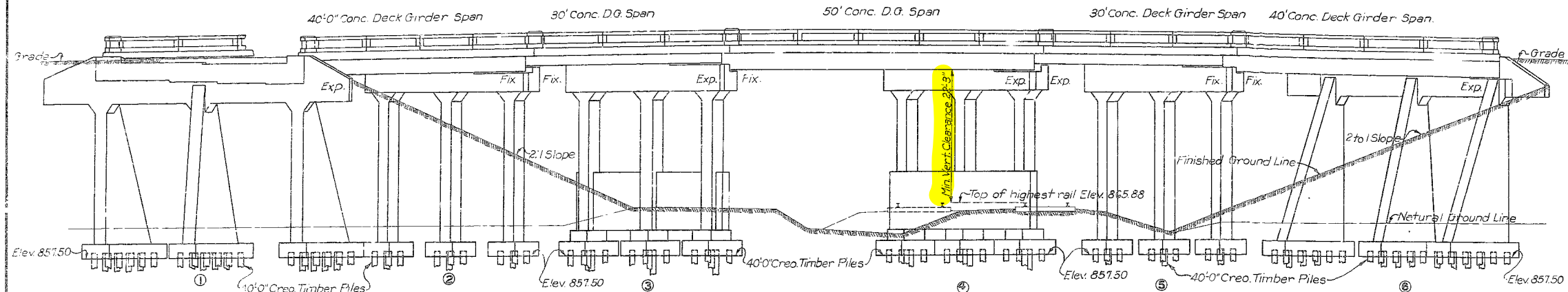


MISSOURI STATE HIGHWAY DEPARTMENT

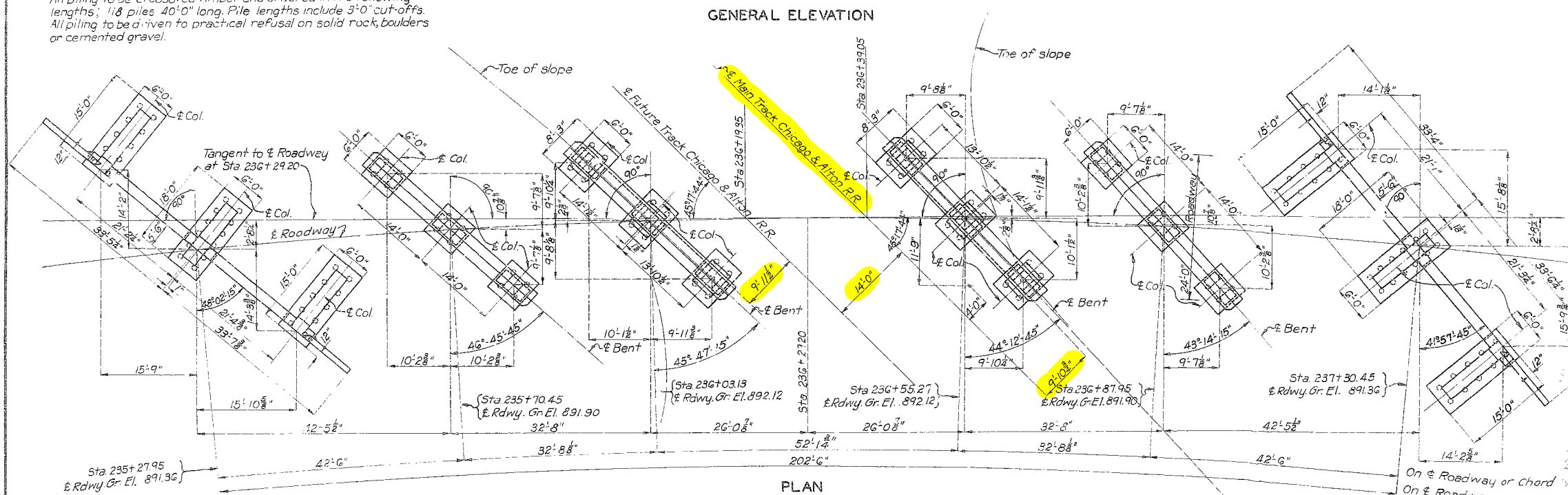
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WPGH 303G1 (R22)	19		



Note: See Special Provisions in regard to ordering piling.
All piling to be creosoted timber and ordered in the following lengths: 1/8 piles 40'-0" long. Pile lengths include 3'-0" cut-offs.
All piling to be driven to practical refusal on solid rock, boulders or cemented gravel.

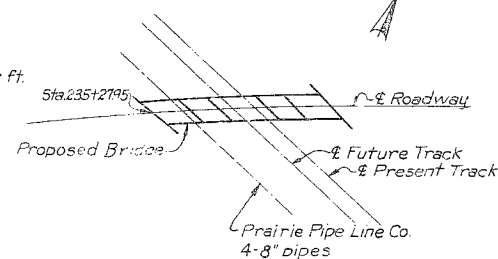
GENERAL NOTES:
Design Specifications A.A.S.H.O.
Loading H-15 A.A.S.H.O.-One Lane.
Reinforcing Steel Stress 16,000# per sq.in.
Concrete Class "A" 900# per sq.in. } Single Line
Concrete Class "B" 650# per sq.in. }
Concrete Class "X" 750# per sq.in. }
Concrete in handrail to be Class "A". Concrete in slabs, curbs and girders to be Class "X". All other concrete to be Class "B".
All concrete shall be proportioned by the weight proportioning method. See Special Provisions.
Exposed edges to be beveled 1/2" where no other bevel is noted.
Where rubber compound is specified in plans for use in partition and expansion joints, the pre-moulded joint shall be securely stitched to one face of concrete with copper wire.
Two name plates, type "A" as shown on Std. S-919 to be furnished and placed by contractor. Cost of name plates to be included in price bid for other items.
Floor slab for each span shall be constructed full length and width at one operation. No longitudinal or transverse construction joints will be permitted.
Only sufficient camber to be used in construction to insure against settlement below lines given as finished grade.
Falsework for spans over existing railroad tracks shall be constructed with a minimum vertical clearance of 20'-0" and a minimum lateral clearance of 8'-0" from centerline of tracks.
Bridge excavation in accordance with Section I of Standard Specifications issued April 1, 1930.

Bar supports and spacers will be required for reinforcing steel in superstructure. See Standard C-110R and Special Provisions.

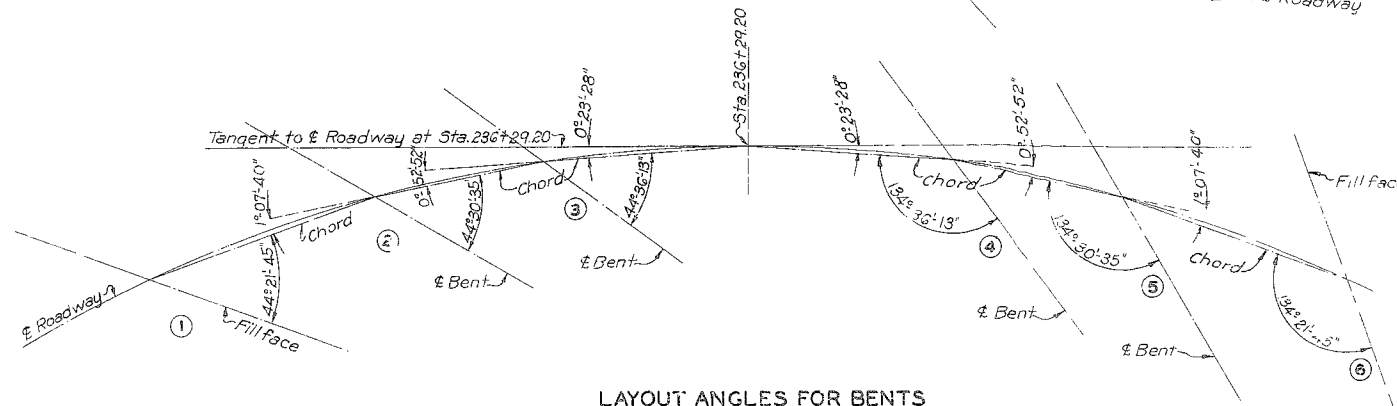


Note: Curve formulae based on 100' chords cannot be used in locating bents.

CURVE DATA:
P.I. Sta 245+39.1
 $\Delta = 56^{\circ}00'$ R+
D = 3'
T = 1015.61
R = 1910.05'
S.E. = 0.0427' per ft.



LOCATION SKETCH



LAYOUT ANGLES FOR BENTS

ESTIMATED QUANTITIES			
Item	Substr.	Superstr.	Total
Bridge Excavation Class I	Cu. Yds.	415	415
Concrete Class "A"	Cu. Yds.	20.2	20.2
Concrete Class "B"	Cu. Yds.	427.9	427.9
Concrete Class "X"	Cu. Yds.	262.2	262.2
Reinforcing Steel	Lbs.	26820	103190
Creosoted Timber Piles	Lin. Ft.	4366	4366
Creosoted Timber Pile Cut offs	Lin. Ft.	354	354
Phosphor Bronze Bearing Plates 16-Sets (8x17) Flanged 5 Plates each			
Phosphor Bronze Bearing Plates 4-Sets (10x20) Flanged 5 Plates each			

Note: All bridge excavation to be paid for as Class I Bridge Excavation.

B.M. Elev. 865.61 X on conc. base of R.R. switch signal 65' left Sta 235+80.

BRIDGE OVER C.&A.R.R.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO

AT LARABEE

PROJECT NO. WPGH 303G1 (R22) STA. 235+27.95

AUDRAIN-BOONE COUNTIES

SUBMITTED BY *M.R. Lock* DATE 12/17/35
APPROVED BY *T.H. Cutler* DATE 12/17/35
BRIDGE ENGINEER
CHIEF ENGINEER

STD. 7-110P
STD. S-919
K-672

Drawn Dec. 1935 By H.D.
Traced Dec. 1935 By H.W.H.
Checked Jan. 1936 By R.A.B.

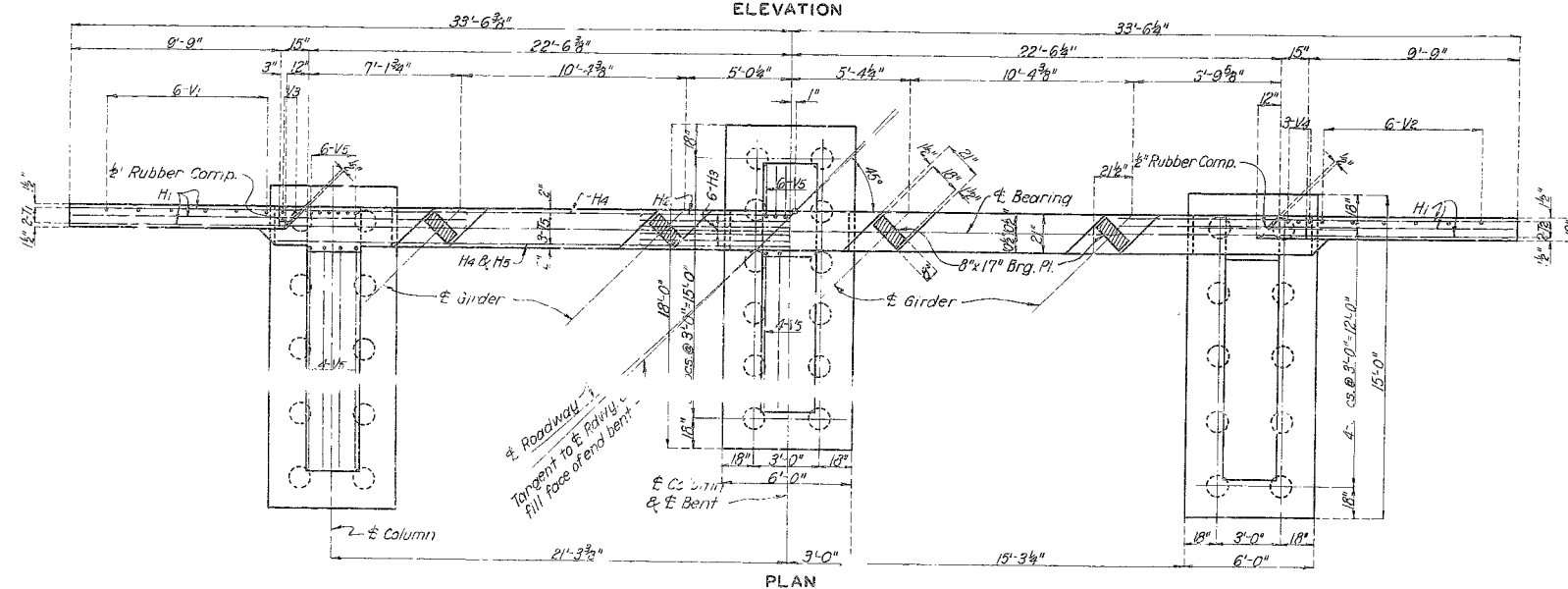
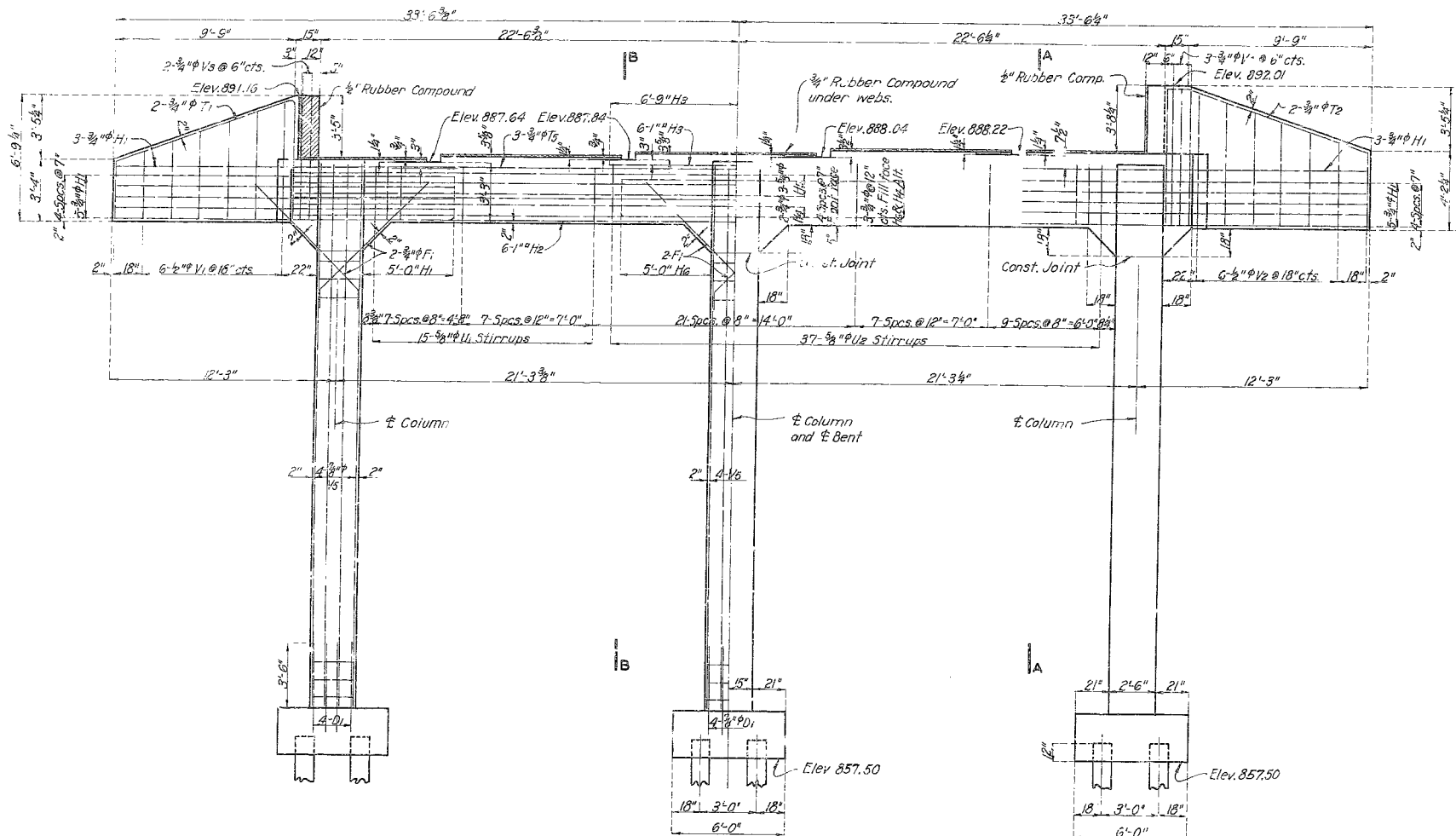
Note: This drawing is not to scale.
Follow dimensions.

Sheet No. 1 of 8

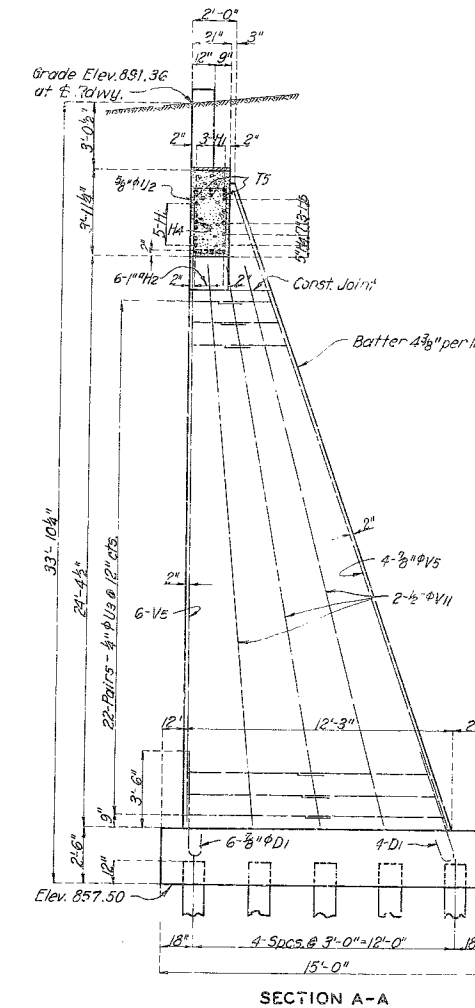
F.A.

MISSOURI STATE HIGHWAY DEPARTMENT

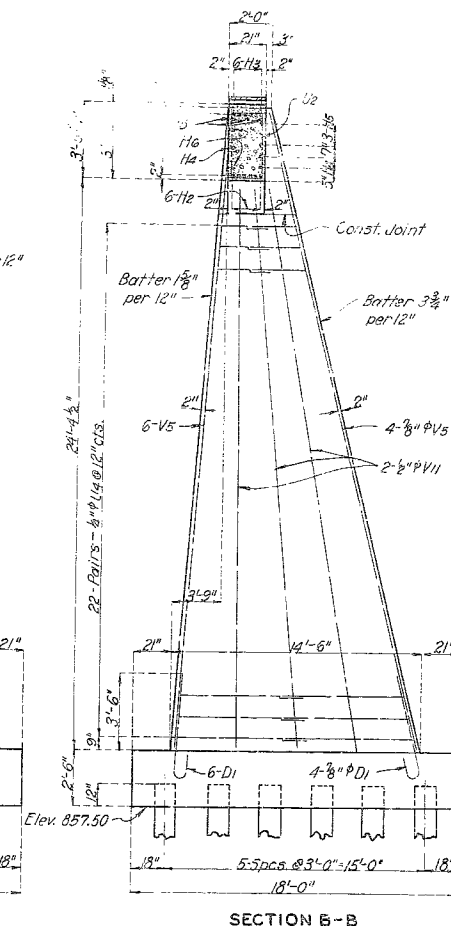
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	WPGH 303G (R22)	19		



DETAILS OF END BENT NO. 1



SECTION A-A



SECTION B-B

Note:-
Space back and front and 1/2\" each side of bearing plates to be 1\" open to depth of plates.

Note:-
Do not carry fill above bottom of beam until superstructure Span (1-2) is in place.

BRIDGE OVER C. & A. R.R.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO

AT LARABEE

PROJECT NO. WPGH 303G (R22) STA. 235 + 27.95

AUDRAIN-BOONE COUNTIES

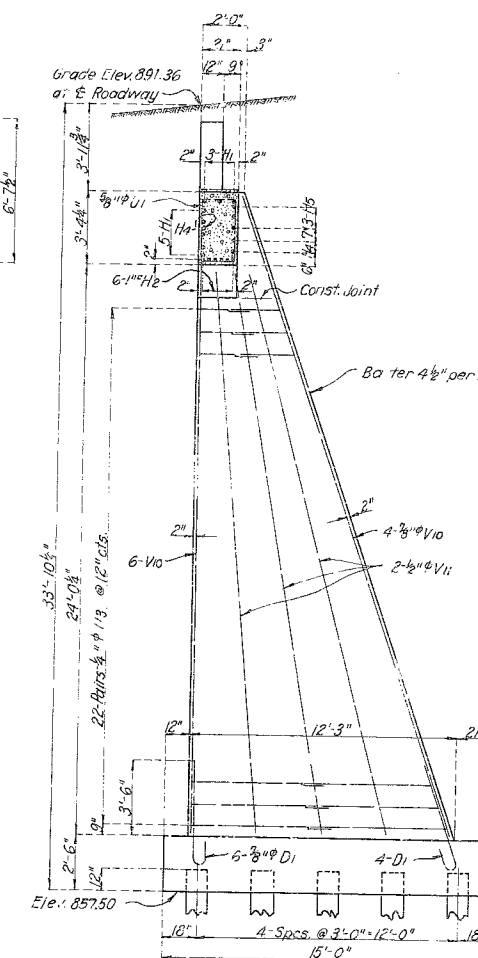
Drawn Dec. 1935 By H.E.C.
Traced Dec. 1935 By H.E.C.
Checked Dec. 1935 By H.H.M. & RAB.

Sheet No. 2 of 8.

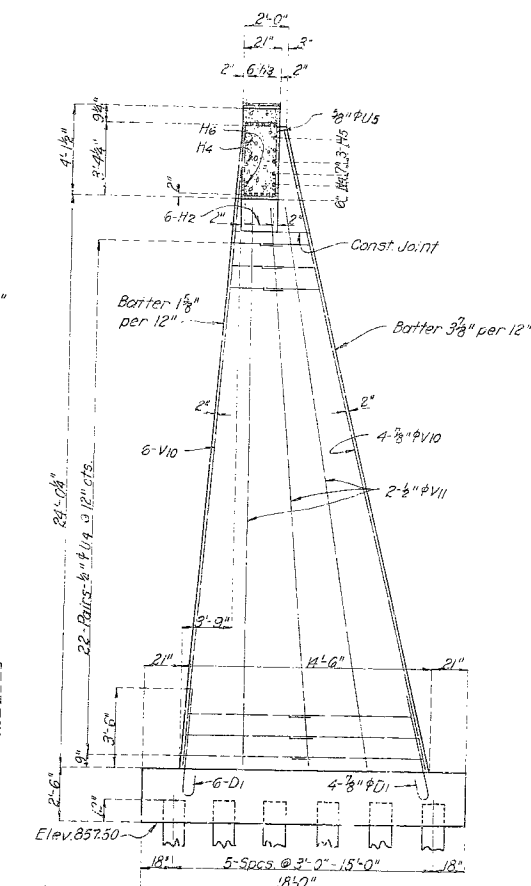
K-672

F. A.

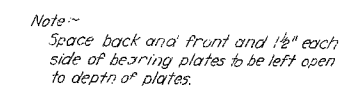
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	1981-82 (K22)	19		



SECTION A-A



SECTION B - B



Note:-
Do not carry fill above bottom
of beam until superstructure
(Span 5-6) is in place.

DETAILS OF END BENT NO.6

Note:- This drawing is not to scale.
Follow dimensions.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO
AT LARABEE

PROJECT NO. WPGH303G1 (R22) STA. 235+27.95

AUDRAIN-BOONE COUNTIES

Sheet No. 3 of 8

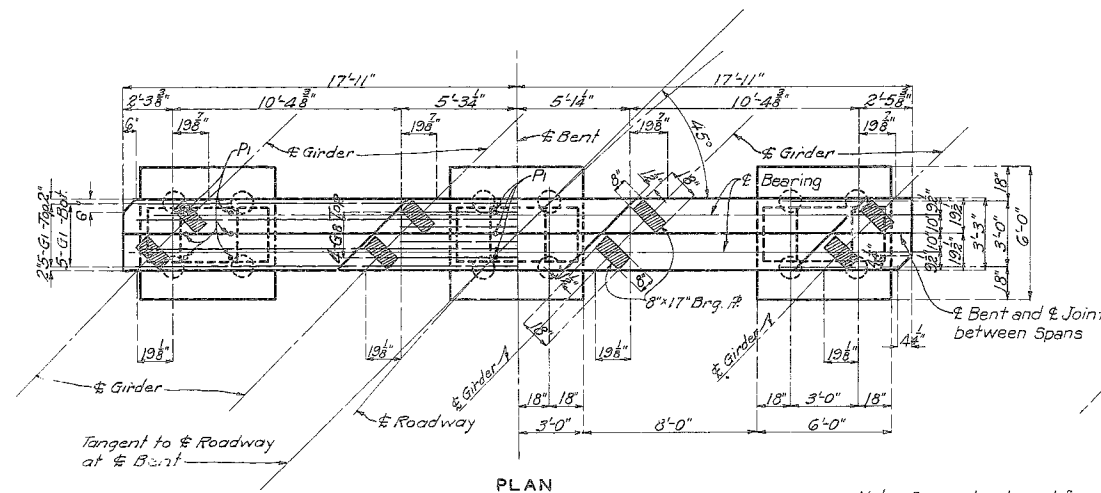
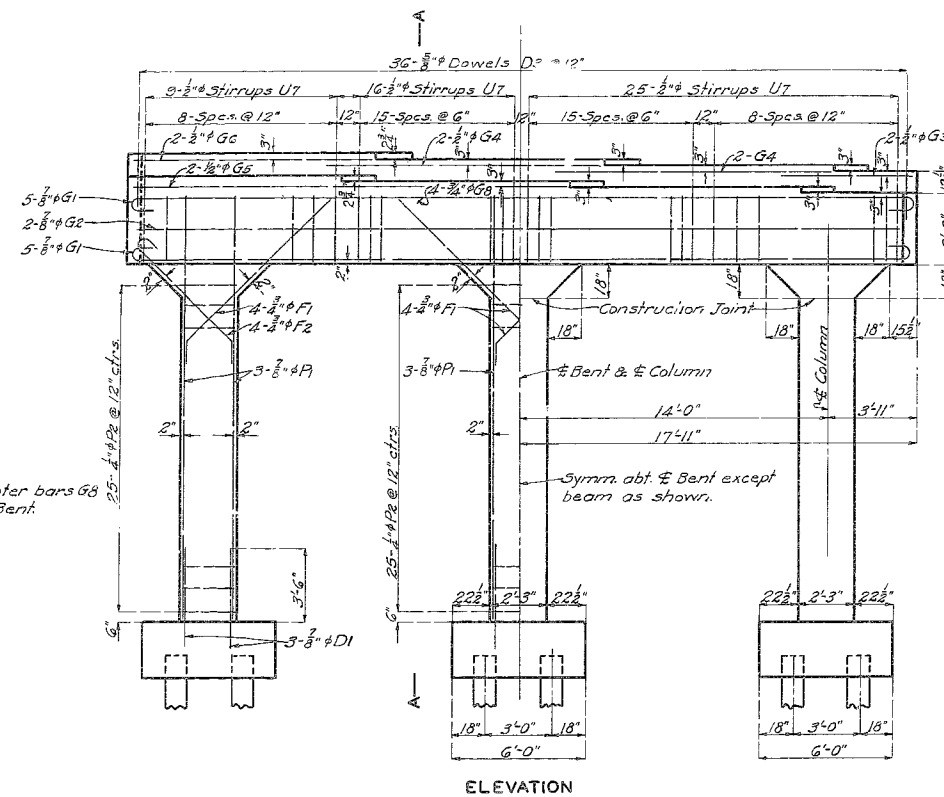
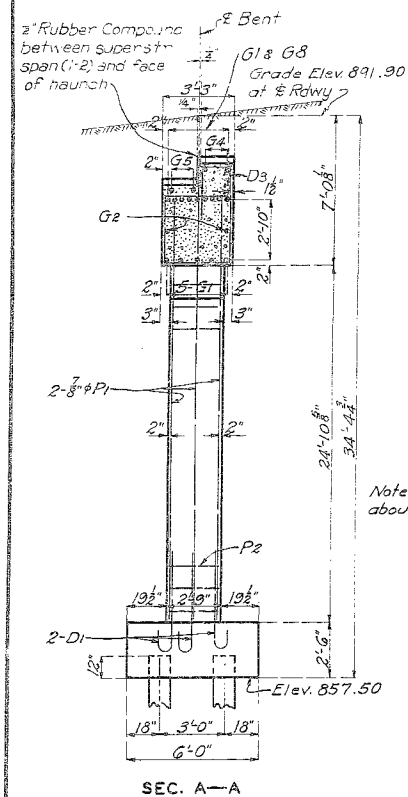
K-672

F. A.

Drawn Dec. 1935 By H.E.C.
Traced Dec. 1935 By H.E.C.
Checked Dec. 1935 By H.H.M. & RAB.

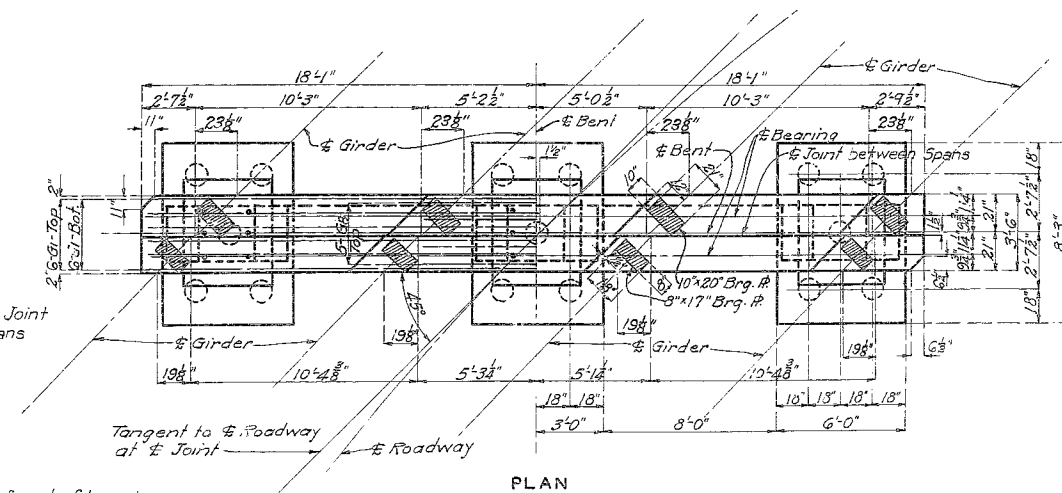
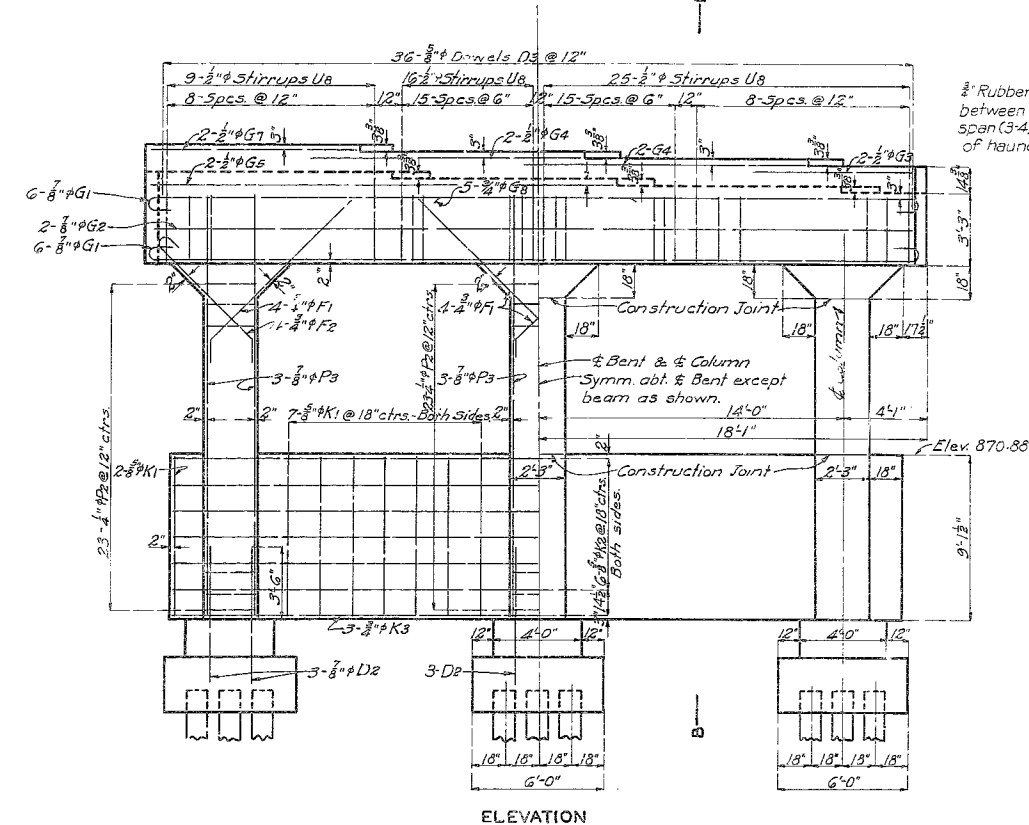
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WFGH 303G1 (R22)	19		

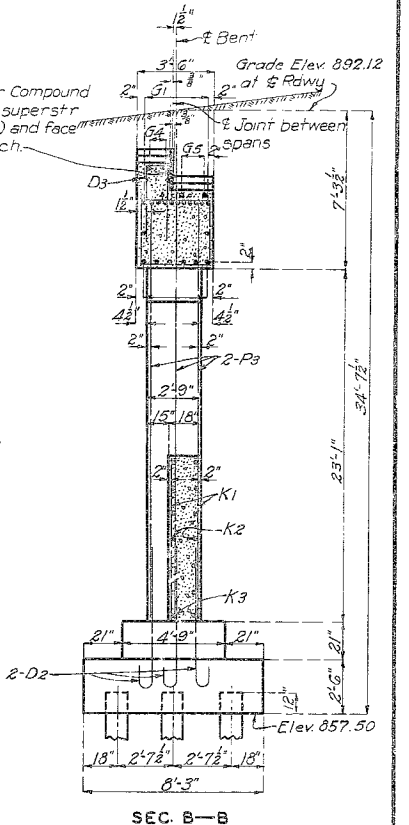


DETAILS OF BENT NO. 2

Note: Space back and front of bearing plates and space between top of bents and bottom of girder webs to be left open to depth of plates.



DETAILS OF BENT NO. 3



BRIDGE OVER C. & A. R.R.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO

AT LARABEE

PROJECT NO. WFGH 303G1 (R22) STA. 235+27.95

AUDRAIN-BOONE COUNTIES

Drawn Dec. 1935 by T.A.M.
Traced Dec. 1935 by C.A.F.
Checked Dec. 1935 by H.H.M. & R.A.B.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 8.

F. A.

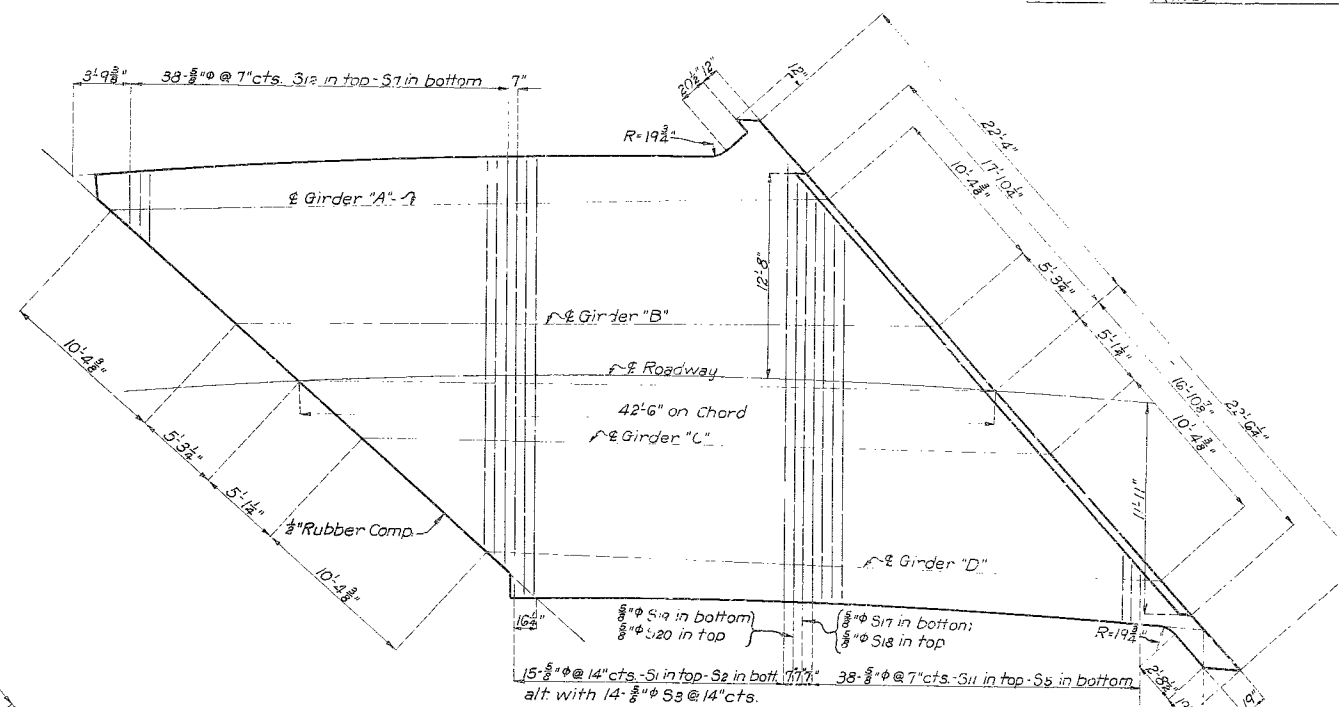
K-672

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WPGH30361 (R 22)	19		

K-672



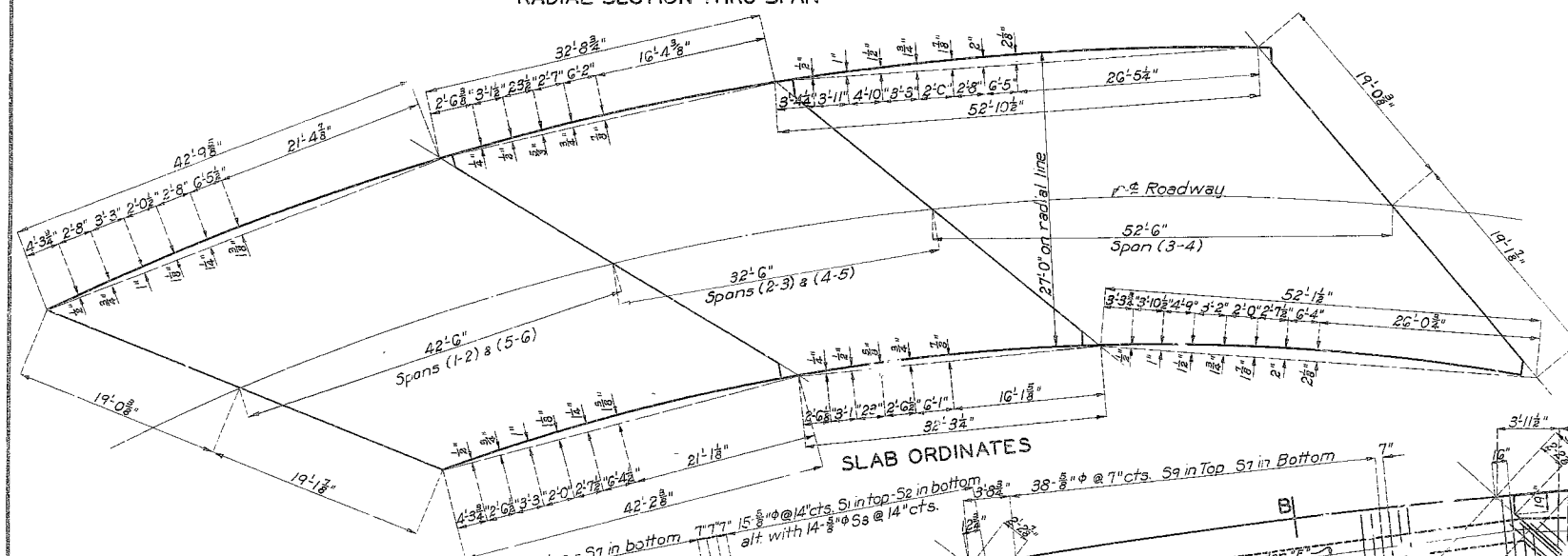
FED. ROAD DIST. NO.	STATE	FED. AID PROJ NO	FISCAL YEAR	SHEET NO.	TOTAL SHEET
5	MO.	WPGH30561 (P22)	19		



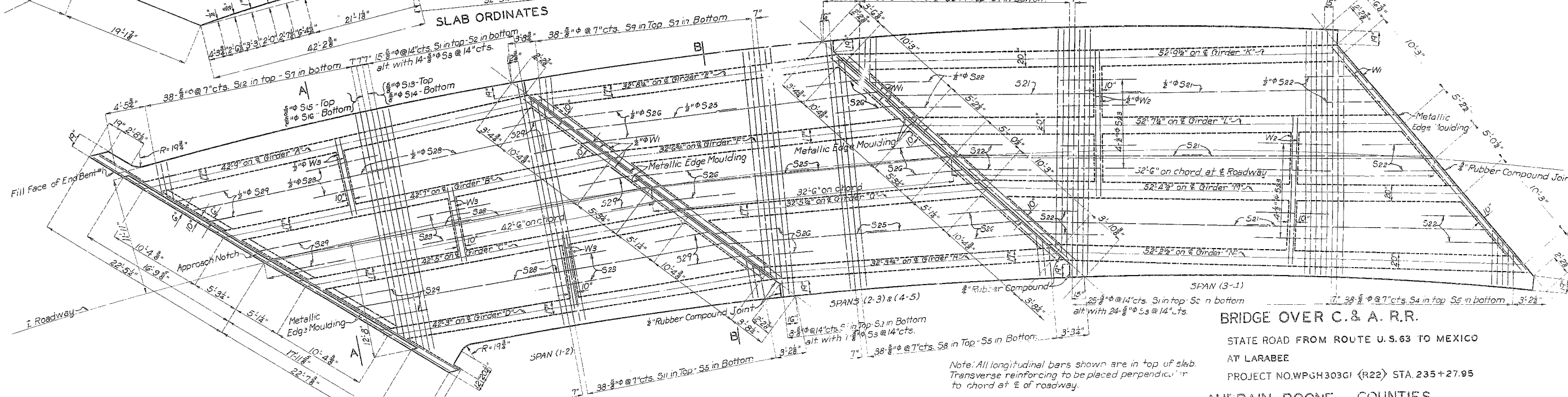
RADIAL SECTION THRU SPAN

PLAN OF SLAB- SPAN (5-6)

For details not shown see Part Plan of Superstructure.



SLAB ORDINATES



PART PLAN OF SUPERSTRUCTURE

Handrail and curbs not shown.

Note: This drawing is not to scale. Follow dimensions.

Note: All longitudinal bars shown are in top of slab.
Transverse reinforcing to be placed perpendicular
to chord at $\frac{1}{2}$ of roadway.

BRIDGE OVER C. & A. R.R.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO

AT LARABEE

PROJECT NO. WPGH 303G1 (R22) STA. 235+27.95

AUDRAIN-BOONE COUNTIES

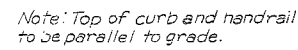
Sheet No. 6 of 8.

F.A.

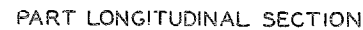
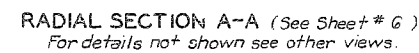
K-672

Drawn Dec. 1935 by H.D.
Traced Dec. 1935 by H.W.H.
Checked Dec. 1935 by H.H.M. & RAB.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	WPGH50501 (R22)	11		

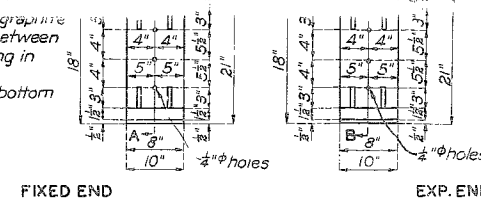
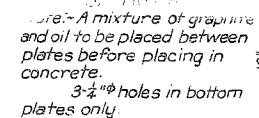
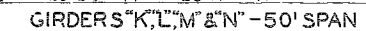
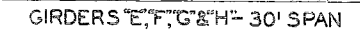
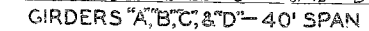
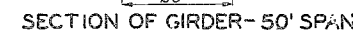
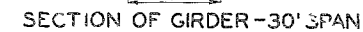
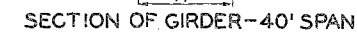
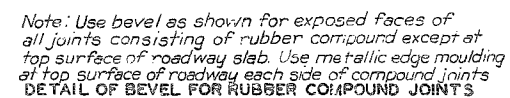
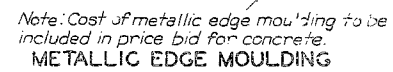


END VIEW AT BENT NO.1



DETAILS OF GIRDER HAUNCHES

Note: All bearings to be horizontal



FIXED END

EXP. END

PHOSPHOR BRONZE BEARING PLATES

*Note:- 16 Sets 8"x17" and 4 Sets 13"x20" of 5 Plates each required.
Each set consisting of 1 top plate and 1 bottom plate for fixed end and
1 top plate, 1 floater plate and 1 bottom plate for expansion end.*

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 8

BRIDGE OVER C. & A. R.R.

STATE ROAD FROM ROUTE U.S. 63 TO MEXICO

AT LARABEE

PROJECT NO. WPGH303G, (P.22) STA. 237+27.95

AUDRAIN-BOONE COUNTIES

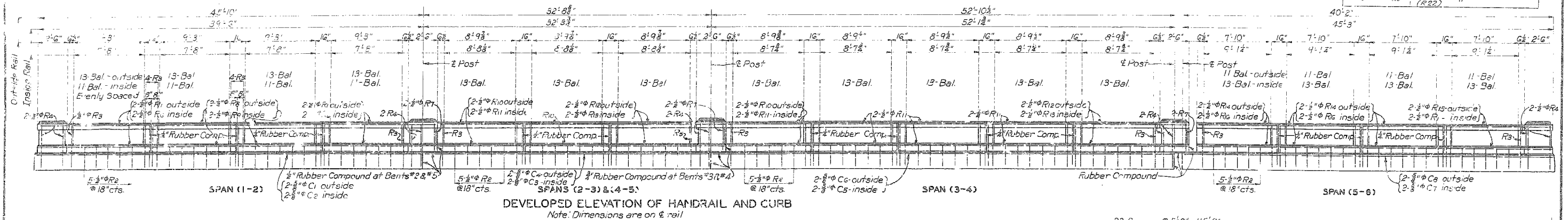
K-672

Drawn Dec. 1935 By H.D.
Traced Dec. 1935 By H.W.H.
Checked Dec. 1935 By H.H.M. & RAB

F. A.

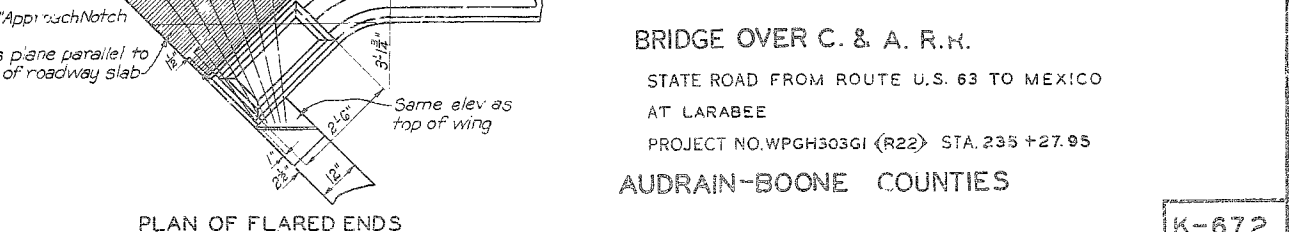
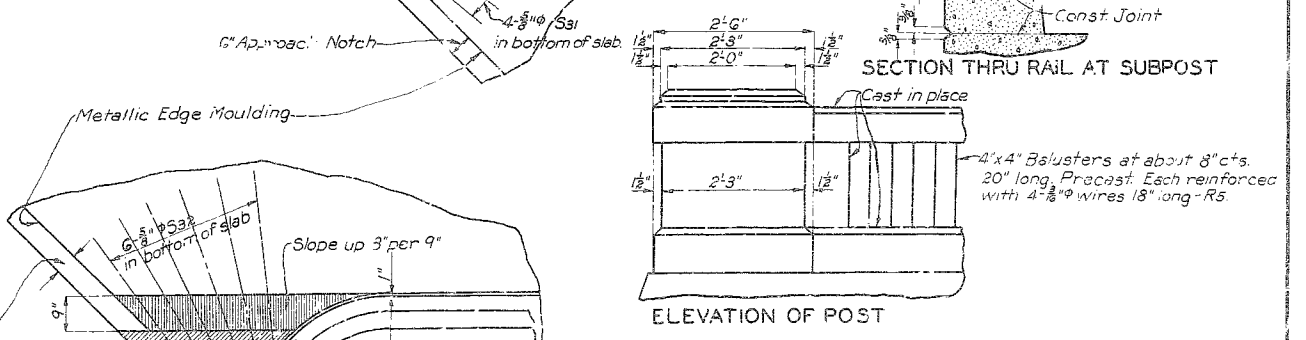
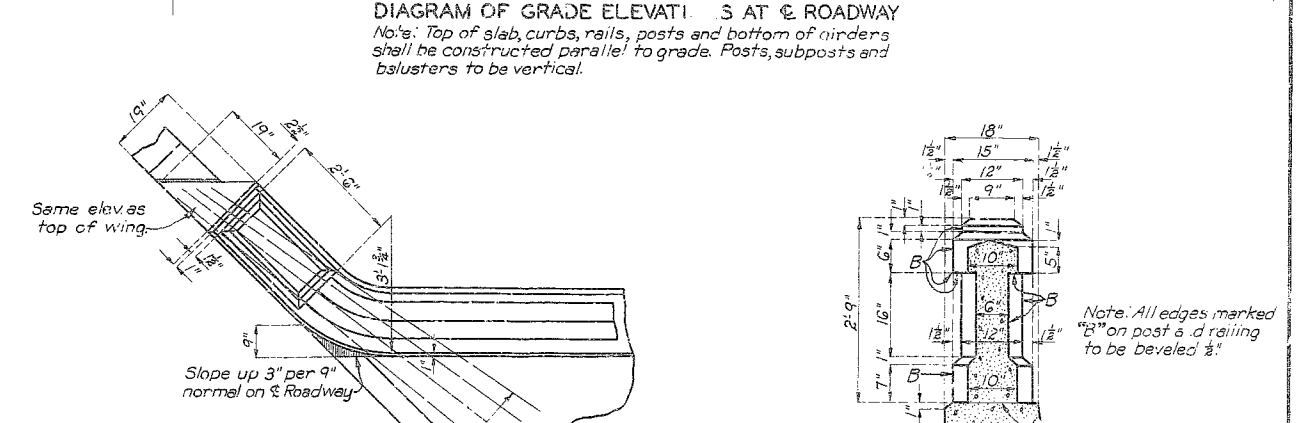
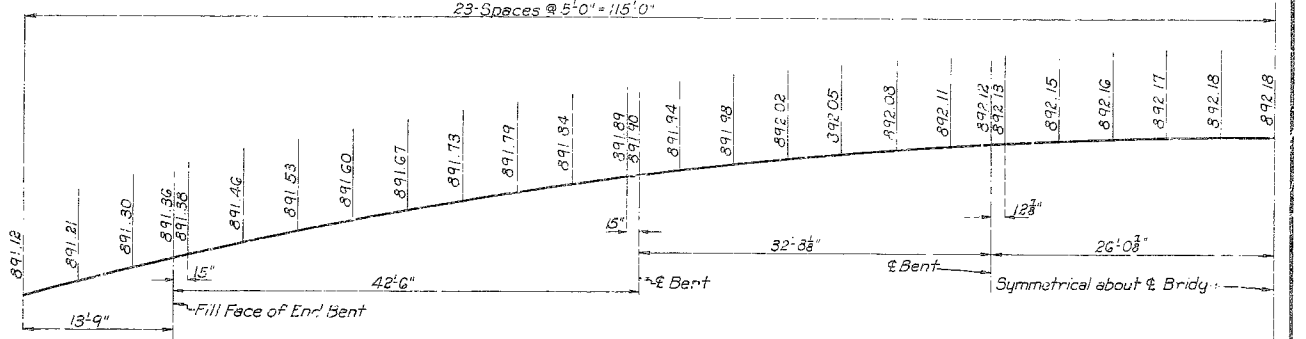
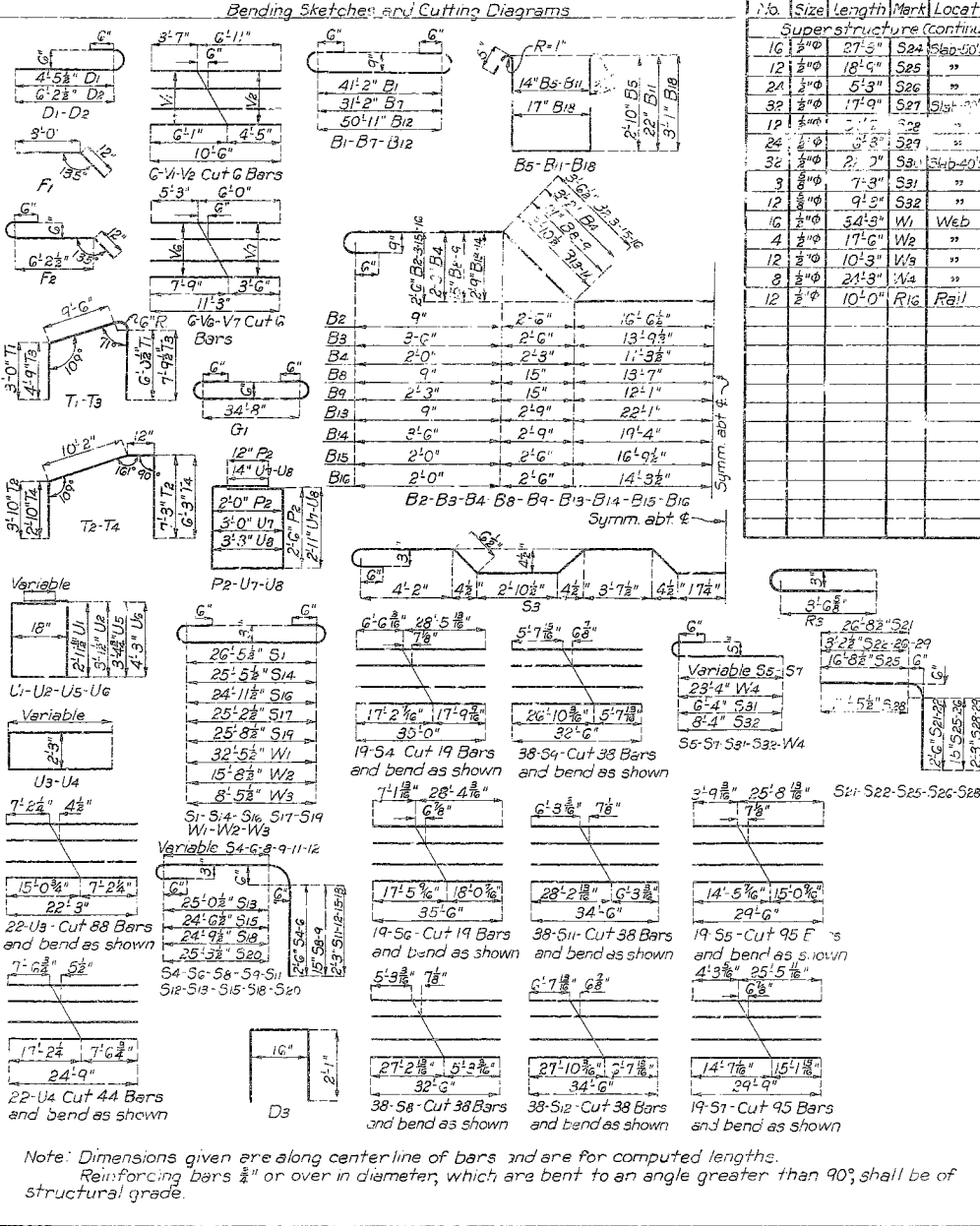
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO. 5
STATE MO
FED. AID PROJ. NO. WAGH303G1
FISCAL YEAR 1922
SHEET NO. 19
TOTAL SHEETS 22



COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location	No.	Size	Length	Mark	Location
10	3"	5'-9"	D1	Footings	32	1"	44'-6"	B1	Girders
24	3"	9'-0"	F1	Heunch	16	1"	45'-0"	B2	"
51	3"	18'-3"	H1	Wing	16	1"	45'-0"	B3	"
12	1"	45'-0"	H2	Beam	16	1"	36'-3"	B4	"
12	1"	13'-6"	H3	"	360	3"	7'-9"	B5	"
6	3"	47'-0"	H4	"	32	3"	21'-9"	B6	"
6	3"	47'-0"	H5	"	32	3"	34'-6"	B7	"
4	3"	12'-0"	H6	"	16	1"	35'-6"	B8	"
3	3"	24'-9"	H7	Wing-Bt#1	16	1"	35'-6"	B9	"
2	3"	19'-6"	T1	Wing-Bt#1	16	1"	32'-0"	B10	"
2	3"	22'-3"	T2	" Bt#1	368	3"	5'-9"	B11	"
2	3"	23'-0"	T3	" Bt#1	20	1"	54'-9"	B12	"
2	3"	20'-5"	T4	" Bt#1	12	1"	56'-9"	B13	"
3	3"	40'-0"	T5	Beam-Bt#1	8	1"	56'-9"	B14	"
28	3"	9'-9"	U1	Beam	8	1"	48'-0"	D15	"
37	3"	10'-3"	U2	Beam-Bt#1	6	1"	43'-0"	D16	"
28	3"	22'-3"	U3	Column	16	1"	26'-9"	B17	"
44	3"	22'-9"	U4	"	240	3"	8'-6"	B18	"
27	3"	10'-9"	U5	Beam-Bt#1	4	3"	24'-0"	C1	Curb
12	3"	12'-6"	U6	" Bt#1	4	3"	21'-0"	C2	"
6	3"	10'-6"	V1-2	Wing-Bt#1	4	3"	32'-0"	C3	"
2	3"	6'-6"	V3	"	4	3"	32'-3"	C4	"
3	3"	7'-3"	V4	"	4	3"	27'-3"	C5	"
30	3"	27'-6"	V5	Col. Bt#1	4	3"	27'-6"	C6	"
2	3"	11'-8"	V6-7	Wing-Bt#1	4	3"	23'-9"	C7	"
6	3"	8'-3"	V8	"	4	3"	21'-3"	C8	"
3	3"	6'-3"	V9	"	12	3"	12'-6"	R1	Rail
30	3"	27'-0"	V10	Col. Bt#1	190	3"	15'-9"	R2	"
36	3"	23'-0"	V11	Columns	132	3"	7'-6"	R3	Subpost
					48	3"	3'-6"	R4	Post
					1912	3"	18'-0"	R5	Baluster
					16	3"	11'-0"	R6	Rail
					16	3"	2'-3"	R7	Post
					8	3"	10'-3"	R8	Rail
36	3"	5'-9"	D1	Ftgs #285	8	3"	8'-9"	R9	"
36	3"	7'-6"	D2	" #3824	28	3"	9'-9"	R10	"
144	3"	5'-6"	D3	Beam	36	3"	9'-6"	R11	"
64	3"	9'-0"	F1	Heunch	12	3"	12'-3"	R12	"
32	3"	8'-6"	F2	"	12	3"	12'-0"	R13	"
44	3"	37'-3"	G1	Beam	12	3"	8'-9"	R14	"
8	3"	55'-0"	G2	"	4	3"	11'-3"	R15	"
8	3"	7'-0"	G3	"	71	3"	28'-3"	S1	Slab
16	3"	12'-6"	G4	"	71	3"	26'-9"	S2	"
8	3"	20'-0"	G5	"	66	3"	29'-3"	S3	"
4	3"	11'-0"	G6	" #2 & 4	19	3"	35'-0"	S4	"
4	3"	9'-9"	G7	" #3 & 5	35	3"	29'-6"	S5	"
16	3"	8'-6"	G8	"	19	3"	35'-6"	S6	"
64	3"	9'-0"	K1	Col. Wall	95	3"	29'-9"	S7	"
24	3"	33'-3"	K2	"	38	3"	32'-6"	S8	"
6	3"	33'-3"	K3	"	38	3"	32'-6"	S9	"
12	3"	27'-9"	P1	Col. Bt#2	38	3"	34'-6"	S10	"
288	3"	10'-0"	P2	Columns	36	3"	34'-6"	S11	"
36	3"	25'-0"	P3	Col. 3 & 4	1	3"	29'-0"	S12	"
18	3"	27'-6"	P4	" #5	1	3"	27'-3"	S13	"
100	3"	13'-0"	U7	Beam #285	7	3"	28'-6"	S14	"
100	3"	13'-6"	J1	" #3 & 4	1	3"	26'-9"	S15	"
					1	3"	27'-0"	S16	"
					1	3"	28'-9"	S17	"
					1	3"	27'-6"	S18	"
					1	3"	27'-3"	S19	"
					1	3"	27'-3"	S20	"
					6	3"	30'-0"	S21	"
					12	3"	6'-6"	S22	"
					20	3"	7'-0"	S23	"



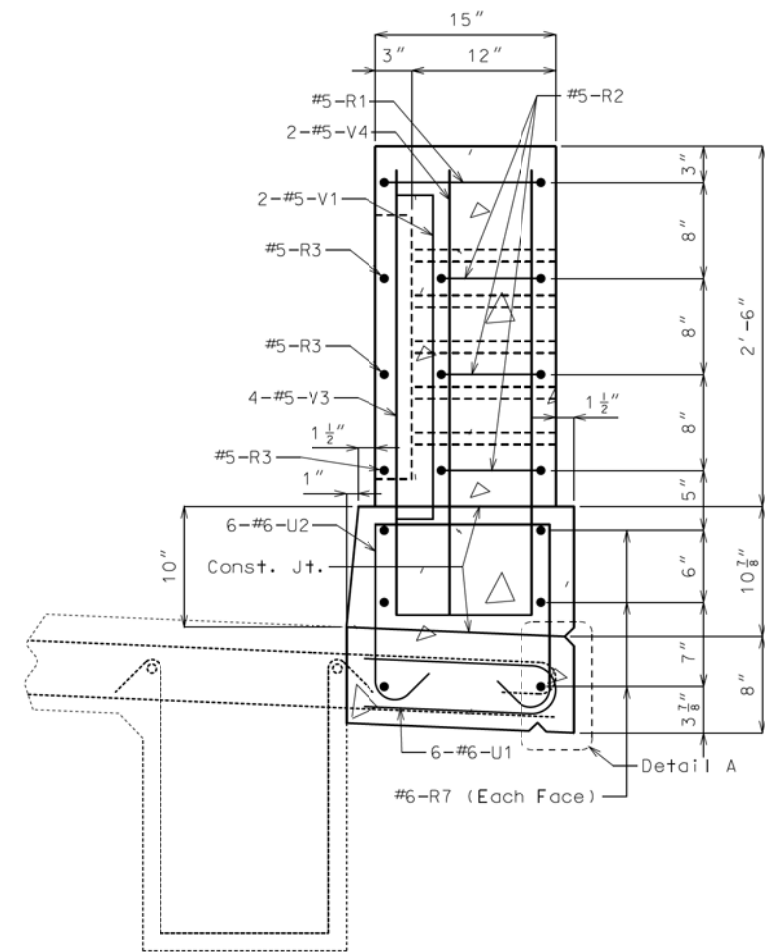
Drawn Dec. 1935 By H.D.
Traced Dec. 1935 By H.W.H.
Checked Dec. 1935 By H.H.M. & R.A.S.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 8.

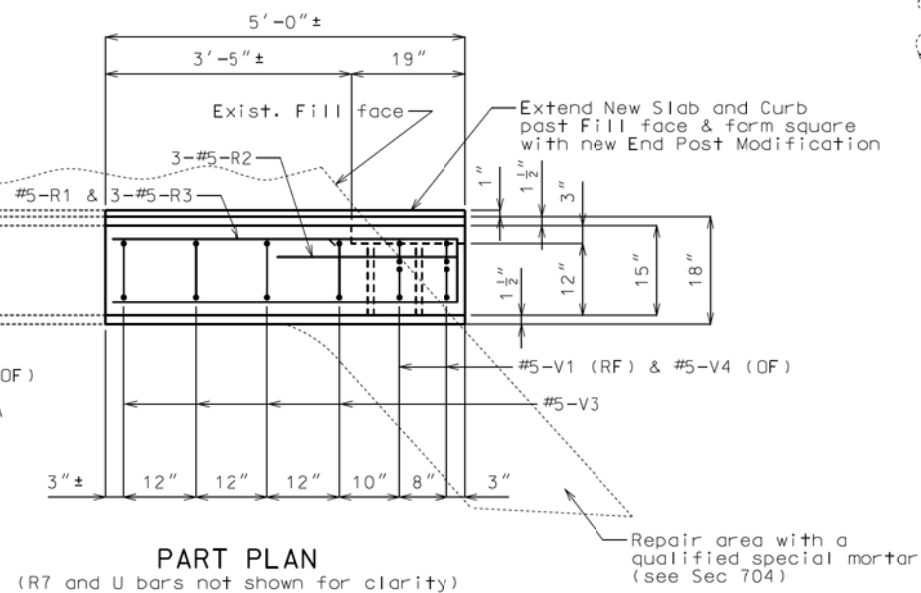
F.A.

K-672



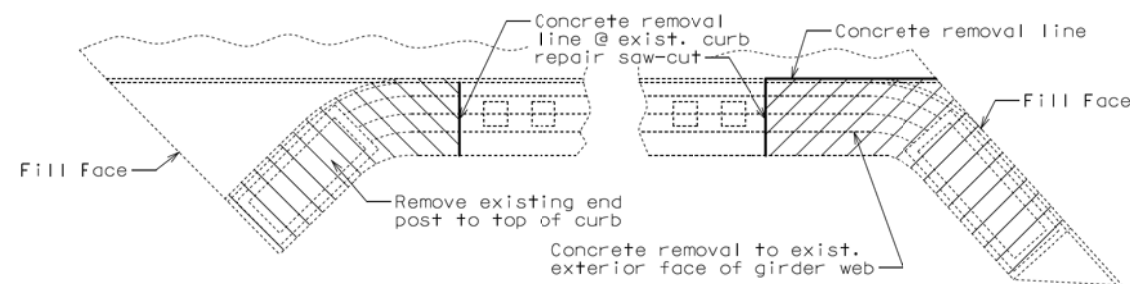
PART ELEVATION

SECTION B-B



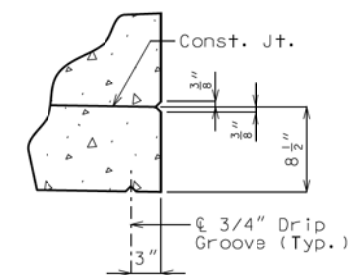
PART PLAN

- Repair area with a qualified special mortar (see Sec 704)



PART PLAN OF RIGHT RAIL END POSTS SHOWING CONCRETE REMOVAL

(See Part Section of Right End Post Near End Bent No. 6
Showing Concrete Removal Details of Slab removal)



DETAIL A

For Details and notes of Resin Anchors, See Sheet No. 1.
For additional notes and details see Sheet No. 1.

DATE PREPARED	
11/5/2015	
ROUTE	STATE
22	MO
DISTRICT	SHEET NO.
BR	2
COUNTY	
AUDRAIN	
JOB NO.	
J3P2207	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
K06721	

[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

Design Specifications:
2002 - AASHTO (17th Edition) Standard Specifications

Class B-1 Concrete $f'_c = 4,000$ psi
Reinforcing Steel (Grade 60) $f_y = 60,000$ psi

Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

The minimum embedment depth in concrete with $f'c = 4,000$ psi for the resin anchor system shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

An epoxy coated #6 Grade 60 reinforcing bar shall be substituted for the 3/4" Ø threaded rod.

Cost of furnishing and installing the resin anchor system complete-in-place will be considered completely covered by the contract unit price for End Post Modification.

One lane of traffic shall remain open during construction.
See Roadway Plans for traffic control.

All exposed edges of end post shall have either a 1/2" radius or a 3/8" bevel unless otherwise shown.

Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

Contractor shall verify all dimensions in field before ordering new material.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for plain bars and 30 diameters for deformed bars, unless otherwise noted.

The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.

Reinforcement not covered by the new concrete shall be cut off one inch below concrete removal surface and the resulting holes shall be filled with a qualified special mortar.

Cost of concrete removal, Class B1 Concrete and reinforcing steel, complete in place, will be considered completely covered by the contract unit price for End Post modification.

System A
(9 Req'd.)

System B
(1 Req'd.)

System C
(4 Req'd.)

System D
(8 Req'd.)

* Manufacturer's recommended
embedment length (5" min.)

Detailed Aug. 2015
Checked Aug. 2015

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 3

SEC/SUR	35	TWP	52	RGE	12W
---------	----	-----	----	-----	-----



(RF) = Roadway Face
(OF) = Outside Face



Remove existing end post to top of curb

Concrete removal line @ exist. curb repair saw-cut

Fill Face

Fill Face

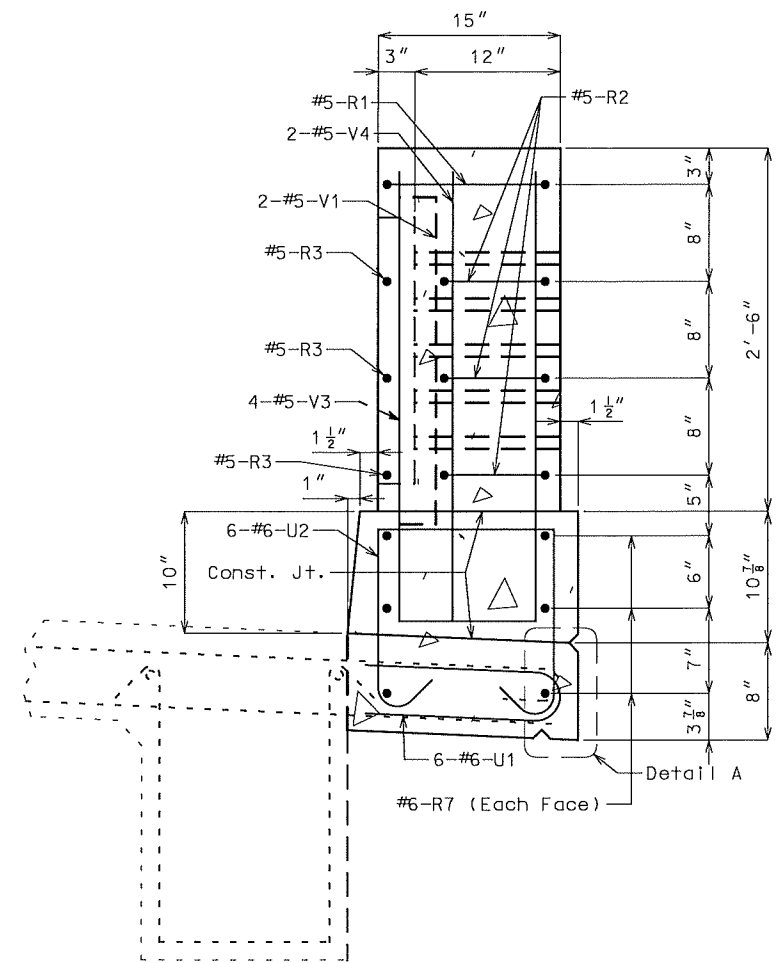
ROUTE 22 FROM ROUTE 115 TO ROUTE V
ABOUT 0.2 MILES WEST OF ROUTE 115
STA. 235+27.95

STD. 706.35

FINAL PLANS

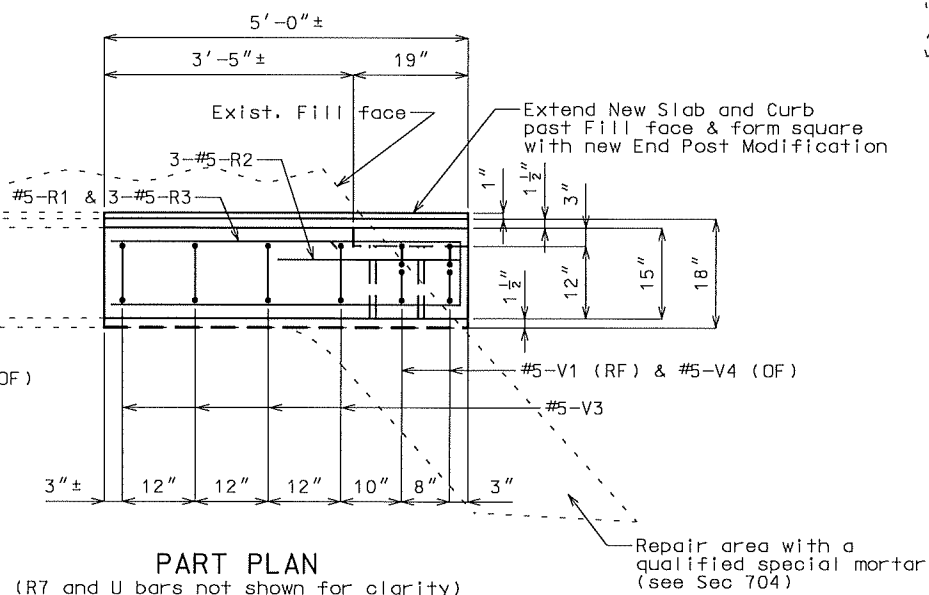
[illegible]MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION

105 WEST CAPITAL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



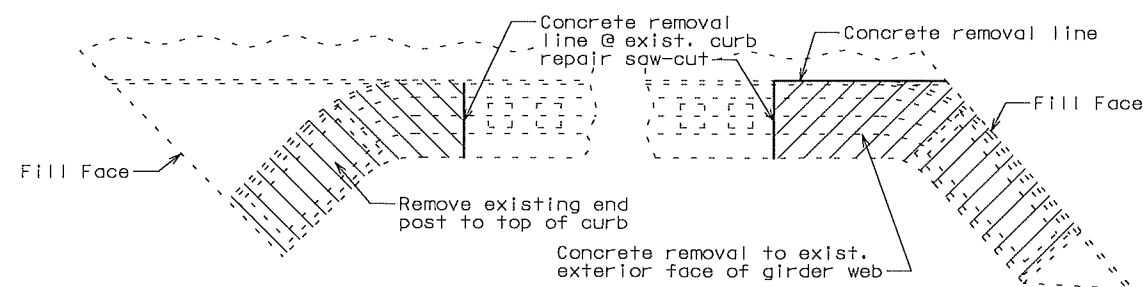
PART ELEVATION

SECTION B-B



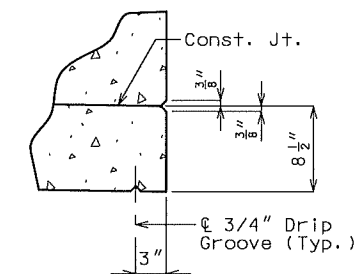
PART PLAN

- Repair area with a qualified special mortar (see Sec 704)



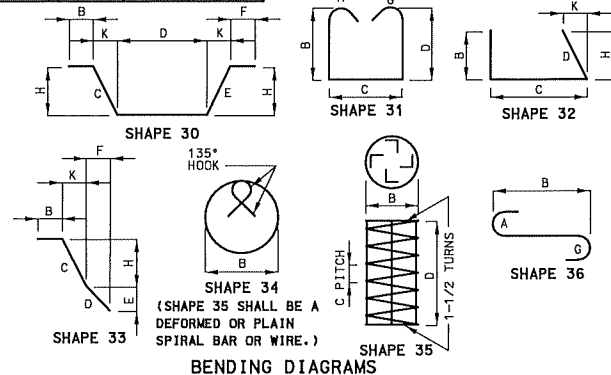
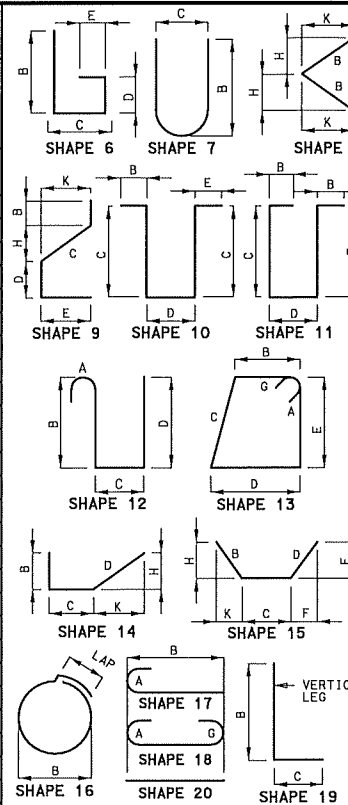
PART PLAN OF RIGHT RAIL END POSTS SHOWING CONCRETE REMOVAL

(See Part Section of Right End Post Near End Bent No. 6
Showing Concrete Removal Details of Slab removal)



DETAIL A

For additional notes and details see Sheet No. 1.

[illegible][illegible]

MISSOURI HIGHWAYS AND TRANSPORTATION
COMMISSION



105 WEST CAPITOL
JEFFERSON CITY, MO 65102