

5 PWA-74  
7 JASPER 57

TITLE SHEET

SEE

JASPER CO. RTE. 57

SEC 7

J-339

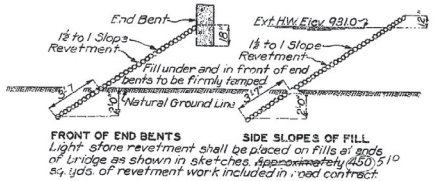
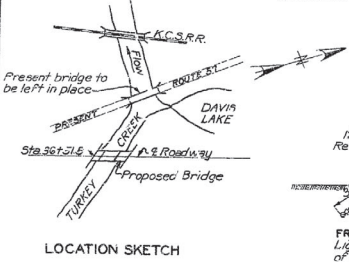
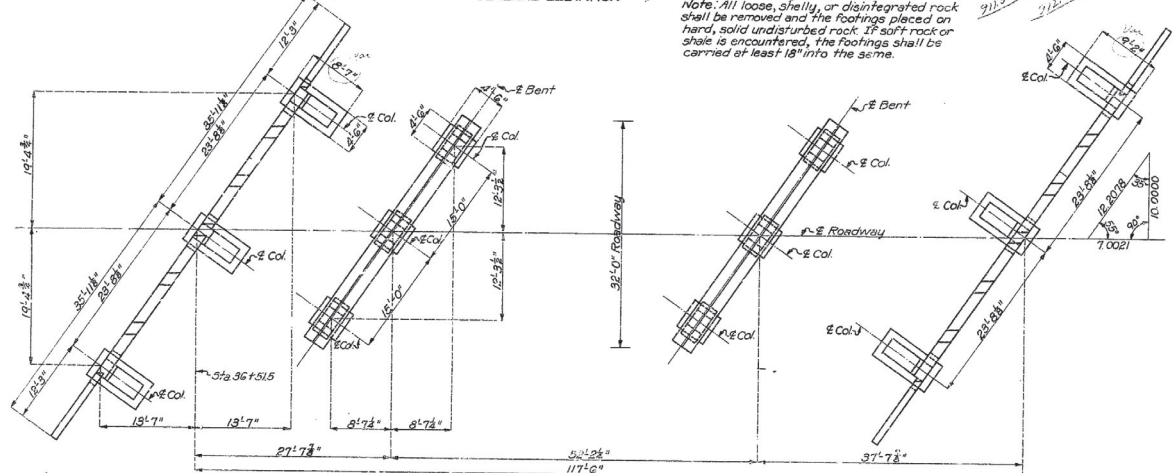
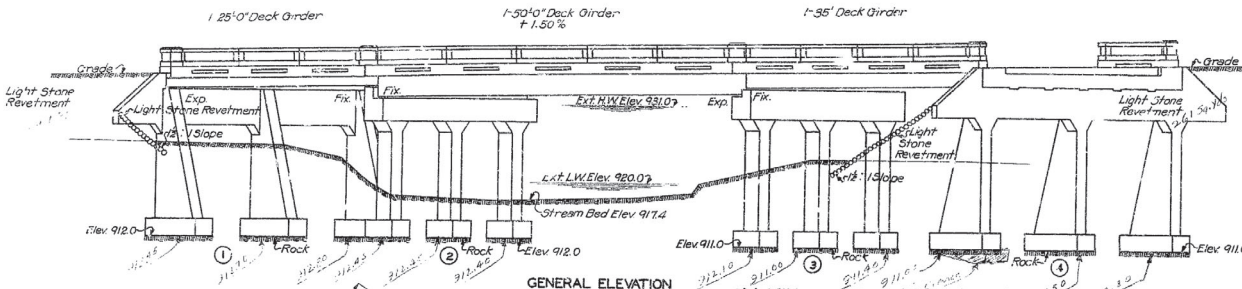
ROLL # 667

ROLL # 667

Note: For details of handrail see "25A" and "35C" on Std. C-6501R2 and "50B" on Std. C-6502R2

# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	11192	15	15	15



ESTIMATED QUANTITIES			
Item	Superstr.	Substr.	Total
Excavation Class 1	90	90	180
Excavation Class 2	307	307	614
Concrete 1:2:3 mix Class "A"	120	120	240
Concrete 1:2:4 mix Class "B"	170.7	170.7	341.4
Concrete 1:2.5 mix Class "X"	212.7	212.7	425.4
Phi. 3/8" Round Bearing Plates 8x11" 10 Sets of 5 Phi each (Flanged)			50
Phi. 3/8" Round Bearing Plates 10x20" 5 Sets of 5 Phi each (Flanged)			25
Reinforcing Steel	631.0	191.0	822.0
1 1/2" Dia. below curb			10
			2

Bridge excavation above Elev. 921.0 will be paid for as Class 1 Bridge Excavation. Bridge excavation below Elev. 921.0 will be paid for as Class 2 Bridge Excavation.

BILL OF REINFORCING STEEL			
No.	Size	Length	Mark
36	3/8"	6'3"	D1 Footing
32	3/8"	9'3"	F1 Haunch
14	3/8"	14'3"	H1 Wing
4	3/8"	34'3"	H2 "
3	3/8"	25'6"	H3 "
12	3/8"	28'0"	H4 Beam-BH1
2	3/8"	13'6"	H5 "
4	3/8"	26'0"	H6 Beam-BH2
6	3/8"	40'0"	H7 "
7	3/8"	13'6"	H8 "
12	1"	26'0"	H9 Beam-BH3
1	3/8"	14'6"	H10 Beam-BH4
1	3/8"	15'6"	H11 Wing-BH1
3	1"	21'6"	H12 Wing-BH2
2	1"	15'3"	T2 "
3	1"	21'9"	T3 "
1	3/8"	16'6"	T4 "
6	3/8"	40'0"	T5 Beam
2	1"	16'6"	T6 Wing-BH1
3	1"	21'9"	T7 "
1	3/8"	17'0"	T8 "
3	1"	22'0"	T9 "
54	3/8"	18'0"	U1 Beam-BH1
70	3/8"	11'0"	U2 Beam-BH2
6	3/8"	9'0"	V1 Wing
6	3/8"	9'0"	V2 "
18	3/8"	18'3"	W1 Col-BH1
18	3/8"	20'3"	W2 Col-BH2
12	3/8"	5'0"	X1 Col-BH1
9	3/8"	5'0"	X2 Col-BH2

Note: Above bill of reinforcing steel is not complete. For reinforcing steel in 25', 35' & 50' Deck Girder Spans see Sheets No 5-6 & 7 respectively.

**GENERAL NOTES:**  
 Concrete in handrail to be 1:2.3 mix, Class "A". Concrete in slots, curbs, and girders to be 1:2.3 mix, Class "X". All other concrete to be 1:2.4 mix, Class "B". Exposed edges to be beveled 1/4" where no other bevel is noted. Floor slab shall be constructed full width at one operation; longitudinal construction joints will be permitted. Transverse construction joints shall not be used. Where rubber compound is specified on plans for use in partition and expansion joints, the pre-molded joint shall be securely stitched to one face of concrete with copper wire. Two name plates type "A" as shown on Std. 5-918R to be furnished and placed by contractor. Cost of name plates to be included in price bid for other items. Bridge excavation in accordance with Section 2 of Standard Specifications issued April 1, 1930, except that quantities paid for will be computed from extreme low water Elev. 920.0 where existing ground line is below this elevation. Only sufficient member to be used in construction to insure against settlement below lines given as finished grade. No permanent member required in individual spans. San supports and spacers will be required for reinforcing steel in super structure. See Standard C10R and Special Provisions.

Widened by J 337R

B.M. Elev. 931.0 - Anchor Bolt NE Corner Turkey Creek Bridge  
 180' Left Sta. 36+51.5  
**BRIDGE OVER TURKEY CREEK**  
 STATE ROAD FROM JOPLIN TO CARL JUNCTION  
 ABOUT 1 MILE NORTH OF JOPLIN  
 PROJECT NO. PW474, R57-57 STA. 36+51.5

**JASPER COUNTY**  
 DESIGNED BY: J. R. RAY DATE: 6/28/34  
 APPROVED BY: T. N. CUTLER DATE: 6/28/34

STD. C-110K
STD. C-6501R2
STD. C-6502R2
STD. 5-918R
J-339

Widened by J 339R

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

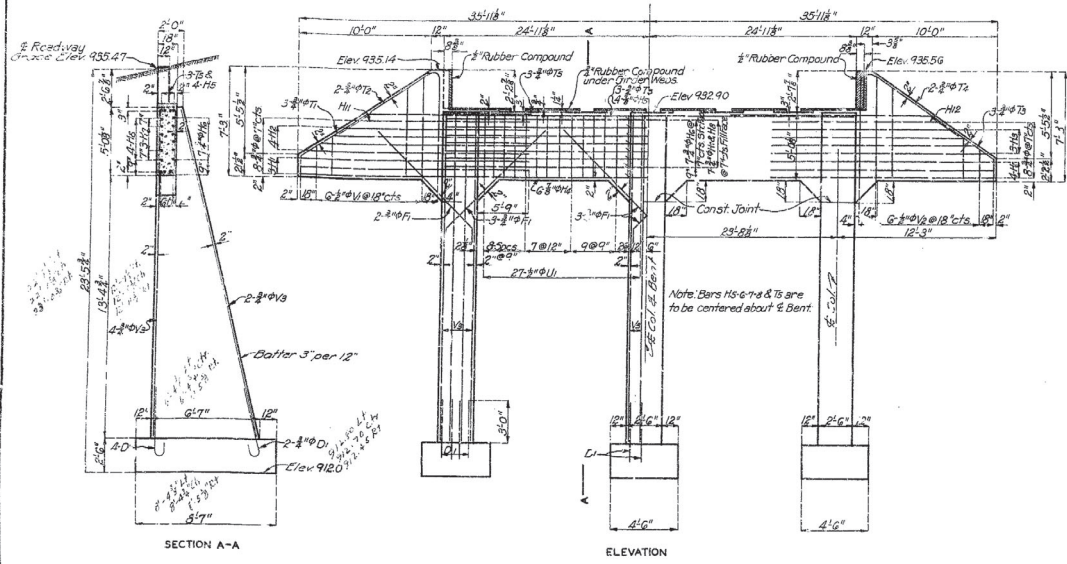
Sheet No. 1 of 7  
 F.A.

Drawn July 1933 By P.H.S.  
 Traced July 1933 By H.W.H.  
 Checked Aug. 1933 By G.W.K.



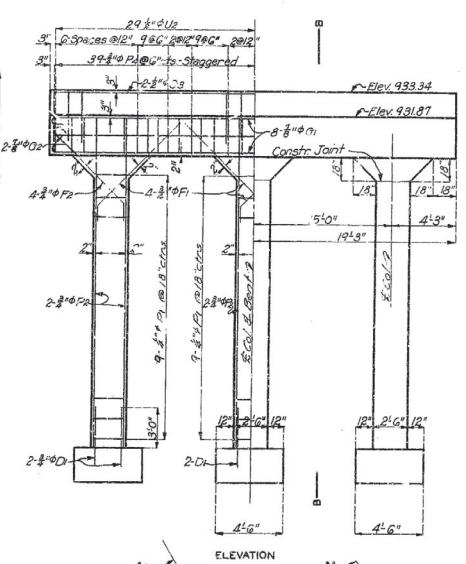
MISSOURI STATE HIGHWAY DEPARTMENT

FED ROAD DIST. N.	STATE	FIND AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5		PAWAS	1937-38	19	25



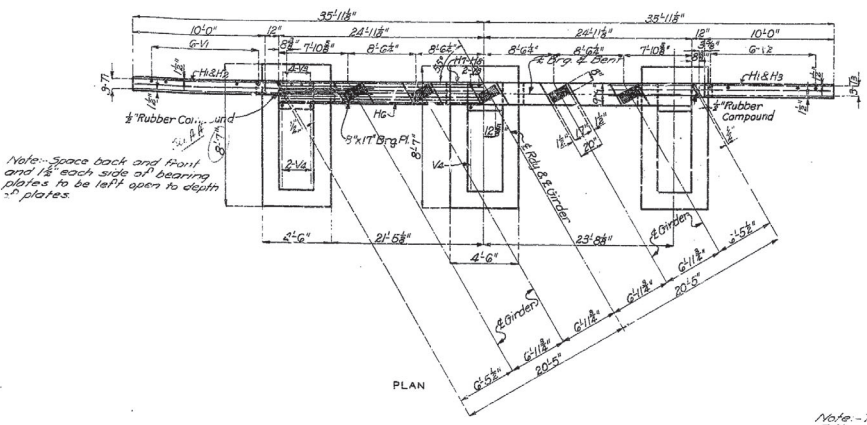
SECTION A-A

ELEVATION



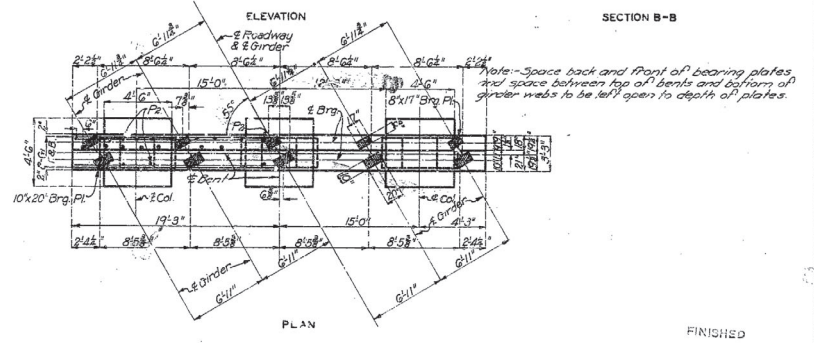
ELEVATION

SECTION B-B



PLAN

DETAILS OF END BENT NO. 1



PLAN

DETAILS OF BENT NO. 2

FINISHED

FINISHED

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

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM JOPLIN TO CARL JUNCTION  
ABOUT 1 MILE NORTH OF JOPLIN  
PROJECT NO. PAWAS-R07-37 STA. 36+51.5  
JASPER COUNTY

Assembled June 1933 by PHS-RWH  
Checked Aug 1933 by GAF  
Drawn Sept 1931 by C.A.F.  
Checked Aug 1931 by GAF

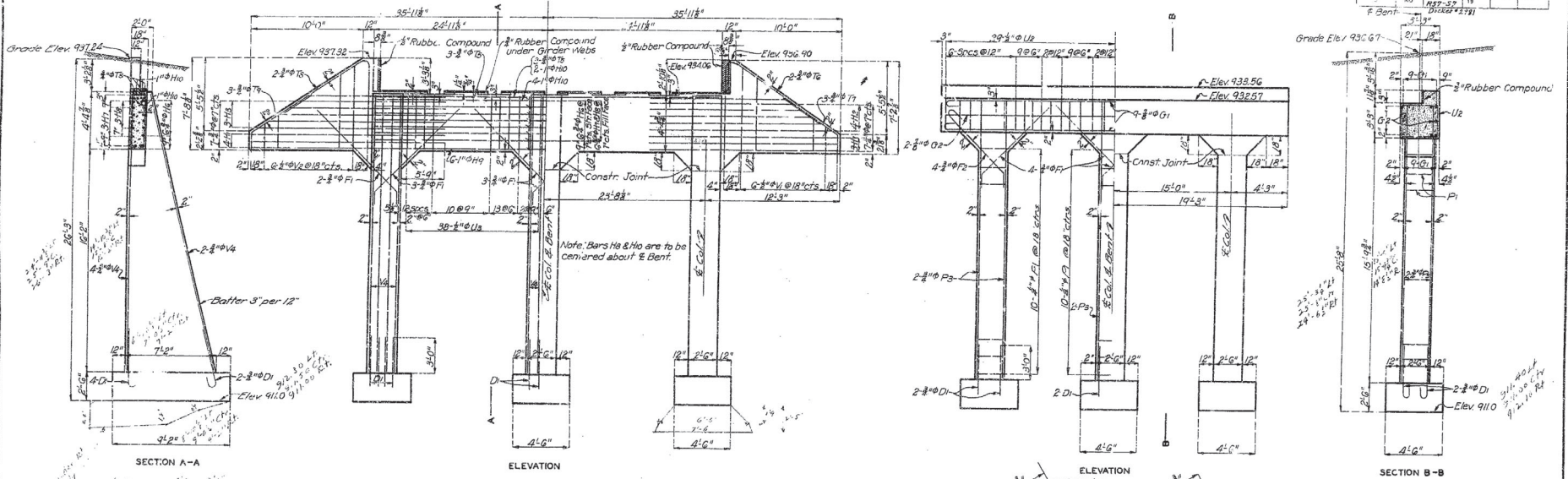
Sheet No. 2 of 7  
F.A.

Widened by J. J. R.

J-339

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	MO	1937-38	19		

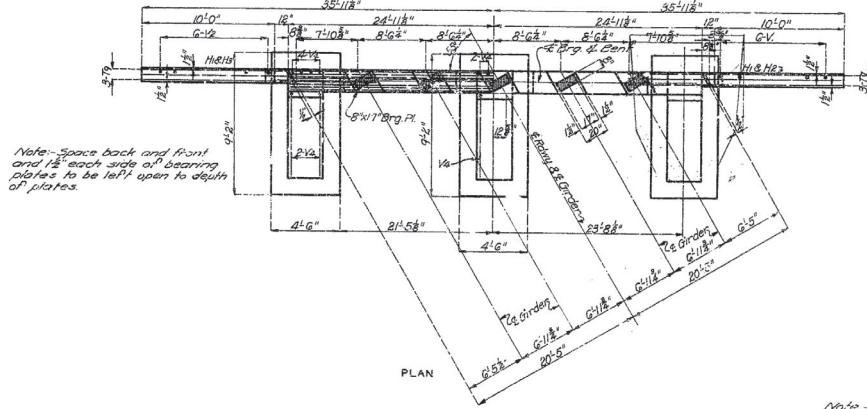


SECTION A-A

ELEVATION

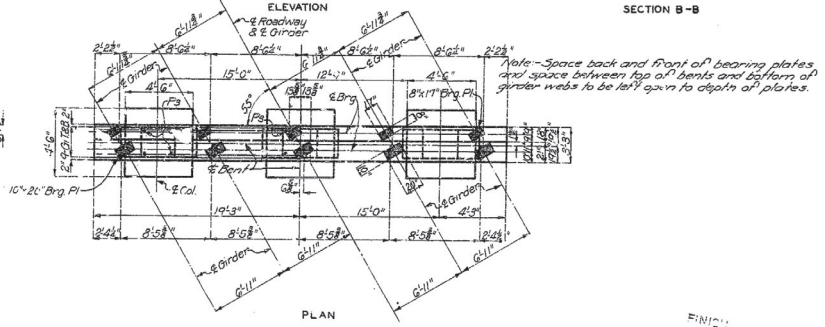
ELEVATION

SECTION B-B



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

DETAILS OF END BENT NO. 4



DETAILS OF BENT NO. 3

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

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM JOPLIN TO CARL JUNCTION  
ABOUT 1 MILE NORTH OF JOPLIN  
PROJECT NO. PWA 74-R57-57 STA. 36+51.5  
JASPER COUNTY

Assembled July 1933 by PHS-HWH.  
Checked Aug 1933 by GJK  
Drawn Sept 1933 by S.A.F.  
Checked Aug 1933 by GJK

Sheet No. 3 of 7  
F.A.

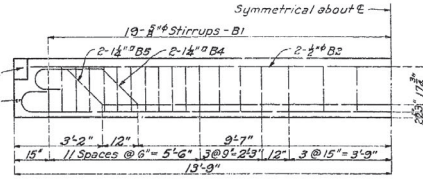
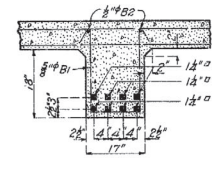
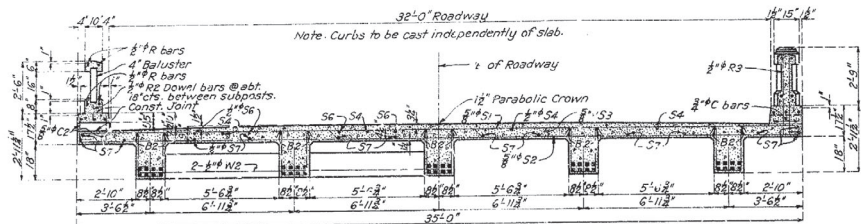
Drawn by J. S. ...

J-339



# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD STAT. FED. AID FISCAL SHEET TOTAL  
 DIST. NO. PROJ. NO. YEAR NO. SHEETS  
 5 NO. 1037-37 19  
 Docket #2391



Note: Webs to be extended at end bents and reinforced as shown on Sheet No. 7.

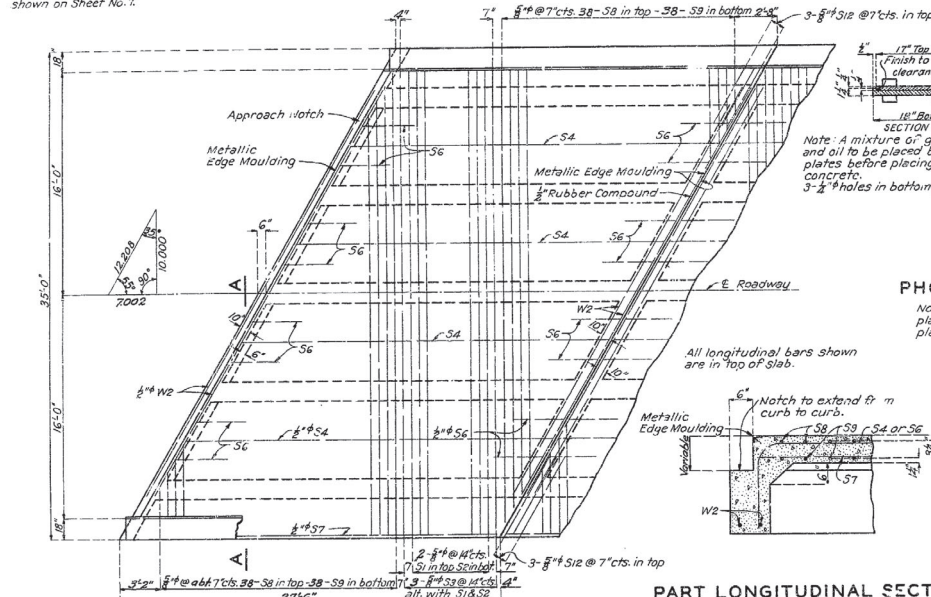
**SECTION AT ABUTMENT      SECTION THRU SPAN**

**DETAILS OF GIRDER**

**GIRDER REINFORCEMENT**

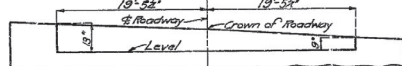
BILL OF REINFORCING STEEL (25' SPAN)					
No.	Size	Length	Mark	Location	Bending Sketches & Cutting Diagrams
8	#8	10'-0"	R25/R	Rail	[Sketch]
8	#8	9'-6"	R25/R	"	
18	#8	3'	R2	"	[Sketch]
20	#8	7'-9"	R3	Subpost	
16	#8	3'-9"	R4	Post	[Sketch]
240	#8	18"	R5	Baluster	
4	#8	8'-6"	R6	Rail	[Sketch]
4	#8	7'-3"	R6	"	
4	#8	2'-3"	R7	Post	[Sketch]
3	#8	25'-0"	C1	Curb	
3	#8	25'-0"	C1L	"	[Sketch]
24	#8	12'	C2	"	
185	#8	5'-0"	B1	Girder	[Sketch]
10	#8	26'-9"	B2	"	
20	#8	28'-0"	B3	"	[Sketch]
10	#8	30'-0"	B4	"	
10	#8	30'-0"	B5	"	[Sketch]
2	#8	36'-3"	S1	Slab	
2	#8	34'-9"	S2	"	[Sketch]
2	#8	37'-6"	S3	"	
4	#8	28'-0"	S4	"	[Sketch]
16	#8	5'-0"	S5	"	
14	#8	26'-9"	S6	"	[Sketch]
38	#8	42'-0"	S8	"	
38	#8	37'-3"	S9	"	[Sketch]
22	#8	6'-9"	S10	"	
4	#8	6'-9"	S11	"	[Sketch]
3	#8	6'-0"	S12	"	
4	#8	37'-0"	W2	Web	[Sketch]
6	#8	10'-3"	W3	"	
4	#8	9'-6"	W4	"	[Sketch]

Note: Dimensions given are along centerline of bars and are for computed lengths. Reinforcing bars 3" or over in diameter, which are bent to an angle greater than 30°, shall be of structural grade. Bars in above unit to be billed and tagged separately.

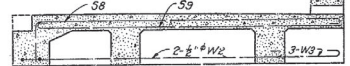


**PHOSPHOR BRONZE BEARING PLATES**

Note: 5 Sets of 5 Plates each required. Each set consisting of 1 top plate and 1 bottom plate for fixed end, and 1 top plate, 1 float plate and 1 bottom plate for expansion end.



Note: Dimensions are along face of End Bent. Notch at Bent No. 4 is similar.



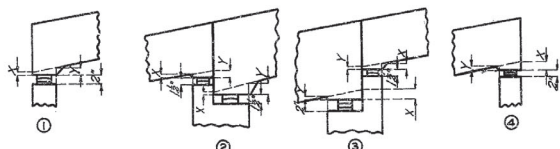
**PART LONGITUDINAL SECTION**

**SECTION A-A AT RT ANGLES TO C. ROADWAY**

Note: Superstructure at end bents to be modified as shown on Sheet No. 7.

GIRDER DESIGNATION			
1	2	3	4
CG5	CG2	CG3	CG1
CG1	CG2	CG3	CG4

**PLAN**



**HAUNCH DETAILS**

BENT	HAUNCH DIMENSIONS									
	No. 1	No. 2		No. 3		No. 4		No. 5		No. 6
	Span 1-2	Span 2-3	Span 2-3	Span 2-3	Span 3-4	Span 3-4	Span 3-4	Span 3-4	Span 3-4	Span 3-4
Girder No. 1	X	X	X	X	X	X	X	X	X	X
	2'	1'	1'	1'	1'	1'	1'	1'	1'	1'
	9'	12'	12'	12'	24'	18'	18'	24'	18'	18'
	4'	2'	3'	2'	5'	3'	3'	2'	3'	2'
	3'	3'	3'	3'	4'	3'	3'	3'	4'	3'

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

Assembled July 1933 By R.H.S. & C.A.F.  
 Checked Aug. 1933 By R.H.S.  
 Drawn June 1933 By H.S. & R.J.G.  
 Traced July 1933 By R.J.G.  
 Checked July 1933 By C.A.F.

**BRIDGE OVER TURKEY CREEK**

STATE ROAD FROM JOPLIN TO CARL JUNCTION  
 ABOUT 1 MILE NORTH OF JOPLIN  
 PROJECT NO. PWA74, R57-37 STA. 36+51.5

**JASPER COUNTY**

Sheet No. 4 of 7

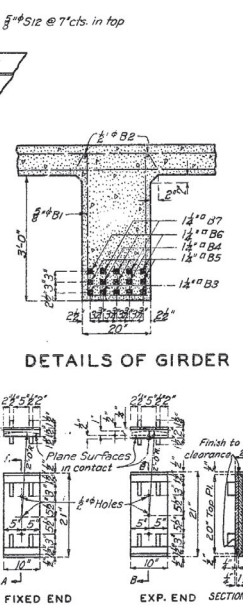
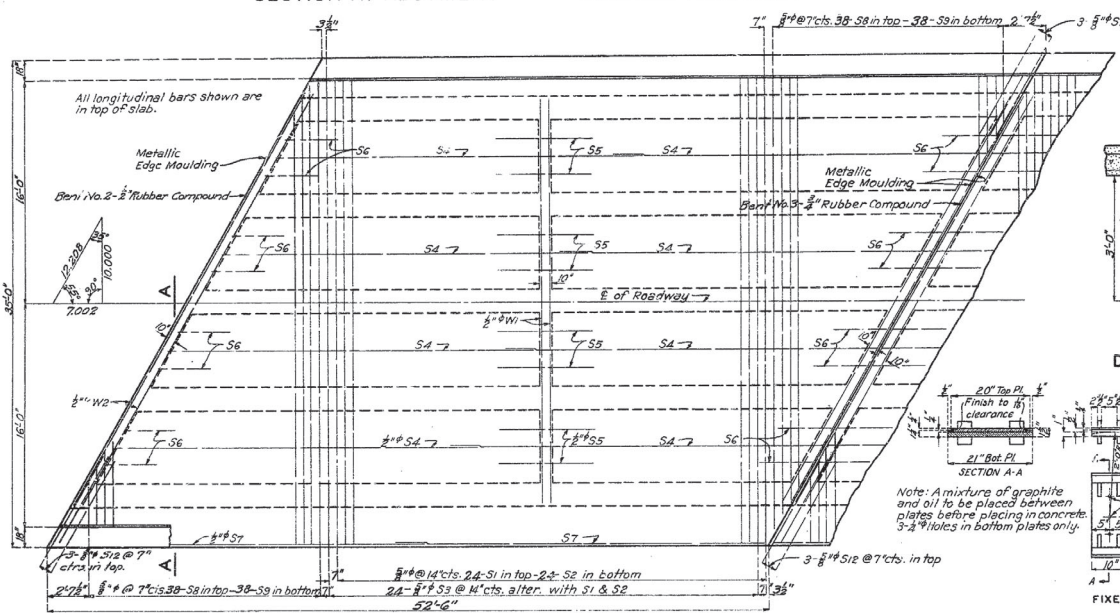
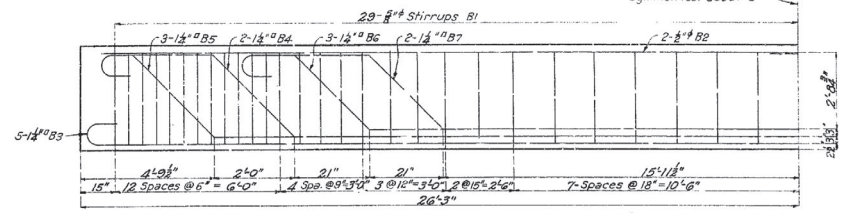
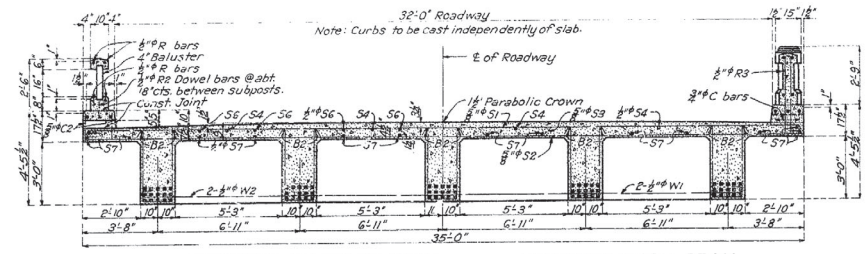
Widened by 337R

**J-339**

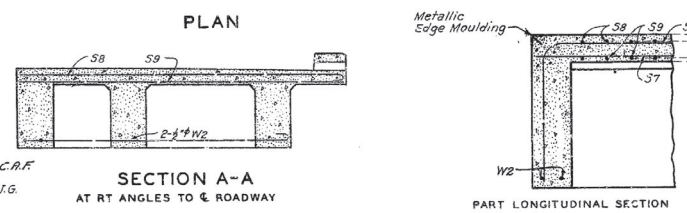


# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE NO.	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	19	10000	1933	19	20



BILL OF REINFORCING STEEL (50' SPAN)					Bending Sketches & Cutting Diagrams	
No.	Size	Length	Mark	Location		
8	1/2"	12'-0"	R500	Rail		
32	3/8"	8'-6"	R200	"		
40	1/2"	9'	R2	"		
36	3/8"	7'-9"	R3	Subpost		
8	1/2"	3'-9"	R4	Post		
520	1/2"	18'	R5	Baluster		
4	1/2"	2'-3"	R7	Post		
12	3/8"	27'-0"	C1	Curb		
40	1/2"	12'	C2	"		
285	3/8"	9'-0"	B1	Girder		
20	3/8"	27'-3"	B2	"		
25	1/2"	54'-6"	B3	"		
10	1/2"	54'-0"	B4	"		
16	1/2"	56'-0"	B5	"		
15	1/2"	48'-6"	B6	"		
10	1/2"	48'-6"	B7	"		
24	3/8"	56'-3"	S1	Slab		
24	3/8"	54'-9"	S2	"		
24	3/8"	37'-6"	S3	"		
8	1/2"	30'-3"	S4	"		
8	1/2"	7'-0"	S5	"		
16	3/8"	7'-9"	S6	"		
28	1/2"	27'-0"	S7	"		
38	3/8"	43'-3"	S8	"		
38	3/8"	39'-9"	S9	"		
6	3/8"	6'-0"	S12	"		
2	1/2"	30'-6"	W1	Web		
4	1/2"	37'-0"	W2	"		



### PHOSPHOR BRONZE BEARING PLATES

Note: 5 1/2" of S plates each required. Each set consisting of 1 top plate and 1 bottom plate for fixed end, and 1 top plate, 1 fletcher plate and 1 bottom plate for expansion end.

Note: Dimensions given are along centerline of bars and are for computed lengths. Reinforcing bars 3/8" or over in diameter, which are bent to an angle greater than 90°, shall be of structural grade. Bars in above unit to be billed and tagged separately.

FINISHED

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM JOPLIN TO CARL JUNCTION  
ABOUT 1 MILE NORTH OF JOPLIN  
PROJECT NO. PWA74, R57-S7 STA. 36+51.5  
JASPER COUNTY

Assembled July 1933 By P.H.S. & C.R.F.  
Checked Aug 1933 By M.F.K.  
Drawn July 1933 By P.H.S. & R.J.G.  
Traced July 1933 By R.J.G.  
Checked July 1933 By G.T.K.

Widened by J.33912  
Note: This drawing is not to scale.  
Follow dimensions.

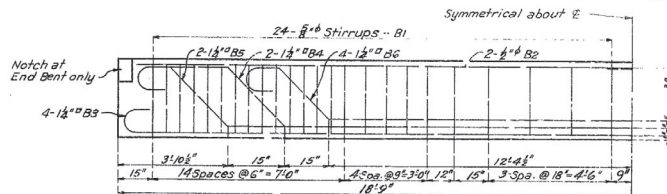
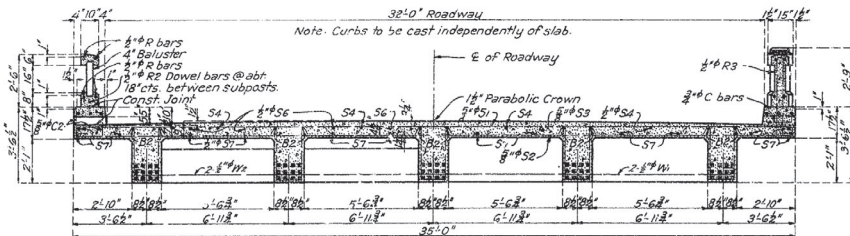
Sheet No. 5 of 7  
F.A.

J-339



# MISSOURI STATE HIGHWAY DEPARTMENT

FED ROAD STATE FED AID FISCAL SHEET TOTAL  
 DIST NO. PROJ NO. YEAR NO SHEETS  
 5 MO. PWA 74, R57-37 STA. 36+51.5  
 18  
 Detail #2581

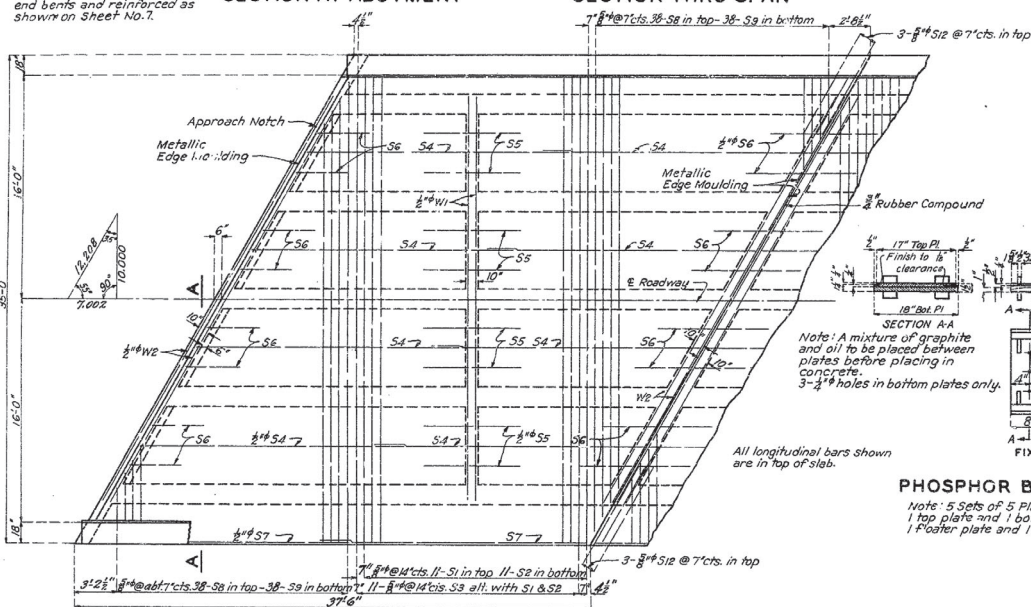


GIRDER REINFORCEMENT

Note: Webs to be extended at end bents and reinforced as shown on Sheet No. 7.

SECTION AT ABUTMENT

SECTION THRU SPAN



DETAILS OF GIRDER

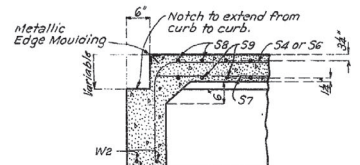
PHOSPHOR BRONZE BEARING PLATES

Note: 5 Sets of 5 Plates each required. Each set consisting of 1 top plate and 1 bottom plate for fixed end and 1 top plate, 1 footer plate and 1 bottom plate for expansion end.

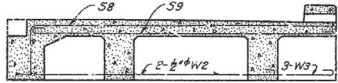
BILL OF REINFORCING STEEL (32' SPAN)				Bending Sketches & Cutting Diagrams	
No.	Size	Length	Mark	Location	
4	3/4"	12'-3"	R31K	Rail	R3
4	3/4"	11'-3"	R31K	"	
32	3/4"	3"	R2	"	B1
28	3/4"	3"	R3	Subpost	
8	2"	3'-5 1/2"	R4	Post	S3
336	3/4"	18"	R5	Baluster	
12	3/4"	7'-9"	R31K	Rail	S4-S6
12	3/4"	8'-9"	R31K	"	
240	3/4"	7'-0"	B1	Girder	S10-W3
20	3/4"	18'-0"	B2	"	
20	1/2"	39'-0"	B3	"	S10-W3
10	1/2"	40'-3"	B4	"	
10	3/4"	40'-3"	B5	"	S10-W3
20	1/2"	35'-0"	B6	"	
11	4"	36'-3"	S1	Slab	S10-W3
11	4"	36'-3"	S2	"	
11	4"	37'-6"	S3	"	S10-W3
22	4"	6'-9"	S10	"	
1	3"	6'-9"	S11	"	S10-W3
3	1/2"	6'-0"	S12	"	
2	1/2"	30'-6"	W1	Web	S10-W3
4	1/2"	37'-0"	W2	"	
6	1/2"	10'-3"	W3	"	S10-W3
6	1/2"	9'-6"	W4	"	

Note: Superstructure at end bents to be modified as shown on Sheet No. 7.

PLAN



PART LONGITUDINAL SECTION



Note: Dimensions given are along centerline of bars and are for computed lengths. Reinforcing bars 3/4" or over in diameter, which are bent to an angle greater than 90°, shall be of structural grade. Bars in above unit to be billed and tagged separately.

BRIDGE OVER TURKEY CREEK  
 STATE ROAD FROM JOPLIN TO CARL JUNCTION  
 ABOUT 1 MILE NORTH OF JOPLIN  
 PROJECT NO. PWA 74, R57-37 STA. 36+51.5  
 JASPER COUNTY

Assembled July 1933 By R.J.G.  
 Checked Aug. 1933 By R.J.G.  
 Drawn June 1933 By R.H.S. & R.J.G.  
 Traced July 1933 By R.J.G.  
 Checked July 1933 By G.Z.K.

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

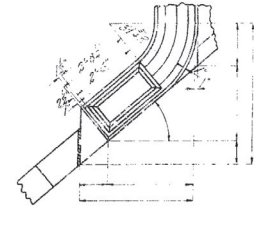
Widened by S 329K

Sheet No. 6 of 7.

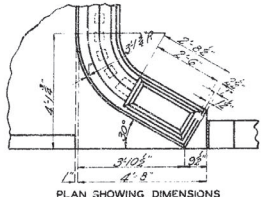
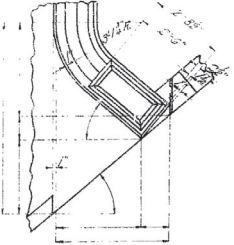
J-339

MISSOURI STATE HIGHWAY DEPARTMENT

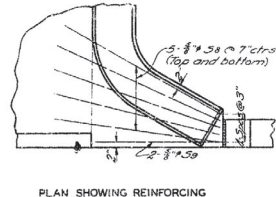
STATE ROAD	STATE	FED. AID	TYPICAL SHEET	TOTAL SHEETS
MO. HWY. 74	MO.	74	1	1
Project 7471				



PLAN SHOWING DIMENSIONS

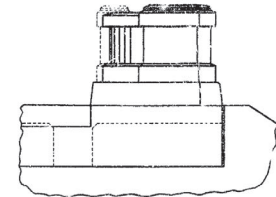


PLAN SHOWING DIMENSIONS



PLAN SHOWING REINFORCING

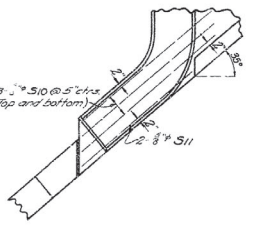
SQUARE END BENT



DECK GIRDER SPAN SHOWING POST

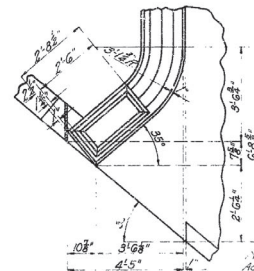
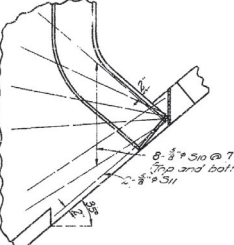


SLAB SPAN SHOWING REINFORCING

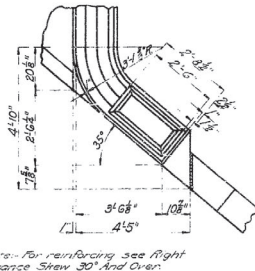


PLAN SHOWING REINFORCING

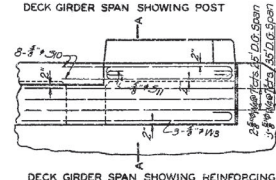
RIGHT ADVANCE SKEW 30° AND OVER



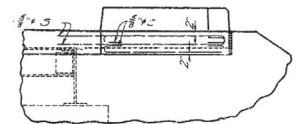
LEFT ADVANCE SKEW 30° AND OVER



Note: For reinforcing see Right Advance Skew 30° And Over.

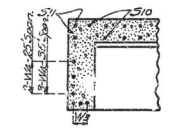


DECK GIRDER SPAN SHOWING REINFORCING

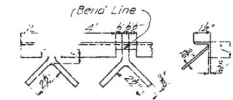


I-BEAM SPAN SHOWING REINFORCING

TYPICAL END ELEVATIONS

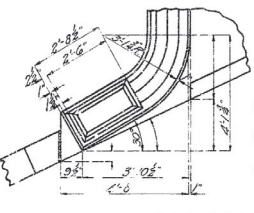


SEC. A-A



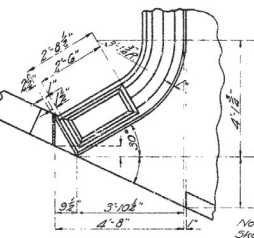
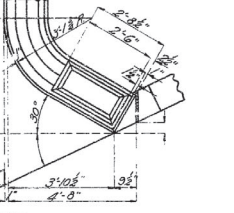
GENERAL NOTES:

Reinforcing steel shown on this sheet will be used in addition to that required for straight curb and rail. All bars required are listed in bar bill for respective spans. For details of handrail see 25" and 35" on Std. CG501R2 and 50" on Std. CG502R2. Handrail, curb and slab to be modified at end bents as shown on this sheet. The letter R has been added to all longitudinal bars in right handrail and the letter L to all longitudinal bars in left handrail. Outlets to be centered between subposts. See table below for modification of panel lengths for end spans.

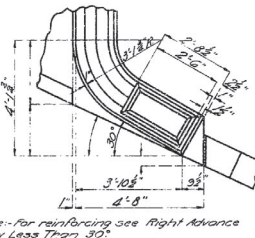


PLAN SHOWING DIMENSIONS

RIGHT ADVANCE SKEW LESS THAN 30°



LEFT ADVANCE SKEW LESS THAN 30°



Note: For reinforcing see Right Advance Skew Less Than 30°.

MODIFICATION OF PANEL LENGTHS FOR FLARED ENDS					
SPAN	RAIL	Std. CG501R2		Modification Req'd	
		PANEL No.	INCH.	PANEL No.	INCH.
25"	Right	6-8"	9	7-6 1/2"	11
	Left	6-8"	9	6-2 1/2"	9
35"	Right	7-2"	10	6-10"	10
	Left	7-2"	10	7-9 1/2"	11

Note: Span 50" is not altered.

METALLIC EDGE Moulding

Note: 20% of metallic edge moulding will be included in unit bid price for concrete.

BRIDGE OVER TURKEY CREEK

STATE ROAD FROM JOPLIN TO CARL JUNCTION  
ABOUT 1 MILE NORTH OF JOPLIN  
PROJECT NO. PWA 74, R57-57 STA. 38 + 51.5

JASPER COUNTY

FILE

FIELD 1-2

Sheet No. 7 of 7  
F.A.

Widened by J 339R

J-339

Assembled July 1932 by P.H.S.-H.W.H.  
Checked Aug. 1932 by G.H.K.  
Drawn April 1932 by C.A.L.  
Checked Aug. 1932 by G.H.K.

TYPICAL DETAILS OF CONCRETE RAIL AT END BENT

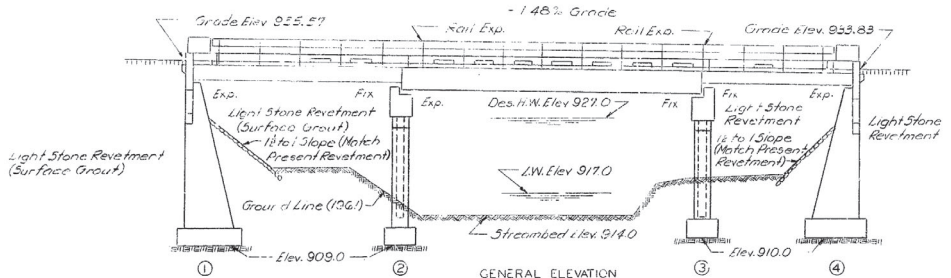
Note: This drawing is not to scale  
Follow dimensions.



# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	78	

(35°-50'-25") Concrete Deck Girder Spans (Width R1 & 1A)  
- 1.48% Grade



Bent No.	FOOTING DATA			
	1	2	3	4
Foundation Material	Rock	Rock	Rock	Rock
Design Bearing (Tons/Sq. Ft.)	3.0	5.0	5.0	4.3

See Standard Specification 50.4.2.

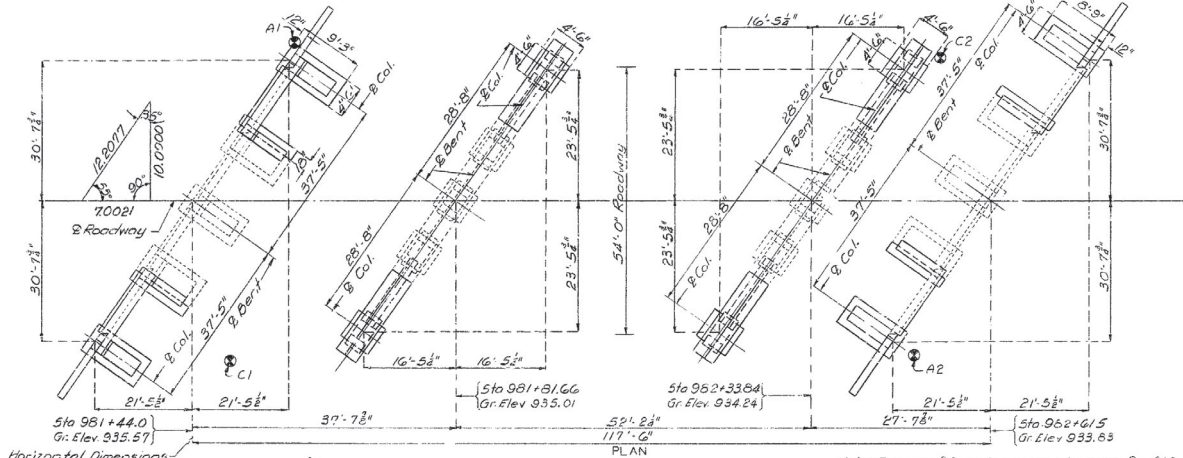
**GENERAL NOTES:**

Design Specifications A.A.S.H.O. - 1961.  
 Loading H20-44 (15% for ft. Future Wearing Surface)  
 Structural Steel (A.S.T.M. A36-G2T) Stress 20,000 psi  
 Reinforcing Steel Stress 20,000 psi  
 Concrete, Class B Stress 1,200 psi  
 Concrete, Class B1 Stress 1,600 psi  
 Superstructure concrete shall be Class B1.  
 Substructure concrete shall be Class B or Class B1 except payment will be on the basis of Class B.  
 Superstructure deck to be surface sealed (See special provisions).  
 Fabricated structural steel shall be A.S.T.M. A36-G2T except as noted. Payment will be made as Fabricated Structural Carbon Steel.  
 Painting or galvanizing structural steel hardware shall be cleaned and primed in the field or may be cleaned and primed one coat of red lead in the shop with the two remaining coats applied in the field; all to be in accordance with Standard Specification 55.4.10. In lieu of painting, the contractor may if he prefers, galvanize this material in accordance with Standard Specification 55.2.8.  
 Where joint filler is specified on the plans it shall conform to Standard Specification 157.2.4.  
 See Special Provisions regarding construction procedure and maintenance of traffic over bridge during construction.  
 See Standard Specification 53.313 for qualification of welding operators.  
 Field connections shall be as noted in hand-drawn details.

**ESTIMATED QUANTITIES**

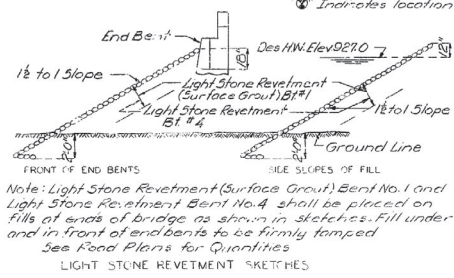
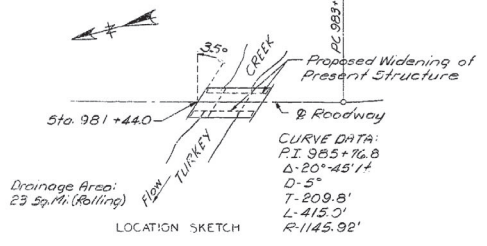
Item	Substr.	Superstr.	Total
Class I Excavation for Structures	Cu. Yd. 100		100
Class II Excavation for Structures	Cu. Yd. 245		245
Class B Concrete	Cu. Yd. 167.7		167.7
Class B1 Concrete	Cu. Yd.	285.3	285.3
Reinforcing Steel	Lbs. 18,630	50,770	69,400
Fabricated Structural Carbon Steel	Lbs. 46	9,370	9,370

Note: Excavation for Structures made above Elev 918.0 will be paid for as Class I.  
 Excavation for Structures made below Elev 918.0 will be paid for as Class II.  
 Excavation for Structures will be computed from the existing ground line or from the lower limits of channel/clearout excavation, whichever is lower, regardless of the sequence of operations and the method of removal.  
 Weight of bolts (steel to steel) is included in weight of fabricated structural steel on the basis of the following weights per 100 bolts: 8" 20% 8" 65% 8" 95% 1" 135%.  
 Weight of 4x4-4x4 welded wire fabric is included in estimated weight of reinforcing steel. See Special Provisions.  
 B.M. #20 Elev 935.31 USGS Tablet on N.W. Conc. Abut. Turkey Creek Bridge.



Note: For Log of Soundings see Sheet No. 2 of 10.  
 \* Indicates location of soundings.

9



**BRIDGE OVER TURKEY CREEK**

STATE ROAD FROM ROUTE 171 TO JOPLIN  
 ABOUT 10 MILE N. OF JOPLIN  
 PROJECT NO. F-43-101 (R.T.C. 43) STA 981+44.0

JASPER COUNTY

DESIGNED BY: [Signature] DATE: 8-22-63  
 APPROVED BY: [Signature] DATE: 8-22-63  
CHIEF ENGINEER

DESIGNED May 1963 by Livingston  
 DETAILED Aug. 1963 by Turpin  
 CHECKED Oct. 1963 by Alcott

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

Sheet No. 1 of 10.

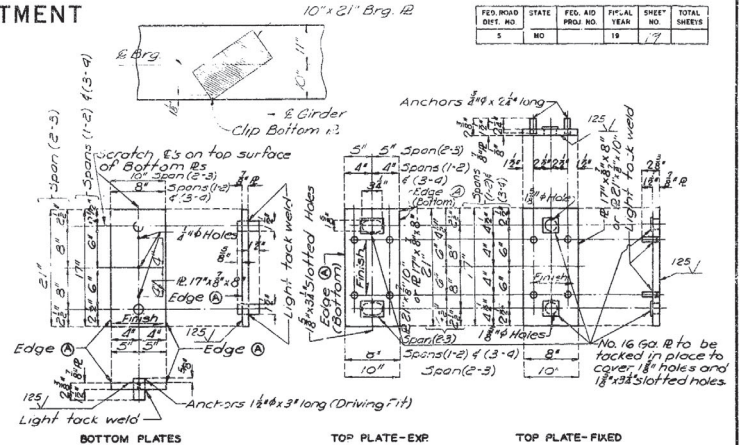
STD. 54.00  
 J-339 R

# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE NO.	FED. AID PROJ. NO.	F.P.C. PLAN NO.	SHEET NO.	TOTAL SHEETS
5	MO		19	7	

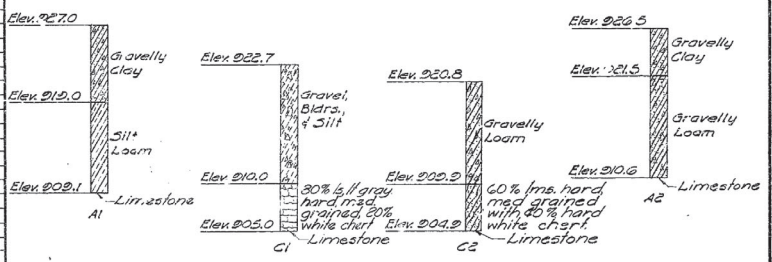
## COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION	BENDING SKETCHES & CUTTING DIAGRAMS	NO.	SIZE	LENGTH	MARK	LOCATION
BENDING SKETCHES & CUTTING DIAGRAMS										
28	#7	4'-0"	D1	Flg. Bl. #1		30	#5	4'-0"	C1	Superstructure
28	#6	4'-0"	D2	Bl. #2		31	#5	4'-0"	C2	Curb
34	#6	8'-3"	F1	Col. Hch.		32	#5	4'-0"	C3	"
22	#6	14'-9"	H1	Wing		33	#6	27'-3"	C4	"
4	#6	14'-3"	H2	"		34	#6	27'-3"	C5	"
5	#6	18'-0"	H3	"		35	#6	27'-3"	C6	"
12	#8	13'-6"	H4	Beam		36	#6	27'-3"	C7	"
30	#5	13'-6"	H5	"		37	#6	26'-0"	C8	"
3	#6	13'-6"	H6	"		29	#5	3'-0"	E1	End Post
12	#6	17'-0"	H7	Wing Bl. #1		30	#5	7'-3"	E2	"
12	#6	17'-0"	H8	Beam	68	#4	6'-9"	B1	Girder	
5	#6	17'-0"	H9	Wing	68	#4	6'-9"	B2	"	
7	#6	12'-0"	L10	" Bl. #1	10	#11	33'-0"	B3	"	
30	#5	17'-0"	P1	Col. Bl. #1	8	#10	33'-0"	B4	"	
20	#5	15'-0"	P2	"	20	#11	29'-0"	B5	"	
24	#5	16'-0"	P3	" Bl. #2	12	#11	45'-6"	B6	"	
24	#5	14'-0"	P4	"	8	#11	39'-0"	B7	"	
5	#6	18'-3"	W11	Wing Bl. #1	22	#4	5'-0"	B11	Girder	
3	#6	18'-3"	W12	"	22	#4	5'-0"	B12	"	
3	#6	17'-9"	W13	"	30	#5	31'-6"	B13	"	
3	#6	17'-9"	W14	"	15	#11	29'-0"	B14	"	
28	#6	12'-0"	U1	Beam Bl. #1	42	#5	37'-3"	S1	Slab	
8	#6	2'-6"	U2	"	4	#5	36'-0"	S2	"	
38	#4	13'-3"	U3	" Bl. #2	40	#5	2'-6"	S3	"	
16	#7	20'-0"	V1	Col. Bl. #1	40	#5	4'-3"	S4	"	
16	#6	14'-3"	V2	"	14	#5	13'-0"	S5	"	
12	#7	20'-0"	W3	"	11	#10	11'-9"	S6	"	
2	#6	12'-5"	V4	Wing	30	#5	12'-9"	S7	"	
5	#6	11'-3"	V5	"	18	#5	20'-3"	S8	"	
16	#6	18'-0"	V6	Col. Bl. #2	3	#5	17'-6"	S9	Girder	
12	#6	13'-9"	V7	"	372	#5	12'-3"	S10	Slab	
16	#4	13'-6"	V10	"	44	#5	17'-3"	S11	"	
					24	#5	12'-3"	S12	"	
					30	#5	16'-9"	S13	"	
					35	#5	27'-0"	S14	"	
					42	#5	27'-3"	S15	"	
					4	#5	17'-6"	S16	Girder	
					10	#5	15'-6"	S17	Slab	
					16	#5	14'-3"	S18	"	
					9	#5	22'-9"	S19	"	
					4	#5	22'-6"	S20	"	
					13	#4	7'-9"	W1	Web	
					16	#6	15'-9"	W2	"	
					40	#7	11'-9"	W3	"	
					18	#4	6'-9"	W4	"	
					6	#4	7'-9"	W5	"	
					12	#4	6'-3"	W6	"	
					16	#4	11'-9"	W7	"	
					1	#4	7'-6"	W8	"	
					28	#4	8'-6"	W9	"	
					14	#4	10'-5"	W10	"	
					16	#4	6'-3"	W11	"	
					13	#4	8'-3"	W12	"	
					12	#4	8'-3"	W13	"	
					12	#4	6'-0"	W14	"	
					32	#5	6'-0"	W15	"	
					54	#4	5'-6"	B17	Girder	



**NOTES FOR BEARINGS:**  
 Holes in  $\frac{3}{8}$ " plates for  $\frac{3}{8}$ " x  $\frac{1}{4}$ " and  $\frac{1}{2}$ " x  $\frac{3}{4}$ " anchors shall be made for driving fit. After anchors are driven in place they shall be lightly tack welded to  $\frac{3}{8}$ " plates.  
 Surfaces shall be finished as indicated. All finished surfaces shall be coated with white lead and follow in shop and just prior to placing plates in concrete all finished surfaces shall be thoroughly cleaned and coated with a mixture of graphite and oil.  
 Edge (A) to be rounded ( $\frac{1}{8}$ " to  $\frac{1}{4}$ " radius).  
 Material: A.S.T.M. A36-G27.

### DETAILS OF BEARING PLATES



Note: Soundings G1 & G2 taken w. a core drill.  
 Soundings A1 & A2 taken with an Auger.  
 See sheet No. 1 of 10 for location of soundings, marked thus  $\odot$ .

### LOG OF SOUNDINGS

**BRIDGE OVER TURKEY CREEK**  
 STATE ROAD FROM ROUTE 171 TO JOPLIN  
 ABOUT 1.0 MILE N. OF JOPLIN  
 PROJECT NO. F-43-1(1) (RTE. 43) STA. 981+44.0  
**JASPER COUNTY**

Sheet No. 2 of 10.

J-339 R

Assembled July 1963 by G.J. Harms  
 Checked Oct. 1963 by Harms

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

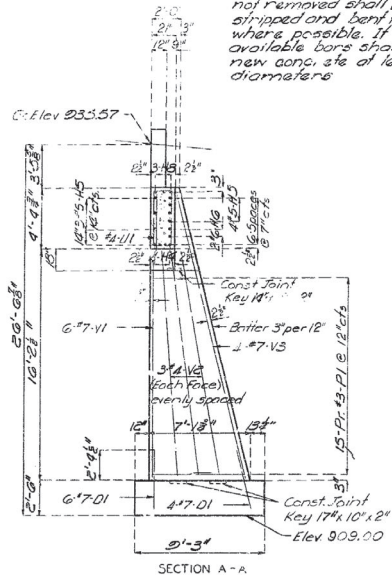


MISSOURI STATE HIGHWAY DEPARTMENT

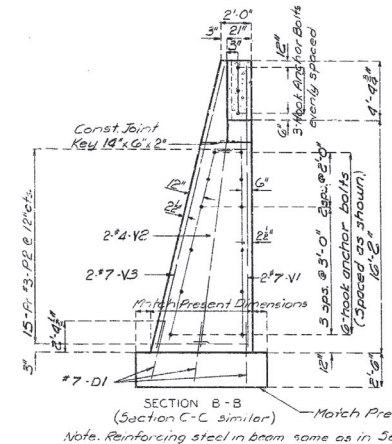
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO. OF TOTAL SHEETS
9	MO.		19	2-3

Note: Light dotted lines indicate old work heavy lines indicate new work.

Bars bonded in old concrete not removed shall be clearly stripped and bent into new concrete where possible. If length is available bars shall extend into new conc. at least 40 diameters.

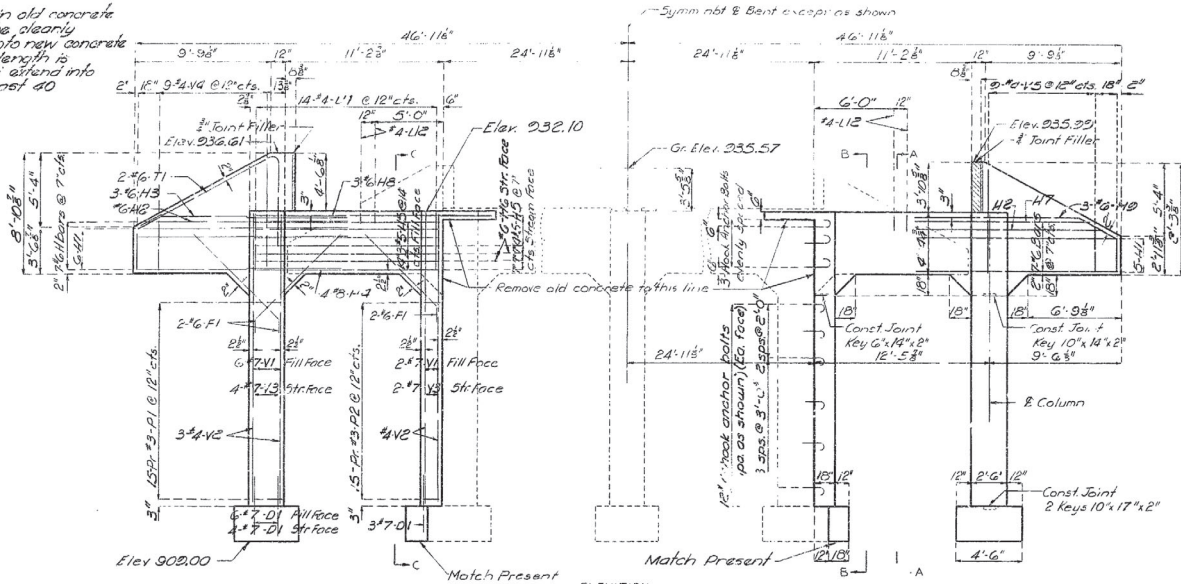


SECTION A-A

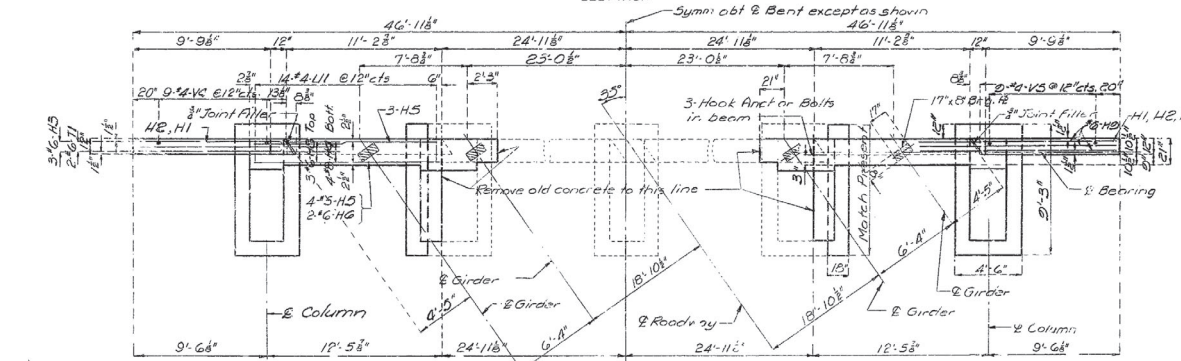


SECTION B-B (Section C-C similar)

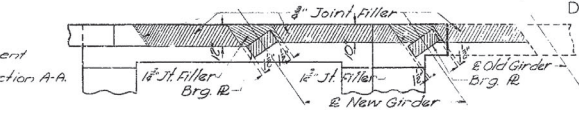
Note: Reinforcing steel in beam same as in Section A-A.



ELEVATION



PLAN DETAILS OF END BENT NO. 1



DETAIL OF JOINT FILLER AT END BENTS (TYPICAL)

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

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1.0 MILE N. OF JOPLIN  
PROJECT NO. F-43-10 (RTE. 43) STA. 981+44.0  
JASPER COUNTY

Drawn July 1963 by Turpin  
Checked Oct. 1963 by A. C. Lett

Sheet No. 3 of 10.

J-339R

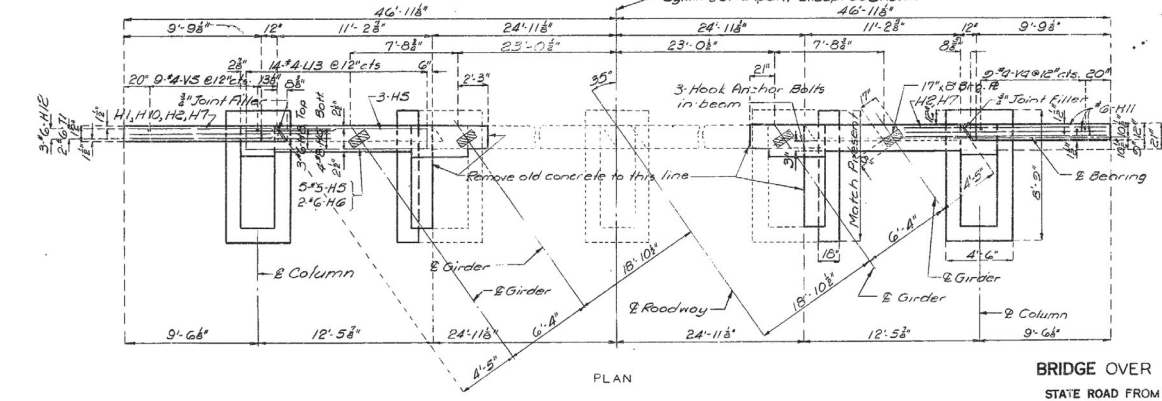
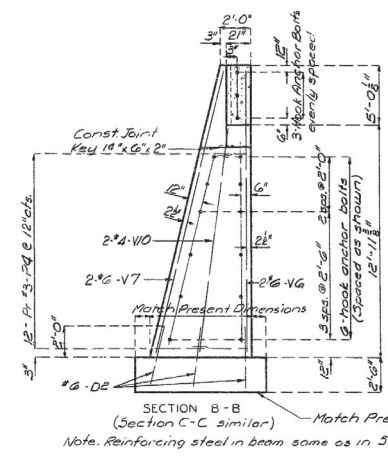
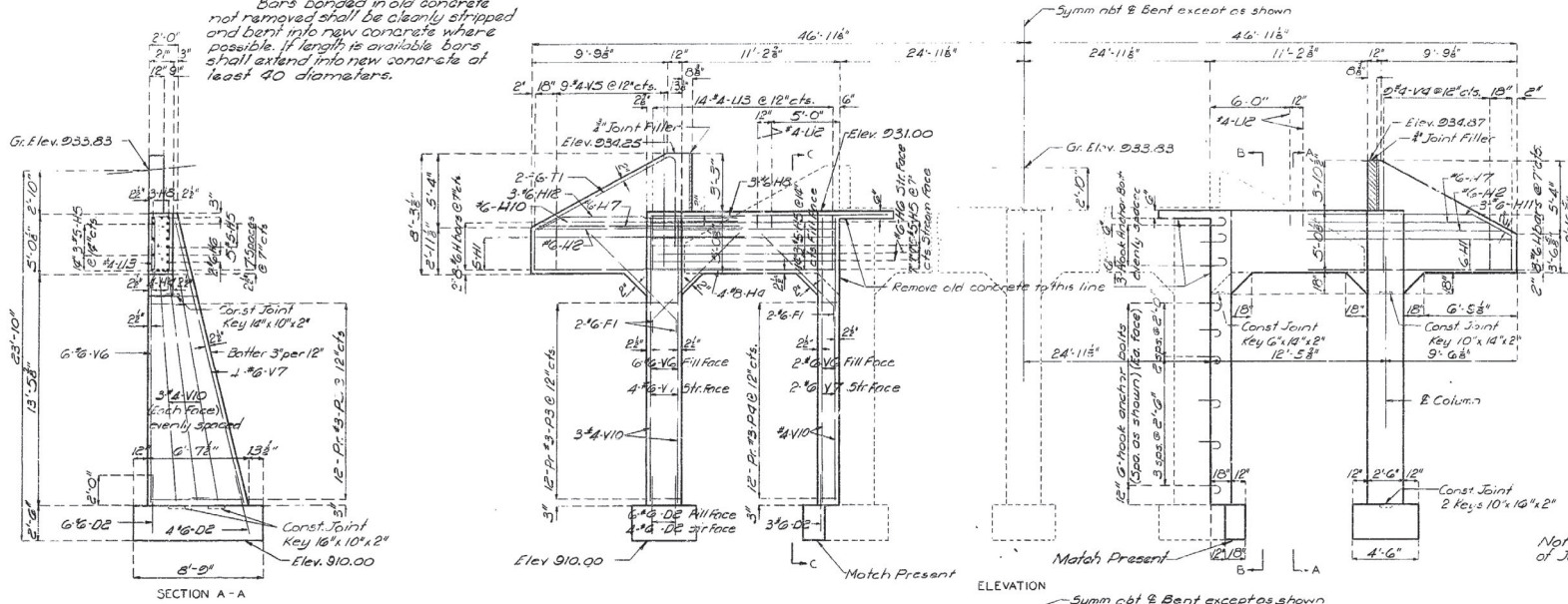




# MISSOURI STATE HIGHWAY DEPARTMENT

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

Note: Light dotted lines indicate old work. Heavy lines indicate new work. Bars embedded in old concrete not removed shall be cleanly stripped and bent into new concrete where possible. If lengths available bars shall extend into new concrete at least 40 diameters.



DETAILS OF END BENT NO. 4

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1.0 MILE N. OF JOPLIN  
PROJECT NO. F-43-1(C) (RTE. 43) STA. 981 + 44.0  
JASPER COUNTY

13

Drawn July 1963 by Turpin  
Checked 12-1963 by H.L.W.

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

Sheet No. 5 of 10.

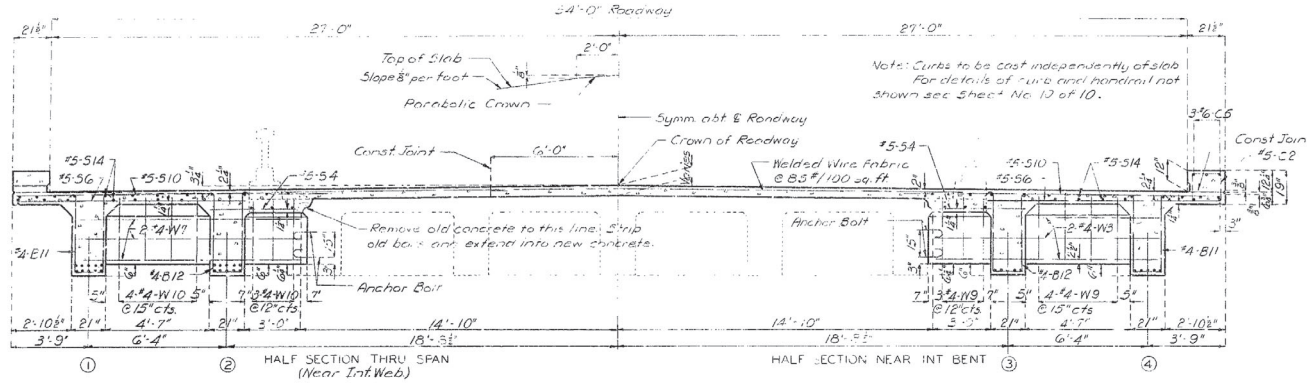
J-3399





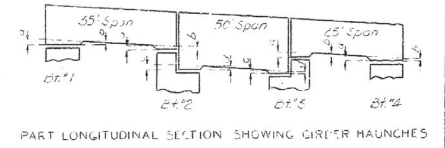
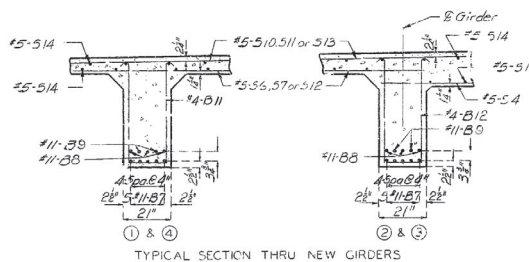
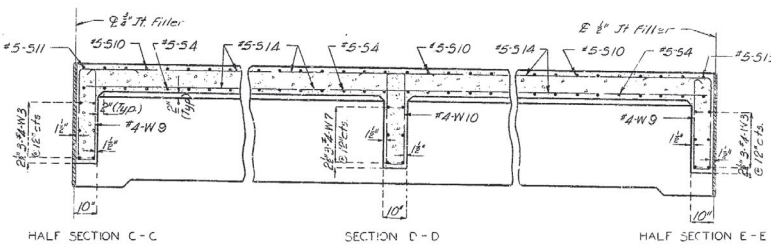
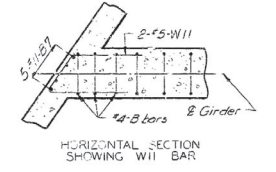
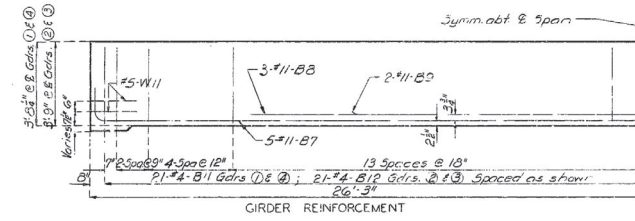
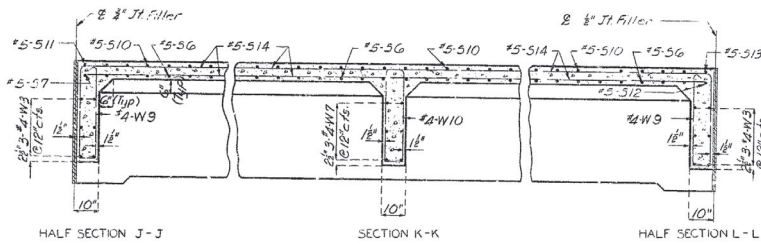
# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		12	24	



Note: Curbs to be cast independently of slab.  
For details of curbs and parapets not shown see Sheet No. 12 of 10.

Note: Light dotted lines indicate old work.  
heavy lines indicate new work.  
Bars bonded in old concrete not removed shall be cleanly stripped and bent into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters.



HAUNCH DIMENSIONS									
35' span		30' span				25' span			
Er #1	Er #2	Er #3	Er #4	Er #5	Er #6	Er #7	Er #8	Er #9	Er #10
0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

DETAILS FOR 50'-0" SPAN

**BRIDGE OVER TURKEY CREEK**  
 STATE ROAD FROM ROUTE 171 TO JOPLIN  
 ABOUT 1.0 MILE N. OF JOPLIN  
 PROJECT NO. F-43-10 (RTE 43) STA. 9B1+44.0  
 JASPER COUNTY

Drawn June 1963 by Turpin  
 Checked Oct 1963 by Alcott

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

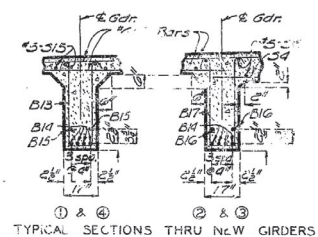
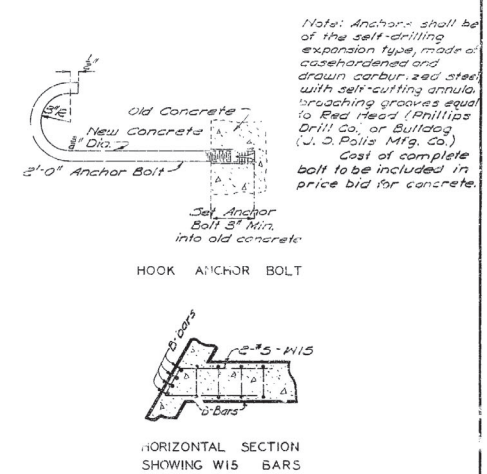
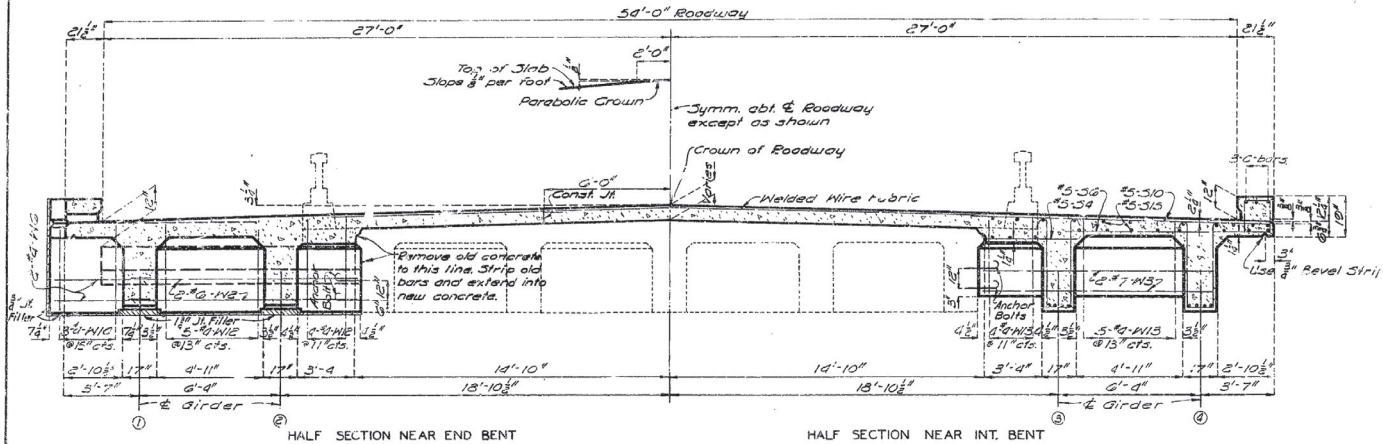
Sheet No. 7 of 10.

J-339R

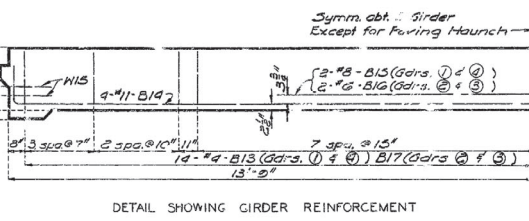
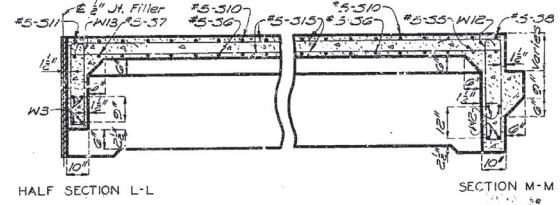
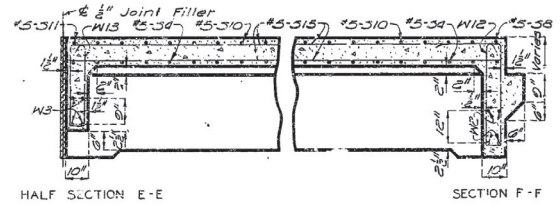
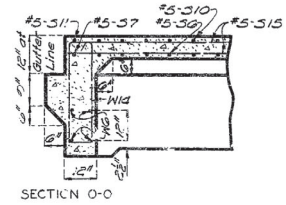
15

# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		14	25	



Note: Light dotted lines indicate old work. Heavy lines indicate new work.  
Bars bonded in old concrete not removed shall be clearly stripped and bent into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters.  
See sheet No. 9 of 10 for location of sections.



DETAILS OF 25'-0" SPAN

**BRIDGE OVER TURKEY CREEK**  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1.0 MILE N. OF JOPLIN  
PROJECT NO. F-43-1(1) (CRTE. 43) STA. 981 + 44.0  
JASPER COUNTY

DETAILED July 1923 by G. J. Harms  
CHECKED Oct 1923 by Alcott

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

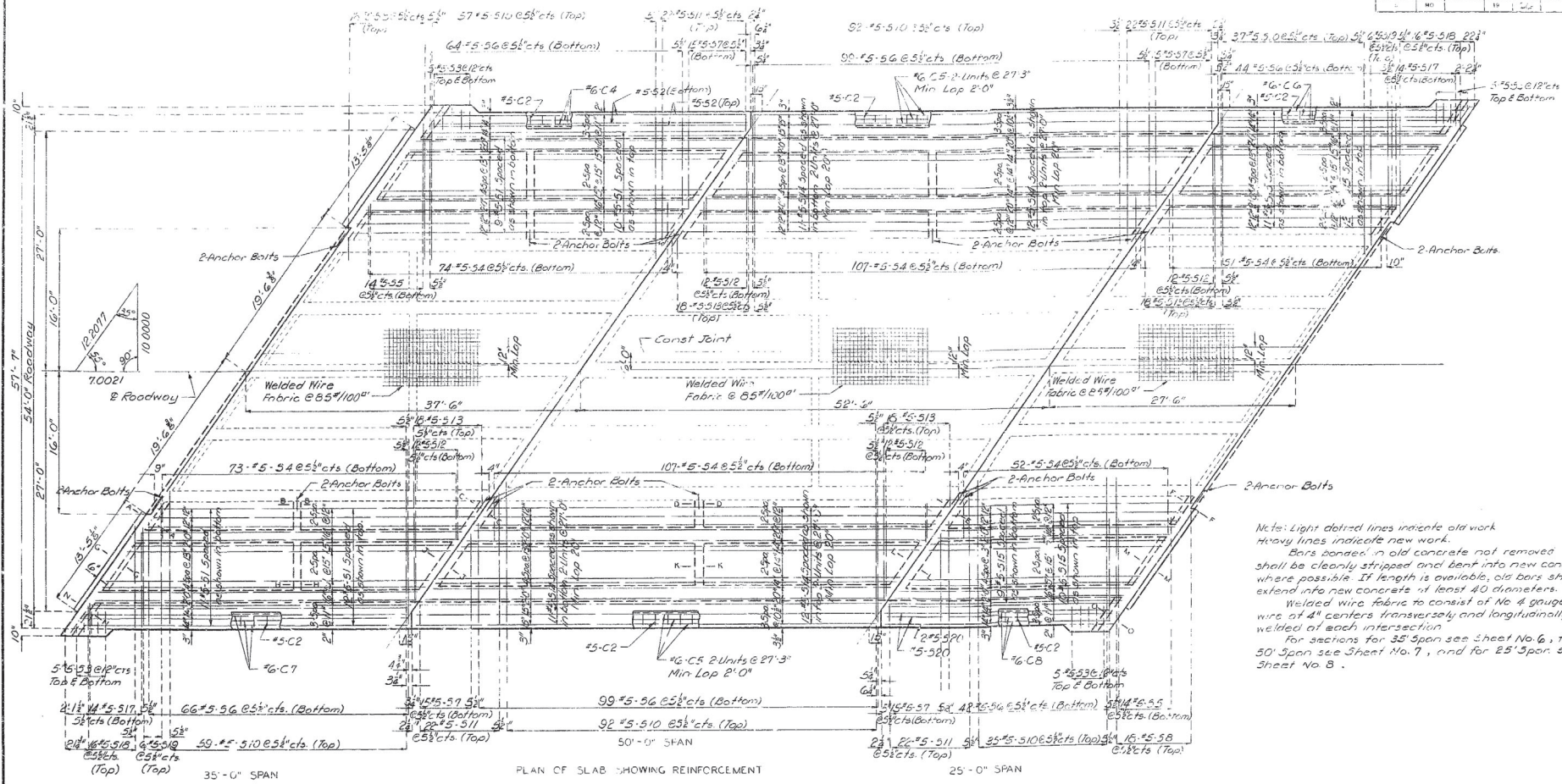
Sheet No. 8 of 10

J-339 R



# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STAT.	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
			19		



PLAN OF SLAB SHOWING REINFORCEMENT

Notes: Light dashed lines indicate old work heavy lines indicate new work.  
 Bars bonded in old concrete not removed shall be clearly stripped and bent into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters.  
 Welded wire fabric to consist of No. 4 gauge wire at 4" centers transversely and longitudinally welded at each intersection.  
 For sections for 35' span see Sheet No. 6, for 50' span see Sheet No. 7, and for 25' span see Sheet No. 8.

Note: The contractor shall use an approved oscillating screed type, self-propelled mechanical finishing machine and shall pour and satisfactorily finish the roadway slab at a rate of not less than 37 cubic yards per hour. Finishing machine load will not be permitted on concrete less than 48 hours old.

BRIDGE OVER TURKEY CREEK  
 STATE ROAD FROM ROUTE 171 TO JOPLIN  
 ABOUT 1.0 MILE N. OF JOPLIN  
 PROJECT NO. F-43-10(RT. 43) STA. 981 + 44.0  
 JASPER COUNTY

Drawn June 1963 by Turpin  
 Checked Oct 1963 by Alcott

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

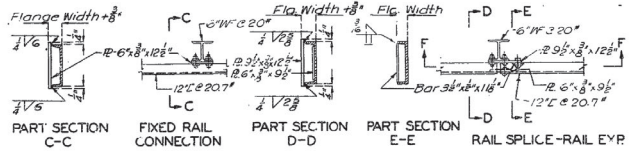
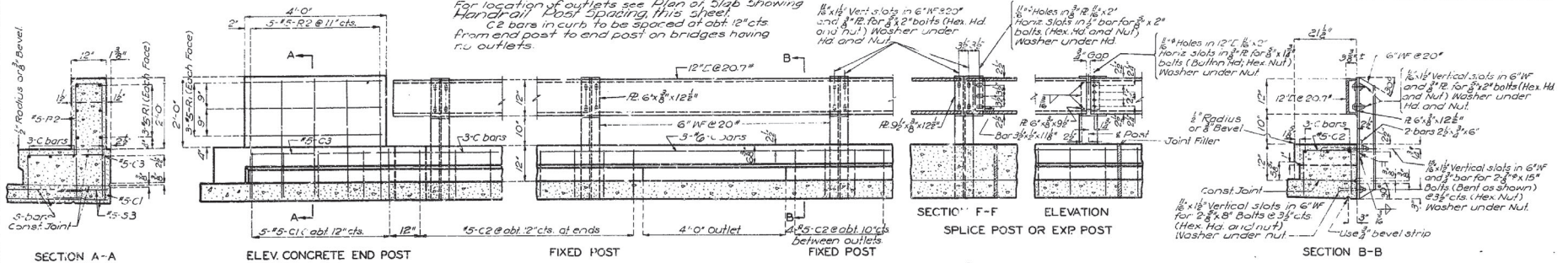
Sheet No. 9 of 10.

J-339R

# MISSOURI STATE HIGHWAY DEPARTMENT

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5	MO.		19	77	

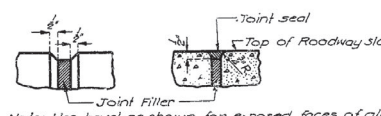
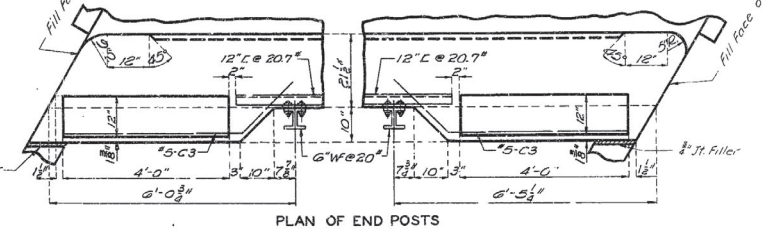
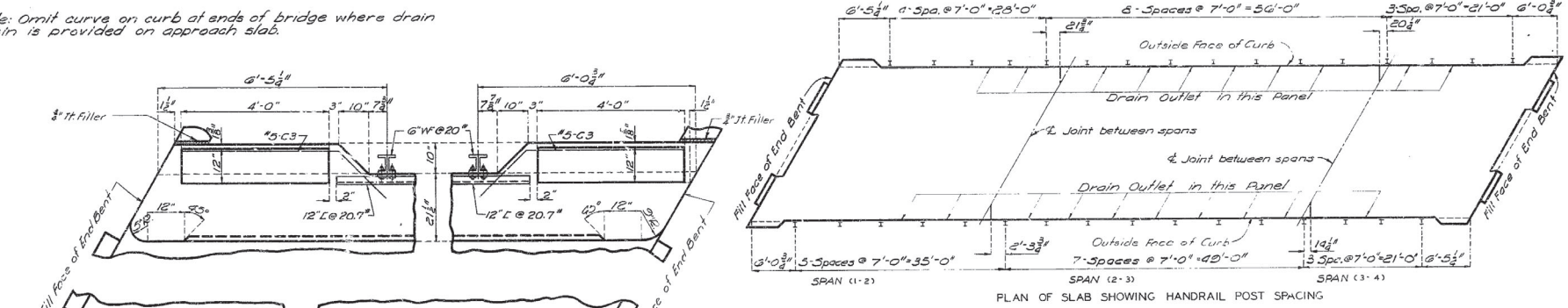
Note: Outlets to be centered between rail posts. For location of outlets see Plan of Slab Showing Handrail Post Spacing. This sheet. C.A. bars in curb to be spaced at obt. 12" cts. from end post to end post on bridges having no outlets.



Note: Channel rail to be adjusted for horizontal alignment by use of full size metal shims placed between 6" WF and connection B. Shims 6" x 12" x 1/8" and 4" thickness with 1/8" x 1/8" vertical slots to be furnished with structural steel. Cost of shims to be included in price bid for other items.

**GENERAL NOTES:**  
Top of curbs and end posts to be built parallel to grade. Vertical faces of end posts to be vertical. All exposed edges of end posts to be beveled 1/2". 6" WF posts to be set normal to grade. 12" L rails shall be fabricated to conform to horizontal and vertical alignment of curb.

Note: Ornit curve on curb at ends of bridge where drain basin is provided on approach slab.



Note: Use bevel as shown for exposed faces of all filled joints except at top surface of roadway slab. Use edging tool with 3/8" radius at top surface of roadway slab each side of joint and fill flush with joint seal as shown.

**BRIDGE OVER TURKEY CREEK**  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1.0 MILE N. OF JOPLIN  
PROJECT NO. F-43-10 (RTE. 43) STA. 981+4.0  
JASPER COUNTY

No. 15 Revised April 1962  
 Drawn July 1963 by G.J. Harms  
 Checked by

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

Sheet No. 1 of 1

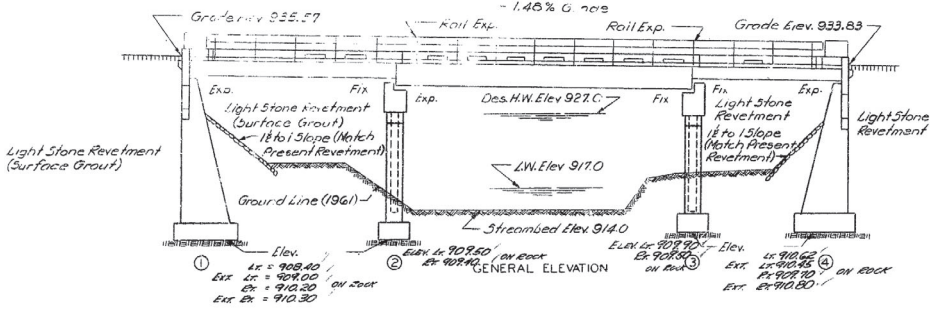
J-339 R



# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	18	

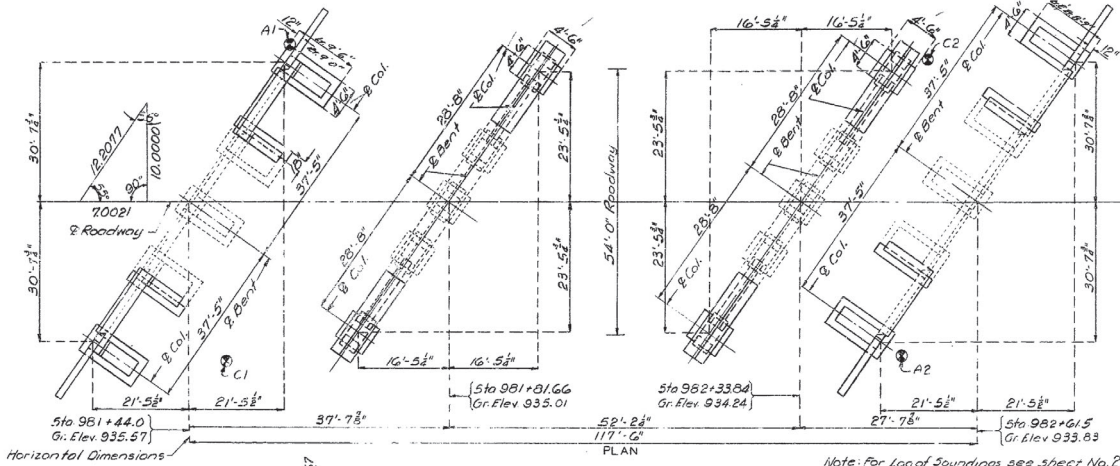
(35'-50" P.S.) Conc. Deck Girder Spans (Wider Pt. & Lt.)  
- 1.48% G. rate



FOOTING DATA				
Bent No.	1	2	3	4
Foundation Material	Rock	Rock	Rock	Rock
Design Bearing Tons/Sq. Ft.	3.6	5.0	3.0	4.3
See Standard Specification 50.4.2.				

**GENERAL NOTES:**

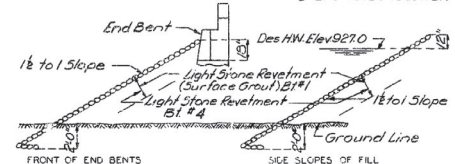
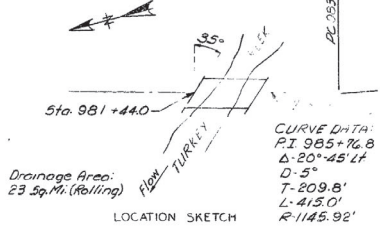
- Design Specifications A.A.S.H.O. - 1961
- Loading H20-44 (15<sup>1/2</sup> sq. ft. Future Wearing Surface)
- Structural Steel (A.S.T.M. A36-G2T) Stress 20,000 psi
- Reinforcing Steel Stress 20,000 psi
- Concrete, Class B Stress 4,200 psi
- Concrete, Class B1 Stress 4,600 psi
- Superstructure concrete Class B1
- Substructure concrete Class B or Class B1 except payment on the basis of Class B
- Superstructure deck surface sealed (See special provisions).
- Fabricated structural steel A.S.T.M. A36-G2T except as noted.
- Painting of structural steel as fabricated Structural Carbon Steel.
- Painting or galvanizing structural steel heavily cleaned and primed in the field or cleaned and primed one coat of red lead in the shop with the two remaining coats applied in the field, all in accordance with Standard Specification 55.4.10. In lieu of painting, the contractor may if he prefers, galvanize this material in accordance with Standard Specification 55.2.8.
- Where joint filler is specified on the plans it shall conform to Standard Specification 157.2.4.
- See Special Provisions regarding construction procedure and maintenance of traffic over bridge during construction.
- See Standard Specification 55.3.13 for qualification of welding operators.
- Field connections as noted in horizontal details.



Item	QUANTITIES		
	Substr.	Superstr.	Total
Class I Excavation for Structures	Cu Yd.	157.0	157.0
Class II Excavation for Structures	Cu Yd.	146.3	146.3
Class B Concrete	Cu Yd.	225.3	225.3
Reinforcing Steel	Lb.	12830	51330
Fabricated Structural Carbon Steel	Lb.	9290	9290

**Excavation and Filling**  
Note: Excavation for structures made below Elev 918.0 paid for as Class I.  
Excavation for structures made above Elev 918.0 paid for as Class II.  
Excavation for structure computed from the existing ground line or from the lower limits of channel cleanup excavation, whichever is lower, regardless of the sequence of operations and the method of removal.  
Weight of bolts (steel to steel) is included in weight of fabricated structural steel on the basis of the following weights per 100 bolts: 4" 40<sup>1/2</sup> lbs, 5" 65<sup>1/2</sup> lbs, 5<sup>1/2</sup>" 95<sup>1/2</sup> lbs, 6" 135<sup>1/2</sup> lbs.  
Weight of 4x4 #4 welded wire fabric is included in estimated weight of reinforcing steel. See Special Provisions.

19



Note: Light Stone Revetment (Surface Grout) Bent No. 1 and Light Stone Revetment Bent No. 4 placed on fills at ends of bridge as shown in sketches. Fill under and in front of end bents firmly tamped.  
See Road Plans for Quantities.

DESIGNED May 1963 BY Livingston  
DETAILED Aug. 1963 BY Turpin  
CHECKED Oct. 1963 BY Alcott

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

Sheet No. 14 of 4

**B.M. USGS TABLE ON**  
**SE WING CONC. ABUT. TURKEY CREEK BRIDGE**  
**30' x STA 982+60 ELEV. 934.32**  
**BRIDGE OVER TURKEY CREEK**  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 10 MILE N. OF JOPLIN  
PROJECT NO. F-43-KD (RTE 43) STA. 981+44.0  
**JASPER COUNTY FINISHED**

DESIGNED BY: [Signature] DATE: 5/19/63  
CHECKED BY: [Signature] DATE: 8/1/63

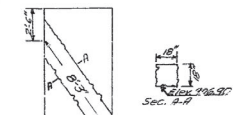
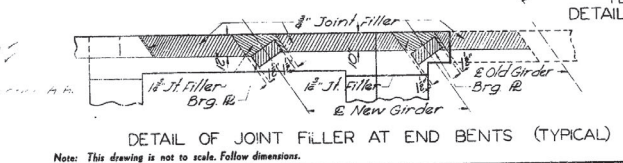
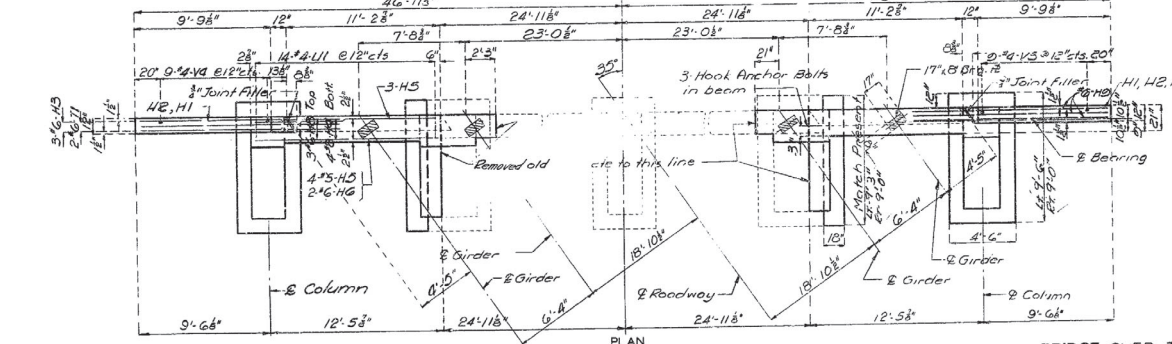
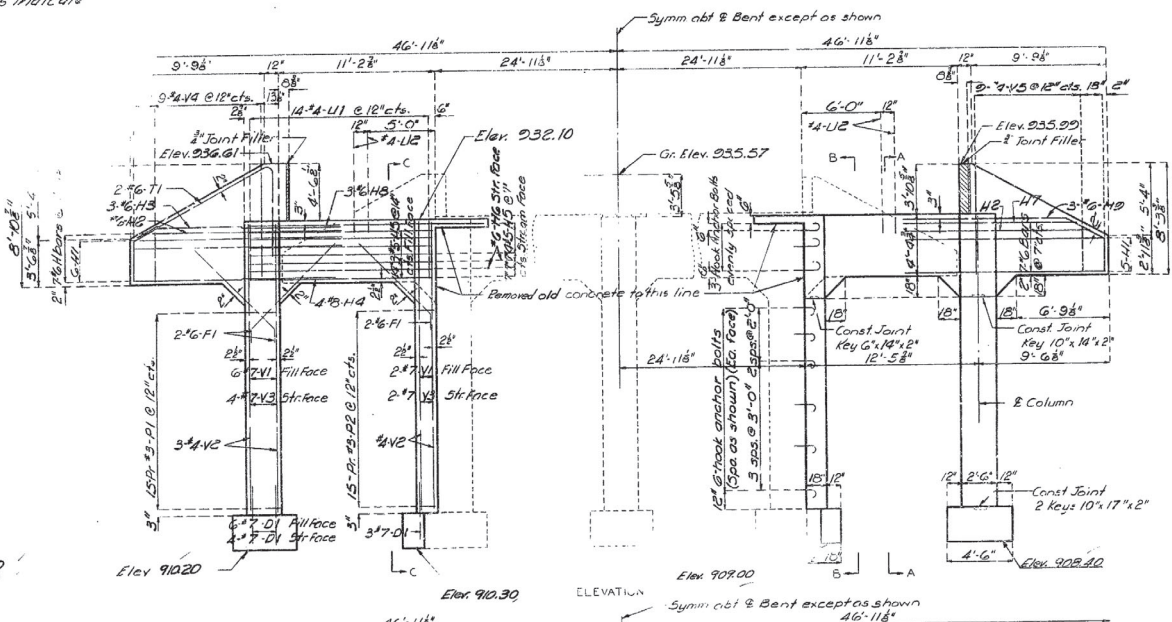
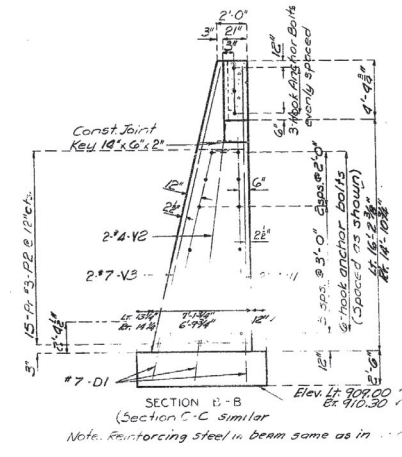
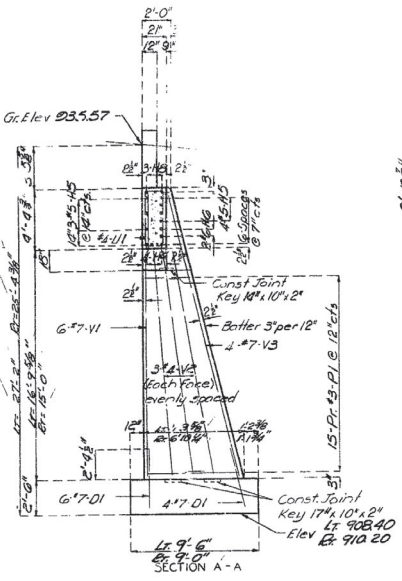
STD. 54.00  
J-339 R

FINAL PLANS

# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	20	

Note: Light  
Old Heavy lines indicate  
new work.



COVER IN BACK OF ROOFING  
3'-5" MIN.  
EXCAVATED & FILLED WITH  
CLASS 'B' CONCRETE

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1/2 MILE N. OF JOPLIN  
PROJECT NO. F-43-101 (RTE. 43) STA. 981 + 44.0  
JASPER COUNTY

Drawn July 1963 by Tarpin  
Checked C. J. 1963 by AHC:rt

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

Sheet No. 34 of 47

FINAL PLAN

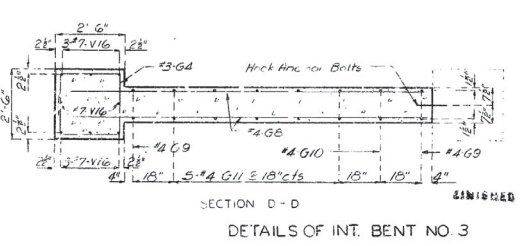
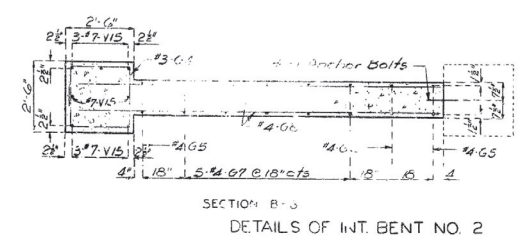
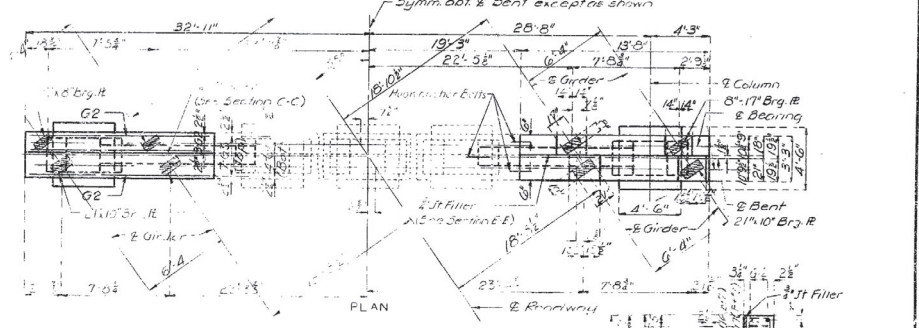
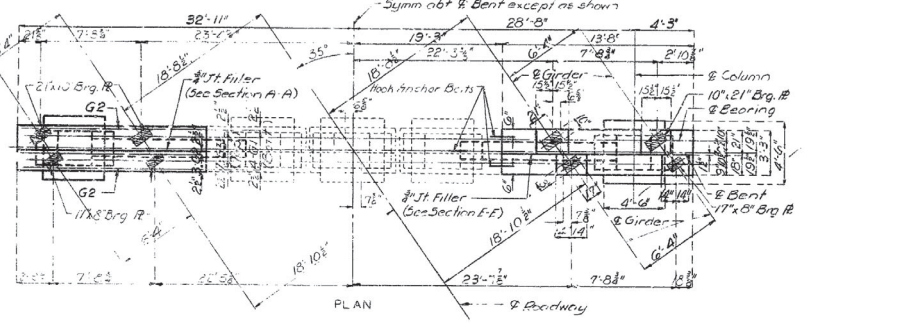
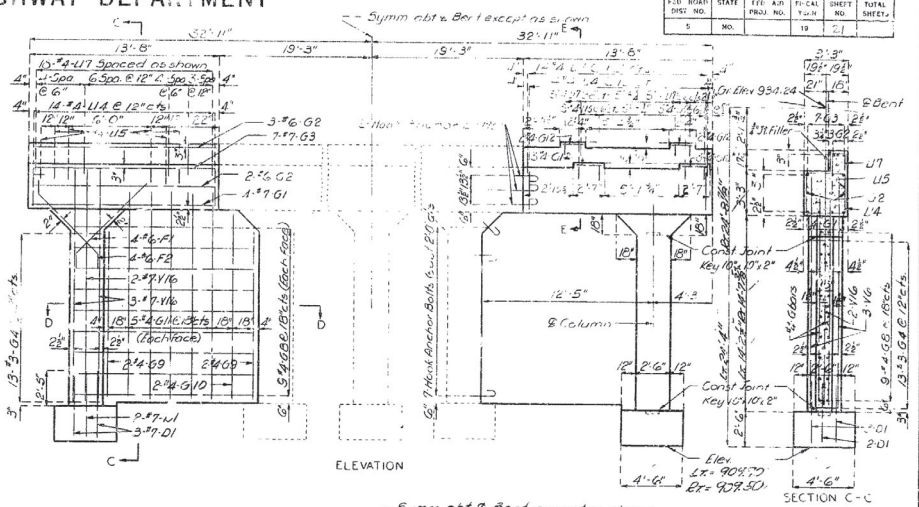
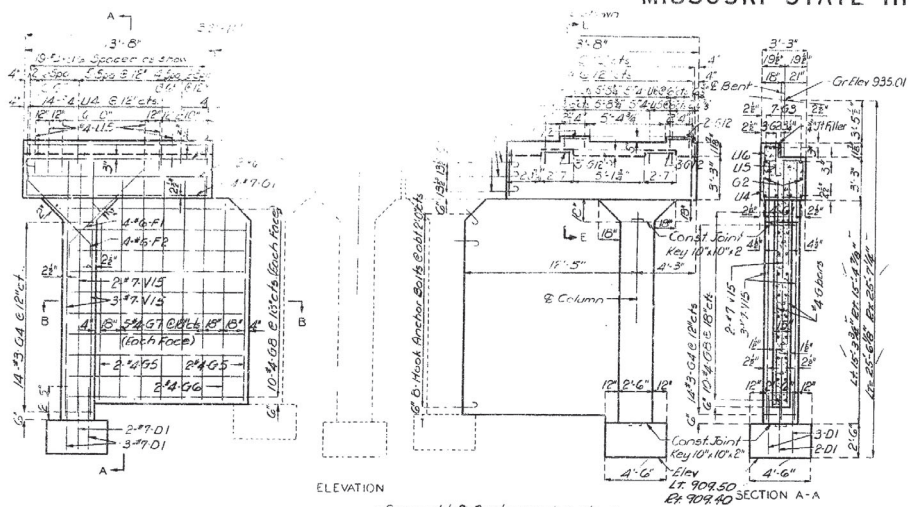
J-339R

20



# MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	21	



BRIDGE OVER TURKEY CREEK  
 STATE ROAD FROM ROUTE 171 TO JOPLIN  
 ABOUT 1.0 MILE N. OF JOPLIN  
 PROJECT NO. F-43-10 (RTE 43) STA. 981+44 C  
 JASPER COUNTY

Note: Light dotted lines indicate old work. Heavy lines indicate new work.  
 Bearing pads poured monolithically with beam.

Drawn July 1963 by Turpin  
 Checked Oct 1963 by Alcott

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

Sheet No. 42 of 4

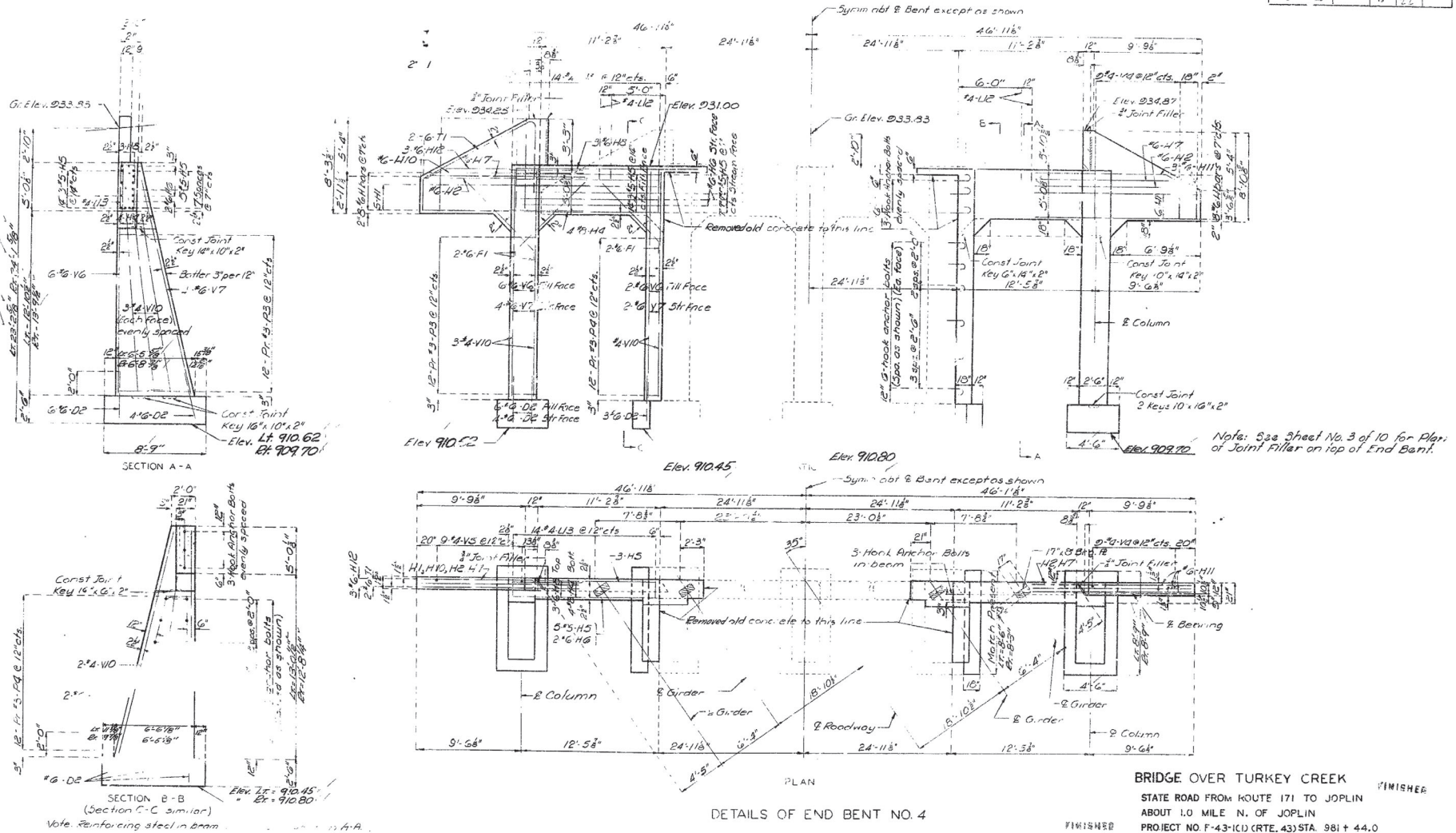
FINAL PLANS

J-339R

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
2	MO		19	22	

Note: Light dotted lines indicate old work. Heavy lines indicate new work.



22

Drawn July 1963 by Turpin  
Checked C. 1963 by

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

Sheet No. 5A of 4

BRIDGE OVER TURKEY CREEK  
STATE ROAD FROM ROUTE 171 TO JOPLIN  
ABOUT 1.0 MILE N. OF JOPLIN  
PROJECT NO. F-43-1(C) (CRTE. 43) STA. 981 + 44.0  
JASPER COUNTY  
FINISHED

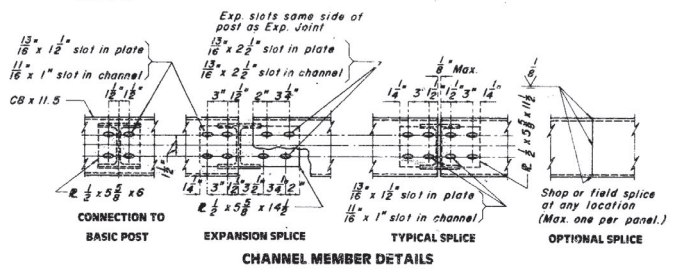
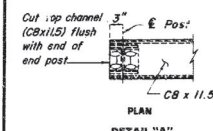
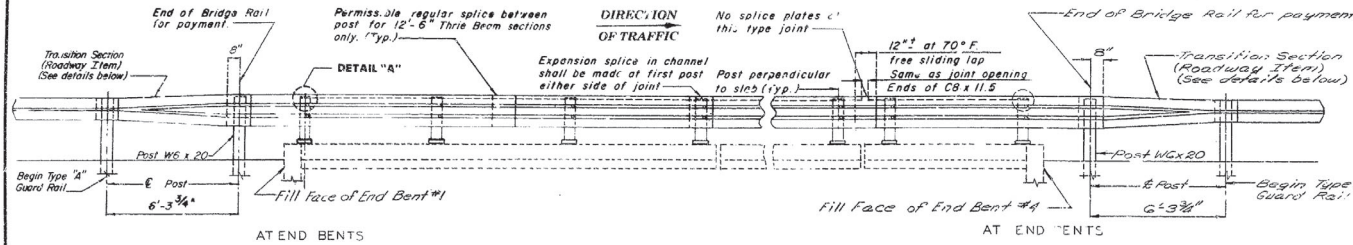
FINAL PLANS

J-3399



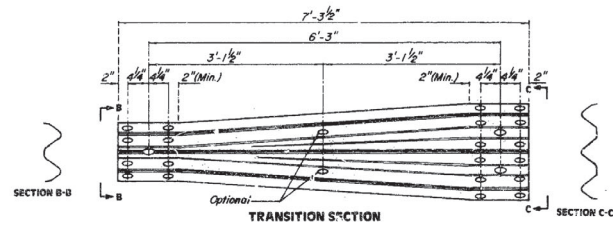
# MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJECT NO.	SHEET NO.
MO.		30
SEC. 35	TWP. 28 N.	RGE. 33 W.



NOTE: SHIM PLATES 6" x 6" x 1/16" MAY BE USED BETWEEN TOP OF POST AND CHANNEL MEMBER AS REQUIRED FOR VERTICAL ALIGNMENT.

## PART SECTION SHOWING RAIL



ITEM	ESTIMATED QUANTITIES	TOTAL
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	255
Full Depth Repair	Sq. Ft.	64
Concrete Wearing Surface (*)	Sq. Yd.	703
Bridge Guard Rail (Three Beam)	Lin. Ft.	251

\* 1 3/4" latex modified concrete or 2 1/4" (min.) low slump concrete, see Special Provisions.

## GENERAL NOTES:

- DESIGN AASHTO 1977 SPECIFICATIONS.
- PANEL LENGTHS OF CHANNEL MEMBERS SHALL BE ATTACHED CONTINUOUSLY TO A MINIMUM OF FOUR POSTS AND A MAXIMUM OF SIX (EXCEPT AT END BENTS).
- ALL BOLTS, NUTS, WASHERS, PLATES AND ELASTOMERIC MATERIALS ARE CONSIDERED AS PARTS OF THE RAIL. FOR PAYMENT.
- ALL STEEL CONNECTING BOLTS AND FASTENERS FOR POST AND RAILING AND ALL ANCHOR BOLTS, NUTS, WASHERS AND PLATES SHALL BE GALVANIZED AFTER FABRICATION FOR PROTECTIVE COATING AND MATERIAL REQUIREMENT OF STEEL RAILING SEE SECTION 1040 OF THE STANDARD SPECIFICATIONS.
- RAIL POSTS SHALL BE SET PERPENDICULAR TO ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION, AND ALIGNED ACCORDING TO SECTION 713 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT THE RAIL POST SHALL BE ALIGNED BY THE USE OF SHIMS SO THAT IN FINAL ADJUSTMENT NO PART SHALL DEVIATE MORE THAN ONE INCH FROM TRUE HORIZONTAL ALIGNMENT. THE SHIMS SHALL BE 3" x 1 3/4" AND PLACED BETWEEN THE POST AND THE BEAM RAIL. THE THICKNESS OF THE SHIMS SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER BEFORE ORDERING MATERIAL FOR THIS WORK.
- RAIL POSTS SHALL BE SEATED ON ELASTOMERIC PADS HAVING THE SAME DIMENSIONS AS POST BASE PLATE AND 1/16" THICK. SUCH PADS MAY BE ANY ELASTOMERIC MATERIAL, FLAME OR FIRE-RESISTANT, HAVING A HARDNESS OF 30 OR ABOVE, AS CERTIFIED BY THE MANUFACTURER TO THE ENGINEER. ADDITIONAL PADS OR HALF PADS MAY BE USED IN THE SHIMMING FOR ALIGNMENT. POST HEIGHTS SHOWN WILL INCREASE BY THE THICKNESS OF THE PAD.
- AT EXPANSION SLOTS IN THREE BEAM RAILS AND CHANNELS, TIGHTEN BOLTS, BACK OFF ONE HALF TURN AND BURR THREADS.
- 5/8 INCH x 1 1/4 INCH BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS. (THICKNESS OF HEX. NUTS = 3/8 INCH) *except as shown.*
- POST, BASE PLATES, CHANNELS AND CHANNEL SPICE PLATES TO BE FABRICATED FROM A-36 STEEL AND GALVANIZED.

WASHERS SHALL BE USED AT ALL POST BOLTS (BETWEEN BOLT HEAD AND BEAM). THEY SHALL BE RECTANGULAR IN SHAPE (2" x 1 3/4" x 3/16" MIN.) AND FLAT, OR WHEN NECESSARY OF SUCH DESIGN TO FIT THE CONFIGURE OF THE BEAM. WASHER SHALL HAVE 1/16" x 1" SLOT.

FABRICATION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SECTION 712 OF THE STANDARD SPECIFICATIONS.

Contractor shall verify all dimensions in field before coloring materials.

At Three Beam Connection to Post on wing Tighten bolts, back off one-half turn and burr threads.

Minimum length of three beam sections is equal to one post space.

Three beam guard rail to be made of steel and shall be 12 gauge.

The contractor shall maintain one lane of traffic each direction on bridge during construction. (See Roadway Plans.)

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

Roadway surfacing adjacent to bridge end to match existing concrete deck plus 1 1/2" or 2".

## REPAIRS TO BRIDGE OVER TURKEY CREEK

STATE ROAD FROM RTE. 171 TO JOPLIN  
ABOUT 2.5 MI. SOUTH OF RTE. 171  
PROJECT NO. BHM-MAM-MAMM-9 STA. 981+44.00  
3209(705)

JOB NO. 7-U-43-263  
JASPER COUNTY

STD.
STD. 606.00
J-339 RI

DESIGNED July 19 56  
DETAILED July 19 56  
CHECKED Sep 7 19 56

NOTE: 5/8" x 1 1/4" BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS; (THICKNESS OF HEX. NUTS = 3/8"). SPECIAL DRILLING OF THREE BEAM MAY BE REQUIRED AT SPICES. (ALL DRILLING DETAILS ARE TO BE SHOWN ON SHOP DRAWINGS).

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

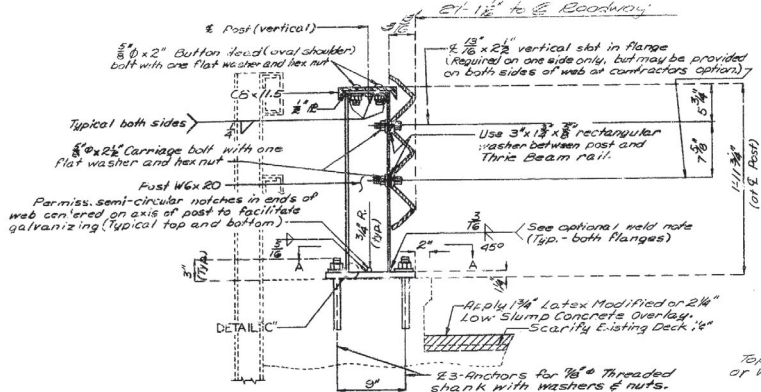
SEE OTHER PLANS  
Sheet No. 1 of 2

DATE 10/8/56

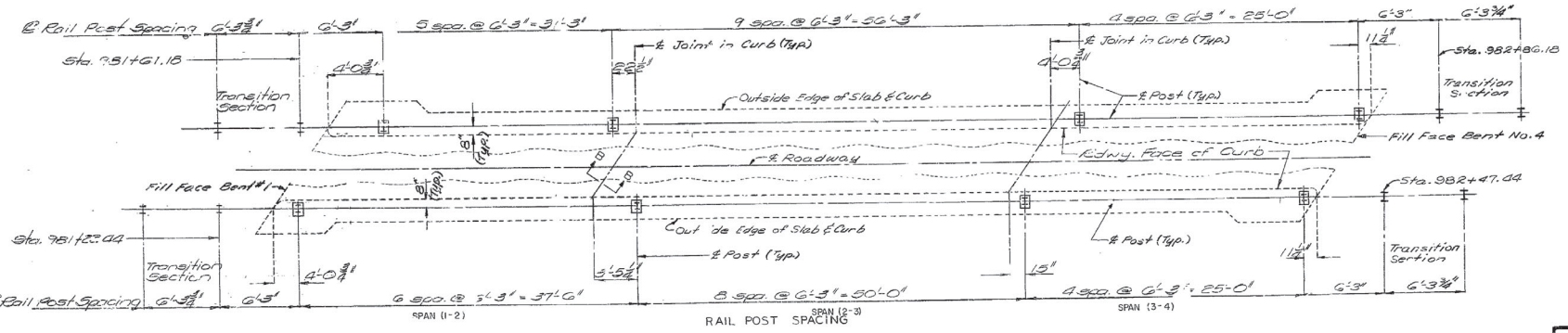
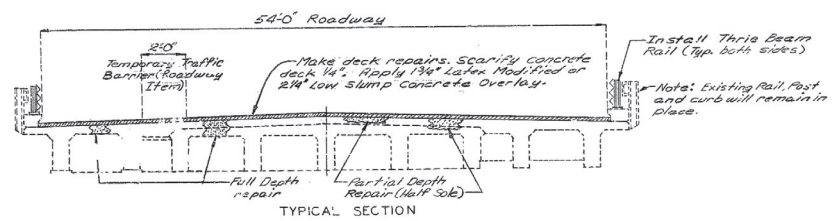
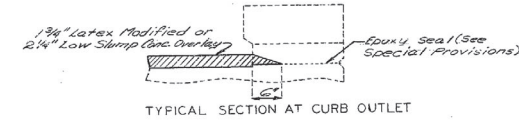
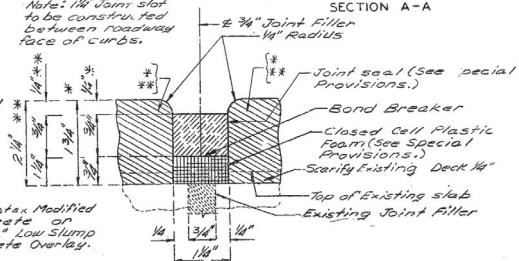
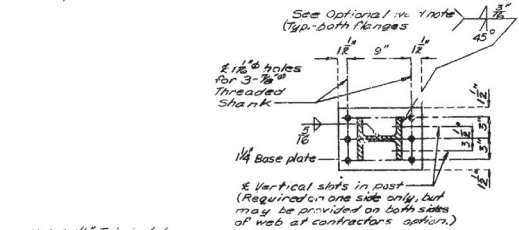
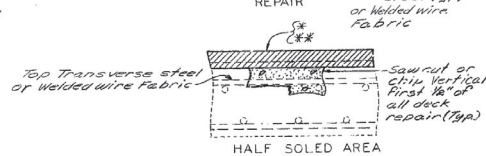
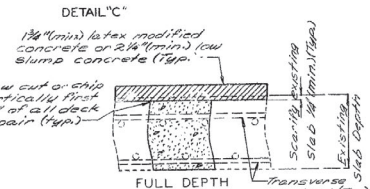
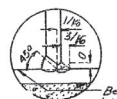
35200

STATE	PROJECT NO.	SHEET NO.
MO		31

Note: The contractor shall use one of the resin anchor systems listed in the Special Provisions, for the Thrie Beam post connections.  
 Cost of existing and installing the anchor system, complete in place, shall be included in the price bid per Lin. Ft. of Bridge Guard Rail (Thrie Beam).



Part Section at Rail Post  
 Note: Optional Weld-Post to base plates 5/8\"/>



DETAILED July 1986  
 CHECKED Sept. 1986

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

Sheet No. 2 of 2

JASPER COUNTY

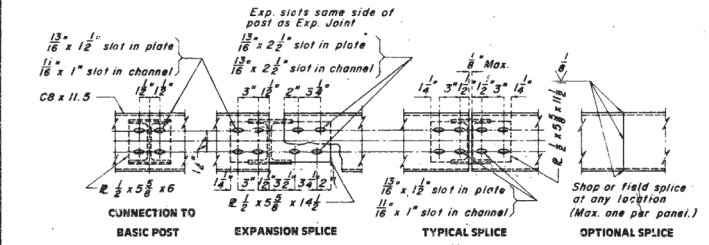
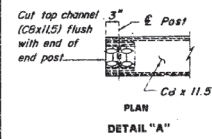
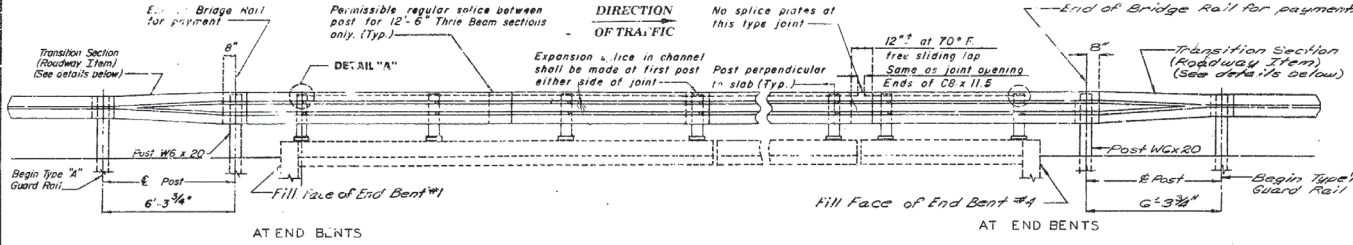
J-339RI

36723

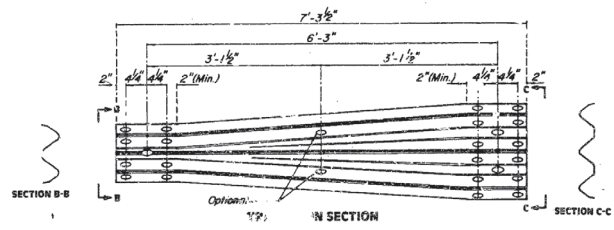


MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

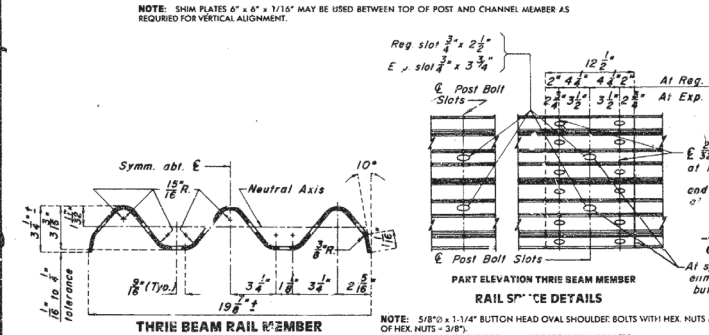
STATE	PROJ NO	SHEET NO
MO	B-11-MAM-MAM-3205 (105)	24
HC 35	HW 2.8 N	KOT.33W



PART SECTION SHOWING RAIL



ITEM	FINAL QUANTITIES	TOTAL
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	65
Full Depth Repair	Sq. Ft.	142
Concrete Wearing Sur. (3")	Sq. Yd.	709
Bridge Guard Rail (Three Beam)	Lin. Ft.	251
CONTINGENT ITEM		
SUB-STRUCTURE REPAIR (UNFORMED)	Sq. Ft.	71
SUPER-STRUCTURE REPAIR	DOLLAR	628.02



**THREE BEAM RAIL MEMBER**  
 NOTE: 5/8" x 1 1/4" BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS. (THICKNESS OF HEX. NUTS - 3/8")  
 SPECIAL DRILLING OF THREE BEAM MAY BE REQUIRED AT SPLICES.  
 (ALL DRILLING DETAILS ARE TO BE SHOWN ON SHOP DRAWINGS.)  
 Note: This drawing is not to scale. Follow dimensions.

DESIGNED July 19 86  
 DETAILED July 19 86  
 CHECKED Sept 19 86

REPAIRS TO BRIDGE OVER TURKEY CREEK  
 STATE ROAD FROM RTE. 171 TO JOPLIN  
 ABOUT 2.5 MI. SOUTH OF RTE. 171  
 PROJECT NO. B-11-MAM-MAM-3205 STA. 981+44.00  
 3209(105)  
 JOB NO. 7-U-43-283 R. 43  
 JASPER COUNTY  
 DATE 10/8/86  
 STD. J-339 R1  
 STD. 806.00