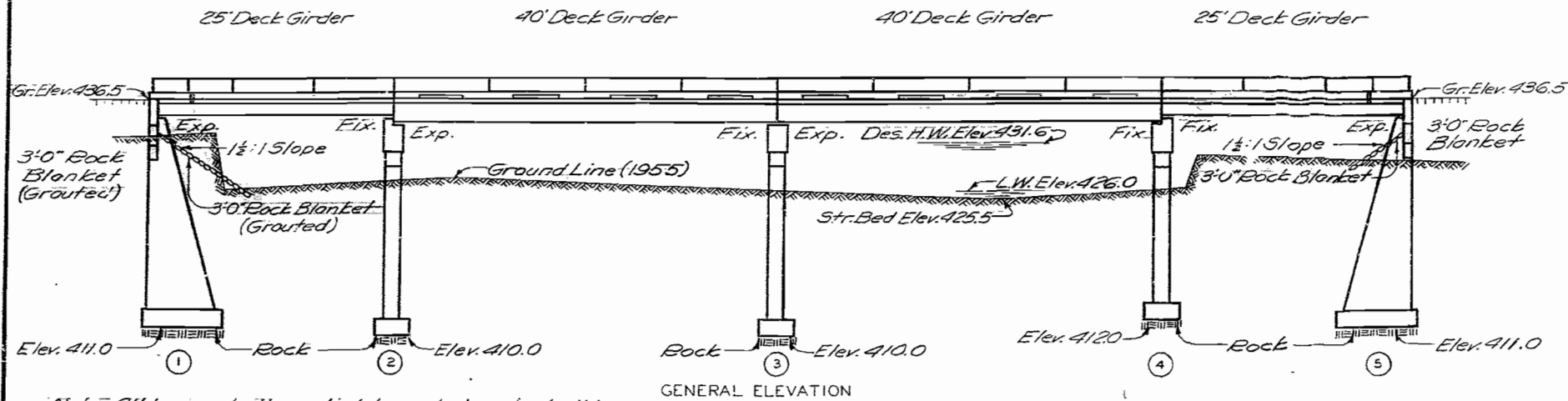
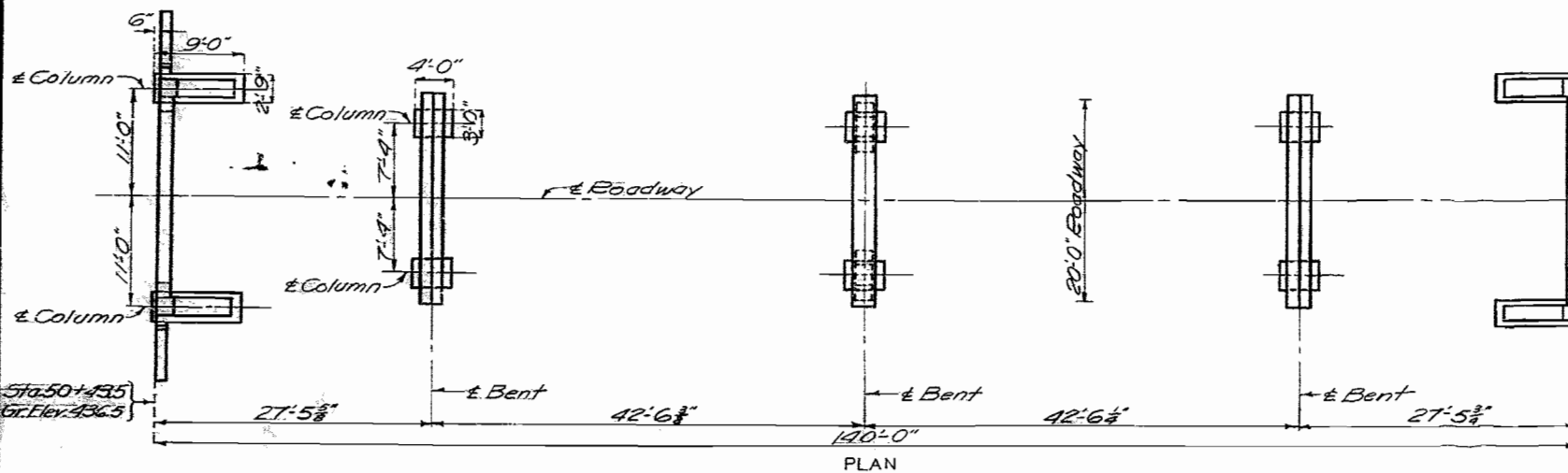


MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. N.Y.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	5-1619(1) (SU)	19		



Note: All loose, shelly or disintegrated rock shall be removed and the footings placed on hard, solid, undisturbed rock. If soft rock or shale is encountered the footings shall be carried at least 18" into and cast against vertical faces of same.



BILL OF REINFORCING STEEL - SUBSTRUCTURE									
No.	Size	Length	Mark	Location	Bending Sketches & Cutting Diagrams				
End Bents No. 1 & 5					Int. Bents No. 2 & 4				
28	#6	4'-0"	D1	Footings	68				
16	#6	7'-3"	F1	Haunch	42				
10	#6	23'-6"	H1	Beam	12				
6	#11	23'-6"	H2	"	54				
6	#5	23'-6"	H3	"	16				
16	#5	13'-3"	H4	Wing	16				
4	#5	24'-6"	H5	"	16				
4	#4	23'-6"	H6	Beam	16				
8	#6	12'-6"	T1	Wing	8				
12	#6	10'-9"	T2	"	8				
48	#4	10'-9"	U1	Beam	6				
18	#4	2'-3"	U2	"	2				
16	#6	21'-0"	V1	Column	36				
12	#6	22'-0"	V2	"	21				
24	#4	17'-6"	V3	"	6				
64	#3	15'-0"	V4	"	16				
10	#4	8'-0"	V5	Wing					
Int. Bents No. 2 & 4									
32	#6	4'-0"	D1	Footings					
16	#6	7'-6"	F2	Haunch					
16	#6	7'-6"	F3	"					
10	#6	22'-9"	G1	Beam					
4	#6	20'-9"	G2	"					
10	#7	20'-9"	G3	"					
4	#4	20'-9"	G4	"					

Note: See Sheets No. 4 & 5 for Bill of Reinforcing Steel for Superstructure.

ESTIMATED QUANTITIES			
Item	Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu. Yds. 50		50
Class 2 Excavation for Structures	Cu. Yds. 308		308
Class "B" Concrete (Handrail)	Cu. Yds. 11.7		11.7
Class "B" Concrete (Except Handrail)	Cu. Yds. 85.7	117.6	203.3
Fabricated Structural Steel (Bearings)	Lbs. 1650		1650
Reinforcing Steel	Lbs. 8960	33,050	42,010

Note: Excavation for bridge made above Elev. 427.0 will be paid for as Class 1 Excavation for Structures.
Excavation for bridge made below Elev. 427.0 will be paid for as Class 2 Excavation for Structures.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. 1953
Loading: H10-44
Reinforcing Steel Stress: 20,000 #/sq. in.
Class "B" Concrete Stress: 1,200 #/sq. in.
All concrete shall be Class "B."
Where joint filler is specified on the plans it shall conform with the requirements for Premoulded Mortar Serial for Filler as given in Section 59-22D of the Standard Specifications.

B.M. #7 Elev. 431.08 N.I.E.R. 40' Elm 80' Rt. Sta. 49+30.

BRIDGE OVER RINGS CREEK

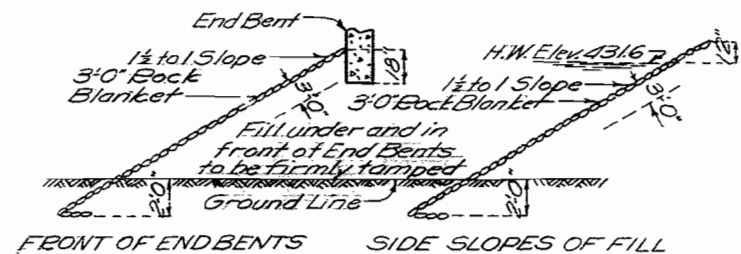
STATE ROAD FROM PATTERSON SOUTH TO ROUTE 58
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. S-1619(1) (SU) STA. 50+43.5
WAYNE COUNTY

SUBMITTED BY J.A. Williams, DATE 5-2-1956
APPROVED BY Roy M. Whitton, DATE 5-2-1956
CHIEF ENGINEER

STD.C-6509
STD.C-110R3
N-205

Sheet No. 1 of 5.

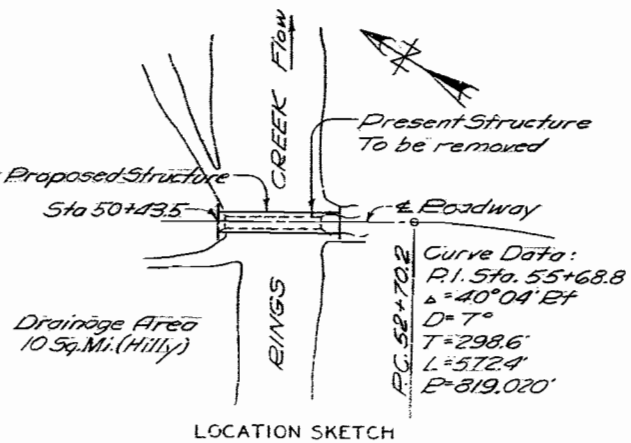
SEE FINAL PLANS FOR LINES



Note: 3'-0" Rock Blanket shall be placed on fills at ends of bridge as shown in sketches. See Road Plans for Quantities. Rock Blanket at Bent No. 1 to be grouted.

ROCK BLANKET SKETCHES

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



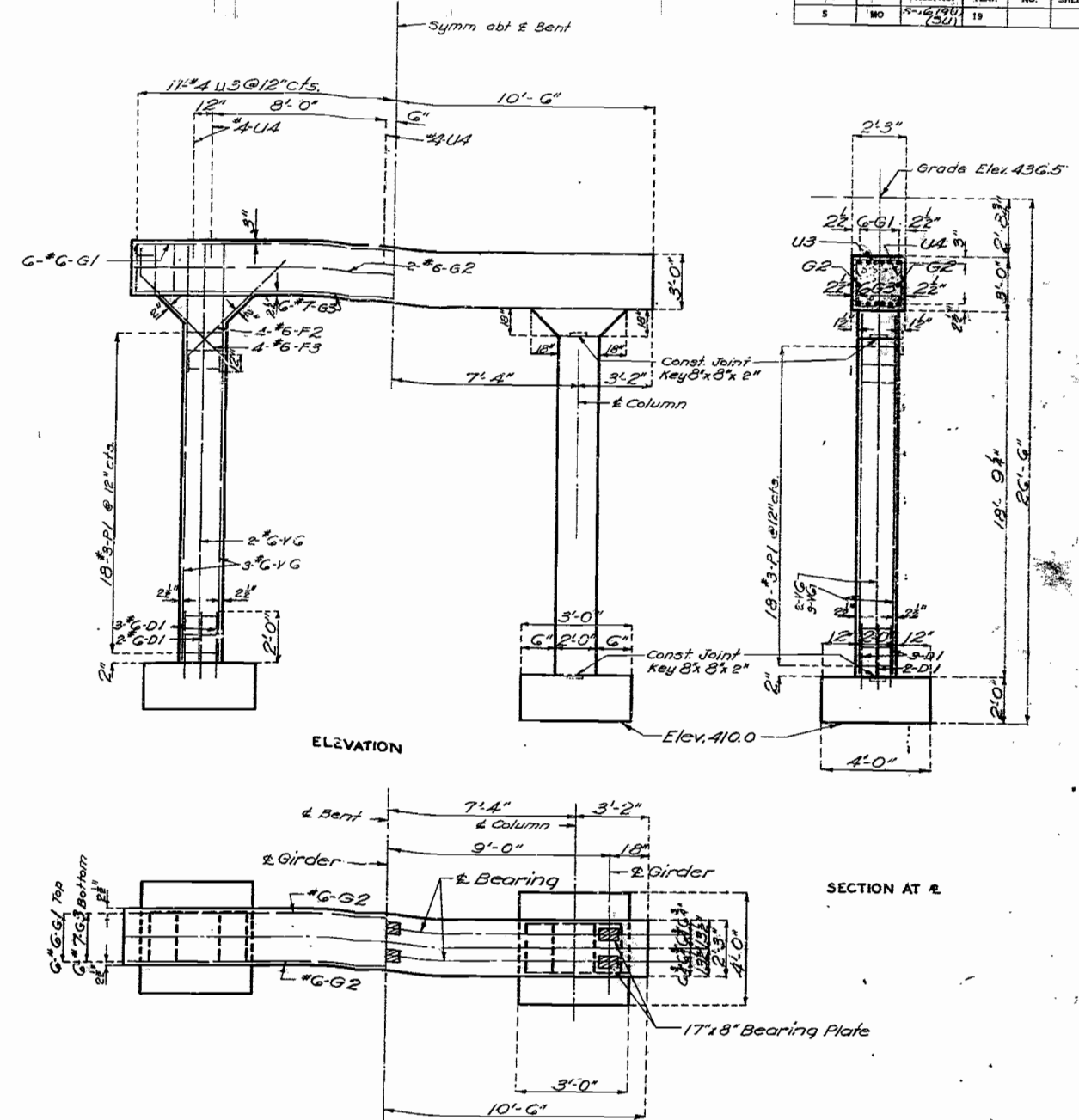
LOCATION SKETCH

Drawn Apr. 1956 by W.E.S.
Checked Apr. 1956 by C.S.P.

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MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	5-6190 (SU)	19		



PLAN
DETAILS OF INTERMEDIATE BENT NO. 3

BRIDGE OVER RINGS CREEK

STATE ROAD FROM PATTERSON SOUTH TO ROUTE SB
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. 3-1619 (1) (SU) STA. 50+43.5

WAYNE COUNTY

Assembled Nov. 1956 by W.E.S. & J.H.K.
Checked April 1956 by C.S.A.

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

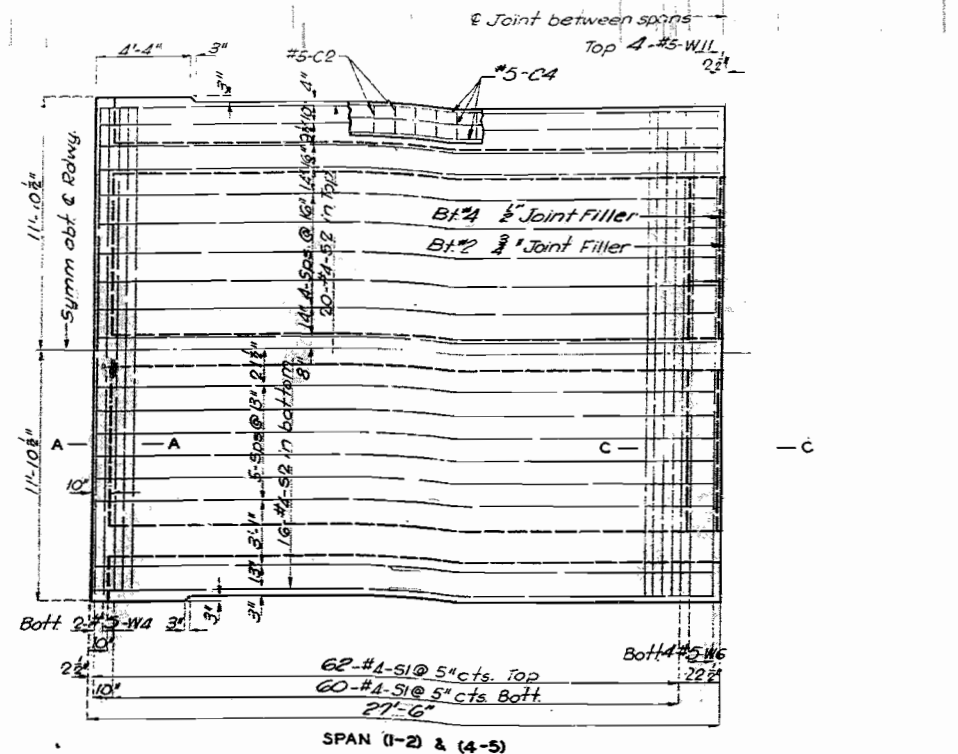
Sheet No 3 of 5.

N-205

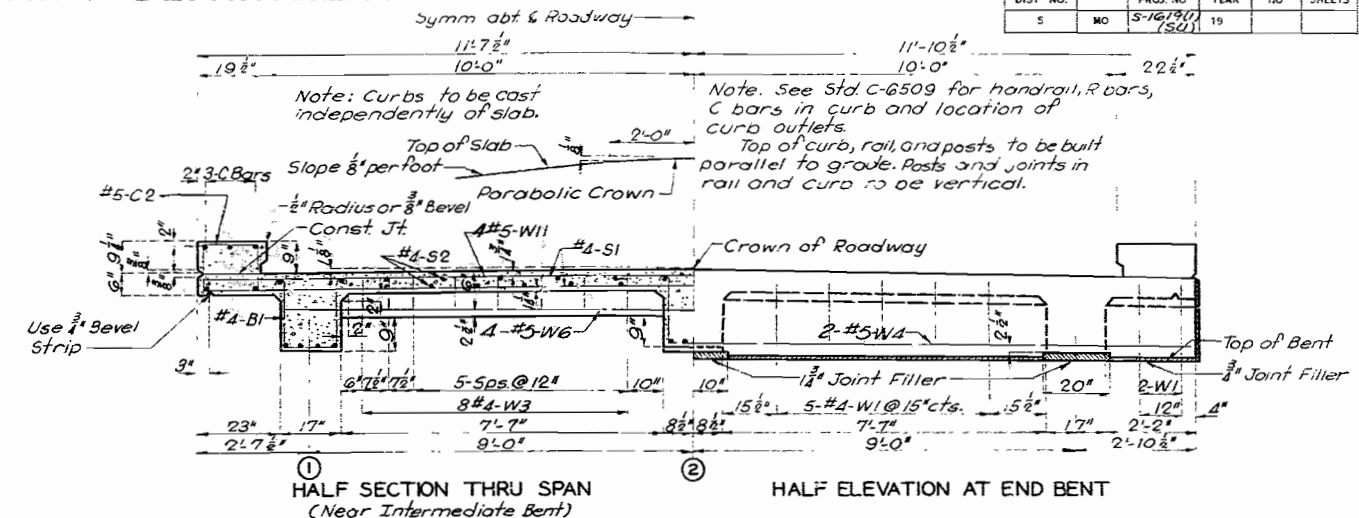
SEE FINAL PLANS BROWN LINES 2 or 3 Col. Int. Squares or Skewed } All Loadings

292

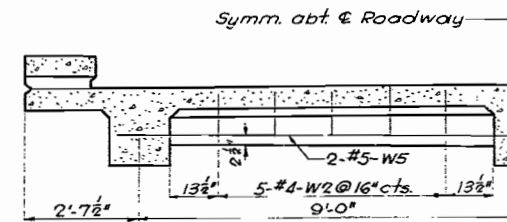
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	5-1619(1) (54)	19		



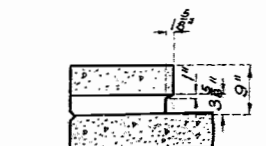
PLAN OF SLAB SHOWING REINFORCEMENT



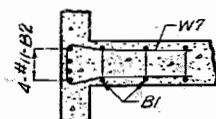
HALF ELEVATION AT END BENT



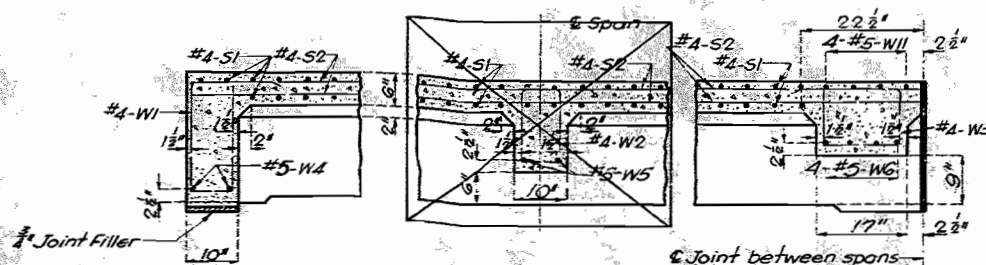
HALF SECTION NEAR INT. WEB



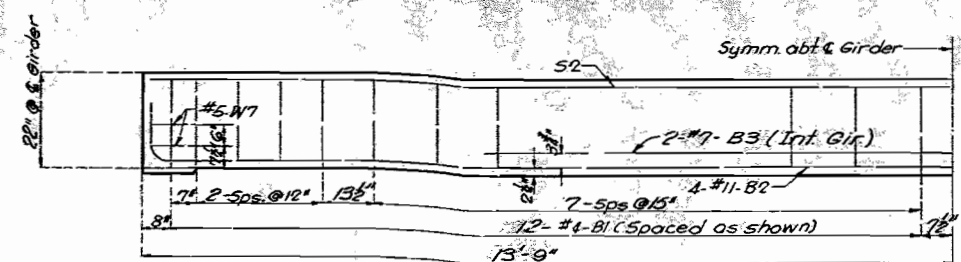
TYPICAL CURB DETAILS



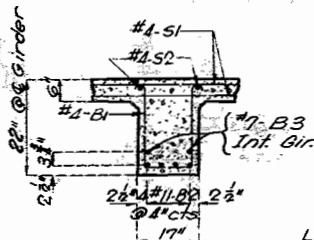
HORIZONTAL SECTION
SHOWING W7 BARS



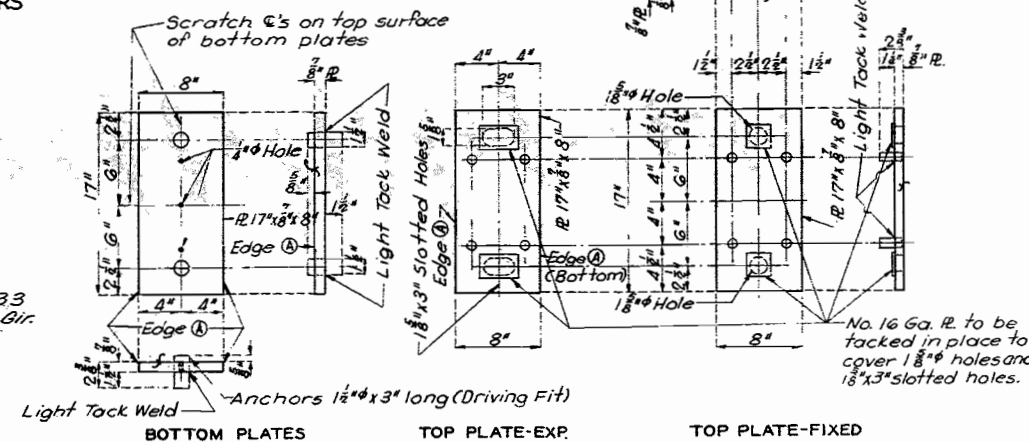
TYPICAL PART LONGITUDINAL SECTION



GIRDER REINFORCEMENT



SECTION THRU GIRDER



BOTTOM PLATES

TOP PLATE-EXP.

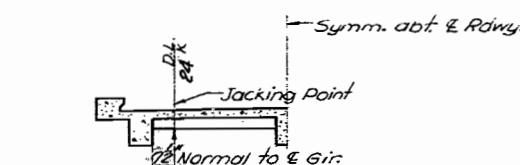
TOP PLATE-FIXED

Notes for Bearings:

Holes in $\frac{3}{8}$ " plates for $\frac{3}{4}$ " ϕ x $2\frac{1}{2}$ " and $1\frac{1}{2}$ " ϕ x 3 " 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 marked "S" shall be finished. All finished surfaces shall be coated with white lead and tallow 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.

Material: A.S.T.M. A7



SECTION THRU SPAN SHOWING JACKING POINTS
(Near Intermediate Bent)

Note: This drawing is not to scale Follow Dimensions.

BILL OF MATERIALS STEEL SPANS (1-2) & (4-5)					
No	Size	Length	Mark	Location	Bending Sketches
144	#4	5'-0"	B1	Girder	 B1 B2 P2 Symm abt
24	#11	29'-6"	B2	"	
4	#7	13'-0"	B3	"	
				"	
20	#5	3'-6"	C1	Curb	 C1-C2 R1-R2
22	#5	3'-3"	C2	"	
4	#5	4'-0"	C3	"	
12	#5	27'-3"	C4	"	
20	#5	6'-0"	R1	End Post	 W1 W2 W7
100	#4	4'-9"	R2	Rail	
8	#4	3'-9"	R3	End Post	
8	#4	8'-6"	R4	Rail	
8	#4	6'-3"	R5	"	
32	#4	8'-9"	R6	"	
244	#4	23'-0"	S1	Slab	 W1 W2 W7
72	#4	27'-3"	S2	"	
28	#4	5'-6"	W1	End Web	
	#4		W2	End Web	
32	#4	4'-6"	W3	End Web	
4	#5	23'-6"	W4	End Web	
	#5	10'-0"	W5	End Web	
8	#5	19'-0"	W6	End Web	
24	#5	5'-3"	W7	Girder	 W3 W7
8	#5	23'-0"	W11	End Web	

Note: Bars in the above unit to be billed and tagged separately.

BRIDGE OVER RINGS CREEK

STATE ROAD FROM PATTERSON SOUTH TO ROUTE SB

ABOUT 8.5 MILES N.E. OF PIEDMONT

PROJECT NO. S-1619 (I)

(SU) STA. 50+43.5

WAYNE

COUNTY

N-205

Assembled Apr. 1956 by W. F. 3 & J. L. L.

Checked Apr. 1956 by C.S.A.

Sheet No.4 of 5.

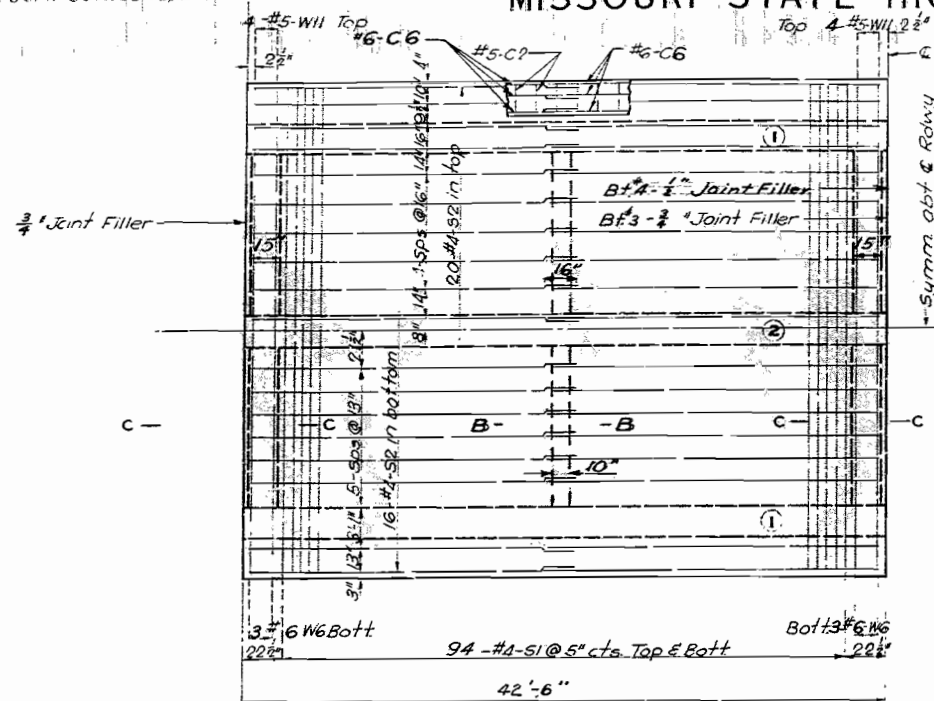
NO CONSTRUCTION

Skew 25' thru 40' Deck Girder H-10' 20' Rdwy. 2-21-56

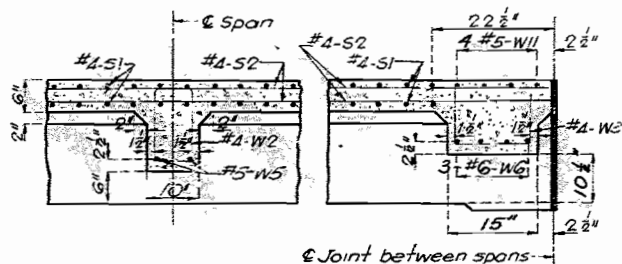
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	5-1270 (SU)	19		

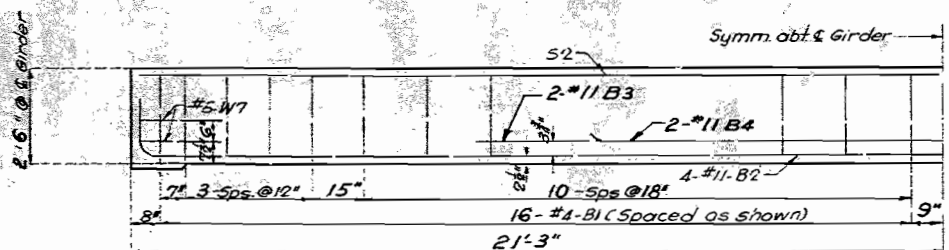
Joint between spans



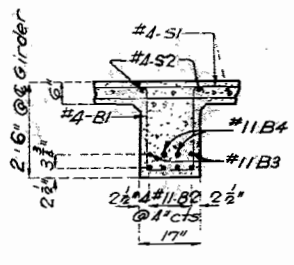
PLAN OF SLAB SHOWING REINFORCEMENT



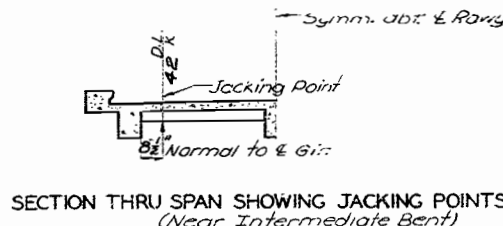
SECTION B-B
TYPICAL PART LONGITUDINAL SECTION



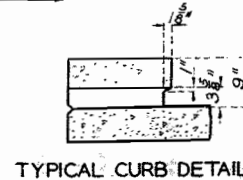
GIRDER REINFORCEMENT



SECTION THRU GIRDER

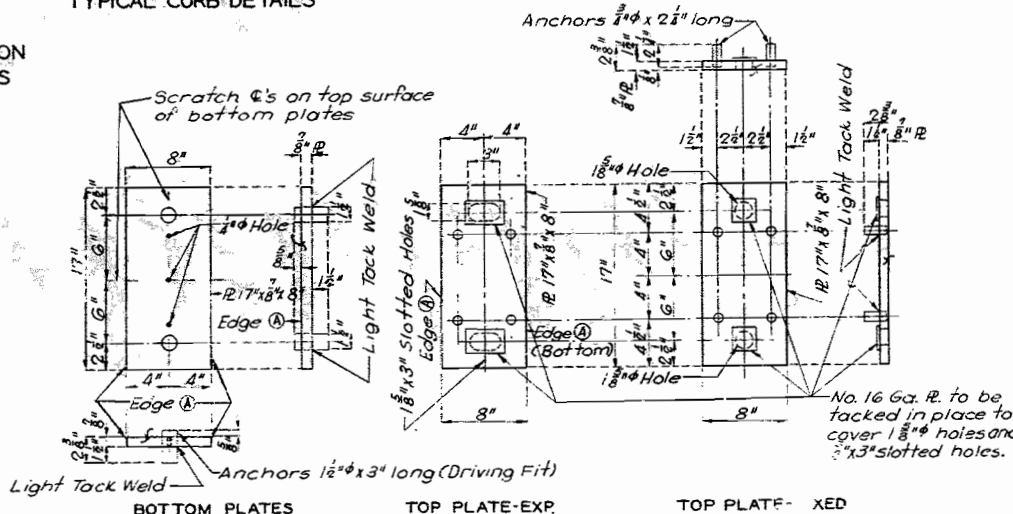


SECTION THRU SPAN SHOWING JACKING POINTS (Near Intermediate Bent)



TYPICAL CURB DETAILS

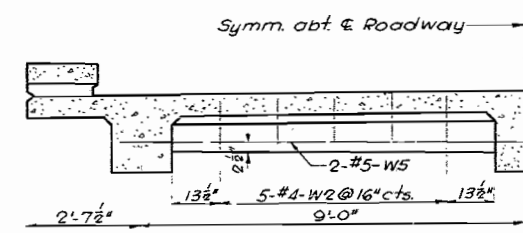
HORIZONTAL SECTION SHOWING W7 BARS



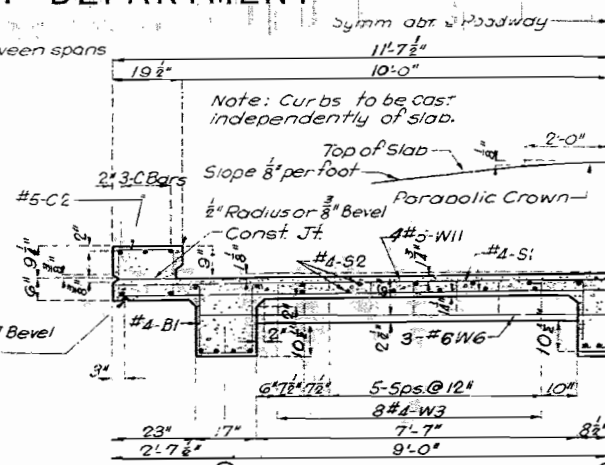
NOTES FOR BEARINGS:

Holes in 8" plates for 1/2" x 2 1/2" and 1/2" x 3" anchors shall be made for driving fit. After anchors are driven in place they shall be lightly tack welded to 8" plates. Surfaces marked 'S' shall be finished. All finished surfaces shall be coated with white lead and tallow 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 @ to be rounded (1/4" to 1/2" radius.) Material: A.S.T.M. A7

DETAILS OF BEARING PLATES



HALF SECTION NEAR INT. WEB



HALF SECTION THRU SPAN (Near Intermediate Bent)

Note: See Std C-2509 for handling, repairs, C bars in curb and location of curb outlets. Top of curb, rail, and posts to be built parallel to grade. Posts at joints in rail and curb to be vertical.

No.	Size	Length	Mark	Location	Bending Sketches
192	#1	6'-3"	B1	Girder	1" Rad
24	#11	44'-6"	B2	"	1" Rad
12	#11	33'-0"	B3	"	1" Rad
12	#11	24'-6"	B4	"	1" Rad
96	#5	3'-3"	C2	Curb	1" Rad
24	#6	22'-3"	C6	"	1" Rad
176	#4	4'-9"	R2	Rail	1" Rad
64	#4	10'-3"	R7	"	1" Rad
376	#4	23'-0"	S1	Slab	1" Rad
144	#4	21'-9"	S2	"	1" Rad
20	#4	6'-9"	W2	Int. Web	1" Rad
64	#4	5'-6"	W3	End Web	1" Rad
4	#5	19'-0"	W5	Int. Web	1" Rad
12	#6	19'-0"	W6	End Web	1" Rad
24	#5	5'-3"	W7	Girder	1" Rad
16	#5	23'-0"	W11	End Web	1" Rad

Note: Bars in the above unit to be billed and tagged separately

BRIDGE OVER RINGS CREEK

STATE ROAD FROM PATTERSON SOUTH TO ROUTE 56
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. S-1619(1) (SU) STA. 50 + 43.5
WAYNE COUNTY

N-205

Assembled Apr. 1956 by W.E.S. & W.K.
Checked April 1956 by C.S.A.

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

Sheet No. 5 of 5.

NO CONSTRUCTION

DESIGN: 25' thru 40' Deck Girder 4-10 20' Rdwy 2-21-56

FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS

1/2 Size Lumber: Machine Cut. Binding Sketches & Cutting Diagrams

End Bents No. 1 & 5

28 #6 4'-0" DI Footing
16 #6 7'-3" FT Haunch

10 #6 23'-6" H1 Beam
6 #1 23'-6" H2 "
6 #5 23'-6" H3 "
16 #5 13'-3" H4 Wing
4 #5 24'-6" H5 "
4 #4 23'-6" H6 Beam

8 #6 12'-6" T1 Wing
12 #6 10'-9" T2 "

48 #4 10'-9" U1 Beam
18 #4 2'-3" U2 "

16 #6 21'-0" V1 Column
12 #6 22'-0" V2 "
24 #4 17'-6" V3 "
64 #3 15'-0" V4 "

10 #4 8'-0" V5 Wing
6 #6 7'-5" Used as Mat.
5 #6 2'-6" U1 Bolt Br #5

Int. Bents No. 2 & 4

32 #6 4'-0" DI Footing
16 #6 7'-6" F2 Haunch
16 #6 7'-6" F3 "

10 #6 22'-9" G1 Beam
4 #6 20'-9" G2 "
10 #7 20'-9" G3 "
4 #4 20'-9" G4 "

Int. Bents No. 2 & 4

63 #3 7'-9" P1 Column
21 #4 10'-3" U3 Beam
6 #4 3'-0" U4 "

16 #6 21'-6" V6 Column

End Bents No. 1 & 5

4 #6 4'-6" Used as Col. Br #1
3 #6 4'-6" Used as Col. Br #1
6 #4 3'-6" Used as Col. Br #1
1 #3 20'-8" V2 Bolt Br #1

Int. Bents No. 2 & 4

8 #6 6'-2" Used as Col. Br #1
3 #3 7'-9" Used as Col. Br #1
3 #6 3'-4" Used as Mat.
3 #6 2'-8" U1 Bolt Br #1

FINAL QUANTITIES			
Item	Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu.Yds.	27.5	27.5
Class 2 Excavation for Structures	Cu.Yds.	2.0	27.0
Class "B" Concrete (Handrail)	Cu.Yds.		11.7
Class "B" Concrete (Except Handrail)	Cu.Yds.	82.3	117.6
Fabricated Structural Steel (Bearings)	Lbs.		1650
Reinforcing Steel	Lbs.	922.0	33,050
Drilling Foundation Test Holes (See Item 14-15)	Cu.Yd.	8.9	42,270
	sq. ft.	44	8

B.M.#7 Elev. 431.08 N.I.E.R. 40° E/m 80° E.
Sta. 49+30.

STATE ROAD FROM PATTERSON SOUTH TO ROUTE 5B
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. ~~5-165~~(1) (SU) STA. 50+43.5

Mr. J. Williams 5-2-056
Rev. M. Whittier 5-2-056

STD-C-6509
STD-C-110R3
N-205

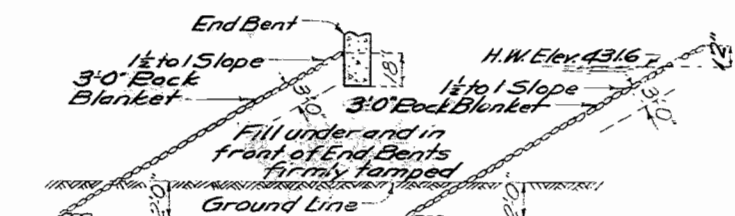


PLAN

The plan view shows the bridge structure with the following dimensions and labels:

- Columns:** Four columns are shown, labeled "Column". The first column on the left has a height of 11'-0" and a width of 9'-0". The second column has a height of 7'-4" and a width of 7'-4". The third column has a height of 7'-4" and a width of 7'-4". The fourth column has a height of 7'-4" and a width of 7'-4".
- Bents:** Two bents are shown, labeled "Bent". The first bent is located between the second and third columns, and the second bent is located between the third and fourth columns. Both bents have a width of 20'-0" and a height of 20'-0".
- Roadway:** The roadway is shown as a horizontal line passing through the center of the bridge structure, labeled "Roadway".
- Dimensions:**
 - The total length of the bridge structure is 140'-0".
 - The distance between the first and second columns is 27'-5 3/4".
 - The distance between the second and third columns is 42'-6 3/4".
 - The distance between the third and fourth columns is 42'-6 3/4".
 - The distance between the fourth column and the right edge of the structure is 27'-5 3/4".
- Other Labels:**
 - "Sta 50+43.5 Gr. Elev. 436.5" is labeled at the bottom left.
 - "20'-0" Bord'way" is labeled on the right side.

GENERAL NOTES:
Design Specifications: A.A. S.H.O. 1953
Loading: H10-44
Reinforcing Steel Stress: 20,000 #/sq
Class "B" Concrete Stress: 1,200 #/sq
All concrete. Class "B".
Where joint filler was specified on the plans it
conformed with the requirements for Premoulded
Material for Filler as given in Section 59-22D
of the Standard Specifications.



FRONT OF ENDBENTS SIDE SLOPES OF FILL
Note: 3'-0" Rock Blanket placed on fills at ends
of bridge as shown in sketches.
Rock Blanket at Bent No. 1 grouted

ROCK BLANKET SKETCHES

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

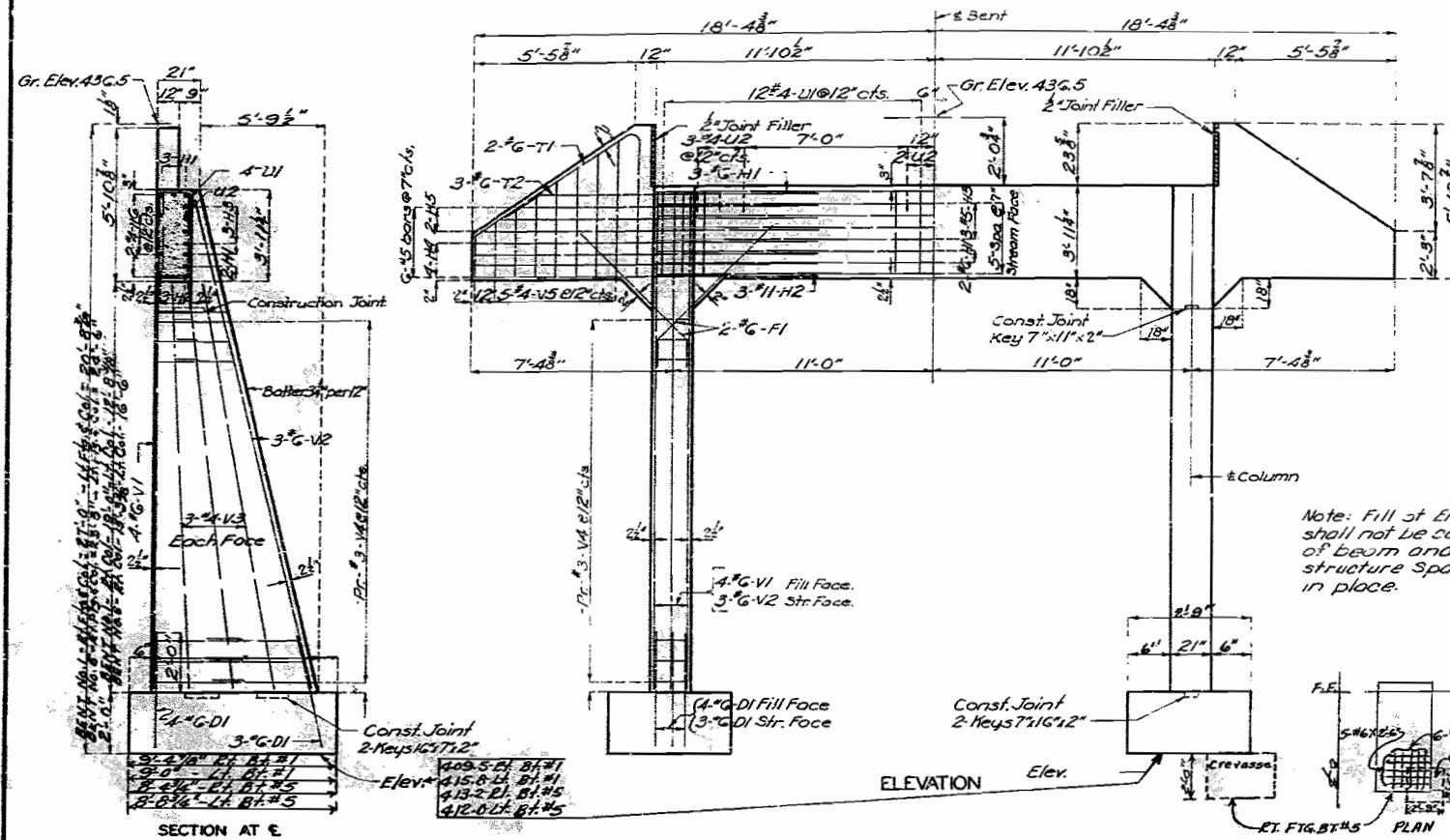
Sheet No. 1A of 3

~~FINAL CLASS~~

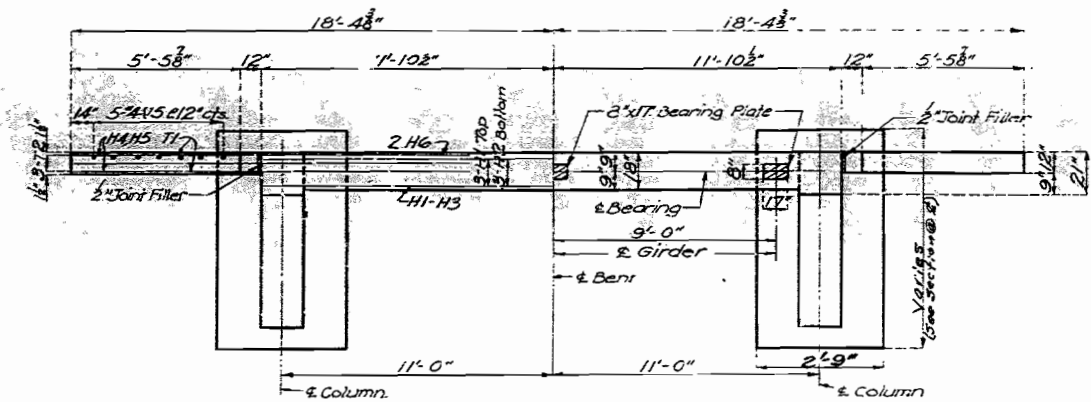
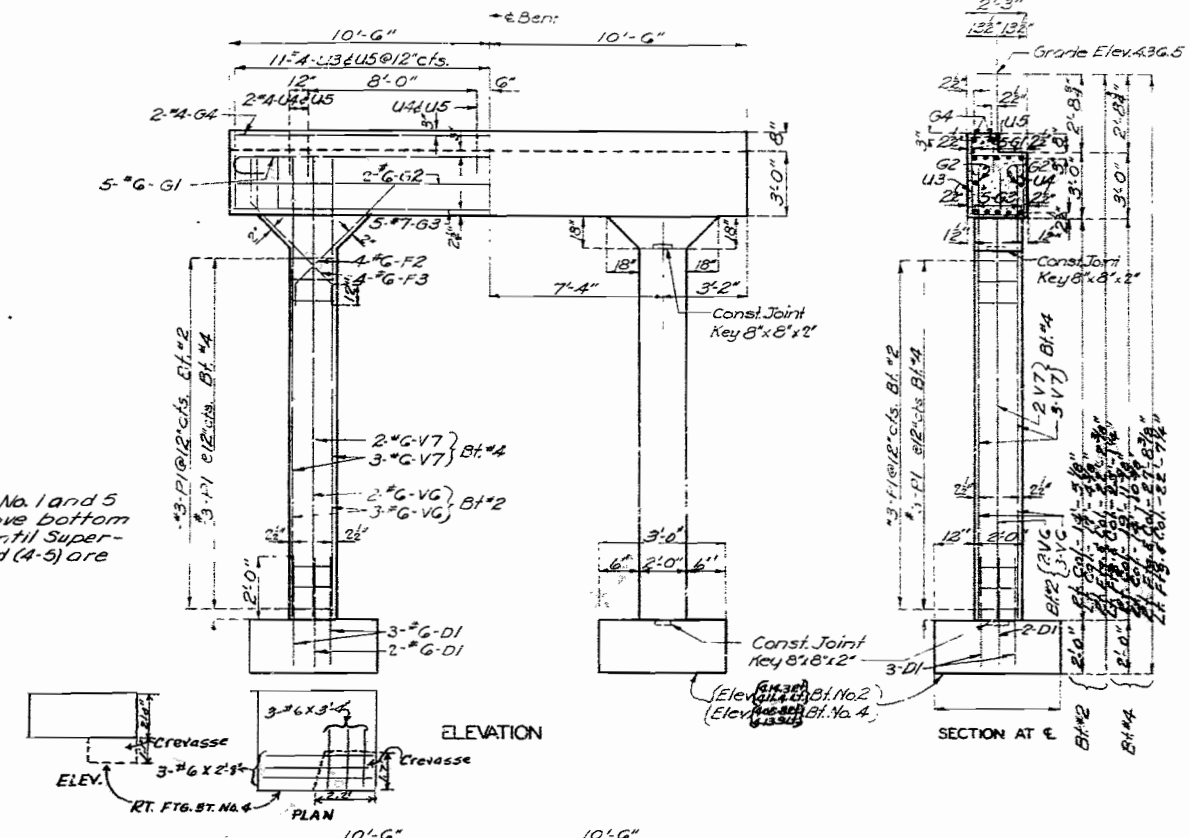
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	5-1619(1) (SU)	19		

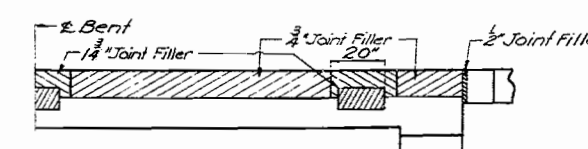
FINAL PLANS



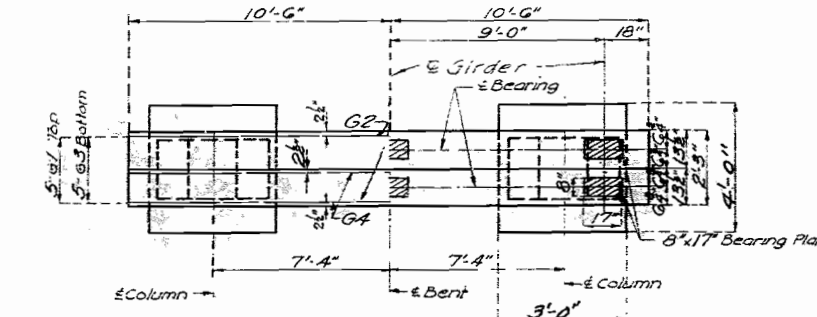
Note: Fill of End Bents No. 1 and 5 shall not be carried above bottom of beam and wings until Superstructure Spans (1-2) and (4-5) are in place.



PLAN
DETAILS OF END BENTS NO. 1 & 5



DETAIL OF JOINT FILLER AT END BENTS



PLAN
DETAILS OF INTERMEDIATE BENTS NO. 2 & 4

BRIDGE OVER RINGS CREEK
STATE ROAD FROM PATTERSON SOUTH TO ROUTE SB
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. S-1619(1) (SU) STA. 50+43.5
WAYNE COUNTY

Assembled Apr. 1956 by JEL & JMK
Checked April 1956 by C.S.A.

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

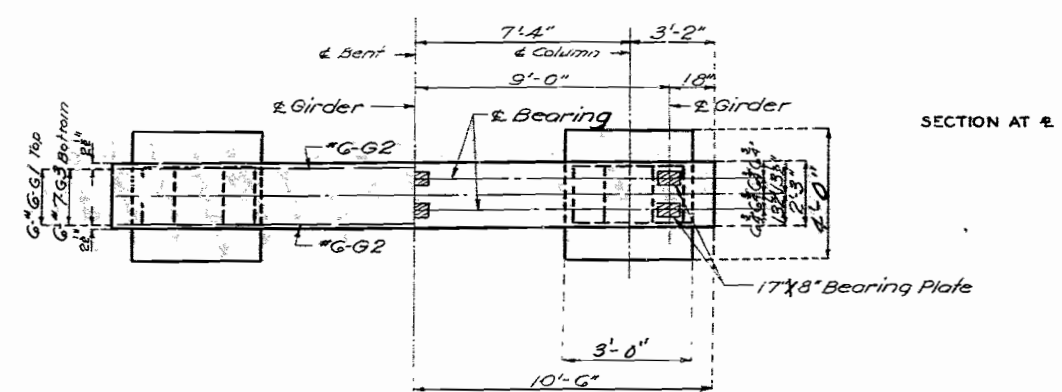
Sheet No. 2A of 3

FINAL PLANS

N-205

192

FINAL PLANS



BRIDGE OVER RINGS CREEK
STATE ROAD FROM PATTERSON SOUTH TO ROUTE SB
ABOUT 8.5 MILES N.E. OF PIEDMONT
PROJECT NO. 9-1619 (1) (SU) STA. 50+ 43.5
WAYNE COUNTY

N-205

Sheet No 3A of 3.

2 or 3 Col. Int } A1 Loadings.
Square or Skewed }