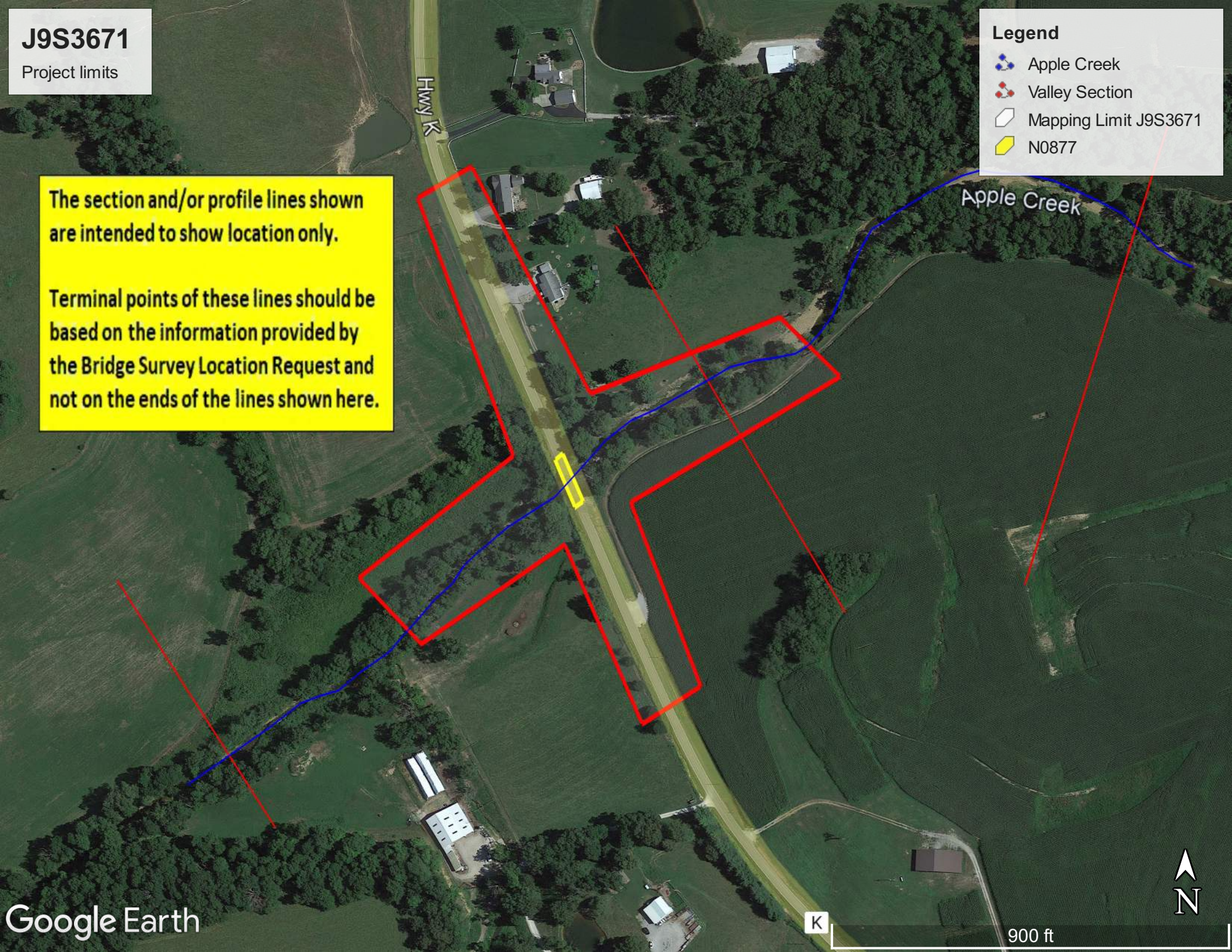

J9S3671
Project limits
The section and/or profile lines shown are intended to show location only.
Terminal points of these lines should be based on the information provided by the Bridge Survey Location Request and not on the ends of the lines shown here.
Legend
Apple Creek
Valley Section
Mapping Limit J9S3671
N0877
Hwy K
Apple Creek
K
N
900 ft
Google Earth

12/19

Job No. J9S3671

Replaces Bridge No. N0877

Missouri Department of Transportation

Bridge Survey Location Request

Page 1 to be completed by District staff.

Bridge over: Apple Creek Route: K

County: Perry Section: 24 Township: 34 North Range: 10 East

Latitude: 37°38’20.5”N Longitude: 89°53’29.6”W

District Contact: Garrett Galyean (573-472-5221) Date: 11/16/2023

HIGH WATER ELEVATIONS AT PROPOSED BRIDGE SITE

Recorded high water elevations or elevation of high water marks

Extreme High Water (EHW) (Give date(s) of occurrence)		
Elevations and date(s) of same	Location	Source of information
10.9” Below (1990)	Below North End of Bridge Floor	HW Book 8182

Existing Bridge Overtopped ☐ Yes ☐No ☒Unknown	Existing Roadway Overtopped ☐ Yes ☐No ☒Unknown Approx. Overtopping Location(s):

LOCATION OF NEW BRIDGE

Replace in Existing Location	☒	Provide details of any proposed changes to profile grade below or as an attachment.
Relocation (near existing Structure)	☐	Provide details of proposed location and grade of the roadway across the floodplain, any proposed/potential channel changes or modifications, etc. below or as an attachment.
New Route	☐	
Other:	☐	

Additional Information:

Note: Proposed elevations, distances, etc. are based on the best available data at the time the form was completed. Actual field conditions or recently acquired data may require deviation from the proposed values. Please contact the Bridge Division with concerns regarding the proposed values or if large deviations from these values are required.

Note: The information below supplements the survey requirements noted in the EPG, please consult EPG 238 for additional surveying requirements.

Bridge Contact: Travis Stump, 573-522-8716, travis.stump@modot.mo.gov

Survey Type: **1D Survey**

Stream Crossing Survey Location Details (1D)

Item		Requirement	Standard Guidance		Specific Guidance	
Profiles* (EPG 238.3.36.1.3)	C/L Profile	Terminal Point	Limit of Longest offset Profile		Use Standard Guidance	
	Upstream Offset Profile	Terminal Point	Same as Valley Sections		Elevation =	575
		Offset Distance	On Natural Ground		Estimated Distance =	40
	Downstream Offset Profile	Terminal Point	Same as Valley Sections		Elevation =	575
		Offset Distance	On Natural Ground		Estimated Distance =	40
	Special	N/A				
Streambed Profiles** (EPG 238.3.36.3.6)		Length	Natural Stream	Section limits (Min. of 1000' each side of crossing.)	Use Natural Stream Guidance	
			Drainage Ditch	500' Each Side of Crossing		
		Elevation Intervals	Within 1000' of Crossing	Nat. Stream 25'	Use Natural Stream Guidance (see EPG 238.3.36.3.6 if a significant slope change is encountered)	
				Drain. Ditch 50'		
			Beyond 1000' from Crossing	At Vertical and Horizontal Break Points (200' max.)		
Valley Sections (EPG 238.3.36.3.8), (EPG 750.3.1.1)		Terminal Point	Natural Stream	5' above EHW	Elevation =	575
			Drainage Ditch	25' Beyond Bankside Toe of Levee	Distance =	N/A

Item	Requirement	Standard Guidance		Specific Guidance
Water Surface Profile (EPG 238.3.36.3.7)	**Water Surface Profile Data Needed?** ☐ Yes ☒ No			
	Locations with flowing water	Drainage Ditch	100' and 200' each side of Crossing	Use Water Surface Profile Standard Guidance

Item	Requirement	Standard Guidance	Specific Guidance
Typical Channel Sections (EPG 238.3.36.3.9)	**Typical Channel Section Data Needed?** ☐ Yes ☒ No		
	Within 300' each side of Centerline	Provide when Needed	

		(i.e., Culvert on Perennial and Intermittent Stream)	

Item	Requirement	Standard Guidance	Specific Guidance
Existing Bridge Data	**Existing Bridge Data Needed?** ☐ Yes ☒ No		
	Description	Provide General Description	N/A

Item	Requirement	Standard Guidance	Specific Guidance	
Other Bridges (EPG 238.3.36.3.10)	Other Bridge Data Needed? ☐ Yes ☒ No			
	Description	Provide General Description	N/A	
	Profile Location	C/L Structure	N/A	
	Profile Terminal Point	5’ above EHW	Elevation =	N/A

* additional profiles may be needed for relocated routes

** at confluent streams provide proposed data for both streams as appropriate.

Additional Information:

Additional Documents Provided:

Image & kmz file showing Valley Section Locations.

Roadway Design Notes for Bridge Survey:

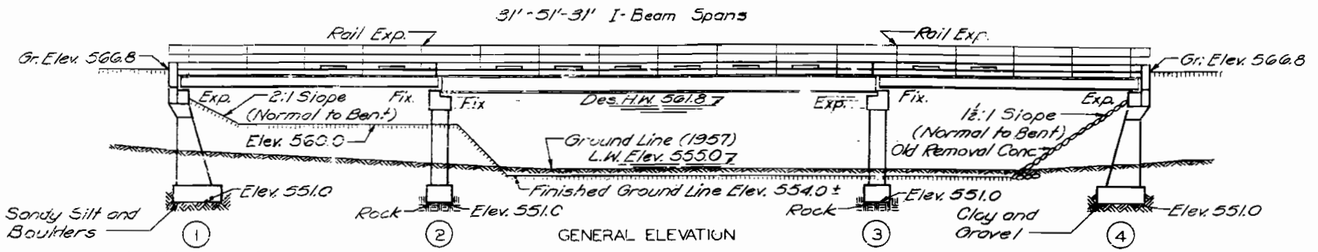
The Bridge Survey should include all the pertinent items listed in EPG 747 and the Bridge Survey Checklist.

Bridge Design Notes:

FEMA Zone A, no overtopping data in TMS.

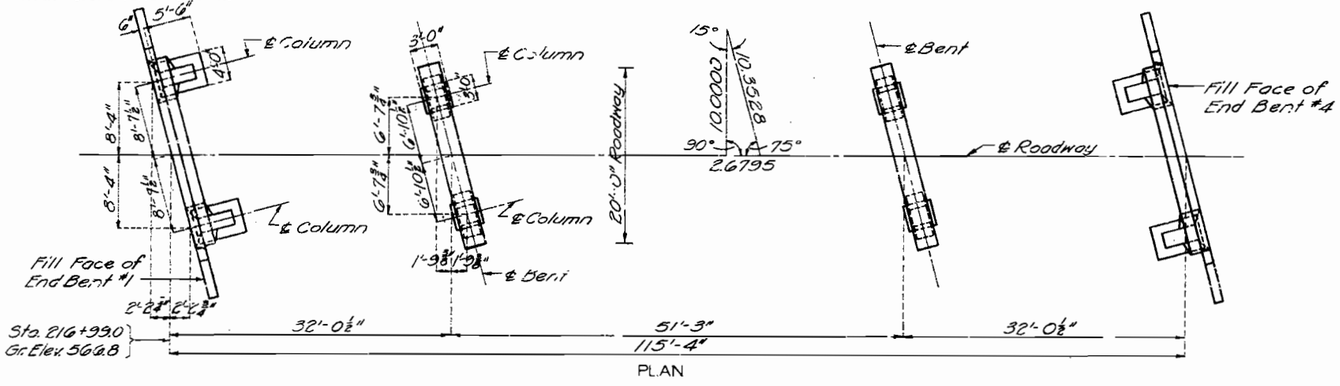
MISSOURI STATE HIGHWAY DEPARTMENT

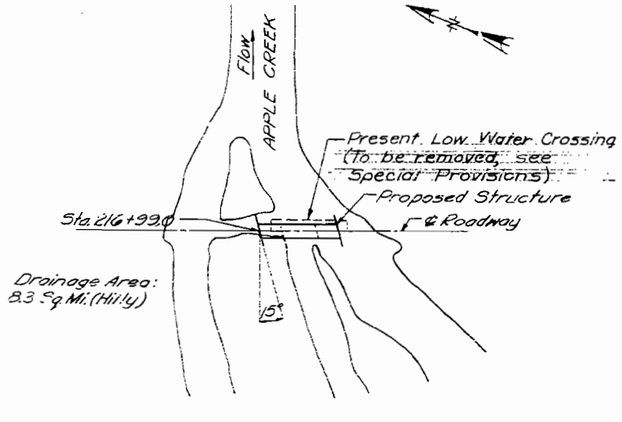
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	12	



Note: The footings for Bents No. 1 and 4 shall be placed on clay and gravel or sandy silt and boulders satisfactory to the Engineer.
Bearing of 4 ton/sq.ft. used in design for Bents No. 1 and 4.
All loose, shelly or disintegrated rock shall be removed and the footings for Bents No. 2 and 3 placed on or into hard, solid, undisturbed rock.

Bearing of 6 ton/sq.ft. used in design for Bents No. 2 and 3.
In no case shall footings of Bents No. 2 and 3 be placed higher than elevations shown.





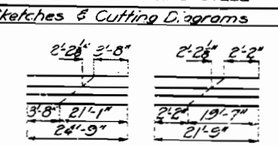
LOCATION SKETCH

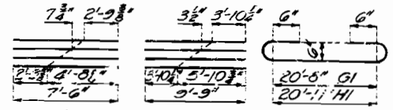
GENERAL NOTES:
Design Specifications A.A.S.H.O. 1957
Loading: H15-44 (One Lane)
Structural Steel Stress: 18,000 #/sq.in.
Reinforcing Steel Stress: 20,000 #/sq.in.
Class "B" Concrete Stress: 1,200 #/sq.in.
All concrete shall be Class "B".
Rivets ⅞", holes 1⅛" except as noted
Field connections shall be riveted except as noted in handrail details or, if the Contractor desires to eliminate all field riveting on this project, he may use machine bolts for field connections. Heads and nuts of machine bolts shall be American Standard Regular.
Paint: Shop, none: Field, contact surfaces of bolted field connections, one coat of red lead and surfaces inaccessible after erection, three coats of red lead. No other paint to be applied by Contractor. Red lead required shall be furnished by Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for Fabricated Structural Steel.
Where joint filler is specified on the plans it shall conform with the requirements for Premoulded Material for Filler as given in Section 59-22D of the Standard Specifications.

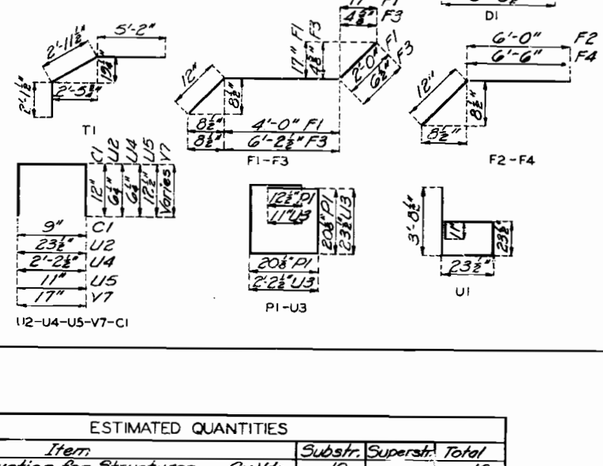
COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location
	End Bents No. 1&4			
6	#6	23'-6"	H1	Beam
10	#9	21'-9"	H2	"
4	#6	21'-9"	H3	"
4	#6	23'-0"	H4	Bk. Wall
16	#5	7'-9"	H5	Wing
4	#5	7'-3"	H6	"
8	#4	7'-6"	V1	"
50	#4	3'-9"	V2	Bk. Wall
4	#4	5'-0"	V3	Wing
12	#6	11'-6"	V4	Column
16	#6	11'-0"	V5	"
8	#4	9'-9"	V6	"
32	#3	9'-8"	V7	"
12	#6	7'-0"	F1	Col. Hdp.
?	#6	7'-0"	F2	" "
8	#6	10'-3"	T1	Wing
28	#6	4'-3"	D1	Footing
44	#4	10'-6"	U1	Beam
14	#4	3'-0"	U2	"
4	#5	6'-6"	H7	Wing
	Int. Bents No. 2&3			
32	#6	4'-0"	D2	Footing
16	#6	7'-9"	F3	Col. Hdp.
16	#6	7'-6"	F4	" "
8	#8	23'-3"	G1	Beam
12	#8	21'-3"	G2	"
4	#10	21'-3"	G3	"
4	#4	21'-3"	G4	"
28	#3	7'-9"	P1	Column
32	#10	10'-3"	P2	"
44	#4	9'-9"	U3	Beam
14	#4	3'-3"	U4	"
58	#4	3'-0"	U5	"

Bending Sketches & Cutting Diagrams







ESTIMATED QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu. Yds.	10		10
Class 2 Excavation for Structures	Cu. Yds.	66		66
Class "B" Concrete	Cu. Yds.	46.8	55.1	101.9
Fabricated Structural Steel	Lbs.		48,280	48,280
Gray Iron Alloy Castings	Lbs.		430	430
Reinforcing Steel	Lbs.	6,050	13,720	19,770

Note: Excavation for Bridge made above Elev. 556.0 will be paid for as Class 1 Excavation for Structures.
Excavation for Bridge made below Elev. 556.0 will be paid for as Class 2 Excavation for Structures.
* Final pay weight for Fabricated Structural Steel will be based on using field rivets except for bolted connections specified for handrail.

No.	Size	Length	Mark	Location
	Superstructure			
176	#5	2'-9"	C1	Curb
6	#6	31'-9"	C2	"
6	#6	31'-6"	C3	"
12	#6	20'-8"	C4	"
336	#5	22'-0"	S1	Slab
152	#4	16'-9"	S2	"
18	#5	24'-5"	S3	"
36	#5	21'-9"	S4	"
6	#5	22'-9"	S5	"
76	#4	26'-3"	S6	"

B.M. "G" - Elev. 557.90 Nail in side 30" Sycamore 55' Lt. Sta. 217+90 (U.S.G.S. DATUM).

BRIDGE OVER APPLE CREEK
STATE ROAD FROM HIGHLAND TO MILLHEIM
ABOUT 24.5 MILES W. OF WITTENBERG
PROJECT NO. S-993(2) (SK) **STA.** 216+99.0
PERRY **COUNTY**

SUBMITTED BY J. A. Williams DATE 7-21-1959
APPROVED BY Roy M. Wilhelm DATE 7-21-1959
GENERAL SUPERINTENDENT
CHIEF ENGINEER

STD-110R7
N-877

64

Drawn JULY 1959 by C.D.W.
Checked July 1959 by W.F.D.

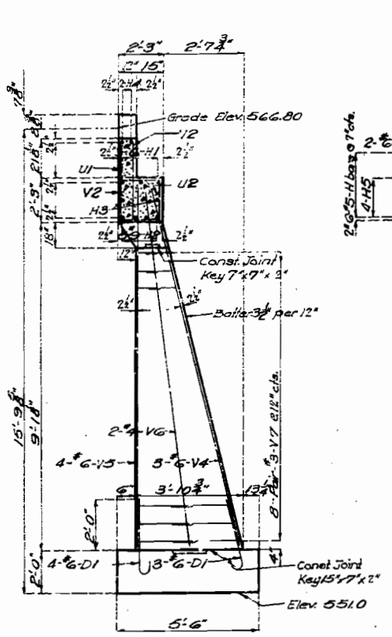
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 6.

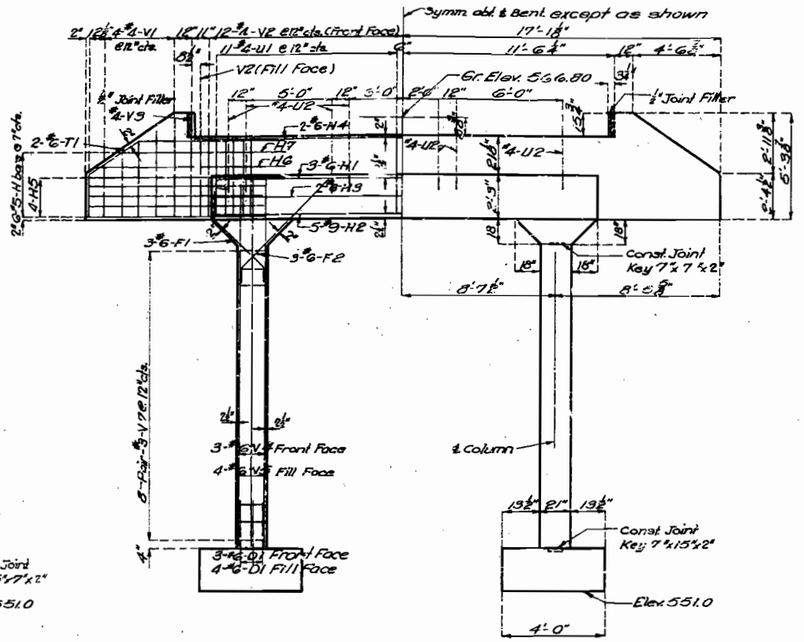
SEE FINAL PLANS BROWNLINES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	3	



SE TION AT ℄



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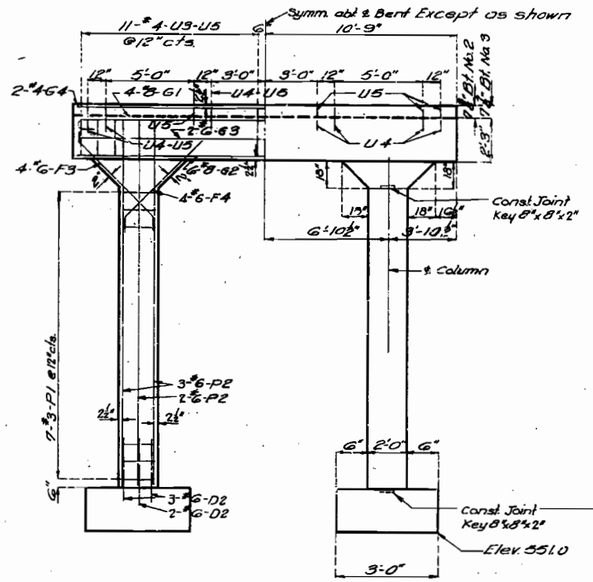

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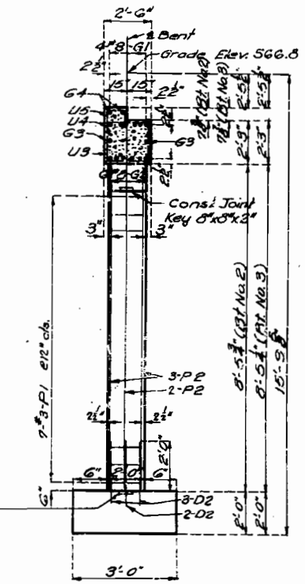
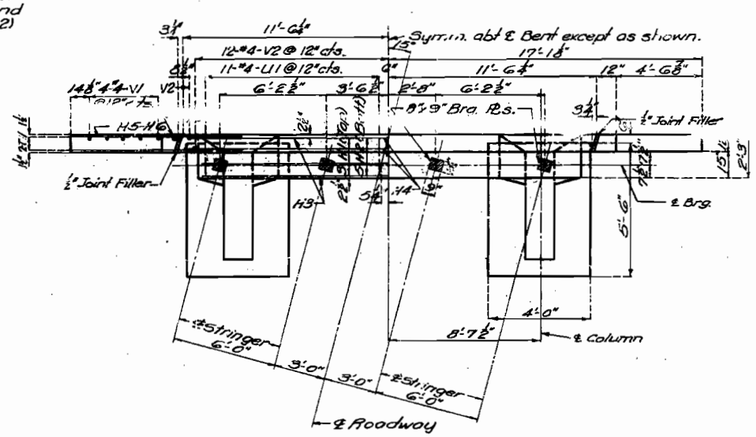


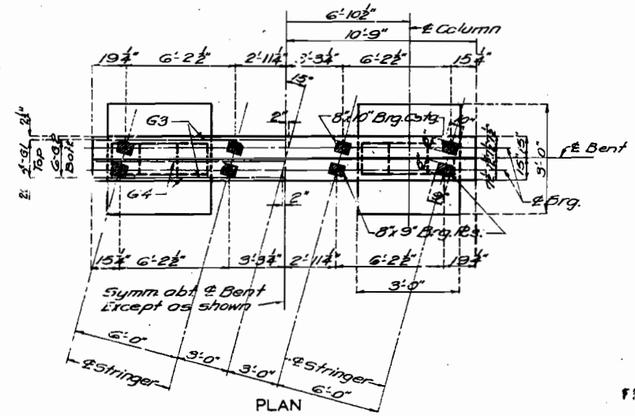
SECTION AT ℄

Note: Fill at End Bents No. 1 & 4 shall not be carried above bottom of beam and wings until superstructure Spans (1-2) and (3-4) are in place.



PLAN

DETAILS OF END BENTS NO. 1 & 4



PLAN

DETAILS OF INT. BENTS NO. 2 & 3

FINISHED

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM

ABOUT 24.5 MILES W. OF WITTENBERG

PROJECT NO. S-993(2) (SK) STA. 216+99.0

PERRY COUNTY

FINISHED

N-877

Assembled July 1959 by W.K. & J.C.F.
Checked July 1959 by W.F.D.

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

Sheet No. 2 of 6

SEE FINAL PLANS BROWN-LINES

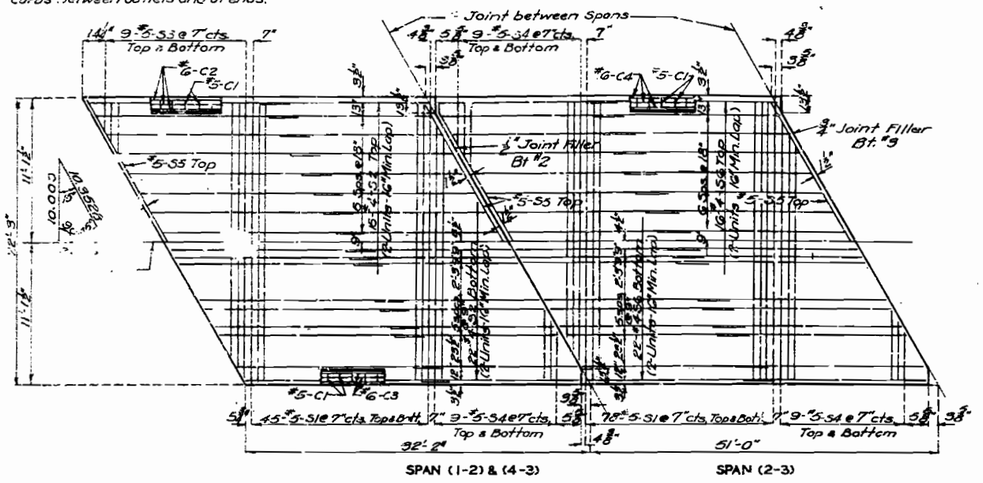
2 Col. End & 2 Col. Int. Square & Skewed } 20' or 22' Roadway N10

65

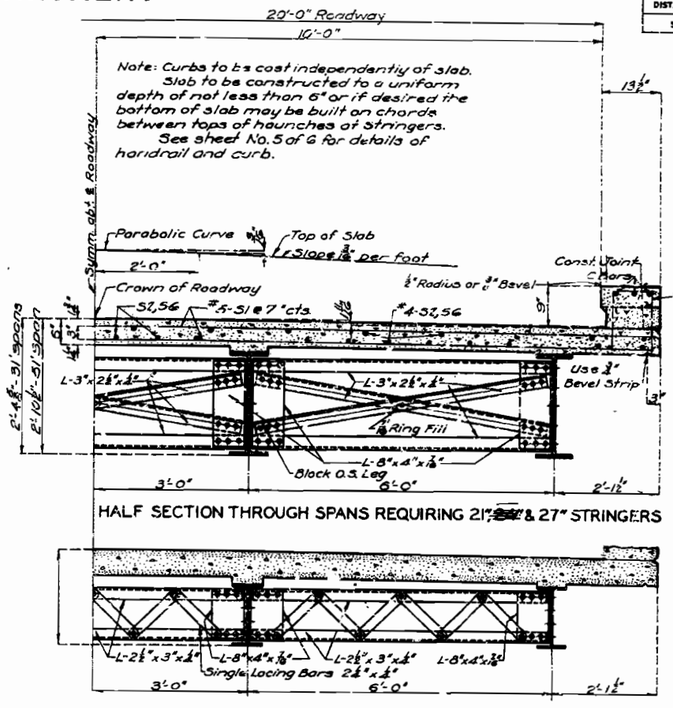
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	12	

Note: Space dowel bars C' L' approximately 12" centers in curbs between outlets and at ends.



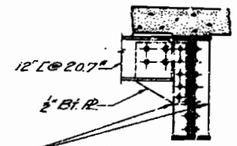
PLAN OF SLAB SHOWING REINFORCEMENT



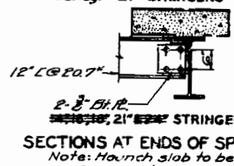
HALF SECTION THROUGH SPANS REQUIRING 21" & 27" STRINGERS

Note: Slab, curb, rail and post details same as shown in section for 24" stringers.

HALF SECTION THROUGH SPANS REQUIRING 14", 16" & 18" STRINGERS



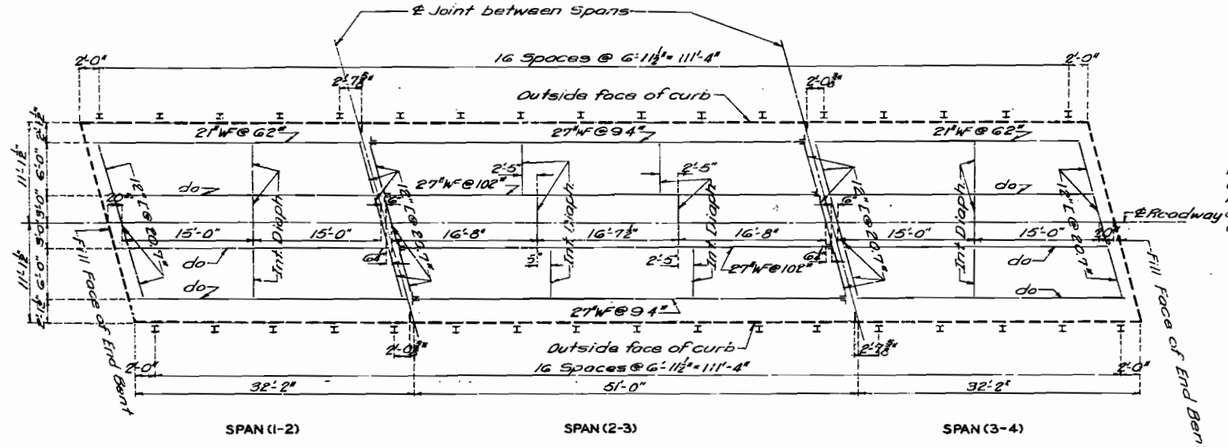
27" STRINGERS



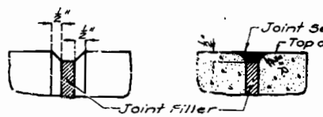
21" STRINGERS

SECTIONS AT ENDS OF SPANS

Note: Haunch slab to bear on ℄ separators.

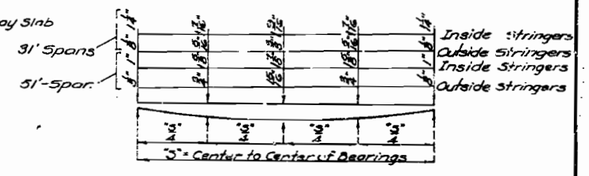


PLAN OF STRUCTURAL STEEL



Note: Use bevel as shown for exposed faces of all filled joints except at top surface of roadway slab. Use edging tool with ¾" radius at top surface of roadway slab each side of joint and fill flush with joint seal as shown.

DETAILS OF BEVEL FOR FILLED JOINTS



Note: Slab shall be built parallel to grade and to a minimum thickness of 6". Dead load deflection, vertical curve (if any), crown and any difference in depth of stringers shall be taken care of by haunching to stringers by the amounts shown above. This additional concrete is included in "Estimated Quantities."

SLAB HAUNCHING DIAGRAM

FINISHED

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM

ABOUT 24.5 MILES W. OF WITTENBERG

PROJECT NO. S-993(2) (SK) STA. 216+99.0 FINISHED

PERRY COUNTY

N-877

Assembled June 1959 by R.C.L. & J.C.F.
Checked July 1959 by W.F.D.

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

Sheet No. 3 of 6.

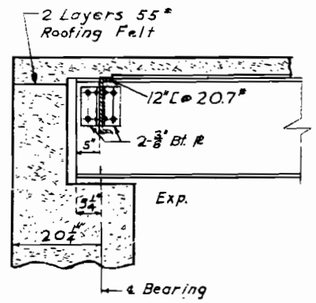
FINISHED

NO CONSTRUCTION CHANGES

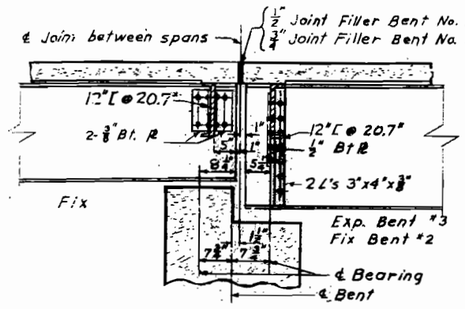
R. Y. 30
Rev. Feb. 1955

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	15	

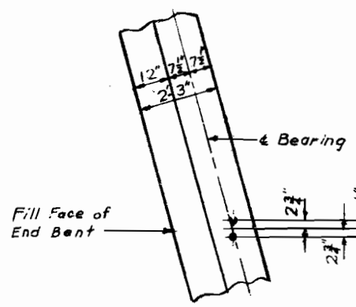


END SPANS NO. 1 & 4

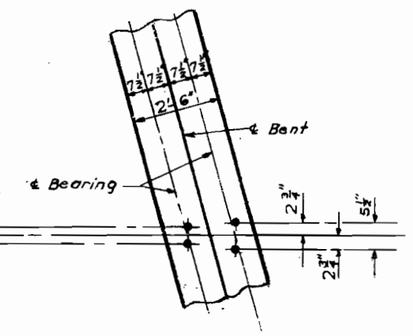


INT. BENTS NO. 2 & 3

PART LONGITUDINAL SECTION

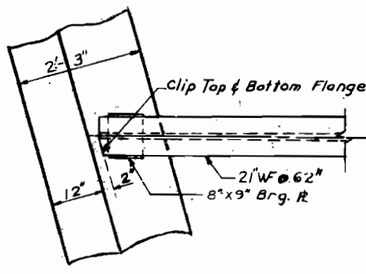


END BENTS NO. 1 & 4

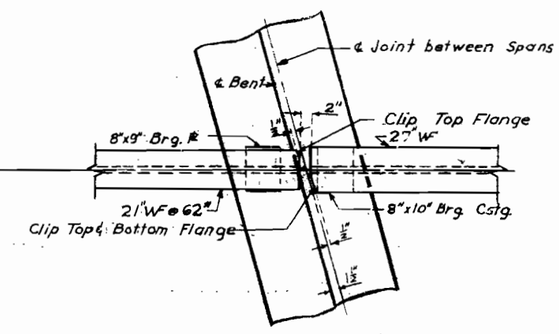


INT. BENTS NO. 2&3

PART ANCHOR BOLT PLAN

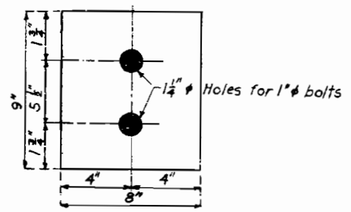


END BENTS NO. 1 & 4

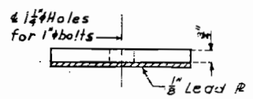


INT. BENTS NO. 2&3

PART PLAN OF STRINGERS AT BENTS



PLAN



END ELEVATION
16 Required

DETAILS OF STRUCTURAL STEEL PLATES

Spans (1-2) & (3-4)

Note: Material for 8"x9" plates to be Structural Steel.

Anchor bolts shall be 1" ϕ swedged bolts, no head, Hex. nuts and shall extend 10" into concrete.

Lead plates under bearings shall be approximately ⅛" in thickness and weigh 8#/ft. Cost of lead plates shall be included in price bid for other items.

Bearing plates to be straightened to plane surfaces.

Bottom flange of beam shall have 1¼" ϕ holes at fixed end and 1¼" x 2½" slots at expansion end.

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM

ABOUT 24.5 MILES W. OF WITTENBERG

PROJECT NO. S-993(2) (SK) **STA.** 216 + 99.0

PERRY **COUNTY**

67

Drawn July 1959 by R.C.L.
Checked July 1959 by W.F.D.

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

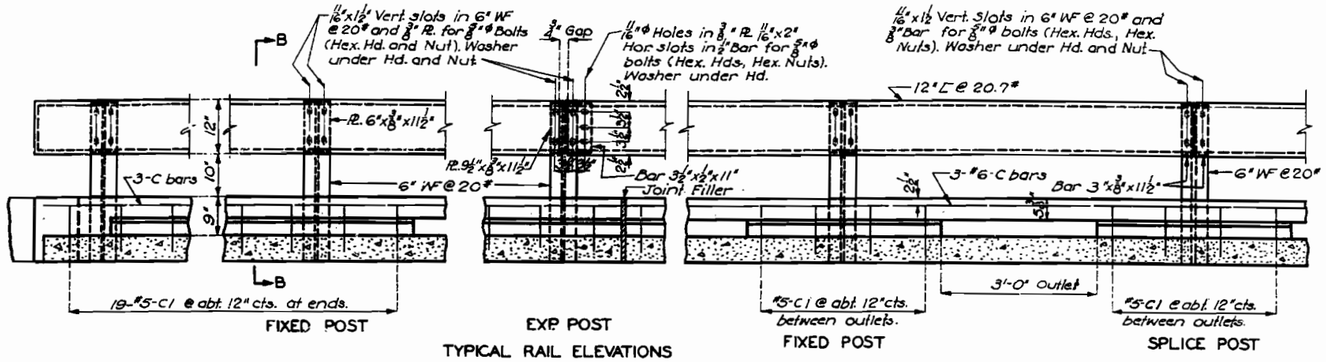
Sheet No. 4 of 6

N-877

NO CONSTRUCTION CHANGES

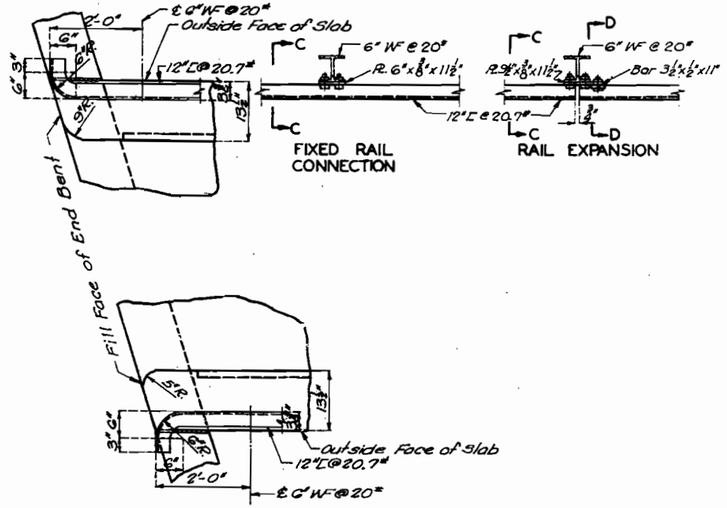
MISSOURI STATE HIGHWAY DEPARTMENT

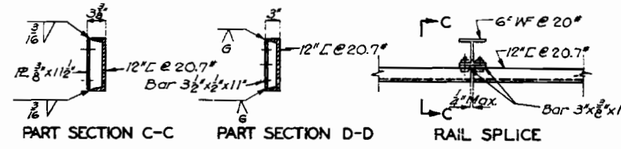
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	16	

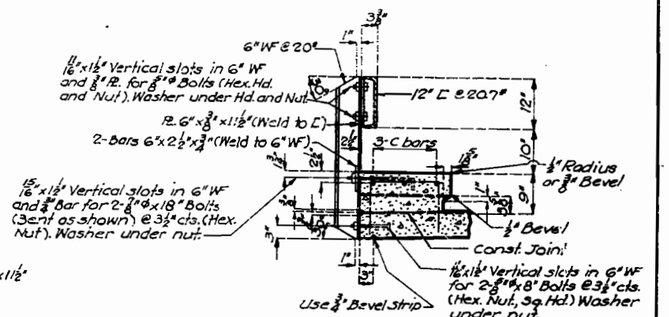


TYPICAL RAIL ELEVATIONS

Note: Outlets to be centered between railposts. For location of outlets see sheet No. 1 of 6.







SECTION B-B

Note: Channel rail to be adjusted for horizontal alignment by use of full size metal shims placed between 6" WF and connection Pl. Shims of ⅛" & ¼" thickness to be furnished with structural steel. Cost of shims to be included in price bid for other items.

FINISHED

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM

ABOUT 24.5 MILES W. OF WITTENBERG

PROJECT NO. S-993(2) (SK) STA. 216+99.0

PERRY COUNTY

FINISHED

FINISHED

N-877

Assembled June 1959 by LEG/JRS
Checked July 1959 by W.F.D.

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

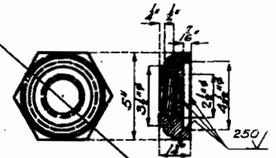
Sheet No. 5 of 6.

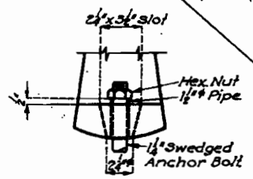
NO CONSTRUCTION CHANGES

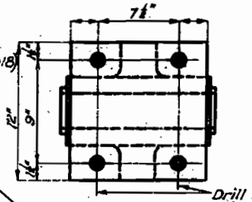
68

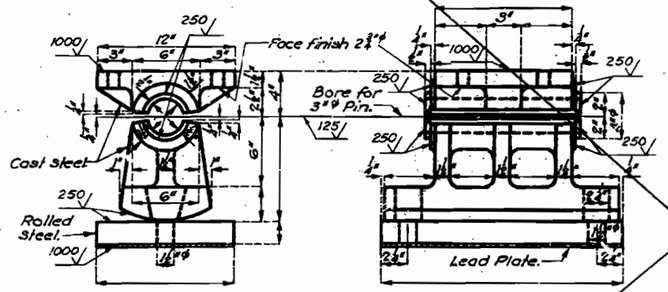
MISSOURI STATE HIGHWAY DEPARTMENT

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



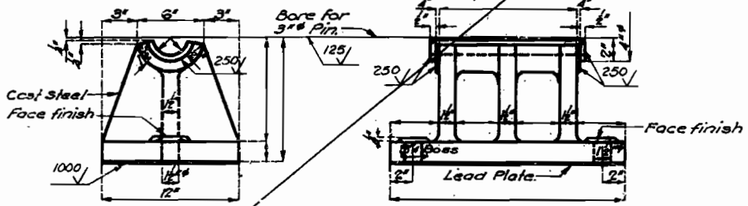






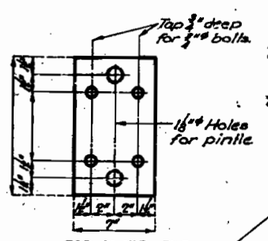
EXPANSION ROCKER

Note: Cast steel cap same as shown above.

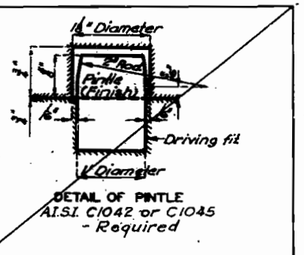


FIXED PEDESTAL

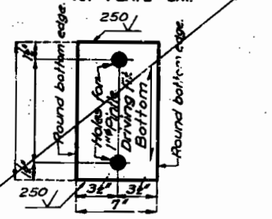
TYPE "A"



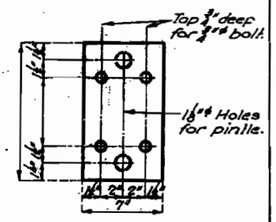
TOP PLATE - EXP.



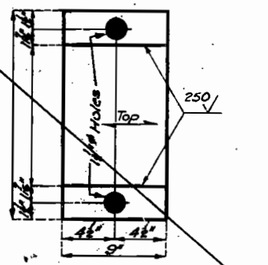
DETAIL OF PINTLE
A.I.S.I. C1042 or C1045
- Required



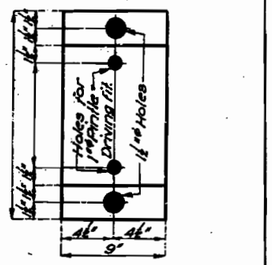
FLOATER PLATE - EXP.



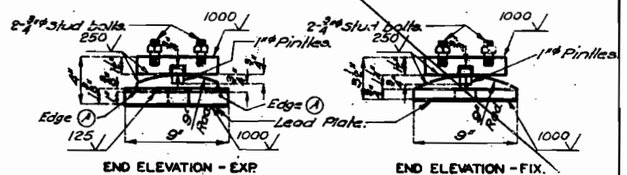
TOP PLATE - FIX.



BOTTOM PLATE - EXP.



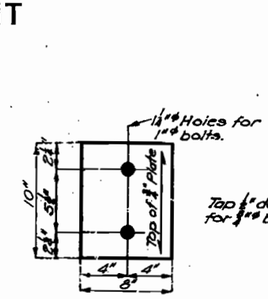
BOTTOM PLATE - FIX.



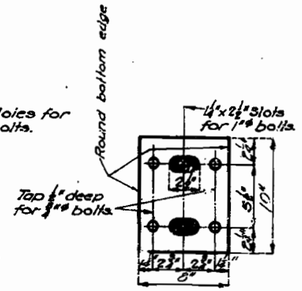
END ELEVATION - EXP.

END ELEVATION - FIX.

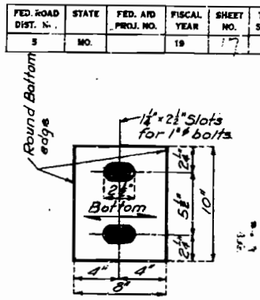
TYPE "B"



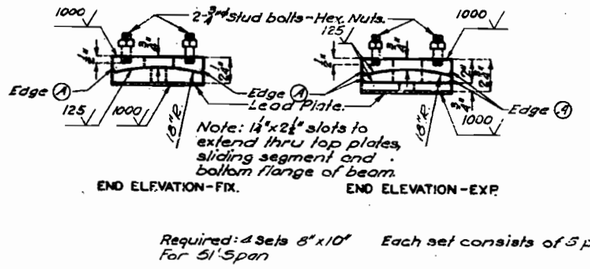
BOTTOM PLATES



TOP PLATES



FLOATER PLATES



END ELEVATION - FIX.

END ELEVATION - EXP.

Required: 4 Sets 8"x10" Each set consists of 3 plates each.
For 51'-5" Span

TYPE "C"

GENERAL NOTES:

Finish all surfaces as indicated.
All fillets for Type "A" castings shall have ¾" radius.
Material for Type "A" castings shall be Cast steel, except as noted. Material for Type "B" and Type "C" castings shall be either grey iron alloy or cast steel but payment will be made as Gray Iron Alloy.
All pins, bolts, nuts, pipe sleeves, rolled steel and pintles shall be paid for as Structural Steel.
Anchor bolts for Type "A" and Type "B" castings shall be 1½"ø swedged bolts with Hex. nuts and shall extend 12" into concrete.
Anchor bolts for Type "C" castings shall be 1"ø swedged bolts, no heads or nuts and shall extend 10" into concrete. Top ends of anchor bolts shall be above the top of castings but not higher than ¼" below the top surface of the bottom flange of beam.
Lead Plates under bearings shall be approximately ⅛" thickness and weigh 8#/Sq. Ft. Cost of lead plates shall be included in price bid for other items.
Edge (A) to be rounded. (1/16" to ⅛" Radius.)

FINISHED

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM
ABOUT 24.5 MILES W. OF WITTENBERG
PROJECT NO. S-993(2) (SK) STA. 216+99.0

PERRY COUNTY

FINISHED

DETAILS OF BEARING CASTINGS

Assembled June 1959 by R.C.L. & C.D.W.
Checked July 1959 by W.F.D.

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

Sheet No. 6 of 6.

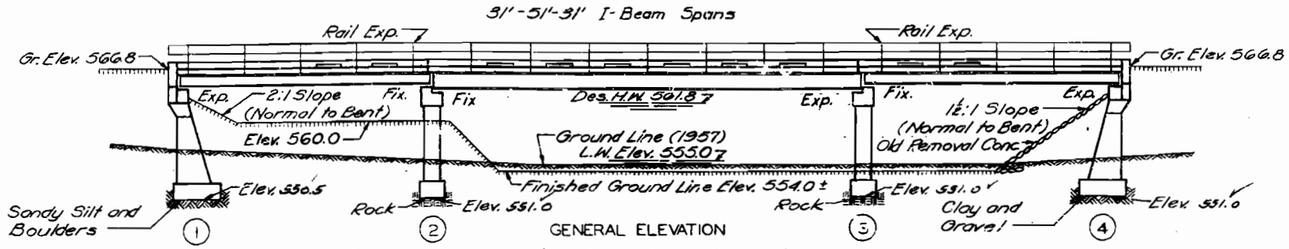
N-877

NO CONSTRUCTION CHANGES

69

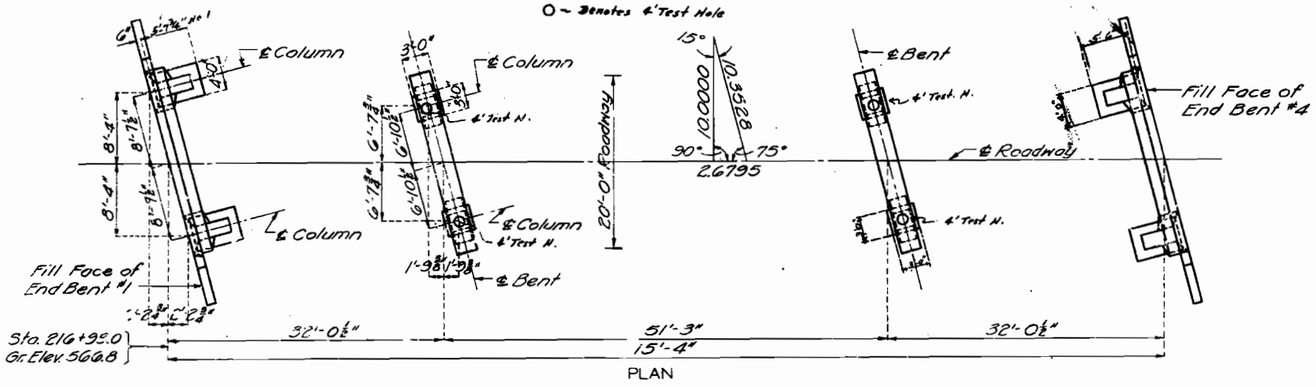
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHTS
5	MO.	S-993(2)	19	11	26

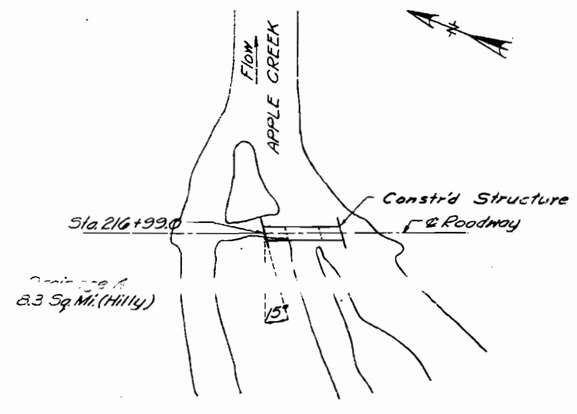


GENERAL ELEVATION

Note: The footings for Bents No. 1 and 4 were placed on clay and gravel satisfactory to the Engineer.
Bearing of 4 ton/sq.ft. used in design for Bents No. 1 and 4.
All loose, shelly or disintegrated rock was removed and the footings for Bents No. 2 and 3 were placed into hard, solid, undisturbed rock.
Bearing of 6 ton/sq.ft. used in design for Bents No. 2 and 3



PLAN



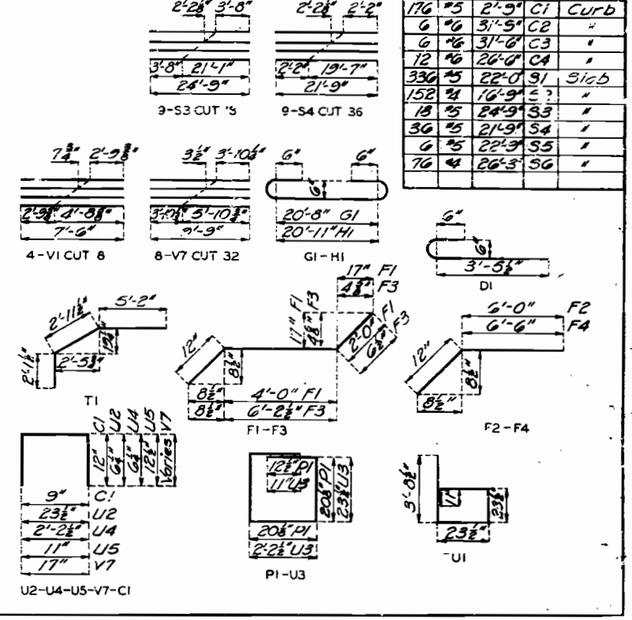
LOCATION SKETCH

GENERAL NOTES:
Design Specifications A.A.S.H.O. 1957
Loading: H15-44 (One Lane)
Structural Steel Stress: 18,000 #/sq.in.
Reinforcing Steel Stress: 20,000 #/sq.in.
Class "B" Concrete Stress: 1,200 #/sq.in.
All concrete was Class "B".
Rivets ¾", holes ⅞" except as noted
Field connections riveted except as noted in handrail details or, if the Contractor desires to eliminate all field riveting on this project, he may use machine bolts for field connections. Heads and nuts of machine bolts are American Standard Regular.
Paint: Shop, none: Field, contact surfaces of bolted field connections, one coat of red lead and surfaces inaccessible after erection, three coats of red lead. No other paint was applied by Contractor. Red lead required was furnished by Contractor. Payment for cleaning and painting such surfaces was included in unit price bid for Reinforced Structural Steel.
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.

COMPLETE BILL OF REINFORCING STEEL

No.	Size	Length	Mark	Location
		End Bents No. 1 & 4		
6	#6	23'-0"	H1	Beam
10	#3	2'-9"	H2	"
4	#6	21'-9"	H3	"
4	#6	23'-0"	H4	Bk. Wall
16	#5	7'-9"	H5	Wing
4	#5	7'-3"	H6	"
8	#4	7'-6"	V1	"
50	#3	3'-9"	V2	Bk. Wall
4	#4	5'-0"	V3	Wing
12	#6	11'-6"	V4	Column
16	#6	11'-0"	V5	"
8	#4	9'-9"	V6	"
32	#3	9'-9"	V7	"
12	#6	7'-0"	F1	Col. Hch.
12	#6	7'-0"	F2	" "
8	#6	10'-3"	T1	Wing
28	#6	4'-9"	D1	Footing
44	#4	10'-6"	U1	Beam
14	#4	3'-0"	U2	"
4	#5	6'-6"	H7	Wing
		Int. Bents No. 2&3		
32	#6	4'-0"	D2	Footing
16	#6	7'-9"	F3	Col. Hch.
16	#6	7'-6"	F4	" "
8	#8	23'-3"	G1	Beam
12	#8	21'-3"	G2	"
4	#6	21'-3"	G3	"
4	#4	21'-3"	G4	"
28	#3	7'-9"	P1	Column
32	#6	10'-3"	P2	"
44	#4	3'-3"	U3	Beam
14	#4	3'-3"	U4	"
58	#4	3'-0"	U5	"

Bending Sketches & Cutting Diagrams



No.	Size	Length	Mark	Location
		Superstructure		
176	#3	2'-9"	C1	Curb
6	#6	31'-5"	C2	"
6	#6	31'-6"	C3	"
12	#6	26'-6"	C4	"
336	#3	22'-0"	S1	Slab
152	#4	16'-9"	S2	"
18	#3	24'-9"	S3	"
36	#3	21'-9"	S4	"
6	#3	22'-3"	S5	"
76	#4	26'-3"	S6	"

QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu. Yds.	12.5		12.5
Class 2 Excavation for Structures	Cu. Yds.	52.0		52.0
Class "B" Concrete	Cu. Yds.	47.1	55.1	102.2
Fabricated Structural Steel	Lbs.		42520	48880
Gray Iron Alloy Castings	Lbs.		430	430
Reinforcing Steel	Lbs.	6050	13720	19770
Class 1 Exc. + 50 %	Cu. Yd.	2.0		2.0
Treated Wales	Sq. Ft.			12

Note: Excavation for Bridge made above Elev. 556.0 was paid for as Class 1 Excavation for Structures.
Excavation for Bridge made below Elev. 556.0 was paid for as Class 2 Excavation for Structures.
* Final pay weight for Fabricated Structural Steel was based on using field rivets except for bolted connections specified for handrail.

B.M. "G" Elev. = 561.60 "X" on Top Lt. Ear on End Bent No. 2

BRIDGE OVER APPLE CREEK
STATE ROAD FROM HIGHLAND TO MILLHEIM
ABOUT 24.5 MILES W. OF WITTENBERG
PROJECT NO. S-993(2) (SK) STA. 216+99.0
PERRY COUNTY FINISHED

SUBMITTED BY J. A. Williams DATE 7-21-1959
APPROVED BY Ray M. Whittier DATE 7-21-1959
CHIEF ENGINEER

FINISHED

STDGH10R7
N-377

Drawn JULY 1959 by C.D.W.
Checked July 1959 by W.F.D.

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

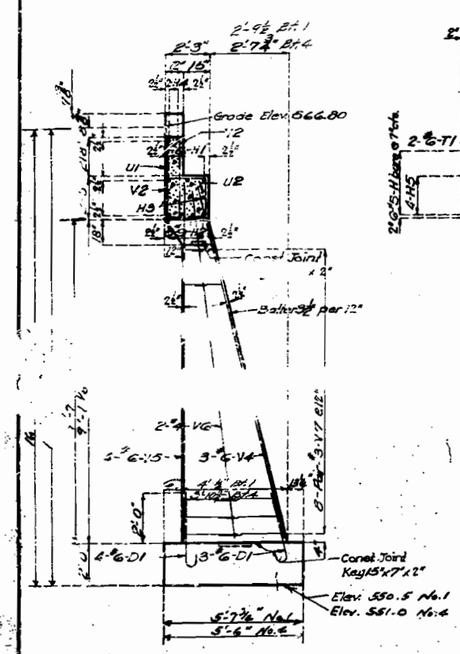
Sheet No. 1A of 26

FINAL PLANS

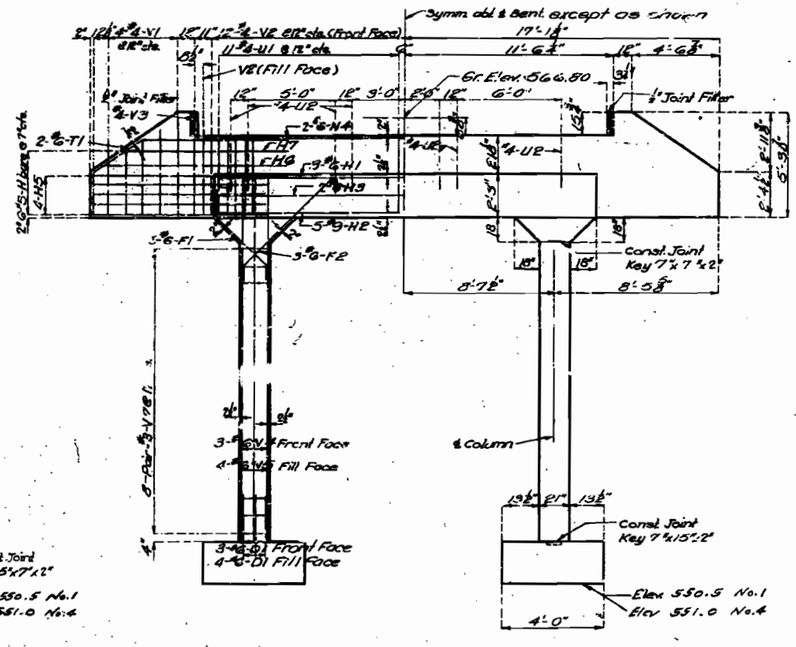
FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

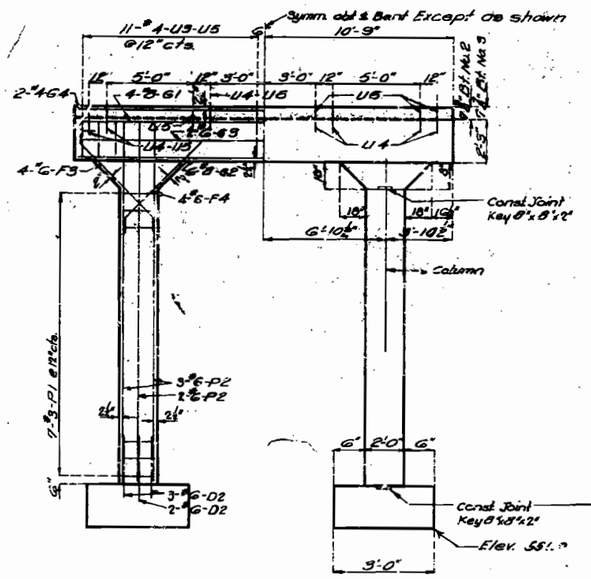
FED. ROAD DIST. NO.	STATE	F.A. RD. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	MO.	S-993(2)	19	12	26



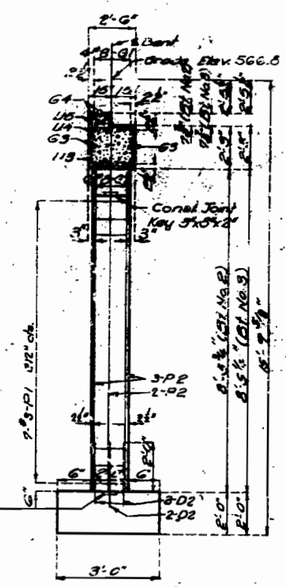
SECTION AT ℄



ELEVATION

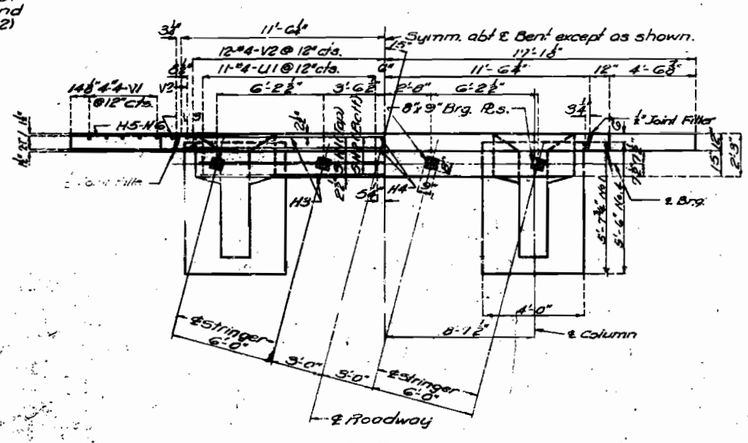


ELEVATION



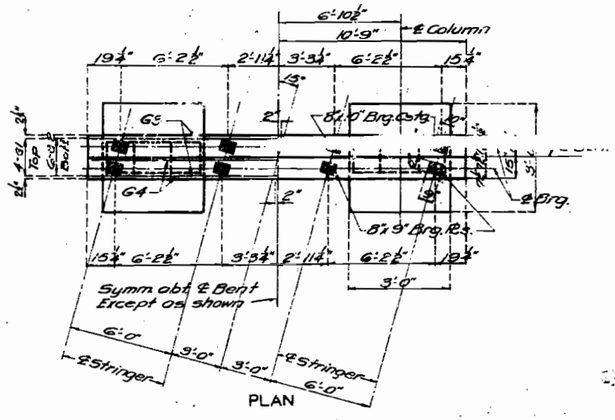
SECTION AT ℄

Note: Fill at End Bents No. 1 & 4 was not carried above bottom of beam and wings until superstructure Spans (1-2) and (3-4) were in place.



PLAN

DETAILS OF END BENTS NO. 1 & 4



PLAN

DETAILS OF INT. BENTS NO. 2 & 3

BRIDGE OVER APPLE CREEK

STATE ROAD FROM HIGHLAND TO MILLHEIM

ABOUT 24.5 MILES W. OF WITTENBERG

PROJECT NO. S-993(2) (SK) STA. 216+92.0

PERRY COUNTY

FINAL PLANS N-877

Assembled July 1959 by W.K. & J.C.F.
Checked July 1959 by W.F.D.

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

Sheet No. 24 of 26 Sheets.

FINAL PLANS

2 Col. End & 2 Col. Int. } 30° or 35° Skew Spans 3-3 Skewed