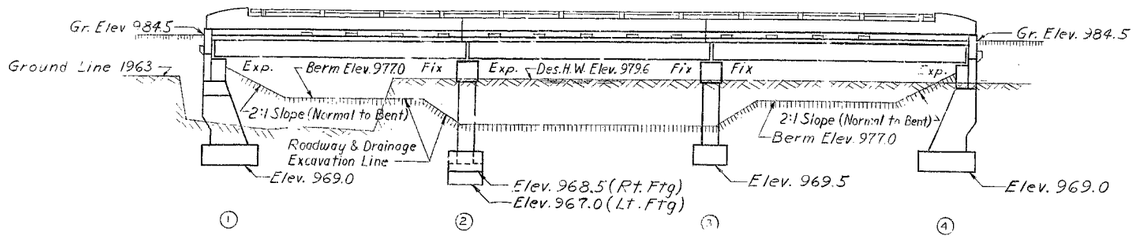
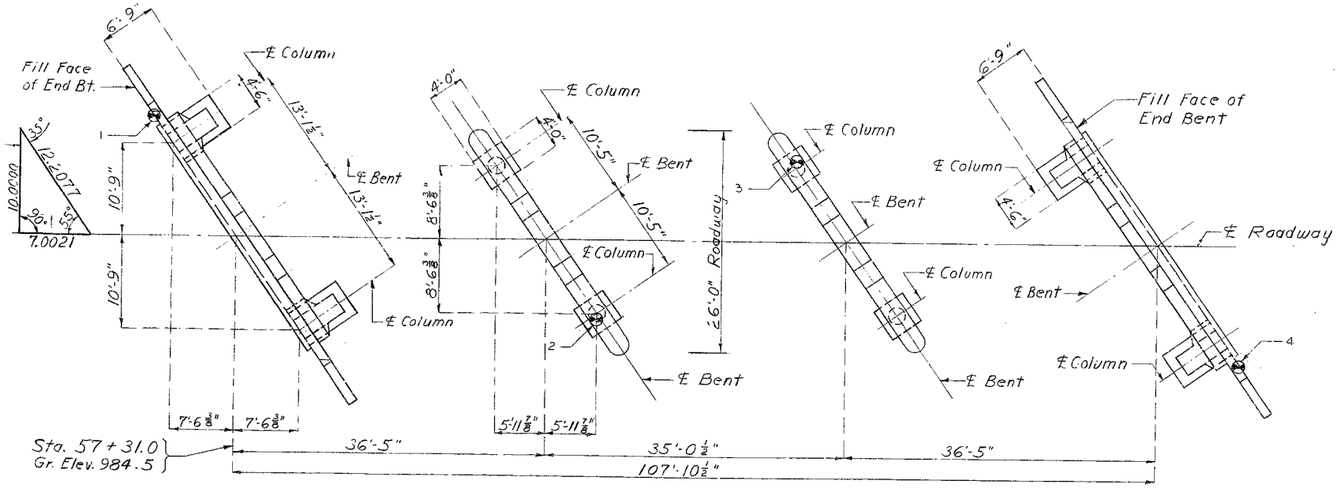
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	11	

35'-35'-35' Simple WF Beam Spans (Composite)

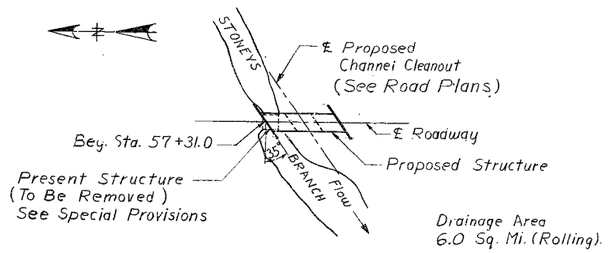


GENERAL ELEVATION



PLAN

Note: For boring data see sheet No. 2 of 7.
⊕ Indicates location of borings



LOCATION SKETCH

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H15 44 15#/sq. ft. Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) f_c = 1,200 psi
Class B1 Concrete (superstructure) f_c = 1,600 psi
Reinforcing Steel f_s = 20,000 psi
Structural Steel (A.S.T.M A36-63T) f_s = 20,000 psi

Surface Seal:
Superstructure deck to be surface sealed.

Fabricated Steel:
Field connections, High Strength Bolts ¾"ϕ, holes 13/16"ϕ except as noted.

FOOTING DATA				
BENT NO.	1	2	3	4
Foundation Material	Rock	Rock	Rock	Rock
Des. Brg. Tons/Sq. Ft.	6.2	4.2	4.2	6.2

ESTIMATED QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures.	Cu. Yd.	125		125
Class B Concrete	Cu. Yd.	72.6		72.6
Class B1 Concrete	Cu. Yd.		85.4	85.4
Reinforcing Steel	Lb	9,920	22000	31,920
Fabricated Structural Carbon Steel	Lb		35,450	35,450
Bridge Rail (Single Tube Type)	Lin. Ft		193	193

BM #7 El. 979.88 X-on N.W. Cor. W. Hubguard to Bridge Rt. Sta. 57+27.6

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N, SOUTH TO ROUTE 66

ABOUT 10.5 MILES N.E. OF CARTHAGE

PROJECT NO. S-893(2) SBB STA. 57+31.0

JASPER COUNTY

SUBMITTED BY: D.B. Jenkins, BRIDGE ENGINEER DATE 2-2-67

APPROVED BY: M.J. Snider, STATE ENGINEER DATE 2-2-67

STD. 54.00

A-1884

DESIGNED AUG. 1966 BY WEBER
DETAILED OCT. 1966 BY WEIMHOLT & LESLIE
CHECKED DEC 1966 BY EPPLE

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

SEE FINAL PLANS BROWN LINES

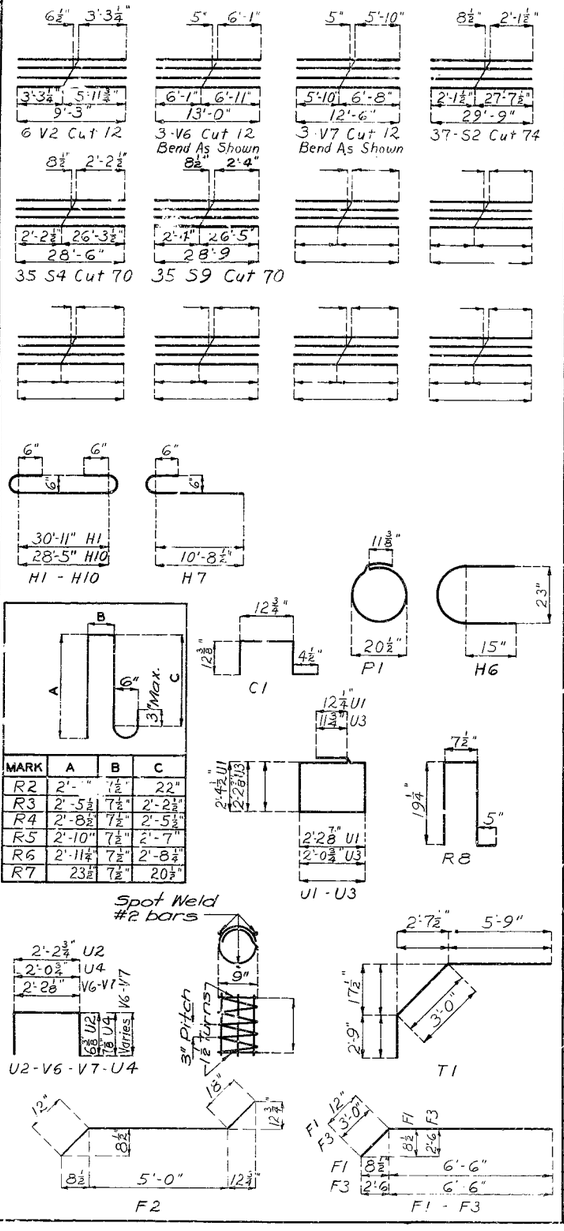
MISSOURI STATE HIGHWAY DEPARTMENT

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

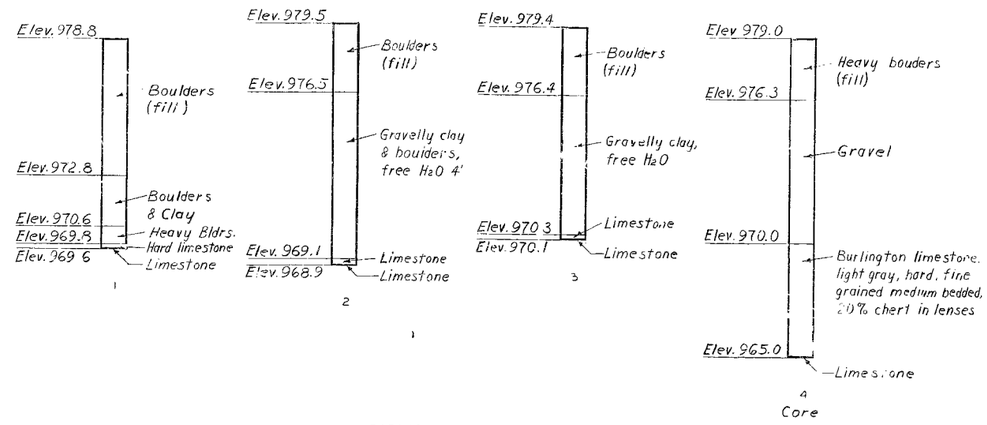
COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
END BENT NO. 1 & 4				
40	#6	3'-0"	D1	Footing
16	#6	7'-6"	F1	Col. Hch.
12	#6	7'-6"	F2	Col. Hch.
16	#6	9'-6"	F3	Col. Hch.
3	#6	33'-6"	H1	Beam
4	#6	31'-6"	H2	Beam
14	#11	31'-6"	H3	Beam
4	#6	35'-0"	H4	Backwall
2	#6	10'-3"	H5	Wing
4	#6	9'-0"	H6	Wing
3	#6	11'-6"	T1	Wing
6	#4	10'-3"	U1	Beam
16	#4	3'-3"	U2	Beam
140	#5	3'-0"	V1	Backwall
12	#4	9'-3"	V2	Wing
4	#4	6'-0"	V3	Wing
24	#6	9'-9"	V4	Column
16	#6	10'-6"	V5	Column
12	#6	13'-0"	V6	Column
12	#6	12'-6"	V7	Column
8	#4	6'-9"	V8	Column
INT. BENT 2				
16	#7	3'-6"	D2	Footing
8	#7	5'-6"	H11	Beam
4	#8	12'-0"	H7	Beam
2	#6	28'-0"	H8	Beam
5	#10	28'-0"	H9	Beam
3	#8	31'-0"	H10	Beam
18	#3	6'-3"	P1	Column
29	#4	9'-6		Beam
10	#4	3'-3"	U4	Beam
8	#7	11'-9"	V11	Column
8	#7	10'-3"	V9	Column
INT. BENT 3				
16	#7	3'-6"	D2	Footing
8	#7	5'-6"	H11	Beam
4	#8	12'-0"	H7	Beam
2	#6	28'-0"	H8	Beam
5	#10	28'-0"	H9	Beam
3	#8	31'-0"	H10	Beam
14	#3	6'-3"	P1	Column
29	#4	9'-6"	U3	Beam
10	#4	3'-3"	U4	Beam
16	#7	9'-3"	V10	Column

BENDING SKETCHES & CUTTING DIAGRAMS



NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
210	#5	3'-6"	C1	Curb
4	#6	35'-0"	C2	Curb
4	#6	34'-9"	C3	Curb
4	#6	36'-6"	C4	Curb
8	#5	4'-9"	R1	End Post
4	#5	5'-6"	R2	End Post
4	#5	6'-3"	R3	End Post
4	#5	6'-9"	R4	End Post
4	#5	7'-0"	R5	End Post
8	#5	7'-3"	R6	End Post
186	#5	5'-3"	R7	Parapet
26	#5	4'-3"	R8	Parapet
8	#5	35'-0"	R9	Parapet
8	#5	34'-9"	R10	Parapet
8	#5	36'-3"	R11	Parapet
2	#4	34'-9"	S1	Slab
14	#5	29'-9"	S2	Slab
208	#5	28'-6"	S3	Slab
70	#5	28'-6"	S4	Slab
116	#4	18'-9"	S5	Slab
58	#4	18'-0"	S6	Slab
120	#5	18'-9"	S7	Slab
30	#5	34'-9"	S8	Slab
70	#5	28'-9"	S9	Slab
4	#4	33'-0"	S10	Slab



BORING DATA
Note: See sheet No. 1 of 7 for location of borings

BRIDGE OVER 'STONEYS BRANCH
STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66
ABOUT 10.5 MILES N.E. OF CARTHAGE
PROJECT NO. S-892 (2) SBB **STA.** 57 + 31.0
JASPER **COUNTY**

A-1884

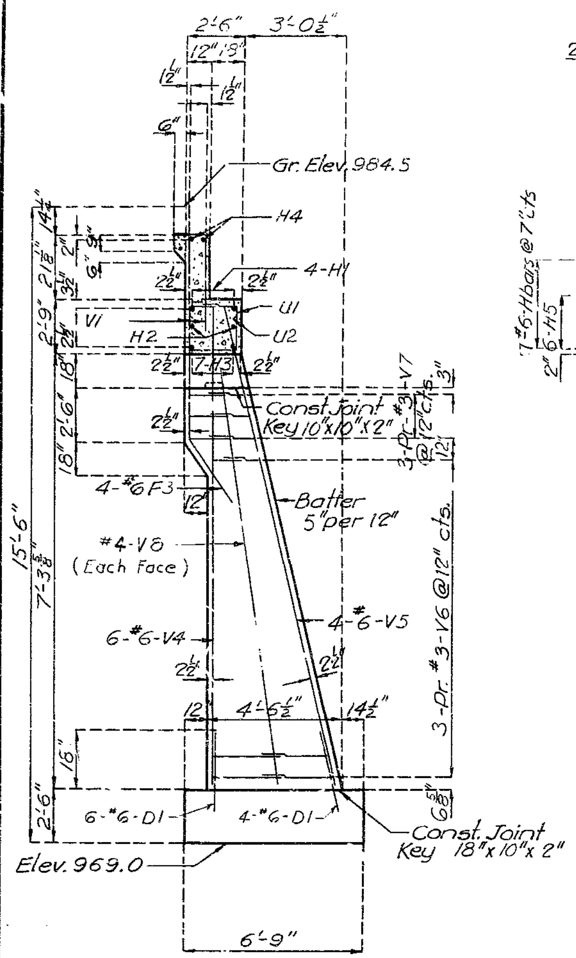
No. 30.3 Jun. 1961 | Revised Dec. 1964

DETAILED OCT. 1966 BY WEIMHOLT
CHECKED Dec. 1966 BY Epple

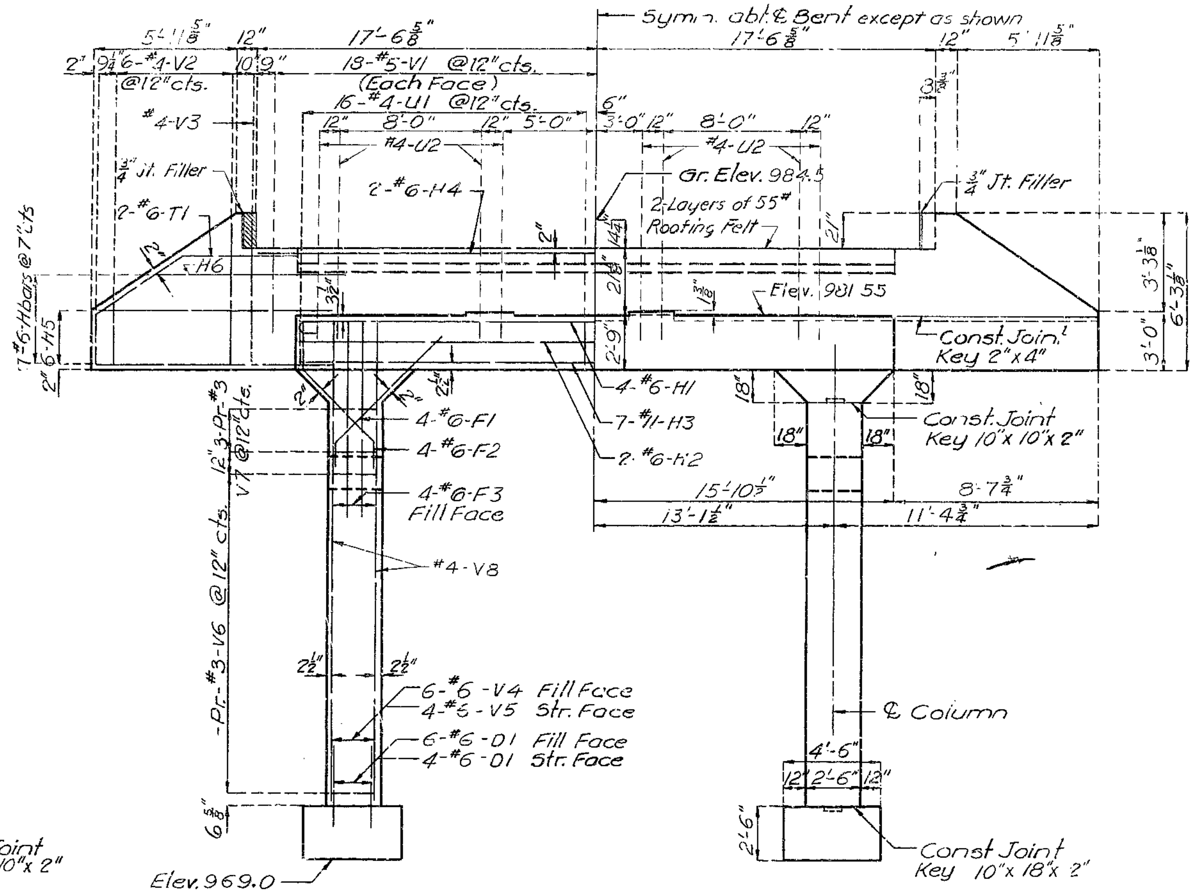
Note: This drawing is not to scale. Follow dimensions.

MISSOURI STATE HIGHWAY DEPARTMENT

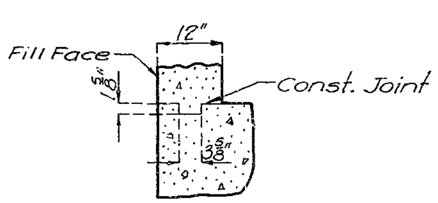
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13	



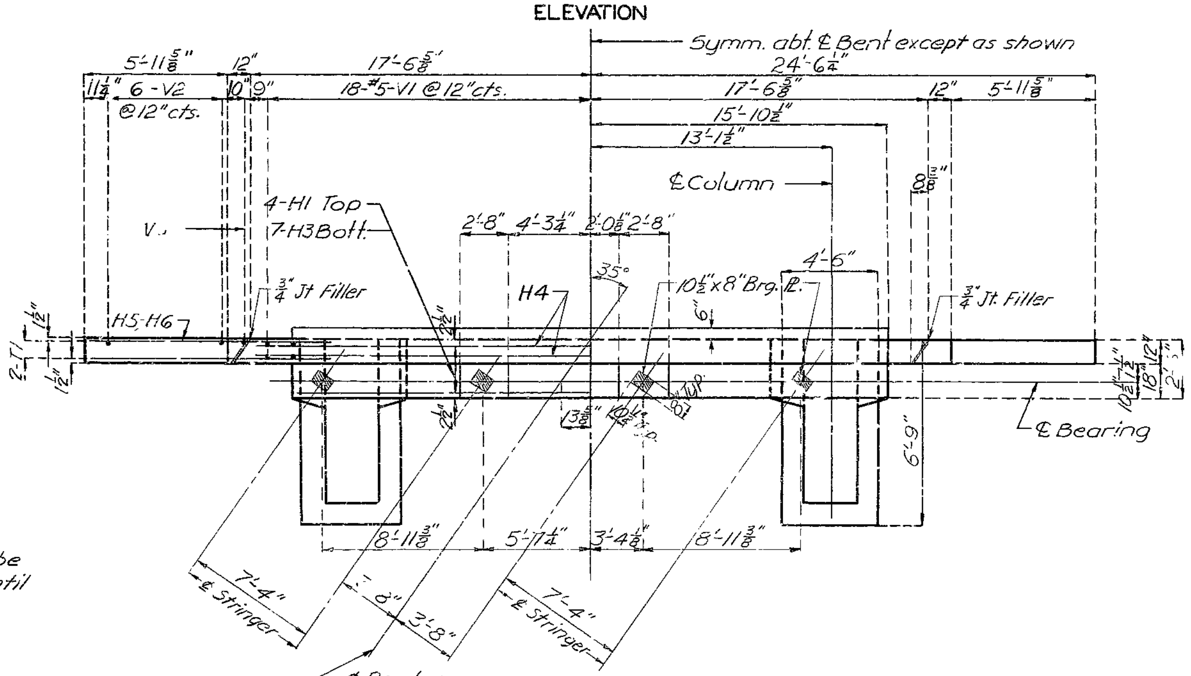
SECTION



ELEVATION



DETAIL OF KEYED CONST. JOINT



PLAN

DETAILS OF END BENTS NO. 1 & 4

Note: Fill at end bents No. 1 & 4 shall not be carried above bottom of beam and wings until adjacent superstructure span is in place.

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66

ABOUT 10.5 MILE N.E. OF CARTHAGE

PROJECT NO. 5-892 2 SBB **STA.** 57 + 31.0

JASPER **COUNTY**

A-1884

No. 14.1 Mar 1964 Revised

87

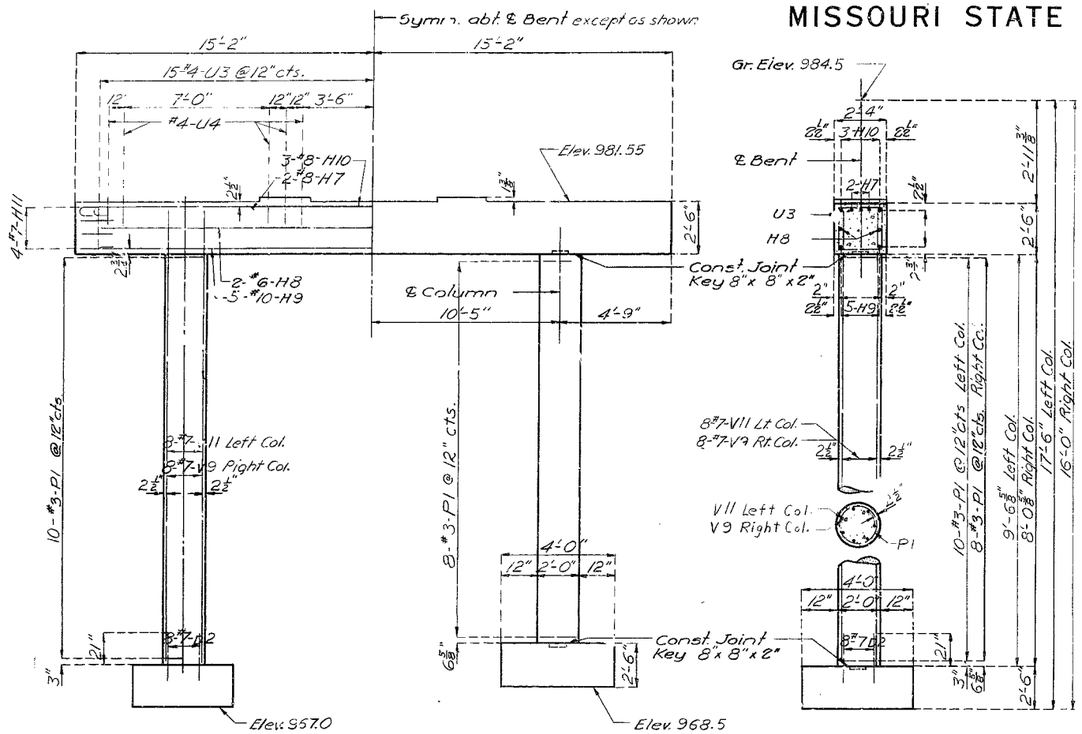
DETAILED SEPT. 1966 BY LESLIE - WEIMHOLT
CHECKED DEC. 1966 BY EPPLE

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

Sheet No. 3 of 7.

MISSOURI STATE HIGHWAY DEPARTMENT

FED ROAD DIST. NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	14	



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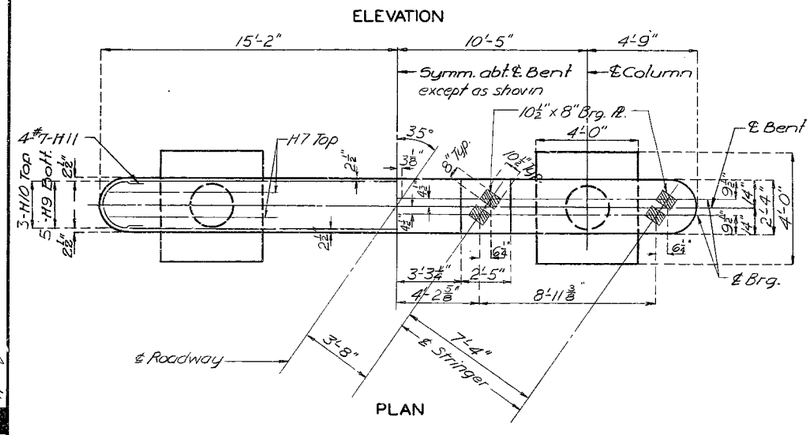
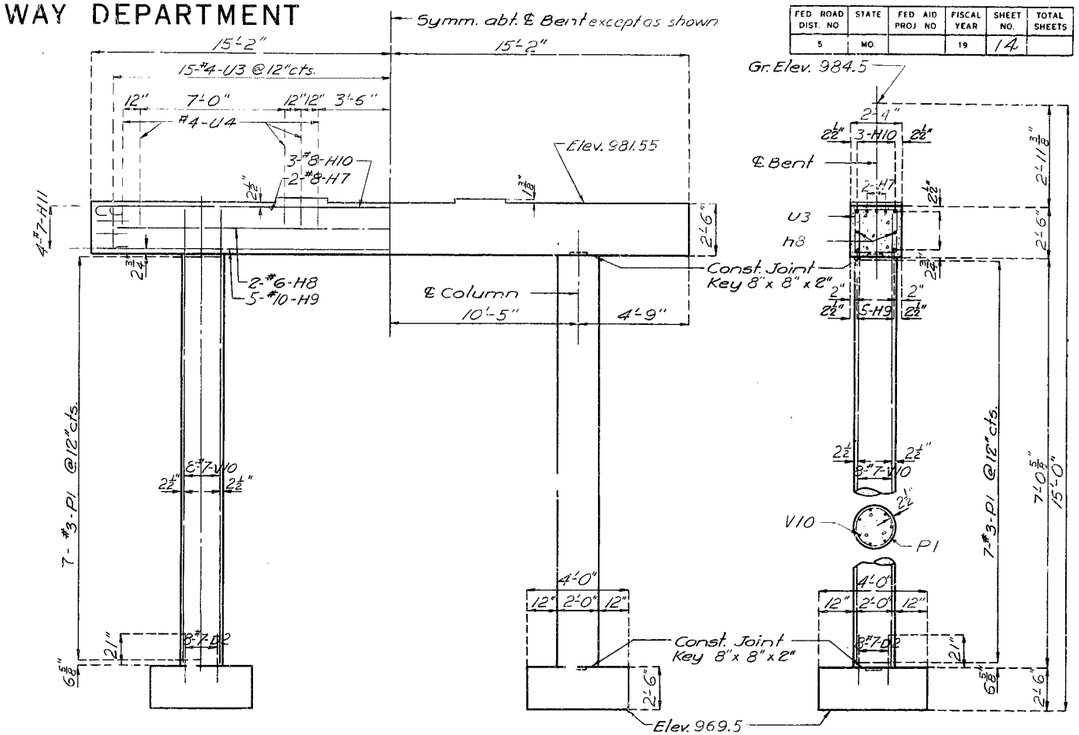
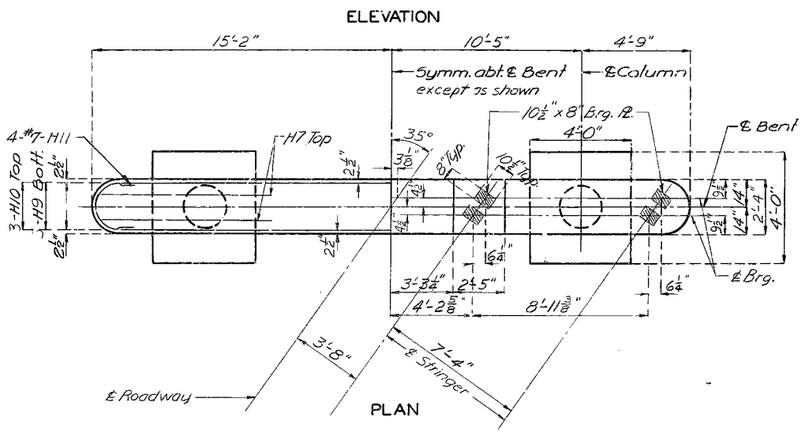


DETAILS OF INTERMEDIATE BENT NO. 2



SECTION @ ℄



DETAILS OF INTERMEDIATE BENT NO. 3

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66

ABOUT 10.5 MILES N.E. OF CARTHAGE

PROJECT NO. S-892 (2) SBB **STA.** 57+31.0

JASPER **COUNTY**

A-1884

NO.	
19.2	Revised
MAY 1964	JAN 1965

DETAILED SEPT. 1966 BY LESLIE

CHECKED DEC. 1966 BY EPPLE

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

Sheet No. 4 of 7.

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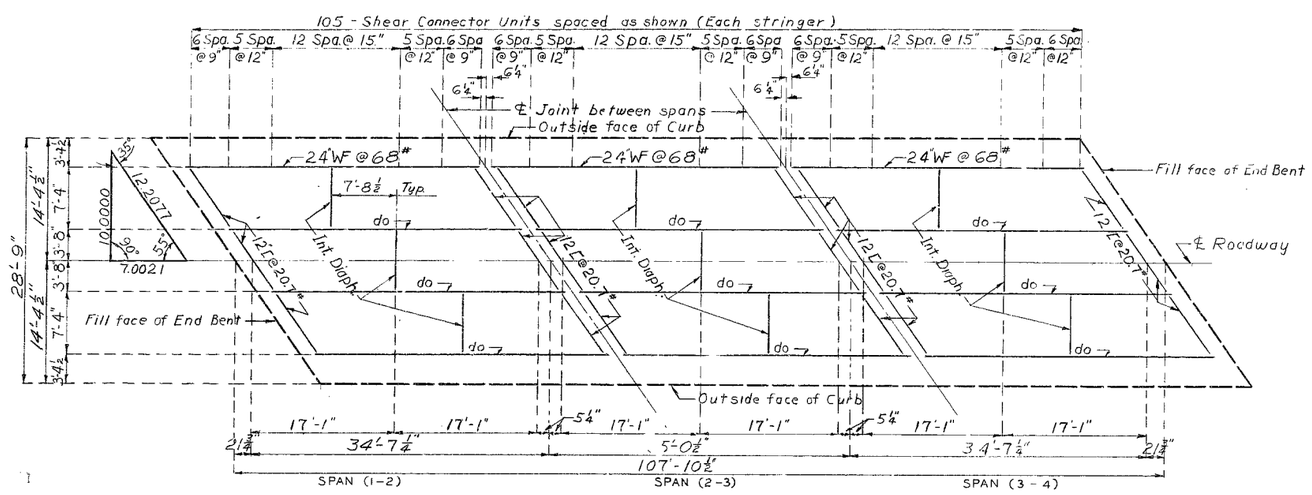
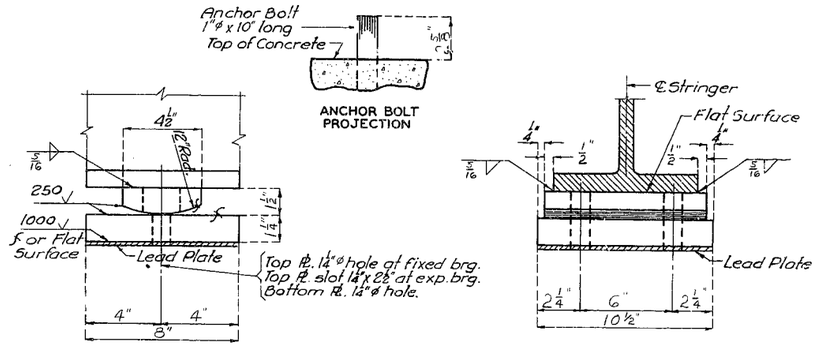
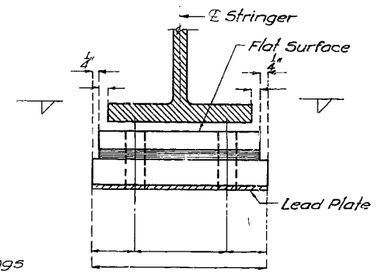
MISSOURI STATE HIGHWAY DEPARTMENT

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



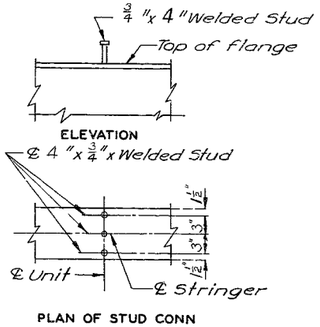
PLAN OF STRUCTURAL STEEL



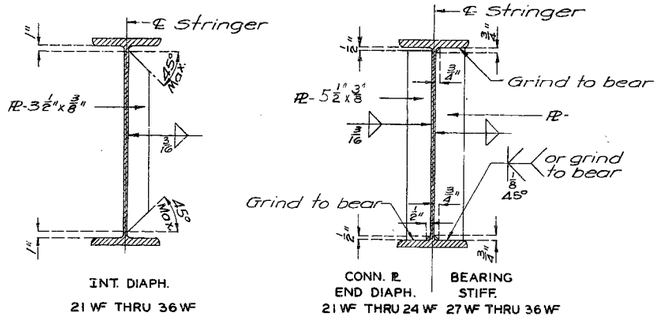


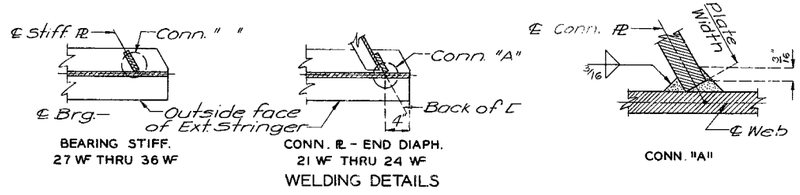
Required: 12 -Fixed Bearings
do 12 -Expansion Bearings

TYPE "C" BEARINGS
(Estimated Weight 1090.8#)



DETAILS OF SHEAR CONNECTORS





NOTES: TYPE "C" BEARINGS

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. "Estimated weight" does not include weight of anchor bolts.

Where flat surface is indicated, tolerance shall be .003 in/in in any direction.

Anchor Bolts for Type "C" Bearings shall be 1"ø swedged bolts 10" long with no heads or nuts. Top of Anchor Bolts shall be set approximately 4" below top of bearing.

BRIDGE OVER STONEYS BRANCH
STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66
ABOUT 10.5 MILES N.E. OF CARTHAGE
PROJECT NO. S-892(2) SBB **STA.** 57+31.0
JASPER **COUNTY**

DETAILED OCT. 1966 BY WEIMHOLT
CHECKED Dec 1966 BY Epple

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

Sheet No. 5 of 7.

A-1834

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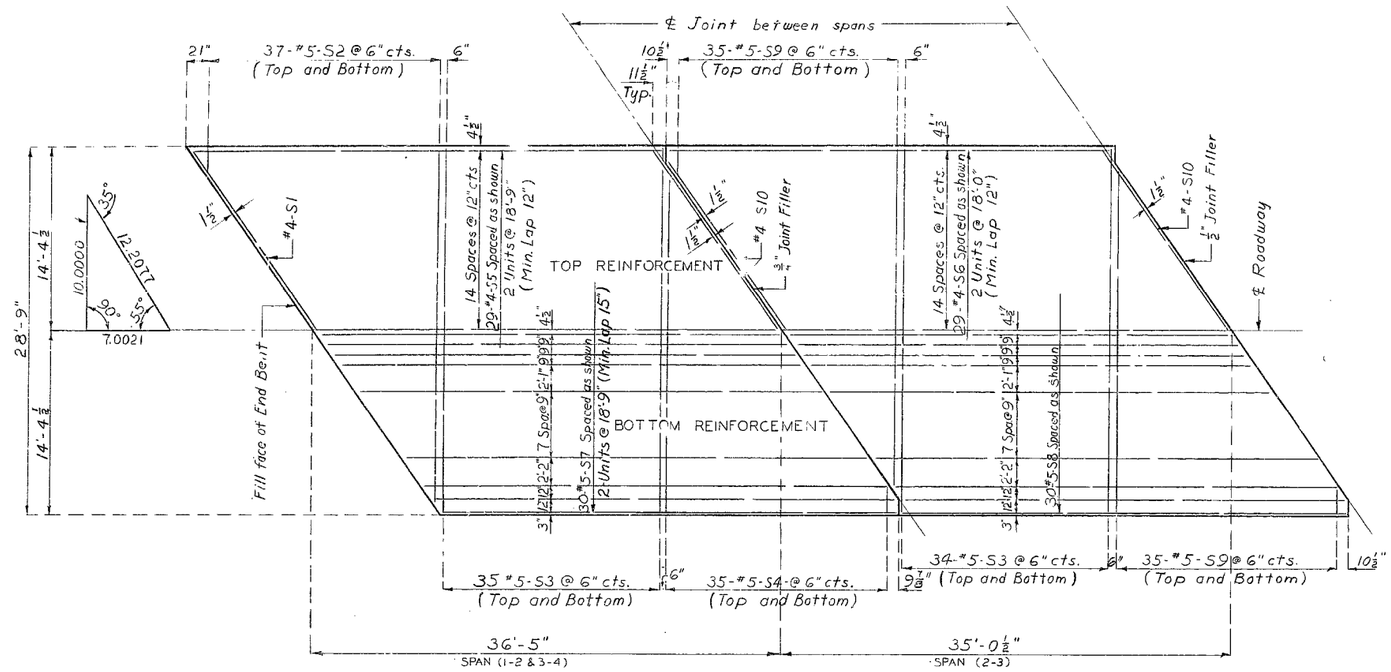
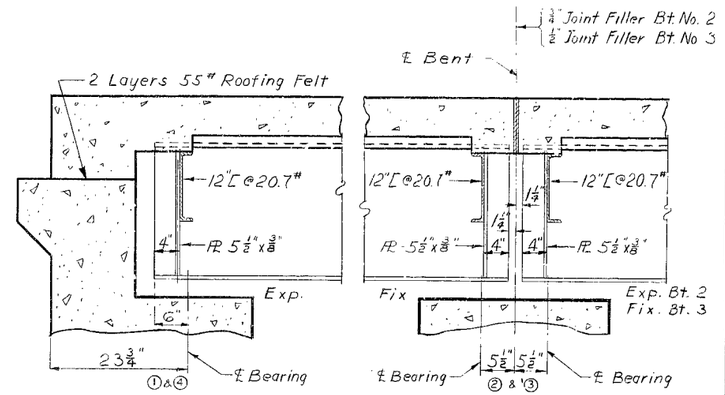
NO CONSTRUCTION WORK

MISSOURI STATE HIGHWAY DEPARTMENT

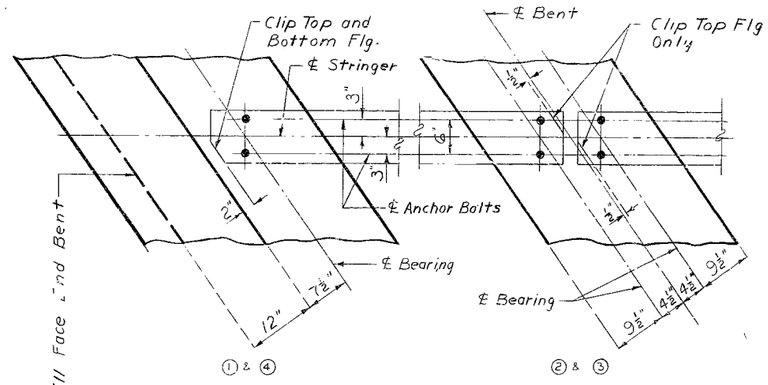
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	16	



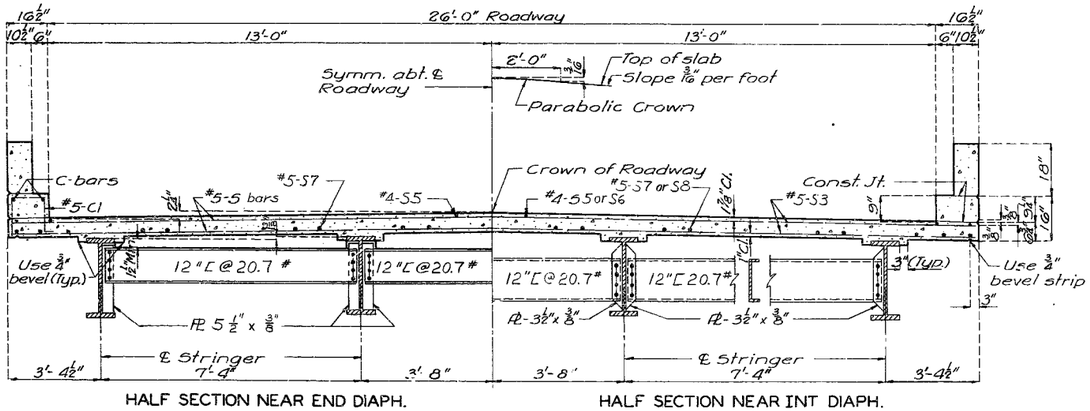
PART PLAN OF SLAB SHOWING REINFORCEMENT



PART LONGITUDINAL SECTION

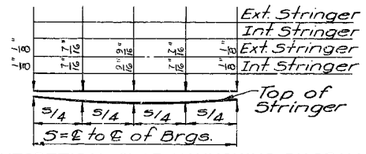


PART ANCHOR BOLT PLAN

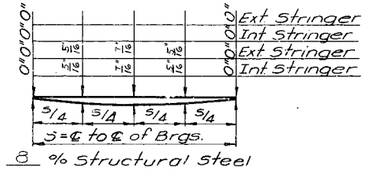


HALF SECTION NEAR END DIAPH. HALF SECTION NEAR INT DIAPH.

Note: For details and reinforcement of curb and parapet not shown see sheet No. 7 of 7.



THEORETICAL SLAB HAUNCHING DIAGRAM



8 % Structural Steel

DEAD LOAD DEFLECTION

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N SOUTH TO ROUTE 156

ABOUT 10.5 MILES N.E. OF CARTHAGE

PROJECT NO. S-892 (2) SBB **STA.** 57+31.0

JASPER **COUNTY**

A-1884

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No.	Date	Revised
40.26.1A	Dec. 1964	Dec. 1965

DETAILED OCT. 1966 BY WEIMHOLT

CHECKED Dec. 1966 BY Epple

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	7	7

GENERAL HANDRAIL NOTES:

All handrail posts shall be set normal to grade.

Aluminum tube handrail shall be "ent to conform to vertical and horizontal alignment of parapet.

Aluminum washer shims between top of parg. at and post base may be used for adjusting handrail alignment. Maximum thickness of shims to be 1/8". Where more tilting of post is required for proper alignment, concrete bearing areas shall be ground down.

All parts of handrail, except anchor bolts, nuts, washers, and set screws are to be of aluminum material.

The contract unit price per linear foot of "Bridge Rail" shall include furnishing and erecting the handrail complete with anchor bolts, shims and insulating compound.

All fillets 1/4" except as noted.

All drafts 3° except as noted.

Pipe rail to be fabricated in two or three panel lengths unless otherwise approved.

Omit set screw on side adjacent to filled joint in parapet and curb at all expansion posts.

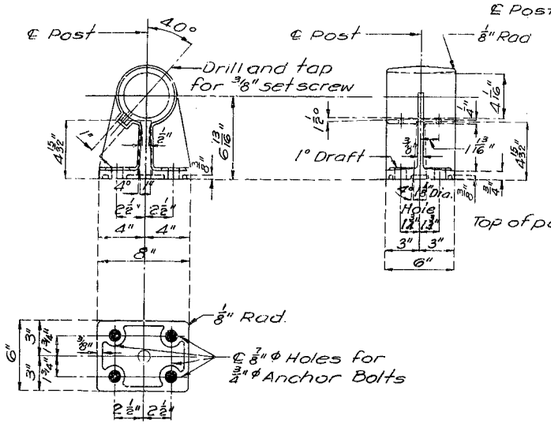
Top of curbs and parapets to be built parallel to grade with curb and parapet joints (except at end posts) normal to grade.

Concrete end posts to be vertical.

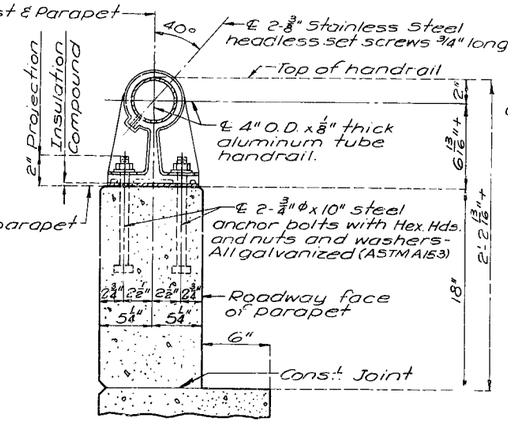
All exposed edges of end posts shall have 1/2" bevel. All exposed edges of curbs and parapets shall have 1/2" radius or 3/8" bevel unless otherwise noted.

If the contractor desires, he may use drive fit cast aluminum end caps in lieu of welded aluminum closure plates.

Integrally cast test coupons and a coat of clear lacquer specified in Std. Spec. 56.2.4 and 56.3.5 respectively will not be required for these rail posts.

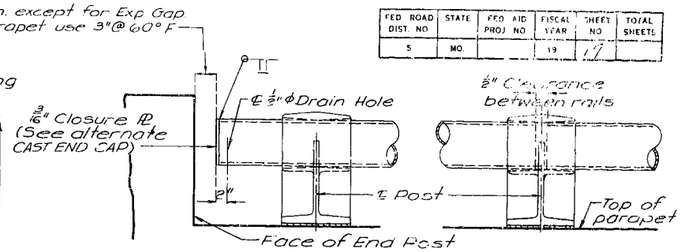


POST DETAILS

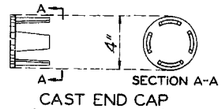


SECTION THRU HANDRAIL

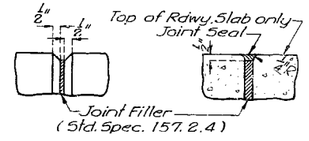
SINGLE TUBE ALUMINUM RAILING



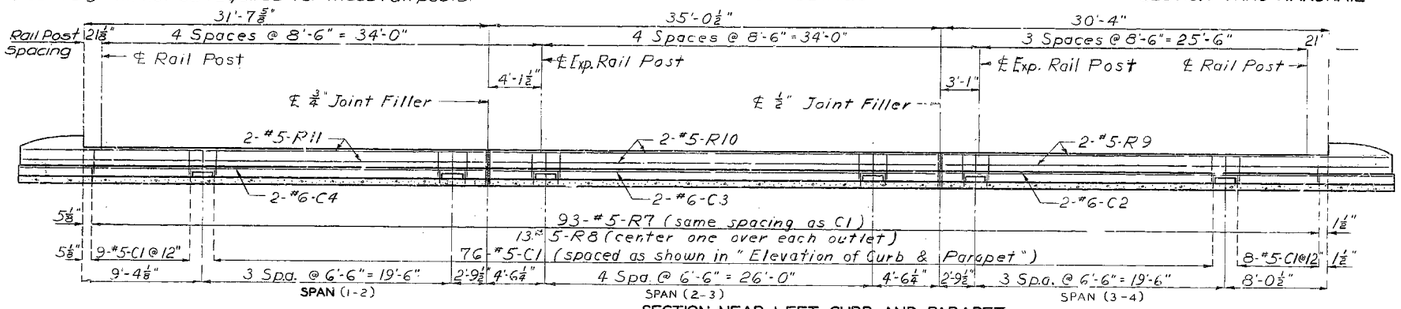
TYPICAL HANDRAIL DETAILS



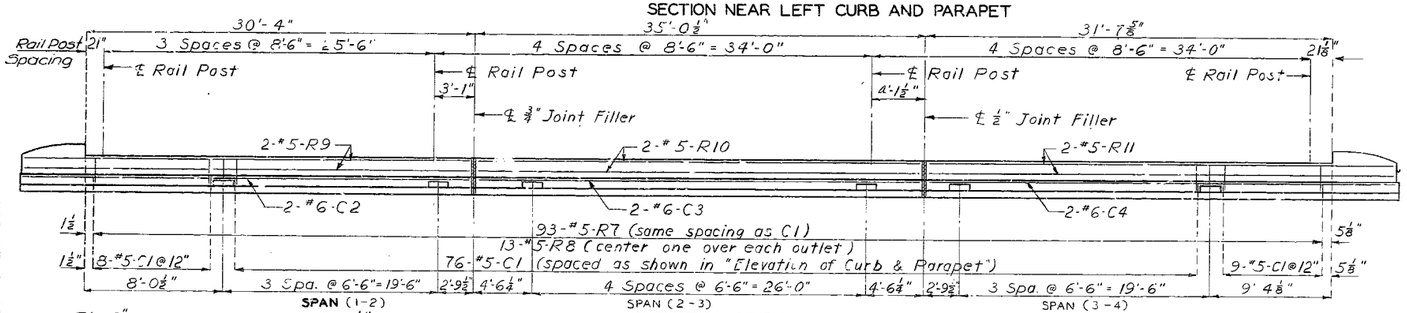
CAST END CAP
(Drive Fit Type)



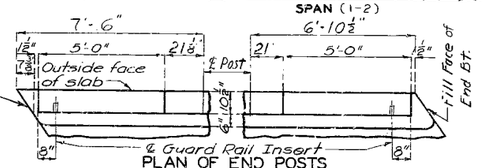
FILLED JOINT DETAILS



SECTION NEAR LEFT CURB AND PARAPET

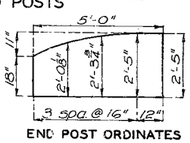


ELEVATION OF RIGHT CURB AND PARAPET

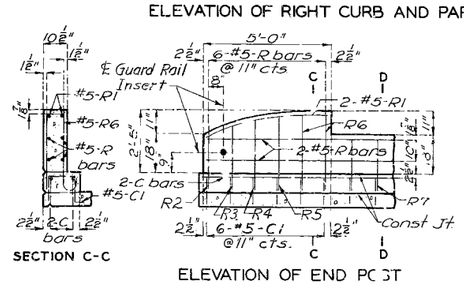


PLAN OF END POSTS

Note: Anchor for attaching guard rail shall be 3/4" threaded (Galv.) inserts having a Min. depth of 4" and filled with a plastic closing plug. Cost for furnishing & installing the insert & plug will be included in price bid for other items.

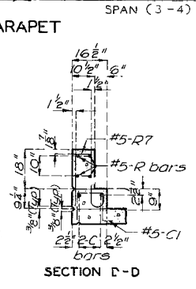


END POST ORDINATES



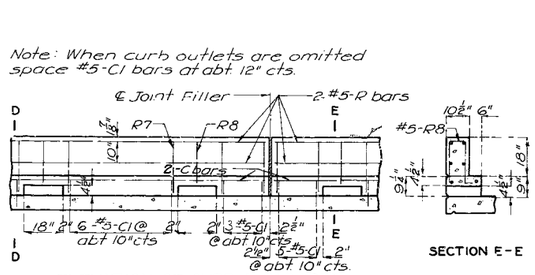
SECTION C-C

ELEVATION OF END POST



SECTION D-D

Note: When curb outlets are omitted space #5-C1 bars at abt. 12" cts.



ELEVATION OF CURB & PARAPET

SECTION E-E

Note: For horizontal curb and parapet bars use a minimum lap of 15" for #5 and 18" for #6

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

BRIDGE OVER STONEYS BR. ANCH

STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66

ABOUT 10.5 MILES N.E. OF CARTHAGE

PROJECT NO. S-892 (2) SBB **STA.** 57 + 31.0

JASPER **COUNTY**

Sheet No. 7 of 7.

A-1884

STD. 15.2-SK.	REVISED
MAR. 1964	JULY 1966

DETAILED OCT. 1966 BY WEIMHOLT

CHECKED Dec 1966 BY Epple

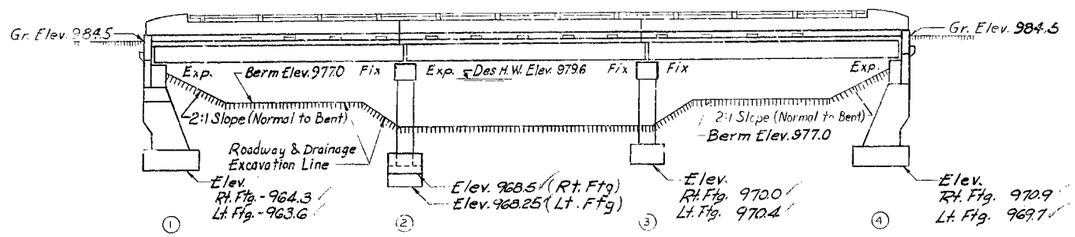
91

MISSOURI STATE HIGHWAY DEPARTMENT

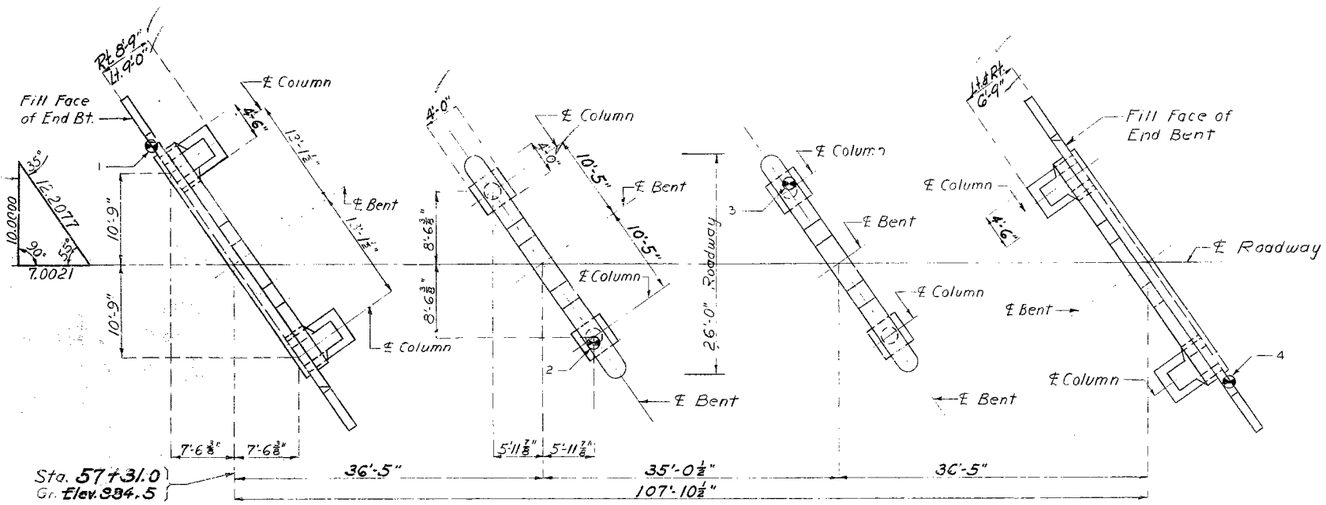
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	11	

FINAL PLANS

35'-35'-35' Simple WF Beam Spans (Composite)

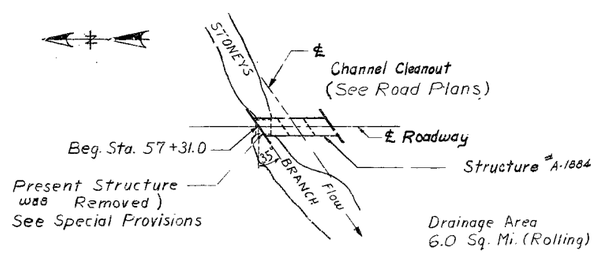


GENERAL ELEVATION



PLAN

Note: For boring data see sheet No. 2 of 7.
⊕ Indicates location of borings



LOCATION SKETCH

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1961

Design Loading:
H15 44 15#/sq. ft Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#

Design Unit Stresses:
Class B Concrete (substructure) f_c = 1,200 psi
Class B1 Concrete (superstructure) f_c = 1,600 psi
Reinforcing Steel f_s = 20,000 psi
Structural Steel (A.S.T.M. A36-63T) f_s = 20,000 psi

Surface Seal:
Superstructure deck surface sealed

Fabricated Steel:
Field connections, High Strength Bolts ¾" ϕ, holes 13/16" ϕ except as noted.

FOOTING DATA				
BENT NO.	1	2	3	4
Foundation Material	Rock	Rock	Rock	Rock
Des. Brg. Tons/Sq. Ft	6.2	4.2	4.2	6.2

QUANTITIES				
ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu. Yd.	135.5		135.5
Class 1 Excavation for Structures Below Plan	Cu. Yd.	33.5		33.5
Class B Concrete	Cu. Yd.	78.3		78.3
Class B1 Concrete	Cu. Yd.		85.4	85.4
Reinforcing Steel	Lb.	10190	22000	32190
Fabricated Structural Carbon Steel	Lb.		35580	35580
Bridge Rail (Single Tube Type)	Lin. Ft.		193	193
Foundation Test Holes	Lin. Ft.	56		56

B.M. #7 "X" on S.W. Wing 15.5' Rt. Sta. 58+48
Elev. 985.06

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N, SOUTH TO ROUTE 66
ABOUT 10.5 MILES N.E. OF CARTHAGE
PROJECT NO. S-882 (2) SBB STA. 57+31.0

JASPER COUNTY

SUBMITTED BY D.B. Jenkins BRIDGE ENGINEER DATE 2-2-67
APPROVED BY M.J. Snider STATE ENGINEER DATE 2-2-67

STD. 5400
A-1884

92

DESIGNED AUG. 1966 BY WEBER
DETAILED OCT. 1966 BY WEIMHOLT & LESLIE
CHECKED DEC. 1966 BY EPPLE

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

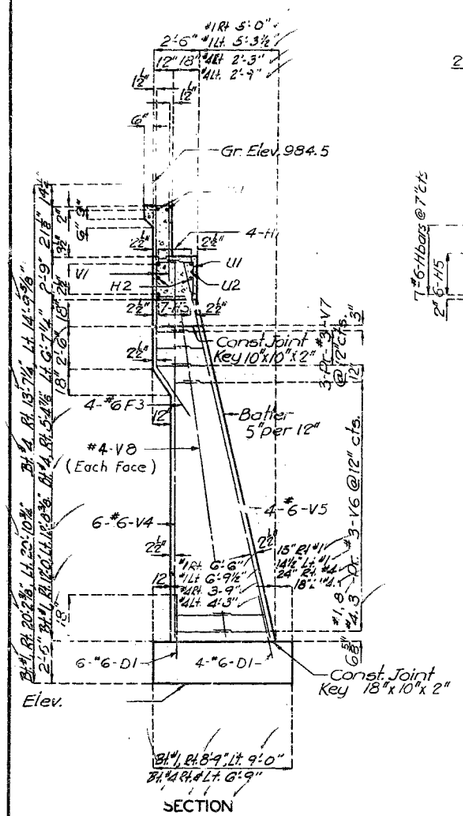
Sheet No. 1A of 3.

FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

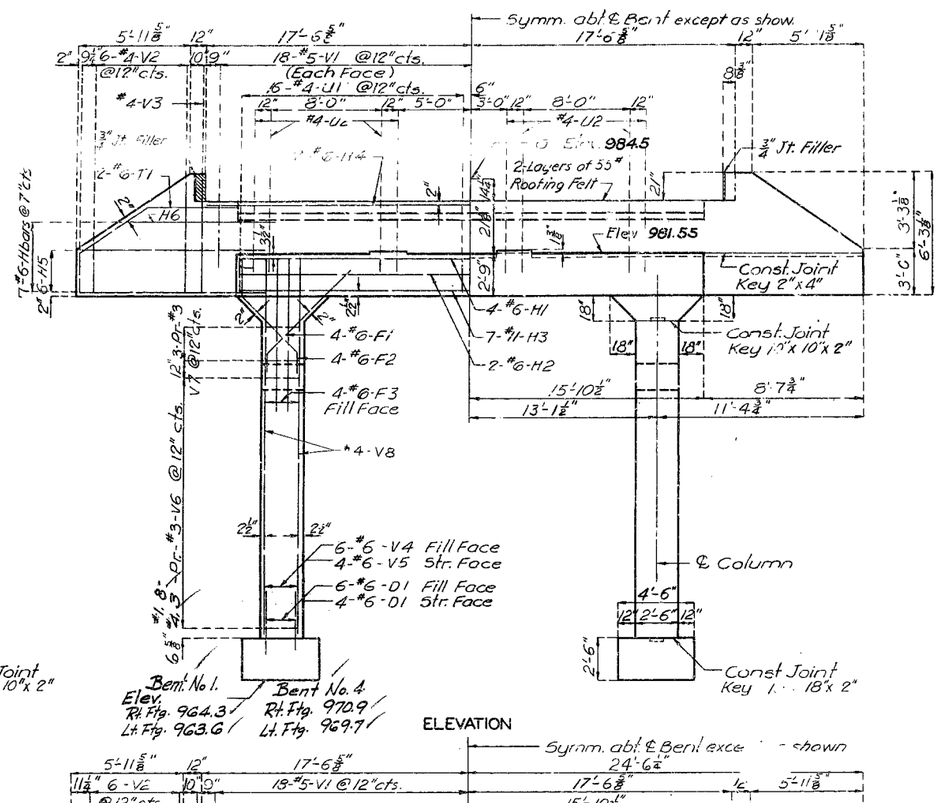
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	13	

FINAL PLANS

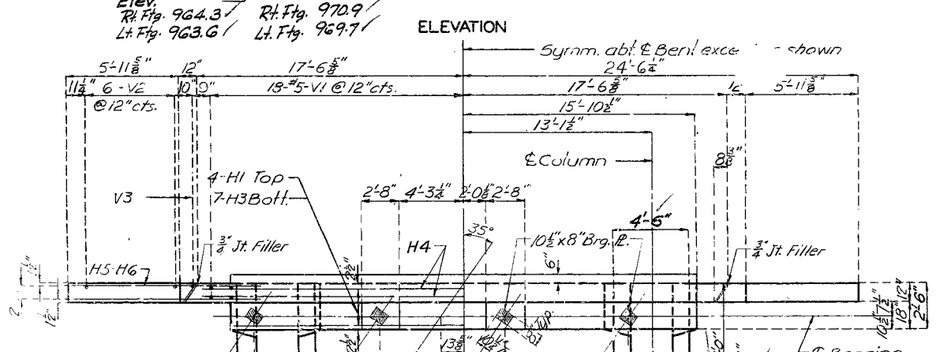


SECTION

DETAIL OF KEYED CONST. JOINT



ELEVATION



PLAN

DETAILS OF END BENTS No. 1 & 4

Note: Fill at end bents No. 1 & 4 not carried above bottom of beam and wings until adjacent superstructure span in place.

No.	Revised	Mar. 1964
14.1		

DETAILED SEPT. 1966 BY LESLIE - WEIMHOLT
CHECKED DEC. 1966 BY EPPLE

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

Sheet No. 3A of 3.

FINISHED

BRIDGE OVER STONEYS BRANCH
STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66
ABOUT 10.5 MILE N.E. OF CARTHAGE
PROJECT NO. S-892 2 SBB **STA.** 57 + 31.0
JASPER **COUNTY**

FINISHED

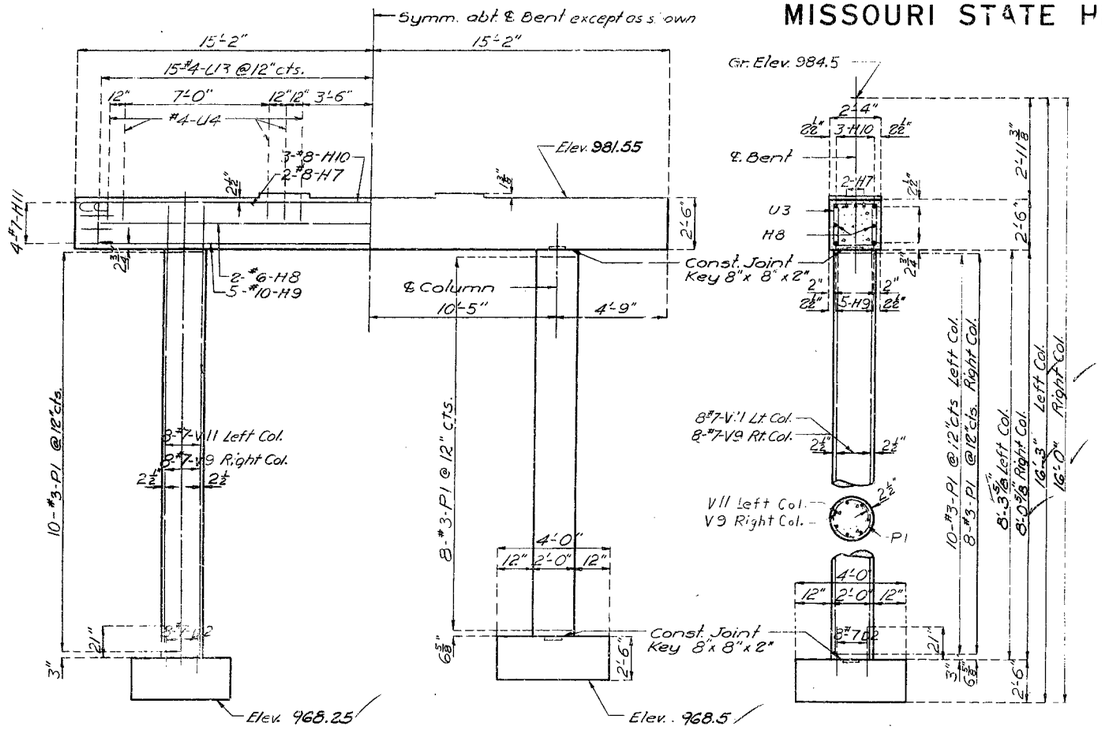
A-1334

FINAL PLANS

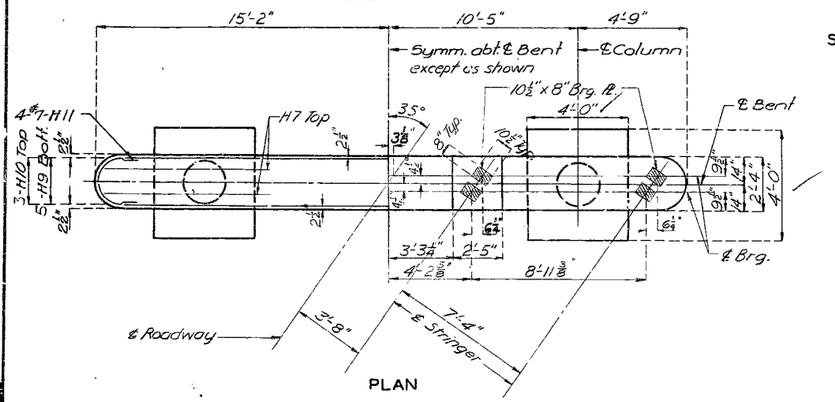
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	[illegible]	19[illegible]	14	

FINAL PLANS



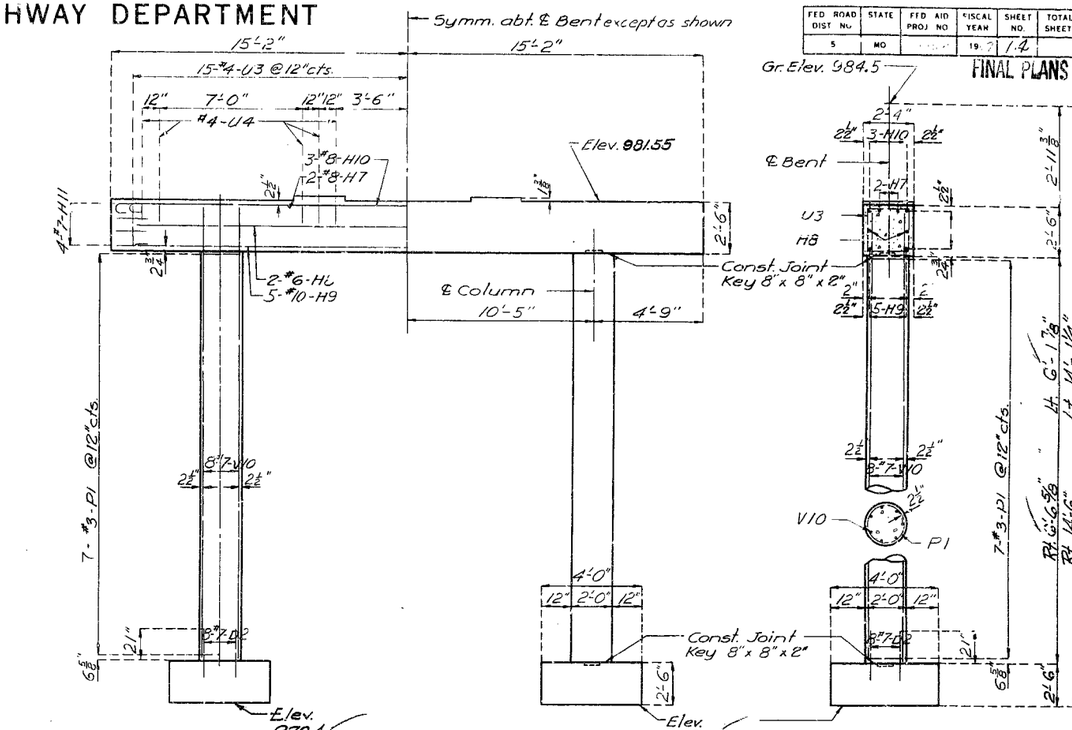
ELEVATION



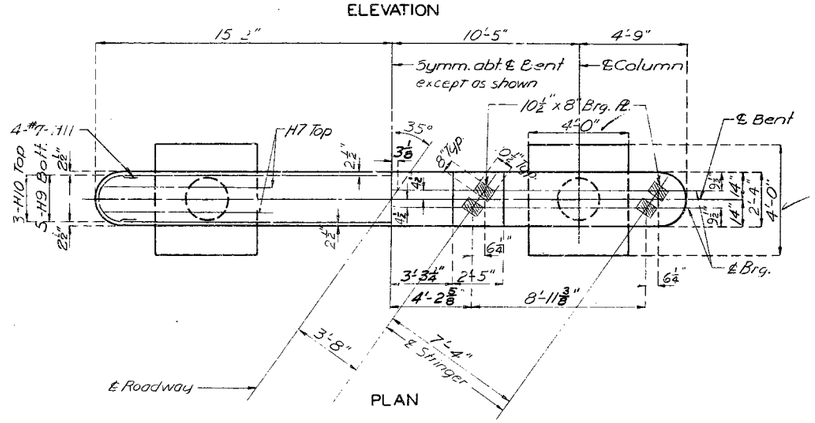
PLAN

DETAILS OF INTERMEDIATE BENT NO. 2

SECTION @ ℄



ELEVATION



PLAN

DETAILS OF INTERMEDIATE BENT NO. 3

SECTION @ ℄

BRIDGE OVER STONEYS BRANCH

STATE ROAD FROM ROUTE N SOUTH TO ROUTE 66

ABOUT 10.5 MILES N.E. OF CARTHAGE

PROJECT NO. S-892 (2) SBB **STA.** 5[illegible]+31.0

JASPER FINISHED **COUNTY** FINISHED

A-1884

94

No.	Revised
192	Jan 1965
Mar. 1964	

DETAILED SEPT. 1966 BY LESLIE

CHECKED DEC. 1966 BY EPPLE

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

Sheet No. 4A of 3.

FINAL PLANS

Missouri Department of Transportation
State Bridge Inspection Report

May 27, 2024
5:11:45PM

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 1575** **BRIDGE: A1884**

GENERAL STRUCTURE INFORMATION

ROUTE: RTBBS	**# SPANS:** 3	**PLACE CODE:** 67340 SHERIDAN	
FEATURE: STONEYS BR	**LANES ON:** 2	**LENGTH:** 108 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 0	**MAXIMUM SPAN:** 36 FT 5 IN	
LOG MILE: 1.083	**COMPASS DIRECTION:** NORTH to SOUTH	**APPROACH ROADWAY:** 21 FT 0 IN	
DETOUR: 22.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 26 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-MAJOR COLLECTOR	**OUT TO OUT:** 28 FT 8 IN	
BUILT: 1967	**NBI OWNER:** MODOT	**AADT:** 619	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2023	
LOCATION: S 3 T 29 R 30 W	**MAINTENANCE DISTRICT:** SW	**AADT TRUCK:** 15.5%	
LATITUDE: 37 16 39.14 (DMS)	**MAINTENANCE COUNTY:** JASPER	**FUTURE AADT:** 929	
LONGITUDE: 94 11 50.11 (DMS)	**SUB AREA:** 7G08	**FUTURE AADT YEAR:** 2043	

BRIDGE INSPECTION INFORMATION

DATE: 07/26/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: MATTHEW GEIGER **ELEMENT:** NO
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: 05/23/2016 **RESPONSIBILITY:** DIVETEAM **CATEGORY:** CHANNEL CROSS SEC′
FREQUENCY: 120 **CALCULATED INTERVAL**:** **NBI:** NO
TEAM LEADER: **INSPECTOR 3:** **METHOD:** MEAS ROD
INSPECTOR 2: CURT STEGEMAN **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: 06/16/2021 **RESPONSIBILITY:** DIVETEAM **CATEGORY:** SHALLOW-WADE
FREQUENCY: 60 **CALCULATED INTERVAL**:** **NBI:** NO
TEAM LEADER: CURT STEGEMAN **INSPECTOR 3:** JESSE ELSEMAN **METHOD:** PROBE
INSPECTOR 2: AARON HOFMANN (NTLQ) **INSPECTOR 4:** TERRY L SHUNAMON

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

(SHUNAT1, 06/28/2021)--DUE TO SCHEDULING AND STAFFING RESTRICTIONS THIS INSPECTION HAS WENT INTO THE 61 MONTH 2021

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

Missouri Department of Transportation
State Bridge Inspection Report

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 1575** **BRIDGE: A1884**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BRITTT1, 08/22/2017)--(36'-35'-36') SMP COMP WF GDR SPANS

[ITEM 58] DECK: 3-SERIOUS CONDITION **COMMENTS:** (NUNNT, 09/01/2023)--60% - 70% SATURATION EACH SPAN.
RATING : 09/01/2023

[ITEM 59] SUPER: 5-FAIR CONDITION **COMMENTS:** (NUNNT, 09/01/2023)--MINOR GIRDER END SECTION LOSS.
RATING : 09/01/2023

[ITEM 60] SUB: 5-FAIR CONDITION **COMMENTS:** (NUNNT, 07/23/2019)--BT. 2 & 3 CAPS NEARLY ALL DELAMINATED OR SPALLED.
RATING : 07/23/2019

[ITEM 61] BANK/CHANNEL: 7-MINOR DAMAGE **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: 8-STABLE FOR CALCULATED **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: DECK ABOVE FLOOD ELEV **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *10/26/2009* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	CURB	BOTH	
REINFORCED CONCRETE	PARAPET	BOTH	
ALUMINUM	CIRCULAR TUBE	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

[ITEM 36C] APPROACH RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 1575** **BRIDGE: A1884**

[ITEM 36D] RAIL END TREATMENT RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	FAIR	

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*ASPHALT*	*BITUMINOUS MAT*	*3.5 IN*	*2023*		*GOOD*

COMMENT: (GEIGEM1, 05/10/2024)--1.75" HOT MIX ASPHALT IN 2023 OVER 1" HOT MIX ASPHALT IN 2020 OVER 0.4" 2016 CHIP SEAL OVER 0.4" 2012 CHIP SEAL.

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*REINFORCED CONCRETE*	*CURB OUTLET*		

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	THROUGHOUT		MODERATE		
DETERIORATION	EDGE		MINOR		
EFFLORESCENCE	THROUGHOUT		LIGHT		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		MODERATE	60 %	

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-2	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MINOR		
EFFLORESCENCE	THROUGHOUT		LIGHT		
MAP CRACKS	BOTTOM		MANY		

PATCHES	THROUGHOUT		MANY	
SATURATION	THROUGHOUT		MODERATE	60 %

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		MINOR		
DETERIORATION	EDGE		MINOR		
EFFLORESCENCE	THROUGHOUT		LIGHT		
MAP CRACKS	BOTTOM		MANY		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		MODERATE	70 %	

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*SIMPLE SPAN*	*STEEL*	*WIDE FLANGE GIRDERS*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	COMPOSITE	36 FT 5 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
PACK RUST	ENDS		MODERATE		
PAINT PEELING	EXTERIOR GIRDERS		MEDIUM		
RUST	GIRDER ENDS		HEAVY		
RUSTING	BOTTOM FLANGE		LIGHT		
SECTION LOSS	GIRDER ENDS		MINOR		

MAIN SPANS-2	COMPOSITE	35 FT 1 IN	NO		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
PACK RUST	ENDS		MODERATE		
RUST	GIRDER ENDS		HEAVY		
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	TOP FLANGE		MEDIUM		
SECTION LOSS	GIRDER ENDS		MINOR		

MAIN SPANS-3	COMPOSITE	36 FT 5 IN	NO		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
PACK RUST	ENDS		MODERATE		
PAINT PEELING	THROUGHOUT		LIGHT		
RUST	GIRDER ENDS		HEAVY		
RUSTING	TOP FLANGE		MEDIUM		
SECTION LOSS	GIRDER ENDS		MINOR		

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1	*RA-35 DEGREES*	*31 FT 9 IN*	*REINFORCED CONCRETE*	*OPEN CONCRETE*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	RANDOM		MODERATE		
EROSION	GROUND LINE		MINOR UNDERMININ		
HORIZONTAL CRACKS	TOP		MEDIUM		

REBAR EXPOSED	RANDOM		FEW		
SPALLS	RANDOM		MINOR		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	THROUGHOUT		MODERATE		
LEACHING	THROUGHOUT		MINOR		
EXPANSION BEARING	STEEL	ROCKER			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
PACK RUST	THROUGHOUT		MINOR		
RUSTING	THROUGHOUT		HEAVY		

BENT-2 RA-35 DEGREES 30 FT 4 IN REINFORCED CONCRETE MULTIPLE COLUMN (STEGEC, 04/28/2005)--PROFILE GRADE ELEVATION @ BENT 2 = 984.5 (FLAT)

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	THROUGHOUT		LARGE		
HORIZONTAL CRACKS	THROUGHOUT		OPEN		
LEACHING	THROUGHOUT		MODERATE		
SATURATION	THROUGHOUT		MODERATE		
SPALLS	THROUGHOUT		MODERATE		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	TOP		MODERATE		
SCALING	WATERLINE		MEDIUM		
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FIXED BEARING	STEEL	PEDESTAL(ROTATING)			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
PACK RUST	THROUGHOUT		HEAVY		
RUSTING	THROUGHOUT		HEAVY		

BENT-3 RA-35 DEGREES 30 FT 4 IN REINFORCED CONCRETE MULTIPLE COLUMN (STEGEC, 04/28/2005)--PROFILE GRADE ELEVATION @ BENT 3 = 984.5 (FLAT)

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	THROUGHOUT		LARGE		
HORIZONTAL CRACKS	THROUGHOUT		OPEN		
LEACHING	THROUGHOUT		MODERATE		
REBAR EXPOSED	THROUGHOUT		MINOR		
SATURATION	THROUGHOUT		MODERATE		
SPALLS	THROUGHOUT		LARGE		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	TOP		MINOR		

REBAR EXPOSED	TOP		FEW		
SCALING	WATERLINE		MEDIUM		
SPALLS	TOP		MINOR		
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
EXPOSED	TOP		PARTIAL		(SHUNAT1, 06/17/2021)--BOTH COLUMNS
EXPANSION BEARING	STEEL	ROCKER			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
PACK RUST	THROUGHOUT		MODERATE		
RUSTING	THROUGHOUT		HEAVY		

ABUTMENT-4 RA-35 DEGREES 31 FT 9 IN REINFORCED CONCRETE OPEN CONCRETE

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
EROSION	GROUND LINE		1INOR UNDERMININ(		
HORIZONTAL CRACKS	THROUGHOUT		MEDIUM		
LEACHING	THROUGHOUT		MODERATE		
REBAR EXPOSED	RANDOM		FEW		
SPALLS	RANDOM		MINOR		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	RANDOM		MODERATE		
EFFLORESCENCE	THROUGHOUT		LIGHT		
HORIZONTAL CRACKS	THROUGHOUT		FINE		
EXPANSION BEARING	STEEL	ROCKER			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
PACK RUST	THROUGHOUT		MODERATE		
RUSTING	THROUGHOUT		HEAVY		

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 1575** **BRIDGE: A1884**

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

STRUCTURE PAINT INFORMATION

CONDITION: FAIR **RUST AMOUNT :** 7 = .2% OF SURFACE RUSTED **STEEL TONS :** 18

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	**PAINT TYPE :**	**PAINT TYPE :** S SYSTEM	**MANUFACTURE :** WATSON
NAME :	**NAME :**	**NAME :** CAL SULPH/LEAD PAINT	**SURFACE PREP :** HAND CLEANED
PAINT COLOR :	**PAINT COLOR :**	**PAINT COLOR :** GRAY	
PAINT YEAR :	**PAINT YEAR :**	**PAINT YEAR :** 2001	
MILS :	**MILS :**	**MILS :** 14	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
DISTRICT SPECIAL STIP	ROADWAY SURFACE	REPAIR CONCRETE > 50 SF	DECK REPLACEMENT	2	07/26/2023 04/10/2024	(NUNNT, 09/01/2023)--55 SF (NUNNT, 09/10/2019)--2026 - POOR DECK AND SUB NOT WORTH RE-USING.

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 1575** **BRIDGE: A1884**

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	5-BETTER THAN MINIMUM	7/23/2019
[Item 68] Deck Geometry Rating:	5-BETTER THAN MINIMUM	3/22/2002
[Item 69] Underclearance:	N-NOT APPLICABLE	5/18/2001
Sufficiency Rating:	73.3%	3/6/2024
Deficiency:	STRUCTURAL	7/23/2019
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1	DELINEATOR		

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**
STATUS: **DATE:**
NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

May 27, 2024
5:09:39pm

COUNTY : JASPER **BRIDGE :** A1884 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 3/15/2024 **SUBMITTAL YEAR :** 2024

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	JASPER
8	Federal ID No.	1575
27	Year Built	1967
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	000BB
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT BB S
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	07-RURAL MAJOR COLLECTOR
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	SHERIDAN
	Code	67340
9	Location	S 3 T 29 N R 30 W
11	Milepoint	1.09 miles
16	Latitude	37 D 16 M 39 S
17	Longitude	94 D 11 M 50 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	619
30	AADT Year	2023
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	16%
114	Future AADT	929
115	Future AADT Year	2043

UNDERRECORD INFORMATION

6	Features Intersected	STONEYS BR
42B	Type of Service Under	WATERWAY
28B	Lanes Under Structure	00
54A	Vert. Clearance Ref.	N/A
54B	Vert. Clearance	0 Ft. 0 In.
55A	Rt. Lat Clear Ref.	N/A
55B	Rt. Lat Clearance	0 Ft. 0 In.
56	Left Lat Clearance	0 Ft. 0 In.
38	Navigation Control	PERMIT NOT REQ
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	21.88 miles
32	Approach Roadway Width	20 Ft. 12 In.
34	Skew	35.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	25 Ft. 11 In.
48	Maximum Span Length	36 Ft. 5 In.
49	Structure Length	107 Ft. 11 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	25 Ft. 11 In.
52	Deck Width (Out-Out)	28 Ft. 7 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = A1884 and Inventory_Appraisal_Submittal_Year = 2024

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

May 27, 2024
5:09:39pm

COUNTY : JASPER **BRIDGE :** A1884 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 3/15/2024 **SUBMITTAL YEAR :** 2024

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 15
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	LOAD FACTOR
64	Operating Rating	57 Tons.
65	Inventory Rating Meth	LOAD FACTOR
66	Inventory Rating	34 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	73.3 Percent
	Deficiency Rating	STRUCTURAL
	Funding Eligibility	PARTIAL
75A	Proposed Work	REHAB-GENERAL DETERIORAT
75B	Work Done By	Contract
76	New Struc Length	137 Ft. 10 In.
94	Struc Improve Cost	$ 544,000
95	Roadway Improve Cost	$ 54,000
96	Total Project Cost	$ 816,000
97	Year of Cost Estimates	2024

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND
36C	Approach Rail App. Rating	DOES NOT MEET ACCEPT STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	5
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	N
71	Waterway Adeq. App. Rating	8
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	8

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	3
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	6 BITUMINOUS
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	3
59	Superstructure Cond. Rating	5
60	Substructure Cond. Rating	5
61	Channel /Channel Protection Cond. Rating	7
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	7 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

FIELD POSTING INFORMATION

Field Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

Design_No = A1884 and Inventory_Appraisal_Submittal_Year = 2024

EXHIBIT "I"

SCOPE OF SERVICES

Job. No.	JSR0137	JSR0142
Scope	Replace A1884	Replace S0834
Preliminary Survey		
Survey		
Prel. Geotech Report		
Foundation Investigation		
Staking of Sounding Locations		
Preliminary Bridge Design	x	x
Final Bridge PSE	x	x
Bridge Load Rating	x	x
Preliminary Roadway Design	x	x
ROW Plans	x	x
Final Roadway PSE	x	x
RR Coordination		
Utility Coordination	x	x
Environmental Services		

The consultant shall perform the following services, all in accordance with the standard practice of the Commission and the following:

AASHTO "A Policy on Geometric Design of Highways and Streets" (latest version)

AASHTO "Roadside Design Guide" (latest version)

AASHTO "LRFD Design methods" (latest version)

AASHTO "Highway Drainage Guidelines" (latest version)

"Manual on Uniform Traffic Control Devices" (latest version)

"Highway Capacity Manual" (latest version)

I Administration

CONSULTANT shall participate in the following as part of the Administration tasks:

1. Attend and document milestone project meetings with MoDOT (CORE Team meetings). Meetings will be held virtually except for the project kick off and final design field check meetings.
2. Correspondence (emails, letters, meeting minutes, phone calls)
3. Set up the project and conduct Kick-Off Meeting.

4. Coordination with subconsultants.
5. Participate in one Public Meeting. Develop handouts and exhibits for meeting.
6. Provide monthly progress reports and invoices and review subconsultants invoices and reports.
7. Provide exhibits, sketches, and back-up data to MoDOT on an as-needed basis.
8. Provide information to support the SW District MoDOT staff in maintaining a public website for the project staff to inform the public and update impacts related to the project including timelines, changes to the project, meetings, comments. The website to be maintained through the construction phase.

II Utility Coordination

The CONSULTANT shall perform the following utility coordination tasks:

1. Obtain maps from utilities of their known locations and adjust survey limits as needed.
2. Coordinate submittal of preliminary plans to utility companies.
3. Coordinate with utility companies on the development of the plan of adjustment and obtain cost estimates for reimbursable utilities for the District Utility Engineer's approval.
4. Show the existing utility facilities and plan of adjustments for proposed utilities facilities in the contract plans. (plans sheets, cross sections, culvert sections)
8 Coordinate with utility owner the relocation of each impacted utility on the project during design and construction.
9 Prepare special utility sheets as necessary (including utility profile and exhibits).
10 Assist District Utility Engineer in the preparation of agreements (includes municipal agreements).
11 Identify locations for power service needs, prepare service request for submittal and coordinate with the power company to obtain estimated costs.
12 Coordinate with MoDOT (PM and District Utility Engineer) and to provide SUE test hole information at critical utility locations.
13 Prepare utility job special provision and information for the preparation of the Utility Status Letter for District Utility Engineer.
14 Provide assistance and answer utility related questions during the construction phase for MoDOT staff and the roadway contractor.

III Preliminary Roadway Design

The CONSULTANT'S attention is directed to Chapter 235 of the MoDOT Engineering Policy Guide (EPG) for general guidelines and requirements for preliminary design. Other chapters may be applicable for preliminary design preparation.

(A) Upon approval of the design criteria memorandum by COMMISSION, the CONSULTANT shall undertake the following to develop the preliminary design phase:

a. Prepare preliminary plans, as outlined in the MoDOT EPG.
   i. The COMMISSION shall furnish the CONSULTANT traffic information for the construction and design years to be used in the preliminary plans.

ii. The COMMISSION shall furnish the CONSULTANT the latest accident data and traffic information used to calculate the project accident rate. The COMMISSION shall furnish the CONSULTANT the "statewide accident rate for a similar class of roadway" and any high hazard locations within the project limits.
iii. The CONSULTANT shall submit the preliminary plans to the COMMISSION for review and approval as shown in Exhibit IV.

b. The preliminary plans shall be prepared in accordance with the applicable sections of the MoDOT EPG, as to what shall be shown thereon, including proposed design features.
   i. The plan view English scale shall be 1"=50' horizontal (or different scale as determined by MoDOT Project Manager for clarity) and extend 100 feet beyond project limits.
   ii. The profile view English scale shall be 1"=50' horizontal, and 1"=10' vertical.
c. The CONSULTANT may have to review preliminary cross sections sufficiently to make a cost comparison between using retaining walls versus acquiring additional right of way for all proposed wall locations.
d. The CONSULTANT shall prepare the construction estimate. The COMMISSION shall prepare the right of way estimate based on the right of way requirements furnished by the CONSULTANT.
e. The preliminary plans shall be submitted to the COMMISSION for review and approval. A letter of transmittal shall be provided with the preliminary plan submittal. The COMMISSION shall furnish the template for the letter of transmittal. The construction cost estimate shall also be submitted with the preliminary plans.
f. The preliminary plans shall include the tentative additional easement and right of way limits, property lines and ownerships, section lines, township and ranges, any U.S. Surveys, city limits, and a general outline of the construction staging, critical design items and other items as outlined in the EPG.
g. Traffic assignments shall be shown on the respective roadways or on a line sketch of the roadways.
h. Typical sections shall indicate heavy, medium or light duty pavement for new roadways, along with descriptions of the existing roadway types remaining in place.

(B) A Preliminary Field Check will be arranged by the CONSULTANT with the COMMISSION to discuss design features in the project area.

(C) The CONSULTANT shall provide the COMMISSION with information for proper environmental and cultural clearance including submittal of the preliminary stage RES, right of way stage RES (if needed) and final stage RES. Items that may need to be addressed include historical buildings, archaeological sites, historic bridges,

conversion of farmland, endangered species, wetlands, parklands and historical sites.

(D) The CONSULTANT shall prepare and submit the Bridge Survey Report, Bridge Survey Sheets, and Bridge Survey Checklist.

(E) The CONSULTANT shall set horizontal and vertical control for the project and provide the COMMISSION the combined adjustment factor. All control furnished by the CONSULTANT shall use current datums and adjustments.

(F) The CONSULTANT shall provide all land boundary work and legal descriptions to the COMMISSION for review and approval prior to right of way plans submittal.

(G) The COMMISSION shall provide the pavement design and general Job Special Provisions related to the project including any special design elements.

(H) The COMMISSION may hold a public meeting for this project either in person or virtually and the CONSULTANT will be required to attend and coordinate meeting. The CONSULTANT shall provide exhibits for MoDOT public meeting as requested and will refer to the sections of the EPG concerning public involvement.

IV Preliminary Bridge Design

(A) Perform the geometric analysis at the proposed bridge site necessary to develop type, size and location drawings consisting of a general plan and elevation plan of the structures, typical roadway sections and roadway profiles. This includes preparation of the Bridge Memorandum & Layout (including the itemized preliminary bridge estimate).

(B) The structure and/or box culvert type and size (if applicable) shall be based on roadway alignments, geometric analysis, hydraulic analysis (if applicable), spill slope requirements, roadway overpass clearances, grades and/or clear zone requirements.

(C) The superstructure type shall be dependent upon site constraints and a detailed cost analysis comparison.

(D) All requirements of the Federal Emergency Management Agency’s National Flood Insurance Program shall be met.

(E) Discharges will be estimated using USGS Regression Equations and available stream gauge data (if applicable).

(F) HEC-RAS shall be used to model of the natural, existing and proposed conditions (if applicable).

(G) Scour calculations shall be performed in accordance with FHWA Hydraulic Engineering Circular No. 18 (if applicable).

(H) The results of the hydrologic, hydraulic and scour analysis shall be documented in the Bridge Hydraulic and Scour Report (if applicable).

(I) All requirements outlined in the MoDOT Engineering Policy Guide (EPG) shall be met. The CONSULTANT shall follow MoDOT's "practical design" philosophy and submit any design exceptions as necessary.

(J) Develop final detailed design criteria in the form of Bridge Memorandum and Bridge Design Layout documents.

V Section 404 Corps of Engineers Permit (if applicable)

The CONSULTANT shall provide the following information necessary to allow MoDOT staff to apply for any required Section 404 Corps of Engineer Permits. If the permit is required due to bridge construction, the application data shall be submitted no later than with the T.S.&L. drawings. All information should be provided to the MoDOT Project Manager who will forward the information to Central Office Design.

(A) Provide the amount and type of excavation and material that will be used in streams, lakes, and wetlands below the Corps of Engineers' ordinary high water line (OHL) elevations.

(B) Provide location and quantities of permanent berms and spill fills below OHL.
   a. Earth fill, rock blanket (square feet and cubic yards)
   b. Rock blanket along right descending bank and left descending bank (linear feet)
   c. Rock ditch (square feet)

(C) Provide location, excavation and size of pier below OHL.
   a. Excavation (cubic yards)
   b. Pier (square feet)

(D) Provide channel realignment data.
   a. Existing channel length of section to be modified (feet)
   b. Average channel width of section to be modified (feet)
   c. Realigned section, length and width (feet)

(E) Provide temporary fill amounts in wetlands or below OHL in streams.
   a. Earth fill (square feet and cubic yards)
   b. Class C (square feet and cubic yards)

(F) Provide information about temporary fills and shoring.
   a. Location of temporary fills and shoring
   b. Source of material
   c. Final disposition of removed materials

(G) Provide information about temporary culverts.
   a. Number of culverts

b. Size (inches)
c. Length (feet)

(H) Provide information on channel cleanout – excavation below OHL.
   a. Cleanout upstream and downstream of structure (linear feet)
   b. Total quantity of material to be removed below OHL (square feet and cubic yards)

(I) Provide 8 ½-inch by 11-inch copies of any plan or profile sheets required for the permit application.

(J) Provide bridge elevation and plan views with OHL indicated.

VI Right of Way Design

(A) The CONSULTANT shall prepare right of way plans, which may be separate drawings from those used for design and construction details. The right of way plans shall show alignment, geometric design, removal of improvements, drainage facilities, property lines and ownership, sub-division lot lines, other land survey information, street lines and existing right of way and easements. The CONSULTANT should also include any plan details, which will require additional right of way or permanent, temporary or utility easements during the construction phase of the project such as bypasses, temporary erosion control, etc. Right of way plans include title sheet, typical sections, profile sheets, and cross sections of the roadway, entrances and side roads. Areas of new right of way, permanent easements and/or temporary easements required from each individual property owner may be shown in tabular form on the respective sheets.

   a. The CONSULTANT shall finalize any previous review of the roadway cross sections sufficiently to determine the feasibility of constructing retaining walls versus obtaining additional right of way. This final review shall consist of construction estimates versus right of way estimates.
   b. Upon completion of the estimates by COMMISSION and CONSULTANT, the CONSULTANT shall recommend to the COMMISSION a choice at the various locations which warrant consideration of the alternate retaining wall versus right of way solutions. The COMMISSION shall make the final determination of purchasing right of way, or constructing retaining walls.

(B) Right of way plans shall be submitted to the COMMISSION for review and approval. The right of way plans shall be at the same scale as the construction plans. The right of way plans shall include any design details that will control the width of right of way and necessary easements.

   a. New right of way lines and all easements shall be dimensioned by station and offset distance from the centerline, or crossroad centerlines, if necessary. Bearings and distances on the right of way lines may be required.

b. The following minimum design features shall be included on the right of way plans:
    i. Title sheet with appropriate project limits, access note and traffic data completed.
    ii. Typical Sections
    iii. Cross sections at 100’ intervals, including additional sections at each entrance with new and existing entrance grades.
    iv. Construction limits (slope lines); drainage facilities; entrances and their reference location, width and type along with their existing and future grade percentage; property owners, with areas of new right of way, easements and remaining property; centerline bearing, ties to legal land corners from centerline stations with notation for corner witness by a registered land surveyor; existing utility locations and easements, including replacement utility easements; horizontal curvature information; and proper right of way symbolization for new right of way (access control) and easements, including areas which may be required to accommodate temporary erosion control.
    v. Township, Range, Section and/or U.S. Survey information broken down t ¼ ¼ section line level on each plan sheet near the title block or appropriate survey/section line.

(C) The CONSULTANT shall provide an updated construction estimate for the Right of Way design stage.

(D) The COMMISSION shall review, approve and certify the right of way plans as completed by the CONSULTANT. The CONSULTANT shall provide one (1) electronic set of fully signed and sealed right of way plans, for the COMMISSION’S use.

(E) The CONSULTANT shall provide title insurance information for all parcels with new right of way acquisition and the last deed of record for any parcel with easements.

(F) The COMMISSION will prepare right of way appraisals and secure the necessary right of way by negotiation or condemnation, if necessary, for construction of this project.

(G) The CONSULTANT shall be responsible for staking and re-staking tentative right of way on individual properties, as required by MoDOT staff, during right of way negotiation and acquisition phase of the project. The CONSULTANT shall also set permanent monuments as shown on the recordable land survey.

(H) The CONSULTANT shall be responsible for making all revisions to the right of way and construction plans due to negotiations with the property owners in an effort to acquire right of way.

(I) The CONSULTANT shall write, sign and seal deed descriptions for all right of way acquisitions on MoDOT's approved Exhibit A form and submit to COMMISSION.

(J) The CONSULTANT will provide the COMMISSION with information for proper environmental and cultural clearance including submittal of the Right of Way stage RES. Items that may need to be addressed include historical buildings, archaeological sites, historic bridges, conversion of farmland, endangered species, wetlands, parklands and historical sites.

VII Final Roadway Design

(A) The COMMISSION will secure execution of municipal agreements with the cities and/or county agreements. A copy of the executed agreements will be furnished to the CONSULTANT for his information. The CONSULTANT shall conform to all design provisions of these agreements.

(B) A final design field check shall be held with CONSULTANT and COMMISSION representatives prior to completing final design plan quantities. The CONSULTANT shall make any necessary revisions to the final plans as determined by this design field check.

(C) The CONSULTANT shall prepare detailed temporary erosion control plans for review and approval before inclusion in the final design plans. The CONSULTANT will submit a Final Plans stage RES and help ensure previous RES items have been addressed.

(D) The CONSULTANT shall prepare computations for all design plan quantities. All plan quantities shall be shown on the Quantity Sheets, by construction stage, if applicable. The format for these sheets shall be furnished by the COMMISSION. Specialty items may have separate sheets for quantity tabulations.

(E) The CONSULTANT shall prepare for review and approval by the COMMISSION all General Job Special Provisions, which are to supersede the Missouri Standard Specification for Highway Construction. A brief reason for the deviation from the standard plans and specifications should also be provided. The CONSULTANT shall prepare only Job Special Provisions related to design elements shown in the plans.

(F) The following list shall be considered the minimum requirements for a complete set of Final Design Plans.

a. Title Sheet
b. Typical Sections
c. Quantity Sheets
d. Plan Sheets at 1"=50' horizontal (or different scale as determined by MoDOT Project Manager for clarity). Plan sheets shall include all necessary adjustments to signing and proposed pavement marking.

e. Profile Sheets at 1"=50' horizontal and 1"=10' vertical
f. Culvert Sections at 1"=10', if needed
g. Special Sheets for geometrics, referenced points, grading plan, traffic control plan, temporary erosion control plan and any other sheets for special design features.
h. Earthwork Quantities, Cross Sections at 25' intervals, 1"=10' (1:100), horizontal and vertical, including entrance sections with existing and proposed grades
i. Tabulation of Quantity Sheets
j. Job Special Provisions in electronic format readable in COMMISSION'S current word processor
k. File with the bid items and quantities as generated by COMMISSION'S Estimate Program
l. Construction Workday Study
m. Transportation Management Plan
n. Final Plans Checklist Form D-12

(G) Additional plans and information may be required to complete the Final Design Plans. With the submittal of the Final Design the CONSULTANT shall also provide the COMMISSION a statement that an internal quality control check has been conducted and to the best of the CONSULTANT'S knowledge the final design plans are free of gross errors, misleading or confusing typos, and includes adequate information to construct the project.

(H) The CONSULTANT shall prepare all plans through the use of a Computer Aided Drafting (CAD) program. The CONSULTANT shall conform to MoDOT's Specifications for Computer Deliverable Contract Plans as referenced in the MoDOT EPG.

(I) The CONSULTANT shall furnish the COMMISSION the following completed sheets and documents, as applicable, for each separate construction project included in this contract, as follows:

a. Final Design Plans showing profile grades, geometric data, alignment data, etc.
b. One (1) electronic copy of the location sketch for Commission Approval submitted in electronic format.
c. Draft copy of the job special provisions related to design elements for review. After corrections, the job special provisions shall be furnished in electronic format utilizing the COMMISSION'S latest word processing program.
d. One (1) legible electronic copy of engineering calculations and analysis.
e. One (1) electronic copy of a complete summary of quantities and estimate of construction costs. The estimate shall be prepared using the latest version of MoDOT's ESTIMATE program.
f. One (1) electronic copy of Electronic Design Data.
g. One (1) electronic copy of a workday study showing the estimated number of workdays required to construct each project.

h. The CONSULTANT shall provide a 3D model of the project exported from Geopak Open Roads Designer software for the COMMISSION'S use.

VII Final Bridge Design

Furnish to the COMMISSION fully checked design plans, job special provisions, design computations, quantity computations, final cost estimate, and a construction workday study for the structure(s). The CONSULTANT is expected to make the COMMISSION aware of more economical design alternatives that may become apparent during the preparation of the final design.

(A) The plans shall be complete and shall cover all parts of the structure they represent. The degree of detail shall be comparable to that furnished on typical plans prepared by the COMMISSION. High resolution final signed and sealed plans, will be submitted in Adobe Acrobat Reader format version 7 or higher. Final signed and sealed plans shall be in pdf full size (34" x 22") format. These deliverables shall use the file naming convention and be in accordance with the "Specifications of Computer Deliverable Contract Plans" requirement outlined in the Commission's Engineering Policy Guide, Section 237.13.3. The electronic plans in Microstation format cannot be signed and sealed. The electronic submittals shall be made in a method suitable to MoDOT.

(B) All construction changes made to the plans during construction of the project shall also be submitted electronically in Adobe Acrobat and Microstation format.

(C) The job special provisions shall be complete and describe all design features, construction procedures, or material requirements in the plans that are deviations from the latest edition of the Missouri Standard Plans for Highway Construction. Typical job special provisions that have been developed by MoDOT for previous jobs are posted on MoDOT's website and are available for use and modification as needed. The job special provisions shall include a table of contents sheet that is signed and sealed by a professional engineer registered in Missouri. The signed and sealed job special provisions shall also be submitted in Adobe Acrobat Reader format, version 7 or higher. Job Special Provisions shall also be submitted in Microstation Word format. The submittal letter shall explain the need for each provision.

(D) The design computations and plans shall be acceptable to and will become the property of the Commission. The CONSULTANT shall submit design computations in Adobe Acrobat Reader version 7.0 format or greater. The files shall be transferred in a manner acceptable to MoDOT. The design computations shall contain an index file, with electronic links to the files contained within. Submittals shall include a set of design computations for each bridge. The design computations shall not be combined with the Microstation or the Adobe Acrobat Reader submittals.

(E) The final estimate submitted by the CONSULTANT shall include backup material that supports the estimates made for non-standard or lump sum pay items.

(F) The CONSULTANT shall submit the hours and cost summarizing the design effort for each bridge. The summary shall include separate amounts for: Number of Hours for Bridge Preliminary Design, Cost of Bridge Preliminary Design, Number of Hours for Bridge Final Design, Cost of Bridge Final Design. Generally, the above amounts should include all hours and costs invoiced that are attributable to bridge design and plans preparation up to the point of turning in the signed and sealed plans. It should not include hours attributable to preparing the bridge survey, final construction cost estimate, or workday study.

(G) Bridge Load Rating: The CONSULTANT shall furnish to the COMMISSION fully checked load ratings for the structure(s) in accordance with EPG Section 753.15. The load rating files shall be acceptable to, and will become the property of, the COMMISSION. The CONSULTANT shall submit the load ratings in an acceptable electronic format (.xml or other approved method) created using AASHTOWare BrR Bridge Rating software version 6.8 or higher. The CONSULTANT shall verify the accuracy of any load rating files provided by the COMMISSION prior to making modifications.

IX Construction Support

(A) The CONSULTANT shall be available to the COMMISSION to discuss and interpret plans and specifications during the bidding and construction phase of the project as determined necessary by the Engineer.

(B) The CONSULTANT shall be available to provide Shop Drawing review of CONTRACTOR submittals pertaining to essential structural components and review any contractor's Value Engineering Proposals.

(C) The CONSULTANT may be required to attend a pre-construction meeting, and a post construction meeting via TEAMS.

(D) If issues arise during construction, there will be a direct line of communication established between the MoDOT Construction Office and the CONSULTANT. The CONSULTANT will immediately inform the MoDOT Design Division or MoDOT Bridge Division of any recommendations or clarifications made to the Construction Office.

EXHIBIT II

SERVICES PROVIDED BY THE COMMISSION

The Commission will furnish to the Consultant without charge the following information:

A. General design criteria.
B. Available standard detail sheets in Microstation format.
C. Traffic and accident data.
D. Pavement Design Selection
E. Foundation Investigation and Preliminary Geotechnical Report
F. Survey and Data
G. All necessary environment services identified through the Request for Environmental Services
H. Right of way and easement acquisition.

The Consultant shall proceed with the final design and detail plans in accordance with the data approved or furnished by the Commission which will meet with the general standards adopted by AASHTO and approved by the Department of Transportation as provided by Title 23, United States Code, Section 109(b).

EXHIBIT IV

PERIOD OF SERVICE

The Consultant shall make submittals in accordance with the schedule described below

Period of Service	JSR0137	JSR0142
End Period of Service	3/31/2027	3/31/2027
Letting	Jan 2026	Jan 2026
PSE	11/12/2025	11/12/2025
100% Review Plans	10/7/2025	10/7/2025
Final RES	9/13/2025	9/13/2025
TSL Bridge Drawings	5/26/2025	5/26/2025
ROW Plans/ROW RES*	4/30/2025	4/30/2025
ROW Review Plans*	4/2/2025	4/2/2025
Public Meeting Exhibits	12/2/2024	12/2/2024
Bridge Memo	12/2/2024	12/2/2024
Preliminary Roadway Plans	12/2/2024	12/2/2024
Preliminary Review Plans	11/4/2024	11/4/2024
Preliminary RES	10/11/2024	10/11/2024

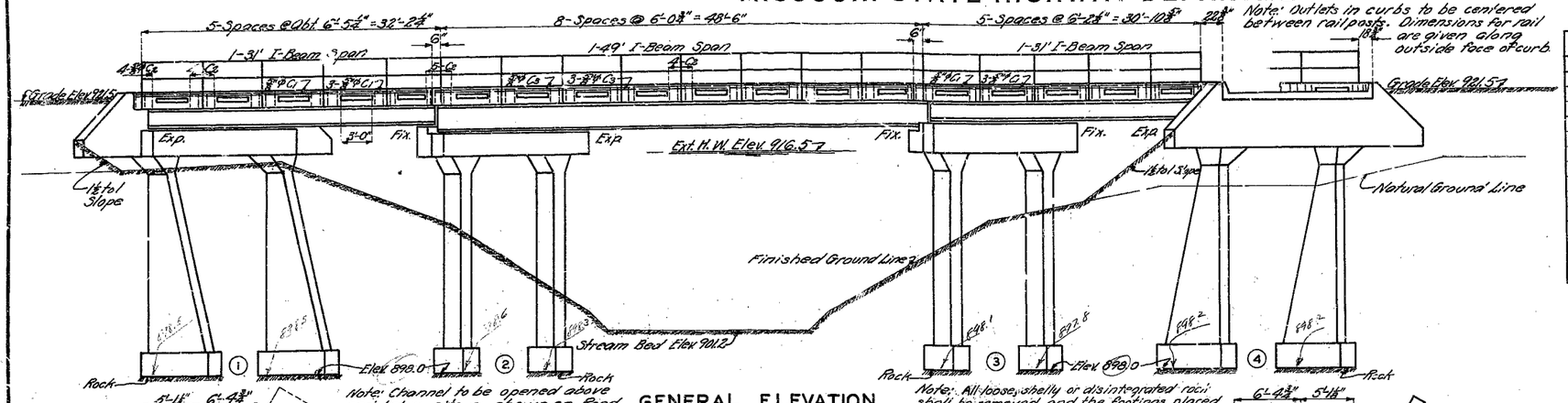
* if required

Construction support as needed post award – Anticipated for 12 months

PERIOD OF SERVICE – The total period of service including construction services is expected to be completed by March 31, 2027.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	NRS 394R(1)H)	19		



GENERAL ELEVATION

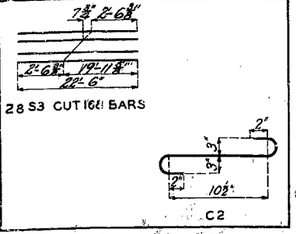
Note: All loose, shelly or disintegrated rock shall be removed and the footings placed on hard, solid undisturbed rock. If soft rock or shale is encountered, the footings shall be carried of at least 18" into same.

Note: Outlets in curbs to be centered between railposts. Dimensions for rail are given along outside face of curb.

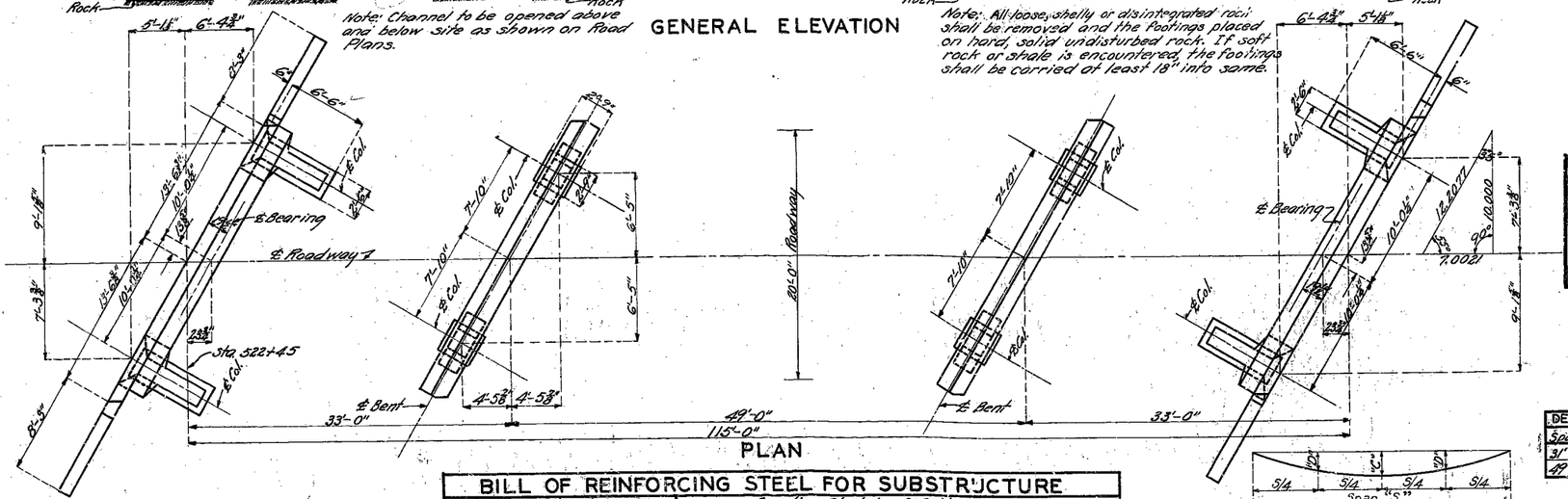
BILL OF REINFORCING STEEL-SUPER.

No.	Size	Length	Mark	Location
16	⅜" ϕ	32'-9"	C1	Curb
136	⅜" ϕ	2'-0"	C2	"
16	⅜" ϕ	25'-3"	C3	"
312	⅝" ϕ	20'-9"	S1	Slab
52	⅝" ϕ	32'-9"	S2	"
168	⅝" ϕ	22'-6"	S3	"
12	⅝" ϕ	25'-3"	S4	"
52	⅝" ϕ	25'-0"	S5	"

Bending Sketch and Cutting Diagrams



Note: Dimensions given are along center line of bars and are for computed lengths.



GENERAL NOTES:

Loading: One 10 Ton Truck, 80% of weight on rear axle, 30% impact, 14'-0" wheel base, 6'-0" gage, 10° tire.

Exposed edges to be beveled ¾" where no other bevel is noted.
Concrete in slab and curbs to be 1:2:3½ mix, Class "X"
All other concrete to be 1:2½:5 mix, Class "B"
Bridge excavation in accordance with Section I of Standard Specifications issued April 1, 1930.

REVISIONS REQUIRED

SEE SHEET NO. 4 OF 4 FOR THE FOLLOWING ITEMS:

(1) Type of Handrail
(2) Width of Curb
(3) Type of Diaphragms

Note: Details on any other sheet conflicting with those shown on sheet No. 4 are VOID.

I-Beams with fastenings, spacers, handrail, handrail posts with fastenings, and bearings will be paid for as structural steel. Cost of metallic edge moulding will be included in unit bid price for conc ete. Rivets ⅞" ϕ, holes 1" ϕ, except in handrail where rivets shall be ⅝" ϕ, holes ⅞" ϕ. Field connections riveted except as noted.

DEFLECTION		
Span	"C"	"D"
31'	⅜"	½"
49'	⅜"	⅝"

Detail shop drawings shall be submitted to the State Highway Department in duplicate and shall be approved before steel is fabricated.
Where rubber compound is specified on plans for use in partition and expansion joints, the premoulded joint shall be securely stitched to one face of concrete with copper wire.
See Special Provisions in regard to permissible substitution of beams, and basis of payment.

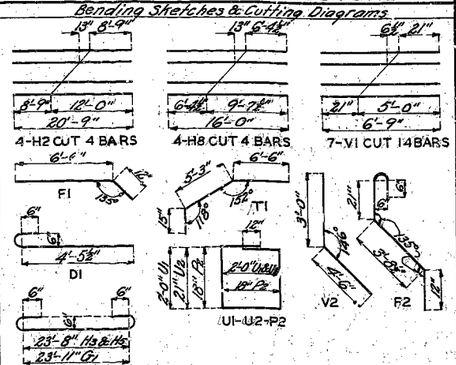
Paint: Shop, none: Field, contact surfaces of bolted field connections one coat of red lead and surfaces inaccessible after erection three coats of red lead. No other paint to be applied by contractor. ~~All paint required will be furnished by the State~~ ~~Highway Department~~. See Special Provisions.

B.M. #1 Elev. 916.12 Spike and Nut in root 15" Sycamore 65' Rt. Sta. 522+00.

BILL OF REINFORCING STEEL FOR SUBSTRUCTURE

No.	Size	Length	Mark	Location
End Bents No. 1 & 4				
20	¾" ϕ	5'-9"	D1	Footings
12	¾" ϕ	7'-6"	F1	Haunch
12	¾" ϕ	7'-9"	F2	"
6	¾" ϕ	13'-0"	H1	Wing
4	¾" ϕ	20'-9"	H2	"
8	¾" ϕ	26'-3"	H3	Beam
4	¾" ϕ	24'-3"	H4	"
16	1" ϕ	26'-3"	H5	"
2	¾" ϕ	20'-6"	H6	Backwall
6	¾" ϕ	10'-9"	H7	Wings
4	¾" ϕ	16'-0"	H8	"
8	¾" ϕ	13'-0"	T1	"
4	¾" ϕ	25'-9"	T2	Backwall
30	¾" ϕ	9'-0"	U1	Beam
12	¾" ϕ	6'-9"	U1	Wings
12	¾" ϕ	7'-6"	V2	Column
54	¾" ϕ	3'-9"	V3	Backwall
20	¾" ϕ	18'-9"	V4	Column
Int. Bents No. 2 & 3				
16	¾" ϕ	5'-9"	D1	Footings
24	¾" ϕ	7'-6"	F1	Haunch
32	¾" ϕ	16'-6"	G1	Beam
4	¾" ϕ	24'-6"	G2	"
52	¾" ϕ	8'-6"	U2	"
16	¾" ϕ	18'-0"	P2	Column
44	¾" ϕ	7'-0"	P2	"

Bending Sketches & Cutting Diagrams



Note: Dimensions given are along center line of bars and are for computed lengths. Reinforcing bars ⅜" or over in diameter, which are bent to an angle greater than 90° shall be of structural grade.

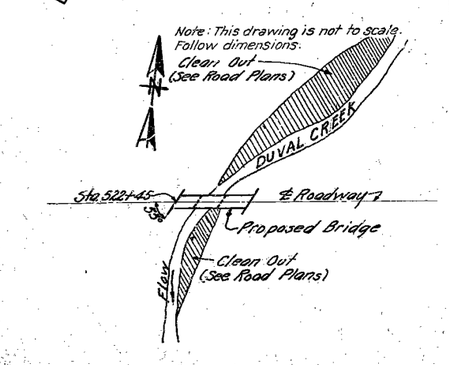
Note: Floor slab to be brought to grade and dead load deflection taken care of by increasing slab thickness. Depth of slab at outside face of curb to be kept uniform and bottom surface of slab warped between curb and outside beam to obtain required thickness at beam. Payment will be allowed for additional concrete required for thickening slab. This additional concrete is included in "Estimated Quantities."

DEAD LOAD DEFLECTION DIAGRAM

ESTIMATED QUANTITIES

FINAL QUAN.	ITEM		SUPERSTR.	SUBSTR.	TOTAL
109	Excavation Class 1	Cu. Yds.		110	110
78	Excavation Class 2	Cu. Yds.		76	76
55.1	Concrete 1:2:4 mix, Class "B"	Cu. Yds.		55.6	55.6
57.2	Concrete 1:2:3½ mix, Class "X"	Cu. Yds.	57.2		57.2
48 130	Fabricated Structural Steel	Lbs.	49,550		49,550
21,350	Reinforcing Steel	Lbs.	14,200	7150	21,350
46.0	Heating Concrete "A"	Cu. Yds.			
7.1	" " "B"	" "			
8	Test Holes	Lin. Ft.			

Note: Bridge Excavation above Elev. 904.0 will be paid for as Class 1 Bridge Excavation.
Bridge Excavation below Elev. 904.0 will be paid for as Class 2 Bridge Excavation.



LOCATION SKETCH

BRIDGE OVER DUVAL CREEK

STATE ROAD FROM ROUTE U.S.71 TO ROUTE S.B.

ABOUT 8 MILES WEST OF JASPER

PROJECT NO. NRS 39.4(SH) STA 522+45

FINISHED

JASPER COUNTY

SUBMITTED BY M.R. Lack, BRIDGE ENGINEER, DATE 6/22/33

APPROVED BY T.H. Cutler, CHIEF ENGINEER, DATE 6/22/33

FINISHED

F.A. Sheet No. 1 of 4

S-834

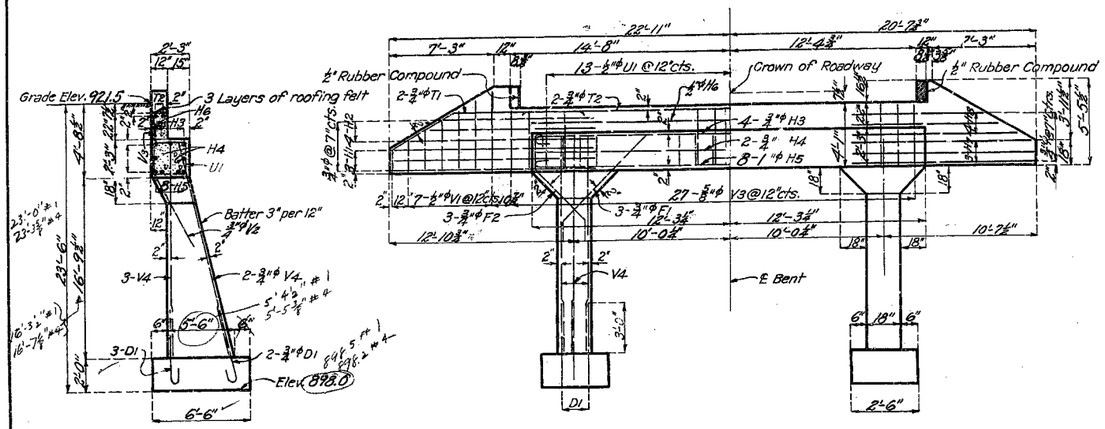
Drawn Jan. 1931 By R.J.G.
Traced Jan. 1931 By R.J.G.
Checked Feb. 1931 By J.H.M.
Assembled June 1933 By J.E.B.
Checked June 1933 By L.H.

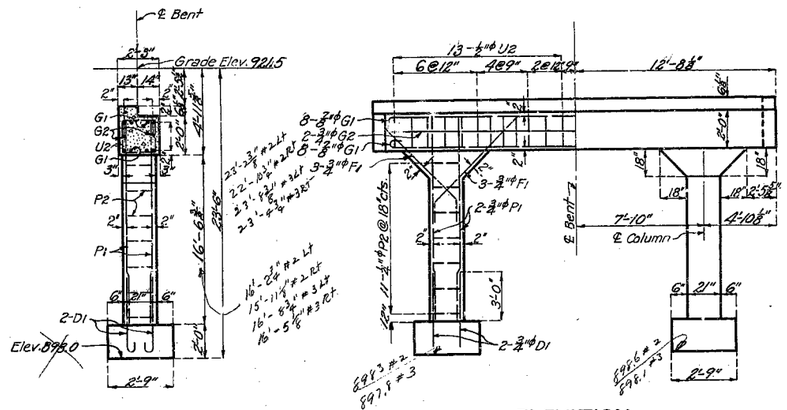
6-21-33

252

MISSOURI STATE HIGHWAY DEPARTMENT

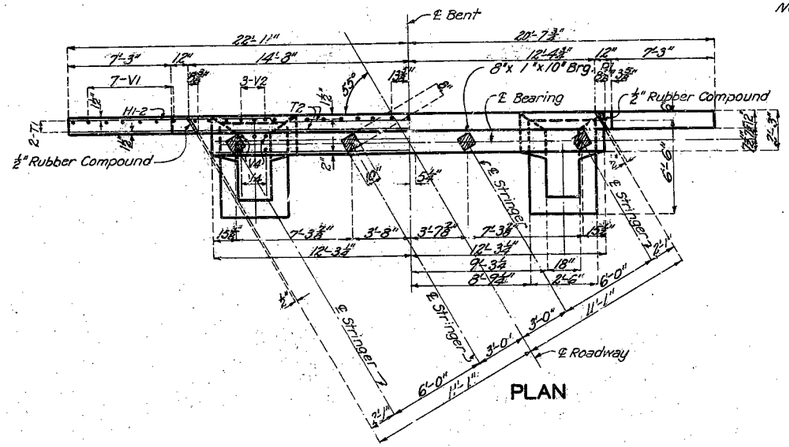
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	NRS 394F(SH)	19		



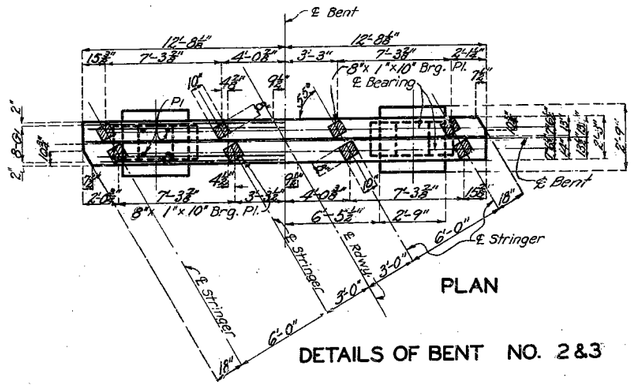


Note: This drawing is not to scale.
Follow dimensions.

Note: ½" Grout to be used under all bearing plates.



DETAILS OF END BENT NO. 1 & 4



DETAILS OF BENT NO. 2&3

FINISHED

BRIDGE OVER DUVAL CREEK

STATE ROAD FROM ROUTE U.S.71 TO ROUTE S.B.
ABOUT 8 MILES WEST OF JASPER
PROJECT NO. NRS 394 F(SH) STA. 522 + 45

JASPER COUNTY

257

Drawn Sept 1930 by I.B.
Traced Sept 1930 by G.W. & R.J.G.
Assembled June 1933 by J.E.B.
Checked June 1933 by L.H.

Sheet No. 2 of 4.

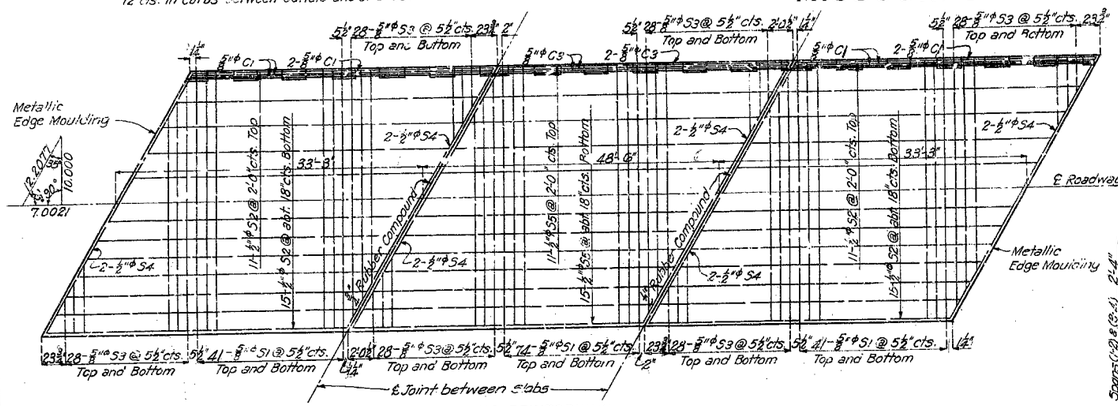
F.A.

S-834

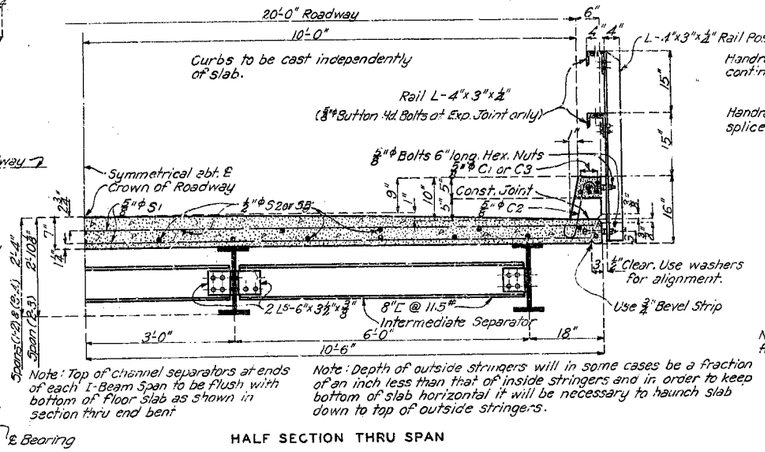
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	NRS 394E(SH)	19		

Note: Space dowel bars "C2" at approximately 12" cts. in curbs between outlets and at ends.



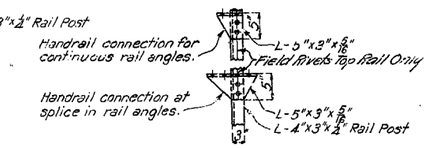
PLAN OF SLAB SHOWING REINFORCING



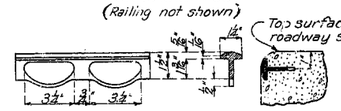
Note: Top of channel separators at ends of each I-Beam Span to be flush with bottom of floor slab as shown in section thru end bent

Note: Depth of outside stringers will in some cases be a fraction of an inch less than that of inside stringers and in order to keep bottom of slab horizontal it will be necessary to haunch slab down to top of outside stringers.

HALF SECTION THRU SPAN

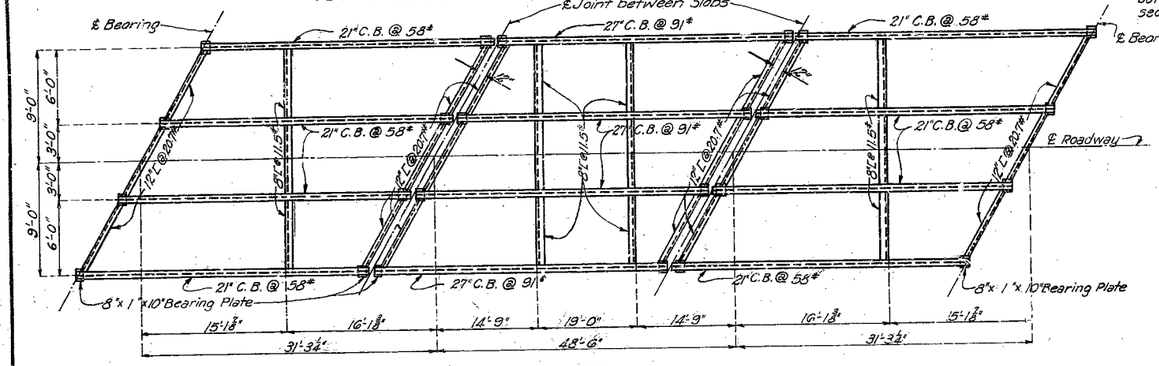


TYPICAL DETAILS FOR HANDRAIL POST
(Railing not shown)



Note: An approved equivalent may be substituted for edge moulding shown above.

METALLIC EDGE MOULDING

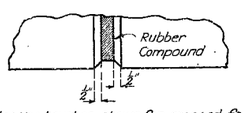


PLAN OF STRINGERS

No Substitutions Made.

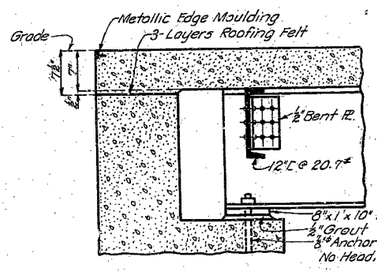
PERMISSIBLE BEAM SUBSTITUTIONS				
	STANDARD I-BEAMS		BETHLEHEM BEAMS	
Span	Inside	Outside	Inside	Outside
31'	20"@70#	20"@65.4#	22"@58#	22"@53#
48'	24"@115#	24"@105.9#	28"@91#	28"@81#

Note: See Special Provisions in regard to permissible beam substitutions and basis of payment.

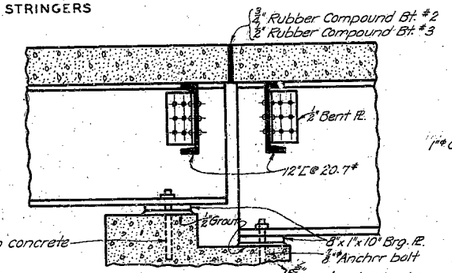


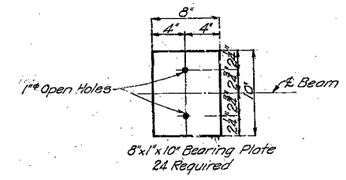
Note: Use bevel as shown for exposed faces of all joints consisting of rubber compound except at top surface of roadway slab. Use edging tool with ½" radius at top surface of roadway slab each side of rubber compound joint.

DETAIL OF BEVEL FOR RUBBER COMPOUND JOINTS

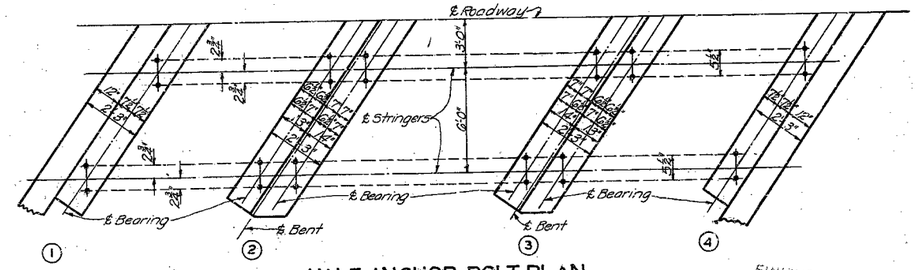


ELEVATION

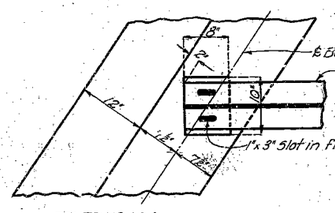




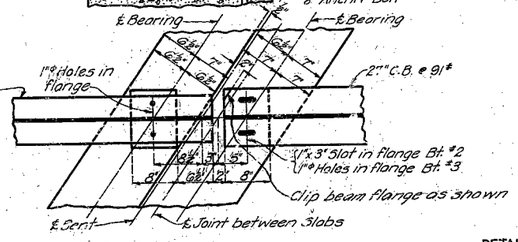
DETAIL OF BEARING PLATES



HALF ANCHOR BOLT PLAN

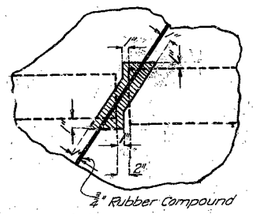


BENTS NO. 1 & 4



PLAN

BENTS NO. 2 & 3



DETAIL OF RUBBER COMPOUND AT END OF STRINGERS BENT NO. 2 ONLY

DETAILS OF BEARINGS

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

FINISHED

BRIDGE OVER DUVAL CREEK

STATE ROAD FROM ROUTE U.S. 71 TO ROUTE S.B.

ABOUT 8 MILES WEST OF JASPER

PROJECT NO. NRS 394E (SH) STA. 522+45

JASPER COUNTY

Drawn Jan. 1931 By R.J.G.
Traced Jan. 1931 By R.J.G. Assembled June 1933 By J.E.B.-G.W.
Checked Feb. 1931 By J.H.M. Checked June 1934 By L.H.

Sheet No. 3 of

F.A.

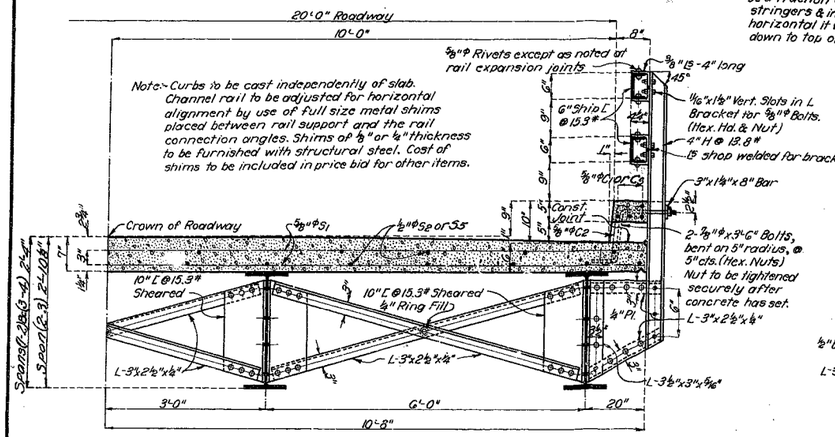
S-834

12-6-33

252

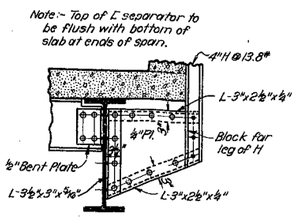
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	NRS 394F(SH)	19		

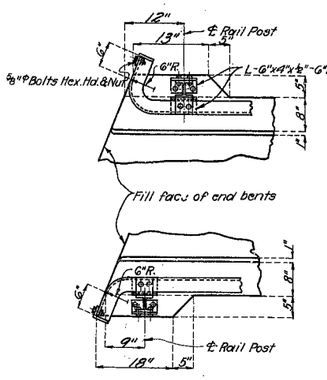


HALF CROSS SECTION THRU SPAN

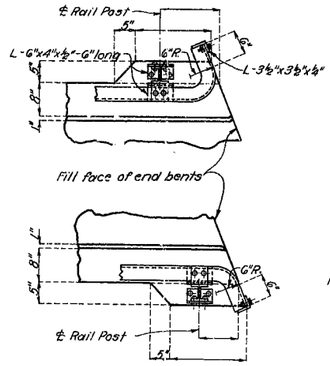
Note:- Depth of outside stringers will in some cases be a fraction of an inch less than that of inside stringers & in order to keep bottom of slab horizontal it will be necessary to haunch slab down to top of outside stringers.



DETAIL OF RAIL BRACKETS AT ENDS OF SPAN

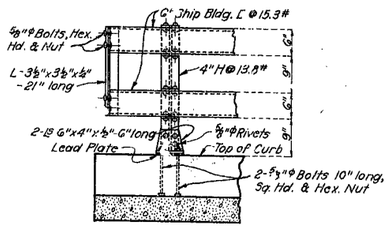


LEFT ADVANCE



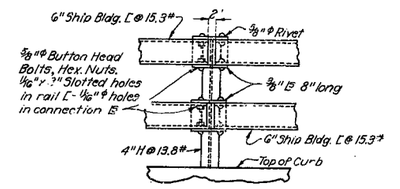
RIGHT ADVANCE

PLAN OF RAIL AT END BENTS FOR SKEWS

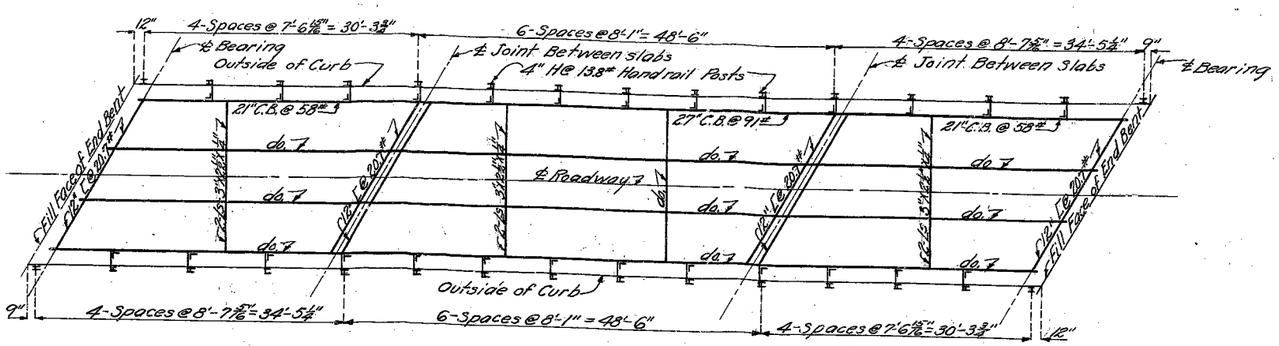


SECTION THRU SLAB AT END BENTS

Note:- Top of curbs under end posts shall be finished to a smooth surface parallel to grade. Not less than one nor more than four soft lead plates of ⅛" thickness shall be used under angles of each end rail post for aligning rail to correct elevation. Plates shall be 8½"x6" and shall be punched ⅞"ϕ on same gauge as angles. No grouting permitted. Cost of lead plates to be included in price bid for other items.



DETAILS OF RAIL EXPANSION JOINT



PLAN SHOWING RAIL POST SPACING

PART ELEVATION OF HANDRAIL & CURB

FINISHED

FINISHED

BRIDGE OVER DUVAL CREEK

STATE ROAD FROM ROUTE U.S. 71 TO ROUTE SB

ABOUT 8.0 MILES WEST OF JASPER

PROJECT NO. NRS 394F(SH) STA. 522+45

JASPER COUNTY

F.A.

S-834

259

Drawn July 1933 By H.E.C.
Traced July 1933 By H.E.C.
Checked July 1933 By N.W.R.

Assembled Aug. 1933 By J.E.B.
Checked Aug. 1933 By F.P.B.

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

Missouri Department of Transportation
State Bridge Inspection Report

May 27, 2024
5:12:44PM

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 8869** **BRIDGE: S0834**

GENERAL STRUCTURE INFORMATION

ROUTE: RTHE	**# SPANS:** 3	**PLACE CODE:** 59906 PRESTON	
FEATURE: DUVAL CR	**LANES ON:** 2	**LENGTH:** 115 FT 0 IN	
STATUS: P-POSTLOAD	**LANES UNDER:** 0	**MAXIMUM SPAN:** 49 FT 0 IN	
LOG MILE: 10.639	**COMPASS DIRECTION:** WEST to EAST	**APPROACH ROADWAY:** 19 FT 0 IN	
DETOUR: 16.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 20 FT 0 IN	
NHS: NO	**FUNCTIONAL CLASS:** RL-MAJOR COLLECTOR	**OUT TO OUT:** 21 FT 0 IN	
BUILT: 1933	**NBI OWNER:** MODOT	**AADT:** 272	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2023	
LOCATION: S 15 T 30 R 32 W	**MAINTENANCE DISTRICT:** SW	**AADT TRUCK:** 20.8%	
LATITUDE: 37 20 35.91 (DMS)	**MAINTENANCE COUNTY:** JASPER	**FUTURE AADT:** 408	
LONGITUDE: 94 26 30.04 (DMS)	**SUB AREA:** 7G08	**FUTURE AADT YEAR:** 2043	

BRIDGE INSPECTION INFORMATION

DATE: 07/24/2023 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: MATTHEW GEIGER **ELEMENT:** NO
INSPECTOR 2: LAURA CAMPBELL **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

(NUNNT, 08/27/2021)--KEEP FREQUENCY AT 24 MONTHS SINCE SECTION LOSS TO FLANGES AT BT. 2 & 3.

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: 12/11/2019 **RESPONSIBILITY:** DISTRICT **CATEGORY:** CHANNEL CROSS SEC
FREQUENCY: 72 **CALCULATED INTERVAL**:** 80 **NBI:** NO
TEAM LEADER: OTHER **INSPECTOR 3:** **METHOD:** EMD
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: 07/24/2023 **RESPONSIBILITY:** DISTRICT **CATEGORY:** DRY
FREQUENCY: 60 **CALCULATED INTERVAL**:** 24 **NBI:** NO
TEAM LEADER: MATTHEW GEIGER **INSPECTOR 3:** **METHOD:** VISUAL
INSPECTOR 2: LAURA CAMPBELL **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 8869** **BRIDGE: S0834**

STRUCTURE POSTING

APPROVED CATEGORY: S-16 TRKS OVR 14 TNS 15MPH ON BR EXCPT SNGLE UNIT TRKS WT LIMIT 19 TNS&ALL OTHR TRKS WT LIMIT 35 TNS.
Ton 1: 14 **Ton 2:** 19 **Ton 3:** 35
COMMENTS:

FIELD CATEGORY: S-16 TRKS OVR 14 TNS 15MPH ON BR EXCPT SNGLE UNIT TRKS WT LIMIT 19 TNS&ALL OTHR TRKS
Ton 1: 14 **Ton 2:** 19 **Ton 3:** 35 **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 06/25/2008)--(33'-49'-33') SMP WF GDR SPANS

[ITEM 58] DECK: 4-POOR CONDITION
RATING : 09/12/2017
COMMENTS: (NUNNT, 09/05/2023)--40% - 55% SATURATION EACH SPAN.

[ITEM 59] SUPER: 4-POOR CONDITION
RATING : 08/27/2021
COMMENTS: (NUNNT, 08/27/2021)--SEVERE TOP FLANGE AND MODERATE BOTTOM FLANGE SECTION LOSS AT GIRDER ENDS AT BT. 2 & 3.

[ITEM 60] SUB: 5-FAIR CONDITION
RATING : 07/23/2019
COMMENTS: (NUNNT, 07/23/2019)--MODERATE DETERIORATION BT. 3 CAP END W/MINOR BEARING INFLUENCE.

[ITEM 61] BANK/CHANNEL: 5-MAJOR DAMAGE
RATING : 07/23/2019
COMMENTS: (NUNNT, 08/27/2021)--HEAVY EROSION UPSTREAM.

[ITEM 113] SCOUR: 8-STABLE FOR CALCULATED
RATING : 05/18/2001
EVALUATION TYPE :
COMMENTS: (NUNNT, 08/27/2021)--MODERATE UNDERMINING OPEN STYLE EAST ABUTMENT.

[ITEM 71] WATERWAY ADEQUACY: DECK ABOVE FLOOD ELEV
RATING : 05/18/2001
COMMENTS:

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD
RATING : 05/18/2001
COMMENTS:

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *DOESNT MEET CURRNT STND-0* ***RATING :*** *10/27/2009* ***COMMENTS:***

MATERIAL	***CONSTRUCTION***	***DIRECTION***	***COMMENTS***
STEEL	CHANNEL-DOUBLE	BOTH	
REINFORCED CONCRETE	CURB	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

[ITEM 36C] APPROACH RAILING RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

[ITEM 36D] RAIL END TREATMENT RATING: *NOT PROVIDED-0* ***RATING :*** *05/18/2001* ***COMMENTS:***

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	POOR	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
SETTLEMENT	AT ABUTMENTS		MODERATE	(NUNNT, 09/05/2023)--DUE TO BEARING PACK RUST.

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*ASPHALT*	*BITUMINOUS SEAL COAT*	*.8 IN*	*2020*		*FAIR*

COMMENT: (GEIGEM1, 12/15/2020)--0.4" CHIP SEAL IN 2020 OVER 0.4" CHIP SEAL IN 2006

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
SPALLS	RANDOM		MINOR	

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
DRAINAGE	*REINFORCED CONCRETE*	*CURB OUTLET*		

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*ROCK*	*GROUTED*	*BOTH*	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	AT JOINTS		MODERATE		
DETERIORATION	EDGE		MODERATE		
EFFLORESCENCE	THROUGHOUT		MEDIUM		
FULL DEPTH PATCHES	RANDOM		SMALL		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		MODERATE	50 %	
SCALING	THROUGHOUT		HEAVY		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-2 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	AT JOINTS		MODERATE		
DETERIORATION	EDGE		MODERATE		
EFFLORESCENCE	THROUGHOUT		MEDIUM		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		HEAVY	55 %	
SCALING	THROUGHOUT		HEAVY		
SPALLS	RANDOM		MODERATE	2 %	
TRANSVERSE CRACKS	THROUGHOUT		MANY		

MAIN SPANS-3 *DECK* *REINFORCED CONCRETE* *CAST-IN-PLACE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MODERATE		
EFFLORESCENCE	THROUGHOUT		LIGHT		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		MODERATE	40 %	
SCALING	THROUGHOUT		HEAVY		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*SIMPLE SPAN*	*STEEL*	*WIDE FLANGE GIRDERS*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	33 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DECK LIFTING	TOP FLANGE		CONSIDERABLE		(NUNNT, 09/20/2019)--HEAVY
PACK RUST	BOTTOM FLANGE		MODERATE		(NUNNT, 10/01/2021)--EXT. GIRDER
PACK RUST	TOP FLANGE		HEAVY		
RUSTING	TOP FLANGE		HEAVY		
SECTION LOSS	BOTTOM FLANGE		MODERATE		(NUNNT, 10/01/2021)--GDR 2 @ ABUT 1 & GDR 3, 4 @ BT 2
SECTION LOSS	TOP FLANGE		SEVERE		(NUNNT, 10/01/2021)--AT BT. 2. 100% GDR. 4

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	49 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DECK LIFTING	TOP FLANGE		MODERATE		
PACK RUST	BOTTOM FLANGE		MINOR		(NUNNT, 10/01/2021)--EXT. GIRDER
PACK RUST	TOP FLANGE		HEAVY		
RUSTING	BOTTOM FLANGE		HEAVY		
RUSTING	TOP FLANGE		HEAVY		
SECTION LOSS	BOTTOM FLANGE		MODERATE		(NUNNT, 09/05/2023)--@ BT 2 & BT 3.
SECTION LOSS	TOP FLANGE		ADVANCED		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	NON-COMPOSITE	33 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DECK LIFTING	TOP FLANGE		CONSIDERABLE		(NUNNT, 09/20/2019)--HEAVY
PACK RUST	BOTTOM FLANGE		MINOR		(NUNNT, 10/01/2021)--EXT. GIRDER
PACK RUST	TOP FLANGE		HEAVY		
RUSTING	BOTTOM FLANGE		HEAVY		(NUNNT, 09/20/2019)--EXT. GIRDER
RUSTING	TOP FLANGE		HEAVY		
SECTION LOSS	BOTTOM FLANGE		MODERATE		(BRITTT1, 09/12/2017)--AT BENT 3

SECTION LOSS TOP FLANGE ADVANCED (GEIGEM1, 01/04/2018)--100% GDR 2 AT BT 3

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1	LA-35 DEGREES	24 FT 7 IN	REINFORCED CONCRETE	OPEN CONCRETE		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
DELAMINATION	THROUGHOUT		MODERATE		
EROSION	GROUND LINE		1INOR UNDERMININ(		
HORIZONTAL CRACKS	RANDOM		LARGE		
RUST STAINS	THROUGHOUT		MINOR		
SEALED	BEAM CAP		ASPHALTICBASE		(BRITTT1, 09/12/2017)--WORN
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
FOOTING	REINFORCED CONCRETE	SPREAD			
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE			
EXPANSION BEARING	STEEL	SLIDING FLAT PLATE			
PACK RUST	THROUGHOUT		HEAVY		
RUSTING	THROUGHOUT		HEAVY		

BENT-2	LA-35 DEGREES	25 FT 4 IN	REINFORCED CONCRETE	MULTIPLE COLUMN		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
DETERIORATION	ENDS		MINOR		
HORIZONTAL CRACKS	THROUGHOUT		MEDIUM		
LEACHING	THROUGHOUT		MODERATE		
RUST STAINS	THROUGHOUT		MODERATE		
SATURATION	THROUGHOUT		MODERATE		
SPALLS	TOP		MODERATE		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
EFFLORESCENCE	TOP		LIGHT		
REBAR EXPOSED	RANDOM		FEW		
SPALLS	RANDOM		MODERATE		
VERTICAL CRACKS	THROUGHOUT		MEDIUM		
FOOTING	REINFORCED CONCRETE	SPREAD			
EXPANSION BEARING	STEEL	SLIDING FLAT PLATE			
PACK RUST	THROUGHOUT		HEAVY		
RUSTING	THROUGHOUT		HEAVY		

BENT-3	LA-35 DEGREES	25 FT 4 IN	REINFORCED CONCRETE	MULTIPLE COLUMN

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 8869** **BRIDGE: S0834**

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DELAMINATION	THROUGHOUT		MINOR		
DETERIORATION	ENDS		MODERATE		(NUNNT, 09/20/2019)--CLOSE TO GIRDER 4 BEARING AREA.
HORIZONTAL CRACKS	THROUGHOUT		LARGE		
LEACHING	THROUGHOUT		MODERATE		
RUST STAINS	THROUGHOUT		MODERATE		
SATURATION	THROUGHOUT		MODERATE		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
DELAMINATION	TOP		MINOR		
EFFLORESCENCE	RANDOM		LIGHT		
SCALING	WATERLINE		LIGHT		
SPALLS	RANDOM		MINOR		
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
EXPANSION BEARING	STEEL	SLIDING FLAT PLATE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
PACK RUST	THROUGHOUT		HEAVY		
RUSTING	THROUGHOUT		HEAVY		

ABUTMENT-4 *LA-35 DEGREES* *24 FT 7 IN* *REINFORCED CONCRETE* *OPEN CONCRETE*

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ASSOCIATED COMPONENT	**MATERIAL**	**CONSTRUCTION**			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
EROSION	GROUND LINE		MODERATE		(NUNNT, 10/01/2021)--MODERATE UNDERMINING.
HORIZONTAL CRACKS	RANDOM		FINE		
SEALED	BEAM CAP		ASPHALTICBASE		
VERTICAL CRACKS	RANDOM		FINE		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
EXPANSION BEARING	STEEL	SLIDING FLAT PLATE			
CONDITION	**LOCATION 1**	**LOCATION 2**	**SEVERITY**	**MEASUREMENT**	**COMMENT**
PACK RUST	THROUGHOUT		HEAVY		
RUSTING	THROUGHOUT		HEAVY		

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

COUNTY: JASPER **DISTRICT: SW** **CLASS: STATBR** **FED-ID: 8869** **BRIDGE: S0834**

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

STRUCTURE PAINT INFORMATION

CONDITION: FAIR **RUST AMOUNT :** 5=3.0% OF SURFACE RUSTED **STEEL TONS :** 24

ORIGINAL PAINT		CONTRACT REPAINT		DEPARTMENT REPAINT	
PAINT TYPE :		**PAINT TYPE :**		**PAINT TYPE :**	C SYSTEM
NAME :		**NAME :**		**NAME :**	INORGANIC ZINC/VINYL
PAINT COLOR :		**PAINT COLOR :**		**PAINT COLOR :**	ALUMINUM
PAINT YEAR :		**PAINT YEAR :**		**PAINT YEAR :**	1992
MILS :		**MILS :**		**MILS :**	8
				MANUFACTURE :	
				SURFACE PREP :	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*
REGIONAL	SEE COMMENT	REPAIR GIRDER ENDS	SUPERSTRUCTURE	3	09/23/2013	(BRITTT1, 09/22/2015)--ALL BENTS
REGIONAL	ABUTMENT-BEARINGS	CLEAN, PAINT, AND RESET	SUBSTRUCTURE	2	07/12/2019	
DISTRICT ROUTINE	SLOPE	CUT BRUSH & TREES	SLOPE	2	07/12/2019	(NUNNT, 09/20/2019)--HEAVY BRUSH GROWING ON TO BRIDGE.
DISTRICT SPECIAL	ROADWAY SURFACE	REPAIR CONCRETE < 50 SF	DECK	3	07/24/2023	(NUNNT, 09/05/2023)--20 SF
STIP			REPLACEMENT		04/10/2024	(GEIGEM1, 04/11/2022)--2026

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	2-BASICALLY INTOLRBLE REQ	4/1/2003
[Item 68] Deck Geometry Rating:	4-MEETS MINIMUM TOLERABLE	5/18/2001
[Item 69] Underclearance:	N-NOT APPLICABLE	5/18/2001
Sufficiency Rating:	16.3%	3/6/2024
Deficiency:	STRUCTURAL	4/1/2003
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1	DELINEATOR		

OUTFALL INSPECTION INFORMATION

 # OUTFALLS: **INSPECTOR:**

STATUS: **DATE:**

NOTES:

Missouri Department of Transportation
Bridge Inventory and Inspection System
Structural Inventory & Appraisal Sheet

May 27, 2024
5:10:36pm

COUNTY : JASPER **BRIDGE :** S0834 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 3/15/2024 **SUBMITTAL YEAR :** 2024

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	SW
3	County	JASPER
8	Federal ID No.	8869
27	Year Built	1933
106	Year Reconstructed	0
42A	Type of Service On	HIGHWAY
21	Structure Maintenance	STATE HIGHWAY AGENCY
22	Structure Owner	STATE HIGHWAY AGENCY
33	Br. Median Code	NO MEDIAN
37	Historical Significance	HISTORICAL SIGNIF UNKNWN
101	Parallel Struc Desg	NONE EXISTS
103	Temporary Structure	NOT TEMPORARY
112	NBIS Bridge Length	YES

ROUTE DESIGNATION INFORMATION

5A	Record Type	ROUTE CARRIED 'ON' STRUCT
5B	Route Signing Prefix	MO
5C	Designated Level of Service	MAINLINE
5D	Route Number	0000H
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	RT H E
12	Base Hwy. Network	NO
13A	LRS Inventory Route No.	
13B	Subroute No.	
20	Toll Status	ON FREE ROAD
26	Functional Classification	07-RURAL MAJOR COLLECTOR
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	NOT ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	NO

STRUCTURE LOCATION INFORMATION

4	Place	PRESTON
	Code	59906
9	Location	S 15 T 30 N R 32 W
11	Milepoint	10.70 miles
16	Latitude	37 D 20 M 36 S
17	Longitude	94 D 26 M 30 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	272
30	AADT Year	2023
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	21%
114	Future AADT	408
115	Future AADT Year	2043

UNDERRECORD INFORMATION

6	Features Intersected	DUVAL CR
42B	Type of Service Under	WATERWAY
28B	Lanes Under Structure	00
54A	Vert. Clearance Ref.	N/A
54B	Vert. Clearance	0 Ft. 0 In.
55A	Rt. Lat Clear Ref.	N/A
55B	Rt. Lat Clearance	0 Ft. 0 In.
56	Left Lat Clearance	0 Ft. 0 In.
38	Navigation Control	PERMIT NOT REQ
39	Nav Vertical Clear	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.
111	Nav. Pier Protection	
116	Nav. Cl. Vert. Clear	

STRUCTURE GEOMETRIC INFORMATION

10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
19	By pass Detour Length	16.25 miles
32	Approach Roadway Width	19 Ft. 0 In.
34	Skew	35.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	20 Ft. 0 In.
48	Maximum Span Length	48 Ft. 11 In.
49	Structure Length	115 Ft. 2 In.
50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
51	Curb to Curb Br. Width	20 Ft. 0 In.
52	Deck Width (Out-Out)	20 Ft. 12 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = S0834 and Inventory_Appraisal_Submittal_Year = 2024

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LOAD RATING AND POSTING INFORMATION

31	Design Load	H 10
41	Structure Status	POSTED FOR LOAD
63	Oper. Rating Meth.	ALLOWABLE STRESS
64	Operating Rating	19 Tons.
65	Inventory Rating Meth	ALLOWABLE STRESS
66	Inventory Rating	8 Tons.
70	Bridge Posting Code	30.0-39.9% BELOW

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	16.3 Percent
	Deficiency Rating	STRUCTURAL
	Funding Eligibility	FULL
75A	Proposed Work	REPLACEMENT SUBSTND LOAD
75B	Work Done By	Contract
76	New Struc Length	144 Ft. 4 In.
94	Struc Improve Cost	$ 749,000
95	Roadway Improve Cost	$ 75,000
96	Total Project Cost	$ 1,123,000
97	Year of Cost Estimates	2024

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND
36C	Approach Rail App. Rating	DOES NOT MEET ACCEPT STND
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND
67	Struc Eval App. Rating	2
68	Deck Geometry App. Rating	4
69	Underclearance App. Rating	N
71	Waterway Adeq. App. Rating	8
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	8

MATERIAL/CONSTRUCTION INFORMATION

43A	Main Struc. Mat type	STEEL
43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	3
44A	Appr Struc. Mat type	000
44B	Appr Struc. Cnstr. type	000
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	6 BITUMINOUS
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

CONDITION RATING INFORMATION

58	Deck Cond. Rating	4
59	Superstructure Cond. Rating	4
60	Substructure Cond. Rating	5
61	Channel /Channel Protection Cond. Rating	5
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	7 / 23	
91	Gen. Insp. Frequency	24	Months
92A	Frac. Critical Inspection	N	Months
93A	Frac. Critical Insp. Date		
92B	Underwater Inspection	N	Months
93B	Underwater Insp. Date		
92C	Special Inspection	N	Months
93C	Special Inspection Date		

BORDER BRIDGE INFORMATION

98	Neighboring State Code
98B	Neighboring State % Respon
99	Neighboring State Struc. No.

APPROVED POSTING INFORMATION

Approved Posting Category S-16

	Ton1	Ton2	Ton3
Tonnage Values for Posting Sign	14	19	35

General Text for Posting Sign

TRKS OVR 14 TNS 15MPH ON BR EXCPT SNGLE UNIT TRKS WT LIMIT 19 TNS&ALL OTHR TRKS WT LIMIT 35 TNS.

FIELD POSTING INFORMATION

Field Posting Category S-16

	Ton1	Ton2	Ton3
Tonnage Values for Posting Sign	14	19	35

General Text for Posting Sign

TRKS OVR 14 TNS 15MPH ON BR EXCPT SNGLE UNIT TRKS WT LIMIT 19 TNS&ALL OTHR TRKS WT LIMIT 35 TNS.

Design_No = S0834 and Inventory_Appraisal_Submittal_Year = 2024