Bridge Number: A1997R1

Route/County: 8/Washington

Asbestos-Containing Material Present?

Yes: [X] No: [ ]

If yes, see report for location(s).

Structural Steel Present?

Yes: [X] No: [ ]

If No, then skip the following.

Lead-Based Paint (LBP) Present?

Yes: [X] No: [ ]

Trusses LBP?

Yes: [ ] No: [ ]

Girder LBP?

Yes: [X] No: [ ]

Railing LBP?

Yes: [ ] No: [ ]

Pile LBP?

Yes: [ ] No: [ ]

MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: TMS

FROM: Diane Roegge
Environmental Chemist

DATE: March 1, 2016

SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey
Route 8
Bridge A-1997R1
Washington County

We are providing you with the results of the inspection on the above referenced bridge. The inspection report contains an asbestos and a heavy metals survey. The asbestos inspection included identifying suspect asbestos-containing material and NVLAP accredited testing to confirm the presence of asbestos.

Form T746 – This will show if samples were taken, where from, and, if the sample was found to contain asbestos, our estimated quantity of material present. Under the column "Friability Category", this is the meaning for the following:

N-ACM – No asbestos detected.
I NF – Asbestos is present. Material shall be handled carefully by a licensed abatement worker and kept wet if removing as part of a maintenance activity.
II NF – Asbestos is present. If removal is required for the maintenance activity, use an abatement contractor.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced bridge. This survey includes locating concrete which has been painted with something other than traffic paint or graffiti, and testing the painted surface(s) to determine if hazardous heavy metals are present. If the bridge is being removed completely, or the maintenance repairs include removing the painted concrete, then, non-hazardous painted concrete may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling all accessible areas, it is possible that potentially hidden asbestos-containing materials may exist within the structure. Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/fr/dr
http://sp/sites/cm/chemicallab/environmental/shared documents/asbestos/districts/central (cd)/mt/a1997r1/dr16030112.docx
Attachments

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE:	8	**SURVEYED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110315MOIR11239, F.R.
DISTRICT:	CD	**CERTIFICATION #:**	7118110315MOIR7165, D.R.
COUNTY:	Washington	**SITE ADDRESS:**	Over Union-Pacific Railroad (UP RR)
DATE OF SURVEY:	March 1, 2016	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge A-1997R1		

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
16MFJR 154	Insulating Compound	Under 42-Tube Rail Attachments, Over Concrete	II NF	16 Sq. Ft.
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	8	**TESTED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110315MOIR11239, F.R.
DISTRICT:	CD	**CERTIFICATION #:**	7118110315MOIR7165, D.R.
COUNTY:	Washington	**SITE ADDRESS:**	Over Union-Pacific Railroad (UP RR)
DATE OF TESTS:	April 12, 2016	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge A-1997R1		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	I NF			

All necessary work to handle this material is the contractor's responsibility.

I NF = Category I Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All materials requiring removal or special handling.

ROUTE:	8	**TESTED BY:**	Frank Reichart and Diane Roegge
MODOT JOB NO.:	N/A	**CERTIFICATION #:**	7118110315MOIR11239, F.R.
DISTRICT:	CD	**CERTIFICATION #:**	7118110315MOIR7165, D.R.
COUNTY:	Washington	**SITE ADDRESS:**	Over Union-Pacific Railroad (UP RR)
DATE OF TESTS:	April 12, 2016	**TYPE(S) OF STRUCTURE(S):**	Bridge
PARCEL NO.:	Bridge A-1997R1		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
202-40.43	16MFJR 154	Insulating Compound	Under 42-Tube Rail Attachments, Over Concrete	II NF	16 Sq. Ft.	Chrysotile	1-3
			None Located	F			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	8	**TESTED BY:**	N/A
MODOT JOB NO.:	N/A	**DATE OF TESTS:**	N/A
DISTRICT:	CD	**PARCEL NO.:**	Bridge A-1997R1
COUNTY:	Washington	**SITE ADDRESS:**	Over Union-Pacific Railroad (UP RR)
SURVEYED BY:	Frank Reichart	**TYPE(S) OF STRUCTURE(S):**	Bridge
DATE OF SURVEY:	March 1, 2016		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)							
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag
	No samples taken. No painted surfaces located.								

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

Expiration Date **12/2/2016**

Training Date: **11/3/2015**

Certificate Number: 7118110315MOIR11239

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
Phone (573) 751-4817

Francis J. Reichart

has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

12/3/2015
Date

Kyra L Moore
Director of Air Pollution Control Program

Expiration Date **12/2/2016**

Training Date: **11/3/2015**

Certificate Number: 7118110315MOIR7165

Missouri State Certificate for Asbestos Related Occupations

issued by Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102
Phone (573) 751-4817

Diane R. Roegge

has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.

12/3/2015
Date

Director of Air Pollution Control Program

MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: TMS

FROM: Frank Reichart
Environmental Chemist, Lead License #110506-300003364

DATE: May 22, 2019

SUBJECT: Materials
Job No. N/A
8/Washington County
Bridge# A1997R1

On May 22, 2019, a paint screening for regulated heavy metals was performed on the subject bridge. The following results were obtained:

	19MFJR274
Arsenic (As)	56,981 ppm**
Chromium (Cr)	61 ppm
Lead (Pb)	594,818 ppm** (59.5%)
Cadmium (Cd)	934 ppm
Selenium (Se)	LOD*
Barium (Ba)	426 ppm
Mercury (Hg)	LOD
Silver (Ag)	LOD

*LOD = below the detection limit of the instrument
**ppm = parts per million

TMS paint data indicated a System A paint, applied in 1969. The results verify the information found in TMS. Should any further screenings be required, please contact Todd Bennett, Chemical Laboratory Director, at (573) 751-1045.

The existing paint system is lead-based paint (LBP). Therefore any painting project will be subject to DHSS notification and regulation.

Should you have any questions regarding the screenings, feel free to call me at (573) 526-4359.

fr/dr
http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/central (cd)/mt/a1997r1/lbp xrf a1997r1.docx

Missouri Department of Transportation
State Bridge Inspection Report

December 09, 2022
12:49:11PM

COUNTY: WASHINGTON **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1681** **BRIDGE: A1997**

GENERAL STRUCTURE INFORMATION

ROUTE: MO8E	**# SPANS:** 3	**PLACE CODE:** 08254 BRETON	
FEATURE: UP RR	**LANES ON:** 2	**LENGTH:** 183 FT 0 IN	
STATUS: A-OPEN	**LANES UNDER:** 0	**MAXIMUM SPAN:** 70 FT 0 IN	
LOG MILE: 58.474	**COMPASS DIRECTION:** WEST to EAST	**APPROACH ROADWAY:** 24 FT 0 IN	
DETOUR: 5.00 MILES	**DIRECTION OF TRAFFIC:** 2-WAY TRAF	**CURB TO CURB:** 40 FT 0 IN	
NHS: YES	**FUNCTIONAL CLASS:** RL-PRINCIPAL ARTERIAI	**OUT TO OUT:** 42 FT 10 IN	
BUILT: 1968	**NBI OWNER:** MODOT	**AADT:** 6604	
REHAB:	**NBI MAINTAINED:** MODOT	**AADT YEAR:** 2021	
LOCATION: S 21 T 37 R 3 E	**MAINTENANCE DISTRICT:** CD	**AADT TRUCK:**	
LATITUDE: 37 54 41.29 (DMS)	**MAINTENANCE COUNTY:** WASHINGTON	**FUTURE AADT:** 12548	
LONGITUDE: 90 42 25.04 (DMS)	**SUB AREA:** 7D43	**FUTURE AADT YEAR:** 2041	

BRIDGE INSPECTION INFORMATION

DATE: 06/27/2022 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 21
TEAM LEADER: MICHAEL MEYERHOFF **ELEMENT:** YES
INSPECTOR 2: JOE GREEN **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: **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.

SPECIAL INSPECTION COMMENTS

UNDERWATER 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.

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: WASHINGTON **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1681** **BRIDGE: A1997**

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: (BOWDEJ1, 08/28/2008)--(56-70'-56') CONT COMP WF GDR SPANS

[ITEM 58] DECK: 4-POOR CONDITION
RATING : 10/29/2020
COMMENTS: (OTTINM, 09/20/2012)--MANY DECK SPALLS, DELAMS
(RAITHK, 10/29/2020)--MANY PATCHES AND DELAMINATION AREAS

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION
RATING : 09/20/2012
COMMENTS: (TRAMPA, 11/26/2018)--LT RUST ON GDRS AND DIAPH; HVY PK RUST ON BRGS;

[ITEM 60] SUB: 6-SATISFACTORY CONDITION
RATING : 09/20/2012
COMMENTS: (OTTINM, 09/20/2012)--BKWL DETER (RIDING SURF) @ ABUT #1

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY
RATING : 05/18/2001
COMMENTS:

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW
RATING : 05/18/2001
EVALUATION TYPE :
COMMENTS:

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE
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 :*** *02/09/2007* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	CURB	BOTH	
REINFORCED CONCRETE	PARAPET	BOTH	(OTTINM, 10/29/2014)--COLL. DAMAGE NE - MINOR.
ALUMINUM	CIRCULAR TUBE	BOTH	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	ALL	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

COUNTY: WASHINGTON **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1681** **BRIDGE: A1997**

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	ALL	

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

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
ASPHALT	BITUMINOUS MAT	BOTH	GOOD	

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*	*EPOXY POLYMER*	*EPOXY POLYMER*	*.3 IN*	*1998*		*POOR*

COMMENT:

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
DEBONDING	THROUGHOUT		MINOR	
SPALLS	THROUGHOUT		MANY	
TRANSVERSE CRACKS	THROUGHOUT		MODERATE	

DECK PROTECTION	*NOTAPPLICABLE*	*NONE*	

COMMENT:

MEMBRANE	*NOTAPPLICABLE*	*NONE*	

COMMENT:

SECONDARY DECK PROTECTION	*LIQUID SEALANT*	*INTERNALLY SEALED*	*2021*	*PAVON INDECK*

COMMENT:

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
ABUTMENT-1		*CLOSED EXPANSION JOINT*	*STEEL*	*FLAT PLATE*				*POOR*

COMMENT: (STEGEC, 02/10/2011)--CLOSED TIGHT IN 2010
(MARTEP, 11/30/2012)--BACKWALL BROKEN OUT ACROSS WBL AND PART OF EBL

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*EARTH FILL*	*BERM*	*BOTH*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
ERODING	THROUGHOUT		MODERATE	(WILSOJ, 08/20/2003)--AT ABUTMENT 4

COUNTY: WASHINGTON DISTRICT: CD CLASS: STATBR FED-ID: 1681 BRIDGE: A1997

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		MINOR		
LEACHING	THROUGHOUT		MEDIUM		
PATCHES	THROUGHOUT		MANY		
SATURATION	THROUGHOUT		MINOR	10 %	
SPALLS	DECK HAUNCH		FEW		(RAITHK, 02/13/2019)--LIFTING 1/2 T0 3/8
SPALLS	THROUGHOUT		FEW		
TRANSVERSE CRACKS	OVERHANGS		FEW		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

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

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		MANY		
LEACHING	THROUGHOUT		MEDIUM		
PATCHES	RANDOM		FEW		
SATURATION	THROUGHOUT		MINOR	10 %	
SPALLS	THROUGHOUT		MODERATE		
TRANSVERSE CRACKS	THROUGHOUT		MANY		(RAITHK, 10/29/2020)--T-CRKS UNDER OVERHANGS LEACHING THRUOUT

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION
MAIN SPANS-3	DECK	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	DRIVING SURFACE		MANY		
EFFLORESCENCE	THROUGHOUT		MEDIUM		
FULL DEPTH PATCHES	RANDOM		FEW		
PATCHES	RANDOM		FEW		
SATURATION	RANDOM		MINOR	10 %	
SPALLS	THROUGHOUT		MANY		
TRANSVERSE CRACKS	THROUGHOUT		MANY		

SUPERSTRUCTURE COMPONENTS

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

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	COMPOSITE	56 FT 5 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	DIAPHRAGMS		LIGHT		
RUSTING	TOP FLANGE		LIGHT		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	COMPOSITE	70 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
RUSTING	BOTTOM FLANGE		LIGHT		
RUSTING	TOP FLANGE		LIGHT		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	COMPOSITE	56 FT 5 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

Design_No = a1997

RUSTING	BOTTOM FLANGE	LIGHT
RUSTING	TOP FLANGE	LIGHT

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1	RA-37 DEGREES	57 FT 4 IN	REINFORCED CONCRETE	NON-INTEGRAL		(WILSOJ, 08/20/2003)--APPROACH HAUNCH SPALLING

ASSOCIATED COMPONENT	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BEAM CAP		MATERIAL: REINFORCED CONCRETE	CONSTRUCTION: CAST-IN-PLACE			
PILING		MATERIAL: STEEL	CONSTRUCTION: H-SHAPE			
STRAIGHT WINGS		MATERIAL: REINFORCED CONCRETE	CONSTRUCTION: CAST-IN-PLACE			
	LEACHING	RANDOM		MODERATE		
	MAP CRACKS	RANDOM		MEDIUM		
BACKWALL		REINFORCED CONCRETE	CAST-IN-PLACE			
	DETERIORATION	TOP		HEAVY		
	LEACHING	RANDOM		MODERATE		
	SPALLS	THROUGHOUT		MODERATE		
	VERTICAL CRACKS	RANDOM		FEW		
EXPANSION BEARING		STEEL	ROCKER			
	PACK RUST	RANDOM		HEAVY		
	RUSTING	RANDOM		MODERATE		
	TIPPED	THROUGHOUT		MINOR		

BENT-2	RA-37 DEGREES	48 FT 5 IN	REINFORCED CONCRETE	MULTIPLE COLUMN		

ASSOCIATED COMPONENT	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BEAM CAP		MATERIAL: REINFORCED CONCRETE	CONSTRUCTION: CAST-IN-PLACE			
COLUMN		REINFORCED CONCRETE	CAST-IN-PLACE			
FOOTING		REINFORCED CONCRETE	H-PILE			
EXPANSION BEARING		STEEL	ROCKER			
	RUSTING	RANDOM		MINOR		

BENT-3	RA-37 DEGREES	48 FT 5 IN	REINFORCED CONCRETE	MULTIPLE COLUMN		

ASSOCIATED COMPONENT	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
BEAM CAP		MATERIAL: REINFORCED CONCRETE	CONSTRUCTION: CAST-IN-PLACE			
COLUMN		REINFORCED CONCRETE	CAST-IN-PLACE			
FOOTING		REINFORCED CONCRETE	H-PILE			
FIXED BEARING		STEEL	PEDESTAL(ROTATING)			

	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
ABUTMENT-4	*RA-37 DEGREES*	*57 FT 4 IN*	*REINFORCED CONCRETE*	*NON-INTEGRAL*		

	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		
PILING	STEEL	H-SHAPE				
	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE				
	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
	DETERIORATION	THROUGHOUT		MODERATE		
BACKWALL	REINFORCED CONCRETE	CAST-IN-PLACE				
	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
	REBAR EXPOSED	RANDOM		FEW		
	SPALLS	RANDOM		LARGE		
EXPANSION BEARING	STEEL	ROCKER				
	CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
	RUSTING	RANDOM		MODERATE		

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

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
1	UP RR			27 FT 0 IN		3927

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
CONVERTED	23 FT 0 IN			

STRUCTURE PAINT INFORMATION

Missouri Department of Transportation
State Bridge Inspection Report

COUNTY: WASHINGTON **DISTRICT: CD** **CLASS: STATBR** **FED-ID: 1681** **BRIDGE: A1997**

CONDITION: FAIR **RUST AMOUNT :** 6=1.0% OF SURFACE RUSTED **STEEL TONS :** 75

ORIGINAL PAINT		CONTRACT REPAINT		DEPARTMENT REPAINT	
PAINT TYPE :	A SYSTEM	**PAINT TYPE :**		**PAINT TYPE :**	**MANUFACTURE :**
NAME :	RED LEAD	**NAME :**		**NAME :**	**SURFACE PREP :**
PAINT COLOR :	ALUMINUM	**PAINT COLOR :**		**PAINT COLOR :**	
PAINT YEAR :	1969	**PAINT YEAR :**		**PAINT YEAR :**	
MILS :	4	**MILS :**		**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*

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:	6-EQ TO PRESENT MIN CRITR	9/25/2012
[Item 68] Deck Geometry Rating:	5-BETTER THAN MINIMUM	3/25/2002
[Item 69] Underclearance:	8-EQ TO PRESENT DESIRAB	3/25/2002
Sufficiency Rating:	92.6%	2/22/2022
Deficiency:	STRUCTURAL	1/20/2021
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

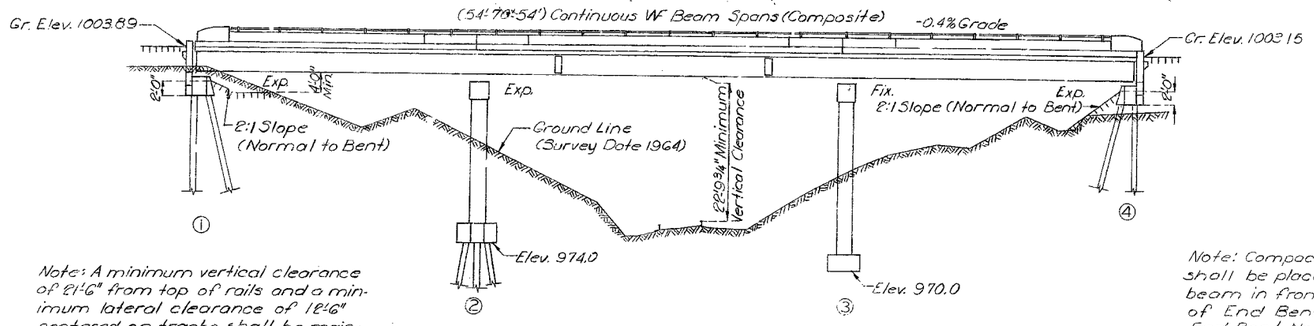
SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

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

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	33	



Note: A minimum vertical clearance of 21'6" from top of rails and a minimum lateral clearance of 18'6" centered on tracks shall be maintained during construction.

GENERAL ELEVATION

Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'0" in back of End Bent No. 4 before piles are driven at End Bent No. 4.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1965

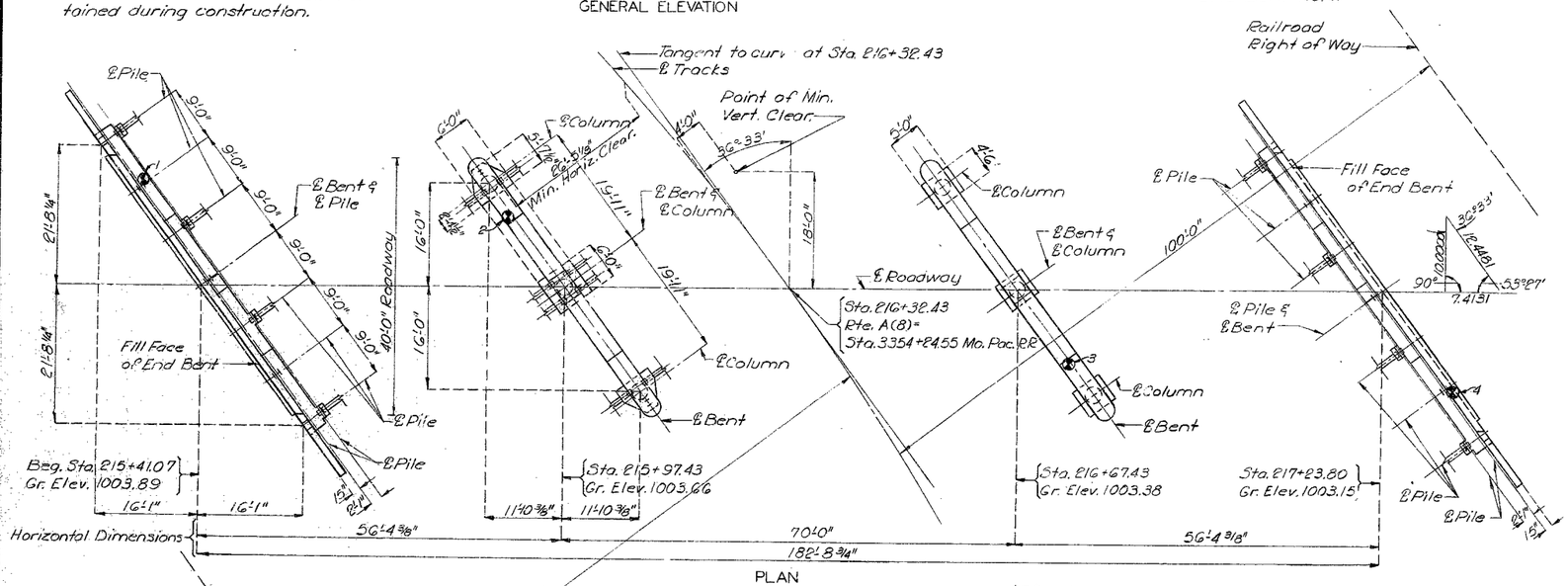
Design Loading:
H 20-44 15#/sq. ft. Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#
Fatique Stress: Case I

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. A36-66) f_s = 20,000 psi
Steel Pile (A.S.T.M. A36-66) f_b = 9,000 psi

Surface Seal:
Superstructure deck to be surface sealed.

Fabricated Steel:
Field connections, High Strength Bolts 3/4" ϕ holes 13/16" ϕ except as noted.

Paint:
Paint; Shop, none; Field, by contractor in accordance with Std. Spec. 55.4.10.



Note: "⊠" indicates location of Borings. See sheet No. 2 of 10 for Boring Data.

PILE & FOOTING DATA

	BENT NO.	1	2	3	4
BEARING PILE	Pile Type and Size	10BP42	10BP42		10BP42
	Number	7	10		7
	Approximate Length Ft.	30	15		30
	Design Bearing Tons	43	42		43
	Hammer Energy reqd. Ft. Lbs.	10,600	11,500		10,600
SPREAD FOOTINGS	Foundation Material			Rock	
	Design Bearing Tons/Sq. Ft.			8.3	

Minimum energy requirement of hammer based on plan length and design bearing value of piles. Increase by the factor (W+w)/2W when the weight of the ram (W) is less than the weight of the pile (w).
All pile shall be driven to practical refusal.

ESTIMATED QUANTITIES

ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class I Excavation for Structures	Cu. Yd.	250		250
Steel Piles in Place (10")	Lin. Ft.	370		370
Class B Concrete	Cu. Yd.	136.3		136.3
Class B1 Concrete	Cu. Yd.		218.1	218.1
Reinforcing Steel	Lb.	19,770	71,590	91,360
Painting	Ton		75.0	75.0
Fabricated Structural Carbon Steel	Lb.		151,070	151,070
Bridge Rail (Single Tube Type)	Lin. Ft.		339	339

Note: No payment for excavation will be allowed at End Bent No. 4.

B.M. #14 A Elev. 1005.99 Chiseled "X" Top of Wing Wall S.West Wall, West End of Present Bridge at Mo. Pacific Railroad (U.S.G.S. Datum)

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C110-A(2) SA (8) **STA.** 215+41.07

WASHINGTON **COUNTY**

SUBMITTED BY W. D. Causey BRIDGE ENGINEER DATE 7-12-68

APPROVED BY M. K. Sinclair CHIEF ENGINEER DATE 7-12-68

DESIGNED AUG. 1967 BY GOSER
DETAILED June 1968 BY Cole, Plummer & Morlock
CHECKED June 1968 BY Mager

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

Sheet No. 1 of 10.

STD. 34.00
A-1997

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SEE FINAL PLANS BRIDGE LINES

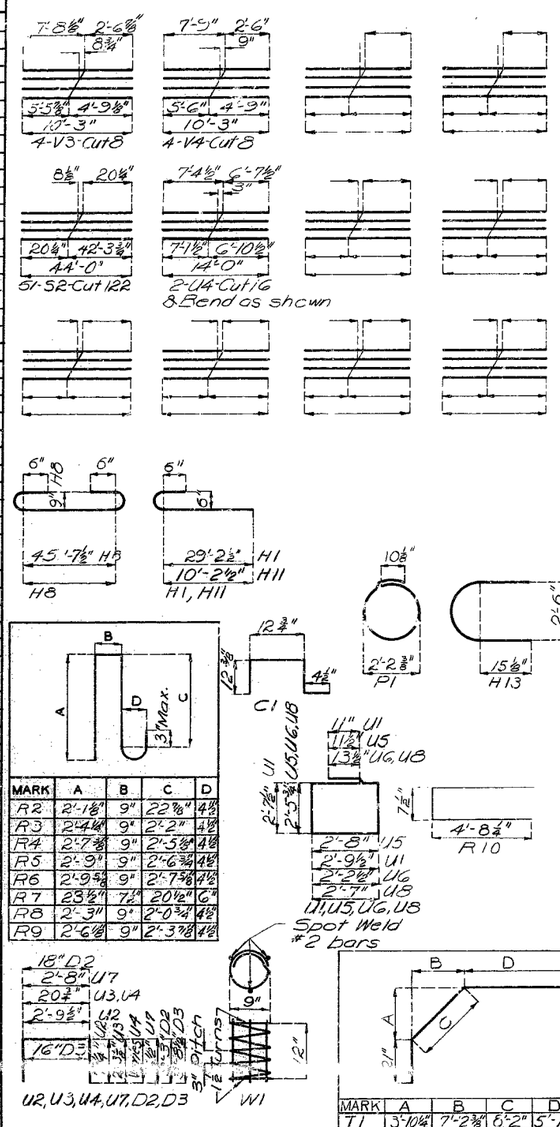
MISSOURI STATE HIGHWAY DEPARTMENT

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

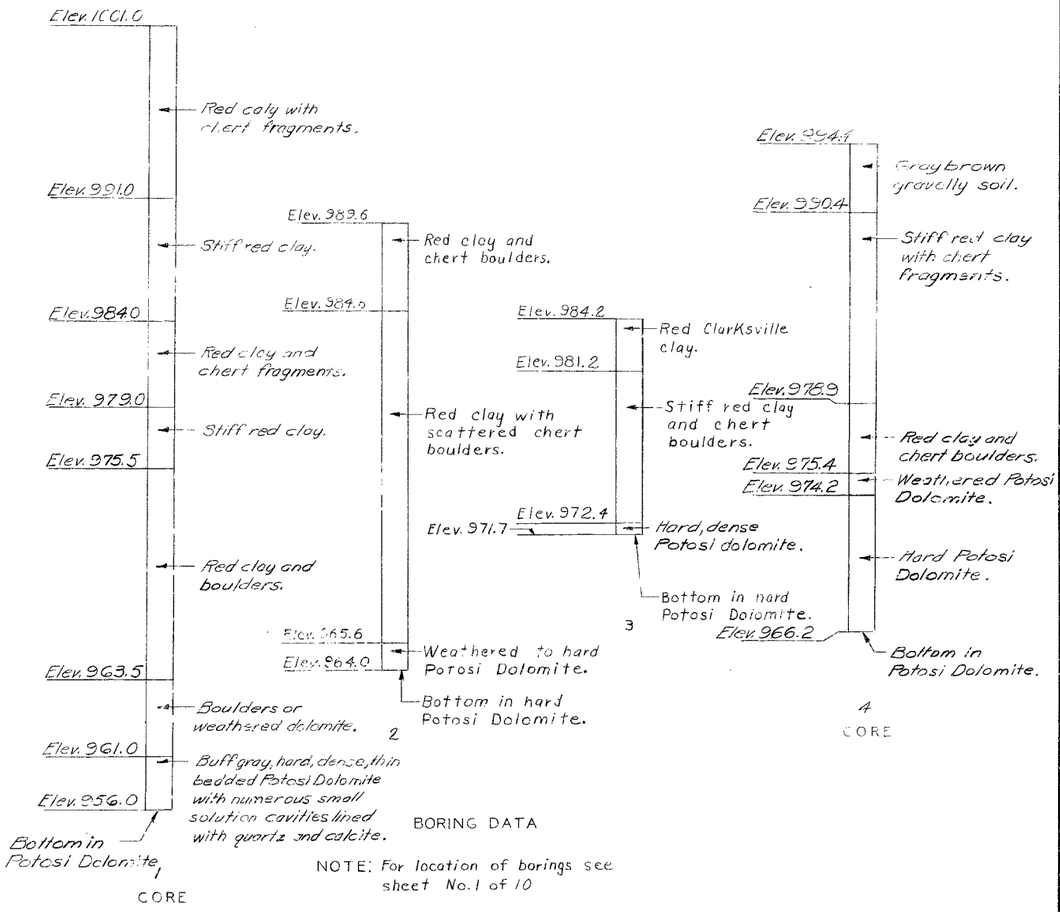
COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
END BENT NO. 1				
16	#3	30'-6"	H1	Beam
4	#6	29'-6"	H2	"
4	#6	27'-3"	H3	Backwall
8	#4	27'-0"	H4	"
6	#6	9'-6"	H5	Wing
2	#6	9'-6"	H6	"
2	#6	7'-9"	H7	"
2	#6	6'-0"	H14	"
4	#6	15'-0"	T1	Wing
2	#6	11'-9"	T2	"
2	#6	11'-9"	T3	"
58	#4	11'-9"	U1	Beam
14	#4	4'-0"	U2	"
4	#7	6'-3"	U3	Buttress
8	#7	14'-0"	U4	"
100	#5	5'-9"	V1	Backwall
14	#5	6'-6"	V2	Wing
4	#4	10'-3"	V3	"
4	#4	10'-3"	V4	Wing
8	#6	2'-9"	V5	Buttress
10	#2	19'-9"	W1	A.B. Wells
INT. BENT NO. 2				
27	#8	4'-0"	D1	Footing
12	#6	8'-0"	D2	"
4	#11	49'-0"	H8	Beam
2	#6	45'-6"	H9	"
7	#11	45'-6"	H10	"
6	#7	11'-6"	H11	"
3	#11	13'-9"	H12	"
8	#7	6'-6"	H13	"
8	#6	8'-9"	D3	Footing
57	#3	7'-9"	P1	Column
51	#5	11'-3"	U5	Beam
2	#5	10'-6"	U6	"
8	#4	3'-9"	U7	"
2	#5	11'-3"	U8	"
27	#8	21'-0"	V1	Column
10	#2	19'-9"	W1	A.B. Wells
INT. BENT NO. 3				
27	#8	4'-0"	D1	Footing
4	#11	43'-0"	H8	Beam
2	#6	43'-6"	H9	"
7	#11	43'-6"	H10	"
6	#7	11'-6"	H11	"
3	#11	13'-9"	H12	"
8	#7	6'-6"	H13	"
72	#3	7'-9"	P1	Column
51	#5	11'-3"	U5	Beam
2	#5	10'-6"	U6	"
2	#5	11'-3"	U8	"
27	#8	23'-6"	V2	Column
10	#2	19'-9"	W1	A.B. Wells

BENDING SKETCHES & CUTTING DIAGRAMS



NO.	SIZE	LENGTH	MARK	LOCATION
END BENT NO. 4				
16	#8	30'-6"	H1	Beam
4	#6	29'-6"	H2	"
4	#6	27'-3"	H3	Backwall
4	#4	28'-6"	H4	"
6	#6	9'-6"	H5	Wing
2	#6	9'-6"	H6	"
2	#6	7'-9"	H7	"
2	#6	11'-9"	T2	Wing
2	#6	11'-9"	T3	"
4	#6	14'-6"	T4	"
58	#4	11'-9"	U1	Beam
14	#4	4'-0"	U2	"
4	#7	6'-3"	U3	Buttress
8	#7	14'-0"	U4	"
4	#5	6'-6"	V2	Wing
4	#4	10'-3"	V3	"
106	#5	4'-9"	V1	Backwall
4	#4	10'-3"	V4	Wing
8	#6	2'-9"	V5	Buttress
10	#2	19'-9"	W1	A.B. Wells
SUPERSTRUCTURE				
364	#5	3'-6"	C1	Curb
8	#6	35'-9"	C2	"
4	#6	28'-6"	C3	"
4	#6	28'-3"	C4	"
4	#6	27'-6"	C5	"
4	#6	29'-3"	C6	"
8	#5	4'-9"	R1	End Post
4	#5	5'-6"	R2	"
4	#5	6'-0"	R3	"
4	#5	6'-6"	R4	"
4	#5	6'-9"	R5	"
8	#5	7'-0"	R6	"
340	#5	5'-3"	R7	Parapet
4	#5	5'-9"	R8	End Post
4	#5	6'-3"	R9	"
16	#5	10'-0"	R10	"
8	#5	21'-3"	R11	Parapet
32	#5	9'-9"	R12	"
16	#5	25'-6"	R13	"
8	#5	21'-6"	R14	"
8	#5	20'-9"	R15	"
8	#5	22'-0"	R16	"
596	#6	42'-6"	S1	Slab
122	#6	44'-0"	S2	"
258	#4	31'-0"	S3	"
84	#4	16'-0"	S4	"
230	#6	37'-6"	S5	"
2	#4	27'-0"	S6	"



NOTE: For location of borings see sheet No. 1 of 10

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C110-A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

420

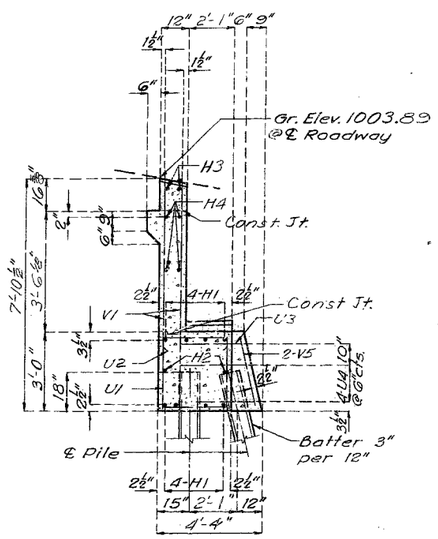
No. 90.3 June 1961 | Revised Dec. 1964

DETAILED July 1967 BY Cole, Plummer
CHECKED June 1968 BY Mager

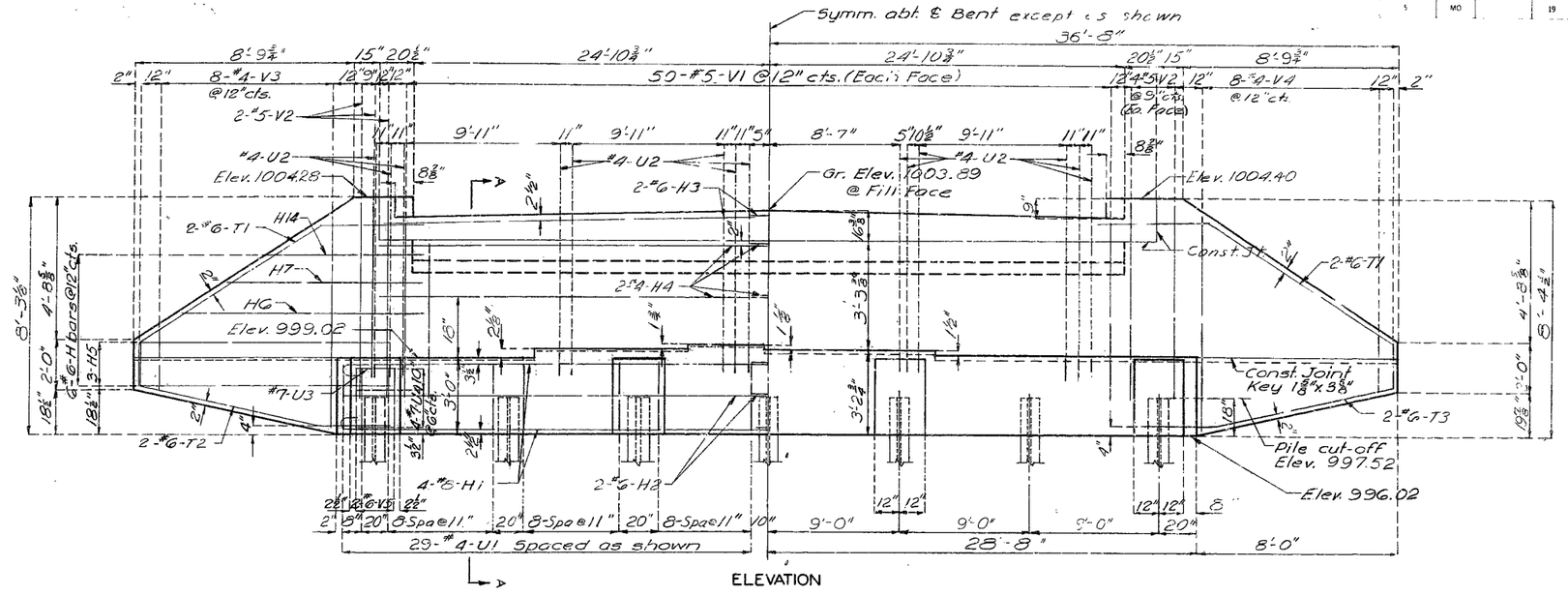
Note: This drawing is not to scale. Follow dimentions.

MISSOURI STATE HIGHWAY DEPARTMENT

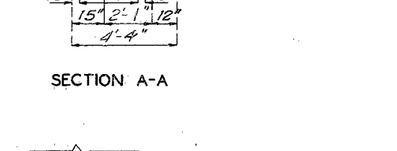
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	35	



SECTION A-A



ELEVATION

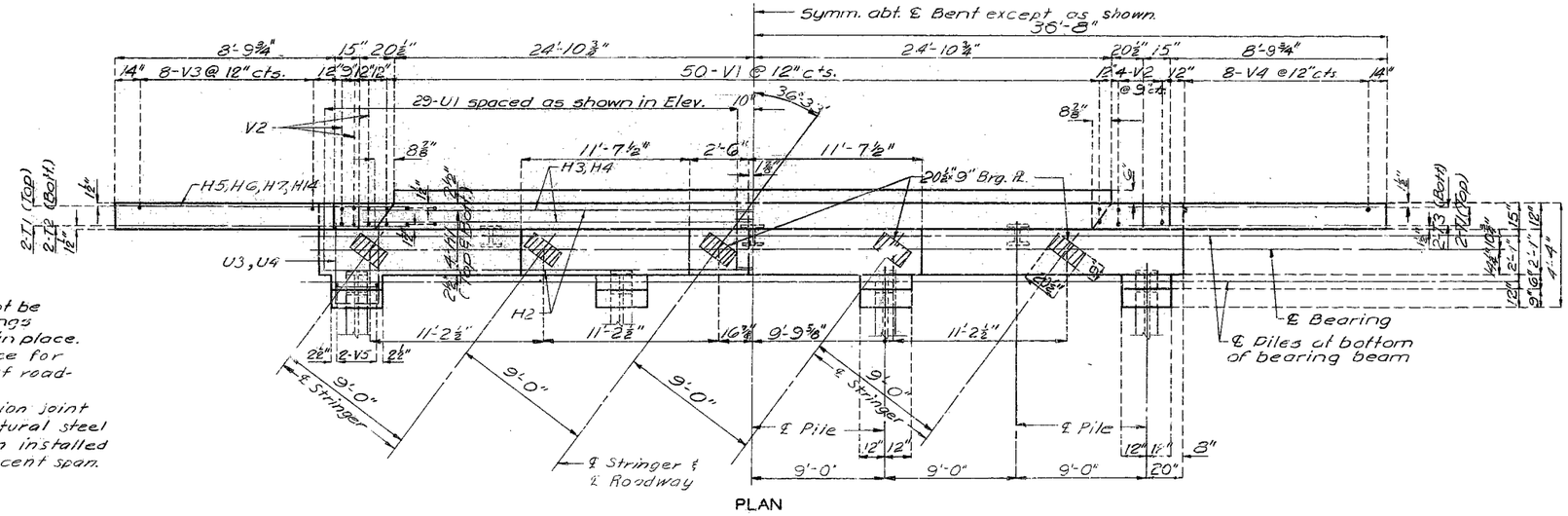


DETAIL OF STEEL PILE SPLICE

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

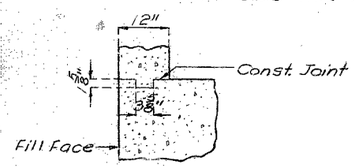
Top of backwall and expansion device for End Bent No. 1 to conform to crown of roadway slab.

Backwall above upper construction joint shall not be poured until the structural steel of the expansion device has been installed and slab has been poured in adjacent span.



PLAN

DETAILS OF END BENT NO. 1



DETAIL OF KEYED CONST. JOINT

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C110-A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

421

STD 8.3 JUNE 1967 REVISED

DETAILED JULY 1967 BY GOSER, PLUMMER

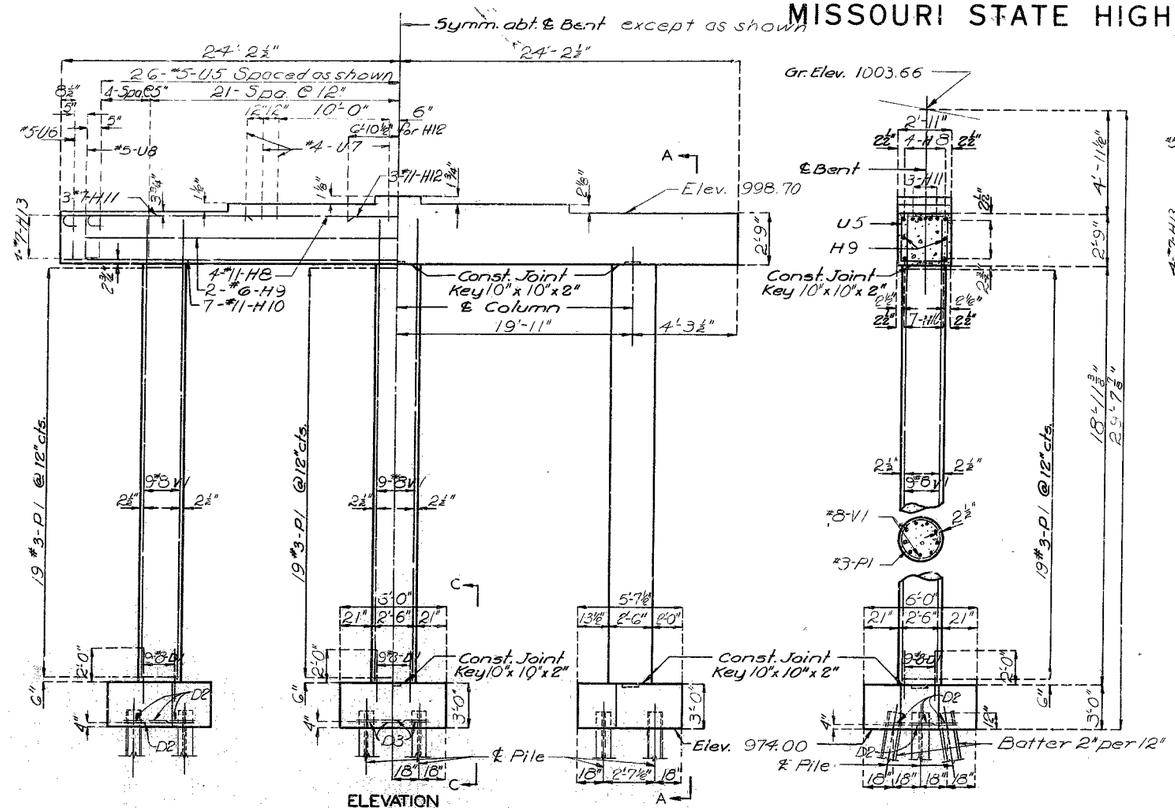
CHECKED June 1968 BY Mager

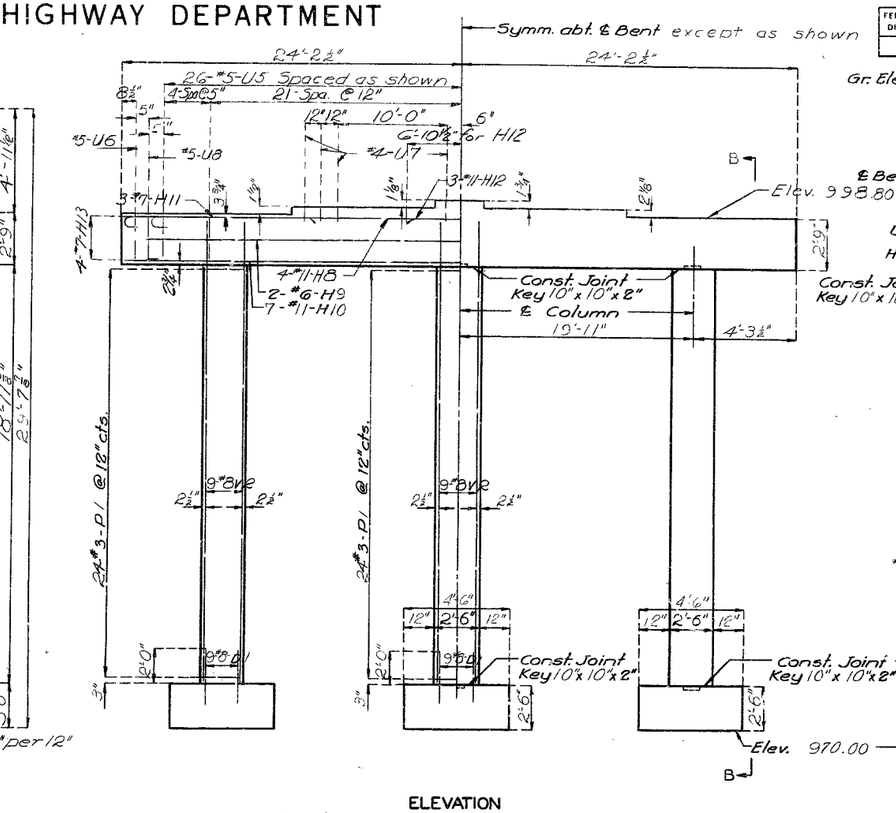
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 10.

MISSOURI STATE HIGHWAY DEPARTMENT

FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	MO		19	36	





BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES SE. OF POTOSI

PROJECT NO. C110-A(3) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

No. 19.6 | Sept. 1962 | Revised Jan. 1965

DETAILED O.C.T. 1967 BY GOSER, PLUMMER

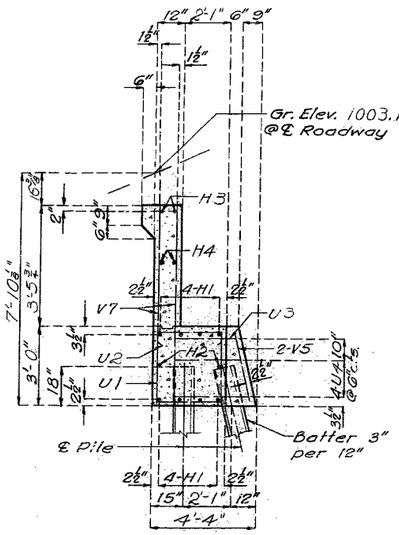
CHECKED June 1968 BY Mager

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

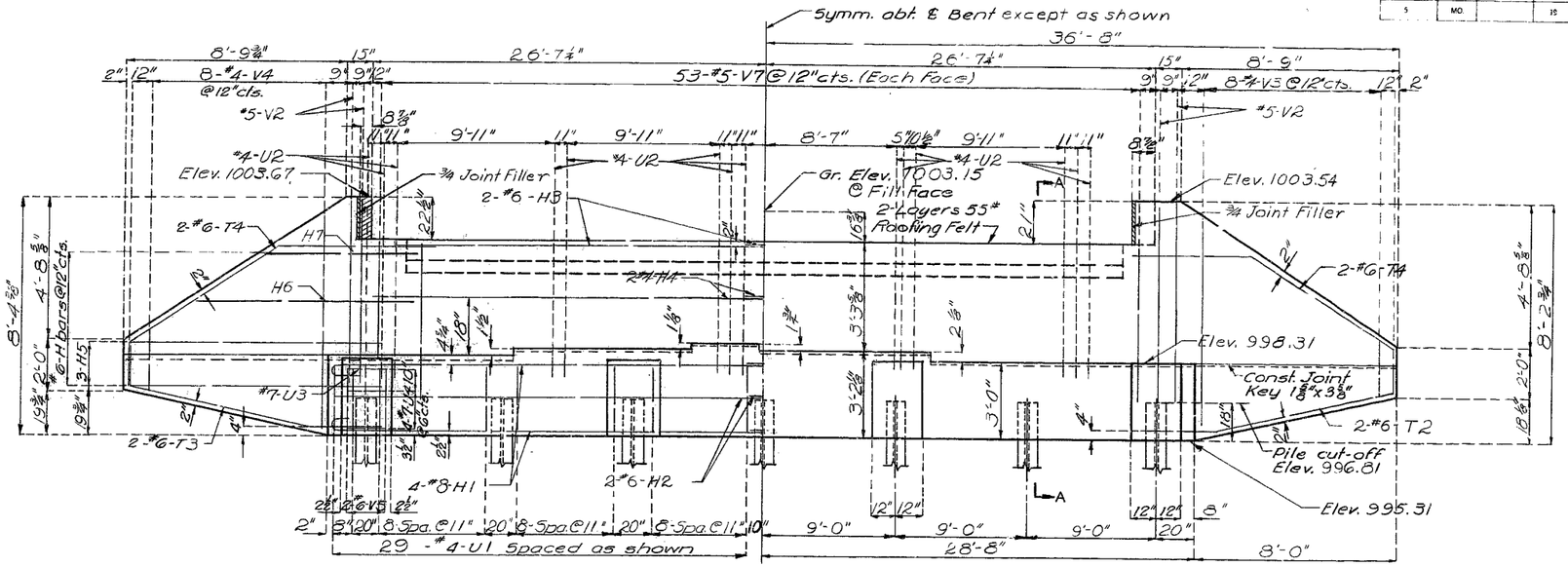
Sheet No. 4 of 10

MISSOURI STATE HIGHWAY DEPARTMENT

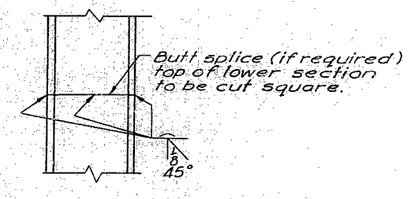
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	37	



SECTION A-A

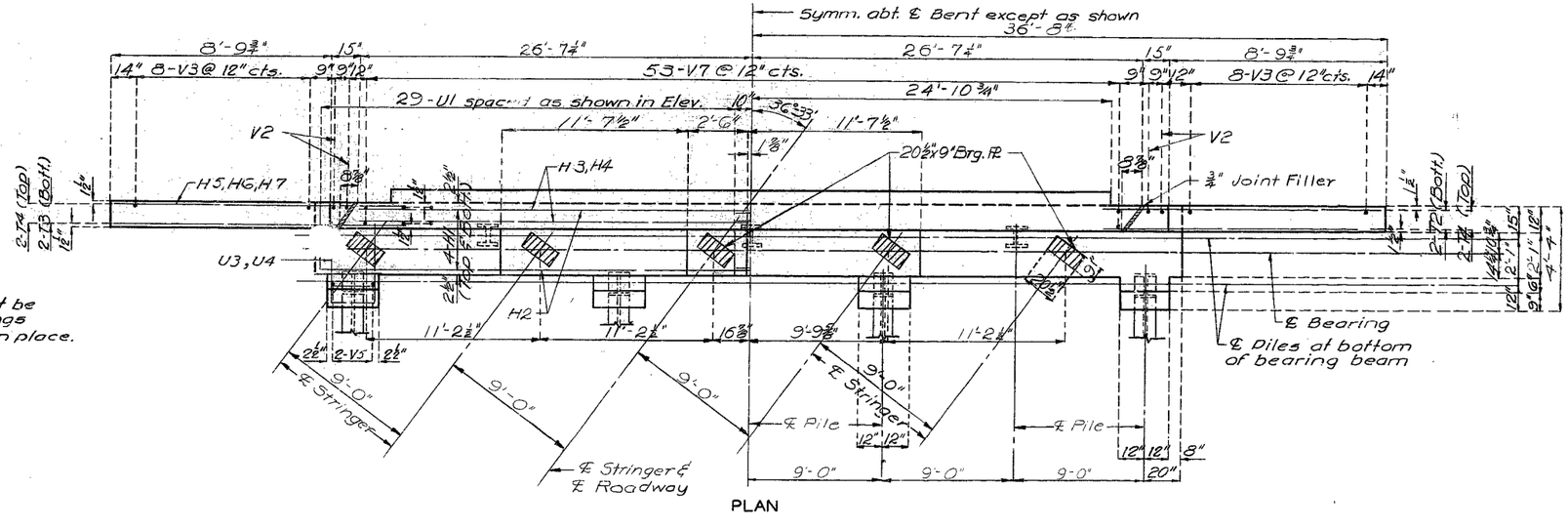


ELEVATION



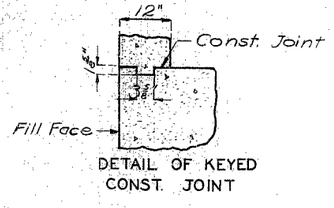
DETAIL OF STEEL PILE SPLICE

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



PLAN

DETAILS OF END BENT NO. 4



DETAIL OF KEYED CONST. JOINT

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE.O SE. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C110-A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

423

STD 8.3 JUNE 1967 | REVISED

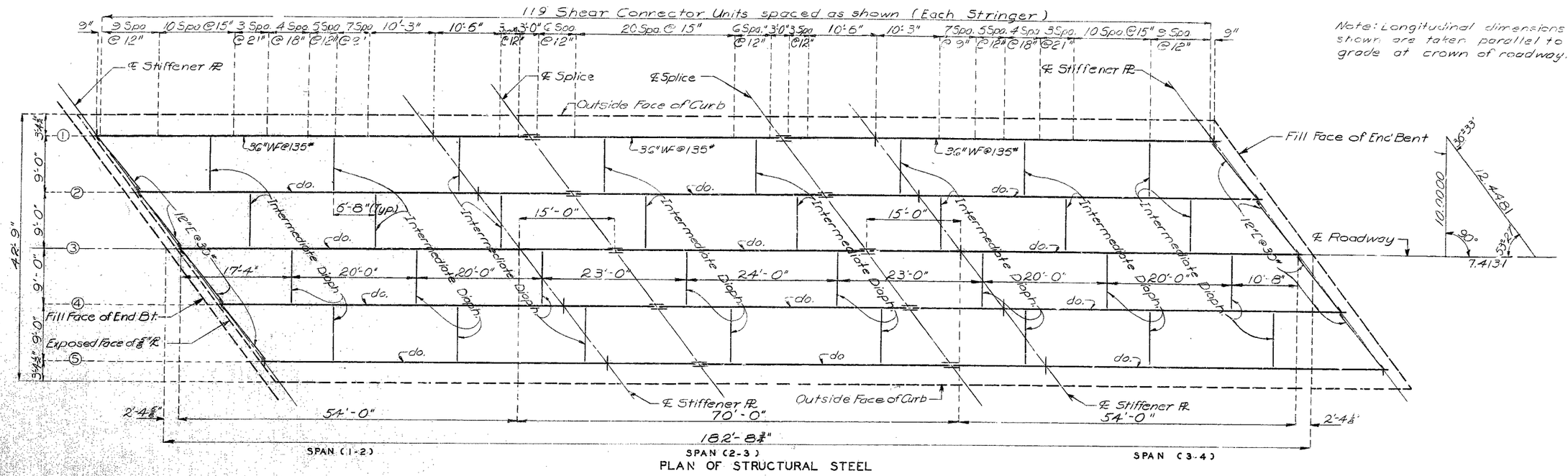
DETAILED OCT. 1967 BY GOSER, PLUMMER

CHECKED June 1968 BY Mager

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

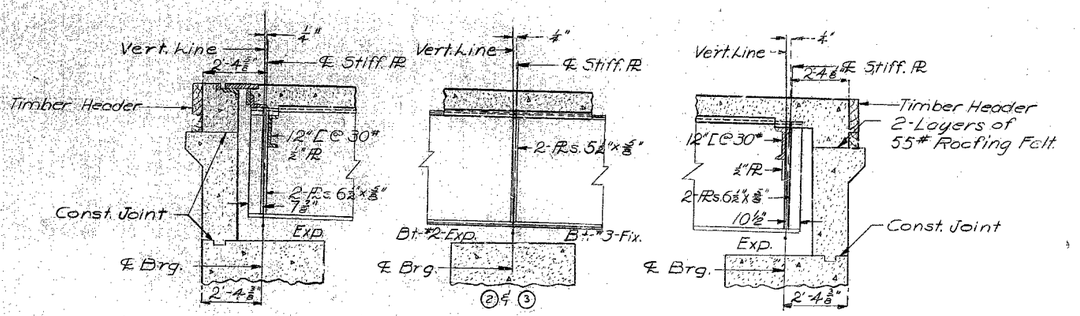
MISSOURI STATE HIGHWAY DEPARTMENT

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

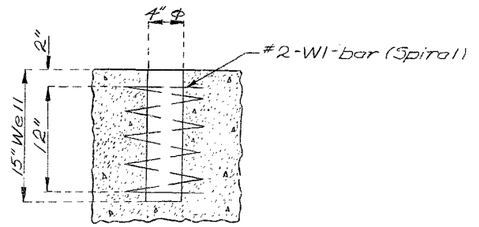


PLAN OF STRUCTURAL STEEL

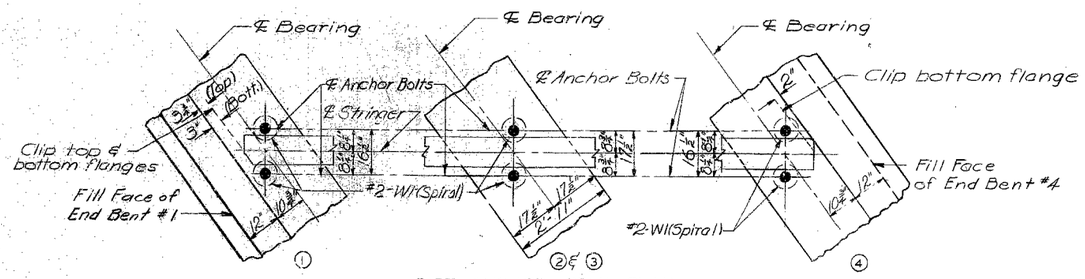
Note: Longitudinal dimensions shown are taken parallel to grade at crown of roadway.



① PART LONGITUDINAL SECTION NEAR ℄ STRUCTURE ④



DETAIL OF ANCHOR BOLT WELLS



PART ANCHOR BOLT PLAN

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

BRIDGE OVER MISSOURI PACIFIC RAILROAD
STATE ROAD FROM RTE.O S.E. TO ST.FRANCOIS CO. LINE
ABOUT 3.6 MILES S.E. OF POTOSI
PROJECT NO. C110-A(2) SA(6)**STA.** 215+41.07
WASHINGTON **COUNTY**

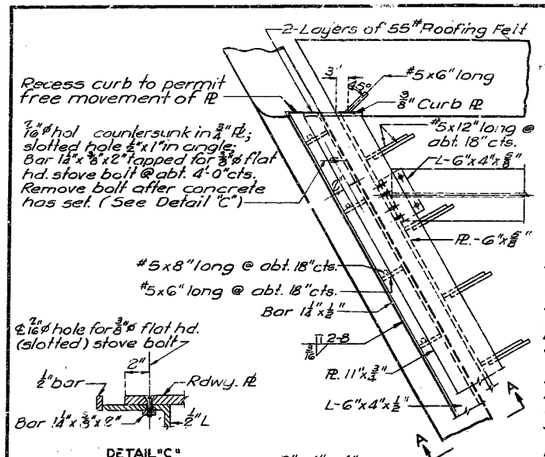
DETAILED JULY 1967 BY COLE, PLUMMER
CHECKED June 1968 BY Mager

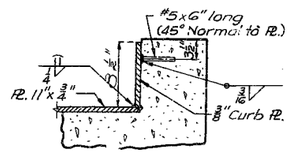
Sheet No. 6 of 10.

A-1997

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	39	



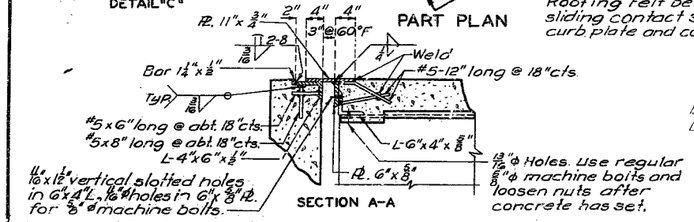


SECTION THRU CURB

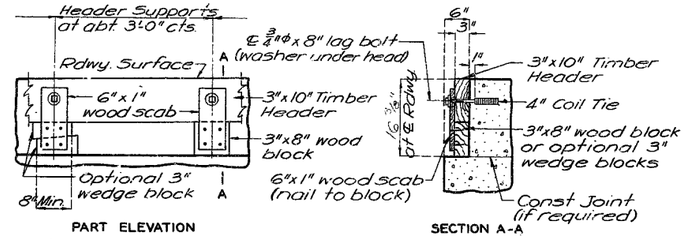
Note: Expansion device shall be fabricated in one section except that when the length is over 50 feet, splicing is permissible. The expansion device shall be bent to conform to crown and grade of roadway.

No. 5 bars for expansion device shall be structural grade. Approved stud welded anchors may be used in lieu of #5 bars shown.

Use 2 Layers of 55# Roofing Felt between the sliding contact surface of curb plate and concrete curb.

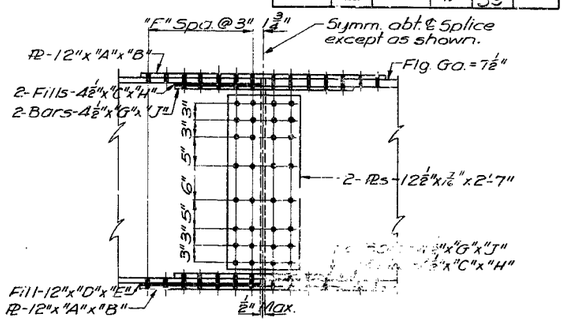


EXPANSION DEVICE AT END BENT NO. 1



Note: Cost of timber headers complete in place to be included in price bid for concrete.

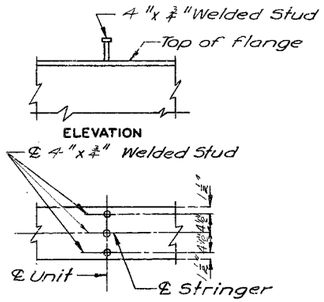
DETAILS OF TIMBER HEADER



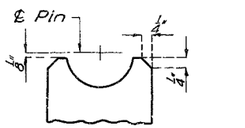
WF SIZES	"A"	"B"	"C"	"D"	"E"	"F" SPA.	"G"	"H"	"J"
36"WF@135# to 135#	1 1/2"	2'-6 1/2"	—	—	—	4	5/8"	—	2'-6 1/2"

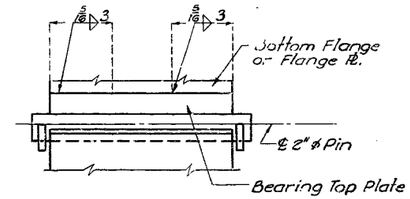
Note: 15/16"ø reamed holes for 7/8"ø high strength bolts.

DETAIL OF 36" WF BEAM SPLICE

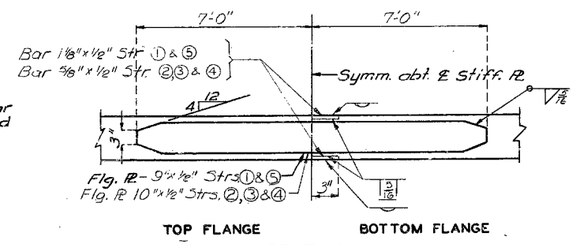


DETAILS OF SHEAR CONNECTORS



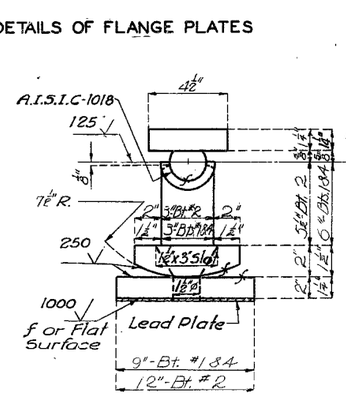


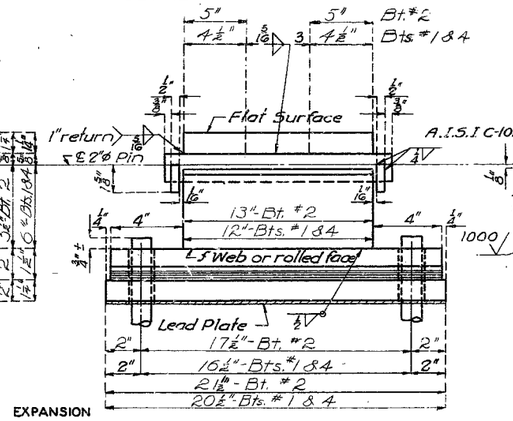
WELDING DETAILS

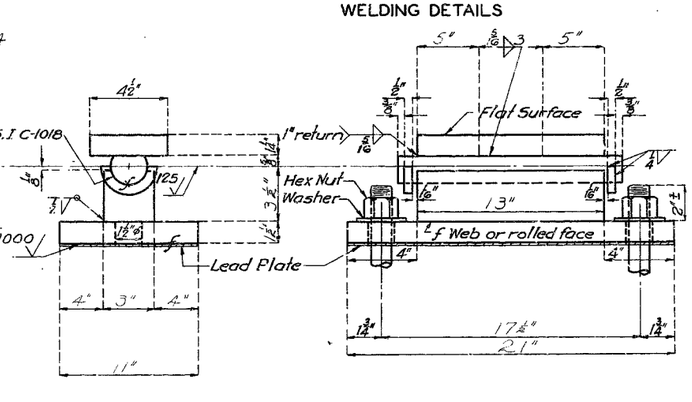


INT. BENTS NO. 2 & 3

DETAILS OF FLANGE PLATES







Required: 5-Bt.#5

TYPE "D" BEARINGS
(Estimated Weight 4230#)

NOTES: TYPE "D" BEARINGS

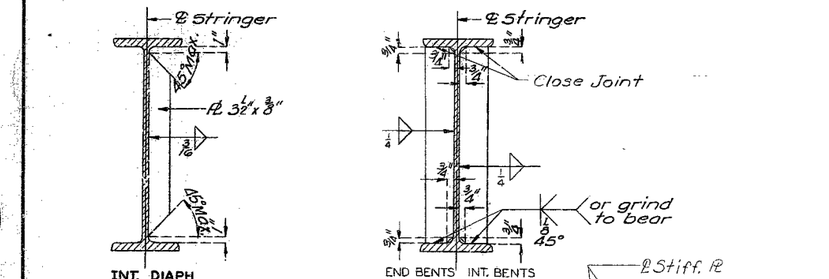
Lead plates under bearings shall be approximately 1/2" thickness and weigh 8#/sq. ft. Cost of lead plates shall be included in price bid for other items.

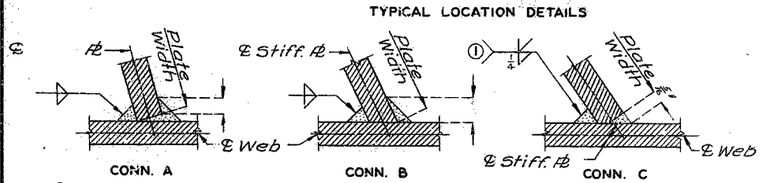
"Estimated weight" does not include weight of anchor bolts.

Rockers and pedestals shall be machined after welding.

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

Anchor Bolts for Type "D" Bearings shall be 1 1/4"ø swedged bolts and shall extend 12" into concrete, with hexagon nuts and plain washers for Fixed Bearings, no nuts for Expansion Bearings.





① Groove weld penetration = "1/4" min. Only welding procedures having good penetration will be permitted on groove welds.

WELDING DETAILS

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C (5) A (2) SAINT A. 215+41.07

WASHINGTON **COUNTY**

A-1997

DETAILED JULY 1967 BY COLE, PLUMMER

CHECKED June 1968 BY Mager

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

Sheet No. 7 of 10.

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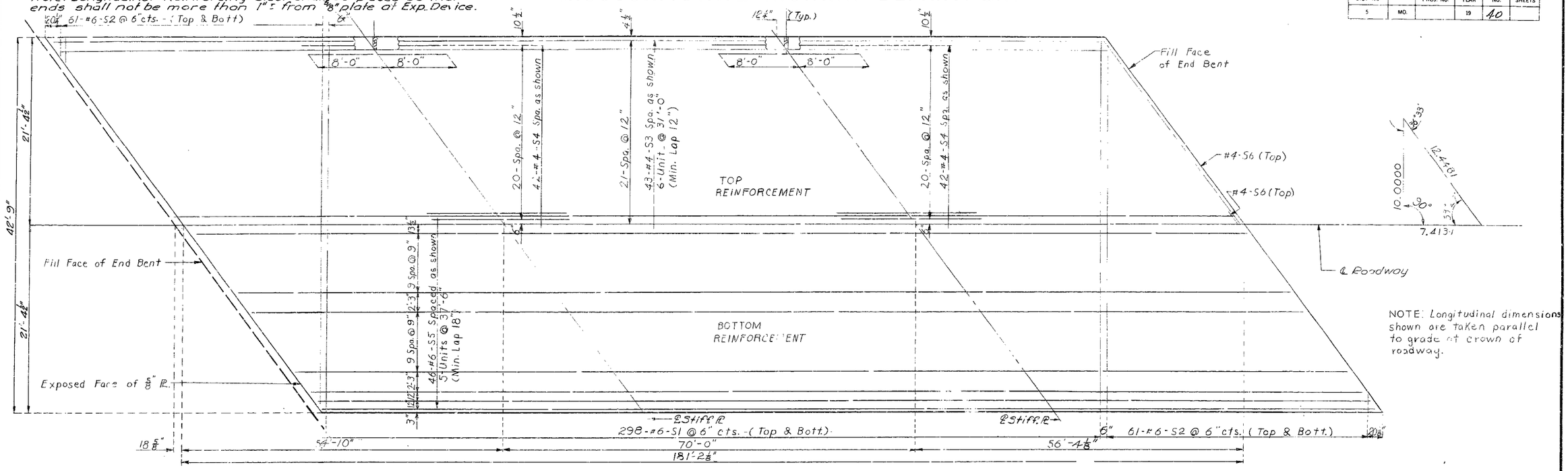
MISSOURI STATE HIGHWAY DEPARTMENT

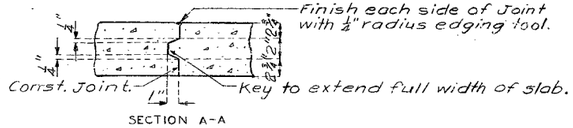
FED. ROAD DIST NO.	STATE	FED. A'D PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	40	

Note: Longitudinal Reinforcing steel shall be placed so that ends shall not be more than 1" from 5/8" plate at Exp. Device.

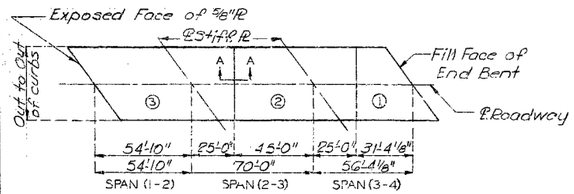


NOTE. Longitudinal dimensions shown are taken parallel to grade at crown of roadway.

PLAN OF SLAB SHOWING REINFORCEMENT

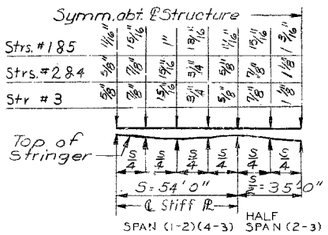


SECTION A-A

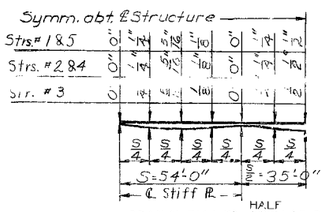


Basic Sequence	Sequence of Pours — Direction: 1	2	3
Alternate "A" Pours	End To 2	1 To 3	2 To End
Alternate "B" Pours	1 + 2	3	
	End To 3		2 To End
	1 + 2 + 3		
	End to End		

Note: The contractor shall use a finishing machine and shall pour and satisfactorily finish the slab pours at a rate of not less than 35 cubic yards per hour unless he elects to use an approved retarder at his own expense to retard the set of the concrete to 2.5 hours in which case he may reduce his pouring and finishing rate to not less than 25 cubic yards per hour. The contractor shall observe the basic pouring sequence unless he can demonstrate to the engineer that he can pour and satisfactorily finish one of the longer alternate pours.

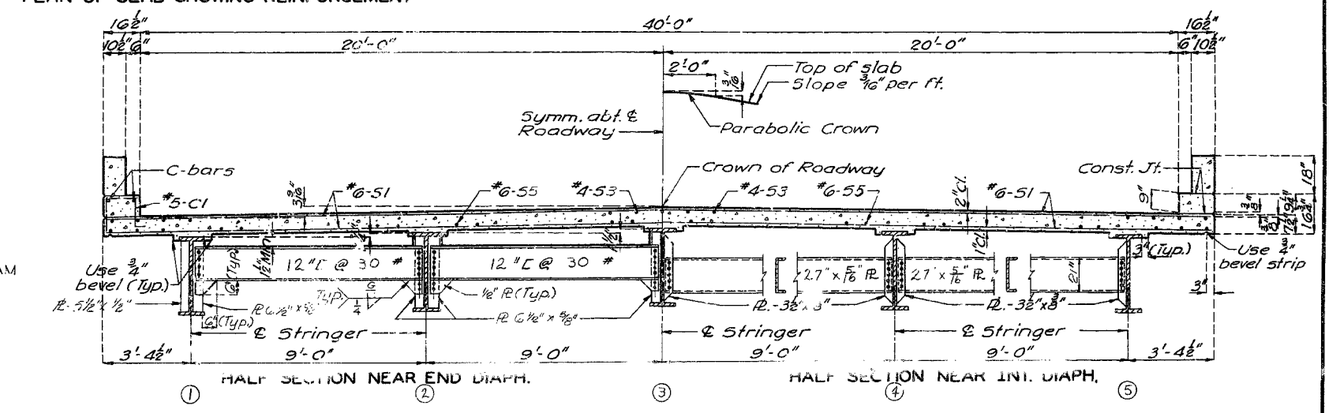


THEORETICAL SLAB HAUNCHING DIAGRAM



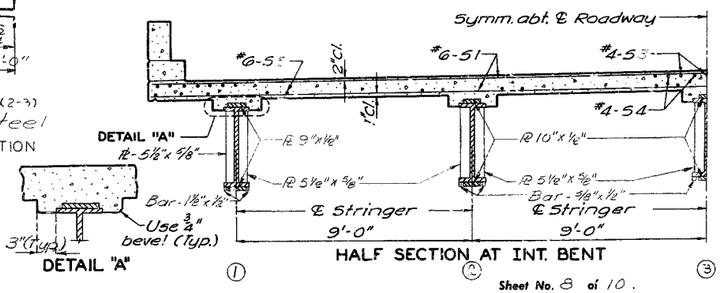
12 % Structural Steel

DEAD LOAD DEFLECTION



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

Note: For details and reinforcement of curb and parapet not shown see sheet No. 10 of 10.



DETAIL "A"

HALF SECTION AT INT. BENT

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF PILOT KNOB

PROJECT NO. C110-A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

Sheet No. 8 of 10.

STD. 41.40.1A | JULY 1967 | REVISED

DETAILED July 1967 BY Cole, Plummer

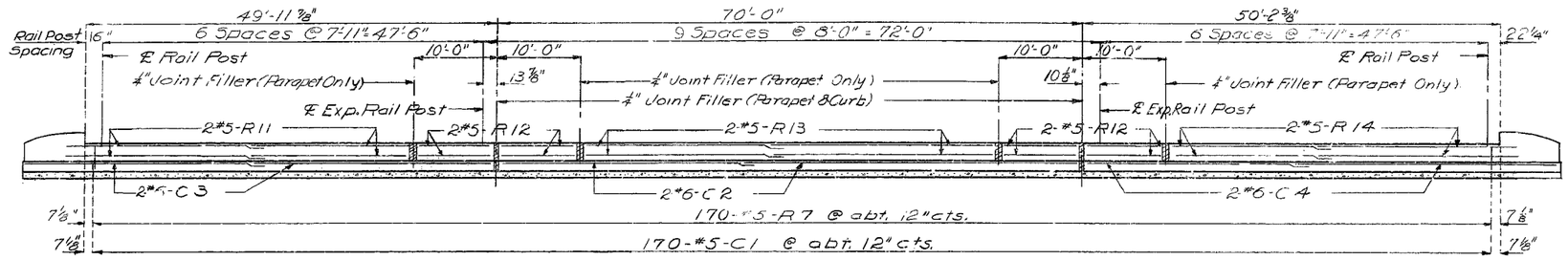
CHECKED June 1968 BY Mager

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

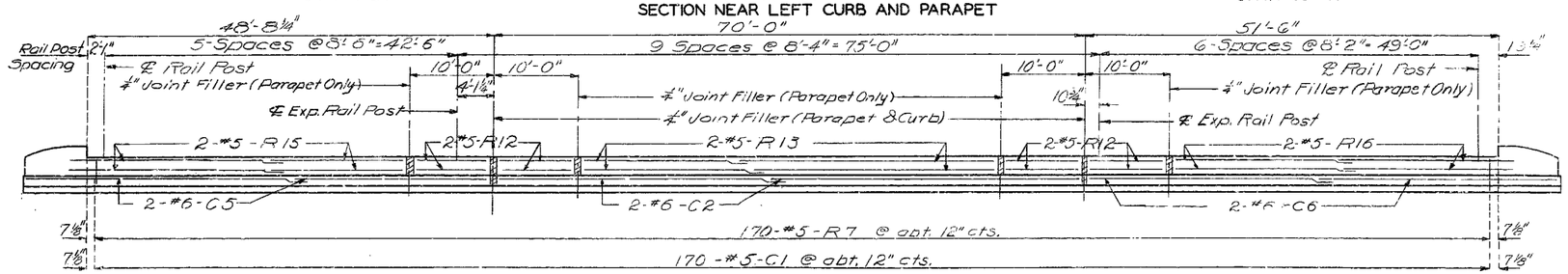
426

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	4	

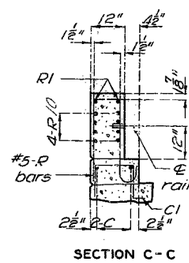


SECTION NEAR LEFT CURB AND PARAPET

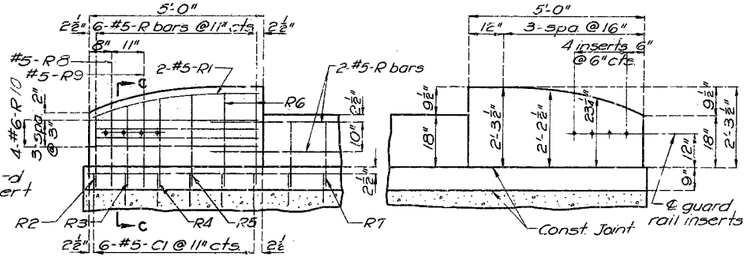


ELEVATION OF RIGHT CURB AND PARAPET

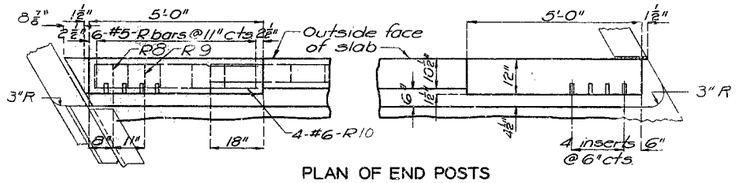
Note: Longitudinal dimensions shown are taken parallel to grade at top of parapet. See Sheet No. 10 of 10 for details of rail, rail posts and guard rail inserts.



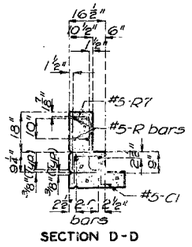
SECTION C-C



ELEVATION OF END POSTS

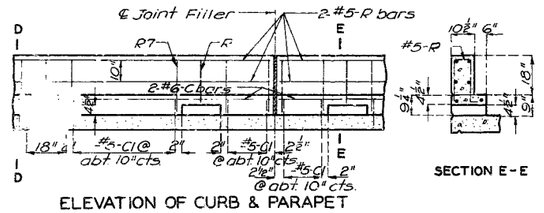


PLAN OF END POSTS



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.

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C [illegible] A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

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DETAILED JULY 1967 BY COLE, PLUMMER
CHECKED June 1968 BY Mager

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

Sheet No. 9 of 10.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	MO.		19	42	

GENERAL HANDRAIL NOTES:

All handrail posts shall be set normal to grade.

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

Aluminum washer shims between top of parapet 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 a minimum of 2 panel lengths.

Omit set screw in side of rail posts adjacent to filled joints in curb and parapet at rail expansion points. Omit set screw in each side of rail post on end bents except where a gap is shown in rail over an expansion device.

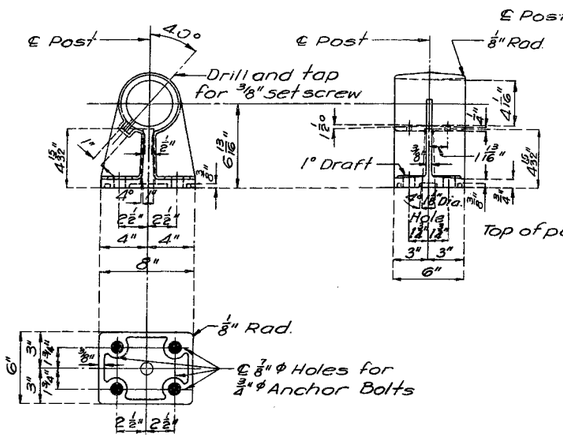
Top of curbs and parapets to be built parallel to grade with curb and parapet joints normal to grade.

Concrete end posts to be vertical.

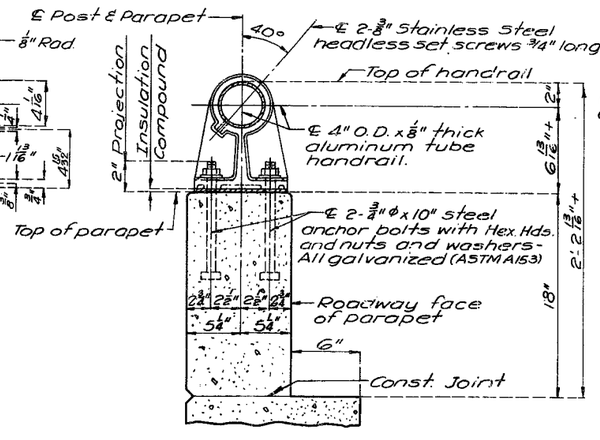
All exposed edges of end posts shall have 1/2" bevel. All exposed edges of curbs and parapets shall have 1/2" radius or 3/8" bevel unless otherwise noted.

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

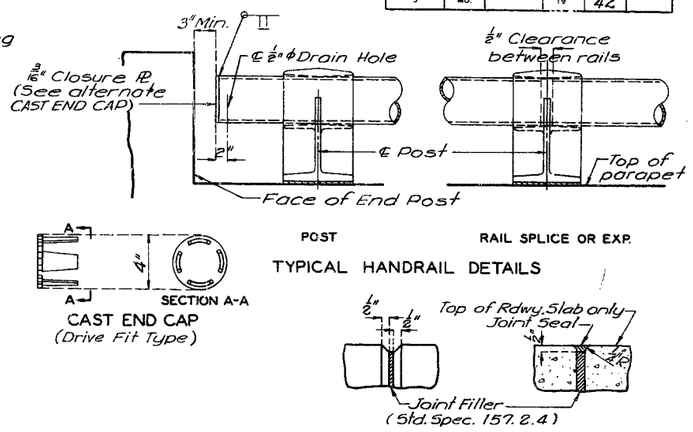
Integrally cast test coupons and a coat of clear lacquer specified in Std. Spec. 56.2.4 and 56.3.5 respectively will not be required for these rail posts.



POST DETAILS



SECTION THRU HANDRAIL

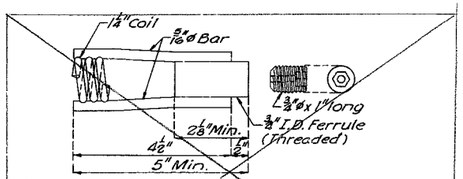


TYPICAL HANDRAIL DETAILS

FILLED JOINT DETAILS

SINGLE TUBE ALUMINUM RAILING

Note: See Std. 86.00 for modification of guardrail attachment.



Note: Guard rail inserts with ferrule and setting plug shall be galvanized and cast in the concrete. The inserts shall have a tensile strength of 20,000 lbs. in 3000 psi concrete. Setting plugs shall remain in place until guard rail is attached. Payment for furnishing and installing guard rail inserts shall be included in price bid for other items.

GUARD RAIL INSERT & PLUG

BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO. C110-A(2) SA(8) **STA.** 215+41.07

WASHINGTON **COUNTY**

A-1997

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STD. 1.5.2	REVISED
MAR. 1964	FEB. 1968

DETAILED JUNE 1968 BY PLUMMER

CHECKED June 1968 BY Mager

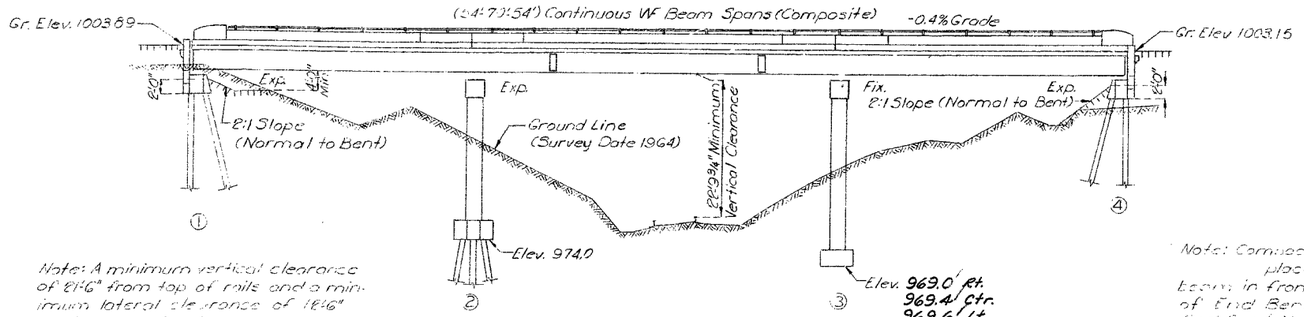
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 10 of 10.

FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

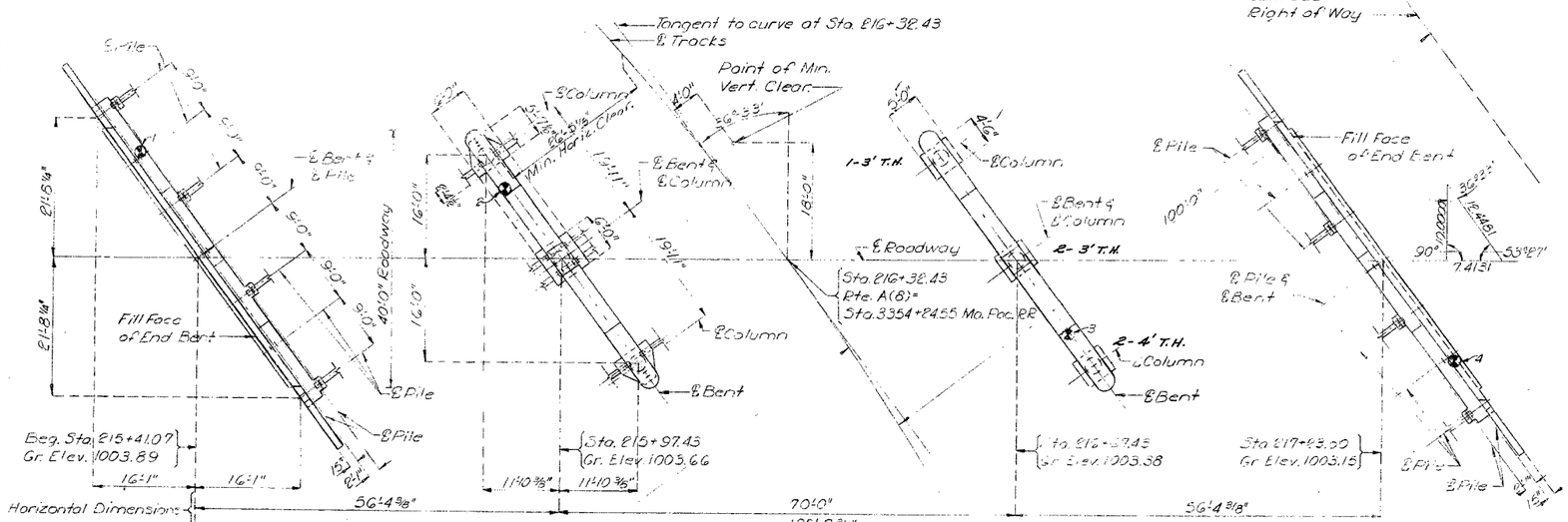
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	33	



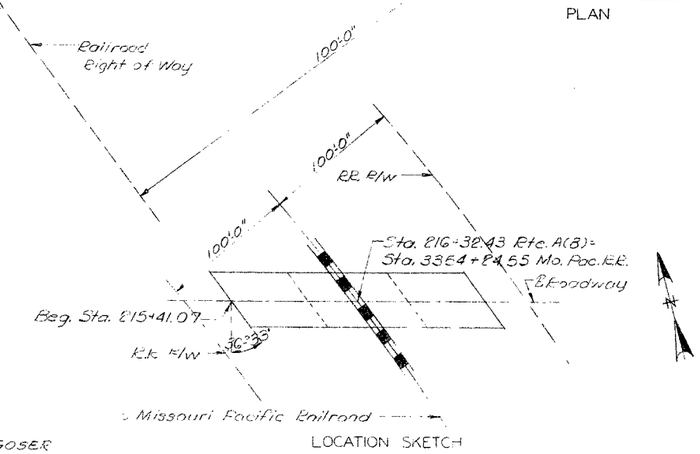
Note: A minimum vertical clearance of 21'6" from top of rails and a minimum lateral clearance of 18'6" centered on tracks ... maintained during construction.

GENERAL ELEVATION

Note: Compacted roadway fill (full roadway width) placed up to elevation of bottom of concrete beam in front of and not less than 5'-10" in back of End Bent No. 4 before piles ... driven at End Bent No. 4.



Note: "⊗" indicates location of Borings. See sheet No. 2 of 10 for Boring Data.



PILE & FOOTING DATA

	BENT NO.	1	2	3	4
BEARING PILE	Pile Type and Size	10BP42	10BP42		10BP42
	Number	7	16		7
	Approximate Length Ft.	30	15		30
	Design Bearing Tons	43	49		43
	Hammer Energy reqd. Ft.Lbs.	10,600	11,500		10,600
SPREAD FOOTINGS	Foundation Material			Rock	
	Design Bearing Tons/Sq.Ft.			8.3	

Minimum energy requirement of hammer based on plan length and design bearing value of piles. Increase by the factor (W+w)/2W when the weight of the ram (W) is less than the weight of the pile (w).
All pile driven to practical refusal.

FINAL QUANTITIES

ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class I Excavation for Structures	Cu.Yd.	296.5		296.5
Steel Piles in Place (10")	Lin.Ft.	502		502
Class B Concrete	Cu.Yd.	136.7		136.7
Class B1 Concrete	Cu.Yd.		218.1	218.1
Reinforcing Steel	Lb.	19,770	71,590	91,360
Painting	Ton	74.9		74.9
Fabricated Structural Carbon Steel	Lb.	-	150,980	150,980
Bridge Rail (Single Tube Type)	Lin.Ft.		339.0	339.0
Class I Excavation +25%	Cu.Yd.	4.5		4.5
Steel Pile @ 50% Bid Price	Lin.Ft.	11		11
Test Holes	Lin.Ft.	17		17

Note: No payment for excavation at End Bent No. 4.

GENERAL NOTES:

Design Specifications: A.A.S.H.O. - 1965

Design Loading:
H 20-44 15 #/sq. ft. Future Wearing Surface
Earth 120 # Equivalent Fluid Pressure 30 #
Fatigue Stress "Case I"

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. A36-66) f_s = 20,000 psi
Steel Pile (A.S.T.M. A36-66) f_b = 9,000 psi

Surface Seal:
Superstructure deck ... surface sealed.

Fabricated Steel:
Field connections, High Strength Bolts 3/4" ϕ, holes 13/16" ϕ except as noted.

Paint:
Paint; Shop: none; Field: by contractor in accordance with Std. Spec. 55.4.10.

B.M. 14 Elevation 1004.40
"D" on N.W. Wing Wall Br. No. A-1997
Lt. Sta 215 + 41.07

BRIDGE OVER MISSOURI PACIFIC RAILROAD
STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE
ABOUT 3.6 MILES S.E. OF POTOSI
PROJECT NO. [illegible] SA (8) **STA.** 215+41.07
WASHINGTON **COUNTY**

SUBMITTED BY ... BRIDGE ENGINEER ... DATE ...
APPROVED BY ... CHIEF ENGINEER ... DATE ...
FINAL PLANS

STD. 54.00
A-1997

DESIGNED AUG. 1967 BY GOSER
DETAILED June 19 68 BY Coyle & Summer & Morrock
CHECKED June 1968 BY Moger

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

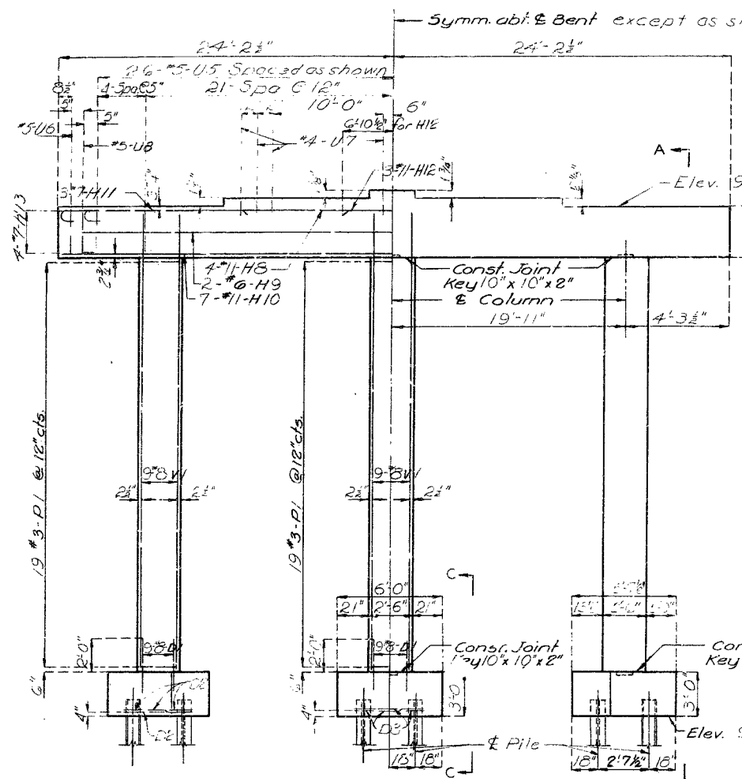
Sheet No. 1A of 2

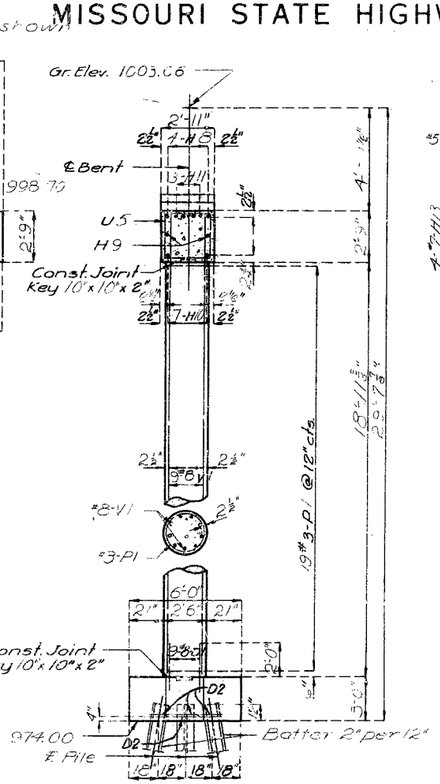
FINAL PLANS

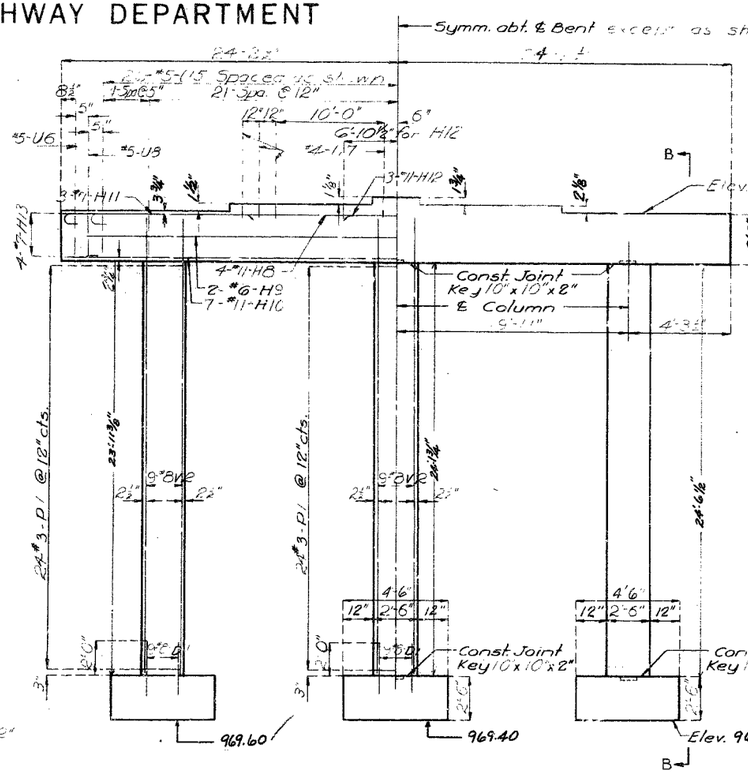
FINAL PLANS

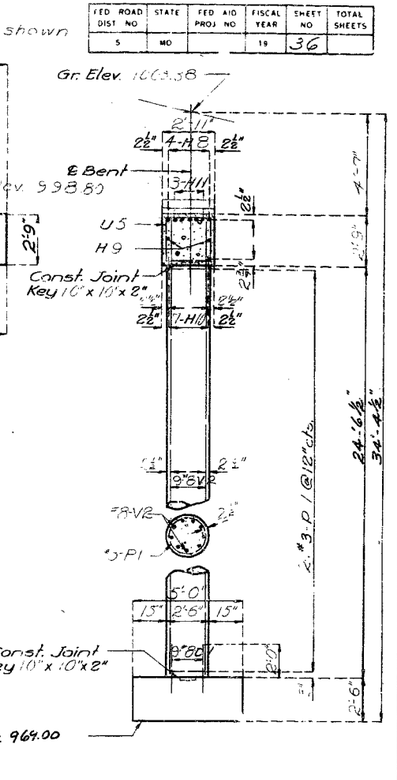
MISSOURI STATE HIGHWAY DEPARTMENT

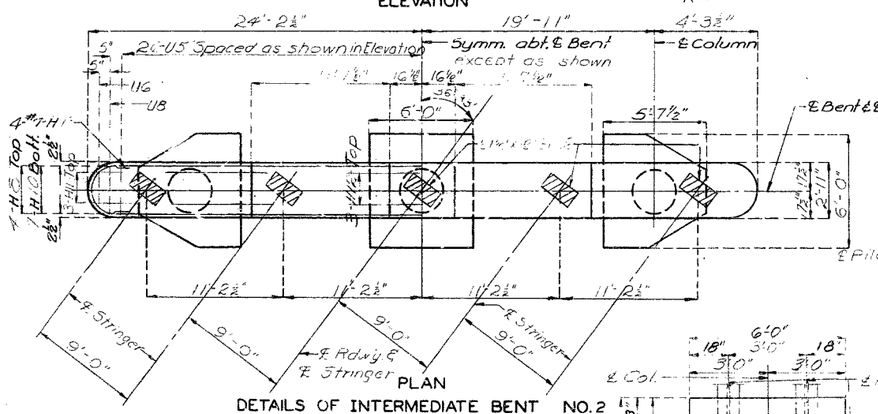
FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
5	MO		19	36	

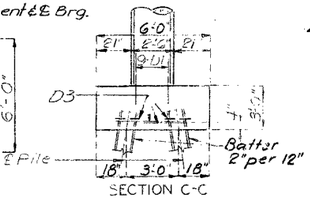


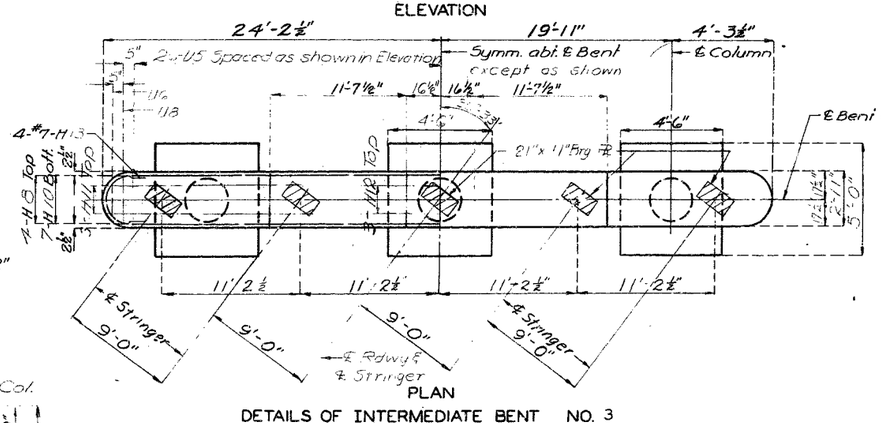


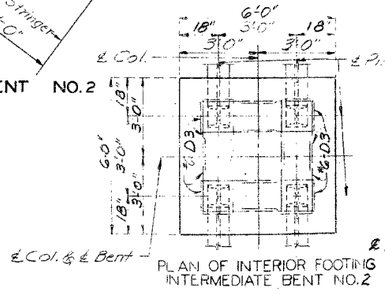


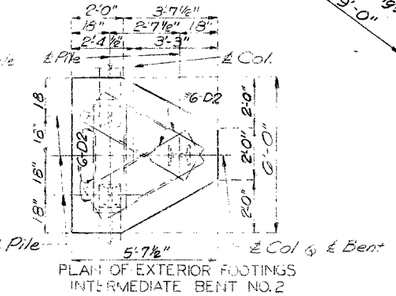












BRIDGE OVER MISSOURI PACIFIC RAILROAD

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE

ABOUT 3.6 MILES S.E. OF POTOSI

PROJECT NO C110-A(2) **SA(8)STA.** 215+41.07

WASHINGTON **COUNTY** FINAL PLANS

A-1997

No.	Revised
19.6	Jan 1965
Sept 1962	

DETAILED OCT. 1967 BY GOSER, PLUMMER

CHECKED June 1968 BY Mager

Note: This drawing is not to scale. Follow dimensions

Sheet No. 4-A of 2

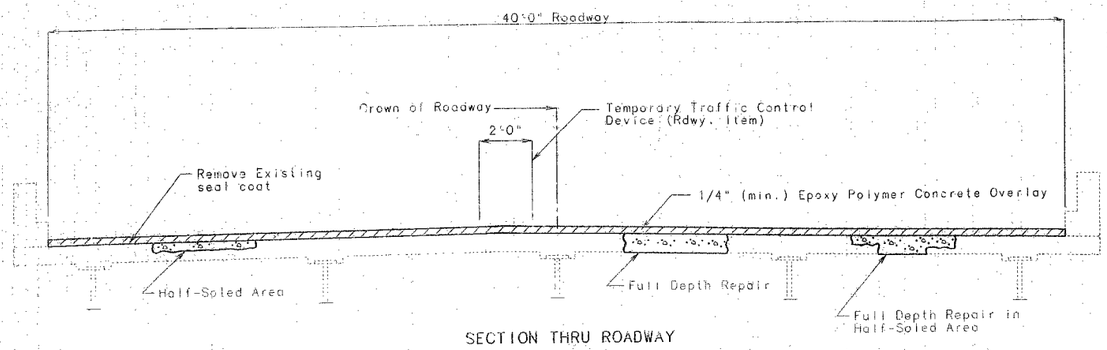
FINAL PLANS

130

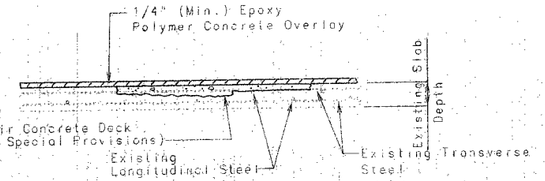
FINAL PLANS

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

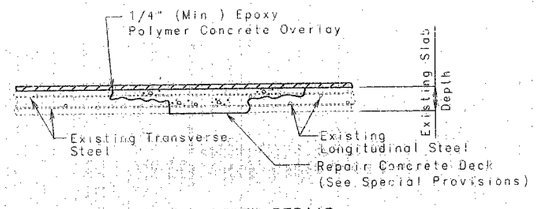
STATE	PROJ. NO.	SHEET NO.
MO.	ACSTP-8-1 (17)	1
SEC./SUR. 21	TWP. 37N RGE. 3E	



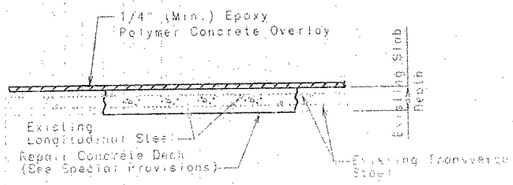
SECTION THRU ROADWAY



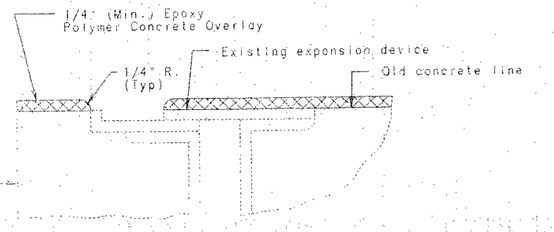
HALF-SOLED AREA



FULL DEPTH REPAIR
IN HALF-SOLED AREA



FULL DEPTH REPAIR



SECTION THROUGH EXPANSION DEVICE

GENERAL NOTES:

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

Maintain traffic over structure during construction in accordance with the traffic control plan.(See Rdwy. Plans).

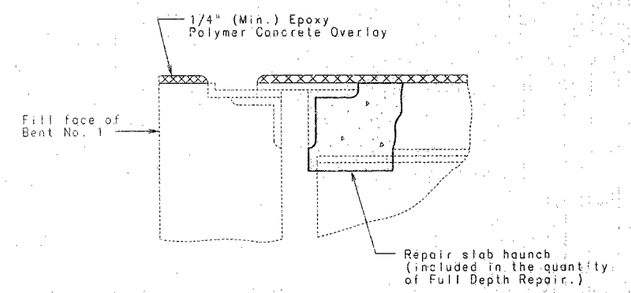
In order to maintain grade and a minumum thickness of overlay as shown on plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

Roadway surfacing adjacent to bridge ends to match bridge overlay. (See Rdwy. Plans).

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

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

Repairing slab haunch at End Bent No. 1 is included in the quantity of Full Depth Repair.



SLAB HAUNCH REPAIR AT END BENT NO. 1

FINAL ~~ESTIMATED~~ QUANTITIES

ITEM		TOTAL
Seal Coat Removal (Bridges)	Sq. Ft.	7,247
Repairing Concrete Deck (Half-soling)	Sq. Ft.	1020
Full Depth Repair	Sq. Ft.	01
Epoxy Polymer Concrete Overlay	Sq. Yd.	81

FINAL PLANS

I CERTIFY THAT THIS DRAWING ACCURATELY REFLECTS THE CONFIGURATION AND LOCATION OF THE ROADWAY AND APPURTENANCES CONSTRUCTED ON THIS PROJECT.

SIGNATURE 5/14/99

STATE OF MISSOURI DENNIS W. HECKMAN NUMBER E-27141 REGISTERED PROFESSIONAL ENGINEER 2/3/98

See Proposal for Roadway work

REPAIRS TO BRIDGE OVER UNION PACIFIC R.R.

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE
ABOUT 3.6 MILES SOUTH EAST OF POTOSI
PROJECT NO. STA. 215+41.07
JOB NO. J9P0479 RTE. 3
WASHINGTON COUNTY
DATE 2/3/98

STD.
STD.
A19971

DESIGNED Oct. 1997
DETAILED Oct. 1997
CHECKED Oct. 1997

NOTE: THIS DRAWING IS NOT TO SCALE FOLLOW DIMENSIONS

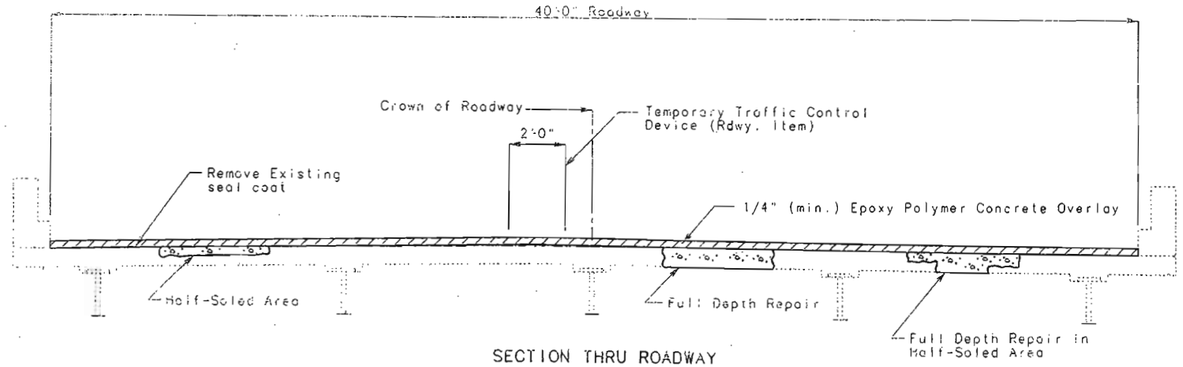
SHEET NO. 1 OF

FINAL PLANS

412

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJ. NO.	SHEET NO.
MO.		1
SEC./SUR. 21	TWP. 37N	RGE. 3E



SECTION THRU ROADWAY

GENERAL NOTES:

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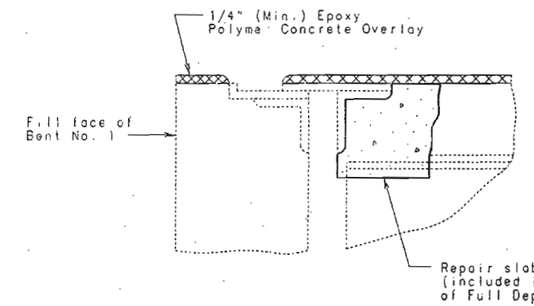
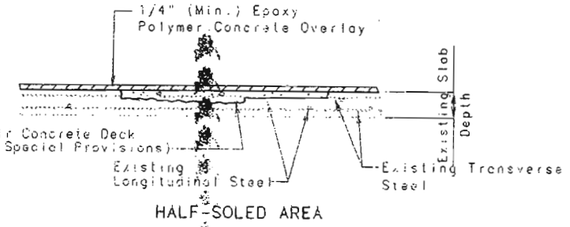
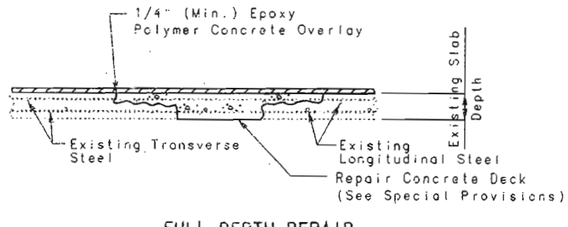


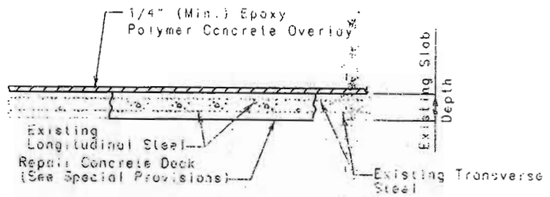
SLAB HAUNCH REPAIR AT END BENT NO. 1



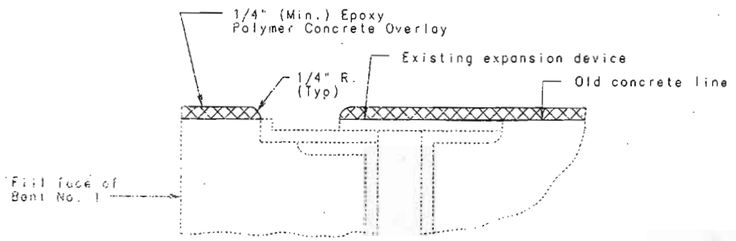
HALF-SOLED AREA



FULL DEPTH REPAIR IN HALF-SOLED AREA



FULL DEPTH REPAIR



SECTION THROUGH EXPANSION DEVICE

ESTIMATED QUANTITIES

ITEM		TOTAL
Seal Coat Removal (Bridges)	Sq. Ft.	7,247
Repairing Concrete Deck (Half-soling)	Sq. Ft.	400
Full Depth Repair	Sq. Ft.	100
Epoxy Polymer Concrete Overlay	Sq. Yd.	812

STATE OF MISSOURI
DENNIS W. HECKMAN
NUMBER E-27141
REGISTERED PROFESSIONAL ENGINEER
2/3/98
Dennis W. Heckman

REPAIRS TO BRIDGE OVER UNION PACIFIC R.R.

STATE ROAD FROM RTE. O S.E. TO ST. FRANCOIS CO. LINE
ABOUT 3.6 MILES SOUTH EAST OF POTOSI
PROJECT NO. STA. 215+41.07
JOB NO. J9P0479 RTE. 8

WASHINGTON COUNTY
DATE 2/3/98

STD.
STD.
A19971

DESIGNED Oct. 1997
DETAILED Oct. 1997
CHECKED Oct. 1997

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

See Proposal for Roadway work

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

December 9, 2022
12:55:09pm

COUNTY : WASHINGTON **BRIDGE :** A1997 1 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 11/30/2022 **SUBMITTAL YEAR :** 2022

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	WASHINGTON
8	Federal ID No.	1681
27	Year Built	1968
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	00008
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	MO 8 E
12	Base Hwy. Network	YES
13A	LRS Inventory Route No.	0000001054
13B	Subroute No.	00
20	Toll Status	ON FREE ROAD
26	Functional Classification	02-RU PRINCPL ARTRIAL-OTH
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	BRETON
	Code	08254
9	Location	S 21 T 37 N R 3 E
11	Milepoint	58.82 miles
16	Latitude	37 D 54 M 41 S
17	Longitude	90 D 42 M 25 S

STRUCTURE TRAFFIC INFORMATION

29	AADT	6604
30	AADT Year	2021
102	Direction of Traffic	2-WAY TRAFFIC
109	AADT Truck Percent	10%
114	Future AADT	12548
115	Future AADT Year	2041

UNDERRECORD INFORMATION

6	Features Intersected	UP RR
42B	Type of Service Under	RAILROAD
28B	Lanes Under Structure	00
54A	Vert. Clearance Ref.	RAIL ROAD
54B	Vert. Clearance	22 Ft. 12 In.
55A	Rt. Lat Clear Ref.	RAIL ROAD
55B	Rt. Lat Clearance	26 Ft. 11 In.
56	Left Lat Clearance	0 Ft. 0 In.
38	Navigation Control	N/A
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	5.00 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	37.00 Degrees
35	Struct. Flared	NO
47	Total Horiz. Clear	40 Ft. 0 In.
48	Maximum Span Length	69 Ft. 11 In.
49	Structure Length	183 Ft. 1 In.
50A	Left Curb/Sidewalk Width	1 Ft. 4 In.
50B	Right Curb/Sidewalk Width	1 Ft. 4 In.
51	Curb to Curb Br. Width	40 Ft. 0 In.
52	Deck Width (Out-Out)	42 Ft. 8 In.
53	Vert.Clearance Over Deck	99 Ft. 99 In.

Design_No = a1997

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

December 9, 2022
12:55:09pm

COUNTY : WASHINGTON **BRIDGE :** A1997 1 **REVIEW STATUS :** APPROVED **NBI STATUS :** T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 11/30/2022 **SUBMITTAL YEAR :** 2022

LOAD RATING AND POSTING INFORMATION

31	Design Load	H 20
41	Structure Status	OPEN NO RESTRICTIONS
63	Oper. Rating Meth.	LOAD FACTOR
64	Operating Rating	63 Tons.
65	Inventory Rating Meth	LOAD FACTOR
66	Inventory Rating	34 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

PROPOSED IMPROVEMENT INFORMATION

	Sufficiency Rating	92.6 Percent
	Deficiency Rating	STRUCTURAL
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
76	New Struc Length	0 Ft. 0 In.
94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

APPRAISAL RATING INFORMATION

36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND
36B	Transition Rail App. Rating	MEETS ACCEPTBLE STND
36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	MEETS ACCEPTBLE STND
67	Struc Eval App. Rating	6
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	8
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

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 CONTINUOUS
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.	5 EPOXY OVERLAY
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	6
60	Substructure Cond. Rating	6
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

INSPECTION INFORMATION

90	Gen. Insp Date	6 / 22	
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 = a1997

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

December 9, 2022
12:55:09pm

COUNTY : WASHINGTON **BRIDGE :** A1997 1 **REVIEW STATUS :** APPROVED **NBI STATUS :** P
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 3/8/2022 **SUBMITTAL YEAR :** 2021

GENERAL STRUCTURE INFORMATION

1	State	MISSOURI
2	District	CD
3	County	WASHINGTON
8	Federal ID No.	1681
27	Year Built	1968
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	00008
5E	Directional Suffix	NOT APPLICABLE
7	Facility Carried	MO 8 E
12	Base Hwy. Network	YES
13A	LRS Inventory Route No.	0000001054
13B	Subroute No.	00
20	Toll Status	ON FREE ROAD
26	Functional Classification	02-RU PRINCPL ARTRIAL-OTH
28A	Lanes on Structure	02
100	STRAHNET Designation	RTE NOT A DEFENSE HWY
104	National Highway System	ON NHS
105	Federal Lands Highway	NOT APPLICABLE
110	Designated Nat. Network	YES

STRUCTURE LOCATION INFORMATION

4	Place	BRETON
	Code	08254
9	Location	S 21 T 37 N R 3 E
11	Milepoint	58.35 miles
16	Latitude	37 D 54 M 41 S
17	Longitude	90 D 42 M 25 S

STRUCTURE TRAFFIC INFORMATION

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30	AADT Year	2021
102	Direction of Traffic	2-WAY TRAFFIC
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28B	Lanes Under Structure	00
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56	Left Lat Clearance	0 Ft. 0 In.
38	Navigation Control	N/A
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	4.96 miles
32	Approach Roadway Width	23 Ft. 11 In.
34	Skew	37.00 Degrees
35	Struct. Flared	NO
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49	Structure Length	183 Ft. 1 In.
50A	Left Curb/Sidewalk Width	1 Ft. 4 In.
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Design_No = a1997

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

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RECORD TYPE : ROUTE CARRIED 'ON' STRUCT **RUN DATE :** 3/8/2022 **SUBMITTAL YEAR :** 2021

LOAD RATING AND POSTING INFORMATION

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41	Structure Status	A - OPEN NO RESTRICTIONS
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64	Operating Rating	63 Tons.
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66	Inventory Rating	34 Tons.
70	Bridge Posting Code	=>LEGAL LOADS

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	Sufficiency Rating	92.6 Percent
	Deficiency Rating	STRUCTURAL
	Funding Eligibility	
75A	Proposed Work	
75B	Work Done By	
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94	Struc Improve Cost	$ 0,000
95	Roadway Improve Cost	$ 0,000
96	Total Project Cost	$ 0,000
97	Year of Cost Estimates	0

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36C	Approach Rail App. Rating	MEETS ACCEPTBLE STND
36D	Rail End Treat. App. Rating	MEETS ACCEPTBLE STND
67	Struc Eval App. Rating	6
68	Deck Geometry App. Rating	5
69	Underclearance App. Rating	8
71	Waterway Adeq. App. Rating	N
72	Approach Road App. Rating	8
113	Scour Assess App. Rating	N

APPROVED POSTING INFORMATION

Approved Posting Category S-1

Ton1 Ton2 Ton3

Tonnage Values for Posting Sign

General Text for Posting Sign

NO POSTING REQUIRED

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43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
45	# of Main Spans	3
44A	Appr Struc. Mat type	
44B	Appr Struc. Cnstr. type	
46	# of Approach Span	0
107	Deck Mat/Constr.	1 CONCRETE CIP
108A	Wear Surf Mat/Constr.	5 EPOXY OVERLAY
108B	Membrane Mat/Constr.	0 NONE
108C	Deck Protect Mat/Constr.	0 NONE

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59	Superstructure Cond. Rating	6
60	Substructure Cond. Rating	6
61	Channel /Channel Protection Cond. Rating	N
62	Culvert Cond. Rating	N

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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

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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 = a1997