

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SCALE	SHEET NO.	TOTAL SHEETS
5	MO.	25-536(B)	1/4"	11	

GENERAL NOTES:

Design Specifications A.A.S.H.O. - 1969

Design Loading:

H 15-44 15#/sq. ft. Future Wearing Surface
Earth 120# Equivalent Fluid Pressure 30#
Fatigue stress: Case II

Design Unit Stresses:

Class B Concrete (substructure) $f_c = 1,200$ psi
Class B Concrete (superstructure) $f_c = 1,600$ psi
Reinforcing Steel $f_s = 20,000$ psi
Structural Steel $f_s = 20,000$ psi

Fabricated Steel:

Field connections, High Strength Bolts $\frac{3}{4}" \phi$, holes $\frac{13}{16}" \phi$ except as noted.

Paint:

Paint: Shop, none; Field: 2 coats, zinc-rich primer, except as noted in Std. Spec. 712.13.2.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be $\frac{1}{2}"$ unless otherwise shown.

ESTIMATED QUANTITIES

ITEM	SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures	Cu.Yd. 185		185
Class 2 Excavation for Structures	Cu.Yd. 140		140
Cast-In-Place Concrete pile	Lin.Ft. 1400		1400
Class B Concrete	Cu.Yd. 772		772
Class B Concrete	Cu.Yd. 1892		1892
Reinforcing Steel	Lb. 10160	48280	59040
Fabricated Structural Carbon Steel	Lb.	103250	103250
Bridge Rail (One tube)	Lin.Ft.	401	401
Removal of Bridge	Each		1

Note: All concrete and reinforcement in End Bents No. 1 & 4 except substructure beam is included in superstructure quantities.

No payment for excavation will be allowed at End Bents No. 1 & 4.

B.M. Elev. 867.92 x On Bolted Base of N.W. Batter Post of Bridge over W. Medicine Creek North of Reloc Sta. 624+74 (U.S.G.S. Datum).

BRIDGE OVER WEST MEDICINE CREEK DR.D.T.

STATE ROAD FROM RTE. J EAST TO RTE. 139

ABOUT 1.5 MILES WEST OF HARRIS

PROJECT NO. 25-536(B) RTE. E STA. 624+60.00

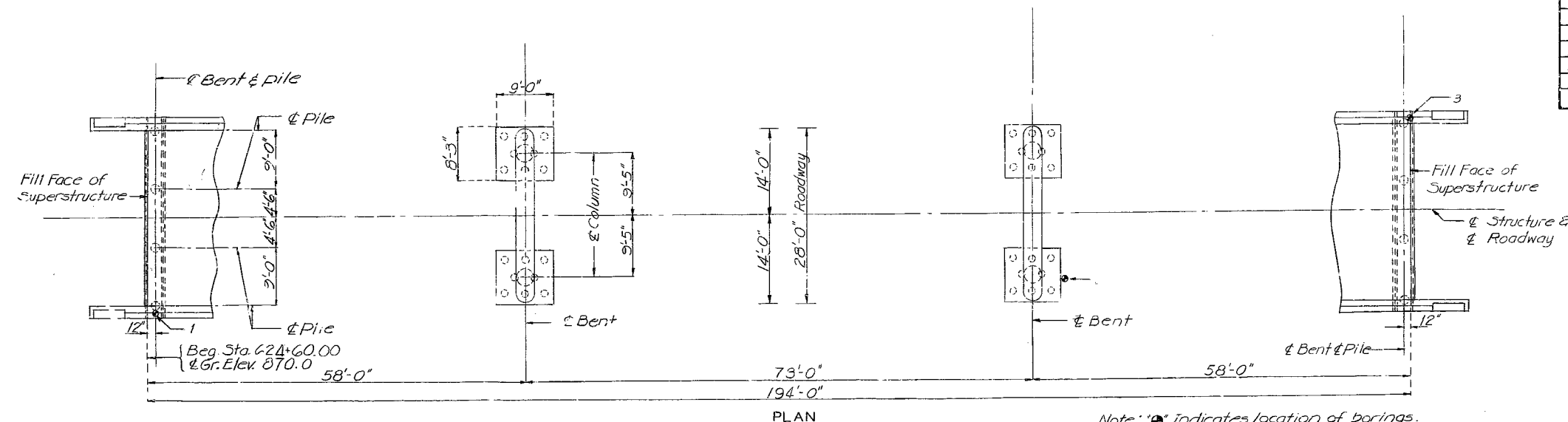
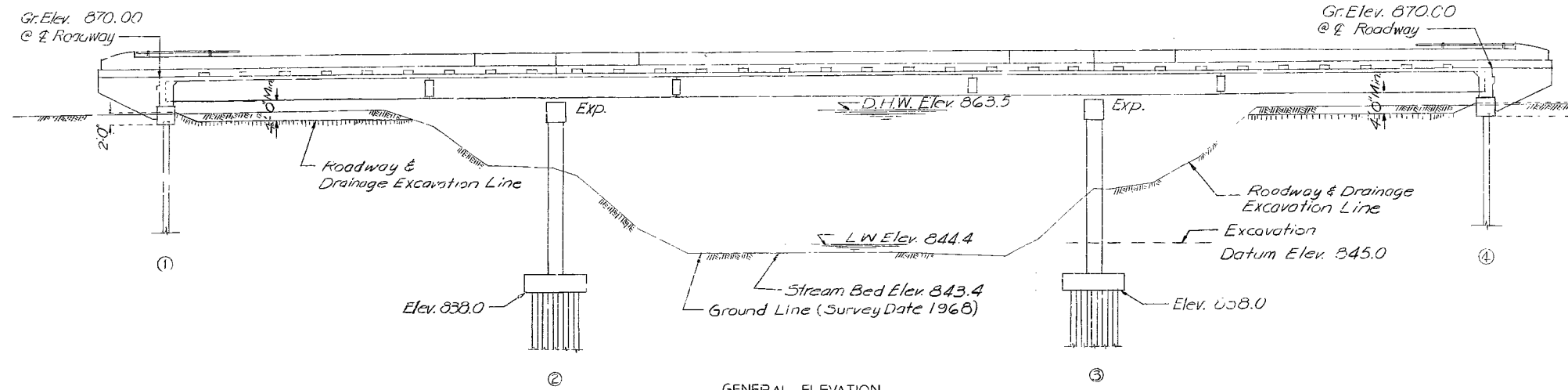
MERCER

COUNTY

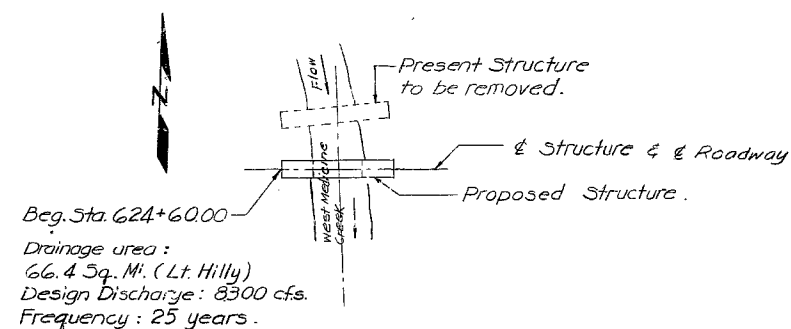
SUBMITTED BY: *W. A. Carey* DATE: 9-10-70
APPROVED BY: *M. J. Snyder* DATE: 9-10-70

STD. 702.02
STD. 706.30
A-2636

(57'-78'-57') Cont. W. Beams (Composite)



Note: * Indicates location of borings. For boring data see sheet no. 4



LOCATION SKETCH

PILE DATA				
BENT NO.	1	2	3	4
Type	Foundation			
Kind	C.I.P.			
Number	4	16	16	4
Approximate Length Ft.	55	30	30	55
Design Bearing Tons	30	26	26	30
Min. Tip penetration Elev.	830.0	823.0	823.0	830.0
Pile Standard	702.02	702.02	702.02	702.02
Hammer Energy required Ft.Lbs.	8000	8000	8000	8000

Minimum energy requirement of hammer based on plan length of piles.
All pile shall be driven to the minimum penetrations and to not less than the design bearings noted.

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

Sheet No. 1 of 7.

DESIGNED Aug. 1969 BY LIN
DETAILED Sept. 1969 BY LIN
CHECKED OCT. 1969 BY KHAN

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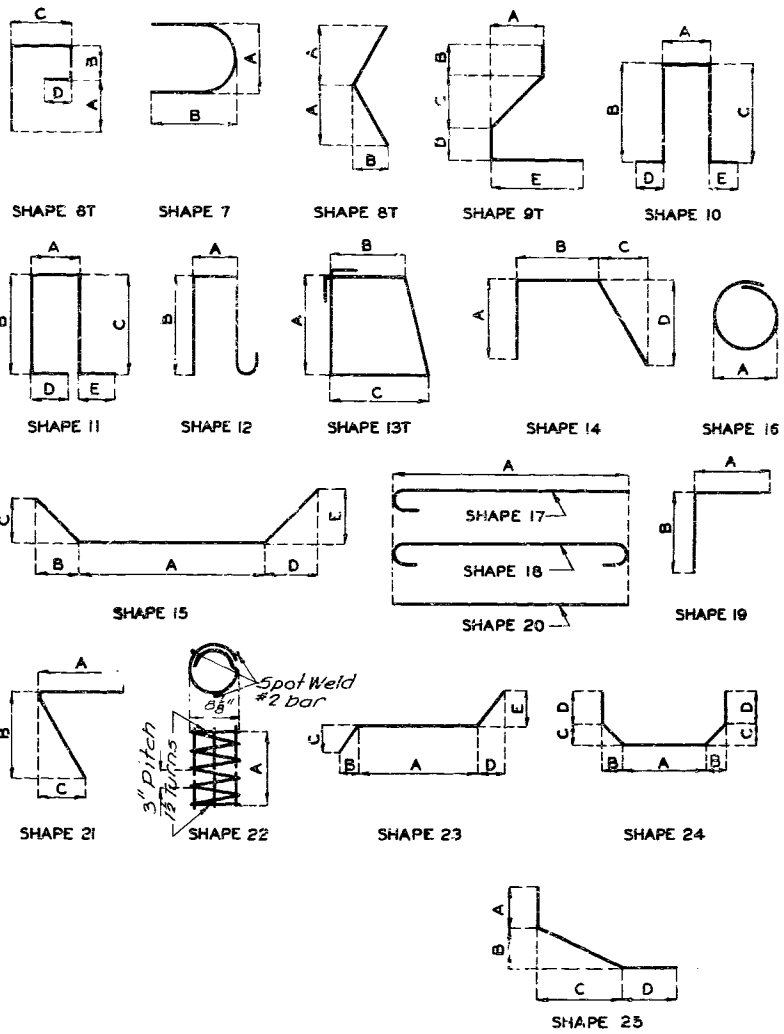
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	25-536(8)	19	12	

I.O. REQ.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIR. SUBSTR. VARIES	NO. EA.	DIMENSIONS					LENGTH	WEIGHT
						A	B	C	D	E		
		END BENTS NO 1 AND 4										
16	7H1	BEAM	18			30 6.000	0 0.0	0 0.0	0 0.0	0 0.0	32 0	1047
4	6H2	BEAM	20	S		30 6.000	0 0.0	0 0.0	0 0.0	0 0.0	30 6	183
56	4U4	BEAM	13	T S		2 9.000	2 3.000	2 3.000	0 0.0	0 0.0	10 6	393
24	6V2	WING	20			10 5.000	0 0.0	0 0.0	0 0.0	0 0.0	10 5	575
6	6V2	WING	20			4 6.000	0 0.0	0 0.0	0 0.0	0 0.0	4 6	54
8	4V3	WING	20			6 1.000	0 0.0	0 0.0	0 0.0	0 0.0	6 1	33
8	6V4	WING	20			8 6.000	0 0.0	0 0.0	0 0.0	0 0.0	8 6	102
64	4V5	WING	20	V B		2 3.000	0 0.0	0 0.0	0 0.0	0 0.0	2 3	
		INCREMENT = 6.000 INCHES				5 9.000	0 0.0	0 0.0	0 0.0	0 0.0	5 9	171
8	6V6	WING	20			2 6.000	0 0.0	0 0.0	0 0.0	0 0.0	2 6	30
8	6T1	WING	15			2 2.875	0 11.375	1 10.750	7 9.500	3 10.750	12 11	155
		INTERMEDIATE BENTS NO 2 & 3										
12	10H5	BEAM	18	S		24 3.000	0 0.0	0 0.0	0 0.0	0 0.0	26 5	1364
4	6H6	BEAM	20	S		24 3.000	0 0.0	0 0.0	0 0.0	0 0.0	24 3	146
16	10H7	BEAM	20	S		24 3.000	0 0.0	0 0.0	0 0.0	0 0.0	24 3	1670
16	7H8	BEAM	7	S		2 5.000	3 9.125	0 0.0	0 0.0	0 0.0	8 9	287
84	5U6	BEAM	13	T S		2 9.000	2 5.000	2 5.000	0 0.0	0 0.0	11 0	966
4	5U7	BEAM	13	T S		2 9.000	2 3.625	2 3.625	0 0.0	0 0.0	10 10	45
36	8V11	COLUMN	20	S		24 9.000	0 0.0	0 0.0	0 0.0	0 0.0	24 9	2379
92	3P1	COLUMN	16	S		2 3.000	0 0.0	0 0.0	0 0.0	0 0.0	7 9	267
36	8D1	COLUMN	17	S		4 0.0	0 0.0	0 0.0	0 0.0	0 0.0	4 10	465
32	6D2	FOOTING	20	S		8 0.0	0 0.0	0 0.0	0 0.0	0 0.0	8 0	385
24	6D3	FOOTING	20	S		8 9.000	0 0.0	0 0.0	0 0.0	0 0.0	8 9	315
8	6D4	FOOTING	10	S		8 0.0	4 7.500	4 7.500	0 0.0	0 0.0	16 11	204
16	2W1	BEAM	22	S		0 9.000	0 0.0	0 0.0	0 0.0	0 0.0	15 1	40

NO. REQ.	MARK NO.	LOCATION	SHAPE NO.	TIE OR STIR. SUBSTR. VARIES	NO. EA.	DIMENSIONS					LENGTH	WEIGHT
						A	B	C	D	E		
		SUPERSTRUCTURE										
846	5S1	SLAB	20			30 6.000	0 0.0	0 0.0	0 0.0	0 0.0	30 6	26913
153	4S2	SLAB	20			39 9.000	0 0.0	0 0.0	0 0.0	0 0.0	39 9	4116
144	5S3	SLAB	20			49 5.000	0 0.0	0 0.0	0 0.0	0 0.0	49 5	7422
60	4S4	SLAB	20			16 0.0	0 0.0	0 0.0	0 0.0	0 0.0	16 0	641
388	5C1	CURB	10	T		1 1.500	1 0.750	1 0.750	0 6.000	0 0.0	3 5	1391
16	6C2	CURB	20			34 2.000	0 0.0	0 0.0	0 0.0	0 0.0	34 2	821
8	6C3	CURB	20			39 3.000	0 0.0	0 0.0	0 0.0	0 0.0	39 8	477
36	5C4	CURB	10	T		1 1.500	2 0.0	2 0.0	0 0.0	0 0.0	4 11	185
8	5R1	END POST	20			4 9.000	0 0.0	0 0.0	0 0.0	0 0.0	4 9	40
4	5R2	END POST	12			0 9.000	2 1.375	0 0.0	0 0.0	0 0.0	5 4	22
4	5R3	END POST	12			0 9.000	2 4.125	0 0.0	0 0.0	0 0.0	5 10	24
4	5R4	END POST	12			0 9.000	2 6.250	0 0.0	0 0.0	0 0.0	6 2	26
4	5R5	END POST	12			0 9.000	2 7.250	0 0.0	0 0.0	0 0.0	6 4	26
4	5R6	END POST	12			0 9.000	2 8.000	0 0.0	0 0.0	0 0.0	6 5	27
4	5R7	END POST	12			0 9.000	2 8.625	0 0.0	0 0.0	0 0.0	6 7	27
4	5R8	END POST	12			0 9.000	2 9.625	0 0.0	0 0.0	0 0.0	6 9	28
8	5R9	END POST	12			0 9.000	2 9.875	0 0.0	0 0.0	0 0.0	6 9	56
16	5R10	END POST	10			0 7.750	4 9.000	4 9.000	0 0.0	0 0.0	9 11	165
400	5R11	PARAPET	12			0 8.500	2 0.375	0 0.0	0 0.0	0 0.0	5 2	2138
62	5R12	PARAPET	10			0 8.500	1 7.500	1 7.500	0 6.000	0 0.0	4 1	264
16	5R13	PARAPET	20			51 0.0	0 0.0	0 0.0	0 0.0	0 0.0	51 0	851
32	5R14	PARAPET	20			11 9.000	0 0.0	0 0.0	0 0.0	0 0.0	11 9	392
8	5R15	PARAPET	20			33 9.000	0 0.0	0 0.0	0 0.0	0 0.0	53 9	448
20	6H10	WEB	20			30 6.000	0 0.0	0 0.0	0 0.0	0 0.0	30 6	916
16	6U1	WEB	19	T		2 9.000	1 6.000	0 0.0	0 0.0	0 0.0	4 2	99
60	4U2	WEB	19	T		3 4.000	2 10.000	0 0.0	0 0.0	0 0.0	5 1	244
60	4U3	WEB	19	T		3 4.000	1 9.000	0 0.0	0 0.0	0 0.0	5 0	200

BENDING DIAGRAMS



Note: All bending dimensions are out to out.
Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for detailing reinforced concrete structures.

T - tie or stirrup
S - bar is included in substructure quantities.
Length - Total lengths are measured along centerline bar to the nearest inch.
V - bar dimensions vary in equal increments between dimensions shown on this line and the following line.
No. Ea. Number of bars of each length.

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STD. 90.7
JULY 1969
REVISED
SEPT. 1969

Drawn OCT. 1969 by LIN
Checked OCT. 1969 by KHAN

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

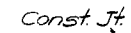
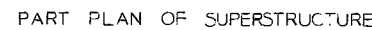
Sheet No. 2 of 7

MERCER COUNTY

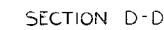
A-2636

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MASTER



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



COUNTY

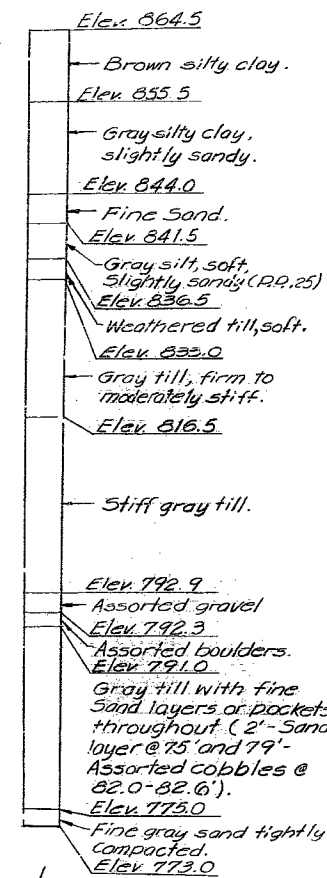
Sheet No. 3 of 7.

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	25-536(8)	19	14	

Standard Penetration Test
Depth Blows/6"

5'	2-3-5
10	1-2-4
15	2-4-10
20	6-8-10
25	5-2-1
30	6-4-7
35	7-9-14
40	4-5-3
45	5-6-10
50	14-18-23
55	17-14-19
60	7-7-12
65	7-9-12
70	14-26-36
75	100/7"
80	34-26-36
85	15-23-24
90	25-41-60



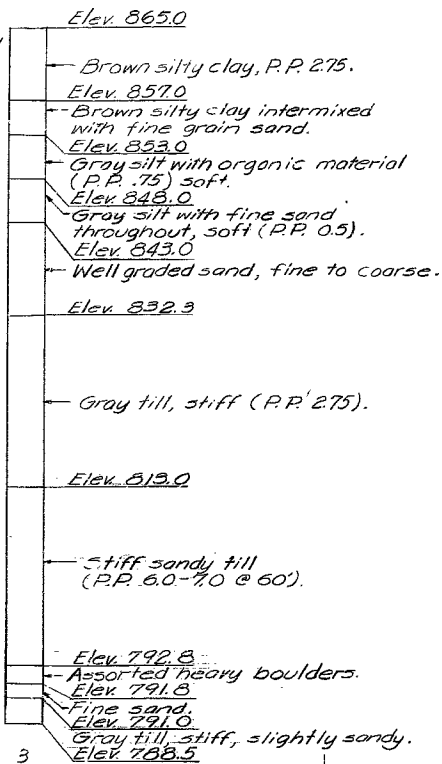
(Core)

Note: For location of borings see Sheet 1 of 7

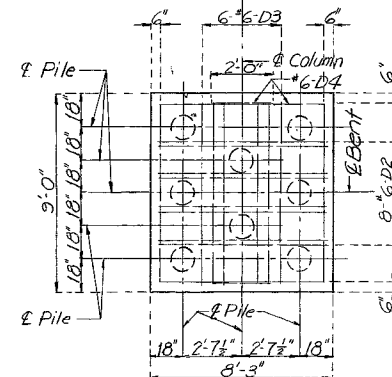
BORING DATA

Standard Penetration Test
Depth Blows/6"

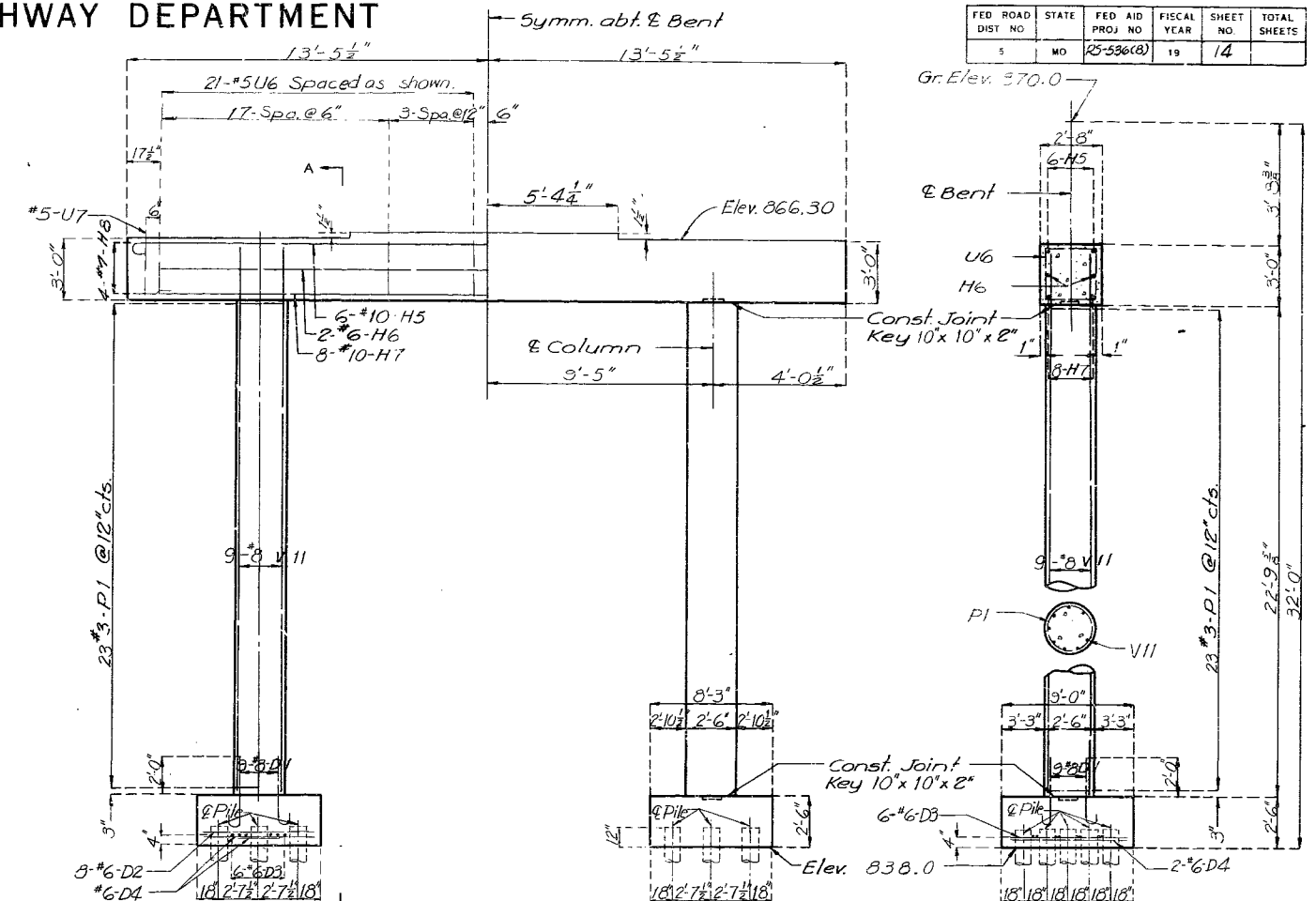
5'	5-8-14
10	9-9-12
15	3-2-4
20	1-2-3
25	10-14-16
30	9-16-18
35	18-11-17
40	5-10-13
45	7-15-20
50	7-11-16
55	9-13-19
60	17-57-82
65	10-16-21
70	13-17-24
75	14-24-34



(Core)

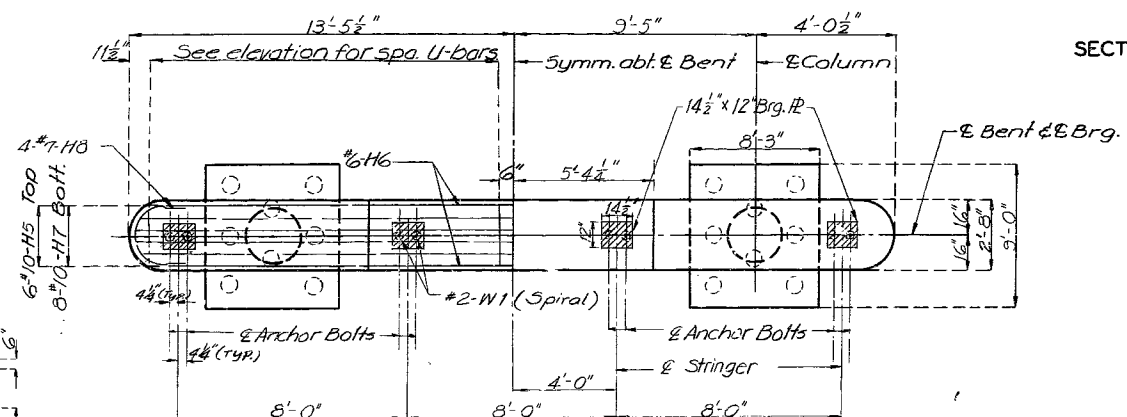


PLAN OF FOOTING SHOWING REINFORCEMENT INTERMEDIATE BENT NO. 2&3



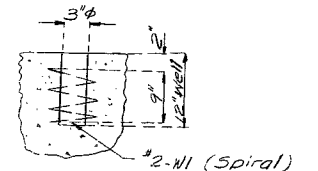
ELEVATION

SECTION A-A



PLAN

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3



DETAIL OF ANCHOR BOLT WELL

MERCER COUNTY

A-2636

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NO. 191A
MARCH 1964
REVISED
APRIL 1969

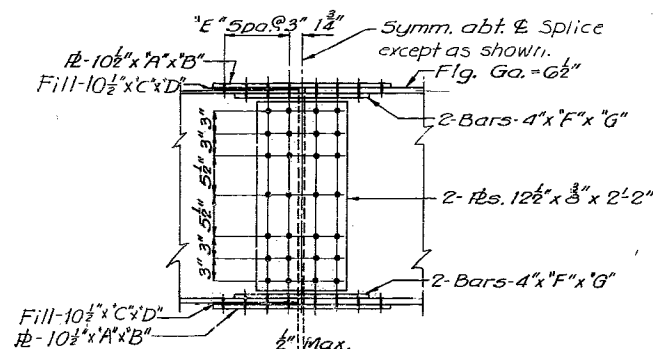
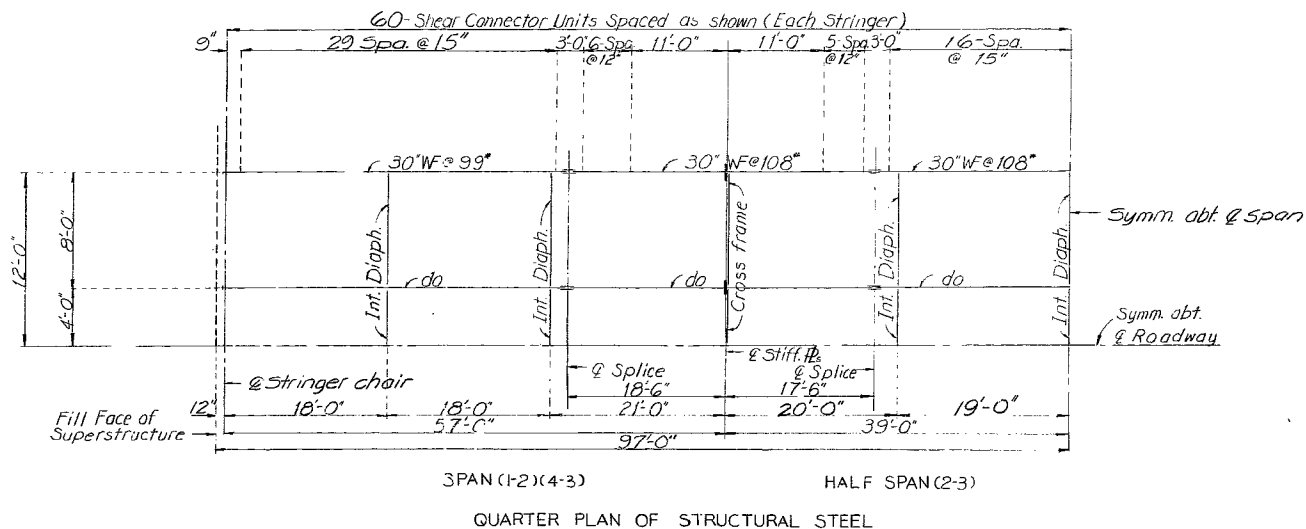
DETAILED Sept. 1969 BY LIN
CHECKED OCT. 1969 BY KHAN

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

Sheet No. 4 of 7.

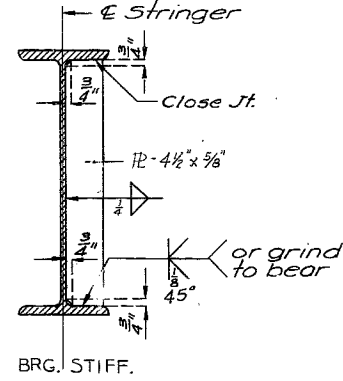
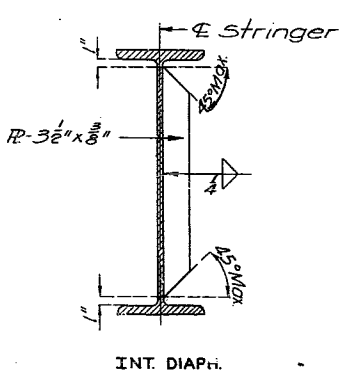
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	MO.	25-536(8)	19	15	

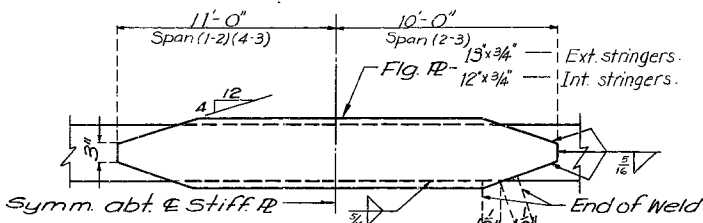


WF SIZE	"A"	"B"	"C"	"D"	"E"	"F"	"G"
30" WF 99" to 108"	7/16"	2'-0 1/2"	13 Ga.	12"	3	1/2"	18 1/2"
30" WF 108" to 108"	1/2"	2'-6 1/2"	-	-	4	1/2"	18 1/2"

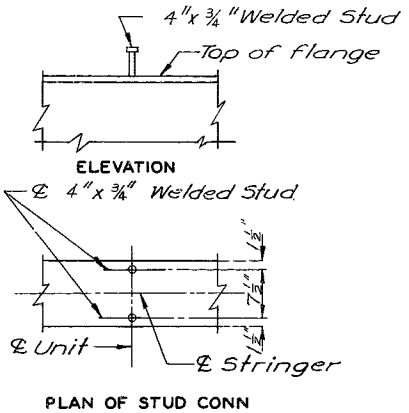
Note: 15" ϕ reamed holes for 8" ϕ high strength bolts.
DETAIL OF 30" WF BEAM SPLICE



WELDING DETAILS



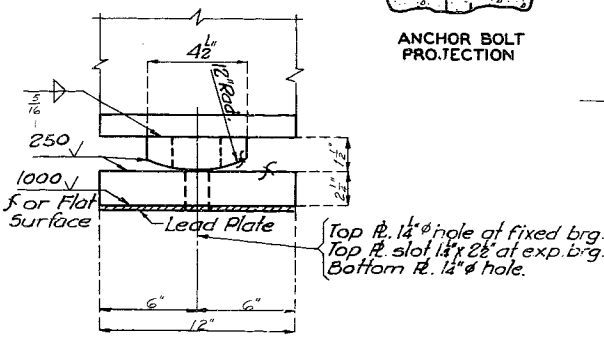
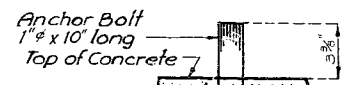
DETAILS OF FLANGE PLATES - TOP & BOTTOM FLANGE



DETAILS OF SHEAR CONNECTORS

Note: Weight of 595 lbs. of shear connectors is included in weight of Fabricated Structural Carbon Steel.

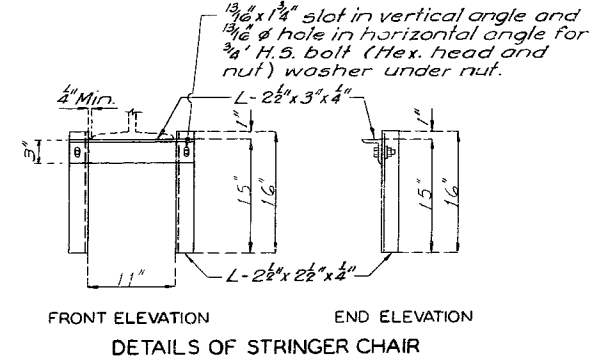
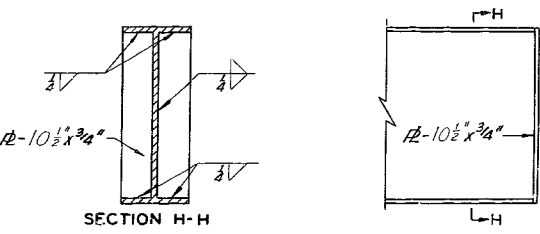
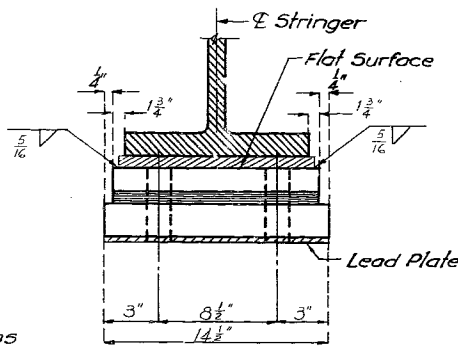
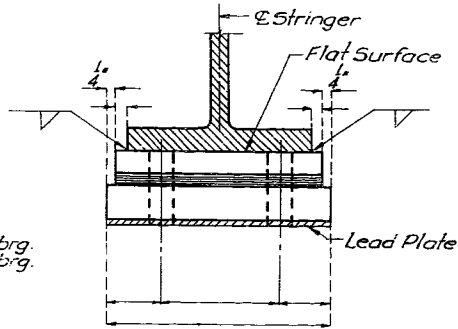
Note: This drawing is not to scale. Follow dimensions.



NOTES: TYPE "C" BEARINGS
Lead plates under bearings shall be approximately 8" 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.
Anchor Bolts for Type "C" Bearings shall be 1" ϕ swaged bolts 10" long with no heads or nuts.
Top of Anchor Bolts shall be set approximately 1/4" below top of bearing.

Required: 0 - Fixed Bearings
8 - Expansion Bearings

TYPE "C" BEARINGS
(Estimated Weight 1063 #)



MERCER COUNTY

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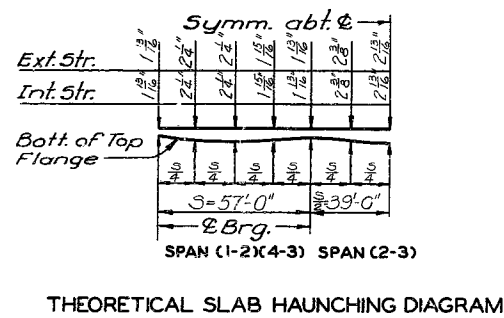
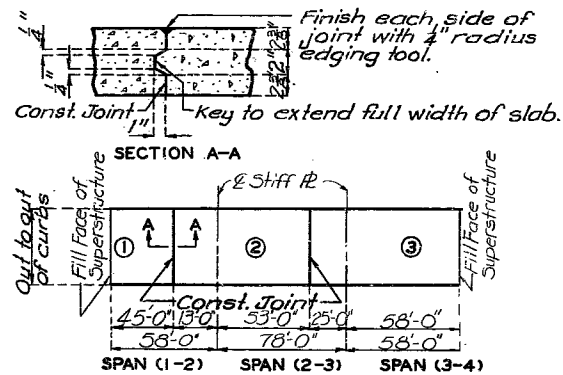
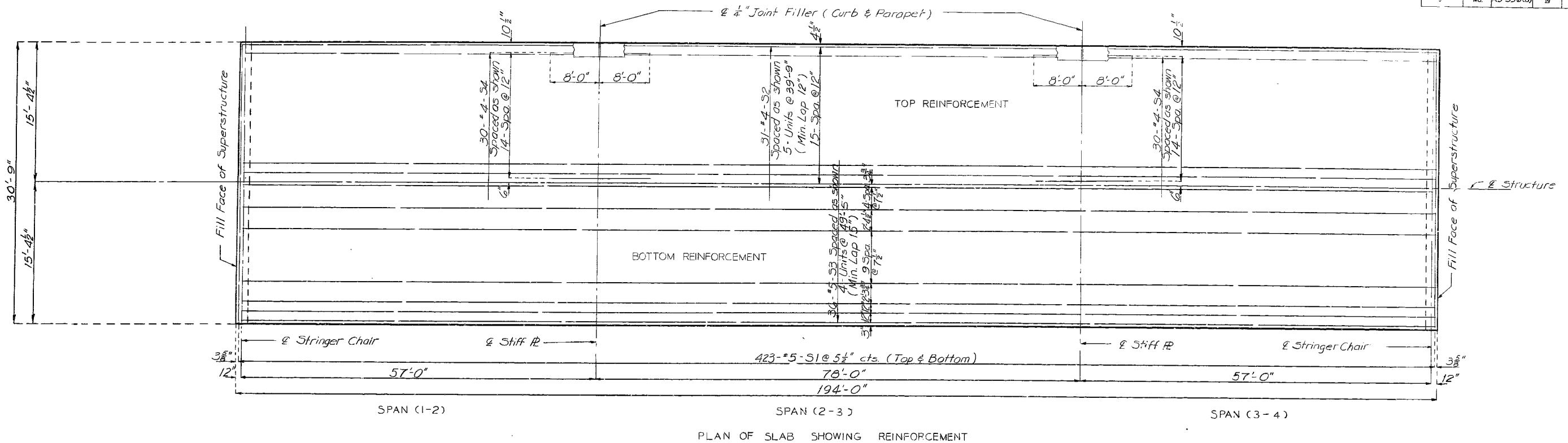
SPS
REVISED
STD.

DETAILED Sept. 1969 BY LIN
CHECKED OCT. 1969 BY KHAN

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MISSOURI STATE HIGHWAY DEPARTMENT

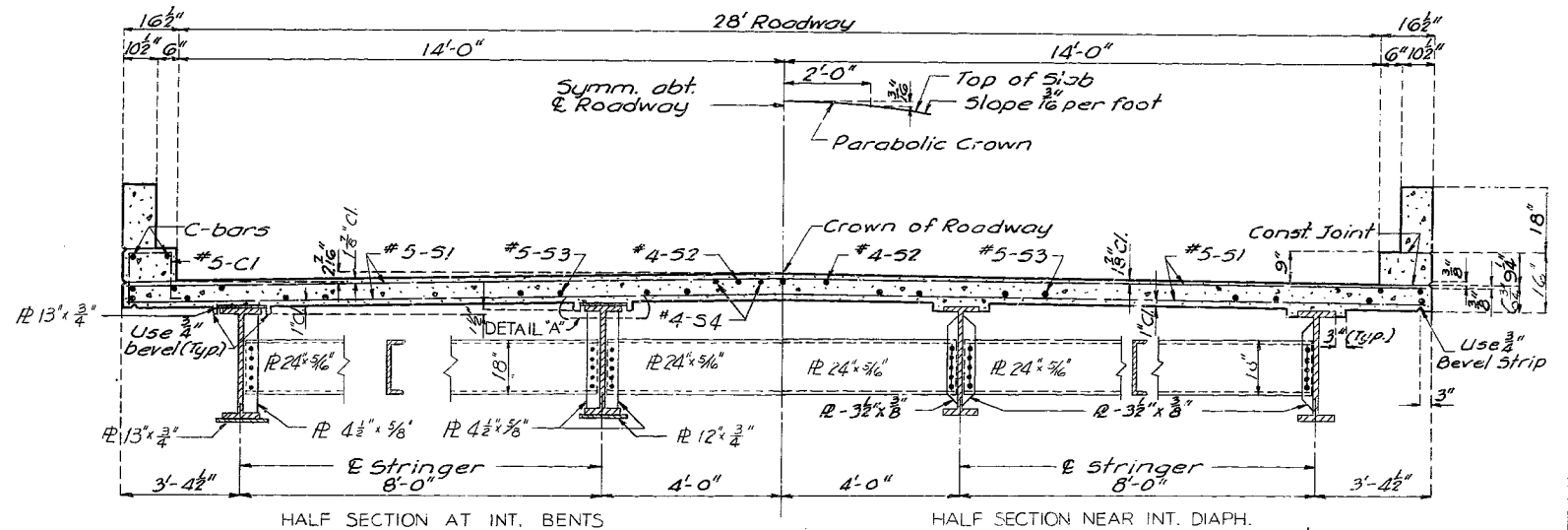
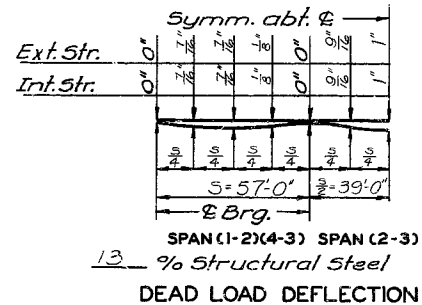
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	25-536(3)	19	16	



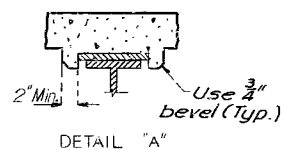
	Sequence of Pours		
	Direction		
Basic Sequence	1	2	3
Alternate "A" Pours	End to 2	1 to 3	2 to End
Alternate "B" Pours	1+2	3	2 to End
Alternate "C" Pours	End to 3	2 to End	
Alternate "D" Pours	1+2+3	End to End	

Note: The contractor shall pour and satisfactorily finish the slab pours at a rate of not less than 25 cubic yards per hour.

SLAB POURING SEQUENCE



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



MERCER COUNTY

DETAILED Sept 1969 BY LIN
CHECKED OCT. 1969 BY KHAN

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

Sheet No. 6 of 7

A-2636

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	25-536(8)	19	17	

A-2636

Bridge Number:

A2636

E/Mercer

Asbestos-Containing Material Present?

Yes: ☒

No: ☐

If yes, see report for location(s).

Structural Steel Present?

Yes: ☒

No: ☐

If No, then skip the following.

Lead-Based Paint (LBP) Present?

Yes: ☐

No: ☒

Trusses LBP?

Yes: ☐ No: ☐

Girder LBP?

Yes: ☐ No: ☒

Railing LBP?

Yes: ☐ No: ☐

Pile LBP?


Yes: ☐ No: ☐



MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: TMS

FROM: Frank Reichart 
Environmental Chemist

DATE: October 7, 2015

SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey
Route E
Bridge A-2636
Mercer 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://sharepoint/systemdelivery/cm/chemicallab/environmental/shared
documents/asbestos/districts/northwest\(nw\)/mt/a2636/dr1510072.docx](http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared/documents/asbestos/districts/northwest(nw)/mt/a2636/dr1510072.docx)

Attachments

Asbestos Survey Report All Suspect ACM

SURVEYED BY: Frank Reichart and Diane Roegge
CERTIFICATION #: 7118110514MOIR11239, F.R.
CERTIFICATION #: 7118110514MOIR7165, D.R.
SITE ADDRESS: Over West Medicine Creek
TYPE(S) OF STRUCTURE(S): Bridge

[illegible]

II NF = Category II Nonfriable F = Friable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

Nonfriable Asbestos-Containing Materials

(Abatement not required if not made friable during demolition.)

ROUTE:

1

MODOT JOB NO.:

N/A

DISTRICT:

NW

COUNTY:

Mercer

DATE OF TESTS:

August 31, 2016

PARCEL NO.:

Bridge A-2636

TESTED BY:

Frank Reichart and Diane Roegge

CERTIFICATION #:

7118110514MOIR11239. F.R.

CERTIFICATION #:

7118110514MOIR7165, D.R..

SITE ADDRESS:

Over West Medicine Creek

TYPE(S) OF STRUCTURE(S):

Bridge


[illegible]



MEMORANDUM

Missouri Department of Transportation Construction and Materials Central Laboratory

TO: TMS

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

DATE: October 30, 2018

SUBJECT: Materials
Job No. N/A
E/Mercer County
Bridge# A2636

On October 30, 2018, a paint screening for regulated heavy metals was performed on the subject bridge. The following results were obtained:

	18MFJR756
Arsenic (As)	LOD*
Chromium (Cr)	29 ppm**
Lead (Pb)	263 ppm
Cadmium (Cd)	LOD
Selenium (Se)	LOD
Barium (Ba)	352 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 C Al paint, applied in 1992. The results verify the information found in TMS.

The existing paint system is NOT lead-based paint.

Should any further screenings be required, please contact Todd Bennett, Chemical Laboratory Director, at (573) 751-1045.

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/northwest\(nw\)/mt/a2636/lbp_xrf_a2636.docx](http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared/documents/asbestos/districts/northwest(nw)/mt/a2636/lbp_xrf_a2636.docx)

Expiration Date

11/5/2015

Certificate Number: 7118110514MOIR11239

Training Date:

11/5/2014

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

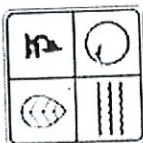
Francis J. Reichart

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.

12/31/2014

Date

Kyra L Moore
Director of Air Pollution Control Program



Expiration Date 11/5/2015 Certificate Number: 7118110514MOIR7165

Training Date: 11/5/2014

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

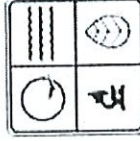
has successfully completed the requirements for certification as a INSPECTOR. This Missouri State Certification is subject to review and the director may deny, suspend or revoke the certification per RSMo chapter 643.230.


12/31/2014

Date

Lynne L Moore

Director of Air Pollution Control Program





		Missouri Department of Transportation				December 03, 2024	
		State Bridge Inspection Report				7:32:39AM	
COUNTY: MERCER		DISTRICT: NW		CLASS: STATBR		FED-ID: 2286	
						BRIDGE: A2636	
GENERAL STRUCTURE INFORMATION						***BRIDGE INSPECTION INFORMATION***	
ROUTE: RTEE FEATURE: W MEDICINE CK STATUS: A-OPEN LOG MILE: 11.825 DETOUR: 34.00 MILES NHS: NO BUILT: 1971 REHAB: LOCATION: S 28 T 64 R 22 W LATITUDE: 40 19 1.71 (DMS) LONGITUDE: 93 22 53.63 (DMS)		# SPANS: 3 LANES ON: 2 LANES UNDER: 0 COMPASS DIRECTION: WEST to EAST DIRECTION OF TRAFFIC: 2-WAY TRAF FUNCTIONAL CLASS: RL-MAJOR COLLECTOR NBI OWNER: MODOT NBI MAINTAINED: MODOT MAINTENANCE DISTRICT: NW MAINTENANCE COUNTY: MERCER SUB AREA: 7A21		PLACE CODE: 47108 MEDICINE LENGTH: 194 FT 0 IN MAXIMUM SPAN: 78 FT 0 IN APPROACH ROADWAY: 28 FT 0 IN CURB TO CURB: 28 FT 0 IN OUT TO OUT: 30 FT 8 IN AADT: 439 AADT YEAR: 2023 AADT TRUCK: 10.3% FUTURE AADT: 549 FUTURE AADT YEAR: 2043		DATE: 08/03/2023 RESPONSIBILITY: DISTRICT	
						FREQUENCY: 24 CALCULATED INTERVAL**: 24	
						TEAM LEADER: BRYCE ACTON 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				***INDEPTH INSPECTION INFORMATION***			
DATE: RESPONSIBILITY: CATEGORY:				DATE: RESPONSIBILITY: CATEGORY:			
FREQUENCY: CALCULATED INTERVAL**: NBI:				FREQUENCY: CALCULATED INTERVAL**: NBI:			
TEAM LEADER: INSPECTOR 3: METHOD:				TEAM LEADER: INSPECTOR 3: METHOD:			
INSPECTOR 2: INSPECTOR 4:				INSPECTOR 2: INSPECTOR 4:			
** When calculated interval exceeds the frequency, a justification comment per BIRM is required.				** When calculated interval exceeds the frequency, a justification comment per BIRM is required.			
FRACTURE CRITICAL INSPECTION COMMENTS				INDEPTH INSPECTION COMMENTS			
SPECIAL INSPECTION INFORMATION				***UNDERWATER INSPECTION INFORMATION***			
DATE: 08/15/2024 RESPONSIBILITY: DISTRICT CATEGORY: CHANNEL CROSS SEC				DATE: 08/15/2024 RESPONSIBILITY: DISTRICT CATEGORY: DRY			
FREQUENCY: 120 CALCULATED INTERVAL**: 122 NBI: NO				FREQUENCY: 60 CALCULATED INTERVAL**: 12 NBI: NO			
TEAM LEADER: BRYCE ACTON INSPECTOR 3: METHOD: WT TAPE, EMD				TEAM LEADER: BRYCE ACTON INSPECTOR 3: METHOD: VISUAL			
INSPECTOR 2: INSPECTOR 4:				INSPECTOR 2: INSPECTOR 4:			
** When calculated interval exceeds the frequency, a justification comment per BIRM is required.				** When calculated interval exceeds the frequency, a justification comment per BIRM is required.			
SPECIAL INSPECTION COMMENTS				UNDERWATER INSPECTION COMMENTS			
OTHER SPECIAL INSPECTIONS				OTHER UNDERWATER INSPECTIONS			
<u>DATE</u>	<u>FREQUENCY</u>	<u>CATEGORY</u>	<u>NBI</u>	<u>CALCULATED INTERVAL</u>	<u>RESPONSIBILITY</u>	<u>METHOD</u>	<u>DATE</u>
08/15/2024	12	DECK	NO	12	DISTRICT	VISUAL	

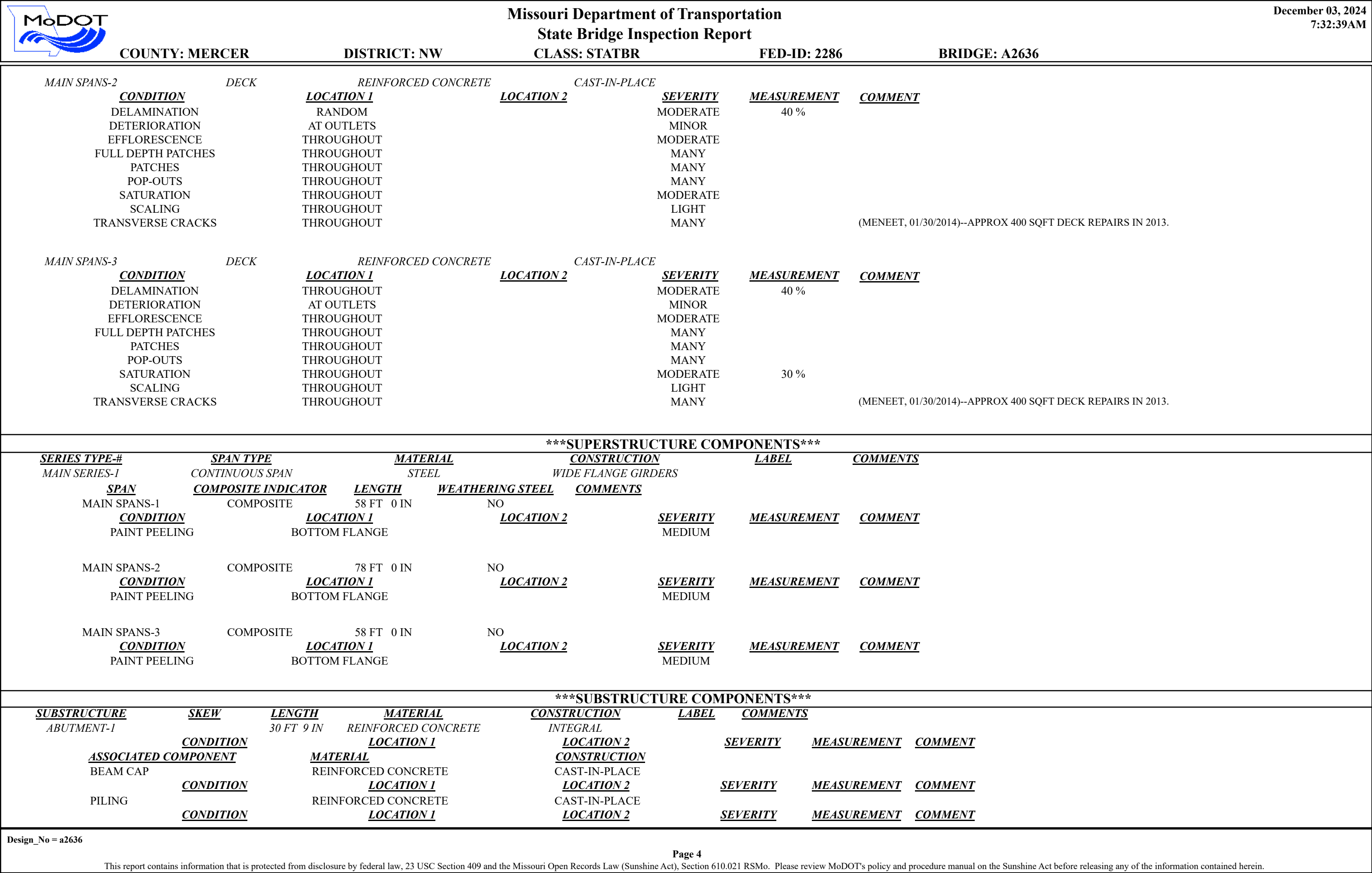
Design_No = a2636

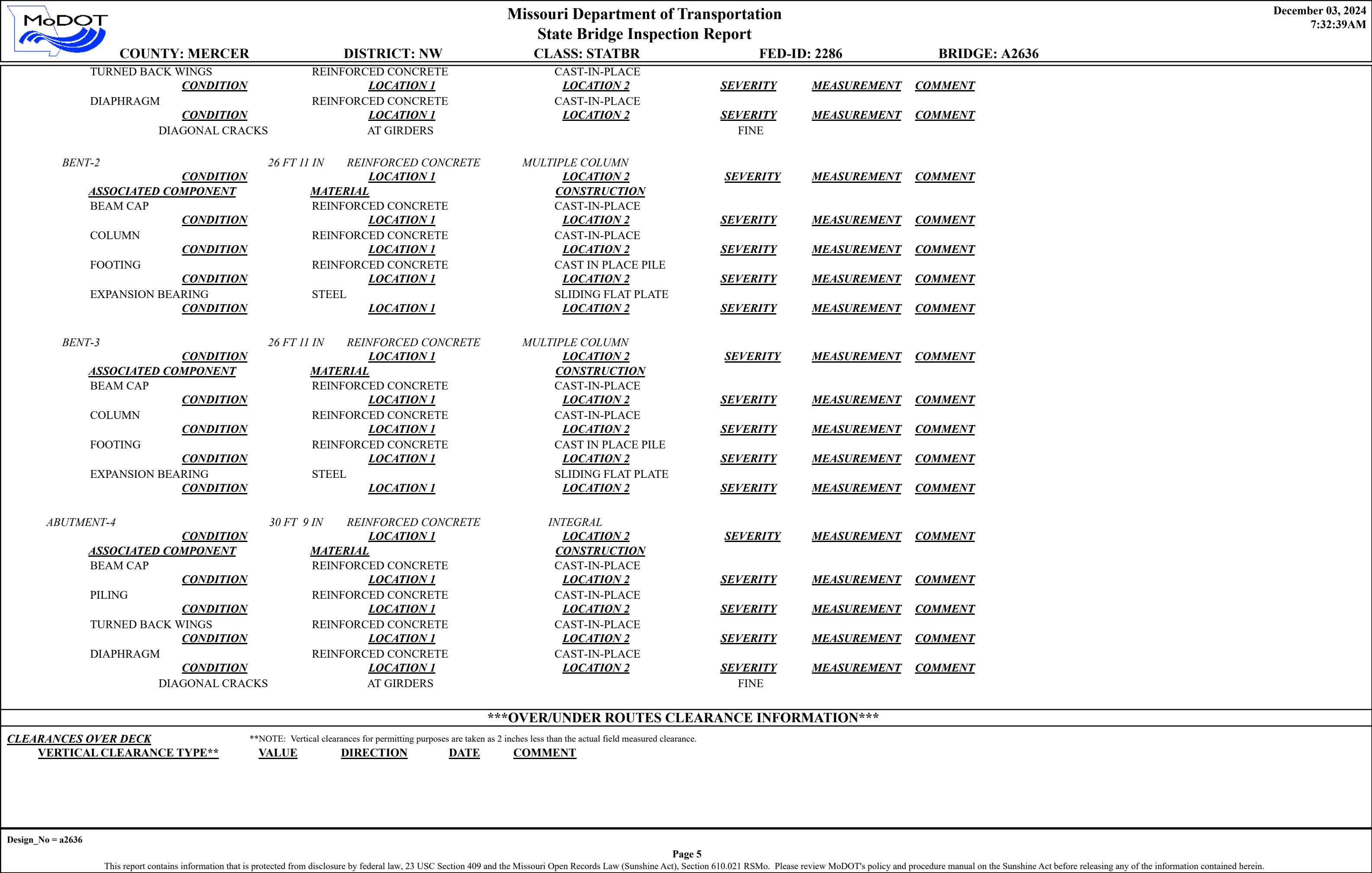
Page 1

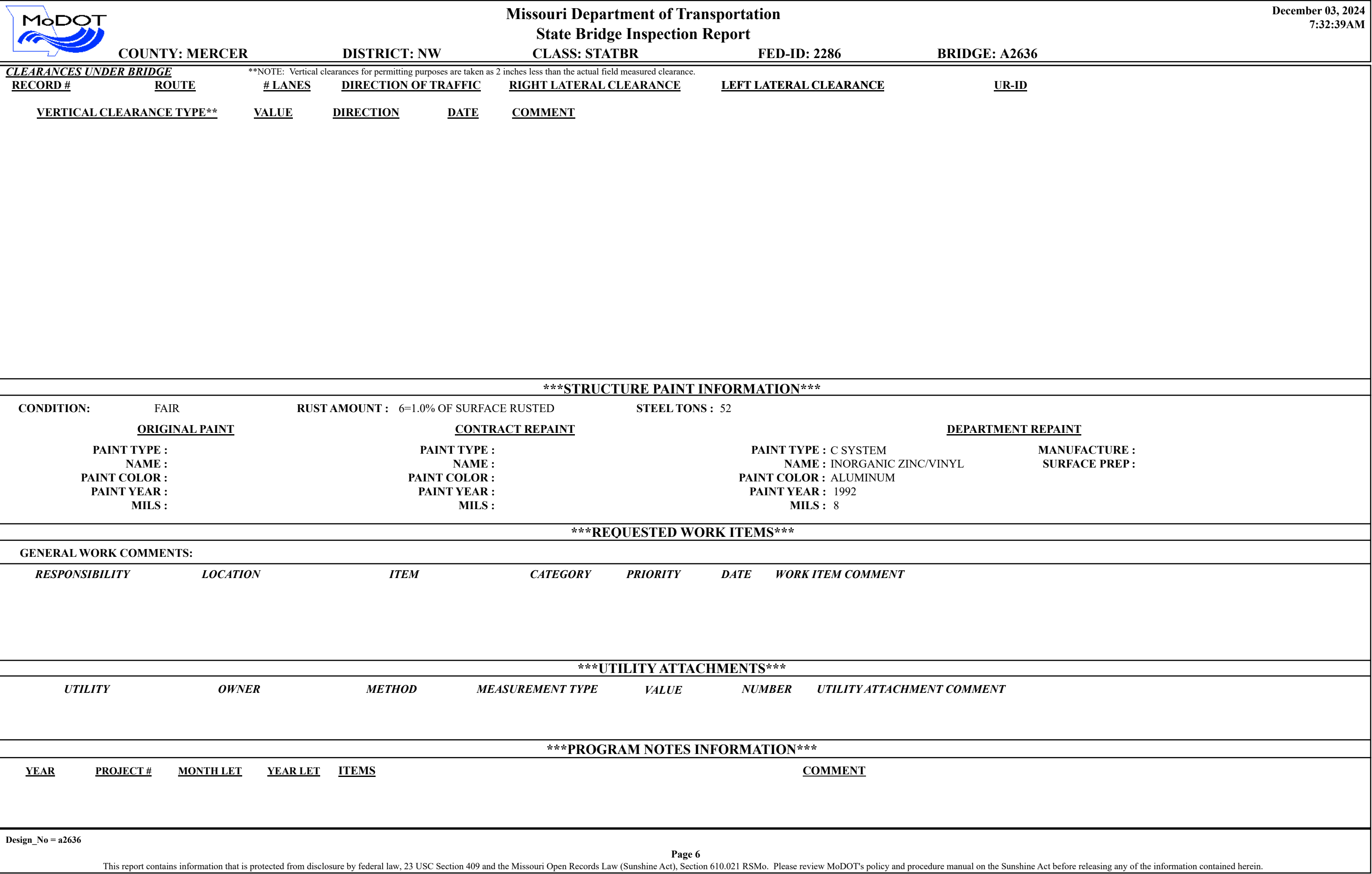
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		Missouri Department of Transportation			December 03, 2024	
		State Bridge Inspection Report			7:32:39AM	
COUNTY: MERCER		DISTRICT: NW		CLASS: STATBR	FED-ID: 2286	BRIDGE: A2636
STRUCTURE POSTING						
APPROVED CATEGORY: S-1		NO POSTING REQUIRED				
Ton 1:		Ton 2:		Ton 3:		
COMMENTS:						
FIELD CATEGORY: S-1		NO POSTING REQUIRED				
Ton 1:		Ton 2:		Ton 3:		PROBLEM:
COMMENTS:		PROBLEM DIRECTION:				
GENERAL COMMENTS/MAJOR RATED ITEMS						
GENERAL COMMENTS: (BOWDEJ1, 02/02/2010)--(58'-78'-58') CONT COMP WF GDR SPANS						
[ITEM 58] DECK: 4-POOR CONDITION		COMMENTS: (MENEET, 01/31/2012)--DELAMS				
RATING : 01/31/2012		(STEPHS2, 08/22/2017)--SURFACE DELAMINATIONS				
		(ACTONB1, 08/21/2023)--SATURATION & POTHOLES THROUGHOUT				
[ITEM 59] SUPER: 7-GOOD CONDITION		COMMENTS: (ACTONB1, 08/21/2023)--PAINT PEELING THROUGHOUT W/FEW AREAS OF LIGHT RUST				
RATING : 05/18/2001						
[ITEM 60] SUB: 7-GOOD CONDITION		COMMENTS: (STEPHS2, 08/22/2017)--SPALLS FROM DRIFT DAMAGE				
RATING : 08/22/2017						
[ITEM 61] BANK/CHANNEL: 6-WIDESPREAD MINOR DAMAGE		COMMENTS: (BOWDEJ1, 10/18/2004)--CHANNEL DEEPENING & BANK ERODING				
RATING : 05/18/2001		(ACTONB1, 08/21/2023)--MODERATE BANK EROSION				
		(ACTONB1, 08/19/2024)--LARGE WASHOUT UNDER BRIDGE				
[ITEM 113] SCOUR: 8-STABLE FOR CALCULATED		COMMENTS: (ACTONB1, 08/21/2023)--NO SCOUR OBSERVED				
RATING : 05/18/2001						
EVALUATION TYPE :						
[ITEM 71] WATERWAY ADEQUACY: DECK/APPRCH OVERTOP SLIGT		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 : 02/22/2004		COMMENTS:		
<u>MATERIAL</u>	<u>CONSTRUCTION</u>	<u>DIRECTION</u>	<u>COMMENTS</u>			
REINFORCED CONCRETE	PARAPET	BOTH				
REINFORCED CONCRETE	CURB	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:		
Design_No = a2636						
Page 2						
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		Missouri Department of Transportation				December 03, 2024	
		State Bridge Inspection Report				7:32:39AM	
COUNTY: MERCER		DISTRICT: NW		CLASS: STATBR		FED-ID: 2286	
				BRIDGE: A2636			
[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.							
<u>MATERIAL</u>		<u>CONSTRUCTION</u>		<u>DIRECTION</u>		<u>CONDITION*</u>	
ASPHALT		BITUMINOUS MAT		BOTH		FAIR	
DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS							
<u>DECK PROTECTIVE COMPONENTS:</u>							
<u>SERIES TYPE-#</u>		<u>COMPONENT</u>		<u>MATERIAL</u>		<u>CONSTRUCTION</u>	
MAIN SERIES-1		WEARING SURFACE		NOTAPPLICABLE		NONE	
<u>COMMENT:</u>							
		DECK PROTECTION		NOTAPPLICABLE		NONE	
<u>COMMENT:</u>							
		MEMBRANE		NOTAPPLICABLE		NONE	
<u>COMMENT:</u>							
<u>DRAINAGE COMPONENTS:</u>							
		<u>COMPONENT</u>		<u>MATERIAL</u>		<u>CONSTRUCTION</u>	
		DRAINAGE		REINFORCED CONCRETE		CURB OUTLET	
<u>EXPANSION DEVICE COMPONENTS:</u>							
<u>SUB UNIT-#</u>		<u>SUB LABEL</u>		<u>COMPONENT</u>		<u>MATERIAL</u>	
<u>COMMENT:</u>							
<u>BANK/SLOPE PROTECTION COMPONENTS:</u>							
		<u>COMPONENT</u>		<u>MATERIAL</u>		<u>CONSTRUCTION</u>	
		BANK PROTECTION		ROCK		RIP RAP	
<u>CONDITION</u>		<u>LOCATION 1</u>		<u>LOCATION 2</u>		<u>SEVERITY</u>	
ERODING		THROUGHOUT				MODERATE	
						<u>COMMENT</u>	
						(STEPHS2, 09/09/2021)--BOTH SIDES	
DECK COMPONENTS							
<u>SPAN TYPE-#</u>		<u>COMPONENT</u>		<u>MATERIAL</u>		<u>CONSTRUCTION</u>	
MAIN SPANS-1		DECK		REINFORCED CONCRETE		CAST-IN-PLACE	
<u>CONDITION</u>		<u>LOCATION 1</u>		<u>LOCATION 2</u>		<u>SEVERITY</u>	
DELAMINATION		RANDOM				MODERATE	
DETERIORATION		AT OUTLETS				MINOR	
EFFLORESCENCE		THROUGHOUT				MODERATE	
FULL DEPTH PATCHES		THROUGHOUT				MANY	
PATCHES		THROUGHOUT				MANY	
POP-OUTS		THROUGHOUT				MANY	
SATURATION		THROUGHOUT				MINOR	
SCALING		THROUGHOUT				LIGHT	
TRANSVERSE CRACKS		THROUGHOUT				MANY	
						(MENEET, 01/30/2014)--APPROX 400 SQFT DECK REPAIRS IN 2013	
Design_No = a2636							
Page 3							
This report contains information that is protected from disclosure by federal law, 23 USC Section 409 and the Missouri Open Records Law (Sunshine Act), Section 610.021 RSMo. Please review MoDOT's policy and procedure manual on the Sunshine Act before releasing any of the information contained herein.							







			Missouri Department of Transportation			December 03, 2024					
			State Bridge Inspection Report			7:32:39AM					
COUNTY: MERCER			DISTRICT: NW			CLASS: STATBR					
			FED-ID: 2286			BRIDGE: A2636					
COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS						***ADVANCED SIGN INFORMATION***					
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.						SIGN #					
						SIGN TYPE					
						PROBLEM					
						PROBLEM DIRECTION					
<u>Rated Item</u>											
<u>Rating</u>											
<u>Rating Date</u>											
[Item 67] Structure Evaluation Rating:						5-BETTER THAN MINIMUM					
[Item 68] Deck Geometry Rating:						5-BETTER THAN MINIMUM					
[Item 69] Underclearance:						N-NOT APPLICABLE					
Sufficiency Rating:						72.6%					
Deficiency:						STRUCTURAL					
Funding Eligibility:						PARTIAL					
Estimated New Structure Length:						230 FT.					
Estimated Structure Cost:						\$906,964					
Estimated Total Project Cost:						\$1,360,445					
Year of Cost Estimate:						2024					
NOTE: The above structure length and cost estimates are computer generated using algorithms in the TMS system. These algorithms 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.											
						OUTFALL INSPECTION INFORMATION					
						# OUTFALLS:					
						INSPECTOR:					
						STATUS:					
						DATE:					
						NOTES:					



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

December 3, 2024
7:27:31am

COUNTY : MERCER BRIDGE : A2636 REVIEW STATUS : APPROVED NBI STATUS : T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT RUN DATE : 11/27/2024 SUBMITTAL YEAR : 2024

GENERAL STRUCTURE INFORMATION			ROUTE DESIGNATION INFORMATION		
1	State	MISSOURI	5A	Record Type	ROUTE CARRIED 'ON' STRUCT
2	District	NW	5B	Route Signing Prefix	MO
3	County	MERCER	5C	Designated Level of Service	MAINLINE
8	Federal ID No.	2286	5D	Route Number	0000E
27	Year Built	1971	5E	Directional Suffix	NOT APPLICABLE
106	Year Reconstructed	0	7	Facility Carried	RT E E
42A	Type of Service On	HIGHWAY	12	Base Hwy. Network	NO
21	Structure Maintenance	STATE HIGHWAY AGENCY	13A	LRS Inventory Route No.	
22	Structure Owner	STATE HIGHWAY AGENCY	13B	Subroute No.	
33	Br. Median Code	NO MEDIAN	20	Toll Status	ON FREE ROAD
37	Historical Significance	NOT ELIGIBLE FOR NR OF HP	26	Functional Classification	07-RURAL MAJOR COLLECTOR
101	Parallel Struc Desg	NONE EXISTS	28A	Lanes on Structure	02
103	Temporary Structure	NOT TEMPORARY	100	STRAHNET Designation	RTE NOT A DEFENSE HWY
112	NBIS Bridge Length	YES	104	National Highway System	NOT ON NHS
			105	Federal Lands Highway	NOT APPLICABLE
			110	Designated Nat. Network	NO
STRUCTURE LOCATION INFORMATION			STRUCTURE TRAFFIC INFORMATION		
4	Place	MEDICINE	29	AADT	439
	Code	47108	30	AADT Year	2023
9	Location	S 28 T 64 N R 22 W	102	Direction of Traffic	2-WAY TRAFFIC
11	Milepoint	11.89 miles	109	AADT Truck Percent	10%
16	Latitude	40 D 19 M 2 S	114	Future AADT	549
17	Longitude	93 D 22 M 54 S	115	Future AADT Year	2043
UNDERRECORD INFORMATION			STRUCTURE GEOMETRIC INFORMATION		
6	Features Intersected	W MEDICINE CK	10	Inventory Rte. Vert. Clear	99 Ft. 99 In.
42B	Type of Service Under	WATERWAY	19	By pass Detour Length	34.38 miles
28B	Lanes Under Structure	00	32	Approach Roadway Width	27 Ft. 11 In.
54A	Vert. Clearance Ref.	N/A	34	Skew	0.00 Degrees
54B	Vert. Clearance	0 Ft. 0 In.	35	Struct. Flared	NO
55A	Rt. Lat Clear Ref.	N/A	47	Total Horiz. Clear	27 Ft. 11 In.
55B	Rt. Lat Clearance	0 Ft. 0 In.	48	Maximum Span Length	78 Ft. 1 In.
56	Left Lat Clearance	0 Ft. 0 In.	49	Structure Length	193 Ft. 11 In.
38	Navigation Control	PERMIT NOT REQ	50A	Left Curb/Sidewalk Width	0 Ft. 0 In.
39	Nav Vertical Clear	0 Ft. 0 In.	50B	Right Curb/Sidewalk Width	0 Ft. 0 In.
40	Nav Horizontal Clear	0 Ft. 0 In.	51	Curb to Curb Br. Width	27 Ft. 11 In.
111	Nav. Pier Protection		52	Deck Width (Out-Out)	30 Ft. 6 In.
116	Nav. Cl. Vert. Clear		53	Vert. Clearance Over Deck	99 Ft. 99 In.

Design_No = a2636 and Inventory_Appraisal_Submittal_Year = 2024



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

December 3, 2024
7:27:31am

COUNTY : MERCER BRIDGE : A2636 REVIEW STATUS : APPROVED NBI STATUS : T
RECORD TYPE : ROUTE CARRIED 'ON' STRUCT RUN DATE : 11/27/2024 SUBMITTAL YEAR : 2024

LOAD RATING AND POSTING INFORMATION			MATERIAL/CONSTRUCTION INFORMATION		
31	Design Load	H 15	43A	Main Struc. Mat type	STEEL CONTINUOUS
41	Structure Status	OPEN NO RESTRICTIONS	43B	Main struc Constr. Type	STRINGER/MULTIBEAM - GRD
63	Oper. Rating Meth.	ALLOWABLE STRESS	45	# of Main Spans	3
64	Operating Rating	33 Tons.	44A	Appr Struc. Mat type	000
65	Inventory Rating Meth	ALLOWABLE STRESS	44B	Appr Struc. Cnstr. type	000
66	Inventory Rating	20 Tons.	46	# of Approach Span	0
70	Bridge Posting Code	=>LEGAL LOADS	107	Deck Mat/Constr.	1 CONCRETE CIP
PROPOSED IMPROVEMENT INFORMATION			108A	Wear Surf Mat/Constr.	0 NONE
Sufficiency Rating 72.6 Percent			108B	Membrane Mat/Constr.	0 NONE
Deficiency Rating STRUCTURAL			108C	Deck Protect Mat/Constr.	0 NONE
Funding Eligibility PARTIAL			CONDITION RATING INFORMATION		
75A	Proposed Work	REHAB-GENERAL DETERIORAT	58	Deck Cond. Rating	4
75B	Work Done By	Contract	59	Superstructure Cond. Rating	7
76	New Struc Length	229 Ft. 8 In.	60	Substructure Cond. Rating	7
94	Struc Improve Cost	\$ 907,000	61	Channel /Channel Protection Cond. Rating	6
95	Roadway Improve Cost	\$ 91,000	62	Culvert Cond. Rating	N
96	Total Project Cost	\$ 1,360,000	INSPECTION INFORMATION		
97	Year of Cost Estimates	2024	90	Gen. Insp Date	8 / 23
APPRAISAL RATING INFORMATION			91	Gen. Insp. Frequency	24 Months
36A	Br. Rail App. Rating	DOES NOT MEET ACCEPT STND	92A	Frac. Critical Inspection	N Months
36B	Transition Rail App. Rating	DOES NOT MEET ACCEPT STND	93A	Frac. Critical Insp. Date	
36C	Approach Rail App. Rating	DOES NOT MEET ACCEPT STND	92B	Underwater Inspection	N Months
36D	Rail End Treat. App. Rating	DOES NOT MEET ACCEPT STND	93B	Underwater Insp. Date	
67	Struc Eval App. Rating	5	92C	Special Inspection	N Months
68	Deck Geometry App. Rating	5	93C	Special Inspection Date	
69	Underclearance App. Rating	N	BORDER BRIDGE INFORMATION		
71	Waterway Adeq. App. Rating	6	98	Neighboring State Code	
72	Approach Road App. Rating	8	98B	Neighboring State % Respon	
113	Scour Assess App. Rating	8	99	Neighboring State Struc. No.	
APPROVED POSTING INFORMATION			FIELD POSTING INFORMATION		
Approved Posting Category S-1			Field Posting Category S-1		
Ton1 Ton2 Ton3			Ton1 Ton2 Ton3		
Tonnage Values for Posting Sign			Tonnage Values for Posting Sign		
General Text for Posting Sign			General Text for Posting Sign		
NO POSTING REQUIRED			NO POSTING REQUIRED		

Design_No = a2636 and Inventory_Appraisal_Submittal_Year = 2024

STRUCTURAL REHABILITATION CHECKLIST

Bridge No.: **A2636**

Job No.: **NW0014**

Route: **E**

Over: **Medicine Creek**

County: **Mercer**

Date of Field Check: **10/25/2022**

*** Please include photographs for all items that apply. ***

1

OVERLAY

* Type of existing overlay: ☐ None ☒ Asphalt ☐ Low Slump ☐ Silica Fume ☐ Latex ☐ Epoxy ☐ Other: _____

* Existing overlay thickness: _____"

* Year overlay was applied: _____ ☐ Unknown

* % of overlay repaired or patched: _____%

* Replace overlay: ☐ Yes ☐ No

* Notes: _____

Picture **DSCN2445, DSCN2446**
#

2A

DECK REPAIRS (Deck repair quantities are required even if a Deck Test request has been ordered for this structure.)

* Half-sole repairs: _____ sq. ft.
(round up to the nearest 50 sq. ft.)

* Full depth repairs: _____ sq. ft.
(round up to the nearest 50 sq. ft.)

* Existing deck repair (patching): _____ sq. ft.
(round up to the nearest 25 sq. ft.)

* Slab edge repairs: _____ lin. ft.
(covers the outer 4" of the slab edge)

* Superstructure repair (Unformed): _____ sq. ft.
(covers the remaining slab cantilever beyond the outer 4")

* Clean & epoxy coat slab edge: _____ lin. ft.
(in lieu of edge repairs)

* Cantilever replacement: _____ lin. ft.

* Total surface hydro demolition of bridge deck: ☐ Yes ☐ No
(half-sole, full depth and exist. deck repair quantities still required)

* Full deck replacement (redeck) ☒ Yes ☐ No ☐ Optional

* Deck repairs with voided tube replacement: ☐ Yes ☐ No
(minimum of 10% of half-sole repair quantity)
_____ sq. ft.

* Superstructure replacement: ☐ Yes ☒ No ☐ Optional

* Full bridge replacement: ☐ Yes ☒ No ☐ Optional
(Deck repair quantities required for cost comparison of alternatives)

* How were the quantities obtained ☐ Visual ☐ Bridge Inspection Report ☐ Sounded ☐ Other _____

* Notes: **Scope is to redeck the bridge.**

Picture **DSCN2446**
#

DECK REPAIRS CONT.*** ISSUES / PROBLEMS WITH PRECAST PRESTRESSED DECK PANELS**

Spans	Location in Span						Deterioration		Describe
	At Panel Jt.	Btwn (mid) Panel Jt.	End	Mid	End		Type	Amount	
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	sq. ft	_____

* Notes: **Scope is to redeck the bridge.**

(Deterioration may include water saturation, efflorescence, rust staining, cracking, spalling, exposed steel, disintegration of panel edges at joints, etc. Typically observed at or near panel joints. The location and "Type" of deterioration should be recorded.)

Picture
#

APPROACH SLABS

- * Is there a bridge approach slab in place? ☐ Yes ☒ No * Type: ☐ Concrete ☐ Asphalt ☐ Other _____
- * Is there rdwy. approach pavement in place? ☒ Yes ☐ No * Type: ☐ Concrete ☒ Asphalt ☐ Other _____
- * Is the approach slab sinking at the end bent? ☒ N/A ☐ Yes ☐ No _____
- * Are repairs needed to the bridge approach slab driving surface? ☐ Yes ☐ No _____
(Typically a roadway item but will be reported to District on the Bridge Memorandum.)
- * Full replacement of bridge approach slab? ☐ Yes ☐ No _____
- * Notes: _____

Picture **DSCN2446, DSCN2472**
#

4

SLAB DRAINS

* Is the drainage system working adequately? ☒ Yes ☐ No

* Recommendations: _____

* Notes: _____

Picture **DSCN2472**

#

5

CURBS & RAILS

* Existing curb (left side): ☒ Safety Barrier Curb ☐ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☐ Steel Channel

☐ Other _____ ☒ Handrail ☐ Fence _____

* Does curb need repair ☐ Yes ☐ No * Curb repair _____ lin. ft.

* Remove hand rail ☐ Yes ☐ No * Add curb blockout ☐ Yes ☐ No

* Existing curb (right side): ☒ Safety Barrier Curb ☐ Curb/parapet ☐ Blockouts ☐ Thrie Beam ☐ Baluster ☐ Steel Channel

☐ Other _____ ☒ Handrail ☐ Fence _____

* Does curb need repair ☐ Yes ☐ No * Curb repair _____ lin. ft.

* Remove hand rail ☐ Yes ☐ No * Add curb blockout ☐ Yes ☐ No

* Existing median curb: Type: _____ Width _____ " Height _____ "

* Does curb need repair ☐ Yes ☐ No * Curb repair _____ lin. ft.

* Approach rail attachment: ☐ None ☐ Not attached ☐ 4 Hole ☐ 5 Hole ☐ Turn-down ☐ Other _____

* If the existing handrails will be removed, does the local maintenance supervisor wish to keep them? ☐ Yes ☒ No

Storage address: location: _____

address: _____

city: _____ state: _____ zip: _____

* Notes: _____

Picture **DSCN2472**

#

6

EXPANSION DEVICES

Bent	Type	Recommendations			Gap Left	Gap Right	Temperature & Other Info
1E		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	

* Notes: **Will be replaced with the redeck**

Picture
#

7

BEARINGS

Bent	Coating	Recommendations				Notes (indicate which bearings at each bent)
1E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Integral end bent
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Integral end bent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

* Notes:

Picture # (Provide Pictures of Each Bearing)

DSCN2449, DSCN2452, DSCN2453, DSCN2454, DSCN2459, DSCN2460, DSCN2461, DSCN2462, DSCN2478, DSCN2481, DSCN2482, DSCN2483, DSCN2484

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COATING SYSTEM (PAINT)

* Existing coating system: **System C** ☐ green ☒ gray ☐ other

* Date last coated: **12/2992**

* Is existing coating peeling? ☒ Yes (Overcoat is not an option) ☐ No

* Coating recommendation:

- ☒ Blast clean & recoat all steel ☐ Clean & overcoat all steel
- ☐ Blast clean & recoat only at joint locations ☐ Blast & recoat at joint locations and clean & overcoat all other steel

Note: Pull-off test required for overcoat (Calcium Sulfonate) option. Bridge Division will request pull-off tests.

* Notes: **Paint is peeling at various locations**

Picture # **DSCN2448, DSCN2474, DSCN2485, DSCN2486**

SUPERSTRUCTURE REPAIRS (Repairs needed not previously stated.)**Concrete Slab Superstructure or Girder:** (above the bearings)**Steel I-beam**(Example: Deck solid slabs, voided slabs, box girders,
deck girders & prestressed girders)**Steel:** (Example: Beams, stringers, girders, diaphragms, cross-frames, misc. steel)**Member** (Check all that apply) (Attach pictures)**Describe & Locate****1** ☐ Section Loss _____ % ☐ Cracks _____ in. _____**2** ☐ Section Loss _____ % ☐ Cracks _____ in. _____**3** ☐ Section Loss _____ % ☐ Cracks _____ in. _____**4** ☐ Section Loss _____ % ☐ Cracks _____ in. _____**Notes:** **No issues noticed****Picture**

#

SUBSTRUCTURE REPAIR

Bent	Formed Repair	Unformed Repair	Seal Concrete Beam Cap Bts.	Coat Exposed Pile @ Int. Pile Cap Bts.	Describe (Beam, Backwall, Wing, etc.)
1E	_____ sq. ft.	_____ sq. ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
2	_____ sq. ft.	_____ sq. ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
3	_____ sq. ft.	_____ sq. ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
4	_____ sq. ft.	_____ sq. ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____
	_____ sq. ft.	_____ sq. ft.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	_____

* Does the structure need graffiti protection? ☐ No ☐ Bottom 8' of Concrete ☐ End Bents ☐ Other _____* Notes: **Horizontal crack just under beam cap at east bent.****Picture**

#

DSCN2452, DSCN2453, DSCN2454, DSCN2457, DSCN2458, DSCN2465, DSCN2478,

11

SIGNS, SIGNALS &/OR LIGHTING ATTACHED TO STRUCTURE

* Are there signs attached directly to this structure? ☐ Yes ☒ No quantity _____ location _____

* Describe proposed work to be done to signs.

* Are there signals attached directly to this structure? ☐ Yes ☒ No quantity location

* Describe proposed work to be done to signals.

[illegible]

* Is there navigational lighting attached to this structure? ☐ Yes ☒ No ☐ N/A ☐ Red ☐ Green
antv. antv.

* Is there roadway lighting attached to this structure? ☐ Yes ☒ No ☐ N/A

* Describe proposed work to be done to lighting.

* **Notes:**

Picture
#

12

UTILITIES ATTACHED TO STRUCTURE

Type			Qty.	Size	Owner	Condition			
<input type="checkbox"/> Conduit	<input type="checkbox"/> Pipeline	<input type="checkbox"/> Other				<input type="checkbox"/> Repaint	<input type="checkbox"/> Repair	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove
<input type="checkbox"/> Conduit	<input type="checkbox"/> Pipeline	<input type="checkbox"/> Other				<input type="checkbox"/> Repaint	<input type="checkbox"/> Repair	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove
<input type="checkbox"/> Conduit	<input type="checkbox"/> Pipeline	<input type="checkbox"/> Other				<input type="checkbox"/> Repaint	<input type="checkbox"/> Repair	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove
<input type="checkbox"/> Conduit	<input type="checkbox"/> Pipeline	<input type="checkbox"/> Other				<input type="checkbox"/> Repaint	<input type="checkbox"/> Repair	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove

* **Notes:** **No utilities located on bridge**

Picture #

13

CATHODIC PROTECTION SYSTEM

* Is there a cathodic system on this structure? ☐ Yes ☒ No ☐ Remove ☐ Do not alter ☐ Abandon in place (grooved system)

* Is it on and working? ☐ Yes ☐ No ☐ Unknown _____

* Notes: _____

Picture

#

14

CHANNEL ALIGNMENT, SLOPE PROTECTION & SCOUR

* Is channel aligned to bridge opening? ☒ Yes ☐ No Describe _____

* Is drift a continual problem? ☐ Yes ☒ No Describe & Locate _____

* Is erosion a problem? ☒ Yes ☐ No Describe & Locate Spill fill erosion

* Describe slope protection in place. _____

Scour	At Footing	At Piling	Depth	Bent	Recommendation
	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____
	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____	_____

* Describe needed work. Needs rip rap added to spill fills.

Picture

#

DSCN2468, DSCN2469, DSCN2450, DSCN2451, DSCN2457, DSCN2475, DSCN2476, DSCN2479, DSCN2480,

15

TRAFFIC LANES

* Number of lanes striped: on structure 2 under structure N/A

* Shoulder width: ☐ None on structure 4 ft. 4 ft. under structure _____
(left) (right) (left) (right)

* Sidewalk widths: on structure _____ under structure _____
(left) (right) (left) (right)

* Median width: on structure _____ under structure _____

* Proposed improvements for lanes/shoulders/sidewalks: _____

Picture

#

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GENERAL AREA CONDITIONS

* Primary area: ☐ Commercial ☐ Industrial ☐ Residential ☒ Agricultural ☐ Military ☐ Other _____

* Posted speed limit on structure: N/A mph

* Posted load on structure: _____ tons @ _____ mph ☒ NA

Single Unit: _____ tons @ _____ mph ☒ NA

Semi (tractor/trailer): _____ tons @ _____ mph ☒ NA

* Are both signs in place?

☐ Yes ☐ No

* Do pedestrians and/or bicyclists regularly use this structure? ☐ Yes ☐ No ☒ Undetermined

* Notes: No load posting observed.

Picture
#

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MAINTENANCE

* What work has been done to this structure that may not be reflected on existing bridge plans? _____

Picture
#

18

ADDITIONAL FIELD NOTES

Picture
#

19

STAGING / DETOUR

* **Traffic Control:** ☐ Close structure ☐ Stage construction on structure ☐ Cross over traffic to adjacent structure ☒ Detour

☐ Other option _____

* **Define probable detour route.** _____

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PERSONS ASSISTING WITH CHECKLIST

Name Joyce Reynolds Title Project Manager Ph. (816) -387 - -2411

Name Shannon Kusilek Title District Design Engineer Ph. (816) 387 - 2441

Name _____ Title _____ Ph. () -

Name _____ Title _____ Ph. () -

Name _____ Title _____ Ph. () -

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REQUIRED SIGNATURES

I have reviewed the information on this checklist and believe it to be as accurate as possible.

Name Joyce Reynolds Date 12/2/2022
Transportation Project Manager

Name Bryce Acton Date 12/2/2022
District Bridge Engineer

The structural rehabilitation checklist indicates how the bridge is functioning and aging.

All deterioration should be noted, even if it is known that the work will not be completed under the proposed project.

Send **NEW** Structural Rehabilitation Checklist by email

To: "Bridge Survey Processor"

Cc: Structural Project Manager or Structural Resource Manager