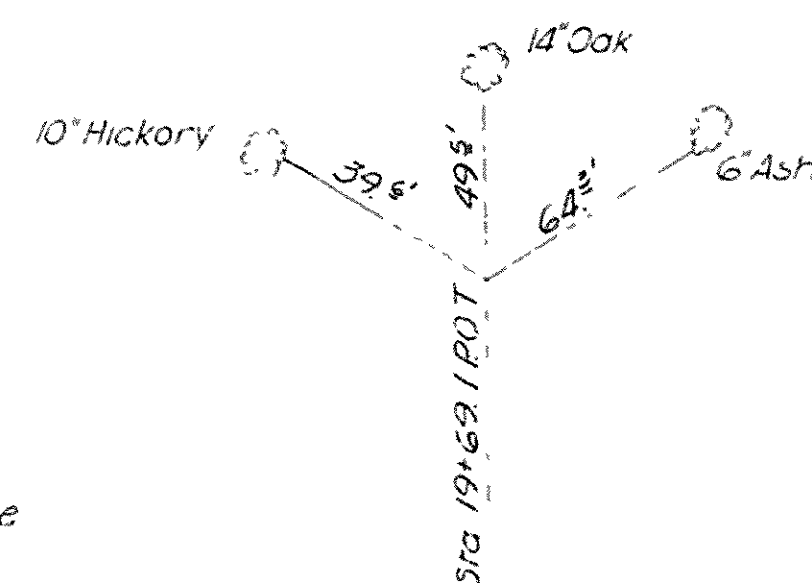


FOR INFORMATION PURPOSES ONLY



PLAN

SIA-3	K020	Lake Canway	Bridge No.	Code No.	Name Plate Title	Item No.	801	802	803	SP#804	SP#805	812	1006	SP-802-9
			UNIT OF BRIDGE	Item	Unclassified Excavation for Structures	Class 3 Concrete	Reinforcing Steel	Steel Bearing Piling (12 BP 53)	Steel Plate Guard Bridge Railing	Bridge Name Plates (Type C)	Removal of Existing Bridge Structures	Boiler Linseed Oil		
													Unit	
						Cu Yd	Cu Yd	Lt	Lin Ft	Lin Ft	Plate	Comp Item	Gal	
					Bents 1 & 7	50	13.06	1850	246					
					Bents 2-6		28.60	4262	738					
					Spans 1 & 6		72.10	15,316		118				4.55
					Spans 2-5		142.64	30,492		240				8.95
					Bridge Totals	50	256.40	51,920	984	358	1	1		13.50

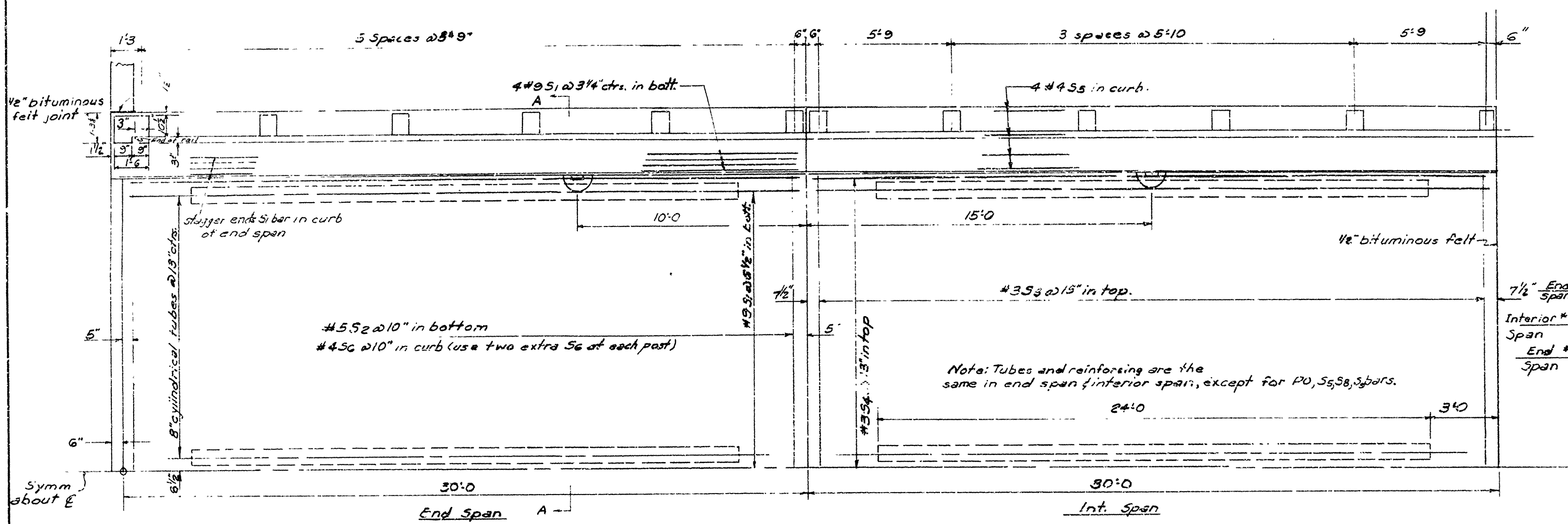
L. Carlson
BRIDGE ENGINEER

Bent No.	Pile Length
1	27'
2	42'
3	45'
4	52'
5	52'
6	55'
7	55'

(Not to scale vertically)

16.00

17+00



BAR LIST

PK	SIZE	NUMBER	LENGTH	BENDING DIAGRAM
S1	9	51	29'-8"	
S2	5	36	29'-3"	
S3	3	24	26'-7"	
S4	3	23	29'-8"	
*S5	4	8	29'-8"	
S6	4	96	6'-6"	
S7	4	168	2'-9"	
S8	4	12	2'-2"	
S9	4	12	1'-10"	
PO1	5	24	5'-11"	
PO2	5	36	2'-8"	
PO3	3	6	4'-7"	
PO4	5	6	6'-2"	

*S5, S9, PO1, PO2, PO3, PO4 required in end span. Dimensions are C. to C. of bars.
 *S5, S9, PO1, PO2, PO3, PO4 required in end span.
 **in end span substitute 30'-2 S5a for S5

GENERAL NOTES

All concrete to be Class S. All exposed corners to be chamfered 3/4" unless otherwise noted.

Reinforcing steel to be deformed bars of intermediate or hard grade. Shop lists and bending diagrams must be submitted and approved secured before fabrication is begun.

All cylindrical tubes used to form voids shall be of rust-free, lamination type construction, minimum thickness 0.200, and shall be furnished complete with end closures.

All reinforcing steel and fiber tubes shall be accurately located in the forms and firmly held in place by means of steel wire supports and spacers for tubes of a sufficient size and number to prevent displacement during the course of construction, but in no case of lesser design than that shown.

Wire supports for reinforcing bars will not be paid for directly, but will be considered subsidiary to the item "Reinforcing Steel".

Tubes for forming voids and wire supports and spacers for tubes will not be paid for directly, but will be considered subsidiary to the item, "Class S Concrete".

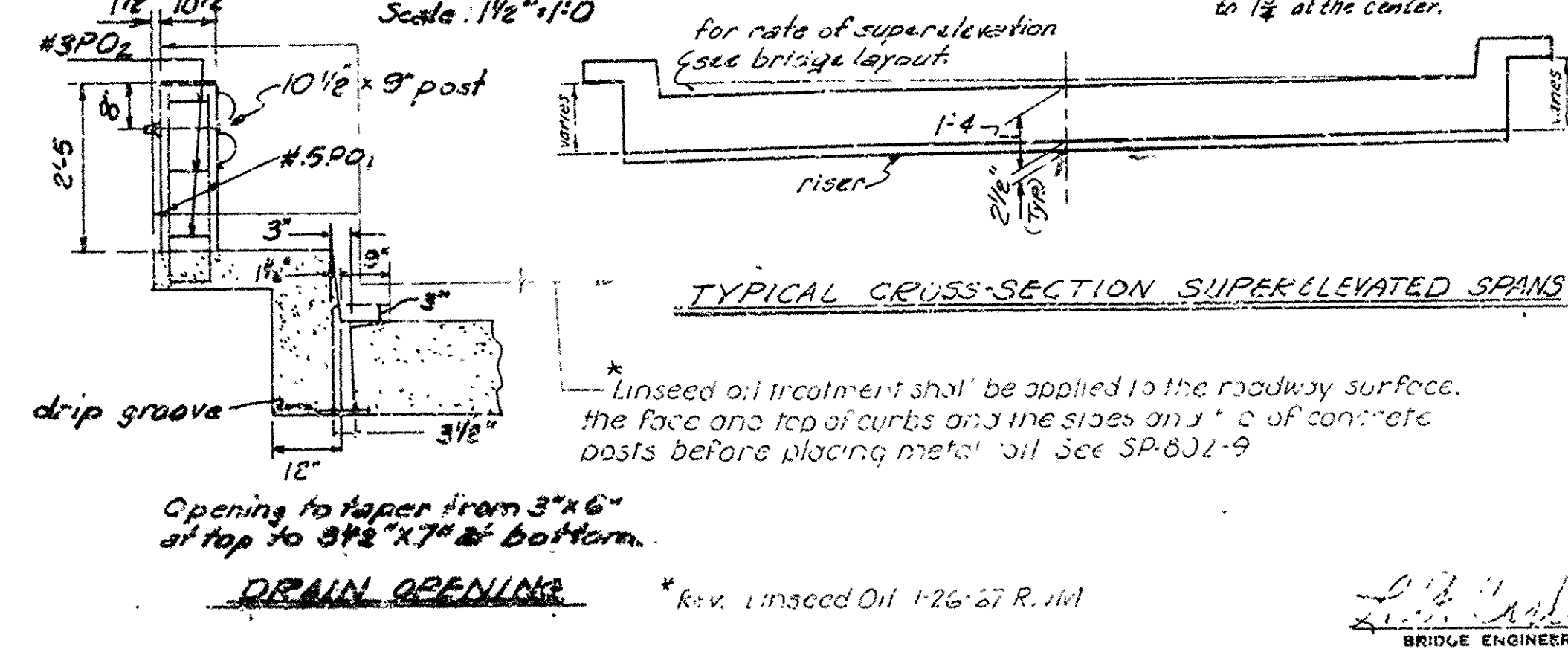
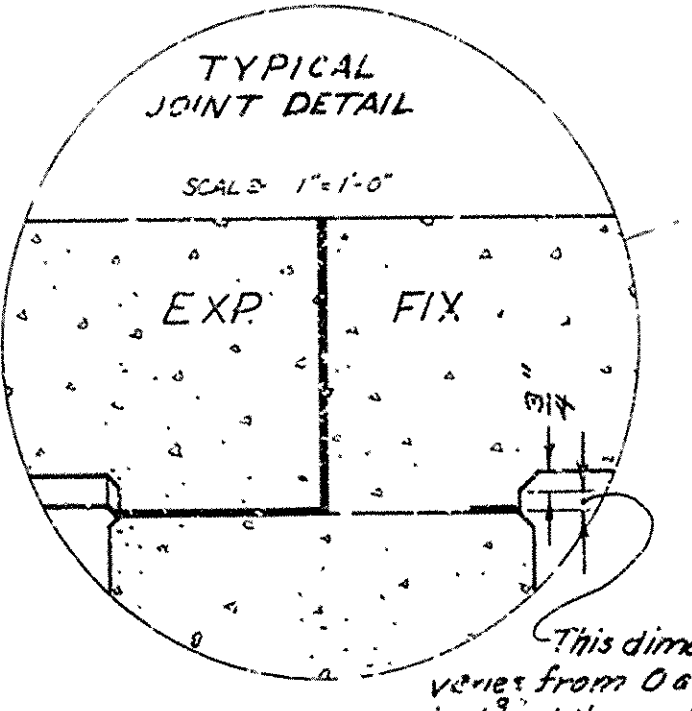
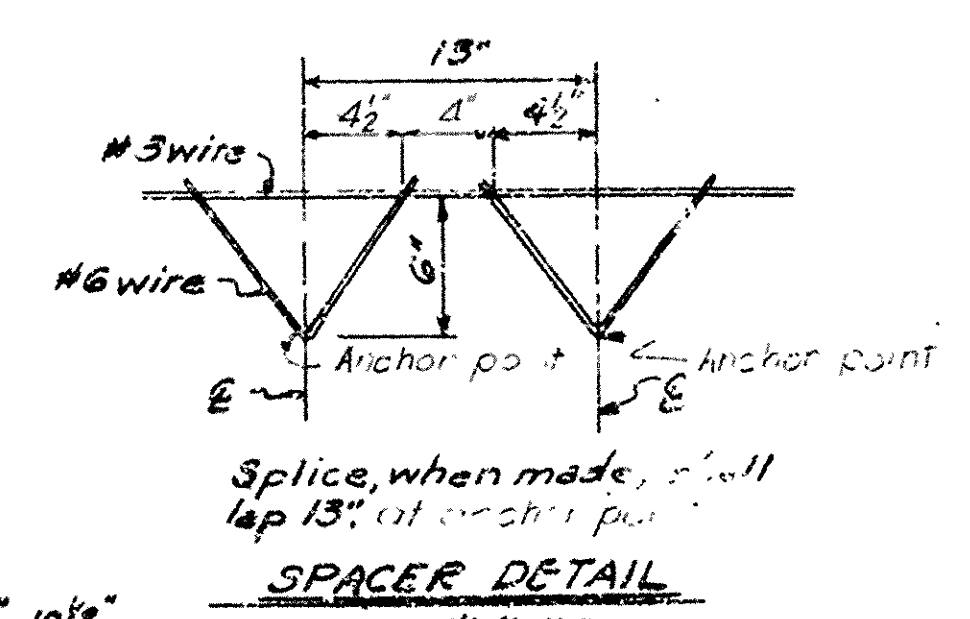
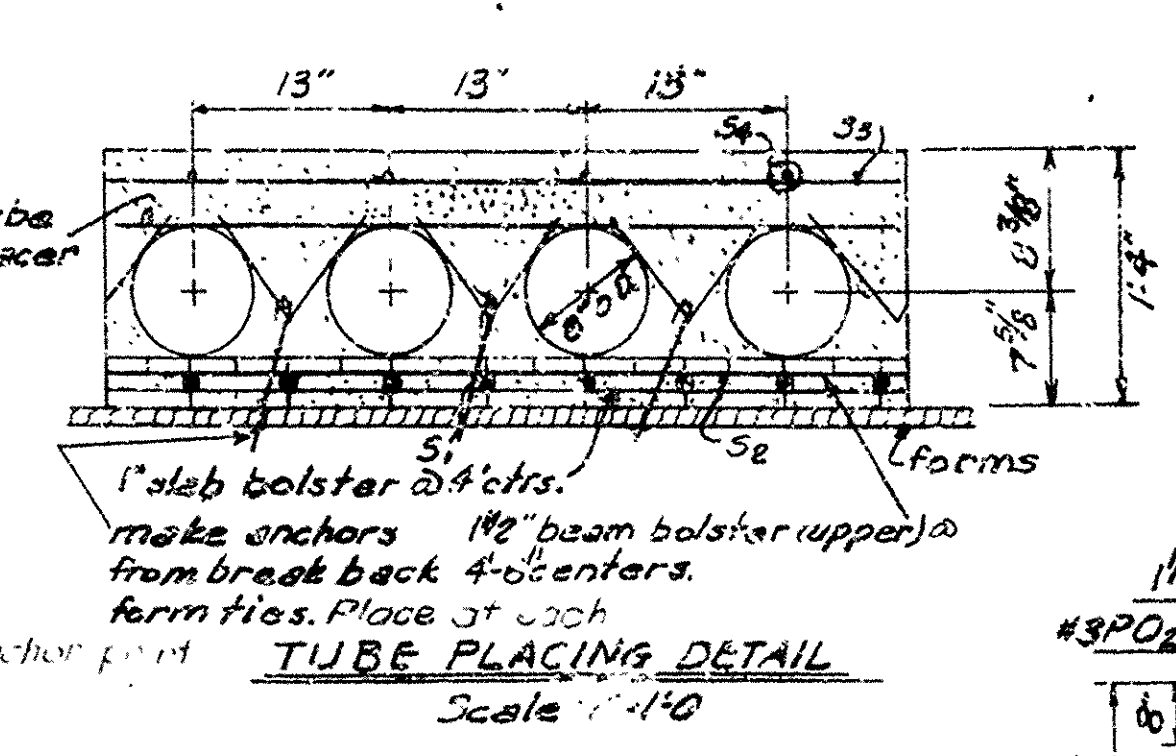
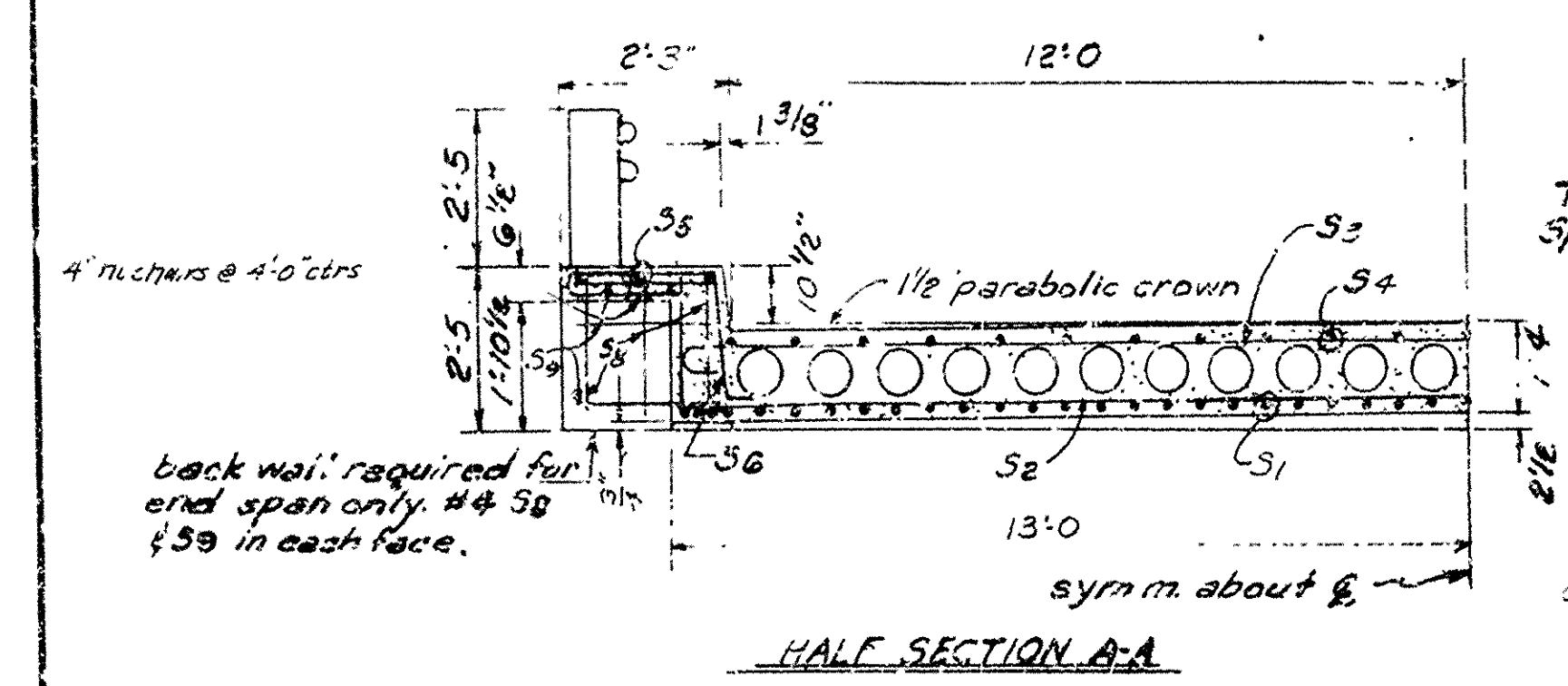
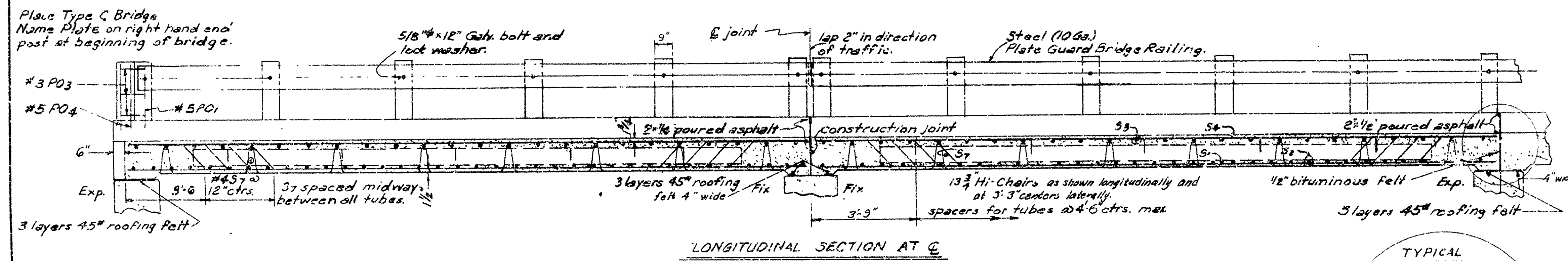
Shop lists and diagrams of wire supports and spacers for tubes shall be submitted for approval before fabrication is begun.

Roofing felt, bituminous felt, and poured asphalt joints shall be measured and paid for as Class S Concrete.

Steel Plate Guard shall be of the type shown or an equivalent rigid type as approved by the Engineer. The rail, including all concrete posts and fastenings shall be paid for at the unit price bid per linear foot for "Steel Plate Guard Bridge Railing".

SPECIFICATIONS: Arkansas State Highway Commission Standard Specifications for Highway Construction, Edition of 1959.

DESIGN SPECIFICATIONS: AASHTO 1961
 Design Live Loading: R-15
 Load Distribution to Slab: Dead Load: 169 #/ft.
 Live Load: 0.174 Wheels per foot of width plus 30% impact.
 Unit Stresses: Class S Concrete (n=10) 1,200 psi
 Reinforcing Steel 20,000 psi



FOR INFORMATION PURPOSES ONLY

DETAILS OF STANDARD
 30'-0" RC. SLAB SPANS (WITH VOIDS)
 24'-0" CLEAR ROADWAY 1'-0" CURBS

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: E.R.B. DATE: 1-30-61
 TRACED BY: DATE: 1-30-61
 CHECKED BY: D.V. DATE: 2-1-61
 BRIDGE NO. 5142 DRAWING NO. 5466C



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood **Inspection Date:** February 10, 2020



Latitude:34.96895, Longitude:-92.40261

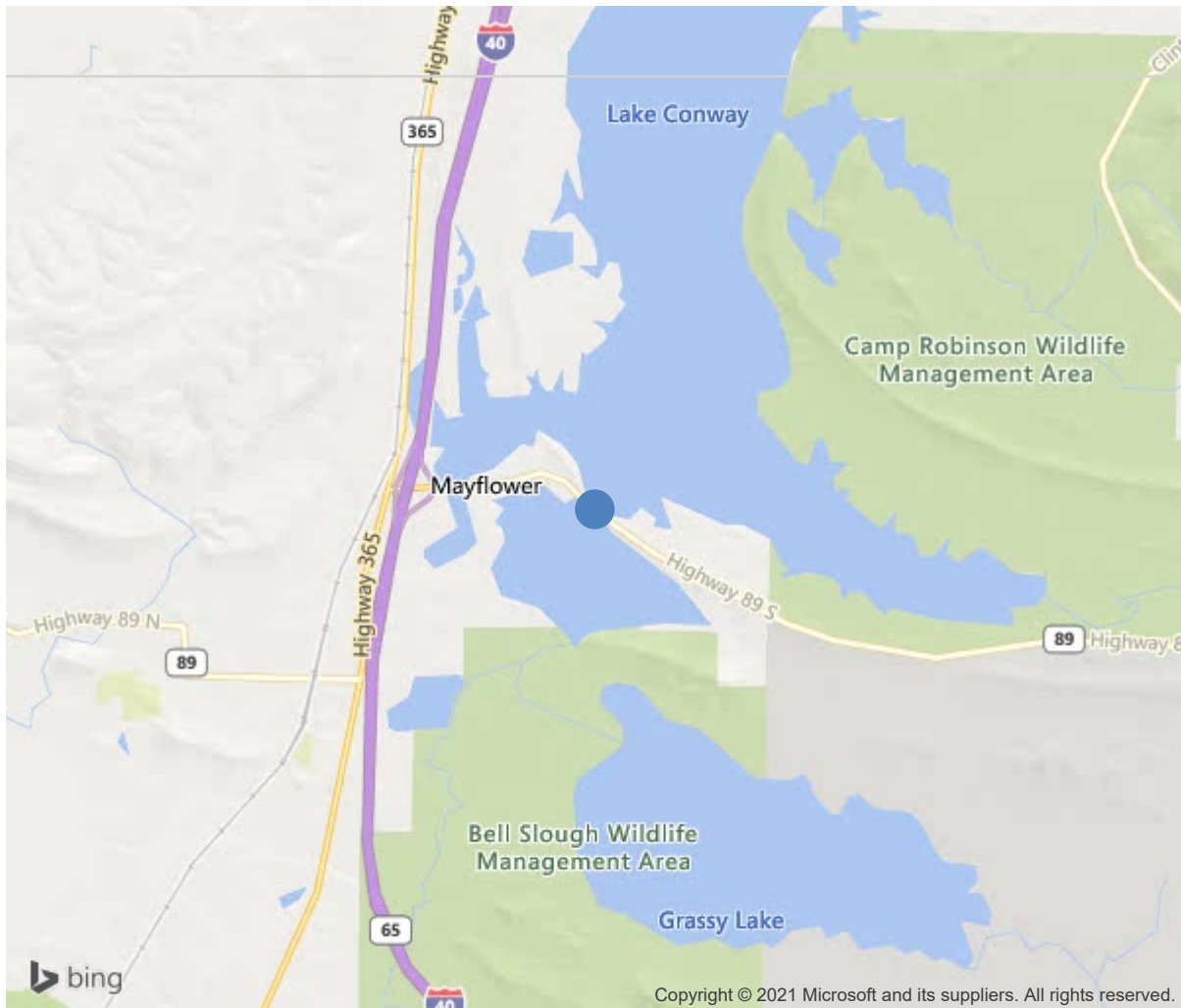
Route:89 Section:04 Log:9.938

Arnold Road ID:23x89x4xA, Arnold Log mile:10.04

District 08, Faulkner County

Owner: 1-State Highway Agency

9.94 MI W PULASKI CO L



34.96895, -92.40261



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood Inspection Date: February 10, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05143
(5) Inventory Route	89
(2) Highway Agency District	08
(3) County Code	45-Faulkner County, Arkansas
(4) Place Code	0
(6) Features Intersected	Lake Conway
(7) Facility Carried	SH 89
(9) Location	9.94 MI W PULASKI CO L
(11) Mile Point	9.938 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.96895
(17) Longitude	-92.40261
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1-Concrete
Type	1-Slab
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	6
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1968
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	4400
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	14 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	180 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28 ft
(32) Approach Roadway Width (W/Shoulders)	25.9 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION			
(112) NBIS Bridge Length			Y
(104) Highway System			0
(26) Functional Class			6-Rural Minor Arterial
(100) Defense Highway			0-The inventory route is not a S
(101) Parallel Structure			N-No parallel structure exists.
(102) Direction of Traffic			2 - way traffic
(103) Temporary Structure			
(105) Federal Lands Highways			0-N/A
(110) Designated National Network			0-The inventory route is not part of
(20) Toll			3-On free road. The structure is toll-
(21) Maintain			1-State Highway Agency
(22) Owner			1-State Highway Agency
(37) Historical Significance			5-Bridge is not eligible for the NRHP
CONDITION			
(58) Deck			7
(59) Superstructure			7
(60) Substructure			6
(61) Channel & Channel Protection			7
(62) Culverts			N
LOAD RATING AND POSTING			
(31) Design Load			2-M 13.5 / H 15
(63) Operating Rating Method			1
(64) Operating Rating			
Type			1-Load Factor(LF)
Rating			43
(65) Inventory Rating Method			1-Load Factor(LF)
(66) Inventory Rating			
Type			6
Rating			26
(70) Bridge Posting			5-Equal to or above legal loads
(41) Structure Open/Posted/Closed			A-Open, no restriction
APPRAISAL			
(67) Structural Evaluation			6
(68) Deck Geometry			2
(69) Clearances, Vertical/Horizontal			N
(71) Waterway Adequacy			8
(72) Approach Roadway Alignment			6
(36) Traffic Safety Features			1111
A) Bridge Railings			1-Inspected feature meets currently a
B) Transitions			1-Inspected feature meets currently a
C) Approach Guardrail			1-Inspected feature meets currently a
D) Approach Guardrail Ends			1-Inspected feature meets currently a
(113) Scour Critical Bridges			5-Bridge foundations determined to be
PROPOSED IMPROVEMENTS			
(75) Type of Work			Replacement of bridge or other
(76) Length of Structure Improvement			211 ft
(94) Bridge Improvement Cost			\$ 0
(95) Roadway Improvement Cost			\$ 125
(96) Total Project Cost			\$ 508
(97) Year of Improvement Cost Estimate			2002
(114) Future ADT			6091
(115) Year of Future ADT			2028
INSPECTIONS			
(90) Inspection Date			
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No	24	
B: Underwater Inspection	Yes	0	
C: Other Special Inspection	No	0	



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood, Inspection Date: February 10, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	4680	3500	1179	1	0
1080	Delamination/Spall/Patched Area	SF	9	0	9	0	0
1130	Cracking (RC and Other)	SF	1171	0	1170	1	0
(38)	MINOR TO MODERATE DELAM, CRACKING, SCALE & MINOR SPALLING IN DECK. MINOR DIAGONAL CRACKING IN SIDES OF SLAB IN SPAN 3 AT PIER 4 RT. SIDE. SOFFIT IS GOOD. MINOR SPALLING W / REBAR EXPOSED IN BT. OF CURB AT DECK AT VARIOUS LOCATIONS DUE TO REBAR TOO CLOSE TO SURFACE.						
215	Reinforced Concrete Abutment	LF	50	25	25	0	0
6000	Scour	LF	25	0	25	0	0
(215)	MINOR EROSION AT ABUTMENTS.						
225	Steel Pile	EA	15	0	12	3	0
1000	Corrosion	EA	15	0	12	3	0
515	Steel Protective Coating	SF	360	100	110	100	50
3440	Effectiveness (Steel Protective Coatings)	SF	260	0	110	100	50
(225)	MINOR CHALKING & PEELING OF PAINT & RUST ON EXPOSED SECTIONS ON TOP OF PILES. MINOR SECTION LOSS AT TOP AT VARIOUS LOCATIONS. MINOR SCALE ON ENCASEMENTS.						
234	Reinforced Concrete Pier Cap	LF	120	100	16	4	0
1080	Delamination/Spall/Patched Area	LF	11	0	7	4	0
1130	Cracking (RC and Other)	LF	9	0	9	0	0
(234)	MINOR TO MODERATE CRACKING THROUGHOUT CAPS. MINOR SPALLING IN AHD FACES OF CAPS 2, 3, 4 & 6. REBAR EXPOSED IN CAP 3.						
301	Pourable Joint Seal	LF	130	46	0	84	0
2330	Seal Damage	LF	84	0	0	84	0
(301)	SEVERAL FEET OF JOINT MATERIAL MISSING AT ALL JOINTS.						
330	Metal Bridge Railing	LF	360	250	110	0	0
1000	Corrosion	LF	108	0	108	0	0
7000	Damage	LF	2	0	2	0	0
515	Steel Protective Coating	SF	1080	756	144	80	100

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
3440 (330)	Effectiveness (Steel Protective Coatings)	SF	324	0	144	80	100
MINOR RUST ON RAIL. POST AT ABUTMENT 1 RT. SIDE IS BROKE FROM IMPACT.							



Roadway



Typ. Condition of Deck.



Typ. Condition of Soffit.

Maintenance Needs

Date Reported: 02/16/2018

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Abut. #1 - Has undermining the full length of the abutment that extends back under abutment approx. 3 ft. in places.

Abut. #7 - Has minor undermining on the left end of the abutment that extends back under abutment approx. 1-2 ft. in places.

Remarks



Abut. #1 - undermining full length of abut. Extends back under abutment approx. 3 ft in places.



Abut. #7 - minor undermining on the left end approx. 7 ft.



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood Inspection Date: February 10, 2020

Date Reported: 02/16/2018

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

DECK / SLAB - MINOR TO MODERATE DELAM, CRACKING, SCALE & MINOR SPALLING IN DECK. MINOR DIAGONAL CRACKING IN SIDES OF SLAB IN SPAN 3 AT PIER 4 RT. SIDE. SOFFIT IS GOOD. MINOR SPALLING W / REBAR EXPOSED IN BT. OF CURB AT DECK AT VARIOUS LOCATIONS DUE TO REBAR TOO CLOSE TO SURFACE.

Remarks



Span #2 - unsealed cracks.



Typ Spalling in Deck.



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood Inspection Date: February 10, 2020



Typ. Cracking in Deck.



Minor Spalling in Bt. of Curb at Deck due to Rebar to close too Surface.



Delam, Cracking & Spalling in Side of Slab in Span
3 at Pier 4.

Date Reported: 02/16/2018
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Joint material is missing at several locations
Pier #2 - 15 ft. of joint material is missing.
Pier #3 - 18 ft. of joint material is missing.
Pier #4 - 24 ft. of joint material is missing.
Pier #5 - 15 ft. of joint material is missing.
Pier #6 - 12 ft. of joint material is missing.

Remarks



Joint at beginning of span 6 - 12 ft missing joint material

Date Reported: 02/21/2018
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

The approach roadway at the SE end of bridge is settling possibly due to erosion under the abutment.

Remarks



Abut #1 (SE end of bridge) Roadway settling.

Date Reported: 02/10/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: 234 - Reinforced Concrete Pier Cap

Deficiency Description

CAPS - MINOR TO MODERATE CRACKING & MINOR SPALLING IN AHD FACES OF CAPS 2, 3, 4 & 6. REBAR EXPOSED IN CAP 3.

Remarks



Typ. Vertical Cracking in Caps.



Typ. Spalling in Caps.

Date Reported: 02/10/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: 330 - Metal Bridge Railing

Deficiency Description

RAIL - MINOR RUST ON RAIL. POST AT ABUTMENT 1 RT. SIDE IS BROKE FROM IMPACT.

Remarks



Post Broken at Abutment 1 Rt. Side.



Typ. Rust on Rail.



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood **Inspection Date:** February 10, 2020

Date Reported: 02/10/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: 225 - Steel Pile

Deficiency Description

STEEL PILES - MINOR CHALKING & PEELING OF PAINT & RUST ON EXPOSED SECTIONS OF PILES.
MINOR SCALE ON ENCASEMENTS.

Remarks



Typ. Rust on Piles.



Bridge #05143(Routine, Underwater type 2)

SH 89 over Lake Conway

Location: 9.94 MI W PULASKI CO L

Team Lead: William Wood **Inspection Date:** February 10, 2020

Inspection Comments

Deck Notes

Substructure Notes