NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: prompt action request; sketches revised; span 2 and 3 total horizontal clearances revised

Structure Safety Report

Routine Element Inspection - Contract

STRUCTURE NUMBER: 110143 **SAP STRUCTURE NO:** 0120143 **FHWA STRUCTURE NO:** 000000000230143

DIVISION: 13 **COUNTY:** BURKE **INSPECTION DATE:** 08/24/2023 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1708 **MILE POST:**

LOCATION: .1 MI.N.JCT.SR1822

FEATURE INTERSECTED: I-40

LATITUDE: 35° 43' 26.64" **LONGITUDE:** 81° 38' 40.58"

SUPERSTRUCTURE: REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE: E.BTS:RC CAPS/TIMBER PILES;INT.BTS:RC POST&BEAM

SPANS: 4 SPANS. SEE SPAN PROFILE SHEET FOR SPAN DETAILS

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

GRADES: (Inspector/NBI Coding) **DECK** 6 / 6 **SUPERSTRUCTURE** 5 / 5 **SUBSTRUCTURE** 5 / 5 **CULVERT** N / N

POSTED SV: Not Posted **POSTED TTST:** Not Posted

OTHER SIGNS PRESENT: none

south approach looking north

Sign noticed issued for		Number Required
NO	**WEIGHT LIMIT**	0
NO	**DELINEATORS**	0
NO	**NARROW BRIDGE**	0
NO	**ONE LANE BRIDGE**	0
NO	**LOW CLEARANCE**	0

DIRECTION OF INSPECTION S-N

DIRECTION MATCHES PLANS

INSPECTED BY	SIGNATURE	ASSISTED BY
Hector Bonilla	Hector Bonilla	Juan Rodriguez

NATIONAL BRIDGE INVENTROY ----- STRUCTURE INVENTORY AND APPRAISAL

11/17/2023

IDENTIFICATION

(1) STATE NAME	NORTH CAROLINA	BRIDGE	**110143**
(8) STRUCTURE NUMBER (FEDERAL)			**0230143**
(5) INVENTORY ROUTE (ON/UNDER)	ON		**31017080**
(2) STATE HIGHWAY DEPARTMENT DISTRICT			**13**
(3) COUNTY CODE (FEDERAL)	**23**	(4) PLACE CODE	**44400**
(6) FEATURE INTERSECTED	**I-40**		
(7) FACILITY CARRIED	**SR1708**		
(9) LOCATION	**.1 MI.N.JCT.SR1822**		
(11) MILEPOINT			**0.0**
(12) BASE HIGHWAY NETWORK			**0**
(13) LRS INVENTORY ROUTE & SUBROUTE			**0**
(16) LATITUDE	**35° 43' 26.64"**	(17) LONGITUDE	**81° 38' 40.58"**
(98) BORDER BRIDGE STATE CODE		PERCENT SHARED	
(99) BORDER BRIDGE STRUCTURE NUMBER			

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN			**Steel**
TYPE	**Stringer/Multi-beam or girder**	CODE	**302**
(44) STRUCTURE TYPE APPROACH			
TYPE		CODE	
(45) NUMBER OF SPANS IN MAIN UNIT			**4**
(46) NUMBER OF SPANS IN APPROACH			**0**
(107) DECK STRUCTURE TYPE		CODE	**1**
(108)WEARING SURFACE/PROTECTIVE SYSTEM			
(A) TYPE OF WEARING SURFACE		CODE	**6**
(B) TYPE OF MEMBRANE		CODE	**0**
(C) TYPE OF DECK PROTECTION		CODE	**0**

AGE AND SERVICE

(27) YEAR BUILT			**1955**
(106) YEAR RECONSTRUCTED			**0**
(42) TYPE OF SERVICE ON -			**Highway**
OFF -	**Highway**	CODE	**11**
(28) LANES ON STRUCTURE	**2**	LANES UNDER STRUCTURE	**8**
(29) AVERAGE DAILY TRAFFIC			**1600**
(30) YEAR OF ADT	**2017**	(109) TRUCK ADT PCT	**7**
(19) BYPASS OR DETOUR LENGTH			**3.0**

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN			**54.0**
(49) STRUCTURE LENGTH			**204.0**
(50) CURB OR SIDEWALK: LEFT	**1.7**	RIGHT	**1.7**
(51) BRIDGE ROADWAY WIDTH, CURB TO CURB			**26.0**
(52) DECK WIDTH OUT TO OUT			**31.5**
(32) APPROACH ROADWAY WITH (W/ SHOULDERS)			**22.0**
(33) BRIDGE MEDIAN		CODE	**6**
(34) SKEW	**23**	(35) STRUCTURE FLARED	**0111**
(10) INVENTORY ROUTE MIN VERT CLEAR			**999.9**
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR			**0.0**
(53) MIN VERT CLEAR OVER BRIDGE RDWY			**999.9**
(54) MIN VERT UNDERCLEAR: REFERENCE	**H**		**15.1**
(55) MIN LAT UNDERCLEARANCE RT: REFERENCE	**H**		**9.5**
(56) MIN LAT UNDERCLEARANCE LT:			**13.3**

NAVIGATION DATA

(38) NAVIGATION CONTROL -	CODE	**5**
(111) PIER PROTECTION	CODE	
(39) NAVIGATION VERTICAL CLEARANCE		**0.0**
(116) VERT - LIFT BRIDGE NAV MIN VERT CLEAR		**0.0**
(40) NAVIGATION HORIZONTAL CLEARANCE		**0.0**

SUFFICIENCY RATING **68.03**

STATUS =

CLASSIFICATION

		CODE
(112) NBIS BRIDGE SYSTEM		**Y**
(104) HIGHWAY SYSTEM	**Inventory Route not on NHS**	**0**
(26) FUNCTIONAL CLASS	**Urban Local**	**19**
(100) STRAHNET HIGHWAY	**Not a STRAHNET Route**	**0**
(101) PARALLEL STRUCTURE		**0**
(102) DIRECTION OF TRAFFIC	**2-way traffic**	**2**
(103) TEMPORARY STRUCTURE		
(110) DESIGNATED NATIONAL NETWORK -	**on national network for trucks**	**0**
(20) TOLL	**On Free Road**	**3**
(21) MAINT -		**01**
(22) OWNER -		**01**
(37) HISTORICAL SIGNIFICANCE -		**5**

CONDITION

	CODE
(58) DECK	**6**
(59) SUPERSTRUCTURE	**5**
(60) SUBSTRUCTURE	**5**
(61) CHANNEL & CHANNEL PROTECTION	**N**
(62) CULVERTS	**N**

LOAD RATING AND POSTING

		CODE
(31) DESIGN LOAD	**HS 15**	**3**
(63) OPERATING RATING METHOD -	**Load Factor**	**1**
(64) OPERATING RATING -	**HS-28**	**50**
(65) INVENTORY RATING METHOD -		**1**
(66) INVENTORY RATING	**HS-17**	**30**
(70) BRIDGE POSTING	**No Posting Required**	**5**
(41) STRUCTURE OPEN, POSTED, OR CLOSED		**A**
DESCRIPTION	**Open, no restriction**	

APPRAISAL

	CODE
(67) STRUCTURAL EVALUATION	**5**
(68) DECK GEOMETRY	**N**
(69) UNDERCLEARANCES, VERT & HORIZ	**3**
(71) WATERWAY ADEQUACY	**N**
(72) APPROACH ROADWAY ALIGNMENT	**8**
(36) TRAFFIC SAFETY FEATURES	**N**
(113) SCOUR CRITICAL BRIDGES	**N**

PROPOSED IMPROVEMENTS

(75) TYPE OF WORK	CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT	
(94) BRIDGE IMPROVEMENT COST	
(95) ROADWAY IMPROVEMENT COST	
(96) TOTAL PROJECT COST	
(97) YEAR OF IMPROVEMENT COST ESTIMATE	
(114) FUTURE ADT **3,200**	YEAR OF FUTURE ADT **2040**

INSPECTION

(90) INSPECTION DATE	**08/23**	(91) FREQUENCY	**24**
(92) CRITICAL FEATURE INSPECTION		(93) CFI DATE	
A) FRACTURE CRIT DETAIL		A)	
B) UNDERWATER INSP		B)	
C) OTHER SPECIAL INSP		C)	
SCOUR			

Structure Number **110143** County **BURKE** Run Date **11/17/2023**

Span Number	Facility Carried	Inventory Route	Maximum Minimum Vertical Clearance	Milepoint	Base Highway	LRS Inventory Route	Functional Classification	Number of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	*See Note Below*					STRAHNET Highway	Direction of Traffic	National Highway System	National Truck Network
												Reference Feature	Minimum Vertical Underclearance	Rigth Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade				
	7	5	10	11	12	13	26	28	29	30	47	54A	54	55	56	69	100	102	104	110
2	I 40 EBL	11000400	16.7	105.9	1	10040	11	2	22000	2015	41.3	H	16.2	9.6	13.2	3		1	☐	☐
3	I 40 WBL	11000400	15.3	105.9	1	10040	11	2	22000	2015	41.3	H	15.1	9.5	13.3	3		1	☐	☐

Note: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69.

Superstructure Build Details

Span Number 1 **Span Length** 50.000 **Skew** 113.000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
4	Fixed Bearing	Fixed Bearing	4 Each	Legacy Non Lead Primer System with various Topcoats	4
1	Reinforced Concrete Deck	Reinforced Concrete Deck	1475 Square Feet		
4	Plate Girder	Steel Open Girder/Beam	216 Feet	Legacy Non Lead Primer System with various Topcoats	2148
1	Asphalt Wearing Surface	Wearing Surface	1300 Square Feet		
4	Movable Bearing	Movable Bearing	4 Each	Legacy Non Lead Primer System with various Topcoats	4
2	Concrete Railing	Reinforced Concrete Bridge Railing	100 Feet		

Span Number 2 **Span Length** 55.000 **Skew** 113.000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
2	Concrete Railing	Reinforced Concrete Bridge Railing	110 Feet		
1	Asphalt Wearing Surface	Wearing Surface	1430 Square Feet		
1	Reinforced Concrete Deck	Reinforced Concrete Deck	1623 Square Feet		
4	Plate Girder	Steel Open Girder/Beam	220 Feet	Legacy Non Lead Primer System with various Topcoats	2172
4	Fixed Bearing	Fixed Bearing	4 Each	Legacy Non Lead Primer System with various Topcoats	4
4	Movable Bearing	Movable Bearing	4 Each	Legacy Non Lead Primer System with various Topcoats	4
1	Standard Joint	Pourable Joint Seal	29 Feet		

Span Number 3 **Span Length** 55.000 **Skew** 113.000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
1	Reinforced Concrete Deck	Reinforced Concrete Deck	1623 Square Feet		
4	Fixed Bearing	Fixed Bearing	4 Each	Legacy Non Lead Primer System with various Topcoats	4
4	Plate Girder	Steel Open Girder/Beam	220 Feet	Legacy Non Lead Primer System with various Topcoats	2180
1	Standard Joint	Pourable Joint Seal	29 Feet		

Superstructure Build Details

4	Movable Bearing	Movable Bearing	4	Each	Legacy Non Lead Primer System with various Topcoats	4
2	Concrete Railing	Reinforced Concrete Bridge Railing	110	Feet		
1	Asphalt Wearing Surface	Wearing Surface	1430	Square Feet		

Span Number 4 **Span Length** 44.000 **Skew** 113.000

Number of Items	Type of Component	Element Name	Quantity		Protective System Applied	Quantity (Sq Ft)
4	Movable Bearing	Movable Bearing	4	Each	Legacy Non Lead Primer System with various Topcoats	4
1	Asphalt Wearing Surface	Wearing Surface	1144	Square Feet		
2	Concrete Railing	Reinforced Concrete Bridge Railing	88	Feet		
4	Fixed Bearing	Fixed Bearing	4	Each	Legacy Non Lead Primer System with various Topcoats	4
1	Standard Joint	Pourable Joint Seal	29	Feet		
4	Plate Girder	Steel Open Girder/Beam	172	Feet	Legacy Non Lead Primer System with various Topcoats	1708
1	Reinforced Concrete Deck	Reinforced Concrete Deck	1298	Square Feet		

Structure Element Scoring

Structure Number: **110143**

Inspection Date **8/24/2023**

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
12		Reinforced Concrete Deck	Deck	6,019	4,884	1,110	25	0
107		Steel Open Girder/Beam	Beam	828	798	8	22	0
515	107	Steel Protective Coating	Beam	8,208	8,178	0	6	24
205		Reinforced Concrete Column	Piles and Columns	6	0	2	4	0
215		Reinforced Concrete Abutment	Abutments	70	66	0	4	0
220		Reinforced Concrete Pile Cap/Footing	Footing	24	24	0	0	0
228		Timber Pile	Piles and Columns	17	17	0	0	0
234		Reinforced Concrete Pier Cap	Caps	152	89	52	10	1
301		Pourable Joint Seal	Expansion Joints	87	87	0	0	0
311		Movable Bearing	Bearing Device	16	0	16	0	0
515	311	Steel Protective Coating	Bearing Device	16	0	1	8	7
313		Fixed Bearing	Bearing Device	16	4	11	1	0
515	313	Steel Protective Coating	Bearing Device	16	4	0	8	4
331		Reinforced Concrete Bridge Railing	Bridge Rail	408	408	0	0	0
510		Wearing Surface	Wearing Surfaces	5,304	5,178	0	126	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: **110143** Inspection Date: **08/24/2023**

MMS Code	Element Name	Defect Name	Recommended Quantity
3326	Reinforced Concrete Deck	Delamination/Spall	25 Square Feet
3326	Reinforced Concrete Deck	Cracking (RC and Other)	1110 Square Feet
3314	Steel Open Girder/Beam	Corrosion	22 Feet
3314	Steel Open Girder/Beam	Connection	1 Feet
3348	Reinforced Concrete Column	Cracking (RC and Other)	3 Each
3348	Reinforced Concrete Column	Delamination/Spall	4 Each
3350	Reinforced Concrete Abutment	Delamination/Spall	4 Feet
3348	Reinforced Concrete Pier Cap	Exposed Rebar	7 Feet
3348	Reinforced Concrete Pier Cap	Delamination/Spall	8 Feet
3334	Fixed Bearing	Corrosion	1 Each
2816	Wearing Surface	Crack (Wearing Surface)	126 Square Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	58 Square Feet

Element Structure Maintenance Quantities

Structure Number: **110143** Inspection Date **08/24/2023**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Beam	3314	Maintenance Steel Superstructure Components	23	828	0.000	22.000	8.000	798.000
Beam	3342	Clean and Paint Steel	30	8208	24.000	6.000	0.000	8178.000
Bearing Device	3334	Bridge Bearing	0	16	0.000	0.000	16.000	0.000
Bearing Device	3334	Bridge Bearing	1	16	0.000	1.000	11.000	4.000
Bearing Device	3342	Clean and Paint Steel	16	16	7.000	8.000	1.000	0.000
Bearing Device	3342	Clean and Paint Steel	12	16	4.000	8.000	0.000	4.000
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	0	408	0.000	0.000	0.000	408.000
Deck	3326	Maintenance of Concrete Deck	1135	6019	0.000	25.000	1110.000	4884.000
Expansion Joints	3310	Maintenance of Standard Bridge Expansion Joints	0	87	0.000	0.000	0.000	87.000
Wearing Surfaces	2816	Asphalt Surface Repair	126	5304	0.000	126.000	0.000	5178.000
Abutments	3350	Maintenance of Concrete Wings and Wall	4	70	0.000	4.000	0.000	66.000
Caps	3348	Maintenance of Concrete Substructure	15	152	1.000	10.000	52.000	89.000
Footing	3348	Maintenance of Concrete Substructure	0	24	0.000	0.000	0.000	24.000
Piles and Columns	3344	Maintenance To Timber Substructure	0	17	0.000	0.000	0.000	17.000
Piles and Columns	3348	Maintenance of Concrete Substructure	7	6	0.000	4.000	2.000	0.000

Priority Actions Request

Structure Number **110143**

Span1

3326 **Deck** Reinforced Concrete Deck

Priority Level	Defect Type	Quantity	Defect Description
2	Delamination/Spall	2	Span 1 Deck: (PAR) 1 FOOT X UP TO 1 FOOT X 1 INCH DEEP SPALL/DELAMINATION WITH EXPOSED REINFORCING WEST OVERHANG 15 FOOT FROM BENT 1
2	Delamination/Spall	2	Span 1 Deck: (PAR) TWO [2] UP TO 1 FOOT X UP TO 4 INCH X 1 INCH DEEP SPALLS WITH EXPOSED REINFORCING EAST OVERHANG NEAR MIDSPAN

3314 **Beam 1** Plate Girder

Priority Level	Defect Type	Quantity	Defect Description
2	Connection	0	Span 1 Beam 1: (PAR) 2 FOOT X UP TO 1 FOOT X 2 INCH DEEP DIAPHRAGM SPALL/DELAMINATION WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS WEST OVERHANG AT BENT 1.

Span2

3326 **Deck** Reinforced Concrete Deck

Priority Level	Defect Type	Quantity	Defect Description
2	Delamination/Spall	3	Span 2 Deck: (PAR) along underside of left overhang, two [2] spalls [up to 18 inch x 12 inch x 1 inch deep] with exposed rusted reinforcing [no loss]

Span3

3326 **Deck** Reinforced Concrete Deck

Priority Level	Defect Type	Quantity	Defect Description
2	Delamination/Spall	5	Span 3 Deck: (PAR) MULTIPLE UP TO 1 FOOT X 1 FOOT X 1 INCH DEEP SPALLS/DELAMINATIONS WITH EXPOSED REBAR AT RANDOM THROUGHOUT EAST OVERHANG; SOME DELAMINATIONS OVER TRAVEL LANE
2	Delamination/Spall	13	Span 3 Deck: (PAR) MULTIPLE UP TO 2 FOOT X 1 FOOT X 1 DEEP SPALL/DELAMINATION WITH EXPOSED REBAR AT RANDOM THROUGHOUT WEST OVERHANG; SOME DELAMINATION OVER TRAVEL LANES

3314 **Beam 1** Plate Girder

Priority Level	Defect Type	Quantity	Defect Description
2	Connection	1	Span 3 Beam 1: (PAR) at bent 3 left overhang end diaphragm, spall/delamination [full height x up to 12 inch x up to 1.5 inch deep] with exposed rusted reinforcing [up to 1/8 inch section loss]

Bent 2

? Priority Action Request (PAR) 1 Assigned Routine Maintenance 2 Assigned Priority Maintenance 3 Assigned Critical Find

Priority Actions Request

Structure Number 110143

3348 **Cap 1** Reinforced Concrete Pier Cap

Priority Level	Defect Type	Quantity	Defect Description
2	Exposed Rebar	6	End Bent 2 Cap 1: (PAR) 6 FOOT X UP TO 16 INCH X 10 INCH X 3 INCH DEEP SPALL WITH EXPOSED PRIMARY REBAR WITH SECTION LOSS [UP TO 1/16 INCH] UNDER BEAM 1

Bent 3

3348 **Cap 1** Reinforced Concrete Pier Cap

Priority Level	Defect Type	Quantity	Defect Description
2	Exposed Rebar	1	Bent 3 Cap 1: (PAR) 12 INCH X 24 INCH X 2 INCH DEEP SPALL WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS SOUTHEAST CORNER

Approach Guardrail and Barriers

3120 **Approach Guardrail and Barriers** Approach Guardrail and Barriers

Priority Level	Defect Type	Quantity	Defect Description
2		8	(PAR) along all guardrails, timber spacers, loose/twisted
2		7	(PAR) northeast guardrail 18 foot from termination, impact damage (7 foot)
2		6	(PAR) northeast guardrail 4 foot from attachment, impact damage (6 foot)
2		2	(PAR) northeast guardrail, 3rd and 7th timber posts from end bent 2, timber spacers, missing
2		1	(PAR) northwest guardrail attachment, improper lap
2		1	(PAR) northwest guardrail termination, impact damage
2		3	(PAR) northwest guardrail, 1st, 7th and 8th timber posts from end bent 2, timber spacers, missing
2		1	(PAR) southeast guardrail attachment, improper lap

Element Condition and Maintenance Data

Structure Number: **110143** Inspection Date: **08/24/2023**

Span 1 Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	1,475	1,071	400	4	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 12	Delamination/Spall	(PAR) [2] UP TO 1 FOOT X UP TO 4 INCH X 1 INCH DEEP SPALLS WITH EXPOSED REINFORCING EAST OVERHANG NEAR MIDSPAN	3	2	2	Square Feet
☑ 12	Delamination/Spall	(PAR) 1 FOOT X UP TO 1 FOOT X 1 INCH DEEP SPALL/DELAMINATION WITH EXPOSED REINFORCING WEST OVERHANG 15 FOOT FROM BENT 1	3	2	2	Square Feet
☑ 12	Cracking (RC and Other)	throughout underside of all bays, multiple transverse cracks [up to 8 foot x 1/32 inch] and map cracks (hairline) at random	2	400	400	Square Feet

General Comments

Span 1 Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	54	53	0	1	0	Feet
515	Steel Protective Coating	537	536	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 107	Connection	(PAR) 2 FOOT X UP TO 1 FOOT X 2 INCH DEEP DIAPHRAGM SPALL/DELAMINATION WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS WEST OVERHANG AT BENT 1.	3			Feet
☑ 107	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 4 inch)	3	1	1	Feet
☑ 515	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 1 Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	54	53	0	1	0	Feet
515	Steel Protective Coating	537	536	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 107	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 8 inch x 1 inch)	3	1	1	Feet
☑ 515	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 1 Beam 3

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	54	53	0	1	0	Feet
515	Steel Protective Coating	537	536	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 1 Beam 4

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	54	53	1	0	0	Feet
515	Steel Protective Coating	537	536	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 1, web adjacent to end diaphragm, rust scale (10 inch)	2	1		Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	rust scale	4	1	1	Square Feet

General Comments

Span 1 Far Bearing 1

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	surface rust	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 1 — Far Bearing 2

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 311	Corrosion	surface rust/rust scale	2	1		Each
☑ 515	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing 3

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 311	Corrosion	surface rust/rust scale	2	1		Each
☑ 515	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing 4

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 311	Corrosion	surface rust	2	1		Each
☑ 515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 1 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,300	1,288	0	12	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 510	Crack (Wearing Surface)	over end bent 1, right travel lane, transverse crack (1/16 inch x 12 foot)	3	12	12	Square Feet

General Comments

Span 2 Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	1,623	1,460	160	3	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**12**	Delamination/Spall	(PAR) along underside of left overhang, two [2] spalls [up to 18 inch x 12 inch x 1 inch deep] with exposed rusted reinforcing [no loss]	3	3	3	Square Feet
☑	**12**	Cracking (RC and Other)	throughout underside of all bays, multiple transverse cracks [up to 8 foot x 1/32 inch] and map cracks (hairline) at random	2	160	160	Square Feet

General Comments

Span 2 Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	543	541	0	0	2	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**107**	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑	**107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 3 inch)	3	1	1	Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 2 Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	543	541	0	0	2	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**107**	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 4 inch)	3	1	1	Feet
☑	**107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 4 inch x 1 inch)	3	1	1	Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 2 Beam 3

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	543	541	0	0	2	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**107**	Corrosion	at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑	**107**	Corrosion	at bent 2, active corrosion with section loss, web at diaphragm [9 inch x 1 inch x average remaining 1/2 inch]	3	1	1	Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 2 Beam 4

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	1	1	0	Feet
515	Steel Protective Coating	543	541	0	0	2	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑	**107**	Corrosion	at bent 1, web adjacent to end diaphragm, rust scale (10 inch x 15 inch)	2	1		Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	rust scale/corrosion with section loss	4	2	2	Square Feet

General Comments

Span 2 Expansion Joint 1

Standard Joint

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourable Joint Seal	29	29	0	0	0	Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☐	**301**	Seal Adhesion	new asphalt wearing surface at time of inspection - 8/25/21	1			Feet

General Comments

Span 2 — Near Bearing 1

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	313	Corrosion	surface rust	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 2 — Far Bearing 1

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	311	Corrosion	surface rust	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 2 — Near Bearing 2

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	313	Corrosion	surface rust	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 2 — Far Bearing 2

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	311	Corrosion	surface rust	2	1		Each

☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet	

General Comments

Span 2 — Near Bearing 3

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **313**	Corrosion	surface rust/rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 2 — Far Bearing 3

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	surface rust/rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 2 — Near Bearing 4

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **313**	Corrosion	surface rust	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 2 — Far Bearing 4

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**311**	Corrosion	surface rust	2	1		Each
☑	**515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 2 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,430	1,402	0	28	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**510**	Crack (Wearing Surface)	over bent 1, transverse crack (up to 1/16 inch x 28 foot)	3	28	28	Square Feet
☐	**510**	Patched Area/Pothole (Wearing Surface)	new asphalt wearing surface at time of inspection - 8/25/21	1			Square Feet

General Comments

Span 3 — Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	1,623	1,455	150	18	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**12**	Delamination/Spall	(PAR) MULTIPLE UP TO 1 FOOT X 1 FOOT X 1 INCH DEEP SPALLS/DELAMINATIONS WITH EXPOSED REBAR AT RANDOM THROUGHOUT EAST OVERHANG; SOME DELAMINATIONS OVER TRAVEL LANE	3	5	5	Square Feet
☑	**12**	Delamination/Spall	(PAR) MULTIPLE UP TO 2 FOOT X 1 FOOT X 1 DEEP SPALL/DELAMINATION WITH EXPOSED REBAR AT RANDOM THROUGHOUT WEST OVERHANG; SOME DELAMINATION OVER TRAVEL LANES	3	13	13	Square Feet
☑	**12**	Cracking (RC and Other)	throughout underside of all bays, multiple transverse cracks [up to 8 foot x 1/32 inch] and map cracks (hairline) at random	2	150	150	Square Feet
☑	**12**	Delamination/Spall	(combined with other notes 2023) along underside of West overhang, two [2] delaminations [up to 13 inch x 6 inch]	1			Square Feet
☐	**12**	Delamination/Spall	DUPLICATE DEFECT 8-8-2019	1			Square Feet

General Comments

Span 3 Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	545	543	0	0	2	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Connection	(PAR) at bent 3 left overhang end diaphragm, spall/delamination [full height x up to 12 inch x up to 1.5 inch deep] with exposed rusted reinforcing [up to 1/8 inch section loss]	3		1	Feet
☑ **107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 3 inch)	3	1	1	Feet
☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 9 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 3 Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	545	543	0	0	2	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 4 inch); bottom flange (0.80 inch average remaining x 1 inch)	3	1	1	Feet
☑ **107**	Corrosion	at bent 3, corrosion with pitting: web adjacent to end diaphragm (1/16 inch deep x 10 inch x 9 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 3 Beam 3

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	52	1	2	0	Feet
515	Steel Protective Coating	545	543	0	0	2	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 2, active corrosion with section loss, web at diaphragm [10 inch x 1 inch x average remaining 9/16 inch]	3	1	1	Feet

☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 6 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet

General Comments

Span 3 Beam 4

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	55	53	0	2	0	Feet
515	Steel Protective Coating	545	542	0	1	2	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 23 inch)	3	1	1	Feet
☑ **107**	Damage	over right travel lane, impact scrapes	2			Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	2	2	Square Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	over right travel lane, impact scrapes	3	1	1	Square Feet

General Comments

Span 3 Expansion Joint 2

Standard Joint

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourable Joint Seal	29	29	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☐ **301**	Seal Adhesion	new asphalt wearing surface at time of inspection - 8/25/21	1			Feet

General Comments

Span 3 Near Bearing 1

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **313**	Corrosion	surface rust/rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 3 — Far Bearing 1

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	1	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	FRECKLED RUST	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	FRECKLED RUST	2	1	1	Square Feet

General Comments

Span 3 — Near Bearing 2

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **313**	Corrosion	surface rust	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 3 — Far Bearing 2

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	surface rust/rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 3 — Near Bearing 3

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

☑ **313**	Corrosion	rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	rust scale	4	1	1	Square Feet

General Comments

Span 3 — Far Bearing 3

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	surface rust	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 3 — Near Bearing 4

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **313**	Corrosion	surface rust	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 3 — Far Bearing 4

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **311**	Corrosion	surface rust/rust scale	2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 3 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,430	1,402	0	28	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**510**	Crack (Wearing Surface)	over bent 2, transverse crack (1/16 inch x 28 foot)	3	28	28	Square Feet
☐	**510**	Patched Area/Pothole (Wearing Surface)	new asphalt wearing surface at time of inspection - 8/25/21	1			Square Feet

General Comments

Span 4 — Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	1,298	898	400	0	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**12**	Cracking (RC and Other)	throughout underside of all bays, multiple transverse cracks [up to 8 foot x 1/32 inch] and map cracks (hairline) at random	2	400	400	Square Feet

General Comments

Span 4 — Beam 1

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	43	37	5	1	0	Feet
515	Steel Protective Coating	427	421	0	5	1	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑	**107**	Corrosion	West top flange at midspan, active surface corrosion [no loss]	2	5		Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet
☑	**515**	Effectiveness (Steel Protective Coatings)	top flange at midspan, surface corrosion present	3	5	5	Square Feet

General Comments

Span 4 — Beam 2

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	43	42	0	1	0	Feet
515	Steel Protective Coating	427	426	0	0	1	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 11 inch x 3 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 4 Beam 3

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	43	42	0	1	0	Feet
515	Steel Protective Coating	427	426	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 4 Beam 4

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	43	42	0	1	0	Feet
515	Steel Protective Coating	427	426	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **107**	Corrosion	at bent 3, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)	3	1	1	Feet
☑ **515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 4 Expansion Joint 3

Standard Joint

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourable Joint Seal	29	29	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☐ **301**	Seal Adhesion	new asphalt wearing surface at time of inspection - 8/25/21	1			Feet

General Comments

Span 4 — Right Bridge Rail

Concrete Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
331	Reinforced Concrete Bridge Railing	44	44	0	0	0	Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☐	**331**	Patched Area	MOVED TO General Comments and Misc. Items:	1			Square Feet

General Comments

Span 4 — Near Bearing 1

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**311**	Corrosion	surface rust	2	1		Each
☑	**515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 4 — Far Bearing 1

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	0	1	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**313**	Corrosion	painted over section loss (up to 1/8 inch deep) with corrosion reactivating	3	1	1	Each
☑	**515**	Effectiveness (Steel Protective Coatings)	corrosion with section loss	4	1	1	Square Feet

General Comments

Span 4 — Near Bearing 2

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**311**	Corrosion	surface rust	2	1		Each
☑	**515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 4 — Far Bearing 2

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	313	Corrosion	surface rust	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 4 — Near Bearing 3

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	311	Corrosion	surface rust/rust scale	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust/rust scale	4	1	1	Square Feet

General Comments

Span 4 — Far Bearing 3

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	313	Corrosion	surface rust	2	1		Each
☑	515	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 4 — Near Bearing 4

Movable Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	0	1	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

☑ **311**	Corrosion	SURFACE RUST/RUST SCALE		2	1		Each
☑ **515**	Effectiveness (Steel Protective Coatings)	surface rust/rust scale		4	1	1	Square Feet

General Comments

Span 4 — Far Bearing 4

Fixed Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Bearing	1	0	1	0	0	Each
515	Steel Protective Coating	1	0	0	1	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**313**	Corrosion	surface rust	2	1		Each
☑	**515**	Effectiveness (Steel Protective Coatings)	surface rust	3	1	1	Square Feet

General Comments

Span 4 — Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	1,144	1,086	0	58	0	Square Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**510**	Crack (Wearing Surface)	over bent 3 and end bent 2, transverse cracks (up to 1/16 inch x 28 foot)	3	58	58	Square Feet
☐	**510**	Crack (Wearing Surface)	new asphalt wearing surface at time of inspection - 8/25/21	1			Square Feet
☐	**510**	Patched Area/Pothole (Wearing Surface)	new asphalt wearing surface at time of inspection - 8/25/21	1			Square Feet

General Comments

End Bent 1 — Abutment

Reinforced Concrete Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
215	Reinforced Concrete Abutment	35	31	0	4	0	Feet

	Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑	**215**	Delamination/Spall	at all beam penetrations, multiple delaminations [up to 9 inch x 2 inch] with cracks (up to 1/4 inch)	3	4	4	Feet

General Comments

End Bent 1 Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	34	26	8	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **234**	Cracking (RC and Other)	along length, multiple vertical cracks [up to full height x 1/32 inch]	2	8		Feet

General Comments

Bent 1 Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	28	7	18	3	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **234**	Delamination/Spall	BOTTOM FACE OF CAP RIGHT SIDE OF COLUMN 1 HAS A SURFACE SPALL AREA 3 INCH WIDE X 10 INCH LONG X 1/2 INCH DEEP WITH REBAR EXPOSED.	3	1	1	Feet
☑ **234**	Delamination/Spall	South face at West end, spall [15 inch x 3 inch x 1 inch deep] with exposed rusted reinforcing [no loss] and adjacent delamination at underside [1 foot x full width]	3	2	2	Feet
☑ **234**	Cracking (RC and Other)	along the length of the cap, vertical cracks (up to 1/32 inch x full height) and map cracks (hairline) at random	2	8		Feet
☑ **234**	Cracking (RC and Other)	BENT 1 SOUTH FACE OF CAP HAS A HORIZONTAL CRACK UP TO 1/32 INCH X 3 FOOT ALONG TOP EDGE BETWEEN BEAMS 2 AND BEAMS 3.	2	6		Feet
☑ **234**	Delamination/Spall	6 INCH DIAMETER X 1/2 INCH DEEP SPALL WITH EXPOSED REINFORCING SOUTH FACE OF CAP BELOW BEAM 2	2	1	1	Feet
☑ **234**	Delamination/Spall	BENT 1 SOUTH FACE OF CAP BETWEEN BEAM 1 AND BEAM 2 CRACKED AND DELAMINATED AREA TOP FACE OF CAP 11 INCH X 31 INCH	2	3	3	Feet

General Comments

Bent 1 Pile 1

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **205**	Cracking (RC and Other)	UP TO 7 FOOT X UP TO 1/16 INCH VERTICAL CRACKS WEST AND EAST FACES	3	1	1	Each
☑ **205**	Delamination/Spall	6 INCH X 6 INCH X 1 INCH DEEP CORNER SPALL NORTHWEST CORNER 5 FOOT FROM BOTTOM OF CAP	2		1	Each

General Comments

Bent 1 Pile 2

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **205**	Cracking (RC and Other)	UP TO 3 FOOT X 1/16 INCH VERTICAL CRACKS ALL FACES NEAR BOTTOM OF CAP	3	1	1	Each

General Comments

Bent 2 Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	28	20	8	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **234**	Cracking (RC and Other)	along the length of the cap, vertical cracks (up to 1/32 inch x full height) and map cracks (hairline) at random	2	8		Feet

General Comments

Bent 2 Pile 1

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **205**	Cracking (RC and Other)	FULL HEIGHT X UP TO 1/32 INCH VERTICAL CRACKS WEST AND NORTH FACES BEGINNING AT BOTTOM OF CAP	2	1		Each

General Comments

Bent 2 Pile 2

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **205**	Delamination/Spall	South face starting at ground line, vertical crack (1/32 inch x full height); 2 foot from ground, spall (8 inch x 5 inch x 1/2 inch deep) with exposed rusted rebar	3	1	1	Each
☑ **205**	Delamination/Spall	West face mid height, delamination [6 foot x 18 inch] with cracks [up to 1/32 inch]	2		1	Each

General Comments

End Bent 2 Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	34	18	10	6	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 234	Exposed Rebar	(PAR) 6 FOOT X UP TO 16 INCH X 10 INCH X 3 INCH DEEP SPALL WITH EXPOSED PRIMARY REBAR WITH SECTION LOSS [UP TO 1/16 INCH] UNDER BEAM 1	3	6	6	Feet
☑ 234	Cracking (RC and Other)	along length, multiple vertical cracks [up to full height x 1/64 inch] at random	2	10		Feet

General Comments

Bent 3 Cap 1

Reinforced Concrete Pier Cap

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinforced Concrete Pier Cap	28	18	8	1	1	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 234	Exposed Rebar	(PAR) 12 INCH X 24 INCH X 2 INCH DEEP SPALL WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS SOUTHEAST CORNER	4	1	1	Feet
☑ 234	Delamination/Spall	NORTH FACE OF CAP UNDER BEAM 1 HAS A 9 INCH X 11 INCH X 2 INCH DEEP SPALL AT TOP OF CAP.	3	1	1	Feet
☑ 234	Cracking (RC and Other)	along the length of the cap, vertical cracks (up to 1/32 inch x full height) and map cracks (hairline) at random	2	8		Feet

General Comments

Bent 3 Pile 1

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ 205	Cracking (RC and Other)	at East face, hairline map cracking at random	2			Each
☑ 205	Cracking (RC and Other)	at West face, (2) vertical cracks [up to 3 foot x 1/32 inch]	2	1		Each

General Comments

Bent 3 Pile 2

Reinforced Concrete Column

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinforced Concrete Column	1	0	0	1	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
☑ **205**	Cracking (RC and Other)	west face, delamination (1 foot x full height) with cracks (up to 1/16 inch)	3	1	1	Each
☑ **205**	Delamination/Spall	BOTTOM OF COLUMN 2 NORTHEAST CORNER HAS A SPALL AREA 5 INCH X 8 INCH X 1 INCH DEEP.	3		1	Each

General Comments

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 1	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1475
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	54
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	54
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	54
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	54
Span 1	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	50
Span 1	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	50
Span 1	Near Bearing 1	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing 1	Movable Bearing	Movable Bearing	1
Span 1	Far Bearing 2	Movable Bearing	Movable Bearing	1
Span 1	Near Bearing 2	Fixed Bearing	Fixed Bearing	1
Span 1	Near Bearing 3	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing 3	Movable Bearing	Movable Bearing	1
Span 1	Far Bearing 4	Movable Bearing	Movable Bearing	1
Span 1	Near Bearing 4	Fixed Bearing	Fixed Bearing	1
Span 2	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1623
Span 2	Beam 1	Plate Girder	Steel Open Girder/Beam	55
Span 2	Beam 2	Plate Girder	Steel Open Girder/Beam	55
Span 2	Beam 3	Plate Girder	Steel Open Girder/Beam	55
Span 2	Beam 4	Plate Girder	Steel Open Girder/Beam	55
Span 2	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	55
Span 2	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	55
Span 2	Expansion Joint 1	Standard Joint	Pourable Joint Seal	29
Span 2	Far Bearing 1	Movable Bearing	Movable Bearing	1
Span 2	Near Bearing 1	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing 2	Fixed Bearing	Fixed Bearing	1
Span 2	Far Bearing 2	Movable Bearing	Movable Bearing	1
Span 2	Far Bearing 3	Movable Bearing	Movable Bearing	1
Span 2	Near Bearing 3	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing 4	Fixed Bearing	Fixed Bearing	1
Span 2	Far Bearing 4	Movable Bearing	Movable Bearing	1
Span 3	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1623
Span 3	Beam 1	Plate Girder	Steel Open Girder/Beam	55
Span 3	Beam 2	Plate Girder	Steel Open Girder/Beam	55
Span 3	Beam 3	Plate Girder	Steel Open Girder/Beam	55
Span 3	Beam 4	Plate Girder	Steel Open Girder/Beam	55
Span 3	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	55
Span 3	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	55
Span 3	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1430
Span 3	Near Bearing 1	Fixed Bearing	Fixed Bearing	1
Span 3	Far Bearing 1	Movable Bearing	Movable Bearing	1
Span 3	Far Bearing 2	Movable Bearing	Movable Bearing	1
Span 3	Near Bearing 2	Fixed Bearing	Fixed Bearing	1
Span 3	Near Bearing 3	Fixed Bearing	Fixed Bearing	1
Span 3	Far Bearing 3	Movable Bearing	Movable Bearing	1

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 3	Far Bearing 4	Movable Bearing	Movable Bearing	1
Span 3	Near Bearing 4	Fixed Bearing	Fixed Bearing	1
Span 4	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1298
Span 4	Beam 1	Plate Girder	Steel Open Girder/Beam	43
Span 4	Beam 2	Plate Girder	Steel Open Girder/Beam	43
Span 4	Beam 3	Plate Girder	Steel Open Girder/Beam	43
Span 4	Beam 4	Plate Girder	Steel Open Girder/Beam	43
Span 4	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	44
Span 4	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	44
Span 4	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1144
Span 4	Near Bearing 1	Movable Bearing	Movable Bearing	1
Span 4	Far Bearing 1	Fixed Bearing	Fixed Bearing	1
Span 4	Far Bearing 2	Fixed Bearing	Fixed Bearing	1
Span 4	Near Bearing 2	Movable Bearing	Movable Bearing	1
Span 4	Near Bearing 3	Movable Bearing	Movable Bearing	1
Span 4	Far Bearing 3	Fixed Bearing	Fixed Bearing	1
Span 4	Far Bearing 4	Fixed Bearing	Fixed Bearing	1
Span 4	Near Bearing 4	Movable Bearing	Movable Bearing	1
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
Bent 1	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 1	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
End Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	34
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	35
Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
Bent 2	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 2	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1
End Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	34
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	35
Bent 3	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
Bent 3	Pile 1	Reinforced Concrete Column	Reinforced Concrete Column	1
Bent 3	Pile 2	Reinforced Concrete Column	Reinforced Concrete Column	1

General Inspection Notes

National Bridge and NC Inspection Items

Structure Number: 110143 **Inspection Date:** 08/24/2023

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	**6**
Item 59: Superstructure	0 - 9 , N	**5**
Item 60: Substructure	0 - 9 , N	**5**
Item 61: Channel and Channel Protection	0 - 9 , N	**N**
Item 62: Culvert	0 - 9 , N	**N**
Item 71: Waterway Adequacy	0 - 9 , N	**N**
Item 72: Approach Roadway Alignment	0 - 9 , N	**8**

Note:

Items 58,59,60,62 reflect this inspection only.

For overall NBI coding grade, see cover sheet.

Note: If NBI Inspection Item is not present, code NBI item with "N"

NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	**F**	**6019**	**3376**
Drainage System	G, F, P, or C	**F**	**0**	**3332**
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	**G**	**0**	**3352**
Scour	G, F, P, or C			
Wingwall	G, F, P, or C	**G**	**0**	**3350**
Field Scour Evaluation				
Drift	G, F, P, or C		**0**	**3366**
Fender System	G, F, P, or C		**0**	**3364**
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	**G**		
Superstructure Paint Code		**B**		

Note: If NC SMU Insepction Item is not present, leave NC SMU item blank

Inspection Information

Item	Grade Scale	Grade
Sign Noticed Issued	YES/NO	**N**
Priority Maintenance Request Submitted	YES/NO	**Y**
Inspection Time	Hours	**8**
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	**Y**
Bucket Truck Used	YES/NO	**N**
Boat Used	YES/NO	**N**
Other Equipment Used	YES/NO	**N**
Portion of Structure in > 3' of water	YES/NO	**N**

National Bridge and NC SMU Inspection Item Details

Structure Number: 110143 **Inspection Date:** 08/24/2023

Item	Deck Debris	**Grade**	F	**Maint Code**	3376	**Qty.**	6019
Details	along curblines, debris accumulation (full length x up to 1 foot) with vegetation growth						

Item	Drainage System	**Grade**	F	**Maint Code**	3332	**Qty.**	0
Details	see deck debris						

Item	General Comments and Misc Items	**Grade**		**Maint Code**		**Qty.**	0
Details	(PAR) northwest guardrail termination, impact damage						
	(PAR) along all guardrails, timber spacers, loose/twisted						
	(PAR) northeast guardrail 18 foot from termination, impact damage (7 foot)						
	along all guardrails, surface rust at random						
	(PAR) northwest guardrail, 1st, 7th and 8th timber posts from end bent 2, timber spacers, missing						
	(PAR) northeast guardrail, 3rd and 7th timber posts from end bent 2, timber spacers, missing						
	(PAR) northeast guardrail 4 foot from attachment, impact damage (6 foot)						
	(PAR) northwest guardrail attachment, improper lap						
	(PAR) southeast guardrail attachment, improper lap						

Span 1 Deck: (PAR) [2] UP TO 1 FOOT X UP TO 4 INCH X 1 INCH DEEP SPALLS WITH EXPOSED REINFORCING EAST OVERHANG NEAR MIDSPAN

Span 1 Deck: throughout underside of all bays, multiple transverse cracks [up to 8 foot x 1/32 inch] and map cracks (hairline) at random

Span 1 Deck: (PAR) 1 FOOT X UP TO 1 FOOT X 1 INCH DEEP SPALL/DELAMINATION WITH EXPOSED REINFORCING WEST OVERHANG 15 FOOT FROM BENT 1

End Bent 1 Cap 1: along length, multiple vertical cracks [up to full height x 1/32 inch]

End Bent 1 Abutment: at all beam penetrations, multiple delaminations [up to 9 inch x 2 inch] with cracks (up to 1/4 inch)

End Bent 2 Cap 1: (PAR) 6 FOOT X UP TO 16 INCH X 10 INCH X 3 INCH DEEP SPALL WITH EXPOSED PRIMARY REBAR WITH SECTION LOSS [UP TO 1/16 INCH] UNDER BEAM 1

Span 4 Beam 1: West top flange at midspan, active surface corrosion [no loss]

Span 4 Beam 1 - Far Bearing 1: painted over section loss (up to 1/8 inch deep) with corrosion reactivating

(PAR) northwest guardrail termination, impact damage

(PAR) along all guardrails, timber spacers, loose/twisted

(PAR) northeast guardrail 18 foot from termination, impact damage (7 foot)

along all guardrails, surface rust at random

(PAR) northwest guardrail, 1st, 7th and 8th timber posts from end bent 2, timber spacers, missing

(PAR) northwest guardrail, 1st, 7th and 8th timber posts from end bent 2, timber spacers, missing

(PAR) northeast guardrail, 3rd and 7th timber posts from end bent 2, timber spacers, missing

(PAR) northeast guardrail, 3rd and 7th timber posts from end bent 2, timber spacers, missing

(PAR) northeast guardrail 4 foot from attachment, impact damage (6 foot)

Span 1 Wearing Surface: over end bent 1, right travel lane, transverse crack (1/16 inch x 12 foot)

along curblines, debris accumulation (full length x up to 1 foot) with vegetation growth

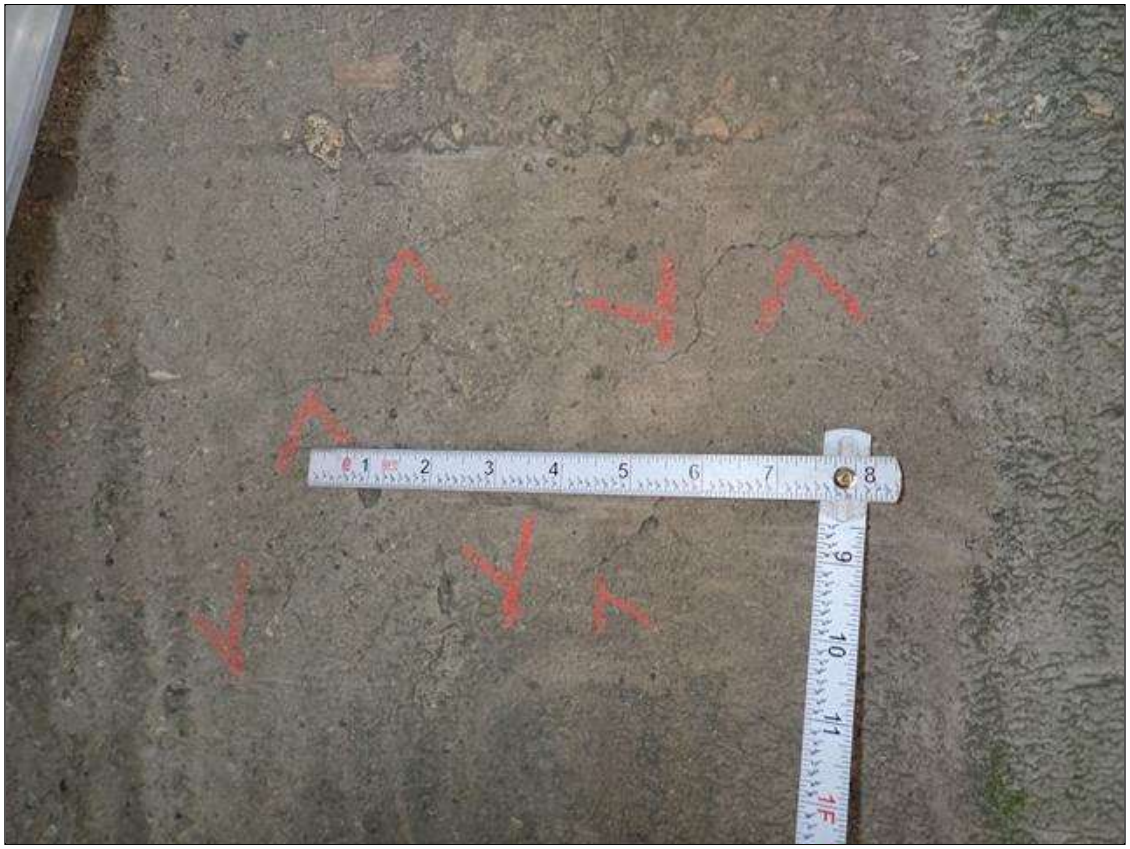
Span 2 Wearing Surface: over bent 1, transverse crack (up to 1/16 inch x 28 foot)

Span 3 Wearing Surface: over bent 2, transverse crack (1/16 inch x 28 foot)

Span 3 Beam 1: at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 9 inch)

Span 4 Beam 1: at bent 3, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)

Span 3 Beam 2 - Far Bearing 2: surface rust/rust scale



Bent 3 Cap 1: along the length of the cap, vertical cracks (up to 1/32 inch x full height) and map cracks (hairline) at random

Bent 3 Cap 1: along the length of the cap, vertical cracks (up to 1/32 inch x full height) and map cracks (hairline) at random

Span 3 Beam 1: (PAR) at bent 3 left overhang end diaphragm, spall/delamination [full height x up to 12 inch x up to 1.5 inch deep] with exposed rusted reinforcing [up to 1/8 inch section loss]

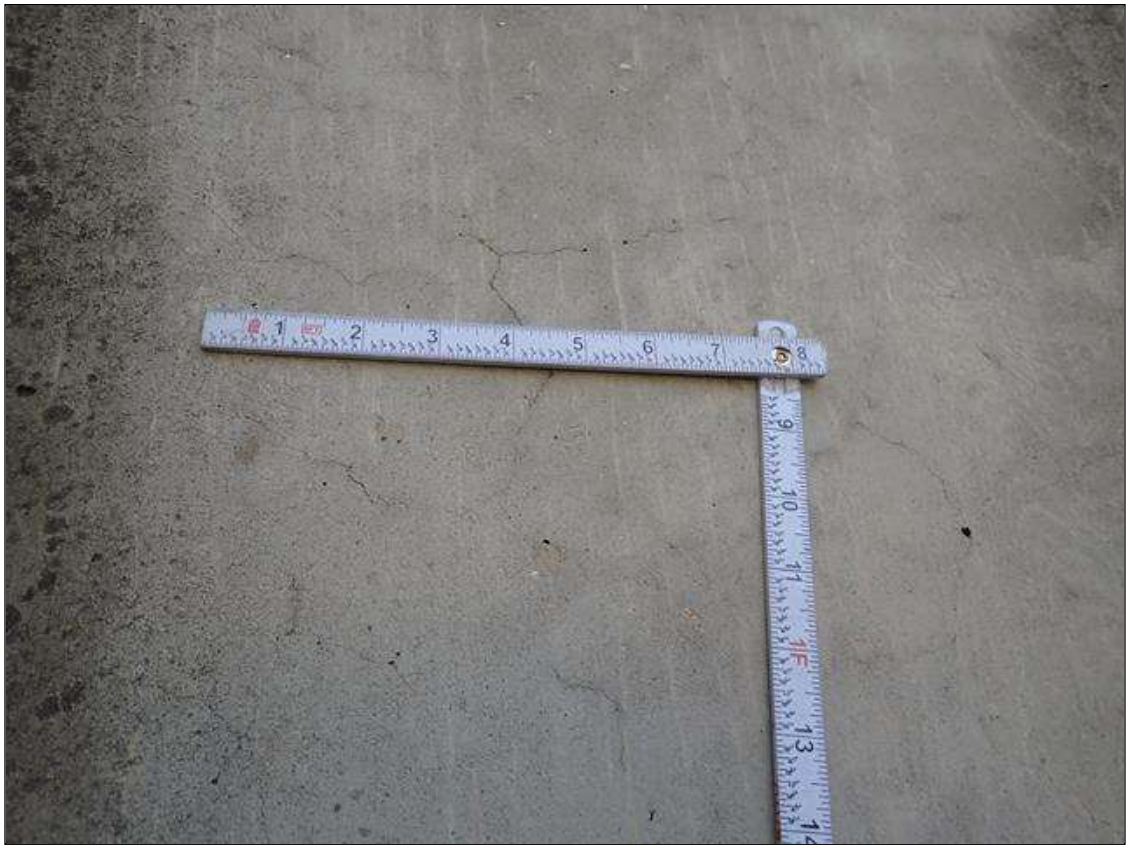
Span 3 Beam 3: at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 6 inch)

Span 4 Beam 3: at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 1 inch)

Span 3 Beam 4: at bent 3, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 23 inch)

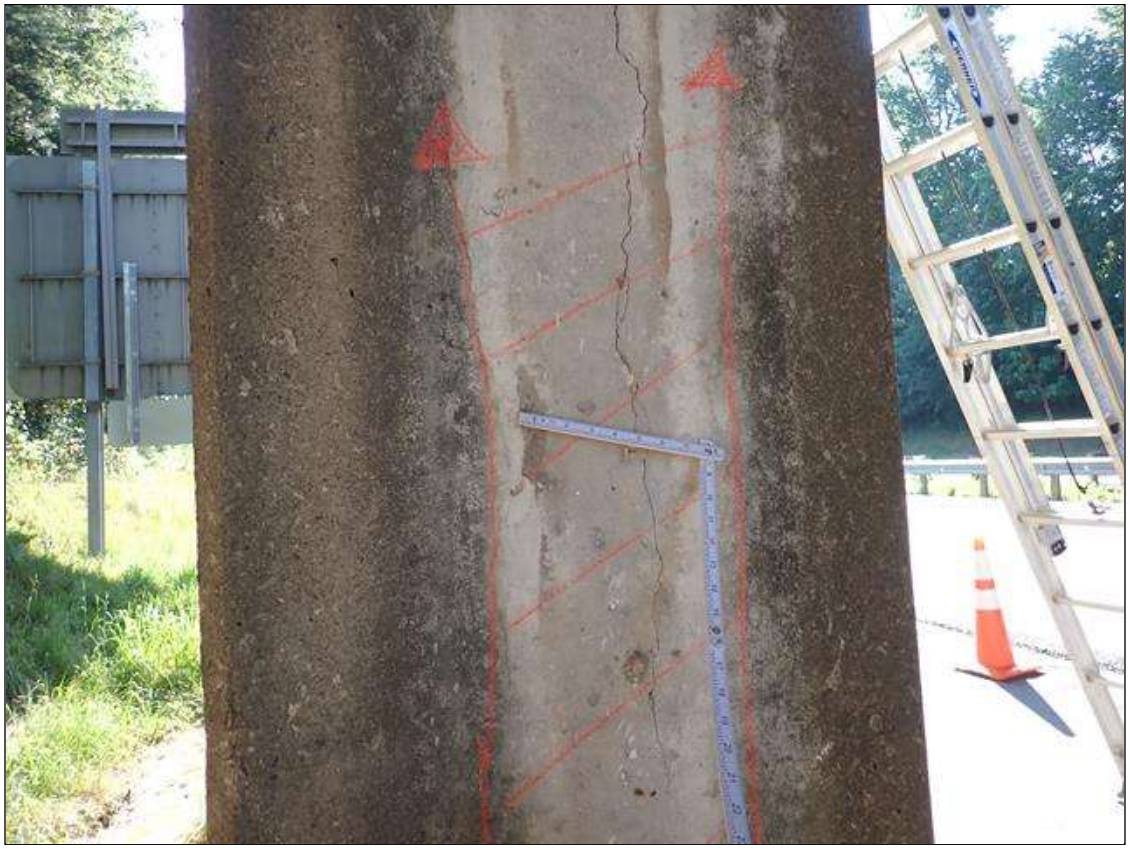
Span 4 Beam 4: at bent 3, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)

Bent 3 Cap 1: NORTH FACE OF CAP UNDER BEAM 1 HAS A 9 INCH X 11 INCH X 2 INCH DEEP SPALL AT TOP OF CAP.



Bent 3 Pile 1: at East face, hairline map cracking at random

Bent 3 Pile 1: at West face, (2) vertical cracks [up to 3 foot x 1/32 inch]



Bent 3 Pile 2: west face, delamination (1 foot x full height) with cracks (up to 1/16 inch)

Bent 3 Pile 2: BOTTOM OF COLUMN 2 NORTHEAST CORNER HAS A SPALL AREA 5 INCH X 8 INCH X 1 INCH DEEP.

Bent 3 Cap 1: (PAR) 12 INCH X 24 INCH X 2 INCH DEEP SPALL WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS SOUTHEAST CORNER

Span 3 Beam 4: at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)

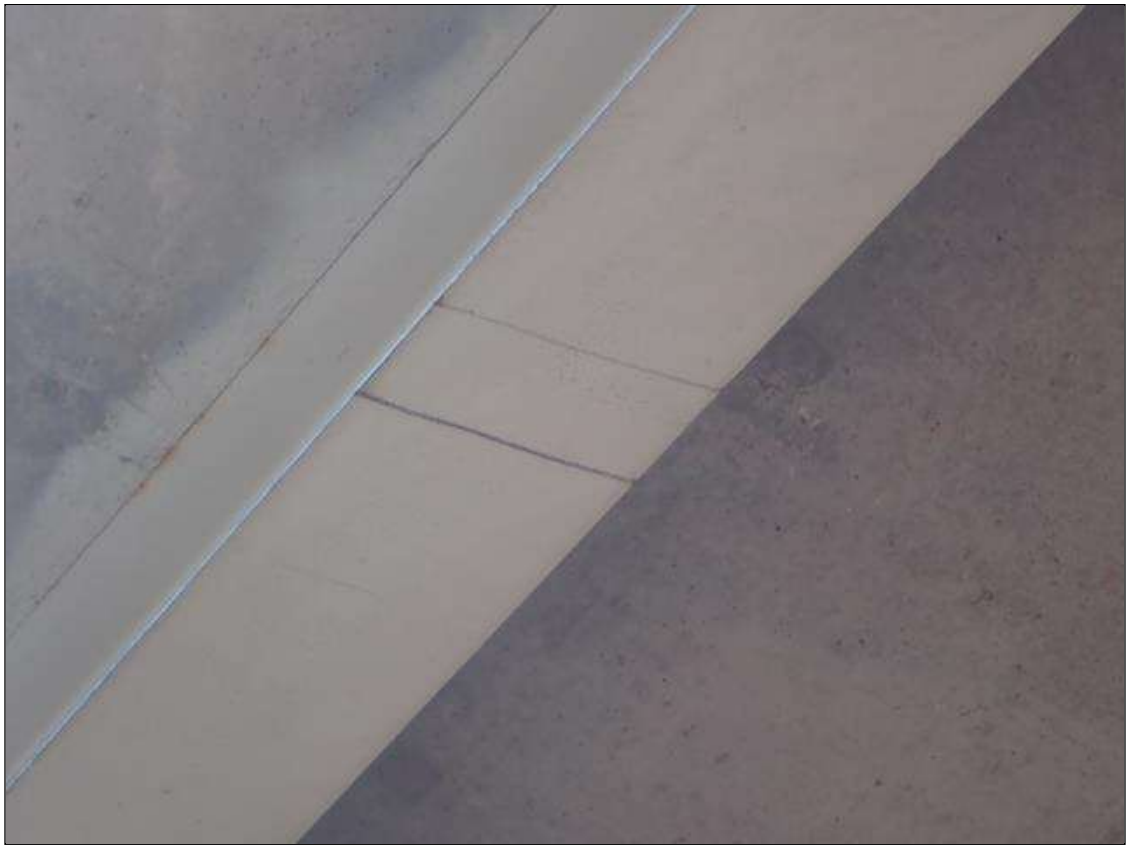
Span 3 Deck: (PAR) MULTIPLE UP TO 2 FOOT X 1 FOOT X 1 DEEP SPALL/DELAMINATION WITH EXPOSED REBAR AT RANDOM THROUGHOUT WEST OVERHANG; SOME DELAMINATION OVER TRAVEL LANES

Span 3 Deck: (PAR) MULTIPLE UP TO 2 FOOT X 1 FOOT X 1 DEEP SPALL/DELAMINATION WITH EXPOSED REBAR AT RANDOM THROUGHOUT WEST OVERHANG; SOME DELAMINATION OVER TRAVEL LANES

Span 3 Deck: (PAR) MULTIPLE UP TO 2 FOOT X 1 FOOT X 1 DEEP SPALL/DELAMINATION WITH EXPOSED REBAR AT RANDOM THROUGHOUT WEST OVERHANG; SOME DELAMINATION OVER TRAVEL LANES

Span 3 Deck: (PAR) MULTIPLE UP TO 1 FOOT X 1 FOOT X 1 INCH DEEP SPALLS/DELAMINATIONS WITH EXPOSED REBAR AT RANDOM THROUGHOUT EAST OVERHANG; SOME DELAMINATIONS OVER TRAVEL LANE

Span 3 Deck: (PAR) MULTIPLE UP TO 1 FOOT X 1 FOOT X 1 INCH DEEP SPALLS/DELAMINATIONS WITH EXPOSED REBAR AT RANDOM THROUGHOUT EAST OVERHANG; SOME DELAMINATIONS OVER TRAVEL LANE



Span 3 Beam 4 - Protective System: over right travel lane, impact scrapes

Span 3 Beam 3: at bent 2, active corrosion with section loss, web at diaphragm [10 inch x 1 inch x average remaining 9/16 inch]

Span 3 Beam 3 - Near Bearing 3: rust scale

Span 2 Beam 3: at bent 2, active corrosion with section loss, web at diaphragm [9 inch x 1 inch x average remaining 1/2 inch]

Span 3 Beam 2: at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 4 inch); bottom flange (0.80 inch average remaining x 1 inch)

Span 3 Beam 2: at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 4 inch); bottom flange (0.80 inch average remaining x 1 inch)

Span 3 Beam 1: at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 3 inch)

Span 2 Beam 1: at bent 2, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 3 inch)

Bent 2 Pile 1: FULL HEIGHT X UP TO 1/32 INCH VERTICAL CRACKS WEST AND NORTH FACES BEGINNING AT BOTTOM OF CAP

Bent 2 Pile 2: West face mid height, delamination [6 foot x 18 inch] with cracks [up to 1/32 inch]

Bent 2 Pile 2: South face starting at ground line, vertical crack (1/32 inch x full height); 2 foot from ground, spall (8 inch x 5 inch x 1/2 inch deep) with exposed rusted rebar

Span 2 Deck: (PAR) along underside of left overhang, two [2] spalls [up to 18 inch x 12 inch x 1 inch deep] with exposed rusted reinforcing [no loss]

Span 1 Beam 1: at bent 1, corrosion with section loss: web adjacent to end diaphragm (1/2 inch average remaining x 10 inch x 4 inch)

Span 2 Beam 2: at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 4 inch)

Span 1 Beam 3: at bent 1, corrosion with section loss: web adjacent to end diaphragm (9/16 inch average remaining x 10 inch x 1 inch)

Span 2 Beam 4: at bent 1, web adjacent to end diaphragm, rust scale (10 inch x 15 inch)

Span 1 Beam 1: (PAR) 2 FOOT X UP TO 1 FOOT X 2 INCH DEEP DIAPHRAGM SPALL/DELAMINATION WITH EXPOSED REBAR WITH APPROXIMATELY 25 PERCENT LOSS WEST OVERHANG AT BENT 1.

Bent 1 Cap 1: BENT 1 SOUTH FACE OF CAP HAS A HORIZONTAL CRACK UP TO 1/32 INCH X 3 FOOT ALONG TOP EDGE BETWEEN BEAMS 2 AND BEAMS 3.

Bent 1 Cap 1: BOTTOM FACE OF CAP RIGHT SIDE OF COLUMN 1 HAS A SURFACE SPALL AREA 3 INCH WIDE X 10 INCH LONG X 1/2 INCH DEEP WITH REBAR EXPOSED.

Bent 1 Cap 1: 6 INCH DIAMETER X 1/2 INCH DEEP SPALL WITH EXPOSED REINFORCING SOUTH FACE OF CAP BELOW BEAM 2

Bent 1 Cap 1: South face at West end, spall [15 inch x 3 inch x 1 inch deep] with exposed rusted reinforcing [no loss] and adjacent delamination at underside [1 foot x full width]

Bent 1 Cap 1: BENT 1 SOUTH FACE OF CAP BETWEEN BEAM 1 AND BEAM 2 CRACKED AND DELAMINATED AREA TOP FACE OF CAP 11 INCH X 31 INCH

Bent 1 Pile 1: UP TO 7 FOOT X UP TO 1/16 INCH VERTICAL CRACKS WEST AND EAST FACES

Bent 1 Pile 1: 6 INCH X 6 INCH X 1 INCH DEEP CORNER SPALL NORTHWEST CORNER 5 foot FROM BOTTOM OF CAP

Bent 1 Pile 2: UP TO 3 FOOT X 1/16 INCH VERTICAL CRACKS ALL FACES NEAR BOTTOM OF CAP

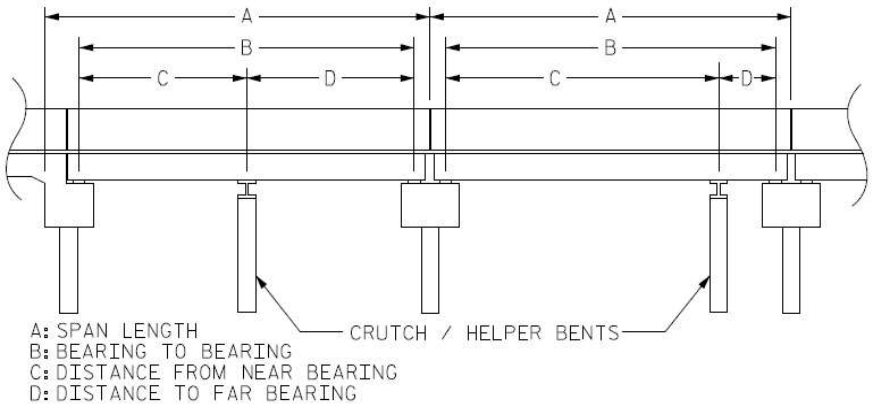
(PAR) northwest guardrail attachment, improper lap

(PAR) southeast guardrail attachment, improper lap

Structure Data Worksheet

Span Profile

County: **BURKE** Structure Number: **110143**



Span Number	Span Length	Bearing to Bearing	Crutch/ Helper Bent	Distance to Near Bearing	Distance to Far Bearing
1	50.000	48.000			
2	55.000	53.833			
3	55.000	53.833			
4	44.000	41.917			

Structure Number: 110143 Span: 2 Route Name: I 40 EBL

roadway under span 2, looking east

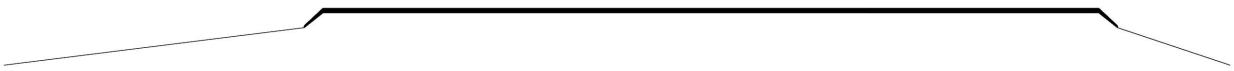
Route Number: 11000400	**Route Name:** I 40 EBL			**Reference Feature:** H
Minimum Vertical Clearance 16.150 feet	**Maximum Minimum Vertical Clearance** 16.660 feet			
Total Horizontal Clearance 41.250 feet	**Lateral Clearances: Left:** 13.230 feet	**Right** 9.590 feet		
☑ **Base Highway Network**	**LRS Inventory Route, Sub Route Number** 10040			
Milepost: 105.900	**Number of Lanes:** 2	**ADT:** 22000	**Year of ADT:** 2015	**Percentage of Trucks:** 16
☑ **National Highway System**	☐ **STRAHNET Highway Designator**			
Functional Classification 11	Local Principal Arterial - Interstate	**Direction of Traffic:** 1	1 - way traffic	

Structure Number: 110143 Span: 3 Route Name: I 40 WBL

roadway under span 3, looking west

Route Number: 11000400	**Route Name:** I 40 WBL			**Reference Feature:** H
Minimum Vertical Clearance 15.100 feet	**Maximum Minimum Vertical Clearance** 15.340 feet			
Total Horizontal Clearance 41.333 feet	**Lateral Clearances: Left:** 13.320 feet **Right** 9.490 feet			
☑ **Base Highway Network**	**LRS Inventory Route, Sub Route Number** 10040			
Milepost: 105.900	**Number of Lanes:** 2	**ADT:** 22000	**Year of ADT:** 2015	**Percentage of Trucks:** 16
☑ **National Highway System**		☐ **STRAHNET Highway Designator**		
Functional Classification 11	Local Principal Arterial - Interstate	**Direction of Traffic:** 1	1 - way traffic	

Bridge Inspection Field Sketch



Roadway	20.667ft Wide		Looking North
Left Shoulder	8.5ft Wide	0.5ft Paved	8ft Unpaved
Right Shoulder	3.5ft Wide	0.5ft Paved	3ft Unpaved
Left Guardrail			
Right Guardrail			

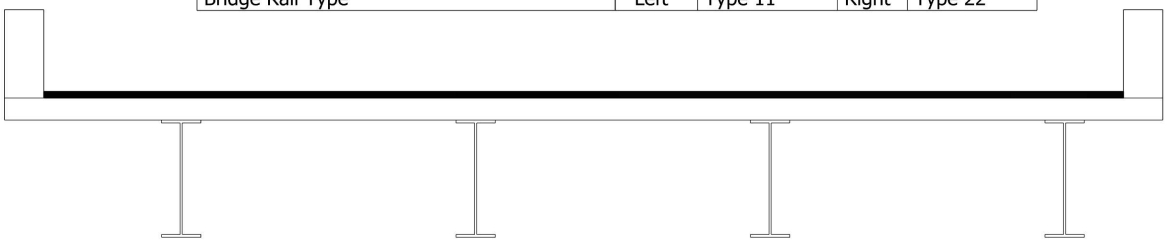
MEASUREMENTS TAKEN 100' FROM END BENT 1

Title	Description
APPROACH ROADWAY	LOOKING NORTH

Structure No:	Drawn By:	Date:	Filename:
110143	JCRODRIGUEZ	8/24/2023	S000930000244.wes

Bridge Inspection Field Sketch

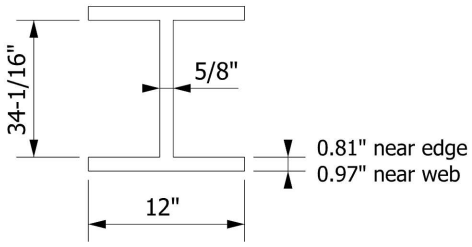
Deck Width/Out to Out	31.2ft	Between Rails			29.333ft
Clear Roadway	26ft	Wearing Surface			2in
Median Width		Median Height			
Curb Height		Left	7in	Right	7in
Sidewalk Width		Left	1.667ft	Right	1.667ft
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left	8in	Right	8in
Top of Rail to Deck/Wearing Surface		Left	2.25ft	Right	2.25ft
Bridge Rail Type		Left	Type 11	Right	Type 22



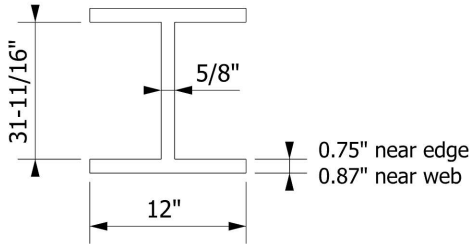
Measurements for Span #	1	All Spans Similar	
Deck Thickness	6.75in	Left Overhang	4.5ft
Top of Rail to Bottom of Beam (Avg)	5.799ft	Right Overhang	4.5ft

Beam #	Beam Type	Width	Height	Spacing	From
1	Plate Girder	12in	35.84in	4.5ft	Left Edge of Deck
2	Plate Girder	12in	35.84in	7.5ft	Beam 1
3	Plate Girder	12in	35.84in	7.5ft	Beam 2
4	Plate Girder	12in	35.84in	7.5ft	Beam 3

Span 4 exterior beams
Spans 1, 2 & 3 all beams



Span 4 interior beams

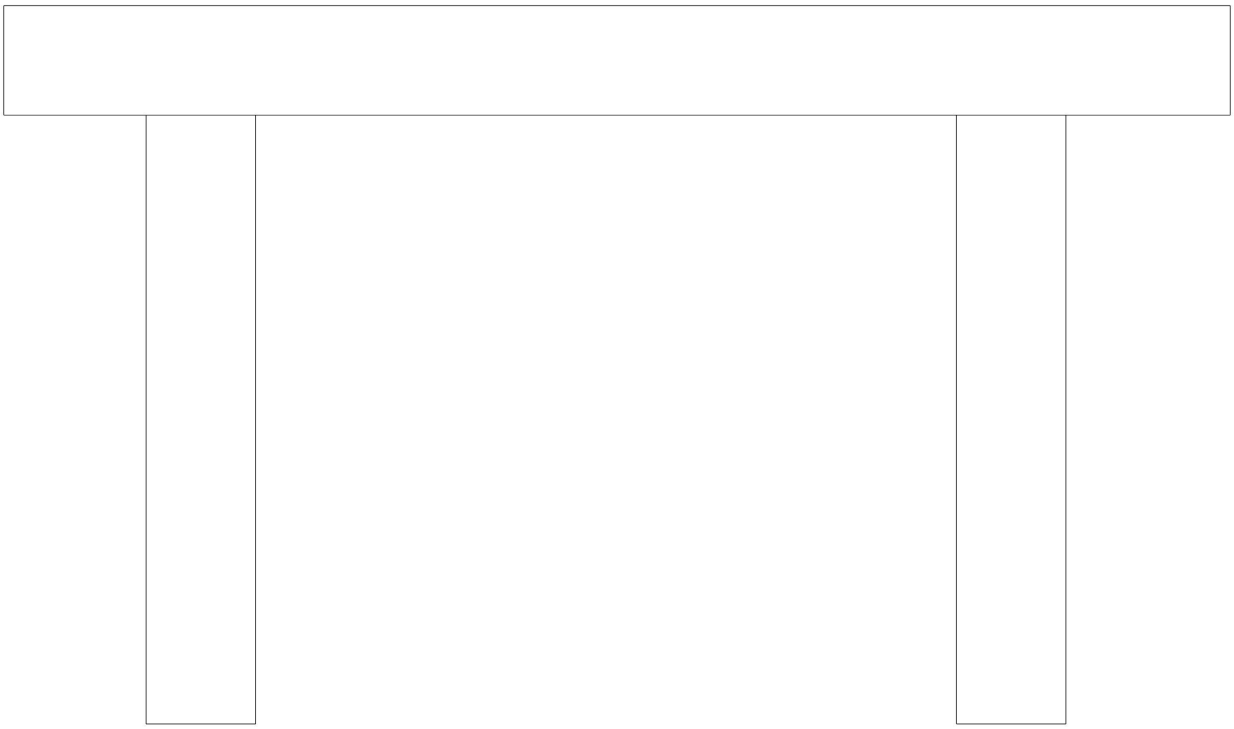


Cover plates in spans 2 and 3 could not be verified

Title	Description
TYPICAL SECTION	LOOKING NORTH

Structure No:	Drawn By:	Date:	Filename:
110143	JCRODRIGUEZ	8/24/2023	S000930000248.wes

Bridge Inspection Field Sketch



Caps							
#	Name	Type	Length	Width	Height	Left Beam to End of Cap	Right Beam to End of Cap
1	Cap 1	Reinforced Concrete Pier Cap	28ft	30in	30in	2ft	1.333ft

Piles							
#	Name	Type	Spacing	From	Height/Diam.	Width	Length
1	Pile 1	Reinforced Concrete Column	4.5ft	Left End of Bent	30in	30in	13ft
2	Pile 2	Reinforced Concrete Column	18.5ft	Pile 1	30in	30in	13ft

Title	Description
BENT SKETCH	LOOKING NORTH

Structure No: 110143	Drawn By: JCRODRIGUEZ	Date: 8/24/2023	Filename: S000930000249.wes

roadway under span 2, looking east (I-40 eastbound)

west profile looking east

bent 1

bent 3

superstructure underside

intermediate diaphragm

bent 2

southeast wingwall

end bearing assembly

end bent 1 and slope protection

southwest wingwall

east profile looking west

roadway under span 3, looking west (I-40 westbound)

northeast wingwall

end bent 2 and slope protection

northwest wingwall

northeast guardrail termination

northwest guardrail termination

north approach looking south

northwest guardrail attachment

northwest guardrail transition

northwest guardrail

northeast guardrail attachment

northeast guardrail

end bent 2 asphalt

north approach looking north

bent 3 asphalt

bent 2 asphalt

roadway looking east

roadway looking west

bent 1 asphalt

south approach looking south

southwest guardrail attachment

southwest guardrail

southeast guardrail attachment

southeast guardrail

southeast guardrail transition

bridge number

end bent 1 asphalt

asphalt wearing surface

right bridge rail

left bridge rail

south approach looking north

southeast guardrail termination

southwest guardrail termination

interior bearing assembly

ladder used

beams over bent

typical cover plate termination