D S S	C DEPARTMENT OF TRANSPORTATION IVISION OF HIGHWAYS IRUCTURE MANAGEMENT UNIT	ATTENTION: Priority Maint Section Modi	enance; Approach Roac fied	lway, Typical
	Structure	Safety Repor	rt	
	Routine Elemen	t Inspection - Contr DATE: 04/09/2018	act	
DIVISION: 4	COUNTY: JOHNSTON STR	JCTURE NUMBER: 500085	FREQUENCY:	24 MONTHS
FACILITY CARRIED:	195 SBL		MILE POST: 90.5	
LOCATION: 0.8 MI.N	I.JCT US301/701			
FEATURE INTERSEC	TED: BLACK CREEK			
LATITUDE: 35° 27'	59.08" LONGITUE	E: 78° 22' 50.65"		
SUPERSTRUCTURE	RC DECK ON I-BEAMS			
SUBSTRUCTURE: E	BTS:RC CAP/H-PILES @ 8'CTS;IBTS:RCF	&BEAM		
SPANS: 4 SPANS	S. SEE SPAN PROFILE SHEET FOR SPAN	IDETAILS		
FRACTURE CRI	TICAL TEMPORARY SHORING	SCOUR CRITICAL	SCOUR PLAN OF	ACTION
GRADES: DECK	6 SUPERSTRUCTURE 6 SU		VERT N	
POSTED SV: Not F	Posted	POSTED TTST: Not Po	osted	

Number Required

0

0

0

0

0

S-N

#### OTHER SIGNS PRESENT: (2) Delineators



INSPECTED BY	SIGNATURE	$\land \land \land$	ASSISTED BY	Jonathan M Simpson
Cesar O Cuevas		Cin D. Cuvas		

# **Structure Element Scoring**

#### Structure Number: 500085

# Inspection Date 4/9/2018

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
12	0	Reinforced Concrete Deck	Deck	6021	6021	0	0	0
107	0	Steel Open Girder/Beam	Beam	812	5	807	0	0
515	107	Steel Protective Coating	Beam	7712	6657	1055	0	0
205	0	Reinforced Concrete Column	Piles and Columns	6	0	1	5	0
215	0	Reinforced Concrete Abutment	Abutments	64	17	47	0	0
225	0	Steel Pile	Piles and Columns	2	2	0	0	0
234	0	Reinforced Concrete Pier Cap	Caps	145	103	33	9	0
301	0	Pourable Joint Seal	Expansion Joints	150	116	24	10	0
311	0	Movable Bearing	Bearing Device	16	0	16	0	0
515	311	Steel Protective Coating	Bearing Device	16	0	16	0	0
313	0	Fixed Bearing	Bearing Device	16	0	16	0	0
515	313	Steel Protective Coating	Bearing Device	16	0	16	0	0
333	0	Other Bridge Railing	Bridge Rail	406	338	53	15	0
515	333	Steel Protective Coating	Bridge Rail	2402	2402	0	0	0
510	0	Wearing Surface	Wearing Surfaces	5685	5684	1	0	0

# **Summary of Maintenance Needs**

Maintenance By Defect

#### Structure Number: 500085

Inspection Date: 04/09/2018

MMS Code	Element Name	Defect Name	Recommended Quantity
3348	Reinforced Concrete Column	Exposed Rebar	7 Each
3348	Reinforced Concrete Column	Cracking (RC and Other)	11 Each
3348	Reinforced Concrete Column	Delamination/Spall	4 Each
3350	Reinforced Concrete Abutment	Delamination/Spall	4 Feet
3348	Reinforced Concrete Pier Cap	Delamination/Spall	2 Feet
3348	Reinforced Concrete Pier Cap	Exposed Rebar	3 Feet
3348	Reinforced Concrete Pier Cap	Cracking (RC and Other)	8 Feet
3310	Pourable Joint Seal	Adjacent Deck or Header	10 Feet
3318	Other Bridge Railing	Delamination/Spall	22 Feet
2816	Wearing Surface	Crack (Wearing Surface)	1 Square Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	1087 Square Feet

# **Element Structure Maintenance Quantities**

Structure Number: 5	Structure Number: 500085 Inspection Date 04/09/2018							<u>2018</u>
Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3350	Maintenance of Concrete Wings and Wall	4	64	0	0	47	17
Beam	3314	Maintenance Steel Superstructure Components	0	812	0	0	807	5
Beam	3342	Clean and Paint Steel	1055	7712	0	0	1055	6657
Bearing Device	3334	Bridge Bearing	0	32	0	0	32	0
Bearing Device	3342	Clean and Paint Steel	32	32	0	0	32	0
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	22	406	0	15	53	338
Bridge Rail	3342	Clean and Paint Steel	0	2402	0	0	0	2402
Caps	3348	Maintenance of Concrete Substructure	13	145	0	9	33	103
Deck	3326	Maintenance of Concrete Deck	0	6021	0	0	0	6021
Expansion Joints	3310	Maintenance of Standard Bridge Expansion Joints	10	150	0	10	24	116
Piles and Columns	3348	Maintenance of Concrete Substructure	22	6	0	5	1	0
Piles and Columns	3354	Maintenance of Steel Substructure Components	0	2	0	0	0	2
Wearing Surfaces	2816	Asphalt Surface Repair	1	5685	0	0	1	5684
			1	1	1	1	-	-

# **Element Condition and Maintenance Data**

Structure	Number: 500085					In	spection	Date: 04/09/2018
Spa	an 1	Left Bridg	e Rail					
Со	ncrete and Metal I	Railing						
Ele Nu	ment mber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other E	Bridge Railing	52	41	8	3	0	Feet
515	Steel P	rotective Coating	304	304	0	0	0	Square Feet
Elemei Numbe	nt er Defect Type	Defect Des	cription		CS	CS Qty	Maint Qty	
333	Delamination/Spall	(3) up to 10" x 6" x 1" deep spall c	on ouside face of cond	crete rail	3	3		3 Feet
333	Cracking (RC and Other)	(8) hairline vertical and transverse curb	cracks on concrete r	ail and	2	8		Feet
	Companyal Companyanta							

**General Comments** 

# Span 1

#### **Right Bridge Rail**

# **Concrete and Metal Railing**

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other B	ridge Railing	52	44	6	2	0	Feet
515	Steel P	rotective Coating	304	304	0	0	0	Square Feet
Element Number	Defect Type	Defect Descripti	on		CS	CS Qty	Maint Qty	
333	Delamination/Spall	(2) up to 7" x 6" x 1" deep spall on outsi	de face of rail		3	2	-	2 Feet
333	Cracking (RC and Other)	(5) hairline vertical and transverse crack curb	ks on concrete r	ail and	2	5		Feet
333	Delamination/Spall	3" x 2" x 1/2" deep spall on top of Post 8	В		2	1		1 Feet

**General Comments** 

# Span 1

# Beam 1

## Plate Girder

Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Op	en Girder/Beam	52	0	52	0	0 Feet
515	Steel Pro	otective Coating	492	452	40	0	0 Square Feet
Element Number	Defect Type	Defect Descrip	otion		CS	CS Qty	Maint Qty
107	Corrosion	47' peeling paint with rust on both flar	iges and web		2	47	Feet
107	Corrosion	Full length surface rust on both flange	es and web		2	5	Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	40	40 Square Feet

**General Comments** 

Temporary Repair - 7" x 31" area of replaced beam at End Bent 1

Structure Number: 500085

# Fixed Bearing

Span 1

Eler Nun	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed Be	earing	1	0	1	0	0 Each
515	Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Elemen Numbe	t r Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
-	General Comments						

Span 1

#### Far Bearing

#### **Movable Bearing**

lent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Movable	Bearing	1	0	1	0	0 Each
Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
Corrosion	Peeling paint with rust			2	1	Each
Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
	ent ber Movable Steel Pr Defect Type Corrosion Effectiveness (Steel Protective Coatings)	ent ber Element Name Movable Bearing Steel Protective Coating Defect Type Defect Descript Corrosion Peeling paint with rust Effectiveness (Steel Substantially effective Protective Coatings)	ent     Element Name     Total Qty       Movable Bearing     1       Steel Protective Coating     1       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective       Protective Coatings     1	ent ber     Element Name     Total Qty     CS1 Qty       Movable Bearing     1     0       Steel Protective Coating     1     0       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective       Protective Coatings     1	ent ber     Element Name     Total Qty     CS1 Qty     CS2 Qty       Movable Bearing     1     0     1       Steel Protective Coating     1     0     1       Defect Type     Defect Description     CS       Corrosion     Peeling paint with rust     2       Effectiveness (Steel     Substantially effective     2	ent berElement NameTotal QtyCS1 QtyCS2 QtyCS3 QtyMovable Bearing1010Steel Protective Coating1010Defect TypeDefect DescriptionCS CS QtyCS QtyCorrosionPeeling paint with rust21Effectiveness (SteelSubstantially effective21

# 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	52	0	52	0	0 Feet
515	Steel Protective Coating	492	432	60	0	0 Square Feet
lement						Maint

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	48' peeling paint with rust on web	2	48	Fee	et
107	Corrosion	Full length surface rust on both flanges and web	2	4	Fee	ŧ
515	Effectiveness (Steel Protective Coatings)	Substantially effective	2	60	60 Sqi	uare Feet

**General Comments** 

Temporary Repair - 7" x 31" area of replaced beam at End Bent 1

Temporary Repair - 20" x 12" plate welded to bottom flange at Bent 1

#### Span 1

**Near Bearing** 

#### **Fixed Bearing**

Elem Num	nent Iber		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	1	0	0	Square Feet
Element Number	Defe	ct Type		Defect Description			CS	CS Qty	Maint Qty	
313	Corrosion Peeling paint with rust		st			2	1		Each	

Inspec	tion Da	ate: 04/09/2018
1	1	Square Feet

2

General Comments

Snot	n 1			For Booring						
Spa	n 1 			-ar Bearing						
Mov	able Bearii	ng								
Elen Nun	nent nber		Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311		Movable	Bearing		1	0	1	0	0	Each
515		Steel Pro	otective Coating		1	0	1	0	0	Square Feet
Elemen <sup>:</sup> Numbei	t Defect <sup>-</sup>	Гуре		Defect Description	1		cs	CS Qty	Maint Qtv	
311	Corrosion		Peeling paint with rus	st			2	1	,	Each
515	Effectiveness Protective Co	(Steel atings)	Substantially effective	9			2	1		1 Square Feet
-	General Comr	nents								
Spa	n 1			Beam 3						
Plat	e Girder									
Elen	nent		Element Name		Total	CS1	CS2	CS3	CS4	
107	libei	Steel Op	en Girder/Beam		52	0	52	0	0	Feet
515		Steel Pro	otective Coating		492	432	60	0	0	Square Feet
Elemen	t Defect	Туре		Defect Description	]		CS	CS Qty	Maint Qtv	
107	Corrosion		48' peeling paint with	rust on web			2	48	<b>_</b> .,	Feet
107	Corrosion		Full length surface ru	st on both flanges an	d web		2	4		Feet
515	Effectiveness Protective Co	(Steel atings)	Substantially effective	e			2	60	6	0 Square Feet
(	General Comr	nents								
	Tempora	ry Repair	- 7" x 31" area of repla	ced beam at End Be	nt 1					
Spa	n 1		I	Near Bearing						
Fixe	d Bearing									
Elen Num	nent nber		Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313		Fixed Be	aring		1	0	1	0	0	Each
515		Steel Pro	otective Coating		1	0	1	0	0	Square Feet
Elemen	t r Defect <sup>-</sup>	Гуре		Defect Description	I		CS	CS Qty	Maint Qty	
Numper	0		Peeling paint with rus	st			2	1	-	Each
313	Corrosion		01							

Structure Number: 500085

# Span 1 Movable Bearing

	U						
Elem Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
311	Movable	e Bearing	1	0	1	0	0 Each
515	Steel Pr	rotective Coating	1	0	1	0	0 Square Feet
Element Number	Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
311	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
-	Conoral Commonte						

Far Bearing

General Comments

Spar	n 1	Beam 4						
Plate	e Girder							
Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel O	pen Girder/Beam	52	2	50	0	0 6	Feet
515	Steel Pr	rotective Coating	492	432	60	0	0 \$	Square Feet
Element Number	Defect Type	Defect Des	scription		CS	CS Qty	Maint Qty	
107	Corrosion	47' peeling paint with rust on both	flanges and web		2	47	-	Feet
107	Corrosion	Full length surface rust on both fla	anges and web		2	3		Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	60	60	Square Feet
0	General Comments							

Temporary Repair - 7" x 31" area of replaced beam at End Bent 1

Span 1

Near Bearing

# Fixed Bearing

Elerr Num	nent Iber		Element Name	•	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313		Fixed Bea	aring		1	0	1	0	0	Each
515		Steel Protective Coating			1	0	1	0	0	Square Feet
Element Number	Defect	Туре		Defect Description			CS	CS Qty	Maint Qty	
313	Corrosion		Surface rust				2	1		Each

515	Effectiveness (Steel Protective Coatings)	Substantially effective	2	1	1 Square Feet
	General Comments				

# Span 1

# Far Bearing

**Movable Bearing** 

Elem Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311	Movable	e Bearing	1	0	1	0	0	Each
515	Steel Pr	otective Coating	1	0	1	0	0	Square Feet
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty	
311	Corrosion	Peeling paint with rust			2	1	•	Each
515	Effectiveness (Steel	Substantially effective			2	1		1 Square Feet

Protective Coatings)

**General Comments** 

Spa	n 1	Expansio	n Joint					
Star	ndard Joint							
Eler Nun	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourab	le Joint Seal	30	24	6	0	0	Feet
Elemen Numbe	t r Defect Type	Defect De	scription		CS	CS Qty	Maint Qty	
301	Adjacent Deck or Header	(8) up to 8" x 5" x 1" deep area o surface along joint	f missing asphalt weari	ng	2	6		Feet
-	General Comments							

#### Span 2

Left Bridge Rail

#### Concrete and Metal Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
333	Other Bridge Railing	50	43	4	3	0 Feet
515	Steel Protective Coating	299	299	0	0	0 Square Feet
ement						Maint

Number	Defect Type	Defect Description	CS	CS Qty	Qty	
333	Delamination/Spall	(4) up to 9" x 6" x 1" deep spalls on outside face of concrete rail	3	3	3 Feet	
333	Cracking (RC and Other)	(4) hairline vertical and transverse cracks on concrete rail and curb	2	4	Feet	
	a 1.a .					

**General Comments** 

# Span 2

#### **Right Bridge Rail**

#### **Concrete and Metal Railing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
333	Other Bridge Railing	50	44	6	0	0 Feet
515	Steel Protective Coating	299	299	0	0	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
333	Cracking (RC and Other)	(4) hairline vertical and transverse cracks on concrete rail and curb	2	4	Feet
333	Delamination/Spall	7" x 5" x 1" deep spall on outside face of concrete rail	2	1	1 Feet
333	Patched Area	4" x 3" area of sound patch on top of Post 9	2	1	Feet

**General Comments** 

## Span 2

#### Beam 1

#### **Plate Girder** Element Total CS1 CS2 CS3 CS4 Number **Element Name** Qty Qty Qty Qty Qty 107 Steel Open Girder/Beam 50 0 50 0 0 Feet **Steel Protective Coating** 515 478 438 40 0 0 Square Feet Element Maint CS Qty **Defect Type Defect Description** CS Number Qty Corrosion 107 30' peeling paint with rust on both flanges and web 2 30 Feet

Structure	Number: <u>500085</u>			Ins	pection Date: 04/09/2018
107	Corrosion	Full length surface rust on both flanges and web	2	20	Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective	2	40	40 Square Feet

**General Comments** 

Spar	ו 2	Near Bearing	1				
Fixe	d Bearing						
Elem Num	lent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed Be	earing	1	0	1	0	0 Each
515	Steel Pr	otective Coating	1	0	1	0	0 Square Feet
lement lumber	Defect Type	Defect Descrip	otion		CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet

Spa	an 2	Far Bearing						
Мо	vable Bearing							
Ele Nu 311	ment mber Movable	Element Name e Bearing	Total Qty 1	<b>CS1</b> <b>Qty</b> 0	<b>CS2</b> Qty 1	<b>CS3</b> <b>Qty</b> 0	CS4 Qty 0 Each	
515	Steel Pr	otective Coating	1	0	1	0	0 Square	Feet
Elemer Numbe	nt er Defect Type	Defect Descrip	tion		CS	CS Qty	Maint Qty	
311	Corrosion	Peeling paint with rust			2	1	Each	
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Squa	re Feet
	General Comments							

Spar	n 2	Beam 2						
Plate	e Girder							
Elen Num 107	nent nber Steel Op	Element Name Den Girder/Beam	Total Qty 50	<b>CS1</b> <b>Qty</b> 0	<b>CS2</b> Qty 50	<b>CS3</b> <b>Qty</b> 0	<b>CS4</b> <b>Qty</b> 0	Feet
515	Steel Pr	otective Coating	478	428	50	0	0	Square Feet
Element Number	t Defect Type	Defect Desc	ription		CS	CS Qty	Maint Qty	
107	Corrosion	40' peeling paint with rust on both f	anges and web		2	40	-	Feet
107	Corrosion	Full length surface rust on both flan	ges and web		2	10		Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	50	50	) Square Feet

**General Comments** 

Temporary Repair - 20" x 12" plate welded to bottom flange at Bent 1

# Span 2

Fixed Bearing
---------------

Elen Num	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed Be	earing	1	0	1	0	0 Each
515	Steel Pro	otective Coating	1	0	1	0	0 Square Feet
Elemen Number	t n Defect Type	Defect Description			CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
-	General Comments						

# Span 2

# Far Bearing

# **Movable Bearing**

ng e Coating	1 1	0 0	1 1	0 0	0 0	Each Square Feet
e Coating	1	0	1	0	0	Square Feet
Defect Description			CS	CS Qty	Maint Qty	
ling paint with rust			2	1	-	Each
stantially effective			2	1	1	1 Square Feet
s	tantially effective	tantially effective	tantially effective	tantially effective 2	tantially effective 2 1	tantially effective 2 1 *

# Span 2

Beam 3

#### **Plate Girder**

Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Op	ben Girder/Beam	50	0	50	0	0 Feet
515	Steel Pr	otective Coating	478	358	120	0	0 Square Feet
Element Number	Defect Type	Defect Descr	ription		CS	CS Qty	Maint Qty
107	Corrosion	Full length peeling paint with rust or	both flanges and v	veb	2	50	Feet
107	Corrosion	Full length surface rust on both flang	ges and web		2		Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	120	120 Square Feet
ī	General Comments						

# Span 2

# **Near Bearing**

#### **Fixed Bearing**

	U							
Elerr Num	lent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed B	earing	1	0	1	0	0 6	Each
515	Steel Pr	rotective Coating	1	0	1	0	0 \$	Square Feet
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty	
313	Corrosion	Peeling paint with rust			2	1		Each
515	Effectiveness (Steel	Substantially effective			2	1	1	Square Feet

Protective Coatings)

**General Comments** 

Sna	an 2		Ea	ar Boaring						
She			10	ar bearing						
Mov	vable Beari	ng								
Ele Nu	ment mber		Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
311		Movable	Bearing		1	0	1	0	0	Each
515		Steel Pro	otective Coating		1	0	1	0	0	Square Feet
Elemer Numbe	nt er Defect	Туре	[	Defect Description	l		cs	CS Qty	Maint Qty	
311	Corrosion		Peeling paint with rust				2	1	•	Each
515	Effectiveness Protective Co	s (Steel batings)	Substantially effective				2	1		1 Square Feet
	General Com	ments								
	General Com	ments								
Sna	General Com	ments	B	eam 1						
Spa	General Com	ments	Ве	eam 4						
Spa Plat	General Com an 2 te Girder	ments	Be	eam 4						
Spa Plat Elei Nui	General Com an 2 te Girder ment mber	ments	Be Element Name	eam 4	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
Spa Plat Elei Nur 107	General Comi an 2 te Girder ment mber	ments Steel Op	Be Element Name ben Girder/Beam	eam 4	Total Qty 50	<b>CS1</b> Qty 0	<b>CS2</b> <b>Qty</b> 50	CS3 Qty 0	CS4 Qty 0	Feet
Spa Plat Elei Nui 107 515	General Comi an 2 te Girder ment mber	Steel Op Steel Pro	Benent Name ben Girder/Beam otective Coating	eam 4	<b>Total</b> <b>Qty</b> 50 478	<b>CS1</b> Qty 0 428	<b>CS2</b> <b>Qty</b> 50 50	<b>CS3</b> Qty 0 0	<b>CS4</b> Qty 0 0	Feet Square Feet
Spa Plat Eler Nur 107 515 Elemer Numbe	General Com an 2 te Girder ment mber	Steel Op Steel Pro	Benent Name ben Girder/Beam otective Coating	eam 4 Defect Description	<b>Total</b> <b>Qty</b> 50 478	<b>CS1</b> Qty 0 428	CS2 Qty 50 50	CS3 Qty 0 0 CS Qty	CS4 Qty 0 0 Maint Qty	Feet Square Feet
Spa Plat Ele Nun 107 515 Elemer Numbe 107	General Com an 2 te Girder ment mber	Steel Op Steel Pro	Be Element Name ben Girder/Beam btective Coating	eam 4 Defect Description	Total Qty 50 478	<b>CS1</b> Qty 0 428 veb	CS2 Qty 50 50 CS 2	CS3 Qty 0 0 0 CS Qty 50	CS4 Qty 0 0 Maint Qty	Feet Square Feet Feet
Spa Plat Elei Nur 107 515 Elemer Numbe 107 107	General Com an 2 te Girder ment mber nt Defect Corrosion Corrosion	Steel Op Steel Pro	Element Name en Girder/Beam otective Coating Full length peeling pain Full length surface rust	eam 4 Defect Description It with rust on both f	Total Qty 50 478 flanges and v d web	<b>CS1</b> Qty 0 428	CS2 Qty 50 50 CS 2 2	CS3 Qty 0 0 CS Qty 50	CS4 Qty 0 0 Maint Qty	Feet Square Feet Feet Feet

**General Comments** 

Span 2

**Near Bearing** 

## **Fixed Bearing**

Elem Num	ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed Be	earing	1	0	1	0	0 Each
515	Steel Pro	ptective Coating	1	0	1	0	0 Square Feet
lement lumber	Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Fee

Structure Number: 500085

Inspection Date: 04/09/2018

# Movable Bearing

ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Movable	Bearing	1	0	1	0	0 Each
Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Defect Type	Defect Description	1		CS	CS Qty	Maint Qty
Corrosion	Peeling paint with rust			2	1	Each
Effectiveness (Steel	Substantially effective			2	1	1 Square Feet
	ent ber Movable Steel Pr Defect Type Corrosion Effectiveness (Steel Protective Contings)	ent ber Element Name Movable Bearing Steel Protective Coating Defect Type Defect Description Corrosion Peeling paint with rust Effectiveness (Steel Substantially effective Pertoctive Coatings)	ent     Total Qty       ber     Element Name     Qty       Movable Bearing     1       Steel Protective Coating     1       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective	Total ber     Total Qty     CS1 Qty       Movable Bearing     1     0       Steel Protective Coating     1     0       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective	Total ber     CS1 Qty     CS2 Qty       Movable Bearing     1     0     1       Steel Protective Coating     1     0     1       Defect Type     Defect Description     CS       Corrosion     Peeling paint with rust     2       Effectiveness (Steel     Substantially effective     2	Total berCS1 QtyCS2 QtyCS3 QtyMovable Bearing1010Steel Protective Coating1010Defect TypeDefect DescriptionCSCS QtyCorrosionPeeling paint with rust21Effectiveness (SteelSubstantially effective21

# Span 2

# **Expansion Joint**

Far Bearing

# **Standard Joint**

Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
301	Pourab	le Joint Seal	30	24	0	6	0 Feet
Element Number	Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty
301	Adjacent Deck or Header	(2) up to 36" x 7" x 1" deep area of m surface along joint	iissing asphalt wea	aring	3	6	6 Feet
-	General Comments						

Spa	in 3	Wearing	Surface					
Asp	halt Wearing Sur	face						
Elei Nur	ment nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing	g Surface	1,409	1,408	1	0	0 9	Square Feet
Elemen Numbe	r Defect Type	Defect Des	scription		CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	6" x 6" area of hairline longitudina East lane, 9' from Bent 2	al and transverse crac	cks in	2	1	1	Square Feet
	General Comments							

Spai	า 3	Left Bridge	e Rail					
Con	crete and Metal F	Railing						
Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other E	Bridge Railing	50	42	8	0	0	Feet
515	Steel P	rotective Coating	299	299	0	0	0	Square Feet
lement lumber	Defect Type	Defect Desc	cription		CS	CS Qty	Maint Qty	
333	Cracking (RC and Other)	(4) hairline vertical and transverse curb	cracks on concrete r	ail and	2	4	-	Feet
333	Delamination/Spall	(5) up to 7" x 8" x 1" deep spalls or	n outside face of con	crete rail	2	3		3 Feet
333	Patched Area	5" x 2" area of sound patch on top	of concrete Post 3		2	1		Feet

**General Comments** 

Structure Number: 500085

Span 3

#### **Concrete and Metal Railing**

Elem Num	ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	,
333	Other B	ridge Railing	50	45	5	0	0	Feet
515	Steel P	rotective Coating	299	299	0	0	0	Square Feet
Element Number	Defect Type	Defect Des	cription		CS	CS Qty	Maint Qty	
333	Cracking (RC and Other)	(5) hairline vertical and transverse curb	e cracks on concrete i	rail and	2	5	Ē	Feet

General Comments

Spa	n 3	Beam 1						
Plat	e Girder							
Elen Nun	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel O	pen Girder/Beam	50	0	50	0	0	Feet
515	Steel Pr	otective Coating	478	408	70	0	0	Square Feet
Elemen Number	t r Defect Type	Defect Des	cription		CS	CS Qty	Maint Qty	
107	Corrosion	Full length peeling paint with rust of	on both flanges and v	web	2	50	-	Feet
107	Corrosion	Full length surface rust on both fla	nges and web		2			Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	70	7	0 Square Feet
-	General Comments							

# Span 3

# **Near Bearing**

**Fixed Bearing** 

Elen Num	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed Be	earing	1	0	1	0	0 Each
515	Steel Pre	otective Coating	1	0	1	0	0 Square Feet
Elemen Number	t Defect Type	Defect Description	n		CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet

**General Comments** 

# Span 3

#### Far Bearing

# **Movable Bearing**

Elen Num	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
311	Movab	e Bearing	1	0	1	0	0 Each
515	Steel F	rotective Coating	1	0	1	0	0 Square Feet
Elemen Number	t Defect Type	Defect Descriptio	n		CS	CS Qty	Maint Qty
311	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel	Substantially effective			2	1	1 Square Feet

#### **General Comments**

Opu		Deallin 2						
Plate	e Girder							
Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Op	en Girder/Beam	50	0	50	0	0	Feet
515	Steel Pr	otective Coating	478	368	110	0	0	Square Feet
lement	t Defect Type	Defect De	scription		CS	CS Qty	Maint Qty	
107	Corrosion	Full length peeling paint with rust	on both flanges and v	web	2	50	-	Feet
107	Corrosion	Full length surface rust on both fl	anges and web		2			Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	110	110	) Square Feet
(	General Comments							

Fixe	d Bearing							
Elen Num	nent 1ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Be	earing	1	0	1	0	0	Each
515	Steel Pr	otective Coating	1	0	1	0	0	Square Feet
Element Number	Defect Type	Defect Descrip	tion		CS	CS Qty	Maint Qty	
313	Corrosion	Peeling paint with rust			2	1		Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1	Square Feet
(	General Comments							

Span 3

Span 3

Far Bearing

**Near Bearing** 

# Movable Bearing

Elen Num	nent Iber Movable	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
515	Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Element Number	Defect Type	Defect Description			cs	CS Qty	Maint Qty
311	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet

**General Comments** 

Temporary repair - Plate bolted on left side of bearing

Structure Number: 500085

# Span 3 Plate Girder

Elen Num	nent 1ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel C	pen Girder/Beam	50	0	50	0	0 Feet
515	Steel P	rotective Coating	478	408	70	0	0 Square Feet
Element Number	t Defect Type	Defect Desc	ription		CS	CS Qty	Maint Qty
107	Corrosion	40' peeling paint with rust on both fl	anges and web		2	40	Feet
107	Corrosion	Full length surface rust on both flan	ges and web		2	10	Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	70	70 Square Feet
(	General Comments						

# Span 3

#### **Near Bearing**

Beam 3

#### Fixed Bearing

Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
313	Fixed B	earing	1	0	1	0	0 Each
515	Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Element Number	Defect Type	Defect Description	n		CS	CS Qty	Maint Qty
313	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet

**General Comments** 

# Span 3

#### **Far Bearing**

# **Movable Bearing**

Elem Num 311	ient iber	Movable	Element Name e Bearing		Total Qty 1	<b>CS1</b> <b>Qty</b> 0	<b>CS2</b> Qty 1	<b>CS3</b> <b>Qty</b> 0	<b>CS4</b> Qty 0	Each
515		Steel P	rotective Coating		1	0	1	0	0	Square Feet
Element Number	Defect	Туре		Defect Description			CS	CS Qty	Maint Qty	
311	Corrosion		Peeling paint with ru	st			2	1		Each

2

1

1 Square Feet

Effectiveness (Steel Substantially effective Protective Coatings)

General Comments

Temporary repair - Plate bolted on left side of bearing

# Span 3

515

#### Beam 4

#### Plate Girder

Fiale	Gilder								
Elem Num	ient iber		Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	,
107	Ş	Steel Op	ben Girder/Beam	50	0	50	0	0	Feet
515	:	Steel Pr	otective Coating	478	418	60	0	0	Square Feet
Element Number	Defect T	уре	Defect Desc	ription		CS	CS Qty	Maint Qty	
107	Corrosion		46' peeling paint with rust on both fl	anges and web		2	46		Feet
107	Corrosion		Full length surface rust on both flan	ges and web		2	4		Feet

	Protective Coatings)	
515	Effectiveness (Steel	Substantially effective

Inspection Date: 04/09/2018 60 60 Square Feet

2

**General Comments** 

Spa	n 3				Near Bearing						
Fixe	ed Bea	aring									
Eler Nun 313	nent nber	Fix	ed Bea	Element Name		Total Qty 1	<b>CS1</b> <b>Qty</b> 0	CS2 Qty 1	<b>CS3</b> Qty 0	<b>CS4</b> Qty 0	Each
515		Ste	el Prot	ective Coating		1	0	1	0	0	Square Feet
Elemen Numbe 313 515	t r Corros Effect Protec	Defect Type sion iveness (Stu ctive Coatin	e eel gs)	Peeling paint with ru Substantially effecti	Defect Description			<b>CS</b> 2 2	<b>CS Qty</b> 1 1	Maint Qty	Each 1 Square Feet
Spa	n 3	a commen	115		Far Bearing						
Mov	able	Bearing			5						
Eler Nun 311 515	nent nber	Mo	vable E eel Prot	Element Name Bearing ective Coating		Total Qty 1	<b>CS1</b> <b>Qty</b> 0	<b>CS2</b> <b>Qty</b> 1	<b>CS3</b> <b>Qty</b> 0	<b>CS4</b> <b>Qty</b> 0	Each Square Feet
Elemen Numbe 311 515	t Corros Effect Protec	Defect Type sion iveness (Stu ctive Coatin	e eel gs)	Peeling paint with ru Substantially effecti	Defect Description Ist			<b>CS</b> 2 2	<b>CS Qty</b> 1 1	Maint Qty	Each 1 Square Feet
	Te	emporary re	epair - F	Plate bolted on left s	ide of bearing						
Spa	n 3				Expansion Joint						
Star	ndard	Joint									
Eler Nun 301	nent nber	Pot	urable .	Element Name Joint Seal		Total Qty 30	<b>CS1</b> Qty 14	<b>CS2</b> <b>Qty</b> 16	<b>CS3</b> <b>Qty</b> 0	CS4 Qty 0	Feet
Elemen	t r I	Defect Type	e		Defect Description			cs	CS Qty	Maint	
301 301	Adjac Heade Seal (	ent Deck or er Cracking		(2) up to 9" x 4" x 1' surface along joint 14' x 1' area of up to	deep area of missing as 1/8" transverse cracks	sphalt wear in East lan	ring e	2 2	2 14	uty	Feet
-	Genera	al Commen	its								
Spa	n 4				Left Bridge Rail						
Con	crete	and Met	al Ra	lling							
Eler Nun 333	nent nber	Oth	ner Brid	Element Name		Total Qty 51	<b>CS1</b> <b>Qty</b> 35	<b>CS2</b> <b>Qty</b> 10	<b>CS3</b> <b>Qty</b> 6	<b>CS4</b> Qty 0	Feet
515		Ste	el Prot	ective Coating		299	299	0	0	0	Square Feet
Elemen Numbe	r I	Defect Type	e		Defect Description			CS	CS Qty	Maint Qty	

Structure	Number: <u>500085</u>			Inspe	ction Date: 04/09/2018
333	Delamination/Spall	(4) up to 10" x 9" x 1" deep spalls on outside face of concrete rail	3	4	4 Feet
333	Delamination/Spall	1" x 4" x 2" deep spall on concrete Post 6	3	1	1 Feet
333	Delamination/Spall	2" x 10" x 6" deep spall on concrete Post 7	3	1	1 Feet
333	Cracking (RC and Other)	(7) hairline vertical and transverse cracks on concrete rail and curb	2	7	Feet
333	Cracking (RC and Other)	6" hairline diagonal crack on top of concrete rail near Posts 2	2	1	Feet
333	Delamination/Spall	(2) up to 3" x 5" x 1" deep spalls on end post	2	1	1 Feet
333	Delamination/Spall	6" x 1" x 1/2" deep spall with exposed rebar on top of curb, 7' from Bent 3	2	1	Feet

#### **General Comments**

22' scrapes on metal rail at End Bent 2

# Span 4

# **Right Bridge Rail**

# **Concrete and Metal Railing**

Elem Num	ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
333	Other B	ridge Railing	51	44	6	1	0	Feet
515	Steel Pr	rotective Coating	299	299	0	0	0	Square Feet
Element Number	Defect Type	Defect Des	cription		CS	CS Qty	Maint Qty	
333	Delamination/Spall	2" x 8" x 10" deep spall with expos (Post 6 similar)	ed rebar on concrete	e Post 7	3	1		1 Feet
333	Cracking (RC and Other)	(5) hairline vertical and transverse curb	cracks on concrete r	ail and	2	5		Feet
333	Delamination/Spall	5" x 4" x 1/2" deep spall on outside	face of concrete rai	I	2	1		1 Feet

# Span 4

#### Beam 1

#### Plate Girder

Elem Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Op	ben Girder/Beam	51	3	48	0	0 Feet
515	Steel Pr	otective Coating	480	430	50	0	0 Square Feet
Element Number	Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty
107	Corrosion	48' peeling paint with rust on both fla	inges and web		2	48	Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	50	50 Square Feet
C	General Comments						

# Span 4

#### **Near Bearing**

#### **Movable Bearing**

ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
Movable	Bearing	1	0	1	0	0 E	Each
Steel Pr	otective Coating	1	0	1	0	0 8	Square Feet
Defect Type	Defect Description	n		CS	CS Qty	Maint Qty	
Corrosion	Peeling paint with rust			2	1		Each
Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1	Square Feet
	ent ber Movable Steel Pr Defect Type Corrosion Effectiveness (Steel Protective Coatings)	ent ber Element Name Movable Bearing Steel Protective Coating Defect Type Defect Description Corrosion Peeling paint with rust Effectiveness (Steel Substantially effective Protective Coatings)	ent ber     Total Qty       Movable Bearing     1       Steel Protective Coating     1       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective       Protective Coatings     Substantially effective	ent ber     Total Qty     CS1 Qty       Movable Bearing     1     0       Steel Protective Coating     1     0       Defect Type     Defect Description       Corrosion     Peeling paint with rust       Effectiveness (Steel     Substantially effective       Protective Coatings)     Substantially effective	ent ber     Element Name     Total Qty     CS1 Qty     CS2 Qty       Movable Bearing     1     0     1       Steel Protective Coating     1     0     1       Defect Type     Defect Description     CS       Corrosion     Peeling paint with rust     2       Effectiveness (Steel     Substantially effective     2	ent berElement NameTotal QtyCS1 QtyCS2 QtyCS3 QtyMovable Bearing1010Steel Protective Coating1010Defect DescriptionCS CS QtyCorrosionPeeling paint with rust21Effectiveness (Steel Protective Coatings)Substantially effective21	ent berElement NameTotal QtyCS1 QtyCS2 QtyCS3 QtyCS4 QtyMovable Bearing101000Steel Protective Coating101000Defect DescriptionCorrosionPeeling paint with rust2101Effectiveness (SteelSubstantially effective211

Spa	n 4	Far Bearing						
Fixe	d Bearing							
Elen Num	nent 1ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed Be	earing	1	0	1	0	0	Each
515	Steel Pro	otective Coating	1	0	1	0	0	Square Feet
Element Number	t Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty	
313	Corrosion	Peeling paint with rust			2	1		Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1		1 Square Feet
(	General Comments							

Spa	n 4	Beam 2						
Plat	e Girder							
Elen Nun	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Op	ben Girder/Beam	51	0	51	0	0	Feet
515	Steel Pr	otective Coating	480	390	90	0	0	Square Feet
Elemen Number	t r Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty	
107	Corrosion	Full length peeling paint with rust on	web		2	51		Feet
107	Corrosion	Full length surface rust on both flang	es and web		2			Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	90	9	0 Square Feet
-	General Comments							

# Span 4

# **Near Bearing**

# **Movable Bearing**

Eler Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
311	Movable	Bearing	1	0	1	0	0 Each
515	Steel Pro	otective Coating	1	0	1	0	0 Square Feet
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty
311	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
ī	General Comments						

# Span 4

# Far Bearing

Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty	
515	Steel Protective Coating		1	0	1	0	0	Square Feet
313	Fixed Bearing		1	0	1	0	0	Each
Element Number	Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
Fixed B	earing							

Structure	Number: <u>500085</u>			Inspectior	n Date: 04/09/2018
313	Corrosion	Peeling paint with rust	2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective	2	1	1 Square Feet

**General Comments** 

Spa	n 4	Beam 3						
Plat	e Girder							
Eler Nun	nent nber Steel Or	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	Foot
515	Steel Pr	otective Coating	480	430	50	0	0	Square Feet
Elemen Numbe	t r Defect Type	Defect Des	scription		CS	CS Qty	Maint Qty	
107	Corrosion	45' peeling paint with rust on bott	om flange and web		2	45		Feet
107	Corrosion	Full length surface rust on both flanges and web			2	6		Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	50	5	O Square Feet
-	General Comments							

Span 4

# Near Bearing

# **Movable Bearing**

Elen Num	nent 1ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
311	Movable	Bearing	1	0	1	0	0 Each
515	Steel Pr	otective Coating	1	0	1	0	0 Square Feet
Element Number	t Defect Type	Defect Description			CS	CS Qty	Maint Qty
311	Corrosion	Peeling paint with rust			2	1	Each
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
(	General Comments						

Span 4

Far Bearing

# **Fixed Bearing**

ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Fixed Be	earing	1	0	1	0	0 Each
Steel Pro	ptective Coating	1	0	1	0	0 Square Feet
Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
Corrosion	Surface rust			2	1	Each
Effectiveness (Steel Protective Coatings)	Substantially effective			2	1	1 Square Feet
	Fixed Be Steel Pro Defect Type Corrosion Effectiveness (Steel Protective Coatings)	Element Name       Fixed Bearing       Steel Protective Coating       Defect Type       Defect Description       Corrosion     Surface rust       Effectiveness (Steel     Substantially effective       Protective Coatings)	Element Name     Qty       Fixed Bearing     1       Steel Protective Coating     1       Defect Type     Defect Description       Corrosion     Surface rust       Effectiveness (Steel     Substantially effective       Protective Coatings)     Substantially effective	Element Name     Otal     CS I       ber     Element Name     Qty     Qty       Fixed Bearing     1     0       Steel Protective Coating     1     0       Defect Type     Defect Description       Corrosion     Surface rust       Effectiveness (Steel     Substantially effective       Protective Coatings)     Substantially effective	Element Name     Total     CS1     CS2       ber     Element Name     Qty     Qty     Qty     Qty       Fixed Bearing     1     0     1       Steel Protective Coating     1     0     1       Defect Type     Defect Description     CS       Corrosion     Surface rust     2       Effectiveness (Steel     Substantially effective     2       Protective Coatings)      2	Element NameOtalCS1CS2CS3berElement NameQtyQtyQtyQtyQtyFixed Bearing1010Steel Protective Coating1010Defect DescriptionCSCS QtyCorrosionSurface rust21Effectiveness (SteelSubstantially effective21Protective Coatings)Substantially effective21

Structure Number: 500085

# Span 4

Plate (	Girder
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Eler Nun	nent nber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Op	ben Girder/Beam	51	0	51	0	0 Feet
515	Steel Pr	otective Coating	480	405	75	0	0 Square Feet
Elemen Numbe	t r Defect Type	Defect Descripti	on		CS	CS Qty	Maint Qty
107	Corrosion	Full length peeling paint with rust on bo	th flanges and v	veb	2	51	Feet
515	Effectiveness (Steel Protective Coatings)	Substantially effective			2	75	75 Square Feet
-	General Comments						

#### Span 4

#### **Near Bearing**

Beam 4

#### **Movable Bearing**

#### Element Total CS1 CS2 CS3 CS4 Number **Element Name** Qty Qty Qty Qty Qty 311 Movable Bearing 0 0 0 Each 1 1 515 Steel Protective Coating 0 1 0 0 Square Feet 1 Element Maint **Defect Description** CS CS Qty **Defect Type** Number Qty 2 311 Peeling paint with rust 1 Each Corrosion 515 Effectiveness (Steel Substantially effective 2 1 1 Square Feet Protective Coatings) **General Comments**

## Span 4

#### **Far Bearing**

#### Fixed Bearing

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
313	Fixed B	earing	1	0	1	0	0 Each	
515	Steel P	rotective Coating	1	0	1	0	0 Square Feet	
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty	_
313	Corrosion	Peeling paint with rust			2	1	Each	
515	Effectiveness (Steel	Substantially effective			2	1	1 Square Feet	

Protective Coatings) General Comments

#### Span 4

#### Expansion Joint

#### Standard Joint

•••••								
Elen Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
301	Pourab	le Joint Seal	30	26	0	4	0 Feet	
Element Number	t Defect Type	Defect Description	n		CS	CS Qty	Maint Qty	
301	Adjacent Deck or Header	(2) up to 20" x 20" x 1/2" deep area of m surface along joint	issing asphalt v	vearing	3	4	4 Feet	
								_

**General Comments** 

#### Span 4

#### **Standard Joint**

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
301	Poura	ble Joint Seal	30	28	2	0	0 Feet
Element Number	Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
301	Seal Cracking	2' transverse crack in West lane			2	2	Feet

**Expansion Joint** 

**General Comments** 

# Bent 1

# Cap 1

# **Reinforced Concrete Pier Cap**

Elen Num 234	nent Iber Reinfor	Element Name ced Concrete Pier Cap	Total Qty 27	<b>CS1</b> <b>Qty</b> 19	<b>CS2</b> Qty 6	<b>CS3</b> <b>Qty</b> 2	<b>CS4</b> <b>Qty</b> 0	Feet
Element Number	Defect Type	Defect Descrip	otion		CS	CS Qty	Maint Qty	
234	Cracking (RC and Other)	18" up to 1/8" horizontal crack on Spa	an 1 face under Ba	iy 1	3	2	2	2 Feet
234	Cracking (RC and Other)	42" x 24" area of hairline vertical and 1 face under Bay 1	horizontal cracks	on Span	2	4		Feet
234	Delamination/Spall	12" x 24" area of delamination with ha cracks on Span 1 face at West end	airline vertical, dia	gonal	2	1		1 Feet
234	Exposed Rebar	(2) up to 3" x 3" x 1" deep spall with e Span 1 face	exposed rebar on c	orbel on	2	1		1 Feet

**General Comments** 

## Bent 1

Pile 1

#### **Reinforced Concrete Column**

Elem Num 205	nent Iber Reinford	Element Name	Total Qty 1	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	ach
Element	Defect Type	Defect Description			CS	CS Qty	Maint Qty	
205	Cracking (RC and Other)	30" up to 1/8" vertical crack on Span 1 fac	е		3		3	Each
205	Exposed Rebar	12" x 5" x 1" deep spall with exposed reba	r on Span 1 fa	ce (PM)	3	1	1	Each
205	Exposed Rebar	2" x 6" x 1/2" deep spall with exposed reba strut	ar on Span 1 fa	ace of	2		1	Each

**General Comments** 

# Bent 1

#### Pile 2

#### **Reinforced Concrete Column**

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinfor	ced Concrete Column	1	0	0	1	0 Ea	ach
Element Number	Defect Type	Defect Descript	tion		CS	CS Qty	Maint Qty	
205	Cracking (RC and Other)	18" up to 1/16" vertical crack on Span	1 face		3	1	2	Each
205	Exposed Rebar	(2) up to 3" x 2" x 1/2" deep spall with and strut on Span 1 face	exposed rebar on	corbel	2		1	Each
205	Exposed Rebar	4" x 1" x 1/2" deep spall with exposed corbel	rebar on Span 1 fa	ace of	2		1	Each

#### **General Comments**

#### End Bent 1

Cap 1

# Reinforced Concrete Pier Cap

Eler Nur 234	<b>nent</b> nber Reinfor	Element Name ced Concrete Pier Cap	Total Qty 32	<b>CS1</b> Qty 16	<b>CS2</b> <b>Qty</b> 12	CS3 Qty 4	<b>CS4</b> Qty 0 Fe	eet
Elemen Numbe	t r Defect Type	Defect Descriptio	n		CS	CS Qty	Maint Qty	
234	Cracking (RC and Other)	16" up to 1/16" diagonal crack under Bea	am 4 (Beam 1 s	similar)	3	3	3	Feet
234	Delamination/Spall	4" x 4" x 2" deep spall on Pile Cap 1			3	1	1	Feet
234	Cracking (RC and Other)	14" hairline vertical crack under Beam 4			2	1		Feet
234	Cracking (RC and Other)	5' hairline horizontal crack under Bay 1			2	5		Feet
234	Cracking (RC and Other)	6' x 1' area of delamination with hairline v cracks under Bay 2	vertical and hor	izontal	2	6		Feet
-	General Comments							

#### End Bent 1

Abutment

#### **Reinforced Concrete Abutment**

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
215	Reinfor	ced Concrete Abutment	32	11	21	0	0 Feet
Element Number	Defect Type	Defect Descr	iption		CS	CS Qty	Maint Qty
215	Cracking (RC and Other)	28" hairline horizontal crack at West	end		2	3	Feet
215	Cracking (RC and Other)	6' hairline horizontal crack in Bay 3 (	Bays 1 and 2 similar)		2	18	Feet

**General Comments** 

Bent 2

#### Cap 1

# **Reinforced Concrete Pier Cap**

Elerr Num 234	nent Iber Reinfo	Element Name rced Concrete Pier Cap	otal Qty 27	<b>CS1</b> <b>Qty</b> 16	<b>CS2</b> <b>Qty</b> 11	<b>CS3</b> <b>Qty</b> 0	CS4 Qty 0 Feet
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty
234	Patched Area	30" x 30" area of sound patch on East face			2	3	Feet
234	Patched Area	4' x 15" area of sound patch on Span 2 face und (Beam 3 similar)	er Bear	n 2	2	8	Feet

**General Comments** 

Bent 2		Pile 1						
Reinford	ced 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	

#### Inspection Date: 04/09/2018

Structure	Number: 500085			Inspe	ction Da	ate: <b>04/09/2</b>
205	Delamination/Spall	10" x 2" x 2" deep spall on Span 3 face of strut	3	1	1	Each
205	Abrasion/Wear (PSC/RC)	4' abrasion at waterline	2			Each
205	Delamination/Spall	4" x 2" area of honeycombing on Southeast corner	2		1	Each
205	Delamination/Spall	4" x 3" x 1" deep spall on Span 3 face of corbel under strut	2		1	Each
205	Exposed Rebar	2" x 6" x 1/2" deep spall with exposed rebar on Span 3 face of strut	2		1	Each

**General Comments** 

Bent 2

Pile 2

#### **Reinforced Concrete Column**

Elen Num 205	nent nber Reinfor	Element Name ced Concrete Column	Total Qty 1	<b>CS1</b> Qty 0	<b>CS2</b> Qty 1	<b>CS3</b> <b>Qty</b> 0	<b>CS4</b> Qty 0 Each
Element	t Defect Type	Defect Description			CS	CS Qty	Maint Qty
205	Abrasion/Wear (PSC/RC)	4' abrasion at waterline			2	1	Each
205	Exposed Rebar	2" x 6" x 1/2" deep spall with exposed rebar of strut	on Span 3 f	face of	2		1 Each

**General Comments** 

## End Bent 2

Cap 1

#### **Reinforced Concrete Pier Cap**

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
234	Reinf	orced Concrete Pier Cap	32	30	2	0	0 Feet
Element Number	Defect Type	Defect Descript	ion		CS	CS Qty	Maint Qty
234	Cracking (RC and Other)	15" hairline horizontal crack under Bay	3		2	2	Feet

**General Comments** 

#### End Bent 2

#### Abutment

#### **Reinforced Concrete Abutment**

Elen Num 215	nent Iber Reinfor	Element Name ced Concrete Abutment	Total Qty 32	<b>CS1</b> Qty 6	<b>CS2</b> <b>Qty</b> 26	<b>CS3</b> <b>Qty</b> 0	CS4 Qty 0 Feet	
Element Number	Defect Type	Defect Descrip	tion		CS	CS Qty	Maint Qty	
215	Cracking (RC and Other)	12" hairline diagonal crack at West en	d		2	1	Feet	
215	Cracking (RC and Other)	6' hairline horizontal crack with efflore	scence in Bay 1		2	6	Feet	
215	Cracking (RC and Other)	7' hairline horizontal crack with efflore	scence in Bay 3		2	7	Feet	
215	Cracking (RC and Other)	8' x 2' area of delaminated patch in Ba	ay 2		2	8	Feet	
215	Delamination/Spall	(2) up to 24" x 12" area of delamination	n in Bay 1		2	4	4 Feet	
(	General Comments							

#### Bent 3

# Cap 1

#### Reinforced Concrete Pier Cap

Elerr Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
234	Reinfor	ced Concrete Pier Cap	27	22	2	3	0	Feet
Element Number	Defect Type	Defect Descri	ption		CS	CS Qty	Maint Qty	
234	Cracking (RC and Other)	30" up to 1/16" horizontal crack on S	pan 3 face		3	3	3	Feet
234	Exposed Rebar	(2) up to 3" x 6" x 1" deep spall with e face of corbel	exposed rebar on We	est	2	1	1	Feet
234	Exposed Rebar	4" x 6" x 1" deep spall with exposed i East end	rebar on Span 3 face	at	2	1	1	Feet
ī	General Comments							

#### Bent 3

Pile 1

# **Reinforced Concrete Column**

Elem Num	nent Iber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
205	Reinfor	ced Concrete Column	1	0	0	1	0 Each
Element Number	Defect Type	Defect Desc	cription		CS	CS Qty	Maint Qty
205	Cracking (RC and Other)	3' up to 1/16" vertical crack on Spa	in 4 face (East face s	imilar)	3	1	6 Each
205	Abrasion/Wear (PSC/RC)	3' abrasion at waterline			2		Each

#### Bent 3

Pile 2

#### **Reinforced Concrete Column**

Elem Num	ent ber	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
205	Reinfor	Reinforced Concrete Column 1 0		0	0	1	0 E	ach
Element Number	Defect Type	Defect Desc	ription		CS	CS Qty	Maint Qty	
205	Delamination/Spall	4" x 4" x 3" deep spall on Span 3 fa	ace of corbel under st	trut	3		1	Each
205	Exposed Rebar	6" x 8" x 1" deep spall with expose corbel above strut	d rebar on Span 3 fac	ce of	3	1	1	Each
205	Abrasion/Wear (PSC/RC)	3' abrasion at waterline			2			Each

**General Comments** 

# **Elements Verfied**

Location	Name	Component	Element Name	Amount
Span 1	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1537
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	52
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	52
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	52
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	52
Span 1	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	52
Span 1	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	52
Span 1	Expansion Joint	Standard Joint	Pourable Joint Seal	30
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1451
Span 1	Far Bearing	Movable Bearing	Movable Bearing	1
Span 1	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing	Movable Bearing	Movable Bearing	1
Span 1	Far Bearing	Movable Bearing	Movable Bearing	1
Span 1	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing	Movable Bearing	Movable Bearing	1
Span 2	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1492
Span 2	Beam 1	Plate Girder	Steel Open Girder/Beam	50
Span 2	Beam 2	Plate Girder	Steel Open Girder/Beam	50
Span 2	Beam 3	Plate Girder	Steel Open Girder/Beam	50
Span 2	Beam 4	Plate Girder	Steel Open Girder/Beam	50
Span 2	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	50
Span 2	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	50
Span 2	Expansion Joint	Standard Joint	Pourable Joint Seal	30
Span 2	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1409
Span 2	Far Bearing	Movable Bearing	Movable Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Far Bearing	Movable Bearing	Movable Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Far Bearing	Movable Bearing	Movable Bearing	1
Span 2	Far Bearing	Movable Bearing	Movable Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 3	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1492
Span 3	Beam 1	Plate Girder	Steel Open Girder/Beam	50
Span 3	Beam 2	Plate Girder	Steel Open Girder/Beam	50
Span 3	Beam 3	Plate Girder	Steel Open Girder/Beam	50
Span 3	Beam 4	Plate Girder	Steel Open Girder/Beam	50
Span 3	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	50
Span 3	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	50
Span 3	Expansion Joint	Standard Joint	Pourable Joint Seal	30
Span 3	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1409
Span 3	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 3	Far Bearing	Movable Bearing	Movable Bearing	1

# **Elements Verfied**

Location	Name	Component	Element Name	Amount
Span 3	Far Bearing	Movable Bearing	Movable Bearing	1
Span 3	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 3	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 3	Far Bearing	Movable Bearing	Movable Bearing	1
Span 3	Far Bearing	Movable Bearing	Movable Bearing	1
Span 3	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 4	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	1500
Span 4	Beam 1	Plate Girder	Steel Open Girder/Beam	51
Span 4	Beam 2	Plate Girder	Steel Open Girder/Beam	51
Span 4	Beam 3	Plate Girder	Steel Open Girder/Beam	51
Span 4	Beam 4	Plate Girder	Steel Open Girder/Beam	51
Span 4	Left Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	51
Span 4	Right Bridge Rail	Concrete and Metal Railing	Other Bridge Railing	51
Span 4	Expansion Joint	Standard Joint	Pourable Joint Seal	30
Span 4	Expansion Joint	Standard Joint	Pourable Joint Seal	30
Span 4	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	1416
Span 4	Near Bearing	Movable Bearing	Movable Bearing	1
Span 4	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 4	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 4	Near Bearing	Movable Bearing	Movable Bearing	1
Span 4	Near Bearing	Movable Bearing	Movable Bearing	1
Span 4	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 4	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 4	Near Bearing	Movable Bearing	Movable Bearing	1
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	27
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	32
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	32
Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	27
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	32
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	32
Bent 3	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	27
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: 500085

Inspection Date: 04/09/2018

#### National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	6
Item 59: Superstructure	0 - 9 , N	6
Item 60: Substructure	0 - 9 , N	6
Item 61: Channel and Channel Protection	0 - 9 , N	7
Item 62: Culvert	0 - 9 , N	N
Item 71: Waterway Adequacy	0 - 9 , N	7
Item 72: Approach Roadway Alignment	0 - 9 , N	8

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	6021	3376
Drainage System	G, F, P, or C	F	32	3332
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	F	1	3352
Scour	G, F, P, or C	G		
Wingwall	G, F, P, or C	F	3	3350
Field Scour Evaluation		G		
Drift	G, F, P, or C	G	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		
Estimated Remaining Life	0 - 100 Years	10		
Superstructure Paint Code		Α		

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	5
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

# National Bridge and NC SMU Inspection Item Details

Structure Nu	mber: 500085				Inspect	ion Date:	04/09/2018
Item	Item Deck Debris			Maint Code 33	376 <b>Qty.</b>	6021	
Deta	ils Full length x 1' dirt and debris in West gutter						
ltem	Drainage System	Grade	F	Maint Code 3	332 <b>Qty.</b>	32	
Deta	ils (32) clogged deck drains						
ltem	Slope Protection	Grade	F	Maint Code 33	352 <b>Qty.</b>	1	
Deta	ils 12" x 3" area of up to 24" undermining under En	d Bent 2 slope pro	otecti	on at East end (West e	nd similar)		
ltem	Wingwalls	Grade	F	Maint Code 33	350 <b>Qty</b> .	3	
Deta	ils 24" x 12" x 2" deep spall on Northwest wingwall						
	14" x 5" x 1" deep spall on Southeast wingwall						

(2) up to 6" x 3" x 1" deep spalls on Southwest wingwall

Date: 04/09/2018

#### **Condition Photos**



Span 4 Right Bridge Rail: 2" x 8" x 10" deep spall with exposed rebar on concrete Post 7 (Post 6 similar)



Span 4 Right Bridge Rail: 5" x 4" x 1/2" deep spall on outside face of concrete rail

Date: 04/09/2018

#### **Condition Photos**



Expansion Joint : (2) up to 20" x 20" x 1/2" deep area of missing asphalt wearing surface along joint



Span 3 Wearing Surface: 6" x 6" area of hairline longitudinal and transverse cracks in East lane, 9' from Bent 2

Structure: 500085

County: JOHNSTON

Date: 04/09/2018



Expansion Joint: 14' x 1' area of up to 1/8" transverse cracks in East lane



Full length x 1' dirt and debris in West gutter

Date: 04/09/2018

#### **Condition Photos**



Expansion Joint : (2) up to 36" x 7" x 1" deep area of missing asphalt wearing surface along joint



Span 2 Left Bridge Rail: (4) hairline vertical and transverse cracks on concrete rail and curb

Structure: 500085

County: JOHNSTON

Date: 04/09/2018

**Condition Photos** 



Span 4 Left Bridge Rail: 6" x 1" x 1/2" deep spall with exposed rebar on top of curb, 7' from Bent 3



Span 4 Left Bridge Rail: 2" x 10" x 6" deep spall on concrete Post 7

Date: 04/09/2018



Span 4 Left Bridge Rail: 22' scrapes on metal rail at End Bent 2



End Bent 2 Abutment/Backwall : (2) up to 24" x 12" area of delamination in Bay 1

Date: 04/09/2018

#### **Condition Photos**



End Bent 2 Abutment/Backwall : 7' hairline horizontal crack with efflorescence in Bay 3



12" x 3" area of up to 24" undermining under End Bent 2 slope protection at East end (West end similar)

Structure: 500085

County: JOHNSTON

Date: 04/09/2018



24" x 12" x 2" deep spall on Northwest wingwall



Span 4 Beam 4: Full length peeling paint with rust on both flanges and web

Date: 04/09/2018



Span 3 Beam 4 Far Bearing: Temporary repair - Plate bolted on left side of bearing



Bent 3 Pile 1: 3' up to 1/16" vertical crack on Span 4 face (East face similar)

Date: 04/09/2018



Bent 3 Cap 1: 30" up to 1/16" horizontal crack on Span 3 face



Bent 3 Cap 1: 4" x 6" x 1" deep spall with exposed rebar on Span 3 face at East end

Structure: 500085

County: JOHNSTON

Date: 04/09/2018



Bent 3 Pile 2: 4" x 4" x 3" deep spall on Span 3 face of corbel under strut



Bent 3 Pile 2: 6" x 8" x 1" deep spall with exposed rebar on Span 3 face of corbel above strut

Date: 04/09/2018



Bent 3 Cap 1: (2) up to 3" x 6" x 1" deep spall with exposed rebar on West face of corbel



Span 1 Beam 1: Temporary Repair - 7" x 31" area of replaced beam at End Bent 1

Date: 04/09/2018



End Bent 1 Cap 1: 16" up to 1/16" diagonal crack under Beam 4



Span 1 Beam 2: Temporary Repair - 20" x 12" plate welded to bottom flange at Bent 1

Date: 04/09/2018



Span 1 Beam 1 Near Bearing: Peeling paint with rust



Span 1 Beam 2: 48' peeling paint with rust on web

Date: 04/09/2018

**Condition Photos** 



Bent 1 Cap 1: 12" x 24" area of delamination with hairline vertical, diagonal cracks on Span 1 face at West end



Bent 1 Pile 1: 12" x 5" x 1" deep spall with exposed rebar on Span 1 face (PM)



Northeast delineator (Northwest similar)

Structure: 500085

County: JOHNSTON

Date: 04/09/2018

#### Structure Photos



West bridge rail (East bridge rail similar)



Downstream view, looking East

Date: 04/09/2018



Bent 1 joint (Bents 2 and 3 joints similar)



End Bent 1 joint (End Bent 2 joint similar)

Structure: 500085

County: JOHNSTON

Date: 04/09/2018

Structure Photos



Bridge plaque at Southeast corner (Northwest corner similar)



Looking North

Date: 04/09/2018

Structure Photos



# Upstream view, looking West



Northwest wingwall (All others similar)

Structure: 500085

County: JOHNSTON

Date: 04/09/2018

Structure Photos



End Bent 2 (End Bent 1 similar)



Intermediate diaphragm

Date: 04/09/2018

Structure Photos



End Bent bearing (Beam 2, End Bent 2 shown)



Bent bearing (Beam 4, Bent 3 shown)

Date: 04/09/2018

#### Structure Photos



Bent 3 (Bents 1 and 2 similar)



Upstream view, looking East

Structure: 500085

County: JOHNSTON

Date: 04/09/2018

Structure Photos



Downstream profile, looking West



Underside of superstructure (Span 3 shown)

# Stream Bed Soundings (Profile diagram on following sheet)

JOHNSTON County

Structure Number: 500085

Inspection Date 04/11/2018

Sounding recorded from: Top of Bridge Rail

Highwater Mark Distance

Location of Highwater Mark

Distance (Station) ft	Downstream Sounding ft	Upstream Sounding ft	Description
0.000	2.000	0.000	TOP OF BACKWALL
1.000	2.000	0.000	TOP OF BACKWALL
1.100	6.100	0.000	TOP OF CAP
2.500	6.100	0.000	TOP OF CAP
2.600	6.300	6.400	FACE OF CAP
49.000	25.000	0.000	WATER SURFACE/WATER EDGE
50.500	25.200	26.800	Bent 1
77.000	29.800	0.000	
100.500	26.600	28.500	Bent 2
108.000	25.000	0.000	WATER SURFACE/WATER EDGE
127.000	25.000	0.000	
150.500	24.300	24.700	Bent 3
170.000	22.200	0.000	
195.000	7.400	0.000	
199.600	7.000	7.100	FACE OF CAP
199.700	6.100	0.000	TOP OF CAP
200.900	6.100	0.000	TOP OF CAP
201.200	2.000	0.000	TOP OF BACKWALL
202.200	2.000	0.000	TOP OF BACKWALL



# Structure Data Worksheet



Span Number	Span Length	Bearing to Bearing	Crutch/ Helper Bent	Distance to Near Bearing	Distance to Far Bearing
1	51.500	49.800			
2	50.000	49.000			
3	50.000	49.000			
4	50.250	48.250			

#### NATIONAL BRIDGE INVENTORY------ STRUCTURE INVENTORY AND APPRAISAL Run Date: 04/12/2019

(1) STATE NAME -NORTH CAROLINA BRIDGE	500085
	1100005
	11000950
(3) COUNTY CODE 101 (4) PLACE CODE	24520
(6) FEATURE INTERSECTED - BLACK CREEK	24520
(7) FACILITY CARRIED 195 SBI	
(9) LOCATION 0.8 MI.N.JCT US301/701	
(11)MILEPOINT	90.5
(16)LAT 35° 27' 59.08" (17)LONG 78° 22'	50.65"
(98)BORDER BRIDGE STATE CODE PCT SH	IARE
(99)BORDER BRIDGE STRUCTURE NO	
STRUCTURE TYPE AND MATERIAL -	
(43) STRUCTURE TYPE MAIN: Steel	
TYPE - Stringer Mutlibeam or Girder	CODE 302
(44) STRUCTURE TYPE APPR :	
TYPE -	CODE 000
	2
	0000
	CODE
(108) WEARING SURFACE / PROTECTIVE SYSTEM :	0005
(A) TYPE OF WEARING SURFACE - Bituminous	
(B) IT YE OF MEMBRANE - NONE	
(C) TYPE OF DECK PROTECTION - None	CODE (
(27) YEAR BUILT	1955
(106)YEAR RECONSTRUCTED	
(42) TYPE OF SERVICE : ON - Highway	
UNDER - Waterway	CODE 15
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE	(
(29) AVERAGE DAILY TRAFFIC	23000
(30) YEAR OF ADT 2017 (109) TRUCK ADT PCT	16%
(19) BYPASS OR DETOUR LENGTH	1 MI
GEOMETRIC DATA	
(48) LENGTH OF MAXIMUM SPAN	50 FT
	202 F1
(50)CURB OR SIDEWALK: LEFT 0 FT RIGHT	0 F
51) BRIDGE ROADWAY WIDTH CURB TO CURB	28.167 F
	33.5 FI
(32) APPRUAUH RUADWAY WIDTH (W/SHUULDERS)	28 F I
(33) BRIDGE MEDIAN - Open Median	CODE 1
(33) BRIDGE MEDIAN - Open Median (34) SKEW 0° (35) STRUCTURE FLARE	CODE 1
(33) BRIDGE MEDIAN - Open Median (34) SKEW 0° (35) STRUCTURE FLARE 10) INVENTORY ROUTE MIN VERT CLEAR	CODE 1 D ( 999.9 FT 28 167 FT
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> </ul>	CODE 1 D ( 999.9 FT 28.167 FT 999 9 FT
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> <li>(54) MIN VERT LINDERCLEAR REF Not a Highway or Bailroad</li> </ul>	CODE 1 ED ( 999.9 FT 28.167 FT 999.9 FT
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>(10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> <li>(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad</li> <li>(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad</li> </ul>	CODE 1 2D (0 999.9 FT 28.167 FT 999.9 FT 0 FT 000 FT
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> <li>(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad</li> <li>(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad</li> <li>(56) MIN LAT UNDERCLEAR LT REF -</li> </ul>	CODE 1 D 0 28.167 FT 999.9 F1 0 FT 000 F1 000 F1
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> <li>(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad</li> <li>(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad</li> <li>(56) MIN LAT UNDERCLEAR LT REF -</li> </ul>	CODE 1 2D () 999.9 FT 28.167 FT 999.9 FT 0 FT 000 FT 000 FT
(33) BRIDGE MEDIAN - Open Median (34) SKEW 0° (35) STRUCTURE FLARE 10) INVENTORY ROUTE MIN VERT CLEAR (47) INVENTORY ROUTE TOTAL HORIZ CLEAR (53) MIN VERT CLEAR OVER BRIDGE RDWY (54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad (55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad (56) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad (56) MIN LAT UNDERCLEAR RT REF - NAVIGATION DATA	CODE 1 2D (0 999.9 FT 28.167 FT 999.9 FT 0 FT 000 FT 000 FT
<ul> <li>(33) BRIDGE MEDIAN - Open Median</li> <li>(34) SKEW 0° (35) STRUCTURE FLARE</li> <li>(10) INVENTORY ROUTE MIN VERT CLEAR</li> <li>(47) INVENTORY ROUTE TOTAL HORIZ CLEAR</li> <li>(53) MIN VERT CLEAR OVER BRIDGE RDWY</li> <li>(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad</li> <li>(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad</li> <li>(56) MIN LAT UNDERCLEAR LT REF -</li> </ul> NAVIGATION DATA (38) NAVIGATION CONTROL - No Navigational Control (111) DER DEDEECTION	CODE 1 2D (0 999.9 FT 28.167 FT 999.9 FT 0 FT 000 FT 000 FT 000 FT

(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR

(40) NAVIGATION HORIZONTAL CLEARANCE

FT

0 FT

SCOUR

SUFFICIENCY RATING =

STATUS = Structurally Deficient

	CLASSIFICATION	- CODE
(112)NBIS BRIDGE	SYSTEM -	YES
(104)HIGHWAY SYS	TEM Is on the NHS	1
(26) FUNCTIONAL C	CLASS - Arterial - Interstate	11
(100)STRAHNET HIC	GHWAY - Interstate STRAHNET Route	1
(101)PARALLEL STR	RUCTURE - Left Parallel Structure	L
(102)DIRECTION OF	TRAFFIC - 1-way Traffic	1
(103)TEMPORARY S	STRUCTURE - Temporary Structure/Conditions	т
(110)DESIGNATED	NATIONAL NETWORK - On the National Network	1
(20) TOLL	On Free Road	3
(31) MAINTAIN -	State Highway Agency	01
(22) OWNER -	State Highway Agency	01
(37) HISTORICAL SI	GNIFICANCE - Not Eligible	5

48.24

c		CODE ·
(58) DECK		6
(59) SUPERSTRUCTURE		4
(60) SUBSTRUCTURE		6
(61) CHANNEL & CHANNEL PROT	ECTION	7
(62) CULVERTS		Ν
	ING AND POSTING	
(31) DESIGN LOAD HS 20	+ MOD	6
(63) OPERATING RATING METHO	D - Load Factor	1
(64) OPERATING RATING -	HS-37	66
(65) INVENTORY RATING METHO	D - Load Factor	1
(66) INVENTORY RATING - HS-	22	39
(70) BRIDGE POSTING - No I	Posting Required	5
(41) STRUCTURE OPEN, POSTED	,OR CLOSED	D
DESCRIPTION - Open Ten	porary Shoring	
AI	PPRAISAL	CODE
(67) STRUCTURAL EVALUATION		4
(68) DECK GEOMETRY		3
(69) UNDERCLEARANCES, VERTI	& HORIZ	N
(71) WATERWAY ADEQUACY		7
(72) APPROACH ROADWAY ALIGI	NMENT	8
(36) TRAFFIC SAFETY FEATURES	;	0111
(113)SCOUR CRITICAL BRIDGES		8
PROPOS		s ———
(75) TYPE OF WORK -		CODE
(76) LENGTH OF STRUCTURE IM	PROVEMENT	
(94) BRIDGE IMPROVEMENT COS	ST	
(95) ROADWAY IMPROVEMENT C	OST	
(96) TOTAL PROJECT COST		
(97) YEAR OF IMPROVEMENT CC	ST ESTIMATE	
(114)FUTURE ADT 46000	(115) YEAR FUTU	JRE ADT 2025
INI		
(90) INSPECTION DATE	SPECTIONS	04/09/2018
(92) CRITICAL FEATURE INSPEC	FION : (S	93) CFI DATE
A) FRACTURE CRIT DETAIL -	NO	A)
B) UNDERWATER INSP -	NO	В)
C) OTHER SPECIAL INSP	NO	C)

#### BRIDGE MANAGEMENT UNIT

		DA	FA ON EXISTING	STRUCTURE	Run Date	ə: 04/12/2019	9	
COUNTY : JOHNSTON		DIVISION : 4	DISTRICT: 3	STRUCTURE NU 5000	MBER : 85	LENG	GTH : 202	FEET
ROUTE CARRIED :	195 SBL		FEATURE IN	TERSECTED : BL	ACK CREEK			
LOCATED : 0.8 MI.N.	JCT US301/701		BRIDGE NAME	:	CITY	': *FOUR OA	KS	
FUNC. CLASS : 11	SYST.ON : FA	SYST.UNE	DER : NFA	ADT & YR : 23000	2017	RAIL TYP	E: 3 RT 3	33
BUILT : 1955	BY : SHPW	PROJ : ′C	2336	FED.AID PROJ	l: [	DESIGN LOAD	: HS 20 +	MOD
REHAB :	BY :	PROJ :	ALIGNMEN	T: SKEW: TAN.	E LAI 90	NES : ON 2	UNDER	0
NAVIGATION : VC 0	FT	HC 0	HT. CRN. FT	TO BED : 28	WA FT	TER DEPTH :	5	FT
SUPERSTRUCTURE	: RC DECK (	ON I-BEAMS						
SUBSTRUCTURE :	EBTS:RC C	CAP/H-PILES @ 8	B'CTS;IBTS:RCP&B	EAM				
SPANS :	1@51'6", 2	@50', 1@50'3"						
BEAMS OR GIRDERS	S: 4 LINE	S W33X130 I-BE	AMS @ 8'CENTER	S				
FLOOR : 7 RC/4" /	AWS	ENCROACHM	IENT :	DECK (	OUT TO OUT) :	33.5 FT		
CLEAR ROADWAY :		BETWEEN RAI	LS :	SIDEV	VALK OR CURE			
2	8.167 FT		28.167 FT	-	LT	0 FT	RT	0 FT
VERT.CL.OVER : 999.9 FT								
INV.RTG. : HS-22	OPE.RTG. : H	CON <sup>-</sup> IS-37	FR.MEMBER : I-Bm E	POSTED : kt SV	TTST	DATE		
SYSTEM : Primary Interstate					GREEN LIN	E ROUTE :	Y	

UNDER ROUTES AND CLEARANCES

# **BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS**

Bridge: 500085

County JOHNSTON

Date: 04/09/2018

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3348	Maintain Concrete Substructure Components	LF	1	Bent 1 Pile 1: 12" x 5" x 1" deep spall with exposed rebar on Span 1 face (PM)	



# BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 500085

County JOHNSTON

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MN	/IS Descrip	otion		Quantity		
3348	Mai	ntain Cond	crete Substructure Components		1	LF	
Location:							
			Bent/Span No.				
Priority Level			Status				
Recommended			Routine Maintenance				
Submitted D	Date:	Submitte	d By:	Assisted By:			
04/13/2018		Cesar C	) Cuevas				
Details							
Bent 1 Pile	1: 12"	x 5" x 1" d	eep spall with exposed rebar on Sp	oan 1 face (PM)			

# **Bridge Inspection Field Sketch**

Roadway	24ft Wide	2 Paved Lanes	Looking South *
Left Shoulder	2ft Wide *	2ft Paved *	
Right Shoulder	2ft Wide *	2ft Paved *	
Left Guardrail	2ft from road *		
Right Guardrail	2ft from road *		

\* Measurement modified

BRS

SKETCH MODIFIED 4/9/18	BY COC			
Title		Descri	ption	
APPROACH ROADWAY		LOOKI	NG SOUTH	
Bridge No: 500085	Drawn By: GGW		Date:04/13/2006	File Name:S0214000202
	1		I	

# **Bridge Inspection Field Sketch**

Deck Width/Out to Out	33.5ft *	Wearing Surface	.333ft
Between Rails	28.167ft	Median Width	
Curb Height	.667ft	Median Height	
Top Rail to Deck/Wearing Surface	2.333ft	Left Guardrail Width	2.667ft *
Clear Roadway	28.167ft	Right Guardrail Width	2.667ft *
Left Bridge Rail	Type 33	Right Bridge Rail	Type 33
Measurements for Span #			
Measurements for Span # Deck Thickness	1.583	Left Overhang	4.75 *

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	8ft	W33 X 130 IBEAM
2	Steel I Beam	8ft	W33 X 130 IBEAM
3	Steel I Beam	8ft	W33 X 130 IBEAM
4	Steel I Beam		W33 X 130 IBEAM

\* Measurement modified

SKETCH MODIFIED 4/9/18	BY COC			
Title		Descri	ption	
TYPICAL SECTION		LOOKI	NGNORTH	
Bridge No: 500085	Drawn By: GGW		Date:04/13/2006	File Name:S0214000203
	1			

			Bri	dge l	nsp	oectio	on F	iel	d S	ketc	h			
Г	Con Int	formation		Matarial	Castia		roto							
	Lengtl	h Width	Height	Left Over	hang	Right Over	rete rhang L	.eft Be	am to Er	nd of Cap.	Righ	it Beam to Er	nd of Cap.	
L	27.000	ft. 2.500 ft.	2.500 ft.	5.000	) ft.	5.000 f	ft.	1.5	00 ft.		1	1.500 ft.		
	Subcap	o Information	Hoight	Material			orbang Loff Dilo to Splico							
	Lengt	in widdi	rieignt	Len Overnang Right Over										
F	Sill Info Lengtl	ormation h Width	Height	Material										
┢	Pile #	Material	Spacing	Width/Dia.	Height	Lenath	Orienta	ation	Driven?	Replacem	ent?	Removed?	Collar?	
	1	Concrete	17 ft.	2.333 ft.	5	5	Vertica	al	No	No		No	No	
	2	Concrete		2.333 ft.			Vertica	al	No	No		No	No	
								_	SKE	TCH VER	IFIE	D 4/9/18 BY	COC	
	Bent/A	butment #: 1	1	Similar I	Bents:	BENTS 2	& 3							
Ti	tle						Descrip	ption						
SL	JBSTR	UCTURE	CHECKEI	D BY: WC	M 4/25/2	2016	INTERI	OR B	ENT 1					
Bri	dge No:	500085	Drawr	<sup>By:</sup> WTW				Date:	4/23/20	14	File Na	ame:S00180	14612	