NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PRIORITY MAINTENANCE ISSUED

Structure Safety Report

Routine Element Inspection

INSPECTION DATE: 02/14/2019

DIVISION: 4 **COUNTY:** EDGECOMBE **STRUCTURE NUMBER:** 320005 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1404 **MILE POST:**

LOCATION: 0.3 MI. N. OF JCT. SR1411

FEATURE INTERSECTED: SWIFT CREEK

LATITUDE: 36° 3' 25.61" **LONGITUDE:** 77° 41' 14.33"

SUPERSTRUCTURE: RC DECK ON I-BEAMS AND CONCRETE ENCASED I-BEAMS

SUBSTRUCTURE: RC ABUTMENTS, INT.BT: RCP&B WIDENED WITH ONE CONCRETE PILE EACH SIDE OF CAP

SPANS: 2 SPANS. SEE SPAN PROFILE SHEET FOR SPAN DETAILS

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

NBI GRADES: **DECK** 6 **SUPERSTRUCTURE** 4 **SUBSTRUCTURE** 6 **CULVERT** N

POSTED SV: 19 **POSTED TTST:** 26

OTHER SIGNS PRESENT: 4 Delineators

LOOKING NORTH

Sign noticed issued for		Number Required
YES	**WEIGHT LIMIT**	2
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
Willis C May	Willis C May	Phillip D Carr

Structure Element Scoring

Structure Number: **320005**

Inspection Date **2/14/2019**

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	1368	1306	37	25	0
107	0	Steel Open Girder/Beam	Beam	500	293	159	48	0
515	107	Steel Protective Coating	Beam	912	129	0	461	322
521	107	Concrete Protective Coating	Beam	820	820	0	0	0
205	0	Reinforced Concrete Column	Piles and Columns	2	0	2	0	0
215	0	Reinforced Concrete Abutment	Abutments	104	0	104	0	0
220	0	Reinforced Concrete Pile Cap/Footing	Footing	16	0	16	0	0
226	0	Prestressed Concrete Pile	Piles and Columns	2	0	2	0	0
234	0	Reinforced Concrete Pier Cap	Caps	28	14	14	0	0
313	0	Fixed Bearing	Bearing Device	8	0	7	1	0
515	313	Steel Protective Coating	Bearing Device	8	0	0	0	8
331	0	Reinforced Concrete Bridge Railing	Bridge Rail	100	95	0	5	0
510	0	Wearing Surface	Wearing Surfaces	1200	1104	72	24	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: **320005** Inspection Date: **02/14/2019**

MMS Code	Element Name	Defect Name	Recommended Quantity
3326	Reinforced Concrete Deck	Delamination/Spall	34 Square Feet
3326	Reinforced Concrete Deck	Efflorescence/Rust Staining	10 Square Feet
3314	Steel Open Girder/Beam	Corrosion	48 Feet
3348	Reinforced Concrete Pier Cap	Delamination/Spall	10 Feet
3334	Fixed Bearing	Connection	1 Each
3318	Reinforced Concrete Bridge Railing	Patched Area	1 Square Feet
3318	Reinforced Concrete Bridge Railing	Delamination/Spall	4 Feet
2816	Wearing Surface	Crack (Wearing Surface)	96 Square Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	791 Square Feet

Element Structure Maintenance Quantities

Structure Number: **320005** Inspection Date **02/14/2019**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3350	Maintenance of Concrete Wings and Wall	0	104	0	0	104	0
Beam	3314	Maintenance Steel Superstructure Components	48	500	0	48	159	293
Beam	3342	Clean and Paint Steel	783	912	322	461	0	129
Beam	5603	Partial Cleaning and Painting of Structural Steel	0	820	0	0	0	820
Bearing Device	3334	Bridge Bearing	1	8	0	1	7	0
Bearing Device	3342	Clean and Paint Steel	8	8	8	0	0	0
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	5	100	0	5	0	95
Caps	3348	Maintenance of Concrete Substructure	10	28	0	0	14	14
Deck	3326	Maintenance of Concrete Deck	44	1368	0	25	37	1306
Footing	3348	Maintenance of Concrete Substructure	0	16	0	0	16	0
Piles and Columns	3348	Maintenance of Concrete Substructure	0	4	0	0	4	0
Wearing Surfaces	2816	Asphalt Surface Repair	96	1200	0	24	72	1104

Element Condition and Maintenance Data

Structure Number: **320005** Inspection Date: **02/14/2019**

Span 1 Deck

Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	684	655	4	25	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
12	Delamination/Spall	SPALLING IN RIGHT CURB 3 INCH DEEP	3	15	15	Square Feet
12	Efflorescence/Rust Staining	EFFLO UNDER BAY 7	3	10	10	Square Feet
12	Delamination/Spall	2' OF DELAMINATION UNDER BAY 4	2	2	2	Square Feet
12	Efflorescence/Rust Staining	2' OF EFFLO IN BOTTOM OF DECK	2	2		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	25	1	23	1	0	Feet
515	Steel Protective Coating	114	42	0	70	2	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS 100 % 1/2 IN WIDE X 1 FOOT LONG BOTTOM FLANGE BENT 1 REAMINDER DOWN TO KNIFE EDGE, WEB 5/16 IN REMAINING 2 IN HIGH PRIORITY MAINTENANCE ISSUED	3	1	1	Feet
107	Corrosion	SURFACE RUST	2	23		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	2	2	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	70	70	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	25	0	23	2	0	Feet
515	Steel Protective Coating	114	40	0	70	4	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS WEB BENT 1 HOLE 1 IN HIGH X 10 IN LONG , SECTION LOSS 100 % EDGE BOTTOM FLANGE 2 IN WIDE X 2 FOOT LONG PRIORITY MAINTENANCE ISSUED	3	2	2	Feet
107	Corrosion	SURFACE RUST	2	23		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	4	4	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	70	70	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	25	24	1	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SURFACE RUST ON BOTTOM FLANGE AT SPALLED CONCRETE COATING	2	1		Feet

General Comments

7' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 5

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	24	1	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	8" LONG X 2" DEEP X 3" WIDE SPALL IN BEAM 5 CONCRETE ENCASEMENT WITH RUSTY BOTTOM FLANGE IN SPALLED AREA	2	1		Feet

General Comments

3' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 6

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

6' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 7

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

6' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 8

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

15' CRACK IN CONCRETE ENCASEMENT, EFFLO

Span 1 Beam 9

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	0	13	12	0	Feet
515	Steel Protective Coating	114	0	0	29	85	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1" DIAMETER HOLE IN WEB 6' FROM BENT 1 1/8" PITTING IN WEB FULL HEIGHT. PRIORITY MAINTENANCE ISSUED	3	12	12	Feet
107	Corrosion	SURFACE RUST	2	13		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	85	85	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	29	29	Square Feet

General Comments

Span 1 Beam 10

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	0	23	2	0	Feet
515	Steel Protective Coating	114	0	0	29	85	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1 PRIORITY MAINTENANCE ISSUED	3	2	2	Feet
107	Corrosion	SURFACE RUST	2	23		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	85	85	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	29	29	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	600	552	48	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	TRANSVERSE CRACKING END BENT 1 SIMILAR OVER BENT 1	2	48	48	Square Feet

General Comments

Span 1 — Right Bridge Rail

Concrete Railing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
331	Reinforced Concrete Bridge Railing	25	20	0	5	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
331	Delamination/Spall	SPALLING UP TO 2 INCH DEEP GUARDRAIL POST BASES 3-6	3	4	4	Feet
331	Patched Area	CRACKED PATCH POST 6 BASE	3	1	1	Square Feet

General Comments

Span 1 — Far Bearing

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	Connection	MISSING ANCHOR BOLT PRIORITY MAINTENANCE ISSUED	3	1	1	Each
313	Corrosion	RUSTY	2			Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 1 — Far Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	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	684	651	33	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
12	Delamination/Spall	SPALL IN BOTTOM OF DECK UNDER BAY 3 WITH EXPOSED STEEL	2	2	2	Square Feet
12	Delamination/Spall	SPALLING 1/2 IN DEEP TOP LEFT CURB	2	15	15	Square Feet
12	Efflorescence/Rust Staining	EFFLO UNDER BAY 1 AND BAY 3	2	16		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	25	0	15	10	0	Feet
515	Steel Protective Coating	114	0	0	44	70	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS BOTTOM FLANGE 3/16 IN REMAINING MIDSPAN TO ABUTMENT 2, 5/16 IN REMAINING IN WEB PRIORITY MAINTENANCE ISSUED	3	8	8	Feet

107	Corrosion	SECTION LOSS BOTTOM FLANGE BENT 1 -100 % 1 IN WIDE X 2 FOOT LONG , 1/4 IN REMAINING WEB 4 IN HIGH 2 FOOT LONG PRIORITY MAINTENANCE ISSUED	3	2	2	Feet
107	Corrosion	SPOTS SECTION LOSS WEB TOTALING 8 FT LONG 3/8 IN REMAINING , 3/8 IN REMAINING TOP FLANGE FULL LENGTH, SURFACE RUST FLANGES , WEB	2	15		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	70	70	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	44	44	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	25	0	13	12	0	Feet
515	Steel Protective Coating	114	0	0	64	50	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	3/16" REMAINING SECTION LOSS BOTTOM FLANGE ABUTMENT 2 - 1/4 IN REMAINING WEB 3/4 IN REMAINING FULL HEIGHT 8 FOOT LONG PRIORITY MAINTENANCE ISSUED	3	8	8	Feet
107	Corrosion	HOLE IN WEB AT BENT 1 - 3 IN HIGH X 14 IN LONG REMAINDER 1/8 IN REMAINING 1 FOOT LONG, BOTTOM FLANGE 100 % SECTION LOSS 3/4 IN WIDE X 2 FOOT LONG , DOWN TO KNIFE EDGE 1/6 IN REMAINING AT EDGE 4 FOOT LONG PRIORITY MAINTENANCE ISSUED	3	4	4	Feet
107	Corrosion	SURFACE RUST	2	13		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	50	50	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	64	64	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	25	25	0	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

CRACKING WITH EFFLO LEAKAGE IN CONCRETE EMCASEMENT

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	25	22	3	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	RUSTY BOTTOM OF BEAM AT BENT 1	2	3		Feet

General Comments

8' CRACK IN CONCRETE ENCASEMENT

Span 2 Beam 5

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	22	3	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	RUST ON BOTTOM FLANGE AT BENT 1	2	3		Feet

General Comments

SPALLED AND CRACKED CONCRETE ENCASEMENT

Span 2 Beam 6

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

3' CRACK IN CONCRETE ENCASEMENT

Span 2 Beam 7

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

4' CRACK IN CONCRETE ENCASEMENT

Span 2 Beam 8

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	25	0	0	0	Feet
521	Concrete Protective Coating	82	82	0	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty

General Comments

10 FOOT OF CRACKED CONCRETE EMCASEMENT

Span 2 Beam 9

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	0	21	4	0	Feet
515	Steel Protective Coating	114	28	0	80	6	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS 1/4 IN REMAINING BOTTOM FLANGE 4 FOOT LONG AT BENT 1, 5/16 IN REMAINING WEB 8 IN HIGH X 3 FOOT PRIORITY MAINTENANCE ISSUED	3	4	4	Feet
107	Corrosion	SECTION LOSS TOP FLANGE 3/8 IN REMAINING , SURFACE RUST WEB AND FLANGES	2	21		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	6	6	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	80	80	Square Feet

General Comments

Span 2 Beam 10

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	25	0	20	5	0	Feet
515	Steel Protective Coating	114	19	0	75	20	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
107	Corrosion	SECTION LOSS BOTTOM FLANGE BENT 1 DOWN TO KNIFE EDGE , WEB 5/16 IN REMAINING 4 IN HIGH X 5 FOOT PRIORITY MAINTENANCE ISSUED	3	5	5	Feet
107	Corrosion	SURFACE RUST ON FLANGES AND WEB	2	20		Feet
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	20	20	Square Feet
515	Effectiveness (Steel Protective Coatings)	COATING FAILED	3	75	75	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	600	552	24	24	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	24 SQ. FT. TRANSVERSE CRACK IN WEARING SURFACE AT END BENT 2.	3	24	24	Square Feet
510	Crack (Wearing Surface)	TRANSVERSE CRACKING END BENT 2	2	24	24	Square Feet

General Comments

Span 2 — Near Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 2 — Near Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 2 — Near Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	1	Square Feet

General Comments

Span 2 — Near Bearing

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	RUSTY	2	1		Each
515	Effectiveness (Steel Protective Coatings)	FAILED COATING	4	1	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	52	0	52	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
215	Abrasion/Wear (PSC/RC)	U/WIDE INSP. 11/7/17: SCALING TO 1/2" FROM HIGHWATER MARK TO MUDLINE.	2	52		Feet

General Comments

22 Feet of Abrasion/Wear (RC): Abrasion or wearing has exposed coarse aggregate but the aggregate remains secure in the concrete.
2 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 FOOT.

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	14	14	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
234	Delamination/Spall	SURFACE SPALLS IN FACE OF CAP WITH EXPOSED REBAR	2	10	10	Feet
234	Efflorescence/Rust Staining	EFFLO IN FACE OF CAP	2	4		Feet

General Comments

Bent 1 — Pile 1

Prestressed Concrete Pile

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
226	Prestressed Concrete Pile	1	0	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
226	Abrasion/Wear (PSC/RC)	U/W INSP. 11/7/17: SCALING TO 1/4" FROM HIGHWATER MARK TO MUDLINE.	2	1		Each

General Comments

1 Each of Abrasion/Wear (RC): Abrasion or wearing has exposed coarse aggregate but the aggregate remains secure in the concrete.

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	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
205	Abrasion/Wear (PSC/RC)	U/W INSP. 11/7/17: SCALING TO 1/2" FROM HIGHWATER MARK TO MUDLINE. CONCRETE BAG SCOUR REPAIR IS IN PLACE AROUND FOOTING.	2	1		Each

General Comments

Bent 1 — Pile 3

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	Abrasion/Wear (PSC/RC)	U/W INSP. 11/7/17: SCALING TO 1/2" FROM HIGHWATER MARK TO MUDLINE. CONCRETE BAG SCOUR REPAIR IS IN PLACE AROUND FOOTING.	2	1		Each

General Comments

Bent 1 — Pile 4

Prestressed Concrete Pile

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
226	Prestressed Concrete Pile	1	0	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
226	Abrasion/Wear (PSC/RC)	U/W INSP. 11/7/17: SCALING TO 1/4" FROM HIGHWATER MARK TO MUDLINE.	2	1		Each

General Comments

1 Each of Abrasion/Wear (RC): Abrasion or wearing has exposed coarse aggregate but the aggregate remains secure in the concrete.

Bent 1 — Reinforced Concrete Footing 1

Reinforced Concrete Footing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
220	Reinforced Concrete Pile Cap/Footing	16	0	16	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
220	Abrasion/Wear (PSC/RC)	U/W INSP. 11/7/17: SCALING TO 1/4". TOP OF FOOTING EXPOSED, CONCRETE BAG SCOUR REPAIR IS IN PLACE AROUND FOOTING.	2	16		Feet

General Comments

End Bent 2 — Abutment

Reinforced Concrete Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
215	Reinforced Concrete Abutment	52	0	52	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
215	Abrasion/Wear (PSC/RC)	U/WIDE INSP. 11/7/17: SCALING TO 1/2" FROM HIGHWATER MARK TO MUDLINE.	2	52		Feet

General Comments

22 Feet of Abrasion/Wear (RC): Abrasion or wearing has exposed coarse aggregate but the aggregate remains secure in the concrete.
2 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 FOOT.

Elements Verfied

Location	Name	Component	Element Name	Amount
Span 1	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	684
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 5	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 6	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 7	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 8	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 9	Plate Girder	Steel Open Girder/Beam	25
Span 1	Beam 10	Plate Girder	Steel Open Girder/Beam	25
Span 1	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	25
Span 1	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	25
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	600
Span 1	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 1	Far Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	684
Span 2	Beam 1	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 2	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 3	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 4	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 5	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 6	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 7	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 8	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 9	Plate Girder	Steel Open Girder/Beam	25
Span 2	Beam 10	Plate Girder	Steel Open Girder/Beam	25
Span 2	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	25
Span 2	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	25
Span 2	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	600
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Span 2	Near Bearing	Fixed Bearing	Fixed Bearing	1
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	52
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	52

General Inspection Notes

Span 1 Beam 6

6' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 7

6' CRACK IN CONCRETE ENCASEMENT

Span 1 Beam 8

15' CRACK IN CONCRETE ENCASEMENT, EFFLO

Span 2 Beam 3

CRACKING WITH EFFLO LEAKAGE IN CONCRETE EMCASEMENT

Span 2 Beam 6

3' CRACK IN CONCRETE ENCASEMENT

Span 2 Beam 7

4' CRACK IN CONCRETE ENCASEMENT

Span 2 Beam 8

10 FOOT OF CRACKED CONCRETE EMCASEMENT

National Bridge and NC Inspection Items

Structure Number: 320005 **Inspection Date:** 02/14/2019

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	**6**
Item 59: Superstructure	0 - 9 , N	**4**
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**	**1200**	**3376**
Drainage System	G, F, P, or C	**P**	**16**	**3332**
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	**G**	**0**	**3352**
Scour	G, F, P, or C	**G**		
Wingwall	G, F, P, or C		**0**	**3350**
Field Scour Evaluation		**U**		
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			
Superstructure Paint Code				

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	**Y**
Priority Maintenance Request Submitted	YES/NO	**Y**
Inspection Time	Hours	**4**
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	**N**
Bucket Truck Used	YES/NO	**N**
Boat Used	YES/NO	**Y**
Other Equipment Used	YES/NO	**N**

National Bridge and NC SMU Inspection Item Details

Structure Number: 320005 **Inspection Date:** 02/14/2019

Item	Presently Posted	**Grade**	Y	**Maint Code**		**Qty.**	0
Details	SV 19 TTST 26						

Item	Deck Debris	**Grade**	F	**Maint Code**	3376	**Qty.**	1200
Details	DIRT AND DEBRIS ALONG GUARDRAIL						

Item	Drainage System	**Grade**	P	**Maint Code**	3332	**Qty.**	16
Details	DRAINAGE BLOCKED						

Item	Field Scour Evaluation	**Grade**	U	**Maint Code**		**Qty.**	0
Details	PLAN OF ACTION CODE R NO SIGNIFICANT CHANGE IN MUDLINE FROM ESTABLISHED BASELINE						

Item	General Comments and Misc Items	**Grade**	F	**Maint Code**		**Qty.**	0
Details	TRANSVERSE CRACKING , PATCHING, SETTLEMENT APPROACH ASPHALT WEARING SURFACE						

Span 1 Wearing Surface: TRANSVERSE CRACKING END BENT 1

DEBRIS VEGETATION ALONG CURBS

Span 1 Deck: SPALLING IN RIGHT CURB 3 INCH DEEP

Span 2 Deck: SPALLING 1/2 IN DEEP TOP LEFT CURB

Span 1 Beam 1 Far Bearing: MISSING ANCHOR BOLT BEAM 1 BEARING OVER BENT 1 PRIORITY MAINTENANCE ISSUED

Span 1 Beam 1: SECTION LOSS 100 % 1/2 IN WIDE X 1 FOOT LONG BOTTOM FLANGE BENT 1 REAMINDER DOWN TO KNIFE EDGE, WEB 5/16 IN REMAINING 2 IN HIGH PRIORITY MAINTENANCE ISSUED

Span 1 Beam 2: SECTION LOSS WEB BENT 1 HOLE 1 IN HIGH X 10 IN LONG , SECTION LOSS 100 % EDGE BOTTOM FLANGE 2 IN WIDE X 2 FOOT LONG PRIORITY MAINTENANCE ISSUED

Span 1 Beam 5: SURFACE RUST ON EXPOSED BEAM AT SPALLED COATING

Bent 1 Cap 1: SURFACE SPALLS IN FACE OF CAP

ABRASION IN FACE OF CAP BENT 1

Span 1 Beam 9: SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1'' DIAMETER HOLE IN WEB 6' FROM BENT 1 1/8'' PITTING IN WEB FULL HEIGHT. PRIORITY MAINTENANCE ISSUED

Span 1 Beam 9: SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1'' DIAMETER HOLE IN WEB 6' FROM BENT 1 1/8'' PITTING IN WEB FULL HEIGHT. PRIORITY MAINTENANCE ISSUED

Span 1 Beam 9: SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1'' DIAMETER HOLE IN WEB 6' FROM BENT 1 1/8'' PITTING IN WEB FULL HEIGHT. PRIORITY MAINTENANCE ISSUED

Span 1 Beam 10: SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1 PRIORITY MAINTENANCE ISSUED

Span 1 Beam 10: SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1 PRIORITY MAINTENANCE ISSUED

Span 1 Beam 10: SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1 PRIORITY MAINTENANCE ISSUED

Bent 1 Cap 1: EFFLO IN FACE OF CAP

Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE BENT 1 -100 % 1 IN WIDE X 2 FOOT LONG , 1/4 IN REMAINING WEB 4 IN HIGH 2 FOOT LONG PRIORITY MAINTENANCE ISSUED

Span 2 Beam 2: HOLE IN WEB AT BENT 1 - 3 IN HIGH X 14 IN LONG REMAINDER 1/8 IN REMAINING 1 FOOT LONG, BOTTOM FLANGE 100 % SECTION LOSS 3/4 IN WIDE X 2 FOOT LONG , DOWN TO KNIFE EDGE 1/6 IN REMAINING AT EDGE 4 FOOT LONG PRIORITY MAINTENANCE ISSUED

Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE 3/16 IN REMAINING MIDSPAN TO ABUTMENT 2, 5/16 IN REMAINING IN WEB PRIORITY MAINTENANCE ISSUED

Span 2 Deck: EFFLO UNDER BAY 1

Span 2 Beam 2: 3/16" REMAINING SECTION LOSS BOTTOM FLANGE ABUTMENT 2 - 1/4 IN REMAINING WEB 3/4 IN REMAINING FULL HEIGHT 8 FOOT LONG PRIORITY MAINTENANCE ISSUED

Span 2 Beam 4: RUSTY BOTTOM OF BEAM AT BENT 1

Span 2 Deck: SPALL IN BOTTOM OF DECK UNDER BAY 3 WITH EXPOSED STEEL

Span 2 Beam 9: SECTION LOSS 1/4 IN REMAINING BOTTOM FLANGE 4 FOOT LONG AT BENT 1, 5/16 IN REMAINING WEB 8 IN HIGH X 3 FOOT PRIORITY MAINTENANCE ISSUED

Span 2 Beam 10: SECTION LOSS BOTTOM FLANGE BENT 1 DOWN TO KNIFE EDGE , WEB 5/16 IN REMAINING 4 IN HIGH X 3 FOOT PRIORITY MAINTENANCE ISSUED

LOOKING NORTH

ASPHALT WEARING SURFACE

LOOKING EAST DOWNSTREAM

LOOKING WEST UPSTREAM

POSTING SIGN DOWN NORTH END MISSING AT SOUTH END PRIORITY MAINTENANCE ISSUED

LOOKING SOUTH

EAST PROFILE

WEST PROFILE

ABUTMENT 1

SUPERSTRUCTURE

ABUTMENT 2

Stream Bed Soundings

(Profile diagram on following sheet)

County **EDGECOMBE** Structure Number: **320005** Inspection Date **02/14/2019**

Sounding recorded from: **Top of Bridge Rail**

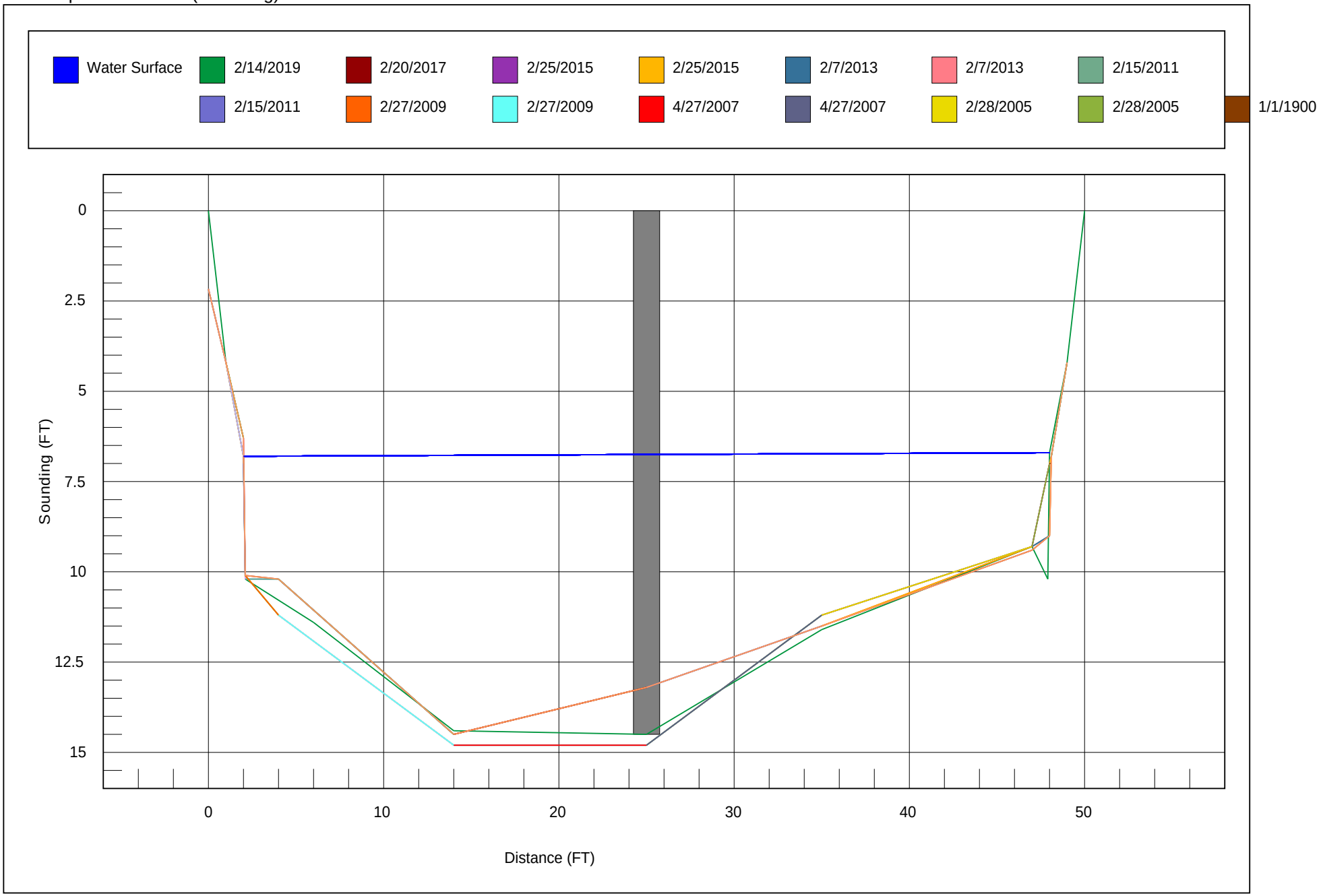
Highwater Mark Distance Location of Highwater Mark

Distance (Station) ft.	Downstream Sounding ft.	Upstream Sounding ft.	Description
0.000	0.000	0.000	TOP OF RAIL
1.000	4.200	0.000	TOP OF CAP
2.000	6.800	0.000	WSWE
2.100	10.200	10.200	GROUND AT CAP
6.000	11.400	0.000	
14.000	14.400	0.000	
25.000	14.500	13.000	BENT 1
35.000	11.600	0.000	
47.000	9.300	0.000	
47.900	10.200	10.400	GROUND AT CAP
48.000	6.700	0.000	WSWE
49.000	4.200	0.000	TOP OF CAP
50.000	0.000	0.000	TOP OF RAIL

Bridge: 320005 County: EDGECOMBE Date: 02/14/2019

STREAMBED PROFILE (Downstream)

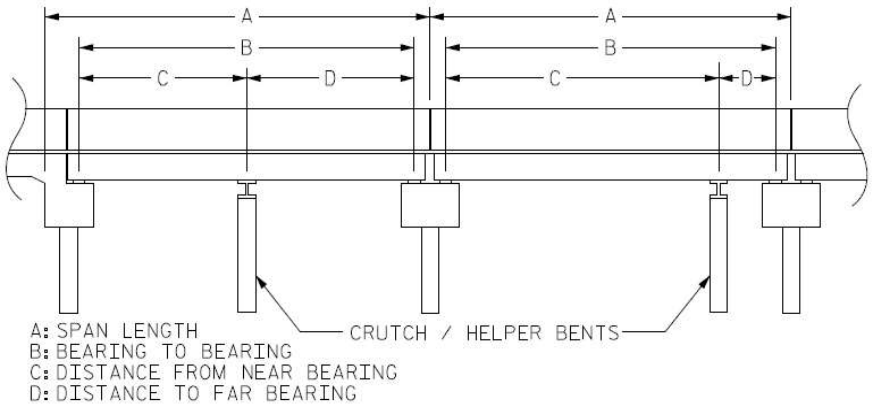
Top of Rail = 0FT (Sounding)



Structure Data Worksheet

Span Profile

County: **EDGECOMBE** Structure Number: **320005**



Span Number	Span Length	Bearing to Bearing	Crutch/ Helper Bent	Distance to Near Bearing	Distance to Far Bearing
1	25.000	24.000			
2	25.000	24.000			

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 09/17/2019

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **320005**
(8) STRUCTURE NUMBER(FEDERAL) 000000000650005
(5) INVENTORY ROUTE (ON/UNDER) - ON 31014040
(2) STATE HIGHWAY DEPARTMENT DISTRICT 1
(3) COUNTY CODE 65 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - SWIFT CREEK
(7) FACILITY CARRIED SR1404
(9) LOCATION 0.3 MI. N. OF JCT. SR1411
(11)MILEPOINT 0
(16)LAT 36° 3' 25.61" (17)LONG 77° 41' 14.33"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(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
(45) NUMBER OF SPANS IN MAIN UNIT 2
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - Bituminous CODE 6
(B) TYPE OF MEMBRANE - None CODE 0
(C) TYPE OF DECK PROTECTION - None CODE 0

AGE AND SERVICE

(27) YEAR BUILT 1964
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Highway
UNDER - Waterway CODE 15
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 0
(29) AVERAGE DAILY TRAFFIC 550
(30) YEAR OF ADT 2015 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 9 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 24 FT
(49) STRUCTURE LENGTH 50 FT
(50)CURB OR SIDEWALK: LEFT .75 FT RIGHT .75 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 24 FT
(52) DECK WIDTH OUT TO OUT 27.333 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 19 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 0° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT
(56) MIN LAT UNDERCLEAR LT REF - 000 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - No Navigational Control CODE 0
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 40.34
STATUS = Structurally Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Minor Collector 08
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 2-way Traffic 2
(103)TEMPORARY STRUCTURE -
(110)DESIGNATED NATIONAL NETWORK - Not on the National Network 0
(20) TOLL On Free Road 3
(31) MAINTAIN - State Highway Agency 01
(22) OWNER - State Highway Agency 01
(37) HISTORICAL SIGNIFICANCE - Not Eligible 5

CONDITION — CODE

(58) DECK 6
(59) SUPERSTRUCTURE 4
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION 5
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD Unknown 0
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-18 32
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-11 19
(70) BRIDGE POSTING - Posting Required 0
(41) STRUCTURE OPEN, POSTED ,OR CLOSED P
DESCRIPTION - Posted for Load

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 4
(68) DECK GEOMETRY 4
(69) UNDERCLEARANCES,VERTI & HORIZ N
(71) WATERWAY ADEQUACY 7
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0000
(113)SCOUR CRITICAL BRIDGES U

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 1100 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 02/14/2019
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - YES 24Mo B) 11/07/2017
C) OTHER SPECIAL INSP NO C)
SCOUR

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 09/17/2019

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
EDGECOMBE	4	1	320005	50 FEET

ROUTE CARRIED : SR1404

FEATURE INTERSECTED : SWIFT CREEK

LOCATED : 0.3 MI. N. OF JCT. SR1411

BRIDGE NAME :

CITY :

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :		RAIL TYPE :			
08	NFA	NFA	550	2015	LT	241	RT	241

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1964	BMU	5.2951		Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :			
			TAN	90	ON	2	UNDER	0

NAVIGATION :					HT. CRN. TO BED :		WATER DEPTH :	
VC	0	FT	HC	0	FT	12 FT	8	FT

SUPERSTRUCTURE : RC DECK ON I-BEAMS AND CONCRETE ENCASED I-BEAMS

SUBSTRUCTURE : RC ABUTMENTS, INT.BT: RCP&B WIDENED WITH ONE CONCRETE PILE EACH SIDE OF CAP

SPANS : 2 @ 25'0"

BEAMS OR GIRDERS : 6 LINES OF 16" CONCRETE ENCASED I-BEAMS, 4 LINES OF 15" I-BEAMS, ALL @ VARIOUS CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
6" RC, 3.5" AWS		27.333 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :			
24 FT	25.5 FT	LT	.75 FT	RT	.75 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :					
HS-11	HS-18	ext Bm1_SL	SV	19	TTST	26	DATE	03/27/2018

SYSTEM :	GREEN LINE ROUTE :
Secondary S.R. Route	N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE Date: 02/14/2019

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
0	No Maintenance Required	NA	2	POSTING SIGN DOWN AT NORH END AND MISSING AT SOUTH END	
3314	Maintain Steel Superstructure Components	LF	1	Span 1 Beam 1: SECTION LOSS 100 % 1/2 IN WIDE X 1 FOOT LONG BOTTOM FLANGE BENT 1 REMAINDER DOWN TO KNIFE EDGE, WEB 5/16 IN REMAINING 2 IN HIGH	
3314	Maintain Steel Superstructure Components	LF	2	Span 1 Beam 2: SECTION LOSS WEB AT BENT 1- HOLE 1 IN HIGH X 10 IN LONG , SECTION LOSS 100 % EDGE BOTTOM FLANGE 2 IN WIDE X 2 FOOT LONG	
3314	Maintain Steel Superstructure Components	LF	12	Span 1 Beam 9: SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1" DIAMETER HOLE IN WEB 6' FROM BENT 1- 1/8" PITTING IN WEB FULL HEIGHT.	
3314	Maintain Steel Superstructure Components	LF	2	Span 1 Beam 10: SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1	
3314	Maintain Steel Superstructure Components	LF	2	Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE BENT 1 -100 % 1 IN WIDE X 2 FOOT LONG , 1/4 IN REMAINING WEB 4 IN HIGH 2 FOOT LONG	
3314	Maintain Steel Superstructure Components	LF	4	Span 2 Beam 2: HOLE IN WEB AT BENT 1 - 3 IN HIGH X 14 IN LONG REMAINDER 1/8 IN REMAINING 1 FOOT LONG, BOTTOM FLANGE 100 % SECTION LOSS 3/4 IN WIDE X 2 FOOT LONG , DOWN TO KNIFE EDGE 1/6 IN REMAINING AT EDGE 4 FOOT LONG	
3314	Maintain Steel Superstructure Components	LF	8	Span 2 Beam 2: 3/16" REMAINING SECTION LOSS BOTTOM FLANGE ABUTMENT 2 - 1/4 IN REMAINING WEB FULL HEIGHT 8 FOOT LONG	
3314	Maintain Steel Superstructure Components	LF	4	Span 2 Beam 9: SECTION LOSS 1/4 IN REMAINING BOTTOM FLANGE 4 FOOT LONG AT BENT 1, 5/16 IN REMAINING WEB 8 IN HIGH X 3 FOOT	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE Date: 02/14/2019

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	3	Span 2 Beam 10: SECTION LOSS BOTTOM FLANGE BENT 1 DOWN TO KNIFE EDGE , WEB 5/16 IN REMAINING 4 IN HIGH X 3 FOOT	
3314	Maintain Steel Superstructure Components	LF	8	Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE 3/16 IN REMAINING MIDSPAN TO ABUTMENT 2, 5/16 IN REMAINING IN WEB	
3334	Bridge Bearings	EA	1	Span 1 Beam 1 Far Bearing: MISSING ANCHOR BOLT	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
0	No Maintenance Required	2 NA

Location:		
Bent/Span No.		
Priority Level	Status	
Critical Finding	Analysis Notification	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

POSTING SIGN DOWN AT NORH END AND MISSING AT SOUTH END

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	1 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 1 Beam 1: SECTION LOSS 100 % 1/2 IN WIDE X 1 FOOT LONG BOTTOM FLANGE BENT 1 REMAINDER DOWN TO KNIFE EDGE, WEB 5/16 IN REMAINING 2 IN HIGH

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 1 Beam 2: SECTION LOSS WEB AT BENT 1- HOLE 1 IN HIGH X 10 IN LONG , SECTION LOSS 100 % EDGE BOTTOM FLANGE 2 IN WIDE X 2 FOOT LONG

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	12 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 1 Beam 9: SECTION LOSS BOTTOM FLANGE BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG , 5/16 IN REMAINING WEB SECTION LOSS IN MIDSPAN TO BENT 1 IN BOTTOM FLANGE WITH 1'' DIAMETER HOLE IN WEB 6' FROM BENT 1- 1/8'' PITTING IN WEB FULL HEIGHT.

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 1 Beam 10: SECTION LOSS EDGE BOTTOM FLANGE AT BENT 1 - 100 % 1 IN WIDE X 2 FOOT LONG WITH 3/16 IN REMAINING IN MIDDLE, 5/16 IN REMAINING WEB 4 IN HIGH (2) 2" DIAMETER HOLES IN WEB AREA 2' FROM BENT 1

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE BENT 1 -100 % 1 IN WIDE X 2 FOOT LONG , 1/4 IN REMAINING WEB 4 IN HIGH 2 FOOT LONG

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	4 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 2 Beam 2: HOLE IN WEB AT BENT 1 - 3 IN HIGH X 14 IN LONG REMAINDER 1/8 IN REMAINING 1 FOOT LONG, BOTTOM FLANGE 100 % SECTION LOSS 3/4 IN WIDE X 2 FOOT LONG , DOWN TO KNIFE EDGE 1/6 IN REMAINING AT EDGE 4 FOOT LONG

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	8 LF

Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 2 Beam 2: 3/16'' REMAINING SECTION LOSS BOTTOM FLANGE ABUTMENT 2 - 1/4 IN REMAINING WEB FULL HEIGHT 8 FOOT LONG

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	4 LF

Location:	
Bent/Span No.	

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details
Span 2 Beam 9: SECTION LOSS 1/4 IN REMAINING BOTTOM FLANGE 4 FOOT LONG AT BENT 1, 5/16 IN REMAINING WEB 8 IN HIGH X 3 FOOT

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	3 LF

Location:	
Bent/Span No.	

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details
Span 2 Beam 10: SECTION LOSS BOTTOM FLANGE BENT 1 DOWN TO KNIFE EDGE , WEB 5/16 IN REMAINING 4 IN HIGH X 3 FOOT

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 320005 County EDGECOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	8 LF

Location:	
Bent/Span No.	
Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 2 Beam 1: SECTION LOSS BOTTOM FLANGE 3/16 IN REMAINING MIDSPAN TO ABUTMENT 2, 5/16 IN REMAINING IN WEB

MMS Code	MMS Description	Quantity
3334	Bridge Bearings	1 EA

Location:	
Bent/Span No.	
Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
02/14/2019	WILLIS C MAY	

Details

Span 1 Beam 1 Far Bearing: MISSING ANCHOR BOLT

Bridge Inspection Field Sketch

Roadway	19ft Wide	2 Paved Lanes	Looking North
Left Shoulder	6ft Wide		6ft Unpaved
Right Shoulder	6ft Wide		6ft Unpaved
Left Guardrail			
Right Guardrail			

TAKEN 10 FT FROM SOUTH END

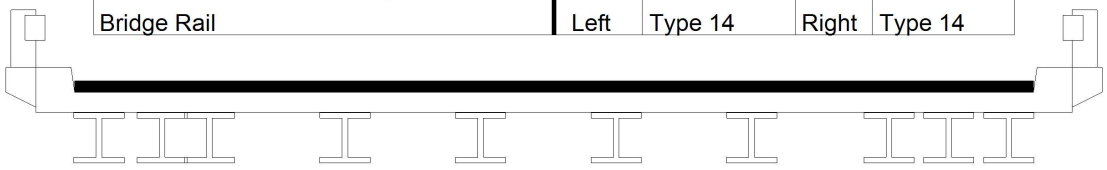
VERIFIED: 2/14/19 WCM

Title	**Description**
APPROACH ROADWAY	APPROACH ROADWAY

Bridge No: 320005	**Drawn By:** VMH	**Date:** 2/15/11	**File Name:** S0026000529

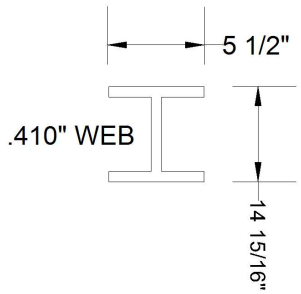
Bridge Inspection Field Sketch

Deck Width/Out to Out	27.333ft	Between Rails				25.5ft
Clear Roadway	24ft	Wearing Surface				0.292ft
Median Width		Median Height				
Curb Height		Left	0.417ft	Right	0.417ft	
Sidewalk Width		Left		Right		
Clear Roadway (Rail to Median)		Left		Right		
Guardrail Width		Left	2.208ft	Right	2.208ft	
Top of Rail to Deck/Wearing Surface		Left	2.167ft	Right	2.167ft	
Bridge Rail		Left	Type 14	Right	Type 14	

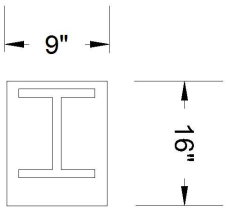


Measurements for Span #	1		
Deck Thickness	0.5	Left Overhang	1.646
Top of Rail to Bottom of Beam	4.167	Right Overhang	1.646

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	1.667ft	STEEL BEAM
2	Steel I Beam	1.25ft	STEEL BEAM
3	Steel I Beam	3.583ft	CONCRETE ENCASED STEEL BEAM
4	Steel I Beam	3.583ft	CONCRETE ENCASED STEEL BEAM
5	Steel I Beam	3.583ft	CONCRETE ENCASED STEEL BEAM
6	Steel I Beam	3.583ft	CONCRETE ENCASED STEEL BEAM
7	Steel I Beam	3.625ft	CONCRETE ENCASED STEEL BEAM
8	Steel I Beam	1.583ft	STEEL BEAM
9	Steel I Beam	1.583ft	STEEL BEAM
10	Steel I Beam	ft	



BEAMS 1,2,9, & 10 WITH 7/16" TAPERED FLANGES

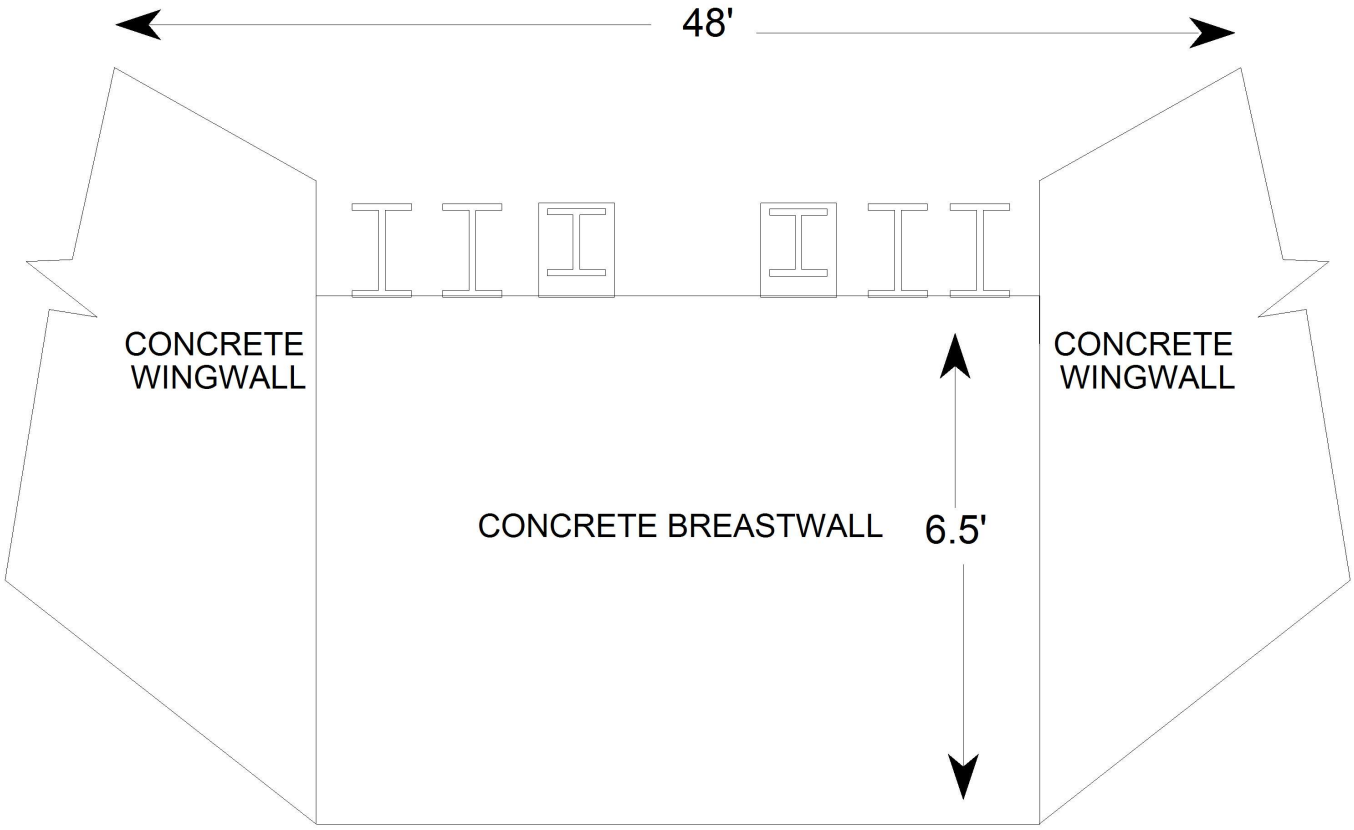


CONCRETE ENCASED BEAMS 3 - 8

VERIFIED: 2/14/19 WCM

Title	**Description**		
TYPICAL SECTION	TYPICAL SECTION		
Bridge No: 320005	**Drawn By:** VMH	**Date:** 2/15/11	**File Name:** S0026000567

Bridge Inspection Field Sketch



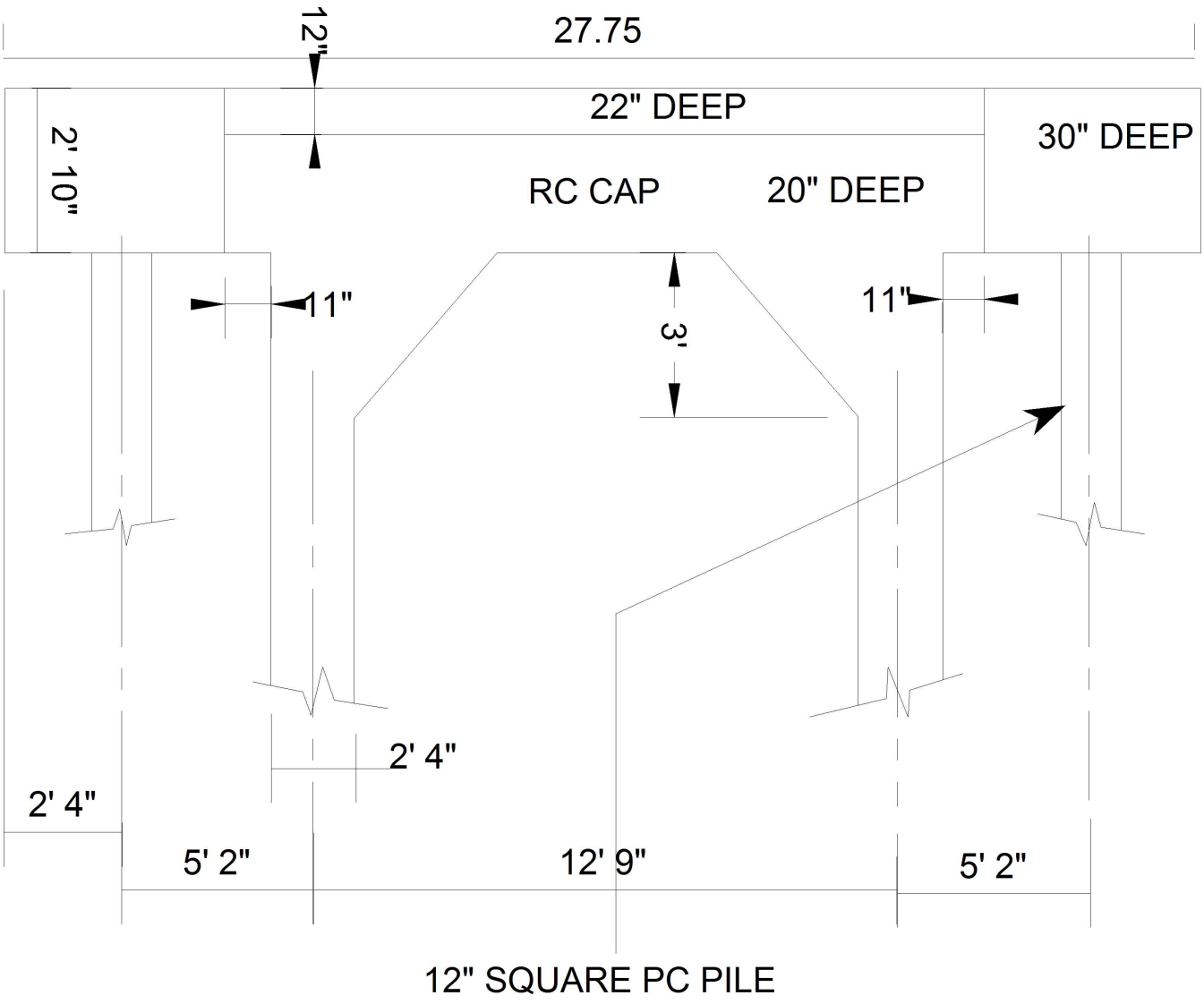
TYPICAL ABUTMENT

VERIFIED: 2/14/19 WCM

Title	Description
ABUTMENTS	ABUTMENTS

Bridge No:	Drawn By:	Date:	File Name:
320005	SDM	11/3/2015	S0026000569

Bridge Inspection Field Sketch

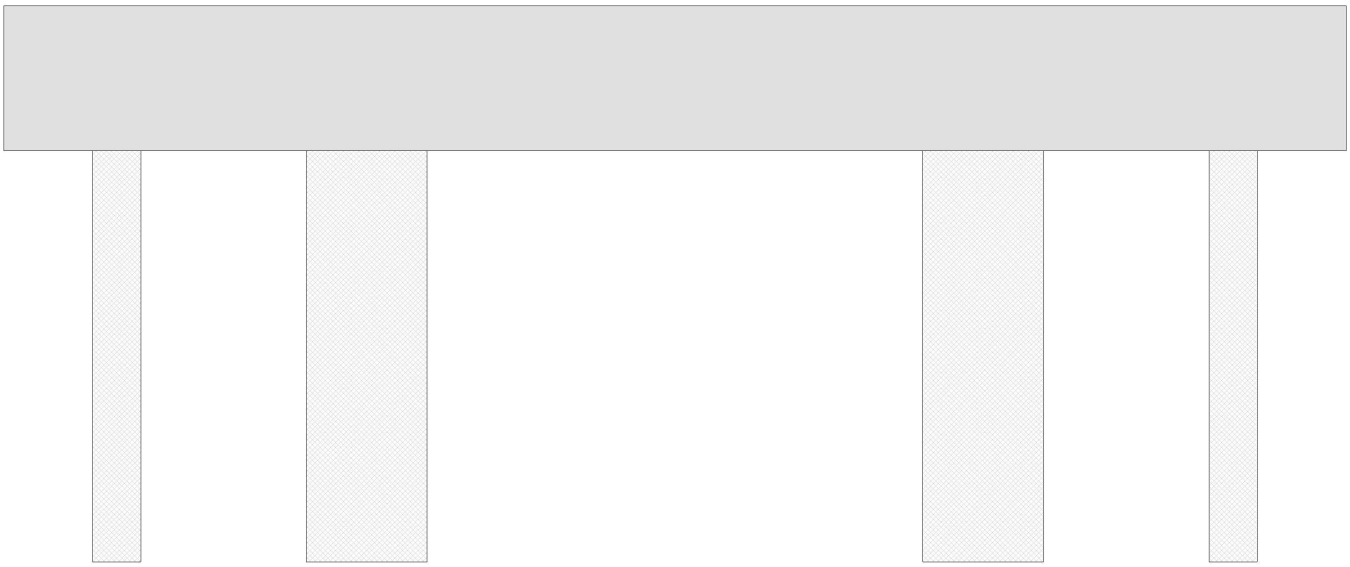


MODIFIED: 2/14/19 WCM

Title	Description
BENT 1	BENT 1

Bridge No:	Drawn By:	Date:	File Name:
320005	VMH	2/15/11	S0026000568

Bridge Inspection Field Sketch



Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
27.750 ft.	2.500 ft.	2.833 ft.	2.330 ft.	2.333 ft.	1.833 ft.	1.833 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Concrete	5.167 ft.	1 ft.			Vertical	No	No	No	No
2	Concrete	12.75 ft.	2.5 ft.			Vertical	No	No	No	No
3	Concrete	5.167 ft.	2.5 ft.			Vertical	No	No	No	No
4	Concrete		1 ft.			Vertical	No	No	No	No

Bent/Abutment #: 1 Similar Bents:

Title

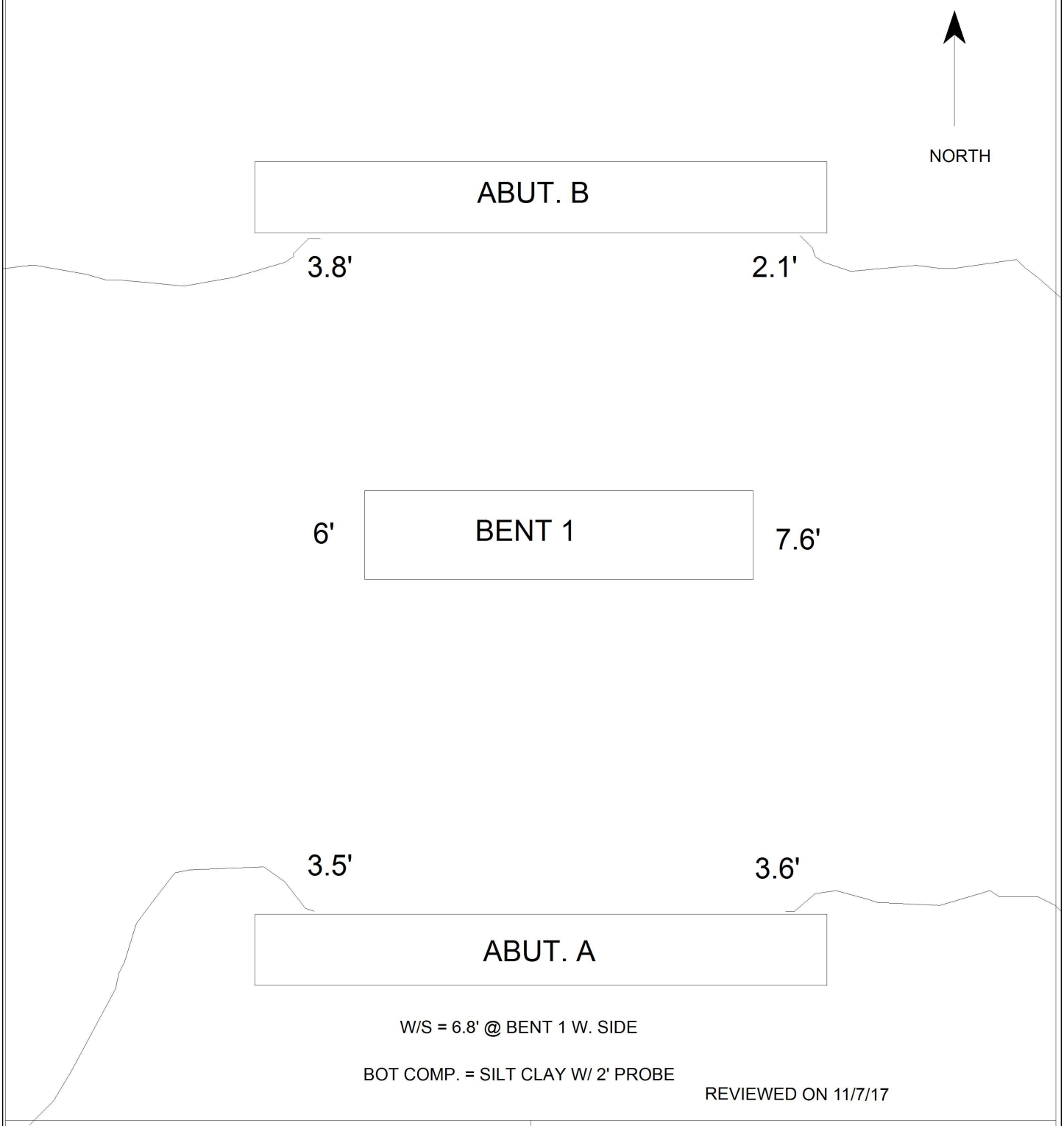
SUBSTRUCTURE

Description

SUBSTRUCTURE

Bridge No: 320005 **Drawn By:** WCM **Date:** 02/14/2019 **File Name:** S0026000570

Bridge Inspection Field Sketch



W/S = 6.8' @ BENT 1 W. SIDE

BOT COMP. = SILT CLAY W/ 2' PROBE

REVIEWED ON 11/7/17

Title	**Description**
Edgecombe 05 plan view	Channel Plan View

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
320005	SDM	11/3/2015	S0166000046