



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PRIORITY MAINTENANCE - BEAMS, END BENT 2
SILL; UPDATES MADE TO SUBSTRUCTURE
SKETCHES; SKETCH ADDED FOR OPEN HOLES IN
BEAMS

Structure Safety Report

Routine Element Inspection - Contract

COUNTY: ASHE STRUCTURE NUMBER: 040160 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1155 MILE POST: _____

LOCATION: .7 MI.SW.JCT.NC16,88

FEATURE INTERSECTED: LITTLE NAKED CREEK

LATITUDE: 36° 23' 29.73" LONGITUDE: 81° 25' 46.32"

SUPERSTRUCTURE: TIMBER FLOOR ON SALVAGED I-BEAMS

SUBSTRUCTURE: E.BTS:TIM.CAPS/TIM.POST&SILLS @ VAR. CENTERS

SPANS: 1 @ 26'-6

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

PRESENT CONDITION: Fair INSPECTION DATE: 12/04/2015

POSTED SV: Not Posted POSTED TTST: Not Posted

OTHER SIGNS PRESENT: 4 DELINEATORS



LOOKING NORTH

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

INSPECTED BY MATTHEW MOYER	SIGNATURE <i>Matthew Moyer</i>	ASSISTED BY DAVID WAGNER
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Span Element Report

Structure Number: 040160

Inspection Date: 12/04/2015

Span Number 1

Span Length 26.5 Feet

Number of Beams/Girders: 11

Element Number	Parent Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code
31		Timber Deck	689	689	0	0	0	0	3324
107		Steel Open Girder/Beam	286	0	34	252	0	286	3314
515	107	Steel Protective Coating	1419	1089	0	330	0	330	3342
206		Timber Column	16	10	2	4	0	14	3344
216		Timber Abutment	80	63	6	11	0	17	3346
235		Timber Pier Cap	73	73	0	0	0	0	3344
332		Timber Bridge Railing	54	53	0	1	0	1	3316
510		Wearing Surface	665	165	0	500	0	500	2816

"Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

Superstructure Detailed Element Quantities

Structure Number: 040160

Inspection Date: 12/04/2015

Span Number 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☒ Deck	1	31	Timber Deck	689	689	0	0	0	0	3324	☐ Requested
☒ Bridge Rail	1	332	Timber Bridge Railing	27	27	0	0	0	0	3316	☐ Requested
☒ Bridge Rail	2	332	Timber Bridge Railing	27	26	0	1	0	1	3316	☐ Requested
☒ Wearing Surfaces		510	Wearing Surface	665	165	0	500	0	500	2816	☐ Requested
☒ Beam	1	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	2	107	Steel Open Girder/Beam	26	0	21	5	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	3	107	Steel Open Girder/Beam	26	0	9	17	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	4	107	Steel Open Girder/Beam	26	0	4	22	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	5	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	6	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	7	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	8	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	9	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	10	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	
☒ Beam	11	107	Steel Open Girder/Beam	26	0	0	26	0	26	3314	☐ Requested
Protective System		515	Steel Protective Coating	129	99	0	30	0	30	3342	

Superstructure Element Defect Descriptions

Structure Number: 040160

Inspection Date: 12/04/2015

Span Number 1

Span	1	Bridge Rail	2	Component Name:		Timber Rail							
Element:	332	Name	Timber Bridge Railing	Qty:	27	Lvl 2:	0	Lvl 3	1	Lvl 4	0	Maint. Qty	1
Defect Description:													

1 Feet of Connection: Missing bolts, rivets, or fasteners; broken welds; or pack rust with distortion but does not warrant a structural review. IMPACT DAMAGE WITH BROKEN END POST AT SOUTHEAST CORNER

Span	1	Wearing Surfaces	Component Name:	Asphalt Wearing Surface									
Element:	510	Name	Wearing Surface	Qty:	665	Lvl 2:	0	Lvl 3	500	Lvl 4	0	Maint. Qty	500
Defect Description:													

500 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. TRANSVERSE CRACKING

Span	1	Beam	1	Component Name:	Plate Girder								
Element:	107	Name	Steel Open Girder/Beam	Qty:	26	Lvl 2:	0	Lvl 3	26	Lvl 4	0	Maint. Qty	26
Defect Description:													

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 3/16" OF SECTION LOSS IN WEB. PINHOLE IN WEB AT MIDSPAN

1 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. INTERMEDIATE DIAPHRAGM BAY 1: CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE AND 1/8" OF SECTION LOSS ON LOWER WEB

30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	2	Component Name:	Plate Girder								
Element:	107	Name	Steel Open Girder/Beam	Qty:	26	Lvl 2:	21	Lvl 3	5	Lvl 4	0	Maint. Qty	26
Defect Description:													

5 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE AT MIDSPAN

21 Feet of Corrosion: Freckled Rust. Corrosion of the steel has initiated. FRECKLED RUST AND SURFACE CORROSION ON FLANGES AND WEB

30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	3	Component Name:	Plate Girder								
Element:	107	Name	Steel Open Girder/Beam	Qty:	26	Lvl 2:	9	Lvl 3	17	Lvl 4	0	Maint. Qty	26
Defect Description:													

13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/16" OF SECTION LOSS IN TOP FLANGE AND 1/8" OF SECTION LOSS IN WEB FROM END BENT 1 TO MIDSPAN

4 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/16" OF SECTION LOSS IN TOP FLANGE AT END BENT 2

9 Feet of Corrosion: Freckled Rust. Corrosion of the steel has initiated. FRECKLED RUST AND SURFACE CORROSION ON FLANGES AND WEB

30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	4	Component Name:	Plate Girder								
Element:	107	Name	Steel Open Girder/Beam	Qty:	26	Lvl 2:	4	Lvl 3	22	Lvl 4	0	Maint. Qty	26
Defect Description:													

9 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/4" OF SECTION LOSS IN BOTTOM FLANGE AT END BENT 1

13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/8" OF SECTION LOSS IN BOTTOM FLANGE FROM MIDSPAN TO END BENT 2

4 Feet of Corrosion: Freckled Rust. Corrosion of the steel has initiated. FRECKLED RUST AND SURFACE CORROSION ON FLANGES AND WEB

30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	5	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	6	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	7	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	8	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	9	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	10	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Span	1	Beam	11	Component Name:	Plate Girder					
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Element: 107 Name Steel Open Girder/Beam Qty: 26 Lvl 2: 0 Lvl 3: 26 Lvl 4: 0 Maint. Qty: 26

Defect Description:

26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/16" OF SECTION LOSS IN BOTTOM FLANGE, 3/16" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB
30 Square Feet of Peeling/Bubbling/Cracking (steel Protective Coatings): Finish and primer coats.

Substructure Detailed Element Quantites

Structure Number: 040160

Inspection Date: 12/04/2015

End Bent 1

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☒ Abutments	1	216	Timber Abutment	40	34	6	0	0	6	3346	☐ Requested
☒ Caps	1	235	Timber Pier Cap	18	18	0	0	0	0	3344	☐ Requested
☒ Caps	2	235	Timber Pier Cap	19	19	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	1	206	Timber Column	1	0	1	0	0	1	3344	☐ Requested
☒ Piles and Columns	2	206	Timber Column	1	0	0	1	0	6	3344	☐ Requested
☒ Piles and Columns	3	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	4	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	5	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	6	206	Timber Column	1	0	1	0	0	2	3344	☐ Requested
☒ Piles and Columns	7	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	8	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested

End Bent 2

Element Location	Location Number	Element Number	Element Name	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity	Maint. Quantity	Maint. Code	Priority Maintenance
☒ Abutments	1	216	Timber Abutment	40	29	0	11	0	11	3346	☐ Requested
☒ Caps	1	235	Timber Pier Cap	18	18	0	0	0	0	3344	☐ Requested
☒ Caps	2	235	Timber Pier Cap	18	18	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	1	206	Timber Column	1	0	0	1	0	0	3344	☐ Requested
☒ Piles and Columns	2	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	3	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	4	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	5	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	6	206	Timber Column	1	1	0	0	0	0	3344	☐ Requested
☒ Piles and Columns	7	206	Timber Column	1	0	0	1	0	3	3344	☐ Requested
☒ Piles and Columns	8	206	Timber Column	1	0	0	1	0	2	3344	☐ Requested

Substructure Element Defect Descriptions

Structure Number: 040160

Inspection Date: 12/04/2015

End Bent 1

End Bent 1	Row 1	Abutments	1
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Element: 216 **Name** Timber Abutment **Qty:** 40 **Lvl 2:** 6 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 6

Defect Description:

6 Feet of Decay/Section Loss: Affects less than 10% of the member section. 2 - 36" X 6" X 1" DEEP AREAS OF DECAY BAY 3

End Bent 1	Row 1	Piles and Columns	1
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 1

Defect Description:

1 Each of Decay/Section Loss: Affects less than 10% of the member section. 6" X 6" X 1" DEEP AREA OF DECAY IN EAST FACE

End Bent 1	Row 1	Piles and Columns	2
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 1 **Lvl 4** 0 **Maint. Qty** 6

Defect Description:

1 Each of Crack (Timber): Identified crack that is not arrested but does not requires structural review. 6 FT. LONG VERTICAL CRACK 1/4" WIDE IN NORTH FACE

End Bent 1	Row 1	Piles and Columns	6
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 1 **Lvl 3** 0 **Lvl 4** 0 **Maint. Qty** 2

Defect Description:

1 Each of Decay/Section Loss: Affects less than 10% of the member section. 14" X 4" X 1 1/2" DEEP AREA OF DECAY IN WEST FACE

End Bent 2	Row 1	Abutments	1
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Element: 216 **Name** Timber Abutment **Qty:** 40 **Lvl 2:** 0 **Lvl 3** 11 **Lvl 4** 0 **Maint. Qty** 11

Defect Description:

6 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 6 FT. DIAMETER X 2 FT. DEEP HOLE AT UPSTREAM END
2 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. 24" X 12" X FULL DEPTH AREA OF DECAY AT WEST END
3 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 3 FT. X 1 FT. DEEP AREA OF SCOUR WITH 12" OF UNDERMINING OF SILL AT WEST END

End Bent 2	Row 1	Piles and Columns	1
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 1 **Lvl 4** 0 **Maint. Qty** 0

Defect Description:

1 Each of Crack (Timber): Identified crack that is not arrested but does not requires structural review. 6 FT. LONG VERTICAL CRACK 1/4" WIDE IN SOUTH FACE

End Bent 2	Row 1	Piles and Columns	7
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 1 **Lvl 4** 0 **Maint. Qty** 3

Defect Description:

1 Each of Split/Delamination (Timber): Length equal to or greater than the member depth but does not require structural review. 36" X 1/8" WIDE SPLIT IN SOUTH FACE

End Bent 2	Row 1	Piles and Columns	8
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Element: 206 **Name** Timber Column **Qty:** 1 **Lvl 2:** 0 **Lvl 3** 1 **Lvl 4** 0 **Maint. Qty** 2

Defect Description:

1 Each of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. 15" X 5" X 4" DEEP

Structure Number: 040160

Inspection Date: 12/04/2015

AREA OF DECAY IN NORTH FACE

National Bridge and NC Inspection Items

Structure Number: 040160

Inspection Date: 12/04/2015

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	7
Item 59: Superstructure	0 - 9 , N	4
Item 60: Substructure	0 - 9 , N	5
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	G	0	3376
Drainage System	G, F, P, or C	G	0	3332
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C		0	3352
Scour	G, F, P, or C	F		
Wingwall	G, F, P, or C	P	45	3350
Field Scour Evaluation		B		
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	12		

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

Inspection Information

Item	Grade Scale	Grade
Regulatory Sign Noticed Issued	YES/NO	N
Priority Maintenance Request Submitted	YES/NO	Y
Inspection Time	Hours	12
Traffic Control Time	Hours	0
Snooper Time	Hours	0
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 Number: 040160

Inspection Date: 12/04/2015

Item	Substructure - Item 60	Grade	5	Maint Code	Qty.	0
Details	CRUSHING AND DECAY IN END BENT 2 SILL RESULTING IN APPROXIMATELY 1" OF SETTLEMENT OF BRIDGE 12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5 18" X 10" X 2" DEEP AREA OF DECAY IN END BENT 2 SILL BETWEEN PILES 5 AND 6					

Item	Approach Roadway Alignment - Item 72	Grade	8	Maint Code	Qty.	0
Details	4 FT. X 2 FT. X 2 FT. DEEP AREA OF EROSION AT SOUTHEAST CORNER					

Item	Priority Maintenance Issued	Grade	Y	Maint Code	Qty.	0
Details	12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5 Span 1 Beam 1: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 3/16" OF SECTION LOSS IN WEB. PINHOLE IN WEB AT MIDSPAN Span 1 Beam 2: 5 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE AT MIDSPAN Span 1 Beam 3: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/16" OF SECTION LOSS IN TOP FLANGE AND 1/8" OF SECTION LOSS IN WEB FROM END BENT 1 TO MIDSPAN Span 1 Beam 3: 4 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/16" OF SECTION LOSS IN TOP FLANGE AT END BENT 2 Span 1 Beam 4: 9 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/4" OF SECTION LOSS IN BOTTOM FLANGE AT END BENT 1 Span 1 Beam 4: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/8" OF SECTION LOSS IN BOTTOM FLANGE FROM MIDSPAN TO END BENT 2 Span 1 Beam 5: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE Span 1 Beam 6: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB Span 1 Beam 7: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE Span 1 Beam 8: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE Span 1 Beam 9: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE Span 1 Beam 10: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE Span 1 Beam 11: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/16" OF SECTION LOSS IN BOTTOM FLANGE, 3/16" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB					

Item	Scour	Grade	F	Maint Code	Qty.	0
Details	3 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 3 FT. X 1 FT. DEEP AREA OF SCOUR WITH 12" OF UNDERMINING OF SILL AT WEST END 6 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 6 FT. DIAMETER X 2 FT. DEEP HOLE AT UPSTREAM END					

Item	Wingwalls	Grade	P	Maint Code	3350	Qty.	45
Details	48" X 12" X FULL DEPTH AREA OF DECAY IN SOUTHWEST WINGWALL NORTHWEST WINGWALL LEANING TOWARDS STREAM 2 FT. AT TOP 72" X 60" AREA OF DECAY IN NORTHWEST WINGWALL 60" X 8" X FULL DEPTH AREA OF DECAY IN SOUTHEAST WINGWALL 72" X 8" X FULL DEPTH AREA OF DECAY IN NORTHEAST WINGWALL						

Structure Number: 040160

Inspection Date: 12/04/2015

Item	Field Scour Evaluation	Grade	B	Maint Code	Qty.	0
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Details 3 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 3 FT. X 1 FT. DEEP AREA OF SCOUR WITH 12" OF UNDERMINING OF SILL AT WEST END
6 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 6 FT. DIAMETER X 2 FT. DEEP HOLE AT UPSTREAM END



Span 1 Wearing Surface: 500 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. TRANSVERSE CRACKING



Span 1 Right Bridge Rail: 1 Feet of Connection: Missing bolts, rivets, or fasteners; broken welds; or pack rust with distortion but does not warrant a structural review. IMPACT DAMAGE WITH BROKEN END POST AT SOUTHEAST CORNER



4 FT. X 2 FT. X 2 FT. DEEP AREA OF EROSION AT SOUTHEAST CORNER



48" X 12" X FULL DEPTH AREA OF DECAY IN SOUTHWEST WINGWALL



FENCE UNDER BRIDGE AT UPSTREAM END



End Bent 1 Abutment/Backwall : 6 Feet of Decay/Section Loss: Affects less than 10% of the member section. 2 - 36" X 6" X 1" DEEP AREAS OF DECAY BAY 3



End Bent 1 Pile 2: 1 Each of Crack (Timber): Identified crack that is not arrested but does not requires structural review. 6 FT. LONG VERTICAL CRACK 1/4" WIDE IN NORTH FACE



End Bent 1 Pile 1: 1 Each of Decay/Section Loss: Affects less than 10% of the member section. 6" X 6" X 1" DEEP AREA OF DECAY IN EAST FACE



12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END



TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5



End Bent 2 Abutment/Backwall : 3 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. 3 FT. X 1 FT. DEEP AREA OF SCOUR WITH 12" OF UNDERMINING OF SILL AT WEST END



NORTHWEST WINGWALL LEANING TOWARDS STREAM 2 FT. AT TOP



72" X 60" AREA OF DECAY IN NORTHWEST WINGWALL



18" X 10" X 2" DEEP AREA OF DECAY IN END BENT 2 SILL BETWEEN PILES 5 AND 6



60" X 8" X FULL DEPTH AREA OF DECAY IN SOUTHEAST WINGWALL



End Bent 2 Pile 8: 1 Each of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. 15" X 5" X 4" DEEP AREA OF DECAY IN NORTH FACE



72" X 8" X FULL DEPTH AREA OF DECAY IN NORTHEAST WINGWALL



Span 1 Beam 1: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 3/16" OF SECTION LOSS IN WEB. PINHOLE IN WEB AT MIDSPAN



Span 1 Beam 2: 5 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE AT MIDSPAN



Span 1 Beam 3: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/16" OF SECTION LOSS IN TOP FLANGE AND 1/8" OF SECTION LOSS IN WEB FROM END BENT 1 TO MIDSPAN



Span 1 Beam 3: 4 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/16" OF SECTION LOSS IN TOP FLANGE AT END BENT 2



Span 1 Beam 4: 9 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/4" OF SECTION LOSS IN BOTTOM FLANGE AT END BENT 1



Span 1 Beam 4: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/8" OF SECTION LOSS IN BOTTOM FLANGE FROM MIDSPAN TO END BENT 2



Span 1 Beam 5: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE



Span 1 Beam 6: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB



Span 1 Beam 7: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE



Span 1 Beam 8: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE



Span 1 Beam 9: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE



Span 1 Beam 10: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE



Span 1 Beam 11: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/16" OF SECTION LOSS IN BOTTOM FLANGE, 3/16" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB



WEST BRIDGE RAIL, EAST BRIDGE RAIL SIMILAR



LOOKING UPSTREAM, EAST



LOOKING DOWNSTREAM, WEST



LOOKING NORTH



LOOKING SOUTH



END BENT 1



END BENT 2



SUPERSTRUCTURE



DOWNSTREAM PROFILE



UPSTREAM PROFILE

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

Run Date: 12/29/2015

IDENTIFICATION				CLASSIFICATION			
(1) STATE NAME -NORTH CAROLINA	BRIDGE	040160		SUFFICIENCY RATING =		20.99	
(8) STRUCTURE NUMBER(FEDERAL)		000000000090160		STATUS =	Structurally Deficient		
(5) INVENTORY ROUTE (ON/UNDER) - ON		31011550					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		3					
(3) COUNTY CODE	9	(4) PLACE CODE	0	(112)NBIS BRIDGE SYSTEM -		YES	
(6) FEATURE INTERSECTED -	LITTLE NAKED CREEK			(104)HIGHWAY SYSTEM	Is not on NHS	0	
(7) FACILITY CARRIED	SR1155			(26) FUNCTIONAL CLASS -	Local	09	
(9) LOCATION	.7 MI.SW.JCT.NC16,88			(100)STRAHNET HIGHWAY -	Not a STRAHNET Route	0	
(11)MILEPOINT		0		(101)PARALLEL STRUCTURE -	No Parallel Structure	N	
(16)LAT	36° 23' 29.73"	(17)LONG	81° 25' 46.32"	(102)DIRECTION OF TRAFFIC -	2-way Traffic	2	
(98)BORDER BRIDGE STATE CODE		PCT SHARE		(103)TEMPORARY STRUCTURE -	Temporary Structure/Conditions	T	
(99)BORDER BRIDGE STRUCTURE NO				(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	
STRUCTURE TYPE AND MATERIAL				CONDITION			
(43) STRUCTURE TYPE MAIN:	Steel			(58) DECK		7	
TYPE -	Stringer Mutlibeam or Girder	CODE	302	(59) SUPERSTRUCTURE		4	
(44) STRUCTURE TYPE APPR :				(60) SUBSTRUCTURE		4	
TYPE -		CODE	000	(61) CHANNEL & CHANNEL PROTECTION		7	
(45) NUMBER OF SPANS IN MAIN UNIT			1	(62) CULVERTS		N	
(46) NUMBER OF APPROACH SPANS							
(107)DECK STRUCTURE TYPE -	8	CODE		LOAD RATING AND POSTING			
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(31) DESIGN LOAD	Unknown	0	
(A) TYPE OF WEARING SURFACE -		CODE		(63) OPERATING RATING METHOD -	Load Factor	1	
(B) TYPE OF MEMBRANE -		CODE		(64) OPERATING RATING -	HS-1	1	
(C) TYPE OF DECK PROTECTION -		CODE		(65) INVENTORY RATING METHOD -	Load Factor	1	
				(66) INVENTORY RATING -	HS-1	1	
				(70) BRIDGE POSTING -	Posting Required	0	
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P	
				DESCRIPTION -	Posted for Load		
AGE AND SERVICE				APPRAISAL			
(27) YEAR BUILT			1950	(67) STRUCTURAL EVALUATION		3	
(106)YEAR RECONSTRUCTED				(68) DECK GEOMETRY		4	
(42) TYPE OF SERVICE : ON -	Highway			(69) UNDERCLEARANCES,VERTI & HORIZ		N	
UNDER -	Waterway	CODE	15	(71) WATERWAY ADEQUACY		7	
(28) LANES: ON STRUCTURE	2	UNDER STRUCTURE	0	(72) APPROACH ROADWAY ALIGNMENT		8	
(29) AVERAGE DAILY TRAFFIC			870	(36) TRAFFIC SAFETY FEATURES		0000	
(30) YEAR OF ADT	2012	(109) TRUCK ADT PCT	6%	(113)SCOUR CRITICAL BRIDGES		U	
(19) BYPASS OR DETOUR LENGTH			10 MI				
GEOMETRIC DATA				PROPOSED IMPROVEMENTS			
(48) LENGTH OF MAXIMUM SPAN			24 FT	(75) TYPE OF WORK -		CODE	
(49) STRUCTURE LENGTH			27 FT	(76) LENGTH OF STRUCTURE IMPROVEMENT			
(50)CURB OR SIDEWALK: LEFT	.3 FT	RIGHT	.3 FT	(94) BRIDGE IMPROVEMENT COST			
(51) BRIDGE ROADWAY WIDTH CURB TO CURB			25.08 FT	(95) ROADWAY IMPROVEMENT COST			
(52) DECK WIDTH OUT TO OUT			26 FT	(96) TOTAL PROJECT COST			
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)			19 FT	(97) YEAR OF IMPROVEMENT COST ESTIMATE			
(33) BRIDGE MEDIAN -	No Median	CODE	0	(114)FUTURE ADT	1740	(115) YEAR FUTURE ADT	2025
(34) SKEW	45°	(35) STRUCTURE FLARED	0				
(10) INVENTORY ROUTE MIN VERT CLEAR			999.9 FT	INSPECTIONS			
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR			25.08 FT	(90) INSPECTION DATE		12/04/2015	
(53) MIN VERT CLEAR OVER BRIDGE RDWY			999.9 FT	(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(54) MIN VERT UNDERCLEAR REF	Not a Highway or Railroad		0 FT	A) FRACTURE CRIT DETAIL -	NO	A)	
(55) MIN LAT UNDERCLEAR RT REF	Not a Highway or Railroad		000 FT	B) UNDERWATER INSP -	NO	B)	
(56) MIN LAT UNDERCLEAR LT REF -			000 FT	C) OTHER SPECIAL INSP	NO	C)	
				SCOUR			
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				

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 12/29/2015

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
ASHE	11	3	040160	27	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1155	LITTLE NAKED CREEK

LOCATED :	BRIDGE NAME :	CITY :
.7 MI.SW.JCT.NC16,88		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	870 2012	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1950	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
	BMU	5.7151	TAN	135	ON 2	UNDER	0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT	HC 0 FT		11 FT		1		FT

SUPERSTRUCTURE :	TIMBER FLOOR ON SALVAGED I-BEAMS
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SUBSTRUCTURE :	E.BTS:TIM.CAPS/TIM.POST&SILLS @ VAR. CENTERS
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SPANS :	1 @ 26'-6
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BEAMS OR GIRDERS :	11 LINES 16 I-BEAMS @ 2'-4 CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/3 AWS		26 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
25.08 FT	25.75 FT	LT .3 FT RT .3 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-1	HS-1	IntBeams	SV 18	24	12/29/2015

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

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

Date:

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	26	Span 1 Beam 1: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 3/16" OF SECTION LOSS IN WEB. PINHOLE IN WEB AT MIDSPAN	
 3314	Maintain Steel Superstructure Components	LF	5	Span 1 Beam 2: 5 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE AT MIDSPAN	
 3314	Maintain Steel Superstructure Components	LF	13	Span 1 Beam 3: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/16" OF SECTION LOSS IN TOP FLANGE AND 1/8" OF SECTION LOSS IN WEB FROM END BENT 1 TO MIDSPAN	
 3314	Maintain Steel Superstructure Components	LF	4	Span 1 Beam 3: 4 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/16" OF SECTION LOSS IN TOP FLANGE AT END BENT 2	
 3314	Maintain Steel Superstructure Components	LF	9	Span 1 Beam 4: 9 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/4" OF SECTION LOSS IN BOTTOM FLANGE AT END BENT 1	
 3314	Maintain Steel Superstructure Components	LF	13	Span 1 Beam 4: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/8" OF SECTION LOSS IN BOTTOM FLANGE FROM MIDSPAN TO END BENT 2	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

Date:

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	26	Span 1 Beam 5: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE	
 3314	Maintain Steel Superstructure Components	LF	26	Span 1 Beam 6: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB	
 3314	Maintain Steel Superstructure Components	LF	26	Span 1 Beam 7: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE	
 3314	Maintain Steel Superstructure Components	LF	26	Span 1 Beam 8: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE	
 3314	Maintain Steel Superstructure Components	LF	26	Span 1 Beam 9: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE	
 3314	Maintain Steel Superstructure Components	LF	26	Span 1 Beam 10: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

Date:

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	26	Span 1 Beam 11: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/16" OF SECTION LOSS IN BOTTOM FLANGE, 3/16" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB	
 3344	Repair / Replace Timber Substructure Components	LF	12	12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END	
 3344	Repair / Replace Timber Substructure Components	LF	2	TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 1
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 1: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH BOTTOM FLANGE TO KNIFES EDGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 3/16" OF SECTION LOSS IN WEB. PINHOLE IN WEB AT MIDSPAN		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	5 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 2
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 2: 5 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE AT MIDSPAN		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	13 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 3
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 3: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/16" OF SECTION LOSS IN TOP FLANGE AND 1/8" OF SECTION LOSS IN WEB FROM END BENT 1 TO MIDSPAN		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	4 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 3
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 3: 4 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/16" OF SECTION LOSS IN TOP FLANGE AT END BENT 2		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	9 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 4
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 4: 9 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/4" OF SECTION LOSS IN BOTTOM FLANGE AT END BENT 1		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	13 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 4
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 4: 13 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/8" OF SECTION LOSS IN BOTTOM FLANGE FROM MIDSPAN TO END BENT 2		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160 County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 5
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 5: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 6
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 6: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE, 1/8" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160 County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 7
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 7: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 8
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 8: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160 County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 9
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 9: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 3/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 10
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 10: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 5/16" OF SECTION LOSS IN BOTTOM FLANGE AND 1/8" OF SECTION LOSS IN TOP FLANGE		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160

County ASHE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	26 LF
Location:		
Beams and Girders	Bent/Span No. 1	BEAM 11
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
Span 1 Beam 11: 26 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION WITH 1/16" OF SECTION LOSS IN BOTTOM FLANGE, 3/16" OF SECTION LOSS IN TOP FLANGE AND 1/16" OF SECTION LOSS IN WEB		

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	12 LF
Location:		
Abutment Footing	Bent/Span No. 2	END BENT 2 SILL
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 040160 County ASHE

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	2 LF
Location:		
Abutment Footing	Bent/Span No. 2	END BENT 2 SILL
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
12/09/2015	MATTHEW MOYER	DAVID WAGNER
Details		
TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5		



12 FT. LONG X 12" WIDE X 3" DEEP AREA OF DECAY IN TOP OF END BENT 2 SILL AT WEST END



TOP OF END BENT 2 SILL CRUSHING UP TO 3/4" UNDER PILES 4 AND 5



SPAN 1 BEAM 1: SECTION LOSS



SPAN 1 BEAM 2: SECTION LOSS



SPAN 1 BEAM 3: SECTION LOSS



SPAN 1 BEAM 3: SECTION LOSS



SPAN 1 BEAM 4: SECTION LOSS



SPAN 1 BEAM 4: SECTION LOSS



SPAN 1 BEAM 5: SECTION LOSS



SPAN 1 BEAM 6: SECTION LOSS



SPAN 1 BEAM 7: SECTION LOSS



SPAN 1 BEAM 8: SECTION LOSS



SPAN 1 BEAM 9: SECTION LOSS



SPAN 1 BEAM 10: SECTION LOSS

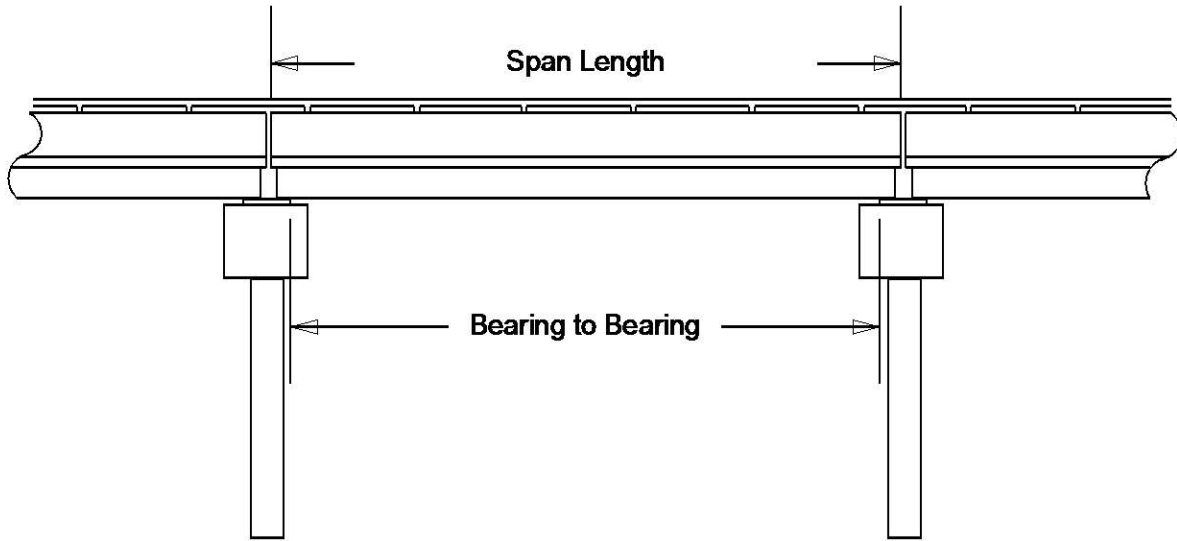


SPAN 1 BEAM 11: SECTION LOSS

Structure Data Worksheet

Spans

County: ASHE Structure No: 040160 Date: Inspected By: MJM



Span No	Span Length	Bearing to Bearing	Comments
1	26.5	24.08	NBIS BRIDGE LENGTH -= 23.5'
			MEASUREMENTS VERIFIED 12/4/2015 BY MJM

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 040160 County: ASHE Date: _____ By: MJM

Record sounding from top of rail. Other location if needed: _____

Distance from Highwater Mark to top of rail: _____ Location of Highwater Mark: _____

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
1	3	TOP OF WINGWALL			
1.5	12.2	END BENT 1	1.5	11.9	END BENT 1
2	12.2	Water Surface/Water Edge (WSWE)			
8	12.7				
16	13.2				
24	13.5	END BENT 2	24	12.4	END BENT 2
24.1	13.3	Water Surface (WS)			
26	3	TOP OF WINGWALL			

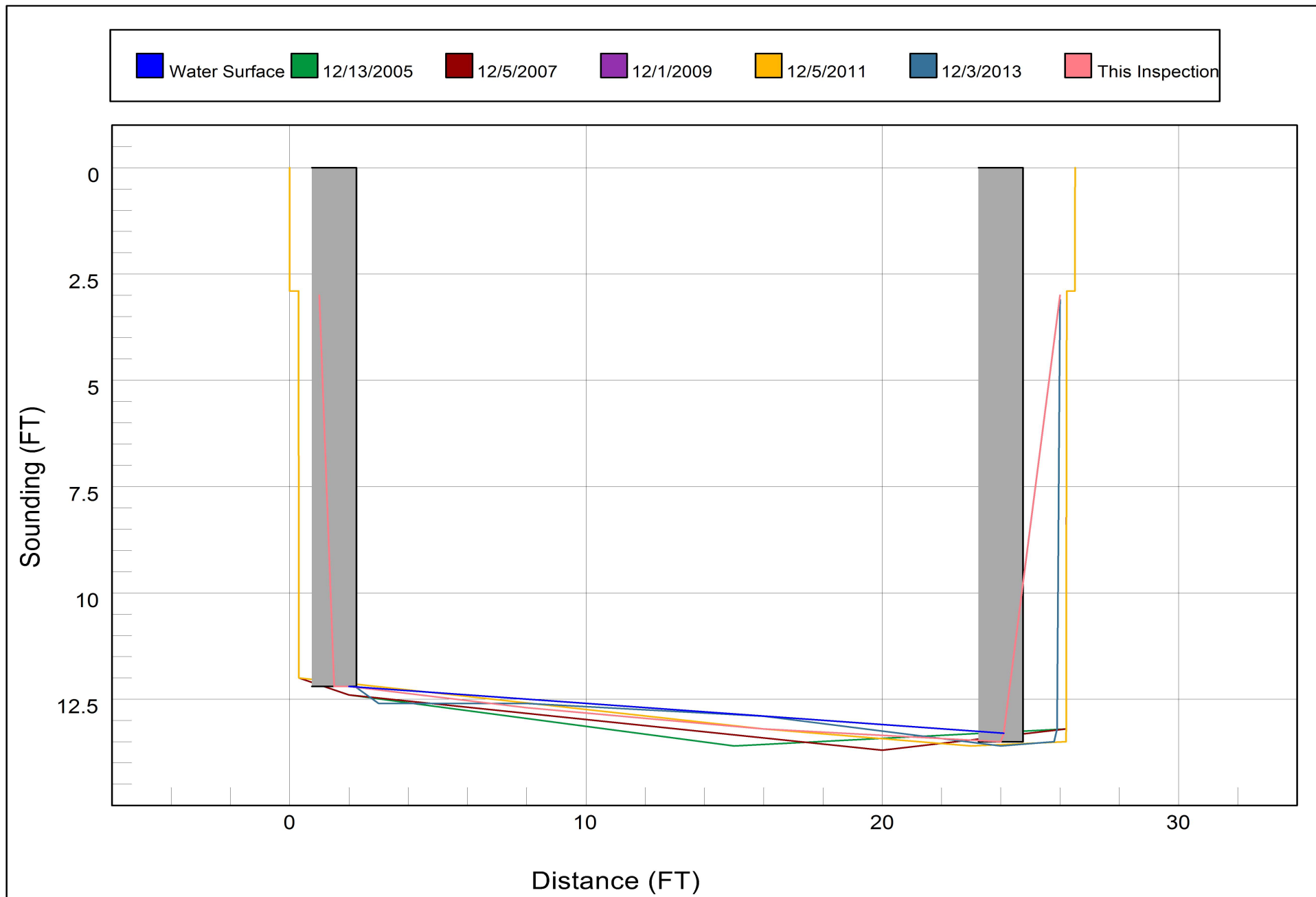
Bridge: 040160

County ASHE

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch



Roadway	18.92ft Wide	2 Paved Lanes	Looking North
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	2ft Wide		2ft Unpaved
Left Guardrail			
Right Guardrail			

Measurement recorded approximately 25ft from bridge along centerline of roadway.

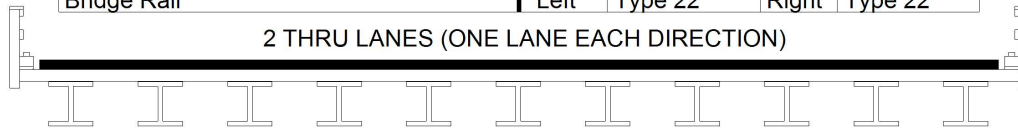
MEASUREMENTS VERIFIED 12/4/2015 BY MJM

SKETCH REVISED BY JWJ ON 12.9.13

Title APPROACH ROADWAY		Description LOOKING NORTH	
Bridge No: 040160	Drawn By: G.R.R.	Date: 12/05/2007	File Name: S0130000462

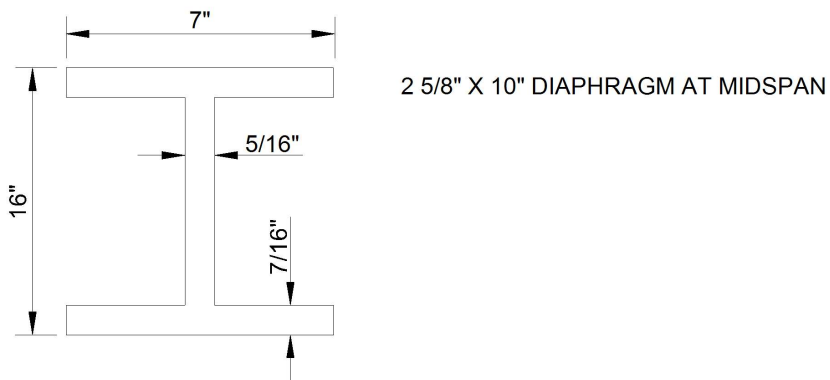
Bridge Inspection Field Sketch

Deck Width/Out to Out	26.0ft	Between Rails			25.75ft
Clear Roadway	25.08ft	Wearing Surface			0.25ft
Median Width		Median Height			
Curb Height		Left	0.75ft	Right	0.75ft
Sidewalk Width		Left		Right	
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left	0.5ft	Right	0.5ft
Top of Rail to Deck/Wearing Surface		Left	2.67ft	Right	2.67ft
Bridge Rail		Left	Type 22	Right	Type 22



Measurements for Span	1		
Deck Thickness	0.312	Left Overhang	1.33
Top of Rail to Bottom of Beam	4.58	Right Overhang	1.33

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	2.33ft	
2	Steel I Beam	2.33ft	
3	Steel I Beam	2.33ft	
4	Steel I Beam	2.33ft	
5	Steel I Beam	2.33ft	
6	Steel I Beam	2.33ft	
7	Steel I Beam	2.33ft	
8	Steel I Beam	2.33ft	
9	Steel I Beam	2.33ft	
10	Steel I Beam	2.33ft	
11	Steel I Beam		



MEASUREMENTS VERIFIED 12/4/2015 BY MJM

Title

TYPICAL SECTION

Description

11 LINES OF STEEL I-BEAMS

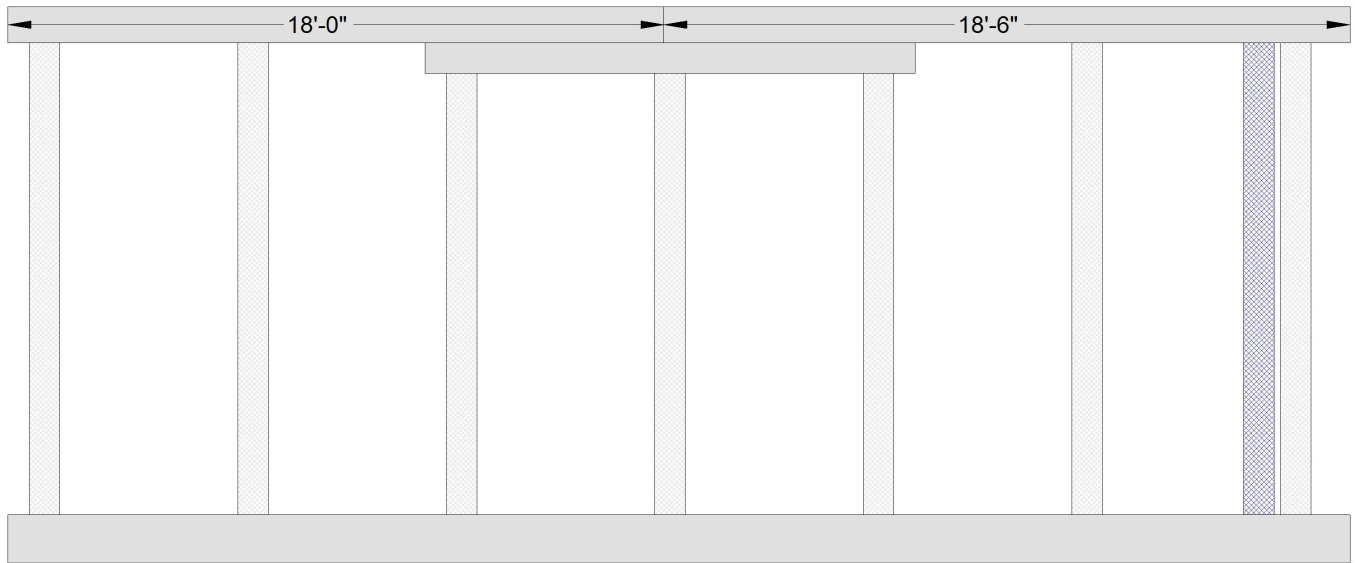
Bridge No: 040160

Drawn By: DCW

Date: 12/05/2007

File Name: S0126000446

Bridge Inspection Field Sketch



Cap Information			Material Timber							
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.		Right Beam to End of Cap.			
36.500 ft.	.959 ft.	.979 ft.	1.000 ft.	1.333 ft.	2.083 ft.		1.083 ft.			
Subcap Information			Material Timber							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
12.250 ft.	.833 ft.	.833 ft.	1.083 ft.	.583 ft.	5.667 ft.					
Sill Information			Material							
Length	Width	Height								
36.500 ft.	.833 ft.	.833 ft.								
Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	5.67 ft.	0.83 ft.	0.83 ft.		Vertical	No	No	No	No
2	Timber	5.67 ft.	1 ft.	0.83 ft.		Vertical	No	No	No	No
3	Timber	5.67 ft.	0.83 ft.	0.83 ft.		Vertical	No	No	No	No
4	Timber	5.67 ft.	0.83 ft.	0.83 ft.		Vertical	No	No	No	No
5	Timber	5.83 ft.	0.83 ft.	0.83 ft.		Vertical	No	No	No	No
6	Timber	4.67 ft.	0.83 ft.	0.83 ft.		Vertical	No	No	No	No
7	Timber	1 ft.	1 ft.	1 ft.		Vertical	No	Yes	No	No
8	Timber		0.83 ft.	0.83 ft.		Vertical	No	No	No	No
Bent/Abutment #: 1 Similar Bents:										

Title MEASUREMENTS UPDATED 12/4/2015 BY MJM
END BENT PROFILE 1

Description
END BENT 1

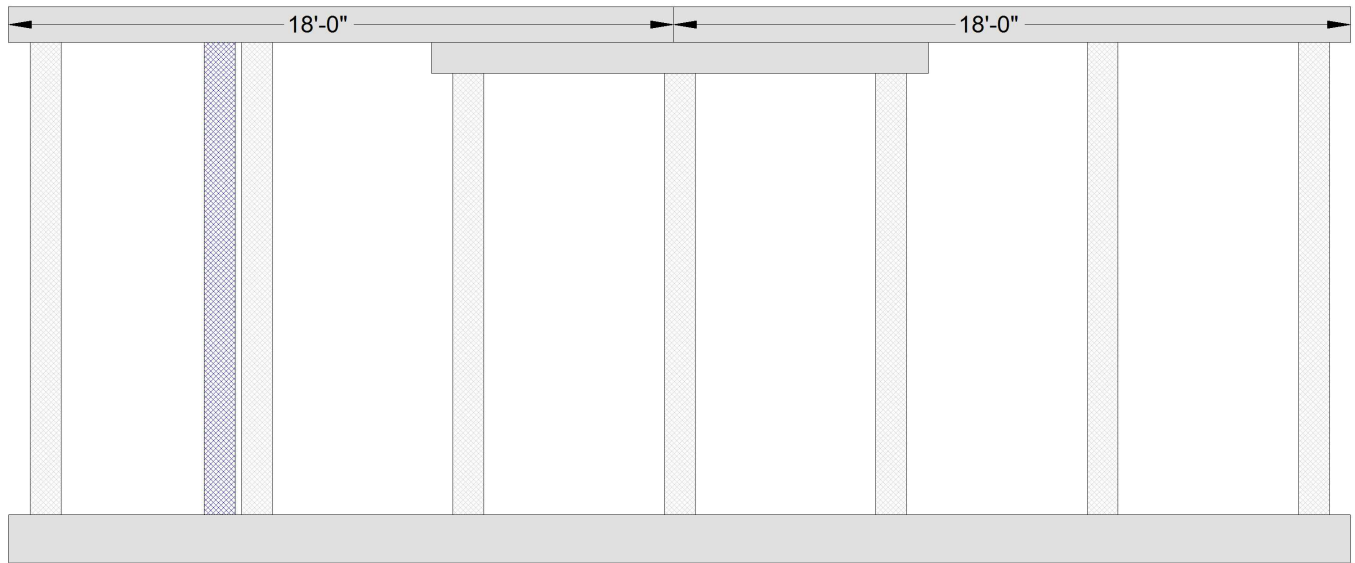
Bridge No: 040160

Drawn By: G.R.R.

Date: 12/05/2007

File Name: S0130000460

Bridge Inspection Field Sketch



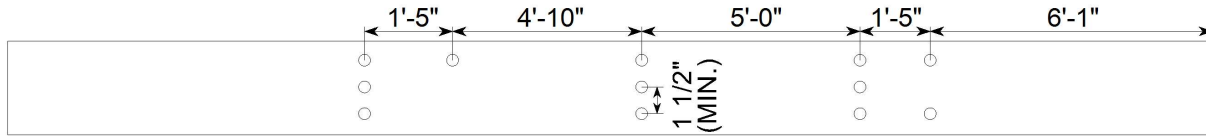
Cap Information			Material Timber							
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.		Right Beam to End of Cap.			
36.000 ft.	.833 ft.	.959 ft.	1.000 ft.	1.000 ft.	1.667 ft.		1.167 ft.			
Subcap Information			Material							
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.					
12.250 ft.	.833 ft.	.833 ft.	.583 ft.	.583 ft.	5.67 ft.					
Sill Information			Material							
Length	Width	Height								
36.000 ft.	.833 ft.	.833 ft.								
Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Timber	4.67 ft.	0.833 ft.	0.917 ft.		Vertical	No	No	No	No
2	Timber	1 ft.	0.917 ft.	1 ft.		Vertical	No	Yes	No	No
3	Timber	5.67 ft.	0.833 ft.	1 ft.		Vertical	No	No	No	No
4	Timber	5.67 ft.	0.833 ft.	0.833 ft.		Vertical	No	No	No	No
5	Timber	5.67 ft.	0.833 ft.	0.833 ft.		Vertical	No	No	No	No
6	Timber	5.67 ft.	0.833 ft.	0.833 ft.		Vertical	No	No	No	No
7	Timber	5.67 ft.	1 ft.	0.833 ft.		Vertical	No	No	No	No
8	Timber		1 ft.	0.833 ft.		Vertical	No	No	No	No
Bent/Abutment #: 2 Similar Bents:										

Title MEASUREMENTS UPDATED 12/4/2015 BY MJM END BENT PROFILE 2		Description END BENT 2	
Bridge No: 040160	Drawn By: G.R.R.	Date: 12/05/2007	File Name: S0130000461

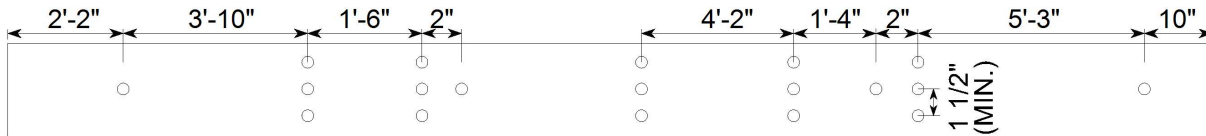
Bridge Inspection Field Sketch

END BENT 1

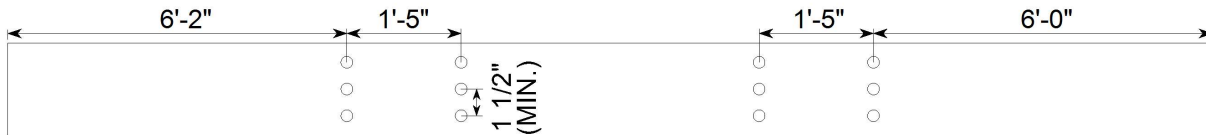
END BENT 2



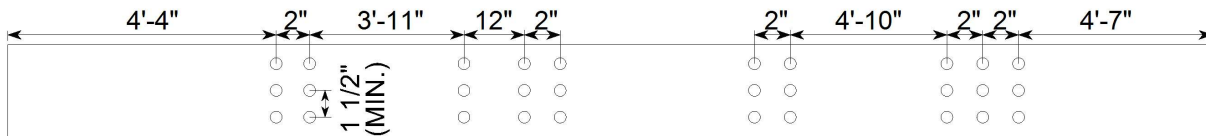
BEAM 1



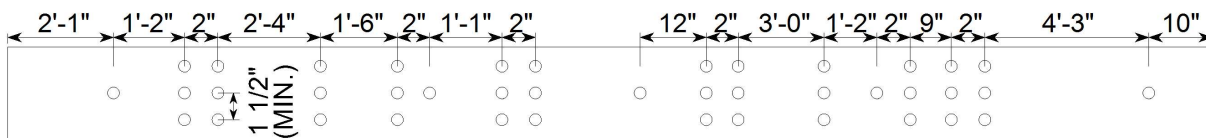
BEAM 2



BEAMS 3, 4, 5, 7, 9 & 10



BEAM 6



BEAM 8



BEAM 11

ALL HOLES ARE 7/8" DIAMETER

Title

BEAM HOLES

Description

OPEN HOLES IN BEAMS

Bridge No: 040160

Drawn By: DAVID WAGNER

Date: 12/7/2015

File Name: S0422000208