NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PMN'S ISSUED FOR SUBSTRUCTURE, SUPERSTRUCTURE & APPROACH ROADWAY... SCOUR CRITICAL...

Structure Safety Report

Routine Element Inspection

COUNTY: WATAUGA **STRUCTURE NUMBER:** 940136 **FREQUENCY:** 24 MONTHS

FACILITY CARRIED: SR1533 **MILE POST:**

LOCATION: 200 FT.S.JCT.US221,321

FEATURE INTERSECTED: RVR.

LATITUDE: 36° 9' 11.18" **LONGITUDE:** 81° 38' 44.43"

SUPERSTRUCTURE: TIMBER FLOOR ON I-BEAMS

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

1 @ 45'- 6"

SPANS: 1 @ 45'-6

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

PRESENT CONDITION: Poor **INSPECTION DATE:** 08/19/2015

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

OTHER SIGNS PRESENT: (4) DELINEATORS, (2) NARROW BRIDGE



SOUTH TO 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	SIGNATURE	ASSISTED BY
ANDREW GLASCO	Andrew P. Glasco	MAX FORD

Span Element Report

Structure Number: 940136 Inspection Date: 08/19/2015

Span Number 1 **Span Length** 45.5 Feet **Number of Beams/Girders:** 9

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	910	910	0	0	0	0	3324
107		Steel Open Girder/Beam	405	0	0	288	117	405	3314
515	107	Steel Protective Coating	2907	2115	0	0	792	792	3342
216		Timber Abutment	56	32	0	24	0	24	3346
228		Timber Pile	10	10	0	0	0	0	3344
235		Timber Pier Cap	40	40	0	0	0	0	3344
330		Metal Bridge Railing	92	84	0	8	0	8	3322
515	330	Steel Protective Coating	274	274	0	0	0	0	3342
510		Wearing Surface	892	0	0	892	0	892	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 Quantites

Structure Number: 940136 Inspection Date: 08/19/2015

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	910	910	0	0	0	0	3324	☐ Requested
☑ Bridge Rail	1	330	Metal Bridge Railing	46	46	0	0	0	0	3322	☐ Requested
Protective System		515	Steel Protective Coating	137	137	0	0	0	0	3342	
☑ Bridge Rail	2	330	Metal Bridge Railing	46	38	0	8	0	8	3322	☐ Requested
Protective System		515	Steel Protective Coating	137	137	0	0	0	0	3342	
☑ Wearing Surfaces		510	Wearing Surface	892	0	0	892	0	892	2816	☐ Requested
☑ Beam	1	107	Steel Open Girder/Beam	45	0	0	0	45	45	3314	☑ Requested
Protective System		515	Steel Protective Coating	323	123	0	0	200	200	3342	
☑ Beam	2	107	Steel Open Girder/Beam	45	0	0	22	23	45	3314	☑ Requested
Protective System		515	Steel Protective Coating	323	201	0	0	122	122	3342	
☑ Beam	3	107	Steel Open Girder/Beam	45	0	0	45	0	45	3314	☐ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	4	107	Steel Open Girder/Beam	45	0	0	45	0	45	3314	☐ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	5	107	Steel Open Girder/Beam	45	0	0	45	0	45	3314	☐ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	6	107	Steel Open Girder/Beam	45	0	0	45	0	45	3314	☐ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	7	107	Steel Open Girder/Beam	45	0	0	45	0	45	3314	☐ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	8	107	Steel Open Girder/Beam	45	0	0	41	4	45	3314	☑ Requested
Protective System		515	Steel Protective Coating	323	278	0	0	45	45	3342	
☑ Beam	9	107	Steel Open Girder/Beam	45	0	0	0	45	45	3314	☑ Requested
Protective System		515	Steel Protective Coating	323	123	0	0	200	200	3342	

Superstructure Element Defect Descriptions

Structure Number: 940136 Inspection Date: 08/19/2015

Span Number 1

Span 1 **Bridge Rail** 2 **Component Name:** Steel Rail

Element: 330 **Name** Metal Bridge Railing **Qty:** 46 **Lvl 2:** 0 **Lvl 3** 8 **Lvl 4** 0 **Maint. Qty** 8

Defect Description:

8 Feet of Damage: The element has impact damage. The specific damage caused by the impact has been captured in Condition State 3 under the appropriate material defect entry. SOUTH EAST RIGHT RAIL END IMPACT DAMAGE (+/- 8 LF) RAIL IS STABLE AT THIS TIME.

Span 1 **Wearing Surfaces** **Component Name:** Asphalt Wearing Surface

Element: 510 **Name** Wearing Surface **Qty:** 892 **Lvl 2:** 0 **Lvl 3** 892 **Lvl 4** 0 **Maint. Qty** 892

Defect Description:

892 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. TRANSVERSE AND LONGITUDINAL CRACKS ENTIRE WEARING SURFACE

182 Square Feet of Effectiveness (Wearing Surface): Limited effectiveness. Deterioration of the protected element has progressed. LEFT SIDE WEARING SURFACE BROKEN AND SHIFTING OFF DECK, (+/- FULL LENGTH X 3' W)

Span 1 **Beam** 1 **Component Name:** Plate Girder



Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 45 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 2 **Component Name:** Plate Girder



Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 22 **Lvl 4** 23 **Maint. Qty** 45

Defect Description:

23 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB AND TOP FLANGES (+/- 3" H X 23 LF) WITH (+/- 1/16") LOSS OF SECTION

100 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB AND TOP FLANGES (+/- 3" H X 23 LF) WITH (+/- 1/16") LOSS OF SECTION

22 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

22 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 3 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 45 **Lvl 4** 0 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/-

5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 4 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 45 **Lvl 4** 0 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 5 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 45 **Lvl 4** 0 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 6 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 45 **Lvl 4** 0 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 7 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 45 **Lvl 4** 0 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 8 **Component Name:** Plate Girder



Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 41 **Lvl 4** 4 **Maint. Qty** 45

Defect Description:

4 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (8) CORROSION FROM ABUT. (A) BEAM END AND EXTENDS (+/- 4 LF) ALONG BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")

41Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/-

5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

45 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Span 1 **Beam** 9 **Component Name:** Plate Girder

Element: 107 **Name** Steel Open Girder/Beam **Qty:** 45 **Lvl 2:** 0 **Lvl 3** 0 **Lvl 4** 45 **Maint. Qty** 45

Defect Description:

45 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

200 Square Feet of Effectiveness (Steel Protective Coatings): Failed; no protection of the underlying metal. BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

Substructure Detailed Element Quantites

Structure Number: 940136 Inspection Date: 08/19/2015

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	28	12	0	16	0	16	3346	☐ Requested
☑ Caps	1	235	Timber Pier Cap	20	20	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	1	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	2	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	3	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	4	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	5	228	Timber Pile	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	28	20	0	8	0	8	3346	☑ Requested
☑ Caps	1	235	Timber Pier Cap	20	20	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	1	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	2	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	3	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	4	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested
☑ Piles and Columns	5	228	Timber Pile	1	1	0	0	0	0	3344	☐ Requested

Substructure Element Defect Descriptions

Structure Number: 940136 Inspection Date: 08/19/2015

End Bent 1

End Bent 1 **Row** 1 **Abutments** 1

Element: 216 **Name** Timber Abutment **Qty:** 28 **Lvl 2:** 0 **Lvl 3** 16 **Lvl 4** 0 **Maint. Qty** 16

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. LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L

10 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (A) BULKHEAD (4) BOARDS DECAYED (+/- 10 LF)

End Bent 2 **Row** 1 **Abutments** 1

Element: 216 **Name** Timber Abutment **Qty:** 28 **Lvl 2:** 0 **Lvl 3** 8 **Lvl 4** 0 **Maint. Qty** 8

Defect Description:

8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED (+/- 15 SF)

National Bridge and NC Inspection Items

Structure Number: 940136 **Inspection Date:** 08/19/2015

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	**4**
Item 61: Channel and Channel Protection	0 - 9 , N	**5**
Item 62: Culvert	0 - 9 , N	**N**
Item 71: Waterway Adequacy	0 - 9 , N	**6**
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**	**91**	**3376**
Drainage System	G, F, P, or C	**G**	**0**	**3332**
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C	**C**	**6**	**3352**
Wingwall	G, F, P, or C	**G**	**0**	**3350**
Scour	G, F, P, or C	**P**		
Field Scour Evaluation		**S**		
Drift	G, F, P, or C	**G**	**0**	**3366**
Fender System	G, F, P, or C		**0**	**3364**
Response to Live Load	G, F, P, or C	**P**		
Estimated Remaining Life	0 - 100 Years	**10**		

Note: If NC SMU Insepction 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	**8**
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	**Y**
Bucket Truck Used	YES/NO	**N**
Boat Used	YES/NO	**N**
Other Equipment Used	YES/NO	**N**

National Bridge and NC SMU Inspection Item Details

Structure Number: 940136 **Inspection Date:** 08/19/2015

Item	Superstructure - Item 59	**Grade**	4	**Maint Code**		**Qty.**	0
Details	PMN'S ISSUED FOR CORROSION ON BEAMS (1,2, 8 & 9)						

Item	Substructure - Item 60	**Grade**	4	**Maint Code**		**Qty.**	0
Details	PMN'S ISSUED FOR TIMBER BULKHEAD AND SCOUR.						

Item	Channel and Channel Protection - Item 61	**Grade**	5	**Maint Code**		**Qty.**	0
Details	WATERWAY FLOWS INTO AND ALONG SOUTH WEST WING AND ABUTMENT A						

Item	Priority Maintenance Issued	**Grade**	Y	**Maint Code**		**Qty.**	0
Details	PMN'S ISSUED FOR SUBSTRUCTURE, SUPERSTRUCTURE & APPROACH ROADWAY						

Item	Presently Posted	**Grade**	N	**Maint Code**		**Qty.**	0
Details	NOT POSTED						

Item	Deck Debris	**Grade**	F	**Maint Code**	3376	**Qty.**	91
Details	EXCESS SOIL AND VEGETATION FULL LENGHT X 1' W ALONG BOTH RAILS (+/- 91 SF)						

Item	Slope Protection	**Grade**	C	**Maint Code**	3352	**Qty.**	6
Details	SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)						

Item	Scour	**Grade**	P	**Maint Code**		**Qty.**	0
Details	LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L						

Item	Response to live load	**Grade**	P	**Maint Code**		**Qty.**	0
Details	DEFLECTION IN BEAMS (+/- 3/4") UNDER TRUCK LOADS.						

Item	Field Scour Evaluation	**Grade**	S	**Maint Code**		**Qty.**	0
Details	LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L X 3' D)						



EXCESS SOIL AND VEGETATION FULL LENGHT X 1' W ALONG BOTH RAILS (+/- 91 SF)



Span 1 Wearing Surface: 892 Square Feet of Crack (Wearing Surface): Width of more than 0.05 in. or spacing of less than 1.0 ft. TRANSVERSE AND LONGITUDINAL CRACKS ENTIRE WEARING SURFACE



Span 1 Wearing Surface: 182 Square Feet of Effectiveness (Wearing Surface): Limited effectiveness. Deterioration of the protected element has progressed. LEFT SIDE WEARING SURFACE BROKEN AND SHIFTING OFF DECK, (+/- FULL LENGTH X 3' W)



WATERWAY FLOWS INTO AND ALONG SOUTH WEST WING AND ABUTMENT A



End Bent 2 Abutment/Backwall : 8 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED (+/- 15 SF)



End Bent 1 Abutment/Backwall : 6 Feet of Scour: Exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant structural review. LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L



End Bent 1 Abutment/Backwall : 10 Feet of Decay/Section Loss: Affects 10% or more of the member but does not warrant structural review. ABUT. (A) BULKHEAD (4) BOARDS DECAYED (+/- 10 LF)



Span 1 Beam 1: 45 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION



Span 1 Beam 2: 23 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB AND TOP FLANGES (+/- 3" H X 23 LF) WITH (+/- 1/16") LOSS OF SECTION



Span 1 Beam 8: 4 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (8) CORROSION FROM ABUT. (A) BEAM END AND EXTENDS (+/- 4 LF) ALONG BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")



Span 1 Beam 9: 45 Feet of Corrosion: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION



Span 1 Beam 5: 45 Feet of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review. CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 1/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 5/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION



SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)



SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)



Span 1 Right Bridge Rail: 8 Feet of Damage: The element has impact damage. The specific damage caused by the impact has been captured in Condition State 3 under the appropriate material defect entry. SOUTH EAST RIGHT RAIL END IMPACT DAMAGE (+/- 8 LF) RAIL IS STABLE AT THIS TIME.



NORTH APPROACH NARROW BRIDGE SIGN



SOUTH TO NORTH

Structure: 940136 County: WATAUGA Date: 08/19/2015 Structure Photos



UPSTREAM



DOWNSTREAM



LOOKING SOUTH



ABUTMENT A



ABUTMENT B



WEST PROFILE



EAST PROFILE



SOUTH APPROACH NARROW BRIDGE SIGN

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 09/22/2015

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **940136**
(8) STRUCTURE NUMBER(FEDERAL) 000000001890136
(5) INVENTORY ROUTE (ON/UNDER) - ON 31015330
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 189 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - MID.FORK S.FORK NEW RVR.
(7) FACILITY CARRIED SR1533
(9) LOCATION 200 FT.S.JCT.US221,321
(11)MILEPOINT 0
(16)LAT 36° 9' 11.18" (17)LONG 81° 38' 44.43"
(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 1
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 8 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1951
(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 1500
(30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 6 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 44 FT
(49) STRUCTURE LENGTH 46 FT
(50)CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 19.583 FT
(52) DECK WIDTH OUT TO OUT 20 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 19.583 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 = 35.35
STATUS = Structurally Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Local 09
(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 4
(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-20 36
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-12 21
(70) BRIDGE POSTING - Posting Required 2
(41) STRUCTURE OPEN, POSTED ,OR CLOSED P
DESCRIPTION - Posted for Load

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 4
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES,VERTI & HORIZ N
(71) WATERWAY ADEQUACY 6
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 1000
(113)SCOUR CRITICAL BRIDGES 3

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 3000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 08/19/2015
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - NO B)
C) OTHER SPECIAL INSP NO C)
SCOUR

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 09/22/2015

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
WATAUGA	11	2	940136	46 FEET

ROUTE CARRIED : SR1533

FEATURE INTERSECTED : MID.FORK S.FORK NEW RVR.

LOCATED : 200 FT.S.JCT.US221,321

BRIDGE NAME :

CITY :

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	1500 2012	LT 323 RT 323

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1951	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
	BMU	5.7551	TAN	90	ON 2 UNDER 0

NAVIGATION :		HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT	HC 0 FT	12 FT	2 FT

SUPERSTRUCTURE : TIMBER FLOOR ON I-BEAMS

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

SPANS : 1 @ 45'-6

BEAMS OR GIRDERS : 9 LINES 24 I-BEAMS @ 2'-3.25 CTS.

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/4 .5 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
19.583 FT	19.583 FT	LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :
HS-12	HS-20	InBm(# 2)Sec.Loss	SV 30 TTST 34 DATE 09/07/2015

SYSTEM : Secondary S.R. Route

GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 940136 County WATAUGA 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	45	BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION.	
3314	Maintain Steel Superstructure Components	LF	23	BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB AND TOP FLANGES (+/- 3" H X 23 LF) WITH (+/- 1/16") LOSS OF SECTION	
3314	Maintain Steel Superstructure Components	LF	4	BEAM (8) CORROSION FROM ABUT. (A) BEAM END AND EXTENDS (+/- 4 LF) ALONG BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")	
3314	Maintain Steel Superstructure Components	LF	45	BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION	
3344	Repair / Replace Timber Substructure Components	LF	6	LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	15	LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED (+/- 15 SF)	
3352	Maint Slope Protection	SF	6	SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940136 County WATAUGA

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	45 LF

Location:		
Beams and Girders	Bent/Span No. 1	BEAM (1)

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION.

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	23 LF

Location:		
Beams and Girders	Bent/Span No. 1	BEAM (2)

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB AND TOP FLANGES (+/- 3" H X 23 LF) WITH (+/- 1/16") LOSS OF SECTION

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940136 County WATAUGA

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:		
Beams and Girders	Bent/Span No. 1	BEAM (8)

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

BEAM (8) CORROSION FROM ABUT. (A) BEAM END AND EXTENDS (+/- 4 LF) ALONG BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	45 LF

Location:		
Beams and Girders	Bent/Span No. 1	BEAM (9)

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8"), CORROSION EXTENDS IN BOTTOM PORTION OF WEB (+/- 3" H X F/L) WITH (+/- 1/16") LOSS OF SECTION

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940136 County WATAUGA

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	6 LF

Location:		
Abutment Substructure	Bent/Span No. 1	ABUT. (A) SCOUR

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS. LARGE AREA OF SCOUR ALONG (SW) WING AND BULKHEAD (+/- 15' W X 20' L)

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	15 SF

Location:		
Abutment Substructure	Bent/Span No. 2	TIMBER BULKHEAD

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details

LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED (+/- 15 SF)

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 940136 County WATAUGA

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

MMS Code	MMS Description	Quantity
3352	Maint Slope Protection	6 SF

Location:		
Slope	Bent/Span No. 1	SOUTH WEST APPROACH ROADWAY

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification

Submitted Date:	Submitted By:	Assisted By:
08/20/2015	ANDREW GLASCO	MAX FORD

Details
SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)



LEFT END ABUT. (B) BULKHEAD (2) BOARDS DECAYED (+/- 15 SF)



LEFT END ABUT. (A) UNDERMINED UNDER SILL (+/- 6 LF) AND EXTENDS UP TO POST (2) (+/- 6 LF X 1' H X 1' PROBES) PROBES EXTEND UP TO BULKHEAD BOARDS.

Structure 940136 County WATAUGA Date: Condition Photos



BEAM (1) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")



BEAM (2) CORROSION FROM MID-SPAN AND EXTENDS TO ABUT. (B) ALONG BOTTOM FLANGES WITH (+/- 7/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 1/4")



BEAM (8) CORROSION FROM ABUT. (A) BEAM END AND EXT. (+/- 4 LF) ALONG BTM FLANGES (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")

Structure 940136 County WATAUGA Date: Condition Photos



BEAM (9) CORROSION FULL LENGTH ALONG TOP AND BOTTOM FLANGES WITH (+/- 5/16") LOSS OF SECTION AND A REMAINING SECTION OF (+/- 3/8")



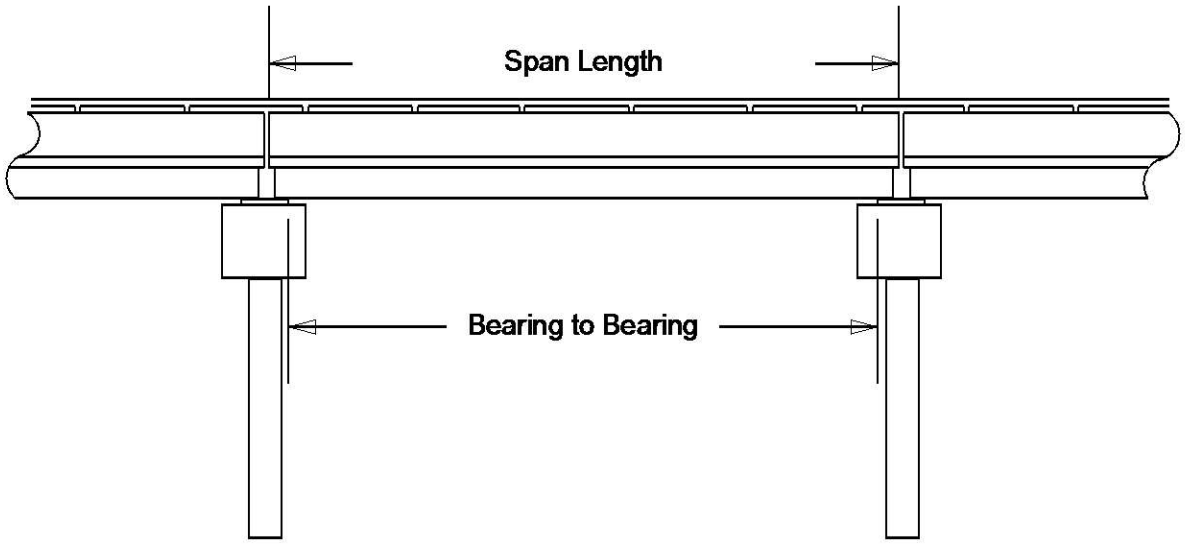
SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)



SOUTH WEST APPROACH ROADWAY EROSION UNDER ASPHALT IN LEFT WHEEL PATH (+/- 3' D X 3' W X 2' L)

Structure Data Worksheet

County: WATAUGA **Structure No:** 940136 **Date:** **Inspected By:** AG



Span No	Span Length	Bearing to Bearing	Comments
1	45 FT. 6 IN.	44 FT. 3 IN.	FACE OF ABUT. CAP TO FACE OF ABUT. CAP = 43'

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 940136 **County:** WATAUGA **Date:** _____ **By:** AG

Record sounding from top of rail. Other location if needed: TOP OF RAIL

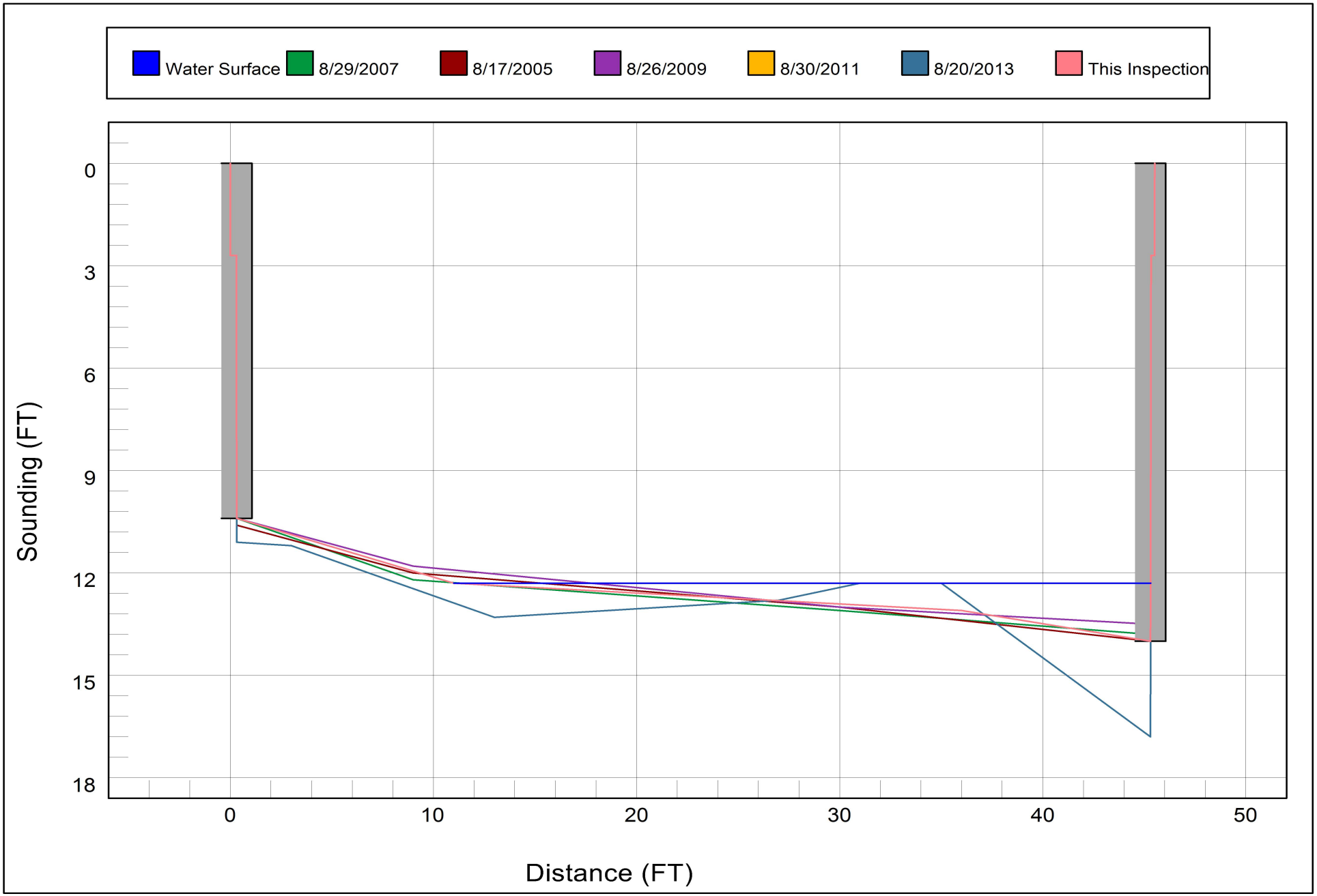
Distance from Highwater Mark to top of rail: _____ **Location of Highwater Mark:** _____

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	0	TOP OF RAIL			
0	2.7	TOP OF FF			
0.3	2.7	TOP OF FF			
0.3	5.4	Top of Cap			
0.31	10.4	FACE OF ABUTMENT	0.31	13.5	FACE OF ABUTMENT
11	12.3	Water Surface/Water Edge (WSWE)			
36	13.1	BED			
45.3	14	FACE OF ABUTMENT	45.3	10.9	FACE OF ABUTMENT
45.31	12.3	Water Surface/Water Edge (WSWE)			
45.32	5.4	Top of Cap			
45.33	2.7	TOP OF FF			
45.5	2.7	TOP OF FF			
45.51	0	TOP OF RAIL			

Bridge: 940136 County WATAUGA Date:

STREAMBED PROFILE (Downstream)

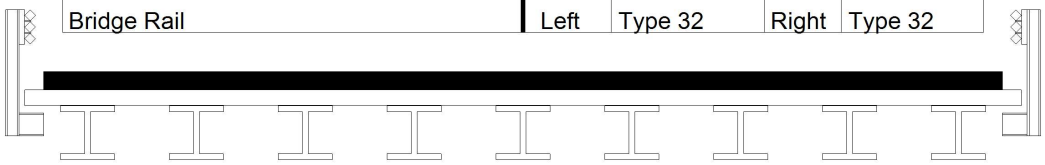
Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

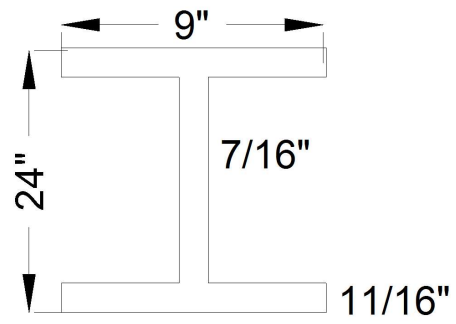
VERIFIED 8/19/2015 A. GLASCO, M. FORD

Deck Width/Out to Out	20ft	Between Rails			19.583ft
Clear Roadway	19.583ft	Wearing Surface			0.375ft
Median Width		Median Height			
Curb Height		Left		Right	
Sidewalk Width		Left		Right	
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left	1.25ft	Right	1.25ft
Top of Rail to Deck/Wearing Surface		Left	2.5ft	Right	2.25ft
Bridge Rail		Left	Type 32	Right	Type 32



Measurements for Span #	1		
Deck Thickness	0.312	Left Overhang	0.917
Top of Rail to Bottom of Beam	5.25	Right Overhang	0.917

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	2.271ft	
2	Steel I Beam	2.271ft	
3	Steel I Beam	2.271ft	
4	Steel I Beam	2.271ft	
5	Steel I Beam	2.271ft	
6	Steel I Beam	2.271ft	
7	Steel I Beam	2.271ft	
8	Steel I Beam	2.271ft	
9	Steel I Beam		



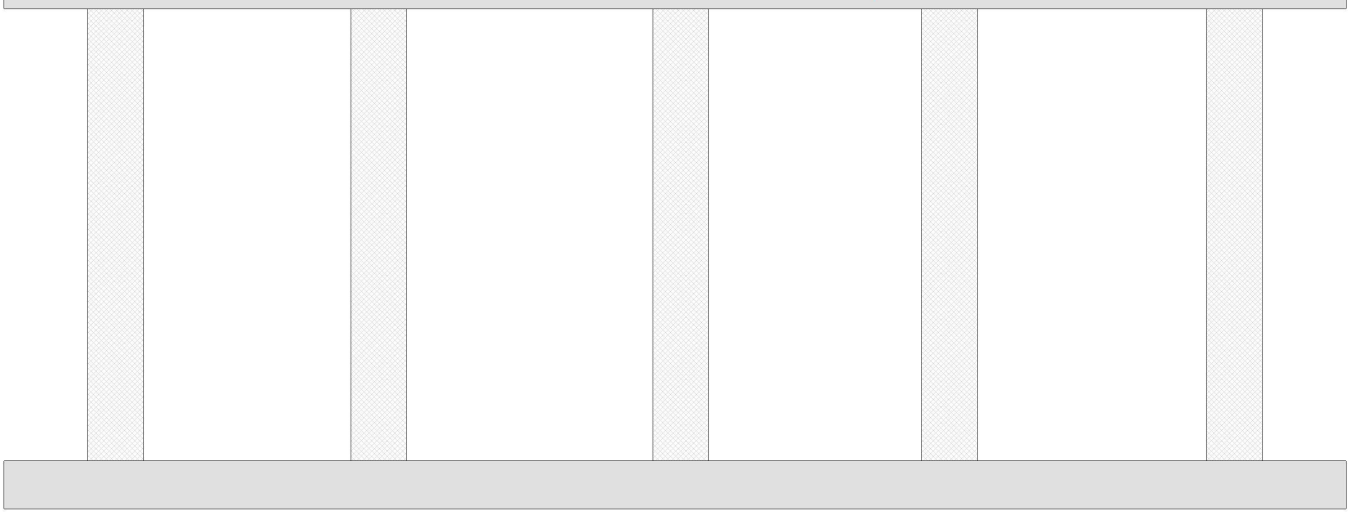
DIAPH @ MID-SPAN 2 7/8" X 12"

Title	Description
SUPER	SUPER

Bridge No:	Drawn By:	Date:	File Name:
940136	G.R.R.	08/29/2007	S0130000240

Bridge Inspection Field Sketch

VERIFIED 8/19/2015 A. GLASCO, M. FORD



Cap Information Material Timber

Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
20.000 ft.	0.833 ft.	.833 ft.	1.667 ft.	1.667 ft.	.833 ft.	.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	Timber	3.917 ft.	.833 ft.	.833 ft.		Vertical	No	No	No	No
2	Timber	4.5 ft.	.833 ft.	.833 ft.		Vertical	No	No	No	No
3	Timber	4.0 ft.	.833 ft.	.833 ft.		Vertical	No	No	No	No
4	Timber	4.250 ft.	.833 ft.	.833 ft.		Vertical	No	No	No	No
5	Timber		0.833 ft.	0.833 ft.		Vertical	No	No	No	No

Bent/Abutment #: 2

Title
SUB 2

Description
SUB AB 2

Bridge No: 940136 **Drawn By:** G.R.R. **Date:** 8/29/2007 **File Name:** S0130001875

Bridge Inspection Field Sketch

VERIFIED 8/19/2015 A. GLASCO, M. FORD

SR 1533



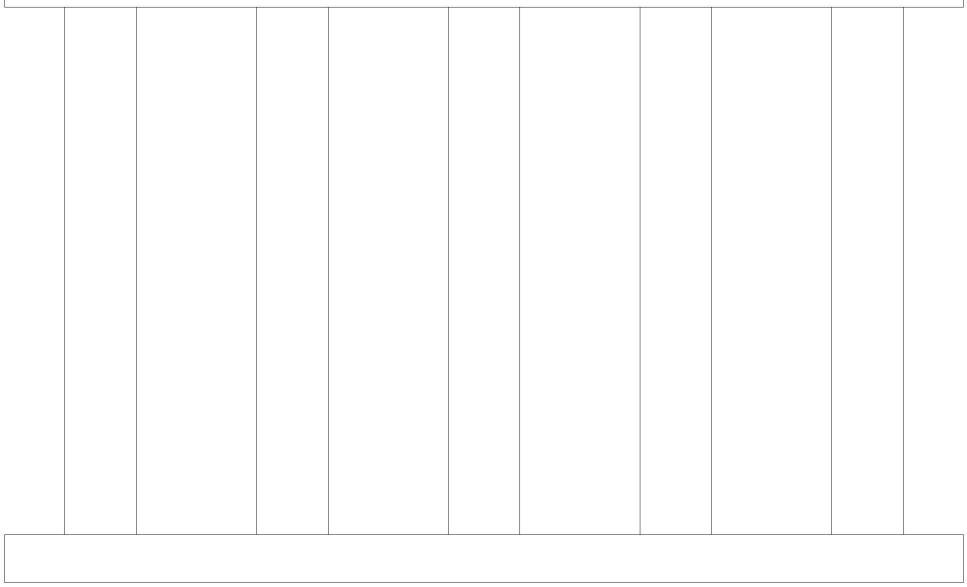
Roadway	19ft Wide	2 Paved Lanes	Looking North
Left Shoulder	3ft Wide		3ft Unpaved
Right Shoulder	3ft Wide		3ft Unpaved
Left Guardrail			
Right Guardrail			

Title	**Description**
APPR. ROADWAY	APPROACH ROADWAY

Bridge No: 940136	**Drawn By:** G.R.R.	**Date:** 08/29/2007	**File Name:** S0130000243

Bridge Inspection Field Sketch

VERIFIED 8/19/2015 A. GLASCO, M. FORD



Abutment #	1		
Cap - Beam Type (Wood or Steel)			
Cap Size	20ft Long	0.833ft Wide	0.833ft High
Left Overhang	1.583ft	Lt Cap/Beam Overhang	0.917ft
Right Overhang	1.583ft	Rt Cap/Beam Overhang	0.917ft
Sill - Sill			
Sill Size			

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	4' 3"		10"	10"	Vertical
2	Wood or Timber	Post and Sills	4' 2"		10"	10"	Vertical
3	Wood or Timber	Post and Sills	4' 2"		10"	10"	Vertical
4	Wood or Timber	Post and Sills	4' 3"		10"	10"	Vertical
5	Wood or Timber	Post and Sills			10"	10"	Vertical

Title

SUB. 1

Description

SUBST.

Bridge No: 940136 **Drawn By:** G.R.R **Date:** 08/29/2007 **File Name:** S0126000243