



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 STRUCTURE MANAGEMENT UNIT

ATTENTION: **PAR'S SUBMITTED (IMPACT DAMAGE TO GURADRAIL, POT HOLE IN WEARING SURFACE AND SCOUR AT BENTS 1 & 2)**

# Structure Safety Report

## Routine Element Inspection - Contract

INSPECTION DATE: 03/02/2022

DIVISION: 3 COUNTY: ONslow STRUCTURE NUMBER: 660033 FREQUENCY: 24 MONTHS

FACILITY CARRIED: US17N MILE POST: \_\_\_\_\_

LOCATION: 0.2 MI N JCT SR1326 0.2 MILES NORTH OF JUNCTION WITH SR1326

FEATURE INTERSECTED: WOLF SWAMP

LATITUDE: 34° 47' 52.12" LONGITUDE: 77° 21' 50.65"

SUPERSTRUCTURE: REINFORCED CONCRETE DECK GIRDERS

SUBSTRUCTURE: END BTS:RC INTEGRAL CAPS; INT BTS:RNP & WEB PIERS

SPANS: 3 SPANS. SEE SPAN PROFILE SHEET FOR SPAN DETAILS

FRACTURE CRITICAL     TEMPORARY SHORING     SCOUR CRITICAL     SCOUR PLAN OF ACTION

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

POSTED SV: Not Posted POSTED TTST: Not Posted

OTHER SIGNS PRESENT: NONE



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

DIRECTION OF INSPECTION S-N

DIRECTION MATCHES PLANS NO

LOOKING NORTH

INSPECTED BY R. ASECIO	SIGNATURE 	ASSISTED BY D. BROWN
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NATIONAL BRIDGE INVENTROY ----- STRUCTURE INVENTORY AND APPRAISAL

05/18/2022

**IDENTIFICATION**

(1) STATE NAME NORTH CAROLINA BRIDGE **660033**  
 (8) STRUCTURE NUMBER (FEDERAL) **1330033**  
 (5) INVENTORY ROUTE (ON/UNDER) ON **121000170**  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT **3**  
 (3) COUNTY CODE (FEDERAL) **133** (4) PLACE CODE **34200**  
 (6) FEATURE INTERSECTED **WOLF SWAMP**  
 (7) FACILITY CARRIED **US17N**  
 (9) LOCATION **0.2 MI N JCT SR1326**  
 (11) MILEPOINT **0.0**  
 (12) BASE HIGHWAY NETWORK **1**  
 (13) LRS INVENTORY ROUTE & SUBROUTE **20017**  
 (16) LATITUDE **34° 47' 52.12"** (17) LONGITUDE **77° 21' 50.65"**  
 (98) BORDER BRIDGE STATE CODE PERCENT SHARED  
 (99) BORDER BRIDGE STRUCTURE NUMBER

SUFFICIENCY RATING **55.58**  
 STATUS = **Functionally Obsolete**

**CLASSIFICATION** **CODE**

(112) NBIS BRIDGE SYSTEM **YES**  
 (104) HIGHWAY SYSTEM **Inventory Route is on NHS 1**  
 (26) FUNCTIONAL CLASS **Urban Other Principal Arterial 14**  
 (100) STRAHNET HIGHWAY **Non-Interstate STRAHNET Route 2**  
 (101) PARALLEL STRUCTURE **The right structure of parallel bridges R**  
 (102) DIRECTION OF TRAFFIC **1-way traffic 1**  
 (103) TEMPORARY STRUCTURE  
 (110) DESIGNATED NATIONAL NETWORK - **on national network for trucks 1**  
 (20) TOLL **On Free Road 3**  
 (21) MAINT - **01**  
 (22) OWNER - **01**  
 (37) HISTORICAL SIGNIFICANCE - **5**

**STRUCTURE TYPE AND MATERIAL**

(43) STRUCTURE TYPE MAIN **Concrete**  
 TYPE **Tee Beam** CODE **104**  
 (44) STRUCTURE TYPE APPROACH  
 TYPE CODE  
 (45) NUMBER OF SPANS IN MAIN UNIT **3**  
 (46) NUMBER OF SPANS IN APPROACH **0**  
 (107) DECK STRUCTURE TYPE CODE **1**  
 (108) WEARING SURFACE/PROTECTIVE SYSTEM  
 (A) TYPE OF WEARING SURFACE CODE **6**  
 (B) TYPE OF MEMBRANE CODE **0**  
 (C) TYPE OF DECK PROTECTION CODE **0**

**CONDITION** **CODE**

(58) DECK **5**  
 (59) SUPERSTRUCTURE **6**  
 (60) SUBSTRUCTURE **6**  
 (61) CHANNEL & CHANNEL PROTECTION **7**  
 (62) CULVERTS **N**

**LOAD RATING AND POSTING** **CODE**

(31) DESIGN LOAD **HS 15 3**  
 (63) OPERATING RATING METHOD - **0**  
 (64) OPERATING RATING - **HS-16 28**  
 (65) INVENTORY RATING METHOD - **0**  
 (66) INVENTORY RATING **HS-12 22**  
 (70) BRIDGE POSTING **No Posting Required 5**  
 (41) STRUCTURE OPEN, POSTED, OR CLOSED  
 DESCRIPTION **Open, no restriction A**

**AGE AND SERVICE**

(27) YEAR BUILT **1923**  
 (106) YEAR RECONSTRUCTED **0**  
 (42) TYPE OF SERVICE ON - **Highway**  
 OFF - **Waterway** CODE **15**  
 (28) LANES ON STRUCTURE **2** LANES UNDER STRUCTURE **0**  
 (29) AVERAGE DAILY TRAFFIC **7500**  
 (30) YEAR OF ADT **2018** (109) TRUCK ADT PCT **12**  
 (19) BYPASS OR DETOUR LENGTH **4.0**

**APPRAISAL** **CODE**

(67) STRUCTURAL EVALUATION **5**  
 (68) DECK GEOMETRY **2**  
 (69) UNDERCLEARANCES, VERT & HORIZ **N**  
 (71) WATERWAY ADEQUACY **6**  
 (72) APPROACH ROADWAY ALIGNMENT **8**  
 (36) TRAFFIC SAFETY FEATURES **0000**  
 (113) SCOUR CRITICAL BRIDGES **5**

**GEOMETRIC DATA**

(48) LENGTH OF MAXIMUM SPAN **31.0**  
 (49) STRUCTURE LENGTH **96.0**  
 (50) CURB OR SIDEWALK: LEFT **1.0** RIGHT **1.0**  
 (51) BRIDGE ROADWAY WIDTH, CURB TO CURB **26.0**  
 (52) DECK WIDTH OUT TO OUT **30.0**  
 (32) APPROACH ROADWAY WITH (W/ SHOULDERS) **26.0**  
 (33) BRIDGE MEDIAN **Open median** CODE **1**  
 (34) SKEW **0** (35) STRUCTURE FLARED **0**  
 (10) INVENTORY ROUTE MIN VERT CLEAR **999.9**  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR **26.0**  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY **999.9**  
 (54) MIN VERT UNDERCLEAR: REFERENCE **0.0**  
 (55) MIN LAT UNDERCLEARANCE RT: REFERENCE **N 0.0**  
 (56) MIN LAT UNDERCLEARANCE LT: **0.0**

**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 **15,000** YEAR OF FUTURE ADT **2040**

**NAVIGATION DATA**

(38) NAVIGATION CONTROL - CODE **0**  
 (111) PIER PROTECTION CODE  
 (39) NAVIGATION VERTICAL CLEARANCE **0.0**  
 (116) VERT - LIFT BRIDGE NAV MIN VERT CLEAR **0.0**  
 (40) NAVIGATION HORIZONTAL CLEARANCE **0.0**

**INSPECTION**

(90) INSPECTION DATE **03/22** (91) FREQUENCY **24**  
 (92) CRITICAL FEATURE INSPECTION (93) CFI DATE  
 A) FRACTURE CRIT DETAIL A)  
 B) UNDERWATER INSP B)  
 C) OTHER SPECIAL INSP C)

SCOUR

## Superstructure Build Details

Span Number 1

Span Length 31.5830

Skew 90.0000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
1	Asphalt Wearing Surface	Wearing Surface	822 Square Feet		
4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	128 Feet		
1	Reinforced Concrete Deck	Reinforced Concrete Deck	885 Square Feet		
2	Concrete Railing	Reinforced Concrete Bridge Railing	64 Feet		

Span Number 2

Span Length 32.5000

Skew 90.0000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
1	Reinforced Concrete Deck	Reinforced Concrete Deck	910 Square Feet		
2	Concrete Railing	Reinforced Concrete Bridge Railing	66 Feet		
4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	132 Feet		
1	Asphalt Wearing Surface	Wearing Surface	910 Square Feet		
1	Standard Joint	Pourable Joint Seal	28 Feet		

Span Number 3

Span Length 31.8330

Skew 90.0000

Number of Items	Type of Component	Element Name	Quantity	Protective System Applied	Quantity (Sq Ft)
1	Reinforced Concrete Deck	Reinforced Concrete Deck	892 Square Feet		
2	Concrete Railing	Reinforced Concrete Bridge Railing	64 Feet		
4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	128 Feet		
1	Standard Joint	Pourable Joint Seal	28 Feet		
1	Asphalt Wearing Surface	Wearing Surface	892 Square Feet		

# Structure Element Scoring

Structure Number: 660033

Inspection Date 3/2/2022

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
12	0	Reinforced Concrete Deck	Deck	2687	2634	52	1	0
110	0	Reinforced Concrete Open Girder/Beam	Beam	388	364	20	4	0
210	0	Reinforced Concrete Pier Wall	Piles and Columns	56	46	7	3	0
215	0	Reinforced Concrete Abutment	Abutments	138	95	17	26	0
220	0	Reinforced Concrete Pile Cap/Footing	Footing	60	0	0	60	0
234	0	Reinforced Concrete Pier Cap	Caps	108	101	4	3	0
301	0	Pourable Joint Seal	Expansion Joints	56	56	0	0	0
331	0	Reinforced Concrete Bridge Railing	Bridge Rail	194	164	30	0	0
510	0	Wearing Surface	Wearing Surfaces	2624	1777	40	807	0

# Summary of Maintenance Needs

## Maintenance By Defect

Structure Number: **660033**

Inspection Date: **03/02/2022**

<b>MMS Code</b>	<b>Element Name</b>	<b>Defect Name</b>	<b>Recommended Quantity</b>
3326	Reinforced Concrete Deck	Efflorescence/Rust Staining	1 Square Feet
3326	Reinforced Concrete Deck	Delamination/Spall	1 Square Feet
3306	Reinforced Concrete Open Girder/Beam	Patched Area	4 Feet
3348	Reinforced Concrete Pier Wall	Delamination/Spall	3 Feet
3348	Reinforced Concrete Pier Wall	Patched Area	2 Feet
3350	Reinforced Concrete Abutment	Patched Area	1 Feet
3350	Reinforced Concrete Abutment	Cracking (RC and Other)	25 Feet
3350	Reinforced Concrete Abutment	Delamination/Spall	4 Feet
3348	Reinforced Concrete Pile Cap/Footing	Scour	60 Feet
3348	Reinforced Concrete Pier Cap	Patched Area	1 Feet
3348	Reinforced Concrete Pier Cap	Cracking (RC and Other)	2 Feet
2816	Wearing Surface	Crack (Wearing Surface)	752 Square Feet
2816	Wearing Surface	Patched Area/Pothole (Wearing Surface)	53 Square Feet

## Element Structure Maintenance Quantities

Structure Number: **660033**

Inspection Date **03/02/2022**

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3350	Maintenance of Concrete Wings and Wall	30	138	0	26	17	95
Beam	3306	Maintenance Concrete Superstructure Components	4	388	0	4	20	364
Bridge Rail	3318	Maintenance of Concrete Bridge Rail	0	194	0	0	30	164
Caps	3348	Maintenance of Concrete Substructure	3	108	0	3	4	101
Deck	3326	Maintenance of Concrete Deck	2	2687	0	1	52	2634
Expansion Joints	3310	Maintenance of Standard Bridge Expansion Joints	0	56	0	0	0	56
Footing	3348	Maintenance of Concrete Substructure	60	60	0	60	0	0
Piles and Columns	3348	Maintenance of Concrete Substructure	5	56	0	3	7	46
Wearing Surfaces	2816	Asphalt Surface Repair	805	2624	0	807	40	1777

# Priority Actions Request

Structure Number 660033

## Span1

2816      **Wearing Surface**      Asphalt Wearing Surface

Priority Level	Defect Type	Quantity	Defect Description
2	Patched Area/Pothole	2	Span 1 Wearing Surface: (PAR) 17" X UP TO 12" X FULL DEPTH POTHOLE, 3' FROM ABUTMENT 1 AND 5' FROM EAST BRIDGE RAIL.

## Bent 1

3348      **Footing**      Reinforced Concrete Footing

Priority Level	Defect Type	Quantity	Defect Description
2	Scour	30	Bent 1 Footing: (PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.

## Bent 2

3348      **Footing**      Reinforced Concrete Footing

Priority Level	Defect Type	Quantity	Defect Description
2	Scour	30	Bent 2 Footing: (PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END

## Approach Guardrail and Barriers

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

Priority Level	Defect Type	Quantity	Defect Description
2		40	(PAR) 40' OF IMPACT DAMAGE, UP TO 1' DEFLECTION, GAUGES IN SOUTHEAST GUARDRAIL WITH 1 POST TO RAIL BOLT MISSING, 15' SOUTH OF BRIDGE.

## Element Condition and Maintenance Data

Structure Number: 660033

Inspection Date: 03/02/2022

### Span 1 Deck Reinforced Concrete Deck

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
12	Reinforced Concrete Deck	885	884	1	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
12	Delamination/Spall	6" DIAMETER DELAMINATION ON UNDERSIDE OF DECK IN BAY 3 5' FROM ABUTMENT 1	2	1	1	Square Feet

**General Comments**

### Span 1 Wearing Surface Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	822	474	17	331	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	SCATTERED HAIRLINE TO 1/8" WIDE MAP CRACKING IN ASPHALT WEARING SURFACE	3	300	300	Square Feet
510	Crack (Wearing Surface)	UP TO 1/2" TRANSVERSE CRACKING AND 4' X UP TO 1' X 2" CRACKED PATCHED AREA IN EAST LANE IN ASPHALT WEARING SURFACE OVER ABUTMENT 1.	3	26	26	Square Feet
510	Patched Area/Pothole (Wearing Surface)	(PAR) 17" X UP TO 12" X FULL DEPTH POTHOLE, 3' FROM ABUTMENT 1 AND 5' FROM EAST BRIDGE RAIL.	3	2	2	Square Feet
510	Patched Area/Pothole (Wearing Surface)	2- UP TO 20" X 6" X 1" POTHOLE, NEAR BENT 1 IN EAST LANE.	3	3	3	Square Feet
510	Patched Area/Pothole (Wearing Surface)	3- UP TO 3' X 1.5 SOUND PATCH IN ASPHALT WEARING SURFACE AT RANDOM THROUGHOUT.	2	14		Square Feet
510	Patched Area/Pothole (Wearing Surface)	FULL WIDTH PATCH OVER ABUTMENT 1	2	3		Square Feet

**General Comments**

### Span 1 Beam 2 Reinforced Concrete Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
110	Reinforced Concrete Open Girder/Beam	32	31	1	0	0	Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
110	Patched Area	SOUND PATCH GIRDER 2 IN SPAN 1 AT PIER 1 BAY 2 SIDE 7" LONG X 10" HIGH	2	1		Feet

**General Comments**



**Span 1****Beam 4****Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	32	27	5	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Cracking (RC and Other)	5' OF HAIRLINE TRANSVERSE / MAP CRACKING RIGHT OF MID SPAN TOWARDS PIER 1	2	5	Feet

General Comments

**Span 2****Wearing Surface****Asphalt Wearing Surface**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
510	Wearing Surface	910	648	10	252	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
510	Crack (Wearing Surface)	SCATTERED HAIRLINE TO 1/8" WIDE MAP CRACKING IN ASPHALT WEARING SURFACE	3	250	250 Square Feet
510	Damage	UP TO 20" DIAMETER X 2" BUILDUP ON ASPHALT WEARING SURFACE OVER BENT 2, 2' FROM EAST BRIDGE RAIL.	3	2	Square Feet
510	Patched Area/Pothole (Wearing Surface)	A FEW SOUND PATCHED AREAS IN ASPHALT WEARING SURFACE LANE #2 RIGHT WHEEL PATH (10' FROM NORTH END) (UP TO 1.5' LONG X 2' WIDE)	2	10	Square Feet

General Comments

**Span 2****Left Bridge Rail****Concrete Railing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
331	Reinforced Concrete Bridge Railing	33	19	14	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
331	Patched Area	PATCHED AREA IN LEFT RAIL, SPAN 2 (14' LONG)	2	14	Square Feet

General Comments

**Span 2****Beam 1****Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	33	31	2	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Patched Area	SOUND PATCHED AREA 1.5' LONG X 8" WIDE IN GIRDER 1 UNDERSIDE IN SPAN 2, 6' FROM PIER 1.	2	2	Feet

General Comments

**Span 2** **Beam 4****Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	33	31	2	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Patched Area	1.5' LONG X 6" WIDE SOUND PATCH ON UNDERSIDE OF BEAM 6' FROM PIER 1	2	2	Feet

General Comments

**Span 3** **Deck****Reinforced Concrete Deck**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
12	Reinforced Concrete Deck	892	840	51	1	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
12	Efflorescence/Rust Staining	HAIRLINE TRANSVERSE CRACK WITH EFFLORESCENCE BUILDUP IN SPAN 3 DECK UNDERSIDE IN BAY 3 AT END OF PATCHED AREA	3	1	1 Square Feet
12	Patched Areas	SOUND PATCHED AREA WEST OVERHANG IN SPAN 3 BENT 2 (6" DIAMETER)	2	1	Square Feet
12	Patched Areas	SPAN 3 DECK UNDERSIDE IN BAY 3 PATCHED AREA AT PIER 2, 10' LONG X 5' WIDE.	2	50	Square Feet

General Comments

**Span 3** **Wearing Surface****Asphalt Wearing Surface**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
510	Wearing Surface	892	655	13	224	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
510	Crack (Wearing Surface)	SCATTERED HAIRLINE TO 1/8" WIDE MAP CRACKING IN ASPHALT WEARING SURFACE	3	150	150 Square Feet
510	Crack (Wearing Surface)	TRANSVERSE CRACKING IN ASPHALT WEARING SURFACE OVER ABUTMENT 2 (UP TO 1/2" WIDE)	3	26	26 Square Feet
510	Patched Area/Pothole (Wearing Surface)	9' X 8' CRACKED PATCHED AREA WITH UP TO 1/4" CRACKING IN RIGHT LANE STARTING AT PIER 2	3	48	48 Square Feet
510	Patched Area/Pothole (Wearing Surface)	4 SOUND PATCHED AREAS IN RIGHT TRAVEL LANE UP TO 2.5' X 1.5'	2	12	Square Feet
510	Patched Area/Pothole (Wearing Surface)	7" X 5" X 1" POTHOLE 5' FROM EAST BRIDGE RAIL AT MIDSPAN.	2	1	Square Feet

General Comments

**Span 3** **Left Bridge Rail****Concrete Railing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
331	Reinforced Concrete Bridge Railing	32	16	16	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
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331 Patched Area PATCHED AREA IN LEFT RAIL, SPAN 3 (16' LONG) 2 16 Square Feet

General Comments

**Span 3 Beam 1**

**Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	32	31	0	1	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Patched Area	2- UP TO 9" X 6" CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING ON UNDERSIDE OF BEAM 6' FROM ABUTMENT 2	3	1	1 Feet

General Comments

**Span 3 Beam 3**

**Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	32	29	3	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Cracking (RC and Other)	UP TO 1/64" VERTICAL CRACKING WITH EFFLORESCENCE IN END DIAPHRAGM IN BAY 3 PIER 2 SPAN 3 SIDE	2		Feet
110	Patched Area	GIRDER 3 IN SPAN 3 AT PIER 2 BAY 3 SIDE LONGITUDINAL CRACKING 3' LONG THAT HAS BEEN PATCHED AND IS SOUND	2	3	Feet

General Comments

**Span 3 Beam 4**

**Reinforced Concrete Girder**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
110	Reinforced Concrete Open Girder/Beam	32	22	7	3	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
110	Patched Area	CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING IN GIRDER 4 UNDERSIDE IN SPAN 3, 5' FROM ABUTMENT 2 (2.5' LONG X 1.5' WIDE)	3	3	3 Feet
110	Patched Area	SEVERAL SOUND PATCHED AREAS IN GIRDER 4 UNDERSIDE IN SPAN 3 STARTING AT PIER 2 (UP TO FULL WIDTH X 5" WIDE)	2	7	Feet

General Comments

**Bent 1 Abutment****Reinforced Concrete Abutment**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
215	Reinforced Concrete Abutment	69	39	5	25	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
215	Cracking (RC and Other)	HORIZONTAL/DIAGONAL CRACKING WITH EFFLORESCENCE ALONG THE ABUTMENT 1 BREASTWALL (25' LONG X UP TO 1/8" WIDE)	3	25	25 Feet
215	Delamination/Spall	2' X UP TO 14" X 5" SPALL UNDER WEST OVERHANG ADJACENT TO BEAM 1.	3		2 Feet
215	Delamination/Spall	2 SMALL SPALLS UP TO 6" X 4" X 1" DEEP AT TOP UNDER BAY 1	2	2	2 Feet
215	Patched Area	3' WIDE X 1' HIGH SOUND PATCH AT TOP AT BEAM 4	2	3	Feet

General Comments

**Bent 1 Cap 1****Reinforced Concrete Pier Cap**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
234	Reinforced Concrete Pier Cap	28	25	1	2	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
234	Cracking (RC and Other)	UP TO 1/8" HORIZONTAL CRACK AND DELAMINATED AREA IN PIER 1 CAP SOUTH SIDE UNDER BAY 3 (2' LONG X 4" HIGH)	3	2	2 Feet
234	Patched Area	SOUND PATCH PIER 1 CAP SPAN 2 SIDE UNDER GIRDER 1, 3" LONG X 8" HIGH	2	1	Feet

General Comments

**Bent 1 Pier 1****Reinforced Concrete Pier Wall**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
210	Reinforced Concrete Pier Wall	28	23	2	3	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
210	Delamination/Spall	16" X 9" X 1" DEEP SPALL IN NOSE PORTION NORTH FACE AT EAST END	3	1	2 Feet
210	Delamination/Spall	9" DIAMETER X 1" DEEP SPALL IN NOSE PORTION NORTH FACE AT WEST END	3	1	1 Feet
210	Patched Area	15" X 9" CRACKED PATCHED AREA WITH UP TO 1/32" CEACKING IN NOSE PORTION NORTH FACE AT WEST END 5' FROM CAP	3	1	2 Feet
210	Cracking (RC and Other)	HAIRLINE VERTICAL CRACKING FULL HEIGHT AT CENTER POINT IN WALL ON SOUTH AND NORTH FACES	2	2	Feet

General Comments

**Bent 1 Footing****Reinforced Concrete Footing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
220	Reinforced Concrete Pile Cap/Footing	30	0	0	30	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
220	Scour	(PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.	3	30	30 Feet

General Comments

**Bent 2 Abutment****Reinforced Concrete Abutment**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
215	Reinforced Concrete Abutment	69	56	12	1	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
215	Patched Area	1' X 1' CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING WITH EFFLORESCENCE UNDER GIRDER 4.	3	1	1 Feet
215	Efflorescence/Rust Staining	DIAGONAL / HORIZONTAL / VERTICAL CRACKING UP TO 1/32" WIDE ALONG THE ABUTMENT 2 BREASTWALL AT LOWER PORTION WITH RUST LEAKAGE.	2	12	Feet

General Comments

**Bent 2 Footing****Reinforced Concrete Footing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
220	Reinforced Concrete Pile Cap/Footing	30	0	0	30	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
220	Scour	(PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END	3	30	30 Feet

General Comments

**Bent 2 Cap 1****Reinforced Concrete Pier Cap**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
234	Reinforced Concrete Pier Cap	28	24	3	1	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
234	Patched Area	CRACKED PATCHED AREA WITH UP TO 1/16" CRACKING IN PIER 2 CAP SPAN 3 SIDE UNDER BAY 3, 9" LONG X 9" HIGH)	3	1	1 Feet
234	Patched Area	SOUND PATCHED AREA IN PIER 2 CAP SPAN 2 SIDE UNDER BAY 3, 3' LONG X 18" HIGH)	2	3	Feet

General Comments

**Bent 2****Pier 2****Reinforced Concrete Pier Wall**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
210	Reinforced Concrete Pier Wall	28	23	5	0	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
210	Cracking (RC and Other)	FULL HEIGHT VERTICAL HAIRLINE CRACKS ON NORTH AND SOUTH FACES UNDER BEAM 2 AND 3	2	2	Feet
210	Patched Area	SOUND PATCHED AREA ON NOSE PORTION PIER 2 SPAN 2 SIDE 7" WIDE X 8' HIGH UNDER BEAM 4.	2	3	Feet

General Comments

## Elements Verified

Location	Name	Component	Element Name	Amount
Span 1	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	885
Span 1	Beam 1	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 1	Beam 2	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 1	Beam 3	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 1	Beam 4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 1	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	32
Span 1	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	32
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	822
Span 2	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	910
Span 2	Beam 1	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	33
Span 2	Beam 2	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	33
Span 2	Beam 3	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	33
Span 2	Beam 4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	33
Span 2	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	33
Span 2	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	33
Span 2	Expansion Joint	Standard Joint	Pourable Joint Seal	28
Span 2	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	910
Span 3	Deck	Reinforced Concrete Deck	Reinforced Concrete Deck	892
Span 3	Beam 1	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 3	Beam 2	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 3	Beam 3	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 3	Beam 4	Reinforced Concrete Girder	Reinforced Concrete Open Girder/Beam	32
Span 3	Left Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	32
Span 3	Right Bridge Rail	Concrete Railing	Reinforced Concrete Bridge Railing	32
Span 3	Expansion Joint	Standard Joint	Pourable Joint Seal	28
Span 3	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	892
Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
Bent 1	Pier 1	Reinforced Concrete Pier Wall	Reinforced Concrete Pier Wall	28
Bent 1	Footing	Reinforced Concrete Footing	Reinforced Concrete Pile Cap/Footing	30
End Bent 1	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	26
End Bent 1	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	69
Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	28
Bent 2	Pier 2	Reinforced Concrete Pier Wall	Reinforced Concrete Pier Wall	28
Bent 2	Footing	Reinforced Concrete Footing	Reinforced Concrete Pile Cap/Footing	30
End Bent 2	Cap 1	Reinforced Concrete Pier Cap	Reinforced Concrete Pier Cap	26
End Bent 2	Abutment	Reinforced Concrete Abutment	Reinforced Concrete Abutment	69

# General Inspection Notes



# National Bridge and NC Inspection Items

Structure Number: 660033

Inspection Date: 03/02/2022

## National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	5
Item 59: Superstructure	0 - 9 , N	6
Item 60: Substructure	0 - 9 , N	6
Item 61: Channel and Channel Protection	0 - 9 , N	7
Item 62: Culvert	0 - 9 , N	N
Item 71: Waterway Adequacy	0 - 9 , N	6
Item 72: Approach Roadway Alignment	0 - 9 , N	8

**Note:**  
Items 58,59,60,62 reflect this inspection only.  
  
For overall NBI coding grade, see cover sheet.

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

## NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	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	P		
Wingwall	G, F, P, or C		0	3350
Field Scour Evaluation		P		
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		
Superstructure Paint Code				

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

## Inspection Information

Item	Grade Scale	Grade
Sign Noticed Issued	YES/NO	N
Priority Maintenance Request Submitted	YES/NO	Y
Inspection Time	Hours	6
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	Y
Portion of Structure in > 3' of water	YES/NO	Y

# National Bridge and NC SMU Inspection Item Details

**Structure Number:** 660033

**Inspection Date:** 03/02/2022

<b>Item</b>	Deck - Item 58	<b>Grade</b>	5	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	WIDE SPREAD CRACKING AND DLEAMINATIONS.				
<b>Item</b>	Superstructure - Item 59	<b>Grade</b>	6	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	WIDE SPREAD CRACKING AND CRACKED PATCHED AREAS.				
<b>Item</b>	Substructure - Item 60	<b>Grade</b>	6	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	WIDE SPREAD CRACKING AND SPALLS.				
<b>Item</b>	Waterway Adequacy - Item 71	<b>Grade</b>	6	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	BANK EROSION ON BOTH EMBANKMENTS AT DOWNSTREAM SIDE OF BRIDGE DUE TO HIGH WATER EVENTS WITH FALLEN TREES ALONG BOTH BANKS.				
<b>Item</b>	Other Equipment Used	<b>Grade</b>	Y	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	CAMERA POLE				
<b>Item</b>	Scour	<b>Grade</b>	P	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	SCOUR POA:				
	<p>SCOUR HAS OCCURRED ALONG NORTH EMBANKMENT AT PIER 2 UP TO 15' WIDE X FULL LENGTH X UP TO 6' DEEP EXPOSING FOOTING AT PIER 2 FULL LENGTH WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END.</p> <p>SCOUR HAS OCCURRED ALONG SOUTH EMBANKMENT AT PIER 1 UP TO 15' WIDE X FULL LENGTH X UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 FULL LENGTH SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.</p>				
<b>Item</b>	Field Scour Evaluation	<b>Grade</b>	P	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	<p>SCOUR HAS OCCURRED ALONG NORTH EMBANKMENT AT PIER 2 UP TO 15' WIDE X FULL LENGTH X UP TO 6' DEEP EXPOSING FOOTING AT PIER 2 FULL LENGTH WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END.</p> <p>SCOUR HAS OCCURRED ALONG SOUTH EMBANKMENT AT PIER 1 UP TO 15' WIDE X FULL LENGTH X UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 FULL LENGTH SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.</p>				
<b>Item</b>	General Comments and Misc Items	<b>Grade</b>	F	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	(PAR) 40' OF IMPACT DAMAGE, UP TO 1' DEFLECTION, GAUGES IN SOUTHEAST GUARDRAIL WITH 1 POST TO RAIL BOLT MISSING, 15' SOUTH OF BRIDGE.				
<b>Item</b>	Portion of structure in > 3' of water (Y or N)	<b>Grade</b>	Y	<b>Maint Code</b>	<b>Qty.</b> 0
<b>Details</b>	WEST END OF BENTS 1 & 2, DUE TO SCOUR.				



General Comments and Misc. Items: (PAR) 40' OF IMPACT DAMAGE, UP TO 1' DEFLECTION, GAUGES IN SOUTHEAST GUARDRAIL WITH 1 POST TO RAIL BOLT MISSING, 15' SOUTH OF BRIDGE.



Span 1 Wearing Surface: (PAR) 17" X UP TO 12" X FULL DEPTH POT HOLE, 3' FROM ABUTMENT 1 AND 5' FROM EAST BRIDGE RAIL.





Span 1 Wearing Surface: SCATTERED HAIRLINE TO 1/8" WIDE MAP CRACKING IN ASPHALT WEARING SURFACE



Span 1 Wearing Surface: UP TO 1/2" TRANSVERSE CRACKING AND 4' X UP TO 1' X 2" CRACKED PATCHED AREA IN EAST LANE IN ASPHALT WEARING SURFACE OVER ABUTMENT 1.





Span 1 Wearing Surface: 3- UP TO 3' X 1.5 SOUND PATCH IN ASPHALT WEARING SURFACE AT RANDOM THROUGHOUT.



Span 1 Wearing Surface: 2- UP TO 20" X 6" X 1" POTHOLES, NEAR BENT 1 IN EAST LAST.





Span 2 Left Bridge Rail: PATCHED AREA IN LEFT RAIL, SPAN 2 (14' LONG)



Span 2 Wearing Surface: A FEW SOUND PATCHED AREAS IN ASPHALT WEARING SURFACE LANE #2 RIGHT WHEEL PATH (10' FROM NORTH END) (UP TO 1.5' LONG X 2' WIDE)





Span 2 Wearing Surface: UP TO 20" DIAMETER X 2" BUILDUP ON ASPHALT WEARING SURFACE OVER BENT 2, 2' FROM EAST BRIDGE RAIL.



Span 3 Wearing Surface: 9' X 8' CRACKED PATCHED AREA WITH UP TO 1/4" CRACKING IN RIGHT LANE STARTING AT PIER 2





Span 3 Wearing Surface: 4 SOUND PATCHED AREAS IN RIGHT TRAVEL LANE UP TO 2.5' X 1.5'



Span 3 Wearing Surface: 7" X 5" X 1" POTHOLE 5' FROM EAST BRIDGE RAIL AT MIDSPAN.





Span 3 Wearing Surface: TRANSVERSE CRACKING IN ASPHALT WEARING SURFACE OVER ABUTMENT 2 (UP TO 1/2" WIDE)



Abutment 2 Abutment: DIAGONAL / HORIZONTAL / VERTICAL CRACKING UP TO 1/32" WIDE ALONG THE ABUTMENT 2 BREASTWALL AT LOWER PORTION WITH RUST LEAKAGE.



Span 3 Deck: SOUND PATCHED AREA WEST OVERHANG IN SPAN 3 BENT 2 (6" DIAMETER)



Span 3 Deck: SPAN 3 DECK UNDERSIDE IN BAY 3 PATCHED AREA AT PIER 2, 10' LONG X 5' WIDE.





Span 3 Deck: HAIRLINE TRANSVERSE CRACK WITH EFFLORESCENCE BUILDUP IN SPAN 3 DECK UNDERSIDE IN BAY 3 AT END OF PATCHED AREA



Span 3 Beam 1: 2- UP TO 9" X 6" CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING ON UNDERSIDE OF BEAM 6' FROM ABUTMENT 2



Span 3 Beam 3: GIRDER 3 IN SPAN 3 AT PIER 2 BAY 3 SIDE LONGITUDINAL CRACKING 3' LONG THAT HAS BEEN PATCHED AND IS SOUND



Span 3 Beam 4: SEVERAL SOUND PATCHED AREAS IN GIRDER 4 UNDERSIDE IN SPAN 3 STARTING AT PIER 2 (UP TO FULL WIDTH X 5" WIDE)





Span 3 Beam 4: CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING IN GIRDER 4 UNDERSIDE IN SPAN 3, 5' FROM ABUTMENT 2 (2.5' LONG X 1.5' WIDE)



Abutment 2 Abutment: 1' X 1' CRACKED PATCHED AREA WITH UP TO 1/32" CRACKING WITH EFFLORESCENCE UNDER GIRDER 4.



Bent 2 Cap 1: CRACKED PATCHED AREA WITH UP TO 1/16" CRACKING IN PIER 2 CAP SPAN 3 SIDE UNDER BAY 3, 9" LONG X 9" HIGH)



Bent 2 Pier 2: FULL HEIGHT VERTICAL HAIRLINE CRACKS ON NORTH AND SOUTH FACES UNDER BEAM 2 AND





Bent 2 Footing: (PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END



Bent 2 Footing: (PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END





SCOUR: 15' X UP TO 40' X 6' DEEP SCOUR ALONG NORTH EMBANKMENT AT BENT 2 EXPOSING FOOTING AT PIER 2 FULL LENGTH WITH 1' OF UNDERMINING AT UPSTREAM END.



SCOUR: 15' X UP TO 40' X 6' DEEP SCOUR ALONG NORTH EMBANKMENT AT BENT 2 EXPOSING FOOTING AT PIER 2 FULL LENGTH WITH 1' OF UNDERMINING AT UPSTREAM END.





Abutment 1 Abutment: 2' X UP TO 14" X 5" SPALL UNDER WEST OVERHANG ADJACENT TO BEAM 1.



Abutment 1 Abutment: 3' WIDE X 1' HIGH SOUND PATCH AT TOP AT BEAM 4



Abutment 1 Abutment: 2 SMALL SPALLS UP TO 6" X 4" X 1" DEEP AT TOP UNDER BAY 1



Abutment 1 Abutment: HORIZONTAL/DIAGONAL CRACKING WITH EFFLORESCENCE ALONG THE ABUTMENT 1 BREASTWALL (25' LONG X UP TO 1/8" WIDE)





Span 1 Beam 4: 5' OF HAIRLINE TRANSVERSE / MAP CRACKING RIGHT OF MID SPAN TOWARDS PIER 1



Bent 1 Pier 1: HAIRLINE VERTICAL CRACKING FULL HEIGHT AT CENTER POINT IN WALL ON SOUTH AND NORTH FACES



Bent 1 Cap 1: UP TO 1/8" HORIZONTAL CRACK AND DELAMINATED AREA IN PIER 1 CAP SOUTH SIDE UNDER BAY 3 (2' LONG X 4" HIGH)



Bent 1 Footing: (PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.





SCOUR: 35' X UP TO 15' X 9' SCOUR SOUTH EMBANKMENT AT PIER 1 UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.



SCOUR: 35' X UP TO 15' X 9' SCOUR SOUTH EMBANKMENT AT PIER 1 UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.



SCOUR: 35' X UP TO 15' X 9' SCOUR SOUTH EMBANKMENT AT PIER 1 UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.





Span 2 Beam 1: SOUND PATCHED AREA 1.5' LONG X 8" WIDE IN GIRDER 1 UNDERSIDE IN SPAN 2, 6' FROM PIER 1.



Span 2 Beam 4: 1.5' LONG X 6" WIDE SOUND PATCH ON UNDERSIDE OF BEAM 6' FROM PIER 1





SCOUR: 35' X UP TO 15' X 9' SCOUR SOUTH EMBANKMENT AT PIER 1 UP TO 3' BELOW BOTTOM OF FOOTING AT PIER 1 SPAN 2 SIDE AND UPSTREAM END SPAN 1 SIDE WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.



Bent 1 Footing: (PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.



Bent 2 Cap 1: SOUND PATCHED AREA IN PIER 2 CAP SPAN 2 SIDE UNDER BAY 3, 3' LONG X 18" HIGH)





Bent 2 Pier 2: SOUND PATCHED AREA ON NOSE PORTION PIER 2 SPAN 2 SIDE 7" WIDE X 8' HIGH UNDER BEAM 4.



Bent 1 Pier 1: 15" X 9" CRACKED PATCHED AREA WITH UP TO 1/32" CEACKING IN NOSE PORTION NORTH FACE AT WEST END 5' FROM CAP



Bent 1 Pier 1: 9" DIAMETER X 1" DEEP SPALL IN NOSE PORTION NORTH FACE AT WEST END



Bent 1 Pier 1: 16" X 9" X 1" DEEP SPALL IN NOSE PORTION NORTH FACE AT EAST END





**WATERWAY ADEQUACY: BANK EROSION ON BOTH EMBANKMENTS AT DOWNSTREAM SIDE OF BRIDGE DUE TO HIGH WATER EVENTS WITH FALLEN TREES ALONG BOTH BANKS**

# Stream Bed Soundings

(Profile diagram on following sheet)

County **ONslow**

Structure Number: **660033**

Inspection Date **03/01/2022**

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

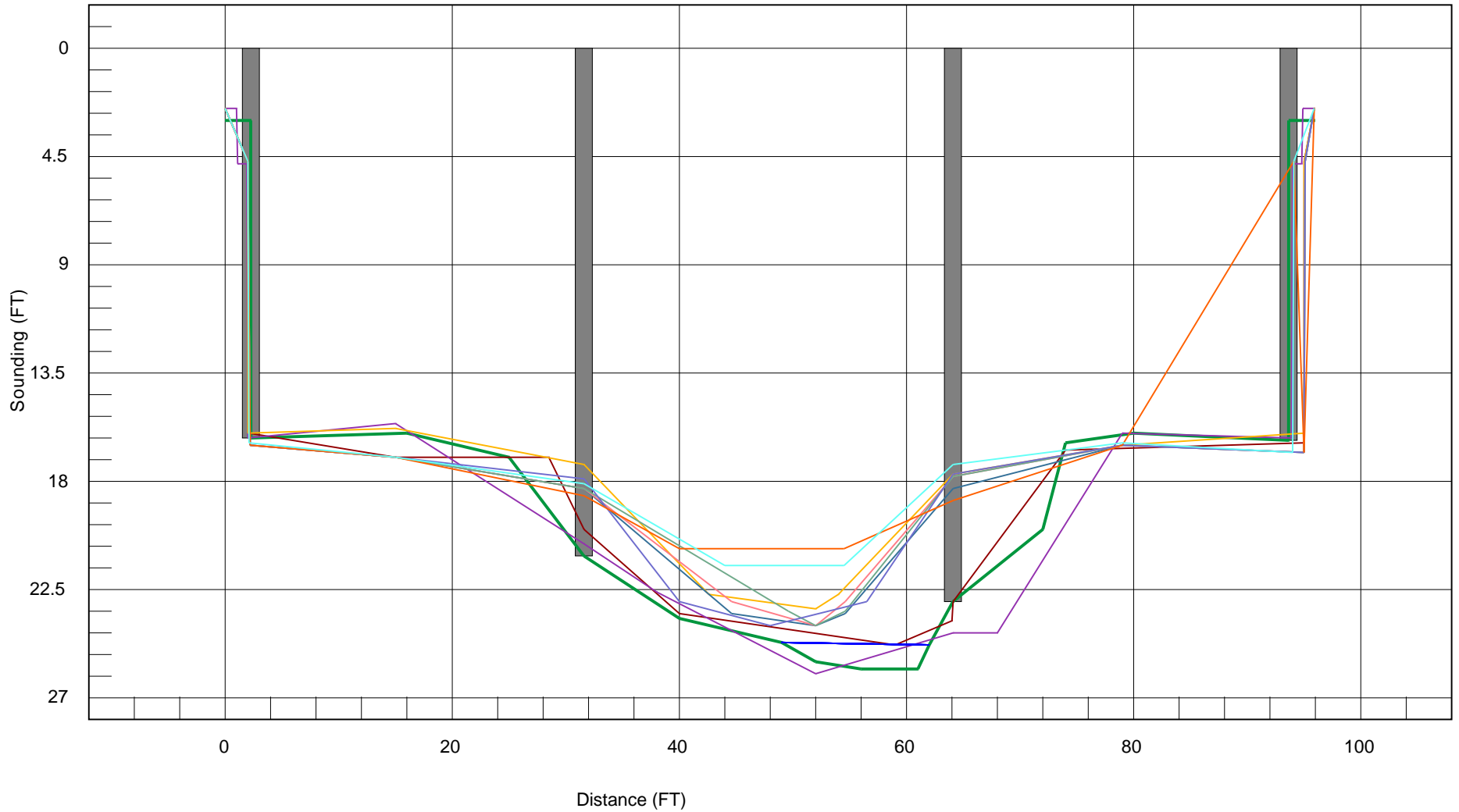
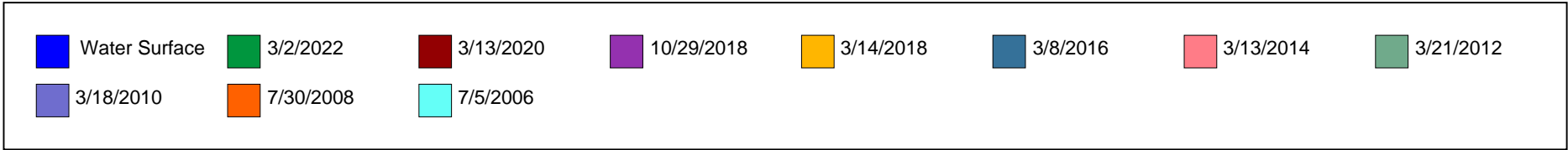
Highwater Mark Distance **16**

Location of Highwater Mark **TOP OF SPAN 3 BANK**

Distance (Station) ft.	Downstream Sounding ft.	Upstream Sounding ft.	Description
0.000	3.000	0.000	FILL FACE
2.250	3.000	0.000	
2.260	16.200	16.300	FACE OF ABUTMENT 1
16.000	16.000	0.000	
25.000	17.000	0.000	
31.583	21.100	28.400	BENT 1
40.000	23.700	0.000	
49.000	24.700	0.000	WSWE
52.000	25.500	0.000	
56.000	25.800	0.000	
61.000	25.800	0.000	
62.000	24.800	0.000	WSWE
64.083	23.000	27.400	BENT 2
72.000	20.000	0.000	
74.000	16.400	0.000	
80.000	16.000	0.000	
93.640	16.300	16.600	FACE OF ABUTMENT 2
93.650	3.000	0.000	
95.916	3.000	0.000	FILL FACE

### STREAMBED PROFILE (Downstream)

Top of Rail = 0FT (Sounding)

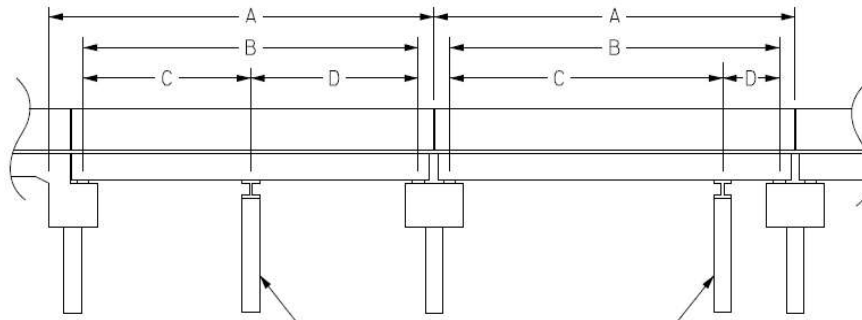


# Structure Data Worksheet

## Span Profile

County: **ONSLOW**

Structure Number: **660033**



A: SPAN LENGTH  
 B: BEARING TO BEARING  
 C: DISTANCE FROM NEAR BEARING  
 D: DISTANCE TO FAR BEARING

Span Number	Span Length	Bearing to Bearing	Crutch/ Helper Bent	Distance to Near Bearing	Distance to Far Bearing
1	31.583	29.083			
2	32.500	31.250			
3	31.833	29.333			





LOOKING NORTH

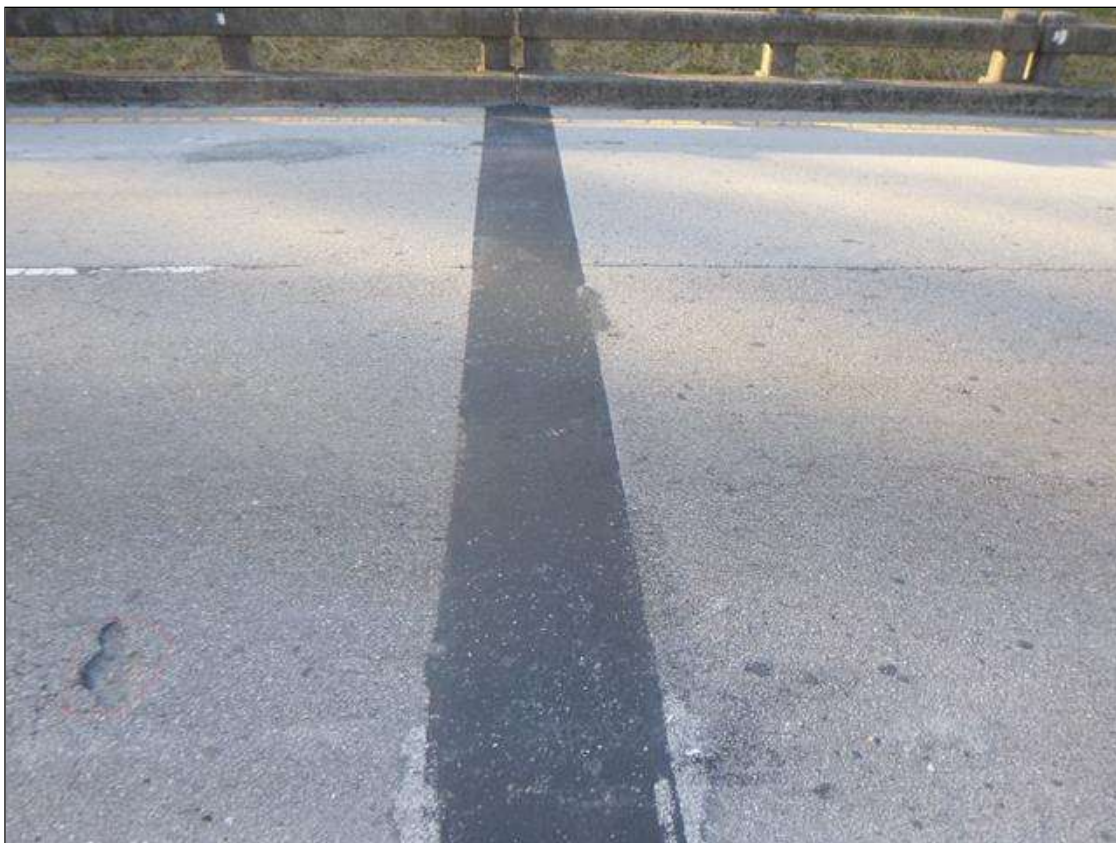


SOUTHEAST GUARDRAIL TERMINAL (SOUTHWEST SIMILAR)





ASPHALT WEARING SURFACE OVER END BENT 1 LOOKING WEST



ASPHALT WEARING SURFACE OVER BENT 1 LOOKING WEST



SOUTH APPROACH



NORTH APPROACH





DOWNSTREAM VIEW FROM BRIDGE LOOKING EAST



UPSTREAM VIEW FROM BRIDGE LOOKING WEST





ASPHALT WEARING SURFACE OVER BENT 2 LOOKING WEST



NORTHEAST GUARDRAIL ATTACHMENT (OTHERS SIMILAR)





NORTHWEST GUARDRAIL POST SPACING AT BRIDGE 18" (OTHERS SIMILAR)



NORTHWEST TYPICAL GUARDRAIL POST SPACING 75" (OTHERS SIMILAR)



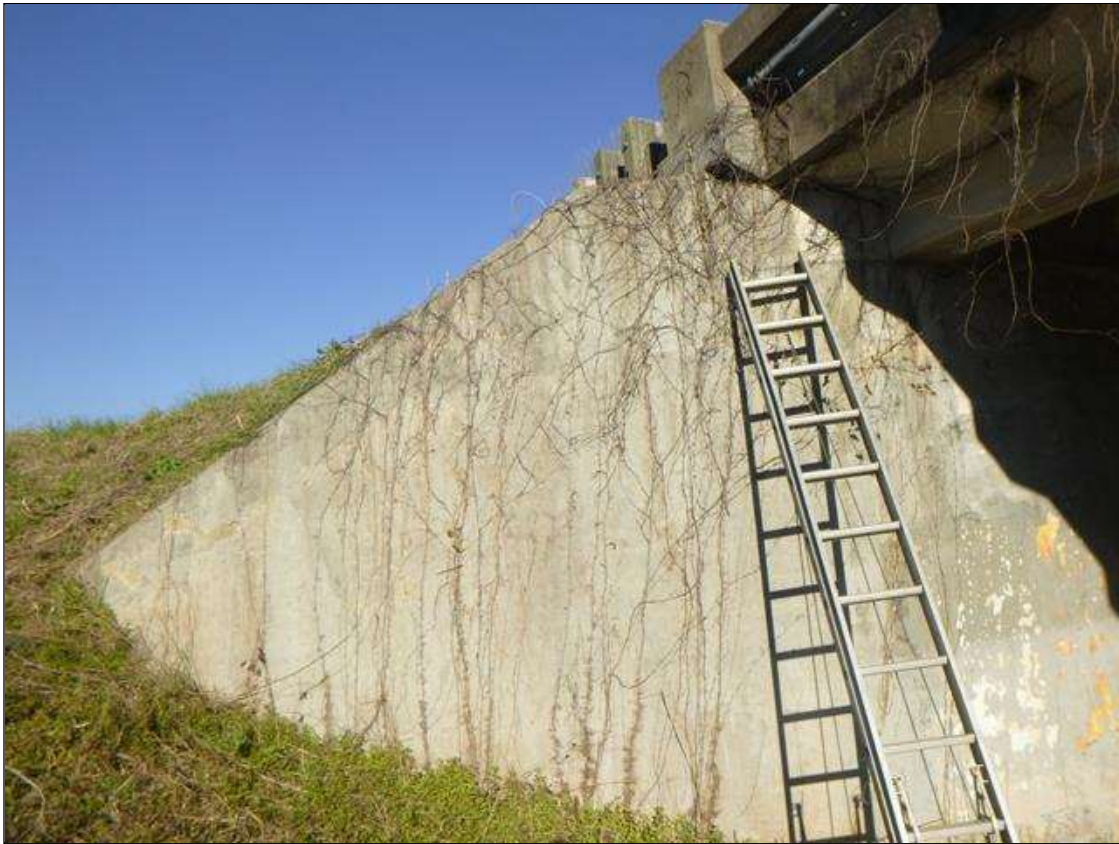


WEST PROFILE



EAST PROFILE





NORTHWEST WINGWALL



NORTHEAST WINGWALL



ABUTMENT 2 ELEVATION



BENT 1 ELEVATION LOOKING SOUTH





EAST BRIDGE RAIL



WEST BRIDGE RAIL



LOOKING SOUTH



SOUTHWEST WINGWALL





ABUTMENT 1 ELEVATION



SOUTHEAST WINGWALL

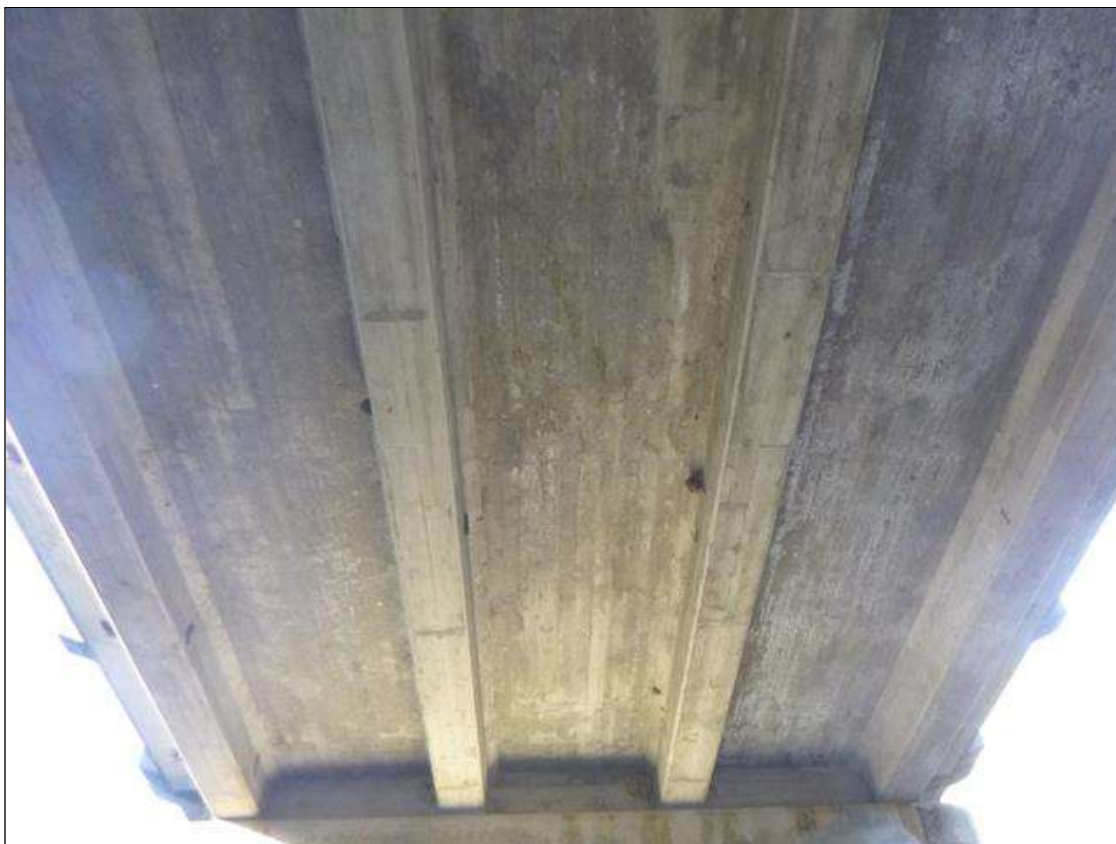




BENT 2 ELEVATION LOOKING NORTH



DOWNSTREAM VIEW LOOKING EAST



SPAN 2 SUPERSTRUCTURE UNDERSIDE LOOKING NORTH



UPSTREAM VIEW LOOKING WEST





BEAM 1 BEARING OVER BENT 1 (OTHERS SIMILAR)



NORTHWEST GUARDRAIL TERMINAL, NORTHEAST SIMILAR





# BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 660033

County ONSLOW

Date:

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 2816	Asphalt Surface Repair or Replacement	SY	2	Span 1 Wearing Surface: (PAR) 17" X UP TO 12" X FULL DEPTH POT HOLE, 3' FROM ABUTMENT 1 AND 5' FROM EAST BRIDGE RAIL.	
 3120	Repair/Maintain Barriers	LF	40	(PAR) 40' OF IMPACT DAMAGE, UP TO 1' DEFLECTION, GAUGES IN SOUTHEAST GUARDRAIL WITH 1 POST TO RAIL BOLT MISSING, 15' SOUTH OF BRIDGE.	
 3348	Maintain Concrete Substructure Components	LF	30	Bent 1 Footing: (PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.	
 3348	Maintain Concrete Substructure Components	LF	30	Bent 2 Footing: (PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined



## BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 660033

County ONSLOW

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

MMS Code	MMS Description	Quantity
2816	Asphalt Surface Repair or Replacement	2 SY
Location:		
Bent/Span No.		
Priority Level		Status
Priority Maintenance		Division Bridge Maintenance Notification
Submitted Date:	Submitted By:	Assisted By:
03/01/2022	R. ASENCIO	
Details		
Span 1 Wearing Surface: (PAR) 17" X UP TO 12" X FULL DEPTH POTHOLE, 3' FROM ABUTMENT 1 AND 5' FROM EAST BRIDGE RAIL.		

MMS Code	MMS Description	Quantity
3120	Repair/Maintain Barriers	40 LF
Location:		
Bent/Span No.		
Priority Level		Status
Priority Maintenance		Division Bridge Maintenance Notification
Submitted Date:	Submitted By:	Assisted By:
03/01/2022	R. ASENCIO	
Details		
(PAR) 40' OF IMPACT DAMAGE, UP TO 1' DEFLECTION, GAUGES IN SOUTHEAST GUARDRAIL WITH 1 POST TO RAIL BOLT MISSING, 15' SOUTH OF BRIDGE.		

## BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 660033

County ONSLOW

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

MMS Code	MMS Description	Quantity
3348	Maintain Concrete Substructure Components	30      LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
03/02/2022	R. ASENCIO	
Details		
Bent 1 Footing: (PAR) SCOUR AROUND FOOTING ENTIRE LENGTH EXPOSING FOOTING WITH 6" OF UNDERMINING FULL WIDTH AT UPSTREAM END.		

MMS Code	MMS Description	Quantity
3348	Maintain Concrete Substructure Components	30      LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification	
Submitted Date:	Submitted By:	Assisted By:
03/02/2022	R. ASENCIO	
Details		
Bent 2 Footing: (PAR) SCOUR AROUND FOOTING FULL LENGTH EXPOSING FOOTING WITH 1' OF UNDERMINING FULL WIDTH AT UPSTREAM END		



# Bridge Inspection Field Sketch



Roadway	21.667ft Wide	2 Paved Lanes	Looking North
Left Shoulder	2ft Wide	2ft Paved	
Right Shoulder	2.083ft Wide	2.083ft Paved	
Left Guardrail	2ft from road		
Right Guardrail	2.083ft from road		

MEASUREMENTS TAKEN 2' FROM END BENT 1

VERIFIED BY R. ASENCIO ON 3-2-2022.

**Title**

ROADWAY

**Description**

LOOKING NORTH

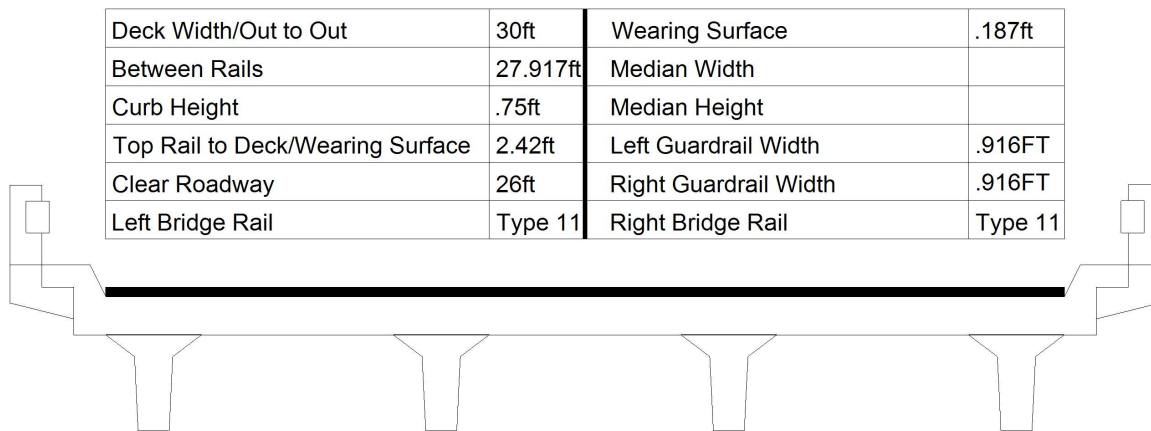
Bridge No: 660033

Drawn By: EPH

Date: 07/30/2008

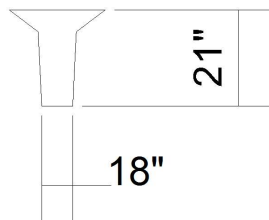
File Name: S0222000229

# Bridge Inspection Field Sketch



Measurements for Span #	1	Spans 2 & 3 Similar	
Deck Thickness	.563	Left Overhang	4
Top of Rail to Bottom of Beam	4.67	Right Overhang	4

Beam No	Beam Type	Spacing	Comments
1	RC Deck Girder	7.333ft	1.5' WIDE X 1.75' HIGH (RCDG)
2	RC Deck Girder	7.333ft	
3	RC Deck Girder	7.333ft	
4	RC Deck Girder		



VERIFIED BY R. ASENCIO ON 3-2-2022.

**Title**

SPAN 1,2 & 3 SUPERSTR

**Description**

LOOKING NORTH

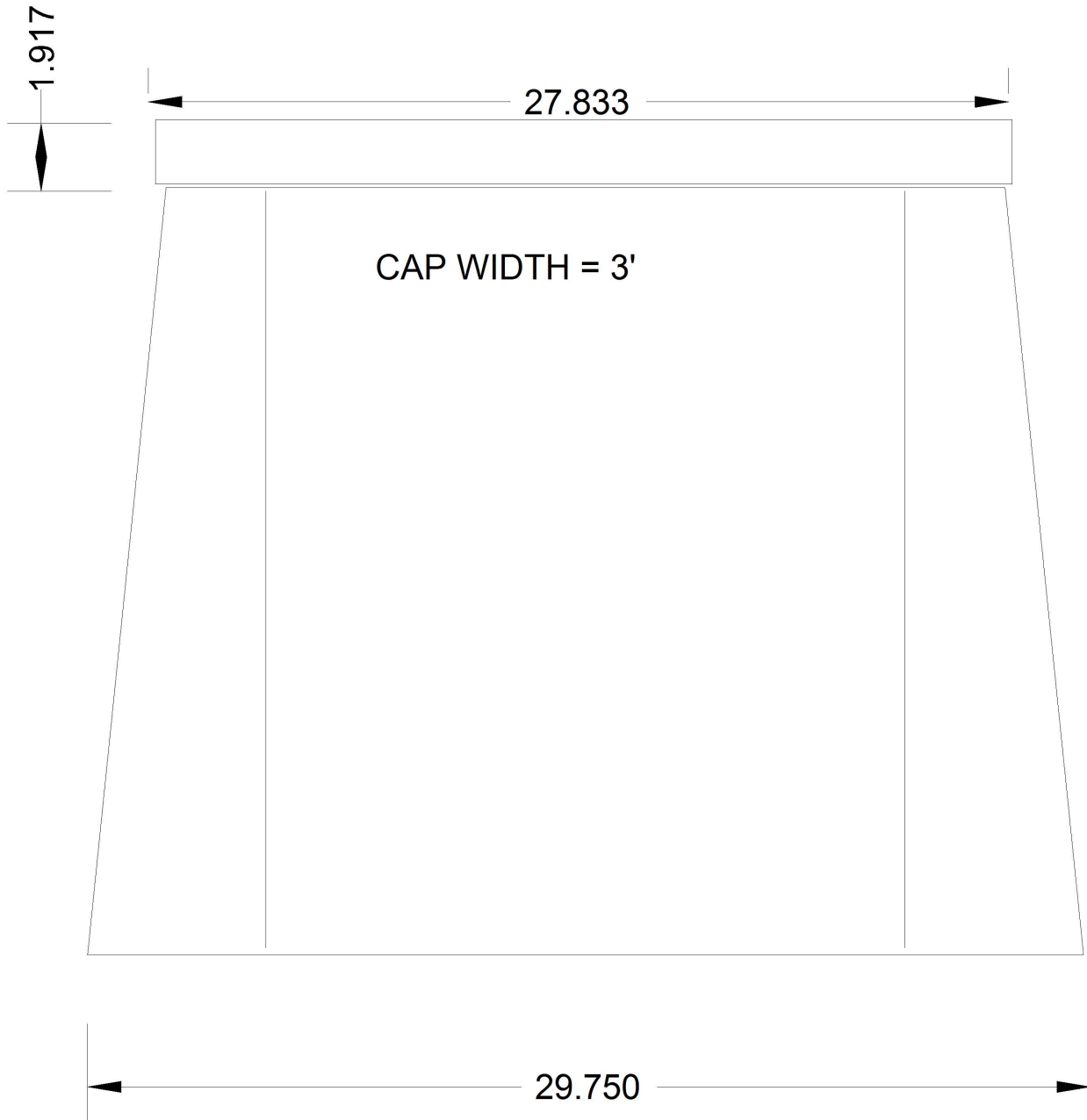
Bridge No: 660033

Drawn By: HWH

Date: 06/26/2006

File Name: S0222000230

# Bridge Inspection Field Sketch



VERIFIED BY R. ASENCIO ON 3-2-2022.

**Title**  
PIER 1 & 2 SUBSTR

**Description**  
LOOKING NORTH (ELEVATION)

**Bridge No:** 660033

**Drawn By:** BC

**Date:** 3/18/2010

**File Name:** S0038000756



# Bridge Inspection Field Sketch

DELETED SKETCH

**Title**

DELETED SKETCH

**Description**

DELETED SKETCH

Bridge No: 660033

Drawn By: BC

Date: 3/14/2018

File Name: S0038001044