



NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 STRUCTURE MANAGEMENT UNIT

ATTENTION: **PM's ISSUED**



Structure Safety Report

Routine Element Inspection - Contract

COUNTY: AVERY STRUCTURE NUMBER: 050002 FREQUENCY: 24 MONTHS

FACILITY CARRIED: US321 MILE POST: _____

LOCATION: 50 FT.E.JCT.SR1314

FEATURE INTERSECTED: BEECH CREEK

LATITUDE: 36° 15' 42.44" LONGITUDE: 81° 53' 49.55"

SUPERSTRUCTURE: DOUBLE 30'X19'RC ARCH;55'-8 ALONG CENTERLINE CULVERT

SUBSTRUCTURE: _____

SPANS: _____

FRACTURE CRITICAL TEMPORARY SHORING SCOUR CRITICAL SCOUR PLAN OF ACTION

PRESENT CONDITION: Fair INSPECTION DATE: 05/10/2017

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 _____

LOOKING NORTH

INSPECTED BY TIM EARP	SIGNATURE <i>Tim Earp</i>	ASSISTED BY WAREN HACKLER
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Structure Element Scoring

Structure Number: 050002

Inspection Date 5/10/2017

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
241	0	Reinforced Concrete Culvert	Culverts and Pipes	112	0	48	64	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: 050002

Inspection Date: 05/10/2017

MMS Code	Element Name	Defect Name	Recommended Quantity
3370	Reinforced Concrete Culvert	Delamination/Spall	54 Feet
3370	Reinforced Concrete Culvert	Cracking (RC and Other)	58 Feet

Element Structure Maintenance Quantities

Structure Number: 050002

Inspection Date 05/10/2017

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Culverts and Pipes	3370	Maintenance of NBI Culverts and Pipes	112	112	0	64	48	0

Element Condition and Maintenance Data

Structure Number: 050002

Inspection Date: 05/10/2017

Span 1

Culvert Section 1

Concrete Arch Culvert

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
241	Reinforced Concrete Culvert	56	0	6	50	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
241	Cracking (RC and Other)	BARREL 1 HAS 2 CRACKS WITH HEAVY RUST STAINS AND EFFLO VISIBLE IN BOTTOM OF TOP SLAB AND DOWN BOTH INTERIOR WALLS. LOCATED AT: 27' AND 39' FROM UPSTREAM END.	3	10	10 Feet
241	Delamination/Spall	BARREL 1 BOTTOM OF TOP SLAB AND NORTHWEST CORNER. HAS A LARGE AREA THAT IS CRACKED/DELAMINATED AND SPALLED WITH REBAR AND HEAVY EFFLO VISIBLE. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.	3	20	20 Feet
241	Delamination/Spall	BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFRENSE OF BARREL. A	3	20	20 Feet
241	Cracking (RC and Other)	BARREL 1 HAS SCATTERED HORIZONTAL AND DIAGONAL CRACKS WITH HEAVY RUST STAINS AND EFFLO VISIBLE. LOCATED AT: 50' FROM UPSTREAM END.	2	6	6 Feet

General Comments

Span 2

Culvert Section 1

Concrete Arch Culvert

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
241	Reinforced Concrete Culvert	56	0	42	14	0 Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
241	Delamination/Spall	BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.	3	14	14 Feet
241	Cracking (RC and Other)	BARREL 2 INTERIOR WALL 1 AND 2 AND BOTTOM OF ARCH HAS SCATTERED DIAGONAL CRACKS WITH HEAVY EFFLO VISIBLE.	2	24	24 Feet
241	Cracking (RC and Other)	BARREL 2 INTERIOR WALL 2 AND BOTTOM OF ARCH HAS A CRACK WITH HEAVY RUST STAINS AND SOME EFFLO	2	18	18 Feet

General Comments

Elements Verified

Location	Name	Component	Element Name	Amount
Span 1	Culvert Section 1	Concrete Arch Culvert	Reinforced Concrete Culvert	56
Span 2	Culvert Section 1	Concrete Arch Culvert	Reinforced Concrete Culvert	56

General Inspection Notes

National Bridge and NC Inspection Items

Structure Number: 050002

Inspection Date: 05/10/2017

National Bridge Inventory Items

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

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
Headwall	G, F, P, or C	P	1540	4675
Wingwall	G, F, P, or C	P	21	3350
Scour	G, F, P, or C	G		
Drift	G, F, P, or C	G	0	3366
Estimated Remaining Life	G, F, P, or C	28		

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	6
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	N
Bucket Truck Used	YES/NO	N
Boat Used	YES/NO	N
Other Equipment Used	YES/NO	Y

National Bridge and NC SMU Inspection Item Details

Structure Number: 050002

Inspection Date: 05/10/2017

Item	Approach Roadway Alignment - Item 72	Grade	6	Maint Code		Qty.	0
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Details SHARP CURVE AT NORTH APPROACH.

Item	Priority Maintenance Issued	Grade	Y	Maint Code		Qty.	0
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Details PM'S ISSUED FOR SCATTERED SPALLS & DELAMINATED AREAS IN BARRELS, HEADWALLS & SOUTH EAST WINGWALL.

Item	Other Equipment Used	Grade	Y	Maint Code		Qty.	0
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Details BOOTS

Item	Headwalls	Grade	P	Maint Code	4675	Qty.	1540
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Details SCATTERED AREAS OF HEAVY SPALL & DELAMINATION.

Item	Wingwalls	Grade	P	Maint Code	3350	Qty.	21
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Details SPALL & DELAMINATED AREAS.



Barrel 1 Section 1: BARREL 1 BOTTOM OF TOP SLAB AND NORTHWEST CORNER. HAS A LARGE AREA THAT IS CRACKED/DELAMINATED AND SPALLED WITH REBAR AND HEAVY EFFLO VISIBLE. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



Barrel 1 Section 1: BARREL 1 BOTTOM OF TOP SLAB AND NORTHWEST CORNER. HAS A LARGE AREA THAT IS CRACKED/DELAMINATED AND SPALLED WITH REBAR AND HEAVY EFFLO VISIBLE. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



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Barrel 1 Section 1: BARREL 1 HAS 2 CRACKS WITH HEAVY RUST STAINS AND EFFLO VISIBLE IN BOTTOM OF TOP SLAB AND DOWN BOTH INTERIOR WALLS. LOCATED AT: 27' AND 39' FROM UPSTREAM END.



Barrel 1 Section 1: BARREL 1 HAS SCATTERED HORIZONTAL AND DIAGONAL CRACKS WITH HEAVY RUST STAINS AND EFFLO VISIBLE. LOCATED AT: 50' FROM UPSTREAM END.



Barrel 1 Section 1: BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFERENCE OF BARREL. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



Barrel 1 Section 1: BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFERENCE OF BARREL. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



Barrel 1 Section 1: BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFERENCE OF BARREL. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



SOUTHEAST WING WALL HAS A AREA OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. AREA IS: 3' x 7' x 4" DEEP. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



EAST HEADWALL HAS A LARGE AREA OF HEAVY SPALL AND DELAMINATION WITH REBAR AND EFFLO EXPOSED. AREA IS: 20' x 45'. TOTAL MAINTENANCE QUANTITY IS: 900 SQ FEET. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



Barrel 2 Section 1: BARREL 2 INTERIOR WALL 2 AND BOTTOM OF ARCH HAS A CRACK WITH HEAVY RUST STAINS AND SOME EFFLO VISIBLE. LOCATED AT: 26' FROM UPSTREAM END.



Barrel 2 Section 1: BARREL 2 INTERIOR WALL 1 AND 2 AND BOTTOM OF ARCH HAS SCATTERED DIAGONAL CRACKS WITH HEAVY EFFLO VISIBLE.



Barrel 2 Section 1: BARREL 2 INTERIOR WALL 1 AND 2 AND BOTTOM OF ARCH HAS SCATTERED DIAGONAL CRACKS WITH HEAVY EFFLO VISIBLE.



Barrel 2 Section 1: BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



Barrel 2 Section 1: BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



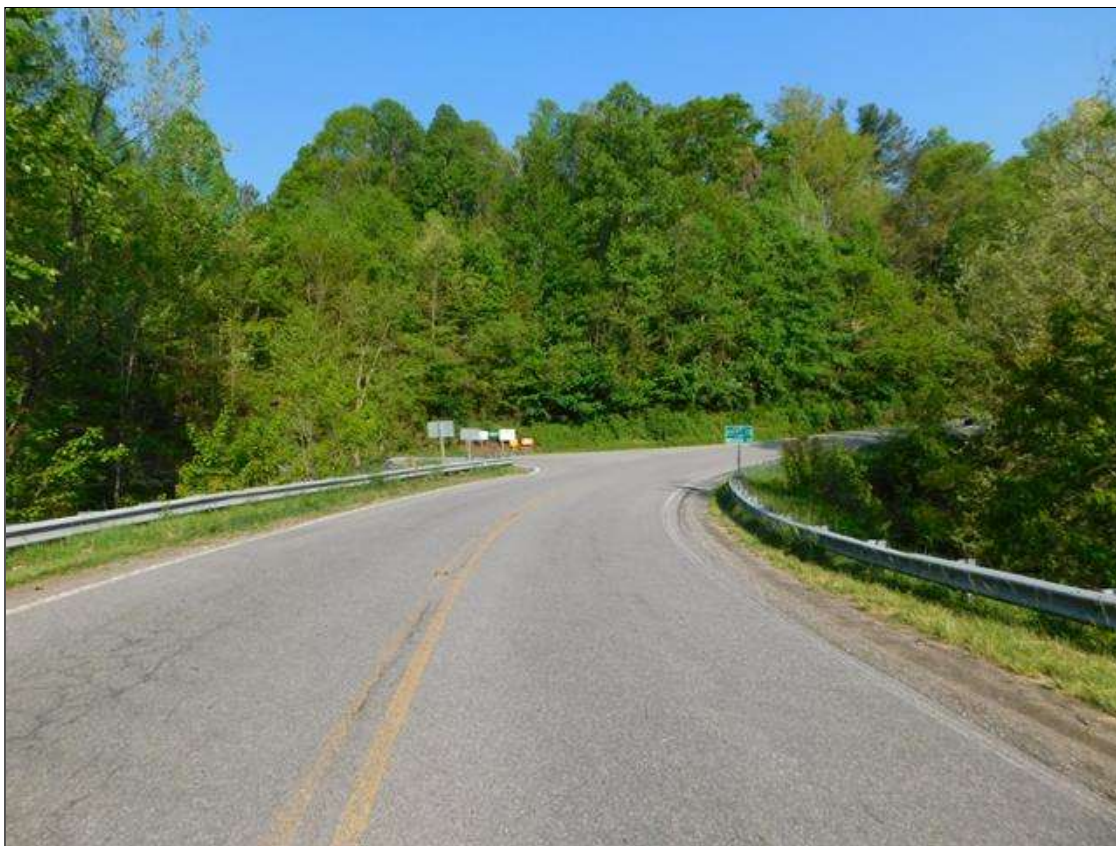
Barrel 2 Section 1: BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.



WEST HEADWALL HAS A LARGE AREA THAT IS CRACK/SPALL AND DELAMINATED WITH HEAVY EFFLO
VISIBLE. AREA IS: FROM TOP EDGE DOWN 16' x 40' LONG x 6" DEEP. TOTAL SQ FEET IS 640. A "PM" HAS
BEEN ISSUED FOR THIS CONDITION.



EXCESS SAND AND ROCKS IN BARREL 1. AREA IS: 15' x 56' x UP TO 3' HIGH. TOTAL MAINTENANCE QUANTITY IS 840' SQ FEET



LOOKING NORTH



FROM STRUCTURE LOOKING NORTH



FROM STRUCTURE LOOKING SOUTH



FROM STRUCTURE LOOKING WEST UPSTREAM



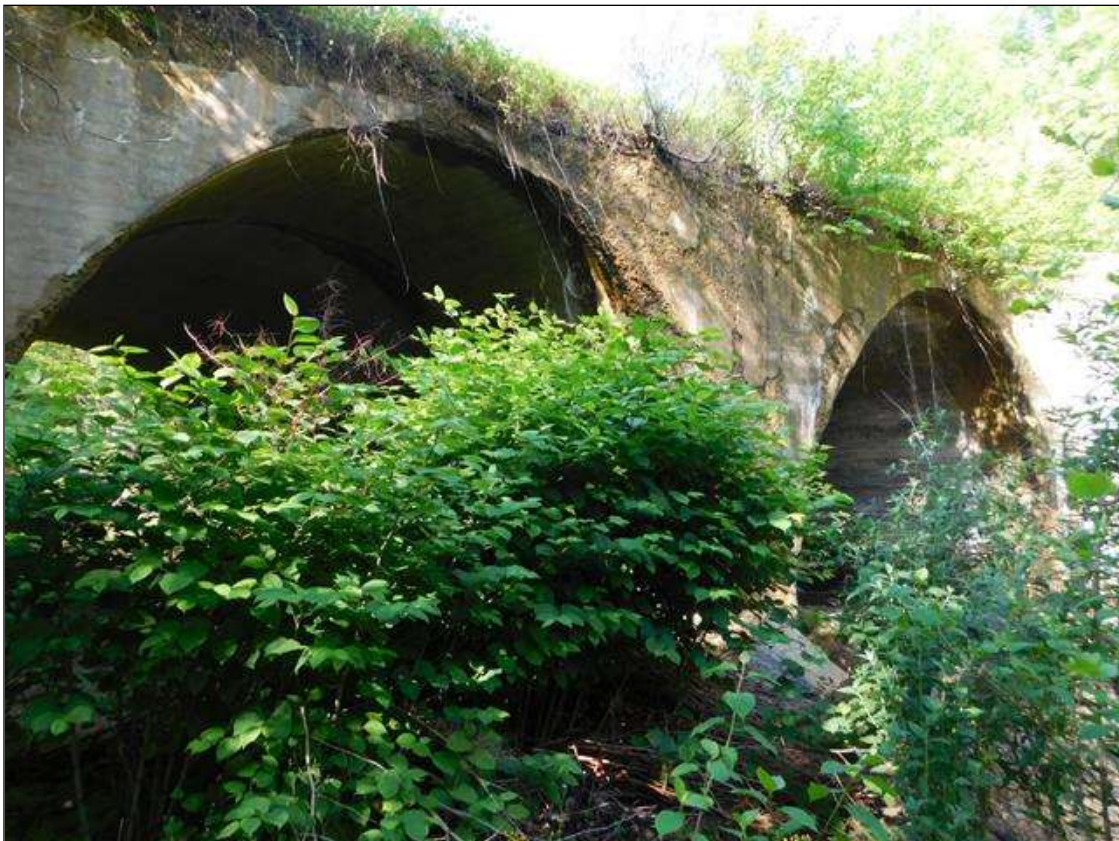
FROM STRUCTURE LOOKING EAST DOWNSTREAM



LOOKING SOUTH



WEST PROFILE



EAST PROFILE



LOOKING WEST UPSTREAM THRU BARREL 1



LOOKING WEST UPSTREAM THRU BARREL 2

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

Run Date: 05/01/2018

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **050002**
 (8) STRUCTURE NUMBER(FEDERAL) 00000000110002
 (5) INVENTORY ROUTE (ON/UNDER) - ON 21003210
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 2
 (3) COUNTY CODE 11 (4) PLACE CODE 0
 (6) FEATURE INTERSECTED - BEECH CREEK
 (7) FACILITY CARRIED US321
 (9) LOCATION 50 FT.E.JCT.SR1314
 (11)MILEPOINT 0
 (16)LAT 36° 15' 42.44" (17)LONG 81° 53' 49.55"
 (98)BORDER BRIDGE STATE CODE PCT SHARE
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 80.56
 STATUS = Not Deficient

CLASSIFICATION **CODE**

(112)NBIS BRIDGE SYSTEM - YES
 (104)HIGHWAY SYSTEM Is on the NHS 1
 (26) FUNCTIONAL CLASS - Arterial - Other 02
 (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 - On the National Network 1
 (20) TOLL On Free Road 3
 (31) MAINTAIN - State Highway Agency 01
 (22) OWNER - State Highway Agency 01
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Concrete continuous
 TYPE - Culverts (includes frame culverts) CODE 219
 (44) STRUCTURE TYPE APPR :
 TYPE - CODE 000
 (45) NUMBER OF SPANS IN MAIN UNIT 2
 (46) NUMBER OF APPROACH SPANS
 (107)DECK STRUCTURE TYPE - N CODE
 (108)WEARING SURFACE / PROTECTIVE SYSTEM :
 (A) TYPE OF WEARING SURFACE - CODE
 (B) TYPE OF MEMBRANE - CODE
 (C) TYPE OF DECK PROTECTION - CODE

CONDITION **CODE**

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

LOAD RATING AND POSTING **CODE**

(31) DESIGN LOAD HS 15 3
 (63) OPERATING RATING METHOD - Field Evaluation and Document 0
 (64) OPERATING RATING - HS-19 35
 (65) INVENTORY RATING METHOD - Field Evaluation and Document 0
 (66) INVENTORY RATING - HS-15 27
 (70) BRIDGE POSTING - No Posting Required 5
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED A
 DESCRIPTION - Open, No Restriction

AGE AND SERVICE

(27) YEAR BUILT 1952
 (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 1400
 (30) YEAR OF ADT 2015 (109) TRUCK ADT PCT 14%
 (19) BYPASS OR DETOUR LENGTH 7 MI

APPRAISAL **CODE**

(67) STRUCTURAL EVALUATION 5
 (68) DECK GEOMETRY N
 (69) UNDERCLEARANCES,VERTI & HORIZ N
 (71) WATERWAY ADEQUACY 7
 (72) APPROACH ROADWAY ALIGNMENT 6
 (36) TRAFFIC SAFETY FEATURES 1NNN
 (113)SCOUR CRITICAL BRIDGES 8

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 30 FT
 (49) STRUCTURE LENGTH 64 FT
 (50)CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 0 FT
 (52) DECK WIDTH OUT TO OUT 0 FT
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 24 FT
 (33) BRIDGE MEDIAN - No Median CODE 0
 (34) SKEW 15° (35) STRUCTURE FLARED 0
 (10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 FT
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
 (54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT
 (55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT
 (56) MIN LAT UNDERCLEAR LT REF - 000 FT

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 2800 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 05/10/2017
 (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

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: 05/01/2018

COUNTY : AVERY DIVISION : 11 DISTRICT : 2 STRUCTURE NUMBER : 050002 LENGTH : 64 FEET

ROUTE CARRIED : US321 FEATURE INTERSECTED : BEECH CREEK

LOCATED : 50 FT.E.JCT.SR1314 BRIDGE NAME : CITY :

FUNC. CLASS : 02 SYST.ON : FA SYST.UNDER : NFA ADT & YR : 1400 2015 RAIL TYPE : LT 0 RT 0

BUILT : 1952 BY : SHPWC PROJ : 7753 FED.AID PROJ : DESIGN LOAD : HS 15

REHAB : BY : PROJ : ALIGNMENT : TAN SKEW : 75 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 28 FT WATER DEPTH : 3 FT

SUPERSTRUCTURE : DOUBLE 30'X19'RC ARCH;55'-8 ALONG CENTERLINE CULVERT

SUBSTRUCTURE :

SPANS :

BEAMS OR GIRDERS :

FLOOR : ENCROACHMENT : DECK (OUT TO OUT) : 0 FT

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

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-15 OPE.RTG. : HS-19 CONTR.MEMBER : POSTED : SV TTST DATE

SYSTEM : Primary U.S. Route GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

REMARKS :








BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 050002

County AVERY

Date: 05/10/2017

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3350	Maint R C Wings and Walls	SF	1	VOID	
 3350	Maint R C Wings and Walls	SF	21	SOUTH EAST WINGWALL HEAVY SPALL & DELAMINATION WITH RE-BAR EXPOSED.	
 3350	Maint R C Wings and Walls	SF	900	EAST HEADWALL HAS A LARGE AREA WITH HEAVY SPALL & DELAMINATION WITH RE-BAR & EFFLO VISIBLE. AREA IS 20' X 45'	
 3350	Maint R C Wings and Walls	SF	640	WEST HEADWALL HAS A LARGE AREA THAT IS CRACKED, SPALLED & DELAMINATED WITH HEAVY EFFLO VISIBLE. AREA IS 16' X 40' X 6" DEEP.	
 3370	Maintenance and Repair of NBIS Pipes and Culverts	LF	20	Barrel 1 Section 1: BARREL 1 BOTTOM OF TOP SLAB AND NORTHWEST CORNER. HAS A LARGE AREA THAT IS CRACKED/DELAMINATED AND SPALLED WITH REBAR AND HEAVY EFFLO VISIBLE. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.	
 3370	Maintenance and Repair of NBIS Pipes and Culverts	LF	20	Barrel 1 Section 1: BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFRENSE OF BARREL. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.	
 3370	Maintenance and Repair of NBIS Pipes and Culverts	LF	14	Barrel 2 Section 1: BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 050002 County AVERY

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

MMS Code	MMS Description	Quantity
3350	Maint R C Wings and Walls	1 SF
Location:		
RCBC Culvert Bent/Span No. 1 VOID		
Priority Level		Status
Priority Maintenance		Division Maintenance Work In Process
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	WARREN HACKLER
Details		
VOID		

MMS Code	MMS Description	Quantity
3350	Maint R C Wings and Walls	21 SF
Location:		
RCBC Culvert Bent/Span No. 1 REINFORCED CONCRETE CULVERT		
Priority Level		Status
Priority Maintenance		Division Maintenance Work In Process
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	WARREN HACKLER
Details		
SOUTH EAST WINGWALL HEAVY SPALL & DELAMINATION WITH RE-BAR EXPOSED.		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 050002

County AVERY

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

MMS Code	MMS Description	Quantity
3350	Maint R C Wings and Walls	900 SF
Location:		
RCBC Culvert		Bent/Span No. 1 REINFORCED CONCRETE CULVERT
Priority Level		Status
Priority Maintenance		Division Maintenance Work In Process
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	WARREN HACKLER
Details		
EAST HEADWALL HAS A LARGE AREA WITH HEAVY SPALL & DELAMINATION WITH RE-BAR & EFFLO VISIBLE. AREA IS 20' X 45'		

MMS Code	MMS Description	Quantity
3350	Maint R C Wings and Walls	640 SF
Location:		
RCBC Culvert		Bent/Span No. 1 REINFORCED CONCRETE CULVERT
Priority Level		Status
Priority Maintenance		Division Maintenance Work In Process
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	WARREN HACKLER
Details		
WEST HEADWALL HAS A LARGE AREA THAT IS CRACKED, SPALLED & DELAMINATED WITH HEAVY EFFLO VISIBLE. AREA IS 16' X 40' X 6" DEEP.		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 050002

County AVERY

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

MMS Code	MMS Description	Quantity
3370	Maintenance and Repair of NBIS Pipes and Culverts	20 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	
Details		
<p>Barrel 1 Section 1: BARREL 1 BOTTOM OF TOP SLAB AND NORTHWEST CORNER. HAS A LARGE AREA THAT IS CRACKED/DELAMINATED AND SPALLED WITH REBAR AND HEAVY EFFLO VISIBLE. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.</p>		

MMS Code	MMS Description	Quantity
3370	Maintenance and Repair of NBIS Pipes and Culverts	20 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	
Details		
<p>Barrel 1 Section 1: BARREL 1 DOWNSTREAM END HAS A LARGE AREA OF HEAVY DELAMINATION AND SPALL WITH REBAR EXPOSED. AREA IS: FULL CIRCUMFRENSE OF BARREL. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.</p>		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 050002 County AVERY

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

MMS Code	MMS Description	Quantity
3370	Maintenance and Repair of NBIS Pipes and Culverts	14 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
05/11/2017	TIM EARP	
Details		
<p>Barrel 2 Section 1: BARREL 2 DOWNSTREAM END OF BOTH INTERIOR WALLS AND BOTTOM OF ARCH HAS SCATTERED AREAS OF HEAVY SPALL AND DELAMINATION WITH REBAR EXPOSED. A "PM" HAS BEEN ISSUED FOR THIS CONDITION.</p>		



SOUTH EAST WINGWALL HEAVY SPALL & DELAMINATION WITH RE-BAR EXPOSED AREA IS 3' X 7' X 4" DEEP



EAST HEADWALL HAS A LARGE AREA WITH HEAVY SPALL & DELAMINATION WITH RE-BAR & EFFLO EXPOSED. AREA IS 20' X 45' X 3" DEEP.



WEST HEADWALL HAS A LARGE AREA THAT IS CRACKED, SPALLED & DELAMINATED WITH RE-BAR & EFFLO EXPOSED. AREA IS 16' X 40' X 6" DEEP.

Culvert Segment Details

Barrel 1

Has Bands?: No

Distance From Upstream End to Edge of Pavement: 15ft

	Distance From Upstream End of Segment (ft)	Width (ft)	Height (ft)	Pipe Thickness (in)	Corrugation Pattern	Leg Length (ft)	Top Radius (ft)	Bolt Material	Bolt Diameter (in)	# of Long. Bolt Rows	Transverse Spacing b/w Bolt Rows (ft)	Longitudinal Bolt Spacing (ft)	Bolt Condition	Rib Length (ft)	Rib Spacing (ft)	Type	Material
Upstream End	1	30	19													Arch	Concrete
Downstream End	55.667	30	19													Arch	Concrete

Barrel 2

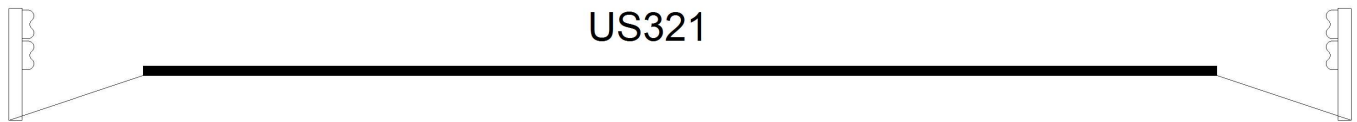
Has Bands?: No

Distance From Upstream End to Edge of Pavement: 15ft

	Distance From Upstream End of Segment (ft)	Width (ft)	Height (ft)	Pipe Thickness (in)	Corrugation Pattern	Leg Length (ft)	Top Radius (ft)	Bolt Material	Bolt Diameter (in)	# of Long. Bolt Rows	Transverse Spacing b/w Bolt Rows (ft)	Longitudinal Bolt Spacing (ft)	Bolt Condition	Rib Length (ft)	Rib Spacing (ft)	Type	Material
Upstream End	1	30	19													Arch	Concrete
Downstream End	55.667	30	19													Arch	Concrete

Bridge Inspection Field Sketch

VERIFIED 5/4/15 A. GLASCO, B. DAY



Roadway	24ft Wide	2 Paved Lanes	Looking North
Left Shoulder	3ft Wide		3ft Unpaved
Right Shoulder	3ft Wide		3ft Unpaved
Left Guardrail	3ft from road		
Right Guardrail	3ft from road		

VERIFIED BY TSE 5/10/17

Title

APPR. ROADWAY

Description

aprw

Bridge No: 050002

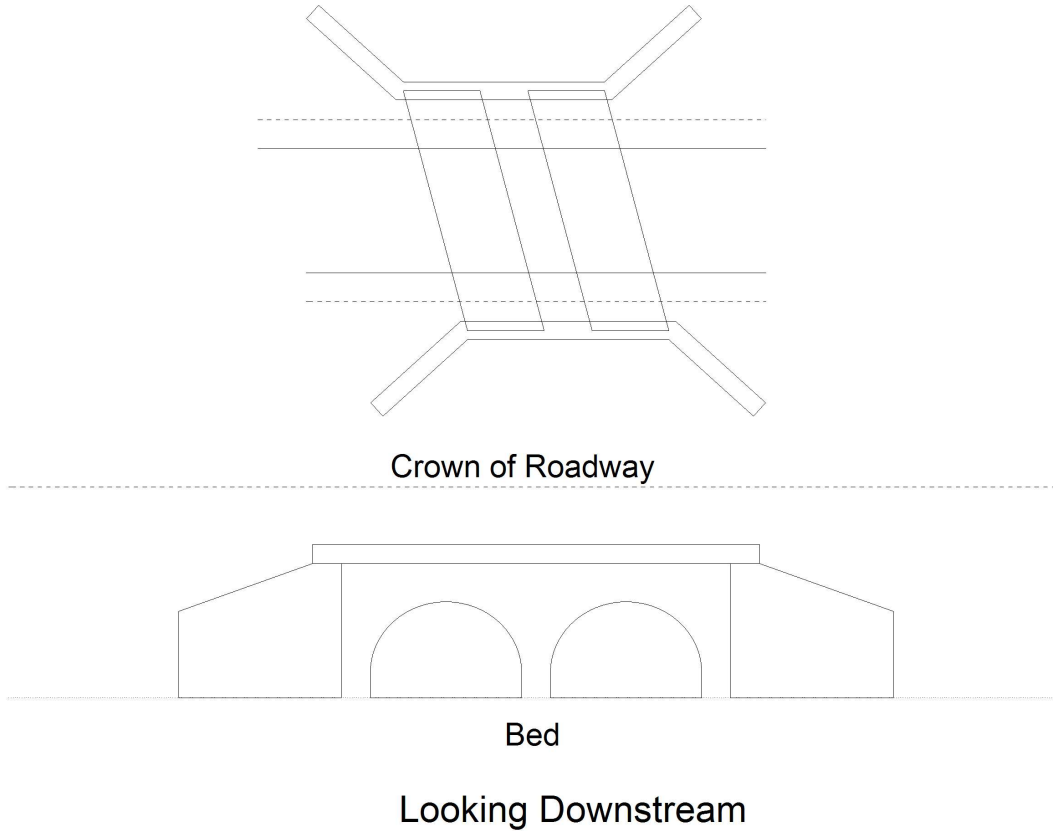
Drawn By: G.R.R

Date: 05/02/2005

File Name: S013000009

Bridge Inspection Field Sketch

VERIFIED 5/4/15 A. GLASCO, B. DAY



Number of Barrels	Skew	Distance From Crown to Bed	Fill Depth
2	75°	28ft	9ft
Length Along Center Line of Pipe		Length Along Center Line of Roadway	
55.667ft		64ft	

Barrel #	Width	Height	Distance From Scour at Inlet Previous Pipe	Scour at Inlet	Scour at Outlet	Type
1	30ft	19ft				Arch
2	30ft	19ft	2.5ft			Arch

SPEED LIMIT = 55 MPH, 2 LANE HIGHWAY

LEFT EOP TO GUARDRAIL = 4', GUARDRAIL TO HEADWALL = 11'

RIGHT EOP TO GUARDRAIL = 5', GUARDRAIL TO HEADWALL = 9'

GUARDRAIL = YES

MAIN WATER FLOW THROUGH BARREL 2

WATER DEPTH 6" UP TO 48"

UPDATED BY TSE 5/11/17

Title

CULVERT

Description

CULVERT

Bridge No: 050002

Drawn By: DCW

Date: 05/02/2007

File Name: S0126001572