

Bridge Inspection Report

Bedford 151/151

Date of Inspection: 03/09/2016

NH114

Date Report Sent: 4/6/2016

Over

Picture taken during inspection

BOWMAN BROOK

Owner: NHDOT

Recommended Postings:

Weight: No Posting Required

Weight Sign OK

Width: Not Required

Width Sign OK

Primary Height Sign Recommendation: None

Clearances: Over:
(Feet) Under: 0.00
Route:

Height Signs OK

Optional Centerline Height Sign Rec: None

Condition: State Redlist

Deck: N N/A (NBI)
Superstructure: N N/A (NBI)
Substructure: N N/A (NBI)
Culvert: 3 Serious

Structure Type and Materials:

Number of Spans Main Unit: 1
Number of Approach Spans: 0

Main Span Material and Design Type

Steel Culvert

Sufficiency Rating: 54%

NBI Status: Not Applicable

Bridge Rail: N/A or Not Required
Rail Transition: N/A or Not Required
Bridge Approach Rail: Meets Standards
Approach Rail Ends: Meets Standards

NH Bridge Type: Metal Pipe
Deck Type: No Deck (N/A - NBI)
Wearing Surface: No Deck (N/A - NBI)
Membrane: No Deck (N/A - NBI)
Deck Protection: No Deck (N/A - NBI)
Pavement thickness: 3.0 in
Curb Reveal: Not Applicable
Plan Location: INSPECTION FOLDER

Bridge Dimensions:

Length Maximum Span: 10.0 ft
Left Curb/Sidewalk Width: 0.0 ft
Width Curb to Curb: 0.0 ft
Approach Roadway Width (W/ Shoulders): 45.3 ft

Total Bridge Length: 10.0 ft
Right Curb/Sidewalk Width: 0.0 ft
Total Bridge Width: 0.0 ft
Median: No median
Bridge Skew: 45.00 °

Bridge Service:

Type of Service on Bridge: Highway
Type of Service under: Waterway
Lanes on bridge: 2
Lanes Under: NA

Year Built: 1964
Year Rebuilt: Not Rebuilt
Detour Length: 0.0 mi

AADT: 22000
Future AADT: 32560

Percent Trucks: 5%
Year of AADT: 2014
Year of Future AADT: 2035

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Federal or State Definition Bridge: NH Definition Bridge
 Roadway Functional Class: Urban Principal Arterial
 New Hampshire Highway System and Class: Primary-DOT Maintained
 Eligibility for the National Register of Historic Places: Possibly eligible
 Traffic Direction: Two-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: Not Applicable (NBI)
 Underclearances: Not Applicable (NBI)
 Approach Alignment: Equal Minimum Criteria
 Structural Evaluation: Intolerable, Correctable
 Channel/Channel Protection: Protection Undermined
 Waterway Adequacy: Minimum Tolerable
 Bridge Scour Critical Status: Stable, action needed
 Riprap Condition: Fair Condition
 Debris Present: Debris Present
 STONE AND GRAVEL DEBRIS INSIDE BARREL.
 Date of Underwater Inspection: Not Applicable

AASHTO CoRe Element Condition State Data:

| No. | Description | Env. | Material Notes and Condition Notes |
|-----|---|--------|---|
| 240 | Culvert (includes Steel, Aluminum and Galvanized) | Severe | MP- 7.5' DIA. AT 45 DEGREE SKEW = 10' CLEAR SPAN. CORR. 6" X 2" X 1/8" THICK. 5'-6" OF EARTH COVER. MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. |
| 363 | Section Loss Condition Warning Flag | Severe | RADIUS- 55% TO 65% SECTION LOSS IN 1.5 LENGTH NEAR SOUTHWEST END. 20% TO 30% SECTION LOSS IN 1' LENGTH 40' FROM SOUTHWEST END. INVERT HOLED WITH 40% SECTION LOSS IN AREAS. SECTION LOSS APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW. |

| No. | Description | Env. | Quantity | Units | State 1 | State 2 | State 3 | State 4 | State 5 |
|-----|---|--------|----------|-------|---------|---------|---------|---------|---------|
| 240 | Culvert (includes Steel, Aluminum and C | Severe | 225 | (LF) | 0 % | 0 % | 0 % | 100 % | |
| 363 | Section Loss Condition Warning Flag | Severe | 1 | (EA) | 0 % | 0 % | 100 % | 0 % | |

Bridge Notes:

NEW BRIDGE TO INVENTORY. ADDED TO STATE RED LIST 4/27/2009. BANK EROSION AND PART OF INVERT UNDER TRAVELWAY ON EAST REPAIRED BY B.O.B.M. IN 2014.
 11/13/15- LOCATIONS OF SECTION LOSS HAS INCREASED BUT SECTION LOSS PERCENTS HAVE NOT CHANGED SINCE 3/16/15 INSPECTION.

Approach and Roadway Notes: APPROACH ASPHALT- MEDIUM CRACK AT NORTH, LONGITUDINAL CRACK ALONG WHITE LINE WITH LIGHT SETTLEMENT ON EAST BREAKDOWN LANE; MOST CRACKS ARE SEALED. W- BEAM RAIL- MINOR DAMAGE.

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Inspection History:

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|---|-----------------------|----------------------------|
| Inspection Date: 03/09/2016 | Inspector: NJL | Deck: N N/A (NBI) |
| Notes: | | Super: N N/A (NBI) |
| <i>NJL inspection comments-</i> | | Substr: N N/A (NBI) |
| CULVERT: MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. | | Culvert: 3 Serious |

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|---|-----------------------|----------------------------|
| Inspection Date: 11/13/2015 | Inspector: KLM | Deck: N N/A (NBI) |
| Notes: | | Super: N N/A (NBI) |
| <i>KLM inspection comments-</i> | | Substr: N N/A (NBI) |
| CULVERT: MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. | | Culvert: 3 Serious |

- PICTURES: D175-
- 27. RADIUS HOLED AND FILL EXPOSED WITH 55% TO 65% SECTION LOSS IN 1.5' LENGTH ON SOUTHWEST END.
 - 28. RADIUS HOLED AND FILL EXPOSED WITH 20% TO 30% SECTION LOSS 40' FROM SOUTHWEST END.
 - 29. RADIUS HOLE AND FILL EXPOSED NEAR SOUTH MID SPAN.
 - 30. RADIUS HOLED ABOVE REPAIRED AREA, NORTHEAST.

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| Inspection Date: 03/16/2015 | Inspector: KLM | Deck: N N/A (NBI) |
| Notes: | | Super: N N/A (NBI) |
| <i>KLM inspection comments-</i> | | Substr: N N/A (NBI) |
| CULVERT: MP- INVERT PARTIALLY COVERED WITH GRAVEL STARTING AT WEST; AREAS VISIBLE ARE HOLED 65% AND RADIUS HOLED IN RANDOM LOCATIONS, APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW. INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT AND HOLES IN RADIUS AT EAST. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. INVERT THINNED THROUGHOUT. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. | | Culvert: 3 Serious |

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| Inspection Date: 11/05/2014 | Inspector: NJL | Deck: N N/A (NBI) |
| Notes: | | Super: N N/A (NBI) |
| <i>NJL inspection comments-</i> | | Substr: N N/A (NBI) |
| CULVERT: MP- INVERT PARTIALLY COVERED WITH GRAVEL STARTING AT WEST; AREAS VISIBLE ARE HOLED 65% AND RADIUS HOLED IN RANDOM LOCATIONS, APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW. INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT AND HOLES IN RADIUS AT EAST. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. INVERT THINNED THROUGHOUT. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. | | Culvert: 3 Serious |

- PICTURES: D153-
- 71. BANK EROSION REPAIRED AT EAST OUTLET.
 - 72. RIP RAP PLACED AT EAST OUTLET AROUND MP.
 - 73. VIEW OF REPAIRED INVERT AT EAST.