Bridge Inspection Report

Barrington 109/162

Date of Inspection: 09/15/2011
Date Report Sent: 12/9/2011
☑ Picture taken during inspection
Owner: Municipality

GREEN HILL ROAD
Over
ISINGLASS RIVER

Recommended Postings:

Weight: C2 ☑ Weight Sign OK

Width: Not Required ☑ Width Sign OK
NARROW BRIDGE SIGNS

Primary Height Sign Recommendation: *None*
Optional Centerline Height Sign Rec: *None*

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

☑ Height Signs OK

Condition: Not on the Redlist
Deck: 6 Satisfactory
Superstructure: 7 Good
Substructure: 6 Satisfactory
Culvert: N N/A (NBI)

Structure Type and Materials:
Number of Spans Main Unit: 1
Number of Approach Spans: 0

Main Span Material and Design Type
Steel Multiple Beam

Sufficiency Rating: 69.1%
NBI Status: Functionally Obsolete

Bridge Rail: Substandard
Rail Transition: Substandard
Bridge Approach Rail: Substandard
Approach Rail Ends: Substandard

NH Bridge Type: I Beams w/ Concrete Deck
Deck Type: Concrete, Cast in Place
Wearing Surface: Bituminous
Membrane: None
Deck Protection: None
Pavement thickness: 3.0 in
Curb Reveal: 6.0 in
Plan Location: Unknown

Bridge Dimensions:
Length Maximum Span: 62.0 ft
Left Curb/Sidewalk Width: 0.0 ft
Width Curb to Curb: 18.0 ft
Approach Roadway Width (W/ Shoulders): 18.0 ft

Total Bridge Length: 66.0 ft
Right Curb/Sidewalk Width: 0.0 ft
Total Bridge Width: 19.8 ft
Median: No median
Bridge Skew: 0.00 °

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

Year Built: 1955
Year Rebuilt: Not Rebuilt
Detour Length: 2.0 mi

AADT: 1700 Percent Trucks: 4% Year of AADT: 2008
Future AADT: 2516 Year of Future AADT: 2032

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Federal or State Definition Bridge: Fed. Definition Bridge
Roadway Functional Class: Rural Local
New Hampshire Highway System and Class: Municipal Highway
Eligibility for the National Register of Historic Places: Possibly eligible
Traffic Direction: Two-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: Intolerable, Replacement
Underclearances: Not Applicable (NBI)
Approach Alignment: Equal Minimum Criteria
Structural Evaluation: Equal Minimum Criteria
Channel/Channel Protection: Minor Damage
Waterway Adequacy: Above Desirable Criteria
Bridge Scour Critical Status: Stable for extreme flood
Riprap Condition: Fair Condition
Debris Present: No Debris Present
Date of Underwater Inspection: Not Applicable

AASHTO CoRe Element Condition State Data:

No.	Description	Env.	Material Notes and Condition Notes
13	Concrete Deck - Unprotected, with Asphalt Pavement	Moderate	*ASPHALT- CRACKED AND PATCHED, DECK EXPOSED. CURB SPALLED AND REBAR EXPOSED AT NORTHEAST. MINOR SPALLS ON CURB AT SOUTH.*
107	Painted Steel Beam or Girder (Open Web)	Moderate	*STRINGERS HAVE LIGHT RUST AREAS. PAINT IS FLAKING.*
217	Other Material Abutment	Moderate	*STONE MASONRY ABUTMENTS AND WINGS. WITH CONCRETE CAP AND BACKWALLS.* *BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. BRIDGESEATS HAVE FINE CRACKS AND MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH.*
311	Moveable Bearing (roller, sliding, etc.)	Moderate	*BEARINGS ARE RUSTED.*
334	Coated Metal Bridge Railing	Moderate	*** W-Beam ** PAINTED STEEL POSTS.* *PAINTED STEEL POSTS RUSTED. MINOR DAMAGE TO RAIL.*
359	Soffit of Conc Deck or Slab Condition Warning Flag	Moderate	*DECK UNDERSIDE HAS FINE CRACKS, MODERATE LEAKING. MINOR SPALLS.*

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
13	Concrete Deck - Unprotected, with Asph	Moderate	1,302	(SF)	0 %	0 %	100 %	0 %	0 %
107	Painted Steel Beam or Girder (Open We	Moderate	197	(LF)	0 %	34 %	33 %	33 %	0 %

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No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
217	Other Material Abutment	Moderate	161	(LF)	0 %	100 %	0 %	0 %	
311	Moveable Bearing (roller, sliding, etc.)	Moderate	6	(EA)	0 %	100 %	0 %		
334	Coated Metal Bridge Railing	Moderate	121	(LF)	0 %	0 %	100 %	0 %	0 %
359	Soffit of Conc Deck or Slab Condition W	Moderate	1	(EA)	100 %	0 %	0 %	0 %	0 %

Bridge Notes:

Approach and Roadway Notes: *APPROACH ASPHALT CRACKED, SETTLED. TRANSVERSE CRACK AT DECK ENDS. EMBANKMENTS WASHED SLIGHTLY. NEW RIP- RAP INSTALLED AT SOUTHEAST. W-BEAM RAIL- SLIGHT DAMAGE.*

Inspection History:

Inspection Date: 09/15/2011 **Inspector:** MAS

Deck: 6 Satisfactory
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

MAS - inspection comments -
DECK: DECK UNDERSIDE HAS FINE CRACKS, MODERATE LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND SPALLS WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. PAINT IS FLAKING. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. RIP- RAP INSTALLED AT SOUTHEAST EMBANKMENT.

PICTURES: C437-
31. CURB SPALLED WITH REBAR EXPOSED AT NORTHEAST.
32. ASPHALT POTHOLED WITH DECK EXPOSED.
33. SPALL WITH REBAR EXPOSED AT SOUTHWEST ABUTMENT.

Inspection Date: 06/12/2009 **Inspector:** DPC

Deck: 6 Satisfactory
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

DPC/KLM inspection comments -
DECK: ELEMENTS IN SATISFACTORY CONDITION. DECK UNDERSIDE HAS FINE CRACKS, MODERATE LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND SPALLS WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: ELEMENTS IN GOOD CONDITION. STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: ELEMENTS IN SATISFACTORY CONDITION. BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. RIP- RAP INSTALLED AT SOUTHEAST EMBANKMENT.

Inspection History:

Inspection Date: 09/17/2007 **Inspector:** RLM

Deck: 6 Satisfactory
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

RLM inspection comments -
DECK: DECK UNDERSIDE HAS FINE CRACKS, MINOR LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND A SPALL WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. RIP- RAP INSTALLED AT SOUTHEAST EMBANKMENT.

PICTURE: C357- 15.

Inspection Date: 10/04/2005 **Inspector:** DPC

Deck: 6 Satisfactory
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

DPC inspection comments -
DECK: DECK UNDERSIDE HAS FINE CRACKS, MINOR LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND A SPALL WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. FOOTINGS ARE NOT VISIBLE.

Inspection Date: 08/27/2003 **Inspector:** RLM

Deck: 6 Satisfactory
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 7/20/2004 14:25:47
RLM inspection comments -
DECK: ASPHALT CRACKS WITH DELAMINATED DECK UNDERNEATH. DECK UNDERSIDE HAS FINE CRACKS, MINOR LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND A SPALL WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. FOOTINGS ARE NOT VISIBLE.

PICTURE: C192-13.

Inspection Date: 08/17/2001 **Inspector:** RLM

Deck: 7 Good
Super: 7 Good
Substr: 6 Satisfactory
Culvert: N N/A (NBI)

Notes:

Sufficiency Rating Calculation Accepted by DEP at 01-16-2002 09:42:35
RLM inspection comments -
DECK: ASPHALT CRACKS WITH DELAMINATED DECK UNDERNEATH. DECK UNDERSIDE HAS FINE CRACKS, MINOR LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND A SPALL WITH REBAR EXPOSED AT NORTHEAST. MINOR SPALLS AT POSTS. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. FOOTINGS ARE NOT VISIBLE.

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Inspection History:

Inspection Date: 09/17/1999 **Inspector:** RLM

Deck: 7 Good
Super: 7 Good
Substr: 7 Good
Culvert: N N/A (NBI)

Notes:

RLM inspection comments -
DECK: ASPHALT IS OK. DECK UNDERSIDE HAS FINE CRACKS, MINOR LEAKING. CONCRETE CURBS HAVE FINE CRACKS AND
A SPALL WITH REBAR EXPOSED AT NORTHEAST. W-BEAM RAIL WITH PAINTED STEEL POSTS; POSTS RUSTED.
SUPERSTRUCTURE: STRINGERS HAVE LIGHT RUST AREAS. BEARINGS ARE RUSTED.
SUBSTRUCTURE: BREASTWALLS ARE MASONRY. CONCRETE BACKWALLS HAVE FINE CRACKS, MINOR SPALLS. CONCRETE BRIDGESEATS HAVE FINE CRACKS, MODERATE SPALLS AT SOUTH WITH REBAR EXPOSED AT SOUTHWEST; LIGHT SPALLS AT NORTH. WINGS ARE CONCRETE AND MASONRY. FOOTINGS ARE NOT VISIBLE.

Inspection Date: 09/01/1997 **Inspector:** Not Available

Deck: 7 Good
Super: 7 Good
Substr: 7 Good
Culvert: N N/A (NBI)

Notes:

Inspection Date: 09/01/1995 **Inspector:** Not Available

Deck: 7 Good
Super: 7 Good
Substr: 7 Good
Culvert: N N/A (NBI)

Notes:

Inspection Date: 02/01/1994 **Inspector:** Not Available

Deck: 6 Satisfactory
Super: 8 Very Good
Substr: 7 Good
Culvert: N N/A (NBI)

Notes:

Inspection Date: 08/01/1991 **Inspector:** Not Available

Deck: 6 Satisfactory
Super: 8 Very Good
Substr: 7 Good
Culvert: N N/A (NBI)

Notes:

Copy Distribution:

- [x] (2) Bureau of Municipal Hghways
- [ ] (3) Bureau of Municipal Hghways
- [ ] Bureau of Turnpikes
- [ ] Border State
- [ ] Bureau of Rail and Transit
- [ ] Army Corps Of Engineers
- [ ] Railroad
- [ ] Dept. of Res. and Econ. Dev.
- [ ] Dept. of Environmental Services
- [ ] USDA Forest Service
- [ ] Bureau of Traffic

Form 4

N.H. D.O.T.

BRIDGE CAPACITY SUMMARY

TOWN Barrington

BRIDGE NUMBER 107/162

DESIGN LOAD HS15 DESIGN METHOD WSD

RATED BY LRL DATE

RATING METHOD WSD (Deck) LFD (Stringers)

CHECKED BY DEP DATE 5-89

RATED MEMBER	EFFECTIVE SPAN LENGTH	REQUIRED CAPACITY			AVAILABLE CAPACITY					
		CURRENT LEGAL LOADS	CERTIFIED VEHICLES		MULTIPLE LANES LOADED			SINGLE LANE LOADED		
			SINGLE UNIT	MULTIPLE UNIT	INVENTORY	OPERATING	POSTING	INVENTORY	OPERATING	POSTIN
Deck	1'-0"	HS14.0	HS15.4	HS15.4	HS14.4	HS21.0	HS19.3	HS14.4	HS21.0	HS19.3
Stringers	62'-0"	HS20.1	HS24.1	HS23.7	HS15.6	HS26.0	HS23.4	HS18.2	HS30.4	HS27.3

RECOMMENDED POSTING: "C2"

64. (Op.) 238

66. (Inv.) 226

BARRINGTON 109/162

GREEN HILL ROAD over ISSINGLASS RIVER

Thursday, September 15, 2011

CURB SPALLED WITH REBAR EXPOSED AT NORTHEAST

C437 31

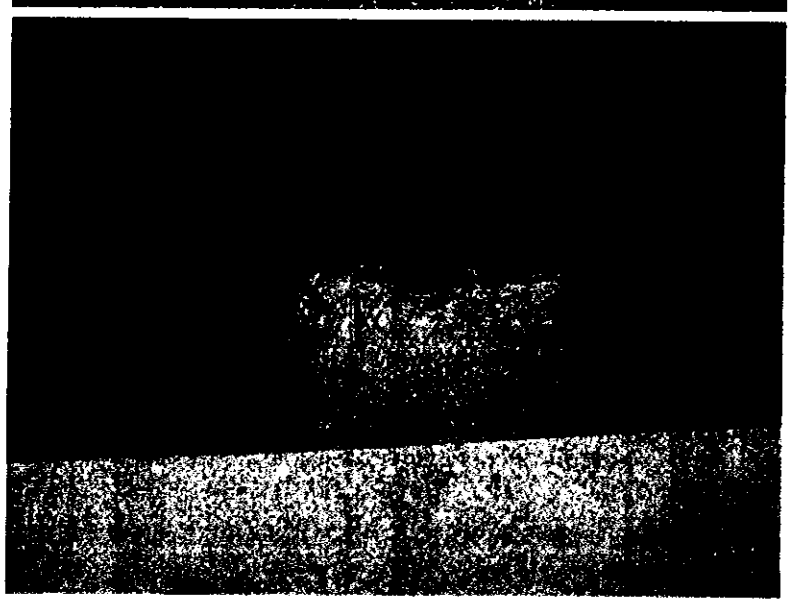
Thursday, September 15, 2011

ASPHALT POTHOLED WITH DECK EXPOSED

C437 32

Thursday, September 15, 2011

SOUTHWEST ABUTMENT SPALLED WITH REBAR EXPOSED



C437 33