

Bridge Inspection Report

NBI Structure Number: 013601420009200

Keene 142/092

Date of Inspection: 07/27/2021

GEORGE STREET

Date Report Sent: 11/09/2021

over

Owner: Municipality

BEAVER BROOK

Bridge Inspection Group: B-Team

Bridge Maintenance Crew: OTHER

Recommended Postings:

Weight: **E-2**

Weight Sign OK

SIGNS IN PLACE.

Width: **Not Required**

Width Sign OK

Primary Height Sign Recommendation: *None*

Clearances: Over: 99.99

Height Sign OK

Optional Centerline Height Sign Rec: *None*

(Feet) Under: 0.00

Route: 99.99

Condition:

Red List Status: Municipal Redlist

Deck: 4 Poor

Superstructure: 4 Poor

Substructure: 3 Serious

Culvert: N N/A (NBI)

Sufficiency Rating: 34%

Bridge Rail: Substandard

Rail Transition: Substandard

Bridge Approach Rail: N/A or not required

Approach Rail Ends: N/A or not required

Structure Type and Materials:

Number of Main Spans: 1

Number of Approach Spans: 0

Main Span Material and Design Type

Concrete/Slab

NH Bridge Type: CS (Concrete Slab)

Deck Type: Concrete-Cast-in-Place

Wearing Surface: Bituminous

Membrane: None

Deck Protection: None

Curb Reveal: Not Measured

Plan Location:

Total Bridge Length: 17.0 ft

Right Curb/Sidewalk Width: 6.0 ft

Total Bridge Width: 40.0 ft

Median: No median

Bridge Skew: 10.00°

Year Built/Rebuilt: 1923

Bridge Dimensions:

Length Maximum Span: 13.0 ft

Left Curb/Sidewalk Width: 6.0 ft

Width Curb to Curb: 24.0 ft

Approach Roadway Width: 24.0 ft
(W/Shoulders)

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Bridge Service:

Type of Service on Bridge: Highway and Pedestrian

Type of Service Under: Waterway

Lanes on Bridge: 2

Lanes Under: 0

AADT: 426

Percent Trucks: 4%

Year of AADT: 2020

Future AADT: 630

Year of Future AADT: 2042

Federal or State Definition Bridge: NH-Definition Bridge

National Highway System: Bridge does not carry NHS

Roadway Functional Class: Urban, Local

New Hampshire Bridge Tier: 5

Eligibility for the National Register of Historic Places: Possibly eligible for

Traffic Direction: 2-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: 4 Tolerable

Underclearances: N Not applicable (NBI)

Approach Alignment: 8 Equal Desirable Crit

Structural Evaluation: 3 Intolerable - Correct

Channel/Channel Protection: 4 Protection Undermined

Waterway Adequacy: 6 Equal Minimum

Bridge Scour Critical Status: 8 Stable Above Footing

Riprap Condition: Poor Condition

Debris Present: Debris Present

Channel Notes: NORTHEAST RETAINING WALL HAS BEEN REPAIRED WITH GABIONS AND ADDITIONAL STONES. 3 FEET OF PENETRATION AT NORTHEAST. 4' PLUS AT NORTHWEST. CHANNEL SCoured.

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Element Details

No.	Description	Material Notes and Condition Notes:
38	Reinforced Concrete Slab	SEVERAL CRACKS IN ASPHALT. MINOR SPALLS AT CURBS. SOFFIT HAS DELAMINATIONS AND HEAVY SPALLING IN AREAS WITH REBAR EXPOSED WITH SECTION LOSS.
└ 510	Wearing Surfaces	SEVERAL CRACKS IN ASPHALT.
└ 1080	Delamination/Spall/Patched Area	MINOR SPALLS AT CURBS. SOFFIT HAS DELAMINATIONS AND HEAVY SPALLING IN AREAS WITH REBAR EXPOSED. HEAVILY SPALLED AT EXTERIORS.
└ 1090	Exposed Rebar	REBAR EXPOSED WITH SECTION LOSS. RUSTED OFF AND HANGING DOWN AT SOUTH EXTERIOR.
215	Reinforced Concrete Abutment	SPALLS AT EAST ABUTMENT. BOTH ABUTMENTS UNDERMINED FULL LENGTH. HEAVY EROSION AT NORTH END OF WEST ABUTMENT.
└ 1080	Delamination/Spall/Patched Area	SPALLS AT EAST ABUTMENT.
└ 1120	Efflorescence/Rust Staining	LIGHT TO MODERATE EFFLORESCENCE AT EAST ABUTMENT.
└ 6000	Scour	NORTHEAST RETAINING WALL HAS BEEN REPAIRED WITH GABIONS AND ADDITIONAL STONES. 3' OF PENETRATION AT NORTHEAST CORNER. EAST ABUTMENT FOOTING UNDERMINED WITH 2' OF PENETRATION FOR 20' FROM NORTH, 1' TO 16" OF PENETRATION FOR THE REST OF FOOTING, NO CHANGE SINCE LAST INSPECTION. WEST ABUTMENT FOOTING UNDERMINED WITH UP TO 16" OF PENETRATION FOR THE FIRST 15' FROM NORTH END, FILLED IN AT MIDSPAN AND UP TO 16" OF PENETRATION FOR 10' FROM THE SOUTH END. NORTHWEST EMBANKMENT EROSION EXPOSING NORTH END OF WEST ABUTMENT, 4' OF PENETRATION BEHIND ABUTMENT. VOID BEHIND ABUTMENT 4' HIGH X 5' WIDE WITH 4' OF PENETRATION, EROSION IS NOW UNDER ASPHALT SIDEWALK AND CHAIN LINK FENCE POST. TOWN HAS INSTALLED BARRICADES AROUND EROSION. EROSION CONTINUES UPSTREAM 20' COVERED BY HEAVY VEGETATION. SINKHOLES BEHIND SOUTHEAST WING AND DECK.
330	Metal Bridge Railing	GALV. POST/ CHAIN LINK
		WEST END OF CHAIN LINK FENCE TIPPED DOWN AT EAST BECAUSE OF EROSION UNDER POST.
└ 1900	Distortion	WEST END OF CHAIN LINK FENCE TIPPED DOWN AT EAST BECAUSE OF EROSION UNDER POST.

Element States

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
38	Reinforced Concrete Slab	678	sq.ft	31%	17%	52%	0%
└ 510	Wearing Surfaces	---	---	83%	17%	0%	0%
└ 1080	Delamination/Spall/Patched Area	350	sq.ft	0%	29%	71%	0%
└ 1090	Exposed Rebar	100	sq.ft	0%	0%	100%	0%
215	Reinforced Concrete Abutment	85	ft	0%	77%	15%	8%
└ 1080	Delamination/Spall/Patched Area	15	ft	0%	100%	0%	0%
└ 1120	Efflorescence/Rust Staining	15	ft	0%	67%	33%	0%
└ 6000	Scour	50	ft	0%	70%	16%	14%
330	Metal Bridge Railing	33	ft	70%	0%	0%	30%
└ 1900	Distortion	10	ft	0%	0%	0%	100%

Bridge Notes:

CHANNEL, ABUTMENTS, RETAINING WALL UNDERMINED DURING OCT 05 FLOOD.
NORTHEAST RETAINING WALL HAS BEEN REPAIRED WITH GABIONS AND ADDITIONAL STONES.

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Inspection Notes: 07/27/2021

MHC - inspection comments-

DECK/SUPERSTRUCTURE: SEVERAL CRACKS IN ASPHALT. MINOR SPALLS IN CURBS. SOFFIT HAS DELAMINATIONS AND HEAVY SPALLING IN AREAS WITH REBAR EXPOSED WITH SECTION LOSS. REBAR HANGING DOWN AT SOUTH EXTERIOR.

SUBSTRUCTURE: SPALLS AT EAST ABUTMENT. EAST ABUTMENT SCOURED AND UNDERMINED, FULL LENGTH. WEST ABUTMENT UNDERMINED IN AREAS. NORTHWEST EMBANKMENT EROSION EXPOSING NORTHWEST END OF ABUTMENT, VOIDED BEHIND ABUTMENT HAS REACHED SIDEWALK AND UNDERMINED CHAIN LINK FENCE POST, TOWN HAS INSTALLED BARRICADES. EMBANKMENT EROSION CONTINUES UPSTREAM 20'.

PICTURE: B647

40. BARRICADES INSTALLED AT EMBANKMENT EROSION.

41. SINKHOLE AT SOUTHEAST WING/DECK END.

Previous Inspection Notes: 11/25/2020

MHC - inspection comments-

DECK/SUPERSTRUCTURE: SEVERAL CRACKS IN ASPHALT. MINOR SPALLS IN CURBS. SOFFIT HAS DELAMINATIONS AND HEAVY SPALLING IN AREAS WITH REBAR EXPOSED WITH SECTION LOSS. REBAR HANGING DOWN AT SOUTH EXTERIOR.

SUBSTRUCTURE: SPALLS AT EAST ABUTMENT. EAST ABUTMENT SCOURED AND UNDERMINED, FULL LENGTH. WEST ABUTMENT UNDERMINED IN AREAS. SOME OF UNDERMINING HAS PARTIALLY FILLED IN SINCE LAST INSPECTION. NORTHWEST EMBANKMENT EROSION EXPOSING NORTHWEST END OF ABUTMENT, VOIDED BEHIND ABUTMENT HAS REACHED SIDEWALK AND UNDERMINED CHAINLINK FENCE POST. EMBANKMENT EROSION CONTINUES UPSTREAM 20'.

PICTURE: B637

14. SOUTH ELEVATION

15. EROSION BEHIND WEST ABUTMENT AT NORTH END.

16. DELAMINATIONS AND SPALLS AT SOFFIT.

17. NORTH CHAINLINK FENCE TIPPED AT WEST.

Approach and Roadway Notes:

ASPHALT- HEAVILY CRACKED, POTHOLED, PATCHED AND SETTLED. EROSION UNDER SIDEWALK AT NORTHWEST DECK END, BARRICADES INSTALLED.

Unusual or experimental features:

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Inspection Date	Inspector Initials	Inspection Type(s) Performed				Major Element Ratings				Red list	Posting
		NBI	Elem	FCM	U/W	Deck	Super	Sub	Culvert		
07/27/2021	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
11/25/2020	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
07/24/2019	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
11/28/2018	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
07/20/2017	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
11/21/2016	MTC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
07/27/2015	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
10/29/2014	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
07/29/2013	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	3	N	<input checked="" type="checkbox"/>	E-2
11/26/2012	MHC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
07/26/2011	NJL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
09/24/2010	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
10/14/2009	NJL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
08/11/2008	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
10/22/2007	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
12/11/2006	FNM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
10/15/2005	DEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
01/21/2004	FNM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	6	N	<input checked="" type="checkbox"/>	E-2
02/08/2002	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
02/03/2000	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
04/23/1998	JEL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
02/01/1996		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
02/01/1993		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2

Inspection Frequency (mo.)			
NBI	Elem	FCM	U/W
16	16	N/A	N/A