

Bridge Inspection Report

NBI Structure Number: 020302170011200

Orford 217/112

Date of Inspection: 11/09/2018

NH 25A

Date Report Sent: 12/28/2018

over

Owner: NHDOT

BRACKETT BROOK

Bridge Inspection Group: A-Team

Bridge Maintenance Crew: 10

Recommended Postings:

Weight: **E-2**

Weight Sign OK

Width: **Not Required**

Width Sign OK

Primary Height Sign Recommendation: *None*

Clearances: Over: 99.99
(Feet) Under: 0.00
Route: 99.99

Height Sign OK

Optional Centerline Height Sign Rec: *None*

Condition:

Red List Status: State Redlist

Deck: 4 Poor

Superstructure: 4 Poor

Substructure: 5 Fair

Culvert: N N/A (NBI)

Sufficiency Rating: 66 %

Bridge Rail: Substandard

Rail Transition: Substandard

Bridge Approach Rail: Meets Standards

Approach Rail Ends: Substandard

Structure Type and Materials:

Number of Main Spans: 2

Number of Approach Spans: 0

Main Span Material and Design Type

Concrete Continuous Slab

NH Bridge Type: CS (Concrete Slab)

Deck Type: Concrete-Cast-in-Place

Wearing Surface: Bituminous

Membrane: None

Deck Protection: None

Curb Reveal: 3 in

Plan Location: J-48

Total Bridge Length: 40.0 ft

Right Curb/Sidewalk Width: 0.1 ft

Total Bridge Width: 35.7 ft

Median: No median

Bridge Skew: 45.00°

Year Built/Rebuilt: 1929/1979

Bridge Dimensions:

Length Maximum Span: 35.0 ft

Left Curb/Sidewalk Width: 0.1 ft

Width Curb to Curb: 32.0 ft

Approach Roadway Width: 24.0 ft
(W/Shoulders)

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Bridge Service:

Type of Service on Bridge: Highway

Type of Service Under: Waterway

Lanes on Bridge: 2

Lanes Under: 0

AAADT: 782

Percent Trucks: 7%

Year of AADT: 2017

Future AADT: 1,157

Year of Future AADT: 2039

Federal or State Definition Bridge: Fed-Definition Bridge

National Highway System: Bridge does not carry NHS

Roadway Functional Class: Rural, Major Collector

New Hampshire Bridge Tier: 3

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

Traffic Direction: 2-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: 6 Equal Min Criteria

Underclearances: N Not applicable (NBI)

Approach Alignment: 8 Equal Desirable Crit

Structural Evaluation: 4 Minimum Tolerable

Channel/Channel Protection: 8 Protected

Waterway Adequacy: 8 Equal Desirable

Bridge Scour Critical Status: 3 SC - Unstable

Riprap Condition: Good Condition

Debris Present: No Debris Present

Channel Notes: CHANNEL RELINED WITH LEDGE EROSION STONE 2017. MOST OF GRAVEL DEBRIS REMOVED IN EAST AND WEST BARRELS WITH 6' 10" OPENING AT UPSTREAM EAST AND 5' 9" OPENING AT UPSTREAM WEST; MOST OF FOOTINGS EXPOSED. DS PIER EXTENSION NOW EXPOSED 4" AT THE PIER END.

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Element Details (see disclaimer below)

No.	Description	Material Notes and Condition Notes:
38	Reinforced Concrete Slab	CRACKS, RUST STAINS, LEAKING AND EFFLORESCENCE IN UNDERSIDE OF SPAN 2. DELAMINATIONS AT CONSTRUCTION JOINT SPAN #2; CRACKS SPALLS WITH REBAR EXPOSED UNDER WEST BOUND LANE SPAN #1. MODERATE TO HEAVY LEAKING AND EFFLORESCENCE NEAR CENTERLINE, ESPECIALLY AT PIER. FINE CRACKS AND MINOR SPALLS IN CURBS.
L 510	Wearing Surfaces	OVERLAY 2018.
L 1090	Exposed Rebar	REBAR EXPOSED UNDER WEST BOUND LANE SPAN #1.
L 1130	Cracking (RC and Other)	CRACKS, DELAMINATIONS AT CONSTRUCTION JOINT SPAN #2; CRACKS UNDER WEST BOUND LANE SPAN #1.
210	Reinforced Concrete Pier Wall	FINE CRACKS AND LIGHT SPALLS; WITH SOME RUST STAINS. AREAS OF MODERATE TO HEAVY EFFLORESCENCE ON PIER WALLS NEAR UNDERSIDE OF SLAB. REPAIRS MADE TO UPSTREAM SE STONE WING EXTENSION BY BOBM 2017. DS PIER EXTENSION FOOTING EXPOSURE NOW MEASURES 4 INCHES AT THE EXTENSION END; FILLED IN WITH GRAVEL.
L 1120	Efflorescence/Rust Staining	AREAS OF MODERATE TO HEAVY EFFLORESCENCE ON PIER WALLS NEAR UNDERSIDE OF SLAB.
215	Reinforced Concrete Abutment	CRACKS, LIGHT SPALLS.
L 1130	Cracking (RC and Other)	FINE TO LIGHT CRACKS.
330	Metal Bridge Railing	** W-Beam ** MINOR DAMAGE AND RUST.
L 1000	Corrosion	RUSTED IN AREAS.

Element States (see disclaimer below)

No.	Description	Quantity	Units	State 1	State 2	State 3	State 4
38	Reinforced Concrete Slab	1,432	sq.ft	26%	37%	37%	0%
L 510	Wearing Surfaces	---	---	100%	0%	0%	0%
L 1090	Exposed Rebar	2	sq.ft	0%	100%	0%	0%
L 1130	Cracking (RC and Other)	530	sq.ft	0%	0%	100%	0%
210	Reinforced Concrete Pier Wall	52	ft	0%	88%	12%	0%
L 1120	Efflorescence/Rust Staining	6	ft	0%	0%	100%	0%
215	Reinforced Concrete Abutment	125	ft	79%	21%	0%	0%
L 1130	Cracking (RC and Other)	26	ft	0%	100%	0%	0%
330	Metal Bridge Railing	77	ft	65%	35%	0%	0%
L 1000	Corrosion	27	each	0%	100%	0%	0%

Element Disclaimer: NHDOT is transitioning from CoRe elements to AASHTO elements. The AASHTO element data shown above is the product of the automated element migration routine from the AASHTOWare BrM software. This migrated data has undergone limited field verification. Adequate quality control of this element data is not expected to be achieved until the conclusion of the 2020 inspection season. Please utilize element data with caution.

Bridge Notes:

RESURFACED 8/07. PAVEMENT APPARENTLY GROUND OFF OVER DECK (INCREASED CURB REVEAL NOTED).
 8/7/2013- ADDED TO SRL.
 11/17/2017 - SLAB AND WEST ROADWAY OVERLAY 2017 BY CONTRACT. APPEARS ROADWAY WASHED OUT DURING OCTOBER FLOOD EVENT; OPEN AT THIS TIME WITH GRAVEL SURFACE AT EAST APPROACH. SOUTH EAST STONE WING EXTENSION REPAIRS AS WELL AS CHANNEL EMBANKMENTS RELINED WITH LEDGE UPSTREAM AND DOWNSTREAM. GRAVEL DEBRIS REMOVED FROM BOTH BARRELS BY BOBM WITH 6' 6" OPENING AT WEST AND 7' 4" AT EAST.
 11/9/2018 - ASPHALT OVERLAY 2018.

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Inspection Notes: 11/09/2018

TDC inspection comments -

W-BEAM RAIL: NEW SECTION OF RAIL AT SE. MINOR DAMAGE, SCRAPES AND RUST.

DECK/SUPER: CRACKS, RUST STAINS, LEAKING AND EFFLORESCENCE IN UNDERSIDE OF SPAN 2. DELAMINATIONS AT CONSTRUCTION JOINT SPAN #2; CRACKS SPALLS WITH REBAR EXPOSED UNDER WEST BOUND LANE SPAN #1. MODERATE TO HEAVY LEAKING AND EFFLORESCENCE NEAR CENTERLINE, ESPECIALLY AT PIER. PAVEMENT OVERLAY 2018. FINE CRACKS AND MINOR SPALLS IN CURBS.

SUB: FINE CRACKS AND LIGHT SPALLS. MOST OF FOOTINGS VISIBLE. VOID UNDER UPSTREAM SE WING FILLED IN WITH GRAVEL. DRY LAID STONE RETAINING WALL AT SE REPAIRED BY BOBM. WEST SPAN OPENING NOW 5' 9", EAST SPAN OPENING 6' 10" AT THE INLET END.

PIER: DS PIER EXTENSION FOOTING EXPOSED UP TO 4 INCHES AT THE EXTENSION END; FILLED IN WITH GRAVEL AT THIS TIME. AREAS OF MODERATE TO HEAVY EFFLORESCENCE ON PIER WALLS WITH A FEW RUST STAINS. FINE CRACKS MINOR SPALLS.

PICTURES: A480-55 THRU 59.

Previous Inspection Notes: 04/23/2018

MAH inspection comments -

W-BEAM RAIL: NEW SECTION OF RAIL AT SE. MINOR DAMAGE, SCRAPES AND RUST.

DECK/SUPER: CRACKS, RUST STAINS, LEAKING AND EFFLORESCENCE IN UNDERSIDE OF SPAN 2. DELAMINATIONS AT CONSTRUCTION JOINT SPAN #2; CRACKS SPALLS WITH REBAR EXPOSED UNDER WEST BOUND LANE SPAN #1. MODERATE TO HEAVY LEAKING AND EFFLORESCENCE NEAR CENTERLINE, ESPECIALLY AT PIER. PAVEMENT OVERLAY 2017; FEW GOUGES. FINE CRACKS AND MINOR SPALLS IN CURBS.

SUB: FINE CRACKS AND LIGHT SPALLS. MOST OF FOOTINGS VISIBLE. VOID UNDER UPSTREAM SE WING FILLED IN WITH GRAVEL. DRY LAID STONE RETAINING WALL AT SE REPAIRED BY BOBM. WEST SPAN OPENING NOW 6' 6" AT THE INLET END; GRAVEL DEBRIS REMOVED BY BOBM.

PIER: DS PIER EXTENSION FOOTING EXPOSED UP TO 12 INCHES AT THE EXTENSION END; FILLED IN WITH GRAVEL BY BOBM. AREAS OF MODERATE TO HEAVY EFFLORESCENCE ON PIER WALLS WITH A FEW RUST STAINS. FINE CRACKS MINOR SPALLS.

PICTURES: A466-24 THRU 25.

Approach and Roadway Notes:

PAVEMENT: OVERLAY AT APPROACHES 2018. (8)

EMBANKMENTS: REPAIRED WITH EROSION STONE.

W-BEAM APPROACH RAIL WITH RADIUS W-BEAM TERMINALS.

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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		
11/09/2018	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	5	N	<input checked="" type="checkbox"/>	E-2
04/23/2018	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	5	N	<input checked="" type="checkbox"/>	E-2
11/17/2017	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	5	N	<input checked="" type="checkbox"/>	E-2
03/30/2017	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
11/07/2016	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
03/23/2016	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
11/09/2015	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
04/16/2015	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
12/01/2014	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4	4	4	N	<input checked="" type="checkbox"/>	E-2
04/22/2014	TDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	4	N	<input checked="" type="checkbox"/>	E-2
12/05/2013	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	4	N	<input checked="" type="checkbox"/>	E-2
08/07/2013	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	4	N	<input checked="" type="checkbox"/>	E-2
08/30/2011	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
07/08/2011	MAH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
07/13/2009	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
08/27/2007	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
06/17/2005	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
07/21/2003	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
05/14/2001	BEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	5	6	N	<input type="checkbox"/>	E-2
06/17/1999	WBL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	6	6	N	<input type="checkbox"/>	E-2
07/01/1997		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	6	6	N	<input type="checkbox"/>	E-2
06/01/1995		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	6	6	N	<input type="checkbox"/>	E-2
07/01/1993		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6	6	6	N	<input type="checkbox"/>	E-2
06/01/1991		<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
8	8	N/A	N/A