

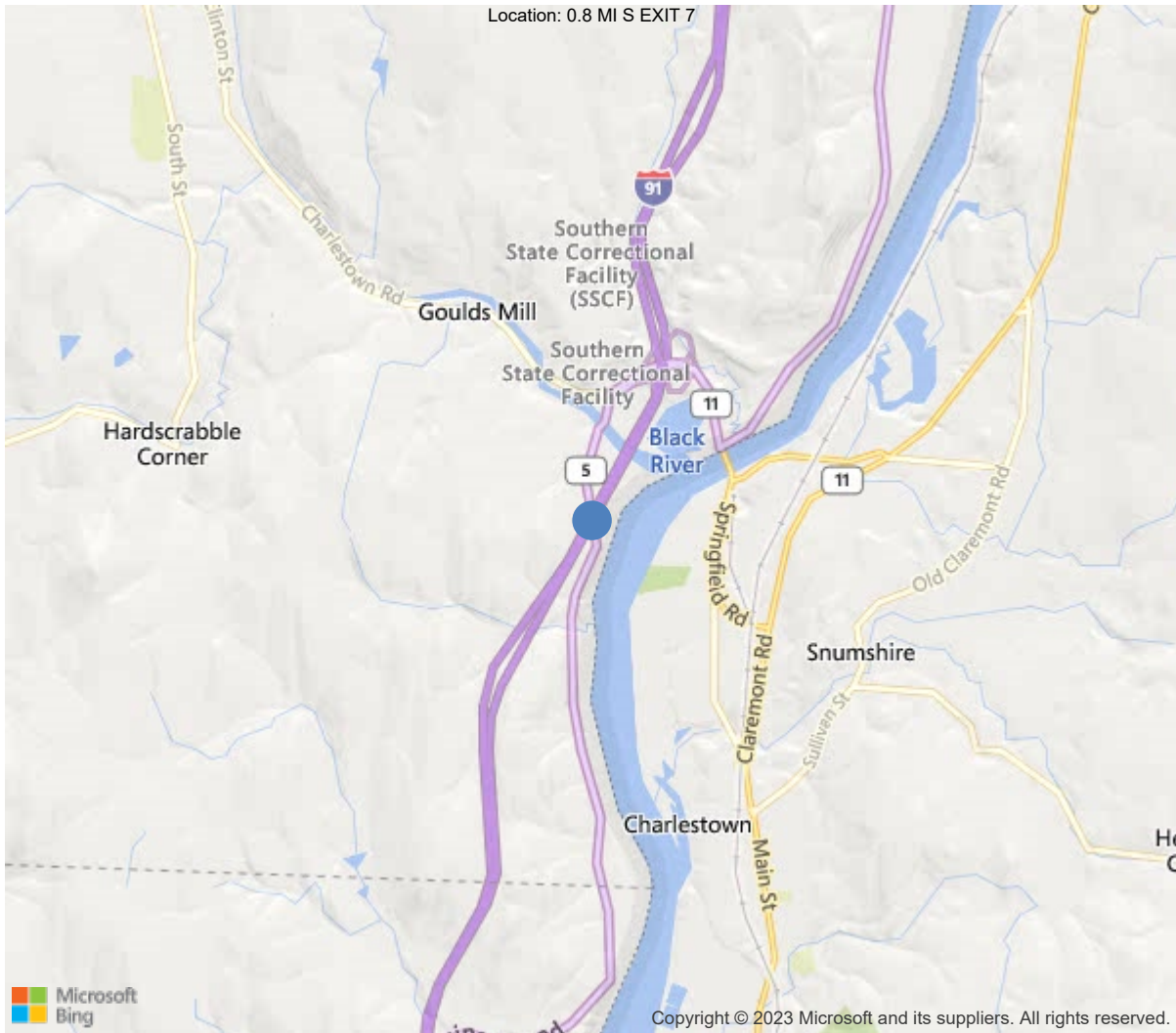


Town: 206 - SPRINGFIELD

District 2, 27 - WINDSOR County

Owner: 1 - State Highway Agency

Maintenance Responsibility: 1 - State Highway Agency



43.25669, -72.43897

IDENTIFICATION	
(1) State Names	50 - Vermont
(8) Structure Number	200091025N14182
(5) Inventory Route	1
(2) Highway Agency District	2 - District 2
(3) County Code	27 - WINDSOR
(4) Place Code	69550
(6) Features Intersected	I 91 OVER US 5
(7) Facility Carried	I 00091 ML
(9) Location	0.8 MI S EXIT 7
(11) Mile Point	40.911 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0270000091
(16) Latitude	43.2566888888889
(17) Longitude	-72.4389694444445
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4 - Steel continuous
Type	2 - Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	2 - Preformed Fabric
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1965
(106) Year Reconstructed	0
(42) Type of Service	11
On	1 - Highway
Under	1 - Highway, with or without pedestrian
(28) Lane	
On	2
Under	2
(29) Average Daily Traffic	15000
(30) Year of ADT	2018
(109) Truck ADT	13 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	90 ft
(49) Structure Length	231 ft
(50) Curb or Sidewalk Width	
Left	0.7 ft
Right	0.7 ft
(51) Bridge Roadway Width Curb to Curb	30 ft
(52) Deck Width Out to Out	35.2 ft
(32) Approach Roadway Width (W/Shoulders)	38 ft
(33) Bridge Median	1 - Open median
(34) Skew	45 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	30 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	17.42 ft
Ref:	
(55) Min Lat Underclear RT	13 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	N - Not applicable, no waterwa
(111) Pier Protection	
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	1
(26) Functional Class	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	R - The right structure of par
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	6
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	76
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	46
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	6
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	9
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	N - Bridge not over waterway.
PROPOSED IMPROVEMENTS	
(75) Type of Work	35 - Bridge rehabilitation bec
(76) Length of Structure Improvement	231 ft
(94) Bridge Improvement Cost	\$ 2846
(95) Roadway Improvement Cost	\$ 50
(96) Total Project Cost	\$ 2896
(97) Year of Improvement Cost Estimate	2020
(114) Future ADT	15750
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			05/24/2022
(91) Frequency			24
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

Team Lead: Stephen Piro, Inspection Date: 05/24/2022

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	8131	7286	245	600	0
1080	Delamination/Spall/Patched Area	SF	615	0	15	600	0
1120	Efflorescence/Rust Staining	SF	230	0	230	0	0
510	Wearing Surfaces	SF	6930	6910	0	20	0
3210	Delam/Spall/Patched Area/Pothole	SF	5	0	0	5	0
3220	Crack (Wearing Surface)	SF	15	0	0	15	0
301	Pourable Joint Seal	LF	84	80	4	0	0
2340	Seal Cracking	LF	4	0	4	0	0
330	Metal Bridge Railing	LF	462	199	231	32	0
1020	Connection	LF	32	0	0	32	0
7000	Damage	LF	231	0	231	0	0
804	Concrete Fascia	LF	462	462	0	0	0

58 - Deck (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Reinforced concrete deck is in okay condition having multiple areas of concrete patches scattered throughout the bays and spans. Other various light transverse cracking with light efflorescence leakage is present throughout the deck.

200 - Existing pavement depth on bridge (3")
A21 - Deck Wearing Surface Condition (3 - Satisfactory)

Asphalt is in satisfactory condition with some light wearing on deck in the travel lanes. Small pothole has formed near the southern end of span #2 in the main travel lane with other various cracking and depressions forming in nearby area in both travel lanes.

A24 - Deck Curb Condition (3 - Satisfactory)

Concrete curbing with granite block facing is in satisfactory condition having recent concrete patches present along the top surface of curbing behind the granite blocks. Small areas of scaling behind granite blocks still exist along the top surface of curbs.

A28 - Deck Rail Condition (3 - Satisfactory)

Galvanized two (2) tier box beam rail is in satisfactory condition having some minor scrapes and dents with some light surface rusting around scrapes. Connections in the top section of rail at posts #12 and #13 away from abutment #1 on the western side is missing the connection bolts. First post along the West side away from the abutment #2 end is also missing the top tier connection bolt.

A31 - Deck Post Condition (2 - Good)

Pedestal mounted galvanized steel tube posts are generally in fairly good condition with some minor rusting around bases and some light freckling rust along surfaces.

A34 - Deck Joint Condition (3 - Satisfactory)

Asphaltic plug joints are present at both ends of structure with recent joint elimination / rehabilitation project having minor wearing in the travel lanes and some various cracking starting to form.

A38 - Deck Drain Condition (2 - Good)

Weep tubes are present along both fascias hanging below superstructure and are in fairly good condition.

A39 - Deck Fascia Condition (3 - Satisfactory)

Team Lead: Stephen Piro, **Inspection Date:** 05/24/2022

Concrete fascia is in satisfactory condition with light to minor cracking and some efflorescence leakage throughout. Heavier concrete scaling is present over both piers. Small spalls with rust staining are present along the soffit of both fascias with small delaminations forming and various cracking.

APPROACH

72 - Approach Roadway Alignment (8 - Equal to present desirable criteria)

Roadway alignment is straight with a significant elevation drop in the direction of traffic.

A13 - Approach Rail Condition (2 - Good)

Galvanized steel beam rail is in fairly good condition having a few areas of some minor scrapes and dents along the face of rail. Some freckling surface rust is present on older sections of rail.

A16 - Approach Post Condition (2 - Good)

Galvanized steel posts with mixture of steel and composite offsets are in fairly good condition with some minor wear present.

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	1140	1059	58	23	0
1000	Corrosion	LF	81	0	58	23	0
515	Steel Protective Coating	SF	9234	8709	0	250	275
3420	Peeling/Bubbling/Cracking	LF	525	0	0	250	275
311	Movable Bearing	EA	15	5	0	10	0
1000	Corrosion	EA	10	0	0	10	0
313	Fixed Bearing	EA	5	5	0	0	0

59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Five (5) painted continuous steel rolled beams are in satisfactory condition with cover plates present over both piers. Beam ends have minor to moderate rust scaling and pitting where joint leakage has initiated steel corrosion. Paint distress is present below joint areas with minor to moderate paint distress such as peeling and flaking. Superstructure is also grease coated over both abutments below both joints. Other light various areas along webs and flanges with paint starting to bubble, flake and peel. Fascia beams have light paint failure along the lower portions of webs and flanges with surface rusting and minor rust scaling occurring.

A55 - Lateral Bracing Condition (3 - Satisfactory)

Eleven (11) painted steel c-channel are present per bay that are bolted to plates that are welded to the webs of the rolled beams are in satisfactory condition. Diaphragms have small areas of surface rusting and paint peeling and flaking.

A63 - Bearing Condition (4 - Fair)

Rocker bearings are present over both abutments and pier #1 are in fair condition with areas of minor to moderate rust scaling and pitting present. Fascia bearings and bearings below joint areas have heavier corrosion. Pier #2 has fixed rocker bearings having minor rusting. Anchor bolt is missing in bearing #5 over abutment #1. Bearing #1 over abutment #2 has moderate to heavy debris build up around bearing area.

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	6	5	0	1	0
1120	Efflorescence/Rust Staining	EA	1	0	0	1	0
215	Reinforced Concrete Abutment	LF	100	76	0	24	0
1080	Delamination/Spall/Patched Area	LF	18	0	0	18	0
1130	Cracking (RC and Other)	LF	6	0	0	6	0
234	Reinforced Concrete Pier Cap	LF	100	96	0	4	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
800	Reinforced Concrete Wing/Retaining Wall	EA	4	4	0	0	0

60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Abutment #1 is in satisfactory condition with some areas of lightly saturated concrete with rust staining and efflorescence leakage along the outer portions. Minor debris build up and small pockets of spalling are present along the bridge seat near bearing #1. Small rust stains and various cracking are present along the upper portions of stem and bridge seat are present.

Abutment #2 is in satisfactory condition with some lightly saturated concrete with debris build up and some various staining along the outer edges. Scattered areas of rust staining and some various cracking are present along the stem and bridge seat scattered throughout.

A71 - Abutment End Walls Condition (4 - Satisfactory)

Reinforced concrete backwalls are in satisfactory condition having the upper portion being recently replaced with joint elimination project and the lower portions having some various levels of wearing with rust stains and staining present.

A77 - Retaining/Wingwall Condition (4 - Satisfactory)

Concrete wingwalls are in satisfactory condition having some minor map cracking.

A81 - Pier Seat/Cap Condition (3 - Good)

Concrete pier caps are in fairly good condition with having some previous concrete patches along the eastern side of pier #1 and both ends of pier #2

A85 - Pier Columns Condition (3 - Good)

Both piers have three (3) columns a piece and are in good condition.

CHANNEL

61 - Channel/Channel Protection (N - Not applicable.)

GENERAL OBSERVATION

Structure has had a recent small rehabilitation project which consisted of cleaning / patching of concrete curbs along with joint elimination at both ends of structure along with associated cleaning / patching along abutment stems / backwalls. Concrete curbing still has some small areas of concrete deterioration along the top surface of curbs behind the granite blocks that could be cleaned and patched. Bearings should be replaced at both abutments or rehabbed with having rust scaling cleaned, repainted and reset to allow for proper structure expansion with missing anchor bolts replaced. Bearing #5 at abutment #1 is missing anchor bolts in sole plate. Abutment #1 has small spalled area along the bridge seat on the West end that should be cleaned and patched.

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1120	Efflorescence/Rust Staining	SF	230	0	230	0	0
510	Wearing Surfaces	SF	6930	6910	0	20	0
3210	Delam/Spall/Patched Area/Pothole	SF	5	0	0	5	0
3220	Crack (Wearing Surface)	SF	15	0	0	15	0
107	Steel Open Girder/Beam	LF	1140	1059	58	23	0
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3420	Peeling/Bubbling/Cracking	LF	525	0	0	250	275
205	Reinforced Concrete Column	EA	6	5	0	1	0
1120	Efflorescence/Rust Staining	EA	1	0	0	1	0
215	Reinforced Concrete Abutment	LF	100	76	0	24	0
1080	Delamination/Spall/Patched Area	LF	18	0	0	18	0
1130	Cracking (RC and Other)	LF	6	0	0	6	0
234	Reinforced Concrete Pier Cap	LF	100	96	0	4	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
301	Pourable Joint Seal	LF	84	80	4	0	0
2340	Seal Cracking	LF	4	0	4	0	0
311	Movable Bearing	EA	15	5	0	10	0
1000	Corrosion	EA	10	0	0	10	0
313	Fixed Bearing	EA	5	5	0	0	0
330	Metal Bridge Railing	LF	462	199	231	32	0
1020	Connection	LF	32	0	0	32	0
7000	Damage	LF	231	0	231	0	0
800	Reinforced Concrete Wing/Retaining Wall	EA	4	4	0	0	0
804	Concrete Fascia	LF	462	462	0	0	0



Western Elevation



Span #2 Superstructure



Span #2 Deck



Pier #2 Span #2



Pier #1 Span #2



Span #3 Superstructure



Span #3 Deck



Abutment #2



Bearing #5 at Abutment #2



Bearing #1 at Abutment #2



West End Abutment #2



Deck Wearing Surface from Abutment #2



Asphaltic Plug Joint over Abutment #2



Missing Connection Bolt on Top Tier of Rail at Post #1 away from Abutment #2 on West Side



Missing Connection Bolts on Top Tier of Rail at Post #12 and #13 away from Abutment #1 on West Side



Western Repaired Curb / and Bridge Rail



Pothole in Main Travel Lane with other Depression
Nearby near South End of Span #2



Pothole in Main Travel Lane with other Depression
Nearby near South End of Span #2



Bridge Rail Scraping / Dents on Eastern Side



Asphaltic Plug Joint over Abutment #1



Bearing #5



Pier #1 Span #1



Abutment #1



Abutment #1 West End / Bearing #1 / Bridge Seat Spalling



Span #1 Superstructure



Span #1 Deck Soffit



Pothole in Main Travel Lane with other Depression
Nearby near South End of Span #2

Team Lead: Stephen Piro, **Inspection Date:** 05/24/2022

Maintenance Needs

Date Reported: 05/24/2022
Priority: 4 - Maintenance Finding - Next Inspection Cycle
Type of Work: 24 - Superstructure - Bearing repair/replacement
Status: Open
Component: Superstructure

Deficiency Description

Movable bearings at both abutments have minor to moderate rust scaling forming and light pitting present with no protective coating and continue to have corrosion progress. Bearings should be cleaned and painted or fully replaced.

Remarks



Bearing #5 at Abutment #2



Bearing #1 at Abutment #2



Bearing #1 at Abutment #1