

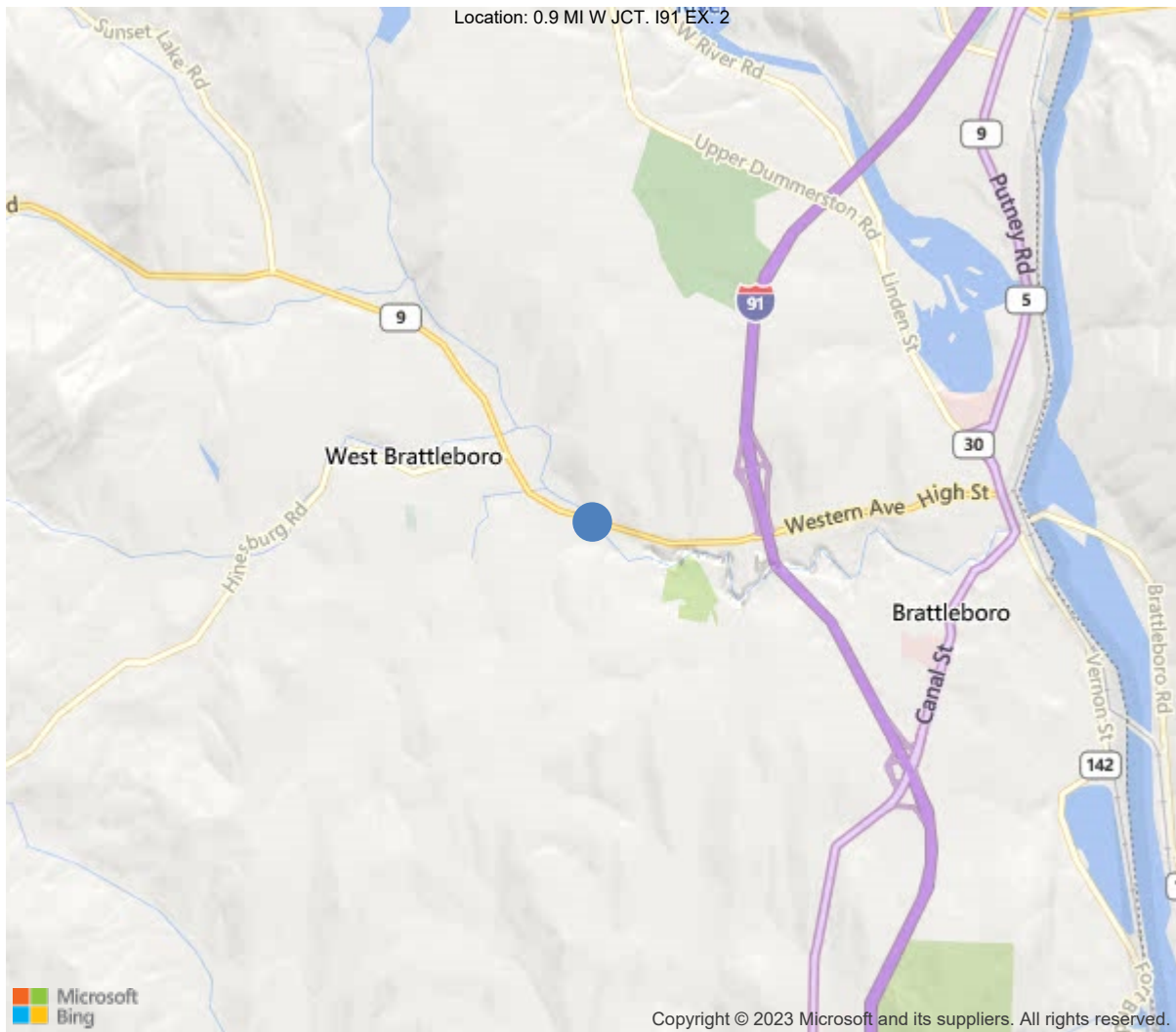


Town: 26 - BRATTLEBORO

District 2, 25 - WINDHAM County

Owner: 4 - City or Municipal Highway Agency

Maintenance Responsibility: 4 - City or Municipal Highway Agency



42.85136, -72.59450

IDENTIFICATION	
(1) State Names	50 - Vermont
(8) Structure Number	200010005413022
(5) Inventory Route	1
(2) Highway Agency District	2 - District 2
(3) County Code	25 - WINDHAM
(4) Place Code	7900
(6) Features Intersected	WHETSTONE BROOK
(7) Facility Carried	VT 00009 ML
(9) Location	0.9 MI W JCT. I91 EX. 2
(11) Mile Point	42.835 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0250000009
(16) Latitude	42.8513583333333
(17) Longitude	-72.5945027777778
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	119
Material	1 - Concrete
Type	19 - Culvert
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	1
(46) No. of Approach Spans	0
(107) Deck Structure Type	N - Not applicable
(108) Wearing Surface/Protective System	
Type of Wearing Surface	N - Not applicable (applies only to stru
Type of Membrane	N - Not applicable (applies only to stru
Type of Deck Protection	N - Not applicable (applies only to stru
AGE AND SERVICE	
(27) Year Built	1914
(106) Year Reconstructed	0
(42) Type of Service	55
On	5 - Highway-pedestrian
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	15500
(30) Year of ADT	2018
(109) Truck ADT	7 %
(19) Bypass, Detour Length	29 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	60 ft
(49) Structure Length	70 ft
(50) Curb or Sidewalk Width	
Left	4.5 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	27.5 ft
(52) Deck Width Out to Out	31.3 ft
(32) Approach Roadway Width (W/Shoulders)	29 ft
(33) Bridge Median	0 - No median
(34) Skew	20 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	27.5 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(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	14 - Urban Other Principal Art
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structu
(21) Maintain	4 - City or Municipal Highway
(22) Owner	4 - City or Municipal Highway
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	N
(59) Superstructure	N
(60) Substructure	N
(61) Channel & Channel Protection	6
(62) Culverts	6
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	0
(64) Operating Rating	
Type	0 - Field evaluation and documented engine
Rating	31
(65) Inventory Rating Method	0 - Field evaluation and docum
(66) Inventory Rating	
Type	
Rating	18
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	N
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	U - Bridge with "unknown" foundatio
PROPOSED IMPROVEMENTS	
(75) Type of Work	35 - Bridge rehabilitation bec
(76) Length of Structure Improvement	70 ft
(94) Bridge Improvement Cost (Multiply value by 1000)	\$ 767
(95) Roadway Improvement Cost (Multiply value by 1000)	\$ 50
(96) Total Project Cost (Multiply value by 1000)	\$ 817
(97) Year of Improvement Cost Estimate	2020
(114) Future ADT	16275
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	06/12/2023		
(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.			

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
241	Reinforced Concrete Culvert	LF	32	21	10	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	10	0	10	0	0
331	Reinforced Concrete Bridge Railing	LF	140	140	0	0	0
800	Reinforced Concrete Wing/Retaining Wall	EA	4	4	0	0	0

APPROACH / DECK

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

Roadway alignment is straight and flat.

A13 - Approach Rail Condition (Good)

Galvanized steel beam rail is in fairly good condition having some minor scrapes and dents along the face of rail along the downstream side.

A16 - Approach Post Condition (Good)

Galvanized steel posts with steel offsets are in fairly good condition.

58 - Deck (N - NOT APPLICABLE)

B.C.05 Bridge Railing Condition Rating (GOOD - Some minor defects.)

B.C.06 Bridge Railing Transitions Condition Rating (SATISFACTORY - Widespread minor or isolated moderate defects.)

Reinforced concrete jersey barrier bridge rail transitions into single galvanized steel beam rail on all four (4) corners. Post spacing is original with no additional posts and rail is original.

CULVERT

62 - Culverts (6 - Deterioration or initial disintegration, minor chloride contamination, cracking with some leaching, or spalls on concrete or masonry walls and slabs. Local minor scouring at curtain walls, wingwalls or pipes. Metal culverts have a smooth curvature, non-symmetrical shape, significant corrosion or moderate pitting.)

Reinforced concrete arch is in satisfactory condition having minor wearing along the lower portions of both ends. Both the upstream and downstream fascia's have shotcrete present with minor cracking with saturation and efflorescence leakage present along the lower portions. Downstream edge along the abutment #1 side (western end) has a small area of spalling that has exposed the steel reinforcing along the lower portions.

A96 - Culvert Sidewalk/Curb Condition (Fair)

Concrete sidewalk is present along the upstream side only being in fair condition having areas of minor to moderate concrete scaling and abrasion. Asphalt patches are present where scaling is heaviest. Heavy breakup is present along the abutment #1 end (Western side) with minor settlement.

A97 - Culvert Rail Condition (2 - Good)

Reinforced concrete jersey barriers are present both upstream and downstream in good condition.

A108 - Culvert Retaining/Wing Wall Condition (Good)

Asphalt over structure was recently paved in good condition.

A109 - Culvert Footing Condition (Satisfactory)

Concrete footings having light to minor abrasion throughout with small areas of concrete scaling. Heavy leakage is present from the northeast corner of footing along the upstream side.

SUBSTRUCTURE**60 - Substructure** (N - NOT APPLICABLE)**CHANNEL**

61 - Channel Condition (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.) Whetstone Brook flows at a moderate angle into structure with channel directed towards the eastern side of structure. Large gravel bar is present along the eastern side of channel upstream of structure that extends into structure. Channel bottom is mostly gravel and small stone. Large stone riprap and large trees line channel embankments with good brush growth. No protection in front of either footing.

B.C.10 Channel Protection Condition Rating (GOOD - Some minor defects.)

Both ends of structure have minimal protection with natural channel material and some small stone riprap with no grubbing material present surrounding the structure upstream and downstream of structure.

B.C.11 Scour Condition Rating (Insignificant scour.)

No scour is present surrounding structure.

GENERAL OBSERVATION

Reinforced concrete arch is in satisfactory condition having minor wearing along the lower portion. Both the upstream and downstream fascia's have shotcrete present with minor cracking with saturation and efflorescence leakage present.

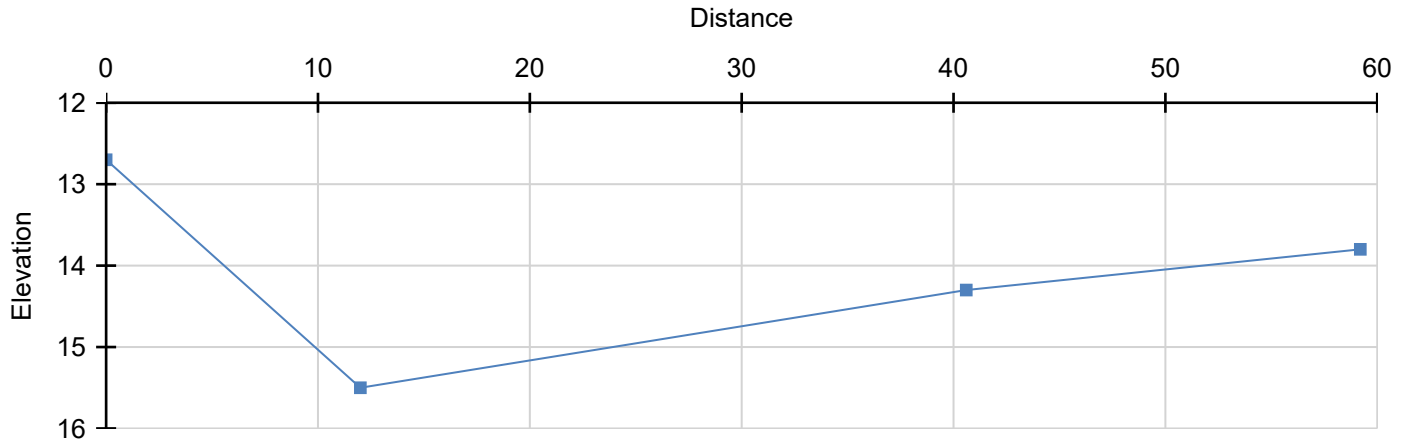
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Channel Profile

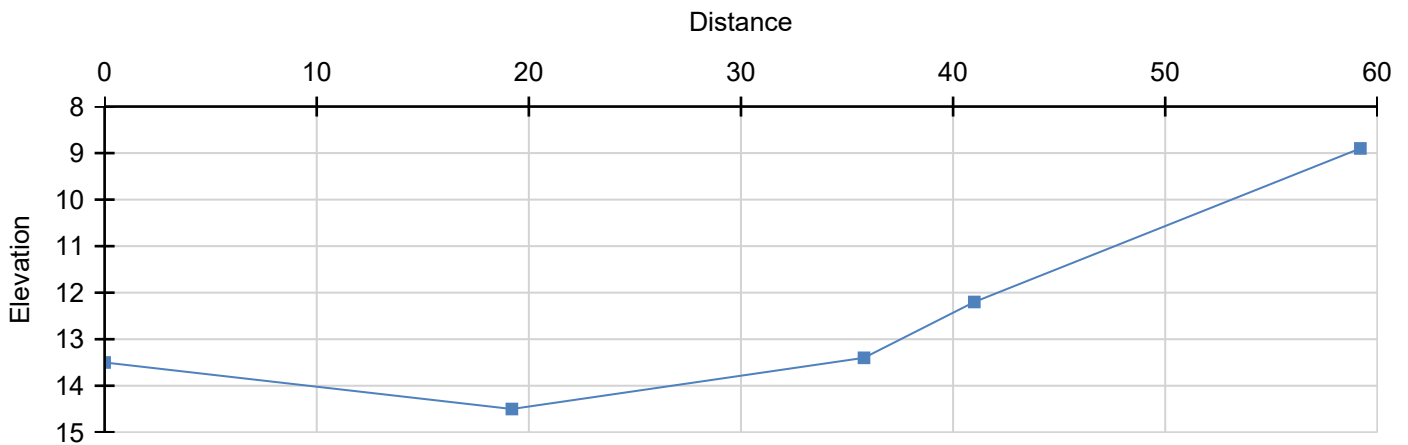
Waterway Flow: Left to Right (With Stationing)	Top of Water:
Origin: Western Side	Bottom of Beam:

Station	Distance	Downstream	Upstream
Abutment #1 (West Side)	0	12.7	13.5
Edge of Channel Downstream	12	15.5	
Deepest Point Upstream	19.2		14.5
Edge of Channel Upstream	35.8		13.4
Channel	40.6	14.3	
Channel	41		12.2
Abutment #2	59.2	13.8	8.9

Downstream Elevation



Upstream Elevation





Abutment 2 approach



Upstream Channel



Approach from Abutment 1



Downstream Channel



Abutment 2 side of arch



Upstream edge of arch at Abutment 1



Upstream Bridge Elevation



Western Approach



Northeast Transition



Upstream Rail



Sidewalk from Eastern End



Upstream Channel



Wearing Surface over Structure



Northwest Transition Rail



Southwest Transition Rail



Southwest Approach Rail



Sidewalk from West End



Upstream Elevation



Downstream Channel



Downstream Elevation



Downstream Eastern Retaining Wall



East End of Arch



Arch from East End



Upstream East End of Arch



Arch towards West End Upstream



Arch towards West End Downstream



East End of Arch