

The National Bridge Inventory contains data submitted by state transportation departments to the Federal Highway Administration in coded format.
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Basic Information

Massachusetts [25] Middlesex County [017] Lowell [37000] AT MERRIMACK RIVER 42-39-16 = 42.654444 071-18-58 = - 71.316111

L150202COMUNNBI Highway agency district 4 Owner City or Municipal Highway Agency [04] Maintenance responsibility City or Municipal Highway Agency [04]

Route 0 HWY AIKEN ST Toll On free road [3] Features intersected WATER MERRIMACK RIVER

Design - main Aluminum, Wrought Iron or Cast Iron [9] Design - approach Other [00] Kilometerpoint 64.4 km = 39.9 mi

5 Truss - Thru [10] 0 Other [00] Year built 1883 Year reconstructed 1998

Skew angle 0 Structure Flared

Historical significance Bridge is eligible for the NRHP. [2]

Total length 237.7 m = 779.9 ft Length of maximum span 47.2 m = 154.9 ft Deck width, out-to-out 15.6 m = 51.2 ft Bridge roadway width, curb-to-curb 8.8 m = 28.9 ft

Inventory Route, Total Horizontal Clearance 8.8 m = 28.9 ft Curb or sidewalk width - left 2.1 m = 6.9 ft Curb or sidewalk width - right 1.9 m = 6.2 ft

Deck structure type Concrete Cast-in-Place [1]

Type of wearing surface Other [9]

Deck protection Epoxy Coated Reinforcing [1]

Type of membrane/wearing surface

Weight Limits

Bypass, detour length 0.3 km = 0.2 mi Method to determine inventory rating Load and Resistance Factor(LRFR) [3] Inventory rating 26.5 metric ton = 29.2 tons

Method to determine operating rating Load and Resistance Factor(LRFR) [3] Operating rating 40.2 metric ton = 44.2 tons

Bridge posting Equal to or above legal loads [5] Design Load MS 18 / HS 20 [5]

Functional Details

Average Daily Traffic	13400	Average daily truck traffi	3	%	Year	2008	Future average daily traffic	21163	Year	2031
Road classification	Other Principal Arterial (Urban) [14]		Lanes on structure	2		Approach roadway width	8.8 m = 28.9 ft			
Type of service on bridge	Highway-pedestrian [5]		Direction of traffic	2 - way traffic [2]		Bridge median				
Parallel structure designation	No parallel structure exists. [N]									
Type of service under bridge	Waterway [5]		Lanes under structure	0		Navigation control				
Navigation vertical clearanc	0 = N/A		Navigation horizontal clearance	0 = N/A						
Minimum navigation vertical clearance, vertical lift bridge	0 m = 0.0 ft				Minimum vertical clearance over bridge roadway	5.84 m = 19.2 ft				
Minimum lateral underclearance reference feature	Feature not a highway or railroad [N]									
Minimum lateral underclearance on right	0 = N/A				Minimum lateral underclearance on left	0 = N/A				
Minimum Vertical Underclearance	0 = N/A		Minimum vertical underclearance reference feature	Feature not a highway or railroad [N]						
Appraisal ratings - underclearances	N/A [N]									

Repair and Replacement Plans

Type of work to be performed	Work done by		Work to be done by contract [1]							
Bridge rehabilitation because of general structure deterioration or inadequate strength. [35]	Bridge improvement cost	9186000	Roadway improvement cost	919000						
	Length of structure improvement	238 m = 780.9 ft		Total project cost	13780000					
	Year of improvement cost estimate	2011								
	Border bridge - state				Border bridge - percent responsibility of other state					
	Border bridge - structure number									

Inspection and Sufficiency

Structure status	Open, no restriction [A]	Appraisal ratings - structural	Equal to present minimum criteria [6]
Condition ratings - superstructure	Satisfactory [6]	Appraisal ratings - roadway alignment	Equal to present minimum criteria [6]
Condition ratings - substructure	Satisfactory [6]	Appraisal ratings - deck geometry	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - deck	Good [7]		
Scour	Bridge is scour critical; bridge foundations determined to be unstable. [3]		
Channel and channel protection	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. [6]		
Appraisal ratings - water adequacy	Better than present minimum criteria [7]	Status evaluation	
Pier or abutment protection		Sufficiency rating	69.8
Culverts	Not applicable. Used if structure is not a culvert. [N]		
Traffic safety features - railings	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - transitions	Inspected feature meets currently acceptable standards. [1]		
Traffic safety features - approach guardrail			
Traffic safety features - approach guardrail ends			
Inspection date	May 2010 [0510]	Designated inspection frequency	24 Months
Underwater inspection	Unknown [Y36]	Underwater inspection date	October 2010 [1010]
Fracture critical inspection	Every two years [Y24]	Fracture critical inspection date	May 2010 [0510]
Other special inspection	Not needed [N]	Other special inspection date	