HistoricBridges.org - National Bridge Inventory Data Sheet

2009 Inventory

The National Bridge Inventory contains data submitted by state transportion departments to the Federal Highway Administration in coded format.
Form Interface Design: www.historicbridges.org. Data Conversion Assistance By www.bridgehunter.com. None of the involved parties make any guarantee of accuracy.

Basic Information

New York [36]	Niagara County [063]	Middleport [46998]	0.5 MI N JCT RTS 271 + 31	43-12-46 = 43.212778	078-28-35 = -78.476389

4454020	Highway agency district:	54	Owner	State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]	
Route	271		RTE 271	Toll	On free road [3]	Features intersected	ERIE CANAL

Design - main	Steel [3]	Design - approach	Steel [3]	Kilometerpoint	123.4 km = 76.5 mi		
1	Movable - Lift [15]	2	Stringer/Multi-beam or girder [02]	Year built	1915	Year reconstructed	1996
				Skew angle	24	Structure Flared	Yes, flared [1]
				Historical significance	Historical significance is not determinable at this time. [4]		

Total length	43.3 m = 142.1 ft	Length of maximum span	34.7 m = 113.9 ft	Deck width, out-to-out	7.8 m = 25.6 ft	Bridge roadway width, curb-to-curb	7.2 m = 23.6 ft
Inventory Route, Total Horizontal Clearance	7.2 m = 23.6 ft	Curb or sidewalk width - left	1.8 m = 5.9 ft	Curb or sidewalk width - right	1.8 m = 5.9 ft		

Deck structure type	Concrete Cast-in-Place [1]
Type of wearing surface	Integral Concrete (separate non-modified layer of concrete added to structural deck) [2]
Deck protection	
Type of membrane/wearing surface	

Weight Limits

Bypass, detour length	Method to determine inventory rating	Allowable Stress(AS) [2]	Inventory rating	32.7 metric ton = 36.0 tons	
0.1 km = 0.1 mi	Method to determine operating rating	Allowable Stress(AS) [2]	Operating rating	47.2 metric ton = 51.9 tons	
	Bridge posting	Equal to or above legal loads [5]	Design Load	MS 18 / HS 20 [5]	

Functional Details

Average Daily Traffic	1166	Average daily truck traffi	10 %	Year	2008	Future average daily traffic	1441
Year	2028						
Road classification	Major Collector (Rural) [07]	Lanes on structure	2	Approach roadway width	9.7 m = 31.8 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 control on waterway (bridge permit required). [1]		
Navigation vertical clearanc	4.8 m = 15.7 ft	Navigation horizontal clearance	28.6 m = 93.8 ft				
Minimum navigation vertical clearance, vertical lift bridge	0.3 m = 1.0 ft	Minimum vertical clearance over bridge roadway	99.99 m = 328.1 ft				
Minimum lateral underclearance reference feature	Feature not a highway or railroad [N]						
Minimum lateral underclearance on right	99.9 = Unlimited	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

Widening of existing bridge with deck rehabilitation or replacement. [34]

Work done by	Work to be done by contract [1]		
Bridge improvement cost	124000	Roadway improvement cost	62000
Length of structure improvement	43.3 m = 142.1 ft	Total project cost	186000
Year of improvement cost estimate	2008		
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	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - superstructure	Fair [5]	Appraisal ratings - roadway alignment	Equal to present desirable criteria [8]
Condition ratings - substructure	Satisfactory [6]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of corrrective action [3]
Condition ratings - deck	Very Good [8]		

Scour	Bridge foundations determined to be stable for the assessed or calculated scour condition. [8]
Channel and channel protection	Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition. [8]

Appraisal ratings - water adequacy	Equal to present minimum criteria [6]	Status evaluation	Functionally obsolete [2]
Pier or abutment protection	None present but re-evaluation suggested [5]	Sufficiency rating	62.9

Culverts	Not applicable. Used if structure is not a culvert. [N]
Traffic safety features - railings	
Traffic safety features - transitions	Not applicable or a safety feature is not required. [N]
Traffic safety features - approach guardrail	
Traffic safety features - approach guardrail ends	

Inspection date	November 2008 [1108]	Designated inspection frequency	24	Months

Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Every two years [Y24]	Fracture critical inspection date	November 2008 [1108]
Other special inspection	Not needed [N]	Other special inspection date	