HistoricBridges.org - National Bridge Inventory Data Sheet

2010 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

Pennsylvania [42]	Fayette County [051]	Perry [59464]	LAYTON BRIDGE	40-05-22 = 40.089444	079-43-47 = -79.729722

264038011000000	Highway agency district	12	Owner	State Highway Agency [01]	Maintenance responsibility	State Highway Agency [01]	
Route	0		SR 4038	Toll	On free road [3]	Features intersected	YOUGHIOGHENY RIVER/TRAIL

Design - main	Steel [3]	Design - approach	Steel [3]	Kilometerpoint	602.4 km = 373.5 mi		
2	Truss - Thru [10]	15	Stringer/Multi-beam or girder [02]	Year built	1892	Year reconstructed	1984
				Skew angle	0	Structure Flared	Yes, flared [1]
				Historical significance	Bridge is on the NRHP. [1]		

Total length	277.7 m = 911.1 ft	Length of maximum span	55.2 m = 181.1 ft	Deck width, out-to-out	4.4 m = 14.4 ft	Bridge roadway width, curb-to-curb	4 m = 13.1 ft
Inventory Route, Total Horizontal Clearance	3.7 m = 12.1 ft	Curb or sidewalk width - left	0 m = 0.0 ft	Curb or sidewalk width - right	1.2 m = 3.9 ft		

Deck structure type	Wood or Timber [8]
Type of wearing surface	Bituminous [6]
Deck protection	
Type of membrane/wearing surface	

Weight Limits

Bypass, detour length	Method to determine inventory rating	Load Factor(LF) [1]	Inventory rating	19.1 metric ton = 21.0 tons	
2.3 km = 1.4 mi	Method to determine operating rating	Load Factor(LF) [1]	Operating rating	32.7 metric ton = 36.0 tons	
	Bridge posting	30.0 - 39.9 % below [1]	Design Load	M 13.5 / H 15 [2]	

Functional Details

Average Daily Traffic	1256	Average daily truck traffi	4 %	Year	2009	Future average daily traffic	1800
Year	2028						
Road classification	Major Collector (Rural) [07]	Lanes on structure	1	Approach roadway width	4 m = 13.1 ft		
Type of service on bridge	Highway-pedestrian [5]	Direction of traffic	One lane bridge for 2 - way traffic [3]	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		Minimum vertical clearance over bridge roadway	5 m = 16.4 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

Replacement of bridge or other structure because of substandard load carrying capacity or substantial bridge roadway geometry. [31]

Work done by	Work to be done by contract [1]		
Bridge improvement cost	0	Roadway improvement cost	1000
Length of structure improvement	282 m = 925.2 ft	Total project cost	3000
Year of improvement cost estimate			
Border bridge - state		Border bridge - percent responsibility of other state	
Border bridge - structure number			

Inspection and Sufficiency

Structure status	Posted for load [P]	Appraisal ratings - structural	Meets minimum tolerable limits to be left in place as is [4]
Condition ratings - superstructur	Poor [4]	Appraisal ratings - roadway alignment	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - substructure	Fair [5]	Appraisal ratings - deck geometry	Basically intolerable requiring high priority of replacement [2]
Condition ratings - deck	Poor [4]		

Scour	Bridge foundations determined to be stable for assessed or calculated scour conditions; field review indicates action is required. [4]
Channel and channel protection	Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and rush restrict the channel. [5]

Appraisal ratings - water adequacy	Superior to present desirable criteria [9]	Status evaluation	Structurally deficient [1]
Pier or abutment protection		Sufficiency rating	28.2

Culverts	Not applicable. Used if structure is not a culvert. [N]

Traffic safety features - railings	
Traffic safety features - transitions	
Traffic safety features - approach guardrail	Inpected feature meets currently acceptable standards. [1]
Traffic safety features - approach guardrail ends	Inpected feature meets currently acceptable standards. [1]

Inspection date	June 2008 [0608]	Designated inspection frequency	24	Months

Underwater inspection	Every two years [Y24]	Underwater inspection date	July 2009 [0709]
Fracture critical inspection	Not needed [N]	Fracture critical inspection date	
Other special inspection	Every year [Y12]	Other special inspection date	June 2008 [0608]