

HistoricBridges.org - National Bridge Inventory Data Sheet

2010 Inventory

The National Bridge Inventory contains data submitted by state transportation 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

Michigan [26]	Missaukee County [113]	Butterfield [12200]	SECTION 15/22 T22N R5W	44-17-29 = 44.291389	084-53-35 = - 84.893056
57303H00009B010	Highway agency district 2	Owner County Highway Agency [02]	Maintenance responsibility	County Highway Agency [02]	
Route 0		KELLY ROAD	Toll On free road [3]	Features intersected MUSKEGON RIVER	
Design - main 1	Steel [3] Truss - Thru [10]	Design - approach 2	Steel [3] Stringer/Multi-beam or girder [02]	Kilometerpoint 898.2 km = 556.9 mi	
				Year built 1920	Year reconstructed N/A [0000]
				Skew angle 0	Structure Flared
				Historical significance Bridge is on the NRHP. [1]	
Total length	31.7 m = 104.0 ft	Length of maximum span	24.3 m = 79.7 ft	Deck width, out-to-out	4.2 m = 13.8 ft
Inventory Route, Total Horizontal Clearance	4.1 m = 13.5 ft	Curb or sidewalk width - left	0 m = 0.0 ft	Curb or sidewalk width - right	0 m = 0.0 ft
Deck structure type	Corrugated Steel [6]				
Type of wearing surface	Bituminous [6]				
Deck protection					
Type of membrane/wearing surface					

Weight Limits

Bypass, detour length 1.6 km = 1.0 mi	Method to determine inventory rating	Allowable Stress(AS) [2]	Inventory rating	3 metric ton = 3.3 tons
	Method to determine operating rating	Allowable Stress(AS) [2]	Operating rating	4 metric ton = 4.4 tons
	Bridge posting		Design Load	MS 18+Mod / HS 20+Mod [6]

Functional Details

Average Daily Traffic	160	Average daily truck traffi	10	%	Year	2007	Future average daily traffic	280	Year	2027
Road classification	Local (Rural) [09]		Lanes on structure	2		Approach roadway width	7 m = 23.0 ft			
Type of service on bridge	Highway [1]		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	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	Work done by	Work to be done by contract [1]		
Replacement of bridge or other structure because of substandard load carrying capacity or substantial bridge roadway geometry. [31]	Bridge improvement cost	280000	Roadway improvement cost	50000
	Length of structure improvement	36.6 m = 120.1 ft	Total project cost	340000
	Year of improvement cost estimate			
	Border bridge - state		Border bridge - percent responsibility of other state	
	Border bridge - structure number			

Inspection and Sufficiency

Structure status	Bridge closed to all traffic [K]	Appraisal ratings - structural	
Condition ratings - superstructure		Appraisal ratings - roadway alignment	Somewhat better than minimum adequacy to tolerate being left in place as is [5]
Condition ratings - substructure	Serious [3]	Appraisal ratings - deck geometry	N/A [N]
Condition ratings - deck			
Scour	Bridge is scour critical; field review indicates that extensive scour has occurred at bridge foundations. [2]		
Channel and channel protection	Bank and embankment protection is severely undermined. River control devices have severe damage. Large deposits of debris are in the channel. [4]		
Appraisal ratings - water adequacy	Equal to present desirable criteria [8]	Status evaluation	Structurally deficient [1]
Pier or abutment protection		Sufficiency rating	18
Culverts	Not applicable. Used if structure is not a culvert. [N]		
Traffic safety features - railings			
Traffic safety features - transitions			
Traffic safety features - approach guardrail			
Traffic safety features - approach guardrail ends			
Inspection date	July 2009 [0709]	Designated inspection frequency	24 Months
Underwater inspection	Not needed [N]	Underwater inspection date	
Fracture critical inspection	Not needed [N]	Fracture critical inspection date	
Other special inspection	Not needed [N]	Other special inspection date	