

## APPENDIX G

### Texas DOT's Rehabilitation Criteria for Historic Bridges



## Stand-Alone Manual Notice 98-1

**To:** All Districts and Divisions

**From:** Robert Cuellar, P. E.

**Functional Manual:** Highway Designs and Operation  
And Planning Manual

**Date:** February 3, 1998

### Purpose

Historically significant bridges usually cannot be cost effectively upgraded to meet the current design standards for roadway width, load carrying capacity or traffic railing without significantly altering the aspects that make the bridge historically significant. This historic bridge design criteria would eliminate the need for design exceptions in cases where an appropriate level of safety can be met. This would eliminate unnecessary reviews by the Design Division and delegate decision-making to the districts to the maximum extent possible.

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#### **OFF-SYSTEM HISTORICALLY SIGNIFICANT BRIDGES Allowable Minimum Criteria for Preservation Projects To Support Continued Use by Vehicular Traffic**

A Texas Department of Transportation administered project for restoration and repair work on a historically significant bridge that is located on a public road or street not on the designated State highway system, may be developed and carried out to raise the condition level of the bridge where it may continue to carry vehicular traffic. Historically significant bridges are those listed or eligible to be listed in **The National Register of Historic Places**.

Normally these historically significant bridges cannot be cost effectively upgraded to meet the usual design standards for roadway width, load carrying capacity or traffic railing without significantly altering the aspects that make the bridge historically significant. The following table applies to historically significant bridges. Historic Off-System bridges that cannot be upgraded to meet or exceed these minimum criteria may be considered for preservation projects on a case by case basis when approved as a design exception.

### Allowable Minimum Criteria To Support Continued Use by Vehicular Traffic

CURRENT AVERAGE DAILY TRAFFIC (ADT)	MINIMUM CLEAR ROADWAY WIDTH <sup>1</sup>		MINIMUM LOAD CARRYING CAPACITY (Operating Rating)	
	One-Lane, Two-Way Operations <sup>2</sup>	Two-Lane, Two-Way Operations	Alternate Route Available <sup>5</sup>	Alternate Route Not Available
ADT 50 or less	10 feet	18 feet	HS 5	HS 12 <sup>6</sup>
ADT 51 to 250	10 feet	18 feet	HS 8	HS 12
ADT greater than 250	Not applicable <sup>3</sup>	Not applicable <sup>4</sup>	HS 15	HS 15

- Notes:
- (1) For a minimum roadway length of 50 feet adjacent to the bridge end, roadway crown should match clear width across the structure plus additional width to accommodate guard fence if necessary.
  - (2) One-Lane, Two-Way operations are assumed to allow for sight distance across the entire length of the structure. In cases where sight distance across the length of the structure is not available, the allowable minimum clear roadway width shall be the allowable minimum for Two-Lane, Two-Way operations.
  - (3) For ADT greater than 250, One-Lane, Two-Way operations on a structure are not permissible.
  - (4) For ADT greater than 250, use design standards as appropriate for the class of highway as shown within appropriate sections of the Highway Design Division Operations and Procedures Manual (Part III and Part IV).
  - (5) To allow these values, the identified alternate route must add no more than 5 miles to a trip for essential services such as school buses, and emergency fire and medical access. All bridges on the identified alternate route must have a minimum load rating of HS 12. Historic Bridges which do not meet the state legal load limit shall be posted.
  - (6) HS 12 load rating was selected as it appears to represent a typical minimum value for vehicles essential for educational, medical and fire suppression services.

In addition to the criteria listed in the preceding table, vertical clearance restrictions caused by portal or other bracing on trusses should be carefully evaluated to insure that it will allow passage of essential service vehicles. It may be impossible or impractical to provide a crash tested rail on the bridge. As a minimum, delineation of obstructions and bridge members at the roadway level should be provided. In addition to any required load limit signs, maintenance of needed warning and traffic control signs will become a responsibility of the local government.

#### Action Required

Please refer to this Stand-Alone Manual Notice before submitting design exception requests for Off-System historically significant bridges.

#### Contact

If you have any questions please contact your Bridge Planning Engineer, Design Division, (512) 416-2175.