

# HISTORIC HIGHWAY BRIDGE PRESERVATION PRACTICES

## SUMMARY

Historic bridges present challenges to both transportation and preservation. Many of the features that render them marginally suitable for modern traffic and candidates for replacement or rehabilitation are the same features that distinguish them as having historic value and that elicit interest in preservation. While the need to identify and protect historic bridges is now widely recognized and supported by federal legislation, the determination of which bridges are historic, which of those judged to be historic should be preserved, and what manner of preservation is most appropriate for each is left to the individual states.

Yet, in spite of this disparity, progress has been made in both attitude and substance since publication of the first NCHRP synthesis on this topic, in 1983. Most states have completed an inventory of at least some of their historic bridges; the number protected by being listed in or eligible for the National Register of Historic Places has increased dramatically, and patterns of preservation suggest a strong association between those bridges that are most valued and those that are being preserved with the greatest frequency. Beginning with the Surface Transportation and Uniform Relocation Assistance Act of 1987, the national congress has become increasingly sympathetic to the importance of historic bridges and has provided funding in increasing amounts for their preservation; and a small number of states have enacted laws on their own initiative that support preservation of their historic bridges.

This synthesis identifies and describes current practices of highway agencies that are addressing these issues effectively. It draws on information from the literature, from published and unpublished reports of highway agencies, and from engineers and others in the cultural resources field who shared their knowledge and experience through responses to a mailed questionnaire and through personal communications.

The methods employed by highway agencies to manage historic bridges occur in a variety of forms including: formal stand-alone documents referred to as preservation or management plans; memoranda of agreement or understanding among the agency, the State Historic Preservation Officer and the Federal Highway Administration; internal memoranda or statements of intent; and unwritten but spoken understandings of how decisions will be made. Of these different expressions, the preservation plan addresses the components of the decision process more thoroughly and has usually been the product of a broader base of input. Ten state highway agencies were identified that have developed preservation plans for their historic bridges and these include several different developmental approaches. Other states were identified in which such plans are either in progress or contemplated. The more novel of these plans include that of the Vermont Agency of Transportation, a plan that reflects that state's extraordinary commitment to preserving the rural and small community character of its roadscapes, and that of the Montana Department of Transportation, a plan that seeks to integrate preservation of its historic bridges with historic road segments, as components of the same cultural resource.

Several states have developed design criteria for rehabilitating historic bridges on public roads, other than those on the national or state highway systems, in response to recent encouragement by the FHWA to consider flexibility in applying the AASHTO guidelines where aesthetic or historic values can be preserved and where the rehabilitated facility is judged to be safe; and the legislature of at least one state has provided an independent funding stream for upgrading roads and bridges in instances where acceptance of federal assistance would require application of standards judged to be incompatible with local values. A few state highway agencies have also developed programs that recognize historic bridges as a distinct category of structure with distinct maintenance and rehabilitation needs; and, in at least one instance, a new organizational unit has been created with its own staff to manage these programs. This commitment has resulted in the identification of a number of innovative and cost-effective approaches to engineering the rehabilitation and to finding alternative uses for the bridges that are rehabilitated.

Efforts to market historic bridges removed from public highways, currently required by the 1987 federal transportation legislation, have not been particularly effective except where accompanied by aggressive proactive educational and promotional programs aimed at increasing awareness of the importance of historic bridges and the opportunities for their alternative use. Also, an argument is made for including in the National Register nominating process, to the extent possible, factors relating to the preservability of historic bridges. This is particularly applicable to metal truss bridges which represent about three-quarters of all NR-eligible or listed bridges that fail to be preserved when included in a replacement or rehabilitation project.