Timely preventive maintenance and preservation activities are necessary to ensure proper performance of the transportation infrastructure. Experience has shown that when properly applied, preventive maintenance is a cost-effective way of extending the service life of highway facilities and therefore is eligible for Federal-aid funding. By using lower-cost system preservation methods, States can improve system conditions, minimize road construction impacts on the traveling public, and better manage their resources needed for long-term improvements such as reconstruction or expansion. Preventive maintenance offers State DOT’s a way of increasing the return on their infrastructure investment.

During the 1990’s, Congress incrementally broadened, through legislation, the applicability of Federal-aid funding to preventive maintenance activities. Congress’ acknowledgement of preventive maintenance activities as an eligible activity on Federal-aid highways is a logical step that reinforces the importance of implementing a continuing preventive maintenance program. Each of these actions was conveyed to the field through a series of memoranda. This policy memorandum supersedes the related memoranda listed in the attachment.

The FHWA division offices have an important role in promoting system preservation and are encouraged to work closely with their State DOT counterparts to establish a program that identifies eligible preventive maintenance measures for all roadway assets on Federal-aid highways. The AASHTO defined preventive maintenance “as the planned strategy of cost effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system without increasing structural capacity.” Projects that address deficiencies in the pavement structure or increase the capacity of the facility are not considered preventive maintenance and should be designed using appropriate 3R standards. Functionally, Federal-aid eligible preventive maintenance activities are those that address aging, oxidation, surface deterioration, and normal wear and tear from day-to-day performance and environmental conditions. Preventive maintenance activities extend the service life of the roadway asset or facility in a cost-effective manner.
Division offices should proactively work with their State partners to establish a preservation component, which is composed of various preventive maintenance activities and treatments. These include roadway activities such as joint repair, seal coats, pavement patching, thin overlays, shoulder repair, restoration of drainage systems, and bridge activities such as crack sealing, joint repair, seismic retrofit, scour countermeasures, and painting. Many other activities that heretofore have been considered routine maintenance may be considered Federal-aid eligible on an area-wide or system-wide basis as preventive maintenance (i.e., extending the service life). This might include such work items as regionwide projects for periodic sign face cleaning, cleaning of drainage facilities, corrosion protection, spray-applied sealant for bridge parapets and piers, etc. These typical preventive maintenance work items are not intended to be all-inclusive but are rather a limited list of examples.

The final eligibility determination should be the result of collaboration between the division and the State DOT. This determination should be based on sound engineering judgment and economic evaluation, allowing flexibility in determining cost-effective strategies for extending the service life of existing pavements, bridges, and essential highway appurtenances on Federal-aid highways.

All preventive maintenance projects should consider appropriate ways to maintain or enhance the current level of safety and accessibility. Isolated or obvious deficiencies should always be addressed. Safety enhancements such as the installation or upgrading of guardrail and end treatments, installation or replacement of traffic signs and pavement markings, removal or shielding of roadside obstacles, mitigation of edge drop offs, the addition of paved or stabilization of unpaved shoulders, or installation of milled rumble strips should be encouraged and included in projects where they are determined to be a cost effective way to improve safety. To maintain preservation program flexibility, and in accordance with 23 U.S.C. 109(q), safety enhancements can be deferred and included within an operative safety management system or included in a future project in the STIP. In no way shall preventive maintenance type projects adversely impact the safety of the traveled way or its users.

As with any Federal-aid project, adequate warning devices for highway-rail grade crossings within the project limits or near the terminus shall be installed and functioning properly per 23 CFR 646 before opening the project to unrestricted use by traffic. For projects on the NHS, all traffic barriers shall comply with the FHWA September 29, 1994, memorandum entitled Traffic Barrier Safety Policy and Guidance, signed by E. Dean Carlson. This work can be accomplished by force account or through other existing contracts prior to final acceptance.

The FHWA supports the increased flexibility for using Federal-aid funding for cost-effective preventive maintenance. The Maintenance Quality Action Team (MQAT) is developing technical guidance on preventive maintenance activities and transportation system
preservation as a whole; that technical guidance is under development and will be issued in the near future. For further information please contact Christopher Newman of the Office of Asset Management, at (202) 366-2023 or Christopher.newman@fhwa.dot.gov, or visit the Transportation System Preservation website at www.fhwa.dot.gov/preservation.

Attachment
Attachment: Memoranda Superseded by Preventive Maintenance Memorandum

- 01/27/04 Stewardship of Preservation and Maintenance
- 01/11/02 HBRRP Funds For Preventive Maintenance (23 U.S.C. 116(d))
- 10/30/98 Implementation of TEA-21 Interstate Maintenance Guidelines
- 08/19/98 Phase Construction for Safety Considerations
- 06/18/97 Transportation System Preservation
- 03/21/96 Preventive Maintenance Revision to 23 U.S.C. 116
- 10/12/93 Safety and Geometric Considerations for Interstate Maintenance Program Projects
- 06/14/93 Interstate Maintenance Program
- 07/27/92 Preventive Maintenance
- 05/21/92 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) Implementation Interstate Maintenance Program