A Guide for Addressing

Collisions with Trees In Hazardous Locations

One of a Series of Guides to Help States Improve Highway Safety

Trees Are the Most Commonly Struck Fixed Object

One of the most common causes of fatal and severe injury crashes, on rural roads in particular, is vehicles leaving the road and striking a fixed object. In fatal crashes involving a fixed object, trees were the objects most often struck.

Eight percent of fatal crashes—more than 3,000 a year—involve crashes into trees. More than half of these crashes occur under dark conditions, half occur on curved roads, and half involve alcohol.

Collisions with trees in hazardous locations are a subset of run-off-road (ROR) crashes. These crashes are discussed more completely in *A Guide for Addressing Run-Off-Road Collisions*, which covers strategies aimed at reducing the consequences of ROR crashes by keeping vehicles from leaving the roadway and reducing the severity of impacts after leaving the roadway. *A Guide for Addressing Collisions with Trees in Hazardous Locations* focuses on measures to reduce the harm in tree crashes after encroachment on the roadside has occurred.

Representative Countermeasures

- ✓ **Prevent trees from growing in hazardous locations:** Develop, revise, and implement planting guidelines to prevent placing trees in hazardous locations and mowing and vegetation control guidelines.

- ✓ **Eliminate the hazard and/or reduce the severity of the crash:** Remove trees in hazardous locations, reduce the risk of motorists running into trees, modify roadside clear zone in the vicinity of trees, and delineate trees in hazardous locations.

How the Implementation Guide Helps You

The guide lists practical countermeasure strategies, categorized by relative cost to implement. Many of these strategies have been formally evaluated to demonstrate effectiveness. Other strategies lack formal evaluation, but have been implemented with promising results.

The guide lays out the technical attributes of each countermeasure strategy in detail: target audience, expected effectiveness, keys to success, potential difficulties, appropriate measures and data, and associated need for support services.

The guide reveals organizational, institutional, and policy issues; issues affecting implementation time; costs involved; training and other personnel needs; and legislative needs (if any).

Web-Based Support for More Information

Backing up the guide is a series of appendixes and exhibits developed specifically to provide in-depth information useful to anyone implementing this part of the Strategic Highway Safety Plan, together with a collection of general knowledge sharing documents providing background, data, and information of significant value to state and local implementers.

This guide is one in a series developed to assist states in their efforts to improve highway safety. Copies of the plan, the guides, the Integrated Safety Management System, Self-Assessment Tool, and related documents, may be obtained on the Internet at **safety.transportation.org.**

DRIVING DOWN FATALITIES
TOOLS FOR LIFE

Printed copies of the guides can be obtained from:

Transportation Research Board

National Cooperative Highway Research Program
500 Fifth St., NW
Washington, DC 20001-2721

Telephone: 202-334-3213

Implementing the AASHTO Strategic Highway Safety Plan