

Highway Safety and Trees: The Delicate Balance

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- Federal Highway Administration
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http://safety.fhwa.dot.gov/roadway_dept/

- Federal Highway Administration
– Context Sensitive Solutions
National Web Site:

<http://www.fhwa.dot.gov/csd/>

- Roadside Design Guide.
American Association of State
Highway and Transportation
Officials; 2002, Washington, D.C.

<https://bookstore.transportation.org/>

- A Guide for Addressing Collisions
With Trees in Hazardous Locations.
National Cooperative Highway
Research Program Report 500,
Volume 3; Transportation Research
Board, 2003, Washington, D.C.

<http://safety.transportation.org/guides.aspx>

Highway Safety and Trees: The Delicate Balance



U.S. Department of Transportation
Federal Highway Administration

The Dilemma

While valued as a community asset due to their beauty and environmental benefits, trees are the single most commonly struck objects in serious roadside crashes.

Vehicle collisions with trees account for more than 4,000 fatalities and 100,000 injuries each year. Efforts by highway agencies to remove trees are often met with strenuous objections by local residents, concerned with preserving our natural resources and the aesthetics they bring to our surroundings.

To further explore the issue of the safe placement of trees along our country's roadsides, the Federal Highway Administration announces the availability of a 12-minute video entitled *Highway Safety and Trees: The Delicate Balance*. This video encourages highway agencies and the public to work together to improve safety while minimizing damage to the environment.



An Ounce of Prevention

The best way to avoid crashes with trees is to keep trees a safe distance from the roadside. Organizations that want to plant trees should be encouraged to do so, but only in locations where the trees do not impede the driver's visibility and are not likely to be struck by a vehicle. Every state and local highway agency needs a policy for highway landscaping that ensures that trees will be planted well outside of the street or highway "clear zone." Newly built neighborhoods can be made safer by planting trees behind sidewalks or by using smaller trees or shrubs.

Driver education is also a critical component of an overall highway safety program. There are countless reasons why vehicles leave the pavement; a few examples are driver inattention and distractions, severe weather conditions, drowsiness, and attempts to avoid other vehicles. Driving is a complex task, and drivers need to be prepared and alert.

What About Existing Roadside Trees?

Highway agencies have many options to reduce the potential of vehicles leaving the road. They may be able to flatten curves, add signage, and improve pavement markings. At locations where vehicles continue to leave the road, removal of trees from the highest risk areas can be a cost-effective solution. Trees of special significance may be shielded with guardrail to soften the impact.

Of course, speed plays an important part in the severity of tree crashes. Many low-speed residential streets are known for their large, stately trees. Trees on these streets do not usually present the same problems as trees near high-speed roads and highways. High-speed roads and highways, both urban and rural, should have roadsides free of trees and other fixed object hazards. Regardless of the posted speed limit, the risk for vehicle collisions with trees should always be assessed.

Initiate a Dialogue

Everyone is a stakeholder when it comes to safety.

Highway Safety and Trees: The Delicate Balance stresses that the design of highway projects should be a cooperative effort involving the highway agency, concerned communities, organizations, and individual citizens. Use this video to initiate a dialogue. The video provides an opportunity for all parties to recognize the benefits and risks associated with trees. It discusses many solutions from roadway relocation to use of guardrail to removal of trees from the most hazardous locations. No single solution is appropriate for all situations; every potential solution deserves discussion.

Use **Highway Safety and Trees: The Delicate Balance** effectively at:

- State and local highway agency meetings where policies related to tree planting, removal, or mitigation are established.
- Public hearings on proposed construction projects that may include the removal of trees to improve safety.
- Town meetings to describe the issues associated with trees and roadside safety, and to encourage cooperation when addressing these issues.

