

APPLYING THE SAFE SYSTEM APPROACH IN YOUR COMMUNITY

What is the National Roadway Safety Strategy and the Safe System Approach?

In response to increased fatalities, the US Department of Transportation has created a National Roadway Safety Strategy (<https://www.transportation.gov/NRSS>). This strategy outlines a comprehensive approach to reducing fatalities and serious injuries in the US toward a long-term goal of zero deaths.

A key component of this strategy is a shift in the way we think about and implement safety. It's called the Safe System Approach (<https://highways.dot.gov/safety/zero-deaths>) and it has six key principles:

1. Death/Serious Injury is Unacceptable.
2. Humans Make Mistakes.
3. Humans are Vulnerable.
4. Responsibility is Shared.
5. Safety is Proactive.
6. Redundancy is Crucial.

This approach has been successfully deployed in other countries and will be the cornerstone to changing the safety culture in the US. We need to address safety in all aspects of our transportation system. This approach includes the following five key elements:

1. Safe Road Users;
2. Safe Vehicles;
3. Safe Speeds;
4. Safe Roads; and
5. Post-Crash Care.

These five elements create a redundant and shared approach to traffic safety.

Steps for Applying the Safe System Approach in your Community

The goal of the Safe System Approach is to improve the safety culture of how road users, vehicles, transportation infrastructure, and emergency response operate to reduce the likelihood of crashes happening at all, and to reduce their severity when they do happen. The following steps can help your community adopt and apply the safe system approach.

1. Take training. Training on the Safe System Approach and other related safety issues is offered through LTAP, the Federal Highway Administration (FHWA), and PennDOT. LTAP (<https://gis.penndot.gov/LTAP/default.aspx>) has two classes focused on safety and the Safe System Approach: Local Road Safety Plans and Road Safety Audits (both are FHWA proven safety countermeasures).
2. Establish a traffic safety committee. The Safe System Approach will involve all aspects of the community, and this community should be represented on the committee. Include people from the elected leadership, management, public works, police, emergency responders, schools, the public, and others. Consider the road users typically underrepresented in safety projects (vulnerable road users, lower income areas) to enhance the equity of safety.
3. Adopt a resolution emphasizing the safe system approach or adoption of the toward zero deaths principle. Example resolutions are available at: <https://www.towardzerodeaths.org/>.

4. Develop a Local Road Safety Plan (<https://highways.dot.gov/safety/local-rural/local-road-safety-plans>) that focuses on:
 - a. Death/Serious Injury is Unacceptable. Prioritize the safety focus on fatal and serious injury crashes on your roads.
 - b. Humans Make Mistakes. Design and maintain roads with the understanding that road users will make mistakes. Two areas to emphasize are intersection design/safety and curves (where a significant portion of run off the road hit fixed object crashes occur).
 - c. Humans are Vulnerable. People have a limited ability to tolerate crash impacts with vehicles, considering the forces generated by speed and the weight of vehicles. Focus efforts to manage speed on your roads and other approaches to manage kinetic energy in crashes.
 - d. Responsibility is Shared. All aspects of your community and influences from outside your community affect safety. Establish a broad-based committee for safety in your community and be proactive in addressing the rules and regulations that impact safety on your roads.
 - e. Safety is Proactive. Instead of reacting to crashes and implementing safety features after the fact, establish proactive methods to address safety. This includes

developing a Local Road Safety Plan, utilizing Road Safety Audits on your roads, and applying Systemic Safety measures on your roads (<https://highways.dot.gov/safety/data-analysis-tools/systemic#:~:text=A%20systemic%20approach%20to%20safety,efforts%20at%20little%20extra%20cost>).

- f. Redundancy is Crucial. Reducing safety risks on your roadways requires that all of the transportation systems are strengthened.
5. Utilize Resources. There is help available to assist with these safety efforts. LTAP offers free training and technical assistance. PennDOT District staff (<https://www.penndot.pa.gov/RegionalOffices/Pages/default.aspx>) can assist with safety issues on state roads in your community. Your regional planning organization (<https://www.penndot.pa.gov/ProjectAndPrograms/Planning/Pages/MPO-and-RPO-Contact-List.aspx>) can also help with providing data, acquiring funding, mapping, and other details.
6. Change the Culture. Ultimately, one of the key goals of the Safe System Approach is to change the safety culture in your community.



SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.

