

AGENDA COVER MEMORANDUM



Memorandum Date: November 20, 2023

Meeting Date: December 12, 2023

TO: Board of County Commissioners

DEPARTMENT: County Counsel and Public Works

PRESENTED BY: Steven Thiel, County Counsel; and Shashi Bajracharya, Traffic Engineer

AGENDA ITEM TITLE: **Fatal Crash Investigation Team (FCIT) Report**

I. MOTION

Not applicable

II. AGENDA ITEM SUMMARY

This item is a report from staff regarding the work of the FCIT.

III. BACKGROUND/IMPLICATIONS OF ACTION

A. Board Action and Other History

On July 18, 2017, the Board adopted the Lane County Transportation Safety Action Plan (TSAP) and joined the national strategy on highway safety known as Toward Zero Deaths to focus on reducing fatal and severe-injury collisions on Lane County roads. The TSAP is an action-oriented plan that emphasizes a systemic (or risk-based) approach to safety. It identifies education, enforcement, and engineering actions to minimize and mitigate the greatest safety risks contributing to fatal collisions (i.e. excessive speed and/or driving under the influence of intoxicants, leading to single-vehicle roadway departure and fixed-object collisions). The TSAP acknowledges the need to support emergency response and to consider equity, especially with disproportionate safety burdens in rural areas and on vulnerable populations.

The key to implementing these safety actions is collaboration with multi-disciplinary practitioners. The FCIT was created in 2017 to align County Departments in working toward zero deaths on Lane County's transportation system, consistent with the policy direction provided below (see Policy Issues). The work of the FCIT has evolved, expanding upon the education, enforcement, and engineering actions, to include equity and emergency response.

The FCIT tracks the Top 12 County roads with the greatest number of fatal and severe-injury crashes in order to target safety implementation. Demographic data of transportation disadvantaged and historically underserved populations living along these roads are evaluated to

consider the unique needs of the area. The FCIT has implemented a pilot program for a safety corridor designation on one of these roads (London Road); the pilot includes doubling traffic violation fees, installing associated signage, and meeting regularly with the affected emergency response provider, South Lane Rural Fire and Rescue.

The Board requested quarterly updates on the work of the FCIT.

B. Policy Issues

The work of the FCIT implements two safety policies adopted by the Board as part of the Transportation System Plan update:

- **Policy 1a:** Participate in the National Strategy on Highway Safety – Towards Zero Deaths (TZD) program
- **Policy 1c:** Align County departments, external safety groups, and other public agencies toward common transportation safety goals

C. Board Goals

The work of the FCIT to reduce fatal collisions aligns with the Lane County's Strategic Plan: Priority 1 - Safe and Healthy County.

D. Financial and/or Resource Considerations

The FCIT has no dedicated budget. The FCIT consists of existing staff from various Lane County departments (i.e. County Counsel, Risk Management, Public Health, Sheriff's Office, and Public Works) who have committed to meeting monthly to review crash data and develop recommendations. Each recommendation is considered within the context of existing resources. Implementation efforts leverage other groups already working on safety efforts, such as the regional Safe Lane Transportation Coalition and Lane County Systemic Engineering Implementation Team.

Engineering improvements have included low-cost, high-benefit safety measures, such as rumble strips which are installed most cost-effectively as part of routine pavement preservation work. Given limited Road Fund resources for pavement preservation work, only a handful of repaved roads have rumble strips installed each year. Public Works continues to secure external safety grant funding for additional systemic engineering, such as guardrail upgrades and enhanced intersection and curve warning signage.

E. Health Implications

The work of the FCIT will have positive health implications by reducing fatal collisions in Lane County.

F. Analysis

Not applicable

G. Alternatives/Options

Not applicable

IV. RECOMMENDATION

Not applicable

V. TIMING/IMPLEMENTATION

The work of the FCIT will be on-going with monthly meetings.

VI. FOLLOW-UP

The FCIT will continue quarterly updates with the Board.

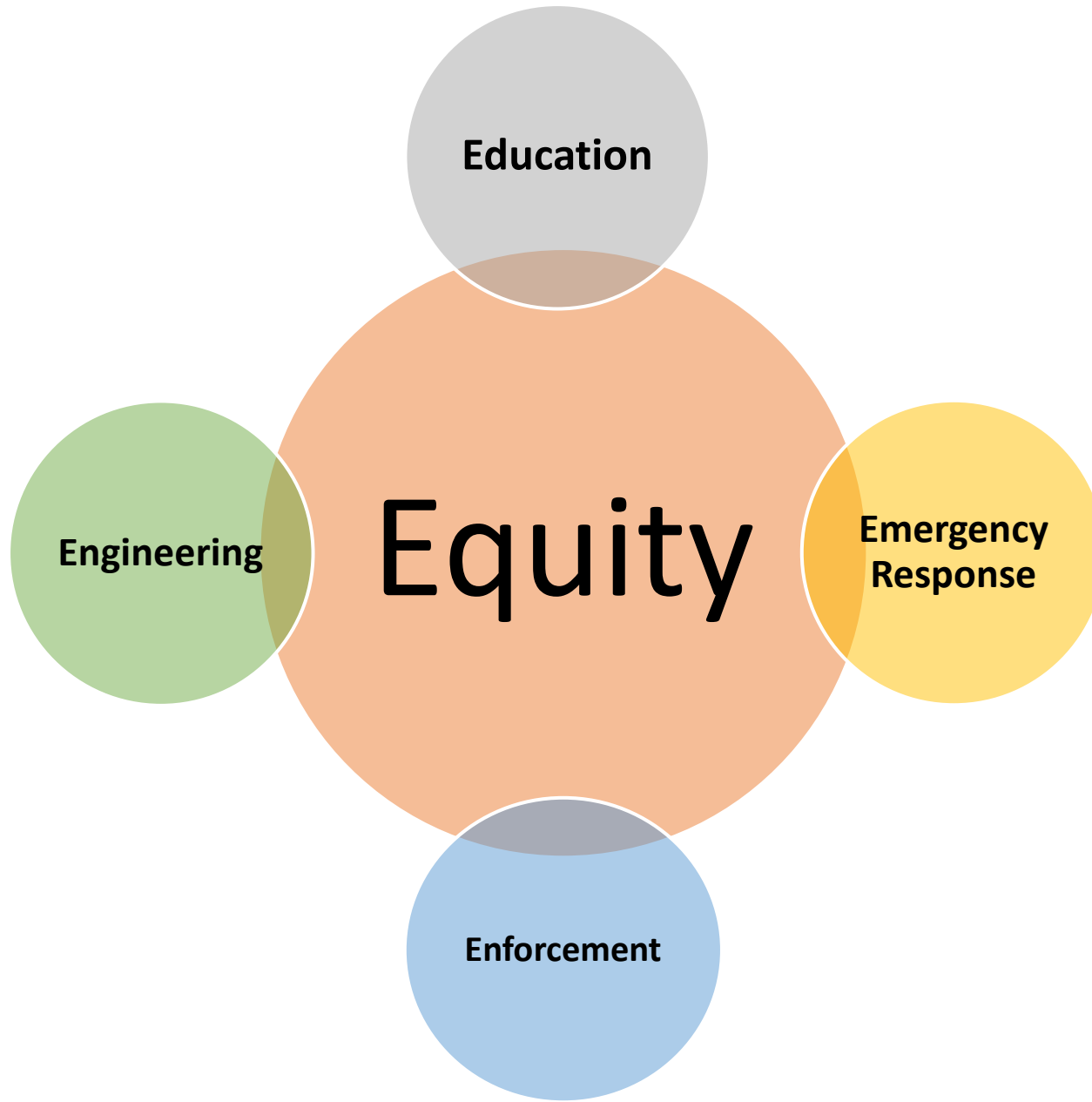
VII. ATTACHMENTS

None

Fatal Crash Investigation Team Update

Towards **Zero** Deaths





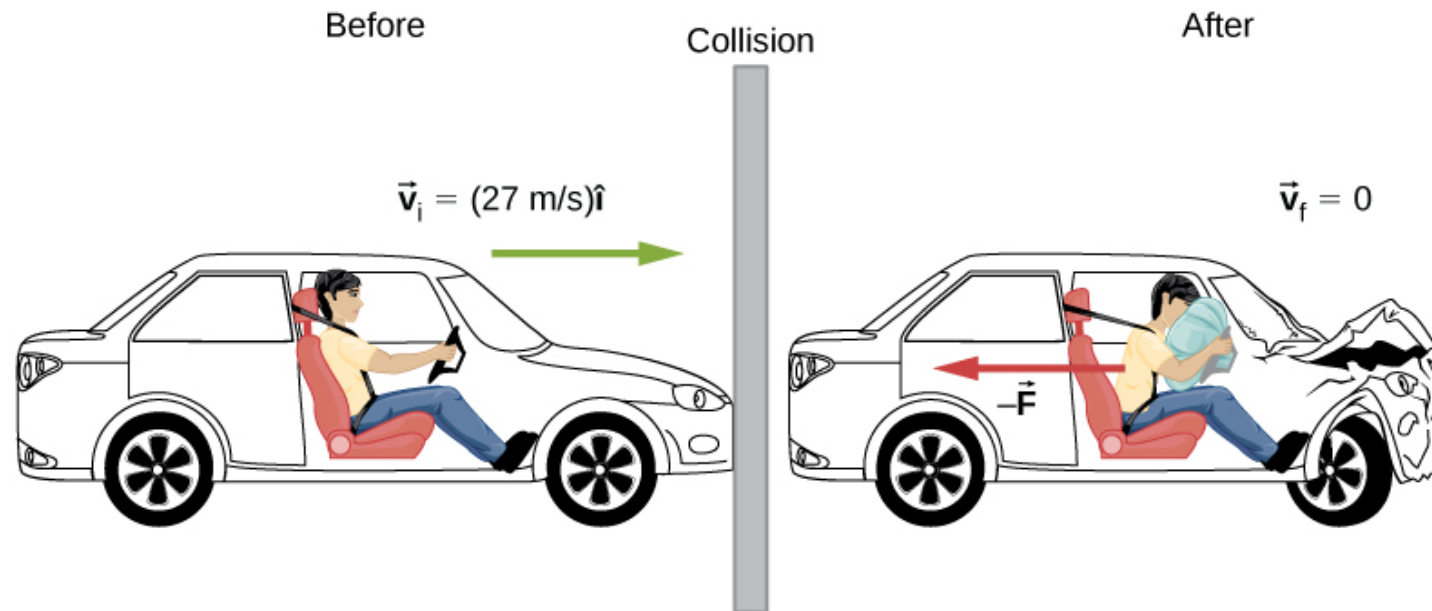
Traffic Engineering Services

- Investigates complaints regarding traffic problems
- Maintains traffic data and conducts traffic analysis
- Evaluates permits for safety
- Designs and operates traffic signals, signs, and pavement markings on County roads



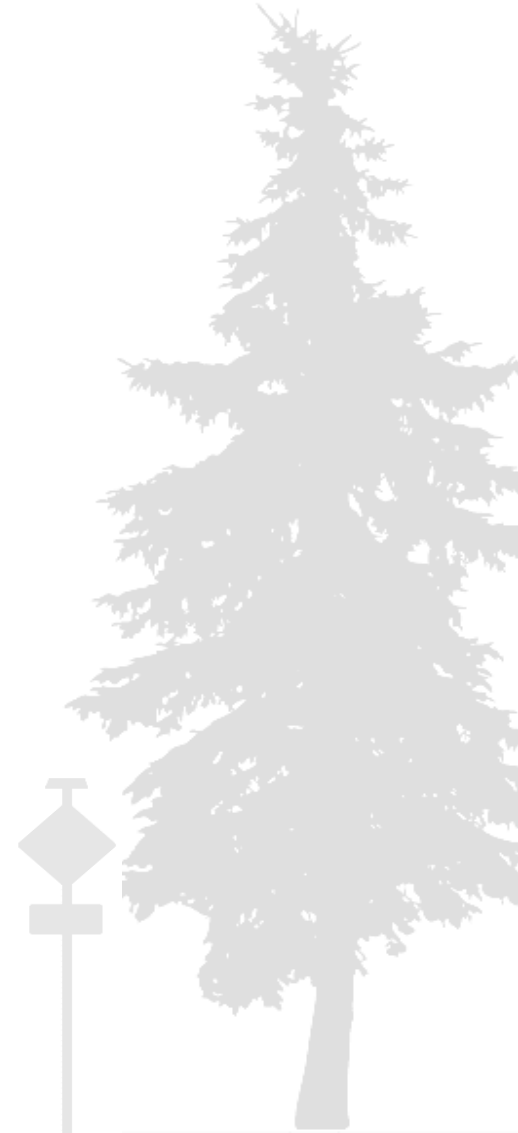
Understanding Traffic Fatalities

- Kinetic Energy, Momentum, Collision Dynamics
- Centripetal Force, Projectile Movement, Friction
- Ability to Absorb Energy by Human Body



Understanding Crash Types

- **Frontal Collision**
 - Head-on Crashes Fixed Object Crashes
- **Side Impact Collisions**
 - T-Bone Crashes, Angle Crashes (Intersections)
- **Rear-end Collisions**
- **Run Off Road Crashes**
 - Roadway Departure, Rollover Crashes
- **Bike/Ped Involved Crashes**



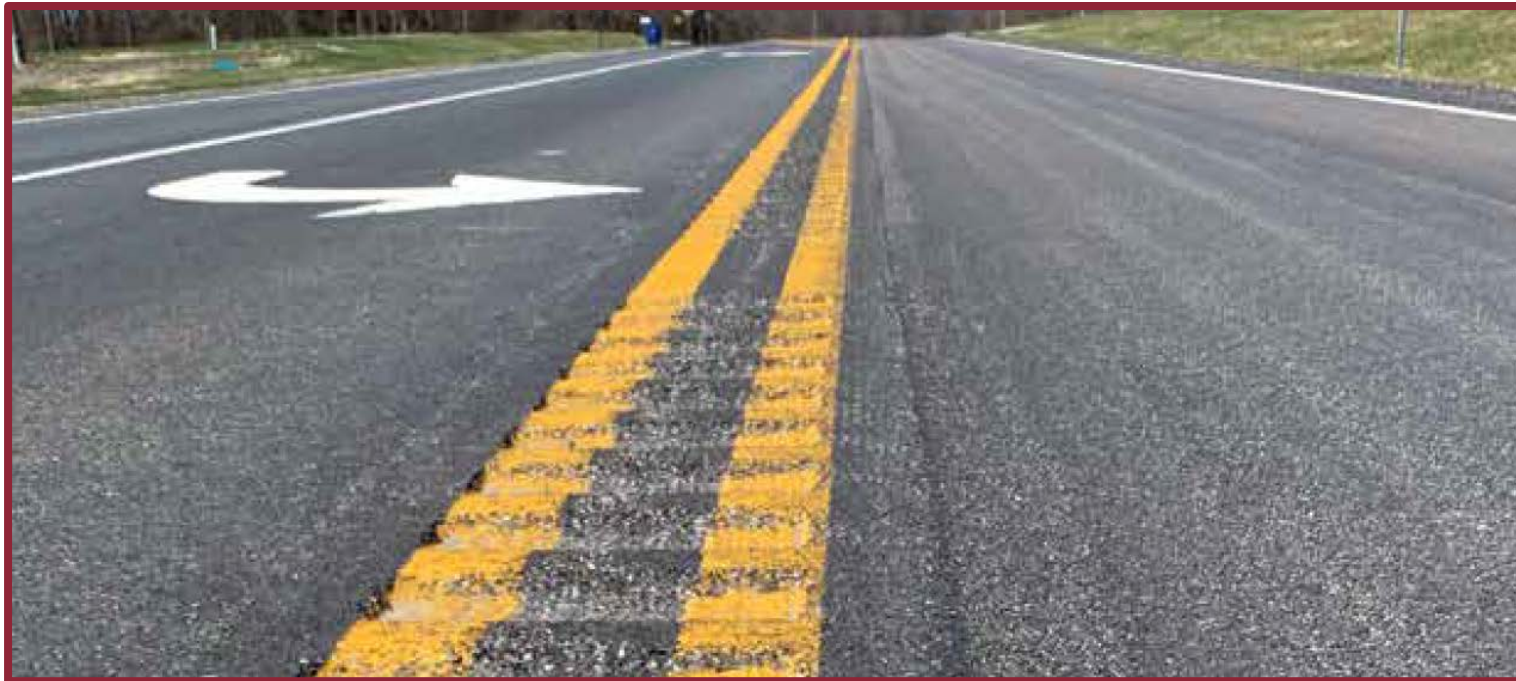
Head-On Crashes



- Common occurrence on rural roads
- Impacts are the highest
- Engineering Interventions:
 - o Keep motorists in travel lane
 - Rumble Strips
 - Lane Guidance
 - Highly Reflective/durable Striping
 - Reflective Raised Pavement Markers
 - Speed Management
 - o Warn Motorists of Hazards
 - Passing Zone Reviews

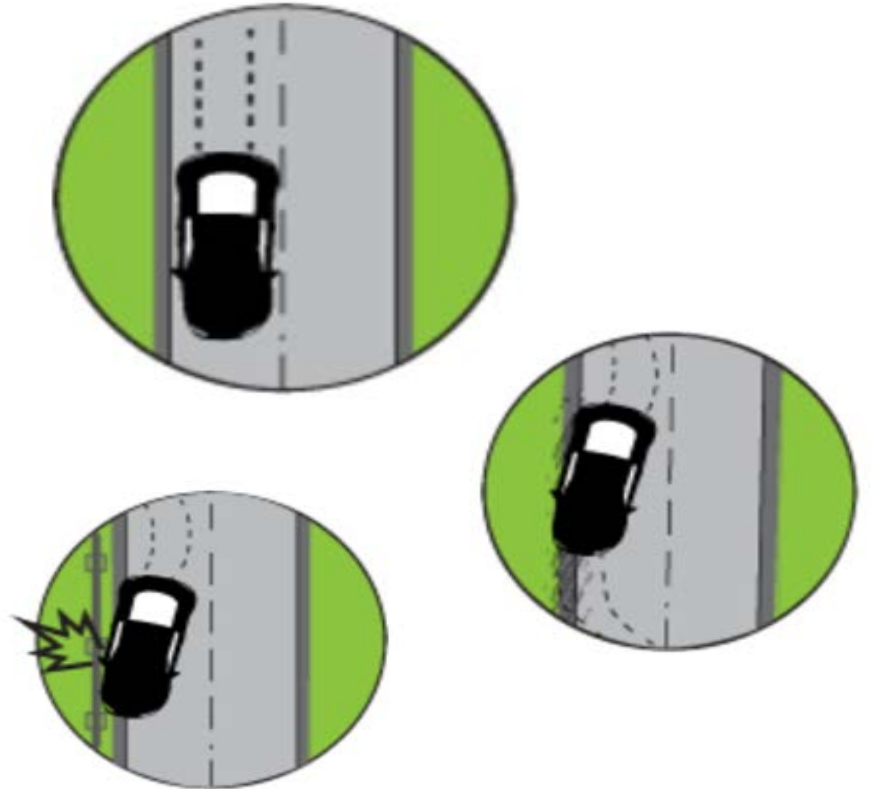
Centerline Rumble Strips

- Help drivers self-correct through audio-vibration warning
- Reduce roadway departures by about 36%



Roadway Departures

- Can result in overturns or fixed object collisions
- Engineering Interventions:
 - o Alignment (Curve) Warning Signs
 - o Shielding e.g. Guardrail, Delineators, Crash Barriers, Attenuators
 - o Safety Edges
 - o Road Surface Improvements
 - o Shoulder Improvements
 - o Speed Management
 - o Rumble Strips



Fixed-Object Collisions

- Engineering Interventions:

- Remove Fixed Object

Hazards within clear zone

- Roadside Slope

Improvements

- Ditch Improvements

- Speed Management



Warning Signage

- **Alert Drivers of Conditions**

Warranting Attention

- **Advisory Speed**
- **Advanced Intersection Warnings**
- **Sharp Curve Warnings**
- **Other Hazards**



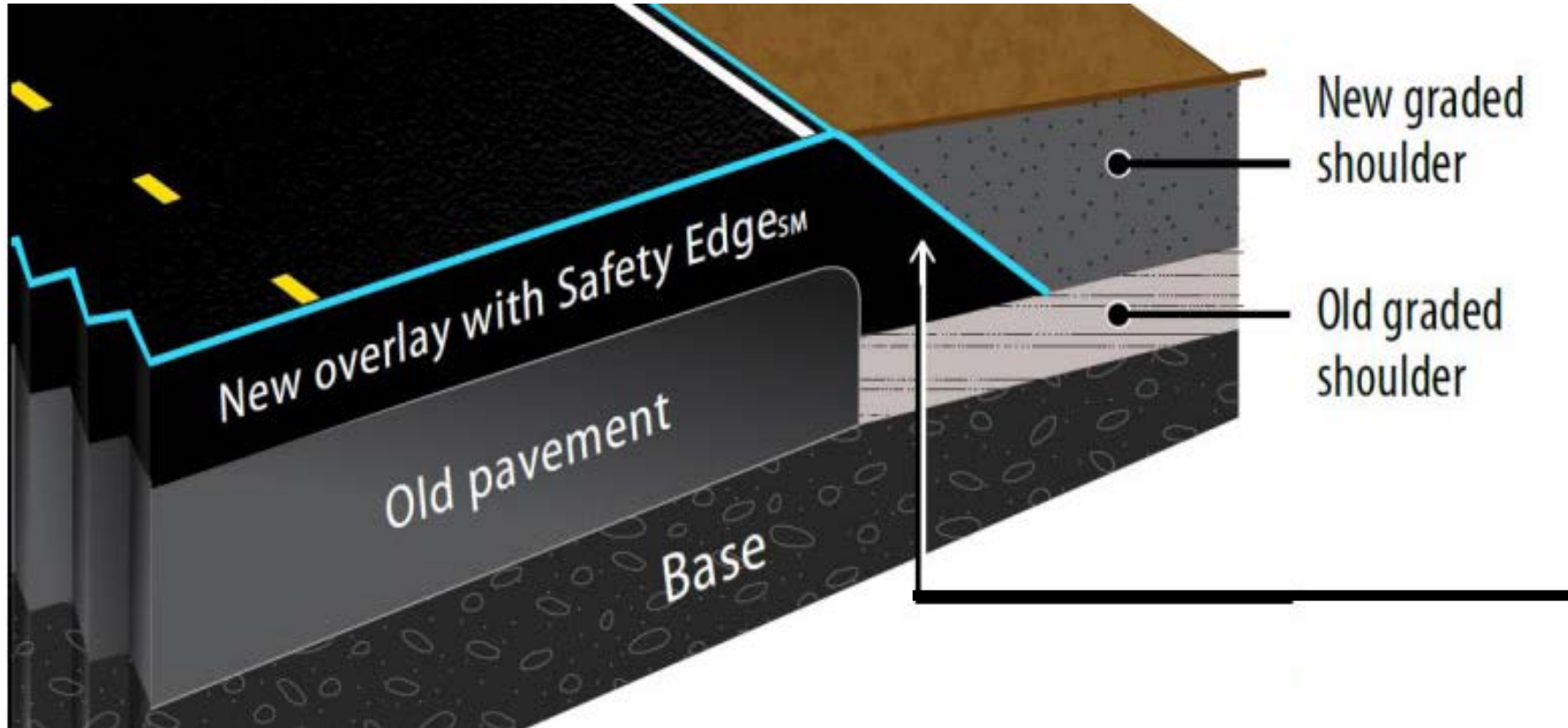
Shoulder Rumble Strips



- Located on shoulders
- Help drivers remain on the road through vibration notification



Safety Edges



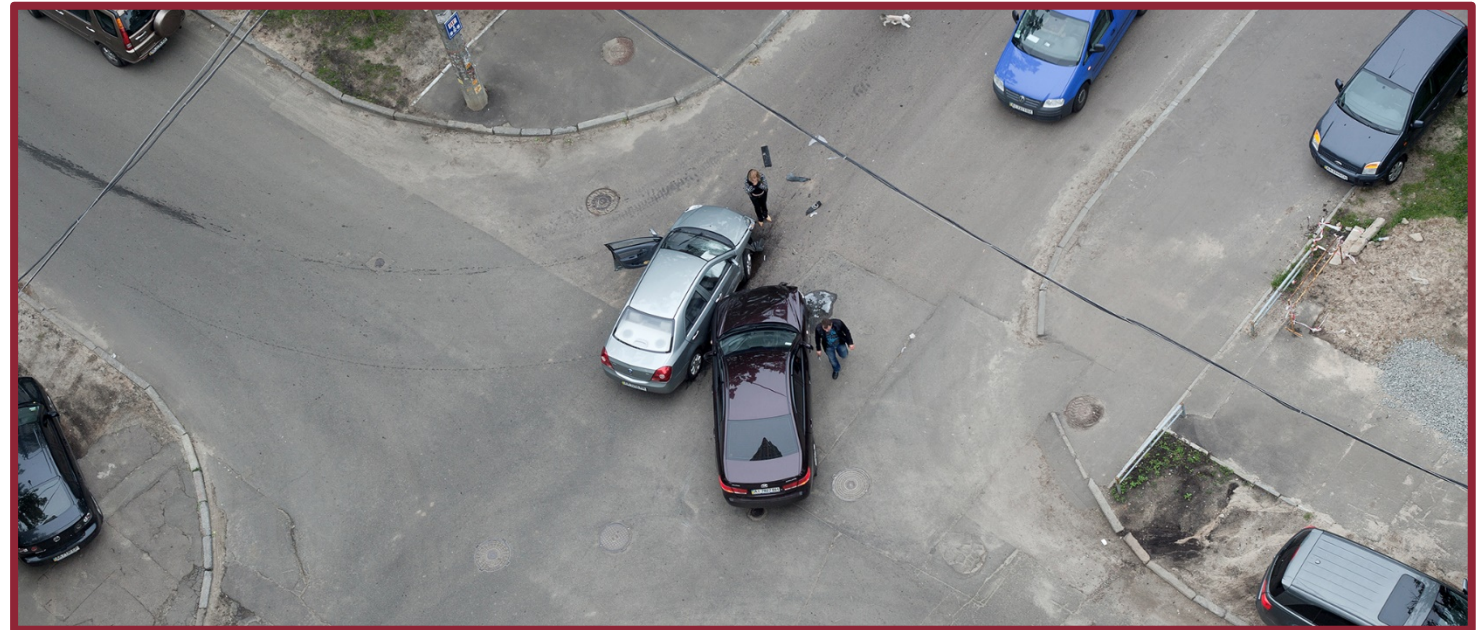
- Provide smooth transition of pavement edge
- Enables drivers to safely return to roadway without over-correcting



Angle/Intersection Crashes

- **Engineering Interventions:**

- Traffic Signal Operations
- Intersection Design
- Intersection Control Evaluations
- Remove Conflicts Points
- Increase Visibility
- Advance Warning Signs



Rear-end Crashes

- **Engineering Interventions:**
 - o Remove traffic surprises
 - o Advanced warning signs
 - o Speed management



Bike/Pedestrian-Involved Crashes

- Lack of Bike Lane or Sidewalks
 - Identifying Crossing Needs
 - Enhancing Existing Crossings
 - Shoulder Widening
 - Speed Management



Speed Management

- **Contributing Factor in Most Fatal Crashes**
- **Engineering Interventions:**
 - Speed Zoning
 - Traffic Calming
 - Curve Warning Advisory Speed



Speed Feedback Signs

- Notifies drivers are driving too fast for conditions
- Traffic Calming Device



Speed Cushions

- **Physical intervention**
 - **Pilot project on Spring Creek Drive**
- **Expansion of application dependent on funding**



Safe System Approach

- Death and serious injury is unacceptable on our roads
- Humans make mistakes and are vulnerable
- Responsibility is shared and safety is proactive
- Redundancy of protections/prevention is crucial



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