

# From the Ground Up: Safe Systems from a City Planning Perspective

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# Overview

- Models for (Land Use) Planning's Role in Road Safety
- Working Groups: Analysis of Planning Processes
- Group Discussion: How can planners improve road safety?

# Models for (Land Use) Planning's Role in Road Safety

# The 94% Number

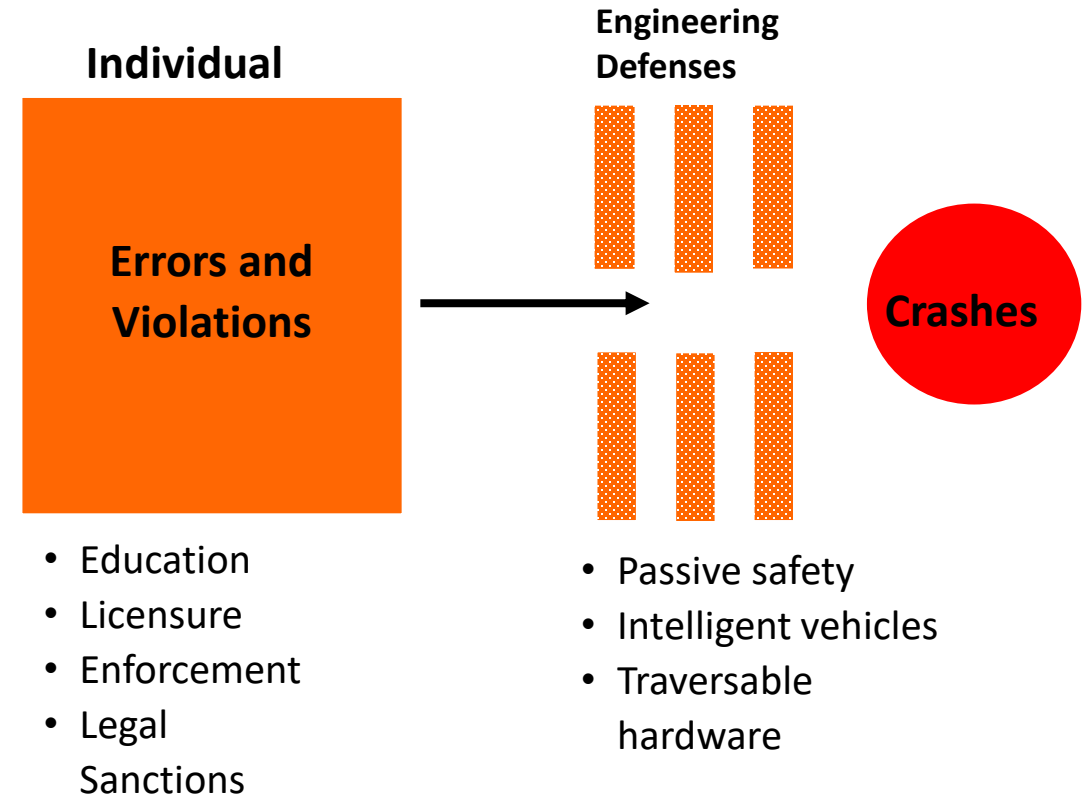
**Table 1. Driver-, Vehicle-, and Environment-Related Critical Reasons**

Critical Reason Attributed to	Estimated	
	Number	Percentage* ± 95% conf. limits
Drivers	2,046,000	94% ±2.2%
Vehicles	44,000	2% ±0.7%
Environment	52,000	2% ±1.3%
Unknown Critical Reasons	47,000	2% ±1.4%
Total	2,189,000	100%

\*Percentages are based on unrounded estimated frequencies  
(Data Source: NMVCCS 2005–2007)

Source: NHISA, 2015, Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey;  
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115>

# Eric Dumbaugh's (FAU): Model for Safe Systems -A

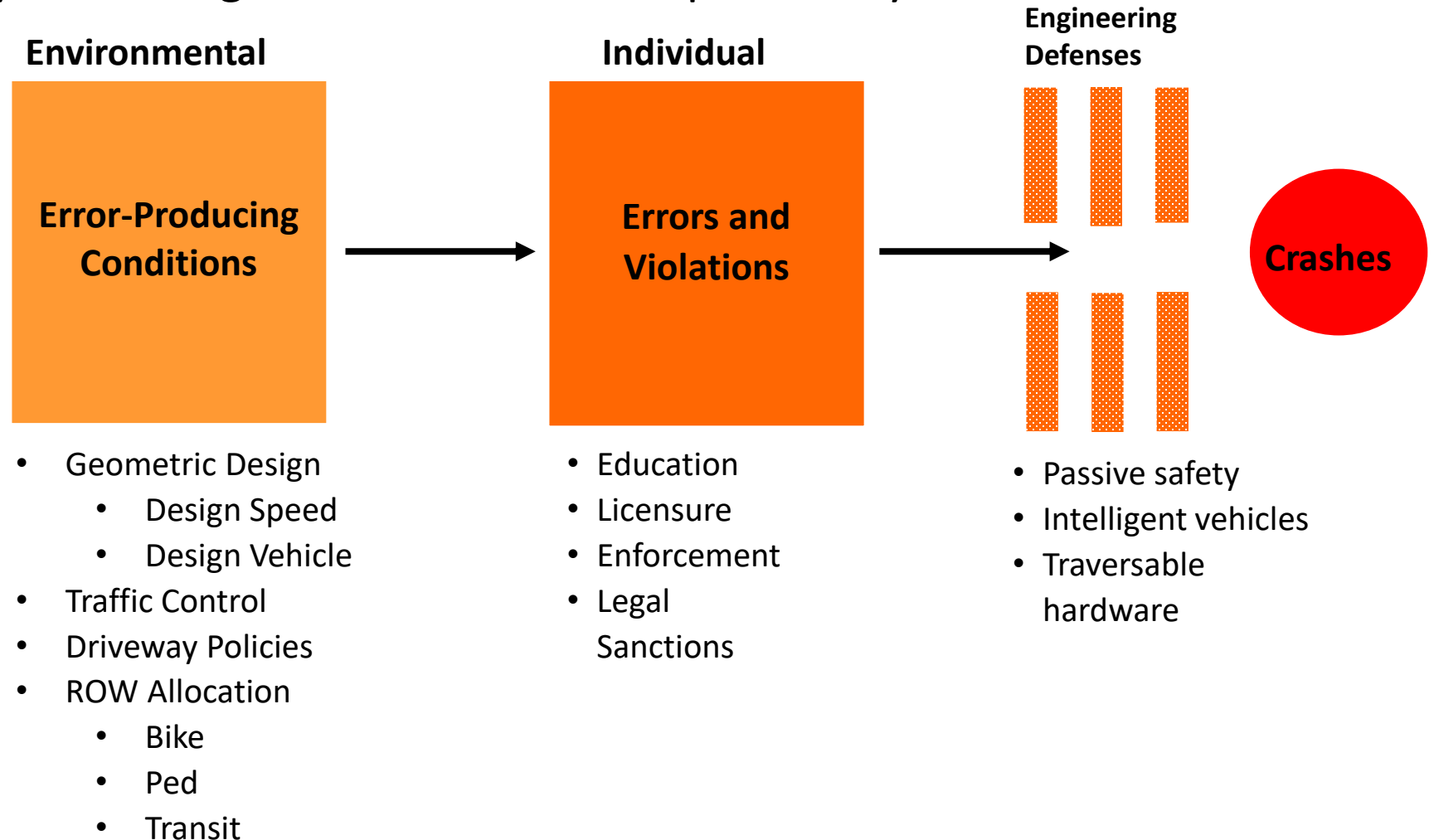


# Other perspectives: Australian Safe System Principles

1. People make mistakes. Humans will continue to make mistakes, and the transport system must accommodate these. The transport system should not result in death or serious injury as a consequence of errors on the roads.
2. Human physical frailty. There are known physical limits to the amount of force our bodies can take before we are injured.
3. A 'forgiving' road transport system. A Safe System ensures that the forces in collisions do not exceed the limits of human tolerance. Speeds must be managed so that humans are not exposed to impact forces beyond their physical tolerance. System designers and operators need to take into account the limits of the human body in designing and maintaining roads, vehicles and speeds.

# Eric Dumbaugh's (FAU): Model for Safe Systems -B

System designers have shared responsibility.



# Pedestrian convicted of vehicular homicide in own child's death

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By [Elise Hitchcock](#)

The Atlanta Journal-Constitution

A Marietta mother may serve more time than the driver who hit and killed her 4-year-old son.

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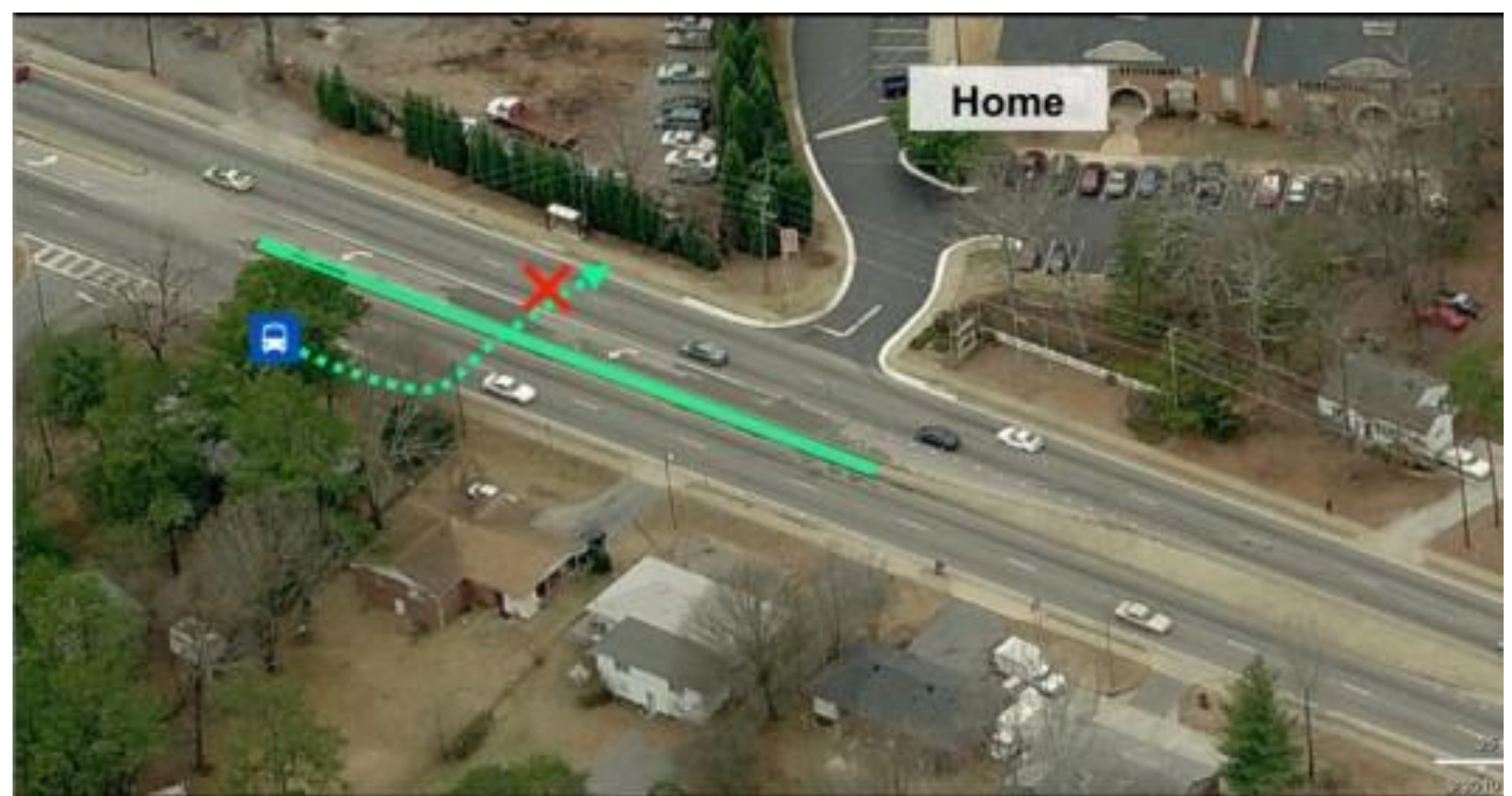
Raquel Nelson, 30, could be sentenced to up to 36 months at a hearing July 26, said David Savoy, her attorney. She was convicted Tuesday of homicide by vehicle in the second degree, crossing roadway elsewhere than at crosswalk and reckless conduct, said Savoy.

Jerry L. Guy, the driver who admitted hitting the child when pleading guilty to hit-and-run, served a 6-month sentence. He was released Oct. 29, 2010, and will serve the remainder of a 5-year sentence on probation, according to Cobb court records.



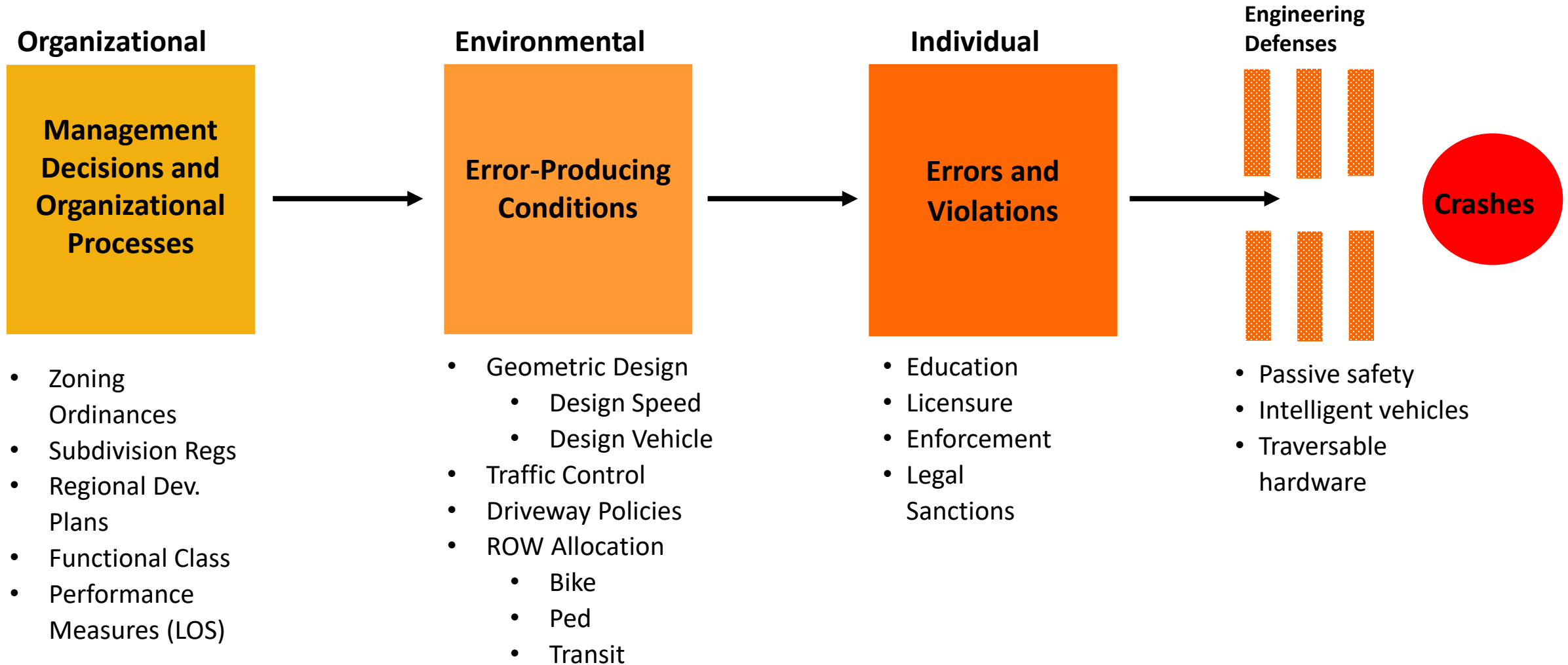
Source: Eric Dumbaugh, FAU





Source: Eric Dumbaugh, FAU

# Eric Dumbaugh's (FAU): Model for Safe Systems -C



# Working Groups: Analysis of Planning Processes

- Break into groups of 3-4
- Choose a (land use) planning process:
  - Comprehensive plans, Small Area Plans, Development Approval Process, Subdivision regulations, Street standards
- Explain:
  - How the process impacts/is connected to road safety?
  - How road safety could be accounted for in the process?
- Report back to group

# Group Discussion: How can planners improve road safety?

- Where are the leverage points? Opportunities for highest-priority intervention?