



Pedestrian and Bicycle
Information Center

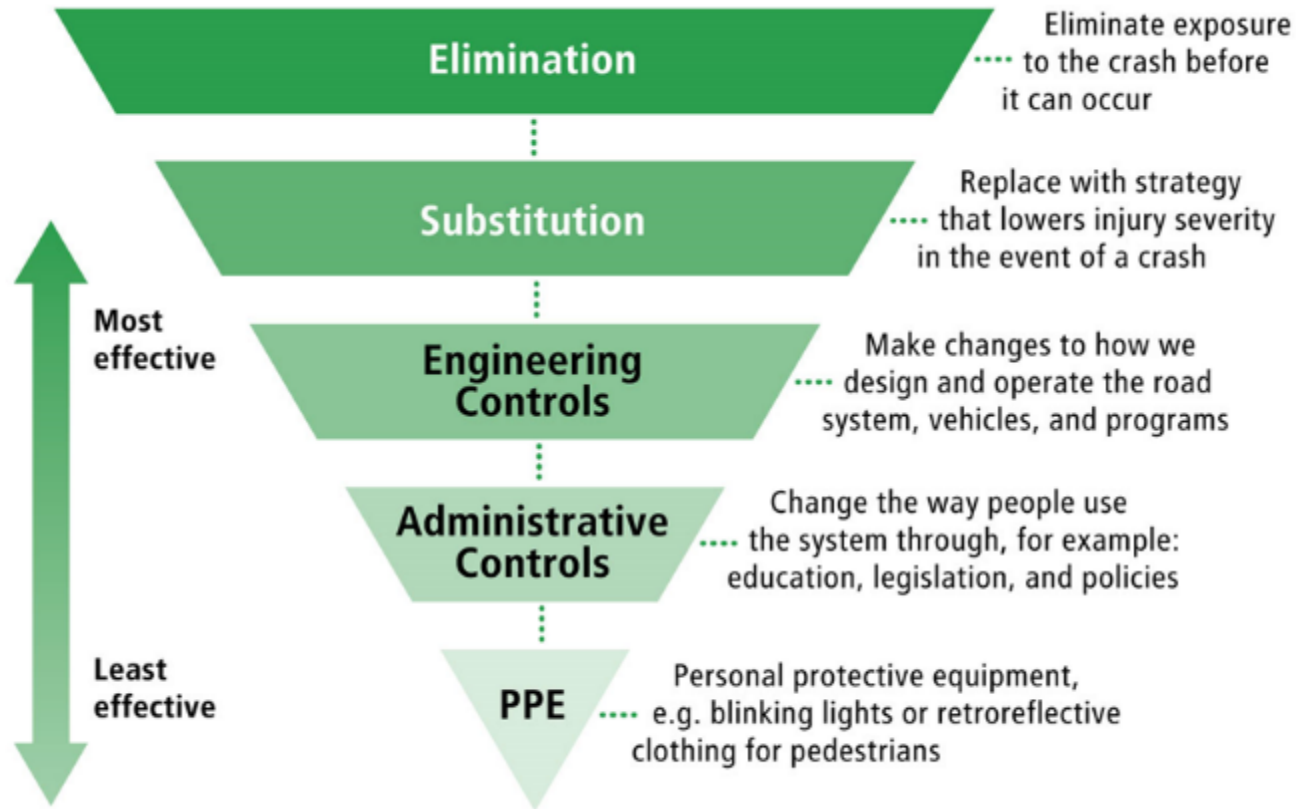
Designing a Safer System for Pedestrians



pedbikeinfo.org

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Methods to reduce fatalities are well-known



Source: Hierarchy of Controls adapted from the 2019 Washington State Strategic Highway Safety Plan and the 2017 National Institute for Occupational Safety and Health.

Safe System approaches involve limiting opportunities for exposure to a crash

Less of this...



And more of this...



Predictability
(of bike traffic)

Forgiveness
(buffer)

Restrictiveness
(turning movements)

Simplicity
(color)

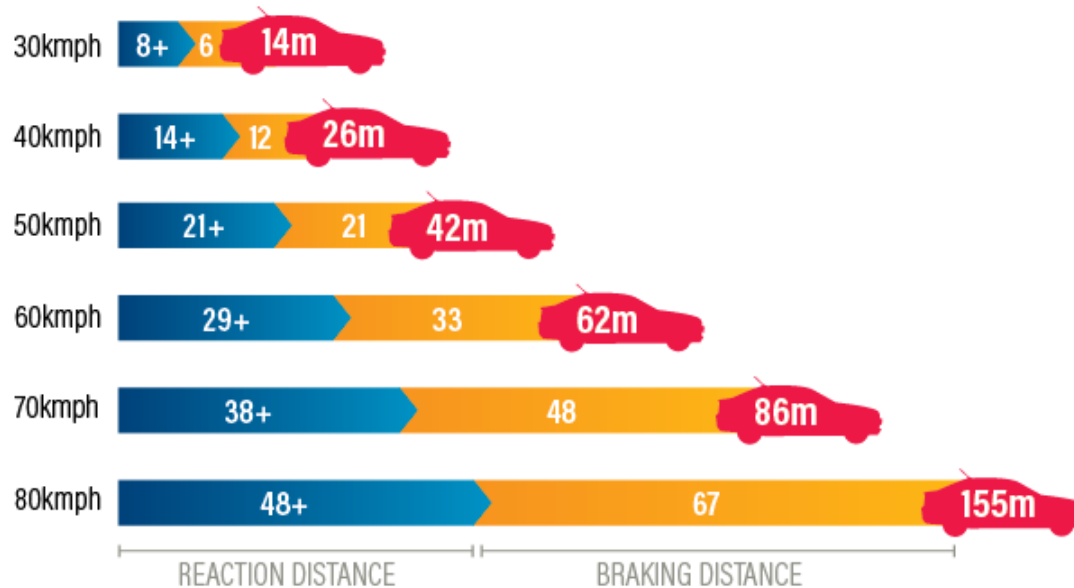
Separation
(of modes)

Speed control

Source: www.pedbikeimages.org.


Managing speed manages both risk of a crash and injury severity

Higher Vehicle Speeds Require Longer Stopping Times



Note: Above distances are typical distances. The total stopping distance also depends on the thinking distance, road surface, weather conditions and age/condition of the vehicle.

Source: Cities Safer by Design (2015)
wri.org/publication/cities-safer-design

 WORLD RESOURCES INSTITUTE

Many energy transfer management tools exist

- **Speed control**

- Road diets, traffic calming
- Speed governors on vehicles and automatic emergency braking
- Speed feedback signs



- **Speed harmonization**

- Slow speed zones / speed limit reductions
- Access management



20
IS PLENTY

20 MPH IS PORTLAND'S NEW SPEED LIMIT ON RESIDENTIAL STREETS

- The new speed limit takes effect April 1, 2018 and PBOT will be installing signs to reflect the change.
- Slower driving speeds help prevent crashes and, when crashes occur, reduce the harm that results.

SPEED LIMIT 20

VISION ZERO PORTLAND

Sources: www.pedbikeimages.org and <https://www.portlandoregon.gov>.

Safe System = Proactive approaches to manage risks system-wide

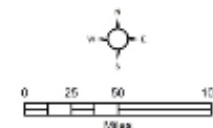


Source: Thomas, Sandt, et al. NCHRP Report 893.



Initial Screening (Step 1)

- Very Low
- Low
- Medium
- High
- State Highway System
- County Boundary
- Tribal Lands



Source: Arizona Department of Transportation: Preliminary Identification of High-Risk Segments (2017).

Thank you!

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