



A DATA-DRIVEN EFFORT TO ELIMINATE TRAFFIC FATALITIES

MAY 22, 2017

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WHAT IS VISION ZERO?

Executive Directive 10: VISION ZERO FOR LOS ANGELES

Reduce traffic deaths to zero by 2025



ERIC GARCETTI
MAYOR

EXECUTIVE DIRECTIVE NO. 10

Issue Date: August 24, 2015

Subject: Vision Zero

Our streets must be safe for everyone who uses them. Fatalities are not a tolerable byproduct of transportation. Loss of life and severe injuries resulting from traffic crashes are unacceptable outcomes that we can address. We must employ a strategic approach to engineering, education, and law enforcement in connection with our streets and sidewalks.

The City of Los Angeles ranks second in the nation for the number of people that are killed by motor vehicles when walking. Since 2009, fatalities for pedestrians account for more than half of fatal traffic collisions annually—nearly four times the national average of 14 percent. Similarly, people walking or bicycling make up 56 percent of people killed and severely injured in traffic collisions. Children and older adults who walk are particularly vulnerable, and are five times more likely than drivers to be killed or severely injured in crashes.

Therefore I am launching the citywide Vision Zero initiative. Saving human lives must be our priority, so I am declaring safety to be the number one priority in designing and building our streets and sidewalks.


Vision Zero is premised on the fundamental principle that loss of life by traffic collision is unacceptable. The goal of Vision Zero is to target *all* traffic fatalities with an emphasis on the most vulnerable users of our streets: people who walk and bicycle. Recognizing that people make mistakes, an effective road safety system must take human fallibility into account, must be designed to diminish the chances of human error, and must lower the likelihood of severe injury or death when crashes occur. Safe mobility is critical for all parts of our society: our transportation systems must keep us moving and our City prosperous.

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WHAT DOES THE DATA TELL US?

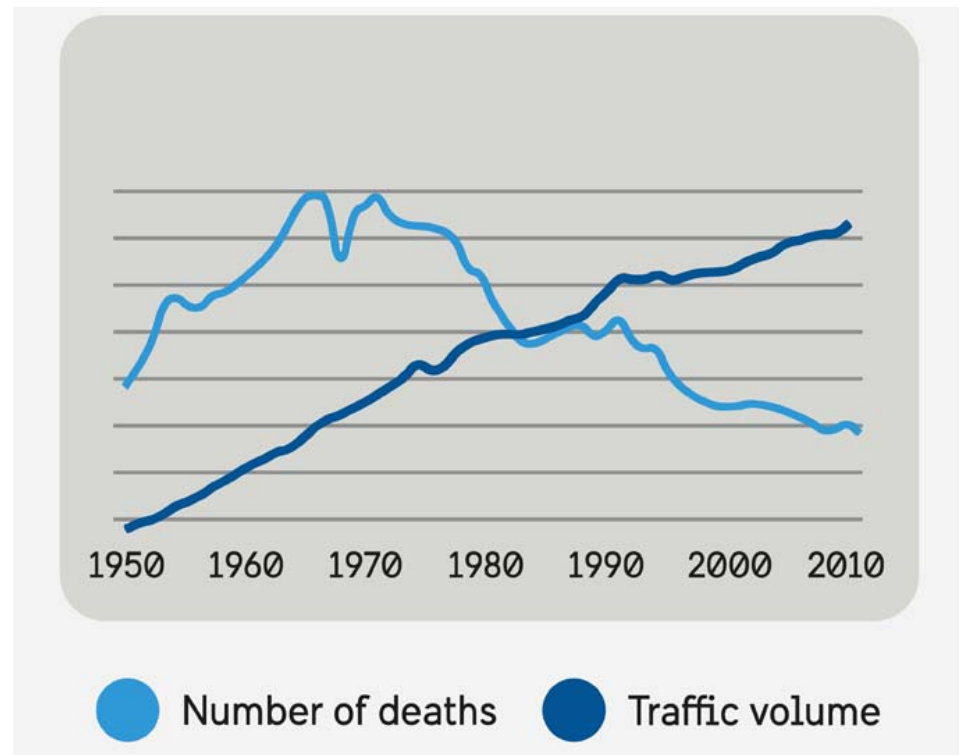
THE FACTS

COLLISION DEATH RATE, PER 100,000 PEOPLE

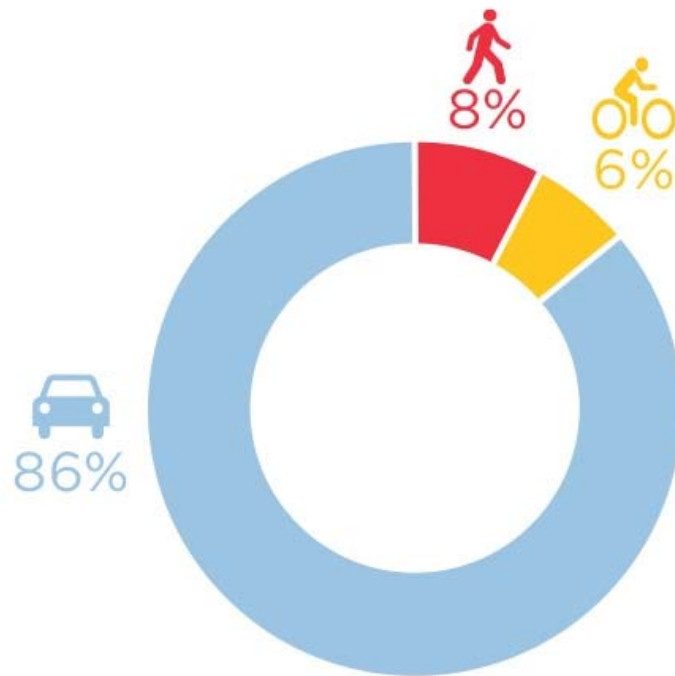
 LOS ANGELES	6.27
 CHICAGO	5.34
 PORTLAND	5.31
 SAN DIEGO	5.23
 SAN JOSE	4.27
 SEATTLE	4.26
 BOSTON	3.61
 SAN FRANCISCO	3.51
 NEW YORK	3.21

Source: National Highway Traffic Safety Administration; 2012 Calendar Year

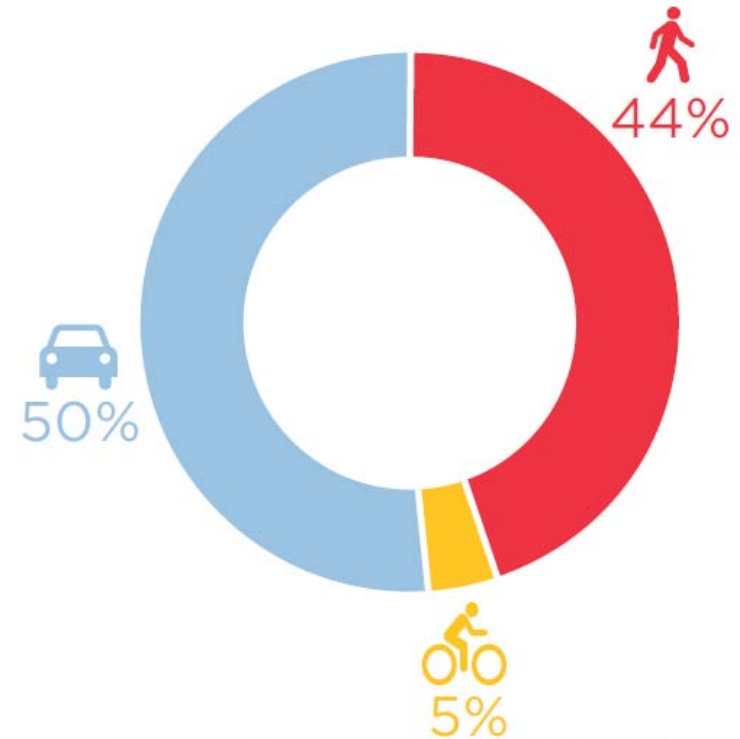
NUMBER OF DEATHS IN SWEDEN TRAFFIC VOLUME



LOS ANGELES COLLISION LANDSCAPE

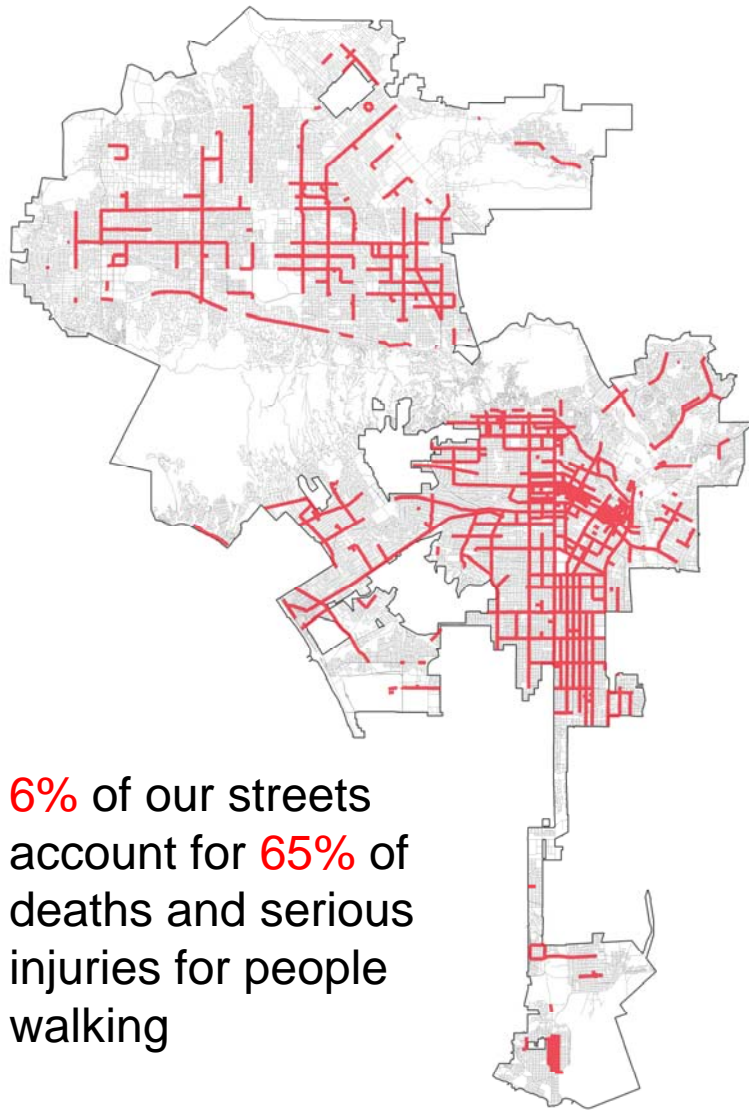


Collisions by mode

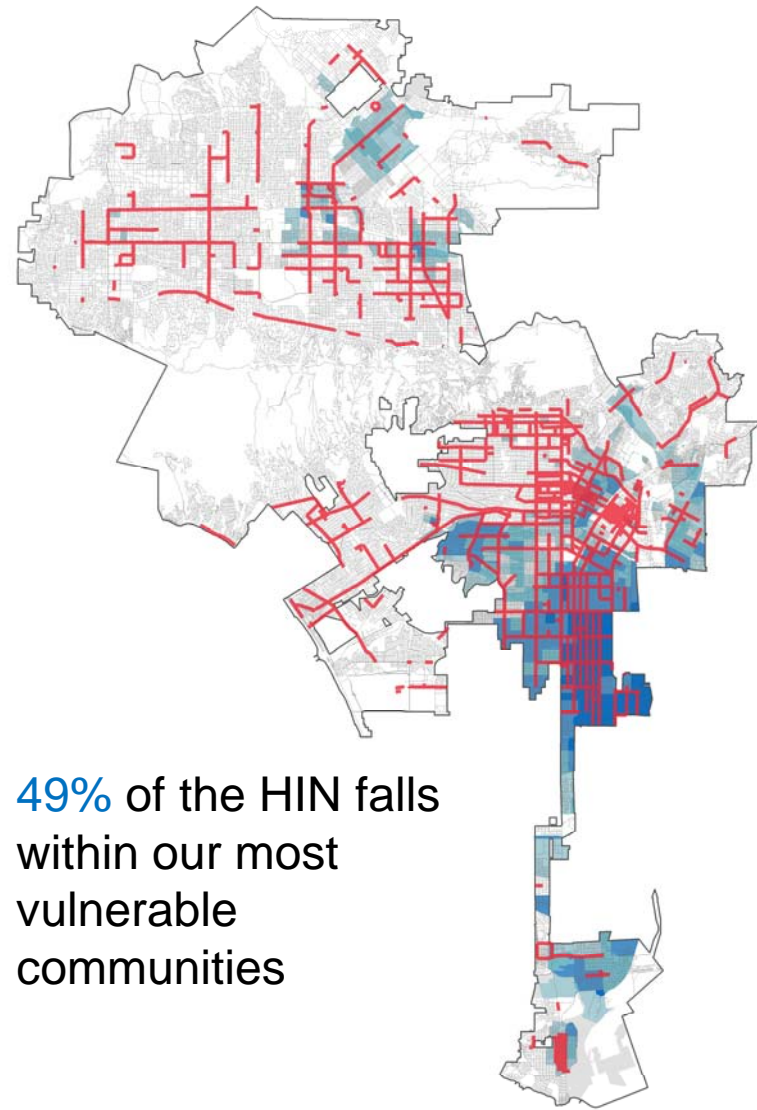


People killed by mode

HIGH INJURY NETWORK (HIN)



6% of our streets
account for 65% of
deaths and serious
injuries for people
walking



49% of the HIN falls
within our most
vulnerable
communities

TECHNICAL COLLISION ANALYSIS

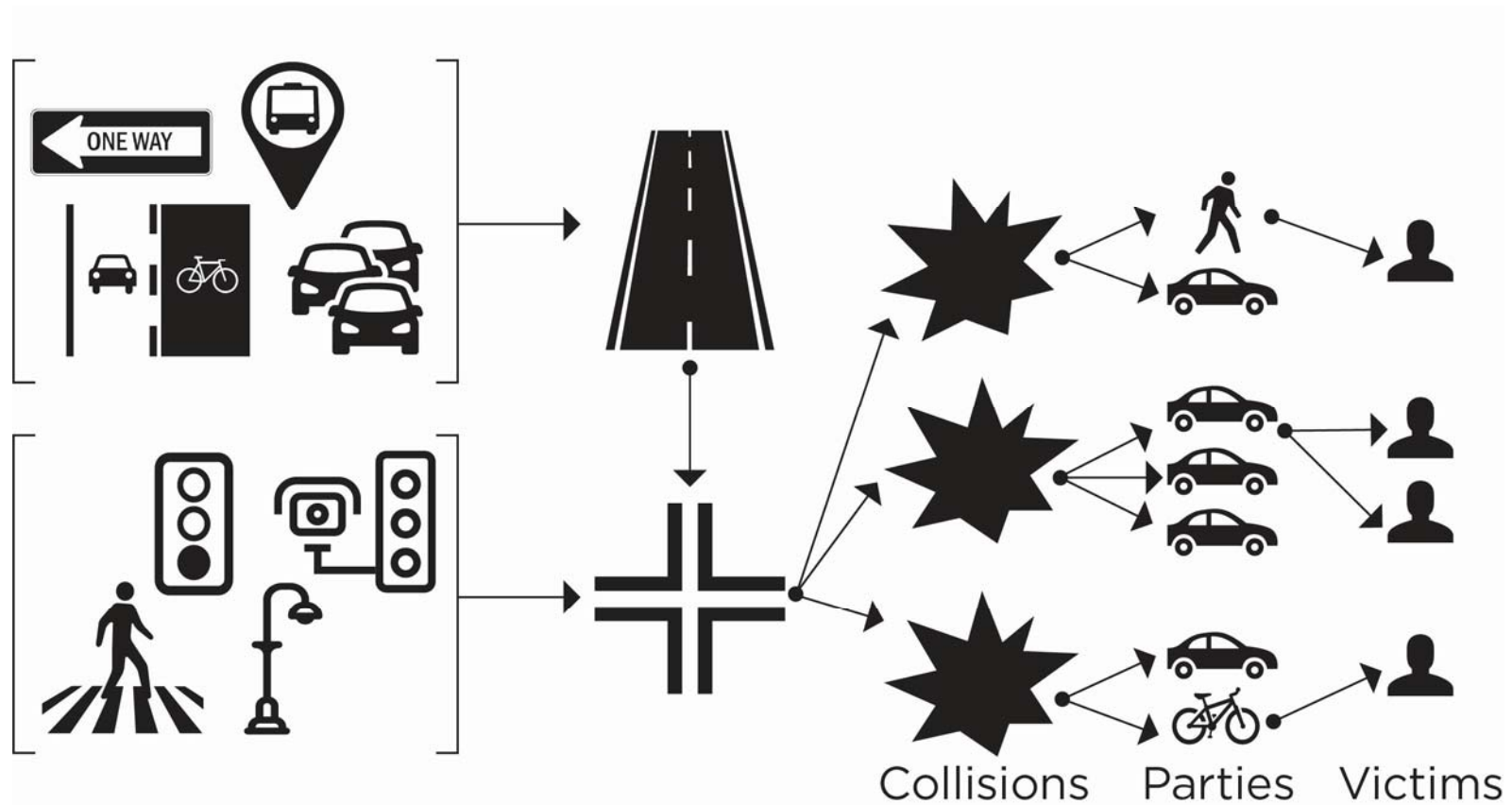


TECHNICAL COLLISION ANALYSIS



BUILDING THE DATABASE

Collision Data



BUILDING THE DATABASE

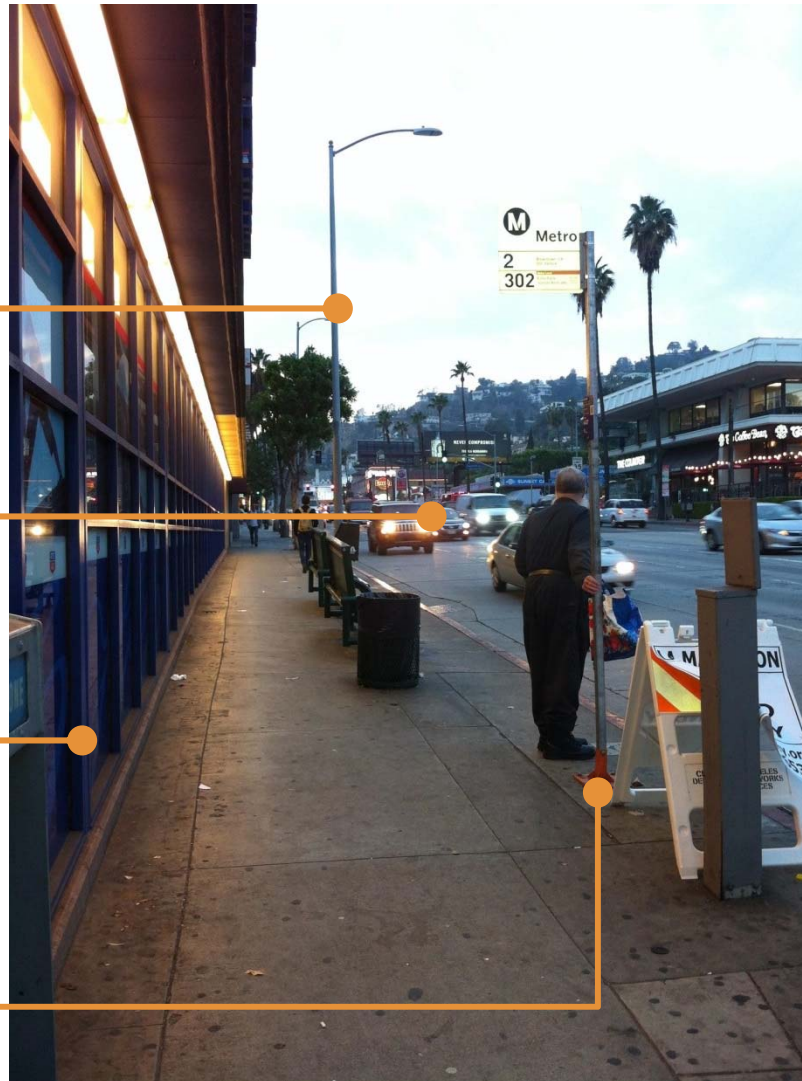
Environmental Data

Lighting

Width of Roadway

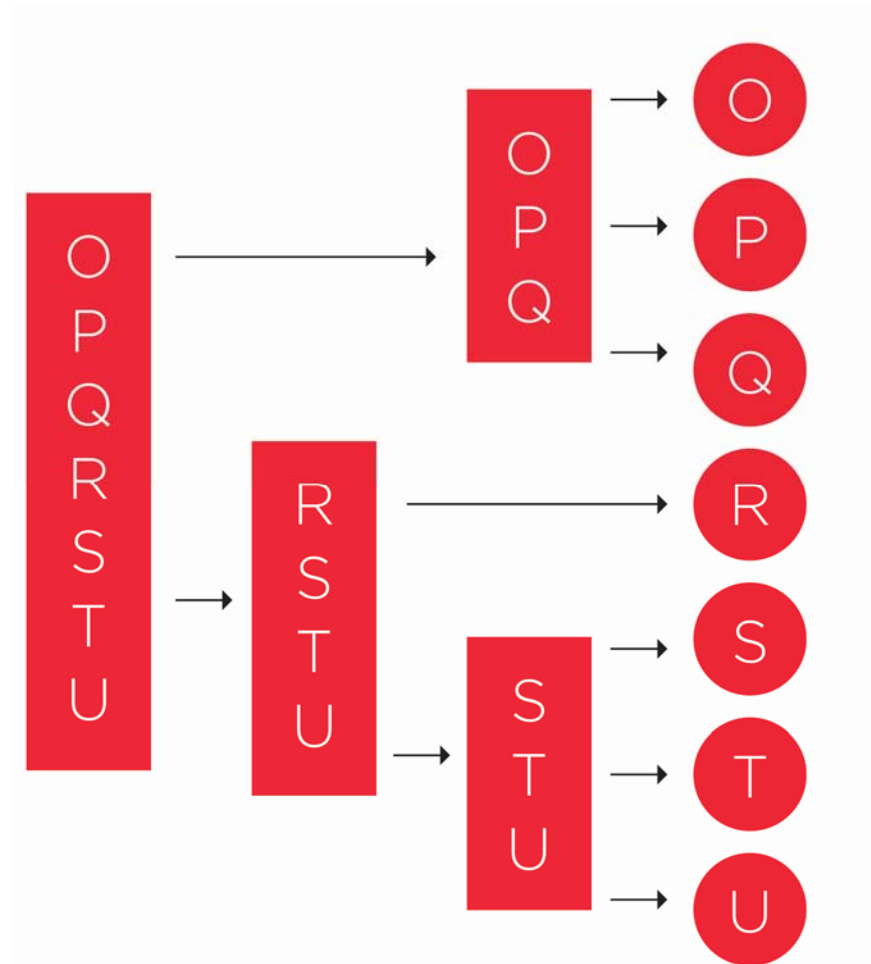
Surrounding Land Uses

Bus Stop Location /
Ridership



DEFINING COLLISION PROFILES

Hierarchical Clustering Method



DEFINING COLLISION PROFILES

12 Identified Collision Profiles

- Lack of crossing infrastructure along pedestrian desire line
- Bicycle-involved collisions and lack of bicycle facility
- Bicycle-involved collisions and presence of bicycle facility
- Pedestrian or bicycle collisions at intersecting arterials
- Hit & runs
- Insobriety
- Complex intersections
- Left turns at signals
- Speeding
- Children near schools
- Right turns at signals
- Red light running
- Freeway ramps

DEFINING COLLISION PROFILES

Hierarchical Clustering Method - Example

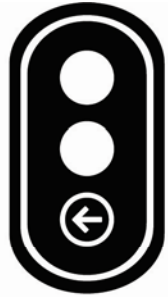
Children near Schools

- Collision Type: Pedestrian/bicyclist collisions with a vehicle
- Collision Time: Occurred between 6-9 AM, 12-6 PM
- Demographics: Pedestrian/bicyclist age between 5-17
- Location: Within ¼ mile of a school



COUNTERMEASURE PAIRING

Left turn
conflicts at
signals



Leading
pedestrian
interval

Weaving
in and out
of traffic



Street
redesign

Excessive
speeding



Speed
enforcement

COUNTERMEASURE PAIRING

Key Resources:

- FHWA Crash Modification Factors Clearinghouse
- FHWA Toolbox of Countermeasures and their Potential Effectiveness for Pedestrian Crashes
- NCHRP 17-56: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments
- Agency Interviews

CORRIDOR PRIORITIZATION

Severity

Vulnerability

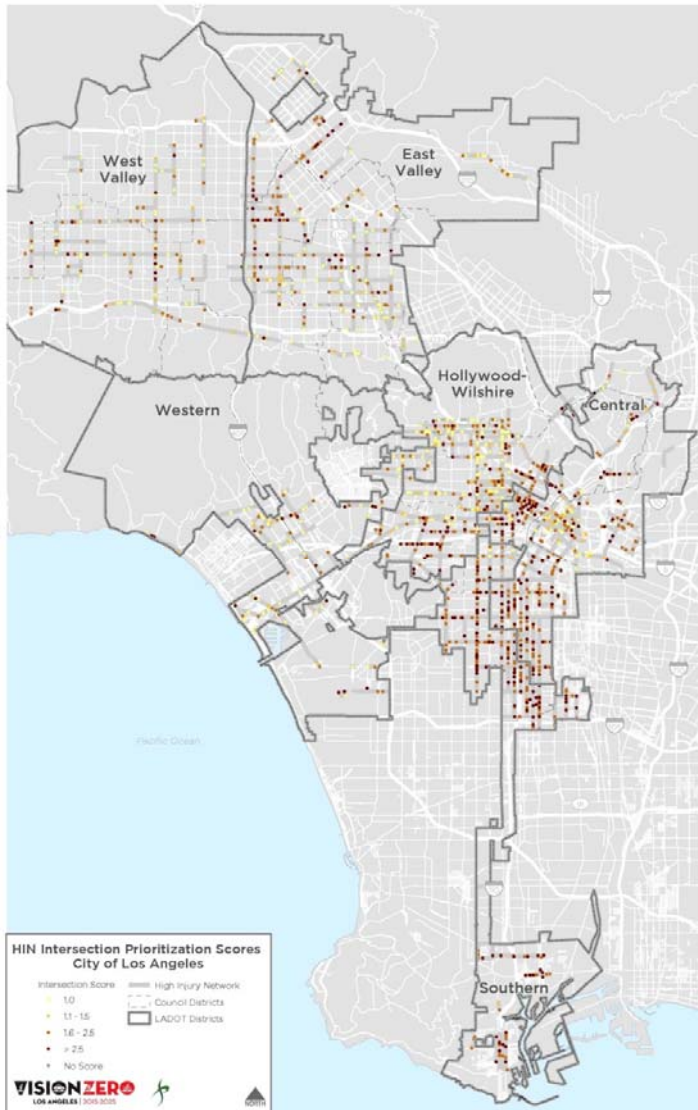
Social
Equity

Geography

Dangerous
Behavior

Inexpensive
& Simple

CORRIDOR PRIORITIZATION



Are there higher overall fatalities and severities?

Does it involve children or seniors?

Does it intersect with neighborhoods affected by lower health outcomes?

WHAT'S NEXT?

WE WILL MAKE STREETS SAFER THROUGH

- Street Design
- Education and Engagement
- Legislation



CONTACT US

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LOS ANGELES | 2015-2025



**ELIMINATING TRAFFIC DEATHS
IN LOS ANGELES BY 2025**

AUGUST 2015



Eric Garcetti | Mayor

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