



## Los Angeles County Vision Zero

Toolbox Training: Improving Road Safety with High-Injury Networks

April 16, 2019

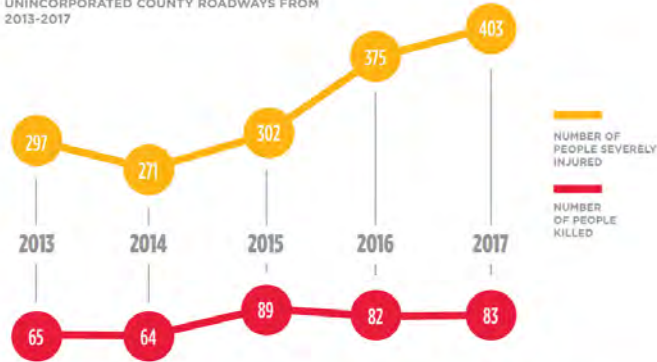
### What is Vision Zero?

Vision Zero is a traffic safety initiative to eliminate traffic deaths and severe injuries.



# Fatal and Severe Injury Collisions (2013-2017)

ANNUAL NUMBER OF TRAFFIC-RELATED FATALITIES AND SEVERE INJURIES ON UNINCORPORATED COUNTY ROADWAYS FROM 2013-2017



Source: Los Angeles County Public Works' Collision Database, collisions occurring between 2013 and 2017 for unincorporated County roadways.



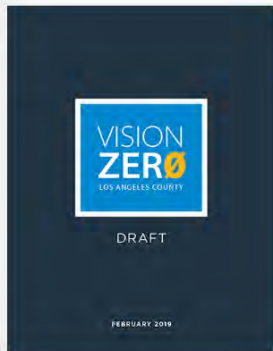
# Board Motions



- **October 4, 2016** –Analyze traffic collision data and report back on the potential to implement a Vision Zero Initiative.
- **February 14, 2017** – Directed Public Works and Public Health to co-lead a Vision Zero Initiative and implement the strategies in the report 2016 report which included the development of an Action Plan.



# Board Motions



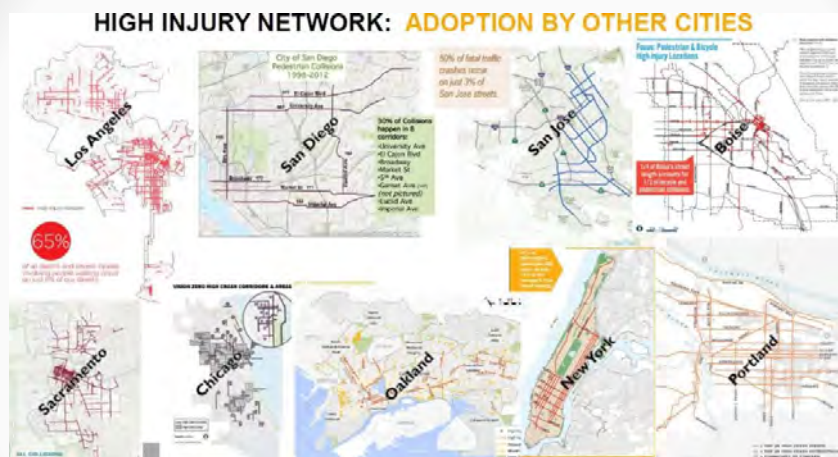
## Contents of the Action Plan (5-Year)

- Background on Vision Zero
- Data analysis results
- Approximately 200 corridors experiencing concentration of fatal and severe-injury collisions
- Approximately 65 Actions to enhance traffic safety

Available for download and comment at [VisionZeroLACounty.com](http://VisionZeroLACounty.com)



# High-Injury Networks Across the U.S.



<https://visionzeronetwork.org/hin-for-the-win/>



## Cleaning the Data



### Collision Data:

Years: 2013-2017

383 Fatal Collisions

1523 Severe Injury  
Collisions



## Public Works Collision Database



## Cleaning the Data



1. Export Public Works Collision Database
2. Download UC Berkeley's Transportation Injury Mapping System (TIMS) Data
3. Spatially compare collisions that occurred on the same day at the same location to match records
4. Consult the Traffic Collision Report or California Highway Patrol for discrepancies (location, severity, jurisdiction)



## Cleaning the Data



### Lessons Learned

1. TIMS is helpful, but don't rely fully on TIMS. Consult the reports or your local PD.
2. Double check that collisions are geolocated in the correct location early on.
3. Don't underestimate the time this will take.



# Methodology

## San Francisco

- ¼ mile overlapping street segments
- Establish threshold for street segments to be included in HIN



<https://www.sfdph.org/dph/files/EHSdocs/PHES/VisionZero/Vision Zero High Injury Network Update.pdf>



# Methodology

## Challenges We Faced

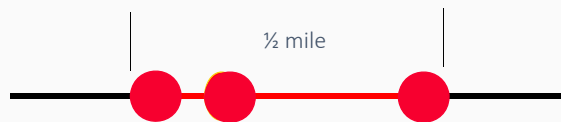
- Automation
  - Public Works is continually working on updating street centerline data
- Dividing and joining the street segments
- Assigning collisions to street segments
- Action Plan deadlines



# Methodology

## Collision Concentration Corridors

Any half-mile roadway segment that contained 3 or more fatal or severe-injury collisions within the last 5 years (2013 - 2017).

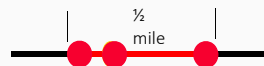


# Methodology



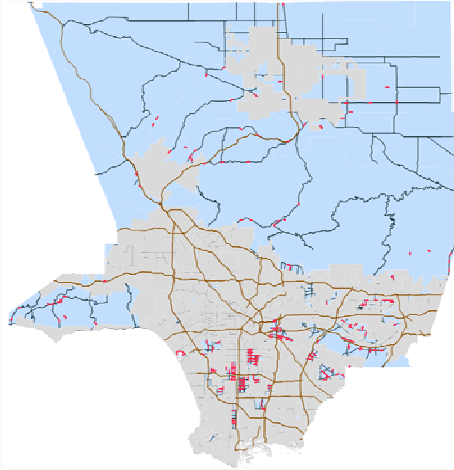
## Assumptions

- Identifying corridors
- Minimum 0.5 mile segments
- Intersection collisions would be applied to both streets
- Segments would be combined with adjacent segments that met the 3 collisions/half-mile threshold
- Segments were scored and weighted
- Scores were normalized by dividing the length of the combined segments





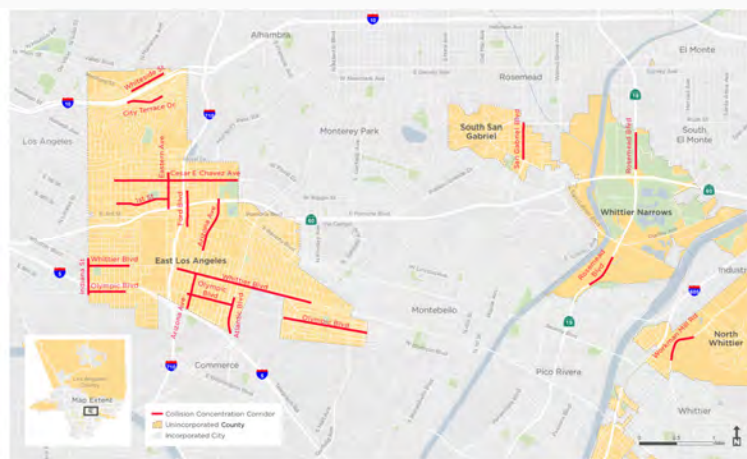
# Collision Concentration Corridors



- **50%** of traffic fatality and severe injury collisions occurred on **3.7%** (or 125 miles) of Unincorporated County roadways



# Draft Action Plan Maps





# Draft Action Plan Maps



# Prioritization Score Formula

## Prioritization Score Formula

$$\begin{aligned}
 &\text{COLLISION CONCENTRATION CORRIDOR PRIORITY SCORE} = \frac{\text{Number of Fatal and Severe Injury Collisions} + (0.5 \times \text{Number of Fatal Collisions that involved any type of travel mode}) + (0.25 \times \text{Number of Fatal and Severe Injury Collisions that Involved Vulnerable Users}) + (0.25 \times \text{Number of Fatal and Severe Injury Collisions that occurred in the most disadvantaged communities per the Healthy Places Index})}{\text{Segment Length}}
 \end{aligned}$$

Note: The minimum segment length for any location experiencing three or more fatal and/or severe injury collisions was assumed to be 0.5 miles. Also any overlapping segments were combined for clarity.



# Top 20 Collision Concentration Corridors

Community Name	Street	Approximate Limits	Reported Fatal and Severe Injury Collisions (2015-2017)	Length (miles)	Priority Score (per mile)
Angeles National Forest	Angeles Forest Hwy	0.5 mile north of Upper Big Tujunga Canyon Rd to 1 mile north of Upper Big Tujunga Canyon Rd	11	0.5	20
East Los Angeles	Whittier Blvd	Indiana St to Record Ave	6	0.55	16.7
East Rancho Dominguez	Compton Blvd	Butler Ave to Williams Ave	7	0.5	21.5
El Camino Village	Crenshaw Blvd	147th St to Manhattan Beach Blvd	10	0.75	21
Florence-Firestone	Firestone Blvd	Miramonte Blvd to Grape St	10	0.5	23.5
Florence-Firestone	Alameda St	8th Street to 94th St	10	0.64	22.2
Florence-Firestone	92nd St	Elm St to Alameda St	6	0.5	17
Lennox	Hawthorne Blvd	104th St to 111th St	6	0.5	16.9
Rancho Dominguez	Del Amo Blvd	Santa Fe Ave to Long Beach Fwy	6	0.5	18.5
Walnut Park	Pacific Blvd	Florence Ave to Broadway	6	0.5	17.5
Westmont / West Athens	El Segundo Blvd	Dunker Ave to Vermont Ave	12	0.74	20.8
Westmont / West Athens	Vermont Ave	95rd St to 110th St	15	1.15	19.7
Westmont / West Athens	Western Ave	105th St to Imperial Hwy	9	0.69	19.5
Westmont / West Athens	Normandie Ave	88th Pl to Imperial Hwy	24	1.81	19
Westmont / West Athens	120th St	Normandie Ave to Vermont Ave	6	0.5	18
Westmont / West Athens	Century Blvd	Normandie Ave to Vermont Ave	6	0.52	16.4
Whittier Narrows	Rosemead Blvd	South El Monte City Boundary to Potomac Fwy	5	0.5	19
Willowbrook	Central Ave	120th St to El Segundo Blvd	6	0.5	21
Willowbrook	El Segundo Blvd	Broadway to Avalon Blvd	8	0.66	18.2
Willowbrook	Wilmington Ave	Imperial Hwy to 100th St	8	0.77	16.5



We want your feedback



[VisionZeroLACounty.com](http://VisionZeroLACounty.com)



# Questions?



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Vision Zero Draft Action Plan Feedback

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