

# Denver Vision Zero

Current Program and Beyond

Denver City Council  
Land Use, Transportation & Infrastructure Committee  
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# WHAT IS VISION ZERO?

Last year, more than 40,000 people were killed travelling on our streets nationally

We have referred to these incidents as “accidents”

Traditional approach: limited data & resources, partners not at table

Vision Zero views traffic fatalities as *unacceptable* and *preventable*

Measurable goals and strategies

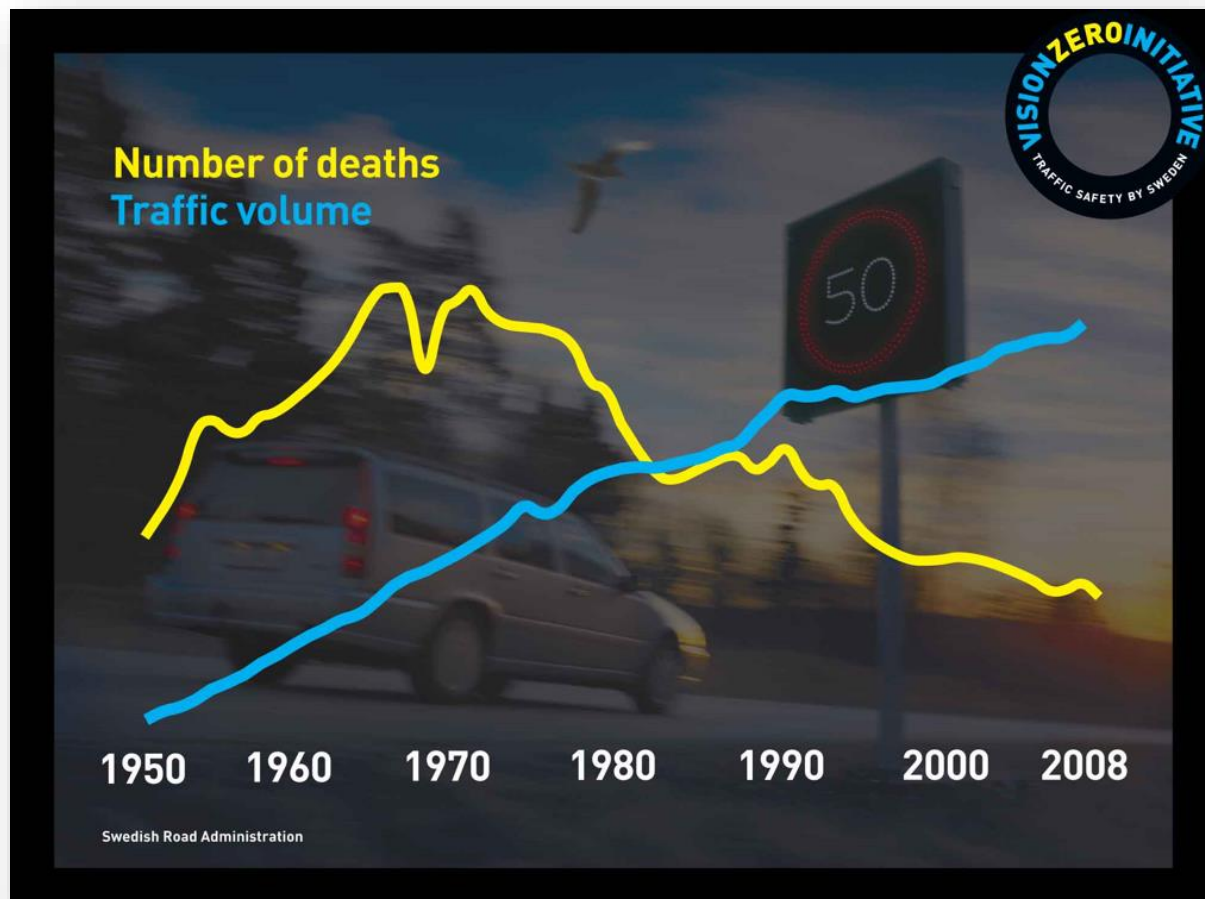
Data-driven, systems-level, transparent & multidisciplinary

## Focus on **equity**

Recognize that people will make mistakes and build a transportation system that minimizes the consequences of human error

Speed is fundamental to reducing injury and fatal crash frequency

## Vision Zero in Sweden



- Since 2014, 27 US Cities have committed to Vision Zero
- Early adopter cities (Plan goal year):
  - New York City (2024)
  - Los Angeles (2025)
  - Washington, D.C. (2024)
  - San Francisco, CA (2024)
  - Seattle, WA (2030)



# DENVER'S VISION ZERO PROGRESS

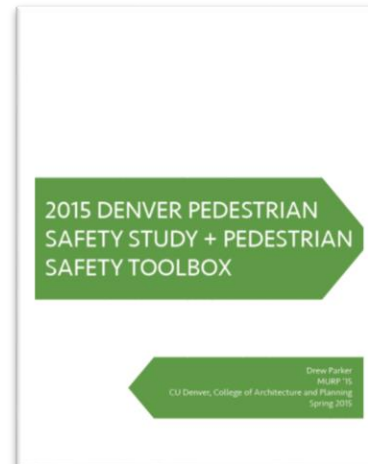


Annual program:  
all modes, data-  
driven

Deep dive:  
Bicycle Crash  
Analysis

Deep dive:  
Pedestrian  
Safety Study

Vision Zero:  
February 17,  
2016



- Coalition building
  - Technical Advisory Committee
  - Vision Zero Network
  - Vision Zero Coalition
- Initiate development of Action Plan
- Infrastructure improvements
  - Initiate bike/ped safety projects
  - Pedestrian signal upgrades
- Marketing, branding and website





# VISION ZERO ACTION PLAN

## Data Analysis & Best Practice Review

- Intensive data analysis
- Similar Vision Zero Plans
- Proven countermeasures
- City policies

## Partner Discussions

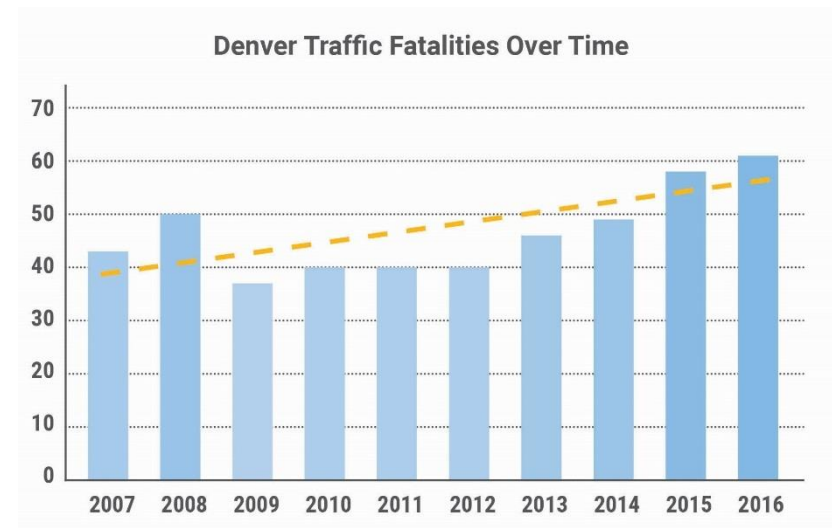
- Working Group meetings:
  - Speed & Street Design*
  - Impairment*
  - Safety Culture*
- Stakeholder meetings

## Public Surveys

- Online Map
- Intercept surveys

**Thousands reached**

- Traffic deaths have risen over time
  - Denver crash rate higher than most peer cities
- In Colorado, motor vehicle crashes account for more than **twice the number of deaths as homicides**
- Someone loses their life every **six days** while travelling in our city



In Denver, compared to a motorist:



Pedestrians are approximately **30 times** more likely to die in a crash

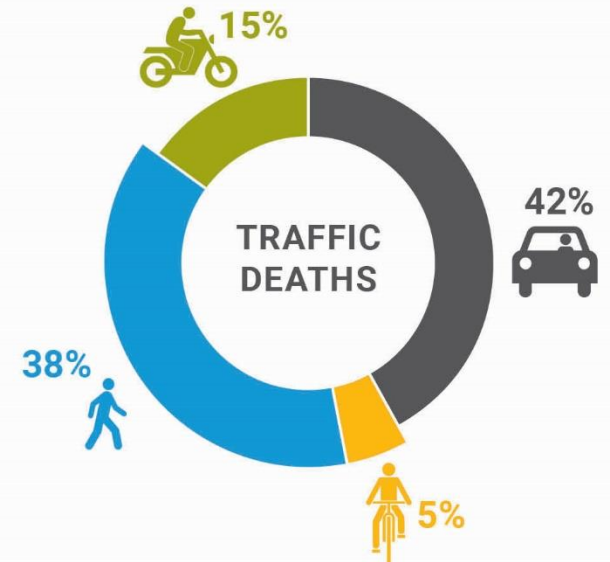
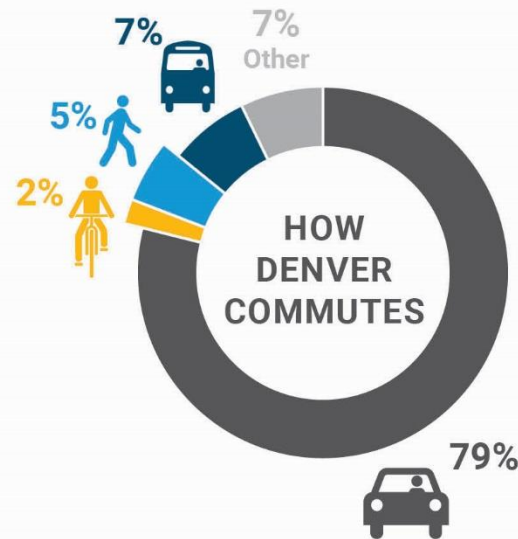


Motorcyclists are nearly **13 times** more likely to die in a crash



Bicyclists are **6.5 times** more likely to die in a crash

Denver traffic modes versus traffic deaths:



- April 2017
- 4 locations, nearly 200 responses
- Biggest concerns: speeding, distracted driving, and crossing times
- Top wish for City action: build safe streets for everyone



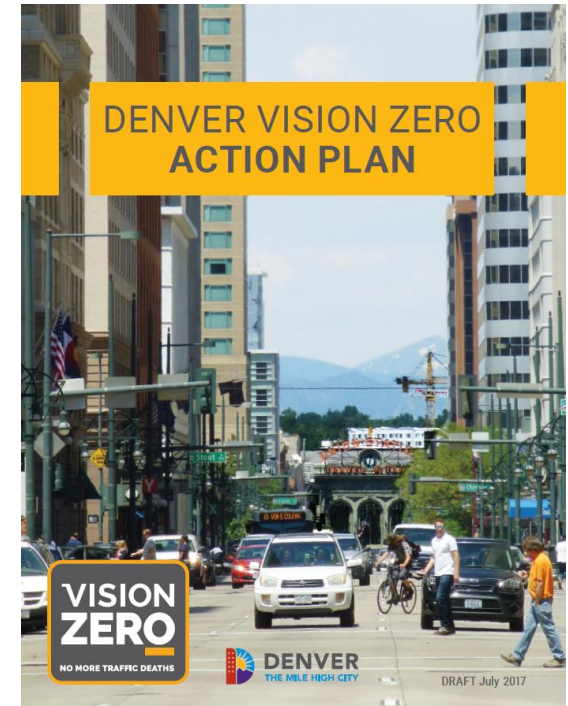
- >2800 responses
- Biggest concerns: speeding, failure to yield, and other
- Most people responded as: pedestrian taking work commute trips
- Hotspots & citywide issues





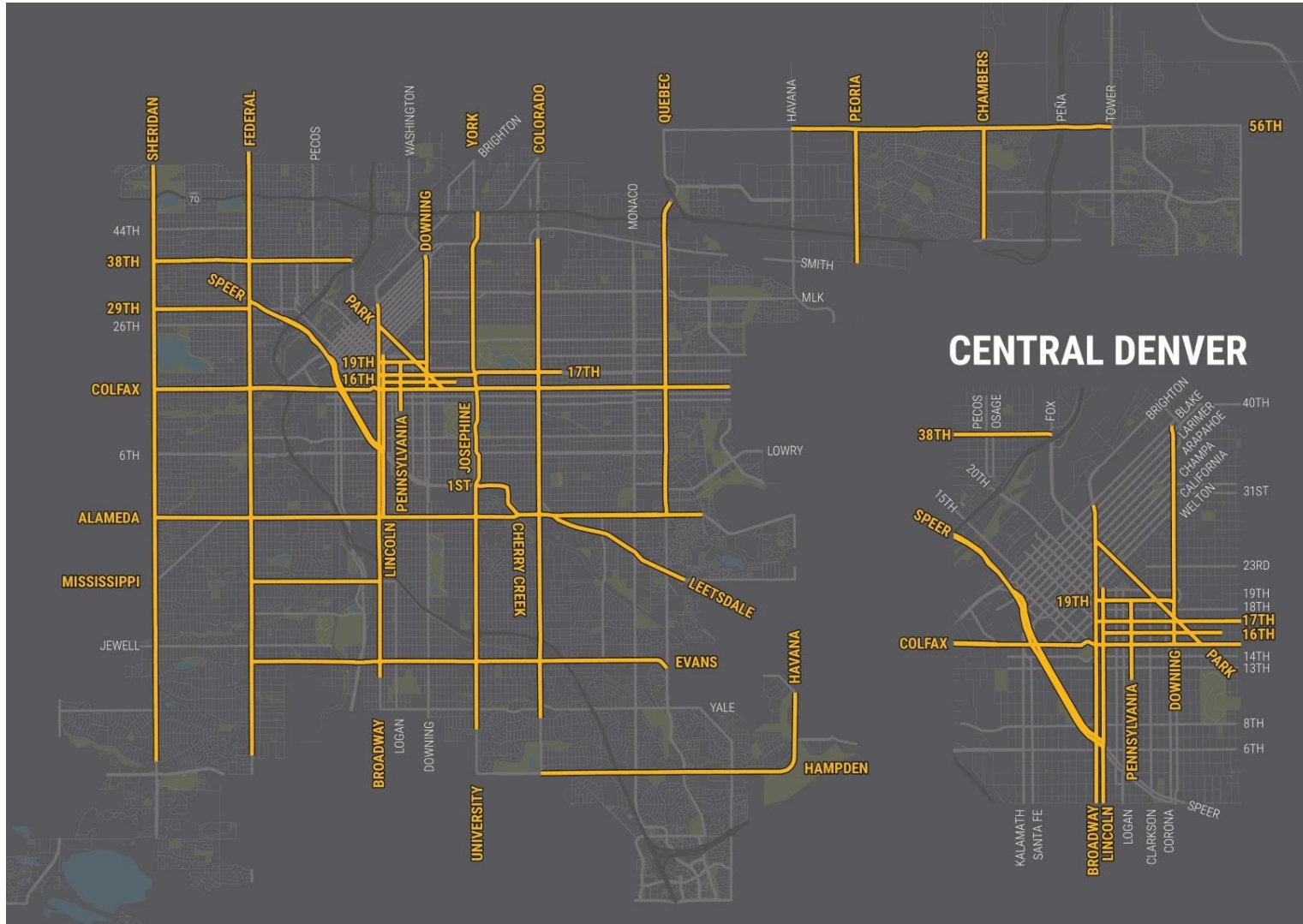
This is a 5-year Action Plan for eliminating traffic deaths by 2030.

1. Enhance Processes and Collaboration
2. Build Safe Streets for Everyone
3. Create Safe Speeds
4. Promote a Culture of Safety
5. Improve Data and Be Transparent

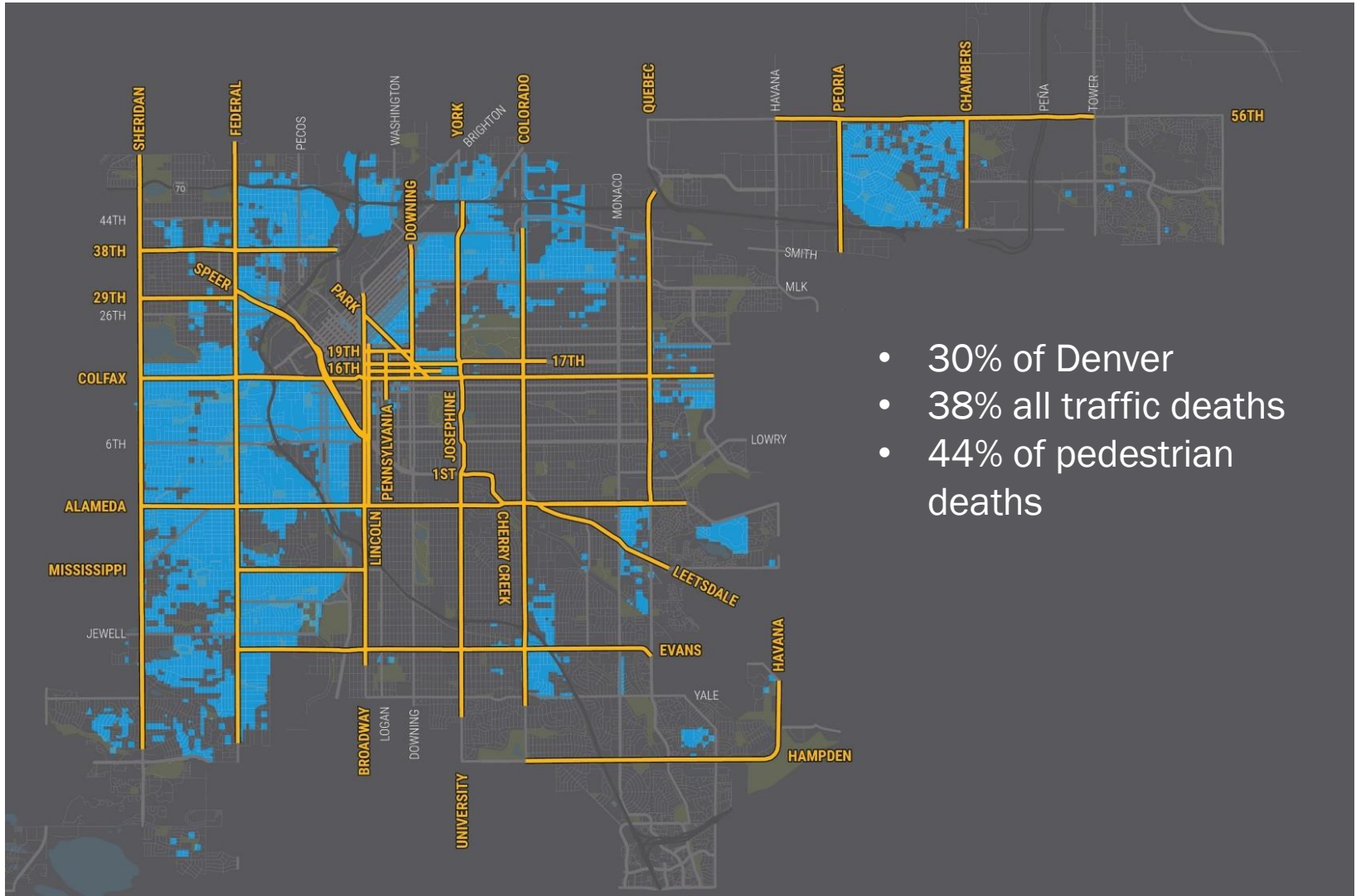


*Focusing efforts on the most dangerous streets and in the most vulnerable communities is a responsible use of limited City resources.*

- 123 miles
- Around 5% of Denver's street network
- ~ 50% of fatalities



# Communities of Concern (CoC)



- 30% of Denver
- 38% all traffic deaths
- 44% of pedestrian deaths



# OTHER EFFORTS

- Vision Zero Summit, March 8, 2017
- Community outreach (dozen events 2017)



- Team meets following a fatal crash
- Purpose: assess & recommend
- Membership: DPW, DPD, DEH, DVZC, CDOT, RTD



- 5 areas citywide
- Highest concentration of bicycle and pedestrian crashes
- Extensive data collection
- Identify short- and long-term implementable projects





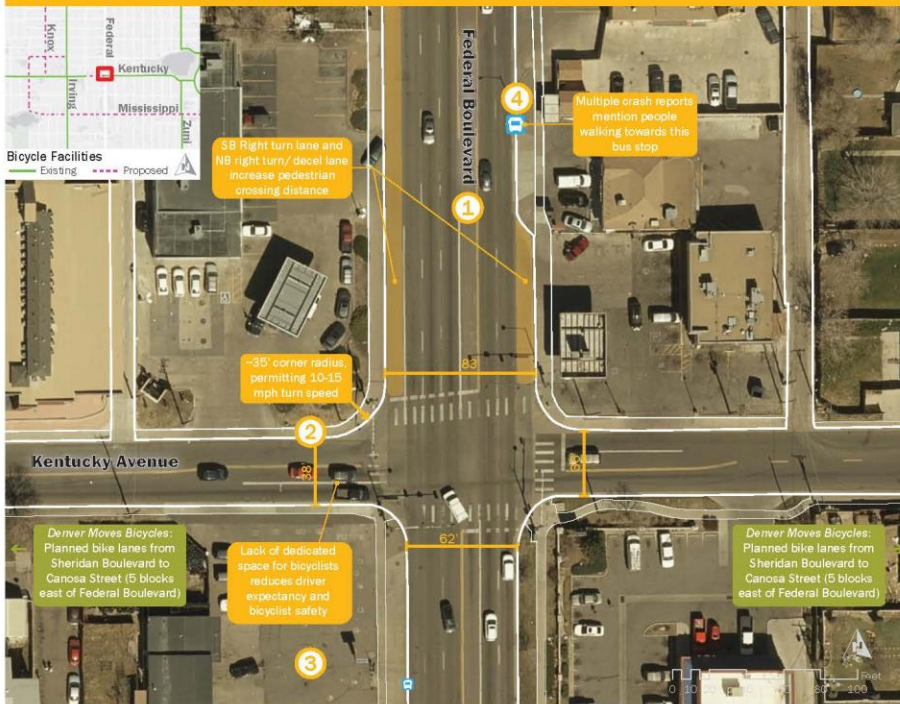
## FEDERAL BOULEVARD & KENTUCKY AVENUE - EXISTING CONDITIONS

Vision Zero: Intersection Improvement Designs

DRAFT



### EXISTING CONDITIONS



### ISSUES

- 6-8 lanes of traffic lengthen crossing distances for pedestrian and bicyclists and increase exposure
- Large curb radii increase turning speeds
- Large building setbacks with parking fronting the street on all corners and numerous curb cuts create a challenging and unfriendly pedestrian environment

### OPPORTUNITIES

- As proposed in the Federal Boulevard Corridor Plan, the Southbound right turn lane and northbound deceleration lane could be removed to reduce crossing distance
- Opportunity to implement school zone speed enforcement measures
- Potential for flashing left turn arrows or LPIs on the Kentucky Avenue phase



**24 Hr Recorded Speeds\*:**

- Southbound: 37 MPH
- Northbound: 38 MPH
- Speed Limit: 40 MPH

\* Recorded Tuesday, 1/10/17 (85th percentile)

Castro Elementary, Kepner Legacy Middle School, and the Boys and Girls Club to the west of Federal Boulevard generate a high volume of children walking and biking across Federal Boulevard.

Surface parking lots and properties with large building setbacks create an unfriendly pedestrian environment, narrowing drivers' field of vision and encouraging high speeds

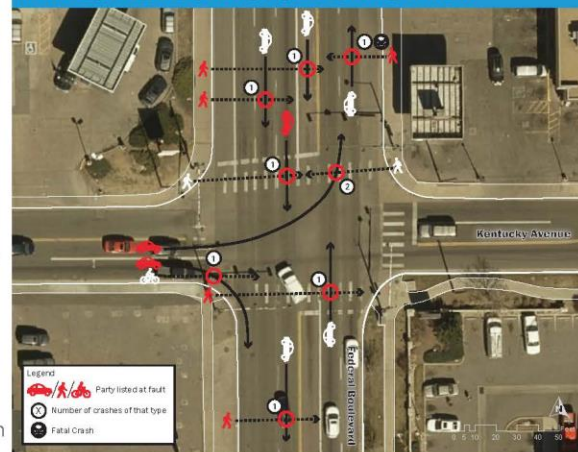
Pedestrian desire lines and existing land use, combined with a long wait time to cross with the signal at the intersection (12m27s) encourages midblock pedestrian crossings and pedestrians crossing against the signal

### PEDESTRIAN & BICYCLE PERSPECTIVES



**VIEW A:** View looking east along Kentucky Avenue of the long pedestrian crossing distance

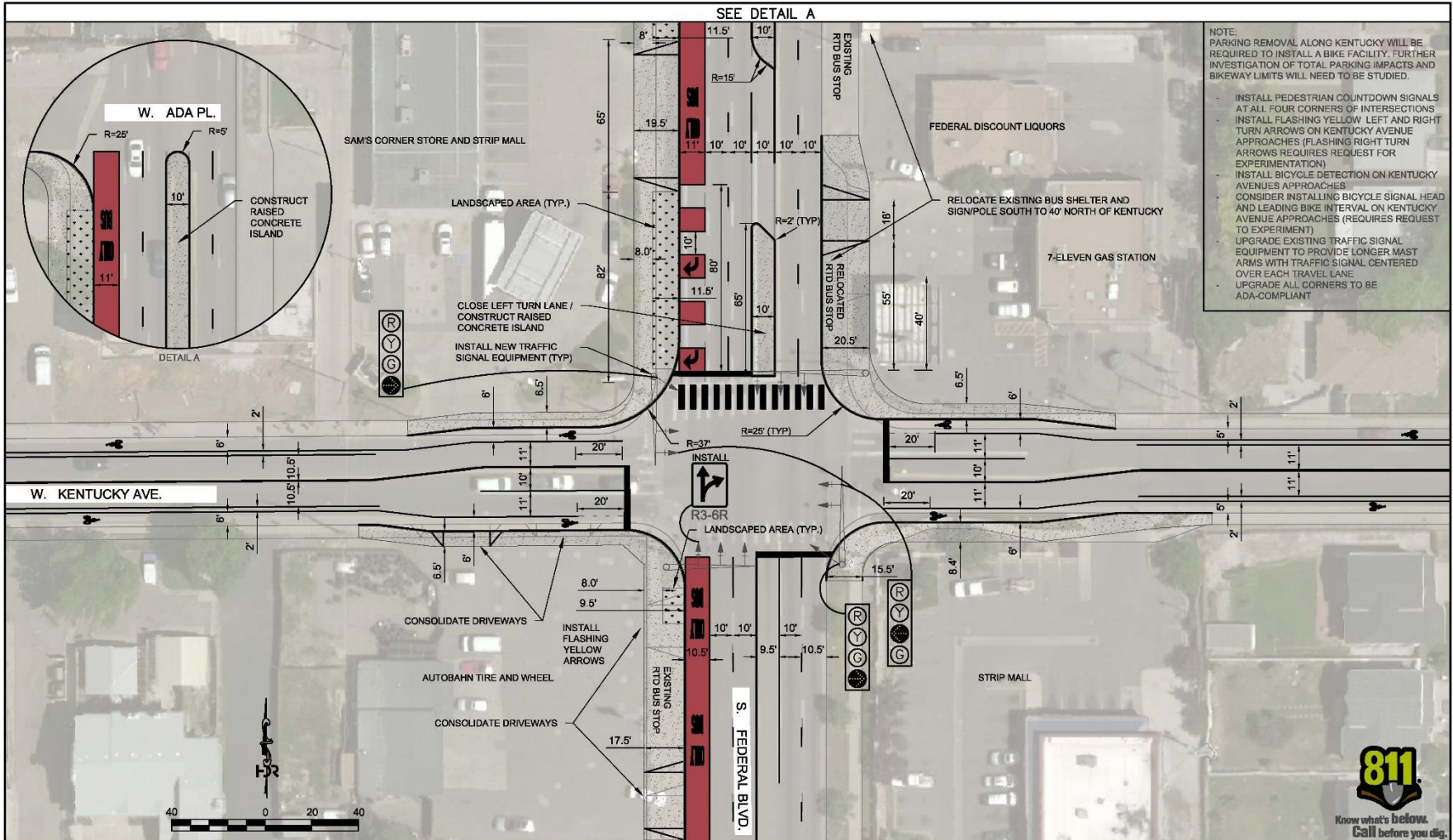
### PEDESTRIAN & BICYCLE CRASH MAP



\*This diagram does not include every crash as some detailed crash reports were not available



**VIEW B:** View looking east along Kentucky Avenue of the sidewalk conditions leading up to the intersection



NOTE:  
PARKING REMOVAL ALONG KENTUCKY WILL BE REQUIRED TO INSTALL A BIKE FACILITY. FURTHER INVESTIGATION OF TOTAL PARKING IMPACTS AND BIKEWAY LIMITS WILL NEED TO BE STUDIED.

- INSTALL PEDESTRIAN COUNTDOWN SIGNALS AT ALL FOUR CORNERS OF INTERSECTIONS
- INSTALL FLASHING YELLOW LEFT AND RIGHT TURN ARROWS ON KENTUCKY AVENUE APPROACHES (FLASHING RIGHT TURN ARROWS REQUIRES REQUEST FOR EXPERIMENTATION)
- INSTALL BICYCLE DETECTION ON KENTUCKY AVENUE APPROACHES
- CONSIDER INSTALLING BICYCLE SIGNAL HEAD AND LEADING BIKE INTERVAL ON KENTUCKY AVENUE APPROACHES (REQUIRES REQUEST TO EXPERIMENT)
- UPGRADE EXISTING TRAFFIC SIGNAL EQUIPMENT TO PROVIDE LONGER MAST ARMS WITH TRAFFIC SIGNAL CENTERED OVER EACH TRAVEL LANE
- UPGRADE ALL CORNERS TO BE ADA-COMPLIANT



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Sheet Revisions		
Date:	Comments	Init.

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As Constructed	
No Revisions:	
Revised:	
Void:	

FEDERAL AND KENTUCKY LONG-TERM IMPROVEMENT PLAN	
Designer:	R. PLENGE
Detailer:	G. ADELBERG
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Structure Numbers	
Subset Sheets:	1 of 1

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# WHAT'S NEXT

- 2018 Budget
  - Outreach and education \$500,000
  - Infrastructure implementation \$1M
  - Staff expansion
    - Engineer
    - Data Analyst
- One Federal Blvd



# VISION ZERO

NO MORE TRAFFIC DEATHS



DENVER  
THE MILE HIGH CITY

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