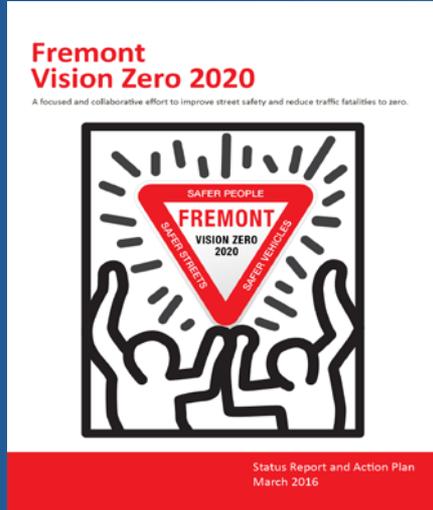


Fremont Vision Zero 2020

A Safe City Getting Safer



Association of Pedestrian & Bicycle Professionals
Annual Conference, August 26, 2019



About Fremont

230,000 Population; 4th Largest City in Bay Area



About Fremont

“#1 Happiest Place to Live in America” (2017 WalletHub Study)

- Family Friendly
- Excellent Public Schools
- Parks and Open Space
- Low Crime Rate
- Regional Transit Access
- Silicon Valley Economy
- Unique History



About Fremont

- City incorporated in 1956 from farmland and railroad junctions
- Median Household Income \$114,000
- 49% of residents have Bachelor's degree or higher
- Ethnically and racially diverse
 - Asian - 50%
 - White - 33%
 - Hispanic - 14%
 - Black/African American - 3%
 - Sizeable Indian, Chinese, Filipino, & Afghan communities



Vision Zero Core Principles

TRADITIONAL APPROACH

Traffic deaths are **INEVITABLE**

PERFECT human behavior

Prevent **COLLISIONS**

INDIVIDUAL responsibility

Saving lives is **EXPENSIVE**

VS

VISION ZERO

Traffic deaths are **PREVENTABLE**

Integrate **HUMAN FAILING** in approach

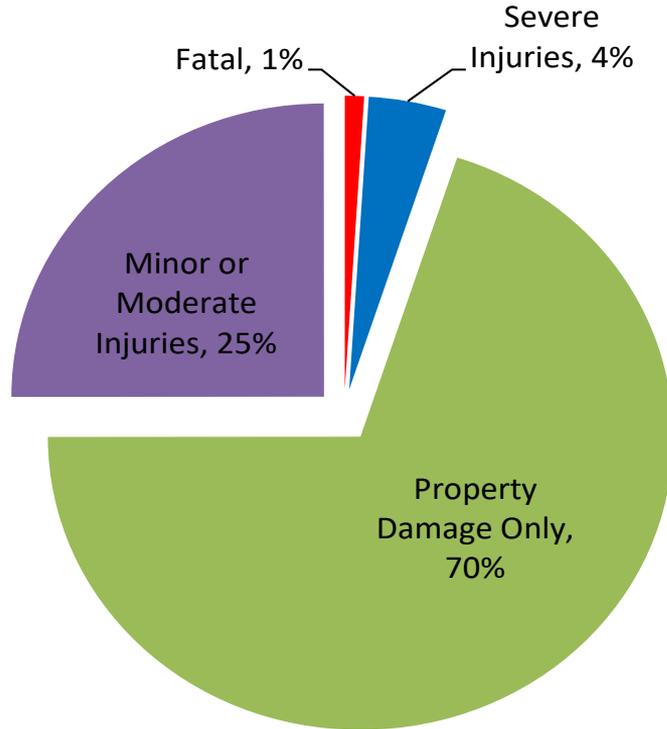
Prevent **FATAL AND SEVERE CRASHES**

SYSTEMS approach

Saving lives is **NOT EXPENSIVE**

Source: Vision Zero Network

Focus on “Major Crashes”



**“Protecting
bodies, not
bumpers”**

Importance of speed



As motor vehicle speeds increase, the risk of serious injury or fatality for a pedestrian also increases (*AARP Impact Speed and a Pedestrian's Risk of Severe Injury or Death 2011, p. 1*). Also, motorist visual field and peripheral vision is reduced at higher speeds.

Traffic Crashes in Fremont

Fatalities in 2014 and 2015 Were Up Significantly



Vision Zero in Fremont

Initiated by Fremont City Council in September 2015

- **Vision Zero Action Plan**

(Adopted March 2016)

- Safer People — “Enforcement, Education”
- Safer Streets — “Engineering”
- Safer Vehicles

- **7th U.S. City to Adopt Vision Zero Plan**

1. New York City (2014), 2. San Francisco, 3. Seattle,
4. San Jose, 5. Boston, 6. Washington DC, 7. Fremont



Vision Zero Action Plan

2019-2020

VISION ZERO ACTION PLAN

SAFER STREETS



- 1 ENHANCE PEDESTRIAN CROSSINGS
- 2 TAME HIGH-SPEED ARTERIAL STREETS
- 3 PROVIDE NEW TRAFFIC SIGNALS AT PRIORITY LOCATIONS
- 4 EXPAND SAFE ROUTES TO SCHOOLS PROGRAMS
- 5 BUILD BETTER BIKEWAYS
- 6 MAKE FREEWAY INTERCHANGES SAFER FOR WALKING AND BICYCLING



SAFER PEOPLE



- 7 EXPAND TRAFFIC SAFETY PROGRAMS
- 8 CONTINUE TARGETED ENFORCEMENT OF SPEEDING
- 9 REDUCE IMPAIRED DRIVING



SAFER VEHICLES

- 10 PROMOTE CRASH AVOIDANCE TECHNOLOGY IN VEHICLES



www.fremont.gov/visionzero2020

2015 - Vision Zero Initiated

Baseline of Strong Safety Record

- Fremont fifth among 20 largest CA cities in fatal crash rate
- 10 intersections with red light cameras
- Engaged Police Department with traffic safety performance measure
- Robust neighborhood traffic calming program

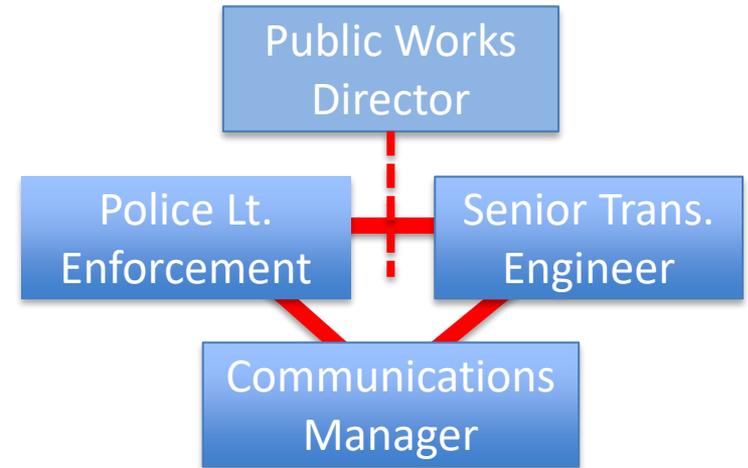
Irvine	2.01
Chula Vista	2.68
Long Beach	2.96
San Diego	3.19
Fremont	3.50
San Francisco	3.64
Oakland	3.87
San Jose	4.13
Stockton	4.30
Santa Ana	4.48
Modesto	4.78
Los Angeles	4.86
Anaheim	4.90
Sacramento	4.95
Fresno	5.04
Oxnard	5.35
Fontana	5.37
Riverside	6.57
Bakersfield	8.14
San Bernardino	13.94

Source: SWITRS, 2014 Calendar Year,
Crash Rate per 100,000 Population

Fremont's Safety Success Recipe

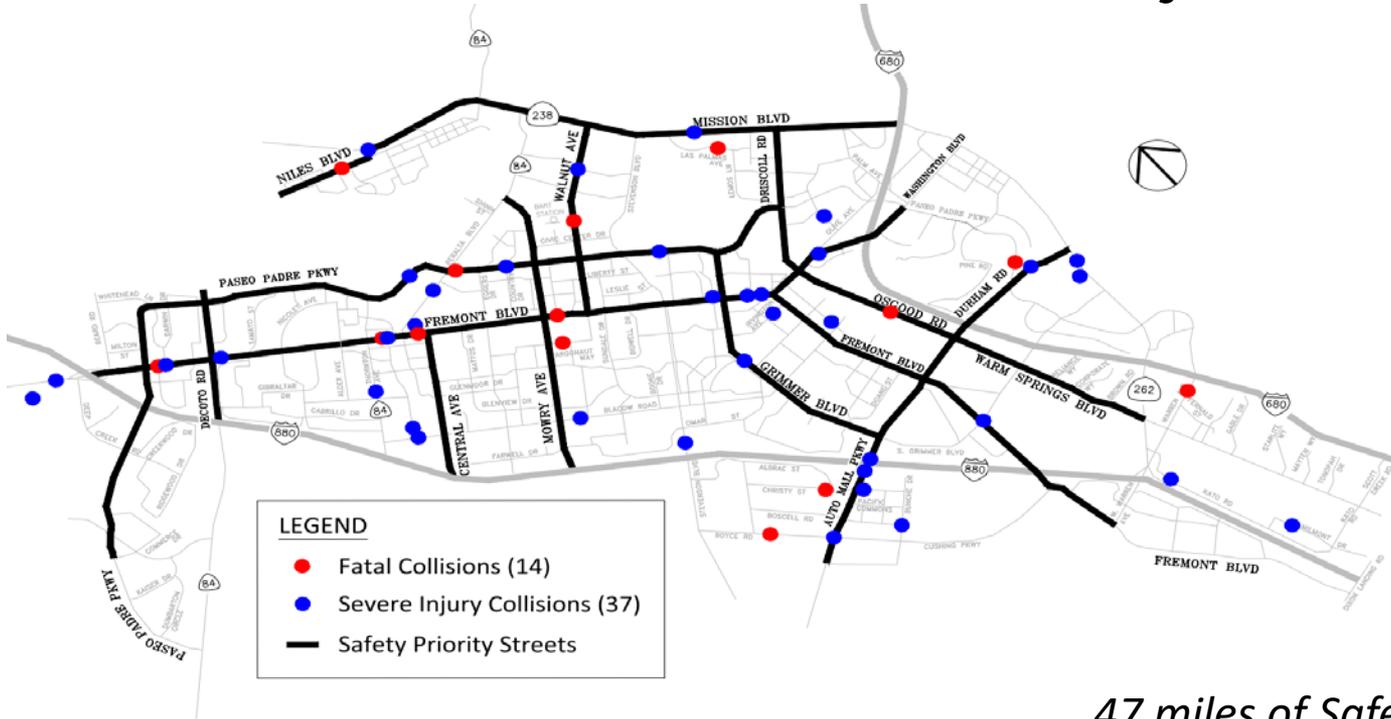
"Just Do It" ... No new budget, staff, consultants, or committees

- **Rigorous Evaluation of Safety Data** (by internal staff)
- **Align Transportation Engineering Investment Toward Safety**
(repurposed \$2 million from CIP)
- **Proactive Engagement by Police Department**
- **Integrate Traffic Safety Into Public Communication**
- **Right-sizing of public engagement**



Safety Priority Streets

10% of Streets Have 85% of Fatalities, 68% of Major Crashes



47 miles of Safety Priority Streets

Collision Narratives

Sample from 2018 collision

On 7/8 at 10:38 am, a 89-year old male pedestrian crossing Decoto Road (5-lane, 40 mph, major street) near Mount Palomar Ct was killed when hit by a vehicle traveling westbound. The pedestrian was crossing the roadway midblock after disembarking from the AC transit bus. This collision occurred due to a multiple-threat scenario.

Quick Build Spot Improvements

Grimmer Curve – 10' travel lanes plus delineators/k-rail



Countdown Pedestrian Signals

- Increased from 50 locations to all 220 traffic signal locations Citywide



In 2015, two senior pedestrians were struck and killed in signalized crosswalks; possibly due to lack of awareness of available crossing time.

Brighter Street Lighting



Converted 16,000 streetlights from “yellow” sodium vapor to brighter “white” LED lights

Safer Street Design

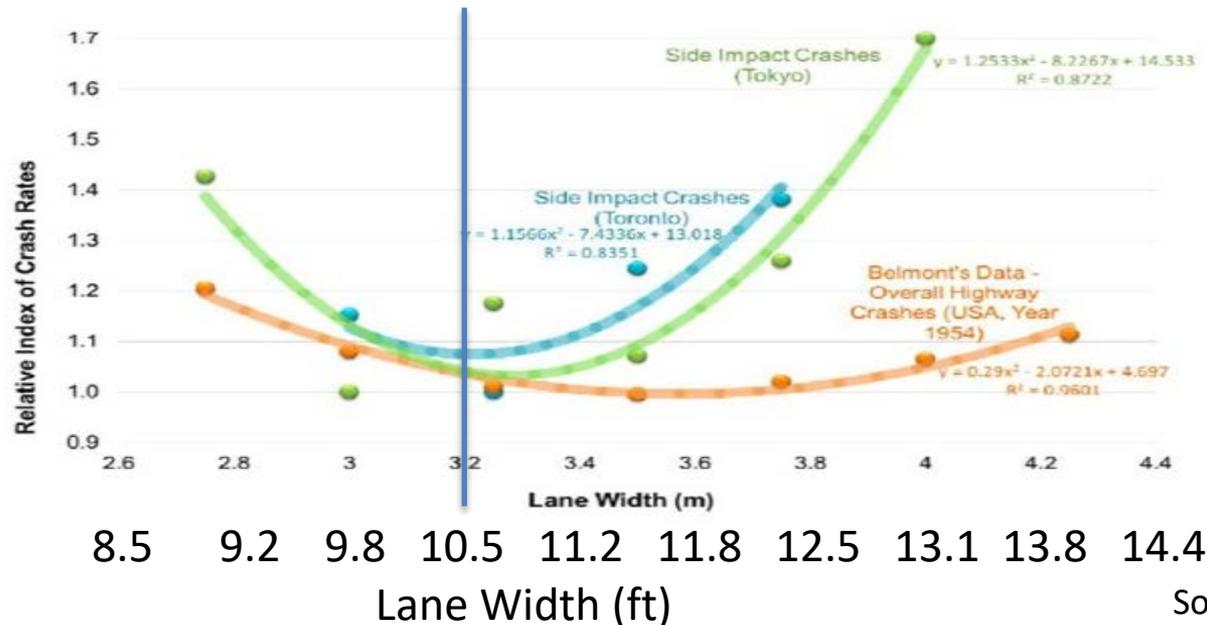
10-Foot Vehicle Travel Lanes, Buffered Bike Lanes, Road Diets



Fremont now has 49 miles buffered bike lanes

Safer Street Design

Lanes widths of 10 to 10.5 feet minimize crash rates on local streets



Source: Karim (2015)

“Safe and Complete” Street Design

10-Foot Vehicle Travel Lanes, Buffered Bike Lanes, Road Diets

Before



After



“Complete street” conversions incorporated into annual pavement maintenance program.

Safer Street Design

“Paint and plastic” bulb-outs, high visibility crosswalks



Quick build improvements using City maintenance crews

Safer Street Design

Striping Removal and Replacement Projects



Speed Management

- Speed surveys following lane narrowing
- Radar feedback signs
- Context-sensitive speed limits
- Policy reform



Pedestrian Crossing Enhancements

Quick build crossing improvements at 20 locations



Pedestrian Crossing Enhancements

New Beacons and Signals

- 2 new HAWK signals and 8 new RRFBs in 2 years
- 4 additional signals/beacons in design



School Safety Plans

Partnership with Fremont Unified School District



School safety site assessment plans completed for all 40 public schools

School Area Safety Improvements

Short-term improvements at every school in two years



Approximately 400 school area improvements at 40 schools

Neighborhood Traffic Calming



Increased speed lump locations from approximately 200 to 250

Enforcement

- Focused on High Risk Locations/Behaviors
 - Safety Priority Streets
 - Speeding and DUI
- Expanded Resources by Crossing-Training
 - 11 traffic officers; 93 patrol officers
 - Purchased more speed detection equipment
- Tripled Number of Speeding Stops
 - From 1,231 (2015) to 4,258 (2016)
 - Focus on stops not citations
- Saturation Patrols for DUI
 - 2 officers dedicated to DUI patrol 20 days a year



Education and Engagement

Stickers, Newsletters, Events, Social Media



Three, Two, One ... Fremont is Set to Launch 'Vision Zero'

A Plan to Improve Traffic Safety and Reduce Traffic Fatalities to Zero

In September 2015, the City Council approved "Vision Zero" as the City's traffic safety policy with the bold direction to eliminate traffic fatalities, reduce injury crashes, and improve safety for all modes of travel. The Vision Zero concept, started by Sweden in 1997, was subsequently adopted by many European countries and is credited with reducing traffic fatalities by over 50 percent in the past decade. The core principle of Vision Zero is making traffic safety the highest priority for the design and operations of the transportation

[Continued on Page 3](#)



Upcoming Traffic Safety Campaigns

- April:** National Distracted Driving Month
- May:** National Bicycle Safety Month
- May:** Click It or Ticket Mobilization Period



Education and Engagement

New Infrastructure “How To” Brochure



Fremont's New Traffic Safety Infrastructure Treatments

What Drivers, Pedestrians, and Bicyclists Should Know

Fremont is part of a growing national movement of cities that have adopted Vision Zero traffic safety policies. Vision Zero is a street safety policy that strives to eliminate traffic fatalities and reduce severe injuries for all travel modes.

In an effort to improve safety for all roadway users, the City of Fremont is installing new traffic control devices, pavement markings, and infrastructure treatments. This informational brochure provides tips on how motorists, pedestrians, and bicyclists should use these new treatments.

Flashing Beacons

Flashing beacons use a rapid flashing pattern to alert drivers when pedestrians are ready to cross.

As a motorist or bicyclist:

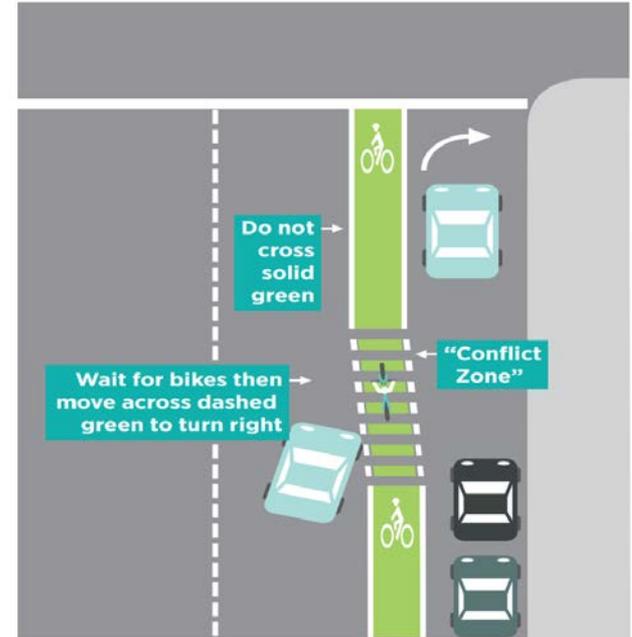
- Yield to pedestrians if the flashing beacon is activated.
- Stop behind “sharksteeth” if they are marked.

As a pedestrian:

- Use the push button to activate the flashing beacon.
- Ensure drivers are yielding and make eye contact before entering the crosswalk.



To view instructional videos on how to use new traffic safety signs, pavement markings, and traffic control devices visit www.fremont.gov/visionzero2020

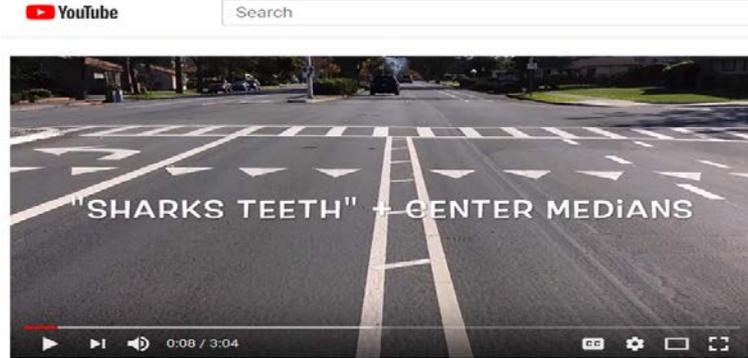


Brochure mailed to every household in Fremont



Education and Engagement

Low cost safety education videos



Youth Engagement

Safety Education Projects with Fremont Youth Service Corps and Girl Scouts



“LOOK” for safety stencils installed at 45 intersections

Safer Vehicles



EXPLAINING CRASH AVOIDANCE TECHNOLOGY

Pedestrian Automatic Emergency Braking

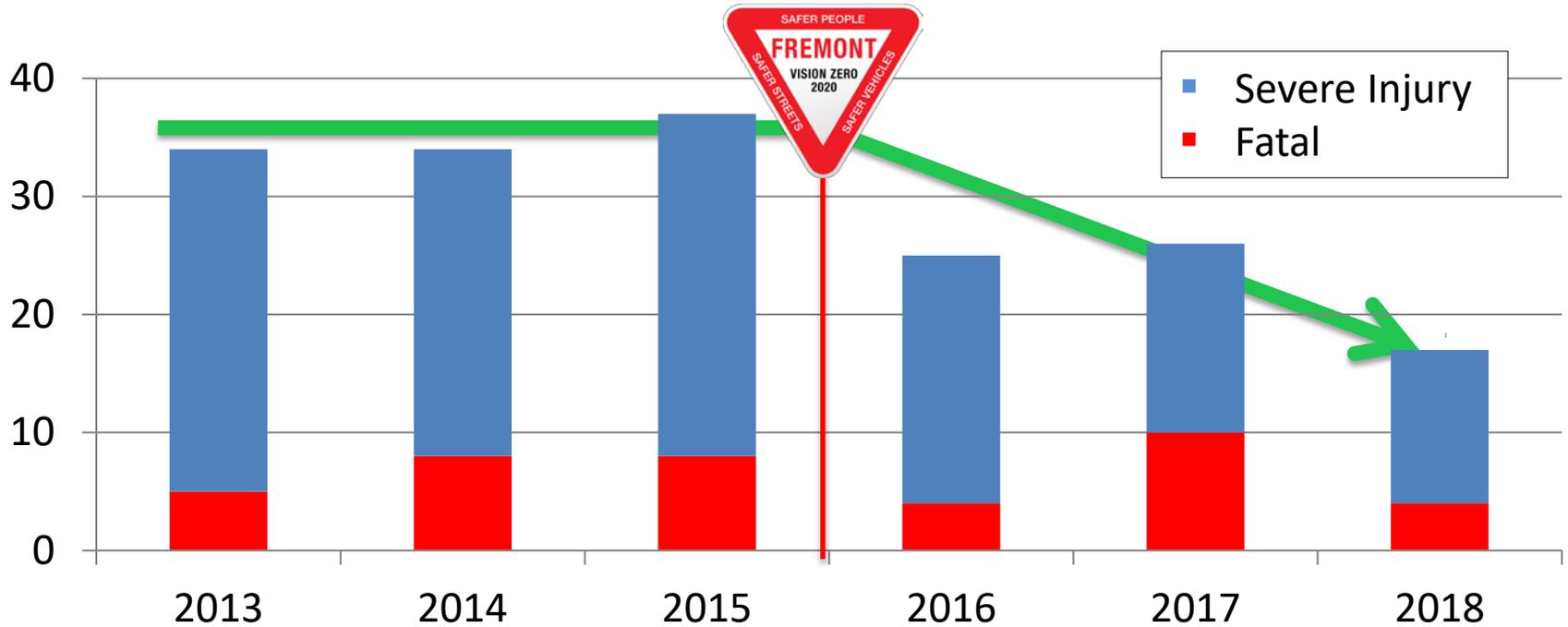
Watch how a new safety technology keeps Tested.com's Adam Savage from hitting a strangely familiar pedestrian.

[WATCH THE VIDEO](#)



Fremont Major Traffic Crash Trends

Since start of Vision Zero program, major traffic crashes are down over 50%



Fremont Vision Zero Results

Comparing Factors in Major Crashes Before and After Vision Zero

	Before VZ (2013-2015)	After VZ (2016-2018)	Change
Major Crashes	104	68	Down 35%
- Fatal	24	18	Down 14%
- Severe Injury	83	50	Down 40%
Travel Mode			
- Walking	34	21	Down 38%
- Bicycling	13	8	Down 38%
- Motorcycle	12	12	No Change
- Driving	45	27	Down 40%
Dark*	47	36	Down 23%

*Pedestrian Involved Crashes in Dark Dropped from 10 (2015) to 4 (2018); Down 60%

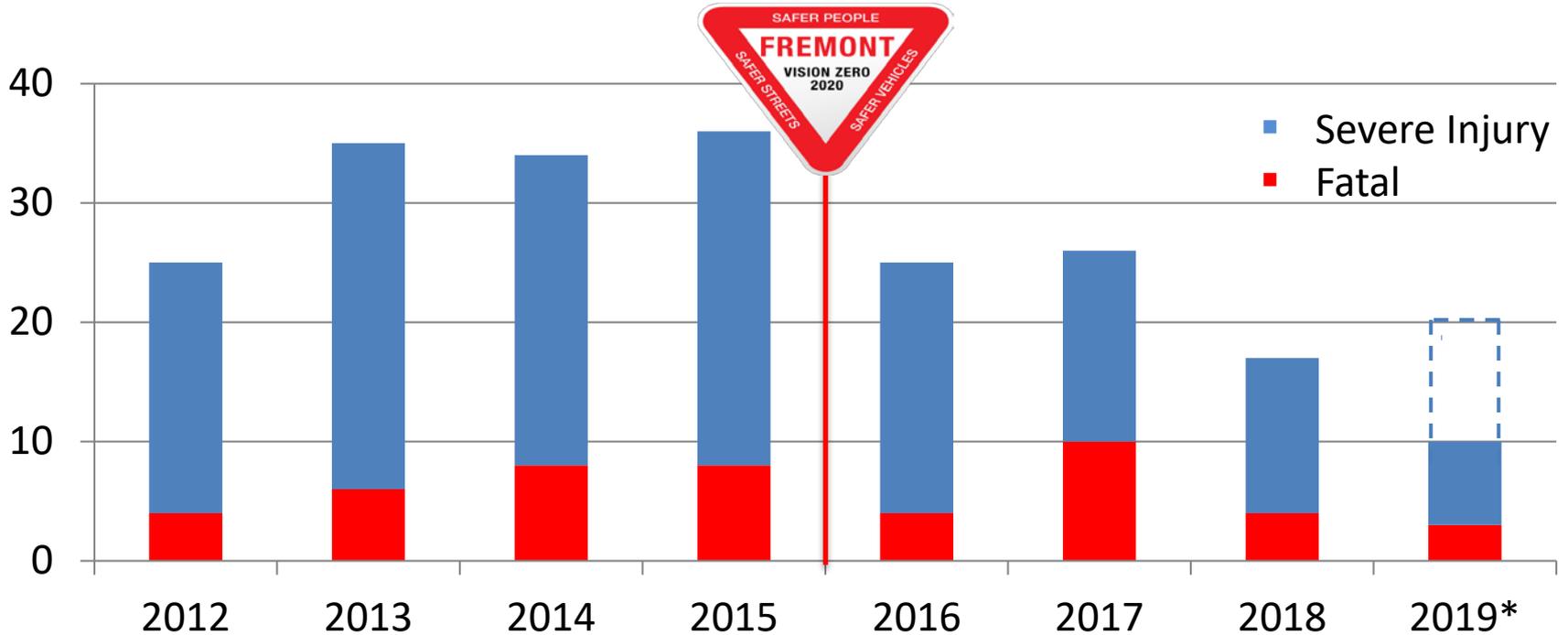
Fremont Vision Zero Results

Comparing 2015 to 2018

	Before VZ (2015)	After VZ (2018)	Change
Major Crashes	36	17	Down 53%
- Fatalities	8	4	Down 50%
- Severe Injury	28	13	Down 57%
Walk/Bike	21	10	Down 59%
Speed Limit			
- 40 mph or more	25	10	Down 60%
DUI	5	1	Down 80%
Age Under 16	3	0	Down 100%

Fremont Major Traffic Crash Trends

Since start of Vision Zero program, major traffic crashes are down 35%



*Data as of 6/30/2019

Implementation Challenges

- Competing community priorities (traffic congestion)
- Perceived over-emphasis on bikes
- State legislative limitations (85th percentile rule, Automated Speed Enforcement)
- Fire Department street design standards
- Aesthetics and maintenance of quick build projects
- National perception regarding Vision Zero success

Key Takeaways

Recommendations for aspiring Vision Zero cities

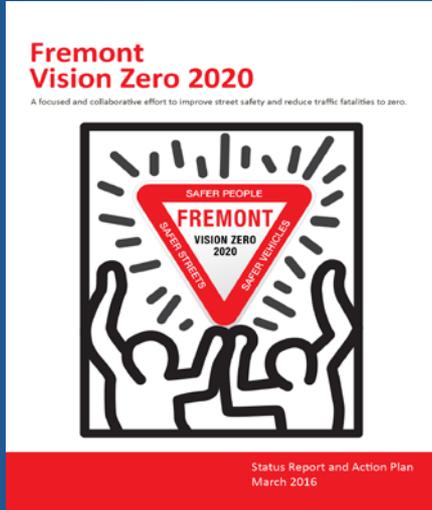
- Be clear about policy priorities - safety over congestion, aesthetics, neighborhood issues
- Leverage police department data sharing
- Importance of quick wins
- Right-size public engagement
- Value of 10' lanes
- Test limits of City Maintenance crews

What's Next in Fremont

- Continue what's working
 - “Safe and complete street” reconfigurations of high speed arterials
 - Pedestrian crossing enhancements
- Mid-cycle speed surveys
- Explore “medium-term” build-outs of “short-term” improvements

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