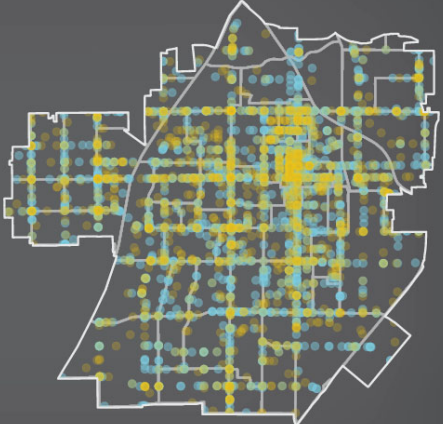



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CORY WILKERSON
ACTIVE TRANSPORTATION COORDINATOR
CITY OF SANTA ANA/PUBLIC WORKS AGENCY

AUGUST 2019



WHAT IS SAFE MOBILITY SANTA ANA?



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SMSA IS A VISION ZERO PLAN

THE GOALS OF SAFE MOBILITY SANTA ANA ARE:

- » SUBSTANTIALLY INCREASE SAFE MOBILITY IN ALL AREAS OF THE CITY
- » ACHIEVE ZERO FATAL BICYCLE/PEDESTRIAN COLLISIONS
- » REDUCE VEHICLE SPEEDS
- » MINIMIZE DEMONSTRATED COLLISION PATTERNS



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SMSA IS A COMPREHENSIVE APPROACH TO SAFETY



ENGINEERING



ENFORCEMENT



EDUCATION




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SMSA IS DATA DRIVEN

Pedestrians are **20x** more likely to sustain a severe or fatal injury when involved in a collision than motorists


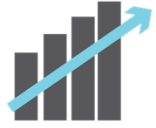




PEDESTRIAN AND BICYCLE COLLISION TRENDS

325 REPORTED COLLISIONS PER YEAR

34 SEVERE OR FATAL INJURIES PER YEAR

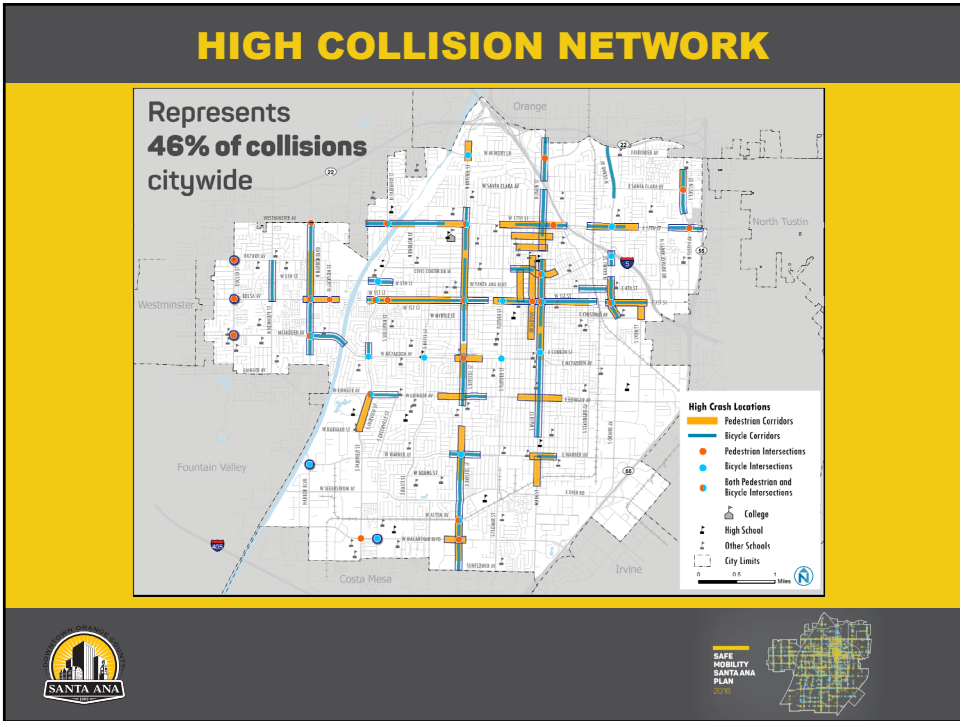
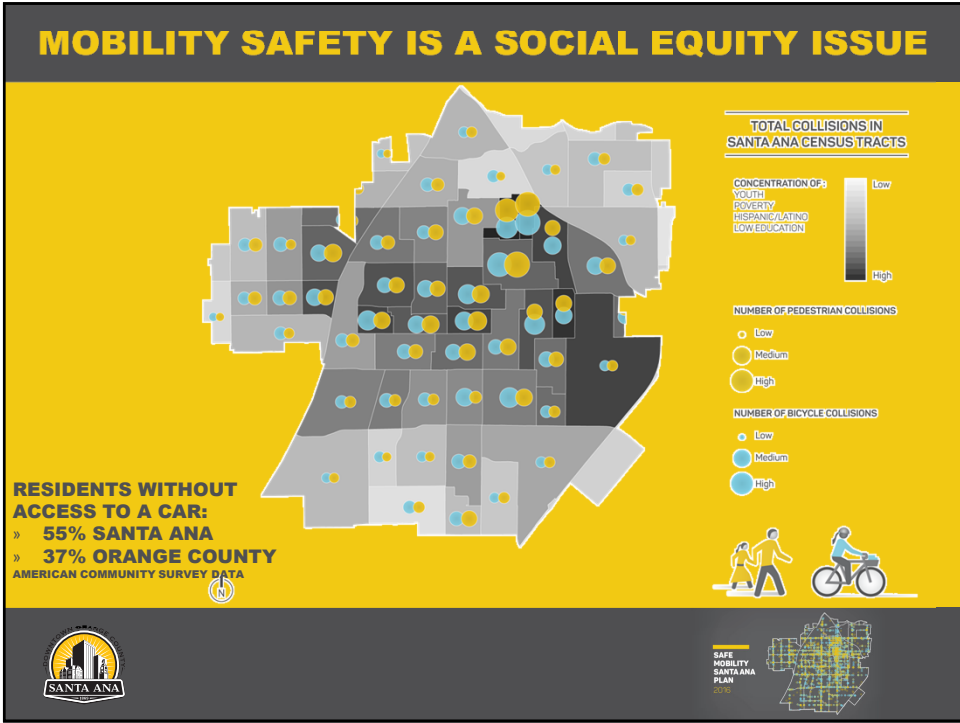
Bicycle collisions are on a ten-year upward trend

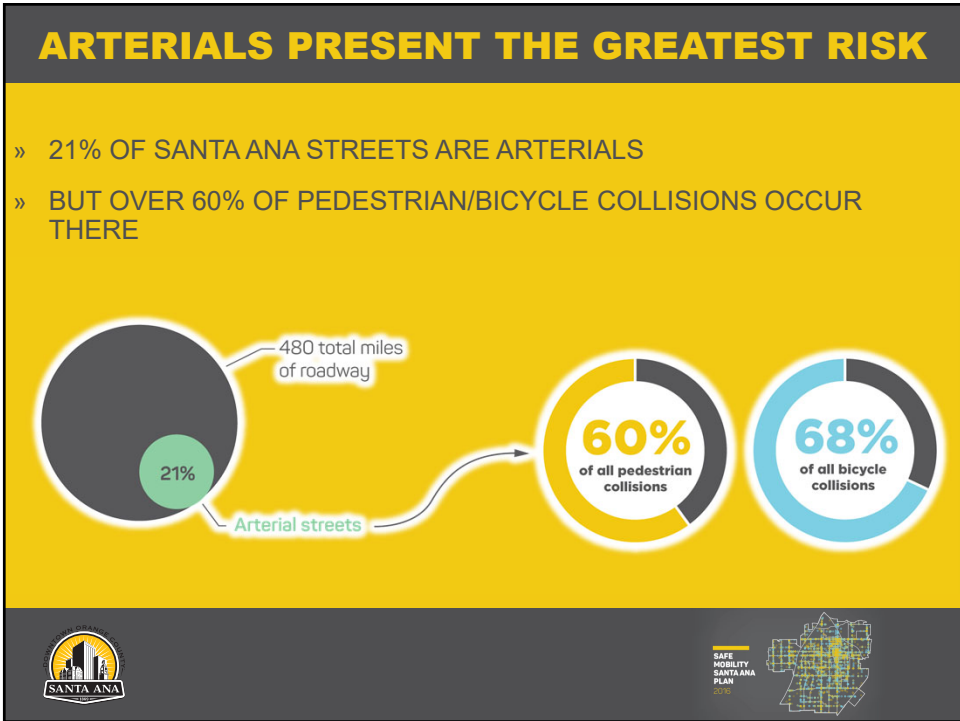
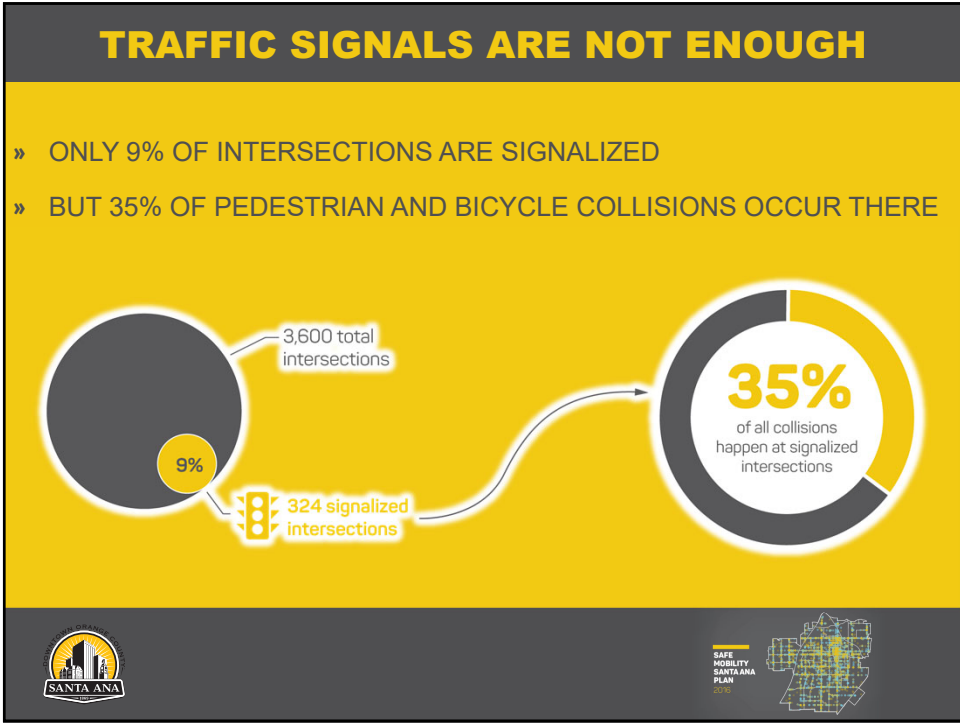




SAFE MOBILITY SANTA ANA FINDINGS







ENGINEERING RECOMMENDATIONS



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WHAT IS A ROAD BUFFER?

SMSA USES THE TERM "ROAD BUFFER" RATHER THAN THE MORE COMMONLY USED TERM "ROAD DIET" TO DESCRIBE THE RE-ALLOCATION OF ROADWAY SPACE – ITS ABOUT PROVIDING MORE CHOICES!

STANDARD ROADWAY



WITH ROAD BUFFER TREATMENT



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EXAMPLE COLLISION ANALYSIS

16 | 17TH STREET FROM BUENA ST TO BRISTOL ST

COLLISION HISTORY

LOCATION DESCRIPTION

From the western city limits to Bristol, the distribution of bicycle and pedestrian collisions reflects the activity of strip commercial development, Santa Ana College, and the #50 bus line. Fairview and Bristol are both high collision intersections for pedestrians and bicycles.

Classification	Major Arterial
Posted Speed	40
Length (miles)	1.31
Number of Lanes	2-7
ADT	30,800
Schools	Mendez Intermediate School, Samuelli Academy
Transit Lines	Santa Ana College, Kindred
Major Generators	Hospital Santa Ana

COLLISION RATES*

Collisions per mile with roadway width factor

Collisions per mile with land use factor

Unsignalized Ave: 3.27

36.24

3.22

6.00 (Citywide average)

BICYCLE AND PEDESTRIAN COLLISIONS

Location Type	Ped	Bike
Mid-Block	10	11
Signalized Intersection	18	14
Unsignalized Intersection	4	3
Total	32	28

PERCENT SEVERE OR FATAL PEDESTRIAN/BIKE COLLISIONS

17% Severe/Fatal

60 total collisions

NOTABLE COLLISION PATTERNS

Pedestrian Collisions

- Over half at signalized intersections
- Nearly a third mid-block
- Conflicts with turning vehicles

Bicycle Collisions

- Half at signalized intersections
- Nearly a third mid-block
- Wrong way riding



EXAMPLE RECOMMENDED SOLUTIONS

16 | 17TH STREET

SOLUTIONS

PROJECT DESCRIPTION

The recommendations respond to the prevalence of both pedestrian and bicycle collisions along the corridor, frequently at signalized intersections and mid-block.

Road Buffer

Curb Radius Reduction

Protected Intersection

Protected Blue Lane

Leading Pedestrian Intervals

Speed Monitoring

CONSISTENCY CONSIDERATIONS

If it can be demonstrated that proposed lane assignments are accommodated existing and future volumes, temporary reconfiguration may be permitted. Board consideration is required to grant exceptions due to overriding and demonstrable safety concerns.

COST ESTIMATE

\$2,877,150

Curb Radius Reductions	\$ 80,000
One-Way Protected Blue Lanes	\$ 940,000
Leading Pedestrian Intervals	\$ 2,600
Signal Lane Reduction	\$ 1,500
Traffic Signal Modification	\$ 875,000
Engineering	\$ 287,776
Plans/Permit/Supervision	\$ 287,776
Contingencies	\$ 383,000

EXPECTED BENEFIT/COST RATIO

5.83

Calculations were conducted using SAFETEA-LU data for the 2010-2018 period. The benefit of 5.83 collisions avoided per year of implementation is based on 2017 collision data. The benefit of 5.83 collisions avoided per year of implementation is based on 2017 collision data. The benefit of 5.83 collisions avoided per year of implementation is based on 2017 collision data.

CROSS SECTIONS





ENFORCEMENT RECOMMENDATIONS



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FOCUS SWORN OFFICERS ON ENFORCEMENT

- » BUILDING UP TO 12 ADDITIONAL FTES
- » CIVILIAN COLLISION REPORTERS (4) AND SWORN OFFICERS (8)



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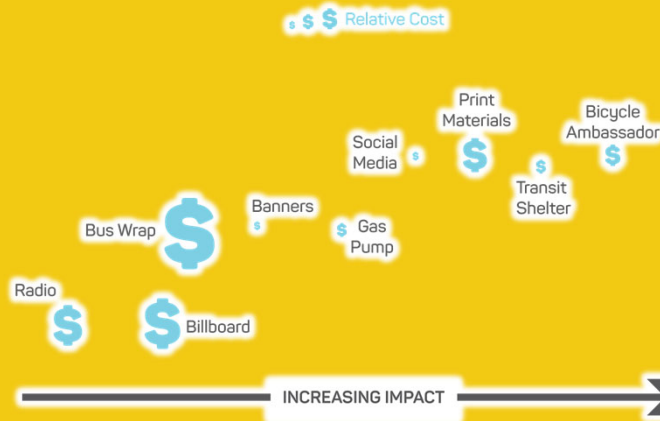
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RELATIVE COST BY IMPACT



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CONTEXT BASED MARKETING



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MORE INFORMATION

VISIT SANTA-ANA.ORG/SMSA

EMAIL CWILKERSON@SANTA-ANA.ORG



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