

3rd Street/University Bicycle Boulevard Improvements



Presented by Tom Thivener
City of Tucson
Transportation Department

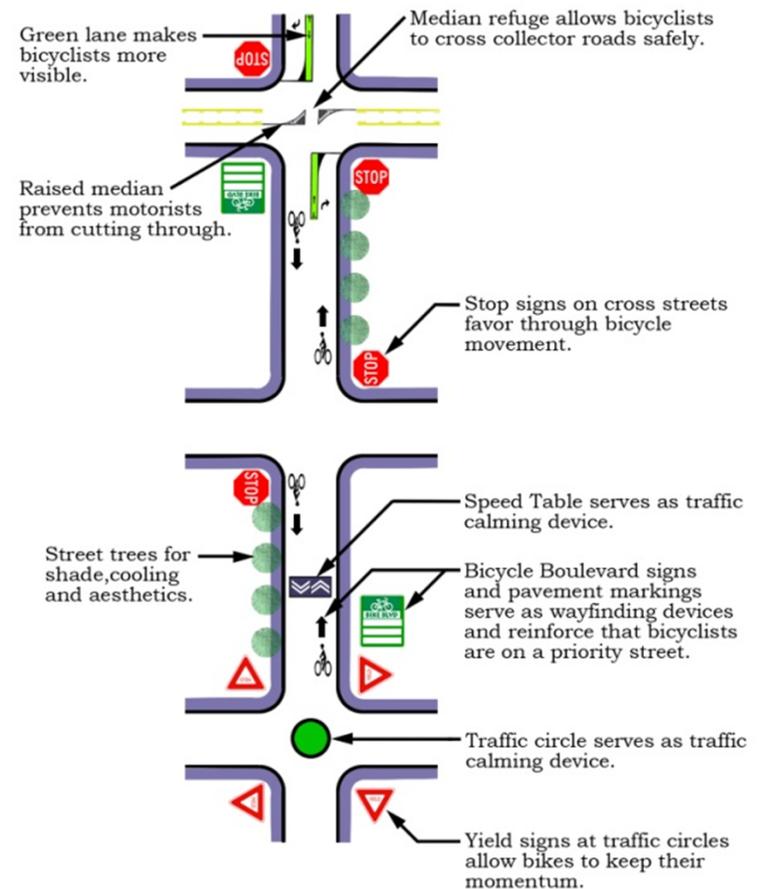


What is a Bicycle Boulevard?

- Shared Roadway
- Takes advantage of grid system on residential streets
- Connections with other bikeways
- Safe and attractive



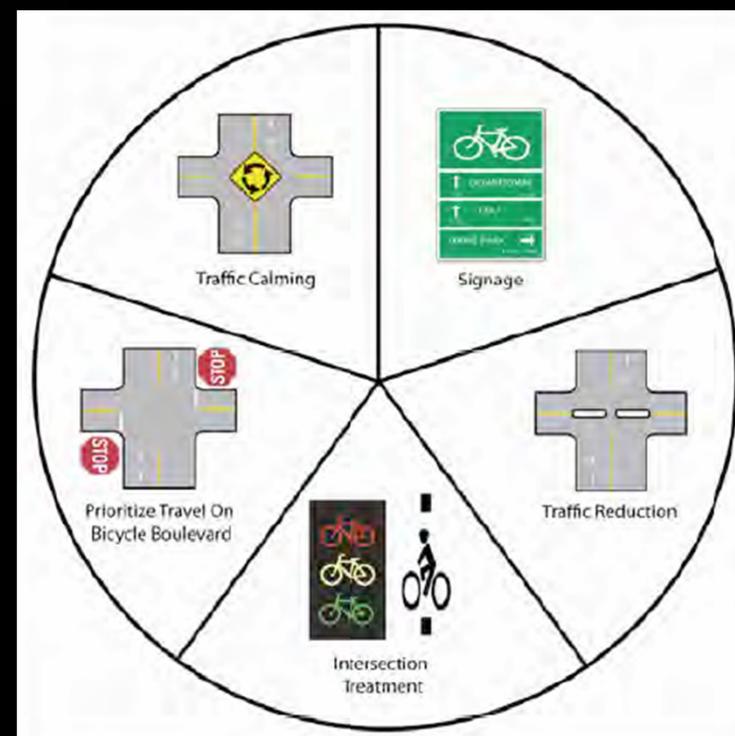
TYPICAL BIKE BOULEVARD IN TUCSON



What is a Bicycle Boulevard?

Five main elements:

- Traffic calming
- Traffic reduction
- Signage
- Intersection Treatments
- Prioritized Travel



What is a Bicycle Boulevard?

- Traffic Calming



What is a Bicycle Boulevard?

- Traffic Reduction



What is a Bicycle Boulevard?

- Traffic Reduction



What is a Bicycle Boulevard?

- Signage and Pavement Markings



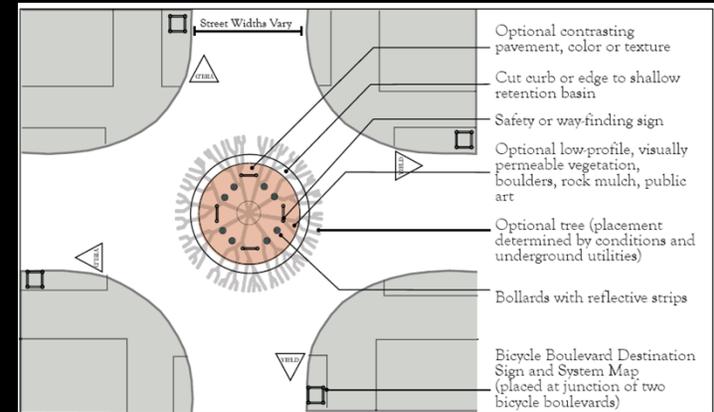
What is a Bicycle Boulevard?

- Signage and Pavement Markings



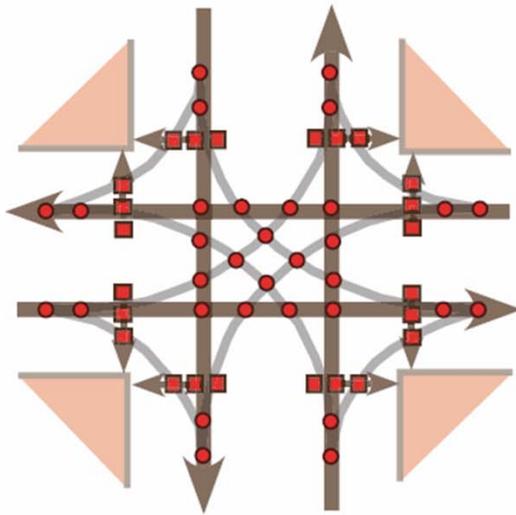
What is a Bicycle Boulevard?

- Prioritized travel

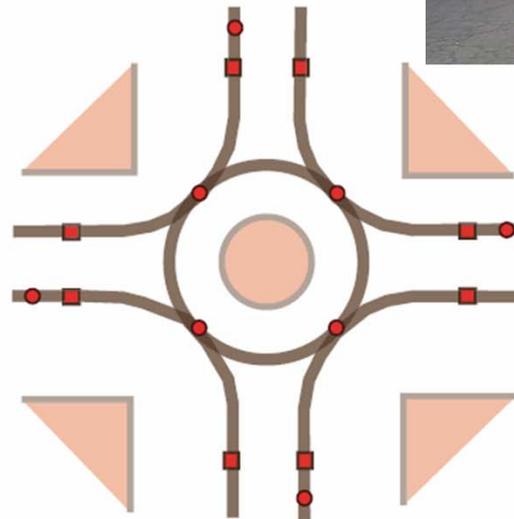


What is a Bicycle Boulevard?

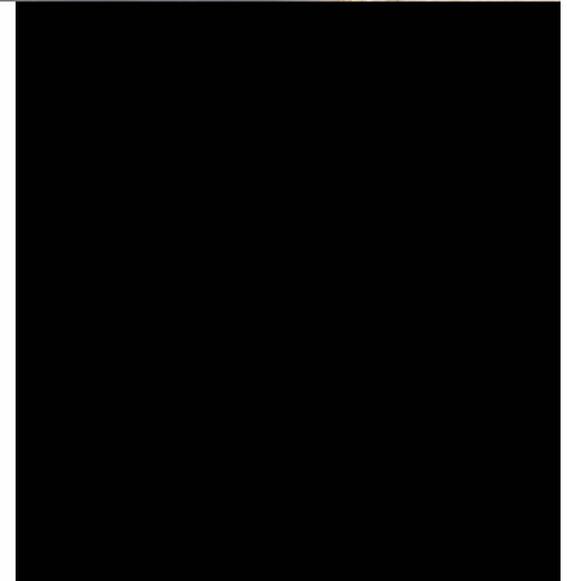
■ Intersection Treatments



- Vehicle to Vehicle Conflicts (32)
- Vehicle to Pedestrian Conflicts (24)



- Vehicle to Vehicle Conflicts (8)
- Vehicle to Pedestrian Conflicts (8)



What is a Bicycle Boulevard?

- Intersection Treatments



What is a Bicycle Boulevard?

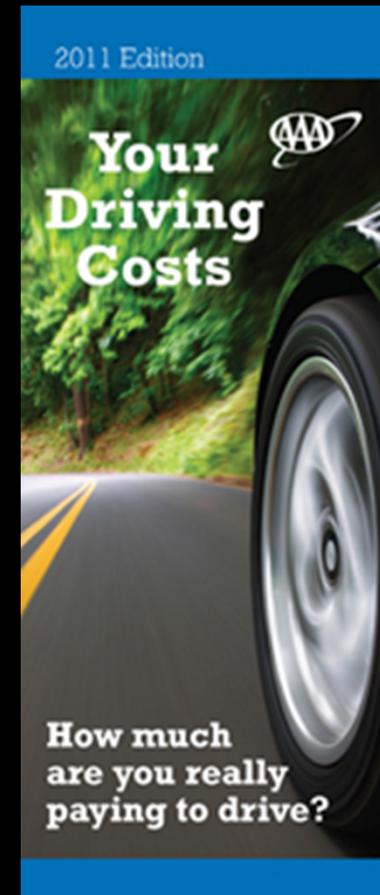
- Intersection Treatments



Why a Network of Bike Blvds?

- It's expensive to drive!
 - ▣ \$8,588 per year for a medium size sedan

(AAA estimate based on gas at \$2.88/gallon)

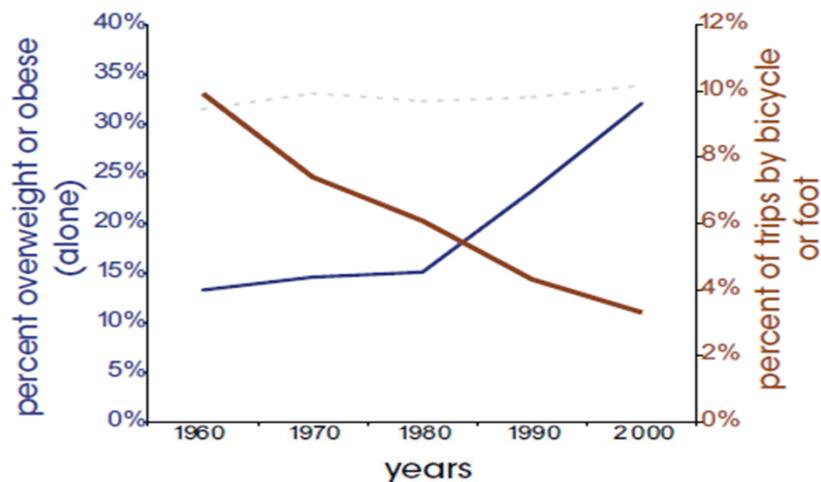


Why a Network of Bike Blvds?



Why a Network of Bike Blvds?

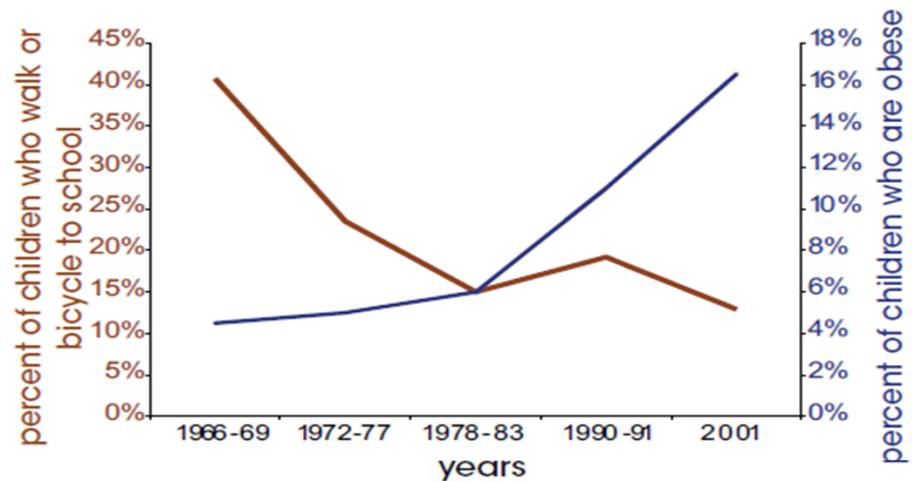
Change in Bicycling and Walking Rates vs. Adult Obesity and Overweight Rates



Legend:
 ■ = % of trips to work by bicycle or foot
 ■ = % obese
 ■ = % overweight alone

Sources: National Center for Health Statistics 2006, Census 1960, 1970, 1980, 1990, 2000; $r = -0.86$ (bicycle + walk/overweight) $r = -0.79$ (bicycle + walk/obesity)

Trend in Obese Children vs. Rate of Bicycling and Walking to School

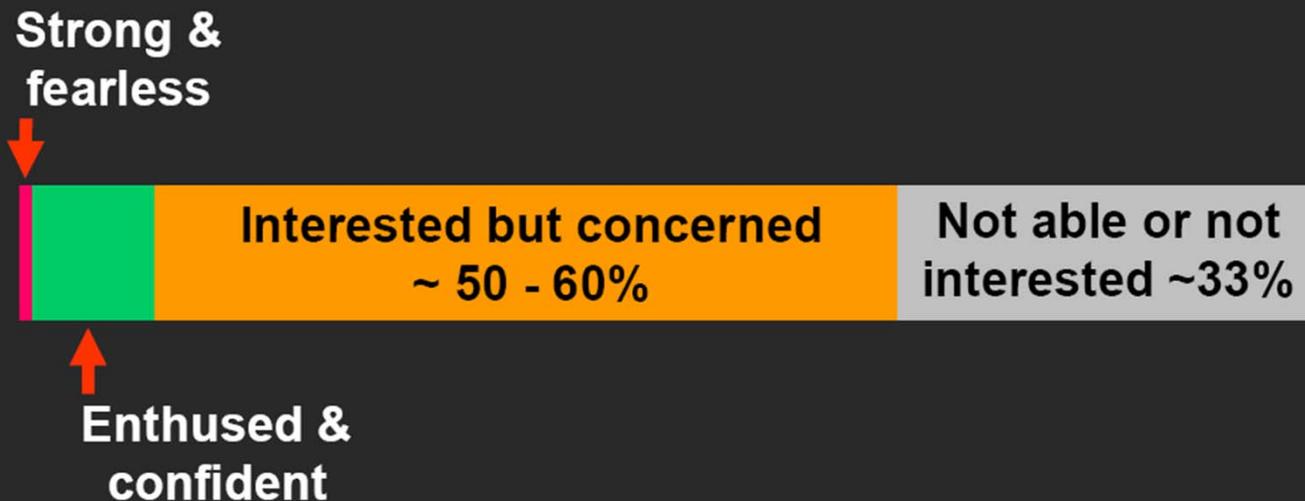


Legend:
 ■ = % of kids who bicycle or walk to school
 ■ = % of kids who are obese

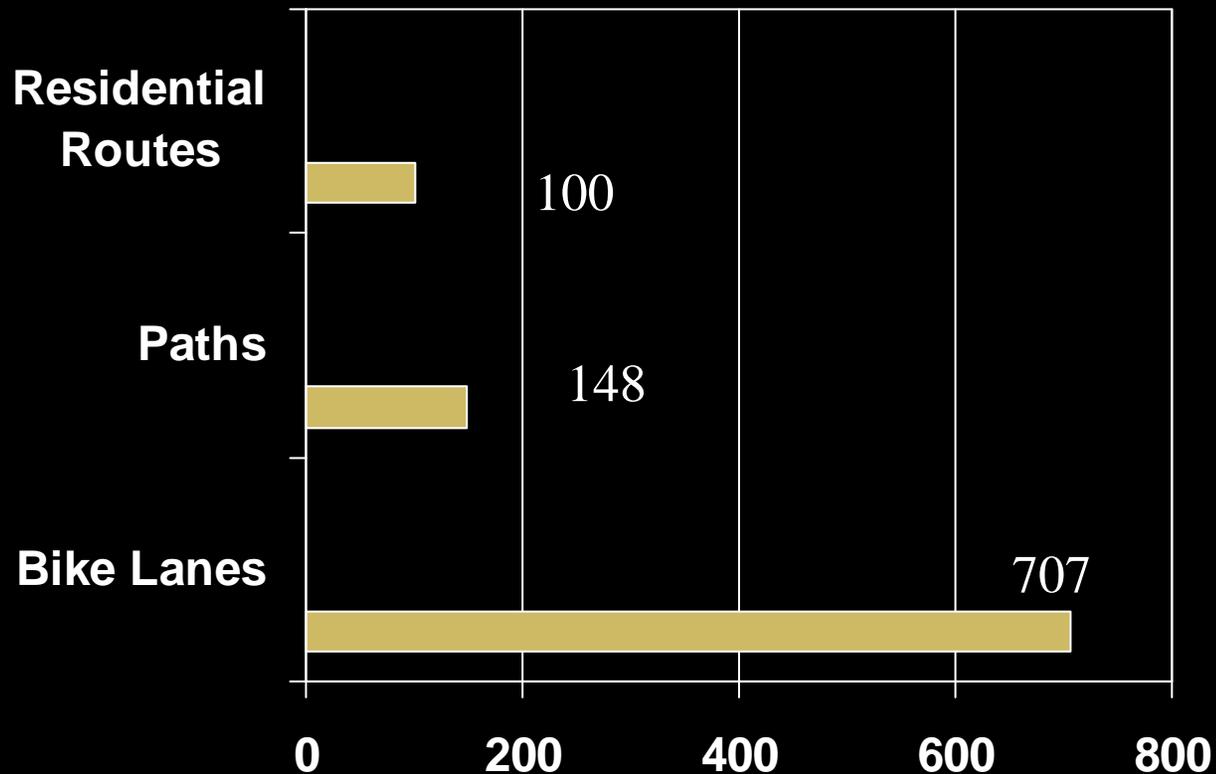
Sources: CDC, NHANES, McDonald, Noreen 2007; $r = -0.63$

Why aren't more people biking?

Understanding the market for bicycle transportation: **THE FOUR TYPES**



Why aren't more people biking?



Tucson has over **950 miles** of bikeways!
Most are bike lanes on busy roads

How does Tucson fair?

- Commuter biking has stagnated in Tucson
 - ▣ 2.2% in 2000, **#1** in US for major US Cities
 - ▣ 1.9% in 2009, now **#12**
- “the biggest single thing to focus on is to increase bicycle use in the region”

--League of American Bicyclists 2008 critique of Tucson's



Are women riding?

- Women serve as “**indicator species**” for bike friendliness
 - “if a city wants to substantially increase the number of people riding bikes on a regular basis, it needs to reach out to young women and older people”
 - “Women were less likely than men to try on-street bike lanes and more likely to go out of their way to use bike boulevards”

- Netherlands: bikes used for 27% of all trips (55% women)
- Germany: bikes used for 12% of all trips (49% women)
- US: bikes used for 0.5% of trips to work (23% women)



□ Research from Portland State University and summarized in Scientific American - Oct. 2009

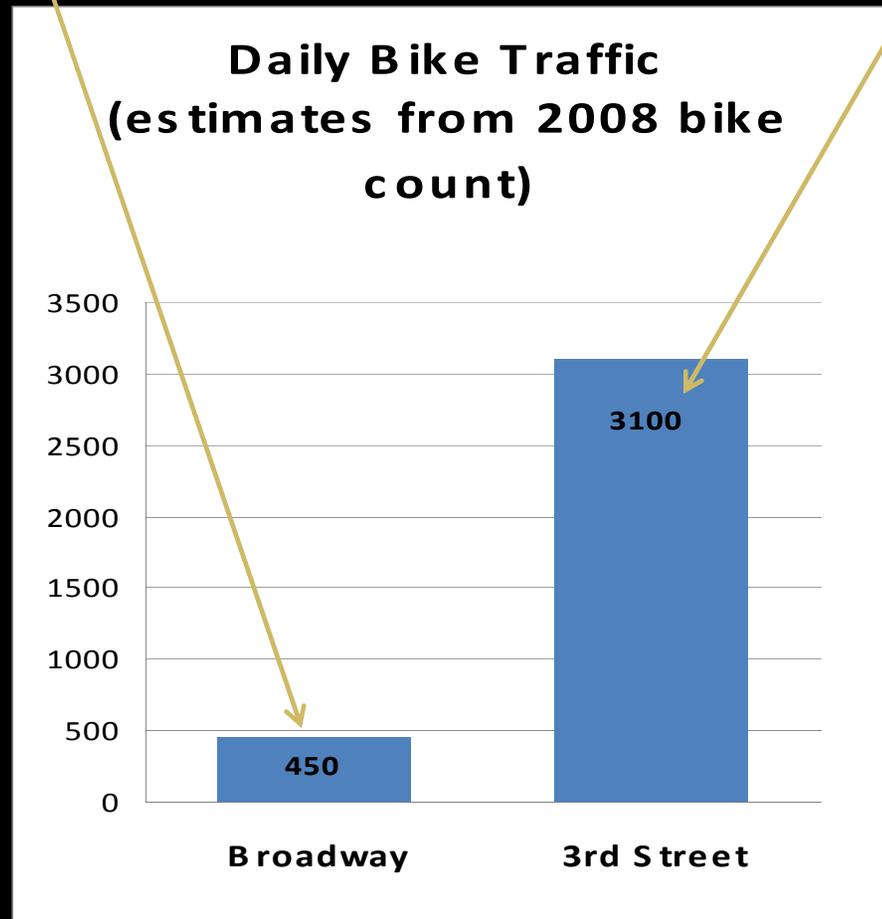


Success from 3rd Street



13% are women

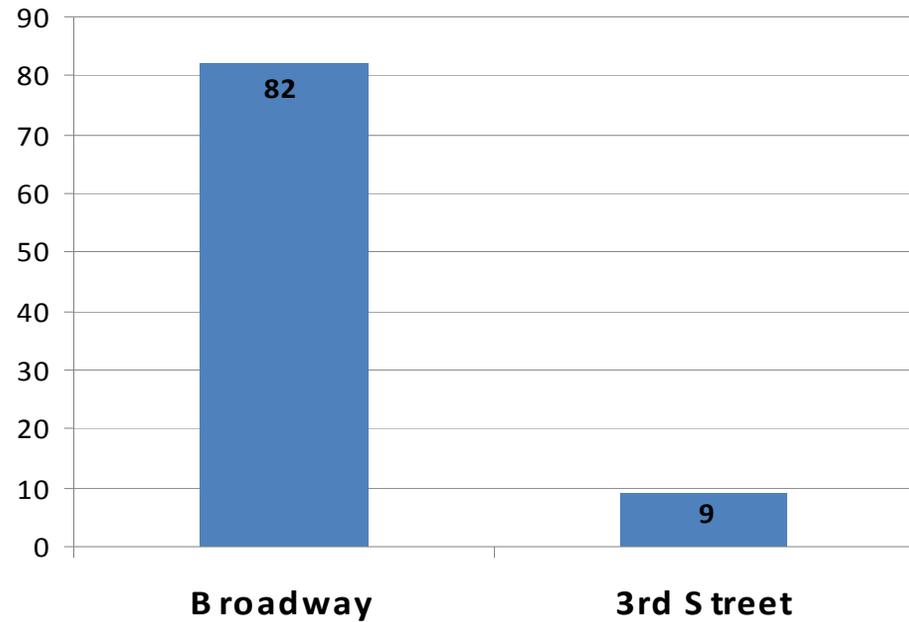
34% are women



Success from 3rd Street



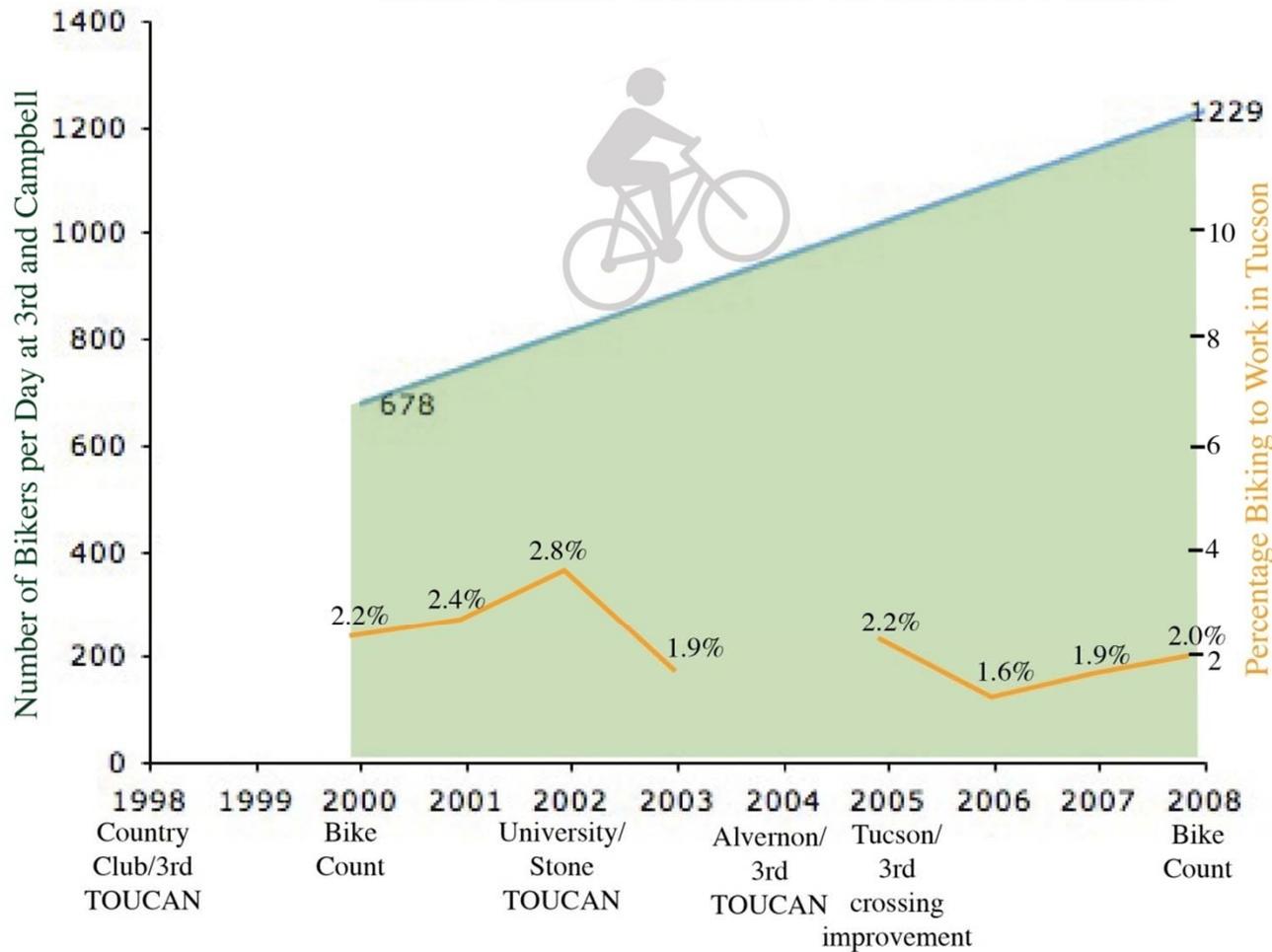
Number of bike crashes
between Wilmot and Campbell
from 2001 to 2008



Success from 3rd Street



THIRD STREET RIDERSHIP VS. TUCSON'S TREND

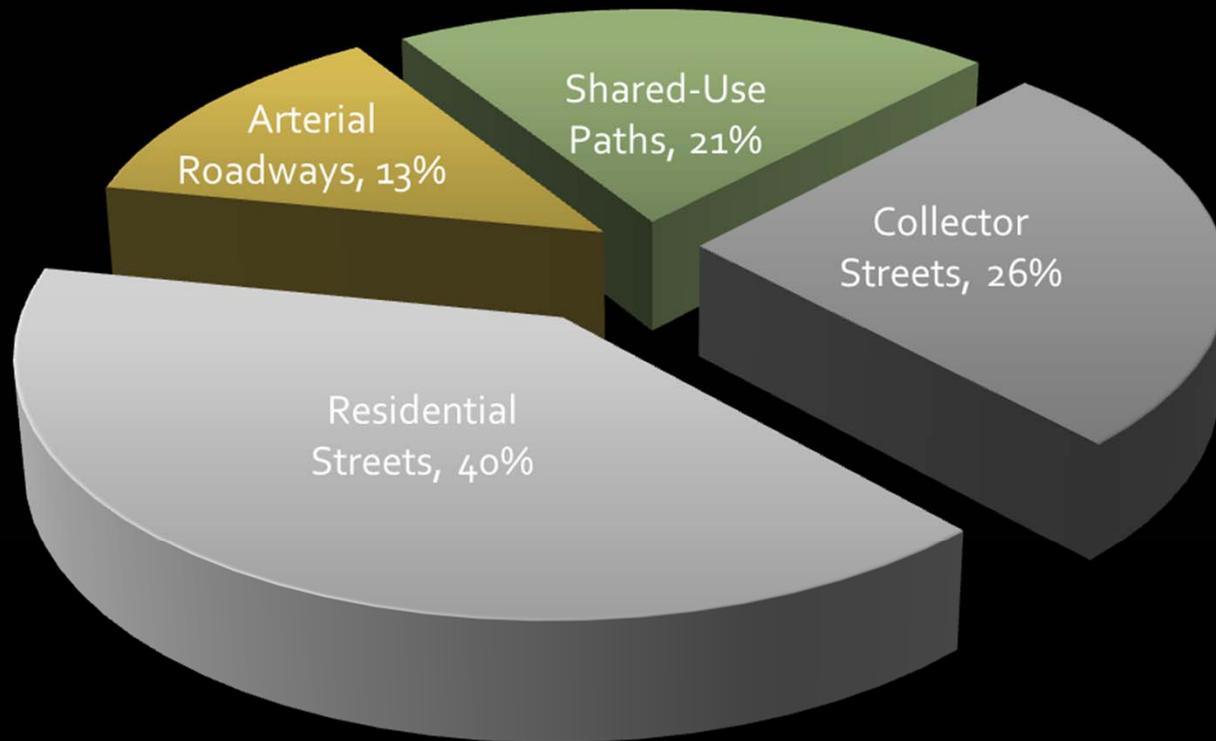


226% increase in bikes on 3rd Street at Campbell since TOUCAN signals have been installed

2000-peak 5 hour count
2008-peak 4 hour count

3rd Street User Survey

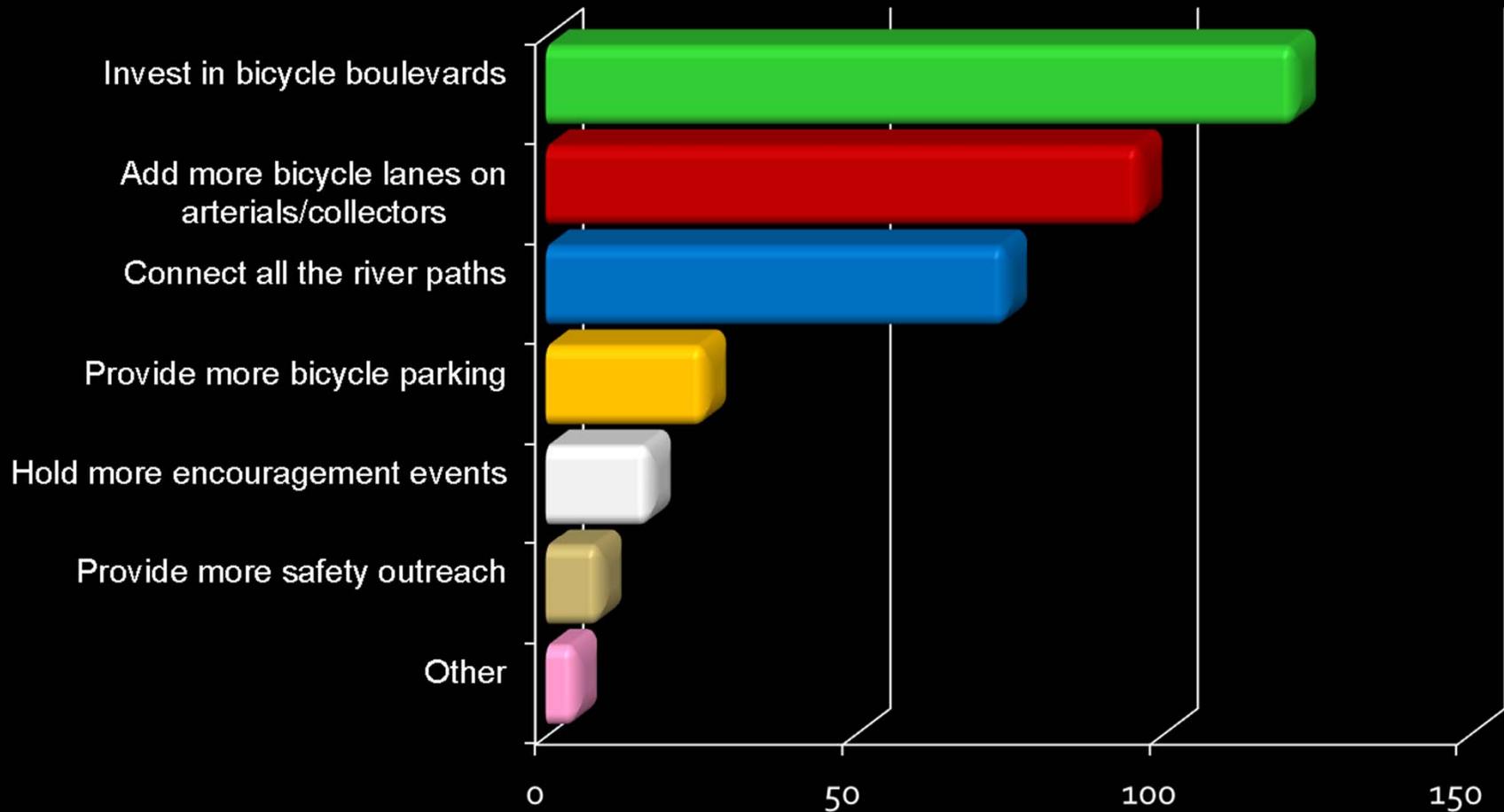
What sort of bike facility do you prefer to bike on?



210 people surveyed at 3rd St and Treat in 2009

3rd Street User Survey

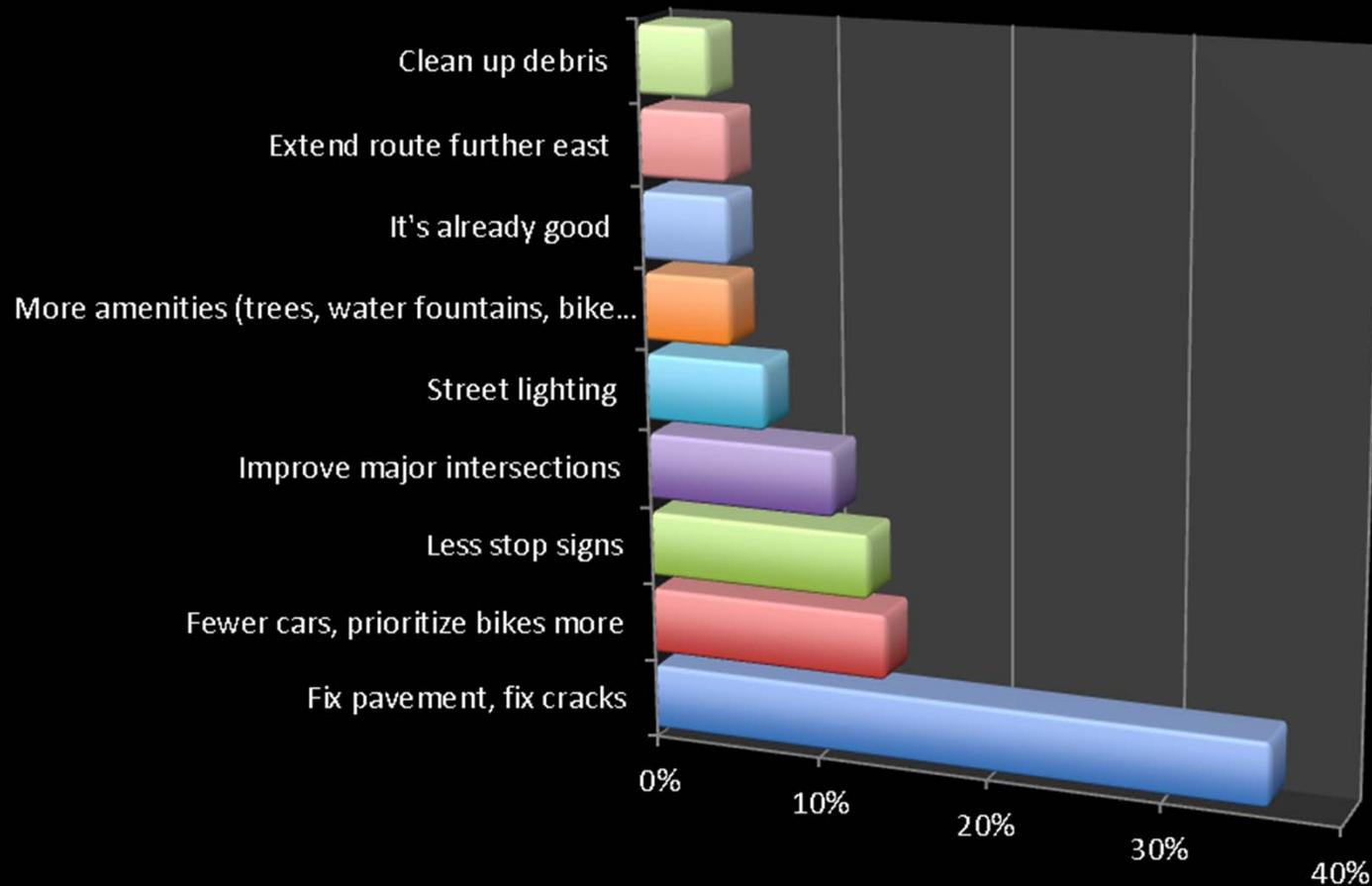
What is the one thing that could be done to get more people biking?



210 people surveyed at 3rd St and Treat in 2009

3rd Street User Survey

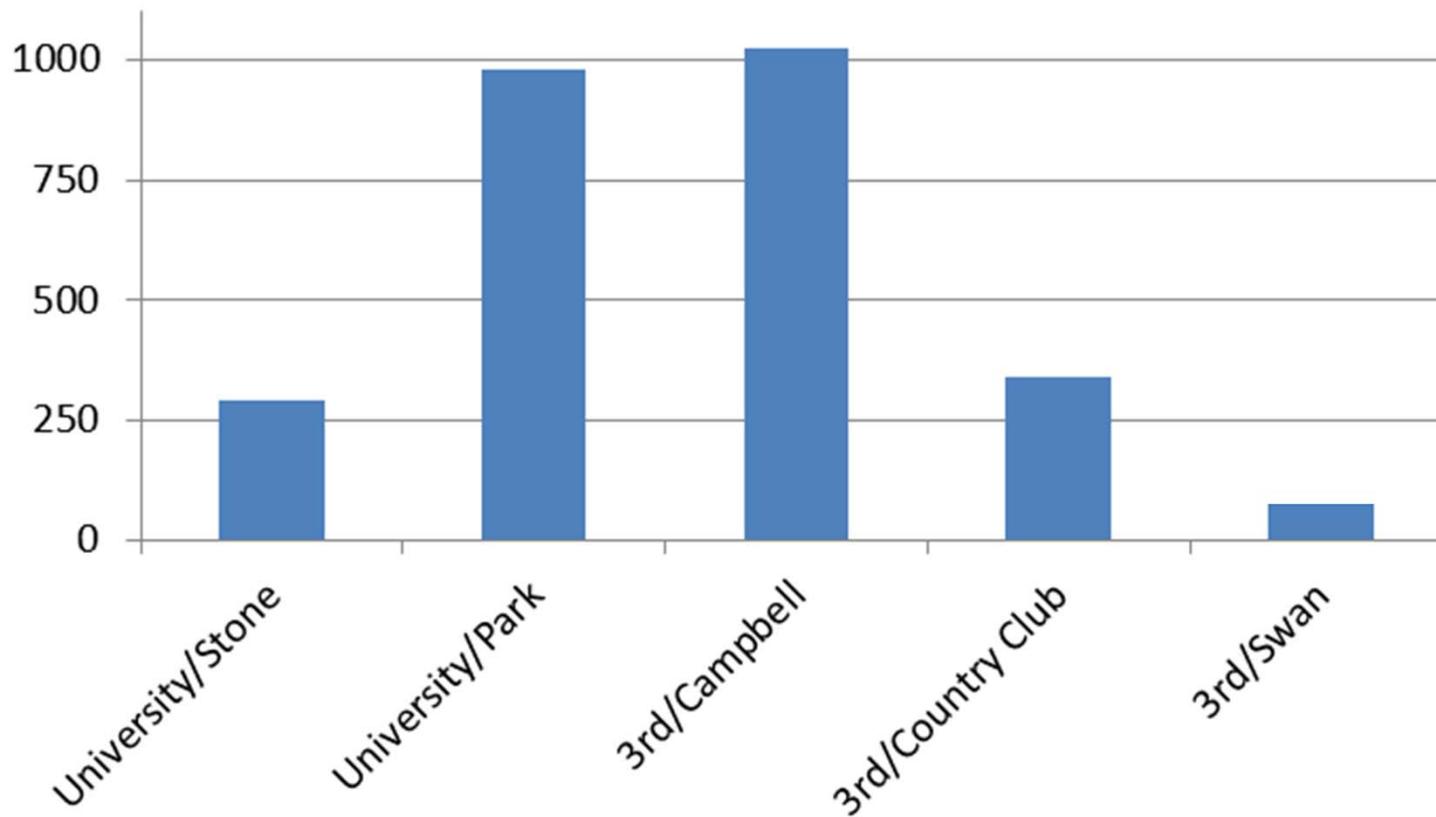
What sort of improvements would you like to see along this corridor?



210 people surveyed at 3rd St and Treat in 2009

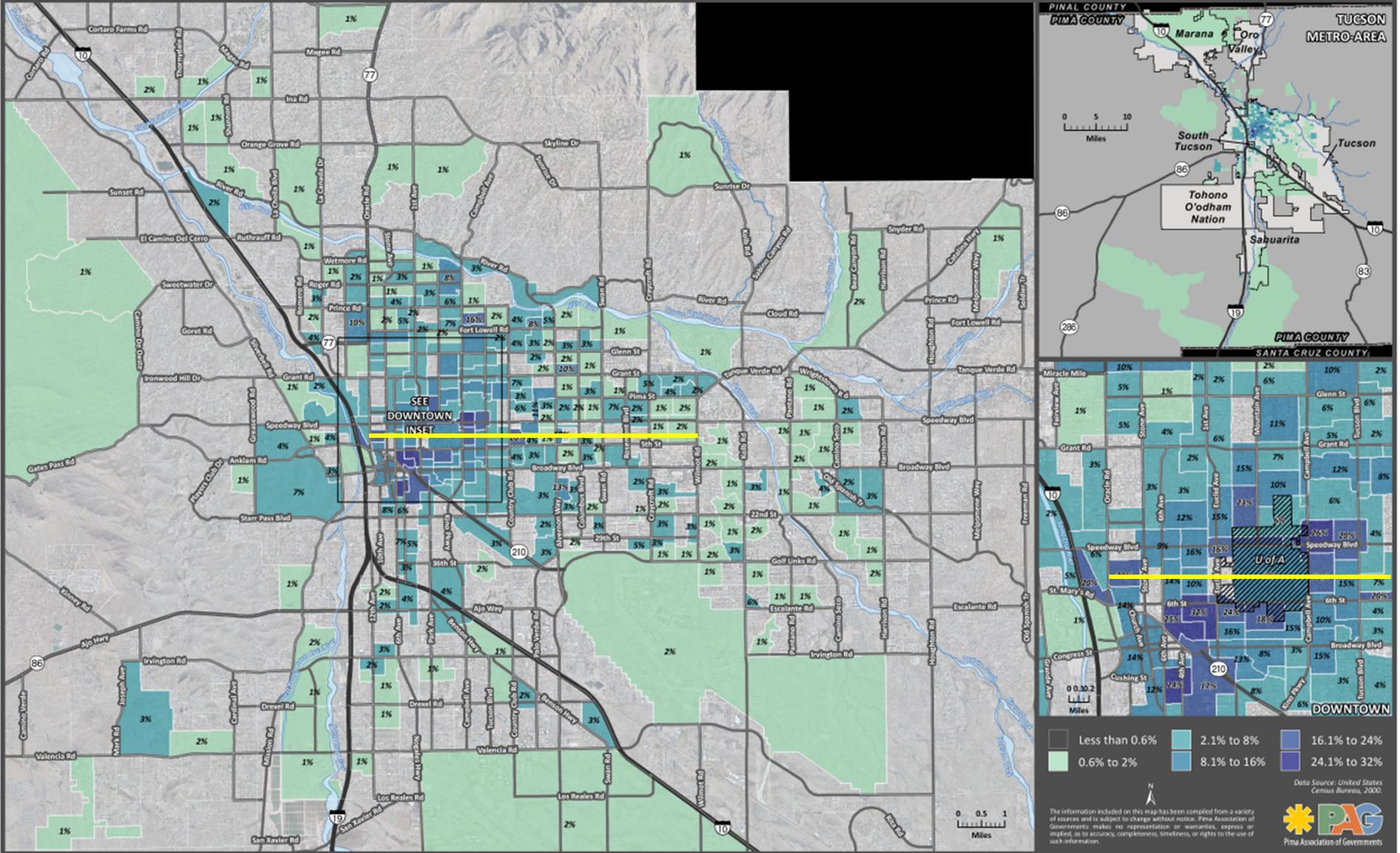
3rd Street User Survey

Number of Bikes on 3rd/University



Average from PAG Peak Hour Bike Counts 2008-10

TUCSON - EASTERN PIMA COUNTY REGION BICYCLE COMMUTERS: PERCENT BY BLOCK GROUP



Project Background

- Tucson's busiest bikeway (~3,000 day during school near campus)
- 7 Miles long
- 2009 Regional Bike Plan identified this corridor as a planned Bicycle Boulevard

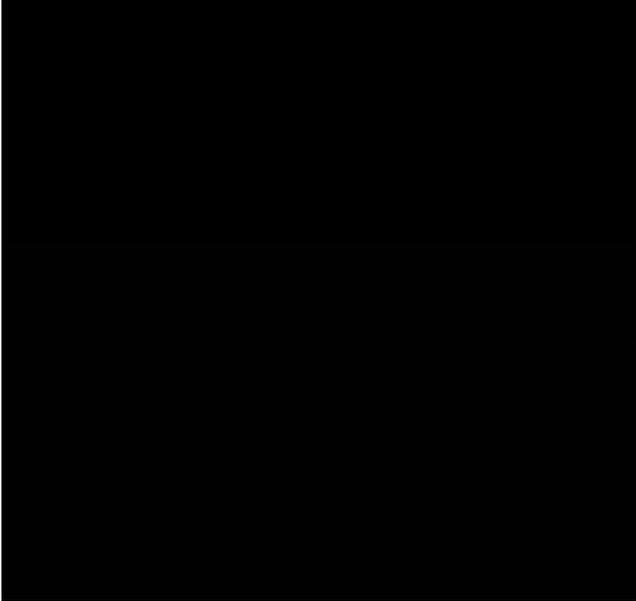
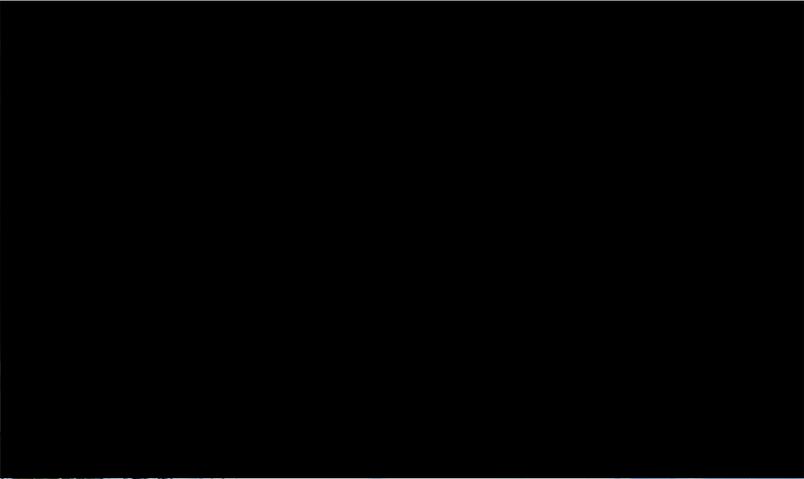


Project Background

- Already features some bicycle boulevard treatments (mostly between Stone and Alvernon):
 - ▣ 3 TOUCAN signals
 - ▣ Entrance restrictions
 - ▣ Traffic calming
- To be a bicycle boulevard, needs:
 - ▣ More traffic calming
 - ▣ Fewer stop signs
 - ▣ Signage and Pavement Markings
 - ▣ Help crossing busy roads
- RTA has awarded funding for new crossing at Swan Rd and for additional bicycle boulevard treatments

Bike Boulevards To Date

- Support from Mayor & Council, Bicycle Advisory Committee, various neighborhoods,
- 2009 PAG Regional Bike Plan identifies a network of 40 bicycle boulevards (170 miles), included in Trails Plan Update
- 26 miles in design (3rd/University, 4th Ave/Fontana, and Seneca, Copper/Flower, Liberty)
- Construction wrapping up on 4th Ave/Fontana
- Cyclovia event attracted over 10,000 participants













BIKE BLVD
Three bicycle icons
Right-turn arrow

4th St

YIELD

University of Utah
520.747.9331



BIKE BLVD
1.0
2.5
3.0

**NO TRUCKS
OVER
3 TONS**

25

Proposed traffic calming on 5th Street



Proposed 5th Street/Euclid enhancement



Let's look at the plans

