



**TUESDAY** | **Coffee and  
MAY 12 2020** | **Coffee and  
9 A.M.** | **Conversation**  
with Kimley-Horn's Jeff Whitacre

**Best Practices for Design and Planning  
for Pedestrians and Cyclists**



# COFFEE AND CONVERSATIONS

HOSTED BY JEFF WHITACRE

# OVERVIEW – WHAT ARE THE C'S OF CYCLING

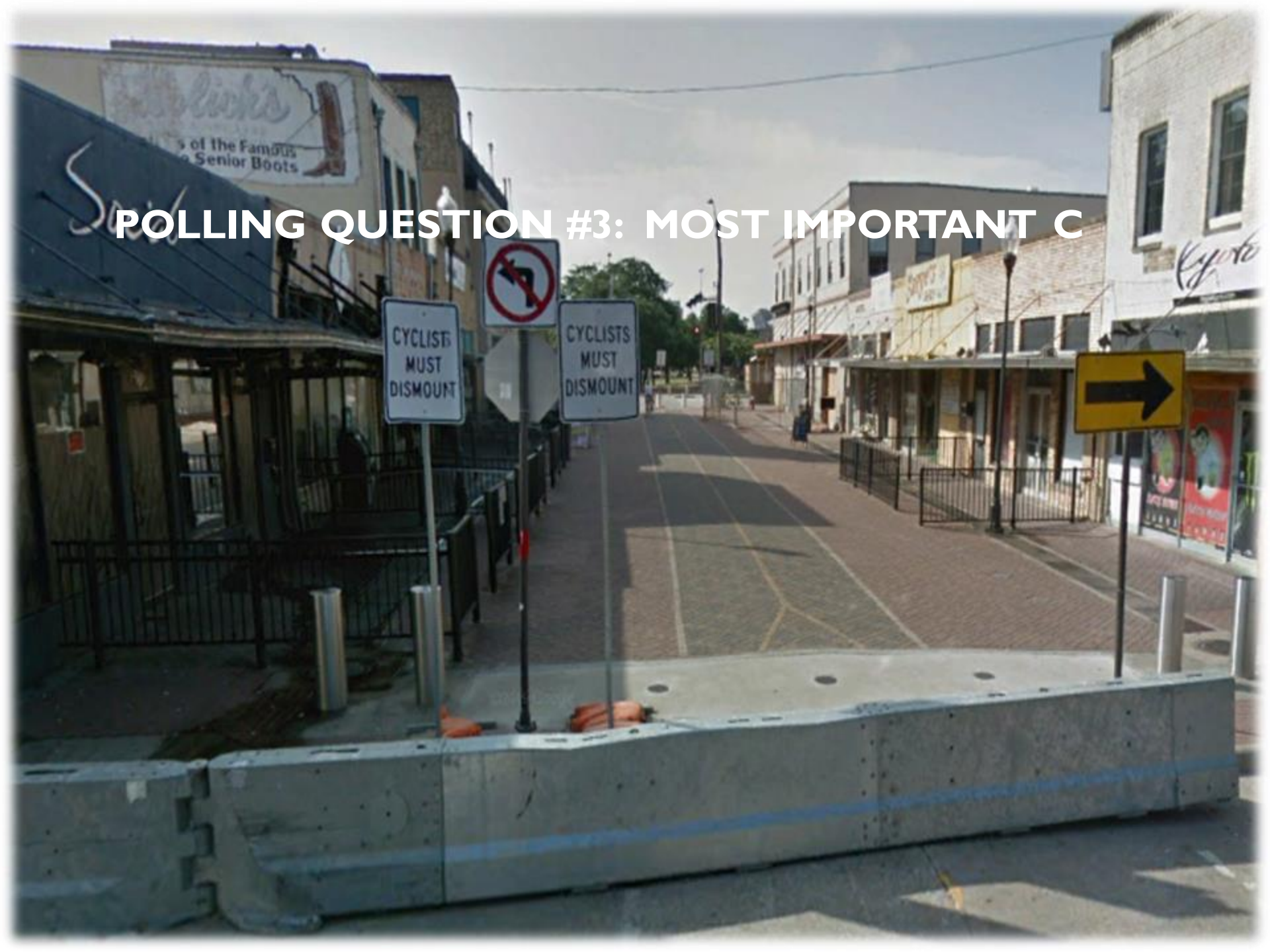


- Coherent
- Comfortable
- Complete
- Compliant
- Connected
- Constructible
- Continuous
- Culture
- Bonus: Context

**Plan Appropriately; Design Accordingly;  
Consider Beyond the Rights-of-Way**



**POLLING QUESTION #3: MOST IMPORTANT C**

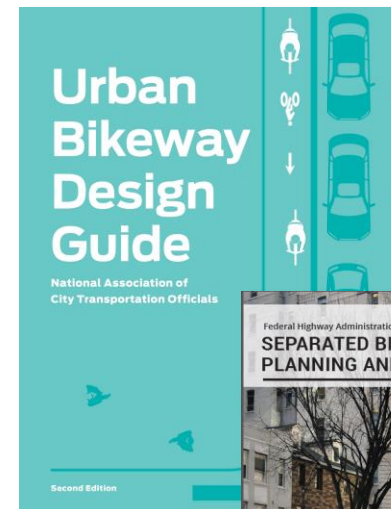


# COMFORTABLE – BEST PRACTICE SEPARATION

- Separated bike lanes, also known as protected bike lanes or cycle tracks, dedicate exclusive space for bicyclists that is on-street or adjacent to the street and provide some type of vertical separation between the bike lane and motor vehicle traffic.

## National Design Guidance

- An increasing amount of guidance for the proper design of separated facilities is now available:
  - AASHTO Guide for the Development of Bicycle Facilities
  - Institute of Transportation Engineers (ITE)
  - National Association of City Transportation Officials (NACTO)
  - Federal Highway Administration (FHWA)
  - Massachusetts Department of Transportation (MassDOT)
  - Minnesota Department of Transportation (2020)
  - TxDOT – 2021?



# HOW COMFORTABLE?



## Why are Cities Building Separated Bike Lanes?

Increased bicycle ridership

Safer and more comfortable bicycling

Increased comfort and predictability for drivers

Reduced sidewalk bicycling

Calmer traffic and safer streets for pedestrians

Supported economic growth



# TYPES OF SEPARATION

## *REMOVABLE/SEMI-PERMANENT OPTIONS*



Plastic Delineator Posts



Parking Stops/  
Linear Barriers

# TYPES OF SEPARATION

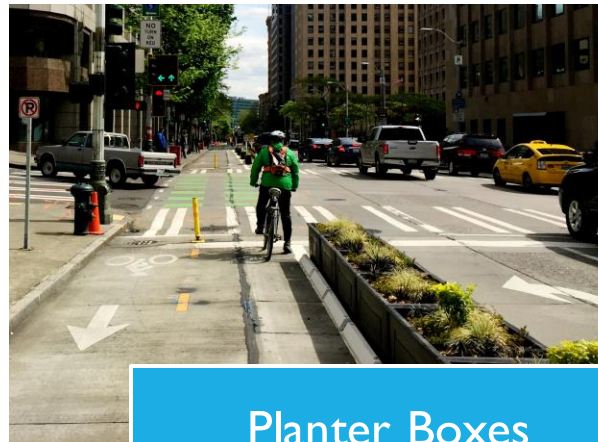
## REMOVABLE/SEMI-PERMANENT OPTIONS



Turtle/Large Bumps



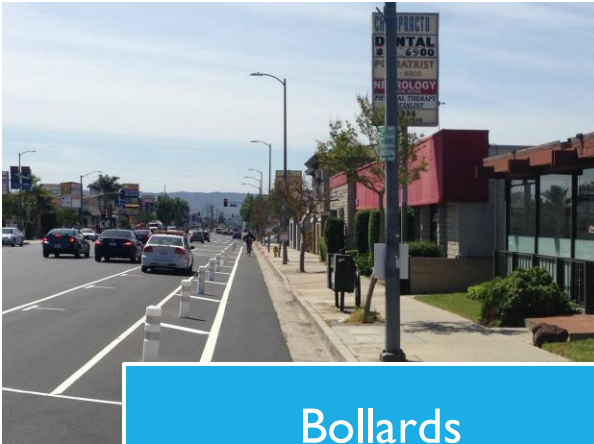
Oblong Low Bumps  
(Armadillos)



Planter Boxes

# TYPES OF SEPARATION

## *PERMANENT OPTIONS*



Bollards



Concrete Barriers



Concrete Median/Curbs

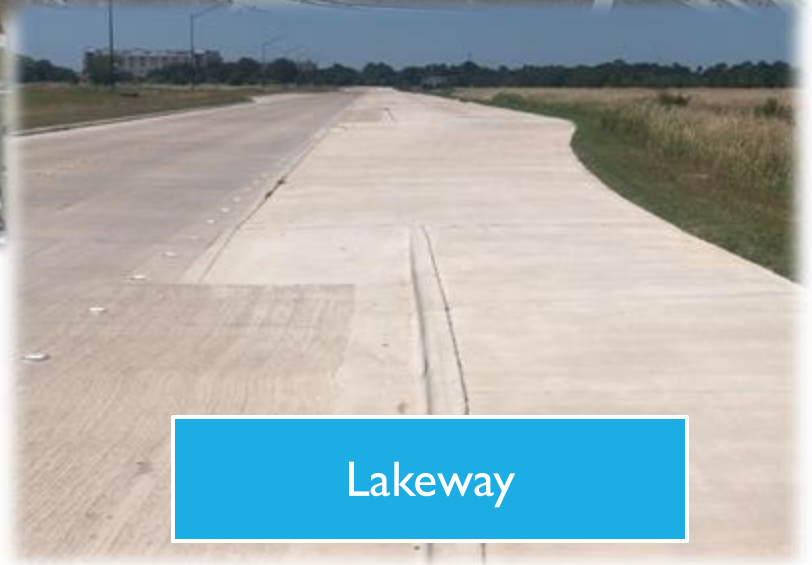


# COMFORTABLE COLLEGE STATION



Diamondback

Holleman Drive

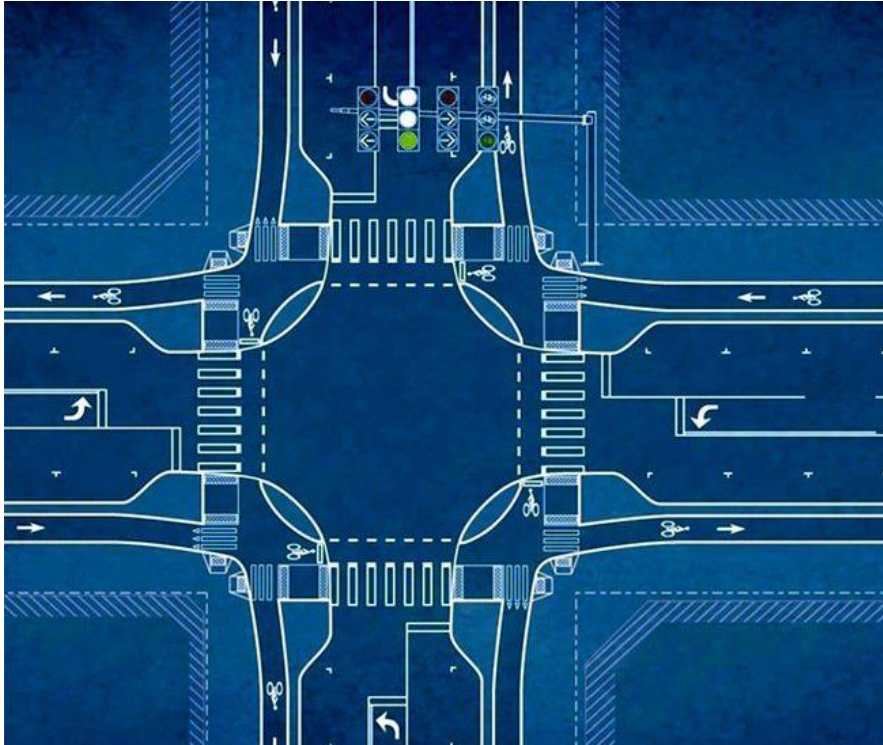


Lakeway

# COMFORTABLE SIDEWALK WIDTHS AND BUFFERS



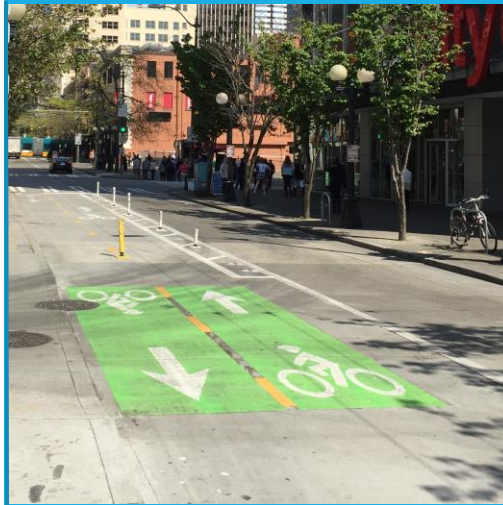




CONTINUOUS:  
DON'T GIVE UP AT THE INTERSECTION



# INTERSECTION STRATEGIES



Green  
Colored  
Pavement



Driveways &  
Unsignalized  
Intersections



Approaching  
Signalized  
Intersections:  
**Right-Turns!**

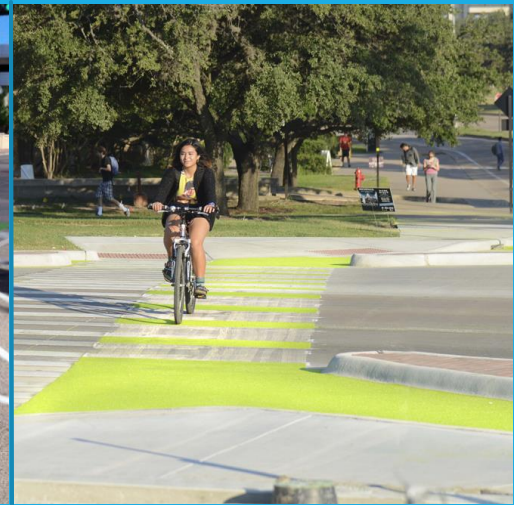
# INTERSECTION STRATEGIES



Two-Stage  
Turn Queue  
Box



Bike Box



Protected  
Intersection





CONTINUOUS:  
DON'T LEAVE GAPS



# MID-BLOCK CROSSINGS



High Visibility  
– Marked  
Crosswalks  
“Local and  
Minor  
Collectors”

Active  
RRFB  
“Major  
Collectors”

Stop  
PHB  
“Arterials”

# CONTINUOUS COLLEGE STATION



University &  
College/Bizzell

University & Asbury

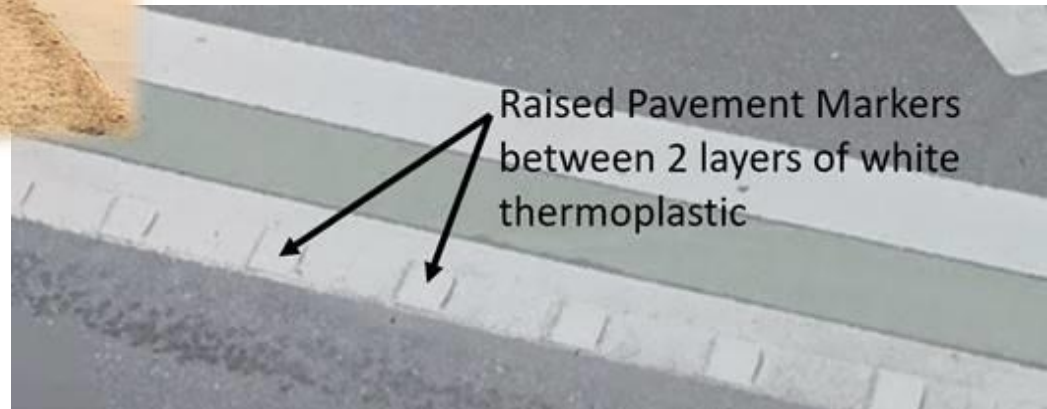


# CONSTRUCTIBLE



Converting Collectors  
Can be Cost Effective

Simple but Effective





# CONSTRUCTIBLE DON'T FORGET MAINTAINABLE!



**Striping is great,  
but**

- Develop a Maintenance Program
- Conflict Points use Thermoplastic



# COMPLIANT

## Shared Paths need to be ADA Compliant

- Grades can be deceiving
- Ramps can be complicated



Figure 1. All Ages and Abilities bicycle riders (top) and pedestrians (bottom)

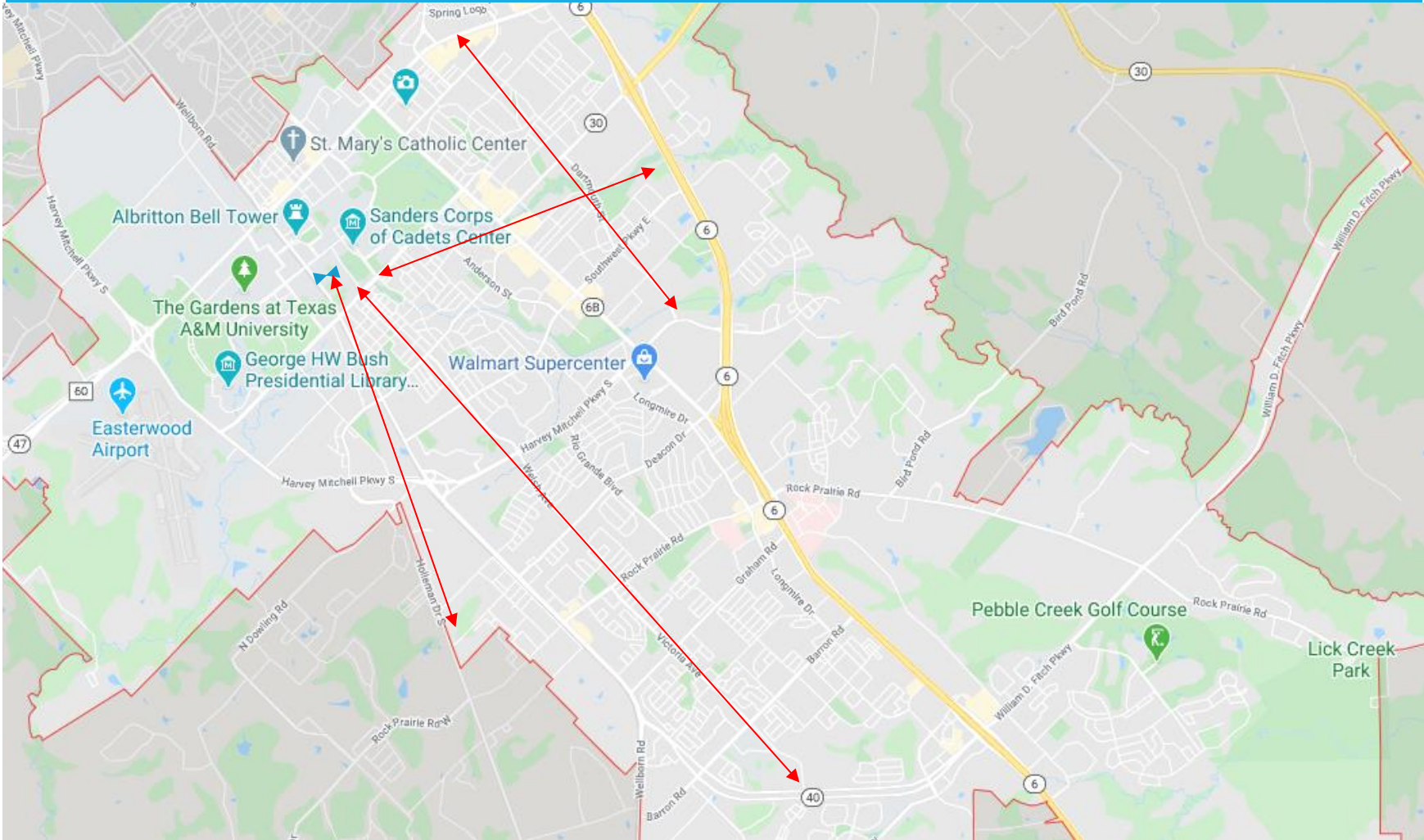


# POLLING QUESTION

WHAT'S IMPORTANT?



# CONNECTED - CITYWIDE





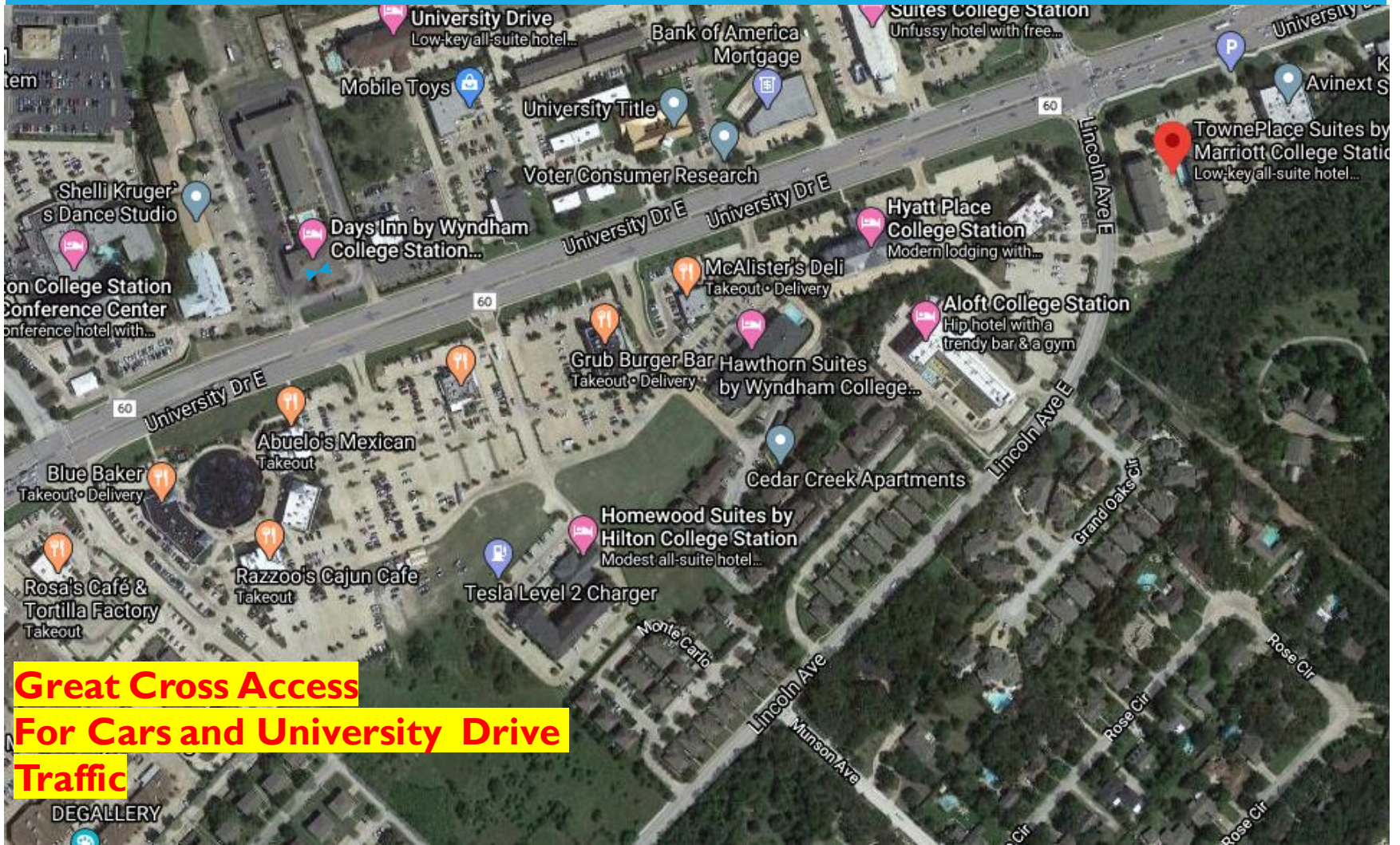
# CONNECTED - LOCALLY



**Are Landscaping Buffer Amenities?**



# CONNECTED - LOCALLY



**Great Cross Access  
For Cars and University Drive  
Traffic**



# CONNECTED - LOCALLY



**Schools**  
**Love connections from**  
**neighborhoods to schools?**

# CONNECTED

## Intersection Density

- Great indicator of walkability
- Block Length

## Collector Network

- Great indicator of bikeability
- Needs to connect

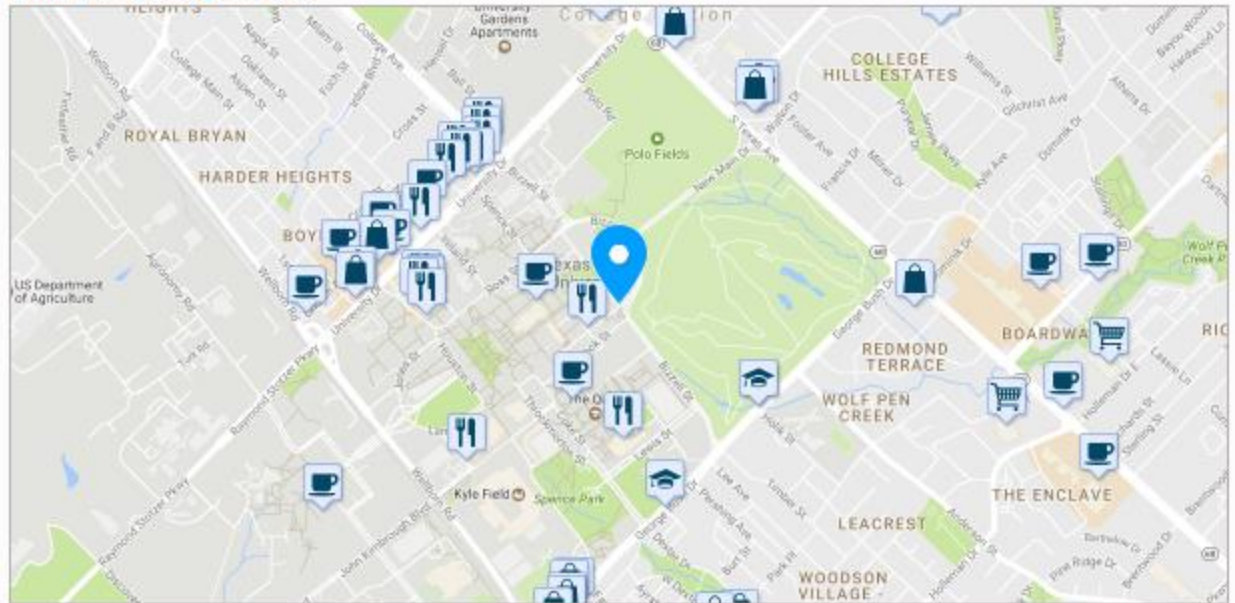
Walk Score  
**41**

### Car-Dependent

Most errands require a car.

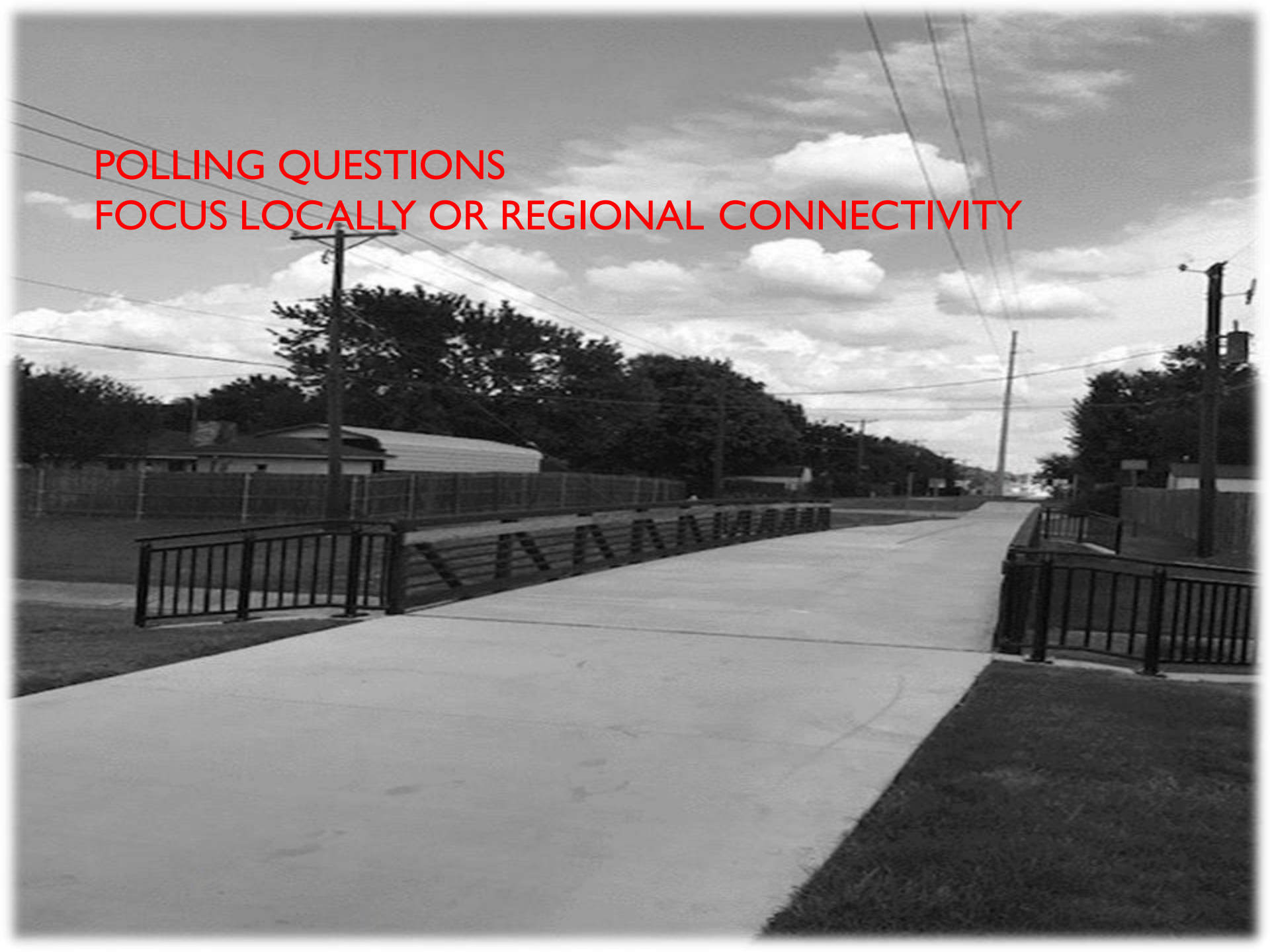
[About your score](#)

[Add scores to your site](#)





POLLING QUESTIONS  
FOCUS LOCALLY OR REGIONAL CONNECTIVITY





# COHERENT

- Bike App
- Pedestrian Standards in a Parking Lot
- Signage and Wayfinding
- Marked Crosswalks



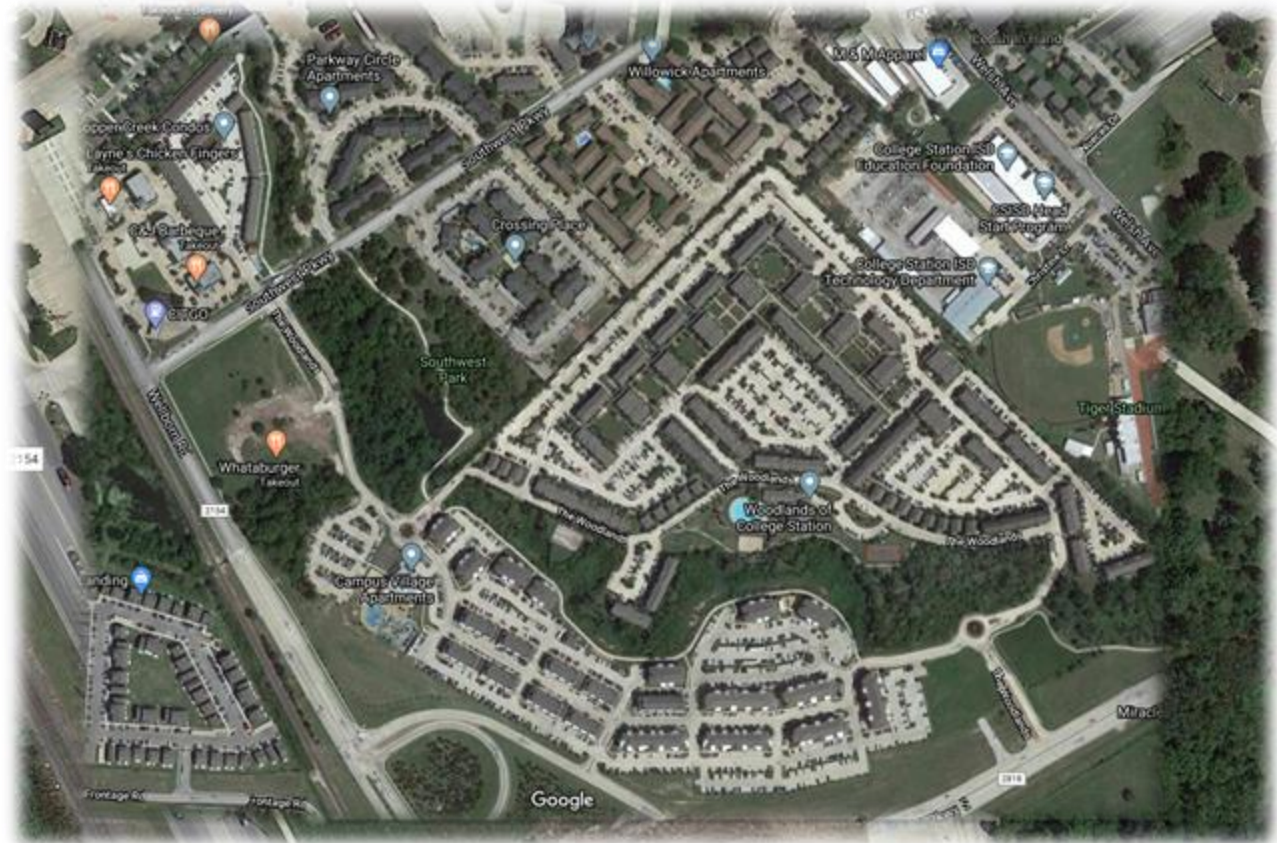
Bicycle Wayfinding Dot



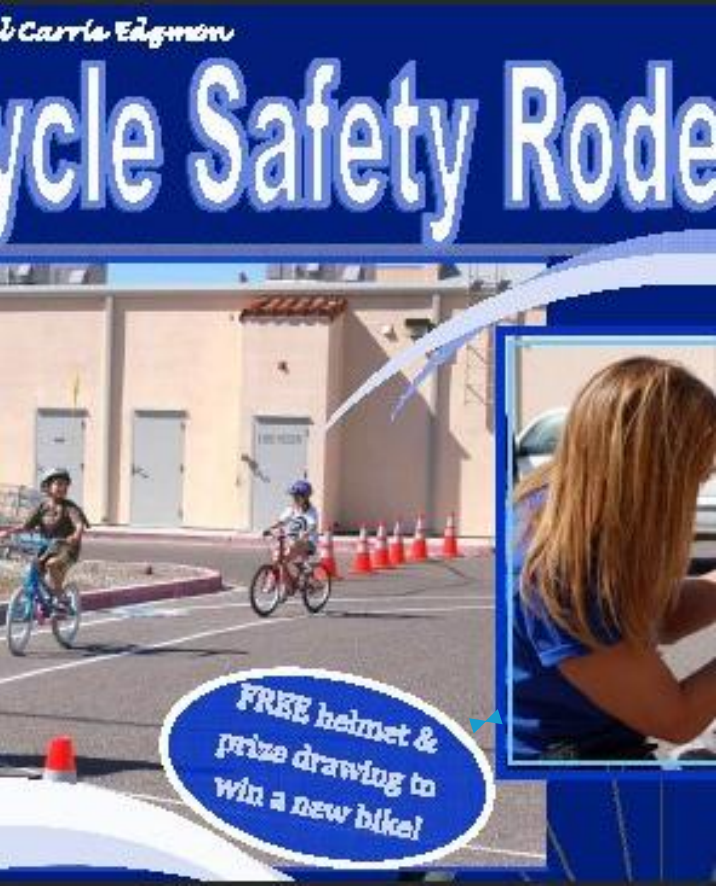
Bicycle Wayfinding Sign

# COMPLETE

- Every vehicle becomes has a future pedestrian trip
- Everyone transit stop has a pedestrian
- Cyclists have to park too







CULTURE



# CULTURE IDEAS: LIMITLESS

- **Bicycle and Pedestrian Advisory Board with a Budget**
- **Walk and Bike Friendly City**
- **Bicycle Patrols**
- **Open Streets (Even Permanent)**
- **Distribute bike lights, etc**
- **Bicycle Benefits Program**
- **Data...**
- **Completes Streets tied Safety Program**





# CONTEXT – CREATE SOCIAL EXPERIENCE



- Pedestrians and Cyclists Choose Routes Differently
- 3 mph or 10 mph can observe things different
- Like to ride together and talk
- Details matter



LET'S ASK AGAIN?  
FEEDBACK?