Enhancing Mobility on Campus

Presented by the Spring 2024 wkrm cohort

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Meet the Spring 2024 wkrm Team

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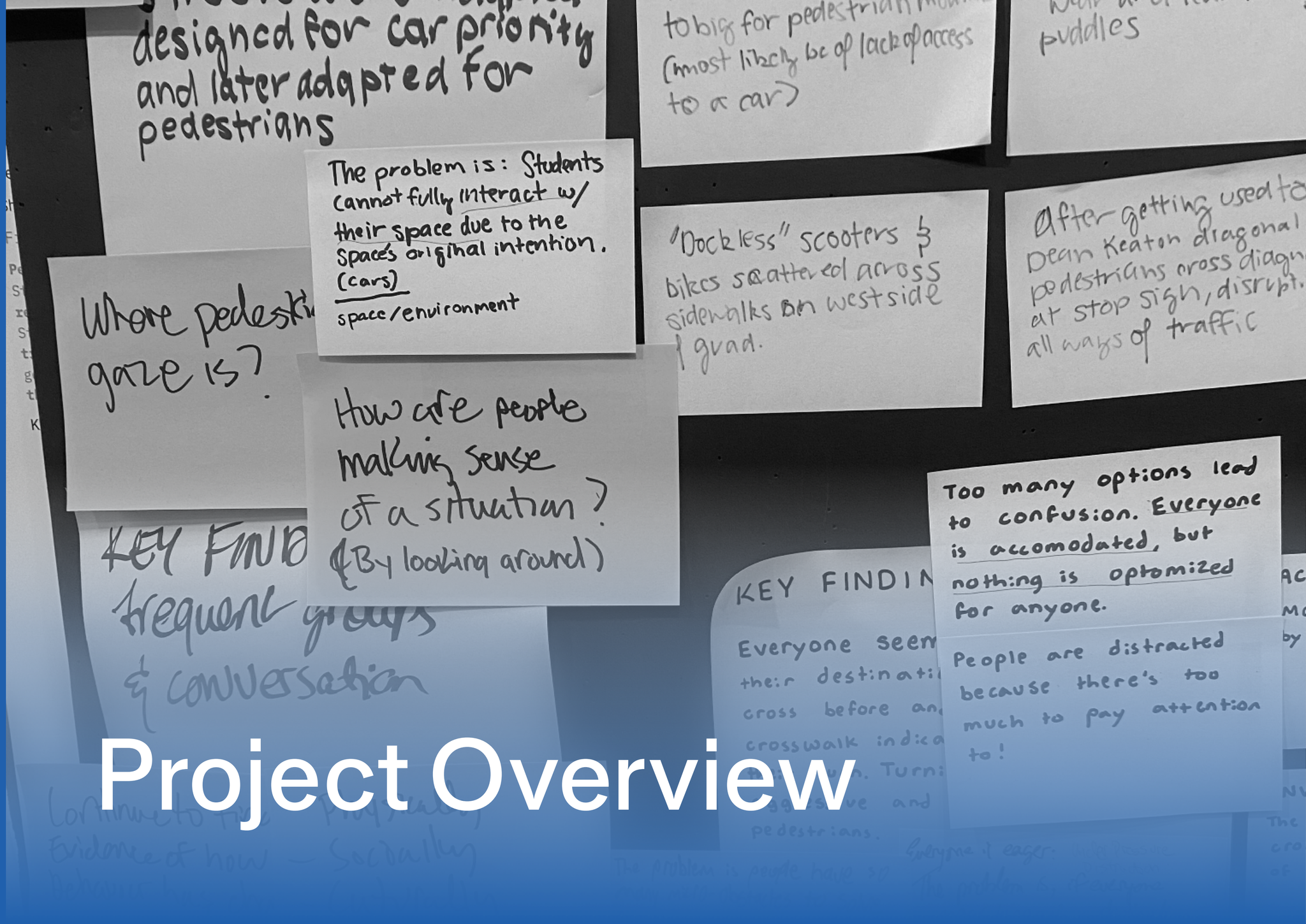
1 Project Overview
2 User Scenario
3 Core System Elements
4 Sign Types
5 Signage System
6 Conclusion



1 Project Overview

We focused our work on the Mobility Markers concept from last semester.

Students struggle to find routes and mobility modes that work for them, and are always seeking to optimize their journeys.

There is a need for visual markers and physical affordances that direct, inform, signal, and support mobility on and around campus.

2 User Scenario

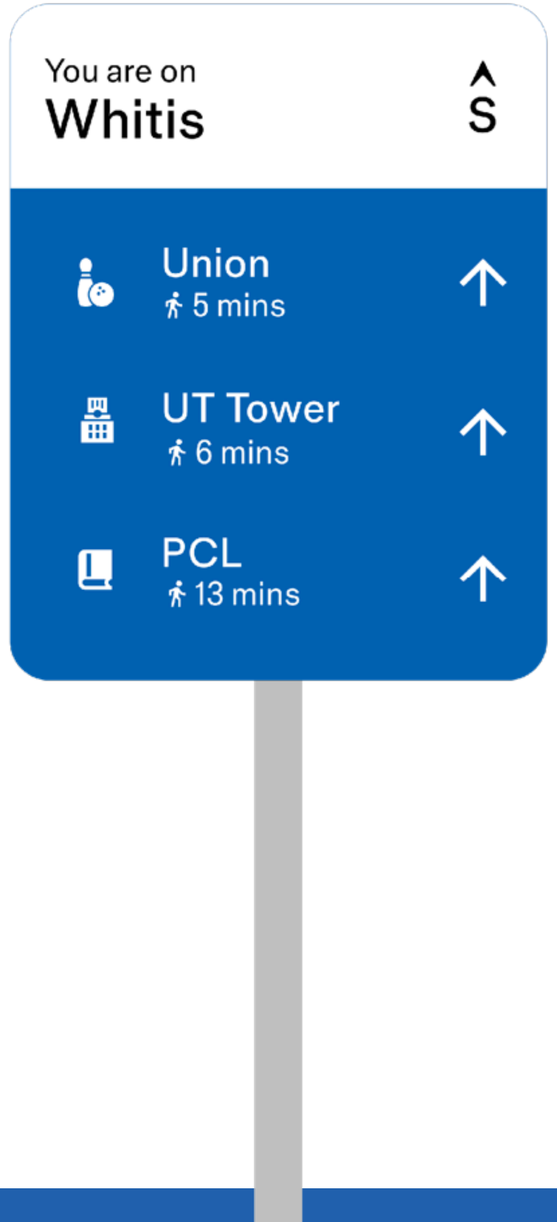
These markers can “triangulate” to support their movement along paths to common campus destinations.

A Current Condition

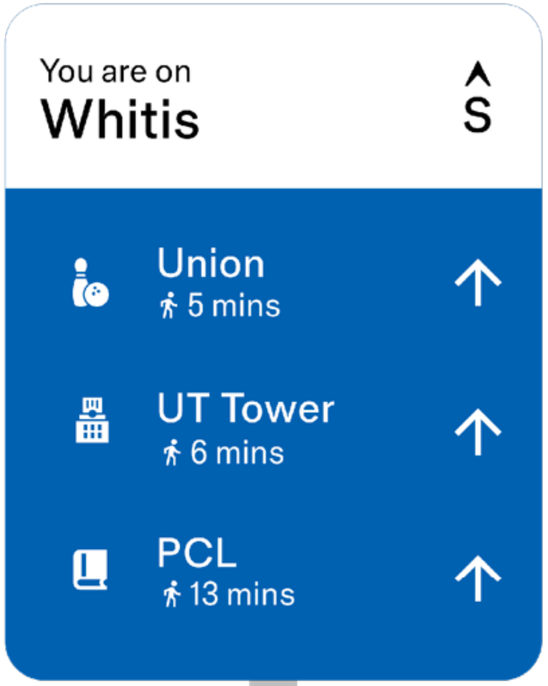

Most signs are optimized for motorists.
W Dean Keeton ST 300
Whitis AVE 2600
BICYCLISTS MAY USE PEDESTRIAN SIGNAL
NO RIGHT TURN ON RED

Enhanced Mobility Support

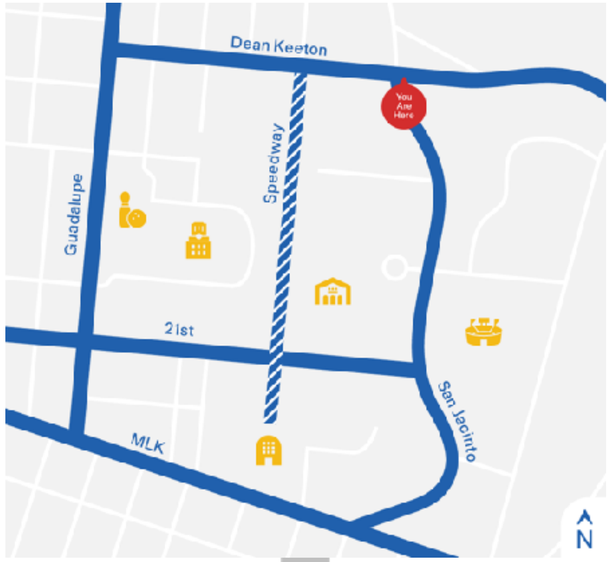
Directional Sign



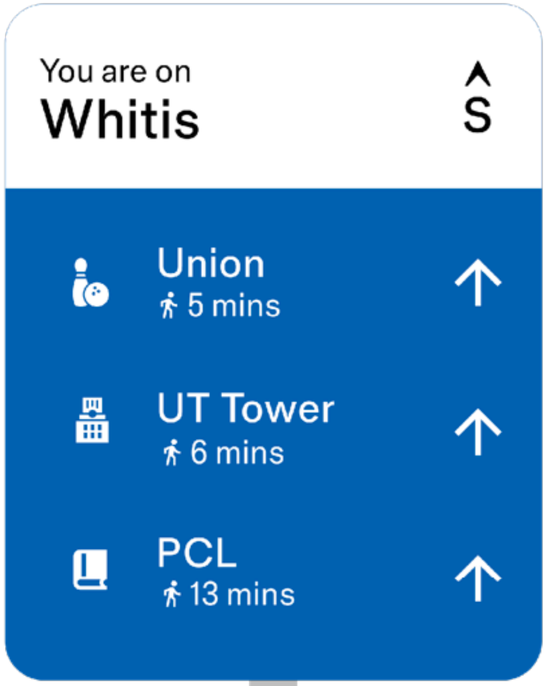
Directional Sign



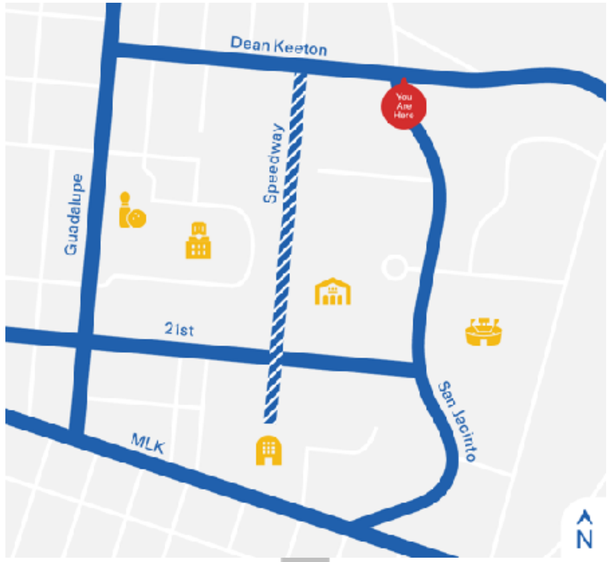
Area Map



Directional Sign

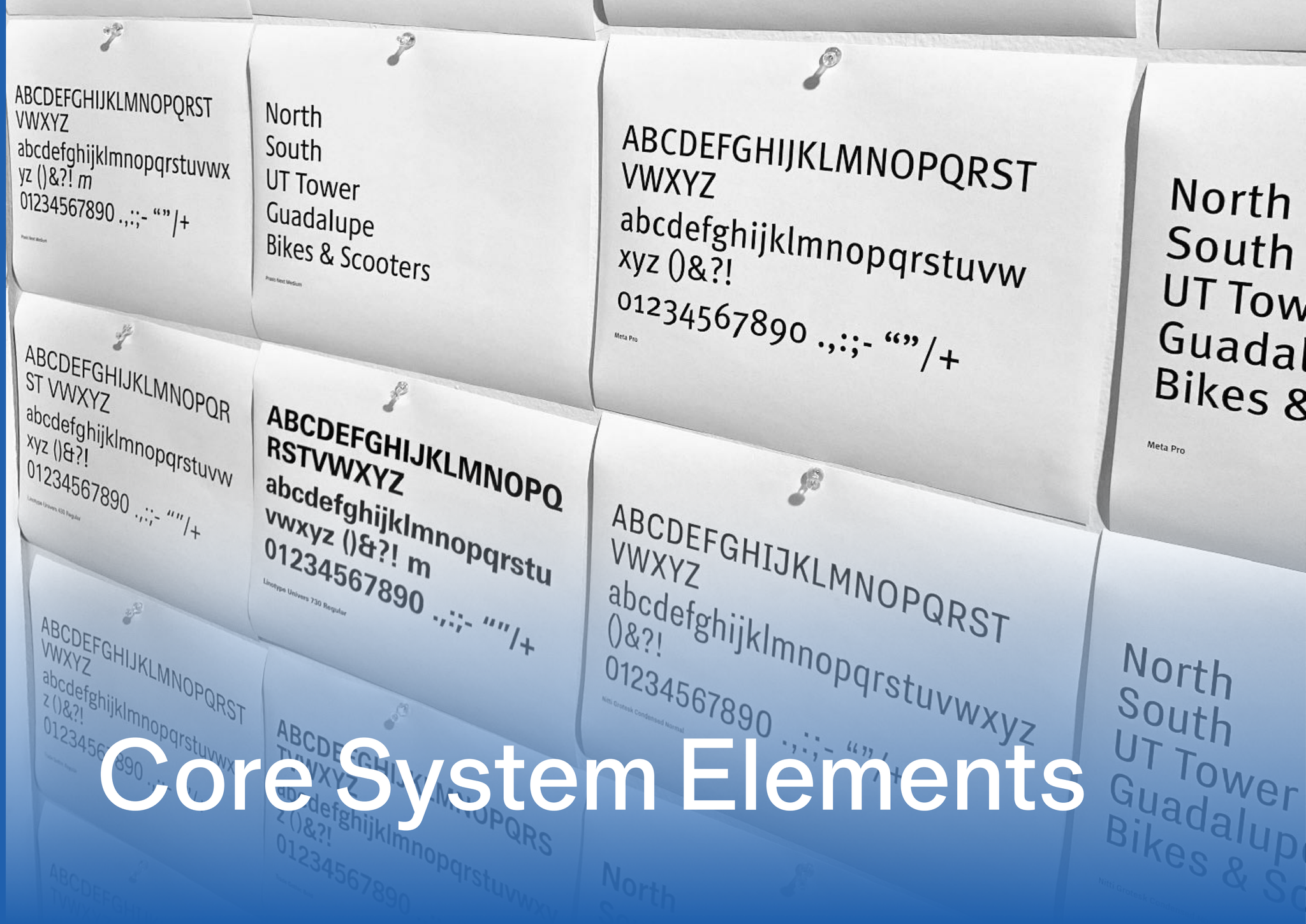


Area Map



Ground-Level Directions

3 Core System Elements



Color Rationale

Color Rationale

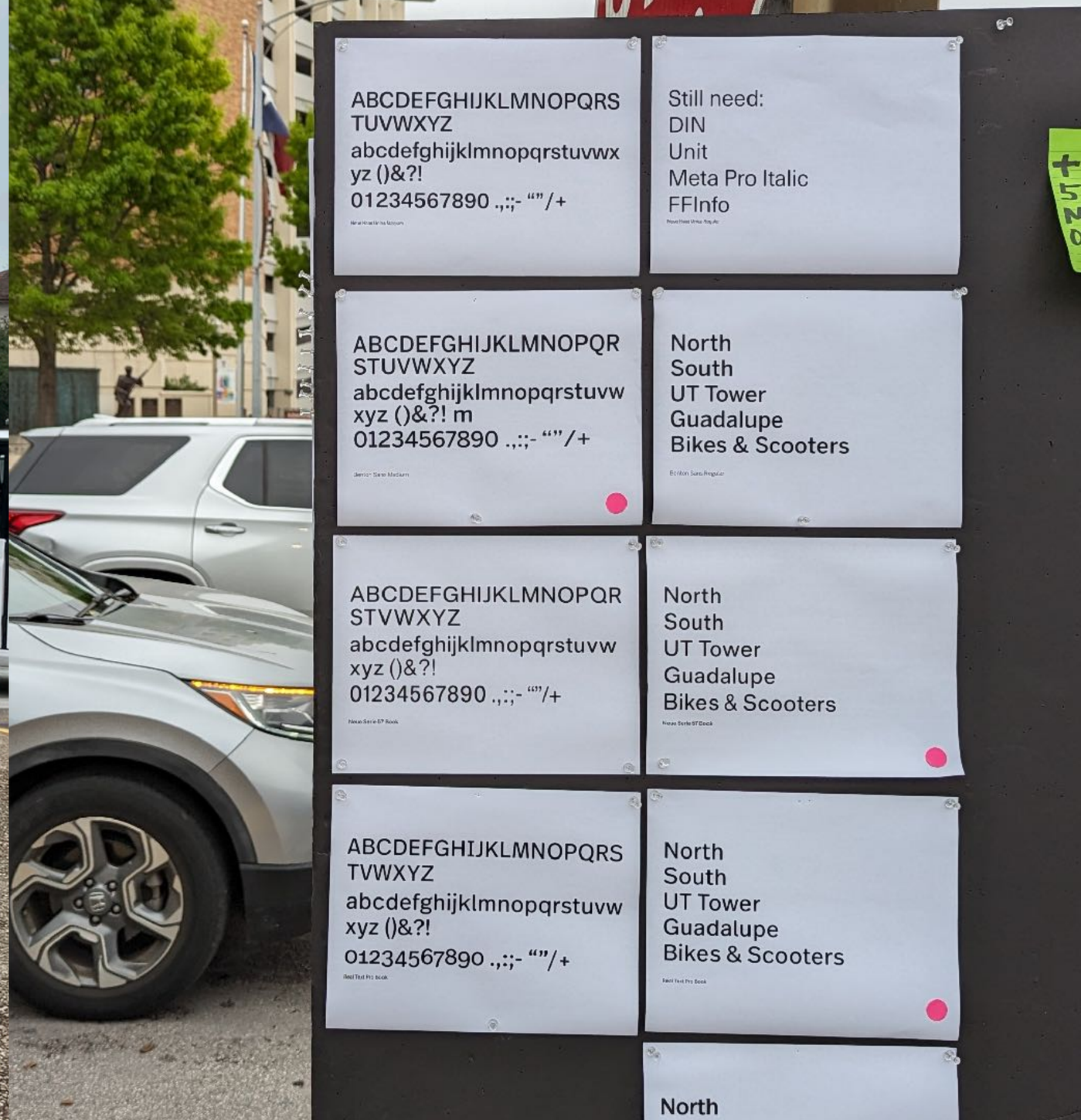
Our system aims to accommodate the largest variety of pedestrians.

According to the National Eye Institute's website, red-green color vision deficiency is "the most common type of color vision deficiency."

#2060AD
Pantone 300U

Typography

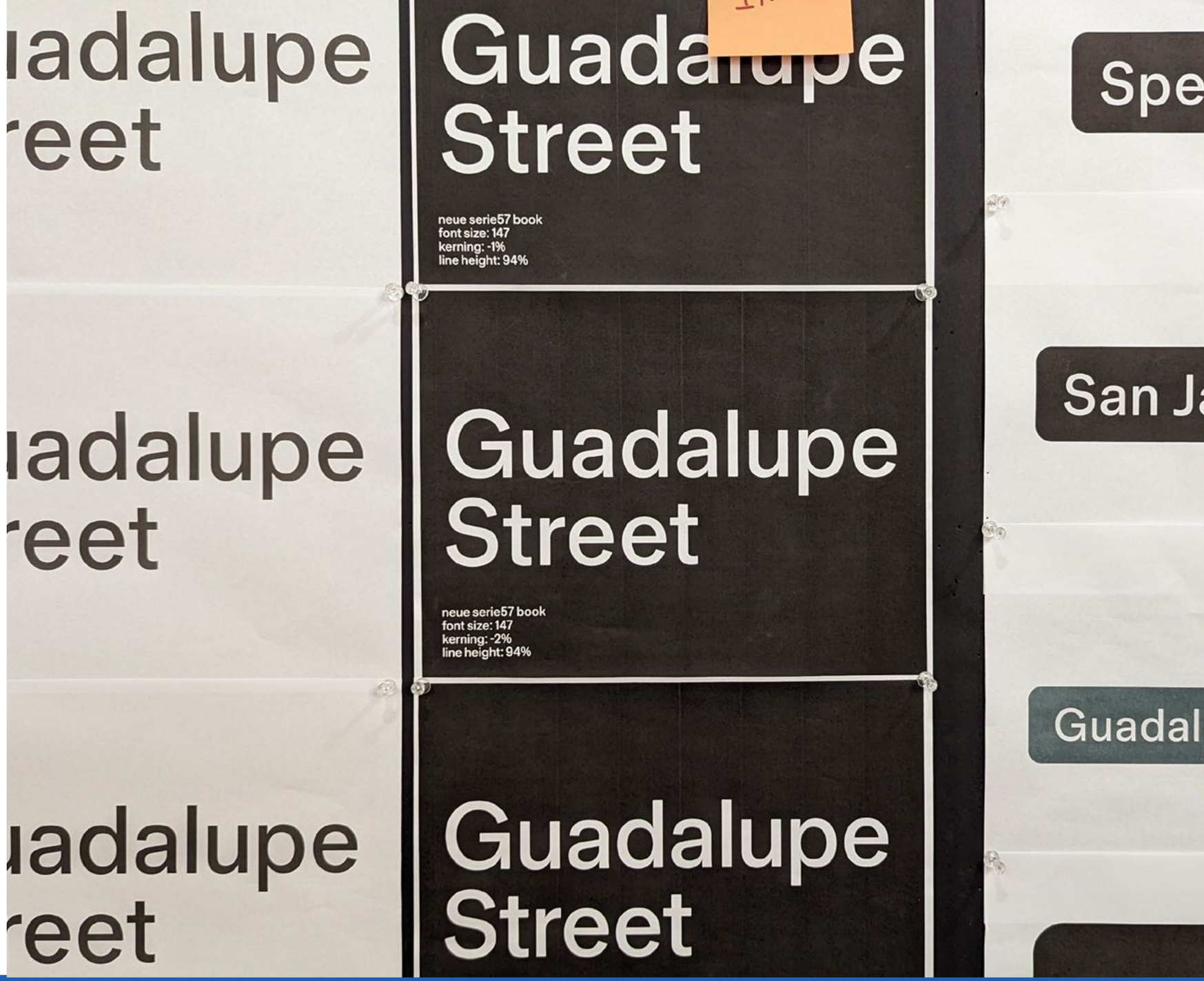

DeLoss Dodds
Way
300


ABCDEFGHIJKLMNOPQRS
TUVWXYZ
abcdefghijklmnopqrstuvwx
yz ()&?!
01234567890 .,:;- “”/+
Still need:
DIN
Unit
Meta Pro Italic
FFInfo
ABCDEFGHIJKLMNOPQR
STUVWXYZ
abcdefghijklmnopqrstuvw
xyz ()&?! m
01234567890 .,:;- “”/+
North
South
UT Tower
Guadalupe
Bikes & Scooters
ABCDEFGHIJKLMNOPQR
STVWXYZ
abcdefghijklmnopqrstuvw
xyz ()&?!
01234567890 .,:;- “”/+
North
South
UT Tower
Guadalupe
Bikes & Scooters
ABCDEFGHIJKLMNOPQRS
TVWXYZ
abcdefghijklmnopqrstuvw
xyz ()&?!
01234567890 .,:;- “”/+
North
South
UT Tower
Guadalupe
Bikes & Scooters
North

Neue Serie57

Noticeable and legible from distance

Friendly and functional style



Typography

Aa

Neue Serie57
Book
Tracking: -1%

Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww
Xx Yy Zz

0123456789

Pictograms

Walking

Bike

Bus

Light Rail

Scooter

Blanton Museum of Art

UT Tower

Union

Greg Gym

Football Stadium

Location Point

Wheelchair

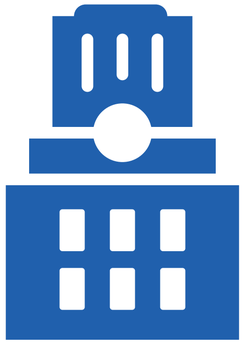
Cardinal Navigation

Arrow

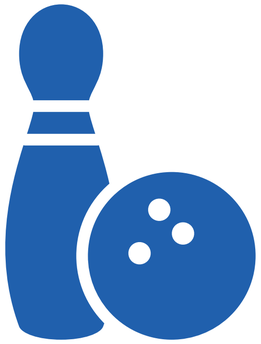
Campus Landmarks

Gregory Gym

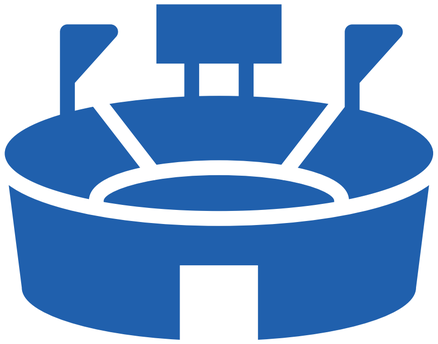
Blanton Museum



UT Tower



Student Union

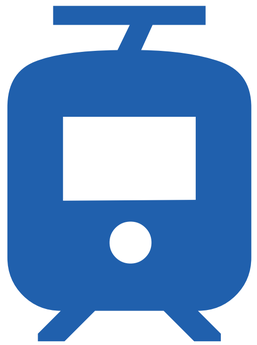


DKR Stadium

We have identified these five popular campus destinations as **major landmarks** on campus. These landmarks serve our system by orienting people quickly, providing a **reference point** on a journey, and helping to form a mental model of the campus.

Mobility Modes

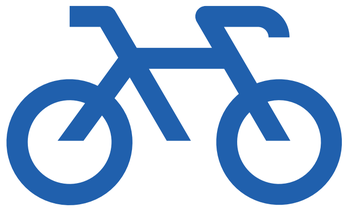
Bus



Light Rail

Pedestrian

Wheelchair



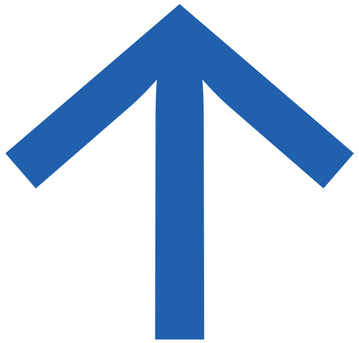
Bike

Scooter

These pictograms represent the major mobility modes on and around campus. We intentionally chose our bike and scooter pictograms convey the mobility *mode* rather than the mobility *behavior*.

Navigation

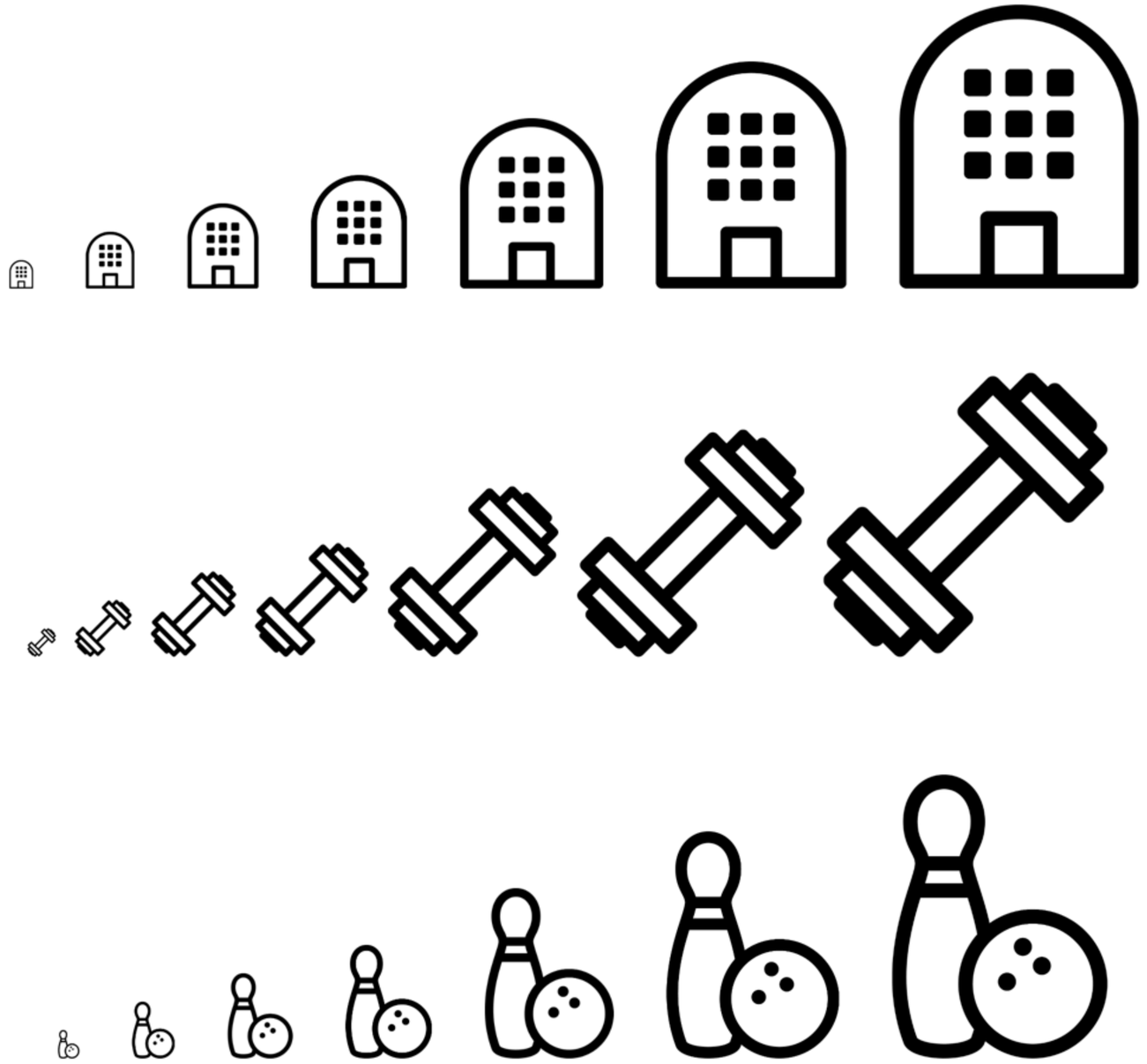
Cardinal Navigation



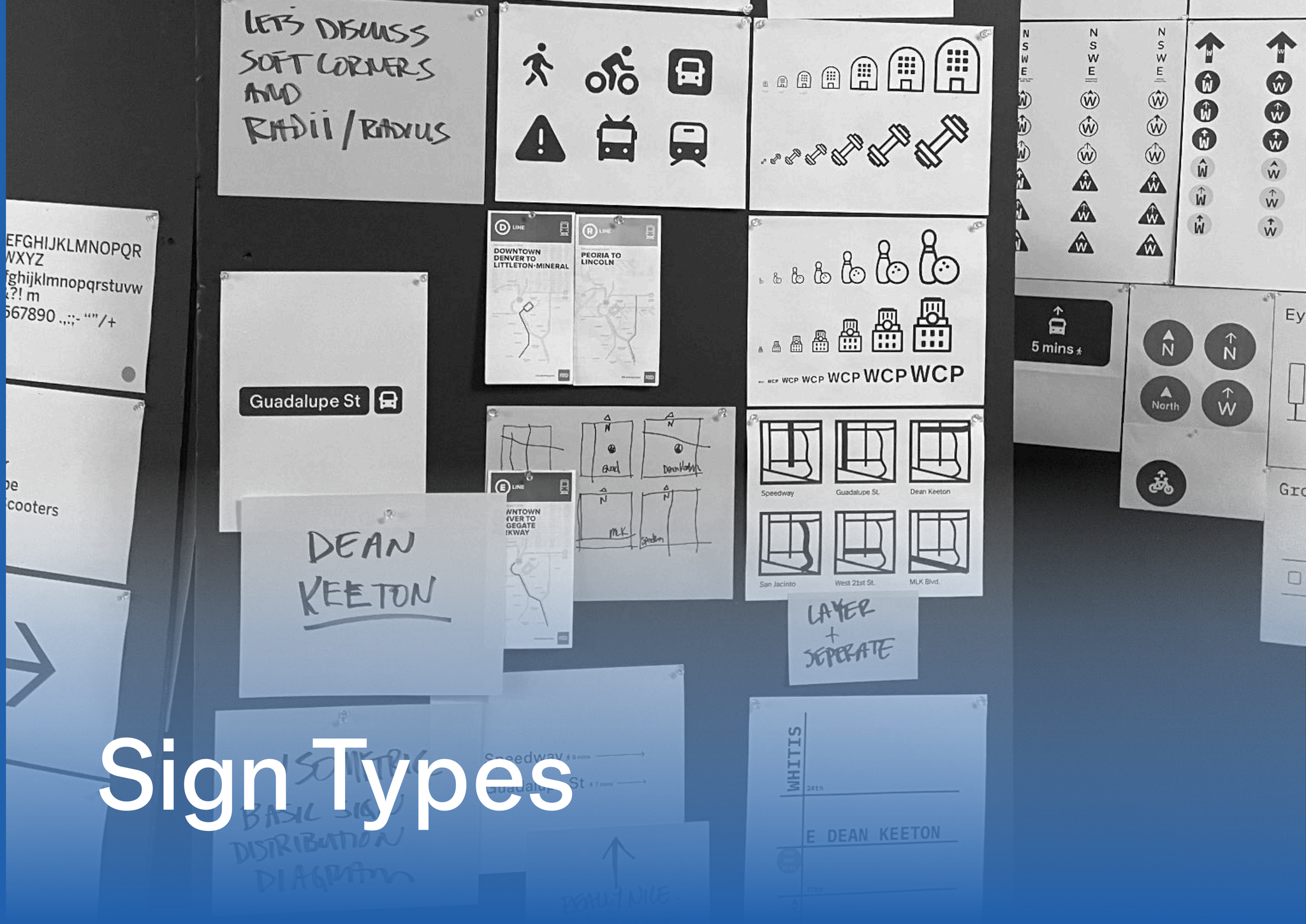
Arrow

Location Point

Our system contains two different arrows: a cardinal direction designed to resemble a compass, and a wayfinding arrow indicating direction to campus destinations.



4 Sign Types


LETS DISCUSS SOFT CORNERS AND RADII / RADIUS
DOWNTOWN DENVER TO LITTLETON-MINERAL
PEORIA TO LINCOLN
Guadalupe St
DEAN KEETON
WCP WCP WCP WCP WCP
Speedway
Guadalupe St.
Dean Keeton
San Jacinto
West 21st St.
MLK Blvd.
LAYER + SEPERATE
5 mins
North
E DEAN KEETON

Eye-Level Signs

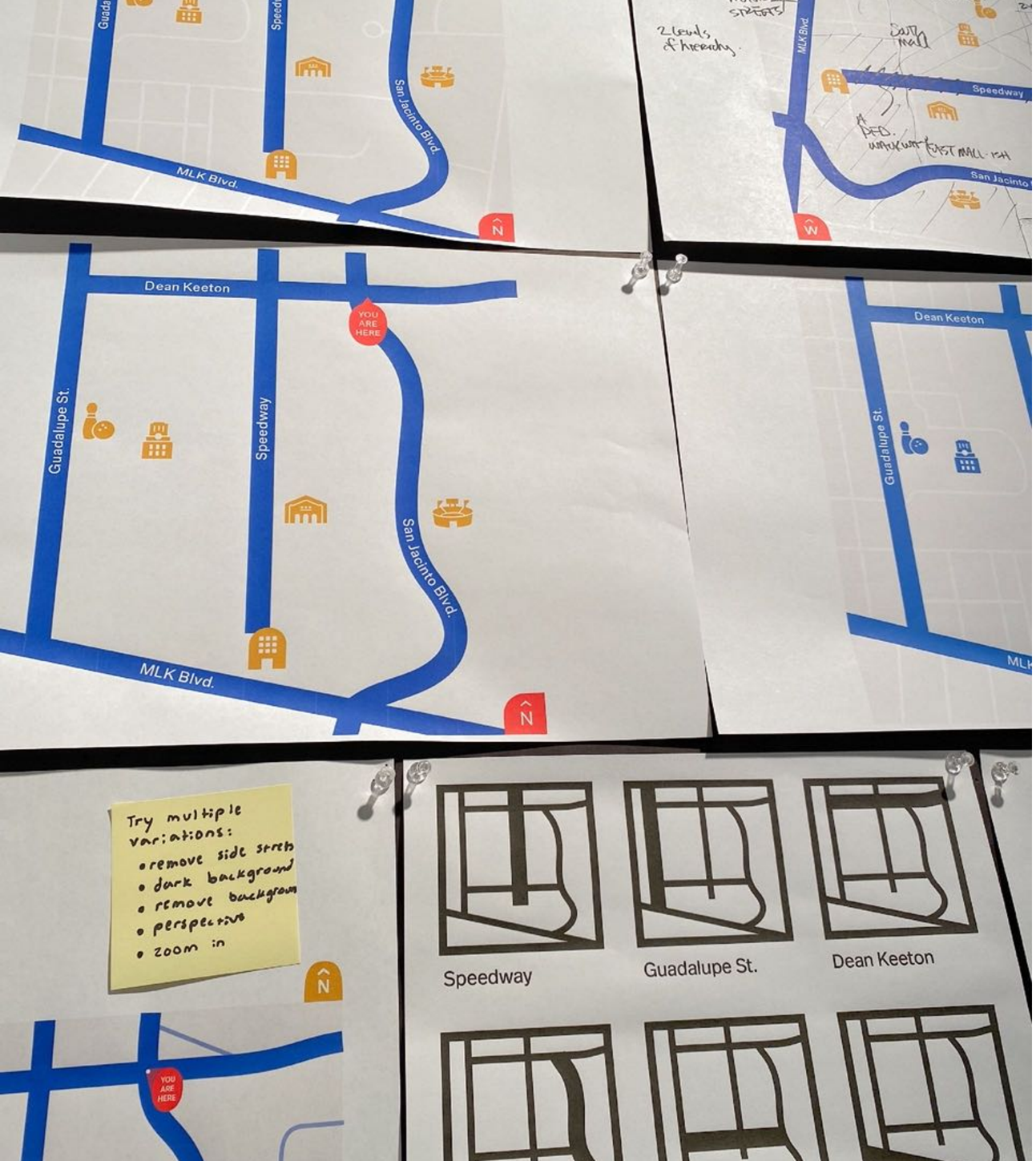
Signs at or near eye-level, approximately 6-8 feet tall.

Example: Shoal Creek Signage

Mapping

Mapping

Existing campus maps are detailed and complex, showing each building and its corresponding 3-letter code. This information is useful for locating a specific destination, but not for quickly orienting people.



Speedway

Guadalupe St.

Dean Keeton

San Jacinto

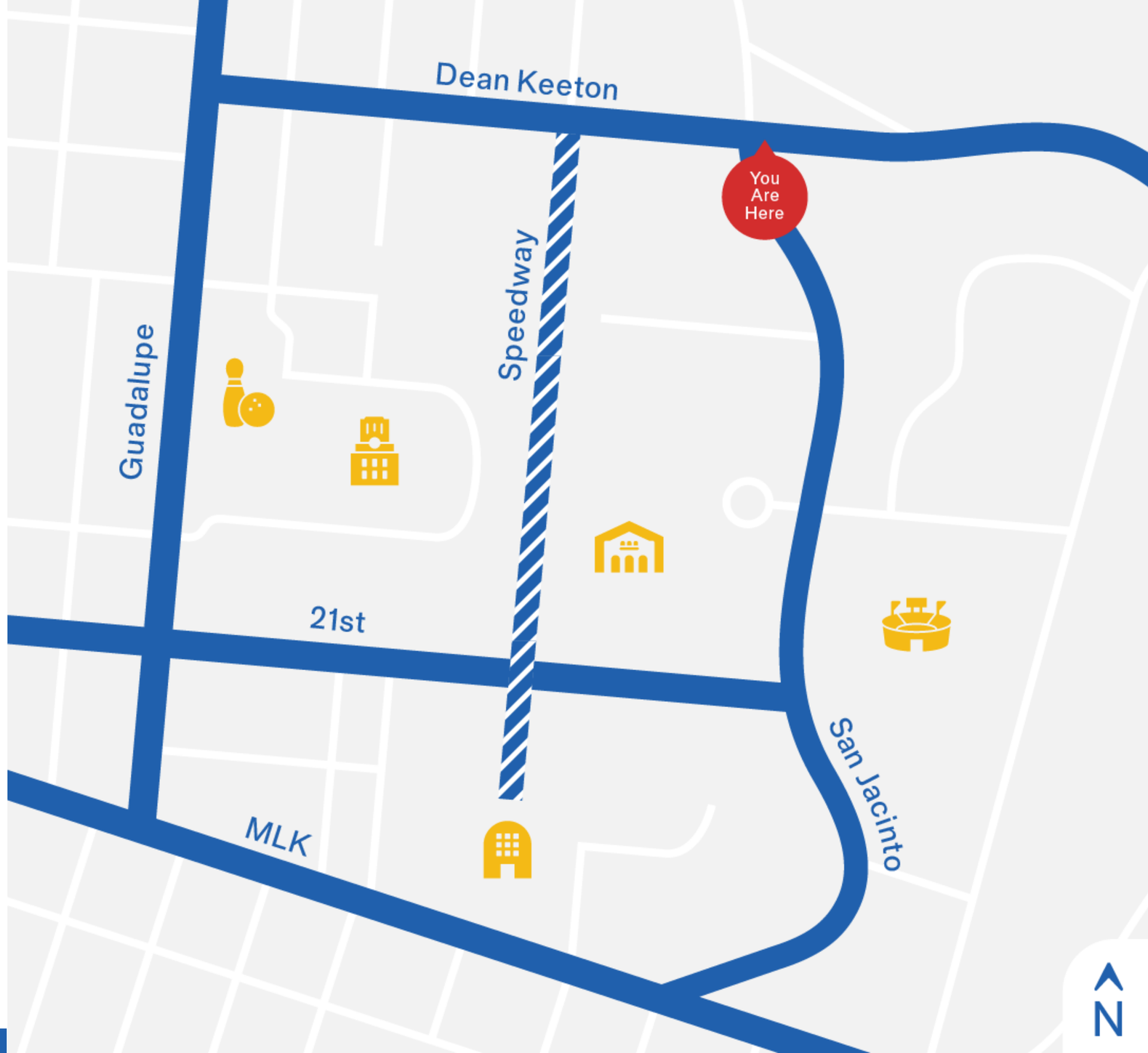
West 21st St.

MLK Blvd.

Mapping

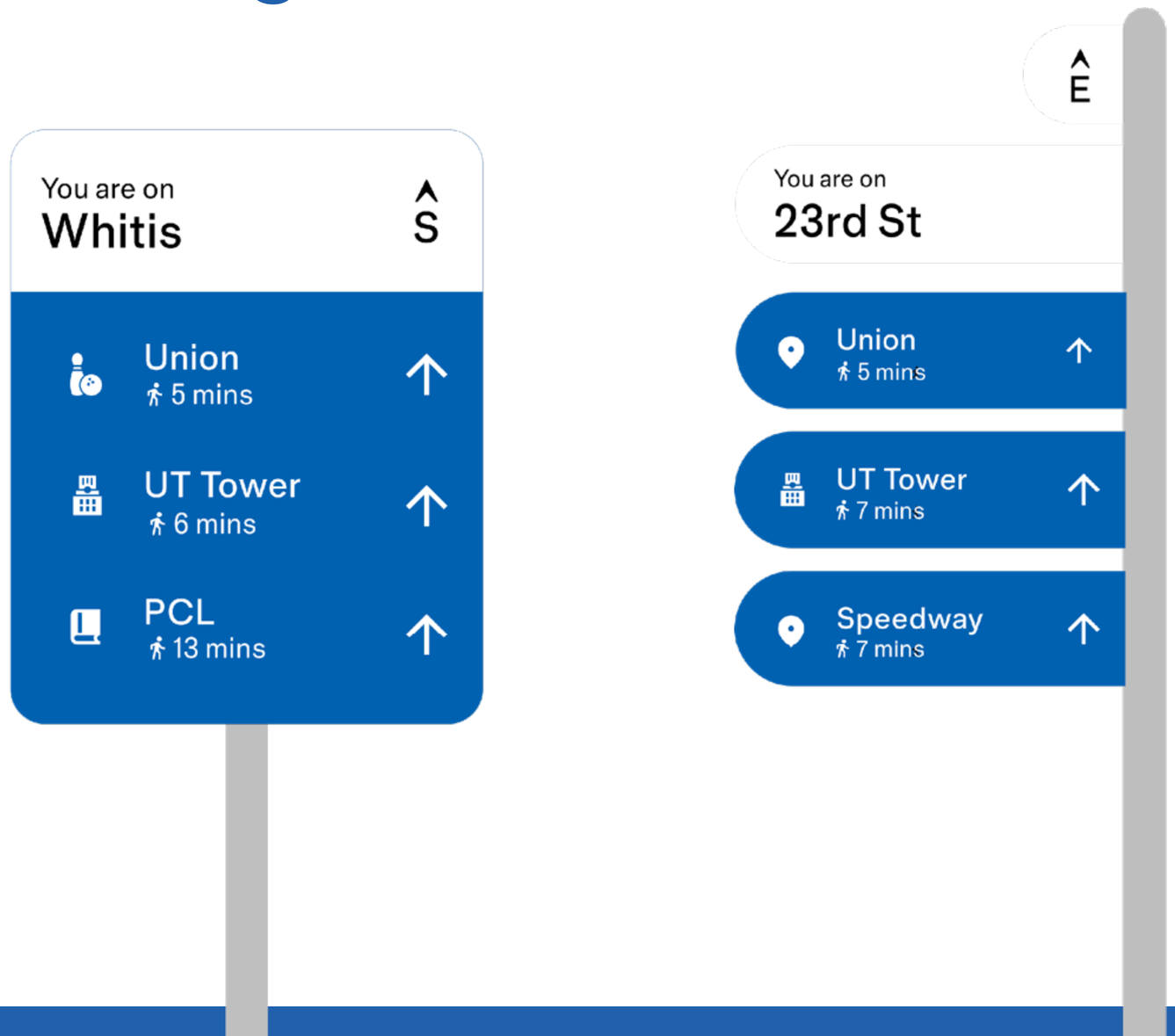
Our area maps **identify** popular destinations on campus and **orient** people relative to the major streets and walkway.

The pictograms on the map represent the locations of these landmarks.



Directional Signs

Directional Signs

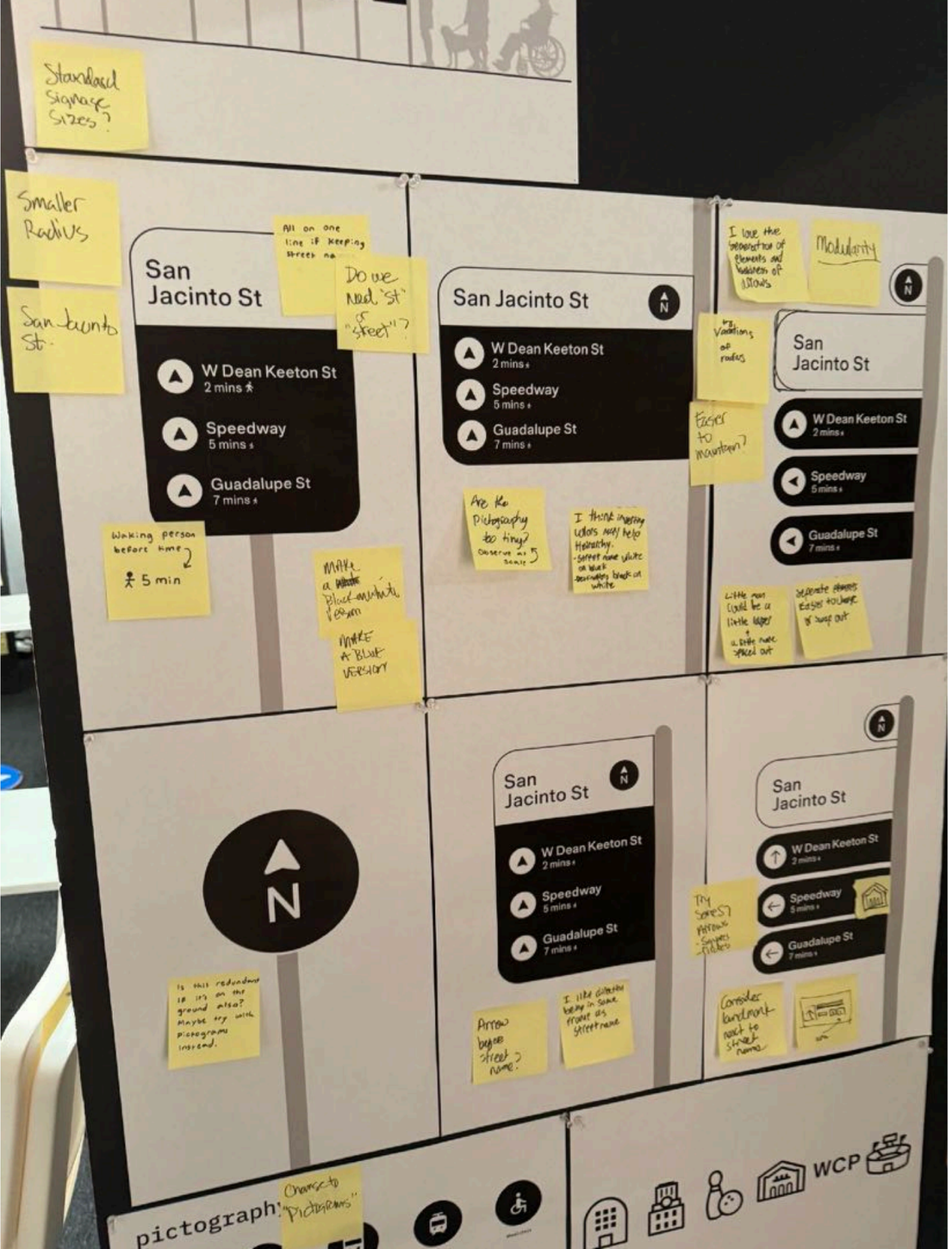


Directional Signs

Street Identifier

Time to Destination

Directional Arrow


Standard signage sizes?
Smaller Radius
San Jacinto St
W Dean Keeton St
2 mins
Speedway
5 mins
Guadalupe St
7 mins
Do we need "St" or "Street"?
Modularity
Are the pictography too tiny?
Make a Black-on-White version
Make a Blue version
Is this redundant if it's on the ground also? Maybe try with pictograms instead.
Arrow before street name?
Consider landmark next to street name
WCP
pictograph


Dean Keeton Street
San Jacinto St
Speedway
Guadalupe St
San Jacinto St
W Dean Keeton St
Speedway
Guadalupe St
San Jacinto St
W Dean Keeton St
Speedway
Guadalupe St
San Jacinto St
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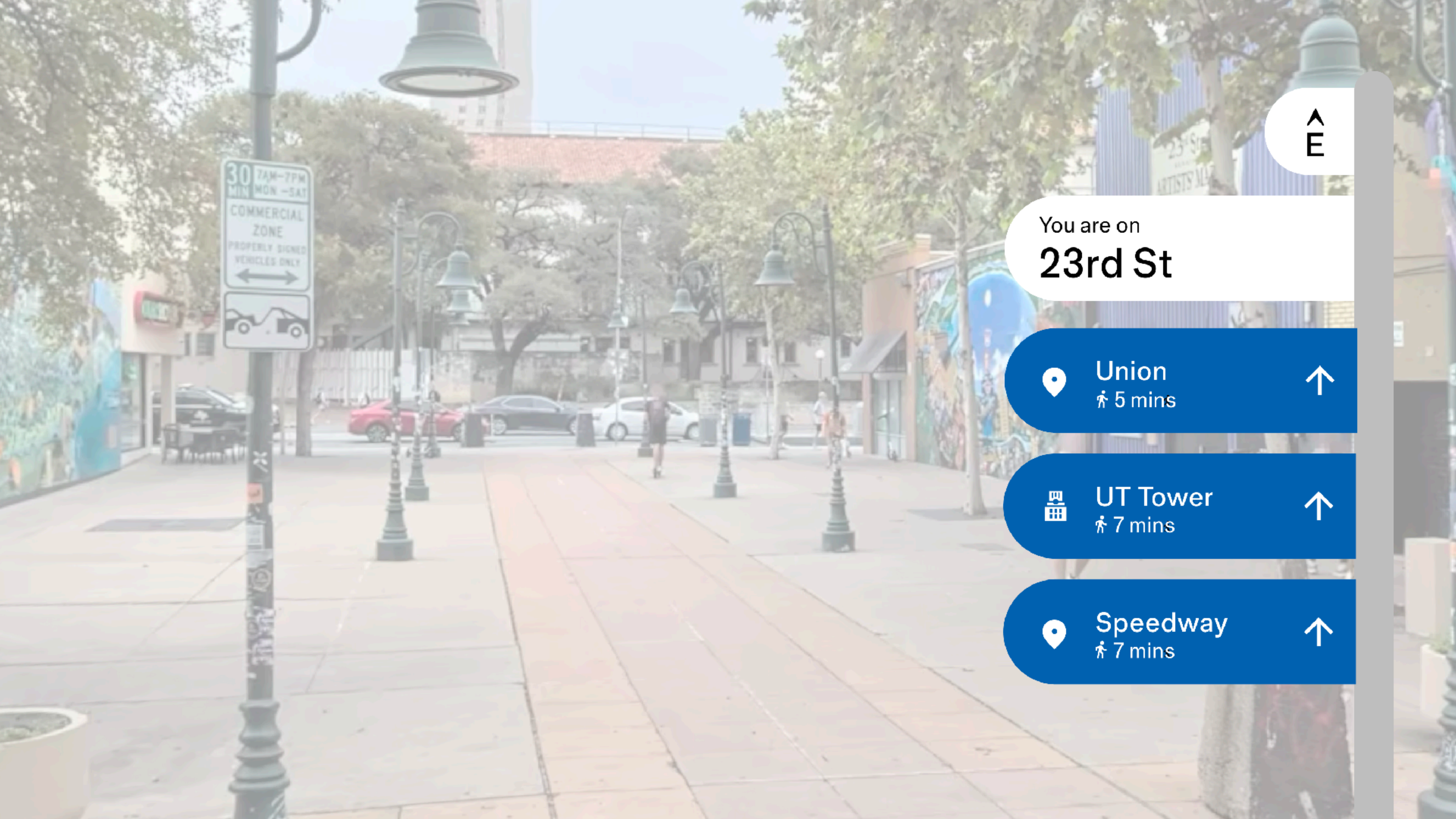
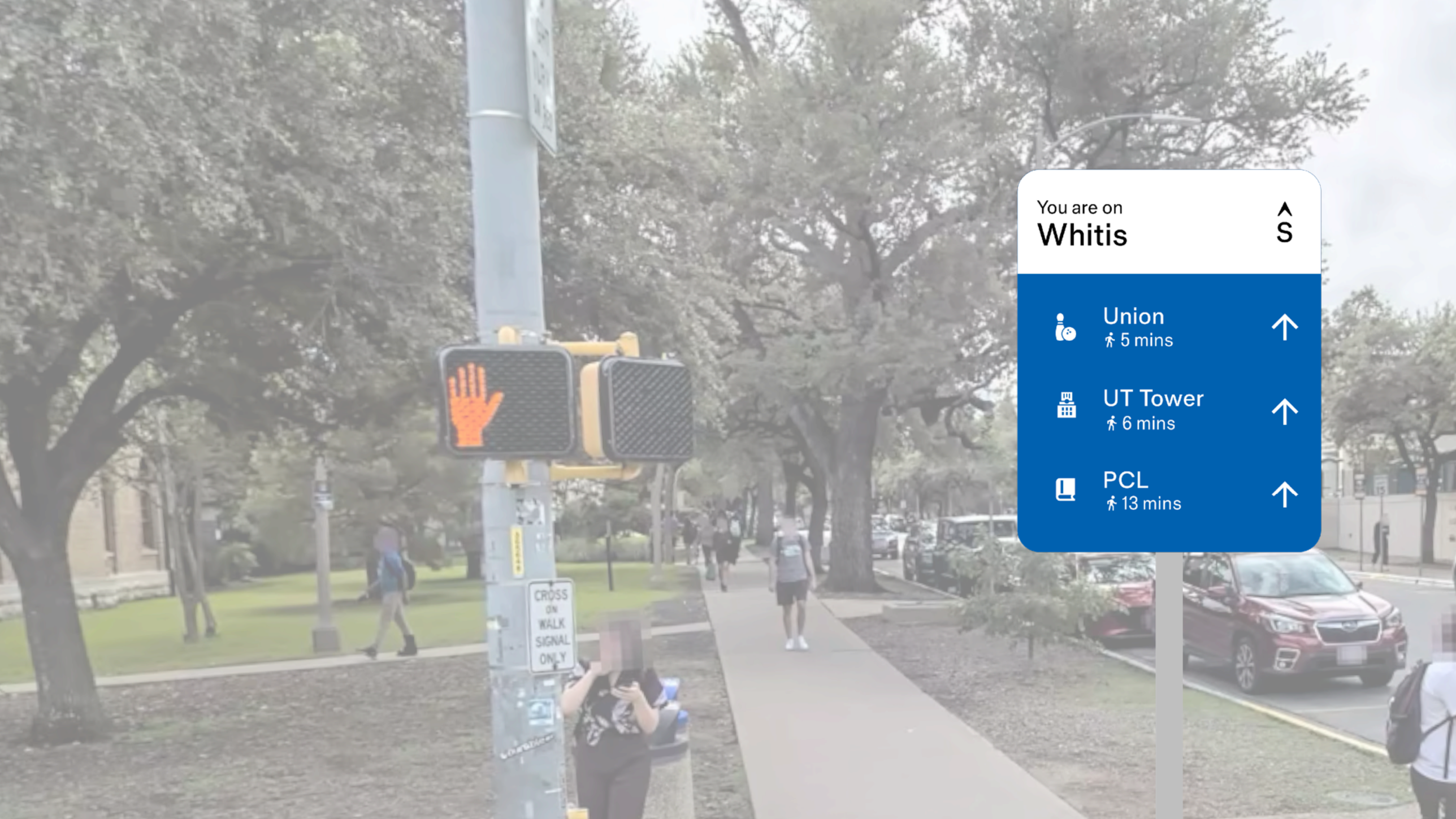
Speedway
Guadalupe St
San Jacinto St
W Dean Keeton St
Speedway
Guadalupe St


30 MIN
7AM–7PM MON–SAT
COMMERCIAL ZONE
PROPERLY SIGNED VEHICLES ONLY
E
You are on
23rd St
Union
5 mins
UT Tower
7 mins
Speedway
7 mins


You are on
Whitis
S
Union
5 mins
UT Tower
6 mins
PCL
13 mins
CROSS ON WALK SIGNAL ONLY

Ground-Level Signs

Signs or information on or near the ground, below eye-level

Example: New Orleans Street Signage

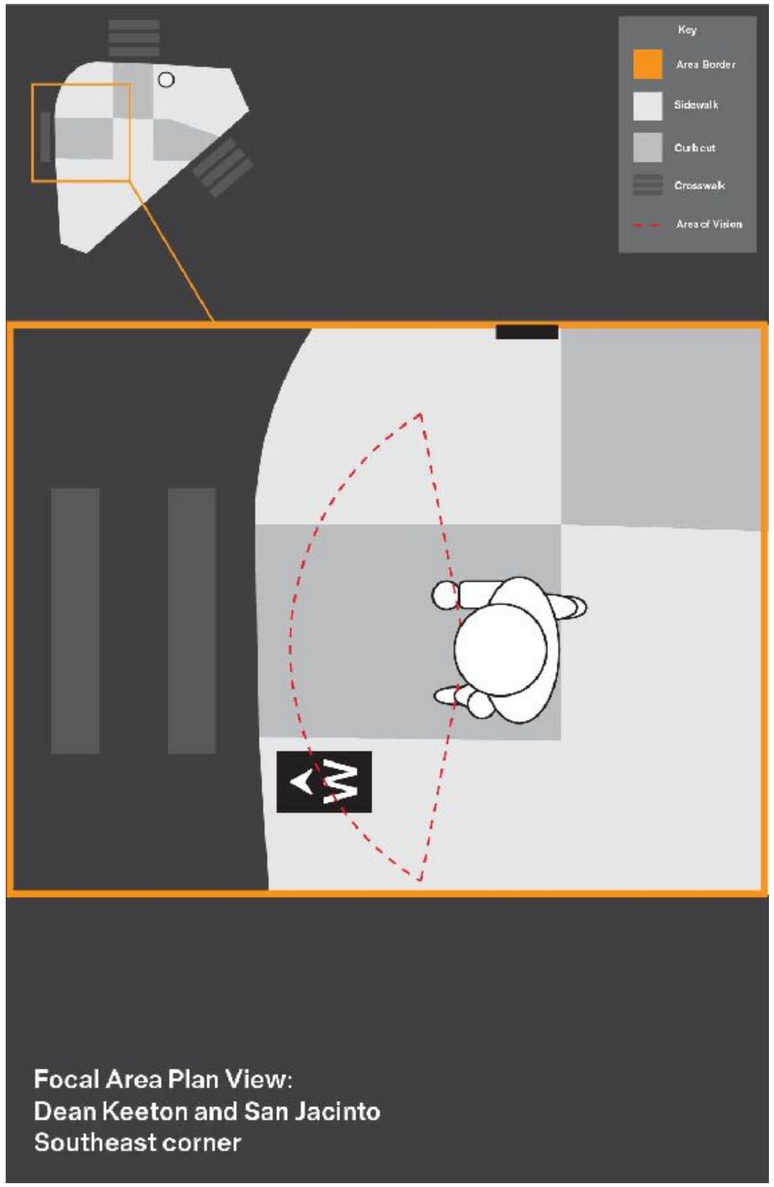
Focal Area

We observed a majority of pedestrians look down at their phones while walking.

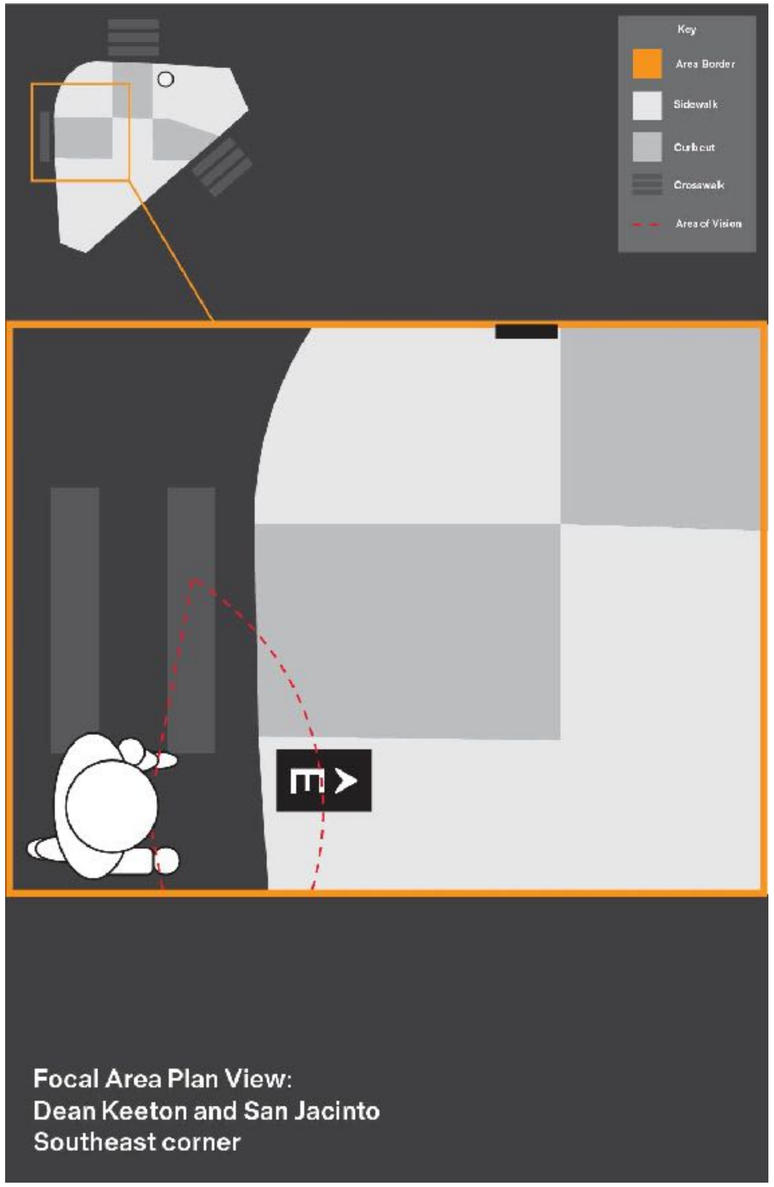
We found that younger generations are reliant on technology for navigation.

We discovered that many pedestrians didn't know the cardinal direction they were facing.

We learned that many students follow routine routes every day. Repetitive markers can aid orientation and recall.



Focal Area Plan View:
Dean Keeton and San Jacinto
Southeast corner



Focal Area Plan View:
Dean Keeton and San Jacinto
Southeast corner

Ground-Level Sign Types

Street Names
Cardinal Directions
Bike Bumper

Cardinal Directions & Street Markers

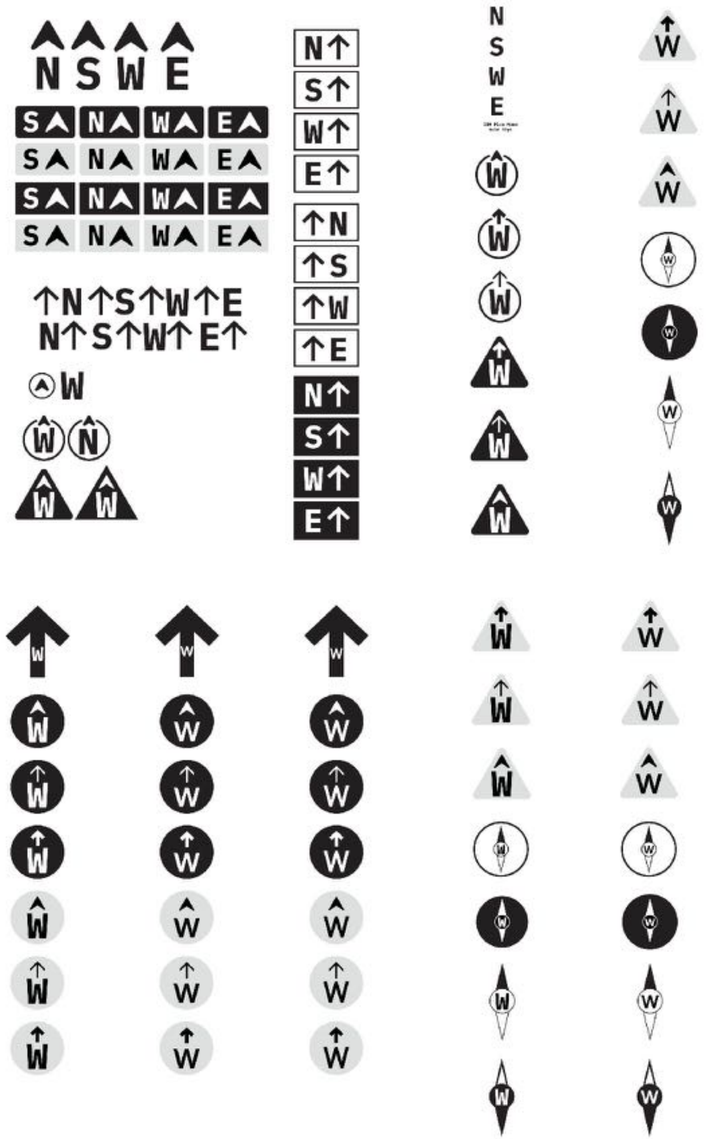
Prototyping Questions

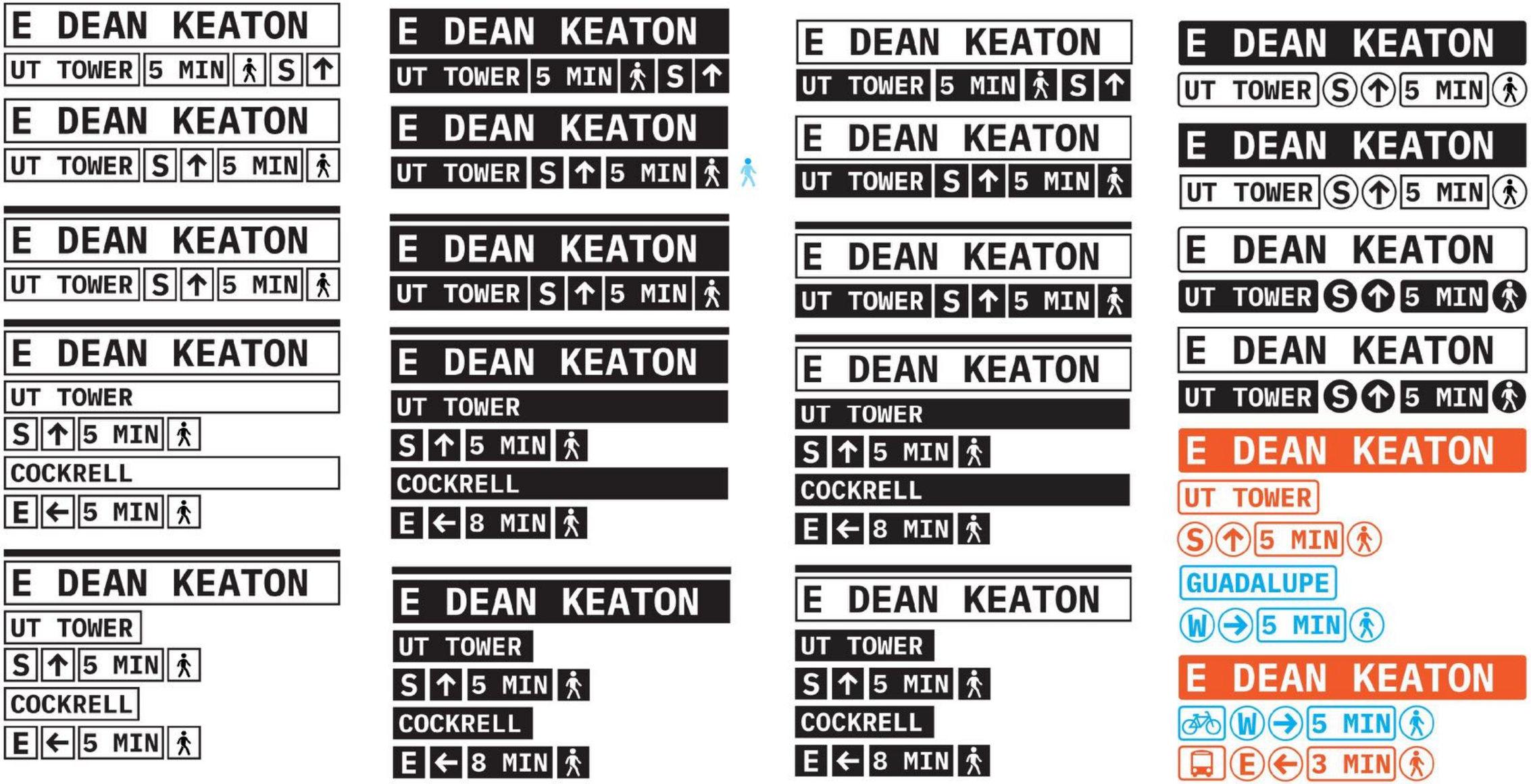
- How does the environment and the signage influence one another?
- How do the colors look in the environment?
- What size should signage be?
- How should signs be arranged in relation to one another?
- Are the signs noticeable?

Arrows & Shapes

Deciding on the right arrow was a big part of the design process. We wanted something that was bold, clear and easily read from a distance.

However, we also wanted the arrow to evoke a compass. This way it would be clear that the sign is informing the user about cardinal directions.




E DEAN KEATON
UT TOWER 5 MIN S
E DEAN KEATON
UT TOWER S 5 MIN
E DEAN KEATON
UT TOWER S 5 MIN
E DEAN KEATON
UT TOWER
S 5 MIN
COCKRELL
E 5 MIN
E DEAN KEATON
UT TOWER
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COCKRELL
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UT TOWER 5 MIN S
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COCKRELL
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E DEAN KEATON
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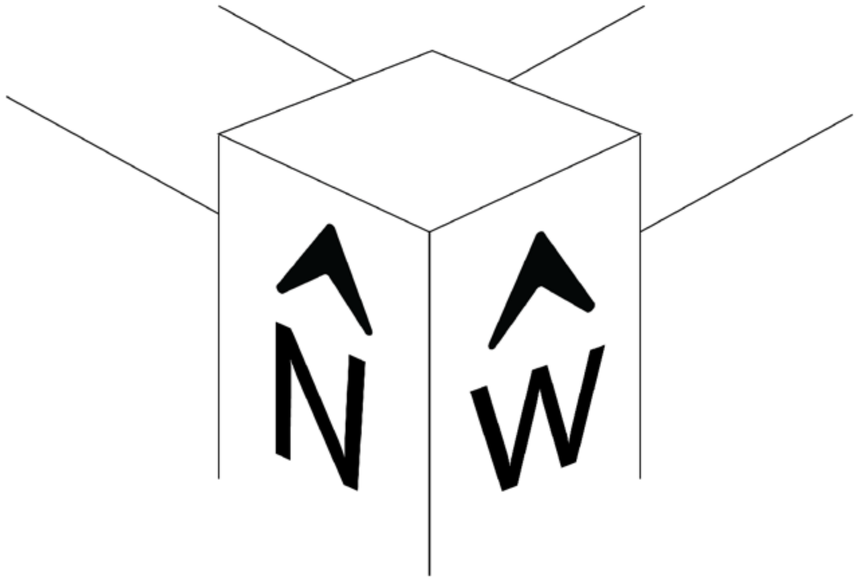
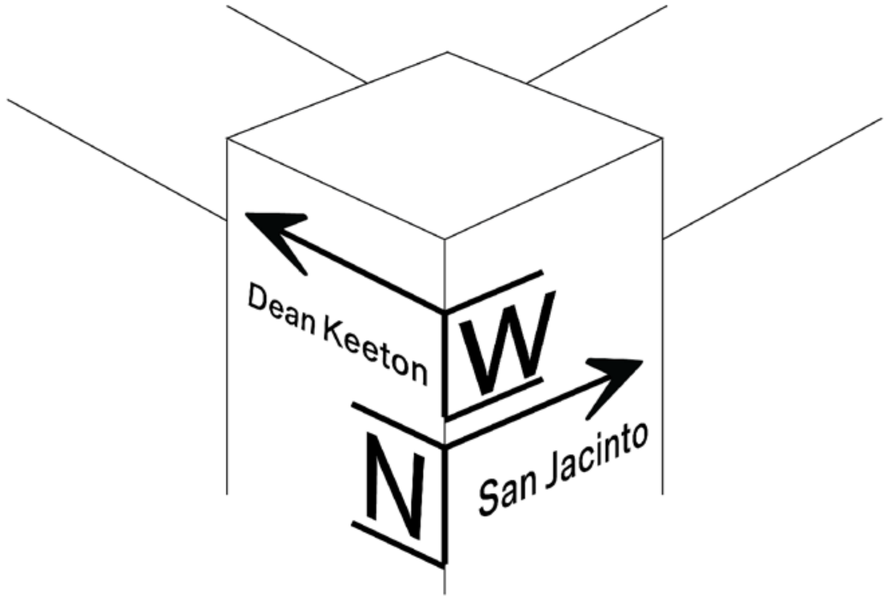
E DEAN KEATON
UT TOWER
S 5 MIN
GUADALUPE
W 5 MIN
E DEAN KEATON
W 5 MIN
E 3 MIN

Corner Application

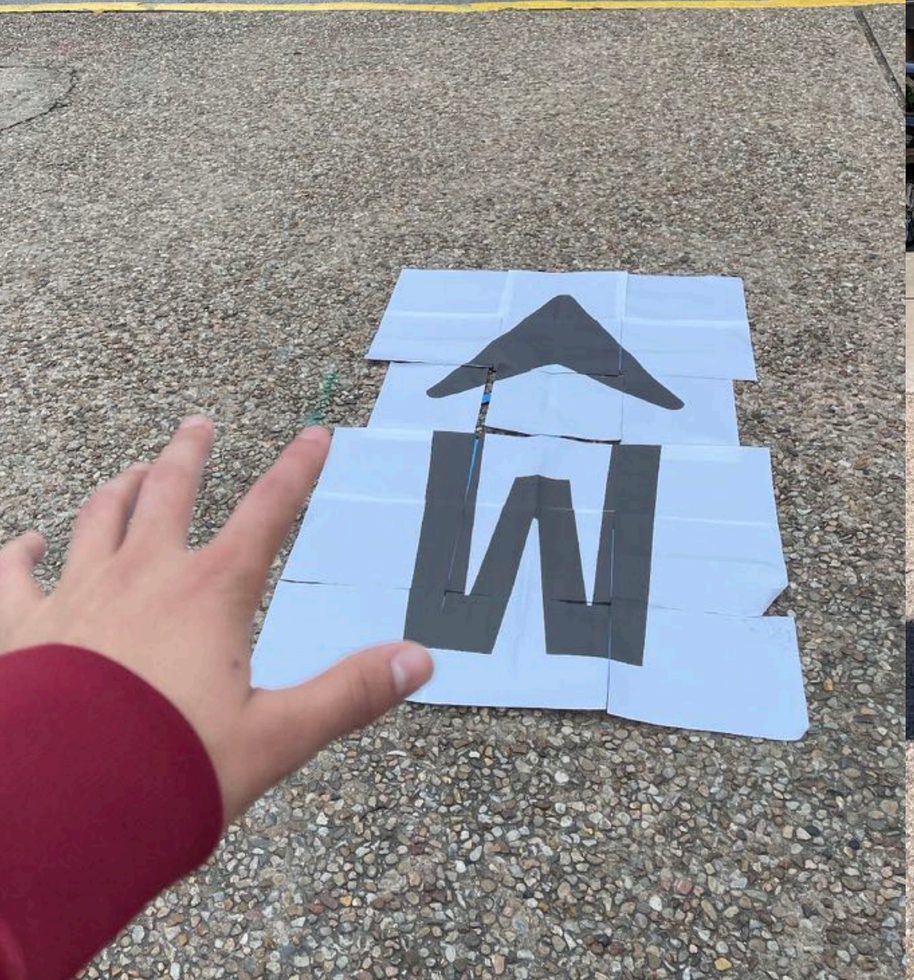


The letter and arrow indicates the cardinal direction



Another option leverages corner movement and includes street names


512.474.1200
capmetro.org




E DEAN KEATON


Dean Keeton
San Jacinto

Notable Prototypes

Prototype Findings

- When asked directly about the cardinal direction people easily understood its purpose and the info it conveyed.
- When asked where they were at or what direction they were heading, most people looked up at the position of the sun or looked around at eye level.
- Very few people referenced the street signs when asked what street they were on.

Prototype Findings

- The majority of people we asked had no idea which direction they were heading in or what street they were on.
- Most people don’t use the curb cut. They simply step on or off of the curb that is parallel to where they are heading.
- People tend to look down when stepping ON a curb more often than they do when stepping OFF a curb
- More tenured students relied on landmarks and mental maps in order to orientate themselves.


San Jacinto

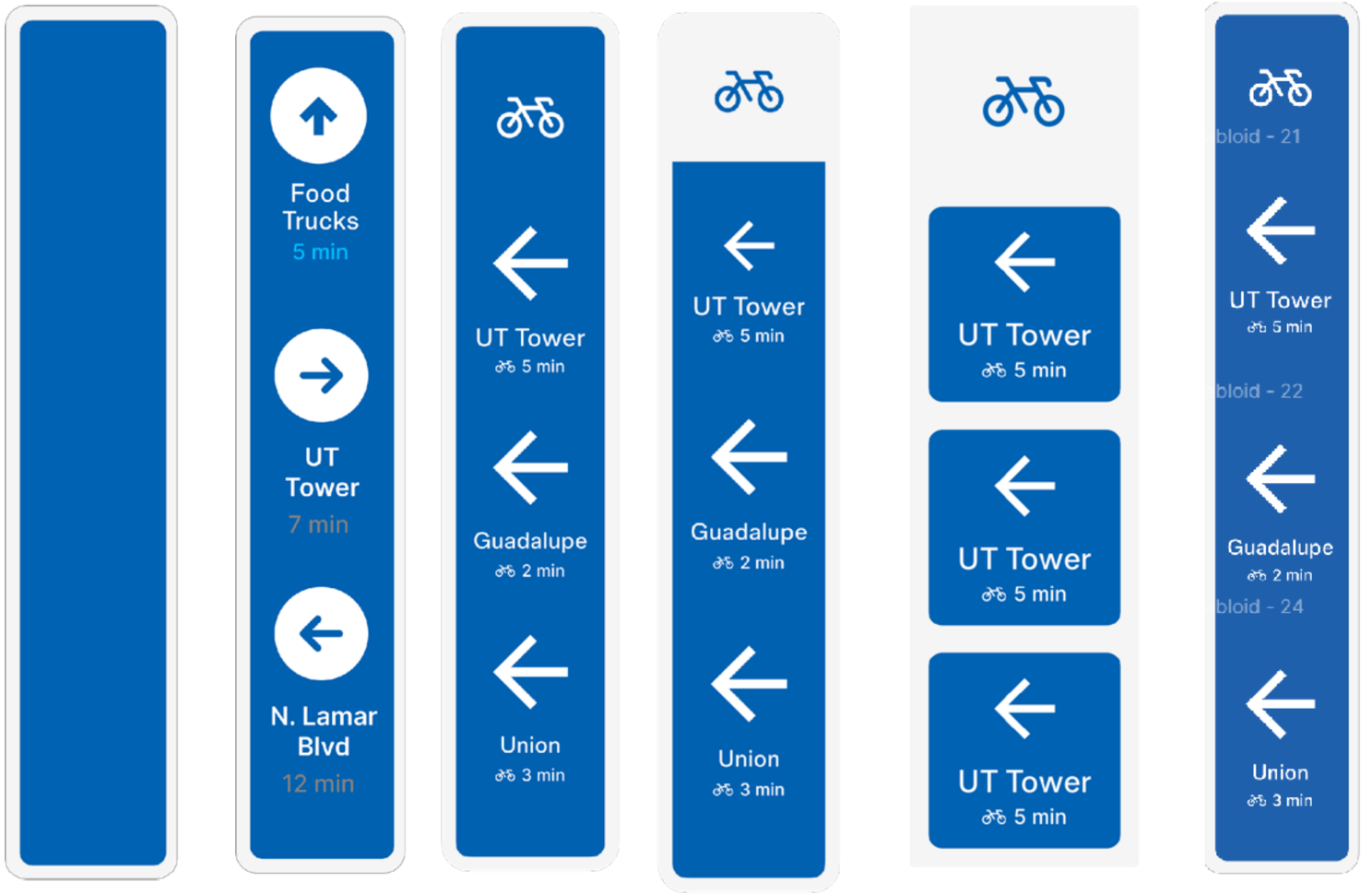

E Dean Keeton
E Dean Keeton
San Jacinto


Campus North
W

Bike Curbs

Rio Grande Street

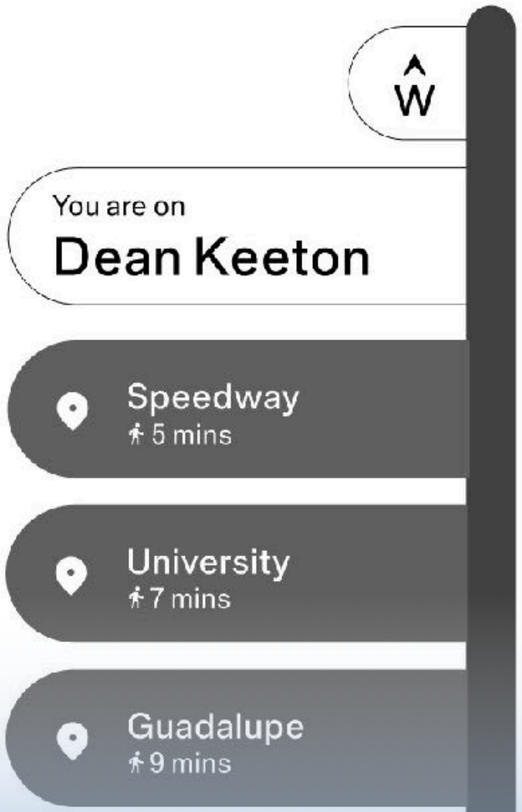
Austin Bike Routes
Online Version of the City of Austin's Bike Map
Find address or place
Route Comfort Ratings
HIGH-comfort routes are on-street facilities, most commonly Protected and Buffered Bike Lanes, or quiet streets with very low motor vehicle speeds and volumes.
HIGH PAVED-comfort routes are paved trails, typically 10-12 feet wide, and sometimes narrower connections to trails.
HIGH UNPAVED-comfort routes are unpaved trails that are suitable for transportation by users of all ages and abilities. These include crushed granite trails shared with pedestrians, like the Lady Bird Lake Trail.
MEDIUM-comfort routes include bicycle accommodations on low- to high-speed roads, or shared
Clown Dog Bikes
2821 San Jacinto Blvd.
(512) 477-4221
West Campus
W 26th St
W 23rd St
W 22nd 1/2 St
Pearl St
Seton Ave
San Antonio St
Nueces St
Guadalupe St
Speedway
Wichita St
E 24th St
Inner Campus Dr
University Ave
E 21st St
San Jacinto Blvd
Deloss Dodds Way
Clyde Littlefield Dr
Trinity St
Sparks Ave
E 30th St
Park Pl
Eastwoods Neighborhood Park
Medical Arts St
Red River St
Manor
N Interstate 35
E Martin Luther King Jr Blvd
W 15th St
Enfield Rd
Windsor Rd
West Ave
Rio Grande St
Lavaca St
Colorado St
Congress Ave
E 17th St
Austin Recreation Center
Lorrain St
Murray Ln
Kingsbury St
Waller Creek
loading...
600ft
Esri Community Maps Contributors, Austin Community College, City of Austin, Texas Parks & Wildlife, © OpenStreetMap, Microsoft


Food Trucks
5 min
UT Tower
7 min
N. Lamar Blvd
12 min
UT Tower
5 min
Guadalupe
2 min
Union
3 min
UT Tower
5 min
Guadalupe
2 min
Union
3 min
UT Tower
5 min
UT Tower
5 min
UT Tower
5 min
bloid - 21
UT Tower
5 min
bloid - 22
Guadalupe
2 min
bloid - 24
Union
3 min

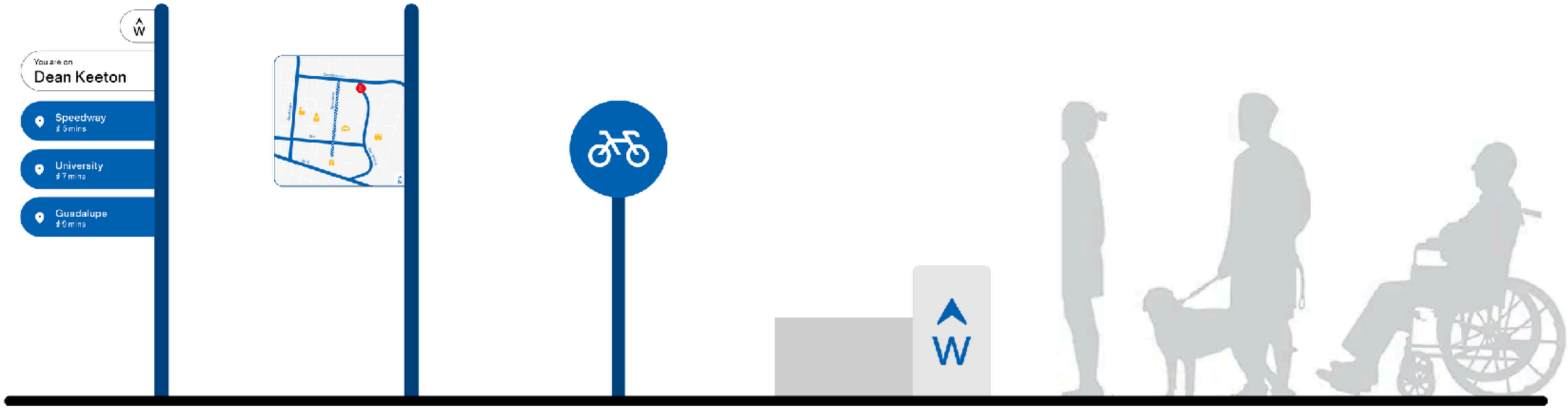

UT Tower
5 min
Guadalupe
2 min
Union
3 min
ONE WAY
EXCEPT BICYCLES
Regular
2.85 9/10
Diesel
3.03 9
V-Power
Save 5¢

5

Signage System



Eye-Level Signage



Directional

Along five paths

Area Map

At major intersect-ions on paths

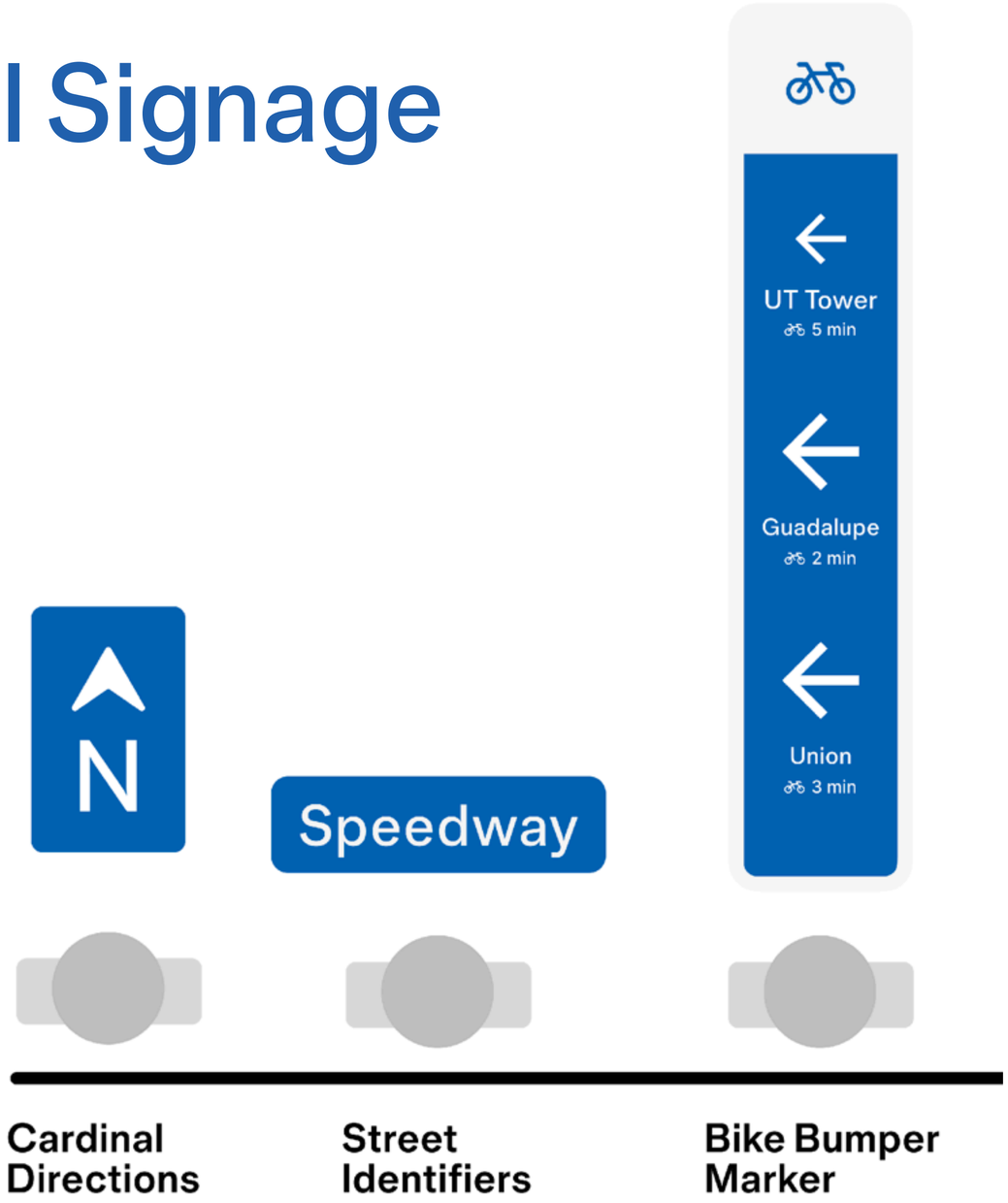
Mobility Mode Marker

At mobility hubs

Corner Cardinal Directions

At core intersections

Ground-Level Signage



6 Conclusion

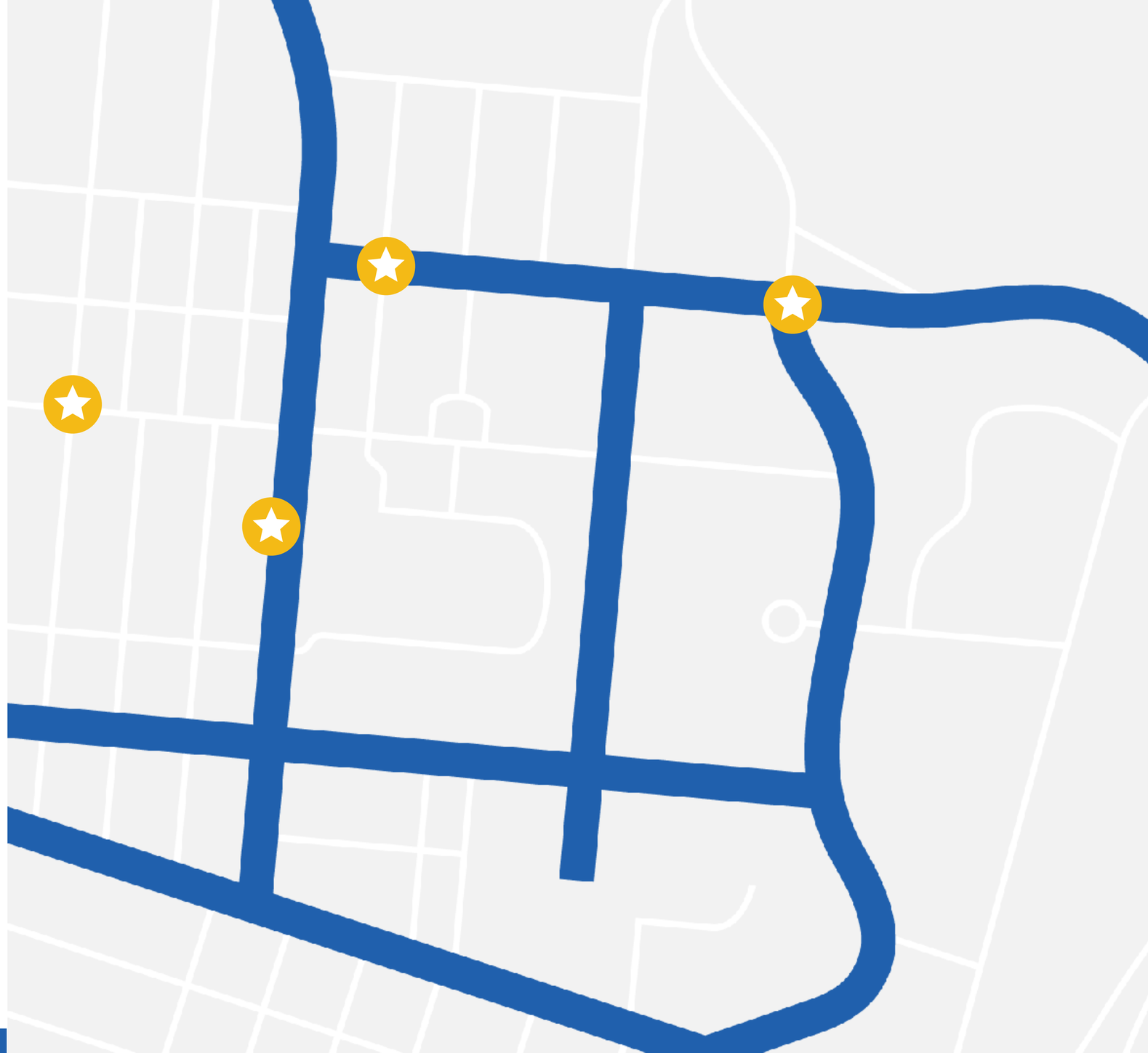
Prospective Sign Location Plan

24th & Rio Grande

23rd & Guadalupe

Whitis & Dean Keeton

Dean Keeton & San Jacinto



Recommendations

- Expand research about accessibility
- Address textures, materials, applications, etc.
- Explore campus “districts” and malls in the area map
- Conduct additional rounds of prototype testing and iteration (especially for those with vision and mobility impairments)

Project Takeaways

- Developing a new wayfinding system is extremely time intensive, requiring constant testing and revision.
- Ideas can be tested through prototyping, which provides feedback on the effectiveness of a design.
- It is challenging to create a universal design solution that accommodates everybody.
- A solution for one group might present a problem for another. The aim is to create accessibility for the widest possible audience.

Thank You!