



TEXAS A&M UNIVERSITY
Transportation Services

Transportation Services Mobility Plan Update

October 3, 2022

Debbie Lollar, Executive Director
Texas A&M University Transportation Services



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RFP Scope & Objectives



Scope

Mobility analysis includes:

- Engagement
- Transit and Microtransit
- Cycling and Walking
- Placemaking, Micromobility, and Curb Management
- Transportation Demand Management (TDM)
- Parking Demand





Objectives

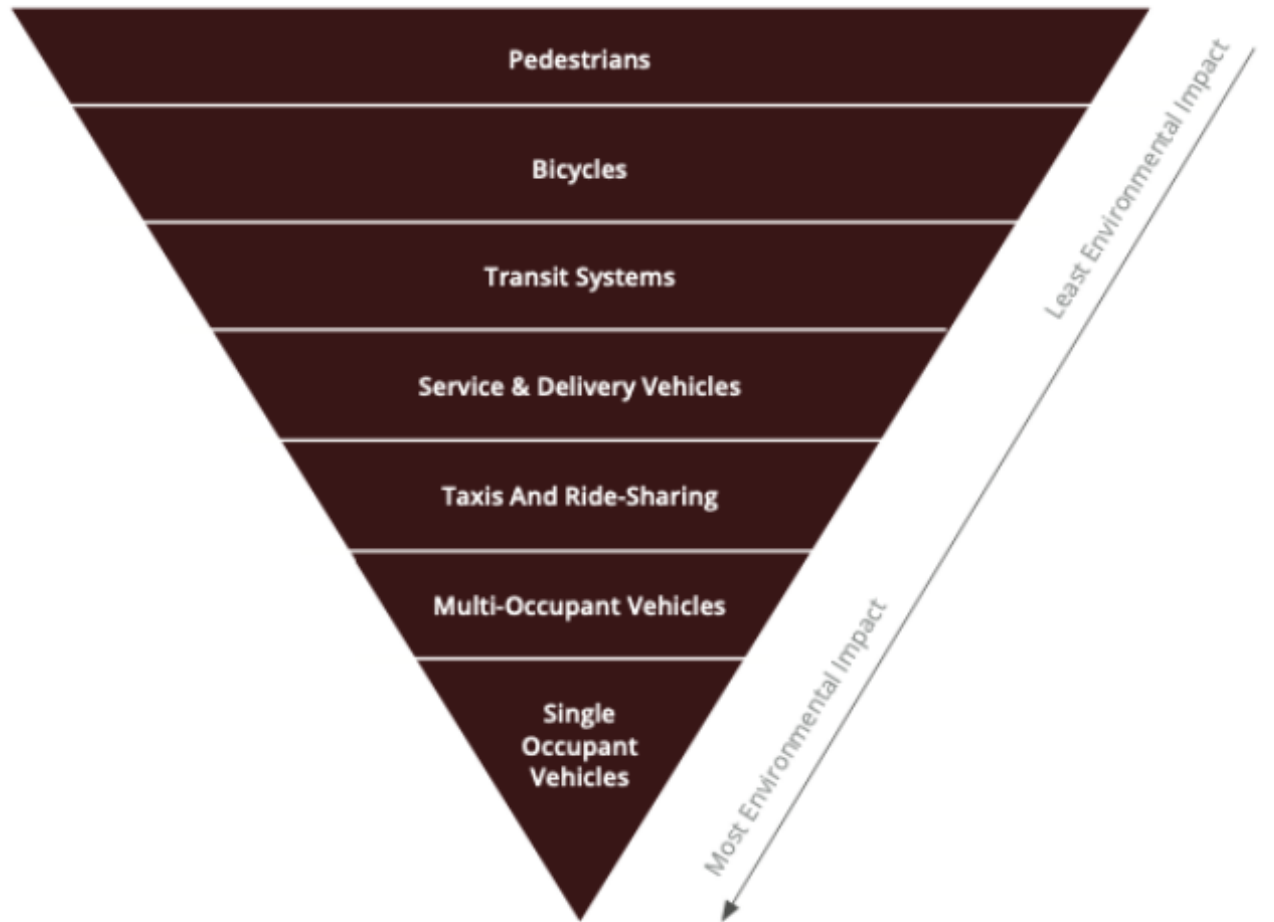
- Right-size transportation options based on anticipated future demand (post-pandemic future)
- Allow for a variety of feasible mobility options for all users
- Encourage faculty and staff to use modes outside of single-occupant vehicles
- Improve access and decrease congestion
- Support financial stability of auxiliary





Guiding Principles

Figure 31: Transportation Mode Hierarchy



Alignment with 2017
Campus Master Plan



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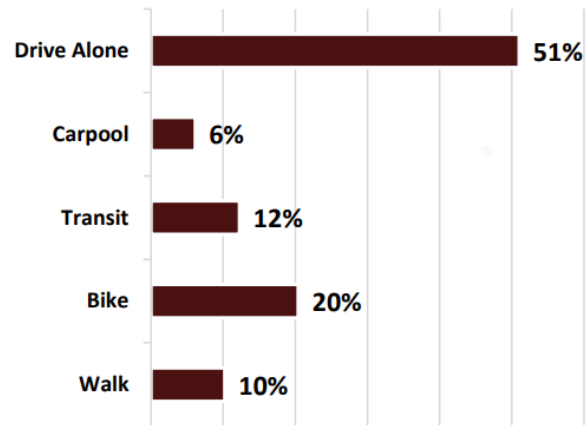
Stakeholder Engagement



Engagement

Figure 1: Quick Poll Question

What mode of Transportation did you use to get to campus today?



How many times a week do you use a bike to get around campus?

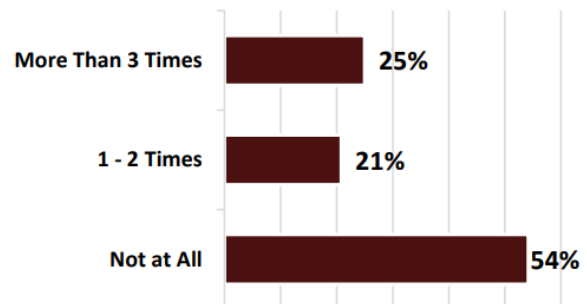
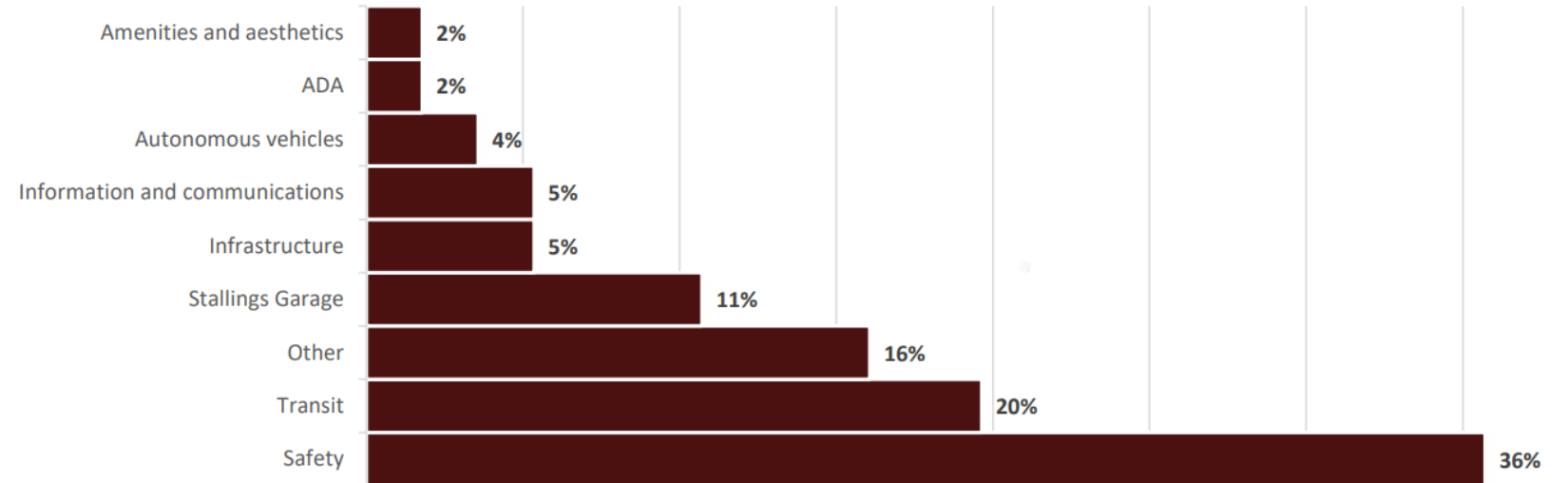
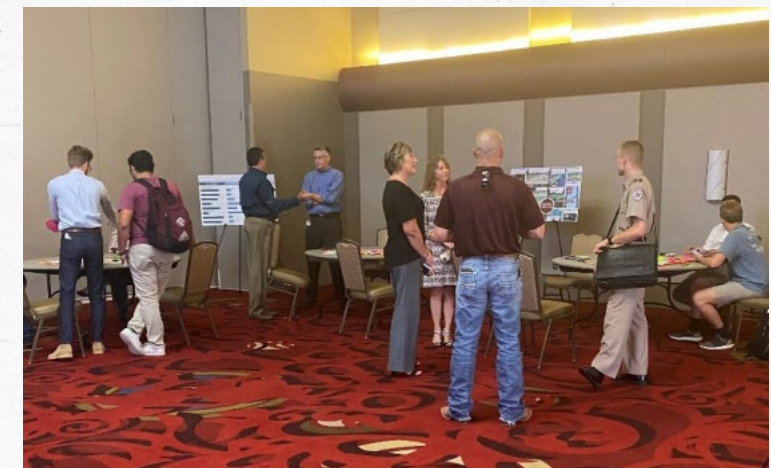
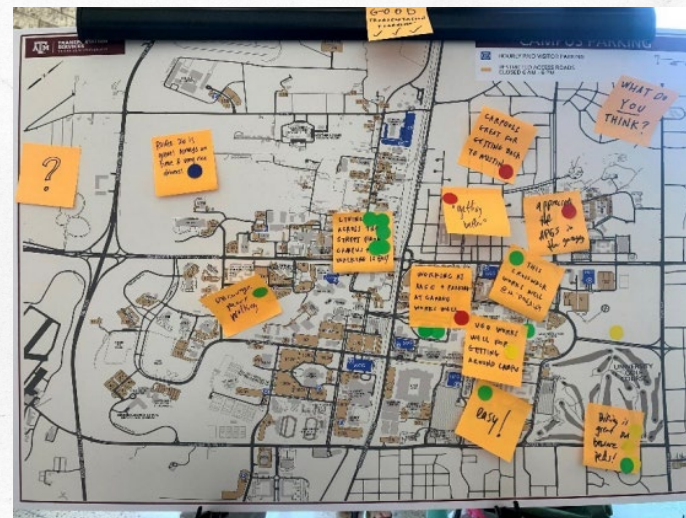
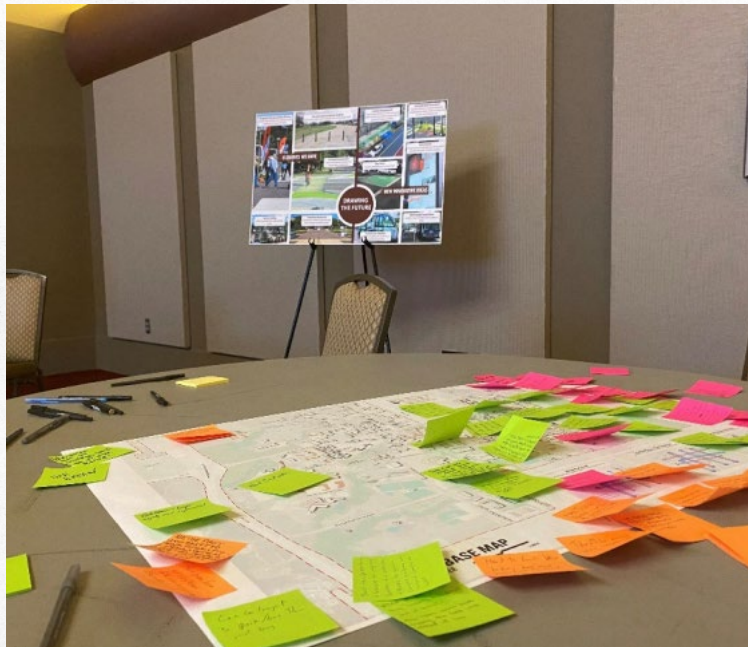


Figure 76: Current Issues and Challenges Percentage Summary





Engagement





Stakeholder Engagement Highlights

➤ Safety –

- Dangerous interactions amongst vehicles, buses, bicycles and pedestrians
- Bikes using sidewalks instead of the roadway
- High traffic volumes on perimeter roads
- Through traffic connections that lead to congestion and a large number of conflict points with pedestrians and bicyclists

➤ Infrastructure –

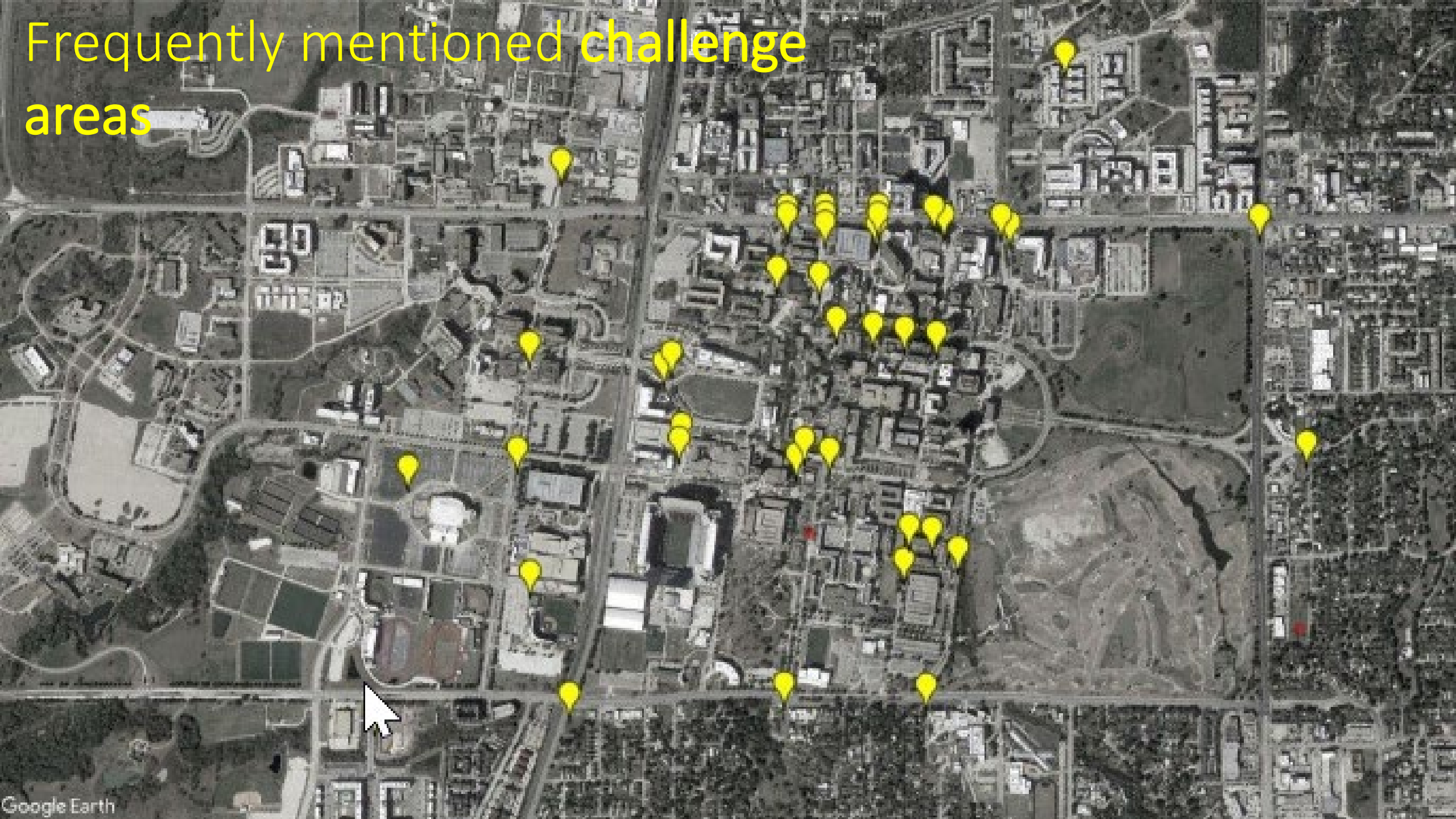
- Inadequate design and maintenance of facilities
- Roads, pathways, sidewalk surface conditions, lack of signalized intersections, and inadequate bicycle/pedestrian crossing controls

➤ Gene Stallings Boulevard and Stallings Garage –conflict points due to large traffic volumes of vehicles, pedestrians and bicycles

➤ Transit –

- Overcrowding and wait time for buses
- Inadequate number of buses on routes, providing service that is too infrequent and overcrowding on popular routes with crushing loads on buses
- Poor maintenance of buses

Frequently mentioned challenge areas

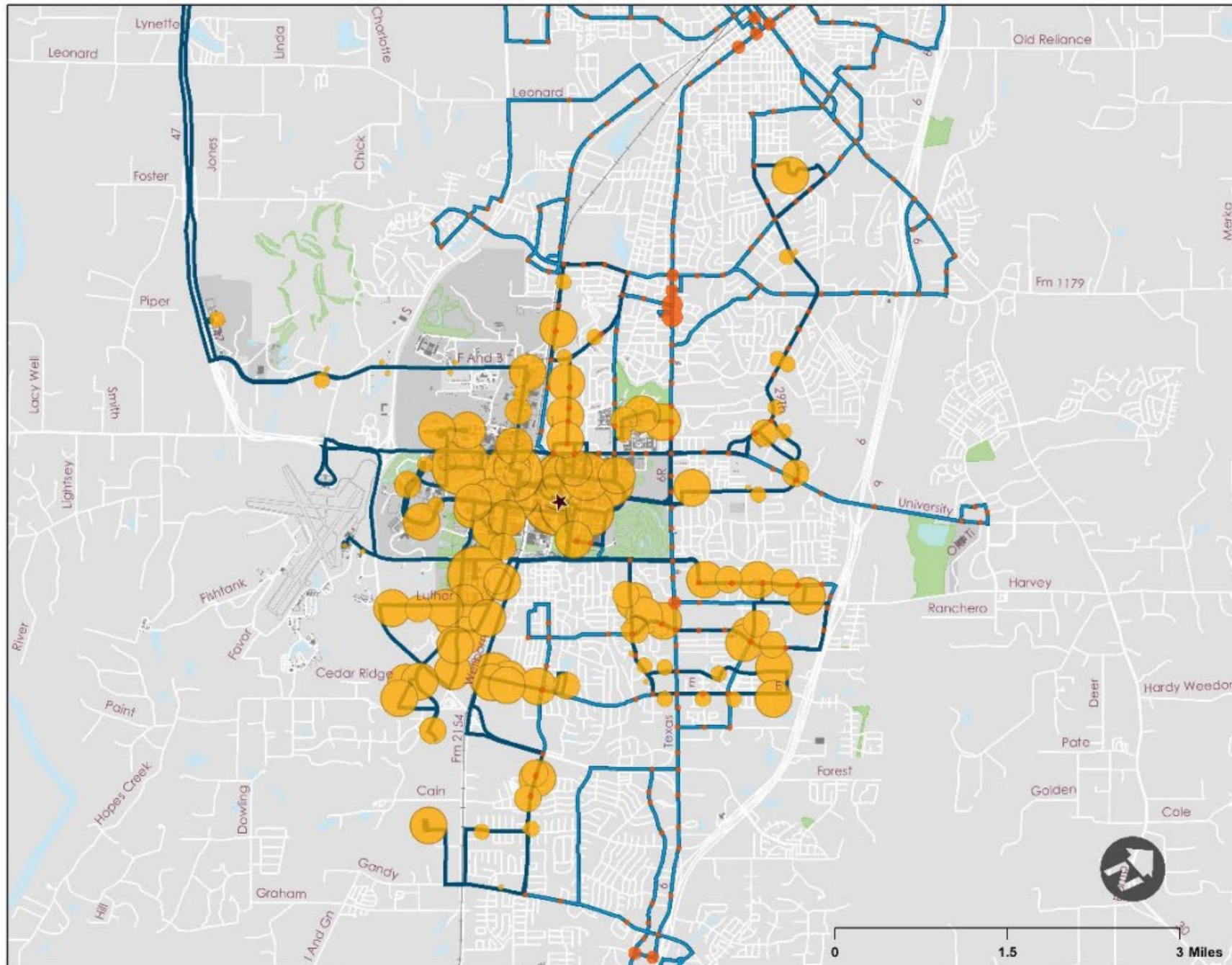




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Data Analysis

Figure 17: Boarding by Stop Including Off-Campus



TAMU & BTD Daily Boardings per Stop

Legend

Brazos Transit District Boardings

- 1 - 10
- 11 - 50
- 51 - 90

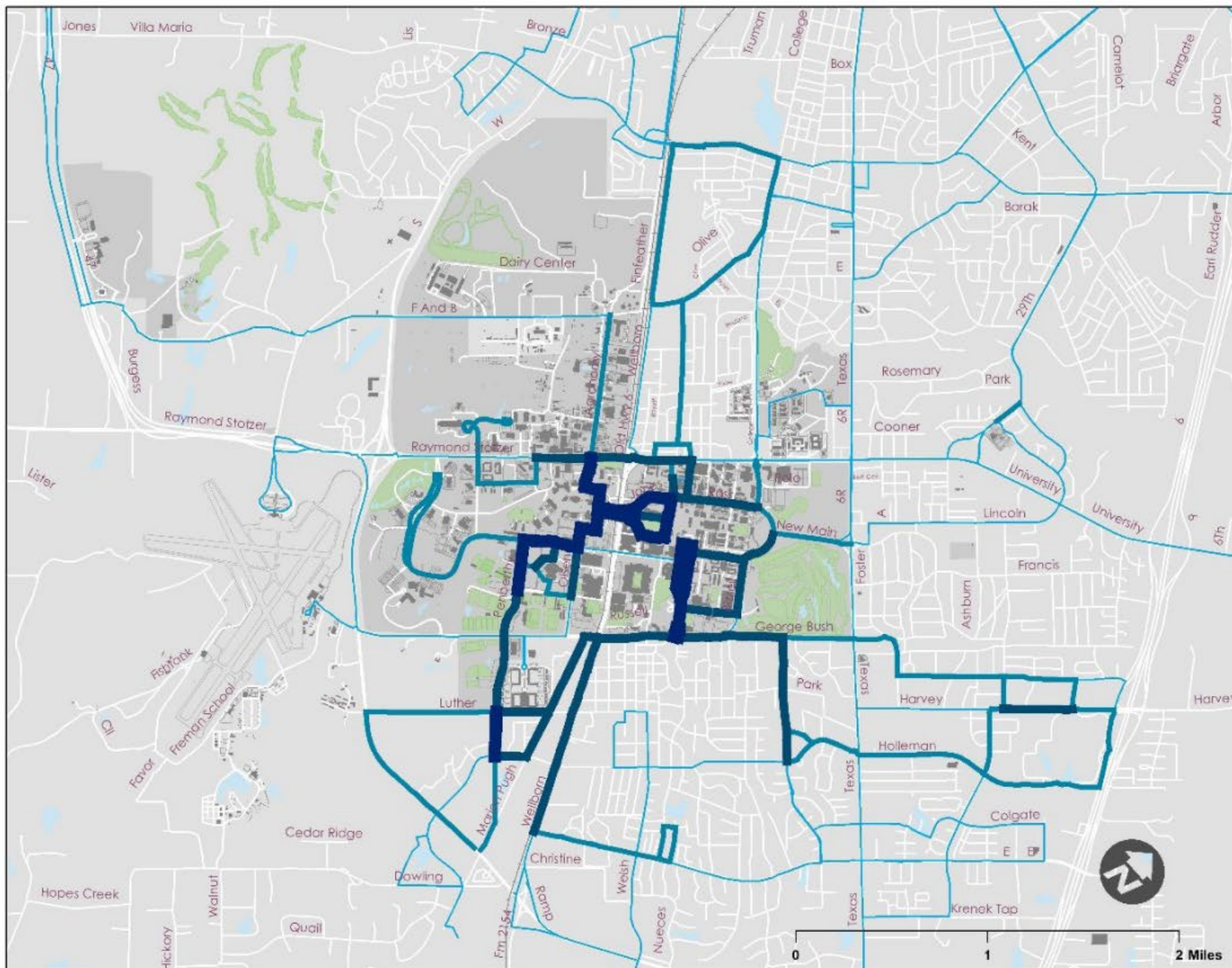
Aggie Spirit Transit Boardings

- 1 - 10
- 11 - 50
- 51 - 100
- 101 - 500
- 501 - 1,000
- 1,001 - 2,000
- 2,000 - 8,000

- TAMU Bus Routes
- BTD Bus Routes
- Campus Buildings
- Parking Lots & Garages
- Campus Boundary

Data Sources:
TAMU and BTD routes, stops, and passenger activity data for October 2019

Figure 15: Texas A&M and BTD Service by Frequency Including Off-Campus



TAMU & BTD Transit Service Frequency Analysis

Legend

Buses per Hour (average frequency)

1 - 6 (more than 10 minutes)

7 - 12 (5 to 10 minutes)

13 - 30 (2 to 5 minutes)

31 - 75 (less than 2 minutes)

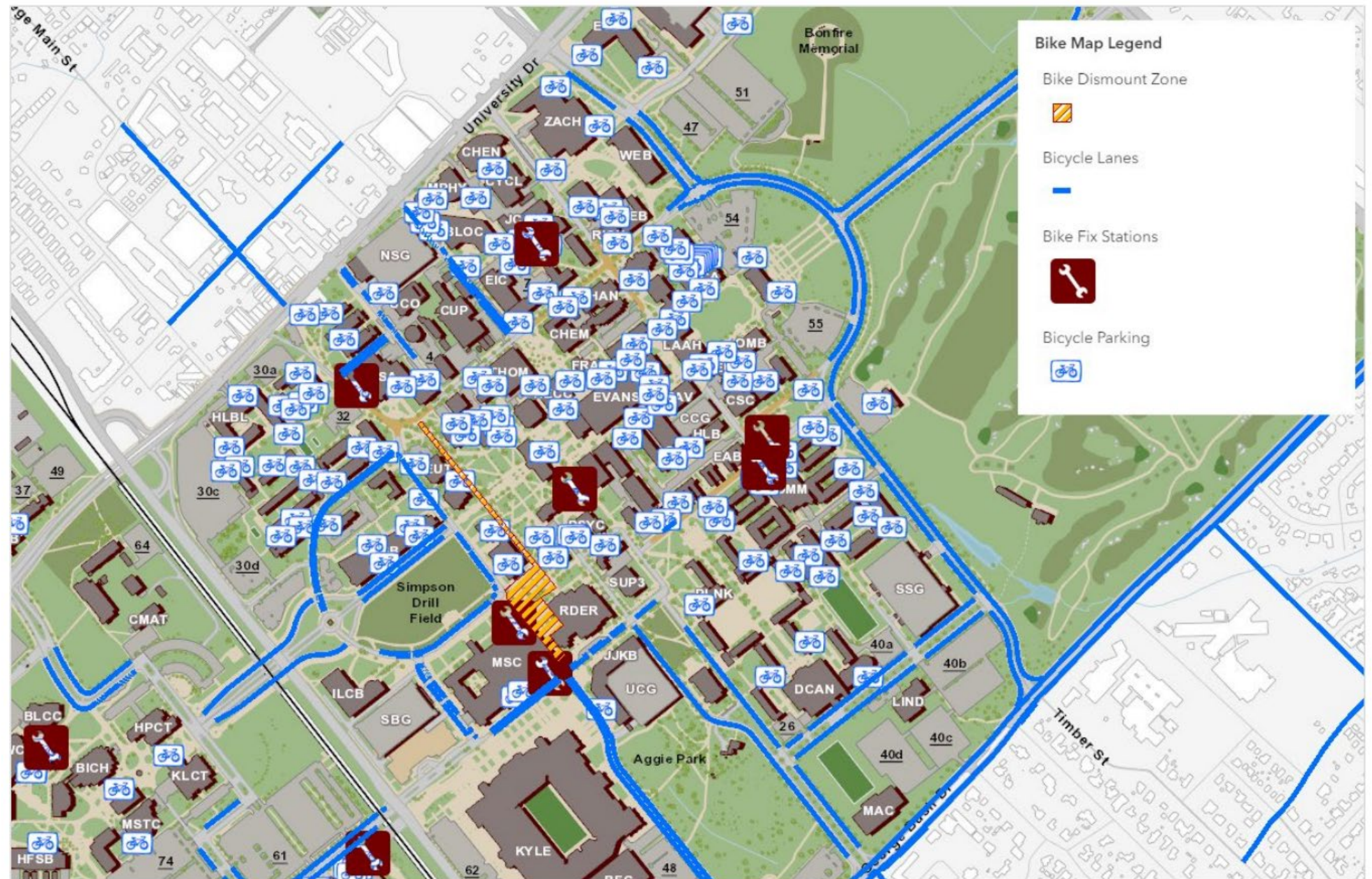
Campus Buildings

Parking Lots & Garages

Campus Boundary

Parks, Sports & Rec. Fields

Figure 46 Bicycling Infrastructure Near Core of Campus

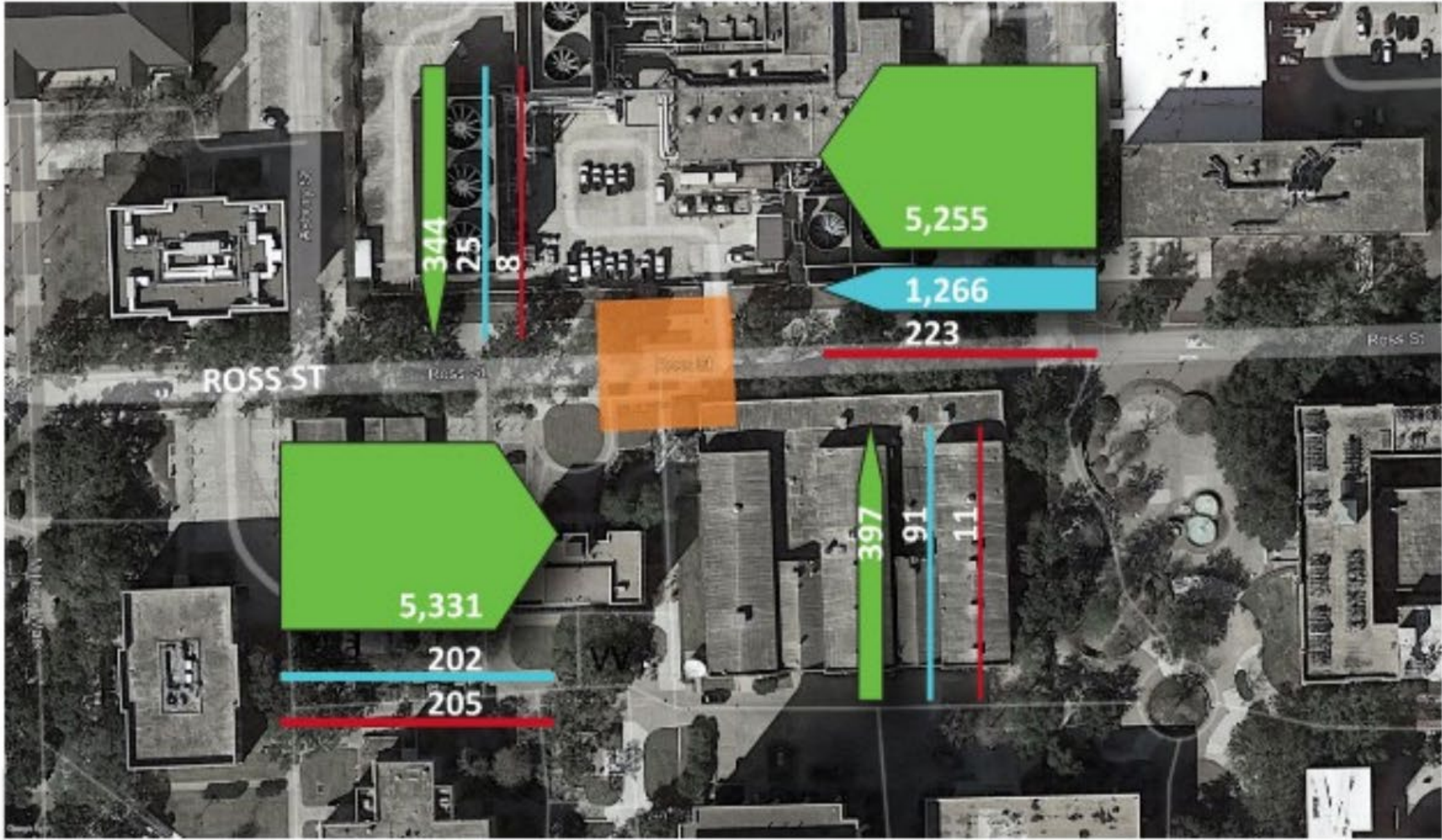




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Field Observations

Figure 112: Traffic volumes on Ross Street between Asbury and Ireland Streets



ACTIVE
TRANSPORTATION

PRIVATE
VEHICLE

TAMU
VEHICLE



Field Observation



Proposed Enhanced Bike Lane – Pickard Pass



Modified Vehicular Entrance— Parking Lot 51



Field Observation



Temporary Curb Bump Outs - Bizzell Street and Polo Road



Enhanced Pedestrian Crossing—Parking Lot 51



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Outcomes



Design Principles

- Restrict vehicle traffic
- Concentrate bus service at key access points
- Develop continuous and connected bicycle facilities

Figure 83: Mobility Network Design Principles

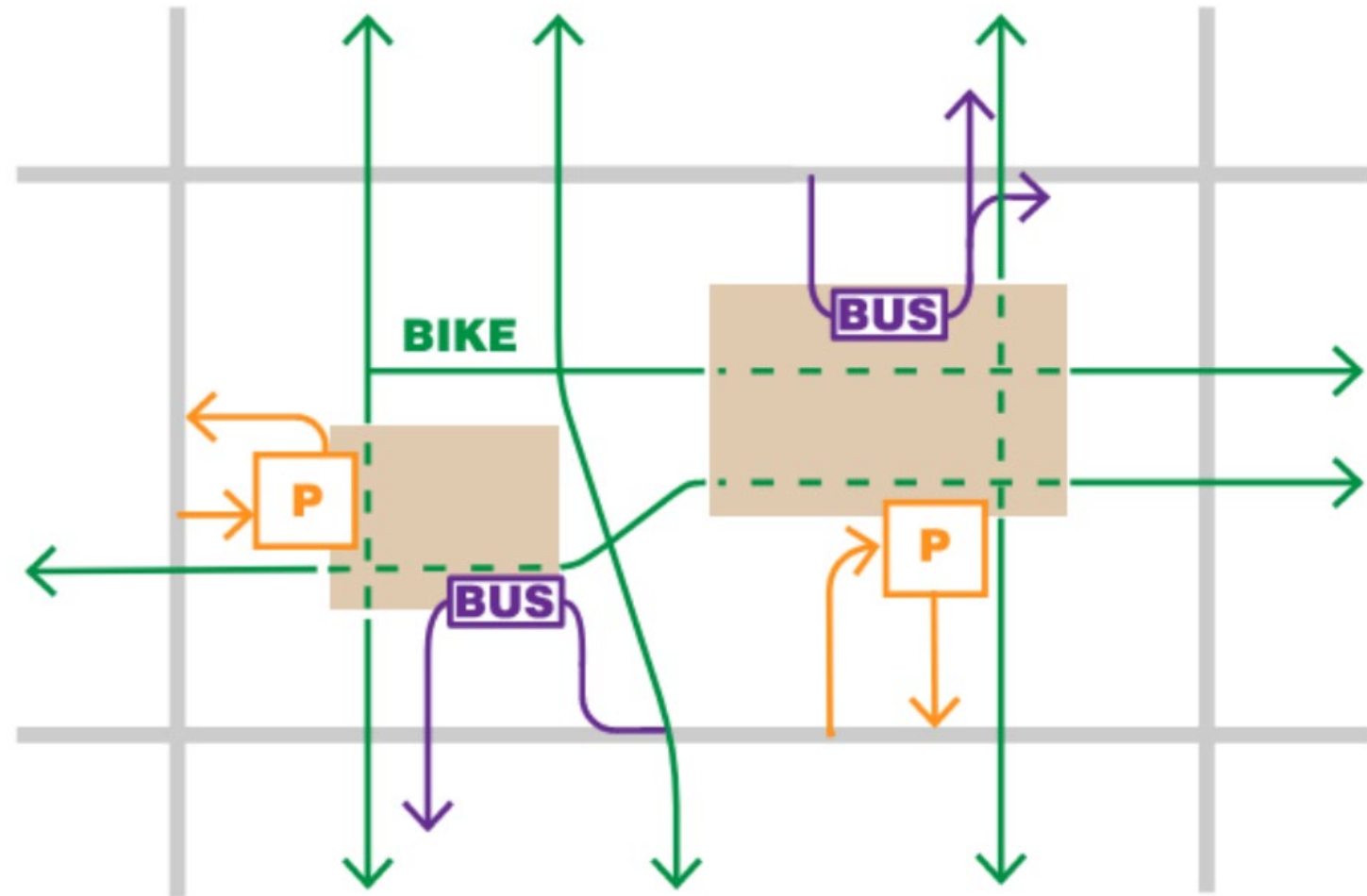
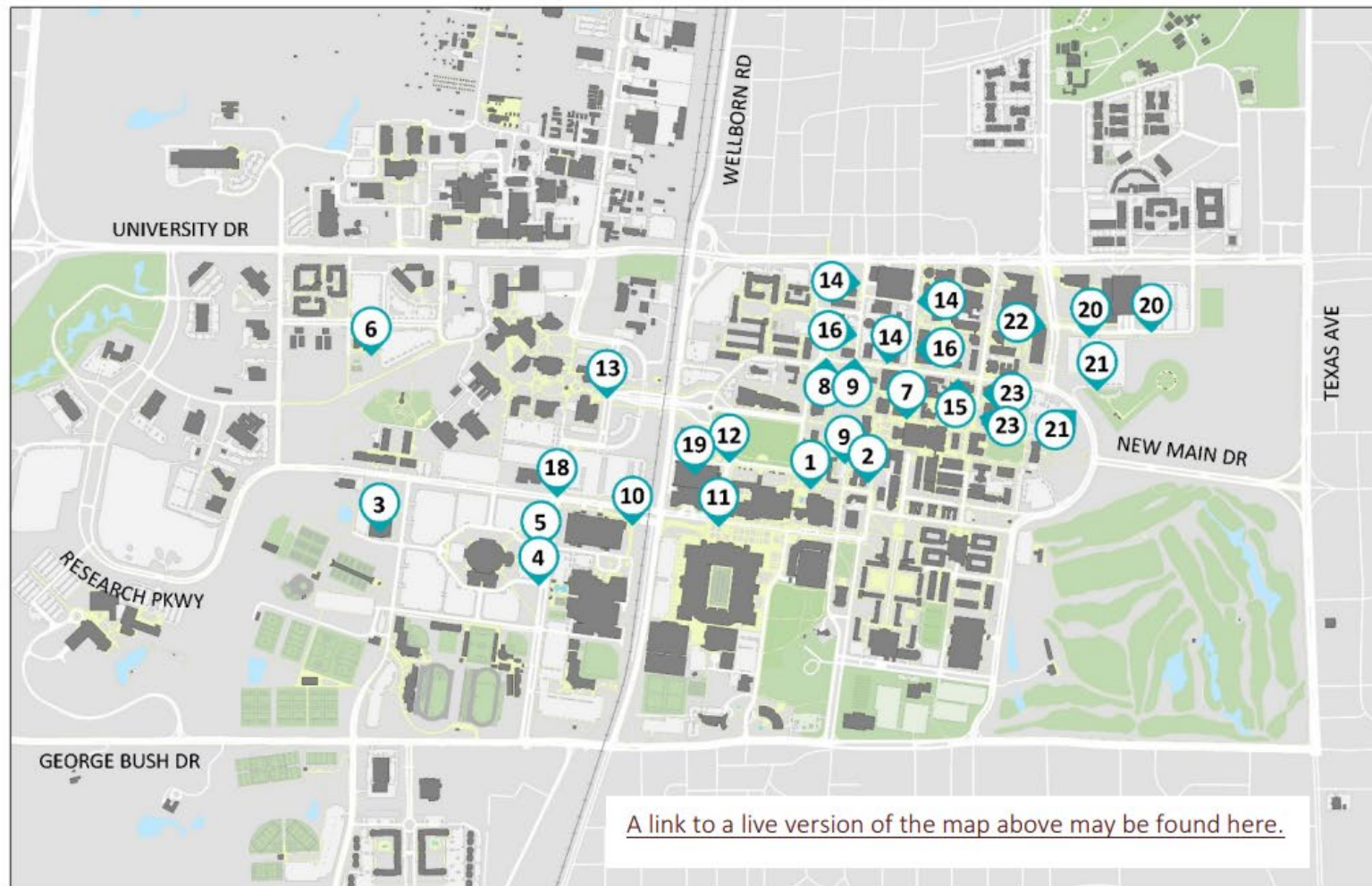


Figure 88: Design Interventions Key Map



**TEXAS A&M
DESIGN CONCEPTS & INTERVENTIONS**

- 1) Pedestrian and bike paths at Military Walk & Rudder Plaza
- 2) Lot 19 Pedestrian Plaza
- 3) Lot 100 Bus Stop and Crossing at Physical Education Building
- 4) Reed Arena to Student Recreation Center Path and Crossing
- 5) Olsen Blvd Two-Way Bike Path
- 6) Ped and Bike Path to White Creek Community Center
- 7) Evans Library and Anthropology Building walkway
- 8) Raised Pedestrian and Bike Crossing at Military Walk at Fish Pond
- 9) Lot 10 to Lot 19 Bikeway – alternative to Military Walk
- 10) Pickard Pass Blind Spot Channelization
- 11) Gene Stallings and Joe Routh Bl Bike Route Connection
- 12) Gene Stallings and Lamar Bike Route Connection
- 13) Olsen Bl and Old Main Dr Bike Crossings
- 14) Ireland St and Asbury St Bus Lane
- 15) Ross Street Pedestrianization (between Sbisa and Ireland)
- 16) Ross/Asbury and Ross/Ireland gate relocations
- 17) Ross Street sidewalk extension (between Spence and Ireland)
- 18) Olsen and Kimbrough Bl Traffic Diverter
- 19) New Stallings Garage exit to Wellborn Rd
- 20) Lot 47/51 Entry & Exit – short term solution
- 21) Lot 47/51 Entry & Exit – long term solution
- 22) solution
Bizzell St and Polo Rd intersection
- 23) reduction
Spence St pedestrianization and plaza



Solving design details to make it easier to walk

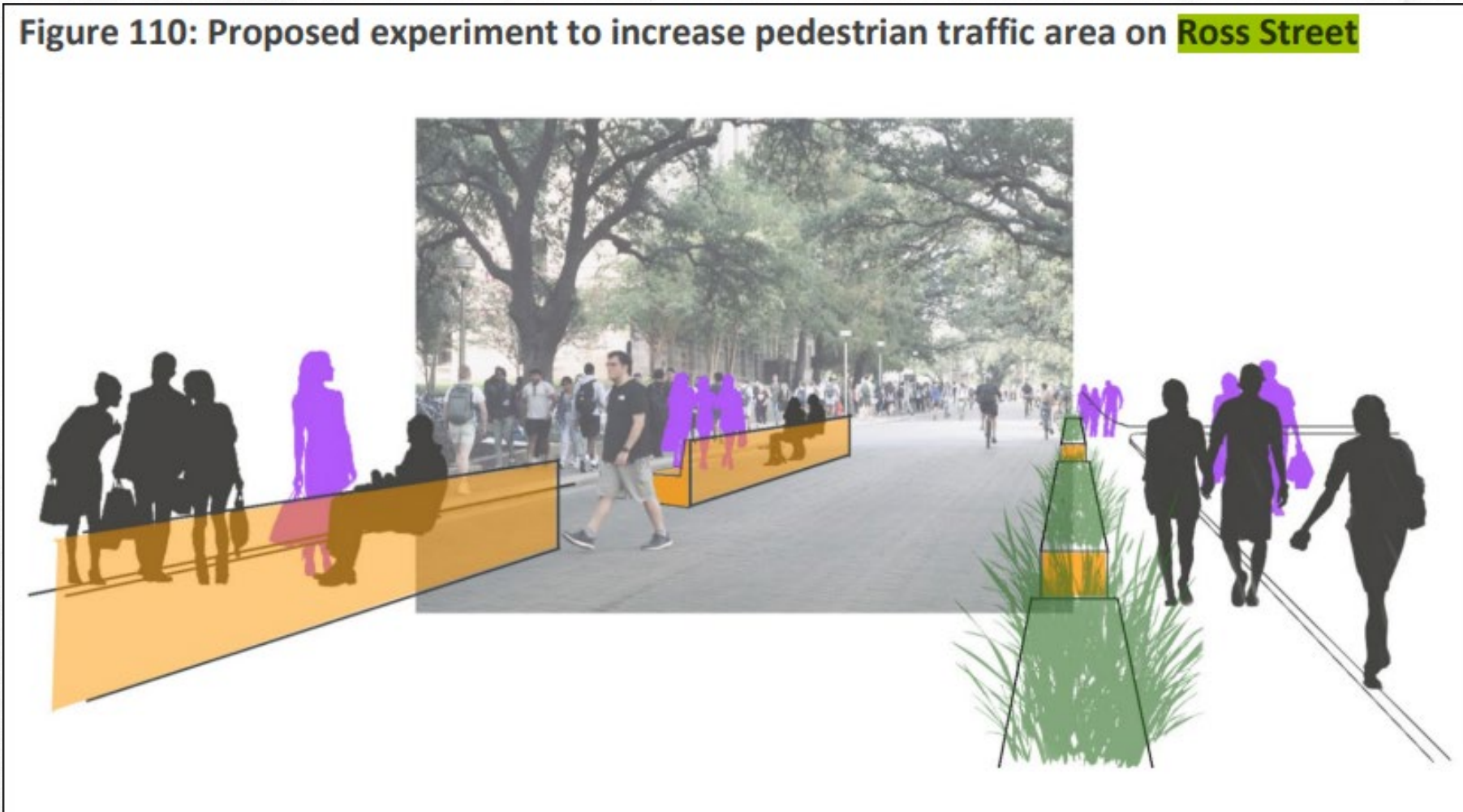


Ross Street



Solving design details to make it easier to walk

Figure 110: Proposed experiment to increase pedestrian traffic area on **Ross Street**



Ross Street



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Summary



Summary

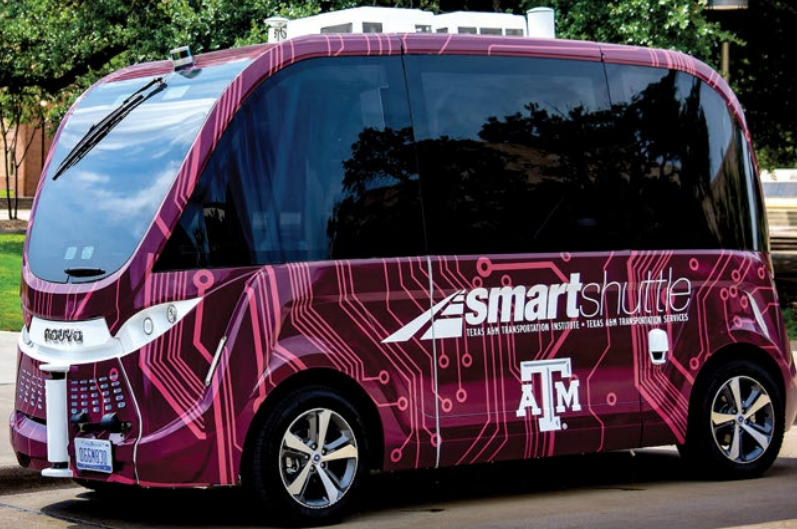
- Align scope with campus initiatives
- Engage stakeholders
- Gather data
- Observe in the field
- Communicate
- Collaborate





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Texas A&M University AUTONOMOUS SHUTTLE





America's First Dutch Junction

Sponsor: Texas A&M Transportation Institute and Texas A&M Transportation Services Mr. Jose Vazquez Dr. Mark Lawley
 Advisor: Dr. T. Ferris, ISEN
 Team Members: R. Brust (ISEN), M. Maduzia (ISEN), A. McKee (ISEN), M. Pefley (ISEN)



BACKGROUND

- This is the first un-signalized Dutch Junction in the United States.
- The design is very popular in Holland where a lot of people use bicycles as their main form of transportation.
- Like any roundabout, cyclists should go around in a CCW direction
- The design keeps pedestrians and cyclists in front of cars line of vision to improve safety and driver awareness of the cyclists.
- Also keeps the cyclists from having to use the car lanes for crossing or turning left at the intersection



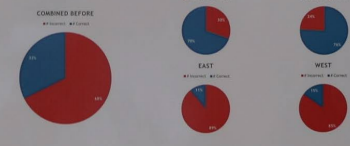
OBJECTIVES

- Effectively evaluate the operations of the intersection and Dutch Junction and discover statistics that describe the actions taken by cyclists
- Using the statistics, determine if the installation of the green lanes, and thereby the completion of the Dutch Junction, increases the amount of correct actions performed by cyclists
- From the data, identify the problem areas where safety is a concern that remain after the completion of the Dutch Junction
- Suggest to TTI and TAMU Transportation Services ways that can improve the safety at the problem areas and the safety of the intersection as a whole.

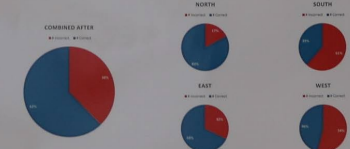
RESULTS

% Incorrect Actions:

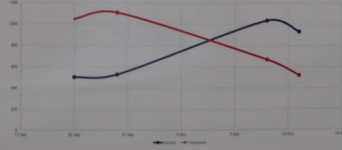
Before:



After:



Incorrect Vs. Correct Actions



Top 5 Most Popular Actions - Before and After



ID#	Code	Direction	Percent	Description
1	19	North	20.6%	Protected Curb
2	9	West	14.1%	Car Lane
3	3	East	13.7%	White Crosswalk
4	3	West	11.2%	White Crosswalk
5	12	West	3.7%	Dutch Loop

ID#	Code	Direction	Percent	Description
1	19	North	20.9%	Protected Curb
2	2	East	12.3%	Green Bike Lane
3	9	West	12.2%	Car Lane
4	2	West	10.3%	Green Bike Lane
5	12	West	5.8%	Dutch Loop

Statistic Title	Before	After
# Incorrect Actions	1078.5	596.5
# Correct Actions	517	984.5
# Car Lane Uses	366	310.5
# Pedestrian/Bike Interactions	45	28.5
# Bike/Car Interactions	157	109
# Dutch Loops	81.5	127.5
# of White Crosswalk Uses	606	109.5
# Green Bike Lane Uses	0	494

CONCLUSION

- In conclusion, the team found that the design of the junction, once complete, was intuitive for the cyclists using it. This is evidenced by the 44.8% decrease in the amount of incorrect actions. However, there are still some deficiencies at the intersection. For cyclists making a left turn, 44.6% of them are choosing to use the car lane. Therefore we recommend placement of an educational sign on both the West- and North- sides of the intersection, depicting the proper movements for cyclists making left turns, right turns, and going straight.





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