
Alternative Transportation Committee

Stanislaus State

November 27, 2023



WALKER
CONSULTANTS

PROJECT BACKGROUND



TDM Plan & Parking Feasibility Study

Tasks and Activities

- Kick-off
- Engagement
- Mobility and Commuting Survey
- Parking Needs Assessment
- Transportation Demand Management (TDM) Analysis
- Pedestrian and Bicycle Plan
- Financial Analysis
- Final Study Document



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TDM Plan & Parking Feasibility Study

Overview & Schedule

Kick-off and engagement	March 2023
Data collection	Spring 2023
Data analysis	Summer 2023
Survey and additional engagement	Fall 2023
Draft recommendations & ATC Meeting	November 2023
Data Collection	Spring 2024
Final recommendations & ATC Meeting	Summer 2024

TDM Plan & Parking Feasibility Study

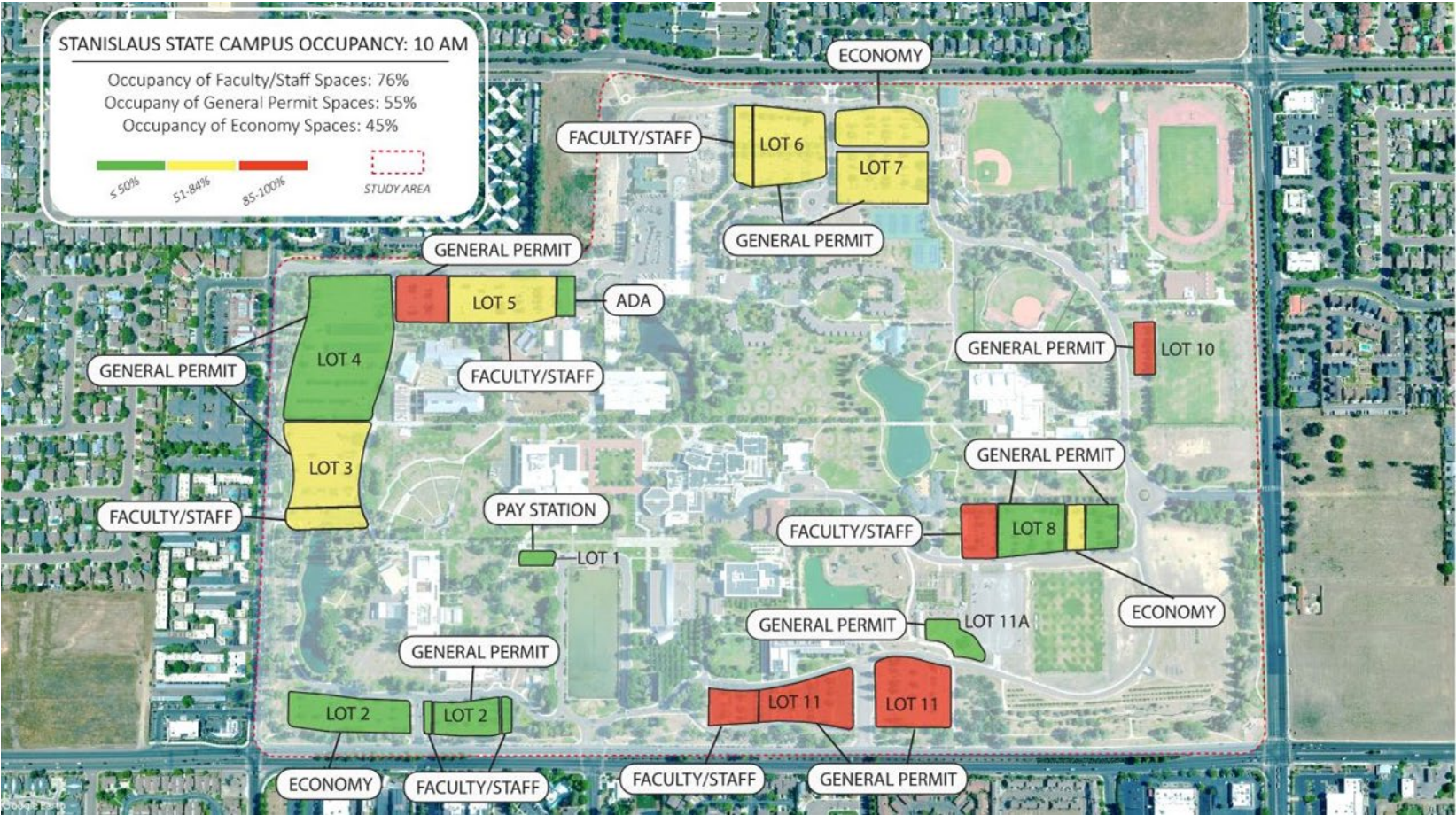
Project Objectives

- Travel options to and from campuses
- Walking, biking, and travel on-campus
- Parking supply and management
- Transportation to meet your daily needs

When it comes to transportation, mobility, and parking – including getting to, from, around, and between campuses:

What is going well?
What could be better?

Peak Measured Parking Occupancy – April 18, 2023



April 2023 Conversations

- Stakeholder meetings
- Warrior Wednesday
- Stockton campus visit



Transit

- Transport between campuses
 - Shuttle to Amtrak?
 - Direct Shuttle?
- Increase awareness of transit options
- Can commutes from Modesto and Merced be improved?



Pedestrian & Bicycle Transportation

- High speed/volume surrounding roads in the City of Turlock are a barrier to walking and biking to campus
- Regional transit hubs are a significant distance from both campuses (i.e., too far to walk/bike comfortably)
- Lack of secure bike storage on both campuses
- Long distances between parts of campus; many extreme heat days



Fall 2023 Outreach

SURVEY: Comprehensive online survey of commuting, mobility, and parking preferences, attitudes and behaviors.

- All Turlock/Stockton campus community members invited to respond
- Asked about travel habits, areas for improvement, and levels of support for different mobility investments
- Over 1,200 respondents

OPEN FORUMS: Two all-University-invited discussion sessions on October 13

- Heard about specific commute patterns and barriers
- Ideas for citywide walk and bike improvements
- Concerns about the price of on-campus parking

About the respondents

- 95% go to Turlock most or only
- 36% live 5-19 miles away
- 35% live 20+ miles away
- 87% drive along most trips to CSU
- 65% have a parking permit
- 88% walk <10 minutes from car

It's important

- More sustainable transportation
- Lower the cost of commuting
- Transit frequency and directness

Ideas to consider

- Carpooling matching
- Different parking permit options – like Tuesday/Thursday only
- Bicycling safety – storage, lighting, streets
- More electric vehicle charging

Priorities for improvement

- More parking – 55%
- Parking technology – 40%
- Shuttle between campuses – 24%

Parking Supply and Demand

Parking demand on both campuses is well below current supply

- Peak system occupancy measured at 55%
- Existing supply is adequate for 10 yr. pop. projection (1% annual growth*)
- University is considering reclassifying some parking (not reducing supply)
- Virtual permits and LPR coming soon
- Priority parking access for faculty and staff sometimes displaces students from General Permit areas

SCENARIOS AND FINDINGS



Parking Supply and Demand: Basis for Scenarios

Four scenarios to test mode choice investments and impacts. (These are studies, not specific recommendations.)

- All scenarios: assume 1% annual headcount growth for ten years*
- Scenario 1 – Status Quo: No major parking or alternative transportation investments
- Scenario 2 – New Parking Structure at Lot 11: ~600 spaces (~400 net new)
- Scenario 3 – Transportation Demand Management: alternative transportation investments and promotion
- Scenario 4 – New Parking Structure and TDM Programs

* CSU System Chancellor's Office growth projection

STRATEGY OPTIONS



Parking Supply via a New Garage

A new 600-space garage (~400 net new) may be needed at 85% occupancy

- The need for additional parking may be triggered when the parking inventory is 85% occupied during a typical peak, versus ~55% peak in April 2023.
- More precise allocation and assignment methods for current parking may be a more efficient way to ensure availability and user certainty.
- If University chooses to build garage:
 - The \$7M capital reserve helps reduce the borrowed amount
 - Parking price increases are necessary to pay debt and maintain \$1.88M cumulative fund balance
 - Assumes roughly \$20M borrowed towards \$27M project cost

* The CSU System requires a Debt Service Coverage Ratio (DSCR) of at least 1.2x the annual bond/loan payment to be held in reserve

Enhance Parking Management

Demand and distribution management (more than parking pricing) is key over the coming 10 years.

- Recommend implementing specific lot assignments for permit holders.
- A new gravel Economy Lot at the east end of campus may be unnecessary—both Lot 2 Temporary Economy and Lot 8 Economy were measured at low utilization.
- Over time, monitor and adjust the number of ADA, electric vehicle charging, and carpool/vanpool parking.
- Consider lower permit prices for shared permits: carpool and vanpool.
- Increase parking fees annually to adjust for inflation.

Parking Management: Allocation Management

More location-specific parking permits provides more user certainty.

- Link parking permits to specific lots or “zones” (e.g., Lots 3 and 4).
- Allows more nuanced control of permit “oversell”.
- First-come, first-served purchasing (lots and permit types can still be designated for specific user groups).
- Could vary pricing somewhat based on demand for each location.

Transportation Demand Management

Encouragement, investment, and programs to help people reduce driving and switch to alternative transportation

- Not necessary to address demand
- Desirable to meet University environmental and sustainability goals
- Benefits include reduced congestion and vehicle/pedestrian or cyclist conflict
- Education and promotion of alternative modes (carpool, vanpool, active mobility)
- Support for expanded public transportation services
- Additional University shuttles on and particularly between campuses
- Walking and bicycling improvements
- Expansion and more promotion of *Support Services*, such as carshare and guaranteed ride home (GRH), to cover “just in case” situations

Pedestrian & Bicycle Recommendations

- Improve pedestrian crossings of roads surrounding the Turlock campus*
- Construct Class IV Separated Bikeways near both campuses*
- Provide more secure bike parking facilities
- Consider a bikeshare system on the Turlock campus

* *Requires coordination with surrounding city*



Path Improvements



SIDEWALK



SHADE TREES



PEDESTRIAN-SCALE LIGHTING

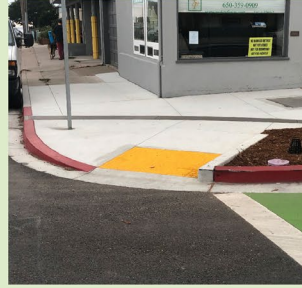


BUS SHELTER

BENCHES

TRASH CANS

Crossing Improvements



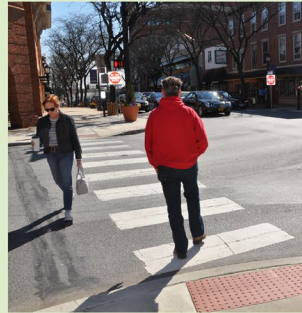
CURB RAMPS



CURB EXTENSIONS



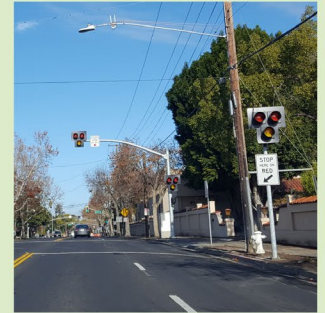
PEDESTRIAN REFUGE ISLAND



HIGH VISIBILITY CROSSWALKS



RECTANGULAR RAPID FLASHING BEACON



PEDESTRIAN-HYBRID BEACON

Bicycle Facility Types



**CLASS I
Shared-Use Path**



**CLASS IV
Separated Bikeway**



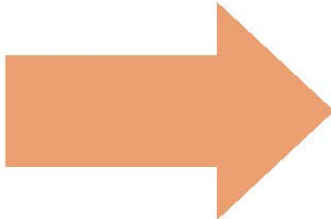
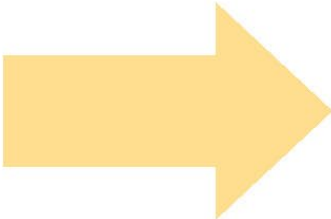
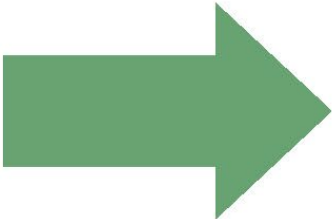
**CLASS IIB
Buffered Bicycle Lane**



**CLASS II
Bicycle Lane**



**CLASS III
Bicycle Route**




CALIFORNIA STATE UNIVERSITY, STANISLAUS TURLOCK CAMPUS

LEGEND

 Existing Bike Racks

Existing Bikeways

 Class I Shared-Use Path


 Class II Bike Lane

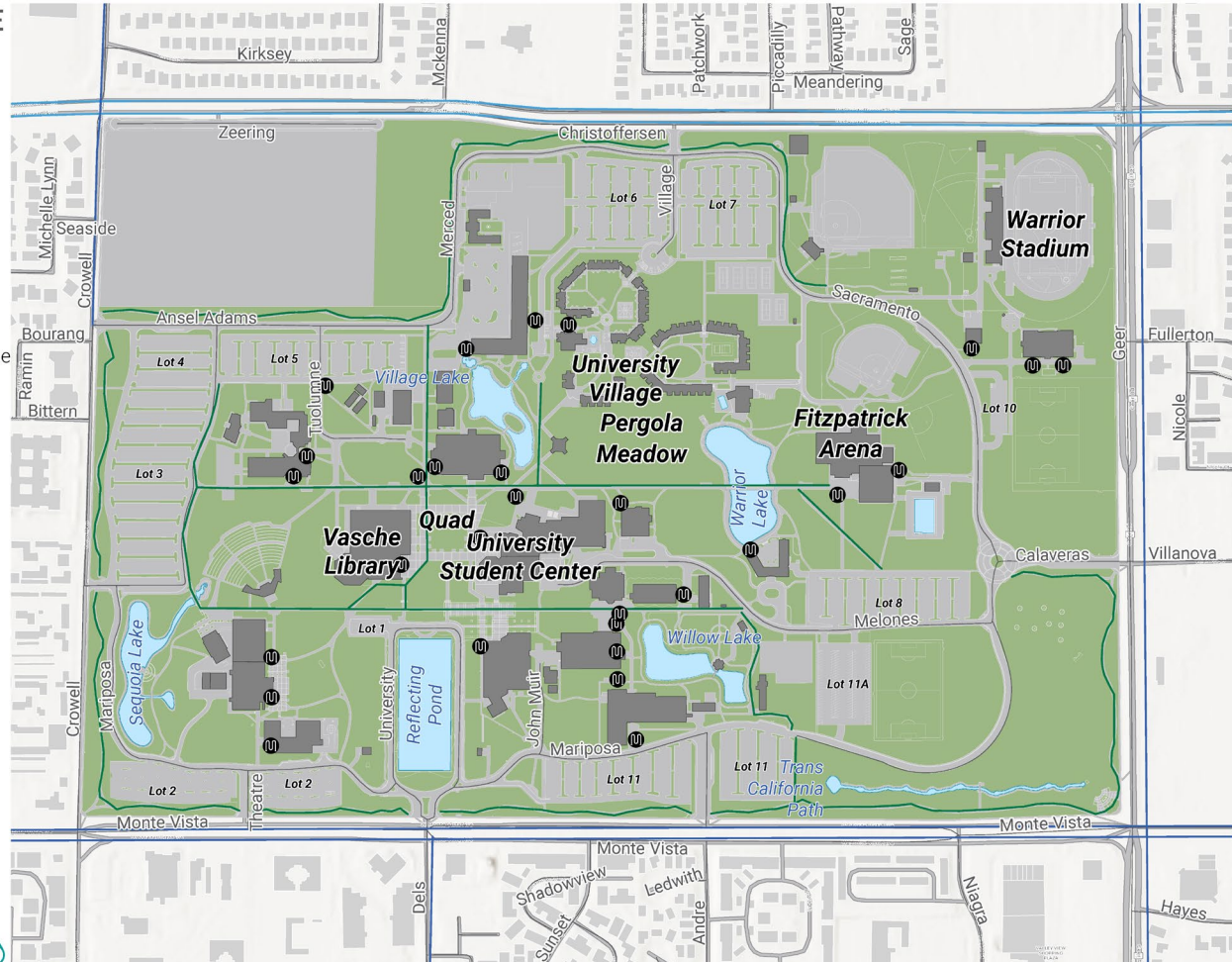
 Class IIb Buffered Bike Lane

Basemap

 Cal State Buildings

 Water Bodies

 Campus Property






CALIFORNIA STATE UNIVERSITY, STANISLAUS








TURLOCK CAMPUS

LEGEND

Existing Bikeways

-  Class I Shared-Use Path
-  Class II Bike Lane
-  Class IIb Buffered Bike Lane


Recommendations

-  Bicycle Loop Detection
-  Long-Term Bike Parking & Bike Fix-It
-  Curb Extensions
-  Curb Ramps
-  High-Visibility Crosswalk
-  Improved Signals
-  Pedestrian Refuge Island
-  Roundabout/ Traffic Circle
-  Improved Signage

Bicycle Recommendations

-  Class I Shared-Use Path
-  Class II Bike Lane
-  Class IIIb Bicycle Boulevard
-  Class III Bike Route
-  Class IV Separated Bikeway






Basemap

-  Cal State Buildings
-  Water Bodies
-  Campus Property



CALIFORNIA STATE
UNIVERSITY,
STANISLAUS
STOCKTON CAMPUS

LEGEND

-  Access Deficiency Points
-  Access Deficiencies
-  Transit Stops
-  School
-  Hospital



**CALIFORNIA STATE
UNIVERSITY,
STANISLAUS
STOCKTON CAMPUS**

LEGEND

Recommendations

-  Bicycle Loop Detection
-  Bike Cage & Bike Fix-It
-  Curb Extensions
-  Curb Ramps
-  High-Visibility Crosswalks
-  Improved Signals
-  Pedestrian Refuge Island
-  Roundabout

Class

-  Class I Shared-Use Path
-  Class II Bike Lane
-  Class IIb Buffered Bike Lane
-  Class III Bike Route
-  Class IIIb Bicycle Boulevard
-  Class IV Separated Bikeway
-  Transit Stops
-  School
-  Hospital



SUMMARY OF FINANCIAL OUTCOMES



Summary Recommendations

- Additional parking infrastructure may be needed at 85% occupancy
- Enhance parking management to better distribute demand
- Increase permit prices annually to account for inflation
- Introduce/expand TDM programs and enhancements gradually to meet sustainability goals (prioritize carpool, vanpool, and support services, e.g., GRH)
- Improve pedestrian and cyclist facilities on campuses and work with municipalities to improve conditions to/from campuses
- Pilot a shuttle connecting Stockton and Turlock campuses