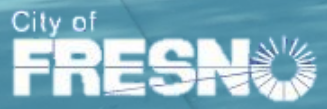


City of
FRESNO
active transportation plan



CITY COUNCIL HEARING



FEHR & PEERS

December 15, 2016

INTRODUCTION

active transportation plan

- The Active Transportation Plan is a comprehensive guide outlining the vision for active transportation in the City
- Strives to improve the accessibility and connectivity of the bicycle and pedestrian network for all residents

INTRODUCTION

purpose of the active transportation plan

- Update the 2010 Bicycle, Pedestrian & Trails Master Plan
- Provide guidance and prioritization for the development of bicycle and pedestrian networks to better connect people to their destinations

INTRODUCTION

items of discussion

- Project Background and Goals
- Community Outreach & Participation
- Pedestrian and Bicycle Networks
- Plan Implementation
- General Plan Amendment & Environmental Assessment

City of
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active transportation plan



ACTIVE TRANSPORTATION PROJECT PRIORITIZATION TOOL



Prioritization Tool

- The tool was developed at the request of several community organizations. Variables were based on criteria included in the plan and typical grant funding and project considerations.
- Comment letters regarding adjustments to categorical scoring were received and evaluated.
- Overall, scores were impacted minimally by the alternatives proposed.

ACTIVE TRANSPORTATION PROJECT

Prioritization Tool

- Projects ranking in the top three included the same three projects.
- The recommendation to provide points to areas with 'no connectivity to key destinations within one mile' had no impact to any of the projects, and is counter to grant requirements.
- Removing feasibility and engineering considerations from the tool as recommended is symbolic in the sense that it does not remove these considerations as a variable to overall project feasibility. Due to finite funding and grant requirements that cap infrastructure costs, these variables will need to be evaluated fully when selecting projects.

Original Ranking		
Rank	Project	Score
1	Midtown Trail	85
2	Butler Bike lane	84
3	School Area Signals	83
4	Ashlan Sidewalk	71
5	L Street Signals	73
6	McKinley Sidewalk	61
7	Herndon Trail	59
8	Copper Trail	51
8	Woodward Sidewalk	51

Alternative Ranking		
Rank	Project	Score
1	Butler Bike lane	84
2	Midtown Trail	81
3	School Area Signals	77
4	McKinley Sidewalk	74
5	L Street Signals	68
6	Herndon Trail	55
7	Ashlan Sidewalk	54
8	Copper Trail	41
9	Woodward Sidewalk	40

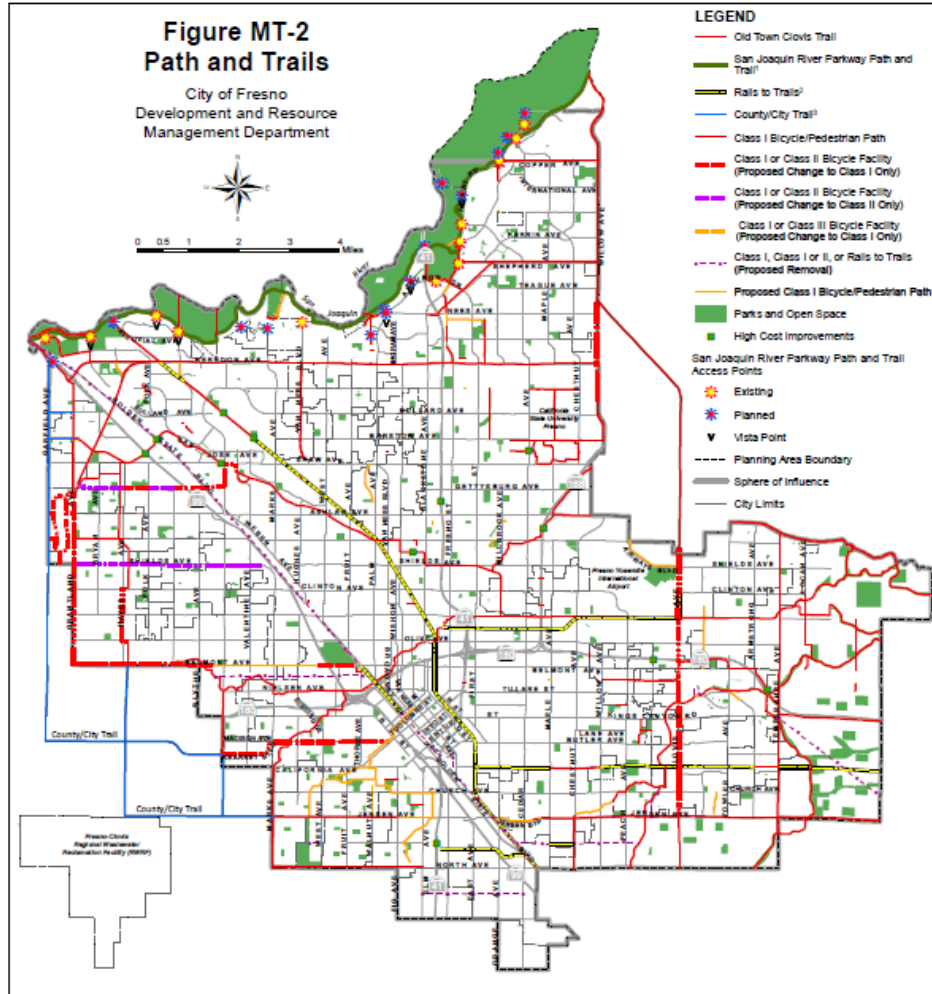
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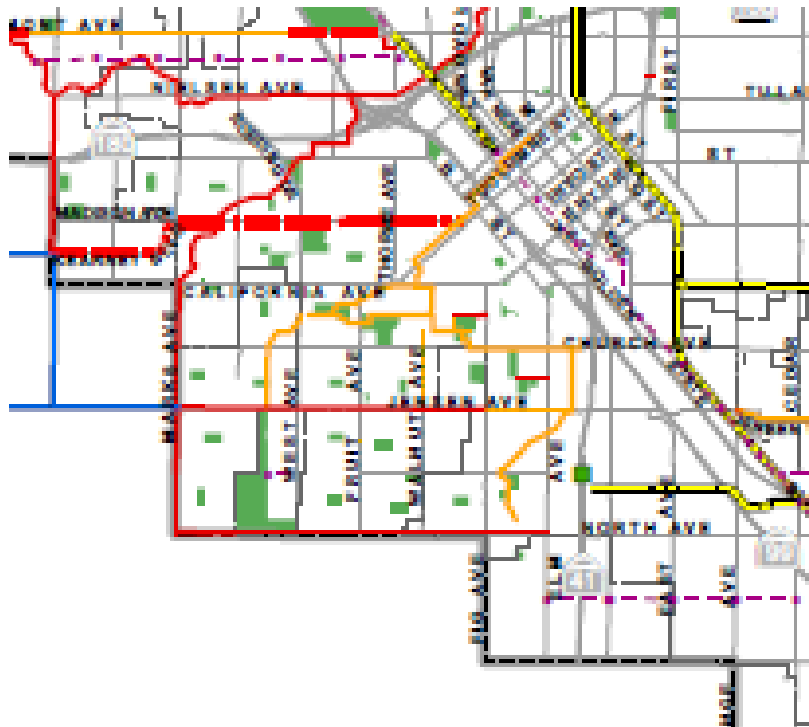
GENERAL PLAN AMENDMENT & ENVIRONMENTAL CLEARANCE



GENERAL PLAN AMENDMENT



GENERAL PLAN AMENDMENT



LEGEND

- Old Town Clovis Trail
- San Joaquin River Parkway Path and Trail¹
- Rails to Trails²
- County/City Trail³
- Class I Bicycle/Pedestrian Path
- - - Class I or Class II Bicycle Facility (Proposed Change to Class I Only)
- - - Class I or Class II Bicycle Facility (Proposed Change to Class II Only)
- Class I or Class III Bicycle Facility (Proposed Change to Class I Only)
- - - Class I, Class I or II, or Rails to Trails (Proposed Removal)
- Proposed Class I Bicycle/Pedestrian Path
- Parks and Open Space
- High Cost Improvements

GENERAL PLAN AMENDMENT

public comment plan amendment A-15-016

- » Council District Project Review Committees
 - Districts 2 and 4: Recommended approval
 - District 3: Reviewed
 - Tower /Fulton Districts: Recommended Approval
 - Districts 1, 5, and 6: Lacked quorum, but informally supportive
- » Airport Land Use Commission made finding of consistency

GENERAL PLAN AMENDMENT

environmental analysis

- Mitigated Negative Declaration was prepared for the project.
- Project specific mitigation measures apply to:
 - Any sites with hazardous materials
 - Protecting the operation and maintenance of canals

staff recommendation

- » **ADOPT** Environmental Assessment No. A-16-015 a Mitigated Negative Declaration dated November 17, 2016;
- » **RESOLUTION** – Adopting the Active Transportation Plan and Approving Plan Amendment Application No. A-16-015, to amend the Fresno General Plan Map (Figure MT-2: Paths and Trails) and related text, as described in Exhibit B;

NEXT STEPS

what's next?

- Coordinate with Parks Master Plan
- Pursue grant funding for ATP projects on priority network
- Update plan every five years

THANK YOU

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active transportation plan



QUESTIONS?



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BACK-UP SLIDES



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DEVELOPING THE ACTIVE TRANSPORTATION PLAN

PROJECT BACKGROUND

what is an active transportation plan



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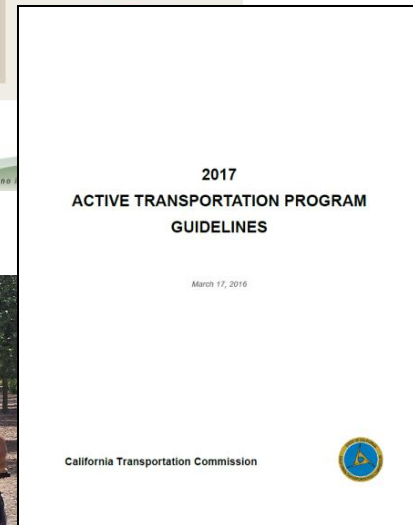


FEHR PEERS

PROJECT BACKGROUND

purpose of the plan

- Update Bicycle Master Plan
- Create a vision for walking and biking in Fresno
- Meet funding requirements
- Prioritize City funds for highest and best use



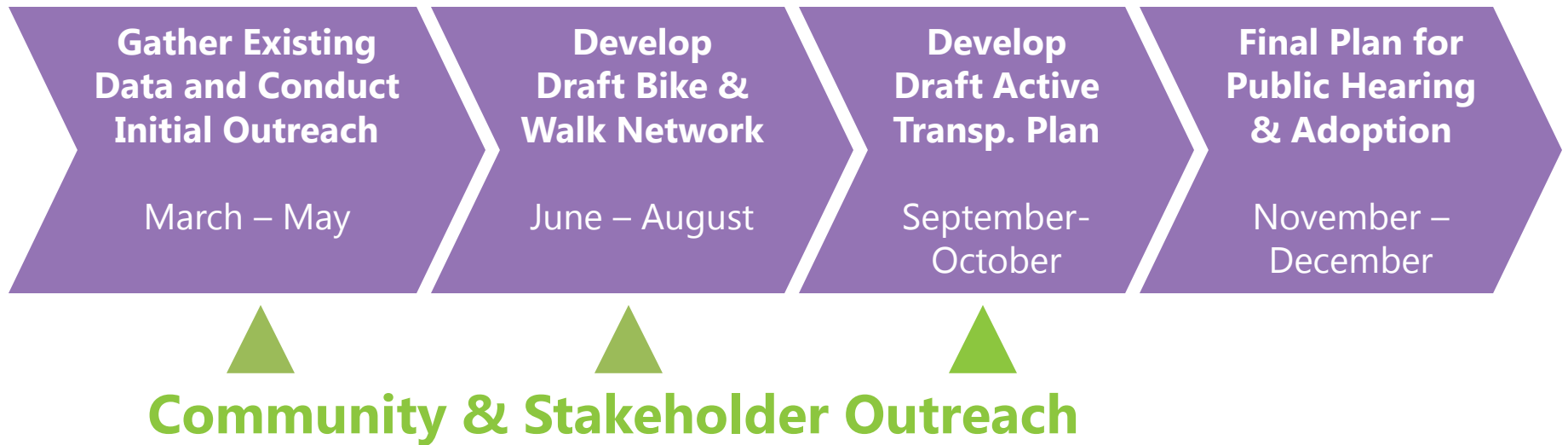
PROJECT GOALS

objectives for active transportation plan

- Equitably improve safety and perceived safety of walking and bicycling
- Increase walking and bicycling trips by creating user-friendly facilities
- Improve geographic equity of access to walking and bicycling facilities
- Fill key gaps in walking & bicycling network

PLAN DEVELOPMENT

planning process



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active transportation plan



COMMUNITY ENGAGEMENT

COMMUNITY ENGAGEMENT

hearing from the community

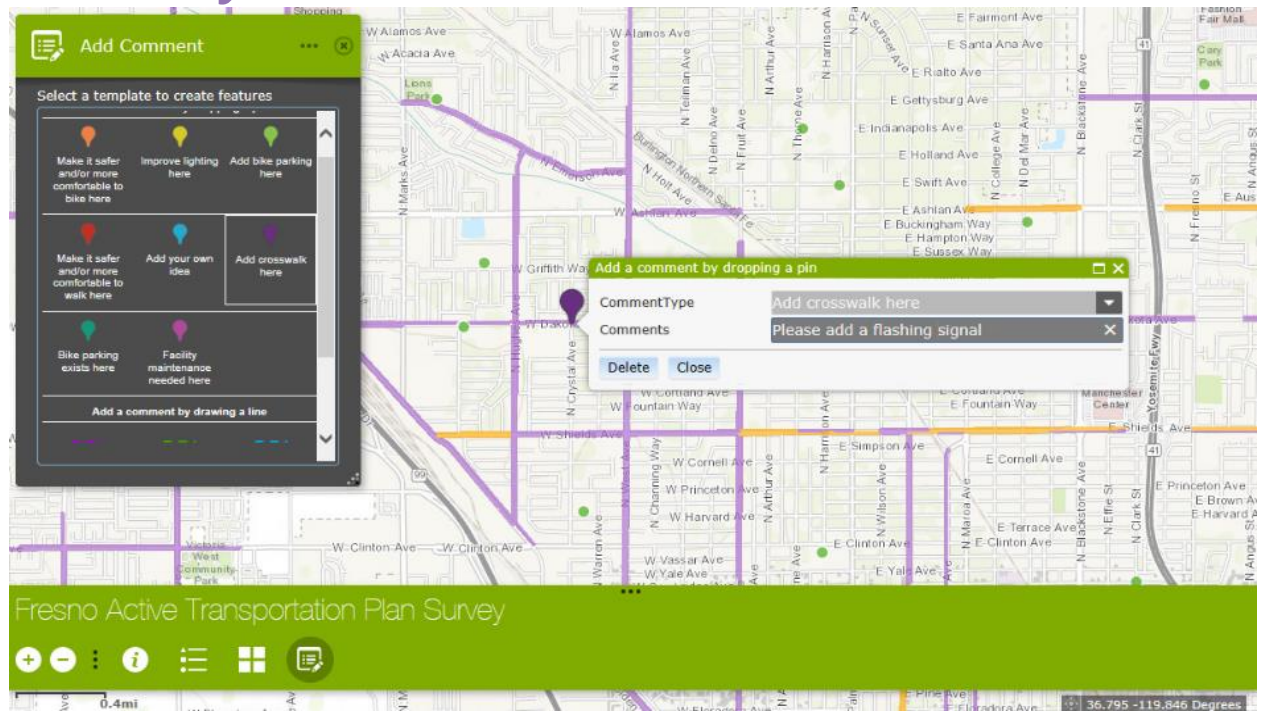
- ▶ Stakeholder Meetings:
 - Apr 2016: Develop goals
 - July 2016: Feedback on draft networks
 - Oct 2016: Feedback on draft plan
- ▶ Public Workshops
 - May 2016: Desires for the plan
 - Aug 2016: Feedback on draft networks



COMMUNITY ENGAGEMENT

hearing from the community

➤ Online Map Survey



COMMUNITY ENGAGEMENT

summary of community input

- Add facilities to major streets/complete planned network
- Add protected bike lanes
- Improve lighting
- Disparities between North & South Fresno
- Maintenance Issues

COMMUNITY ENGAGEMENT

summary of community input

- » Concerns with stray dogs
- » Improve narrow sidewalks
- » Make it safer to cross streets, especially near schools
- » Add bicycle parking
- » Add landscaping

COMMUNITY ENGAGEMENT

hearing from the community

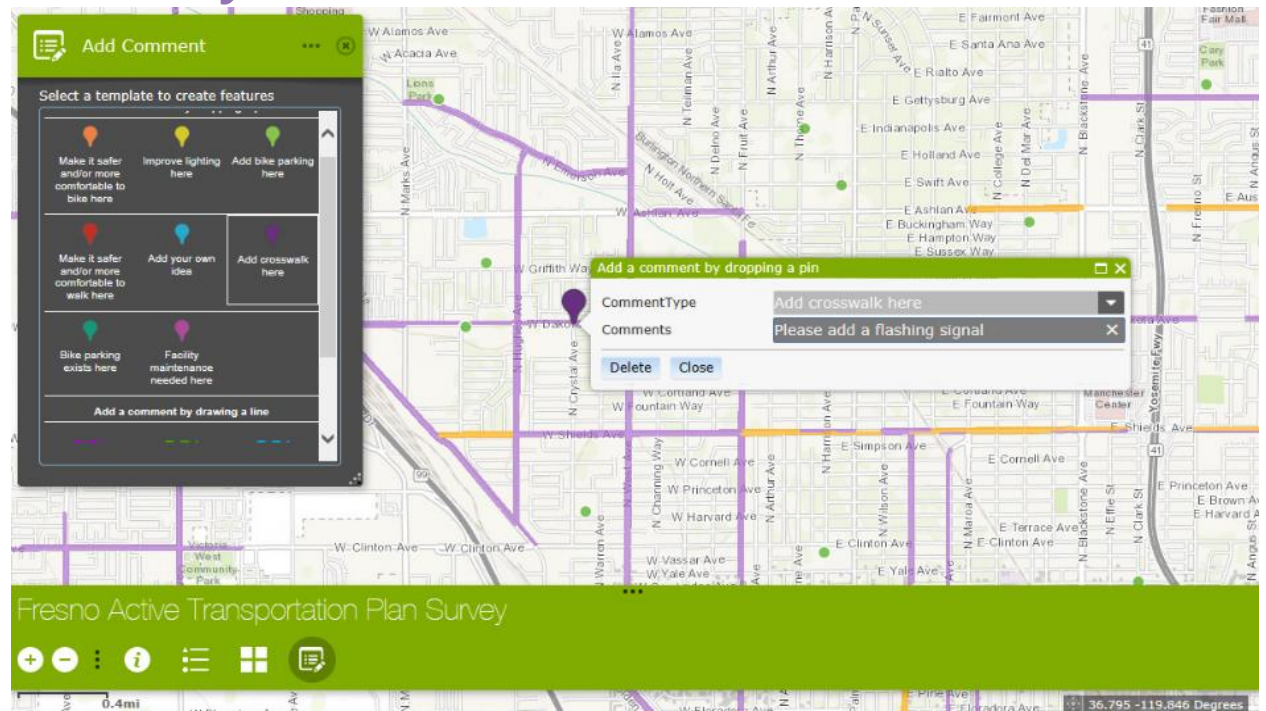
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COMMUNITY ENGAGEMENT

hearing from the community

➤ Online Map Survey



COMMUNITY ENGAGEMENT

stakeholder advisory committee

- » BPAC
- » Caltrans
- » Central, Clovis & Fresno Unified
- » Centro La Familia
- » Community Medical Center
- » CSU Fresno
- » Cultiva La Salud
- » DARM, FAX, PARCS, Police
- » Downtown Fresno Foundation
- » Fresno Cycling Club
- » Fresno Center for New Americans
- » Fresno Council of Governments
- » Fresno Co. Dept. of Public Health
- » Fresno Irrigation District
- » Fresno Metro Ministry
- » Peds and Pedals
- » SJV Air Pollution Control District
- » SEFCEDA
- » Maddy Institute
- » Tree Fresno
- » United Learning Foundation
- » West Fresno Family Resource Center



COMMUNITY ENGAGEMENT

summary of community input

- Add facilities to major streets/complete planned network
- Add protected bike lanes
- Improve lighting
- Disparities between North & South Fresno
- Maintenance Issues

COMMUNITY ENGAGEMENT

summary of community input

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City of

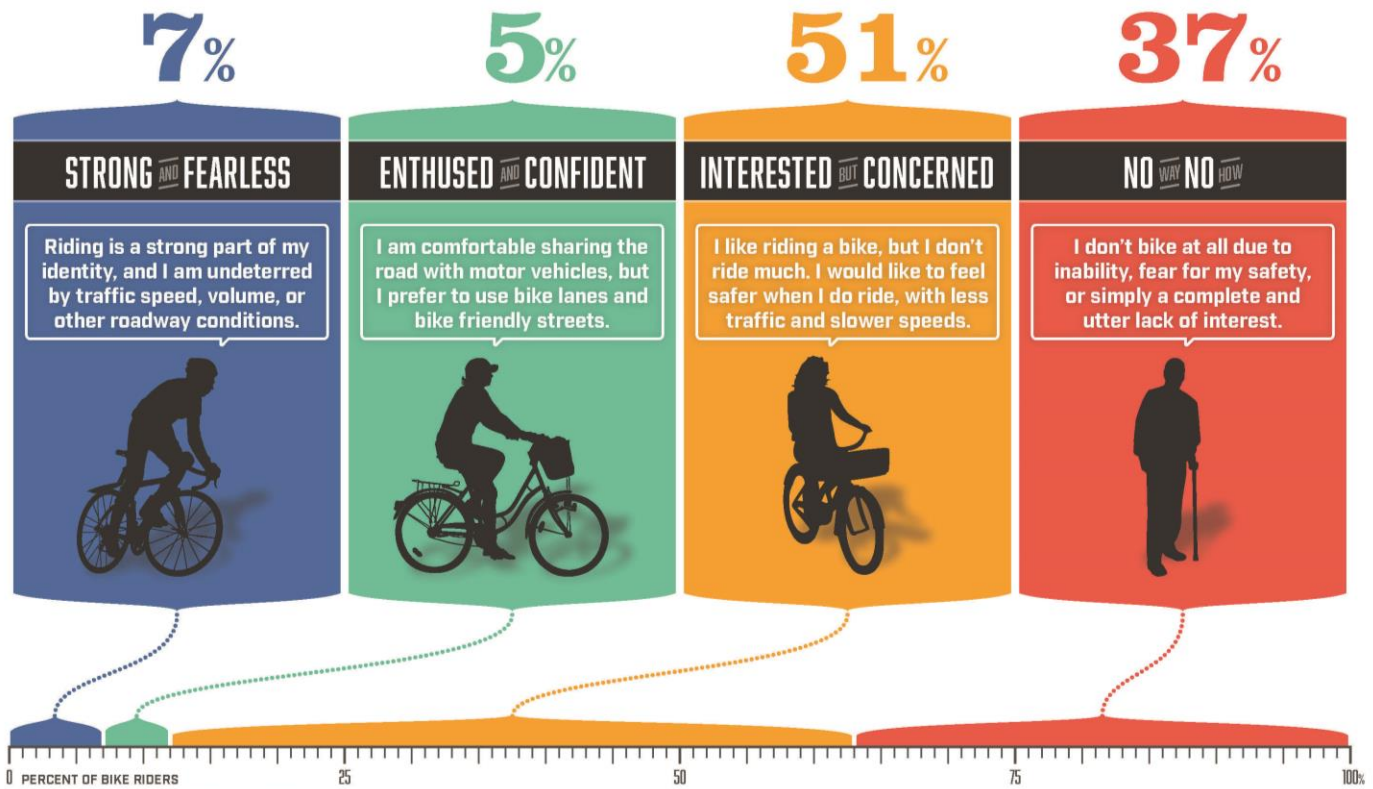
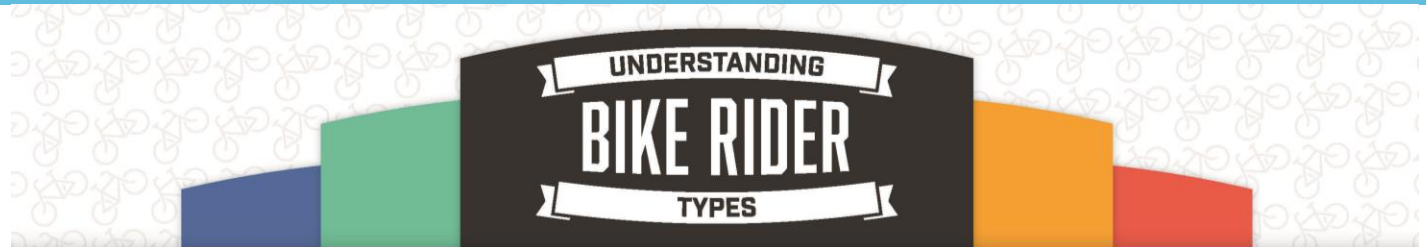
FRESNO

active transportation plan



BICYCLE NETWORK

BICYCLE USERS

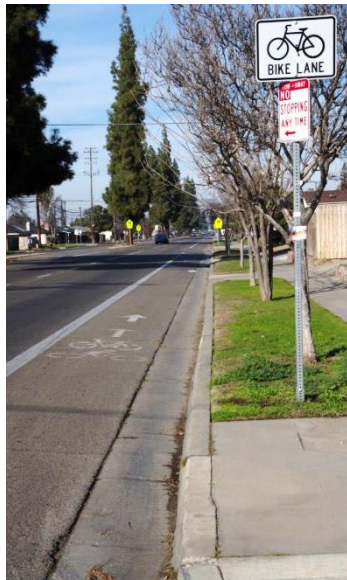


BICYCLE FACILITIES

Class III



Class II



Class II
Buffered



Class IV



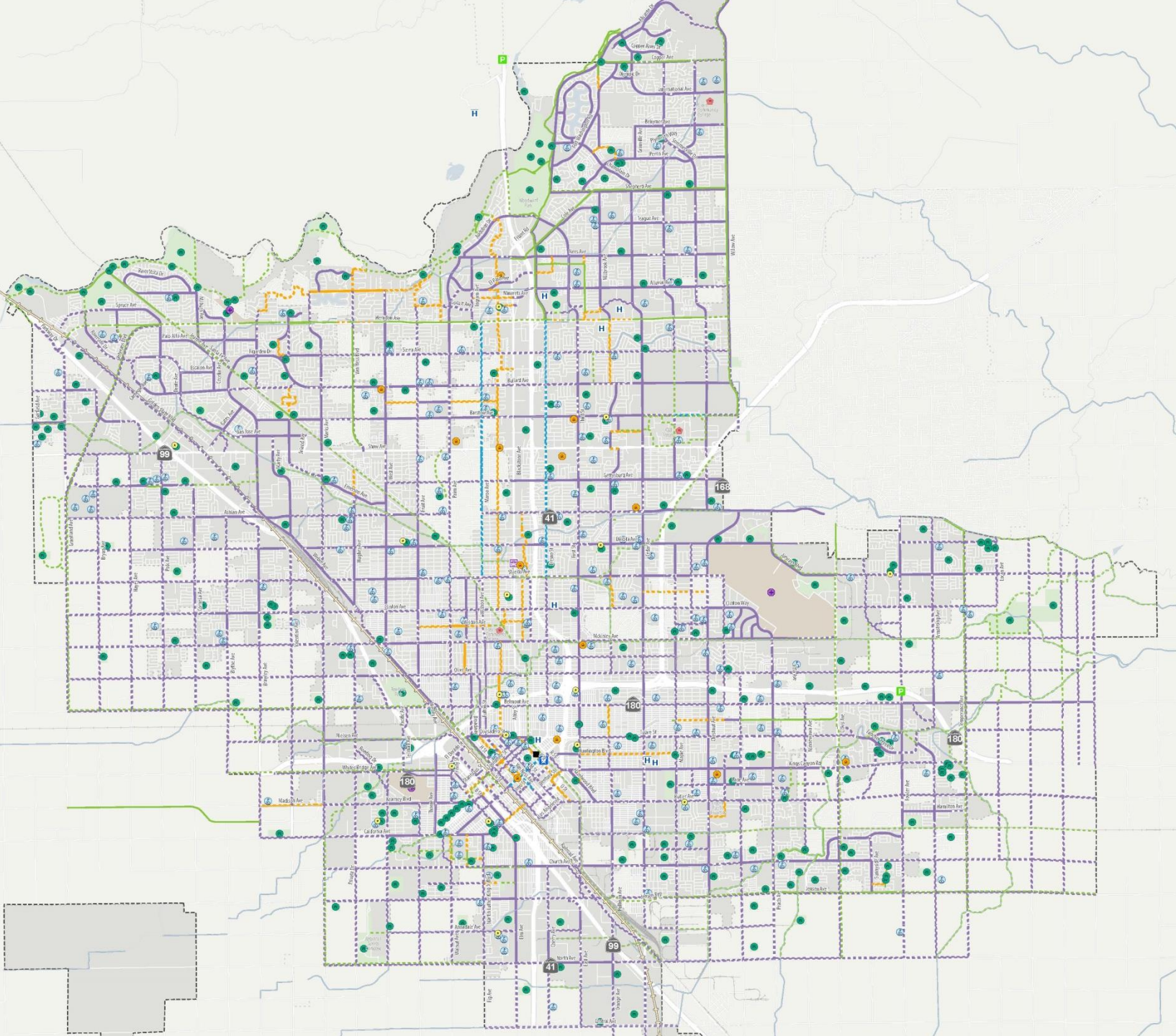
Class I



Least Separation  Most Separation

PLAN

big



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PLANNED NETWORKS

bicycle build out network

Type	Existing	Proposed	Total
Class I Bike Paths	38	166	204
Class II Bike Lanes	431	691	1,122
Class III Bike Routes	22	69	91
Class IV Separated Bikeways	0	21	21
Total miles	491	947	1,438

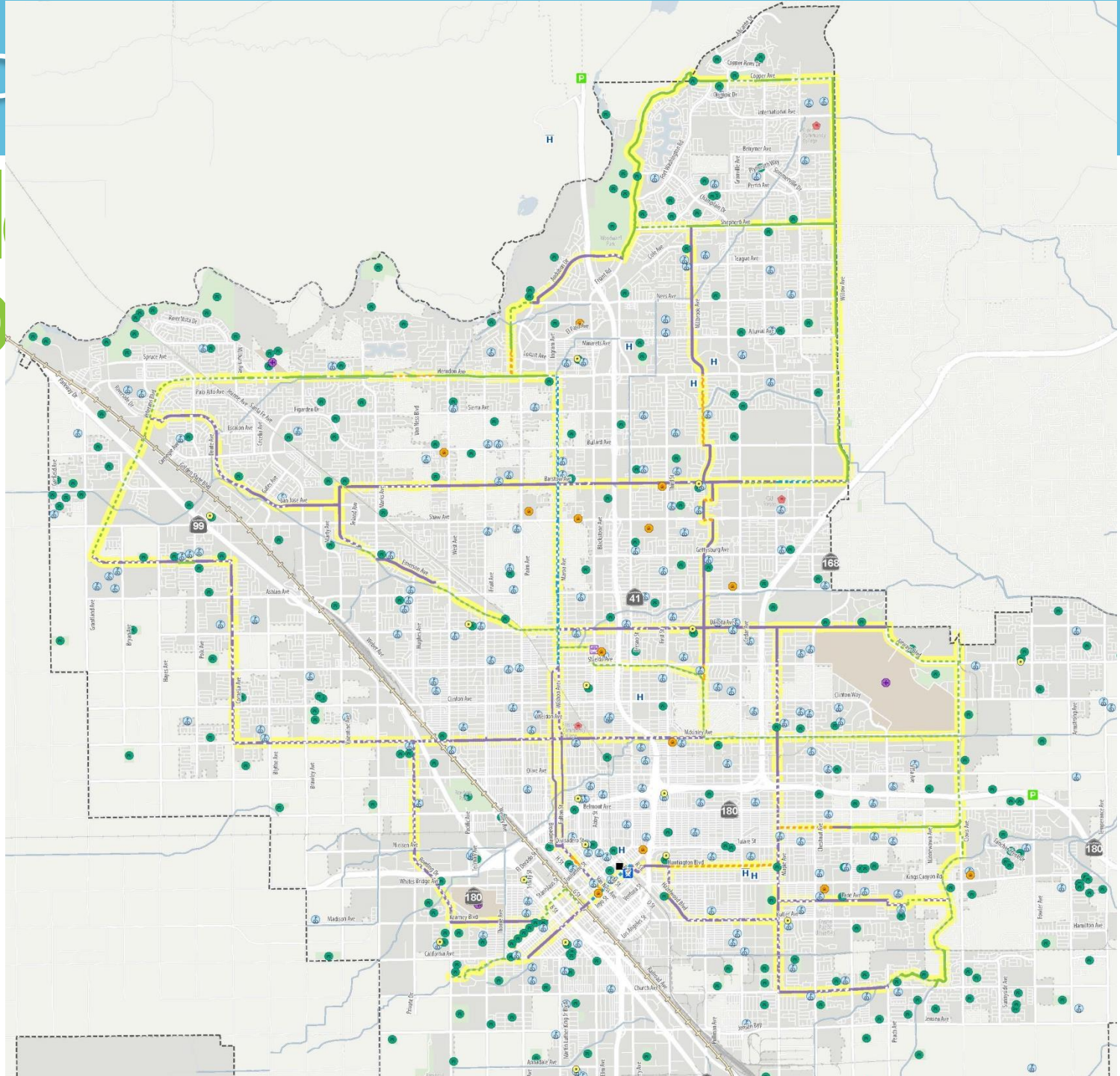
PLANNED NETWORKS

bicycle priority network

- Focus on connecting city & key destinations
- Create a backbone network of lower-stress facilities that attract more bicycle riders

PLANNED

bicycl
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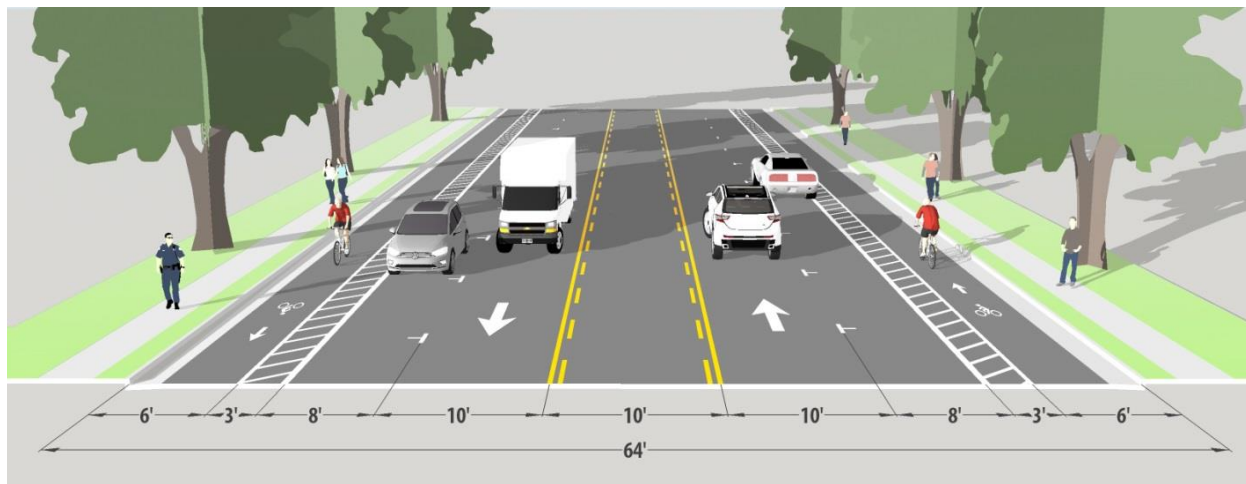


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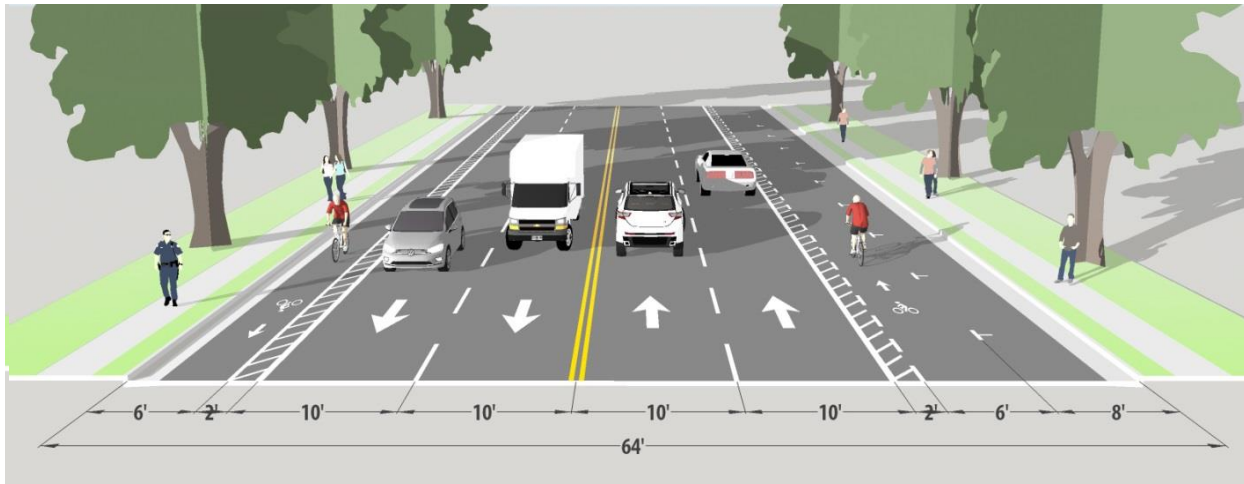
PLANNED NETWORKS

conceptual implementation



PLANNED NETWORKS

conceptual implementation



PLANNED NETWORKS

developing ^{the} planned networks

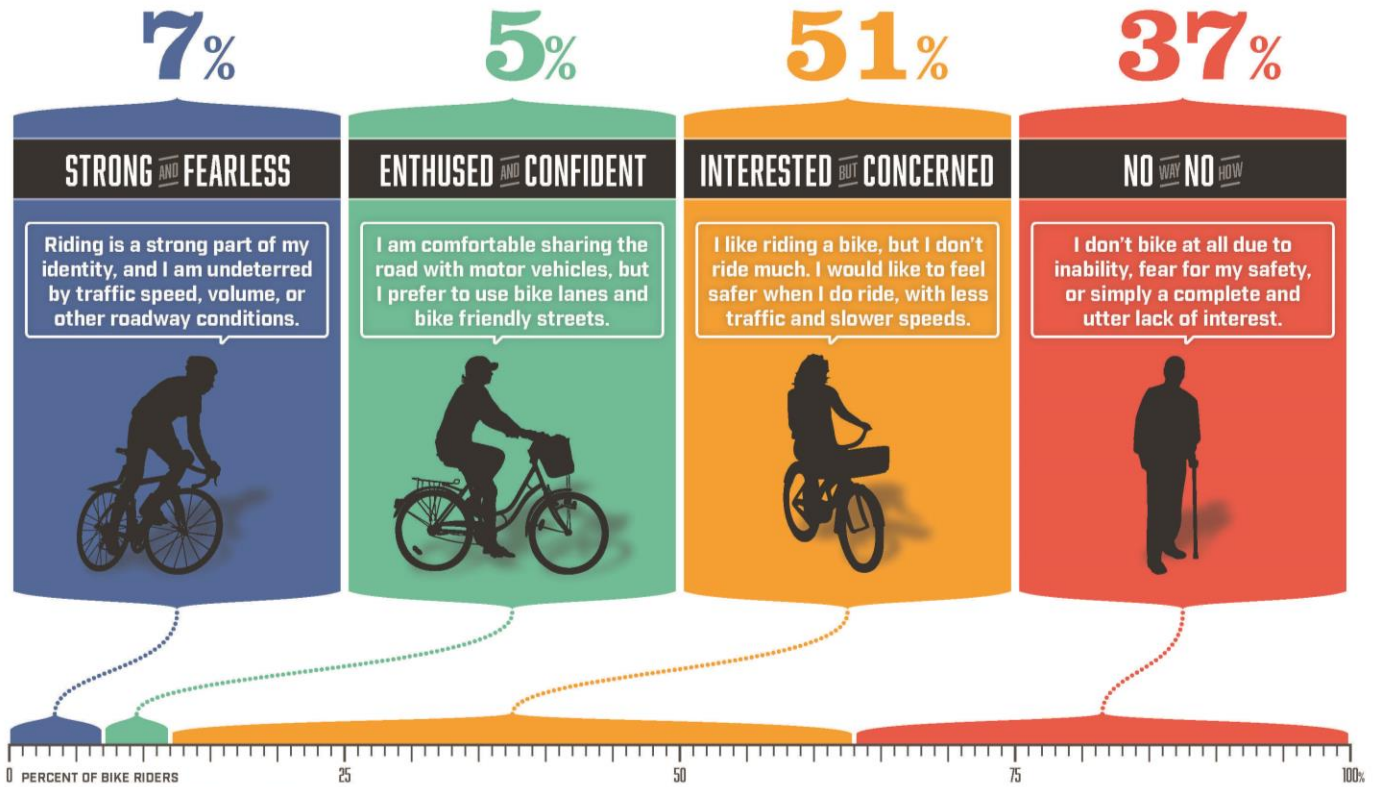
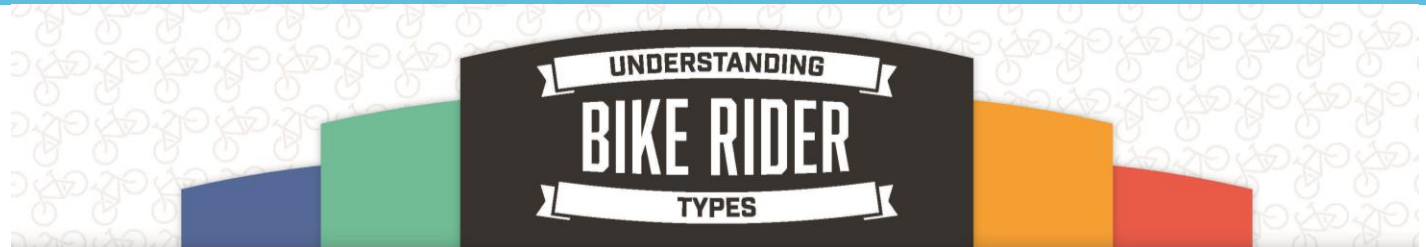
- Reflect public input received through workshops, online map survey
- Reviewed existing bike and pedestrian networks

PLANNED NETWORKS

developing ^{the} planned networks

- Considered community characteristics, including:
 - Access to transit, schools, parks, and other destinations
 - Community demographics, such as auto ownership, income, employment and population density

BICYCLE USERS



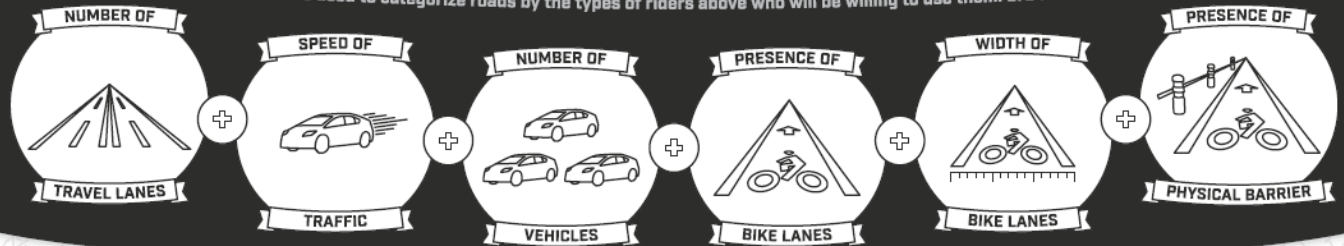
BICYCLE USERS

WHICH RIDERS DO
YOUR
BIKEWAYS SUPPORT?

AS MEASURED BY

LEVEL OF TRAFFIC STRESS

Level of traffic stress (LTS) is a way to evaluate the stress a bike rider will experience while riding on a road. It is used to categorize roads by the types of riders above who will be willing to use them. LTS is...



Fehr & Peers' LTS tool allows us to calculate LTS for an entire city. **LTS SCORE** Know with certainty how your bike network serves each rider type.

LTS 4

Only the "strong and fearless" will ride on these high-stress streets with high speeds limits, multiple travel lanes, limited or non-existent bikeways, and long intersection crossing distances.

LTS 3

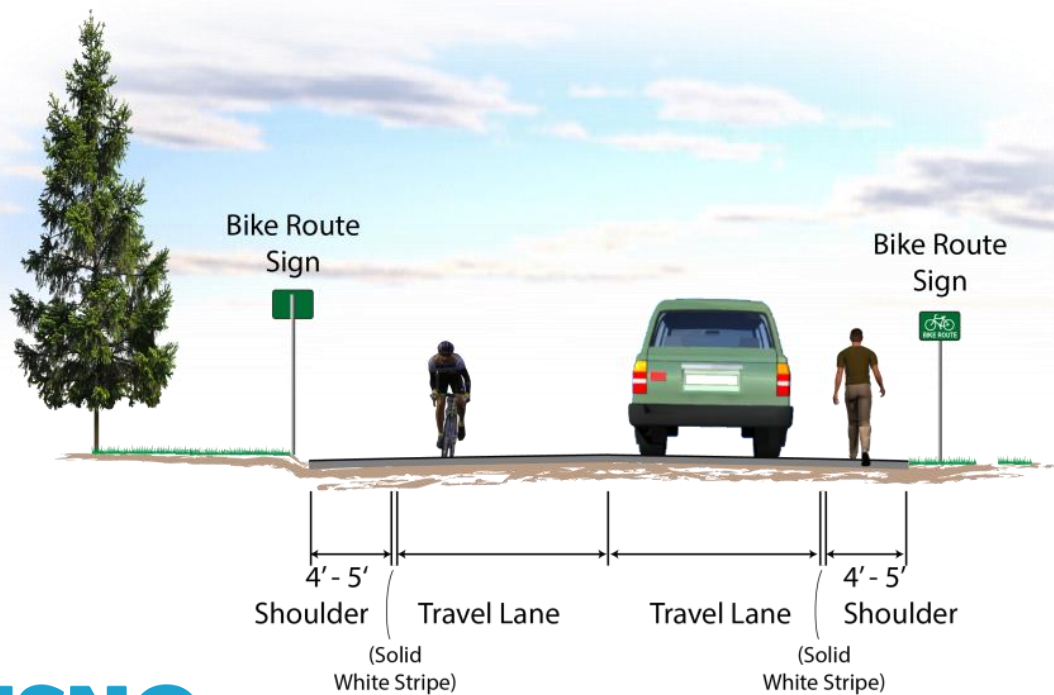
Bike riders who are "enthused and confident" but who still prefer having their own dedicated space for riding will feel safe while traveling on streets of this nature.

LTS 1 AND 2

LTS1: Most children can feel safe riding on these streets.
LTS2: The mainstream, "interested but concerned," adult population will feel safe riding on these streets.

BICYCLE FACILITIES

class III bike routes



CLASS III - Bike Route

Provides a shared use with pedestrians or motor vehicle traffic, typically on lower volume roadways.



MUTCD D11-1



MUTCD R4-11



BICYCLE FACILITIES

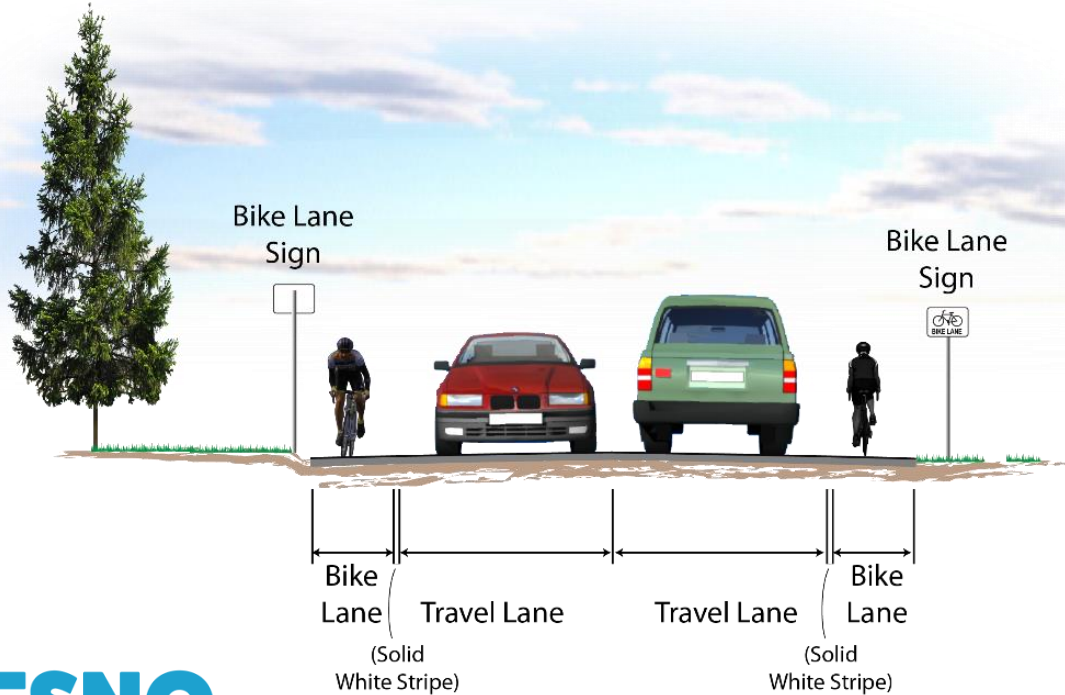
class III bike routes

- » Designated route for bicyclists
- » Share travel lanes with autos
- » Fills in gaps in network where other bike lanes or paths may not be feasible or appropriate



BICYCLE FACILITIES

class II bike lanes



CLASS II - Bike Lane
Provides a striped lane for one-way bike travel on a street or highway.



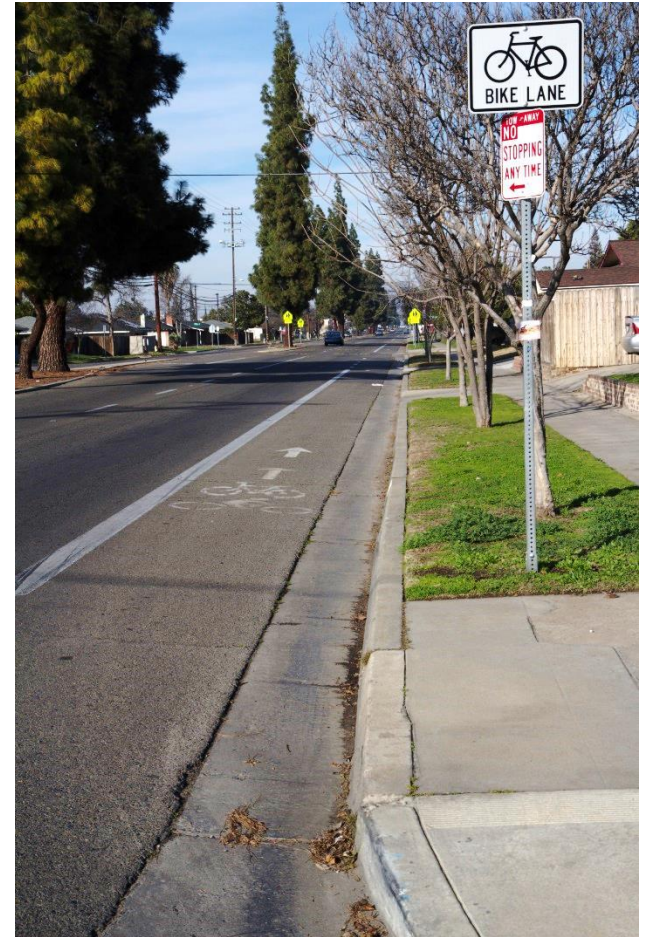
MUTCD R81 (CA)



BICYCLE FACILITIES

class II bike lanes

- Dedicated on-street space for bicyclists
- Denoted by white stripe, markings, signage



BICYCLE FACILITIES

class II buffered bike lanes

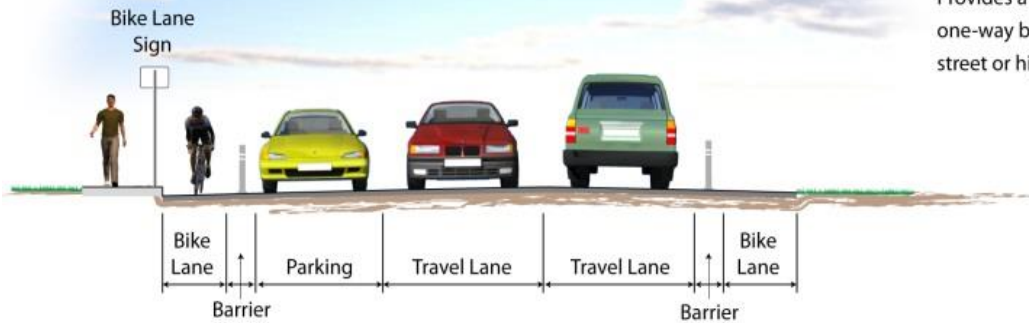


BICYCLE FACILITIES

class IV separated bikeways

CLASS IV - Separated Bikeway (One-Way Cycle Track)

Provides a protected lane for one-way bike travel on a street or highway.



CLASS IV - Separated Bikeway (Two-Way Cycle Track)

Provides protected lanes for two-way bike travel on a street or highway.



BICYCLE FACILITIES

class IV separated bikeways

- Fully protected on-street space for bicyclists; protected via raised/vertical element
 - Parked cars
 - Planter boxes
 - Raised curb
 - Flexible posts



BICYCLE FACILITIES

class IV separated bikeways



BICYCLE FACILITIES

class I bike paths



CLASS I - Multi-Use Path

Provides a completely separated right-of-way for exclusive use of bicycles and pedestrians with crossflow minimized.



MUTCD R44A (CA)



BICYCLE FACILITIES

class I bike paths

- Off-street pathway that allows bicyclists and pedestrians, no autos



PLANNED NETWORKS

bicycle build out network

- Highly connected network that will take many years to fully implement
 - Class I bike paths along canals, waterways, rail
 - Class II bike lanes on most arterial & collector streets (half-mile grid)
 - Class III bike routes to fill-in gaps; parallel to high speed, high traffic corridors

PLANNED NETWORKS

bicycle priority network

- Focus on connecting city & key destinations
- Create a backbone network of lower-stress facilities that attract more bicycle riders

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WALKING NETWORK

PLANNED NETWORKS

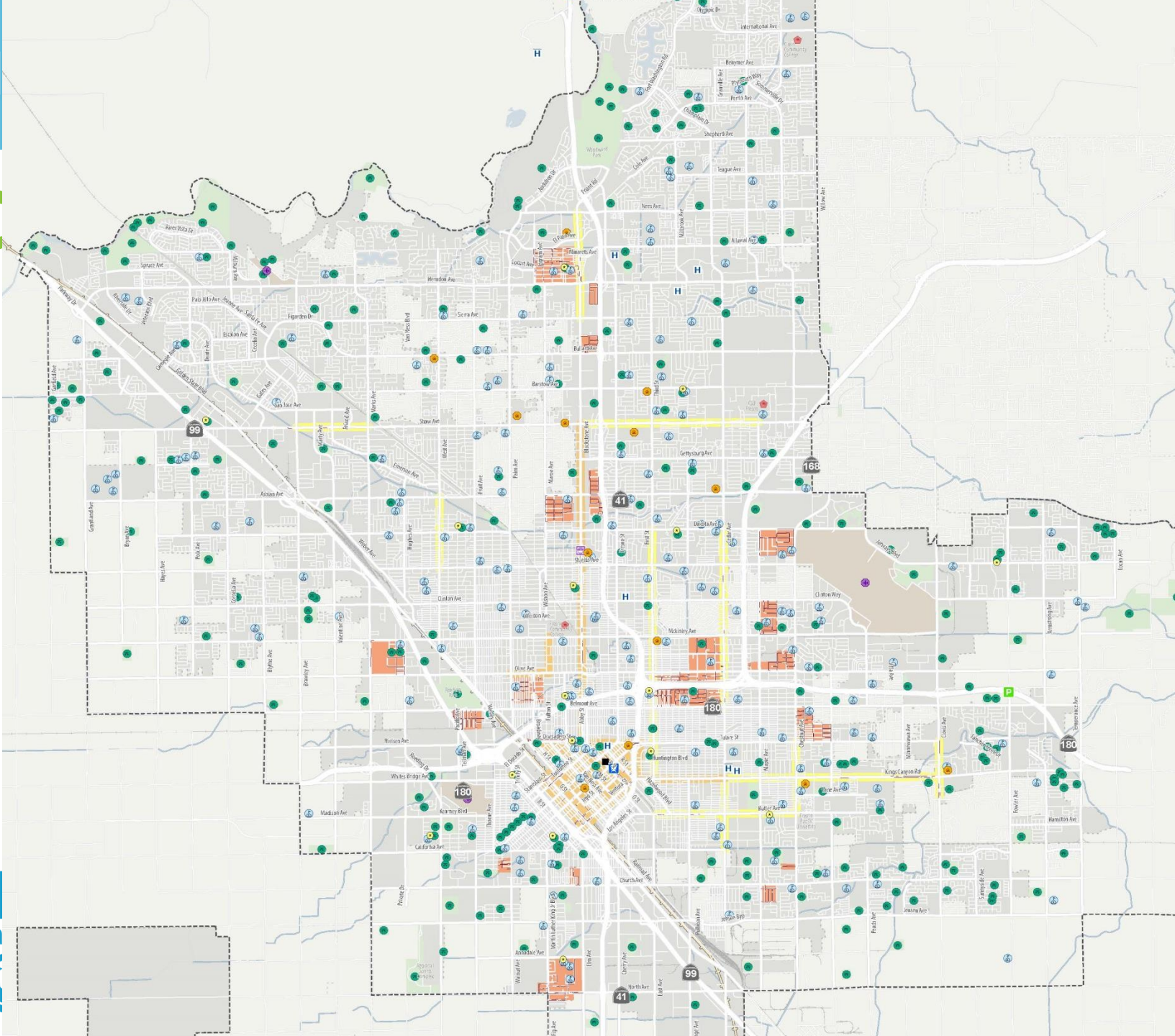
developing the pedestrian network

- Identify missing sidewalks & pedestrian needs based on input from public workshops and online map survey
- Prioritize areas for pedestrian infrastructure improvements



PLAN

people



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PLANNED NETWORKS

pedestrian improvements



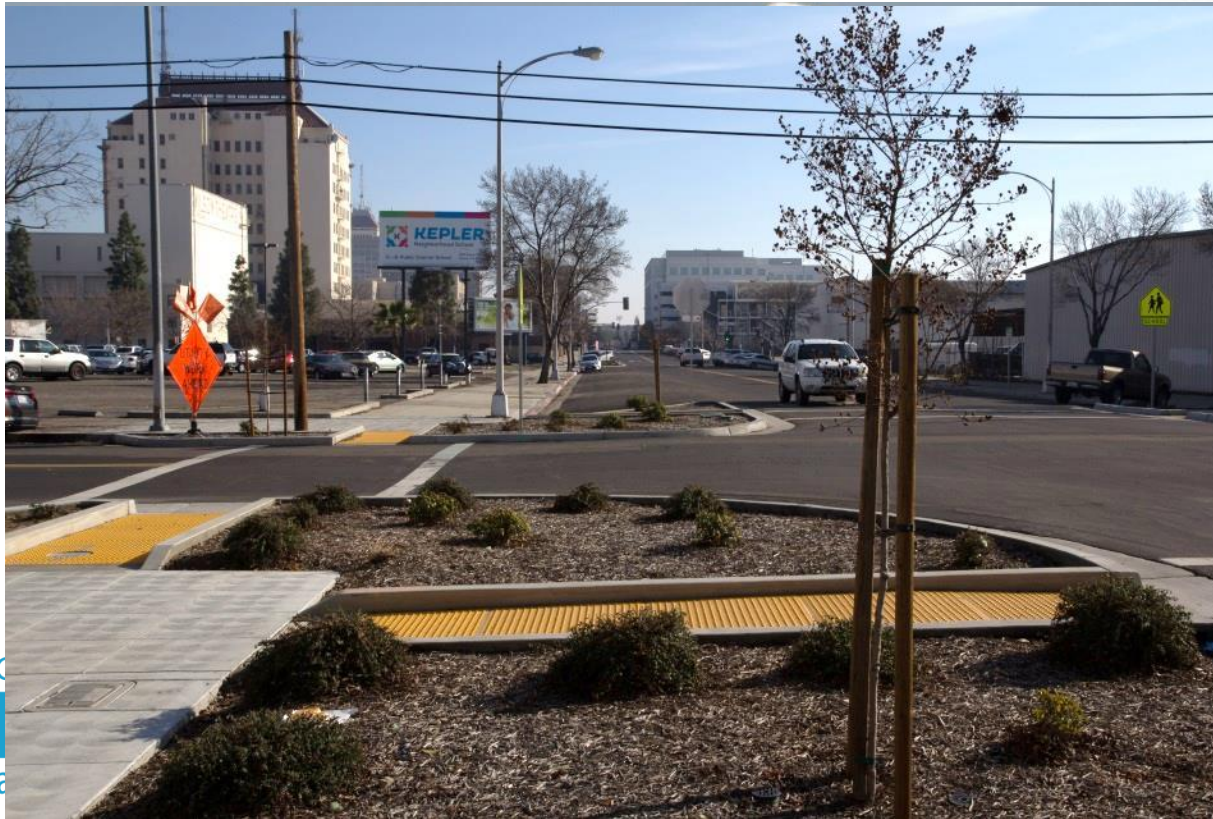
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FEHR PEERS

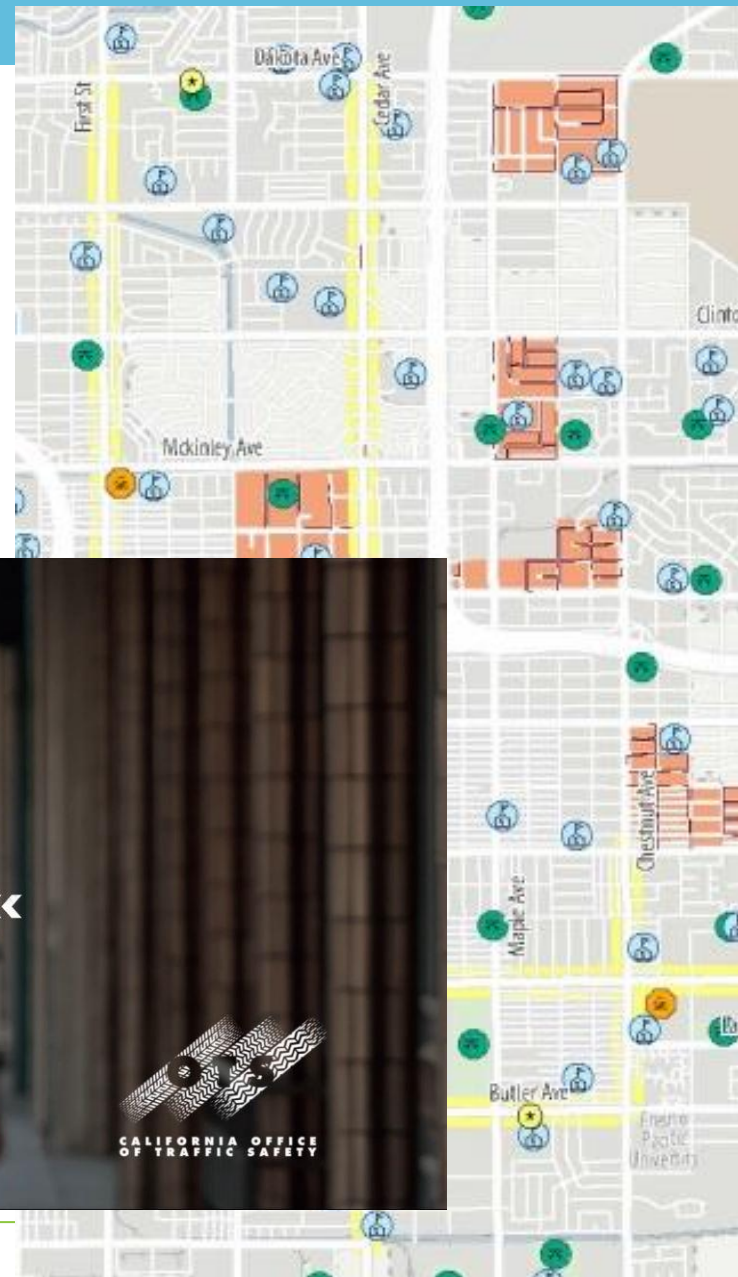
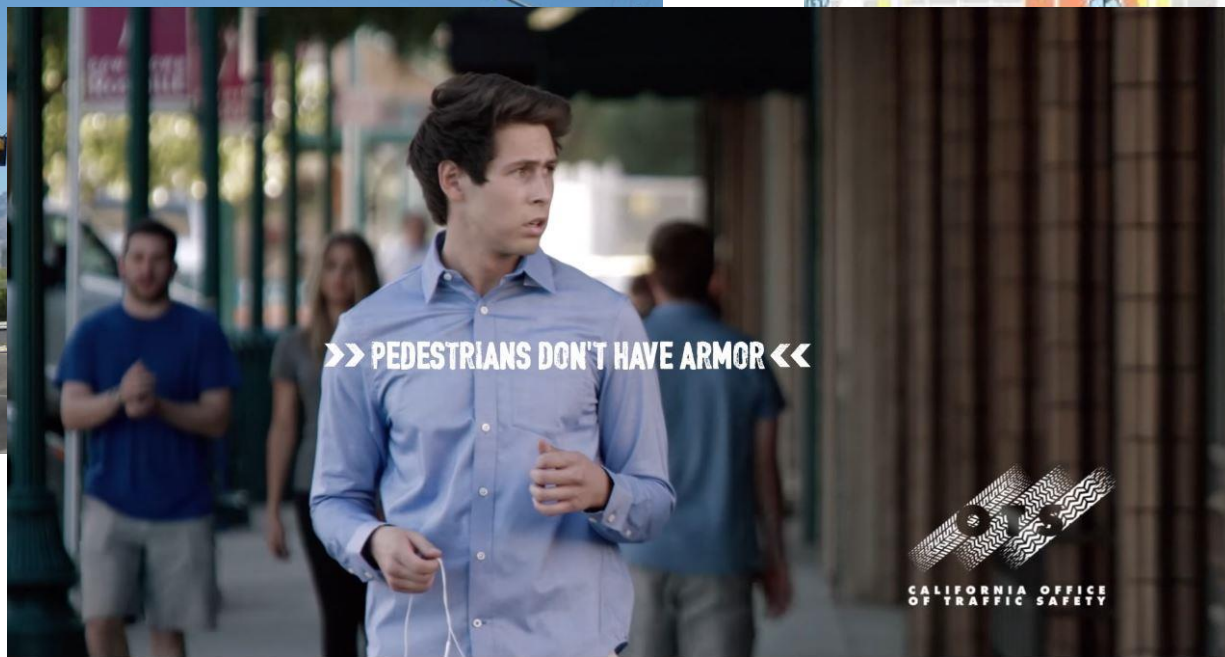
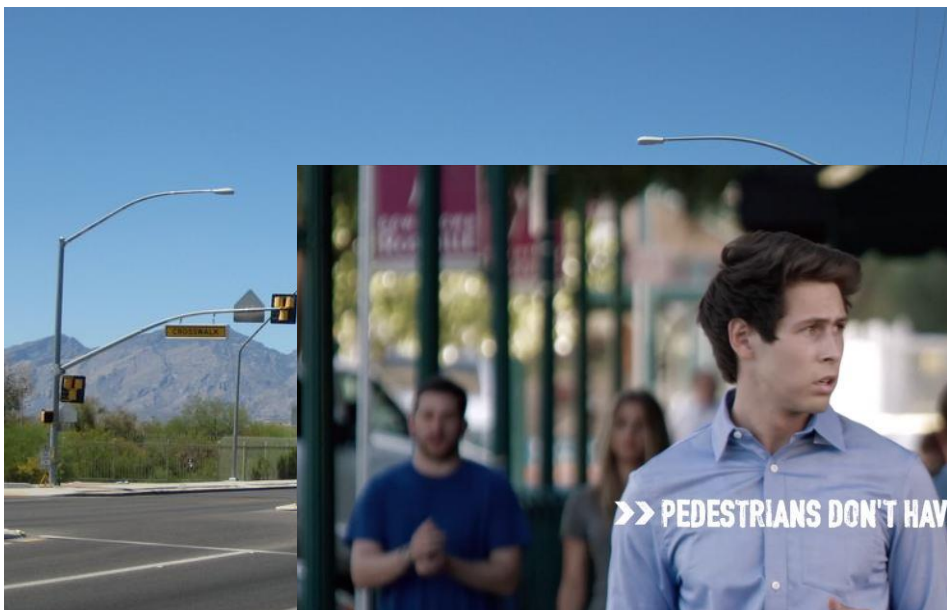
PLANNED NETWORKS

pedestrian improvements



PLANNED NETWORKS

pedestrian improvements



PLANNED NETWORKS

developing the pedestrian network

- Identify missing sidewalks & pedestrian needs based on input from public workshops and online map survey
- Prioritize areas for pedestrian infrastructure improvements



PLANNED NETWORKS

pedestrian improvements



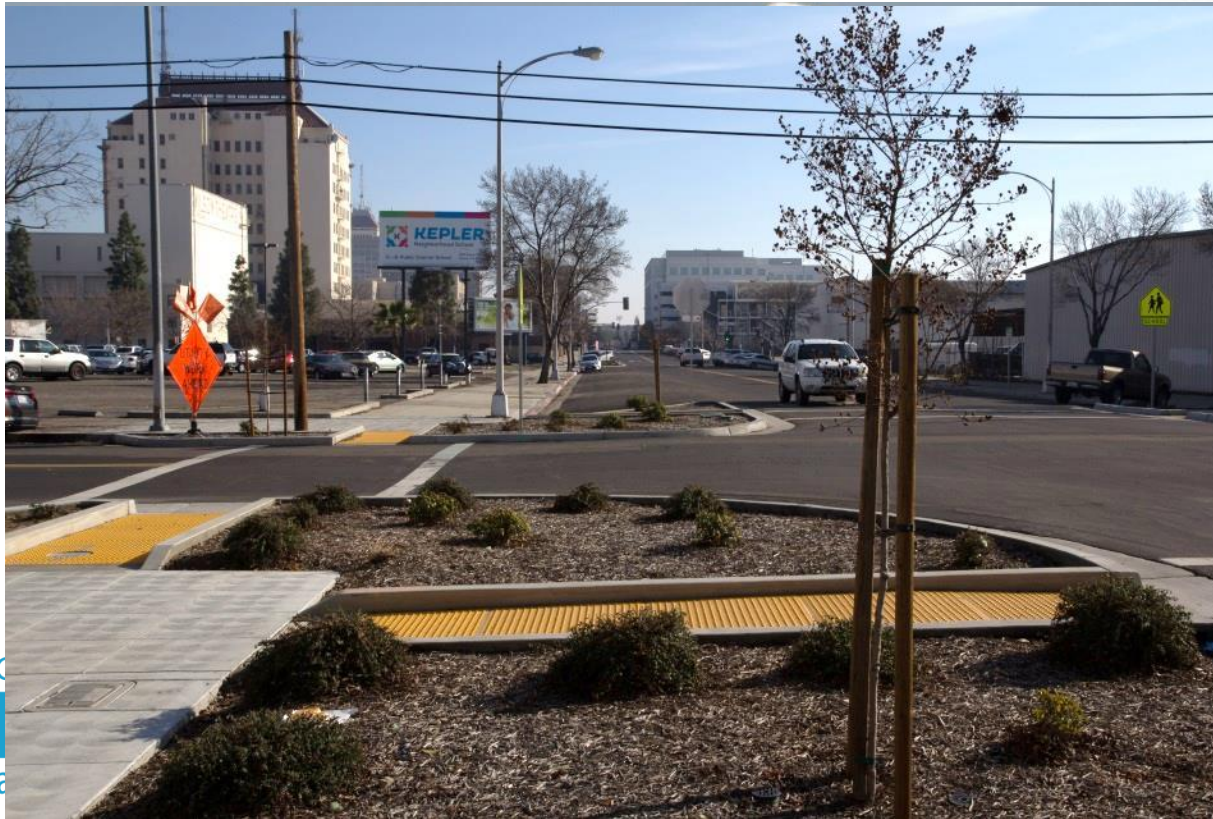
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active transportation plan



FEHR PEERS

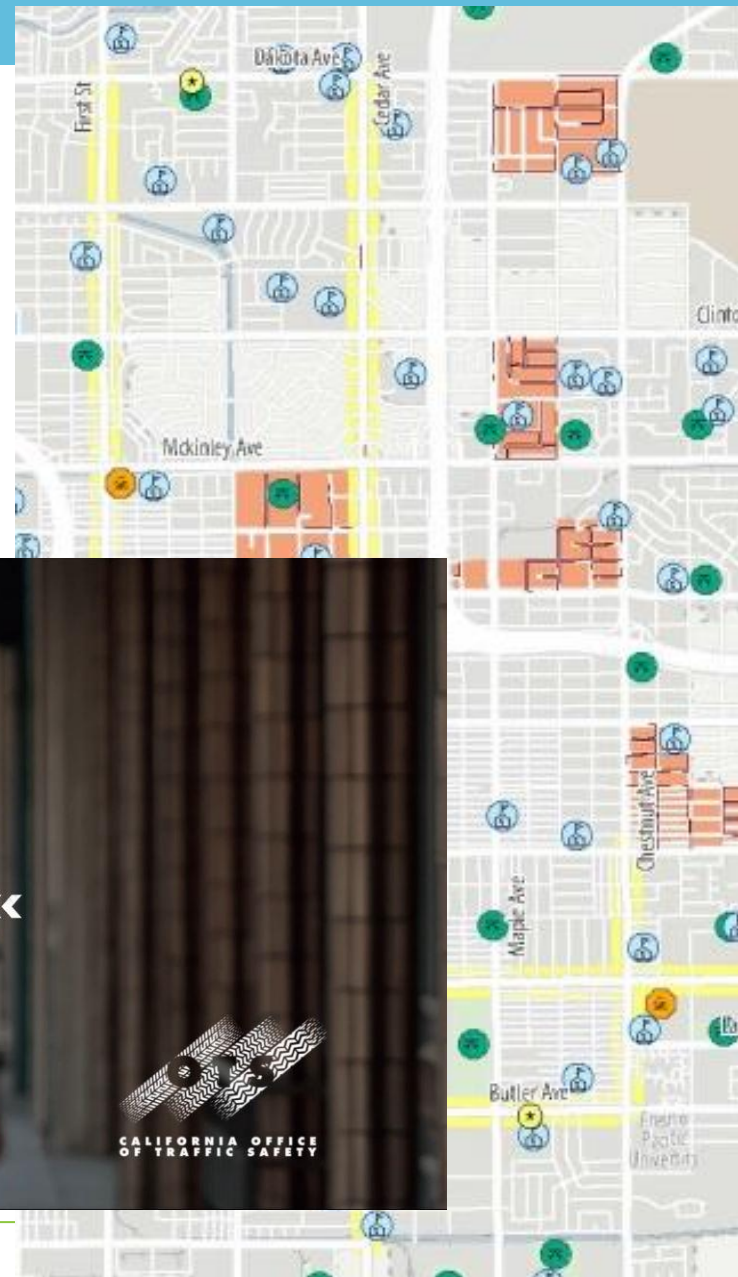
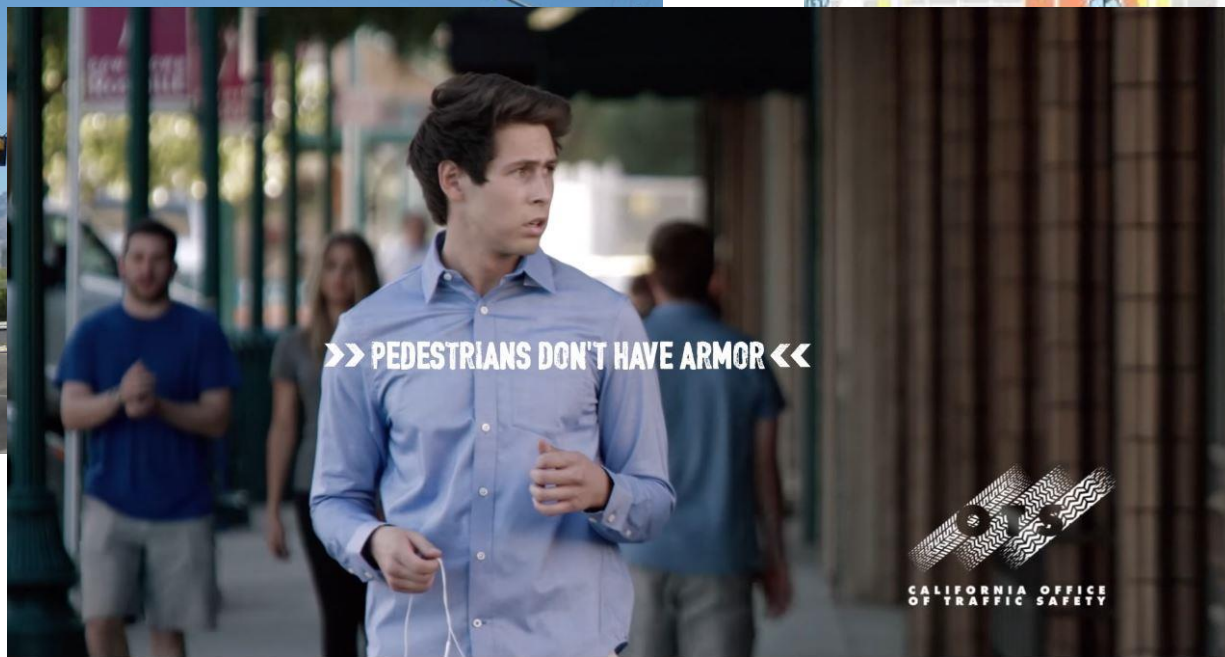
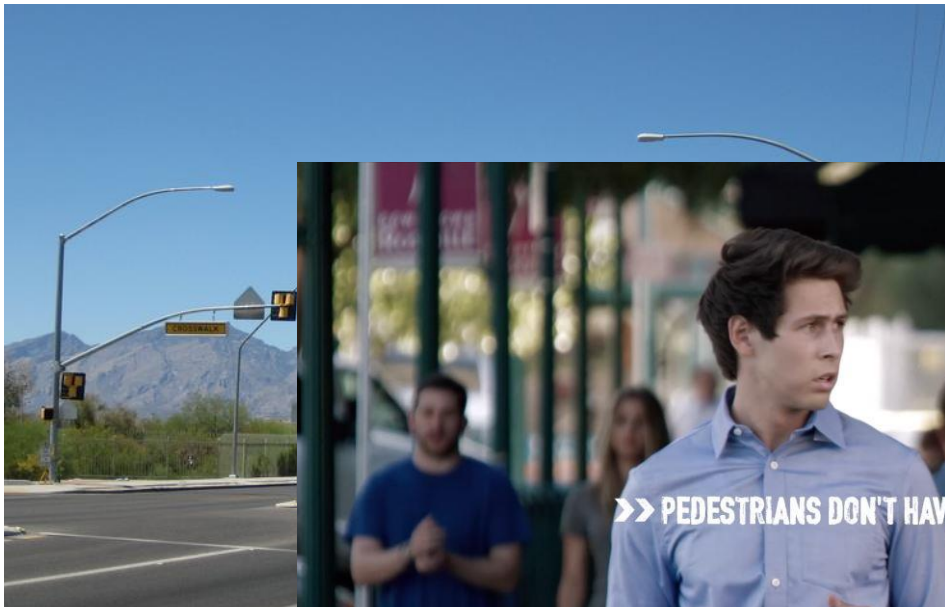
PLANNED NETWORKS

pedestrian improvements



PLANNED NETWORKS

pedestrian improvements



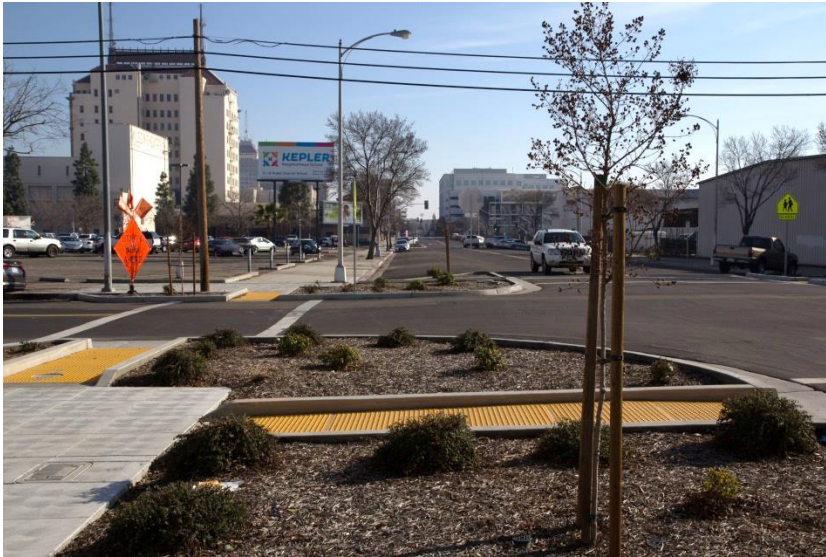
ENHANCED TREATMENTS

pedestrian treatments



ENHANCED TREATMENTS

pedestrian treatments



ENHANCED TREATMENTS

bicycle treatments



ENHANCED TREATMENTS

bicycle treatments

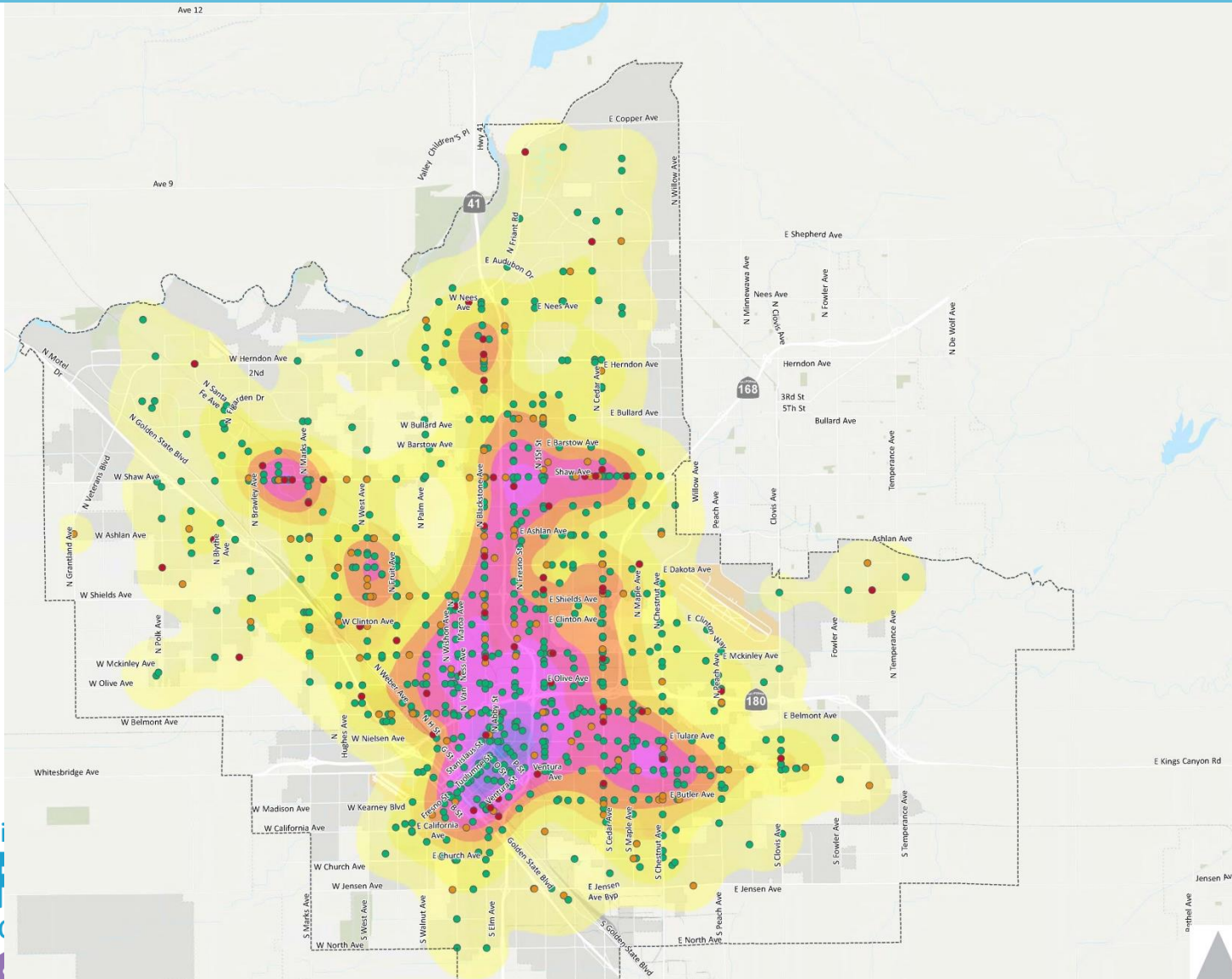


ACTIVE TRANSPORTATION PLAN

differences with bicycle master plan

- » Focuses on near term priority network
- » Pedestrian network
- » Equity is a driving factor

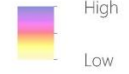
PEDESTRIAN COLLISIONS



Collisions Involving a Pedestrian (2009-2014)

- Fatal
- Severe Injury
- Other

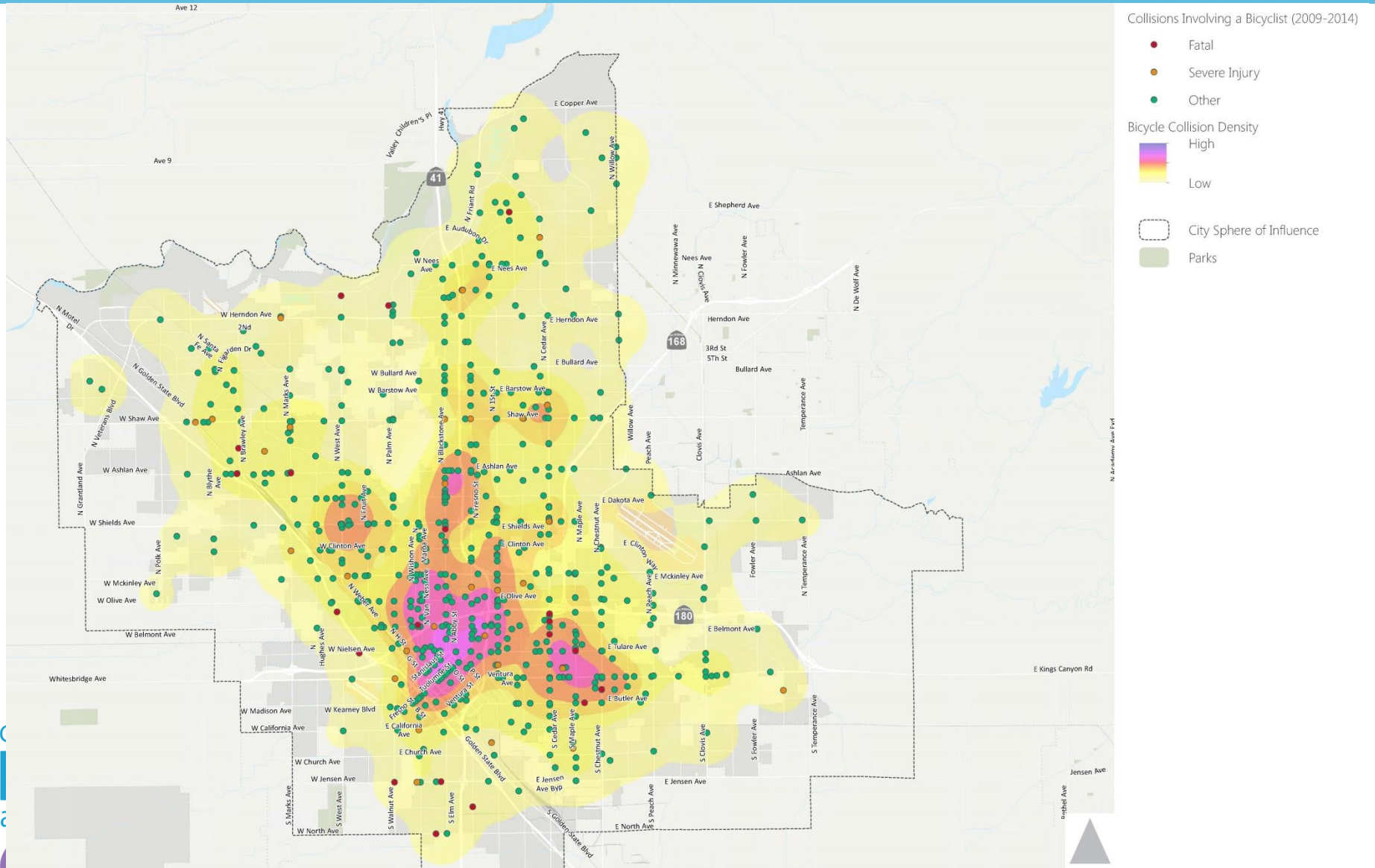
Pedestrian Collision Density



- City Sphere of Influence
- Parks



BICYCLE COLLISIONS



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PLAN IMPLEMENTATION

PLAN IMPLEMENTATION

implementing ^{the} planned networks

- As part of development on adjacent properties through development code & city standards
- In conjunction with maintenance and roadway projects
- Specific active transportation projects, such as Midtown Trail

PLAN IMPLEMENTATION

estimating ^{the} cost

- “Planning-level” cost estimate; not necessarily direct cost to City as some may be constructed by development

Type	High Priority	Medium Priority	Low Priority	Total
Bikeways (incl. trails)	\$89.8 million	\$264 million	\$602 million	\$955.8 M
Sidewalks	\$24.9 million	\$94 million	\$247 million	\$365.9 M
Total	\$114.7 M	\$358 M	\$849 M	\$1,321.7 M