

MEMORANDUM

Date: May 6, 2016

To: Kristine Cai, Fresno Council of Governments

From: Carrie Carsell, Rod Brown, and Fred Choa, Fehr & Peers

Subject: *Transportation Connectivity and Accessibility Analysis*

RS15-3365

INTRODUCTION

Availability and accessibility of transportation, in all its modes, has a major impact on the quality of life for the residents of Fresno County. Affordable and accessible transportation options allow residents to shop for necessities, attend school, visit the doctor, and conduct other key aspects of life without excessively draining household budgets or taking up large portions of time.

Additionally, easily available options for non-motorized transportation modes such as biking and walking can directly encourage healthy habits that improve communities. Therefore, Fresno COG created the Transportation Needs Assessment project to address significant accessibility problems within Fresno County, with a particular focus on disadvantaged communities.

Task 1 of this project analyzed bicycle and trail facilities in the region, identified gaps between local jurisdictions, and recommended projects to remedy these gaps. The results of this analysis were presented in the "Regional Gap Analysis for Bicycle and Trail Facilities" memorandum dated March 11, 2016. Task 2 of this project complements the results of task 1 by analyzing the connectivity between communities within the region and ten major regional and sub-regional facilities identified by Fresno COG and the Needs Assessment Committee. This memorandum presents the results of that analysis.

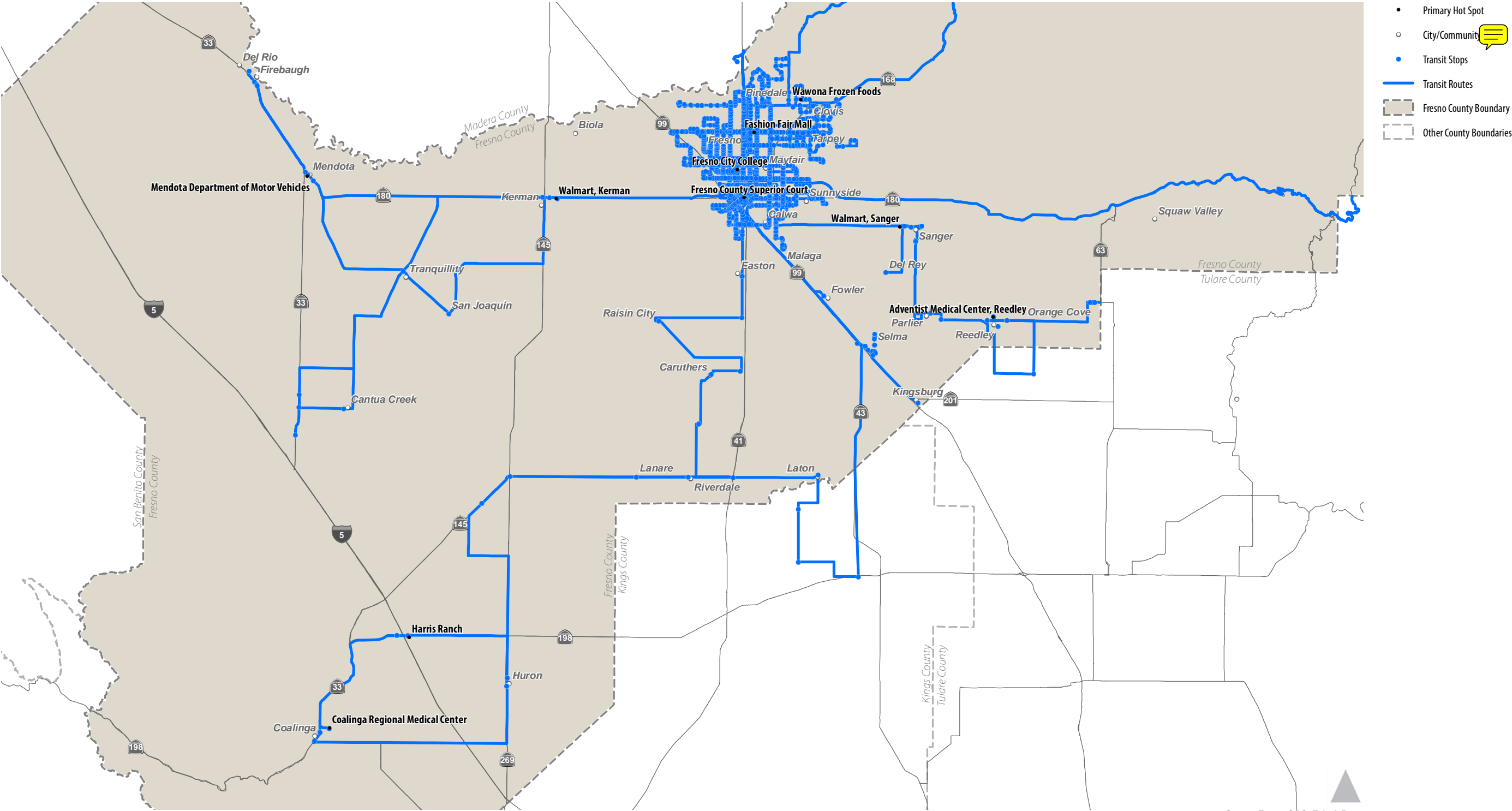
DATA COLLECTION AND MAPPING

Fehr & Peers utilized the data collected for the regional gap analysis for this connectivity and accessibility analysis. These data sources are discussed in the "Regional Gap Analysis for Bicycle and Trail Facilities" memorandum dated March 11, 2016. In addition, we utilized the following additional datasets:

- Transit routes and stops (Figure 1)
- Aerial imagery from Google Maps



Transit Routes and Stops



Source: Fresno COG; Fehr & Peers

MISSING CONNECTIVITY AND BARRIER ANALYSIS

Using this data, Fehr & Peers analyzed the region to identify and prioritize gaps in the trail and bicycle network. There were two main parts of this analysis: a GIS-based analysis of connectivity and a manual review of connections between and through high areas of demand. For each hotspot, this was accomplished by the following steps:

1. We mapped existing connectivity by mode via:
 - a. Sidewalk network
 - b. Transit network and stops
 - c. Trail and bikeway network
 - d. Road network
2. We mapped collision locations for pedestrians, bicycles, and automobiles.
3. For pedestrian and bicycle modes, we evaluated route directness. Route directness is calculated as the ratio of the network distance to the straight line distance ("as the crow flies") from each point to the hotspot.
4. For each mode, we examined the region for missing network connections by reviewing the connectivity maps and examining aerial photos.
 - a. Pedestrian: we reviewed sidewalks within 1.5 miles of each hotspot (limit development discussed below).
 - b. Transit: we reviewed pedestrian connections between the hot spot and the closest bus stop. Additionally, we reviewed the frequency of stops.
 - c. Bicycle: we reviewed connections within six miles of each hotspot (limit development was discussed in "Regional Gap Analysis for Bicycle and Trail Facilities" memorandum dated March 11, 2016).
 - d. Automobile: we reviewed road connections to arterials and highways
5. If enhancements were made that added new pedestrian/bicycle/auto connections, we evaluated the improved route directness. Note that route directness was only evaluated if new connections were made (such as across a railroad track), not if quality or comfort was improved (such as by adding a sidewalk or bike lane).

Development of Walking Distance Threshold

Fehr & Peers performed an investigation to identify appropriate maximum distances that pedestrians are likely to travel to set reasonable bounds on the analysis of the hotspots. There will always be some particularly strong walkers who will have trips longer than nearly any particular distance, but our goal was to capture the behavior of the large majority of the population. We determined a maximum analysis distance of 1.5 miles for bicyclists, which encompasses approximately 90% of trips. This number was calculated as described below.

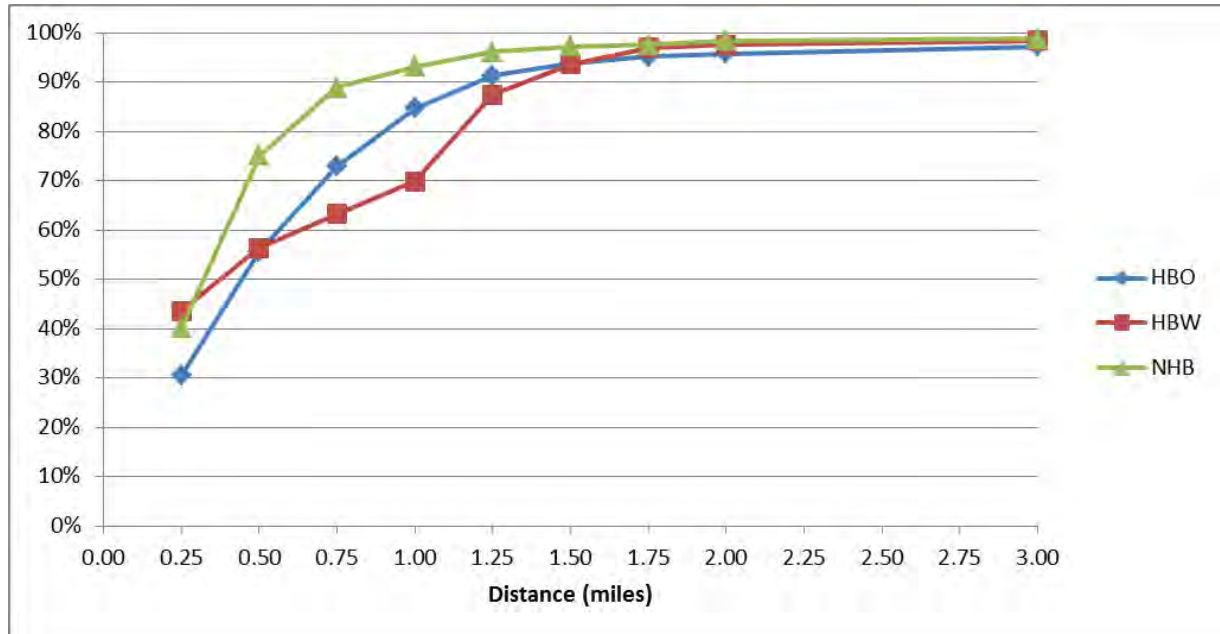
We reviewed the 2012 California Household Travel Survey Data to examine trip distances for walking by trip purpose (home based other (HBO), home based work (HBW), and non-home based (NHB). To gather sufficient data points, we looked at the San Joaquin Valley (SJV) as a whole. A trip distance of 1.5 miles encompasses approximately 90% of both HBW and HBO trips in SJV (data were reviewed to the nearest quarter mile) (shown below). Distances for HBO trips were somewhat shorter, with a distance of 1.5 mile encompassing approximately 97% of trips.

These numbers are significantly longer than the assumed walking limit for most people of 0.25 to 0.5 mile. However, from the CHTS data, these shorter distances appear to be more medians than maximums.

Additionally, 1.5 miles encompasses a 30 minute walking trip at the typical average walking speed of 3.1 mph (or 1.55 miles).

Therefore we used 1.5 miles as a practical walking distance limit for our analysis. For transit trips, we used a 0.75 mile walking limit between the bus stop and hotspot due to likely walking at both transit ends and time associated with the bus trip itself.

Cumulative Walk Trips



TRAVELSHED ANALYSIS

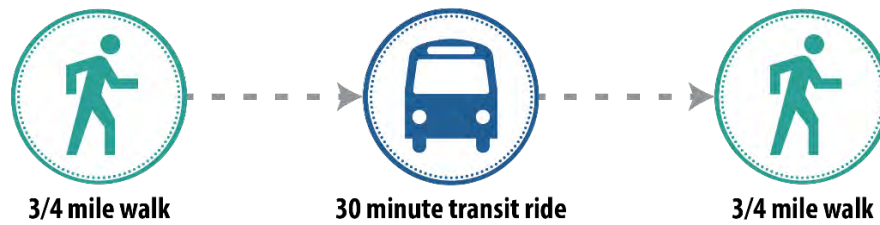
Using the parameters described above, we evaluated total connectivity for pedestrian, bicycle and transit modes for each of the analysis locations. This connectivity can be depicted as the walkshed, bikeshed, and transitshed for each location.

For the first portion of this task, we calculated a network service area for each mode. A network service area is a region that encompasses all accessible streets for a mode. Using this function on the current roadway system, we created directly calculated the walkshed for each hotspot using the maximum walking distance of 1.5 miles. Similarly, we calculated the bikeshed for each hotspot using the maximum bicycling distance of 6 miles.

To calculate the transitshed for each hotspot, we considered three trip legs:

- the walking distance from the start of the trip to the embarkation bus stop, using a 0.75-mile walking distance limit as describe above
- the distance of the transit ride on the transit network, from the embarkation bus stop to the disembarkation bus stop, using a 30-minute trip length
- the walking distance from the disembarkation bus stop to the end of the trip, using a 0.75-mile walking distance limit as describe above.

Transit Trip Legs



We completed this calculation for each hotspot as follows:

- First, we created a 0.75-mile buffer around the hotspot location. All transit stops that fell inside this buffer were used as our starting points for the next step.
- Next, using those starting points, we determined a service area along the transit routes network using a bus travel distance of 15 miles in rural regions or 7 miles in urban regions. These distances are estimates for a 30-minute transit ride.
- Lastly, we selected all of the transit stops that fell inside this service area, and created another 0.75-mile buffer for each.

PROJECT IDENTIFICATION

Using the trip distance analysis described above, we identified specific projects to improve connectivity and safety for each mode. We then prioritized the projects as high, medium, or low priority by considering the following factors:

- Relative improvement created in connectivity
- Collisions associated with location
- Disadvantaged community status

Each hotspot is discussed below, including detailed summary sheets. Each summary sheet includes:

- Existing pedestrian, bicycle, transit, and auto facilities.
- Route directness under existing conditions.
- Assessment of disadvantaged community status based on CalEnviroScreen 2.0 and median household income.
- Findings and recommendations, including prioritized (high/medium/low) projects.
- If enhancements were made that added new pedestrian/bicycle/auto connections, route directness after completion of recommended project connections. Note that this parameter was only evaluated if new connections were made (such as across a railroad track), not if quality or comfort was improved (such as by adding a sidewalk or bike lane).

A web-based story map with a guided explanation of the steps in this analysis is also available at [XX](#).

On-street bike facilities are recommended for many street segments. Class II bike lanes are preferred, but in some cases sufficient street width may not be available. If bike lanes cannot be accommodated, Class III bike routes with sharrows are recommended. Fresno COG is also studying Class IV separated bikeways, which may be an alternative in some locations. That study is expected to be completed by the end of 2016.

Adventist Medical Center, Reedley

The Adventist Medical Center is located on Cypress Avenue in Reedley and serves 12 communities in southern Fresno and Tulare counties in Central California. The medical center's services include large private birth center rooms, a rural health clinic, 24-hour standby emergency care, lab, medical imaging, and surgery services. The medical center is located in the heart of the City of Reedley, with good automobile and transit access, and medium bicycle and pedestrian access. There are several desire lines radiating from the site, denoting where bicyclists and pedestrians prefer access.

Table 1: Recommendations to Improve Adventist Medical Center Connectivity

Mode	Recommendation	Priority
Transit	Add shelters and signage to bus stops near Adventist Medical Center and stops near Reedley College	High
Pedestrian, Bicycle	Add connection from the parking lot to Carob Avenue on the northwest corner of the campus (Desire Line)	High
Pedestrian, Bicycle	Connect west side of parking lot to Kip Patrick Drive/Hope Avenue intersection (Desire Line)	High
Pedestrian	Fill sidewalk gap on north side of Manning Avenue from Frankwood Avenue to 100' east	High
Pedestrian	Fill sidewalk gap on the east side of Reed Avenue from 100' north of Manning Avenue to 130' south of Ponderosa Avenue	High
Pedestrian	Add sidewalks on Frankwood Avenue from Cypress Avenue to North Avenue	High
Bicycle	Fill gaps in on-street bicycle facilities on Frankwood Avenue from Manning Avenue to Cypress Avenue	High
Transit	Add shelters and signage to bus stops near Reedley College	Medium
Bicycle	Add on-street bicycle facilities to East Avenue from Manning Avenue to 11 th Street	Medium
Bicycle	Add on-street bicycle facilities on Reed Avenue within the City limits	Medium

By implementing these recommendations, the region will:

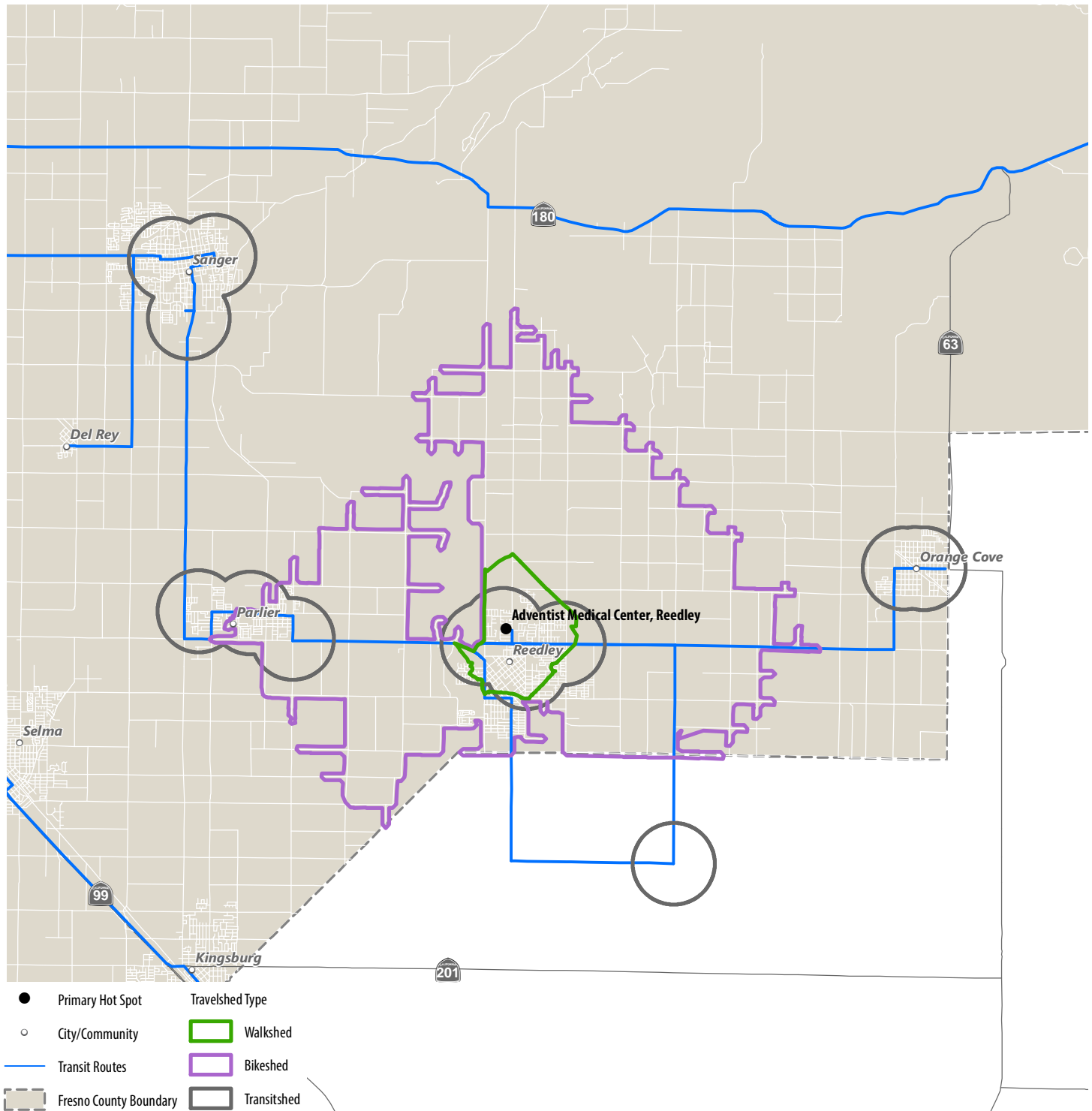
- Improve pedestrian and bicycle access to 25% of parcels within 2 miles
- Add paved pathways for bicyclists and pedestrians
- Reduce walking distance to rural transit stops at Reedley College
- Add shelters to transit stops at the medical center and Reedley College
- Improve bicycle and pedestrian safety and comfort on main roads



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Adventist Medical Center, Reedley



Note: Data shown represents the following:

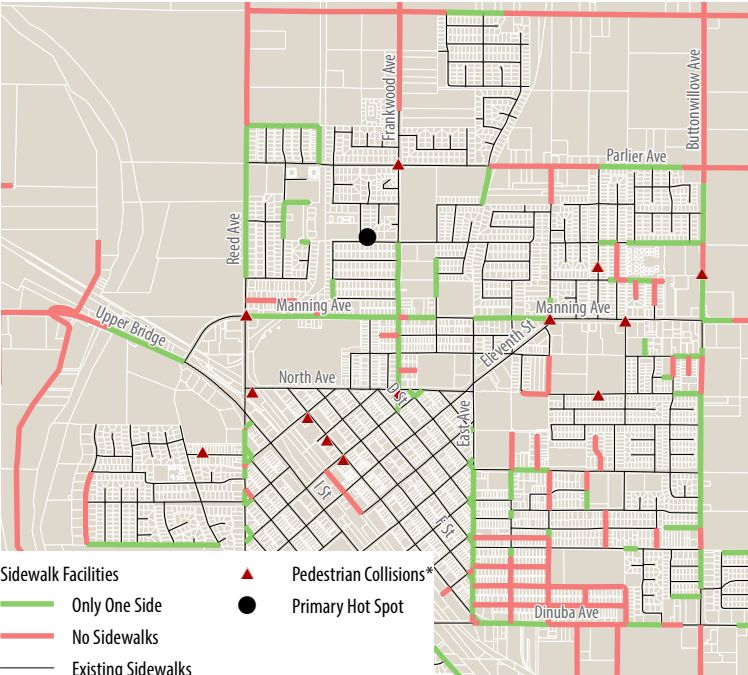
Walkshed is defined as 1.5 miles from primary hot spot, along existing roadway network. Bikeshed is 6 miles from primary hot spot along existing roadway network. Transitshed begins on any transit stop within 3/4 mile of the primary hotspot, and ends 3/4 mile from any transit stop within a 15 mile boundary in rural areas, or a 7 mile boundary in urban areas along existing transit routes network. The 15 and 7 mile boundaries are proxies for a standard 30 minute transit ride threshold in the rural areas and in the urban areas, respectively.

Source: Fresno COG; Fehr & Peers

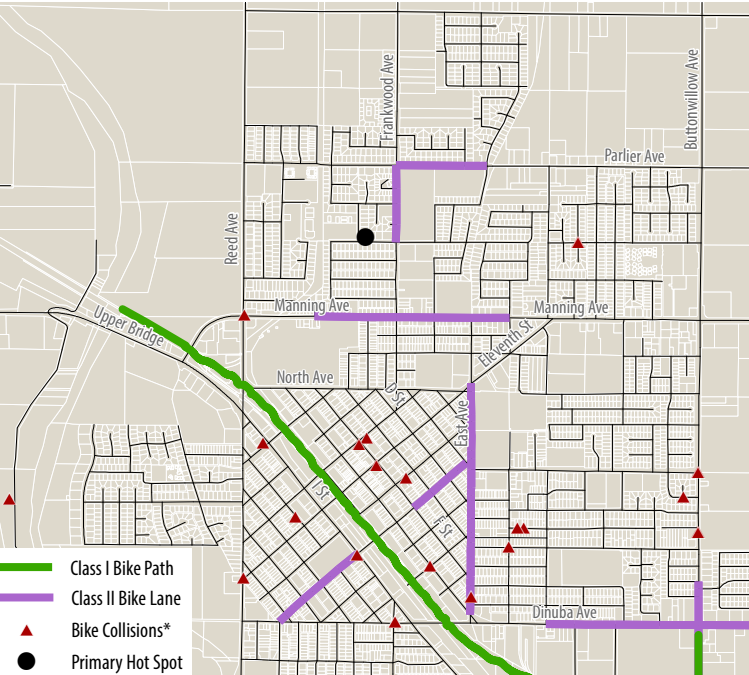


Adventist Medical Center, Reedley

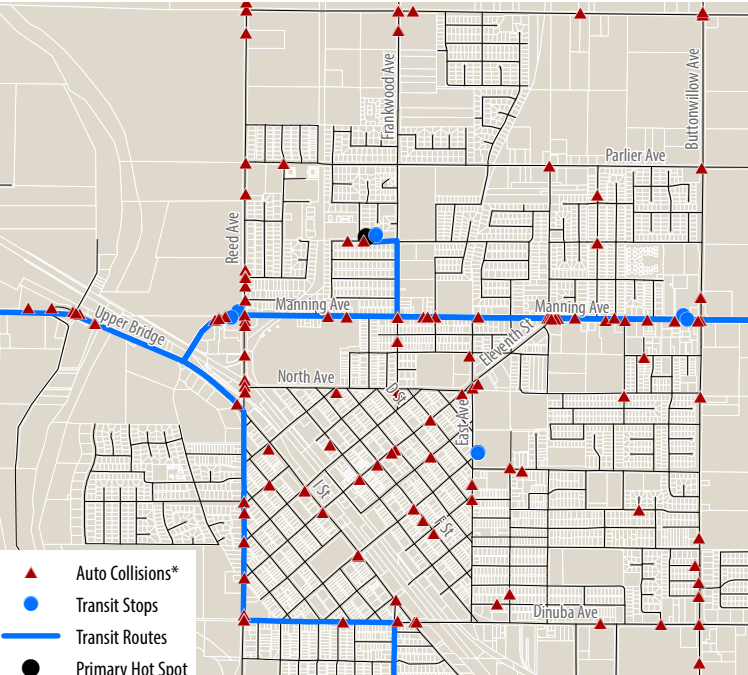
Existing Pedestrian Facilities



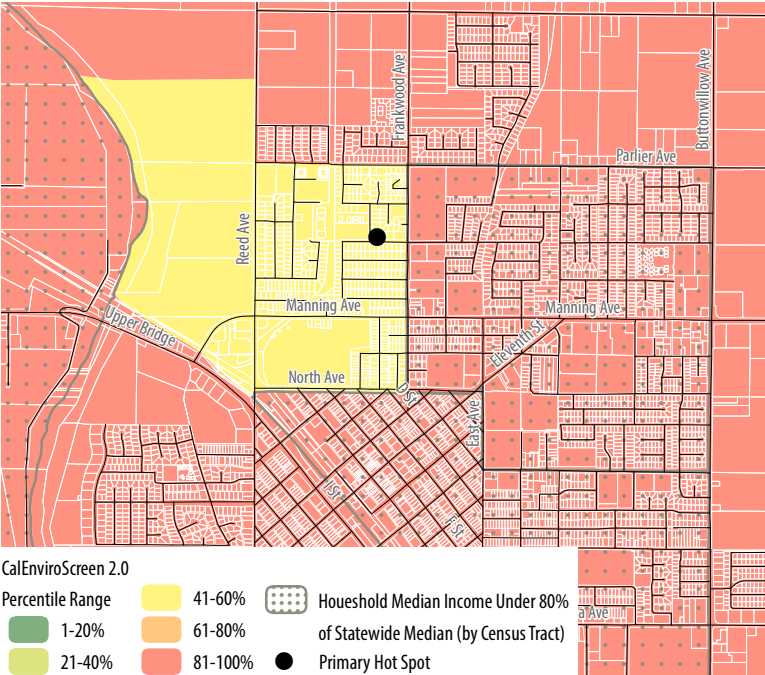
Existing Bike Facilities



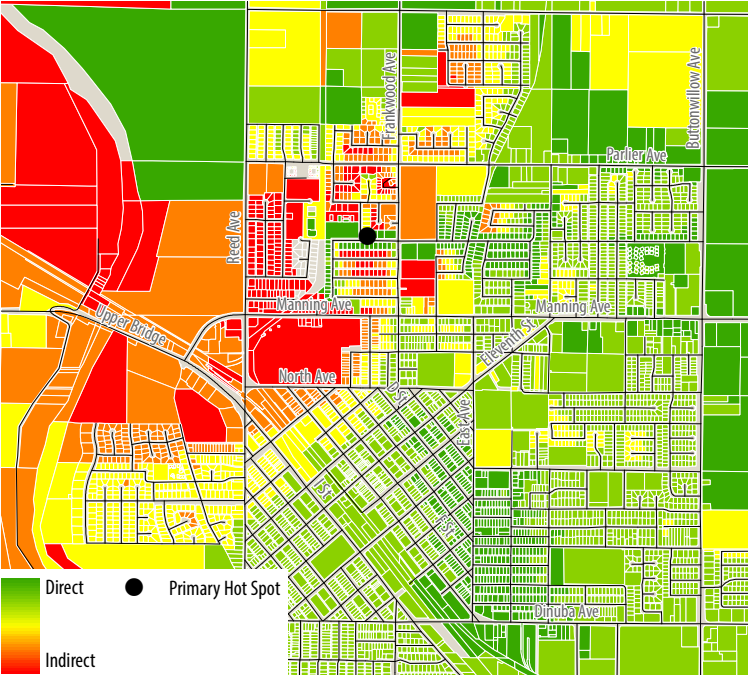
Existing Transit and Auto Facilities



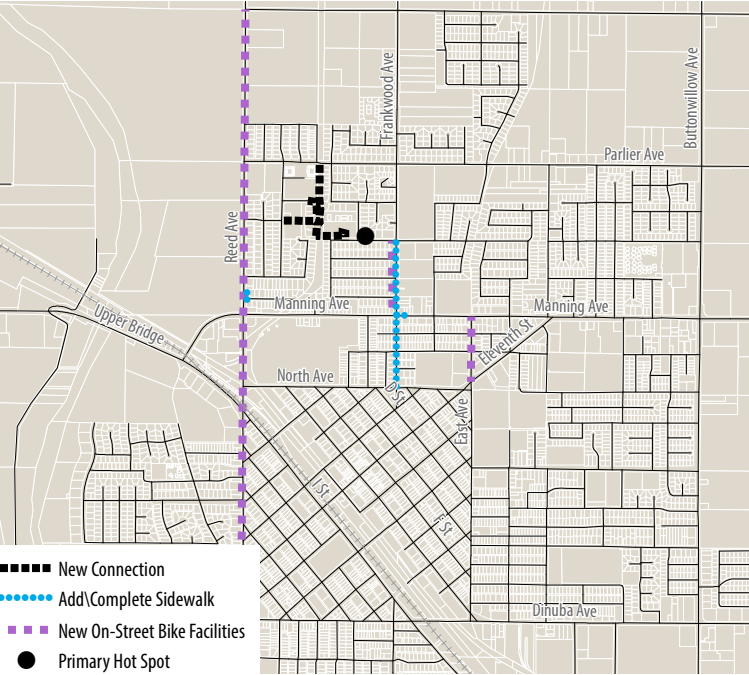
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)

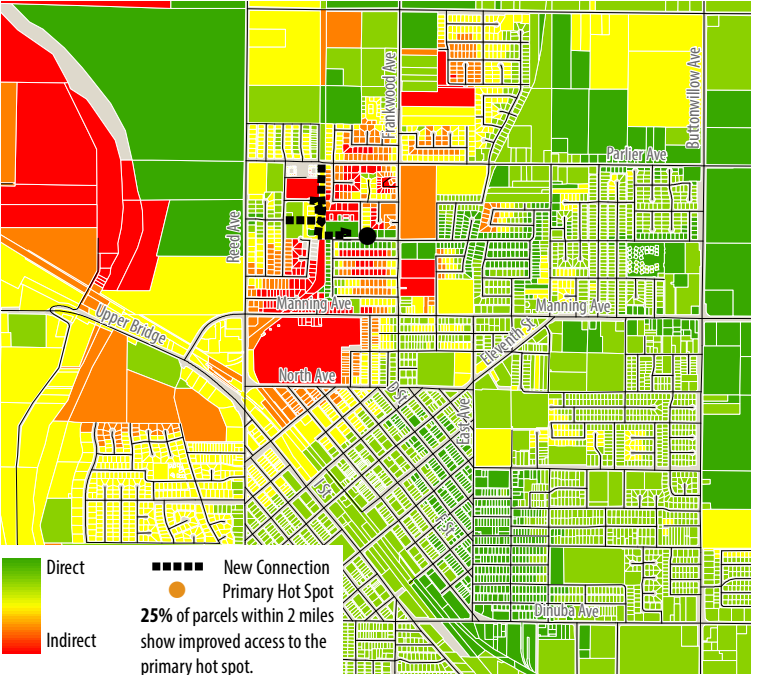


Findings and Recommendations



- *Collisions shown are from 2008-2011. Priority listed in all caps.
- New Bike\Ped Connection:** ■■■■■■
- Add connection from the parking lot to Carob Ave on the northwest corner of the campus - **HIGH**
 - Connect west side of lot to Kip Patrick Dr/ Hope Ave intersection (desire line) - **HIGH**
- Add/Complete Sidewalk:** ●●●●●●
- Fill gap on north side of Manning Ave from Frankwood Ave to east for 100' - **HIGH**
 - Fix sidewalk on the east side of Reed Ave from 100' north of Manning Ave to 130' south of Ponderosa Ave - **HIGH**
 - Add sidewalks on both sides of Frankwood Ave from Cypress Ave to North Ave - **HIGH**
- New On-Street Bike Facilities:** ■■■■■■
- Gaps on Frankwood Ave from Manning Ave to Cypress Ave - **HIGH**
- Transit:**
- Add closer stop to Adventist location - **HIGH**
 - Add shelters and signage to bus stops near Reedley college - **HIGH**
- Auto:**
- Good access to major roadways
 - Parking on location and available nearby
- East Ave from Manning Ave to 11th St to connect to existing facilities - **MEDIUM**
- Reed Ave within City limits - **MEDIUM**

Route Directness with Enhancements



Coalinga Regional Medical Center, Coalinga

The Coalinga Regional Medical Center is located on Phelps Avenue in Coalinga and serves the southwest corner of Fresno County, including the cities of Huron and Coalinga. The Medical Center's services include acute care, emergency care, a skilled nursing facility, industrial medicine, and a rural health clinic. The medical center is located on the edge of the City of Coalinga, with good automobile access and medium bicycle access, but poor pedestrian and transit access. Notably, most of the City of Coalinga is more than a 1.5-mile walk/bike away. There is a transit stop on-site, but it has only two stops per day

Table 2: Recommendations to Improve Coalinga Medical Center Connectivity

Mode	Recommendation	Priority
Transit	Increase transit frequency at medical center, add shelter and bench	High
Pedestrian, Bicycle	Create off-street multi-use bicycle\pedestrian path from Cherry Lane to Walnut Avenue, and from Walnut Avenue to Gregory Way across existing bridge over Los Gatos Creek	High
Pedestrian	Add pedestrian crossing at Gregory Way and Phelps Avenue	High
Pedestrian	Add\complete sidewalk on north side of Phelps Avenue from Medical Center property boundary west to existing sidewalk	High
Bicycle	Add on-street bicycle facility to Van Ness Street from California Street to Elm Avenue (SR 33)	High
Bicycle	Add on-street bicycle facility to Elm Avenue (SR 33) from Polk Street to Phelps Avenue	High
Bicycle	Add on-street bicycle facility to on Phelps Avenue from Posa Chanet Boulevard to Elm Avenue (SR 33)	Medium
Bicycle	Add on-street bicycle facility to Forest Avenue from Polk Street to Houston Street	Medium
Bicycle	Add on-street bicycle facility to Polk Street from Monterey Avenue to Enterprise Parkway	Low

By implementing these recommendations, the region will:

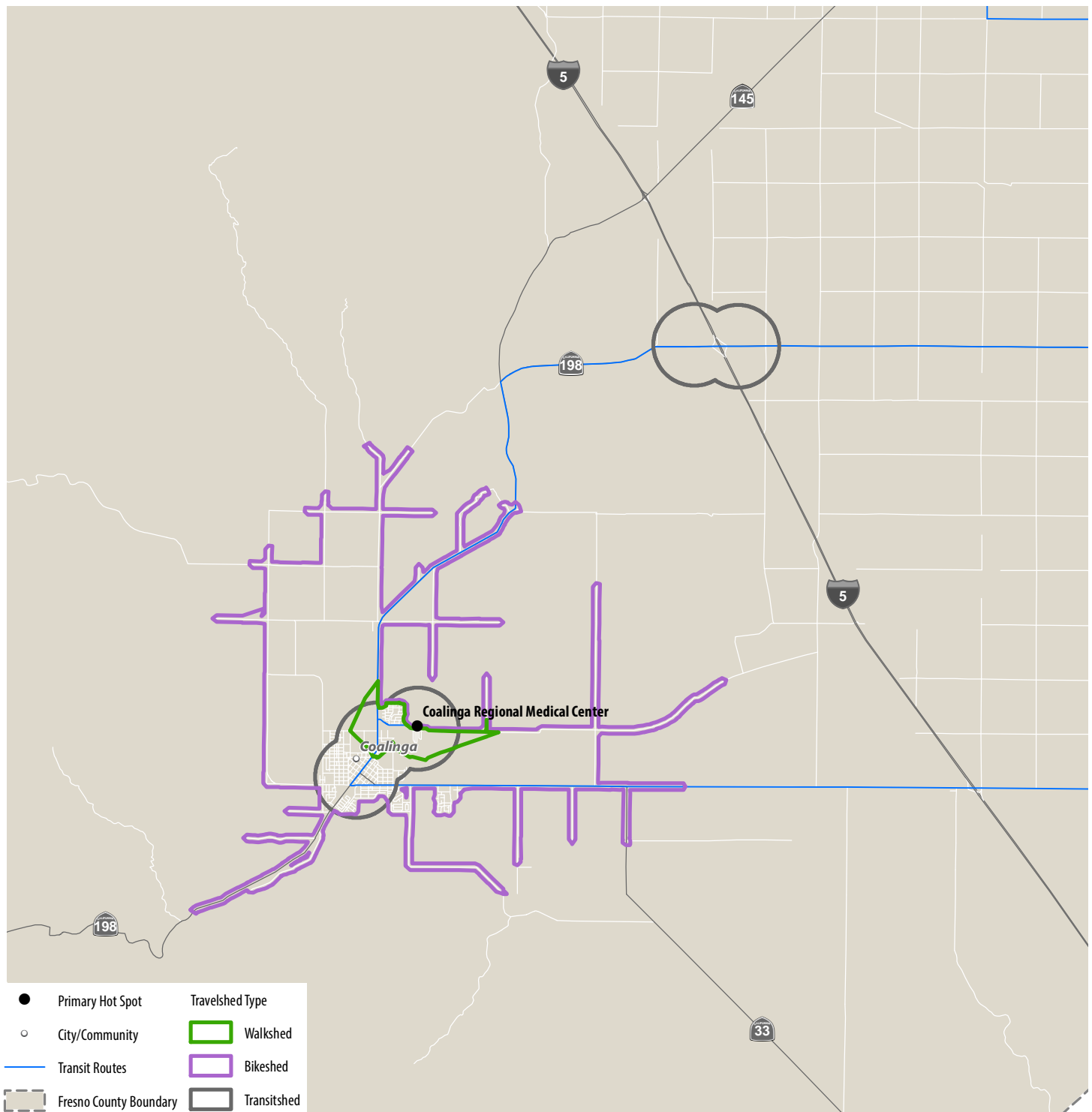
- Provide more frequent transit access to the medical center and improved comfort of riders
- Increase pedestrian and bicycle access to 89% of area parcels, especially the more disadvantaged neighborhoods on the east side of the City of Coalinga
- Improve bicyclist comfort and safety on major roads in the City of Coalinga



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Coalinga Regional Medical Center



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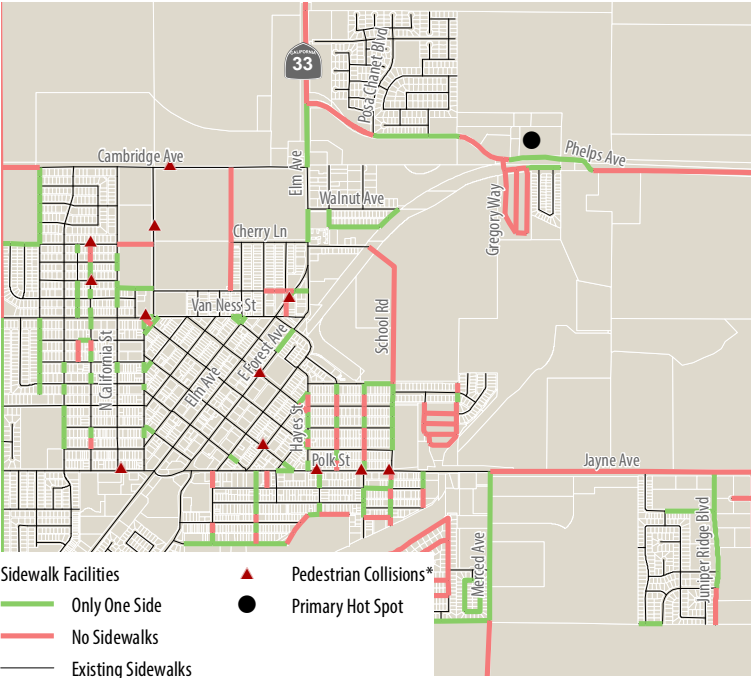
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Source: Fresno COG; Fehr & Peers

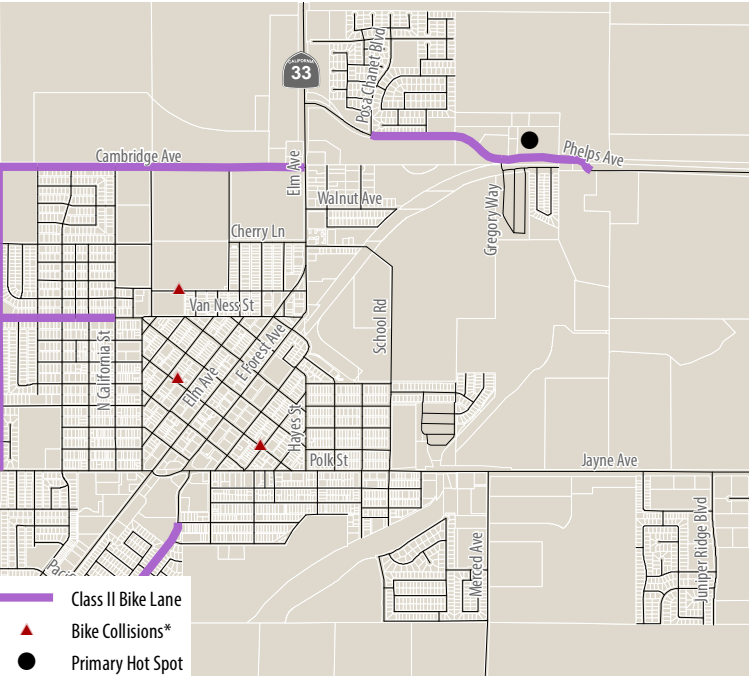


Coalinga Regional Medical Center

Existing Pedestrian Facilities



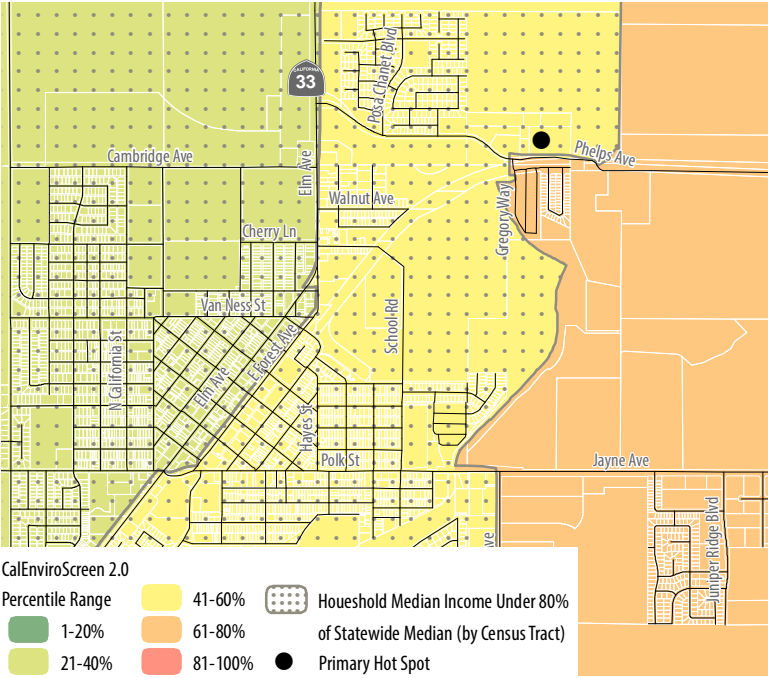
Existing Bike Facilities



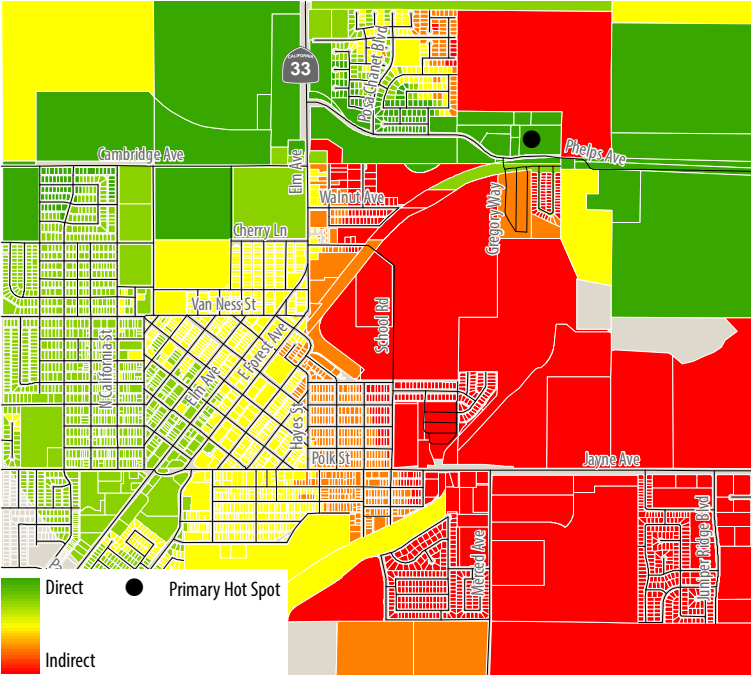
Existing Transit and Auto Facilities



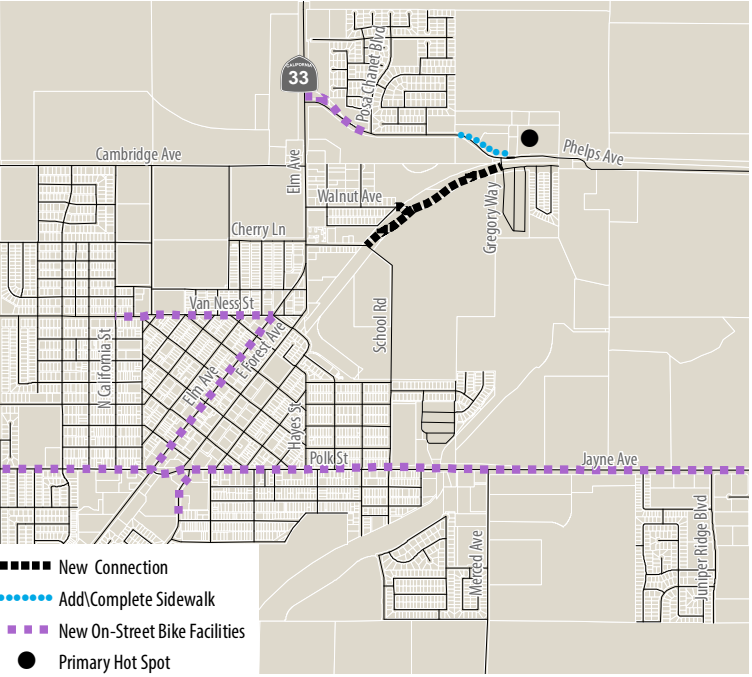
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011. Priority listed in all caps.

New Bike/Ped Connection: - - - - -

- Create off-street multi-use bike/ped path from Cherry Ln to Walnut Ave, and from Walnut Ave to Gregory Wy across existing bridge over Los Gatos Creek - **HIGH**
- Add pedestrian crossing at Gregory Wy and Phelps Ave - **HIGH**

Add/Complete Sidewalk:

- North side of Phelps Ave from Medical Center property boundary west to existing sidewalk - **HIGH**

New On-Street Bike Facilities: - - - - -

- Van Ness St from California St to Elm Ave (SR 33) - **HIGH**
- Elm Ave (SR 33) from Polk St to Phelps Ave - **HIGH**
- Phelps Ave from Posa Chanet Blvd to Elm Ave (SR33) - **MEDIUM**

- Polk St from Monterey Ave to Enterprise Pkwy - **LOW**
- Forest Ave from Polk St to Houston St - **MEDIUM**

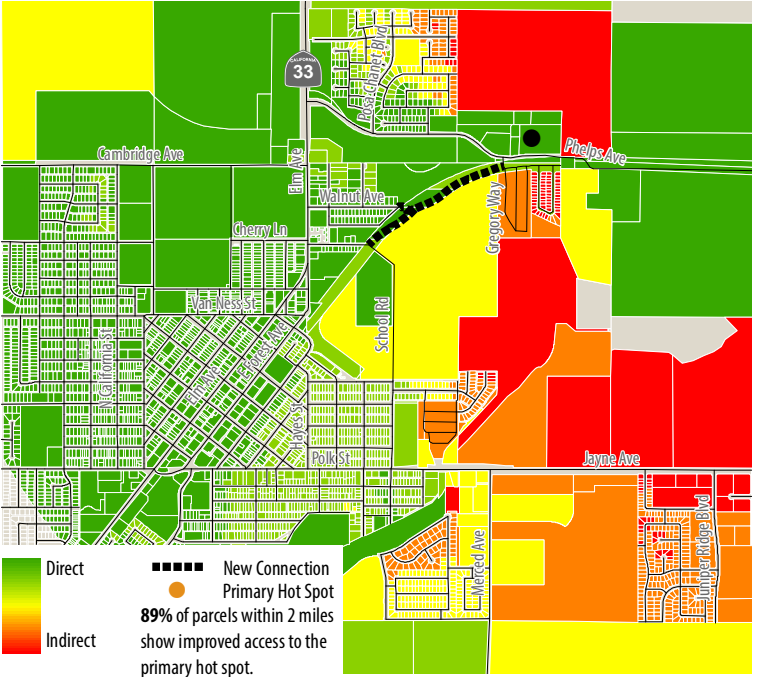
Transit:

- Increase transit frequency at the Medical Center, and add shelter and bench - **HIGH**

Auto:

- Good access to major roadways
- Parking on location and available nearby

Route Directness with Enhancements



Fashion Fair Mall, Fresno

Fresno's Fashion Fair Mall is located on Shaw Avenue near State Highway 41. It has over 963,000 square feet of retail floor area. Major anchor stores include Macy's, Forever 21 and JCPenney. The mall was built in 1970 and underwent a major renovation in 2015. This retail center has a strong regional and local draw. There are transit stops on the east, west and north sides of the mall, and there is bike parking available near a few entrances.

Table 3: Recommendations to Improve Fashion Fair Mall Connectivity

Mode	Recommendation	Priority
Transit	Add shelters to stops at First Street and southeast corner of property near Kaiser Permanente building, and stop on Fresno Street at southwest corner of property	High
Bicycle	Add on-street bicycle facilities to Shaw Avenue from Palm Avenue to Chestnut Avenue	High
Bicycle	Add on-street bicycle facilities to Fresno Street from McKinley Avenue to Sierra Avenue	High
Bicycle	Add on-street bicycle facilities to Blackstone Avenue from Divisadero Street to Herndon Avenue	High
Bicycle	Fill gap in on-street bicycle facilities at Barstow Avenue from Blackstone Avenue to San Pablo Avenue	High
Pedestrian	Add sidewalks inside property line to the north connecting to bus stops at Angus Street and Shaw Avenue	Medium
Pedestrian	Add sidewalks inside property line connecting to bus stops at Fremont Avenue and First Street	Medium
Bicycle	Add on-street bicycle facilities to Maroa Avenue from McKinley Avenue to Barstow Avenue	Medium
Bicycle	Add on-street bicycle facilities to Dakota Avenue from Blackstone Avenue to Maroa Avenue (located 2 miles southwest)	Medium
Bicycle	Add short term bike parking at all entrances, with at least two points of contact that allows both frame and wheel to be locked	Medium
Pedestrian	Fill sidewalk gap on Barstow Avenue west of Maroa Avenue and east of Wilson Avenue (located 1.4 miles west)	Low
Bicycle	Complete Fresno State planned improvements adding Class II Bike Lane on Barstow Avenue between Willow Avenue and Chestnut Avenue; and Class I Path near Barstow Avenue between Chestnut Avenue and Cedar Avenue (located 2.5 miles east)	Low
Bicycle	Add Class I Path connecting Dakota Avenue at Blackstone Avenue with Dakota Avenue at Palm Avenue	Low
Bicycle	Add long-term bike parking	Low

By implementing these recommendations, the region will:

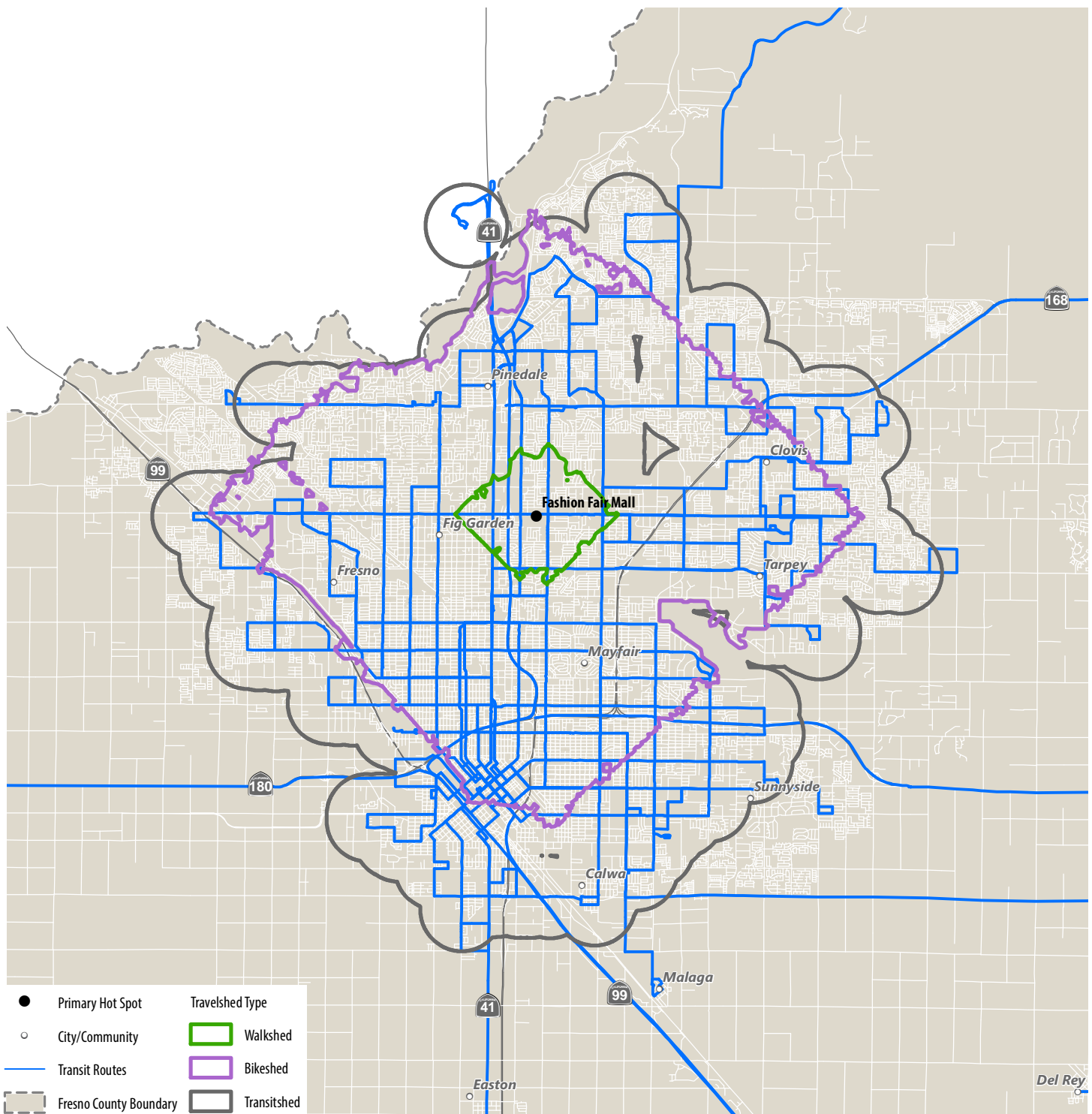
- Improve comfort of transit riders
- Improve bicyclist and pedestrian comfort and safety on major roads near Fashion Fair Mall
- Provide additional security for bicyclists



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Fashion Fair Mall



Note: Data shown represents the following:

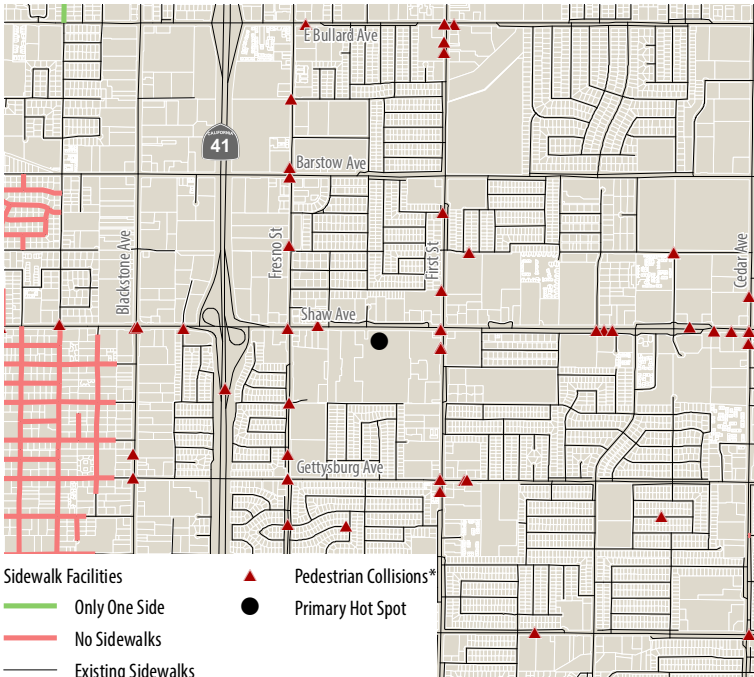
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Source: Fresno COG; Fehr & Peers

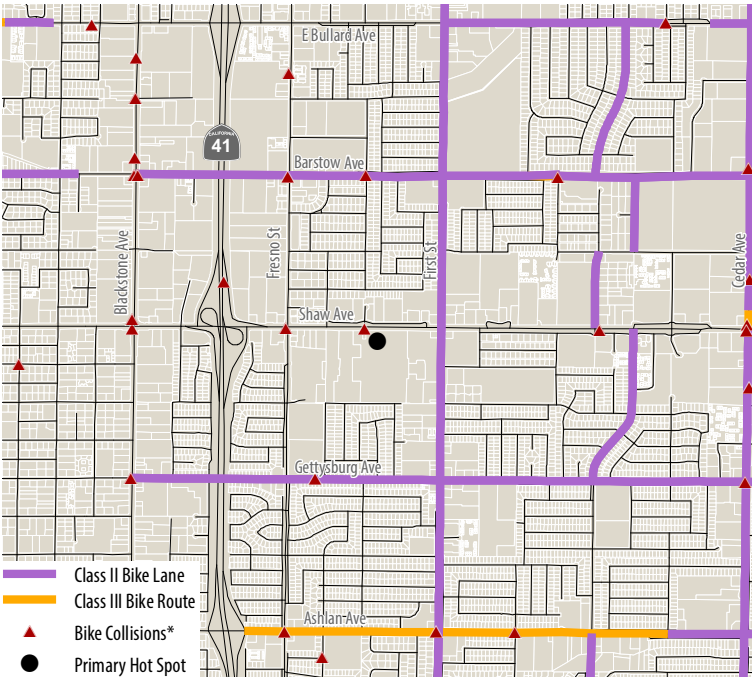


Fashion Fair Mall

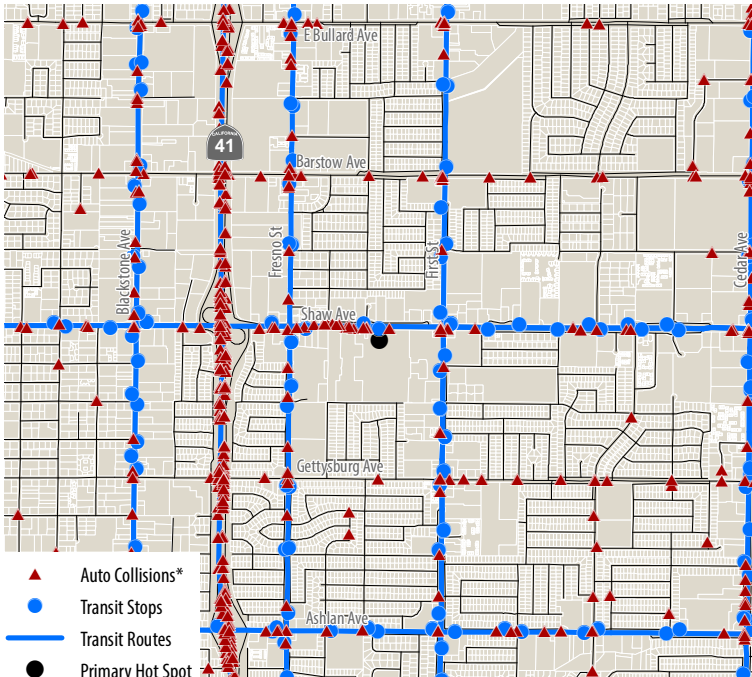
Existing Pedestrian Facilities



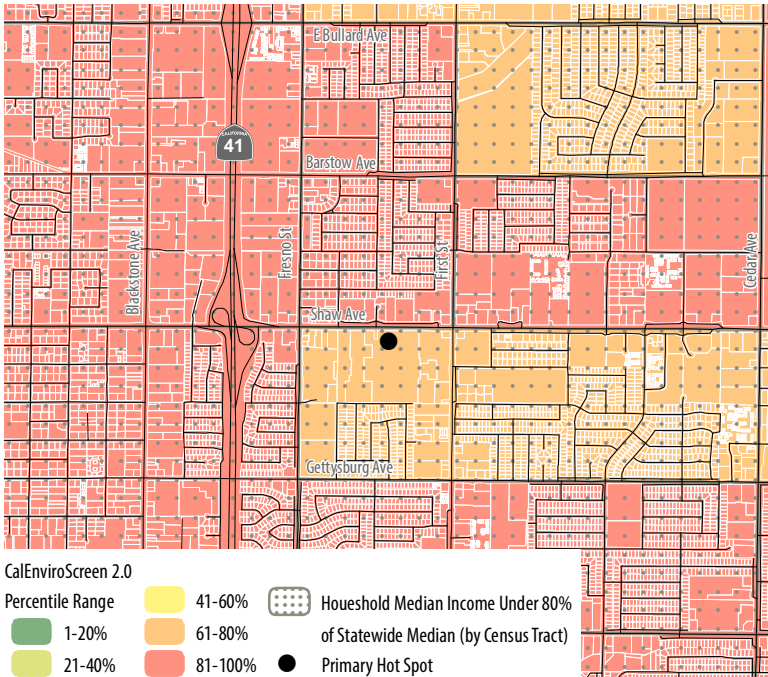
Existing Bike Facilities



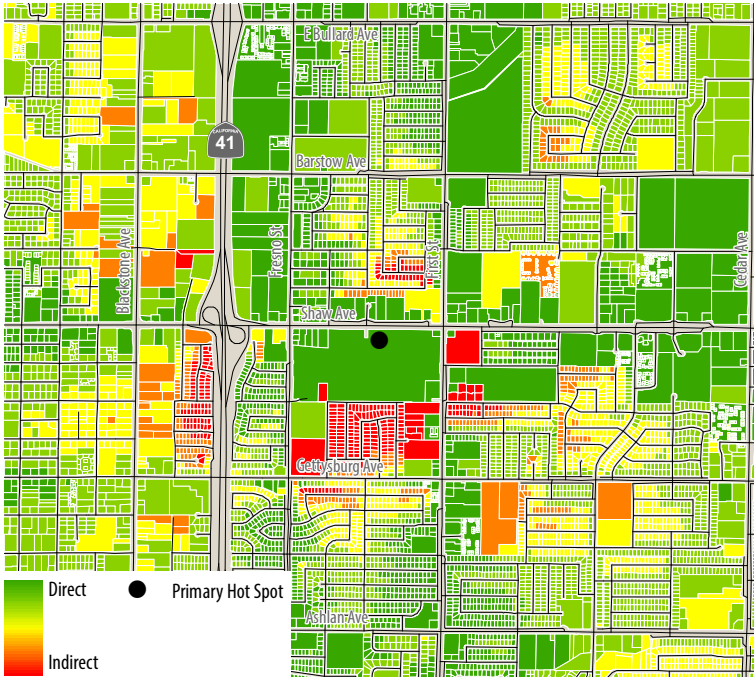
Existing Transit and Auto Facilities



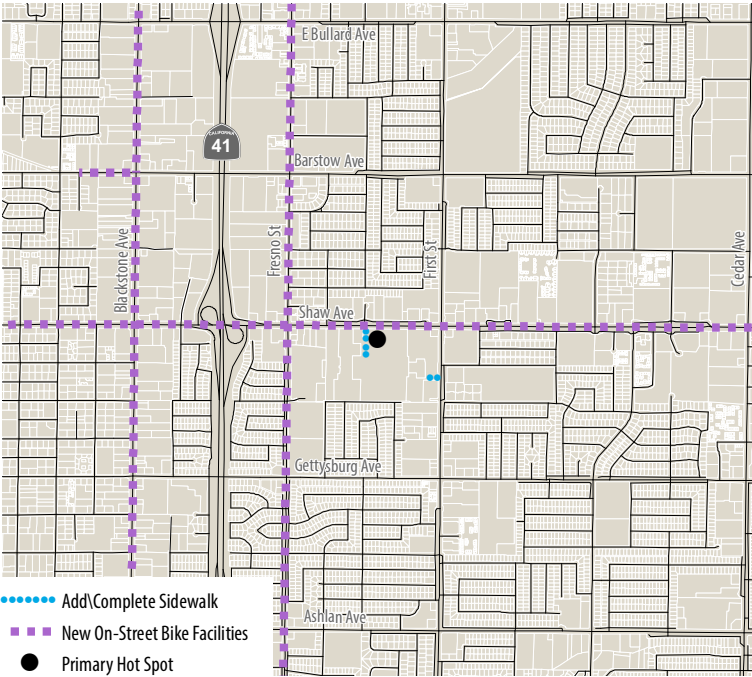
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011. Priority listed in all caps.

Add/Complete Sidewalks:

- Add sidewalks inside property line to the north connecting to bus stops at Angus St and Shaw Ave - **MEDIUM**
- Add sidewalks inside property line connecting to bus stops at Fremont Ave and First Street - **MEDIUM**
- Fill gap on Barstow Ave west of Maroa Ave and east of Wilson Ave (located 1.4 miles west) - **LOW**

Add On-Street Bike Facilities: - - - - -

- Shaw Ave from Palm Ave to Chestnut Ave - **HIGH**
- Fresno St from McKinley Ave to Sierra Ave - **HIGH**
- Blackstone Ave from Divisadero St to Herndon Ave - **HIGH**
- Maroa Ave from McKinley Ave to Barstow Ave - **MEDIUM**
- Fill gap at Barstow Ave from Blackstone Ave to San Pablo Ave - **HIGH**

- Dakota Ave from Blackstone Ave to Maroa Ave (located 2 miles southwest) - **MEDIUM**
- Complete Fresno State planned improvements on Barstow Ave between Willow Ave and Chestnut Ave (located 2.5 miles east) - **LOW**

Other Bike Facilities:

- Class I Path connecting Dakota Ave at Blackstone Ave with Dakota Ave at Palm Ave - **LOW**
- Complete Fresno State planned improvements adding Class I Path near Barstow Ave between Chestnut Ave and Cedar Ave (located 2 miles southwest) - **LOW**
- Add short term bike parking at all entrances, with at least two points of contact that allows both frame and wheel to be locked - **MEDIUM**
- Add long-term bike parking - **LOW**

Transit:

- Add shelter to stop at First St and southeast corner of property in front of Kaiser Permanente building - **HIGH**
- Add shelter to stop ID on Fresno St at southwest corner of property - **HIGH**

Auto:

- Good access to major roadways
- Parking on location and available nearby

Route Directness Enhancements

Not applicable,
no added connections

Fresno City College, Fresno

Fresno City College, located on East University Avenue in Fresno, has the unique distinction of being California's first community college. Established in 1910, their mission includes providing quality, innovative educational programs, and support services directed toward the enhancement of student success, lifelong learning and the economic, social, and cultural development of the students and region. The College has good access to transit, with multiple stops and frequent service. Sidewalk coverage on campus and in adjacent neighborhoods is excellent, with no observed gaps. There are multiple lots available on campus for parking, most requiring permits.

Table 4: Recommendations to Improve Fresno City College Connectivity

Mode	Recommendation	Priority
Bicycle	Add on-street bicycle facilities to McKinley Avenue from Chestnut Avenue to existing facility at Blackstone Avenue	High
Bicycle	Add on-street bicycle facilities to Maroa Avenue from McKinley Avenue to Shields Avenue	High
Bicycle	Add on-street bicycle facilities to Blackstone Avenue from Divisadero Street to Barstow Avenue	High
Bicycle	Add on-street bicycle facilities to Maroa Avenue from Barstow Avenue to Shields Avenue (located 2 miles north)	Medium
Bicycle	Add on-street bicycle facilities to McKinley Avenue from West Avenue to Cornelia Avenue (located 2 miles west)	Low
Bicycle	Add on-street bicycle facilities to Belmont Avenue from Cedar Avenue to H Street (located 1 mile south)	Low
Bicycle	Add on-street bicycle facilities to Fresno Street from McKinley Avenue to Shaw Avenue	Low

By implementing these recommendations, the region will:

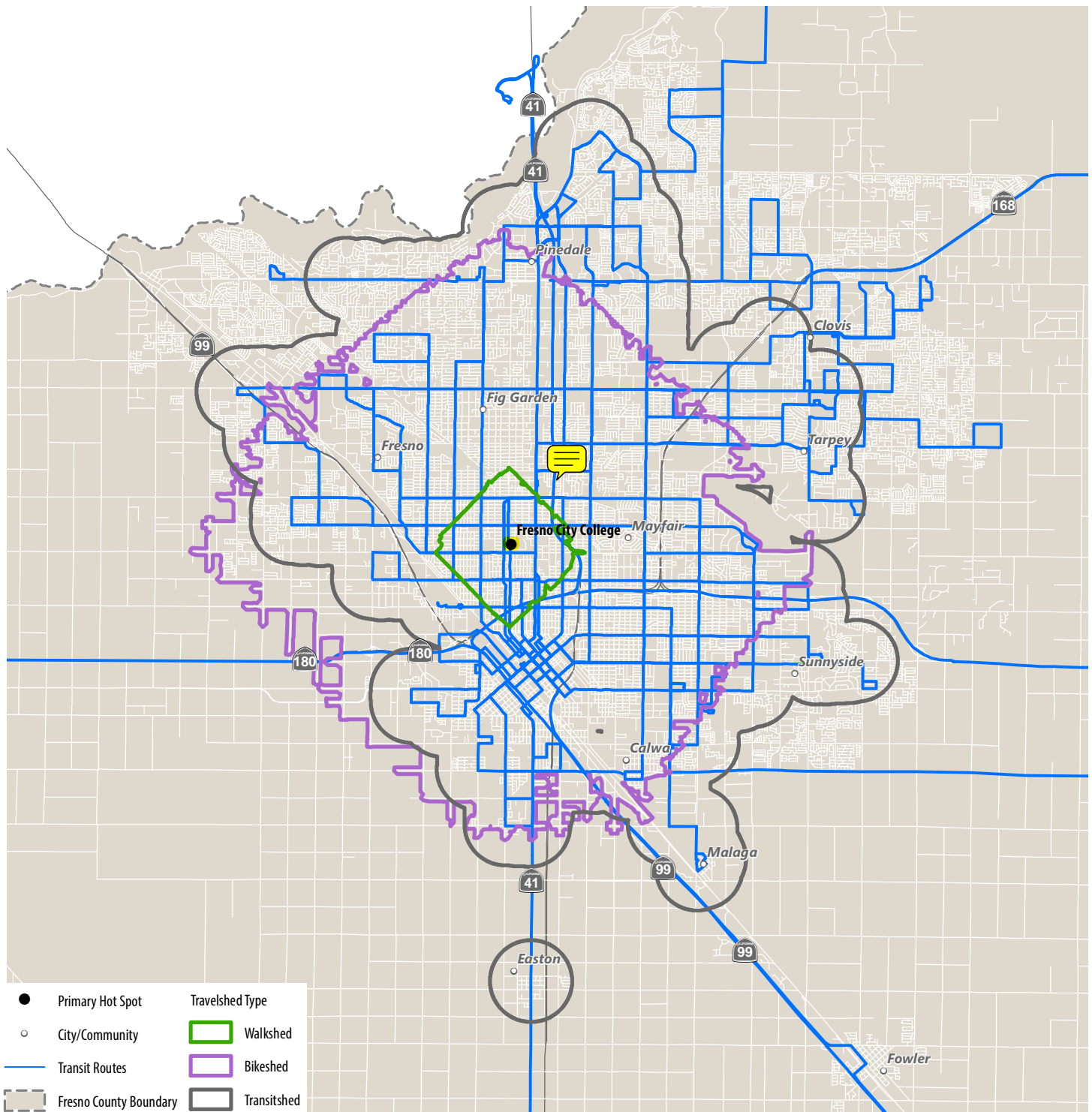
- Improve bicyclist comfort and safety on major roads near Fresno City College



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Fresno City College



Note: Data shown represents the following:

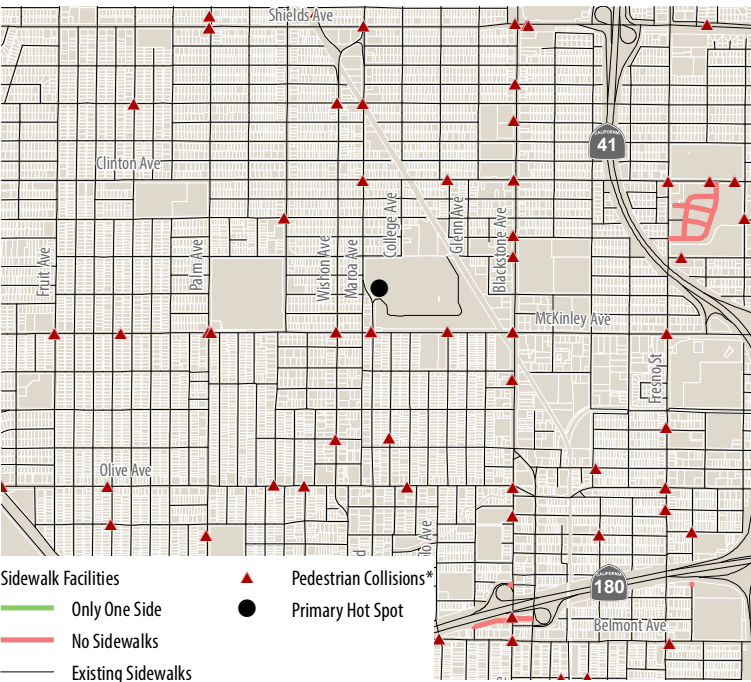
Walkshed is defined as 1.5 miles from primary hot spot, along existing roadway network. Bikeshed is 6 miles from primary hot spot along existing roadway network. Transitshed begins on any transit stop within 3/4 mile of the primary hotspot, and ends 3/4 mile from any transit stop within a 15 mile boundary in rural areas, or a 7 mile boundary in urban areas along existing transit routes network. The 15 and 7 mile boundaries are proxies for a standard 30 minute transit ride threshold in the rural areas and in the urban areas, respectively.

Source: Fresno COG; Fehr & Peers

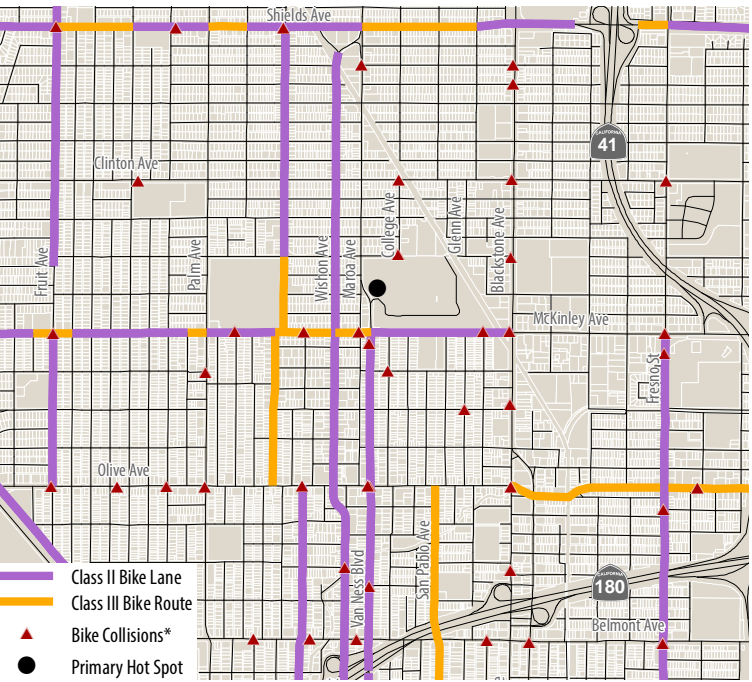


Fresno City College

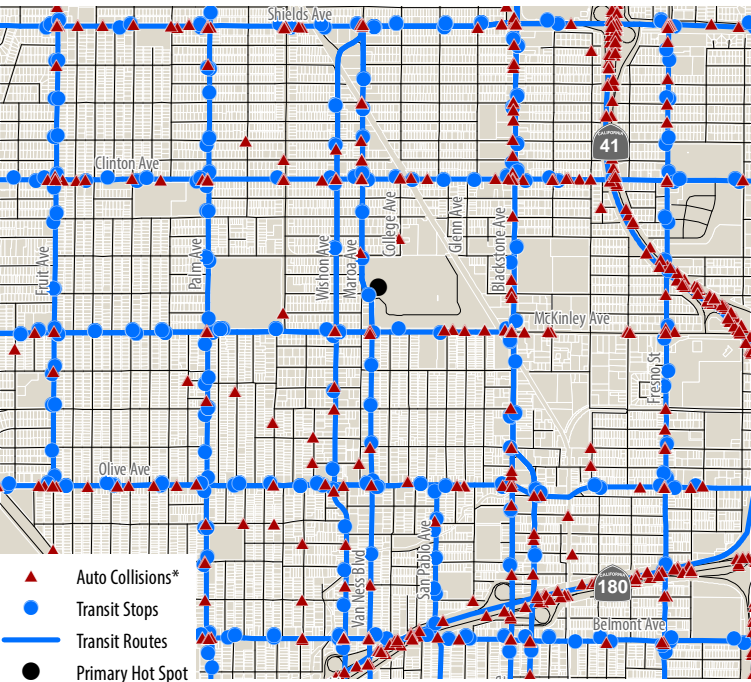
Existing Pedestrian Facilities



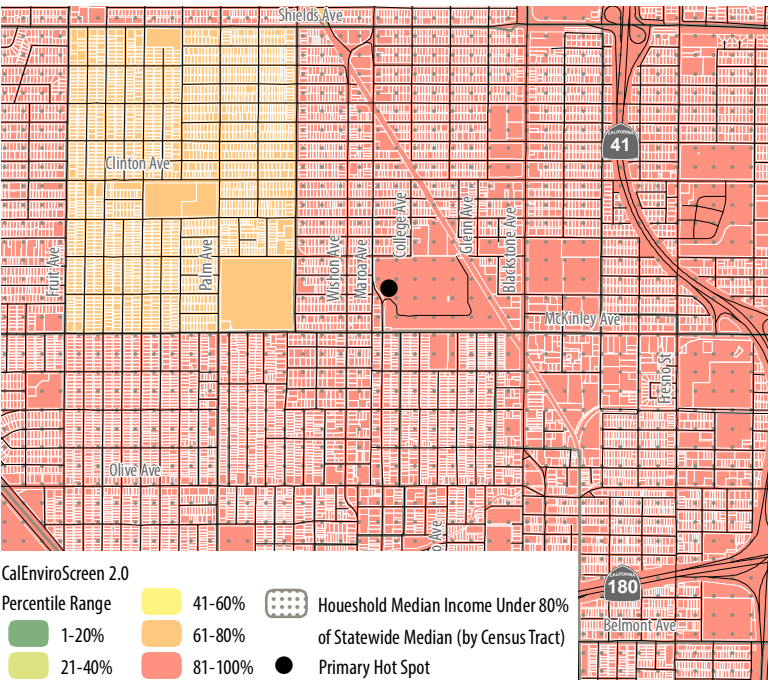
Existing Bike Facilities



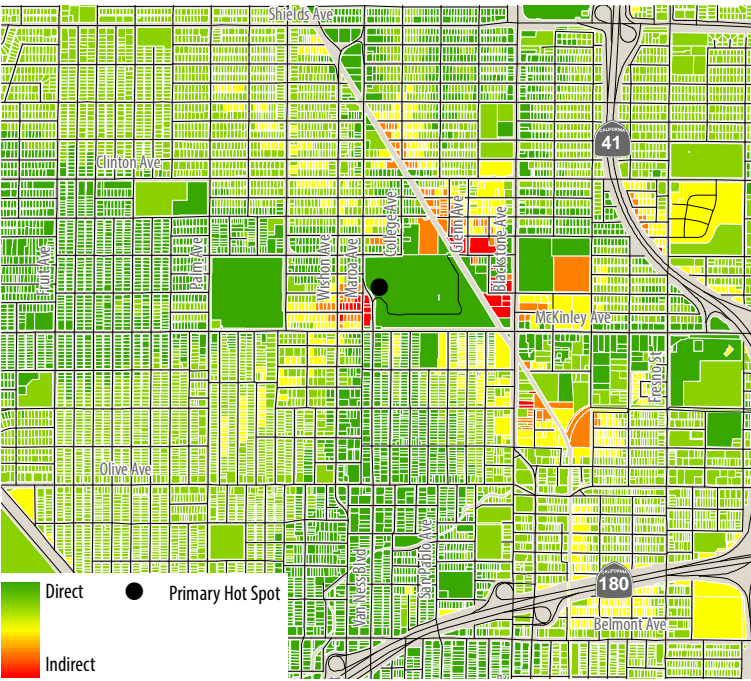
Existing Transit and Auto Facilities



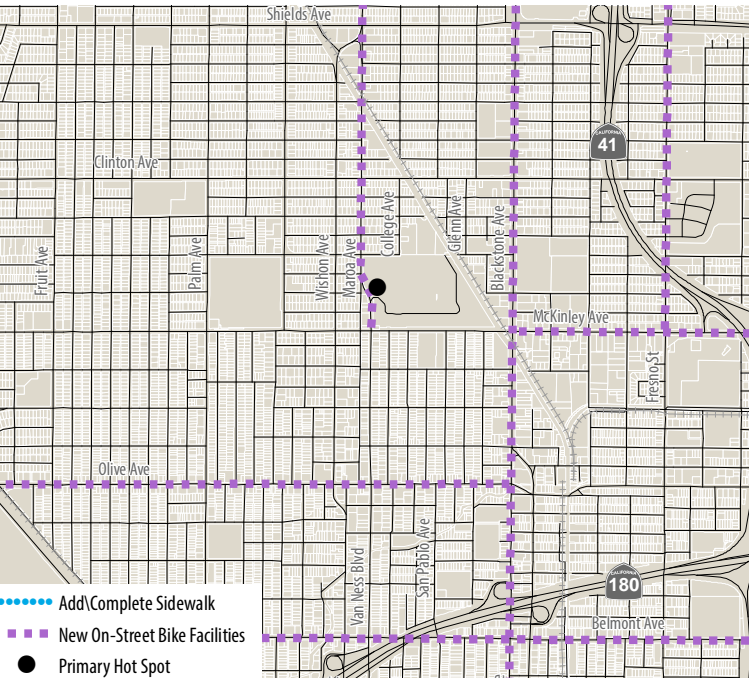
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011.
Priority listed in all caps.

Sidewalk:

- Good coverage

Add On-Street Bike Facilities:

- McKinley Ave from Chestnut Ave to existing facility at Blackstone Ave - **HIGH**
- McKinley Ave from West Ave to Cornelia Ave (located 2 miles west) - **LOW**
- Maroa Ave from McKinley Ave to Shields Ave - **HIGH**
- Maroa Ave from Barstow Ave to Shields Ave (located 2 miles north) - **MEDIUM**
- Blackstone Ave from Divisadero St to Barstow Ave - **HIGH**
- Belmont Ave from Cedar Ave to H St (located 1 mile south) - **LOW**
- Fresno St from McKinley Ave to Shaw Ave - **LOW**

Transit:

- Good access
- Multiple stops and frequent service

Auto:

- Good access to major roadways
- Parking on location and available nearby

Route Directness Enhancements

Not applicable,
no added connections

Fresno County Superior Court, Fresno

Fresno Superior Court is located in the heart of downtown Fresno on Van Ness Avenue, and is located in the center of a block bounded by Van Ness Avenue, Tulare Street, M Street and Fresno Street. The types of cases heard at the court are criminal, domestic violence, drug court, juvenile dependency hearings and traffic violations; and this location is one of the main courthouses for the entire county of Fresno. There is childcare available free of charge. This building shares its block with the Fresno County Sheriff's Office. There is excellent coverage via transit, with multiple stops and frequent daily service. The area has good coverage for pedestrians as well, with complete sidewalk coverage and high visibility crosswalks. Parking is available in a garage and on nearby streets.

Table 5: Recommendations to Improve Fresno County Superior Court Connectivity

Mode	Recommendation	Priority
Pedestrian	Fill gap in sidewalk on Tulare Street from rail crossing to G Street	High
Pedestrian	Fill gap in sidewalk on Kern Street across rail crossing	High
Bicycle	Modifications from the Fresno Active Transportation Plan, the High Speed Rail Station Plan, and the Downtown Plan will change bicycle networks in this area this area.	N/A

By implementing these recommendations, the region will:

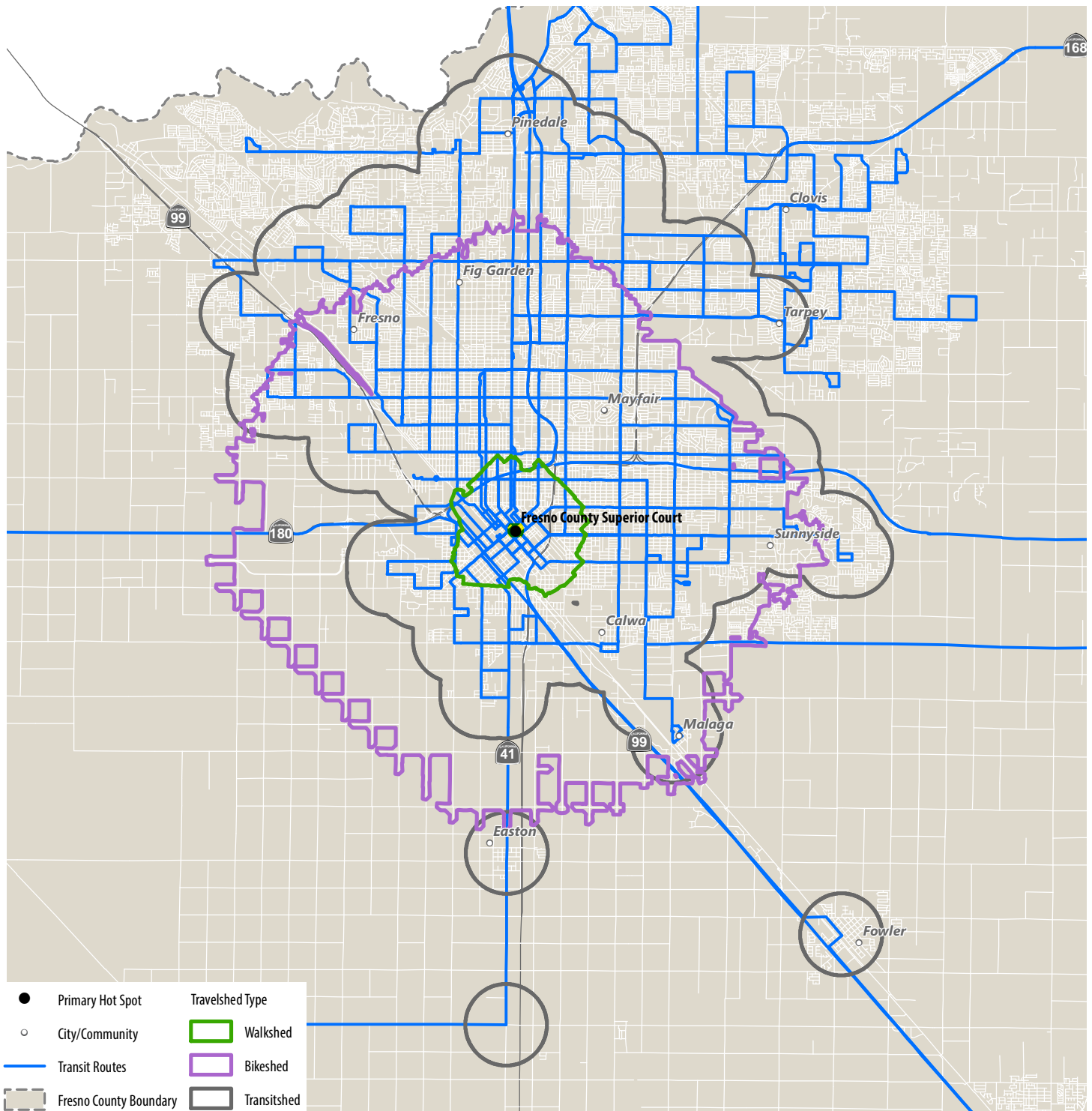
- Improve pedestrian connectivity across rail tracks



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Fresno County Superior Court



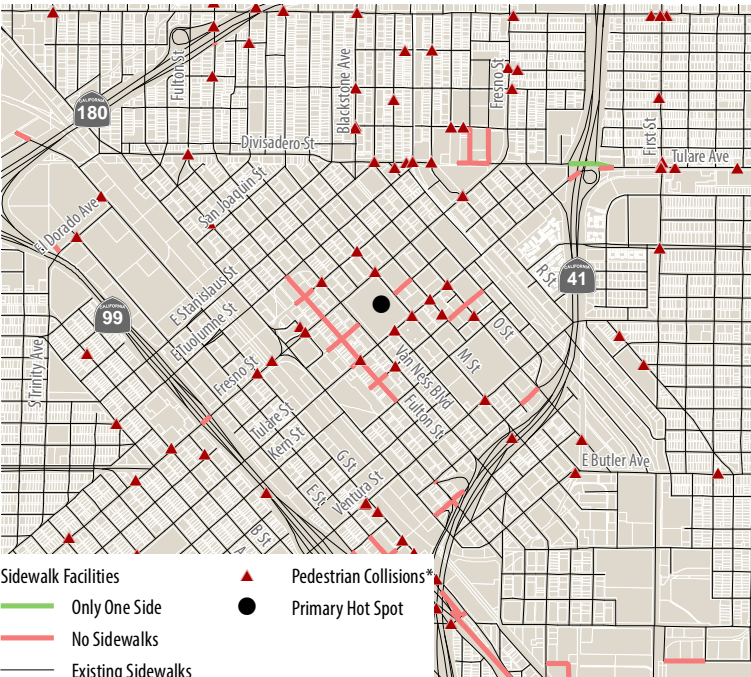
Note: Data shown represents the following:
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Source: Fresno COG; Fehr & Peers

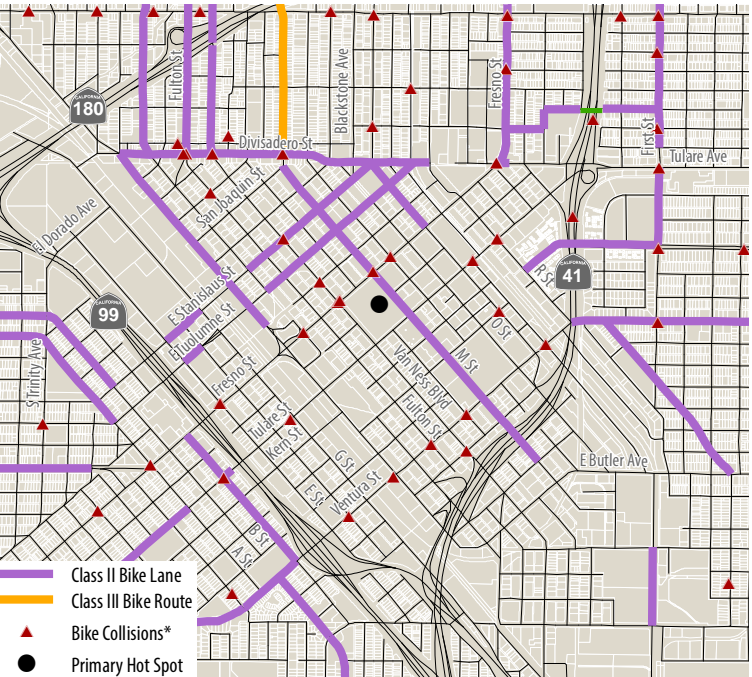


Fresno County Superior Court

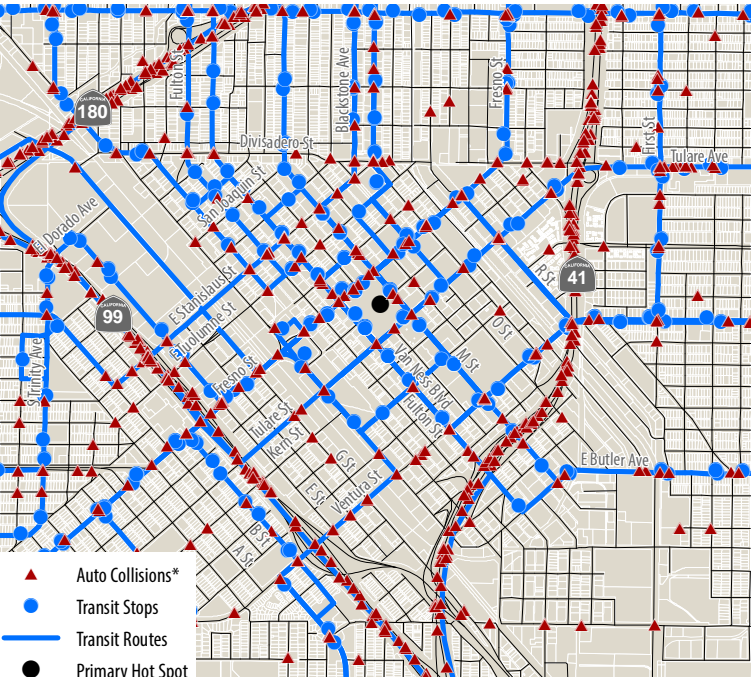
Existing Pedestrian Facilities



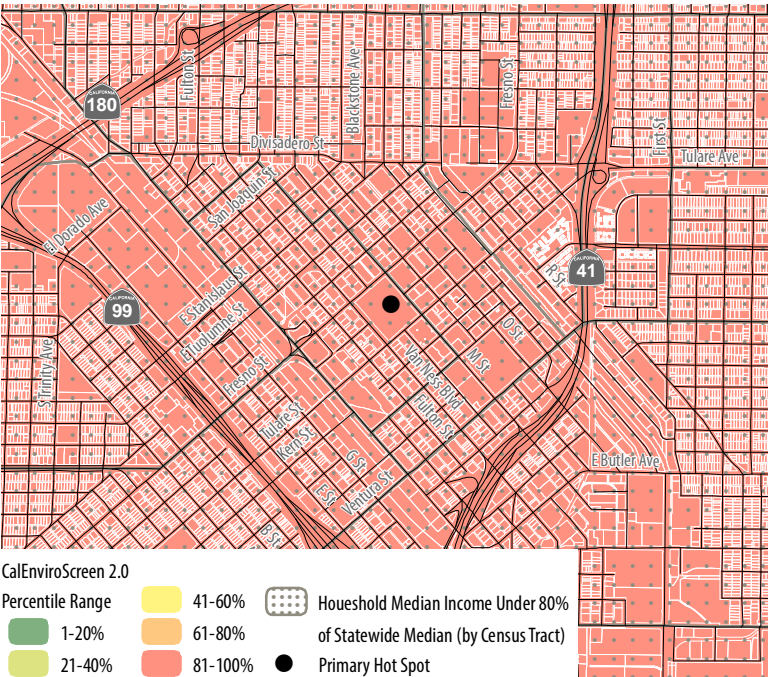
Existing Bike Facilities



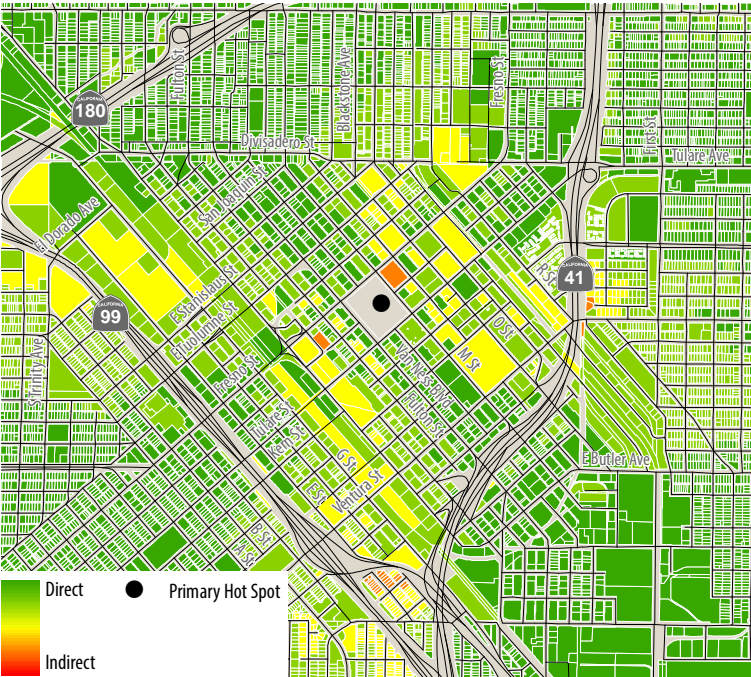
Existing Transit and Auto Facilities



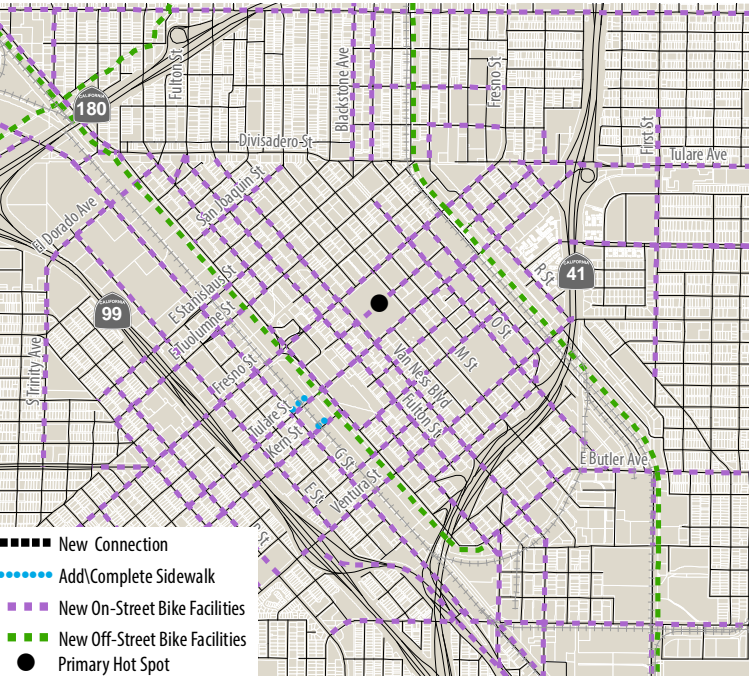
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011.

Priority listed in all caps.

Add/Complete Sidewalks:

- Complete gap in sidewalk on Tulare St from rail crossing to G St - **HIGH**
- Complete gap in sidewalk on Kern St across rail crossing - **HIGH**

Add On- /Off-Street Bike Facilities:

- Currently showing 2010 BMP planned facilities, upcoming modifications from the Fresno Active Transportation Plan, the High Speed Rail Station Plan, and the Downtown Plan will reassess this area.

Transit:

- Good access via multiple routes

Auto:

- Good access

Route Directness Enhancements

Not applicable,
no added connections

Harris Ranch, Coalinga

Harris Ranch Inn & Restaurant is located on Dorris Avenue near Interstate 5 in Coalinga. Established in 1977, it has become a destination point when traveling either direction along Interstate 5. It has 153 guest rooms and the restaurant boasts of a farm-to-fork philosophy offering wine and other local produce, as well as the Harris Ranch Restaurant Reserve Beef it is known for. Harris Ranch overall has over 400 employees.

Table 6: Recommendations to Improve Harris Ranch Connectivity

Mode	Recommendation	Priority
Transit	Add shelters for transit stops	High
Transit	Add additional transit service	High
Pedestrian	Connect bus stops to employment center	High
Pedestrian	Connect to other side of I-5 on Dorris Avenue (SR 198)	Low
Bicycle	Add on-street bicycle facilities to Dorris Avenue (SR 198) from Harris Ranch to other side of I-5	Low

By implementing these recommendations, the region will:

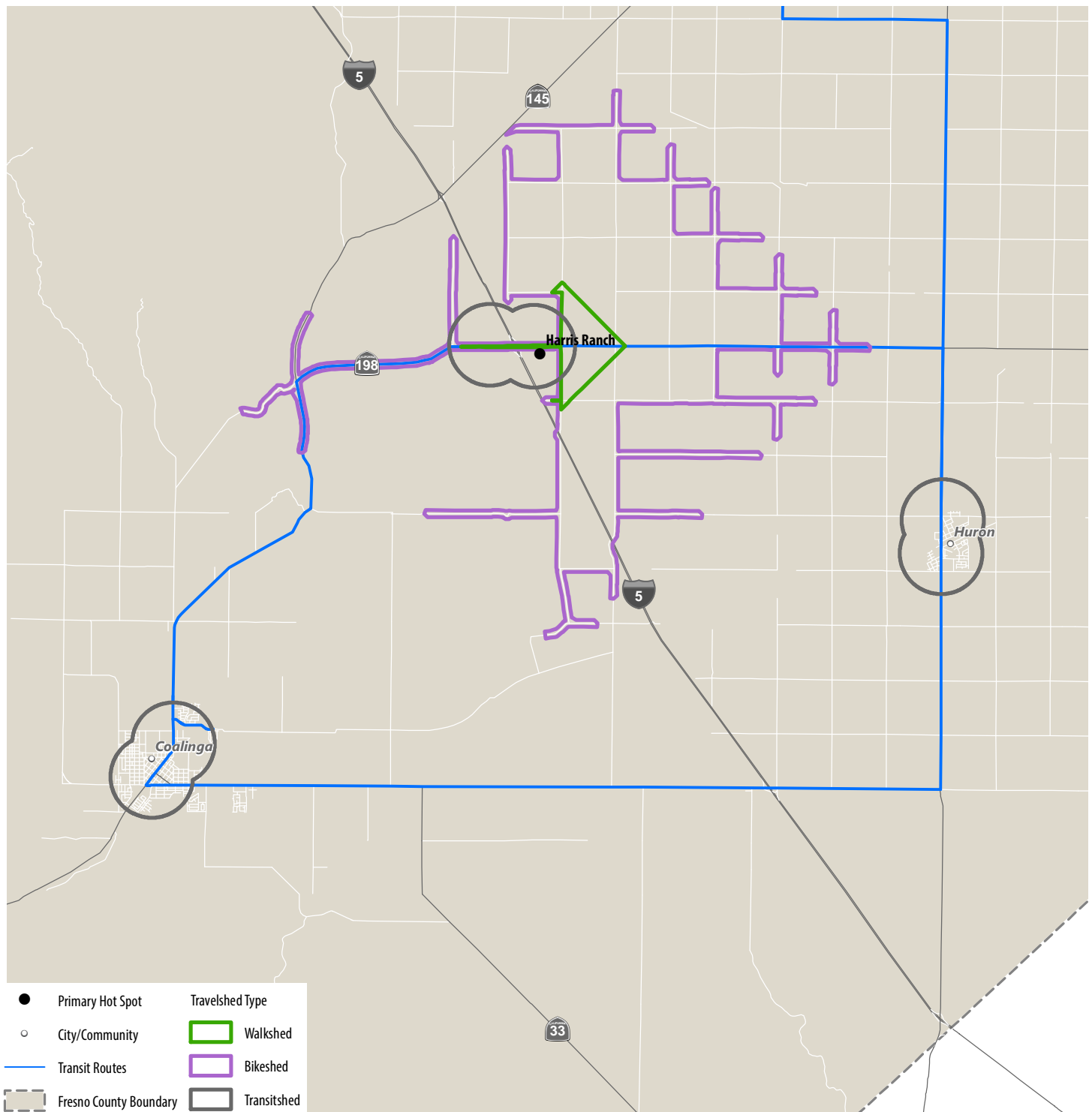
- Improve comfort of transit riders
- Improve bicyclist and pedestrian comfort and safety on major roads near Harris Ranch



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Harris Ranch



Note: Data shown represents the following:

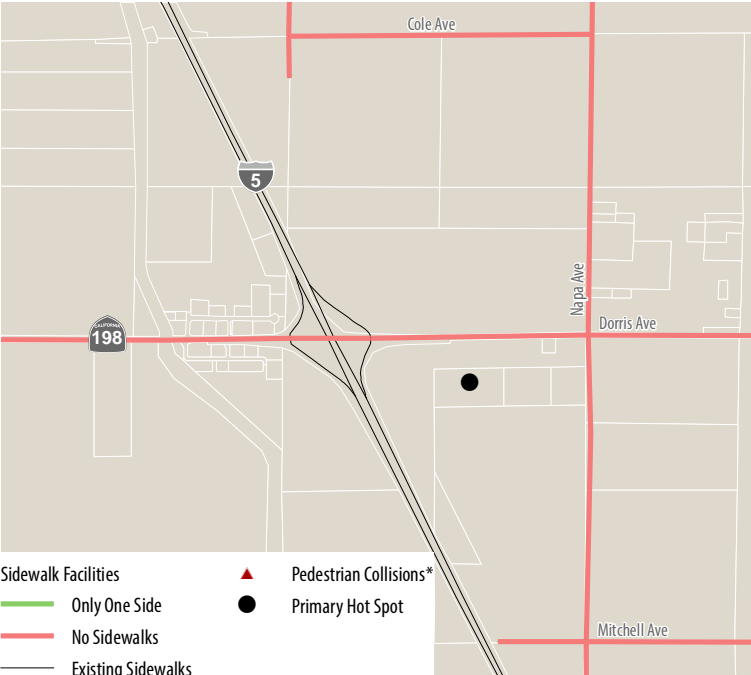
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Source: Fresno COG; Fehr & Peers

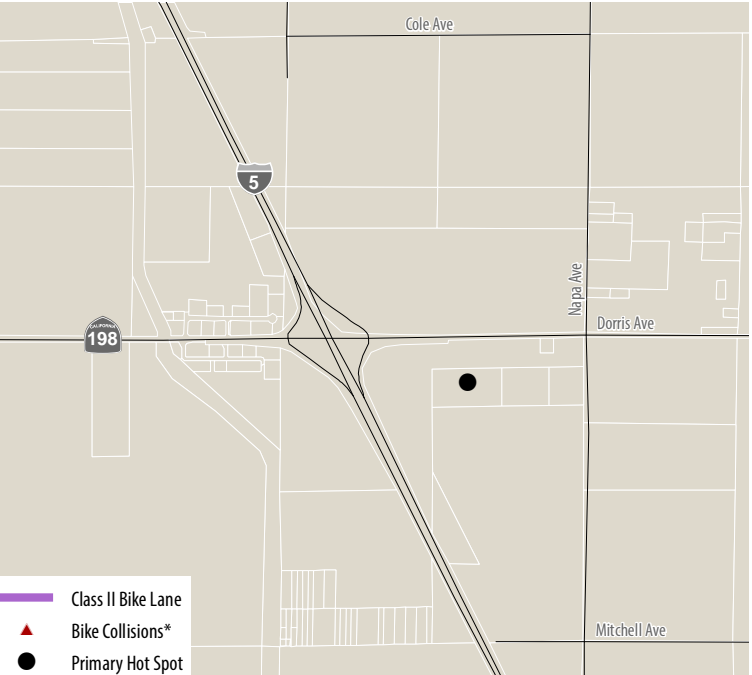


Harris Ranch

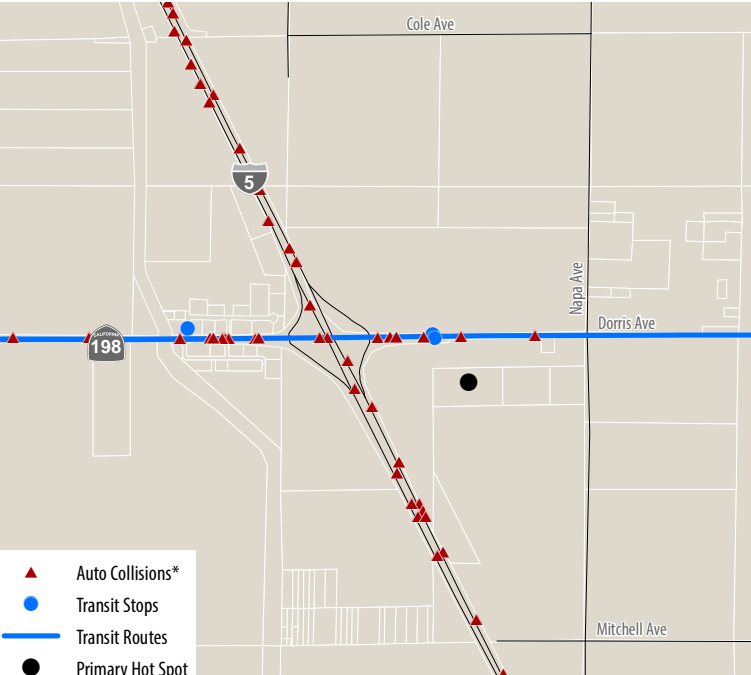
Existing Pedestrian Facilities



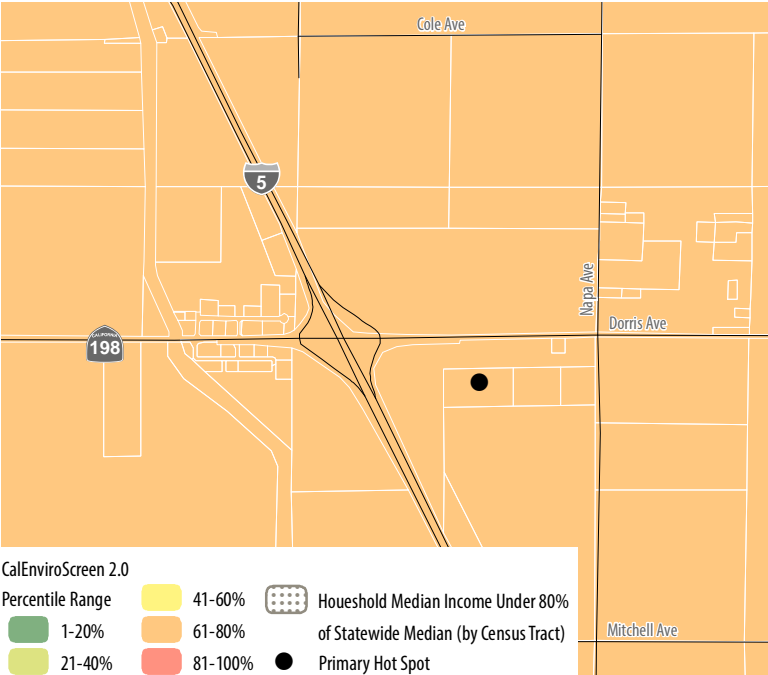
Existing Bike Facilities



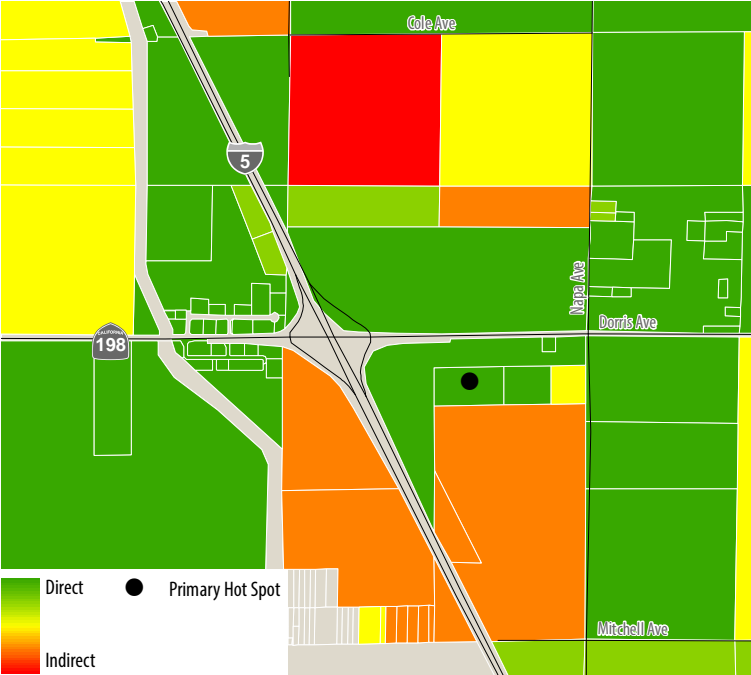
Existing Transit and Auto Facilities



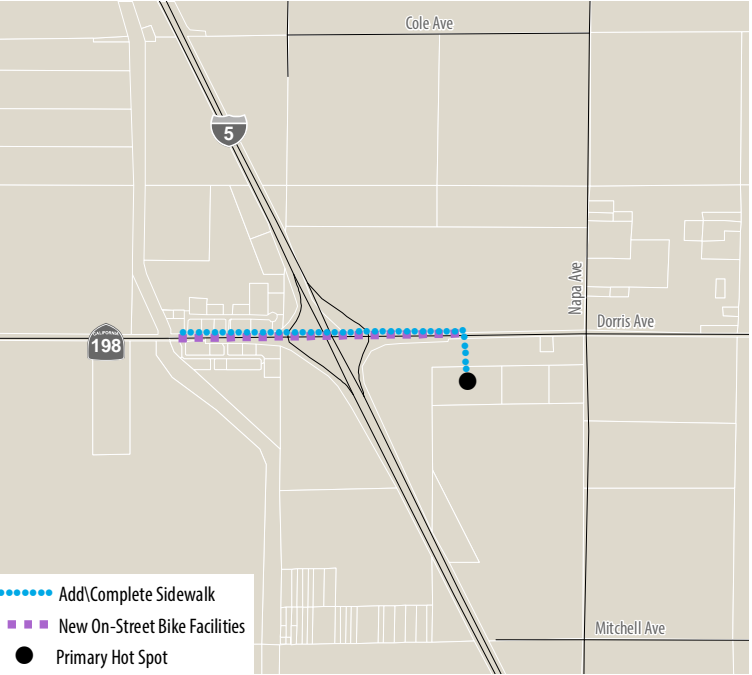
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011.
Priority listed in all caps.

Add/Complete Sidewalk:

- Connect bus stops to employment center - **HIGH**
- Connect to other side of I-5 on Dorris Ave (SR 198) - **LOW**

Add On-Street Bike Facilities:

- Doris Ave (SR 198) from Harris Ranch exit to other side of I-5 - **LOW**

Transit:

- Four stops per day, connecting to Huron and Coalinga
- Add additional transit service - **MEDIUM**
- Add shelters for transit stops - **HIGH**

Auto:

- Good access to major roadways
- Parking on location and available nearby

Route Directness Enhancements

Not applicable,
no added connections

Department of Motor Vehicles, Mendota

The Mendota Department of Motor Vehicles (DMV) is located on Quince Street in the center of Mendota. It provides local and regional services that include driver's licenses, identification cards, written driving test and road tests, vehicle registrations, titling and plates. The DMV is open on Thursdays and Fridays only. There is intracity transit service available twice daily in each direction that connects Firebaugh, Mendota, Kerman and Fresno. There is parking available on location and nearby.

Table 7: Recommendations to Improve Mendota DMV Connectivity

Mode	Recommendation	Priority
Transit	Add more frequent service	High
Pedestrian/Bicycle/Automobile	Between 2nd Street\Marie Street and 2nd Street\Naples Street (across railroad tracks)	High
Pedestrian/Bicycle/Automobile	Between 5th Street\Marie Street and Naples Street north of 5th Avenue (across railroad tracks)	High
Bicycle	Add on-street bicycle facilities to 7th Street from SR 33 to Oller Street	High
Bicycle	Add on-street bicycle facilities to Oller Street from McCabe Street to Belmont Avenue	High
Pedestrian	Add\complete sidewalk to Bass Avenue from Barboza Street to SR 33	Medium
Pedestrian	Add\complete sidewalk to Lozano Street from SR 33 to Rios Street	Medium
Pedestrian	Add\complete sidewalk to SR 33 from Lozano Street to McCabe Street	Medium
Pedestrian	Add\complete sidewalk across greenbelt from Lozano Street\ SR 33 to connect paved path (desire line)	Medium
Bicycle	Add on-street bicycle facilities to SR 33 From Lozano Street to McCabe Avenue	Medium
Bicycle	Add on-street bicycle facilities to 9th Street from Oller Street to Airport Boulevard	Medium
Bicycle	Add on-street bicycle facilities to 9th Street from Belmont Avenue to Oller Street	Low

By implementing these recommendations, the region will:

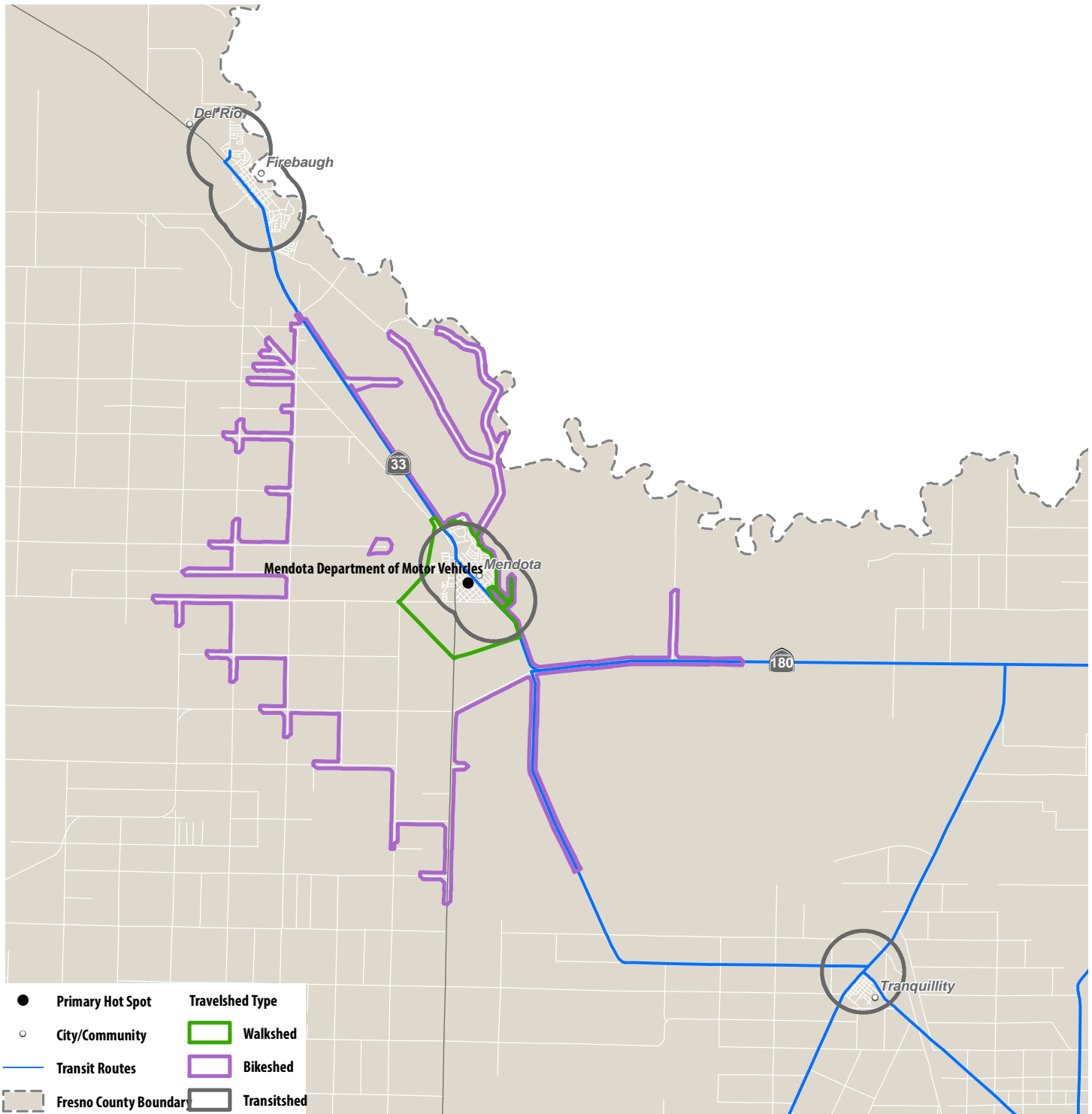
- Improve transit access
- Improve pedestrian, bicycle and automobile safety and connectivity to 30% of parcels within 2 miles
- Improve bicyclist and pedestrian comfort and safety on major roads near the Mendota DMV

FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis



Travelsheds - Mendota Department of Motor Vehicles



Note: Data shown represents the following:

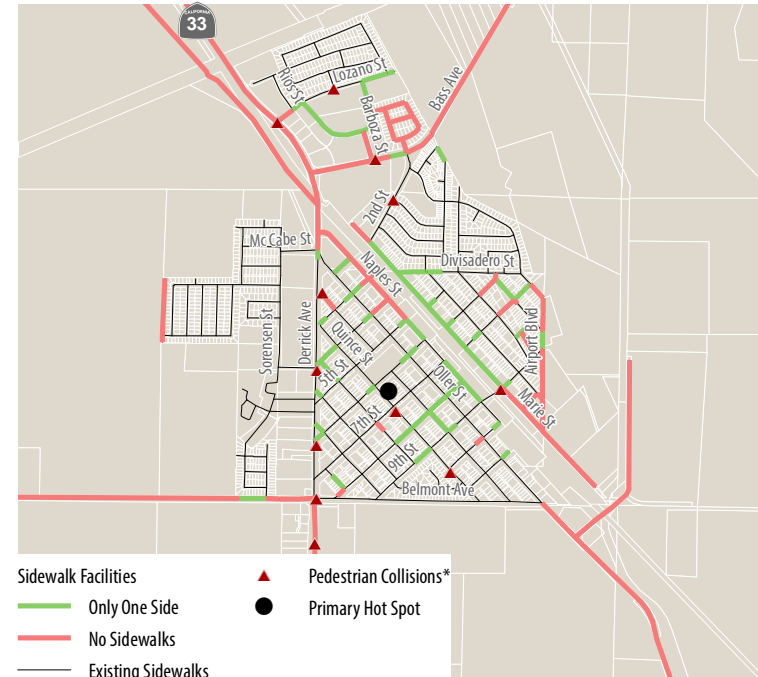
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Source: Fresno COG; Fehr & Peers

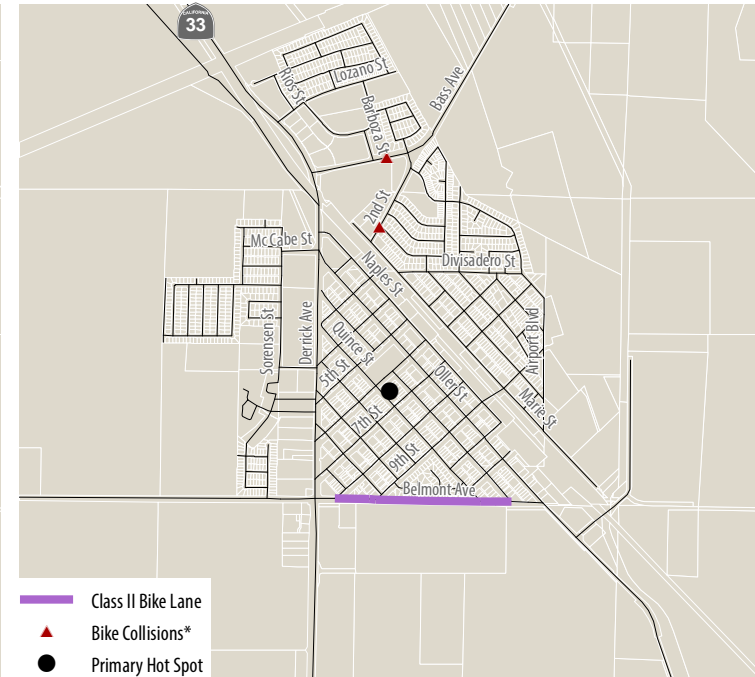


Mendota Department of Motor Vehicles

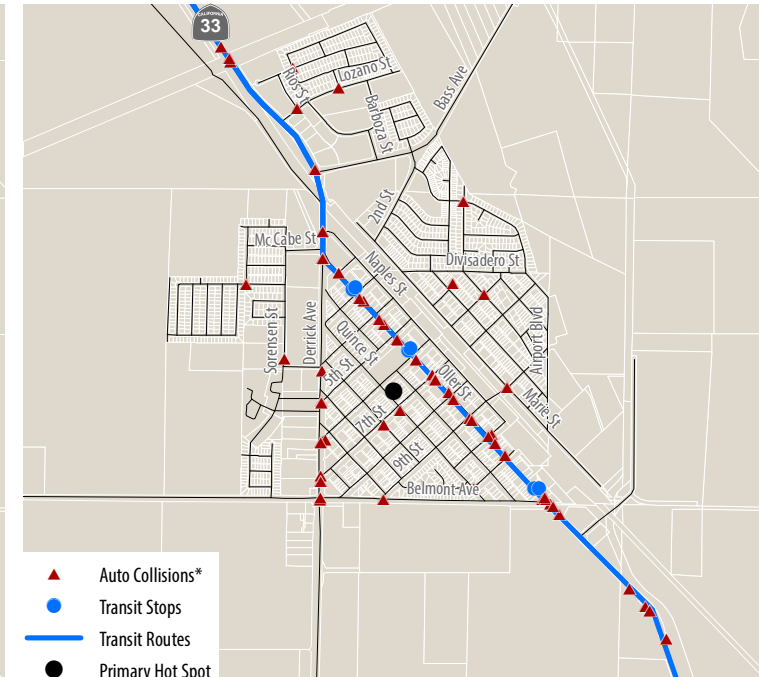
Existing Pedestrian Facilities



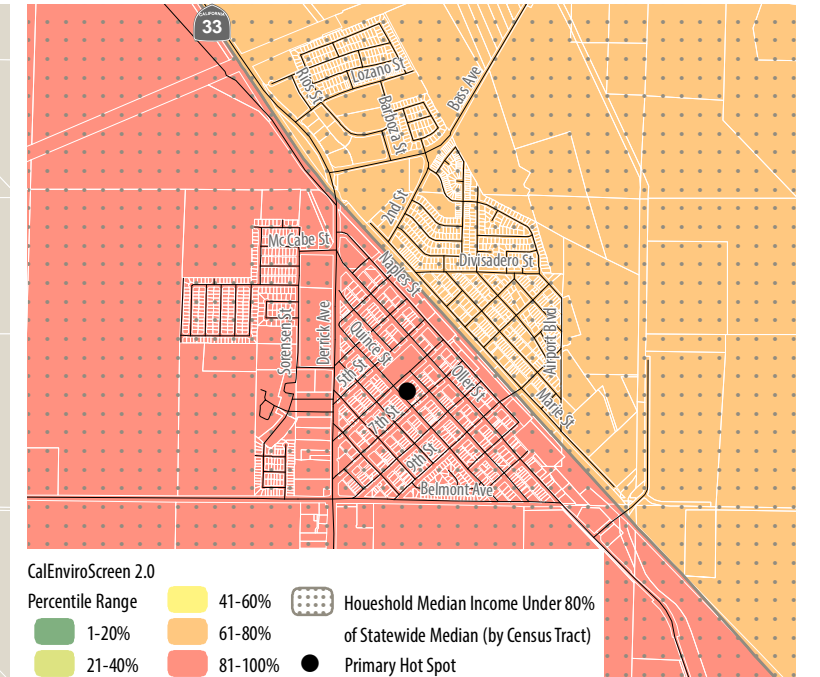
Existing Bike Facilities



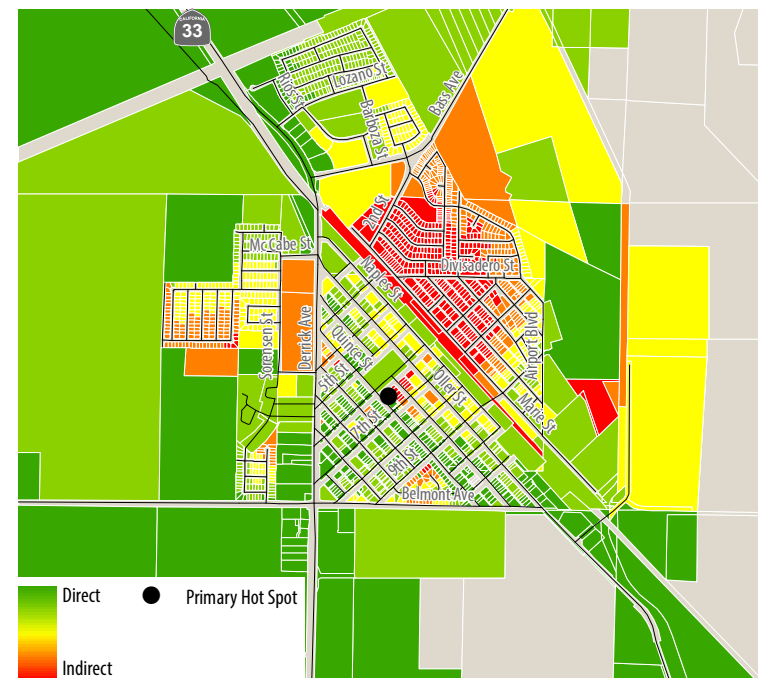
Existing Transit and Auto Facilities



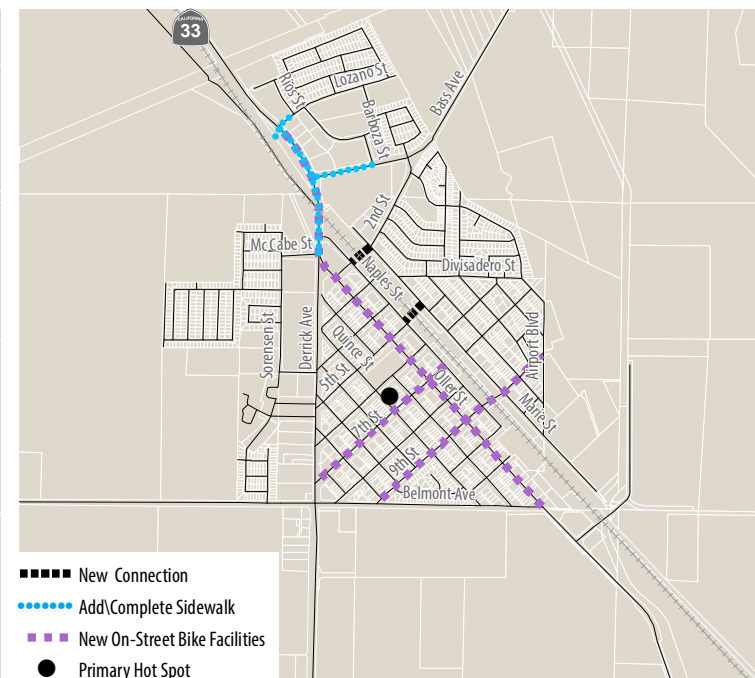
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011. Priority listed in all calls.

- New Bike\Ped\Auto Connection:** ■■■■■■
- Between 2nd St\Marie St and 2nd St Naples St (across rail) - **HIGH**
 - Between 5th St\Marie St and Naples north of 5th Ave (across rail) - **HIGH**

- Add\Complete Sidewalk:** ●●●●●●
- Bass Ave from Barboza St to SR 33 - **MEDIUM**
 - Lozano St from SR 33 to Rios St - **MEDIUM**
 - SR 33 from Lozano St to McCabe St - **MEDIUM**
 - Across greenbelt from Lozano St\SR 33 to connect paved path (desire line) - **MEDIUM**

- Add On-Street Bike Facilities:** ■■■■■■
- 7th St from SR 33 to Oller St - **HIGH**
 - Oller St from McCabe St to Belmont Ave - **HIGH**
 - SR 33 From Lozano St to McCabe Ave - **MEDIUM**
 - 9th St from Belmont Ave to Oller St - **LOW**
 - 9th St from Oller St to Airport Blvd - **MEDIUM**

Transit:

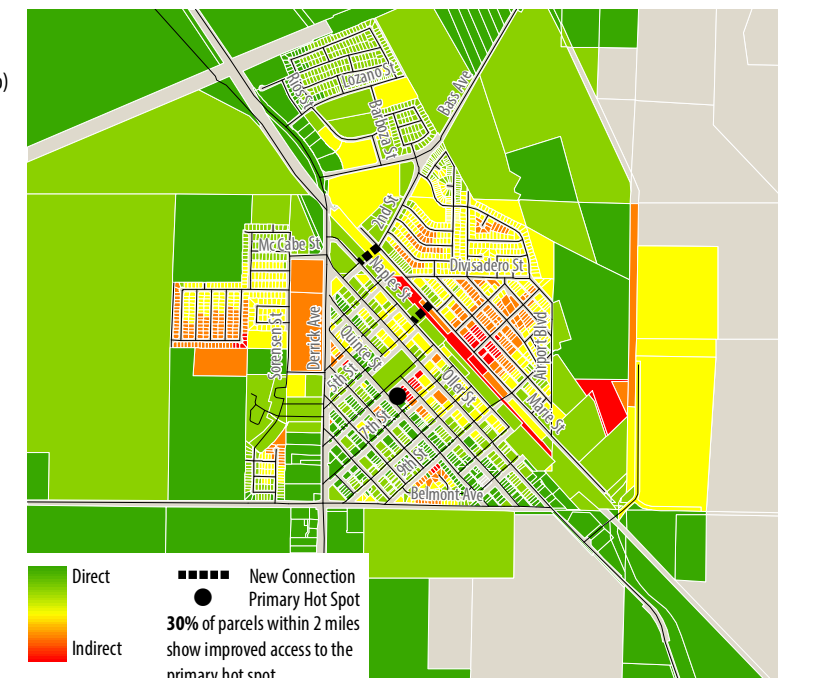
Intracity service available twice daily each direction (Firebaugh, Mendota, Kerman, Fresno)

- Add more frequent service - **HIGH**

Auto:

- Good access to major roadways
- Parking on location and available nearby

Route Directness Enhancements



Walmart, Kerman

Walmart is located on Whitesbridge Avenue in the northeast portion of Kerman. With 160,000 square feet of retail space, the store offers a full grocery section, as well as other retail including apparel, sporting goods, electronics, health and beauty, as well as a full pharmacy. It serves customers from the west side of Fresno County, as well as areas in the southwest portion of the City of Fresno. The transit service includes four stops per day, which connect to Huron and Coalinga. There is currently poor sidewalk connectivity to the northwest of the property.

Table 8: Recommendations to Improve Kerman Walmart Connectivity

Mode	Recommendation	Priority
Transit	Increase service frequency and improve signage to stop on Goldenrod Avenue on east side of Walmart property	High
Pedestrian	Complete sidewalk on south side of Whitesbridge Avenue (SR 180) from Walmart parking lot to Vineland Avenue (planned to be completed by developers of adjacent property)	High
Bicycle	Add on-street bicycle facilities to north side of Kearney Boulevard from Del Norte Avenue to Madera Avenue (SR 45) – Class III recommended due to width considerations	High
Pedestrian	Complete sidewalk on Vineland Avenue from Whitesbridge Avenue (SR 180) to existing sidewalk north of San Joaquin Avenue (included in RTSP, regional project recommended for award in current cycle)	Medium
Bicycle	Add on-street bicycle facilities to Whitesbridge Avenue (SR 180) from Siskiyou Avenue to Goldenrod Avenue – Class III recommended due to width considerations	Medium
Pedestrian	Complete sidewalk on north side of Stanislaus Avenue from roundabout to existing sidewalk	Low

By implementing these recommendations, the region will:

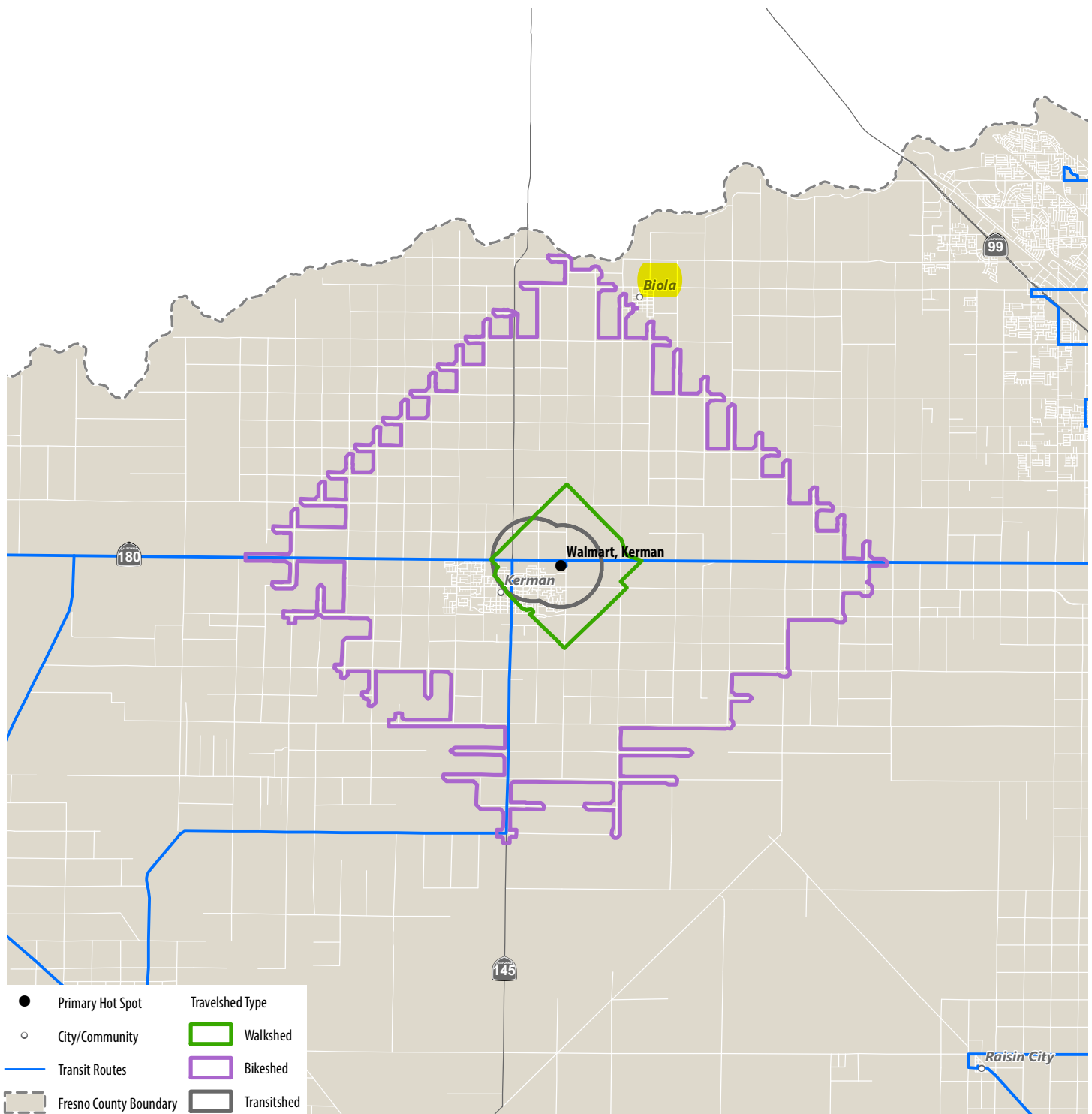
- Improve access to transit
- Improve bicyclist comfort and safety on major roads near Kerman Walmart



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Walmart, Kerman



Note: Data shown represents the following:

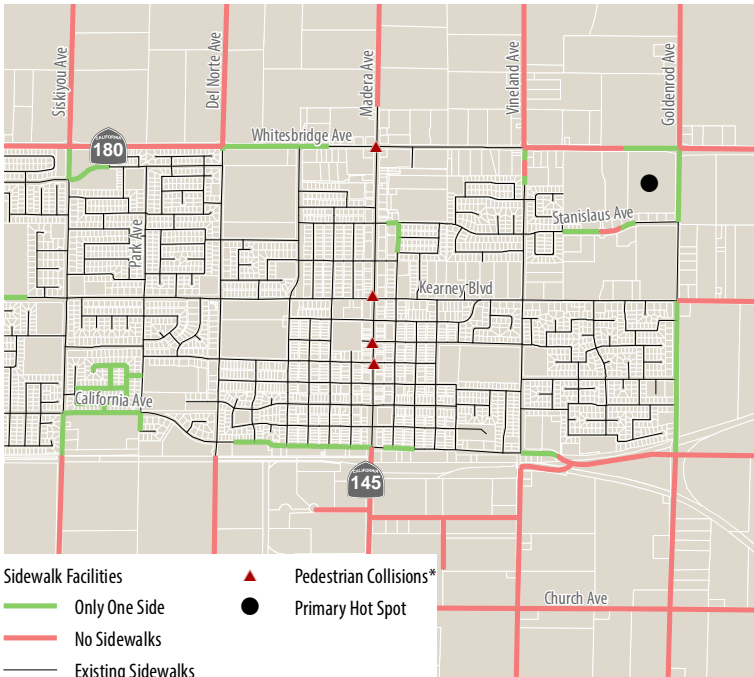
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Source: Fresno COG; Fehr & Peers

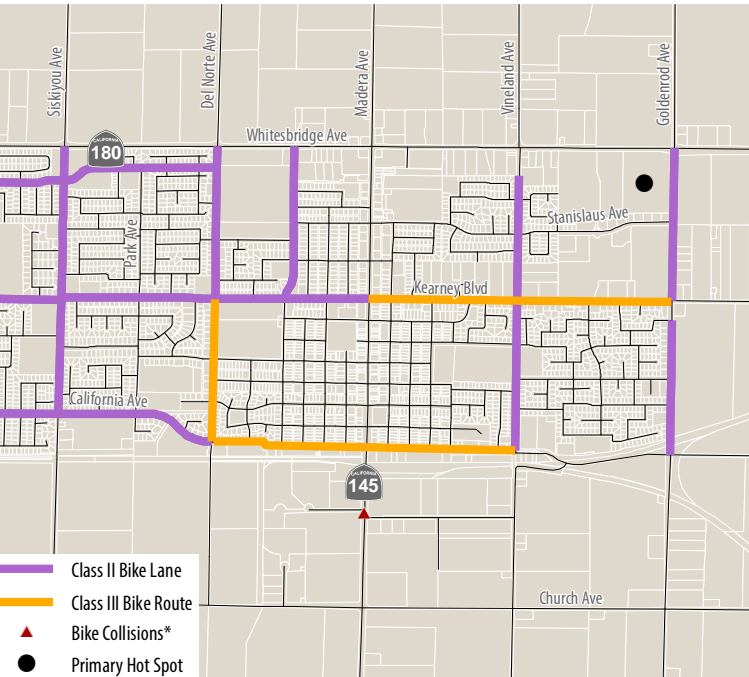


Walmart, Kerman

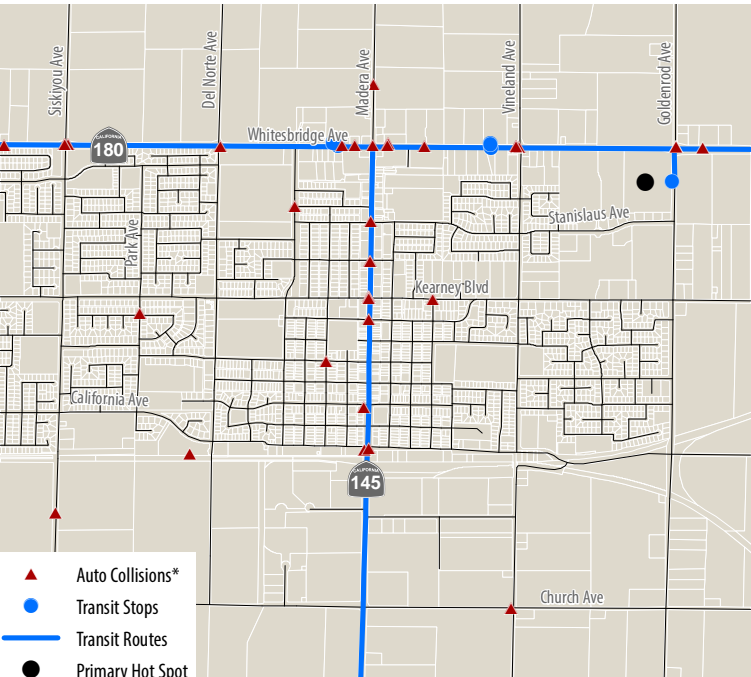
Existing Pedestrian Facilities



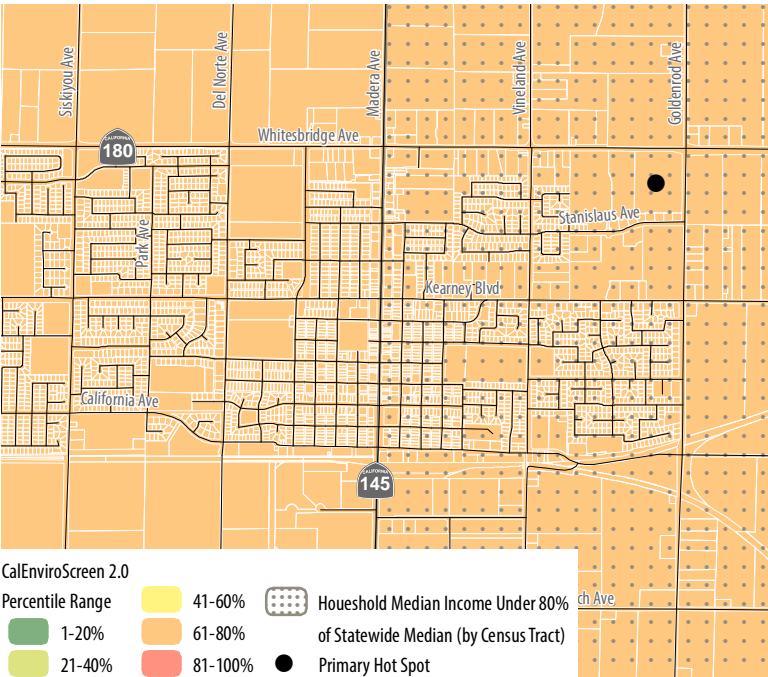
Existing Bike Facilities



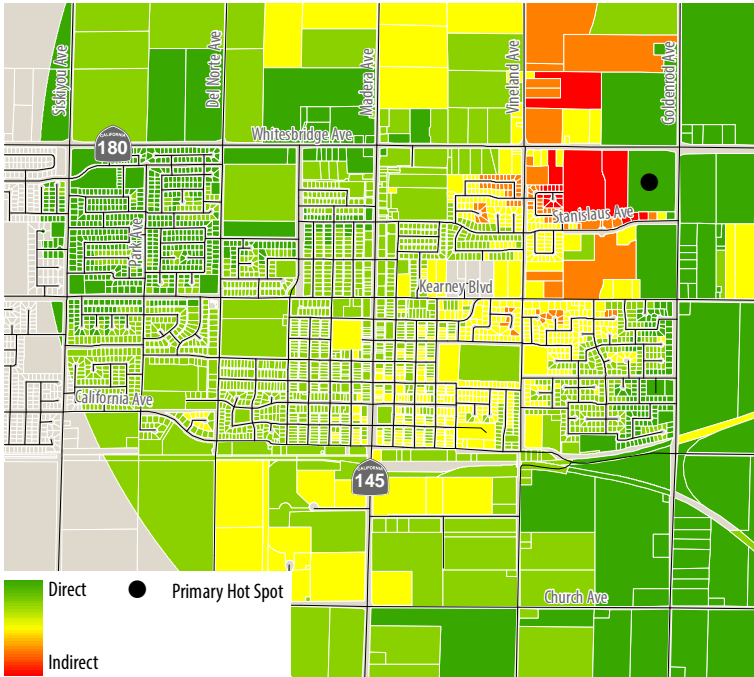
Existing Transit and Auto Facilities



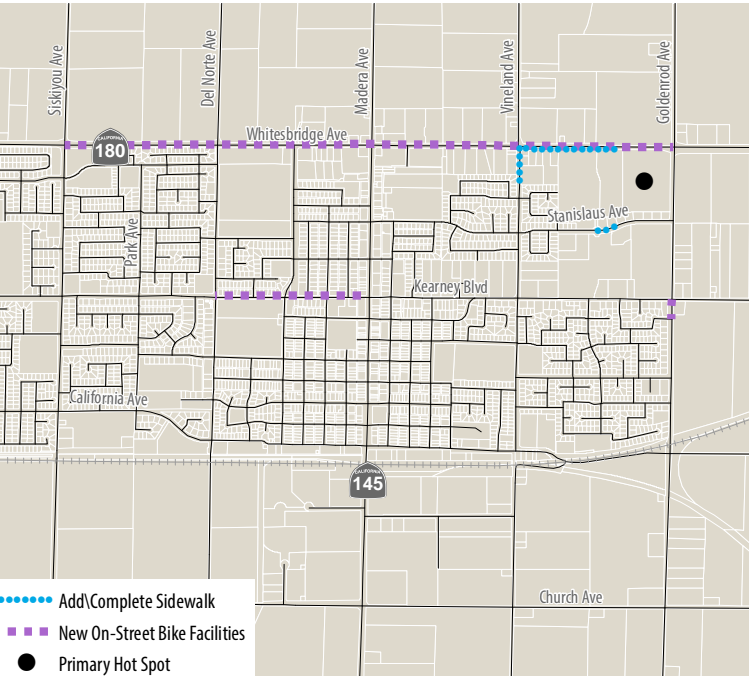
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011.
Priority listed in all caps.

Add/Complete Sidewalk:

- Complete sidewalk on southside of Whitesbridge Ave (SR 180) from Walmart parking lot to Vineland Ave - **HIGH**
- Complete sidewalk on Vineland Ave from Whitesbridge Ave (SR 180) to existing sidewalk north of San Joaquin Ave - **MEDIUM**
- Complete sidewalk on north side of Stanislaus Ave from roundabout to existing sidewalk - **LOW**

Add On-Street Bike Facilities:

- North side of Kearney Blvd from Del Norte Ave to Madera Ave (SR 45) (Class III recommended due to width considerations) - **HIGH**
- Goldenrod Ave from Kearney Blvd to G St (Class III recommended due to width considerations)- **MEDIUM**
- Whitesbridge Ave (SR 180) from Siskiyou Ave to Goldenrod Ave - **MEDIUM**

Transit:

- Four stops per day, connecting to Huron and Coalinga
- Increase service frequency and improve signage to stop on Goldenrod Avenue on east side of Walmart property - **HIGH**

Auto:

- Good access to major roadways
- Parking on location and available nearby

Not applicable,
no added connections

Walmart, Sanger

Walmart is located on Jensen Avenue in the western portion of Sanger. The store offers a full grocery section, as well as other retail including apparel, sporting goods, electronics, health and beauty, as well as a full pharmacy and vision center. It serves customers from the east side of Fresno County, as well as areas in the southeast portion of the City of Fresno. The transit service includes two stops per day, per direction, which connect to Parlier, Orange Cove, Reedley and Fresno. There is currently poor sidewalk connectivity to the northwest of the property.

Table 9: Recommendations to Improve Sanger Walmart Connectivity

Mode	Recommendation	Priority
Transit	Install bus shelter on eastbound Jensen Avenue	High
Transit	Increase transit frequency	
Transit	Add signage to both east and westbound locations on Jensen Avenue	High
Pedestrian	Fill sidewalk gap on north side of Jensen Avenue from Lyon Avenue to the west for 150'	High
Pedestrian	Fill sidewalk gap on Ninth Street from Rawson Avenue to mid-way to Greenwood Avenue	High
Pedestrian	Add sidewalk to Greenwood Avenue between Ninth Street to North Avenue	High
Bicycle	Add on-street bicycle facilities to Jensen Avenue from west end of Walmart parking lot to Academy Avenue	High
Bicycle	Add on-street bicycle facilities to Bethel Avenue from North Avenue to Acacia Avenue	Medium
Bicycle	Upgrade Academy Avenue from Eleventh Street to California Avenue to Class II with striping and signing	Medium

By implementing these recommendations, the region will:

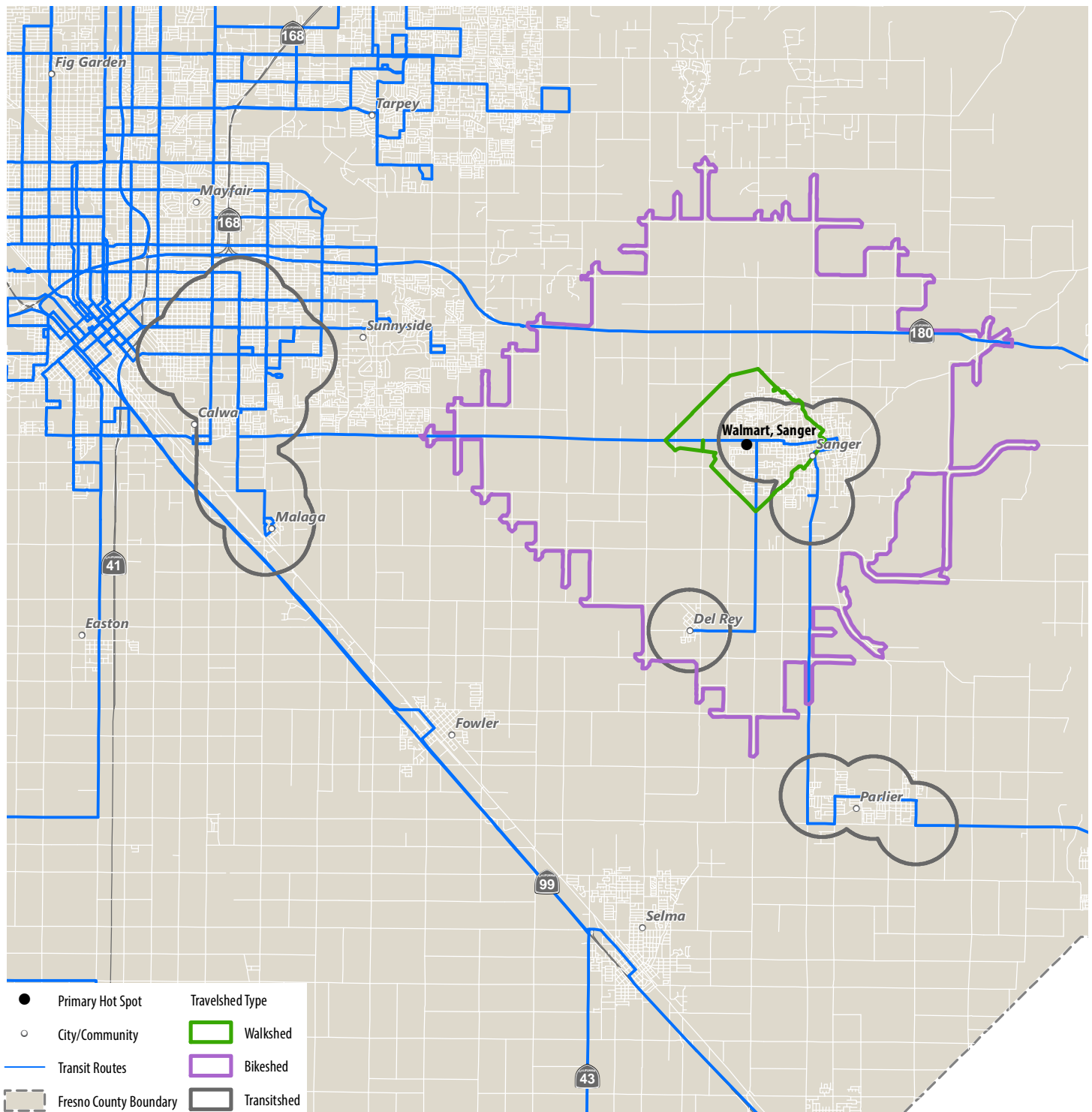
- Improve access to transit and comfort of riders
- Improve bicyclist comfort and safety on major roads near Sanger Walmart



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Walmart, Sanger



Note: Data shown represents the following:

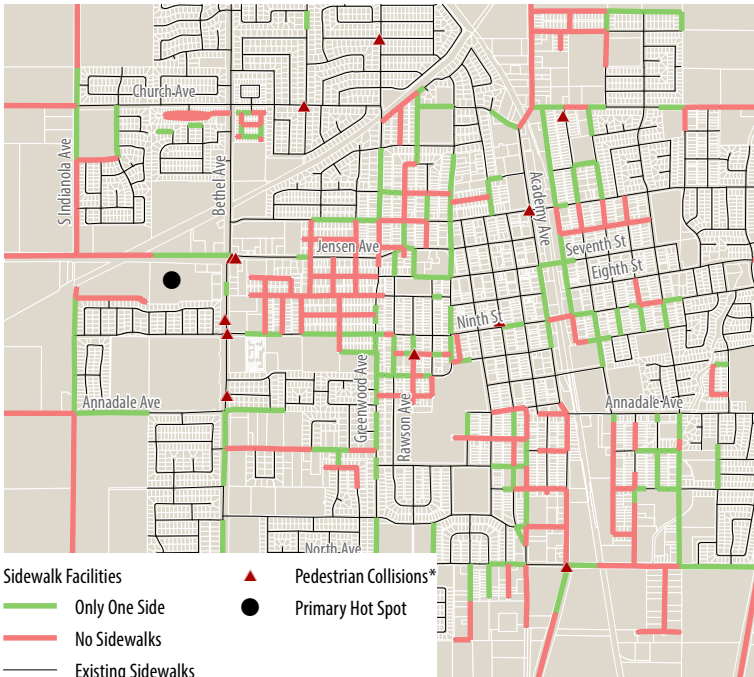
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Source: Fresno COG; Fehr & Peers

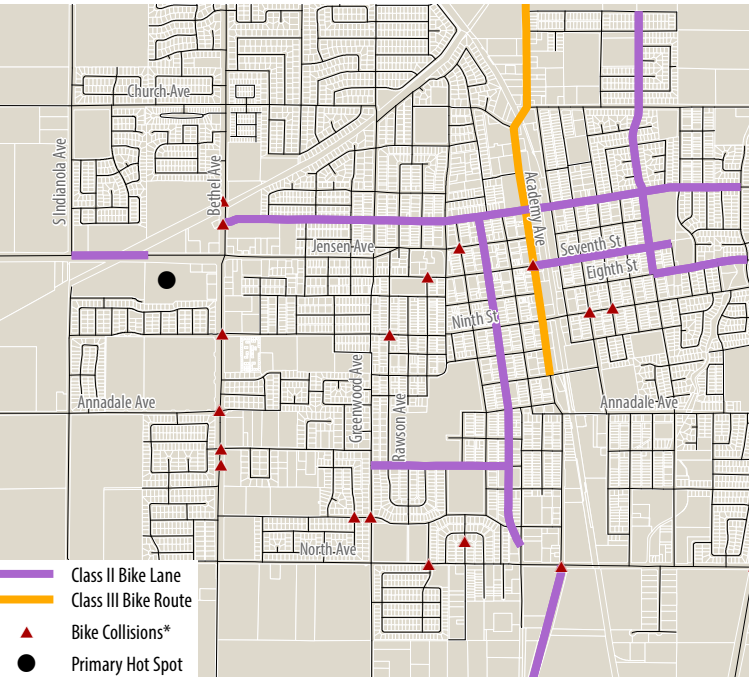


Walmart, Sanger

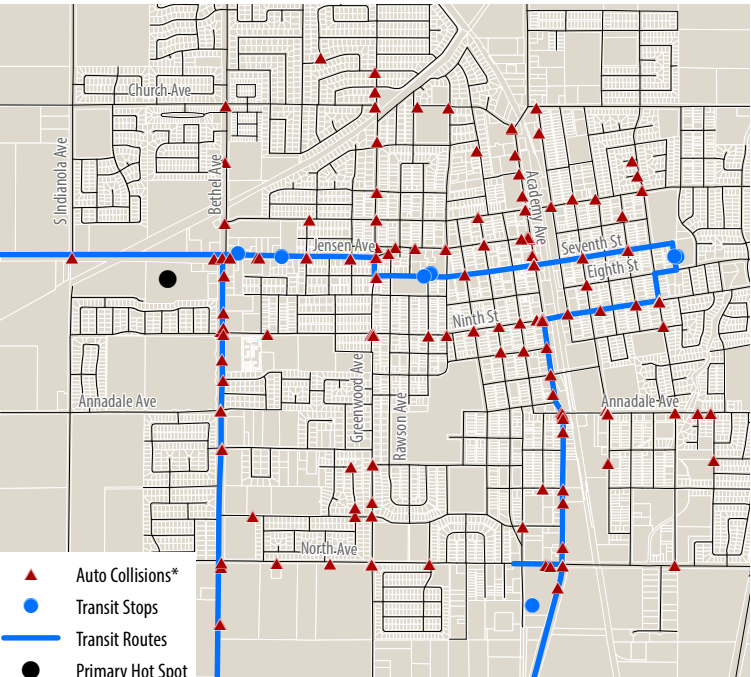
Existing Pedestrian Facilities



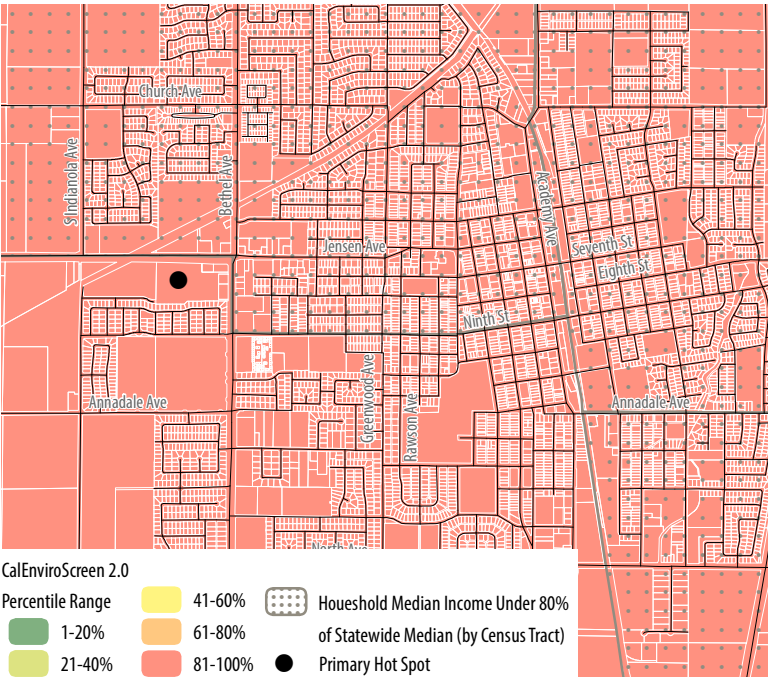
Existing Bike Facilities



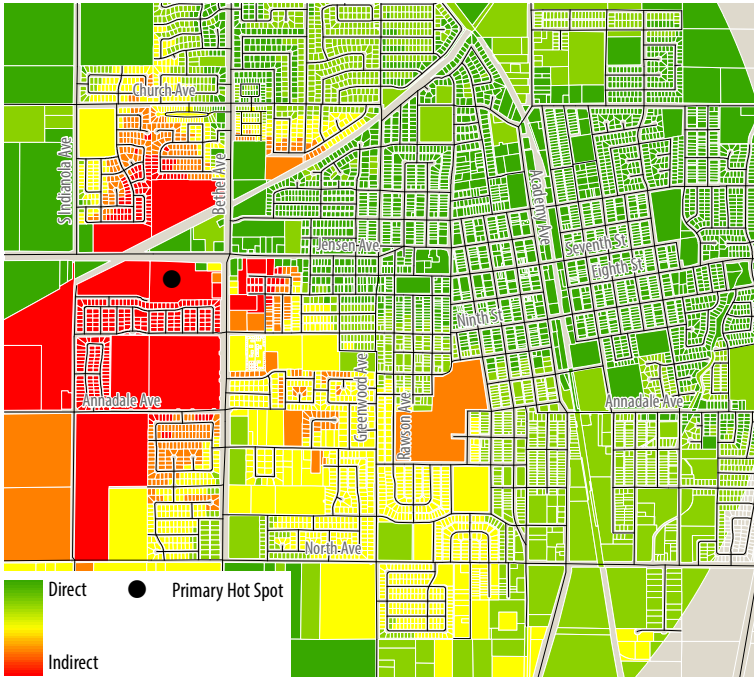
Existing Transit and Auto Facilities



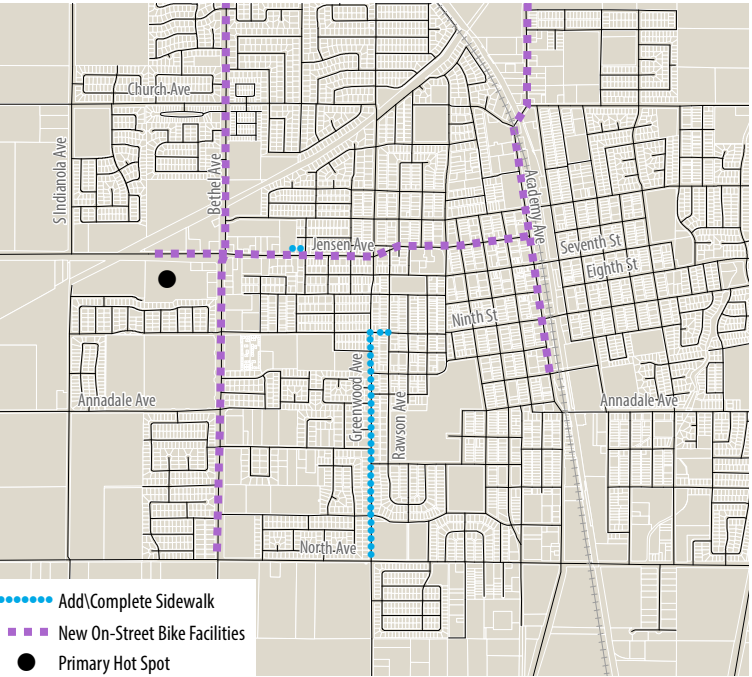
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



*Collisions shown are from 2008-2011. Priority listed in all caps.

Add/Complete Sidewalk:
• Fill gap on north side of Jensen Ave from Lyon Ave to the west for 150' - **HIGH**
• Fill gap on Ninth St from Rawson Ave to mid-way to Greenwood Ave - **HIGH**
• Greenwood Ave between Ninth St to North Ave - **HIGH**

Add On-Street Bike Facilities:
• Bethel Ave from North Ave to Acacia Ave - **MEDIUM**
• Jensen Ave from west end of Walmart parking lot to Academy Ave - **HIGH**
• Upgrade Academy Ave from Eleventh St to California Ave to Class II with striping and signing - **MEDIUM**

Transit:
• Increase transit service - **HIGH**
• Install bus shelter on eastbound Jensen Ave - **HIGH**
• Add signage to both east and westbound locations on Jensen Ave - **HIGH**

Auto:
• Good access to major roadways
• Parking on location and available nearby

Route Directness Enhancements

Not applicable,
no added connections

Wawona Frozen Foods, Clovis

Wawona Frozen Foods is a major employer located on Alluvial Avenue in Clovis. Shipping more than 65 million pounds of fruit annually, the plant specializes in processing, freezing and distributing fruit. The area nearby has good bicycle coverage and many transit trips per day. There are gaps in the sidewalk coverage in the vicinity.

Table 10: Recommendations to Improve Wawona Frozen Foods Connectivity

Mode	Recommendation	Priority
Pedestrian	Fill gap in sidewalk on Villa Avenue between Fir Avenue and Minnewawa Avenue	High
Pedestrian	South side of Alluvial Avenue between Minnewawa Avenue and Peach Avenue	High
Pedestrian	Fill sidewalk gaps on Alluvial Avenue between Backer Avenue and Chestnut Avenue	Medium
Bicycle	Add on-street bicycle facilities to Nees Avenue between Peach Avenue and Locan Avenue	Medium
Bicycle	Add on-street bicycle facilities to west side of Minnewawa Avenue from Chennault Avenue to Alluvial Avenue	Medium
Bicycle	Add on-street bicycle facilities to Villa Avenue from Alluvial Avenue to Gettysburg Avenue	Medium
Bicycle	Add on-street bicycle facilities to fill gaps on Alluvial Avenue from Willow Avenue to Paula Avenue	Medium
Bicycle	Fill gaps in Class I Path on north side of Herndon Avenue between Willow Avenue and existing Class I Path	Medium
Pedestrian	Fill sidewalk gaps on both sides of Herndon Avenue between Willow Avenue and Villa Avenue	Low
Bicycle	Add on-street bicycle facilities to Clovis Avenue between Nees Avenue and Teague Avenue	Low
Bicycle	Add on-street bicycle facilities to Sunnyside Avenue between Gettysburg Avenue and Herndon Avenue	Low
Bicycle	Add on-street bicycle facilities to Bullard Avenue from Willow Avenue to Fowler Avenue (located 1.5 miles south)	Low
Bicycle	Add on-street bicycle facilities to Chestnut Avenue from Bullard Avenue to Herndon Avenue (located 1.4 miles south)	Low

By implementing these recommendations, the region will:

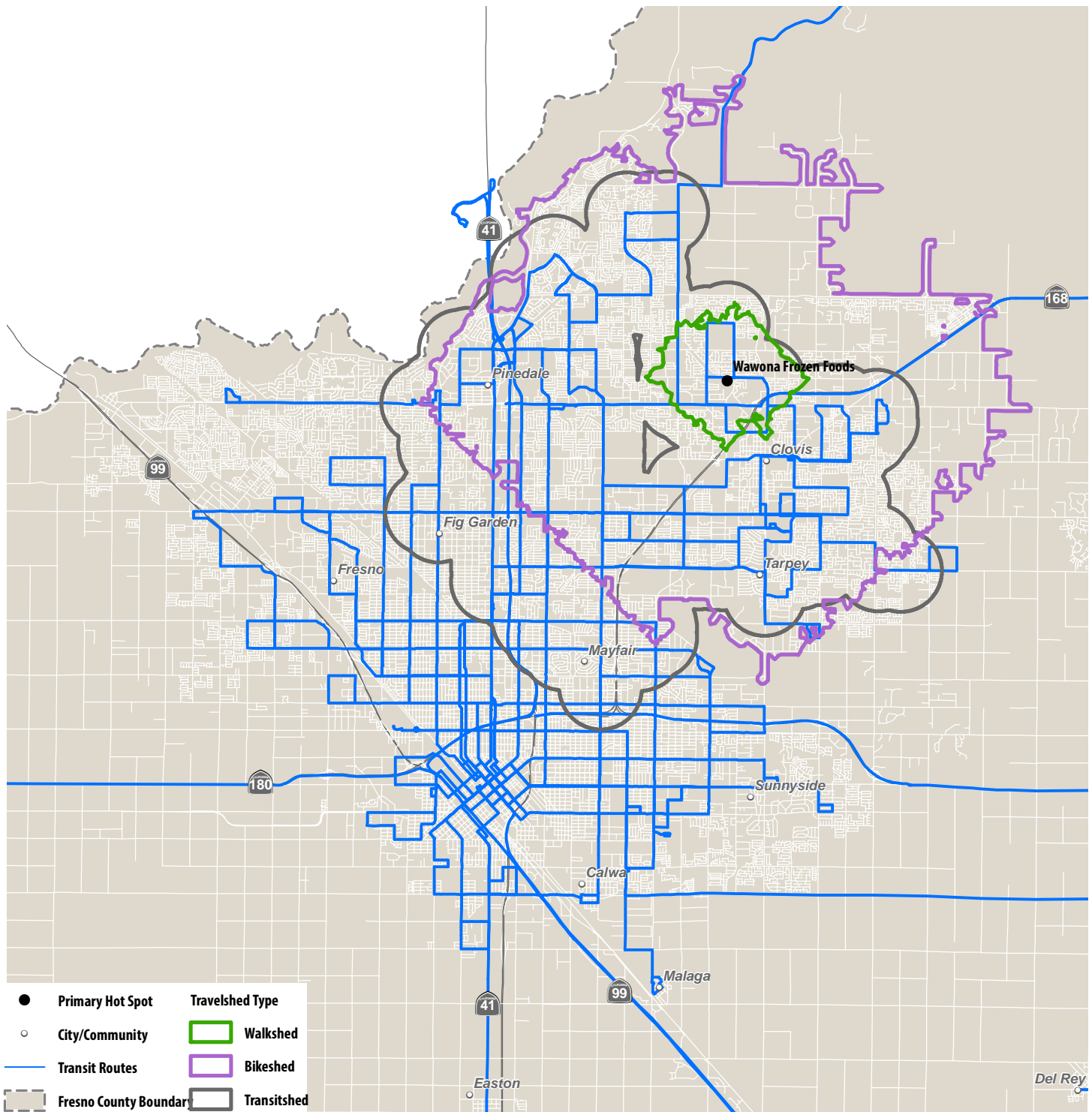
- Improve pedestrian access
- Improve bicyclist comfort and safety on major roads near Wawona Frozen Foods



FRESNO TRANSPORTATION NEEDS ASSESSMENT

Transportation Connectivity and Accessibility Analysis

Travelsheds - Wawona Frozen Foods



Note: Data shown represents the following:

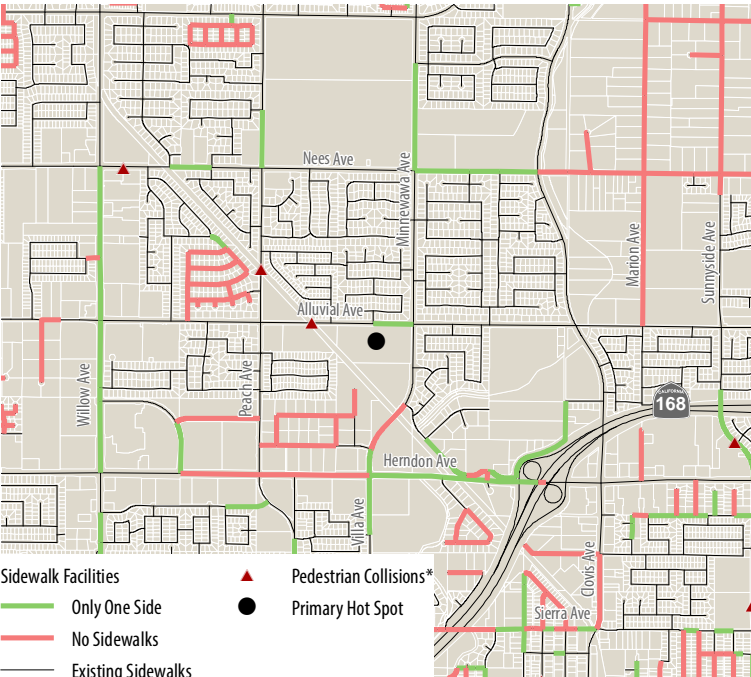
Walkshed is defined as 1.5 miles from primary hot spot, along existing roadway network. Bikeshed is 6 miles from primary hot spot along existing roadway network. Transitshed begins on any transit stop within 3/4 mile of the primary hotspot, and ends 3/4 mile from any transit stop within a 15 mile boundary in rural areas, or a 7 mile boundary in urban areas along existing transit routes network. The 15 and 7 mile boundaries are proxies for a standard 30 minute transit ride threshold in the rural areas and in the urban areas, respectively.

Source: Fresno COG; Fehr & Peers

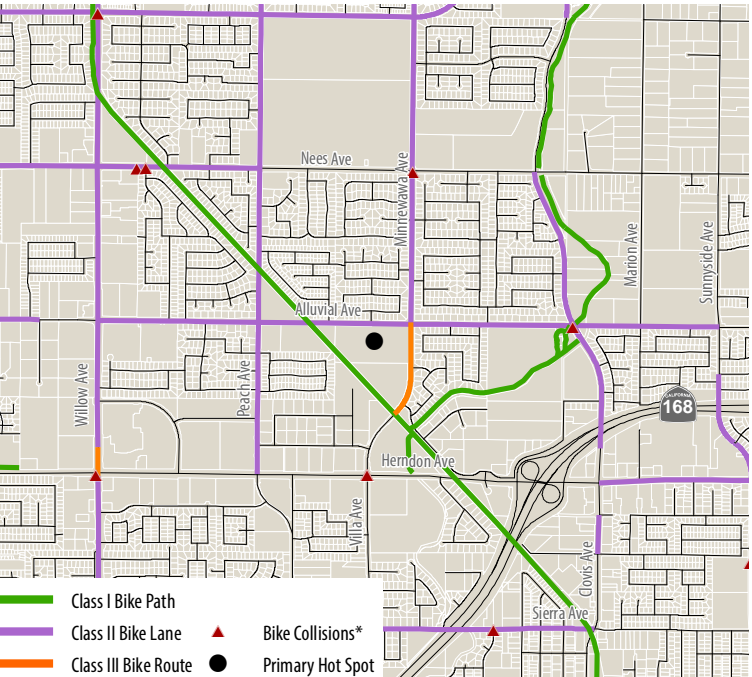


Wawona Frozen Foods

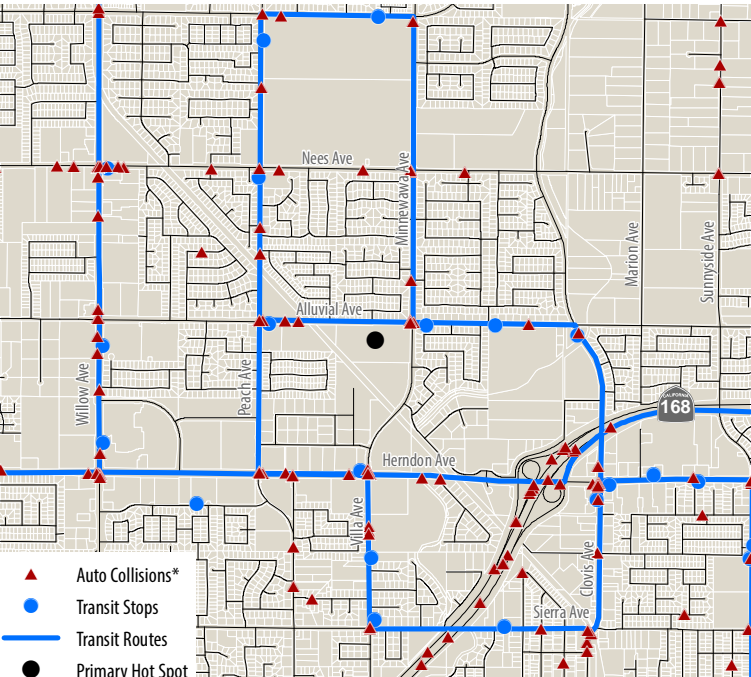
Existing Pedestrian Facilities



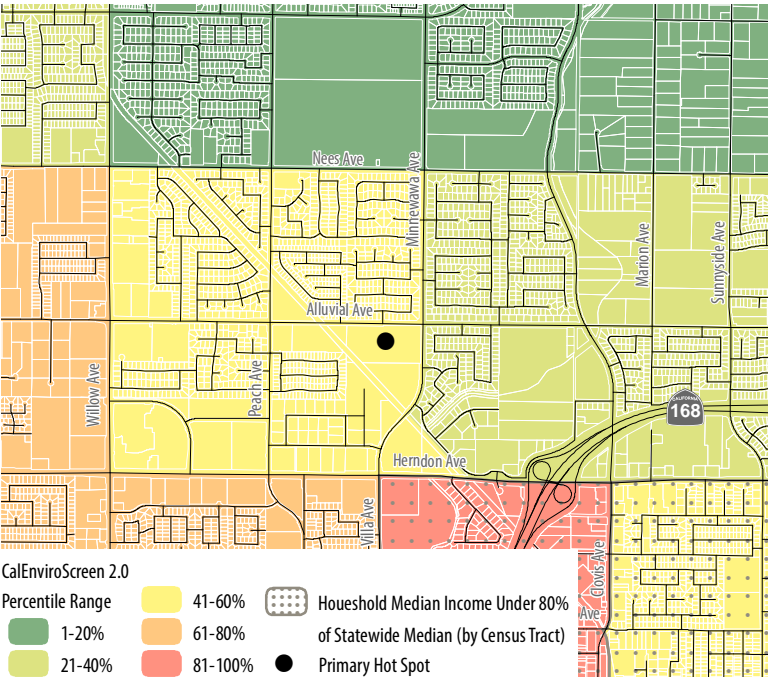
Existing Bike Facilities



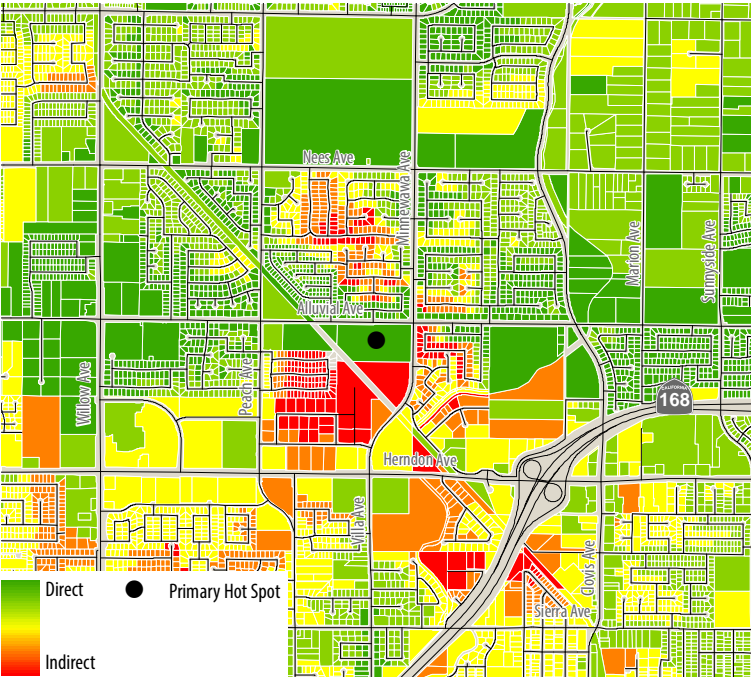
Existing Transit and Auto Facilities



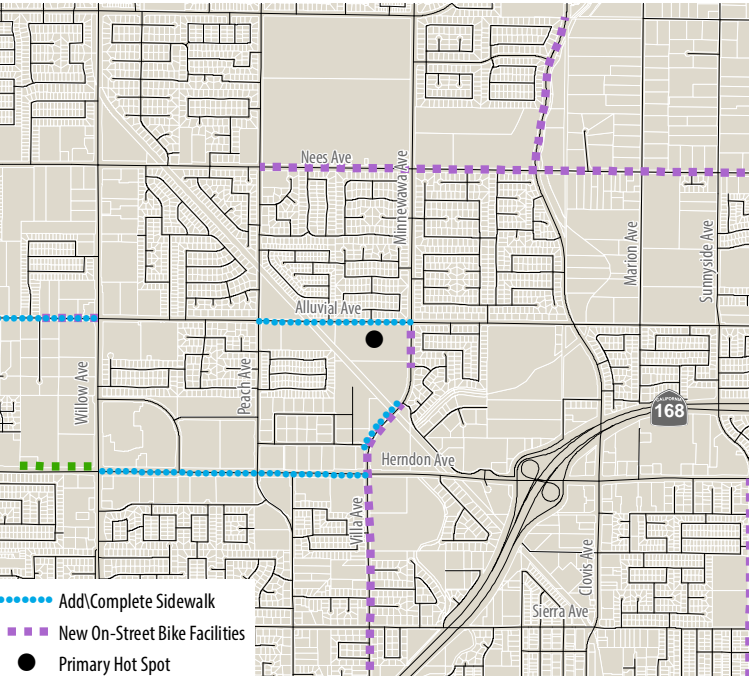
CalEnviroScreen 2.0 Percentile and Low Median Income



Route Directness (Existing Conditions)



Findings and Recommendations



- *Collisions shown are from 2008-2011. Priority listed in all caps.
- Add/Complete Sidewalk:**
• Fill gap in sidewalk on Villa Ave between Fir Ave and Minnewawa Ave - **HIGH**
• South side of Alluvial Ave between Minnewawa Ave and Peach Ave - **HIGH**
• Fill gaps on both sides of Herndon Ave between Willow Ave and Villa Ave - **LOW**
• Gaps on Alluvial Ave between Backer Ave and Chestnut Ave - **MEDIUM**
- New On-Street Bike Facilities:** - - - - -
• Clovis Ave between Nees Ave and Teague Ave - **LOW**
• Nees Ave between Peach Ave and Locan Ave - **MEDIUM**
• West side of Minnewawa Ave from Chennault Ave to Alluvial Ave - **MEDIUM**
• Villa Ave from Alluvial Ave to Gettysburg Ave - **MEDIUM**
- New Off-Street Bike Facilities:** ■ ■ ■ ■ ■
• Fill gaps in Class I Path on north side of Herndon Ave between Willow Ave and existing Class I Path - **MEDIUM**
- Transit:**
• Good access
- Auto:**
• Good access to major roadways
• Parking on location and available nearby
- Sunnyside Ave between Gettysburg Ave and Herndon Ave - **LOW**
• Bullard Ave from Willow Ave to Fowler Ave (located 1.5 miles south) - **LOW**
• Chestnut Ave from Bullard Ave to Herndon Ave (located 1.4 miles south) - **LOW**
• Fill gaps on Alluvial Ave from Willow Ave to Paula Ave - **MEDIUM**

Route Directness Enhancements

Not applicable,
no added connections