3 Existing Conditions



Establishing a Baseline

The Existing Conditions chapter explores transportation conditions and development patterns along Sacramento Avenue. This document will assist the planning team in understanding the existing strengths and opportunities of the Sacramento Avenue corridor.

Sacramento Avenue is a key corridor in the City of West Sacramento (the "City") that runs east-west between interstates 5 and 80. The corridor is approximately 2-miles in length between 2nd Street and Harbor Boulevard, including C Street east of 6th Street. As one of the City's major arterials, the roadway connects regional amenities such as West Sacramento's commercial anchors to the west (IKEA, Walmart, and The Home Depot) and the developing Sacramento River riverfront and downtown Sacramento to the east. As a local transportation route through primarily residential neighborhoods, the corridor also provides access to community amenities, including trails and outdoor recreation, schools, and lifestyle destinations.

The corridor's existing transportation infrastructure offers limited multimodal facilities to support safe and connected travel along and across the corridor. Class II bike lanes are present on most of the corridor; however, their value is limited due to high vehicular speeds, wide travel lanes, and minimal separation between bikes and cars. Pedestrian facilities are inadequate or largely disconnected, with approximately 40 percent of the corridor lacking sidewalk coverage.

With projected City-wide and regional land use and infrastructure growth in the near and long-term, the city initiated the Sacramento Avenue Complete Street Plan to ensure that future travel needs, and development impacts are considered within the local context.

Local Context

The Sacramento Avenue corridor is used by both residents and visitors, as well as those who pass-through the study area for a variety of trip purposes. The corridor's east-west alignment bisects primarily residential and mixed-use land uses and borders West Sacramento's northernmost neighborhood areas. The existing railroad alignment runs parallel to Sacramento Avenue just south of the corridor, further distinguishing the geographies of northern and southern West Sacramento neighborhoods. As such, it is critical to consider the demographics or those who most frequently use the corridor and live within walking or biking distance to the corridor.

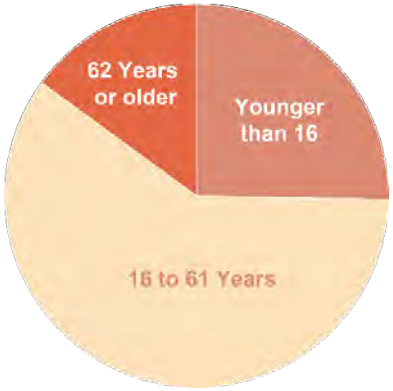
This section summarizes existing land use and local points of interest, as well as key demographic data points for individuals who reside in the Sacramento Avenue corridor area of interest. Individuals included in this evaluation include those who reside in the West Sacramento neighborhoods that intersect with the corridor area of interest – the Broderick, Bryte, Lighthouse, and Washington neighborhoods. Figure 6 presents neighborhood boundaries and points of interest within the vicinity.

Demographic Data

Demographic data presented here reflects 2021 Year estimates sourced from Replica. The study area neighborhoods within the vicinity of the Sacramento Avenue corridor have 14,300 residents, or 5,170 households.

Age

The average age of residents within the study area neighborhoods is 35 years. Of those residents, older adults (age 62 years and older) comprise over 15 percent while young people under the legal driving age (16 years) comprise 25 percent of the study area population.



Vehicle Ownership



Approximately 50% of residents own 2 or more vehicles

and 11% of residents do not own a vehicle.

Vehicle ownership is relatively high within the study area neighborhoods, with 34 percent of households owning one vehicle and 50 percent of households owning two or more vehicles. Approximately 11 percent of households do not own a vehicle. For the remaining 5 percent of households, vehicle ownership is categorized as unknown.

Employment Status

Of residents within the study area neighborhoods aged 16 years or older, approximately 55 percent of residents are employed, 39 percent are not in the labor force, and 6 percent are unemployed. The average age of residents that are not within the labor force is 53 years and the average age of residents that are unemployed is 30 years.

Points of Interest

The corridor's east-west alignment provides access to primarily residential and commercial properties. The north-south streets that intersect Sacramento Avenue provide access to neighborhood amenities including schools, parks and open space, community destinations and shopping.

Key destinations directly adjacent to the corridor include:

- Green/Open Space, including the Riverwalk along the Sacramento River at the corridor's east end.
- Neighborhood commercial centers, including:
  - Commercial center west of Harbor Boulevard/Reed Ave, including IKEA, Walmart, and The Home Depot.
  - Local markets and shops near Sacramento Avenue at Bryte Avenue and Solano Street.
  - Riverbend Shopping Plaza near Sacramento at Jefferson Boulevard/Kegle Drive.
  - Mixed-use residential and commercial buildings along C Street, between 5th Street and 2nd Street.



Figure 6 Local Context

Disadvantaged Communities

Disadvantaged communities, including low-income communities, communities of color, tribal nations and other disadvantaged groups are often faced with environmental or pollution burden. These communities often also have a history of a lack of investment in infrastructure, burdened by lack of appropriate facilities for bicycling, walking and public transit. The California Air Resources Board (CARB) cites that historical practices often limited access to public services and public funding for communities, based on race or ethnicity.[3] People living in disadvantaged communities often face difficulty in accessing transportation, and are more likely to be reliant on walking, bicycling, or public transit. It is important to identify disadvantaged communities, and to analyze infrastructure in these communities.

Disadvantaged community (DAC) status can be measured based on a variety of criteria. The DAC status criteria examined in the Plan are consistent with the California Transportation Commission (CTC) 2023 Active Transportation Program Guidelines and are discussed in greater detail below.

Median Household Income

Communities located within Census Tracts with a Median Household Income (MHI) that is less than 80 percent of the statewide median, or less than $60,188 is considered disadvantaged.[4] Figure 7 presents the MHI for the Census Tracts within the vicinity of the study corridor. As shown, both of the Census Tracts overlap with the corridor area of interest, and the two Tracts to the southwest are considered disadvantaged based on income. Three of the four tracts in the area that are considered disadvantaged based on MHI, feature incomes that are less than 65 percent of the statewide average.

CalEnviroScreen 4.0

CalEnviroScreen (CES) 4.0 is the latest iteration of the California Communities Environmental Health Screening Tool, an environmental justice mapping tool developed by the California Environmental Protection Agency (CalEPA) and the California Office of Environmental Health Hazard Assessment (OEHH). CES combines a variety of data sources to identify communities affected by multiple forms of pollution and highlight communities living at the intersection of pollution and poverty.

According to the CalEnviroScreen 4.0 Indicator Maps, the census tracts that encompass the study area neighborhoods are identified as disadvantaged communities based on their rankings in a variety of environmental, health, and socio-economic factors. Census Tracts 6113010102 and 6113010101 boundaries overlap with the Plan's area of interest and are referenced here. The two Census Tracts to the southeast of the study area are also considered disadvantaged These communities are within the top 25 percent of California's disadvantaged communities, identifying them as funding priority areas for projects that reduce emissions of greenhouse gases (per SB 535).

Figure 8 presents the CES 4.0 results for the areas within the vicinity of the study corridor and highlights the Census Tracts considered disadvantaged based on the CES results.

SACOG Environmental Justice Areas

SACOG, with the assistance of the SACOG Equity Working Group, identified 2020 Environmental Justice (EJ) areas based on various factors related to environmental impact in the Sacramento region, consistent with SACOG's 2020 MTP/SCS adopted plan. The EJ areas consider Census block group-level concentrations of income status, minority status, DAC status identified by CES 3.0, and "other vulnerabilities". Other vulnerabilities consider concentrations of older adults aged 75 or more, linguistically isolated households, single parent households with children under the age of 18, low educational attainment, severely housing cost burdened households, and persons with disabilities.

Figure 9 presents the block groups in the study area vicinity considered disadvantaged based on SACOG's EJ Area designation. As shown, all the block groups within the vicinity are considered disadvantaged based on at least one of the criteria used to quantify SACOG's EJ Areas.

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[3] https://ww2.arb.ca.gov/resources/documents/opportunities-address-past-inequity-sustainable-communities

4 Based on data U.S. Census Data Table B19013, 2015-2019 American Community Survey (ACS) 5-Year estimates. Statewide median income for this vintage is $75,235.

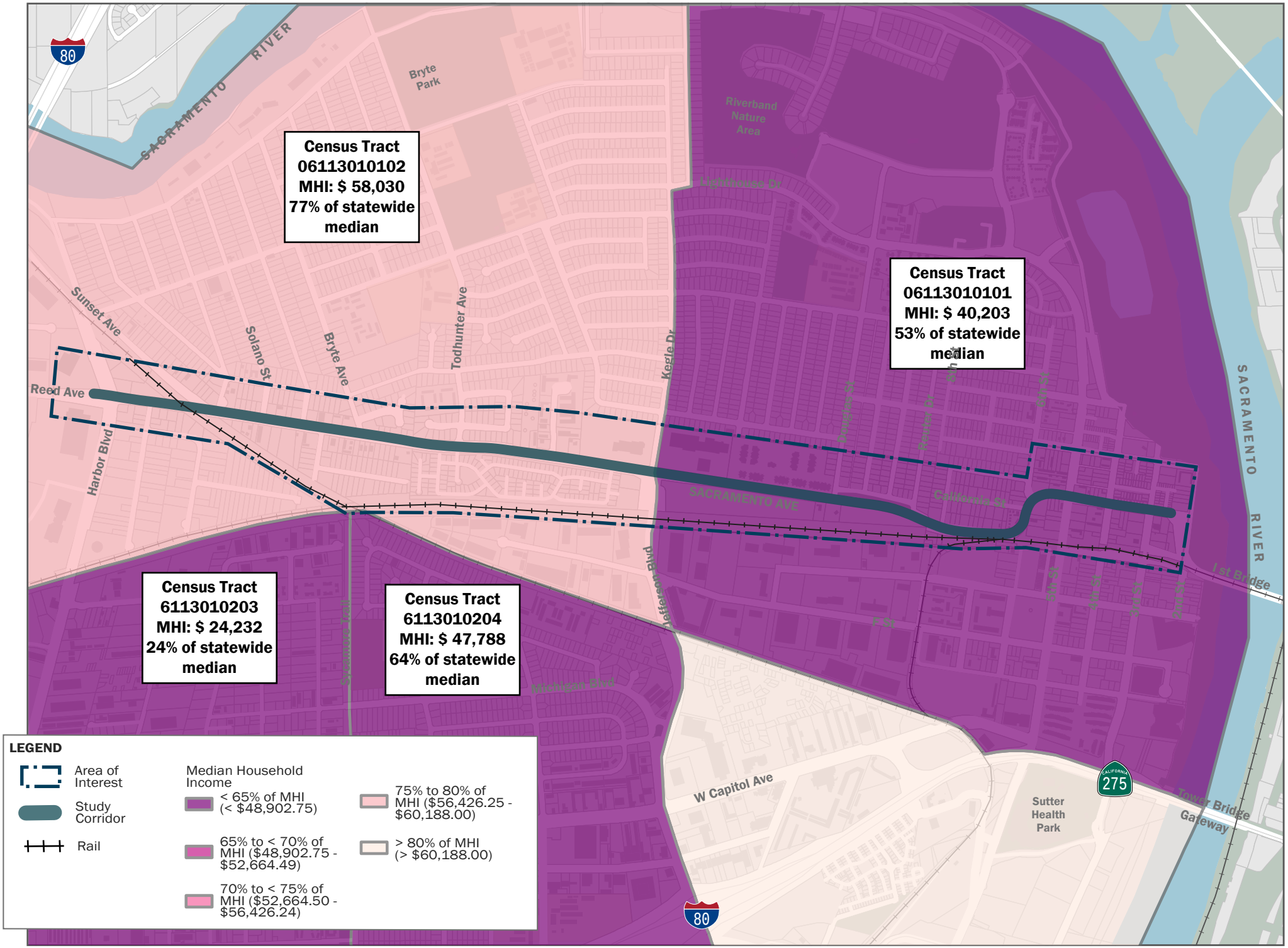


Figure 7 Disadvantaged Communities: Median Household Income (MHI)

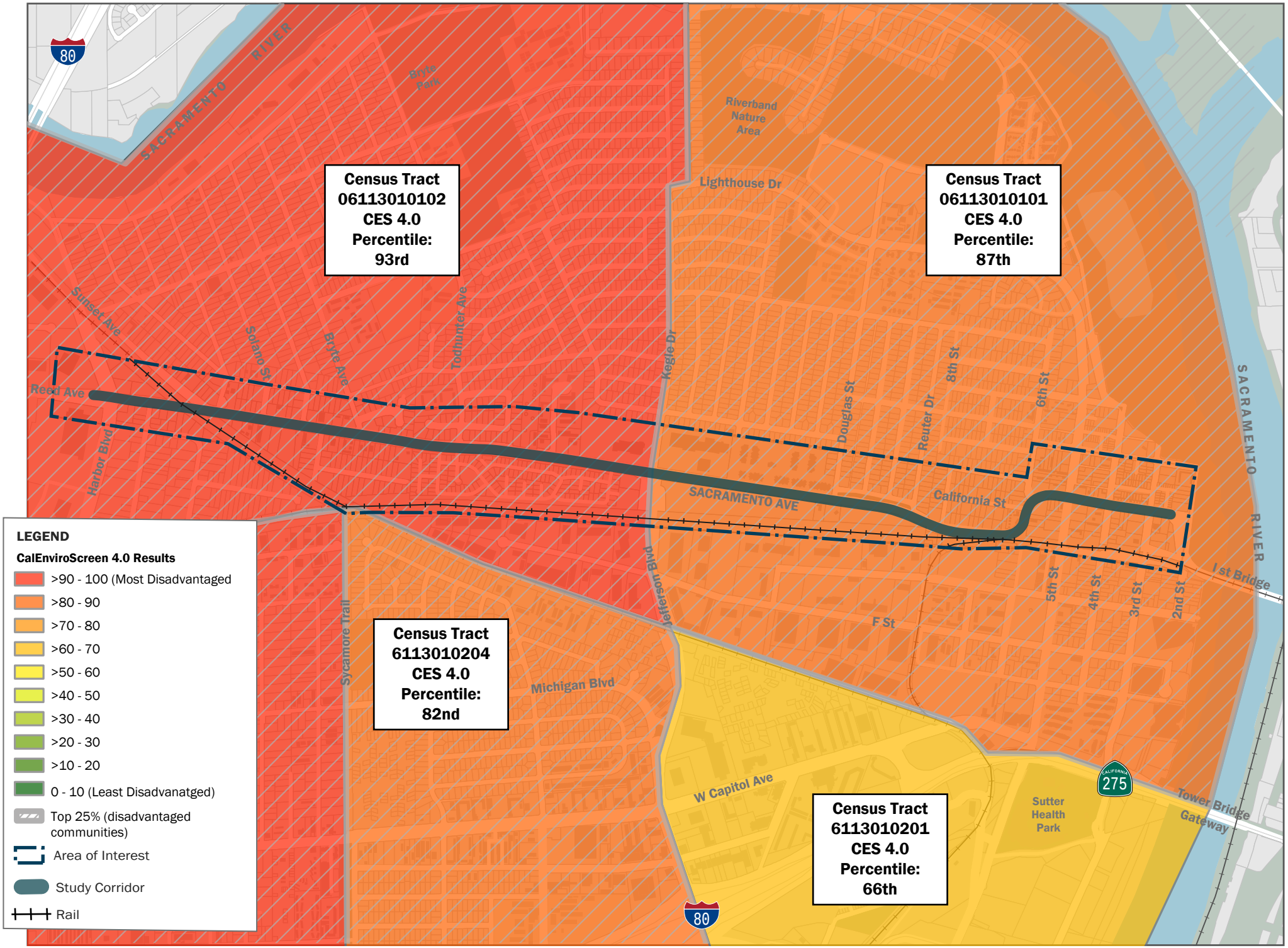


Figure 8 Disadvantaged Communities: CalEnviron Screen (CES) 4.0

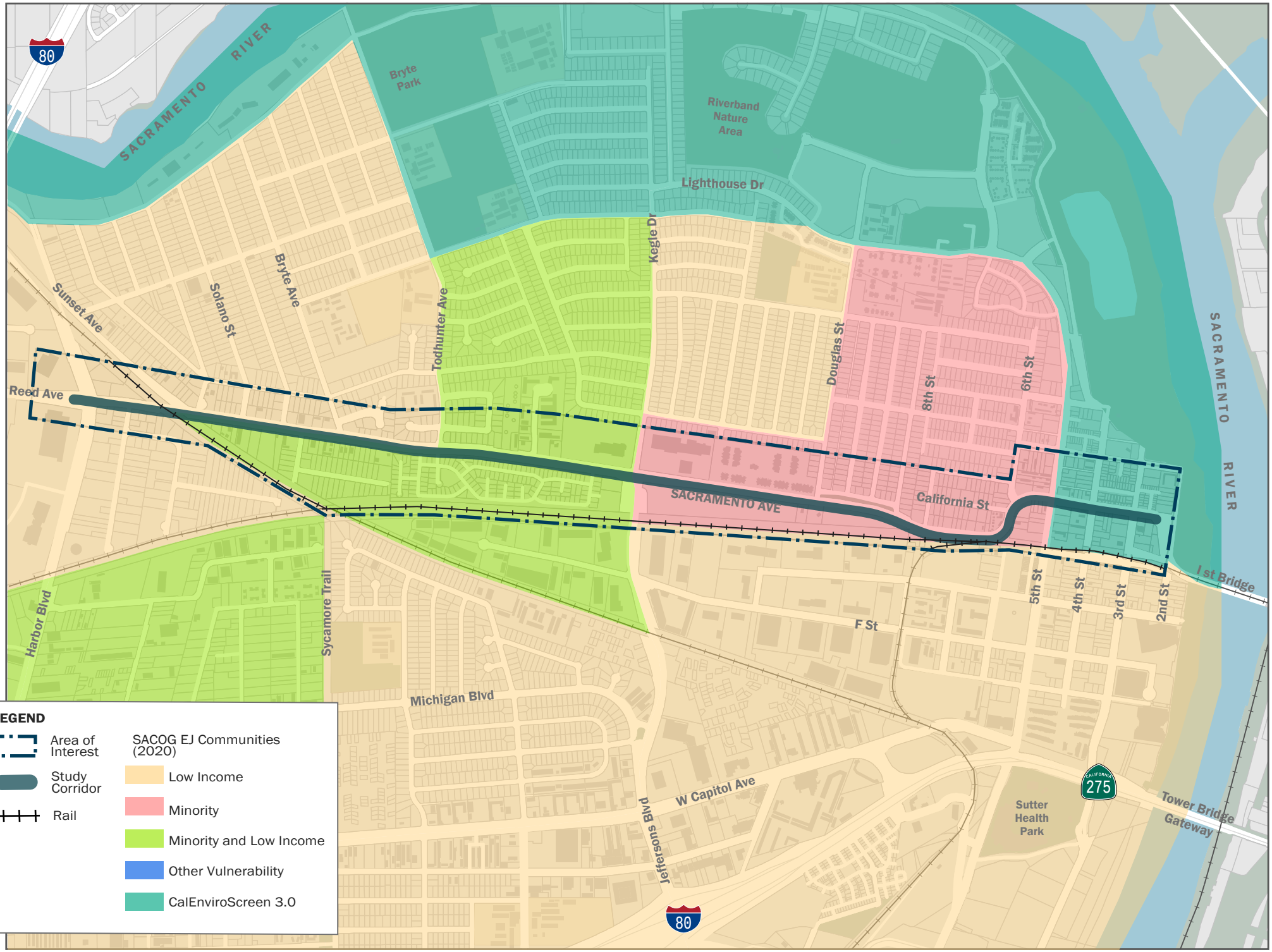


Figure 9 Disadvantaged Communities: SACOG EJ Areas

Local Mobility Trends

This section discusses local mobility trends, such as how people commute, where they walk or bike, and length of trips for individuals who reside within the vicinity of the Sacramento Avenue corridor area. Individuals included in this evaluation include residents of West Sacramento neighborhoods that intersect with the corridor area of interest – the Broderick, Bryte, Lighthouse, and Washington neighborhoods. Data reflects 2021 Year estimates sourced from Replica.[5]

All Trips

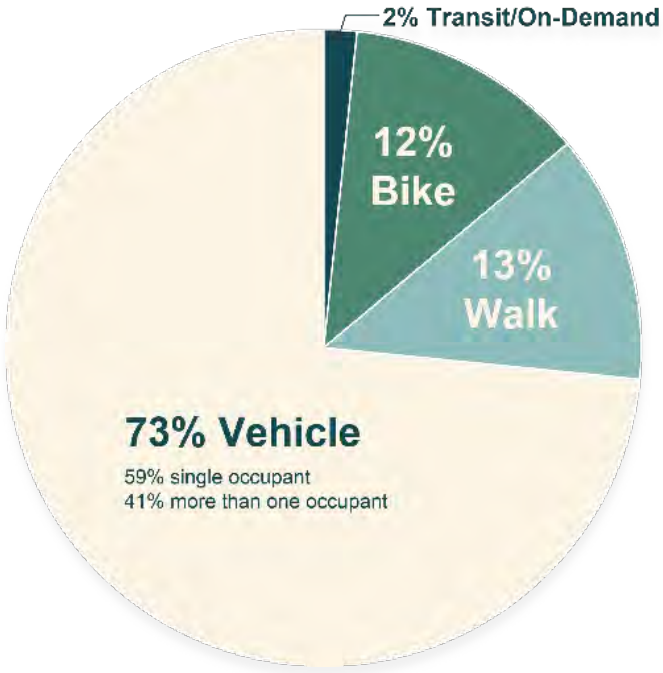
As shown in Table 2, 73 percent of all trips made by residents within the vicinity of Sacramento Avenue are made by vehicle, including carpool trips. Approximately 13 percent of trips were made by foot and 12 percent were made by bike. Just under 2 percent of trips were made by either public transit or on-demand services.

The average trip distance for all trips is 8.3 miles. As shown in Table 2, the average vehicle trip is 8.8 miles, the average walking trip is 0.6 miles, the average bicycle trip is 2.4 miles, and the average public transit trip is 8.9 miles.

Table 2 Trip Distance & Mode Split

Mode	Average Trip Distance (miles)	Proportion of Trips
Walking	0.6	13%
Biking	2.4	12%
Vehicle (including carpool)	8.8	73%
Public Transit/On-Demand	8.9	2%

Figure 10 Trip Mode Split – All Trips



Trip Purpose

The primary trip purpose for residents of the neighborhood study area are home-based trips (where the destination is the residence), comprising 33 percent of all resident trips.

Non-Home-Based Trips

For all non-home-based trips, 18 percent were work trips, 67 percent were lifestyle trips (shopping, eating, social), 9.4 percent were school trips, and 5.3 percent were recreation trips. Table 3 presents the average trip lengths associated with each trip purpose.

[5] Replica is a "big data" platform that provides traffic volume estimates based on a variety of sources, including mobile location data.

Table 3 Non-Home-Based Trip Purposes

Trip Purpose	Average Trip Distance (miles)	Proportion of Trips
Work-based	10.7	18.0%
Recreation	8.6	5.3%
Shop/Eat/Social	9.2	67.3%
School	3.4	9.4%

**"Other" trip purpose are not included in this analysis.*

Commute to Work

As shown in Table 4, over 63 percent of employed residents in the study area neighborhoods drive alone to work, while 27 percent carpool, almost 3 percent bike and 5 percent walk to work.

Table 4 Commute Mode Split

Mode	Average Trip Distance (miles)	Proportion of Trips
Public Transit or On-Demand	14.1	1.2%
Carpool	11.4	27.5%
Vehicle (including carpool trips)	8.3	63.5%
Biking	3.4	2.8%
Walking	0.4	5.0%

Short Trips

Understanding where "short" vehicle trips (one-way trips up to 1-mile in length) are concentrated highlights areas of opportunity where implementing complete street infrastructure may encourage a shift from driving to active modes. While not all drivers will choose to shift from driving to other modes, it is more likely when infrastructure and streetscape design make the active transportation experience more comfortable.

For study area residents, most short trips are made by vehicle (70 percent). Approximately 19 percent of short trips are made by walking and 11 percent are made by bicycle. Short trips of 1-mile or less are concentrated on Sacramento Avenue west of Jefferson Boulevard. Of those trips that are 0.5-mile or less, most occur on Sacramento Avenue between Solano Street and Todhunter Avenue.

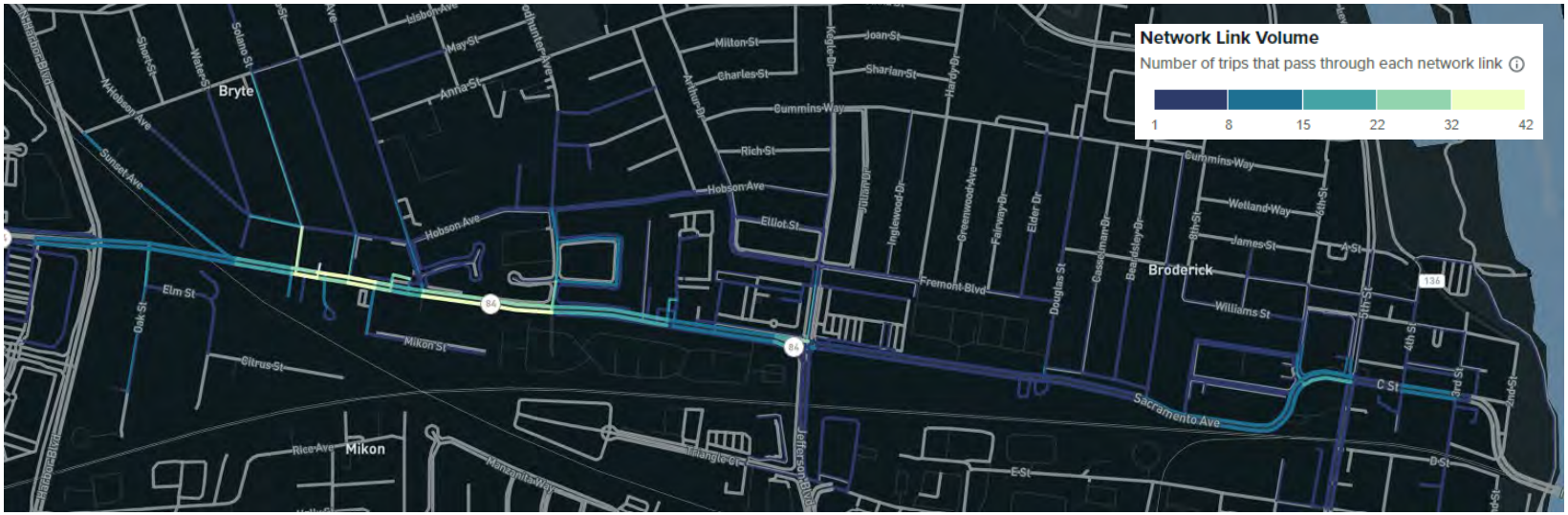
Figure 11 and Figure 12 show the concentration of short trips of up to 0.5-mile and 1-mile, respectively.

Corridor Origins and Destinations

Understanding the directionality of trips is important in identifying the routes that are most often used to access the corridor.

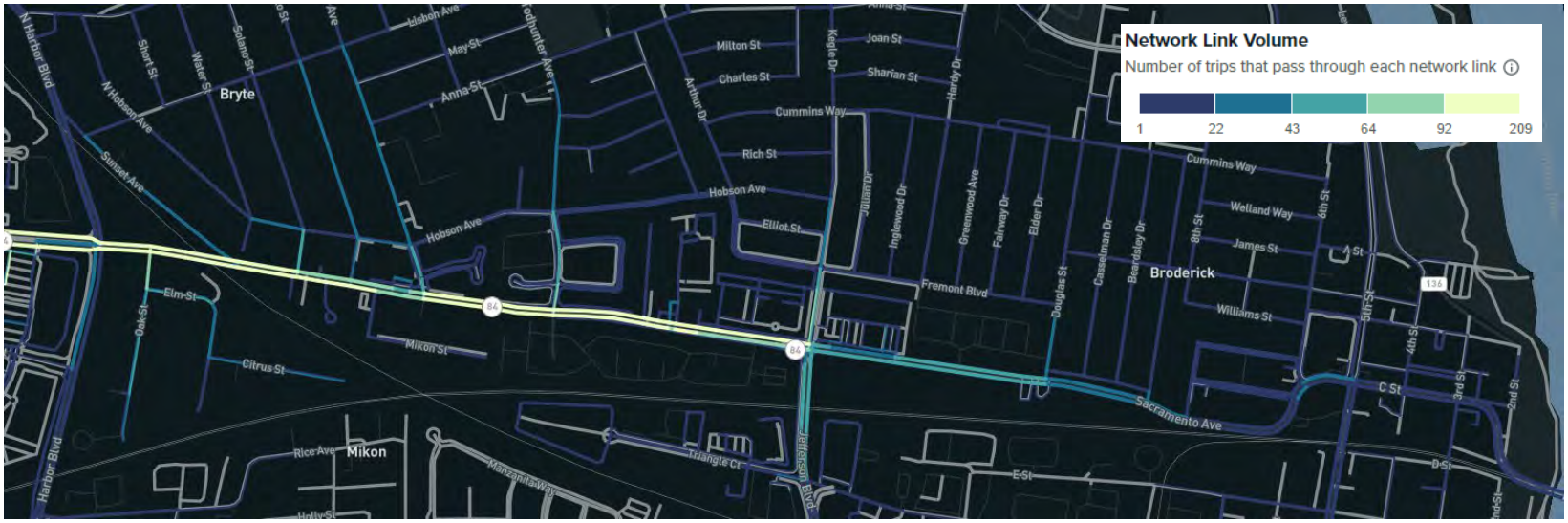
Figure 13 shows the directionality and distribution of outbound vehicle trips on the Sacramento Avenue corridor that are made by residents of the neighborhoods surrounding the corridor area of interest. These trip estimates exclude "home-based" trips (i.e., they do not include trips made to residents' houses. Trip patterns are consistent with traffic volume counts, with most trips occurring on Reed Avenue west of the study area, Jefferson Avenue south of the study area, and the I Street Bridge east of the study area.

Figure 11 Concentration of Short Vehicle Trips (up to 0.5 mile)



Source: Replica.

Figure 12 Concentration of Short Vehicle Trips (0.5 to 1 mile)



Source: Replica.



Figure 13 Resident* Outbound (Non-Hom-Based) Trips

Roadway Conditions

The Sacramento Avenue corridor includes Sacramento Avenue and C Street between Harbor Boulevard and 2nd Street in West Sacramento. It is classified as a medium-high access control arterial with an east-west alignment bisecting West Sacramento between Interstates 5 and 80. The western end of the corridor transitions to Reed Avenue approximately ¼ mile from Interstate 80 ramps. The eastern end of the corridor transitions to I Street across the existing I Street Bridge alignment, providing access to the Sacramento River, Downtown Sacramento, and indirect access to Interstate 5 freeway ramps.

Functional Classification

Sacramento Avenue is classified as a minor arterial between Harbor Boulevard and 5th Street, and as a major arterial from 5th Street to the I Street Bridge. The corridor intersects major north-south roadways in West Sacramento including other major arterials (Harbor Boulevard and Jefferson Boulevard), several minor arterials (North Harbor Boulevard, 5th Street, and 3rd Street) and several collectors (Bryte Avenue, Todhunter Avenue, Kegle Drive, Douglas Street, and 6th Street).

Traffic Control & Speed

Figure 14 presents the traffic control at intersections and speed limits along the corridor. As shown, there are signalized intersections at the following intersections:

- Harbor Boulevard/Reed Avenue
- Sacramento Avenue/ Bryte Avenue
- Sacramento Avenue/Kegle Dr/Jefferson Boulevard
- Sacramento Avenue/5th Street
- Sacramento Avenue/3rd Street

The remaining intersections along the corridor are side-stop-controlled. Posted speeds along most of the corridor, from the east end at Harbor Boulevard to 6th Street, are 40 mph. Posted speed on the west end of the corridor is 25 mph. According to traffic data collected by the City of West Sacramento in 2021 and 2022, the 85th percentile vehicle speeds along the corridor exceed the speed limits, with speeds of 45 mph west of 5th street and speeds of 37 mph east of 5th street.

However, public engagement efforts highlighted issues with speeding, with some members of the public citing speeds as high as 70 mph in some locations.

Volume & Operations

Average daily traffic (ADT) volume, heavy truck movement and intersection level of service along the corridor is discussed in the following sections.

Average Daily Traffic (ADT)

Daily roadway segment traffic volumes were collected at three locations on the corridor by the City of West Sacramento in 2021 and 2022:

- Sunset Avenue to Jefferson Boulevard: 14,464 ADT
- Jefferson Boulevard to 6th Street: 7,840 ADT
- 5th Street to City Limit: 10,100 ADT

Twelve additional locations on roadways that intersect the study corridor were also collected in 2021 and 2022. Figure 15 presents the ADT volumes from these. As shown, volumes along the corridor west of Jefferson Boulevard/Kegle Drive are around 14,000 to 15,000 vehicles per day and 8,000 to 10,000 vehicles per day east of Jefferson Boulevard.

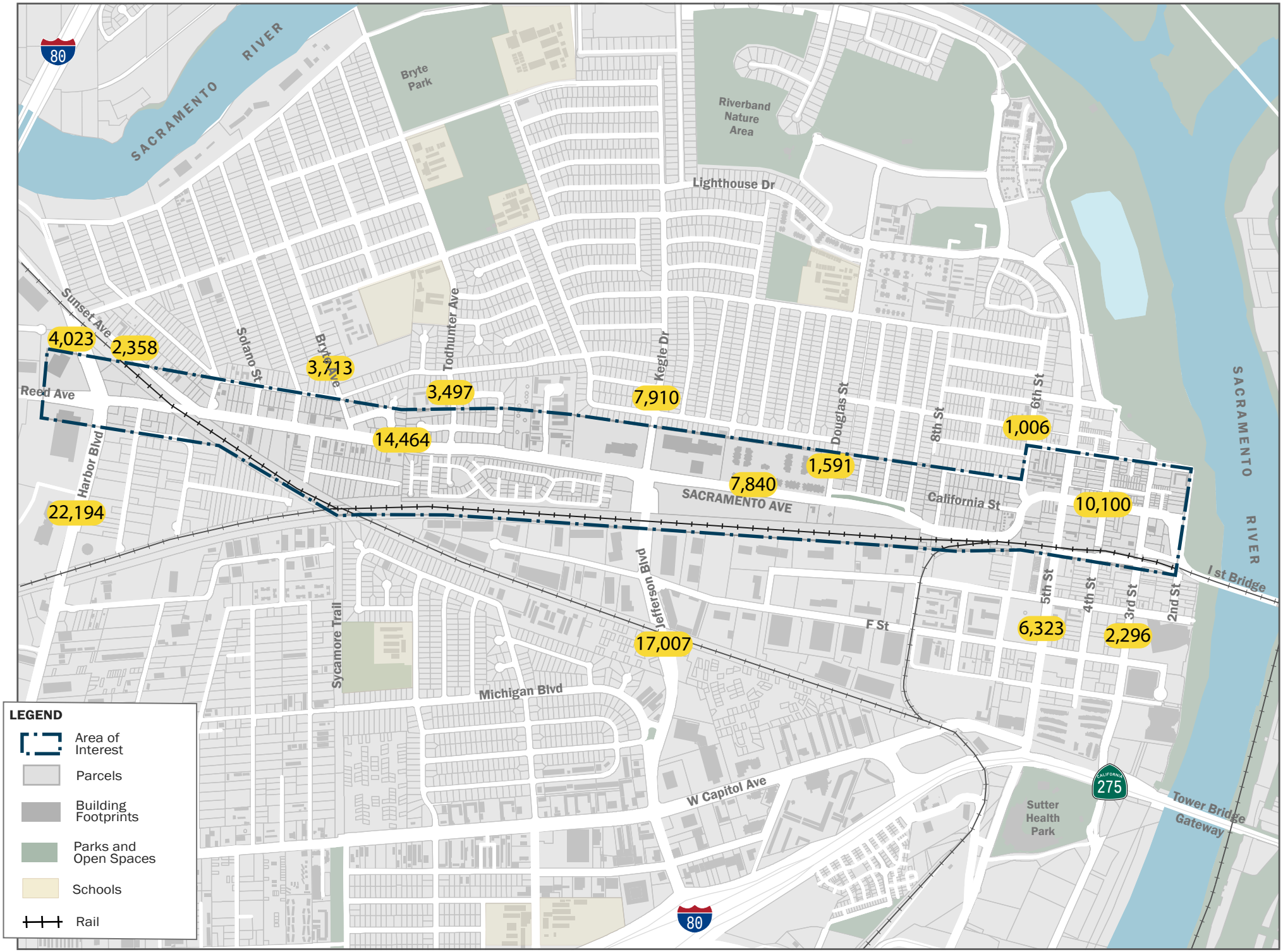
Heavy Trucks

Figure 16 presents truck routes in the vicinity of the corridor area of interest. As shown, west of Jefferson Blvd, Sacramento Avenue west of Jefferson Boulevard is a Terminal Access (STAA) truck route. The STAA route continues south along Jefferson Boulevard. Additionally, the south leg Harbor Blvd connects at Sacramento Avenue as a local city truck route (CA LEGAL).

Heavy truck volumes along the corridor are approximately 8 percent of total vehicle volumes west of Jefferson Boulevard, 6 percent between Jefferson Boulevard and 5th Street, and 11 percent east of 5th Street according to 2021 Replica estimates. Replica is a “big data” platform that provides traffic volume estimates based on a variety of sources, including mobile location data.



Figure 14 Existing Traffic Control & Speed



*Approximate locations for Average Daily Trafic (ADT) counts collected in 2021 & 2022 by City of West Sacramento.

Figure 15 Daily Vehicle Volumes

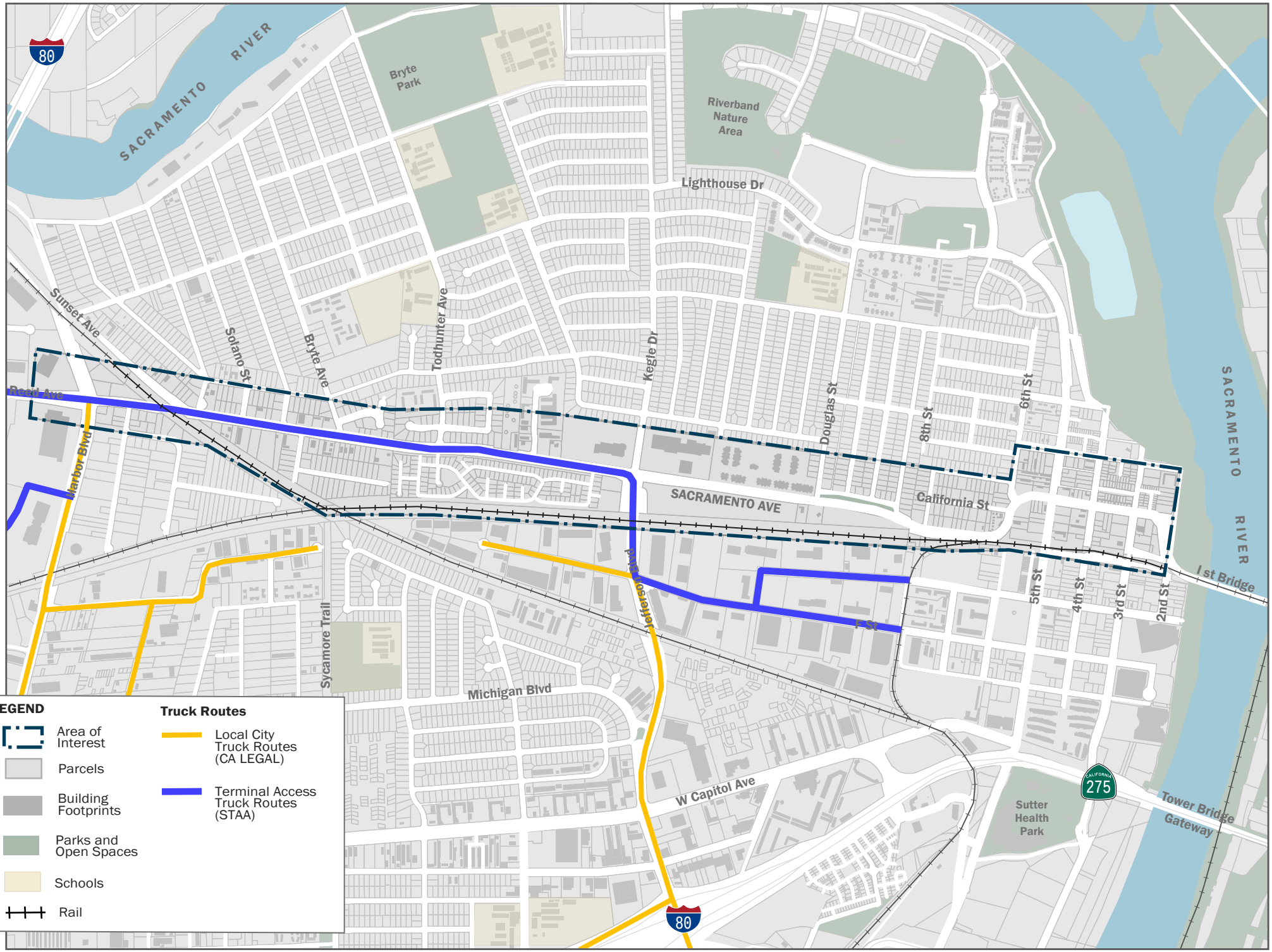


Figure 16 Truck Routes

INTERSECTION LEVEL OF SERVICE

Traffic operations were measured by Level of Service (LOS) at key intersections selected for vehicle operations analysis, including:

1. Sacramento Ave/Reed Ave/Harbor Boulevard
2. Sacramento Avenue/Solano Street
3. Sacramento Avenue/Bryte Avenue
4. Sacramento Avenue/Todhunter Avenue
5. Sacramento Avenue/Kegle Drive
6. Sacramento Avenue/Douglas Street
7. Sacramento Avenue/Reuter Drive
8. Sacramento Avenue/C Street/6th Street
9. C Street/5th Street
10. C Street/3rd Street

LOS a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection, or roadway segment, representing progressively worsening traffic conditions. LOS "A" represents free-flow operating conditions and LOS "F" represents over-capacity conditions. Levels of Service methodology is described in the Appendix.

The City's General Plan Mobility Element includes the following policies pertaining to LOS.

M-3.2 Vehicular Level of Service

For planning purposes, the City shall endeavor to maintain a vehicular Level of Service "C" on all streets within the City, except at intersections and on roadway segments within one-quarter mile of a freeway interchange or bridge crossing of the Deep Water Ship Channel, barge canal, or Sacramento River, where a Level of Service "D" shall be deemed acceptable, and within pedestrian oriented, high-density, mixed-use areas, such as the Pioneer Bluff and Stone Lock Reuse Master Plan area, Bridge District Specific Plan area, Washington District Specific Plan area, and Sacramento Avenue and West Capitol Avenue corridors east of Harbor Boulevard, where a vehicular Level of Service "E" shall be deemed acceptable. (RDR)

M-3.3 Level of Service Flexibility

The City shall, on a case-by-case basis, allow for lower vehicle level of service if other transportation goals (i.e., creation of complete streets) will be met; other modes (i.e., walking, bicycling, and public transit) would be negatively impacted by improvements required to maintain the vehicular LOS; or the land use context warrants deviation. Exceptions to the vehicular level of service operating goals shall require the approval of the City Council. (RDR)

Per policy M-3.2, all study intersections use LOS E as the threshold for acceptable conditions as Sacramento Avenue and the Washington District Specific Area are pedestrian oriented, high-density, mixed-use area. Policy M-3.3 does allow flexibility in determining the LOS threshold within the context of meeting other transportation goals, such as complete streets, which is a goal of this plan; however, exceptions to the LOS thresholds stated in Policy M-3.2 require approval from City Council.

LOS Results

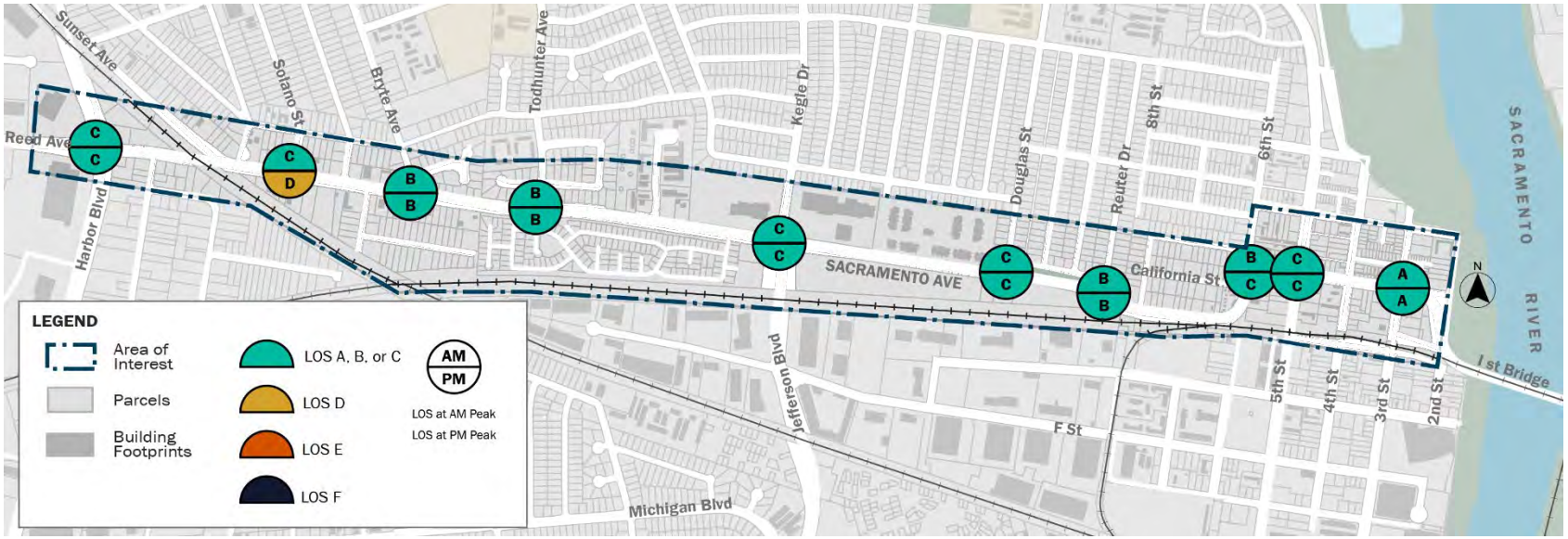
Table 5 presents the LOS results at the ten study intersections, and these results are also shown in Figure 17. As shown, all intersections currently operate better than the target LOS E threshold for the corridor.

Table 5 Intersection Level of Service – Existing Conditions

#	Location	Control Type [1]	Target LOS[2]	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Sacramento Ave/Reed Ave/Harbor Blvd	Signal	E	20.1	C	24.0	C
2	Sacramento Ave/ Solano Street	SSSC	E	16.6	C	32.2	D
3	Sacramento Ave/ Bryte Avenue	Signal	E	11.1	B	11.1	B
4	Sacramento Ave/ Todhunter Ave	Signal	E	13.6	B	11.3	B
5	Sacramento Ave/Kegle Dr	Signal	E	29.3	C	32.9	C
6	Sacramento Ave/Douglas St	SSSC	E	16.2	C	16.4	C
7	Sacramento Ave/Reuter Dr	SSSC	E	11.2	B	14.2	B
8	Sacramento Ave/C St/6th St	SSSC	E	12.6	B	15.7	C
9	C Street/5th St	Signal	E	21.3	C	23.4	C
10	C Street/3rd St	Signal	E	7.7	A	9.7	A

1. SSSC = Side-Street Stop Control
2. LOS = Delay based on worst minor street approach for SSSC and average of all approaches for Signal.

Figure 17 Existing Intersection Level of Service



Existing Roadway Cross-Sections

The Sacramento Avenue roadway cross-section varies in paved roadway width, number of lanes per direction, posted vehicle speed, and fronting land use types. Furthermore, the corridor adjoins a mix of developed, undeveloped, and underdeveloped properties. The Plan has identified six distinct segments along the corridor to emphasize the changing characteristics of the roadway as well as the adjacent land use types and development status. The existing roadway characteristics and surrounding land use of the six segments are described below. Multimodal facilities and connectivity are described in greater detail in the following chapter.

The corridor segments include the following:

- S1. Harbor Boulevard to Solano Street
- S2. Solano Street to Todhunter Avenue
- S3. Todhunter Avenue to Jefferson Boulevard/Kegle Dr
- S4. Jefferson Boulevard/Kegle Drive to Douglas Street
- S5. Douglas Street to California Street
- S6. California Street to 2nd Street

Cross sections associated with each segment are presented in the following pages. The key map for the cross-sections associated with each segment is presented in Figure 18.

Segment Summary

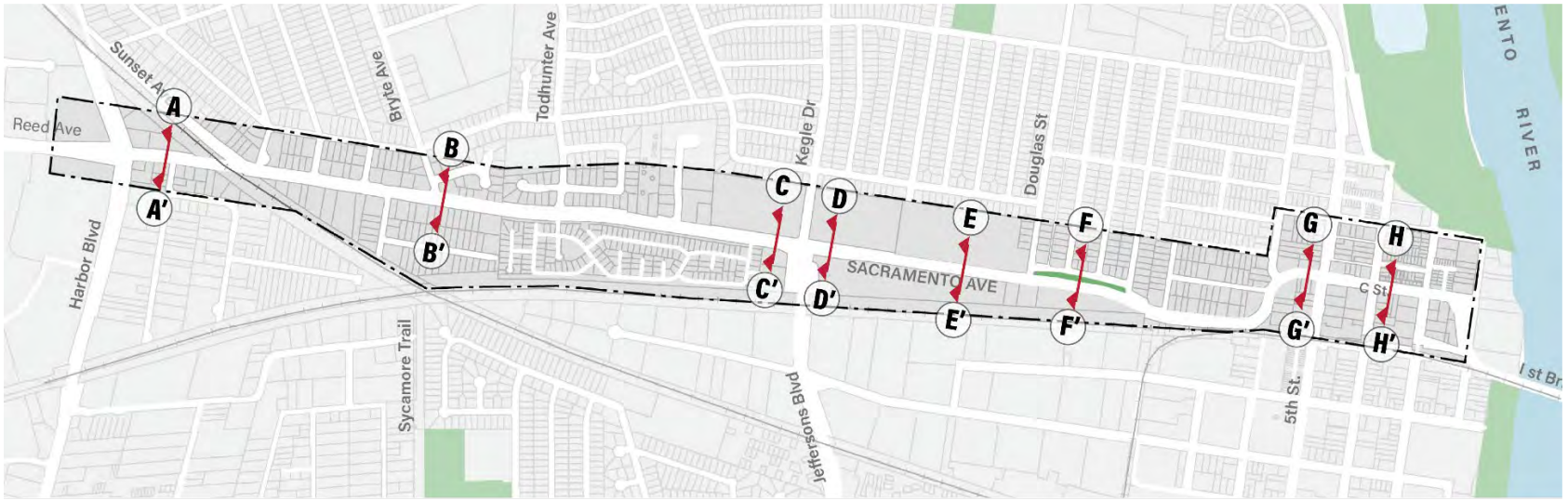
The following table presents a summary of the existing roadway conditions per study segment.

Table 6 Roadway Conditions Summary

Segment Location	Length (mile)	Posted Speed Limit (mph)	Total # Vehicle Lanes	ROW (feet) [1,2]	Existing Pavement (average, rounded) (feet)
Segment 1	0.30	40	4 + Center Turn Lane	100	80
Segment 2	0.35	40	4 + Center Turn Lane	100	80
Segment 3	0.35	40	4 + Center Turn Lane	90 – 120	80
Segment 4	0.35	40	2 + Buffered Median / Center Turn Lane	80 – 100	30 – 75
Segment 5	0.40	40	2	36* - 100	30 – 75
Segment 6	0.25	25	2 + Left/Right Turn Lanes	80**	47 – 65

1. Calculated to mid-intersection to reflect curb.
2 Approximate measurements between existing parcel boundaries.
**55' ROW borders City-owned landscaped area on southside of Elkhorn Plaza.*
***ROW for Segment 6 provided within the Washington Realized, A Sustainable Community Strategy, 2015*

Figure 18 Existing Cross-Section Key Map



KEY MAP

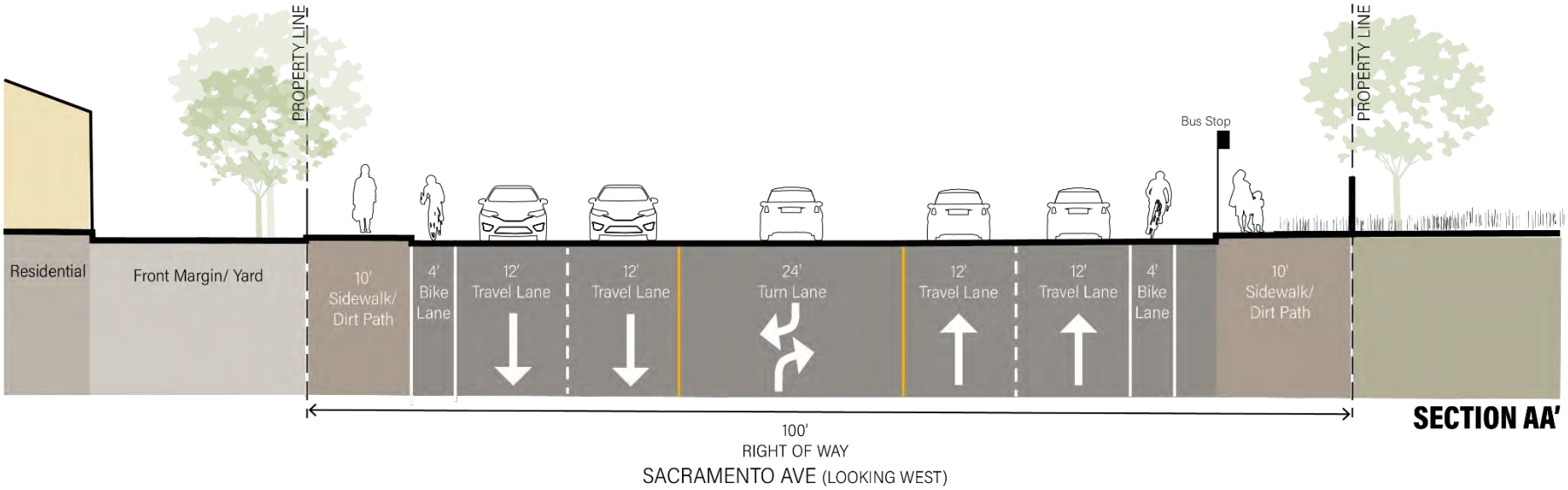
Segment 1: Harbor Boulevard to Solano Street

Segment one is 0.3 miles long with two vehicle lanes per direction and a center turn lane. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way (ROW) is 90 feet, and the average paved roadway width is 80 feet.

The segment includes sidewalk facilities with gaps on both the north and south sides of the street. There are Class II bike lanes on both sides of the street. Adjacent land use designations include medium-density residential, commercial, and business park.

The cross-section associated with Segment 1 is shown in Figure 19.

Figure 19 Segment 1 – Cross-Section AA'



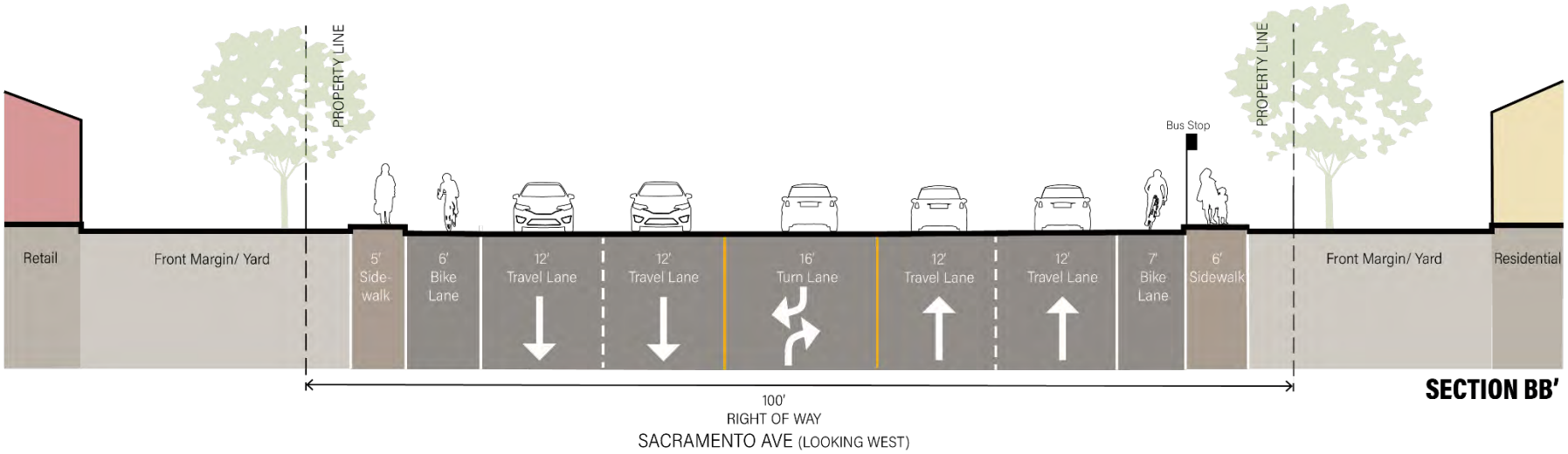
Segment 2: Solano Street to Todhunter Avenue

Segment two is 0.35 miles long with two vehicle lanes per direction and a center turn lane. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way is 90 feet, and the average paved roadway width is 80 feet.

The segment includes sidewalk facilities with gaps on the north side of the street, while the majority of the south side of the street includes continuous sidewalks. There are Class II bike lanes on both sides of the street. Adjacent land use designations include low-density residential and neighborhood mixed use.

The cross-section associated with Segment 2 is shown in Figure 20.

Figure 20 Segment 2 – Cross Section BB'



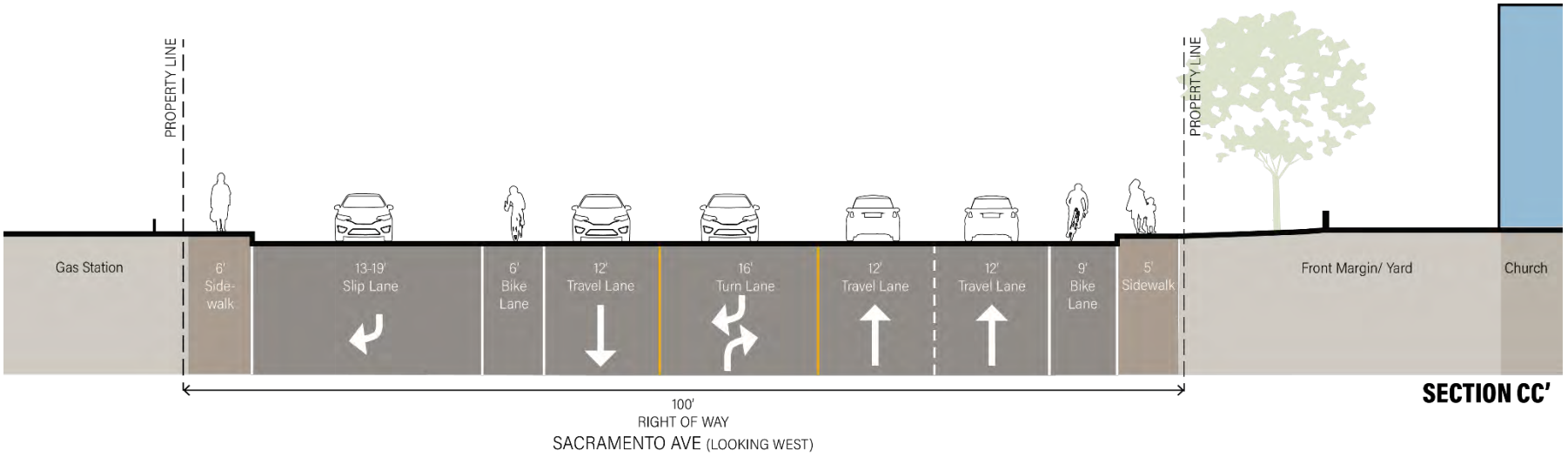
Segment 3: Todhunter Avenue to Jefferson Boulevard/Kegle Drive

Segment three is 0.35 miles long with two vehicle lanes per direction and a center turn lane. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way is 90 feet, and the average paved roadway width is 80 feet.

The segment includes sidewalk facilities with gaps on the north side of the street, with continuous sidewalk on the south side. There are Class II bike lanes on both sides of the street. Adjacent land use designations include low- and high-density residential, commercial, neighborhood mixed use and public/quasi-public (church).

The cross-section associated with Segment 3 is shown in Figure 21.

Figure 21 Segment 3 – Cross Section CC'



Segment 4: Jefferson Boulevard/Kegle Drive to Douglas Street

Segment four is 0.35 miles long with two vehicle lane per direction and left turn pockets at some intersections. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way is 75 feet, and the average paved roadway width is 30 to 75 feet.

The segment includes minimal sidewalk facilities on the north side of the street, with no sidewalk facilities on the south side. There are Class II bike lanes on both sides of the street. Adjacent land use designations include high-density residential and neighborhood mixed use. There is a large vacant parcel on the south side of the roadway that is slated for proposed high-density, mixed-use development.

The cross-sections associated with Segment 4 are shown in Figure 22 and Figure 23.

Figure 22 Segment 4 – Cross Section EE'

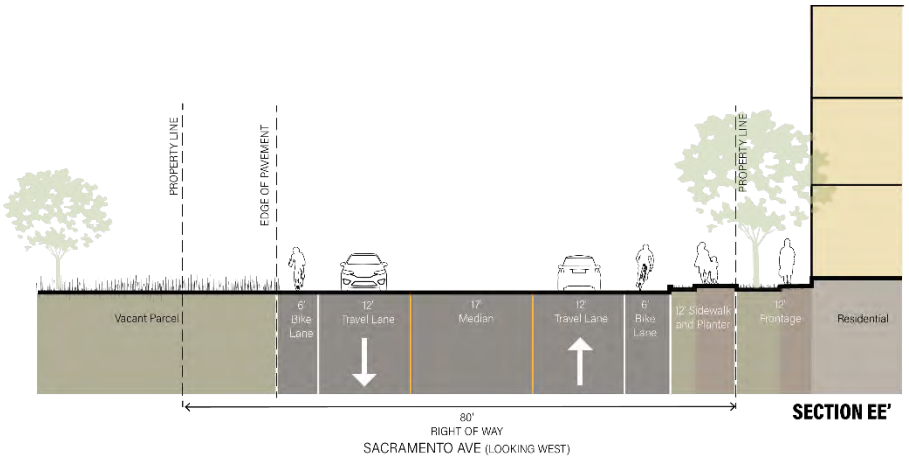
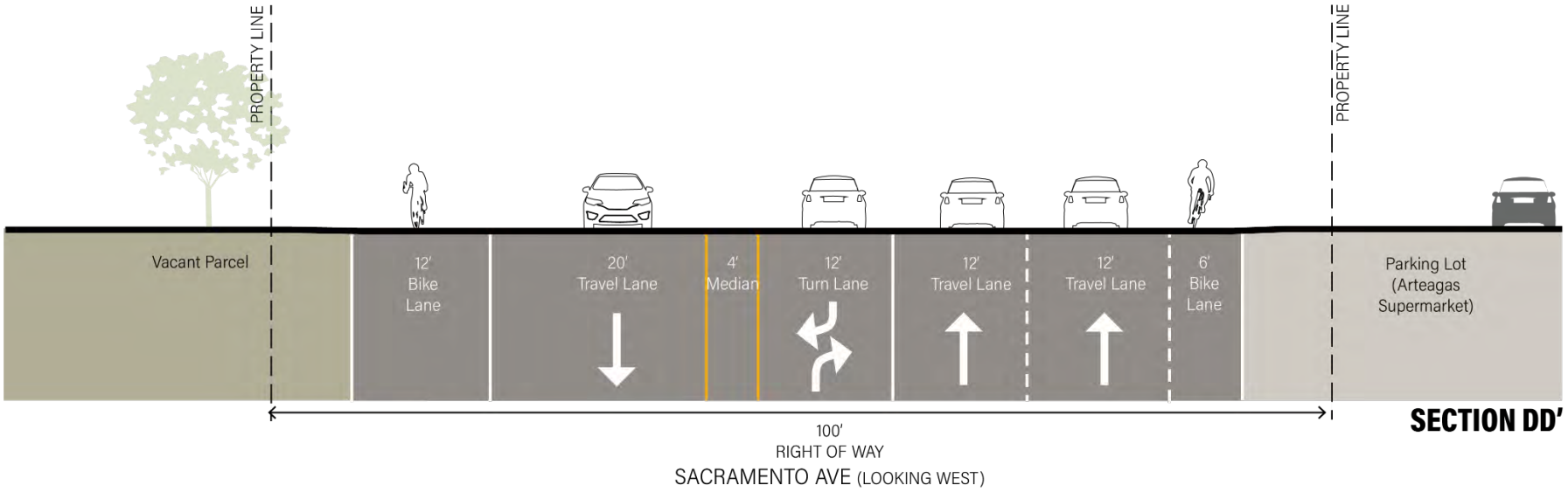


Figure 23 Segment 4 – Cross Section DD'



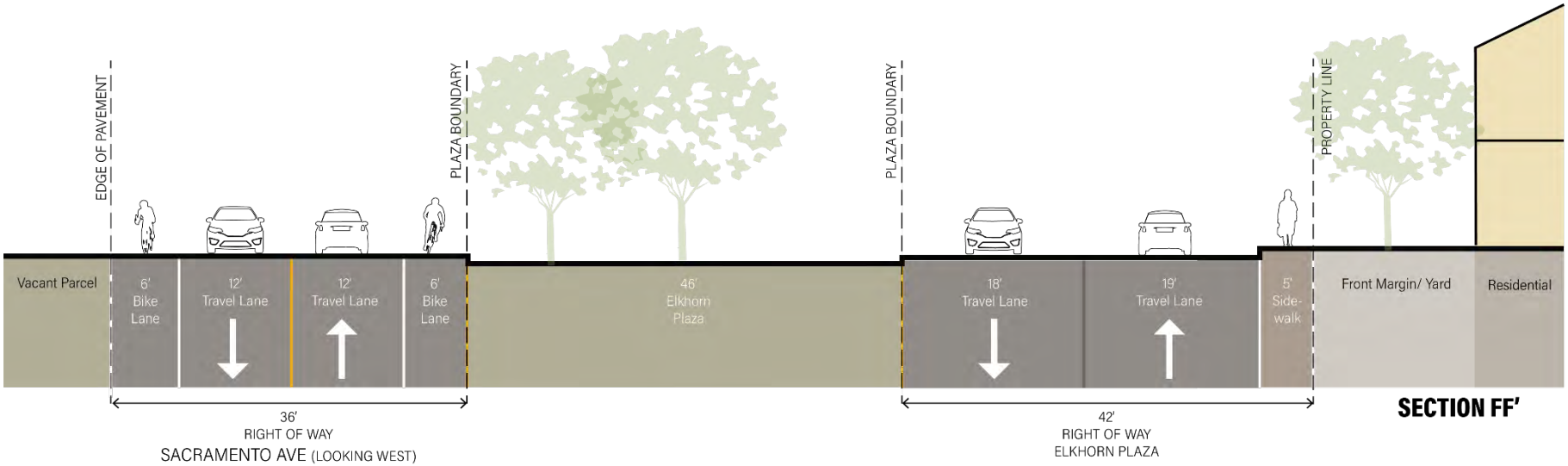
Segment 5: Douglas Street to California Street

Segment five is 0.40 miles long with one vehicle lane per direction with no center turn lane. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way is 75 feet, and the average paved roadway width is 30 to 75 feet.

Aside from a small segment of existing sidewalk on the south side of the street south of California/6th Street, there are no sidewalk facilities along the segment and there are Class II bike lanes on both sides of the street. Adjacent land use designations include low-density residential and neighborhood mixed use.

The cross-section associated with Segment 5 is shown in Figure 24.

Figure 24 Segment 5 –Section FF'



Segment 6a: California Street to 2nd Street

Segment 6 significantly differs in cross-section west and east of 5th Street. Both conditions are described below as 6a and 6b, respectively.

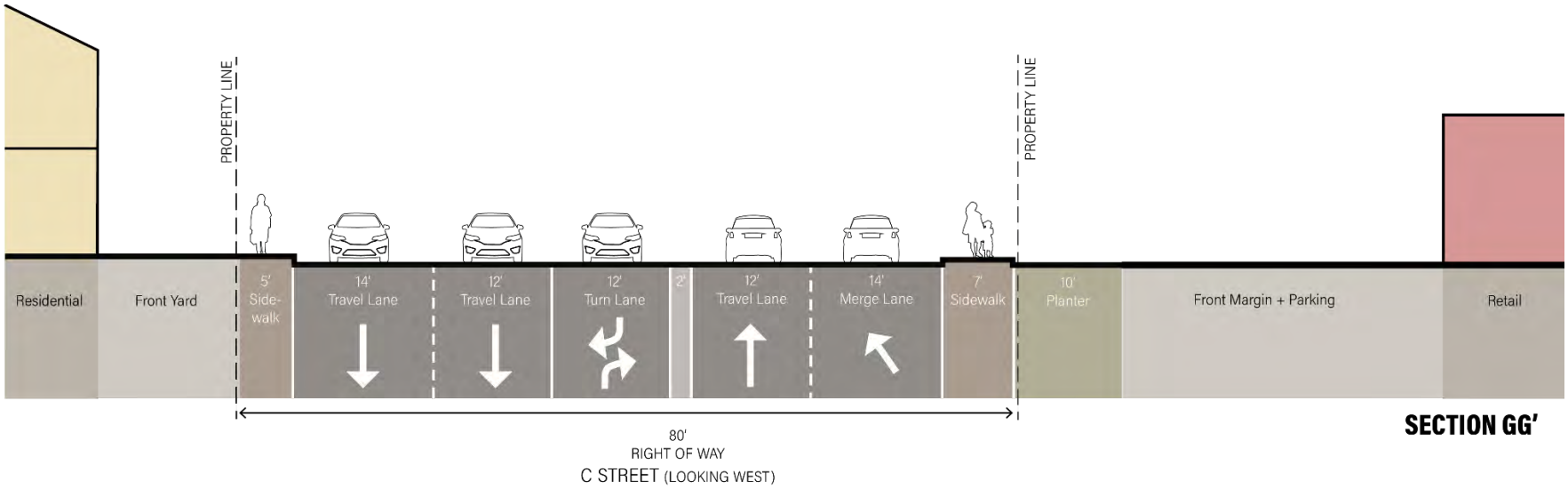
Segment 6a: California Street to 5th Street

Segment five is 0.10 miles long with one vehicle lane per direction with no center turn lane. The posted speed is 40 mph and the 85th percentile speed is 45 mph. The right-of-way is 80 feet, and the average paved roadway width is 60 feet.

There are sidewalk facilities on both sides of the street. The Class II bike lanes are dropped in this location, but the segment is designated as a Class III bike route. Adjacent land use designations include medium-density residential and neighborhood mixed use.

The cross-section associated with Segment 6a is shown in Figure 25.

Figure 25 Segment 6a –Section GG'



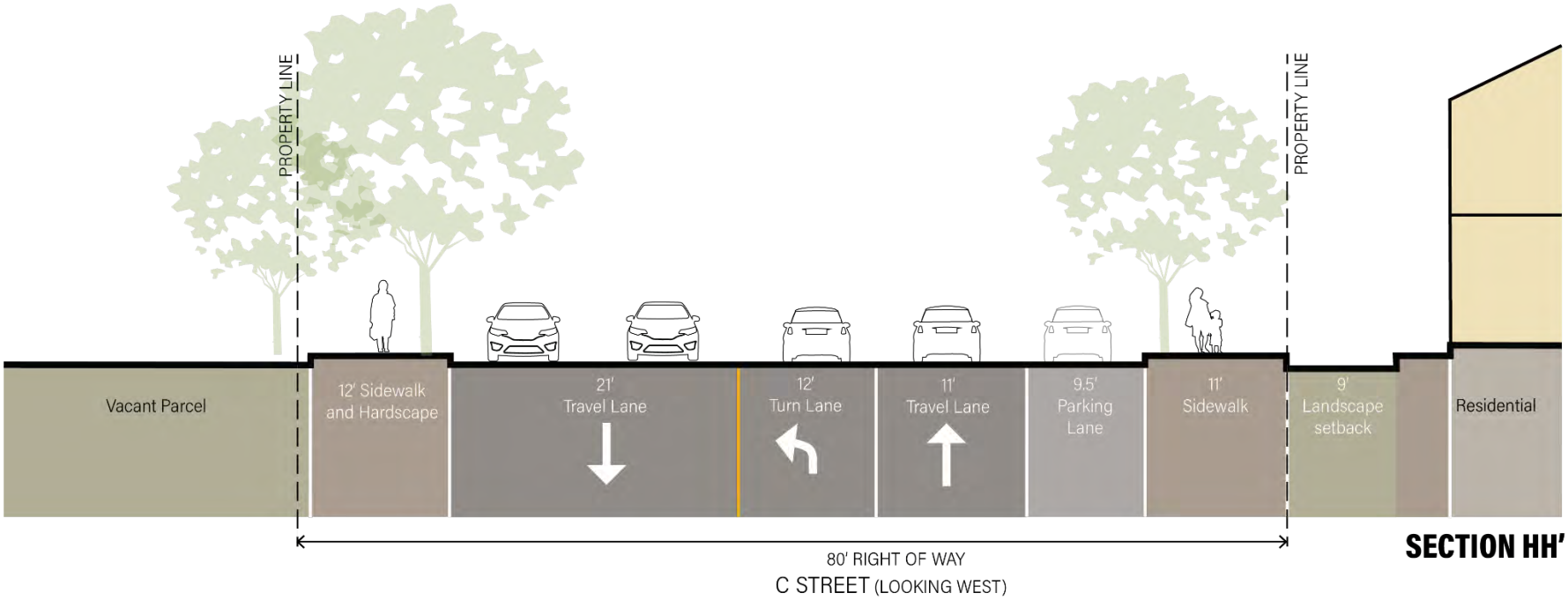
Segment 6b: 5th Street to 2nd Street

Segment 6b is 0.15 miles long with one to two vehicle lanes per direction and left turn pockets at some intersections. The posted speed is 25 mph and the 85th percentile speed is 37 mph. The right-of-way is 80 feet, and the average paved roadway width is 60 feet.

There are sidewalk facilities on both sides of the street. There are no bike lanes along this segment. Adjacent land use designations include medium- and high-density residential and neighborhood mixed use. Nearby land use includes recreation along the Sacramento Riverfront.

The cross-section associated with Segment 6b is shown in Figure 26. Note this cross section reflects roadway conditions prior to streetscape improvements as part of the North Riverwalk Trail Extension Project completed in summer 2023.

Figure 26 Segment 6b –Section HH'



Multimodal Conditions

This section provides a summary of existing multimodal infrastructure, including bicycle and pedestrian facilities, transit service and rail, as well as identifies barriers and discusses results for the Bicycle Level of Traffic Stress and connectivity assessment conducted for the corridor.

Bicycle and Pedestrian Facilities Overview

Figure 28 displays existing multimodal infrastructure within the study area vicinity, including bicycle facilities, transit stops and rail facilities. Pedestrian facilities are shown only within the corridor area of interest.

Bicycle Facilities

The corridor area of interest features existing Class II bike lanes and Class III bike routes, as shown in Figure 28. Existing bike lanes widths generally vary between four and six feet through the corridor but narrow in a few locations where roadway width/right-of-way is constrained.

There are existing Class II bicycle lanes along Sacramento Avenue from the corridor's west end at Harbor Boulevard/Reed Avenue to California Street/6th Street. Additionally, there are Class II bicycle facilities along Harbor and Jefferson Boulevards, connecting to the corridor at the south, and at Kegle Drive, connecting at the north.

Between California Street/6th Street to the corridor's east end, there is an existing Class III bike route. Class II bike lanes, which are upgraded with green paint and conflict markings connect to the corridor from the south at 5th Street. The bike lane that connects at 5th Street/Sacramento Avenue provides connectivity to additional facilities along W Capitol Ave and the Tower Bridge Gateway, which connects key destinations to the south of the study area, and Downtown Sacramento.

Bicycle facilities at most of the key intersections along the corridor lack buffers, barriers or conflict markings, or are dropped all together at the intersection approach. Coupled with cracking pavement or fading paint in some locations, existing bicycle facilities along the corridor provide a high-stress experience for bicyclists, particularly children and other vulnerable road users.

Pedestrian Facilities

Pedestrian facilities like sidewalks and crossings form the foundation of a complete street. Users of all modes of transportation become pedestrians for at least part of their journey after parking a car, locking a bicycle, or arriving at a transit stop.

Pedestrian facilities throughout the corridor area of interest include a discontinuous network of sidewalks with gaps, narrow sections, and vegetation overgrowth in many locations. Most locations with sidewalk vary in width between four and six feet. However, there are some locations that also feature a landscaped area with sidewalk that are as wide as 15 feet.

The east end of the corridor, specifically between 2nd Street and 5th Street is markedly more pedestrian-oriented, with very few gaps in sidewalk, fewer travel lanes, lower vehicle speeds, and more lighting, landscaped areas and higher-density land use. Conversely, the west end of the corridor is much less pedestrian-friendly, with many sidewalk gaps, wider roadway widths and higher vehicle speeds.

While there are marked crosswalks along at least two of the legs of the intersection locations listed below, some locations have faded crosswalk markings and lack ADA compliant curb ramps and proper sidewalk connections.

- Sacramento Avenue/Reed Avenue & Harbor Boulevard
- Sacramento Avenue & Bryte Avenue
- Sacramento Avenue & Todhunter Avenue/Sierra Pl
- Sacramento Avenue & Jefferson Blvd/Kegle Drive
- C Street & 5th Street
- C Street & 3rd Street

Segment Bicycle & Pedestrian Facility Summary

The following table summarizes the existing bicycle and pedestrian facilities per study segment based on total frontage (i.e., both sides of the roadway). These calculations do not include roadway frontage on side streets; however, the calculations do include curbs at intersections.

Figure 27 Segment Bicycle & Pedestrian Facility Summary

Segment Location	Length (mi)	Sidewalk Coverage (%)	Average Sidewalk Width (feet)	Bike Lane (Y/N)	Average Bike Lane Width (feet)
Segment 1	0.30	59%	5	Y	8.0
Segment 2	0.35	81%	5.0	Y	7.5
Segment 3	0.35	88%	5.5	Y	8.0
Segment 4	0.35	30%	5	Y	6.0
Segment 5	0.40	4%	5	Y	6.0
Segment 6	0.25	100%	5 (up to 16)	N	-

Transit Service

Local transit service within the study area of interest includes bus service and Via Rideshare, which are discussed below.

Bus Service

Bus service is provided by Yolobus, which is administered by YoloTD. Local bus routes servicing the study area neighborhoods include Routes 40, 41, and 240. Figure 29 presents Yolobus' West Sacramento Map, showing local and regional routes servicing West Sacramento. As shown, Routes 40 and 41 both loop in the Bryte and Broderick neighborhoods, and along Sacramento Avenue. Route 240 services the shopping center at the corridor's west end, near Harbor Boulevard.

On-Demand Rideshare Program

Via is a transportation technology company contracted by the City of West Sacramento to provide on-demand rideshare services to and from any destination within the City for residents, employees, and visitors. The service is most easily accessed using the Via Rideshare App but can also be booked by phone. Riders are required to take a short walk or roll to an intersection or main road close to their destination where they are picked up to share a ride with passengers traveling in a similar direction.

Bryte/Broderick Free Ride Program

Between February 1, 2023, and April 19, 2023, the City of West Sacramento was able to offer all Via on-demand rides starting and ending in the Broderick and Bryte neighborhoods at no cost. The program was funded by a Clean Air Funds grant awarded by the Yolo-Solano Air Quality Management District and expanded upon the 2022 Summer Free Rides program. The Bryte/Broderick Free Ride Program was able to provide 16,691 free rides in about ten-and-a-half weeks.[6]

Rail

Existing rail facilities include both passenger, freight, and recreation operations along two rail lines that intersect the corridor.

The Union Pacific Railroad (UPRR) Martinez subdivision line runs south of the corridor from the east end at the I St bridge and continues southwest toward the City of Davis before continuing on to the bay Area. This rail line includes freight operations provided by UPRR and BNSF Railway. Passenger operations along this line is provided by Amtrak and services the California Zephyr, Capitol Corridor and Coast Starlight routes. The closest passenger rail stop is at Sacramento Valley Station in Downtown Sacramento.

The Sierra Northern Railway (SERA) Woodland Branch subdivision line runs southeast edge of the corridor, intersects with the Martinez subdivision line at the West Sacramento Diamond Railroad Crossing and continues northeast through the corridor area of interest via a grade-separated rail crossing before continuing adjacent to Sunset Ave. This line provides service for the Sacramento River Train, a recreational passenger rail line that runs from West Sacramento to Woodland, as well as freight operations.

[6] *City of West Sacramento Via Rideshare Information webpage, 2023.*

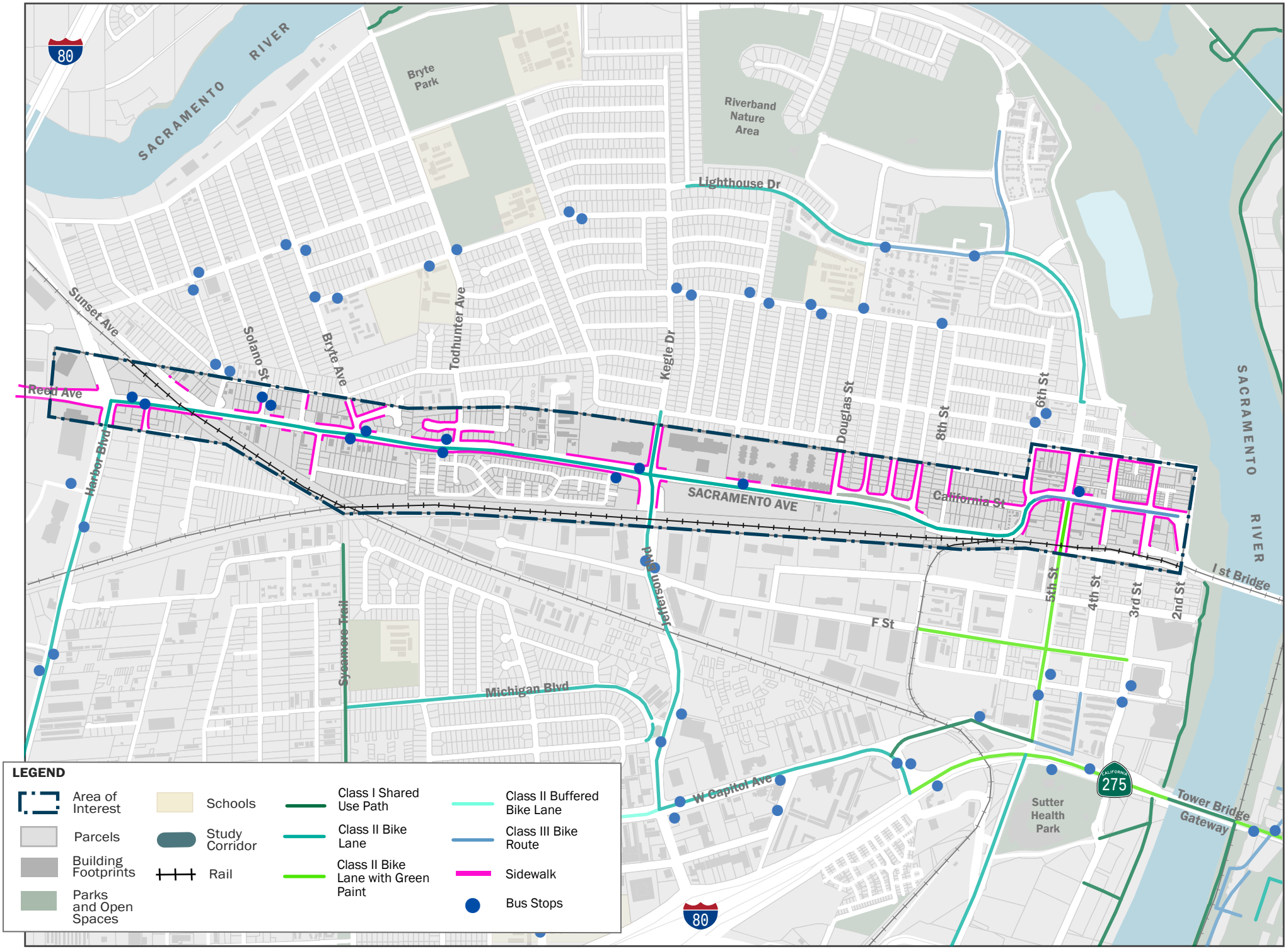
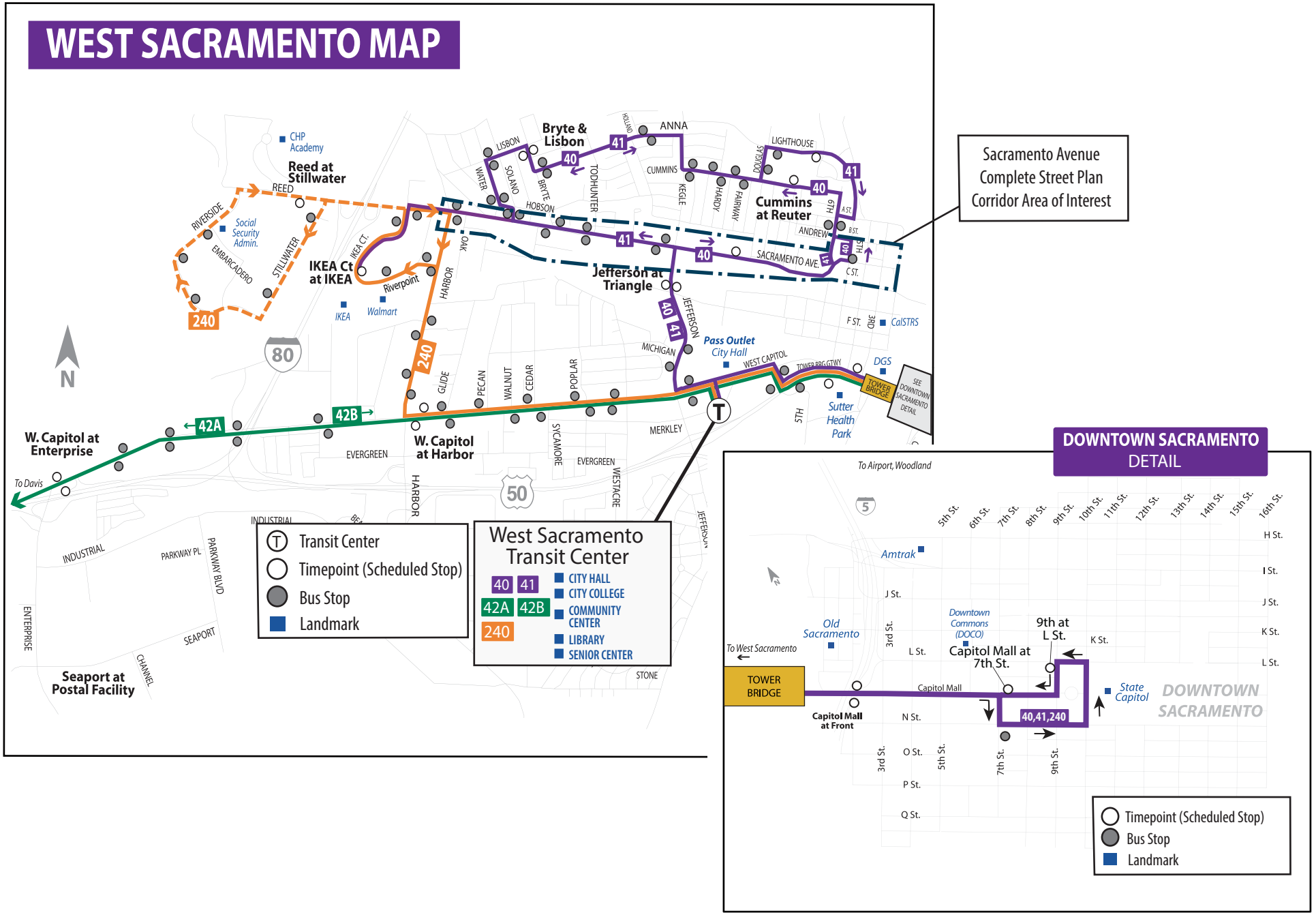


Figure 28 Existing Multimodal Infrastructure

WEST SACRAMENTO MAP



Data Source: Yolobus Route 40, 41 & 240 West Sacramento Transit Map (Yolo County Transportation District, January, 2022)

GHD NOT TO SCALE N

Figure 29 Existing Transit Service

Existing Multimodal Facilities at Intersections

Pedestrian Conditions

Many intersections on Sacramento Avenue have four-way, transverse crosswalks. However, crosswalk markings may be faded, and wide intersections make for longer crossing distances that are high stress for most pedestrians. On Sacramento Avenue and Todhunter Avenue, pedestrians are prohibited from crossing Sacramento Avenue on the east side of the intersection where they are instead instructed to cross on the opposing crosswalk. Some intersections lack ADA accessible curb ramps. Sight distance issues are present along 6th Street and C Street, and there are no crossing opportunities at California Street and 6th Street, creating a dangerous environment for pedestrians. Advanced stop bars are present at the Jefferson Boulevard/Kegle Drive intersection. Some intersections have left turn pockets and protected left turn phases that prevent conflicts with pedestrians.

Gaps in the sidewalk network are common approaching intersections along Sacramento Avenue. Missing sidewalks create an inaccessible environment for pedestrians and force users to walk on dirt paths or road shoulders. Existing sidewalks are narrow and adjacent to high-speed and high-volume traffic. In some cases, sidewalks are degrading or overgrown by plants.



Kegle Drive/Jefferson Boulevard



Todhunter Avenue

Bicycling Conditions

Exiting bicycle facilities are typically four- to five-foot Class II bike lanes that are adjacent to high-speed and high-volume traffic. Bicycle facilities are unprotected in most locations.

At some intersections along Sacramento Avenue and adjacent streets, bicycle lanes transition from the right side of the roadway to the left side of the right turn pockets without high visibility conflict markers. In these instances, the bicycle lane typically disappears. Bicycle lanes may also be positioned on the right side of vehicles turning right, creating a higher risk of conflict between motor vehicles and bicyclists. Bicycle parking facilities are positions at intersections between 5th Street and 3rd Street.



Kegle Drive/Jefferson Boulevard

Lighting Conditions

Standard roadway lighting on traffic signal mounts is typical at most intersections. Light fixtures are blocked by foliage in some locations. Lighting is sparce towards the west end of the corridor where the context is lower-density. Pedestrian scale lighting is present on C Street and 3rd Street.

Transit Conditions

Some transit stops along the corridor include rider amenities like benches and shelters, while most are only represented by a route blade sign. In some cases, transit stops lack accessible infrastructure like curb ramps or paved pathways connecting transit stops to sidewalks. A bus pullout is present at the stop between Douglas Street and Kegle drive and includes a shelter, bench, lighting, and a trash receptacle.

Bicycle Level of Traffic Stress

This section provides information about the level of traffic stress (LTS) analysis and results for the bicycle network within the Sacramento Avenue corridor area of interest and the surrounding areas. A detailed summary of methodology and results is provided in the Appendix.

LTS is the perceived sense of danger associated with bicycling or walking in or adjacent to vehicle traffic. Studies have shown that traffic stress is one of the biggest deterrents to bicycling and walking. The less stressful the experience, and the lower the LTS score, the more likely it is to appeal to a broader segment of the population[7]. A bicycle and pedestrian network will attract a larger portion of the community if it is designed to reduce stress associated with potential motor vehicle conflicts and connect people to their destinations.

Bicycle and pedestrian facilities that provide greater separation between vehicle traffic and people walking and bicycling, as well as minimize the potential for stressful conflicts between active transportation users and vehicles, will result in the lowest levels of traffic stress and highest level of comfort using the facility. Moreover, bicycle and pedestrian facilities are considered lower stress if they have fewer interactions with vehicles (such as along slow, low-traffic neighborhood streets).

Bicycle LTS assigns a score from one to four to street segments, intersection approaches, and intersection crossings, with one being the most comfortable four being the least comfortable, and based on roadway data including the following:

- type of bikeway, if applicable
- level of separation from vehicular traffic
- street width (number of lanes), daily traffic volumes and/or functional classification
- posted speed limit, or prevailing speed
- presence, width and configuration of bike lanes, parking lanes, medians and turn lane
- intersection control type (stop signs, traffic signals)

Bicycle LTS is considered for the three infrastructure categories described below:

- **Segments** traveling between intersections in a bikeway or sharing the roadway with vehicles
- **Approaches** to intersections where there are dedicated right- or left-turn lanes can create conflict points distinct from segment or intersection characteristics
- **Intersection Crossings** between two roadways, which may cause challenges for bicyclists when crossing the intersection

[7] *"Four Types of Transportation Cyclists in Portland," Geller, 2006*

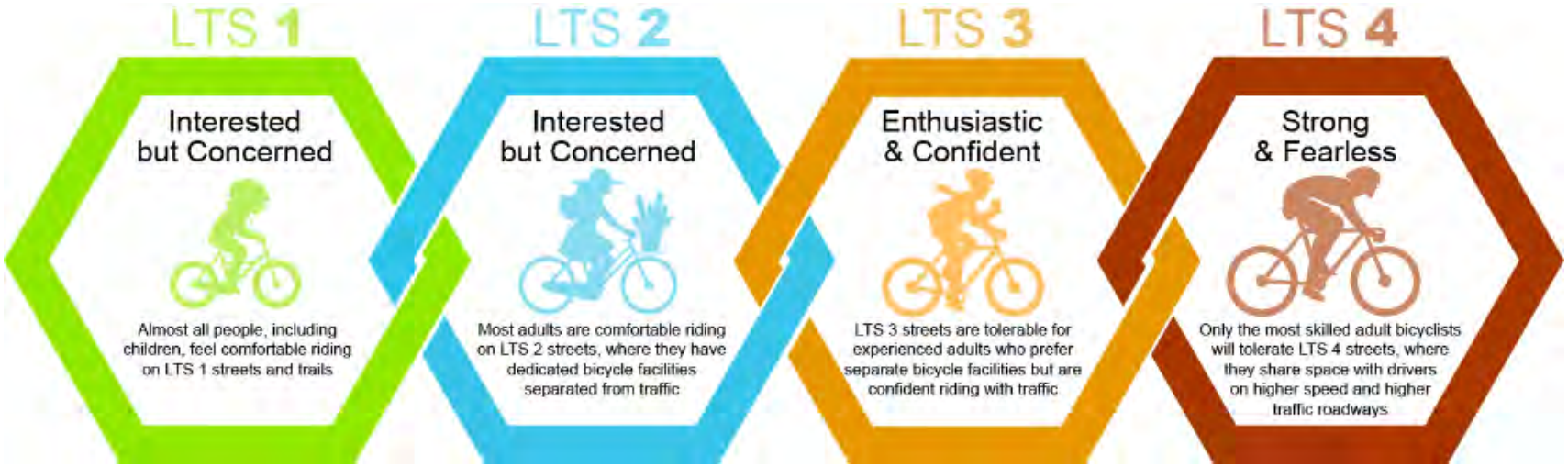
Based on the evaluation of infrastructure characteristics at segments, approaches, and intersection crossings, locations are assigned scores between one and four. A score of LTS 1 indicates a street with low stress and high comfort for people bicycling. LTS 4 reflects a highly stressful experience. A lower-stress network means all bicyclists, regardless of age or ability, can comfortably ride to their destination.

Types of Bicyclists

Research conducted by the Portland Bureau of Transportation indicates the majority of people in the United States would bicycle if dedicated bicycle facilities were provided. Based on their skill level and confidence, most people self-identify as one of the four "types of bicyclists" shown in Figure 30. Only a small percentage of Americans are willing to ride if no facilities are provided—the "Strong & Fearless" cyclists.

To better meet the needs of the "Interested but Concerned" bicyclists, it is recommended that communities work to decrease traffic stress and improve the comfort of their bikeway network. LTS 1 and LTS 2 roads are typically the most appealing to these bicyclists.

Figure 30 Types of Bicyclists



Data Source: Image created by GHD, based on PDOT research.

WHAT WE LEARNED

Below are the LTS results for segments, intersection approaches, and crossings along Sacramento Avenue. A detailed description of the criteria for analyzing each of the following infrastructure categories is provided in the Appendix.

Segments

The LTS of segments within a roughly 0.75-mile proximity of the corridor were evaluated to allow for connectivity to nearby destinations to be assessed. Local, or neighborhood streets with speeds of 25 mph or less and one lane per direction were assumed to be low stress, while streets classified as collector or arterial streets, and/or those with speeds greater than 25 mph were analyzed.

Many of the segments to the north and south of the corridor scored LTS 1 (64 percent), however, these facilities are primarily minor local roads or off-street paths. When examining only arterial roadways, which serve as the direct connections to most destinations, 76 percent of the analyzed segments are LTS 3 and LTS 4. Most residents may not feel comfortable bicycling outside their immediate neighborhood on low-stress local streets. This means reaching major destinations from residential areas may not be possible given most people's tolerance for bicycling with traffic, even on streets that have bicycle lanes.

Intersection Approaches

Intersection approaches are analyzed in locations where right or left turn lanes are present.[8] At right-turn locations, the configuration of turn lanes, length of turn lanes, and vehicle turning speeds are considered. At left-turn locations, the analysis considers the number and speed of vehicle lanes a bicyclist must cross to access the left-turn movement. Intersection approaches with right- and left-turn lanes along the corridor and within a roughly 0.25-mile proximity of the corridor were assessed in this analysis.

Many intersection approaches along Sacramento Avenue feature bicycle lanes that end abruptly as well as right turn pockets that are long or position bicyclists on the right side of the turn lane, which increases risk of right hook collisions. Left turn pockets on Sacramento Avenue force bicyclists to shift across several lanes of high-speed and volume traffic to reach the turn lane. These conditions result in high stress approaches for bicyclists.

Intersection Crossings

Crossings at intersections of two local residential streets were typically found to be low-stress, likely to be easy for most adults and children on bicycles to navigate. Moderately stressful LTS 3 crossings were identified primarily along collector and arterial roadways, contributing to the perception of these larger streets as barriers to low-stress connectivity. A stressful crossing can discourage a potential bicyclist, even if the route is otherwise low stress.

Overall LTS

The overall LTS score reflects the worst-case score between a given segment and the adjacent intersection approaches and crossings. The overall LTS results are shown in Figure 31. The separately mapped LTS results for segments, intersection approaches and intersection crossings can be found in the Appendix.

The LTS results shown in Figure 31 reflects the impact a higher-stress crossing or approach can have on an otherwise lower stress segment, which can result in a barrier to connectivity. When considering segment LTS scores alone, the entirety of the Sacramento Avenue corridor is already considered high stress, with segment LTS scores of LTS 3 and LTS 4. When crossings and approaches are considered, many locations with segment LTS scores of LTS 3 increase to LTS 4, and almost all of the adjacent segments are also considered high stress.

[8] See Appendix for detailed analysis criteria.

Connectivity Assessment

Low stress connectivity is defined in this analysis by connections that can be made via the LTS 1 and LTS 2 bicycling network. The overall LTS results highlight the "islands of connectivity" created by high-stress barriers that surround pockets, or "islands" of lower-stress streets. Most local neighborhood streets, with lower traffic volumes and speed are buttressed by high stress segments, approaches and intersections, specifically along collector and arterial streets with higher speeds and traffic volumes, which serve as barriers to low stress connectivity throughout the analyzed areas.

With 100 percent of segments along the corridor assigned overall LTS scores of LTS 3 or LTS 4, all connections between destinations to the north and south of the corridor are cut off by the high stress corridor, meaning that zero percent of destinations between the north and south of the corridor can be accessed via the low stress network. With higher stress barriers creating islands of low stress connectivity within small areas to the north and south of the corridor, potential connection points between key destinations and points of interest are closed off, resulting in no low stress connectivity. While low stress connections can be made within the small pockets of low stress areas to the north and south of the corridor, residential and non-residential destinations are mostly cut off from one another.

Infrastructure recommendations proposed as part of this Plan will seek to improve level of traffic stress to LTS 1 or 2, where possible.

"Zero percent of destinations between the north and south of the corridor can be accessed via the low stress network."

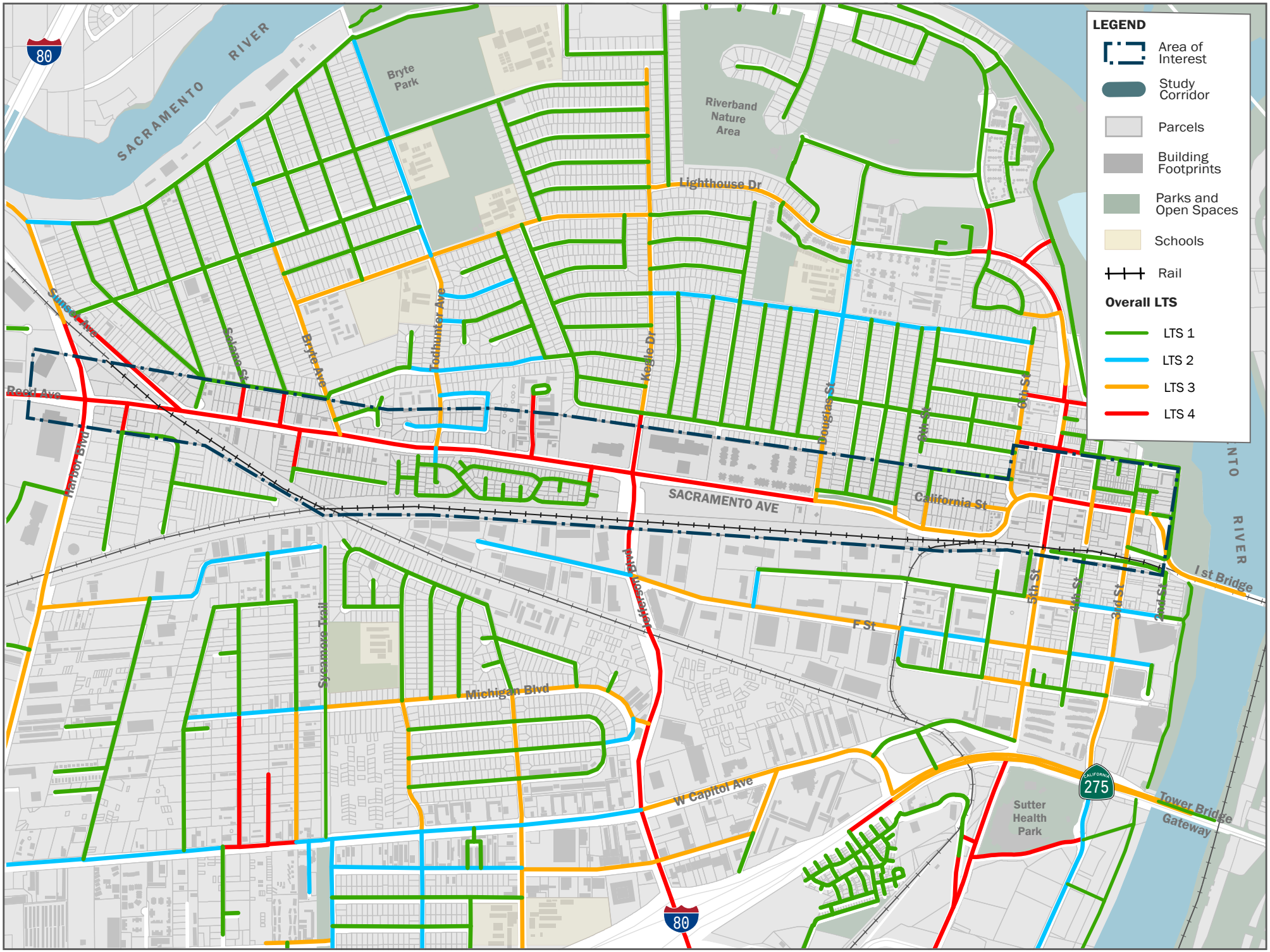


Figure 31 Existing LTS - Overall

Safety History

Sacramento Avenue serves diverse populations and trip purposes and features changing roadway conditions and land use characteristics from end to end. As a result, the corridor faces the challenge of competing mobility needs. In some locations, the existing roadway conditions feature multiple travel lanes, high speeds, and minimal, or non-existent, multimodal infrastructure that prioritizes vehicular travel over other non-vehicular modes of travel (walking, biking, and transit).

Collision information was sourced from 2011-2021 Statewide Integrated Traffic Records System (SWITRS) and Transportation Injury Mapping System (TIMS) data. Data was post-processed to correct for data points with missing /inaccurate location coordinate information.

Collision density is shown for all collisions and fatal and severe injury collisions only in Figure 32.

Collision Overview

As shown in Figure 32, prominent collision hotspots can be seen at several locations, including Harbor Boulevard/Reed Ave, Sacramento Avenue/Jefferson Boulevard, C St between 2nd and 3rd Streets, with the highest collision density at the Jefferson Boulevard location. Less prominent collision hotspot locations can also be seen between 4th and 6th Streets, and near Todhunter and Bryte Avenue.

Most collisions, including both fatal collisions and nine of the ten severe injury collisions, occurred at intersections along the corridor.[9] Table 7 presents the number of collisions occurring at intersection locations versus along roadway segment locations. As shown, 86 percent were classified as having occurred at an intersection, while the remaining occurred between intersections (i.e., on a segment), highlighting safety concerns at intersections along the corridor.

Table 7 Intersection and Segment Collisions by Severity

Location Type	Number of Collisions	Percent of Total
Occurred at Intersection	**440**	**86%**
PDO	301	68.4%
Complaint of Pain	88	20.0%
Visible	40	9.1%
Severe	9	2.0%
Fatal	2	0.5%
Occurred on Segment	**71**	**14%**
PDO	44	62.0%
Complaint of Pain	14	19.7%
Visible	12	16.9%
Severe	1	1.4%
Grand Total	**511**	**100%**

Collision Severity & Type

Table 8 summarizes collision severity of total collisions and pedestrian and bicycle collisions. Between 2011 and 2021, 511 collisions occurred within the study area of interest, including two fatal collisions and 10 severe injury collisions. Fifty-nine collisions involved pedestrians and bicyclists, resulting in two fatalities. Pedestrian and bicycle collisions make up 12 percent of all crashes, but 100 percent of fatalities and 50 percent of severe injuries.

Figure 32 shows the density and location of fatal and severe injury collisions. As shown, prominent collision hotspots associated with fatal and severe injury collisions are present near Sunset Avenue, Todhunter Avenue, Jefferson Boulevard, and Douglas Street, with less prominent hot spots at Solano Street and 6th Street.

[9] *Collisions occurring within 250 of an intersection were considered intersection collisions.*

Table 8 Collisions by Severity

	Collision Severity					
	Fatal	Severe Injury	Other Visible Injury	Complaint of Pain	Property Damage Only (PDO)	Total
Total Collisions	2	10	52	102	345	511
Bicycle Collisions	0	2	14	15	12	43
Pedestrian Collisions	2	3	6	3	2	16

Table 9 presents the total collisions by collision type, the majority of which were rear-end (32 percent) or broadside (28 percent) collisions resulting from high vehicular speeds.

Table 9 Collision Types

Collision Type	Number of Collisions	Percent of Total
Rear-End	161	32%
Broadside	143	28%
Sideswipe	84	16%
Hit Object	58	11%
Head-On	30	6%
Vehicle/Pedestrian	17	3%

Segment Collision Summary

Table 10 provides a summary of total collisions, FSI collisions, bicycle or pedestrian collisions, and the primary cause of the collisions per corridor segment. As shown, unsafe speed was the most common cause of collisions across the corridor, underscoring the need for traffic calming. Of the total collisions, most concentrated in segments one, two, three and six, with 21, 15, 22 and 32 percent of all collisions, respectively. Fatal and severe injury collisions were concentrated in segments one, two and three, with nine of the 12 fatal and severe injury collisions occurring in these segments, and both fatal collisions occurring in segment two.

Table 10 Segment Collision Summary

Segment Location	Total Collision	Percent of Total	Fatal Collisions	Severe Injury Collisions	Bike / Pedestrian Collisions	Primary Collision Cause
Segment 1	107	21%	-	2	8	Unsafe Speed / Auto ROW
Segment 2	77	15%	2	1	12	Unsafe Speed
Segment 3	111	22%	-	4	17	Unsafe Speed
Segment 4	22	4%	-	1	7	Automobile ROW
Segment 5	32	6%	-	1	-	Unsafe Speed / Wrong Side of the Road
Segment 6	162	32%	-	1	15	Unsafe Speed
Total	511	100%	2	10	59	Unsafe Speed

Figure 32 Collision Density Maps



Key Findings

Community Engagement

Throughout the community engagement process, the community highlighted a variety of concerns relating to transportation along Sacramento Avenue, including:

- High vehicle speeds
- Disconnection throughout the pedestrian network, including gaps in the sidewalk network and a lack of safe crossing opportunities.
- Bicycle safety, and an interest in protected bicycle facilities and clear bicycle routes.
- The public showed interest in creating a corridor for a variety of road users, from commuters to recreators. The community showed interest in shared use paths, landscaping, and creating a park-like feel along the corridor, as well as improving connectivity and safety.
- Lighting issues, specifically along the C Street curve

Existing Conditions Assessment

The existing conditions analysis revealed findings that aligned with community concerns. These findings highlight opportunities and needs that can be addressed by the complete street improvements identified in later chapters of the Plan. Key findings from the existing conditions assessment are described below.

Multimodal Conditions

- The sidewalk network features gaps, is inconsistent in width, and features vegetation overgrowth in many areas.
- Where they do exist, crossing distances are often long and some feature accessibility issues such as ADA non-compliant curb ramps and sidewalk connections ending abruptly.
- The bikeway network includes unprotected bike lanes or missing bicycle facilities alongside high-speed and high-volume traffic.
- Bicycle facilities at intersection approaches feature less-than-ideal alignment, lack conflict markings, or disappear altogether.
- Stressful, non-existent, or discontinuous bicycle and pedestrian facilities along segments, and at intersection approaches and crossings result in high levels of traffic stress conditions along the entire corridor.
- Most transit stops lack amenities like transit shelters or benches and some lack accessible infrastructure like curb ramps and paved pathways that connect stops to nearby sidewalks.

Land Use Context & Streetscape

- Adjacent land use ranges from single-family residential to neighborhood retail/commercial to multi-family residential, with most of the current land use along the corridor characterized as low- to medium-density.
- The north-south streets that intersect the corridor provide access to neighborhood amenities, such as schools, parks, and open spaces, but stressful, auto-oriented multimodal facilities reduce the connectivity to these destinations.

- While most of the parcels adjacent to the corridor are developed, the areas east of Jefferson Boulevard feature the most amount of vacant land. Some parcels are considered under-utilized.
- While limited, corridor edges along the corridor include active frontages in some locations. Edges are primarily defined by long stretches of undefined or fenced edges, and landscaping in some locations.
- There are long stretches of the corridor with no street trees or shading, making the environment hostile to pedestrians.
- A lack of pedestrian-oriented community space along the corridor highlights placemaking opportunities.

Travel Characteristics

- Most trips along the corridor are made via car.
- Lifestyle trips, like shopping and social activities, make up most of trips along the corridor.
- People also commute along Sacramento Avenue, and while most drive, there is an opportunity to create protected facilities that create safer, more comfortable facilities for people interested in walking and biking to work, utilitarian and leisure trips alike.
- A concentration of short vehicles trips (less than one mile) along the corridor highlights an opportunity for mode shift from vehicles to active modes.

Safety

- Collision history shows high collision densities overall as well as fatal and severe injury (FSI) collisions at major intersections, highlighting intersection safety concerns.
- Collisions involving bicycle and pedestrian collisions make up a disproportionate share of FSI collisions, highlighting safety concerns with non-motorized infrastructure.
- Unsafe speed was the most common primary cause of collisions, echoing public concerns over traffic speeds and underscoring the need to implement traffic calming measures.

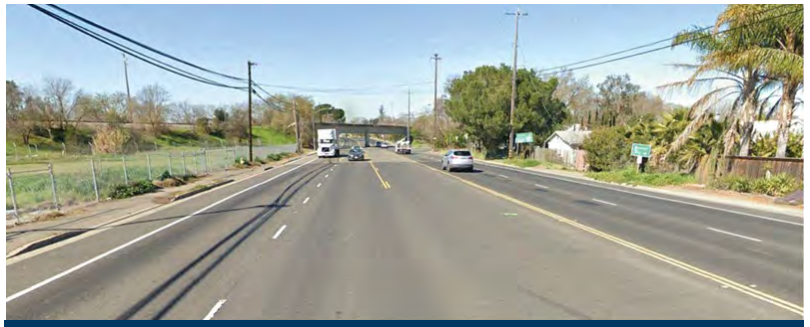
Roadway Volume & Operations

- Average daily traffic volumes along the corridor range between roughly 7,800 and 14,500 vehicles per day, with the highest volumes seen west of Jefferson Boulevard.
- Most of the intersections along the corridor are currently operating at acceptable levels of service

Roadway Cross-Sections: Corridor Areas

The Sacramento Avenue roadway cross-section varies in paved roadway width, number of lanes per direction, posted vehicle speed, and fronting land use types. Furthermore, the corridor adjoins a mix of developed, undeveloped, and underdeveloped properties. The existing corridor generally consists of three basic cross-section types, which are listed below with the corresponding segments of the corridor. Corridor strategies and proposed improvements presented in the following chapters align with the grouping of these three core areas.

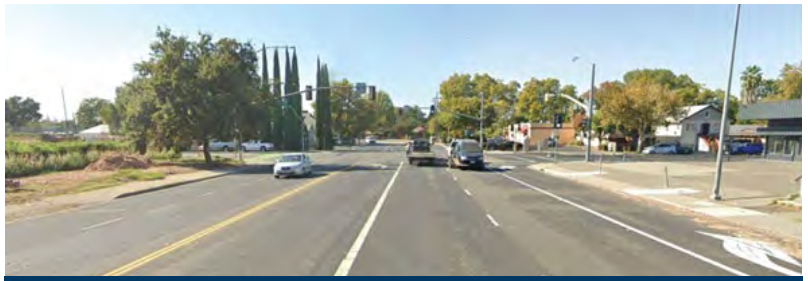
- WIDE & MULTI-LANE: Five-lane cross-section with wide vehicle lanes and center turn lanes, unbuffered bike lanes, and narrow or incomplete sidewalk infrastructure. This section connects two major north- south arterials: Harbor Boulevard and Jefferson Boulevard. The primary land use is low to high-density residential with pockets of neighborhood mixed-use commercial. This cross-section condition generally applies to Segments 1 – 3, which comprises the Western Area of the corridor.
- TRANSITIONAL & UNDERDEVELOPED: Transitional cross-section between five-lane and 2-lane cross- section with narrow, unbuffered bike lanes and minimal sidewalk infrastructure. This section adjoins the largest vacant parcels on the south side of the study corridor where 641 new multi-family apartments are proposed. This section is constrained to the south near 8th Street by the Union Pacific Railroad alignment. This cross-section generally applies to Segment 4 and Segment 5 and comprises the Central Area of the corridor.
- CONSTRAINED & DEVELOPED: Two-lane cross-section with left and/or right turn lanes, no bike lanes, and complete sidewalk infrastructure of varying widths. This section will play a key role in ensuring bicycle and pedestrian connectivity to the planned improvements along C Street and the future I Street bicycle and pedestrian bridge. This cross-section generally applies to Segment 6, or the Eastern Area of the corridor.



Segment 1, looking West towards Sunset Ave (Image Source: Google)



Segment 4, looking West toward Jefferson Boulevard / Kegle Drive (Image Source: Google)



Segment 6, looking West toward 5th Street (Image Source: Google)