CITRUS HEIGHTS

PEDESTRIAN MASTER PLAN

EXISTING CONDITIONS MEMO

JANUARY 2015

PREPARED BY ALTA PLANNING + DESIGN FOR THE CITY OF CITRUS HEIGHTS

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CHAPTER 1: INTRODUCTION

Walking is fundamental; it is not just how we move around but a primary form of exercise and social activity. Whether taking transit, walking the dog, or heading to the front door after parking the car, nearly everyone is a pedestrian for some portion of their day.

ABOUT CITRUS HEIGHTS

The City of Citrus Heights was established as an incorporated city in 1997 but has a long history dating to the California gold rush.

Citrus Heights is a suburban community in Sacramento County and considers itself family friendly with great schools, beautiful parks, many youth programs and community events.

The City is home to a solid community of small businesses, national retailers, and restaurants. It is also the home to regional shopping and entertainment including Sunrise MarketPlace.

EXISTING CONDITIONS

The foundation of a successful Pedestrian Master Plan is a comprehensive understanding of the existing conditions within the community, review of relevant planning documents and the identification of community vision.

This Working Paper outlines this Plan's purpose; existing plans and policies; and existing walking conditions in Citrus Heights.

Tempo Park

PURPOSE OF THE PLAN

The City of Citrus Heights recognizes the value of walking and is in the process of developing a Pedestrian Master Plan to establish itself as a more walkable community.

The Pedestrian Master Plan will provide a broad vision, strategies, and actions for improving the pedestrian environment in the eleven unique neighborhoods of Citrus Heights. This Plan's recommendations will be built on and consistent with local and regional goals and policies for increasing the number of people who walk in Citrus Heights. These goals include specific recommendations and design guidance for streets, sidewalks, and shared-use paths.

While walking is the least expensive mode of transportation, building and maintaining a high quality pedestrian infrastructure network requires comprehensive planning and long term funding. The recommendations in this Plan will help the City reach goals adopted in the General Plan by creating an environment and programs that support walking for transportation and recreation, encourage fewer trips by car, and support active lifestyles.

The Pedestrian Master Plan will be a blueprint for the City to improve the pedestrian environment, secure funds dedicated to pedestrian safety and livable communities, and increase the number of walking trips.

BENEFITS OF IMPROVING WALKING CONDITIONS

By planning for a more walkable city, Citrus Heights can address several interrelated challenges including helping alleviate traffic, improving air quality, creating a sense of community, increasing public health, and offer economic benefits to the community.

It can also support walking as a safe and comfortable way to reach destinations for residents and visitors who must walk as their only transportation option.

TRAFFIC AND AIR QUALITY

Each time residents in Citrus Heights choose to walk instead of drive, vehicles are removed from the road. As Citrus Heights becomes more inviting to pedestrians, increasing numbers of work, school, shopping, and recreational trips can be made on foot. Cumulatively, this pattern can reduce traffic in some areas and improve air quality as emissions from motor vehicles are reduced.

QUALITY OF LIFE

Fostering conditions where walking is accepted and encouraged increases a community's livability. In areas where people walk, there are more opportunities for chance meetings. People have the opportunity to talk and interact with the people they meet.

Pedestrian activity also produces more "eyes on the street," or people looking out for one another. In some neighborhoods, this may make people feel more safe walking.

PUBLIC HEALTH

In recent years, public health professionals and urban planners have become increasingly aware that the impacts of vehicles on public health extend far beyond asthma and other respiratory conditions caused by air pollution. Dependency on vehicles has also decreased the amount of peoples' physical activity. Walking can improve public health by incorporating physical activity into everyday transportation.

A lack of physical activity ranks as the third-highest risk factor for death in the United States, behind only tobacco and alcohol.[1] Each additional hour spent in a car each day corresponds with a six percent increase in the risk of obesity.[2]

In response to these trends, the public health profession now advocates for walkable communities as an effective way to encourage active lifestyles.

Every $1 spent on building non-motorized transportation facilities returns $2.94 in medical benefits.[3]

AGING IN PLACE

As adults age, walking provides an opportunity for low-impact exercise to be incorporated into their daily routine. Walking access to grocery stores, banks, and other amenities also helps older adults retain their independence after they can no longer drive themselves.

ECONOMIC BENEFITS

With the fluctuating price of gasoline, walking can be a more economically reliable and efficient mode of transportation than driving a vehicle. According to 2004 data from AAA and the U.S. Census, ownership of one motor vehicle accounts for more than 18 percent of a typical household's income annually.[4] As Citrus Heights becomes more walkable, residents who choose to travel on foot instead of by car can save money on gas, car maintenance, and repairs.

Walkable neighborhoods benefit homeowners, whether they walk or drive. Homes in walkable neighborhoods are valued between $4,000 and $34,000 higher than comparable homes in neighborhoods with average walkability.[5]

TRANSPORTATION CHOICES

The percent of Americans 16-24 years old with a driver's license peaked in 1983, and is now at its lowest rate since the early 1960's.[6]

[1] Mokdad, A., Marks, J., Stroup, D., & Gerberding, J. (2004). Actual Causes of Death in the United States, 2000. Journal of the American Medical Association 291:1238 – 1245.

[2] Goldberg, D., Chapman, J., Frank, L., Kavage, S., & McCann, B. (2007). New data for a new era: A summary of the SMARTRAQ findings. Livable Communities Coalition.

[3] Wang, G., Macera, C.A., Scudder-Soucie, B., Schmid, T., Pratt, M., & Buchner, D. (2008). A cost-benefit analysis of physical activity using bike/pedestrian trails. Health Promotion Practice 9: 426-433.

[4] www.walkinginfo.org/why/benefits_economic.cfm

[5] Cortright, J. (2009). Walking the Walk: How walkability raises housing values in U.S. cities. CEOs for Cities.

[6] Frontier Group and U.S. PIRG, "A New Direction: Our Changing Relationship with Driving and the Implications for America's Future," 2013.

Old Auburn Trail

CHAPTER 2: EXISTING CONDITIONS

The pedestrian experience in Citrus Heights is influenced by a wide variety of factors, from the pedestrian infrastructure available to the perceived or real safety and comfort of walking.

SETTING

Located in northeast Sacramento County, Citrus Heights lies just south of Placer County. The community is 12 miles northeast of Sacramento on Interstate 80.

The community expanded rapidly in the 1900s, after the construction of Highway 40 in 1912 provided convenient highway access to San Francisco. Additional residents and visitors spurred a flurry of new business opportunities in the region, and historic fruit farming declined after 1930.

McClellan Air Force Base in nearby North Highlands was a critical supply center for Pacific Rim forces during World War II, and many families settled in the region. Postwar industries led to another period of rapid growth for Citrus Heights.

Although it began as a suburb to Sacramento, Citrus Heights soon established a thriving business community of its own, anchored by the Sunrise MarketPlace—a regional shopping center established in the 1970s. Today, the community continues to be a prominent commercial hub for the region with commercial centers such as Sunrise MarketPlace, Stock Ranch, and Auburn Boulevard.

LAND USE

Parcels in Citrus Heights are organized among four broad categories of land use: Business/Commercial uses, Residential, Open Space, and Public uses, as shown in **Figure 2-1**.

Business and Commercial uses are clustered along a few primary corridors, including Interstate 80, Auburn Boulevard, Greenback Lane, Madison Avenue, and Sunrise Boulevard.

Residential uses cover the majority of the city. Most of this is low density residential, with some areas zoned as 'very low density residential' in the northeast part of the community. Medium and high density residential areas are located near commercial hubs, and primarily in the southern part of Citrus Heights.

Open space and public uses are distributed throughout the city.

Citrus Heights Land Use

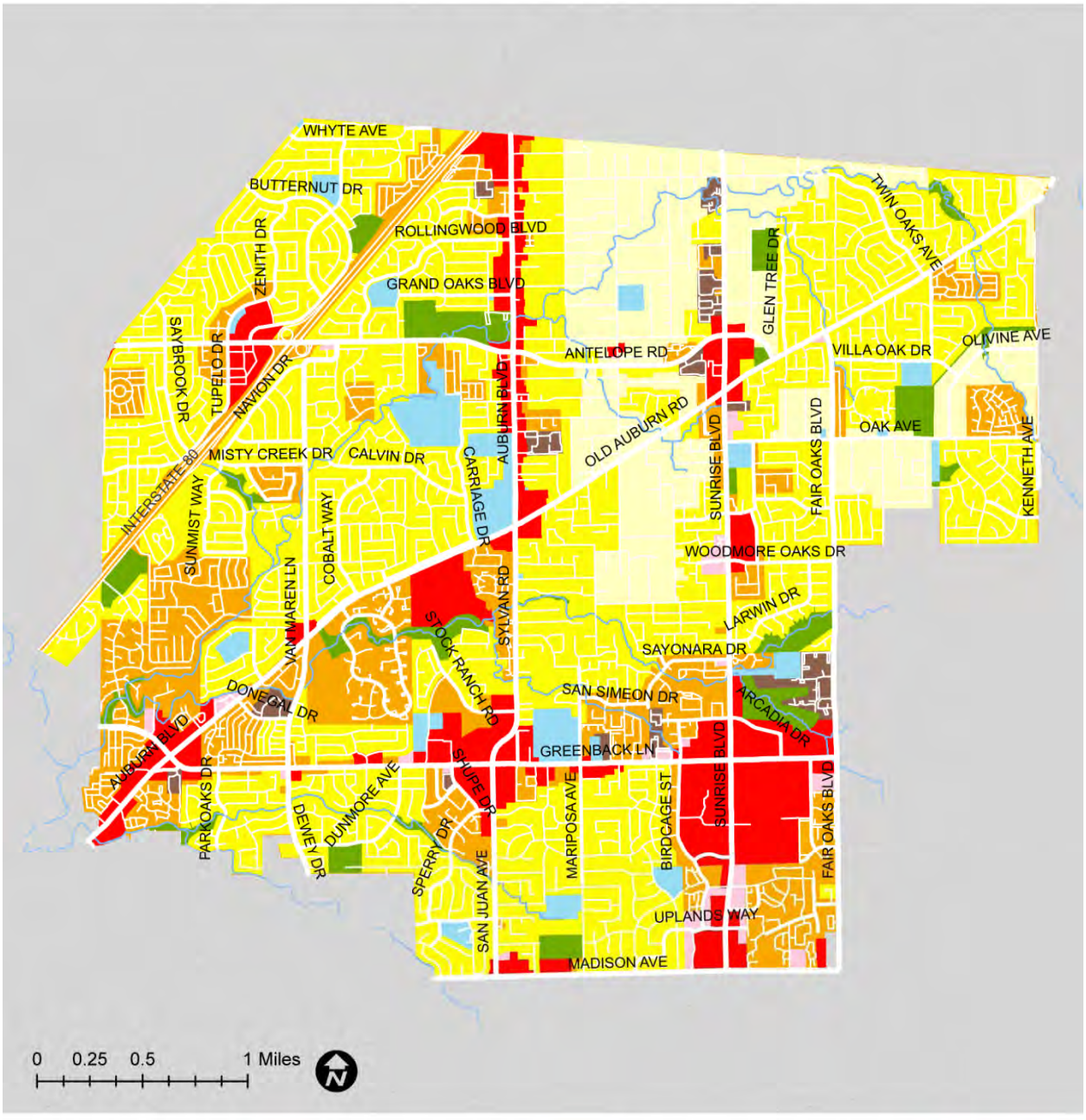


Figure 2-1: Land Use

DEMOGRAPHICS

POPULATION

Citrus Heights is the third-largest city in Sacramento County, with a 2010 population of approximately 83,301 according to the U.S. Census Bureau. This represents a slight decline from 2000, although recent estimates show growth as of 2013 (see **Table 2-1**). Population densities in Citrus Heights range from 4,000 to 9,000 people per square mile, as shown in **Figure 2-4**.

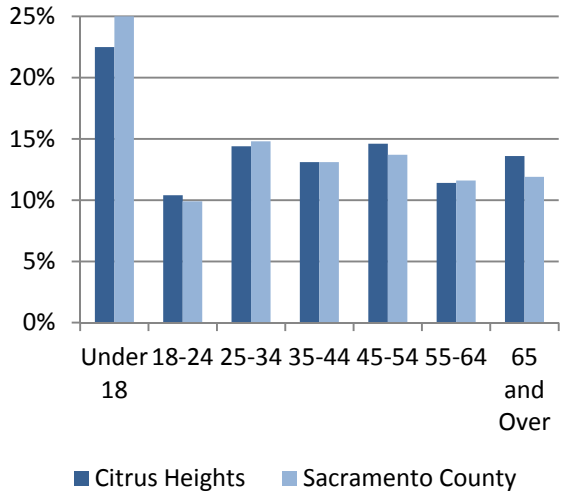
Table 2-1: Citrus Heights Population

YEAR	POPULATION
1990	107,439*
2000	85,071
2010	83,301
2013	84,614**

**Population of CDP, prior to incorporation*
***American Community Survey 2013 3-year estimate*

AGE

Citrus Heights has a larger percentage of residents over 65 years of age compared to Sacramento County at 13.6 and 11.9 percent respectively, as shown in **Figure 2-2**. Citrus Heights also has a smaller youth population, at 22.5 percent compared to 25 percent in Sacramento County.



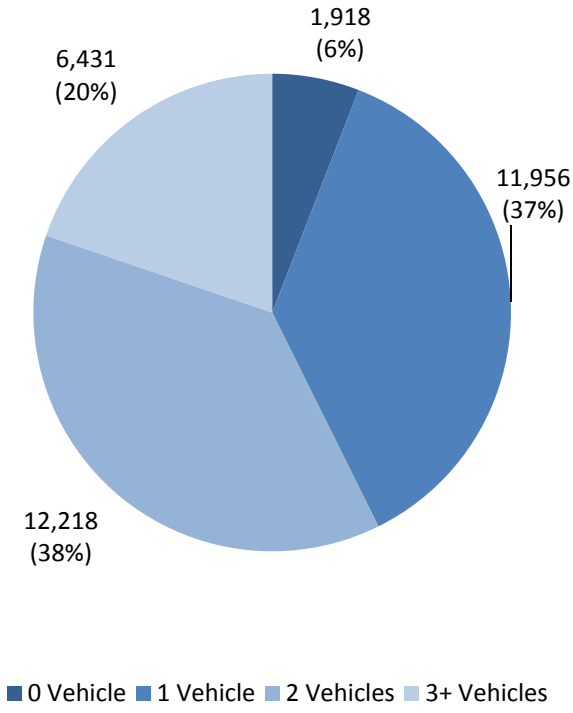
Source: American Community Survey 2013 3-year estimate

Figure 2-2: Age in Citrus Heights vs Sacramento County

VEHICLES AVAILABLE

Households without a vehicle available must rely on other modes of transportation for their daily travel needs. As shown in **Figure 2-3**, 1,918 households in Citrus Heights do not have access to a vehicle (6 percent of households).

Based on the Citrus Heights average household size of 2.5 people, this means as many as 4,795 individuals rely on walking, bicycling, transit, or other modes of transportation.



Source: American Community Survey 2013 3-year estimate

Figure 2-3: Vehicles Available by Household

Population Density in Citrus Heights

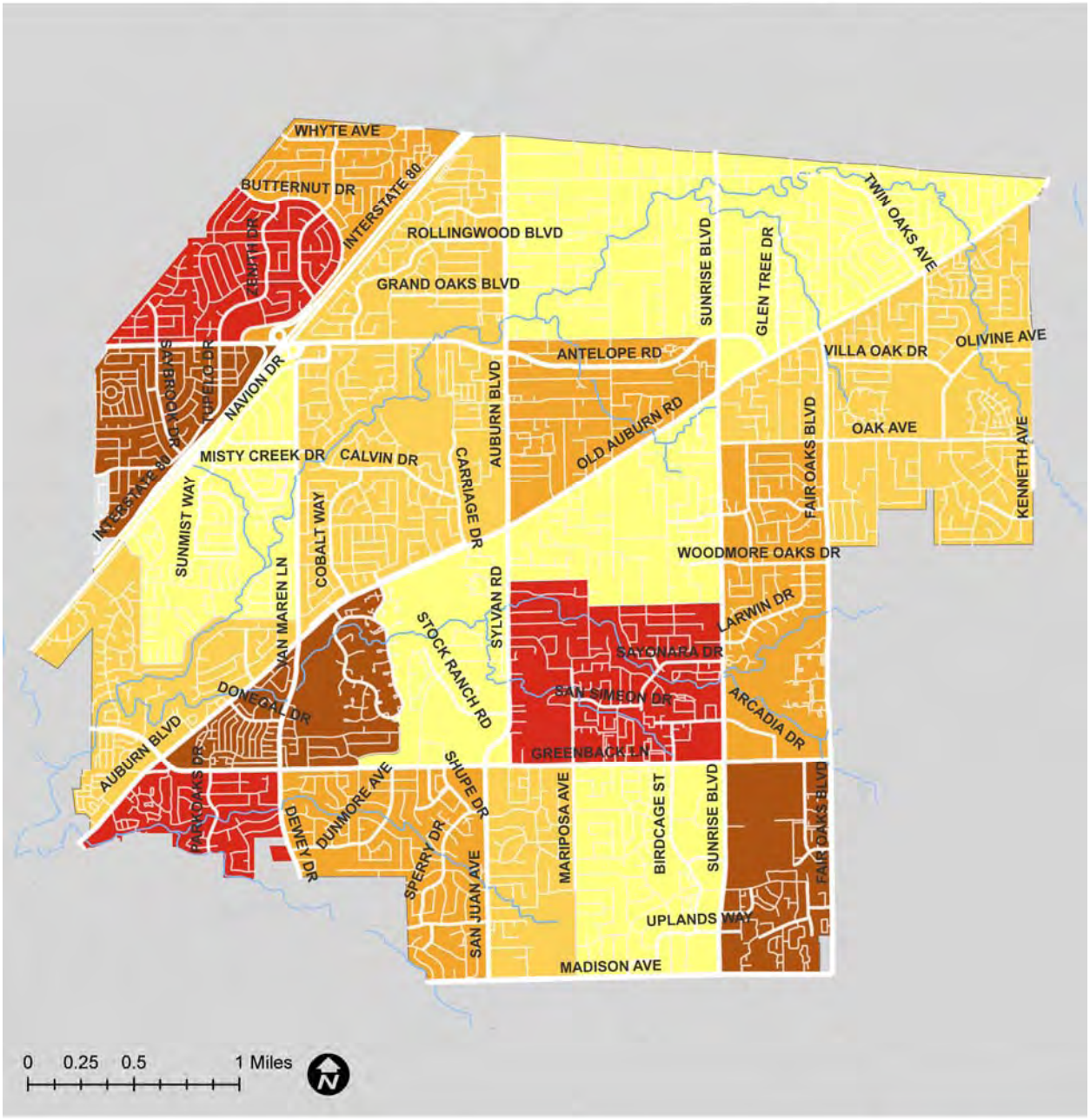


Figure 2-4: Population Density

ACTIVITY GENERATORS

Throughout Citrus Heights, there are a variety of destinations that may attract pedestrian traffic. Improvements to the pedestrian network near these destinations can improve safety and have great potential to increase walking in Citrus Heights. A map of all activity generators can be seen in **Figure 2-5**.

PARKS AND COMMUNITY CENTERS

Citrus Heights has 26 park facilities, listed in **Table 2-2**, including playgrounds, picnic areas, sport facilities, golf courses, and swimming pools that serve as recreational destinations for the community.

There are also two community centers in Citrus Heights for local gatherings—Citrus Heights Community Center and Sylvan Community Center—and a community garden.

Table 2-2: Parks

CITRUS HEIGHTS PARKS	
Arcade Creek Park Preserve	Northwoods Park
Brooktree Park	Park Oaks Park
C-Bar C Park	Rusch Community Park
Cherry Creek Manor Park	San Juan Park
Citrus Heights Community Garden	Sayonara Park
Crosswoods Park	Shadowcreek Park
Edgecliff Court/Cripple Creek Open Space	Stock Ranch
Foothill Golf Course	Sunrise Oaks Park
Greenback Woods Park	Tempo Park
Indian River Drive Open Space	Twin Creeks Park
Matheny Way Park (planned)	Van Maren Park
Madera Park	Westwood Park
McDonald Field Park	Woodside Oaks/Olivine Drive Open Space

Citrus Heights Community Center
Photo from: http://www.citrusheights.net/

Pedestrian Attractors and Generators

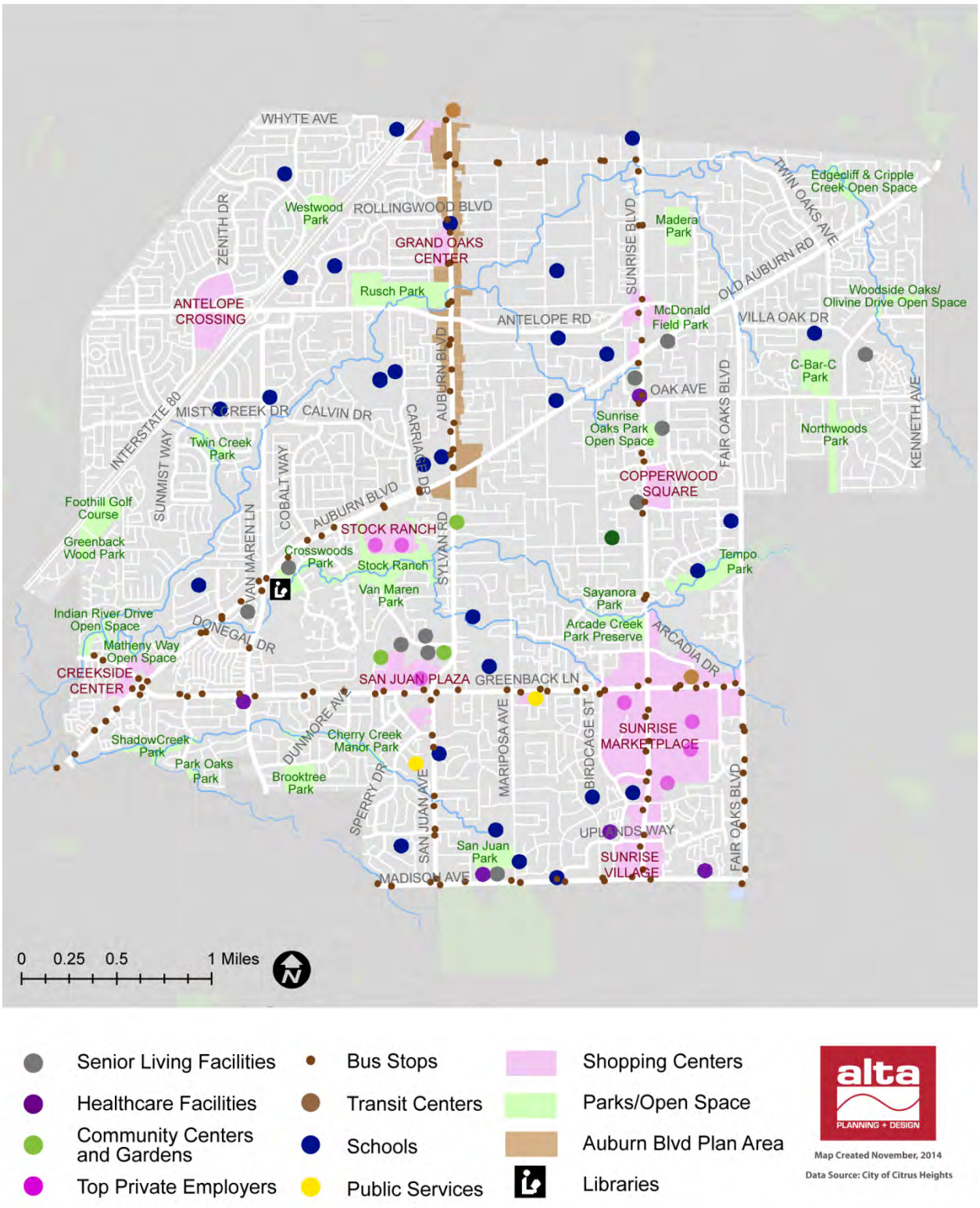


Figure 2-5: Pedestrian Attractors and Generators

SCHOOLS

Schools are a major attractor, bringing families to school sites every weekday during the school year. Schools also function as community centers where families travel to on evenings and weekends for events and youth sports.

Nearly 7,000 students are enrolled in the 13 public schools in Citrus Heights, representing a large population of potential pedestrians (**Table 2-3**). There are an additional 20 private schools in the community, listed in **Figure 2-4**.

Table 2-3: Public Schools

NAME	ENROLLMENT
Elementary Schools	
Arlington Heights	308
Cambridge Heights	364
Carriage Drive	458
Citrus Heights	371
Grand Oaks	345
Kingswood	627
Mariposa Avenue	436
Skycrest	475
Middle Schools	
Lichen K-8	595
Sylvan Middle School	670
Woodside K-8	597
High Schools	
Mesa Verde	944
San Juan	725

Table 2-4 : Private Schools

NAME	
Private Schools	
Academy of Private Classic Education	St. Mark's Lutheran Elementary
American Christian Academy	Sunrise Christian
Arrow Christian Academy	Sunrise Tech Center
Countryside Montessori	Valley Christian Academy
Faith Christian Academy	Valley Oak Academy
Gillette Home	Valley Oak Academy Antelope
Harvest Academy	Valley Oak Academy Madison
Holy Family Catholic School	Valley Oak Academy Mariposa
Martins' Achievement School	West Pioneer Academy
Higher Education	
Carrington College	

School Zone Crosswalk on Lauppe Lane near Mesa Verde High School

COMMERCIAL CENTERS

Retail centers can be high pedestrian trip generators. Citrus Height's retail centers are served by a combination of transit and surface parking. Citrus Heights is home to a number of commercial centers.

The largest commercial center in Citrus Heights is the Sunrise MarketPlace, located along Sunrise Boulevard at Greenback Lane. It is a 10-block area that includes over 400 businesses, services, and resturants and is a regional center serving the broader Sacramento area.

Another major retail center, Antelope Crossing, is located at the Antelope Road interchange with Interstate 80. Business owners formed the Antelope Crossing Business Association in 2009 and, with a $100,000 grant from the Sacramento Region Air Quality and Infill Streamlining Program, developed a Transformation Plan to help businesses capitalize on its unique location at the only freeway exit in Citrus Heights, improve connectivity with adjacent land uses, and develop a strong community identity.

Additional retail nodes exist at Greenback Lane and Sylvan Road, Auburn Boulevard and Greenback Lane, the Stock Ranch center on Auburn Boulevard west of Sylvan Road, Auburn Boulevard south of Rollingwood Boulevard, Sunrise Boulevard and Antelope Road, and Sunrise Boulevard at Woodmore Oaks Drive.

TOP EMPLOYERS

According to the Citrus Heights General Plan, over 1,800 people are employed by the top eight private employers in the city, listed in **Table 2-5**. Most of the major employers are retail businesses.

Table 2-5: Top Private Employers

NAME	EMPLOYEES	BUSINESS TYPE
WalMart	370	Retail
Lowe's	300	Home Improvement
JC Penny	250	Retail
Manor Health	250	Health Care
Costco	220	Retail
Macys	175	Retail
Sears	150	Retail
Safeway	130	Grocery

HEALTHCARE

Pedestrian access to health care is important, particularly for those without access to a vehicle or who have reached an age where driving is no longer an option. Hospitals and other medical centers in Citrus Heights, listed in **Table 2-6**, have the potential to attract significant pedestrian activity given the large population of older adults in the community.

Table 2-6: Healthcare Providers

NAME	ADDRESS
ManorCare Health Services	7807 Uplands Way
Mercy Medical Group	8001 Madison Ave
Molina Medical Center	7400 Sunrise Blvd
UC Davis Medical Group	7551 Madison Ave
Whole Health Community Clinic	6560 Greenback Ln

SENIOR LIVING FACILITIES

Citrus Heights has a large senior population, with 30 percent of residents age 55 or older. Many of these residents walk for most of their trips. Senior living facilities are listed in **Table 2-7**.

Table 2-7: Senior Living Facilities

NAME	ADDRESS
Arcade Creek Manor	6546 Auburn Boulevard
Auburn Oaks Senior Living	7501 Sunrise Blvd
Citrus Heights Terrace	7952 Old Auburn Rd
Crosswood Oaks	6650 Crosswoods Dr
Emeritus Senior Living	7375 Stock Ranch Rd
Merrill Gardens	7418 Stock Ranch Road
Normandy Park	7575 Madison Ave
On My Own	6939 Sunrise Blvd
Sun Oaks Assisted Living	7241 Canelo Hills Dr
SunGarden Villa	7523 Fireweed Cir
Vintage Oaks	7340 Stock Ranch Road

PUBLIC SERVICES

Two important community service destinations are located in Citrus Heights: the Sunrise Christian Food Ministry, and Women, Infants, and Children (WIC) Citrus Heights.

Because both of these centers serve low income residents, it is likely that patrons may choose to walk or take transit if they cannot afford to maintain a vehicle.

30 percent of Citrus Heights residents are age 55 or older.

TRANSIT

Prioritizing improvements near transit stops and providing amenities like benches and shade structures can make walking to transit more comfortable.

Citrus Heights contracts with the Sacramento Regional Transit District for transit services in the city. Routes run primarily on Auburn Boulevard, Antelope Road, Greenback Lane, and Sylvan Road.

In addition to local routes, this service also connects passengers to destinations in Roseville, and other nearby communities. Transfer stations in Citrus Heights are located near Sunrise MarketPlace (Arcadia Station) and on Auburn Boulevard near the northern city limit (Orlando Avenue Station).

Public transit riders often face the "first and last mile" dilemma: how to connect their home and final destination with the actual transit route. This can be particularly challenging in Citrus Heights since transit stops are located along a few arterial roads, and may require riders to walk a great distance from their home. On the other end of the trip, a transit bus may take a passenger to within a mile of their employment site, requiring them to walk the remaining distance.

Bus Shelter on Greenback Lane

COMMUTER TRAVEL

Monitoring the percentage of Citrus Heights residents who walk to work offers a fairly reliable way to track the success of pedestrian facilities and programs, since this information is gathered by the Census bureau each year. While this provides important data about commute trips, these data only tell us about employed residents over 16 years of age, and how they typically travel to work.

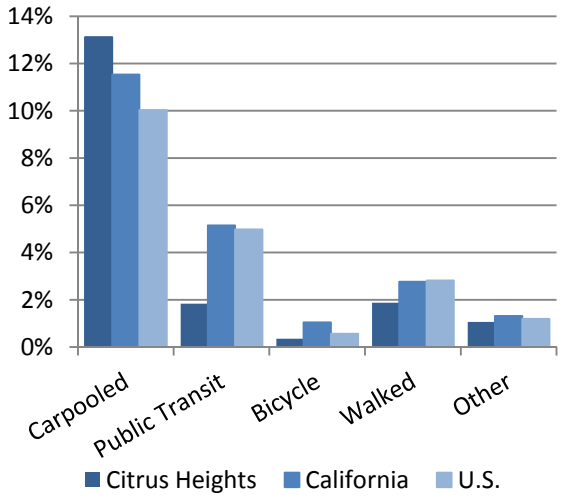
This Plan presents commute data from the American Community Survey for 2007 through 2012.

The majority of Citrus Heights residents currently drive to work alone, at 77.7 percent. Carpooling is the second most-used mode of transportation, at 13.1 percent. The remaining travel modes—transit, bicycling, walking, and 'other' modes—together amount to fewer than 6 percent of commute trips. When compared to statewide and national travel, Citrus Heights has a much lower percentage of walking commuters (see **Table 2-8** and **Figure 2-6**).

Table 2-8: 2012 Means of Transportation to Work

MODE	CITRUS HEIGHTS	CA	US
Drive alone	77.7%	73.0%	76.1%
Carpool	13.1%	11.5%	10.0%
Public Transit	1.8%	5.1%	5.0%
Bicycle	0.4%	1.0%	0.6%
Walked	**1.9%**	**2.8%**	**2.8%**
Other	1.1%	1.3%	1.2%
Work from home	4.0%	5.2%	4.3%

American Community Survey 2012 5-year estimates



American Community Survey 2012 5-year estimates

Figure 2-6: Select 2012 Means of Transportation to Work

Over the study period, the percent of Citrus Heights commuters who walk to work has increased slightly from 1.1 percent in 2007 to 1.9 percent in 2012, as shown in **Figure 2-7**.

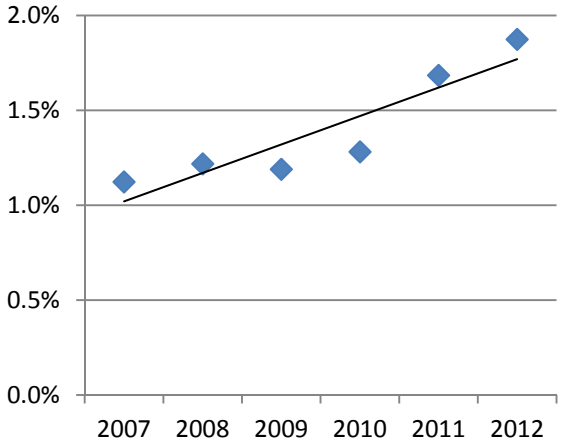


Figure 2-7: Walking Commuters in Citrus Heights

PEDESTRIAN-INVOLVED COLLISIONS

Safety can be a concern for current and potential pedestrians, and can be a determining factor in the decision to walk or use another mode of transportation. Analysis of pedestrian-involved collision data provides the City of Citrus Heights with a basis for infrastructure and program recommendations that can improve safety.

This section reviews collision data from Crossroads, a database of collision records maintained by the City. While collision data is sometimes incomplete and does not capture 'near misses,' it does provide a general sense of the safety issues facing pedestrians in Citrus Heights. Five years of data were evaluated, from November 1, 2009, to October 31, 2014.

TOTAL COLLISIONS

There were a total of 120 reported pedestrian collisions during the study period, involving a total of 127 pedestrians. **Figure 2-8** shows the number of pedestrian-involved collisions in Citrus Heights from 2010 to October 2014. Because there were only two months of 2009 included in the study period, this figure omits that year to gain a clearer picture of annual trends.

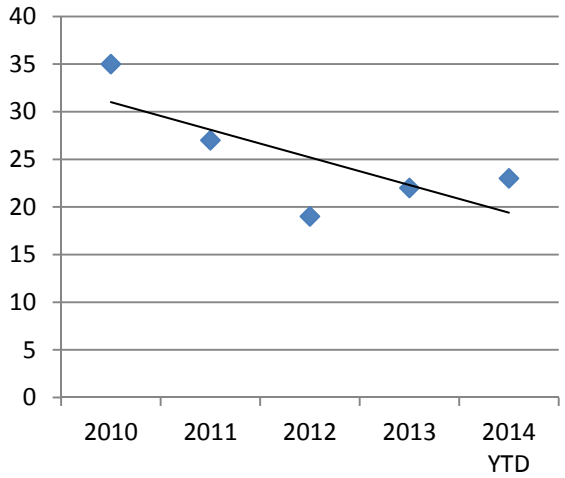


Figure 2-8: Pedestrian-Involved Collisions Over Time

Without additional data, such as trends in pedestrian volumes over the same period, the downward trend in the number of collisions may not provide a complete picture of the walking experience in Citrus Heights. It may be that fewer people are walking for all trips.

TOP COLLISION LOCATIONS

By taking a closer look at the locations in Citrus Heights where high numbers of pedestrian collisions have occurred over the last five years, priority corridors emerge that should be studied for safety improvements. Of the 120 reported pedestrian collisions, 90 occurred along three corridors, as shown in **Table 2-9**.

Table 2-9: Top Collision Corridors

STREET NAME	COLLISIONS
Greenback Lane	44
Auburn Boulevard	39
Sunrise Boulevard	19

Twelve of these collisions occurred at the intersection of two top collision corridors, as listed in **Table 2-10**.

Table 2-10: Top Collision Intersections

INTERSECTION	COLLISIONS
Auburn Boulevard & Greenback Lane	6
Greenback Lane & Sunrise Boulevard	6

For a map of all pedestrian-involved collisions in Citrus Heights, see **Figure 2-9**.

Pedestrian-Involved Collisions (10/2009 - 11/2014)

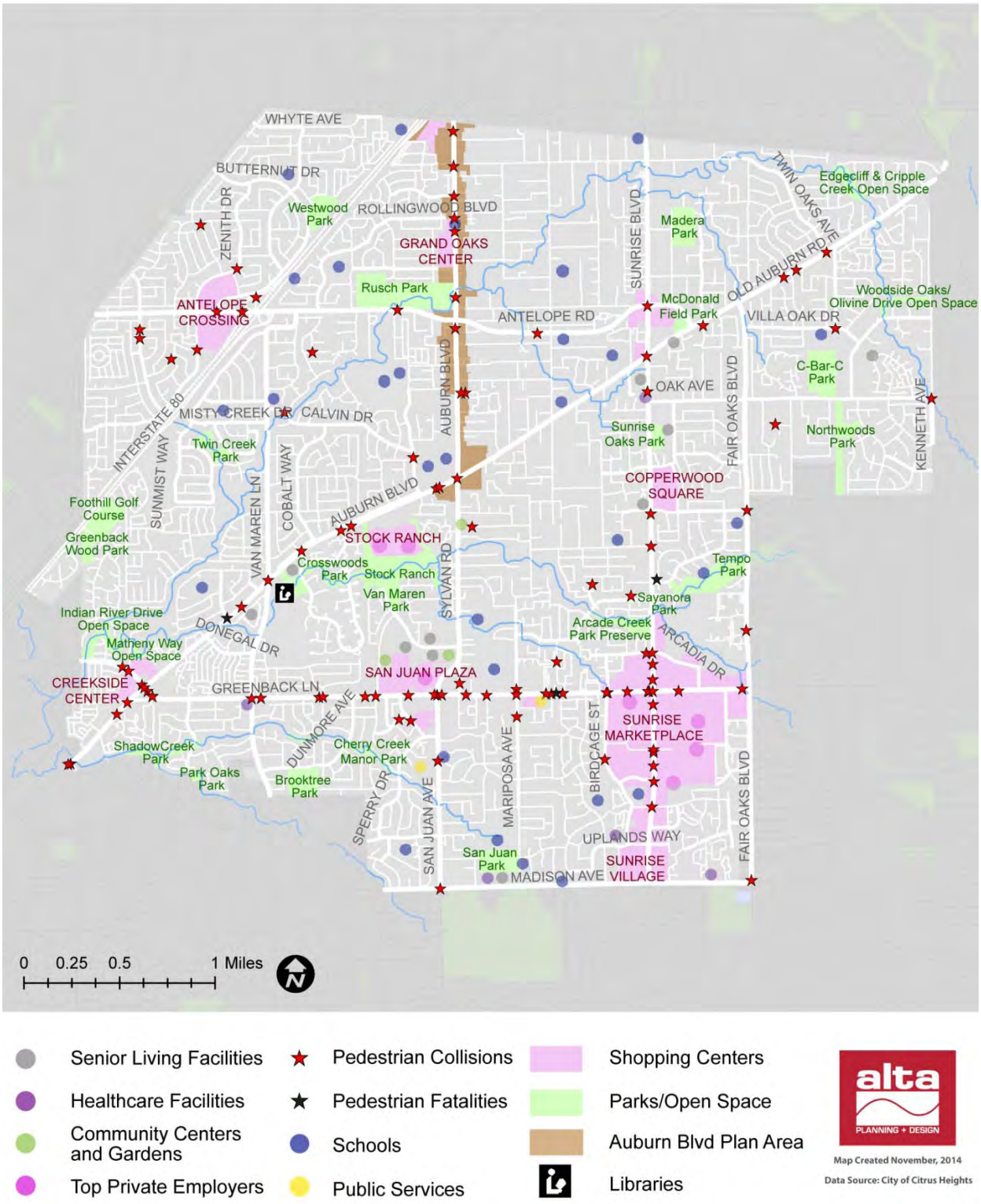


Figure 2-9: Pedestrian-Involved Collisions

AGE

When the age distribution of pedestrians involved in collisions is compared to that of the overall population in **Figure 2-10**, it becomes clear that pedestrians under 25 years old are overrepresented among collision victims. Nearly one-third of pedestrians involved in a collision are under 18 years of age, and over 50 percent are under 25 years of age.

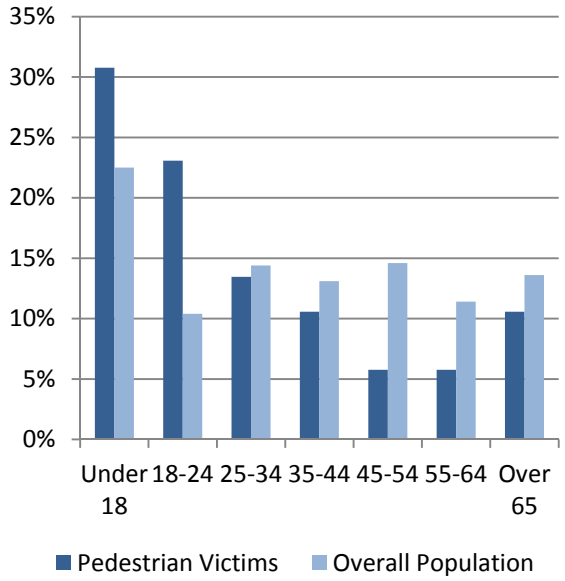


Figure 2-10: Age of Pedestrian Collision Victims vs Overall Population

Over 50 percent of pedestrian collision victims in Citrus Heights are under 25 years of age.

COLLISION SEVERITY

Of the 127 pedestrians involved in collisions in Citrus Heights, 57 percent had visible or severe injuries. Two percent were fatally injured. See **Figure 2-11**.

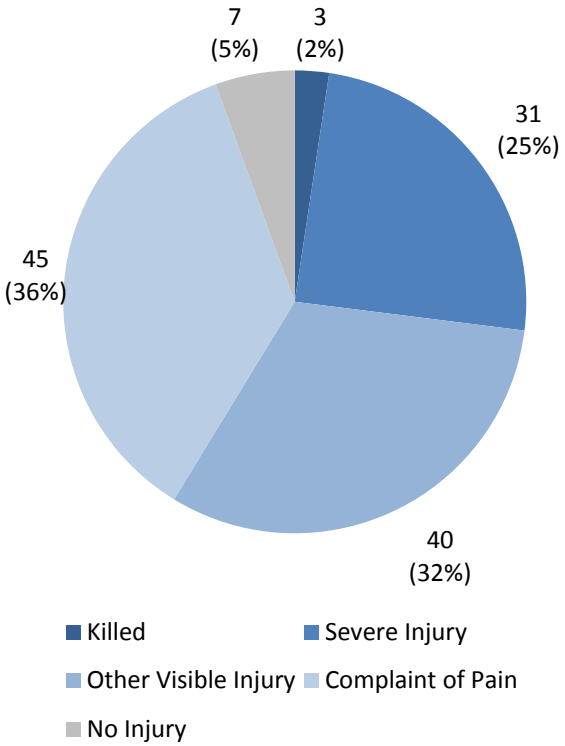


Figure 2-11: Pedestrian Injury Severity

While walking accounts for fewer than two percent of commute trips in Citrus Heights, **Figure 2-12** indicates they are overrepresented in traffic fatalities in the community. Between 2008 and 2012, 24 percent of people killed in collisions were pedestrians.[1]

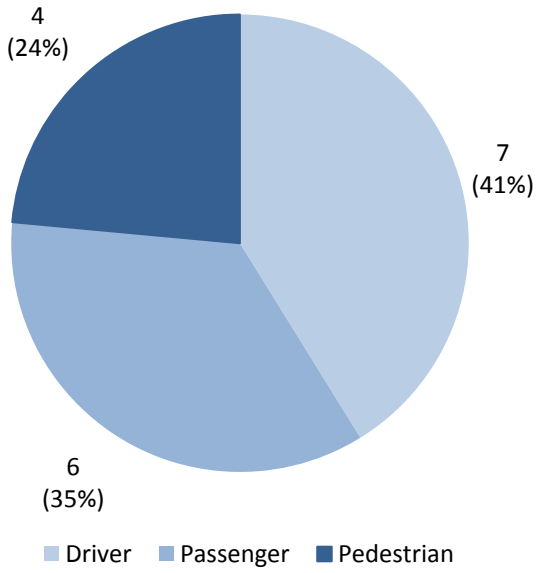


Figure 2-12: Fatalities by Victim Mode

FAULT AND PRIMARY COLLISION FACTORS

When a collision report is made, the reporting officer determines whether one party is at fault for the collision, along with information on the factors that contributed to the collision and the preceding movements of all parties.

As seen in **Figure 2-13**, pedestrians were deemed to be at fault in fewer than half of all pedestrian-involved collisions in the study period.

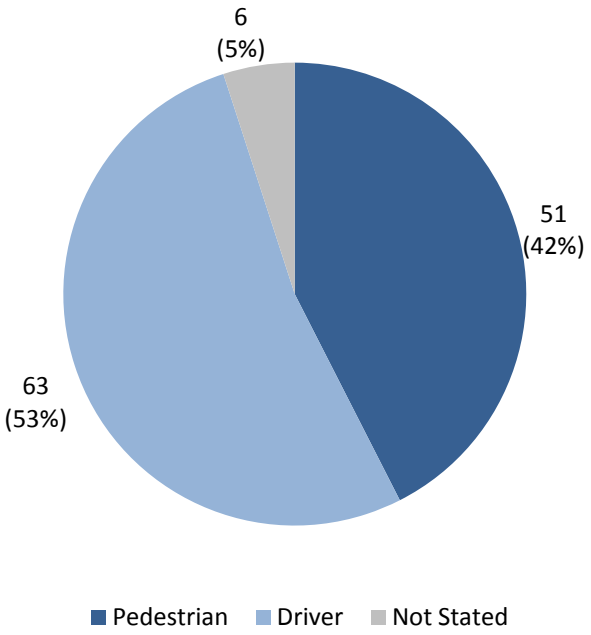


Figure 2-13: Party at Fault

[1] Figure 2-12 uses collision report data from the Statewide Integrated Traffic Records System (SWITRS) and includes data from 2008-2012. All other tables and figures in this chapter use data from Crossroads from November 1, 2009 to October 31, 2014.

These fault determinations can be further clarified by examining the primary collision factor identified in the collision report. According to these reports, 52 collisions resulted from pedestrian violations, which mean the pedestrian failed to obey a traffic laws or yield to another road user appropriately.

Across the remaining 68 collisions, just over half had primary collision factors identified (34 were reported as "Other," "Unknown," or "Other Hazardous Movement"). See **Table 2-11**.

Table 2-11: Primary Collision Factors

PRIMARY COLLISION FACTOR	NUMBER
Pedestrian Violation	52
Pedestrian Right of Way Violation	7
Failure to Obey Traffic Signals and Signs	5
Improper Turning	5
Unsafe Starting or Backing	5
Driving Under the Influence	4
Auto Right of Way Violation	3
Unsafe Speed	3
Improper Passing or Lane Change	2
Other Hazardous Movement	21
Other/Unknown	13

PEDESTRIAN ACTION PRECEDING COLLISION

An examination of the pedestrian actions preceding the collision can offer some additional insight into pedestrian education needs, or deficiencies in the pedestrian network where desired paths of travel are not being fully supported.

Figure 2-14 shows the most common of these actions was a pedestrian crossing a street outside of a crosswalk, which contributed to 33 percent of the collisions. This may suggest a need for more frequent crosswalks to reduce the number of pedestrians crossing at unmarked locations, or for pedestrian safety education.

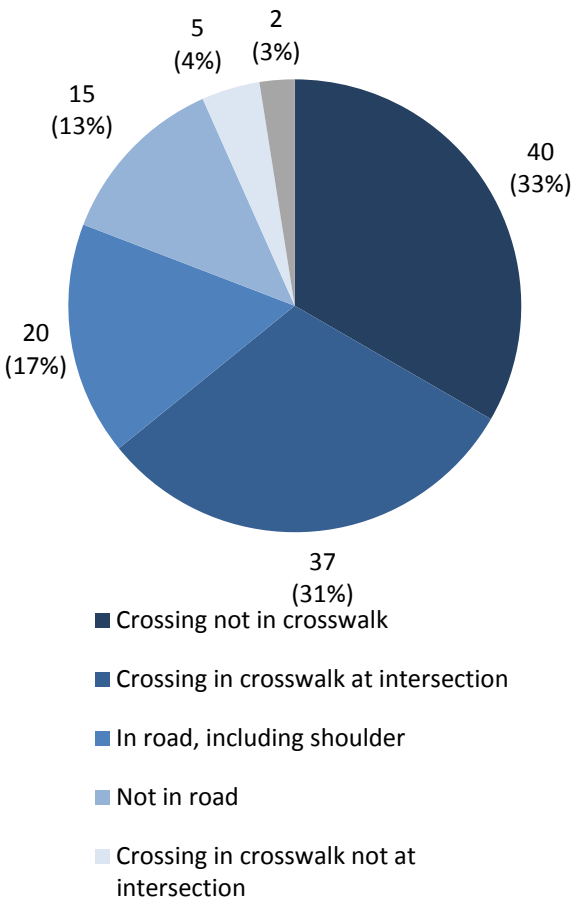


Figure 2-14: Pedestrian Action Preceding Collision

An additional 31 percent of pedestrians were crossing in a crosswalk at an intersection, which may indicate poor yielding from motorists. Education on the rights of pedestrians and the importance of looking out for these vulnerable road users may address

Fifteen pedestrians were involved in collisions despite being reported as "not in road," which suggests they were on the sidewalk when the collision occurred. Of these, seven involved motorists making right turns out of driveways onto arterial roadways. Nine out of the fifteen were felony hit-and-run collisions, including two drivers who had been drinking.

ENGINEERING: PEDESTRIAN NETWORK INVENTORY

Citrus Heights is a city of neighborhoods, with eleven numbered neighborhood associations, listed in **Table 2-12**. Neighborhoods 7 and 8 hold joint meetings and have formed one collaborative association.

Table 2-12: Neighborhood Associations

#	ASSOCATION NAME
1	Northwest Neighborhood Association
2	Rusch Park Neighborhood Association
3	Citrus Heights Association Number Three (CHANT)
4	Arcade Creek Neighborhood Empowerment Association
5	Park Oaks Neighborhood Association (PONA)
6	Sunrise Ranch Neighborhood Association
7 & 8	Citrus Heights Area Seven and Eight (CHASE)
9	Sunrise Oaks Neighborhood Association
10	Sylvan Old Auburn Road Neighborhood Association
11	Birdcage Heights Neighborhood Association

The City of Citrus Heights is laid out across a large grid of arterial streets spaced approximately 1 mile apart. These arterial corridors are largely oriented to run north-south or east-west, with two notable exceptions. Interstate 80 and Old Auburn Road both cut a diagonal path across the city, running from southwest to northeast.

Within this grid framework, collector and local roads provide access to businesses, homes, and community destinations. Many of these streets are curvilinear, suburban-style neighborhoods, with a single road serving as the only entrance and exit to a disconnected inner system. Mileage for each of the road types in Citrus Heights is shown in **Table 2-13**. A map of the existing network is shown in **Figure 2-15**.

Table 2-13: Roadway Mileage by Street Type

STREET TYPE	MILES
Highway or Ramp	8.8
Arterial	23.9
Collector	37.0
Local	209.5
Total	**279.2**

A significant barrier to pedestrian travel is Hwy 80, which cuts across the northwest corner of the city on a diagonal. Neighborhood 1 is isolated by this barrier that makes walking and bicycling challenging. There is only one overcrossing over Interstate 80 in Citrus Heights, at Antelope Road, and this is the only location where cars, bicyclists, pedestrians, or transit can cross. The next crossing opportunities are located just outside the city limits at Greenback Lane/Elkhorn Boulevard and at Auburn Boulevard/Riverside Avenue.

The distances between these crossings are too great to support walking as a viable mode of transportation. The Greenback Lane/Elkhorn Boulevard crossing is located 2.25 miles southwest of Antelope Road, while the Auburn Boulevard/Riverside Avenue crossing is 1.6 miles northeast.

Pedestrian Network Inventory

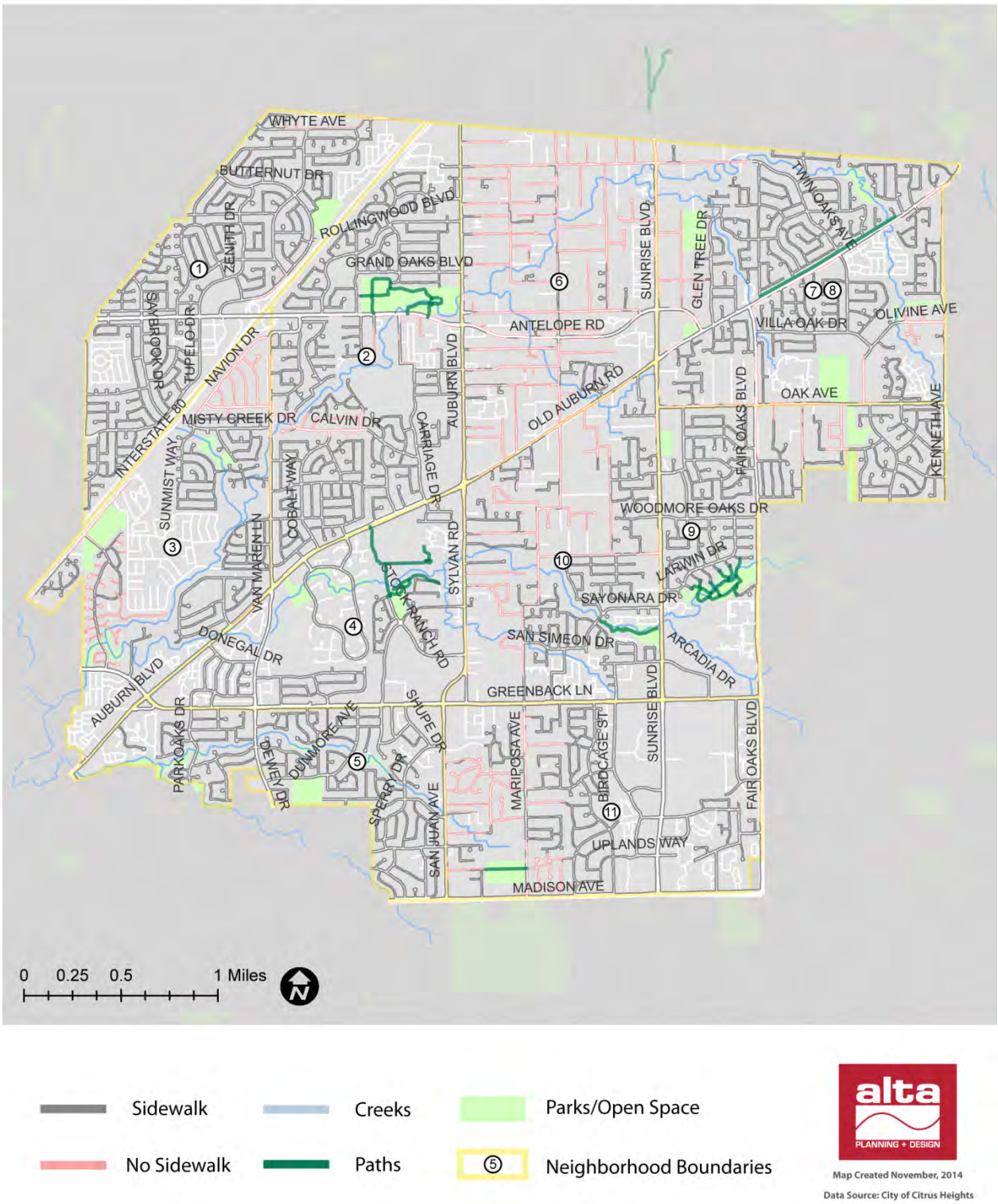


Figure 2-15: Pedestrian Network Inventory

SIDEWALKS

Citrus Heights has a mix of areas with and without sidewalks.

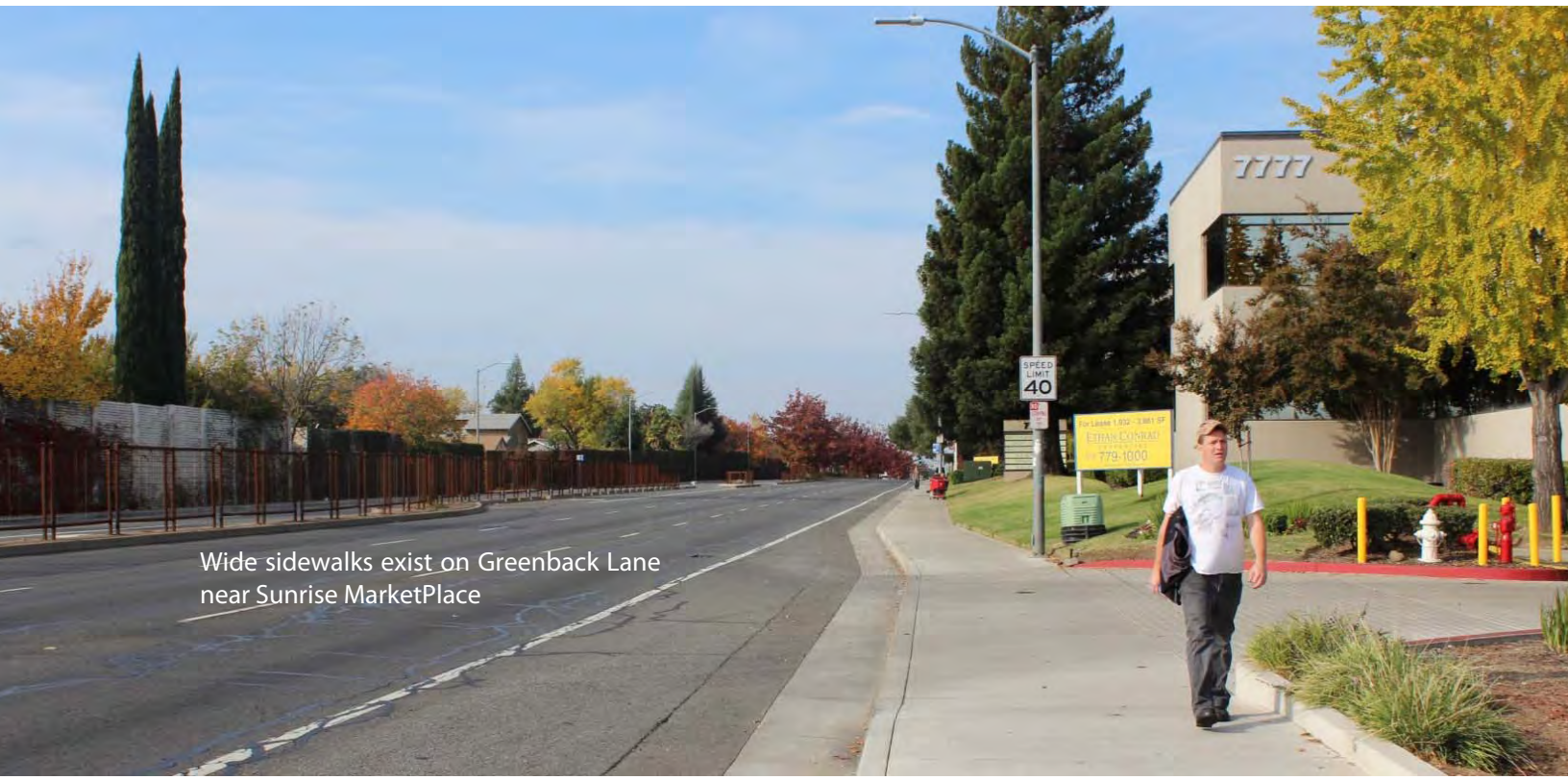
Neighborhoods 6 and 10 do not have an extensive sidewalk network. A number of corridors, listed below, also lack sidewalks for notable distances.

- Fair Oaks Boulevard (north of Copperwood Drive)
- Mariposa Avenue
- Oak Avenue
- Old Auburn Road (east of Fair Oaks Boulevard)
- Sunrise Boulevard (north of Antelope Road)
- Twin Oaks Avenue
- Van Maren Lane

Approximately 83 percent of the City's street network has sidewalks.[2]

The width and condition of sidewalks vary throughout the City. Most sidewalk through zones are approximately 4-feet wide. The American with Disabilities Act (ADA) requires a minimum 4-foot wide sidewalk.

Sidewalks in the City include either vertical or rolled curbs. Rolled curbs are mountable, allowing vehicles to encroach on the sidewalk, which can be advantageous for emergency vehicle maneuverability. However, rolled curbs also make it easy for cars to park atop the curb, potentially obstructing pedestrian movement.



Wide sidewalks exist on Greenback Lane near Sunrise MarketPlace

[2] Data was available for 71 percent of street network. Distribution was assumed to be consistent for remaining 29 percent.

CROSSWALKS

Crosswalks are a legal extension of the sidewalk and provide guidance for pedestrians who are crossing roadways by defining and delineating their path-of-travel. Crosswalks are not required to be marked. However, crosswalk markings alert motorists of a pedestrian crossing point. Marked crosswalks exist throughout the City, typically at intersections along arterial and collector streets. Most marked crosswalks are standard (also called transverse) crosswalks consisting of two parallel white lines marked on the pavement. High visibility or 'continental' crosswalks use bold perpendicular lines that are more conspicuous to motorists, as shown in **Figure 2-16**.

At some marked crosswalks, the City has installed additional treatments, such as distinct paving materials. Distinct paving material, such as pavers or colored concrete, further differentiates the crossing zone from the remainder of the street. Examples of marked crosswalks with distinct paving materials include the crosswalks on Greenback Lane at Sunrise Marketplace.

State law requires marked pedestrian crosswalks located in a roadway contiguous to a school building or school grounds to be yellow. Additionally, a marked pedestrian crosswalk located within 600 feet (and in some circumstances up to 2,800 feet) from a school building or school grounds may be yellow.

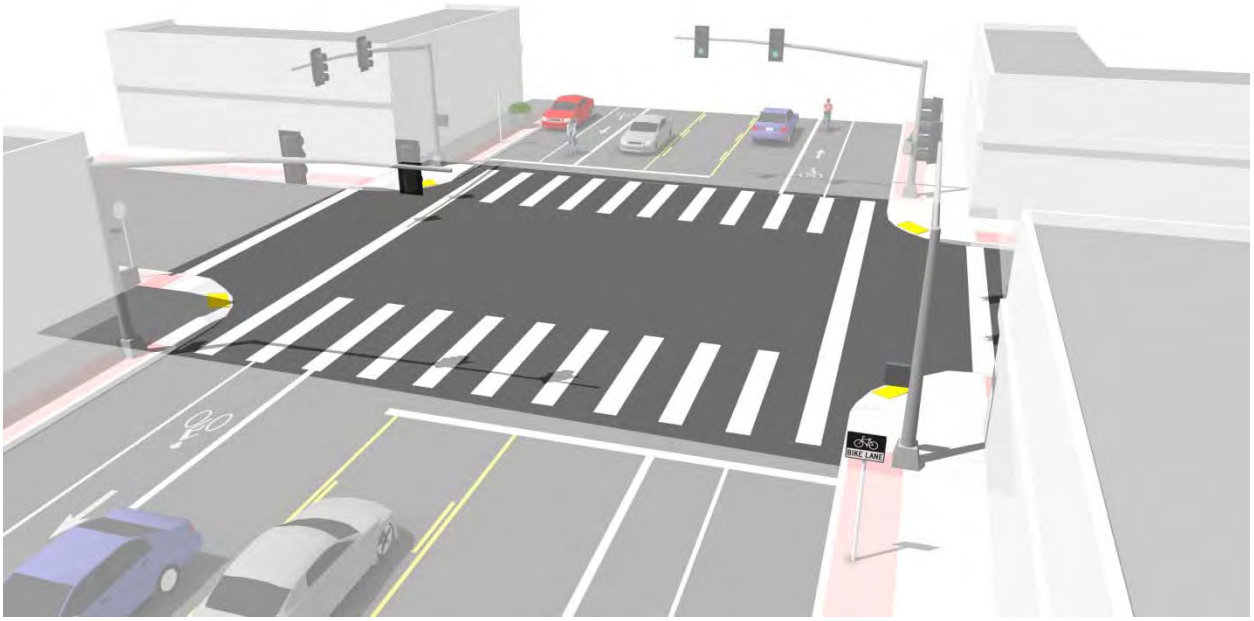


Figure 2-16: Crosswalk Markings

CURB RAMPS

Curb ramps ease the transition between a sidewalk and street by creating a "bridge" between the curb height and ground level, as illustrated in **Figure 2-17**. Curb ramps provide street and sidewalk access to pedestrians using wheelchairs and strollers. Standards require curb ramps wherever an accessible route crosses a curb. Per ADAAG (Americans with Disabilities Act Accessibility Guidelines), an accessible route is a continuous unobstructed path connecting all accessible elements and spaces of a building or facility, including parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

Curb ramp types at street corners in Citrus Heights include mostly diagonal ramps.

Curb ramps are required to include detectable warnings or raised truncated domes to provide directional and hazard warning information to pedestrians who are visually impaired. The City installs new curb ramps whenever roadways are resurfaced or reconstructed and upon request (as funding allows). All recently upgraded curb ramps have raised truncated domes.

SIGNAGE

The California Manual on Uniform Traffic Control Devices (CA MUTCD) outlines the requirements for a variety of sign types, including:

- Regulatory (e.g., stop, yield, speed limit, pedestrian crosswalk, no parking, sidewalk closed ahead)
- Warning (e.g., pedestrian crossing, school advance warning, school plaque, playground, senior citizen facility, stop ahead)

The City has installed CA MUTCD standard signs regulation and warning signs throughout the city.

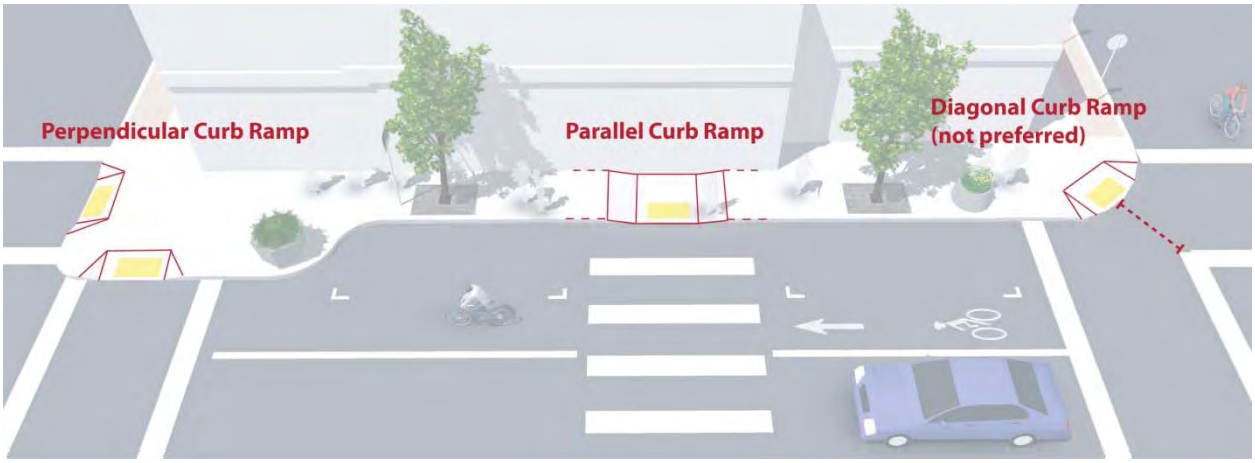


Figure 2-17: Curb Ramp Types

TRAFFIC SIGNALS

Pedestrian movement at major intersections is controlled by a variety of signal technologies, including pedestrian signal heads. Pedestrian signal heads[3] are typically installed at signalized intersections with high pedestrian crossing volumes and at school crossings. In Citrus Heights, the pedestrian crossing phase of any signal includes pedestrian signal indications as shown in the images at right.

Intersections in Citrus Heights include two to several traffic signals, depending on the roadway geometries. All new or recently retrofitted signalized intersections in the City of Citrus Heights have pedestrian countdown signal heads, and intersections are updated any time old signals are replaced. Typically, pedestrians trigger the pedestrian phase of signal by pressing a pedestrian push button. Most traffic signals (approximately 90 percent) include one or two pedestrian push buttons.

Traffic signals in Citrus Heights will not recall the WALK phase if the concurrent green phase for vehicles has already begun, and will instead wait for the following cycle to permit pedestrian crossings.

Traffic signals in Citrus Heights employ standard signal timing. Some have signal timing of three feet per second and others four feet per second.[4]

Pedestrian Countdown Signal Head

A pedestrian push-button provides information on when pedestrians should cross.

[3] A signal head is an assembly of one or more signal faces together with the associated signal housings. A pedestrian signal head is a signal head, which contains the symbols WALKING PERSON (symbolizing WALK) and UPRAISED HAND (symbolizing DONT WALK), that is installed to direct pedestrian traffic at a traffic control signal.

[4] Signal timing refers to the amount of time allocated for the display of a signal indication (CA MUTCD 2010).

EDUCATION PROGRAMS

TRAFFIC SAFETY ASSEMBLIES

The Citrus Heights Police Department offers traffic safety assemblies at a few schools in the community. This program includes at least two seminars each year at the two high schools. Additionally the Police Department has offered assemblies at Mariposa Avenue Elementary and Sylvan Middle School. These include information on safe walking, bicycling, and driving.

The Department also hosted a Traffic Safety Day at Sunrise Mall in 2013, open to all community members.

CLASSROOM LESSONS

In-class lessons on pedestrian safety are tailored to the appropriate grade level. Lessons can include basic traffic safety, rules of the road, how to cross streets safely, and more.

Classroom lessons have been offered at eleven schools in the San Juan Unified School District, but the frequency of these lessons is dependent on available funding.

SCHOOL YARD LESSONS

Building on the material learned in classroom lessons, schoolyard pedestrian lessons take students through a course designed to simulate street conditions in their community, giving them the opportunity to practice skills like crossing the street.

Schoolyard lessons have been offered at Lichen K-8, Skycrest Elementary, Kingswood Elementary, and Arlington Heights Elementary. The frequency of these lessons is dependent on available grant funding.

SUGGESTED ROUTE MAPS

Suggested route maps help parents and students choose a path to walk to school by identifying locations where sidewalks, crosswalks, and other pedestrian amenities create a safe and comfortable walking environment.

Route maps have been developed for Carriage Drive Elementary and Kingswood K-8.

ENCOURAGEMENT PROGRAMS

INTERNATIONAL WALK TO SCHOOL DAY

On International Walk to School Day in October, students and families around the world are encouraged to try walking to school for one day. Schools often have additional programming on this day, including small prizes or rewards for students who walk, or contests between classrooms based on the number of students who walk.

Schools in Citrus Heights participate in Walk to School Day as Walk + Bike Days when there is available funding and there are parent champions to assist with the event.

WALK + BIKE DAYS

Throughout the year, walk + bike days build on the enthusiasm generated by International Walk to School day. Schools can choose to participate in this activity a few times each year, monthly, or even weekly with programs like "Walking Wednesdays."

At least eleven schools in Citrus Heights offer Walk + Bike Days, although the frequency is dependent on funding and availability of parent champions. The schools offer incentives to students to encourage them to participate in Walk + Bike Days.

EVALUATION PROGRAMS

STUDENT TRAVEL TALLIES

In 2012, the City of Citrus Heights partnered with WalkSacramento to evaluate walking and bicycling at eleven schools in the community. Using resources provided by the National Center for Safe Routes to School, WalkSacramento conducted student travel tallies at each school to gather data on how students arrive at school each day, and how they travel home each afternoon.

SCHOOL SITE AUDITS

Walking and bicycling audits of school sites and the surrounding streets identify challenges for bicyclists and pedestrians and inform recommended engineering improvements. WalkSacramento conducted school site audits at eleven schools in 2012 and 2013.

ENFORCEMENT PROGRAMS

No existing enforcement programs were documented.

APPENDIX A: EXISTING PLANS & POLICIES

This Pedestrian Master Plan is built on and consistent with local and regional goals, policies, and adopted plans. The following is a review of planning and policy documents relevant to this Plan, with a strategic focus on the most relevant sections and specific policies.

LOCAL PLANS AND POLICIES

CITRUS HEIGHTS GENERAL PLAN (2011)

Citrus Heights adopted a focused update of its General Plan in 2011, with an emphasis on updating goals and policies that address sustainability, mobility/complete streets, and water quality/ flooding. This update will guide development in the city through 2025.

Pursuant to California law, the General Plan must address seven mandatory elements. The most applicable of these to pedestrian planning is the Circulation Element, which plans the movement of goods and people through the city. Citrus Heights addresses this element in the Community Development chapter of its General Plan.

The Community Development chapter includes goals and policies that aim to support walking in the community, either by directly influencing pedestrian facilities or by promoting built environments that are conducive to walking. This could include locating housing within walking distance of jobs and commercial uses, or creating opportunities to link walking with other modes of transportation, including public transit.

The goals, plans, and actions most relevant to the Citrus Heights Pedestrian Master Plan are listed below.

LAND USE

Goal 3: Maintain safe and high-quality neighborhoods

Policy 3.5 Plan, design, and construct neighborhood streets to encourage walking and bicycling while discouraging high vehicle speeds and volumes consistent with Policy 29.1.

Action *B: Pursue Neighborhood Traffic Management strategies to reduce and calm traffic on existing residential streets that have significant speeding or other safety problems.*

Goal 6: Preserve and enhance the character, distinct identity, and livability of the City's rural neighborhoods

Policy 6.6 Support development of "safe routes" to school for children residing in rural neighborhoods.

Action *A: Investigate installation of sidewalks on collector streets that are used as primary routes to schools.*

Goal 7: Ensure that new development in rural areas is compatible with the surrounding neighborhood

Policy 7.6 Plan, design, and construct rural residential streets to encourage walking and bicycling and discourage high vehicle speeds and volumes consistent with Policy 29.1.

CORRIDORS

Goal 8: Maintain the economic strength of retail centers by focusing retail activities at major intersections

Policy 8.2 Support the creation of transit centers near Greenback Lane/Sunrise Boulevard and Greenback Lane/Auburn Boulevard.

Goal 10: Achieve attractive, inviting, and functional corridors

Policy 10.2 Design buildings to revitalize streets and public spaces and to enhance a sense of community and personal safety.

Policy 10.4 Encourage high quality signage that is attractive, appropriate to the location and balances visibility needs with aesthetic needs.

Policy 10.5 Improve the appearance of the City by creating livelier, friendlier, safer spaces through the artful illumination of buildings, streetscapes, walkways, plazas, public art and other highlights.

SUNRISE MARKETPLACE

Goal 12: Create an Inviting and distinctive identity for Sunrise MarketPlace to promote its image as the City's premier commercial destination

Policy 12.1 Implement the Sunrise MarketPlace Revitalization Blueprint to enhance the physical appearance of the district, create a recognizable destination, establish a sense of place, and promote private investment in the area.

Action *A: Install street benches, sidewalk improvements, trees, public art, and entry features at strategic locations in Sunrise MarketPlace.*

Goal 13: Increase activity in the Sunrise MarketPlace through transportation investments that enhance the convenience and safety of driving, riding transit, bicycling, and walking to, from, and within the district

Policy 13.1 Improve mobility in the Sunrise MarketPlace area to provide adequate access for vehicles, transit, bicycles and pedestrians.

Action *A: Support the mobility, pedestrian enhancement, and way-finding signage concepts identified in the Sunrise MarketPlace Revitalization Blueprint.*

Policy 13.2 Create convenient connections across Sunrise Boulevard for vehicles, bicycles, pedestrians and transit.

Actions *A: Install separated sidewalks along major arterials and plant and maintain trees to reinforce a pedestrian-friendly atmosphere.*

B: Explore options for creating pedestrian crossings on Greenback Lane and Sunrise Boulevard between the major shopping centers, including a bridge connector.

Policy 13.4 Facilitate the development of new buildings in areas currently devoted to parking to shorten distances between buildings and foster better pedestrian connections between shopping centers.

Policy 13.5 Promote transit-oriented development through reuse and redevelopment of opportunity sites near the Greenback Lane/Sunrise Boulevard intersection, including potential mixed-use projects with a residential component. Coordinate potential development plans with transit near this intersection.

STREETSCAPES AND GATEWAYS

Goal 19: Establish and maintain attractive streetscapes along the city's major roadways

Policy 19.2 Establish a street tree planting program for major corridors.

TRANSPORTATION AND MOBILITY

Goal 29: Plan, design, construct, and manage a Complete Streets transportation network that accommodates the needs of all mobility types, users and ability levels

Policy 29.1 When constructing or modifying transportation facilities, strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists and pedestrians appropriate for the road classification and adjacent land use.

Actions *B: Evaluate project to ensure that the safety, comfort, and convenience of pedestrians and bicyclists are given equal level of consideration to drivers.*

C: Consider ways to increase and improve travel choices when reviewing development or transportation infrastructure projects.

D: Require sidewalks on all arterial and collector streets. Where feasible, separate sidewalks from streets on arterials and collectors with landscaping including a tree canopy to create shade.

E: Improve the existing street network to minimize travel times and improve mobility for transit, bicycle, and walking trips between new projects and surrounding land uses to reduce vehicle trips.

Policy 29.2 Measure customer satisfaction related to vehicle travel using level of service (LOS) according to procedures in the latest version of the Highway Capacity Manual published by the Transportation Research Board. The City will strive to achieve LOS E or better conditions for City roadways and intersections during peak hours (these may include weekday AM, Mid-Day, and PM hours as well as Saturday Mid-Day or PM peak hours). The intent of the policy is to effectively utilize the roadway network capacity while balancing the desire to minimize potential adverse effects of vehicle travel on the environment and other modes.

Exceptions to LOS E are allowed for both roadway segments and intersections along the following streets:

- Sunrise Boulevard – south City limits to north City limits
- Greenback Lane – west City limits to east City limits
- Old Auburn Road – Sylvan Road to Fair Oaks Boulevard
- Antelope Road – I-80 to Auburn Boulevard
- Auburn Boulevard – Old Auburn Road to northern City limits

No road widening to provide additional vehicle capacity of the above listed streets will be permitted. Development projects that impact these locations according to the City's transportation impact study guidelines would require mitigation, including, but not limited to, the following items:

- actions that reduce vehicle trips or provide non-auto improvements to the transportation network or services
- lengthening of turn pockets
- signal timing modifications

Additional exceptions may be allowed by the City Council at both exempt and non-exempt locations where mitigation is infeasible or would conflict with other community values such as those listed below:

- Impacts on general safety, particularly pedestrian, bicycle, and transit safety
- The right-of-way needs and the physical impacts on surrounding private or public properties
- The visual aesthetics of the required improvement and its impact on community identity and character
- Environmental impacts including air quality and noise impacts
- Impacts on quality of life as perceived by residents

Actions *A: Modify the existing traffic impact fee program to include a mitigation fee designed to reduce vehicle trips and vehicle miles of travel per capita within the City to avoid or minimize the need to expand existing roadway capacity. This program should include a multi-modal (Complete Streets) capital improvement program (CIP) and, in conjunction with public funding, provide full funding for the City's circulation element improvements.*

Policy 29.4 Support safe, complete and well-connected neighborhood street, bicycle, and pedestrian access and connections that balance circulation needs with the neighborhood context.

Actions *A: Modify the existing street network to enable direct physical connections within neighborhoods and between neighborhoods, neighborhood-commercial areas, and commercial-commercial areas, including connections accessible only by pedestrians and bicycles on existing cul-de-sac streets.*

B: Provide direct connection from residential areas to neighborhood parks and open space.

C: Where feasible, provide pedestrian crosswalks on all intersection approaches.

D: Develop and implement an ADA Transition Plan that focuses on compliant sidewalk improvements that provide continuous pedestrian access where compatible with the surrounding area.

E: Develop and implement a Pedestrian Master Plan (PMP) that indicates which streets in addition to arterials and collectors will install sidewalks and what other pedestrian facilities and amenities (such as 'resting spots') are needed to complete the pedestrian network shown in Map 9. Sidewalk widths and shade coverage should also be addressed in the context of the adjacent land use, vehicle volumes, and vehicle speeds.

G: Develop and implement a Safe Routes to School Plan. This effort should complement the ADA Transition Plan, the PMP, and the BMP.

OPEN SPACE

Goal 38: Establish a system of creekside trails, passive open space and parks for public use.

Policy 38.1 Provide for recreational trail rights-of-way along local creek channels through development easements and agreements.

Policy 38.2 Continue working with the Sunrise Recreation and Park District to develop an integrated Creekside trail system including low impact development strategies.

Actions *A: Establish a city trail network program for acquisition, development and administration of a natural trails system and recruit volunteers for trail construction and maintenance.*

Policy 38.3 Consider potential impacts to natural habitat areas when establishing links between developed areas. Identify alternative sites for linkages where sensitive habitat areas have the potential to be adversely impacted.

Goal 39: Create open spaces in future urban development with natural features for public use and enjoyment.

Policy 39.2 Require new development to provide linkages to existing and planned open space systems.

CITRUS HEIGHTS MUNICIPAL CODE

SECTION 106.31.030 DESIGN STANDARDS: RESIDENTIAL PROJECT DESIGN

4. *Street layout*. New public streets and sidewalks should be aligned with, and be connected to those of adjacent developments to interconnect the community.

   a. *Pedestrian Orientation*. Subdivision design should emphasize pedestrian connectivity within each project, to adjacent neighborhoods, nearby schools and parks, and to transit stops within ¼-mile of planned residential areas. All streets and walkways should be designed to provide safe and pleasant conditions for pedestrians, including the disabled, and cyclists. Light or utility poles, guy wires, transformer or relay boxes, gate/door swing radii, bus benches or shelters, or permanent traffic or informational signals may be sited adjacent to, but shall not encroach upon, sidewalks or other marked pedestrian or bicycle pathways.

   e. *Parkway/planting strips*. Sidewalks should be separated from curbs by parkway strips of at least five feet in width, where feasible. Parkways should be planted with canopy trees at an interval appropriate to the species of the selected street tree that will produce a continuously shaded sidewalk. Parkways should also be planted with ground covers or other plant materials that will withstand pedestrian traffic.

   g. *Cul-de-sac streets*. The use of cul-de-sac streets should be limited because they contribute to traffic congestion on through streets elsewhere in the neighborhood and community, and typically produce irregular lots that inefficiently use the property being subdivided.

      (1) If the review authority determines that cul-de-sacs are necessary, the end of each cul-de-sac should provide a pedestrian walkway and bikeway between private parcels to link with an adjacent cul-de-sac, street, and/or park, school, or open space area.

      (2) A pedestrian way linking cul-de-sacs shall be lined with fences or walls of durable, easily maintained materials, designed to protect the privacy and security of adjacent lots while creating attractive walking space for pedestrians.

SECTION 106.31.040 DESIGN STANDARDS: COMMERCIAL PROJECT DESIGN

D 10. *Windows*. Existing windows should be maintained, and not "walled-in" or darkened to provide more interior wall or storage space. Ground floor windows are highly encouraged. These should ideally provide pedestrians with views into the building, but even display windows can improve the pedestrian experience of the building at the street or sidewalk level.

E 1. *Building and Parking Location*

   b. The orientation of the building and its entrances should respond to the pedestrian or vehicular nature of the street. A building with high pedestrian use, or on a street where the City is working to create a pedestrian orientation, should face and be directly accessible from the sidewalk.

   c. The City encourages shared parking arrangements. Parking areas on adjoining parcels should be connected to allow continuous vehicle, bicycle, and pedestrian access. Pedestrian linkages between parcels should be located separately from vehicle connections where possible and, in all cases, clearly differentiated from vehicle ways. Driveways should be consolidated and

shared between properties and parking areas to the greatest extent feasible.

h. Parking areas should be connected to building entrances by means of enhanced (patterned or stamped) paving.

E 2. *Pedestrian and bicycle features*

a. *Pedestrian Connections*. Safe and direct pedestrian routes should be provided from public sidewalks, through parking areas, and along building facades to primary entrances.

(1) Clearly demarcated and direct pedestrian routes should extend from peripheral public sidewalks and transit stops to the internal sidewalks that front commercial buildings, at least once in each 200 linear feet of sidewalk adjacent to the project.

(2) Pedestrian connections should be provided to existing centers on adjoining sites.

b. *Bordering and internal sidewalks*

(1) Sidewalks of at least five feet are required, and eight feet in width are encouraged along all sides of the lot that abut a public street.

(2) Sidewalks must be provided along the full length of the building along any facade with a customer entrance, and along any facade abutting a parking area.

(a) Sidewalks must be located at least six feet from the facade to provide area for landscaping, except where the facade incorporates pedestrian-oriented features such as pedestrian entrances or ground floor windows.

(b) Sidewalks should be eight feet wide, exclusive of any area planned for outdoor display or storage.

(c) The sidewalks should have wells for canopy trees at 30-foot intervals along the sidewalk edge adjacent to parking areas or vehicle access ways, so that the combination of building wall, sidewalk, and trees provide an enhanced pedestrian experience.

(3) Pedestrian walkways within the site should be provided covered for weather protection within 15 feet of all customer entrances, which should also cover nearby short-term bicycle parking.

(4) Light or utility poles, guy wires, transformer or relay boxes, gate/door swing radii, bus benches or shelters, or permanent traffic or informational signs may be sited adjacent to, but shall not encroach upon, sidewalks or other marked pedestrian or bicycle pathways.

c. *Pedestrian walkway identification*. Pedestrian walkways within the site must be distinguished from driving surfaces through the use of special pavers, bricks, or colored/textured concrete to enhance pedestrian safety and the attractiveness of the walkways. Pedestrian circulation in parking areas should be parallel to traffic flow toward building entrances. Sidewalk landings should be provided and extended between parking spaces where needed to connect pedestrians to walkways.

SECTION 106.31.050 DESIGN STANDARDS: LARGE-SCALE RETAIL AND RETAIL CENTER DESIGN

C. *Site planning*. Project site planning should emphasize pedestrian-oriented features, even though most customer trips to these facilities may be by auto.

1. The layout of buildings and parking on the site should emphasize a strong relationship to adjoining streets, and encourage pedestrian circulation and access between the buildings and the street. Buildings should be places near the street frontage on streets with slower traffic speeds and a pedestrian orientation, but may be located farther from a wide street with higher traffic speeds. The placement of buildings should also consider solar orientation, and the shading of outdoor pedestrian areas.

E. *Pedestrian circulation and amenities*. It is the nature of large retail uses that most customers arrive by car and make purchases that could not be carried home by foot or bike. Nevertheless, the large parking lots in these projects cause much of the customer's experience to be as a pedestrian, often walking long distances from car, to entrance and back. Safe accommodation for pedestrians is essential and must be an integral part of site design.

1. Sidewalks of at least five feet are required, and eight feet in width are encouraged along all sides of the lot that abut a public street.

2. Sidewalks must be provided along the full length of the building along any façade with a customer entrance, and along any façade abutting a parking area.

(a) Sidewalks must be located at least six feet from the façade to provide area for landscaping, except where the façade incorporates pedestrian-oriented features such as pedestrian entrances or ground floor windows.

(b) Sidewalks should be eight feet wide, exclusive of any area planned for outdoor display or storage.

(c) The sidewalks should have wells for canopy trees at 30-foot intervals along the sidewalk edge adjacent to parking areas or vehicle access ways, so that the combination of building wall, sidewalk, and trees provide an enhanced pedestrian experience.

3. Pedestrian walkways within the site should be provided covered for weather protection within 15 feet of all customer entrances, which should also cover nearby short-term bicycle parking.

4. Pedestrian walkways within the site must be distinguished from driving surfaces through the use of special pavers, bricks, or colored/textured concrete to enhance pedestrian safety and attractiveness of the walkways. Pedestrian circulation in parking areas should be parallel to traffic flow toward building entrances. Sidewalk landings should be provided and extended between parking spaces where needed to connect pedestrians to walkways.

SECTION 106.31.070 DESIGN STANDARDS: INDUSTRIAL PROJECT DESIGN

D. *Pedestrian circulation*.

1. Clearly demarcated and direct pedestrian routes should extend from peripheral public sidewalks and transit stops to the sidewalks that front on-site buildings, and along driveways.

2. Pedestrian walkways must be distinguished from driving surfaces through the use of special pavers, bricks, or colored/textured concrete to enhance pedestrian safety and the attractiveness of the walkways. Pedestrian circulation in parking areas should be parallel to traffic flow toward building entrances. Sidewalk landings should be provided and extended between parking spaces where needed to connect pedestrians to walkways.

ARTICLE VI. PEDESTRIANS

Sec. 94-411. - Crosswalks established.

(a) The director is authorized to determine the location of midblock crosswalks, maintain such crosswalks and designate them by appropriate devices or painted marks or signs upon the surface of the roadway.

(b) The director may maintain such other crosswalks and designate them by appropriate devices, painted marks or signs upon the surface of the roadway.

ENGINEERING STANDARDS

The City of Citrus Heights generally follows engineering standards established by Sacramento County, with some exceptions.

NEIGHBORHOOD WALKABILITY SURVEY REPORT (2008)

In 2008, the City of Citrus Heights partnered with local resident groups, including Neighborhood Associations, to conduct a walkability survey with the aim of identifying barriers to walkability, engaging residents in addressing these challenges, and increasing understanding of what makes walking accessible to residents.

The survey consisted of two parts—an 'indoor' survey where respondents answered questions about their walking behavior and preferences, and an 'outdoor' portion where respondents walked in their neighborhood and reported observations. A total of 292 residents completed the 'indoor' survey, and 167 residents completed the 'outdoor' survey.

The report acknowledges that the survey results represent a 'convenience sample' and may therefore not be an accurate representation of the entire population, but noted the following key findings.

INDOOR SURVEY FINDINGS

More than half of all respondents report it takes 15 minutes or less to walk around the block from their home. About one-quarter report it takes more than 15 minutes. About five percent each report that their block is either too large to walk around, or that they do not have blocks in their neighborhood. Four percent said they do not walk in their neighborhood.

"My neighborhood is pretty well-connected. I can get to groceries and restaurants in less than a half-hour walk and don't have to walk on any major streets to access those services."
-Survey Respondent

"Impossible to walk in my neighborhood—no sidewalks or streetlights. Also, I don't feel safe walking to any nearby grocery stores or restaurants."
-Survey Respondent

Nearly 70 percent of respondents report their neighborhood has sidewalks on both sides of most or some streets. Almost ten percent reported no sidewalks at all in their neighborhood, with a greater frequency of responses from residents in Areas 6 and 10. Nearly 30 percent report sidewalks in 'fair' condition, needing some work, while just under four percent report 'poor' conditions including cracked, broken, or uneven sidewalks.

Over two-thirds of respondents reported a school within a 10-15 minute walk of their home. Between 30 and 40 percent of respondents each noted an eating/drinking place, a grocery store, or professional services within walking distance. Just over one-quarter reported a bank within walking distance of their home. However, every Neighborhood Area had at least one respondent report that there were no grocery stores or fresh food within a 15 minute walk from their home.

OUTDOOR SURVEY FINDINGS

Comments suggest pedestrians are challenged by a variety of circumstances throughout Citrus Heights. Safety concerns—related to traffic, sidewalk conditions, or fear of crime—were the most frequently cited reason that prevents people from walking.

The most common traffic safety concerns included speeding, failure of motorists to come to a full stop at stop signs, and failure of motorists to yield to pedestrians. Speeding was reported not only on major thoroughfares, but also on local streets that respondents say are frequently used as 'cut-throughs.' Respondents also noted that when cars or buses infringe on existing bike lanes, bicyclists

sometimes choose to ride on the sidewalks, presenting additional challenges for pedestrians.

Where signalized pedestrian crossings exist, respondents reported some difficulty crossing the street in the allotted time. Curb ramps are missing from many intersections, according to survey respondents, creating challenges for pedestrians in wheelchairs or using other mobility devices, and for parents pushing strollers.

Nearly one-quarter of respondents reported there are accessible bicycle and pedestrian trails within walking distance of their home, but more than half of respondents reported there were no such trails near their homes. Some reported the presence of trails, but noted they are not always easy to access.

Most respondents reported little difficulty crossing streets on their walks, but also pointed out that they avoid certain places where crossings are challenging. Others avoid walking after dark because of a lack of adequate street lighting.

"There is a beautiful creek side path, but my walking companion (in a wheelchair) has trouble accessing it with any ease."
-Survey Respondent

Respondents reported a number of locations that they feel are particularly challenging for pedestrians. Some common locations include:

- Auburn Boulevard (especially north side and near the Library), and intersections with:
  - Walmart Area
  - Carriage Drive
  - Sylvan Road
  - San Tomas Drive
  - Van Maren Lane
- Old Auburn Road
  - Leonard Avenue to Auburn Boulevard
  - Twin Oaks
  - Intersection with Argo Drive
- Antelope Road
  - Sunrise Boulevard to Old Auburn Road
  - Intersection with Garden Gate Drive
- Sylvan Road
- Sunrise Boulevard
  - Near Sunrise Mall and Birdcage Street
  - Antelope Road to Hanson Avenue
  - Glen Tree Drive and Hanson Drive to access Sunrise Boulevard
  - Watson Way from Sunrise Boulevard to Auburn Boulevard
  - Hanson Avenue or Wonder Street near Sunrise Bouelvard
- Greenback Lane
  - Intersection with Patterson Lane
  - Intersection with Brookhaven Way
- Madison Avenue
- Van Maren Lane
- Mariposa Avenue
  - Access to Birdcage Shopping Center via Westgate Drive/Mariposa Avenue
  - Intersection with Highland Avenue
  - Intersection with Prince Street and Community Drive
  - Cook Avenue from Leonard Avenue to Mariposa Avenue
- Fair Oaks Boulevard

SUGGESTED IMPROVEMENTS

Survey respondents identified the following improvements as desirable:

- Additional traffic controls
- Additional stop signs
- Speed bumps
- Crosswalks & pedestrian signals
- Lighting
- Enforcement of existing laws
- Neighborhood beautification
- Install sidewalks
- Clear obstructions
- Provide bike lanes or bus 'pull outs' to reduce sidewalk bicycling

BIKEWAY MASTER PLAN (2011)

The Citrus Heights Bikeway Master Plan, adopted in 2009 and updated in 2011, provides a blueprint for developing a bikeway system that includes on- and off-street facilities as well as programs. The plan addresses pedestrian concerns tangentially, because Caltrans Class I bikeways are shared-use facilities that also support walking.

The Bikeway Master Plan recommends 1.5 miles of additional Class I paths, along Old Auburn Road and Twin Oaks Avenue. The path along Old Auburn Road was recently constructed.

ADA TRANSITION PLAN (2011)

The Americans with Disabilities Act (ADA) Transition Plan identifies locations in the eleven neighborhoods of Citrus Heights where pedestrian facilities do not meet ADA standards, and recommends improvements. The Plan also recommends a prioritization scheme for removing barriers to accessibility:

Priority 1: Primary arterial roadways where the majority of bus routes are located.

Priority 2: Major collectors where remaining bus routes are located or where commercial centers, schools, parks, churches, state or local agency facilities exist.

Priority 3: Pedestrian routes leading from points of arrival at bus routes to schools, parks, or other public accommodations.

Priority 4: Remaining residential areas.

CREEK CORRIDOR TRAIL PROJECT FEASIBILITY REPORT (2014)

The Creek Corridor Trail Project Feasibility Report evaluated existing creek and utility corridors in Citrus Heights to determine potential locations for Class I shared-use paths. A map of priority corridors is included in **Figure A-1** on the following page.

In March 2014, City Council directed staff to incorporate Priority 1 trail segments into the City's General Plan, Bikeway Master Plan, and Pedestrian Master Plan. Priority 1 trail segments are shown in blue, and follow Arcade Creek and the Sacramento Municipal Utility District (SMUD) corridor from Sylvan Library to Wachtel Road.

GREENHOUSE GAS REDUCTION PLAN (2008)

The City of Citrus Heights participated in a region-wide effort to reduce greenhouse gases, developing a plan that incorporates the following Transportation and Connectivity strategies that are relevant to this Pedestrian Master Plan:

Measure 3-1.B: Work with SACOG's Community Design and Caltrans' Safe Routes to School programs to identify grant opportunities to improve public transit, bicycle and pedestrian networks to serve the community center, libraries, schools, recreational areas and other public gathering spaces.

Measure 3-5.A: Maximize pedestrian and bicycle use through high-quality design, enhanced infrastructure, and enforcing bike and pedestrian travel rights.

> Action B: Adopt a Pedestrian Master Plan and implement near-term improvements. Conduct a citywide pedestrian walkway analysis to identify locations with physical obstacles within sidewalks, walkways, and trails such as utility poles and prioritize removing these barriers to encourage pedestrian use.

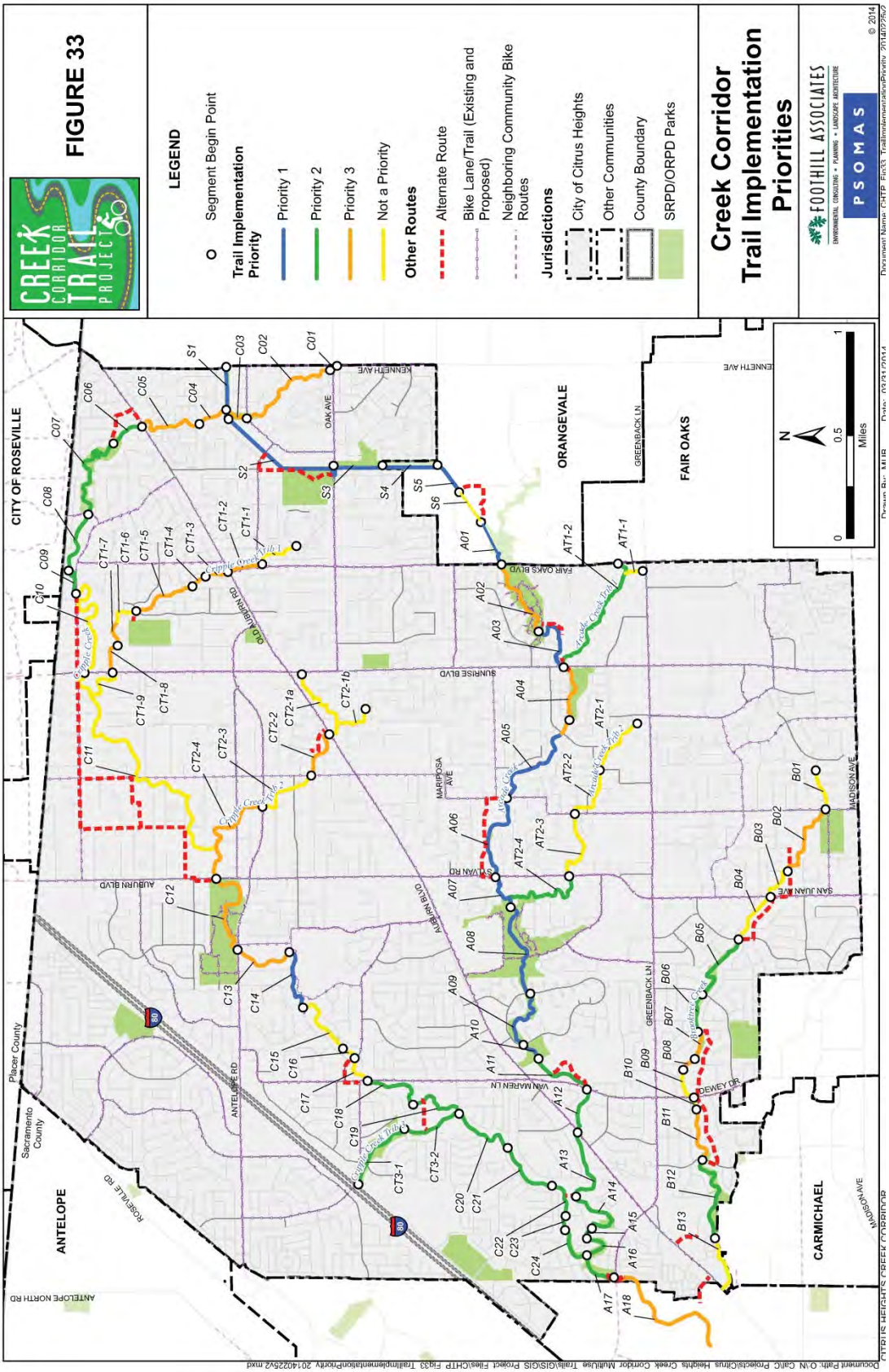


Figure A-1: Creek Corridor Trail Project Priorities

CITRUS HEIGHTS SCHOOL WALKABILITY PROJECT REPORT (2014)

The School Walkability Project was initiated by the City in 2009 to identify key barriers to walking and bicycling to school, and propose improvements that address these challenges. The resulting report was never formally adopted by Council.

The Project focuses on eleven schools in the community:

- Arlington Heights Elementary
- Cambridge Heights Elementary
- Carriage Drive Elementary
- Citrus Heights Elementary
- Grand Oaks Elementary
- Kingswood K-8
- Lichen K-8
- Mariposa Avenue Elementary
- Skycrest Elementary
- Sylvan Middle
- Woodside K-8

In addition to implementing programs to encourage walking and bicycling at the schools, the plan assesses the Level of Service (LOS) for bicyclists and pedestrians, and identifies suggested routes to school. Recommended infrastructure improvements include sidewalks, crossing improvements, and accessibility accommodations, which this Pedestrian Master Plan will consider and be consistent with.

AUBURN BOULEVARD PLAN (2009)

The Auburn Boulevard Plan addresses 1.75 miles of this arterial roadway between Sylvan Corners and I-80. The plan does not make detailed recommendations related to the pedestrian network or comfort, but does include design guidelines for each of four identified Districts that include the following pedestrian amenities and placemaking features:

GATEWAY DISTRICT

Placer County line to Sandalwood Drive

- All streets encourage pedestrian and transit use
- Sidewalks and planting strips will contribute to safety and comfort of pedestrians
- Traffic calming at crosswalks
- Pedestrian network extends into parking lots to access buildings
- Buildings address the sidewalk
- Pedestrian connections to transit
- Transit shelters
- Pedestrian-scale lighting
- Street trees

RUSCH PARK DISTRICT

Sandalwood Drive to Watson Way

- Pedestrian connections between residential and commercial uses
- Transparent/interesting facades
- All streets will include interconnected sidewalks and crosswalks
- Minimize driveway openings and widths
- Wide sidewalks with seating and other amenities
- Street trees
- Pedestrian connections to transit
- Transit shelters
- Pedestrian-scale lighting
- Wayfinding

LINCOLN 40 DISTRICT

Watson Way to Willow Way

- Continuous building facades to provide cohesive pedestrian experience
- Traffic calming to support pedestrian circulation
- Transparent/interesting facades
- 8 foot sidewalks along storefronts
- Pedestrian comfort shall not be sacrificed by an auto-oriented design approach
- Buildings address the sidewalk
- Minimize driveway openings and width
- Street trees
- Pedestrian connections to transit
- Pedestrian-scale lighting
- Wayfinding

SYLVAN CORNERS VILLAGE SQUARE DISTRICT

Willow Way to Old Auburn Road

- Pedestrian hub & village square
- Connected system of sidewalks and crosswalks
- Support pedestrian connections and safety
- Transparent/interesting facades
- 8 foot sidewalk along storefronts
- Minimize driveway openings and width
- Street trees
- Pedestrian connections to transit
- Pedestrian connections between residential and commercial uses
- Pedestrian-scale lighting

SUNRISE MARKETPLACE VISIONING PROJECT REPORT (2008)

In 2008, the Sunrise MarketPlace Business Improvement District developed a visioning plan to enhance its role as a primary center of Citrus Heights, defining the uses, design, and character of the center. The final report outlines conceptual-level goals, illustrations, and designs for the future of the Sunrise MarketPlace.

The report is not intended to be a regulatory document, but rather is intended to guide voluntary participation of property owners, business owners, and developers to achieve the vision.

Key stakeholder feedback on the existing MarketPlace included:

- Lack of distinct image
- Underutilized properties
- Buildings do not relate to each other
- Lack of pedestrian orientation
- Few public amenities
- Need to improve safety and accessibility
- No pedestrian access from parking areas
- Buildings are set too far back from main roads
- Parking is under-utilized
- Roads are heavily used; this is an asset as well as a liability

The short-term vision favored by participants was the **East/West Concept** characterized by the addition of narrow pedestrian-oriented streets connecting the MarketPlace, with Sunrise Boulevard remaining a major vehicular thoroughfare. Other features include:

- Pedestrian streets lined with commercial mixed uses that incorporate ground-floor retail with offices on upper stories
- Surface and structure parking located between pedestrian connectors and oriented towards Sunrise Boulevard
- Multi-family residential east of Sunrise MarketPlace along Birdcage Street

Long-term, participants selected the **Town Center Concept** as their preferred vision for the MarketPlace. This concept has the highest density of all those considered, maximizing infill of existing surface parking along Sunrise Boulevard with a mix of uses. Other features include:

- New grid of streets and blocks that create a core between the Sunrise Mall and the MarketPlace at Birdcage
- Primarily mixed-use commercial, with some residential mixed-use on streets other than Sunrise Boulevard
- Sunrise Boulevard remains vehicle thoroughfare, but is redesigned as an attractive pedestrian promenade through core
- Parking facilities are relocated outside of the core area, within easy walking distance

In addition, specific principles and development concepts for pedestrian amenities are outlined. Those most relevant to the Citrus Heights Pedestrian Master Plan effort are included below.

PRINCIPLES

- Create an interconnected pedestrian and open space network/system to provide the framework for the urban form for all development.

DEVELOPMENT CONCEPTS

- Streetscape design must accommodate and welcome the public by providing amenities for public use including seating, landscaping, trash receptacles, wayfinding, drinking fountains, pedestrian-scaled lighting, and similar elements.
- Establish a comprehensive network of walkways that provide connectivity throughout the MarketPlace planning area and linkages with adjoining residential neighborhoods.
- This pedestrian network would be privately developed and maintained although City police would enforce appropriate street regulations (e.g. speeding).
- The pedestrian circulation framework can be implemented immediately with the creation of dedicated, accessible pedestrian pathways through existing parking lots and along existing streets.
- Integrate transit stops to facilitate access to and from local and regional public transportation systems.

STREETSCAPE IMPROVEMENTS

- Sidewalks on interior streets would be sufficiently wide to accommodate landscaping, street furniture, lighting, signage, art, and other amenities.
- Provide street trees that create a continuous or semi-continuous canopy shading pedestrians from the sun and excessive heat.
- Provide pedestrian-scaled lighting fixtures that illuminate pedestrian areas, and consider decorative lighting with elements such as hanging flower baskets or banners.
- Corner, mid-block and transit bulb-outs facilitate street crossings by reducing the length of crosswalks.
- Design intersections for pedestrians, creating pedestrian-friendly and safe crossings with clearly delineated walkways/paving, bulb-outs, high-visibility pedestrian crossing indicators (signage, flashing lights, lighting, etc.), median refuges, raised intersections/crossings, and similar elements.

A conceptual-level plan for pedestrian connectivity is included on the following page in **Figure A-2**.

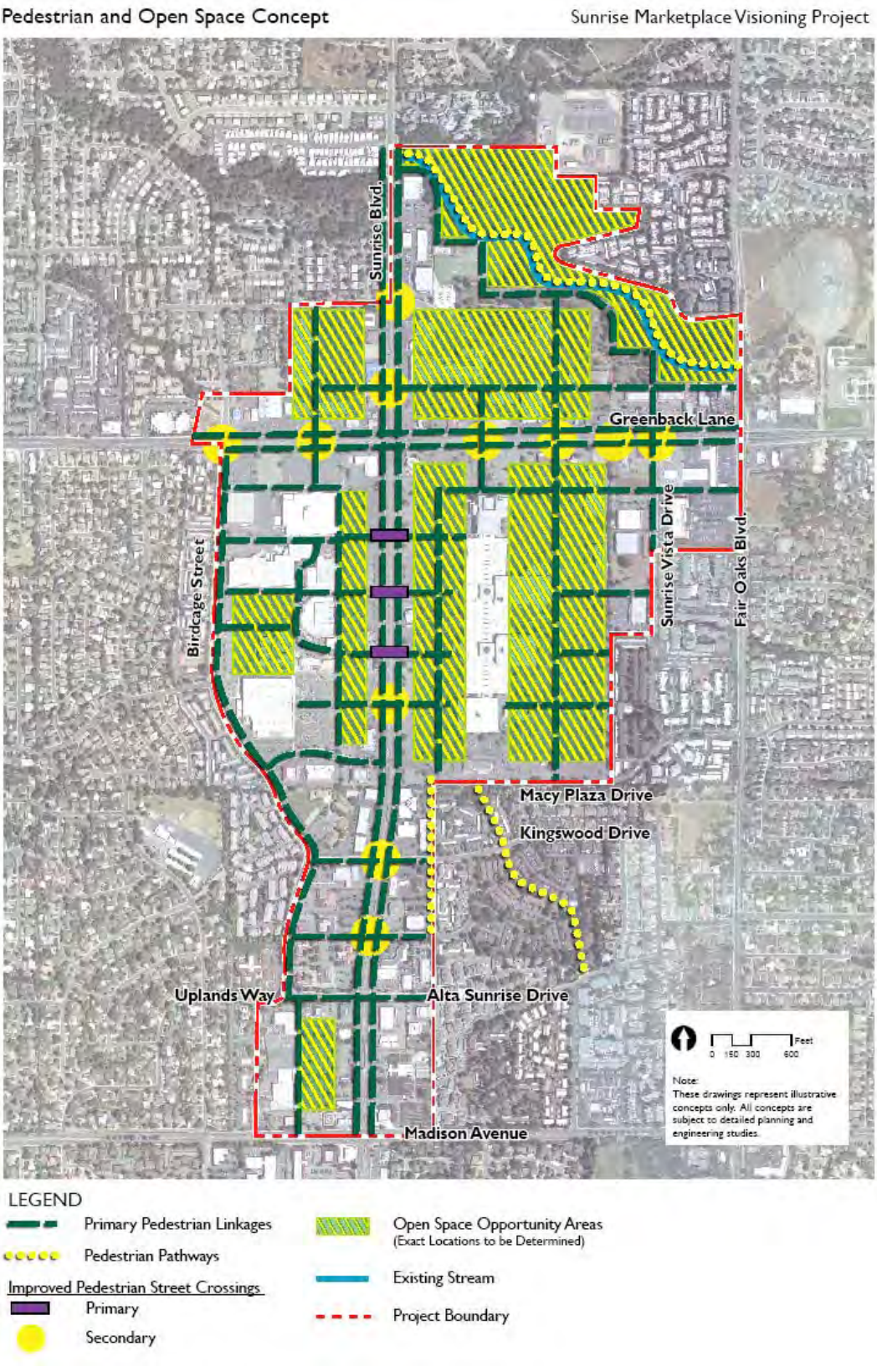


Figure A-2: Sunrise MarketPlace Pedestrian Vision

REGIONAL PLANS AND POLICIES

REGIONAL BICYCLE, PEDESTRIAN, AND TRAILS MASTER PLAN (2013)

The Sacramento Area Council of Governments (SACOG) Regional Bicycle, Pedestrian, and Trails Master Plan identifies a comprehensive list of projects throughout the Sacramento region; projects must be included in this list to be eligible for regional SACOG funding. The plan emphasizes transportation choices as one of its core principles, saying "the more people walk…the less they need to drive alone in their cars. Less driving alone means less congestion and less air pollution."

Goals that are relevant to this planning effort include:

Goal 1: Increase and improve bicycle and pedestrian access and mobility for residents and visitors of all ages and abilities.

Goal 2: Improve and maintain the quality and operation of bikeway and walkway networks.

Goal 3: Improve bicycle and pedestrian safety.

Goal 6: Increase education, encouragement, and awareness programs about bicycle and pedestrian travel.

Goal 7: Create a comprehensive regional bicycling and walking network within and between communities with strong current and future demand.

Goal 8: Increase collaboration among stakeholders throughout the region to seek funding and implement bicycle and pedestrian projects, programs, and related efforts.

STATEWIDE PLANS AND POLICIES

AB 32 – GLOBAL WARMING SOLUTIONS ACT (2006) & SB 375 – SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT (2009)

The past five years have seen an expansion of legislative and planning efforts in California to reduce emissions of greenhouse gases (GHGs) in order to mitigate climate change. Assembly Bill 32, the California Global Warming Solutions Act of 2006, aims to reduce the state's GHG emissions to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050. Meanwhile, Senate Bill 375, passed into law in 2008, is the first in the nation that will attempt to control GHG emissions by directly linking land use to transportation. The law required the state's Air Resources Board to develop regional targets for reductions in GHG emissions from passenger vehicles for 2020 and 2035 as a way of supporting the targets in AB32.

AB 1358 – COMPLETE STREETS ACT (2008)

In future years, all jurisdictions will have to incorporate complete streets into their planning. Assembly Bill 1358 requires "that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users [including] motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation…." This provision of the law went into effect on January 1, 2011, and can be expected to result in a new generation of circulation elements and a surge in complete streets policies around the state as general plans are updated over time. Although the Citrus Heights General Plan was last updated in 2010, it already includes these required considerations.

SB 99 – ACTIVE TRANSPORTATION PROGRAM ACT (2013)

The Active Transportation Program was established by this legislation in 2013, and serves as the mechanism for distributing federal funds for local and regional efforts to promote walking and bicycling. It specifies goals that the funding will be disbursed to help meet, including increasing the mode shares of biking and walking trips, increasing safety for non-motorized users, and providing support to disadvantaged communities to promote transportation equity.

CALTRANS COMPLETE STREETS POLICY AND DEPUTY DIRECTIVE 64 (2001)

In 2001, the California Department of Transportation (Caltrans) adopted Deputy Directive 64, Accommodating Non-motorized Travel, which established a routine accommodation policy for the department. A revised directive adopted in 2008, entitled Complete Streets—Integrating the Transportation System, significantly strengthened the policy beyond just "considering" the needs of pedestrians and bicyclists.

After adoption of this policy, it was noted that more guidance was needed on which roadway projects to review for impacts on bicyclists and pedestrians, how to review them, at what stage of project development and, most importantly, how to provide for bicyclists and pedestrians, especially if local or countywide plans do not identify non-motorized transportation priorities in the area.

In part to address these issues, Caltrans adopted the Complete Streets Implementation Action Plan in 2010. The plan sets forth actions under seven categories to be completed by various Caltrans districts and divisions within certain timelines to institutionalize complete streets concepts and considerations within the department. The action categories include updating departmental plans, policies, and manuals; raising awareness; increasing opportunities for training; conducting research projects; and actions related to funding and project selection. As one of its implementation activities, Caltrans updated the Highway Design Manual in large part to incorporate multi-modal design standards.

CALIFORNIA TRANSPORTATION PLAN 2025 (2006)

The California Transportation Plan 2025 seeks to provide for mobility and accessibility of people, goods, services, and information throughout California. It encourages consideration of bicycle and pedestrian facilities in capacity improvement projects, and promotes integration of active transportation into modeling and projection efforts.

The Plan also speaks to the public health benefits of active transportation, urging better education of youth on personal health and air quality impacts of making trips by bicycle or on foot.

FEDERAL PLANS AND POLICIES

US DOT POLICY STATEMENT ON BICYCLE AND PEDESTRIAN ACCOMMODATION REGULATIONS AND RECOMMENDATIONS (2010)

Under this policy statement, every transportation agency, including the federal DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. The policy also encourages agencies to "go beyond minimum standards to provide safe and convenient facilities for these modes," citing the health, safety, environmental, transportation, and quality of life benefits that active transportation offers to individuals and communities alike.

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