

City of Santa Clara Bicycle Plan Update 2018



Prepared by
Alta Planning + Design
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Prepared for



**City of
Santa Clara**
The Center of What's Possible

- Policy 2.C.5: Maintain bicycle facilities by street sweeping trails and roadways with bike facilities and conducting pavement repair or filling pot holes in a timely manner to keep all bicycle facilities clear and in good, rideable condition.
- Policy 2.C.6: Install green colored bicycle lanes at high conflict zones such as at significant weaving areas, freeway on/off-ramps, trap lanes, or any other unusual condition.

3. Bicycle Friendliness

Increase bicycling as a comfortable and convenient transportation option through citywide programs and initiatives that encourages and celebrates a strong bicycling culture, educates all roadway users, enforces safe behaviors, and evaluates the City's progress in achieving its vision.

Objective 3.A: Increase bicycle mode share to five percent by 2026.

- Policy 3.A.1: Encourage large employers and retail establishments to pursue designation as part of the League of American Bicyclists Bicycle Friendly Business program. Annually recognize Bicycle Friendly Businesses through a press-release and City Council proclamation to encourage a more welcoming atmosphere for bicycling employees, customers and the community. Consider developing an award program to highlight private sector partners that are helping the City achieve its vision.
- Policy 3.A.2: Develop a city-wide bicycle wayfinding system providing access to various City destinations such as schools, commercial centers, libraries, government facilities, and parks.
- Policy 3.A.3: Update the MySantaClara app and online service request website to permit requests for maintenance on bicycle facilities by 2020.

Video Detection

Video detection cameras use digital image processing to detect a change in the image at a location. Like loop detection, pavements markings shall be placed as to indicate to bicycle riders where they should stop in order to be detected by the cameras.

Bicycle Parking

Bicycle parking is typically divided into short-term and long-term parking. Short-term parking is meant to accommodate bicyclists who park up to two hours, e.g., shoppers, post office customers, and library patrons. Long-term parking, such as bike lockers, is for riders who park over two hours, e.g., employees, students, and residents. More information about bike parking can be found in Appendix B: Bicycle Facility Design Guidelines.



Table 10: Summary of Spot Improvement Recommendations

Improvement Type	Number of Recommendations
Intersection Improvements (several)	14
Bike Detection	6
Bike Parking	49
Protected Intersection	5
Overcrossing/ Undercrossing access	5

Support Facilities

In addition to the network projects described in the previous section, some additional facilities and amenities are necessary to complete the bicycling network in Santa Clara.

Wayfinding

A good bicycling environment includes both supportive facilities and an easily navigable network. Wayfinding assists residents, tourists, and visitors in finding key community destinations. Signs may also include “distance to” information, which displays mileage to community destinations. The Design Guidelines provide more information about wayfinding. A citywide wayfinding system can raise awareness and improve access for residents and visitors to community assets such as downtown, the San Tomas Aquino Creek Trail, and Calabazas Creek Trail.

Principles of Wayfinding

A wayfinding system plan should be legible and easy to navigate. Principles to guide design, placement, and destination include:

- **Connect Places:** Effective wayfinding should enable locals and visitors to travel between destinations and discover new destinations and services.
- **Promote Active Travel:** Wayfinding should encourage people to walk and bicycle by creating a clear, attractive system that is easy to navigate.
- **Maintain Motion:** Wayfinding should be easy to understand while bicycling or walking.
- **Be Predictable:** Wayfinding should be predictable and consistent, including consistent sign materials, dimensions, colors, forms, and placement.
- **Keep Information Simple:** Information should be presented in a clear and logical form so that it is usable for the widest possible demographic.

Navigation Elements

The fundamental family of signs that provide cyclists with navigational information consists of decision, confirmation, and turn signs (Figure 18 and Table 11). Figure 19 provides typical locations of signs. Decision signs (D) are located prior to an intersection of two routes. Turn signs (T) are located prior to turns. Confirmation signs (C) are located after the turn movement and periodically along routes for reassurance.

Signage Technical Guidance

A variety of standards and guidelines influence both the designs and placement of wayfinding elements in Santa Clara. The Manual of Traffic Control Devices (MUTCD) provides standards and guidelines for the design, size, and content of wayfinding signs. However, many jurisdictions have implemented unique signs to enhance visibility while reinforcing local identity.

Table 11: Sign Types

Decision Sign	Confirmation Sign	Turn Sign
<ul style="list-style-type: none">• Clarify route options when more than one is available• Typically include a system brand• Up to 3 destinations• Distance in time or miles (based on 10 mph or 6 minutes per mile)• FHWA standard size for 3 destinations is 18" H x 30" W• Municipalities can modify, often 24" W x 30" or 36" H, and place bicycle symbol at top• Generally, 6" of vertical space per destination• Sign width not standardized by the CA MUTCD	<ul style="list-style-type: none">• Placed after turn movement or intersection to reassure that they are on the correct route• Standard D11-1 series signs, system brand mark and route or pathway name may be included• Minimum size of 24"W x 18"H should be used for bike route signs, both on-and off-street	<ul style="list-style-type: none">• Clarify a specific route at changes in direction• Used when only one route option is available• Standard D1-1 series sign: system brand mark, route or pathway name, and/or a directional arrow may be included• A minimum height of 6" should be used for arrow plaque, width may vary with destination length• Standard turn arrows (M5 and M6 series) may be used to clarify movements

Figure 18: On-street wayfinding tools

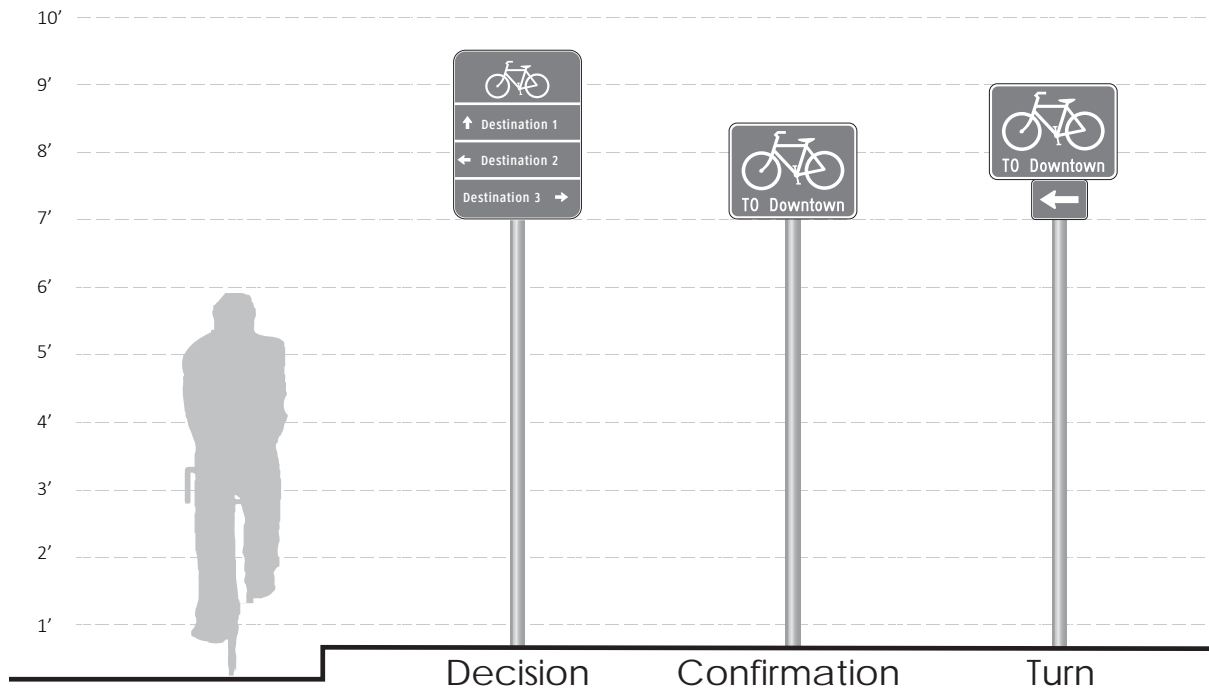
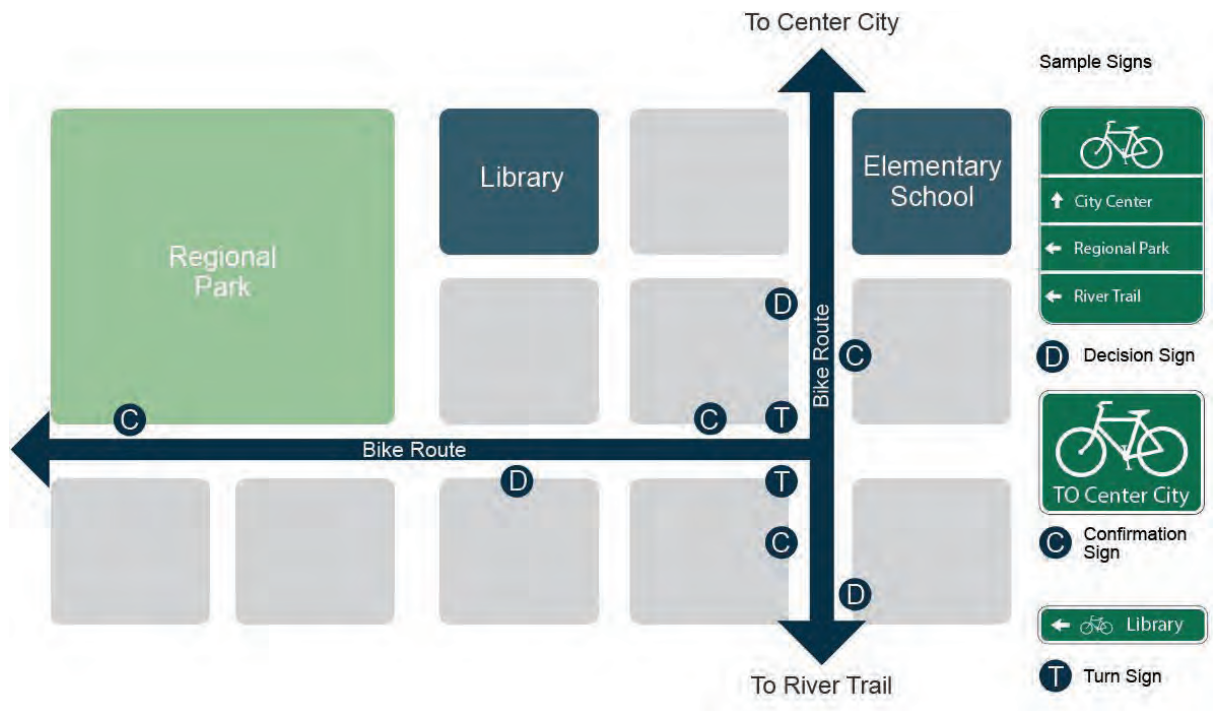


Figure 19: Typical wayfinding locations



Bicycle Guide Signs

Both on-street and off-street bicycle facilities are required to follow the standards within the MUTCD. The State of California has adopted specific state standards for all traffic control devices called the CA MUTCD, which supersedes the MUTCD:

- D11-1: Bicycle Route Guide Sign
- D1-1b: Destination Supplemental Sign
- M7-1 through M7-7: Directional Arrow Supplemental Sign

The combination of standard signs with modifications allows for signage that is consistent throughout Santa Clara while branding the network.

Community Wayfinding

Community wayfinding signs allow for an expression of community identity, reflect local values and character, and may provide more information. California has not yet adopted MUTCD community wayfinding standards, but many communities use these.

Other Wayfinding Elements

In addition to the core elements, several other wayfinding elements should be considered, including:

- **Distance and time** - Adding distance in familiar units can be an effective encouragement tool for bicycling and walking. Cities sometimes include travel time.
- **Street name sign blades and sign toppers** - Some cities have enhanced street name sign blades to provide additional recognition of bikeways and major pedestrian routes. For example, some cities use purple street signs to indicate bicycle boulevards.
- **Pavement markings** - Directional pavement markings indicate confirmation of bicycle or pedestrian presence on a designated route and can indicate turns. Especially in urban settings, pavement markings can often be more visible and can help supplement or reinforce signage.

Recommendation: It is recommended Santa Clara develop a citywide wayfinding program that offers guidance to destinations including downtown, schools, trails, adjacent communities, landmarks, and civic buildings.