05
PROJECTS, PROGRAMS, & POLICIES
The active transportation network described in this Plan Update 2018 seeks to provide the Santa Rosa community with convenient, comfortable, and healthy transportation choices.

Built on the needs and opportunities identified through the evaluation of existing conditions, progress made since the development of the 2010 Plan, extensive community input, and data-driven analyses, this chapter presents the projects, programs, and policy changes for the City of Santa Rosa. Improvements identified during previous planning efforts or studies were also reviewed for this Plan Update 2018, including the Uncontrolled Crossing Study and numerous Safe Routes to School Audit reports.

Recommendations are considered planning-level, meaning they should be used as a guide when implementing projects. In some cases, traffic impact analysis and more detailed design analysis will be required to evaluate specific site conditions and develop designs that reflect conditions and constraints.

This chapter includes the following sections:

- **Projects** describes the proposed bicycling and walking infrastructure improvements, including sections for crossing improvements and for studies at locations where further analysis or community outreach is necessary to determine the most appropriate improvement type for the location.

- **Citywide Projects** describes improvements that should be pursued throughout Santa Rosa as opportunities arise, but specific locations for these improvements have not been identified in this Plan Update 2018.

- **Programs** includes recommended education, encouragement, enforcement, and evaluation activities to be pursued or expanded by the City and its partners.

- **Policy Changes** includes changes to municipal codes, operating procedures, or other policies that will support a more walkable and bikeable Santa Rosa.

For a table of infrastructure recommendations and studies, see Appendix A.
PROJECTS

Bicycle Network Projects
Bicycle network projects are categorized based on the four classifications recognized by Caltrans, along with two sub-classifications, described in detail in Chapter 3 and the Bicycle and Pedestrian Facility Guidelines in Appendix B. These include:

• **Class I Shared Use Paths**: Dedicated paths for walking and bicycling completely separate from the roadway

• **Class II Bicycle Lanes**: Striped lanes for bicyclists

  » **Class II Buffered Bicycle Lanes**: Bicycle lanes that include a striped “buffer” area either between the bicycle lane and travel lane or between the bicycle lane and parked cars

• **Class III Bicycle Routes**: Signed routes for bicyclists on low-speed, low-volume streets where lanes are shared with motorists

  » **Class III Bicycle Boulevards**: Bicycle routes that are further enhanced with traffic calming features or other treatments to prioritize bicyclist comfort

• **Class IV Separated Bikeways**: On-street bicycle facilities with a physical barrier between the bicycle space and motor vehicle lanes, including bollards, curbs, or parking

Nearly 130 miles of new bikeways are proposed in this Plan Update 2018, which would more than double the current 113 miles of bikeways in the City. A summary of existing and proposed bicycle network improvements is provided in Table 5-1 and mapped in Figure 5-1 through Figure 5-6.

<table>
<thead>
<tr>
<th>BIKEWAY TYPE</th>
<th>EXISTING MILES 2018</th>
<th>PROPOSED MILES</th>
<th># OF PROJECTS</th>
<th>TOTAL EXISTING + PROPOSED MILES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I Shared Use Paths</td>
<td>30.9</td>
<td>38.9</td>
<td>69</td>
<td>69.8</td>
</tr>
<tr>
<td>Class II Bicycle Lanes</td>
<td>67.1</td>
<td>48.5</td>
<td>115</td>
<td>115.6</td>
</tr>
<tr>
<td>Class II Buffered Bicycle Lanes</td>
<td>0.2</td>
<td>1.9</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Class III Bicycle Routes</td>
<td>12.8*</td>
<td>35.3</td>
<td>116</td>
<td>48.1</td>
</tr>
<tr>
<td>Class III Bicycle Boulevards</td>
<td>1.6</td>
<td>2.5</td>
<td>8</td>
<td>4.1</td>
</tr>
<tr>
<td>Class IV Separated Bikeways</td>
<td>1.6</td>
<td>2.2</td>
<td>3</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>112.6</td>
<td>129.3</td>
<td>315</td>
<td>241.9</td>
</tr>
</tbody>
</table>

*Some Class III Bicycle Routes were upgraded to Class II Bicycle Lanes
Figure 5-2
BIKEWAY PROJECTS
(DOWNTOWN)

DESTINATIONS + BOUNDARIES
• School
• Transit Station
• SMART Station
• Hospital
• Shopping Center

PROPOSED
• Class I Shared-Use Path
• Class II Bicycle Lane
• Class IIB Buffered Bicycle Lane
• Class III Bicycle Route
• Class IIIIB Bicycle Boulevard
• Class IV Separated Bikeway
• Study

EXISTING
• Class I Shared-Use Path
• Class II Bike Lane
• Class III Bike Route
• Class IIIIB Bicycle Boulevard
Figure 5.3
BIKEWAY PROJECTS (NORTHWEST)

DESTINATIONS + BOUNDARIES
- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park

PROPOSED
- Green: Class I Shared-Use Path
- Blue: Class II Bicycle Lane
- Purple: Class IIB Buffered Bicycle Lane
- Pink: Class III Bicycle Route
- Orange: Class IV Separated Bikeway
- Yellow: Study

EXISTING
- Green: Class I Shared-Use Path
- Blue: Class II Bike Lane
- Purple: Class III Bike Route
- Pink: Class IIB Bicycle Boulevard

Legend
- City Limits
- Urban Growth Boundary
Figure 5-4

BIKEWAY PROJECTS (NORTHEAST)

DESTINATIONS + BOUNDARIES

- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary

PROPOSED
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Study

EXISTING
- Class I Shared-Use Path
- Class II Bike Lane
- Class III Bike Route
- Class IIIIB Bicycle Boulevard
Figure 5-5
BIKEWAY PROJECTS
(SOUTHWEST)

DESTINATIONS + BOUNDARIES
- School
- Major Employer
- Transit Station
- SMART Station
- Shopping Center

PROPOSED
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Study

EXISTING
- Class I Shared-Use Path
- Class II Bike Lane
- Class III Bike Lane
- Urban Growth Boundary

Park
City Limits
Urban Growth Boundary

Map produced January 2019.
Figure 5-6

BIKEWAY PROJECTS (SOUTHEAST)
Pedestrian Network Projects

The pedestrian network includes Class I Shared Use Paths, discussed in the previous section, along with sidewalks. Sidewalks and pathways are an essential element of a pedestrian network. They not only provide a comfortable walking space separate from the roadway, but are also a foundational element of Americans with Disabilities Act (ADA) compliance.

Sidewalks and pathways should provide a smooth surface free of obstructions at least five feet wide. In some areas, where high pedestrian activity is expected, wider sidewalks may be desirable. Sidewalks and pathways can either be adjacent to the curb or separated by a planted landscaping strip, as shown below.

There are many streets in Santa Rosa with sidewalks or pathways, but the network is inconsistent. Not every street without a sidewalk or pathway is recommended for improvement in this Plan Update 2018 due to limited available public right of way. Instead, sidewalk and pathway recommendations are focused on those corridors where they are likely to serve large numbers or pedestrians or address a priority community concern.

This Plan Update 2018 includes 21.2 miles of proposed sidewalks, mapped in Figure 5-7 through Figure 5-12 along with existing and proposed Class I shared use paths.
Figure 5-7

PEDESTRIAN PROJECTS (CITYWIDE)

PROPOSED
- Class I Shared-Use Path
- Sidewalk
- Study

EXISTING
- Class I Shared-Use Path

DESTINATIONS + BOUNDARIES
- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-6

PEDESTRIAN PROJECTS (DOWNTOWN)

PROPOSED
- Class I Shared-Use Path
- Sidewalk
- Study

EXISTING
- Class I Shared-Use Path

DESTINATIONS + BOUNDARIES
- School
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-7

**PEDESTRIAN PROJECTS**
(NORTHWEST)

**PROPOSED**
- Green: Class I Shared-Use Path
- Orange: Sidewalk
- Yellow: Study

**EXISTING**
- Green: Class I Shared-Use Path

**DESTINATIONS + BOUNDARIES**
- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary

Map produced January 2019.
Figure 5-8

PEDESTRIAN PROJECTS (NORTHEAST)

PROPOSED
- Class I Shared-Use Path
- Sidewalk
- Study

EXISTING
- Class I Shared-Use Path

DESTINATIONS + BOUNDARIES
- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-9

PEDESTRIAN PROJECTS (SOUTHWEST)

PROPOSED
- Class I Shared-Use Path
- Sidewalk
- Study

EXISTING
- Class I Shared-Use Path

DESTINATIONS + BOUNDARIES
- School
- Major Employer
- Transit Station
- SMART Station
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-10

PEDESTRIAN PROJECTS (SOUTHEAST)

PROPOSED
- Green: Class I Shared-Use Path
- Orange: Sidewalk
- Yellow: Study

EXISTING
- Green: Class I Shared-Use Path

DESTINATIONS + BOUNDARIES
- School
- Transit Station
- SMART Station
- Hospital
- Shopping Center

Legend:
- Park
- City Limits
- Urban Growth Boundary

Map produced January 2019.

PLAN UPDATE 2018

BOUNDARIES

RECOMMENDATIONS

DESTINATIONS +

ELLIOTT AVE
9TH ST
EARLE ST
OST
CORBY AVE
HEARN AVE
LEWIS RD
APPLE LN
FRANKLIN
COLGAN AVE
SANTA ROSA AVE
YOLANDA AVE
SONOMA AVE
Cemetery
REEK
BRYDEN LN
MORAGA DR
APPLE LN
APPLE LN
PACIFIC AVE
1ST ST
D ST
FRANKLIN
YOLANDA AVE
NORTH ST
NORTH ST
BOUNDARIES

Map produced January 2019.
Crossings

In addition to network projects for bicycling and walking, locations for new or improved crossings have been gathered and consolidated through this Plan Update 2018 from the numerous public outreach events and a review of past plans including the Uncontrolled Crosswalk Analysis and multiple Safe Routes to School assessment reports.

Specific facility recommendations and designs for these locations will be developed by the City on a case-by-case basis due to the highly varied context at each intersection or midblock crossing location. Some locations represent multiple alternatives identified for possible crossings, and improvements may not ultimately be recommended at all locations. Some typical crosswalk markings and enhancements are described on the following pages, as well as in the Bicycle and Pedestrian Facility Guidelines in Appendix B.

Crossing locations were also identified where a trail crossing of a creek may be developed. These locations are identified as trail bridges and will be considered separately from crossings of the roadway network.

Crossing locations and trail bridges are mapped in Figure 5-13 through Figure 5-18.

CROSSWALK MARKINGS

While legal crosswalks exist at all intersections, crosswalk markings highlight crossings to motorists, increasing awareness that people may be crossing the street. Crosswalk markings can also be used to guide people walking to desired crossing locations, or to designate legal midblock crosswalks.

Standard “transverse” markings consist of two parallel lines that mark the edges of the crosswalk, shown at left and right in the illustration top right.
High visibility crosswalk markings can include “continental” crosswalks with bold white bars that run perpendicular to the pedestrian path of travel (shown top and bottom in the illustration top right), and “ladder” crosswalks which combine continental markings with the traditional transverse lines.

These markings are more noticeable to drivers and are typically used at uncontrolled crossings, where slower walkers are expected (near schools and senior centers), and where high numbers of pedestrian related crashes have occurred. In school areas, crosswalk markings are yellow.

**CURB EXTENSIONS**

Curb extensions improve visibility of pedestrians and reduce crossing times by shortening the length of the crossing. This may reduce pedestrian collisions by reducing the length of time that pedestrians are exposed to potential conflicts with motorists. Curb extensions also narrow the perceived roadway width for drivers, which may reduce speeds. At signalized intersections, curb extensions can reduce delays by allowing for shorter pedestrian “walk” phases due to the reduced crossing distance.

Curb extensions extend the sidewalk or curb line out into the parking lane on a street, reducing the effective street width. They can only be used where there is on-street parking, and should not encroach into bicycle lanes.
ADVANCE STOP OR YIELD LINE

Advance stop bars are placed six to ten feet before a marked crosswalk to indicate to motorists where they should stop. At uncontrolled or midblock crossings, yield lines are used instead of stop bars. Advance stop bars or yield lines improve visibility of pedestrians by discouraging drivers from encroaching into the crosswalk. This is especially important at uncontrolled crossings on multi-lane streets, where a vehicle stopped too close to a crosswalk may hide a pedestrian from view of an approaching driver in the second lane.

PEDESTRIAN REFUGE ISLAND

Pedestrian refuge islands can improve pedestrian comfort and reduce collisions by providing a safe waiting area in the median on wide or busy streets. This allows people walking to cross the roadway in two stages, waiting for a gap in one direction of oncoming traffic at a time. The waiting area should be protected by a physical barrier on either side, such as raised median islands or planters. The crossing surface should remain level through the waiting area, and may be angled to encourage pedestrians to face oncoming traffic as they approach the second crossing leg. Refuge islands may be combined with beacons or other treatments to further improve challenging crossings.

RECTANGULAR RAPID FLASHING BEACON

Rectangular Rapid Flashing Beacons (RRFBs) are used to increase visibility of pedestrians at marked crosswalks where traffic signals or stop signs are not warranted. They consist of a pedestrian crossing sign supplemented by a pair of bright rectangular lights that flash in a rapid alternating pattern when a pedestrian presses a button. Many assemblies are solar powered stand-alone units that can be installed without costly wiring work.
PEDESTRIAN HYBRID BEACON

Pedestrian hybrid beacons, sometimes referred to as HAWK beacons, are a traffic control device that can be activated by a pedestrian to stop cross traffic. The beacon consists of three lights on an overhead mast arm that remain dark until a pedestrian presses a button to request a walk phase. Yellow lights flash in an alternating pattern to alert motorists that a red phase will be starting, followed by a solid red light that requires motorists to stop. A pedestrian signal shows a “walk” phase during this red signal, followed by a flashing hand and then “do not walk” phase. After the pedestrian phase concludes, the red signal goes dark and motorists may proceed.

LEAD PEDESTRIAN INTERVAL

Lead pedestrian intervals improve visibility of pedestrians at signalized intersections by beginning the “walk” phase a few seconds before the complementary green signal for drivers. This allows pedestrians to get a head start across the street, bringing them forward into the field of view of drivers who may be turning across the crosswalk.
Figure 5-13
CROSSING LOCATIONS (CITYWIDE)

DESTINATIONS + BOUNDARIES

- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center

Preferred Crossing
Enhancement Location
Trail Bridge

Park
City Limits
Urban Growth Boundary
Figure 5-14

CROSSING LOCATIONS (DOWNTOWN)

- Preferred Crossing Enhancement Location
- Trail Bridge

DESTINATIONS + BOUNDARIES

- School
- Transit Station
- SMART Station
- Hospital
- Shopping Center

- Park
- City Limits
- Urban Growth Boundary
Figure 5-15
CROSSING LOCATIONS (NORTHWEST)

Preferred Crossing Enhancement Location
Trail Bridge

DESTINATIONS + BOUNDARIES

- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-16

CROSSING LOCATIONS (NORTHEAST)

- Preferred Crossing Enhancement Location
- Trail Bridge

DESTINATIONS + BOUNDARIES

- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center
- Park
- City Limits
- Urban Growth Boundary
Figure 5-17

CROSSING LOCATIONS (SOUTHWEST)

- Preferred Crossing Enhancement Location
- Trail Bridge

DESTINATIONS + BOUNDARIES

- School
- Transit Station
- SMART Station
- Hospital
- Shopping Center

Legend:
- Park
- City Limits
- Urban Growth Boundary
Figure 5-18

CROSSING LOCATIONS (SOUTHEAST)

- Preferred Crossing
- Enhancement Location
- Trail Bridge

DESTINATIONS + BOUNDARIES

- School
- Transit Station
- SMART Station
- Hospital
- Shopping Center

Legend:
- Park
- City Limits
- Urban Growth Boundary
Studies

A number of locations, including both bicycle and pedestrian corridors, require greater community outreach and/or analysis than can be conducted as part of this planning process. At some locations, further study is needed to determine whether bicycling or walking facilities are feasible. At others, a preferred facility has been identified but further study or outreach is needed to develop a detailed design or alignment that balances the needs of all community members.

Studies are mapped with bicycle, pedestrian, and crossing projects on previous pages, and are described briefly below.

STONY POINT ROAD CORRIDOR STUDY

Stony Point Road is an important artery of the bicycle and pedestrian network in Santa Rosa, providing a north-south connection across State Route 12 from Guerneville Road to Sebastopol Road. It is also a busy, high-speed arterial street, with average daily traffic volumes between 20,000 and 30,000 and posted speed limits of 35 to 40 mph.

The corridor is also part of the HIN for both bicyclists and pedestrians, with fatal or severe injury collisions occurring at a higher frequency than other corridors in the community. This Plan Update 2018 recommends this corridor be studied from Guerneville Road to Sebastopol Road for bicycle or pedestrian facilities that increase comfort and may reduce the frequency and severity of collisions.

OAKMONT CONNECTION ALTERNATIVES

After the removal of a portion of the designated Bicycle Route 231, multiple alternative routes are identified for study to create a new walking and bicycling connection to SR 12 and the planned Sonoma Valley Trail through the Oakmont neighborhood. Some alternatives also have potential to create improved access for emergency vehicles into the Oakmont neighborhood. Community outreach produced differing opinions on acceptable locations for connections, suggesting a need for further study and more intensive engagement with neighborhood residents to identify a preferred route.
4TH STREET BIKEWAY
4th Street is an important connection from D Street in downtown Santa Rosa to Farmers Lane where it becomes State Route 12. This corridor has limited space available, and was identified as part of the pedestrian HIN during this Plan Update 2018. A study is necessary to evaluate alternatives to provide bicycling or walking facilities while balancing high traffic volumes and other needs.

MONTGOMERY DRIVE
BICYCLE FACILITIES
Bicycle facilities are recommended for further study on Montgomery Drive from Summerfield Road eastward, ending near Spring Lake and Boas Drive. This entire corridor was recommended for Class II bicycle lanes in the 2010 plan, and the segment west of Mission Boulevard was identified as part of the HIN during this Plan Update 2018. Montgomery Drive is narrow through this section; providing bicycle facilities may require widening the road or providing a separate Class I shared use path.

A second study for bicycle facilities on Montgomery Drive is recommended in this Plan Update 2018 between Alderbrook Drive and Hahman Drive. This segment was also identified as a priority in the 2010 plan.
COLLEGE AVENUE COMPLETE STREETS STUDY

Between Kowell Lane and Morgan Street, College Avenue is a highly used corridor with limited right of way and a strong demonstrated need for bicycling and walking improvements. Between Link Lane and Mendocino Avenue, this corridor is part of the HIN identified during this Plan Update 2018. The width, lane configuration, and on-street parking presence vary along the corridor, creating challenges for people walking and bicycling. A complete streets study is recommended to develop a corridor plan that balances the needs of all modes of transportation.

CONNECTION FROM SMART TO CODDINGTOWN MALL

A study is recommended to identify a desirable route for people walking and bicycling between the SMART Santa Rosa North station and Coddington Mall, consistent with the station area plan. This may include an off-street connection between Range Avenue and Herbert Street, or across Steele Creek south of Guerneville Road. Once a preferred route is established and built, wayfinding signs should be installed to create a comfortable and easy-to-navigate connection.

BROOKWOOD AVENUE PEDESTRIAN IMPROVEMENTS

Brookwood Avenue from 2nd Street to Sonoma Avenue, across Santa Rosa Creek, was identified by the community during outreach for this Plan Update 2018. A study should evaluate opportunities to improve pedestrian access and comfort along this corridor, including considering pedestrian-scale lighting.

BENNETT VALLEY ROAD TRAIL

This study should evaluate alternatives to provide a Class I shared use path or other bicycling and walking connection along Bennett Valley Road from Farmers Lane to Yulupa Avenue. This Plan Update 2018 includes projects that connect to each end of this study: a Class I shared use path extending south from the intersection at Farmers Lane will connect to Yolanda Avenue, and Class II bicycle lanes will continue southeast on Bennett Valley Road from the intersection with Yulupa Avenue.
MCCONNELL AVENUE BICYCLE BOULEVARD

Between Mendocino Avenue and North Street, McConnell Avenue is a candidate to create a bicycle boulevard connection on McConnell Avenue. This connection was identified as a desired bikeway by the community during outreach for this Plan Update 2018, and will be studied for feasibility including consideration of traffic speeds and volumes, parking utilization, neighborhood outreach, and crossings or connections at either end of the new facility.

CAR-FREE ELLIOTT AVENUE

Elliott Avenue, on the north edge of the Santa Rosa Junior College Campus, is an attractive route for people walking and bicycling. The street could potentially have significantly increased active transportation uses pending the outcome of the Highway 101 overcrossing environmental review. Community members expressed a desire for the City to consider closing Elliott Avenue to car traffic and creating a bicycle and pedestrian mall connecting the future Highway 101 overcrossing and Mendocino Avenue.

ROSELAND CREEK TRAIL

The Roseland neighborhood, newly annexed into the City of Santa Rosa, developed as an unincorporated area of Sonoma County and lacks sidewalks or other pedestrian connections in places. A shared use path along Roseland Creek would create a comfortable connection for people walking and bicycling between Stony Point Road and Burbank Avenue, potentially creating an alternative that allows bicyclists and pedestrians to avoid Stony Point Road which was identified as part of the HIN.
CITYWIDE PROJECTS

In addition to specific infrastructure projects and related programmatic efforts, some amenities are needed citywide to complete the active transportation network. These amenities should be installed as a matter of policy in conjunction with any City project as opportunities arise, or when development occurs. Citywide amenities recommended in this Plan Update 2018 include a comprehensive wayfinding program and secure bicycle parking.

Wayfinding
Wayfinding signs direct bicyclists or pedestrians along the existing network and to key community destinations. Signs typically include distance or time and direction (using an arrow) to key destinations. Santa Rosa currently does not have a consistent wayfinding sign program implemented throughout the city.

The California Manual on Uniform Traffic Control Devices (CA MUTCD) includes standard bicycle wayfinding signs, but they are also used for Class III Bicycle Route signs. This may cause confusion for bicyclists, and does not serve pedestrian wayfinding or trail users. Some cities have modified the standard sign to change “bike route” to “bikeway,” and others have developed and installed non-standard enhanced wayfinding signs that include unique branding for the community. The non-standard option provides the most flexibility to meet community needs and serve both bicyclists and pedestrians.

This Plan Update 2018 recommends the City develop and implement a comprehensive wayfinding program for bicyclists and pedestrians, integrating this program with SMART station and downtown wayfinding initiatives.
Bicycle Parking

No bicycling network is complete without convenient and secure bicycle parking. Bicycle parking can take many forms, from a simple bicycle rack to secure storage in a locker or gated area. This Plan Update 2018 recommends the City continue to expand its bicycle parking as opportunities arise and new development occurs.

SHORT TERM BICYCLE PARKING

Bicycle parking can be categorized into short-term and long-term parking. Bicycle racks are the preferred device for short-term bicycle parking. These racks serve people who leave their bicycles for relatively short periods of time, typically for shopping or errands, dining, or recreation. Bicycle racks provide a high level of convenience and moderate security. The rack types illustrated below and recommended for use in Santa Rosa are consistent with the Association of Pedestrian and Bicycle Professionals (APBP) Essentials of Bike Parking: Selecting and Installing Bike Parking that Works (2015). The City may also choose to partner with local artist groups to pursue customized racks that serve as bicycle parking in addition to public art. Where possible, on-street bicycle corrals can be used to provide increased bicycle parking where high demand or limited sidewalk space exists.

LONG TERM BICYCLE PARKING

Long-term bicycle parking includes bike lockers and secure parking areas (SPAs) and serves people who intend to leave their bicycles for longer periods of time. Bike lockers may vary in design and operation including keyed lockers that are rented to one individual on an annual or monthly basis or e-lockers that can be reserved online in hourly increments and unlocked with a credit card or an access code.

These facilities provide a higher level of security than bicycle racks, and are typically found at transit stations, multifamily residential buildings, and commercial buildings, though they may also be useful in Downtown Santa Rosa, near SMART stations, or in other areas where bicyclists running multiple errands would benefit from a secure place to store parcels in addition to their bicycle.
Pedestrian Scale Lighting

Pedestrian scale lighting is a type of lighting with frequent lampposts at low height that illuminate the walking area. This typically includes poles 12 to 15 feet high spaced 25 to 30 feet apart, directly above walking areas. Pedestrian scale lighting not only increases visibility of pedestrians for drivers at night, it contributes to a more comfortable and inviting streetscape for people walking at night.

Pedestrian scale lighting should be appropriately designed to illuminate only the areas needed and be no brighter than necessary. Street trees should be appropriately maintained so they do not obstruct illumination from the lighting along sidewalks and pathways.

This Plan Update 2018 recommends the City evaluate locations where pedestrian scale lighting may improve pedestrian comfort and encourage walking, including Downtown, the junior college area, and trails.

Amenities

Sidewalk and trail furnishings like benches, shade structures, restrooms, water fountains, and trash receptacles contribute to a cleaner, more comfortable, and more pedestrian-oriented public realm. These elements not only encourage the activation of Santa Rosa’s sidewalk and trail networks, they contribute to a more accessible pedestrian network for all residents. The City has adopted a Street Furnishings Palette as part of its Bicycle and Pedestrian Facility Guidelines for the downtown core area, which may be expanded to include recommended furnishings for trails and other areas of the community. Seniors and those with mobility impairments will benefit from frequent places to stop and rest, and this was a priority identified by the community during outreach for this Plan Update 2018.

This Plan Update 2018 recommends the City identify and pursue opportunities to provide amenities in the downtown, near transit stops, and along trails in the community.
This section describes recommended bicycle and pedestrian related programs for the City of Santa Rosa. The recommendations are organized in four E’s:

**Education** programs are designed to improve safety and awareness. They can include programs that teach students how to safely cross the street, or teach drivers where to anticipate bicyclists and how to share the road safely.

**Encouragement** programs provide incentives and support to help people leave their car at home and try walking or bicycling instead.

**Enforcement** programs enforce legal and respectful walking, bicycling, and driving. They include a variety of approaches, ranging from police enforcement to neighborhood signage campaigns.

**Evaluation** programs are an important component of any investment. They help measure success at meeting the goals of this Plan Update 2018 and to identify adjustments that may be necessary.

The fifth E commonly included in discussions of active transportation is **Engineering**, which is reflected by the recommended infrastructure projects listed in this chapter.

Programs recommended on the following pages should include outreach and education in both English and Spanish to serve the diverse Santa Rosa community. Given limited staff time and resources available, programs should be implemented or continued as funding and resources allow. Partnering with local organizations and other agencies is a key strategy to sustainable program activity.
**Education**

**UPDATE “STREETSMARTS” CAMPAIGN**

Santa Rosa has joined other California cities in implementing “StreetSmarts” media campaigns. StreetSmarts uses print media, radio, and television to educate the community about safe driving, bicycling, skateboarding, and walking behavior. As part of this campaign, the City distributed posters with messages that addressed issues such as: red light running, speeding, bicycle safety, crosswalk safety and compliance, school zone speed compliance, and stop sign compliance.

This Plan Update 2018 gives Santa Rosa an opportunity to update these messages to address the most current priorities they have heard from the community, including not texting while driving or walking, how to securely lock your bicycle, the importance of being seen at night as a pedestrian or bicyclist, and helping drivers understand where to anticipate bicyclists. One message identified by the community as a priority is increasing awareness of California’s Three Foot Passing law, which requires drivers to overtake bicyclists only when there is sufficient room for a three-foot clearance. The County is currently running a related campaign that the City could support with their own artwork and messaging.

Artwork for the updated campaign could be created by local students as part of a Traffic Safety Poster Contest, or photos of local families on streets that will be familiar to the community could be used. Posters could also highlight and share information about newly completed projects, such as green transition areas. Funding could be provided by a grant from the California Office of Traffic Safety.

To maximize engagement and effectiveness of the campaign, the city can develop messaging and choose graphics with involvement from the Bicycle and Pedestrian Advisory Board, Sonoma County Bicycle Coalition, law enforcement, schools, business owners, civic leaders, and community advocates.
BICYCLE SAFETY EDUCATION FOR ADULTS

The Sonoma County Bicycle Coalition (SCBC) currently offers Smart Cycling classes once a month at their office in downtown Santa Rosa, in addition to periodically offering on-bicycle educational rides for adults. These courses are based on a curriculum from the League of American Bicyclists that focuses on how bicyclists should behave so they are safer, more predictable, and can be confident riding on streets both with and without dedicated bicycle facilities. The SCBC classes also incorporate photos and video clips of local streets to help students understand how various scenarios apply to real Santa Rosa locations.

This Plan Update 2018 recommends continuing these classes, which the City can support by advertising the classes and/or providing meeting space.

SAFE ROUTES TO SCHOOL

Santa Rosa benefits from a robust Safe Routes to School (SRTS) program coordinated by Sonoma County Transportation Authority (SCTA) and the Sonoma County Bicycle Coalition. Twenty-six schools in the City participate in activities with the SRTS program, but involvement varies from school to school.

This Plan Update 2018 recommends the City seek grant funding to prepare a SRTS Plan to document and evaluate effectiveness of existing program activities, and identify priority programs to expand to all schools. This should include Suggested Routes to School maps at all schools, which help families plan their walking or bicycling trip to school by highlighting enhanced crossings and bikeways, and continued participation in school walking audits to identify infrastructure improvements.
Encouragement

HIRE A BICYCLE AND PEDESTRIAN COORDINATOR

This Plan Update 2018 recommends hiring a staff person who can work on bicycle and pedestrian projects and program coordination full time. This person ensures that all planning, public works, and transportation projects account for bicyclists and pedestrians. They can also write grant applications to fund projects and programs and be tasked to support all bicycle and pedestrian coordination with the public and neighboring jurisdictions.

If funding is not available to create a new position, the City may consider hiring interns to work on bicycle and pedestrian projects until a full-time staff member can be funded. Some organizations and foundations will fund staff member salaries, fellowships, or contractor salaries for a set period of time. The City may consider applying for grants from one or more of these foundations.

SOCIAL WALKS/RIDES

Supporting social walks and bicycle rides in Santa Rosa can provide many benefits to the community. People who are uncomfortable bicycling or walking alone, or who are unfamiliar with the best routes to use, will benefit from having a group to show them the way. Rides can also be used as informal education opportunities to remind participants about safe walking and bicycling behavior and sharing the road, or combined with other efforts like tours of historic neighborhoods.

This Plan Update 2018 recommends the City partner with or support local organizations who wish to host rides or walks, for example the Council on Aging and the Sonoma County Bicycle Coalition.

WALKING & BIKING AMBASSADORS

During the public outreach activities conducted for this Plan Update 2018, the community repeatedly expressed concerns about personal security and comfort when bicycling or walking in Santa Rosa, especially on the extensive creek trail network. These trails provide a high quality experience for walking and bicycling separated from high-traffic streets, but can be secluded with minimal surveillance.
An ambassador program could recruit volunteers to act as eyes on the trail, report maintenance needs, share educational materials and maps, and provide a friendly presence on the trail network. Staffing needs for this program could be limited to coordinating occasional volunteer training sessions. Trusted volunteers may be enlisted to help with program coordination, and grant funds could be pursued to offer a stipend to ambassadors or coordinators.

The Guadalupe River Park Conservancy in San Jose operates a volunteer trail ambassador program, where volunteers wear green vests to identify themselves and spend at least 45 minutes each week bicycling or walking on the trail. In addition to reporting maintenance needs, ambassadors carry small kits with supplies for basic first aid, bicycle repairs, graffiti removal, or other tasks based on their interest and preference.

This Plan Update 2018 recommends Santa Rosa consider a pilot Walking & Biking Ambassador program in partnership with the Bicycle & Pedestrian Advisory Board, the Southeast Greenway Team, and the Sonoma County Bicycle Coalition.

ADOPT-A-TRAIL PROGRAM

The City of Santa Rosa may consider a voluntary Adopt-a-Trail Program to assist with maintenance and cleanup of trails in the community. This program may be combined or coordinated with the Walking and Biking Ambassador Program, if desired.

The City of Sonoma supports maintenance of its trail network through a voluntary Adopt-a-Bike-Path Program. Participants commit to maintain their adopted section of pathway for one year, including maintaining it at least once per month. Maintenance activities performed as part of the program include litter removal and vegetation trimming, and participants are encouraged to discuss additional ideas with the Public Works Director. Path adopters are recognized on a sign on their section of trail.

Photo credit: Guadalupe River Park Conservancy
BIKE RACK PROGRAM

Bike Rack programs coordinate and streamline bike rack installations. The program could be managed by an intern who could work with staff and business owners to install bike racks and bike corrals citywide. This also ensures bike racks are properly installed as to not block sidewalks while still being usable for bicyclists.

Currently, there are no bike corrals installed in Santa Rosa. The City could evaluate installing bike corrals in high-traffic locations such as in vehicle parking spots on the corners of 4th and 5th Streets in downtown. This not only sends a statement that secure bike parking is important to the city and community members, but bike corrals increase visibility at intersections for all roadway users. An increase in visibility should reduce the risk of a collision in these locations.

The city could also develop customized bike racks. These racks can serve as a “brand,” highlighting the Santa Rosa identity as a bicycle-friendly community and can double as art features.

Where appropriate, this program could also coordinate with local businesses to provide bicycle lockers or other secure parking for employees and long-term visitors. Secure long-term parking is a key component of the bicycle network to encourage employees to bicycle instead of driving, and helps reduce bicycle theft. Bicycle lockers should also be considered in downtown Santa Rosa and at commercial hubs to serve people shopping or running multiple errands who would like a secure place to store their bicycle and deposit purchases or other items during their trip.

BICYCLE FRIENDLY BUSINESS

Bicycle Friendly Business programs recognize businesses who make it easy and convenient for both employees and customers to arrive by bicycle. This requires different strategies to accommodate the different needs of customers and employees. To accommodate customers, providing bicycle parking and supporting City bicycling projects can make it safer and easier to travel by bicycle. Some businesses also choose to offer discounts or incentives to people who arrive by bicycle.

For employees, offering secure long-term parking for bicycles is key. This could include a secure gated bicycle parking area, or access to bicycle lockers. If space is not available for dedicated secure bicycle parking, business owners and landlords can consider allowing employees and tenants to bring bicycles
inside and store them in their workspace or another designated location. Providing changing areas, showers, or lockers to store belongings can also make it easier for employees to bicycle to work.

By recognizing businesses who support bicycling, Santa Rosa can support their local economy while fostering partnerships with the Chamber of Commerce and business owners to build community support for bicycling projects and programs. The League of American Bicyclists has a Bicycle Friendly Business program similar to the BFC program, and some communities have chosen to develop their own programs. Sutter Hospital was recently awarded the City’s first Bicycle Friendly Business award from the League.

SMART CORRIDOR BIKE SHARE

In November 2017, the Metropolitan Transportation Commission (MTC) approved over $800,000 for a bike share pilot program in Sonoma and Marin counties along the SMART train corridor. The program is considering employing GPS-enabled dockless bikes that do not require bikes to be placed at more traditional docking stations. These counties predict that the presence of shared bikes around SMART stations could free up space currently being used by people bringing bikes onto SMART trains. Instead, people can use shared bike near stations for their first mile and last mile commutes.

SMART carried nearly 723,000 passengers and almost 65,500 bicycles in its first year of service from August 2017 to August 2018. This means one in nine riders are bringing a bicycle on board with them, and trains are quickly reaching capacity for bicycles. Supporting a regional bicycle sharing program could reduce the number of bicycles brought on board if riders have access to a shared bicycle at each end of their transit trip.

The City of Santa Rosa can support Sonoma County in these efforts, and help the county determine guidelines for the traditional or dockless bikes that best serve the needs of Santa Rosa residents. In addition, Santa Rosa can help advertise and gain interest for the bike sharing system.

The City may also study shared e-scooters as an alternative or complement to bike share. Shared scooter systems have become increasingly popular, and according to a survey of system users in Portland, up to 34 percent of scooter trips taken by residents replaced a trip that would otherwise have been taken in a car. Among visitors to the city, 48 percent of scooter trips replaced a car trip.
**Enforcement**

**BAIT BIKE PROGRAM**

Bike theft is a concern in the Santa Rosa community, with many residents identifying it as a barrier that currently discourages them from bicycling more often.

Bait bike programs involve a bicycle outfitted with a discrete tracking device monitored by the local police department. The bicycle should be nondescript and consistent with the character of bicycles ridden in the community. Periodically, the police department will lock the bait bike at a location where thefts have been reported, and monitor the tracking device. When the bicycle is stolen, police can then use the location data to recover the bicycle and cite the thief. These programs can be particularly effective in prosecuting ‘organized’ bicycle theft operations that remove bicycles from the community to be sold in bulk at another location.

Both Sonoma County and the City of Santa Rosa have used GPS tracking of “bait” items to apprehend thieves in the past. Sonoma County has implemented a bait bike program on occasion, and the Santa Rosa Police Department has used bait packages to target package thieves during the holiday season.

Citations should be monitored and routinely reviewed to ensure the bait bike program is not disproportionately targeting disadvantaged or minority communities in Santa Rosa. Similarly, bait bike deployment locations should be selected to provide geographic equity covering all parts of the City evenly.

An alternative model to this traditional bait bike program involves inexpensive Bluetooth devices being installed on as many bicycles as possible in the community. In Davis, CA, the local bike club used donations to purchase small trackers called Tiles and install them inconspicuously on bicycles as requested. The Tiles pair with a smartphone app that shows the location of your bicycle. If a stolen bicycle is reported as “lost” through the app, any smartphones with the Tile app in the vicinity of the missing bicycle will receive an alert and can help law enforcement retrieve the bicycle.

An outreach campaign should be paired with the launch of a bait bike program to publicize the effort and discourage theft by emphasizing that local police are taking bicycle theft seriously. It can also be a deterrent to thieves if they know the bicycle they are stealing may be a bait bike.
TARGETED ENFORCEMENT

The Santa Rosa Police Department currently conducts targeted enforcement periodically based on requests from the community or focus areas of grant funding received.

This Plan Update 2018 recommends continuing these efforts, with a focus on those behaviors that create the greatest risk or potential conflict, and care should be taken that programs do not unfairly target specific demographics or modes of transportation. This Plan Update 2018 also recommends continuing current educational enforcement activities, where officers stop individuals and discuss the unsafe behavior observed without issuing citations.

Behaviors and locations for targeted enforcement should be reviewed each year based on collision data and community input. Behaviors cited as challenges during public outreach for this Plan Update 2018 include drivers failing to stop at red lights and yield to pedestrians in crosswalks, parking in bicycle lanes, pedestrians crossing streets illegally, and bicyclists riding on the wrong side of the road.

Evaluation

ANNUAL REPORT CARD

An annual report card assesses the City’s progress toward goals and objectives outlined in this Plan Update 2018, implementation of its projects and programs, and changing mode splits for active transportation. Annual report cards can also incorporate a review of effectiveness to evaluate costs and benefits of various efforts and adjust investments to maximize results.

This Plan Update 2018 recommends the City work with the BPAB to develop an Annual Report Card that tracks progress toward implementing this Plan Update 2018 and incorporates annual collision data, SRTS program and participation data, and other relevant information to highlight successes and challenges of improving walking and bicycling each year. Specific performance measures identified by the City and the community should be included in this card on an annual basis to track key metrics over time and better understand successes and challenge areas.
The following recommended changes include policies, operational changes, and municipal code revisions that support the goals of this Plan Update 2018 or address community-identified barriers to walking and bicycling in Santa Rosa.

**Vision Zero Policy**

Vision Zero is a traffic philosophy that rejects the idea that traffic crashes are accidents, and instead asserts that serious injuries or fatalities on the transportation system are preventable and unacceptable.

The more Santa Rosa understands where and why crashes happen, the more different departments can take actions to reduce them. The City can use this understanding to develop roadway designs that prioritize bicycling, walking, and other transportation facilities that enhance comfort and can be implemented quickly to adapt and respond to identified challenges.

The high-injury network identified in this 2018 Plan Update 2018 is a strong start to developing this understanding. Asking additional questions about the causes and locations of crashes can help the City re-prioritize funding for projects that target behaviors and locations that may be contributing to crashes:

- What are the total number of crashes (all modes)? Of these crashes, how many were fatal or severe injuries?
- What were the most striking contributing factors?
- How are the crashes affected by posted speed, road class, or other identifiable feature of the road?

An inclusive process and equitable outcomes are a core component of adopting Vision Zero. Santa Rosa has emphasized their commitment to equity in this 2018 Plan Update 2018 by offering inclusive outreach opportunities and identifying projects near schools, around housing for seniors and people with disabilities, and neighborhoods most reliant on public transportation. In addition, actions can be taken to address equity in enforcement.
As part of this Plan Update 2018, the City and the Bicycle and Pedestrian Advisory Board reached out to the City of Fremont to discuss their Vision Zero program.

This Plan Update 2018 recommends the City consider whether adoption of a Vision Zero Policy is an appropriate step to increase the City’s existing commitment for all users of its diverse transportation systems. MTC awards additional points in their Regional Active Transportation Program competitive grant process for communities that have adopted a Vision Zero Policy.

The Vision Zero Network has resources and case studies available to guide cities as they develop and implement Vision Zero Action Plans. More information at:

- visionzeronetwork.org/project/roadmapforaction

---

**TRADITIONAL APPROACH**

Traffic deaths are *inevitable*

*Perfect* human behavior

Prevent *collisions*

*Individual* responsibility

Saving lives is *expensive*

---

**VISION ZERO**

Traffic deaths are *preventable*

Integrate *human failing* in approach

Prevent *fatal and severe crashes*

*Systems* approach

Saving lives is *not expensive*
School Zone Speed Limits

On January 1, 2008, AB 321 took effect allowing local governments to extend school zones up to 1,000 feet and reduce speed limits within 500 feet of a school site to 15 mph in residential neighborhoods or on highways with speed limits of 30 mph or less.

In Santa Rosa from 2007 to 2017, nearly 300 crashes involving a bicyclist or pedestrian occurred within 500 feet of a school campus—146 crashes involving a bicyclist, and 138 crashes involving a pedestrian. More than 40 percent of these occurred during school hours, between 7 am and 4 pm.

At 15 mph, more than 90 percent of pedestrians are likely to survive a crash with only minor injuries. As speeds increase, however, crash severity increases dramatically. At 30 mph most crashes result in serious injuries to pedestrians, and nearly half may be fatal. At 40 mph, 90 percent of pedestrians will be killed in a crash. Reducing speeds even slightly can have a profound effect on safety for people walking and bicycling to school.

Cities that have already enacted this law include Berkeley, San Francisco, Los Angeles, and the City of Goleta.

This Plan Update 2018 recommends the City enact this law around eligible schools. AB 321 requires engineering and traffic surveys to be conducted to indicate that the existing speed limit is not appropriate. Santa Rosa can work with the Transportation and Public Works department to determine an evaluation and implementation schedule that accommodates staff capacity. In addition, Santa Rosa can work with local law enforcement to educate parents and drivers about the new policy and why certain school areas were selected.

Vehicle Miles Traveled

Transportation is the largest contributor to greenhouse gas emissions in Santa Rosa and the City's 2012 Climate Action Plan recommends several strategies to reduce the number of miles residents and visitors travel daily by automobile. Following the passage of Senate Bill (SB) 743, CEQA guidelines will change how transportation impacts are measured by transitioning from auto delay calculated as Level of Service (LOS) to vehicle miles traveled (VMT). This Plan Update 2018 recommends the City adopt VMT as its standard for evaluating vehicle miles travelled and greenhouse gas emission impacts of transportation projects.

To help make this transition, the Metropolitan Transportation Commission (MTC) offers Priority Development Area grants to assist municipalities in transitioning their general plans to implement VMT-based transportation impact standards.
**Street Sweeping**

Residential streets in Santa Rosa are currently swept once per month, and collector and arterial streets are swept more frequently. Despite this, community members expressed concerns about debris in bicycle lanes and on shared use paths.

This Plan Update 2018 recommends reviewing street sweeping practices and street sweeper driver training to ensure on-street bicycle lanes are swept at least monthly, and that they are cleared of any glass or other debris following a collision.

**Vegetation Maintenance**

In many places in Santa Rosa, landscaping and vegetation near sidewalks and bikeways has overgrown into the travelway and creates challenges for people walking and bicycling. Overgrown vegetation can not only create mobility challenges by narrowing the usable travelway, it can limit visibility and contribute to debris on the pathway. Routinely trimming back vegetation and mowing pathway shoulders contributes to a safer and more comfortable active transportation environment.

This Plan Update 2018 recommends the City promote the online MySantaRosa application for reporting vegetation in need of maintenance to property owners, and develop a policy to respond to reports within a reasonable timeframe.

**Waste Tote Placement**

In areas with curbside trash or recycling collection, waste totes improperly placed in bicycle lanes can create challenges for people riding bicycles either by placing them at risk of colliding with a tote or by forcing them to merge into the travel lane to avoid the obstacle.

This Plan Update 2018 recommends the City provide clear instruction on its website and in utility bills mailed to residents about proper placement of waste totes. Where on-street parking exists, totes should be placed near the curb within the parking aisle. Where no on-street parking exists, residents should be instructed to place totes against the curb to minimize intrusion into the bicycle lane.

The City should also consider working with waste management companies to add reflective markings to totes to increase their visibility at night and reduce the risk of a bicyclist colliding with a misplaced tote, in addition to stenciling “Do Not Place In Bicycle Lane” on totes to remind residents of proper placement.
Bicycle Parking at Large Events

Chapter 11-40 of the Santa Rosa Municipal Code currently addresses the procedures and requirements to apply for an event permit within the City. This Plan Update 2018 recommends revising Section 11040.040 Permit – Conditions for Issuance to require events expected to draw more than 5,000 attendees must provide secure, attended bicycle parking for attendees at no charge. Key considerations include:

- A space that is enclosed and secured on three sides (“corral”) must be provided, with the fourth side consisting of tables for checking in bicycles
- The corral must be in a visible and easily accessible location within one block of the event
- Bicycle parking must be offered for the full duration of the event, including the bicycle parking attendants having access to the location at least one hour before and one hour after the event for setup and break down
- Availability and location of free bicycle parking must be noticed on all event promotion where transportation or directional information for the event is advertised, in the same format and with an equal amount of space as parking and transportation information for other modes
- Bicycle parking must be attended and monitored at all times with a number of staff sufficient for the size of the event and whether attendees are expected to arrive for a single start time or arrive throughout the event
- Bicycles will be checked in and returned with a claim check to ensure the correct bicycle is released to each person, and bicycle valet attendants will record and share the number of bicycles parked at the event in order to better estimate the space needed for the following year
- The valet bicycle parking service provider shall have insurance; should the event sponsor provide the bicycle parking service, bicycles checked in must be insured against theft

The City of Oakland operates a successful bicycle parking policy for large events, and may be a resource to Santa Rosa.