

Frequently Asked Questions

Neighborhood Traffic Safety & Bike Boulevard Project | www.cityofpaloalto.org/bikepedsafety

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What Construction is Currently Happening? Construction is completed on Ross Road ([NTSBB Segments 1, 2 and 3](#)). Most striping and signage have been completed. All planter boxes/slotted speed humps on Ross Rd have been built and landscaping installed. Work is on hold in Segment 4 (Amarillo/Greer area). Instead of the actual elements, temporary elements are being installed at Amarillo and Greer for the public to try out. Work is underway on Louis between Moreno and Amarillo to install the raised intersections ([Segment 5](#)).

Q1. **Why Ross Road? Is this a bicycle boulevard to nowhere?**



A. Palo Alto continues to build more bicycle connectivity to encourage more people to choose transportation options that do not involve a motor vehicle. Ross Road is a major part of building the bicycle connectivity in Palo Alto; linking Jordan and Bryant St. and creating a safe crossing of Oregon Expressway for pedestrians and bicyclists. It is identified as a planned bicycle boulevard in the Council-adopted [Bicycle and Pedestrian Plan](#).

Q2. **Why Are Roundabouts Safer Than a 4-Way Intersection?**



A. According to the Federal Highway Administration (FHWA), roundabouts are often safer, more efficient, less costly and more aesthetically appealing than conventional intersection designs. The FHWA Office of Safety identified roundabouts as a [Proven Safety Countermeasure](#) because of their ability to reduce the types of crashes that result in injury or loss of life. Roundabouts reduce the types of crashes where people are seriously hurt or killed by 78-82% when compared to conventional stop-controlled and signalized intersections, per the AASHTO Highway Safety Manual (due to lower motor vehicle speeds and a reduction in the number of conflict points). Roundabouts are a significantly safer type of intersection for all users, including pedestrians and bicycles.

Q3. Can Fire Trucks get through this new design without an impact on response times?

- A. Yes, they can make it through the new design with negligible impacts on response times. Here is the Palo Alto Fire Department’s statement:



“All the traffic calming features and roundabouts being installed as part of the Neighborhood Traffic Safety and Bicycle Boulevards – Phase 1 Project have been designed with our emergency vehicles in mind. The Palo Alto Fire Department (PAFD) reviewed the design with the Planning and Community Environment (PCE) staff and determined that emergency vehicles would be able to traverse the calming devices with negligible impacts on

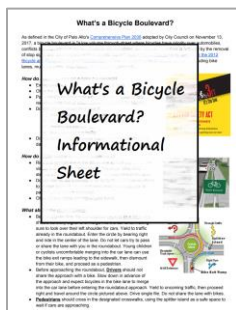
response times. PCE refined the design of the slotted speed humps to ensure that our emergency vehicles would be able to get through them without delays.

In addition to PAFD reviewing the design, we also actively work with our fire operations team to ensure that operators are acquainted with the new layout and how to use it. We recently tested a fire engine, a ladder truck, and an ambulance at the Ross Road and East Meadow roundabout and each of the vehicles could safely traverse the circle. See the [video here of the ladder truck](#) traversing the roundabout. PAFD constantly assesses our service provision and is always improving; thus, we often reevaluate all our existing routes to look for efficiency opportunities in order to be the most prepared in the case of an emergency.

Finally, in the upcoming budget, the PAFD in coordination with several City Departments is proposing a traffic signal priority system to turn signal lights green for emergency vehicles. This will safely allow the PAFD to get to Ross Road faster and has reduced response times in communities using this technology.”

Q4. Why is it safer for people riding bicycles along a bicycle boulevard to ride in the travel lane rather than riding as close to the curb as possible? Doesn’t that increase the likelihood of a collision with a car?

- A. Maintaining a straight line in the travel lane when biking on a bicycle boulevard is safer due to the lower travel speeds of motor vehicles on traffic-calmed streets. Research shows that [shared lane markings](#) and other bicycle boulevard features encouraging drivers to maintain



slower speeds (including [speed humps](#), [chicanes](#), and [bulbouts](#)) make it safer for bicyclists to ride in the center of a residential street travel lane. This position also gives people riding bicycles a better view of oncoming traffic. Bike lanes are not feasible on Ross Road due to parked cars on both sides of the street. When bicyclists choose to ride in the parking lane along Ross Road, they are less visible to drivers when they suddenly swerve out into the travel lane to avoid parked cars. Additional risks are riding in the door zone, right hooks, and drivers backing out of driveways. More information about traffic safety measures can be found [here](#). The [Safe Routes to School Education Resources](#) webpage has more educational

information about using the bike boulevard.

Q5. I saw a car cross double yellow lines or a car riding too closely to a bicycle. What do I do?

- A. If you see any illegal or unsafe driver behavior, please call Palo Alto Police Department non-emergency line at **650-329-2413**. For all emergencies, call 9-1-1.

Q6. *I'm uncomfortable with the new infrastructure so I told my children to ride on the sidewalk. Is this safe?*

A. Sidewalk riding is not recommended unless the bicyclist is a very young child, is accompanied by an adult, and does not alternate between the road and the sidewalk. Despite statistics showing that riding on sidewalk is less safe overall, bicyclists continue to perceive sidewalk riding as safer than street riding in many situations (Winters et al. 2012, Aultman-Hall and Adams 1998). The perception of safety comes primarily from the sidewalk's separation from motorized traffic. However, many sidewalks (those with frequent curb cuts and intersections) have many potential conflict points.

Q7. *What are some examples of the new features?*

A. The project consists of the following features:

- **Bicycle (Bike) Boulevard:** A [bicycle boulevard](#) is a shared street design where vehicles and bicycles operate in the same space at low speeds.
- **Bulbouts/Curb Extensions:** Bulbouts extend the sidewalk or curb face into the parking lane at an intersection. When placed on the bicycle boulevard, they visually narrow the roadway and reduce the crossing distance for pedestrians. (note, the lane size remains the same).
- **Chicanes:** A series of raised or delineated curb extensions, edge islands, or parking bays on alternating sides of a street. This moderates vehicle speeds by visually narrowing the roadway. (note, the lane size remains the same).
- **Raised Intersections:** A speed table that is marked and signed for pedestrian crossing. It extends fully across the street, can be longer than a typical speed table, and is typically 3 inches high.
- **Roundabouts:** A circular intersection where drivers travel counterclockwise around a center island. There are no traffic signals or stop signs in a modern roundabout. Drivers yield at entry to traffic in the roundabout, then enter the intersection and exit at their desired street.
- **Slotted Speedhumps:** Speed tables that include wheel cutouts to allow large vehicles to pass unaffected, while reducing passenger car speeds. They can be offset to allow unimpeded passage by emergency vehicles and are typically used on key emergency response routes.

For more information about common traffic safety modifications, please visit the [NACTO website](#) and the Federal Highway Administration's (FHWA) [Traffic Calming e-primer](#) tool.

Q8. *What public outreach did the City conduct for this project?*

A. The City conducted a very thorough public community engagement process for this project and engaged community members in the concept planning process and prior to construction. The [staff report](#) shows public comments and the number of meetings held. Engagement activities included:

- Staff collaborations with local Palo Alto schools and parents, PTA associations, and Safe Routes to School champions,
- Community-wide open house,
- Attendance at community events (including at the California Avenue Farmers Market),
- Regular project update emails and direct mailings to affected neighborhoods,
- Updates on the plans and project via the City website,
- Engagement with local media to share stories about the project,
- Updates to the City Council and the Pedestrian and Bike Advisory Committee (PABAC), and
- Construction contract award done in a public meeting.

Designs underwent rigorous review and several drafts based on community feedback before the final [plans were adopted by City Council](#). Comments gathered at community meetings [are available for](#)

[public review](#) and can be found in Appendix G of the City Council approval of the project, as well as the final concept plans which begin on Page 199.

The City is always open to feedback to improve the public engagement process for projects. You can share your feedback on the engagement process to transportation@cityofpaloalto.org. If you have specific questions about the project or the next phase of the construction work, please contact the project's Community Relations Manager, Sarah Ratliff, Sarah.Ratliff@gcinc.com, (669) 225-1617. The project webpage features a project area map, construction schedule, flyers and regular updates: www.cityofpaloalto.org/bikepedsafety.

Q9. *When will construction be over; what are some of the impacts be during construction?*

A. **Timeline:** The adopted construction timeline is online here: www.cityofpaloalto.org/bikepedsafety. Note, the [City has shifted the project timeline](#). Updates to the project schedule will be shared when available. In the interim, the Segment 4 raised intersections continue to be installed on Louis Road.

Construction Impacts: Barricades and cones are often used during construction for the safety of construction crews; these barricades and cones temporarily narrow the roadway and make street navigation challenging. All streets will remain open during construction. No temporary or permanent street closures or diversions are planned as part of this project. Please drive, walk, or ride slowly and carefully for your safety, and the safety of construction workers and other road users.



Q10. *How can I provide feedback about this project or other Palo Alto streets and bikeways projects?*

A. You can provide feedback through any of the following channels:

- [City Council Meetings](#) (during Oral Communications)
- [Pedestrian and Bicycle Advisory Committee \(PABAC\) Meetings](#)
- Email the City Council (city.council@cityofpaloalto.org)
- Email the City's Transportation Division (transportation@cityofpaloalto.org)
- Email or call the Project's Community Relations Manager from Granite Construction (Sarah Ratliff, Sarah.Ratliff@gcinc.com, (669) 225-1617)
- A survey is open until May 10th at: <https://www.surveymonkey.com/r/bikeblvd>

Q11. *What was the Ross Road collision data before the traffic calming treatments and what is the collision data post-construction?*

A. Between January 1, 2013 and December 31, 2017, 14 collisions were officially reported along Ross Road from Garland Drive to Louis Road. Of these 14 reported collisions, one occurred at Oregon Expressway, which is under jurisdiction of the County of Santa Clara, and 13 occurred within segments that are under the control of the City of Palo Alto. One of the reported collisions involved bicyclists and one involved a pedestrian. Table 1 summarizes the collision history by location, injuries, and involvement of bicyclists or pedestrians.

SUMMARY OF REPORTED COLLISIONS ON ROSS ROAD: 2013-2017

	# of Reported Collisions	# with Injuries	Bicycle Involved	Pedestrian Involved
East Meadow Road @ Ross Road	3	2		
Ames Avenue @ Ross Road	1	1	1	
Mayview Avenue @ Ross Road	1	1		1
Other Locations w/ one incident*	4	3		
Ross Road near YMCA	4			
Oregon Expressway @ Ross Road**	1	1		
Total	14	8	1	1

*Other Locations include: Stern Ave, Moreno Ave, Mayview Ave, Loma Verde Ave, and Stone Ln

**County of Santa Clara maintained

Of note, two of the three reported collisions at Ross Rd and East Meadow Dr were reported as “broadside collisions,” where the side of one vehicle is hit by the front of another vehicle forming a “T.” The roundabout constructed at this location is a proven safety countermeasure to reduce or eliminate broadside collisions. The bicycle collision shown above at Ames involved an improper turn or lane change by the bicyclist. The incident with the pedestrian at Mayview involved excess speeding by the driver. The traffic calming measures implemented are intended to address speeding along Ross Road. All but one of the remaining incidents (including all four of the incidents at the YMCA) involved motorists hitting parked / stationary vehicles.

Staff will be collecting similar data after the project is completed. Typically, it takes six months for people to adjust travel habits and settle into new patterns and routes.

Q12. What traffic laws apply to riding along a bike boulevard?

A. Traffic laws relating to a bike boulevard (note, this is not an all-inclusive list) include:

- **Sidewalk Riding:** Sidewalk riding is not recommended unless the bicyclist is a very young child, is accompanied by an adult, and does not alternate between the road and the sidewalk.
- **Passing Bicyclists when in a Motor Vehicle:** Motorists may pass cyclists if they maintain a minimum distance of three (3) feet between the vehicle and bicyclist (per [California State law](#)). If there is not enough space to comfortably pass a cyclist (such as in between the newly constructed bulbouts), the motorist should wait until more space is available to safely pass (e.g., after the bulbout).
- **Crossing Double Yellow Lines:** California Vehicle Code 21460(a) states that "If double parallel solid yellow lines are in place, a person driving a [motor] vehicle shall not drive to the left of the lines..." This means that on any street, drivers should **not** cross a double yellow line. If a driver approaches a segment of the street with a double yellow line and needs to pass a bicyclist, they should wait until they've passed the double yellow lines and it is clear to safely pass.
- **Slotted Speed Humps:** Drivers should go over the speed humps and should not cross the double yellow lines. Traveling in the slots could endanger oncoming traffic.
- **Yielding:** All motor vehicles and bicyclists should yield to the vehicles and bicyclists in the roundabout coming from the left and turn right at the roundabout.
- **Driver Handbook:** The [California Driver Handbook](#) provides guidelines for safe and legal usage of the street.

- **Lane Sharing:** On a one-lane, slower traffic street, bicycles and motor vehicles can share the same lane. When it is safe to do so, slower moving cyclists should move to the right to facilitate passing when vehicles are behind them.

Q13. *How Should I Park at a Rolled Curb, especially on the Redesigned Roadway?*

- A.** Park on the roadway and **not** the sidewalk. Vehicles should be parked in the asphalt portion of the roadway only without any wheel on the curb. This maintains a clear travel path for pedestrians, strollers, children cycling on sidewalks, and people in wheelchairs. Parking on the roadway will also enhance the traffic calming features of the street by visually narrowing the roadway. More information is available on this topic [on the City website](#).

Q14: *Will this project push traffic onto other residential streets like Louis Rd. resulting in increased congestion on other streets commonly used by children?*

- A.** Ross Road is designated as a “local street,” intended to have lower motor vehicle traffic as compared to collector streets or arterial roadways. This project prioritizes Ross Road as an enhanced bicycle and pedestrian route, and facilitates connections to other parts of Palo Alto for a wider range of bicyclists. The added traffic calming treatments discourage speeding by motor vehicles on this street. These treatments may discourage some non-local motor vehicle travel on Ross Road, but connectivity for drivers with local origins or destinations is maintained.

Q15. *How is this project funded?*

- A.** The project was funded by a 2014 City Council infrastructure spending plan that allocated \$20 million to implement the 2012 Bicycle + Pedestrian Transportation plan. Because of this investment, the City is on track to construct 65% of all major projects in the Plan by 2019.

Q16. *What is the goal of the Neighborhood Traffic Safety & Bike Boulevard Project?*

- A.** This project is part of a larger effort to achieve Council-adopted [goals](#) to double the rate of bicycling by 2020, reduce transportation-related greenhouse gas emissions, and improve regional and local bike network connectivity. These goals will be achieved by moderating vehicle speeds, enhancing pedestrian and bicycle safety, and reducing cut-through traffic. Palo Alto has the third highest rate of bicycle commuting in the United States. Bicycle boulevards are positively associated with increasing bicycle modeshare. Bicycle boulevards: reduce motor vehicle traffic at morning school arrival and dismissal times; benefit local air quality; reduce traffic congestion; and improve health. The relevant policies in the [Palo Alto Comprehensive Plan](#) are Policy T-4.2, T-6.1, and T-6.2.

Learn more about Palo Alto’s Bicycle and Pedestrian goals in the [Bike / Ped Plan](#).