



**Palo Alto Pedestrian and  
Bicycle Advisory Committee**

**Tuesday, October 5, 2021 at 6:15 P.M.**

**Join Meeting Via Zoom**

**Join Online: <https://cityofpaloalto.zoom.us/j/93139639579>; Dial-in: 669-900-6833**

**Meeting ID: 931 3963 9579**

**PART I: TDA 3 – BICYCLE/PEDESTRIAN PLAN UPDATE**

No items are scheduled for this meeting.

Written comments submitted by email to [Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org) between 12:00pm on August 31, 2021 and 12:00pm on September 27, 2021 are attached with the agenda packet.

**PART II: OTHER ITEMS**

- |   |         |
|---|---------|
| 1. CALL TO ORDER  | 6:15 PM |
| 2. AGENDA CHANGES   | 6:16 PM |
| 3. APPROVAL OF ACTION MINUTES   | 6:18 PM |
| 4. PUBLIC COMMENTS AND ANNOUNCEMENTS  | 6:23 PM |
| 5. STAFF UPDATES  | 6:25 PM |
| a. Charleston-Arastradero Road Project Status   |         |
| b. PABAC 311's  |         |
| 6. DISCUSSION ITEMS   |         |
| a. Presentation of 525 E Charleston Rd Project- (See the <a href="#">plans</a> and the <a href="#">staff report for the pre-screening</a> on 9/27.) | 6:35 PM |
| b. Addison Ave Repaving   | 7:15 PM |
| c. Maintenance of Bol Park and Wilkie Bridges   | 7:40 PM |
| 7. STANDING ITEMS   | 8:00 PM |
| a. Grant Update – NONE  |         |
| b. CSTSC Update – See attached meeting notes  |         |
| c. VTA BPAC Update  |         |
| 8. ADJOURNMENT  | 8:05 PM |



Palo Alto Pedestrian and  
Bicycle Advisory Committee

Tuesday, September 7, 2021

6:15 P.M.

**VIRTUAL MEETING**

Palo Alto, CA

Members Present: Ken Joye (Chair), Art Liberman (Vice Chair), Bruce Arthur, Arnout Boelens, Nicole Zoeller Boelens, Bill Courington, Cedric de la Beaujardiere, Kathy Durham, Penny Ellson, Paul Goldstein, Robert Neff, Eric Nordman, Rob Robinson, Richard Swent, Alan Wachtel, Bill Zaumen

Members Absent: Steve Rock, Jane Rosten

Staff Present: Sylvia Star-Lack, Shrupath Patel

Guests: None

**PART I: TDA 3 – BICYCLE/PEDESTRIAN PLAN UPDATE**

No items

**PART II: OTHER ITEMS**

**1. CALL TO ORDER – 6:15 p.m.**

**2. AGENDA CHANGES**

Ms. Ellson requested a future agenda item to discuss circulation plans for a housing project located near the intersection of Nelson Drive and East Charleston Road.

**3. APPROVAL OF ACTION MINUTES**

Mr. Goldstein corrected the amended motion on page 6, line 8, to state "PABAC asks Office of Transportation staff to work with Parks and Recreation to allow bicycle riders to enter and exit Foothills Park from the Arastradero Preserve via Gate D."

Ms. Durham amended her comments at the bottom of page 4 to read "urged PABAC members and staff to give priority to safe crossings for bicyclists and pedestrians along El Camino. Completing the Park Boulevard would encourage more people to bike to east-west destinations."

1 Motion by Mr. Goldstein, second by Mr. Nordman, to approve the minutes of the August 3, 2021  
2 meeting as amended. Motion passed 14-0.

3 **4. PUBLIC COMMENTS AND ANNOUNCEMENTS**

4 Mr. Robinson appreciated the fresh paint and surface on Park Boulevard near Peers Park. The  
5 bike lanes are now visible at night.

6 Mr. Goldstein suggested staff consider using the material proposed for bridge repairs on East  
7 Meadow Drive for repair of the wooden bridges in Bol Park. The material appears to be slightly  
8 more flexible than asphalt. Vice Chair Liberman noted that the material is polyester concrete.

9 **5. STAFF UPDATES**

10 **a. South Palo Alto Bikeways**

11 Ms. Star-Lack reported she is recruiting for a senior planner to lead this project and preparing a  
12 Request for Proposals (RFP) for design and community engagement for the rest of the project.

13 **b. Charleston-Arastradero Road Project Kickoff**

14 Ms. Star-Lack advised that the Council awarded the construction contract for Phase III on June 22,  
15 2021. Temporary markings for planned changes were laid out on August 23. The public is invited  
16 to learn about the final phase of the project at a September 9 community meeting.

17 In response to Chair Joye's question, Ms. Star-Lack understood that temporary markings have been  
18 laid out for all changes to the curb line. She was not aware of specific changes for Charleston and  
19 El Camino.

20 **c. PAPD Records System in Transition**

21 Ms. Star-Lack announced that the Palo Alto Police Department (PAPD) is currently transitioning  
22 software for its records system. The transition and staff training should be complete by the end of  
23 the year.

24 **6. DISCUSSION ITEMS**

25 **a. Subcommittee proposal: signal inventory**

26 Mr. Courington related his frustration with bicyclists using the pedestrian button to get a long  
27 signal cycle for crossing streets. A minor contributor to the problem may be the condition of  
28 pavement stencils that indicate the locations of bicycle detection. A survey of the area bounded  
29 by Alma, Middlefield, Hamilton, and Embarcadero revealed that nine intersections should have  
30 stencils. Stencils at four intersections were acceptable, and stencils at five were not. He proposed  
31 surveying intersections across the City and compiling a list of intersections with stencils classified  
32 as easily visible, acceptably visible, poorly visible, or invisible if staff believes improvements  
33 could be made.

34 Mr. Swent requested the list include the method of bicycle detection utilized at intersections.

1 Mr. Zoeller suggested implementing some type of feedback that bicyclists have been detected. A  
2 red light confirms that the pedestrian button has been pushed and the signal will change.

3 In answer to Mr. Wachtel's question, Mr. Courington guessed that bicyclists use the pedestrian  
4 button because they know the pedestrian button works, they are ignorant of the detector, or they  
5 believe the detector does not work. Stencils alone will not change behavior, but a campaign to  
6 increase awareness of bicycle detection could help. Mr. Zoeller's suggestion is good but, based on  
7 staff's attempts, adding feedback to the current signals is not easy.

8 Mr. Nordman volunteered to help Mr. Courington with a survey. If a signal is not detecting a  
9 bicyclist, the observer should promptly submit a 311 request. Ms. Star-Lack indicated that a  
10 request should be submitted in the "streetlights and traffic signals" category under "traffic  
11 signal/detection/pedestrian button not working."

12 Mr. Robinson proposed the subcommittee work with the traffic team to adjust detection equipment.

13 Mr. de la Beaujardiere noted that signal cycles are extremely long at some intersections, and using  
14 the pedestrian button allows bicyclists to traverse intersections more quickly. He volunteered to  
15 assist with a survey.

16 Vice Chair Liberman volunteered to work on a survey. Perhaps Public Works could provide a  
17 spreadsheet of the type of detection equipment, the presence of stencils, and the cycle length for  
18 intersections.

19 Ms. Star-Lack requested a list include the time of day that signals are observed.

20 Mr. Goldstein suggested the subcommittee determine rules for data collection and make  
21 recommendations to PABAC. Signage directing bicyclists to press a button should be noted in the  
22 list. Installing signage that directs bicyclists to place their bikes on stencils could help.

23 Ms. Ellson volunteered to write articles with biking and walking tips for publication in the *Palo*  
24 *Alto Weekly* if PABAC and the *Weekly* agree.

25 Mr. Neff noted that some cities allow their bicycle and pedestrian committees to utilize utility bill  
26 inserts one time per year. Most people will not wait 60 seconds to cross an intersection. The wait  
27 time for major intersections in Palo Alto is 60 seconds or longer. The list should note whether  
28 there is a place for bike detection and whether the bike lane extends to the intersection.

29 In reply to Ms. Zoeller's question, Ms. Star-Lack agreed to inquire about an existing spreadsheet  
30 of signals.

- 31 **7. STANDING ITEMS:**  
32 **a. Grant Update** – None  
33 **b. CSTSC Update**

34 Chair Joye appreciated Mr. Courington's report of the City/School Transportation Safety  
35 Committee (CSTSC) meeting. If PABAC members attend CSTSC meetings, perhaps they would  
36 share Police Department reports.

1 Ms. Star-Lack reported Safe Routes to School (SRTS) staff has responded to an increasing number  
2 of parent concerns. There is a shortage of crossing guards and bus drivers, and the Police  
3 Department is recruiting crossing guards. SRTS instruction was held online rather than in-person  
4 during the past school year. A couple of secondary schools did not hold back-to-school events at  
5 the beginning of school, but staff is attempting to schedule them. The adjustment of signal timing  
6 has been delayed. Pandemic protocols have altered student access to school campuses. In response  
7 to the pandemic, more people may be driving or carpooling to school. Distance learners did not  
8 receive on-bike practice during the previous school year. Kindergarten families may not have  
9 received messages encouraging them to walk and bike to school. Concerns about air quality and  
10 delays in building school-focused bike boulevards have been expressed. New City staff and PTA  
11 leaders are learning about school commute safety. These issues lead staff to anticipate reduced  
12 bike counts. Bike rodeos have been moved from the fall to the spring due to concerns about the  
13 resurgence of COVID-19 cases. Parents have requested additional police presence, but the Police  
14 Department is understaffed and is not an effective long-term solution. SRTS staff is attempting to  
15 continue their daily work and respond to the community.

16 In response to Ms. Durham's question, Ms. Star-Lack reported five Transportation Safety  
17 Representative (TSR) positions are currently vacant.

18 **c. VTA BPAC Update**

19 Mr. Neff advised that the September meeting will be canceled. During the August meeting, BPAC  
20 recommended the VTA Board approve the Tasman Drive and Bascom Avenue Complete Streets  
21 Corridor Studies and received an update regarding the Community Design and Transportation  
22 Manual, which is meant to help local communities with their development programs.

23 Mr. De la Beaujardiere announced a North Ventura Coordinated Area Plan update is scheduled for  
24 the Council on September 20, 2021.

25 **8. ADJOURNMENT** at 7:06 p.m.



## Public Comment Instructions For City of Palo Alto Bicycle/Pedestrian Plan Update

Members of the Public may provide public comments on the City of Palo Alto Bicycle/Pedestrian Plan Update as follows:

1. **Written public comments** (including visuals such as presentations, photos, etc) may be submitted by email to [Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org). Please follow these instructions:
  - A. Please email your written comments **by 12:00 pm (noon) on the Monday the week before (eight days before)** the upcoming Palo Alto Pedestrian and Bicycle Advisory Committee (PABAC) meeting, unless otherwise indicated. Details of upcoming PABAC meetings are available on the City's [PABAC webpage](#).
    - Written public comments will be attached to the upcoming PABAC meeting agenda packet.
    - Written comments submitted after 12:00pm (noon) on the Monday before the upcoming PABAC meeting will be attached to the following PABAC meeting agenda packet.
  - B. Please **lead your email subject line with "BPTP Update"**.
  - C. When providing comments with reference to the current [City of Palo Alto Bicycle/Pedestrian Plan 2012](#), please be as specific as possible by indicating the chapter number, section heading number, and/or page number.
2. **Spoken public comments using a computer** will be accepted through the teleconference meeting. To address the Committee, click on the URL in the agenda packet for Zoom. Please follow these instructions:
  - A. You may download the Zoom client or connect to the meeting in-browser.
    - If using your browser, make sure you are using a current, up-to-date browser: Chrome 30+, Firefox 27+, Microsoft Edge 12+, Safari 7+. Certain functionality may be disabled in older browsers including Internet Explorer.
  - B. You may be asked to enter an email address and name. We request (but do not require) that you identify yourself by name as this will be visible online and will be used to notify you that it is your turn to speak.
  - C. When you wish to speak, click on "raise hand." Staff will activate and unmute speakers in turn. Speakers will be notified shortly before they are called to speak.
  - D. When called, please limit your remarks to the time limit allotted by the Chair.



3. **Spoken public comments using a smart phone app** will be accepted through the teleconference meeting. To address the Committee, download the Zoom application onto your smart phone from the Apple App Store or Google Play Store and enter the Meeting ID in the agenda. Please follow the instructions B-D above.
  
4. **Spoken public comments using a phone (cell or land line) without an app** will be accepted through the teleconference meeting. Use the telephone number listed in the agenda. When you wish to speak, press \*9 on your phone to “raise hand.” You will be asked to provide your first and last name before addressing the Committee. When called, press \*6 on your phone to unmute. Please limit your remarks to the time limit allotted by the Chair.

## **Public Comments for City of Palo Alto Bicycle/Pedestrian Plan Update**

This Packet Includes:

A compilation of written comments on the City of Palo Alto Bicycle/Pedestrian Plan Update submitted by email to [Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org).





**From:** [Transportation](#)  
**To:** [Star-Lack, Sylvia](#); [Patel, Shrupath](#)  
**Subject:** FW: BPTP Update  
**Date:** Wednesday, September 1, 2021 9:28:50 AM

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SSL / SP,  
Forwarding the below from Mr. Liberman.  
SW

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**From:** Transportation <[Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org)>  
**Sent:** Wednesday, September 1, 2021 9:28 AM  
**To:** Liberman, Art <[art\\_liberman@yahoo.com](mailto:art_liberman@yahoo.com)>  
**Subject:** RE: BPTP Update

Hi Mr. Liberman,

Thank you for your email. I will forward it to staff here within the Office of Transportation.

Sarah Wilson (she, her)  
Administrative Assistant, Office of Transportation  
City of Palo Alto  
[Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org)  
(650) 329-2520

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**From:** Art Liberman <[art\\_liberman@yahoo.com](mailto:art_liberman@yahoo.com)>  
**Sent:** Tuesday, August 31, 2021 9:15 PM  
**To:** Transportation <[Transportation@CityofPaloAlto.org](mailto:Transportation@CityofPaloAlto.org)>  
**Subject:** BPTP Update

**CAUTION: This email originated from outside of the organization. Be cautious of opening attachments and clicking on links.**

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I suggest that the Transportation Office elevate the priority of a bicycle/pedestrian tunnel under the railroad and Alma near Loma Verde in the list of proposed infrastructure projects in the BPTP.

The recent discussions by both the volunteer citizens' groups and recently by the Council on the various options for rail crossings have not come to a consensus on which plan to choose among the various alternatives.

However, it has become clear that whatever option is chosen, especially for the South Palo Alto crossings at both Meadow and Charleston, construction would impact both intersections significantly for many years, and prevent the many youngsters who now walk and bike to school from doing so.

Because of this, at the August 23, 2021 Council Meeting at which the options for

Meadow and Charleston were discussed, several Council members voiced strong support for moving forward with a pedestrian- bicycle tunnel near Loma Verde.

The weekly article on this Council meeting topic is in the following link:

<https://www.paloaltoonline.com/print/story/2021/08/27/plan-for-train-viaduct-hits-dead-end-in-palo-alto>

Here is an extract from that story, quoting Weekly reporter Gennady Sheyner:

" In addition to removing the viaduct from consideration, the council agreed that the city should advance bike projects, including an underpass near Loma Verde, that would allow bicyclists to cross the tracks during the extensive construction period.

Vice Mayor Pat Burt and council member Eric Filseth both said they would support moving ahead with bike improvements in advance of the broader grade separation project.

"With half of our kids biking to school every day, we need to get a bike and pedestrian plan in place early, before we proceed and potentially shut down major pieces of the current bike and pedestrian infrastructure for a period of multiple years while construction goes on," Filseth said."

In view of this, I hope that the Transportation Office will consider elevating the priority of a bicycle/pedestrian tunnel under the railroad and Alma near Loma Verde in the list of proposed infrastructure projects in the new BPTP. I feel that the Council and community members would both strongly support this project.

Art Liberman

## CITY/SCHOOL TRANSPORTATION SAFETY COMMITTEE

### Minutes

Thursday, August 26, 2021

10:00 a.m.

Zoom Virtual Meeting from Palo Alto, California

Present: Asha Weinstein-Aggawal (Addison), Jessica Asay (Barron Park), Kara Baker (Escondido), P.J. Balin-Watkins (Fairmeadow), Henny Bhushan (Ohlone), Gregory Brail (Paly), Juan Caviglia (Duvencneck), Liz Gardner (JLS), Audrey Gold (Gunn), Joselyn Leve (JLS), Ria Lo (Greene), Jim Pflasterer (Gunn), Robyn Reiss (El Carmelo), Stephanie Seale (Addison), Amy Sheward (Nixon), Tom Whitnah (Duvencneck), Sylvia Star-Lack (City), Rosie Mesterhazy (City), Jose Palma (City), Ben Becchetti (PAPD), Eric Holm (PAUSD), Mike Jacobs (PAUSD), Roxanne Koopman (PAUSD), Christine Baker, Karen Ceresnak, Maylyn Co (Stanford Health Care), Bill Courington (PABAC), Nicole Hindley, Yael Uziyel Naveh, Nirmala Patni (PTAC), Christina Schmidt (PTAC), Rika Yamamoto (PTAC), Arnout & Nicole Zoeller (PABAC)

The meeting was called to order at 10:01 a.m.

### 1. Introduction/Recognitions

Rosie Mesterhazy welcomed everyone to the City School Transportation Safety Committee (CSTSC) meeting, described a new format for meetings, and shared a photo of a former Transportation Safety Representative (TSR) and his son in the *Palo Alto Weekly*. Educational programming continues with modifications for social distancing; however, the Bike Rodeo will be delayed until the spring. Ms. Mesterhazy recognized Nixon Principal Amy Sheward as the new PAUSD Principal Liaison, Parent Teacher Association Council (PTAC) President Christina Schmidt, Christine Baker, Audrey Gold, Roxanne Koopman, and Yael Naveh.

Ms. Sheward noted unique transportation needs at Nixon and looked forward to participating in meetings.

Ms. Schmidt indicated that she is proud to participate in a collaborative partnership and to learn from the experts.

Jim Pflasterer welcomed new members and appreciated everyone's efforts to recover from the pandemic and move forward.

Ms. Koopman reported the summer adaptive cycling event for students with disabilities was planned and executed within a month and appreciated the efforts of Ms. Mesterhazy, Jose Palma, Ms. Baker, and Ms. Naveh in making the event successful.

Ms. Baker related that she enjoyed the children's smiles and hoped there were more events like adaptive cycling.

Ms. Naveh thanked Ms. Koopman, Ms. Mesterhazy, Mr. Palma, and Ms. Baker for providing the adaptive cycling event and suggested a similar event for older students.

Ms. Mesterhazy stated equity is a priority for the Safe Routes to School (SRTS) partnership, and equity means supporting people of all abilities. People in under-resourced communities and families with special needs are some of the most vulnerable road users.

## **2. Oral Communications/CSTSC Leadership**

Asha Weinstein-Aggrawal shared details of the Mineta Transportation Institute poster contest.

Jose Palma advised that he would present bike life skills and safety to Spanish-speaking families on Monday afternoon. PAUSD Family Engagement Specialists are interested in increasing biking activity for those traveling from East Palo Alto into Palo Alto, and bilingual presentations are one way to increase equity for students and to increase participation in SRTS. He requested TSRs distribute the event flyer.

Ms. Mesterhazy noted that Walk and Roll to School Day is planned for the first week in October. Libby Lundgren has created new SRTS banners, which are available for purchase via the PTAs. Also available are bike-locking banners for bike cages. The PAUSD Board Policy Review Committee will review a SRTS policy on Friday. Sylvia Star-Lack added that the policy before the Policy Review Committee is acceptable to SRTS staff and better than the policy proposed by the School Board Association. The policy includes a commitment to equity of access and opportunity for all students.

In response to questions, Eric Holm indicated that hiring bus drivers is PAUSD's biggest challenge, and some bus routes do not have drivers at the current time. PAUSD staff are working on the locations and number of bike racks at school sites. Mike Jacobs related that several school sites have designated an entryway for each grade and agreed to look into the situation at Escondido.

Greg Brail noted that Paly parents are interested in the return of the Palo Alto Shuttle. Once winter rains begin, more people are likely to drive to Paly because the shuttle is no longer running. Ms. Star-Lack reported the shuttle ceased operations due to low ridership and the City's financial constraints. An on-demand shuttle may be implemented with grant funding. Ms. Mesterhazy noted that winter biking workshops encourage biking in all weather.

## **3. Engagement: Collision Reports Traffic Team and Crossing Guard Updates**

Lieutenant Ben Becchetti advised that the traffic team has been disbanded, and officers have been reallocated to the patrol division. Non-injury collisions totaled 25 in July 2021 and 20 in July 2020. Bicycle and pedestrian collisions totaled 5 in July 2021, 5 in July 2020, 8 in June 2021, and 5 in June 2020. The number of citations has been down but is beginning to increase. Citations for juveniles total 21 year to date and 68 for the same timeframe in 2020. Online reporting has been improved, and officers monitor reports. Palo Alto Police Department is recruiting for officers. The crossing guard contractor is having difficulty staffing locations. Officers are aware that the speed limit around schools has decreased from 25 mph to 20 mph and, through the adopt-a-school program, are monitoring traffic speeds when they are not needed elsewhere.

In response to questions, Lieutenant Becchetti indicated that the Office of Transportation would need to address the installation of speed monitoring signage. Community Service Officers (CSO) are monitoring parking on Georgia.

## **4. TSR Training**

Ms. Mesterhazy discussed the benefits of active transportation, SRTS mission, vicious versus virtuous cycle, statistics, impacts of the pandemic and responses to those impacts, and CSTSC leadership and partners.

Mr. Pflasterer shared the role and responsibilities of a TSR.

Ms. Mesterhazy summarized tips and resources for TSRs and the roles of the City, PAUSD, and PAPD.

## **5. SRTS Breakout Sessions**

- Back to School Walk/Bike Safety Events

TSRs shared information and concerns regarding bike racks, crossing guards, parents parking in neighborhoods around schools, and vehicles parking in bike lanes.

Mr. Palma noted that online educational programming is not quite as good as hands-on learning.

TSRs suggested priorities for maintaining high rates of active transportation.

- Safe Routes to School as a Climate Change Prevention Strategy

TSRs commented regarding the City encouraging the use of electric cars vs. bikes, ways that active transportation benefits the environment, Complete Streets projects supporting all road users, and the need for more transit options and regional efforts. TSRs provided their priorities to support SRTS as a climate change prevention strategy and actions that the City, PAUSD, and PTA can take to support the priorities.

## **6. SRTS Breakout Session Report-Out**

Nicole Zoeller reported that the City could encourage active transportation rather than electric vehicles, provide more public transportation options, associate climate change with everyday events, implement Complete Streets and Bicycle and Pedestrian Transportation Plan projects, and coordinate connections across the region. PAUSD could restore the sustainability coordinator position and adopt an SRTS policy. The PTA could advocate for active transportation in messaging.

Ria Lo indicated that the group proposed actions to restrict U-turns near elementary schools, allow students to use the closest entryway rather than designated entryways, update crossing guard locations on SRTS maps, ensure crossing guards are located at primary intersections, provide more and new bike racks, coordinate practice rides and bike trains, provide incentives for younger students, and provide bike education.

## **7. Meeting Adjourns**

Meeting adjourned at 12:00pm.

# Pedestrian and bicyclist crash report for Palo Alto, 2010-2019

Arnout M.P. Boelens

September 14, 2021

**In a sustainably safe road traffic system ...**

**... the road and the vehicle protect you and those around you against major traffic hazards ... traffic professionals work together and check one another to achieve a maximally safe result ... the road is intended to facilitate traffic flow or exchange across traffic, but not both ... every child can safely walk or cycle to school, thanks to proper neighbourhood planning, a safe road lay-out, safe speeds, and being sufficiently physically protected ... the older road user understands how the traffic system is intended to work and can thus safely operate in traffic situations ... the government accepts ultimate responsibility for a casualty-free traffic system ... unsafety and each party's responsibility in connection with it are acknowledged and acted on using a risk-based approach ... all fatal crashes are investigated to establish why things still go wrong. [19]**

## 1 Introduction

This report analyses pedestrian and bicyclist crash data for the City of Palo Alto during the years 2010-2019. This time span is recent, but excludes the COVID-19 pandemic and the associated changes in travel patterns. In addition, this time span is long enough to gather reasonable statistics. The data used in this report comes from different academic studies and the Transportation Injury Mapping System (TIMS) [16], which is maintained by the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley. The data in TIMS is the same data as the Statewide Integrated Traffic Records System (SWITRS) data of the state of California [4], but it is geocoded for easier mapping.

## 1.1 Crash reporting

The crash data in the SWITRS database is from police reports, which means that two caveats have to be mentioned: (i) pedestrian and bicyclists crashes are seriously under reported in police reports [18, 10, 7], and (ii) a police officer is no medical professional. A quick analysis of the level of injury at the crash scene is not the same as a full medical evaluation at a hospital [12]. For this reason crashes severity is only listed as severe or non-severe in this report, where severe is defined as severe or fatal as used in the SWITRS database and non-severe all other crashes. The under reporting of crashes means that probably many more crashes happened in the period 2010 -2019 than are reported in this report. This includes solo bike crashes that did not involve any other vehicles, which can make up up to 60% of all bicycle crashes in hospital crash data [20].

## 1.2 Normalization

Another difficulty in the analysis of pedestrian and bicycle crash data for Palo Alto is the normalization of the data. To accurately compare the number of crashes between different areas, one needs to know how many miles are traveled per mode of transportation. Generally, this data is not available. When its is available [17], short trips, and thus active transportation modes, tend to be undercounted in travel surveys [11].

To compare crashes between different intersections, one needs to know the volume per mode. This data is generally also not available. However, there is a recent study funded by Caltrans to model the pedestrian exposure along their roads [9]. This makes it possible to rank the intersections along El Camino Real for pedestrian safety.

In a couple of figures in this report the crash data is presented by age group. Figure 1 shows the age distribution of the population of Palo Alto (2019) and is provided as a reference. The data comes from the American Community Survey (ACS) 2015-2019. However, the mode share in each age group is not known. Neither does this figure take into account all the students living on the Stanford University campus who go to Palo Alto regularly, or all the workers who commute to Palo Alto for their work [5].

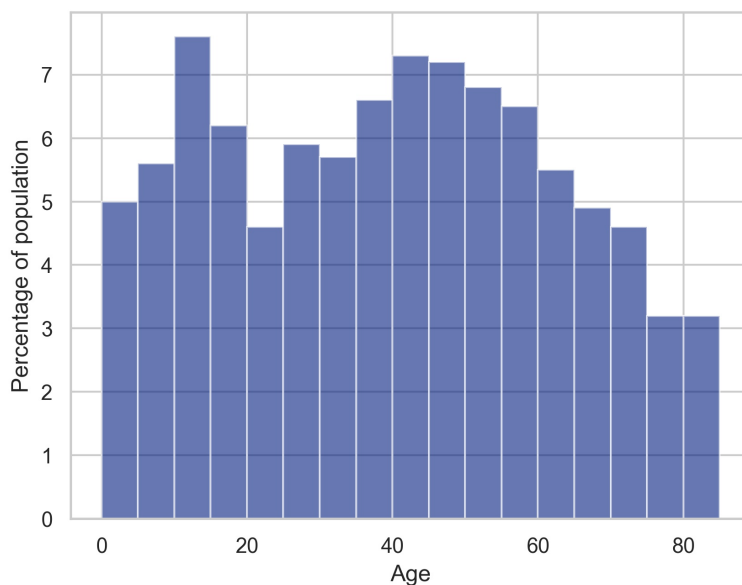


Figure 1: Age distribution of the population of Palo Alto (2019). From American Community Survey (ACS) 2015-2019.

## 2 Pedestrian road safety

### 2.1 Overall safety

A first question one can ask is how does Palo Alto perform on pedestrian road safety compared to other towns and cities in California. The California Office of Traffic Safety (OTS) releases a crash ranking and Palo Alto scores quite poorly, with a score of 19/102 in 2018 [14]. However, this crash ranking illustrates the importance of selecting the right denominator to normalize crash data. The OTS crash ranking uses vehicle miles traveled (VMT) to compute the exposure of pedestrians, which is a very poor choice. If everyone only walks and bikes, there would be no vehicle miles traveled, and the ranking would go to infinity. This creates an artificially high collision rate for pedestrians and bicyclists and results in a poor ranking for towns like Palo Alto.

Figure 2 and Figure 3 show the results of a study which normalizes pedestrian crash data with pedestrian kilometers traveled [17]. Using data from the 2010-2012 California Household Travel Survey (CHTS) a model is created that estimates the pedestrian kilometers traveled per census tract.



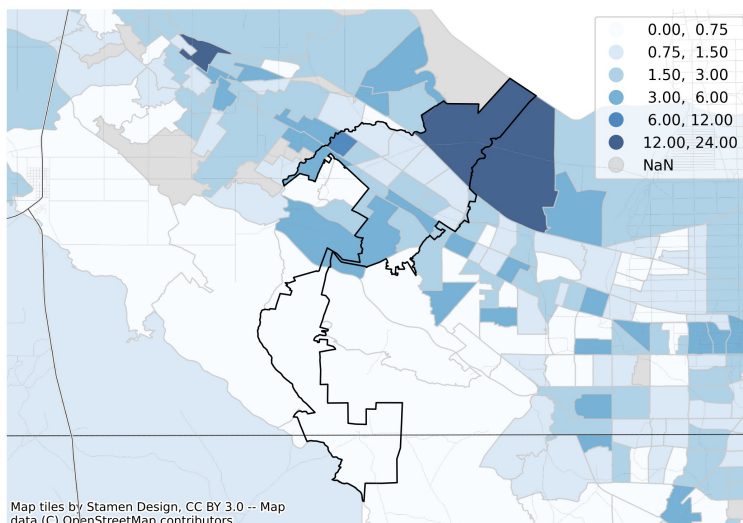


Figure 2: Non-severe pedestrian crashes per million km traveled walking. In the light gray census tracts not enough data is available to estimate the kilometers walked. The Palo Alto city limits are shown in black. The data in this plot comes from Reference [17].

This data is combined with crash data from TIMS to compute the non-severe (Figure 2) and severe (Figure 3) pedestrian crashes per million km traveled walking. Severe is defined as a crash that results in severe injury or death, and non-severe is defined as all other crashes. Information on the severeness of a crash is present in the SWITRS database. Since the model computes kilometers traveled per census tract, it does not make good predictions for areas where a lot of people visit compared to their population. This includes locations like the Baylands, Foothills Park, Stanford Research Park, Downtown, and California Ave. However, for other areas the model allows for a comparison of the road safety between Palo Alto and neighboring communities. The Palo Alto city limits are shown in black.

Looking at non-severe injuries, Figure 2 suggest that Palo Alto’s road safety for pedestrians is slightly worse than neighboring communities. The difference being, that census tracts with a rate of 0.0 – 0.75 crashes per million km are more common outside of Palo Alto. For severe injuries, Figure 3 indicates that Palo Alto’s road safety for pedestrians is slightly better than neighboring communities. Census tracts with a rate of 2.0 – 4.0 crashes per million km seem more common outside of Palo Alto. Overall,

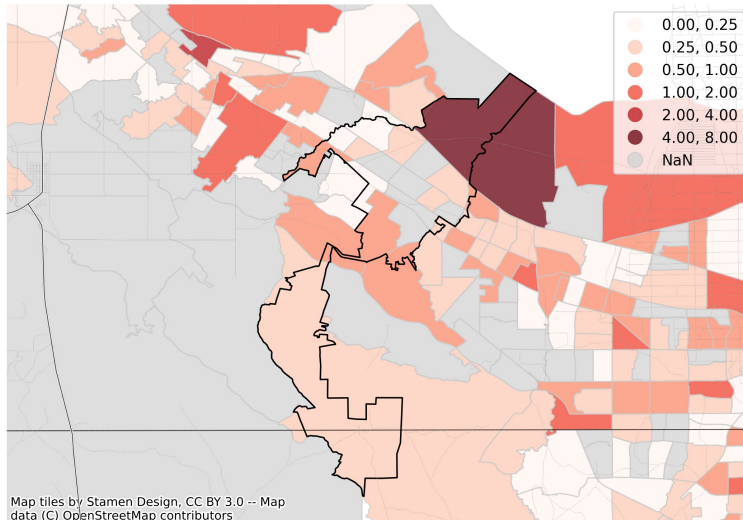


Figure 3: Severe pedestrian crashes per million km traveled walking. In the light gray census tracts not enough data is available to estimate the kilometers walked. The Palo Alto city limits are shown in black. The data in this plot comes from Reference [17].

Palo Alto does a lot better on pedestrian road safety than its OTS crash ranking suggests.

How do these numbers fit in a broader context? Figure 4 shows the the pedestrian fatality rate per million kilometers walked for the US, UK, Germany, Denmark, and the Netherlands [3]. One can see that in the last two decades there were about 0.11 pedestrian fatalities per million km walked in the US. For Palo Alto the TIMS data show that in the period from 2010 to 2019 there were 26 severe crashes, of which 10 were lethal. This means that about 2/5 of the severe pedestrian crashes were lethal. The interval of 0.0 – 0.25 severe crashes translates to about 0.0 – 0.1 lethal crashes per million km walked, the interval of 0.25 – 0.5 severe crashes translates to 0.1 – 0.2 lethal crashes, etc. The census tracts with 0.25 – 0.5 severe crashes per million km walked are thus likely to be above the US average. Internationally, the comparison is much worse [3]. For example, Figure 4 shows that the UK had 0.022 pedestrian fatalities per million km walked and Germany had 0.014 pedestrian fatalities per million km walked in the years 2016–2018. It is about 7 times safer to walk in the UK, and 10 times safer to walk in Germany, both countries with a very strong car culture, than it is in some

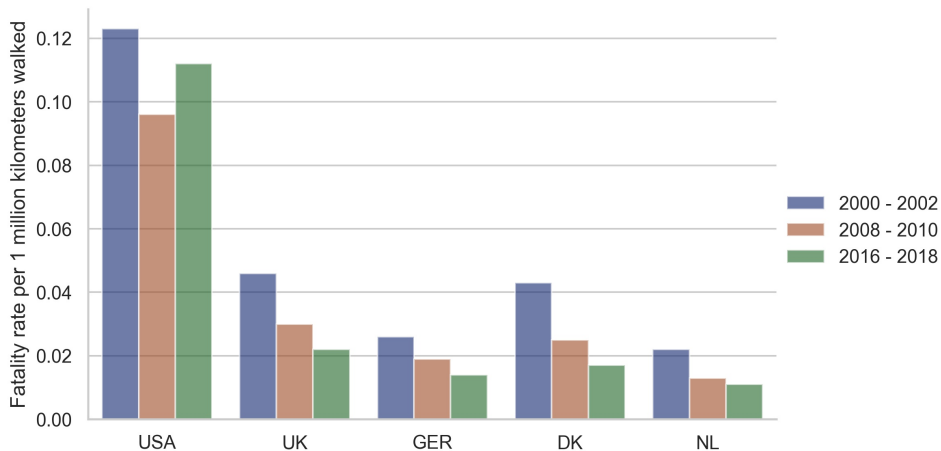


Figure 4: Pedestrian fatality rate per million kilometres walked in the USA, the UK, Germany, Denmark, and the Netherlands, 2000–2018 [3].

neighborhoods of Palo Alto.

## 2.2 High crash areas and corridors

Where do these pedestrian crashes occur? Figure 5 shows the probability density map of pedestrian victims, 2010-2019. The integral of the probability density map over all of Palo Alto is one. The color map indicates the probability of pedestrian crash victims per meter squared. Downtown has the highest pedestrian crash probability in Palo Alto. Whether this is due to a large amount of pedestrian traffic or whether this area is also relatively unsafe is impossible to say without pedestrian traffic count data. The fact that University Ave is both a shopping street and a thoroughfare for motorized traffic does not help from a safety perspective. In a sustainably safe road traffic system a road is intended to facilitate traffic flow or exchange across traffic, but not both [19].

California Ave is another area with a heightened crash probability. However, not at the same levels as downtown. Other corridors that stand out are El Camino Real, Middlefield Road, and Embarcadero Road. These are all high-speed, multi-lane, thoroughfares designed only for cars. Apart from the mayor intersections and Downtown, Alma St does not stand out as a crash corridor for pedestrians. Since the design of Alma does not differ significantly from other mayor thoroughfares in town, this can most likely be attributed to a lack of destinations and thus pedestrian traffic along this

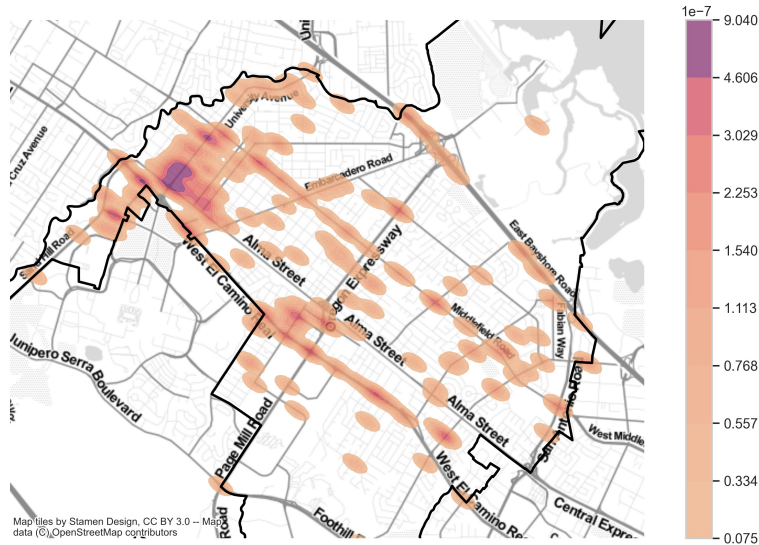


Figure 5: Probability density map of pedestrian victims, 2010-2019. The integral of the probability density map over all of Palo Alto is one. The color map indicates the probability of a pedestrian crash per meter squared.

corridor. In addition, due to the presence of the train tracks all destinations along Alma, are only on one side of the road. Lastly, the pedestrian crashes along 101 stand out. Both at the junction of Embarcadero/Oregon Expressway and south of Colorado. These crashes are responsible for the bad safety track record of the Baylands in Figures 2 and 3.

As mentioned before, for most of Palo Alto there is no data available on pedestrian traffic volumes and crash data cannot be normalized. However, this data is available for El Camino [9]. In this study, pedestrian traffic volumes are modeled along roads operated by Caltrans using counts and parameters that correlate with pedestrian traffic. The crash data are from TIMS and only crashes within 75m of the center of an intersection are considered. Figure 6 and Table 1 show the results for Palo Alto. Data for the intersection with Embarcadero Rd is not provided by this study. While all of El Camino is dangerous to pedestrians, the most hazardous intersections for pedestrians along El Camino are: Barron Ave, S California Ave, Sand Hill Rd, and Hansen Way. Like nearly all intersections along El Camino these intersections lack basic pedestrian safety measures, including median islands, bulb-outs to look past parked cars, removal of slip lanes, and traffic signal phasing that prevents conflicts between pedestrians and motorized



Figure 6: Pedestrian crash victims per year per one million pedestrian crossings, 2010-2019. The most dangerous intersections are listed in Table 1.

<b>Intersection with El Camino</b>	<b>Victims</b>	<b>Volume</b>	<b>Rate</b>
Barron Ave	0.3	100000	3.00
S California Ave	0.4	180000	2.20
Sand Hill Rd	0.3	150000	2.00
Hansen Way	0.2	100000	2.00
Stanford Ave	0.3	220000	1.40
Oregon Expy/Page Mill Rd	0.5	390000	1.30
Oxford Ave	0.2	170000	1.20
Kendall Ave	0.1	86000	1.20
Wilton Ave	0.1	90000	1.10
Margarita Ave	0.1	99000	1.00
Military Way	0.1	100000	1.00
Shopping Center Way	0.1	120000	0.83
Quarry Rd	0.1	130000	0.77
Los Altos Ave/Cesano Ct	0.1	160000	0.63
Palo Alto Sq	0.1	170000	0.59

Table 1: List of the most dangerous intersections for pedestrians on El Camino Real, 2010-2019. Victims is the average number of pedestrian victims per year (TIMS). Volume is number of pedestrians crossing at an intersection per year [9]. Rate is the number of victims per year per one million pedestrian crossings.

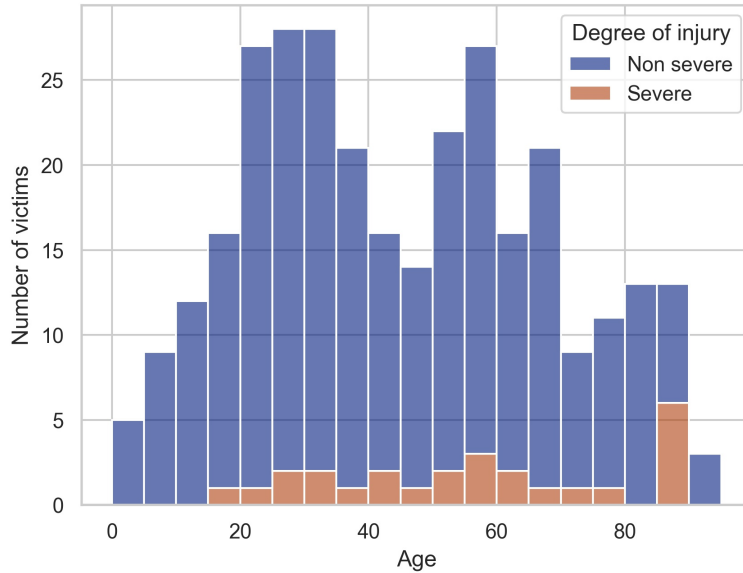


Figure 7: Age distribution of pedestrian victims, 2010-2019.

traffic.

### 2.3 Age distribution and crash times

In this last section on pedestrian road safety a closer look is taken at the TIMS data over the period 2010 - 2019. Figure 7 shows the age distribution of pedestrian crash victims. Comparing the age distribution of the population of Palo Alto in Figure 1 with the crash data age distribution, the age groups of 20 to 35 years and 50 to 60 years are overrepresented in the data. This is surprising because, as can be seen in Figure 8, in pedestrian fatality data of the US overall, these are not age groups that are at a higher risk [2]. However, Stanford University is nearby with lots of people in the 20 to 35 years age range and many people commute to Palo Alto for work, which could skew the age distribution. The high number of severe crashes for seniors, on the other hand, is consistent with the literature [2]. Figure 8 shows that during the years 2008-2009, in the US, 0.215 people of 65 and over got into a fatal pedestrian crash per million km walked, which is more than twice as high as the average over all age groups. The data for Germany shows that the same trends can be observed internationally, but at much lower fatality rates.

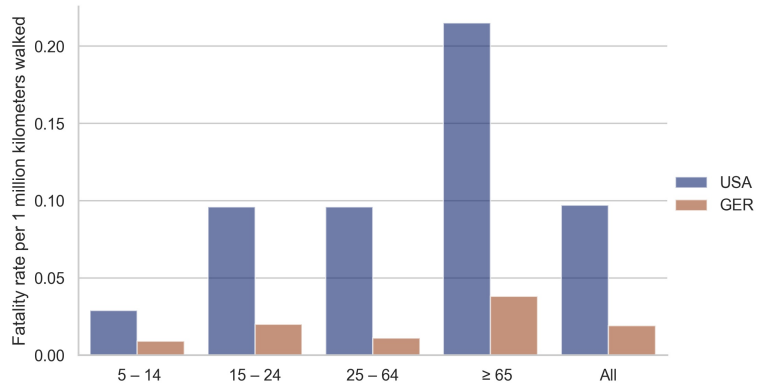


Figure 8: Pedestrian fatalities for different age groups per 1 million km walked in the USA and Germany, 2008-2009 [2].

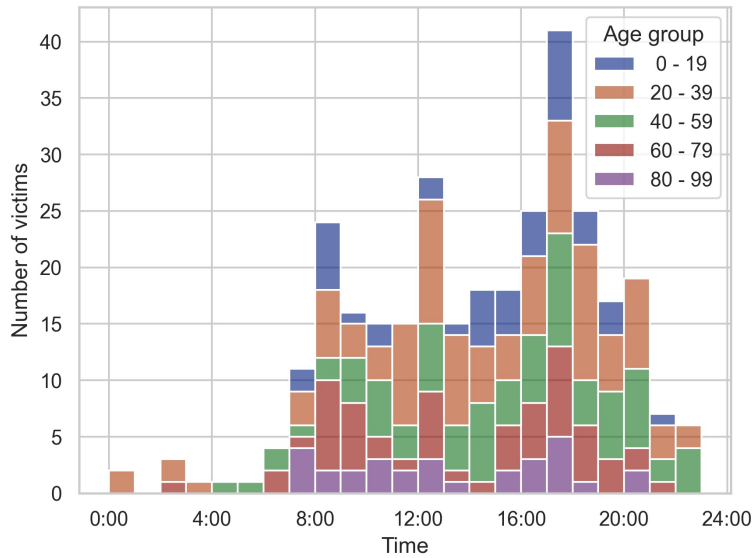


Figure 9: Time of crash by age group for pedestrians, 2010-2019.



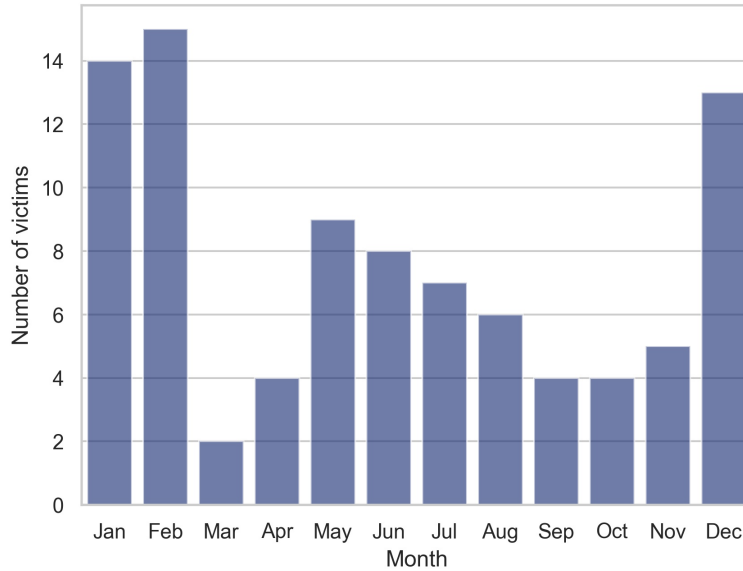


Figure 10: Crashes per month between 16:00h and 19:00h for pedestrians, 2010-2019.

Figure 9 shows the times at which pedestrian crashes occur for different age groups. There are three distinctive peaks in the data: the morning commute, lunch hour, and the evening commute. These are all times that one can expect both many people walking and driving. However, there are especially many crashes during the evening commute. On the shortest day of the year, December 21st, sunrise in Palo Alto is at 7:20, right before the morning rush hour, and sunset is around 17:00h, right in the middle of the evening rush hour. It is known from the literature that sun glare can negatively affect road safety [13]. To evaluate whether people being blinded by the sun and poor street lighting could be contributing factors in the evening commute crashes in Palo Alto, Figure 10 shows the crashes per month that happen between 16:00h and 19:00h for pedestrians. There is a large peak in the number of crashes for December, January, and February, which suggests that this could indeed be the case. The more modest increase of crashes in the summer months needs to be investigated further.

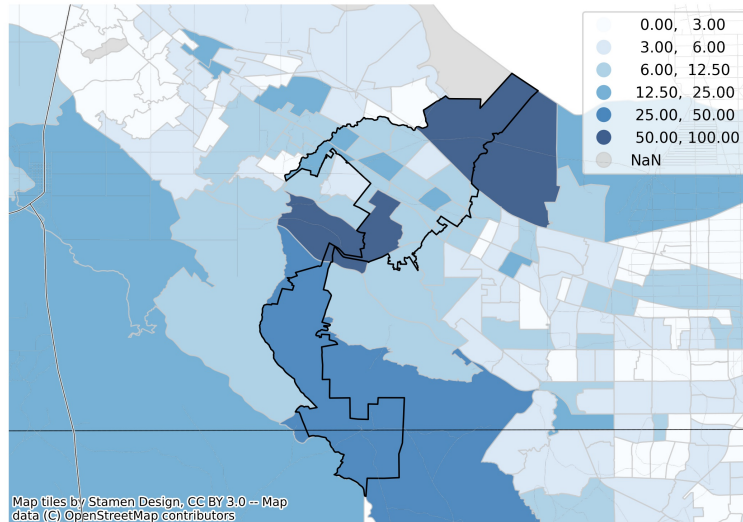


Figure 11: Non-severe bicyclist crashes per million km traveled cycling. In the light gray census tracts there is not enough data available to estimate the kilometers cycled. The Palo Alto city limits are shown in black. The data in this plot comes from Reference [17].

### 3 Bicycle road safety

In addition to the pedestrian ranking, the California Office of Traffic Safety (OTS) also releases a crash ranking for bicyclists. In 2018 Palo Alto’s ranked very poorly with a score of 2/102. The same study, cited above, that evaluates the pedestrian crash rate also analyzes bicyclist crash rates using kilometers bicycled [17]. The results are shown in Figure 11 and Figure 12. Again, severe is defined as a crash that results in severe injury or death, and non-severe is defined as all other crashes. Since the model computes kilometers traveled per census tract, it does not make good predictions for areas where a lot of people visit compared to their population. This includes locations like the Baylands, Foothills Park, Stanford Research Park, Downtown, and California Ave. The Palo Alto city limits are shown in black. Looking at non-severe injuries, Figure 11 suggest that Palo Alto’s road safety for bicyclists is worse than neighboring communities. Nearly all of Palo Alto is in the 6.0 – 12.5 crashes per million km cycled range, while outside of Palo Alto the 3.0 – 6.0 crashes per million km cycled range is more common. The results in Figure 12 are consistent with this finding. In

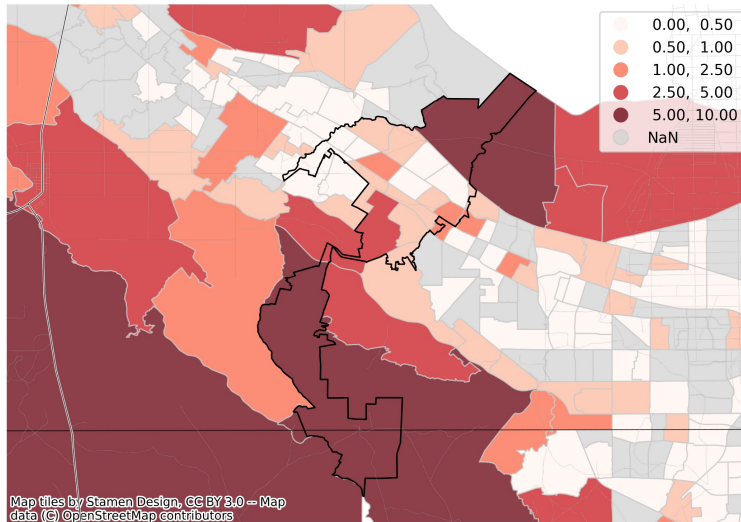


Figure 12: Severe bicyclist crashes per million km traveled cycling. In the light gray census tracts there is not enough data available to estimate the kilometers cycled. The Palo Alto city limits are shown in black. The data in this plot comes from Reference [17].

Palo Alto, neighborhoods with a crash rate of 0.5 – 1.0 crashes per million km cycled are quite common, while the range of 0.0 – 0.5 crashes per million km cycled is more common in Palo Alto’s neighboring communities. As a mitigating factor it has to be mentioned that one has to wonder whether the model fully captures the high mode share of Palo Alto Unified School District (PAUSD) students bicycling to school [6]. The distance they travel to and from school might not be fully captured by the California Household Transportation Survey (CHTS) and since their high bicycling mode share is unique in California, it might not correlate well with the parameters chosen in the model.

How do these numbers compare with US and international fatality rates? Figure 13 shows the bicyclist fatality rate per million kilometers cycled for the US, UK, Germany, Denmark, and the Netherlands [3]. In the last two decades there were about 0.06 bicyclist fatalities per million km cycled in the US. For Palo Alto the TIMS data show that in the period from 2010 to 2019 there were 33 severe bicycle crashes, of which 1 was fatal. This means that about 1/30 of the severe bicycle crashes were lethal. The interval of 0.0, 0.5 severe crashes translates to about 0.0, 0.016 lethal crashes per million

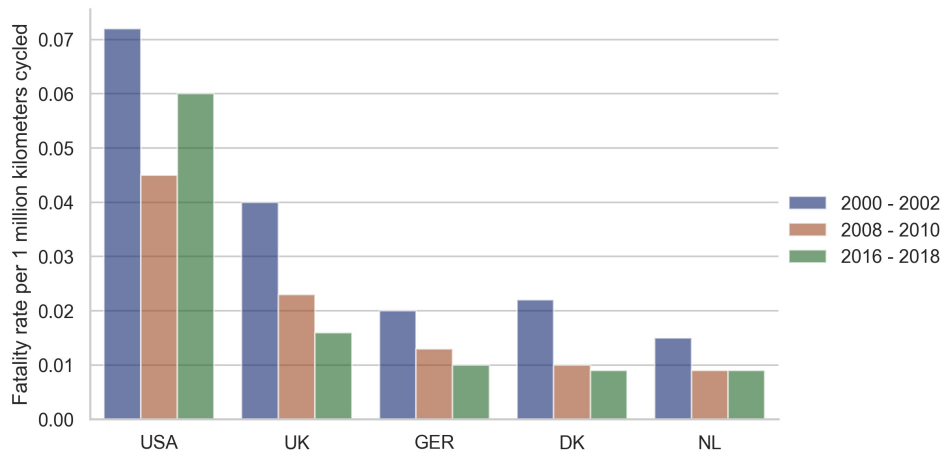


Figure 13: Bicyclist fatality rate per million kilometres cycled in the USA, the UK, Germany, Denmark, and the Netherlands, 2000–2018 [3].

km cycled, the interval of 0.5 – 1.0 severe crashes translates to 0.016 – 0.033 lethal crashes, etc. The census tracts with 0.5–1.0 severe crashes per million km cycled would thus be below the US average. However, only one fatality is a very small sample size. Internationally, the comparison is again less favourable for Palo Alto. For example, the UK had 0.016 bicyclist fatalities per million km cycled and Germany had 0.01 bicyclist fatalities per million km cycled in the years 2016–2018. It is about 1.5 times safer to ride in the UK and 2.5 times safer to ride in Germany than in some Palo Alto neighborhoods.

### 3.1 High crash areas and corridors

Figure 14 shows the probability density map of bicyclist victims, 2010-2019. The integral of the probability density map over all of Palo Alto is one. The color map indicates the probability of bicycle crash victims per meter squared. The crashes are distributed more evenly than the pedestrian crashes. However, several black spot areas and corridors can still be identified. The largest black spot is again downtown, an area with a lot of bicycle traffic and car traffic. Many black spots can also be found along El Camino Real (Sandhill, Embarcadero, California, El Camino Way, & Charleston), a high speed road designed for motorized vehicles. Charleston/Arastradero is another crash corridor (Los Palos, El Camino, Alma, Middlefield, Fabian), but the redesign should make this road safer in the future. Then there is

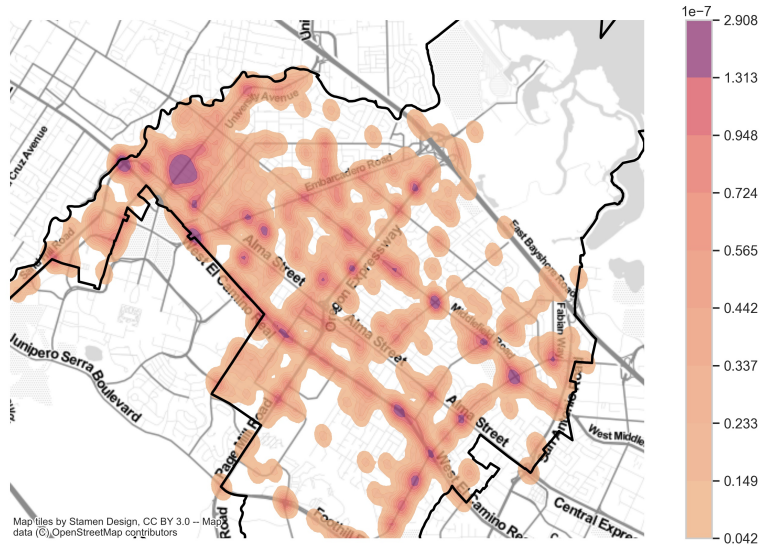


Figure 14: Probability density map of bicyclist victims, 2010-2019. The integral of the probability density map over all of Palo Alto is one. The color map indicates the probability of a bicycle crash per meter squared.

Middlefield road where all the black spots are in the 4 lane stretch in South Palo Alto (Colorado, Loma Verde, Meadow, & Charleston). Lastly, there are Oregon & Cowper, Oregon & Greer, Churchill & Castilleja, and a couple of black spots along Bryant (Churchill, Embarcadero, & California). Bryant is a mayor corridor for bicyclists, which is probably contributing significantly to large number of crashes there. However, it might also indicate that there is room for improvement from a road safety perspective.

### 3.2 Age distribution and crash times

Figure 15 shows the age distribution of bicycle crash victims. Comparing the age distribution of the population of Palo Alto in Figure 1 with the crash data age distribution, the age group of 10 - 20 years is very over represented. While there is no data available on how many kilometers each age group rides, a very rough estimate can be made using school and commute trips. The mode share of Palo Alto Unified School District (PAUSD) middle and high school students riding to school was between 40 and 60% during the years 2010 to 2019 [6], while the mode share of commute trips to and from Palo Alto was only 5% according to the 2011 to 2015 American Community

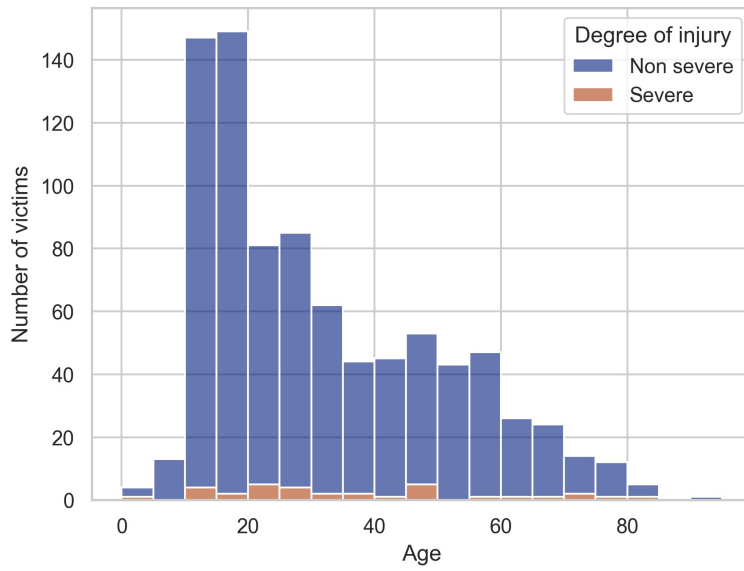


Figure 15: Age distribution of bicyclist victims, 2010-2019.

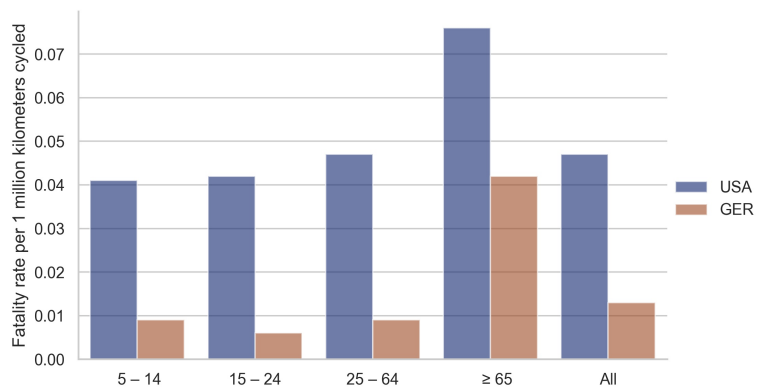


Figure 16: Bicycle fatalities for different age groups per 1 million km cycled in the USA and Germany, 2008-2009 [2].

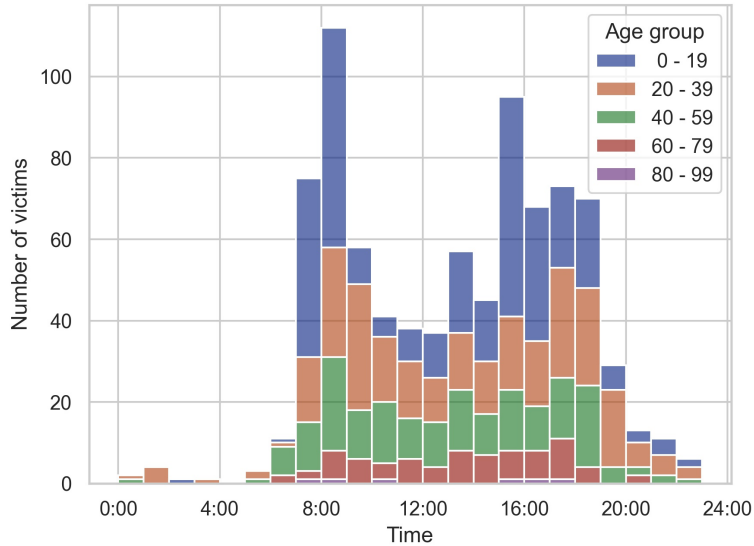


Figure 17: Time of crash by age group for bicyclists, 2010-2019.

Survey (ACS) [1]. Working adults make a total of about 70,000 trips to and from work a day [1], which comes down to  $700,000 \times 0.05 = 3,500$  bicycle trips a day. The age group of 18 to 66 years old was involved in 517 crashes during the years 2010 to 2019. PAUSD middle and high school students make about 14,000 trips a day [15], which results in about  $14,000 \times 0.5 = 7,000$  bicycle trips a day. The age group of 11 to 18 years old was involved in 277 crashes during the years 2010 to 2019. Assuming a similar distribution of trip distances for students and working adults, the ratio of crashes/trips a day for working adults,  $517/3500 = 0.15$  is higher than for PAUSD students,  $277/7000 = 0.04$ . As can be seen in Figure 16, this is consistent with the averages for the US as a whole [2]. In the years 2008-2009, 5-14 year olds had a fatality rate of 0.041 casualties per million km cycled. This number is lower than the overall averages of 0.047 casualties per million km cycled. On the other hand, Figure 16 shows that for adults of 65 and over there were 0.076 casualties per million km cycled in 2008-2009. This same trend is also observed for pedestrian fatality rates and can be observed internationally as well. Lastly, the age group of 20 to 35 years is also slightly over represented in the crash data. As is the case for the pedestrians, this could be due to the presence of Stanford University nearby.

Figure 17 shows the times at which bicyclist crashes occur for different

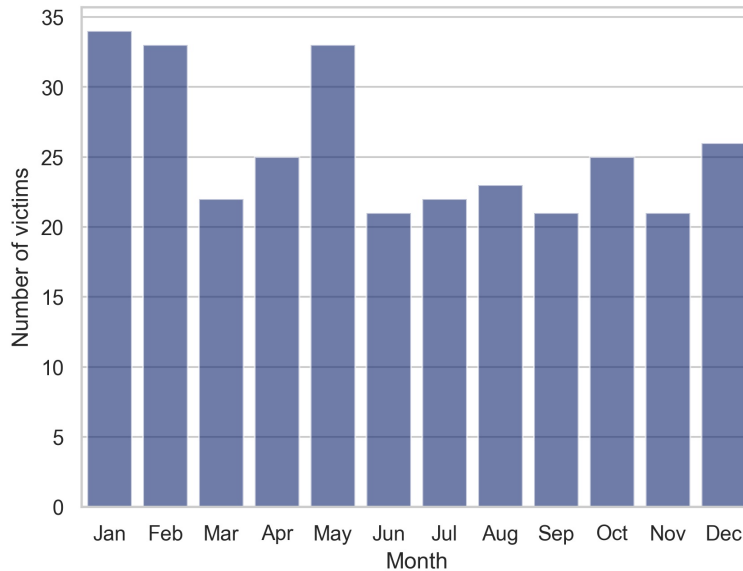


Figure 18: Crashes per month between 15:00h and 19:00h for bicyclists, 2010-2019.

age groups. This time there are two distinctive peaks in the data: the morning commute/ride to school ride, and the evening commute/ride from school. The morning commute peak is the highest peak. This could be caused by everyone being on the road at the same time in the morning, while in the afternoon commuters and students ride home at different times.

To evaluate any seasonal effects, Figure 18 shows the crashes per Month that happen between 15:00h and 19:00h for bicyclists. The trend is not as clear as the pedestrian data, but again there are more crashes in January, and February, suggesting that people being blinded by the sun and poor street lighting could be contributing factors. Like the pedestrian data, also a peak can be observed for May, which needs closer examination.

## 4 Conclusions & recommendations

This report shows that if the City of Palo Alto took road safety more seriously and had a safety track record like the UK, Germany or other western countries, many lives could have been saved over the last decade and many crashes prevented. Walking in Palo Alto is about as dangerous as neighboring communities, but likely more dangerous than the US average. In



addition, like the the rest of the US, internationally Palo Alto scores quite poorly. It is about 7 to 10 times safer to walk in the UK and Germany, respectively. Both of these are countries that have a very strong car culture. Cycling crash rates are higher in Palo Alto than in neighboring communities. This could be caused by the high bicycle mode share of PAUSD students. The fatality rate is below the US average, with the caveat of a small sample size.

To improve road safety, in the short term Palo Alto should make funding available to fix all the black spots in town. The main thoroughfares in town, including El Camino Real, Middlefield, Embarcadero, and Alma, have been safety hazards for pedestrians and bicyclists (and motorists) for decades. Every day that the city waits to fix these hazardous locations, more people will get injured or die.

In the long term the City of Palo Alto should adopt a Vision Zero or Sustainable Safety policy [19]. While traditionally Vision Zero relies heavily on the analysis of crash data, Sustainable Safety takes a more active approach and applies known safety principles during every step of an infrastructure project. The overarching principle is the acknowledgement that humans are vulnerable and make mistakes, but that mistakes should not lead to serious injury or death. All the details of a road safety policy for the City of Palo Alto should be worked out in collaboration with the community. As an example, for infrastructure design the working principles could include [8]:

**Functionality** Try to steer each road to be either a local street or a thru traffic road. Get rid of thru traffic on local streets. Limit driveways and parking, and segregate bikes on thru traffic roads.

**Homogeneity by Mass, Speed, and Direction** In a crash, it's better if the participants have a similar direction, mass, and speed. Lower speed limits and traffic calming on residential streets. Physically separate bikes from traffic on main roads.

**Recognizability** The self-explanatory road. Road design should make it obvious where to walk, ride, drive, and park.

In addition, a road safety policy for Palo Alto could include items such as:

- Every infrastructure project should include a safety report, explaining why the chosen design is the safest for all road users.
- Every fatal crash should be investigated by a traffic engineer to establish why things still go wrong.

- The repaving cycle should be used as an opportunity to implement safety improvements.
- Adopt design standards to reduce solo bicycle crashes. E.g. bicycle lanes should run up to the curb and minimize the use of bollards.

Overall, a culture change is needed at the Office of Transportation. Instead of Level of Service (LOS), road safety needs to come first in any infrastructure project.

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OOT Long Term Project Candidates Submitted by PABAC

Id	Description	Address	Date Created	Long Description
3359865	Add wayfinding signage and pavement markings such as sharrows and possibly a bike lane on Waverley from Bryant St to El Verano to Kipling to Cowper (SRTS).	3300–3376 Waverley St, Palo Alto, CA 94306	2017-10-25 13:30:54	Describe your request: The route from Bryant St. to El Verano to Kipling to Cowper is an important path to safely get students to Fairmeadow and JLS. Additional traffic calming measures along El Verano and Kipling. Additional Location Description for Request: Need to happen. Wayfinding signage and pavement markings such as sharrows and possibly a bike lane would help drivers see that this is a school route. In the long term roundabouts on El Verano and Waverley or El Verano and South court would also be helpful.
9891976	Move forward on NTSBB2. Remove stop sign at Maclane & 2nd as per concept plan	4009 2nd St, Palo Alto, CA 94306, USA	4/15/2021 5:09:15 PM	Describe your request: PABAC move forward on NTSBB2 so that stop sign at Maclane & 2nd can be removed as per concept plan Additional Location Description for Request: 230 Maclane Ave
10226118	Create database of bicycle signal locations and their operational status.	3508 El Camino Real, Palo Alto, CA 94306	2021-06-13 11:32:45	Additional Location Description for Request: All street intersections which have traffic signals Describe your request: PABAC. Bicycle roadway signals should be at virtually all signalized intersections. Please create database of streets at signalized intersections in Palo Alto where bicycle signals in roadway (in bike lanes or in street) are (1) in place and working, (2) in place and not working, and (3) missing.
10432551	Create design standards for Bicycle Boulevards	Palo Alto, CA, Palo Alto, CA	2021-07-15 15:22:35	Describe your request: PABAC For Bike Plan Update: create design standards for Bicycle Boulevards. Currently these have only 'functional' definition Additional Location Description for Request: Park Blvd, Maybell Ave and other potential new Bicycle Boulevards
10597552	Add chicane or raised crosswalk to WB Embarcadero offramp	1141 High St, Palo Alto, CA 94301, USA	2021-08-11 08:01:41	Additional Location Description for Request: Embarcadero Rd & High St Describe your request: PABAC: Hazardous location for pedestrians and bikes. Cars leave Embarcadero Rd at high speed and do not use their signals. Traffic calming needed. E.g. chicane and or raised crosswalk.
10597784	Remove slip lane at Palo Alto Ave/Alma/ECR	12 Palo Alto Ave, Palo Alto, CA 94301, USA	2021-08-11 08:19:53	Additional Location Description for Request: El Camino & Palo Alto Ave Describe your request: PABAC: Hazardous location for bicyclists as they have to cross the on-ramp from Palo Alto Ave/Alma onto El Camino. This should be turned into a normal intersection without a slip lanes for cars.
10597851	Install bicycle lanes at Palm Dr/Univ. Ave/ECR	30 Palm Dr, Palo Alto, CA 94301, USA	2021-08-11 08:25:24	Describe your request: PABAC: Hazardous location for pedestrians and bicyclists. There is no proper connection between University Ave and Palm Drive for pedestrians and there is no bicycle infrastructure. Remove slip lanes, install bicycle lanes. Additional Location Description for Request: Palm Drive/University Ave/El Camino
10597925	Reduce speed limit to 20 mph citywide.	2530 Webster Ct, Palo Alto, CA 94301, USA	2021-08-11 08:31:02	Describe your request: PABAC: 20 is plenty. Speed limit on all residential roads should be reduced to 20 mph. Above 20 mph the risk of death increases rapidly when a motorized vehicle hits a pedestrian or bicyclists.
10598032	Close Univ. Ave. Implement traffic calming and ped scramble phasing in rest of downtown.	259 University Ave, Palo Alto, CA 94301, USA	2021-08-11 08:38:33	Additional Location Description for Request: Downtown area Describe your request: PABAC: Downtown is a hazardous area for both pedestrians and bicyclists (partly because there are many people walking and riding there). A through way and shopping street are non-compatible uses of University Ave and it should be closed for through traffic. Also, implement traffic calming and bicycle/pedestrian scramble signal
10598577	Improve safety at Bryant/Embarcadero	305 Melville Ave, Palo Alto, CA 94301, USA	8/11/2021 9:19:25 AM	Additional Location Description for Request: Bryant & Embarcadero Describe your request: PABAC: Crash hotspot for bicyclist (lots of bicycle traffic here). Closer study of crash reports needed. Median island would probably help slow down cars & would reduce number of lanes that have to be crossed at once.

OOT Long Term Project Candidates Submitted by PABAC

10598624	Implement protected intersection at Cal Ave/ECR	El Camino Real and California, Palo Alto, CA 94306, USA	8/11/2021 9:24:13 AM	Additional Location Description for Request: Cal Ave & El Camino Describe your request: PABAC: Hazardous intersection. Needs to be turned into a protected intersection with wide median islands and traffic signal phasing that prevents motorized traffic intersecting with pedestrian and bicycle traffic.
10598671	Implement protected intersection at ECR/EC Way.	2951 El Camino Way, Palo Alto, CA 94306, USA	2021-08-11 09:28:18	Describe your request: PABAC: Crash hotspot for bicyclists. Needs to be turned into protected intersection with wide median islands and traffic signal phasing that eliminates conflicts between motorized traffic and bicycles. Additional Location Description for Request: El Camino Way & El Camino Real
10598777	Install slow-speed frontage roads on ECR	2951 El Camino Real, Palo Alto, CA 94306, USA	2021-08-11 09:38:19	Additional Location Description for Request: All of El Camino Describe your request: PABAC: El Camino is a stroad. It's use as a road (highway) and a street with many destinations is incompatible. Install frontage roads on both sides (e.g. Oregon Expressway). This would improve the flow of traffic and increase safety on El Camino by reducing access points. Design frontage roads for low speed so they are also suitable for bicyclist and install wider sidewalks.
10598816	Reduce collisions at Charleston/Middlefield	CHARLESTON and MIDDLEFIELD, Palo Alto, CA, USA	2021-08-11 09:40:56	Describe your request: PABAC: Crash hotspot for bicyclists. Will hopefully be resolved with Arastradero/Charleston Phase 3. Could be further improved by installation of protected intersection. Additional Location Description for Request: Middlefield/Charleston
10598861	Improve signals and add medians to Middlefield/Colorado	Middlefield/Colorado, Palo Alto, CA, USA	2021-08-11 09:44:34	Additional Location Description for Request: Middlefield & Colorado Describe your request: PABAC: Crash hotspot in last pedestrian and bike plan. Install median islands and signal phasing that eliminates conflict between pedestrians and cars. Also, install better lighting.
10602542	Bring Cal Ave tunnel up to modern standards	California Ave. Station, 101 California Ave, Palo Alto, CA 94306, USA	2021-08-11 15:41:41	Additional Location Description for Request: California Ave & Alma Describe your request: PABAC: The Cal Ave tunnel is way too narrow and not ADA compliant. New tunnel should have separate bicycle lane and sidewalk.
10602547	Bring Oregon Expwy Bike/Ped bridge up to modern standards	2391 Sierra Ct, Palo Alto, CA 94303, USA	2021-08-11 15:43:33	Additional Location Description for Request: Oregon Expressway & 101 Describe your request: PABAC: Oregon Expressway bridge is way too narrow and too steep. Not ADA compliant.
10603051	Add names and wayfinding signage to all multi-use paths	935 Matadero Ave, Palo Alto, CA 94306, USA	2021-08-11 16:47:50	Additional Location Description for Request: "Wherever a bike path meets a street and voice navigation instructions from Apple or Google Maps will say "Turn left at the [unnamed] bike path". There is an instance of this at the Wilkie Bridge which recently has gained a sign that says "Peninsula Bikeway". Apple Maps gives the instruction "Turn left onto Peninsula Bikeway". The corroborating sign at the bridge end makes it easy to see the path. Something analogous for the "Cesano Bike Path" (if it were so named and signed) would make it much easier to find than the present "Turn left onto the bike path". Imagine in a car "Turn left onto the street"." Describe your request: PABAC. Name and add wayfinding signs to all bike paths, e.g. entrance to Bol Park path at Matadero/Laguna, Caltrain at station, Churchill, Homer, Town & Country, etc.

OOT Long Term Project Candidates Submitted by PABAC

10646037	Close gaps in Bay Trail within city borders	Geng Road & Embarcadero Road, Palo Alto, CA, USA	2021-08-17 17:33:19	<p>Describe your request: PABAC When the BPTP is updated, among the things which should be considered is the priority of gaps in the Bay Trail within Palo Alto's borders. Currently, there is a gap between {Geng Rd &amp; Embarcadero Rd} and either the end of Faber Pl or across from the junction of {East Bayshore Rd &amp; the bike/ped bridge over Hwy-101}. That is, one may enter Palo Alto from either Mountain View or East Palo Alto and ride on the Bay Trail until one approaches Embarcadero Rd. Then, one is forced to leave the Class I bicycle facility and traverse city streets, potentially passing through the challenging intersection of East Bayshore and Embarcadero Roads. Correspondingly, a user of the bike/ped bridge over Hwy-101 heading toward the Dumbarton Bridge is forced to traverse city streets before accessing the Bay Trail at the end of Geng Rd. thank you for considering this gap to be closed, Ken Joye chair, PABAC end of Geng Rd: end of Faber Pl: junction of East Bayshore Rd &amp; the bike/ped bridge over Hwy-101:</p> <p>Additional Location Description for Request: E. Bayshore and the 101 bike/ped bridge at Oregon/Embarcadero</p>
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