



# Bicycle and Pedestrian Transportation Plan Update

Planning and Transportation  
Commission Meeting #2

March 27, 2024

[www.cityofpaloalto.org](http://www.cityofpaloalto.org)

## Meeting Purpose & Agenda

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**Purpose:** Share analysis and get your feedback on the initial findings to inform project recommendations and priorities for investment.

### Agenda

- Overview of Analysis Findings
- Community Engagement Summary
- Draft Vision & Objectives
- Next Steps

# Meeting #1 Recap

What we heard	What we did/are doing
Comments on existing facilities map	Incorporated comments and prepared final map
Appreciation for the interactive map tool. Request to extend timeline the timeline	Extended timeline for interactive map by one month & considering use of the map tool for future phase of engagement
Need to expand range of performance measures beyond those identified in the Bicycle Friendly Community application	Developing performance measures specific to this BPTP Update. Seeking your feedback on those measures now.
Need for a glossary and definition of key terms (e.g., path vs trail)	Drafting glossary of key terms

## Meeting #2 Feedback Requests

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- Review and provide comments by Fri. April 12, 2024
  - **Vision, Objectives & Performance Measures**
    - Do these statements and measures align with your commission's goals and priorities?
    - Where is there alignment? Where might there be conflict? What is missing?

Email comments to [transportation@cityofpaloalto.org](mailto:transportation@cityofpaloalto.org)

# Technical Analysis

# Baseline Conditions - Analysis Topics

Policy, Program, & Facilities Inventory	Bicycle Level of Traffic Stress	Barriers	Safety & Collisions	Activity & Benefits
<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Update inventory of facilities, programs and policies</li><li><input checked="" type="checkbox"/> Conduct Bicycle Friendly Community assessment.</li></ul>	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Evaluate the bicycle level of traffic stress on segments and crossings within the City.</li></ul>	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Identify major barriers.</li><li><input checked="" type="checkbox"/> Estimate out-of-direction travel required.</li></ul>	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Analyze collision data to identify patterns and trends.</li><li><input checked="" type="checkbox"/> Conduct network screening to identify high risk locations and corridors.</li></ul>	<ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Analyze existing walking, biking, and rolling activity.</li></ul> <p>Identify locations that would benefit most from investment.</p>



indicates task completed and presented in Meeting #2

indicates task completed and presented in Meeting #1

# Bicycle Level of Traffic Stress



# Bicycle Level of Traffic Stress

Decreasing Level of Comfort In Bicyclists



**LTS 1**

Bryant Street  
at Lowell Avenue



**LTS 2**

Los Robles Avenue  
at La Donna Avenue



**LTS 3**

Loma Verde Avenue  
at Middlefield Road



**LTS 4**

San Antonio Road  
at Middlefield Road



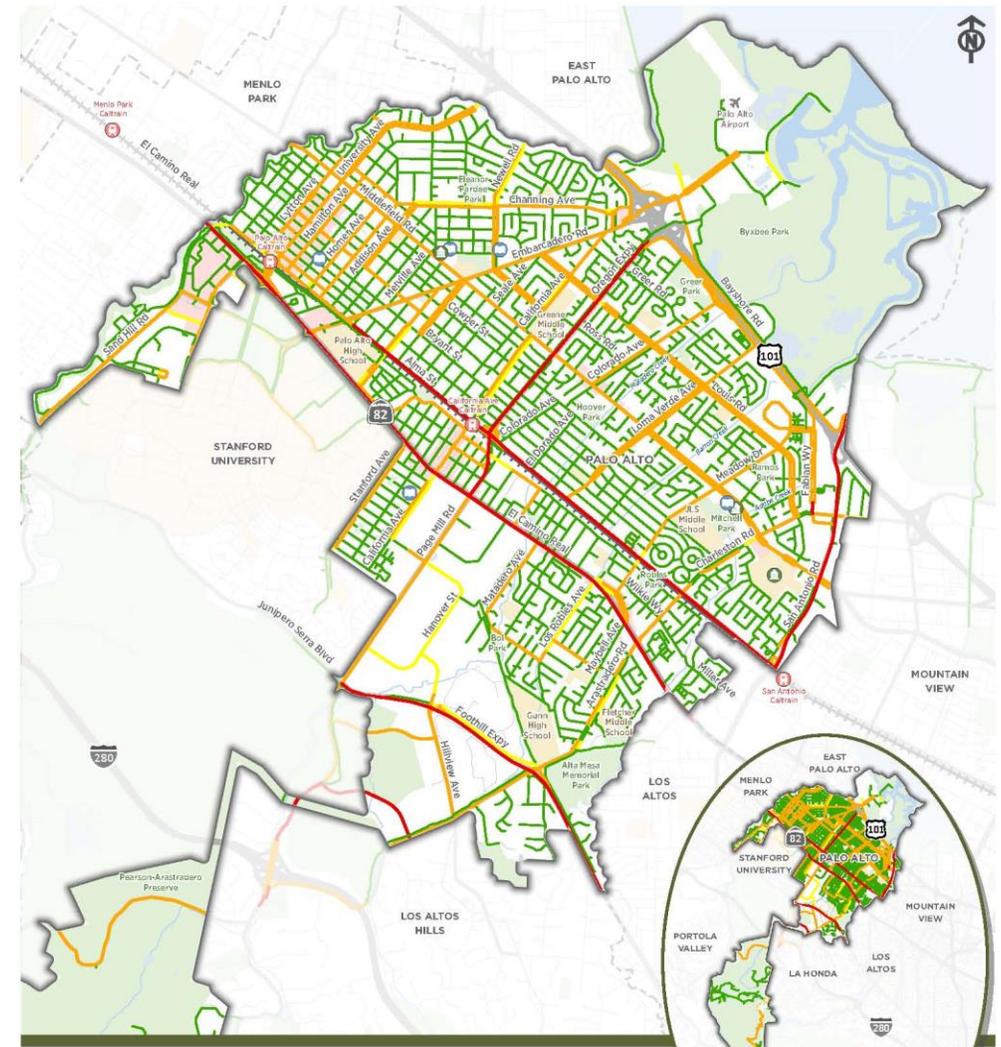
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# Bicycle Level of Traffic Stress

- Highest stress roadway segments located on
  - El Camino Real
  - Alma Street
  - Oregon Expressway
  - San Antonio Road
  - Foothill Expressway
- Low stress (LTS 1 and LTS 2) streets make up 68% of street miles in Palo Alto
- High stress segments and intersections create barriers



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**Note:** Split lines are only used for roadways with different conditions per direction (for example: bike lane in only one direction or parking only on one side), otherwise all roads are shown with only a centerline.

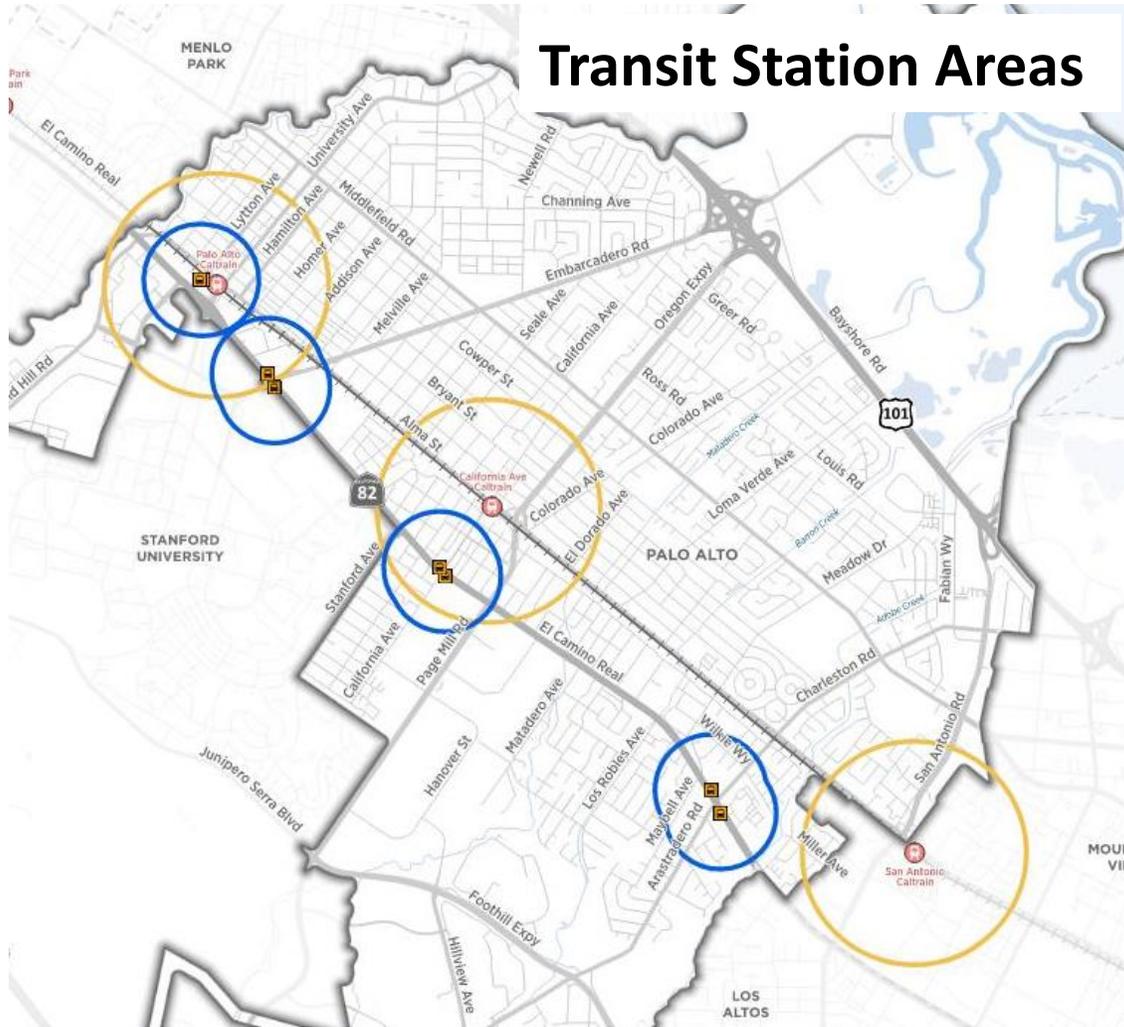
0 1 2 Miles

Data Sources: City of Palo Alto, MTC

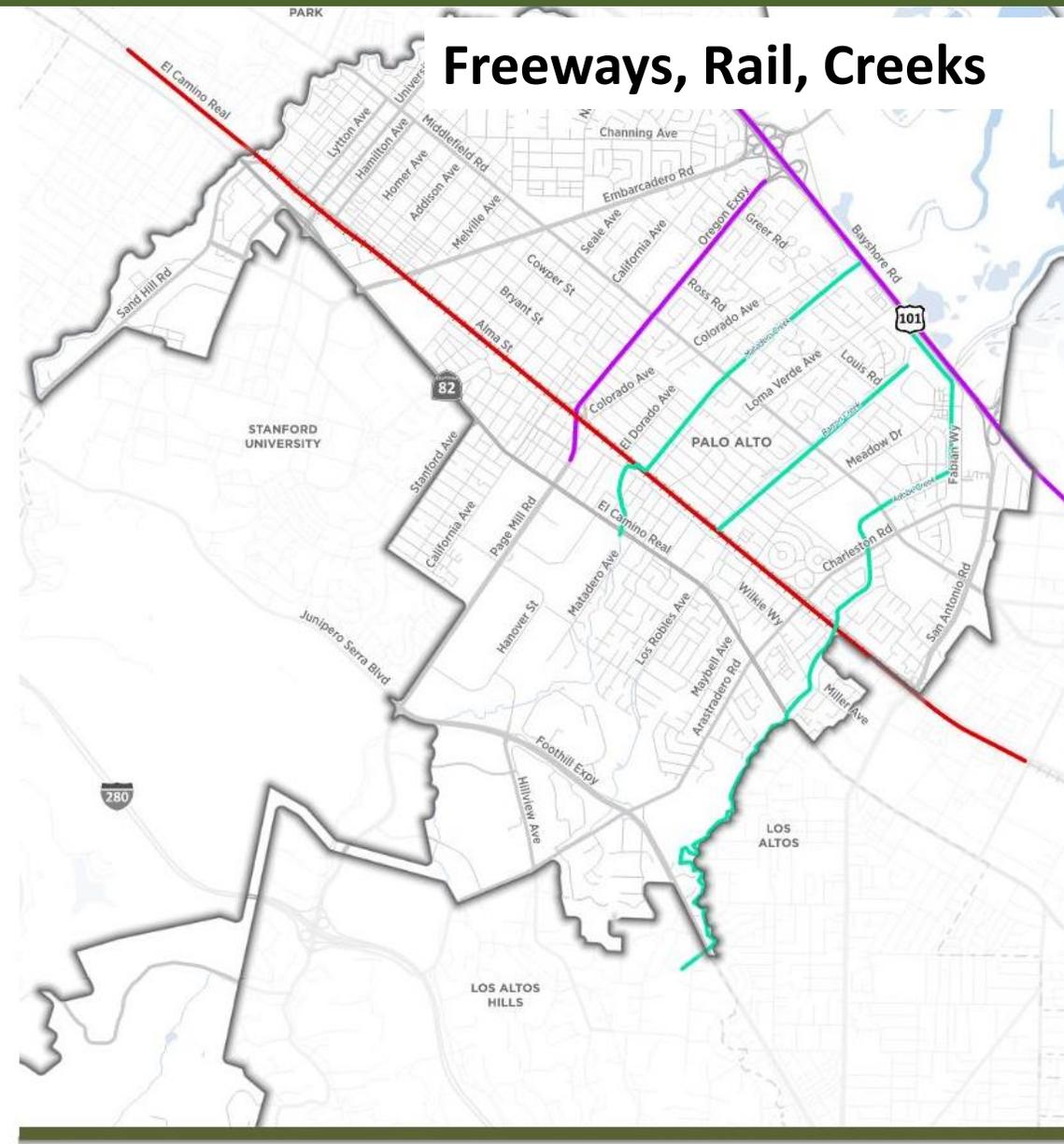


# Major Barriers – Analysis Locations

## Transit Station Areas



## Freeways, Rail, Creeks



# Major Barriers – Analysis Example

- **US 101 Barriers Evaluation**
  - Lack of crossing opportunities
  - Results in ~4x increase in travel distance
  - Most significant gap between the walking and biking bridges
  - Limited access to Adobe Creek Loop Trail



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#### Barrier Detour

- Up to 1.25x Detour
- 1.25x - 1.75x Detour
- 1.75x - 2.00x Detour
- 2.00x - 4.00x Detour
- More than 4.00x Detour

#### Available Barrier Crossing Locations

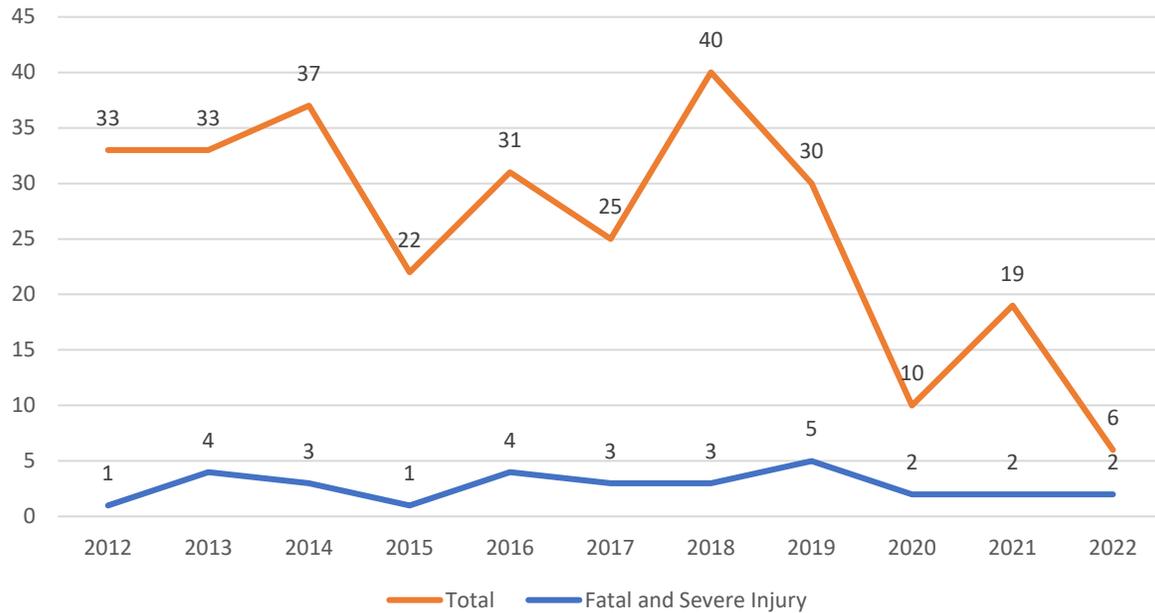
- Level of Stress 1
- Level of Stress 2
- Level of Stress 3
- Level of Stress 4

0 1 2 Miles

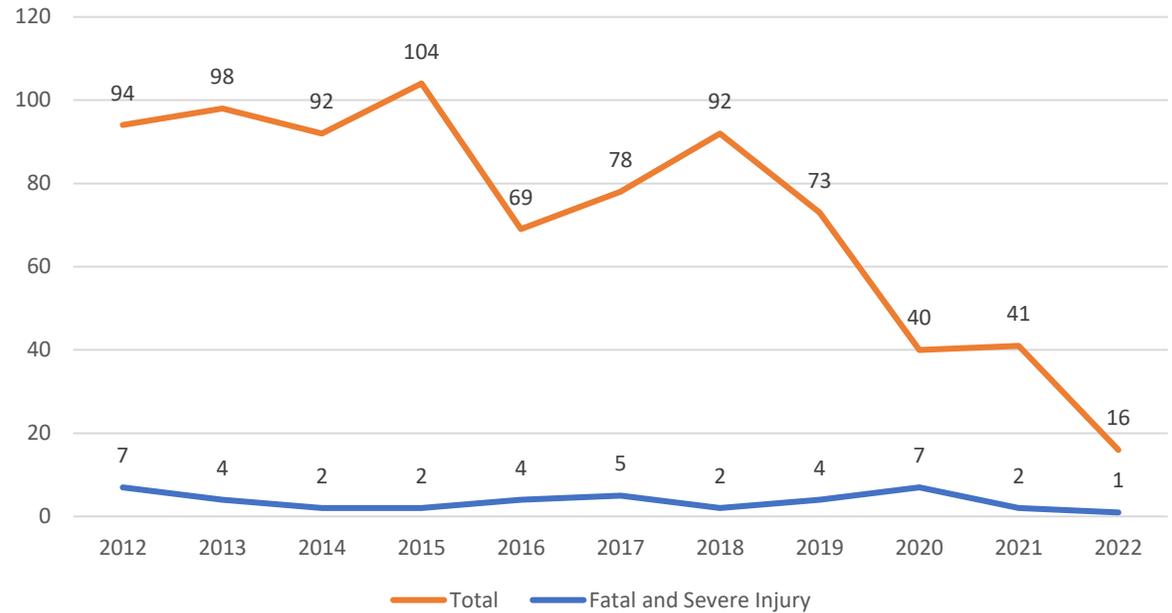


# Ten-Year (2012-2022) Collision History

### Pedestrian Collisions



### Bicycle Collisions



General decrease in the number of pedestrian- and bicycle-involved collisions over the ten-year period from 2012-2022



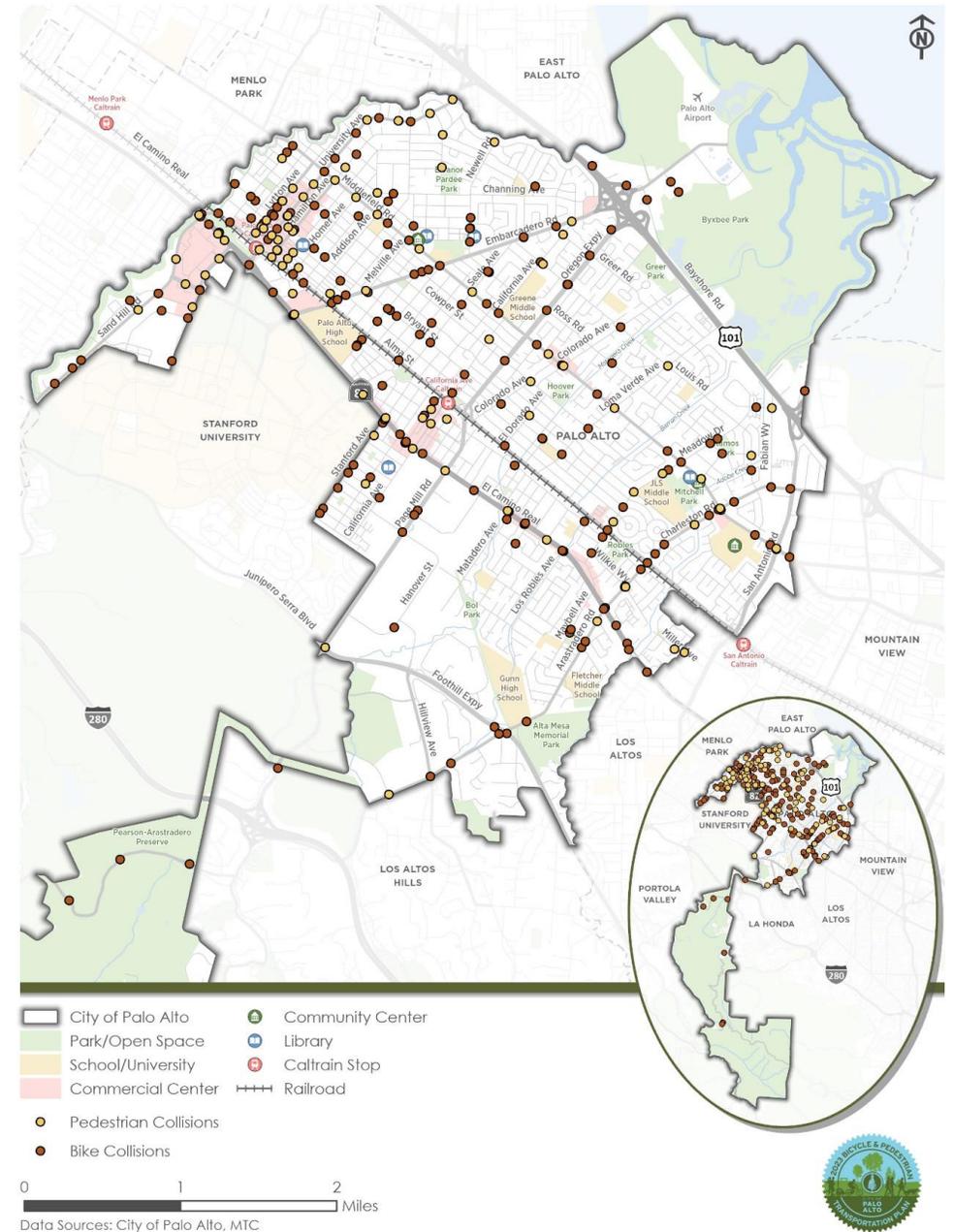
# Five-Year (2018-2022) Collision History

Parties Involved	Fatal	Severe Injury	Moderate Injury	Minor Injury	Reported Total
Pedestrian	3 (2.9%)	9 (8.7%)	49 (47.1%)	43 (41.3%)	104
Bicyclist	1 (0.4%)	12 (4.7%)	175 (68.1%)	69 (26.8%)	257

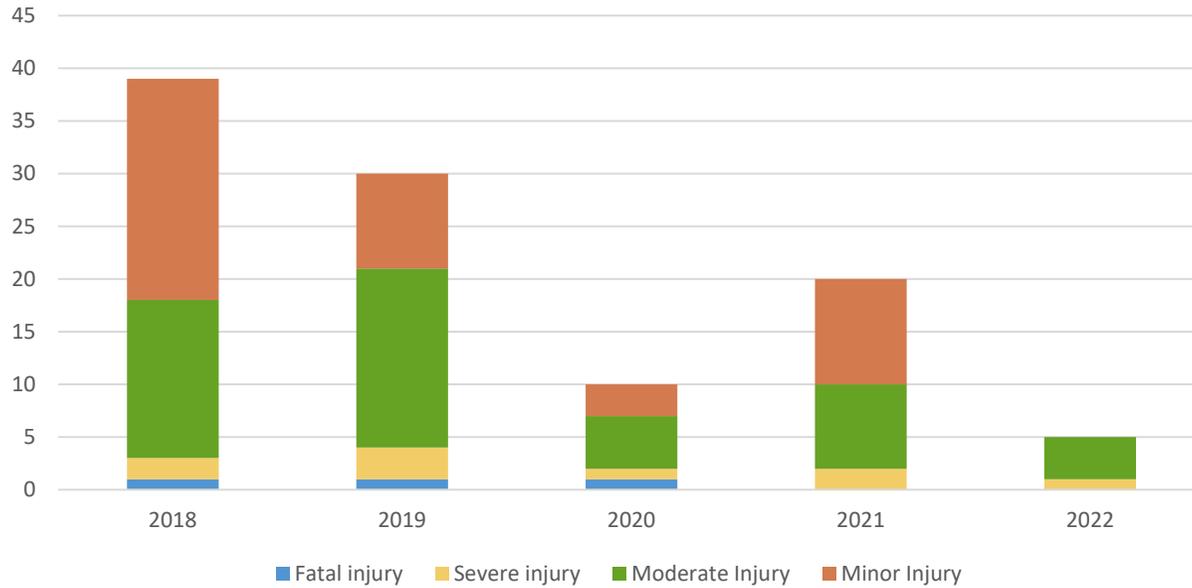
Source: TIMS data from January 1, 2018, through December 31, 2022



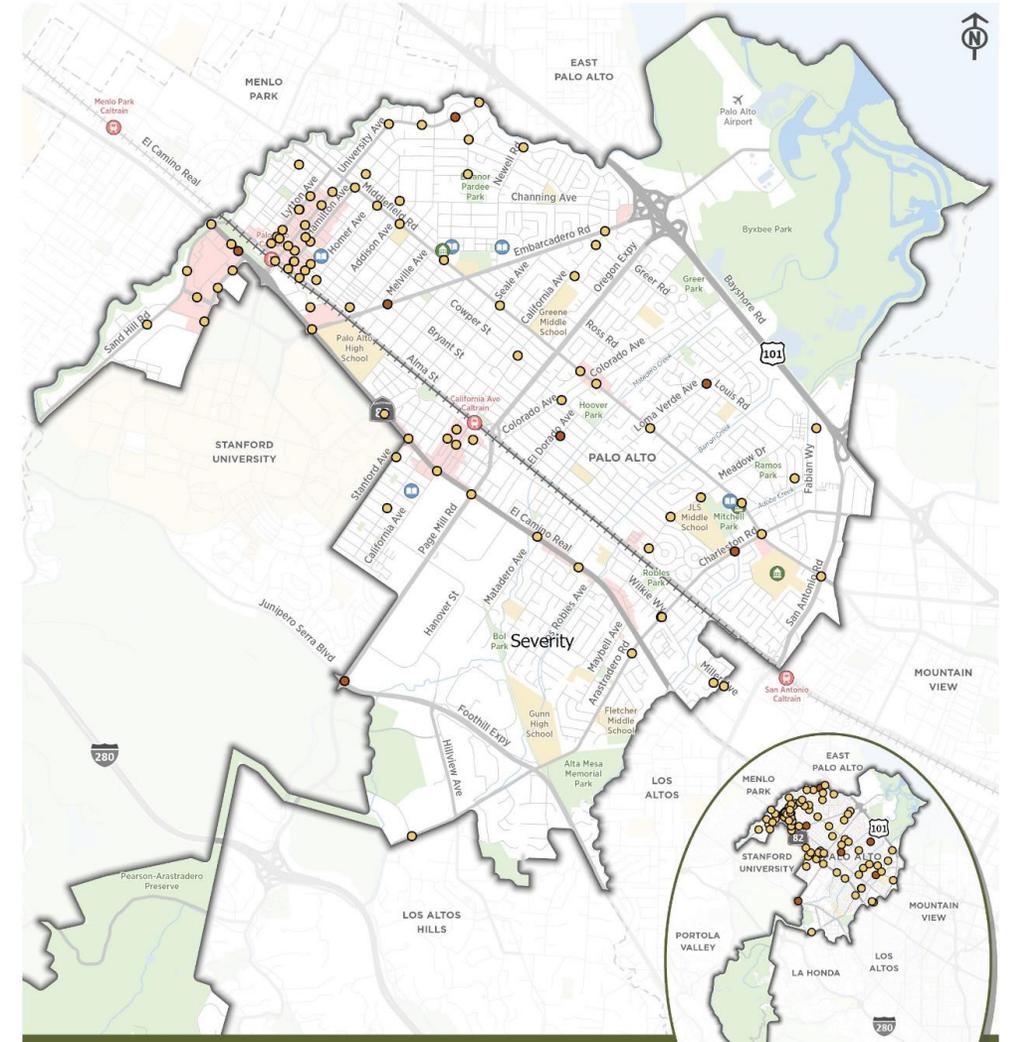
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# Pedestrian Collision, 2018-2022



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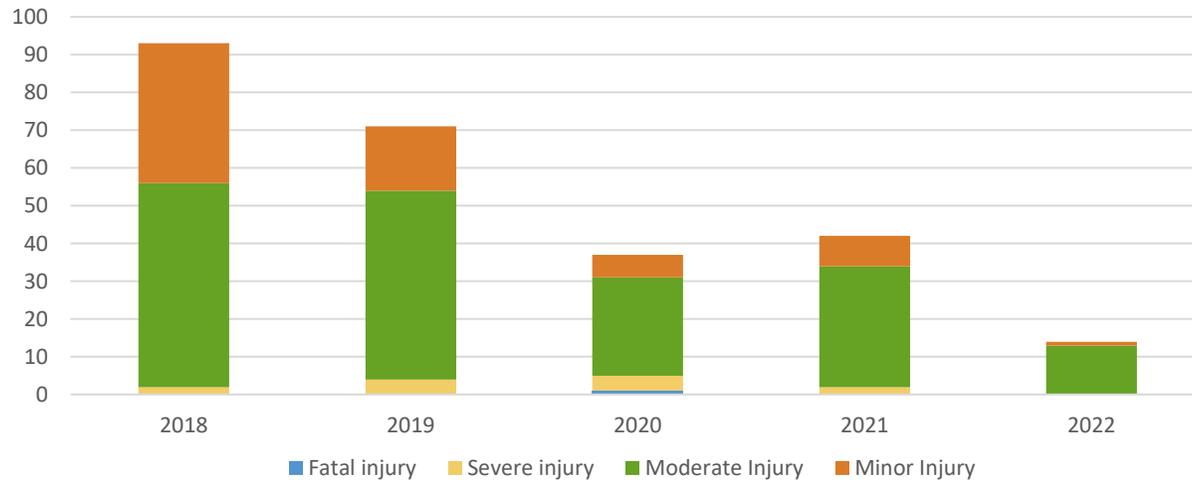
- Fatal and Severe Injury Collisions
- Other Injury Collisions
- City of Palo Alto
- Park/Open Space
- School/University
- Commercial Center
- Community Center
- Library
- Caltrain Stop
- Railroad

0 1 2 Miles

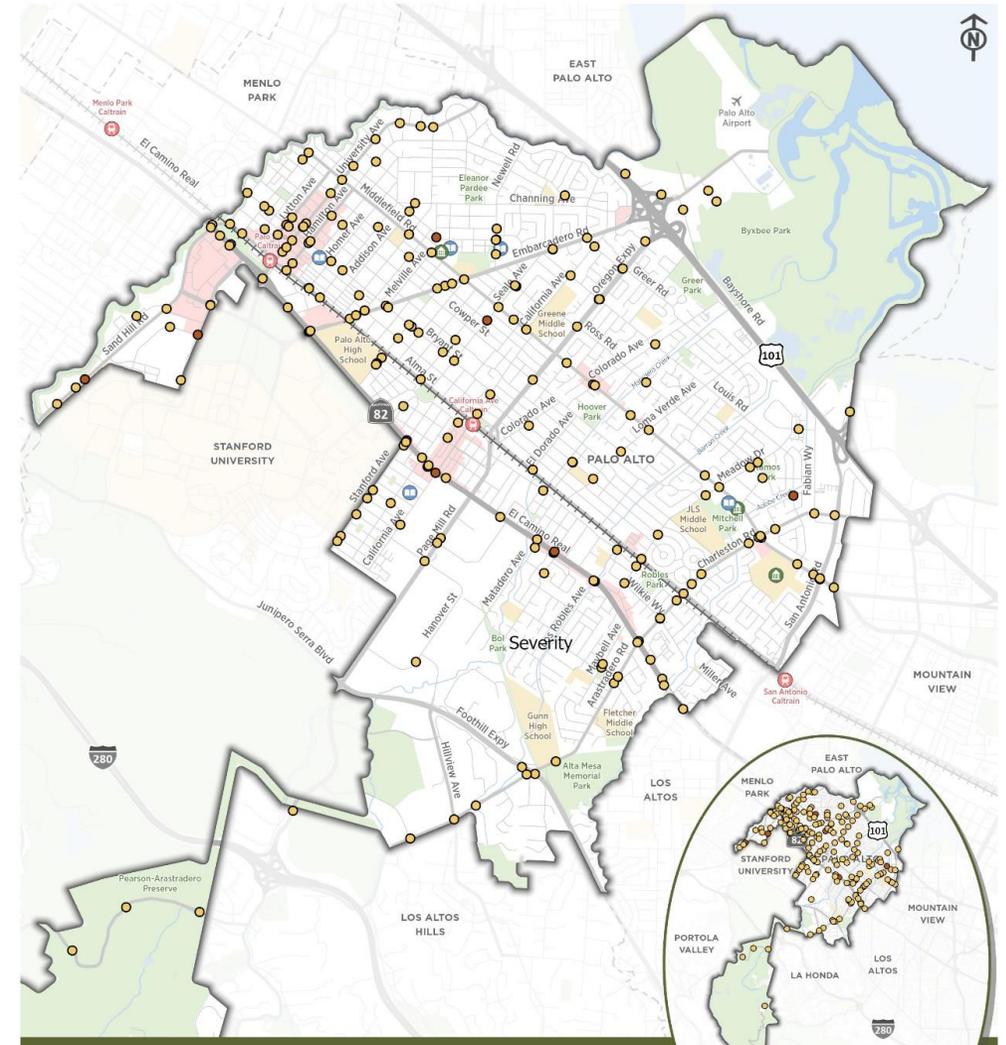
Data Sources: City of Palo Alto, MTC



# Bicycle Collisions, 2018-2022



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- Fatal and Severe Injury Collisions
- Other Injury Collisions
- ▭ City of Palo Alto
- ▭ Park/Open Space
- ▭ School/University
- ▭ Commercial Center
- Community Center
- Library
- Caltrain Stop
- +—+— Railroad

0 1 2 Miles  
Data Sources: City of Palo Alto, MTC



# Community Engagement



# Phase 2 Engagement Overview

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- **Committee & Working Group Meetings**
  - Pedestrian and Bicycle Advisory Committee (PABAC): Tue, Mar 5, 2024
  - Parks and Recreation Commission (PRC): Tue, Mar 26, 2024
  - Internal Staff Working Group (ISWG): Wed, Mar 27, 2024
  - *Planning and Transportation Commission (PTC): Wed, Mar 27, 2024*
  - City/School Transportation Safety Committee (CSTSC): Thu, Mar 28, 2024
  - City Council: Spring 2024
  
- **Community Pop-ups and Pop-ins**
  - **Bicycle Network Development Workshop** on Tue, Apr 16 from 6:30-8 p.m.
  - **Walk tour** with Avenidas on Wed, Apr 17 from 1:30-3:30 p.m.
  - **Bike tour** with Silicon Valley Bicycle Coalition on Thu, Apr 18 from 5-7 p.m.
  - **Earth Day** on Sunday, April 21, 2024, 1-4pm at Rinconada Library

# Vision, Objectives, & Performance Measures

# Draft Vision Statement

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*In Palo Alto, we envision a city where sustainable transportation thrives, embodying safety, efficiency, and enjoyment. Our streets will form a connected, cohesive network, supporting walking and cycling with tree-lined paths, efficient shortcuts, and secure bike parking. We commit to overcoming barriers, ensuring every part of our community is easily traversed on foot or by bike, fostering a connected region where sustainable transportation is a shared priority.*

*Palo Alto aspires to be a leader, with comprehensive programming encouraging everyone to embrace sustainable modes. We invest more in walking and biking infrastructure, ensuring equity and accessibility for all. Embracing the Safe System Approach, our city prioritizes safety and aims for a future where walking or biking for short trips is more convenient than driving, shaping a city where every journey, no matter how small, contributes to a more sustainable and connected community.*

# Draft Objectives

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- ***Safe and Inclusive:*** Prioritizing safety for all road users and ensuring equitable access to pedestrian and bicycle infrastructure across the community.
- ***Connected and Accessible:*** Featuring a convenient and interconnected network of sidewalks, bike lanes, and trails that provide efficient travel options and easy access to transit.
- ***Comfortable and Enjoyable:*** Enhancing the comfort and enjoyment of walking and cycling through amenities such as shade, greenery, and well-designed streetscapes.
- ***Community-Driven:*** Fostering community engagement and participation in promoting active transportation, supported by education, programming, and infrastructure investments.
- ***Integrated and Collaborative:*** Collaborating with neighboring cities to create a seamless and integrated regional network of pedestrian and bicycle infrastructure.

# Draft Performance Measures

Reduce GHG			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
N/A	Convert discretionary vehicle trips into walking and bicycling trips in order to reduce City transportation-related greenhouse gas (GHG) emissions 15% by 2020.	N/A	Consider relying on the Palo Alto Sustainability and Climate Action Plan (S/CAP) to address GHG emissions GHG reduction is a lagging measure and an outcome of mode change which is contingent on availability of AAA cycling and walking infrastructure

Expand Walk/Bike Network			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
<b>Connected and Accessible:</b> Featuring a convenient and interconnected network of sidewalks, bike lanes, and trails that provide efficient travel options and easy access to transit.	Develop a core network of shared paths, bikeways, and traffic-calmed streets that connects business and residential districts, schools, parks, and open spaces to promote healthy, active living.	High Speed Roads with Bike Facilities	Leading Indicator: Projects with Complete Street checklists completed and approved for AAA routes Direct Lagging Indicator: Percentage of households that live within 1000ft of completed and connected all ages and abilities (AAA) cycling infrastructure (bikeways, trails)
		Total Bicycle Network Mileage to Total Road Network Mileage	Leading Indicator: Miles of bicycle boulevards, enhanced bikeways, and trails developed Direct Lagging Indicator: Numbers of pedestrians and bicyclists on key facilities, as determined by counts. Leading Indicator: Amount of grants provided to local residents and community groups to hold "open streets" events Lagging Indicator: Number of annual street closure events
	Double the rate of bicycling for both local and total work commutes by 2020 (to 15% and 5%, respectively).	Bicycle Ridership Rate	Direct Lagging Indicator: Construction of new Across Barrier Connections within or near employment centers. Lagging Indicator: Census commute mode share, school commute mode share, TMP reports

Safe and Complete Streets			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
<b>Safe and Inclusive:</b> Prioritizing safety for all road users and ensuring equitable access to pedestrian and bicycle infrastructure across the community.	Plan, construct, and maintain 'Complete Streets' that are safe and accessible to all modes and people of all ages and abilities.	Crashes per 10k bicycle commuters	Leading Indicator: Annual installation of Americans with Disabilities Act (ADA) compliant curb ramps and accessible pedestrian signals
		Fatalities per 10k bicycle commuters	Leading Indicator: Percentage complete of pedestrian and bicycle collisions with KSIs improved or studied. Lagging Indicator: Annual pedestrian and bicycle collisions (either as 10k commuters or pr 100,000 residents)
<b>Comfortable and Enjoyable:</b> Enhancing the comfort and enjoyment of walking and cycling through amenities such as shade, greenery, and well-designed streetscapes.			Leading Indicator: Number of street tree installations along key walking and cycling routes Lagging Indicator: Canopy coverage of key walking and cycling routes

Planning & Policy			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
<b>Integrated and Collaborative:</b> Collaborating with neighboring cities to create a seamless and integrated regional network of pedestrian and bicycle infrastructure.	Promote efficient, sustainable, and creative use of limited public resources through integrated design and planning.	Bike Plan is Current and is Being Implemented	Leading Indicator: Share of transportation budget spent on walking and biking
		Bike Program Staff to Population	Leading Indicator: Projects completed involving multiple agency or departmental funding sponsors
		Share of Transportation Budget Spent on Bicycling Bicycle-Friendly Laws & Ordinances	Lagging Indicator: Change or introduction of bicycle-friendly laws and ordinances Leading Indicator: Number of connections to cycling infrastructure built by neighbouring municipalities

Education & Encouragement			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
<b>Community-Driven:</b> Fostering community engagement and participation in promoting active transportation, supported by education, programming, and infrastructure investments.	N/A	Bicycle Education in Schools	Leading Indicator: Number of walking and biking promotion events run per year at schools Lagging Indicator: Number of schools with complete Safe Routes to School rolled out
		Bike Month and Bike to Work	Lagging Indicator: school commute mode share Leading Indicator: Amount of grants provided to local residents and community groups to hold "open streets" events Lagging indicator: Number of annual street closure events

Community, Equity & Advocacy			
2024 Vision Workshop Themes	2012 Plan Objectives	Bike Friendly Communities Criteria	Potential Measure(s) - Modified for 2024
N/A	N/A	Presence of Active Bicycle Advocacy Group	Leading Indicator: Presence of Active Bicycle Advocacy Group
		Active Bicycle Advisory Comm.	Leading Indicator: Presence of Active Bicycle Advisory Committee

# Next Steps

## Next Steps

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### PTC

- Review and provide comments on materials by April 12, 2024
  1. Vision, objectives, and performance measures
  2. Analysis maps and findings
- Promote and participate in Phase 2 engagement activities

### BPTP Update Team

- Technical Analysis
  - Incorporate comments on draft analysis
- Engagement Activities
  - Promote and prepare for Phase 2 events

**Email comments to [transportation@cityofpaloalto.org](mailto:transportation@cityofpaloalto.org)**



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