Recommendations to Improve Pedestrian & Bicycle Safety for the Orchard School District in San Jose

October 2018

California Walks
Stepping Up for Health, Equity, & Sustainability

Berkeley SafeTREC
SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

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CALIFORNIA OFFICE OF TRAFFIC SAFETY

Acknowledgements

Planning Committee

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Introduction

At the invitation of the Orchard Parent-Teacher Association (Orchard PTA), California Walks (Cal Walks), the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC), and the Planning Committee collaboratively planned and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) at Orchard School in San José, CA. The CPBST is a joint project of Cal Walks and SafeTREC that aims to leverage a community's existing strengths to develop a community-driven pedestrian and bicycle safety action plan and to identify pedestrian and bicycle safety priorities and actionable next steps in collaboration with community partners.

The Orchard PTA requested a workshop to 1) provide the Orchard School District and the City of San José staff, community organizations, and residents with a toolkit for promoting pedestrian and bicycle safety to inform future active transportation projects; 2) strengthen working relationships between various agencies and organizations and other stakeholders to ensure the best outcomes for students biking and walking to school at Orchard School District; and 3) develop consensus regarding pedestrian and bicycle safety priority and actionable next steps, 4) best prepare for existing and proposed safety threats for students walking and bicycling to Orchard School District.

Cal Walks and SafeTREC (Project Team) facilitated the workshop on September 13, 2018 from 4:00 p.m. to 7:30 p.m. in the multi-purpose room at Orchard School District. Dinner, childcare, and simultaneous English-to-Spanish interpretation were provided to maximize community participation. Nineteen (19) individuals attended the workshop, including Orchard PTA representatives and parents, the District superintendent and school principal, a representative from the office of San José District 4 Councilmember Lan Diep, representatives from the office of Santa Clara County Supervisor Dave Cortese, and representatives from the San José Department of Transportation.

The three and a half (3.5) hour training consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety using the intersectional 6 E's framework including: Equity & Empowerment, Evaluation, Engineering, Education, Encouragement, and Enforcement; 2) walking assessments along three key routes; and 3) small group action-planning discussions to prioritize recommendations for Orchard School District's active transportation efforts. The Planning Committee's goal was to support the School District and the City's efforts to best prepare for existing and proposed safety challenges for students walking and biking to Orchard School District. This report summarizes the workshop proceedings, as well as recommendations for projects, policies, and programs for pedestrian and bicycle safety for students at Orchard School District in San José.

Background

The CPBST is a joint project of Cal Walks and SafeTREC that aims to leverage a community's existing strengths to develop a community-driven pedestrian and bicycle safety action plan and to identify pedestrian and bicycle safety priorities and actionable next steps in collaboration with community partners. For each training, the program convenes a local multi-disciplinary planning committee to tailor and refine the training's curriculum to meet the community's needs. The Project Team conducted a pre-training site visit to collect on-the-ground observations of existing walking and biking conditions to adapt the CPBST curriculum and to provide context-specific strategies for the community's existing conditions.

Planning Process

For each training, the program convenes a local multi-disciplinary planning committee to tailor and refine the training's curriculum and focus to meet the community's needs. The Project Team conducts pre-training site visits to collect on-the-ground observations of existing walking and biking conditions to adapt the CPBST curriculum and to provide context-specific strategies for the community's existing conditions. The Orchard CPBST planning process was initiated in April 2018. The planning process consisted of:

- **Community Plans and Policies Review:** Cal Walks conducted a review of current community planning documents to inform the training with local context and prepare to build off existing efforts. The following documents were reviewed prior to the site visit:
    - Vision Zero San José Two-Year Action Plan (2017)
    - Envision San José 2040 General Plan (2011)
    - North San José Area Development Policy (2017)
    - North San José Deficiency Plan (2006, update expected March 2019)
    - Charcot Avenue Extension Project Plans (ongoing)
- **Analysis and Mapping of Pedestrian and Bicycle Injury Data:** SafeTREC used the Statewide Integrated Traffic Records System (SWITRS) and the Transportation Injury Mapping System (tims.berkeley.edu) to analyze pedestrian and bicycle injury data near Orchard School District in San José, as well as Census data to create collision rates based on population. Patterns of injury

collisions, victim characteristics, and demographics were analyzed to inform the planning process for the CPBST.

- **Identification of Priority Discussion Topics for Training:** The Planning Committee identified pedestrian and bicycle access to Orchard School District—including addressing existing conflicts at the designated school arrival and dismissal area south of school—and proposed construction of a new overpass over I-880 that would touch down at Silk Wood Lane immediately north of the school grounds as the priority discussion topics for the training. Additionally, the Planning Committee identified the following goals for the CPBST:
    - To identify priority risk areas for immediate and long-term safety efforts. Using community experience and input, rank vulnerabilities and opportunities to:
        - Improve existing conditions at pick-up/drop off area;
        - Inform the final design of the proposed Charcot overpass to minimize potential conflict; and
        - Identify additional route improvements.
- **Site Visit:** The Project Team facilitated an in-person site visit on August 2, 2018, with the Planning Committee at the Orchard School District board room to 1) review existing pedestrian and bicycle collision data; 2) collect qualitative data based on in-person observations of existing conditions and travel behaviors; and 3) conduct preliminary walking assessments of the focal neighborhood. Site visit findings were used to develop the workshop presentation, including providing local infrastructure examples and developing the walk/bike assessment route maps. During the site visit, the Planning Committee identified Orchard PTA, Orchard School District staff, San José Department of Transportation, San José Vision Zero program, and San José Council District 4 as key stakeholders to invite to the CPBST.

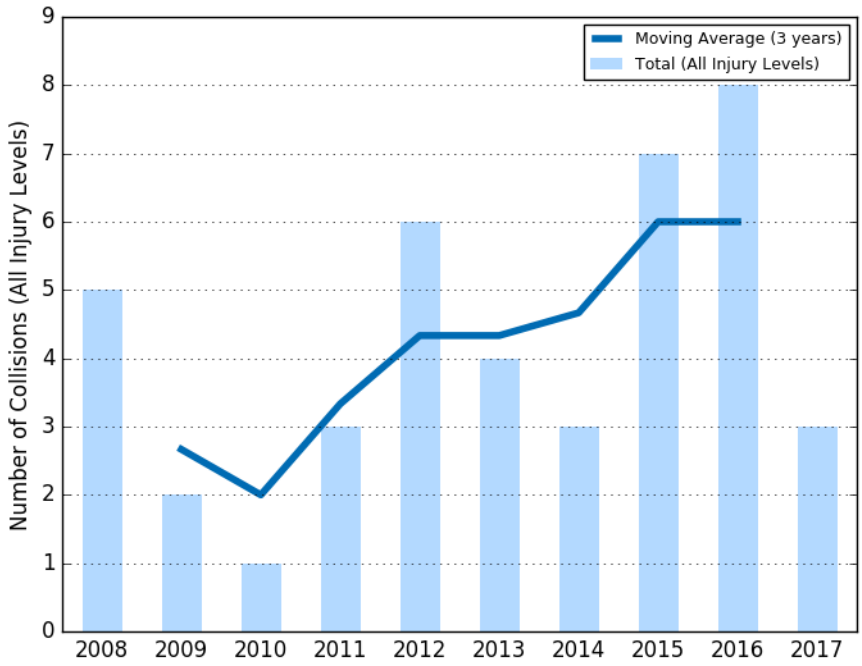
Existing Conditions

Pedestrian & Bicycle Collision History[1]

Between 2013-2017, there were 25 pedestrian collisions, including three fatalities and three severe injuries within the Orchard School District's attendance boundaries. Sixteen percent (16%) of the crashes do not include an identified primary collision factor. For the remaining collisions with identified primary collision factors, driver failure to yield to pedestrians with the right-of-way accounts for the largest proportion (24.0%), and pedestrians failing to yield to drivers when crossing outside a crosswalk[2] accounting for 20.0% of collisions. Over the same time period, pedestrian collisions appear to be on an upward trajectory.

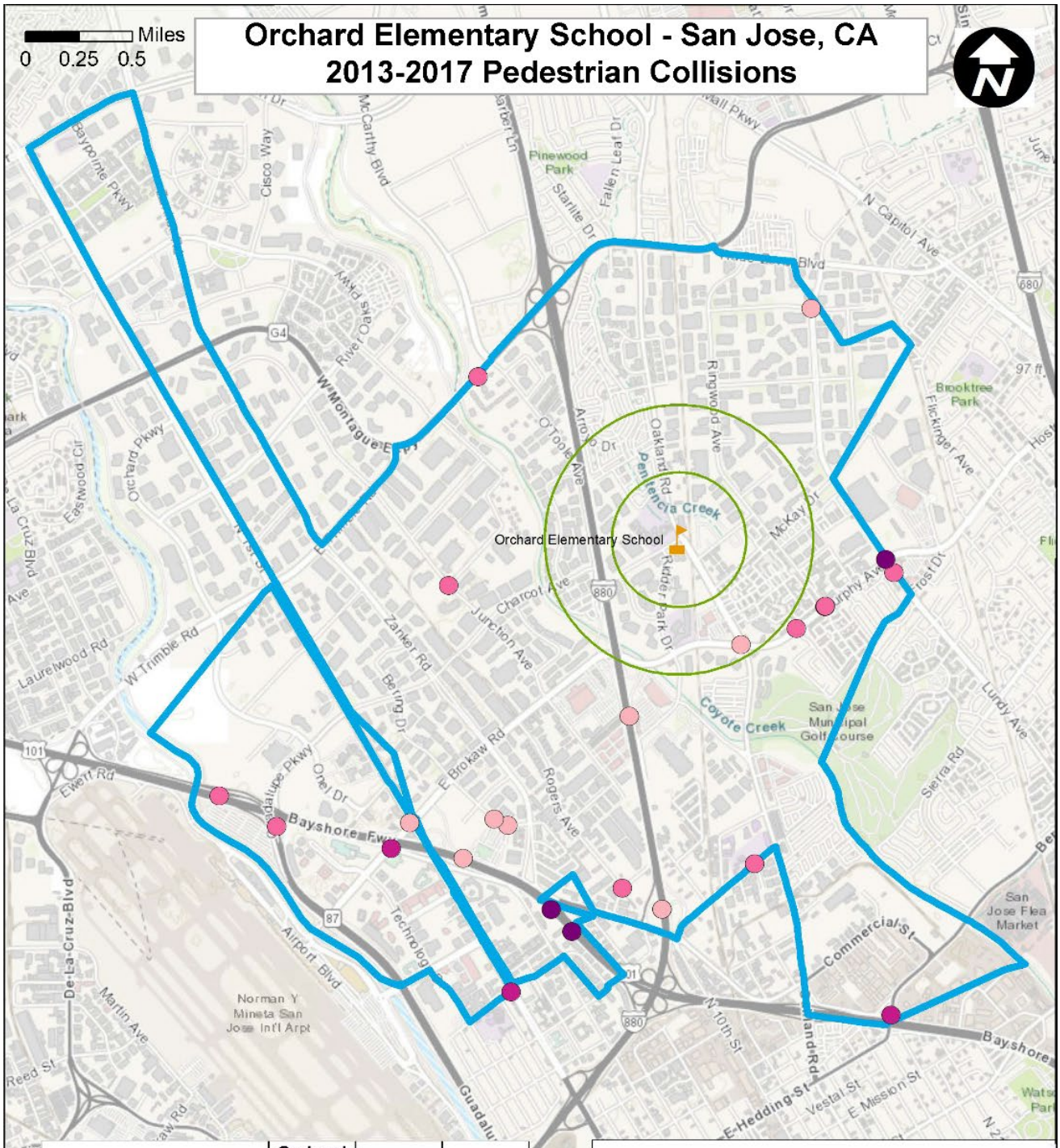
The graphics below show pedestrian collisions within the Orchard School District boundary (represented by the blue line on the map).

Pedestrian Collision Trend
with 3-year moving average



[1] 2016 and 2017 SWITRS data are provisional as of March 2018, except where otherwise noted.

[2] Pedestrians have the right-of-way in marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of marked or unmarked crossings, pedestrians must yield the right-of-way to drivers. A pedestrian is legally able to cross outside of a marked or unmarked crossing between two intersections where one or none of the intersections is signalized but only if the pedestrian yields the right-of-way to oncoming drivers. This is not the same as the term "jaywalking," which refers to crossing outside of a marked or unmarked crossing between two signalized intersections.



	Orchard School District	1/2 Mile Radius	1/4 Mile Radius
Fatal	3	0	0
Injury (Severe)	3	0	0
Injury (Other Visible)	10	0	0
Injury (Complaint of Pain)	10	1	0
Total	26	1	0

Source: SWITRS 2013-2017; Provisional 2016 and 2017 as of December 2018.

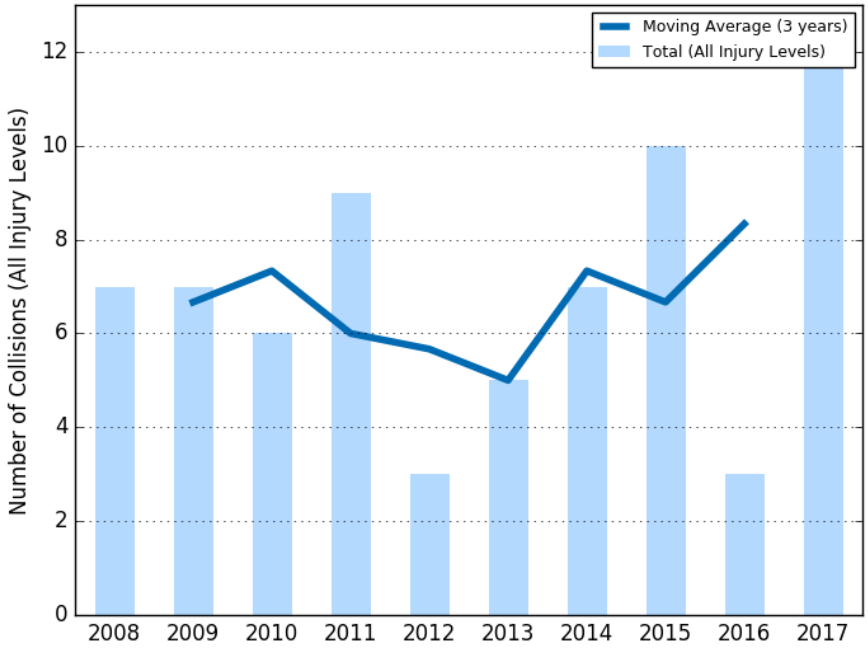
Overall Collision Summary

- Fatal (3)
- Injury (Severe) (3)
- Injury (Other Visible) (10)
- Injury (Complaint of Pain) (10)

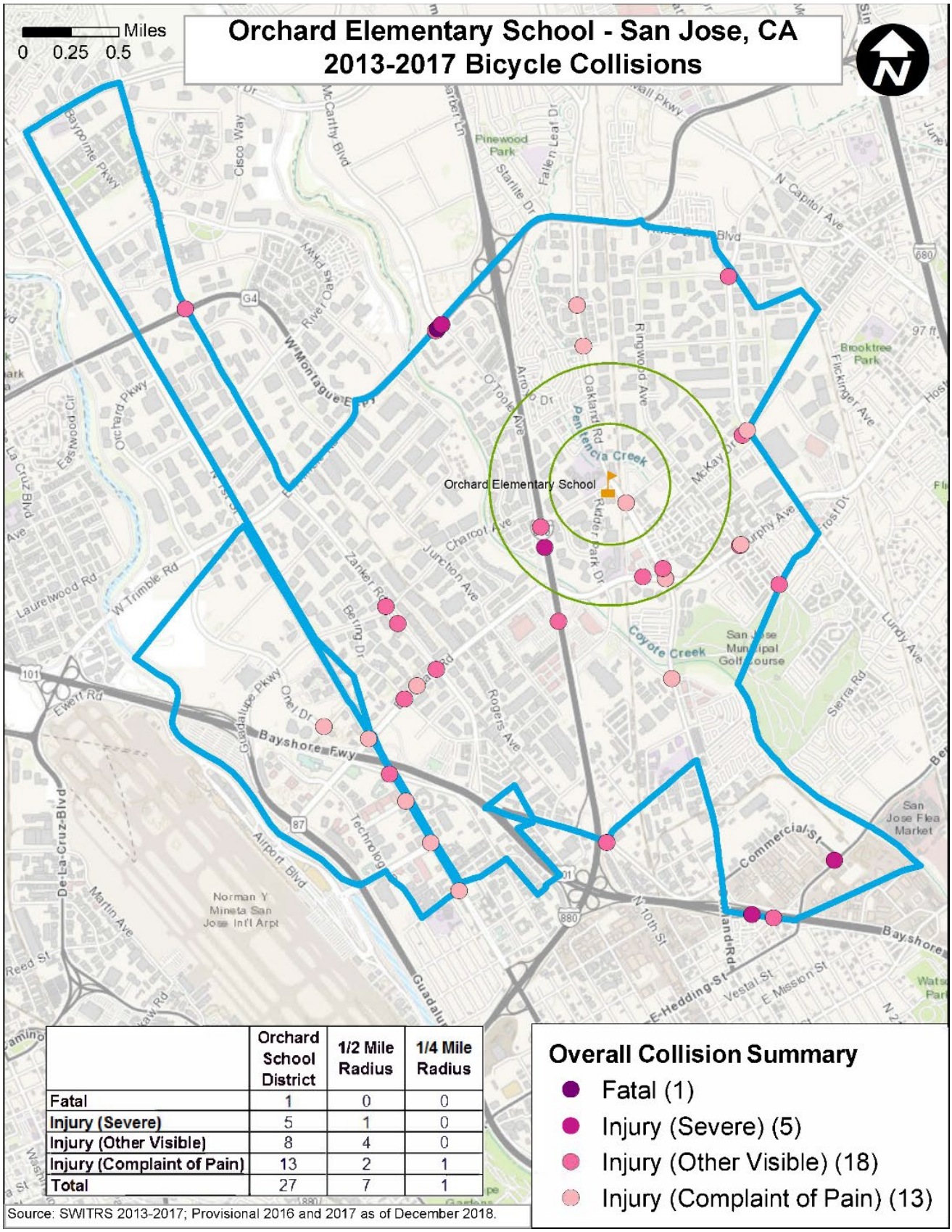
Between 2013-2017, there were 37 bicycle collisions, including one fatality and five severe injuries within the Orchard School District's attendance boundary.[3] Collisions in this time period are distributed throughout the area. As with the pedestrian collision data, a large number of the collisions (nearly 35.1%) lack an identified primary collision factor.[4] Failure to stop at a red light and wrong-way riding were the most frequent citation with each cited in 10.8% of the citations. Over the same time period, bicycle collisions appear to be on an upward trajectory, though there was a notable dip in 2016.

The graphics below show bicycle collisions within the Orchard School District boundary (represented by the blue line on the map).

Bicycle Collision Trend
with 3-year moving average



[3] 2016 and 2017 SWITRS data are provisional as of March 2018, except where otherwise noted.
[4] Over half of the collisions that do not have a primary collision reported occurred in 2016 or 2017; that data is provisional so this data might be pending.



	Orchard School District	1/2 Mile Radius	1/4 Mile Radius
Fatal	1	0	0
Injury (Severe)	5	1	0
Injury (Other Visible)	8	4	0
Injury (Complaint of Pain)	13	2	1
Total	27	7	1

Source: SWITRS 2013-2017; Provisional 2016 and 2017 as of December 2018.

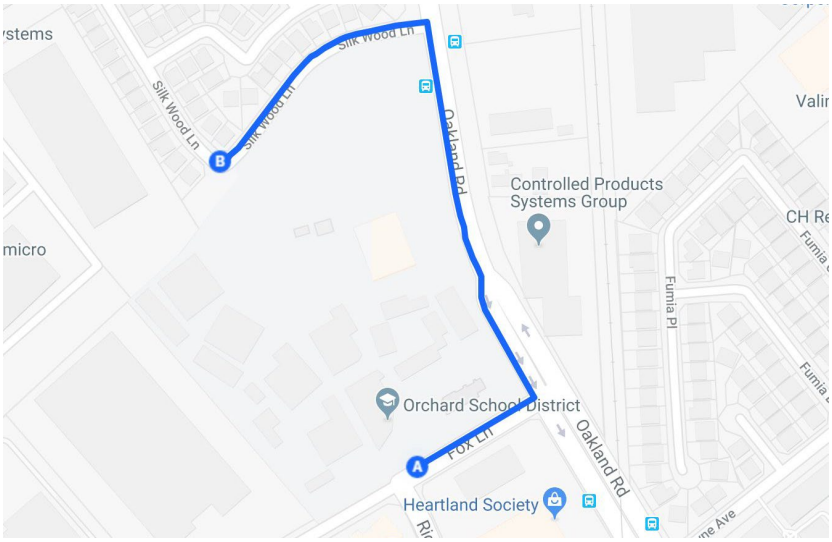
A full discussion of the pedestrian and bicyclist collision data prepared by SafeTREC can be found in Appendices A and B.

Walkability & Bikeability Assessment Reflections

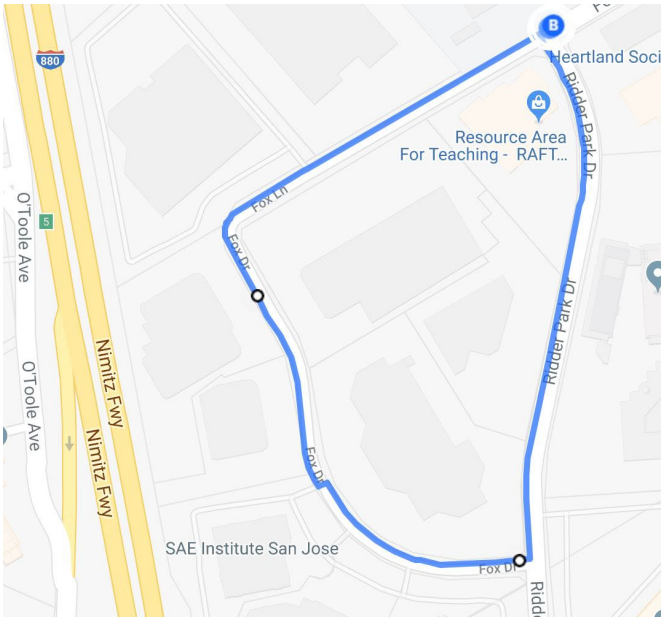
Participants were asked to 1) observe infrastructure conditions and the behavior of all road users; 2) assess the qualitative and emotional experience of walking or biking along the route; 3) identify positive community assets and strategies which can be built upon; and 4) consider how the walking and biking experience might feel different for other vulnerable users.

Workshop participants conducted walking and biking assessments along three key routes:

Route 1: Oakland Road & Silk Wood Lane



The first walking route focused on Oakland Road, the entrance to the school on Fox Lane, and the informal back entrance to the school on Silk Wood Lane where many students walking to school enter the campus. The Planning Committee selected this route to assess the formal and informal arrival and dismissal areas for the school (Silk Wood Lane and Fox Lane) and to assess conditions along Oakland Road, a heavily traveled bike and pedestrian route and a very wide high-speed arterial street that carries a high volume of commuter traffic passing through the neighborhood. The Planning Committee also identified this section of Silk Wood Lane as an area the City should assess due to the planned construction of the Charcot overpass, which would touch down on the east side of I-880 on Silk Wood Lane. Starting the walking assessment at Orchard School District, participants walked northeast on Fox Lane, turned northwest on Oakland Road, and then southwest on Silk Wood Lane, re-entering the school campus at the back gate.

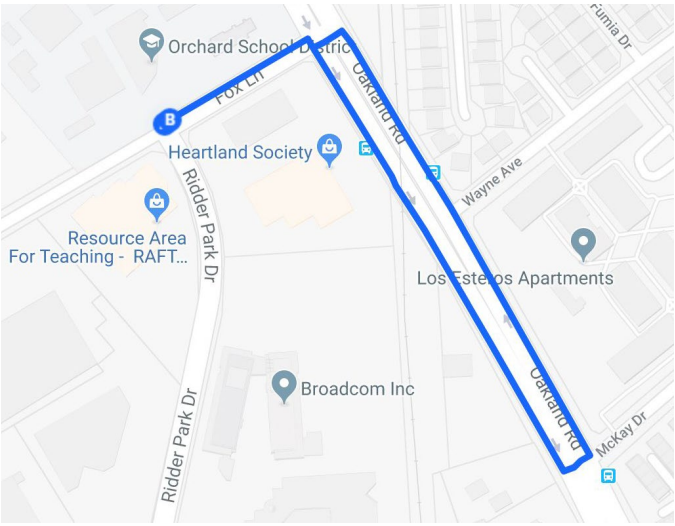


Route 2: Fox Lane & Ridder Park Drive

The second walking route focused on the crossing at the Fox Lane/Ridder Park Drive intersection in front of Orchard Elementary School, Ridder Park Drive and its Rectangular Rapid Flash Beacon (RRFB) crossing, Fox Drive,

and Fox Lane. The Planning Committee selected this route to assess conditions in front of the school's entrance, to observe nearby enhanced crossing treatments, and to better understand traffic patterns in the adjacent office parks. Participants exited the school property on Fox Lane, walked south on Ridder Park Drive to Fox Drive, continued on Fox Drive north to Fox Lane, and then finished by walking east on Fox Lane back to the school.

Route 3: Fox Lane & Oakland Road



The third walking route focused on Oakland Road from Fox Lane south to McKay Drive. The Planning Committee selected this route to assess conditions along Oakland Road, the high-speed arterial that carries a large volume of commuter traffic through the community. Starting the walking assessment at Orchard School District, participants walked east on Fox Lane to Oakland Road, south on Oakland Road, crossed east on McKay Drive, and then returned to the school on Oakland Road and Fox Lane.

Following the walking and biking assessment, the participants shared the following reflections:

- **Crossing and Intersection Challenges for People Walking and Biking**

Participants shared numerous challenges with pedestrian crossings and with driver movements at intersections near the school. Directly in front of Orchard Elementary School, participants noted the lack of a curb ramp at the sole marked crossing at the Fox Lane/Ridder Park Drive intersection leading to the school, as well as the very large turning radius of the intersection, which contributes to many drivers, including large freight trucks, rolling through the stop sign directly into the school crossing. Participants on Route 2 appreciated the improved crossing on Ridder Park Drive that includes RRFBs, high-visibility crosswalk markings, and curb extensions. All participants expressed support for implementing similar crosswalk enhancements to the Fox Lane/Ridder Park Drive crossing leading to the school.

The crosswalk in front of Orchard School lacks enhancements, including a curb ramp on the school side and high-visibility markings.

Participants identified a frequent conflict area for southbound bicyclists continuing on Oakland Road with drivers turning right onto Fox Lane. Particularly in the morning during school arrival hours, many parents are queued up on Oakland Road waiting to turn right onto Fox Lane. Bicyclists must navigate through vehicles that are legally positioned in the bike lane and others who are illegally positioned in the through travel lane to turn right onto Fox Lane.

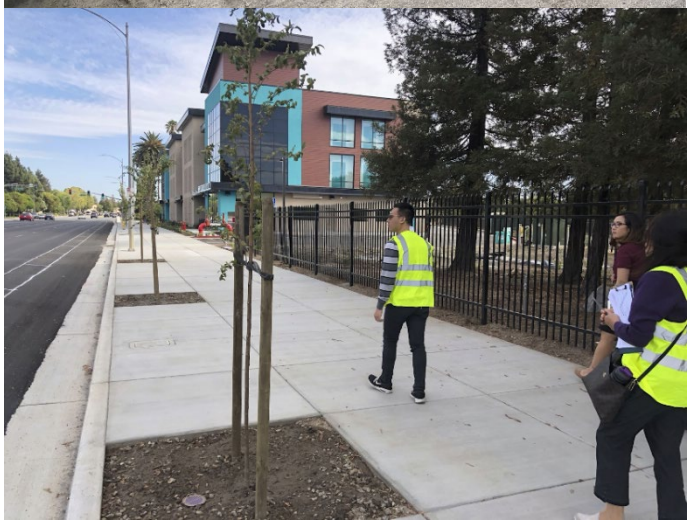
Oakland Road is a very wide, high-speed major arterial street. While marked crossing on the southern leg of the Oakland Road/Fox Lane intersection is well-marked and has a fairly generous crossing time, it is still a very challenging crossing due to the sheer width of the street and high speeds.

The severe angle of the railroad tracks on the east side of Oakland Road and lack of markings or signage create challenging conditions for bicyclists.

- **Missing Sidewalks and Various Sidewalk Conditions**: Participants noted that while sidewalks are present in most of the community, there is a key sidewalk gap on the west side of Oakland Road from the railroad tracks to McKay Drive. Where sidewalks were present, particularly near the newer residential commercial developments, the sidewalks were wide, level, and landscaped. Despite the generous width of the sidewalks, participants shared that the high volume and speed of traffic made them feel unsafe and that more of a physical buffer or separation from the street is needed to create a safer, more comfortable walking environment.

Sidewalk on west side of Oakland Road abruptly ends south of the railroad tracks.

Participants on walking assessment inspecting the sidewalk gap on the west side of Oakland Road.



Newer commercial developments on Oakland Road have resulted in wide, landscaped sidewalks.

- **Conflicts with Freight Traffic**: Participants noted that a high number of freight trucks travel on Fox Lane directly in front of the school and on Ridder Park Drive as a shortcut to bypass traffic on Oakland Road. Parents and the District Superintendent commented that freight truck drivers frequently travel too fast for the existing conditions on Fox Lane, particularly during school arrival and dismissal hours. They expressed a high degree of anxiety with freight traffic traveling in such close proximity to students walking and crossing the street, and they also noted that nearby roads, including Wayne Avenue and McKay Drive have restrictions posted for trucks over five (5) tons.

Participants discuss the RRFB-enhanced crossing on Ridder Park Drive.

Freight traffic on Ridder Park Drive that could be diverted to Oakland Road.

- **Lack of Signage**: Participants highlighted the high traffic speeds along Oakland Road as one of the major reasons for residents feeling unsafe walking and biking in the community. During the walking assessment, participants noted that there was very little signage alerting drivers to the presence of the school. While school zone signage is located on Fox Lane and on Oakland Road southbound at Silk Wood Lane and northbound between Wayne Avenue and the railroad crossing, participants

believed that consistent and more visible school zone signage could help communicate the need to slow down to drivers, including the accompanying speed limit signage. Additionally, participants observed a lack of warning signage related to the railroad crossing, which is particularly challenging for bicyclists with narrower tires.

Key Opportunities to Improve Walking and Biking Safety

Following the walking and biking assessment, the Project Team facilitated small-group action planning discussions where participants prioritized and preliminarily planned infrastructure projects and community programs aimed at reducing the number of injuries and fatalities, as well as increasing the number of people and the frequency of walking and biking in the Orchard School District community.

Through a voting and self-selecting process during the training, participants chose to focus on a preliminarily plan for Crossing Enhancements at the School Entrance, Traffic Calming for Fox Lane, Temporary Demonstration Projects, and a Pilot Safety Patrol and Valet program. Participants self-selected which project they wanted to collaborate on with their fellow participants to develop a plan and discussed:

- The problem the project is intended to solve;
- The people, organizations, agencies, and resources needed to implement the project;
- Resources needed to implement the infrastructure project/community program; and
- Short-term and long-term action steps to implement the project.

Community Recommendations

Workshop participants provided the following recommendations and next steps for overall pedestrian and bicyclist safety improvements:

Infrastructure Projects:

Crosswalk Enhancements at the School Entrance: The current crosswalks in front of school at the Fox Lane/Ridder Park Drive intersection have low visibility and lack an ADA accessible curb ramp. Because the school is located in a commercial park area, there is a high volume of drivers passing through the neighborhood to get to work or using Fox Lane as a shortcut to avoid traffic on nearby arterial streets. Parents and school administration reported that some drivers roll through the stop sign as they turn right from Ridder Park Drive onto Fox Lane; workshop participants observed this behavior during the Walking and Biking Assessments.

To address these challenges, participants identified several potential improvements, including:

- Relocating the east leg of the crosswalk to the west to minimize conflicts between students crossing and right-turning drivers;
- Enhancing crosswalk visibility with the addition of school zone signage, lane markings, RRFBs, and high-visibility crosswalk markings;
- Implementing traffic calming measures, such as a raised crosswalk, curb extensions, and pedestrian safety islands; and
- Installing an accessible curb ramp for the crosswalk.

Recognizing that many of the desired improvements will require a longer timeline for implementation, participants identified using paint and temporary materials as a priority for short-term interventions. San José Department of Transportation Neighborhood Traffic Management staff in this group shared that the Department would likely prioritize the curb ramp installation as a priority and further explained that the Department identifies safety projects across the City based on a variety of factors, including crash activity, proximity to land uses that generate walking trips, and roadway geometry, and the selection of projects are coordinated with Council District staff.

To help make the case to Councilmember Lan Diep's office and to the Neighborhood Traffic Management team, participants identified the collection of traffic data and community/student voices as a key short-term action for the Orchard PTA and school administration. Other short-term actions include:

- Setting up a follow-up meeting between the Orchard School District, Orchard PTA, and San José Department of Transportation Neighborhood Traffic Management team to discuss the costs of low-cost improvements to the intersection and to explore the possibility of a public-private partnership with the Orchard PTA to raise money to help offset the cost;
- Scheduling a follow-up meeting between the Orchard School District, Orchard PTA, and Councilmember Lan Diep's office to discuss the possibility of leveraging available City funding to help supplement the Orchard PTA's fundraising;
- Conducting outreach to nearby local businesses to solicit donations to help cover the cost of the crosswalk improvements. Nearby companies previously donated to help cover the cost of the Ridder Park Drive enhanced crossing with RRFBs and curb extensions; and
- Request that the San José Department of Transportation Neighborhood Traffic Management team install additional school zone signage around the school on Ridder Park Drive, Fox Lane, and Oakland Road.

The group discussed the following long-term action steps:

- Continue dialogue with San José Department of Transportation Neighborhood Traffic Management team to collaboratively design and prioritize safety improvements for the school; and
- Identify data and performance metrics the San José Department of Transportation Neighborhood Traffic Management team uses to prioritize projects and to leverage Orchard PTA to assist with data collection.

Traffic Calming for Fox Lane: Participants noticed a number of challenges on Fox Lane, including unsafe crossings, high motorist speeds, a large volume of freight traffic, and general driver confusion and inattention. Participants prioritized the following infrastructure improvements for traffic calming:

- Refresh current school zone markings and signage on Fox Lane and add new markings and signage where needed;
- Install advance yield markings and accompanying signage for the marked crosswalk across Fox Lane at the Fox Lane/Ridder Park Drive intersection;
- Narrow driving lanes with additional lane markings/paint and add bike lanes on Fox Drive and Fox Lane;
- Install flexposts/soft-hit posts to deter U-turns;
- Convert Fox Lane to one-way west of Ridder Park Drive;
- Install temporary curb extensions at the Fox Lane/Ridder Park Drive intersection using paint and bollards/soft-hit posts in the short-term, and work toward securing funding to make them permanent in the long-term; and
- Install a raised crosswalk at the Fox Lane/Ridder Park Drive intersection leading to the school.

To implement these desired improvements, the group identified the following preliminary action steps:

- Assemble a stakeholder team to oversee development and implementation of improvements. This team should include the school district (youth, parents, and staff); residential neighbors; the surrounding business community, including Supermicro; the San José Department of Transportation, particularly Neighborhood Traffic Management and the Charcot Avenue Extension project team; San José District 4 Councilmember Lan Diep's office, and Santa Clara County Supervisor Dave Cortese's office.
- This stakeholder team would establish a concrete timeline with short-, mid-, and long-term steps that would culminate in the construction of improvements in the next three to four years.

Workshop participants developed the following initial actions and desired improvements for the stakeholder team to build off of and refine:

- Short-term Actions
    - The Orchard PTA and District Superintendent will follow up with the Department of Transportation Neighborhood Traffic Management staff on the local traffic study that began in Spring 2017; and
    - The Orchard PTA and District Superintendent will follow up with the Department of Transportation Neighborhood Traffic Management staff about paint and signage improvements along Fox Drive and Fox Lane by January 2019.
- Mid-term Actions
    - Work with the City on a traffic study within one year to potentially make Fox Lane one-way west of Ridder Park Drive. Stakeholders will also work with the Department of Transportation staff to see if the costs for such a study are included in the Charcot Avenue planning processes, and engage Supermicro for their support.
- Long-term Actions
    - Work with the City to paint and then build curb extensions at the Fox Lane/Ridder Park Drive intersection and build raised crosswalks as part of the Charcot Avenue extension planning and implementation processes.

Community Programs, Policies, and Campaigns

- **Temporary Demonstrations**: This group discussed using temporary demonstrations to increase the driver awareness of Orchard Elementary School's location and that they are driving through a school zone. The group detailed two potential types of temporary demonstration projects incorporating art: 1) a street safety mural either on Oakland Road or at the Fox Lane/Oakland Road intersection; and 2) a 3D sidewalk art installation, with a goal of implementing one or both of these projects by the beginning of the next school year in August 2019.

  Street Safety Mural: This concept involved striping non-regulatory markings on the pavement to alert drivers, particularly on Oakland Road, that they are in a school zone. Potential designs discussed included oversize yield markings with pedestrians inside in a fluorescent color; safety messages, such as "Slow Down, School Zone," in 3D block letters; and safety messages paired with the school zone and the school's logo/mascot. Recognizing that Oakland Road is a major arterial and that may make implementing a 3D art installation challenging, participants agreed that a street safety mural on Fox Lane at the intersection with Oakland Road would be a reasonable compromise and would help signal to drivers that they are entering a school community.

  3D Sidewalk Art Installation: This temporary demonstration concept would construct a small child

or human figure out of papier-mache and/or mosaic tiles that would be placed on the sidewalks along Oakland Road. These statues would be paired with large banners with safety messages to drivers, particularly communicating to drivers that they are in a school zone.

For both types of temporary demonstrations, participants outlined a similar process, set of stakeholders, and timeline, as follows:

- Key Stakeholders: Orchard School District administration, parents, Orchard PTA, Councilmember Lan Diep's Office, Department of Transportation, students, Orchard Elementary School teachers (particularly art teachers), Supermicro and other local businesses, and the Council District 4 Arts Commissioner;
- Resources Needed: art supplies (including: tiles, ceramic, paint, chicken wire, glue, soft-hit posts); teacher/school buy-in; donated time from a local artist or arts-based non-profit organization; potentially a permit from the Department of Transportation;
- Timeline:
    - End of September 2018: Participants identified the need to convene a follow-up meeting with Department of Transportation staff to understand what existing programs, policies, and procedures would apply to these temporary demonstration requests.
    - If there are existing programs, policies, and procedures in place for temporary demonstrations, then the timeline for actions would include:
        - Mid-October 2018: The Orchard PTA would finalize the design and scope of the temporary demonstrations;
        - November 2018: The Orchard PTA would secure the necessary City permits and Police Department sign-off on any temporary traffic control plans;
        - November-December 2018: The Orchard PTA would promote the demonstrations to parents and the school community, recruit volunteers, and secure materials and/or solicit donations for materials;
        - January/February 2019: Implement one or more temporary demonstration projects;
        - If there are not existing programs, policies, and procedures in place for temporary demonstrations, then the Orchard PTA will make a request to Councilmember Lan Diep's office to propose to the City Council the establishment of a formal street mural and/or temporary demonstration program. The timeline following this would largely be dependent upon the City, but the group discussed the sequence of events as follows:
            - The Department of Transportation would need to investigate if an existing Department program could accommodate or house street murals and/or temporary demonstrations;
            - If no existing program can be found, a new program would need to be drafted by the Department and submitted to the City Attorney's office for review;

- From there, the City Council Rules Committee would determine whether the proposed program would be sent to the full City Council for review/approval or whether it would need to be reviewed by the Council's Transportation and Environment Committee first; and
- Lastly, assuming the Council approves of the new program, the Department would either be allocated a budget for the program or it would have to seek outside funding (e.g., from the California Office of Traffic Safety or the Santa Clara Valley Transportation Authority/VTA) to implement the program.

Finally, this group requested traffic safety banners from the San José Department of Transportation Street Smarts program, which the Department provided to the Orchard PTA at the end of the workshop.

- **Pilot Safety Patrol and Valet:** This group focused on addressing the hectic environment of school arrival and dismissal. Faculty and staff believe that expediting the arrival process using student safety patrols who are trained to help students get quickly out of cars would improve the traffic flow for parents and the safety of students exiting vehicles.

  The City of San José Department of Transportation Streets Smarts program has an existing resource kit that the Department offered to share with the school to assist with a limited-term pilot program. The Safety Patrol and Valet program would ideally leverage existing events, such as school safety week or back to school night. Orchard Elementary School may be able to commit resources for a staff or faculty coordinator to train older students and to encourage parents to commit to an appropriate drop-off and pick-up process.

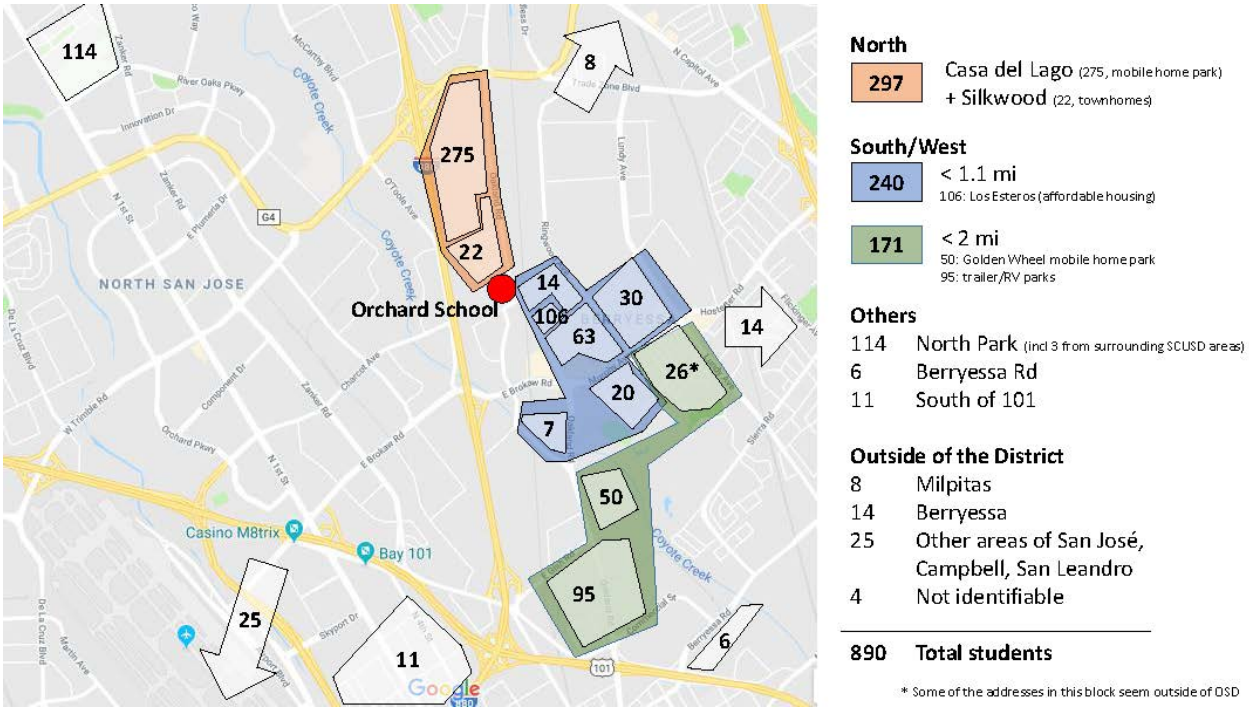
  Participants also identified the need for evaluation of the pilot program. They identified preliminary performance metrics for success, including a reduction in queue times for drivers at school arrival and dismissal, and the development of a parent questionnaire to collect qualitative feedback.

Cal Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the City of San José and the Orchard School District:

- **Leverage the Charcot Extension Planning Process:** The Charcot Avenue Extension Project will continue to progress in coming years. The Project Team recommends that the San José Department of Transportation continue to work closely with the Orchard School District and surrounding community to plan for a multi-modal overpass that prioritizes safety, particularly the safety of vulnerable users. While the future crossing at Silk Wood Lane is currently proposed to be controlled with a HAWK signal, the Project Team recommends fully signalizing the intersection, striping the crossings with high-visibility markings, installing curb extensions at all corners, and enabling a Leading Pedestrian Interval (LPI) during school hours. The Project Team also encourages the City to consider raised crosswalks at this intersection. The Charcot Avenue Extension has the potential to negatively impact street crossing for a significant portion of elementary age students who currently live in the developments north of the school campus and currently enjoy a very low-volume, low-speed residential crossing. Orchard PTA estimates that over 200 students use this crossing per day, while the City of San José's projects an 10,000 additional cars will use this route per day with the Charcot Avenue Extension Project. Therefore, the Project Team ***encourages the Department of Transportation to explore the planning and funding of crosswalk improvements at the Fox Lane/Ridder Park Drive intersection as part of the Charcot Avenue Extension Project***, as the new overpass has the potential to change traffic patterns both at the north and south sides of the School Campus.

Student Residence Count
Orchard School District



- **Improve the Oakland Road Railroad Crossing for Walking and Biking:** Oakland Road is a popular walking route for students who live south of Orchard Elementary School and those who want to access the commercial development to the south at the Oakland Road/Brokaw Road intersection. The railroad crossing on the west side of Oakland Road, south of Fox lane and north of Wayne Avenue, is currently dangerous for children and completely inaccessible for wheelchair users, parents with strollers, and other users with limited mobility. The Project Team ***recommends that the San José Department of Transportation and railroad operator work with stakeholders to improve the pedestrian railroad crossing on the west side of Oakland Road and to improve the crossings on both sides of Oakland Avenue for bicyclists.***
- **Improve Nearby Bus Stops:** The bus stops near Orchard School on Oakland Road are minimally signed, and there are no benches or shelter. The Project Team ***recommends that the City and VTA develop bus stop enhancements, including installing benches, trash cans, pedestrian-scale lighting, and shelters.*** In lieu of constructing shelters, the City and VTA may reach out to organizations like Our City Forest to plant shade trees at the bus stops.
- **Explore the Feasibility of Relocating Oakland Road/Fox Lane Crossing**: Currently there is only one marked crosswalk across Oakland Road on the southern leg of the Oakland Road/Fox Lane intersection. Because Oakland Road is a very wide, high-speed arterial and because there are a lot of southbound drivers on Oakland Road turning right onto Fox Lane, the Project Team ***recommends the Department of Transportation study the relocation of the marked crosswalk from the***

southern leg to the northern leg of the Oakland Road/Fox Lane intersection to determine safety benefits or risks for students traveling northbound on the east side of Oakland Road would no longer need to cross Fox Lane after crossing Oakland Road.

- **Investigate On-Campus Improvements for Arrival and Dismissal:** Orchard Elementary School's campus appears to have some flexibility in the ways in which students who arrive by car can be dropped off or picked up. The Project Team ***recommends that Orchard Elementary School explore some of the following changes to its arrival and dismissal procedures in the coming year***:
    - Have additional staggered arrival and dismissal times;
    - Open the parking lot off of Oakland Road for vehicular drop-off and pick-up; and
    - Continue to use the existing drop off zone in front of school for vehicular drop-off and pick-up and move special needs bus drop-off and pick-up to the pull-out on the west side of the campus.
- **Join the City of San José's Walk n' Roll San José Program:** Orchard Elementary School is not one of the current Walk n' Roll San José schools. The City supports participating schools by hosting bike rodeos and safety assemblies, by providing traffic safety education to the students, by participating in International Walk to School Day and Bike to School Day, and by increasing traffic enforcement near the school through the San José Police Department's Operation Safe Passage program. The Project Team ***recommends that Orchard Elementary School apply to become a Walk n' Roll San José school, and that the San José Department of Transportation prioritize that application***, given the challenges the school site faces with the Charcot Avenue Extension Project construction on the horizon.

Appendix A

Pedestrian and Bicycle Collision Data Analysis
Workshop Handout

2013-2017 ORCHARD SCHOOL DISTRICT DATA ANALYSES

Community Pedestrian and Bicycle Safety Training Workshop
September 13, 2018 | San Jose, CA

The goal of the Community Pedestrian and Bicycle Safety Training (CPBST) is to make communities safer and more pleasant for walking and bicycling. This workshop will train local residents and safety advocates in pedestrian and bicycle safety as well as create opportunities for collaboration with local officials and agency staff.

This fact sheet highlights 2013-2017 pedestrian and bicycle collision data available to help your community better prioritize recommendations that emerge from this workshop. The workshop focuses on the geography of the Orchard School District in San Jose, CA.

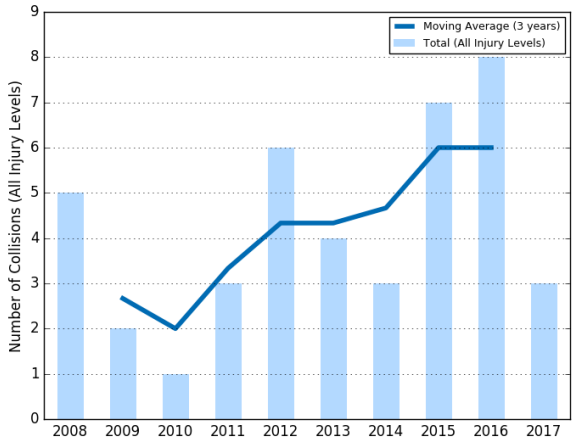
PEDESTRIANS

42 people were killed or injured in **42** pedestrian collisions in the last 10 years (2008-2017).

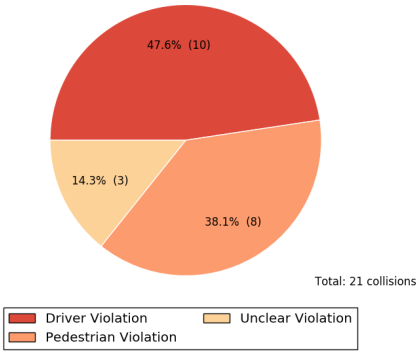
The **three-year moving average** line showed an upward trend in pedestrian collisions, though is currently flat.*

There were **8** pedestrian collisions in 2016, but an average of **6** pedestrian collisions per year for the 3-year rolling average between 2015 and 2017.

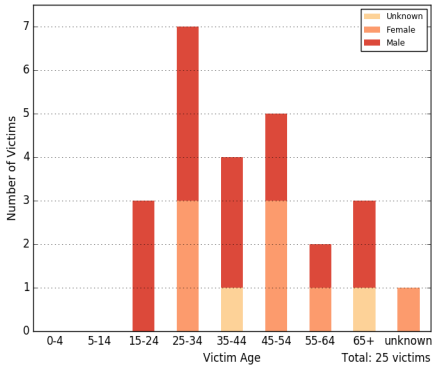
*This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are shown at the midpoint of the three years of data specified. 2016 and 2017 SWITRS data is provisional, so trends may change as the data is more complete.



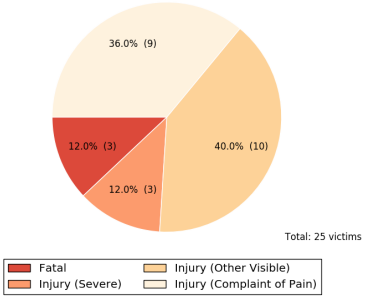
47.6% driver violations
VS.
38.1% pedestrian violations



*Unclear violations were committed either by the driver, pedestrian or bicyclist. There were also four collisions where the violation was not reported.



60.0% of victims were male
12.0% of victims were age 65+



24.0%
of victims (or 6 people) were KILLED or SEVERELY INJURED

Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional at this time.

Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

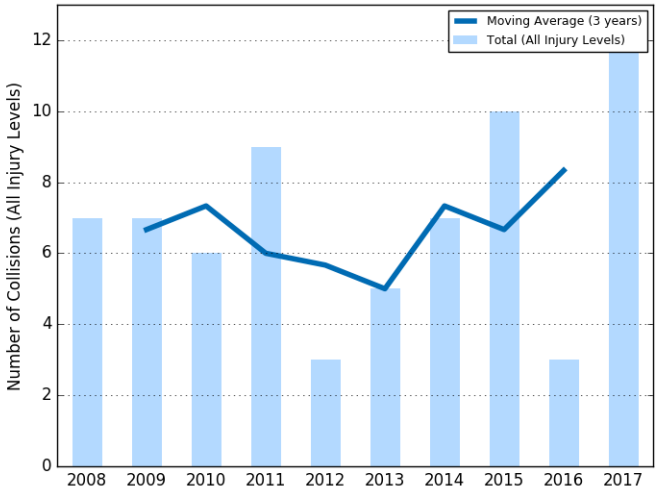
BICYCLES

69 people were killed or injured in **69** bicycle collisions in the last 10 years (2008-2017).

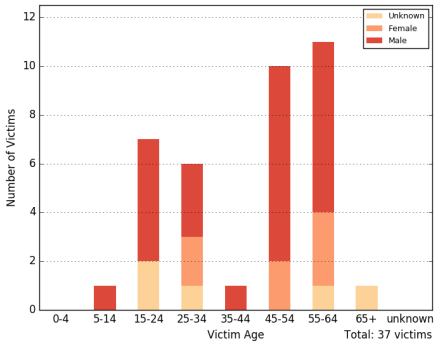
The **three-year moving average** line shows a **upward** trend in bicycle collisions.*

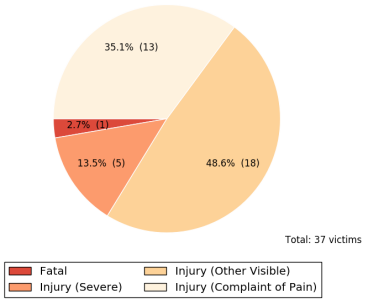
There were **3** bicycle collisions in 2016, but an average of **8.33** bicycle collisions per year for the 3-year rolling average between 2015 and 2017.

* This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are shown at the midpoint of the three years of data specified. 2016 and 2017 SWITRS data is provisional, so trends may change as the data is more complete.



Bicycles **must follow all the same rules of the road as vehicles.** As a result, we can**not** break down violations by driver vs. bicyclist.





67.6% of victims were male

8.1% of victims were age 18 or younger

56.7% of victims were age 45-64

16.2%
of victims (or 6 people)
KILLED or SEVERELY INJURED

SUMMARY

32.5 pedestrian fatalities & injuries per 100,000 population over the last five years, which is **11.7% more than** Santa Clara County and **9.5% less than** California

32.3 bicyclist fatalities & injuries per 100,000 population over the last five years, which is **18.0% less than** Santa Clara County and **3.0% less than** California

	Yearly Population Rate of Fatalities & Injuries per 100,000 Population Calculated Over a 5-year Period*	
	Pedestrian	Bicyclist
San Jose	32.5	32.3
Santa Clara County	29.1	39.4
California	35.9	33.3

Source: U.S. Census Bureau, Population Division (intercensal population data for 2016).

* The rate per population is calculated by adding the number of fatalities and injuries from 2012 to 2016 divided by five times the population in 2016.

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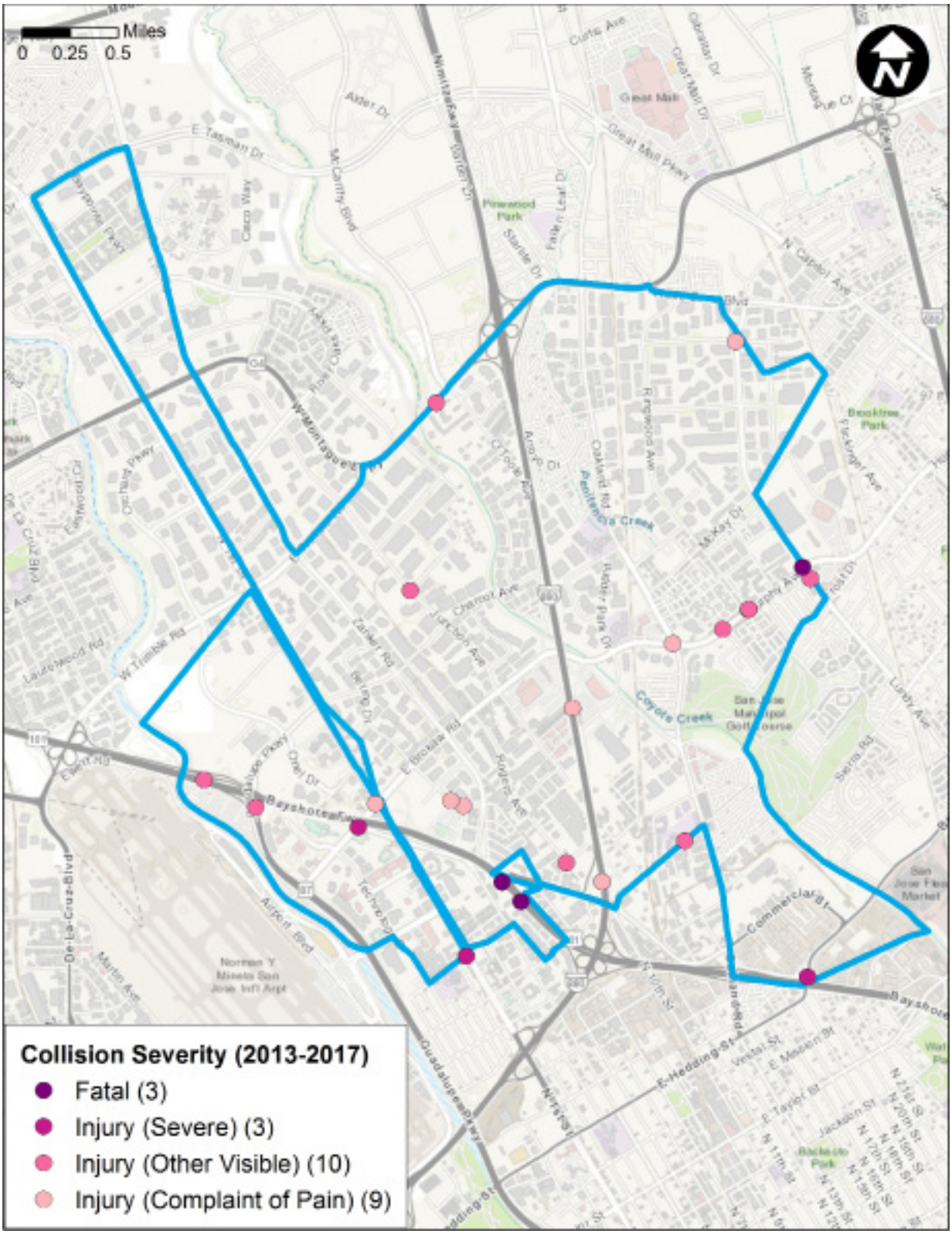
California Walks

OTS CALIFORNIA OFFICE OF TRAFFIC SAFETY

Pedestrian Collisions 2013-2017

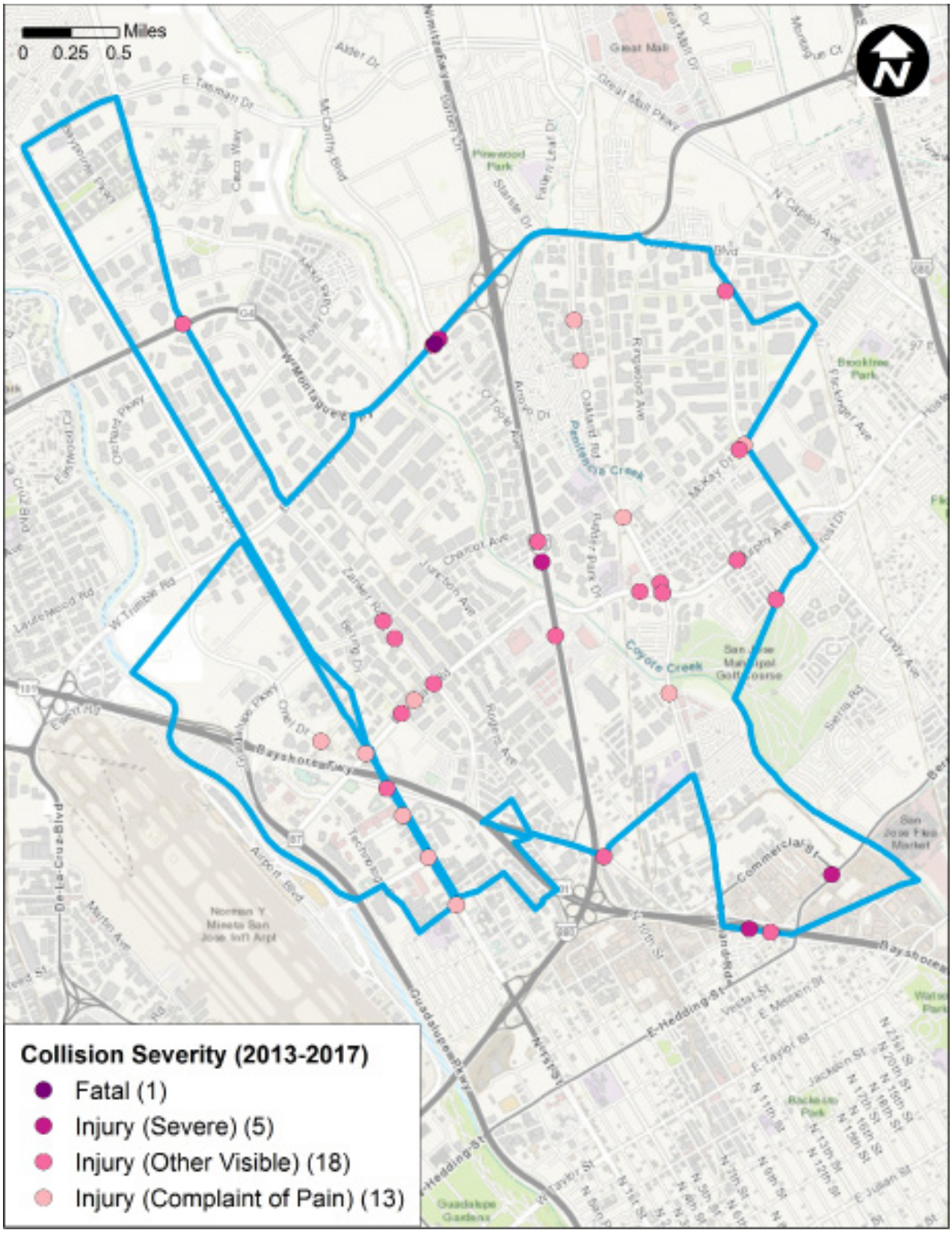
Orchard School District - San Jose, CA



Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional as of June 2018.

Bicyclist collision locations, 2013-2017

Orchard School District - San Jose, CA



Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional as of June 2018.

Appendix B

Pedestrian and Bicycle Collision Data Analysis
Site Visit Presentation

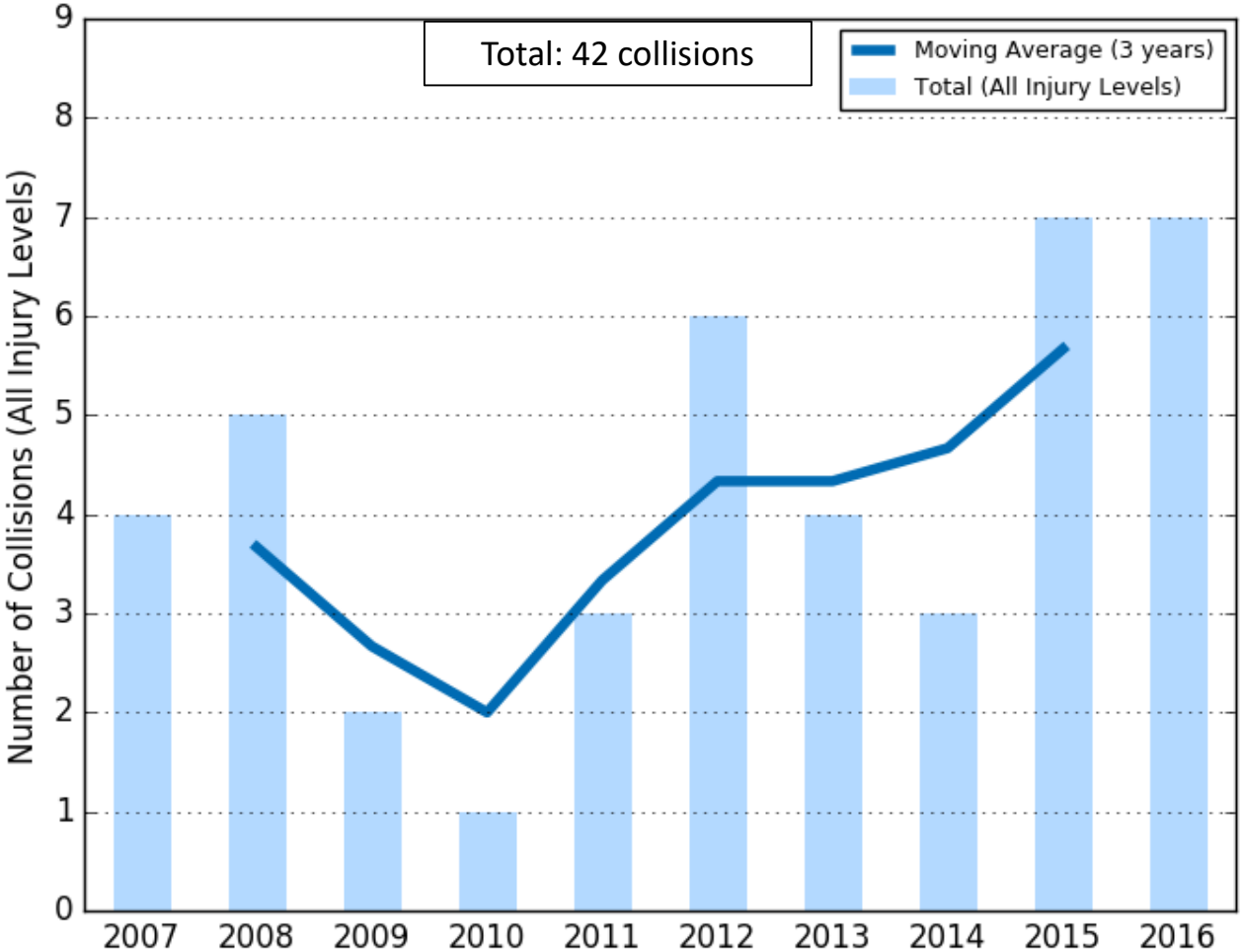
Community Pedestrian and Bicycle Safety Workshop Site Visit

San Jose, CA – Orchard Elementary School District

August 2, 2018

Pedestrian Injury Collision Trend

with 3-year moving average



Note: 2015 and 2016 Statewide Integrated Traffic Records System (SWITRS) data are provisional as of November 2017.

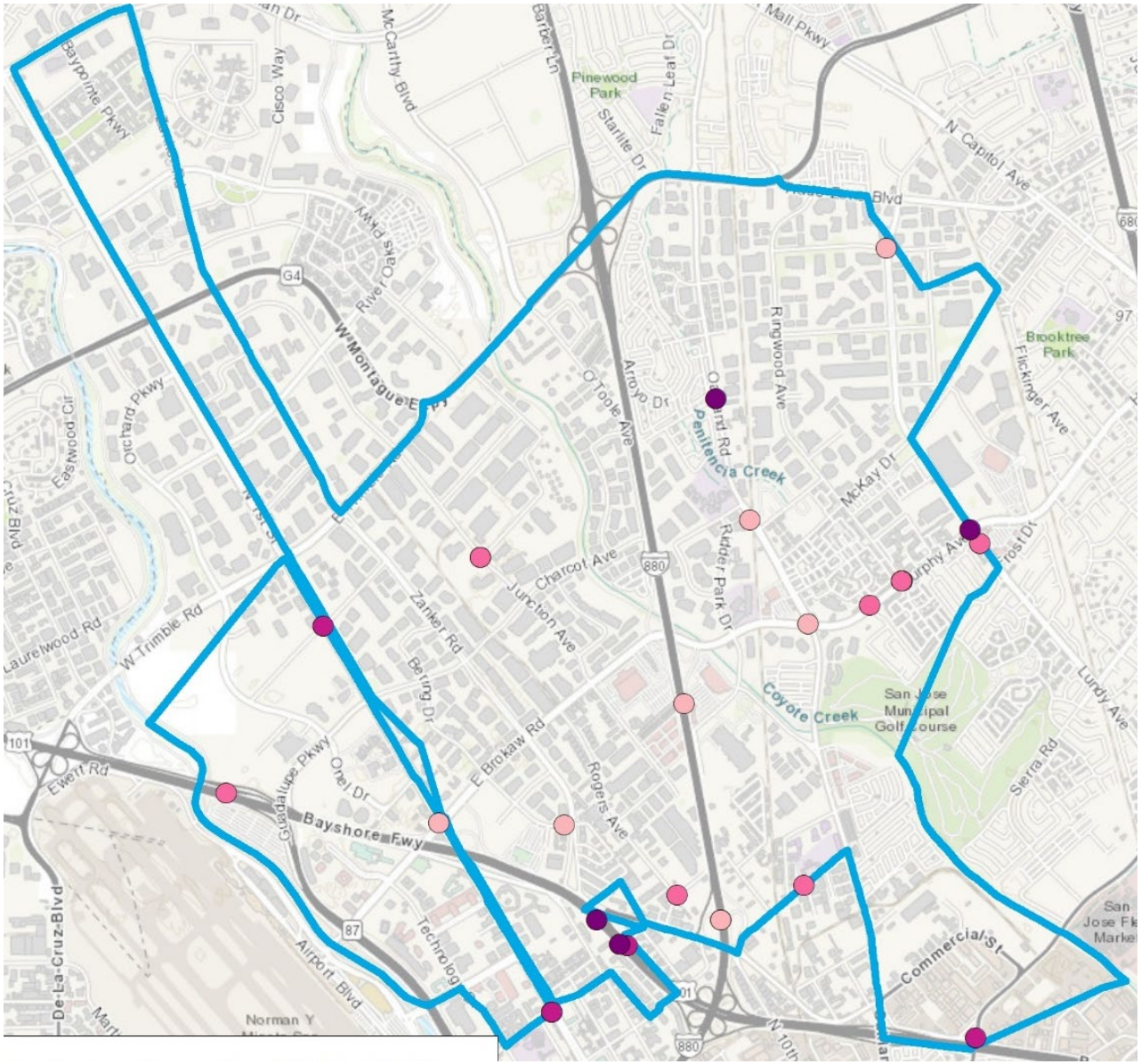
Pedestrian Injury Collisions

2012-2016

Total: 27 collisions mapped

Collision Severity (2012-2016)

- Fatal (4)
- Injury (Severe) (4)
- Injury (Other Visible) (8)
- Injury (Complaint of Pain) (11)



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Pedestrian Collisions and Income

2012-2016

Total: 43 collisions mapped

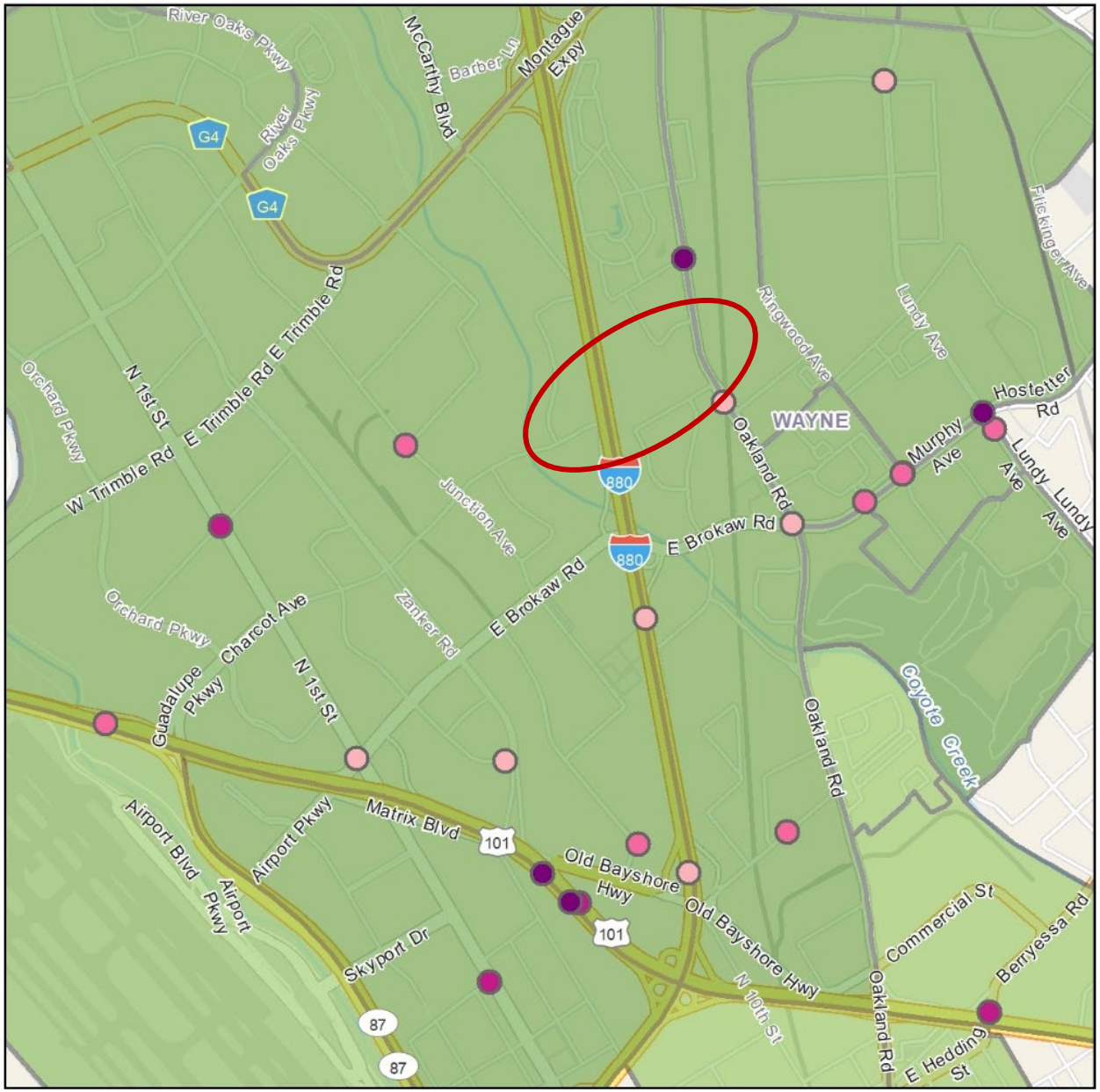
Collision Severity (2012-2016)

- Fatal (4)
- Injury (Severe) (4)
- Injury (Other Visible) (8)
- Injury (Complaint of Pain) (11)

2017 Median Household Income

- 50K - 75K
- > 75K

Source: SWITRS, 2012-16; Demographics – ESRI, US Census Bureau; ACS



Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Pedestrian Collisions by Time of Day and Day of Week Total: 27 collisions

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
09:00PM-11:59PM	0	0	1	1	1	0	0	3
06:00PM-08:59PM	1	1	2	1	1	0	0	6
03:00PM-05:59PM	3	3	1	0	0	1	1	9
Noon-02:59PM	1	1	0	0	1	0	0	3
09:00AM-11:59AM	0	0	0	0	1	1	0	2
06:00AM-08:59AM	0	1	0	0	1	1	0	3
03:00AM-05:59AM	0	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	1	1
	5	6	4	2	5	3	2	

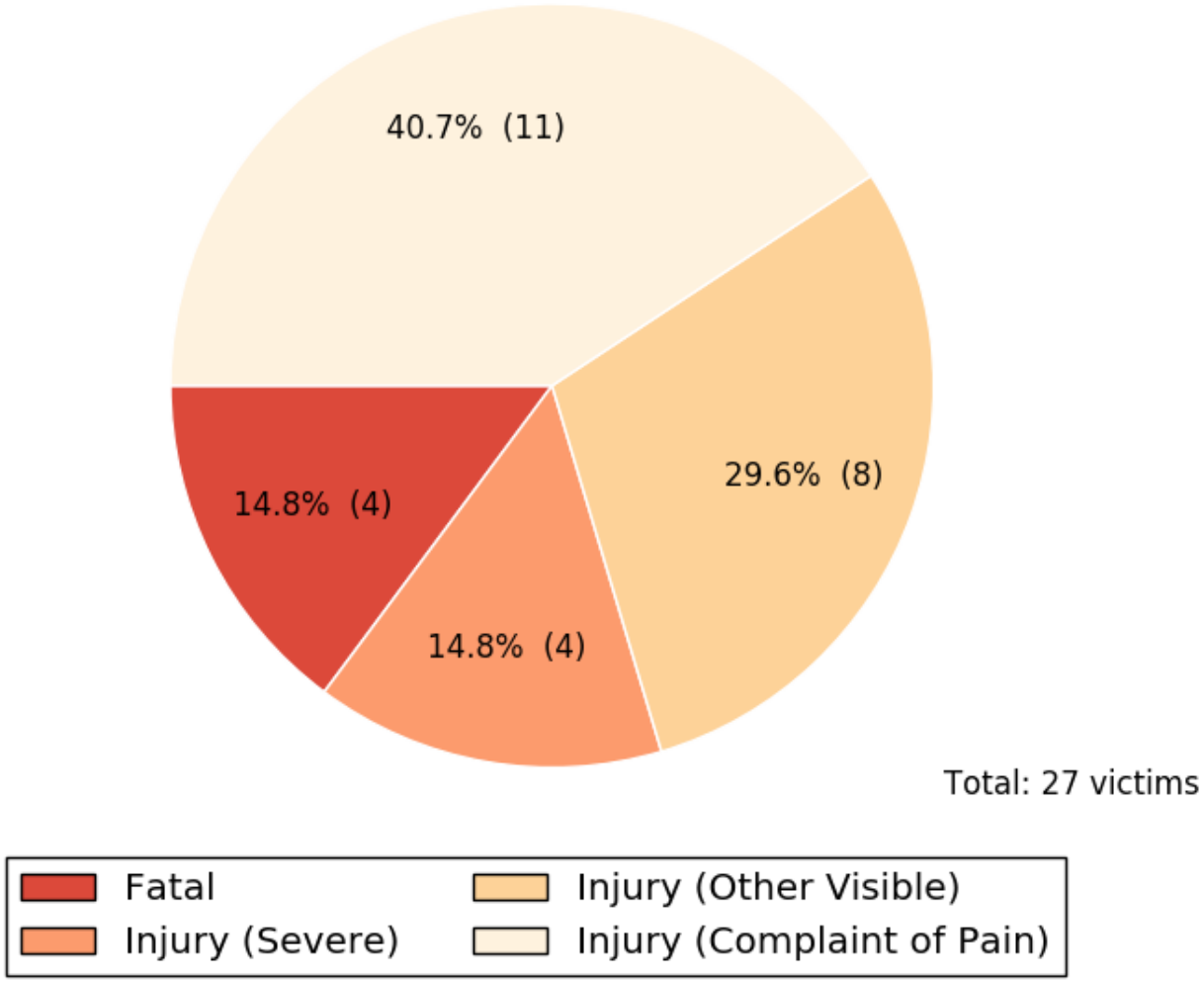
*The colors in this graph refer to how frequently a collision occurs at that time and day

Top 10 Violations in Pedestrian Collisions (with # and %)

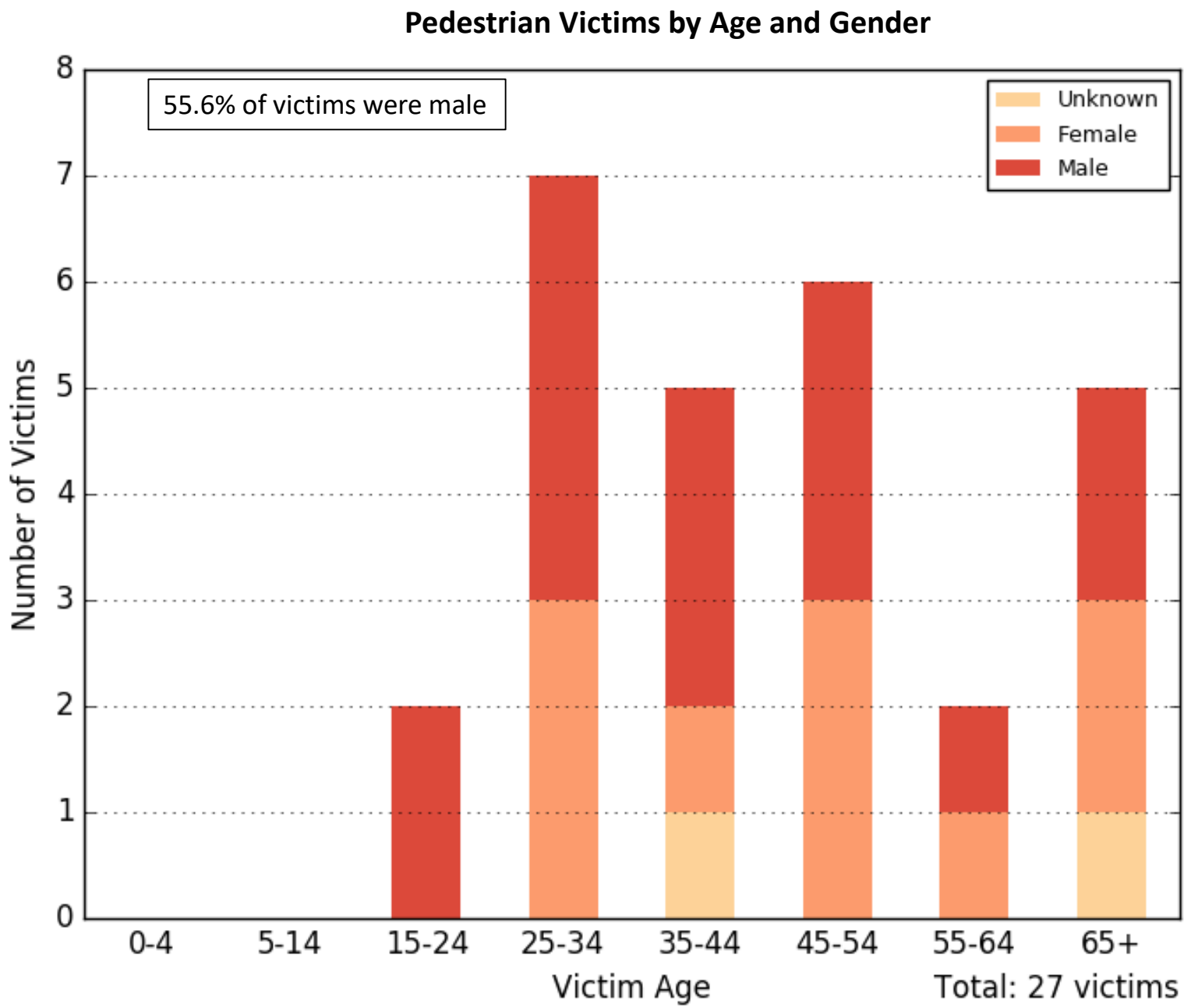
CVC No.	Description	Freq.	Percent
0	Unknown	10	37.0%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	6	22.2%
21954	Pedestrian failure to yield right-of-way to vehicles	4	14.8%
22107	Unsafe turning with or without signaling	2	7.4%
21453	Red or Stop, vehicles stop at limit line or X-walk. When making right turn at a red light/stop sign driver required to yield to any vehicle approaching so closely as to constitute an immediate hazard	1	3.7%
21456	"Walk" pedestrian failure to yield right-of-way to vehicles already in crosswalk	1	3.7%
21804	Driver failure to yield right-of-way when entering/crossing a highway	1	3.7%
21955	At intersections, pedestrians can't cross anywhere except at a crosswalk	1	3.7%
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present	1	3.7%
Total		27	100.0%

Total: 27 collisions

Pedestrian Victim Injury Severity

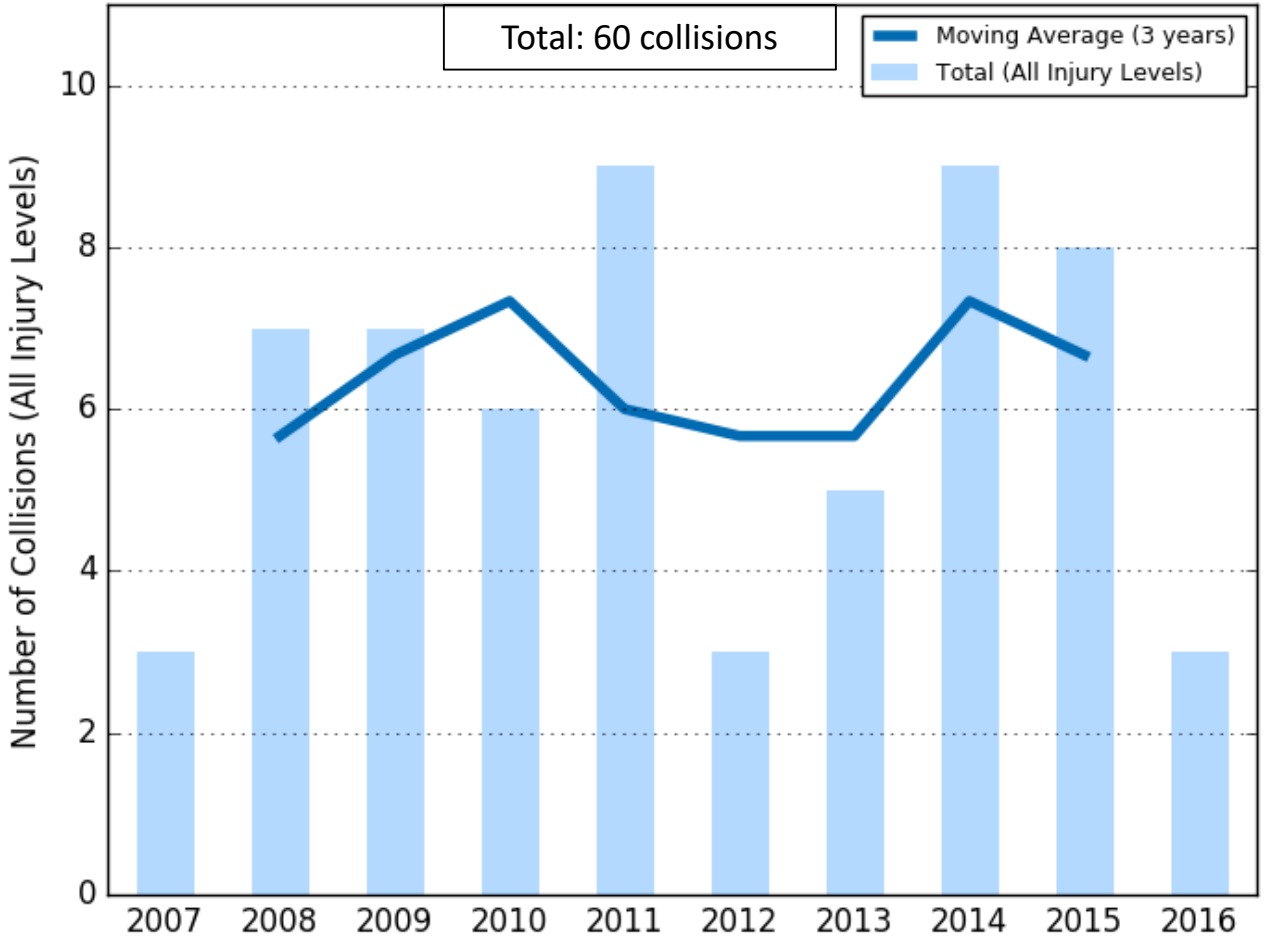


Note: 2015 and 2016 SWITRS data are provisional as of November 2017.



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Bicycle Injury Collision Trend
with 3-year moving average



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

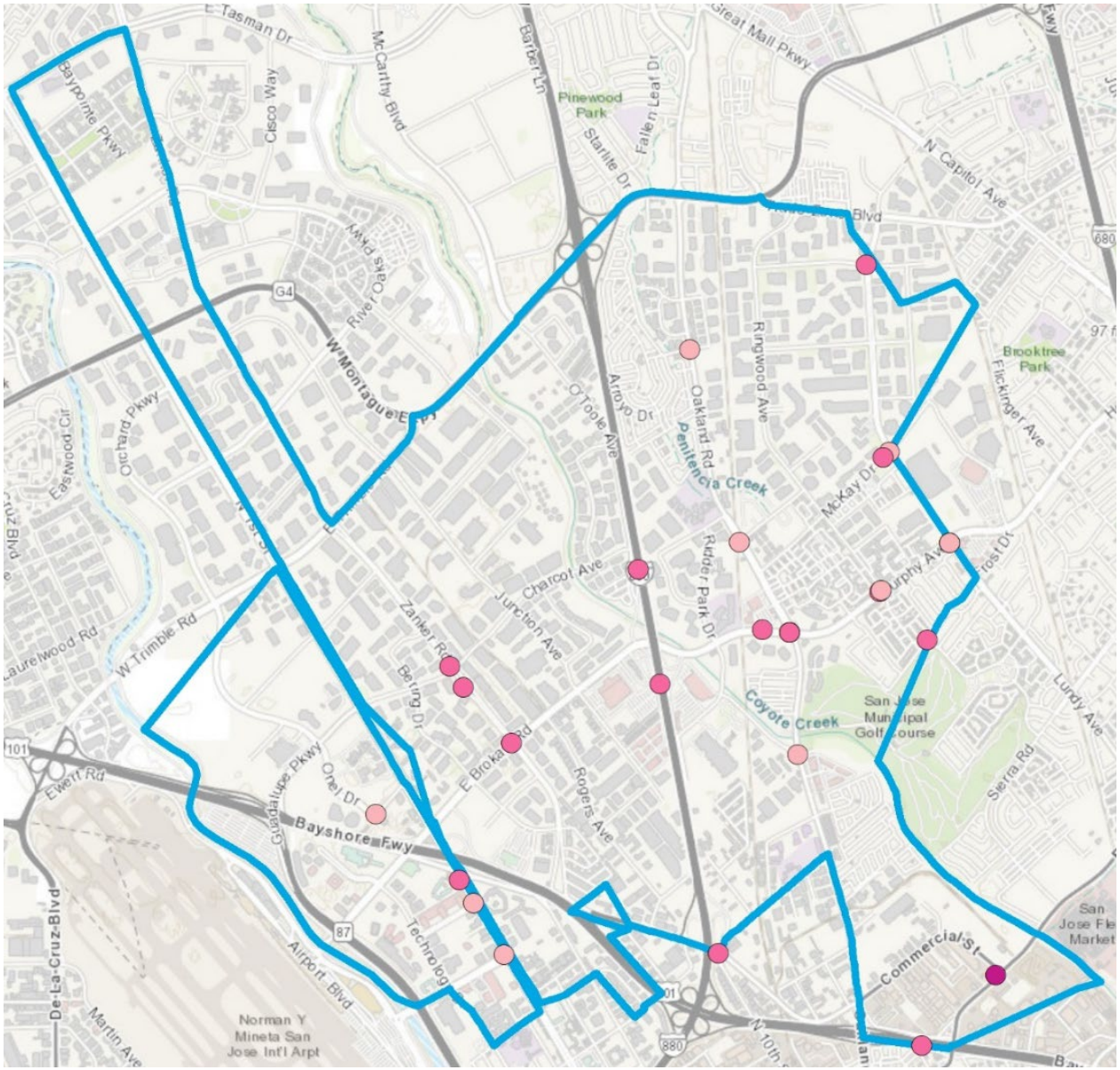
Bicycle Injury Collisions

2012-2016

Total: 28 collisions mapped

Collision Severity (2012-2016)

- Injury (Severe) (2)
- Injury (Other Visible) (15)
- Injury (Complaint of Pain) (11)



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Bicycle Collisions and Income

2012-2016

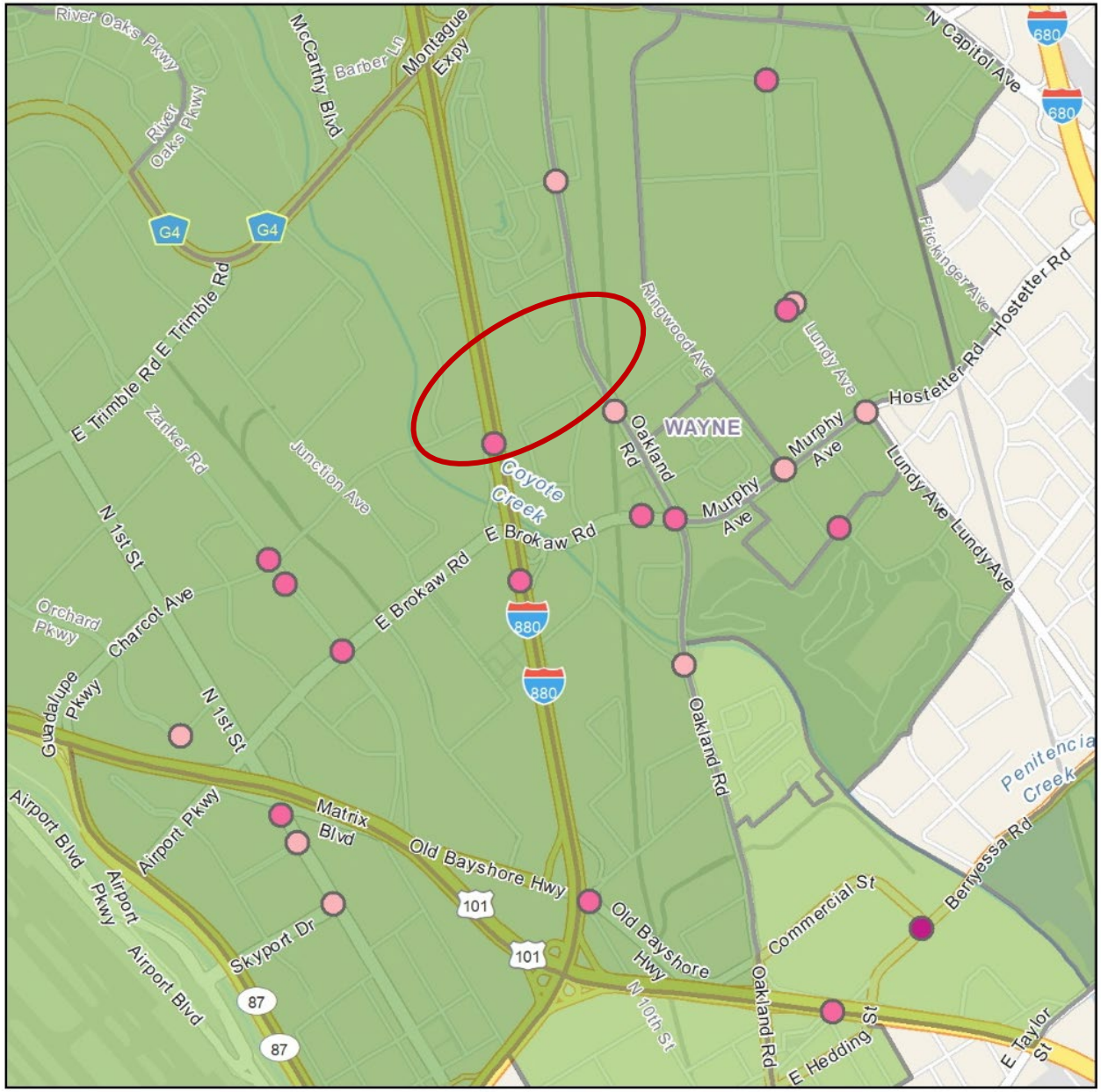
Total: 28 collisions mapped

Collision Severity (2012-2016)

- Injury (Severe) (2)
- Injury (Other Visible) (15)
- Injury (Complaint of Pain) (11)

2017 Median Household Income

- 50K - 75K
- > 75K



Source: SWITRS, 2012-16; Demographics – ESRI, US Census Bureau; ACS

Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Bicycle Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
09:00PM-11:59PM	0	0	0	0	1	1	0	2
06:00PM-08:59PM	0	0	3	2	0	0	0	5
03:00PM-05:59PM	2	2	1	2	0	0	0	7
Noon-02:59PM	0	0	0	0	3	1	1	5
09:00AM-11:59AM	1	0	0	0	1	0	0	2
06:00AM-08:59AM	2	2	0	1	0	0	0	4
03:00AM-05:59AM	0	0	1	1	0	0	0	2
Midnight-02:59AM	0	0	0	0	0	0	0	0
	4	4	5	4	5	2	1	

*The colors in this graph refer to how frequently a collision occurs at that time and day

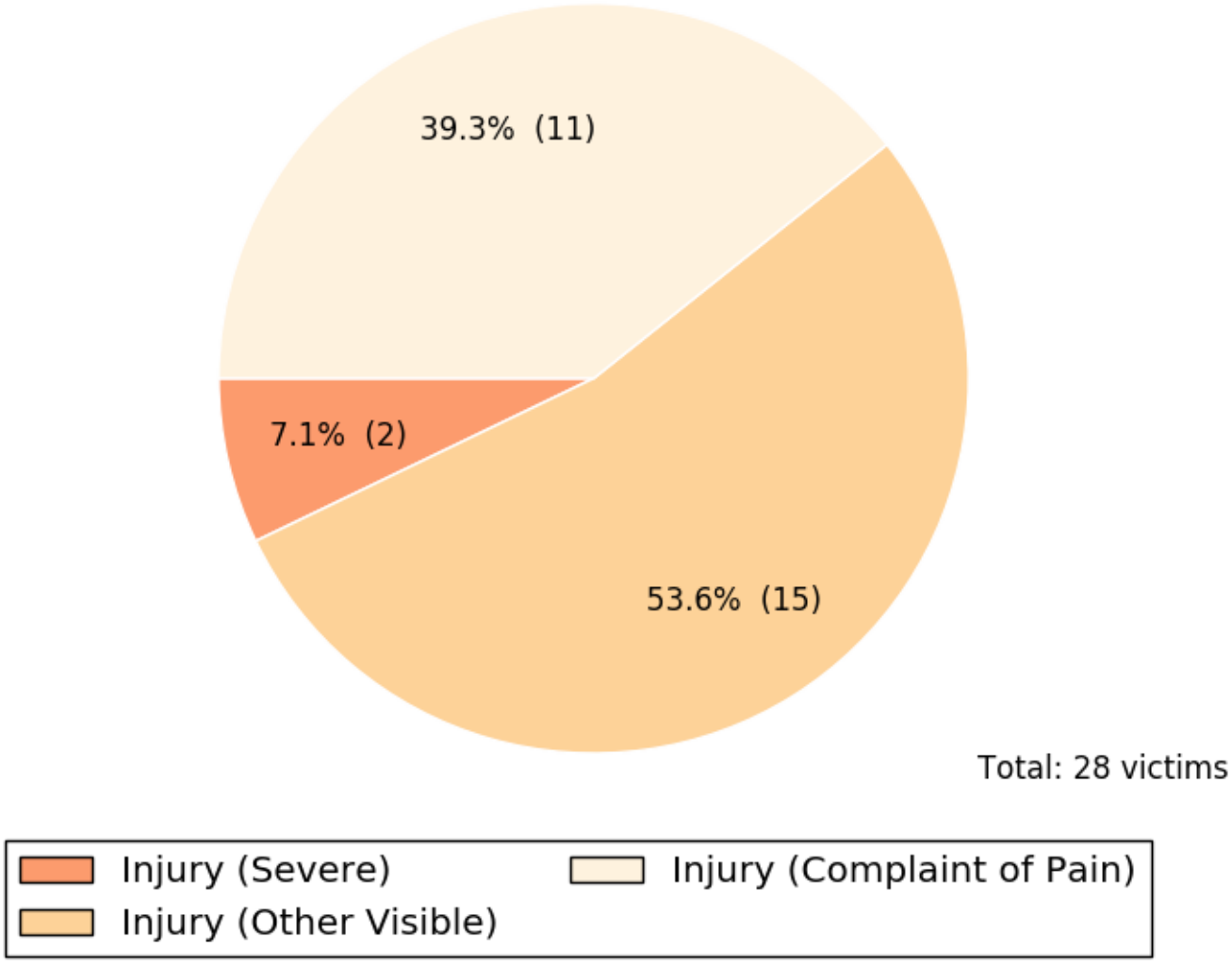
Total: 28 collisions

Top 10 Violations in Bicycle Collisions (with # and %)

CVC No.	Description	Freq.	Percent
0	Unknown	11	39.3%
21650	Failure to drive on right half of the roadway (with some exceptions)	4	14.3%
21453	Red or Stop, vehicles stop at limit line or X-walk. When making right turn at a red light/stop sign driver required to yield to any vehicle approaching so closely as to constitute an immediate hazard	3	10.7%
21804	Driver failure to yield right-of-way when entering/crossing a highway	3	10.7%
21703	Followed another vehicle too closely	2	7.1%
21658	Failure to drive vehicle in single lane	1	3.6%
21803	Drivers approaching an intersection controlled by a yield sign must yield to approaching/entering vehicles	1	3.6%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	1	3.6%
22100	Left and right-hand turns should be made as close to the respective roadway edges as possible	1	3.6%
22350	Speeding on the highway	1	3.6%
Total		28	100.0%

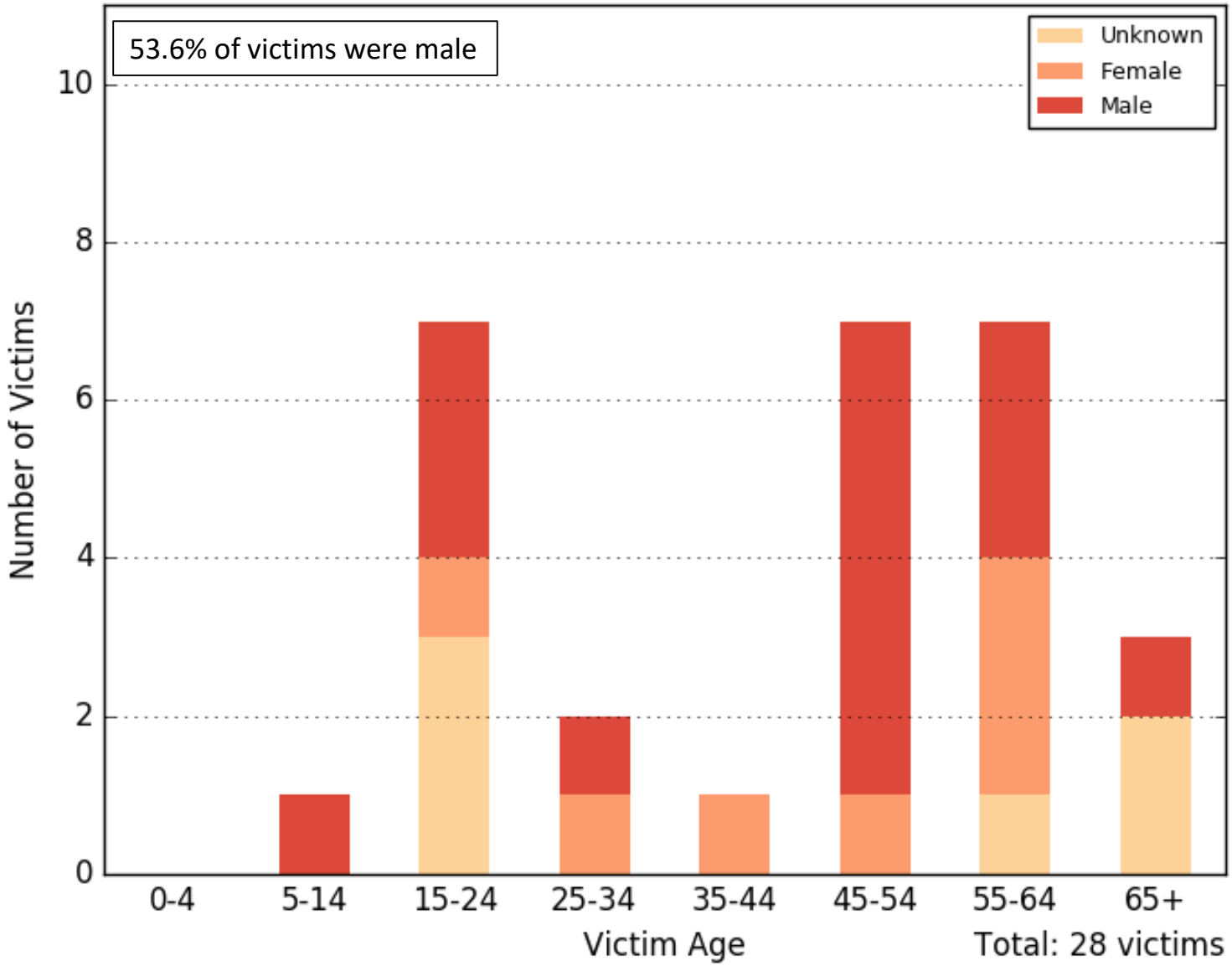
Total: 28 collisions

Bicycle Victim Injury Severity



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

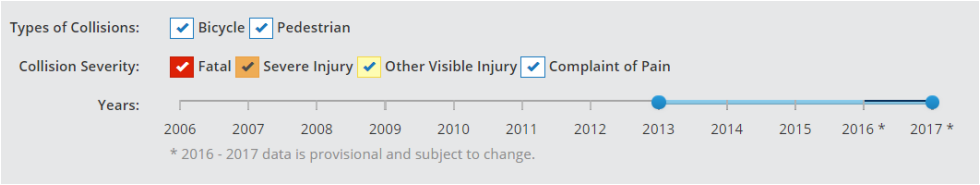
Bicycle Victims by Age and Gender

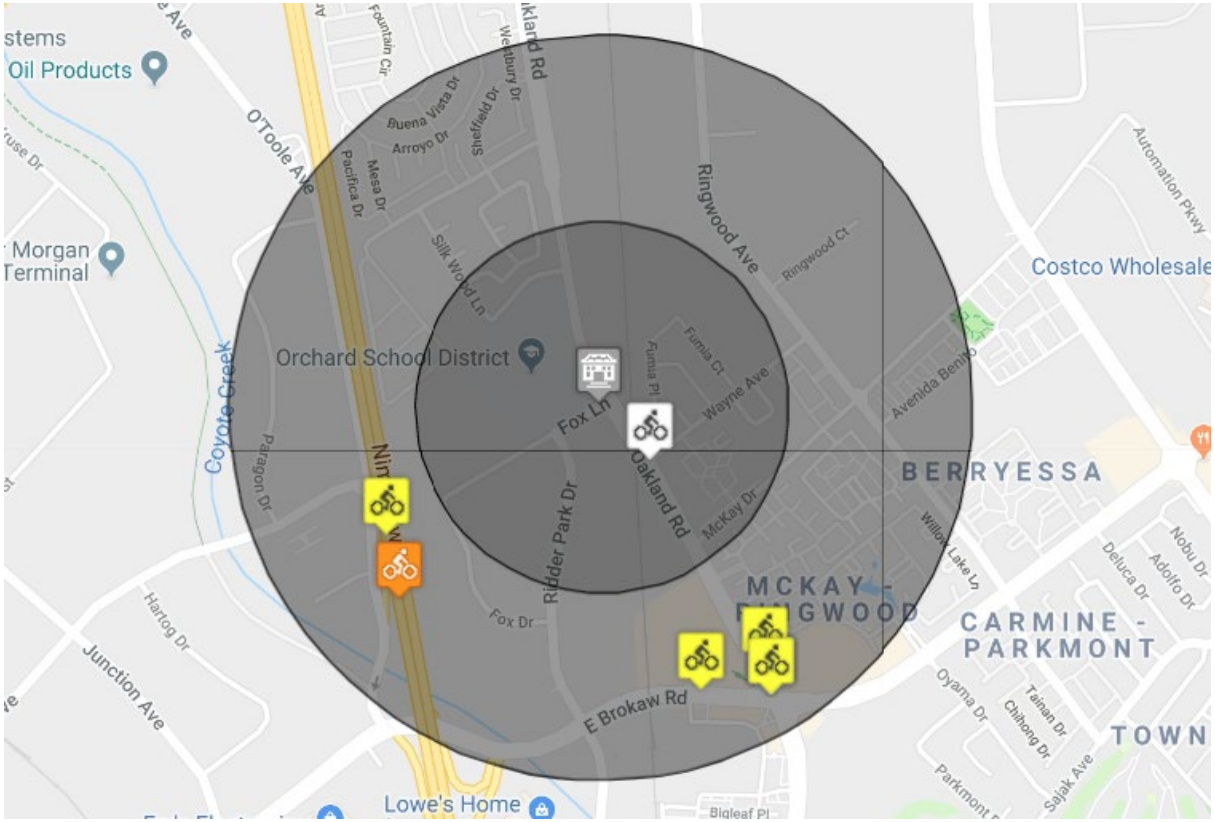


Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Orchard Elementary

921 Fox Lane | San Jose| Santa Clara County | CDS: 43696330000000

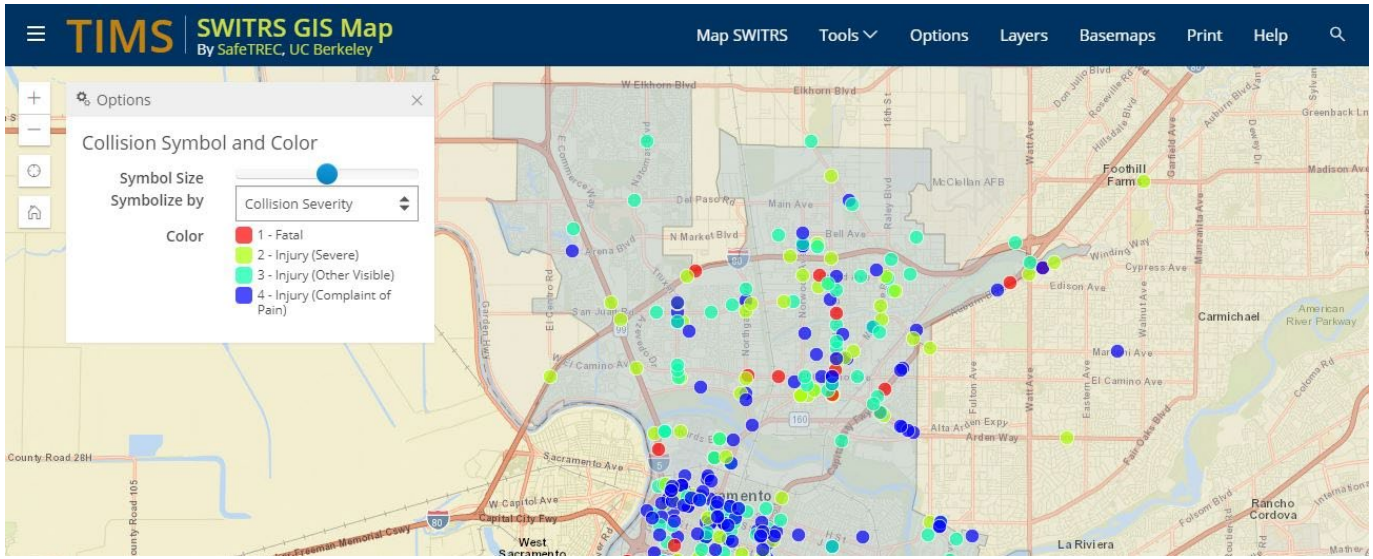




Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
<¼ mi.	0	0	0	1	0	1	1
¼ - ½ mi.	0	1	4	2	1	6	7
Total	0	1	4	3	1	7	8

The Transportation Injury Mapping System (TIMS) is a web-based tool that allows users to analyze and map data from California's Statewide Integrated Traffic Records System (SWITRS).

To further explore collision data, register for a free account to access the tools and resources on TIMS.
https://tims.berkeley.edu/



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