



PASADENA

> LIVABLE <
**ORANGE
GROVE** BLVD

LAKE AVE TO
SIERRA MADRE VILLA



Livable Orange Grove Blvd.

Resident Meeting

March 22nd, 2018

PCC Community Education Center

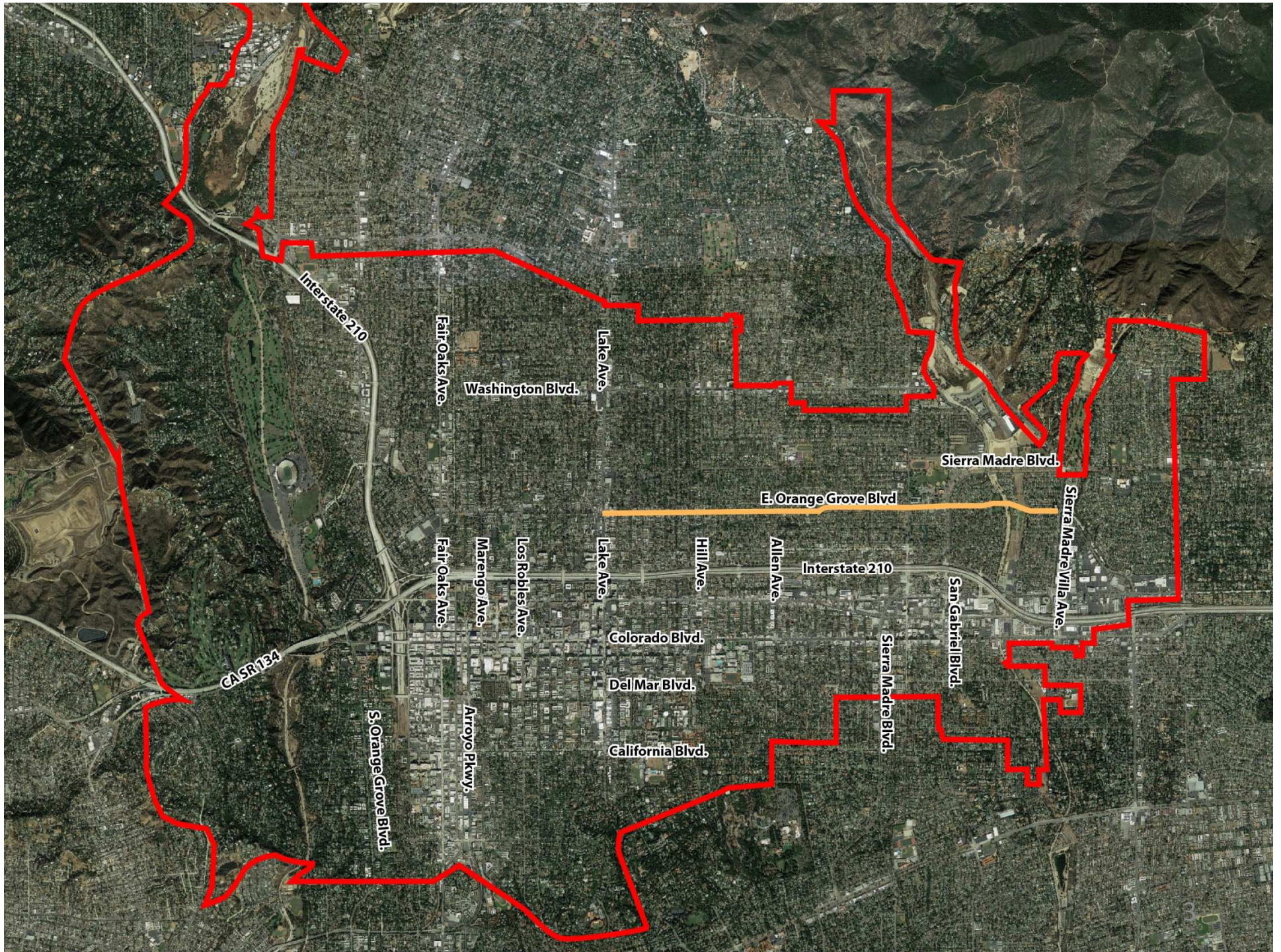
[MOVING PEOPLE TO PLACES
CONNECTIVITY]



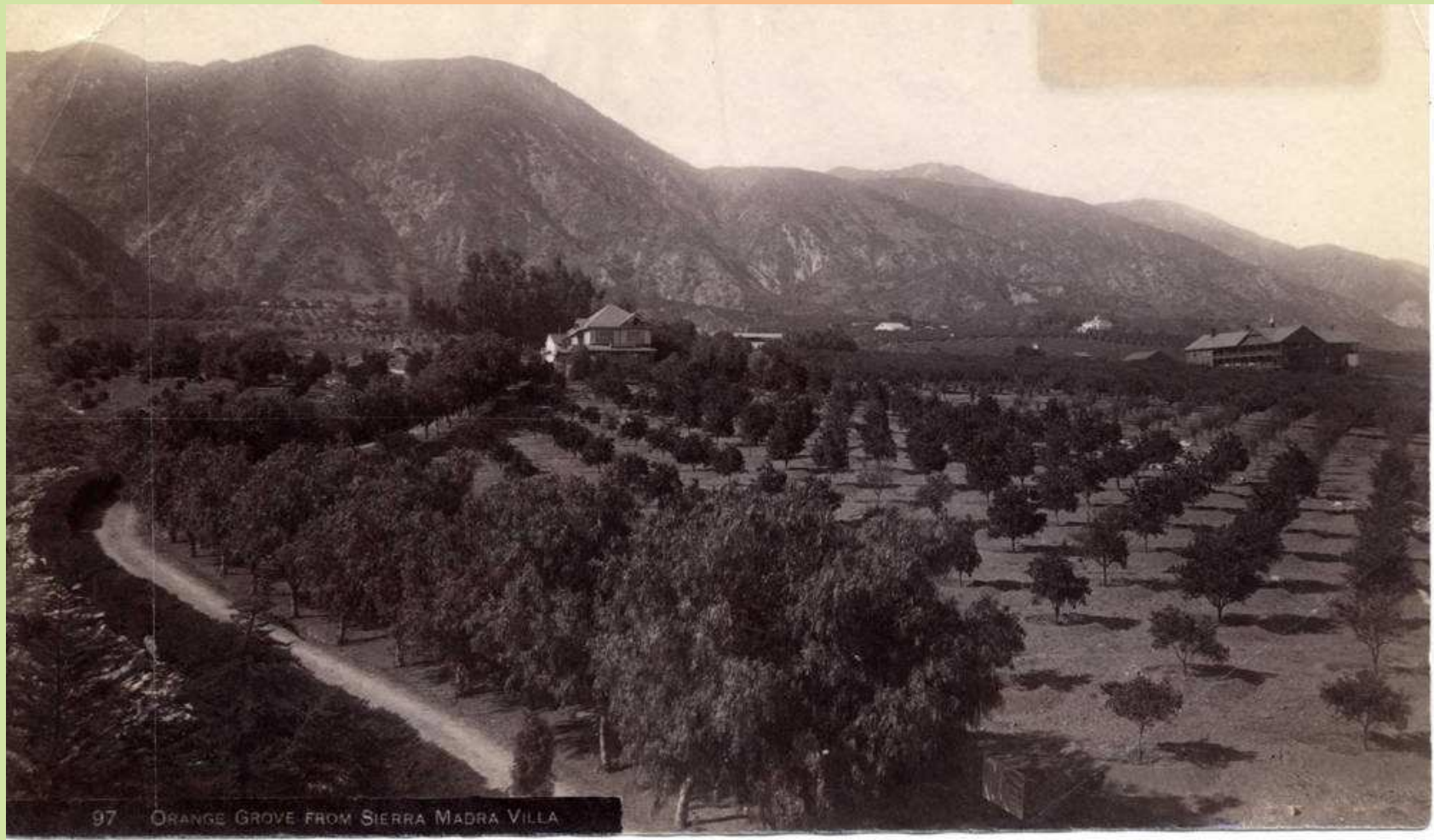
1

Orange Grove Context & History





Historic Context



Orange Grove Boulevard was created to serve Pasadena's citrus groves.

Homes

- Notable residential architecture & historic neighborhoods create a unique identity
- This section of Orange Grove Blvd. is the living room for 672 homes



Schools and Churches



Assumption School/Church



Norma Coombs Elementary

Parks



Viña Vieja / Dog Park



Sunnyslope Park



Gwinn Park

Nearby Schools & Parks



Pasadena High School



Victory Park



Jefferson Elementary

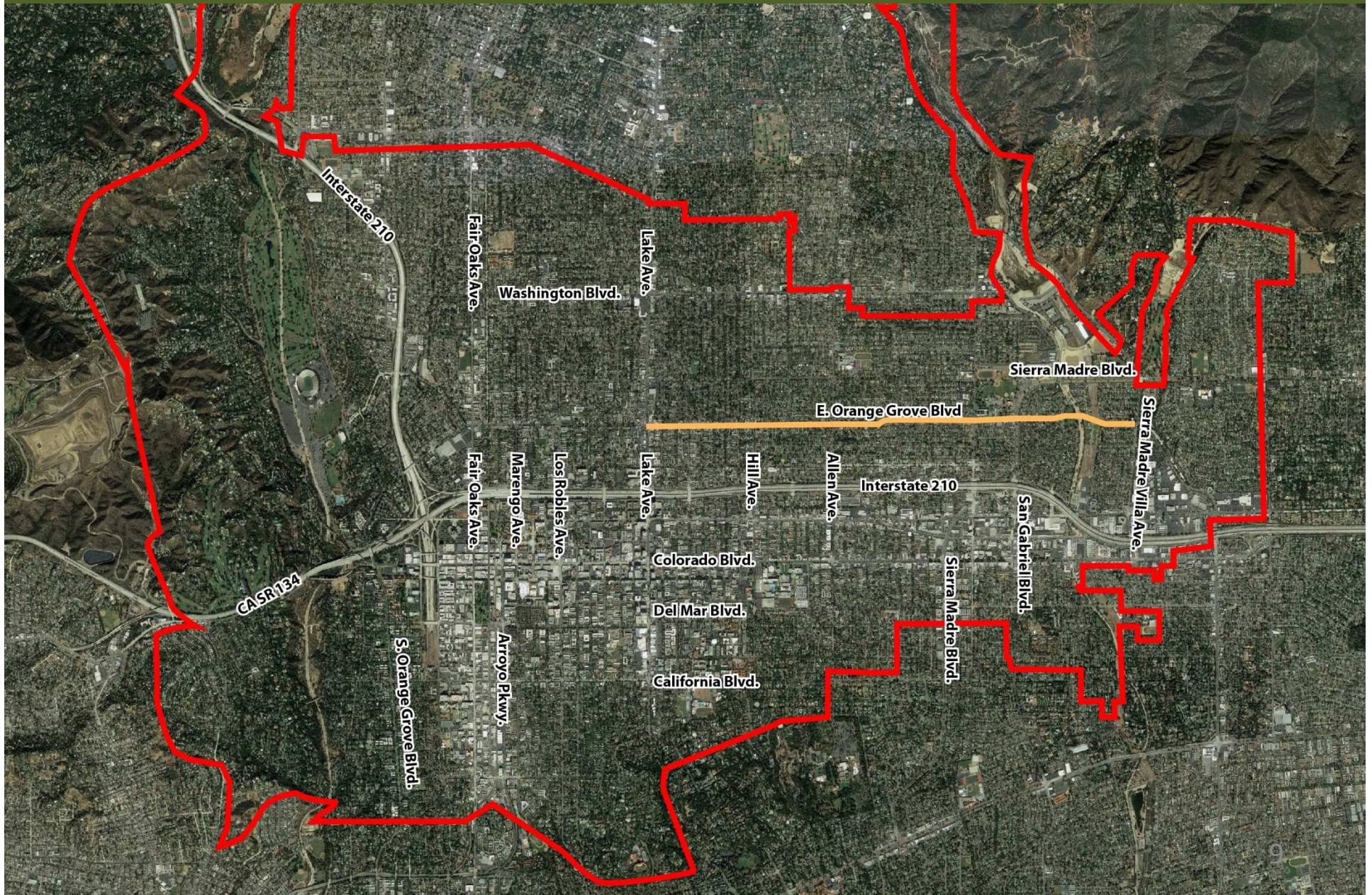


MacDonald Park



Marshall Fundamental

Role as an Important Travel Corridor



2

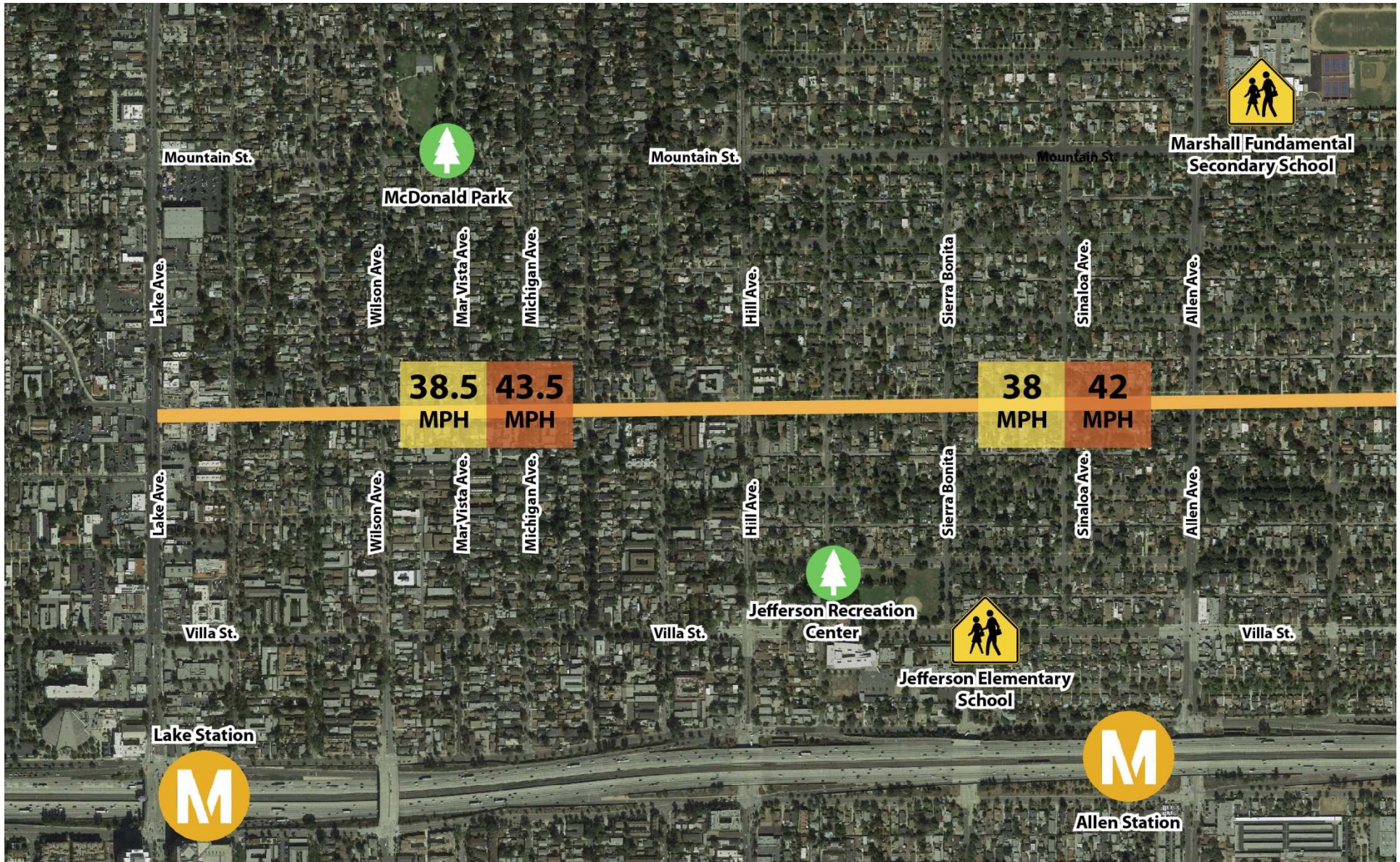
Orange Grove Existing Conditions





Speed Limit Considerations

- Current speed limit is **40 mph**, T-second highest in City (New York Dr., tied with Sierra Madre Bl.)
- California law prohibits cities from setting their own speed limits on major streets in order to avoid speed traps
- Limits must be set at the 85th percentile speed or they cannot be reasonably enforced
- Various bills have been floated at the state level to reform this process, but none have passed



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Schools



Parks



Metro Gold Line Stations



Orange Grove Blvd.



50th Percentile Speed



85th Percentile Speed



**Traffic Speeds along
Orange Grove Boulevard**
Lake Ave. to Allen Ave.

13





LEGEND



Schools



Metro Gold Line Stations



Parks



Orange Grove Blvd.



50th Percentile Speed



85th Percentile Speed

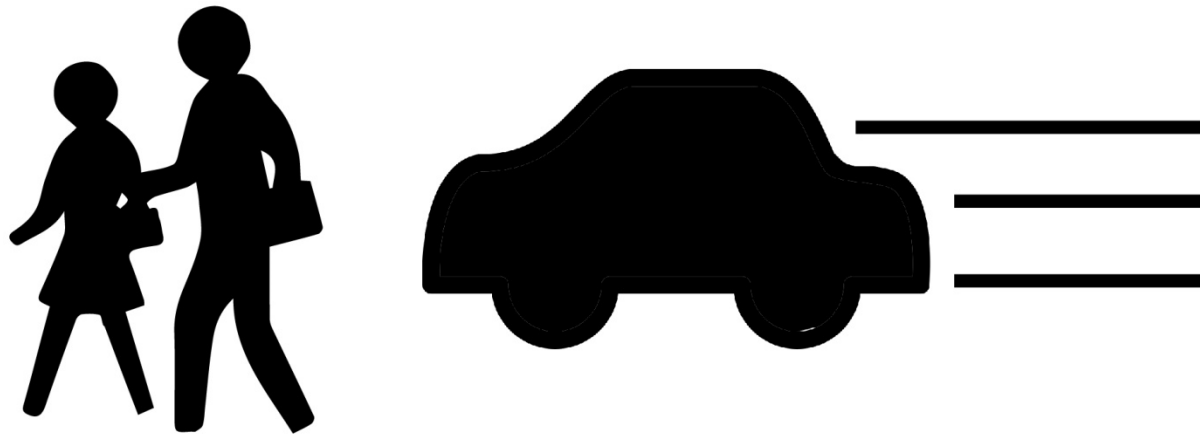


Traffic Speeds along Orange Grove Boulevard Allen Ave. to Sierra Madre Villa Ave.





Speeds at Schools

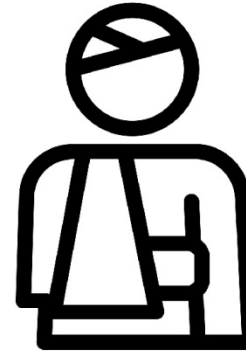


1,936 cars daily
>40 MPH
at Norma Coombs
and Assumption Schools

Collisions Statistics



418
COLLISIONS



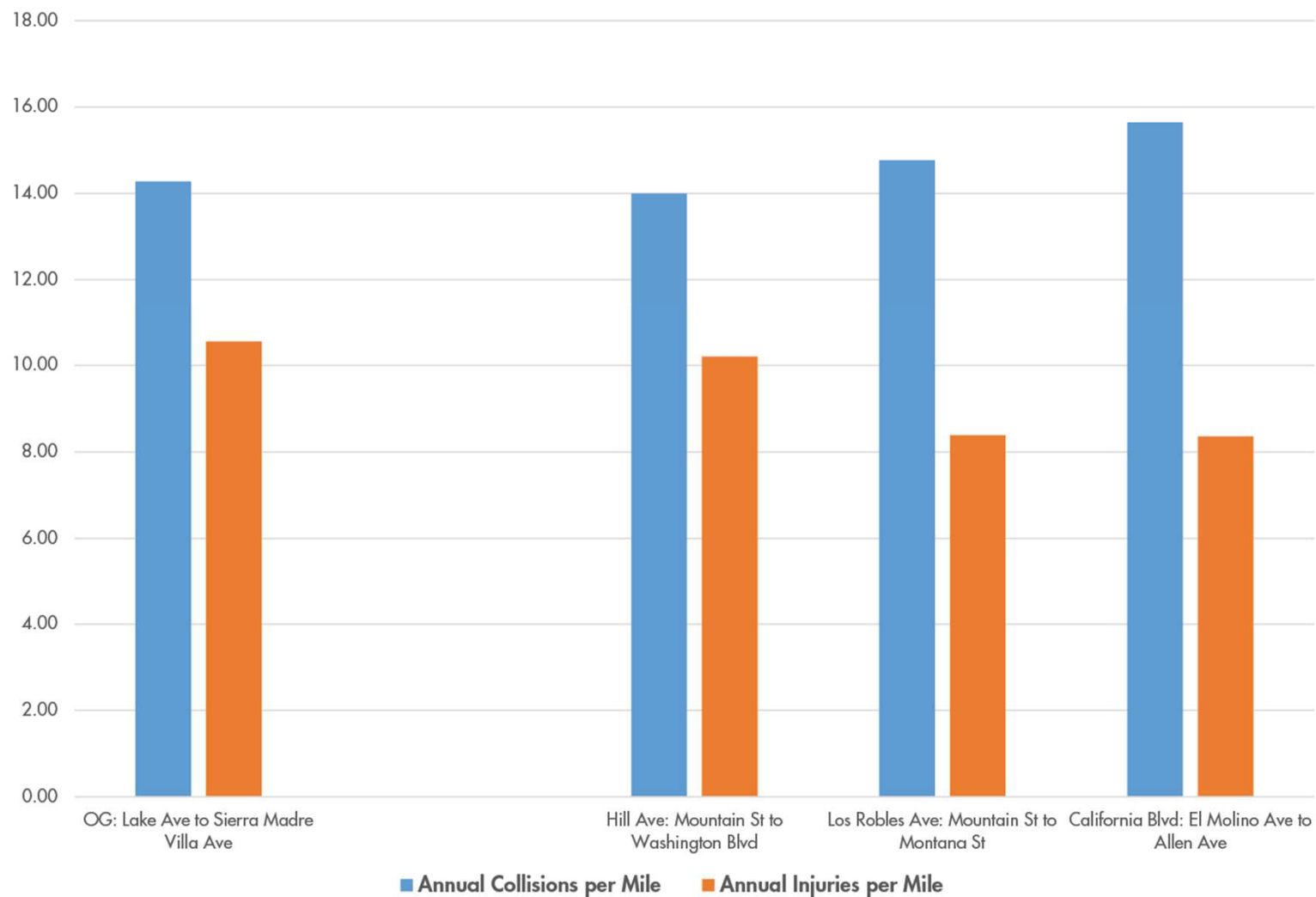
309
INJURIES



3
FATALITIES

On Orange Grove Boulevard between Lake
Avenue and Sierra Madre Villa Ave., 2008-2017
(source: Pasadena DOT collision records)

Comparison of Collision Rates On Streets with Similar Volumes



Speeds & Fatal Accidents

HIT BY A VEHICLE
TRAVELING AT:

**20
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**30
MPH**



5 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

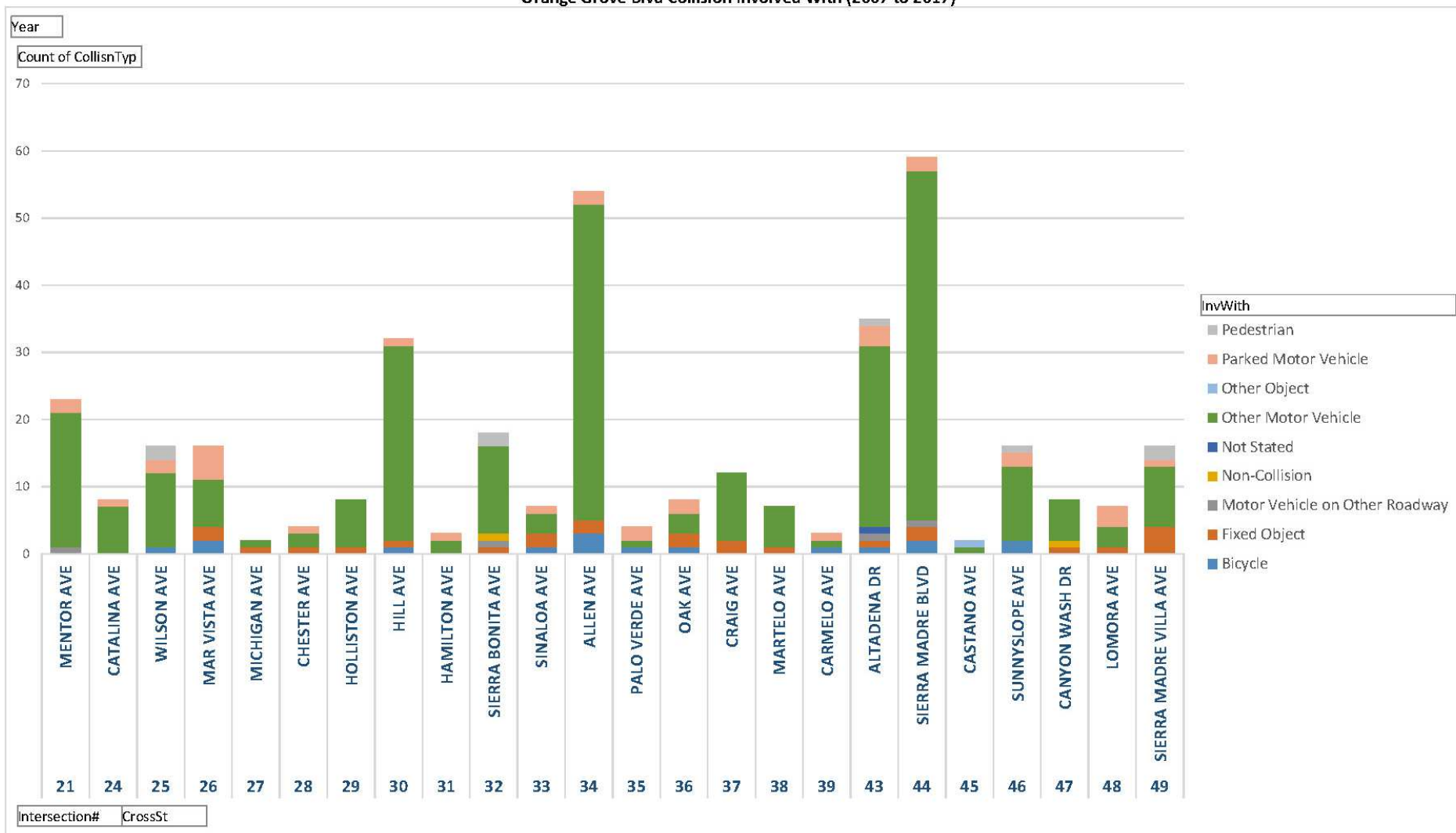
**40
MPH**



Only 1 out of 10 pedestrians survives

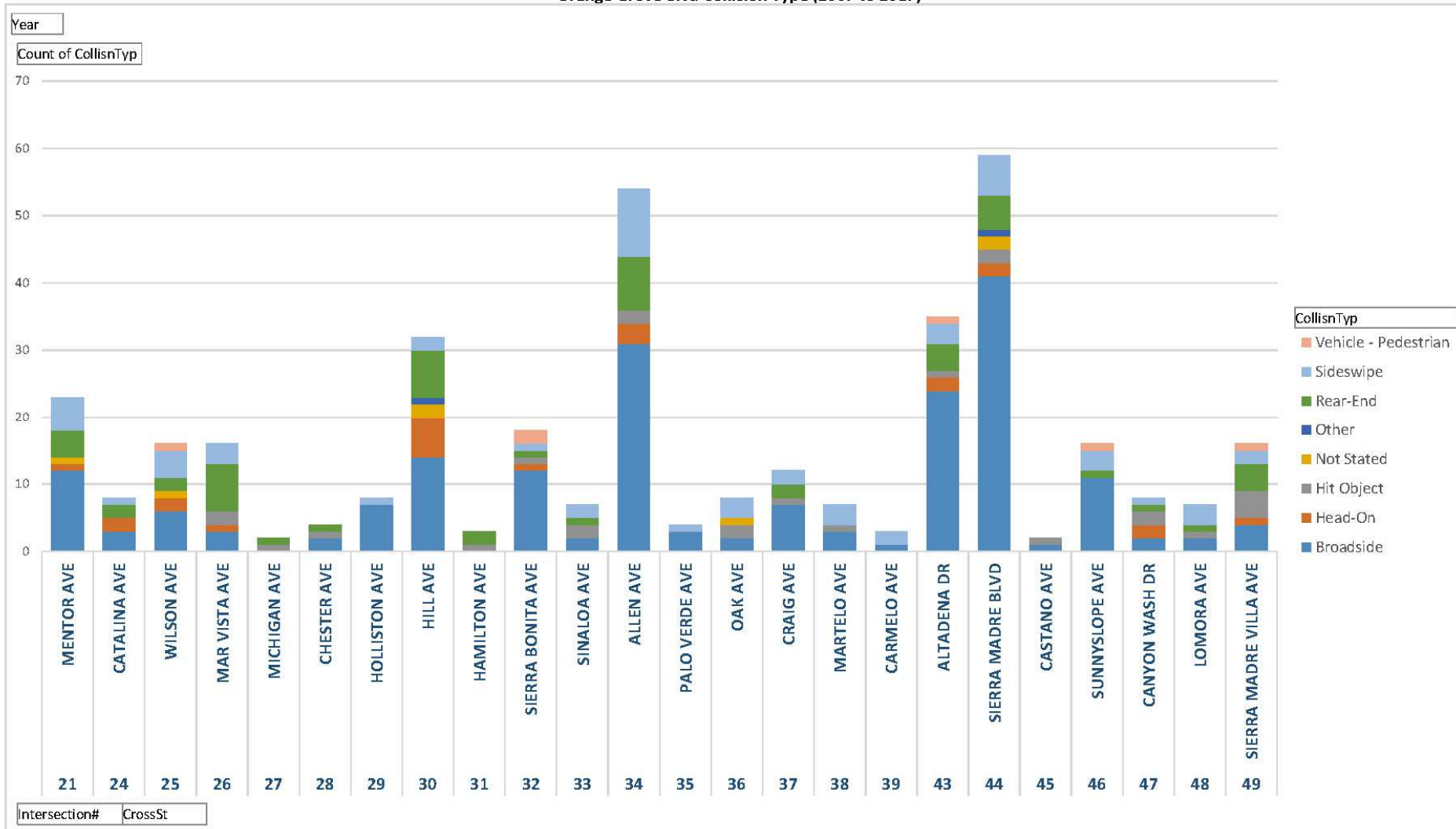
Collisions by Type of Vehicle

Orange Grove Blvd Collision Involved With (2007 to 2017)



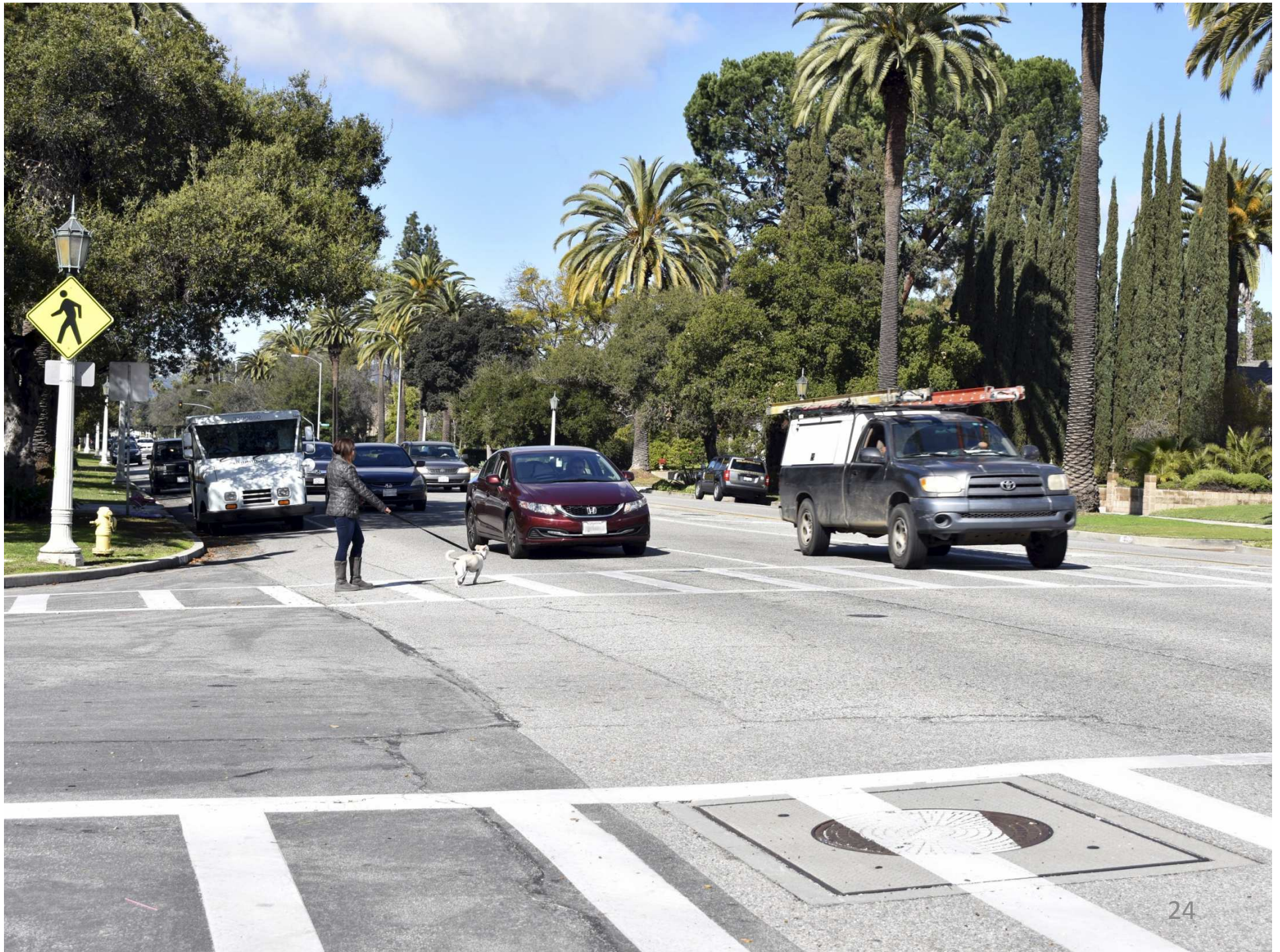
Collision Types

Orange Grove Blvd Collision Type (2007 to 2017)













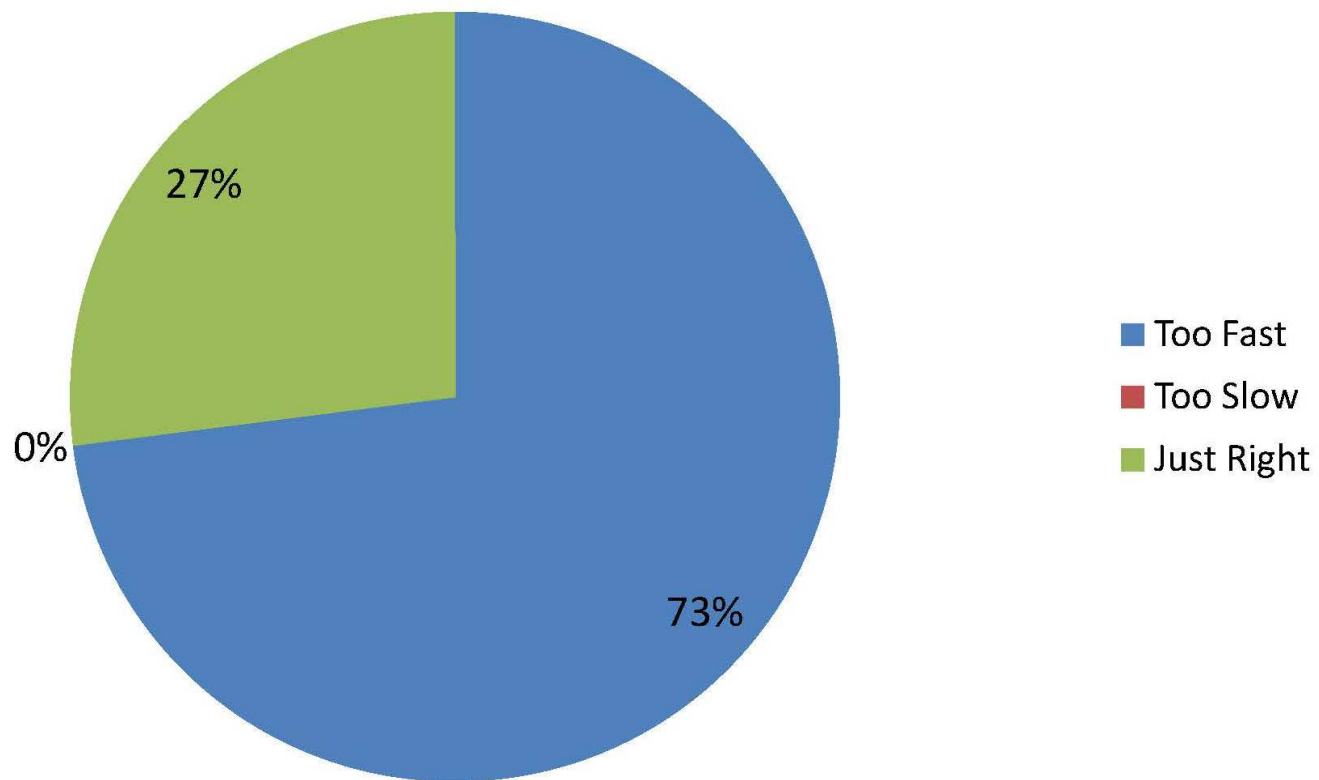
Resident Survey

Q1. How would you describe your quality of life as a resident of Orange Grove Boulevard with regard to traffic?



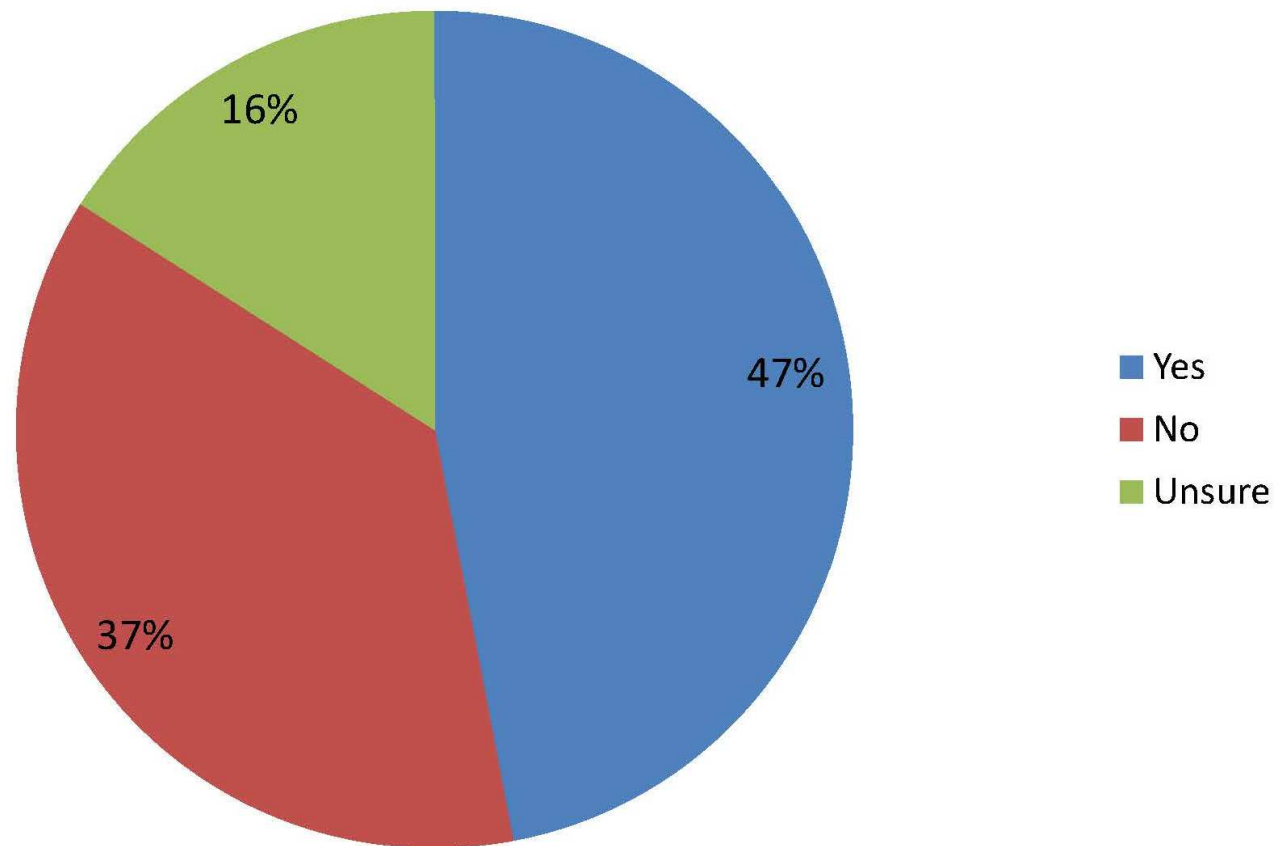
Resident Survey

Q2. Do you believe traffic moves too fast, too slow, or just right on Orange Grove?



Resident Survey

Q3.Do you feel unsafe crossing the street?



3

Orange Grove Potential Reconfiguration



Project Goals

1. Improve the street environment for residents, schools and parks by calming traffic
2. Reduce the number and severity of traffic collisions along Orange Grove Boulevard
3. Celebrate the history of Orange Grove Boulevard as a special, iconic Pasadena street

Design Assumptions

1. Single-family homeowners should be spared from 40+ mph speeds on their streets.
2. Traffic diversion to other roads should be minimized, and no traffic should be encouraged to divert to adjacent local streets.
3. Children and teenagers should have safe walking and biking routes to school, both on Orange Grove Blvd. and on neighboring streets.

Design Assumptions

4. The safety of road users (drivers, pedestrians, cyclists) should be prioritized over travel speed, both on Orange Grove Blvd. and on neighboring streets.
5. Travel time for drivers may increase slightly, but should not suffer major increases.
6. Orange Grove's history and culture should be celebrated.

At Sierra Bonita Ave. - Before



At Sierra Bonita Ave. - After



At Sierra Bonita Ave. - After



At Sierra Bonita Ave. - After



At Sierra Bonita Ave. - After



At Sierra Bonita Ave. - After

Sight lines from driveways are improved for driving or backing out



At Sierra Bonita Ave. - After



At Canyon Wash Ave. - Before



At Canyon Wash Ave. - After



At Canyon Wash Ave. - After

Separated left turn
lane for turning off
of Orange Grove



At Canyon Wash Ave. - After

Two way left turn
lane to turn in and
out of dog park



At Canyon Wash Ave. - After



At Hill Ave. - Before



At Hill Ave. - After



At Hill Ave. - After

Drivers can make
a right turn without
interfering with
bike lane



At Hill Ave. - After



Altadena to Sierra Madre - Before

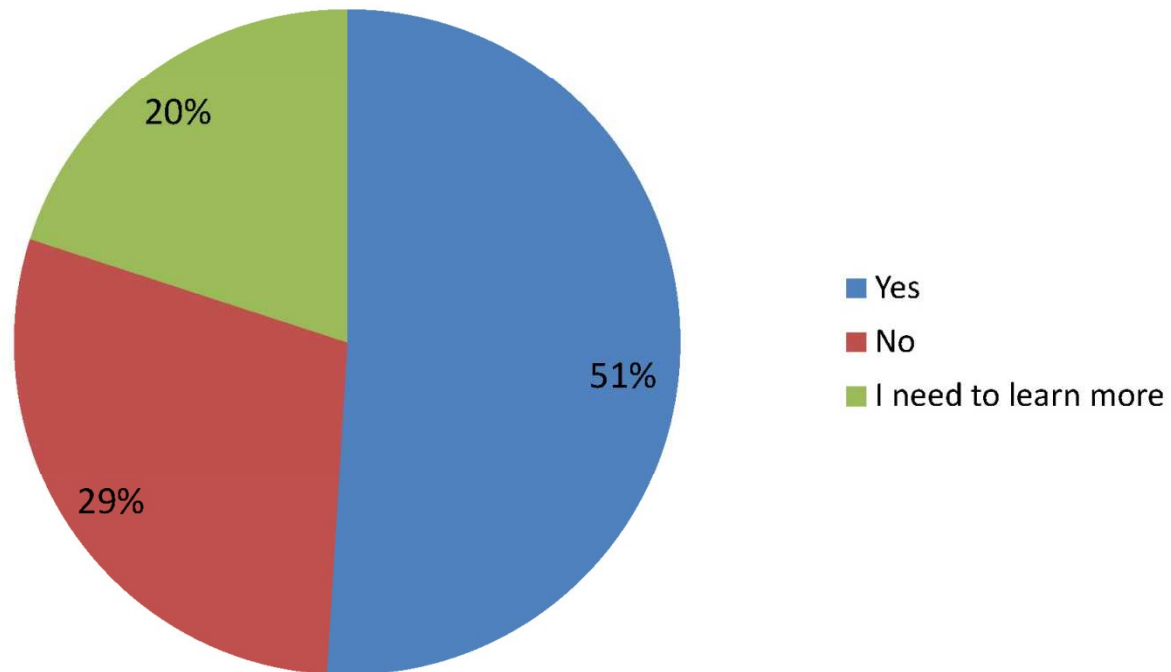


Altadena to Sierra Madre - After



Resident Survey

Q4. Based on the description I've given you, would you be likely to support the project?



4 Traffic Analysis



Intersection Delays – A.M.

AM Peak Hour - Average Delay (sec)

Intersection	Existing		With Project		Project Change	
	WB Approach Average Delay	Intersection Average Delay	WB Approach Average Delay	Intersection Average Delay	WB Approach	Int Average Delay
Orange Grove Blvd/Wilson Ave	4.1	6.9	3.5	7.4	-0.6	0.5
Orange Grove Blvd/Hill Ave	27.5	24.0	55.5	48.6	28.0	24.6
Orange Grove Blvd/Allen Ave	8.6	18.4	14.4	36.9	5.8	18.5
Orange Grove Blvd/Altadena Dr	21.4	20.6	22.8	23.3	1.4	2.7
Orange Grove Blvd/Sierra Madre Blvd	41.4	33.2	41.4	33.2	0.0	0.0
Orange Grove Blvd/Sierra Madre Villa Ave	18.9	25.7	18.9	25.7	0.0	0.0
Total Average Delay (sec)					35 sec	46 sec

Intersection Delays – P.M.

PM Peak Hour - Average Delay (sec)

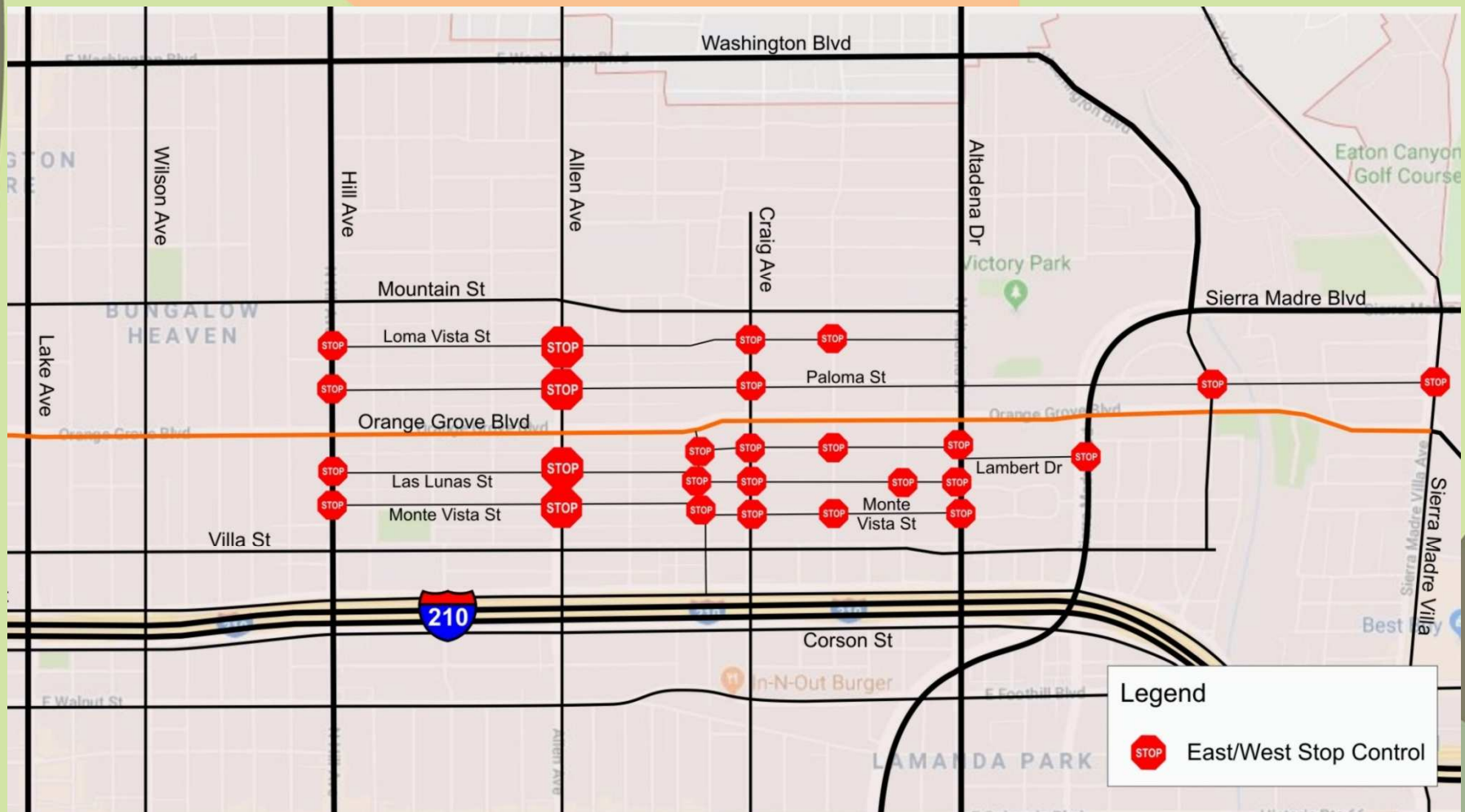
Intersection	Existing		With Project		Project Change	
	EB Approach Average Delay	Intersection Average Delay	EB Approach Average Delay	Intersection Average Delay	EB Approach	Int Average Delay
Orange Grove Blvd/Wilson Ave	6.1	10.8	10.9	14.0	4.8	3.2
Orange Grove Blvd/Hill Ave	17.4	20.0	21.2	22.4	3.8	2.4
Orange Grove Blvd/Allen Ave	18.6	17.0	14.7	22.2	-3.9	5.2
Orange Grove Blvd/Altadena Dr	11.0	16.2	18.6	22.0	7.6	5.8
Orange Grove Blvd/Sierra Madre Blvd	40.2	34.1	40.2	34.1	0.0	0.0
Orange Grove Blvd/Sierra Madre Villa Ave	26.2	30.7	26.2	30.7	0.0	0.0
Total Average Delay (sec)					12 sec	17 sec

Travel Times

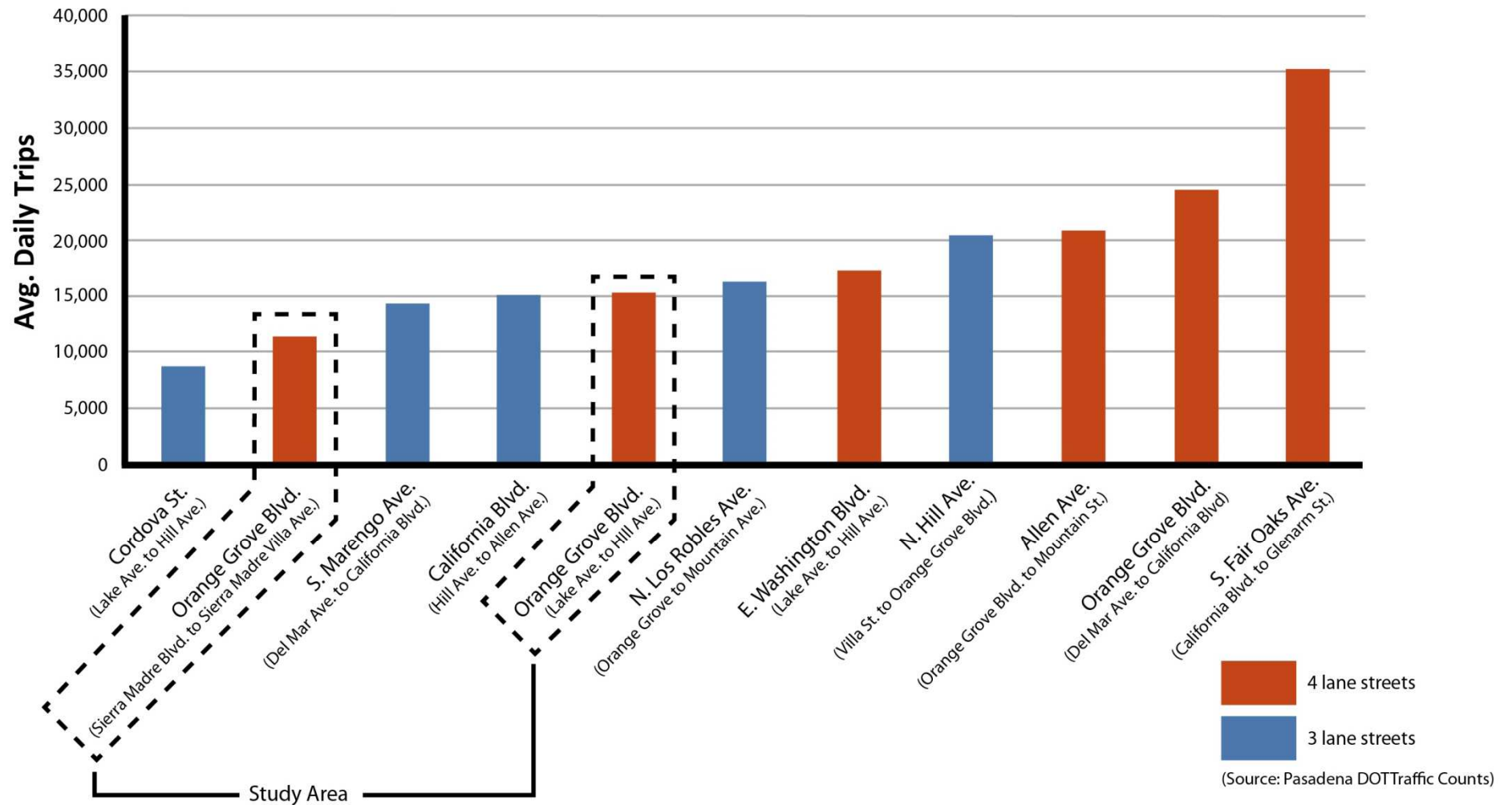
Lake Avenue to Sierra Madre Villa (2.9 mi)

Time Period	Existing	With Project	Change
Weekday (6-10 AM)			
Eastbound	7:35	8:30	+0:45
Westbound	7:50	9:30	+1:40
Weekday (3-7 PM)			
Eastbound	7:10	8:30	+1:20
Westbound	7:45	8:50	+1:05

Traffic Diversion Factors



Traffic Volumes of Similar Streets



South Marengo Ave.



Average Daily Traffic = 14,800 cars

Collision rate reduced by 58%

South Los Robles Ave.



Average Daily Traffic = 16,000 cars

Collision rate reduced by 59%

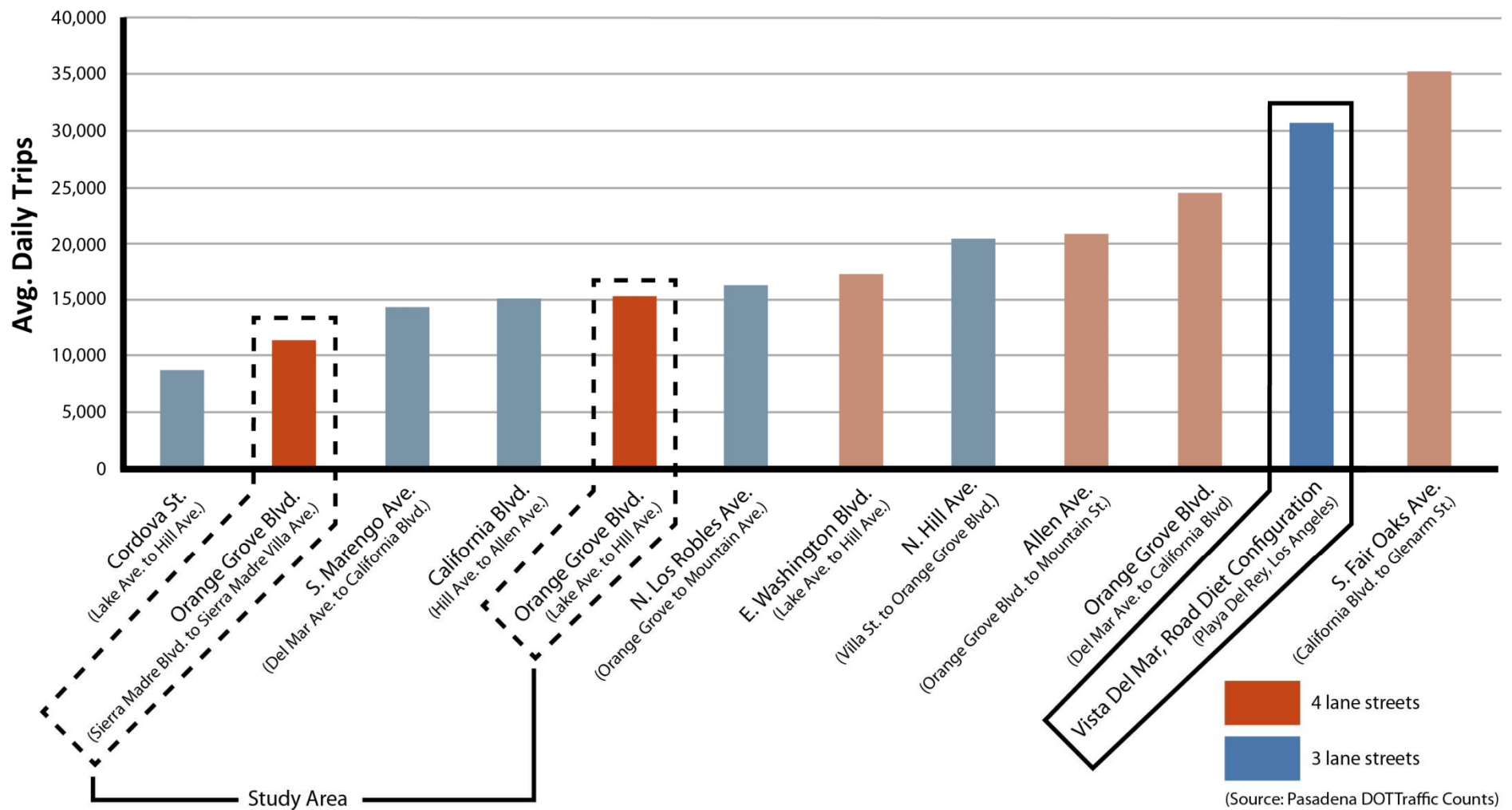
East Cordova St.



Average Daily Traffic = 11,000 cars

Collisions reduced by 30%

Traffic Volumes of Similar Streets



(Source: Pasadena DOT Traffic Counts)

Vista Del Mar (Playa Del Rey)



Average Daily Traffic = 30,000 cars

Collisions increased

FHWA Guidance on Reconfigurations

- Evaluation of six rigorously conducted academic studies comparing before and after data for between eight and 450 reconfigurations each
- Collision reductions of 19-47%
- Improved mobility and access by all road users
- Integration of the roadway into surrounding uses that result in an enhanced quality of life
- Varied state and local guidelines on maximum volumes



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