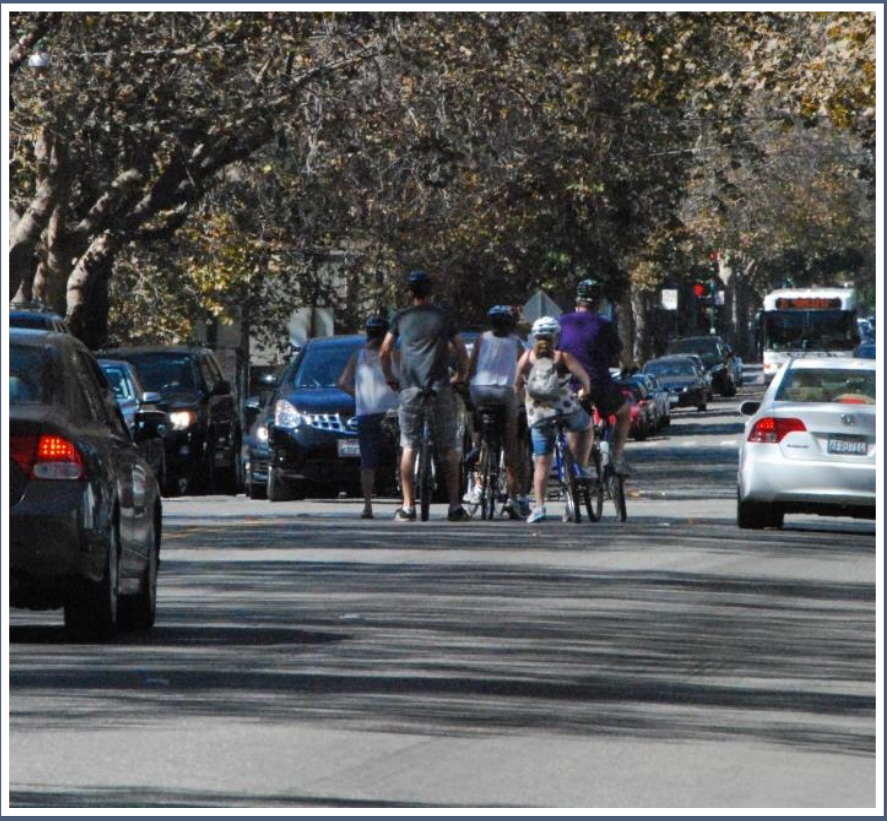
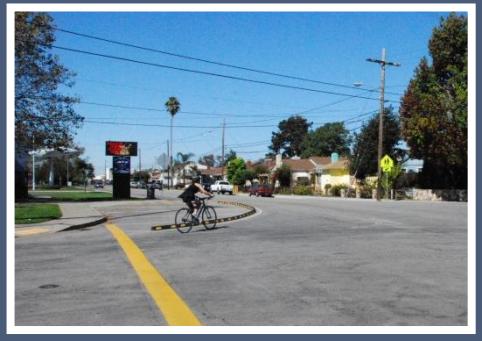
PLACEWORKS

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING





Central Avenue

Recommended Safety Improvements

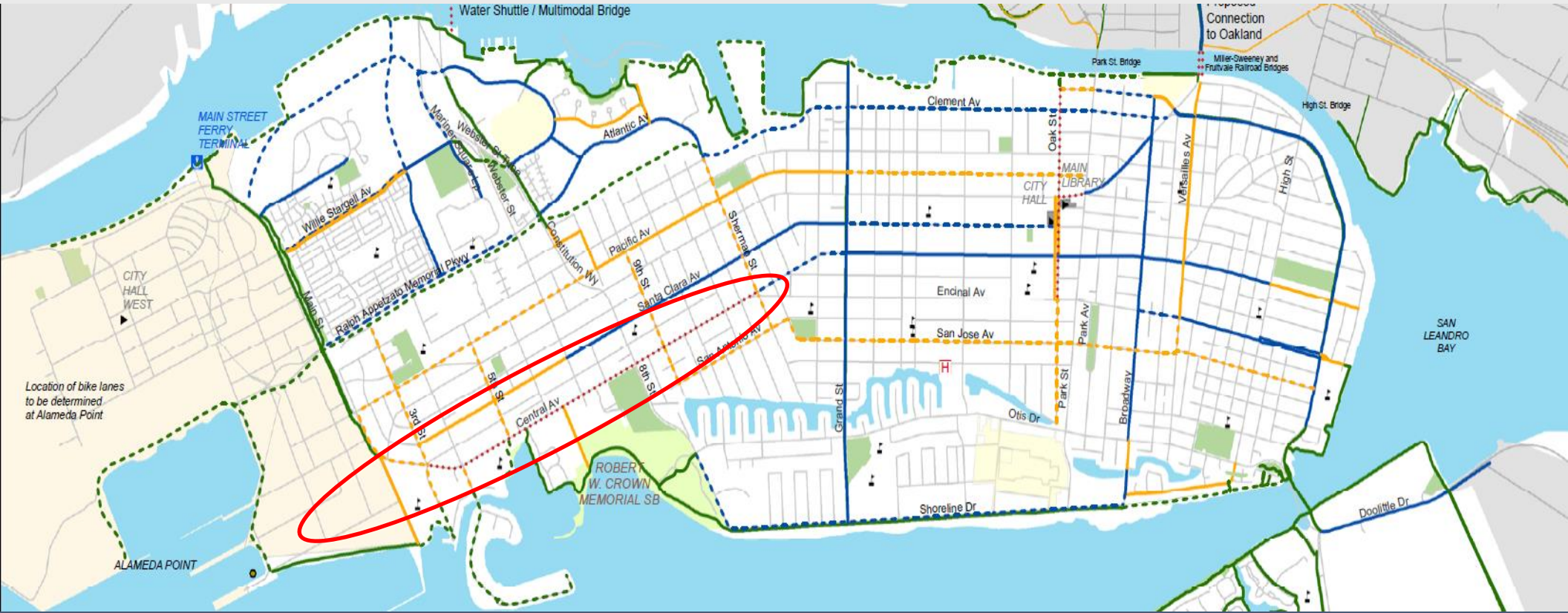
Transportation Commission | November 18, 2015

Agenda

- Study Area
- Outreach
- Safety Improvement Recommendations
- Next Steps
- Q & A

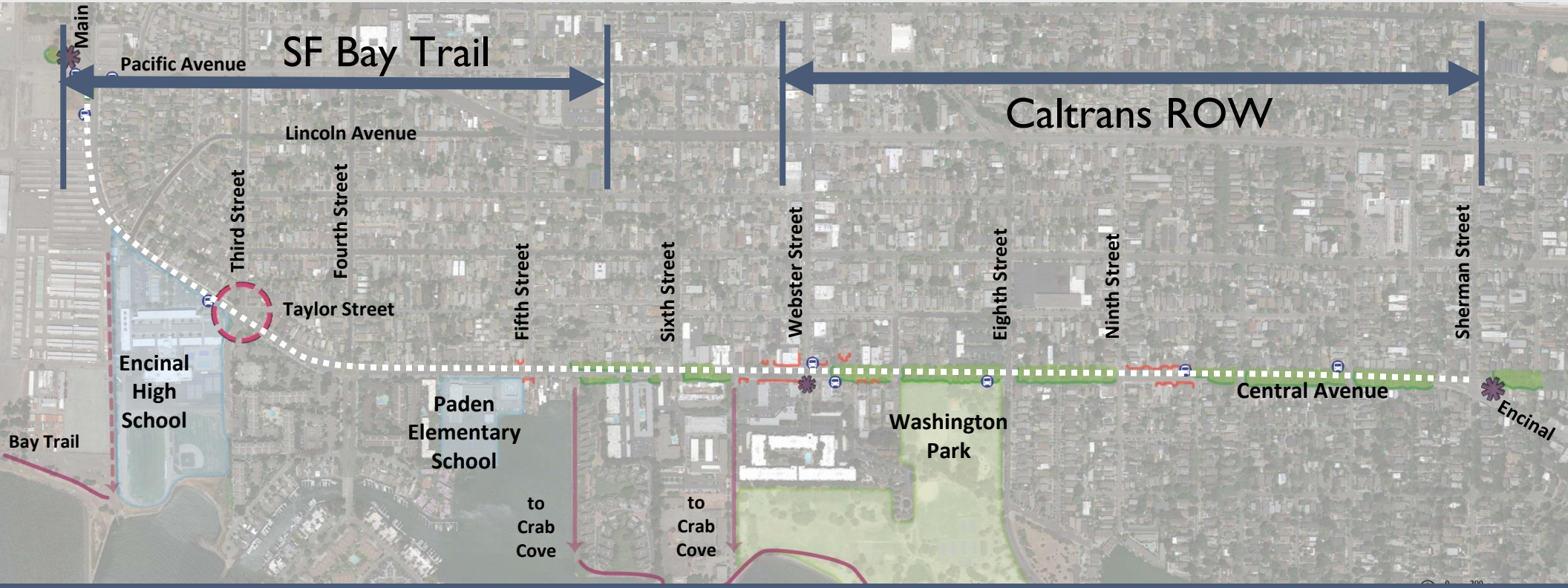
Concept Area: Public Policy

- General Plan - Transportation Element (2009)
  - Truck Route
  - Transit and Bicycle Priority Streets
- City of Alameda Bicycle Plan (2010)



Concept Area: Issues to Resolve

- Multiple schools (approx. 4,500 students/9 schools)
- 1.7 mile study area / residential area
- AC Transit, truck, commercial, jobs and ferry access
- Partial SF Bay Trail / Partial Caltrans facility – SR 61

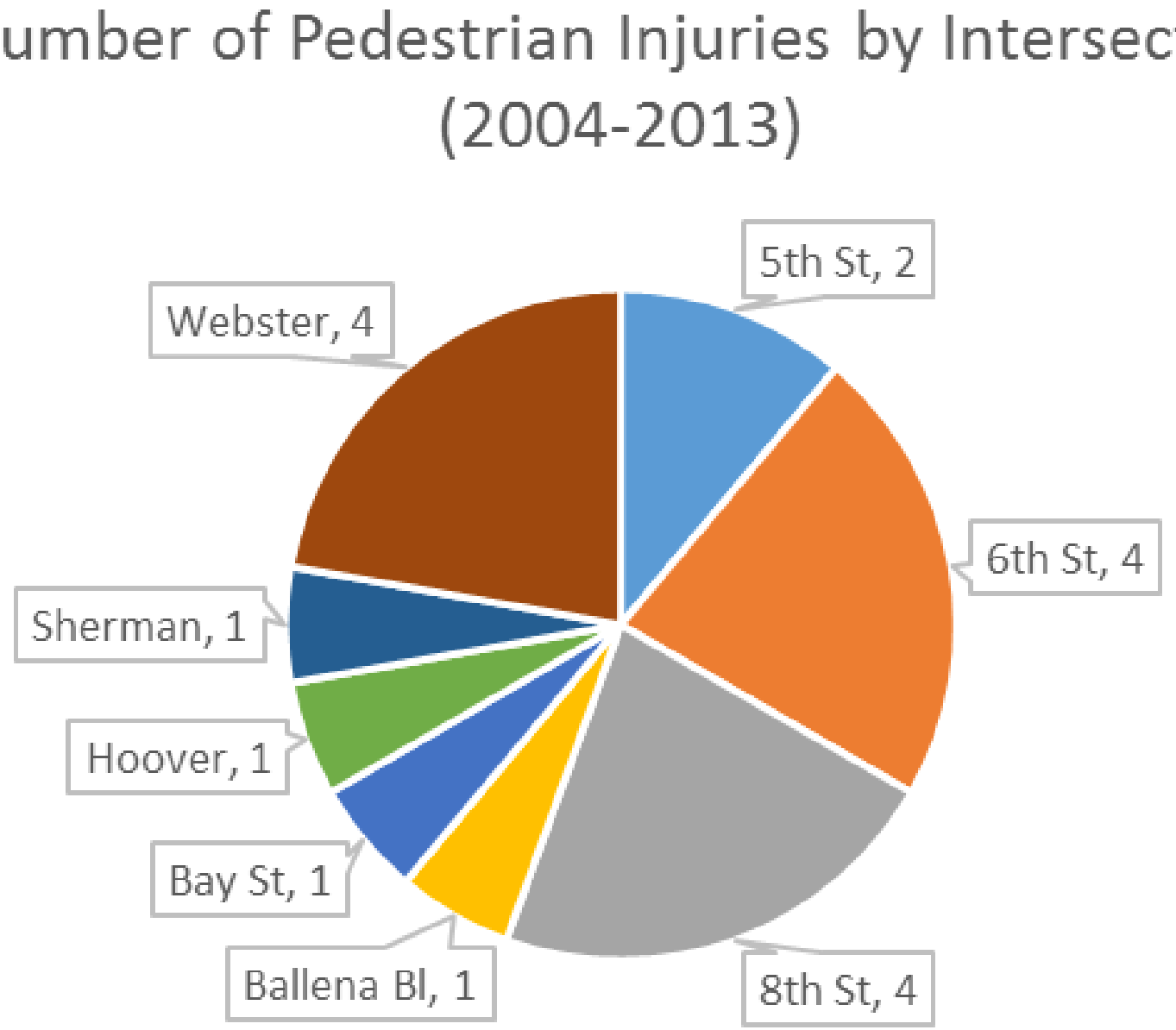


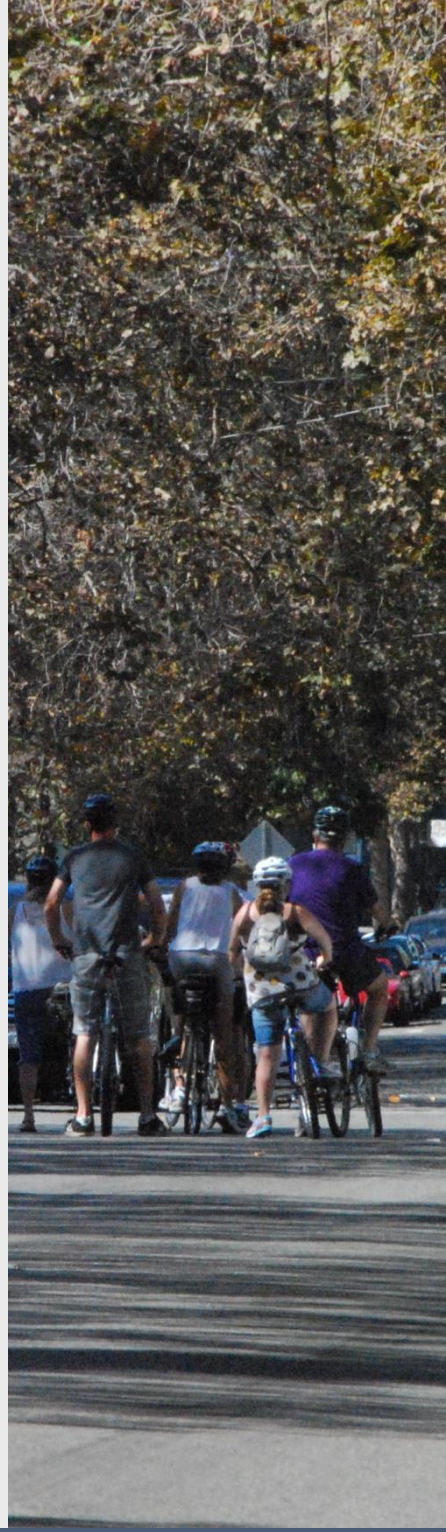
Central Avenue Proposed Street Concept

Concept Area: Safety

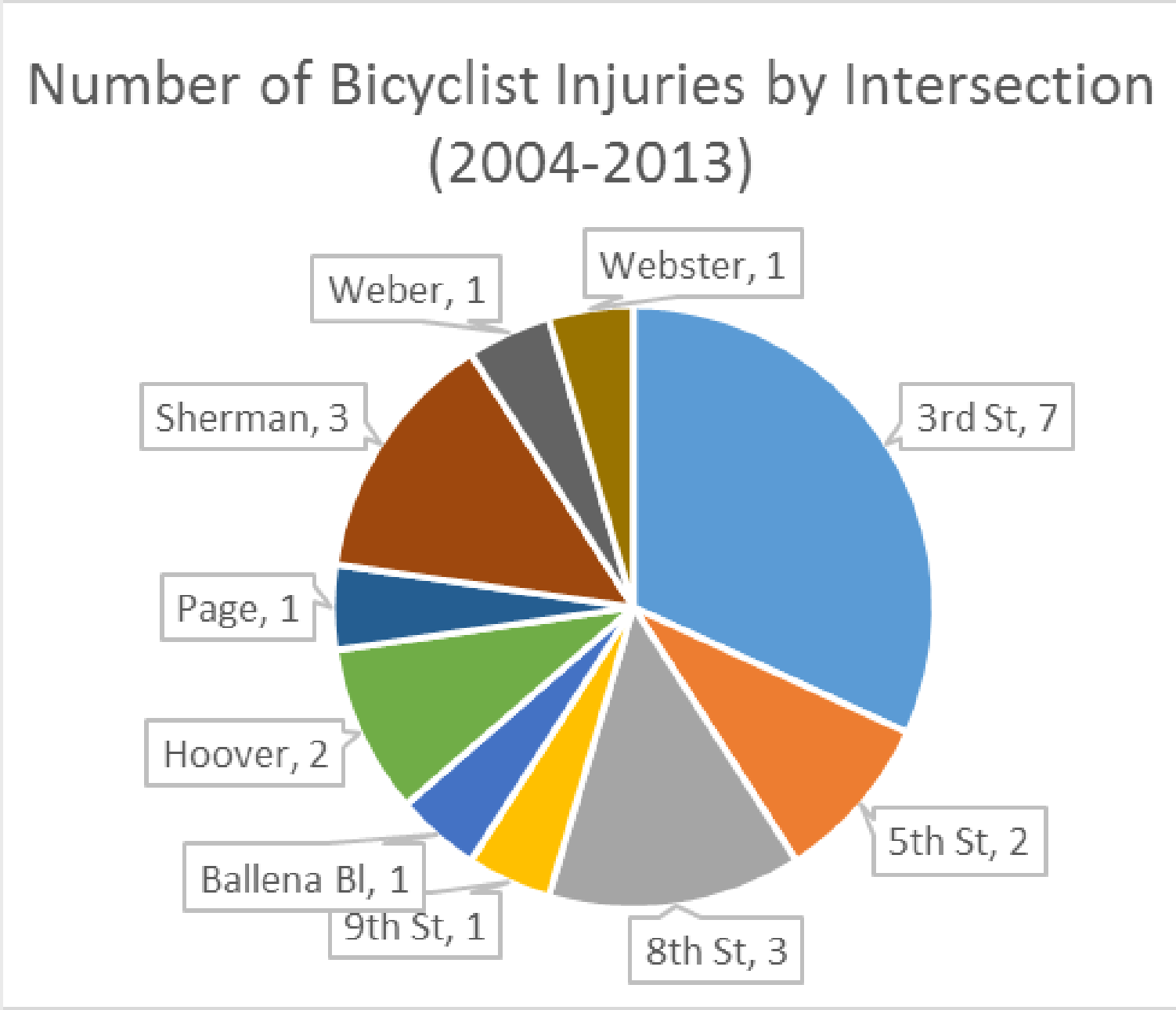
- Roadway Safety
  - Actual Speeds: 30-33 mph
  - 89 injuries from collisions past 10 years
    - 18 walking (1.6/year) = 20% (16% citywide)
    - 22 bicycling (2 per year) = 25% (16% citywide)
  - Bicycling/walking injuries = 45% (32% citywide)
  - Study Area mileage = 1.4% of citywide streets
  - Study Area injuries = 4.1% (compared to citywide injuries)

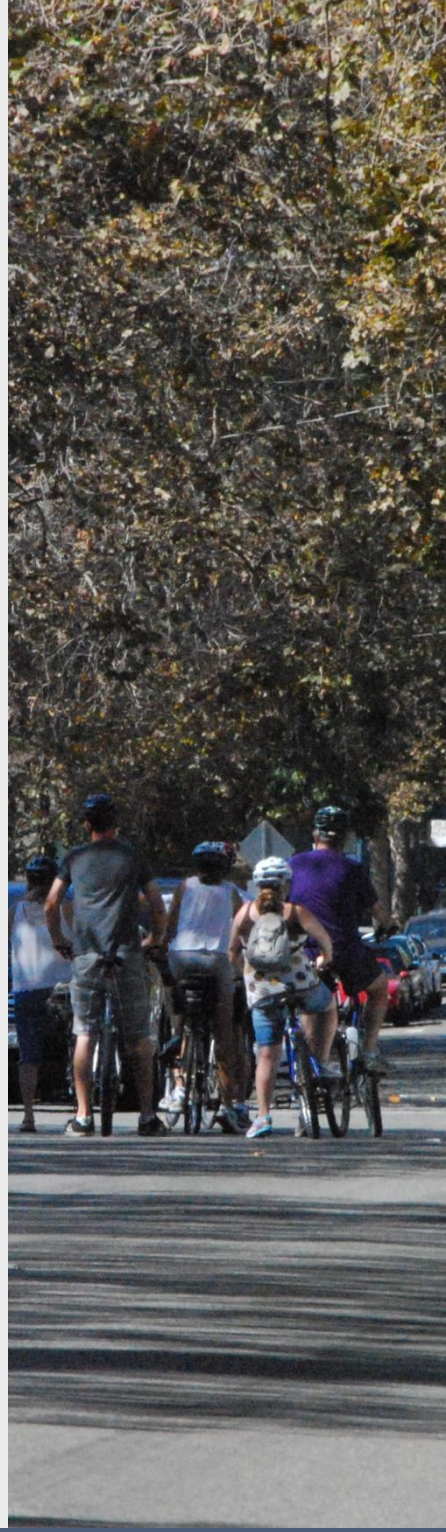
Concept Area: Safety



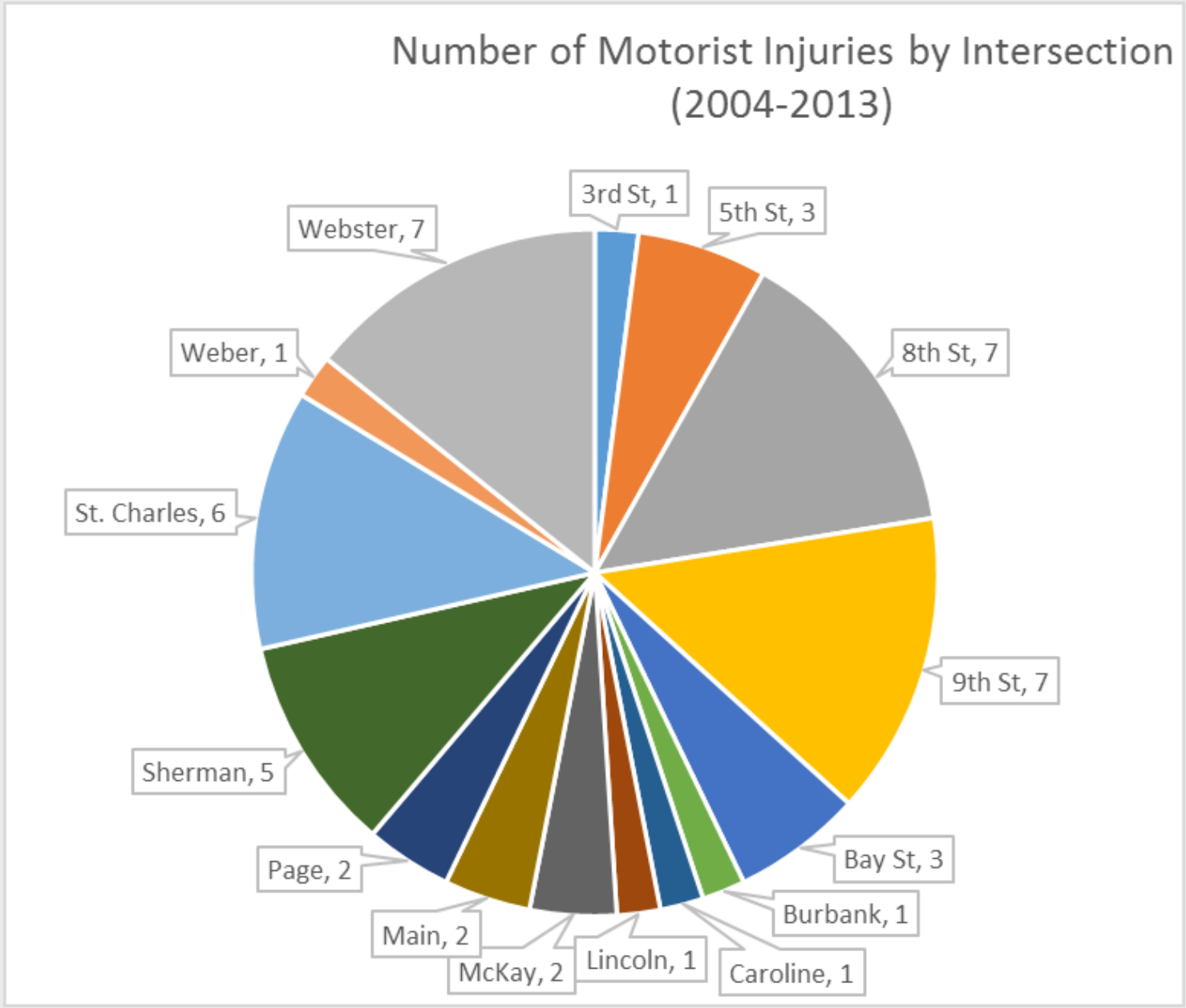


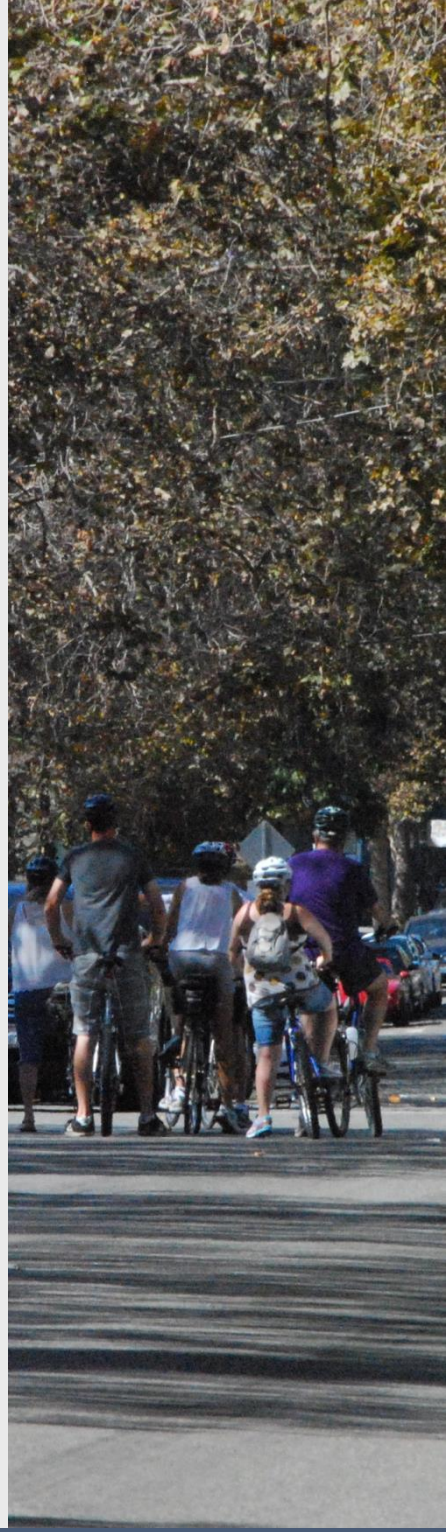
Concept Area: Safety





Concept Area: Safety





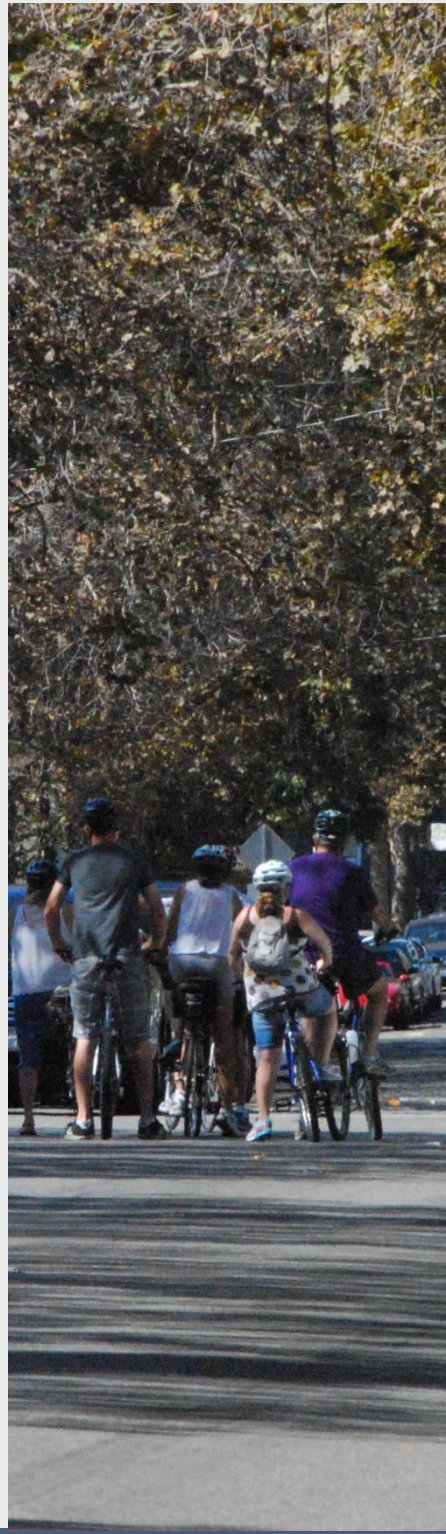
Outreach: Process

- Open Forum: http://alamedaca.gov/public-works/open-forum
- Advisory Committee: met three times and individually
- Community Workshops:
  - Overview (April 14)
  - Concepts (June 4)
  - Preferred Concept (Sept 17)
- Transportation Commission Meetings:
  - Concepts (May 27)
  - Recommended Concept (Nov 18)
- City Council Meeting: Recommended Concept (early 2016)

Outreach: Survey Results

- Main/Pacific to Boat Ramp Rd/Encinal High School
  - How would you rank the preferred option? (1 as favored and 5 as not favored)

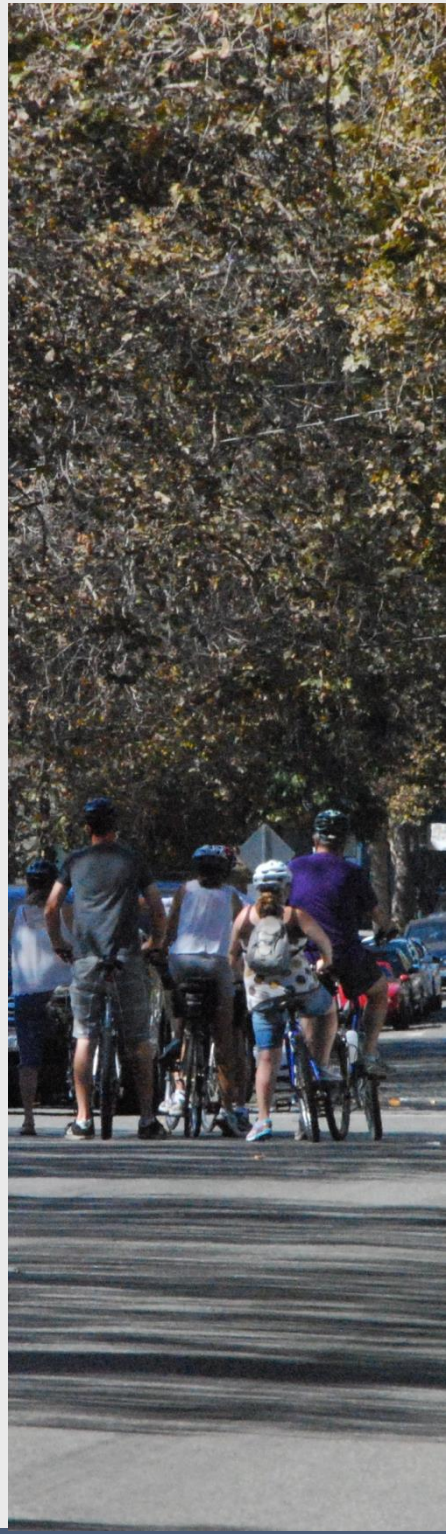
	Response Percent	Response Count
1	65.8%	77
2	10.3%	12
3	3.4%	4
4	2.6%	3
5	17.9%	21



Outreach: Survey Results

- Boat Ramp Rd/Encinal High to Third/Taylor
  - How would you rank the preferred option? (1 as favored and 5 as not favored)

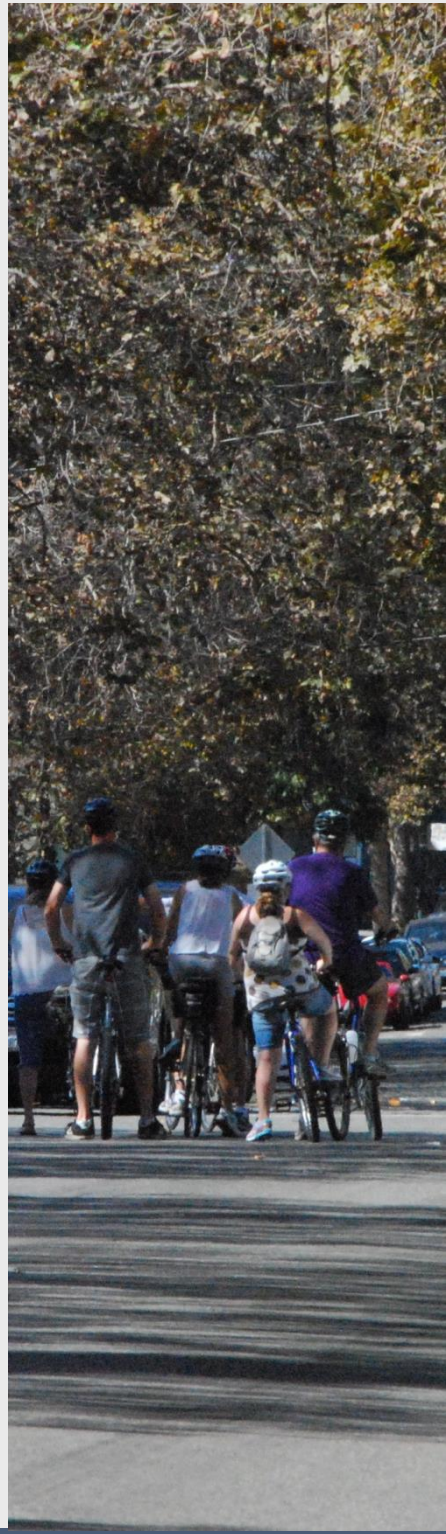
	Response Percent	Response Count
1	55.6%	65
2	15.4%	18
3	6.0%	7
4	5.1%	6
5	17.9%	21



Outreach: Survey Results

- Third/Taylor to Fourth/Ballena Blvd.
  - Which option do you prefer?

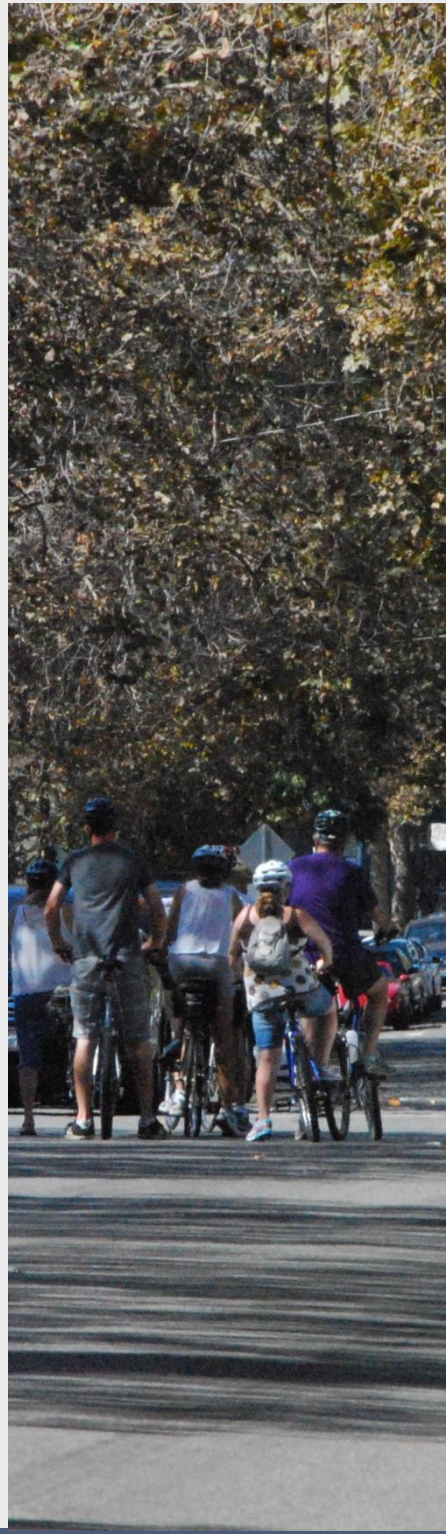
	Response Percent	Response Count
Two-way cycle track (south side of street)	50.9%	58
One-way cycle track (south side of street)	11.4%	13
Buffered bike lanes	30.7%	35
None	14.0%	16



Outreach: Survey Results

- Fourth/Ballena Blvd. to Sherman/Encinal
  - How would you rank the preferred option? (1 as favored and 5 as not favored)

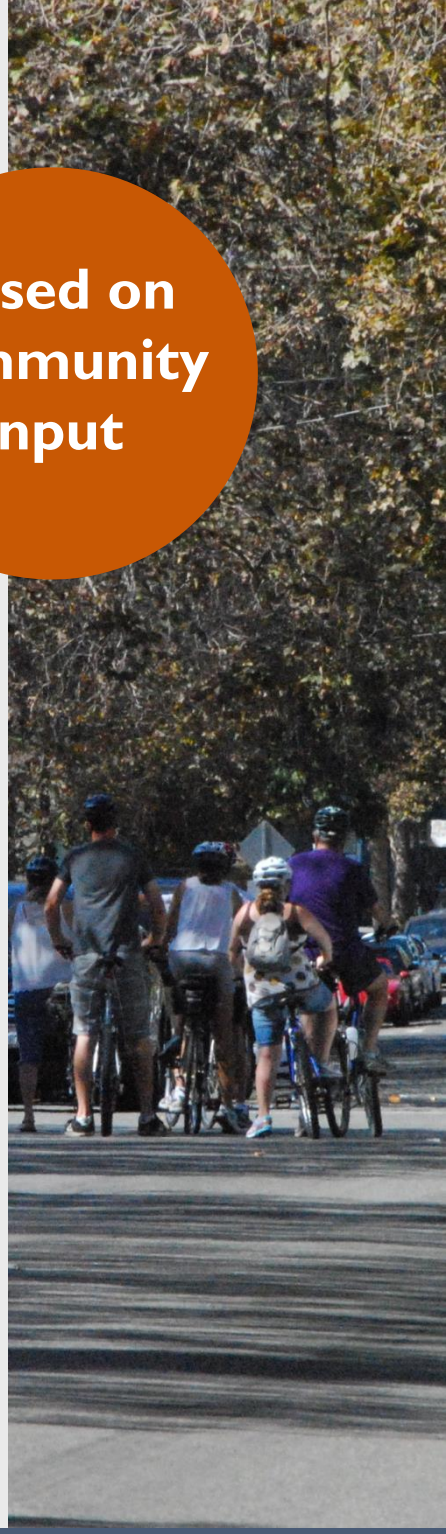
	Response Percent	Response Count
1	28.4%	33
2	18.1%	21
3	12.1%	14
4	16.4%	19
5	25.0%	29



Concept: Goals

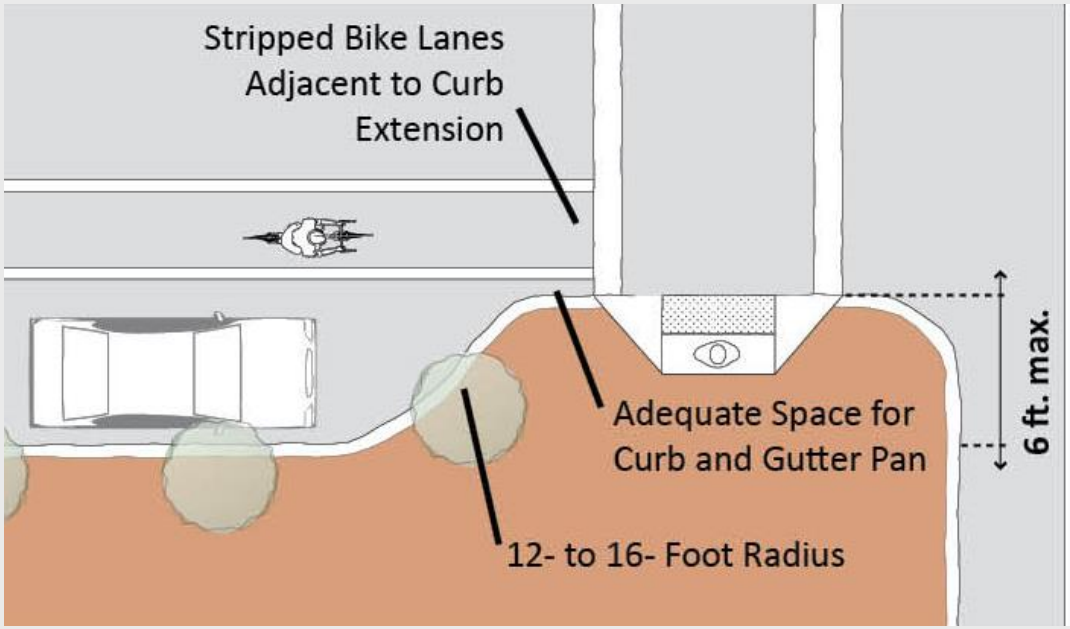
1. **Encourage bicycling and walking**
2. **Improve safety**
3. **Improve the streetscape**
4. **Traffic calming**
5. **Encourage transit use**
6. **Revitalize West Alameda**
7. **Improve public access to the SF Bay**
8. **Minimize disruption to motorists**
9. **Improve truck access**

Based on community input



Concept: Components

- **Pedestrian Improvements**
- **Bikeway**
- **Center Turn Lane**
- **Streetscape Improvements**
  - **gateway, trees, stormwater, landscape**
- **Accessibility**
- **Utilities: storm, sewer**
- **Pavement resurfacing**
- **Truck and bus access**

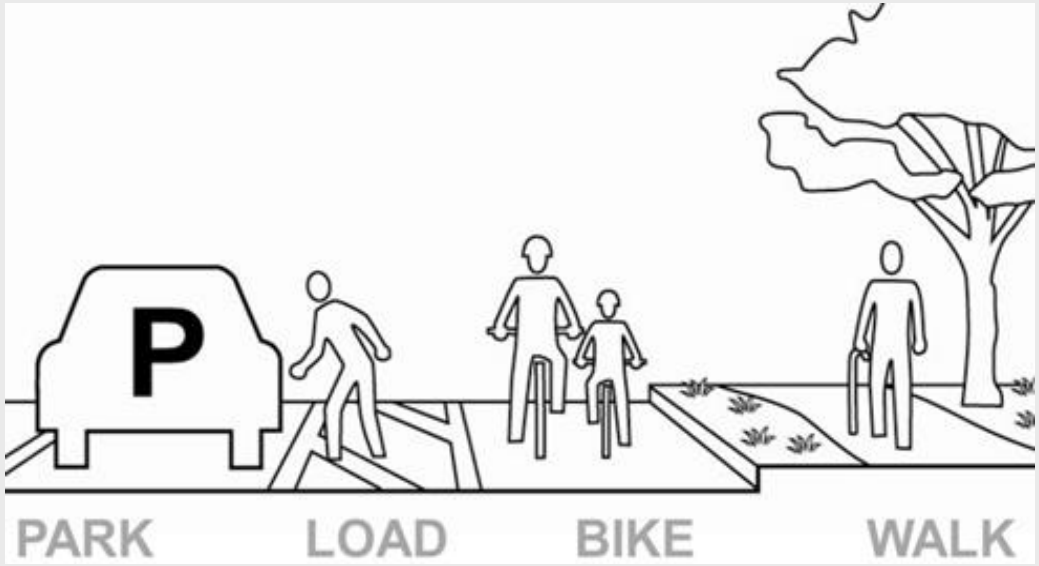


Concept: Bikeway

- Do nothing different
- Sharrow markings
- Bike lanes + center turn lane
- Two-way separated bikeway
- One-way separated bikeway
- Buffered bike lanes

Concept: Bikeway - West End

- Westbound bike lane
- Two-way separated bikeway by
  - Paden, Encinal and Junior Jets Schools
  - SF Bay Trail
  - Alameda Point



Concept: Addresses Concerns

- Center turn lane safety benefits
- Bikeway: 95% of study area
- Protected bikeways for schools and SF Bay Trail
- Best practice treatments at conflict areas
- Easier for people to walk
- Accommodates trucks
- Minimal motorist delay
- Net gain of parking

Concept: Improves Safety

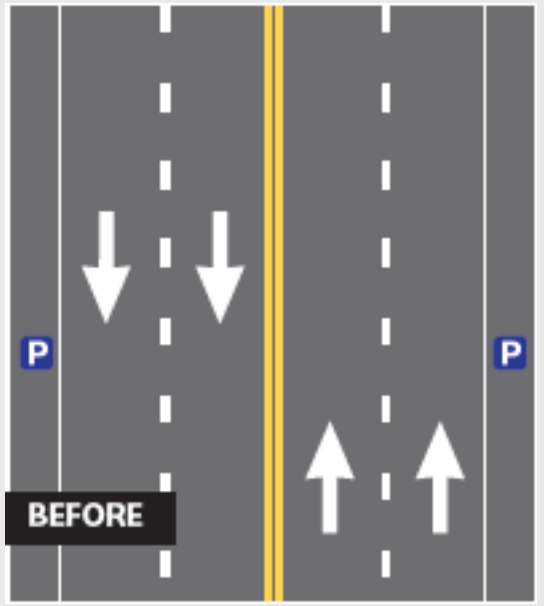
Federal Highway Administration (FHWA) identifies volumes below 20,000/day as feasible for lane reduction.

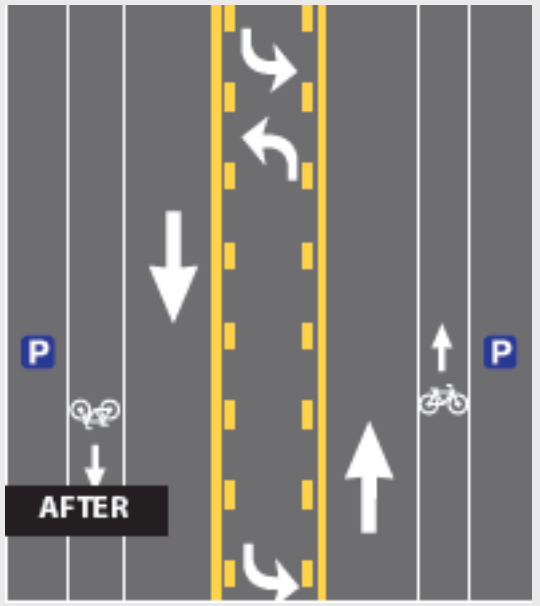
Street Name	**Veh/Day**
Atlantic Ave. (Buena Vista to Constitution)	10,956
Broadway (Santa Clara Ave to Otis Dr)	10,552
Fernside Blvd. (Tilden Way to High St)	8,550
Central Avenue	**9,327**
Central Avenue: FUTURE (average)	**12,000**
Central Avenue: FUTURE (max.)	**16,000**

Concept: Benefits

According to FHWA:

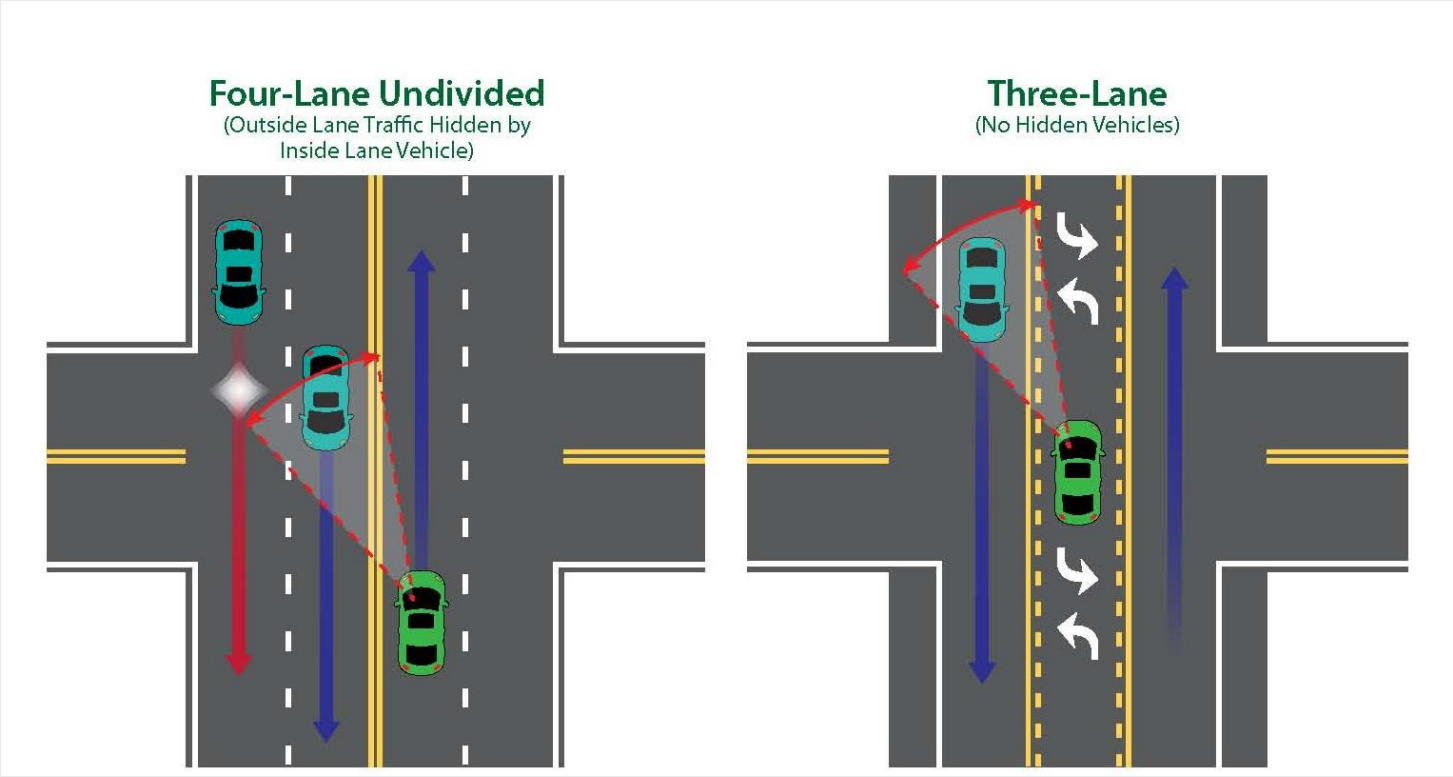
- Reduces collisions by at least 19%
- Reduces speeds by at least 3 mph
- Less severe collisions
- Fewer vehicle lanes to cross
- Better visibility of pedestrians
- Space for bicyclists
- Smoother travel flow





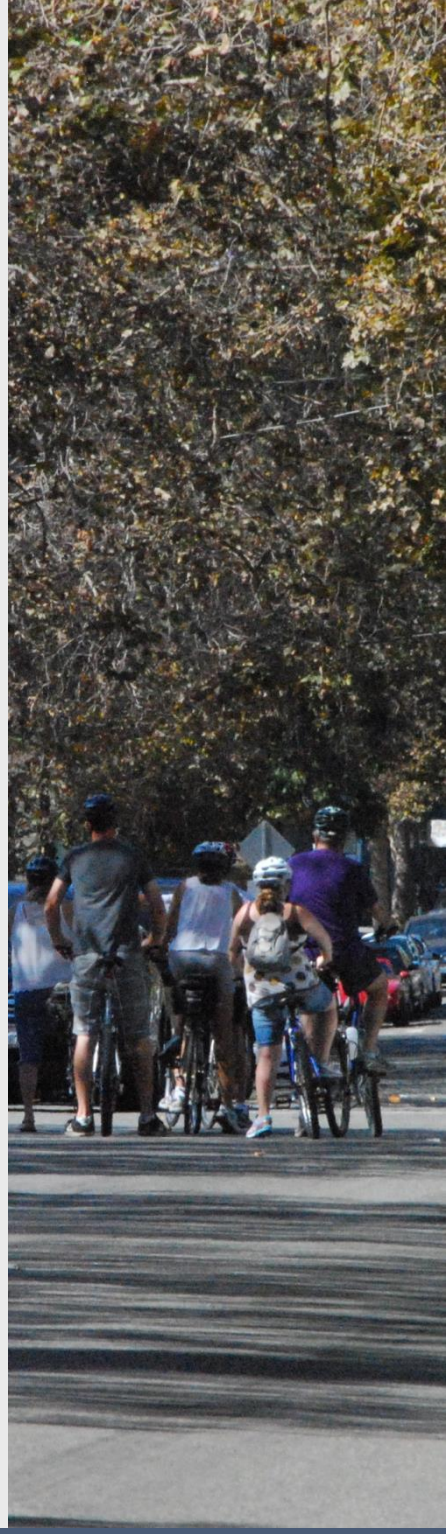
Concept: Motorist Safety

- Simpler crossings for side street motorists
- Fewer conflict points for sideswipe and rear-end collisions
- More visibility for left turning vehicles



Concept: Pedestrian and Bicyclist Safety

- Slower vehicle speeds lead to fewer and less severe crashes
- Fewer motor vehicle travel lanes to cross
- Shorter pedestrian crossing distances
- Space for bicyclists
- More visibility for pedestrians and bicyclists



Concept: Lane Reductions

- Valencia St in San Francisco

- Lakeshore Avenue by Lake Merritt in Oakland

Concept: Lane Reductions (cont.)

- Story/Lincoln in San Jose

- Charleston-Arastradero in Palo Alto

Concept: Local Examples

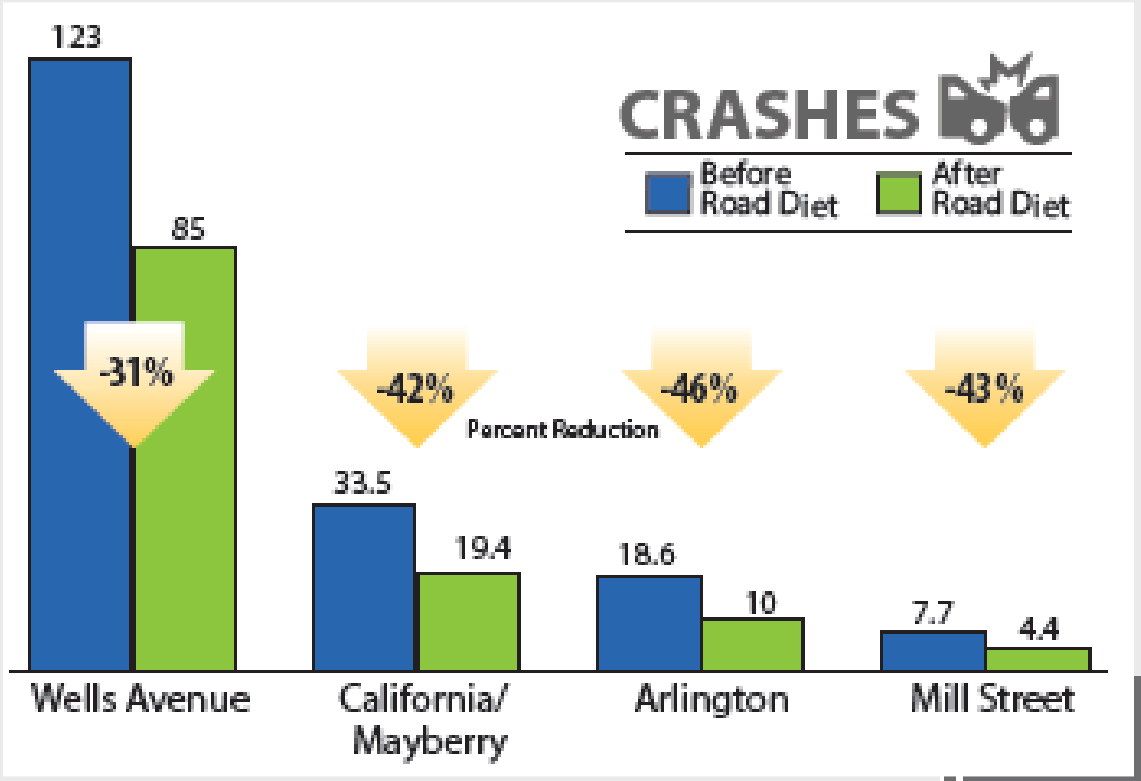
- Local Examples
  - Fernside = wider street than Central
    - Two-way separated bikeway installed in 2009
    - One bicyclist/motorist collision in cycle track
    - Increase in bicycling
    - Slower speeds
  - Shoreline = narrower street
    - Transitional period (one year after installation)

Concept: Lane Reductions (cont.)

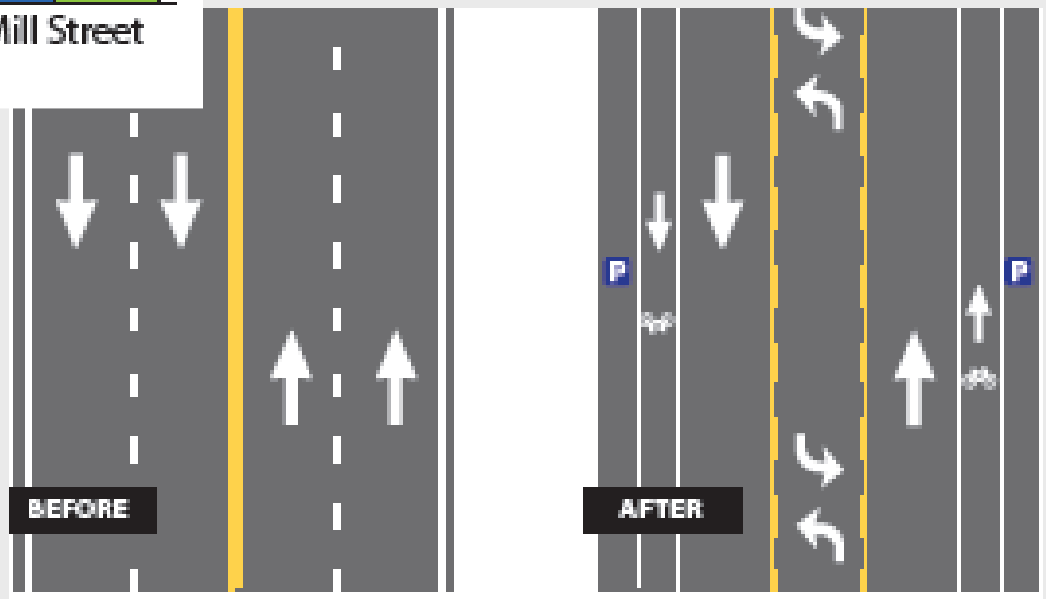
Ocean Park Boulevard looking east at 16th Street

- Santa Monica – Ocean Park Blvd
  - 65% reduction in collisions
  - 60% reduction in injury collisions

Concept: Lane Reductions (cont.)



- Reno, Nevada corridors



Concept: Lane Reductions (cont.)

- Seattle, Washington – Stone Way
  - More than 80% reduction in top speeders
  - 14% reduction in collisions
  - 33% reduction in injury collisions
  - 80% reduction in pedestrian collisions
  - 35% increase in bicyclists
  - No motorist diversions