

RECOMMENDATIONS TO IMPROVE PEDESTRIAN SAFETY IN DOWNTOWN REDDING



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Safe Transportation
Research & Education Center
SafeTREC

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INTRODUCTION

The City of Redding was identified as a focus community for a Community Pedestrian Safety Training, in collaboration with Shasta Living Streets, based on resident interest in pedestrian safety and walkability, as well as recent and planned active transportation improvements in and around the downtown core.

Following additional conversations with many downtown Redding stakeholders, the community invited the University of California at Berkeley's Safe Transportation Research Center (SafeTREC) and California Walks (Cal Walks) to Redding to facilitate a community-driven pedestrian safety action-planning workshop. Cal Walks facilitated the workshop on May 1, 2015, which consisted of: 1) a presentation on the economic benefits of pedestrian safety and streetscape improvements; 2) an overview of multidisciplinary approaches to improve pedestrian safety; 3) walkability assessments through downtown Redding; and 3) small group action planning discussions to facilitate the development of recommendations to inform the Downtown Redding Transportation Plan (currently under development), as well as for the City's ongoing active transportation efforts. This report summarizes the workshop proceedings, as well as ideas identified during the process and recommendations for pedestrian safety projects, policies, and programs.

BACKGROUND

Community Pedestrian Safety Training Program

The Community Pedestrian Safety Training (CPST) program is a joint project of UC Berkeley SafeTREC and California Walks. Funding for this program is provided by a grant from the California Office of Traffic Safety (OTS) through the National Highway Traffic Safety Administration (NHTSA). The purpose of the CPST is to train local neighborhood residents and safety advocates in pedestrian safety and to educate them about collaborating with local officials and agency staff to make communities safer and more pleasant to walk. The half-day training is designed to provide participants with pedestrian safety best practices and a range of proven or promising strategies to address and improve pedestrian safety conditions and concerns (the 6 E's: Evaluation, Engineering, Enforcement, Education, Encouragement, Empowerment). Participants are then guided on a walkability assessment of nearby streets before setting pedestrian safety priorities and actionable next steps for their community.

For a summary of outcomes from past CPST workshops, please visit:

www.californiawalks.org/wp-content/uploads/2015/05/CPST_Follow-Up_2009-14.pdf

Selected Pedestrian Safety Conditions in Downtown Redding

High Traffic Speeds on Downtown Arterials

Several state highways—including State Route 273, State Route 44, and State Route 299—traverse downtown Redding and function as surface arterial streets (including portions of California Street, Pine Street, Tehama Street, Market Street, Shasta Street, and Eureka Way). The regional and interregional traffic on the state highways compound local traffic congestion, particularly at peak hour periods. Traffic speeds along these downtown arterials appear to be higher than desired for a pedestrian-oriented downtown commercial district. Recent improvements, such as the California Street Road Diet, have helped to lower the high traffic speeds and create a safer atmosphere for pedestrians.

Lack of Pedestrian Scale on Downtown Arterials

Throughout the downtown core, highway signage contributes to a lack of a pedestrian scale and may make many people walking feel unwelcome, uncomfortable and/or unsafe. The highway signage may also lead drivers to believe that they are still on a high-speed highway rather than a downtown arterial with people walking and crossing. There are, however, some key examples of pedestrian-scale wayfinding in downtown—particularly in and around the Market Street Promenade—that could be expanded and made more visible.



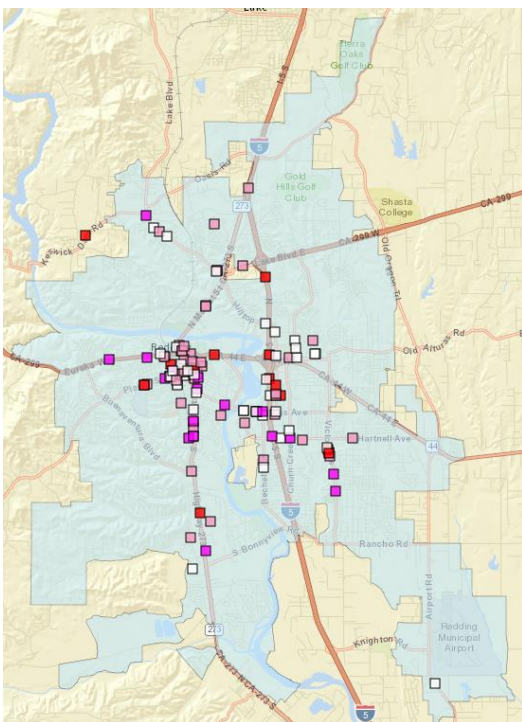
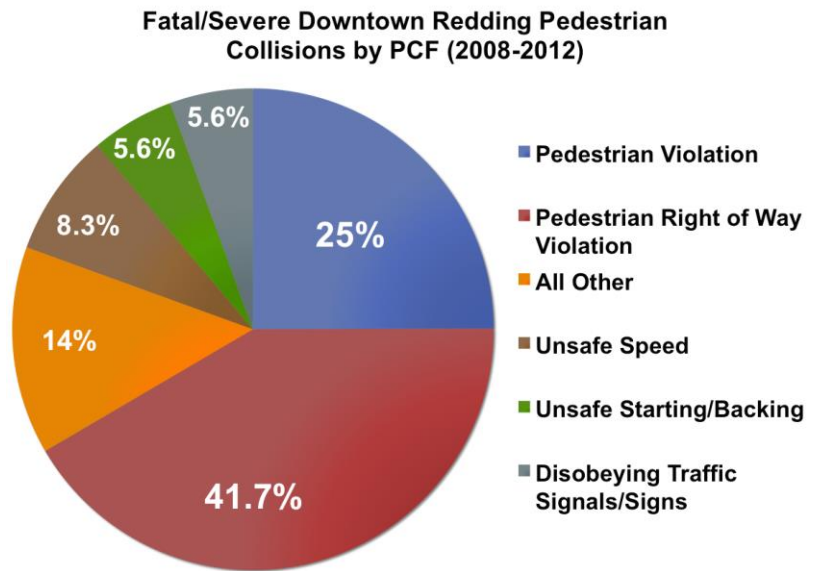
HIGHWAY SIGNAGE THROUGHOUT DOWNTOWN HELPS FACILITATE VEHICULAR TRAFFIC BUT CONTRIBUTES TO LACK OF PEDESTRIAN SCALE



EXISTING PEDESTRIAN-SCALE WAYFINDING SIGNAGE AND MAP IN DOWNTOWN REDDING

Redding's Pedestrian Collision History

Between 2008-2012, there were 122 pedestrian collisions in Redding, including 10 fatalities and numerous severe injuries. Pedestrian collisions during this time period occurred throughout the City, and clusters of collisions are significant in downtown Redding. Across the City, the top two Primary Collision Factors for these pedestrian collisions were: pedestrian violation (36.1%) and pedestrian right of way violations (32.8%). Pedestrian right-of-way violations are defined as instances where a driver fails to yield to a pedestrian in a marked or unmarked crosswalk when the pedestrian has the right of way (e.g., when the pedestrian has a "Walk" signal at a signalized intersection). Pedestrian violations constitute a wide array of pedestrian behaviors, including, but not limited to, failure to yield to motorists when crossing outside of a crosswalk (marked or unmarked); crossing against a pedestrian signal displaying the upraised hand or "don't walk;" and entering the roadway in a sudden manner into the path of a vehicle which is so close as to constitute an immediate hazard. In examining Redding's fatal and severe collisions, the top two Primary Collision Factors are reversed: pedestrian right of way violations (40.9%) and pedestrian violation (26.1%). This pattern is particularly pronounced in downtown Redding, where pedestrian right of way violations account for 41.7% of fatal and severe injury pedestrian collisions, compared to pedestrian violations accounting for 25% of these fatal and severe collisions.



PEDESTRIAN COLLISIONS IN REDDING FROM 2008-2012;
 RED: FATAL; DARK PINK: SEVERE; LIGHT PINK: OTHER
 VISIBLE INJURY; WHITE: COMPLAINT OF PAIN

May 1 Workshop

Redding community members requested a workshop to 1) provide City staff, community organizations, and residents with a toolkit for promoting pedestrian safety and walkability to inform future comprehensive active transportation planning and improvement efforts; 2) foster an open and collaborative relationship between community groups, residents, and City agencies; and 3) develop consensus for pedestrian safety priorities and actionable next steps in downtown Redding.

The workshop was hosted from 11:00 AM-5:00 PM with lunch provided to encourage community resident participation.

The workshop was attended by 25 individuals representing a wide range of organizations and disciplines, as well as the community-at-large, including:

- Francie Sullivan, Mayor, City of Redding
- Missy McArthur, Vice Mayor, City of Redding; Chair, Redding Area Bus Authority (RABA) Representative; Board Member, Shasta Regional Transportation Agency
- Kristen Schreder, Council Member, City of Redding; Board Member, Shasta Regional Transportation Agency
- Redding Department of Public Works
- Redding Police Department
- Downtown Redding Property Owners
- Downtown Redding Transportation Planning Consultants
- Shasta Living Streets
- Shasta County Department of Public Works
- Shasta County Regional Transportation Agency
- Shasta County Public Health / Healthy Shasta
- Shasta County Safe Routes to School Program
- Caltrans District 2
- Caltrans Headquarters
- Shasta Historical Society
- Downtown Business Owners
- Developers
- Trilogy Architecture
- Community Residents



REDDING MAYOR FRANCIE SULLIVAN WELCOMING PARTICIPANTS TO WORKSHJOP



SFMTA VICE-CHAIRMAN CHERYL BRINKMAN SHARING SAN FRANCISCO'S STUDY OF THE ECONOMIC BENEFITS OF PEDESTRIAN SAFETY AND STREETScape IMPROVEMENTS.

Reflections from Walkability Assessment

Participants conducted hands-on walkability assessments along major downtown streets including California St., Pine St., Tehama St., Market St., as well as the intersection of Cypress, Market, and Pine streets. Participants were asked to 1) observe infrastructure conditions and the behavior of all road

users and 2) note strategies and solutions that could help overcome infrastructure deficiencies and unsafe driver, pedestrian, and bicyclist behavior. Following the walkability assessment, participants shared the following reflections:

- **Required Pedestrian Push Buttons & Delays:** Participants noted that nearly all signalized intersections in downtown required pedestrian actuation in order to receive a “WALK” signal. Moreover, participants observed that even when pushed, pedestrian signals may not be synchronized properly to provide the “WALK” signal at the earliest opportunity. For example, the group observing the Cypress/Market/Pine intersection noted that they had to wait two entire traffic cycles after pushing the pedestrian signal button before receiving the “WALK”



WORKSHOP PARTICIPANTS DURING WALKABILITY ASSESSMENT

signal. These undue delays for pedestrians may lead to higher rates of pedestrian signal noncompliance and may contribute to increased traffic risks.

- **High Traffic Speeds on Downtown Arterials:** Participants all agreed that the actual traffic speeds on Pine, Shasta, Cypress, and California were too high and contributed to an unwelcoming and unsafe environment for pedestrians. Participants noted that the speed limits for Pine and

California were likely set to meet the needs of residents decades ago and that the City needed to re-evaluate and reset the speed limits on these streets to meet the multimodal, downtown-focused housing and retail needs of today.

- **Pedestrian Scale v. Vehicular Circulation:** Participants agreed the highway signs on Pine, Market, California, and Shasta streets contribute to a lack of pedestrian scale in the downtown. Participants shared the need to help direct drivers to downtown businesses through tourist-focused and pedestrian-scale wayfinding signage rather than helping to direct drivers quickly out of downtown.
- **Lack of Shade Along Sidewalks & At Intersections:** Participants noted the lack of shade during the walkability assessments as a barrier for many people who could walk, but currently do not, in and around the downtown area. When combined with the required pedestrian signal actuation and the lack of a pedestrian signal “hot response” (which provides a pedestrian “WALK” phase quickly after a pedestrian pushbutton is actuated), the lack of shade at intersections may lead to higher rates of pedestrian signal noncompliance and may contribute to increased traffic safety risks. Participants highlighted the need for either additional shade trees or shade structures, which could be paired with solar-powered night lighting.
- **Visibility of Pedestrians:** Participants noted how parked vehicles frequently obstructed views of pedestrians, particularly at alley intersections.
- **Accessibility Challenges:** While the sidewalks in the walkability assessment routes were generally level and free from obstructions, driveways on the assessment routes and the older-style corner unidirectional ramps presented potential challenges for people with disabilities. For example, the upper level exit of California Street parking garage lacked warning signs, lights, or truncated domes to alert pedestrians that cars may cross sidewalk/driveway.

Community Resident Recommendations

Following the walkability assessments, Cal Walks facilitated two rounds of small-group action planning discussions. Workshop participants were tasked with developing concrete recommendations to improve pedestrian safety and walkability in Redding in response to targeted questions related to managing downtown arterials, the Market Street promenade, policy changes, and short-term improvements.

Workshop participants generated numerous recommendations (see Appendix for summary of group discussions and recommendations), though the group reached broad consensus only on the following recommendations:

- 1) Establish Pedestrian-Friendly Speeds through Traffic Signal Timing:** Participants unanimously agreed that traffic speeds in downtown Redding needed to be re-evaluated and retimed in order to achieve lower, pedestrian-friendly speeds (between 23-25 MPH)—particularly for California, Market, and Pine streets.
- 2) Create Safer Intersections with Curb Extensions & Pedestrian Signal Adjustments:** Participants identified several low-cost priority strategies to improve safety for people walking and crossing at intersections, including: building curb extensions—including temporary ones—to reduce crossing distances and slow turning vehicles; improving pedestrian signal timing with automatic pedestrian recall adjustments and leading pedestrian intervals at peak hours at downtown intersections; and adopting a “daylighting” policy to restrict parking at intersections and near crosswalks. Participants supported temporary curb extensions that could be rolled out in the near-term to achieve significant pedestrian safety gains, with Market/Placer, Placer/California, and Pine/Yuba as high-need initial installation sites. Participants noted, however, that the City should also plan for the systematic conversion of any temporary curb extensions to permanent concrete curb extensions in the future.
- 3) Ensure Market Street Remains a Pedestrian-Priority Street:** Participants broadly supported re-opening Market Street to vehicles with the caveat that Market Street must remain a pedestrian-priority street. Participants identified extremely low vehicle speeds (15 MPH or less) and providing pedestrian-scale amenities (seating, shade, etc.) as key strategies for maintaining Market Street’s commitment to being a pedestrian-oriented space. One group suggested opening cross streets across the Promenade as an alternative approach to re-establishing vehicle traffic on Market Street itself.

- 4) Provide Shade throughout Downtown:** Participants identified the lack of shade as a large barrier for people walking and recommended that the City systematically plant additional shade



WORKSHOP PARTICIPANTS ENGAGED IN PEDESTRIAN SAFETY ACTION PLANNING DISCUSSIONS

trees and/or install shade structures throughout downtown and especially for the Market Street Promenade.

- 5) Explore Options for Downtown Parking Policy:** Participants expressed interest in working with the City to reexamine the downtown area’s parking policy in order to encourage increased turnover through strategies such as variable pricing of on- and off-street parking; creation of a parking benefits district where collected parking fees would be reinvested in streetscape and safety improvements in the area where the fees are collected; and the establishment of a “park once” strategy for downtown.
- 6) Improve Downtown Walkability through Parklets, Wayfinding, & Lighting:** Participants identified several strategies to improve downtown’s walkability, including exploring the establishment of temporary, voluntary “parklet” program; installing additional pedestrian-scale lighting; implementing pedestrian-scale wayfinding and signage throughout the downtown area; and improving the lighting and/or painting the ceiling of the central parking garage white to encourage more utilization of off-street parking as a park-once district strategy in the short-term.

California Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the City:

- Develop Crosswalk Marking & Enhancement Policy:** We recommend that the City engage the public and solicit feedback on a crosswalk marking and enhancement policy and recommend

reviewing similar crosswalk policies as a starting point (for example, Caltrans Traffic Operations Policy Directive 12-03 and Washington County, Oregon’s midblock crossing policy). This policy should also detail how the City addresses the installation of crosswalks—particularly midblock crossings serving pedestrian desire lines—and the removal of crosswalks (as an option of last resort).

- **Establish a Pedestrian Advisory Committee:** The robust discussion during the workshop underscored the high level of community interest and readiness to work with the City to improve pedestrian safety and walkability in Redding. We recommend establishing a Pedestrian Advisory Committee—either standalone or as a subcommittee of a larger transportation advisory committee—to help the City identify pedestrian safety issues and opportunities, as well as to serve as an important sounding board for new City policies, programs, and practices impacting pedestrian safety and mobility.
- **Implement Pedestrian Pushbutton “Hot Response”:** We support workshop participants’ recommendation to implement automatic pedestrian recall and leading pedestrian intervals at peak periods throughout downtown Redding. Additionally, we recommend pairing such treatments with “hot response” signal programming at off-peak hours, where pedestrian actuation would provide a pedestrian phase quickly after activation.

ACKNOWLEDGMENTS

We would like to thank the City of Redding for inviting us and hosting the Community Pedestrian Safety Training. Thank you to Anne Thomas of Shasta Living Streets for her full commitment to and leadership of community-driven transportation planning and meaningful engagement with community residents. Thank you also to The Northern C's Cal Alumni Club for providing organizational support in planning the workshop. We would also like to acknowledge Redding Mayor Francie Sullivan, City Council Member Missy McArthur, City Council Member Kristen Schreder, Caltrans District 2 staff, downtown business owners, and community members whose dedication to pedestrian safety meaningfully informed and strengthened the workshop’s outcomes.

We would also like to thank Shasta Arts Council for donating the meeting space for the workshop and Carnegie’s Restaurant for catering a delicious lunch to fuel participants.

Thank you to Cheryl Brinkman, Vice-Chairman of the San Francisco Municipal Transportation Agency (SFMTA), for speaking about the economic benefits of pedestrian safety and streetscape improvements.

Funding for the Community Pedestrian Safety Training program was provided by a grant to University of California at Berkeley Safe Transportation Research & Education Center from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

APPENDIX 1. SUMMARY OF GROUP ACTION PLANNING DISCUSSIONS & RECOMMENDATIONS

Group 1 Discussion Notes

Taming Downtown Arterials

- Placer & California (Items not prioritized)
 - Pedestrian scramble premature; may reconsider in future
 - Bulbouts
 - Trees
 - Shade structures
 - Road diet
- Pine Street (In order of priorities)
 - Change synchronization of signals
 - Reduce speed limit
 - Protected bike lane
 - Road diet
 - Improve context
- Cypress/Pine/Market Intersection (in order of priorities)
 - Short-Term
 - Synchronize pedestrian phases at intersection
 - Crosswalk and rapid flashing beacon from motel to Safeway; add refuge area?
 - Medium-Term
 - Tighten turn radius on through northbound intersections
 - Take out northbound dedicated right-turn lane on CA-273
 - Purchase part of parking lot from Lulu's/motel to create road from California to Pine
 - Long-Term
 - Roundabout

Market Street Promenade

- Market & Placer
 - Consider getting rid of parking on Placer and slow traffic down
 - Other comments
 - Great job!
- Market & Tehama (in order of priorities)
 - Program Automatic Pedestrian Phase
 - Lane width reduction
 - Add crosswalk on eastside of Tehama
 - Other Ideas
 - Remove parking near crosswalks
 - Give up Market to COR
 - Raised crosswalks
 - All-way phase (scramble)

- Leading pedestrian interval
- Reopening Market to Cars (in order of priorities)
 - Holistic approach first [and foremost]
 - Replicate Cascade demo block along Market street ‘cut-through’

Policy Changes (items not prioritized)

- Automatic pedestrian phases
- Couple daytime land uses with night time parking for efficient use of spaces
- Dynamic parking pricing

Short-Term Improvements (in order of priorities)

- Striping, signal synchronization, automatic pedestrian phases, daylighting intersections and crosswalks
- Green bike lanes; temporary parklets/cycle tracks
- Other Ideas
 - Wayfinding (pedestrian scale)
 - Lane width reduction
 - Convert one-way to two-ways (maybe)

Group 2 Discussion Notes

Taming Downtown Arterials

- Placer & California
 - Priority: Curb extensions
 - Other ideas:
 - Enhanced crosswalk delineation
 - Accessible pedestrian signals
 - Pedestrian recall at peaks
- Pine Street
 - Priority: 23 MPH signal timing
 - Other Ideas:
 - Protected bike lane
 - Strategic use of green paint for bike facilities
 - Curb extensions
 - Pedestrian recall at peaks

Market Street Promenade

- Market & Tehama
 - Priority: put the crosswalk back in (“fix” all the “fixes”)
 - Market & Placer
 - Priority: curb extensions
 - Other Ideas:
 - Lighting
 - High-visibility crosswalk
 - Shark’s teeth (advanced yield line)
-

- Reopening Market to Cars
 - Priority: Yes to reopening BUT must prioritize pedestrians and businesses; have amenities

Policy Changes

- Priorities
 - 23 MPH traffic signal coordination
 - Trees and other visual/shade enhancements
 - Encourage private/public use of right-of-way
 - (e.g., voluntary parklet system)
- Other Ideas
 - Senior safety zones
 - Prioritizing installation of accessible pedestrian signals
 - Prioritizing installation of bike detection
 - More leading pedestrian intervals
 - Higher lighting standard
 - Price parking to hit 80-85% occupancy

Short-Term Improvements

- Priorities
 - Curb extensions (with paint, plants, posts)
 - Back-in angle parking
- Other Ideas
 - Protected bike lanes
 - Pedestrian and bicycle wayfinding
 - Parking signs
 - 44/Sundial interchange road diet
 - Convert Riverside Drive to bicycle/pedestrian only

Group 3 Discussion—Priorities

Taming Downtown Arterials

- Priorities
 - Bulbouts
 - Advance stop/yield bars
 - Streetscape continuity
- Other Ideas
 - Enhance crosswalk markings
 - Bike boxes
 - Scramble crossing at Placer and California is premature
 - Reduce lanes
 - Roundabout not pedestrian friendly

Market Street Promenade (items not prioritized)

- Market & Placer
-

- Extra lights
- Reopening Market to Cars
 - Open only the cross streets
- Mixed uses for downtown (commercial and housing)
- More events to encourage pedestrians

Policy Changes

- Priority: Downtown Parking
 - Encourage business turnover for short-term parking
 - Off-street parking to structure
 - Structure lighting upgrades (LEED!)
 - Strategic parking fee for downtown improvements plus marketing money uses to users
- Other Ideas
 - Parklets at key businesses; program for businesses

Short-Term Improvements (items not prioritized)

- 15 minute parking spots
- Temporary parklets
- Fix signage
- Rubberized bumps/curbing
- Striping changes: improve Shasta and South street corridors for peds/bikes into town
- Consider bike lanes on Placer into downtown

Group 4 Discussion—Priorities

Taming Downtown Arterials

- California & Placer
 - Priorities
 - Lower speed limit to 25 MPH
 - Protected bike lane/intersection
 - Bulbouts
 - Other Ideas
 - Scramble/Barne's Dance
 - Parklets
 - Curb extensions and trees
 - Pine Street
 - Priorities
 - Protected bike lane/intersection
 - "Pine Street Trail" experience
 - Other ideas
 - Lower speed limit to 25 MPH
 - Two-way conversion
 - Cypress/Market/Pine Intersection
 - Priority
 - Roundabout(s)
-

- Other Ideas
 - Allow residents to walk into town, increase connectivity
- Converting One-Ways to Two-Ways
 - Two-ways easier for bikes
 - Improves connectivity

Market Street Promenade

- Market & Tehama
 - Priority: Leading pedestrian interval
 - Other ideas
 - Vehicles illegally turn right from center lane
 - Local traffic on California from eastbound 44
 - Separate phases for pedestrians crossing Tehama from right turn for vehicles
- Market & Placer
 - Priority: bulbouts on northside
 - Other Ideas
 - Enforcement activity for rolling or nonstops
- Reopening Market to Cars
 - Depends on what the goals are
 - Economic?
 - Safety?
 - Attractiveness?
 - If opened...
 - Pedestrianized, slow street with trees; possibly meandering (2 lane)
 - Demolish Dickers building, restoring old right-of-way
 - If closed...
 - Priorities
 - Beautification, shading
 - Security
 - Other Ideas
 - Free wireless
 - Water features
 - POPO model?

Policy Changes (in order of priority)

- When any work done on streets (repaving, utility projects, etc.), pedestrian improvements must be considered
- Pedestrian recall in downtown, time-specific
- Daylighting intersections in downtown
- Pedestrian scale lighting and signage

Short-Term Improvements (in order of priority)

- Speed reduction to 25 MPH
 - Leading pedestrian intervals
-

- Temporary bulbouts—easy
 - Buffered bike lanes/delineators or soft hit posts
 - Temporary parklets
 - Tactical urbansim
 - Displays/something to see
 - More open streets events
 - Signage upgrade / pedestrian lighting
-