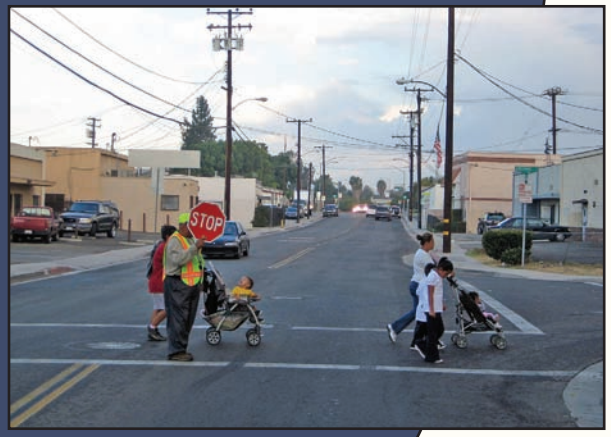

Revitalization Plan for the Santa Anita/Tyler Avenue Corridor

A Report to the City of South El Monte on Improving South El Monte's Santa Anita Avenue/Tyler Avenue Business and Civic Corridor

February 2010

Prepared by:
Local Government Commission
Glatting Jackson Kercher Anglin
Barrio Planners
Livable Streets, Inc.

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ACKNOWLEDGEMENTS

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Mayor Pro Tem Joseph J. Gonzales
Councilmember Hector Delgado
Councilmember Angelica R. Garcia
Councilmember Willhans Ili

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Views and opinions expressed in this report to not necessarily represent the views of opinions of the California Department of Transportation (Caltrans) or the California Business, Transportation, and Housing Agency.

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CHAPTER ONE: INTRODUCTION

Santa Anita Avenue and adjoining streets were designed decades ago to serve the industrial traffic that dominated in the community of South El Monte. That industrial activity has been declining in recent years, as the practice of street design has evolved. No longer are streets considered the near exclusive domain of motor vehicles. Now they are recognized as important public spaces that must meet the needs of pedestrians, bicyclists, motorists, youth, seniors, and the disabled.

Contemporary street design practice allows these seemingly competing users of the streets to coexist with improved safely. A well-designed, balanced, complete street can also be a catalyst for commercial activity and economic development.

This project focuses on a roughly one-mile long segment of Santa Anita Avenue in the community of South El Monte. Several nearby school sites and streets connecting to Santa Anita Avenue are also addressed. This project was funded by a California Department of Transportation (Caltrans)

The timing of this charrette marked an anniversary.

Figure 1-1: The initial study area shown in the center was expanded to include nearby streets and school sites in the corridor.

Prominent signage is a good aid to travelers.

The Civic Center complex anchors the corridor.

Heavy freeway-oriented traffic uses the corridor.

Environmental Justice Context Sensitive Planning Grant. That grant program's goals include:

- Strengthening the economy
- Promoting infill development and social equity
- Protecting the environment
- Encouraging efficient development practices
- Promoting jobs and affordable housing balance
- Linking housing, transportation, and land use planning
- Increasing community livability

This project and the implementation activities that will follow advance all of these goals. The goals related to infill, affordable housing, and linking jobs and housing were often ignored by transportation planning activities in the past. By including recommendations for modest changes in land use and zoning in the core area of South El Monte, this project advances those goals as well as those related to economic vitality, the environment, and the transportation system.

This effort is focused around Santa Anita Avenue and the adjoining portions of major thoroughfares Tyler Avenue and Rush Street. A description of the community should begin there. These streets are characterized by:

- Increasing vacancy and underutilization rates
- Economic instability
- A deficient pedestrian environment with many barriers to travel along sidewalks and across streets
- Difficulty for pedestrians crossing major streets
- A complete lack of bicycle facilities
- Heavy volumes of truck traffic

Large trucks necessary for deliveries occasionally blocks sidewalks, medians, and traffic lanes.

- Problem intersections with numerous vehicle, bicycle, and pedestrian conflicts
- Speeding and other driver misbehavior in school zones

This project used a highly participatory process called a "design charrette" that engaged residents, business owners, local elected officials, city staff, and schools. The result is a detailed plan using context-sensitive design principles to redesign these auto-oriented thoroughfares into modern urban streets that also accommodate transit, pedestrians, and cyclists, and promote a lively town center for the residents of South El Monte. Additionally, nearby school sites were evaluated, and recommendations made to improve safety and access.

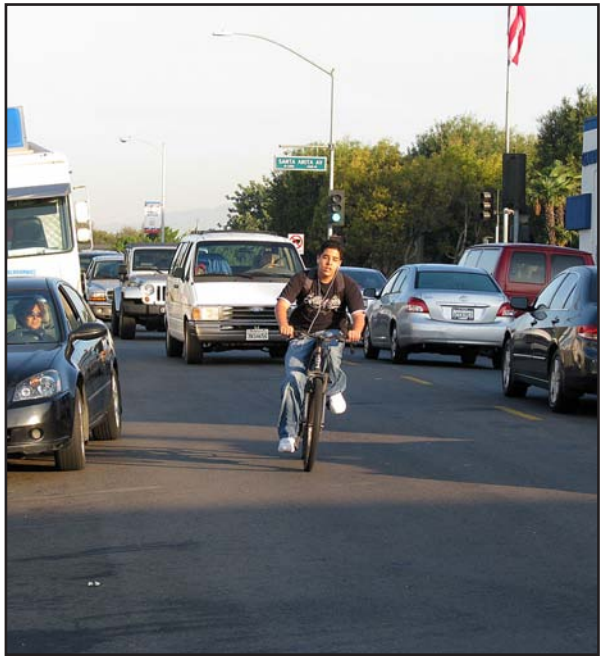
Background:

South El Monte, located in the San Gabriel Valley, is bounded on two sides by the San Gabriel Valley's two major drainage features: the Rio Hondo River on the west and the San Gabriel River on the east. Throughout the 1930s, South El Monte and much of the region remained in agricultural production.

Leading up to the Second World War, however, the region experienced significant industrial growth, with an accompanying boom in the housing market. South El Monte, due to its location adjacent to rail lines and new freeways, successfully attracted a broad base of industrial users.

Between 1958 and 1980, annexations expanded the City to almost three square miles providing housing for 16,000 residents. Industry continued as the dominant force in the City's economy, with 1,100 business licenses reported in 1980. During the 1980s and 1990s, South El Monte experienced gradual, limited growth resulting primarily from annexation of peripheral lands.

Excellent crossing guard service aids walking students.



But students on bicycles are often mixed in car traffic.

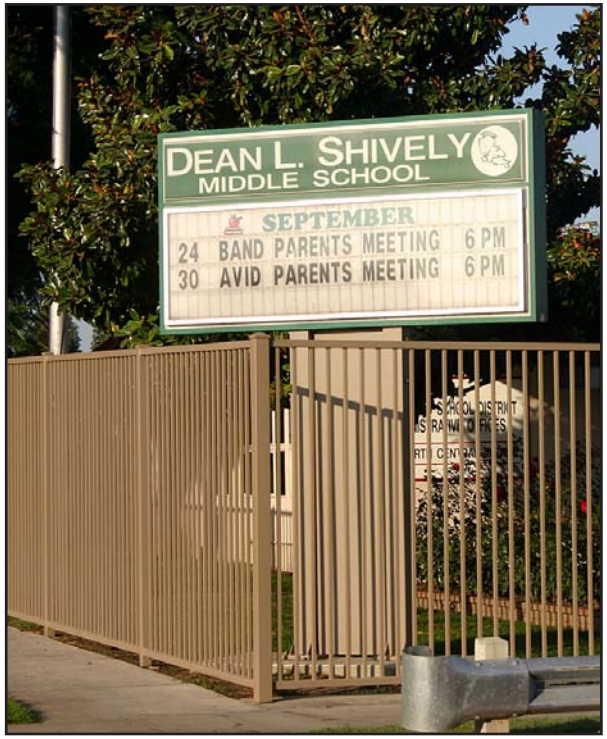
Out of necessity, trucks must at times be loaded and unloaded while parked in the median turn lane.

Geographic and political barriers prevent the City from increasing in size much beyond its current boundaries.

Although South El Monte today is almost completely built out, many properties are not used to their full potential. Approximately 54% of South El Monte's land is dedicated to industrial uses. By creating a framework to sustain mixed-uses — development with commerical, residential and civic uses — this project will help revitalize the economic viability of South El Monte, as well as create a safe, multi-modal corridor for commercial and civic activities.

The need for this type of catalyst project in the City of South El Monte is significant. It is mostly a community of working-class families with a household median income of $34,656, well below the median income level of $42,189 for Los Angeles County. According to the US Census Bureau, over 21,000 people reside in South El Monte as of 2000. Thirty-three percent of the population lives on a household income of $25,000 or less. The per capita income of South El Monte is a low $10,316, about 50% lower than that of the County and 45% lower than the rest of the State of California. Approximately 16% of families and 19% of South El Monte residents live in poverty and 10% of households report public assistance income. South El Monte also has a high immigrant population, with 52% of the residents being foreign-born. The ethnic make-up is strongly Latino at 86%. There are also growing Asian communities — primarily Chinese, Vietnamese and Filipino — which account for about 8% of the population in South El Monte.

South El Monte is a small community, and lacks a true city core where residents can shop and interact with one other. This project will set the stage for improvements in the corridor to promote redevelopment for



Dean Shively is one of three schools in the corridor.


Access to the high school uses an isolated overcrossing.


Residents creating a "wish list" for the corridor.

mixed-use activities and to create an active city center. There are many suitable parcels along this corridor that are underdeveloped or committed to declining industrial uses. The city is not well-served by transit. More importantly, the major transit route uses Santa Anita Avenue to provide a direct link to the Business and Civic Corridor.

Key to improving livability and the quality of life for residents is to enhance this corridor and its linkages so that residents feel safe walking, bicycling, and taking transit within and from the City. Some of the best opportunities for mixed-used infill development exist along this corridor. Unless a plan is developed to improve the streetscape, safety and mobility along this corridor it is unlikely that the City's current and future mixed-use development plans will be successful.

The City of South El Monte lies at an important crossroads from both a geographic and historic perspective. Bounded by the Pomona and San Gabriel River freeways, South El Monte has ready access to regional travel routes that link the City to centers of commerce in Los Angeles County and beyond.

The community's population and business patterns mirror the transition occurring throughout the San Gabriel Valley toward a more diverse ethnic mix and increased presence of businesses serving Pacific Rim and Asian markets within the region and abroad. However, the community can benefit from a richer mix of uses to foster economic development within the City.

Highway 60 cuts across the southern portion of the City and is crossed by Santa Anita Avenue, with the Whittier Narrows recreation

U. S. Highway 60 connects to the corridor.

The corridor sees significant foot traffic.

Bicyclists must often improvise their routes, but this may create conflicts with pedestrians and vehicles.

area south of Highway 60. The overpass is characterized by narrow sidewalks where provided, and none on the north side. This limits safe pedestrian and bicycle access to future development in this area and to the Whittier Narrows recreation area.

A good location to encourage mixed-use development is the strip of Santa Anita Avenue from Highway 60 to the intersection where Tyler and Santa Anita Avenues diverge. City officials hope to transform this area into a business and civic corridor that would be the central destination in the City for shopping, public services, and events. With mixed use development this corridor could also provide an excellent location for mixed income and affordable housing.

Three schools are located on or within a quarter mile of Santa Anita Avenue: the Epiphany Catholic School, the Dean L. Shively Middle School and New Temple Elementary. Students walking or bicycling to these schools must cross Santa Anita Avenue which is up to 91 feet wide at some intersections. Dean L. Shively Middle School is located at the intersection of Santa Anita and Central Avenue, which is right across from the City's Civic Center. This is a prime location for public events, but long pedestrian crossing distances and the lack of bicycle lanes inhibit pedestrian and bike access.

Overview of this Report:

This report consists of four chapters. The first two chapters have information on South El Monte, this project, its funding, and issues this project addresses. Chapter 3 is the core street design component of this report, outlining the proposal for Main Street block-by-block as well as the two school areas that were evaluated. Chapter 4 spells out steps to move these designs and land use changes forward, as well as potential funding sources.

Residents learn the basic tools of street design that they can carry to the walking tour and design workshop.

Pedestrians face multiple obstacles on sidewalks.

CHAPTER TWO: CHARRETTE PROCESS

Overview

Design charrettes are an increasingly popular tool for neighborhood and street design programs. Charrettes are community-based design exercises that come out of a sincere intent to have the public involved in a meaningful way to craft their own future.

This format allows residents, users of a street, or whatever population is targeted, to be the primary force behind the designs. They are typically brought together for several sessions over a short period of time, before the charrette project team finalizes the designs and prepares a report like this one.

In the case of this project in South El Monte, the first visiting team members arrived on Wednesday afternoon the week of the first focus group meetings and didn't depart until the closing session concluded late in the evening the following Tuesday.

Most participants in charrettes following this format strongly prefer it to the more conventional approach where a consultant team visits the community, meets with a few chosen officials or prominent citizens over a day or two, then departs to a distant place to write up a report which appears in the mail months later.

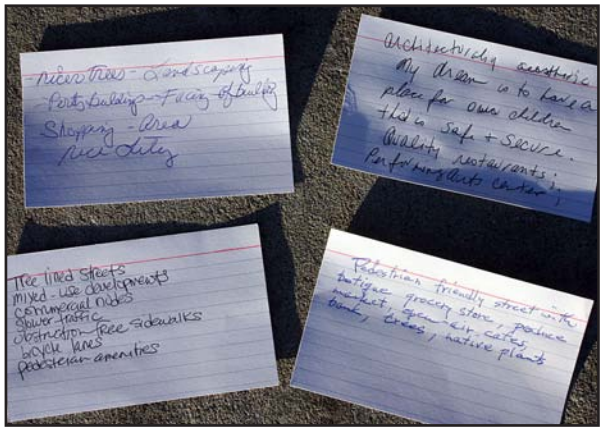
The process used for this project in South El Monte gives the public more meaningful involvement and rewards their effort with a preview of the final designs at the end of the week.

A charrette like this is a multi-day event that takes months of planning and organizing to bring to life. Aside from obvious things like when and where to hold the events, unseen details are just as critical. The Local Government Commission handled most of these tasks, but was assisted in publicity and outreach by City of El Monte staff.

The project team included the following individuals:

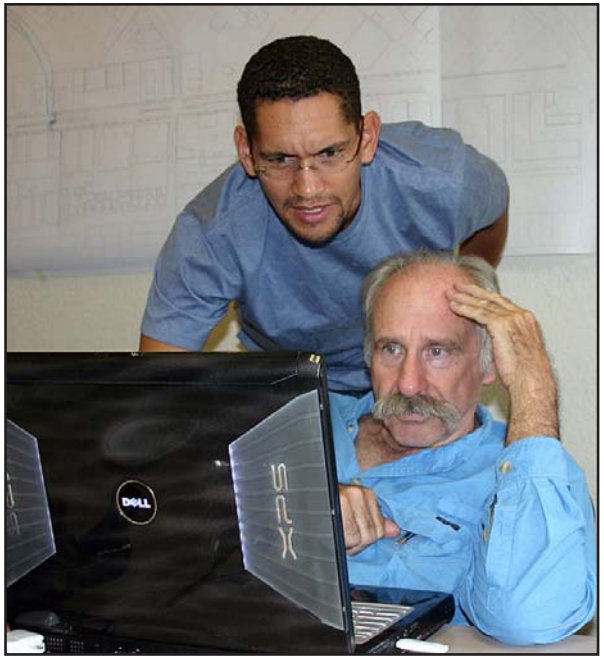
- Local Government Commission — Paul Zykofsky, AICP, Director Transportation and Land Use Programs; Anthony Leonard, Project Manager; and Steve Tracy, Senior Research Analyst
- Dan Burden, Principal, Glatting Jackson,

Residents who responded to outreach efforts…



...were offered a chance to express their preferences…

...and prioritize their desires for Santa Anita Avenue.



Street design experts Michael Moule and Dan Burden.

Inc., Executive Director of Walkable Communities

- Michael M. Moule, P.E., P.T.O.E., President, Livable Streets, Inc.
- Barrio Planers, Inc. — Frank Villabos, FAIA, President; Luzmaria Chavez, Project Manager; Luis Vazquez; and Marlene Lechuga

Outreach Efforts

Publicity is critical to getting enough people to the charrette events for the design exercise to be meaningful. With City of South El Monte staff taking the lead, this task was shared among the project team members, who also contacted community organizations and other public entities. Posters and overhead banners on the Santa Anita Boulevard corridor announced the events and provided contact information. Attendance was gratifying, especially at the Saturday event with the walking tour.

The remainder of the design team: LGC staff, a South El Monte planner, and employees of Barrio Planners, Inc.

South El Monte planner and Barrio Planners staff.

Focus Group Meetings

Focus group meetings are held with stakeholders who have a common interest relevant to the charrette project. These groups typically range from five to ten individuals, a size that allows for comfortable conversations about freeway crossings, or street and safety issues in general. These meetings were held in South El Monte over a period of two days. Additional meetings were held with individuals unable to attend these meetings.

City of South El Monte Officials and Staff
Thursday, September 25, 2008

- City Council representatives
- Community Services Department Engineering Division
- Community Development Department Planning Division

Schools and School district Representatives
Monday, September 29, 2008

- New Temple Elementary School (Valle Lindo Elementary School District)
- Dean L. Shively Elementary School (Valle Lindo Elementary School District)
- South El Monte High School (El Monte Unified High School District)

Safe school access is an especially critical component of this project because many students from all three of these schools cross Santa Anita Avenue twice daily. Side street design were also discussed at this meeting.

The event was announced in Spanish and English.

Project team members organize the week's events...

...then meet with City officials and staff...

...and later with school district officials.

Santa Anita Avenue Corridor Priorities
as Stated by Residents at the Opening Session

1. Safety for children going to and from schools
2. Outdoor cafes
3. Environmentally sensitive buildings
4. Bike lanes
5. Drought-resistant native plants
6. Connectivity to schools
7. Mixed-use housing
8. Public art
9. Green
10. Smooth brick walkway pavers
11. Enhanced lighting
12. Connect to parks
13. Open space
14. Street medians
15. Sidewalk furniture
16. Age friendly
17. Aesthetics and architecture
18. Reduce truck traffic
19. Create a gateway
20. Trash and recycling cans
21. Crossings
22. Accommodate traffic

Public Charrette Events

Opening Session

On Thursday evening, September 25, 2008, the Santa Anita Avenue Corridor Revitalization Program opened with the first public event, held at South El Monte Senior Center auditorium. Mayor Blanca Figueroa welcomed residents to the event, and Paul Zykofsky, LGC Director of Land Use and Transportation Programs, introduced the project and offered background on the City's ongoing desire to improve safety and mobility.

Dan Burden of Walkable Communities, Inc. then gave the crowd a presentation about design techniques that can convert dysfunctional, unsightly, and dangerous streets into complete streets that work for everyone, not just drivers. His presentation was rich with examples from other cities where problem streets, intersections, and crossings were redesigned into functional, attractive, and safe public spaces.

Participants were then asked to take part in a simple exercise about priorities. They were asked to call out things they would like to give attention to, while LGC staff recorded their issues on large easel paper. Those sheets were then taped to the auditorium wall.

Next, participants were each given half a dozen colored adhesive dots to use as votes for the issues they feel are the most important in the Santa Anita Avenue corridor. They were only allowed to place one dot per item, no double votes. The results are shown in the sidebar at the left.

This information was carried forward into the subsequent tour on Saturday morning, and to the designs the project team developed over the course of the charrette.

Residents discuss their preferences for the corridor...

...while City officials take notes.

Saturday Walking Audit and Design Session

On Saturday, September 27, 2008 the session began with a short refresher course on some of the tools available to address the priorities identified by participants on Thursday evening. These included traffic calming, pedestrian and bicycle facilities, and access requirements and techniques.

Following this presentation City staff led charrette participants on a walking tour of the Santa Anita Avenue corridor. This began on Central Avenue at the Senior Center in the Civic Center area, crossed Santa Anita Avenue, and continued south on Central to the New Temple Elementary School.

At numerous stops on this walk the group assembled around audit leader Dan Burden to discuss mobility issues at each location, look at traffic on the streets, and listen as Dan offered possible solutions to improve conditions at each location. Other members of the project team took notes, measurements, and photographs along the way. These animated, revealing, and educational discussions continued as participants walked slowly back to the Senior Center for lunch.

Once refreshed, participants broke into three table groups and began the complex task of discussing the corridor. Each table group held energetic conversations as they discussed detailed recommendations and general concerns. These thoughts were then translated into design recommendations which they drew on large aerial photographs.

During this exercise, project team members circulated around the room observing, commenting if appropriate, and answering questions when asked. This format keeps expert designers available, but gives community members the hands-on freedom to prepare the recommendations that follow.

The project team prepares for the walking audit.

Participants put dots by issues they care about most.


At the opening session...


...residents were encouraged to speak out...


...about their desires for Santa Anita Avenue.

Resident Design Table Recommendations

The following material is gleaned from the margin notes on the large-scale aerial photographs the three design groups drew their recommendations and comments on, and their presentations to the room that explained their design features and reasoning. Design group presentations were recorded by video camera, and the language carefully transcribed to verify notes.

Table 1. Concepts and recommendations

Presentation — "We would like…"

- A continuous theme in the corridor of Spanish Mediterranean architecture
- Tree wells and bright colored flowers along Santa Anita Avenue
- To remove some of the existing palm trees and replace them with prettier trees
- Green trees, since Crepe Myrtle trees are pretty only three weeks a year
- Spanish-style lamp posts with hanging flower baskets
- Sculpture or art on the corner by Snively Elementary
- A program for children to make tiles to be incorporated into art on the corridor
- Benches, that people can donate and dedicate to loved ones
- Bus stops with benches and a consnstent theme
- Bike lanes on Santa Anita Avenue connecting parks, schools, and downtown
- A bike route on North Cogswell Road to connect with the high school overcrossing
- Decorative trash can holders

The Saturday session featured a walking audit of the Santa Anita Avenue corridor with Dan Burden and LGC staff.

The project team on the job documenting the street.

Notes on Table 1 aerial photograph:

- Spanish Mediterranean architecture with bus shelters to match
- Remove some palm trees
- Plant better trees, like at the Chino Spectrum Towne Center
- Better landscaping, like tree wells with flowers
- Decorative sidewalks and crosswalks
- Get dedicated benches and more public art, like tiles by children
- Decorative street furniture and trash can holders
- Islands in the middle of Santa Anita Avenue
- Put a fountain and benches on the grass near Central at Snively School
- Put in curb extensions at Vacco Street and Santa Anita Avenue
- Bike lanes on North Cogswell Road

Table 2. Concepts and recommendations

Presentation–"We would like…"

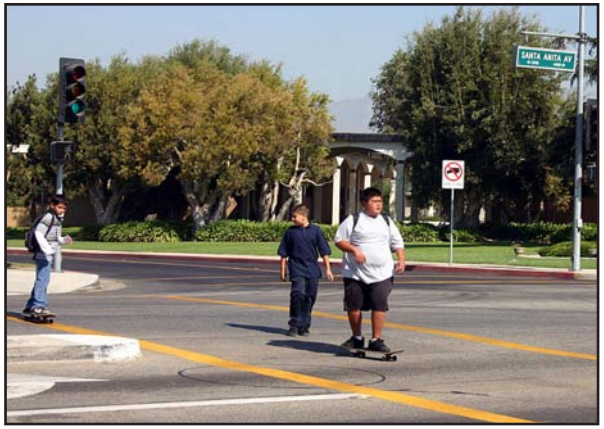
- Brand new buildings limited what we can do
- Islands on Central to make sure turns are slower
- To move the bus stops on Santa Anita Avenue to the east side of Central
- To be sure roundabout at Santa Anita/Tyler is feasible due to industrial traffic
- Tree wells and bike lanes on Santa Anita Avenue
- Mixed use on the southeast side of Santa Anita Avenue across from City hall
- To consider a raised intersection at Santa Anita Avenue and Central to slow traffic
- A connection on the southwest side of the Snively playfield

The walking audit also evaluated transit shelters.

Design workshop Table 1 presents their ideas.

Notes on the aerial photos influenced final designs.

Communication was two-ways, as Dan Burden listens.



Kids cross Santa Anita Avenue even on weekends.

And they also had things to say about the street.

Design session Table 1 at work.

- Change on and off ramps at freeway to urban diamond interchange
- Close Fawcett Avenue to allow commercial development at that location

Notes on Table 2 aerial photograph:

- Redesign the U.S. 60 and Santa Anita Avenue interchange into a diamond
- Close Fawcett Avenue
- New development southeast of the U.S. 60 and Santa Anita Avenue interchange matching new development north of Santa Anita Avenue
- Put curb extensions at major intersections all along Santa Anita Avenue
- Put in high visibility crosswalks, tree wells, and islands on Santa Anita Avenue
- Close off Tyler east of Santa Anita Avenue junction
- Install a roundabout at the corner where Santa Anita Avenue turns north (at the split with Tyler Avenue)

Designs were drawn directly on the aerial photos.

Table 3. Concepts and recommendations

Presentation — "We would like…"

- Better sidewalks for pedestrians
- Tree wells and bike lanes on Santa Anita Avenue
- More landscapping on the streets
- Need better public transportation service
- Would like mixed use on southeast side of Santa Anita across from City hall
- Would like connection on southwest side of Snively playfield
- Address the safety of the pedestrian freeway crossing to South El Monte High School
- To address contamination conflict at buildings near Vacco and Central

Notes on Table 3 aerial photograph

- Need better sidewalks and bicycle paths
- More deciduous trees
- Safer path to the high school

Table 2 presents their ideas.

- Put curb extensions at major intersections all along Santa Anita Avenue
- Improved public transportation
- Create another small family park in the area
- Bulbouts at the intersection of Vacco Street/ Slack Road and Santa Anita Avenue

City Council Preview

Before the closing session, the South El Monte City Council saw a brief preview of the charrette recommendations. This session lasted just a few minutes, as Dan Burden made his presentation and then answered a few questions about the charrette events and the recommendations.

Closing Session

This session was held at the Senior Center auditorium on the evening of September 30, 2008. Over twenty residents and project team members were in attendance as Dan Burden began his presentation with a brief recap of the tools of good street design. This was followed by detailed images of resident and project team recommendations for areas along the Santa Anita Avenue corridor.

After this discussion session, participants congratulated each other and were thanked by the project team. The resulting designs appear throughout the next chapter of this report. The residents, officials, and City staff who contributed their time and expertise to this project deserve the gratitude of the entire South El Monte community.

After providing time for City review, the LGC returned to South El Monte to present the final report to the City Council. This took place at the February 9, 2010 City Council meeting.

The City Council preview the recommendations.

City officials participated and learned.

The group at Table 3 worked on street design issues...

...also made land use recomendations...

...and then presented their ideas in Spanish.

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CHAPTER THREE: RECOMMENDATIONS

Design recommendations are the heart of this project, the charrette activities in South El Monte, and this report. This section details the improvements suggested for roadway segments along the corridor and nearby community areas.

This discussion begins with North Santa Anita Avenue and surrounding streets in the corridor, then continues with suggestions to improve school access and safety, and finally to a proposed design for Civic Center area circulation.

Critical issues raised during the charrette events are addressed by the designs. It is important to remember that these designs are not the product of the design team working in isolation, but are based on the resident design group input. Factors leading to the recommendations include:

- Suggestions made by the residents at the Saturday design workshop
- Effective solutions that have been used in similar situations in other cities
- Traffic volumes on the subject roadway segments
- Accident types and frequency
- Simplicity and cost

The discussion of each area begins with a short description of the current situation and details about traffic flow, and safety issues. This information will include:

- Street width
- Traffic volumes
- Accident history
- Issues raised in the charrette sessions
- Resident recommendations

The Civic Center complex anchors the corridor.

Hundreds of school-aged children cross North Santa Anita Avenue each day.

Truck traffic will influence design recommendations in portions of the corridor.

Corridor entryway off U. S. Highway 60 interchange.

In some cases, short-term solutions can be implemented with paint treatments to improve crosswalks, add bicycle lanes, and narrow vehicle lanes. More features such as curb extensions and median landscaping can be added as funding can be found. Americans with Disability Act (ADA) ramps should be provided at every appropriate location as soon as possible. Possible funding sources for much of this work are discussed in Chapter 4 of this report.

Design Highlights

The toolkit of traffic calming features that are recommended as appropriate in each different area of the corridor includes:

- Narrowing vehicle lane widths to lower vehicle speeds and free up space for buffers, wider sidewalks, and bicycle lanes
- Converting unnecessary vehicle lanes to bicycle lanes and parking areas

Figure 3-1: Santa Anita Avenue Corridor and nearby schools and residential neighborhoods.

- Widening or improving sidewalks.
- Adding bicycle lanes wherever needed
- Completing intersections to provide a full complement of high visibility crosswalks, ADA ramps, pedestrian signals, pedestrian crossing islands, etc.
- Reducing vehicle speeding through design techniques (which improve safety without requiring additional enforcement)
- Improving the appearance of the streets wherever possible with landscaping

This section is organized into these areas:

1. Thoroughfare Designs

- North Santa Anita Avenue – Highway 60 to Tyler Avenue
- North Santa Anita Avenue – Tyler Avenue to Rush Street
- North Tyler Avenue and East Rush Street
- Protected Left Turns

2. Secondary Street Designs

- Merced Avenue
- East Fawcett Avenue

3. School Access Safety Improvements

- Dean L. Shively Elementary
- New Temple Elementary
- South El Monte High School

4. Recommendations for East of Highway 60

5. Land Use Recommendations

6. Civic Center Area Design Options

Recommendations are discussed in detail in the pages that follow. Because this report is being produced in a format that can easily be photocopied, some tracking back and forth from page to page may be necessary to view location maps, design details, example photographs, and explanatory text.

Recommendations include transit amenities.

Dan Burden notes things that interfere with wheelchair and baby stroller access.

Project team designers at work on recommendations for the corridor.

Retail uses are now appearing in industrial buildings.

Thoroughfare Designs

North Santa Anita Avenue – U.S. Highway 60 to Tyler Avenue

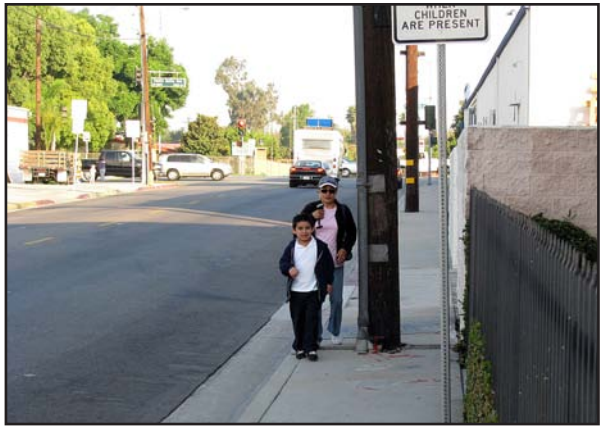
Like many industrial area streets in the Los Angeles basin, this section of Santa Anita Avenue is very wide — 84 feet curb-to-curb. This is more width than is necessary for the existing center turn lane/median, wide vehicle lanes, and curbside parking areas. This open pavement is unattractive and contributes to excessive speeding. The two intersections at Fawcett/Merced and Central saw 66 accidents in the 5 ½ year history studied for this report.

Bicyclists are forced to either ride in the street without bike lanes, or ride on the sidewalks which should be reserved for pedesrians. Wide sidewalks are provided on both sides of the street, but placement of landscaping and utility features could be improved.

Figure 3-2: North Santa Anita Avenue from Merced to Central. Note intersection inprovements, intermittent landscaped median islands, and mid-block pedestrian crossing.

The use of property along this section of Santa Anita Avenue is in transition. As the traditional industrial activities are in decline, commercial activities are moving in to fill the void. This offers an opportunity to the City to also increase housing stock on the corridor, by encouraging mixed-use projects on properties that become available.

The proposed design leaves this section of Santa Anita Avenue relatively unchanged. This is due to the number of required truck access points on the southeast side of the street, and the heavy traffic volumes near the freeway. Traffic volumes on this segment of Santa Anita Avenue, at 20,000 to 24,000 vehicles a day, are heavy enough that a lane reduction would not automatically be recommended.



Pedestrians and wheelchair users face many obstacles.

Figure 3-3: North Santa Anita Avenue from City Hall to Tyler Avenue. Note intersection inprovements, continuous landscaped median, and mid-block pedestrian crossing.

Loading docks and truck access needs on the western portion of the corridor will limit landscaped medians.

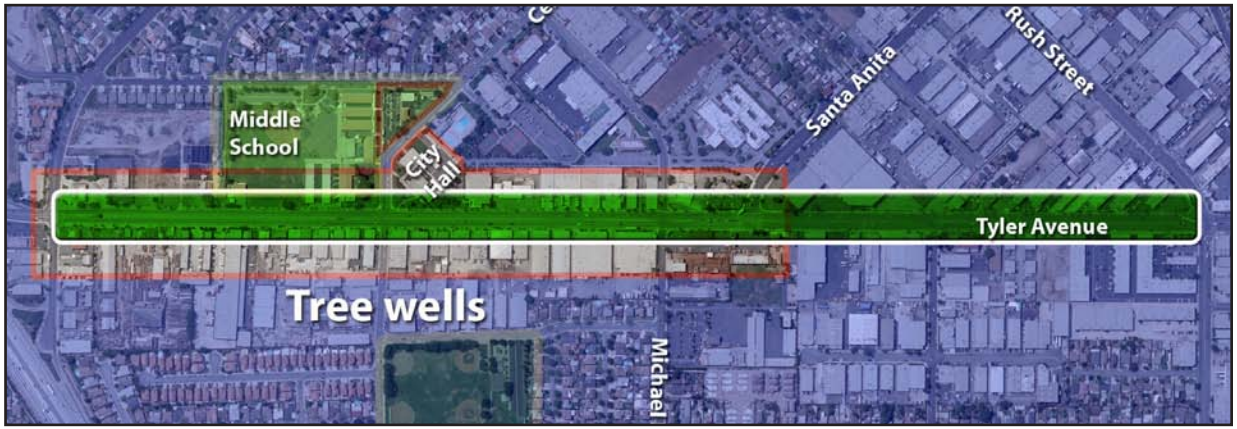


Figure 3-4: Tree wells in the parking lanes are recommended from Merced Avenue to the Tyler Avenue transition.

A redesigned Santa Anita Avenue will have mid-block pedestrian crossings, bike lanes, and improved landscaping.

Proposed changes for this segment of the corridor fall into two categories — 1) those intended to beautify the street median and the street edge, and 2) improved pedestrian and bicycle features. The median and edge landscaping improvements will visually narrow the drivers' field of view. This will have a traffic calming effect and reduce vehicle speeds, which will in turn make the street a safer and more pleasant place for pedestrians and bicyclists.

Continuous landscaped medians are not practical in this section of North Santa Anita Avenue. This is because there are still many industrial and commercial properties with driveways and street-facing loading docks that require access to the street in both directions, and at times require access to trucks parked temporarily in the center median for loading or unloading. The compromise design includes long medians only at the left turn lanes at the Fawcett/Merced and Central Avenue intersections. These help to define the left turn lanes, and provide a mid-street refuge point for pedestrians.

Between those left turn lanes, this design has small raised and landscaped islands in the center turn lane/median. These will partially enclose the vehicle space on the street for a traffic calming effect. Over time these islands can be extended as driveways are reduced and consolidated. The long block length may always require some gaps in the median.

Streetside parking will be fully striped, and curb extensions placed at intervals in the parking lane. These extensions are good locations for street trees, which will complete the enclosing effect on the vehicle lanes, and improve the ambience along the sidewalk.

Several comments were made during design table discussions about the palm trees inserted recently into the existing sidewalk. Removing most of these trees and planting species that will provide more shade in the new tree wells will respond to those comments.

Existing palm trees offer little shade for pedestrians.

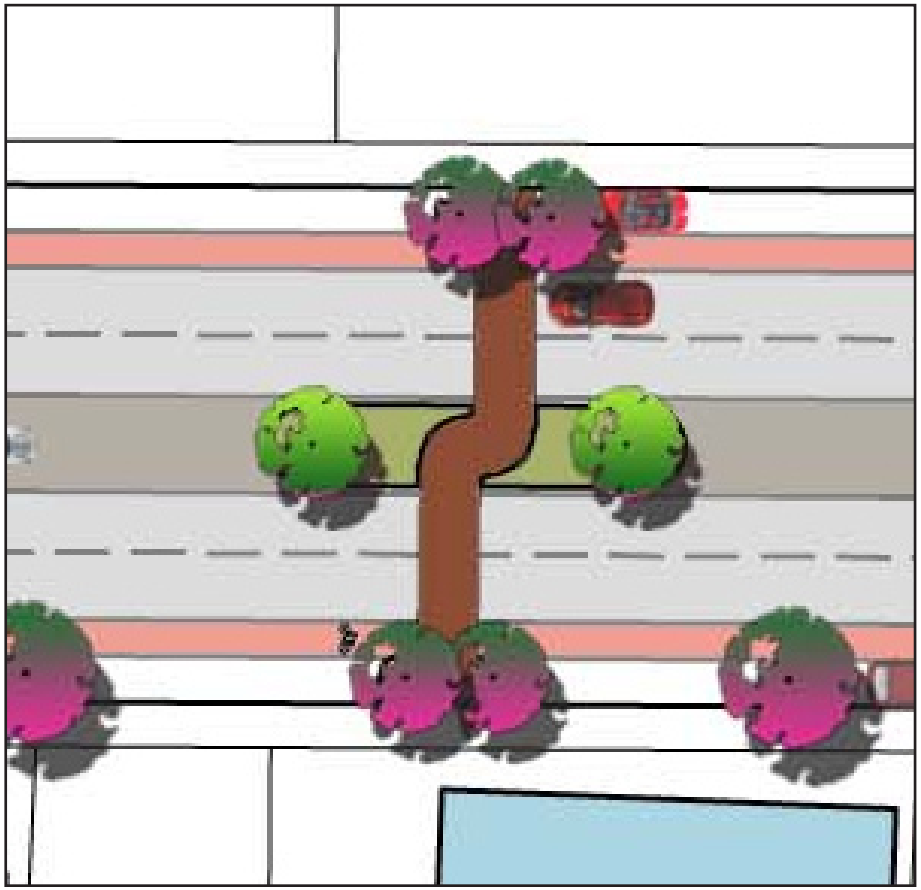


Figure 3-5: New crosswalks, bike lanes, and landscaping at Santa Anita and Merced.

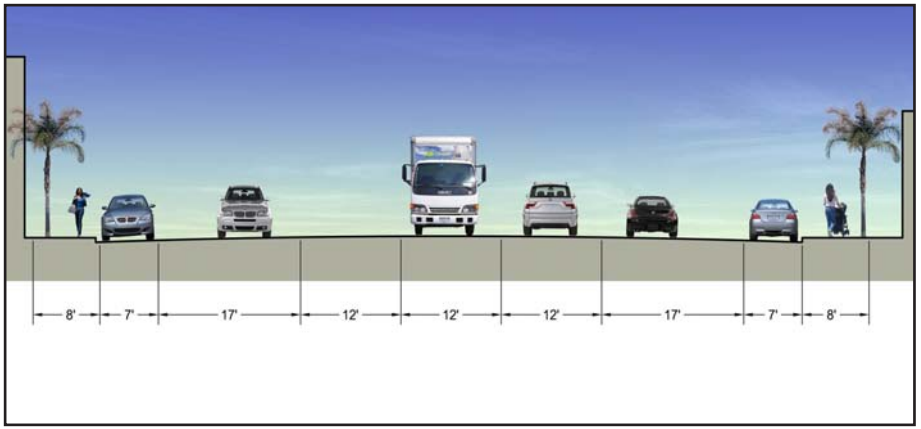


Figure 3-6: Cross section of the existing Santa Anita Avenue from Merced to Tyler.

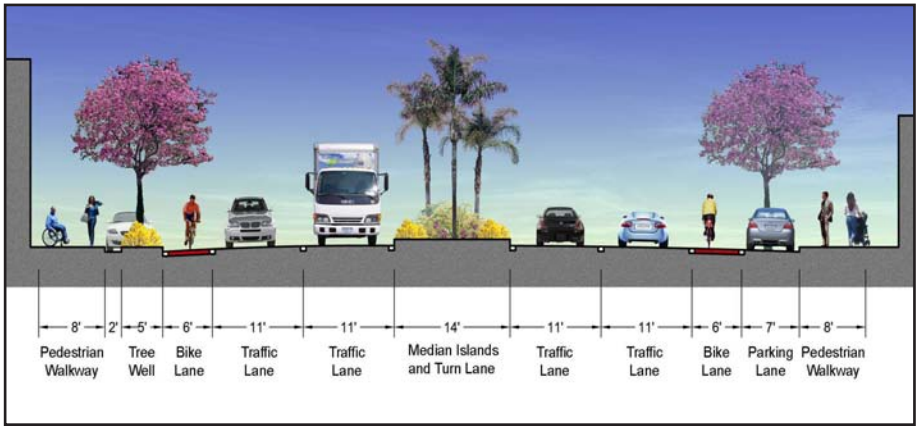


Figure 3-7: An improved Santa Anita Avenue with bike lanes and landscaping.

An example of a high visibility crosswalk.

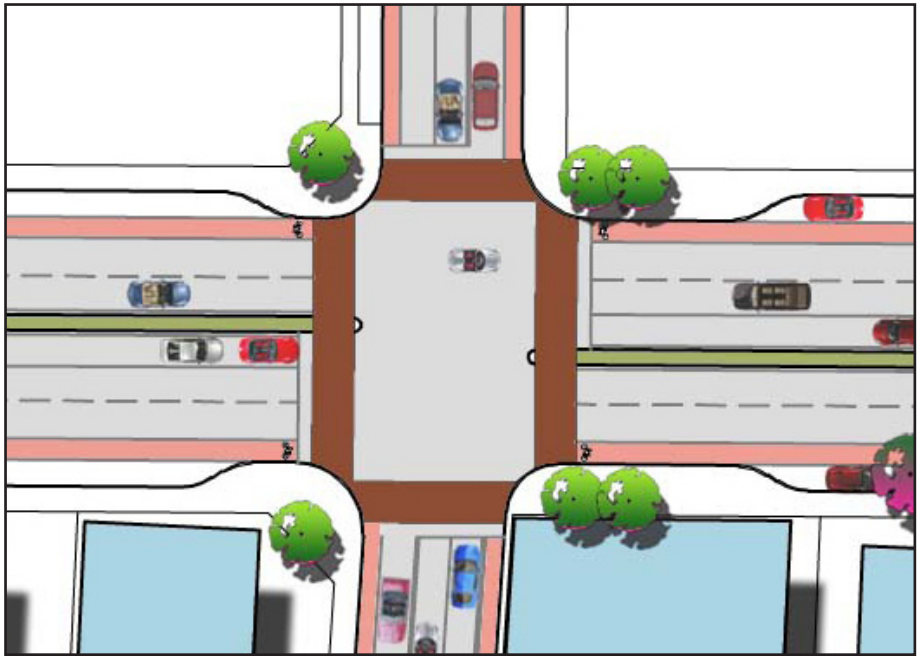


Figure 3-8: Final design for Santa Anita and Central.

In the interest of safety, it is recommended that all major intersections in the corridor receive the the full set of pedestrian improvements. The Merced Avenue and North Santa Anita Avenue intersection is shown on Figure 3-8 below. Figure 3-9 shows candidates for this treatment, which include the intersections at:

- North Santa Anita and Fawcett/Merced Avenues
- North Santa Anita and Central Avenues
- North Santa Anita and Vacco/Michael Hunt
- North Santa Anita and Tyler
- North Santa Anita and Rush
- Central and Lerma

Bold side stripes and coloring mark the crosswalks, and "stop" bars for vehicles are painted in front of the crosswalks. Drivers may still cheat a bit, but cars are unlikely to block the pedestrian space if they do.

Figure 3-11 shows a new pedestrian crossing in the middle of this long block. This could link future pedestrian walkways along the utility easement southwest of Snively Elementary School and a new cut-through that could extend to the Arcy Lane cul-de-sac off of Esteban Torres Drive. This pedestrian network would provide school access to the neighborhood behind the current industrial uses that would avoid the busy intersection at Santa Anita Avenue and Central Avenue.

Figure 3-9: Intersections where curb extensions should be installed

Finally, bike lanes should be added on both sides of Santa Anita Avenue, with a wide stripe separating bike lanes from moving vehicles, and another stripe on the right side of the bike lane to assure parked cars will be tight against the curbs. As necessary, this bike lane can be "colorized" as shown in the image on Page 22. Coloring greatly improves the visibility of the bicyclists' space on the street. It can be applied to conflict areas such as intersections and busy driveways, or to all bike lanes.

The bare appearance of Santa Anita Avenue as it exists now is depicted in Figure 3-6. Over time, as vehicle lanes are restriped, bike lanes added, and money is found for landscaping, the street can look like Figure 3-7.

This will all work to create a "main street" boulevard that is comfortable for all users of the street, and help make this corridor a place to go to, and not just go through.

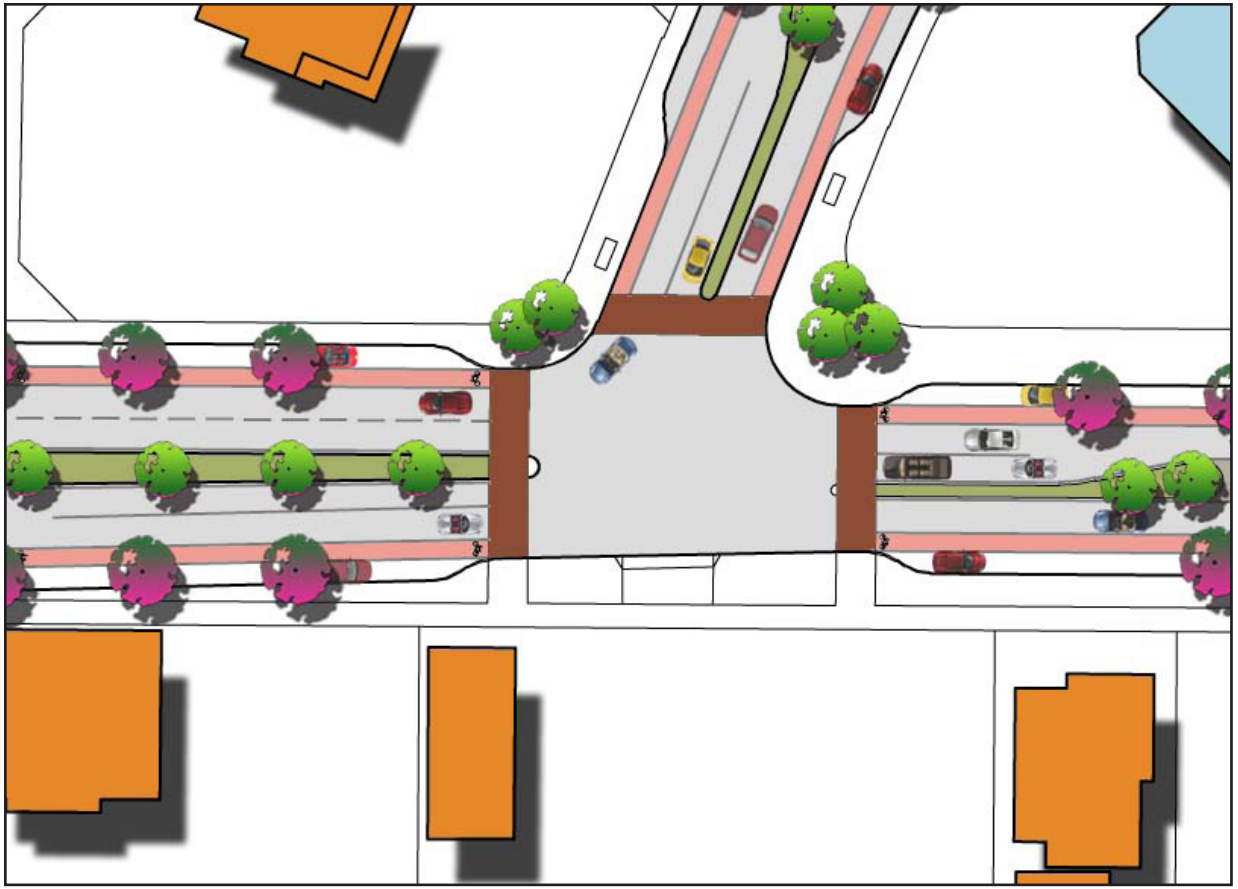


Figure 3-10: The four-lane section of N. Santa Anita will end at the Tyler junction where two-lane designs begin.

Stop bars before crosswalks reduce intrusions.

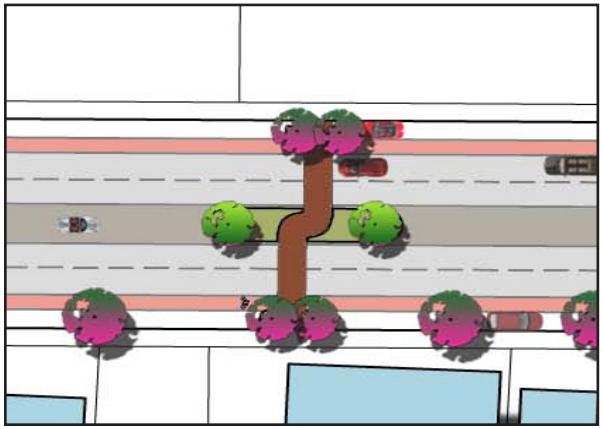


Figure 3-11: Mid block crossing on N. Santa Anita.

Mid block crossing example on a smaller street.

The "Road Diet" Solution

Figure 3-13 below shows the recommended design for other major streets in the corridor — remove unnecessary vehicle lanes and use that space in the roadway for bike lanes, wider sidewalks, left turn lanes, and landscaping. This lane reduction treatment is often referred to as a "road diet." While diets may not be appealing to everyone, in this case they lead to healthier and better used streets than shown in Figure 3-12.

This conversion from four lanes into two lanes allows the width formerly occupied by motor vehicle lanes to be devoted to other uses such as parking, wider sidewalks, bike lanes, or improved landscaping. This "road diet" solution has become common in recent years, employed on hundreds of streets nationwide with great success. South El Monte can benefit from this solution on several of the roadway segments in the corridor evaluated for this design project.

One of the benefits of this lane reduction solution is that it can be done in stages. The initial conversion can usually be done with just a simple application of paint, while more substantial things follow later. The

La Jolla Ave in San Diego, before a road diet.

The same location today.

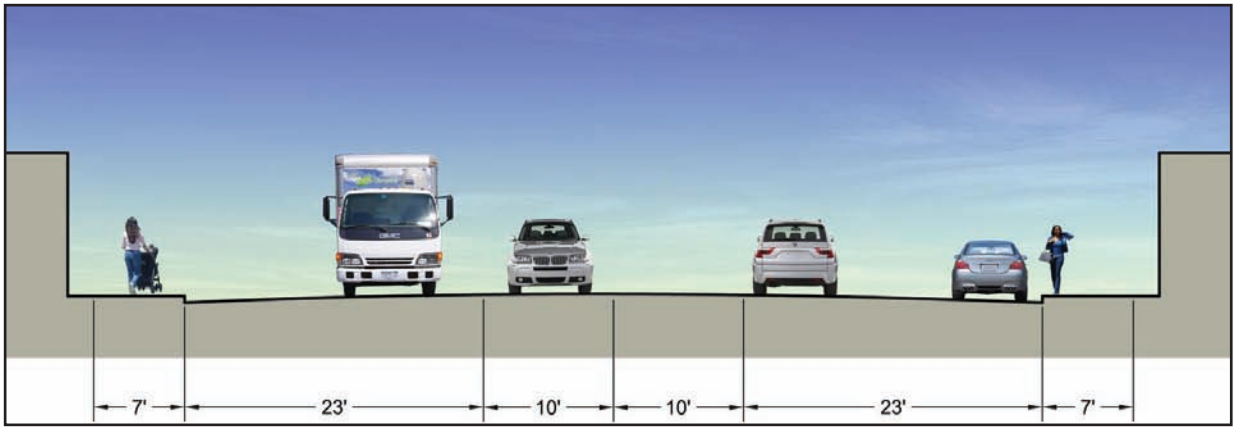


Figure 3-12: Santa Anita from Tyler to Rush as it is now with wide lanes and excess space, which invite speeding.

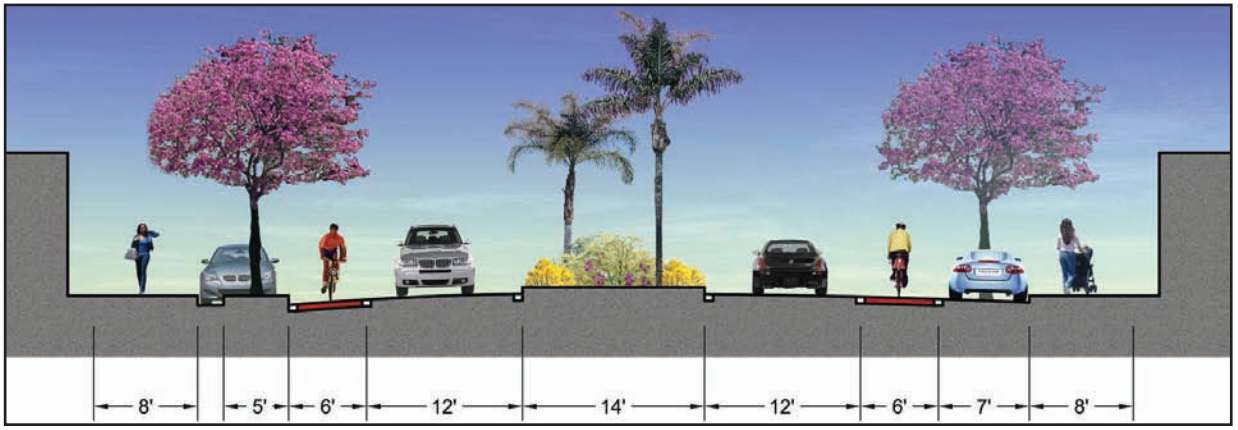


Figure 3-13: A redesigned street can provide for the same traffic flow, and other users as well.

only additional requirement in this case will be some new traffic signals so that every signalized intersection has left turn arrows. This critical safety improvement is discussed in more detail later in this chapter.

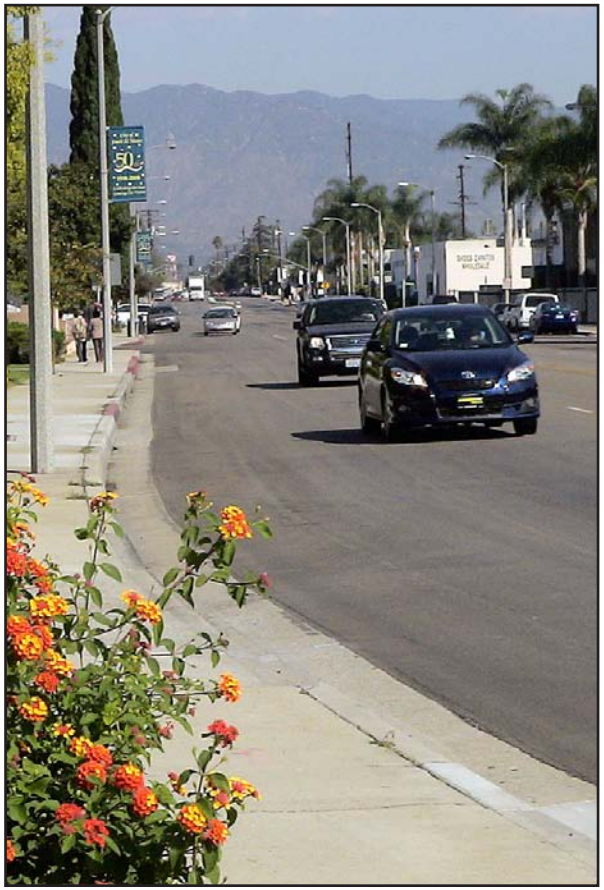
Figures 3-12 and 3-13 on the previous page compare the existing conditions on these streets with how they could look after all the roadway improvements are completed.

These redesigned streets shown in Figure 3-14 will offer parking buffered by bike lanes and inset between tree wells. Bicyclists will be safer than riding in vehicle traffic, with well-marked lanes dedicated to their use. Pedestrians will benefit from the improved shading and buffering that landscaping and trees provide. Businesses on the streets will see increased customer traffic as people respond to improved comfort and safety.

Destination restaurants already grace Santa Anita Avenue.

Figure 3-14: While the central postion of N. Santa Anita Avenue will remain four lanes, other streets in the corridor are ripe for lane reduction designs.

Road diets can trigger redevelopment of parking lots.



Light traffic on Santa Anita north of the Tyler junction.

North Santa Anita Avenue — Tyler to Rush

At the three-way intersection where North Santa Anita Avenue turns directly north, traffic volumes decline significantly to just over 11,000 vehicles a day, both ways combined. A similar portion of traffic on N. Santa Anita Avenue past the Civic Center is oriented to the continuation of the roadway, which is known as North Tyler Avenue. Two lanes are sufficient for these traffic volumes.

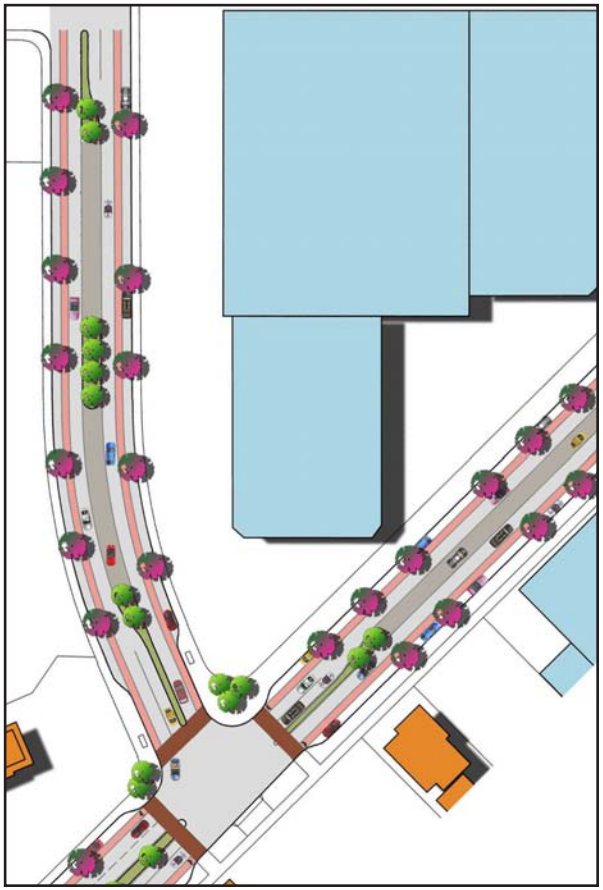


Figure 3-15: Lane reduction north of Tyler junction.

Therefore, retaining the four-lane design for the north/south oriented portion of N. Santa Anita Avenue is not necessary. This lower level of traffic can easily be handled on a two-lane street with left turn pockets as depicted in Figure 3-15, below. This design also fits more logically in the tighter 66-foot street width of this segment of N. Santa Anita Avenue.

The existing configuration is shown in Figure 3-12, and the full potential of this solution is shown with the landscaped street in Figure 3-13.

As with the 4-lane section of North Santa Anita Avenue, the landscaping in the street center will not be continuous, but broken into islands to preserve driveway access, and occasional delivery truck parking.

Comfort and safety will improve with a road diet.

North Tyler Avenue and East Rush Street

These two street segments are very similar in traffic volume and use, but differ in width. North Tyler Avenue continues east from Santa Anita Avenue with the same 84-foot street width, curb-to-curb. East Rush Street is smaller, with a 64-foot section between the existing curbs. The 2-lane plus turn lane solution fits more readily in that smaller width. The North Tyler Avenue segment will have a much wider median to use up the extra street width. As redeveopment occurs on this road segment in the future, vehicle lanes can be shifted towards the middle of the street to free up roadway space for wider sidewalks at the edge of the street. See Figure 3-16, below.

All of these improvements fit within the pavement space between the existing curbs. The initial reconfiguration can be achieved with just painting the new lanes on the street and new traffic signal heads.

While this project and this report focus on the immediate North Santa Anita Avenue corridor, it appears that this same conversion treatment could be continued beyone this corridor for the entire length of these streets within the community of South El Monte.

Figure 3-16: The highlighted sections of Tyler and Rush are both good candidates for road diets.

Light traffic on Rush Street does not need four lanes.

Medians, striped parking, and bike lanes can be added.

Tyler can support the same design, but with wider medians.

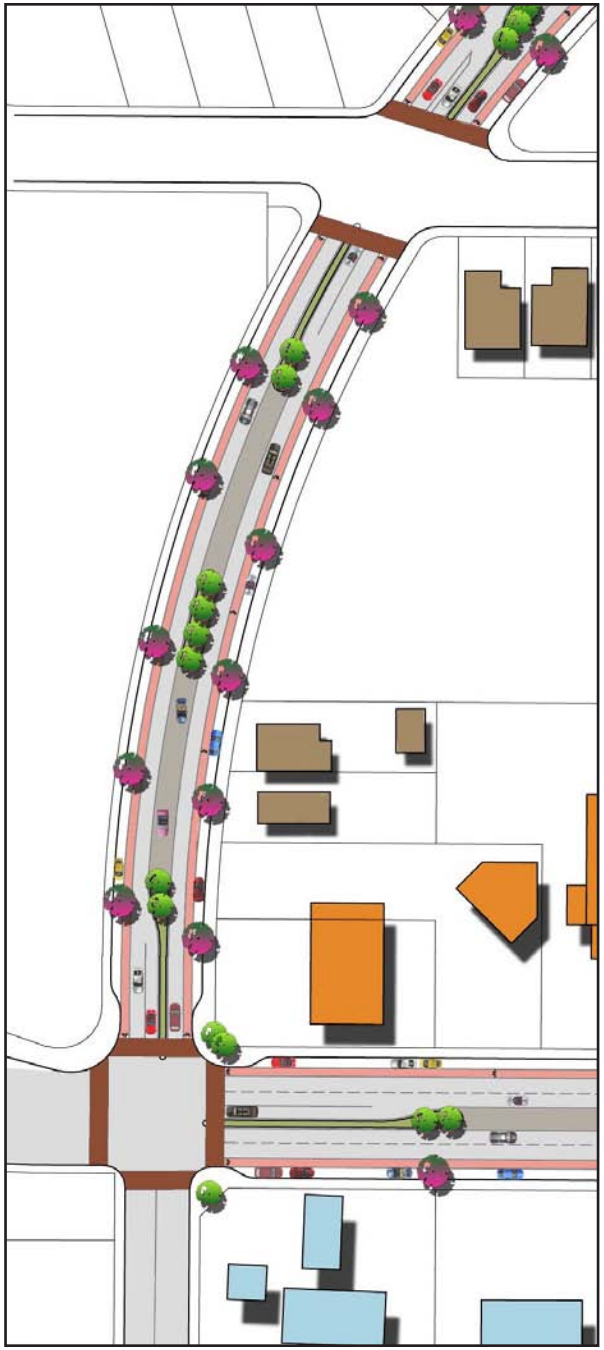


Figure 3-17: A redesigned Merced Avenue.

Merced Avenue

This street, at the western end of the corridor, is another candidate for the lane reduction road diet treatment. Traffic volumes do not justify its present configuration, and the excess width only induces speeding. This makes the street uncomfortable for drivers, bicyclists, and pedestrians alike.

A redesigned Merced Avenue is shown at the left in Figure 3-17. The images below show the current condition of Merced Avenue north of North Santa Anita Avenue, and what it could be in the future. The new buildings on the right could be places at the western edge of the currently vacant property fronting both North Santa Anita and Merced Avenues.

Merced Avenue in its current state is barren, and wider than necessary for the light traffic it carries.

A beautifully reworked Merced Avenue would be an asset to all the nearby properties.

Protected Left Turns

Compared to other communities where project staff have worked recently, there is a high proportion of accidents in the North Santa Anita Avenue corridor that are broadside collisions involving vehicles turning left across oncoming traffic. In the 5 ½ year accident history reviewed for this report, almost half, 67 of the 139 accidents were broadside accidents. The accident toll for the area near each major intersection is shown below in Figure 3-18.

Left turn broadside collisions are especially dangerous, because oncoming vehicles often strike turning vehicles in the doors, where passengers are not as well protected by airbags and other safety features as in straight-ahead collisions.

This high number of broadsides is likely due to the lack of left turn arrows at most intersections in the corridor. It is recommended that additional traffic signal heads be purchased and installed at all signalized intersections in the corridor during the early stages of this street reconfiguration project. These arrows, creating "protected" left turns, signify to drivers that oncoming traffic is stopped, and a left turn can be made more safely.

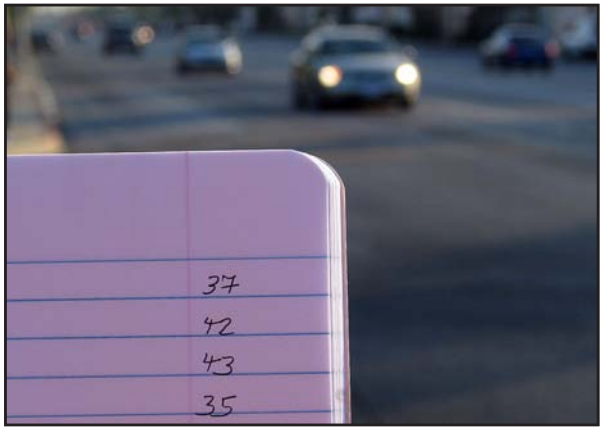
There were 94 injuries reported in the 139 accidents mentioned above. If the experience in South El Monte is like that in other communities that have implemented these same traffic calming and protected left turn solutions, both the number of accidents and the severity of injuries should decline dramatically.

A simple arrow with big safety benefits.

Left turn pockets need left turn signals to match.

Figure 3-18: Accidents at or near major intersections over a 5 ½ year period.

Lerma Road access should be directed to safe crossings.



Speed limits in school zones are not respected.

South El Monte has numerous crossing guards...

School Area Safety Improvements

Dean L. Shively Middle School

This busy Valle Lindo School District school lies at the heart of the North Santa Anita Avenue corridor. This is good, because it is easily accessed from any direction. But it is also a problem because of the heavy and fast vehicle traffic on North Santa Anita Avenue immediately next to the school.

The middle image to the left shows the speeds of the first four vehicles checked by radar during a morning drop off time. During the school drop off period, the speed limit in the school zone is 25 MPH, but clearly many drivers do not respect this limit. The average speed of 30 vehicles checked at the Central Avenue crosswalk was over 38 miles an hour — through an intersection crowded with students going all directions. New Temple Elementary and Epiphany Catholic school are both nearby, and their students use the same path.

Solutions for safer access to Shively Middle School should be implemented at the intersections of Central Avenue and North Santa Anita Avenue, and at North Lerma Road. Additionally, the curve in Central Avenue should get some traffic calming features to reduce vehicle speeds and make the area safer for pedestrians.

Treatments that should be installed at the intersection of Central Avenue and Lerma Road include:

- Curb extensions
- High visibility crosswalks

...but improved intersections will improve driver behavior and help the children get to school safely.

These treatments, as well as the median and other improvements near the curve in Central Avenue will not only provide safer access to Shively Middle School, but to other uses in the Civic Center complex. These include the Senior Center, swimming pool, and gymnasium.

Figure 3-20 shows highlighted bicycle lanes and a raised and landscaped median arcing around the curve in Central Avenue. The median will direct pedestrians to well-defined crosswalks, and bicycle lanes. A staggered mid-block pedestrian crossing can also be placed to the north of the road curve. These features will all improve safety at this location.

Finally, Figure 3-21 shows a new design for the intersection of N. Santa Anita Avenue and Central Avenue. It is so busy in the morning that two crossing guards are necessary to handle the student traffic. The features recommended for this intersection are a continuation of the North Santa Anita Avenue treatment discussed earlier in this chapter. They include curb extensions, highlighted crosswalks, and medians which create a pedestrian refuge in the center of the street.

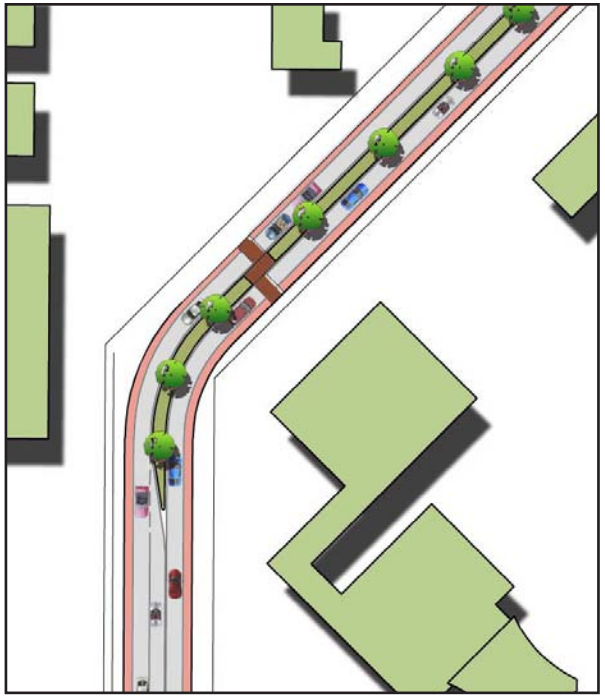


Figure 3-20: Central Avenue curve safety improvements.

An example of a good mid-block crossing.

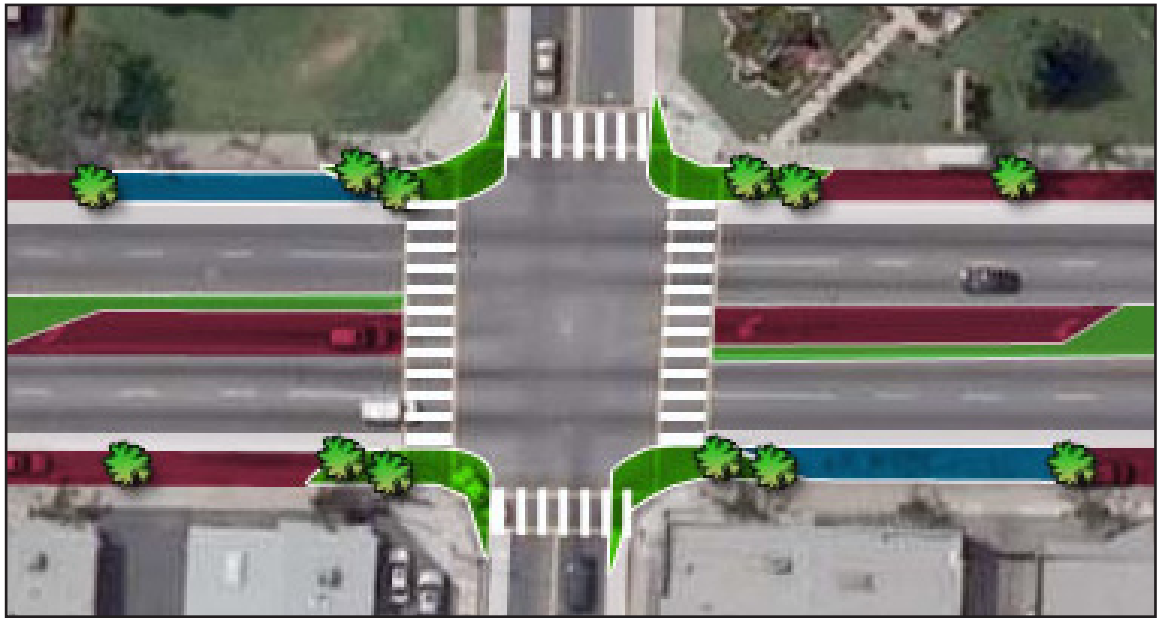


Figure 3-21: Curb extensions and landscaping (green), parking and turn lanes (red), and bus stops (blue).

New Temple School shares the block with a park.

Watchful crossing guards abound in South El Monte.

South El Monte has true neighborhood schools.

New Temple Elementary School

This school, also operated by the Valle Lindo School District, serves the younger children from the same South El Monte neighborhoods as Shively Middle School.

Children pour into the school location from all directions, which is symbolic of something that South El Monte should be proud of. Compared to many communities where this design team has worked, South El Monte has much higher numbers of children walking or bicycling to school. These healthy transportation choices that are developing early in life in this community should be rewarded with safe and direct routes.

Safer streets can reduce car drop off traffic at schools.

The design changes that can foster those healthier trips to school include:

- Curb extensions at intersections of streets with on-street parking
- High visibility crosswalks

Promoting walking and bicycling will reduce traffic congestion and pollution at school sites and on nearby streets, and thus make it safer and more comfortable for more children to walk and bike.

High School Overpass Across Highway 60

This facility, although well-intended when it was built, presents an obvious risk to anyone concerned about personal security. It is also an eyesore, and a big design challenge. The entire structure sits within the Caltrans right-of-way for U.S. Highway 60. More critically, the design is one which creates areas with no surveillance from the adjacent neighborhoods. This creates the perception of risk, and the design team heard one personal story of an attack on an adult on this structure.

It is impossible to completely change the long, exposed crossing over the freeway. But the ends of the structure which spiral down below the sound walls and out of view can be altered for better visibility and safer crossings. The design team suggests that Caltrans rebuild the crossing's end points to create

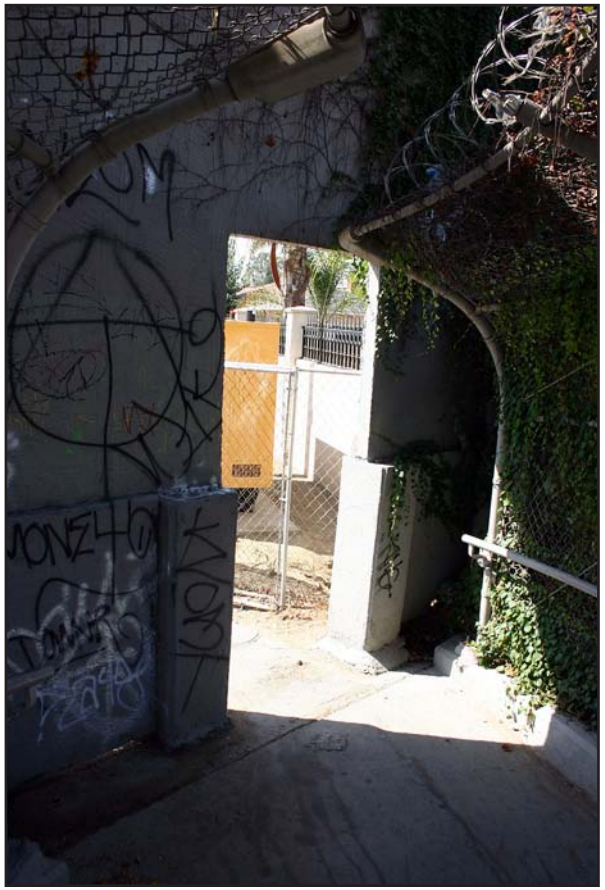
sloping ramps in full view of the nearby homes, with no hidden areas. (Figure 3-23)

On the east side of the freeway, this can be accomplished within the Caltrans right-of-way by extending the ramp from the second level of the spiral along the freeway edge.

On the west side, a similar extension can be constructed on El Monte High School District property abutting the freeway, and exiting onto the public sidewalk south of the current opening in the soundwall. This will not fix the entire structure, but will at least eliminate the dangerous hidden entryways.

Visible, but still exposed and trapped.

Figure 3-23: New entreyway ramps at both ends of the high school overpass structure.



Unsafe and unsightly — not South El Monte's standard.

The only decent sidewalks on a trip from Durfee Ave…

…to downtown are at Whittier Narrows Park, but…

…they soon disapear, and there are no bike lanes at all.

Santa Anita Avenue East of Highway 60

This project is focused on the area of the North Santa Anita Avenue corridor northeast of Highway 60. However, during the week spent in South El Monte, the design team noticed deficiencies in the bicycle and pedestrian infrastructure southwest of the freeway. Photos on this page help illustrate the problems.

This area is relatively unconstrained by street width or development issues, fortunately. Also, a big improvement in pedestrian and bicycle access can be achieved with some inexpensive solutions. Here are a few quick recomendations to improve access:

- Remove obstacles in existing sidewalks
- Narrow vehicle lanes on the freeway bridge
- Paint bicycle lanes from Merced to Durfee
- Use temporary asphalt walkways to close gaps in sidewalks
- Later complete proper continuous sidewalks on at least one side of Santa Anita Avenue

These simple and inexpensive improvements will combine to open up this part of the Santa Anita Avenue corridor to people who are not in cars. This route should then see vehicle traffic related to the high school decline as more students bike and walk. Casual users of the Whittier Narrows park will benefit, as will residents attending special events in the park.

Once at Hwy 60, we see ADA ramps, but many poles.

The bridge has wide vehicle lanes but no bike lanes.

Land Use Recommendations

Corridors like the North Santa Anita Avenue area thrive economically when land use regulations are in sync with the complete street aproach that underlies the recommendations in this report.

South El Monte can take advantage of the catalyst the redesigned streets provide by moving into the future with current practices in General Plan policies and zoning controls. Concepts common to most modern programs call for development that is:

- Mixed use, preferrably on individual parcels but at times on nearby sites
- Denser than typical post-war suburban development
- Connected by a network of complete streets that foster walking, biking, and transit use, while still accommodating automobile and truck traffic
- Supported by comfortable public spaces that foster interactions among residents along streets, in plazas, and at other gathing places

These concepts are supported by specific measures found in many current zoning codes. They call for:

- Shopfront commercial and neighborhod supporting office development in ground floor spaces on major streets
- Office and residential uses on upper floors
- 3 to 4 story minimum building heights
- Parking in structures at the rear of properties
- Reduced parking requirments and a cap on parking supply
- Broad sidewalks, bike lanes, crosswalks, and other facilities that promote non-motorized access

The design team recommends that these principles and measures be evaluated in the near future and land use controls that regulate development in the Santa Anita Avenue corridor be modified to keep pace with current practices. Examples are on this page.

Improvement District 2 should be expanded to include all property in the corridor fronting on the streets redesigned in this project. Initially, efforts at redevelopment can be focused in the core of the corridor, between Highway 60 and the North Santa Anita Avenue/Tyler Avenue intersection. Moving on these land use regulations now will have the City's vision in place when economic activity resumes.

Prominent locations can support popular retail uses.

Public gathering and lingering spaces are a must.

Framing major streets with mixed use buildings.

City Hall is, and will, remain a community focal point.

A plaza and farmers market can replace the feed store.

Civic Center Area

Figure 3-24 shows a possible design for the Civic Center area north of the intersection of Santa Anita Avenue and Central Avenue. This design was built from discussions with City officials and suggestions made by residents at the Saturday design session following the walking audit. The common theme in these comments was to build a true community center for South El Monte that would:

- Expand civic uses at this location by shifting the use of the Sheriff's substation.
- Re-use the site of the former feed store next to the Sheriff's substation recently acquired by the City of South El Monte.
- Provide a public gathering place and focal point at the civic center area.

The design assumes the existing low value feed store building is completely removed, and that property converted into a public plaza. This plaza could become home to a farmers market, concerts, private gatherings, and other events designed for South El Monte residents.

Vehicle circulation in this new design is intended to provide access to civic center uses, while discouraging inappropriate cut-through traffic. Restricting traffic on the driveway coming off of Central Avenue to eastbound only is the primary tool that achieves this goal. No vehicle leaving westbound Santa Anita Avenue at the park/gazebo location could continue on to Central Avenue. Instead, those vehicles will be forced to circulate counter-clockwise around the park and exit back onto westbound Santa Anita. Similarly, vehicles exiting Central Avenue would not gain any advantage by cutting through the park area, and would instead be forced to exit the civic center driveway onto westbound Santa Anita Avenue and back towards the Central Avenue intersection.

The mid-block pedestrian crossing at the plaza location could link to a new passageway that would connect to Lidcombe Avenue and the New Temple Park area neighborhood and school. The design team did not explore exact routes for this paseo, but it would provide an important link in the new pedestrian and bicycle network for the community.

All the best pieces of city centers that other communities have can be assembled in the core of South El Monte. All it takes is the vision and the will. The process has started.

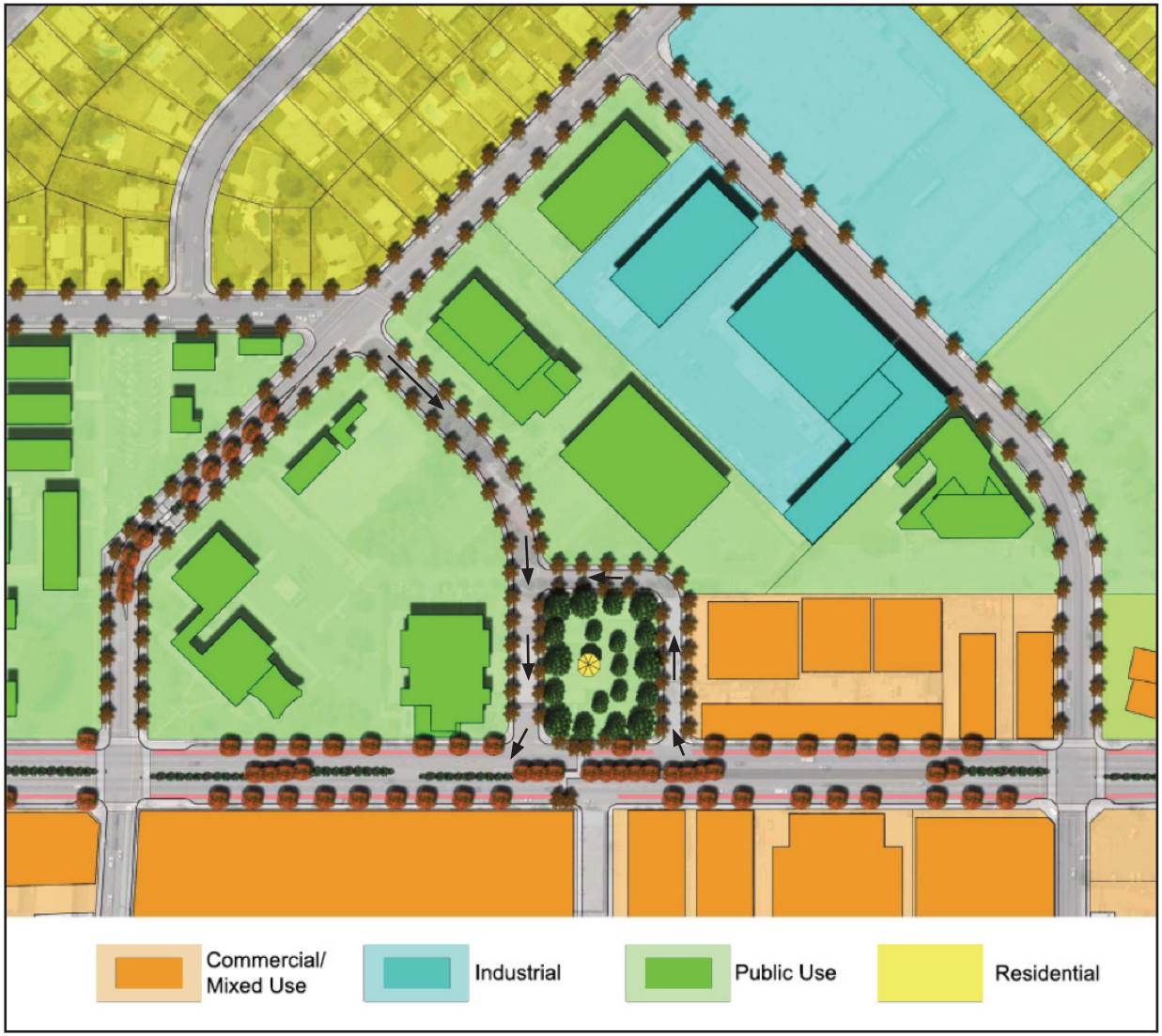
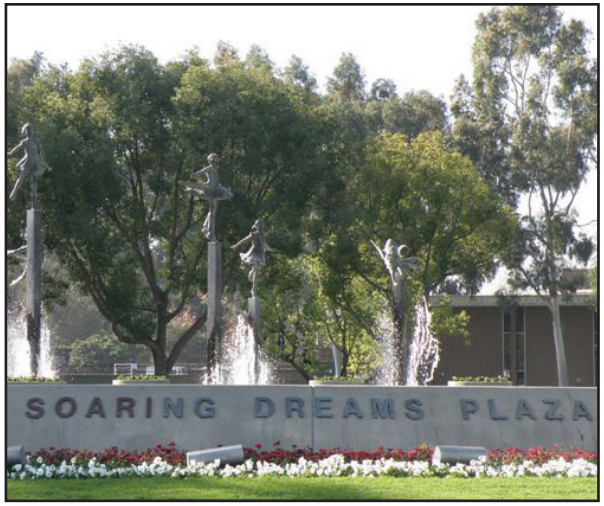


Figure 3-24: Proposed design and circulation pattern for the Civic Center complex.



Time to start dreaming.

Bus shelters can also add interest to the streets.

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CHAPTER FOUR: IMPLEMENTATION

Structuring the Program

This report outlines an ambitious program for a makeover of the Santa Anita Avenue Corridor and surrounding streets and facilities. Because the task ahead is large, and funding is always difficult, the City of South El Monte and Caltrans must begin by prioritizing improvements. This will advance the cooperation that was initiated when the City applied for and received Caltrans funding for this design exercise.

Figure 4-1 outlines the order of priority recommend by the design team. This sequence is appropriate because it focuses efforts first on the busiest and most prominent core of the corridor, and then moves outward. More specifics about the recommendations for each area are in the previous chapter of this report, but they are summarized below:

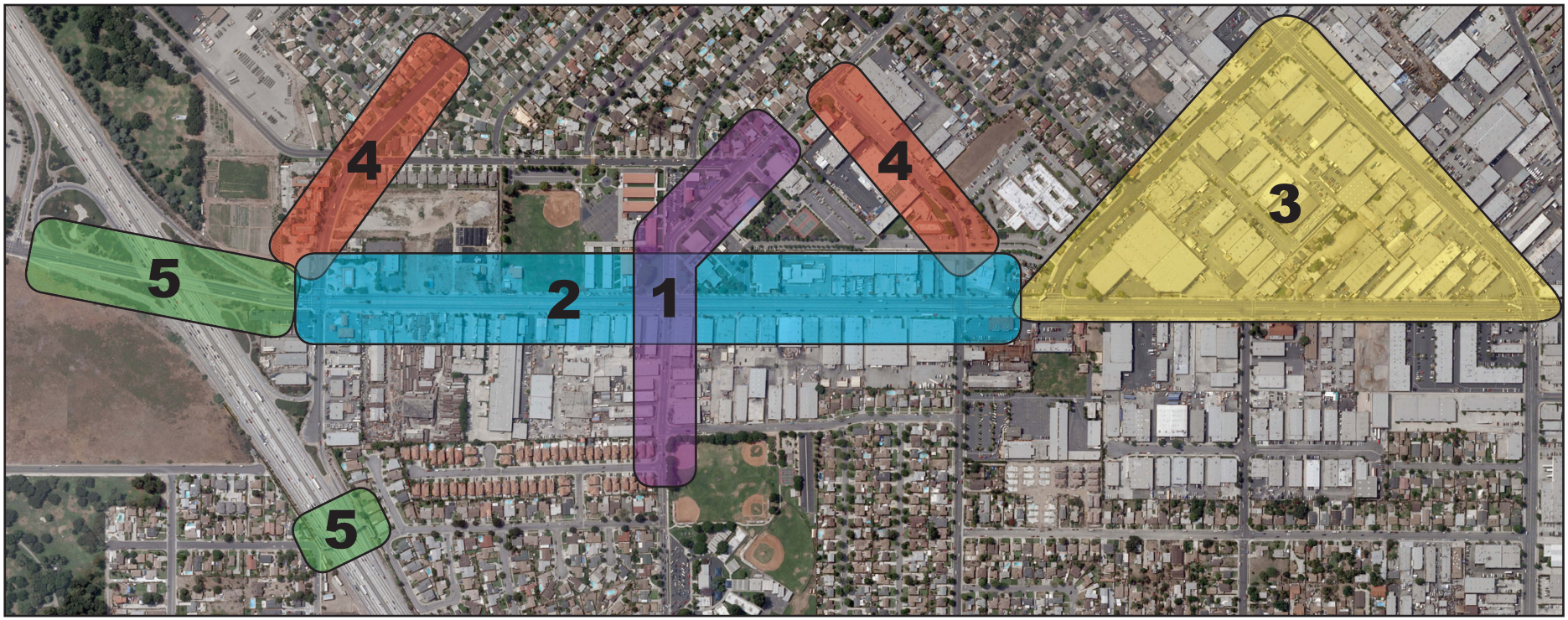


Figure 4-1: Order of Improvements for Santa Anita/Tyler Avenue Corridor Improvements.

Figure 4-2: Priority Area 1.

Priority Area 1:

This area includes two schools, the Civic Center complex, and the Santa Anita Avenue/Central Avenue intersection. That busy intersection surely has the highest volume of non-motorized traffic in the corridor, including pedestrians, bicyclists, skateboaders, and young children riding in strollers. Public facilities in this area attract residents ranging in age from kindergarteners to the visitors of the Senior Center. These factors plus the prominence of the Civic Center complex make this the ideal place to begin to showcase the benefits of the recommended designs. Target areas are the awkward angled intersection of North Central Avenue and North Lerma Road, the Central Avenue and Santa Anita Avenue intersection, and the East Central Avenue and North Lidcomb Avenue intersection with its school crossing activity. The designs in this report for all three intersections should be installed. The new raised medians on Santa Anita Avenue near Central Avenue should be completed at least past the ends of the left turn pockets. See Figure 4-2.

Priority Areas 2:

This second phase is the logical extension of the work at the North Santa Anita Avenue and Central Avenue intersection. This will complete the centerpiece of the recommendations, and turn this rather barren roadway into a beautiful and functional complete street without impacting car or truck activity. Design details are in Chapter 3, and should be constructed from the west side of the Merced Avenue Intersection to the east side of the intersection where North Tyler Avenue begins and Santa Anita Avenue turns due north. Raised medians will be used sparingly, so as to not impede the use of driveways and loading docks currently providing access to commercial and industrial uses on this roadway. Eventually, those driveways may be consolidated as uses in the corridor change. At that time the raised medians may be extended. For the short term, no changes should be made to the northwest leg of the North Santa Anita Avenue and Merced Avenue features and the northwest and northeast legs of the North Santa Anita Avenue intersections. The vehicle lane configurations for Merced Avenue, the north/

Figure 4-3: Priority Area 2.

south portion of North Santa Anita Avenue, and for North Tyler Avenue will remain as it is now until improvements included in later phases are constructed. See Figure 4-3.

Priority Area 3:

This phase covers a large triangle of roadways that will receive the lane reduction treatment often referred to as a "road diet." The specific links are North Santa Anita between North Tyler Avenue and East Rush Street, East Rush Street between North Santa Anita Avenue and North Tyler Avenue, and North Tyler Avenue completing the triangle and returning back to North Santa Anita Avenue. As discussed earlier, raised medians will initially be used sparingly in this triangle to preserve driveway and loading access. Again, specific design details are discussed in Chapter 3. See Figure 4-4.

Figure 4-4: Priority Area 3.

Priority Areas 4:

This phase completes designs that were not in the initial scope of this project, but are obvious additions to a program to rework this corridor. Both Merced Avenue and East Vacco Street are outdated designs from decades past primarily focused on heavy vehicle traffic without proper consideration for bicyclists or pedestrians. In particular, traffic volumes on Merced Avenue do not justify the four through lanes currently on the street. Using the road diet solution here will greatly improve the quality of life for people living in the residential neighborhoods that border this street all the way north to East Rush Street. The changes recommended for East Vacco Street are more modest, but will better structure vehicle traffic flow and improve safety for bicyclists and pedestrians. See Figures 4-5 and 4-6.

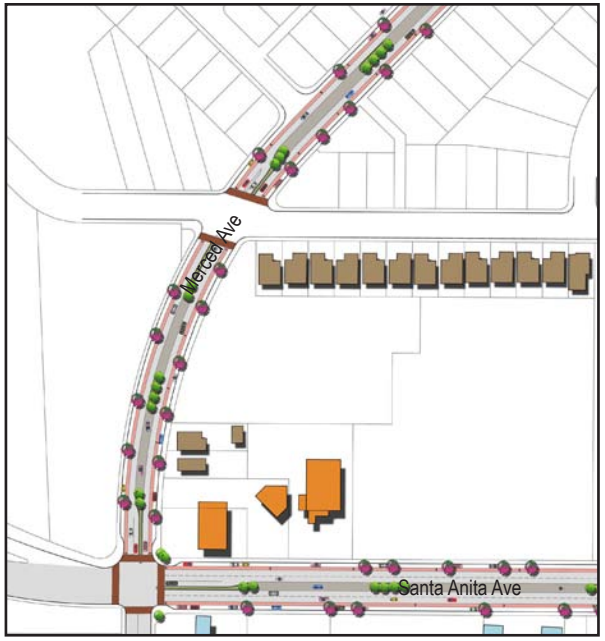


Figure 4-5: Merced Avenue.

Figure 4-6: Vacco Street.

Priority Area 5:
This phase alsso includes design recommendations for facilities outside the original project area. However, the design team feels these improvements will nicely complement the other work in the corridor. First, the Higway 60 overcrossing has deficient sidewalks and no bike lanes. Second, improving the access ramps to the pedestrian overcrossing intended for use by high school students is a high priority. The design team has included that work in this phase not because it is less important, but because it involves re-engineering a Caltrans facility, partially in Caltrans right-of-way. Discussions about this project should begin immediately, so that by the time the City of South El Monte is in phase 5 of this program, construction on that overpass can proceed.

West of Highway 60, North Santa Anita Avenue is significantly lacking in pedestrian and bicycle connections. Sidewalks come and go, often requiring a zig-zag route as pedestrians must cross and recross the street to avoid walking in traffic or in the weeds. Bicycle lanes are completely missing, and should be added to connect with the new bicycle lanes that will be on North Santa Anita Avenue east of the freeway. Much of this work is inexpensive. Simply re-striping the street to narrow vehicle lanes and provide bike lanes will achieve a lot. Initially, pedestrian facilities could be improved with at-grade walkways of decomposed granite that could later be upgraded to raised curbs and full sidewalks.

Finally, something that is beyond the scope and timeframe of this road corridor project, is the possible makeover of the Civic Center complex. That project is also discussed in Chapter 3, with a possible internal access layout design in Figure 3-24 in the previous chapter.

With the completion of this report, the City will need to prioritize improvements, fund and schedule them, and contract for construction at these complex locations with minimal disruption of traffic. Factors to consider during this process, in a suggested order of priority, are:

- ***Safety***, especially for children, elderly, and disabled users of the streets. Those locations which are near schools and see considerable foot and bicycle travel by young students should get the first look.
- ***High-cost projects*** which should be identified early so that they may be inserted into the time-consuming funding process.
- ***Potential for outside funding*** that can ease the local burden and accelerate the timing of these important improvements.
- ***Staightforward and quick fixes*** that can be done at low cost without the delays involved with more costly projects that must be included in the RTP or RTIP prior to construction. This can include projects that will initially require only the simple application of paint markings, with the possibility of more involved improvements such as curbs and landscaping at a later time.
- ***Priorities at each crossing*** for the multiple pieces of improvements that make up the full recommendation for each location.
- ***Hidden demand*** for potential users of these crossings who avoid them now because of their perceived hazard. This may affect crossings with high levels of accidents. Or those near schools, senior housing, community facilities, transit stops, and shopping centers.
- ***Non-vehiclular users***, who do not add to congestion, consume less resources, and pollute less because they walk or bike.

Obviously, those areas where the most benefit can be achieved quickly at the lowest cost should be a priority. In areas where the existing hazard to street users is high, especially those not in cars, interim measures should be developed. For example, highly visible crosswalks could be painted immediately where they are shown on the designs in this report, even if portions of those crosswalks will eventually be covered by additions like curb extensions of center islands.

Funding the Program

A number of funding sources could help implement report recommendations. They offer alternatives for street design, community facilities, and other infrastructure. Sources of funding include:

- State and federal transportation funds
- City road maintenance and construction funds
- Development fees
- Special districts
- Community Development Block Grant (CDBG)
- California Business, Transportation, and Housing Agency
- Proposition 12 Tree Planting Grant Program
- Volunteer initiatives and private donations

Each of these funding sources is subject to changes in state and federal law, budget levels, and target project priorities. A summary of the situation for each as it existed at the time of this writing is below.

State and Federal Transportation Funds

Major state and federal transportation funding resources are outlined below. For more information on these funding programs, visit the Caltrans Division of Local Assistance website:
www.dot.ca.gov/hq/LocalPrograms

Safe Routes to School (SRTS)

During their time in South El Monte, the project team observed many situations where children walking or biking to or from school were in hazardous situations while using some of the streets and crossings examined in this study. Caltrans administers state and federally funded programs to improve walking and bicycling conditions in and around schools. Projects for federal funding must fall under infrastructure (capital) or non-infrastructure (education and encouragement) categories.

A standardized statewide SRTS training program with promotional materials and school resources will be developed to help communities implement programs.

The program seeks to fund projects that incorporate engineering, education, enforcement, encouragement and evaluation components. It should be noted that engineering is listed first, because that effort creates the durable features of a street that support the other efforts. For more information go to:
www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm

State Transportation Improvement Program (STIP)

Funded at $8.3 billion over NEW DATES, this program represents the lion's share of California's state and federal transportation dollars. Three-quarters of the program's funds were earmarked for improvements determined by locally adopted priorities contained in Regional Transportation Improvement Programs (RTIP), submitted by regional transportation planning agencies from around the state.

STIP funds can be used for a wide variety of projects, including road rehabilitation, road capacity, intersections, bicycle and pedestrian facilities, public transit, passenger rail and other projects that enhance the region's transportation infrastructure. This is a broad program ideal for building the improvements at the freeway crossing locations in this report.

Transportation Enhancement Activities

Federal Transportation Enhancement funds are for construction projects that are "over and above" normal types of transportation projects. These projects may include street trees and landscaping along roadways, pedestrian and bicycle access improvements and other scenic beautification. These are apportioned throughout the county.

Bicycle Transportation Account (BTA)
This state fund, administered by the Caltrans Bicycle Facilities Unit, can be used to aid cyclists, including median crossings, bicycle/pedestrian signals and bike lanes. South El Monte has deficiencies in the bike network that can be addressed through this program. Annual BTA funding is in the range of $5 million a year.

To be eligible for BTA funds, a city or county must prepare and adopt a Bicycle Transportation Plan. Adoption of a plan establishes eligibility for five consecutive funding cycles.

Transportation Development Act (TDA)
TDA provides for two sources of funding: Local Transportation Funds (LTF) and State Transit Assistance (STA). The TDA funds a wide variety of transportation programs, including planning and program activities, pedestrian and bicycle facilities, community transit services, public transportation, and bus and rail projects.

Community Development Block Grants (CDBG)
Under the State Small Cities Community Development Block Grant (CDGB) Program, cities and counties may seek funding for a broad range of activities ranging from establishment and operation of revolving loan funds and construction of infrastructure improvements to construction of new housing and community facilities.

Applicants may also seek funding for planning studies and writing grant applications relating to these activities. Funding programs under the CDBG Economic Development Allocation include the Economic Enterprise Fund for small business loans, Over-the-Counter Grants for public infrastructure associated with private-sector job creation, and Planning and Technical Assistance Grants. Applications under the Economic Development Allocation will require a job creation/retention component.

Potential projects include street and traffic improvements, water system expansion and improvements, and sewer system expansion and improvements.

For more information go to:
www.hcd.ca.gov/fa

California Business, Transportation, and Housing Agency (BTHA)
The Business Transportation and Housing Agency (which includes Caltrans) administers a revolving fund program for local governments to finance infrastructure improvements, including city streets. This is a loan program for which the City can apply and receive funding from $250,000 to $10 million with terms of up to 30 years for a broad range of projects.

For more information go to:
www.ibank.ca.gov

California State Parks Recreational Trails Program (RTP)
The Recreational Trails Program provides funds annually for recreational trails and trails-related projects. The program provides funding for acquisition of easements and fee simple title to property for recreational trails, development of trailside and trailhead facilities, and construction of trails.

The improved pedestrian and bicycle links to the Whittier Narrrows and Walnut Creek recreation areas (see Chapter 3) seem to advance many of the goals of the California Recreational Trails Plan, even though it is in an urban setting. For more information see:
www.parks.ca.gov/

Local Funding Opportunitites

City road maintenance and construction funds

South El Monte can add striping, traffic calming, sidewalks, curbs and similar elements to other projects that already involve digging up or rebuilding street sections in the Santa Anita Avenue corridor. For example, storm drain and sewer improvements, utility undergrounding projects, and routine street resurfacing are all possibilities.

The greater the extent of the reconstruction, the greater the opportunity for adding elements such as bulbouts and medians at a fraction of the cost of a stand-alone project. Also, communities avoid the disruption, noise and expense of repeatedly digging up a street and detouring traffic.

Such combination projects will require coordination between departments and capital improvement projects whose schedules and budgets are often distinct.

Many cities have incorporated traffic calming into street reconstruction projects. In Venice, FL, for example, officials added $80,000 to a previously planned Main Street resurfacing project that provided for intersection bulbouts, mid-block bulbouts, median crossings, and crosswalks of colorful paver stones. Seattle has added planted medians to several streets at reduced cost as part of sewer upgrade projects. County transportation sales tax measures can provide substantial funding for city street maintenance and rehabilitation.

Development fees

Some cities require developers to install or help pay for infrastructure improvements (streets, sidewalks, trails, landscaping, etc.) through individual development agreements. On a larger scale, South El Monte could explore using development fees with a capital improvements program to help fund recommendations. To avoid legal challenge of the City's right to levy these fees, care must be taken to apply this strategy only where there is a clear link establishing that travel generated by the private project will use the facility to be funded with the fees.

Special districts

A special district such as a Business Improvement District (BID) can provide up-front and on-going funding for projects benefiting specific commercial areas. Business-Based Improvement Districts are best suited for marketing, special events, and smaller expenditures like signage. Property-Based BIDs typically generate more revenues and are better suited for more expensive projects like landscaping. Landscaping and lighting districts are also sometimes established for streetscape improvements and maintenance.

Other types of facilities and infrastructure districts are sometimes created for parks, drainage and sewage. Special districts generally assess a charge levied upon parcels of real property within the district's boundaries to pay for "local improvements." So unlike redevelopment, to fund such a district it is necessary to charge an assessment or fee to property owners and/or merchants.

Volunteer initiatives and private donations

In addition to funding sources, programs can be created for volunteer initiatives such as "Adopt-a" programs where individuals or groups engage in beautification projects such as tree plantings. A program can also fund some projects, such as public art, by enlisting private donors to sponsor downtown enhancement activities. These programs can be administered by the City or by other community organizations.

The maximum amount of RTP funds allowed for each project is 88% of the total project cost. The applicant is responsible for obtaining a match amount that is at least 12% of the total project cost. The grant cycle ends in early October of each year.

The Next Steps for South El Monte

Work on the recommended changes can begin immediately and proceed in phases. They will move forward on several fronts:

Embarking on a project to evaluate possible funding sources and apply for grants through those programs.

Adding high visibility crosswalks at locations in Priority Area 1 as soon as possible. Initially, these improvements will require only paint.

Planning for more comprehensive construction of the designs detailed in Chapter 3 of this report.

Developing a public education program for residents, especially school-age children, to inform them about these efforts in general, and how they should safely travel along and across streets in South El Monte.

Implementing the designs in this report will help make trips by foot and bicycle and vehicle along streets in the Santa Anita Avenue corridor safer. Desired and direct routes will be highlighted, and vehicle traffic will be better organized to improve safety even for vehicle drivers.

APPENDIX

Benefits of Urban Bike Lanes to Other Road Users

Prepared by:
Michael Ronkin, Bicycle and Pedestrian Program Manager & Members of the Preliminary Design Unit, Oregon Department of Transportation

Urban streets have to satisfy many needs: various modes use them, and they provide local access to a community as well as mobility for through traffic. Many of the benefits of shoulders listed on the first page also apply to bike lanes in urban areas, whether they were created by restriping or by widening the road. Some street enhancements cannot be measured with numbers alone, as they offer values (e.g. trees) that simply make a community better. The following discussion should be viewed in this context. Bike lanes can provide the following benefits:

For Pedestrians:

Greater separation from traffic, especially in the absence of on-street parking or a planter strip, increasing comfort and safety. This is important to young children walking, playing or riding their bikes on curbside sidewalks.

Reduced splash from vehicles passing through puddles (a total elimination of splash where puddles are completely contained within the bike lane).

An area for people in wheelchairs to walk where there are no sidewalks, or where sidewalks are in poor repair or do not meet ADA standards.

A space for wheelchair users to turn on and off curb cut ramps away from moving traffic.

The opportunity to use tighter corner radii, which reduces intersection crossing distance and tends to slow turning vehicles.

In dry climates, a reduction in dust raised by passing vehicles, as they drive further from unpaved surfaces.

For Motorists:

Greater ease and more opportunities to exit from driveways (thanks to improved sight distance).

Greater effective turning radius at corners and driveways, allowing large vehicles to turn into side streets without off-tracking onto curb.

A buffer for parked cars, making it easier for motorists to park, enter and exit vehicles safely and efficiently. This requires a wide enough bike lane so bicyclists aren't "doored."

Less wear and tear of the pavement, if bike lanes are restriped by moving travel lanes (heavier motor vehicles no longer travel in the same well-worn ruts).

For Other Modes:
Transit: A place to pull over next to the curb out of the traffic stream.

Delivery vehicles (including postal service): a place to stop out of the traffic stream.

Emergency vehicles: Room to maneuver around stopped traffic, decreasing response time.

Bicyclists: Greater acceptance of people bicycling on the road, as motorists are reminded that they are not the only roadway users;

Non-motorized modes: An increase in use, by increasing comfort to both pedestrians and bicyclists (this could leave more space for motorists driving and parking).

For the Community *(Livability Factors)*:

A traffic calming effect on arterials when bike lanes are striped by narrowing travel lanes.

Better definition of travel lanes where road is wide (lessens the "sea of asphalt" look).

An improved buffer to trees, allowing greater plantings of green canopies, which also has a traffic calming effect.

The Economic Benefits of Investing in Bicycle Facilities

Investments in bicycle infrastructure make good economic sense as a cost effective way to enhance shopping districts and communities, generate tourism and support business.

Bicycling Industry and Tourism: economic activity and jobs

Using a multiplier effect, the Outdoor Industry Foundation estimates that the **national bicycling industry**

- Supports nearly 1.1 million jobs, and
- Generates $17.7 billion in federal, state, and local taxes, and that
- An additional $46.9 billion is spent during bike trips and tours.[i]

Bicycle tourism on **North Carolina's Outer Banks** annually generates **$60 million** in economic activity,

- Leads to an annual nine-to-one return on the one-time $6.7 million investment in bicycle infrastructure
- Supports 1,400 jobs with an annual 680,000 visiting bicyclists, and
- Draws affluent (half earn over $100,000 a year) and educated (40 percent have a masters or doctoral degree) visitors.[ii]

Bicycle industry and tourism contributes **$1 billion** to the **Colorado** economy, and

- Employs 1,213 people in retail and manufacturing, with a payroll of $34.1 million, and
- Draws half of all summer visitors at Colorado ski resorts, (of those 699,000 people, 70 percent are from out of state; 40 percent said they would have altered their destination if bicycling was not available). [iii]

In **Wisconsin,** bicycling generates more than $1.5 billion a year in total economic impact. [iv]

In 2008, **Portland, Ore.** saw **$90 million** in bicycle-related economic activity, from retail, manufacturing, professional services and organized rides, an increase in value of 38 percent from 2006, reflecting the increase in bicycling, resulting in part from the city's expanding network of bicycling facilities.[v]

Cost Effective

Bike lane can costs depend on conditions, but can cost as little as $5,000 a mile[vi] – **far less expensive** than the cost of building or repairing lanes for car travel. For the cost of repaving three miles of rough pavement on Interstate 710 in California, CalTrans could sign and stripe 1,250 miles of California roads for bike lanes. That's more than the distance from Los Angeles to Seattle, Wash. [vii]

This is an Advocacy Advance Project — a partnership between the League of American Bicyclists and the Alliance for Biking & Walking.

Good for Business

Business districts are discovering that **bicycle facilities can attract customers**.

- Two-thirds of merchants along San Francisco's Valencia Street said new lanes had a positive overall impact on their business. Two-thirds supported more traffic calming measures on the street and all of the merchants said they could be supportive depending on the project.[viii]
- A 2009 study of Bloor Street in Toronto showed that people who had biked and walked to the area reported that they spent more money in the area per month than those who drove there. The study concluded that bicycle facilities would increase commercial activity on the street.[ix]
- A study of 30,604 people in Copenhagen, Denmark showed that people who commuted to work by bike had 40 percent lower risk of dying over the course of the study period than those who didn't.[x]

Home Values

Realtors are recognizing that increasing transportation choice can have an **impact of on property values**.

- In 2008, the National Association of Realtors (NAR) revised its policy statement on transportation to call for the consideration of all transportation types, including bicycling, in every transportation project.[xi] Bob McNamara, senior policy representative for NAR says Realtors "don't just sell homes, [they] sell communities." [xii]
- A study of home values near the Monon Trail in Indianapolis, Ind. measured the impact of the trail on property values: given two identical houses, with the same number of square feet, bathrooms, bedrooms, and comparable garages and porches, etc. – one within a half mile of the Monon Trail and another further away – the home closer to the Monon Trail would sell for an average of 11 percent more.[xiii]

Demand for Bicycle Infrastructure

Americans enjoy bicycling and there is **strong demand** for additional bicycle facilities.

- Eighty-four percent of people polled agreed (strongly or somewhat) that bicycling is "a great form of exercise" for them; seven in 10 said that they would like to bike more than they do now; but less than half of those surveyed were satisfied by how their communities were designed for bicycling. The most popular changes for bicyclists were additional bike lanes, paths, and trails, followed by improvements to existing facilities.[xiv]
- A 2006 Minneapolis study shows that 83 percent of the time, cyclists will choose a longer route if it includes a bike lane, and respondents were willing to add 20 minutes onto their trip in order to use a bicycle trail instead of riding on facility-less road.[xv]

[i] Outdoor Industry Foundation, "The Active Outdoor Recreation Economy," 2006. http://www.imba.com/resources/science/outdoor_industry_bike.pdf. Estimated using a multiplier effect.
[ii] Lawrie, et al, "Pathways to Prosperity: the economic impact of invests in bicycling facilities," N.C. Department of Transportation Division of Bicycle and Pedestrian Transportation, Technical Report, July 2004. http://www.ncdot.org/transit/bicycle/safety/safety_economicimpact.html
[iii] Center for Research on Economic and Social Policy (CRESP) of the University of Colorado at Denver, "Bicycling and Walking in Colorado: Economic Impact and Household Results," commissioned by the Colorado Department of Transportation Bicycle/Pedestrian Program, April 2000. http://www.dot.state.co.us/BikePed/BikeWalk.htm
[iv] Grabow, Hahn & Whited, "Valuing Bicycling in Wisconsin," The Nelson Institute for Environmental Studies Center for Sustainability and the Global Environment, University of Wisconsin-Madison, 2010. http://www.bfw.org/uploads/media/Valuing_Bicycling_in_Wisconsin_Final_Report_January_2010[1].pdf
[v] Alta Planning + Design, The Value of the Bicycle-Related Industry in Portland, 2008 http://www.altaplanning.com/App_Content/files/fp_docs/2008%20Portland%20Bicycle-Related%20Economy%20Report.pdf
[vi] Pedestrian and Bicycle Information Center, WalkingInfo.com, "Bicycle Lanes" retrieved on May 5, 2009. <http://www.walkinginfo.org/engineering/roadway-bicycle.cfm>
[vii] California Department of Transportation. http://www.dot.ca.gov/Recovery/documents/federaleconomicstimulustransportationprojects.pdf;"California Road Projects" *Los Angeles Times,* published April 14, 2009, accessed May 5, 2009. http://www.latimes.com/news/nationworld/nation/la-na-transport-list14-2009apr14,0,1505152.story
[viii] Drennen, Emily, "Economic Effects of Traffic Calming on Urban Small Businesses," Department of Public Administration, San Francisco State University, December, 2003.
[ix] Clean Air Partnership, "Bike Lanes, On-Street Parking and Business: A study of Bloor Street in Toronto's Annex Neighborhood," February 2009.
[x] Andersen et al, "All-cause Mortality Associated with Physical Activity During Leisure Time, Work, Sports and Cycling to Work," Arch Intern Med. 2000 volume 160, p. 1621-1628.
[xi] NAR, "2008 NAR Policy Accomplishments - Transportation and Infrastructure" http://www.realtor.org/government_affairs/gapublic/accomplishments_08_transportation
[xii] McNamara, Bob, Senior Policy Representative for the National Association of Realtors (NAR), 2009 National Bike Summit, Complete Streets panel discussion, March 11, 2009.
[xiii] Lindsey et al, "Property Values, Recreation Values, and Urban Greenways," Journal of Park and Recreation Administration, V22(3) pp.69-90.
[xiv] NHTSA, "National Survey of Bicyclist and Pedestrian Attitudes and Behavior," Final Report, Volume II Findings Report, August 2008.
[xv] Krizek, Kevin, "Two Approaches to Valuing Some of Bicycle Facilities' Presumed Benefits," Journal of the American Planning Association, 72(3) Summer 2006.

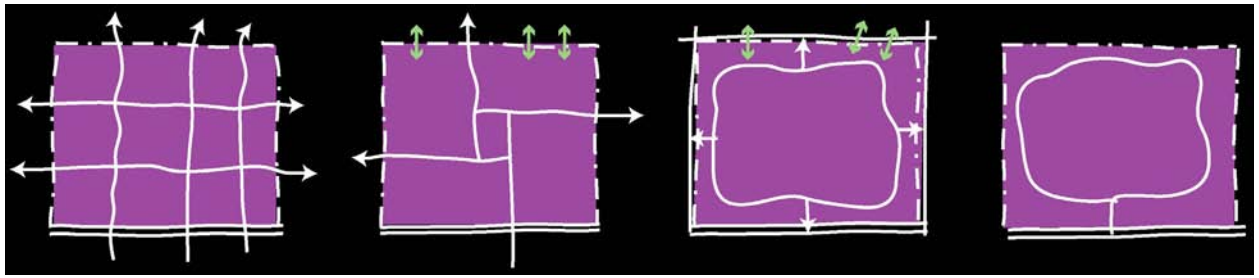
Livable Streets Toolbox

In order to create a great place, there needs to be a great emphasis on the design of streets. Streets are key determinants of neighborhood livability. They provide access to homes and neighborhood destinations for pedestrians, and to a variety of vehicle types, from bicycles and passenger cars to moving vans and emergency response trucks.

The design of streets, together with the amount and speed of traffic they carry, contributes significantly to a sense of community, neighborhood feeling, and perceptions of safety and comfort. The fact that these may be intangible values makes them no less real or important when considering variables that affect street design.

Because of their key role in overall sense of community, many disciplines must collaborate to achieve the best street patterns.

The degree to which communities are connected has strong implications for how well they serve pedestrians. The greater the number of opportunities to form direct paths, to choose between alternative routes, and generally to navigate through our built environment, the more attractive and practical walking becomes as an option. Minimizing the length of trips saves energy and time. The following illustrations underscore the importance of connectivity and why it should be enhanced.

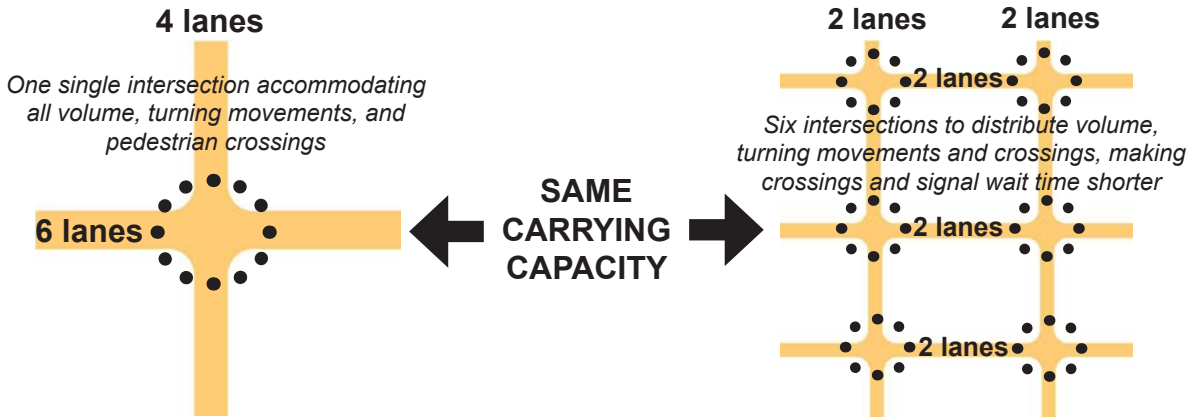
Traditional	*Interior*	*Perimeter*	*Single Entry*
			
200' – 600' street spacing	**1000'** street spacing	**1000' – 2000'** street spacing	**No network of streets**
200 – 600' spacing between bike/ped crossings	**400 – 600'** Spacing between bike/ped crossings	**600 – 800'** Spacing between bike/ped crossings	**Single bike/ped crossing at entry point**
All Streets Fronted	**Connectors Fronted**	**Connectors Walled**	**No connection of streets.**

This illustration underscores the consequences if we fail to provide connectivity. Though the actual distance between the house circled in yellow and the house circled in blue is less than two hundred feet, the street path that must be taken is many times that. Improved connectivity would make walking between these two points a more practical option, compared to the current street design which makes walking highly inconvenient. Walkability depends on connectivity to make moving around on foot an attractive and useful choice.

This diagram of Meriam Park in Chico, California illustrates the principle of connectivity. Not only are there well-established paths for pedestrians and motorists alike to cross the streets on the edge of the neighborhood, the close block spacing provides more options and disperses traffic.
Diagram courtesy of New Urban Builders

Connectivity provides greater options for vehicle movements. The two diagrams below illustrate the same number of lanes in each direction: four total lanes north and south, six total lanes east and west. In the diagram on the left, all of these lanes must be managed through a single intersection. Assuming this intersection is signalized, the wait times are longer. In the well-networked diagram on the right, vehicle wait times are much shorter with increased turning opportunities at each intersection.

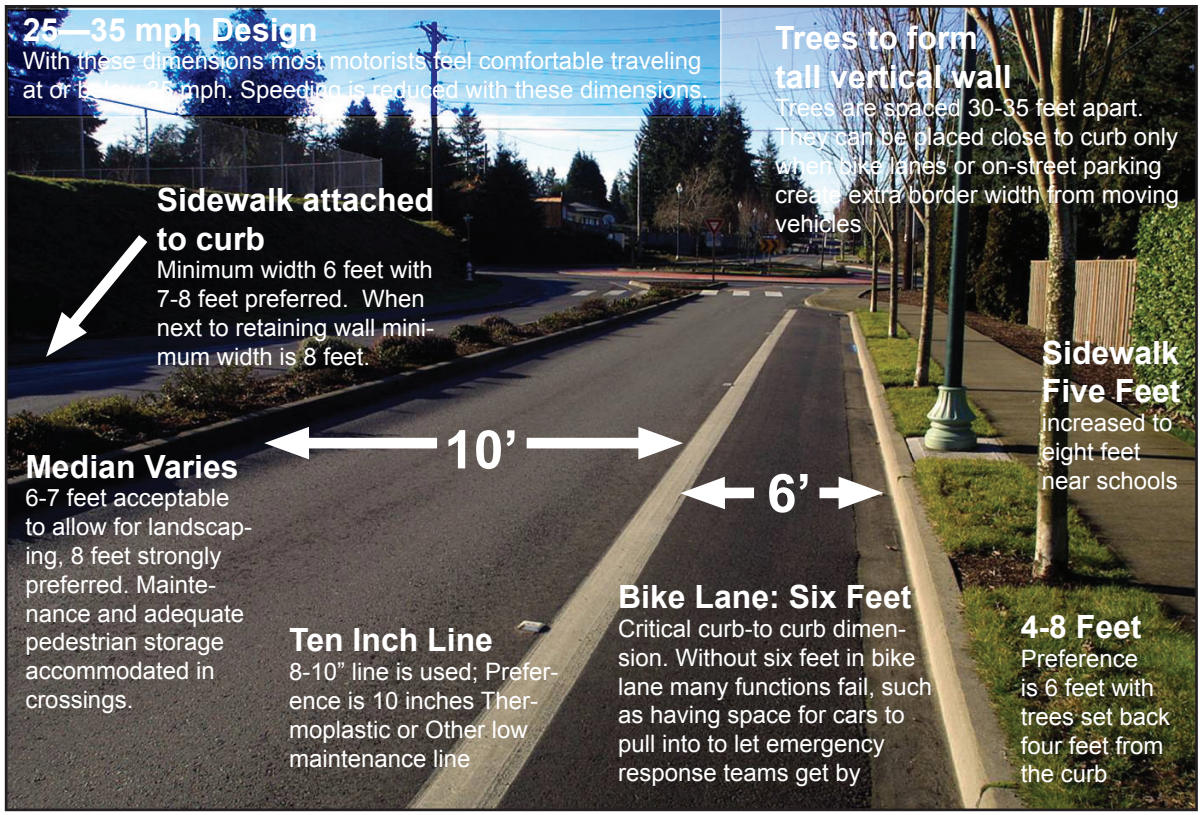
The difference also has implications for pedestrians. Instead of crossing narrower streets that have collectively distributed traffic flow of a larger area, pedestrians must cross larger, busier roads that are less safe and potentially require greater crossing time.



Lane width is an important element of roadway design in determining vehicle speed and overall safety. Lane widths of ten feet allow ample separation for both cars and trucks on urban streets. Eleven-foot lane widths are acceptable, and twelve-foot widths should be avoided on urban streets.

Many urban streets have been designed to the specifications of rural roads and highways, namely with wider lanes and overall wider roadways. Motorists feel more comfortable speeding on oversized streets, but streets can be designed to encourage drivers to go slower and create a more walkable environment. Reducing lane widths and including bike lanes, sidewalks, medians and shade trees can be used to naturally decrease speeds.

Reducing excessive travel lane widths also allows the same roadway to accommodate additional functions. For example, turning lanes that keep through traffic flowing without impediment can be added or on-street parking that enhances viability and access to land uses along the street.



10-foot travel lanes provide a good balance between vehicle and pedestrian safety and comfort.

Planning solely for the motor vehicle has lead to numerous unintended problems including stark streets, high traffic speeds, and reduced accessibility. These negative impacts have the additional effect of discouraging people from walking or biking, further adding to traffic congestion as they use their cars instead.

Ten foot travel lanes, curb extensions, trees, shrubs, and improved markings bring speeds to more appropriate levels, reduce crossing distances and allow areas to be reclaimed for mixed use. Speed reductions of 2-7 mph are common with a comprehensive treatment.

Mounting evidence is available regarding the safety and effectiveness of narrow lanes. The tendency to use 12 foot travel lane widths as the starting point for urban travel lanes may no longer be justified for safety or capacity. Narrow lanes carry vehicles at lower speeds, which result in fewer fatal crashes.

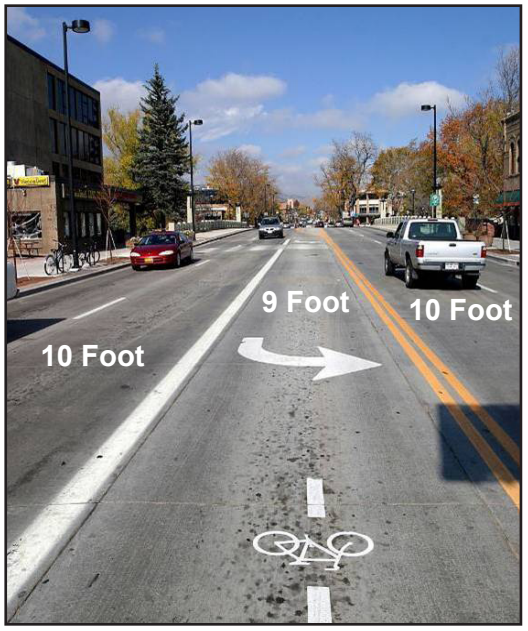
Conclusions

The results of this analysis suggest that changes in highway infrastructure that have occurred between 1984 and 1997 have not reduced traffic fatalities and injuries and have even had the effect of increasing total fatalities and injuries.

This conclusion conflicts with conventional engineering wisdom on the benefits of "improving" highway facilities and achieving higher standards of design (Transportation Research Board, 1987). While not all explicit highway design improvements were analyzed, the fact that adding new and higher design standard lane miles leads to increased fatalities and injuries suggests that new "improved" design standards are not achieving safety benefits.

— Robert B. Noland

TRAFFIC FATALITIES AND INJURIES: ARE REDUCTIONS THE RESULT OF 'IMPROVEMENTS' IN HIGHWAY DESIGN STANDARDS? (November, 2000)



Olive Avenue. Lanes were narrowed to 10 feet in downtown West Palm Beach, Florida in 2005-06. This city is now completing a series of lane width reductions on four different typical sections of Olive Avenue (formerly 3 to 5 lanes wide).

Pedestrian-friendly crossings feature a continuous path with the sidewalk. If it is not possible to create a continuous path, deviation should be minimized.

In general, crossings should be of adequate width for the volume of pedestrians that the street is carrying. They should not be significantly narrower than corresponding sidewalks, though accessible ramps can be narrower.

Crossings should be wide enough to accommodate the expected volumes, including people with disabilities.

***Tactile edges** allow the vision-impaired to sense the edge of the "safe zone" for pedestrians and know they are crossing traffic.*

***ADA requirements** were often originally met in haste without proper alignment of paths. Many municipalities are now correcting these placements.*

Crossing enhancements (especially stripes) should be maintained to draw motorist attention to pedestrian zones. Crossings that are not maintained lead to less certain (and less visible) pedestrian paths.

Crossings can be either informal (bottom) or formal (top). In many cases it is preferred to formalize crossings in order to direct pedestrians to the best places to cross. These areas should have a minimum of six seconds of detection (discovery) time.

On streets with on-street parking, curb extensions reduce the total crossing distance, which helps pedestrians in two ways: it reduces the time they are exposed to moving traffic, and it makes it easier for pedestrians to assess and find an acceptable gap, because the time needed to cross is shorter. They also increase visibility: the waiting pedestrian can better see approaching motor vehicle traffic and motorists can better see pedestrians waiting to cross the road; their view is no longer blocked by parked cars. Curb extensions should be designed to accommodate storm water drainage and should never extend into a bicycle lane.

Mid-block crossings are appropriate on longer block lengths. Though intersections are the preferred locations for pedestrian crossings, when block lengths exceed 400 feet it is a good idea to consider formalized mid-block crossings to avoid "impromptu crossings" from pedestrians that may be unsafe. Using a diagonal shift from one leg of the crossing to the next (image at top right) allows pedestrians to have refuge, and physically shifts the pedestrian's view toward motorists, forcing them to look in the direction of oncoming traffic. The eye contact established with the motorist also helps to tame his or her behavior, resulting in a safer pedestrian environment

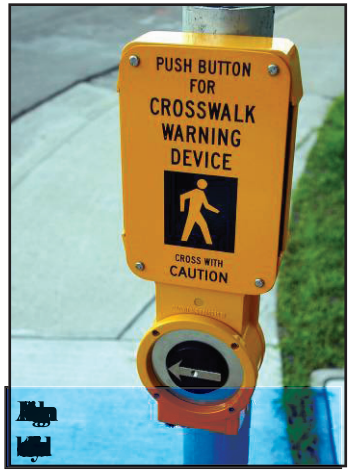
Mid-block crossings seek to minimize the distance between intersections, but careful placement (especially in front of important civic buildings, transit facilities, and other destinations) renders them far more useful and allows them to contribute better to overall pedestrian safety than when their placement is arbitrary (or at least determined solely by distance).

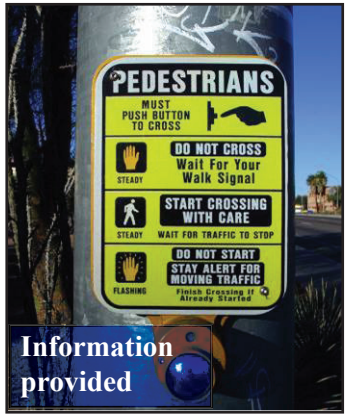
To aid motorist detection of islands, it is best to have both colorful ground cover and vertical trees. When using ground cover preference is given to native species that are slow growth varieties. Irrigation may be required with many plant types. Many areas may prefer low maintenance designs. Vegetation should be kept trimmed so it does not block the view of pedestrians or drivers.

Pedestrians and bicyclists seek to cross streets without going too far out of their direction of travel. Crossing islands or crossing points allow pedestrians to cross where conflicts are minimized. Crossing islands reduce the potential for a crash by up to 40%. A pedestrian crossing island breaks an otherwise difficult crossing maneuver into two easier, shorter steps. Instead of needing to find a gap long enough to cross all lanes at once, a pedestrian looks left, finds an acceptable gap in one direction only, crosses to the island, then looks right and finds a second gap. Principles include:

Basic and advanced measures:

1. Assure 6 or more seconds of sight lines (discovery time) at crossing points
2. Use good lighting of crossings
3. Use high emphasis crosswalk markings
4. Use at least minimum required signing and pavement markings (MUTCD). Additional measures are encouraged.
5. Use curb extensions on streets with parking to maximize view of pedestrians and motorist conflicts, and to minimize crossing distances.
6. Use raised tables on appropriate streets





Information provided


Activated Automatically

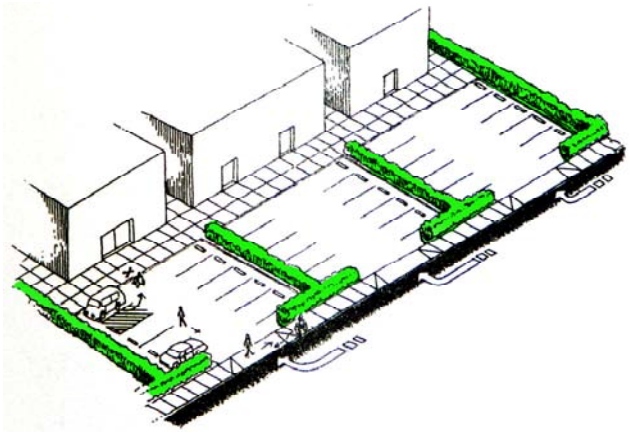
Activated by Pedestrian

Driveways, alleys and other crossings. Many driveways are incorrectly designed to look like a street intersection. They are often overly wide, poorly lit, and pose multiple threats (up to six conflict points) to pedestrians. Transitioning from suburban areas where pedestrians were largely omitted from roadway designs includes changing driveway designs to look, act and feel like driveways. Suburban driveways were often designed to allow high speed exits to and from adjacent roadways. Transitioning to pedestrian friendly corridors requires the following measures:

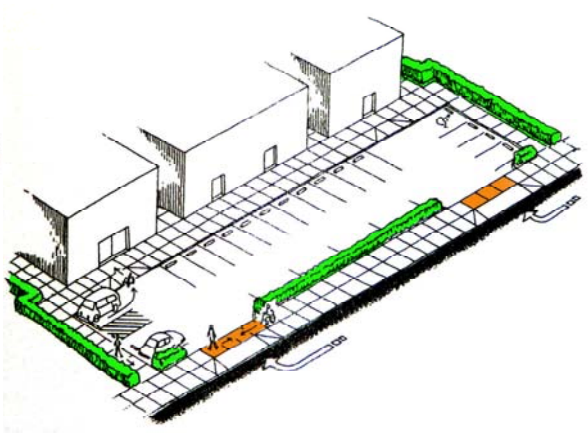
Driveway details:

1. Keep entry and exit speeds low. General approach speeds should be 5-8 mph, or less.
2. Speed can be controlled by a change in grade (gradual ramps increase speed potential).
3. It is best to use color, patterns and texture to highlight and make clear to motorists that they are intruding into the right-of-way of pedestrians, and that they have a legal duty to allow pedestrians to complete their movements.
4. In some cases tactile areas are used to define edges of safe zones (especially for visually-impaired pedestrians). Use of color and texture helps all people, especially during twilight when changes in grade are difficult to detect.
5. When necessary, sidewalks can be brought down to lower driveway elevations in order to meet ADA needs. It is often best, however to use planter strips and have grade changes be in portions of the right-of-way occupied by planter strips. Keep sight lines open.
6. Keep higher capacity (commercial) driveways well lit, with strong, well defined edges to accentuate crossing areas.
7. Pedestrian crossings of driveways are best when kept to the full width of the sidewalk. A five foot minimum width sidewalk is necessary on long driveways (more than 20 feet wide).
8. Right-in, right-out (or single direction) driveways are strongly preferred, especially on multiple lane roadways.

Landscape bumpouts and sensitive ramp treatments can ease driver behavior when frequent driveway cuts need to be employed.



Multiple driveway access points increase the hazard to the pedestrian.



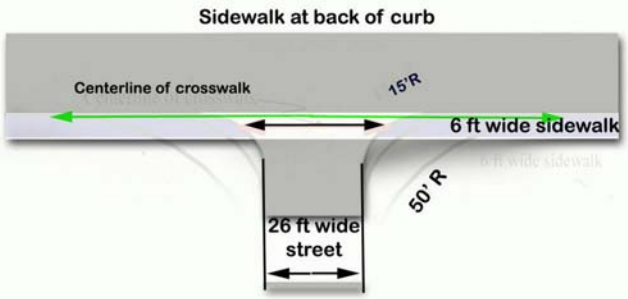
Consolidating driveway access extends the pedestrian's path without conflict opportunity.

In addition to the benefit of facilitating vehicle movements by eliminating the numbers of turning opportunities that make streets and roads inefficient, managing and consolidating access to fewer points lengthens the pedestrian's comfort zone and minimizes the opportunity for vehicle-pedestrian conflicts.

The wider a turning radius, the greater the distance a pedestrian must travel to cross the street at a corner. The extended distance increases the potential for conflicts, especially toward the edges of the crossing areas (the corners) where motorist attention may be diverted to checking for oncoming traffic before making turns.

In addition to managing access by limiting the number of driveways, it is important to ensure that turning radii at corners are adequate to allow safe movement but not overly wide.

Effect of Corner Turning Radii on Pedestrian Crossing Distances



Radius	Crossing Distance	Increased Crossing	Percent Increase
15'	37'	+11'	42%
25'	50'	+24'	92%
50'	89'	+63'	203%

Traditional streets favor on-street parking over off-street parking. On-street parking can be used as part of the strategy to reduce motorist speed through increased "side-friction." Sight lines are preserved at intersections with 30 to 50 foot parking setbacks from intersecting legs.

Compared with on-street, off-street parking requires three times the land and creates three times the heat gain, increases water runoff and other negative environmental impacts. Walkable communities tap into significant on-street parking. Visual effects from on-street parking provide multiple benefits of including traffic calming, improved safety, buffers to sidewalks and shopping convenience.

Back-in angled parking is safer and easier to manage than head-in angled and parallel parking. The most important safety advantage is the driver's ability to see into the travel lane when pulling out of the parking stall.

Head-in angled parking is familiar to most motorists along with its primary benefit (larger parking supply) and its primary safety problem (blindly backing out into a travel lane). A growing number of cities are converting their head-in parking to back-in parking.

Road diets, bike lanes and on-street parking can be used in combination. A number of minimum dimensions are needed to maximize speed reductions, safe entry and exit from autos, and comfortable bike lane use.

The following principles apply:

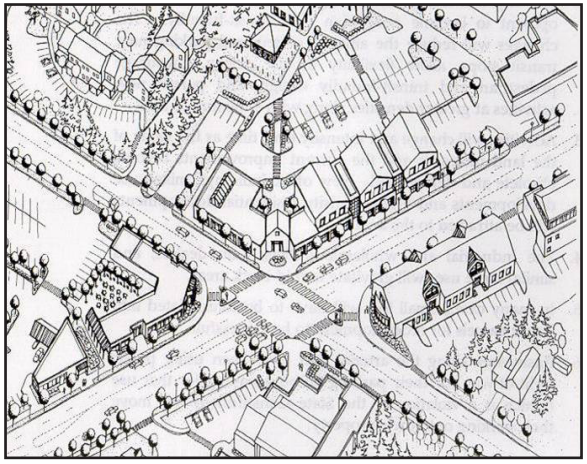
1. Quiet neighborhood collectors. If volumes and speeds are low (25 mph or less), keep roadways compact, and do not use bike lanes. Bicyclists do well when there are few autos, and in this case bicycle lanes result in wider streets and higher vehicle speeds which discourage bicycling.
2. On major collectors and arterials, the higher the volume and speed the more important bike lanes become. Minimize width of marked parking to six feet, then maximize the width of bike lanes (7 feet is preferred, and no less than 6 feet should be used next to parking).
3. With two-lane ten foot lane diets shown to the right, parking is kept to six feet. A two foot valley gutter adds bonus width to both the bike lane and/or parking lane. This combination, next to travel lanes creates low speed travel and a designated place for bicyclists.
4. Although narrow lanes and on-street parking with bike lanes may be comfortable for many, it is the very low turnover of parking and moderately low traffic volume that creates the greatest comfort. Taking one additional foot out of the travel lane increases comfort, and reduces the tendency to travel fast. The primary purpose of an auto trip here is to search for elusive parking spaces.

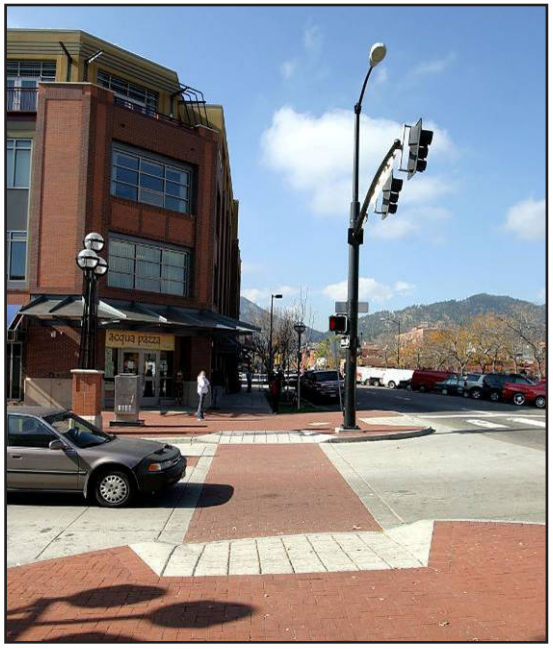
Bicycle parking. Convenient and secure bicycle parking should be provided at several locations on each block of all commercial areas. Employers with more than 25 employees and all schools should also provide bicycle parking. All bike parking should be attractive, convenient, and in plain view for security reasons. It can also be whimsical and fun as some of these photos show. Apartments and employers should provide interior, secure parking.

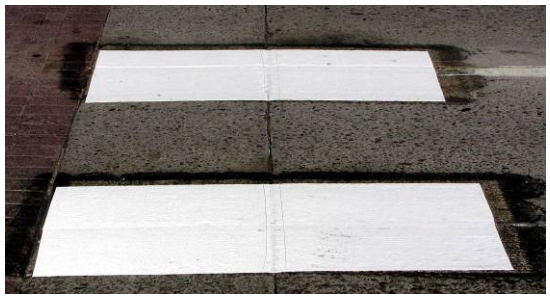
- Large work centers (50 or more employees) should provide showers and lockers.
- Parking garages should have fenced in, secure parking near toll operations. Access by key code or other convenient, secure systems are needed.
- Significant transit stops should have parking. Major transit stops should provide lockers.
- Parking garages and all employment centers with 25 or more employees should have secure parking (lockers, garage space or interior building parking).

Intersections. To enhance walkability the following generic geometric, operations and maintenance practices are recommended.

- All lanes and intersections should be built as narrow and compact as practicable to perform their mission to safely and efficiently move and provide for all modes of travel.
- Curb radii should be kept tight, generally using 15 foot radii when practicable. Wider radii should be used in industrial areas, as appropriate, to meet truck turning needs. Effective turn radii are enhanced through curb extensions, bike lanes and parking lanes.
- Curb extensions should be used whenever practicable to reduce crossing distances and times, add greenery, and to allow shorter signal clearance intervals.
- Enhanced crosswalk markings should be used for crossings of all primary road systems. Side street crossings can be maintained with either enhanced or standard, well maintained crosswalk markings.
- Countdown signals should be installed on all crossings greater than 50 feet.
- Pedestrian Lead Intervals should be used where there is a history of turning motorists cutting off pedestrians.
- Medians and median noses should be provided on all intersections where they are practicable. Signal recall controls should be used in medians.
- Primary streets do not require pedestrian push button controls as they should automatically signal for pedestrian crossings on each cycle.
- Pedestrian signals automatically activate where sufficient time exists for pedestrian crossings. Push buttons are used in many walkways and trails, but not on main streets.

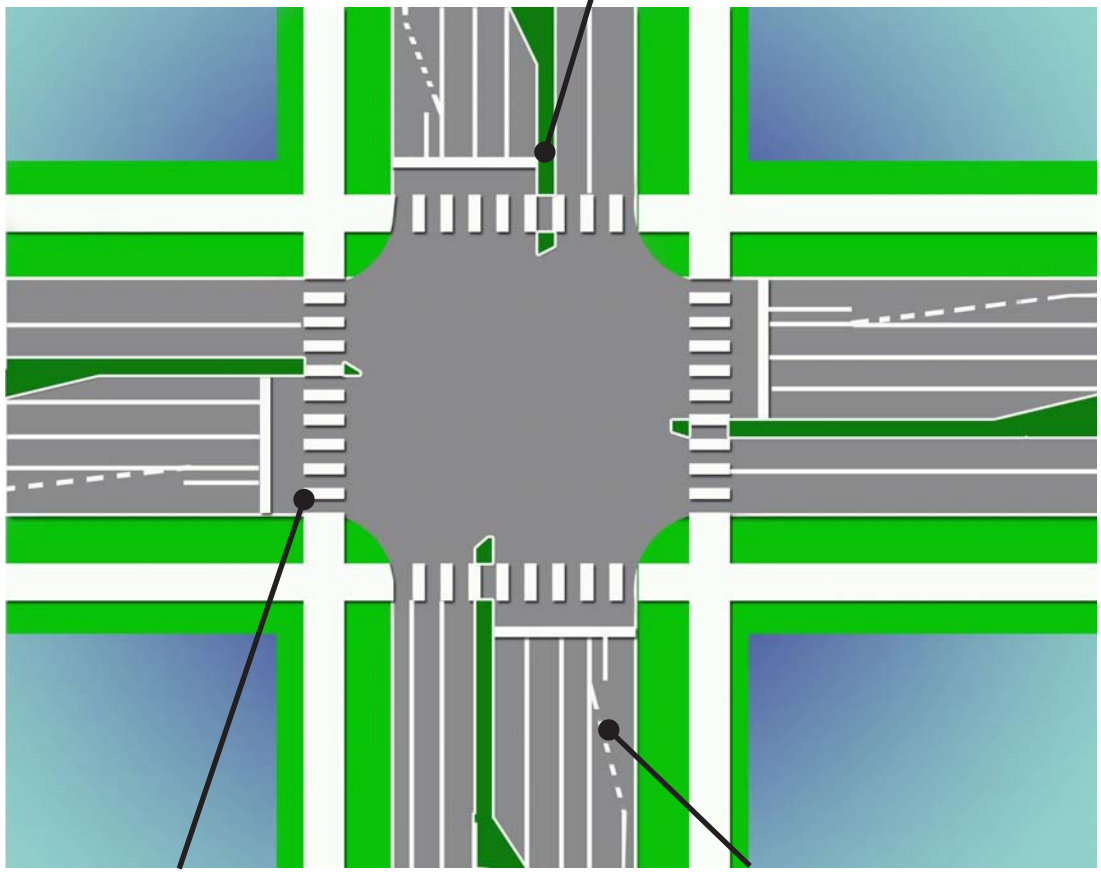






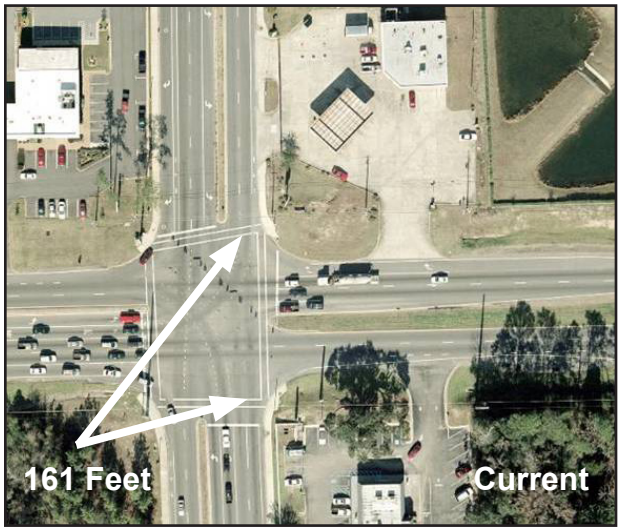
Large intersections do not have to be impediments to connectivity, but they must be given special treatment to optimize safety and accessibility.

Medians as refuge islands
Medians should be extended through the alignment of the sidewalk to allow them to function as pedestrian islands.

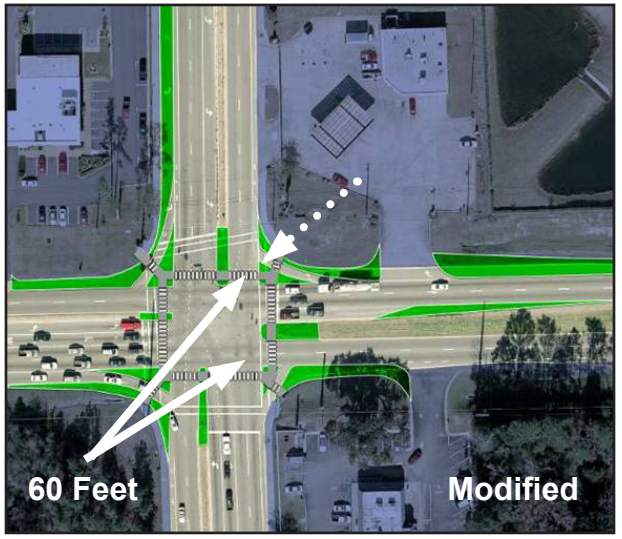


Correct crossing placement
Crossings should **be** *ahead* of the stop bar to keep motorists (especially right turns) from violating the pedestrian's right-of-way

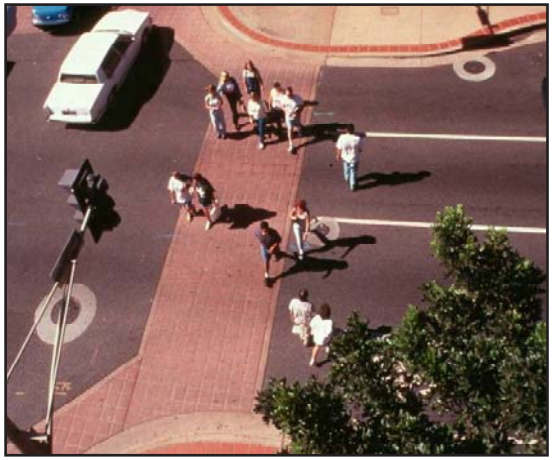
Bicycle lane transitions
Bicycle lanes should be aligned to direct traffic through the intersection, meaning right-turn vehicle lanes are aligned outside of them. Proper striping to guide the bicycle lane and to alert the motorists of this change in alignment will allow for a safe and effective transition.

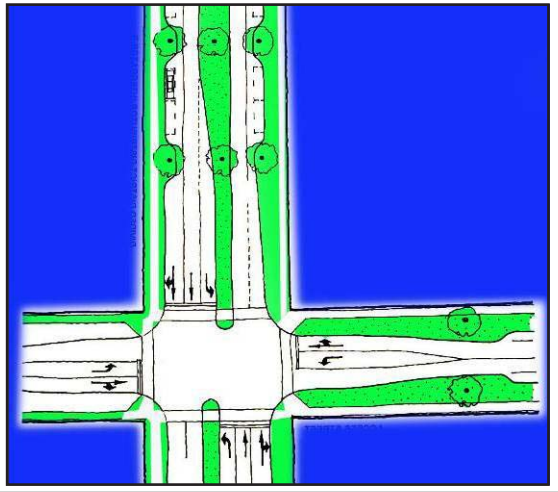


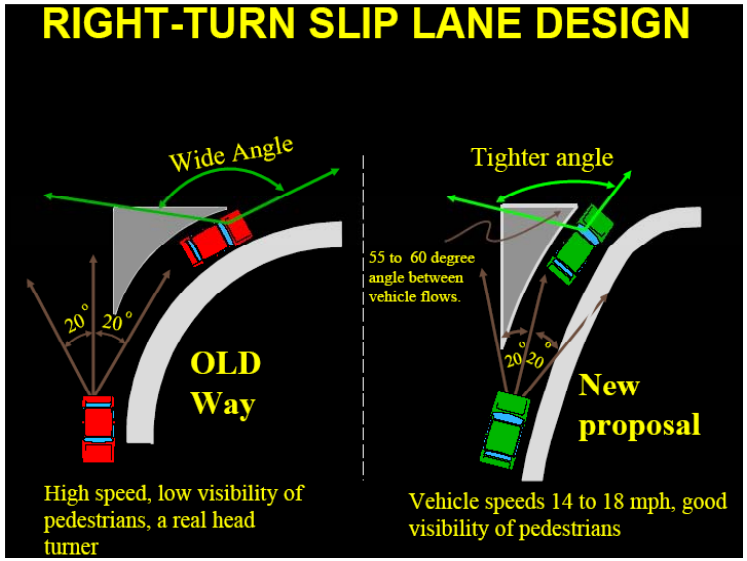
Overly wide intersections create unsafe conditions, discourage walking and bicycling, and lead to long delays of motorists. The pedestrian clearance interval for this crossing is 60 seconds.



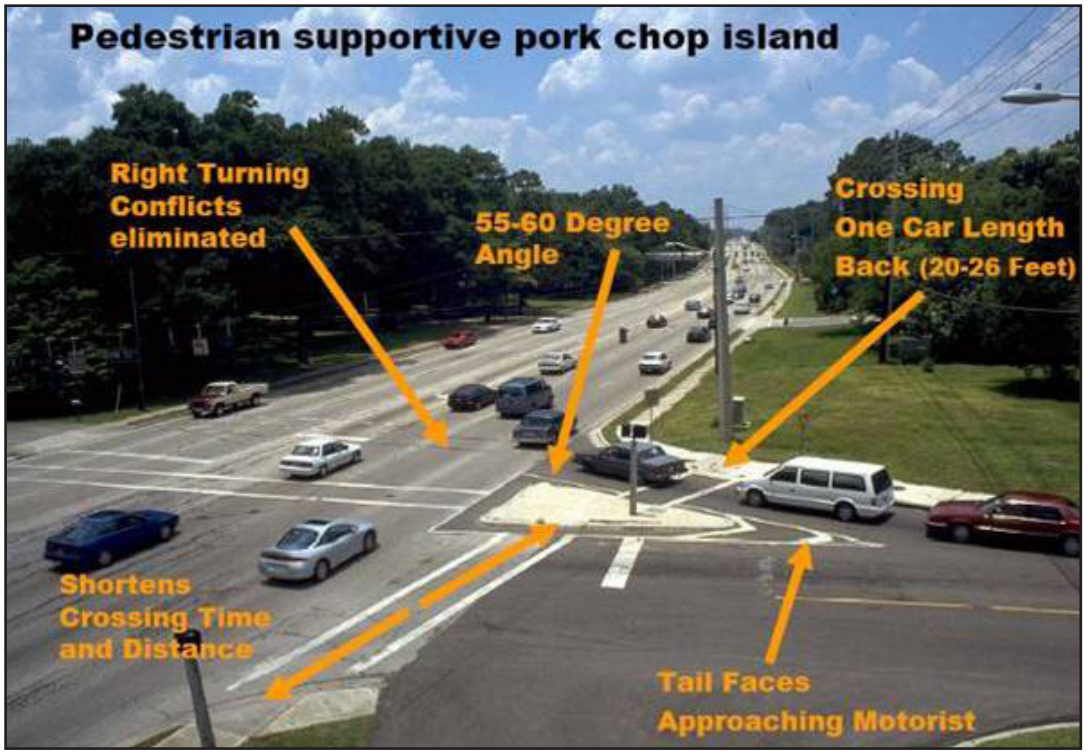
Crossing islands (pork chop islands) medians and more compact designs shorten pedestrian crossings to 30 second allowing motorists to be underway with less delay.



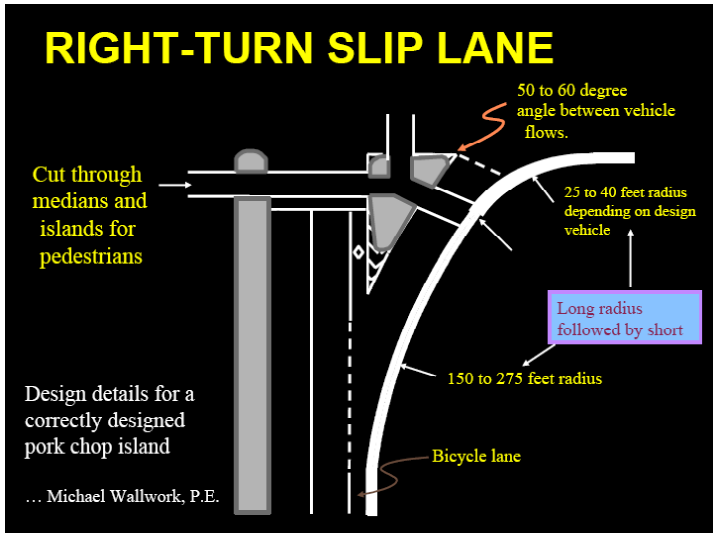




At larger intersections, right-turn slip lanes provide additional storage room for vehicles attempting right turns and, in volumes that do not exceed the length of the lane, allow the outer travel lane of the street to be reserved for through traffic. While they have advantages to motorists and are beneficial from a traffic engineering perspective, they can be a detriment to a safe and convenient pedestrian environment. Right turn slip lanes increase the distance pedestrians must travel from corner to corner when crossing a street, and the curve in most designs (old way in diagram to left) suggests that motorists may make the turn without slowing. The new design shown here lowers speeds, makes pedestrians more visible and allows drivers to find a gap without turning their necks as much.



Geometry. Entry ramps (pork chop islands) in urban areas should control speeds to safe and efficient levels. In general, 10-12 mph entry speeds give the best opportunity to merge safely in standard intersections, while 15-25 mph may be acceptable over some ramp areas and allow trailing motorists time and distance to respond. These speeds also produce the greatest yielding rates to pedestrians and bicyclists.



The illustration at top left provides design details when bike lanes are used at conventional intersections. Entry principles remain similar in a SPUI (Single Point Urban Interchange). Other ways to reduce crashes include high emphasis crossings and focus on entry angles of pedestrians (face toward motorists).

When these slip lanes are augmented by pedestrian crossings that take advantage of them, they function as refuge islands between vehicles making right turns and those moving through the intersection, and they allow the paths of sidewalks to remain aligned mostly parallel to the streets with minimal diversion.

The photo to the right illustrates a low speed entry ramp accentuated by a raised crossing to assure low speeds.

At certain intersections, placement of a roundabout greatly facilitates through traffic and turning movements without requiring signal control delays. Roundabouts are made up of a circulating roadway with a raised island that is often used for landscaping or other decorative features. The circulating roadway is typically wider than approach roadways and features an additional "raised truck apron" on the outer section of the circle; both of these features allow for operating contingencies, especially with trucks, emergency response vehicles, and other large vehicles.

Roundabouts most often increase intersection capacity up to 30 percent: as the only requirement for yielding the right-of-way is to traffic already in the circulating roadway, vehicles can continue moving through intersections carrying a light volume, requiring no queue at the approach roadways and potentially allowing all intersecting streets to use the intersection at once.

Roundabout benefits are so significant that some states and cities require that any intersection rebuilds must be first modeled to see if a roundabout will work. Benefits include:

1. Reduction in personal injury crashes (80-90%)
2. Reduced delays
3. Increased capacity (often 30% is a safe estimate).
4. Increased property values. At times higher development potential can pay the cost of new roundabouts.
5. Improved conditions for motorists, pedestrians and bicyclists.
6. Space conserving. As a general rule a single lane roundabout fits into a 130-foot intersection (measured diagonally from one corner to another). Some roundabouts can fit into less space (see above Bradenton Beach, Florida roundabout.

Bradenton Beach, Florida. This high-volume intersection was one of the town's most dangerous for pedestrians, though immediately adjacent to its prime amenity.

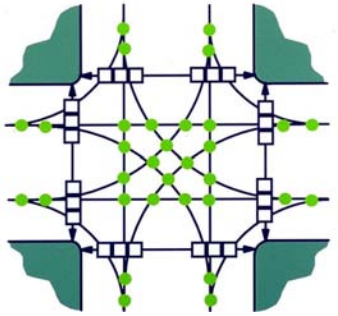
Installation of a roundabout calmed traffic speeds and facilitated pedestrian crossing. It also improved property values and catalyzed redevelopment.

Myth breaker. This Brighton, Michigan roundabout disproved the myth that roundabouts with dominant primary street volumes will not let side street traffic enter during peak periods. It handles 20,000 vehicles per day and vehicles on the secondary street find numerous gaps when cars enter or exit the roundabout, a pedestrian crosses or a cars slow to park.

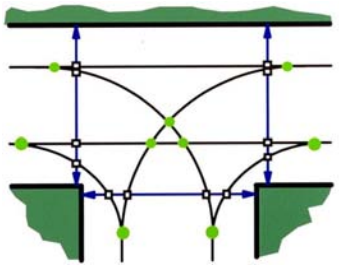
Roundabouts provide safer and more amenable pedestrian crossings, namely from use of the splitter island on each approach as a pedestrian refuge. Including one car length between the yield line and crossing optimizes roundabout efficiency for vehicles, allowing vehicles waiting to enter the circulating roadway to be closer and preserving a safe distance between pedestrians and vehicles traveling out of the circulating roadway to one of the cross streets.

One very important safety feature of roundabouts is their reduction of conflict opportunities. When crossing, pedestrians face only one potential conflict (traffic either entering or exiting the roundabout, divided by the splitter island).

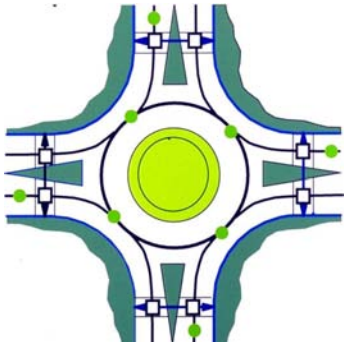
Pedestrian crossings at roundabouts require as little as 13-14 feet of exposure per crossing versus 60-100 feet at signalized intersections capable of carrying similar traffic volumes. Speeds and crashes are greatly reduced.



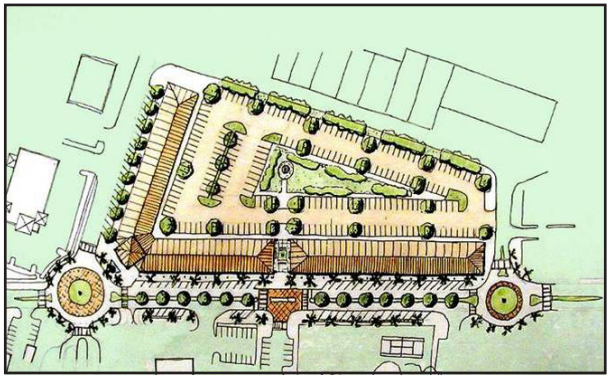
FOUR-WAY INTERSECTION
32 Vehicle-Vehicle conflicts
24 Vehicle-Pedestrian conflicts



THREE-WAY (T) INTERSECTION
9 Vehicle-Vehicle conflicts
12 Vehicle-Pedestrian conflicts



ROUNDABOUT
8 Vehicle-Vehicle conflicts
8 Vehicle-Pedestrian conflicts

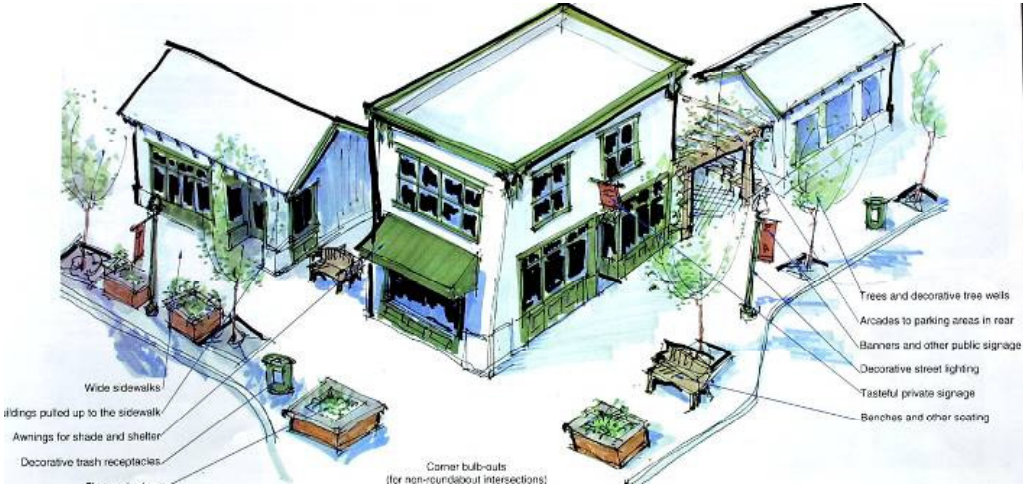


A 2000 report by the Insurance Institute for Highway Safety reported that: "Results of this study indicate that converting conventional intersections from stop sign or traffic signal control can produce substantial reductions in motor vehicle crashes."

Streets are the most fundamental and basic public space in our built environments. Not only do streets provide the crucial function of circulation, they also create a sense of place through their celebration of local architecture, local customs or simply the integration of natural and built environments.

Streetscaping refers to the planting of street trees, median treatment, corner treatment, decorative signs, park benches, pathways, color, lighting, transit stops, etc. All these amenities increase motorists' awareness of the various purposes of the street besides moving cars.

Engaging streets also provide opportunities for discovery and surprise. Public art, street furniture decoration or other functional elements can be used to proclaim a place's history, its people and its values. These additions to the street define its character and charm.



The best urban environments have a very strong sense of place: the feeling of ownership and belonging that people have for their communities and the sentiment of pride and distinction that visitors experience, creating memories of their visit and knowing without a doubt where they are.

Signs that celebrate local culture, environment or monuments affirm a walkable environment by speaking about the character of a place. Gateways offer a sense of arrival and help to mark transitions between one part of a place and another, such as crossing town limits or moving from one neighborhood to another.

While communities without a strong sense of place may have all of the characteristics of a walkable environment, the nod to local culture signifies that certain places have utilized their walkability to more than a functional level: their streets have become public space and incubators of social activity, exchange and community interaction.