

Fallbrook Town Center Pedestrian Area Plan



Prepared for County of San Diego
Department of Planning and Land Use

By RBF Consulting
San Diego, Ca

April 2010

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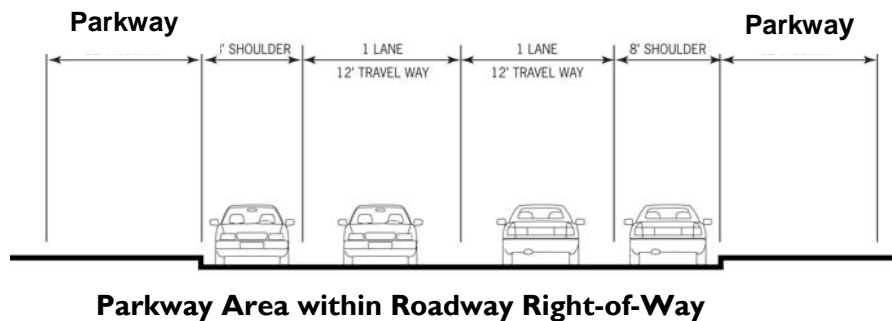
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I. INTRODUCTION

The Fallbrook Town Center Pedestrian Area Plan is part of the County of San Diego Pedestrian Master Plan (PMP), a project prepared for the County's Department of Planning and Land Use (DPLU) and funded by a grant from the San Diego Association of Governments (SANDAG).

The PMP's first phase was to prepare a Pedestrian "Toolbox" that contains guidelines and recommended solutions to improve or enhance the pedestrian environment within the public right-of-way. The document supports the objectives of the community development model stated in the County's General Plan, which designates densities, land uses, and roadway classifications based on the characteristics of the area.

The Pedestrian Toolbox focuses primarily on the Parkway section of public streets -- defined as the area between the curb, or edge of travel lane / shoulder, and the property line. It also addresses other roadway components that directly affect the pedestrian environment. Separate Toolbox sections include the Parkway Zone, Walkability, Intersections, and Traffic Calming.



Parkway zone improvements that benefit pedestrians include adequate curb and gutter for the context; street trees or landscaping to buffer pedestrians from adjacent traffic and provide shade; and in some cases, street furniture and public art for comfort and interest.

Walkability improvements are intended to connect various destinations, such as schools, parks, library, and shopping centers, and improve the pedestrian environment. They include clear Americans with Disabilities Act (ADA) routes, curb ramps at intersections, a sidewalk width that is appropriate for the street type, and well-defined pedestrian crossings. Also included are transit stop improvements that make taking transit more comfortable, such as a bench, shade, and shelter; and in appropriate locations, midblock crossings that typically include signage and flashing lights for increased visibility.

Intersection improvements are intended to reduce pedestrian-automobile conflicts, and to improve pedestrian visibility to motorists. Solutions include providing clearly marked crosswalks; reducing pedestrian crossing distances or providing enough time to cross the street; and not allowing "free" right turn movements, where traffic does not stop before turning.

Traffic calming describes physical changes to the roadway that are intended to reduce traffic speeds -- typically done where posted speed limits are low and traffic should move slowly, such as along school routes, residential neighborhoods, or walkable commercial areas with many pedestrians. Examples include raised medians, curb extensions that narrow the road, and traffic circles that make vehicles deviate from a straight line down the road.

The Pedestrian Master Plan's second phase was to prepare pedestrian area plans in five communities and look at the existing pedestrian conditions, identify deficiencies, and recommend solutions from the Pedestrian Toolbox. As more pedestrian area plans are done in additional unincorporated communities, they collectively will form the Pedestrian Master Plan for the County of San Diego.

A well-designed pedestrian environment that is suitable for the intended users is critical to maintain safety and encourage pedestrian activity regardless of the surrounding land uses.

Pedestrians represent a wide range of our population, including children walking to and from school, teens visiting friends, adults on errands, and people who walk for recreation or exercise.



Pedestrians also include people with disabilities using walkers, wheelchairs or other assistance devices as well as transit users who walk between their destinations and transit stops.



II. PROJECT PROCESS

The Fallbrook Town Center Pedestrian Area Plan examined a specific area within the Fallbrook community to determine existing conditions and deficiencies in the pedestrian network and recommend potential improvements. Once improvements were identified, the Fallbrook Community Planning Group prioritized the potential improvements and cost estimates were prepared for two high-priority projects in order to compete for funding at the local, state, and federal level.

A. Document Organization

Section I. Introduction presents the project background.

Section II. Project Process describes the planning process used for the Plan, the criteria to select the study area, and the important factors underlying field observations.

Section III. Existing Pedestrian Conditions and Recommendations is organized by Zone -- a street segment or smaller area within the larger study area. Each Zone includes photographs, a table of specific pedestrian needs and solutions, and a concept map depicting solutions by location.

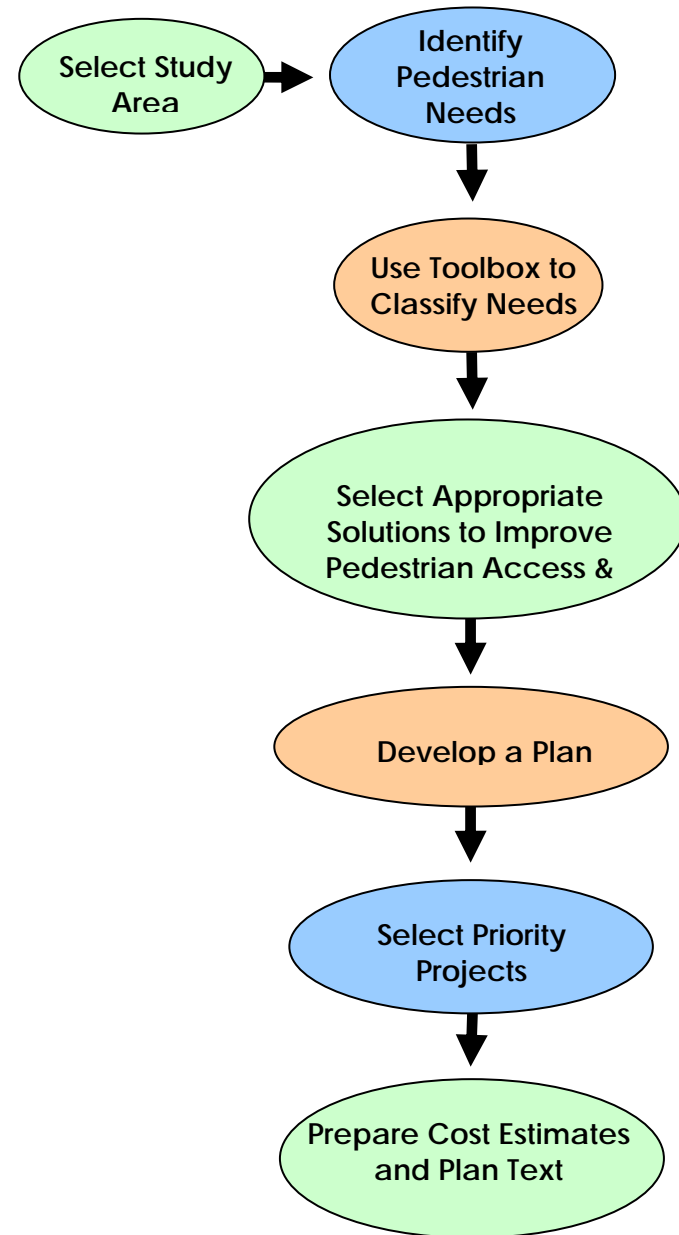
Evaluation of the effects on traffic if a particular solution is implemented is not included at this Pedestrian Area Plan level. At a later stage the effects of certain solutions would need to be studied further by a traffic engineer.

Section IV. Priority Projects includes a project description and cost estimates for two projects derived from the concept maps.

B. Process to Develop Plan

The planning process to develop the Fallbrook Town Center Pedestrian Area Plan was a streamlined effort, resulting in a conceptual plan intended to be a starting point for pedestrian improvements and refined over time with more detailed engineering evaluation and design. Planning steps included:

- ♦ **Select Study Area for Plan** -- Initial contact with the community planning group to establish the boundary for the Pedestrian Area Plan.
- ♦ **Identify Pedestrian Needs** -- Distribution of a community input form and consultation with individuals and County Department of Public Works staff for information on existing conditions and planned improvements. Conduct field observations and measurements to identify pedestrian needs and classify needs per the Pedestrian Toolbox.
- ♦ **Select Solutions and Develop a Plan** -- Select appropriate solutions from the Pedestrian Toolbox and map them onto a conceptual plan. Present the findings and recommendations for pedestrian improvements to the community sponsor group.
- ♦ **Select Priority Projects** -- Community planning group considers the recommendations and selects priority projects.
- ♦ **Prepare Study and Cost Estimates** -- Prepare the graphics and text for the Pedestrian Area Plan, plus the cost estimates for the two selected priority projects.



C. Plan Area Criteria

The pedestrian area plans are designated for those parts of the community with relatively high pedestrian-oriented land uses, which may include the following:

Civic – Government and public facility buildings such as county offices, libraries, courts, and recreation and community centers with high levels of pedestrian traffic.

Schools – Public and private schools that are major pedestrian destinations during school hours and may also be used after hours for community and recreational purposes.

Commercial – Pedestrian-oriented or accessible commercial districts, blocks, or small nodes, depending on the community's size. These areas either have or are planned to have a higher concentration of commercial uses, such as shopping, convenience services, eating/drinking establishments, or entertainment that generates pedestrian traffic.

Higher Density Residential – This term refers to apartment complexes, condominiums, town homes, or detached single-family homes on relatively small lots. Only higher density residential areas in close proximity to significant commercial areas, civic uses, or transit stops were considered.

Parks and Open Space – Parks and open space areas are important pedestrian activity areas and often include pathways that serve as local pedestrian routes. Only areas in close proximity to the other pedestrian-oriented land uses or transit stops were considered.

D. Field Observation Criteria

The following factors were the basis for conducting field observations.

Connectivity – Allows people to conveniently and safely walk to where they want and need to go, especially between major pedestrian activity centers, for example, a school and park. Every community should have a network of sidewalks that allows continuous safe travel between major pedestrian attractors.

Continuity – Refers to whether sidewalks or walkways already exist, are non-existent, or are discontinuous, and whether people are forced to walk on roadways or parallel informal pathways.

Accessibility and Physical Obstacles – Curb ramps should be provided at crossings for individuals, in compliance with ADA requirements. Walking surfaces should be smooth and cleared of debris. Sidewalks and walkways should not have utility poles, fire hydrants, and other pieces of infrastructure located in the center of the intended walkway. Other obstructions blocking pedestrians may be overgrown vegetation or illegal vehicular parking in the pedestrian way.

Safety – Issues related to pedestrian safety include intersection or street crossings, excessive vehicle speed, inadequate lighting, lack of signage to aid driver awareness of pedestrians, and trip hazards.

Streetscape – Street trees for shade and sidewalk furniture for resting help to create an environment both comfortable and inviting for the pedestrian.

III. EXISTING PEDESTRIAN CONDITIONS AND RECOMMENDATIONS

The unincorporated community of Fallbrook is located 60 miles north of downtown San Diego, in the northernmost portion of the County. The Fallbrook Town Center is characterized by local-serving commercial uses and low-density residential. Pedestrian activity is concentrated in the historic downtown core on Main Avenue, commonly referred to as “the Village”, where small shops, art galleries, restaurants, and other commercial uses are located. East Mission Road and East Alvarado Street are also used extensively by pedestrians.

The Fallbrook study area is bounded by West Mission Road and East Mission Road on the north; North Brandon Road and a segment of Potter Road on the east; Elder Street and Fallbrook Street on the south; and North Mission Road and South Mission Road on the west.

There are many uses within the study area that attract pedestrians -- Main Avenue’s shops, restaurants, theater, and the Art Center; the library, small parks, playfields, and Boys and Girls Club; and several schools. These uses are within reasonable walking distance of each other and adjacent residential areas. However, portions of the pedestrian network are discontinuous and some areas are hindered by high volumes of speeding traffic. Sidewalks on many east-west streets are intermittent or non-existent, causing pedestrians to walk in the roadway. Some streets lack crosswalks and have high traffic volumes, making crossing difficult for pedestrians. Improving these conditions that limit accessibility and connectivity for pedestrians will help provide a more convenient, safe, and accessible pedestrian environment in Fallbrook’s Town Center.

A. Pedestrian Area Zones

The Fallbrook Town Center Pedestrian Area Plan is divided up into three zones, which are shown on Figure 1.

The following information for each Zone is provided in subsequent pages:

Existing Pedestrian Needs -- A list of general pedestrian needs on major roadways, based on field observations, measurements, and input from the community planning group. Sample photographs are shown of the existing streets and pedestrian conditions. Letters on the map correspond to the photographs.

Pedestrian Needs and Toolbox Matrix -- A table providing details on more specific locations of pedestrian needs; improvement opportunities to address the issue; and classification of the recommended solutions per the County’s Pedestrian Toolbox.

Pedestrian Concept Map -- A map with labels shows potential solutions to the pedestrian needs and their general location. The different colors indicate the type of improvement that is recommended from the County’s Pedestrian Toolbox – Parkway Zone, Walkability, Intersection, or Traffic Calming.

Zone I – The area generally bounded by West Mission Road, Vine Street, Alvarado Street, and North Mission Road.

Zone II – The area generally bounded by East Mission Road, North Brandon Road, East Alvarado Street and North Vine Street.

Zone III – The area generally bounded by Fig Street, Potter Street, Elder Street, Main Avenue, Fallbrook Street, and South Mission Road.



Figure 1 -- Fallbrook Pedestrian Area Study Zones

B. ZONE I PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ◆ Continuous sidewalks along Main Avenue
- ◆ Pedestrian enhancements at some intersections along Main Avenue based on criteria established in County Traffic Guidelines
- ◆ Pedestrian enhancements at intersection at Main Avenue and West Mission Road based on criteria established in County Traffic Guidelines
- ◆ Continuous sidewalks along Alvarado Street
- ◆ Curb at sidewalk on southeast corner of Alvarado and Vine Street

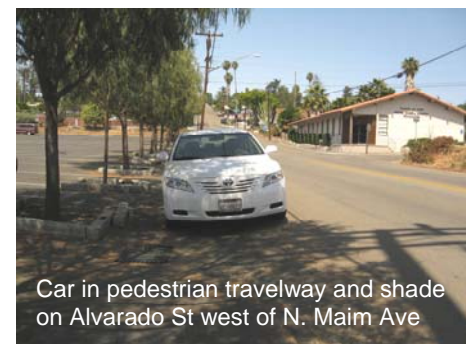


Table 1 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE I – FALLBROOK








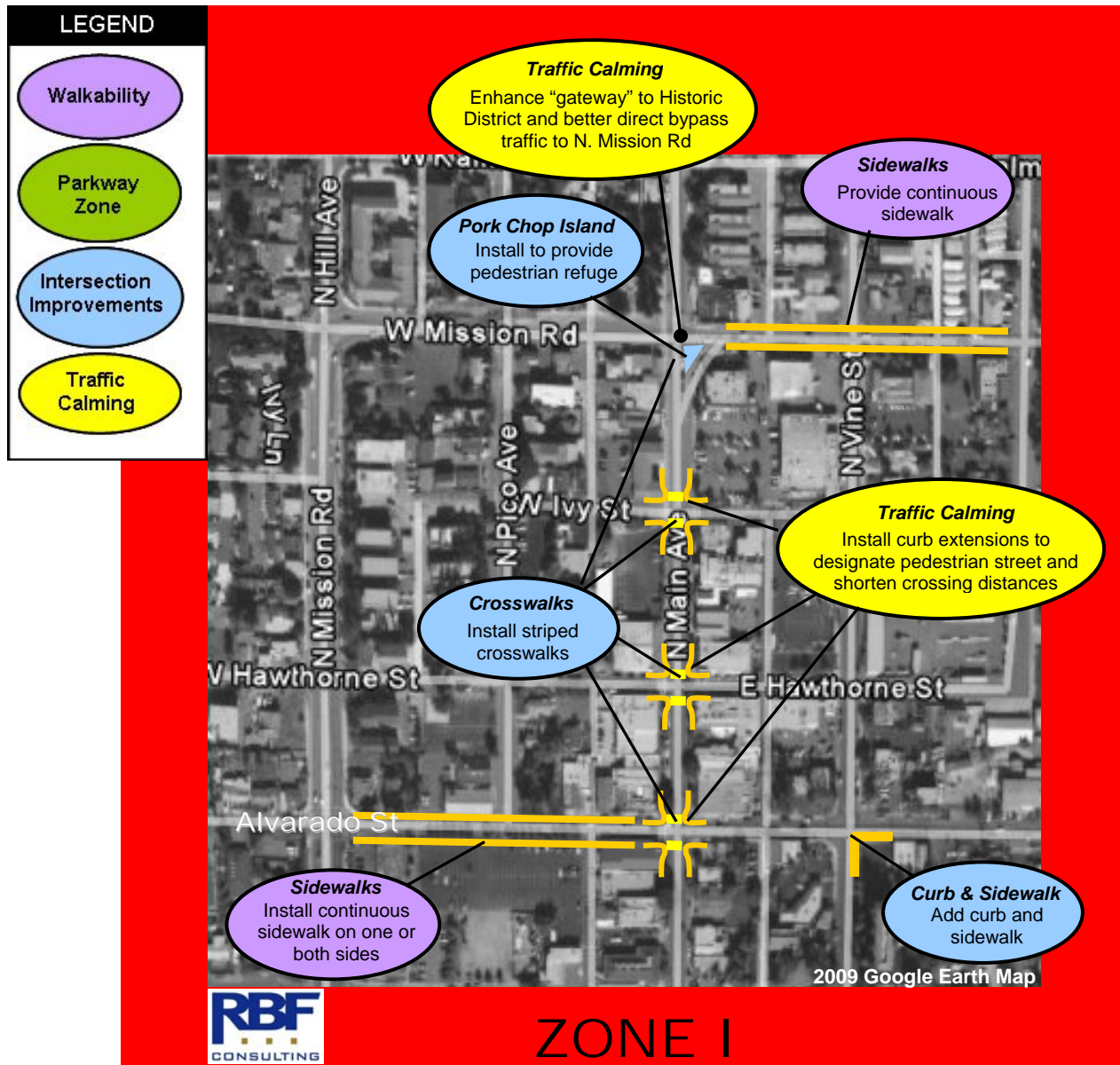
PEDESTRIAN NEEDS AND TOOLBOX MATRIX						
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX			
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements
Zone I						
(a) Mission Road between N. Mission Rd and Vine St	Continuous sidewalk and curbs from Main Ave to Vine St, both sides of street.	Provide continuous sidewalk, curbs, and ADA ramps.				
(b) Main Avenue between Mission Rd and Fig St	Marked crosswalks are needed along Main Ave because textured paving at crossings is not visible to vehicles and does not function as a marked crosswalk. Intersection of Main Ave and W. Mission Rd is very busy and wide to cross for pedestrians. Measures to facilitate pedestrian crossing of the wide street.	Enhance "gateway" to the Historic District at intersection of Main Ave and W. Mission Rd to establish a pedestrian orientation. Install better signage directing bypass traffic onward to N. Mission Rd. Install a "porkchop" pedestrian refuge where vehicles turn east onto Mission from Main. Provide high visibility crosswalks. Install curb extensions and striped crosswalks on Main Ave to designate pedestrian street and shorten crossing distances.				
(c) Alvarado Street between N. Mission and Vine St	Continuous sidewalks on both sides west of Main Ave to Mission. Curb and sidewalk on SE corner of Alvarado St and Vine St	Provide continuous sidewalks, curbs, and ADA ramps.				

Figure 2 ZONE I PEDESTRIAN CONCEPT PLAN – FALLBROOK TOWN CENTER



C. ZONE II PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ◆ Continuous sidewalks
- ◆ Pedestrian travelway unimpeded by vehicles
- ◆ Shade areas along walkway
- ◆ Improved access between recreational uses and streets
- ◆ Additional safety features at Iowa Street school crossing (ped-activated flashing light)



Table 2 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE II – FALLBROOK





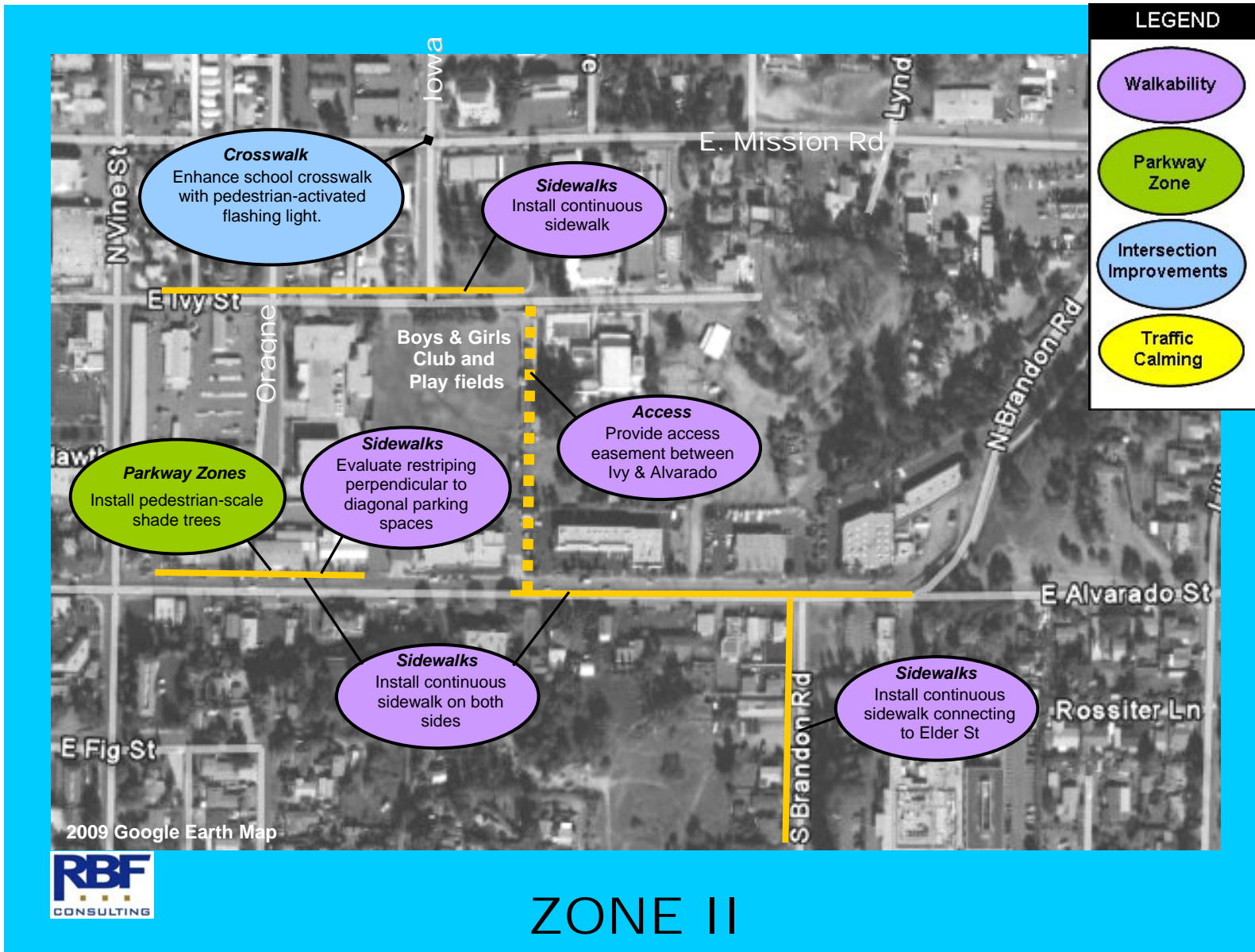
PEDESTRIAN NEEDS AND TOOLBOX MATRIX						
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX			
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements
Zone II						
(d) E. Mission Road between Vine St and Iowa St	Enhanced pedestrian safety features for existing school crossing across Mission at Iowa St. Speeding traffic on Mission.	Consider a pedestrian activated flashing light at school crossing. Consider 25 mph speed limit to replace 35 mph between Iowa and Minnesota Streets.				
(e) E. Ivy Street between Vine St and eastern terminus	Continuous sidewalk on both sides of street	Provide continuous sidewalk on both sides of street.				
(f) E. Alvarado Street between Vine St and N. Brandon St	Continuous sidewalk on both sides of street; unimpeded pedestrian travelway, which is currently often blocked by parked cars on north side near Art School. Additional shade.	Provide continuous sidewalk on both sides of street. Evaluate restriping parking from perpendicular to diagonal to allow space for pedestrian travelway on north side. Install pedestrian-scale street trees for shade.				

Figure 3 ZONE II PEDESTRIAN CONCEPT PLAN – FALLBROOK TOWN CENTER



D. ZONE III PEDESTRIAN NEEDS AND RECOMMENDED IMPROVEMENTS

Existing Pedestrian Needs:

- ◆ Continuous sidewalks
- ◆ Pedestrian travelway unimpeded by vehicles
- ◆ Reduced driveway widths in some blocks of Main Avenue
- ◆ Marked crosswalks across Main Avenue and South Mission Road based on criteria established in County Traffic Guidelines
- ◆ Pedestrian-friendly east-west streets connecting to hospital, library, Pico Promenade, Beech Street Park, and schools

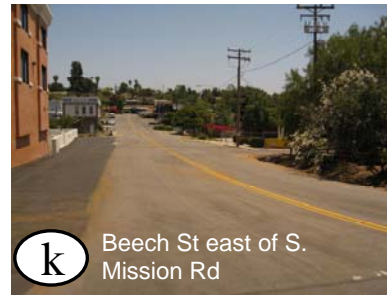
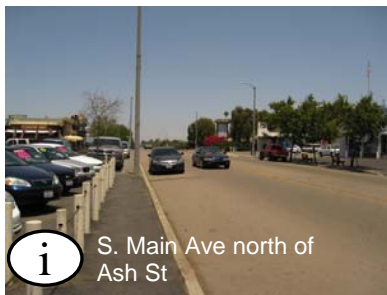
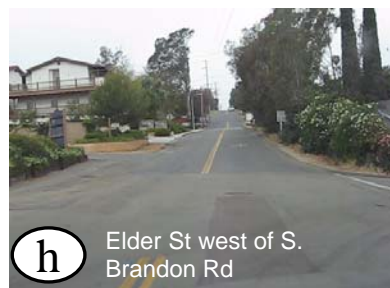
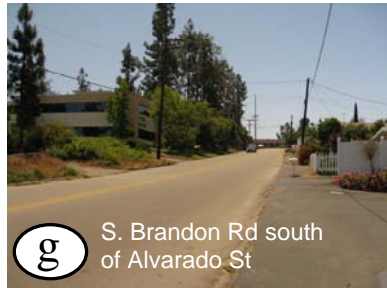


Table 3 PEDESTRIAN NEEDS AND TOOLBOX MATRIX FOR ZONE III – FALLBROOK









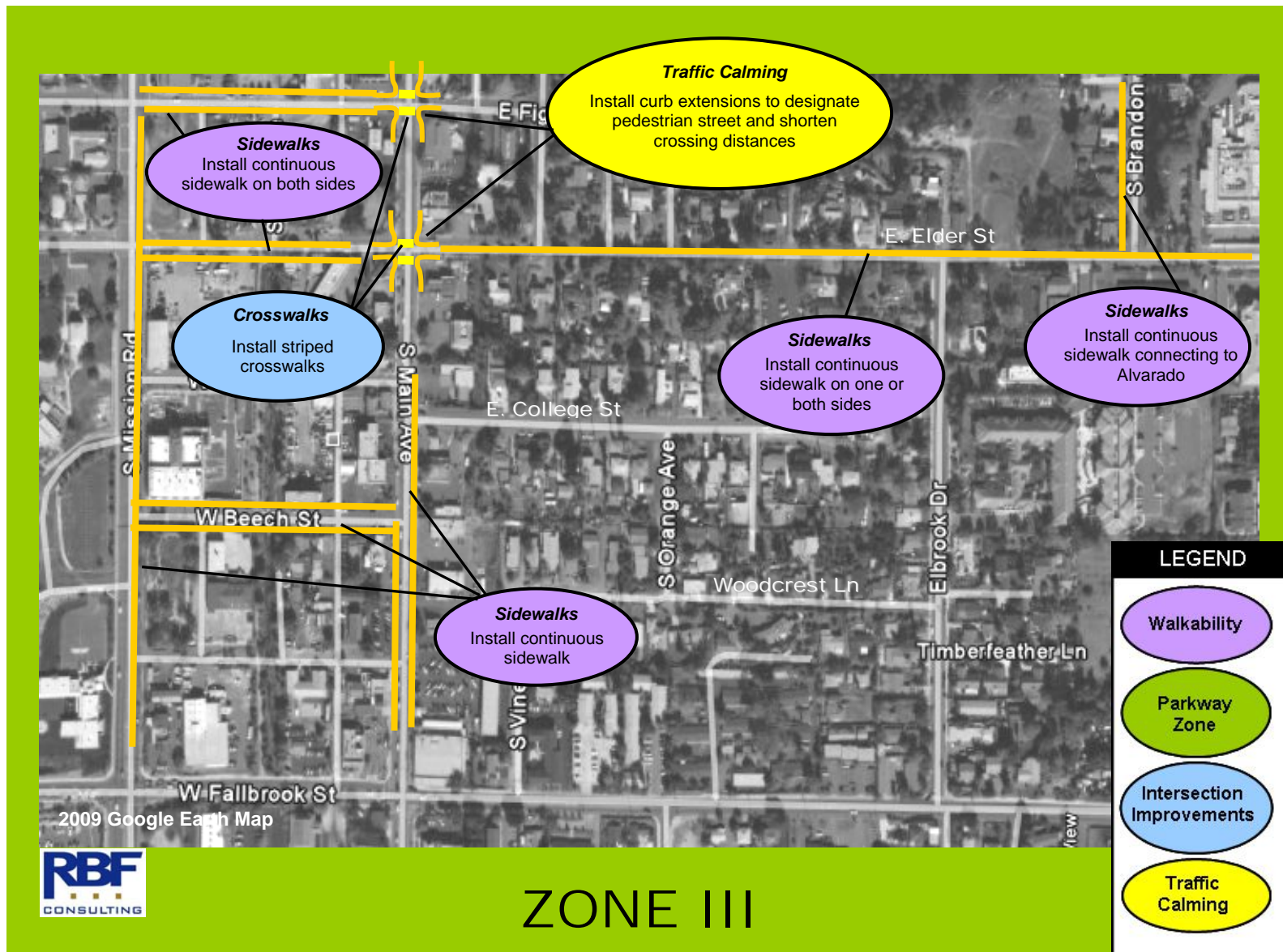
PEDESTRIAN NEEDS AND TOOLBOX MATRIX						
LOCATION	PEDESTRIAN NEEDS	IMPROVEMENT OPPORTUNITIES	TOOLBOX			
			Parkway Zones	Walkability	Traffic Calming	Intersection Improvements
Zone III						
g) S. Brandon Road between E. Alvarado St and E. Elder St	Continuous sidewalk on both sides of street.	Provide continuous sidewalk on one or both sides of street.				
h) Elder Street between S. Mission Rd and S. Brandon St	Continuous sidewalk; portion of which is a designated school route. Marked crossing at Main Ave on designated school route. Speeding traffic on S. Mission Road in vicinity of designated school crossing at Elder St.	Provide continuous sidewalk along one or both sides of street. Provide zebra-striped school crossing across Main Ave. Evaluate the need for a pedestrian-activated flashing light to cross S. Mission Rd at Elder.				
i) S. Main Avenue between Fig St and Fallbrook St	Continuous sidewalk on both sides of street, Beech to Ash. Unimpeded pedestrian travelway, which is currently often blocked by cars. Overly wide driveways on east side of street just north and south of E. College St. Marked crosswalks are needed along Main Ave.	Provide continuous sidewalk. Consider reducing driveway widths. Install curb extensions and striped crosswalks on Main Ave to designate pedestrian street and shorten crossing distances.				
j) W. Fig Street between Mission Rd and Main Ave	New sidewalk on south side and fill in gaps in sidewalk on north side.	Designate as east-west pedestrian route to Library and Pico Promenade. Provide continuous sidewalk on both sides of street. Install pedestrian scaled trees for shade.				
k) W. Beech Street between Mission Rd and Main Ave	Continuous sidewalk.	Designate as east-west pedestrian route to Beech Street Park and Pico Promenade. Provide continuous sidewalk on both sides of street.				
l) S. Mission Road between Fig St and Fallbrook St	New sidewalk on east side of street between Fig St and Fallbrook St.	Provide continuous sidewalk.				

Figure 4 ZONE III PEDESTRIAN CONCEPT PLAN – FALLBROOK TOWN CENTER



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IV. PRIORITY PROJECTS

Although there are no funds associated with this SANDAG-sponsored contract that would cover design or construction costs at this time, having the identified projects available will streamline future opportunities to compete for County, SANDAG, state, and federal funding opportunities.

On May 18, 2009, a presentation on the pedestrian needs and recommended improvements was provided to the Fallbrook Community Planning Group (see Section III). The Community Planning Group identified the following priority of actions:

- 1) Repair all current sidewalks where necessary;
- 2) Initiate a study to determine where crosswalks should be placed;
- 3) Continue sidewalks in all areas where they abruptly stop or turn into gravel walkways; and
- 4) Install sidewalks on East Mission, Alvarado and Fallbrook Streets.

Based on the priorities identified above and the scope of the consultant contract, the two projects from the Pedestrian Concept Plans selected to be Priority Projects are:

- ◆ Sidewalk installation along East Mission Road between North Main Avenue and Iowa Street
- ◆ Sidewalk installation along East Alvarado Street from Vine Street to North Brandon Road

Project descriptions and preliminary cost estimates have been prepared for these projects, found in the following pages of this document.

The preliminary cost estimates are intended to provide a general order of magnitude cost for the purpose of evaluating implementation potential and pursuit of funding sources. Improvement items and quantity takeoffs are based on the conceptual plans provided within this Pedestrian Area Plan and gross measurements done in the field or from aerial mapping.

Since these estimates are preliminary in nature and based on a conceptual plan they shall not be construed to represent actual construction costs. Final quantities and construction costs are subject to change, which would occur following detailed analysis, accurate base maps, preliminary design by a civil engineer, and evaluation of potential impacts to traffic by a traffic engineer. Final engineering design may further change the quantities and construction costs.

Any costs for additional rights of way/easement acquisition, environmental mitigation, final engineering design, engineering survey, and other soft costs/development fees are not included. Drainage facilities for conveyance, detention and water quality control are also not included in these estimates.

Since the preparer of these cost estimates has no control over the cost of labor, materials, equipment, contractors' method of determining unit prices, competitive bidding or market conditions, each cost estimate should be considered an "Opinion of Probable Construction Cost" and is made on the basis of the preparer's experience and represents their best judgment as design professionals familiar with the construction industry. Preparer does not guarantee that proposals, bids, or the actual construction cost will not vary from these cost estimates.

A. EAST MISSION ROAD SIDEWALK INSTALLATION (SEGMENT BETWEEN NORTH MAIN AVENUE AND IOWA STREET)

Existing Conditions: East Mission Road serves as a major route between the historic downtown and Interstate 15. The historic downtown is focused around Main Avenue, which carries the highest pedestrian volumes and attracts many visitors to the surrounding area. The pedestrian environment along Main Avenue is filled with sidewalks, street furniture, public art, and other amenities. However, once a pedestrian

walks onto Mission Road, the pedestrian environment significantly changes.

Sidewalks or other protective measures are absent and no space is provided for the pedestrian



from Main Avenue to Iowa Street. The lack of sidewalks forces pedestrians to walk alongside vehicular traffic and within the unpaved shoulders or gutters. At intersections such as at Vine Street and Orange Avenue, curbs are completely missing and pedestrians have no place to wait to cross the street as cars pass by or make turns.

An existing school crossing is provided on the east leg of the intersection of Mission Road at Iowa Street. This crosswalk is provided to allow pedestrians to cross Mission Road. However, the lack of sidewalks in the area discourages pedestrian access to the crosswalk.

Project Description: The project includes installation of a concrete sidewalk, plus curb and gutter, to match existing sidewalk on Mission Road segments located further west. The installation of a complete sidewalk along Mission Road will provide a continuous pedestrian connection from Main Avenue to the land uses east of the historic downtown area up to Iowa Street, where the existing school crosswalk is striped on the roadway. At the corners of intersections, ADA ramps are to be included to provide access for all users and prevent pedestrians from traveling within the vehicular lanes.

See Table 4 Cost Estimate for details.

**Table 4: COST ESTIMATE - EAST MISSION ROAD SIDEWALK INSTALLATION
(between North Main Avenue and Iowa Street)**

For Planning Purposed Only

Item Description	Qty.	Unit	Unit Cost (\$'s)	Amount	Subtotal	Notes & Assumptions ^{1,2}
E. Mission Road -- Sidewalk along both sides between North Main Avenue and Iowa Street (790 LF on north, 745 LF on south)						
Pedestrian Infrastructure					\$230,340	
Concrete curb and gutter	1,535	EA	\$44.00	\$67,540		
Concrete sidewalk (five feet wide)	7,675	SF	\$16.00	\$122,800		
Wheelchair Ramps (w/ warning surface half domes)	10	EA	\$4,000.00	\$40,000		All corners at Vine and Orange; NW & SW corners at Iowa
Miscellaneous Improvements					\$79,075	
Asphaltic Concrete Pavement Removal	7,675	SF	\$7.00	\$53,725		
Sawcut Existing Asphaltic Concrete Pavement	1,535	LF	\$10.00	\$15,350		
Asphalt Driveway Modifications	1	LS	\$10,000.00	\$10,000		Some driveways may need additional improvements.

1 – Unit Costs based on City of San Diego Unit Price List, January 2009; however, these costs were doubled to reflect previous experience with pedestrian improvement projects.

2 – All items listed include installation costs.

SF = Square Foot

EA = Each

LS = Lump Sum

LF = Linear Foot

Construction Subtotal:	\$309,415
25% Contingency	\$77,354
Total Construction Cost:	\$386,769
Mobilization (10%):	\$38,677
Survey (2%):	\$7,735
Design (15%):	\$58,015

Total Cost Estimate for Improvements	\$491,000
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B. EAST ALVARADO STREET SIDEWALK INSTALLATION (SEGMENT BETWEEN N. MAIN AVE & N. BRANDON RD)

Existing Conditions: Alvarado Street is characterized by a mix of land uses, including the Art Studios of Fallbrook, commercial uses, and office buildings. Alvarado Street also provides direct access to and from the Fallbrook Hospital at Brandon Road. The sidewalks along Alvarado Street between Main Avenue and Brandon Road are discontinuous on both sides of the street. In many instances, a pedestrian will find that the sidewalk abruptly ends with no means of safely crossing the street. Sidewalk is missing directly in front of the Art Studios, where parking is provided perpendicular to Alvarado Street. This layout creates a potential conflict for bicyclists or pedestrians walking behind parked vehicles and without an appropriate sidewalk to travel along.

In other segments of the street, vehicles are parked along the shoulder of the roadway, which forces the pedestrian to walk into the lanes of vehicular traffic to proceed.



Description: The project includes installation of concrete sidewalks, plus curb and gutter, to match the existing sidewalks along Alvarado Street between Main Avenue and Brandon Road. The installation of a complete sidewalk along Alvarado Street will provide a continuous pedestrian connection from Main Avenue through Brandon Road. At the corners of intersections, ADA ramps are to be included to provide access for all users and prevent pedestrians from traveling within the vehicular lanes.

In some areas where parking is located along the project frontage, such as by the Art Studios, parking may need to be relocated. In addition, areas adjacent to the hillside may require retaining walls.

See Table 5 Cost Estimate for details.



**Table 5: COST ESTIMATE - EAST ALVARADO STREET SIDEWALK INSTALLATION
(between North Main Avenue and North Brandon Street)**

For Planning Purposed Only

Item Description	Qty.	Unit	Unit Cost (\$'s)	Amount	Subtotal	Notes & Assumptions ^{1,2}
East Alvarado Street -- Sidewalk along both sides between N. Main Ave and N. Brandon St (450 LF on north, 790 LF on south)						
Pedestrian Infrastructure					\$169,760	
Concrete curb and gutter	1,240	EA	\$44.00	\$54,560		
Concrete sidewalk (five feet wide)	6,200	SF	\$16.00	\$99,200		
Wheelchair Ramps (w/ warning surface half domes)	4	EA	\$4,000.00	\$16,000		East corners at Vine; south corners at S. Brandon Rd
Miscellaneous Improvements					\$71,800	
Asphaltic Concrete Pavement Removal	6,200	SF	\$7.00	\$43,400		
Sawcut Existing Asphaltic Concrete Pavement	1,240	LF	\$10.00	\$12,400		
Retaining Wall	150	SF	\$40.00	\$6,000		For Alvarado sidewalk extension. Approx. 5' retaining wall.
Asphalt Driveway Modifications	1	LS	\$10,000.00	\$10,000		Some driveways may require additional improvements.

1 – Unit Costs based on City of San Diego Unit Price List, January 2009; however, these costs were doubled to reflect previous experience with pedestrian improvement projects.

2 – All items listed include installation costs.

SF = Square Foot

EA = Each

LS = Lump Sum

LF = Linear Foot

Construction Subtotal: \$241,560

25% Contingency **\$60,390**

Total Construction Cost: \$301,950

Mobilization (10%): **\$30,195**

Survey (2%): **\$6,039**

Design (15%): **\$45,293**

Total Cost Estimate for Improvements \$383,000

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