

*Sacramento Safe
Communities*

Pedestrian Summit Strategic Plan

October 2001

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Sacramento Safe Communities Project is a coalition of the Snell Safety Center, **Walk**Sacramento and the Greater Sacramento Safe Kids Coalition.

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Sacramento Safe Communities Pedestrian Summit Strategic Plan

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Dedication

We dedicate this plan to eighteen individuals who lost their lives while walking on Sacramento's streets during the period of this study – January 2000 through June 2001. We have included the names and dates that are known to us.

*** *January 24, 2000 – Bradshaw Rd. & Lincoln Village Drive*

Robert Roesies -- February 1, 2000
Roseville Road & Oakhollow Drive

*** *March 20, 2000 -- Fair Oaks Blvd. & La Honda Way*

*** -- *April 13, 2000 – Stockton Blvd. & 11th Avenue*

Charles Williams -- May 2, 2000
Franklin Blvd. & 41st Avenue

*** *May 6, 2000 – El Camino Avenue & E Albatross Way*

*** *July 12, 2000 – Fruitridge Road & W Alcott Dr.*

*** *September 11, 2000 – Capitol Avenue & 27th St.*

Imogene "Billie" Alderson – September 30, 2000
Brett Drive (Foothill Farms)

Helen Knox & James L. Warren -- October 5, 2000
Folsom Blvd. & Norcade Circle-Starfire Drive

Frederick Mafuo Koike -- October 16, 2000
Watt Avenue & E Street

Tom Musso – October 28, 2000
Truxel Road and on-ramp to I-80

Fibiola Perez, 9 years old! -- October 29, 2000
15th Avenue & 45th Street

Richard Leicher – December 17th
Fair Oaks Boulevard and Woodleaf Drive

Ji Liang -- December 25, 2000
24th Street at 33rd Avenue

Mary Ann Elrod -- January 11, 2001
Watt Avenue & El Camino Avenue

Jonathan Matthew Essex – April 2001
Hazel Avenue near Cedar Village Drive

*** *Individuals' names not available from the records.*

Acknowledgements

The Snell Safety Education Center, Inc., **Walk**Sacramento, and the Greater Sacramento Safe Kids Coalition are pleased to be partners in leading the Sacramento Safe Communities Project, a collaboration of concerned individuals and organizations to profile traffic safety problems, build consensus and recommend actions for pedestrian safety.

We would like to acknowledge the efforts of the Project supporters and participants. Over the past two years, this groups of enthusiastic and knowledgeable people not only came to represent the variety of stakeholders with interest in pedestrian traffic safety, but also contributed their support in time, and expertise to ensure the achievement of the objectives and the goals of the Project. The following is a list of those whose contribution and support have made this Project a success and this Strategic Plan a reality.

Project Steering Committee

Ron Anderson	Walk Sacramento
Mark Dumford	City of Sacramento
Anne Geraghty	Walk Sacramento
Bob Ireland	County of Sacramento
Peter Jacobsen	Walk Sacramento
Roxanne Woods	Safe Kids Coalition, UC Davis Medical Center
Hong Zhang	Snell Safety Education Center

Pedestrian Safety Summit Steering Committee

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Project Steering Committee	
Lisa Cirill	Walk Sacramento
Doug Reed	Sacramento Area Council of Governments
Ed Cox	City of Sacramento, Traffic Division
Bob Ireland	County of Sacramento

Summit Panel Speakers

Mayor Heather Fargo	City of Sacramento
Dan Burden	Walkable Communities
Steve Cohn	Council Member, City of Sacramento
Lauren Hammond	Council Member, City of Sacramento
Kome Aljise	Caltrans
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Marcie Ellis	Mercy San Juan Hospital
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Eugene Lozano	California Council of the Blind
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Mary Poole	City of Citrus Heights
Dennis Rogers	Supervisor Roger Niello's Office
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Kate Summerill	California Department of Health Services
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Mozell Zarit	California Department of Health Services
Tom Zlotkowski	Sacramento County Department of Transportation

Technical Experts

Bruce Landis	Sprinkle Consulting, Inc.
Jennifer Poole	Sprinkle Consulting, Inc.

Facilities and Resources Provided by

Surface Transportation Policy Project, for bringing Dan Burden to Sacramento
Local Government Commission, for assisting in Dan Burden's visit
Air Resources Board, training room
UC Davis Medical Center, conference room
City of Sacramento, McKinley Park meeting room
Secretary of State, auditorium and display area

Review, Comment and Input to Strategic Plan

Julie Bauer, Edward Becker, Mark Dumfort, Marisela Flores, Anne Geraghty, Bob Ireland, Eugene Lozano, Lu Lee, Anne Seele, Trinh Nguyen, Roxanne Woods

Hong Zhang, Project Director and
President
Snell Safe Educational Center, Inc.

PREFACE

Walking is basic. Yet, transportation and development patterns and our reliance on automobiles have severely reduced our freedom to walk and deprive us of the simplest means to health, wellbeing and transportation.

In preparing the Sacramento Pedestrian Summit Strategic Plan, the Safe Communities Pedestrian Coalition met and talked with numerous people from all walks of life, professions and businesses. We learned how profoundly the walking environment touches everyone. Every person has a story to tell about the decline in the walking environment and how it affects them, their families and their communities. We found a tremendous eagerness to improve the situation.

This Strategic Plan recommends many improvements to the walking environment. Because walking affects nearly every aspect of daily life, and involves so many people, it has been difficult to confine our recommendations to a few areas. In fact, the more we delved into the issues surrounding walking, the more the issues and questions have expanded.

The Sacramento community has a big job to do to create and support walkable communities. And as each of us is affected, so too, each of us must be involved in developing solutions. Each of our observations and ideas are needed as we rebuild the walking environment.

We call upon all who impact the safety of walkers to assess how they cause problems for pedestrians. We call upon major institutions to assess how their operations hinder or enhance walking and to develop plans to improve the walking environment in and around their facilities.

The Plan's recommendations are organized around the following topics: People and Participation; Planning and Analysis; Data Collection; Education; Engineering, Enforcement; Health and Wellbeing; and Funding.

Special attention must be given to accessibility for all citizens who are visually impaired or have mobility limitations. They truly are the pioneers as they courageously persevere to make their way on our dangerous streets and roadways. Our community must be accessible to all!

Sacramento Pedestrian Summit Strategic Plan Steering Committee

I. INTRODUCTION

We built a coalition.

Based on the networks of *Walk*Sacramento and SafeKids Coalition, a new coalition for pedestrian safety was formed soon after the Project began. The coalition became a valuable forum for private and public sectors of the community as well as all levels of government agencies to communicate and share resources. Coalition members represent various community-based non-profit organizations, health care systems, schools, businesses, law enforcement agencies, regional transit district, district PTA, representatives of neighborhoods and the disabled, concerned citizens, traffic engineering department of state, regional, county and city governments.

The coalition was informed and maintained through the Project web site, a newsletter, Pedestrian Level of Service training, work meetings, neighborhood meetings, and a Pedestrian Safety Summit Series of Meetings. Under the leadership of the Steering Committee, the Project also accomplished its objectives in building and maintaining the coalition, collecting local traffic and injury data, analyzing problems, conducting training, building consensus, sharing resources, planning strategies, and writing grant applications for future improvement projects.

We learned that solutions to traffic safety issues require collaboration of people and organizations with different expertise and approaches. The value of the coalition is reinforced in planning, maintaining, supporting, and accomplishing the Project's objectives. The level of enthusiasm, support and contributions for the Project have been very high from participating individuals and organizations providing what was needed to make the Project a success, such as expertise, time, equipment, meeting facilities, information, data and other resources.

Information and data collected was not limited to pedestrian safety. Traffic condition and road facility information, such as speed, volume, and level of service were collected. Traffic collision related injuries and fatalities were tallied from 1997 to 1999 and published in Project newsletter in the attached appendices. On the positive side, those statistics showed there was a decrease of injuries and fatalities corresponding to a decrease in the percentages of unhelmeted bicycle and motorcycle riders and unrestrained children. However, pedestrian and bicyclist related fatalities and injuries remained disproportionately high in Sacramento County, making up more a quarter of all traffic related fatalities and injuries.

The Steering Committee spent a good deal of time learning about the nature of the data and how it is collected and how to analyze the various data. While the project did not succeed in developing a combined traffic collision and injury

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database and GIS system as initially envisioned, it did position the Coalition and its members to begin to accomplish this synthesis in the future. It also lead to several insights about the location and severity of pedestrian injuries and underscored the urgency of measures to reduce the severity and frequency of such injuries while at the same time encouraging greater pedestrian usage on Sacramento's streets and roadways.

The findings and recommendations will serve as a blueprint and working document as the Coalition continues its work to make Sacramento a walkable community.

II. FINDINGS – WHAT WE LEARNED

The Safe Communities Pedestrian Project gathered information from various sources including meetings with interested individuals and organizations, training sessions with experts, and data gathering focused on specific topics of concern including: who is affected, where people walk, where is it safe to walk, and where pedestrian injuries and fatalities have taken place. The project also gathered information on what institutions and organizations are attempting to improve the pedestrian environment. These include law enforcement, transportation planning staff, traffic engineering, health professionals, and educators.

STAKEHOLDER CONCERNS

The stakeholders for pedestrian safety include people from nearly every “walk” of life.

- Pedestrians include people who walk: children in their neighborhoods, and walking to school, seniors, people walking to their jobs, people walking for health and recreation, people who don’t drive, people who speak other languages
- People in wheelchairs and the visually impaired.
- The health and medical community: emergency-first-responders, hospital emergency room staff, health insurance companies.
- People who enforce traffic safety laws: city and county police officers, the California Highway Patrol, district attorneys and traffic court judges.
- People who design, build and maintain our transportation system: traffic engineers, city and county planners, regional transit, railroad companies, trucking companies.
- People who drive: truck drivers, auto drivers, automobile insurance agencies, and automobile associations.
- Business and homeowners.
- Elected officials – city councils, supervisors, State legislators.

From the first kick-off meeting to the Pedestrian Safety Summit, similar issues were raised regarding problems and needs for pedestrian safety. These issues

included walkability, transit accessibility, stakeholder involvement, information, legislation, safety, pedestrian awareness and law enforcement.

At the Strategic Planning Meeting, participants identified the most significant problems as the lack of funding for pedestrian facilities, inconvenient pedestrian routes, institutional bias against pedestrians, and the need for separation of pedestrians from vehicles.

To address these problems participants recommended 1) a redistribution of funding between transportation modes with a greater share given to pedestrian facilities, 2) opening up policy-making to all pedestrian stakeholders, 3) an alternative modes awareness campaign, 4) linking databases related to pedestrian injury, collision and traffic to support planning and programs. 5) Accessibility by the visually impaired and disabled was an overarching concern of the participants.

WHERE PEOPLE WALK IN SACRAMENTO

Data on where people walk is limited. However, one source of data is fairly complete. This is the data from the census on how people get to work. This is taken every 10 years of 10% of the population. It documents all modes of travel including walking, biking, motorcycle, taxi, transit, rail, and car.¹ One can assume similar percentages of walking trips for other purposes. The data from 2000 is not yet available.

The percentage of people walking in Sacramento County varies significantly between neighborhoods. People who live in downtown neighborhoods and close-in neighborhoods are much more likely to walk to their jobs than people are in the suburbs. Countywide only 2.5% of the population walks to work. However, in the downtown area, 23.5% of residents walk to work. In the close-in neighborhoods, walking is much higher than the county as a whole. Most of these neighborhoods have sidewalks and many destinations within walking distance.

¹ This data is available over the Internet via 1990 Census Look-up Tables at <http://venus.census.gov/cdrom/lookup>. Select the zip code data base, enter the selected zip code and submit, choose "table" and submit, select information categories -- #1, 5, 49-53 are most useful for mode split, scroll back to top and submit. Then you have the numbers and you can calculate the percentages.

**Table 1
Percentage of People Walking to Work
in Sacramento County -- 1990 Census**

City	Zipcode	
Sacramento City		3.4%
Citrus Heights*	95610	2.0%
Elk Grove-Sheldon*	95624	2.3%
Folsom City		2.1%
Galt		2.1%
Neighborhood		
Downtown	95814	23.5%
Midtown	95816	8.4%
Med Center	95817	5.9%
Land Park	95818	6.2%
McKinley Park	95819	4.2%
American River College	95821	1.9%
Franklin/Mack	95823	2.5%
Freeport/City College	95822	1.7%
Elder Creek/Fruitridge	95824	1.5%
Fulton	95825	3.1%
Florin	95828	1.2%
Natomas	95833	1.0%
Auburn/San Juan	95621	1.3%
Fair Oaks	95628	1.4%
Orangevale	95662	0.9%
Rancho Cordova	95670	2.5%
*In 1990 these two cities were unincorporated.		

What this data suggests is that with the right conditions, many people will choose to walk for some of their trips. The older neighborhoods close to many destinations have a high proportion of walkers. In the outlying neighborhoods with greater distances between destinations, and wider and higher speed arterials, less people walk.

A recent travel survey prepared by DKS Associates for the Sacramento Area Council of Governments (SACOG) looked at all trips and found that 5.01 % are by walking. What the survey data indicates is that while only 2.6% percent of total work trips in the SACOG region are by walking mode, nearly 5.6 % of the remaining non-work trips are by walking. Work trips are approximately 18% of all trips.

This suggests that the neighborhoods in the above table with high percentages of walking trips to work have even much greater percentages of people walking for

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the rest of their daily trips. What this also suggests is that transportation planning that is focused primarily on the commute trips is unbalanced planning and not addressing the local neighborhood trip needs.

PEDESTRIAN INJURIES AND FATALITIES

Walking is dangerous in Sacramento County. The pedestrian portion of injuries and fatalities is much larger than the proportion of pedestrian trips to total trips. Whereas pedestrian trips are approximately 5% of total trips they make up between 21 and 28% of traffic related fatalities in the County.

In the City of Sacramento, from 1997 to 1999 (Tables 2-4), between 33 – 41% of traffic fatalities were pedestrians. For the unincorporated County area, between 23 – 37% of traffic fatalities were pedestrians. In 1997, 16 pedestrians were killed and 257 pedestrians were injured on the City of Sacramento's streets. On County roads, 14 pedestrians were killed and 219 injured.

Table 2
Sacramento County
Persons Killed and Injured in Traffic Collisions 1997 (Source SWITRS)

	Total Traffic Related		Pedestrians			Bicyclists			% of Total
	Killed	Injured	Killed	% of total	Injured	% of total	Killed	Injured	
Cities									
Citrus Heights	3	739	1	33%	26	4%		37	5%
Folsom	1	180		0%	10	6%		12	7%
Galt	2	58		0%	3	5%		4	7%
Isleton	0	0	0		0		0	0	
Sacramento	46	5,162	16	35%	257	5%	4	9%	316
Unincorporated area									
State Highways	39	1,245	1	3%	13	1%		0%	2
County Roads	61	5,581	14	23%	219	4%	5	8%	428
Total	152	12965	32	21%	528	4%	9	6%	799

In 1998, 6 pedestrians were killed on the City of Sacramento streets and 15 on County roads. In that year, 228 pedestrians were injured on City streets and 212 on County roads.

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**Table 3
Sacramento County
Persons Killed and Injured in Traffic Collisions 1998 (Source SWITRS)**

Cities	Total Traffic Related		Pedestrians				Bicyclists			
	Killed	Injured	Killed	% of total	Injured	% of total	Killed	% of total	Injured	% of total
Citrus Heights	7	595	1	14%	22	4%			31	5%
Folsom	1	206	0	0%	4	2%			4	2%
Galt	0	41	0		3	7%			3	7%
Isleton	0	0	0		0		0		0	
Sacramento	18	5,083	6	33%	228	4%	2	11%	233	5%
Unincorporated Area										
State Hwys	21	1,235	3	14%	6	0%	1	5%	5	0%
County Roads	41	5,717	15	37%	212	4%	1	2%	342	6%
Total	88	12877	25	28%	475	4%	4	5%	618	5%

In 1999, 13 pedestrians were killed on City of Sacramento streets and 14 on County roads. In that year, 252 were injured on City streets and 218 on County roads.

**Table 4
Sacramento County
Persons Killed and Injured in Traffic Collisions 1999 (Source SWITRS)**

Cities	Total Traffic Related		Pedestrians				Bicyclists			
	Killed	Injured	Killed	% of total	Injured	% of total	Killed	% of total	Injured	% of total
Citrus Heights	4	701	1	25%	25	4%			34	5%
Folsom	1	290	0	0%	8	3%			9	3%
Galt	0	74	0		3	4%			6	8%
Isleton	0	1	0		1		0		0	
Sacramento	32	5,421	13	41%	252	5%	1	3%	236	4%
Unincorporated Area										
State Hwys	22	1,065	2	9%	9	1%		0%	6	1%
County Roads	58	5,183	14	24%	218	4%	3	5%	317	6%
Total	117	12735	30	26%	516	4%	4	3%	608	5%

The SWITRS data is compiled by the CHP from collision reports submitted by local cities and counties and the CHP.

Most fatalities occur on high-speed arterials.

From January 1997 to May 2001, 48 pedestrians were killed on County roads in the unincorporated area; 45 of those fatalities occurred on higher speed arterials. The Collision Report Summary of these 48 fatal collisions prepared by County staff is included in the appendix.

The reporting of these collisions does not include the speed of the vehicle. And, in only a small percentage of the collisions is speed given as a factor in the collision. However, on most major arterials in the County, cars are traveling above the speed limits, except during the most congested periods of the day. In fact, in the later evening hours, some cars may be going as much as 20 miles per hour above the speed limit.

Potential auto bias in reporting: In reviewing the summary data on these collisions, “pedestrian error” is listed as one of the major reasons for the collision. However, limited anecdotal data suggests that there may be inherent auto bias in the reporting. For one thing, the pedestrian has either been killed or injured and is unable to give a good description of what happened. Additionally, as noted above, speed is generally not identified as a factor, when it is well known that drivers exceed the speed limit on most streets. Additionally, where crosswalks are unmarked, citing authorities likely assume pedestrian error – even though pedestrians have the legal right-of-way. In fact, legally, pedestrians have the right-of-way at all time even when there is no marked crosswalk.

LINKING DATA ON TRAFFIC RELATED COLLISIONS AND INJURY

The Sacramento Safe Communities Project started out collecting information about traffic related collision and injury data at the very beginning of the project. A series of meetings was held to discuss the potential benefits and problems to link traffic collision data with traffic injury and outcome data among representatives from California Dept. of Health Services, California Highway Patrol, SACOG (Sacramento Area Council of Government), County Coroner’s Office, County EMS office, County Sheriff’s Department, the Sacramento 911 Communication Center, the City Fire Department, City Police Department, Mercy Hospital, UC Davis Medical Center, Compu Council (a private contract with County EMS to manage injury data). Leslie Ray, an epidemiologist, was invited to discuss the process San Diego County had gone through to link a few traffic collision and injury data bases.

The organizations were enthusiastic about the data linking project and the benefits for local planning and program evaluation. However, the County EMS Department where the traffic injury data reside was unable to provide the data linkages. Therefore, the Safe Communities Coalition in coordination with the GIS section of the City of Sacramento, and with the Sacramento City Fire Department, as the lead agency, proposed a Traffic Injury Data Center to the California Office of Traffic Safety. While the proposal was not funded, the groundwork was laid to seek funding from other sources to accomplish the work.

Data collected for two areas

As part of this project, the study selected two areas for additional focus. The area surrounding Noralto School was selected because it included a school and so would focus on walk-to-school trips. The second area selected was the South Midtown Area. This area was selected because of a high travel and potential for pedestrian/vehicle collisions. It is also the focus of a special City of Sacramento traffic reduction study area, SMART.

Data for this area was incorporated into a GIS format. GIS maps of pedestrian injuries and fatalities were developed to test this format. These maps are included in Appendix A.

PEDESTRIAN INJURY AND SPEEDING VEHICLES

Speed is lethal to pedestrians. When hit by cars going above 50 mph, death is a much greater likelihood than at lower speeds. The effect of speed is pervasive. It is expected that most people are going at least 10 miles above the speed limit. Car advertising extols the virtue of power and speed and that with their car you can "own the road." Speeds that may be safe on freeways are not safe on roads that serve residential and commercial neighborhoods.

There is extensive literature on the relationship of driver speed and pedestrian injury and death. The higher the speed, the greater likelihood that a collision of a pedestrian will result in death or serious injury.

Speed	10	14	18	22	26	30	34	38
AIS	0.5	1	1.5	2.2	2.9	4	5.1	6.4

In addition, at higher speeds, drivers are less likely to see pedestrians in enough time to stop legally. A 1995 Conservation Law Foundation notes: "The likelihood that a pedestrian will be hit increases at higher speeds because a motorist's ability to take in the surrounding environment is more limited. At a speed of 30 miles per hour, a motorist has a field of vision ("peripheral vision angle") spanning approximately 150 degrees, and will fix his or her vision about 1,000 feet ahead. At 60 miles per hour, the motorist's field of vision is reduced by two-thirds to 50 degrees, and the motorist will fix his vision at 2,000 feet.³ What this

² Rudolph Limpert, *Motor Vehicle Accident Reconstruction and Cause Analysis*, Fourth Edition, Michie Company (Charlottesville), 1994, p. 663. (citation from Michael King, miking@trafficalmer.com)

³ Limpert, p. 546

means in daily life is that Motorists driving at 25 m.p.h. or faster have difficulty perceiving that a pedestrian is ready to cross a street, deciding to slow down, and actually doing so. The normal driver usually decides to speed up, assuming that another car will stop.⁴ Thus, from the point of view of pedestrian safety, widening a roadway is counterproductive.”⁵

The following information is included in Todd Littman’s report *Traffic Calming Benefits, Costs and Equity Impacts*:⁶

- Lower traffic speeds and volumes can significantly reduce the number and severity of vehicle crashes, particularly those involving pedestrians and bicyclists (C.N. Kloeden, A.J. McLean, V.M. Moore and G. Ponte, Travelling Speed and the Risk of Crash Involvement, NHMRC (Adelaide, Australia; <http://plato.raru.adelaide.edu.au/speed/index.html>), 1998).
- Each 1-mph traffic speed reduction typically produces a 5% reduction in vehicle collisions, and even greater fatality reductions. (D.J. Finch, P. Kompfner, C.R. Lockwood and G. Maycock, Speed, Speed Limits and Accidents, Transport Research Laboratory (Crowthorne, UK), Report 58, 1994; Barbara Preston, "Cost Effective Ways to Make Walking Safer for Children and Adolescents," Injury Prevention, 1995, pp. 187-190.)
- Pedestrian injury severity increases with the square of vehicle speed.(Traditional Neighborhood Development Street Design Guidelines, Institute of Transportation Engineers (Washington DC), June 1997, p. 18.)

WALKING AND HEALTH

It was recently reported that, HMO costs to employers are expected to rise this year between 15 and 30% due to the high costs of drugs and major medical expenses associated with heart disease and other chronic diseases. Walking has been shown to reduce these diseases and can thus save millions in health care costs.

A Newsweek recent edition on "health for Life" Noted that 56% people choose walking as their exercise mode. While walking is our preferred form of exercise, talking a walk is a challenge in communities with no sidewalks, wide, high-speed arterials, and estimations that are made more distant by deep setbacks for parked cars.

⁴ Untermann, Richard, Accommodating the Pedestrian: Adapting Towns and Neighborhoods for Walking and Bicycling, p. 175 (New York: Van Nostrand Reinhold, 1984).

⁵ Take Back Your Streets - How to Protect Communities from Asphalt and Traffic, (Conservation Law Foundation, Boston 1995) Price \$10.00; 617-350-0990, <http://www.tlcnetwork.org/download.html>, www.clf.org.

⁶ available at the VTPI website (<http://www.islandnet.com/~litman>).

"In the past fifty years or so, we've essentially engineered physical activity out of our daily lives" says Michael McGinnis, MD, senior vice president of The Robert Wood Johnson Foundation and director of its Health I Group. "From the way buildings and communities are designed to the dependence on the car for transportation to the advent of television and computers, we've become more passive than active in the way we live." (Quoted from "America, Get Moving: A Call to Action.")

The Centers for Disease Control offers a free set of Power Point slides on the topic of obesity trends in the U.S. from 1985 to 2000. This slide set -- even when only four or five are used -- is a dramatic presentation of the consequences (and magnitude) of the physical inactivity/obesity problem. As the authors say, "During the past 20 years there has been a dramatic increase in obesity in the United States. Currently, more than half of all U.S. adults are considered overweight, defined as having a Body Mass Index (BMI) of 25 or more. These data were derived from the Behavioral Risk Factor Surveillance System (BRFSS), a random-digit telephone survey conducted by the CDC and state health departments."⁷

⁷ The Power Point slides can be downloaded from:
<http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/index.htm>

III. POTENTIAL SOLUTIONS

A. PEDESTRIAN LEVEL OF SERVICE – What we learned from Bruce Landis

On April 5, 2000 the Sacramento Safe Community Project sponsored a Pedestrian/Bicycle Level of Service (LOS) workshop. Twenty people, from city, County and State agencies together with pedestrian and bicycle advocates, participated. Bruce Landis and Jennifer Poole of Sprinkle Consulting, Inc. presented the workshop. Participants learned how both the Pedestrian and Bicycle Level of Service methods were developed and how to use them in actual field situations

The Pedestrian LOS objectively quantifies the pedestrian's perception of safety within the roadside environment. The mathematical formula used to determine the Pedestrian LOS considers the following factors:

- sidewalks -- their presence and width
- lateral separation (the distance) between pedestrians and motor vehicle traffic
- presence of physical barriers and buffers between pedestrians and vehicles (this could include trees and parked cars)
- vehicle volume -- numbers of cars in a day
- vehicle speed
- percentage of truck traffic

The Pedestrian LOS formula can be calculated using an Excel spreadsheet. By entering the appropriate field measurements and conditions into the spreadsheet format, the Pedestrian LOS is be automatically calculated and displayed.

Participants received both on-site training as well as training and practice with the spreadsheet formulas. Participants went to several locations in Sacramento to take field measurements of the presence or absence of sidewalks, the width of the sidewalks, the distance from the traffic, the presence of buffers between the pedestrians, and the traffic. Participants then utilized the measurements taken to input the data into spreadsheets to determine the Pedestrian LOS.

The LOS methodology learned in the workshop was seen by participants as a useful tool in assessing both pedestrian and bicycle conditions. Additionally, it is easy for both citizens and professionals to learn, and provides a useful communication tool as well between citizens and professionals.

Both the Pedestrian and Bicycle LOS methodologies have been adopted by the Florida Department of Transportation. A large validation event was held in Florida with walkers following a route of varied pedestrian conditions. Their observations were statistically analyzed to validate the formulas developed.

Since the workshop, **WalkSacramento** has utilized the methodology to analyze several proposed roadway improvements. We learned that for a major arterial to be at Pedestrian LOS "C", it would need to have greater distance between the pedestrian and heavy traffic. This would necessitate a planting area enhanced by trees. This makes sense from a pedestrian experiential point of view. Greater protection is needed when high speeds and volumes are present. It is important for pedestrians to feel safe when they walk on arterials so that they are not deterred from making connections to their destinations.

B. WALKABILITY AND LIVABILITY -- What we learned from Dan Burden.

As part of the Sacramento Pedestrian Summit Series one day was devoted to meeting with national walking expert, Dan Burden. Dan led walkability audits of two neighborhoods -- Broadway and 15th Streets and in the vicinity of Greer School at the corner of Bell and Hurley Avenues.

GREER SCHOOL

Greer School is located in the unincorporated portion of the County north of the City Sacramento at the corner of Bell and Hurley Avenues. It is a K-8 school with 450 students. 34% of students at Greer walk to school. 100% of students live within 2 miles of the school.

Greer Elementary School had its first Walk to School Day October 2000. One hundred and sixty-seven students and seventy-five parents walked to school on Oct. 4. Volunteers from the school, Safe Kids Coalition, CHP, **WalkSacramento** and FedEx helped organize and participate in the activities. Students at Greer completed and turned in the walking assessment and walkability checklists and honored the class with the most participation with a pizza party.

A speed survey taken before Walk to School Day showed many cars exceeding the speed limit in the school zone. The CHP gave traffic citations to speeders in conjunction with Walk to School Day.

Traffic Conditions:	ADT (vehicles/day)
Bell Avenue:	7,033
Hurley Avenue:	3,685

In the evening, Burden presented key principles of walkable communities. Additionally, he offered specific suggestions and illustrations for the locations he visited during the day. Burden's visit to Sacramento was funded by the Surface Transportation Policy Project and the Local Government Commission.

Burden's talk was based on his Distinguished Lecture Presentation "Building Communities with Transportation" to the Transportation Research Board in January 2001 (available on his website at www.walkable.org).

Principle 1. Build for Everyone. -- all modes.

"A good first place to begin in reconstructing high quality urban places is to conduct an inventory of how many people walk, bicycle or use transit to

get to destinations. In a healthy central urban area it should be possible to look up or down streets and see people walking, bicycling, entering or exiting buses, and driving through the area. The health of a place is determined both by numbers of users, and by the diversity of people coming and going, lingering and exchanging. These people should be of all ages. Urban centers should have many young children and teenagers present. Many older adults and disabled people should be common."
Dan Burden

Principle 2. Scale for People. -- Burden urges that towns and neighborhoods be planned to the scale of walking. He noted that history has shown a distance of 1/4 mile to be the near perfect distance for people to walk and that towns developed to that scale are walkable and build community. Suburban areas can redevelop shopping plazas into village centers scaled to this walking radius.

Principle 3. Create Many Linkages. Many linkages make towns easy and interesting to walk. Keep new streets short -- 400 - 600 feet. This keeps traffic speeds in check and encourages walking and bicycling.

Principle 4. Streets have Multiple Uses. Burden illustrated the many purposes that well designed streets perform, "increasing neighborliness, association, belonging, acceptance, pride and play." In contrast, Burden pointed to how streets designed solely for high volume traffic become problems "breeding crime, litter, disrepair of properties and other social problems. "

Principle 5. Sidewalks Must be Comfortable.⁸ Burden stressed the importance of sidewalks. "Sidewalks need adequate width, buffers, continuity, connectivity and edges." Burden decried the practice of providing sidewalks in bits and pieces as development occurs so that there is never a complete sidewalk system. This is certainly a problem in Sacramento, especially in the suburban areas.

Burden also decried narrow sidewalks and noted that sidewalks must accommodate two people walking side by side -- at least five feet -- and when set next to the curb, a minimum width of 6 feet. Commercial areas need much wider sidewalks.

Burden noted that visual preference work throughout the country indicates that people of all socioeconomic groups want sidewalks with buffers and edges -- planter strips and trees. Burden's work supports the buffer criteria of the Pedestrian LOS methodology.

Principle 6. Streets must be crossed with ease. Burden lays out some key distances for street crossings. He noted that pedestrians do not want to go more than 150 feet out of their way to cross the street. Well-designed streets have

⁸ Burden's paper has two #5s, so this report re-numbers his principles accordingly.

convenient pedestrian crossings every 300 feet. When fewer crossings are available, Burden notes that people will cross sporadically or spontaneously creating unsafe, unpredictable movements. This is exemplified by Sacramento's suburban areas, which have arterials with minimal pedestrian crossings.

Principle 7. Keep Urban Traffic Dispersed and Low Speed. Burden stressed the importance of low speed streets that keep moving. "There is rarely justification for traffic to move at speeds above 30 mph in most areas, and 20 mph in some." He also noted that people don't object to slow speeds. What they object to is waiting at wide intersections that take a long time to cycle.

To achieve lower speeds, Burden has developed a concept called "road diets." This is when lanes are removed from streets that have excess capacity. Four-lane roads with 24,000 - 30,000 vehicles/day are candidates for "road diets" and can successfully be narrowed to two through-lanes and a middle turning-lane. Accidents are reduced significantly by these changes. (See Burden's web-site for a downloadable document on "Road Diets" -- www.walkable.org.) Burden also recommends narrower lanes to reduce speeds. He noted that Bellevue, Washington has a four-lane, median divided parkway with 41,000 vehicles per day and 10-foot travel lanes rather than the standard 12-foot lanes.

Principle 8. Keep Traffic Moving. People don't like waiting was the message that Burden stressed. They are curious, want to see things, and want to keep moving. It is not critical that speeds be high just that there not be a lot of waiting.

This concept certainly rings true in Sacramento. Driving on J Street is a pleasant experience even in congestion. Because there are many streets but no big arterial intersections, the waits are short. The time to travel the same distance on J Street may be the same or less than on Sunrise Boulevard but the experience is not the same. On Sunrise by contrast, you can go very fast and then get to the intersection of Sunrise and Madison and wait a much longer time for the lights to change.

Burden is enthusiastic about "Roundabouts" that enable cars to keep moving through intersections though slowly. However, the visually impaired have concerns about roundabouts that need to be addressed. They can confuse the blind pedestrian if not carefully designed.

Principle 9. Build Green Streets. Pedestrians want trees for shade and for beauty. Everyone loves trees and they, too, help slow traffic.

Principle 10. Build Bike Lanes. Bike lanes are good for everyone. For pedestrians, they add greater separation from the traffic, and they encourage bicyclists to use the street rather than the sidewalk.

Principle 11. Build Compact Intersections. This principle is similar to the street diet concept in that it makes sense to build just what is needed for all modes. When too much space is given to cars with many turn lanes and wide radius turns, the vehicles go fast and pose a danger for pedestrians. Burden noted the well-planned intersections on Washington D.C.'s Pennsylvania Avenue which handle large numbers of vehicles as well as pedestrians. He noted the importance of channelized islands and medians as well as stop bar placement to reduce motorists from entering the crosswalks and endangering pedestrians.

Principle 12. Provide ADA Access. As Burden notes, “Meeting ADA is not only a U.S. Civil Act requirement; it is the best way to meet the needs of all people of all abilities.” Meeting ADA requirements is challenging but there are many approaches both in street design and in signal technology. Burden goes on “There are no easy technological fixes. Although new guidelines are being written and tested, the issues are highly complex. A simple street crossing should be made in a way to help people navigate to a crossing point, make easy entry, detect the exit, find no barriers along the way, and make convenient and efficient exits. Simple in concept, the many elements of streets make this treatment hard to achieve.”

The Pedestrian Safety Summit included many from the disabled and visually impaired and they had an extensive dialogue with Dan Burden. We have many individuals dedicated to finding solutions to ADA access problems.

Principle 13. Build Public Space. Dan Burden emphasized the importance of creating public spaces for communities to congregate and to support them in being a community. These are the spaces that have public events, farmers markets, music, and just space to congregate informally. Burden notes streets should be considered as public spaces as well.

Burden also noted that people will use public spaces when they are located within short walking distance of their homes or places of work and thus he stressed the value of small pocket parks that can be located within 3 minutes walk.

Principle 14. Build With Proper Size and Scale. Burden notes the importance of small-scale parks, commercial centers, grocery stores, and schools. The larger “big box” retail stores do not support neighborhoods and walking. People must drive long distances and bring a car to cart their goods home. By contrast, small-scale shops encourage walking access. He noted that Palo Alto now does not allow grocery stores to be larger than 30,000 square feet – a scale that is appropriate to the neighborhood.

This concept is certainly applicable in Sacramento’s urban and suburban neighborhoods.

Principle 15. Provide Mixed Uses and Mixed Incomes. Mixed uses means people can walk from one use – their home or workplace – to another use – shops, restaurants. Burden offered many examples of new developments that are offering mixed use in their design.

It is interesting to note that the neighborhoods in Sacramento with the most walking are the ones with many uses in close proximity –things to walk to.

C. TRANSIT PEDESTRIAN RELATIONSHIPS

The Sacramento Regional Transit District (RT) held several workshops with community participants to draft plans to make Light Rail stations more “livable”. Their intention is to support mixed use, compact development that encourages transit ridership. The community was encouraged to participate and help them plan the station areas.

WalkSacramento representatives participated and stressed that livability really means walkability – the ability to access many destinations within safe walking distances. **Walk**Sacramento urged RT to consider a 1/2-mile radius around the light rail stations in planning for pedestrian access and to support pedestrian improvements in this 1/2-mile radius -- even those that may not be on RT property. **Walk**Sacramento urged staff planners to plot the movements of walkers so that the site details encourage not discourage pedestrians. Often trees and objects are in the way of pedestrians. Walkers want to walk the shortest distances and will avoid circuitous routes. This means locating pedestrian crossings to the advantage of pedestrians (rather than to the advantage of drivers).

Transit waiting areas should be generous with benches, shelters and shade trees for the comfort and protection of patrons.

WalkSacramento encouraged RT to consider pedestrian access in all of its decisions. The City of Sacramento is considering returning many one-way streets to two-way to calm the streets and make them pedestrian-friendly. While this action will cause buses as well as cars to take a little more time, it will significantly improve the pedestrian environment.

D. STOCKTON'S CROSSWALK STING OPERATION

During the time of the project, the City of Stockton Police Department conducted a crosswalk sting operation. A police officer posed as a pedestrian and tried to cross the street. When cars did not stop, other officers farther down the block ticketed them. The day was very successful and resulted in heightened awareness of pedestrian rights. This is a technique that could be used in Sacramento. The following is part of the article that appeared in the Stockton Record following the sting operation. The conditions are very similar to conditions in Sacramento.

Crosswalks Sting 114 Police ticket right-of-way offenders

*By Leilani Nisperos
Stockton Record Staff Writer*

For the 114 motorists handed traffic tickets Tuesday in a Stockton Police Department sting operation, the \$54 fine was a not-so-gentle reminder to yield the right of way to pedestrians. The five-hour sting at seven Stockton intersections was prompted by complaints and an increase in pedestrians being hit by cars, said Sgt. Mike Evans of the traffic division. Seven pedestrians have died on city streets over the past year and a half, he said.

The sight of motorcycle officers pulling over inconsiderate drivers brought compliments from some pedestrians. "I probably cross the street at Lincoln and Acacia 10 times a day, and only every seventh car stops," said Susan Wilson, 47, who works at Dameron Hospital. Shauna Hill, 21, who lives down the street from the Harding Way and Commerce Street intersection targeted by officers Tuesday, said she felt good seeing the officers at work. "I don't like that street, because it's dangerous," she said. In some areas, traffic was moving so fast the plainclothes officers acting as decoys had a tough time getting far enough into the intersection for a violation to take place, said Sgt. Troy Broddrick, who was heading one of the motorcycle teams.

IV. COLLABORATION & PARTNERSHIP

IV. COLLABORATION & PARTNERSHIP

The Safe Communities Program has provided the framework for an expanding, evolving coalition of people and organizations interested in safe streets for walking. Some of the groups are highlighted below. Many have already been mentioned in this report.

PEOPLE & PARTICIPATION

Individuals from many organizations and public agencies participated in the Sacramento Pedestrian Safety Summit Forum on March 8, 2001.

Organizations:

- ACB Capitol Chapter, California Council of the Blind
- ACORN
- Adopt a School Foundation
- CA Coalition for Children's Safety and Health
- California Bicycle Coalition
- Center for Civic Partnerships
- Community Price, Placerville City
- Del Paso Manor
- ECOS
- Elk Grove USD
- Fehr & Pehrs
- Gray Panthers
- Irune Foundation
- Latino Issues Forum
- League of Women Voters
- Local Government Commission:
- March of Dimes
- Older Woman's League (OWL)
- Planning and Conservation League
- PSOMAS
- SABA – Sacramento Area Bicycle Advocates
- SACTEN
- SAFE Kids Coalition
- SeeArt
- Snell Safety Center
- Surface Transportation Policy Project (STPP)
- **Walk**Sacramento
- WP/CANA

Neighborhood Groups:

- Arcade Creek Neighborhood Association
- Boulevard Park Neighborhood Association
- Fremont Park Neighborhood Association
- Land Park Community Association
- Natomas Community Association
- SOCA – Sacramento Old City Association
- Tahoe Park Neighborhood Association
- Washington Park Neighborhood Improvement Group

Government Agencies:

- CA Franchise Tax Board
- CADA
- California Department of Health Services
- California Fish & Game
- California Main Street, Department of Commerce
- Caltrans
- Carmichael School
- CHP – California Highway Patrol
- Citrus Heights Planning Commission
- City of Davis
- City of Sacramento
- County of Sacramento
- Legislative Analyst Office
- Mitchell Middle School
- Paratransit
- Sacramento County DHA
- Sacramento County Disability Advisory Committee
- Sacramento County Disability Compliance Office
- Sacramento Fire Department
- Sacramento Housing & Redevelopment Agency
- Sacramento Metropolitan Air Quality Management District
- Sacramento Police Department
- Senate Environmental Quality Committee
- UCD Medical Center
- UCSF

EDUCATION & SCHOOLS

Mayor Heather Fargo introduced Dan Burden at the Pedestrian Safety Summit in March, stayed for the entire presentation and expressed commitment to utilize the approach that Burden presented in solving some of Sacramento's dangerous streets. The Mayor is working with **WalkSacramento** and the Local Government Commission to bring Dan Burden back to Sacramento for a major training event for City and County planning and traffic engineering staff.

Members of the Sacramento Safe Communities Coalition participated in programs and projects related to creating a safer environment for children walking to school and teaching children safety awareness. Some of these include:

- **Walk to School events** – The Safe Kids Coalition and its member groups helped organize walk-to-school events at 2 schools in 2000 and 5 schools in 2001. Federal Express provided funding both years. The schools that participated included: White Rock, Greer, Noralto, Pacific, and Mission.
- **Safe Routes to School Applications** – The lead organizations in the Safe Communities project were instrumental in helping develop and supporting a City of Sacramento Safe Routes to School proposal in the amount of \$500,000 for Noralto and Smythe Elementary Schools. The proposed changes included a new traffic signal, with a pedestrian only phase, near Smythe school; an upgraded traffic signal at Noralto school to include a pedestrian only phase; widening a sidewalk on a street adjacent to Noralto school; replacing overlaid undulations with a raised crosswalks on the street in front of Noralto school; associated signage, stripping and curb ramps at appropriate locations at both schools; public outreach and education at both schools.
- **UC Davis Medical Center's Pedestrian Safety Project** -- The Pedestrian Safety Project is a project of the Medical Center's Trauma Prevention and Outreach Program. The project educates children on the importance of pedestrian safety through experiential workshops held in schools in which children walk through a mini-city and interact with traffic scenarios that they may encounter on their way to school.

The project works with school administrators to identify pedestrian safety issues at school sites. Data collected is made available to school districts, law enforcement agencies, and other community organizations. The Project trained 31 volunteers from agencies in the Greater Sacramento area including Department of Health, the Sacramento Police Department, the California Highway Patrol, the Sacramento Sheriff's Department and other community agencies on pedestrian safety.

- **Safe Routes to School Sacramento** – The California Bicycle Coalition (CBC) has initiated a program working with schools to increase walking and biking to schools and to improve the safety of children already biking and walking. The program is now working in four schools – Pacific Elementary in Lemon Hill in South Sacramento, Noralto in Del Paso Heights, Winn and Abraham Lincoln Elementary schools in Rancho Cordova-McClellan area.

PLANNING

- **Sacramento County Pedestrian Master Plan** – The County has just released its request for proposal (RFP) to hire contractors to prepare the County's Pedestrian Master Plan. *WalkSacramento* provided recommendations on what should be included in the plan and will be participating actively as this work goes forward.
- **American Lung Association's Clean Air Vision** – The Lung Association's Clean Air and Health Policy Committee developed recommendations for creating walkable communities in the Sacramento metropolitan region. These recommendations will be part of a policy paper on this topic that will be included in a Regional Policy Report. *WalkSacramento* members participated in developing these recommendations (included in Appendices).
- **Sacramento County community plan updates** – Community planning is underway in several areas of the County. *WalkSacramento* members are involved in the Arcade Community Planning process.
- **Transportation Corridor Projects** – Citizen advisory committees for transportation corridor projects are including representatives from pedestrian advocacy groups. Examples include the Hazel Avenue CAC and the South Watt Avenue CAC.
- **RT Livable Communities Program** – Regional Transit has held numerous community outreach meetings to help plan livable, walkable communities adjacent to their new and existing light rail stations.
- **SACOG Transportation Roundtable** – SACOG's Roundtable includes pedestrian advocates and is committed to developing a multi-modal transportation plan.
- **Transportation Air Quality Collaborative** – Pedestrian advocates are participating in this long range consensus building project.
- **Caltrans** – Caltrans has a new commitment to multi-modal transportation projects exemplified in their Directive 64 requiring accommodating pedestrians and bicycles on all new roadway projects.

(www.fhwa.dot.gov/environment/bikeped/Design.htm.) Caltrans is also developing guidance and training to support this policy.

DATA & ANALYSIS

- **County of Sacramento Data** – The County of Sacramento has a traffic collision database and a GIS framework to view the data.
- **City of Sacramento Data** – The City has a traffic collision data and a GIS framework. The City also has roadway traffic volumes available on the web at www.pw.sacto.org/traffic/counts.html.
- Both the City and County have made their data available to the Sacramento Safe Communities Project.
- **UC Medical Center, Trauma Prevention & Outreach** – The Trauma Center through the SAFE Kids Coalition was instrumental in bringing together hospital intake data related to childrens' injuries including pedestrian injuries. This was a groundbreaking accomplishment and is expected to yield increased data coordination in the future.

ENGINEERING

- **SMART Traffic Calming Committee** – The Safe Communities Project selected the South Midtown area as a target communities. The Safe Communities Project provided maps showing pedestrian and bicycle injury for the area and worked with the SMART Committee to support actions to slow traffic to enable more people to walk more safely. The Committee, staffed by the City's Neighborhood Traffic Management Program, is one of several neighborhoods working with the City on neighborhood traffic calming.
- **Traffic Calming guidelines** – The City of Sacramento is in the process of drafting Traffic Calming Guidelines for new development. The City involved pedestrian advocates in two focus group sessions to help define what kind of traffic calming to support.
- **Curb extension program on new & older streets** – The City is committed to providing curb extensions to sidewalk intersections on busy streets. New curb extensions are encouraged on all new development and redevelopment. Examples include the curb extensions next to the new CalEPA building at 11th & I Streets.
- **Downtown Two-way Conversion Program** – The City is studying the feasibility of returning one-way streets in the downtown and mid-town area to two-way. Pedestrian and bicycle advocates are participating in the citizen advisory committee on this project.

ENCOURAGEMENT, HEALTH & WELLBEING

- **50+ Wellness Center** – The City’s 50+ Wellness Center has an ongoing program to organize and support neighborhood walking groups. The Center’s newsletter publicizes walking and other exercise opportunities. The Center supported the Pedestrian Safety Summit by providing printing and mailing announcements of the program.
- **Walking events** – WalkSacramento’s website lists local walking events organized by various walking, environmental and nature groups. See www.walksacramento.org.

V. RECOMMENDATIONS

A. PEOPLE AND PARTICIPATION -- It is imperative to involve all categories of walkers in the transportation and health policy-making process at all levels -- project, cities, County and region so that plans and policies address the specific needs of walkers.

<p>What is Needed</p>	<ul style="list-style-type: none"> ● Safe Communities Coalition: Continue and expand the coalition of organizations involved in pedestrian issues. ● Create a Countywide Pedestrian Safety Advisory Committee (or committees) to participate in the development of pedestrian master plans and to comment on significant development projects. Have all cities designate representatives. ● Create a Safe Routes to School and Walk to School Day Countywide coordinating Committee which would include representatives of school districts, Safe Kids Coalition and other participants in the Walk to School Day programs and Safe Routes to School programs.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● Safe Kids Coalition, WalkSacramento, the Snell Safety Center, the Sacramento Chapter of the California Council of the Blind, Surface Transportation Policy Project (STPP), Sacramento Area Bicycle Advocates (SABA), Friends of Light Rail, Gray Panthers, etc ● Representatives from all cities in the County and Regional Transit ● School districts, parent-teacher organizations, neighborhood organizations. ● People in wheelchairs and the visually impaired. ● Senior citizen groups ● Health organizations and agencies ● Traffic engineers, planners, law enforcement representatives ● Elected officials
<p>What is the timeframe</p>	<ul style="list-style-type: none"> ● Countywide Safe Routes to School and Walk to School coordinating committee to be initiated in November 2001. ● Pedestrian Advisory Committee anticipated to be appointed early in 2002.
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> ● Transportation funding programs ● Department of Health Services ● Approach City & County for seed money to continue Coalition.

Sacramento Pedestrian Summit Strategic Plan

B. PLANNING -- Integrate pedestrian needs into the planning processes of the cities, County, educational institutions, transit agencies and Sacramento Area Council of Governments (SACOG).

<p>What is Needed from whom</p>	<ul style="list-style-type: none"> ● Cities and County: Prepare and adopt comprehensive pedestrian master plans for the County and the cities in the County. Revise subdivision and zoning ordinances to support pedestrian safety and accessibility. ● Sacramento Area Council of Governments (SACOG): Include a pedestrian element in the metropolitan transportation plan. ● Sacramento Regional Transit: Prepare and adopt a transit-pedestrian accessibility plan for Light Rail stations and transit network. ● Colleges and Universities: Develop and implement pedestrian circulation plans for major educational institutions centers including: CSUS, Los Rios Community Colleges, and UC Davis Medical Center. ● Schools and school districts: Prepare and implement Walk-to-School plans for schools in Sacramento County. ● Adopt policy to develop fully multi-modal system– All jurisdictions can adopt Caltrans’ Deputy Directive 64 to accommodate pedestrians and bicycles on all new roadway projects. (www.fhwa.dot.gov/environment/bikeped/Design.htm.)
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● Cities and County planning departments and transportation departments and SACOG ● Sacramento Regional Transit ● Colleges and universities ● Schools and school districts, parents, students ● Stakeholders
<p>What is the timeframe</p>	<ul style="list-style-type: none"> ● Ongoing
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> ● Transportation funds ● SB 10 Safe Routes to Schools ● State Department of Health Services ● Caltrans special project funds

C. DATA & ANALYSIS -- Data on pedestrian needs is crucial to planning to meet those needs. Data analysis is needed of pedestrian injury and fatalities, street walking conditions, and traffic conditions related to pedestrian concerns such as speeds and volumes.

<p>What is needed</p>	<ul style="list-style-type: none"> ● Link pedestrian collision and injury databases of the Sacramento City Police Department, Sacramento County Sheriff's Department, California Highway Patrol, Sacramento hospitals, Emergency Management System (EMS), Health & Human Services Data. ● Inventory the Pedestrian Level of Service of city and county streets and roadways. ● Update speed surveys for major streets and arterials. ● Develop integrated countywide GIS system to enable analysis and correlation between the engineering and injury databases. ● Provide public accessibility to data through integrated web-site.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● City and county data management departments ● Hospitals and emergency medical support (EMS) ● Law enforcement ● Transportation departments ● Planning departments ● County Health Department
<p>What is the timeframe</p>	<ul style="list-style-type: none"> ● Apply now for grant funds to bring together relevant agencies to put together the integrated database. Build on grant proposal to the Office of Traffic Safety (OTS) for this submitted earlier this year by this program to be directed by the City of Sacramento Metropolitan Fire Department.
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> ● Caltrans planning grants ● California State Office of Traffic Safety

D. EDUCATION

<p>What is needed</p>	<p>Short term:</p> <ul style="list-style-type: none"> ● Training for cities and County transportation and planning staff on pedestrian facility analysis and design. Ensure that traffic engineers, planners and elected officials are made aware of the problems and needs of pedestrians. Traffic engineers are responsible for designing new roadways and widening or retrofitting older roadways. Training and education programs can help traffic engineers balance the needs of pedestrians with those of other transportation modes. ● County-wide training program: Mayor Heather Fargo’s involvement in the Pedestrian Safety Summit has spurred a county-wide education effort with Dan Burden for city planning staff and commissioners, traffic engineers and elected officials. The Local Government Commission is working to bring this about. <p>Longer term:</p> <ul style="list-style-type: none"> ● Expand training and education for the business community, traffic officers, developers and the general public. ● Expand DMV drivers license questions on pedestrian rights. ● Develop communications strategy with the media to create public service announcements on pedestrian safety issues and an alternative modes awareness campaign.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● Mayor Heather Fargo and other elected officials ● Local Government Commission ● Cities and County transportation and planning staffs ● Department of Motor Vehicles (DMV) ● Health organizations and agencies ● Businesses such as Federal Express, AAA, etc. ● SAFE KIDS Coalition PR Committee ● Local news media ● Neighborhood organizations
<p>What is the timeframe</p>	<ul style="list-style-type: none"> ● County-wide sessions with Dan Burden are being planned for the Fall 2001 or early in 2002
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> ● State Office of Traffic Safety ● State Department of Heath Services ● Private foundations - various ● As part of the County's Pedestrian Master Plan program

E. ENFORCEMENT & PEDESTRIAN RIGHTS

<p>What is needed</p>	<ul style="list-style-type: none"> • Enforce speed limits – Speeding vehicles is one of the greatest dangers to pedestrians. • Enforce crosswalk rules. Carry out crosswalk sting operations to remind drivers of crosswalk rules. • Sidewalk obstructions – Enforce restrictions against parking on sidewalks. • AB 2767 Implementation – The County and cities within the County should develop policies and procedures for implementing AB 2767. AB 2767 changed the California Motor Vehicle Code to allow pedestrian and bicycle safety and residential density to be considered as factors in engineering and traffic surveys to set speed limits. This will hopefully result in lowering speed limits on arterials and collectors where pedestrian and bicycle safety is an issue. • Pedestrian collision reports: Review current injury and collision reporting to be sure that critical factors to understanding pedestrian collisions are included, such as: average speed of roadway at time of collision, nearest crosswalk both marked and unmarked, and average daily traffic (ADT) of roadway. • Pedestrian rights – Provide information on pedestrians’ legal rights to the public, to drivers, to pedestrians, and to enforcement personnel. • Expand enforcement capability with additional CHP and city traffic officers.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> • Law enforcement including CHP and city police departments • Transportation departments
<p>What is the timeframe</p>	<ul style="list-style-type: none"> • Ongoing
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> • California Office of Traffic Safety • City of Sacramento Police Department

F. ENGINEERING

<p>What is needed</p>	<ul style="list-style-type: none"> ● Safe sidewalks: Bring all roadways to Pedestrian Level of Service "C" or better. Recommended priority method to achieve this is for walkways on arterials to be separated from traffic by planter strips with trees and vertical curbs. ● Remove barriers from sidewalks. ● Safe Street Crossings -- Design, build and illuminate pedestrian crossings to enable safe passage for all pedestrians at reasonable locations (every 300 feet) on major arterials. Mark (paint) all legal crosswalks on major roadways with 12,000 or fewer vehicles/day. Provide audible signals on major roadways and arterials. Pilot test in-street lighting technology. ● Speed management -- Set roadway speed limits based on the safety of pedestrian users. Design roadways to reduce excessive speed. Reduce the number of lanes where there is excess capacity (roadway diets for roads with ADT of 25,000 or less). ● Pedestrian street design criteria -- Adopt design criteria to ensure that new and widened streets are built to maximize pedestrian safety, comfort and accessibility. ● 10-year funding plan -- Major funding is needed for pedestrian improvements. Prioritize implementation based on safety and latent demand. Calculate pedestrian latent demand by calculating the number of potential walkers times the number of nearby destinations.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● All transportation departments of cities and County. ● Elected officials. ● Stakeholders.
<p>What is the timeframe</p>	<ul style="list-style-type: none"> ● Ongoing
<p>Grants & funding opportunities?</p>	<ul style="list-style-type: none"> ● Transportation funding sources.

G. ENCOURAGEMENT, HEALTH & WELLBEING

<p>What is needed</p>	<ul style="list-style-type: none"> ● Continue and expand Sacramento’s involvement in the International Walk to School Day (October 2nd this year). ● Community-wide Walk-to-School events. Use the City of Oakland's model program that involved the City Council and city departments to create a citywide event. This program has resulted in greater awareness of pedestrian problems and numerous improvements, and national recognition and funding. ● Create Safe Walk-to-School coordinating committee. ● Create a neighborhood walking program -- Build on the City's existing walking program "50+ Wellness Walking Groups." Create a network of neighborhood walking events to encourage walking in neighborhoods and encourage neighborhood walkability plans. ● Support Walking School Buses -- This is being done now at Pacific and Noralto schools to support children walking together as a walking school bus.
<p>Who needs to be involved</p>	<ul style="list-style-type: none"> ● Schools ● Neighborhood groups ● Parks and recreation agencies ● Health departments and health organizations ● Other stakeholders
<p>What's the timeframe</p>	<ul style="list-style-type: none"> ● Walk to School “wrap-up” meeting will be held November 8th.
<p>Grants & funding opportunities</p>	<ul style="list-style-type: none"> ● California Department of Health Services ● Caltrans ● Private sector businesses such as Federal Express, Johnson & Johnson ● Private foundations