



Green Communities: Promoting Healthy Activity and Food Through Community Design

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Local Government Commission

Common Ground: Environmental Public
Health in California

Sacramento, CA
May 2, 2008

Local Government Commission

- Nonprofit membership organization based in Sacramento, CA of local government officials – elected and staff
- Founded in 1979 to work on solar energy
- During 1980s expanded to work on environmental issues: pollution prevention, waste management, hazardous waste
- 1991: Started working on land use issues



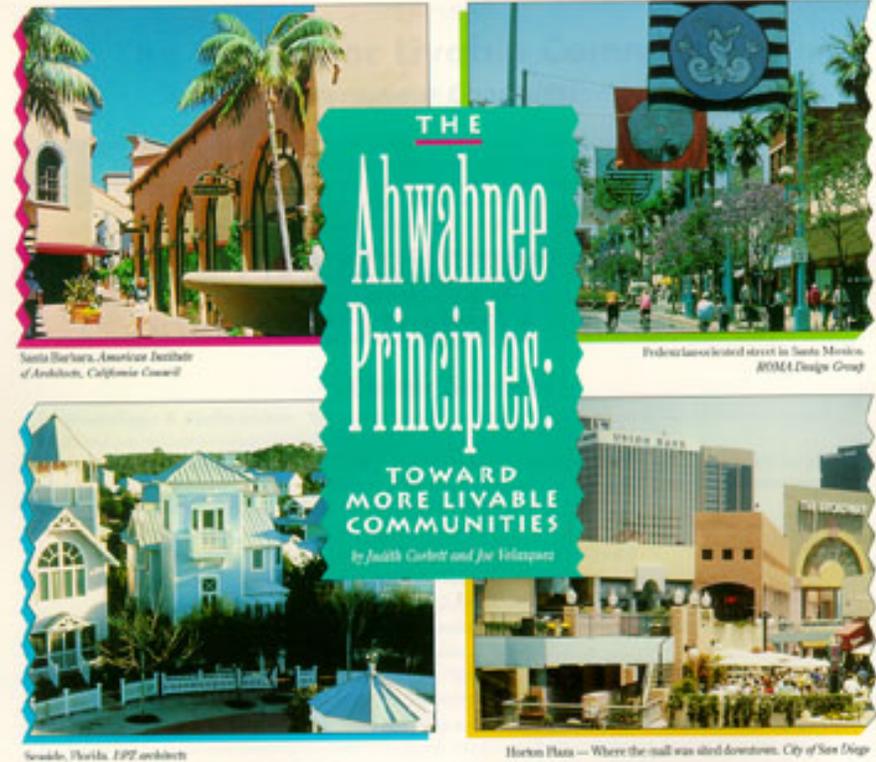
The Ahwahnee Principles, 1991

- Response to our members' concerns over sprawling, poorly planned development in their communities
- Assembled with assistance from leading architects and planners working on innovative solutions



The Ahwahnee Principles, 1991

- Planning complete and integrated communities with mix of uses
- Different uses should be in walking distance of one another
- Within walking distance of transit stops
- Should contain a diversity of housing types
- Should have a center focus



Cities everywhere are facing similar problems — increasing traffic congestion and worsening air pollution, the continuing loss of open space, the need for costly improvements to road and public services, the inequitable distribution of economic resources, and the loss of a sense of community. The problems seem overwhelming and we suffer from their consequences every day. City character is blurred until every place becomes like every other place, and all adding up to No Place.

Many of our social, economic and environmental problems can be traced to land use practices adopted since World War II. In the late 1940s we began to adopt a notion that life would be better and we would all have more freedom if we planned and built our communities around the automobile. Gradually, rather than increasing our freedom, auto-oriented land use planning has reduced our options. Now, it takes much more time than it used to carry out our daily activities. We must go

everywhere by car — there is no other option. We must take a car to the store for a gallon of milk, drive the children to Little League practice, even spend part of the lunch hour driving to a place to eat. And as roads become increasingly clogged and services farther from our home, we spend our time as anonymous individuals waiting for the traffic light to change rather than chatting with friends at the corner store or playing ball on the lawn with the neighborhood kids.

LEAGUE OF CALIFORNIA CITIES



Leadership for Healthy Communities

Advancing Policies to Support Healthy Eating and Active Living



NATIONAL LEAGUE OF CITIES

Strengthening & promoting cities as centers of opportunity, leadership and governance



NCSL



LOCAL
GOVERNMENT
COMMISSION



The United States Conference of Mayors

usmayors.org



American Association of
School Administrators

Alternative Patterns of Development



Traditional
Walkable

Conventional
Automobile-Oriented



93 NORTH
LEFT LANE

Hardee's

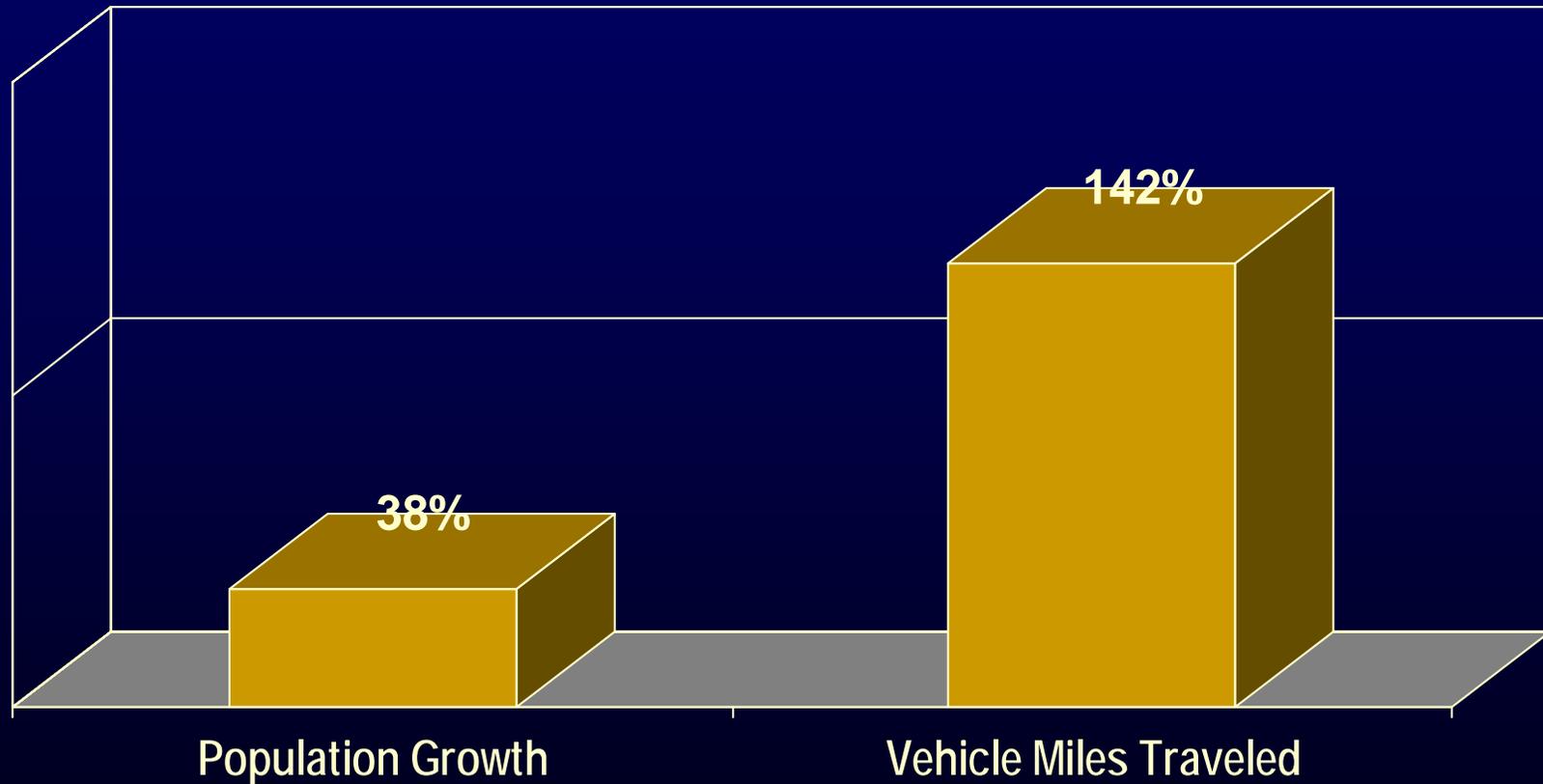
Chevron

FAIRWAY

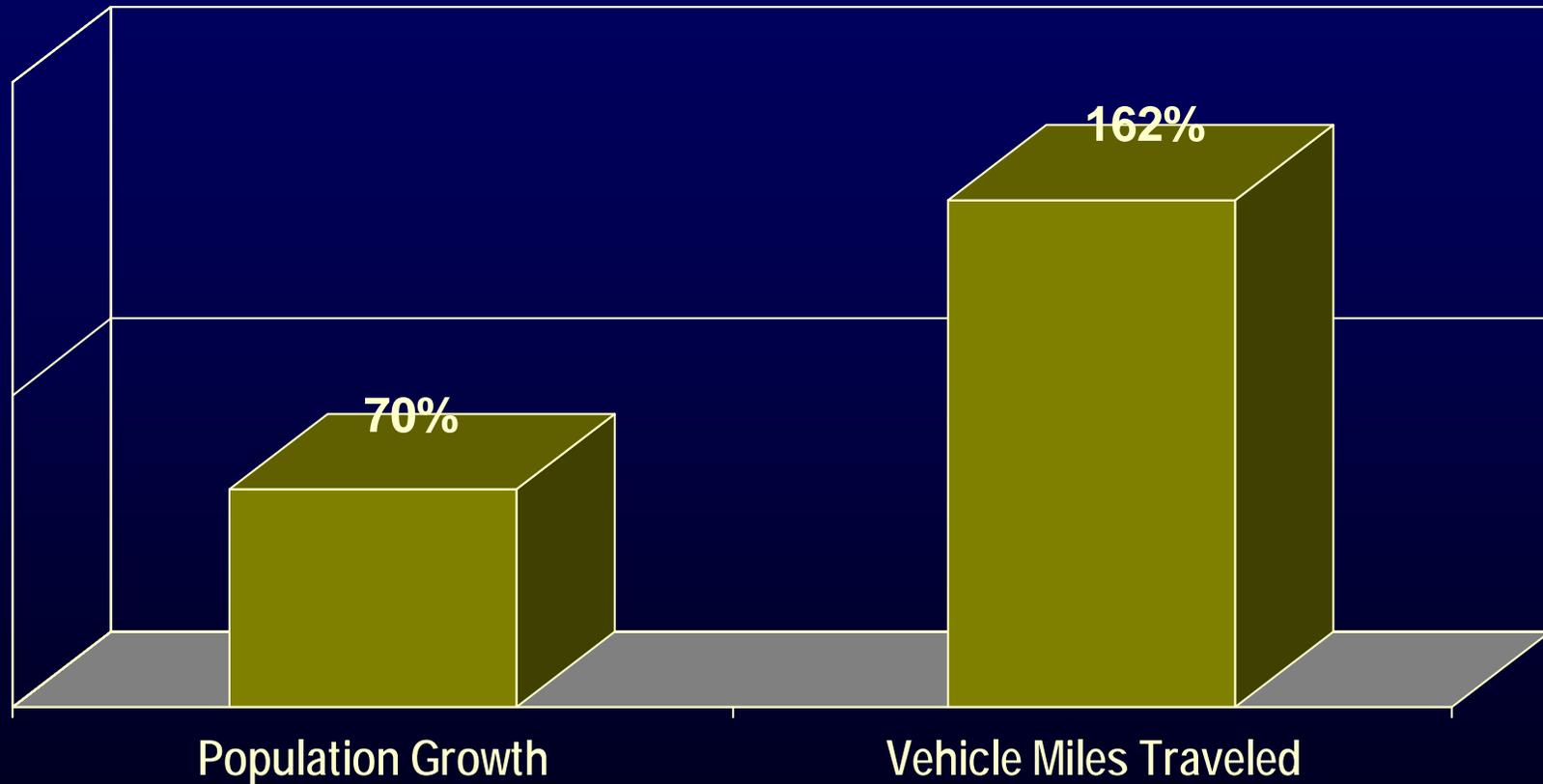
Liquor Store

WESTERN FEDERAL

U.S. Population Growth and Transportation – 1970-2000



California Population Growth and Transportation – 1970-2000







Projected Growth in Selected California Counties

County	2000	2010	2020	2030
Fresno	803,401	949,961 18.2%	1,114,654 17.3%	1,297,476 16.4%
Riverside	1,553,902	2,165,148 39.3%	2,675,648 23.6%	3,180,411 18.9%
Orange	2,854,026	3,260,162 14.2%	3,526,144 8.1%	3,665,343 3.9%
Sacramento	1,230,465	1,555,848 26.4%	1,946,679 25.1%	2,293,028 17.8%
California	34,043,198	39,246,767 15.3%	43,851,741 11.7%	48,110,671 9.7%

Source: California Dept. of Finance, Population Projections for California and Its Counties 2000-2050



The Disappearing Walk to School

- 1 in 4 trips made by 5-15 year olds are for the journey to and from school.
- Only 10% of these trips are made by walking and bicycling.
- Of school trips one mile or less, about 28% are walk-based and less than 1% are bike-based.



The Disappearing Walk

- One fourth of all trips people make are less than one mile, yet three-fourths of these short trips are made by car

Source: Nationwide Personal Transportation Study (NPTS), 1970, 1990, 1995



It's the Community Design...



“Reliance on physical activity as an alternative to car use is less likely to occur in many cities and towns unless they are designed or retrofitted to permit walking or bicycling. The location of schools, work sites, and shopping areas near residential areas will require substantial changes in community or regional design.”

— Journal of the American Medical Association, Editorial, 10/27/99



The good news...

“Physical activity need not be of vigorous intensity for it to improve health.”

— Report of the Surgeon General on “Physical Activity and Health,” 1996



The good news...

- Significant health benefits can be obtained through moderate amount of physical activity on most days of the week:
 - 30 minutes of brisk walking or raking leaves
 - 15 minutes of running
 - 45 minutes of playing volleyball

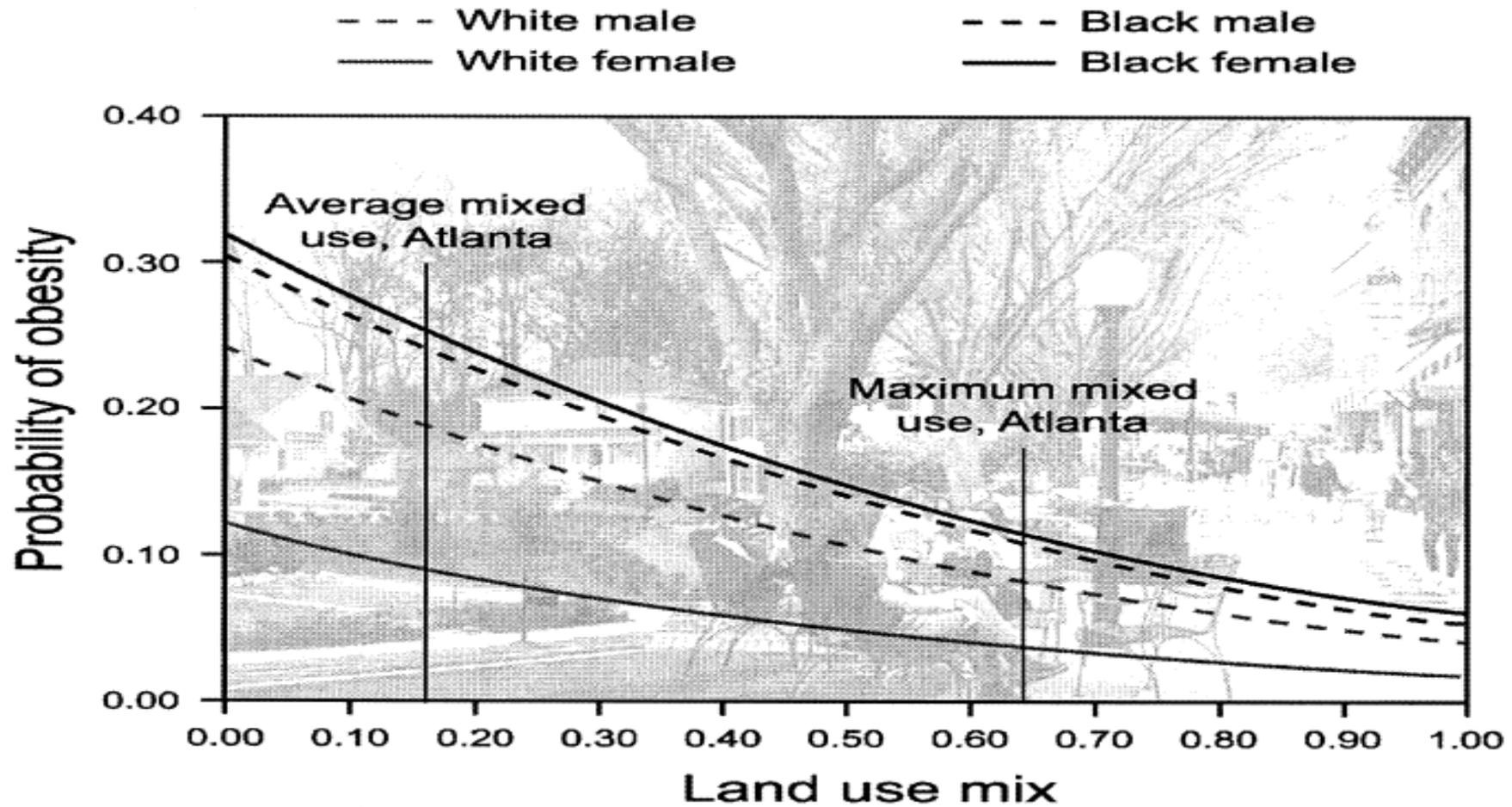


Factors that Influence Active Living/Health

- Land Use Mix
- Density
- Site Design
- Connectivity
- Street Design



Higher density and connectivity: lower obesity — Atlanta study 2004



Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars

Lawrence D. Frank, PhD, Martin A. Andresen, MA, Thomas L. Schmid, PhD

Land Use Mix — Summary of the Literature

- Residents of mixed-use communities have more opportunities to walk and use transit
- For trips less than one mile (75% of trips), mixed-use communities generate up to 4-times as many walk trips.



Land Use Mix — Example





Mixed Use — Traditional Main Street

Placerville, CA

Land Use Mix — Example

Housing
over
restaurant
Davis, CA



Land Use Mix — Example

Housing
over
restaurant
Sacramento,
CA



Land Use Mix — Example

Housing
next to
super-
market

Salinas, CA



Land Use Mix — Example

Housing
over super-
market

Sacramento,
CA



Compact Development — Summary of the Literature

- Appropriate residential and employment density (>7 units and 100 employees per acre) are associated with increased walk, bike, and transit trips



Compact vs. Low Density Development

San Diego
County

Projected land
consumption by
2020 under
existing policies



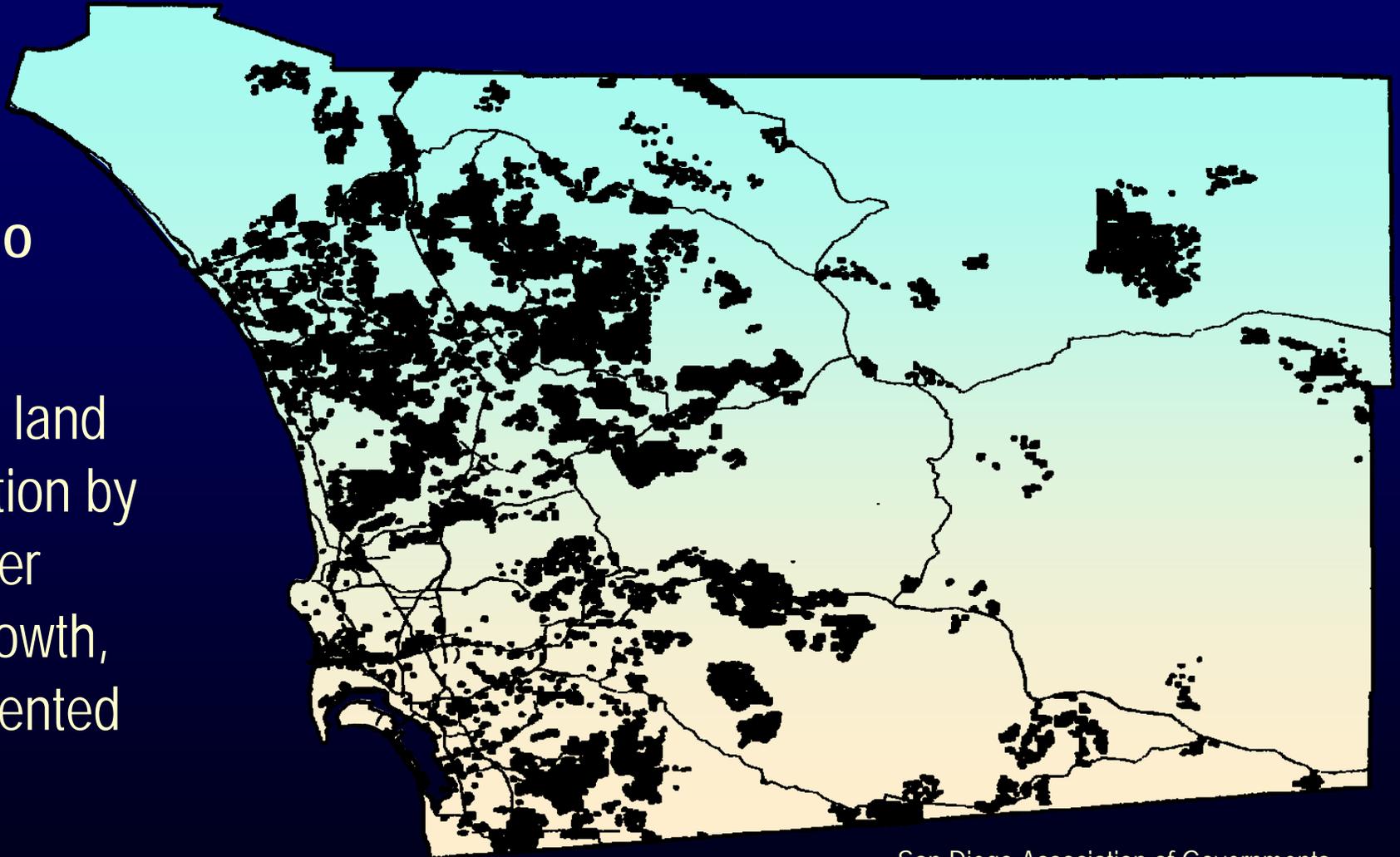
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San Diego Association of Governments

Compact vs. Low Density Development

San Diego
County

Projected land
consumption by
2020 under
Smart Growth,
transit-oriented
scenario



San Diego Association of Governments



Local Government Commission

Compact Development

Metro Square, Sacramento



Compact Development

L Street Lofts, Sacramento



L STREET LOFTS

[HOME](#)

[LOCATION](#)

[FLOORPLANS](#)

[TOUR](#)

[NEIGHBORHOOD](#)

[TEAM](#)

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WELLS FARGO
PRE-QUALIFICATION



SKIP INTRO

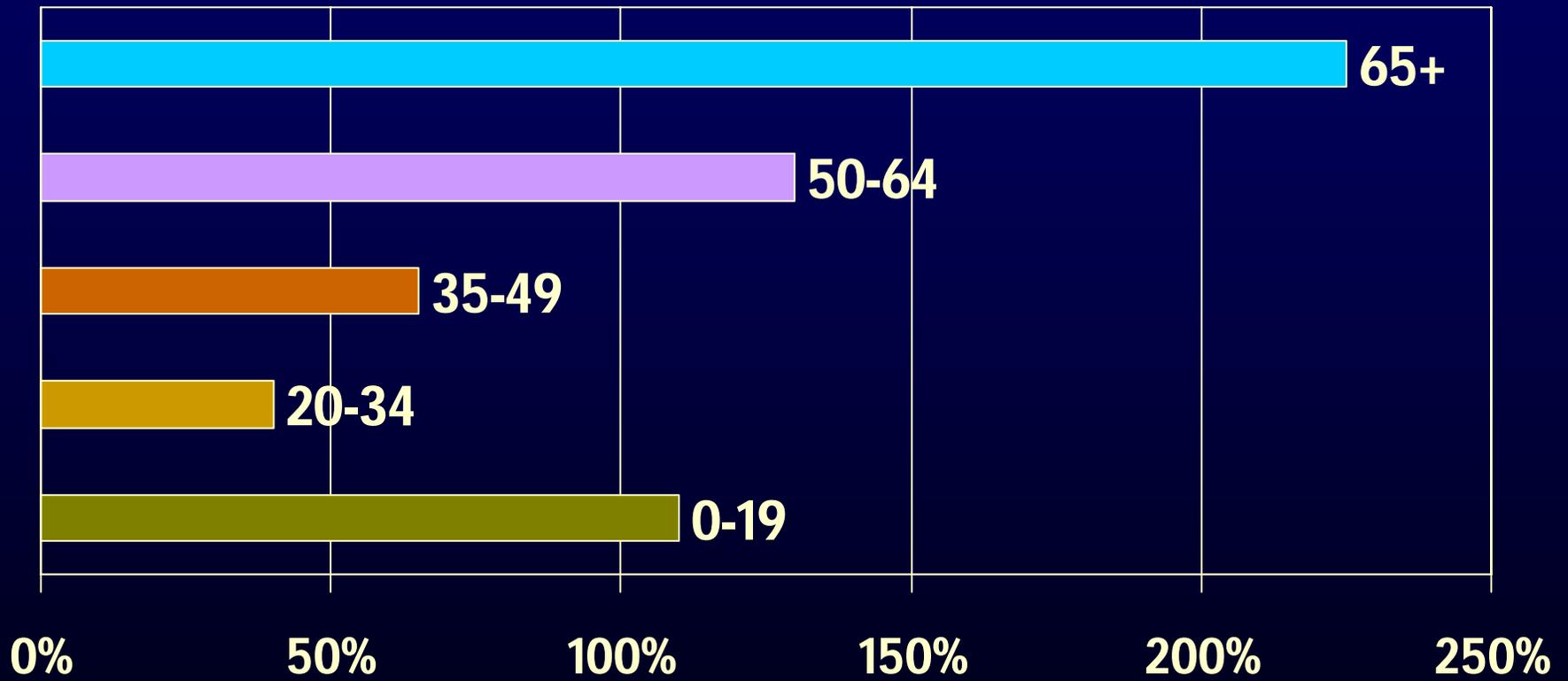
Compact Development

Uptown Village, Dallas



Demographic Changes

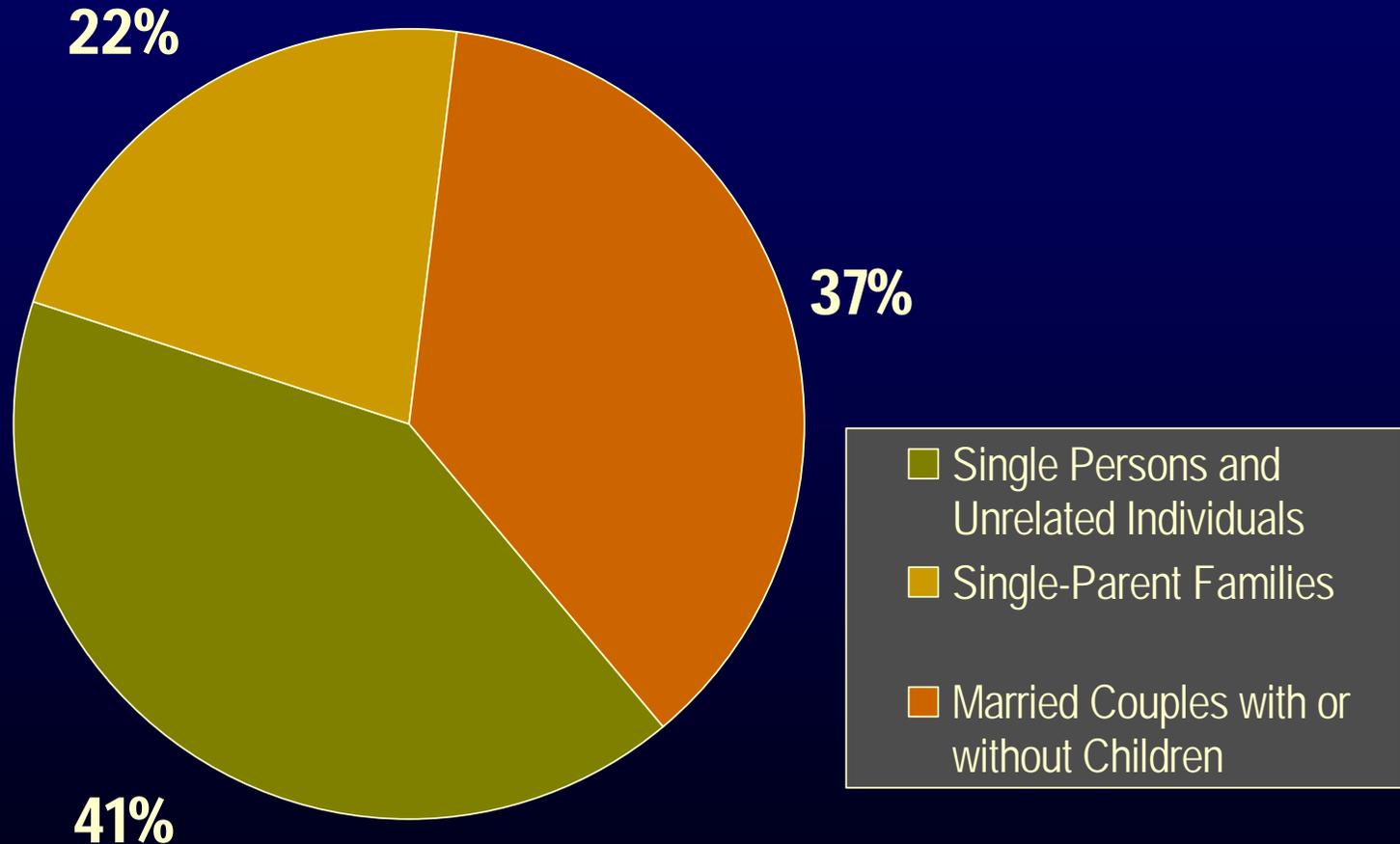
California Population Change by Age Group — 1990-2040



Source: California Dept. of Finance



New California Households Formed: 1995-2000



Parks and Open Space — Key to Compact Development

Lindsay, CA

Fountain
viewed from
townhomes



Site Design — Summary of the Literature

- Design features that promote walk/bike trips
 - Appropriate levels of residential density, land use mix, and street connectivity
 - Region-specific architecture
 - Short building setbacks
 - Neighborhood parks and greenspace



Site Design — Example

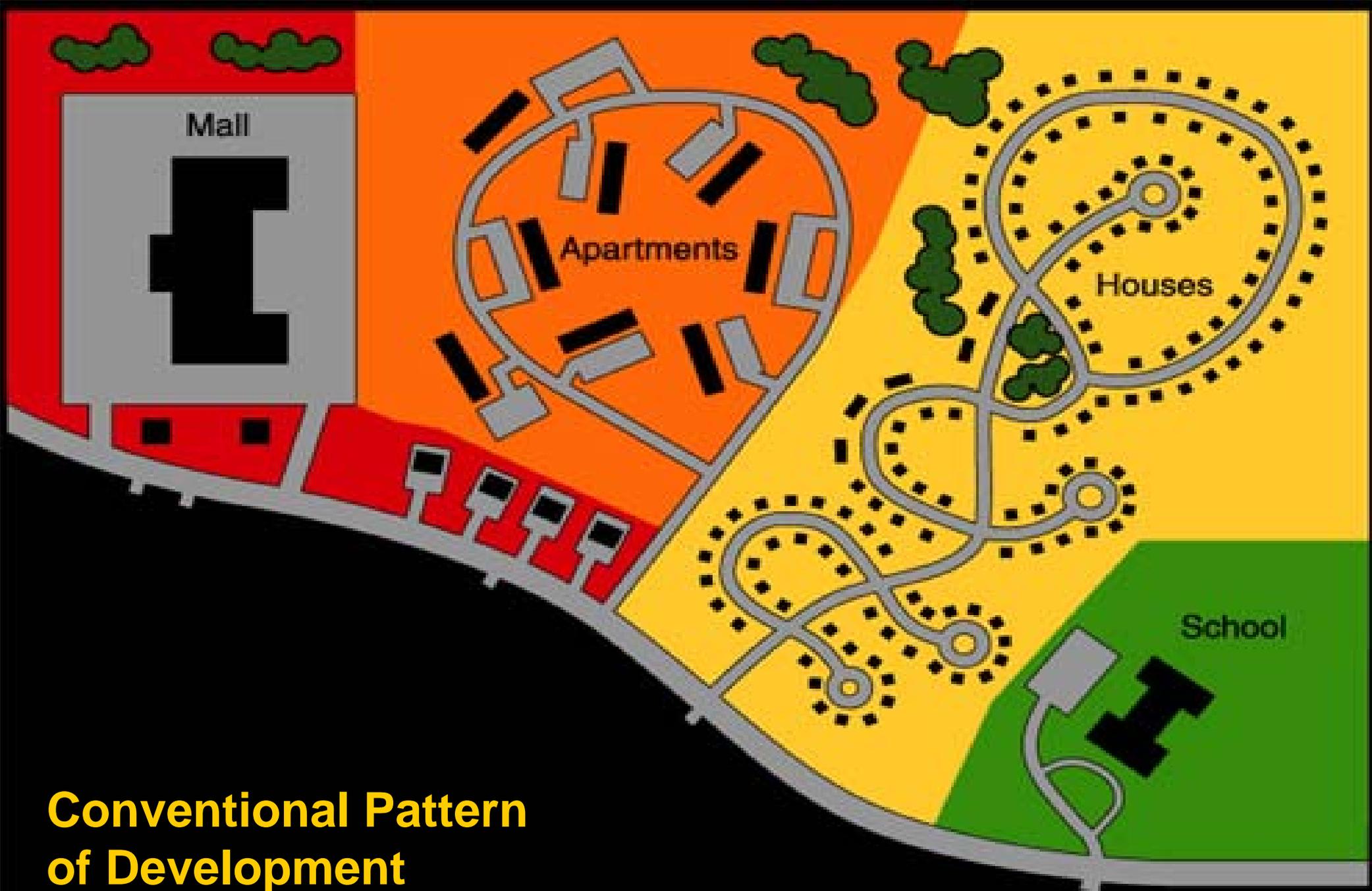




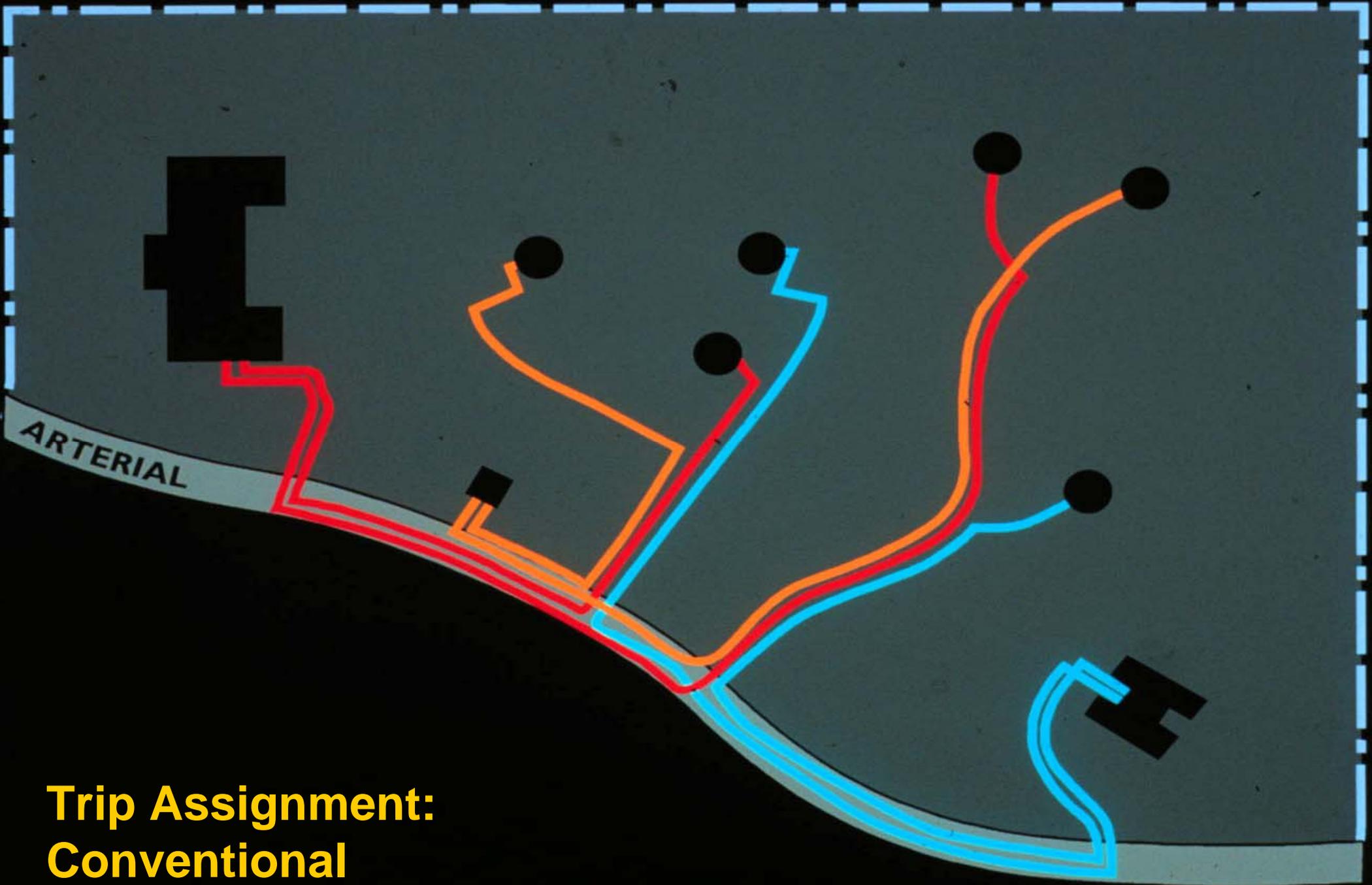
Connectivity — Summary of the Literature

- Poor connectivity reduces pedestrian mobility and trips
- As the number of intersections and blocks increase the number of walk trips increase
- As the number of cul-de-sacs and loops increase the number of walk trips decrease



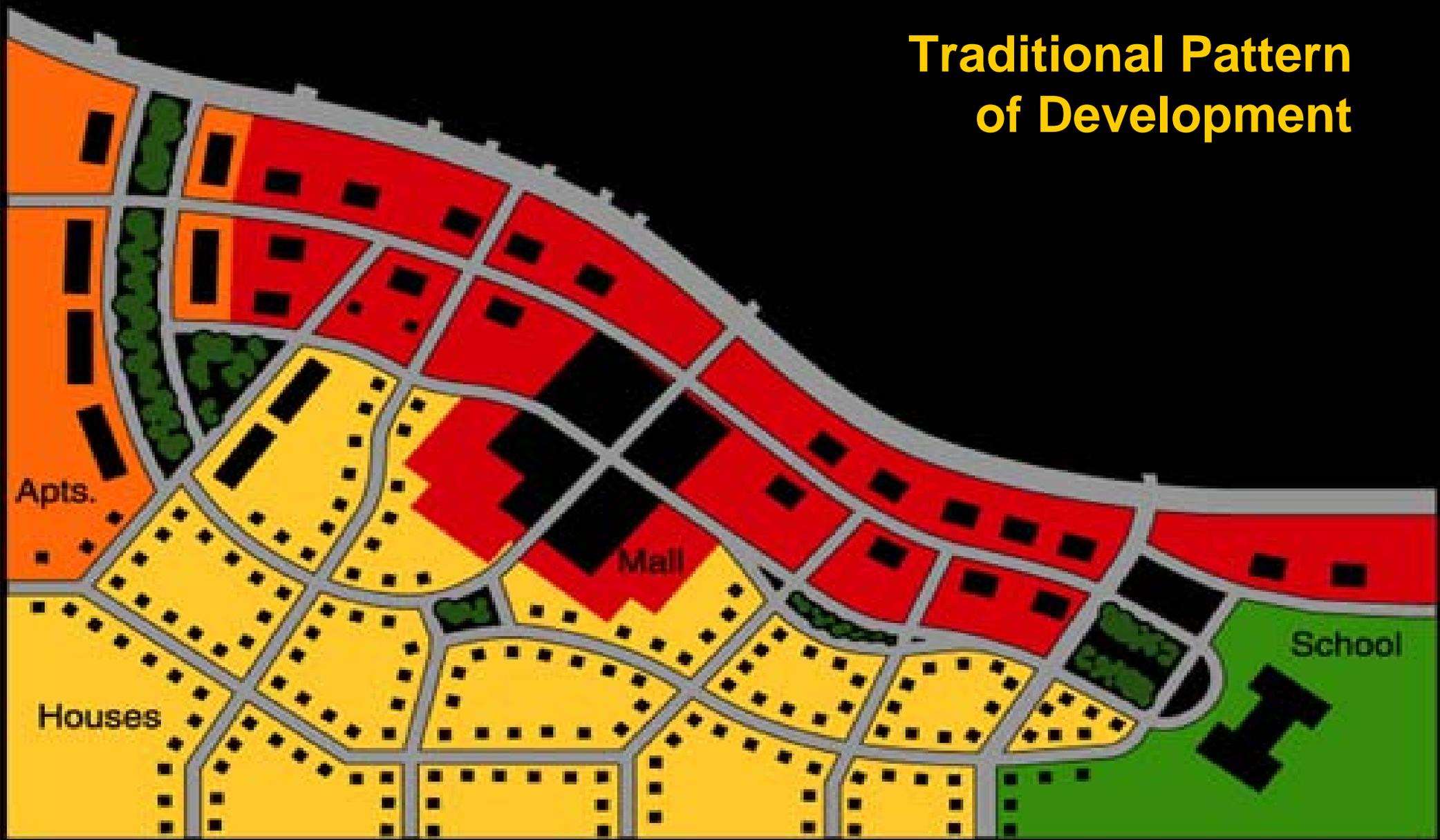


**Conventional Pattern
of Development**

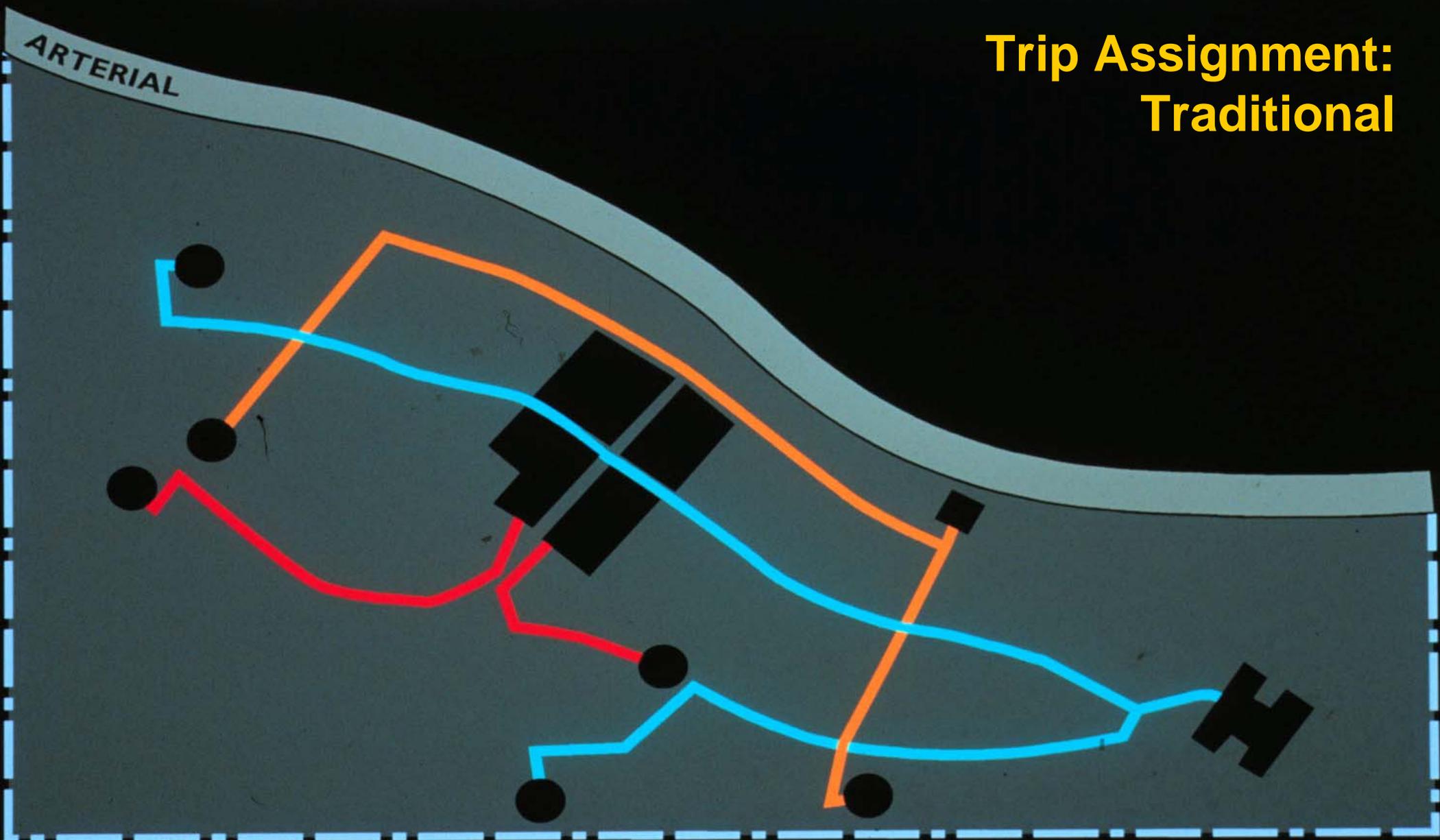


**Trip Assignment:
Conventional**

Traditional Pattern of Development



Trip Assignment: Traditional



Traditional vs. Conventional

Central Business Districts at the same scale



Great Streets, Allen Jacobs

Savannah, Georgia



Great Streets, Allen Jacobs

Irvine, California



Trails





Street Design — Summary of the Literature

- Perceptual qualities of the street influence pedestrian use
- Good pedestrian environments
 - maintain visual and sensory attention
 - streets are calm, narrow, and complex



Street Design

- Influences trip choices
 - Safe, quiet, slow, shaded streets encourage people to walk, ride bicycle or take transit instead of driving a car



Street Design

- Can help create more livable neighborhoods
 - Improve property values
 - Lower costs
 - Improve quality of life



Street Design

- Can help revitalize retail areas



Principles of Healthy Streets

- Street as an outdoor room
 - People feel more comfortable when trees and houses provide a sense of enclosure
 - Eyes on the street make the street safer



Principles of Healthy Streets

- Streets designed for people, not just cars
- Friendly to cars, pedestrians and cyclists



Principles of Healthy Streets

- Streets designed so drivers feel comfortable at slow speeds
 - 15-25 mph on neighborhood streets
 - 25-35 mph on avenues and boulevards



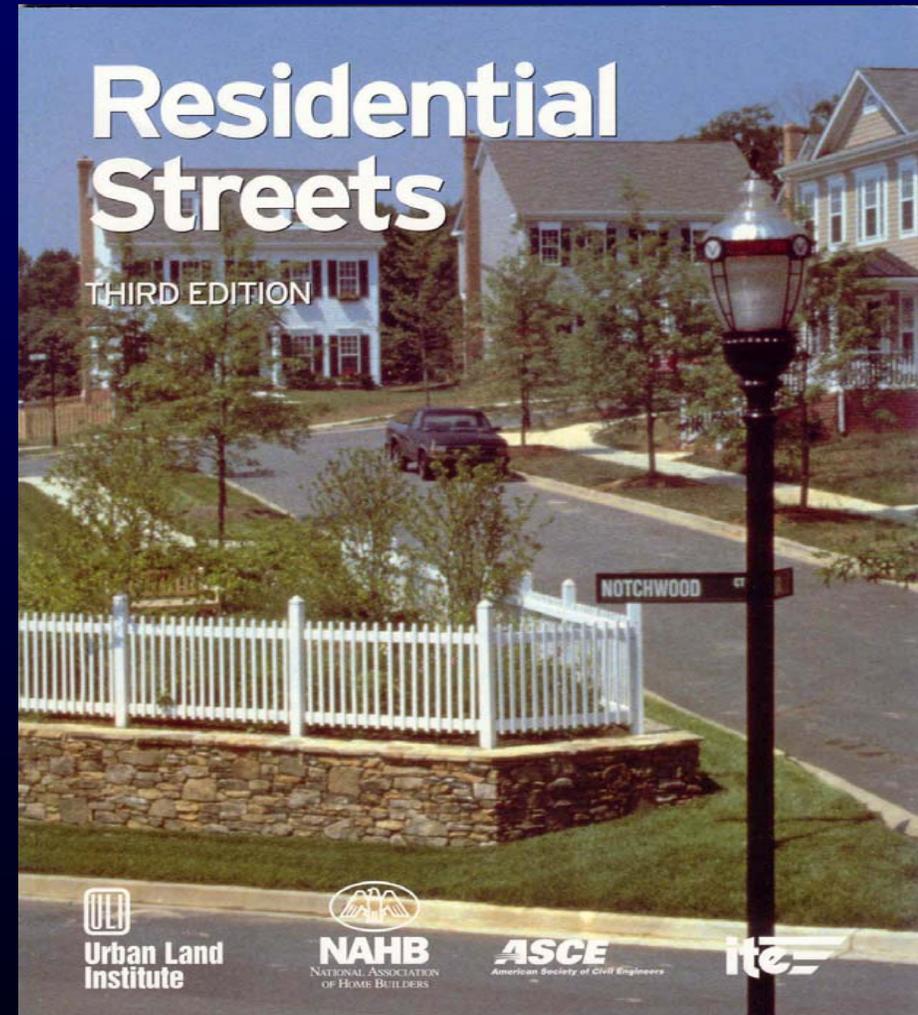
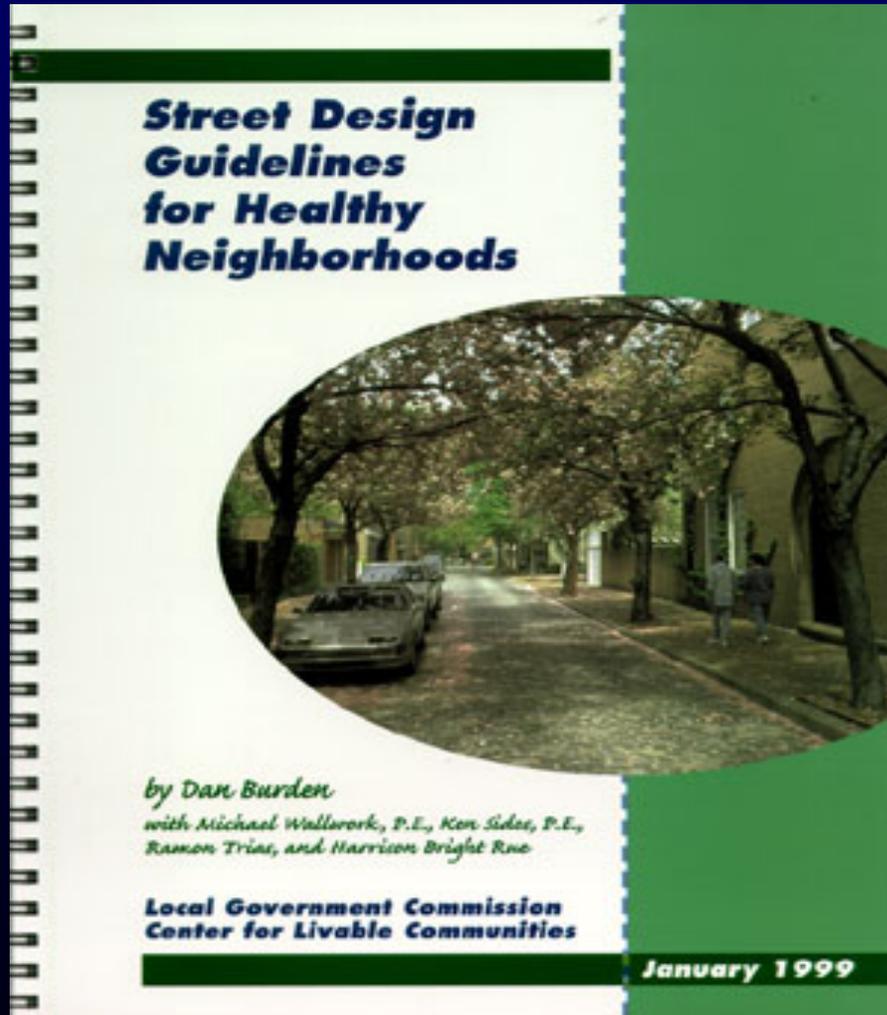
Principles of Healthy Streets

- Narrower streets are slower and safer
 - Longmont, CO study of 20,000 accidents
 - Found street width had the greatest relationship to injury accidents
 - Accidents/mile/year were higher on wider streets
 - 40-foot wide street 2.23 a/m/y
 - 36-foot wide street 1.21 a/m/y
 - 24-foot wide street 0.32 a/m/y

Source: "Residential Street Typology and Injury Accident Frequency," Swift and Associates, Longmont, CO, 1997



Recommended Designs for Different Types of Roadways



Healthy Streets Need Good Sidewalks

- We impact the freedom of all residents — especially children and seniors — when we fail to provide good sidewalks

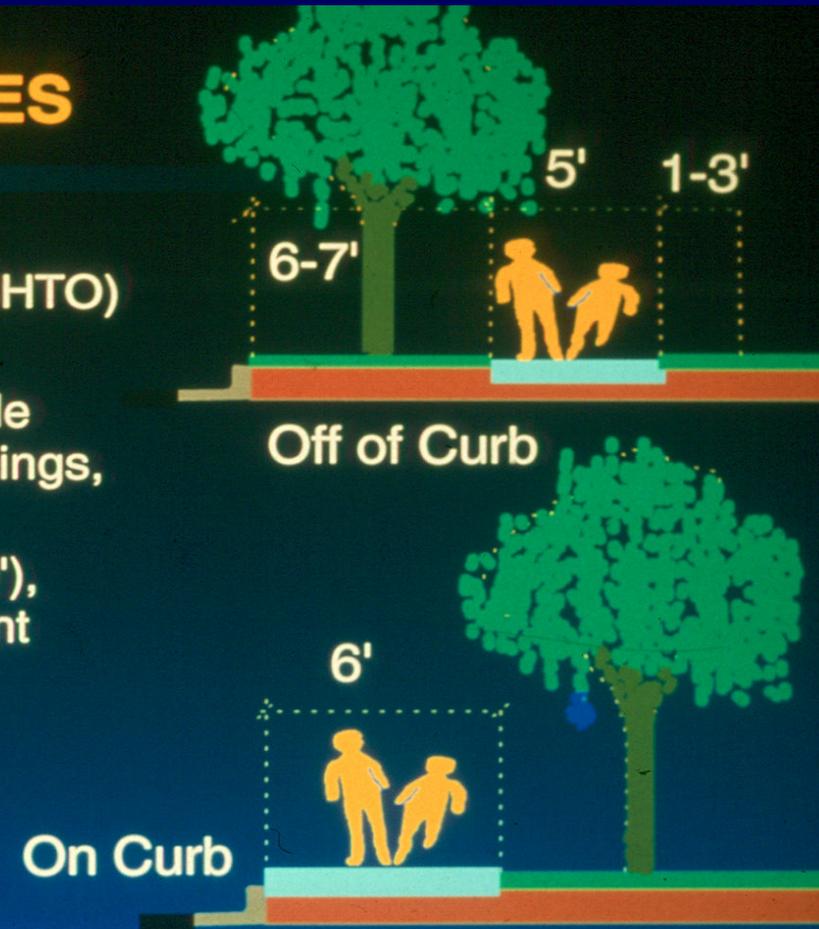


Healthy Streets Need Good Sidewalks

- Detached from curb
- At least 5 feet wide
- Planting strip helps shade street and sidewalk

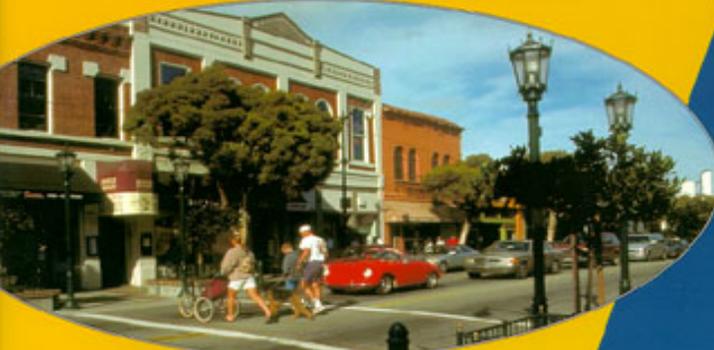
SIDEWALK FEATURES

- Width (minimum 5'),
- 6 feet if at back-of-curb (AASHTO)
- Crossfall 1:50
- Pedestrians need a 2 foot wide buffer to all edges, curb, buildings, bridge railings etc.
- Buffer to motor vehicles (4-10'), nature-strip 7 feet wide to plant trees
- Street lighting, shade
- Pavers can be used for enhancement





New Approaches to Designing and Retrofitting Streets



Streets and Sidewalks,
People and Cars

THE CITIZENS' GUIDE TO TRAFFIC CALMING

by Dan Burden

Local Government Commission
Center for Livable Communities

Emergency Response



Traffic Calming
and Traditional
Neighborhood Streets



Dan Burden
Walkable Communities

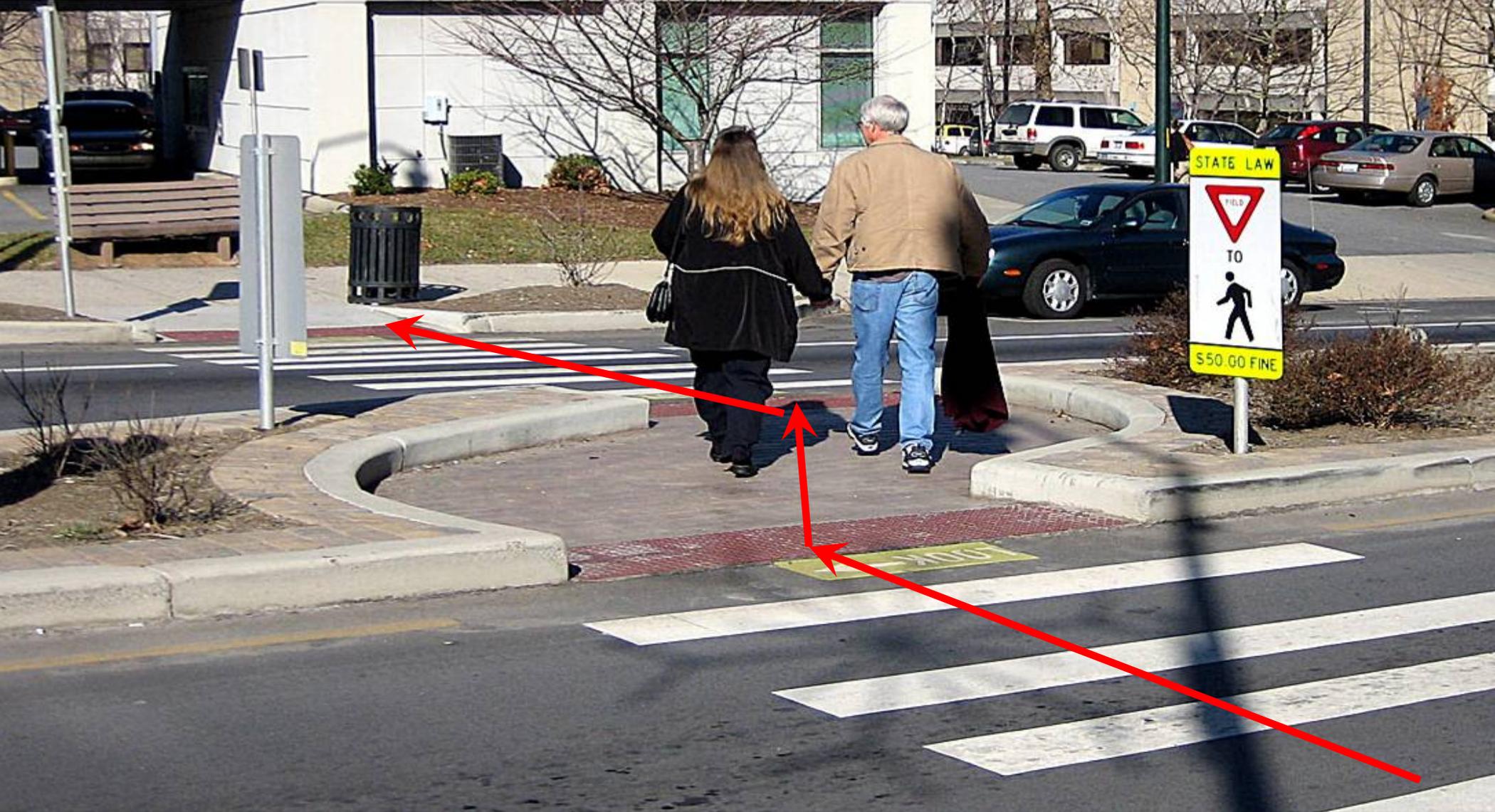
with **Paul Zykovsky**
Local Government Commission
Center for Livable Communities

Healthy Neighborhoods Need Good Street Crossings



Medians and Refuge Islands

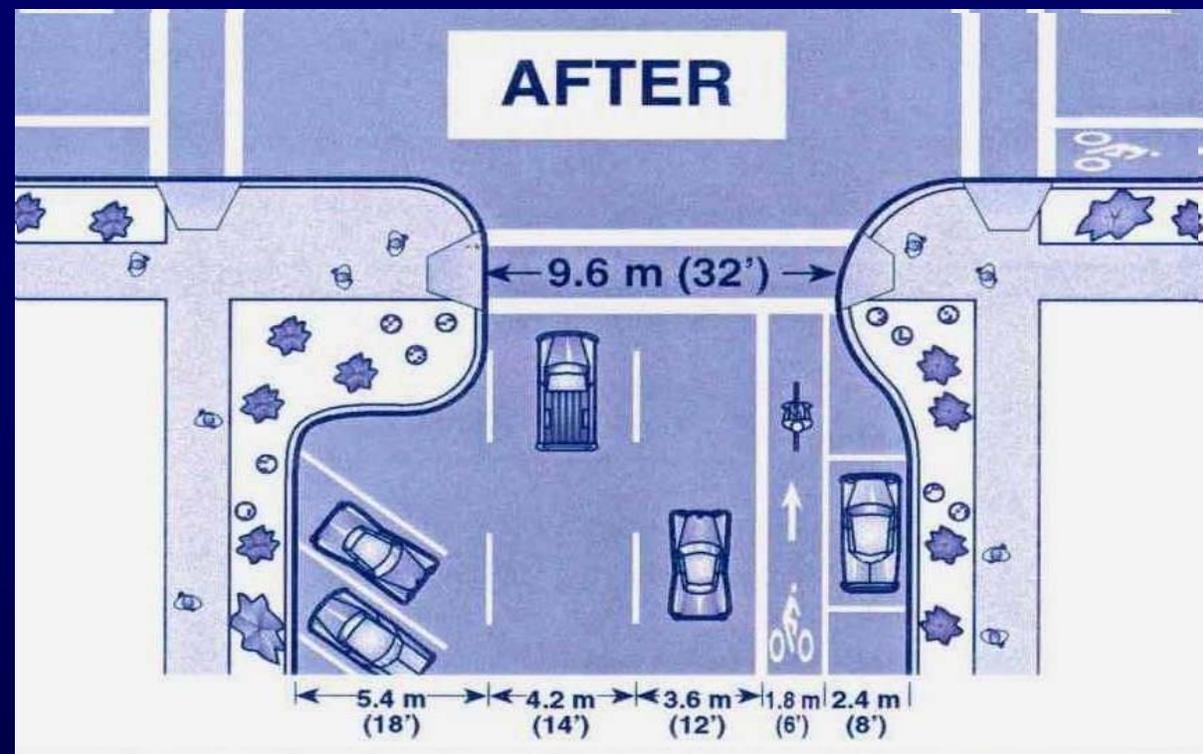




Option: stagger or angle cut-through so pedestrians face oncoming traffic before 2nd crossing

Curb extensions

Most focus has been on reducing crossing distance



- Other advantages
 - Better visibility (both ways)
 - Traffic calming
 - Room for street furniture
 - Additional on-street parking
 - corner is “protected”



Road Diets

Castro Street,
Mountain View, CA



Before



After

Road Diets in Seattle

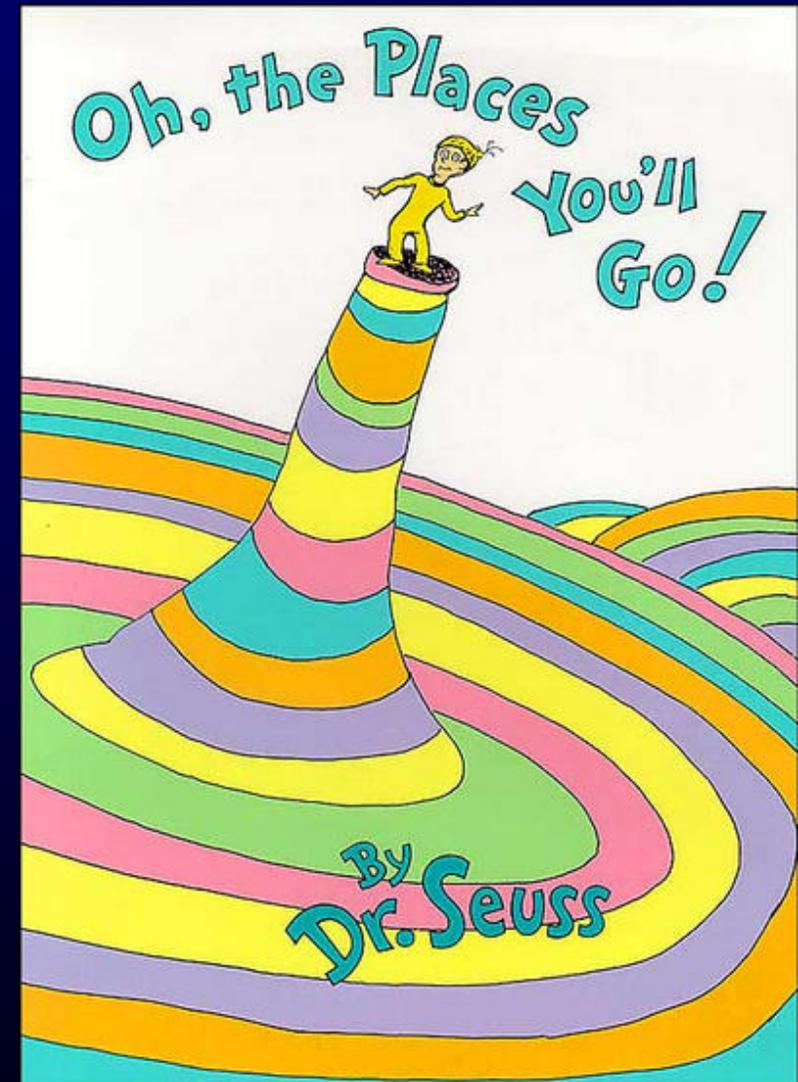
(4 to 3 lanes)

Roadway	Date	ADT	ADT	Collision
Location	Change	Before	After	Reduction
Greenwood Ave N	Apr-95	11872	12427	24 to 10 58%
N 80th St to N 50th				
N 45th Street	Dec-72	19421	20274	45 to 23 49%
Wallingford Area				
8th Ave NW	Jan-94	10549	11858	18 to 7 61%
Ballard Area				
Martin Luther King Jr W	Jan-94	12336	13161	15 to 6 60%
North of I 90				
Dexter Ave N	Jun-91	13606	14949	19 to 16 59%
Queen Ann Area				
24th Ave NW	Oct-95	9727	9754	14 to 10 28%
NW 85th to NW 65th				

Doctors Agree

“With your head full of brains and your shoes full of feet, you're too smart to go down any not-so-good street. And you may not find any you'll want to go down. In that case, of course, you'll head straight out of town.”

— Theodore Geisel (aka Dr. Seuss)
from the book *Oh, the Places You'll Go*



Access to Healthy Food: Farmers Markets, Community Gardens

- Support Farmers Markets, Community Gardens, Farm-to-School programs
- Support access to nutritious food in neighborhoods
- Zone out junk food





Cultivating Community Gardens

The Role of Local Government in Creating Healthy, Livable Neighborhoods

Local government leaders are in a unique position to promote healthy eating and active living in their communities by supporting community gardens. Community gardens are places where neighbors can gather to cultivate plants, vegetables and fruits. Such gardens can improve nutrition, physical activity, community engagement, safety and economic vitality for a neighborhood and its residents.



Barriers, such as liability expenses, code restrictions and a lack of resources, which often make it difficult for communities to establish or maintain gardens in their neighborhoods, can be overcome with local government engagement.

This brochure offers case studies, best management practices, resources and tools for policymakers to develop creative, cost-effective solutions that reduce barriers and facilitate the creation of community garden programs. To read more about these case studies and the resources footnoted in this factsheet, visit:

■ www.lgc.org/healthycommunities

Gardens benefit communities

Community garden programs with the following characteristics have the greatest potential to strengthen communities [4]:

- Provide an open space for community gatherings and family events.
- Include neighbors of various ages, races and ethnic backgrounds.
- Offer educational opportunities and vocational skills for youths.
- Target or include lower-income residents.
- Enable gardeners to sell their produce through a local farmer's market.
- Build in a method to encourage the donation of surplus produce to food shelters.

Unhealthy communities bear greater costs

Sixty-five percent of adults in the U.S. are overweight or obese [1], and more than 33% of children and adolescents are obese or at risk for becoming obese [2]. For adults, the potential health consequences of obesity include cardiovascular disease, hypertension, type 2 diabetes, osteoporosis and some cancers. Obese children are at a greater risk than normal-weight children for developing type 2 diabetes, hypertension, high cholesterol, sleep apnea and orthopedic problems.

In addition to the potential health consequences, obesity creates a substantial economic burden for the U.S. The direct and indirect health costs associated with obesity are estimated at \$117 billion per year, nationwide, in the form of worker absenteeism, health care premiums, co-payments and out-of-pocket expenses [3].



Implementation Strategies

Safe Routes to School



Based on a national course developed with support from:



U.S. Department
of Transportation
**Federal Highway
Administration**



Prepared by the Pedestrian and Bicycle Information Center



Success story: Marin County, CA encouragement programs

- Walk or Wheel Wednesdays
- Frequent Rider Mile Contests
- Walking school buses
- Fliers, posters, newsletters
- Media coverage
- Website



Marin County, CA, results

64% increase in the number of children walking to school

114% increase in the number of children biking to school

91% increase in carpooling

39% decrease in children transported to school by private car

(American Journal of Public Health, 2003)

Elements of Safe Routes to School programs

Education

Encouragement

Engineering

Enforcement



Conduct Walkability Audits and Workshops

- Work with residents to identify problems
- Facilitate community-driven plan
- Identify implementation steps



Conduct Walkability Audits and Workshops

- Work with residents to identify problems
- Facilitate community-driven plan
- Identify implementation steps













Message is getting out

Flyers
send
Leafs
home

Philadelphia
destroys
Toronto 6-1
in Game 7.
NHL 1-8C

THE NATION'S NEWSPAPER

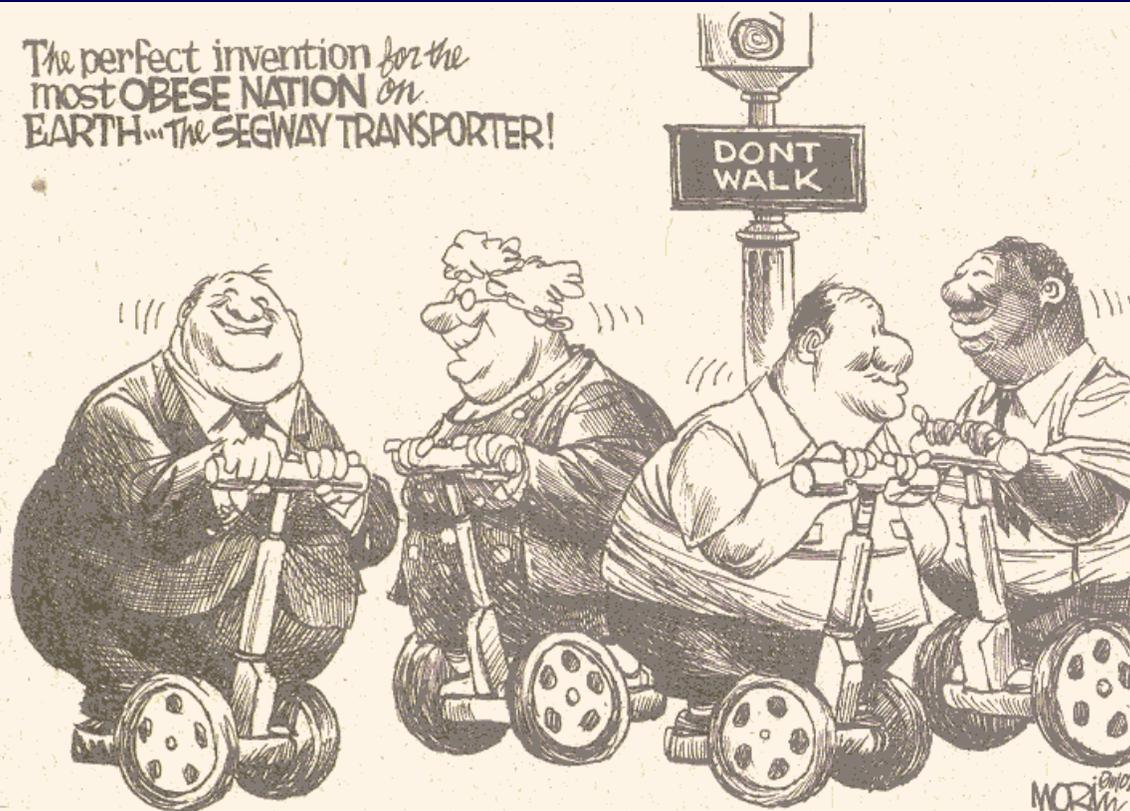
 **USA
TODAY**

NO. 1 IN THE USA

Stop
Think
Then
speak

Unless you
Wanda Sy

The perfect invention for the
most **OBESE NATION** on
EARTH... **THE SEGWAY TRANSPORTER!**



MORIN

The Miami Herald

Morin/Miami Herald

The way cities and suburbs are developed could be bad for your health

The way cities and suburbs are developed could be bad for your health

public agencies into discussions about what neighborhoods should look like.

The argument over whether suburbs are bad for your health will hit many Americans precisely where they live: in a house with a big lawn on a cul-de-sac.

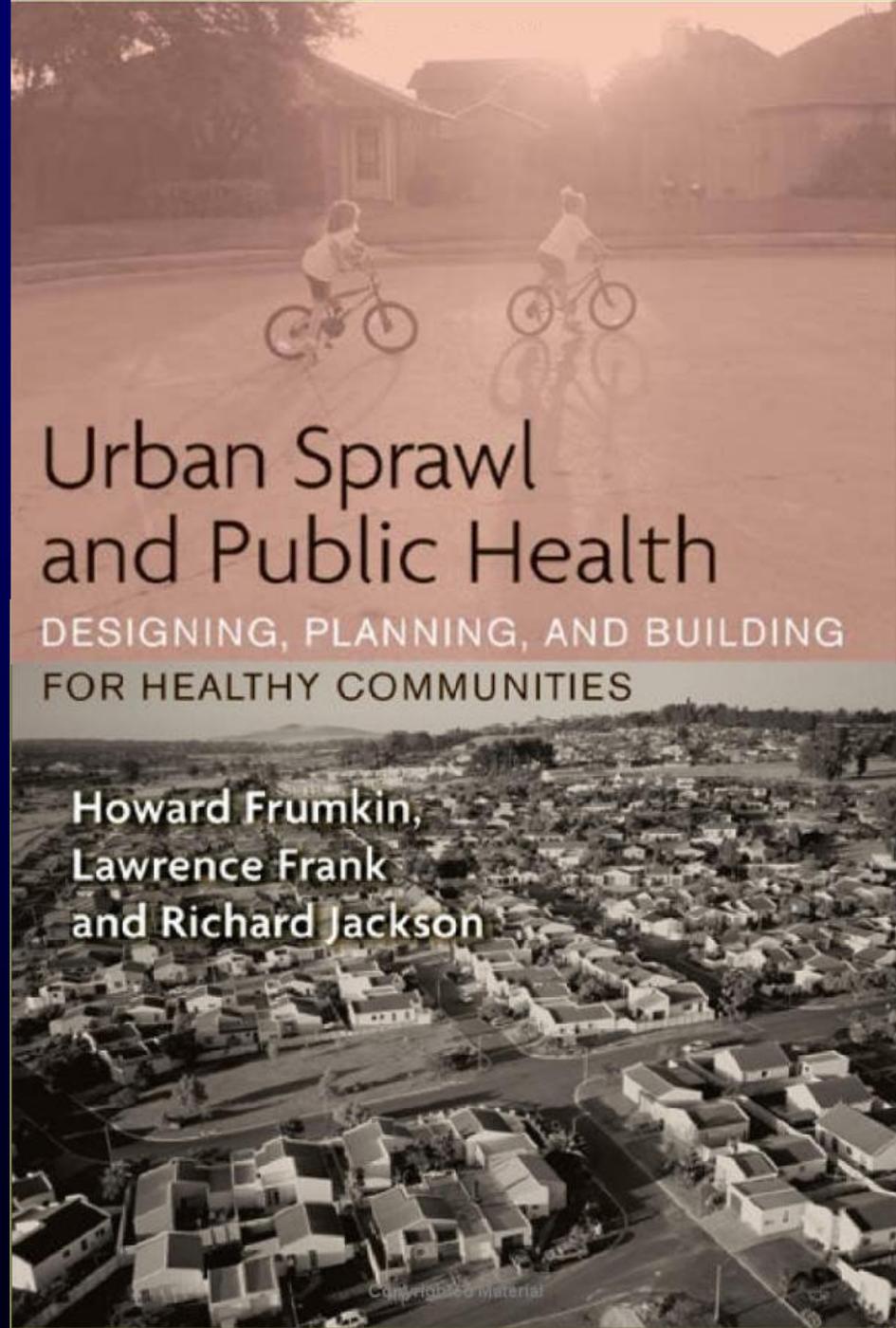
"The potential for actually tackling some of these things, with the savvy of the folks who have tackled tobacco, is enormous," says Ellen Vanderslice, head of America Walks, a pedestrian advocacy group based in Portland, Ore.

A study by the national Centers for Disease Control and Prevention is tracking 8,000 residents of Atlanta to determine whether the neighborhood they live in influences their level of physical exercise. The Robert Wood Johnson Foundation in New Jersey,

**Cover
story**

Please see COVER STORY next page ►

Message is getting out



Urban Sprawl and Public Health

DESIGNING, PLANNING, AND BUILDING
FOR HEALTHY COMMUNITIES

Howard Frumkin,
Lawrence Frank
and Richard Jackson

Published by Island Press



The Economic Benefits of Walkable Communities

www.lgc.org



Designing Safe Streets and Neighborhoods

People Pay A Premium to Live Where It's Walkable.

A 1999 study by the Urban Land Institute...

Each of the four counties including Ferntland in Galtherburg, Ma promoted transit at train access...



Local Government Center for Livable Co 1414 K St, Suite 200 Sacramento, CA 95814



Why People Don't Walk and What It Means for an D.A. Budget

Walking is key to staying healthy.

Regular physical exercise is a vital part of maintaining our health and well being.

One-fourth of all less than one mile three-fourths of all trips are made by

Car dependence is damaging our health. Poor diet and lack of exercise is now second only to cigarette smoking as a lead cause of death in United States.



Local Government Center for Livable Co 1414 K Street, Suite 200 Sacramento, CA 95814-33

Why are we driving everywhere instead of walking?

Our communities are designed so that we have no other choice. The following pairs of photographs illustrate barriers in current land use patterns that keep us from walking alongside solutions that demonstrate more pedestrian-friendly alternatives.

Safe Routes to Schools

Education, Engineering and Enforcement for California Communities.

Not so long ago, a vast majority of children routinely roamed their neighborhoods on foot or bicycle almost as a rite of passage. Today, a new generation of moms and dads...



children to walk, adding even more cars to the morning chaos. There is a way to break the cycle. A new movement is emerging that is focusing on getting kids back on their feet and their bikes again.

Parents and neighborhood groups, school and local officials, law enforcement officers and traffic engineers are working together to make streets safer for pedestrians and bicyclists along heavily traveled routes to school, while encouraging both parents and their

WHY WE NEED SAFE ROUTES:

CHILDREN ARE AT RISK FROM UNSAFE STREETS

- In California, an average of 5,000 child pedestrians are injured each year. Pedestrian accidents are the second leading cause of fatal injuries among 5-12 year olds statewide; bicycle crashes are 10th.
- Children and seniors on foot and in blue are at greatest risk relative to the overall population; children in low-income neighborhoods and communities of color are at even greater risk.

CHILDREN ARE LOSING THEIR INDEPENDENCE

- Children are reluctant to walk their neighborhood, isolated from people and the environment.
- Children are not acquiring the skills critical to becoming safe mobility.
- When restricted by bus or parent/teacher, passengers who cannot



Land Use Planning for Daily, Crime-Free Neighborhoods

Resources

Because law enforcement is often the biggest item in a city budget, neighborhoods should be designed to be self-policing. The following are some useful resources for communities:

Livable Communities experts at the Local Government Commission: (916) 250-8302

Street Design Guidelines for Healthy Neighborhoods by Don Buden, 1998, LGC

Streets and Sidewalks, People and Cars: The City Traffic Calm by Buden, 2000, LGC

Defensible Space Crime and Build Community by F. 1991, U.S. HUD, 1991. Available: (800) 24

Physical Environment U.S. Dept of 1996, Order #101 831-3420

Creating Defensible Space by Newman, 1972, Prentice-Hall, Publishing Co.

Street Reclaim Livable Streets a Communities, by Engwicht, 1998, N Publishers.



Local Government Center for Livable Co 1414 K St, Suite 200 Sacramento, CA 95814 tel: (916) 448-1198 fax: (916) 448-0246 web: www.lgc.org

A sense of community is key to neighborhood safety.

A recent study published by the Harvard School of Public Health has confirmed earlier research. Community spirit and a willingness to get involved reduces violent crime by as much as 40 percent.

In this study, race and income were not factors in determining whether people were willing to watch out for one another. The key factor was whether or not there was a sense of community.

Transportation Tools to Improve Children's Health and Mobility

Look What California Is Doing....



For more information

- Local Government Commission
Center for Livable Communities
 - Web: www.lgc.org
 - Phone: 800-290-8202
- Healthy Transportation Network
 - Web: www.healthytransportation.net
- New Partners for Smart Growth Conference
 - Albuquerque, NM
 - January 22-24, 2009 www.newpartners.org

