LAND USE STRATEGIES FOR MORE LIVABLE PLACES

LAND USE STRATEGIES FOR MORE LIVABLE PLACES

Prepared by: The Local Government Commission
909 12th Street, Suite 205
Sacramento, CA 95814

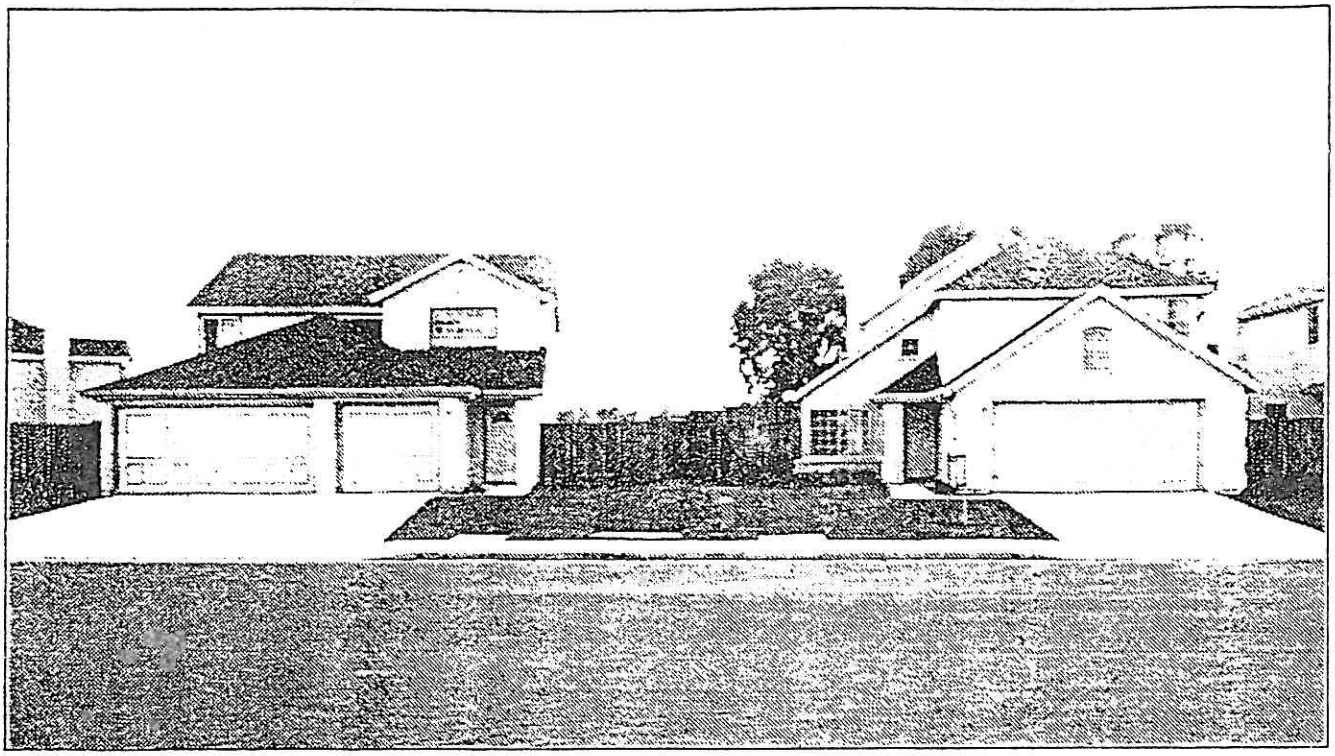
Written by: Steve Weissman
Judy Corbett

Produced by: Tom Sargent
Jes Slavik
Robin Weiss

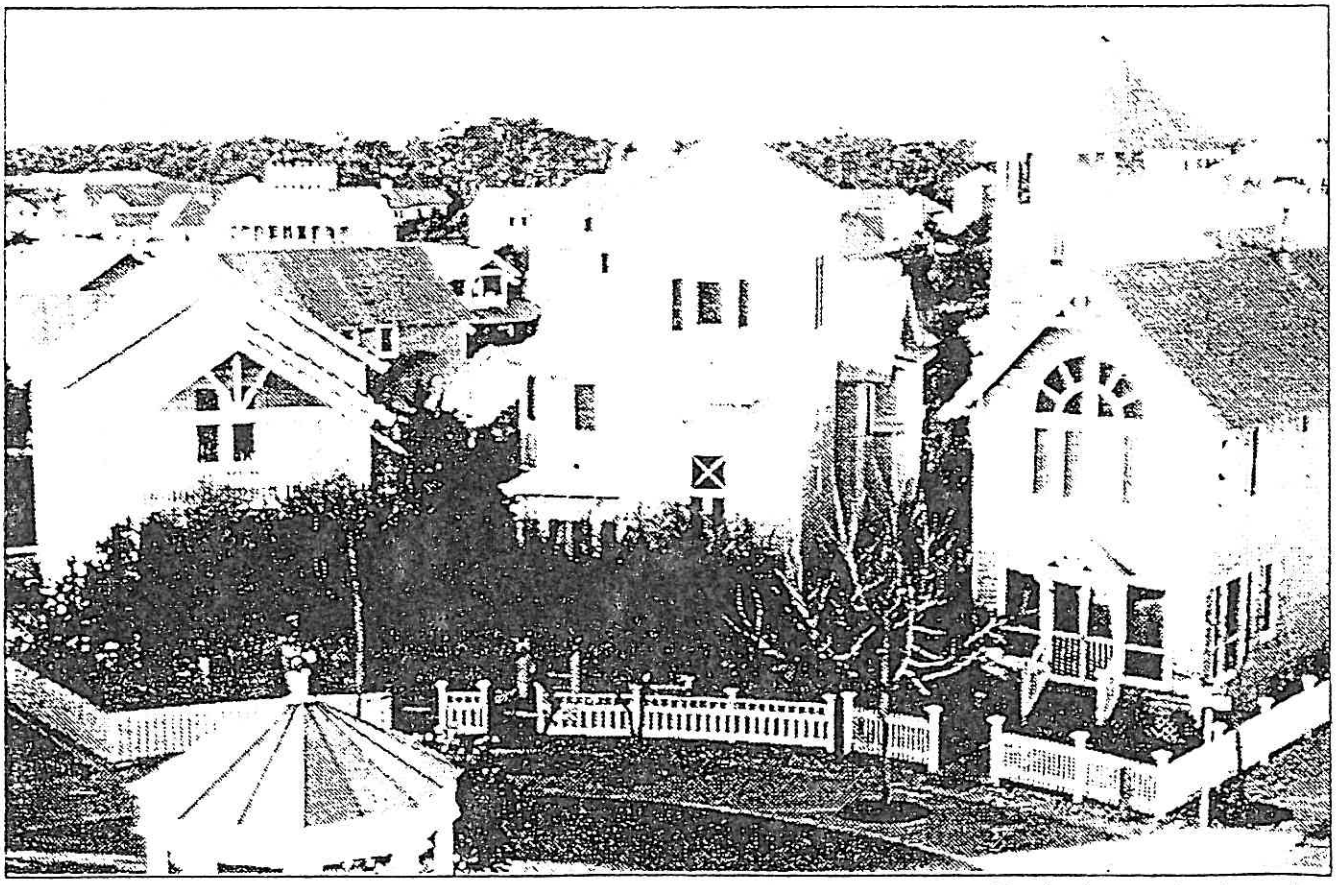
Funded by: State of California Air Resources Board
Bay Area Air Quality Management District
Northern Sierra Air Quality Management District
San Bernardino County Air Pollution Control District
San Diego County Air Pollution Control District
South Coast Air Quality Management District

June 1, 1992

Contents



Housing for an automobile society



Housing for a pedestrian society

Disclaimer

The statements and conclusions in this report are those of the contractor and not necessarily those of the California Air Resources Board or the other funders.

Acknowledgments

We are highly indebted to the architects of the Ahwahnee Principles, Peter Calthorpe, Michael Corbett, Andres Duany, Elizabeth Mole, Elizabeth Plater-Zyberk, and Stefanos Polyzoides.

We also owe a special debt of gratitude to Anne Geraghty, Manager of the Transportation Strategies Development Section of the California Air Resources Board and to her talented staff, Terry Parker and Roberta Hughan. We owe many thanks to Stewart Wilson, Executive Director, of the California Air Pollution Control Officer's Association, and to several air pollution control officers: Richard Sommerville, San Diego County Air Pollution Control District; Milton Feldstein, Bay Area Air Quality Management District; Russell Roberts; Northern Sierra Air Quality Management District; Charles Fryxell, San Bernardino County Air Pollution Control District; and James Ryerson, Santa Barbara County Air Pollution Control District. We thank Tom Sargent for making it possible to visually illustrate the Ahwahnee Principles.

An advisory group of local elected officials guided the preparation of this booklet. We thank Mayors Michael Sweeney of Hayward, Loni Hancock of Berkeley, and John Longville of Rialto; County Supervisors Gary Patton of Santa Cruz County, Bill Center of El Dorado County, and Stephanie D'Agostini of Amador County; and Councilmembers Walt Scherer of Loomis, Michael Brennan of Oakdale, and Kathi Lishman of Placerville.

A number of additional individuals gave generously of their time and information, and provided a source of inspiration. They include staff members from the San Diego Association of Governments, Steve Sachs, Susan Baldwin and Nan Valerio; Nancy Schwartz, Planner with the Office of the San Diego City Architect; Peter Katz; Valerie Rosenkrantz, the Sacramento Regional Transit District; staff members from The Lincoln Institute; Melanie Fallon, Director of Planning for the City of Los Angeles; Carol Whiteside, Assistant Director of the California Resources Agency; architects Bonnie Fisher, Sim Van der Ryn, Victor Dover and Joseph Kohl; Planners from the Governor's Office of Planning and Research, Bob Cervantes and Terry Rivasplata; Susan Sherry, Director of the California State University Growth Management Consensus Project; Peter Hill, Sacramento Area Council of Governments; Planner Steve Tracy, County of Sacramento; Joel Woodhull, Southern California Rapid Transit District; Paul Zykosky, the Sacramento Metropolitan Air Quality Management District; Nancy Hanson, the California Energy Commission, and Terry O'Sullivan, the San Francisco Public Utilities Commission.

Executive Summary

The Problem

Forty years ago, California was a state dominated by compact communities, from rural places like Fort Bragg, to towns like Pasadena, to cities made up of distinct neighborhoods. Communities were distinct from one another, separated by open space. Today, in response to demands for more rural lifestyles, greater mobility, and affordable housing, we have filled our agricultural valleys with houses, spread communities across the deserts and hills, and choked our freeways with cars. The side effects have been severe: polluted air, neighborhoods with no sense of community, homes that separate children from parents with endless commutes, and vanishing farmland, wildlife habitat and open space. Because of the way we are growing, the social and the physical structure necessary to support a thriving economy in the State has begun to fall apart.

The Solution

California is expected to absorb millions of new residents in the next decade. We urgently need to identify a different strategy for accommodating this growth. There is a growing consensus among groups as disparate as environmentalists and the building industry, the manufacturer's association and minority groups that new development must become more "compact", be of mixed uses and pedestrian-oriented.

By drawing on the best features of our older neighborhoods and the best ideas of innovative architects and planners, we can improve built-out communities and design new ones in ways that will empower and encourage people to move about without using their cars — by allowing a greater variety of land uses closer to work and home, by providing more successful walkways and bicycle pathways, by bringing people and transit closer together and by stopping the proliferation of sprawl development across rural land.

How do we accomplish this? We must move beyond "piecemeal planning" where local officials react to new development on a project by project basis. Instead, cities and counties will need to initiate the planning of new and changing neighborhoods. General plans and zoning ordinances will have to be revised and it will be necessary to make more use of specific plans and other creative planning tools. We will need to involve each community's citizens in the planning process. We must coordinate these plans with neighboring jurisdictions to make regional transit systems become viable. Local leaders must begin to take charge.

Implementing the Solution: The Ahwahnee Principles

A group of noted architects and designers of pedestrian-oriented and transit oriented communities, working with the Local Government Commission, has developed a set of planning principles and implementation measures which, we believe, provide a blueprint for planning more livable places. First presented to a gathering of elected officials at Yosemite's Ahwahnee Hotel, they have been titled the Ahwahnee Principles.

The principles apply equally to infill development, redevelopment and new development. Taken individually, they are hard not to like. However, the principles do not stand alone. Like pieces of a puzzle, each is critical to our success. They are as follows:

Community Principles:

- All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.
- Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
- As many activities as possible should be located within easy walking distance of transit stops.
- A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
- Businesses within the community should provide a range of job types for the community's residents.
- The location and character of the community should be consistent with a larger transit network.
- The community should have a center focus that combines commercial, civic, cultural and recreational uses.
- The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.

- Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.

- Each community or cluster of communities should have a well defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.

- Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.

- Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.

- The community design should help conserve resources and minimize waste.

- Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.

- The street orientation, the placement of buildings and the use of shading should contribute to the energy efficiency of the community.

Regional Principles:

- The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.

- Regions should be bounded by and provide a continuous system of greenbelt/wildlife corridors to be determined by natural conditions.

- Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.

- Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

Implementation Principles:

- The general plan should be updated to incorporate the above principles.

IMPORTANT

- Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. General plans should designate where new growth, infill or redevelopment will be allowed to occur.

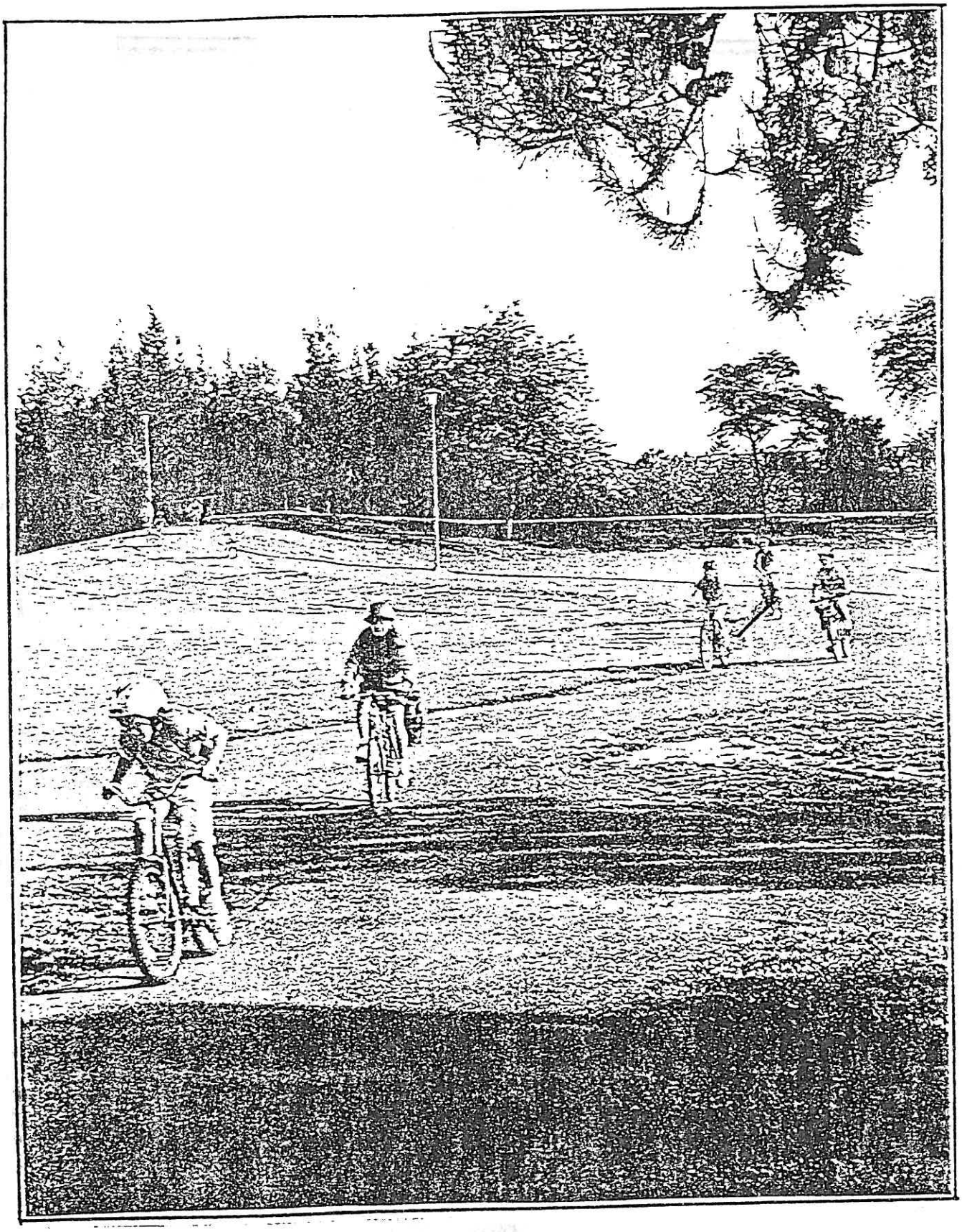
- Prior to any development, a specific plan should be prepared based on the planning principles. With the adoption of specific plans, complying projects could proceed with minimal delay.

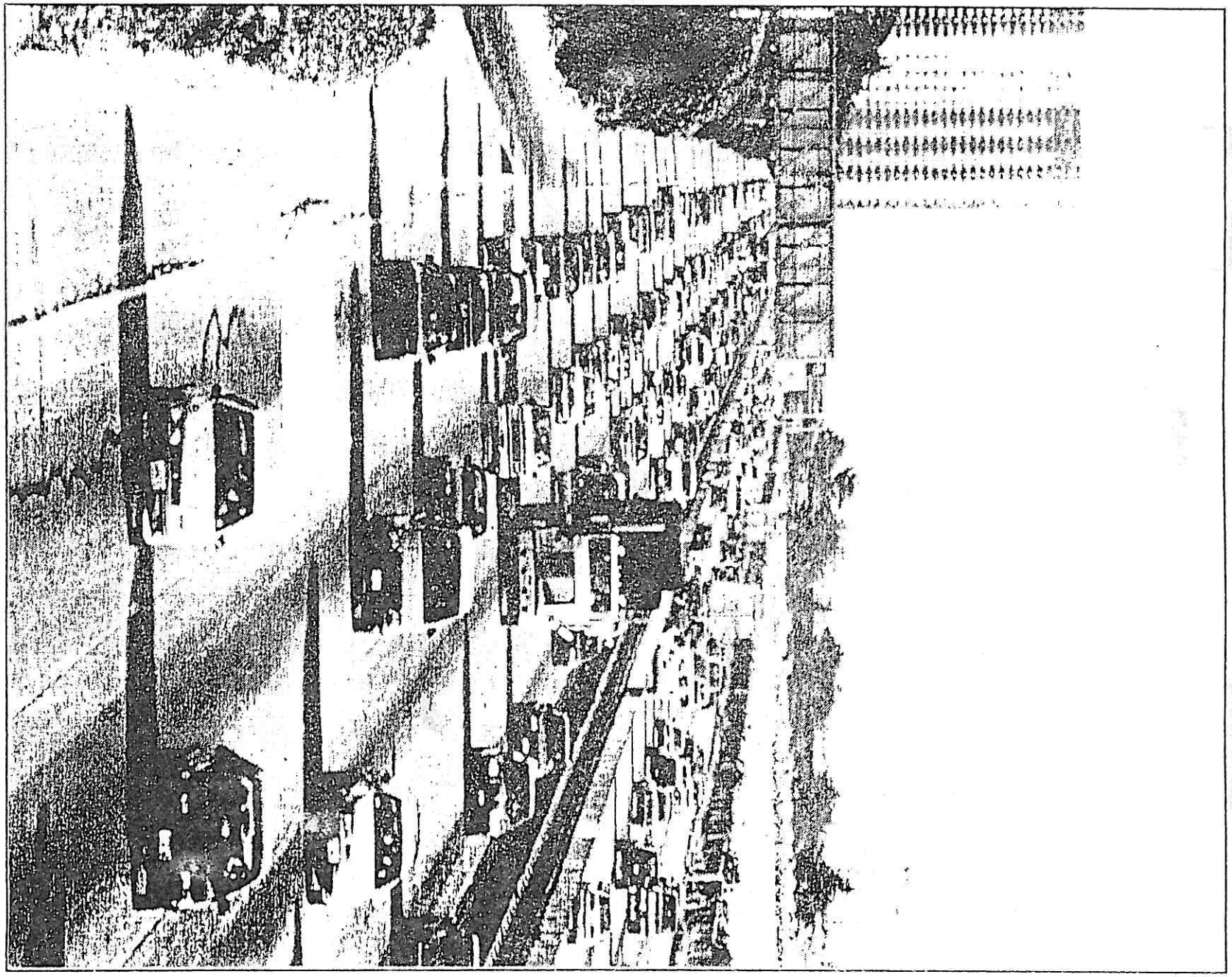
- Plans should be developed through an open process and participants in the process should be provided visual models of all planning proposals.

Communities Where They Are Leading The Way

A number of communities throughout the nation have begun to implement the principles stated above. Sacramento County has drafted a groundbreaking general plan which could well serve as a model for the implementation of the Ahwahnee Principles. It establishes areas for permanent open space, identifies areas for infill and new growth and creates a grid of transit options so that everyone in the county can get where they are going by rail or bus. Design guidelines specify that both infill and new growth will be compact and pedestrian oriented.

Similar, more localized efforts abound. The Town of Loomis has adopted a specific plan for their downtown to create a compact, mixed-use, pedestrian oriented, community core. The Cities of San Jose and San Diego are working to concentrate development around light rail stops. Pedestrian-oriented, mixed-use neighborhoods which look like those built in the U.S. before World War II are making a reappearance on both coasts. These efforts provide important working models from which we can learn a great deal in our crucial mission to plan more livable places.





The Transportation Challenge

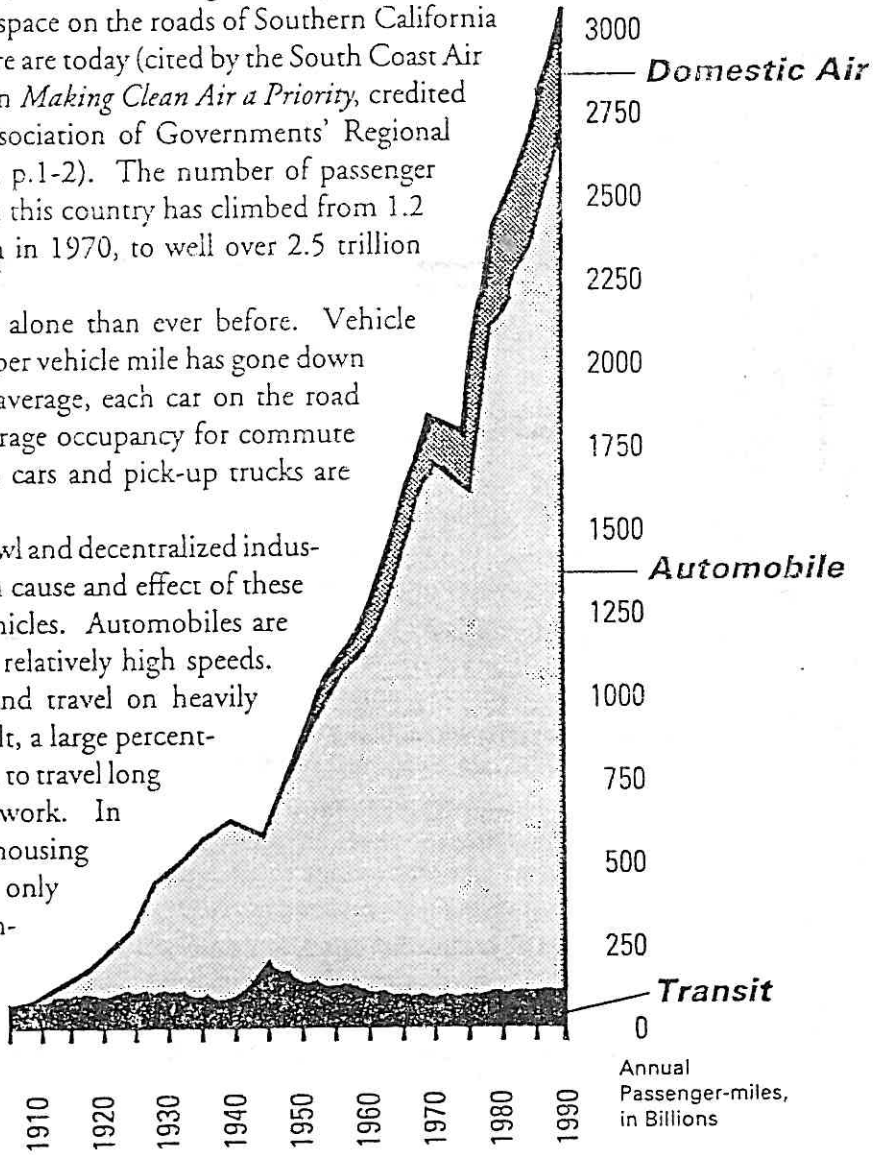
1

We are continually reminded of the economic, political and environmental reasons that we must reduce our reliance on fossil fuel. Yet our dependence on private automobiles, which burn most of that fossil fuel, continues to grow. For example, unless we change our ways, there will be 40% more vehicles fighting for space on the roads of Southern California twenty years from now than there are today (cited by the South Coast Air Quality Management District in *Making Clean Air a Priority*, credited to the Southern California Association of Governments' Regional Mobility Plan, February 1989, p.1-2). The number of passenger miles travelled in private cars in this country has climbed from 1.2 trillion in 1960 to 1.65 trillion in 1970, to well over 2.5 trillion today.

More people are driving alone than ever before. Vehicle occupancy measured in people per vehicle mile has gone down almost 20% since 1977. On average, each car on the road contains 1.55 people. The average occupancy for commute trips is 1.1. Over 100 million cars and pick-up trucks are driven to work each day.

Suburban residential sprawl and decentralized industrial development stand as both cause and effect of these trends in the use of private vehicles. Automobiles are versatile and convey people at relatively high speeds. Drivers face low fuel prices and travel on heavily subsidized roadways. As a result, a large percentage of the population can afford to travel long distances between home and work. In response, developers can sell housing that is increasingly distant not only from historical population centers but also from the goods and services needed to support a community. People have become increasingly dependent on cars not only to get to and from the workplace, but

How We Use Our Cars



Estimated Passenger Miles of Travel in the United States

to visit their neighbors or buy a carton of milk. A quick look at the way we have been designing our communities in the last 40 years tells us why. Most new suburban subdivisions have been designed to cater to users of private vehicles. Disconnected routes with little or no walking area, large lots, multi-lane arterial streets, scattered destinations and shopping malls with acres of parking make it far easier and more appealing to move by car than by any other means.

Cars, Culture and the Quality of Life

"Congestion in major urban areas is growing about 15% per year."

California Department of Transportation

As businesses have moved to the suburbs, commute patterns have become hopelessly complex; commuters travel from suburb-to-suburb, from suburb-to-city, or from city-to-suburb. Instead of dispersing congestion, this trend has created new bottlenecks and interfered with the ability of mass transit to reduce private vehicle use. According to the California Department of Transportation, congestion in major urban areas is growing about 15% per year. If current trends continue, by the year 2010, half of all road travel will occur under congested conditions. Congestion, added to longer distances between work and home, means that people spend more and more time in their cars. As a result, workers are less productive, families have less time to spend together, and we all have less leisure time. As planners Samuel Pool and Victor Dover have pointed out, a parent who spends two hours per day in a car for commuting and other purposes loses 2 years of parenting time in the 18 years between childbirth and college age. They also point out that, according to US Department Of Transportation statistics, the average family in 1986 spent 25% of its income on owning and operating cars. A second car requires about $7,000 in annual gross income.

Government often responds to traffic congestion by widening existing roads or building new ones. But when land is used for roads, it cannot be used for housing, business and open space. By some estimates, as much as 50% of the land in urban communities is covered with the concrete and asphalt needed to serve the automobile. Yet, more roads are not an answer to congestion. They are just a means of moving more cars toward a given destination. That is because more roads tend to encourage more people to drive. Soon, there are just more places where congestion is a problem. As someone else once put it, building more roads to control congestion is like loosening your belt to control obesity.

Women are heavily affected by our expanding use of automobiles. More often than not, women carry most of the responsibility for raising children. Today, this can often mean serving as primary chauffeur, since a child's daily activities may be as effectively scattered as those of an adult. In a recent preliminary study, the U.S. Department of Transportation reports that the number of miles driven by the average woman has increased 47% in the last 8 years.

Our patterns of development create disadvantages for men as well. Jane Jacobs discussed this problem in her landmark book, *The Death and Life of Great American Cities*, Vintage Press, New York (1961), when she said:

"Most city architectural designers and planners are men. Curiously, they design and plan to exclude men as part of normal, daily life wherever people live. . . Working places and commerce must be mingled right in with residences if men. . . are to be around city children in daily life—men who are part of normal daily life as opposed to men who put in an occasional playground appearance while they substitute for women or imitate the occupations of women."

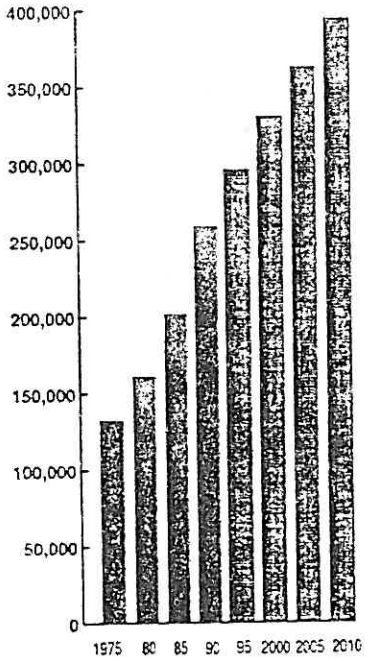
Our automobile-dependent society does not treat all people equally. The homes needed for workers and the offices offering jobs are often located many miles apart. Those who would fill lower paying jobs may not be able to afford the car needed to get to work, contributing to unemployment while keeping many jobs vacant. Mass transit may not be an option when the workplace is not centrally located and a bus ride may take hours. In addition, large suburban homes are unaffordable for most Americans.

While there is a reason for us to segregate some uses, we have gone too far. Heavy industrial activities - refineries, heavy manufacturing, agricultural product processing and the like must be segregated because they use hazardous chemicals, create noise, emit odors, and/or use dangerous equipment. However, most of our economy is now based on the service sector, consisting of activities which need not be located miles from residential neighborhoods.

Because suburbs segregate uses, because communities are not designed to keep eyes on the streets at various times of the day and night, and because job centers often become ghost towns after 6 PM, these areas are less safe. The result is increased flight from communities near job centers and more seemingly intractable crime problems.

Sprawl development threatens the preservation of open space. We need non-urbanized places to grow our food, preserve animal and plant species, allow storm run-off to replenish groundwater tables and reduce the concentration of air pollutants. We need parks and other open places to feel the sun, to see and smell green plants and flowers, to gather together, to play.

Finally, the patterns of development that have prevailed in the last several decades have threatened our sense of community and dampened our sense of commitment. Philip Slater focused on suburbia in *The Pursuit of Loneliness*, Beacon Press (1970), when he said:



Annual statewide (California) vehicle miles travelled in millions

Source: CA Dot

"I would like to suggest three human desires that are deeply and uniquely frustrated by American culture:

(1) The desire for community - the wish to live in trust and fraternal cooperation with one's fellows in a total and visible collective entity.

(2) The desire for engagement - the wish to come directly to grips

with social and interpersonal problems and to confront on equal terms an environment which is not composed of ego-extensions.

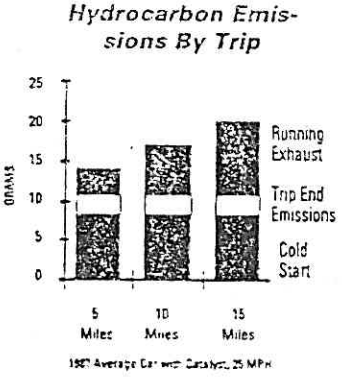
(3) The desire for dependence - the wish to share responsibility for the control of one's impulses and the direction of one's life."

In neighborhoods where we only come to sleep, where there are no sidewalks and visitors are only greeted by a garage door, it is often hard to find a community at all. It is hard to feel the support and protection provided by interdependence. It is hard to feel engaged with local politics or local concerns or to involve ourselves in local activities such as youth soccer or baseball.

Automobiles and Air Pollution

We continue to use our cars more and more. While the population grows by 2% per year, the number of miles travelled in automobiles grows at a 5% rate.

Every mile hurts. For instance, according to the California Air Resources Board (ARB), in 1987, the average car emitted 0.6 grams of hydrocarbons into the atmosphere for each mile travelled. As disquieting as these numbers might be, all those short trips to the market, school or the gym can be even worse. The ARB reports that 11 grams of hydrocarbons are released just by starting a cold engine.



And, of course, the more we drive, the more crowded the roads get. Driving in traffic jams makes cars much less efficient and results in much more pollution. According to the ARB, when a traffic jam turns an 11 minute, 10 mile trip into a 30 minute trip, hydrocarbon emissions increase by 250%.

What is all of this driving doing to the air? The ARB estimates that cars and trucks contributed 43% of the reactive organic gases (ROG), 57% of the nitrogen oxides (NOX), and 82% of the carbon monoxide (CO) emitted during 1987 in the major urban areas of California. Reactive organic gases and nitrogen oxides respond to the presence of sunlight by forming ozone, a major ingredient of smog. And of the airborne particulates which are directly emitted from both stationary and mobile sources, over half are dust kicked up by motor vehicle activity on roadways.

The Role of Transit

There is considerable interest in the role of fixed-rail transit in reducing our dependence on automobiles. This interest is understandable. Trains are more energy-efficient in operation than cars and buses because they move on tracks at regulated speeds and carry more passengers. Often, they provide rapid travel by using dedicated rights-of-way. They can help shape land use planning and business decisions because they create a sense of permanence. Many of the communities that cannot afford a rail transit system offer public buses. All of the places that have rail systems also have bus systems. Most of the factors affecting the success of a fixed-rail system also affect the success of a bus system. While

the need to encourage walking, bicycle riding, carpooling and telecommuting is common to all communities, it's important to consider how our land use decisions add to or detract from our efforts to promote transit ridership.

Why Rail Transit Alone Does Not Clear the Roads

When the Bay Area Rapid Transit System (BART) first began to provide train service to San Francisco commuters, the number of car owners using the Bay Bridge to drive into the city went down dramatically. Soon, however, the Bay Bridge was crowded again. Over the years, BART ridership has increased somewhat, but the roads have become more congested than ever.

BART clearly took drivers off the road. Yet it seems that if everything else remains the same, more people are willing to drive their cars when roads are less congested. Like a new freeway, mass transit enables more people to move more quickly toward a given destination. Unlike the hidden costs of using a freeway, the passenger's out-of-pocket cost for mass transit is obvious and the times and places where transit can be used are more limited.

The introduction of mass transit alone will not eliminate congestion. It only makes a dent when it is the preferred alternative. To be successful, mass transit must be the most convenient and least expensive way to go.

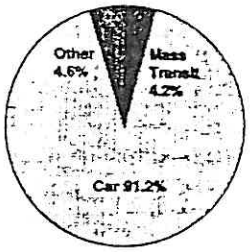
Why More People Don't Use It

Nationally, the most successful fixed-rail transit systems are the subways and commuter trains in the older eastern and midwestern cities. In New York City, for instance, over a quarter of those going to work get there on public transit (Washington D.C. is tops in the nation, at 38%). But the population trends in the decades since World War II have carried more people to the southern and western portions of the nation, to places where rail transit has not been built, or older systems have been abandoned.

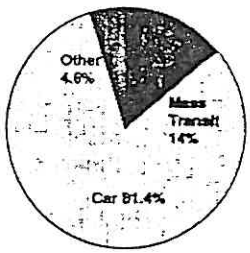
Among the areas in California with fixed-rail systems, the San Francisco Bay Area leads the pack with over 10% of its commuters using public transit. But statewide, only 5.8% of commuters rely on public transit. Largely, growth in California is concentrated in the suburbs and investment in fixed-rail transit has not kept up. Housing is dispersed and suburban job development has taken the focus off of the urban core, which has traditionally been the center of transit development, In short, too few people live and work close to transit stops.

According to the results of a survey recently conducted by the City of San Diego, 91.2% of the people get to work by car, 3.1% bike or walk, and 4.2% take public transit. But when downtown commuters are compared to the rest of the population, a different story is told. Over 14% of the downtown workers use public transit to get to work.

People often choose to take their cars to work because they have other things to do besides getting to and from the job. Sometimes a car is the only practical means of getting to an interesting place for lunch, or finding a shoe repair shop, or picking up groceries on the way home. We use cars more often



San Diego Citywide Mode Split for Commuters



San Diego Downtown Mode Split for Commuters After Recent Lightrail Improvements

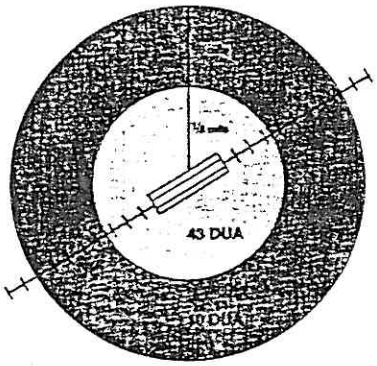
because our transportation needs are complex. The kid's school may not be in the same part of town as the doctor. The places where we shop may not all be open at the same time. It becomes difficult to perform auto-dependent tasks in clusters.

Many people take their cars wherever they go to provide themselves with greater flexibility. Cars can go just about anywhere. And if your trusty car is by your side, it's easier to change your mind about where you are going next.

Better land use planning can help address all of these issues. For instance, in reflecting on the greater tendency for downtown workers to use public transit, the City Manager of San Diego identified the following factors:

- the downtown area is pedestrian-oriented
- outlying employment centers are auto-oriented with readily available and generally free parking
- the mix of uses downtown encourages pedestrian activity
- the density of employees across the downtown area is two or three times that of the outlying employment centers
- downtown serves as the hub for the regional bus and lightrail transit system
- more downtown employers subsidize employee transit costs than in other areas of the city

But how about that old villain, "lifestyle"? Some people argue that Americans simply love their cars and won't do without them. As the story goes, people like the privacy and the sense of independence that comes with locking the door, turning the key and playing the radio.



Housing Density Needed to Support a Fixed Transportation System
North Carolina Dot Study

But in the final analysis, isn't this really a matter of economics? Among those who have a choice, most people now prefer private automobiles to the alternatives. But if public transit was faster and more convenient and if the daily cost of driving was clearly more expensive than the alternatives, how many people would stick to their cars as a matter of lifestyle choice?

Public transit cannot be faster and cheaper without ridership support. And people will only support public transit if it is conveniently located. Boris Pushkarev and Jeffrey Zupan discuss this problem in their 1977 book, *Public Transportation and Land Use Policy.* As communities become more compact, the demand for public transit increases. Where there are more people, cars become both less convenient and more costly. According to Pushkarev and Zupan, to support transit, the general rule is there must be at least seven units of housing per acre and the downtown area must contain at least 10 million square feet of office space. For very frequent bus service, a community needs at least 8 units per acre. A study published in 1990 for the North Carolina Department of Transportation, found that to support a fixed guideway system, a community should have 43 units of housing per acre within one-eighth mile of a station and 10 units per acre in the next one-eighth mile.

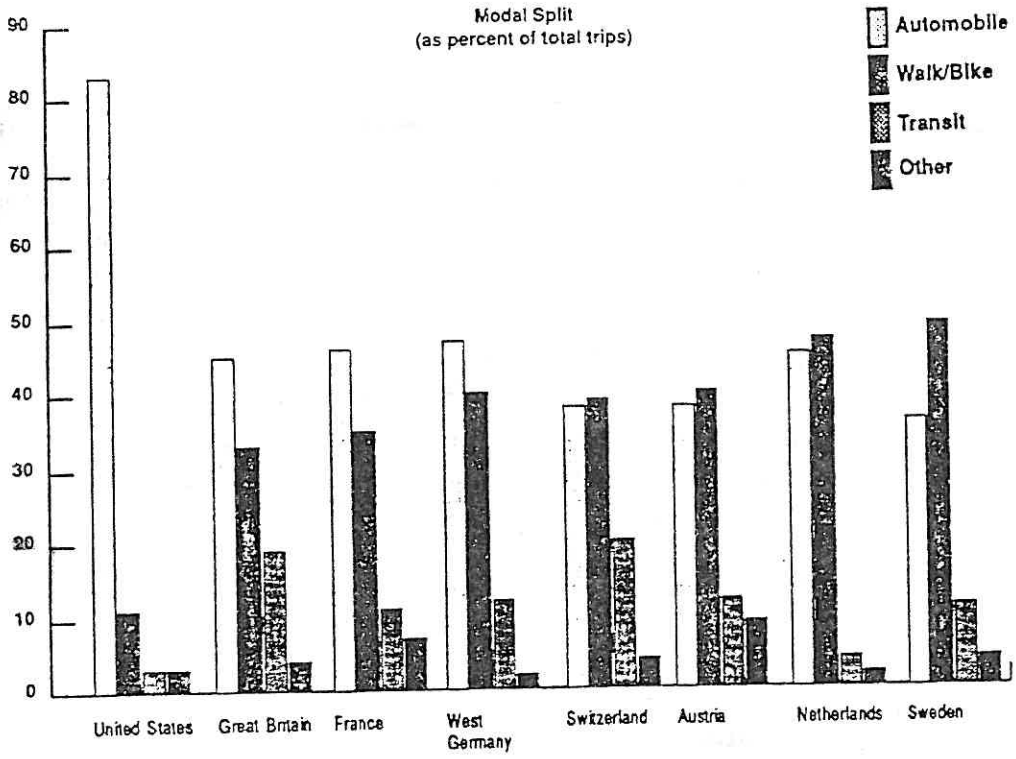
Considering the size of most suburban lots, it should be no surprise that public transit often lacks the ridership necessary to support more frequent service at lower prices. This data also suggests rapid transit systems will never be self-supporting unless more people are able to live closer to transit stops.

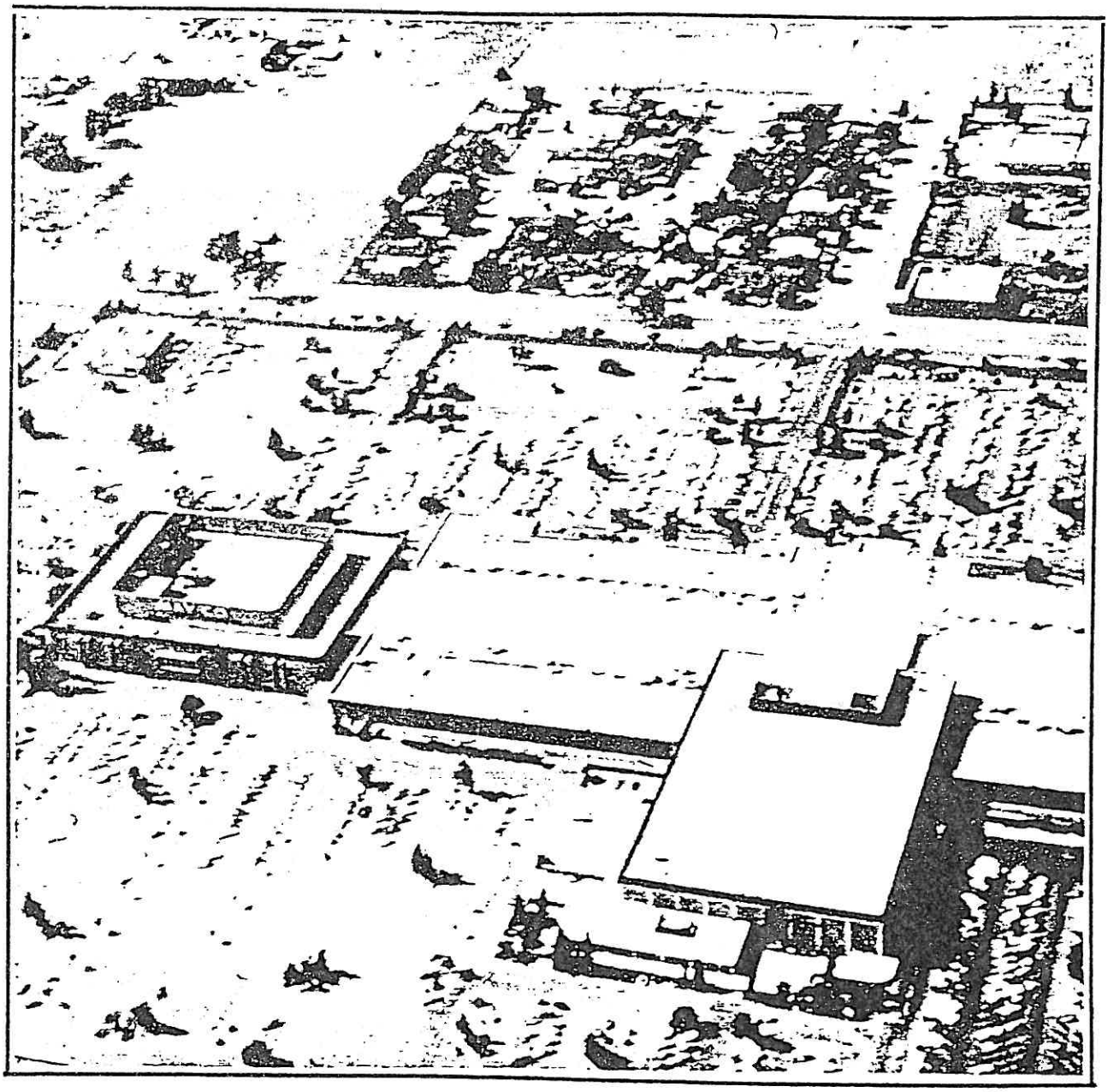
And what about the comparative cost of driving a car? The cost of driving is artificially low because the use of automobiles is so heavily subsidized. We pave and maintain streets and then allow cars to use them for free. Yet, when we build light rail systems, we are concerned because fair box receipts may not cover the cost of the system. Shopping centers absorb the cost of acres of free parking and downtown stores and restaurants validate parking garage tickets. Yet, how many commercial establishments reimburse people for bus fare? Gasoline taxes do cover some costs of driving, but most costs are absorbed by businesses and general tax revenues. We have not begun to charge automobile users for the environmental damage that they cause.

"The cost of driving is artificially low because the use of automobiles is so heavily subsidized"

Even today, people usually spend more money driving to their destinations than they would spend on public transit. This is not surprising, since most people drive alone and transit costs are subsidized as well. However, for most people, the subsidized cost of driving is attractive enough to encourage the use of private cars. If air districts and local governments remove automobile subsidies, the difference in cost will motivate more people to use public transit.

The result of our public policy preference for automobiles is not a surprising one. Based on data accumulated by John Pucher from various sources, here is how U.S. transportation habits compare with those of other nations:





How Land Use Decisions Affect Automobile Dependance

2

Sprawl

Communities planned since World War II lack well-located shops and services. A hallmark of suburban sprawl is that uses of the land are segregated. Homes are in one place, schools and parks in another, and shops and services are somewhere else. As a result, people use their cars to accomplish even the most basic tasks. In addition, since shops and services are not often grouped together in a logical way, the number of short trips tends to multiply.

Friends are scattered so even social travel depends on cars. How do friendships develop in our society? We meet people at school, at work, in our communities. When we live in sparsely populated areas, public schools have to serve a wider geographic area. School friends will be likely to live further apart. When we commute one or two hours from home to job center, our work-related friends might live an equal distance in the opposite direction. The result? We have to spend more time travelling by car just to visit with our friends. And the long commute reduces the time we have available to spend with friends and family in the community.

Suburban Job Centers

Increasingly in the last few years, office and light-industrial site development has moved away from the traditional urban core and out into the suburbs. The larger complexes tend to attract multistory office buildings, shopping malls and hotels. Characteristically, these offices, shops, and hotels are separated from the street by large parking lots and movement from one place to another can only comfortably be accomplished by car. One writer (Joel Garreau) has given these places a name. He calls them "edge cities" and suggests that they are becoming the predominant physical and cultural form in this country. Some such places are now bigger than the traditional cities that are their closest neighbors.

One might think that if jobs are concentrated in the suburbs, more people will be able to live closer to work and commutes will shrink. Planning Professor Robert Cervero has found that "despite the steady migration of jobs to the suburbs over the past decade, many suburban residents commute farther than ever." (*APA Journal Spring*, 1989, p.136). Cervero attributes this to several factors: exclusionary zoning that leads to an undersupply of housing, rents and housing costs that price many service workers out of the residential markets near their jobs, and the growth in two-worker households.

"Despite the steady migration of jobs to the suburbs over the past decade, many suburban residents commute further than ever."

Robert Cervero

Recent studies also suggest that even where suburban jobs are clustered near rail transit stops, few workers will use transit to get there. Perhaps that is because our existing rail transit system focuses on the traditional urban core. The places where suburban workers live are less likely to be served by convenient rail transit that would take those workers to their jobs. For example, compare the options of a worker in downtown Oakland with those of a worker in suburban Walnut Creek. There are many more places to live within 10 miles of downtown Oakland that are close to the transit system (BART) than there are within 10 miles of Walnut Creek.

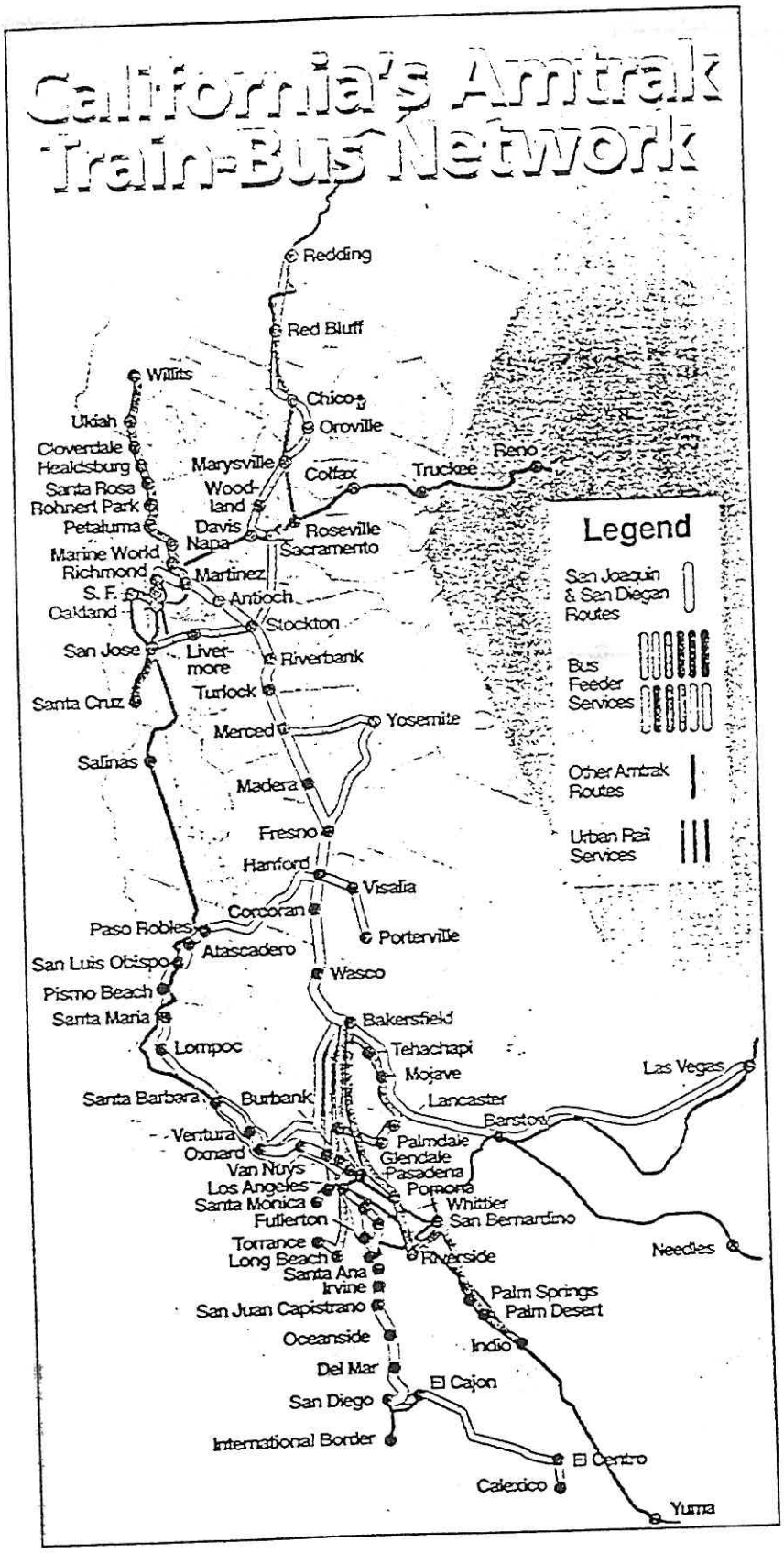
Suburban job centers are seldom walkable. The worker in a suburban tower is more likely to be provided with a jogging path along a creek than a short, safe walkway to restaurants and shops. Even people who live close-by are often motivated to drive to work rather than attempt to cross a six-lane arterial road, or navigate a series of parking lots along the way.

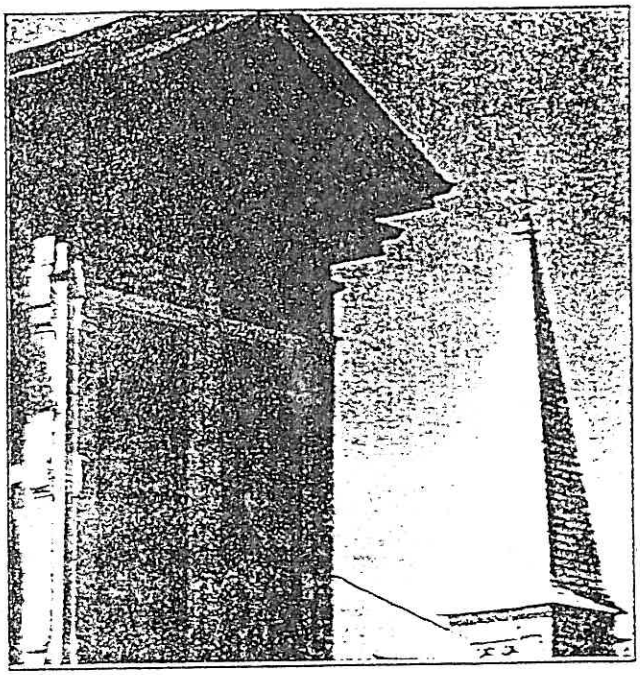
For all of these reasons, most of those who work in suburban job centers depend on their cars — to get to work and home, and to gain access to food and services throughout the day.

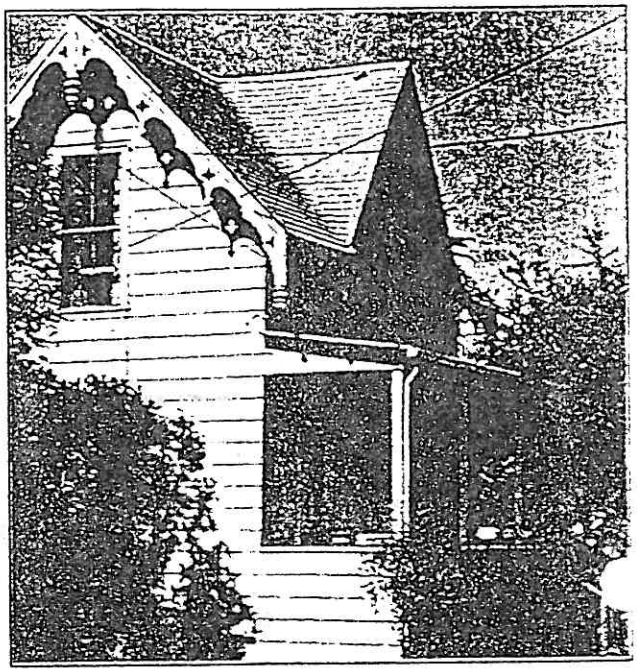
Lack of Transit Corridor Planning

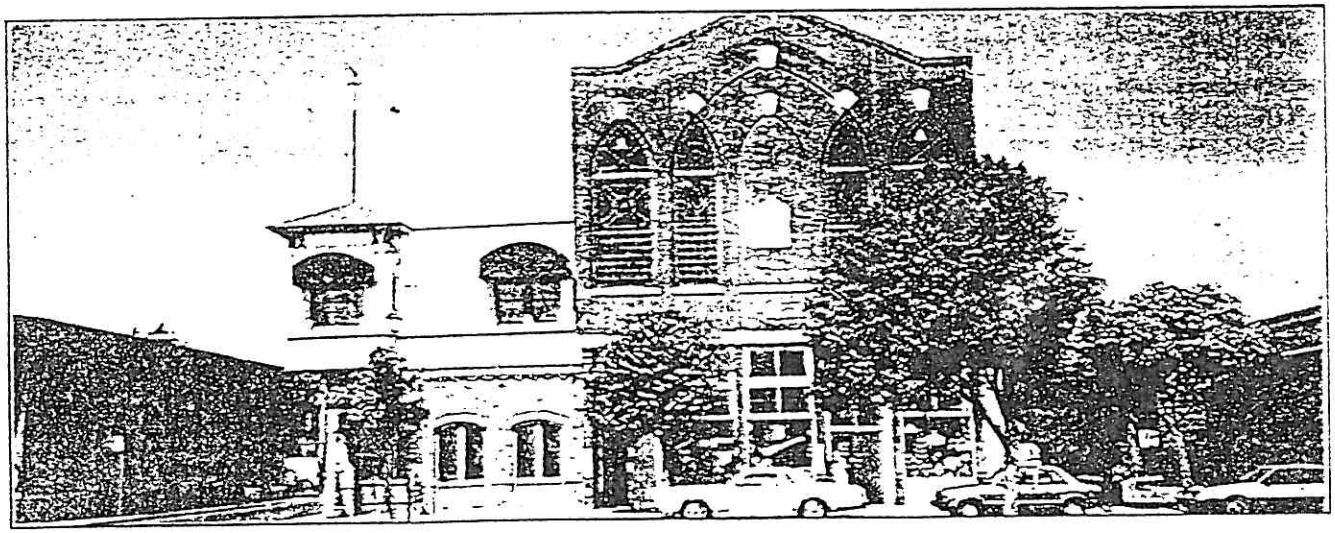
In the era of streetcars, tracks were often laid before communities were built and the streetcar route heavily influenced the form that development took. This trend was discussed in the North Carolina Department of Transportation's Transit/Land Use Study for the Research Triangle area. Development was drawn to the streetcar route. The resulting communities were compact, with a well established pattern of mixed residential and commercial uses along a relatively narrow corridor. Pedestrian movement was emphasized.

In contrast, newer rail transit systems have been built in response to congestion and environmental concerns. This has involved an effort to adapt mass transit to existing land use patterns, which are characterized by suburban sprawl. In many cases, instead of putting transit in places where new development was most promising, tracks were laid where right-of-way was available. "As a result," according to the North Carolina study,"these systems were built into an environment that could not fully support their operation." While it would seem logical that land use planners and transit authorities coordinate their activities, this has typically not been done.


California's Amtrak Train-Bus Network
Redding
Red Bluff
Willits
Chico
Oroville
Ukiah
Cloverdale
Healdsburg
Santa Rosa
Rohnert Park
Petaluma
Marine World
Richmond
S. F.
Oakland
San Jose
Santa Cruz
Salinas
Paso Robles
San Luis Obispo
Pismo Beach
Santa Maria
Lompoc
Santa Barbara
Ventura
Oxnard
Van Nuys
Los Angeles
Santa Monica
Fullerton
Torrance
Long Beach
Santa Ana
Irvine
San Juan Capistrano
Oceanside
Del Mar
San Diego
International Border
Marysville
Wood-land
Davis
Napa
Martinez
Antioch
Stockton
Liver-more
Riverbank
Turlock
Merced
Yosemite
Madera
Fresno
Hanford
Visalia
Corcoran
Porterville
Atascadero
Wasco
Bakersfield
Tehachapi
Mojave
Burbank
Lancaster
Palmdale
Glendale
Pasadena
Pomona
Whittier
San Bernardino
Riverside
Palm Springs
Palm Desert
Indio
El Cajon
El Centro
Calexico
Yuma
Needles
Barstow
Las Vegas
Truckee
Reno
Colfax
Roseville
Sacramento
Legend
San Joaquin & San Diegan Routes
Bus Feeder Services
Other Amtrak Routes
Urban Rail Services







A Strategy for Building Livable Communities: The Ahwahnee Principles

3

There is a growing consensus among groups as disparate as environmentalists and the building industry, the manufacturer's association and minority groups, that urban sprawl is undermining the social and physical infrastructure necessary to support a viable economy in California. There is agreement that we must change the way we are currently planning our communities.

The conclusion that new growth must take the form of compact, mixed-use development has been reached by a state-wide growth management consensus project involving 30 representatives from local and regional governments, the development community, business, agriculture, environmental organizations, low-income housing advocates, and minority communities. (*Summary of Findings: Growth Management Consensus Project,* California State University, Sacramento, January 5, 1992). The California chapter of the American Institute of Architects has taken a similar position.

Even Salomon Brothers, a prominent investment house, is advocating a new vision to guide the future of real estate development. Their vision includes sizable areas of at least moderately high-density development in areas containing a blend of different types and prices of housing, all close to jobs (*The Need for a New Vision for the Development of Large U.S. Metropolitan Areas,* Salomon Brothers, August, 1989).

These principles... identify the essential elements of any existing or new community that is intended to be less dependent and more livable.

A handful of local elected officials have also begun to rethink the public planning process and to take action. Soliciting the help of creative architects and planners, city officials and citizens have begun to identify the aspects of older neighborhoods that helped make them successful, to recognize the cultural, historical and environmental qualities that make them distinctive, and to create a vision for each new neighborhood that combines the best of the old and new. The process puts the community back in control of planning its direction. Neighborhoods designed through this process should be safer, pedestrian-oriented, more neighborly and less auto-dependent.

There is no single formula that is appropriate for each community, no single strategist or leader who holds all the answers. People are no more inclined to live in a series of walkable, yet nearly-identical hamlets than to live in endless suburban sprawl. We have attempted in writing this guidebook to identify the essential elements of any new or existing community that is intended to be less auto-dependent and more livable and to offer ways of assuring that those elements are appropriately considered in the planning process.

We developed this strategy by working with some of the nation's foremost

architects of pedestrian and transit-oriented design. The concepts were presented to a gathering of some one hundred local elected officials at the Ahwahnee Hotel in Yosemite in October, 1991 and are referred to by some as "The Ahwahnee Principles."

The Ahwahnee Principles are made up of three parts: The community principles define what a community should be like, the regional principles define how it should relate to the communities around it, and the implementation strategy provides local officials with a plan for making it all happen.

Community Principles:

The community principles call for planning towns and neighborhoods reminiscent of those built before World War II where everyone, including children and the elderly, can get where they are going without a car. Housing, shops, work places, schools, parks, and civic facilities essential to the daily lives of the community's residents are all within easy walking distance of each other. Streets and paths are small and framed by buildings and trees, and they provide direct and pleasant routes to nearby destinations. There are a variety of housing options available, suitable in price and size to all who wish to live and work there.

The building types and the landscaping reflect the climate and the history of the area. Homes are sited and designed to take maximum advantage of the sun for heating. In hot climates, windows are shaded in summer and outdoor areas are covered by a canopy of drought-tolerant plantings. A regional architecture, developed before the invention of central heating and air conditioning, is dominant in the community; and native plants are widely used in landscaping homes and public areas. Gurgling creeks carry runoff water during periods of rain and allow precious water to seep back into the soil.

In this scenario, each community is about 1/2-mile wide, small enough to be walkable. Towns are made up of several communities; cities are made up of many such communities. There is a well-defined edge around every community or cluster of communities, such as an agricultural greenbelt, waterway, or natural wildlife corridor - protected permanently from development.

In this vision, the focus of the community is a town center. Full of life and vitality, it is the center of most commercial activity, culture and recreation, and the site of the civic buildings. It is the place where a number of community residents work. There are squares, greens and parks which are full of people and activities at all hours of the day and night. Here, people can also hop on a transit system to travel outside the area.

Regional Principles:

The vision continues into the region. Each community's transit system ties into an urban core where government services, museums, stadiums, convention centers and the like are located. The collection of communities served by this core are surrounded by a continuous system of wildlife corridors. Open space is dictated by natural conditions - it may be made up of mountains, farmlands,

rivers, or wetlands. Each region has its own local character and community identity which is a result of the use of building styles which are appropriate to the climate and history of the area.

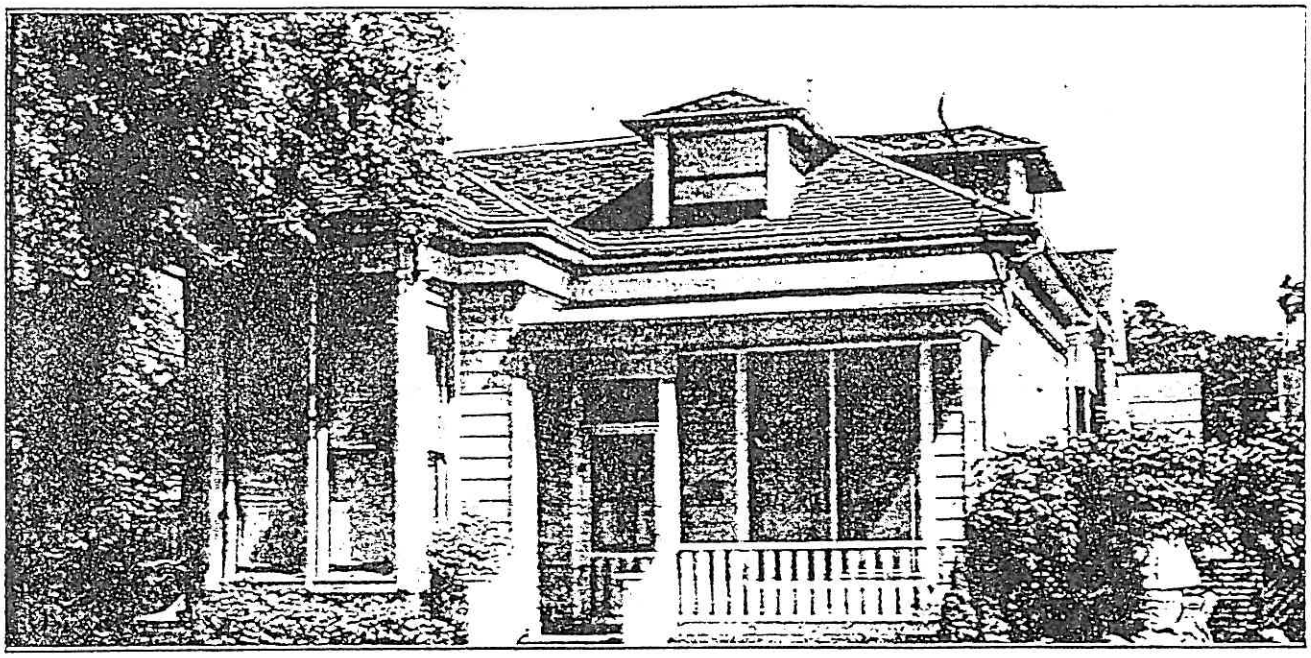
Implementation Principles:

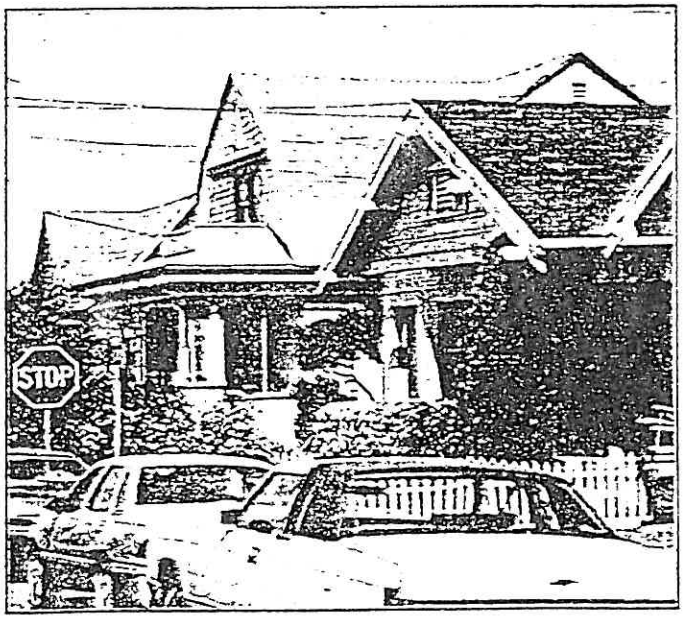
The architects of the Ahwahnee Principles have provided a way for local governments to translate these planning principles into reality. First, they suggest a review of local general plans in order to incorporate the community and regional principles. Zoning codes will have to be modified to assure that they do not inadvertently obstruct pedestrian-oriented design.

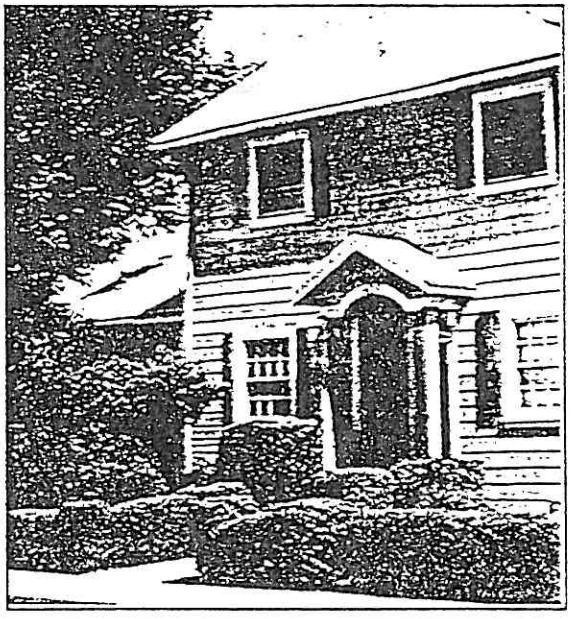
Second, they suggest that rather than allowing developer-initiated, piecemeal development, local government should take charge. Community leaders and residents should decide where they want to grow and what new development should look like. In areas where there is to be new development, redevelopment or infill, specific plans should be prepared. This process must involve community residents. All proposals presented by the architects and planners should be illustrated with models, computer simulations and the like to enable design process participants to fully visualize the impact of the decisions they will make.

In sum, the Ahwahnee Principles call for a return to designing on a human scale. This means accommodating people as well as the automobile. Should we answer this call, we will, in the words of Architect Peter Calthorpe, ". . . turn suburbs into towns, projects into neighborhoods and networks into communities."

We will proceed by discussing each set of principles more fully. Chapter 4 will detail the community principles. Chapter 5 addresses important regional issues. In Chapter 6, we will focus on the implementation principles.




STOP



Towards Better Community Planning

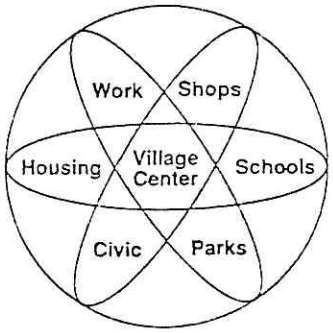
4

As we discussed previously, there is a growing consensus among environmentalists and the business community that we must move away from piecemeal planning and the resulting urban sprawl. New communities, redevelopment and infill projects should create a compact neighborhood and a mixture of uses. It should be pedestrian-friendly and be designed to support transit. The following community principles elaborate on these concepts and list additional elements which must be considered if we are to plan more livable places.

Community Principles:

- All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.
- Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
- As many activities as possible should be located within easy walking distance of transit stops.
- A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.
- Businesses within the community should provide a range of job types for the community's residents.
- The location and character of the community should be consistent with a larger transit network.
- The community should have a center focus that combines commercial, civic, cultural and recreational uses.
- The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.
- Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.
- Each community or cluster of communities should have a well defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.
- Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.

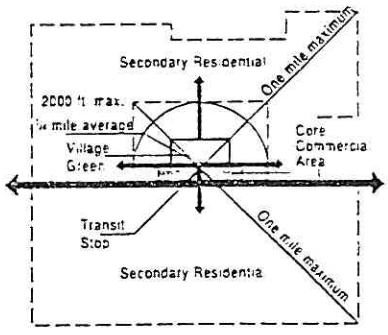
- Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.
- The community design should help conserve resources and minimize waste.
- Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.
- The street orientation, the placement of buildings and the use of shading should contribute to the energy efficiency of the community.



Complete and integrated community

- **All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.**
- **Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.**

One reason that activities are so strictly segregated in many of our neighborhoods is that development decisions are often not made on a human scale. It is not assumed that people may want to meet their daily needs by walking from place-to-place. A first step toward breaking our total reliance on automobiles is to define a community in walkable terms. For the purposes of the "Ahwahnee Principles", our definition of a community is, "a set of homes and services essential to the daily life of residents, all within easy walking distance of each other." A community may be a small town, or it may be a neighborhood within a city.



Pedestrian scaled village center concept developed by Calthorpe Associates

An easily walked distance may vary, depending on terrain and climate. Perhaps the key in defining a walkable distance is to choose a distance that can be travelled by foot in just about the same time it would take for a person to get into a car, start it up, drive the required distance, park, and walk from the car to the final destination. If a half mile is a walkable distance in a given place and if common services are relatively central, a community can be viewed as occupying about a square mile of land.

It has been proven that people do use their cars less when a good mixture of activities are available in a walkable community. By clustering eight neighborhoods around village centers and linking them with a community bus system and bike path, the developers of Columbia, Maryland have been able to achieve annual savings for residents estimated in 1975 to be $810,000. This is the result of an average of 30 fewer miles driven per month by motorists in each of the 15,000 households. (Report to Congress by the Comptroller General:

Greater Energy Efficiency Can be Achieved Through Land Use Management, EMD-82-1 Dec. 21, 1981).

The American Society of Civil Engineers solicited a study, published in March 1990 by Glatting Lopez Kercher Anglin, Inc. and the Real Estate Research Consultants, Inc, which compared the number of vehicle miles likely to be travelled by residents of conventional suburban neighborhoods and more walkable, mixed use neighborhoods. This study concluded that walkable communities reduce total vehicle miles traveled by 43%. A 1974 study prepared by the Real Estate Research Corporation determined that, in a community of 10,000 housing units, residents of more compact, mixed use development would use half the gasoline consumed for transportation as compared to residents of a comparably sized suburban low density sprawl development (6.5 million gallons per year as compared to 13.1 million gallons per year).

Walkable communities reduce total vehicle miles travelled within the development by 43%.

1990 study by Glatting Lopez Kercher Anglin, Inc.

Although it is important to reduce the number of miles travelled by car, it is even more important to reduce vehicle trips. According to the California Air Resources Board, the auto emissions produced by one cold start are approximately equal to those produced by a car traveling 45 miles per hour for 22 miles. That's why it is so important that common destinations be located not just close-by, but within comfortable walking distance.

Zoning laws in most jurisdictions require the segregation of uses that is predominant today. Commonly, zoning ordinances are exclusive. They allow for one use of a given parcel of land and define certain other compatible uses. Writing in the *Mixed-Use Development Handbook* for the Urban Land Institute, Dean Schwanke comments that,

> "Zoning has historically been almost entirely negative. In many districts, for example, regulations often specify permitted uses, the maximum heights of a building, and the required dimensions for front, side, and rear yards. Taken together, such limitations defined what is frequently called the 'zoning envelope,' an invisible box that a building could completely fill but out of which it could not protrude in any direction. The visual effect of this approach is evident in the monotony of many downtowns and suburbs across America today."

Zoning has historically been exclusive...allowing for one use of a given parcel... and historically has been almost entirely negative.

> "Recent thinking seeks to remedy these deficiencies of traditional zoning in two respects: (1) by moving toward a more beneficial integration of different land uses at a proper scale; and (2) by emphasizing incentives for better design, provisions of amenities, and other public purposes...."

Jane Jacobs argues that this is exactly what a healthy city needs: "a most intricate and close-grained diversity of uses that give each other constant mutual support, both economically and socially.' (Jane Jacobs, *The Death and Life of Great American Cities* p.14).

What services should be located in a pedestrian community? That, of course, depends on a number of factors. Will there be enough people living or working close-by to support a particular business? Can businesses be located near an arterial road to attract shoppers from a nearby community? Will the income level from jobs that might be offered in the community be compatible with cost of local housing? Are there enough families to support a local school? Are there other parks close-by?

Here, for example, is a list of "appropriate" uses for retail space as included in a strategic plan for a mixed-use infill neighborhood in San Jose:

bakeries
banks
bookstores
camera stores
clothing stores
collectible shops
daycare
delis
drugstores
dry cleaners
florists
food, grocery stores
art & craft galleries
gift stores
hardware stores
health club, gyms
home furnishings
ice cream stores
instruction studios
laundromats
office supplies
personal service shops
pet stores
post office
professional offices
public/government uses
radio, TV, video and music stores
restaurants, bars
schools - commercial
shoe stores
small appliance repair
small theater
specialty foods
sporting goods
stationery stores
tailor
toy stores
variety stores

Any other retail or service use that is compatible with the surrounding neighborhood and intended to provide services to residents.

In approving a new project, a local government could require that a commercial landlord only lease space to certain categories of businesses to assure that needed services would be provided within the community.

A walkable community offers economic benefits to the city as a whole, as well as saving a great deal of money on gasoline for the individual resident. This is because a walkable community is, by necessity, a compact community. The infrastructure required by this style of development is far less expensive to build and maintain than that which is required to service urban sprawl - that is, endless miles of sewage lines, drainage pipes, streets, and the like. Compact development also reduces costs for police, fire and sanitation services. A book published by the Urban Land Institute by James E. Frank, *The Costs of Alternative Development Patterns- A Review of The Literature* (1989) suggests that sprawl development costs from 40 to 400 percent more to serve.

Compact development reduces costs for police, fire and sanitation services... sprawl development costs from 40% to 400% more to serve.

Some are concerned that more compact housing will not sell. This concern disappears when one looks at communities, new and old, that were designed to be walkable and to accentuate interaction. Worried about property values? Look at Annapolis, Maryland, Georgetown in Washington, D.C., Seaside in Florida, or Village Homes in Davis. Homes in well-designed pedestrian communities

often command top dollar when compared to homes of similar size and distance from job centers in other communities. Although homes in the Village Homes development initially cost the same as those in other neighborhoods, houses there now sell for an added $11.00 per square foot. In 1991, it took an average of 133 days to sell a home in Davis while in Village Homes, houses sold in 55 days.

"Unconsciously, we do as much as we can to make high density living unbearable."

Joel Woodhull

If there are more compact developments that do not sell well, density itself may be wrongly accused. Joel Woodhull, Policy Analysis Manager, for the Southern California Rapid Transit District, points out that "unconsciously, we do as much as we can to make high density living unbearable: we put it next to freeways to shield the low density neighborhoods, we don't provide adequate services, and we provide too few parks and other green spaces. The majority of people live in single family detached housing, so that is where all the advantages flow if it can be arranged." When we allow more compact housing to reflect the best of a community, it is highly likely to be well received.

- As many activities as possible should be located within easy walking distance of transit stops.

As we discussed above, transit systems can only be successful and self-sustaining if most people live, work, and shop near a transit stop. When people cannot easily walk to and from the transit stop, they are unlikely to use the system. Because each automobile trip from a cold start is highly polluting regardless of trip length, those who drive their cars to a transit stop are still contributing significantly to our air pollution problem.

Planning expert John Holtzclaw has found that "doubling residential population density reduces the annual auto mileage per household by 30%". (John Holtzclaw, Ph.D. *Explaining Urban Density and Transit Impacts on Auto Use,* NRDC and Sierra Club, 4/19/90, P. 2).

"Doubling residential population density reduces the annual auto mileable per household to 30%."

John Holtzclaw

That is why more and more elected officials are recognizing the need to focus new development around transit stops and to provide more compact development within close walking distance of a transit stop. (See Chapter 7 for outstanding examples of the implementation of this concept from the City of San Diego, and San Diego and Sacramento Counties in California.) In its Draft Regional Growth Management Strategy (dated July, 1991), the San Diego Association of Governments calls for local governments to plan for locating 50% of the region's housing units within 1/4 mile of a transit route and 80% of the housing within 1/2 mile of a transit route.

- **A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.**

- **Businesses within the community should provide a range of job types for the community's residents.**

When there is a local diversity of housing types, there is greater opportunity for those who work in a community to live there as well. A variety of housing types in the same community makes it more likely that older people and others on fixed incomes will not only be able to stay in the community, but may have the option to move into the community as well.

When people talk about bringing jobs and residents closer together, they often refer to the concept of a "jobs-housing balance," which suggests that communities are poorly planned if they do not contain an equal number of workers and residents. To some, this concept implies that if there is enough housing in a community to match the number of local jobs, most people will live where they work, but it is not as simple as that.

Jobs-housing Balance: "There has to be a match-up between skill levels of local residents and local job opportunities."

Robert Cervero

After examining 1980 census data for the San Francisco Bay Area, Robert Cervero observed, "Clearly, in striving to provide employment opportunities for local residents, a community has to do more than achieve a comparable count of jobs and housing units. There also has to be a match-up between skill levels of local residents and local job opportunities." Although no one can assure that such a match-up will occur or be maintained in a given community, it will not happen in places where zoning restrictions or economic barriers keep out residents whose income levels are compatible with locally available jobs. It will not happen in job-heavy communities where new housing projects are resisted or precluded.

The San Diego Association of Governments (SANDAG) recently issued a report on jobs-housing balance (*SANDAG Draft Regional Growth Management Strategy*, July, 1991). It found that:

1. Balancing jobs and housing has a positive impact on traffic congestion and, to some extent, air quality. However, under SANDAG's assumptions, this balance reduces Vehicle Miles Travelled (VMT) but does not significantly reduce vehicle trips, thus minimizing improvement of air quality.

2. Moving housing into job rich areas is more effective than moving jobs into housing rich areas. This is because when jobs follow housing, the jobs are usually on the periphery of the community and travel patterns become more decentralized.

3. Moving housing into areas within walking distance of light rail stations produces the greatest improvements in traffic congestion and air quality.

It seems the key to bringing residents and jobs together is to assure that people with incomes of the level available in the community can find local housing they can afford. Here are some of the design techniques recommended by architects and planners to increase the number of rental units and smaller owner-occupied homes in a community that may otherwise be dominated by detached single family homes, without reducing real estate values:

In-law Units

Adding an apartment over the garage or a free-standing cottage behind a larger home can double the number of units per acre. For the renter of the smaller unit, this arrangement creates many of the advantages found by the primary property owner without the full burden of the cost of the land.

Halfplexes, duplexes:

These are smaller, attached dwellings which, in combination, maintain the scale of the more expensive neighboring dwellings but expose each owner to a smaller portion of the land costs. Because these are the least expensive units in the neighborhood, they become excellent investments. An example of halfplexes: Winnbridge Villas, in Sacramento's pocket area.

Second-story units above stores:

Second-story apartments provide the perfect complement for street-level shops. The sight of apartment windows resting above a line of store windows can be very pleasing. When commercial streets have residences as well, there are merchants to watch the streets all day long and residents to keep an eye on things in the evenings and on week-ends. The result is likely to be a neighborhood that is safer all of the time. At the same time, second-story apartments provide more potential customers for local merchants.

Garden apartments:

Garden apartments provide a graceful way to place more living units in a smaller area while enabling people to be close to trees, lawns and open areas. Typically, one or two story rental or condominium units either trim a central garden or are surrounded by gardens, all within a residential lot. Other residents on the street can enjoy the gardens as well and street-facing portions of the complex can be designed on a scale that fits comfortably with surrounding houses. Pasadena has enacted a Garden City zoning ordinance that requires a minimum amount of garden space in single-lot multifamily developments.

CoHousing

In a cohousing situation, residents own their own home but share a yard and common dining and entertainment facilities with their neighbors. Costs can be lower because the individual lot size and living unit are smaller than they would need to be if neighbors were not sharing facilities and outdoor space.

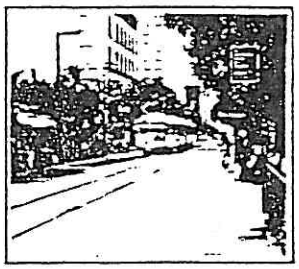
Live-Work

Located primarily in older industrial neighborhoods, live-work buildings provide rental units or condominiums that must be used to support business activities but can also be used as homes. This arrangement not only offers the economies of scale of a multifamily dwelling, it also eliminates the need to pay for separate living and business space and commuting costs.

- **The location and character of the community should be consistent with a larger transit network.**

In an earlier era, commuter trains and trolley lines had a profound impact on land development. Commuter trains that were anchored in London, for instance, reached out into the countryside. Pedestrian-scale communities developed around each train stop, reaching out in concentric circles of diminishing density, leaving substantial green space between communities. This pattern of development was not only responsive to the existence of commuter trains; it complemented their use. London served as the primary job center and the communities that clustered around the train stations provided a steady ridership.

Most modern-day fixed-rail systems are anchored by traditional job centers as well. However, the existence of major highways and freeways makes developers far less dependent on those rail systems. One result has been a proliferation of suburban job centers that are not necessarily tied, in a useful way, to rail or bus transit. Many suburban job centers are not built near transit stops. Those that are near transit stops may still not employ a significant number of transit users if transit does not provide direct service to the areas where most of the workers live.



Various areas and pieces of land have an obvious role when viewed in a regional context. Although a mixture of uses is to be encouraged everywhere, some places are best suited for housing people who will work in an existing job center. Some places will have especially high recreational value for the region, due to the presence of prized natural features or existing development. The role of existing, planned and potential transit should be considered when determining the best use of land in a given area.

The location of communities will be most consistent with a regional transit system if they are situated so that more homes and other uses are close to transit

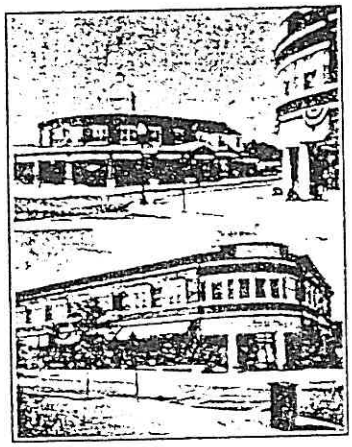
stops. The character of a community will be most consistent with regional transit if its uses support a regional job center or other important regional need.

- **The community should have a center focus that combines commercial, civic, cultural and recreational uses.**

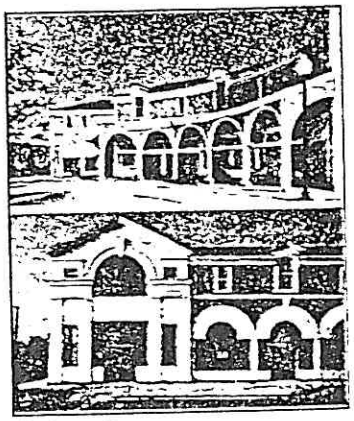
We need to turn away from large regional shopping malls and rediscover the traditional town center where each activity adds to the whole to produce a community core that is vibrant and socially inviting.

What do we do about existing sprawl development oriented toward the automobile? We might look to a project now being completed in Mashpee, Massachusetts. Mashpee was a town with a fully developed residential community but no town center. The only place to shop in town was at a large, strip-style shopping center.

Thanks to some innovative developers, that strip-style shopping mall is being converted into a town center for the community. The developers involved the city's residents in the design of the project during a week-long series of workshops. The design they developed involved cutting a grid of new streets through the existing center, and adding new buildings with shops below and other uses above. One of the new streets was extended in one direction to a new town green, incorporating a church, a library and a meeting hall. Existing neighborhoods were connected to the new town center with sidewalks. Multi-family residential units are being added. According to the developer, people stop him on the street to tell him how much they enjoy the feeling of the place over a typical shopping mall.



Mashpee Commons



Mashpee Commons

Are such mixed-use, town centers economically viable? According to the Urban Land Institute, small-scale, retail space can be very profitable. Cost data collected by the Institute in 1989 from shopping centers in the far West reveals that convenience centers of less than 30,000 square feet make more money per customer (total income remaining after operating expenses are taken out but before deductions are made) than larger centers. In fact, according to this study comparing three sizes of shopping centers, the larger the center, the less the total income per customer.

- **The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.**

When we think about the most successful examples of compact develop-

ment, they are usually adjacent to some kind of open space. Sometimes the open space is in the form of a body of water (a lake, ocean, river) other times it is a park. People want and need "room to breathe", even if it is only visual.

Green places literally breathe life into our polluted air. They allow rain and melting snow to replenish groundwater tables, give birds and squirrels places to make a home and can be beautiful to behold. Parks are critical to child care and essential to child development. They provide places for recreation and places to meet. Parks, greens and plazas and natural bodies of water, where they exist, should be the focus of developed areas.

Open space must be designed very carefully. In the middle of this century, it became popular for architects to answer the need for both low cost housing and open space by designing high-rise housing units surrounded by large open areas. This reduced land costs and, at the same time, allowed space to be allocated for large parks. While appealing in theory, many of these housing environments were miserable failures because they took a good idea too far. In 1972, architect Oscar Newman wrote , ". . . the new physical form of the urban environment is possibly the most cogent ally the criminal has in his victimization of society."

Newman performed a statistical analysis of the crime rates of two low-income, residential environments housing comparatively identical populations. One consisted of high-rise towers surrounded by large, open areas and the other consisted of three to six story buildings with smaller, semiprivate court yards and surrounding open space. The projects each housed 288 persons per acre. Yet in the high-rise residential environment, there was a 66% higher crime rate! (Oscar Newman, *Architectural Design for Crime Prevention*, U.S. Department of Justice, 1971)

The key seems to be to divide space into semipublic and semiprivate areas rather than just public and private and to position windows or paths to allow residents to naturally survey the open areas of their living environment. To feel responsible and protective about the open space around them, residents must feel that it belongs to them and they must be able to easily visually observe it and physically access it. A city park will be safe if residents feel that they share ownership as members of the community, if it is used frequently, and if it is visually accessible. As Newman noted, areas that are totally public in nature and hidden from view are the places where criminal behavior will occur.

- **Each community or cluster of communities should have a well defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.**

In a broad sense, land that has no buildings, towers or roads can still be thought of as "developed". Prime agricultural land is heavily cultivated; native

vegetation is removed, irrigation and drainage systems are installed. Park lands may be manicured and contain access roads and trails. But as we will use the term here, protection from development means assuring that certain land will never be used primarily for residential, or commercial/industrial purposes (other than agricultural).

When a developed area is bordered by a permanent, undeveloped edge, the process of planning a community within a limited space takes on meaning. A limit is created for the areas in which certain physical improvements and services will be provided. Government can plan infrastructure and services and adopt a long-range strategy for roads, parks and schools. Those interested in developing within the community will focus on in-fill possibilities. Transit can be planned with greater confidence.

When a developed area is bordered by a permanent, underdeveloped edge, the process of planning a community within a limited space takes on meaning.

A development area without defined limits encourages sprawl by enabling landowners on the developed fringe to repeatedly propose new projects that are not linked, in significant ways, with the existing community.

Undeveloped land is an invaluable community asset. In several ways, it encourages energy conservation. In the case of non-agricultural land, no energy is expended to develop it. Since preserved land allows for natural drainage, underground water tables can be more successfully maintained and less energy will be expended to pump water. Undeveloped land will help keep communities cool in the summer, simply because it will not be paved with heat-absorbing asphalt. When the roads become hot enough to heat the surrounding air, the hot air will be drawn toward the cooler undeveloped land, creating a breeze. Where green places have recreational value, people may be more willing to live in close-by compact communities and the need to drive for recreational purposes will be reduced.

Green places and agricultural land help improve air quality both because plants absorb carbon dioxide and because (at least in the case of non-agricultural land) few activities will take place on the land that could directly pollute the air. In order to maintain species diversity, sensitive wildlife habitats need to be identified and protected. Wetlands are critical to maintaining fish populations and purifying water. Unless nearby farmland is preserved, communities lose the benefits of having fresh, locally produced food. Most likely, undeveloped places will have substantial scenic value, adding to the quality of life of those who live nearby, and often attracting visitors who will bring money into the community. Finally, many undeveloped places have historic or cultural significance, the preservation of which is important to maintaining an individual local character.

Some California cities are blessed with natural development edges: ocean-front, bays, rivers, hills and mountains. In other places, natural edges have been complemented with conscientiously preserved green places. Good examples can be found in many of the San Francisco Bay communities, nestled between the bay and regional parks.

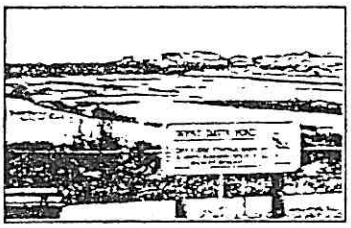
In much of the state, however, communities do not come equipped with natural edges. In the Central Valley and other rural areas, ways must be found

to define a permanent development edge by preserving agricultural land. In places where construction has already overcome logical boundaries, a long-term plan can be established for gradually returning significant sites to a more natural or undeveloped state. In any case, it may be crucial to work with those who live and work in the community to create a clear vision of the future—one that defines the nature of the community that people want to achieve in 25 or 50 years and reflects an understanding of the community's role within the region.

Some critics suggest that permanent edges to development make no sense in California because people will use their cars to move freely back-and-forth across these "boundaries" from home to work, to shopping center and to entertainment zone. This argument seems to miss the mark. A limit line for development will turn the focus away from continual growth through sprawl at the edges and enable a community to address the challenges of making the best use of the land within its borders. By identifying the places where more compact development makes the most sense and by allowing an appropriate mixture of uses, planners can give people more of a reason to stay close to home. Only when there is a practical alternative to travelling by car from one area to another will there be any hope of reducing our dependence on automobiles.

In Sacramento County, revisions to the Open Space Element of the General Plan identify important natural resources and slate them for preservation. An urban service boundary has been drawn, beyond which services will not be provided.

For a local government to succeed in permanently preserving undeveloped areas, it might have to rely on a broad variety of tools. The surest approach is to acquire title to the land, or to obtain permanent open space or conservation easements. Local governments can exercise their powers of eminent domain, if necessary, to make these acquisitions. In California, the Open-Space Easement Act of 1974 and the California Conservation Easement Act of 1979 create incentives for open space easements and make them enforceable. Obviously, funding is the limiting factor. Local governments could sell bonds to spread the cost of land acquisition over a generation. As mitigation for environmental impacts stemming from new development projects, cities and counties could require a developer to purchase specific land or easements for permanent preservation.



Tax laws provide some encouragement for people to make gifts of sensitive land or easements. Non-profit land trusts can purchase, or otherwise hold for safekeeping, important sites. Such trusts have been established in the California counties of Humboldt, Sonoma, Monterey, Marin, Napa, San Mateo, Santa Barbara, Orange, Los Angeles, Santa Cruz, Mendocino, San Diego and Riverside. Local governments can allow holders of significant undeveloped land to transfer their development rights to property owners who want to build projects on other land at densities that would not normally be allowed under the zoning provisions. The property owner selling the development rights would benefit from cash payments and lower property taxes. Mitigation banks could be

established, with developments rights being used as offsets for significant environmental impacts from other projects.

Finally, it should be mentioned that zoning provisions can be used to help preserve undeveloped lands. Agricultural zones can be established. Density limits can apply to areas where terrain is steep. Development can be limited in areas with specific types of vegetation or soil conditions. The suitability of a site can be defined in terms of its ability to sustain its own water needs or provide for treatment of sewage. The biggest problem with relying on zoning provisions is that they can always be changed. It is not likely that development limits established through zoning laws can provide the sense of permanence needed to assure better planning within the development boundaries.

Methods for preserving open space:

- Acquisition
- Open space or conservation easements
- Development mitigation
- Gifts
- Transfer of development rights
- Zoning-agricultural perserves/density
- Restricted soils conditions

- **Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.**

The principles outlined previously for reducing crime in open space also apply to streets. Jane Jacobs identifies three factors that contribute to the creation of a safe street or neighborhood:

> "First, there must be a clear demarcation between what is public space and what is private space. Public and private spaces cannot ooze into each other as they do typically in suburban settings or in projects."

When the boundary between public and private space is clearly defined, then strangers know the place at which their presence would be viewed with suspicion and will keep a friendly distance if their intent is innocent. When the boundary is breached those in the private space, or others on the street will know that there is reason for caution.

> "Second, there must be eyes upon the street, eyes belonging to those we might call the natural proprietors of the street. The buildings on a street, equipped to handle strangers and to insure the safety of both residents and strangers, must be oriented to the street. They cannot turn their back or blank sides on it and leave it blind."

There is often an unwritten code affecting life in a public place. By noticing suspicious activity, by coming to the aid of someone who may be injured or ill, by simply maintaining a presence, people on a lively, well-designed street take care of each other. When people design themselves into isolation, when they take their eyes off of the street, this added security factor disappears.

"And third, the sidewalk must have users on it fairly continuously, both to add to the number of effective eyes on the street and to induce people in buildings along the street to watch the sidewalks in sufficient numbers. Nobody enjoys sitting on a stoop or looking out a window at an empty street. Almost nobody does such a thing. Large numbers of people entertain themselves, off and on, by watching street activity."

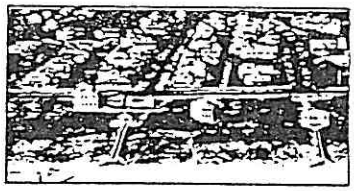
(Jane Jacobs, *The Death and Life of Great American Cities*, Vintage Press, New York (1961), pp.35-36)

Jacobs argues that it is futile to try to evade the issue of unsafe city streets by attempting to make some other features of a locality, such as interior courtyards, or sheltered play spaces, safe instead. First, children are not likely to allow themselves to be confined in their play for very many years. When they outgrow a fenced-in space, they will be more in need of safe public spaces. Second, relying on a confined space encourages people to take their eyes off the streets, making their neighborhoods more attractive to people who might cause harm, and making both children and their protectors more vulnerable.

- **The design of a community's streets and paths should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; by discouraging high speed traffic; and by contributing to a system of fully-connected and interesting routes to nearby destinations.**

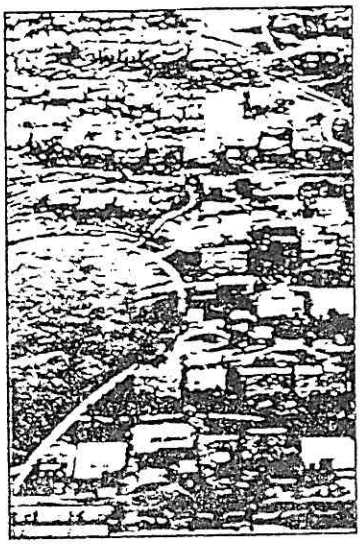
In order to encourage people to walk or use bicycles, we need to provide safe, interesting and direct ways for people to move about without cars.

There are two, not always distinct schools of thought about how to do this. Some advocate returning our streets to their more traditional roles as extensions of our living space. Buildings would sit closer to the streets, which would all be connected to each other to assure that traffic would dissipate throughout the neighborhood and minimize heavy traffic volume on any particular street. Connected streets would give walkers and bicyclists numerous choices for reaching their destinations. The street would be relatively narrow, with the closely situated buildings and trees creating a human scale and an increased sense of comfort to those using it. Cars would be allowed to park along the curb, providing a buffer from moving traffic.



The intended effect would be to encourage drivers to move slowly through the neighborhood. Streets would be lined with ample, well-lit sidewalks. Corner radii would be small, to encourage turning cars to slow down and minimize the pedestrian distance between curbs. With buildings fronting on the street, people

would meet each other along the sidewalk, enhancing the sense of community and safety. On commercial streets, any necessary off-street parking would be behind the store, instead of in front, making the sidewalk more interesting and reducing the risk inherent in walking past several curb cuts in and out of a parking lot. This is the pattern typical in traditional, pre-1940 neighborhoods. For advocates of the grid system, the cul-de-sac is public enemy number one because it reduces the number of connecting routes for automobiles and creates longer routes.



Others suggest that cul-de-sacs are not the problem. In fact, if streets are laid out as cul-de-sacs instead of connecting them on a grid, continuous pedestrian routes and natural drainage creeks can be provided and about 4% more land can be dedicated to open space. (Bainbridge, Corbett and Hofacre, *Village Homes, Solar House Designs*, Rodale Press, 1979.) Where street access is somewhat limited and bike and pedestrian paths offer the shortest route to destinations within the neighborhood, residents will be more likely to walk or bike than use a car. People riding bikes on dedicated paths can avoid the hazards of road travel (like inattentive drivers, parked cars with suddenly opening doors and auto fumes). All the other criteria for encouraging people to walk or bike would apply. The routes would be direct and close to buildings that face a well-lit path. Vegetation and pleasant architectural detail would be used to make the route more appealing and interesting. Many of the paths would have houses facing them.

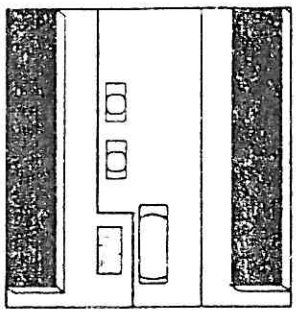
Some argue that a connected grid of streets is essential if congestion on arterials is to be avoided and if community design is to accommodate a changing pattern of uses. Others are concerned that the town square, traditional grid model will not work for every community. While sidewalks can be made safe and interesting, bicycles and cars do not always mix well.

Bike paths and full-use streets can live in the same neighborhood. Perhaps the main criterion is that, one way or another, pedestrians and bicyclists have direct and well-connected routes to important local destinations. If automobile trips are not on interconnected streets, more auto traffic will be carried on arterial roads and congestion may result. In that case, planners must have a high degree of confidence that the overall community design will succeed in getting people out of their cars.

Where streets serve the more traditional position of dominance in the design of communities, it is worth taking time to consider the qualities of a functional sidewalk.

In writing of her observations of New York City street life, Jane Jacobs waxes poetic on the wonder and life of an urban sidewalk. She observes that a thirty or thirty-five foot wide sidewalk invites and supports just about every form of play and socialization, with room to spare for monumental shade trees. A twenty foot sidewalk can handle rope jumping and roller skating and other wheeled toys. But, she is quick to note that few such ample sidewalks can be found.

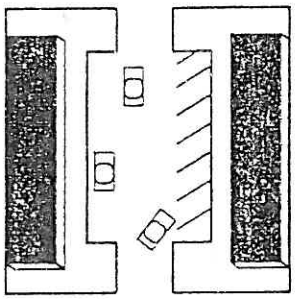
Design guidelines proposed for such places as Sacramento County and the City of San Diego bring the sidewalk back into fashion, although in more modest proportions. The San Diego guidelines call for sidewalks "at least 5-10 feet wide".



Expand the sidewalk into the parking lane to make more room for waiting passengers

In cities where sidewalks are in place, they often fight a losing battle against the assertive style of motorized vehicles. When transportation planners think about accommodating buses on busy streets, they generally think of widening the road, by adding another lane or creating a cut-in at bus stops. This widening of the road is usually accomplished by narrowing the sidewalks. Another approach, that might be more accommodating to pedestrians and transit riders, would involve providing wider sidewalks near bus stops, to provide safer and more pleasant waiting areas. Instead of cutting into sidewalks at transit stops, the sidewalks can be thrust out into the parking lane, to allow transit riders to get on and off with less concern for safety and to allow the buses or light rail vehicles to more easily return to the flow of traffic.

The setting in which a sidewalk exists can make all the difference as to whether or not it is used and useful. Planner Allan Jacobs suggests that, in order to be attractive to walkers, sidewalks should have many entrances onto them and walls should be low enough to allow walkers to see what is behind them. If alleys are provided for access to garages, the number of curb cuts can be reduced, there are fewer opportunities for conflicts between pedestrians and vehicles, and sidewalks feel safer. Crosswalks raised to the level of sidewalks make pedestrians more visible, make it clear that walkers are a higher priority than drivers, slow cars down and eliminate the need for wheelchair-access curb cuts.



Changing from parallel parking

On-street parking seems to create a more pedestrian-friendly atmosphere than off-street parking. Parking lots require drive-ways that bring traffic across the sidewalk. Roads without on-street parking seem to encourage cars to move faster. Regardless of the speed involved, parking-free streets allow moving cars to come closer to the edge of the sidewalk, exposing walkers to more danger, noise and pollution. Cars parked on the street form a barricade, comforting and protecting those on the sidewalk. Changing from parallel parking to angle parking may be a low-cost way to make streets and sidewalks safer for pedestrians. Angle parking usually provides more on-street parking spaces and narrows the roadway (which discourages high-speed driving). Cars parked at an angle also provide an added buffer for people trying to cross the street. Pedestrians have a clear view through parked cars at an angle facing oncoming traffic.

- **Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.**

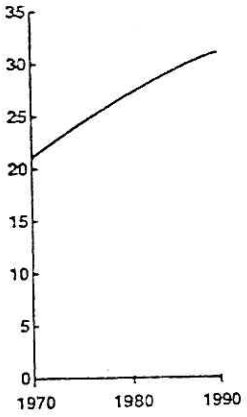
When we allow the natural features of an area to help define the character of a community, we choose a character that is likely to endure. Native vegetation has demonstrated its ability to survive the local extremes offered by temperature, winds and precipitation. In California, that means that local vegetation will require relatively low maintenance and will be likely to survive an extended drought. In addition, unless local vegetation is maintained, it is unlikely that birds and animals indigenous to the area will be able to remain.

- **The community design should help conserve resources and minimize waste.**

- **Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.**

For a while when rains are heavy, the streets in many developed areas become rushing brooks. As storm drains back up, ponds can form at street corners and overtaxed sewage systems may be forced to dump their raw materials into lakes and bays. Once the storm subsides, much of its water will have been exported from the community without being used productively. When rain water and melting snow cannot drain back into the soil, we lose a source of moisture for trees and plants near the surface and, at lower depths, we lose an opportunity to replenish groundwater that may be a source of agricultural or drinking water. As people and plants continue to draw on these diminishing water tables, they are lowered. Eventually, more energy will be needed to pump water for drinking or irrigating, harmful pollutants will become more concentrated and the land above them may subside.

When communities are planned to preserve natural drainage patterns, many of these problems can be reduced. Village Homes in Davis, California, serves as a stunning example of a project designed to use surface drainage. (see appendix A). Within the development is a continuous green belt system. A large portion of the community is unpaved. The land has been sculpted to help drain rainwater away from homes and roadways and into attractive creeks which, during rainy periods, can become streams and ponds. Slowly, the collected water can seep into the ground, cleaning itself through percolation, and remaining to support the ample vegetation and local birds and animals. Not only is this design visually appealing, it cost $800 per house less to construct (in 1976 dollars) than the more standard, concrete drainage system. The city also saves because there is no need to pump drainage water.



Land as % of Development Cost

The use of drought tolerant landscaping and efficient watering practices can also provide significant economic benefits. The City of Palm Desert planted 12 miles of new and existing medians using native plants and low-volume drip

emitters. The result was a three fold reduction in maintenance costs and a seven fold reduction in the cost of watering the areas.

- **The street orientation, the placement and design of buildings and the use of shading should contribute to the energy efficiency of the community.**

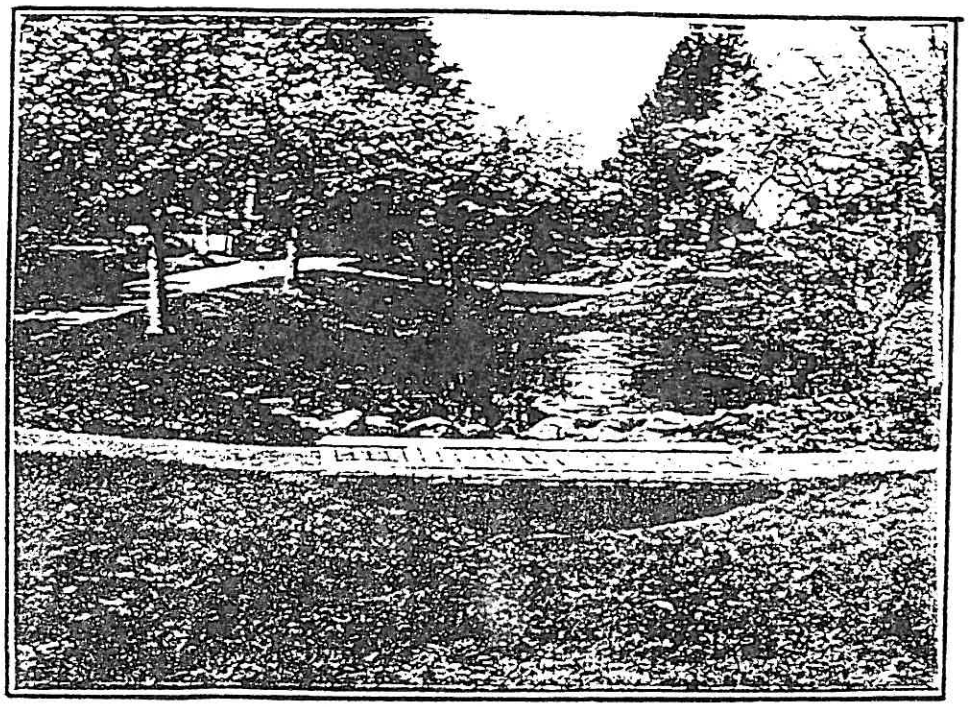
Orienting buildings so that the major walls face north-south and there is minimal exposure to the east and west can reduce energy use for heating and cooling between 15 to 30 percent. (*Greater Energy Efficiency Can Be Achieved Through Land Use Management*, EMD-82-1, December 21, 1981.) Properly oriented homes will have lower utility bills because they can be heated by the sun's rays in the winter through south facing windows. A southern orientation also allows a home or building to be designed with overhangs which can shade most of the windows in the summer when the sun is high.

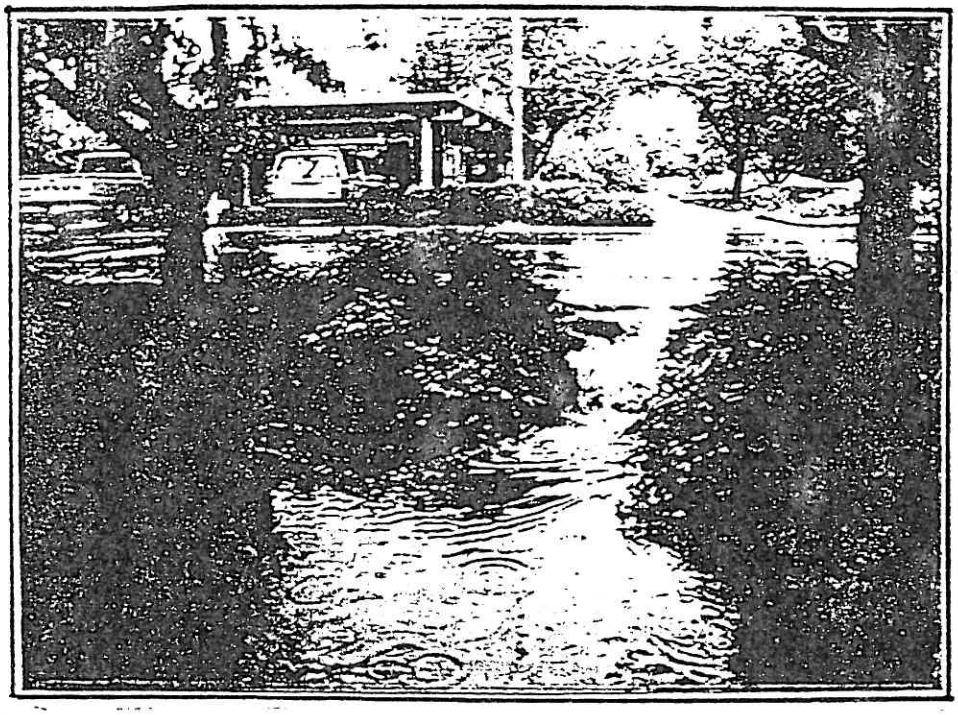
If streets run predominantly east and west, the solar (south facing) exposure of buildings can be maximized. In California, the Solar Rights Act of 1978 requires that the design of a development "shall provide, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision" (Government Code section 66473.1). To date, this forward-thinking legislation has been largely ignored; and as a result, home owners are paying significantly higher utility bills. In a few situations, of course, terrain, access limitations, and the direction of the view may keep buildings from being oriented toward the south.

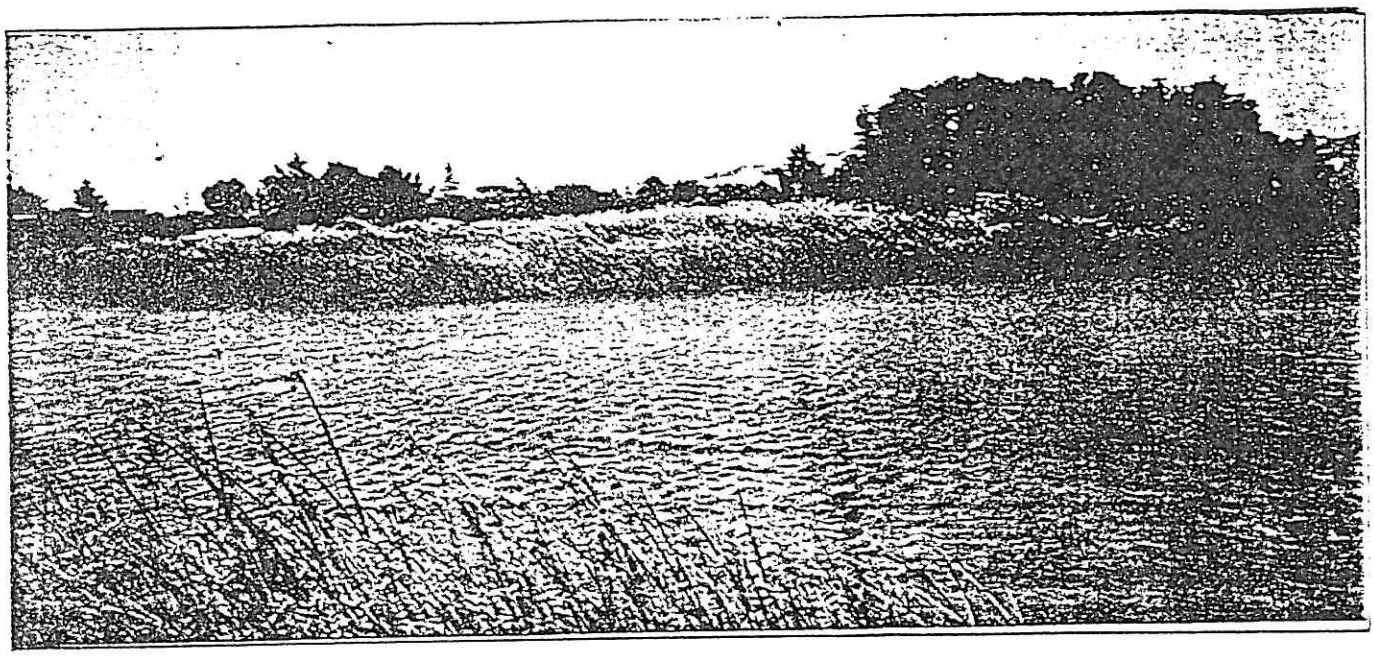
Street set-back requirements for fences should be such that it is possible to screen south facing glass for privacy without having a fence so close to the window that it will provide unwanted shade. Unwanted shade from neighbors is also a concern. Some communities have enacted solar rights ordinances for residents so that a building's exposure to the sun is protected from growing trees or new buildings.

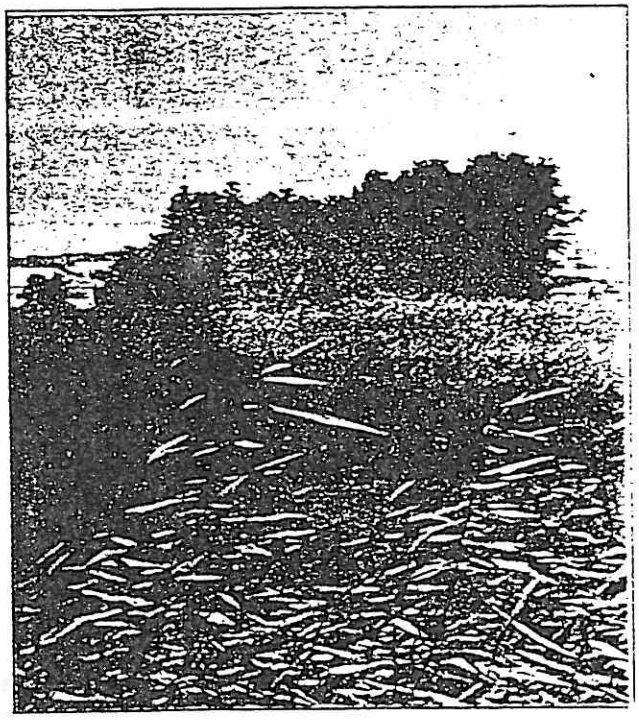
A neighborhood with wide, unshaded streets can be as much as 10° warmer in the summer, than one with narrow, shaded pavement.

It has been found that a neighborhood with wide, unshaded streets can be as much as ten degrees warmer in the summer than one with narrow, shaded pavement. (Corbett, Michael N., *A Better Place to Live*, Rodale Press, 1981.) Narrow streets lined by street trees will maximize comfort and minimize air conditioning bills in a hot climate. Shading will also keep the pavement in parking lots cooler in the summer.









Regional Principles

5

In California and elsewhere, there is intense debate about which level of government should take the lead in trying to solve our growth management problems. Can cities and counties solve congestion and air quality problems when the freeways are planned by state and federal government, transit systems normally serve entire regions, and neighboring jurisdictions might not act in consistent ways?

When people talk about the need for regional planning, they invariably wind up debating the merits of regional governance. The general fear is that a central agency would take over planning functions and land use decision making and that cities and counties, and ultimately citizens, would lose their voice in the decision making process. Yet, at the same time, the success of pedestrian-oriented design and transit-oriented design is highly dependent on some kind of coordination at the regional level.

If we are to solve our transportation problems without regional government, cities and counties must find ways of working together to ensure that all land uses make sense in a regional context. And if local government decisions are made within the regional context, local control is less likely to be usurped. The following principles should dominate the decision making process:

Regional Principles

- The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.
- Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.
- Regions should be bounded by and provide a continuous system of greenbelt/wildlife corridors to be determined by natural conditions.
- Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

- **The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.**

An excellent example of local governments cooperating to make transit

work on a regional scale is the Tri-City Transportation Coalition consisting of Burbank, Glendale and Pasadena. The three cities are located in the same area north of Los Angeles. The goal of this coalition is "to create an East-West Corridor Coalition to advocate transportation plans, program and projects" for its member cities and surrounding communities. The Coalition is governed by a 21-member Board of Governors. Each city appoints an elected official, city manager and a public representative. The Chamber of Commerce from each city selects three more members. The final member from each city is a representative of a transportation management organization. The Coalition meets one day a month. Its staff budget consists of a $25,000 annual contribution from each city. One of the three cities acts as contracting agent. An outside consulting firm provides staff support.

The Coalition worked with the Southern California Association of Governments (SCAG) to prepare a transportation study for the tri-city corridor. Both SCAG and the Southern California Rapid Transit District contributed in-kind services and financial support was provided by other transit agencies. The purpose of the study was to quantify current and future traffic flows and to develop multi-modal transportation alternatives to improve mobility. Based on that study, the Coalition was able to persuade county planners to include an east-west rail line linking the three cities in its longer-term transportation plan. The Coalition has accomplished the addition of express buses from Encino to Pasadena and from Pasadena to Claremont. The Board members also have drawn more attention to the transit needs of the three cities by appearing on televised talk shows, writing opinion pieces and letters to the editor of various area newspapers and making public speeches with the assistance of an audio-visual presentation. Board members are also seeking appointments on regional agencies that affect transportation planning in the area.

A cooperative regional effort should also address land use decisions and how they will support the regional transit system.

A cooperative regional effort should also address land use decisions and how they will support the regional transit system. For example, one community might design a wonderful pedestrian community, with the mixture of uses and access to transit necessary to enable people to function without constant use of their cars. But if a neighboring city or county decides to construct a regional mall and office complex on vacant land outside of the transit corridor five miles away, many of the benefits of the pedestrian and transit-oriented community may be diluted.

The Tri-City Coalition provides more than an example of how local governments can gain more control over the location of transit corridors. This model could also be adapted to issues affecting land use planning. Working together, neighboring cities and counties could agree on complementary types of development and exert the combined influence of their elected officials and leaders of commerce to win the regional, state and federal approvals necessary to make it happen.

New California legislation creating Congestion Management Agencies (CMAs) may also help assure that land use decisions support a larger transit

network. CMAs are required to prepare Congestion Management Programs (CMPs) which, among other things, analyze the impacts of land use decisions made by local governments on regional transportation systems and estimate the costs associated with mitigating those impacts. In carrying out this charge, Congestion Management Agencies could act as mediators to resolve conflicts over impacts on adjacent communities.

Each Congestion Management Program must adopt "level of service standards" for highways, principal arterials and other roadways. Cities and counties must conform to these standards. If roadways get too congested and are out of compliance with the standards, the responsible community must come up with a plan to correct or improve the problem. The plan must be approved by the CMA. Congestion Management Agencies could require that a community, as part of their plan, enact land use planning practices which support pedestrian and transit systems. They also have the authority to ask the State to withhold certain gas tax monies if they feel a community's plan is inadequate.

Congestion Management Agencies could require that a community enact land use planning practices which support pedestrian and transit systems.

- **Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.**

To make transit viable, those institutions and services which attract large numbers of people but which are not necessary for the provision of daily needs should be located centrally. That way, there is an adequate concentration of people going to the same place to support public transit.

Unfortunately, it is the need to generate tax revenues to support local government services - and not the need to coordinate transit and land use - that is the driving force behind many planning decisions. California counties, in particular, are badly in need of revenues to support the services they are required by the State to offer. This often works against the proper location of certain revenue-generating projects.

A few local governments have successfully come to grips with this dilemma by negotiating revenue sharing agreements. The City of Woodland and the County of Yolo, for example, recently negotiated an agreement whereby the county will receive an increased share of the city's commercial and residential property taxes and 2 percent of the Transient Occupancy Tax charged by the city on overnight lodgings. In return, the county agreed to the annexation by the city of county land slated for development. The issue, in this case, was who was going to control the land use in a developing area. Revenue sharing agreements might also be useful for assuring that large revenue generating sources - a new baseball stadium, for example - are built in locations served by a transit system.

It is the need to generate tax revenues to support local government services - not the need to coordinate transit and land use - that is the driving force behind many planning decisions.

- **Regions should be bounded by and provide a continuous system of greenbelt/wildlife corridors to be determined by natural conditions.**

A multitude of reasons for preserving open space have already been discussed under the topic of "community principles". At least one state has successfully implemented legislation which requires cities to define boundaries beyond which they will not grow. Although such legislation has been discussed in California, it has not been introduced. In the meantime, open space and farmland is being converted to other uses on a daily basis.

Recognizing the rapid rate at which they are loosing their open space, a few California local governments are making efforts to preserve unbuilt areas between communities. County governments are in the best position to establish regional open space preservation policies because they represent unincorporated areas.

In Sacramento, an urban services boundary has been drawn, beyond which services will never be provided.

In Sacramento County, revisions to the Open Space Element of the General Plan identify important natural resources and slate them for preservation. An urban service boundary has been drawn, beyond which services will never be provided. Numerous methods are being considered for permanent preservation of the open space including zoning, acquisition, transfer of development rights, land trusts, state and federal preserves, and mitigation banks.

Contra Costa County voters approved an ordinance that limits urban development to no more that 35% of the land in the County. At least 65% of all land is slated to be preserved for agriculture, open space, wetlands, parks and other non-urban uses. To implement the 65/35 provision, the ordinance states that the county will establish urban limit lines beyond which there will be no growth and that "to the extent feasible" the County will cooperate with the cities in the County, to enter into preservation agreements. The ordinance is in effect for 20 years and can be repealed only by a vote of the people.

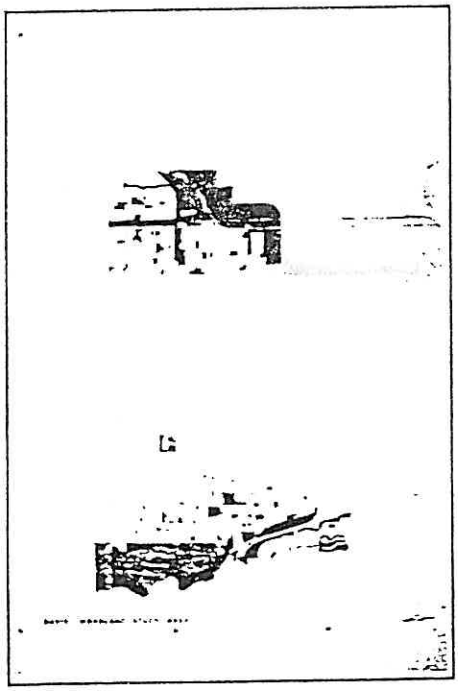
Often, just getting together with neighboring cities to discuss the issue will help. A former mayor of the City of Davis drew maps of the developed areas of the cities of Davis and Woodland as they were ten years ago, as they are today, and as they would be ten years from now - if growth rates remained the same. The maps showed that in ten years, the cities would meet one another. The shock was enough to make the two legislative bodies agree to establish a permanent band of open space separating the cities.

- **Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with climate to encourage the development of local character and community identity.**

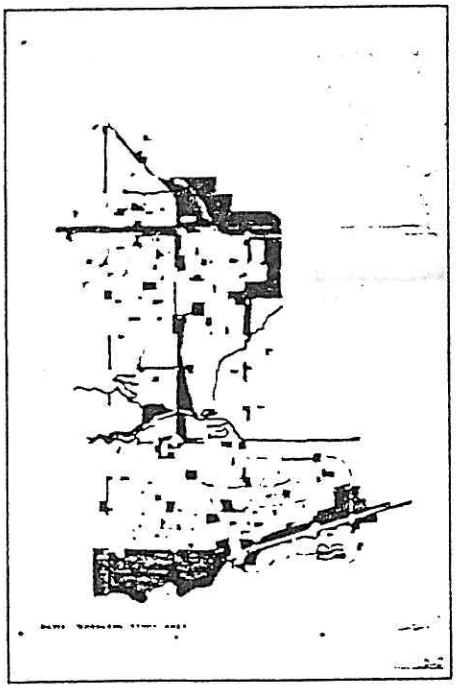
Designing with the local climate in mind will not only provide a sense of character and community identity, it is an excellent financial investment. In the southwest for example, the mission style of building evolved before there was air conditioning or central heating. The design was practical - keeping residents cool in summer and warm in winter without expensive utility bills. Those communities where city fathers have chosen to mandate the continuation of traditional building styles - for example Santa Fe, New Mexico and Santa Barbara, California - have become popular places to live and to visit. Property values are high and utility bills are likely to be low.

As noted earlier, it is well documented that landscaping with native materials is extremely cost effective. When they landscaped their street medians with native plants, The City of Palm Desert enjoyed a three fold reduction in maintenance costs and a seven fold reduction in the cost of watering the areas. In addition, the medians now reflect the character of the desert, creating an ambiance which is distinct, more exciting to visit, and a real plus for the tourist industry.

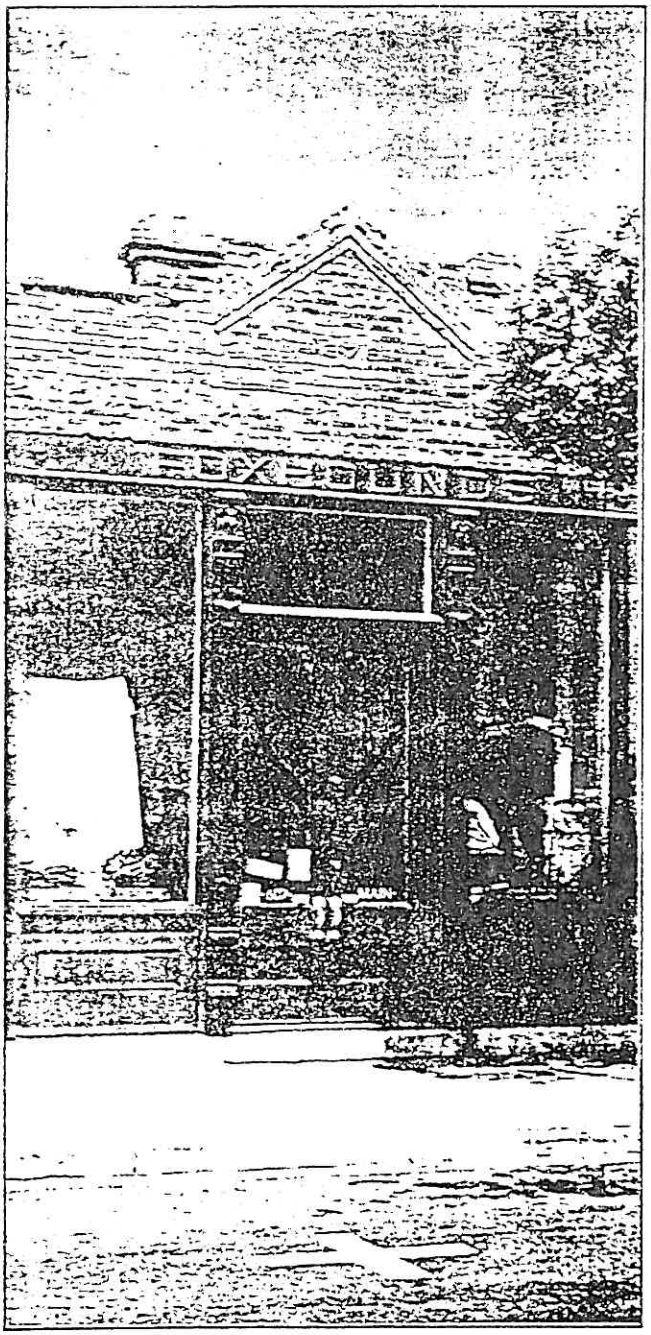
If all communities in these regions were to adopt the architectural standards and the landscaping standards of their neighbors, the aesthetic and economic benefits would be multiplied.

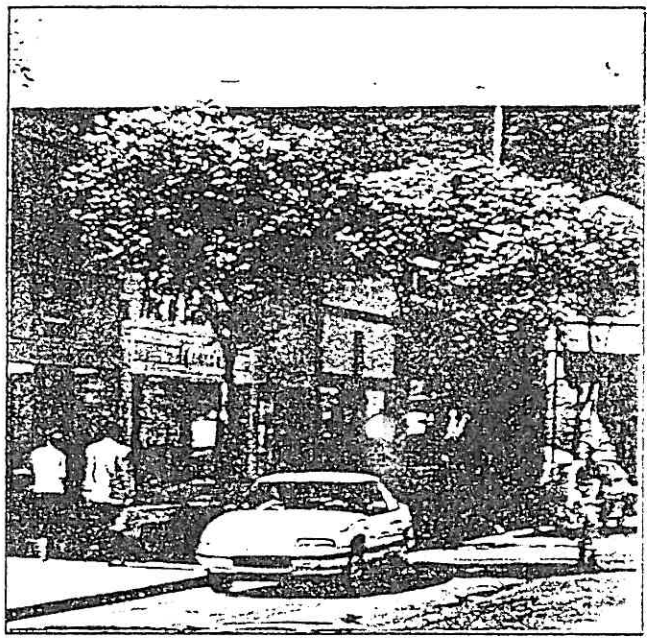


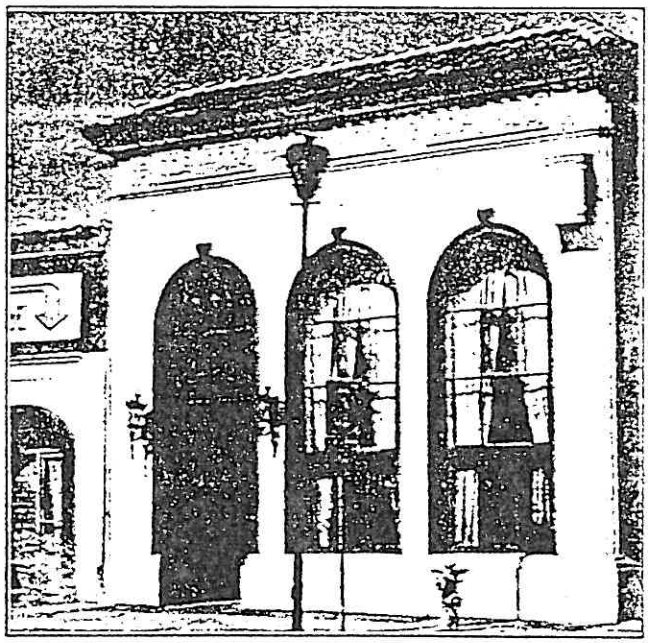
Woodland/Davis
10 years ago
two separate and distinct cities with clearly defined boundaries
(Courtesy of Michael Corbett)



Woodland/Davis
10 years from now
without a permanent band of open space separating the cities.
(Courtesy of Michael Corbett)







Making It Happen: Implementation Principles

6

The concepts we have discussed under the Ahwahnee Principles are not offered as a series of options from which local governments might pick and choose. They are offered as essential pieces of a puzzle. Individually, these ideas are easy to recognize. They reflect characteristics of many of the places we have grown to love. Taken in isolation, most of these ideas are hard not to like. Who would disagree with the proposition that neighborhoods should be walkable, parks should be centrally located, essential services should be close at hand? Yet, these concepts do not stand alone; to be successful, they must be implemented as a whole. Unless a community contains a mixture of uses sufficient to provide essential goods and services, the nicest sidewalks in the world will not lure people out of their cars. Unless traffic moves slowly, people will not feel comfortable riding bicycles or allowing their children to play near the streets. Unless people use the streets and enjoy watching the street scene, neighborhoods may not be safe.

There are many places that seem to meet all the criteria we have discussed in this guidebook, but few have been built in the last 40 years. The challenge is to apply these concepts to existing newer neighborhoods and to places yet to be built.

In this section that follows, we will discuss some of the tools that elected officials can use to help shape more livable communities. In doing so, we will highlight the following "Implementation Principles" that many consider to be critical to the process:

Implementation Principles

- The general plan should be updated to incorporate the above principles.
- Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. General plans should designate where new growth, infill or redevelopment will be allowed to occur.
- Prior to any development, a specific plan should be prepared based on the planning principles. With the adoption of specific plans, complying projects could proceed with minimal delay.
- Plans should be developed through an open process and participants in the process should be provided visual models of all proposals.

- **The general plan should be updated to incorporate the community and regional principles.**

Odds are high that a community is not well served when each new or infill development proposal is considered in isolation. In theory, the General Plan is intended to assure that all land use decisions will fit into a broader vision. But this theory collides with several aspects of reality. First, General Plans are often out of date. Second, General Plans are usually developed in stages, so that concerns reflected in the Circulation or Open Space elements may not be consistently accommodated elsewhere. Third, its provisions are often vague. And sometimes the General Plan is not even enforced.

About The General Plan

Under California law, each local government must prepare a comprehensive, long-term general plan for the physical development of the land within its jurisdiction as well as any related neighboring land. The general plan must include the following elements, which can be combined, if desired:

1. Land Use (housing, business, industry, open space, education, public buildings and grounds, solid and liquid waste disposal facilities and other categories of public and private use)

2. Circulation (general location of existing and proposed major thoroughfares, transportation routes, terminals and other local public utilities and facilities)

3. Housing (identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, development and improvement of housing)

4. Conservation (water, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources)

5. Open-space (for the preservation or managed production of natural resources, outdoor recreation, or public health and safety

6. Noise (identify, analyze and quantify projected noise levels from highways and freeways, arterials and other major streets, rail transportation, aviation, industrial plants, and other local ground stationary sources that contribute to the community noise environment)

7. Safety (earthquakes, ground failure, tsunami, seiche and dam failure, slope instability, flooding, and fires)

8. Optional (any other subjects that, in the opinion of the local government, relate to the physical development of the jurisdiction; popular topics for optional elements include air quality, bicycles, economic development, energy, growth management, historic preservation, infrastructure, parks and recreation, recreation, scenic highways, seismic safety, and urban/community design)

Local governments have the option of adding new elements to their general plans. An air quality or energy element can be a convenient place to set standards and policies which implement the planning principles we have outlined. Some cities and counties may prefer to incorporate air quality and energy policies into other elements. More separate elements mean more hearings and longer general plans. In addition, if policies that can affect such standard issues as circulation, land use and housing appear in more than one element, there is greater chance that the general plan will be internally inconsistent. That would make the general plan subject to court challenge and developer manipulation. Nonetheless, specialized elements may be the best short-term path for making changes to the general plan.

An air quality or energy element can be a convenient place to set standards and policies for livable community planning principles.

In each county and general law city in California, all land use planning decisions must be consistent with the general plan (charter cities are free to place a similar requirement on themselves). This means that every approved development must comply with criteria established in the general plan.

Zoning laws are enacted to govern land use planning decisions. In the local governments where consistency with the general plan is required, the zoning laws must be consistent as well. Where variances from zoning or development standards are granted for individual projects, the projects still must comply with the general plan.

A few words about charter cities. Although all cities and counties are required to prepare general plans, charter cities are not required, by state law to make land use decisions in a manner consistent with those plans. This is a significant point, since many of the state's largest cities are charter cities. Here is a list of charter cities in California (alleged to be accurate as of 1990). Those listed in italics have elected to require consistency with the general plan.

Alameda, Albany, Alhambra, Anaheim, Arcadia, Bakersfield, *Berkeley*, Big Bear Lake, Burbank, *Cerritos*, Chico, *Chula Vista*, *Compton*, Culver City, Cypress, Del Mar, Downey, Eureka, *Fresno*, Gilroy, Glendale, Grass Valley, *Hayward*, *Huntington Beach*, *Industry*, Inglewood, Irvine, *Irwindale*, Loma Linda, *Long Beach*, *Los Alamitos*, *Los Angeles*, Mammoth Lakes, Marysville, Merced, Modesto, *Monterey*, *Mountain View*, *Napa*, Needles, *Newport Beach*, Oakland, *Oroville*, Pacific Grove, *Palo Alto*, Pasadena, *Petaluma*, Piedmont, Placentia, Pomona, Porterville, Redondo Beach, Redwood City, Richmond, Riverside, *Roseville*, Sacramento, Salinas, *San Bernardino*, San

Buenaventura, San Diego, San Jose, San Leandro, *San Luis Obispo*, San Mateo, San Rafael, Santa Ana, Santa Barbara, Santa Clara, Santa Cruz, Santa Monica, Santa Rosa, *Seal Beach*, Stockton, Sunnyvale, Temple City, Torrance, *Tulare*, *Vallejo*, Visalia, Watsonville, Whittier (*The California Planner's Book of Lists*, Office of Planning and Research, 1990)

Where consistency with the general plan is required, general plan provisions may discourage or prohibit the development of walkable, mixed use, selectively compact, transit oriented communities. For example, general plans normally do not establish meaningful urban limit lines. Undeveloped areas on the edge of development are usually regarded as places where development is not anticipated for the time being. If a general plan is revised to establish a permanent development edge, then zoning laws and infrastructure planning can be carried forth in a consistent manner.

Most general plans assure a segregation of land uses that will preclude the creation of a walkable community

Typically, general plans call for a jobs-housing balance, but do not allow the mixture of housing types necessary to provide for an economic match between jobs and housing. Most general plans assure a segregation of land uses that will preclude the healthy mixture of activities needed to allow people to stay within walking distance of home and feel safe. Normally, setback and housing type requirements prohibit the kind of compact development needed to support transit.

Cities and counties are not required to revise their General Plans after any specific amount of time (an exception is the Housing Element, which must be updated every five years). However, General Plans often include expiration dates, assuring that the plan will be reconsidered at certain intervals. There is nothing in the law that precludes a city or county from revising its General Plan.

General plan revisions can pave the way for more permissive zoning laws and more creative specific plans. Some now favor the consolidation of various elements of the general plan in order to assure that the document expresses an integrated land use policy.

The proposed new Sacramento County general plan serves as a good example of what can be done. An open space element identifies the boundaries of the community; the land use element emphasizes higher densities, mixed use and pedestrian orientation with special density requirements around light rail stops; and the circulation element overlays the county with a grid of transit corridors.

Implementation Of The General Plan Through Zoning Ordinances

Zoning is often considered to be the primary tool for implementing the General Plan. A local government in California can adopt zoning ordinances that do any of the following:

(a) Regulate the use of buildings, structures and land (between

industry, business, residences, open space, including agriculture, recreation, enjoyment of scenic beauty, use of natural resources and other purposes).

(b) Regulate signs and billboards.

(c) Regulate all of the following:

(1) The location, height, bulk, number of stories, and size of buildings and structures.

(2) The size and use of lots, yards, courts, and other open spaces.

(3) The percentage of a lot which may be occupied by a building or structure.

(4) The intensity of land use.

(d) Establish requirements for off street parking and loading.

(e) Establish and maintain building setback lines.

(f) Create civic districts around civic centers, public parks, public buildings, or public grounds, and establish regulations for those civic districts.

Zoning laws must be consistent with the General Plan in all counties, all general law and some charter cities. When a General Plan is revised, local cities and counties must also revise their zoning laws where necessary to maintain consistency.

The Need To Update Zoning Ordinances

Zoning laws often go beyond simply allowing for automobile-dominated development. In many cases, zoning laws also can prohibit developments with the kind of characteristics that would empower and encourage people to find other ways to move about. Local governments that enact the type of General Plan revisions proposed in Sacramento County will have the opportunity and legal responsibility to amend their zoning laws to remove such restrictions.

It is likely that in most jurisdictions, there are improvements that could be made to the zoning laws even in the absence of major revisions to the General Plan. When the climate is not conducive for comprehensive change, it may be useful to undertake smaller steps. Here is one suggested hierarchy of improvements that could be made to zoning laws and other city or county ordinances in most jurisdictions:

1. Eliminate prescribed street widths, curb radii, set-back requirements, etc. which preclude the creation of pedestrian-friendly streets.

Zoning laws and city and county ordinances can be reviewed to find provisions that discourage pedestrian accessibility in ways not necessarily required by the General Plan. Making strategic small changes might help improve the quality of projects that are already under consideration.

2. Eliminate exclusionary single-use zones. Allow for different types of housing in areas where residences are being developed and allow for housing in commercial areas.

One way to introduce mixed uses into an area presently zoned for a single purpose is to amend the zoning provision to reflect a hierarchy of uses. For instance, an area can be designated as primarily commercial or primarily residential, with other appropriate uses allowed under certain circumstances.

3. Create flexible zoning or performance zoning that allows for a variety of uses and approaches so long as certain performance goals are met.

In a handful of jurisdictions, elected officials have either replaced or augmented standard prescriptive zoning laws with flexible zoning provisions. These allow for a variety of uses and design approaches, so long as the plan meets certain specified performance criteria. In some instances, adherence to these performance criteria is offered as an alternative to compliance to standard zoning provisions. Here is an example of how it works.

Each development must achieve a specified number of points based on a list of criteria with numerical values.

Fort Collins, Colorado

In Fort Collins, Colorado, developers who choose to do so can gain project approval by complying with a performance checklist. There are certain absolute requirements. These include assuring neighborhood compatibility and compliance with adopted official plans, minimum engineering and public service requirements, and environmental standards. In addition, each development must achieve a specified minimum number of points based on a list of other criteria with numerical values. These criteria "focus on the actual design of a project and include, but are not limited to: street and building layout; open space; landscaping; pedestrian and bicycle circulation; architectural design; and some more general location factors." An example of an open space criterion: "Are open space areas between residential buildings designed to clearly differentiate between their use and to maximize the opportunity for privacy by residents?" A score above the required minimum may be used to qualify for adding more residential units to the plan.

This performance-based approval process adds layers of paperwork and requires a tremendous number of judgment calls by those approving the

development. However, this approach tends to encourage mixed use and, in practice, does not tend to disrupt the character of existing communities. The City of Fort Collins describes the process as follows: "Under the new system, no land use is automatically excluded from a specific site. Rather, criteria are established which ensure that each land use will be compatible with adjacent land uses as well as foster a healthy growth pattern for the community as a whole. A site plan is required to evaluate the applicant's success or failure to address these criteria. If the criteria are met, the use may proceed."

Under the new system, no land use is automatically excluded from a specific site

Fort Collins, Colorado

4. Allow for zoning swaps.

It may be inevitable that an integrated development plan will enhance the value of some parcels of land while diminishing the value of others. A tool that may be key to the development of an integrated community and the strategic preservation of undeveloped land is the transfer of development rights. A transfer scheme would give credits to affected land to reflect its development potential, even when it will not be allowed to be developed. These credits could be sold by the land owner and used by other land owners whose land could be more intensively developed. For example, the owner of farmland to be permanently preserved could sell his development rights to the owner of land within a quarter mile of a transit stop, who could develop more compact housing. This tool can be an important means of permanently preserving agricultural land and open space.

As of January, 1990, the following cities and counties in California had Transfer Development Rights programs:

> Cities: Agoura Hills, Belmont, Brisbane, Chula Vista, Claremont, Cupertino, Folsom, Fremont, Huron, Irvine, Los Angeles, Milpitas, Moraga, Morgan Hill, Oakland, Oxnard, Pacifica, Palo Alto, Pismo Beach, San Diego, San Juan Capistrano, South Lake Tahoe, Thousand Oaks, Upland and West Hollywood. Counties: Alameda, Alpine, Fresno, Modoc, Monterey, Nevada, Placer, San Luis Obispo, San Mateo and Santa Barbara.

5. Create mixed-use zones that encourage or require a linkage of residential and commercial development.

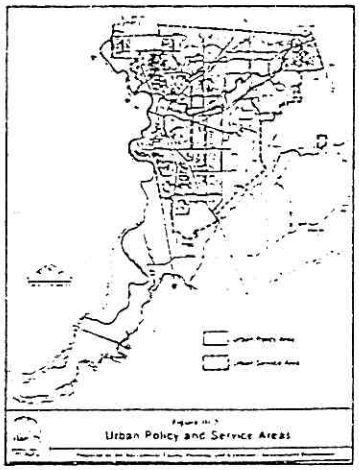
Areas of a city or county can be zoned to require or encourage mixed-use. For example, Davis, California has established a mixed- use zone on the periphery of the downtown core. "The zone allows for a variety of uses but specifies that new development (including conversions) can be exclusively residential or must be a multi-use development that includes at least one residential unit. Other provisions allow bonuses, such as higher floor area ratios,

for mixed use and residential structures." Dean Schwanke, *Mixed-Use Development Handbook*, Urban Land Institute, Washington, D.C. 1987

6. Create prescriptive standards for new developments.

At least 86 cities and 13 counties in California have adopted written design standards governing new development projects. If carefully drawn and faithfully enforced, design guidelines can assure that new developments will reflect the characteristics considered to be most important in pedestrian-friendly communities. Perhaps this is why much of the focus in Sacramento County, San Diego, and various Florida communities has been on the adoption of design guidelines. Because there are many ways to interpret the written word, design guidelines often include pictures and sketches to highlight key elements of building design or placement or the appropriate dimensions for sidewalks and streets. In a number of Florida jurisdictions, adopted guidelines are presented blueprint-style, on a single large sheet. This format emphasizes that the guidelines should be adopted as a whole and that the concepts are, in fact, quite simple.

- **Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. General plans should designate where new growth, infill or redevelopment will be allowed to occur.**



When a development proposal is submitted for approval, it is all too likely that a local government will take a reactive stance. The decision making process becomes a short-term exercise, an effort to balance the economic interests of a single business or individual with the concerns of the proposed project's immediate neighbors. When people are forced to make reactive decisions, they often restrict their options and lose some control.

In some places, ways of regaining public control of the land use planning process are being explored. Sacramento County and the City of San Diego stand as examples (see section VII). In both instances, consultants walked and drove throughout the area, held a series of local scoping meetings, and drew lines on a map to designate logical boundaries for existing and potential pedestrian and transit-oriented communities. Transit stops and corridors and important open space were identified. The community's role in the region was explored.

The best strategy for additional development in each community was discussed. Some were designated as communities where more compact patterns of development could be selectively used to support transit. Others were identified as more appropriate for lower densities.

When a carefully constructed set of community or neighborhood bound-

aries is superimposed on the map of a city or county, the planning process can take on a different tone. When a building owner proposes to tear down a warehouse and replace it with an office complex, the issue becomes more than concern for what the building's nearest neighbors will think. The project can also be considered in light of a long-term vision for that community. Will this use empower people to move about without their cars? Will it promote mixed use? Support transit? Does it help the community to move toward its long-term goals?

- **Prior to any development, a specific plan should be prepared based on the planning principles. With the adoption of specific plans, complying projects could proceed with minimal delay.**

Defining the boundaries for each neighborhood and creating a long-term vision for development within those boundaries are only the first steps. The specific plan is probably the best tool for defining and implementing development at a particular site. A specific plan is adopted much the same way that a zoning ordinance becomes law. It supersedes the zoning laws that would otherwise apply to a particular development site. A specific plan enables a local government to write into a single document all of the land use specifications, fees and programs related to a particular site. An Environmental Impact Report (EIR) may not be needed for residential projects that are consistent with the plan.

A specific plan supersedes the zoning laws that would apply to a particular site

In counties and general law cities, specific plans must be consistent with the general plan. Charter cities that have not imposed consistency requirements on themselves can overcome limitations in the general plan with a thoughtfully prepared Specific Plan.

Saving Money With A Specific Plan

A specific plan can save money for the city or county. This one-time planning effort avoids staff time in processing individual development proposals and individual EIRs. It also helps local governments avoid inefficient over or undersizing of streets, sewers, water lines, and the like by precisely correlating land uses with supporting infrastructure. (*Specific Plans in the Golden State*, Governor's Office of Planning and Research.)

A specific plan can also save money for the developer. Its use can "grease the regulatory skids" by assuring approval of projects that meet its terms, saving the time and money often spent by the developer trying to satisfy the sometimes contradictory wishes of citizens, staff, commissions, and council or board. Where a specific plan has been prepared, the developer also avoids the cost of preparing an EIR.

Specific plans can be prepared by developers or local governments,

although they must be approved by the local government. However, a specific plan may be most useful in promoting the land use planning concepts addressed in this guidebook if it is prepared not in response to a developer's request, but as part of a long-term planning process.

Ways to fund a specific plan:

- Revolving loan fund
- General revenues
- Redevelopment
- Special assessment
- Development contributions

As Paul H. Sedway, a principal at the planning firm of Sedway Cooke Associates explains, "a specific plan for a project may be prepared at any scale, for any location and at any level of detail. Policies and regulations can cover urban design (at both large and detailed scales), view corridors, microclimate considerations, preservation of historic and architecturally significant buildings, preservation of rental housing and residential hotels, retention of blue-collar employment facilities, avoidance of disruptive off-street parking facilities, limits on overall floor space and attendant traffic, air pollution, fiscal impacts, and energy conservation." (*Urban Land*, June 19, 1988, p.34, 35.)

As of the beginning of 1990, 172 of the state's 450 cities and 26 of the state's 58 counties had adopted at least one specific plan. In most places where they have been used jurisdictions have adopted 1 or 2 specific plans. Among the larger cities, the City of Los Angeles leads the way with 14 (The California Planner's Book of Lists, Office of Planning and Research, 1990).

There are a number of ways to fund the preparation of a specific plan. The law allows local governments to charge developers a fee to cover the costs of preparing, adopting, and administering the plan. Thus the major issue among most communities is where to find the money to fund the plan's initial development. The County of Butte has used a revolving loan fund developed with Community Development Block Grant Program Funds to finance the planning process. The City of Davis used general fund revenues to fund two specific plans. Redevelopment agency funds were used by the City of Loomis to fund part of their downtown specific plan. A Mello-Roos district could be established or an assessment district could be used in special cases. A developer or group of developers might find it in their best interest to finance a specific plan. The options seem as unlimited as a jurisdiction's creativity.

Using A Specific Plan To Complete Existing Communities

Specific plans can apply equally to new and existing communities. When planning for the future use of built-out places, however, planners are obviously more constrained by existing development. Only occasionally will a city or county be given the opportunity to plan new uses for a shopping mall, ballpark, or other relatively undeveloped space that can be quickly converted.

More often, planners should expect that the conversion of uses in a built-out area will take many years as existing buildings become obsolete or conversion to preferred uses becomes economically attractive. An interim strategy can be adopted for guarding against private and public expenditures that are inconsistent with the long-term plan for the community. Then, as efforts are made by land owners to change land uses over the years, the city or county can make sure that proposed changes are consistent with the specific plan.

- **Plans should be developed through an open process and particpants in the process should be provided illustrated models of all proposals.**

There are three obvious problems with failing to systematically involve the public in the planning process. First, planners will be less likely to identify the long-term vision most suitable for a given community without drawing heavily on the observations, concerns, needs and interests of those who live and work there. Second, if a proposed development does not meet the concerns of local residents and workers, they will fight its approval. A final, related problem is that people are more likely to oppose plans that they were not involved in creating.

It has become popular, of late, to develop planning options in an intensive, multi-consultant public design process, sometimes called a "charrette". For a period of about one or two weeks, a group of architects, planners and other experts gather at or near the planning site with the goal of discovering the development options best suited to the location. The charrette process has the double advantage of cutting through much of the bureaucratic sluggishness that could stifle creative thought and allowing members of the public to observe and participate in the planning process. Usually, members of the public provide their ideas and concerns at the first session. With this input, the design professionals prepare a plan which is brought back to the public for input and refinement.

The Charrette process has the double advantage of cutting through the bureaucratic sluggishness ... and allowing the public to observe and participate in the process.

The community design process is particularly critical when the specific plan is being prepared for existing development. City officials in Hayward have found that design workshops are of potential value both in creating a politically acceptable specific plan and in revitalizing the sense of community and civic involvement of neighborhood residents.

A few words about the importance of illustration. The use of drawings and physical models to illustrate the design concepts under consideration is much more than a matter of aesthetics. It is an essential way of assuring that all participants understand the proposals and that adopted design criteria will be properly implemented. A few architectural and planning firms have the ability to perform a visual simulation of the projected impacts of a specific plan. This technique has proven to be very useful.

Getting Started: Some First Steps

7

It can be intimidating just to contemplate changing the existing patterns of development in a community. Inertia is difficult to divert. However, some communities have actually begun to take charge. A few have taken a comprehensive approach: Sacramento County's proposed general plan revisions and Visalia's 1,700 acre specific plan are examples. Other efforts have been less comprehensive: a new downtown specific plan for the City of Loomis and specific plans for partially-developed areas in Butte County. But even small projects can be very useful in pointing the way for the future.

Here are some relatively simple first steps. One is a model policy resolution which offers a way for elected officials to focus the attention of their colleagues and local citizens on the principles outlined in this book. The second is a model Request for Proposals (RFP) which could be issued for a pedestrian-oriented specific plan of any size.

Begin With a Resolution

Appendix B is a Model Resolution that could be adapted for use by a city or county. The resolution is based on the Ahwahnee Principles authored by a group of leaders in the field of pedestrian-oriented design and traditional town planning, and could be useful in building a commitment to the policies discussed in this guidebook. The adoption of such a policy commitment might influence the type of proposals offered by developers to the city.

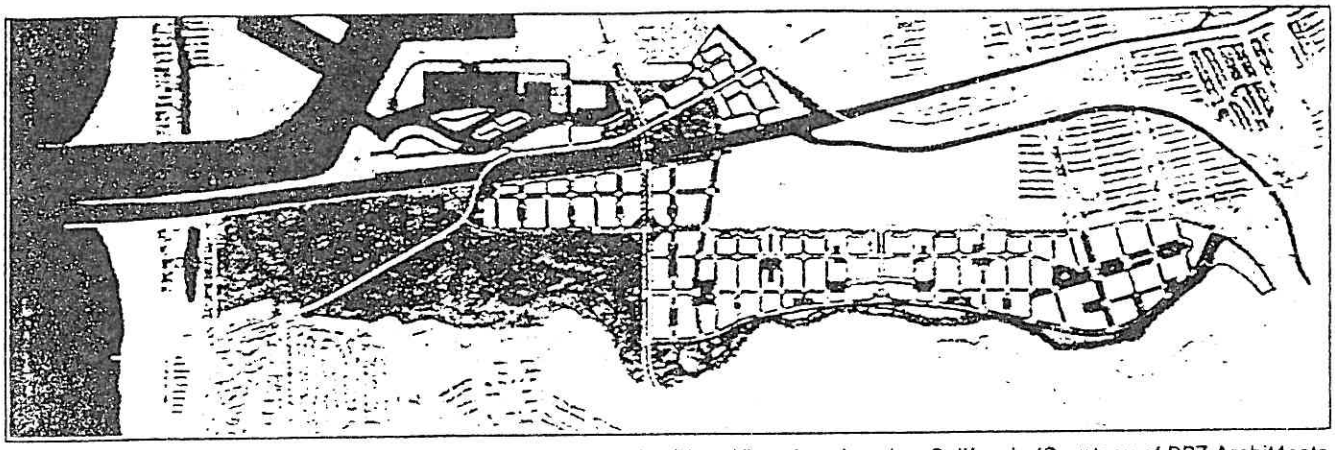
Start With A Specific Plan

Another approach is to start by preparing a specific plan for a key area of the community. The city or county can issue a Request For Proposals which outlines the planning principles the community is seeking to implement.

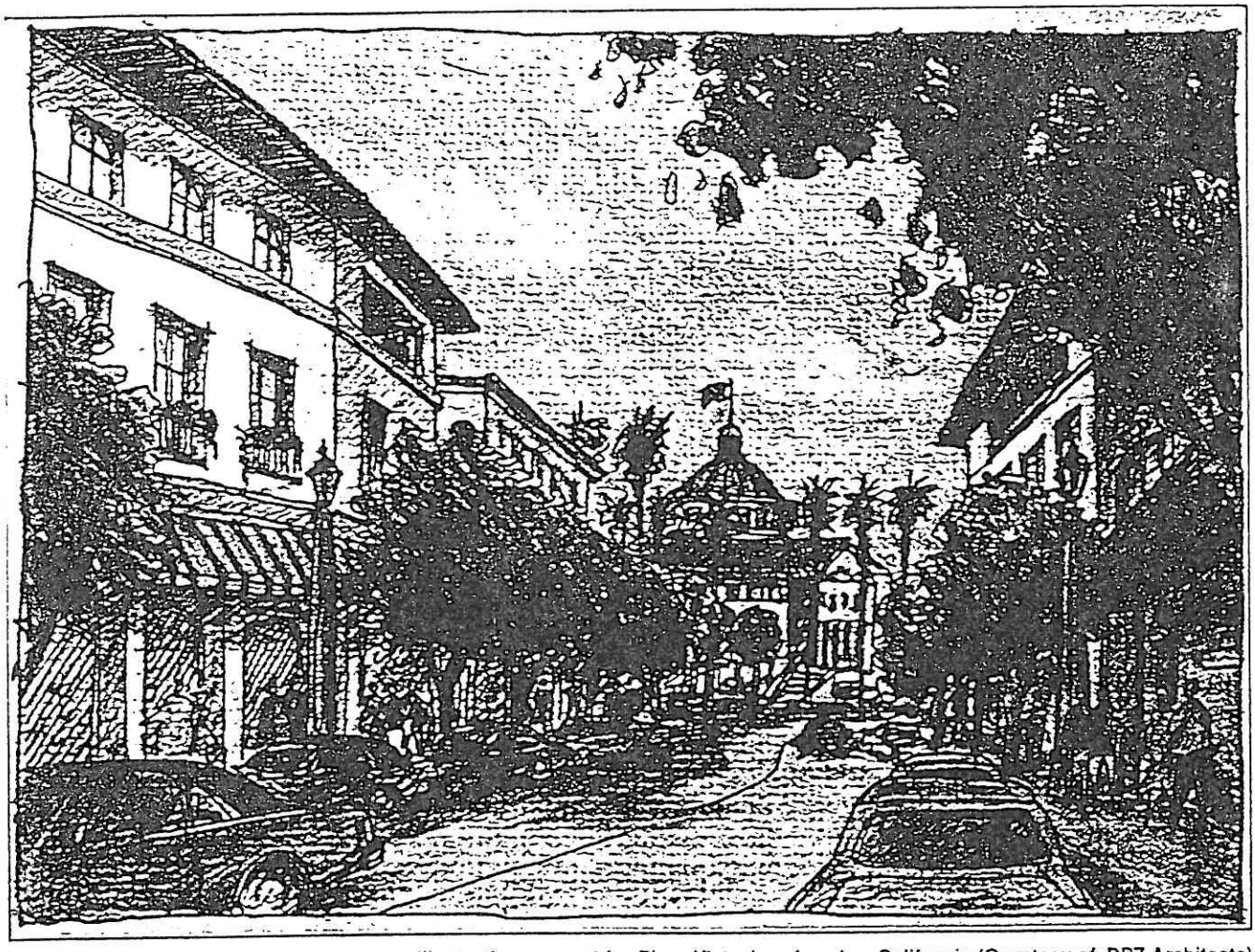
A model RFP is provided in Appendix C. The RFP incorporates the community and regional design criteria of the Ahwahnee Principles.

Incorporate Planning Principles in the General Plan

The Local Government Commission, under contract with the California Energy Commission, has prepared a set of planning guidelines for use by local government officials in revising existing elements or writing new elements for their general plans. These guidelines provide general plan language based on the Ahwahnee Principles and suggested implementation measures. They are available from the Local Government Commission or the California Energy Commission (CEC, Siting Division, 1516 9th Street, Sacramento, CA 95814).



Plan for Playa Vista, Los Angeles, California (Courtesy of DPZ Archit4ects



Illustrative concept for Playa Vista, Los Angeles, California (Courtesy of DPZ Architects)

Some Communities that are Leading the Way

8

There are many exciting efforts to plan more livable places taking place in communities around the nation. We have chosen a representative few. These communities are using three general approaches to plan pedestrian and transit oriented, mixed-use neighborhoods:

1) Local government general plans, zoning ordinances and design standards and guidelines,

2) specific plans prepared by local governments, and

3) projects proposed by developers.

All provide inspiration, ideas and experience upon which we can build.

Sacramento County's Proposed General Plan and adopted Design Guidelines

Formerly an agricultural community, the County of Sacramento is rapidly becoming urbanized. The County has initiated a comprehensive general plan revision process which promises to answer the difficult question, "How can we reduce our residents' dependence upon the automobile?" The County is addressing this question with key revisions of the open space, circulation, and land use elements of its general plan. Another key component is a set of design guidelines which spells out "Transit Oriented Development" (TODs) for infill areas, revitalization areas and metropolitan expansion areas.

According to county planners, the purpose of the open space element is to define the space to be occupied by the community. The land use element will dictate the building mix and how buildings are to be laid out; and the circulation element will define how every county resident will be able to use mass transit to get from place to place within the county. The design guidelines or TOD guidelines consist of mixed use, pedestrian-oriented neighborhoods of between 20 and 160 acres.

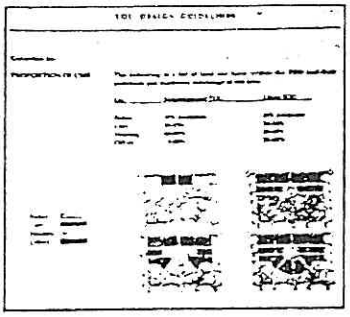
Open space. In the process of preparing the open space element, important natural resources have been identified and slated for preservation. An urban service boundary has been drawn, beyond which services will never be provided. Numerous methods are being considered for permanent preservation of the open space including zoning, acquisition, transfer of development rights, land trusts, state and federal preserves, and mitigation banks.

Land use. The land use element contains new concepts regarding the way development is to look - higher densities, mixed use, and pedestrian orientation - as prescribed by the transit oriented design (TOD) guidelines. The land use element specifies where these TODs should be located.

Circulation The goal of the circulation element is to move people around the county without an automobile. The county will be overlaid with a grid of straight corridors which accommodate buses running every 15 minutes. Light rail and express buses are also key elements. Every county resident will live close enough to transit that they can conveniently use the bus or light rail as their method of getting to and from work, school or other destinations.

The TOD guidelines are the key to making the circulation element work because they assure that development will be compact enough to support a transit system. Two categories of TODs have been defined: the Urban TOD contains a higher percentage of job-generating uses and higher residential densities. The Neighborhood TOD contains somewhat lower densities and a greater percentage of residential uses and local retail and office uses.

Design guidelines. The land use element requires Urban TODs to be constructed around the county's light rail system. Every part of the Urban TOD must be within an average of one quarter mile of the transit stop. Occupying between 20 and 160 acres of land, the design must allow for a mixture of uses. The core commercial area should include convenient shopping, professional offices, restaurants, service, commercial and entertainment uses. Whether or not the primary focus of the development area will be residential or job-generating depends on its location.



TOD Guidelines (courtesy of Peter Calthorpe and Associates).

Underdeveloped and vacant parcels within the infill area have been identified for the construction of Neighborhood TODs containing somewhat lower densities, a greater percentage of residential uses and local retail and office uses. Neighborhood TODs can be located on land as far as one mile from the transit stop and can contain lower density housing, commercial and other employment uses, schools and parks. Every project will be scrutinized to determine whether it is creating any barriers to pedestrians.

According to the guidelines, within a neighborhood TOD, there must be no fewer than 7 units and no more than 30 units per residential gross acre, and on average there must be at least12 units per residential gross acre. A second unit on a residential lot is counted as 1/2 unit per lot. If second units are included on the property, 4500 square foot or smaller lots will accommodate 10 units/acre or better. Townhouses can provide 15 to18 units per acre.

The Sacramento County Design Guidelines specify building heights, upper story uses on retail sites, building siting and design, setbacks, permissible building facades, street patterns, pedestrian and bicycle systems, sidewalks, commercial parking configurations and many other design details. The goal of the guidelines is to cultivate communities that not only allow easy access to transit, but make the process of walking or biking to transit and other local destinations both safe and pleasurable.

The TOD guidelines have already been adopted by the Board of Supervisors. The County is currently holding workshops on the general plan. Public hearings will be held throughout next year. The target date for adoption of general plan amendments is November, 1992.

— For more information contact Steve Tracy, Planner, Sacramento County Planning and Community Development Department (916)440-5917.

The City of San Diego's Design Guidelines and Growth Policy

Several years ago, the San Diego City Council appointed a committee made up of representatives from both the public and private sectors and charged it with addressing mobility issues within the city. A subgroup was subsequently formed, the Land Guidance Committee, whose charge was to formulate principles to guide growth. Working with a consultant, the group has developed design guidelines similar to Sacramento County's TOD guidelines.

The Land Guidance Committee has identified ten sites for new and infill development as prime candidates for pedestrian-scale communities. Four of these encircle existing or planned light rail stops. Others include major bus routes or sites of potential trolley stops. Some are in areas where there is relatively little development now and no transit service is currently provided. In these places, it is hoped that carefully designed communities will encourage transit planners to place future trolley lines and stops in their midst.

The TOD guidelines and recommended areas for future development must be adopted by the full committee, and will then be presented to the City Council for adoption as city policy.

— For more information Contact Nancy Schwartz, Senior Planner, Office of the City Architect (619)533-4591; or architect Peter Calthorpe at (415)777-0181.

Traditional Neighborhood Development (TND) Ordinance

In many communities, existing zoning codes inadvertently prevent the development of walkable, mixed-use neighborhoods. The Traditional Neighborhood Development (TND) Ordinance was designed to allow a builder to recreate a traditional, pre World War II design.

TND Ordinances have been adopted by the communities of Dade County, Florida; Palm Beach County, Florida; Bedford, New Hampshire; Rockport, Maine; and Loudon County, Virginia.

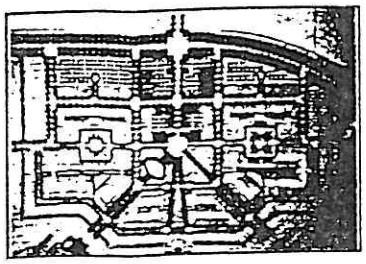
The Traditional Neighborhood Development Ordinance is presented as a one page blueprint, making it far easier to comprehend than the usual zoning code. It prescribes the following features:

1. The neighborhood area is limited in size, with clear edges and a focused center.

2. Shops, workplaces, schools, and residences for all income groups are located in close proximity.

3. Streets are sized and detailed to serve equally the needs of the

automobile and the pedestrian.



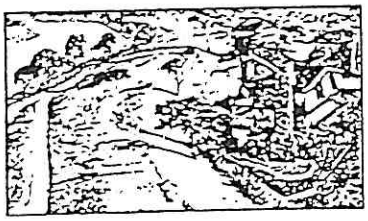
4. Building size and character are regulated to spatially define streets and squares.
5. Squares and parks are provided.
6. Civic buildings are given prevalence as symbols of identity of the community.

None of the communities where a TND ordinance has been adopted has chosen to make their ordinance mandatory. However, the adoption of a TND ordinance has made it possible to build a traditional neighborhood, should a developer choose to do so.

— For more information contact Andres Duany and Elizabeth Plater-Zyberk, architects, at (305)644-1023.

The City of Visalia's 1,700 Acre Specific Plan

In 1980, under the threat of heavy growth pressures, the City of Visalia, a community of 60,000 located in California's fertile San Joaquin Valley, undertook a major planning effort to take charge of exactly where and how the city should grow. With the goal of retaining the existing downtown as the geographic center of the city, a total of 1,700 acres were chosen as appropriate for development. A specific plan was prepared for some 2,400 multifamily units and 6,400 single-family homes to be served by two neighborhood commercial sites. Eight miles of greenbelts and bicycle paths connect homes, schools and recreation facilities to the town centers. Roads are kept narrow (32 feet wide), saving an estimated $1.5 million in construction costs and $20,000 a year in maintenance expense. (These were 1981 dollars). Lots are oriented to take advantage of the abundant Visalia sunlight. A surface drainage system permits a high degree of permeation and assists groundwater recharge.



This one-time planning effort has enabled the city to prepare one master environmental impact report, avoiding the time and cost of processing EIRs for individual projects. Developers have been able to step in and begin construction with a minimum of red tape. The City did make the mistake of charging significant developer fees for infrastructure and services in the specific plan area but not in other areas of town. Given the choice, developers initially chose to go elsewhere to build - where the City was paying the infrastructure costs. Once the schools were built, however, development began to be attracted to the specific plan area. To date, the area is 47% built out.

— For more information contact planner Bonnie Fisher of the Roma Design Group at (415)775-4350 or Phyllis Coring, a planner for the City of Visalia, at (209)738-3328.

Transit Oriented Specific Plan At The Pleasant Hill Transit Station: A Ground-Breaking Partnership of Four Local Entities.

The Pleasant Hill Transit station is located approximately 25 miles east of downtown San Francisco in a rapidly developing suburban area. In 1981, four local agencies (Contra Costa County, the Bay Area Rapid Transit (BART) District, and the Cities of Pleasant Hill and Walnut Creek) saw that development around the transit station was going to significantly impact their futures. They jointly agreed to cooperate on a unified planning strategy to regulate and coordinate growth. Together, they hired a consultant to develop a specific plan. The plan, creating the Contra Costa Centre, was formally adopted by the Contra Costa County Board of Supervisors in 1983. In 1984, the Board adopted a redevelopment plan for the same area to provide a mechanism for assembling the hundreds of privately owned properties in that area into a logical development site and provide a financing vehicle for future infrastructure improvements.

Specific plan. Contra Costa Centre occupies a 125 acre area adjacent to the BART Pleasant Hill station. A jobs/housing balance has been established by zoning 34% of the land within 1/4 mile of the BART station for housing. The plan for the area provides for over 3 million square feet of office and retail space and more than 2,300 residential units. A minimum density requirement of 35 units per acre as been established. Other unique planning elements include:

1. Construction of nearly $30 million in major public infrastructure and traffic improvements prior to development.

2. The ability to finance up to $40 million in additional improvements through redevelopment tax increments, rather than residential property tax dollars.

3. A requirement mandating participation by developers in both Traffic Systems Management and Childcare programs.

4. Inclusion of water-conservation elements in landscape plans.

5. Permitting density only to the level supportable by infrastructure improvements.

Implementation. Between 1984 and 1991, a total of nearly 1.5 million square feet of office space has been completed within the immediate vicinity of the BART station. The vacancy rate is over 1% lower in these offices than in offices located elsewhere in the County.

More than 1,800 housing units have been built, of which approximately 70 percent are rental apartments and the remainder are condominiums. In general, apartment developments have been constructed at a density of 40 to 60 units per acre and condominiums have been developed at between 24 and 60 units per acre. Apartments lease up faster and for higher rental rates and maintain lower vacancy rates than do their counterparts in other areas.

Transit usage is significantly higher among residents of housing in the plan area than among the population at large. A survey of residents at one apartment development indicated that more than 40 percent of residents utilize BART on

a regular basis for their commutes, and nearly 60 percent utilize BART on a regular basis for non-commute trips.

— For more information contact Contra Costa County Supervisor Sunne Wright McPeak at (510)646-5763, or Consultants Sedway Cooke at (415)781-8900.

A Specific Plan For Downtown Loomis

Loomis, a town with a population of about 9,000, is located in the Sierra foothills north of Sacramento, California. The community is using the specific plan as a tool for revitalizing its town center while creating a compact, mixed-use, pedestrian-oriented, community core.

The Loomis town center has been a somewhat blighted area and new businesses have been hesitant to establish there. Because the city has a slow-growth philosophy, the outlook for downtown redevelopment was not bright. Last year, however, members of the town council drew up a vision of what they wanted. Their master plan was intended to accomplish several things:

1. Provide opportunities for new residences, businesses and shops while strengthening the existing shopping district and preserving the small town character of the existing residential neighborhoods.
2. Maintain existing open spaces on the edge of town.
3. Provide frequent and multiple street and trail connections to reduce reliance on arterials and collector streets, provide more direct pedestrian routes, and minimize traffic on any given residential street.
4. Create new public places to strengthen Loomis' civic identity.
5. Conserve important natural features and provide new rural landscape features.

Specific plan. The now complete specific plan for downtown Loomis emphasizes mixed use development; moderate housing densities (6 to 12 units per acre within easy walking distance of shopping); paths and trails for equestrians, pedestrians and bicycles; and detailed design standards to assure "human scale" development. The plan also includes implementation strategies for meeting these goals.

Design guidelines guide the architectural detailing of future new and renovated buildings. The specific plan is not part of the General Plan, but is designed to guide future general plan amendments.

Process. Three newsletters, two public workshops, and two advisory group meetings were held prior to additional public review of the specific plan before the Town Council. The first newsletter outlined the process and included an invitation to citizens to participate in a public workshop to gather ideas about what should be included in the specific plan. The second newsletter described

the architects' draft plan and announced the second workshop held to offer citizens a chance to review the architects' work. Comments from this workshop served as the basis for a preliminary land use plan that was reviewed and modified by the town staff and the citizen's advisory group. The third newsletter made the revised land use plan available to Loomis' residents and included an invitation to attend the final hearings at the Town Council.

The EIR is not yet written and the plan has still to be adopted by the Town Council; however new businesses, realizing the potential of the area, are already coming to the town with development proposals.

The specific plan was funded by a combination of a newly established redevelopment agency, developer fees, assessments and the town's general fund.

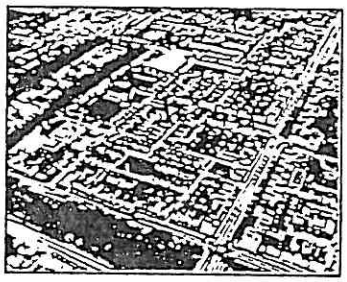
— Contact Councilmember Walt Scherer, Town of Loomis, (916)652-9204 or architect Peter Calthorpe at (415)777-0181.

Davie Settlement Redevelopment Agency Master Plan

Davie is a community of 45,000 located in Florida. In 1990, the community established a redevelopment agency covering 37 acres of the core business district. The agency funded the development of a master plan with a primary goal of recapturing the small town, rural atmosphere of the community.

Process. The architects of the plan held several meetings to identify the community's ideas of what they wanted. They then created a master plan and brought it back to the community for further input. Before the plan was finalized, the public was provided with computer simulations to help them visualize what the town would look like once the plan was complete.

Layout and design. The new master plan calls for gradual redevelopment based on traditional neighborhood planning values. The emphasis is on how each new building will reinforce public space. There will be a combination of residential, commercial and civic functions necessary to insure the viability of each neighborhood. A variety of types and sizes is planned to foster a mix of income, ages and interests.



Implementation. The project will be implemented incrementally over a 20 year period, respecting existing lot lines, encouraging diversity, and pacing development to the market. While compliance is voluntary, the redevelopment agency has established incentives to entice developers to conform to the master plan's provisions. The redevelopment agency is currently in the process of courting developers to speed the implementation process.

— For more information, contact Architect Victor Dover at (305)666-0446 or Merril Ladika, Director of the Davie Community Redevelopment Agency at (305)797-1102.

Village Homes: A Resource-Efficient Planned Unit Development

Village Homes is a developer-initiated 65-acre, neighborhood with so many innovations that it took special action of the Davis City Council to give the new ideas a chance - the Council consistently overruled a multitude of objections from their planning, fire, police and public works departments. The development was constructed between 1975 and 1980. Today, it is a highly successful model of resource-efficiency and an overwhelming commercial success. Homes there now sell more than twice as quickly and their value has inflated an average of 20% over other housing in the City.

Layout. Streets are narrow (20 to 25 feet instead of the usual 30 or more) to reduce paving cost and to absorb less heat in the hot Davis summers. They form long, curving, nonconnecting cul-de-sacs with the feel of a European Village. Building setbacks are only 15 feet, giving the streets an ally-like feeling. Houses face spacious greenbelts which are woven with a network of paths, allowing direct access for pedestrians and bicyclists to any destination within the development. The paths connect with bikeways leading to area schools and to the town's major employer, the University of California.

Housing mix. Single-family homes are interspersed with some duplexes, plus some low-profile, lower-priced apartments scattered among them.

Land use. Twelve acres are set aside for community agriculture; smaller parcels, greenbelts held in common, are used for community gardens, or play areas. A community-owned office building provides a workplace for some residents who operate small business enterprises. Undeveloped space is reserved for the future construction of a small grocery store and restaurant. A community swimming pool provides recreation for many and a community center is used both for meetings and for childcare.

Energy. While the streets wind, houses are on a strict east-west axis with ample south glazing for direct gain winter heat. The well-insulated homes have passive and/or active solar features and solar access is protected through the homeowner's codes, covenants and restrictions.

Water. All water runoff-from rooftops and from greenbelts is channeled by attractive creeks to natural sand pockets, instead of just being carried away through costly concrete culverts. This water penetrates into the ground on the site, replenishing diminishing groundwater supplies and nourishing the deep-rooted, drought-tolerant native plants.

A common interest in conservation, reinforced by the village-like layout, gives this highly successful development an intimate feeling of community.

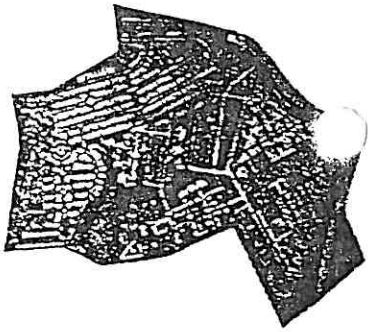
— For more information contact Michael Corbett, planner, at (916)756-5941 or the Village Homes Homeowner's Association at (916)753-6345.

A Developer-Initiated New Town: Kentlands, Maryland.

Kentlands' history is rooted in the smashing success of Seaside in Florida. The developers of Kentlands, impressed by the national attention and success of Seaside, hired its architects to replicate the same concepts on a larger scale. *(About Seaside, Florida: Primarily a recreational community planned for 600 vacation homes on 80 acres, the small town ambiance of Seaside - where small houses front on narrow lanes, mixing with small shops, a post office, and community spaces- has been such a commercial and aesthetic success that it has made headlines throughout the country. Built in 1980, it is Disney's Main Street USA, only people really live there.)*

Kentlands is a new town located on a 352 acre former farm in the outer Maryland suburbs of Washington. The developer hired the architects to duplicate the small town atmosphere of Seaside; however, unlike Seaside, Kentlands is a community where people will live full time. A second criterion for the design of Kentlands was that the area must serve as a commercial center for the region. A third criterion was that the architects find uses for the site's existing buildings.

When the town is more or less finished in 1995, there will be a total of 1,600 houses and apartments, an elementary school, a courthouse, corner shops, a large shopping center and almost 1 million square feet of offices scattered in small four and five story buildings.



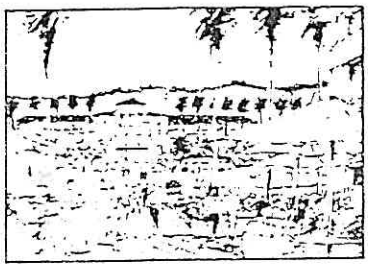
Layout. Like the towns built in the United States before World War II, Kentlands is designed on a grid system with every street carrying an equal share of traffic. Buildings are situated close together on 22-ft., 44ft., and 66 ft. wide lots to foster a tighter sense of community and make it easy to walk to where you are going. Commercial areas are no more than a five-minute walk from any house. Streets are narrow. The area is broken into four distinct neighborhoods.

Mix of uses. The Midtown neighborhood has a town square in its center which is bordered by a church and four-story buildings containing shops, offices, and apartments. Three additional neighborhoods also have a mix of uses: an elementary school, a church, a corner store, a child care facility, community clubhouse, artist's lofts, a conference center, a post office, public gardens, and a restaurant are intermingled with town houses, apartments and single family homes.

Implementation. Model homes for the first phase of 200 single-family units opened in September 1990 and the first families have moved in. Construction on the first 240 apartment units was started in October of 1990. Preexisting buildings on the site are currently being renovated for civic functions. The first new public building, an elementary school, opened in September 1990; and a child-care center and neighborhood store are about completed. Vacant lots are selling well despite a housing slump experienced elsewhere in the state. The recession created some financial problems for the developer, but the project seems to be proceeding.

— For more information contact Andres Duany and Elizabeth Plater-Zyberk, Architects, (305)644-1023 or developer Joseph Alfandre at (301)670-0343.

Playa Vista: A Los Angeles Developer's Innovative Specific Plan



A major development project, planned for construction on about one thousand acres near the Los Angeles airport, is aggressively addressing environmental problems while striving to create a compact, mixed-use, neighborhood community with an improved quality of life for those who live there.

Process. Playa Vista, located on lands originally owned by the Howard Hughes corporate empire, is the only large chunk of developable land left in Los Angeles and includes most of the last remaining wetlands in the area. In the early eighties, the Hughes corporation decided to develop - and ran head first into a barrage of citizen opposition, a law suit, and a city council campaign. Throwing up their hands in defeat, the developers sold controlling interest in the project to a new developer who is willing to work with community concerns - preserving the wetlands, decreasing the number of proposed housing units, and spending many hours talking with area residents to obtain their input. The new developer has prepared a new, environmentally sensitive specific plan.

Layout and design. As it is designed now, the development will feature moderately dense housing in two ranges (20 to 40 units per acre and 40 to 80 units per acre) built around small neighborhood parks and adjacent to about 300 acres of wetlands and riparian corridor. Garden oriented housing types will include a courtyard apartment building, a side-yard house, duplexes and quadplexes, mixing a variety of housing choices for people of varying incomes and lifestyles. Alleys will be incorporated and designed as play streets. Large offices, small retail stores, restaurants, grocery stores and small telecommuting offices will be integrated, allowing residents to walk when they go to work, shop or go out to dinner. Similarly, office workers who commute to the area will be able to walk to lunch or shopping.

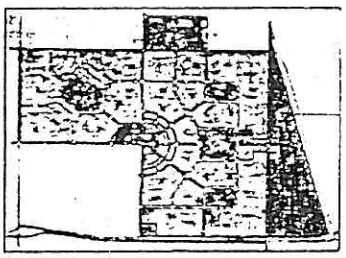
Energy and environment. In addition to preserving the wetlands, the development incorporates numerous environmentally sensitive features including a self-sufficient, integrated solid and liquid waste management system and a magnetic cable laid into city streets to power electric buses serving the area. A bicycle and pedestrian esplanade will link the town with the beach. State and federal permits to restore the wetlands are currently being pursued and the project EIR is being written.

— For more information contact architects Stefanos Polyzoides and Elizabeth Moule at (213)624-3381 or McGuire Thomas Partners at (310)822-0074.

The City of Modesto's Specific Plan for Modesto Village One

The City of Modesto has prepared a specific plan for 1,784 acres of land, designed to recreate the character of old Modesto. The plan calls for the conservation of valuable farmland; the development of a mixture of uses; and pedestrian-orientation.

In 1978, the voters in Modesto, concerned about the City's rapid growth and increasing sprawl, passed an initiative which required an advisory vote of the citizens prior to the extension of sewer services to areas of new development. Subsequently, the voters turned down several development proposals. In 1989, the City Council passed a resolution to require that new development proposals be in the form of urban villages for which there have been prepared detailed specific plans. Modesto Village One is such a specific plan.



Goals: The goal of the specific plan is to establish a self-sufficient, pedestrian-oriented community with a mixture of uses. The plan provides for 8,000 new residential units, up to 700,000 square feet of commercial space, an industrial/business park, schools, parks, and other community facilities. Linkages between activity centers within the village are made along heavily landscaped streets which provide for pedestrian, bicycle and transit use as well as for cars.

Village Center. At the heart of the community, there is a higher density, mixed-use activity center that is pedestrian-oriented in character. It is planned to include local neighborhood shopping facilities, some offices, higher density housing, and community services including fire and police stations.

Districts and neighborhoods. Three residential districts are planned. Each is almost one square mile in size. Schools and parks are the focal point of the districts.

Each district will be made up of three or four residential neighborhoods. The neighborhoods will have their own parks and recreational areas. Neighborhood streets will provide direct access to all destinations, will be tree-lined, and will provide bicycle lanes.

Industrial Business Park. At the edge of the Village there is planned a large, industrial business park.

Affordable housing plan. To keep housing in Modesto Village One within reach of everyone, the City has adopted a plan to keep 25% of the housing in the "affordable" catagory. There will be an assessment of about $600 per home made on all dwellings in excess of 800 square feet. The revenue will go into a housing trust fund used to loan down payments to qualified low and moderate-income families. The loan must be paid back when a home is sold. Apartments, duplexes and senior housing will also contribute to the pool of affordable units.

Process. The planning process has included a multitude of community workshops, study sessions and meetings to gather input prior to developing the plan and gain comments as the design developed. The plan was subject to an advisory vote by city residents and was approved in November of 1990. The next step, an annexation vote for registered voters in the specific plan area, should be

completed soon.

Modesto utilized the City's general fund to fund the specific plan. This investment will be repaid by developers as build-out occurs.

— For more information contact planning consultant Bonnie Fisher of Roma Design Group at (415)775-4350 or Steve Nish, a planner for the City of Modesto at (209)577-5280.

Photo Credits

Cover	Michael Corbett/David Sparrow
Executive Summary	Ian Reeves (above) DPZ Architects (below)
Page 5	Michael Corbett
Page 6	Ian Reeves, DPA Architects
Page 14	Michael Corbett
Page 17	California State Department of Transportation
Page 18	Ron Morgan, Roma Design Group
Page 22	Ron Morgan, Roma Design Group
Page 30	City of San Diego
Page 31	DPZ Architects (above and below)
Page 32	Michael Corbett
Page 34	Michael Corbett
Page 36	DPZ Architects
Page 37	Chad Ankele (above) Michael Corbett (below)
Page 41	Michael Corbett (above and below)
Page 42	Ron Morgan, Roma Design Group
Page 47	Michael Corbett
Page 48	Ron Morgan, Roma Design Group
Page 56	County of Sacramento
Page 62	DPZ Architects (above and below)
Page 66	Peter Calthorpe and Associates (above) Roma Design Group (below)
Page 69	Dover, Kohl and Partners
Page 70	Michael Corbett
Page 71	DPZ Architects
Page 72	DPZ/Moule and Polyzoides
Page 73	Roma Design Group (above and below)

Books and Periodicals

A

Here are some of the books and articles we have found most helpful in preparing this guidebook:

Alexander, Ernest R. and Reed, K. David., *Density Measures and their Relationship to Urban Form*, Center for Architecture and Urban Planning Research University of Wisconsin-Milwaukee (1988). This books provides a good idea of the ways communities can be designed to achieve a desired density. The authors examined 99 typical site layouts using single family detached housing, row housing, low-rise garden apartments and high-rise multifamily housing in various arrangements depending on lot size, building size and block configuration.

Ashmun, Candace M., *Municipal Land Use: A Decision-Makers Guide*, The Association of New Jersey Environmental Commissions (1979?), drawing on the ideas of Ian McHarg, discusses how to develop a comprehensive resource inventory and how to organize certain types of environmental impact statements.

Bainbridge, David, Judy Corbett and John Hofacre, *Village Homes' Solar House Designs* (1979) provides a description of the planning innovations of the Village Homes, 70 acre solar subdivision in Davis, California and provides detailed descriptions of some of the energy-efficient homes built there.

Barton- Aschman Associates, Inc., with Hammer, Siler, George Associates. *Research Triangle Regional Transit/Land-Use Study*, North Carolina Department of Transportation (1990), consists of three reports. Report I reviews actions by other communities to support transit use. Report II considers the potential for rail transit along four corridors in the Research Triangle area. Report III contains guidelines to assist in the design and operation of roads and other facilities for use by transit buses.

California Air Resources Board, *Transportation Performance Standards of the California Clean Air Act* (April 1991), provides some statistics of current trends in vehicle use and recommends methods for measuring progress in meeting the goal of the California Clean Air Act in terms of vehicle trips and

vehicle miles travelled (VMT), average passenger vehicle occupancy (AVO) and increases in vehicle emissions.

California Office of Planning and Research, *The California Planner's Book of Lists*, State of California, Sacramento (1990), presents the results of OPR's annual survey of the planning programs of the 450 cities and 56 counties in the state. Provides a directory of planning agencies and lists of such things as the cities and counties with tree preservation ordinances or specific plans.

Calthorpe Associates, *Transit- Oriented Development Design Guidelines,* For Sacramento County Planning & Community Development Department, Final Review Draft (September 1990).

Calthorpe, Peter and Mark Mack, "Pedestrian Pockets New Strategies for Suburban Growth", *Northern California Real Estate Journal* (February 1, 1988), describes the characteristics of pedestrian pocket neighborhoods.

Cervero, Robert, "Jobs- Housing Balancing and Regional Mobility," *APA Journal* (Spring 1989). The author, who teaches transportation and land use planning at UC Berkeley, documents the increased movement of businesses to the suburbs and the concurrent increase in average miles travelled to work. He concludes that the answer for strengthening the link between jobs and housing lies in inclusionary zoning, tax-base sharing, fair-sharing housing programs and the use of incentive-based programs.

City of Fort Collins Colorado, *Land Development Guidance System for Planned Unit Developments* (1981), describes the innovative performance zoning approach offered to developers in Fort Collins, Colorado, in addition to the traditional zoning ordinances. Includes the performance checklist and scoring system, procedures and rationale.

Corbett, Michael N., *A Better Place To Live,* Rodale Press (1981) offers a vision of how to build pedestrian-oriented and resource efficient towns and cities.

County of San Diego Department of Planning and Land Use, *Mode Enhancement Through Land Use Design*, prepared by Stevens/Garland Associates, Inc. in association with SR Associates and Comsis Corporation, San Diego (1991), offers design strategies encouraging people to walk or use buses, rail, trolley, carpools, vanpools or bicycles instead of using motor driven single occupant vehicles. It includes a project design guidebook.

Duany, Andres and Elizabeth Plater-Zyberk, *Towns and Town-Making Principles,* Harvard University Graduate School of Design (1991), provides

an overview of the work and philosophy of its authors, pioneers in the rival of traditional town planning.

Frank, James E., *The Costs of Alternative Development Patterns - A Review of the Literature*, Urban Land Institute, Washington D.C. (1989), offers an evaluation of nine studies that have been carried out to determine the costs of public facilities associated with various patterns of development. Taken as a whole, the studies all reach a similar conclusion: development spread out at low densities increases the costs of public facilities.

Governor's Office of Planning and Research, *Specific Plans in the Golden State*, (1991), Sacramento, California, provides a comprehensive description of specific plan law in California and how it is being used.

Hagevik, George (editor), *The Relationship of Land Use and Transportation Planning to Air Quality Management*, Center for Urban Policy Research and Conference Department, Rutgers University (1972). A collection of essays addressing land use and transportation issues.

Jacobs, Jane, *The Death and Life of Great American Cities*, Vintage Books, New York (1961), perhaps the most influential and insightful book ever written about large American cities. It perceptively describes the social, educational and public safety failures that result when streets are not designed to be vibrant, multi-use living environments, when pedestrian activity is discouraged, and when the history and traditions of a community are ignored. Although the author cautions that many of her observations may not apply to smaller communities, her philosophy is consistently reflected in the comments of many who support a return to more traditional community development.

King County Housing Partnership, *The Blueprint for Affordable Housing*, Seattle (1991), an intelligent, readable discussion of uses that affect the ability of people from all income levels to find adequate housing. Includes an action agenda for reducing housing costs.

Lemire, Robert A., *Creative Land Development; Bridge to the Future*, (1979), a first-person discussion of how zoning and other creative techniques were used to preserve open space land in Lincoln, Massachusetts.

Mantell, Michael A., et al., *Creating Successful Communities*, The Conservation Foundation (1990), a guide to growth management strategies.

McHarg, Ian L., *Design with Nature*, Natural History Press (1969), introduces the concept of mapping areas for development suitability by overlay-

ing assessments of various factors including climate, geography, physiography, hydrology, pedology, vegetation, wildlife, existing land use and various socioeconomic factors.

Miller Associates and Environmental Systems Research Institute, *Strategies for the Sustainable Use of Resources* (1989), focussing on the Misato Learning Village in Misato-Cho Japan, this study discusses ways to plan buildings and communities that use energy more efficiently (orientation of roads, buildings, and glazing, use of shading, passive solar heating systems, more efficient building shapes) and applies GIS techniques to planning for the Misato Village.

Newman, Oscar, *Architectural Design for Crime Prevention,* National Institute of Law Enforcement and Criminal Justice (1973) is a state-of-the-art survey of low income housing developments which suggests how the grouping of dwelling units and their design can significantly discourage criminal action.

Pederson, E.O., *Transportation in Cities*, Pergamon Press (1980). Provides a brief overview of the history of transportation in cities (including discussion of the density and small expanse of Rome and other ancient cities), lists the features that are essential to a pedestrian city, and concludes that the pedestrian city is flawed and continued reliance on automobiles is the answer for reducing smog (by allowing people to move to smaller cities) and providing people with the life-style they would prefer.

Porter, Douglas R., "Flexible Zoning— How It Works", *Urban Land* (April 1988), concisely describes the principles inherent in flexible zoning and discusses 7 jurisdictions where flexible zoning is available to developers.

Pushkarev, Boris S. and Jeffrey M. Zupan, *Public Transportation and Land Use Policy*, Indiana University Press (1977), based on a study, "Urban Densities for Public Transportation," prepared for the Tri-State Regional Planning Commission and funded by U.S. DOT and others. A valuable source of transit, auto use and density data and a good introduction to the transit challenge.

Real Estate Research Corporation, *The Costs of Sprawl* (1984), a study that makes several assumptions about the nature of sprawl versus planned development and concludes that planned development reduces most of the costs faced by local governments and has many environmental benefits, including the reduction of air pollution from automobile use.

Sacramento, County of, *Transit Oriented Developments, Transit/Land Use*

Linkage, a five page summary of the fundamental concepts as proposed for the county.

San Diego Association of Governments, *Draft Regional Growth Management Strategy* (July 1991), calls for 50% of all housing units to be within 1/4 mile of a transit route and for 80% of all housing units to be within 1/2 mile of a transit route, includes a study of the effects of striving for a jobs/housing balance.

Schwanke, Dean, *Mixed- Use Development Handbook*, Urban Land Institute, Washington, D.C. (1987), addresses the public sector's involvement in mixed- use development.

State of California Air Resources Board, *The Air Pollution - Transportation Linkage*, Sacramento (1989), quantifies the air pollution problem stemming from the use of automobiles.

Taber, Alene, *Making Clean Air a Priority*, South Coast Air Quality Management District (1990), a guide for planners in local government — explains why local governments have a stake in cleaning the air and offers a self-assessment matrix for determining where additional local government action is needed.

Van der Ryn, Sim and Peter Calthorpe, *Sustainable Communities*, Sierra Club Books (1986), provides a practical vision of how different types of American communities can make the transition to a way of life that encourages sustainability, reduces resource waste, balances consumption, and production, and produces long-term social and ecological health.

Woodhull, Joel, "How Alternative Forms of Development Can Reduce Traffic Congestion," Los Angeles Ecological Cities Conference (1991), in which the Policy Analysis Manager for the Southern California Rapid Transit District discusses various approached to neighborhood, street and sidewalk design and how they may affect the use of private automobiles and public transit.

Draft Resolution

B

In The Matter of Addressing Land Use Planning for Cleaner Air Through Local Government Action

WHEREAS, Existing patterns of urban and suburban development are beginning to seriously impair our quality of life, and

WHEREAS, The symptoms are: more congestion and air pollution resulting from our increased dependence on automobiles, the loss of precious open space, the need for costly improvements to roads and public services, the inequitable distribution of economic resources, and the loss of a sense of community, and

WHEREAS, Many of the above symptoms are a result of piecemeal planning wherein cities and counties must react to developers on a project-by-project basis, and

WHEREAS, By drawing upon the best from the past and the present, local governments can proactively plan communities that will more successfully serve the needs of those who live and work within them;

NOW THEREFORE BE IT RESOLVED that the city/county of _____ agrees that the following planning principles should guide future growth in this jurisdiction:

1. All planning should be in the form of complete and integrated communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.

2. Community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.

3. As many activities as possible should be located within easy walking distance of transit stops.

4. A community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.

5. Businesses within the community should provide a range of job types for the community's residents.

6. The location and character of the community should be consistent with a larger transit network.

7. The community should have a center focus that combines commercial, civic, cultural and recreational uses.

8. The community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.

9. Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.

10. Each community or cluster of communities should have a well defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.

11. Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.

12. Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.

13. The community design should help conserve resources and minimize waste.

14. Communities should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.

15. The street orientation, the placement of buildings and the use of shading should contribute to the energy efficiency of the community.

BE IT FURTHER RESOLVED that the (city or county of _____) should work with neighboring jurisdictions to achieve the following goals:

1. The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.

2. Regions should be bounded by and provide a continuous system of greenbelt/wildlife corridors to be determined by natural conditions.

3. Regional institutions and services (government, stadiums, museums, etc.) should be located in the urban core.

4. Materials and methods of construction should be specific to the region, exhibiting continuity of history and culture and compatibility with the climate to encourage the development of local character and community identity.

BE IT FURTHER RESOLVED that the (city/county of _____) believes the following actions should be taken to implement these goals:

1. The general plan should be updated to incorporate the above principles.

2. Rather than allowing developer-initiated, piecemeal development, local governments should take charge of the planning process. General plans should designate where new growth, infill or redevelopment will be allowed to occur.

3. Prior to any development, a specific plan should be prepared based on the planning principles. With the adoption of specific plans, complying projects could proceed with minimal delay.

4. Plans should be developed through an open process and participants in the process should be provided visual models of all proposals.

Model RFP

C

Release Date:

Bidders Conference:

Closing Date:

Interviews:

REQUEST FOR PROPOSALS

PREPARATION OF _____*(location)* SPECIFIC PLAN FOR A PEDESTRIAN ORIENTED COMMUNITY

INTRODUCTION

The _____*(city/county)* is soliciting proposals from qualified consultants to prepare a specific plan for _____*(location).* The selected consultant will complete the contracted scope of work within the agreed time frame, under the general direction and coordination of the _____*(department).*

SPECIFIC PLAN PROGRAM

The specific plan process has been chosen to assure the production of a master plan that will address the full range of environmental and social problems facing our community. Specific plan law provides the legal basis for assuring that any construction on the site will be in conformance with the plan. The specific plan process allows for the preparation of a comprehensive design involving multiple projects and many property owners. It also provides the basis for producing an infrastructure financing plan that can be equitably applied to affected landowners.

ENVIRONMENTAL AND POLITICAL SETTING

_____*(agency)* is experiencing a phenomenon that reaches across the entire state. Existing patterns of urban and suburban development are beginning to seriously impair our quality of life. The symptoms are: more congestion and air pollution resulting from our increased dependence on

automobiles, the loss of precious open space, the need for costly improvements to roads and public services, the inequitable distribution of economic resources, and the loss of a sense of community.

(Insert a description of the project area and the political and economic setting.)

GOALS AND OBJECTIVES OF THE SPECIFIC PLAN

The overall goal is to create a detailed, comprehensive, and well-considered plan for the area which implements the broader goals and policies of the _____*(city/county)* General Plan while fully addressing the following set of objectives:

1. All planning should be in the form of complete and integrated neighborhood communities containing housing, shops, work places, schools, parks and civic facilities essential to the daily life of the residents.

2. Neighborhood community size should be designed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.

3. As many activities as possible should be located within easy walking distance of transit stops.

4. A neighborhood community should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries.

5. Businesses within the neighborhood community should provide a range of job types for the community's residents.

6. The location and character of the neighborhood community should be consistent with a larger transit network.

7. The neighborhood community should have a center focus that combines commercial, civic, cultural and recreational uses.

8. The neighborhood community should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.

9. Public spaces should be designed to encourage the attention and presence of people at all hours of the day and night.

10. Each neighborhood community or cluster of communities should have a well defined edge, such as agricultural greenbelts or wildlife corridors, permanently protected from development.

11. Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.

12. Wherever possible, the natural terrain, drainage, and vegetation of the community should be preserved with superior examples contained within parks or greenbelts.

13. The design should help conserve resources and minimize waste.

14. The design should provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping and recycling.

15. The street orientation, the placement of buildings and the use of shading should contribute to energy efficiency.

In addition, the specific plan will meet the following program objectives based on local needs and considerations:

(List local issues, needs and constraints)

SCOPE OF WORK

A. Prepare a Masterplan

1. Conduct interviews with staff and relevant agencies. Review relevant documents.

2. Identify environmental constraints and opportunities.

3. Hold two-three hour meetings for the purpose of gathering public input.

4. Conduct one-six hour public design workshop to generate design ideas and gather additional information.

5. Prepare goals and objectives for staff and community review.

6. Prepare three rough sketch plans for staff and community review. They should include:

   a. The distribution, location and extent of the uses of land including neighborhood community parks, schools, housing, commercial and industrial uses and open space.

b. Circulation routes for autos, pedestrians and bicycles including connections with the surrounding areas.

c. The proposed distribution, location and extent and intensity of major components of traffic and circulation infrastructure, sewage, water, energy and drainage.

d. Design requirements and regulations for street scope, landscaping, neighborhood community center, parks, and residential and commercial architecture.

e. Show how existing development *(if any)* is integrated within the plan.

7. Prepare a revised draft of the goals and objectives and the selected sketch plan for public review and Planning Commission and *(Council/Board)* review.

8. Prepare a final master plan with related drawings and text.

B. Prepare a specific plan booklet.

1. Prepare a draft for staff and specific plan committee review *(if applicable)*.

2. Prepare revised draft for public, Planning Commission and *Council/Board* review.

3. Prepare final draft specific plan.

FORM OF PROPOSAL

The proposal shall be submitted in a format which permits the various elements to be generally incorporated as exhibits to a Professional Services Agreement to be entered into between the consultant and *city/county*. In addition to the information required in the following section, the proposal must also include the following:

A. Name, address and telephone number of the consultant and the name of contact person.

B. A statement of qualification, including:

1. Firm size and composition;
2. Services offered;
3. Names of principals;
4. References;
5. Description of projects completed by the firm relevant to this project.

C. A list of proposed project staffing, including:

1. Identification of primary contact persons;
2. Identification of other staff.

D. Identification of subconsultants, if any, proposed for the project and their respective responsibilities. The identification must include staffing and reference information as indicated above.

E. Specification of any exception from the requirements of this Request for Proposal or the *City/County's* Professional Services Agreement, if any, with an explanation and suggested alternative.

F. Proposals should address the specific approaches, tasks and work products within each component to fully communicate the intended scope of work. There should be a breakdown of the allocation of costs among tasks.

BIDDERS' CONFERENCE

To assist consultants in understanding and responding to this RFP, the *City/County* will conduct a Bidders Conference on _____.

PROPOSAL SUBMITTAL

A. Five copies of the proposal shall be received no later than _____ *(time and date)* at _____ *(location).*

B. All proposals shall be submitted in a sealed envelope which is clearly marked with the firm name of the proposer and the title of the proposal.

C. Late proposals will not be accepted.

D. All proposal, whether selected or rejected, shall become the property of _____ *(city/county).*

E. Cost of preparation of proposals will be borne by the proposers.

F. Proposals shall be signed by an authorized employee or officer in order to receive consideration.

G. The *(City/County)* will not be responsible for proposals delivered to a person/location other than that specified herein.

SELECTION CRITERIA AND PROCESS

Written proposals will be reviewed by a committee composed of _____. Interviews will be conducted by these same representatives. The proposed project manager for each consultant will represent the firm at the interviews.

The evaluation criteria to be used to determine the recommended firms will include the following factors:

Evaluation Criteria

Qualification of firm and personnel
Applicable experience
Understanding of project and responsiveness to RFP
Quality and clarity of proposal
Cost and allocation of costs among tasks

Based on the evaluation of written proposals and the interviews, the committee will recommend to the *(City/County)* one firm. The *(City/County)* reserves the right to award a contract to the firm or individual that present the proposal which, in the sole judgment of the *(City/County)*, best accomplishes the desired results. The *(City/County)* also reserves the right to reject any or all proposals, to waive minor irregularities, or to negotiate minor deviations with the successful firm.

INQUIRIES

Direct all inquires regarding the RFP process or proposal submissions to the Project Manager as follows:

(Add project manager, address and phone number.)