# Smart Growth 101: Making the Connections

Paul Zykofsky, AICP, Assoc. AIA Associate Director Local Government Commission

New Partners for Smart Growth Conference

St. Louis, MO February 2, 2017

## **Local Government Commission**

## Leaders for Livable Communities

We are a nonprofit organization that fosters innovation in local environmental sustainability, economic prosperity and social equity.





## What we do...

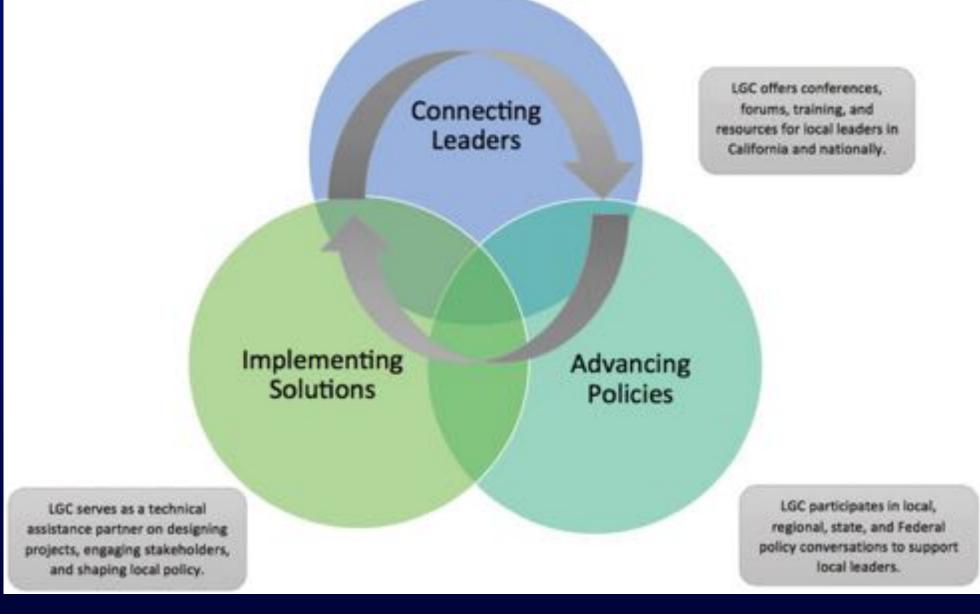
The **LGC** helps transform communities **through** *inspiration*, *practical assistance* and a *network* of visionary local elected officials and other community leaders.

## How we do it...

- ✓ Workshops and Trainings
- ✓ Participatory Planning and Design Work
- ✓ Policy Development Assistance
- ✓ Tours of Model Projects
- ✓ Networking Events
- ✓ Annual and Biennial Conferences









## The Ahwahnee Principles, 1991

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



# The Ahwahnee Principles, 1991

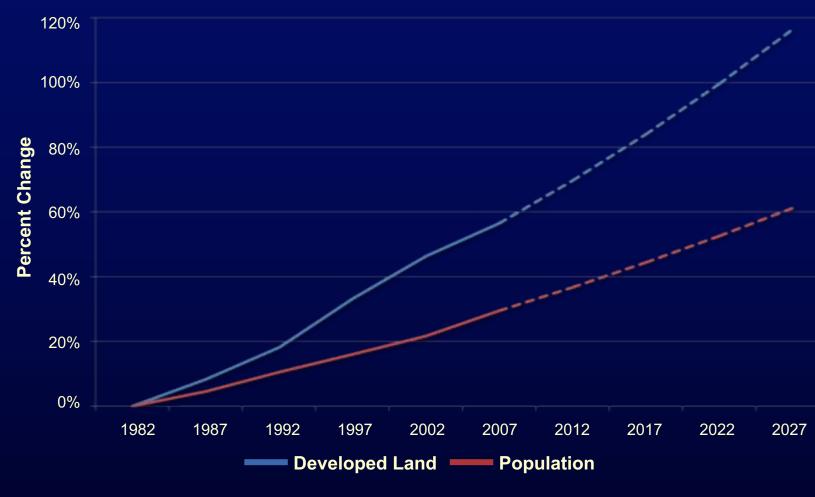
- Revitalize existing parts of our communities through infill development
- Plan complete and integrated communities with mix of uses
  - Within walking distance of one another
  - Within walking distance of transit stops
  - With a diversity of housing types
  - With a center focus



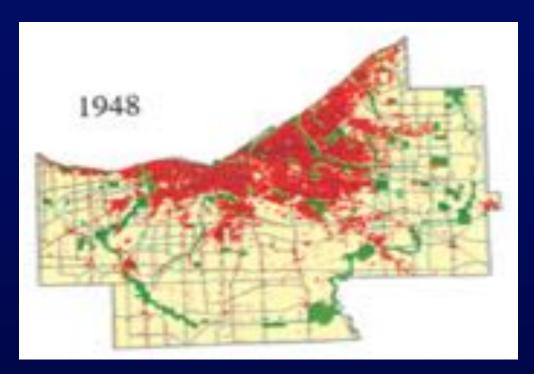


# U.S. Population Growth and Land Consumption, 1982-2027

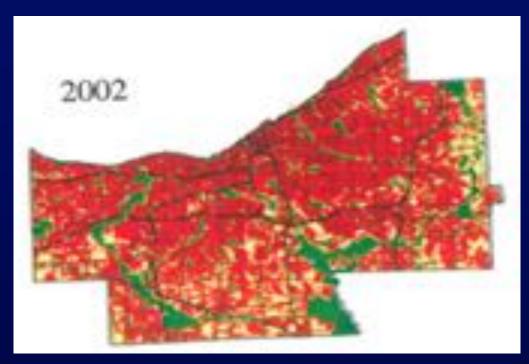
- Land area in virtually every metropolitan region in U.S. has expanded substantially since 1950
- Urbanized
   area
   increased 2.5
   times faster
   than
   population
   growth
   between 1950
   and 2010



## **Expansion with Little Population Growth**



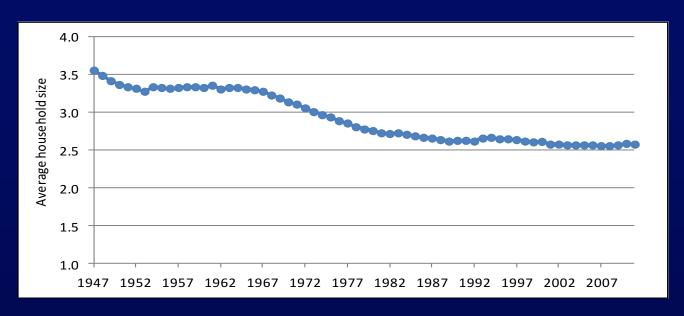
U.S. Census 1950 1,389,582 pop.



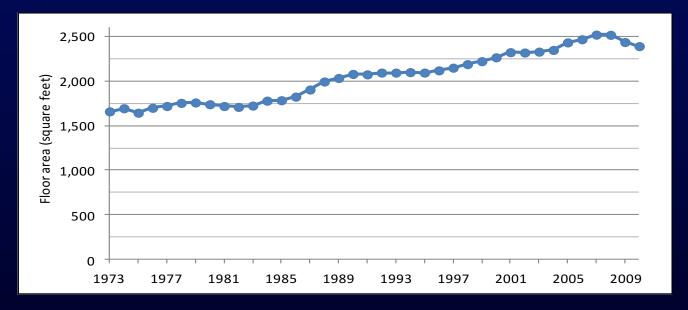
U.S. Census 2002 1,393,978 pop.

Cuyahoga Co Land Use Maps – Cuyahoga County, Ohio, Planning Commission

## Household Size Drops while Houses Get Bigger



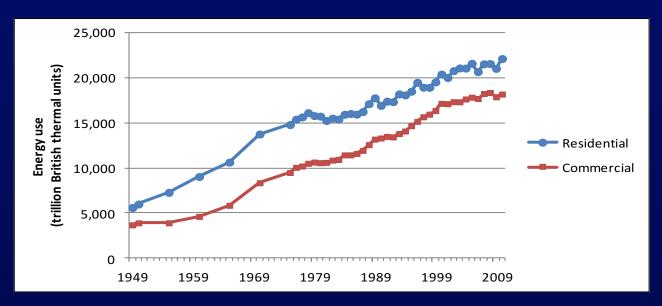
Average U.S. Household Size 1947-2007



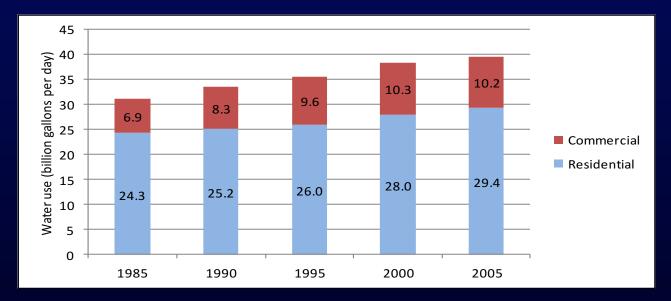
Average Size of Single-Family Homes 1973-2009

Data source: U.S. Census Bureau

## Energy and Water Use Go Up...



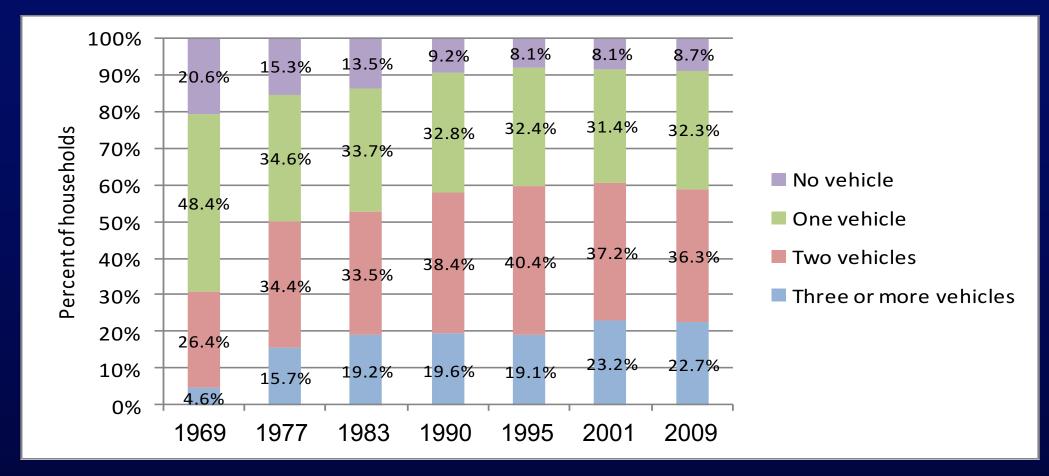
Building Energy Use 1949-2009



Building Water Use 1985, 1990, 1995, 2000, 2005

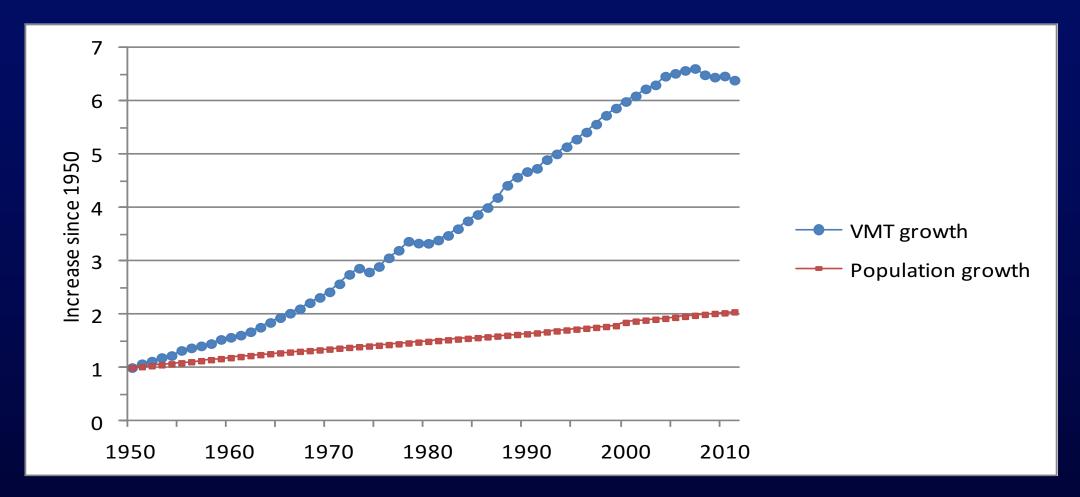
Data source: U.S. Energy Information Administration

## We Buy More Cars and Drive More...



Vehicles per Household

# Growth in Vehicle Miles Traveled (VMT) Far Outpaces Growth in Population



## How have we built our urban roadway system?



To <u>facilitate</u> travel over longer distances







## Will 23 lanes be enough?

Proposal would put I-75 among country's biggest

By ARIEL HART ahart@ajc.com It's wider than an aircraft carrier. Far wider than the carving on Stone Mountain. Wider than the White House stretched end to end, twice.

It's the planned 1-75, all 23 lanes, coming soon to Cobb County. As currently conceived it's 388 feet across, wider than a football field is long.

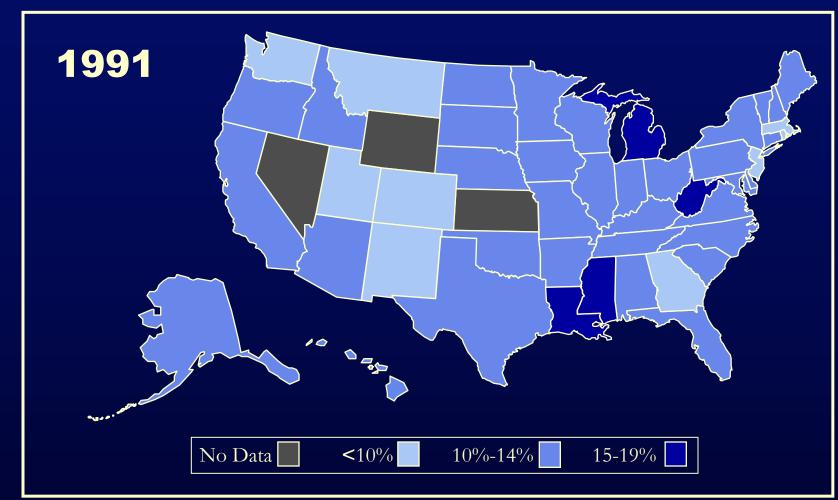




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gift to make a road builder weep with you and make others wonder whether

## Obesity\* Trends Among U.S. Adults



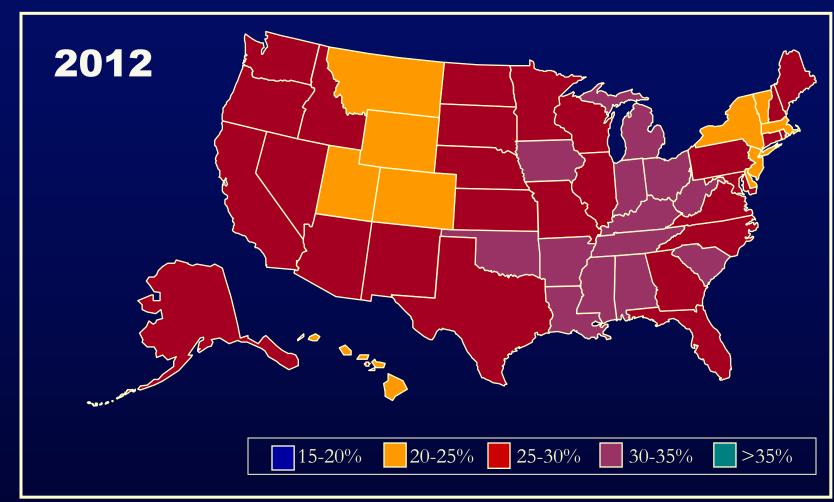
\* BMI ≥ 30, or ~ 30 lbs overweight for 5' 4" woman



Source: Behavioral Risk Factor Surveillance System, CDC Source: Mokdad A H, et al. JAMA 2003;289:1

## Obesity\* Trends Among U.S. Adults

21 Years later...



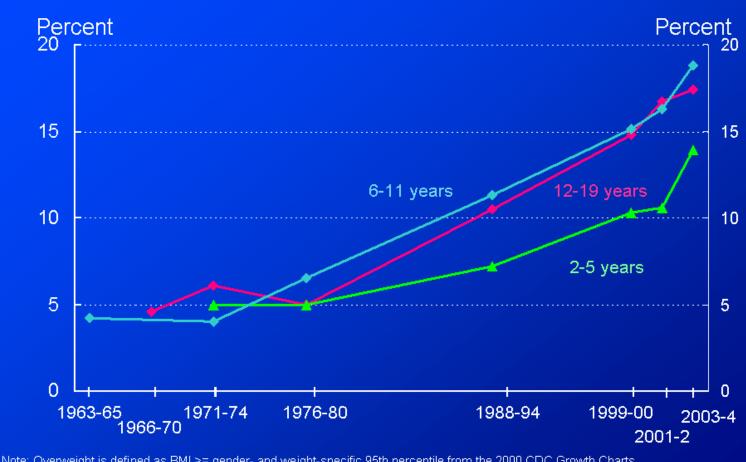
\* BMI ≥ 30, or ~ 30 lbs overweight for 5' 4" woman



Source: Behavioral Risk Factor Surveillance System, CDC Source: Mokdad A H, et al. JAMA 2003;289:1

## Trends in Child/Adolescent Overweight

- Increase in seriously overweight youth
  - Under 5% in 1963-70
  - Close to 20% in 2002



Note: Overweight is defined as BMI >= gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts. Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.

## It's the Community Design...



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

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



# Newswes

**ItStrikes** 16 Million Americans

Are You

### SOCIETY

## An American **Epidemic**

The silent killer: Scientific research shows a 'persistent explosion' of casesespecially among those in their prime BY JERRY ADLER AND CLAUDIA KALB

MARKET THREE REALISINGS TO VIRGINIA REPORTED eyes. Yet were being prisoned; the fluids on illustrated fall retinates. tacked three within and more hading lifted. The first empressar wase and book, appearing metal ody armen have field of visions the form made. of not everyd smalter that that me light verterly. We kind us. the broke har over more propriety," only his daughter, because themse, a Change reduce motion Bester, who now in her best providers the

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## Diabetes Projected Risks: For Babies Born in 2000

- Girls: 38% lifetime risk
  - Latino girls: 53%
  - African-American girls: 49%
  - If diabetic before age 40, Lifespan shortened by 14 years (Quality of life by 19 years)
- Boys: 33% lifetime risk
  - Latino boys: 45%
  - African-American boys: 40%
  - If diabetic before age 40, Lifespan shortened by 12 years. (Quality of life by 22 years)

# CDC: Diabetes to afflict 1 in 3 born in 2000

Scientist says kids must eat healthier, exercise more

By JANET McCONNAUGHEY Associated Press

New Orleans — One in three U.S. children born in 2000 will become diabetic unless many more people start eating less and exercising more, a scientist with the Centers for Disease Control and Prevention warned Saturday.

The odds are worse for African-American and Latino children: Nearly half of them are likely to develop the disease, said Dr. K.M. Venkat Narayan, a diabetes epidemiologist at the CDC.

"I think the fact that the diabetes epidemic has been raging has been well-known to us for several years. But looking at the risk in these terms was very shocking to us," Narayan said.

The 33 percent lifetime risk is about triple the American Diabetes Association's current estimate by 2050, to 29 million, an earlier CDC study by Narayan and others found.

"These estimates I am giving you now are probably quite conservative," Narayan said in an interview before the diabetes association's annual scientific meeting here.

Narayan said it would be difficult to say whether undiagnosed cases would rise at the same rate.

If they did, that could push the 2050 figure to 40 million or more.

Doctors had known for some time that Type 2 diabetes what used to be called adultonset diabetes because it typically showed up in middle-aged people — is on the rise, and that patients are getting

Nobody else had crunched the numbers to look at current odds of getting the disease, Naruyan said.

Overall, he said, 59 percent of the girls who now are healthy 21/5- to 3-year-olds and 33 percent of the boys are likely to develop diabetes, he said.

For Latino children, the odds are closer to one in two: 53 percent of the girls and 45 percent of the boys. The numbers are about 49 percent and 40 percent for African-American girls

# Does Your *Zip Code* Matter More Than Your *Genetic Code*?

Dr. Tony Iton, MD, JD, MPH
 Senior Vice President
 The California Endowment



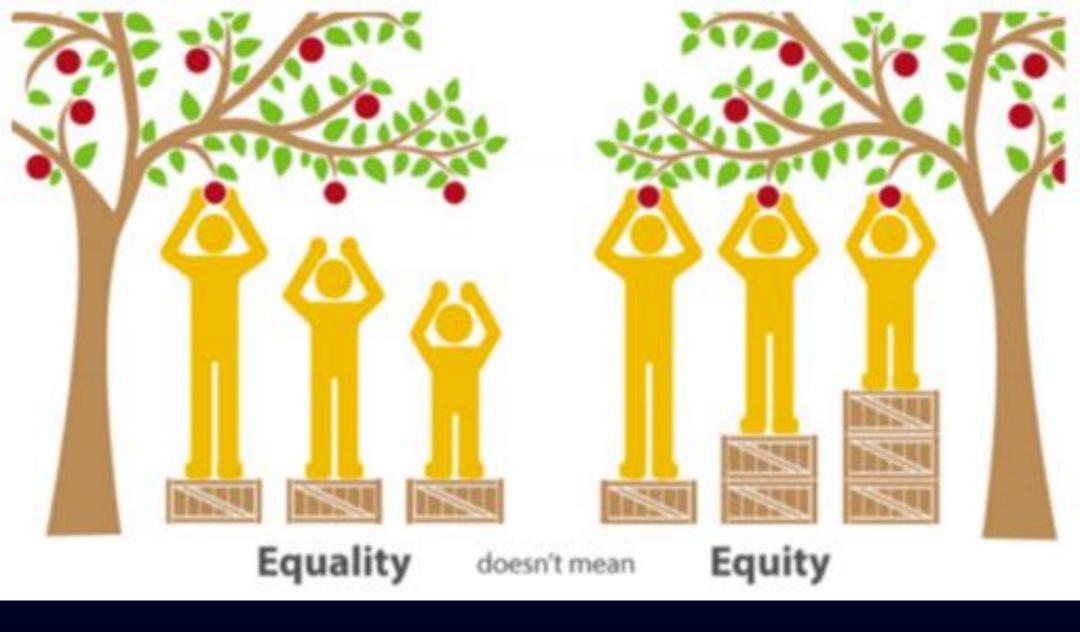
Life
Expectancy
by Zip Code
in the
Kansas City,
MO



## **Social Equity**

- Social equity implies:
  - Fair access to livelihood, education, and resources;
  - Full participation in the political and cultural life of the community; and
  - Self-determination in meeting fundamental needs

Credit: Reliable Prosperity

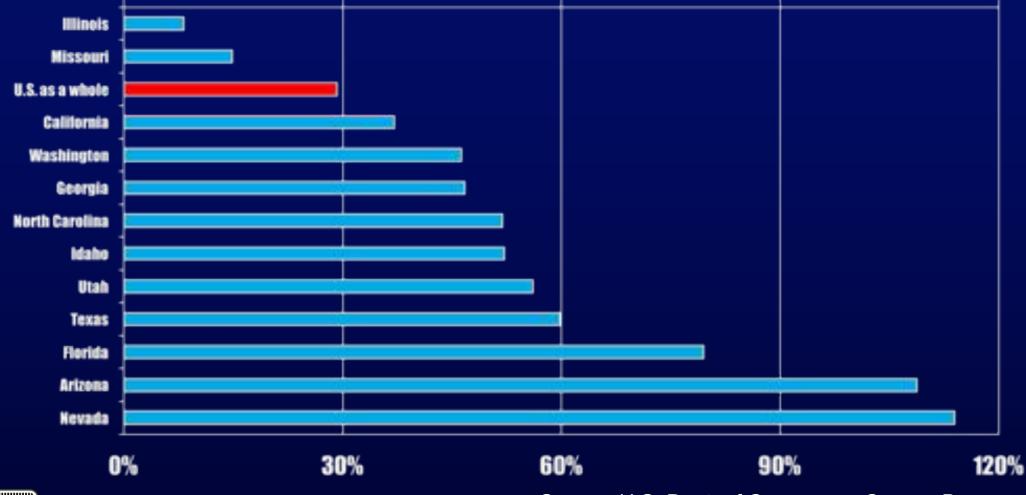


## **Equitable Development**

- Approach to creating healthy, vibrant, communities of opportunity.
  - Equitable outcomes come about when smart, intentional strategies are put in place to ensure that everyone can participate in and benefit from decisions that shape their neighborhoods and regions.
  - PolicyLink developed an online toolkit with 27 tools
    - Affordable Housing
    - Economic Opportunity
    - Health Equity and Place
    - Land Use and Environment

Credit: PolicyLink

# Projected Population Growth Rates in the U.S. (2000-2030)





Source: U.S. Dept. of Commerce, Census Bureau www.lgc.org

## Smart Growth/Livable Communities

### Common Themes

- Efficient use of land
  - Fill in older parts of communities before spreading out
  - Build new communities in more compact way
- Mix of uses
  - Mix commercial and retail uses with residential
  - Support/create town and neighborhood centers
  - More destinations in walking/bicycling distance
- Support walking, bicycling and transit use
- Create strong local and regional economies
- Involve residents in planning process







# Three "E's" or "P's" of Sustainable Development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs



Courtesy: sustainableschmidt.com

## **Economic Benefits of Smart Growth**

"Just as companies now compete on quality, communities will too."

— Collaborative Economics, Linking the New Economy to the Livable Community

"Livability isn't some middle class luxury. It is an economic imperative."

— Robert Solow, Nobel Prize-winning Economist



## What Smart Growth "Is" And "Is Not"

More transportation choices Not against cars and and less traffic roads Not anti-suburban Vibrant cities, suburbs and towns Wider variety of housing Not about telling people where or how to live choices **Not against growth Well-planned growth that** improves quality of life

Courtesy: Smart Growth America

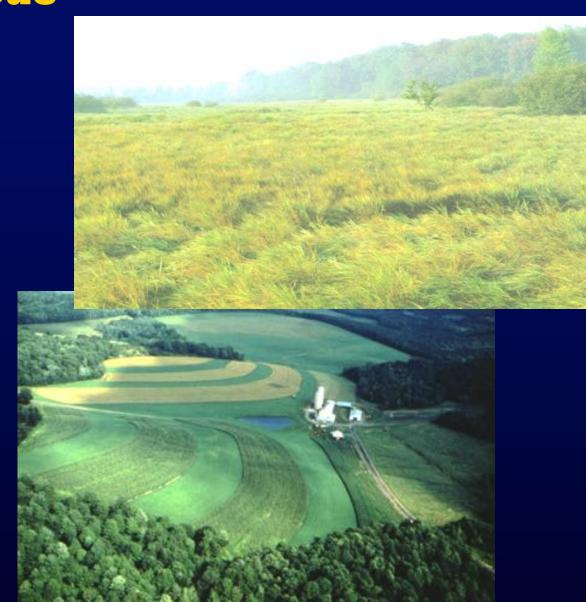
## Principles of Smart Growth/ Livable Communities

## Ten Principles of Smart Growth

- Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas
- 2. Strengthen and Direct Development Towards Existing Communities
- 3. Take Advantage of Compact Building Design
- 4. Mix Land Uses
- 5. Create Range of Housing Opportunities and Choices
- 6. Provide a Variety of Transportation Choices
- 7. Create Walkable Neighborhoods
- Foster Distinctive, Attractive Communities with a Strong Sense of Place
- 9. Encourage Community and Stakeholder Collaboration
- 10. Make Development Decisions Predictable, Fair and Cost Effective

# 1. Preserve open space, farmland, and critical environmental areas

- Identify areas with highest priority for preservation
- Use a variety of preservation tools, including purchase, regulatory, and incentive programs



### Charlantingham: Welcome to the big city

By Maurice Tamman manyan@apc.com

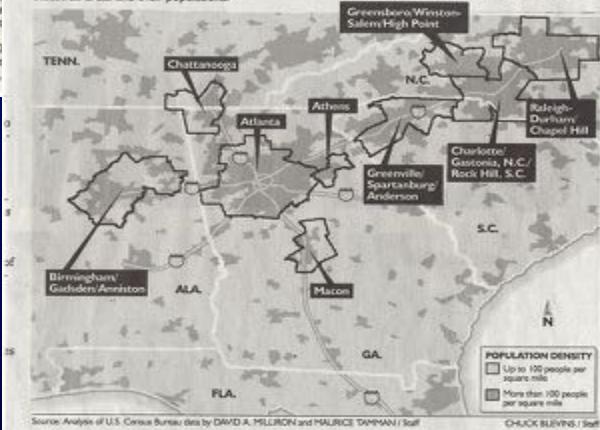
Charlotte — Over the past 40 years, autolitic losses have clicked away, 450 nules high, capturing the nation's raght lights.

In the 1970s, those leases detected only a few blips from Georgia, Alabama, Tennessee, and the Carolinas. Today, the region glows like a wheel-shaped constellation, with Adapta at its bub. During that time, m grown from 1.39 millio five counties to 4.11 m counties, it pushes out 20, 75 and 85 toward B tancoga, Macon, Green Charlotte. All the while markets boomed, exten aries toward Atlanta.

According to the 200 lion people live in the r Piedmont megalopolis.

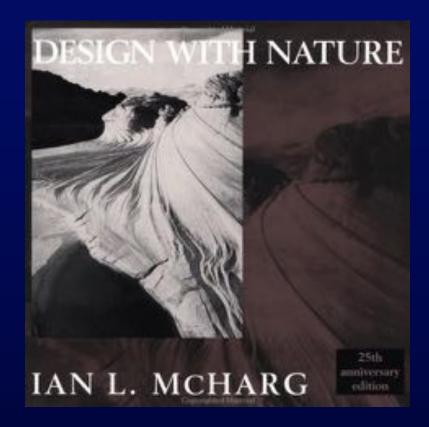
#### PIEDMONT MEGALOPOLIS

Adiants is the hub of what has been called the Piedmont megalopolis, stretching along I-20, I-75 and I-85 from Birmingham to Greenville, S.C., Charlotte and even Raleigh and from Chattanooga to Macon. This shows how the areas are growing together as people move to areas along the interstates. A look at those metropolitan statistical areas and their populations:



Atlanta Journal-Constitution, April 15, 2001

# Analyze where you can accommodate future growth



Mapping Method
Developed by Ian McHarg





Slope

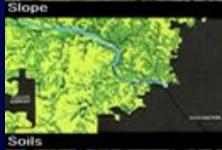
Soils







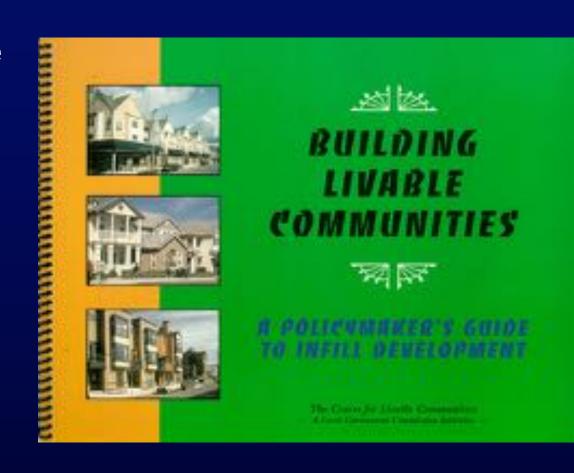




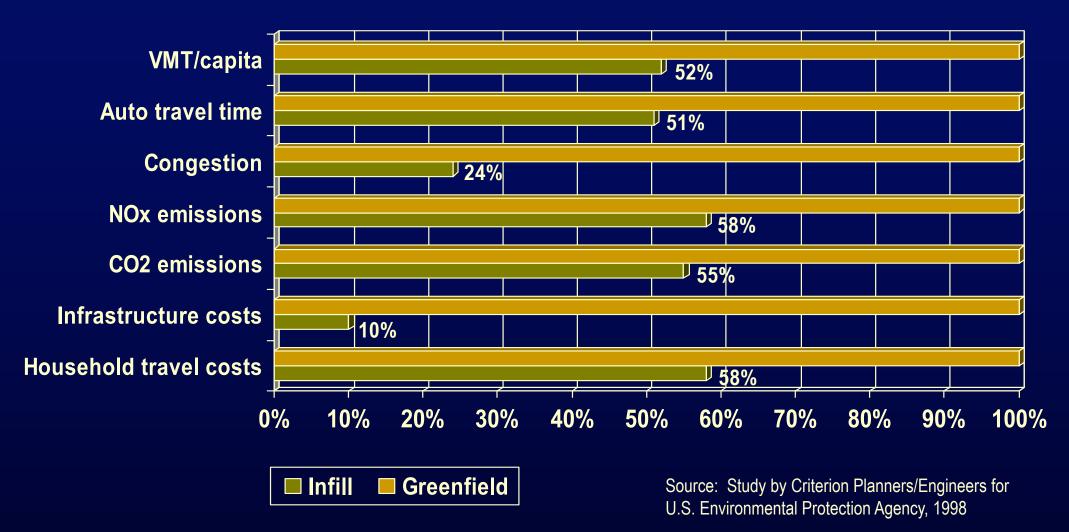


# 2. Strengthen, and direct development towards, existing communities

- Use incentives to achieve clean-up and re-use of "brownfield" and "grayfield" sites
- Preserve and repair historic buildings as part of redevelopment plans
- Build on the resources and amenities of existing communities



# Impacts of Infill vs. Greenfield Development in the San Diego Region



### Potential benefits of infill

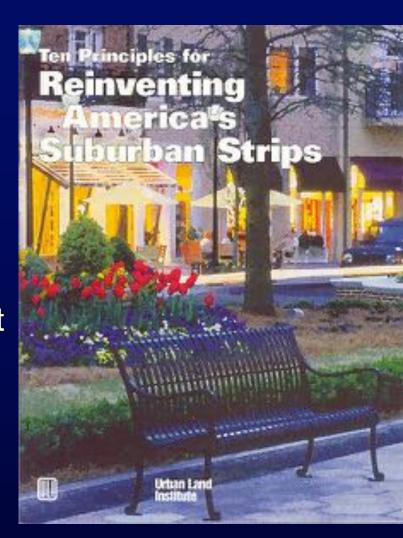
- Revitalize town centers, neighborhoods
- Provide more housing options
- Support transit service
- More efficient use of land
- Reduced costs for infrastructure/services
- Preserve agriculture
- Conserve open space





### Commercial Strips — The Next Frontier

- ULI's Principles to Reinvent Suburban Strips
  - Ignite Leadership/Nurture Partnership
  - Anticipate Evolution
  - Know The Market
  - Prune Back Retail-Zoned Land
  - Establish Pulse Nodes of Development
  - Tame the Traffic
  - Create the Place
  - Diversify the Character
  - Eradicate the Ugliness
  - Put Your Money (and Regulations)Where Your Policy Is

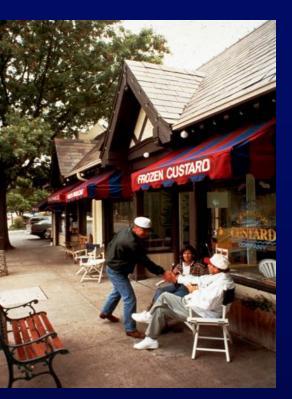


### 3. Take advantage of compact building design

Grow vertically rather than horizontally to preserve green spaces and reduce cost of providing public facilities and services



#### What is the Purpose of Towns and Cities?



Cities are an invention to maximize exchange (goods, culture, friendship, knowledge) and to minimize travel.

The role of transport is to maximize exchange.













Take up approximately the same amount of space...

Bottom line, don't need a lot of space to foster great culture and civilization.

#### Lower Cost of Infrastructure

#### Low Density vs. Compact Development

Land Consumption	45% more*
Cost for Roads	25% more**
Cost for Utilities	15% more**
Cost for Schools	5% more**
Other Costs	2% more**

\*Duncan, James et al, *The Search for Efficient Urban Growth Patterns*. Florida Department of Community Affairs, 1989.

\*\*Burchell, Robert, *Economic and Fiscal Impacts of Alternative Land Use Patterns*, Rutgers University, 1996.



#### Suburban

City's Annual Cost, per Household

#### Urban

City's Annual Cost, per Household



\$3462



















Parks & Recreation

5120

Fire Department

5406



Governance

3297



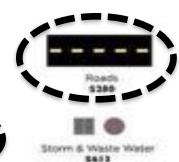








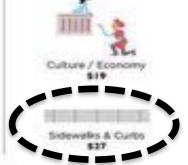
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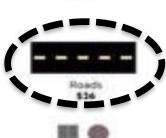


Wester

\$197



Parks & Recreation



8147







# Compact development lowers costs at the neighborhood/project level

Fire Station 2 Service Area Fire Station 31 Service Area Charlotte Stations' Annualized per-Capita Life Cycle Costs Charlotte Households Covered per Fire Station 30,000 22,500 600 400 15,000 200 7,500





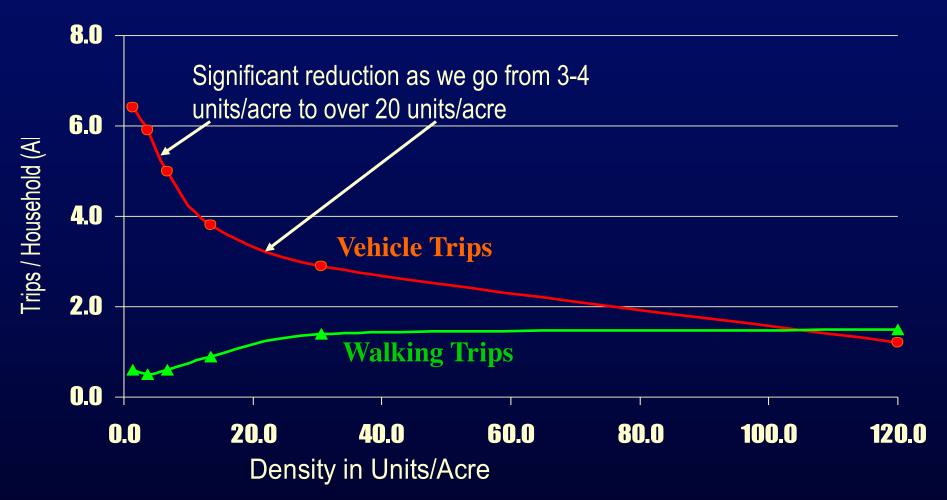
Public Interest
Projects, Inc.
Joseph Minicozzi,
AICP
Joem@pubintproj.com



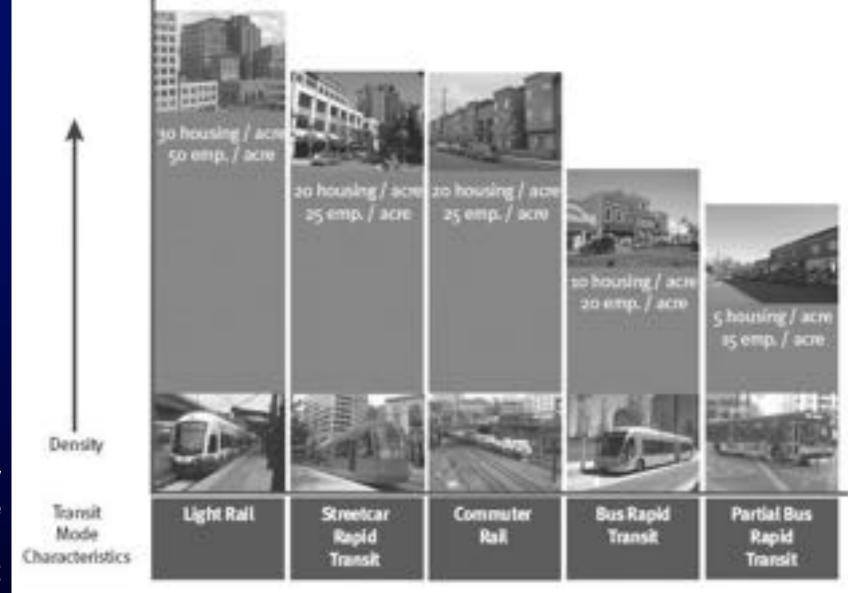


Land Consumed (Acres):	34.0	0.2
Total Property Taxes/Acre:	\$ 6,500	\$634,000
City Retail Taxes/Acre:	\$ 47,500	\$83,600
Residents per Acre:	0.0	90.0
Jobs per Acre:	5.9	73 7

# Land Use Pattern Affects Travel — Higher Density can reduce Vehicle Trips



## Land Use Pattern Affects Travel — Density to Support Transit



Source: Jeffery Tumlin, Sustainable Transportation Planning, 2012

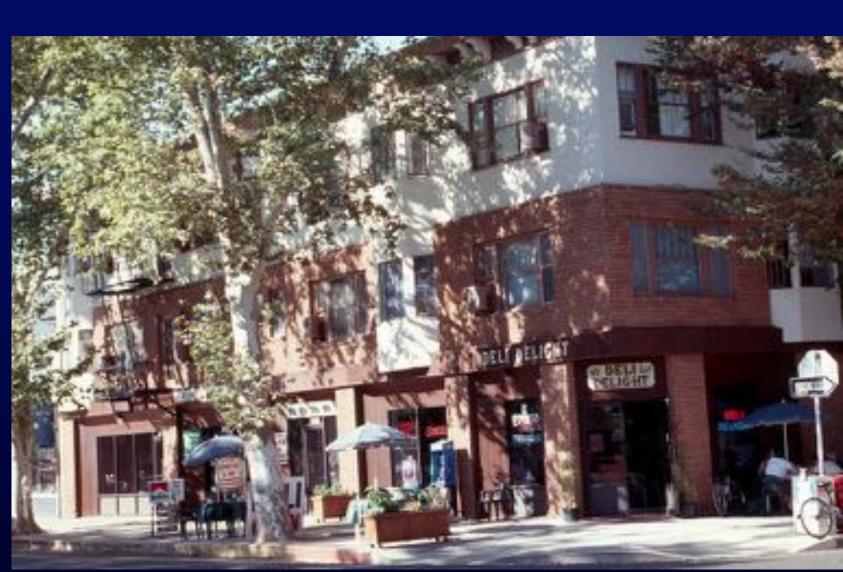
# Land Use Pattern Affects Travel — Density to Support Retail

For a 10,000 sq.ft.
Convenience
Store

7 units/acre

For a 25,000 sq.ft. Small Supermarket

18 units/acre



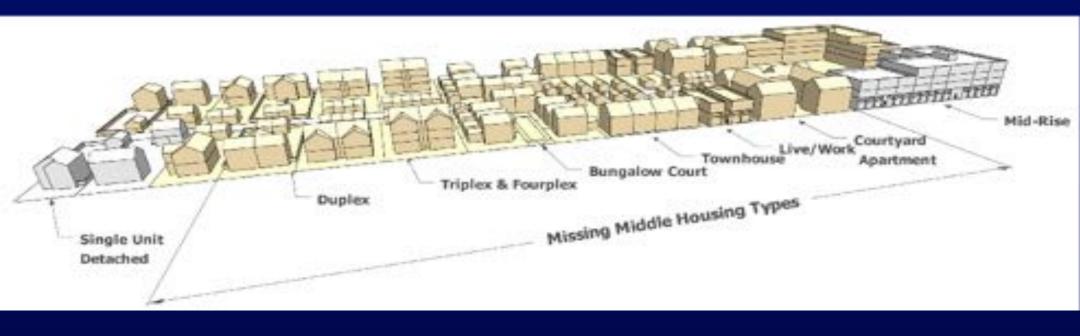
Compact
Development
in
Appropriate
Locations

Traditional
Neighborhood
Code

Knoxville, TN



### Missing Middle Housing



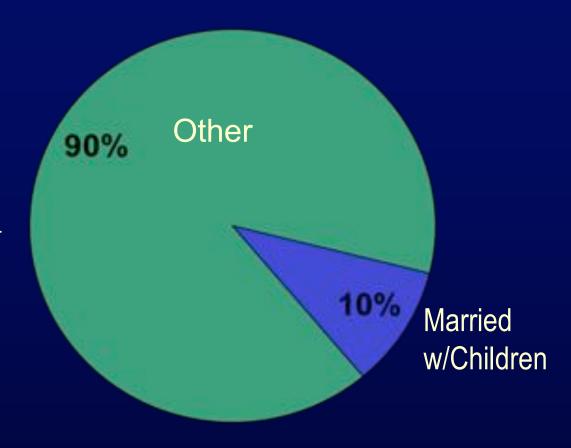
Scale Between Single Family Housing and Stacked Flats

© 2015 Opticos Design, Inc.

© 2015 Opticos Design, Inc.

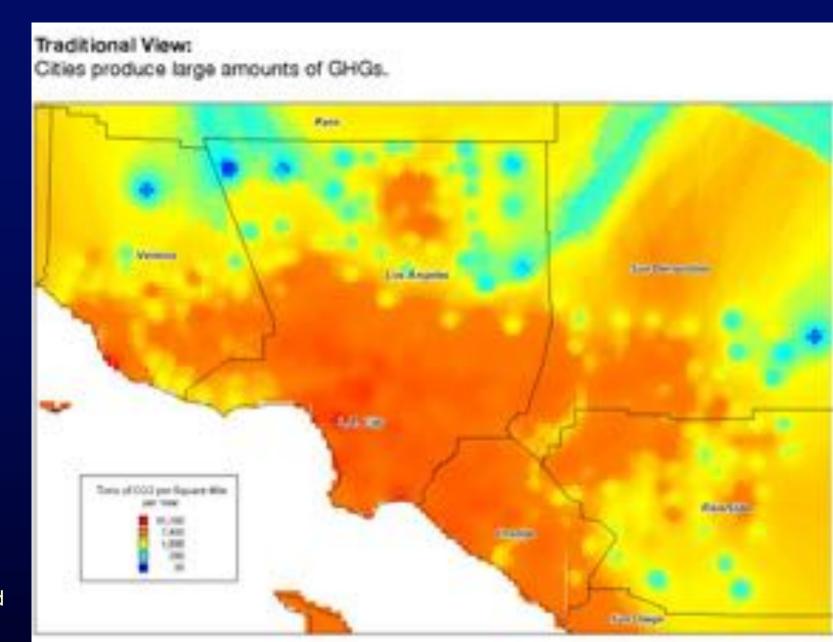
#### New U.S. Households Formed: 2005-2015

"The traditional family — married couples with children — is slowly declining in number, while households made up of single persons living alone, singles living together, and married couples without children are growing rapidly. These three groups will account for 90 percent of the net new household growth projected in this decade, according to U.S. Census Bureau figures.



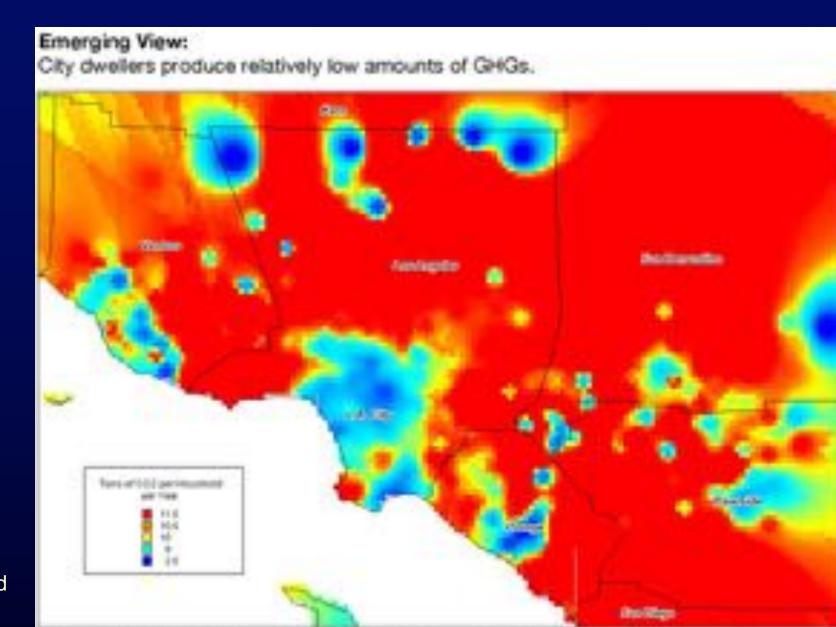
Peter Slavin, "The Rise of the Nontraditional Household," *Multifamily Trends*, Urban Land Institute, Summer 2005.

### Why Community Design Matters...



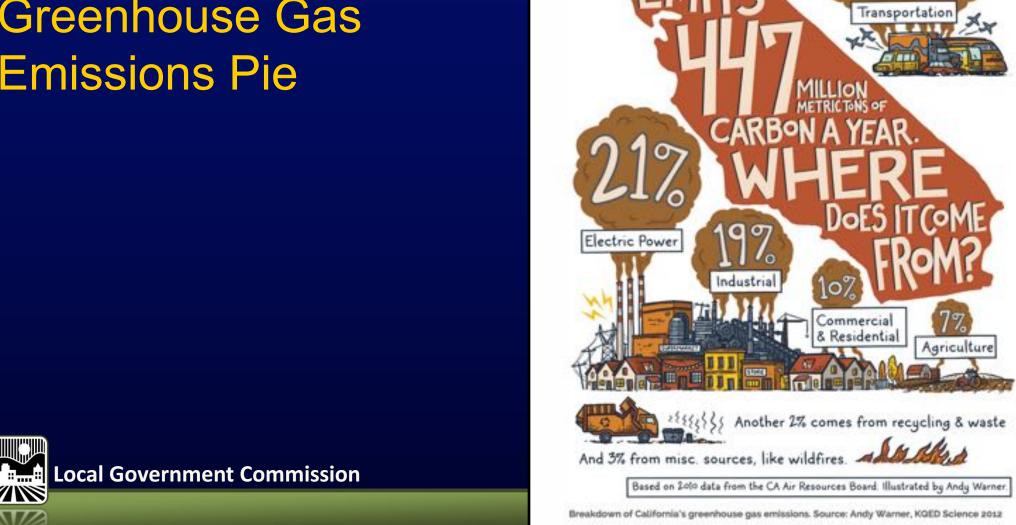
Source: www.travelmatters.org (Center for Neighborhood Technology)

### Why Community Design Matters...



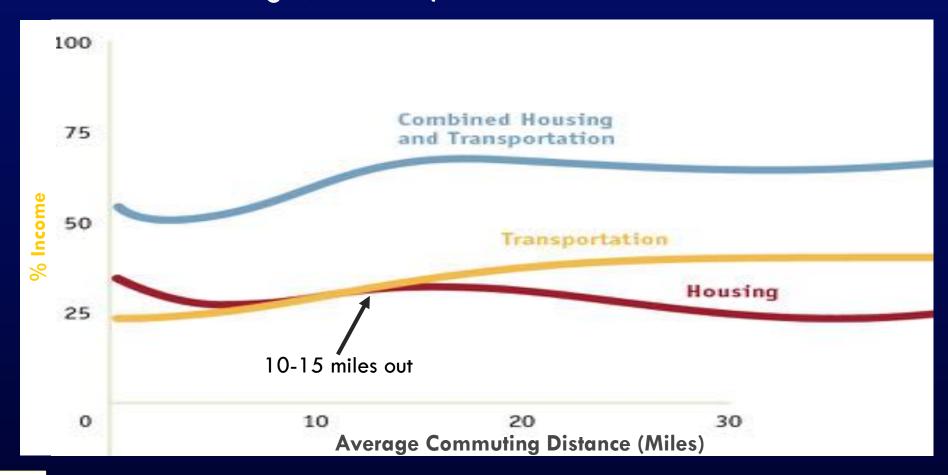
Source: www.travelmatters.org (Center for Neighborhood Technology)

# Transportation in California, 2012: Largest Piece of the Greenhouse Gas Emissions Pie



### "DRIVE 'TIL YOU QUALIFY"

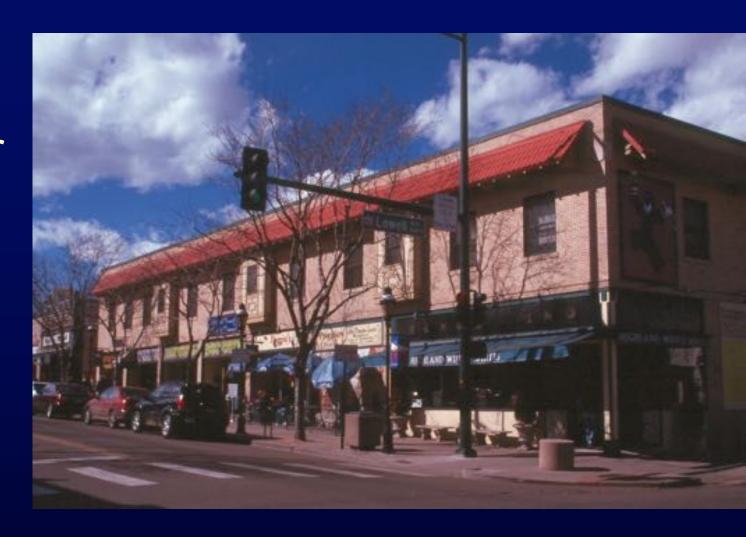
Transportation Costs Can Exceed Housing Costs for Households Earning \$20-\$50,000





### 4. Mix land uses

- Provide retail or personal services near housing
- Incorporate parks, schools, and other public facilities



### Alternative Patterns of Development





**Housing over retail shops** 





### 5. Provide housing opportunities and choices

 Provide quality housing for people of all income levels, household sizes, and stages in the life cycle.





**Mixed Income Housing** 



**Live-Work Units** 

Little Italy, San Diego, CA



**Mixed housing types** 

Single Family homes, Doe Mill, Chico, CA



Mixed housing types

Fourplex, Doe Mill, Chico, CA



Mixed housing types

Bungalow Court, Doe Mill, Chico, CA





### 6. Provide a variety of transportation choices

- Coordinate land use and transportation investment
- Increase highquality transit service
- Connect pedestrian, bike, transit, and road facilities







**Transit-Oriented Development** 

San Diego, CA



Portland, Oregon Streetcar



**Portland Bus Mall** 



Los Angeles Metro Rapid Bus



**Mexico City Metrobus** 



**Mexico City Metrobus** 

#### Bicycle Share Programs















Protected bicycle lanes — New York City

#### California Examples of separated/protected lanes







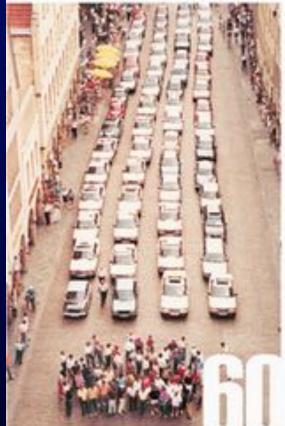


# STREET SPACE FOR 60 PEOPLE





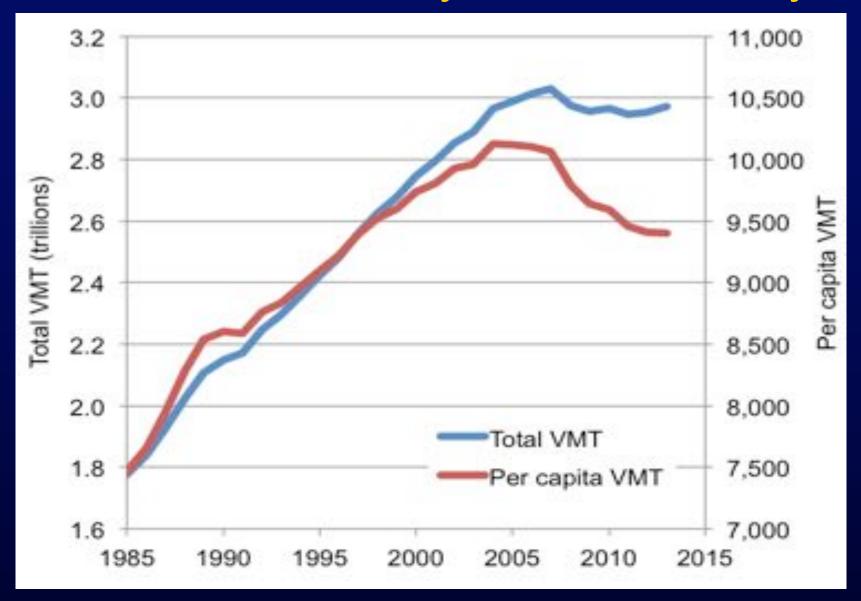






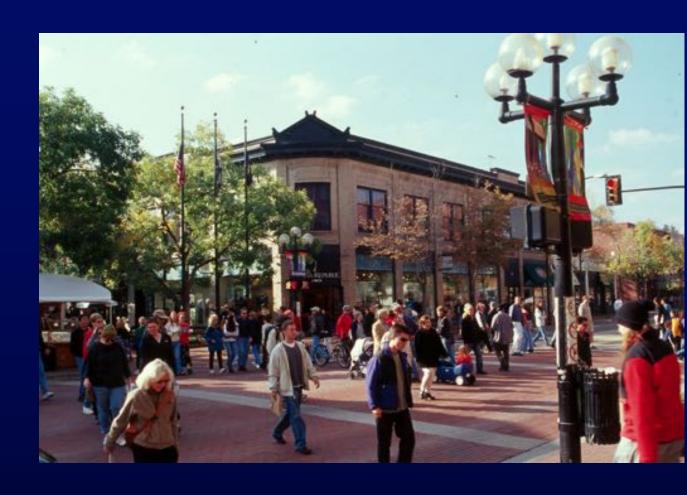


#### Will traffic volumes always increase? Maybe not



### 7. Create walkable communities

- Mix land uses, build compactly, and provide safe and inviting pedestrian corridors
- Create "Complete Streets"
  - Accommodate pedestrians, bicyclists, transit users



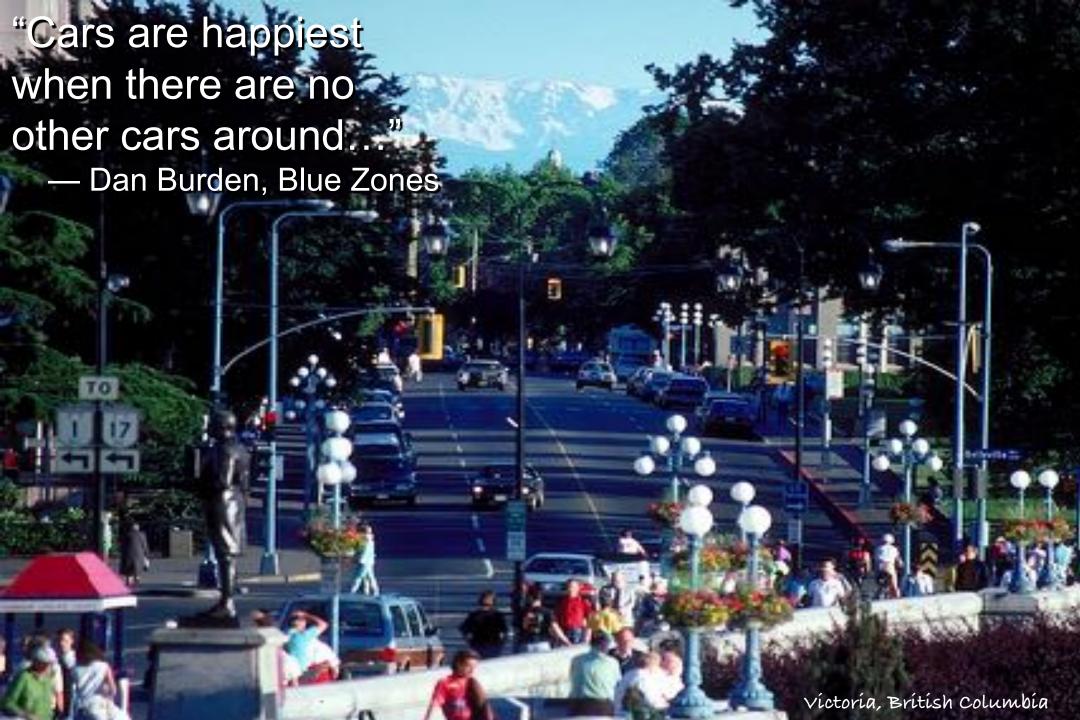


What's the first thing a child wants to do and the last thing an older person wants to give up?











"People are happiest when there are a lot of other people around..."

Dan Burden,Blue Zones

Quito, Ecuador

#### Tremendous Potential of Active Transportation

Of all trips:

50%

are less than 3 miles

28% are

less than 1 mile

of these trips...

60%

are driven



... a 12-minute bicycle ride

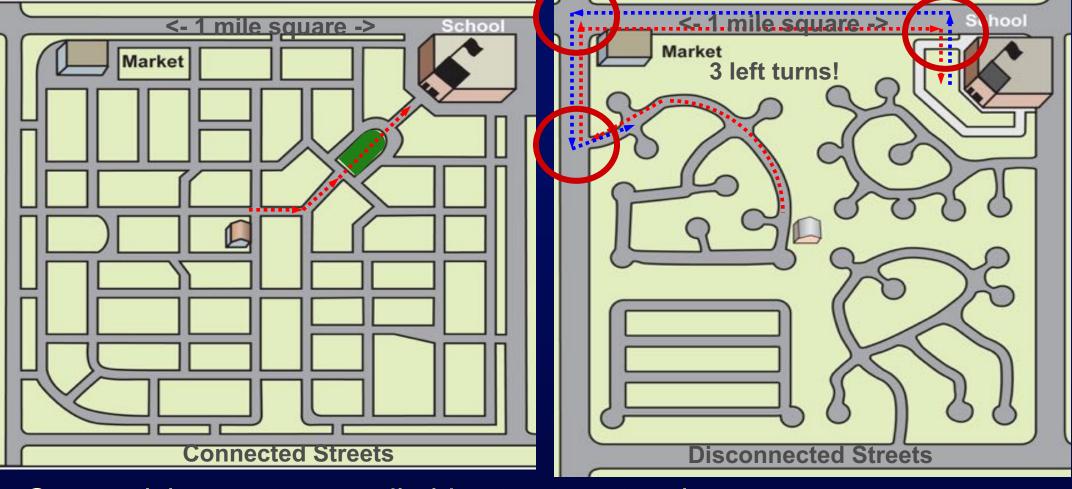
... a 20-minute walk

### Street Design

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



#### Connected vs. Disconnected Street Networks



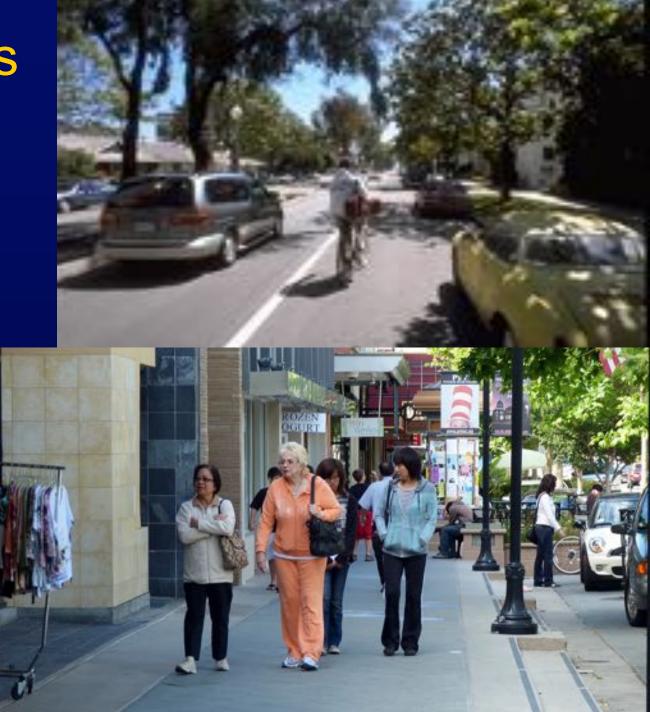
Connectivity creates a walkable street system by:

- Reducing walking distances;
- Offering more route choices on quiet local streets;
- Dispersing traffic reducing reliance on arterials for all trips



### Complete Streets

- Streetsdesigned for all users
- Friendly to cars, pedestrians, cyclists, transit, trucks, etc.

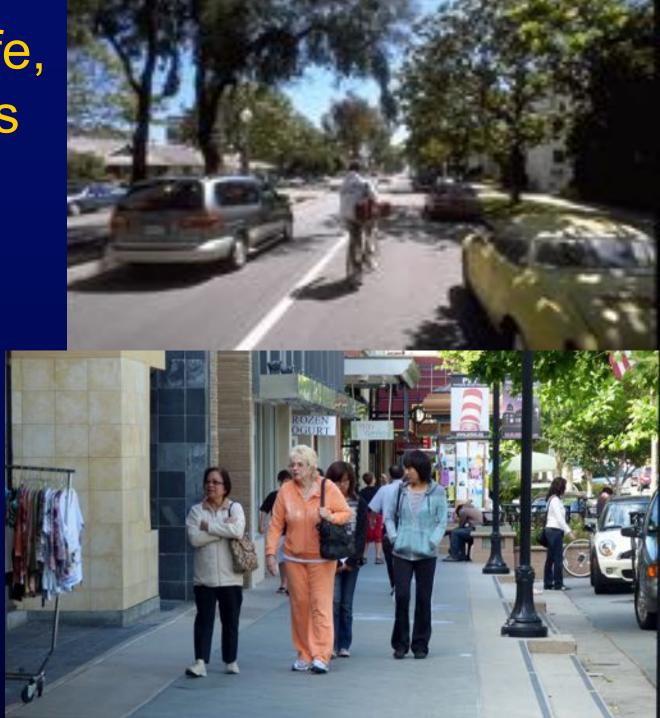




**Local Government Commission** 

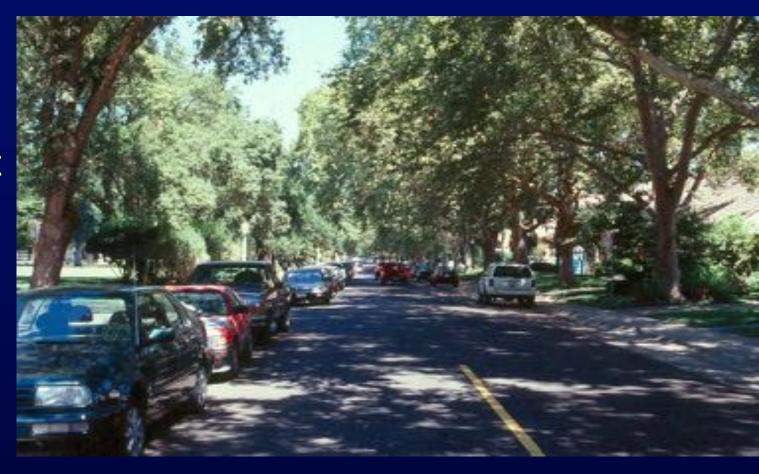
# Principles of Safe, Walkable Streets

- Complete Streets
   designed for
   people, not just
   cars
- Friendly to cars, pedestrians, cyclists, transit, trucks, etc.
- Design of streets regulates behavior of users



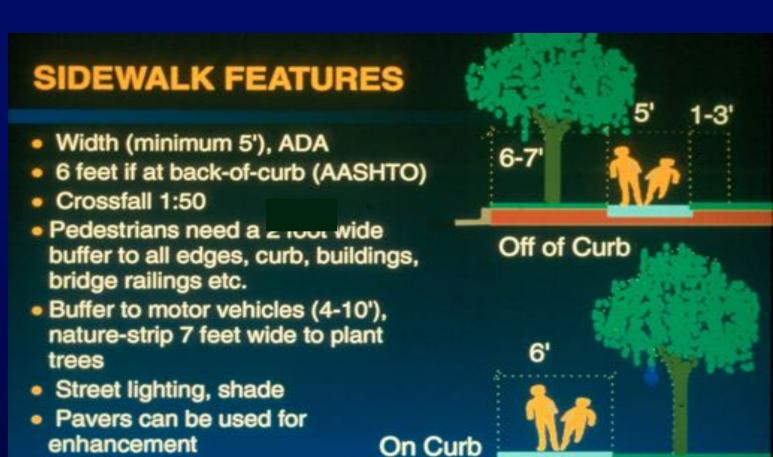
## Principles of Safe, Walkable Streets

- Streetsdesigned sodrivers feelcomfortable atslow speeds
  - 15-25 mph on neighborhood streets
  - 25-35 mph on avenues and boulevards
  - 10-foot lanes on streets under45mph



#### Safe Streets Need Good Sidewalks

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



# Safe Streets Need Good Sidewalks





# Healthy Neighborhoods Need Good Street Crossings



Parklets or plazas take underused street space to create people places, support local businesses



# 8. Foster Distinctive, Attractive Communities with a Strong Sense of Place







"There is little sense of having arrived anywhere, because everyplace looks like no place in particular."

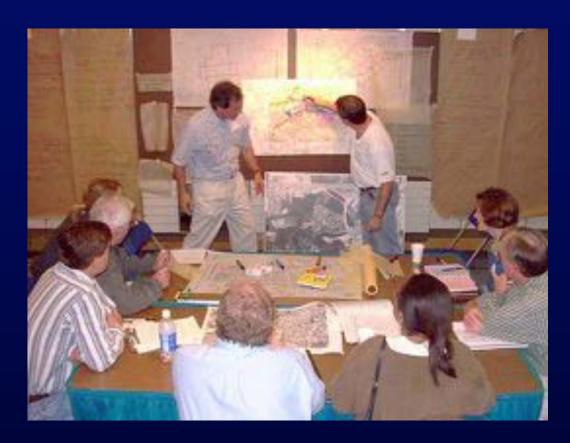
— James Howard Kunstler, The Geography of Nowhere





# 9. Encourage community and stakeholder collaboration in development decisions

The private sector does most of the development, but residents and other stakeholders collaborate in this process to ensure it is consistent with community needs and concerns.







Cutler-Orosi Design Charrette – Opening Night Workshop





Side Walk Finished 2. Better bighting. 3. Stop zigo on Main



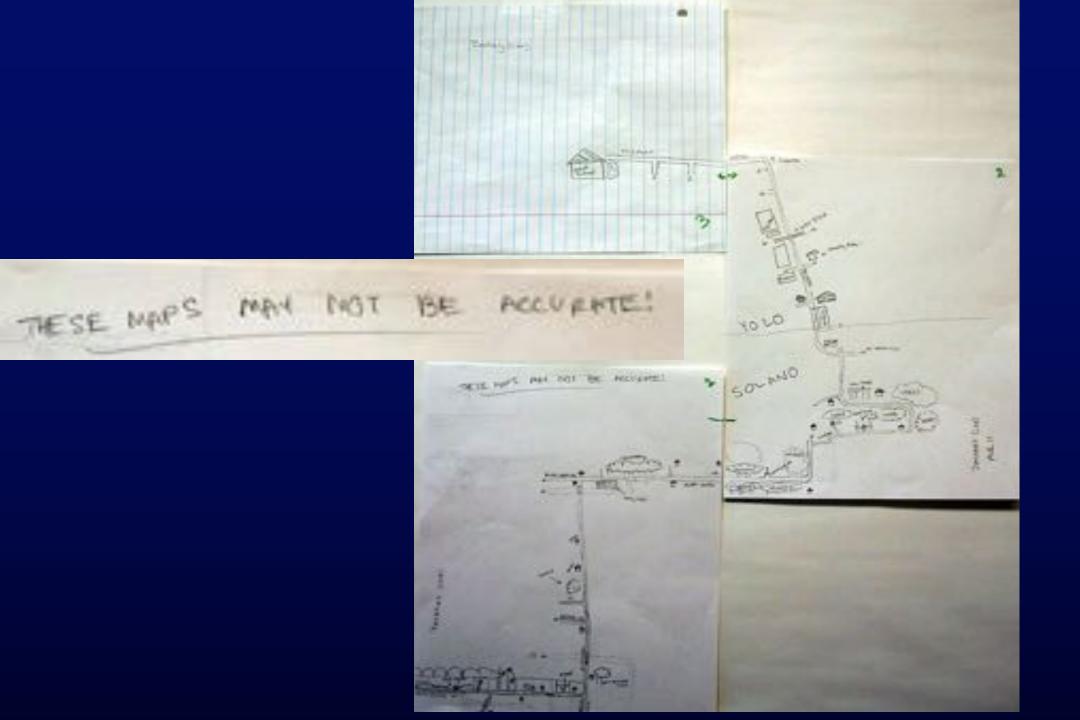




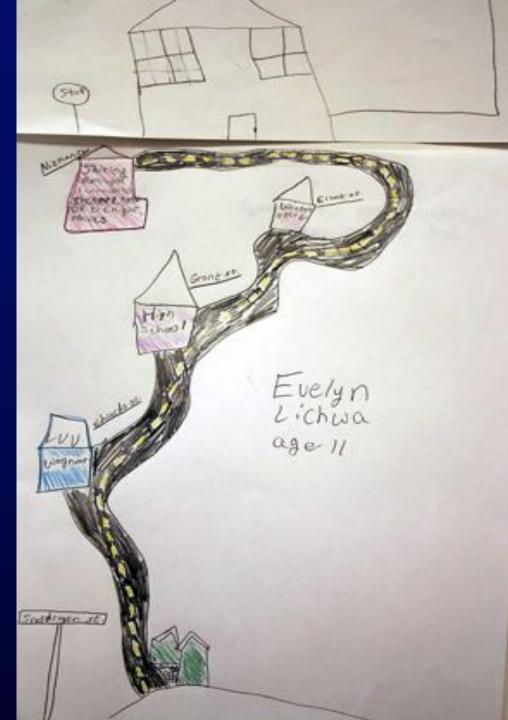












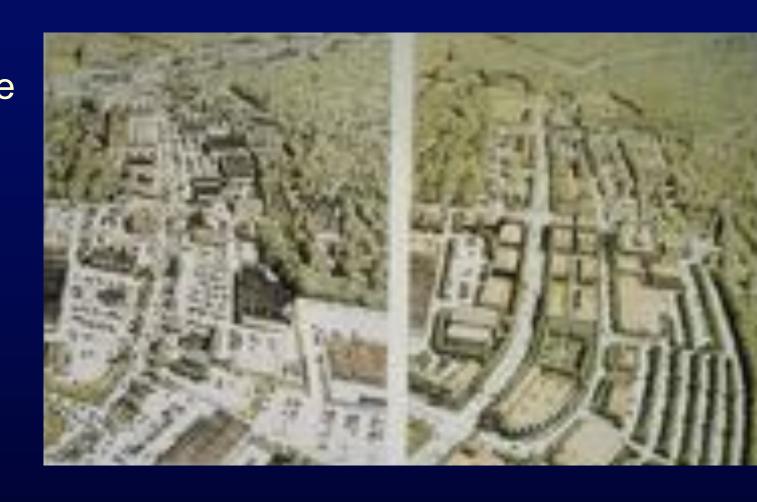
### Implementation – Public Participation is Key

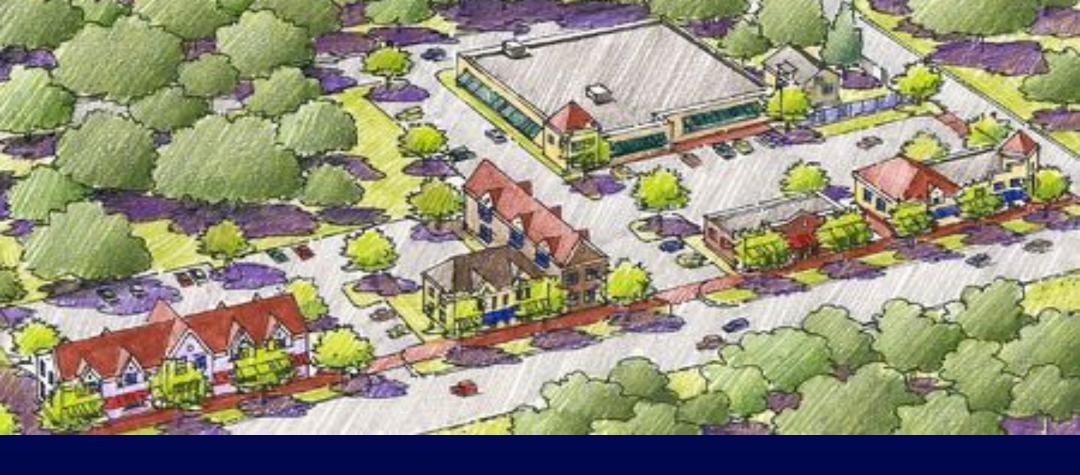
- Get Better Plans
- Engage Residents in their Community
- Good Plans Survive Political Changes
- Way to insure that residents feel not that they have access to City Hall but that they own City Hall



# 10. Make development decisions predictable, fair and cost-effective

Update comprehensive plan and implementing regulations to incorporate Livable Communities, and apply regulations consistently

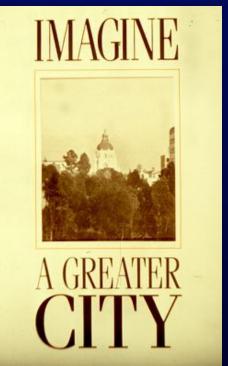




#### Plan proactively

### Develop a Vision for Community

Pasadena General Plan





### Plan proactively

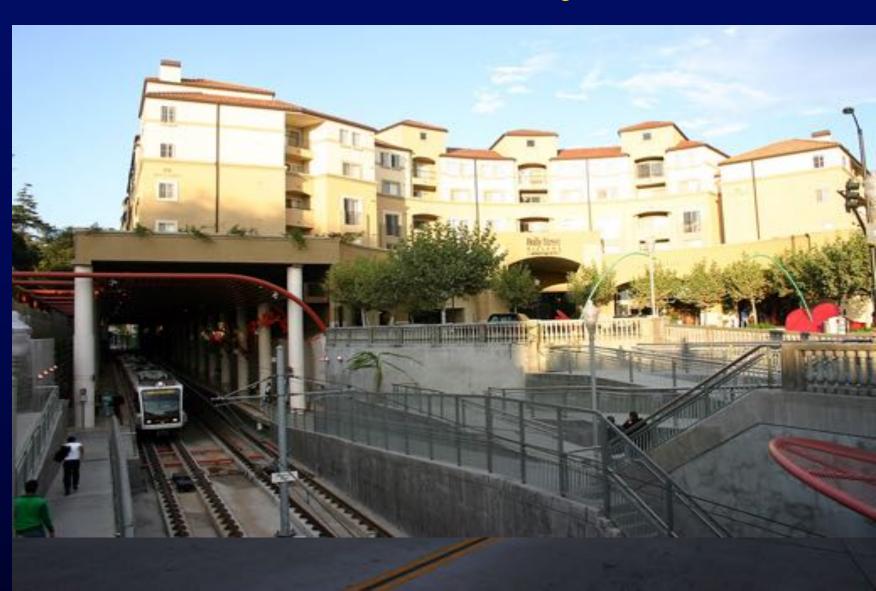
### Develop a Vision for Community

Pasadena General Plan

Holly Street Village

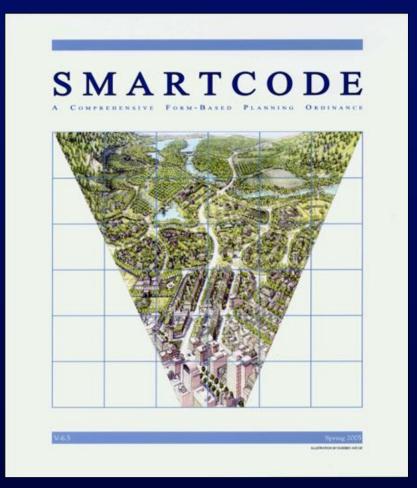
Infill, mixed use rental housing

Model: Early 1990s



## Implementing the Vision

- State-of-the-Art Development
   Codes Form-Based Codes
  - Recognition that current zoning and land development regulations are flawed
  - New approaches to fixing them
  - New emphasis on form-based codes, SmartCode
  - Problems with conventional codes that emphasize use and intensity of development



### Is there a market for Smart Growth?

Important things when deciding where to live	Important (very or somewhat)	Very Important
Sidewalks and places to take walks	85%	55%
Easy access to the highway	82%	42%
Being within an easy walk of other places and things in the community	79%	42%
Being within a short commute to work	76%	44%
Having public transit nearby	64%	37%
Bike lanes and paths nearby	57%	24%





May 2015 Survey: Q10-16. If you were deciding today where to live, please indicate how important having each of the following is to you - is it very important, somewhat important, not very important, or not at all important.

## Smart growth responds to new market preferences



GOING BACK TO ROCKVILLE

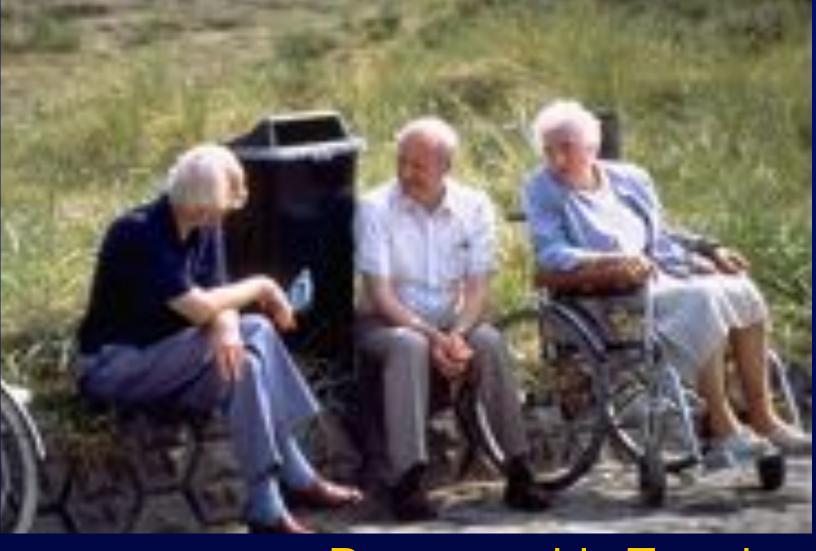
AFTER THE BUST URBAN-STYLE UNING IS CARNING NOMENTUM.



"The 2011 Community Preference Survey reveals that, ideally, most Americans would like to live in walkable communities where shops, restaurants, and local businesses are within an easy stroll from their homes and their jobs are a short commute away"

Source: Consumer survey conducted for the National Association of Realtors In 1991 there were 31.8 million people over the age of 65 in the U.S.

By 2030 that number will increase to 66 million.



# Demographic Trends: Increase in Elderly Population



Moving to downtowns and older neighborhoods

Driving less and looking for other transportation options.



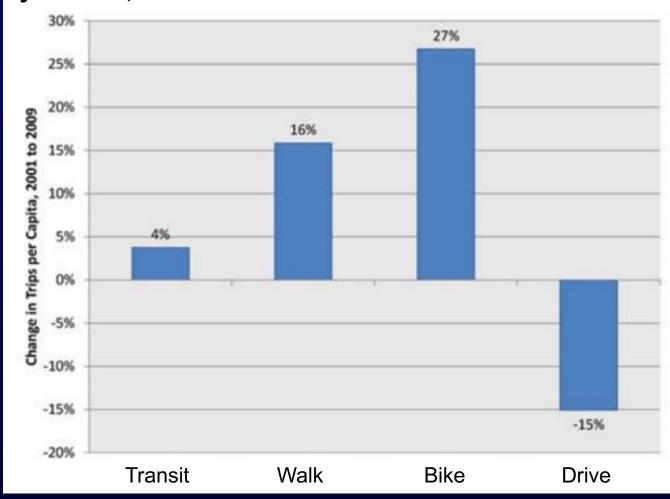
### Demographic Trends: Millenials



# Millenials are walking/cycling more and driving less

- Moving to downtowns and older neighborhoods
- Driving less and looking for other transportation options.

www.copirg.org/sites/pirg/files/rep orts/Millennials%20in%20Motion% 20CoPIRG.pdf Change in Number of Trips per Capita among 16 to 34 year-olds, 2001-2009

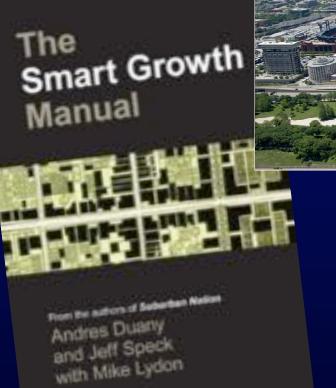


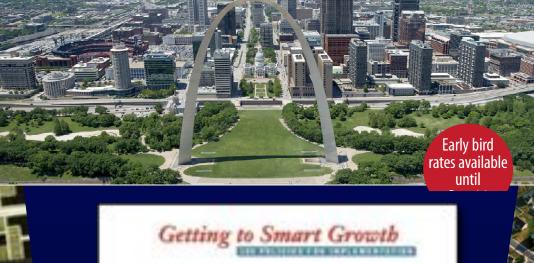
### **Smart Growth**

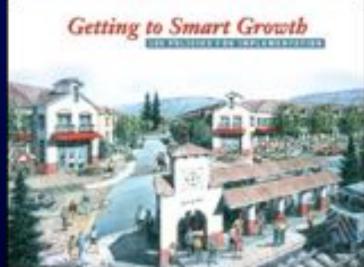


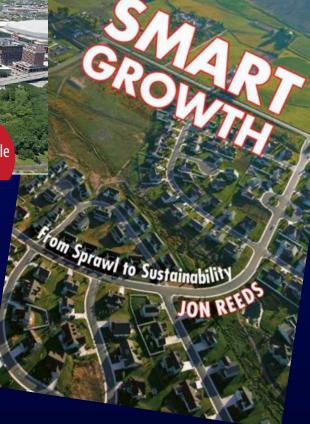
Practical Tools and Innovative Strategies for Creating Great Communities

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### Additional Resources

- Smart Growth Network
  - www.smartgrowth.org
- Smart Growth America
  - www.smartgrowthamerica.org
- Local Government Commission
  - www.lgc.org
- Congress for the New Urbanism
  - www.cnu.org
- Center for Neighborhood Technology
  - www.cnt.org

### Thank You!

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