



**BLUE ZONES PROJECT**  
by sharecare

# **Blue Zones Project Health and Transportation**

Transportation Agency for Monterey County, February 2021

**Dan Burden, Director of Innovation and Inspiration, Blue Zones**



Photomorphs: Steve Price, Urban Advantage

The last generation overbuilt for the car and underbuilt for people and place



# New Monies, New Pathways

At the State and Federal level new monies are being designated to support and shape cities. Those jurisdictions most nimble will receive the greatest share. Additionally, there are Measure X dollars to support equitable active transportation efforts in Monterey County. How can Blue Zones best position the county to move forward with these existing and future resources?

# Agenda

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**Introduction**

**Why Walkability and Active Transportation?**

**Streets for People, Not Just Cars**

**Healthy People, Healthy Communities**

**Economics**

**Land Use and Transportation**

**Safety by Design**

**Case Studies**

**Measure X**

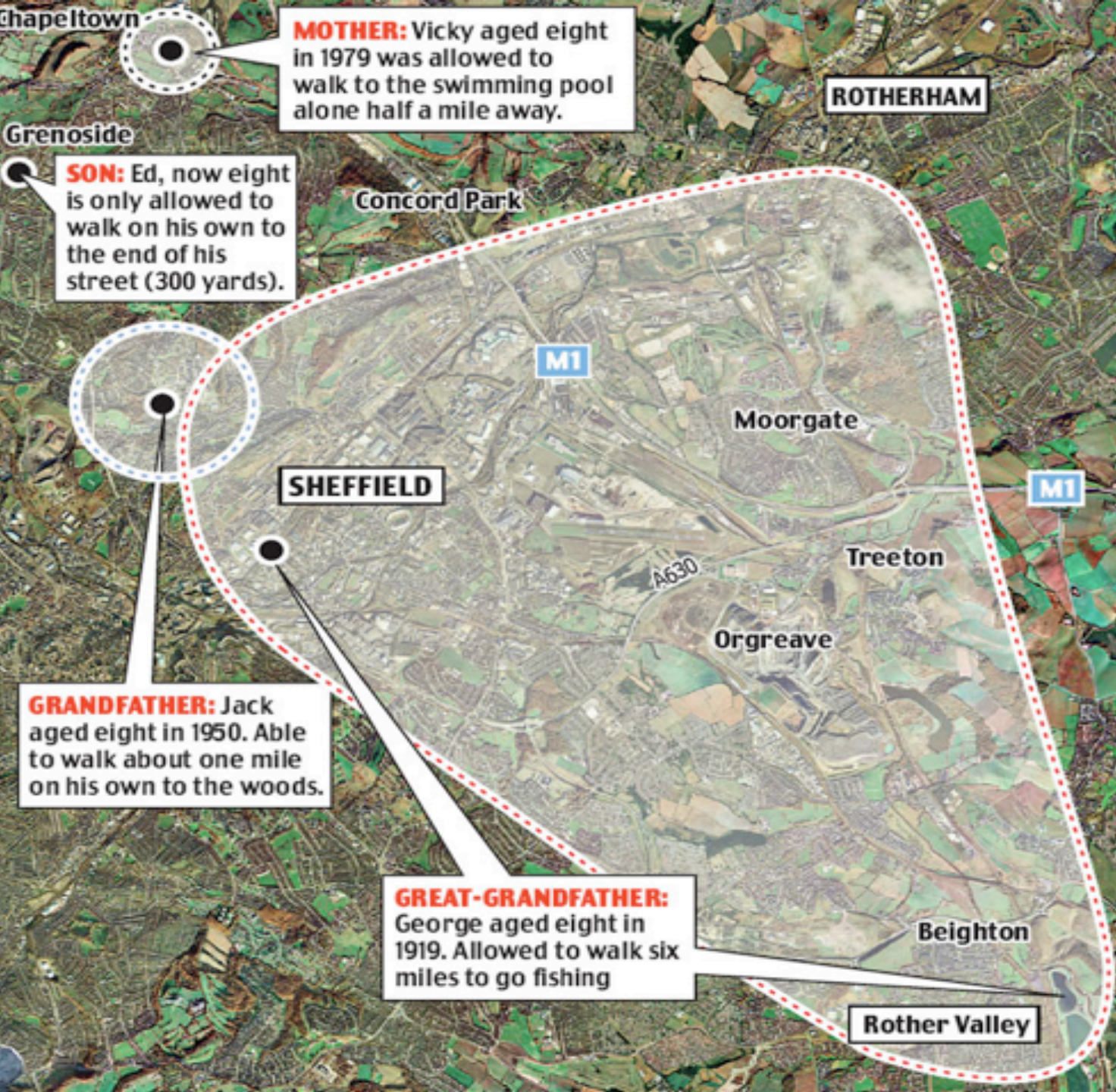




# Introduction

At the age of 8, how far did you travel on your own or with friends, not an adult?





**MOTHER:** Vicky aged eight in 1979 was allowed to walk to the swimming pool alone half a mile away.

**SON:** Ed, now eight is only allowed to walk on his own to the end of his street (300 yards).

**GRANDFATHER:** Jack aged eight in 1950. Able to walk about one mile on his own to the woods.

**GREAT-GRANDFATHER:** George aged eight in 1919. Allowed to walk six miles to go fishing

ROTHERHAM

SHEFFIELD

Rother Valley

!\$%&\*&!  
!\$%&\*&\*&!  
!\$%&\*&\*&!

Ya, that's my dad. He leads a research group at a car company. He's under pressure to design a vehicle that's affordable, low maintenance, easy to park, good for most trips in the city, and has zero emissions.

Hey, do you guys want to ride to the park?

Lockwood





# What Does A Car-Centric Environment Look Like?

What does Monterey's current code call for: car friendly places, or places where people and place are emphasized?

Almost all town codes were modified over time to favor people arriving by car, and not by foot or bike.

Requirements for too much parking, parking lots to the front and building set-backs all may seem innocuous, but they make walking a challenge, thereby shifting trips that could be performed by foot into ones that require auto travel.

The built environment is the sum of the choices we make.



Car-Centric: International Drive, Orlando, Florida



People-Centric: Farmington Avenue, West Hartford, Connecticut

The purpose of ATP is to encourage increased use of active modes of transportation by achieving the following goals:

- Increase the proportion of trips accomplished by biking and walking
- Increase safety and mobility for non-motorized users
- Advance the active transportation efforts of regional agencies to achieve Greenhouse Gas (GHG) reduction goals, pursuant to SB 375 (of 2008) and SB 341 (of 2009)
- Enhance public health
- Ensure that disadvantaged communities fully share in the benefits of the program
- Provide a broad spectrum of projects to benefit many types of active transportation users



# The Benefits of Designing Streets for People

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- Increases physical activity rates
- Reduces obesity
- Encourages social connectedness
- Catalyzes small business development
- Increases property values
- Improves access and safety for all
- Encourages social equity
- Advances resiliency and sustainability
- Reduces pollution and run-off
- Provides safe routes to school
- Makes the healthy choice the easy choice



# **In this session we wish to:**

- Provide a pathway to health and safety
- Make active transportation the easy choice
- Cover basic principles on why we must return to past town making principles
- Stop squandering the resources of future generations
- Develop a sense of urgency

## **Topics featured in this session:**

- Active Transportation
- Compact Land Form
- Housing Diversity
- Urban Greening
- Connectivity
- Mixed Land Use
- Age-Friendly Design
- Placemaking
- Activity Centers
- Parks and Green Spaces
- Smart Growth
- Health Urban Planning





**“The simple needs of automobiles are more easily understood and satisfied than the complex needs of cities.”**

*- Jane Jacobs, Death and Life of Great American Cities, 1961*





West Lafayette, Indiana (Home of Purdue University)



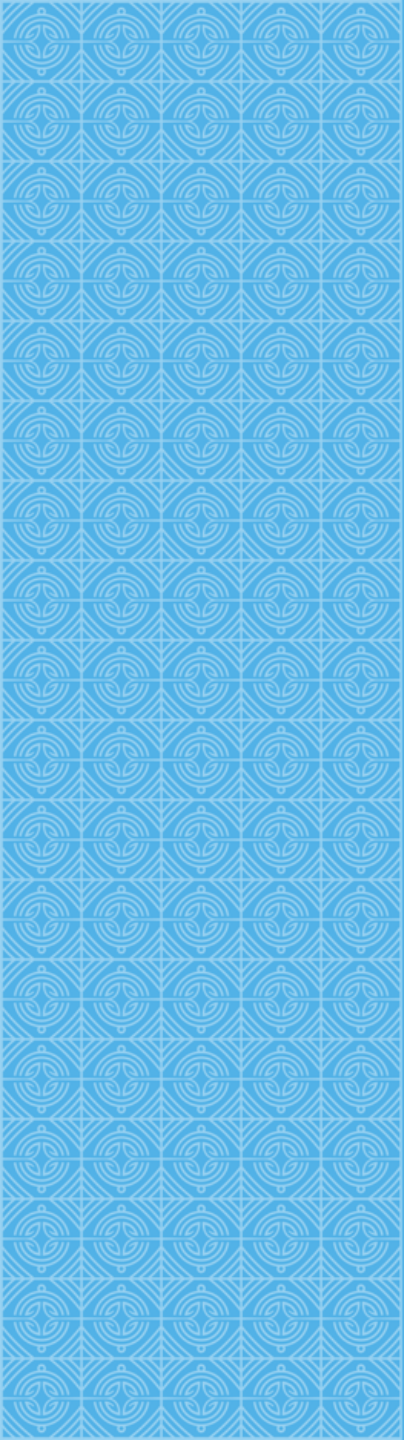
# Litmus Test

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**Does the “change” reward the short trip and active transportation?**

Change: Change in policy, street design, land use, operations, transit initiative, etc.





**Healthy People, Healthy Communities**



Dan Buettner wrote the 3<sup>rd</sup> most read article in National Geographic history, on health and longevity.

# Blue Zones Longevity Hot Spots

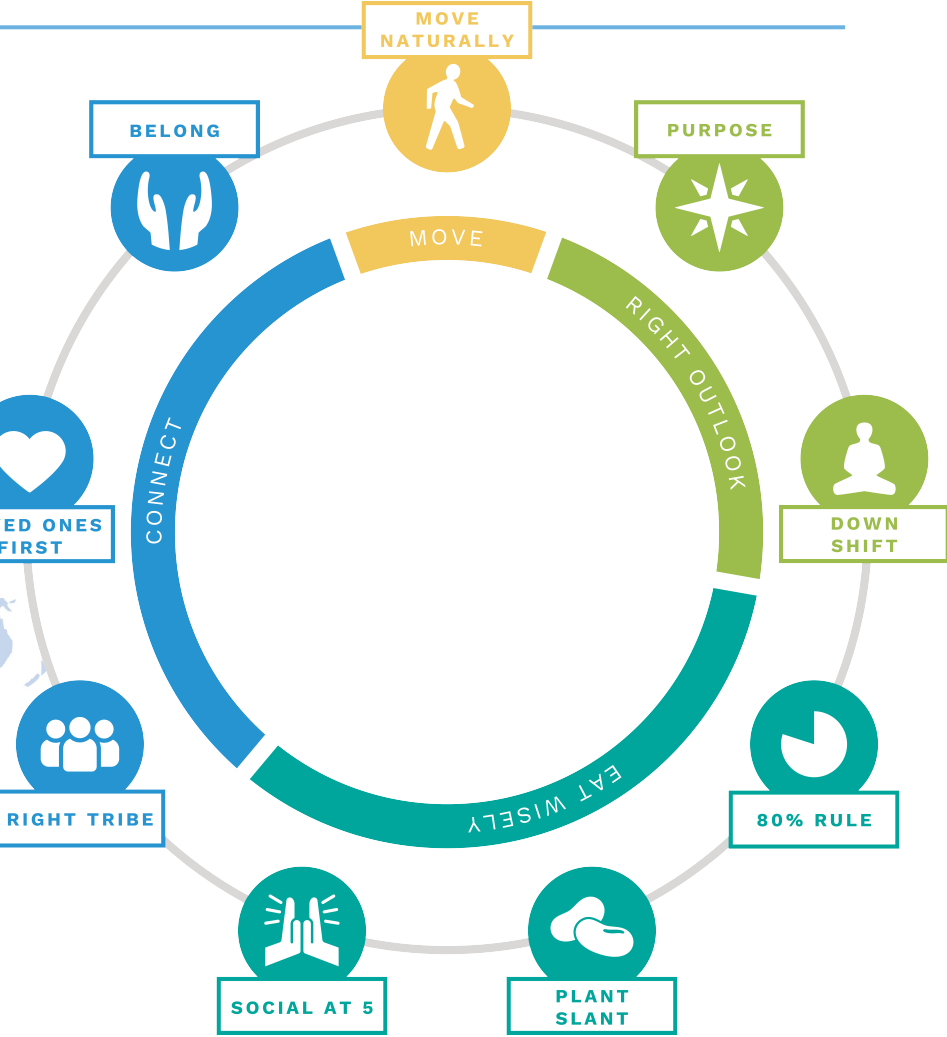


# Blue Zones – Solution Model

POWER 9®

Lifestyles of all Blue Zones residents shared **nine commonalities**.

We call these characteristics the **Power 9**.





20%

Genetics

20%

Environment

50%

Healthy Behaviors

10%

Access to  
Care

Health Focus



Albert Lea, Minnesota

# Pilot Program in Albert Lea, MN

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City Worker's Health Care Costs Dropped

# 49%







**Muscatine, Iowa 20,000 population \$425M now invested**



# Economics

# How much does your commute cost (or save) society?

Every time you travel you put money into the system, but you also cost the system. Your contribution to and burden on the system differs depending on how you travel.

For example, when you ride the bus you pay a fare – money into the system. Your burden on the system includes the cost of operating the bus, and also less obvious impacts like emissions and noise pollution.

By looking at the ratio of what we put in versus what we cost the system, we see that different ways of travelling are more subsidized than others.

The practice of taking these less tangible costs and benefits into consideration and assigning them a dollar value is known as "full-cost accounting." While there are many ways of doing this, this infographic shows one example of how those costs and charges can be calculated.

IF WALKING COSTS YOU \$1



SOCIETY PAYS \$0.01



IF BIKING COSTS YOU \$1



SOCIETY PAYS \$0.08



IF BUSSING COSTS YOU \$1



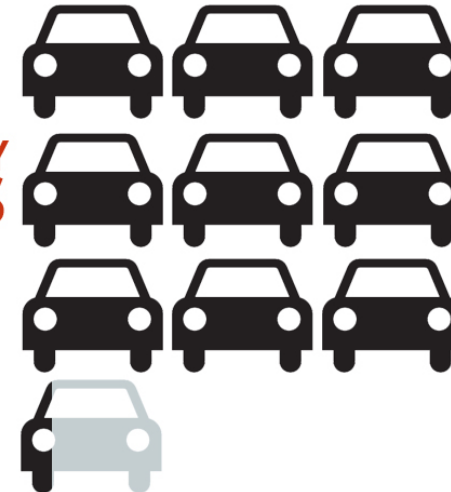
SOCIETY PAYS \$1.50



IF DRIVING COSTS YOU \$1



SOCIETY PAYS \$9.20

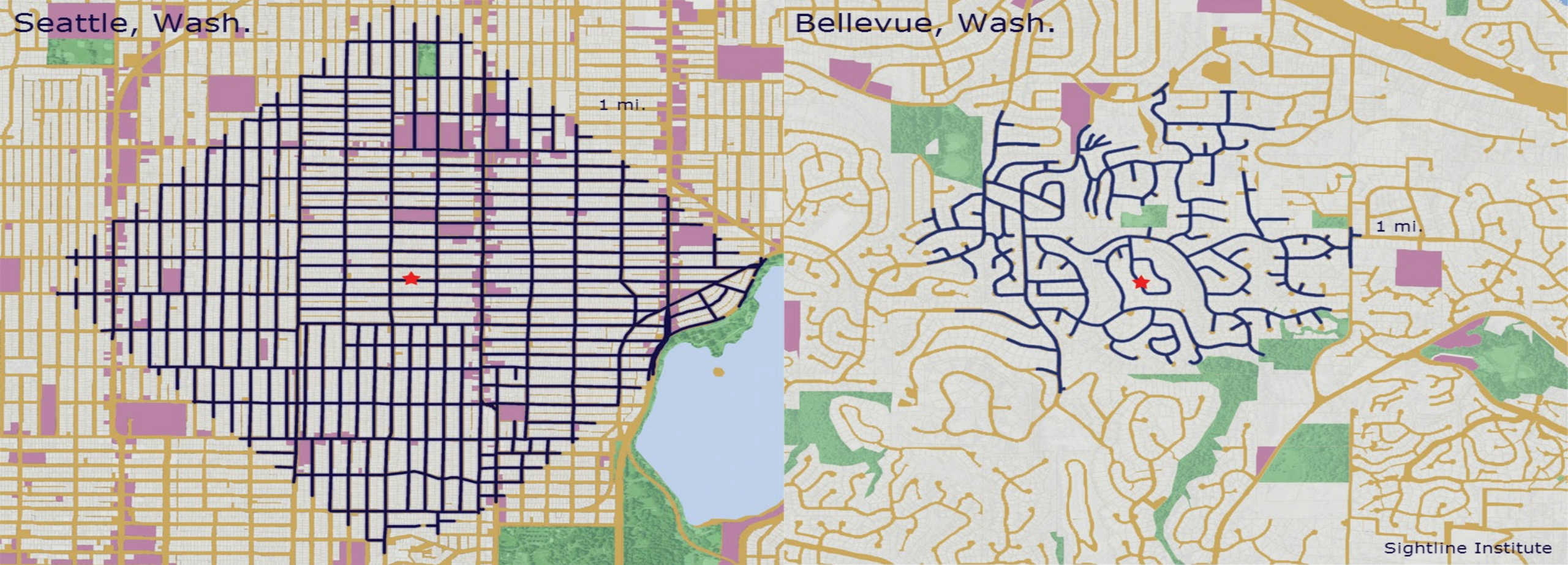


# Two Ways To Grow (1980 to 1990)



Location	Portland, OR	Atlanta, GA
Property Taxes	↓ 29%	↑ 22%
Air Pollution	↓ 86%	↑ 5%
Neighborhood Quality	↑ 19%	↓ 11%





It costs \$2.8M per year for one fire station with two apparatus. A well connected system covers 4.6 times more houses.

\$159 per year for well connected vs \$740 for poorly connected

- City of Charlotte, N.C.

# Yield per Acre

Re-direct commercial and residential growth to downtown. Incentivize the investment of lofts above main street, and all infill within 2 blocks of downtown. Joe Minicozzi, Urban3

*“...The best return on investment for the public coffers comes when smart and sustainable development occurs downtown. Suburban power centers give back little to the town; and they generate massive amounts of traffic that must be dealt with.”*

Joe reports that Asheville, NC gets an 800 percent greater return on downtown mixed-use development on a per acre basis compared to when ground is broken near the city limits for a large single-use development like a Super Walmart.





**Effective public participation can lead to shortened times to construction**

The Sammamish public works director was told it would take 10 years to go from concept to concrete.

Bulldozers were moving dirt on this unfunded project in 300 days.

Sammamish, Washington  
228<sup>th</sup> Avenue





W. East Ave.

Lindo Ave

W. 12th Ave

W. 11th Ave

W. 8th Ave

W. 4th Ave

W. 2nd Ave

W. Sacramento Ave

Nord Ave

Oak Way

W. Sacramento Ave

Chico, California





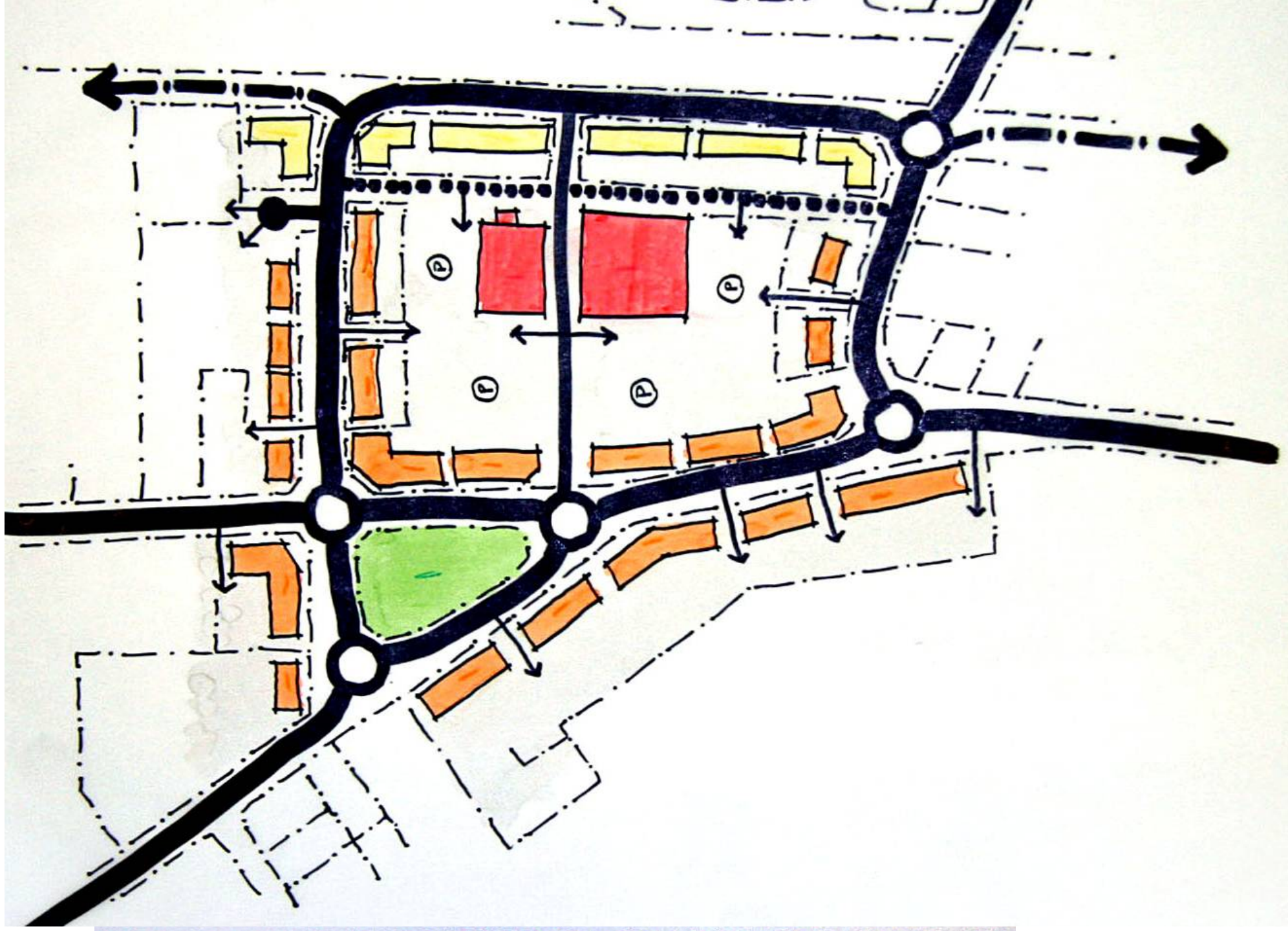
Chico, California



Chico, California



Chico, California





# Land Use and Transportation

# The Life Radius Approach to Community-Building

The more places that we have in or near our neighborhoods that we can walk or bike to, the lighter and healthier we become.

- How close is your nearest park?
- How close is your nearest school?
- How close is your nearest friends house?
- How close is your nearest store?
- How close is your nearest work center?
- How close is your nearest coffee shop, library, worship center?

At one time all neighborhoods met all our needs, stores, places to gather with others, play, attend school and participate in events.

What is your life radius?



The area close to home where we spend 90 percent of our lives.





# Design for a Mix of Land Uses

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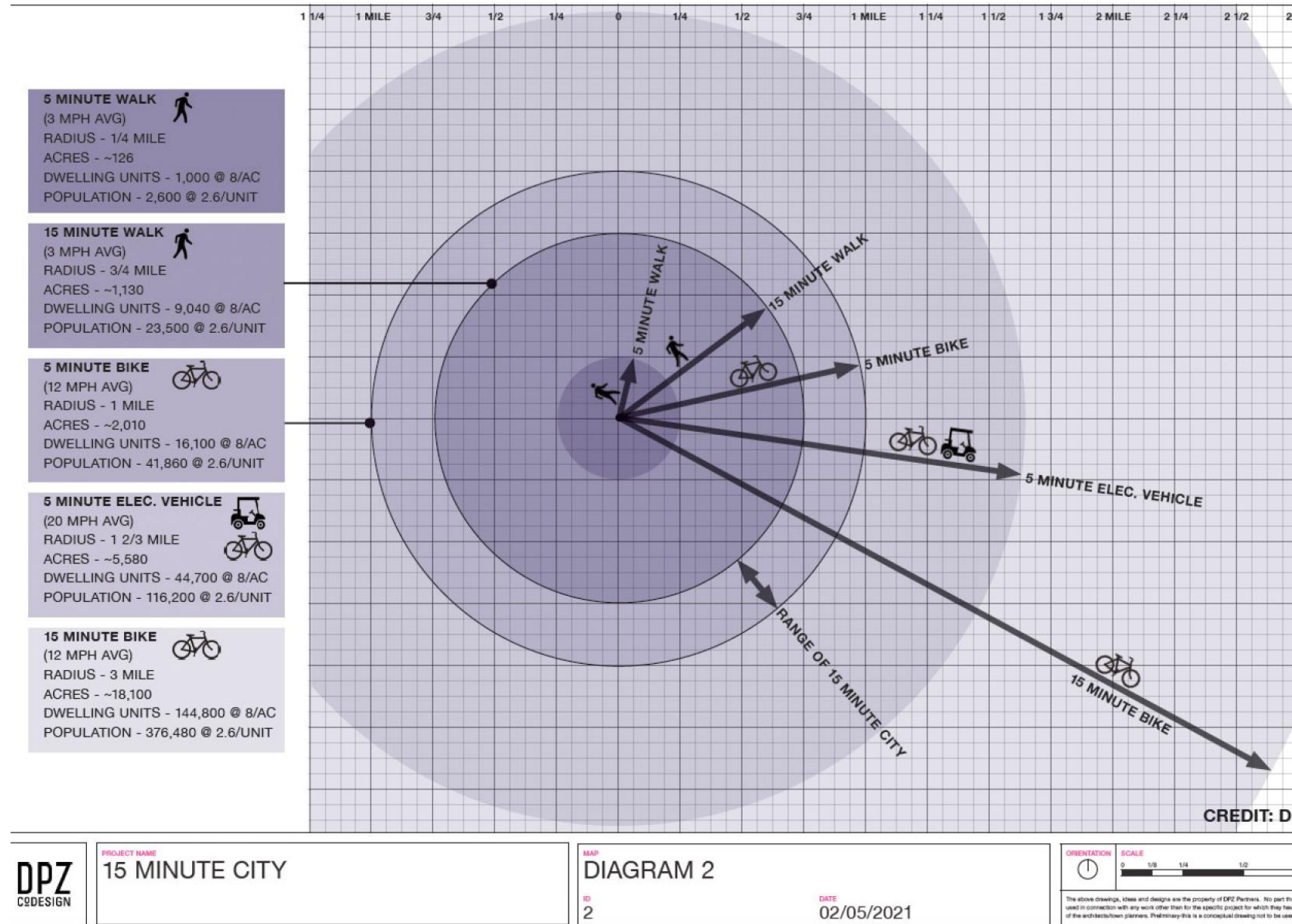
Centers include denser housing, a square, civic uses, and neighborhood-oriented retail.



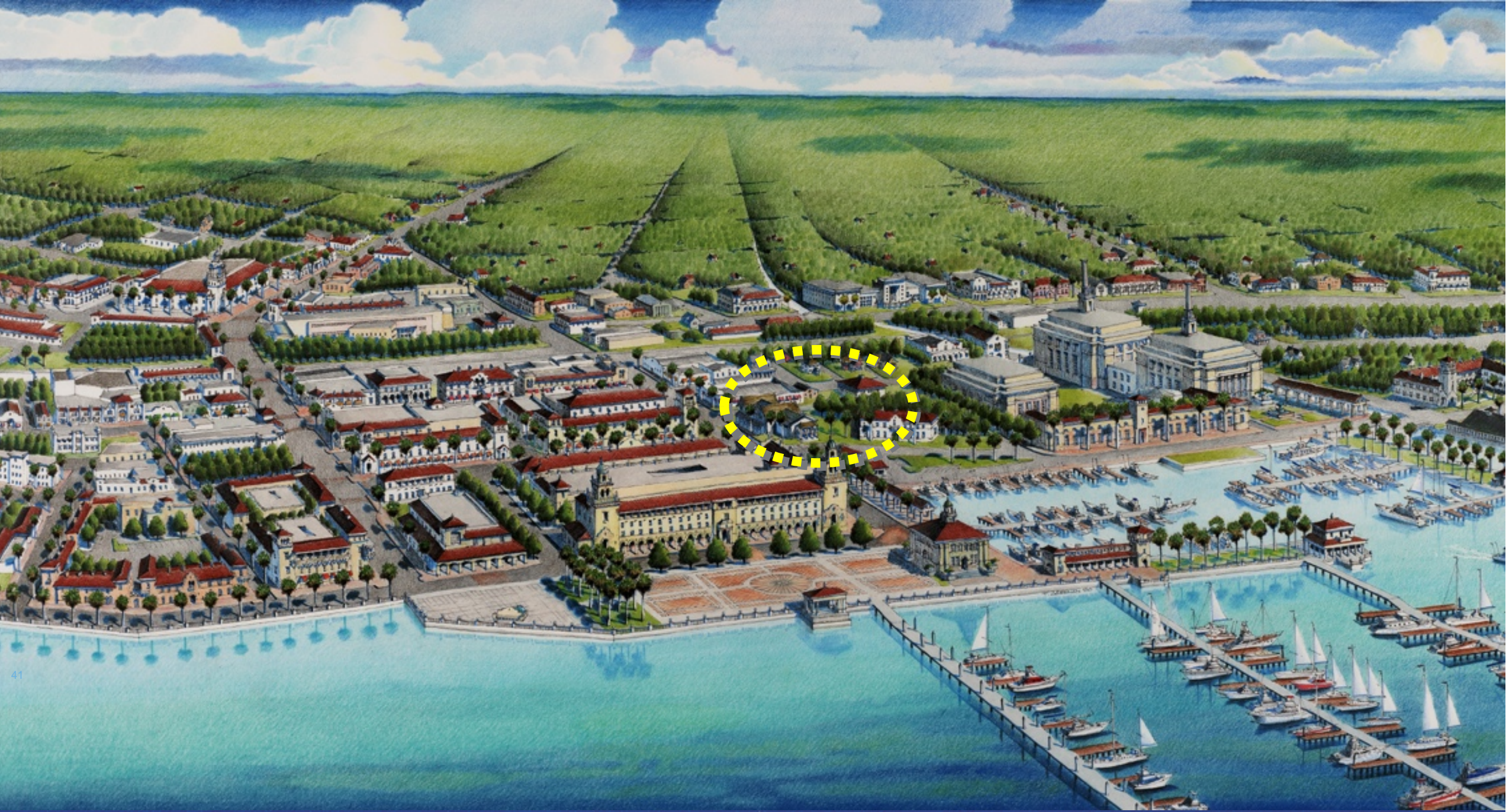
# 15-Minute City

The 15-minute city 'shows planners where to locate facilities that serve multiple neighborhoods. It employs conceptual radii drawn on plans in a similar way to urbanists' familiar quarter-mile "pedestrian shed." .... the 15-minute city is defined by its ability to provide access to all human needs by walking or bicycling for a quarter hour or less.'

CNU







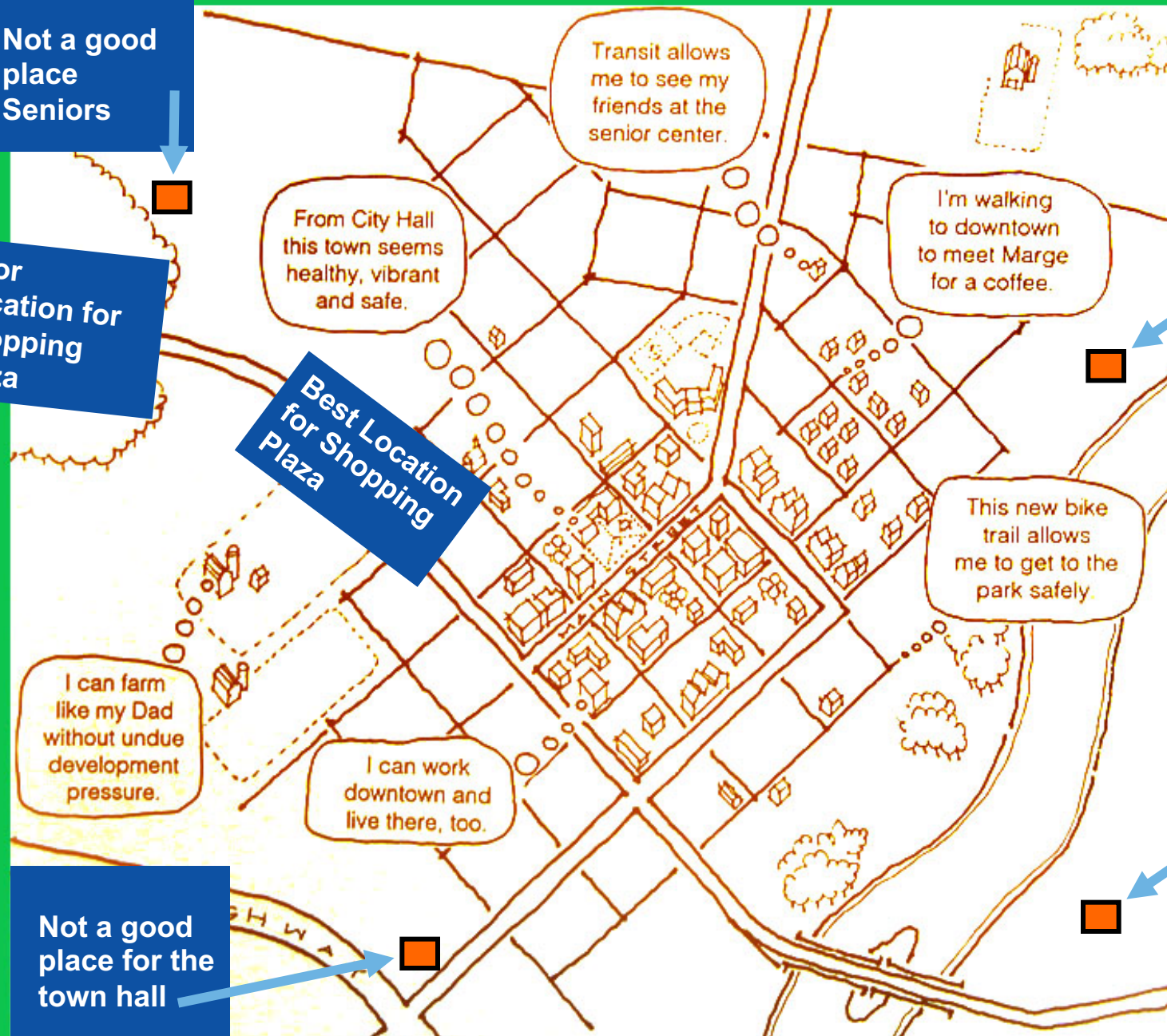
# Location Efficiency

People and Nature Focused Design

*'Buildings and transportation together accounted for about 70 percent of energy use in the United States and about 62 percent of U.S. greenhouse gas emissions.<sup>1</sup> ... housing type and location, along with energy-use features of homes and vehicles, all have an important role to play in achieving greater energy efficiency.'*

EPA Smart Growth

<sup>1</sup>Energy statistics from the U.S. Energy Information Administration's [Annual Energy Review 2009](#), August 2010. Greenhouse gas statistics from EPA's [2010 Inventory of U.S. Greenhouse Gas Emissions and Sinks](#), April 2010.



Not a good place Seniors

Poor Location for Shopping Plaza

Best Location for Shopping Plaza

Not a good place people with disabilities

Not a good place for multi-family

Not a good place for the town hall



# Location Efficiency

*The most effective way to reduce energy consumption is to locate homes of all types in areas where households could replace some automobile use with transit use, leading to reductions of 39 to 50 percent in household energy use.*

If this couple could live where they might live car-light or car-free, do their shopping, find entertainment and naturally bump into other people, their health, happiness, and longevity increase—and society/health costs go down.

*EPA Smart Growth*

# Mixed Use Zoning is a way to bring destinations closer to one another.

## Benefits:

- Reduces traffic and pollution by allowing residents to use their cars *less*;
- Creates pedestrian-friendly environments thanks to the short distances between living, work, commercial and recreational destinations.



# Medium Density Pays Dividends

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Monterey County needs more choice in housing types. A type of housing that has the added benefit of generally being more affordable and requires less land area. The solution is the **medium-density type** of housing.



# Essential Workers Come First

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# Equality



# Equity





**Safety by Design**



# California Cities Study



Street network,  
safety and  
sustainability  
in 24 medium sized  
California cities

Cities selected to  
represent a range of  
traffic safety level

# 24 California Cities

## Safer Cities

- Alameda
- Berkeley
- Chico
- Cupertino
- Danville
- Davis
- La Habra
- Palo Alto
- San Luis Obispo
- San Mateo
- Santa Barbara
- Santa Cruz

## Less Safe Cities

- Antioch
- Apple Valley
- Carlsbad
- Madera
- Morgan Hill
- Perris
- Redding
- Rialto
- Temecula
- Turlock
- Victorville
- West Sacramento

# Characterizing Street Networks

- Street Network Configuration



- Street Network Scale



# NODE COMPARISON

	<b>Safer Cities</b>	<b>Less Safe Cities</b>
<b>Total Node Density</b>	<b>106 per sq. mi.</b>	<b>63 per sq. mi.</b>
<b>Macro &amp; Intermediate Node Density</b>	<b>6.9 per sq. mi.</b>	<b>5.2 per sq. mi.</b>
<b>% Major Nodes</b>	<b>6.3%</b>	<b>8.2%</b>
<b>Dead End Node Density</b>	<b>32 per sq. mi.</b>	<b>23 per sq. mi.</b>
<b>% Dead Ends</b>	<b>30.2%</b>	<b>36.5%</b>
<b>LEED-ND Node Density</b>	<b>74</b>	<b>40</b>

## SAFETY COMPARISON

		<b>Safer Cities</b>	<b>Less Safe Cities</b>
<b>Fatal or Severe Crashes</b>		<b>12.7 per year</b>	<b>17.0 per year</b>
<b>% Fatal or Severe</b>		<b>1.6%</b>	<b>3.1%</b>
<b>Macro &amp; Intermediate Fatal or Severe</b>		<b>9.1 per year</b>	<b>13.7 per year</b>
<b>% Fatal or Severe</b>		<b>1.8%</b>	<b>3.3%</b>
<b>Micro Road Fatal or Severe</b>		<b>2.0 per year</b>	<b>1.7 per year</b>
<b>% Fatal or Severe</b>		<b>1.7%</b>	<b>2.7%</b>



**Target Speed**

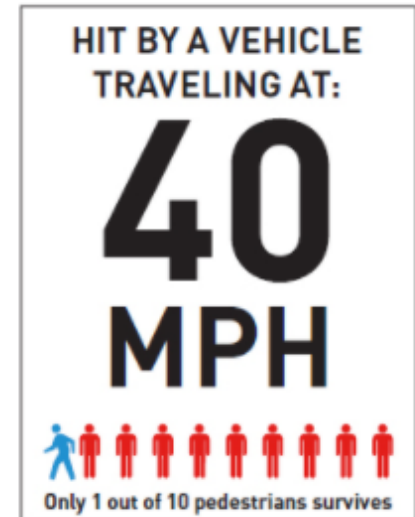
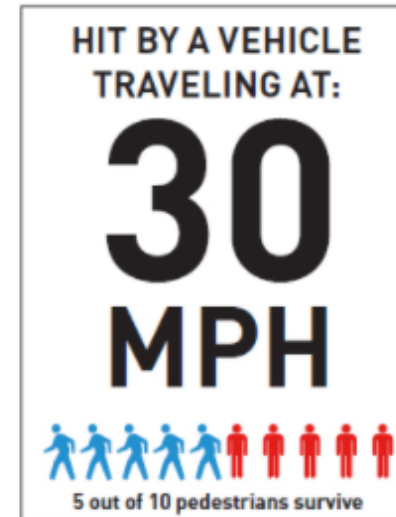
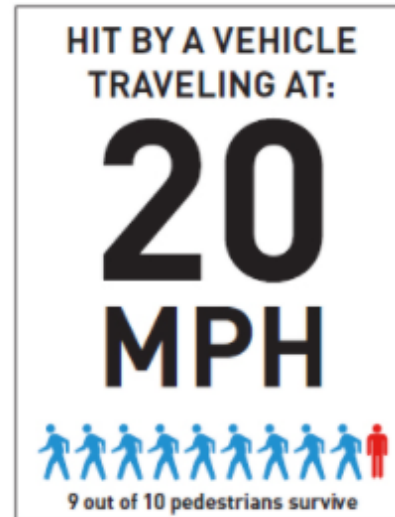
# Target Speed







# Use 15-20 MPH Target Speeds in Downtowns and Neighborhoods



Higher speeds increase the likelihood and severity of crashes while lower speeds improve safety and comfort for everyone, especially people walking and cycling. Survival for pedestrians and bicyclists is directly tied to vehicular speed. Why would we want motorists to put themselves and others in danger when we know the impacts of inducing higher speeds through outdated design practices?

# Chico, CA Nord Avenue



# Chico, CA Nord Avenue



# Chico, CA Nord Avenue



# Chico, CA Nord Avenue



# Chico, CA Nord Avenue



# Chico, CA Nord Avenue



Use this section when steep vertical terrain, wetlands, or other natural features must be addressed. Sidewalks are widened, bike lanes are used to create a buffer to moving traffic. Roundabouts, short medians or other treatments control speeds between 30-35 mph.

Note: Side Rails are used when edge is steep enough to constitute a hazardous condition.

**Roadway Width -- 32 Feet**  
**Right of way required: 46-48 Feet**

**Six Foot  
Bike Lane**

**Ten Foot Lane**

**For added visual effect  
Bike lanes can be a differ-  
ent material and color**

**Seven to Eight Foot Sidewalk**

**Bike Safe Grate**







**Median  
Width  
Varies**



**10' feet**

**7' feet**

**Sidewalk  
5' feet wide**

**Edge**

**6' feet**



Can handle 25,000 vehicles per day



Can handle 25,000 vehicles per day



# Case Studies

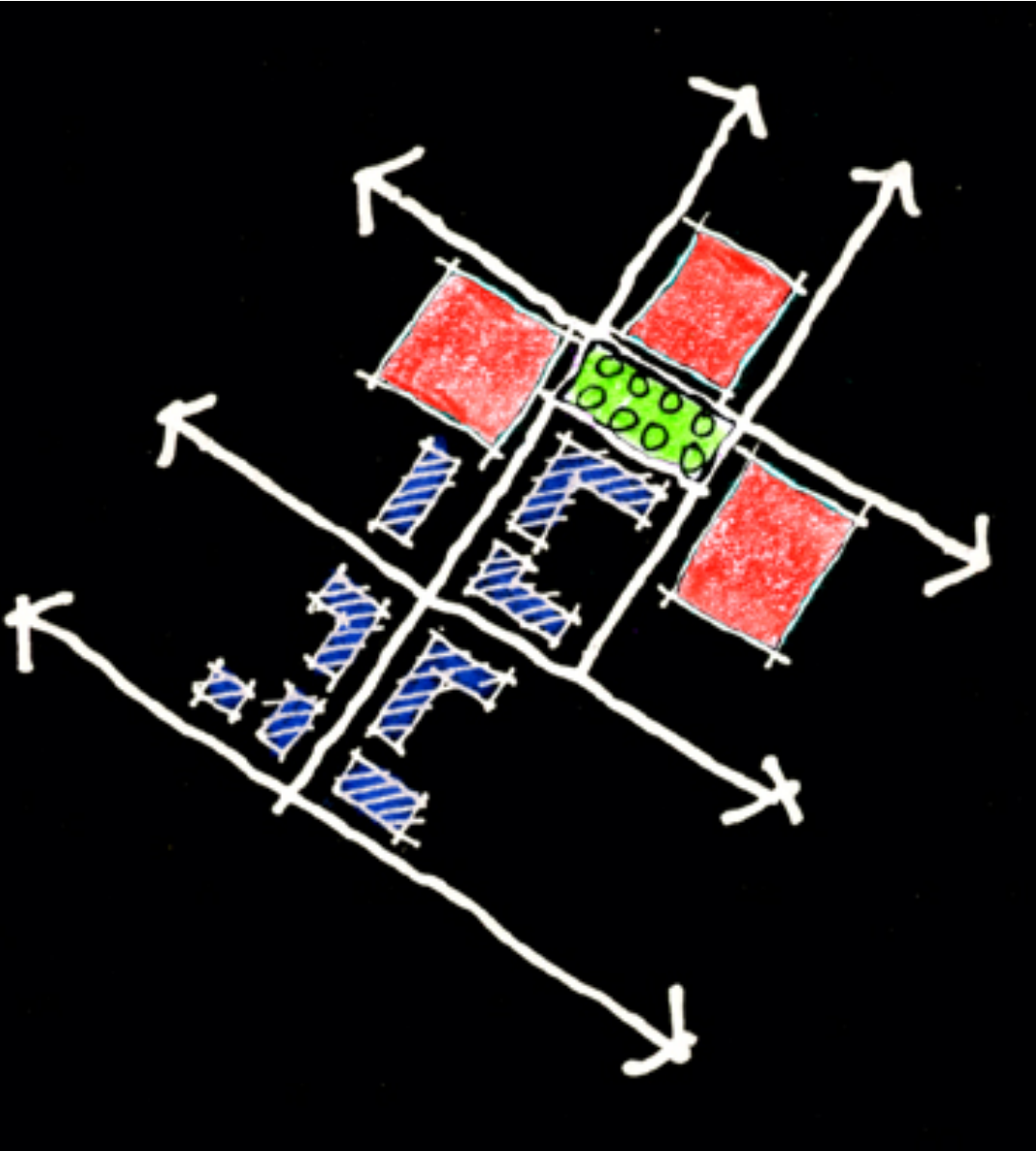


One less travel lane; bike lanes; parallel to back-in diagonal parking on one side; new pavement.

# Winter Park Village

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There are an estimated 1000-3000 bankrupt or nearly bankrupt malls in America. Could these be transformed into villages?



WINTER PARK MALL







REGAL CINEMAS

ALBERTSON'S

BLACKBURN

CHAMBERLIN'S

CHEESECAKE FACTORY

BRIO

FIVE HARBORS

SPIN TAYLOR LOFT

P.F. CHANGES

LOFTS

RUTH'S CHRIS

BORDERS





**SUPER BLOCK**



K Mart

Lee Rd.

Orlando Avenue

Solana Ave.

Winter Park Village

Webster Ave.

Winter Park  
to Tech

Denning Dr.



**Lee Road  
Extension**

**Mixed Use  
Redevelopment**

**K Mart**

**Lee Rd**  
**Orlando Avenue**

**Winter Park**

**Village**

**W.P.V.  
Development**

**Leisure Lane**

**Denning Dr**

**Residential  
Redevelopment**

**Trees provide an edge, buffering people on foot from moving autos**

**A small forest preserve park of 4 acres**

**Medians provide ground cover to absorb 20 percent of noise**

**9/29/1999 2:06pm**





Bridgeport Way, University Place, Washington

1" = 100'  
PLOT DATE: 1/16/19  
PHOTO DATE: 5/10



University Place, Washington

# Marina Transit Station / Town Center Design Workshop





**S.D.A. Church**

**Long's / Albertsons**

**Seacrest Plaza**

**Post Office Entrance**

**DeForest**

**Reservation Road**













# Buffered Bike Lane

Castle Rock, Colorado built a 4-lane entry to a community, but immediately painted the outer lane as a wide buffered bike lane.

Possibly the road will remain as a safer 2-lane road (20-60% fewer crashes) for decades, or throughout the life of the development.











10

11

9F

6

107

108



809054  
44664-JM

MAG  
97740-PA

NORTH SOUTH  
62 91

NORTH  
62

Hess  
BROTHERS  
28











# Measure X

# Measure X

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- "Mobility for All" funding under Measure X allots \$80 million over 20 years to bike and pedestrian safety, active transportation investments, and a focus on increasing services for seniors and those with disabilities.
- Considering the broad need to achieve health and wellness through these limited funds, how can we best apply policies, programs to have the greatest impact?





## **Dan Burden**

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