

Stand by:

The future is coming...

Energizing Main Street



Sponsors:

New Hampshire Main Street Program

Dover Main Street Program

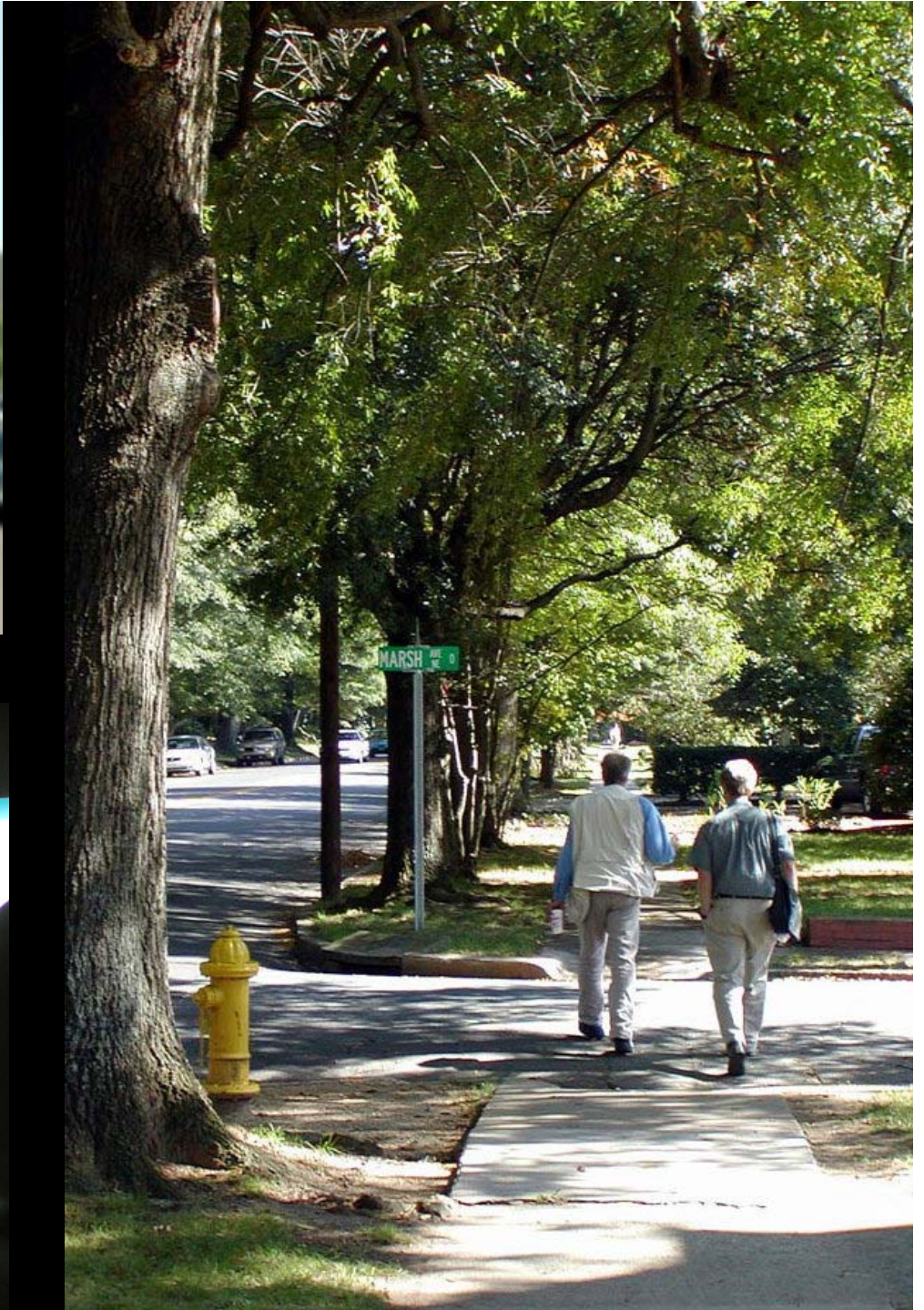
September, 2003

Dan Burden, Walkable Communities, Inc.



© Paul Dettlefsen





Walking Audit





Jon

Marty

Paul

Earl

Dale

Dan's
Arm

Photo by Paul

American Public Works Annual Meeting

Keynote
Recovery
Presentation
September 12, 2001

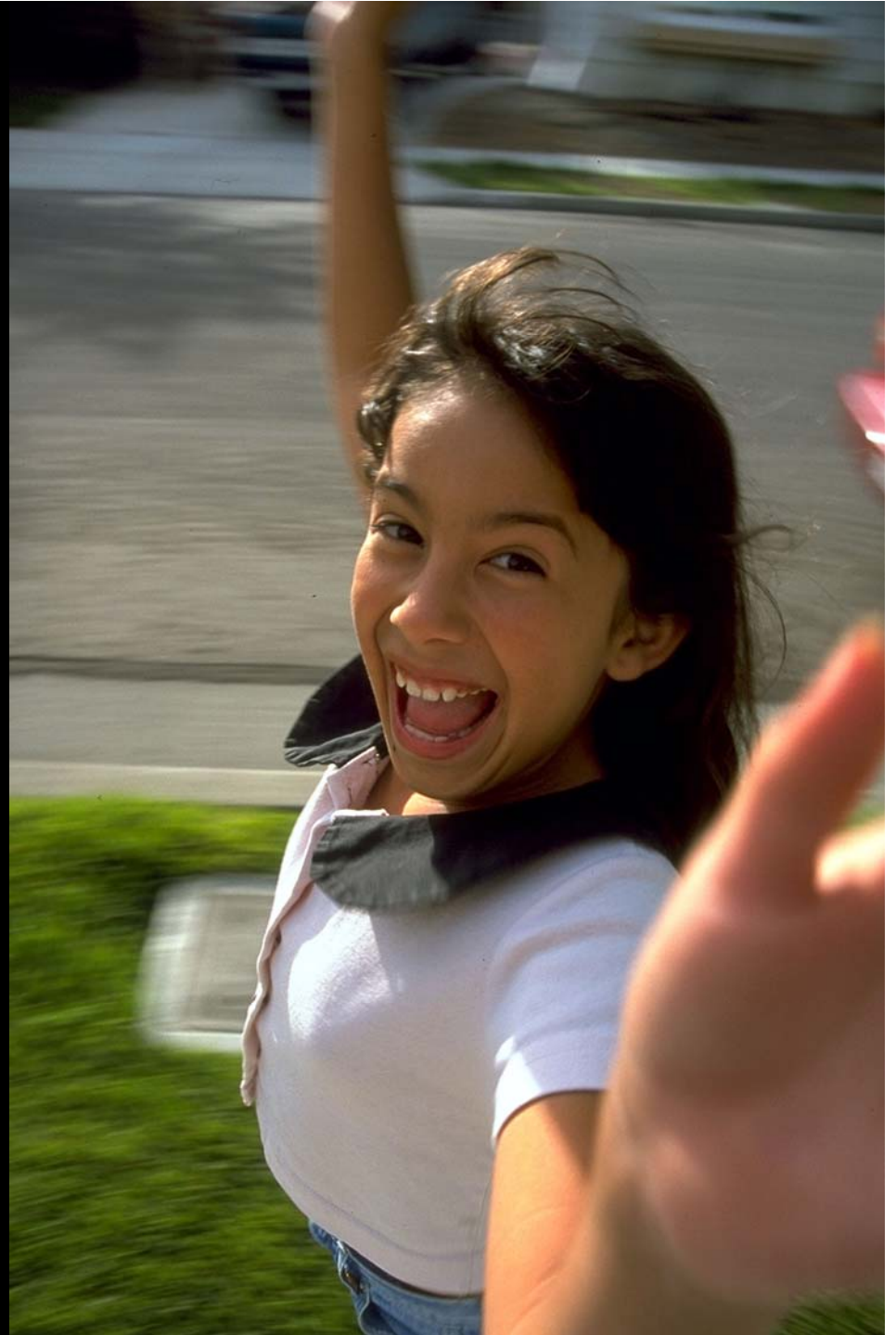








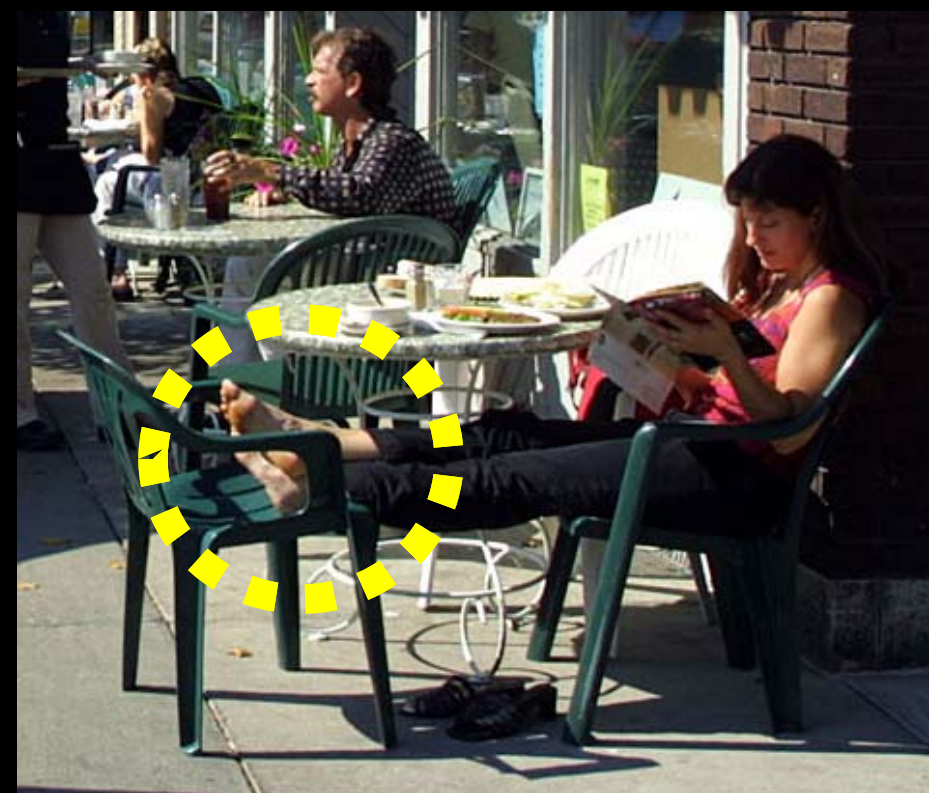
Our People Come First



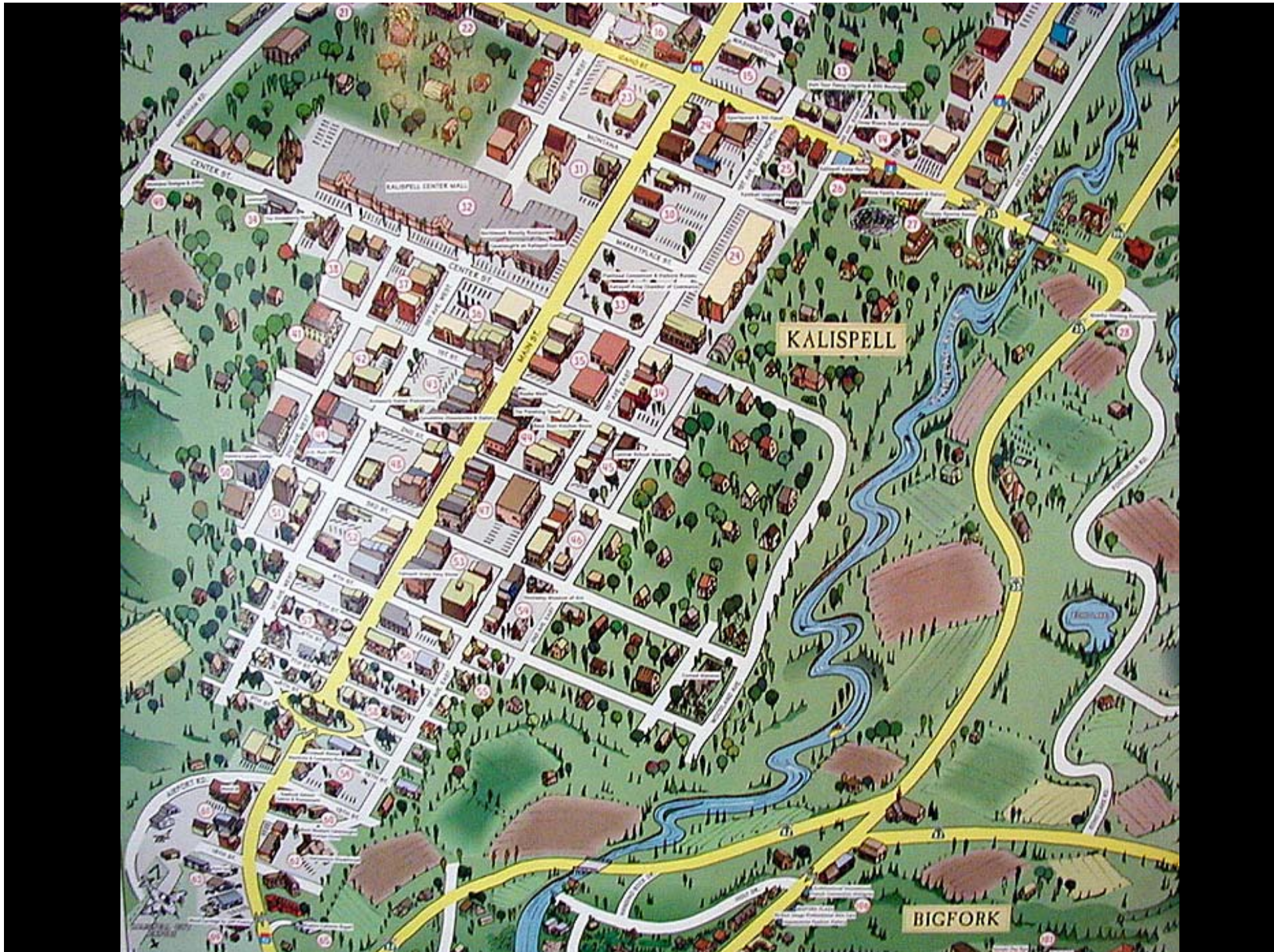
















Eva Gates • Homemade Preserves • Since 1949

Making the finest quality Fruit Preserves and Syrups since 1949



Celebrate
over 50
years of
the best
preserves





Big Fork,
Montana











$b/h = (d+f)/(d+e)$



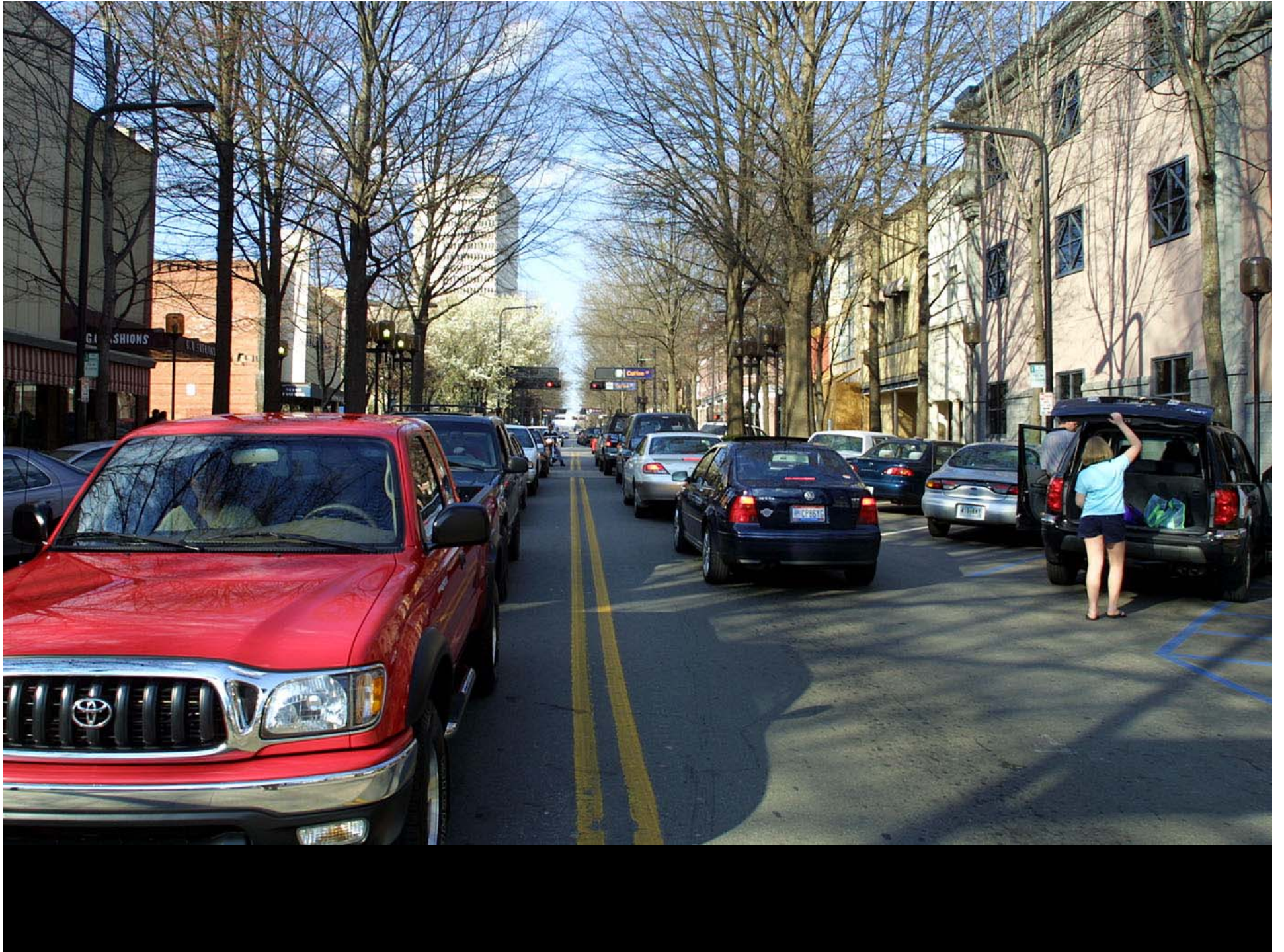


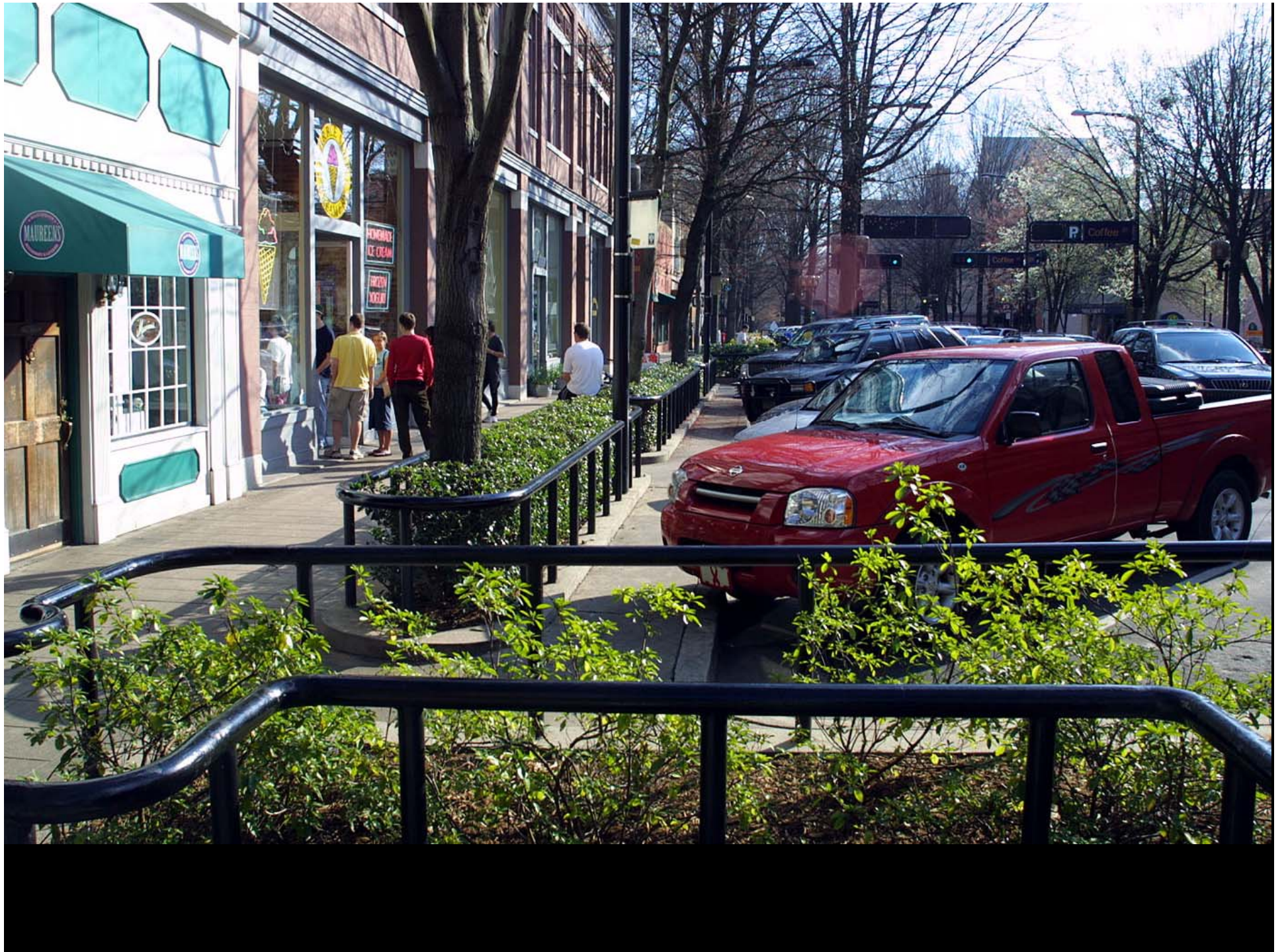




Greenville, South Carolina

















1

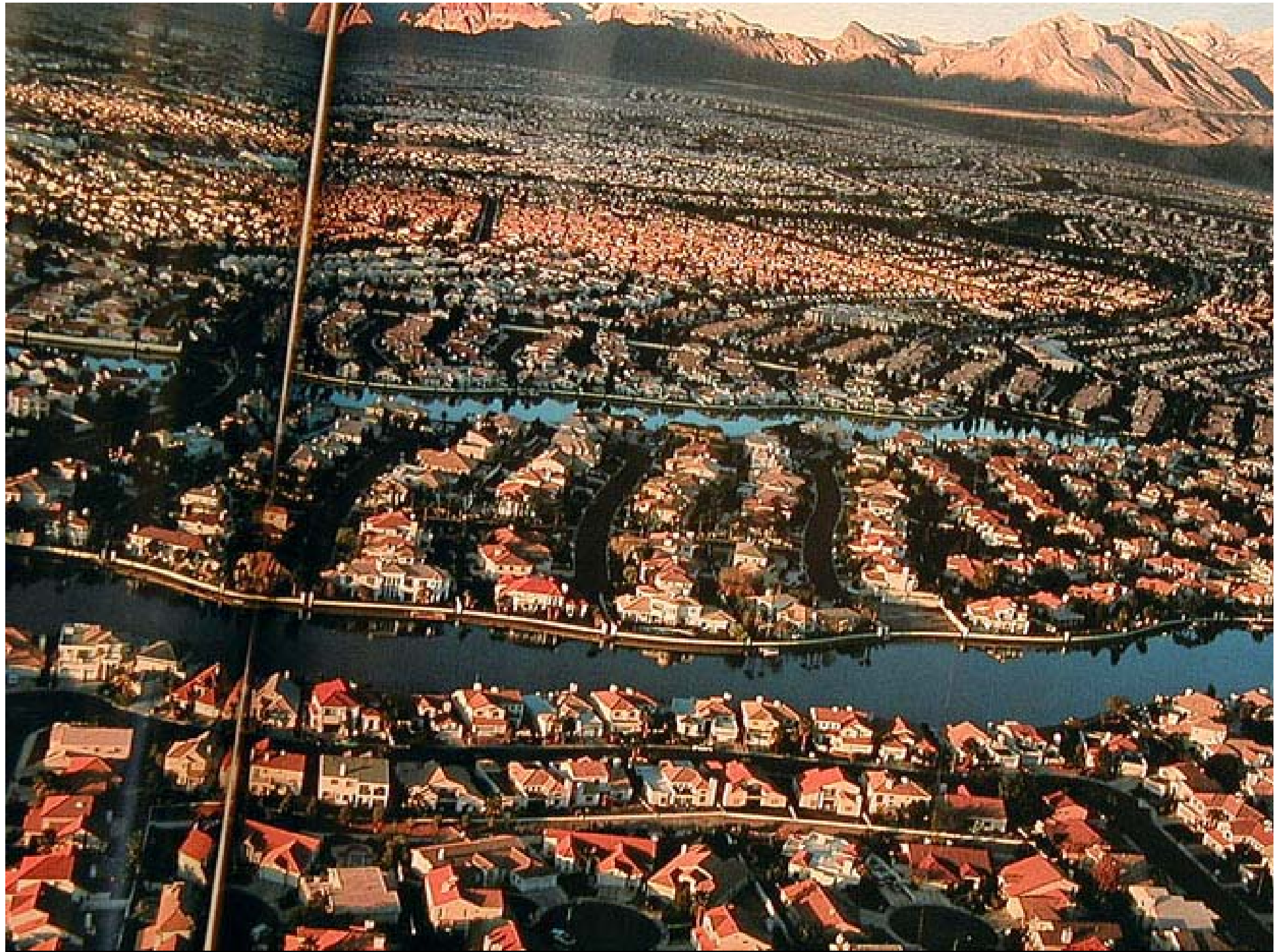
Land Use and Transportation Principles



Car Wash

99¢ WITH GAS PURCHASE

<i>Self Serve</i>	<i>Cash or Credit</i>
<i>Regular</i>	205 $\frac{9}{10}$
<i>Plus</i>	216 $\frac{9}{10}$
<i>Premium</i>	224 $\frac{9}{10}$



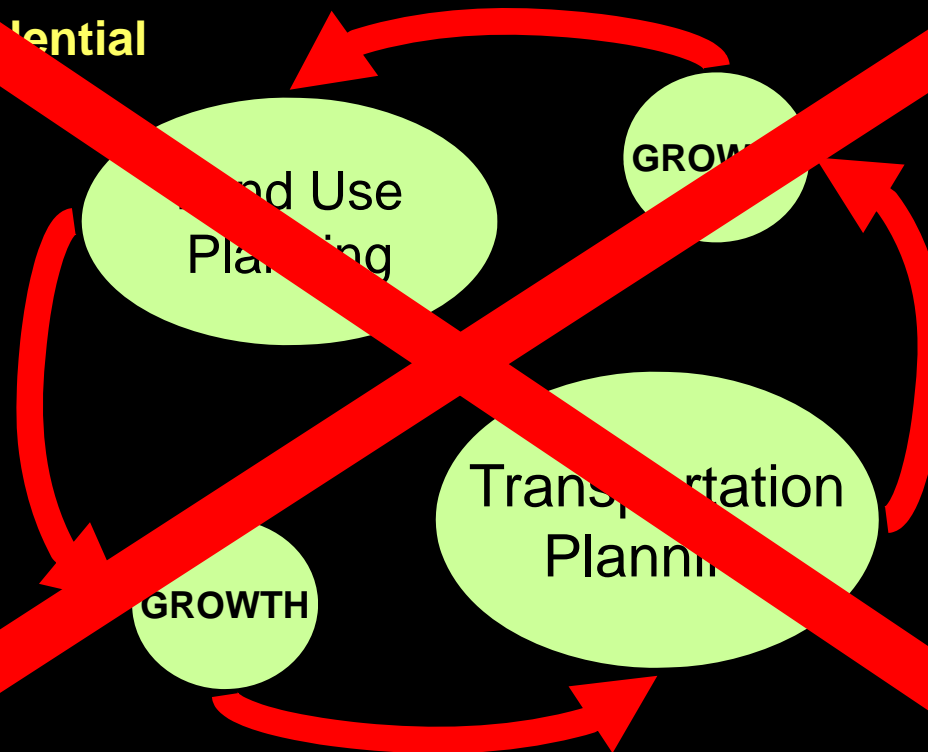
The Cycle of Strip Development

INPUTS

- Auto Oriented Business
- Single Use Zoning
- Single Family Residential

OUTCOMES

- Wider Roads
- Reduced Traffic
- More Traffic



OUTCOMES

- Isolated Neighborhoods
- Multiple Automobile Trips
- Poor Mobility
- Difficult Walking

PUTS

- Traffic Demand Forecasting
- Congestion

Breaking The Cycle of Strip

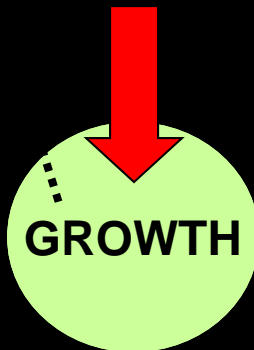
Development INPUTS

- Diversity of Business
- Mixed Use Zoning
- Diversity of Residential Units
- Context Sensitive Solutions
- Community Involvement



OUTCOMES

- Healthy Neighborhoods
- Choices of Transportation
- More Open Space
- Sense of Place
- Sense of Community



OUTCOMES

- Increased Mobility
- More Walking & Bicycling
- Increased Access

THE PURPOSE OF CITIES

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

The role of transport is to maximize exchange.

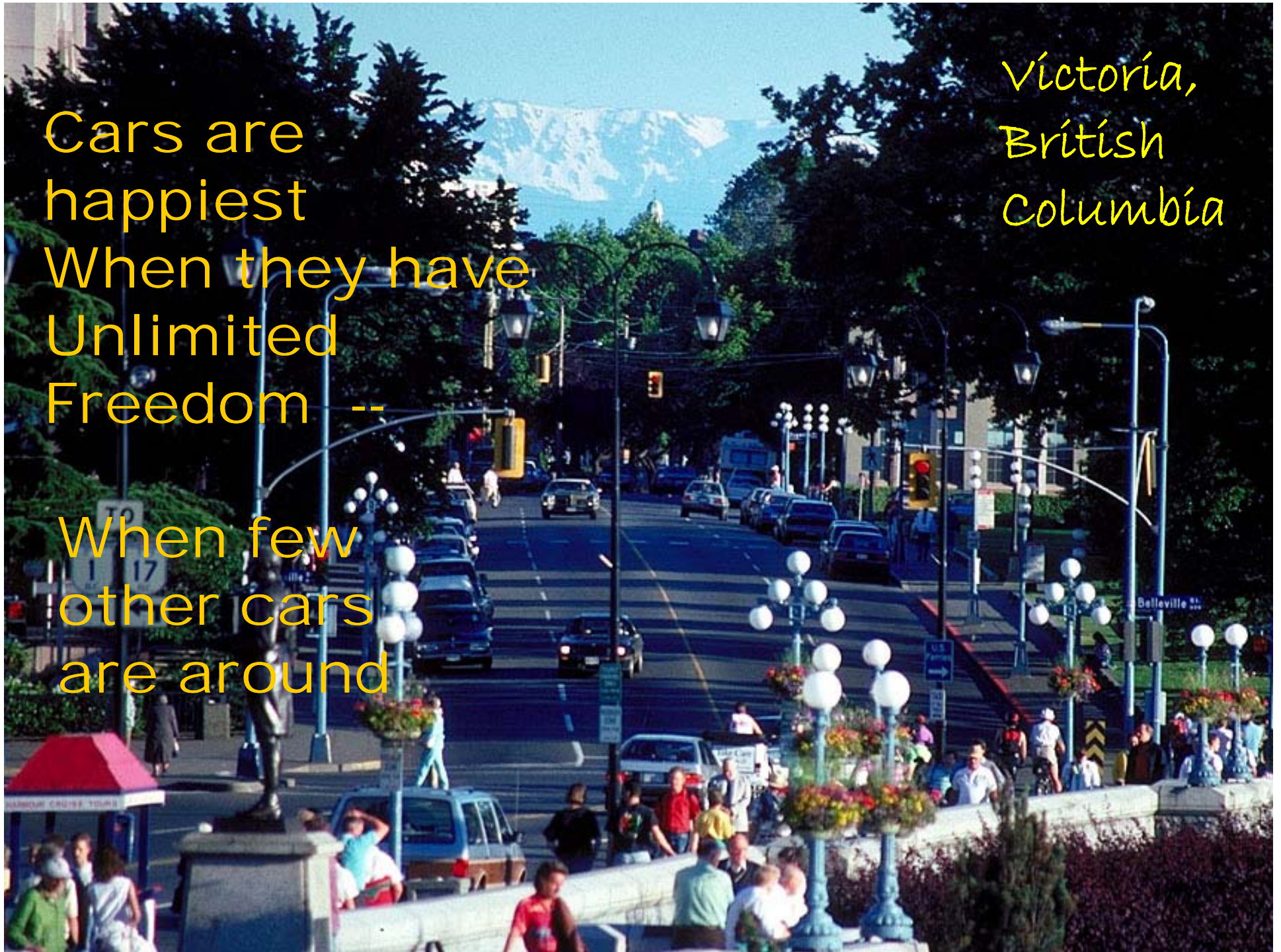
....David Engwicht

Whoops!!!

Cars are
happiest
When they have
Unlimited
Freedom --

Victoria,
British
Columbia

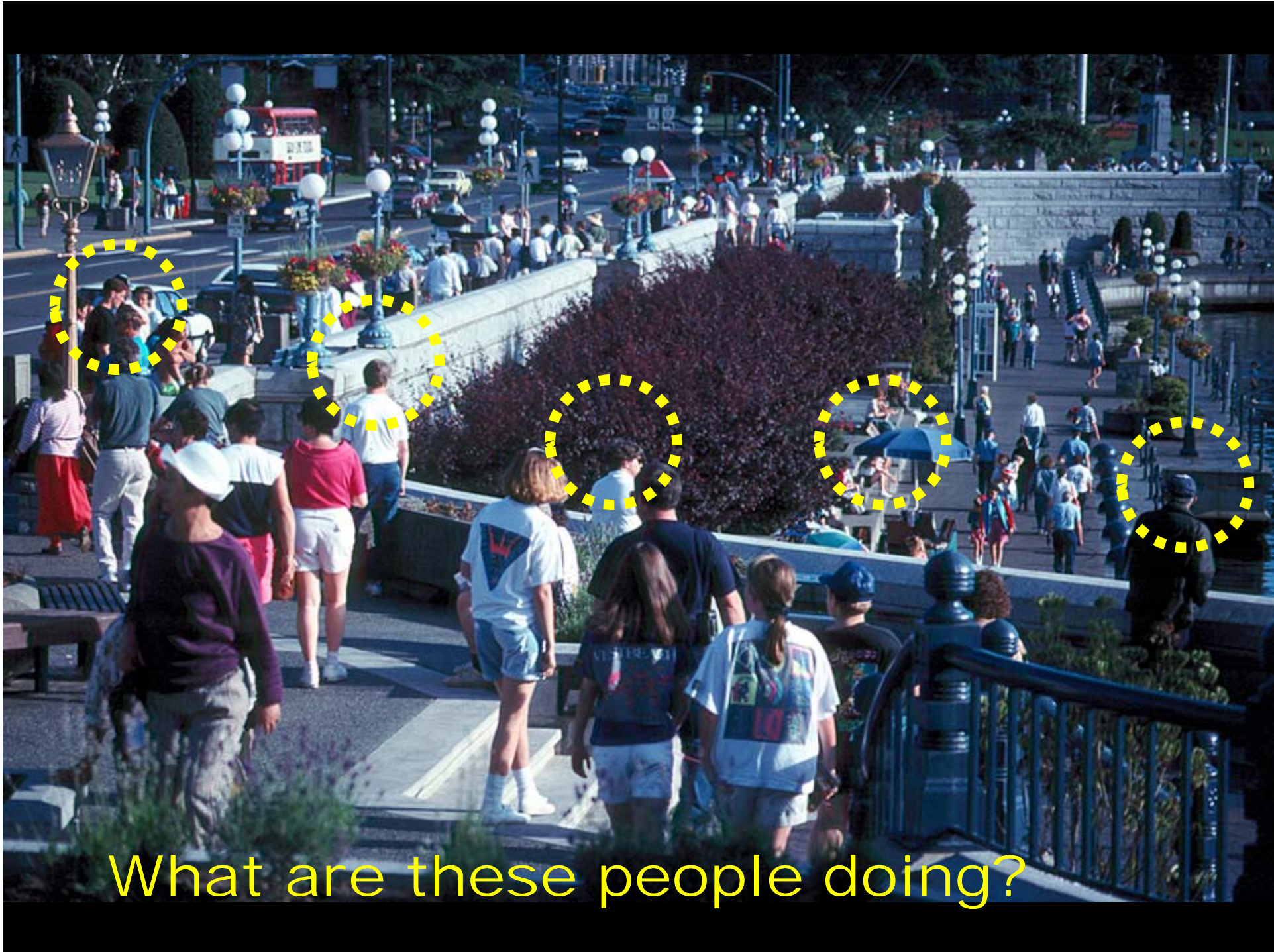
When few
other cars
are around





People are
Happiest
when
there are
many
others
around.

Victoria,
British
Columbia



What are these people doing?

3

Building
from our
values

EXP JUN

I N D I A N A

INDIANA
INDIANA
INDIANA
KG1680



K 1 6 8 0
G

Kids First

National Health Epidemics

Diabetes

Overweight

**Heart
Failure**

Depression

Hypertension

Isolation

Asthma



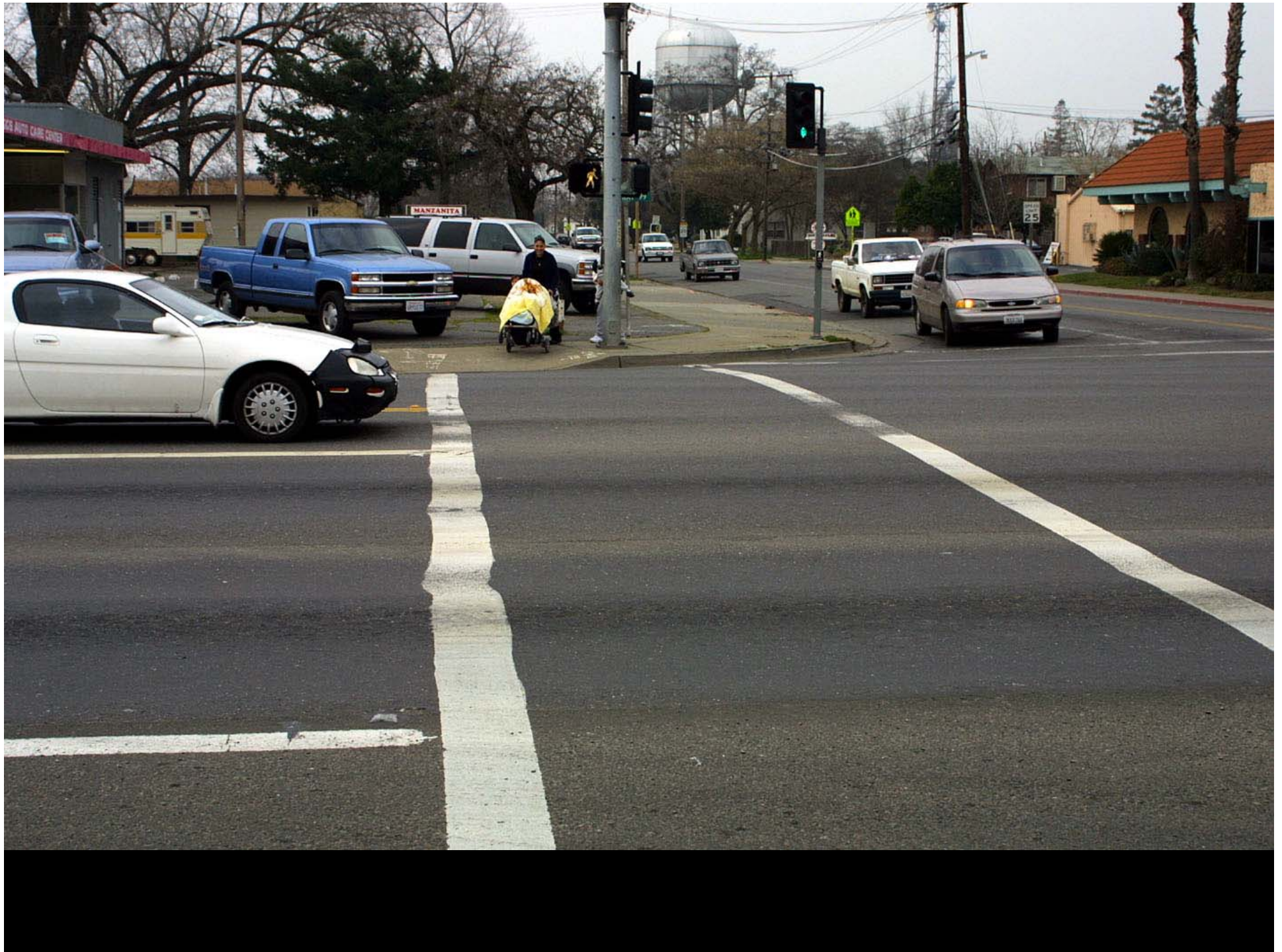
**Poorly
Developed
Neural
Pathways**

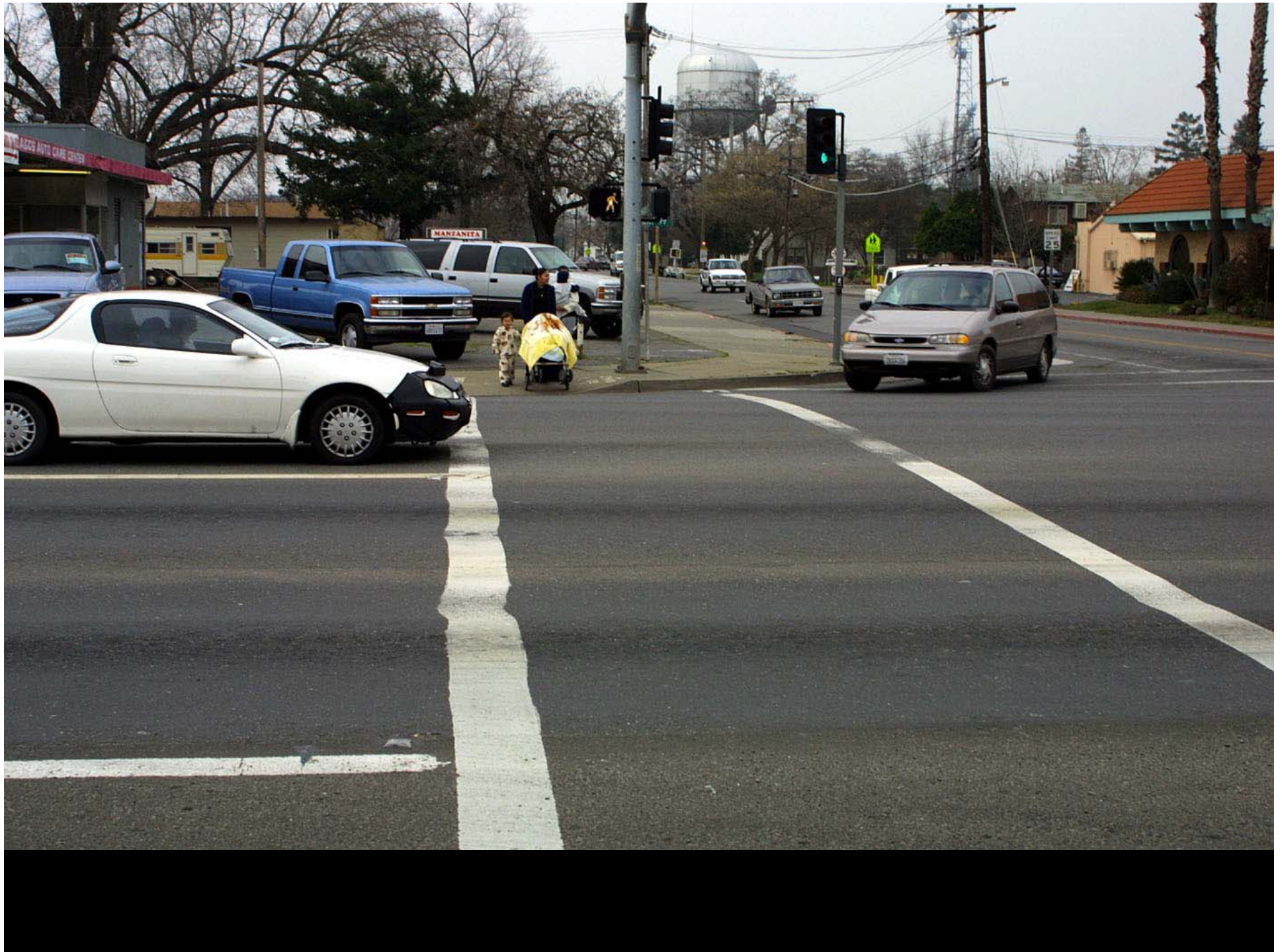
**Lack of
Association**

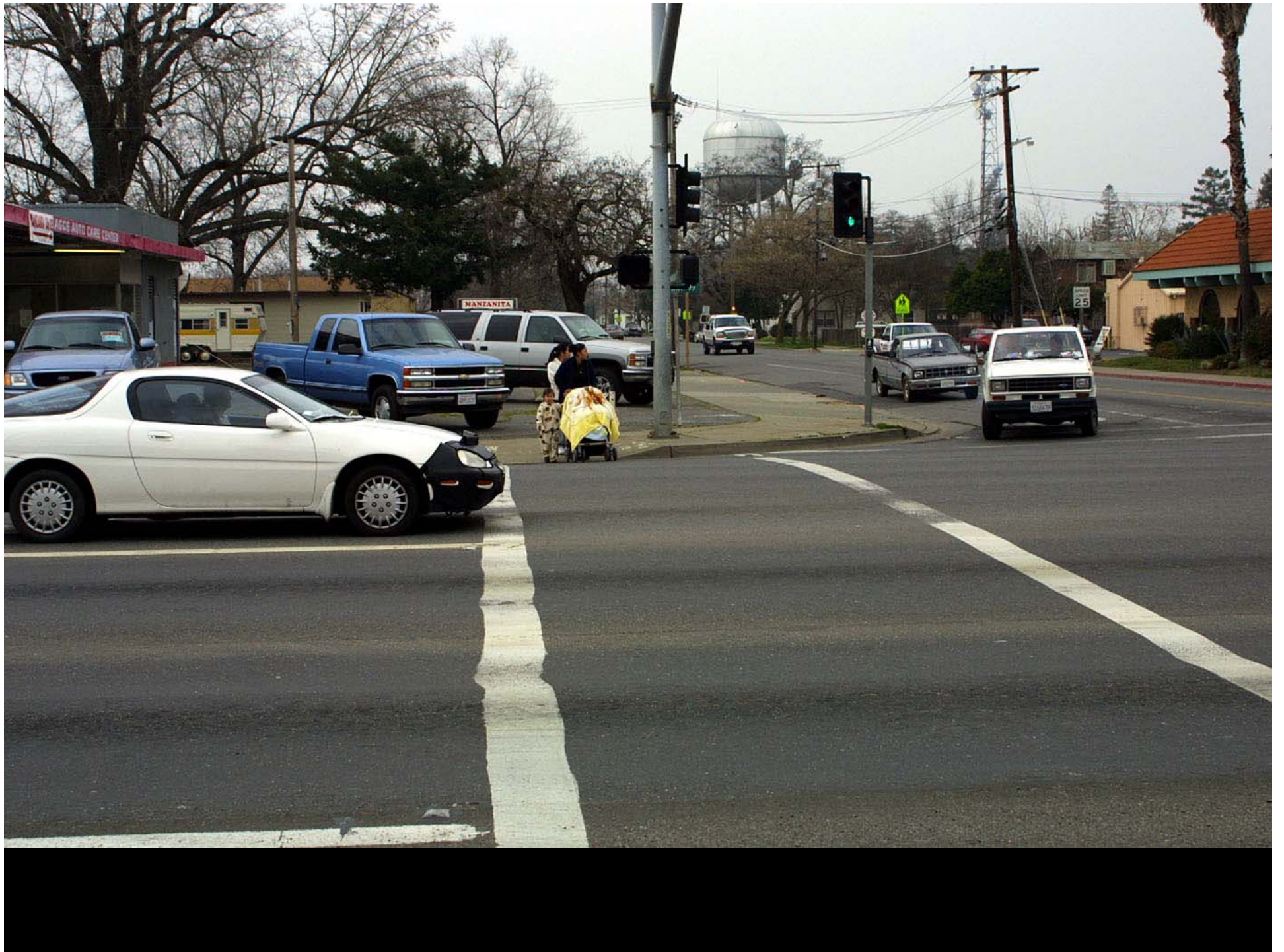


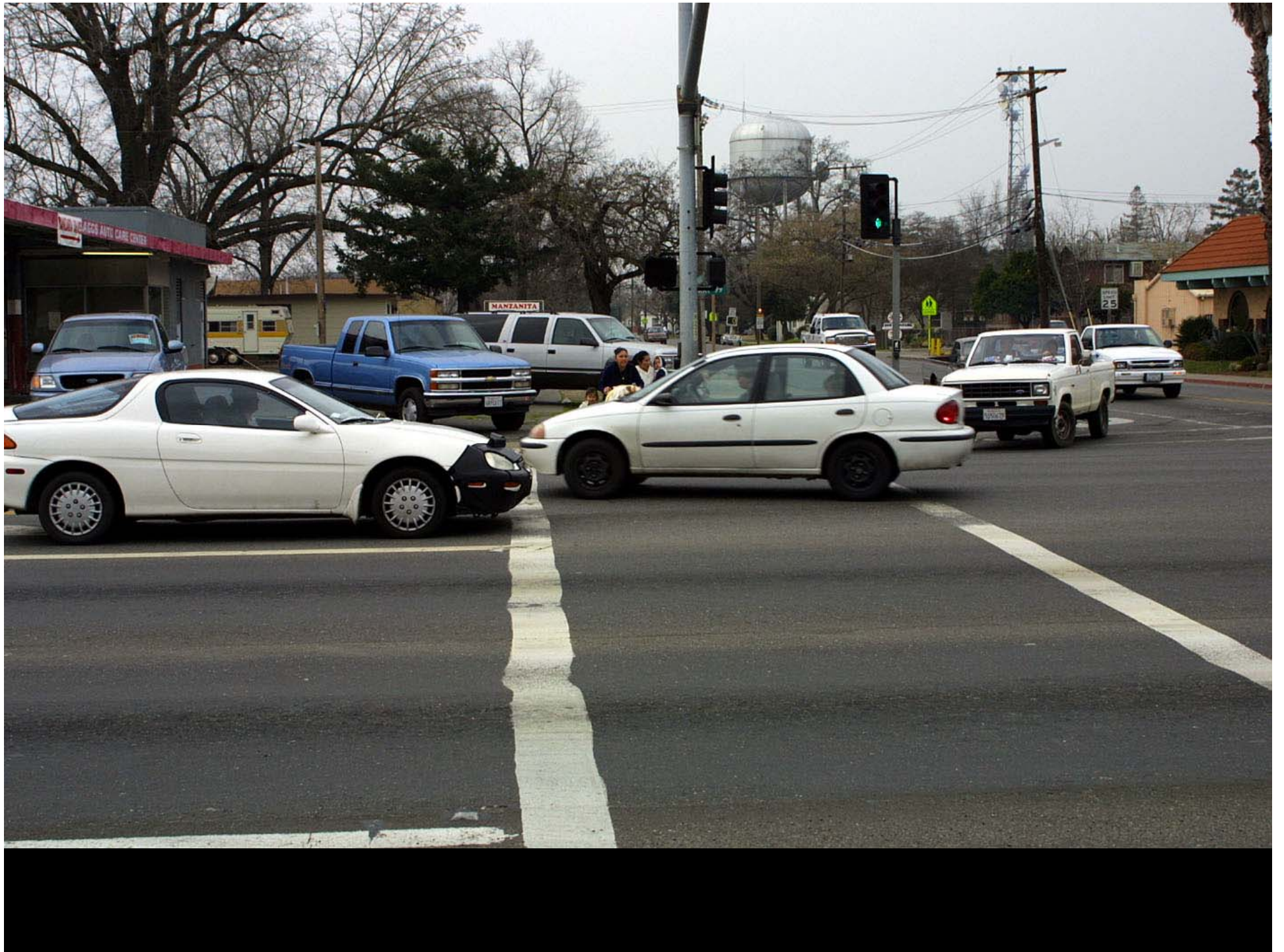


















PLEASE
DRIVE
SLOWLY
WE ❤️ OUR
CHILDREN

DRUG-
FREE
SCHOOL
ZONE
WITHIN 1000 FT. OF SCHOOL PROPERTY



Point 1:
It's not just an
obesity
epidemic. It's
an epidemic of
physical
inactivity.

• CANINE CONSTITUTIONAL



Wes Rowell / Olycom

A brisk walk in the park keeps Marey II in shape between dog shows. His owner, Columbus resident Cathy Stumbo, got up early to give her 3-year-old Doberman his regular workout. They typically jog 15 miles in Berliners Park.

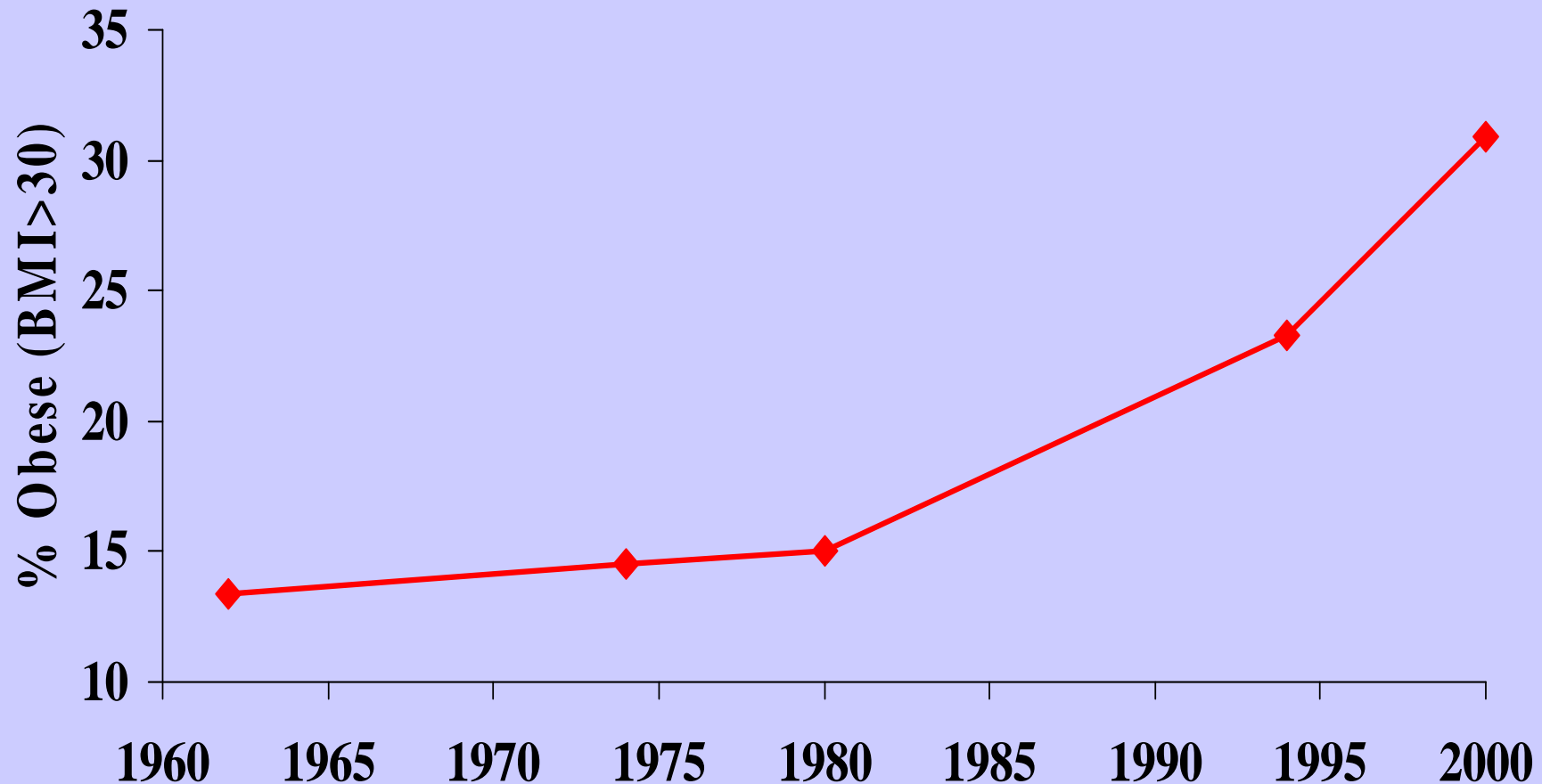
Surgeon General's 1996 Activity Recommendation



- **30 minutes of activity.**
- **Most days of the week.**
- **Can be broken up.**
- **Reduced risk for CVD, diabetes, osteoporosis, obesity, clinical depression, some forms of cancer.**

The Obesity Epidemic in the US

Flegal et. al. (JAMA 288, 14; Oct. 2002)



National Health and Nutrition Examination Survey data

Is Physical Inactivity Really a Problem?



29% of adults are sedentary

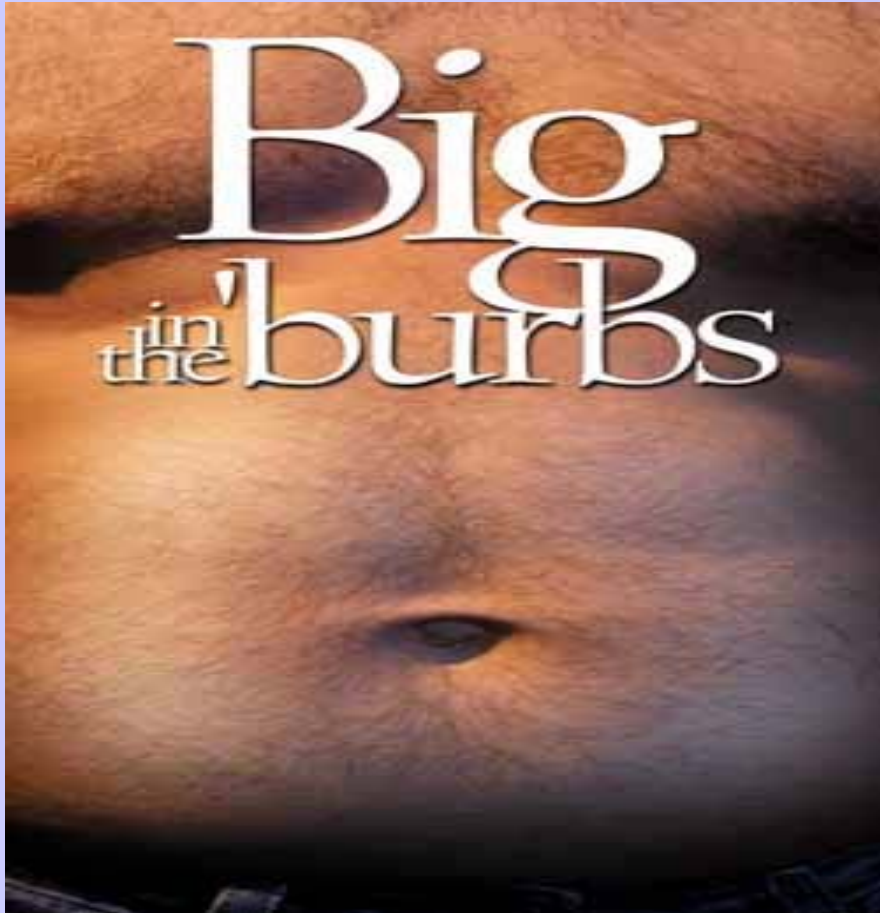
73% are not active enough

36% of young people in grades 9-12 do not participate in vigorous activities 3 or more days a week

One-fourth of those aged 6-17 are already overweight

Source: U.S. Surgeon General

Obesity/Overweight

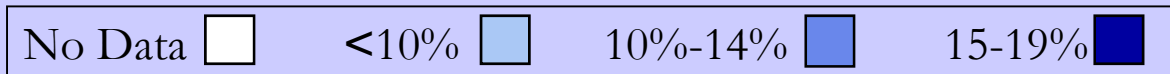
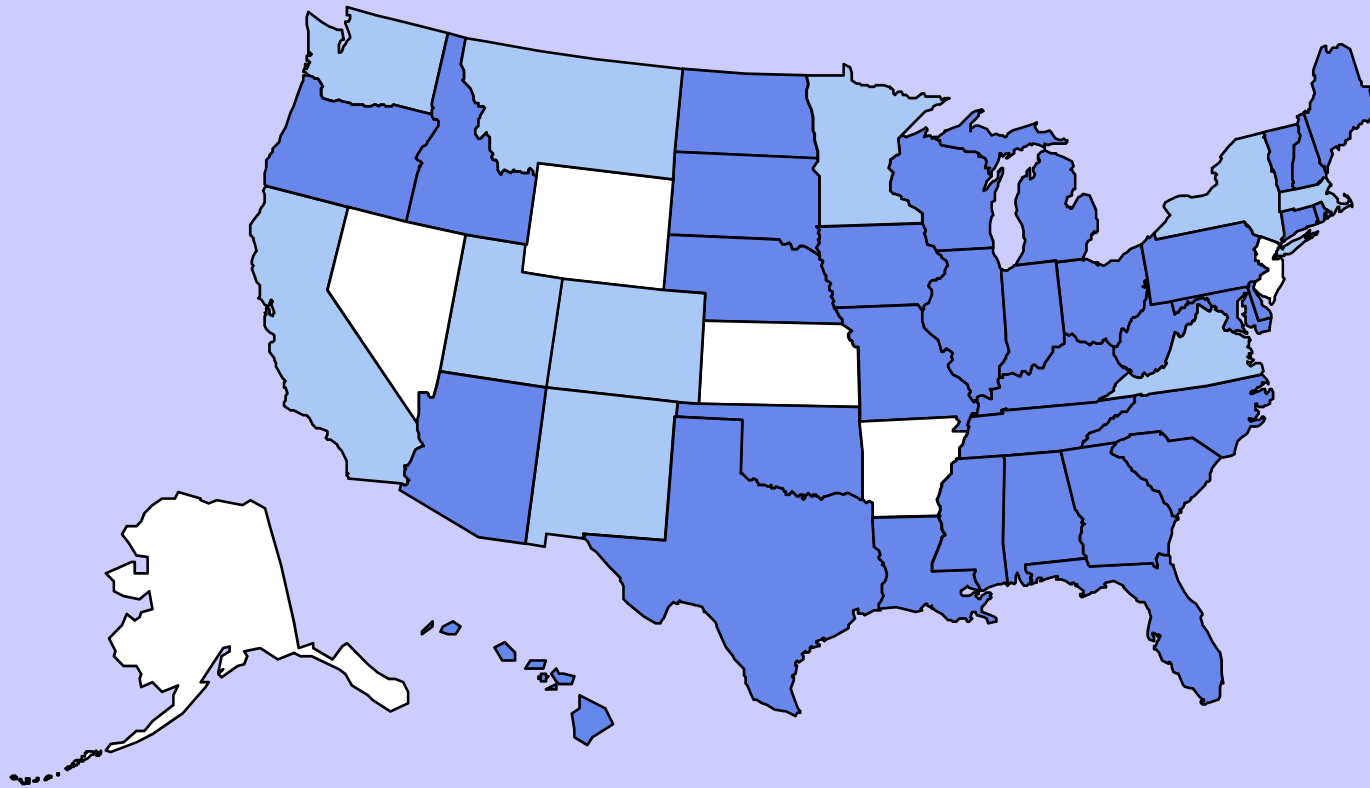


- Over one in four adults is obese
- 61% of adults are overweight
- Rates of seriously overweight children more than doubled since the 1970s.
- There has been a dramatic increase in the number of children with adult-onset diabetes in the last five years.

Obesity* Trends Among U.S. Adults

BRFSS, 1990

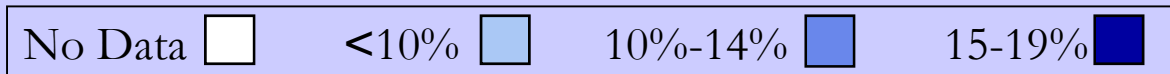
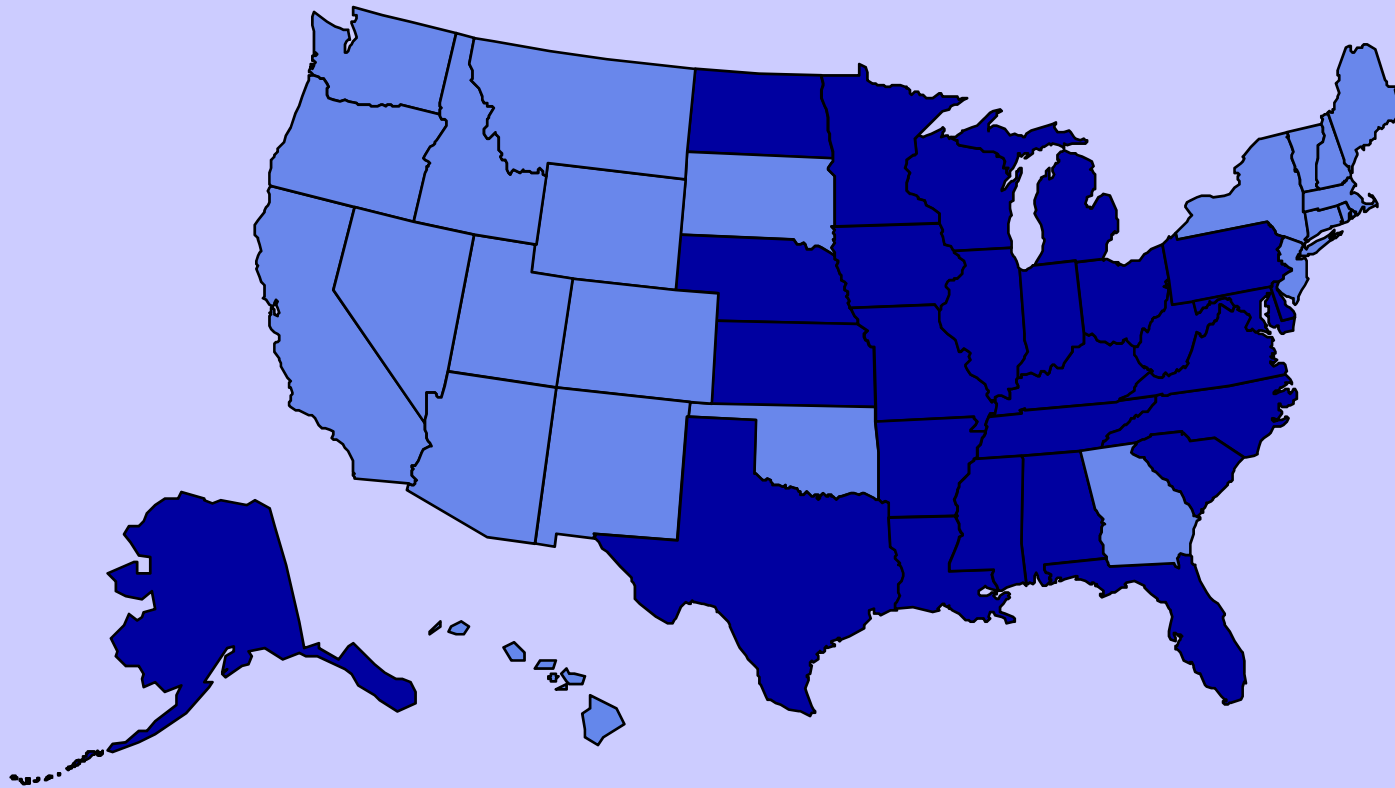
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" person)



Obesity* Trends Among U.S. Adults

BRFSS, 1995

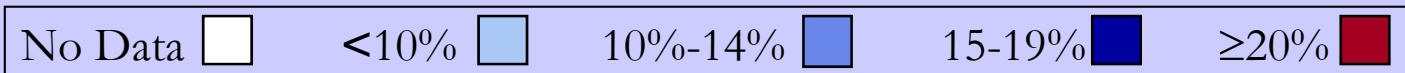
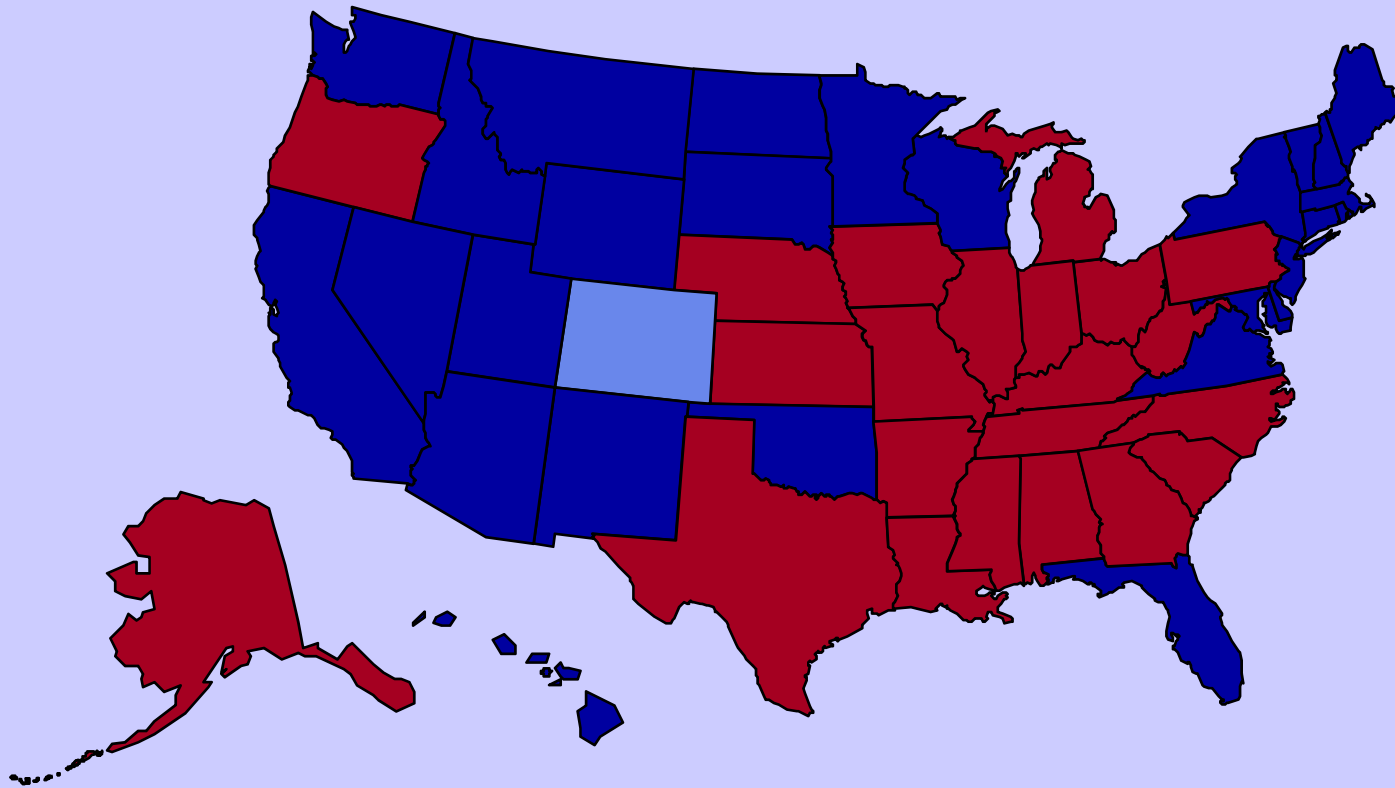
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" person)



Obesity* Trends Among U.S. Adults

BRFSS, 2000

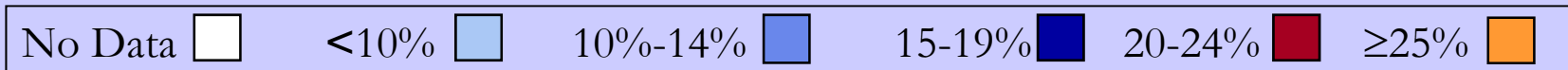
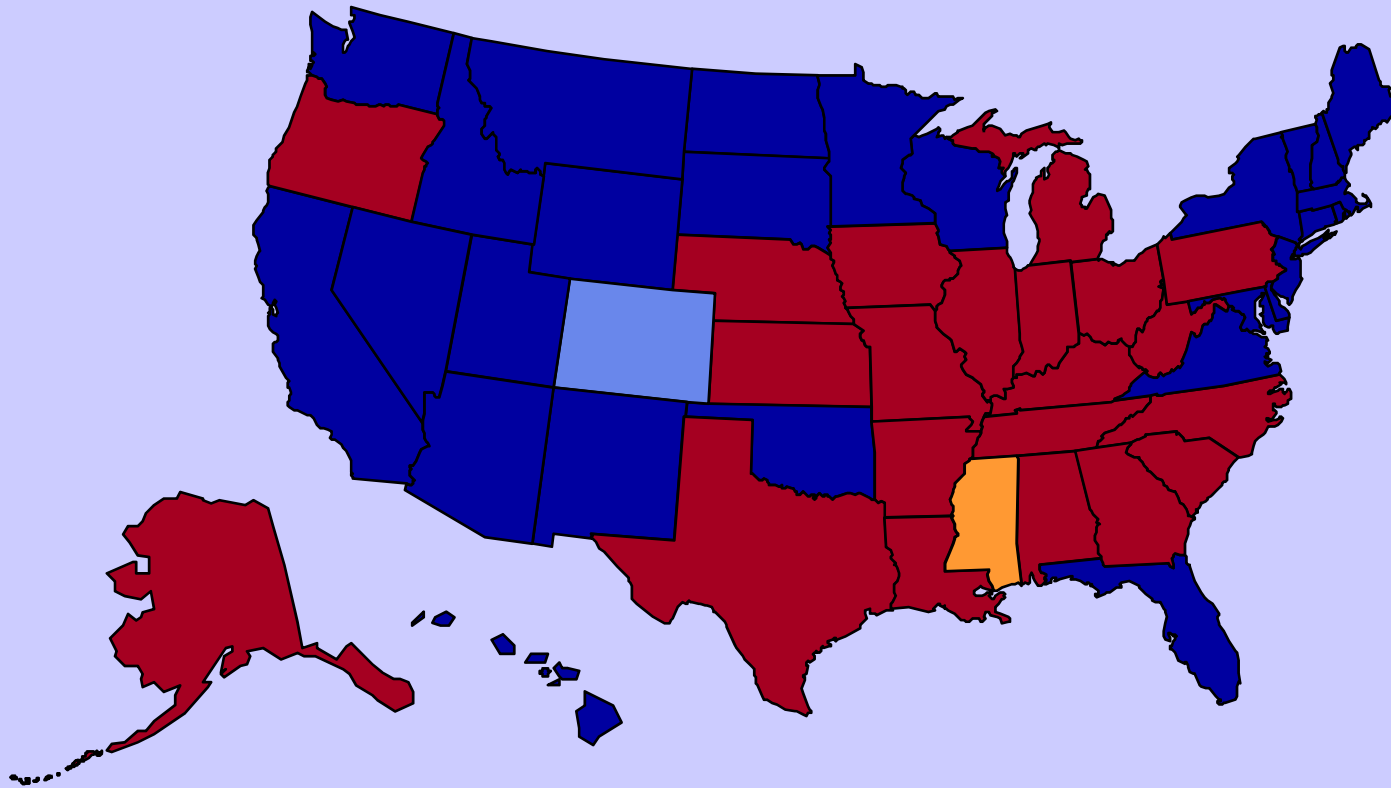
(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" person)



Obesity* Trends Among U.S. Adults

BRFSS, 2001

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" person)



**For every 10 minutes you spend driving, you are 10%
LESS likely to get involved in your community.**





The Myth

America's high level of dependence upon the automobile has lowered the standard of living, snarled traffic, and lowered air quality.

The Facts

The mobility provided by our highways is critical to the modern lifestyle.

The Quality Growth Coalition ... includes American Road and Transportation Builders Association, National Asphalt Pavement Assoc.

Livable, Active Living, Walkable Neighborhoods

Many Villages (1/2 mile apart)

Low speed, Green Streets

Many Connections, Walkways and Trails

Open Space within 800 feet of all homes

Plenty of Association, Ways to Associate

Minimal Off-Street Parking

Housing Density, Mixed Use

Mixed Income, Affordable

Great Boulevard Streets

Great Entries



Ten Steps To Walkability

Compact, lively town center

Low speed streets, distributed volumes

Fine grained streets, many trails, transit links

Neighborhood schools and parks, within one quarter mile or one eighth mile



Public places with inviting features: benches, restrooms, shade, water and art

Convenient, safe and efficient crossings

Many people of all ages and abilities walking many hours

Celebrated public space and public life, parades, markets, festivals, awards

Land use and transportation partnerships

Affordable, inspiring, well maintained streets and homes.

Dear Dan,

I have lived in Alpharetta, Georgia for the past 12 years and I am literally choking with all the traffic and development. I would like to move to a town where my kids can ride their bikes or motorized scooters to school or to the bakery or to the beach. When I was younger my family lived in Spring Lake, New Jersey and my husband's family lived in Winnetka, Illinois where you could do those kinds of fun things. Do you know of a book or resource that could help us research towns such as those so we can begin the planning stage of where to move to. Thank you ...



Five keys
to success

Security
Convenience
Efficiency
Comfort
Welcome

Welcoming Eatery and Defensible Space





Provide Services

Downtowns should provide essential services

Postal
Residential
Commercial
Public Space
Restrooms

FERNDALE
CALIFORNIA







The
**OLD SALT'S
PANTRY**
DELICATESSEN
SANDWICHES
MAINE GIFT ITEMS

OPEN





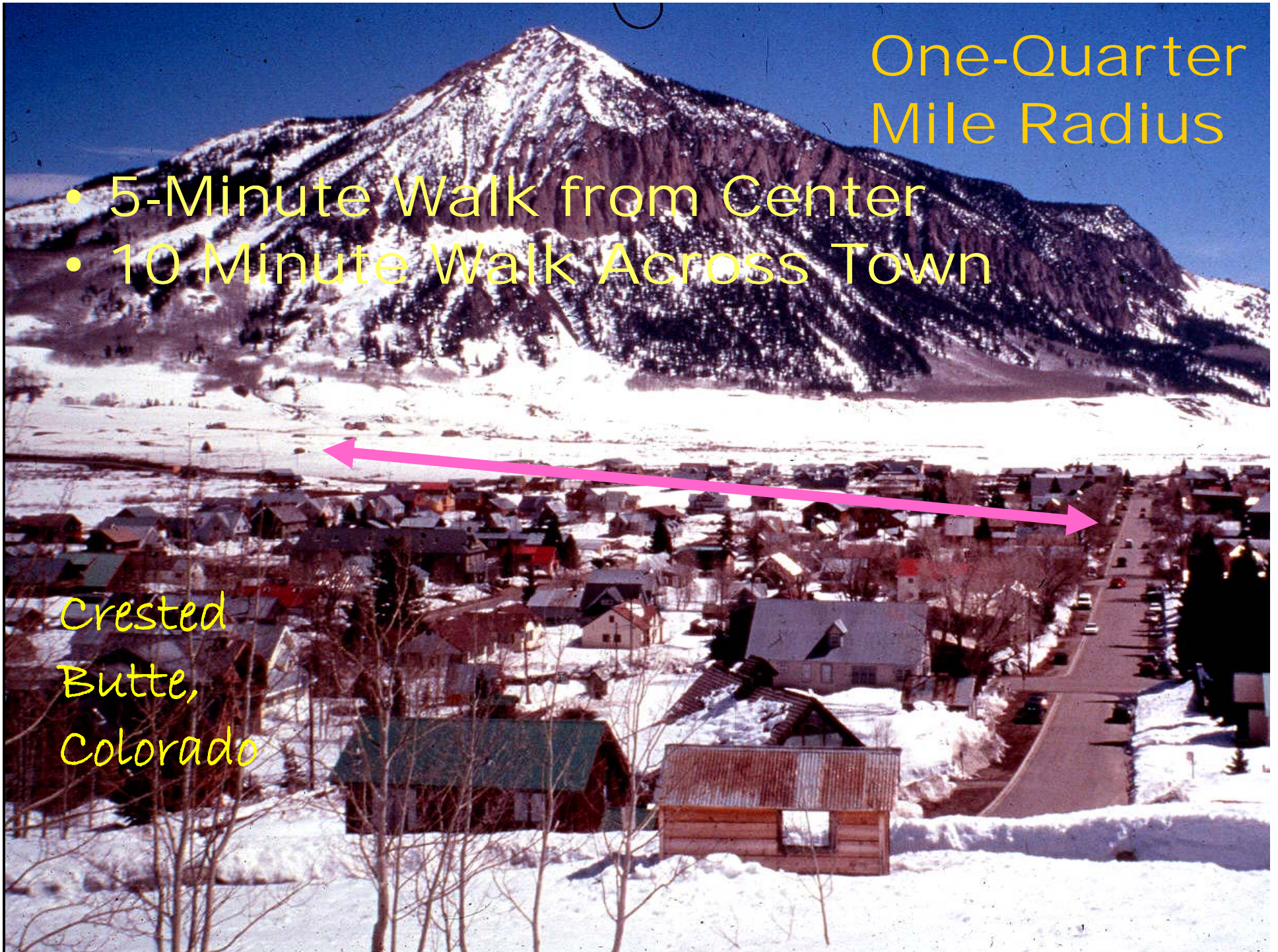




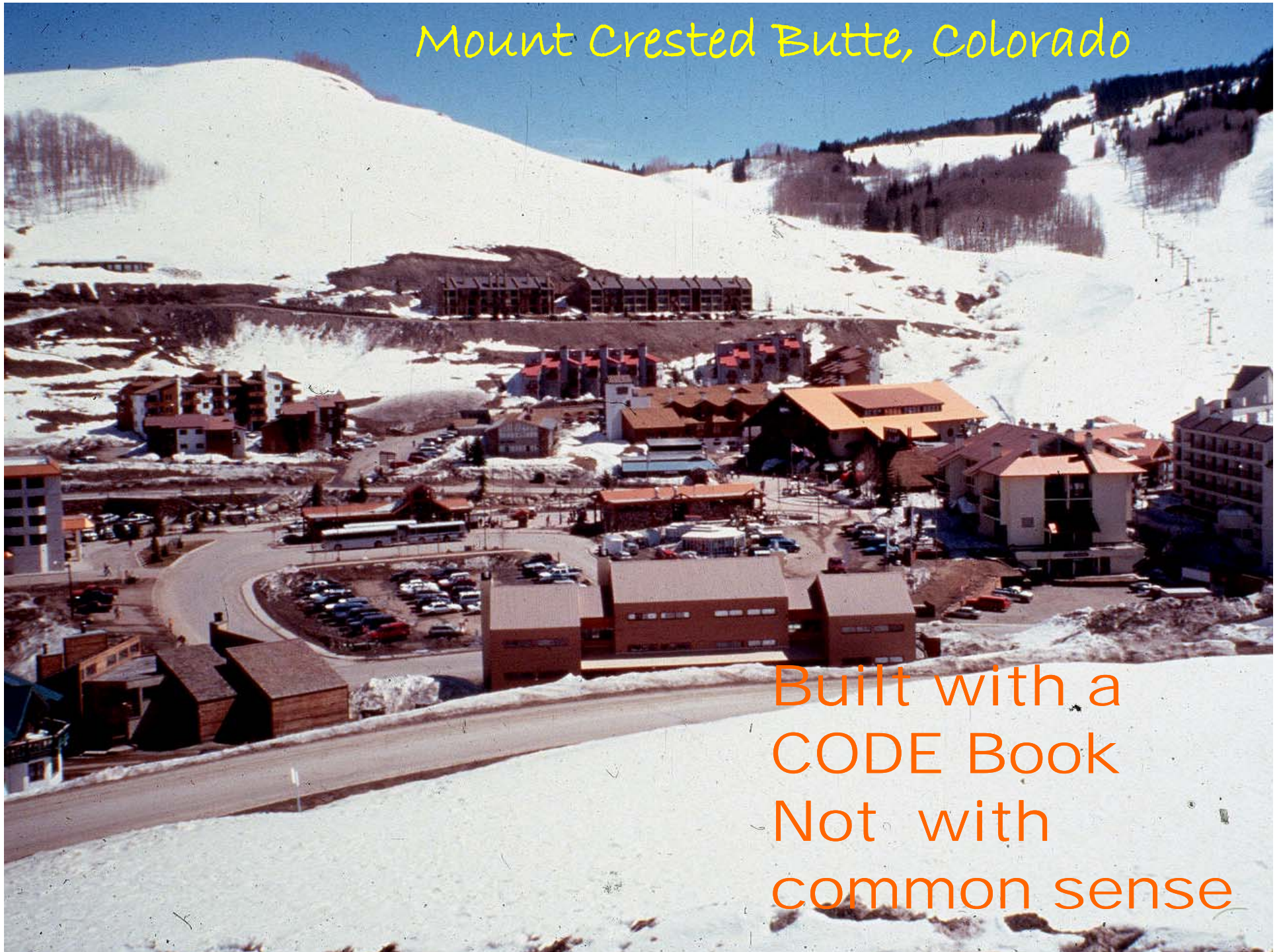
One-Quarter
Mile Radius

- 5-Minute Walk from Center
- 10 Minute Walk Across Town

Crested
Butte,
Colorado



Mount Crested Butte, Colorado



Built with a
CODE Book
Not with
common sense

Maggie







Meredith, New Hampshire





Build for Multiple Uses

Beauty

Function

Open Space

Diversity, Inclusiveness

Art/Music

Green

Friendly

Economic prosperity







Places of Discovery











The Greatest Access on Earth

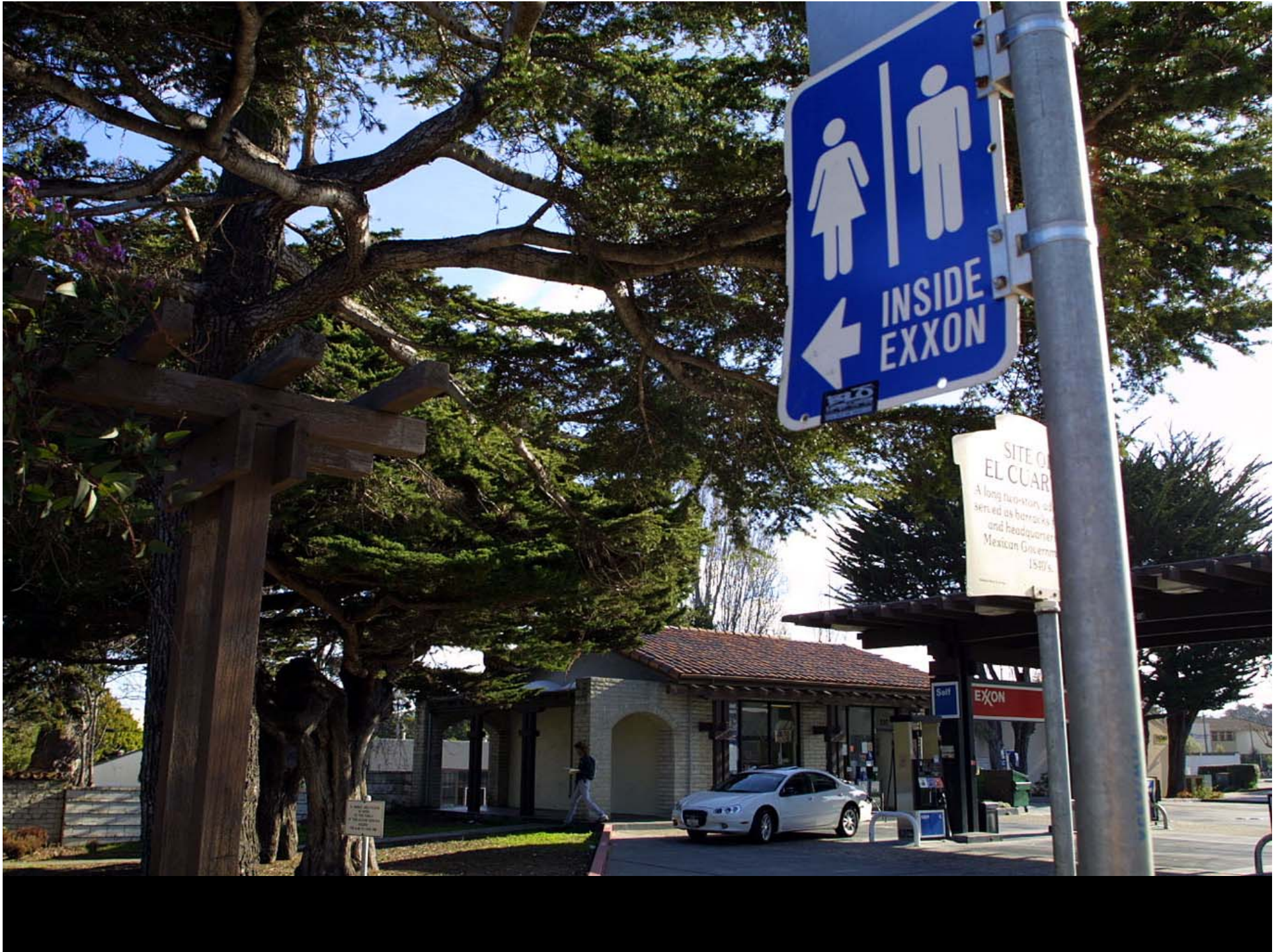




ST. JOHN'S
St. John's Episcopal Church
1000 N. 1st St., Suite 100
St. John, WI 53087
Phone: 262-768-1234
Fax: 262-768-1235
www.stjohns-wi.org
1982







INSIDE EXXON

SITE OF EL CUAR
A long two-story ad
served as barracks
and headquarters
Mexican Government
1890's

Self EXXON



Art Walk Master

Doug Rice

With

Median adopter,
Arnie

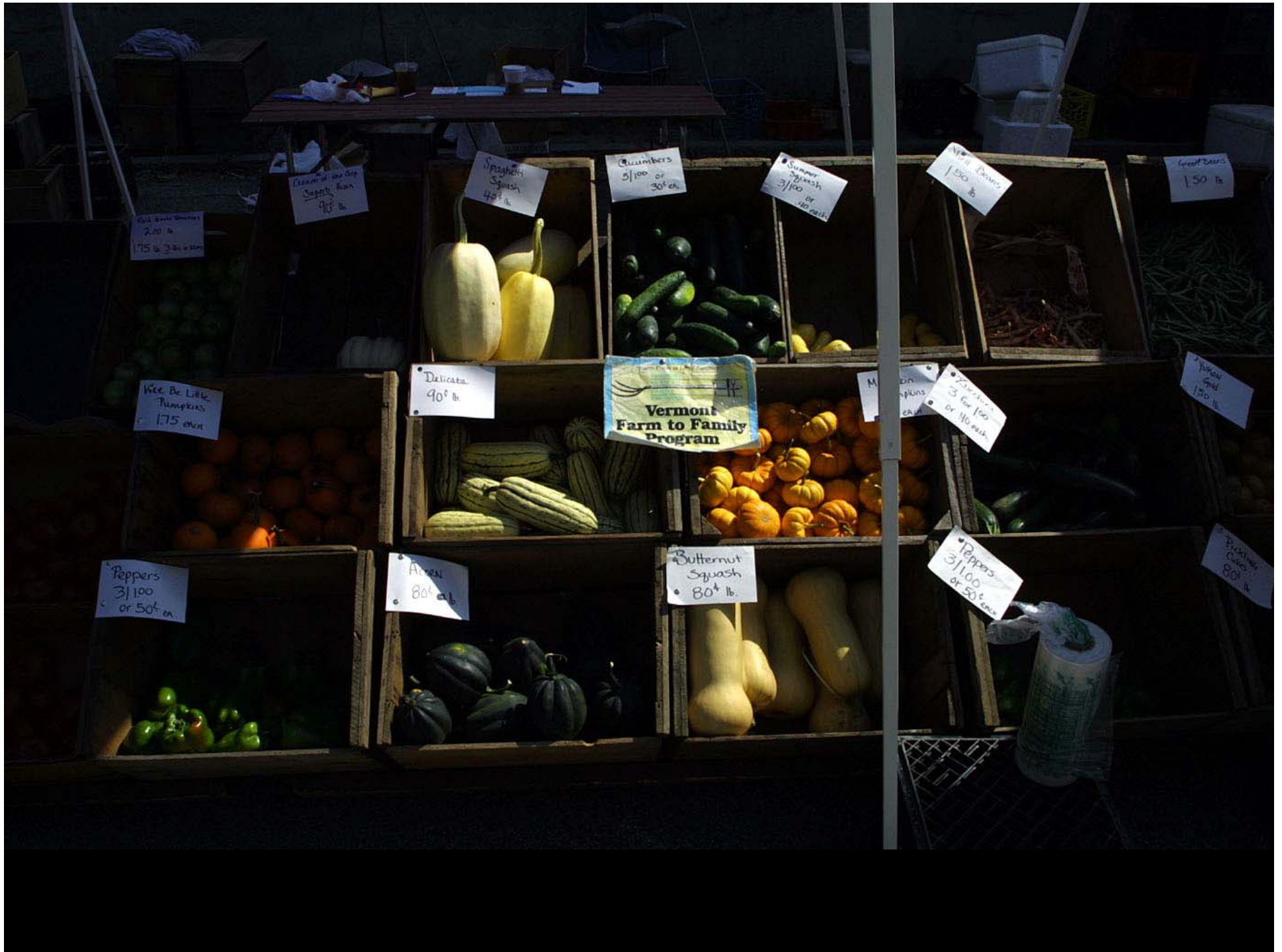












Full Size Squash
2.00 lb
1.75 lb 3 ea or 1 lb

Crabapple
Squash
90¢ lb

Spaghetti
Squash
40¢ lb

Cucumbers
5/100 or
30¢ ea

Summer
Squash
3/100
or
40¢ each

Acorn
Squash
1.50
lb

Pumpkin
Gold
1.50 lb

Wee Wee
Pumpkins
1.75 each

Delicata
40¢ lb

Vermont
Farm to Family
Program

Zucchini
3 for 100
or 1/10 each

Pumpkin
Gold
1.50 lb

Peppers
3/100
or 50¢ ea

Acorn
80¢ ea

Butternut
Squash
80¢ lb

Peppers
3/100
or 50¢ ea

Pickling
Cucos
80¢ lb



Does your girlfriend know about Alice?

Stop The War
Supporting the Global Justice, Peace and Democracy
Saturday September 27th 9:30 - 11:30
123 Main Street, Downtown
show!

9/16
Don't Sweat the Technics
Eclectic R&B
The Biltmore
Saturday Sept 16th 8:30
Also featuring
Buddhist

FRIDAY OCTOBER 4, 8PM-10PM
SPIN-SAM
FLEX PRODUCTIONS PRESENTS
Don't Sweat the Technics
Dylan Drazin (NYC)
DJ Drazin, DJ Brock (NYC)
DJ Masta (Boston)
DJ Tricky P (NYC)
DJ Patti, DJ A, DJ Nita
FRANCE, 1515 DAY OF SHOW
HIGHER GROUND

AIDSWALK VERMONT
Take Alice to school

geltman
Friday Sept 14th 8pm
14th \$6

HARD JULIAN
Friday Sept 14th 8pm
14th \$8

FRIDAY OCTOBER 4, 8PM-10PM
FLEX PRODUCTIONS PRESENTS
Don't Sweat the Technics
Dylan Drazin (NYC)
DJ Brock (NYC)
DJ Masta (Boston)
DJ Tricky P (NYC)
DJ Patti, DJ A, DJ Nita
FRANCE, 1515 DAY OF SHOW
HIGHER GROUND

Risky Business
September 20th to 27th

PROJECT OBJECT
with IKE WILLIS and NAPOLEON MURPHY BROCK
PERFORMING THE MUSIC OF ZAPPA
with special guests DEEP SOULS
THURS SEPT 19 - HIGHER GROUND

ALZHEIMER'S ASSOCIATION MEMORY WALK
Taking steps to end Alzheimer's
Call abo: Come walk near you!
(800) 696-1022

GARAJ MAHAL
WEDNESDAY SEPTEMBER 18

GARAJ MAHAL
WEDNESDAY SEPTEMBER 18

taste
FALL LEAGUE 20 Tuesdays 9:30

SMOKERS NEEDED

Does your boyfriend know about Alice?

Risky Business
September 20th to 27th

BURN'T BY THE SUN
HYMN FROM ABOVE
THE AUTOMATA
DOWNSLIDE

LEGENDARY PERCUSSIONIST CYRO BATTISTA
WEDNESDAY SEPT 20 - HIGHER GROUND

Does your boss know about Alice?

Tuck & Patti
Sunday September 17
Higher Ground

CLUB METRONOME
WEDNESDAY SEPTEMBER 18

CLUB METRONOME
WEDNESDAY SEPTEMBER 18

SH
SATURDAY - SEPTEMBER 21 - 10:00 - 1:00

Does your boss know about Alice?

It's okay to take Alice to bed

BUSH
www.dop.com
SIMON
the gr





Wayfinding











What is "Place?"



Thornton,
Colorado

Littleton, New Hampshire



MUSIC

VILLAGE BOOK STORE

BOOKS

VILLAGE BOOK STORE





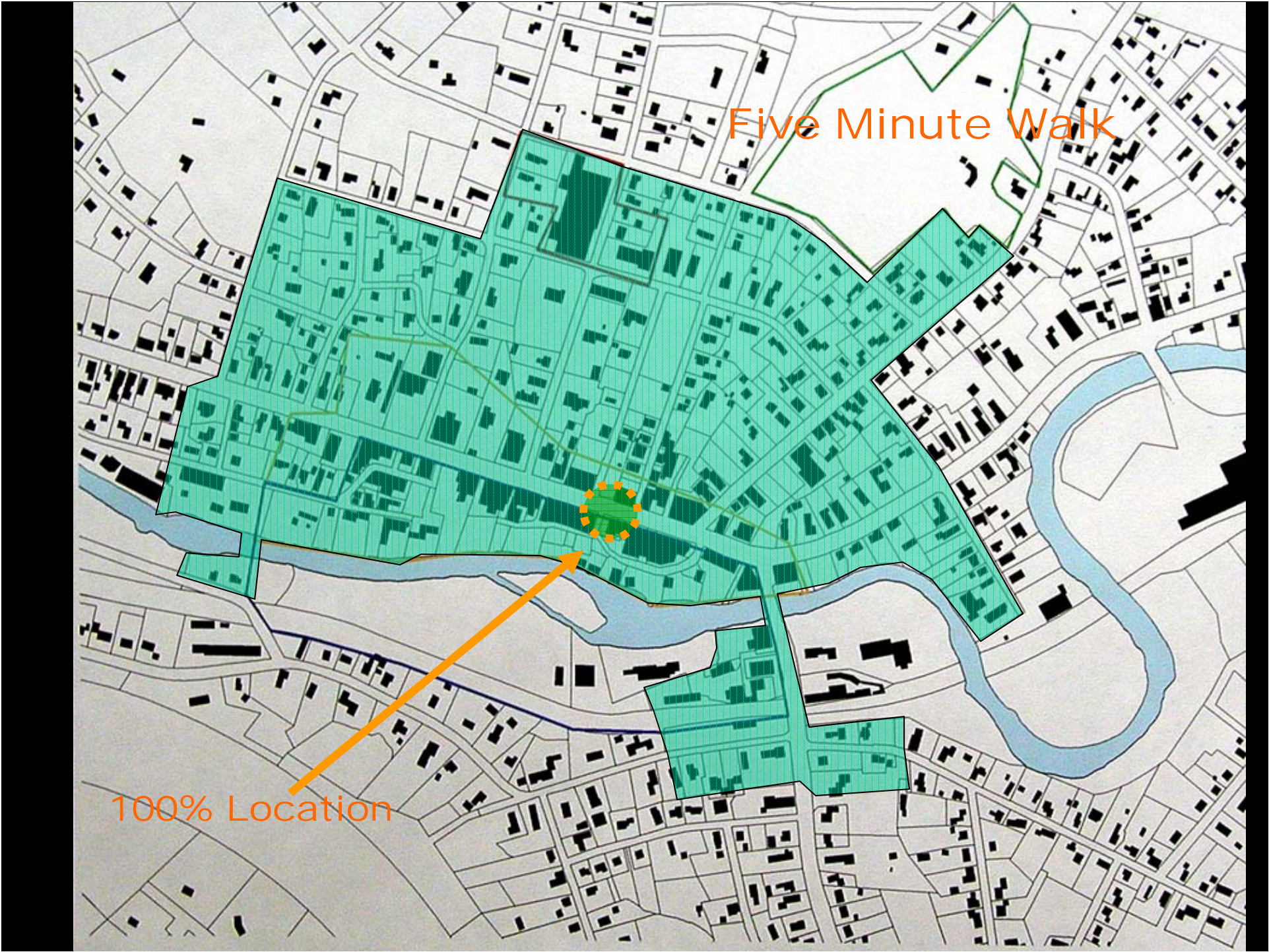




100% Location

Five Minute Walk

100% Location



A map of a river area with a teal-colored highlighted region. Three green circular zones with orange dashed borders are marked: one in the upper right, one in the center, and one in the lower center. A yellow arrow points from the center zone to the upper right zone, and another yellow arrow points from the center zone to the lower center zone. An orange arrow points from the text '100% Location' to the center zone. A yellow box in the bottom right contains a list of project features.

100% Location

- Bridge
- Appropriate Technology Lift
- Visual Treats
- Activity Center



Levels of Quality

SIDEWALK CAPACITY

Highway Capacity Manual - Page 13-12



LOS A



LOS B



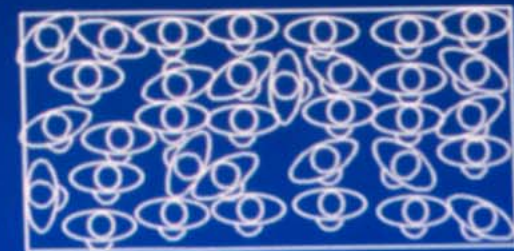
LOS C



LOS D



LOS E



LOS F

Level of
Service

A



Level of
Service

F

The Ramblas,
Barcelona, Spain

Level of
Quality

A



Streets are our primary public space

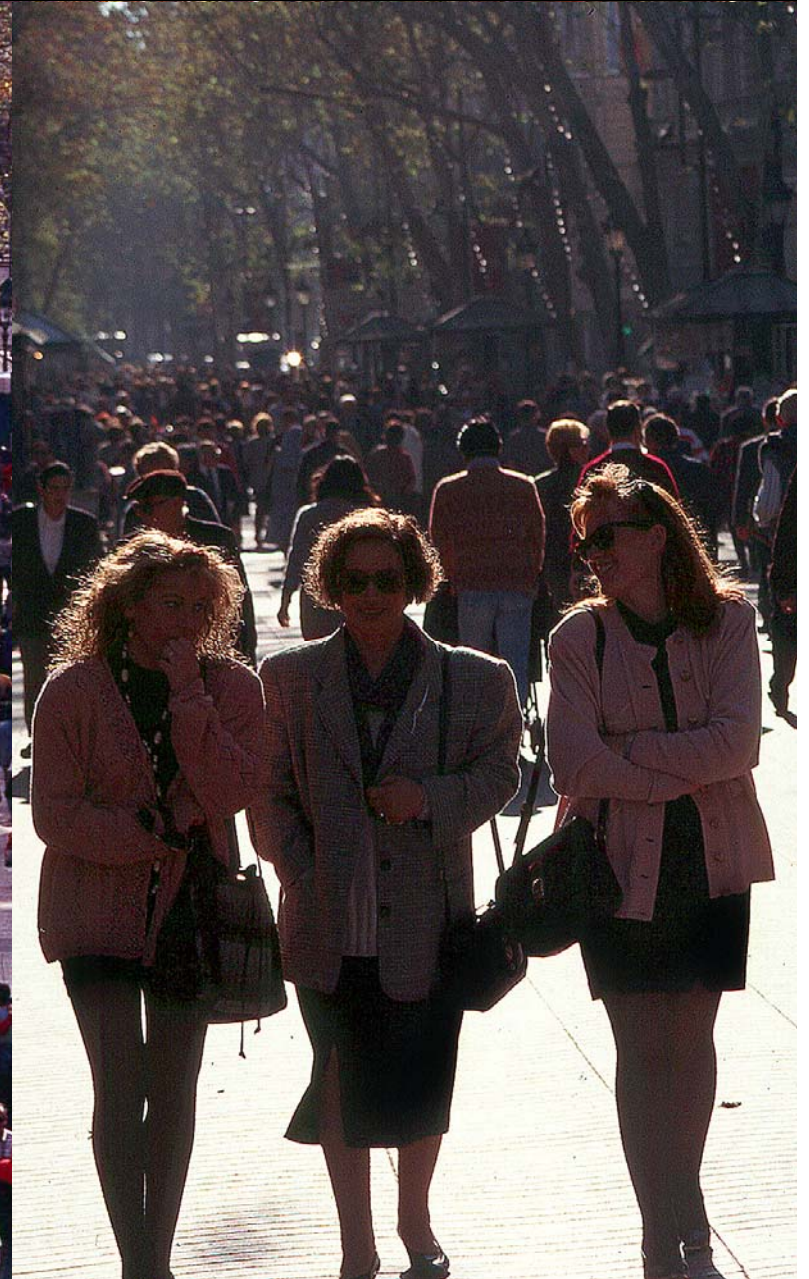
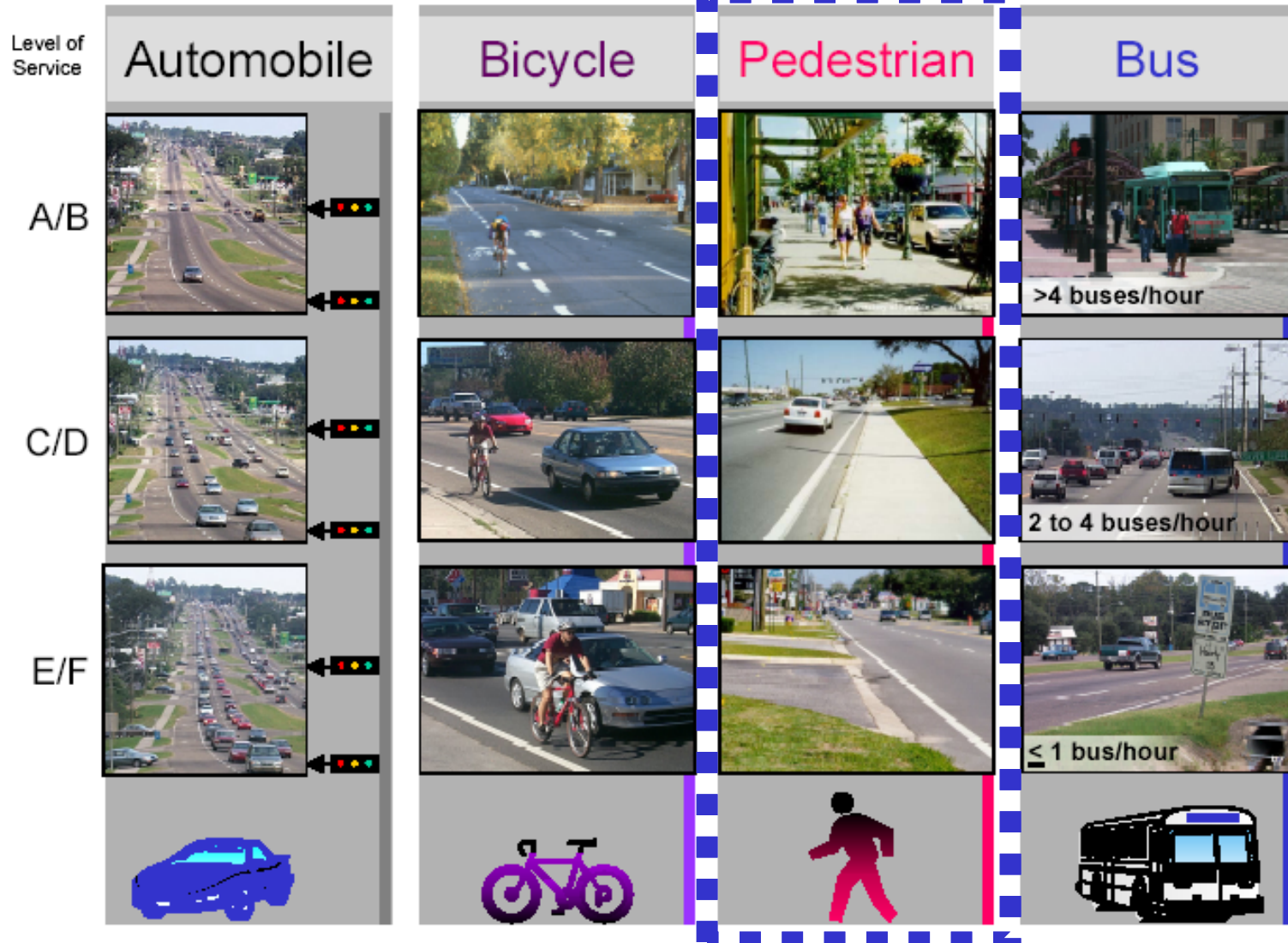


Figure 1 - 2
EXAMPLES OF LEVEL OF SERVICE BY MODE FOR URBAN ROADWAYS



Walking -- Levels of Quality

A

B

C

D

E

F

Sidewalks

Exemplary

Excellent

Good

Fair

Poor

Hall of Shame

Walkability increases with added width, buffers to the street, many eyes on the walk, attractive edges. Five-foot minimum widths are needed. Conditions improve as numbers of driveways are reduced, or set back. Non-mountable curbing is important.



Main Streets

Main Street walks should be wide, attractive, with many shops and residential units watching over the street. Many activities are needed to keep sidewalks in use many hours a day. Good lighting and street furniture are essential. Maintenance is key.



Local Streets

Local streets should be narrow, well landscaped, with on-street parking to act as sidewalk buffers. Driving speeds of 15-20 mph are best. 20-25 are acceptable. Homes should be proximate to the street.



Avenue/Boulevard

Avenues and boulevard sidewalks should be 5-6 feet wide in most applications. Planter strips and bike lanes create essential separation from motorists. Trees, other landscaping, medians help slow motorists. Lanes can be as narrow as 10 feet.



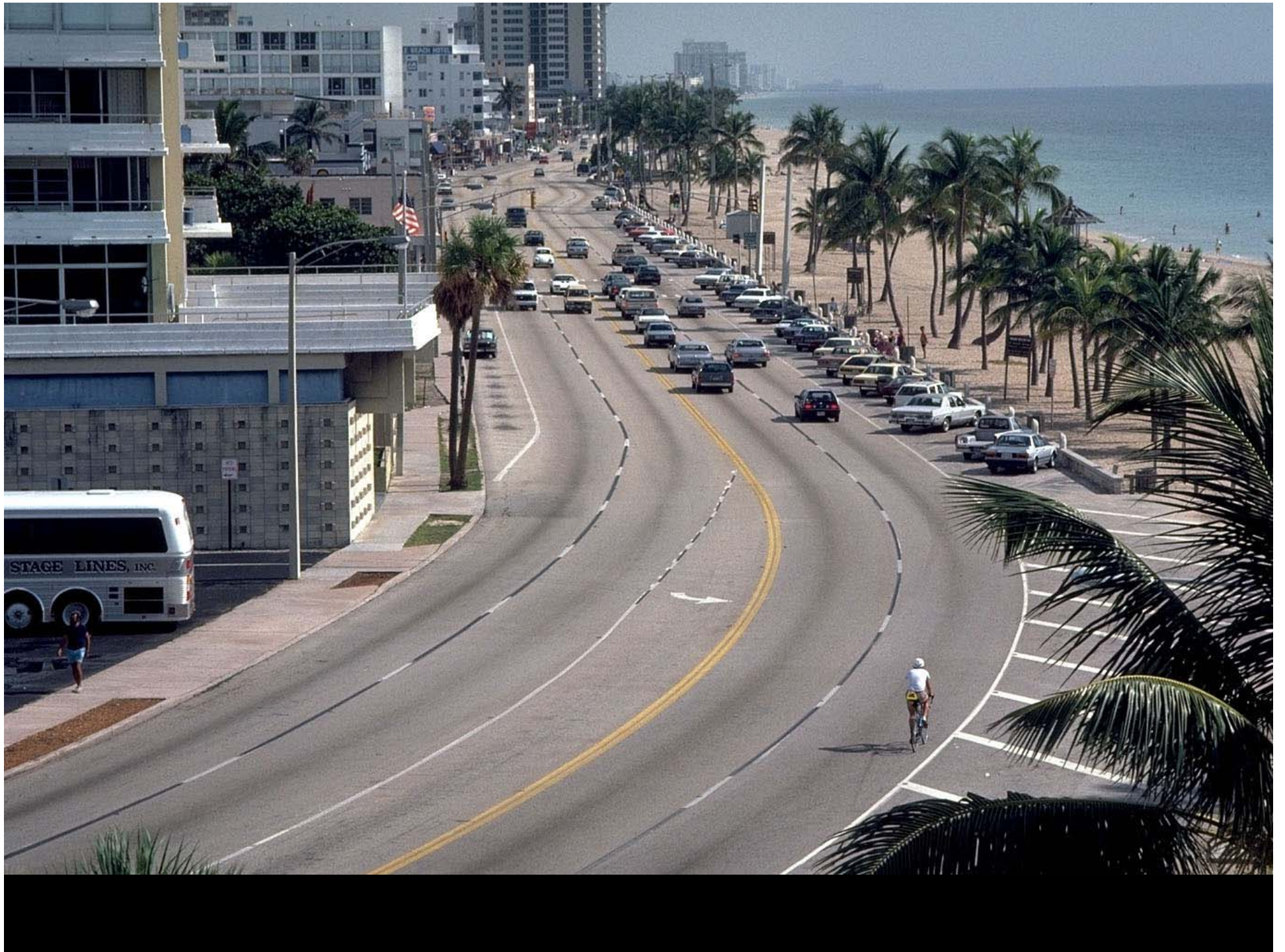
Crossings

Crossings should be well marked, accentuated by curb extensions. On multi-lane boulevards it is essential to have exceptionally well marked crossings. In some cases signals are warranted.





Washington, DC





U.S. A-1-A, Ft Lauderdale, Florida



After

LOS
B to F

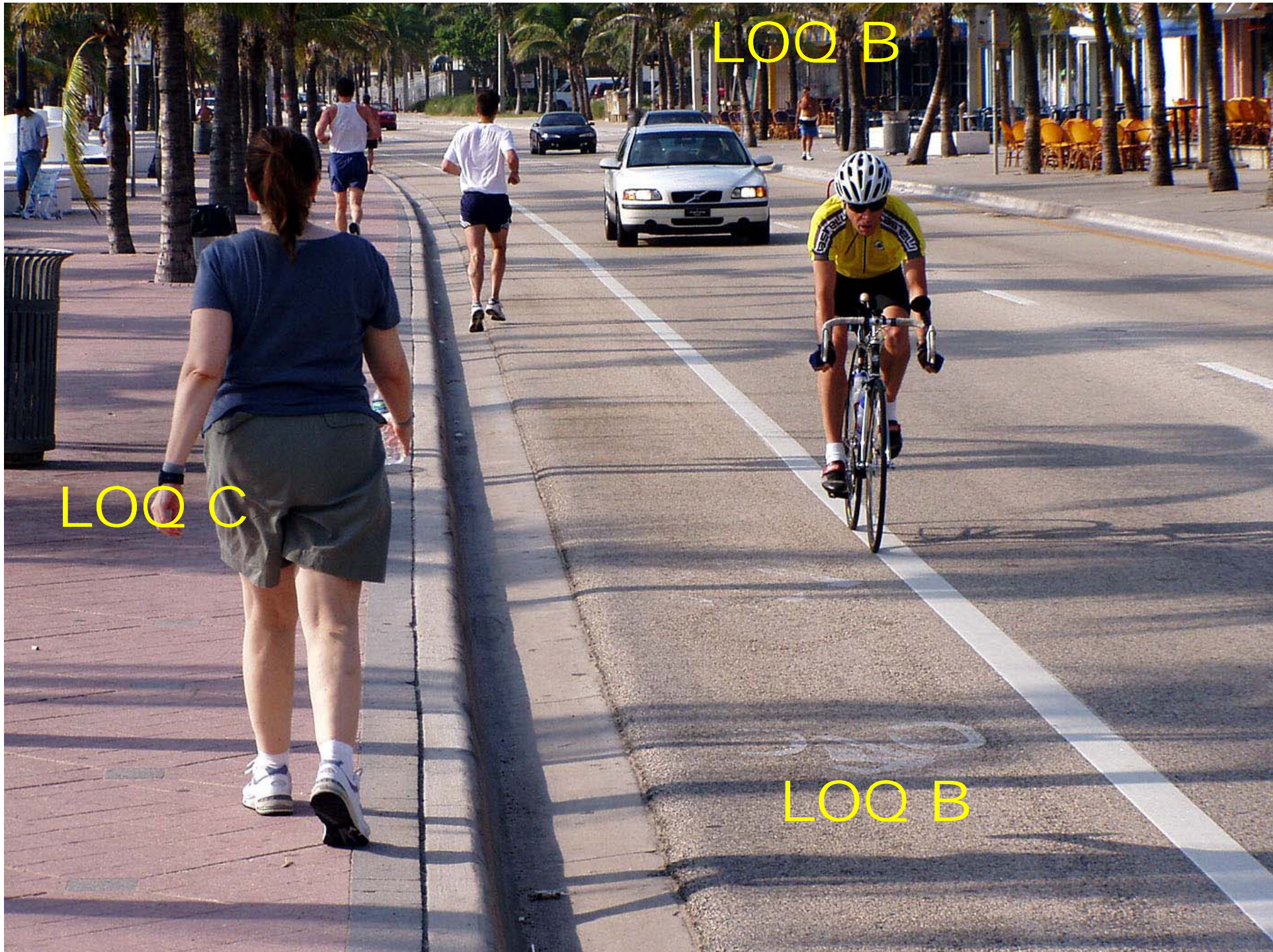
LOQ B

LOQ A to B

U.S. A-1-A Ft Lauderdale, Florida



LOQ D



LOQ B

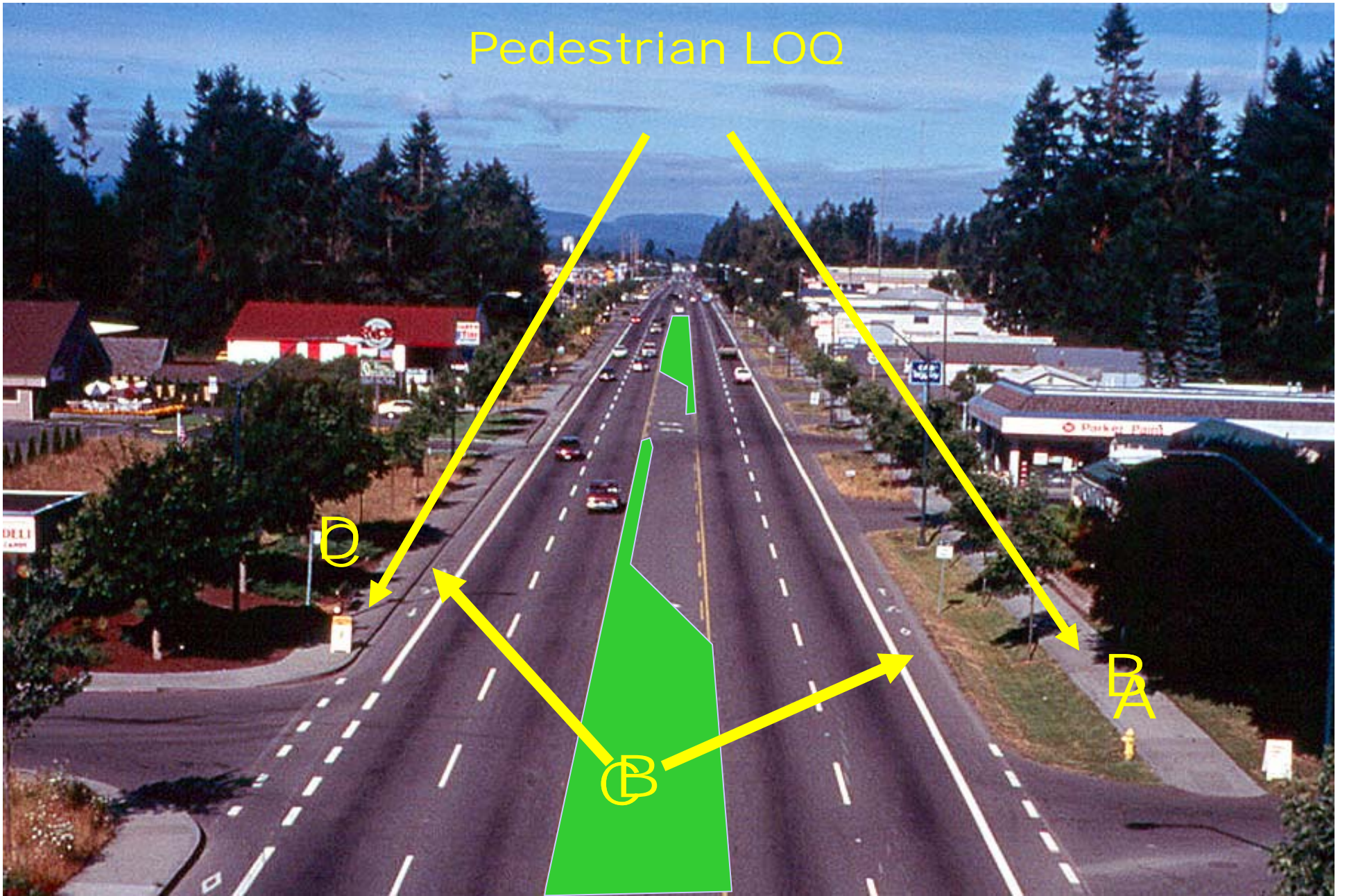
LOQ C

LOQ B



After

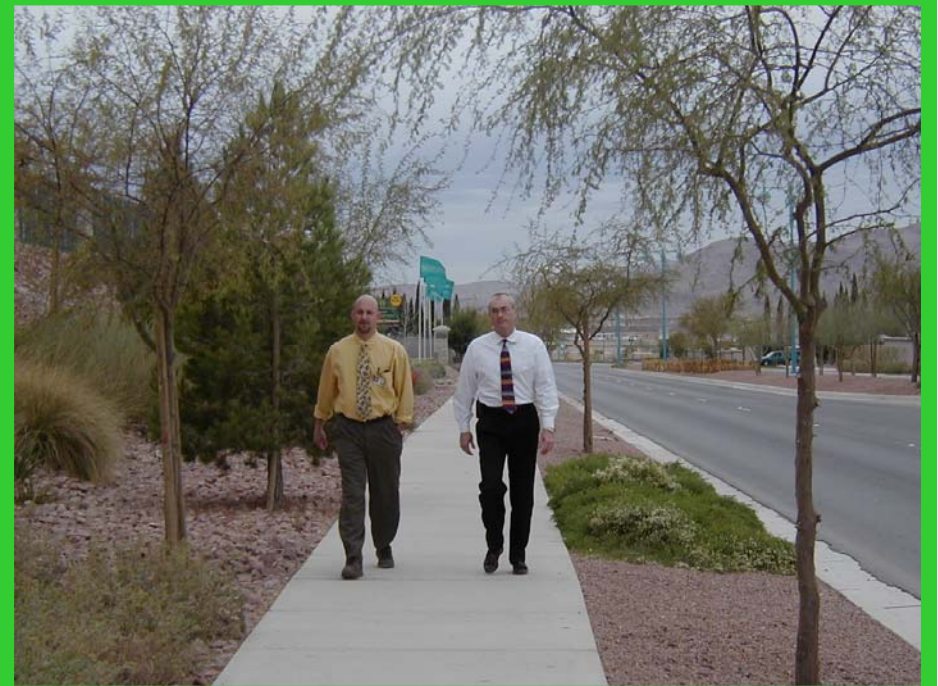
Pedestrian LOQ



Bicyclist LOQ

We all have choices

People report that they would not walk in the lower photo unless forced to by circumstance



People say they choose to walk in the above setting

← LOQ D

↑ LOQ B



Which Makes More Money?







Parking

Terminating Vista

Trees

Sidewalk

PALM

SPEED
LIMIT
25

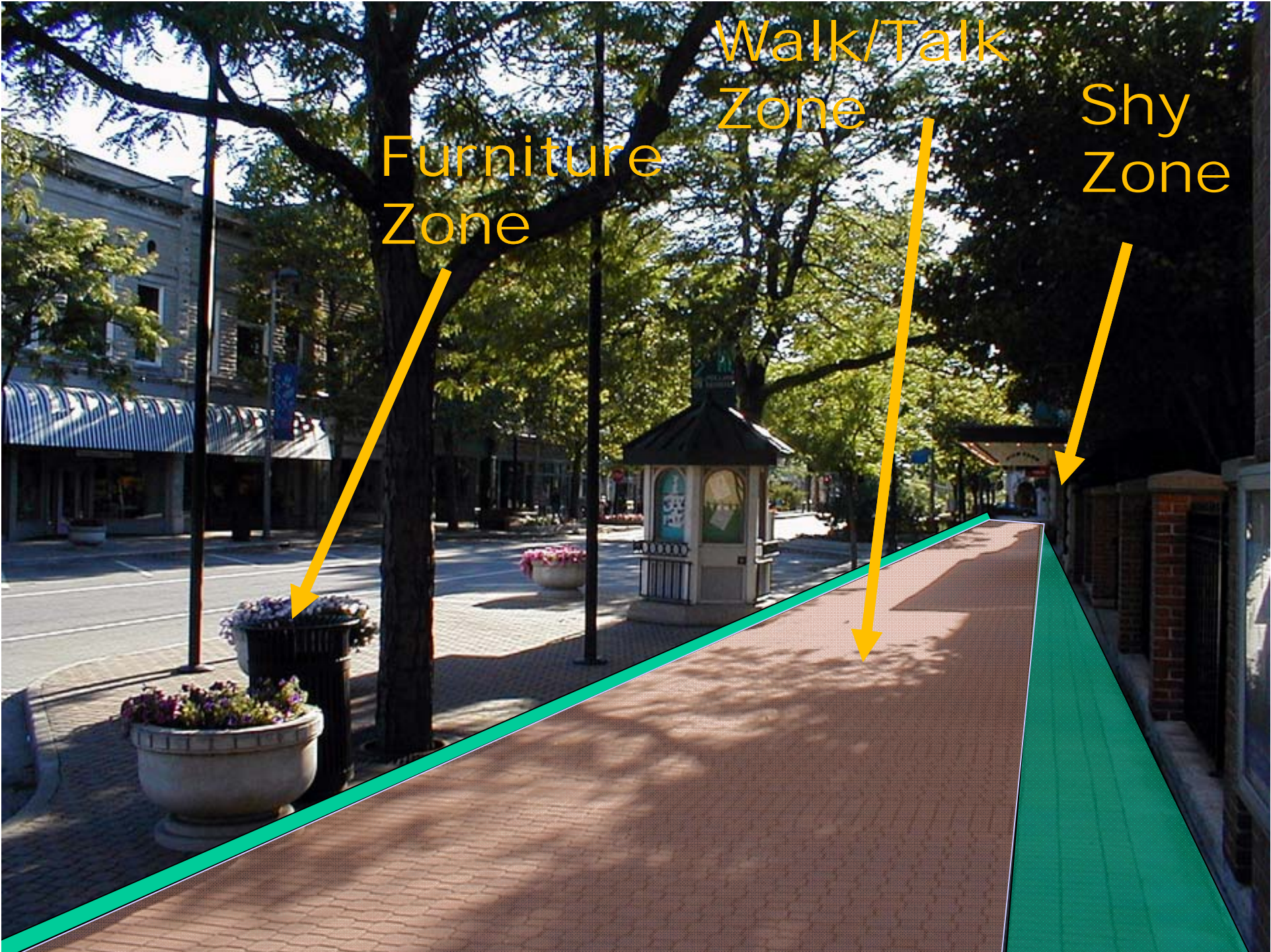
Drainage

Travel
Lanes

Drainage

Drainage

Crosswalk



Furniture
Zone

Walk/Talk
Zone

Shy
Zone

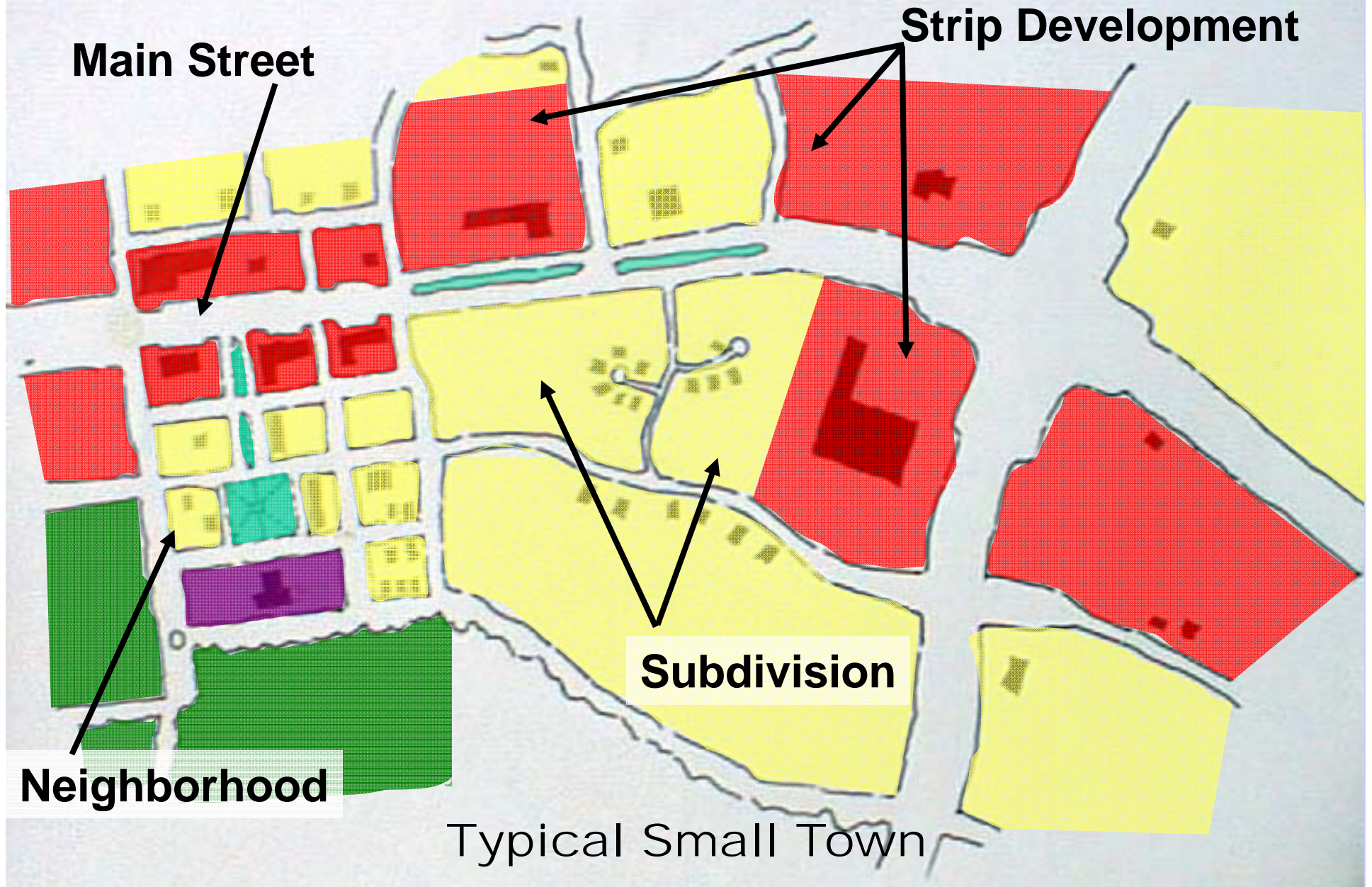
MAIN STREET DEVELOPMENT



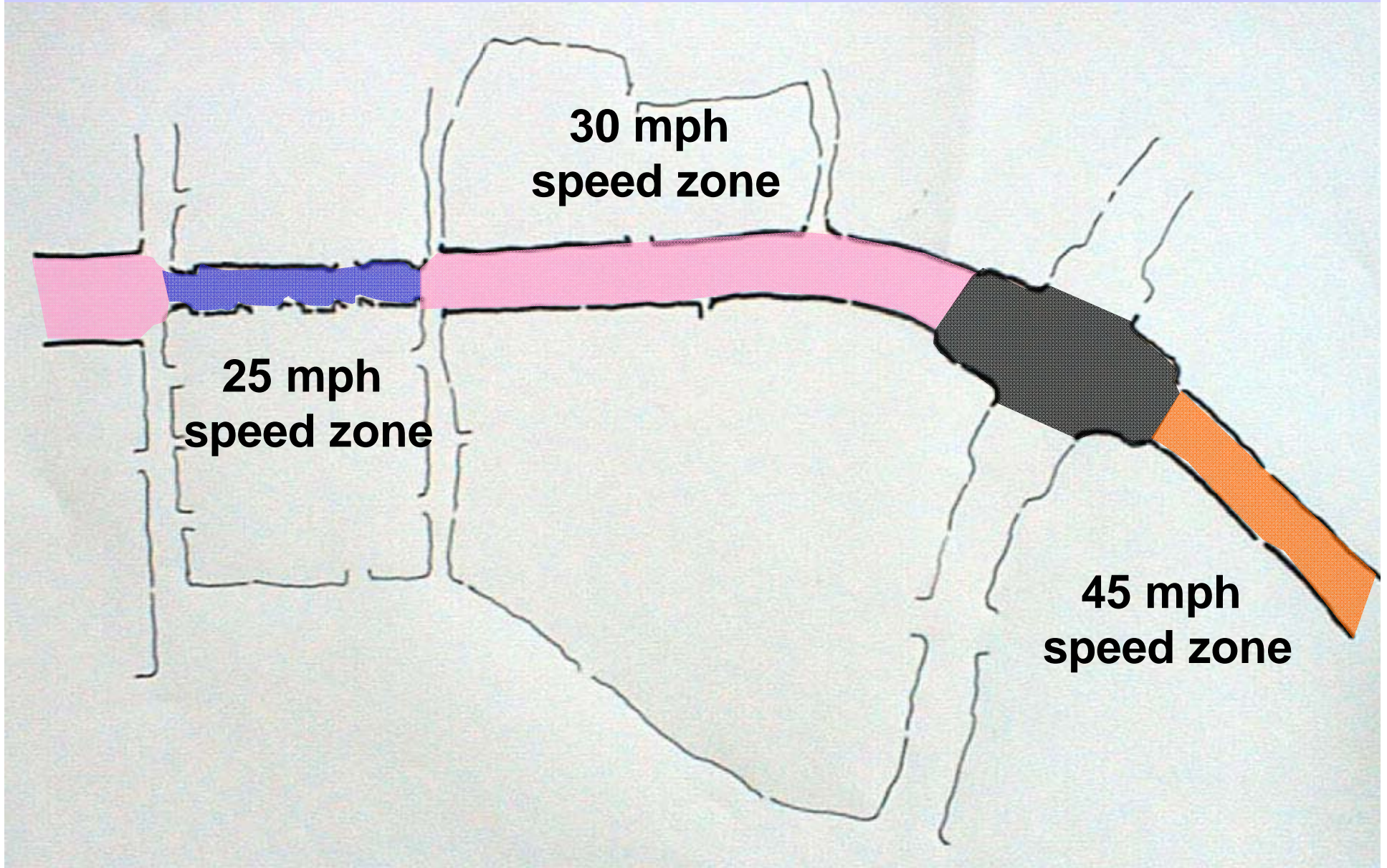
Typical Small
Town

Neighborhood

MAIN STREET DEVELOPMENT



MAIN STREET DEVELOPMENT



Typical Small Town

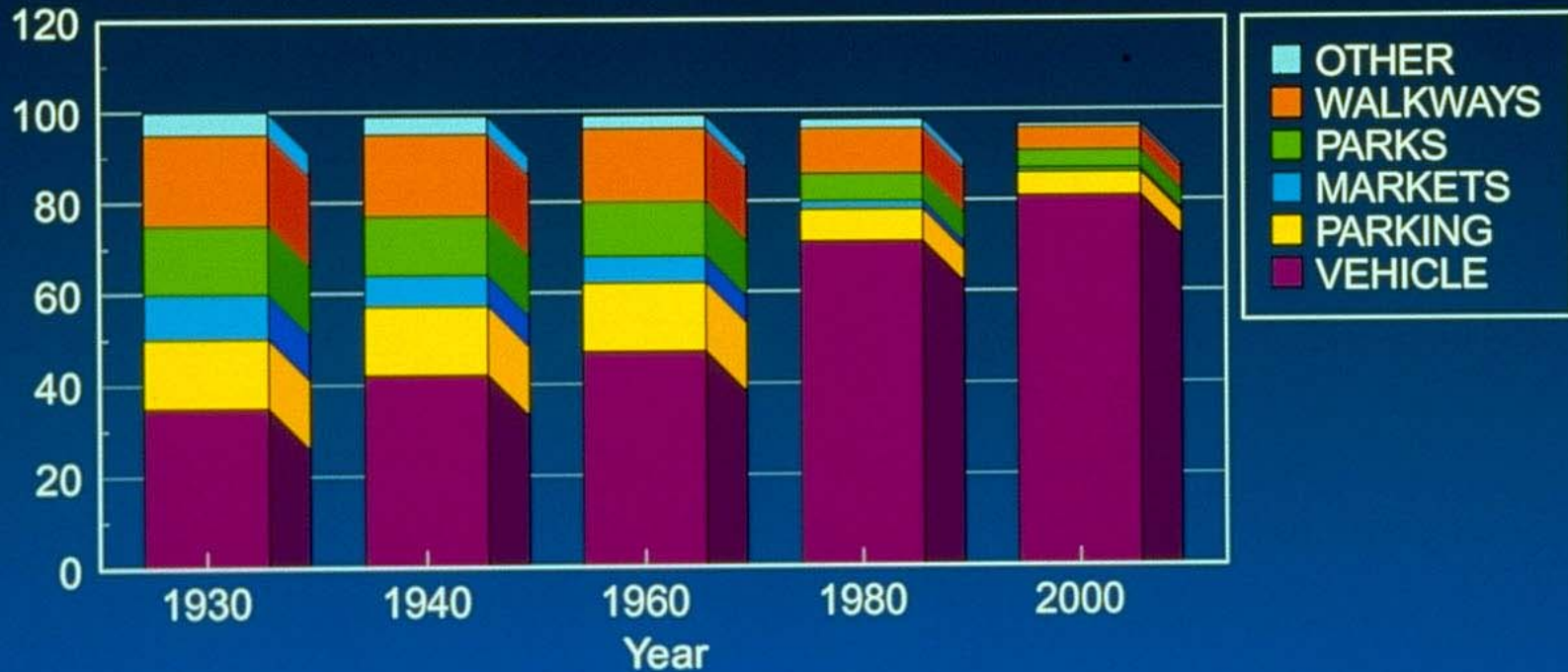
7

Public
space

DWINDLING PUBLIC SPACE

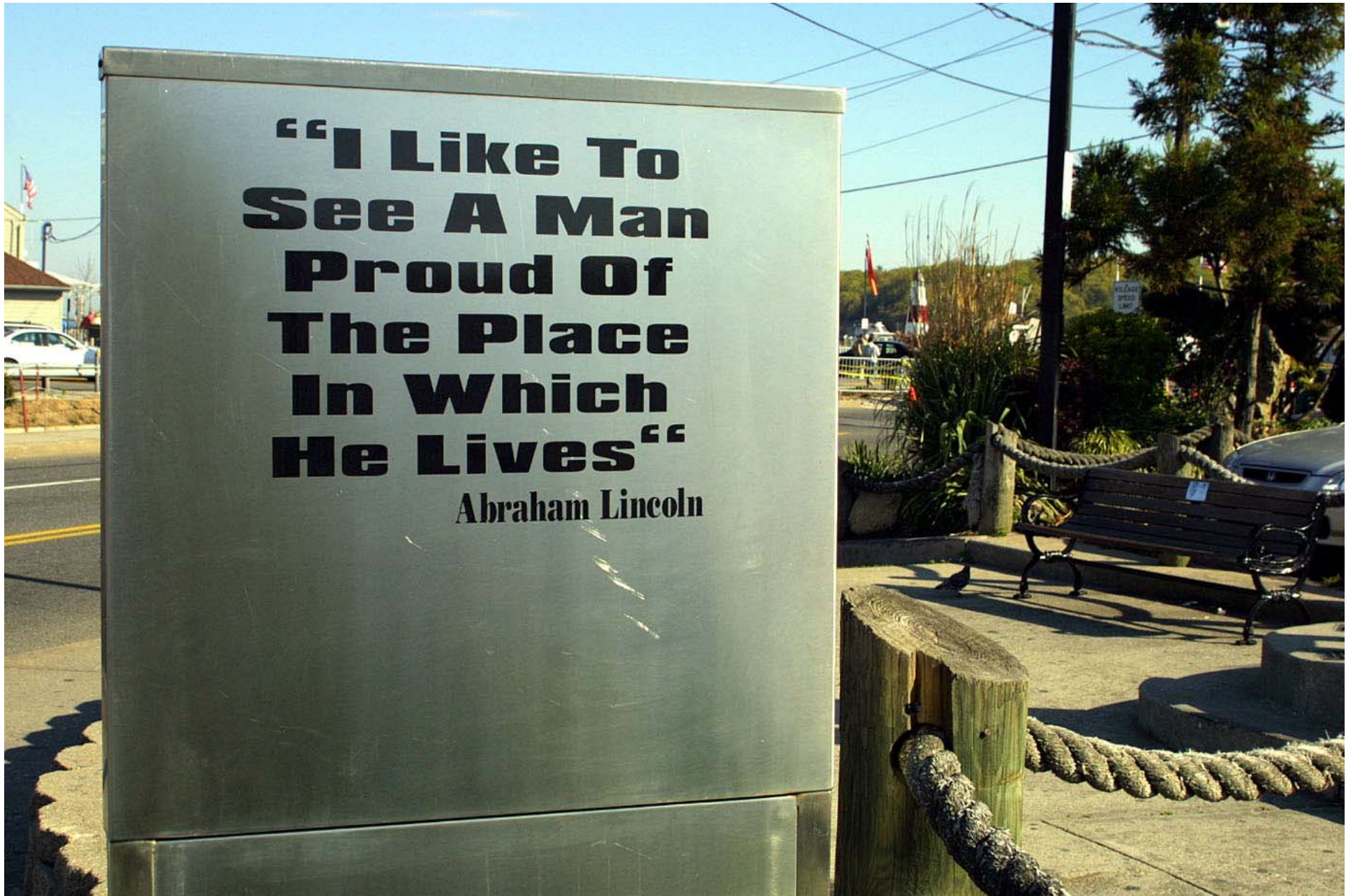
Downtown and main street trends

Percent of available public space



**“I Like To
See A Man
Proud Of
The Place
In Which
He Lives”**

Abraham Lincoln





















UNLIMITED LENSES

SNOW
EMERGENCY
ROUTE

YIN YANKEE CAFE

AMERICAN/ASIAN CUISINE
SUSHI

SUNGLASSES

OPEN

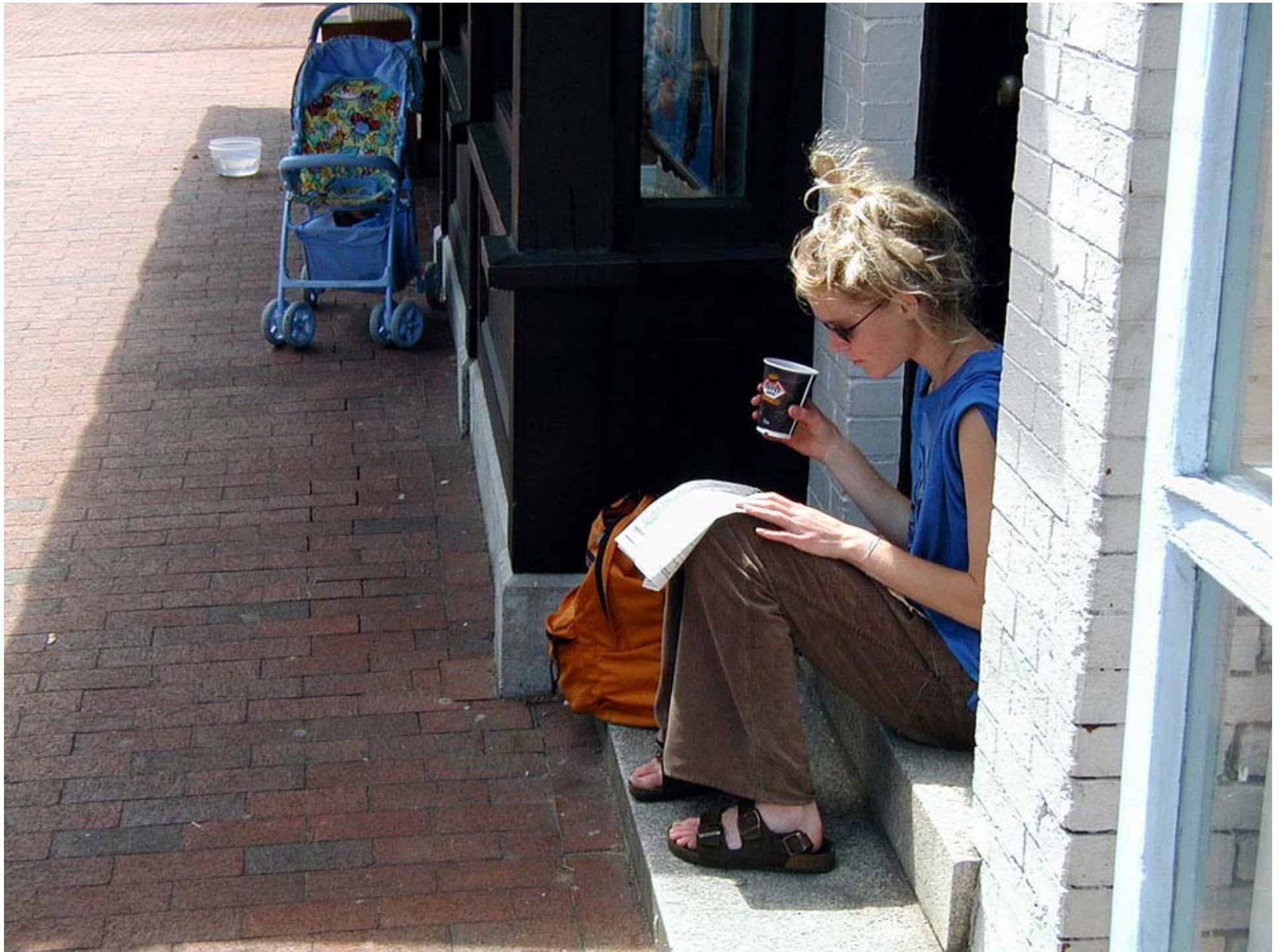
SPECIAL
\$5.00

Fit to a Tee











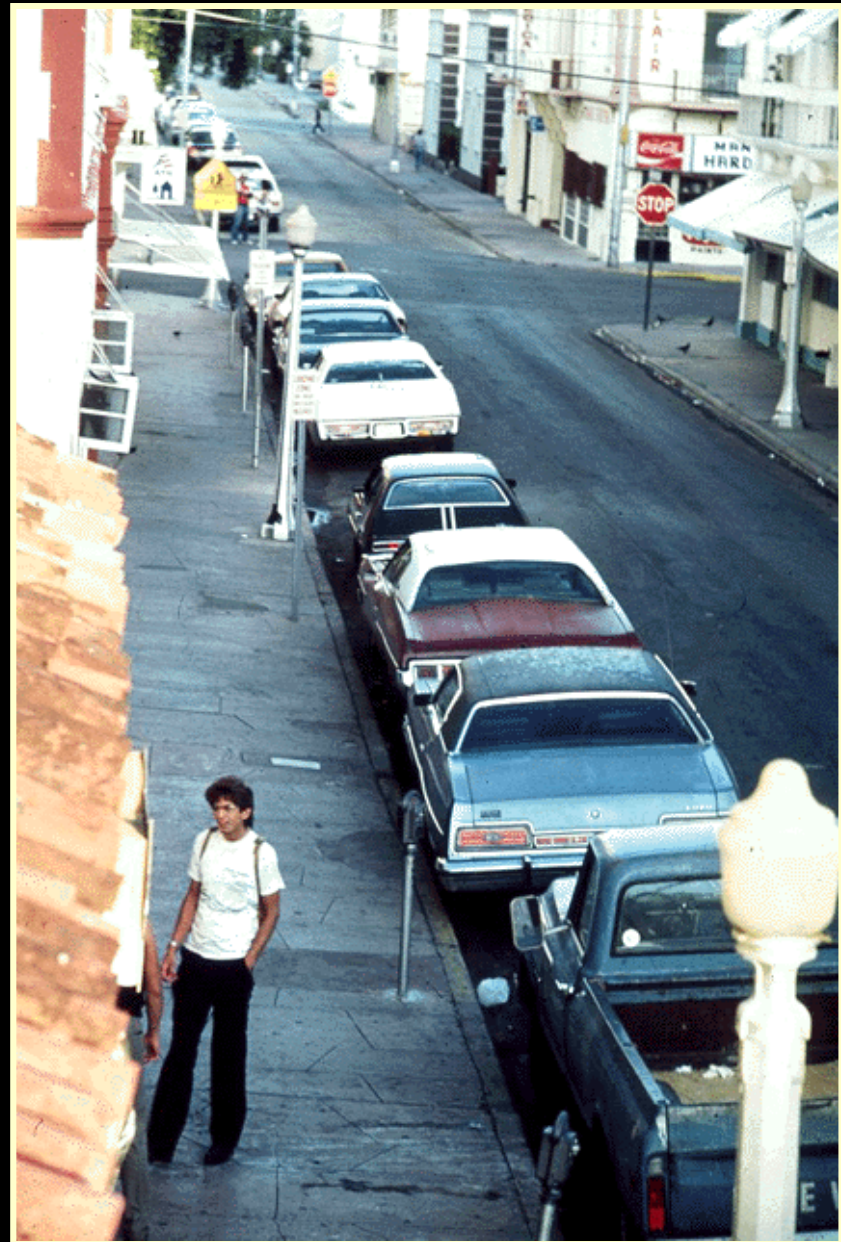


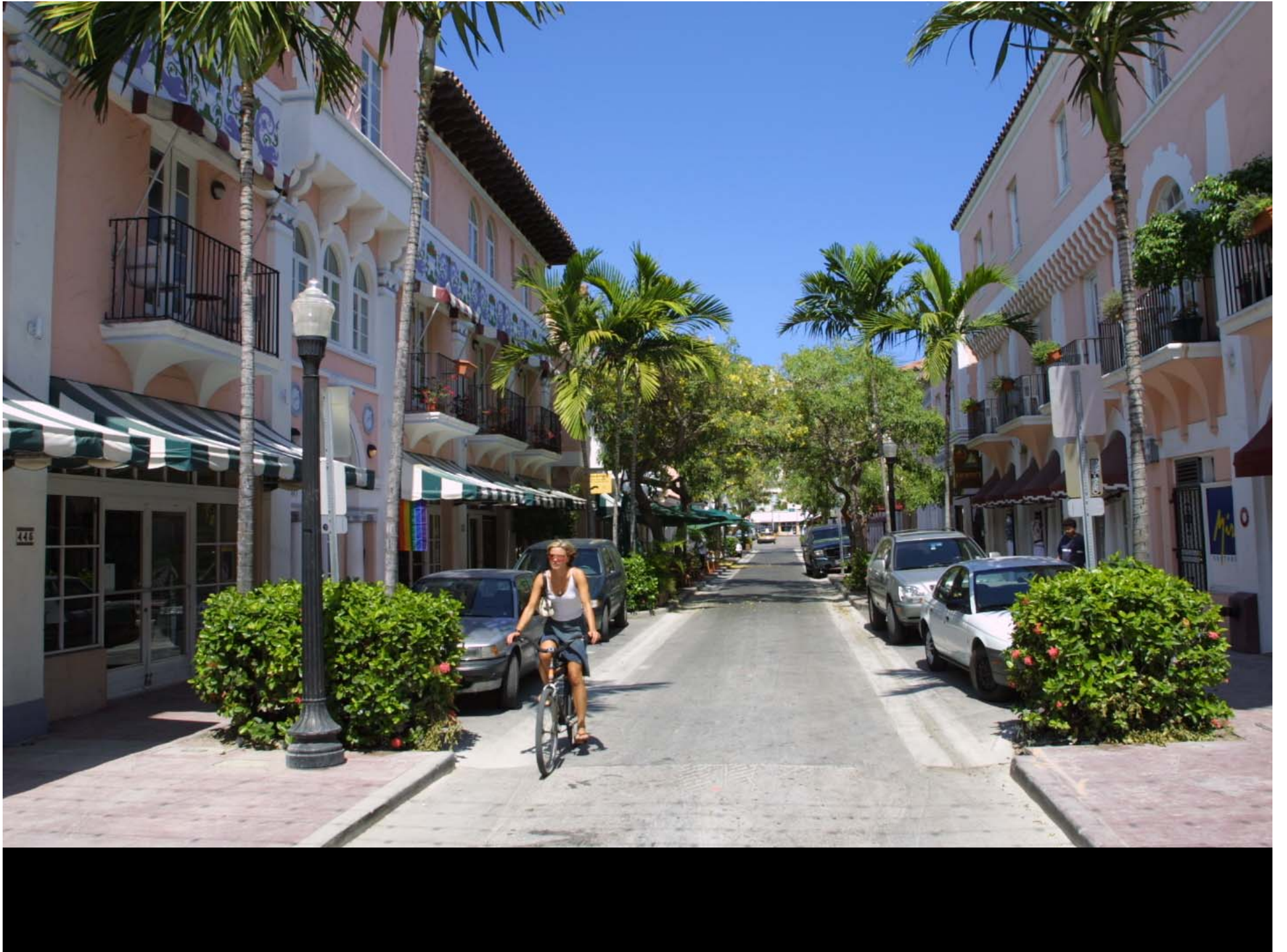






Before and After







ROAD
CLOSED

SIDEWALK
CLOSED

ROAD
CLOSED

3D
DESIGN

Vertical banner text

Street sign: PLACE

- One lane main street
- Diagonal parking
- Heated sidewalks
- Urban infill
- Traditional Villages

Holland, Michigan







Lakeshore Road (SR 5), Hamburg, NY

Gig Harbor, Washington



Bridgeport Way, University Place, Washington













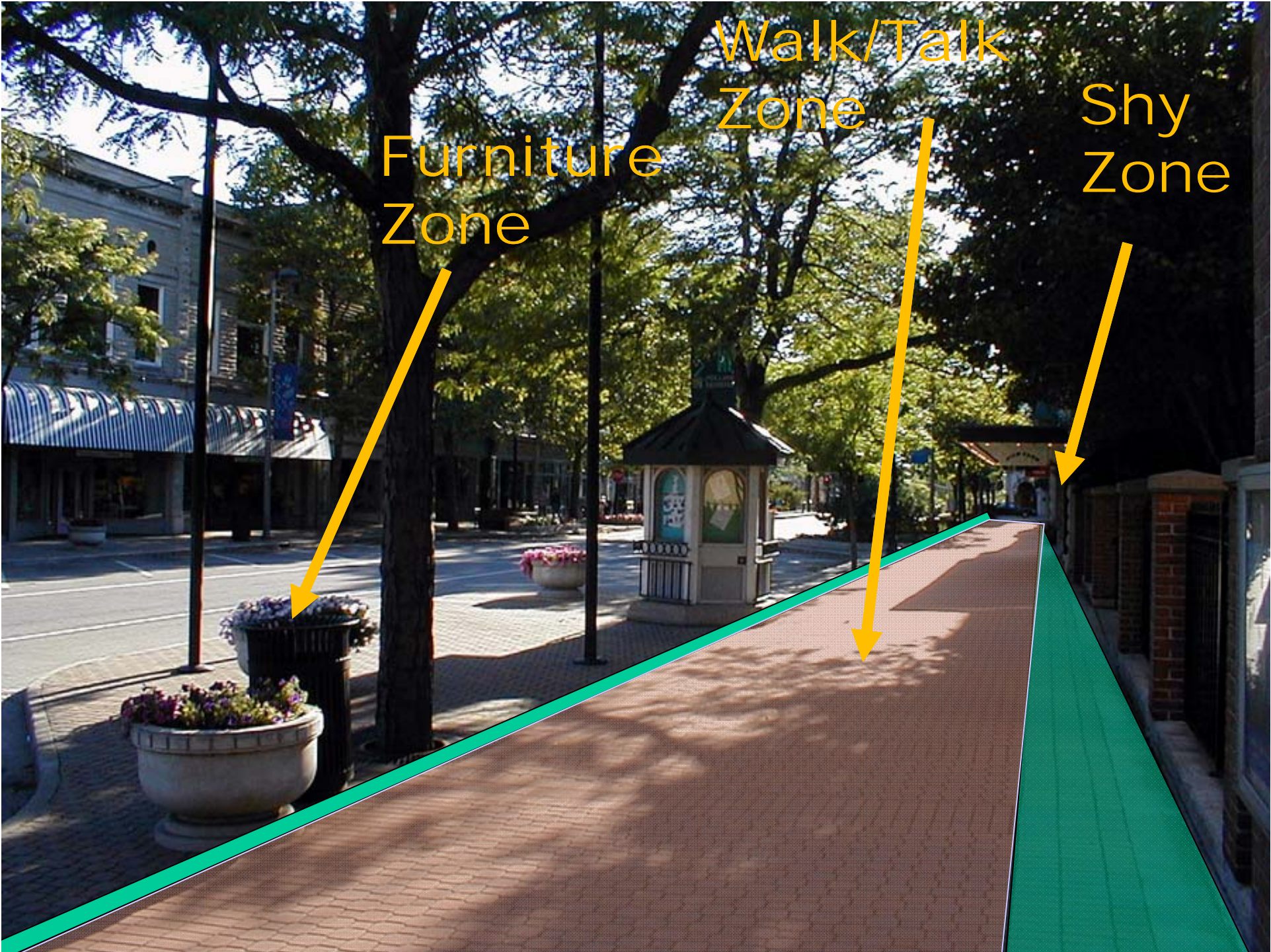












Furniture Zone

Walk/Talk Zone

Shy Zone

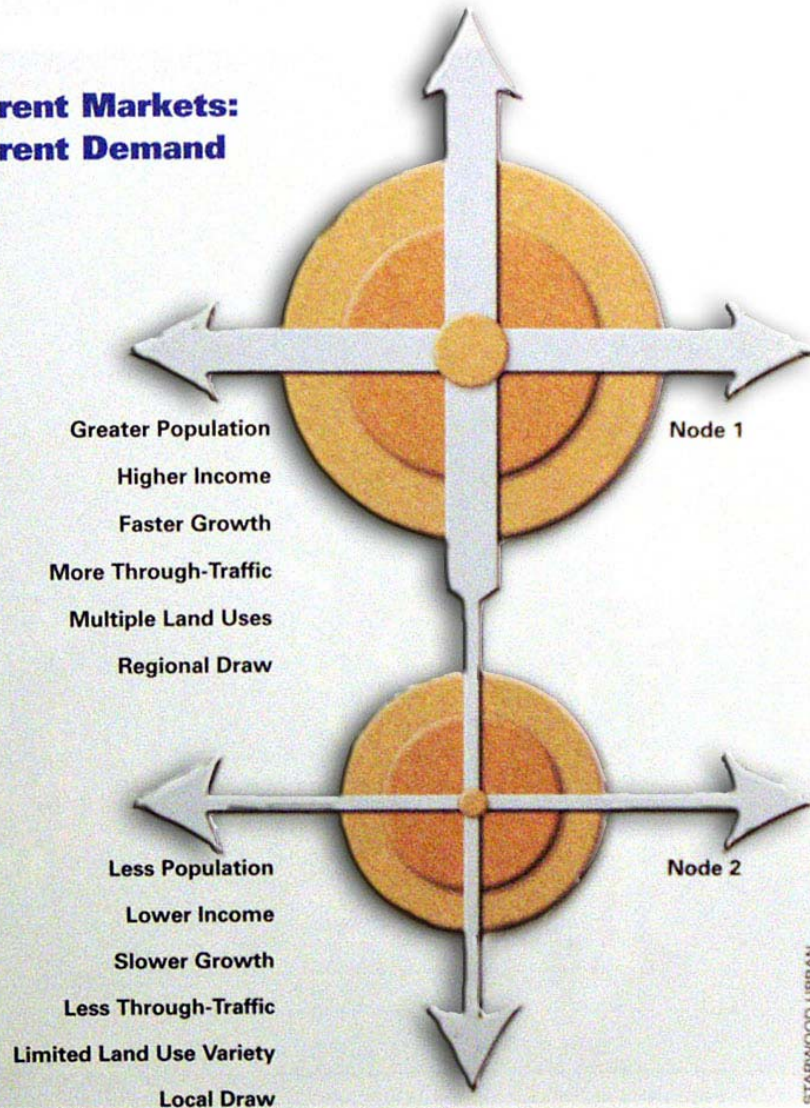






Build
Villages
Not
Strips

Different Markets: Different Demand



Town Center

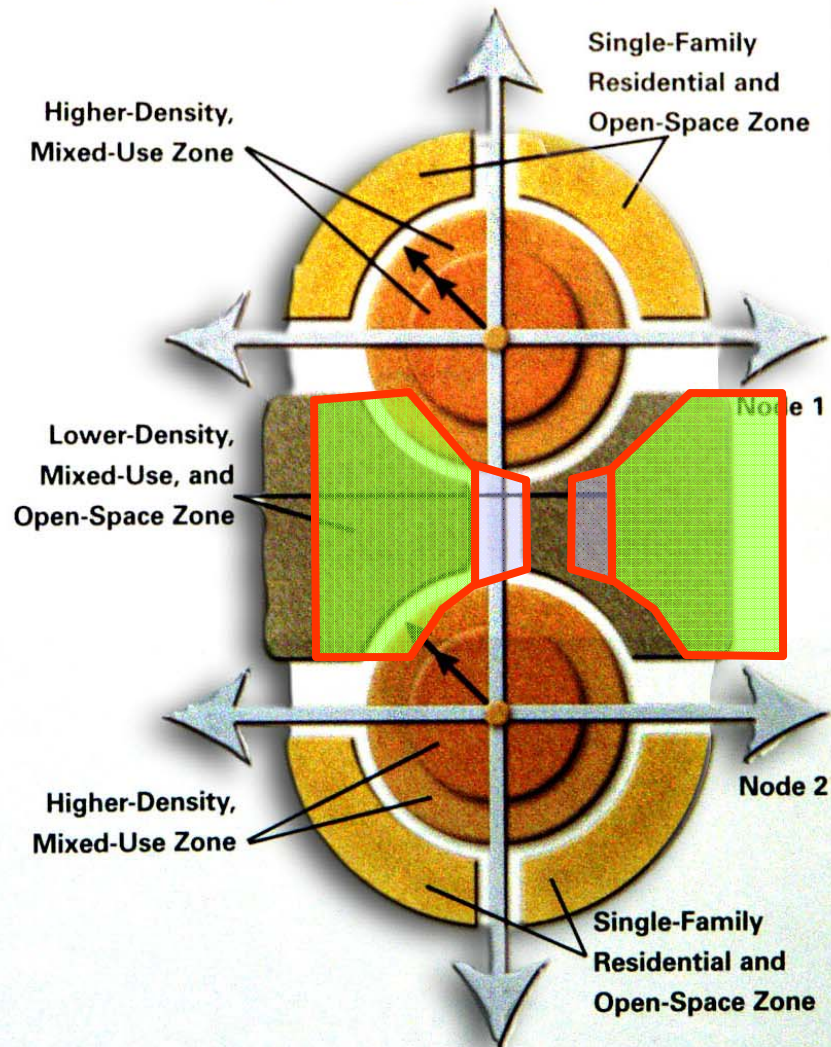
1. Boulevards permitted
2. 2-3 civic buildings
3. Plazas each 1/8th mile
4. Mixed income housing
5. 40,000 sq ft commercial buildings
6. Residential 16-40 du/a
7. Multi-family residential
8. Parking structures permitted

Hamlet Center

1. Avenues
2. 1-2 civic buildings
3. Plaza each 1/8th mile
4. Affordable housing
5. 20,000 sq ft commercial buildings
6. Residential 11-16 du/a
7. Single family cottage/garden
8. Parking on street, and shared

Develop Village Centers

Create Variety Along the Strip



1. Enterprise Zones are established
2. Land is set aside for town or hamlet centers
3. Land swaps are made for buffers between villages
4. Buffer areas are developed with public space and appropriate lighter density settlement

Development Pulsing

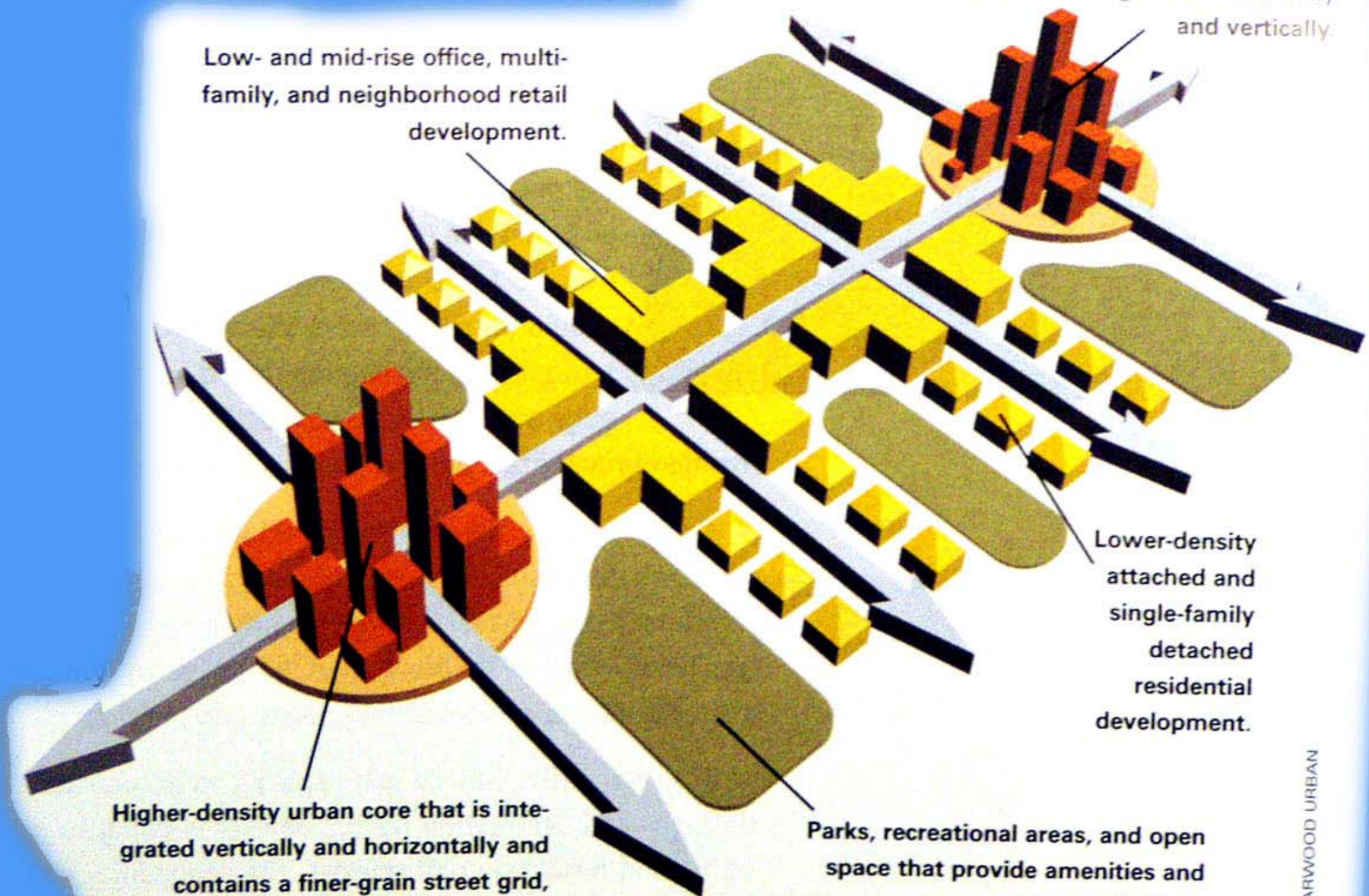
Higher-density, mixed-use development that is integrated horizontally and vertically.

Low- and mid-rise office, multi-family, and neighborhood retail development.

Higher-density urban core that is integrated vertically and horizontally and contains a finer-grain street grid, pedestrian-oriented blocks, a critical mass of activity, and a sense of place.

Lower-density attached and single-family detached residential development.

Parks, recreational areas, and open space that provide amenities and serve as buffers.





Hillcrest Neighborhood, San Diego





- 1** VILLAGE RETAIL
- 2** FAIRVIEW POST OFFICE
- 3** VILLAGE OFFICE
- 4** LIBRARY/MARKET SQUARE
- 5** TOWNHOME APARTMENTS
- 6** GOLD'S FITNESS CENTER
- 7** ROWHOUSES
- 8** LIVE-WORK BROWNSTONES
- 9** VILLAGE DUPLEXES
- 10** TOWNHOMES
- 11** VILLAGE CHURCH
- 12** WOODLAND ELEMENTARY
- 13** SINGLE FAMILY HOMES
- 14** MEDICAL/OFFICE BUILDING
- 15** LA PETITE ACADEMY
- 16** FAIRVIEW CITY HALL
- ★ SALES OFFICE

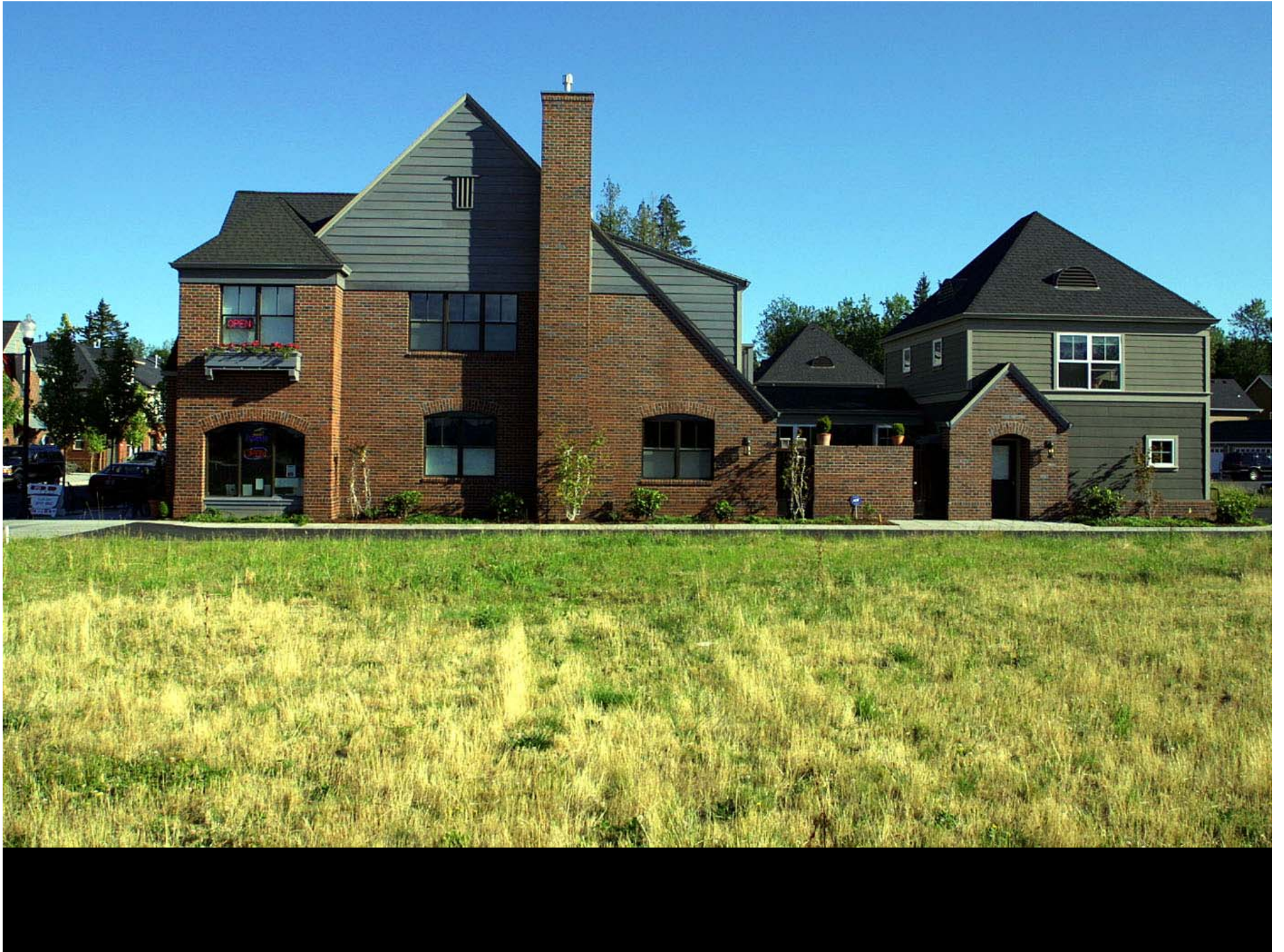


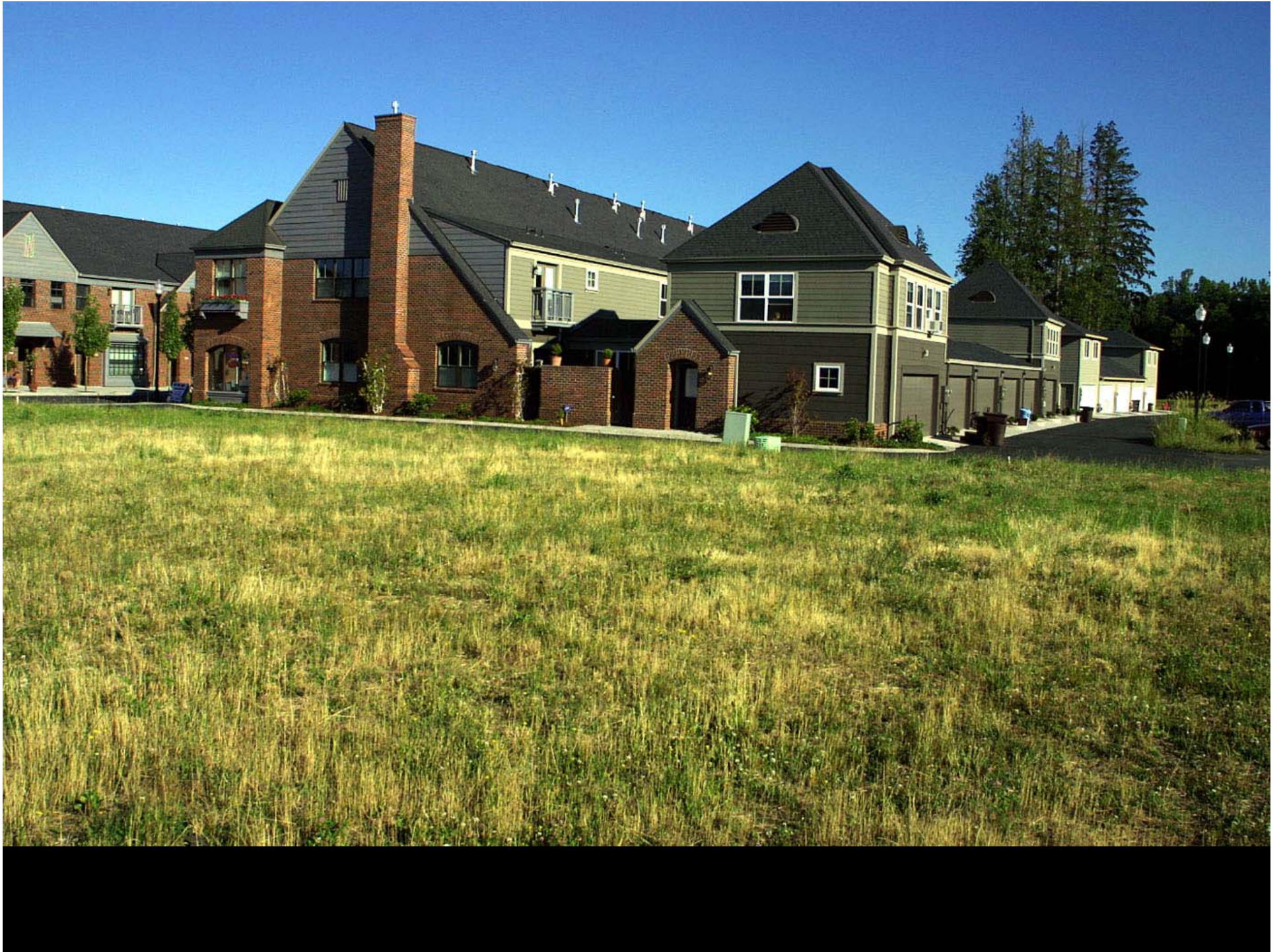
Fairview Village

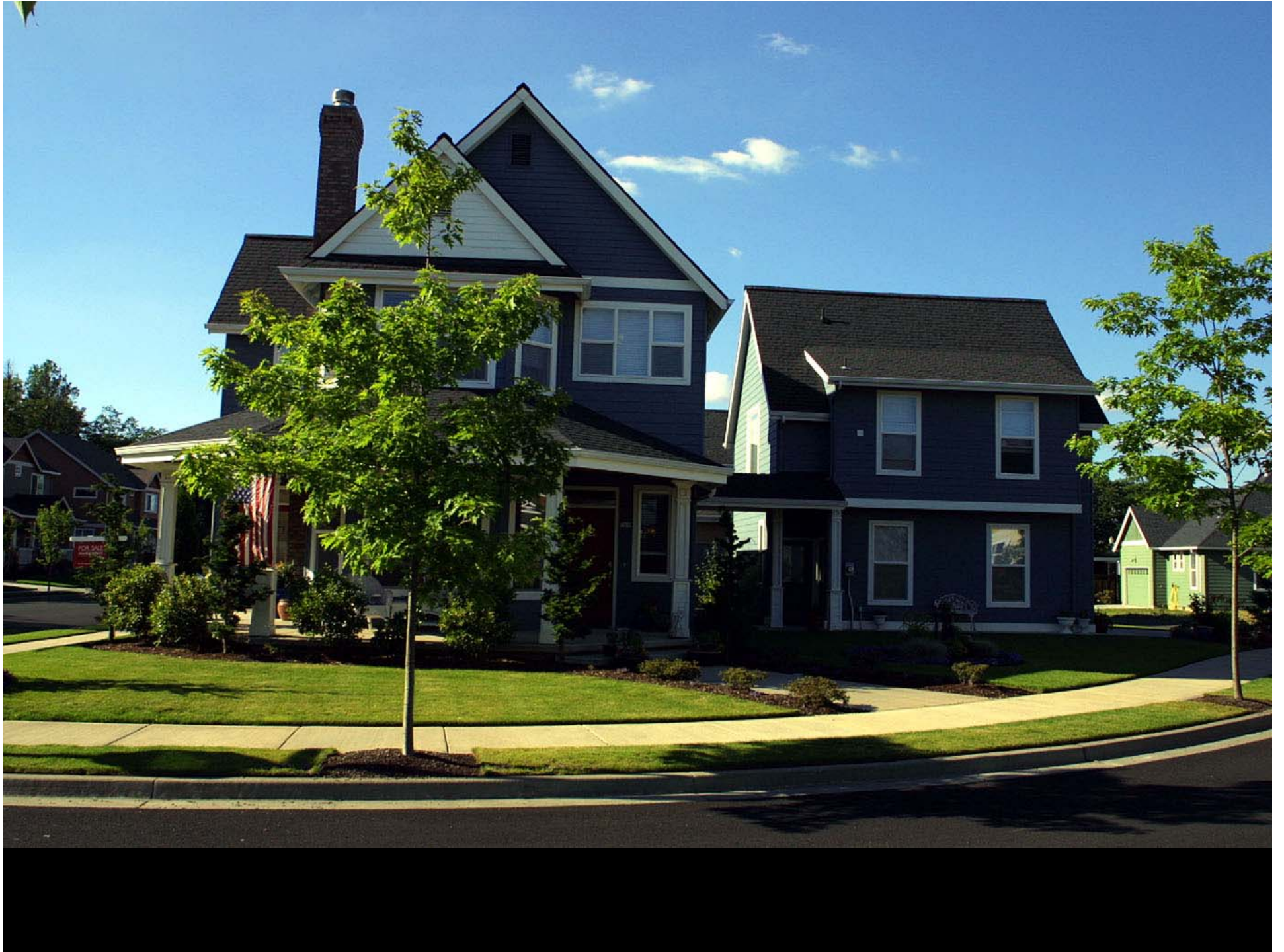










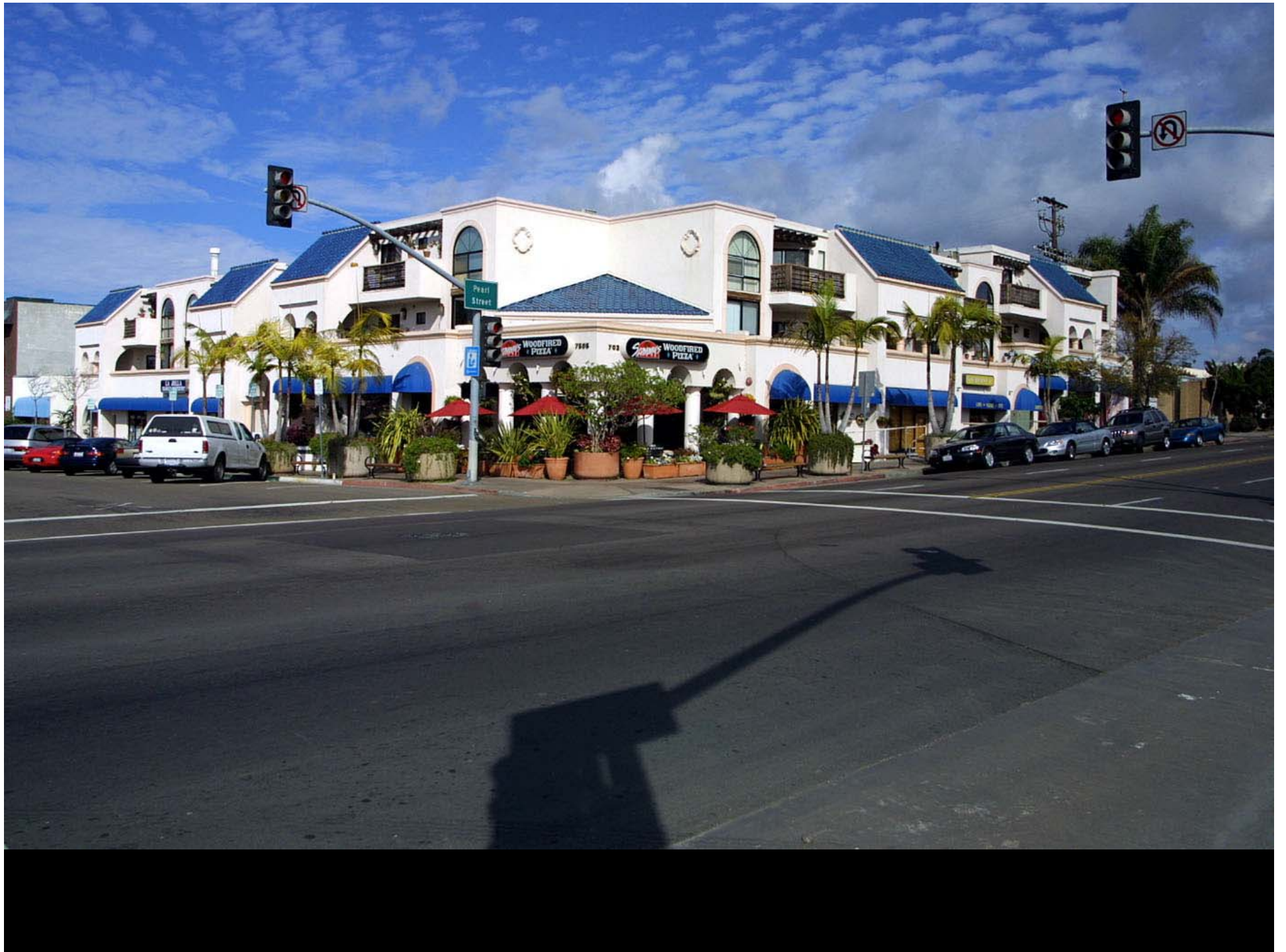


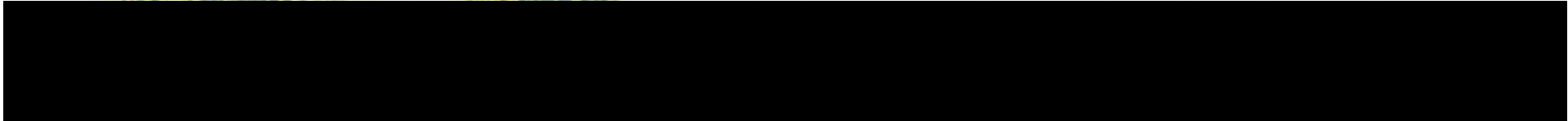
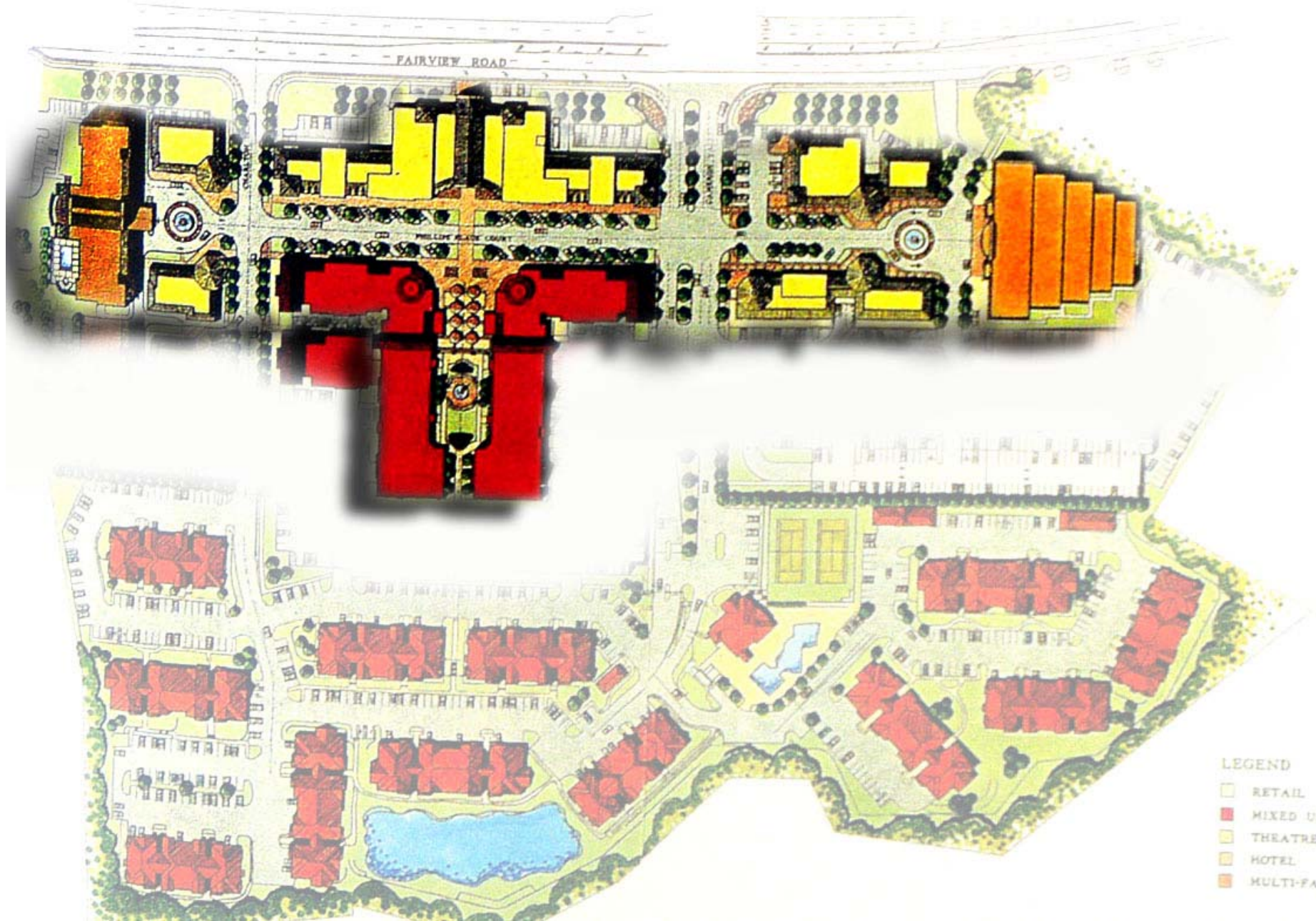




















Winter Park Village, Winter Park, Florida









Front



Back











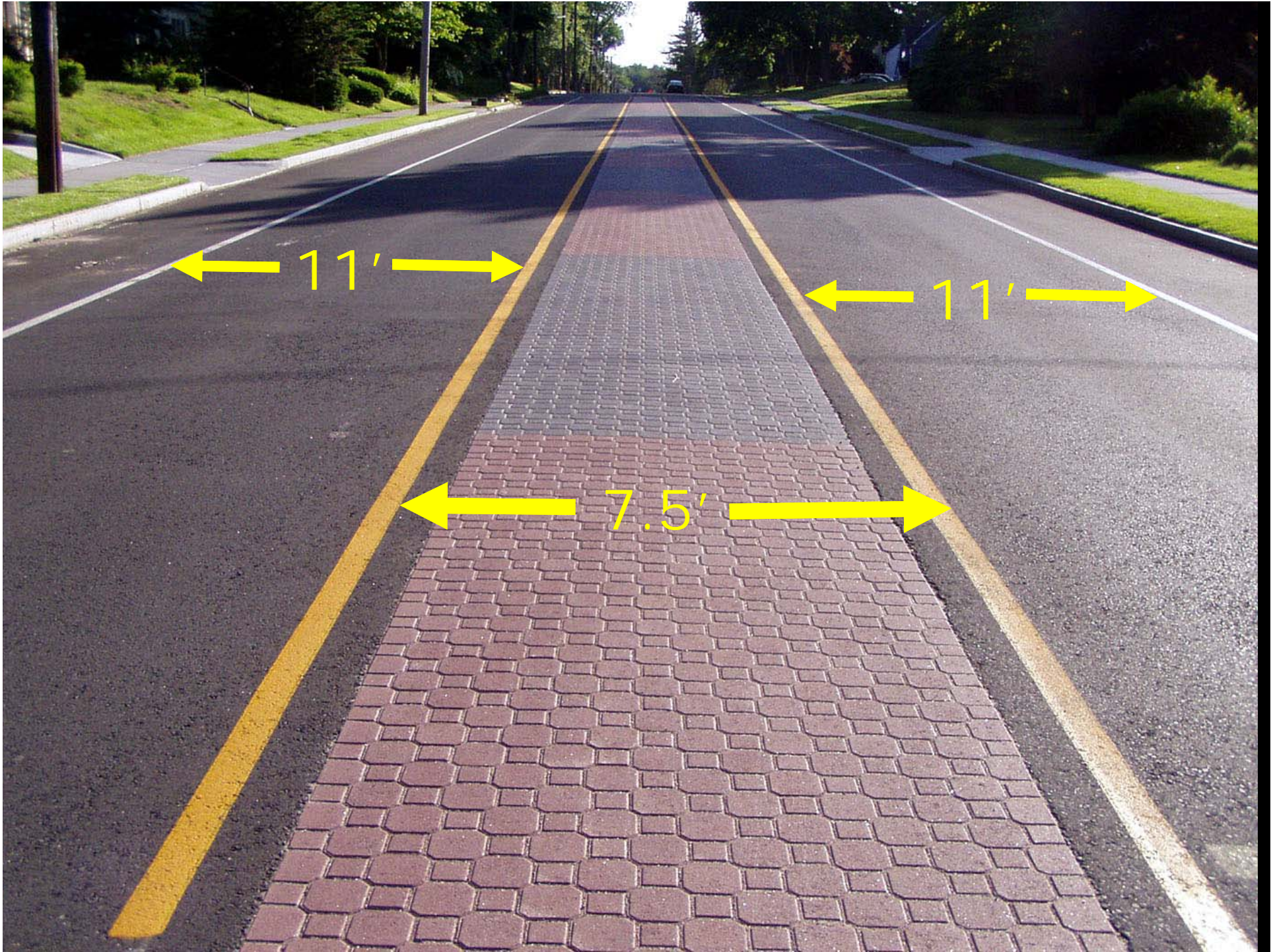






WINE
HOLE

LANCOSTER



← 11' →

← 11' →

← 7.5' →







Convert off-street parking to
plazas and new buildings

Establish municipal parking
lots, set maximum off street
parking allowances

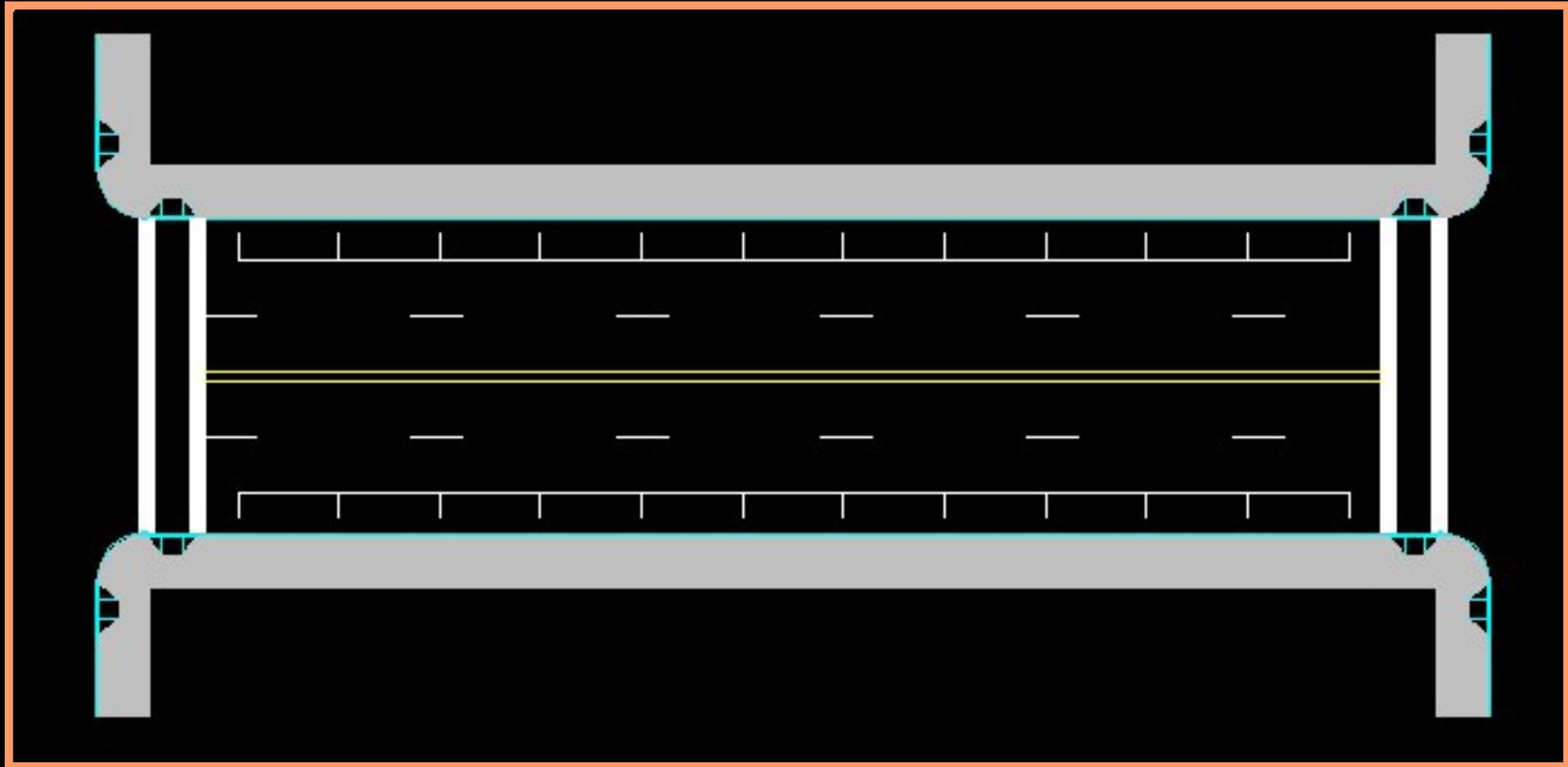
**HRRCU
Member
Parking
Only**

**PARKING BY
PERMIT ONLY**

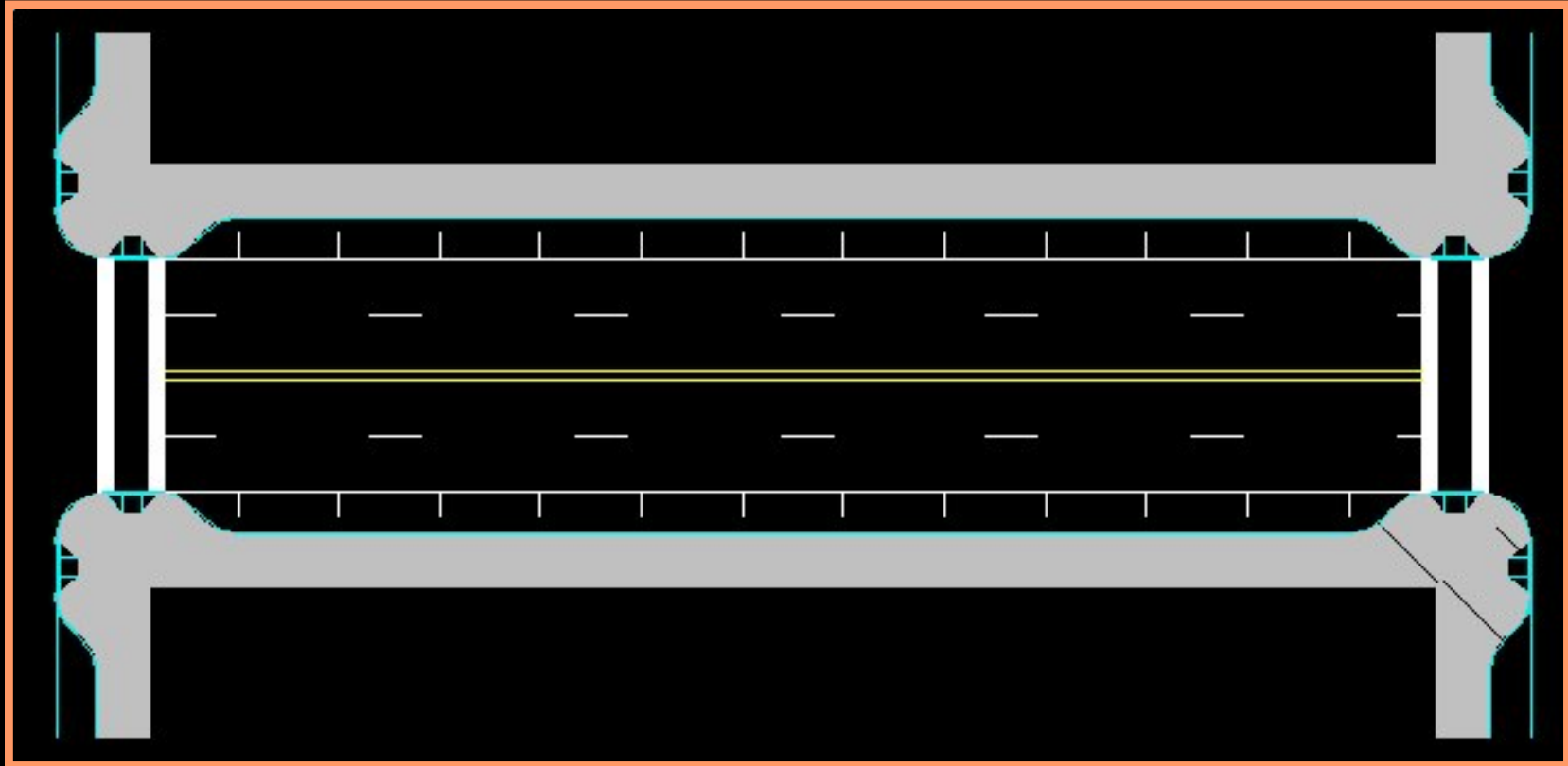
VEHICLES WITHOUT VALID
PARKING PERMIT WILL BE TOWED
AT VEHICLE OWNER'S EXPENSE



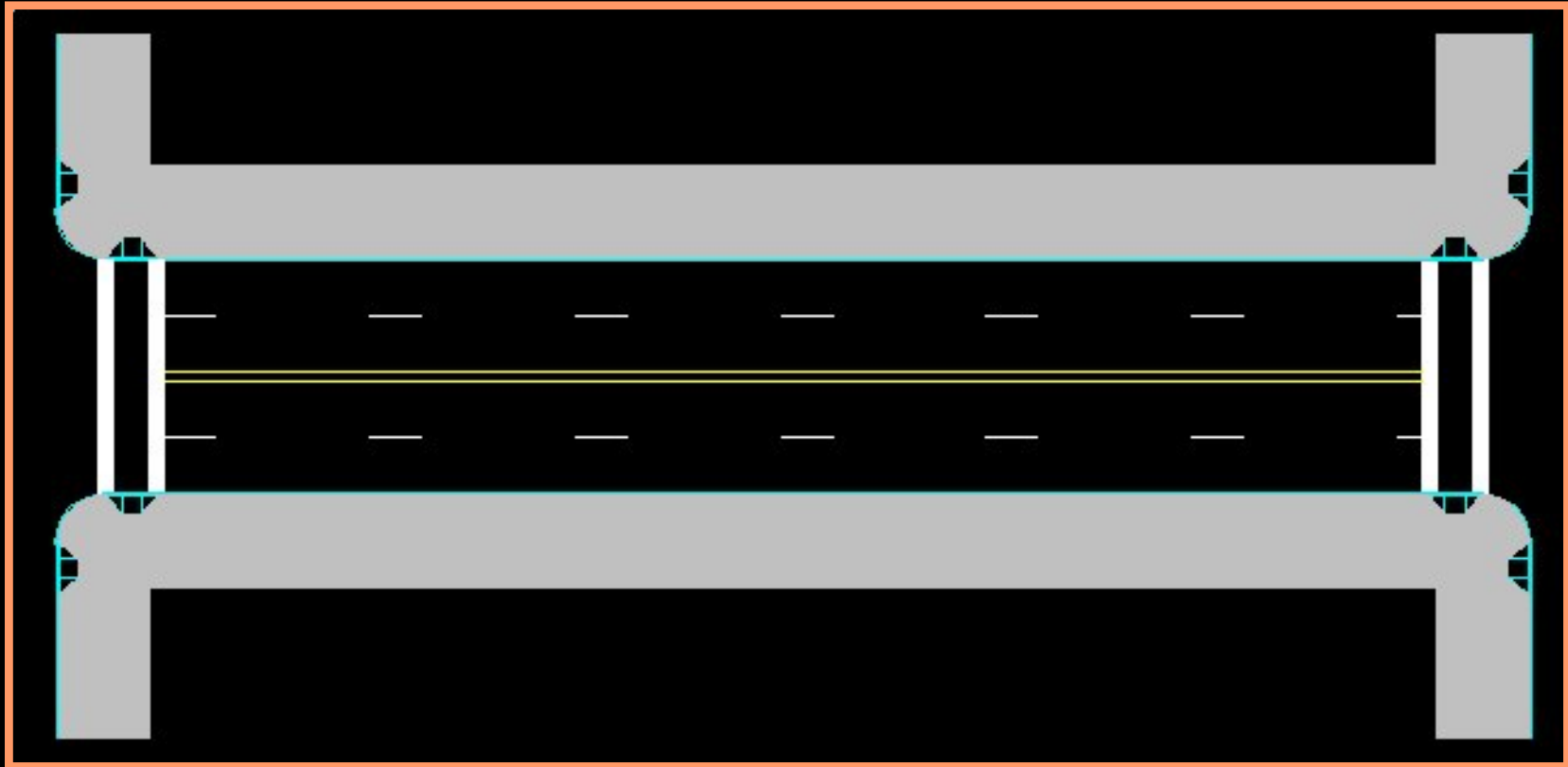
Consider curb extensions the norm...



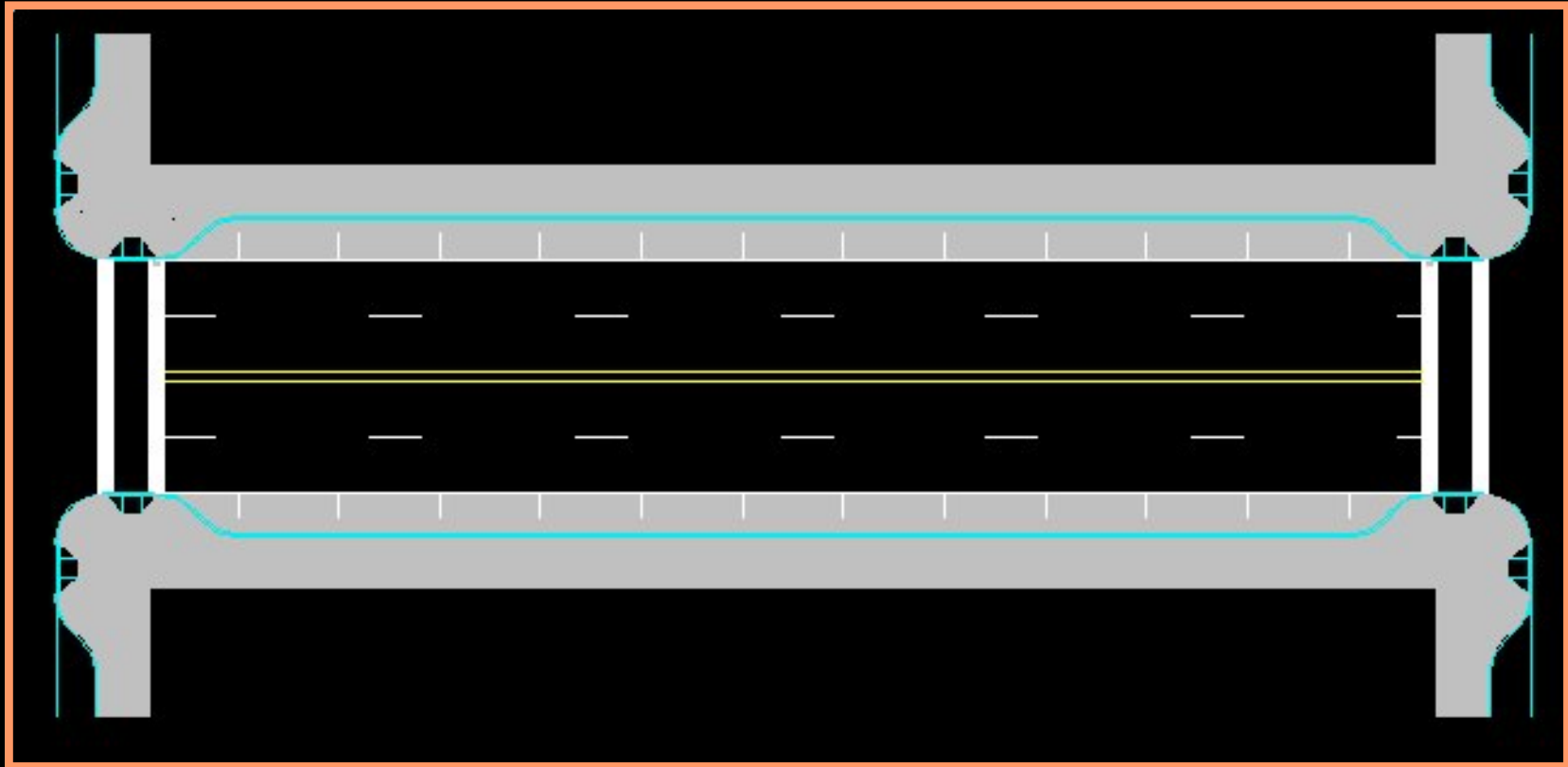
... not something you add to a street



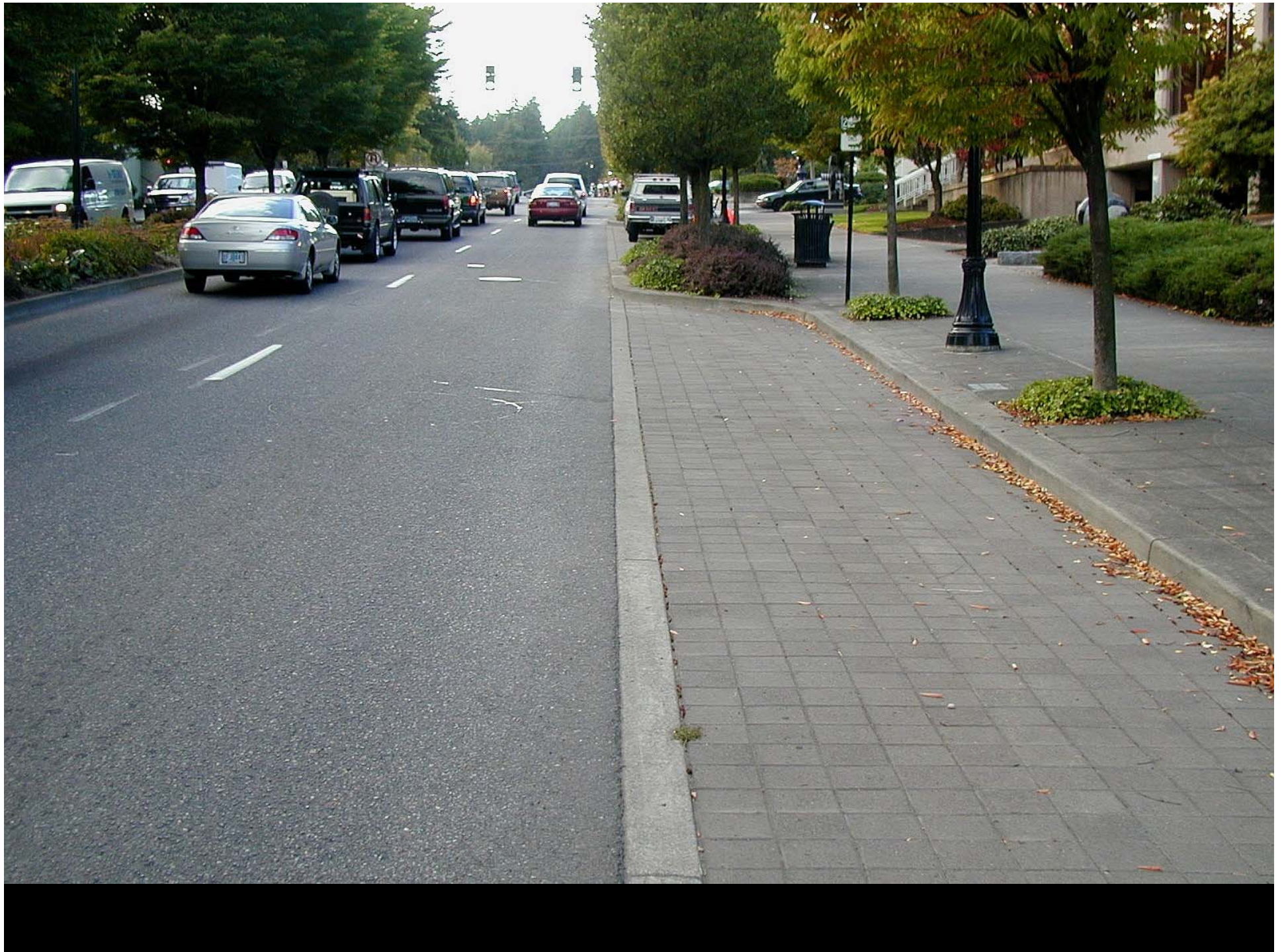
**What would the street look like
without on-street parking?**



Now think of parking as the bonus!



Tada! Look like curb extensions...



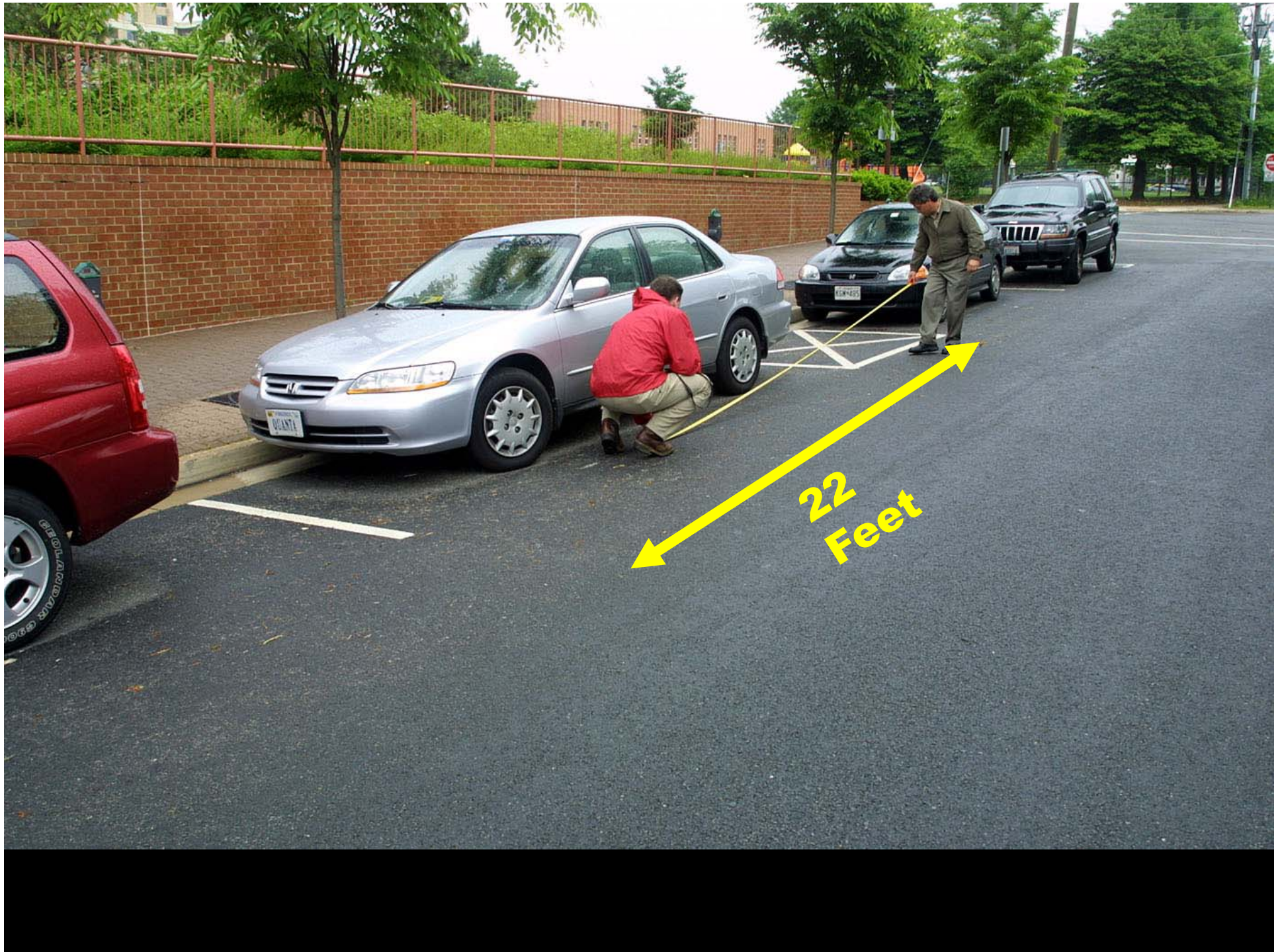




Ten Foot Travel Lanes

Six Foot Parking Lanes

Abacoa Downtown



22
Feet



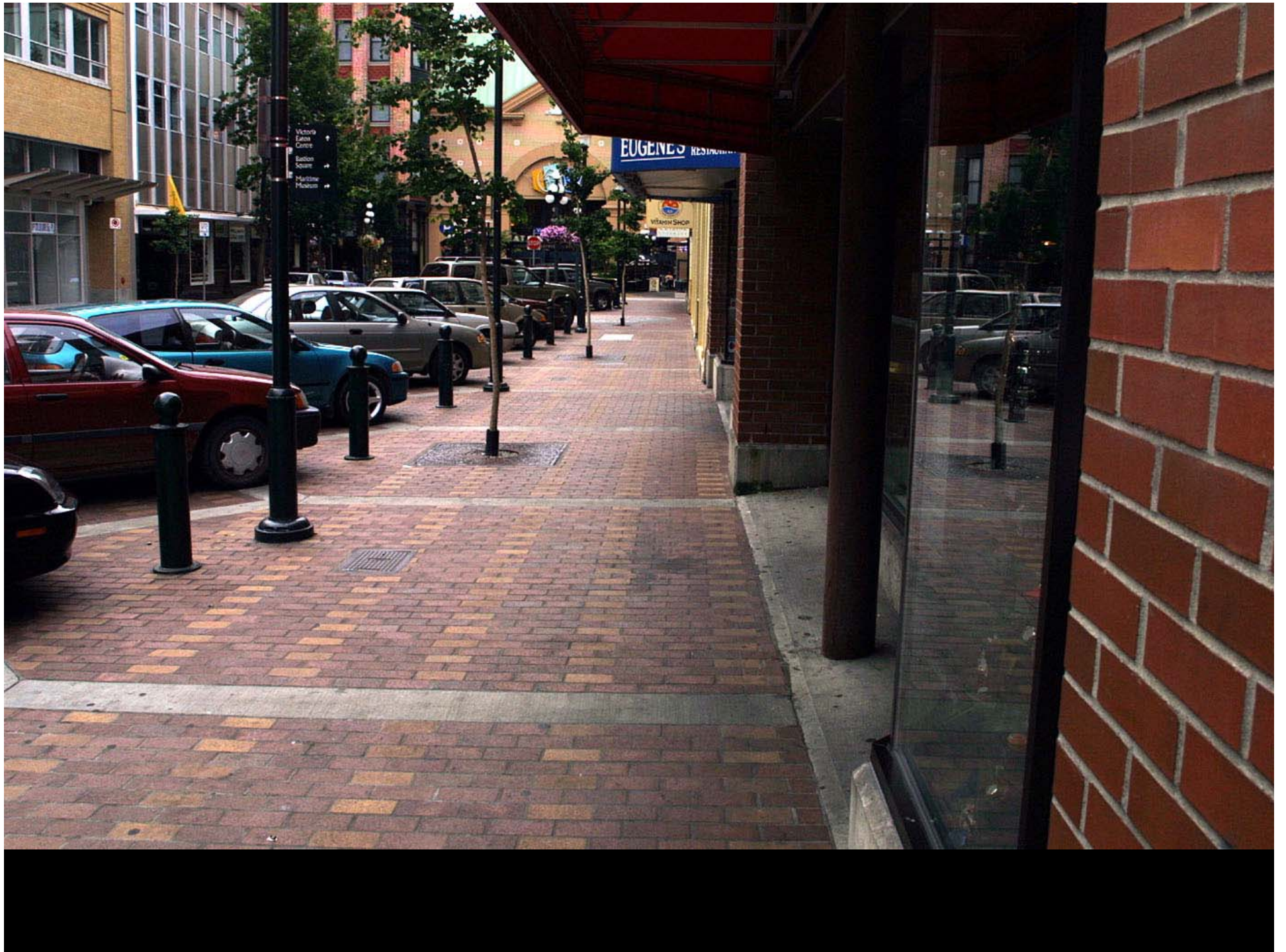
7 Feet

10 Feet

16 Feet



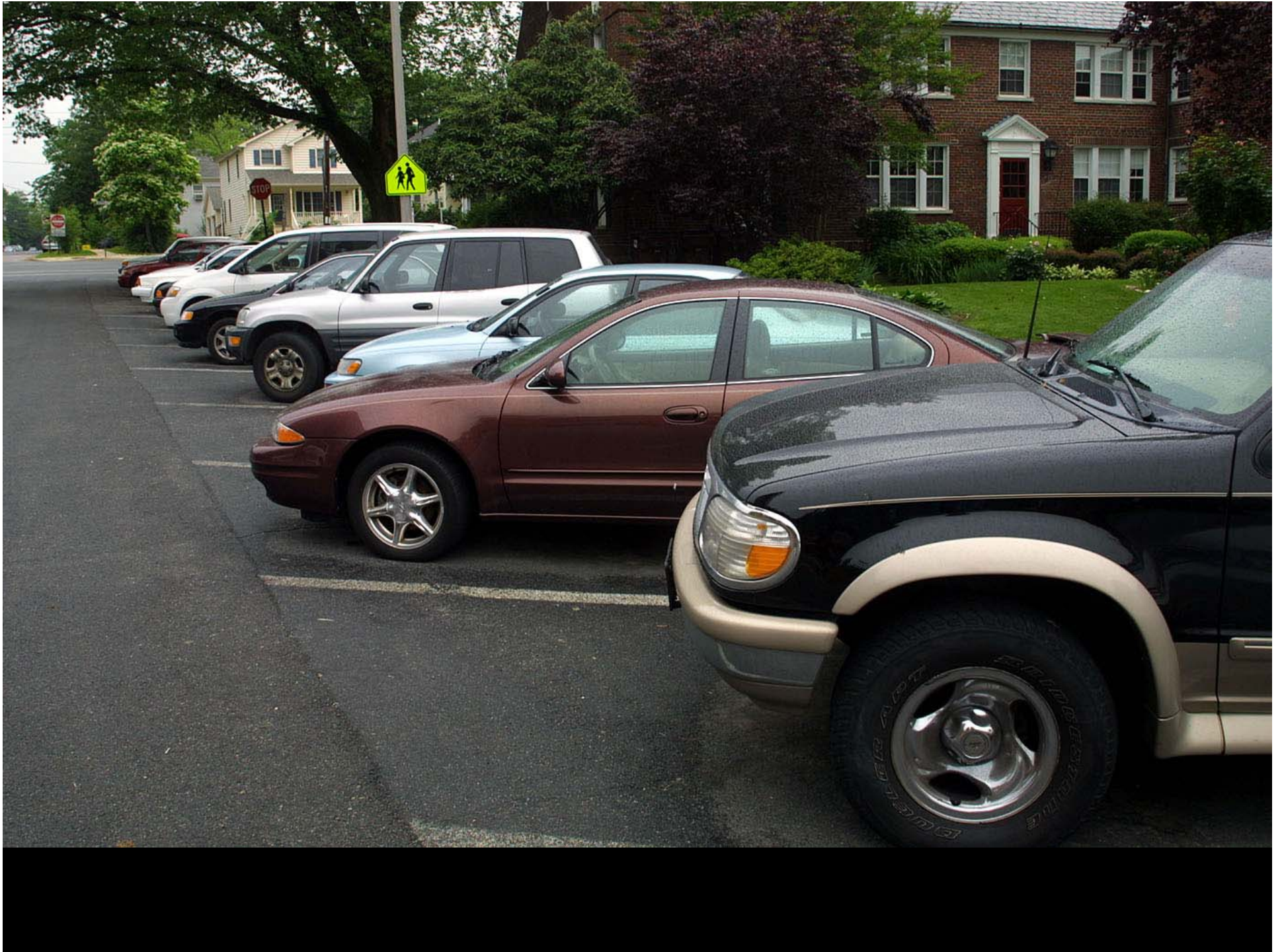
Victoria, British Columbia





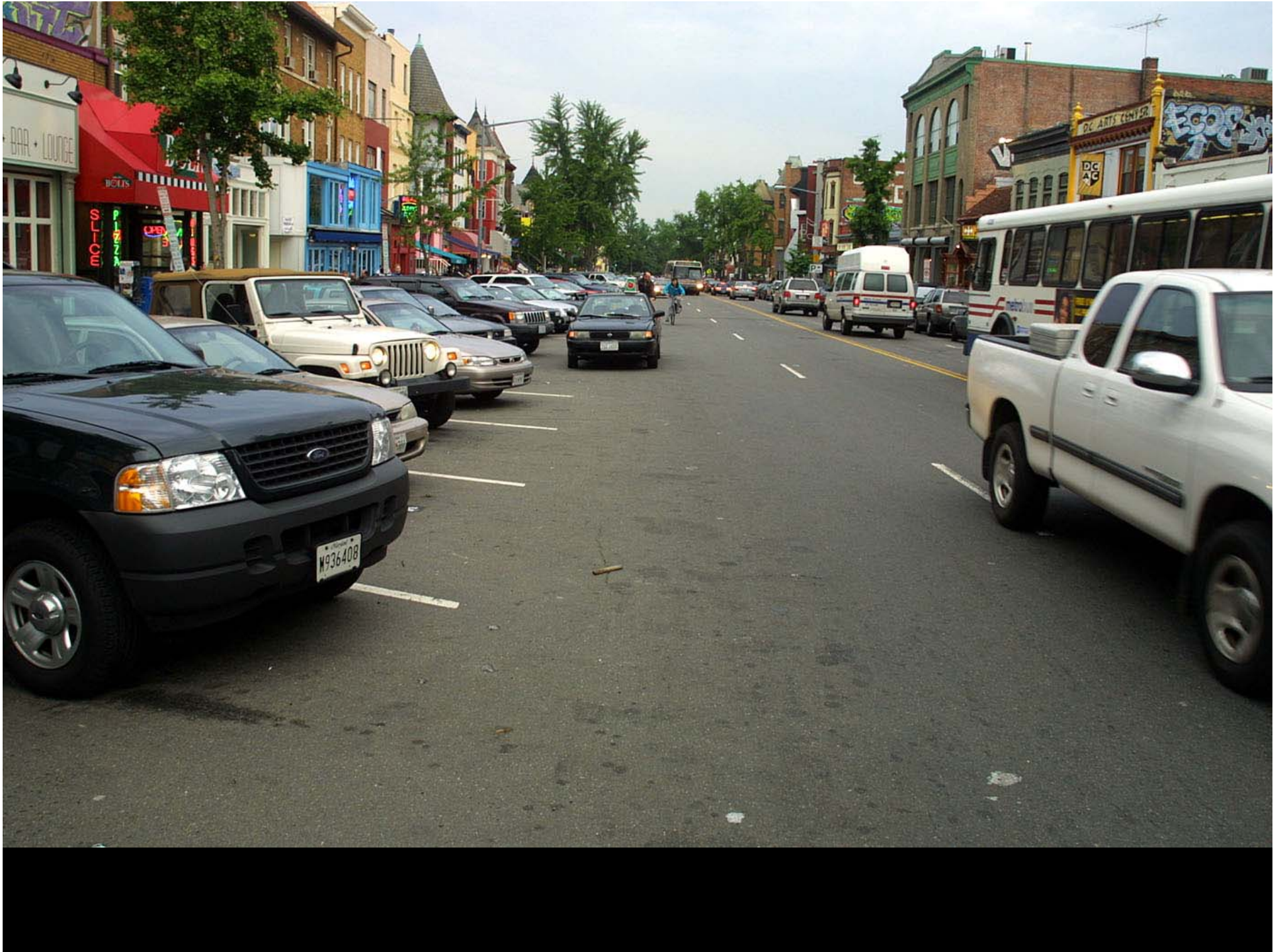
San Francisco, California















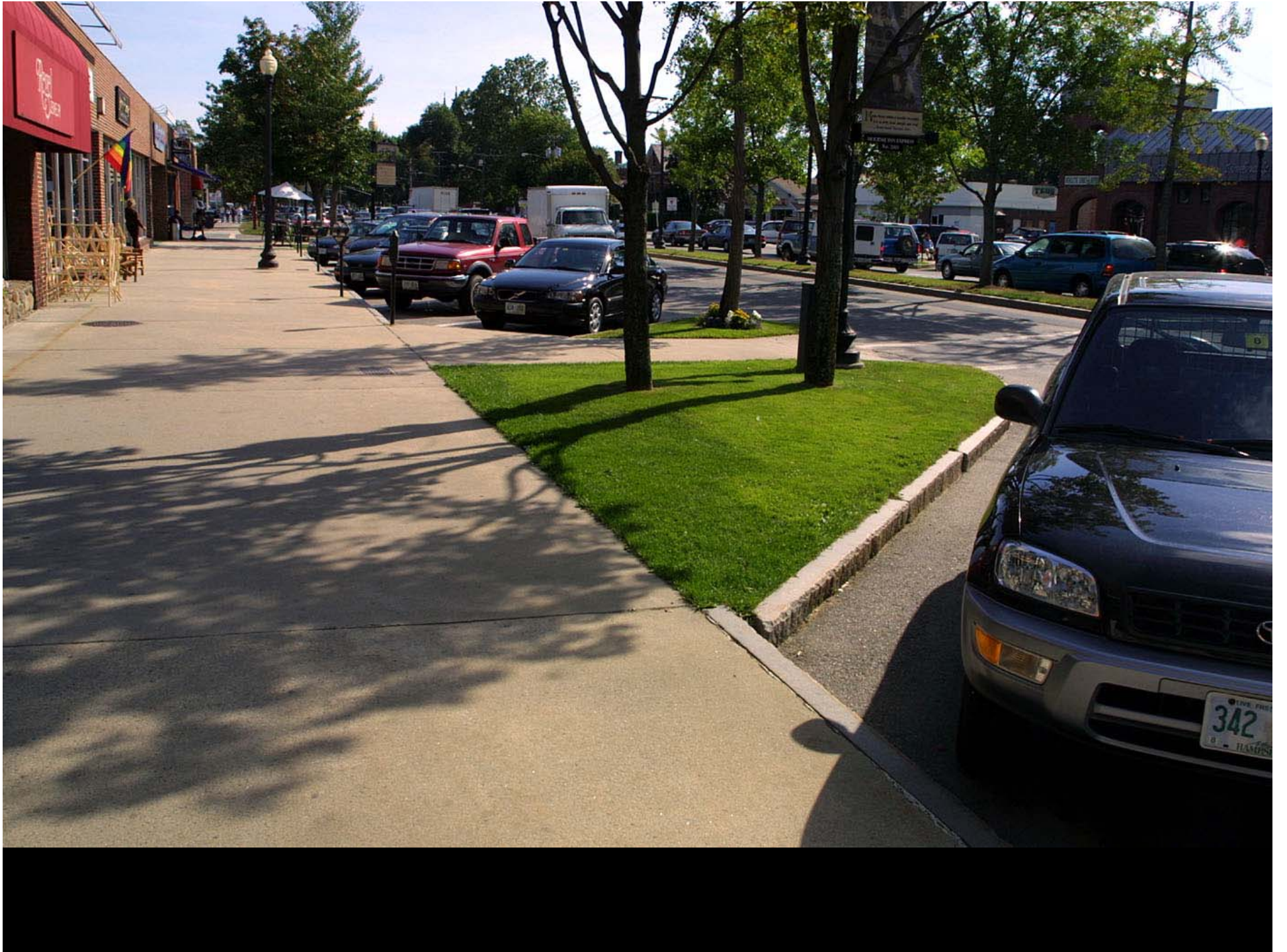
DOWNTOWN KEENE - NH



No arrangement
could be more pleasing . . .
five streets meeting at
the ample common,
with its circular crown of trees
backed up by the fine white church.
— Barry Faulkner, 1917 —

Keene,
New Hampshire









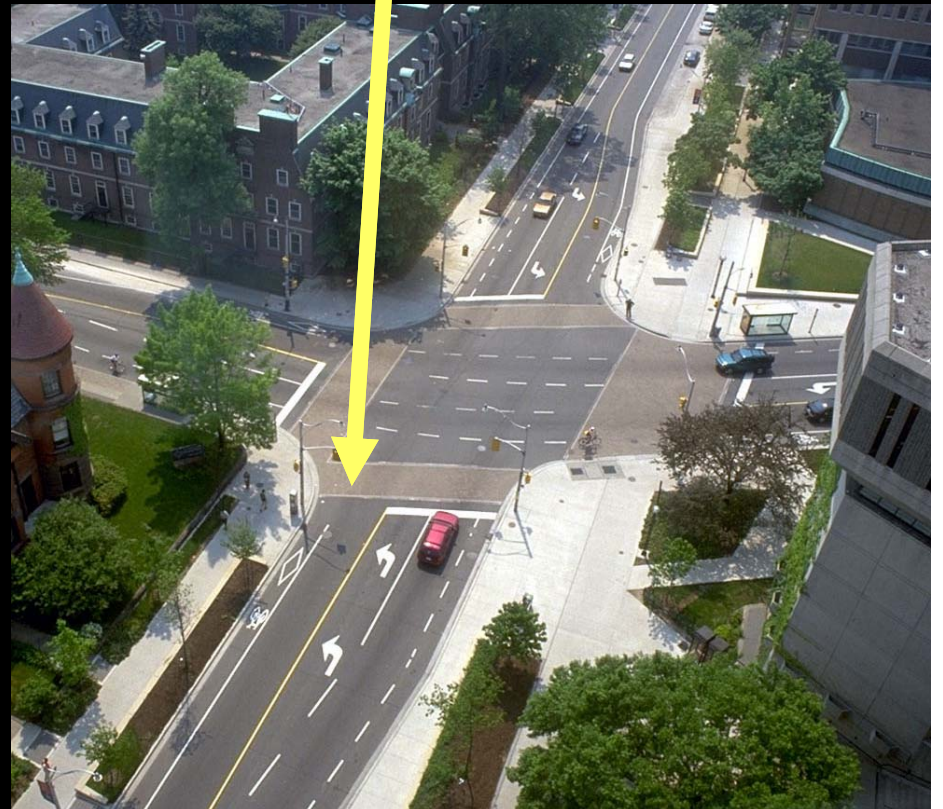


Road Diets



**1800 vehicles
per hour
per lane**

**800 vehicles per hour
Per lane**















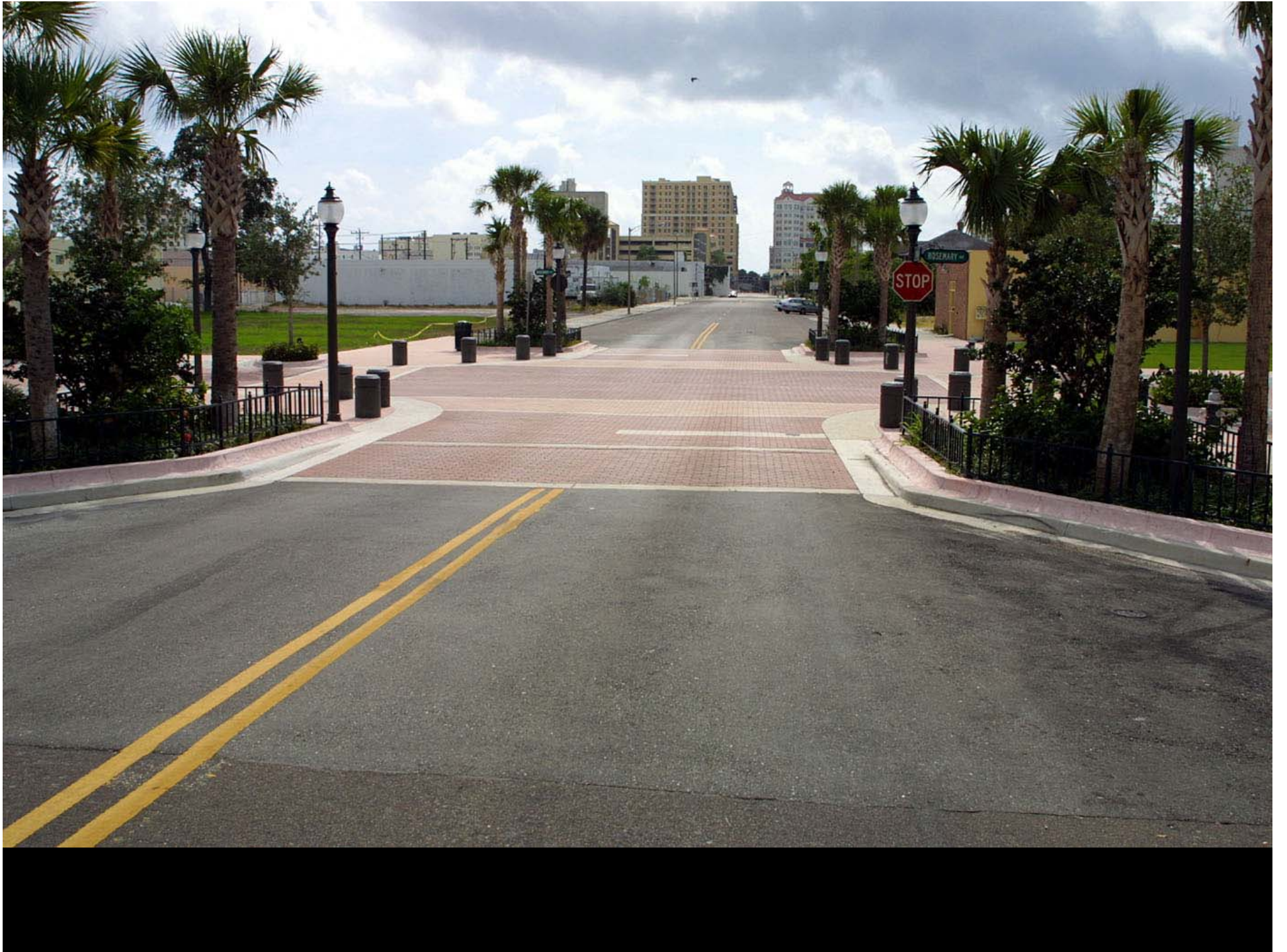
Asylum Avenue Near Prospect

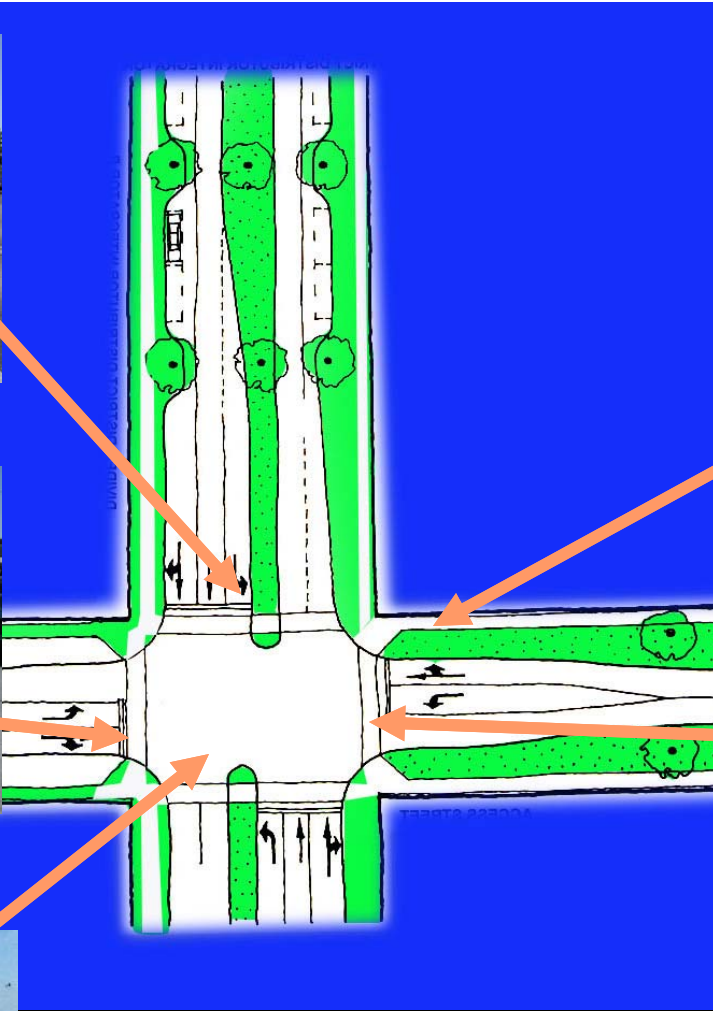
Intersections





Mountain View, California

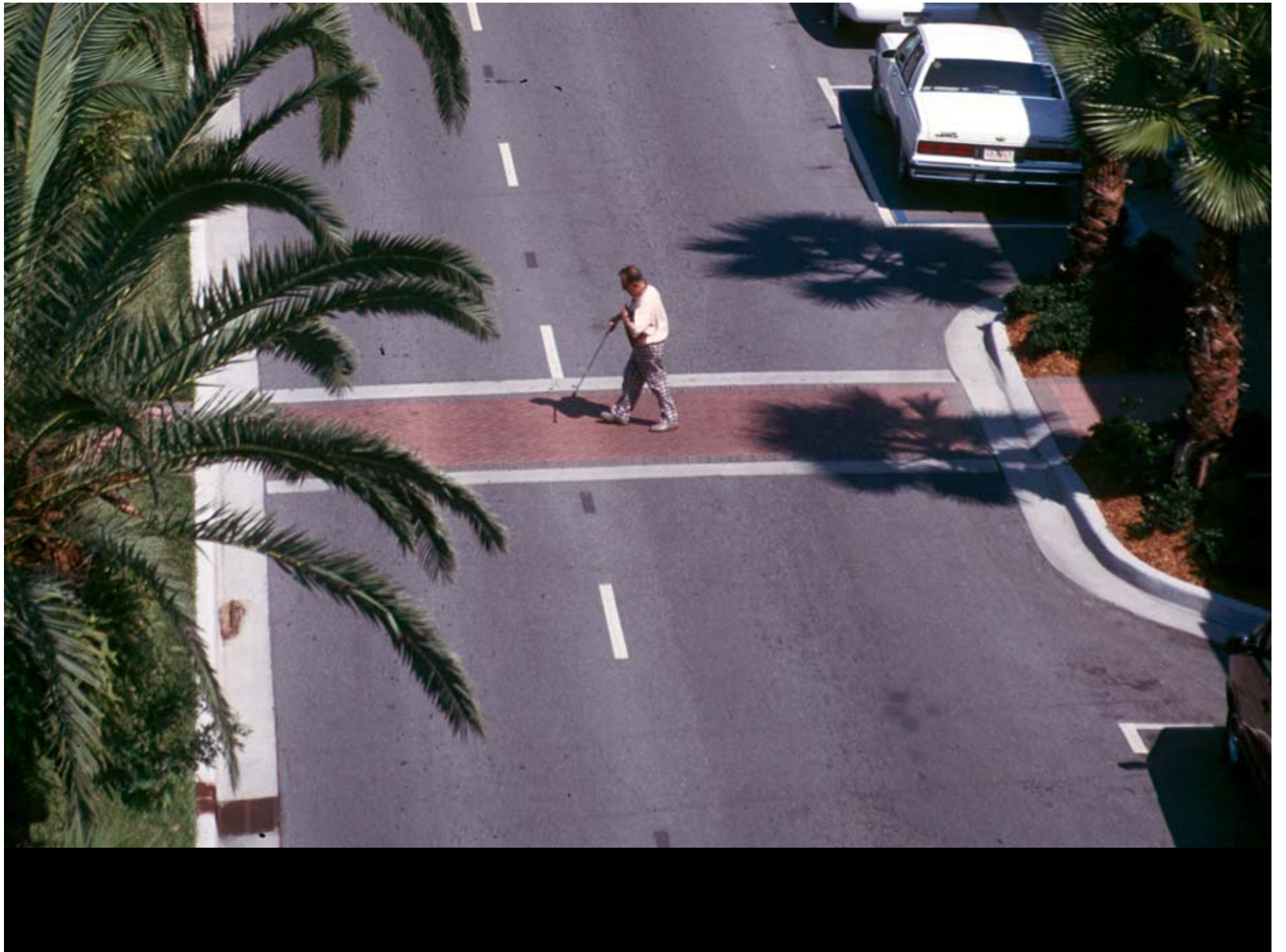




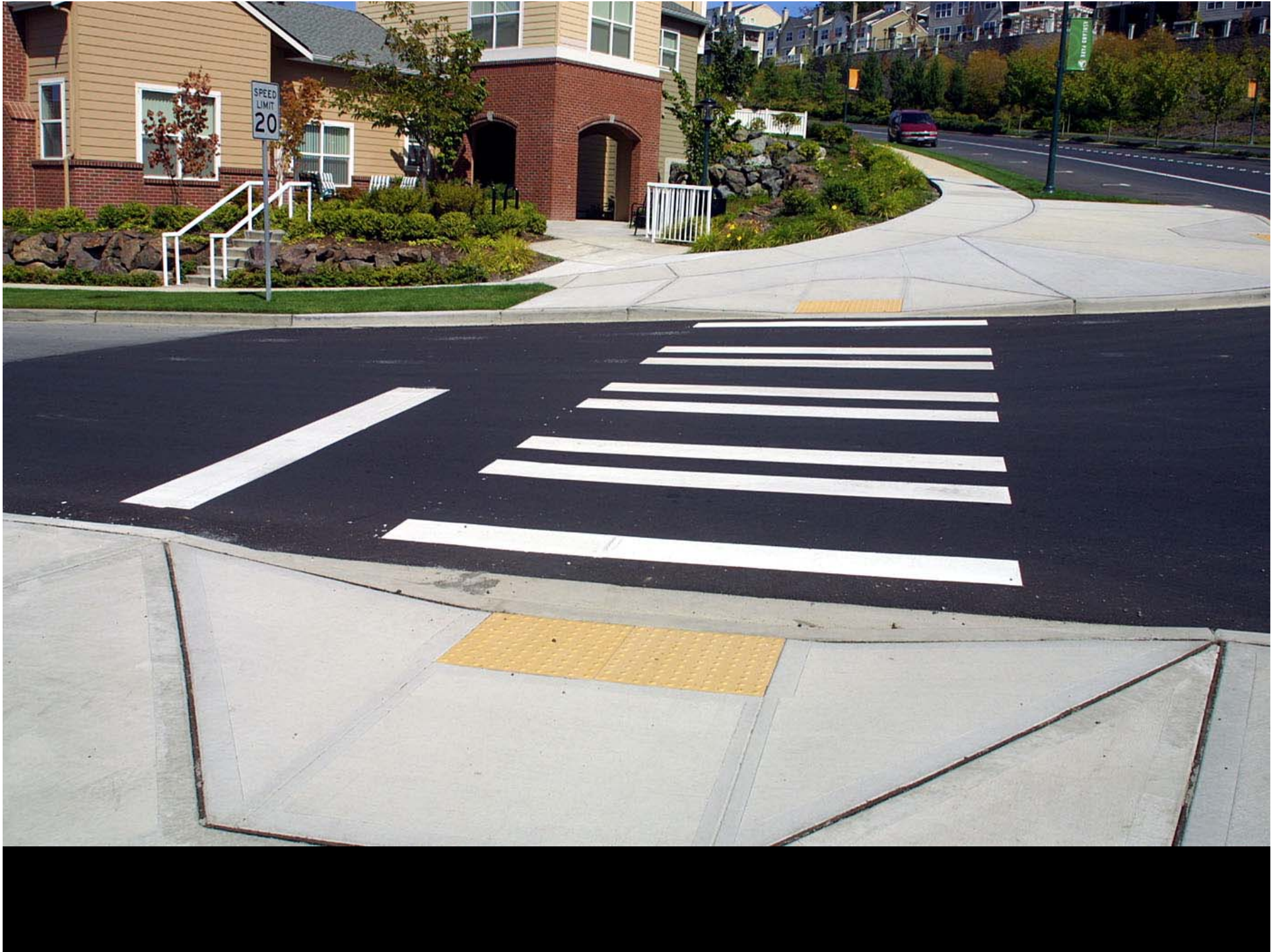
Speeds dropped from low
30s to 15-20 mph
Older people came back
Disabled came back
Store occupancy rate 100%

Venice, Florida
1990



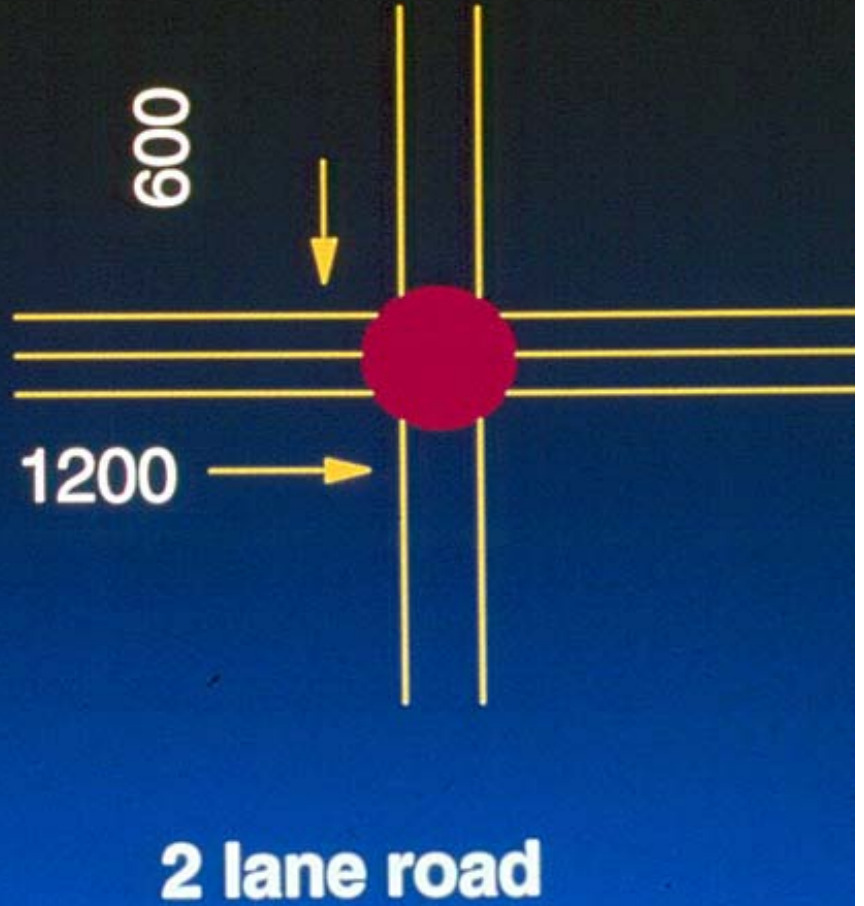
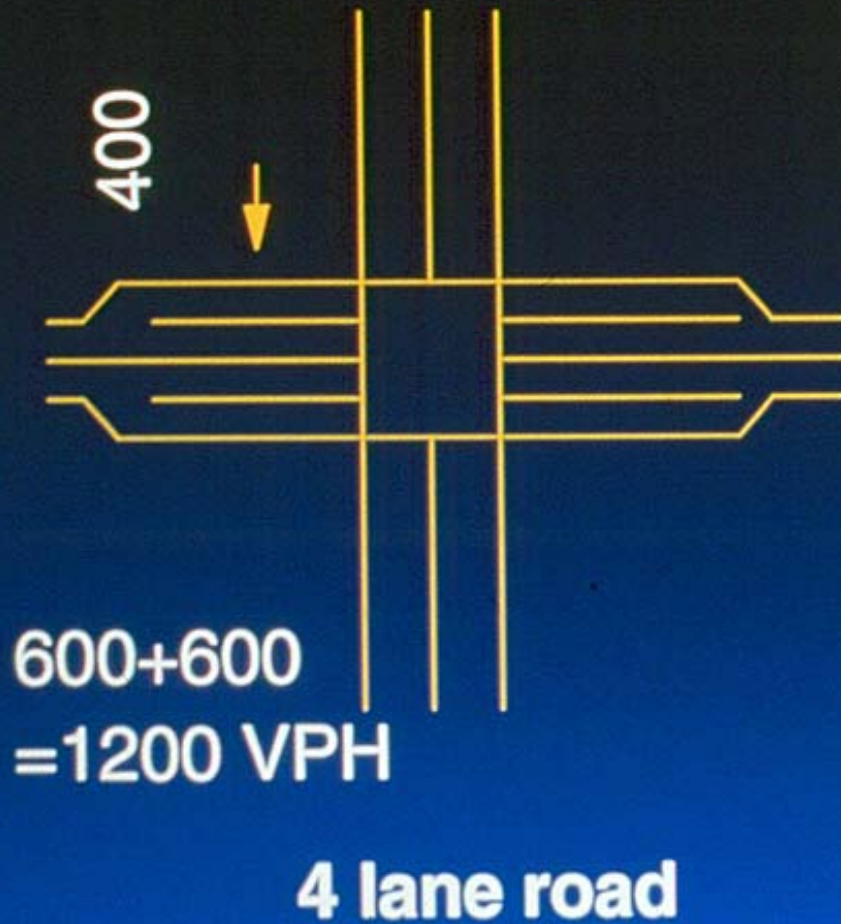






Roundabouts

Narrow Streets / Wide Nodes







Cotati, California:
Old Redwood Highway looking north



Gridley, California:
State Highway 99 looking north



Example Roundabout

Benefits:

Injuries reduced 90%

30% more traffic capacity

Gateway entry

Pedestrian friendly

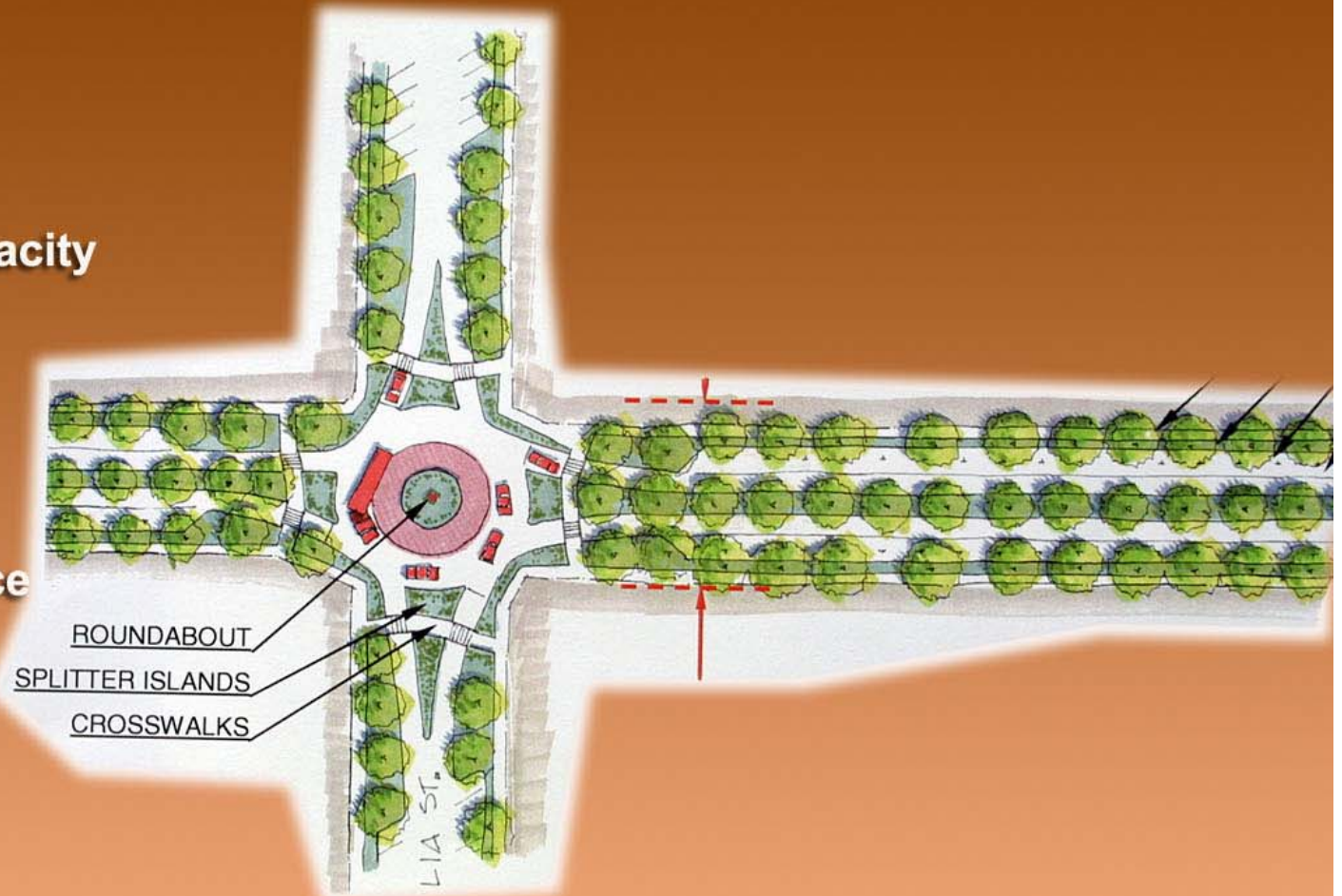
Speeds controlled

Reduced noise

Reduced pollution

Reduced maintenance

Business friendly





*Modesto Roundabout
Laloma and "G" Streets
20,000 vehicles per day*





Roundabouts work in Snow Country

**Our
Place**

**Our
People**





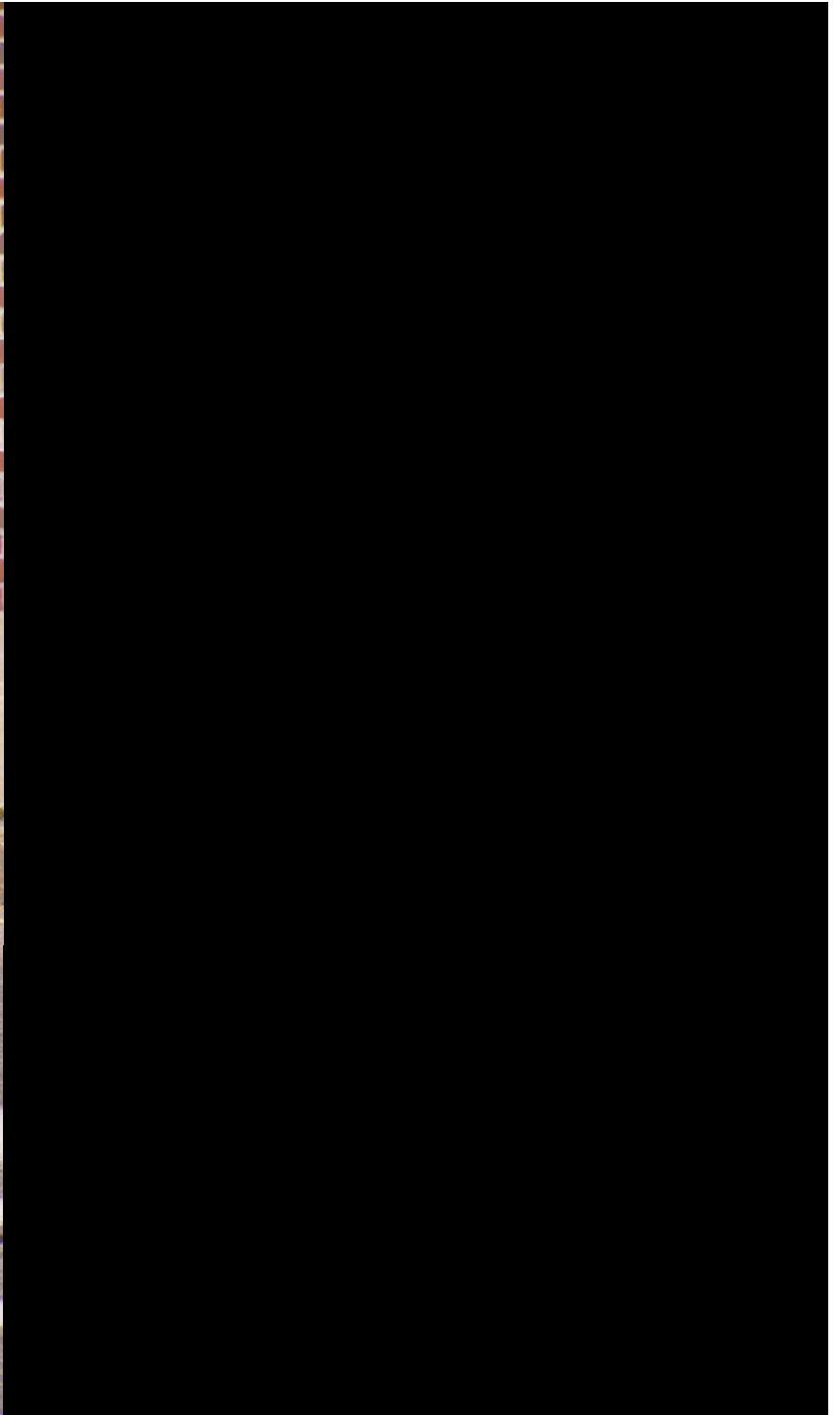














Dance as if no one were watching
Sing as if no one were listening
Live each day as if it were your last



Imagine a world with no men
it would be full of happy fat women

STORE HOURS
MON-SAT 10-5
SUNDAY 11-4



DOVER, NH

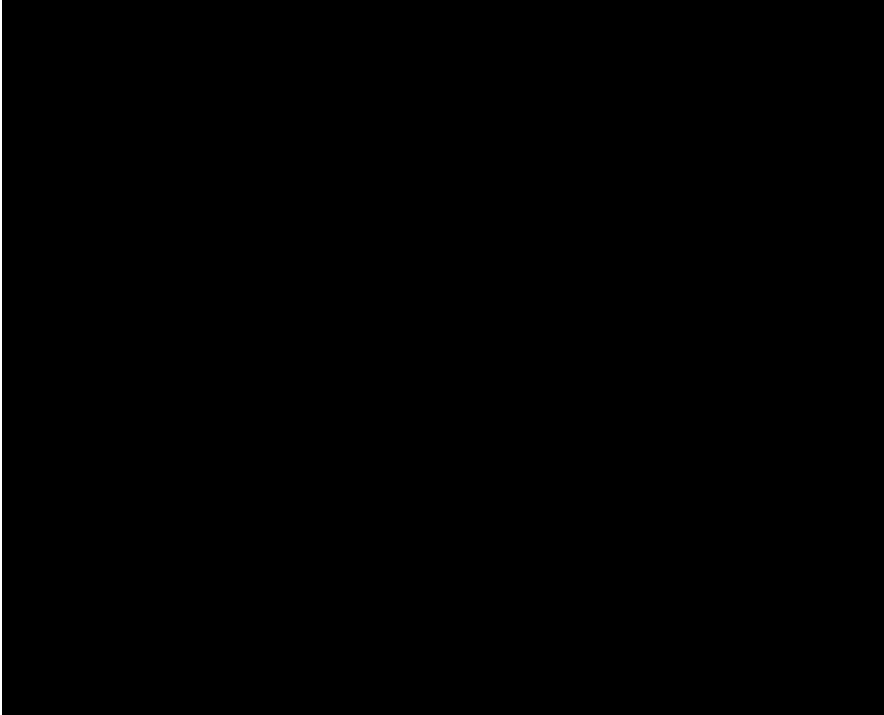
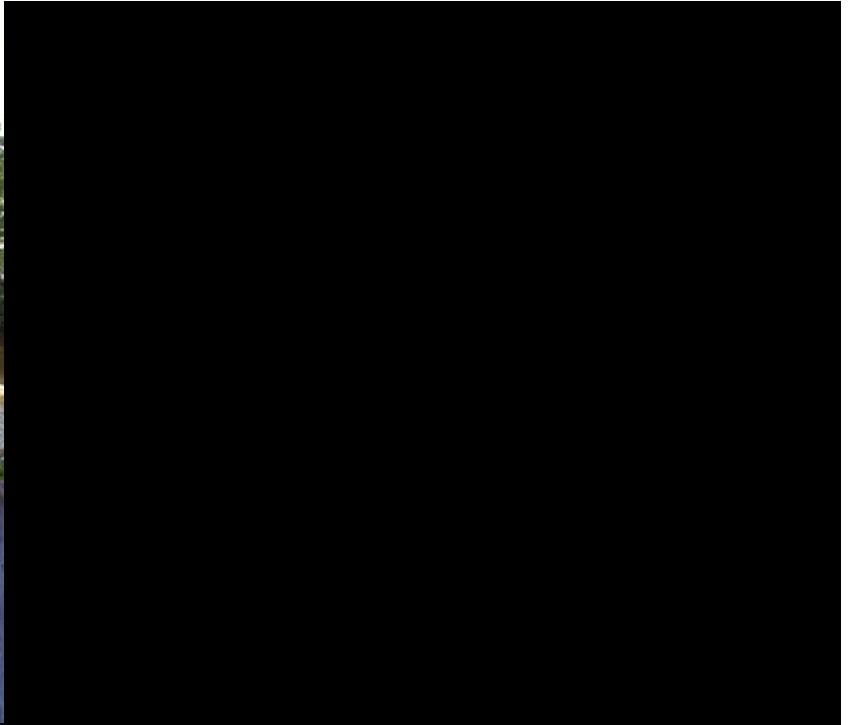
TRANSPORTATION CENTER

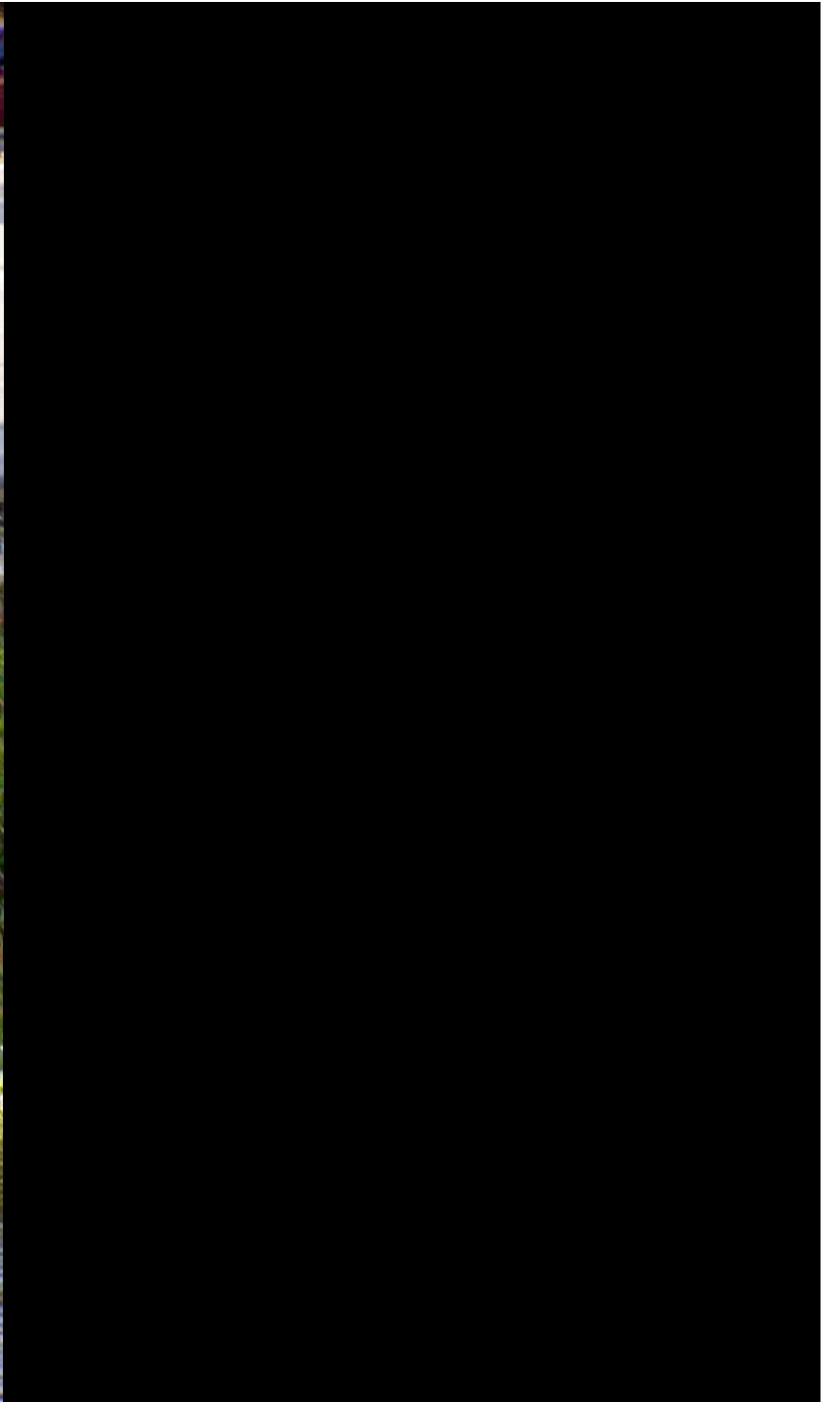


COCHECHO



RIVER WALK











STAFFORD BANK

FOR LEASE
Call Steve at 750-7501

Cape City Bistros

L AVE









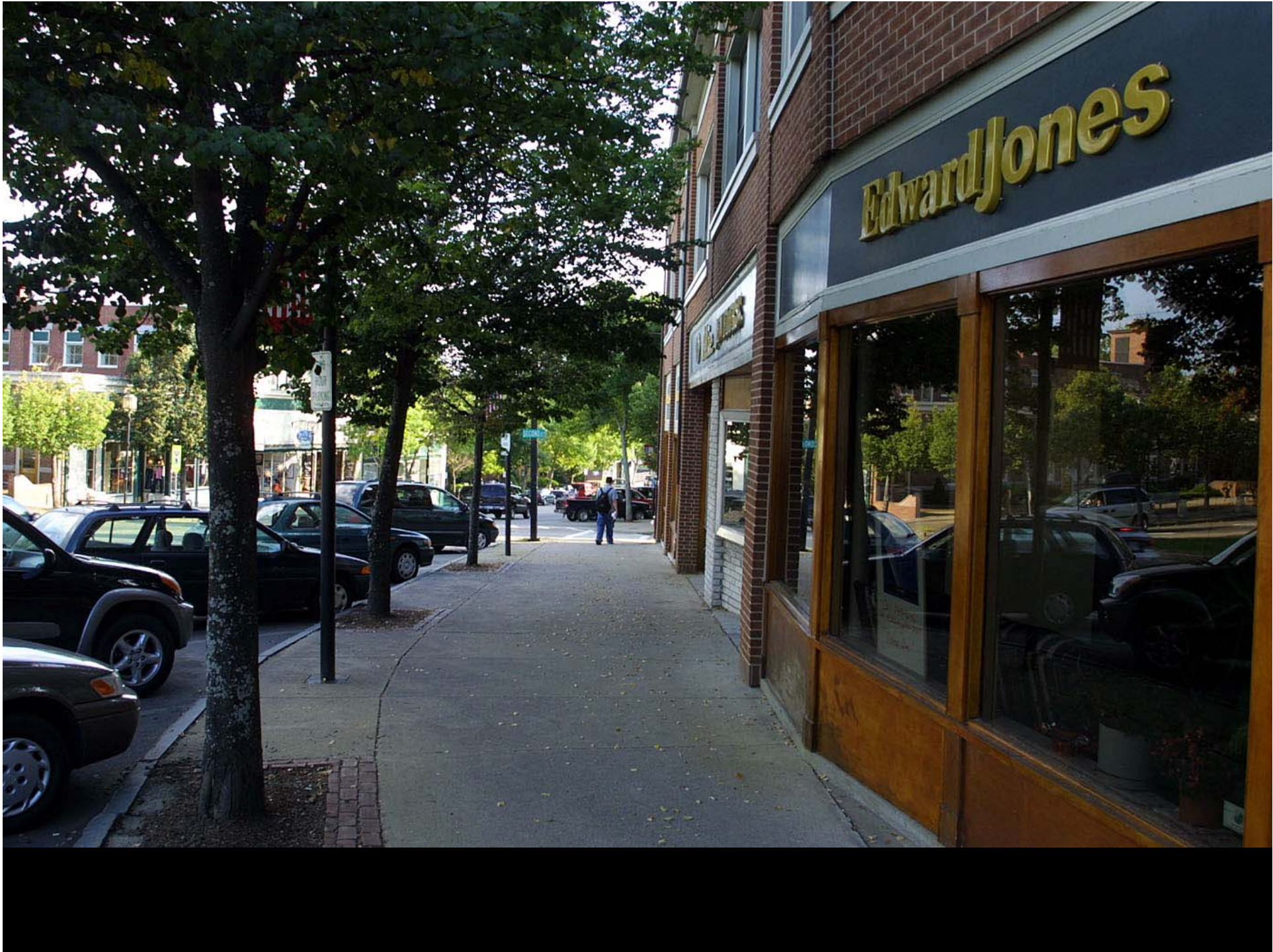


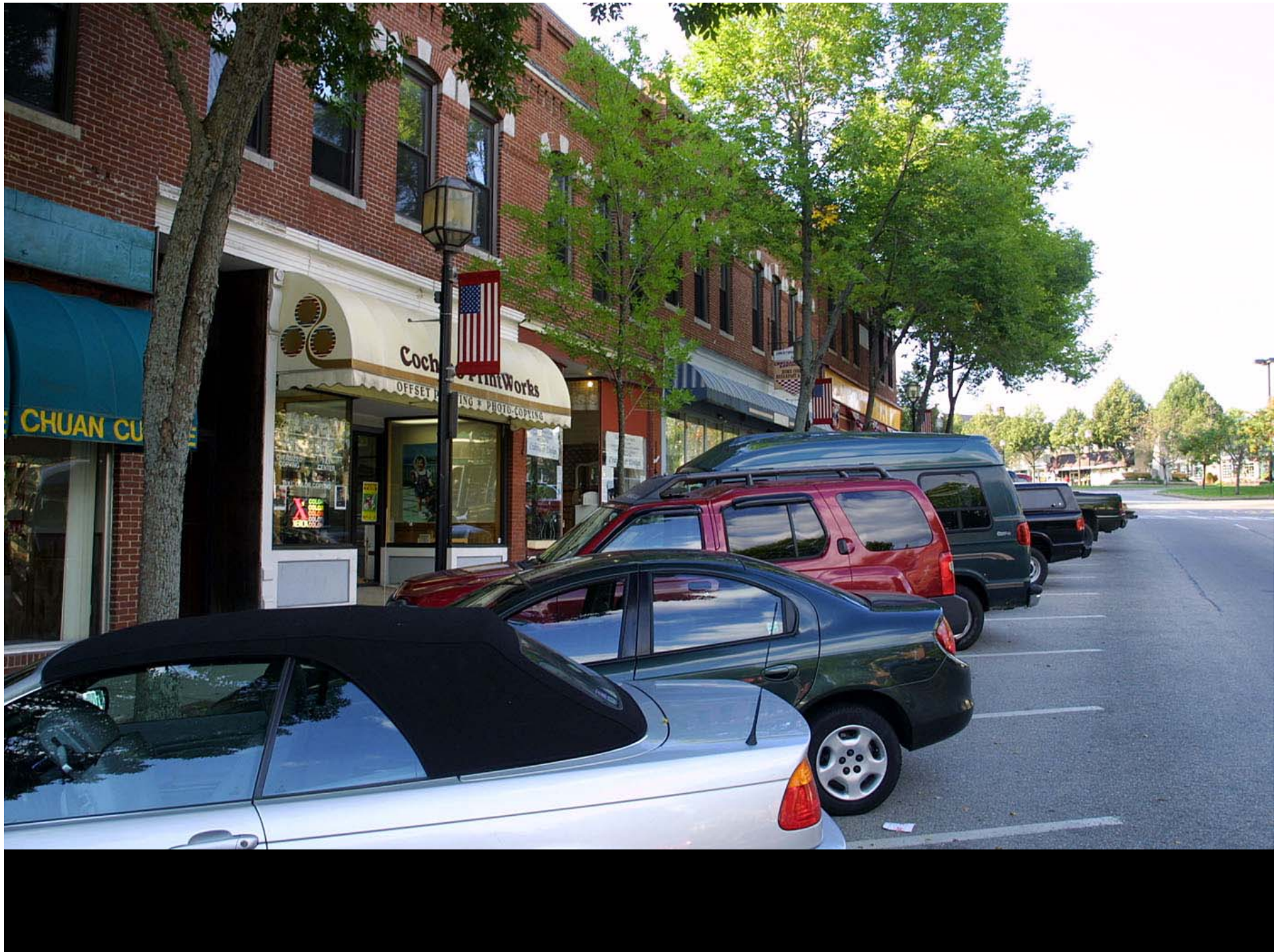
STATE LAW



IN CROSSWALK









**PUSH
BUTTON
FOR
WALK
SIGNAL**





Overcoming Fear of Change



DOVER MAIN STREET

Chamber of Commerce

ce
NCE
BUSIN

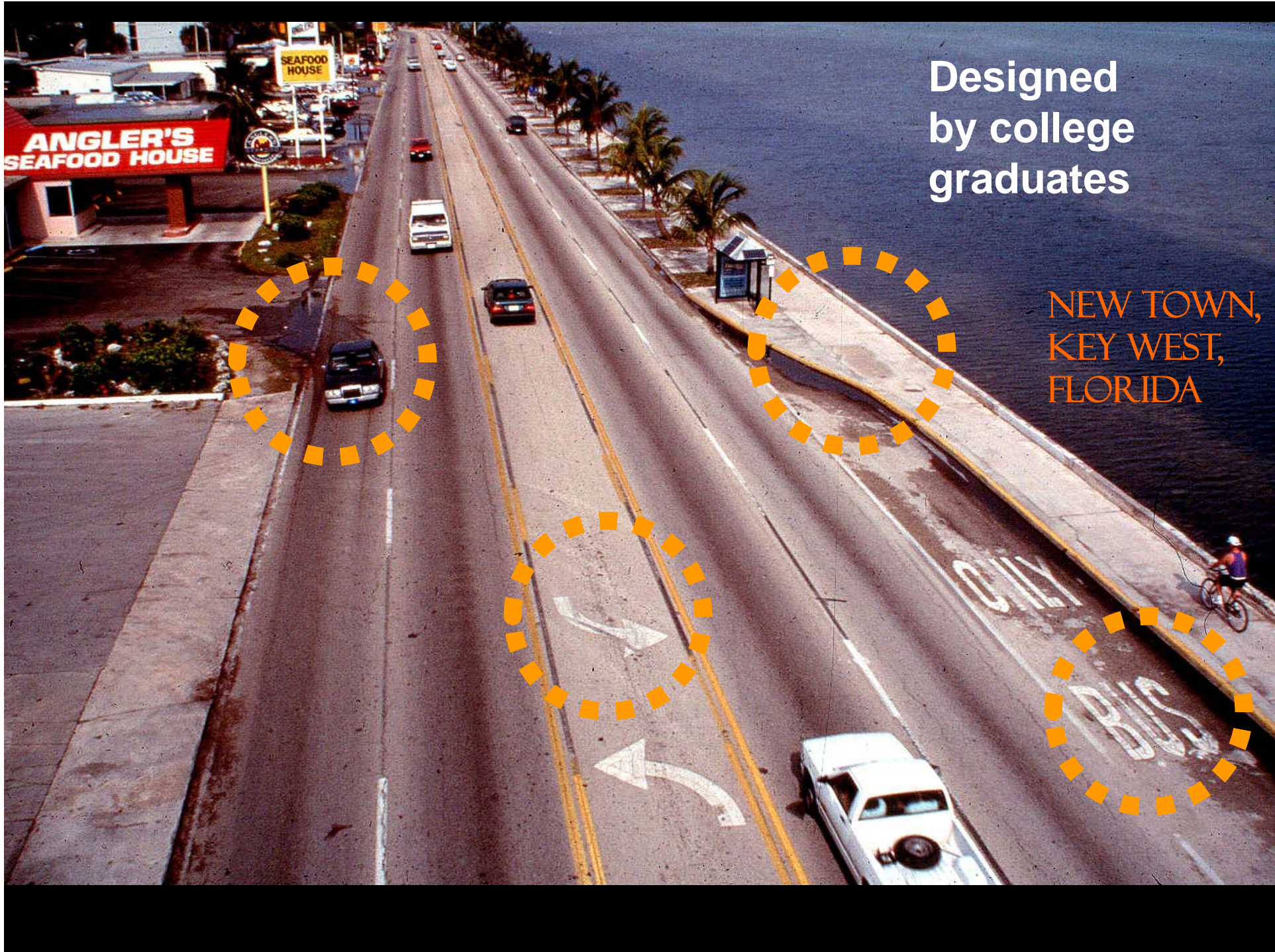
307



Narrow streets
Short blocks
Tight corner radii
Great plazas
Beautiful buildings
Limited parking

Built by Pirates

OLD TOWN,
KEY WEST,
FLORIDA



Designed
by college
graduates

NEW TOWN,
KEY WEST,
FLORIDA

Designed by
experts ...



Division Avenue and Wealthy Street

Designed by other experts,
with public input!

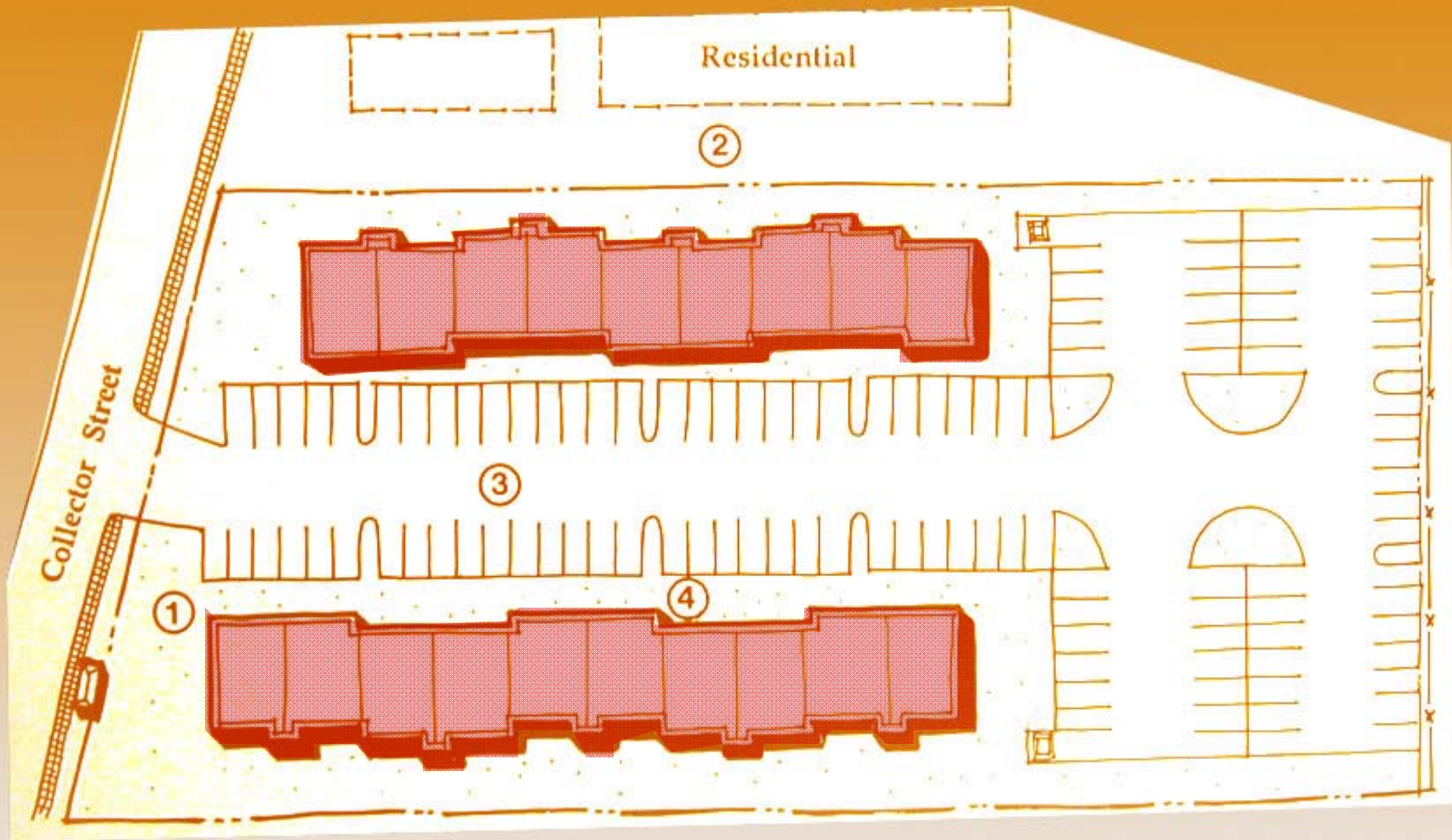


Cambridge, Massachusetts

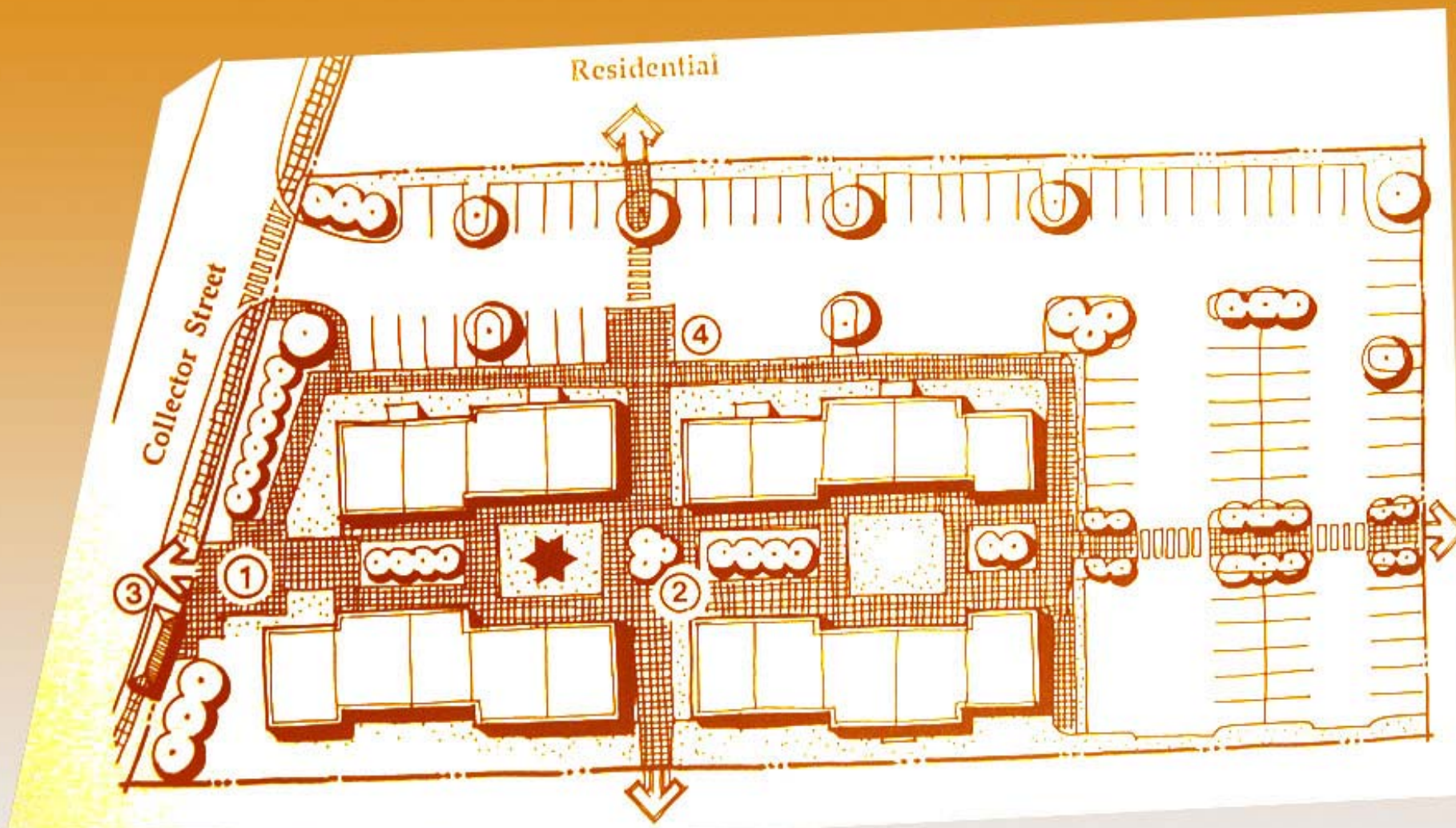




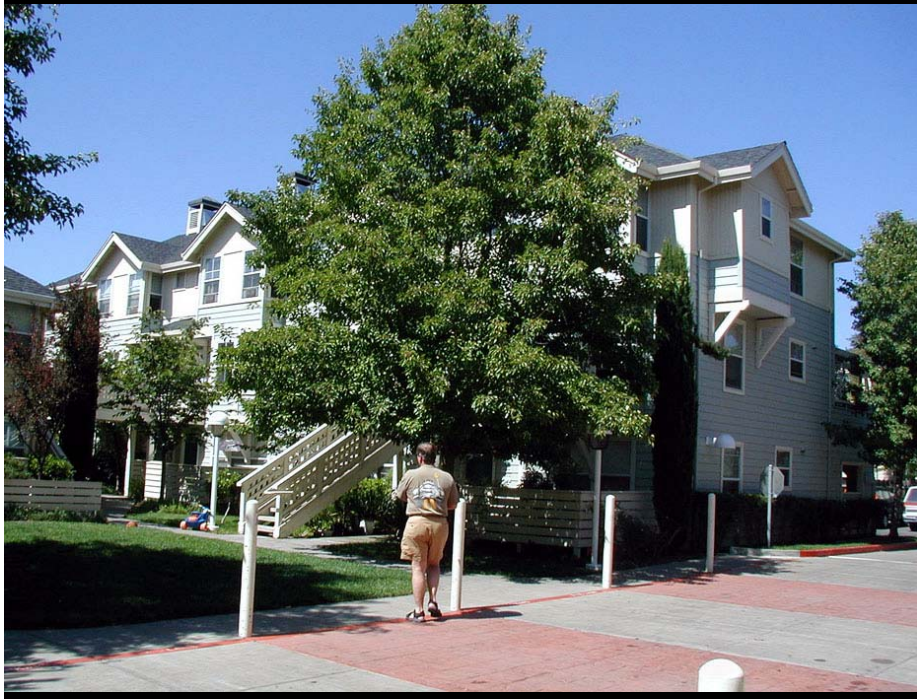
Small Apartment - Typical



Small Apartment Complex Transit Compatible







The Birdhouses

