

WHAT HAPPENS WHEN I GET OFF THE TRAIN?

PUTTING THE T.O.D. IN D.O.T.

SEPTEMBER 10, 2019

JEFF SPECK AICP CNU-A LEED-ND Hon. ASLA



WALKABLE CITY

HOW DOWNTOWN
CAN SAVE AMERICA,
ONE STEP AT A TIME

JEFF SPECK

COAUTHOR OF *SUBURBAN NATION*

An aerial photograph of a city street. A wide crosswalk with white stripes runs vertically through the center. People are walking across the crosswalk. To the left of the crosswalk is a sidewalk with a decorative pattern of circular tiles and palm trees. To the right is a green lawn with a white bicycle symbol and a person walking on a sidewalk. The title 'WALKABLE CITY RULES' is printed in large white letters across the top of the crosswalk.

WALKABLE CITY RULES

101 STEPS TO
MAKING BETTER
PLACES

JEFF

SPECK

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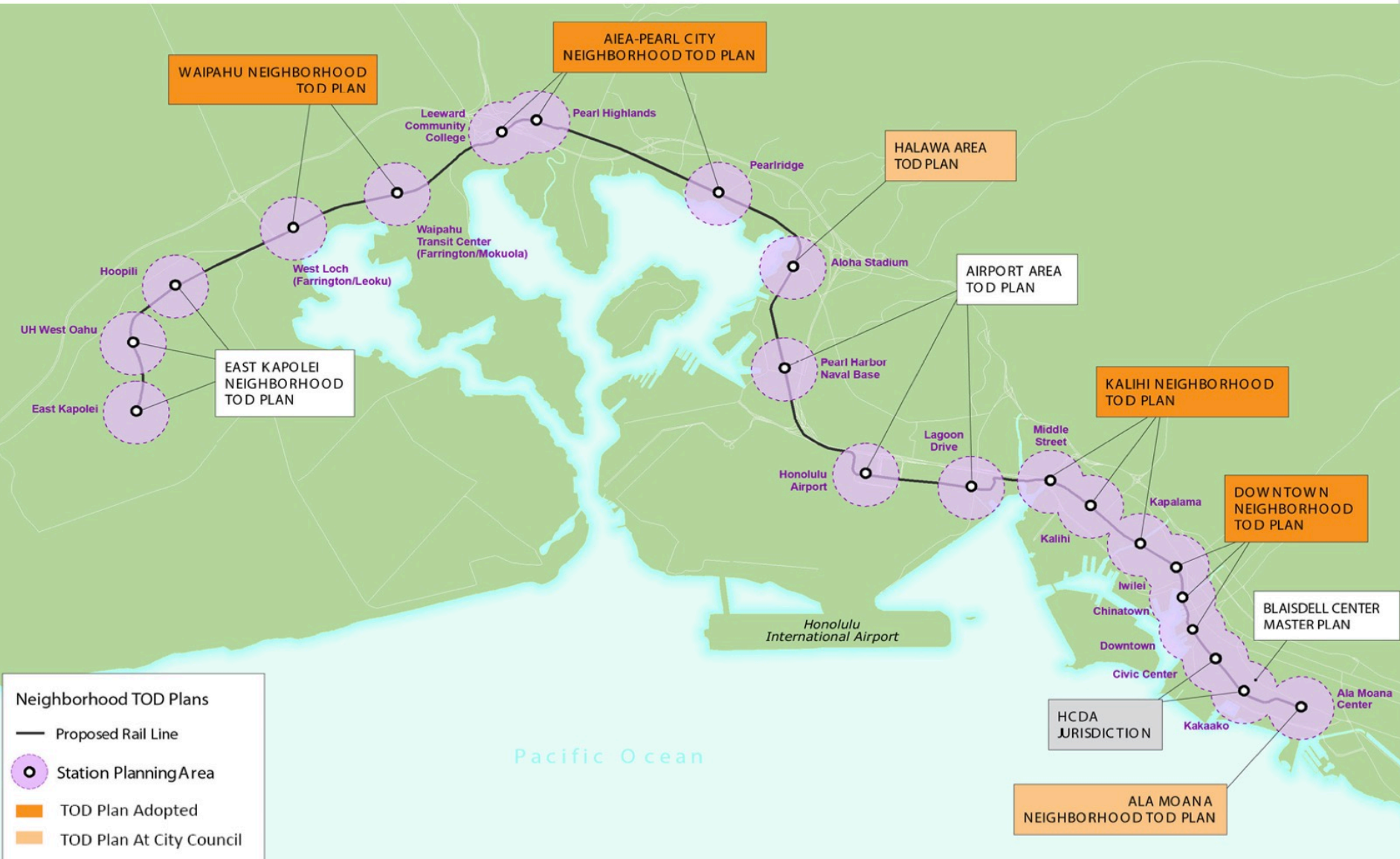


Wyandanch Rising

📍 WYANDANCH, NEW YORK



Neighborhood TOD Plans



U.S. MOBILITY: EVOLUTION OF THOUGHT

U.S. MOBILITY: EVOLUTION OF THOUGHT

1960: AUTOMOBILITY

U.S. MOBILITY: EVOLUTION OF THOUGHT

1960: AUTOMOBILITY

1970: MULTI-MODAL

U.S. MOBILITY: EVOLUTION OF THOUGHT

1960: AUTOMOBILITY

1970: MULTI-MODAL

1980: TRANSIT + DENSITY

U.S. MOBILITY: EVOLUTION OF THOUGHT

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1990: TRANSIT + MIXED-USE

U.S. MOBILITY: EVOLUTION OF THOUGHT

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2000: TRANSIT + NEIGHBORHOODS

U.S. MOBILITY: EVOLUTION OF THOUGHT

1960: AUTOMOBILITY

1970: MULTI-MODAL

1980: TRANSIT + DENSITY

1990: TRANSIT + MIXED-USE

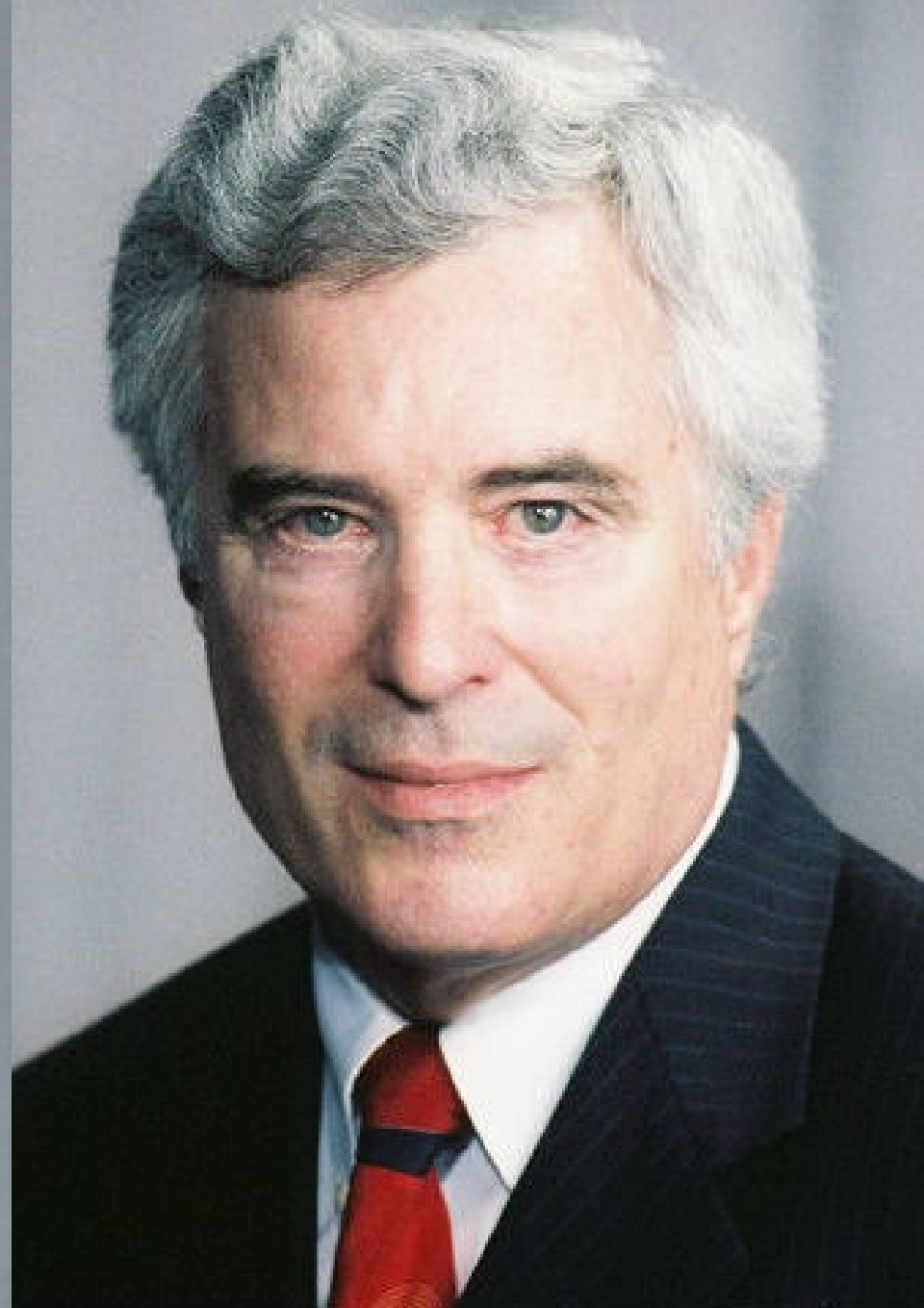
2000: TRANSIT + NEIGHBORHOODS

2010: TRANSIT + WALKABILITY

THE OPTION OF URBANISM

INVESTING IN A NEW
AMERICAN DREAM

CHRISTOPHER
B. LEINBERGER



64%

77%

86%

22%



MARRIED

**WITH
CHILDREN**

22%



66%



60%

News Release



NATIONAL
ASSOCIATION *of*
REALTORS®

PUBLIC AFFAIRS

For further information contact:
Michelle Wardlaw, 202-383-1042
mwardlaw@realtors.org

Realtors® Report Americans Prefer to Live in Mixed-Use, Walkable Communities

WASHINGTON (October 31, 2013) – Choosing a community is one of the most important factors for consumers as they consider buying home, and research by the National Association of Realtors® has consistently revealed that Americans prefer walkable, mixed-use neighborhoods and shorter commutes. According to NAR's *2013 Community Preference Survey*, 60 percent of respondents favor a neighborhood with a mix of houses and stores and other businesses that are easy to walk to, rather than neighborhoods that require more driving between home, work and recreation.

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100%

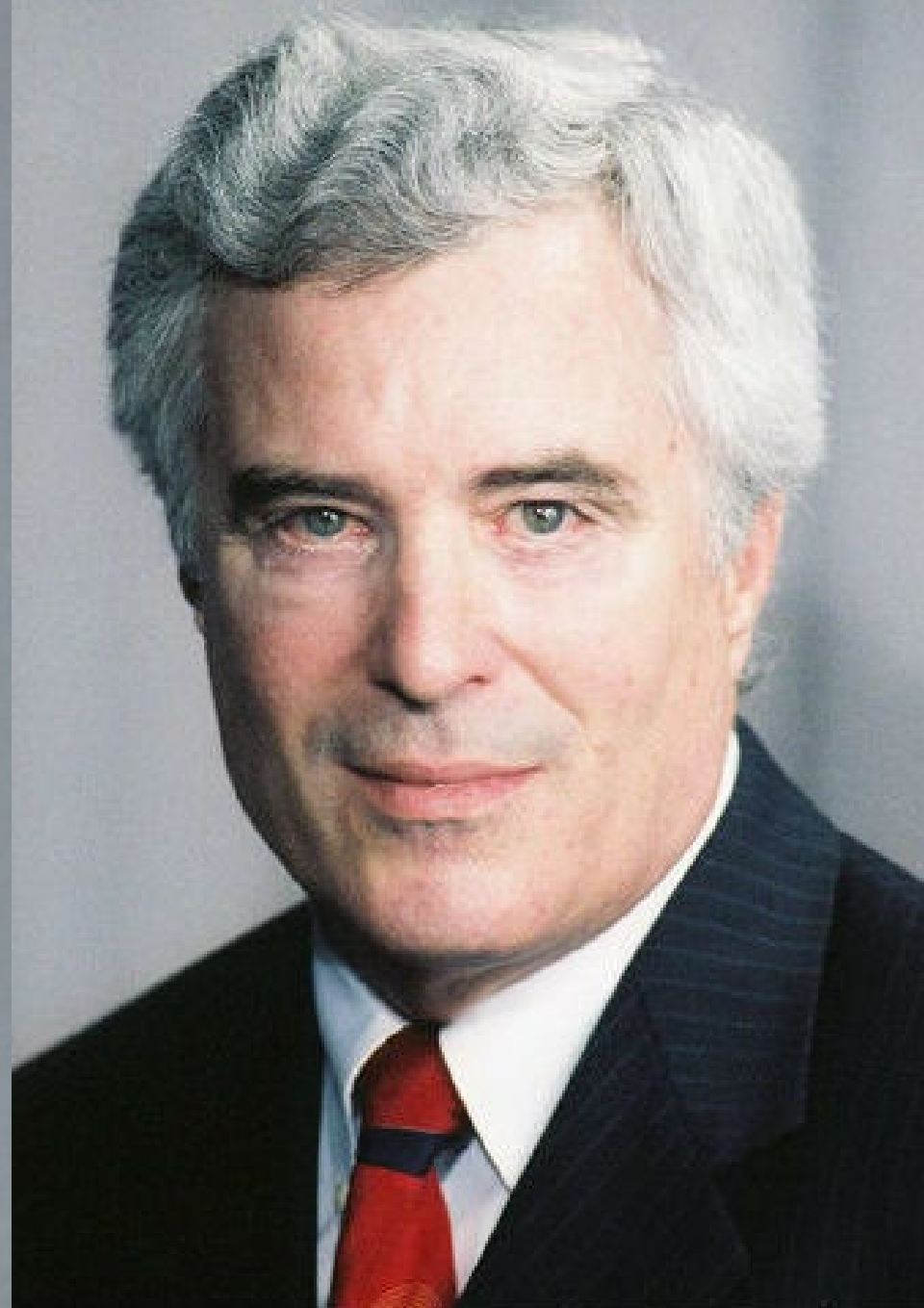
100%



THE OPTION OF URBANISM

INVESTING IN A NEW
AMERICAN DREAM

CHRISTOPHER
B. LEINBERGER



**WALKABLE
URBAN**

**WALKABLE
URBAN *vs.***

WALKABLE

URBAN *vs.*

DRIVABLE

SUBURBAN

DETROIT

DETROIT

51%

PREMIUM

DENVER

DENVER

150%

PREMIUM

NYC

NYC

2000%

PREMIUM





\$2000

\$2000

PER

WALKSCORE

POINT

OFFICE

OFFICE

27%

PREMIUM

Developers take steps to reinvent suburban office parks

By Jay Fitzgerald | GLOBE CORRESPONDENT JULY 27, 2014



REPRINTS PRINT

ARTICLE COMMENTS (3) SUBSCRIBE



KAYANA SZYMCZAK FOR THE GLOBE

WALKABLE

URBAN *vs.*

DRIVABLE

SUBURBAN

**THE GENERAL
THEORY OF
WALKABILITY**

HOW DO YOU GET PEOPLE TO WALK?

HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**

HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**

- **A SAFE WALK**

HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**
- **A SAFE WALK**
- **A COMFORTABLE WALK**

HOW DO YOU GET PEOPLE TO WALK?

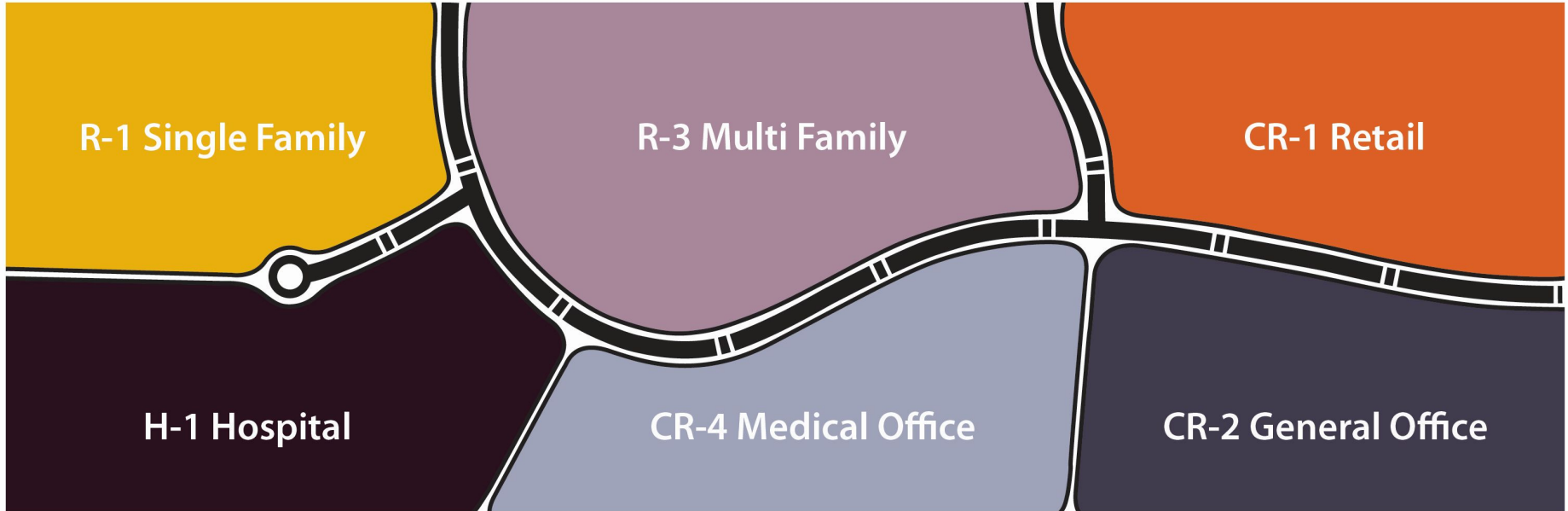
- **A REASON TO WALK**
- **A SAFE WALK**
- **A COMFORTABLE WALK**
- **AN INTERESTING WALK**

HOW DO YOU GET PEOPLE TO WALK?









LEGEND

- One & Two Family Buildings
- MultiFamily Walkup Buildings
- MultiFamily Elevator Buildings
- Mixed Commercial/Residential Buildings
- Commercial/Office Buildings
- Industrial/Manufacturing
- Transportation/Utility
- Public Facilities & Institutions
- Open Space
- Parking Facilities
- Vacant Land
- All Others or No Data











Map
Traffic











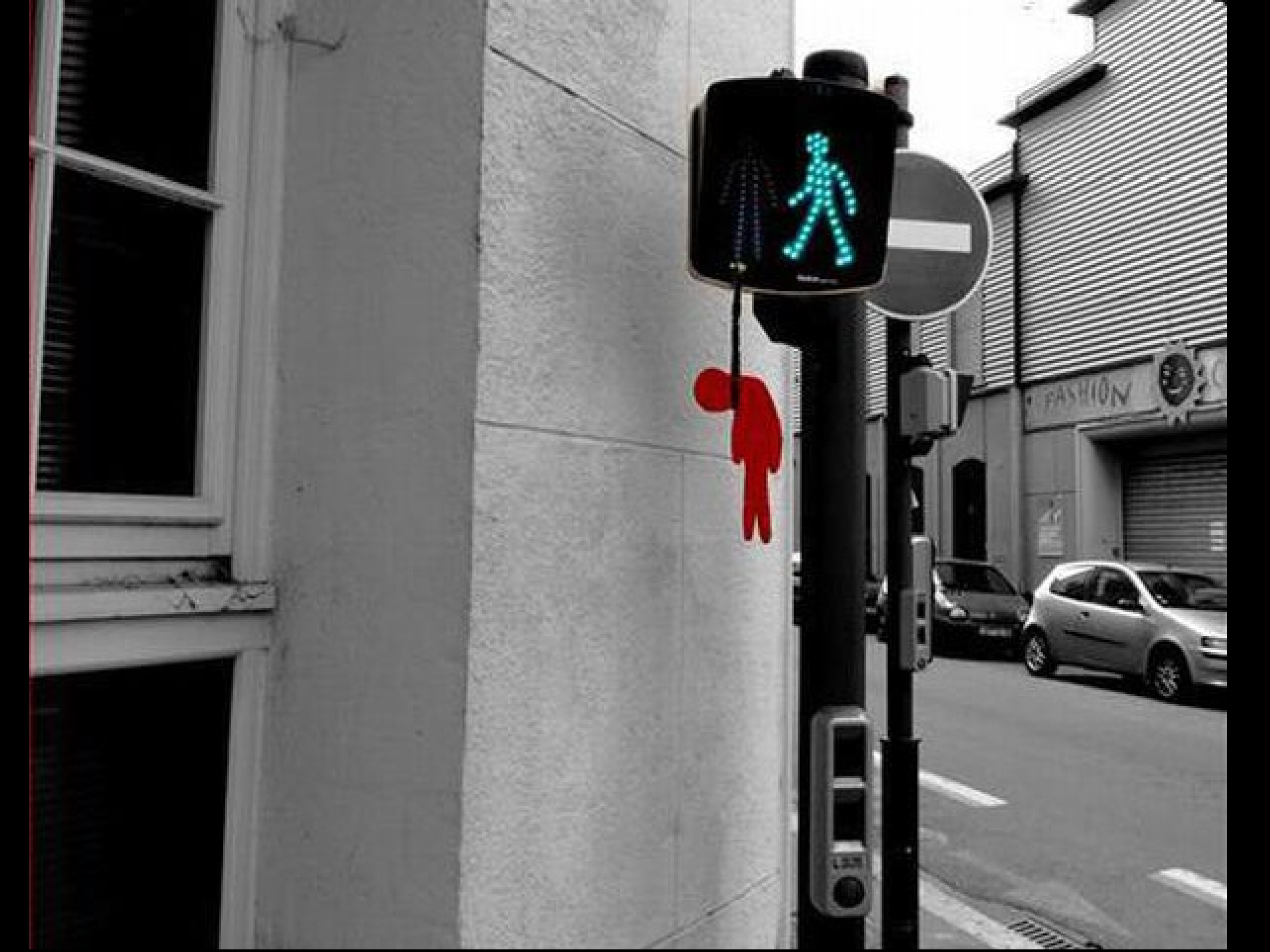
A photograph of a traffic light system against a clear blue sky. On the left, a vertical traffic light pole holds a three-lens traffic light that is currently dark. To its right, a rectangular white sign with black text reads "THIS LIGHT NEVER TURNS GREEN". Further right, another vertical traffic light pole holds a three-lens traffic light with the top lens illuminated in red. To the right of this second light is a smaller, square white sign. On the far right, a third vertical traffic light pole is partially visible, also holding a three-lens traffic light. Wires and cables are visible running across the scene, connecting the various components of the traffic control system.

THIS LIGHT
NEVER TURNS
GREEN

POSITION
OPEN







24
HOUR

FITNESS

FITNESS

FITNESS

QUALITY ATTITUDE
IN EVERY CLASS

WEDNESDAY
FREE LUNCH

WEDNESDAY
FREE LUNCH

24
HOUR

POINT LO...
HANDICAP...
TO UPPER...
LOCATED...
24 HOUR

HOW DO YOU GET PEOPLE TO WALK?

HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**

Hit by a vehicle traveling at

SPEED
20
MPH



9 out of 10 pedestrians survive

SPEED
30
MPH



5 out of 10 pedestrians survive

SPEED
40
MPH



1 out of 10 pedestrians survive



200 ft
100 m



200 ft
100 m



1 WOMEN IN GOLD
2 DESERT DANCER
3 WHILE WE'RE YOUNG
4 EX MACHINA
5 THE WATER DIVINER
6 TRUE STORY

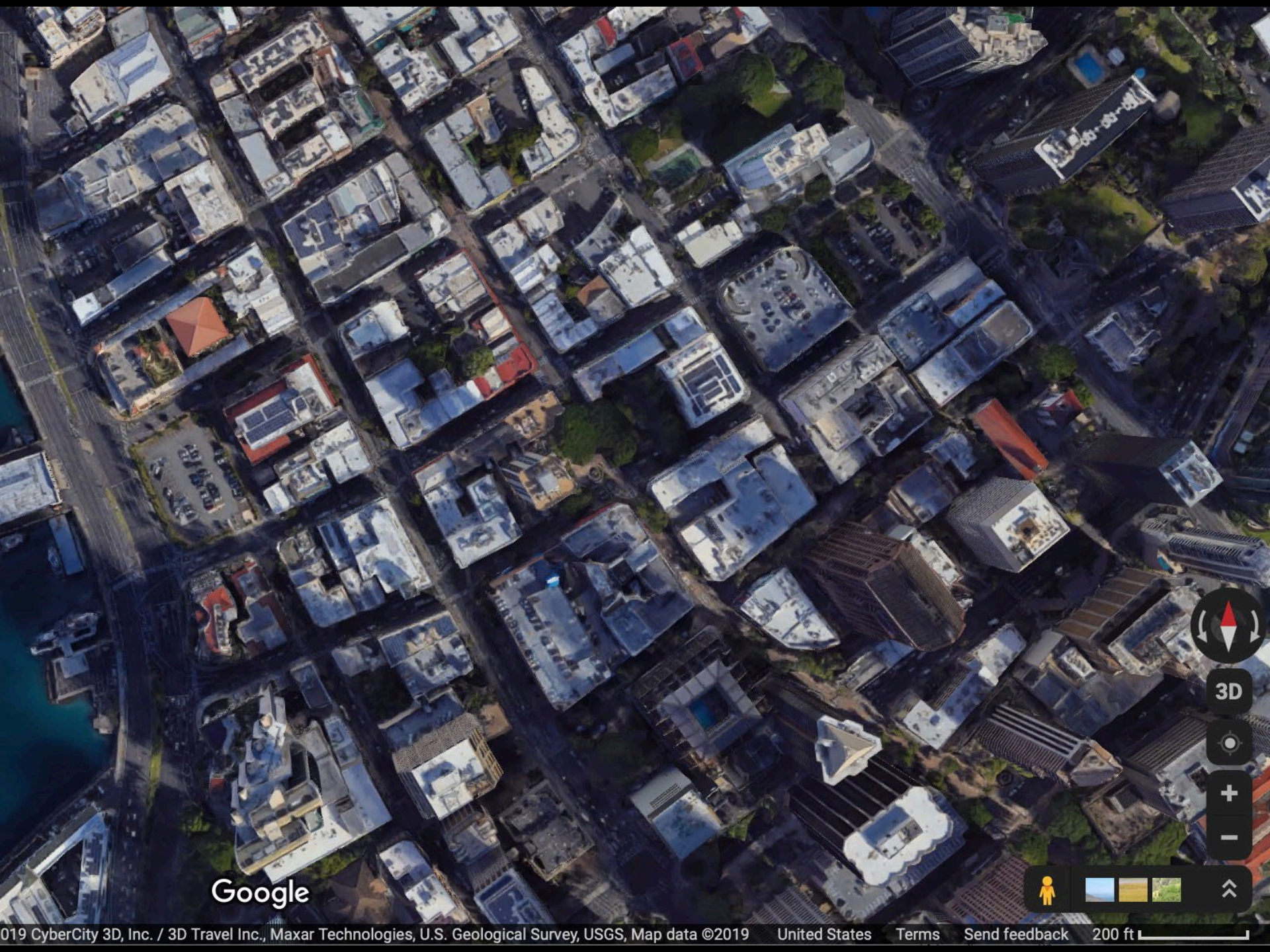


California city network and crash data

Characteristic	Safer cities	Less safe cities	Percent difference
Average year of incorporation	1895	1932	
Average year of block development	1957	1972	
Population ¹	65,719	59,845	-8.9
Real intersection density ²	106.2	62.7	-41.0
Average block size ³	18.2	34.5	89.6
Link to node ratio	1.34	1.29	-3.7
Fatal crashes ⁴	3.1	10.1	225.8
Fatal crashes not on limited access highways ⁴	2.3	8.6	273.9

¹2000 census ²Per square mile ³Acres ⁴Per 100,000 people per year

New Urban News, source: Wesley E. Marshall and Norman Garrick, Street Network Types and Road Safety: A Study of 24 California Cities



Google

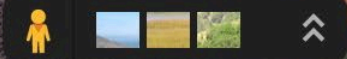


3D



+

-





200 ft

100 m

GOOD BONES



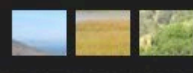
GOOD BONES

Google





3D



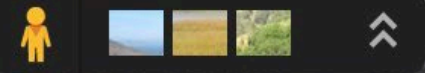
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BAD BONES



3D

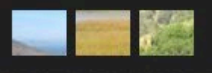


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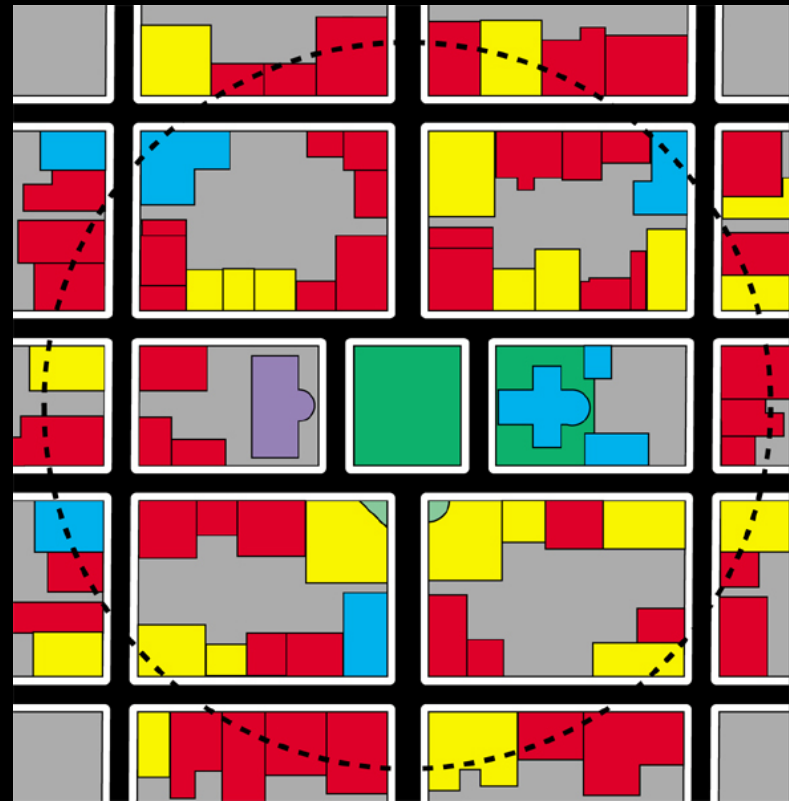
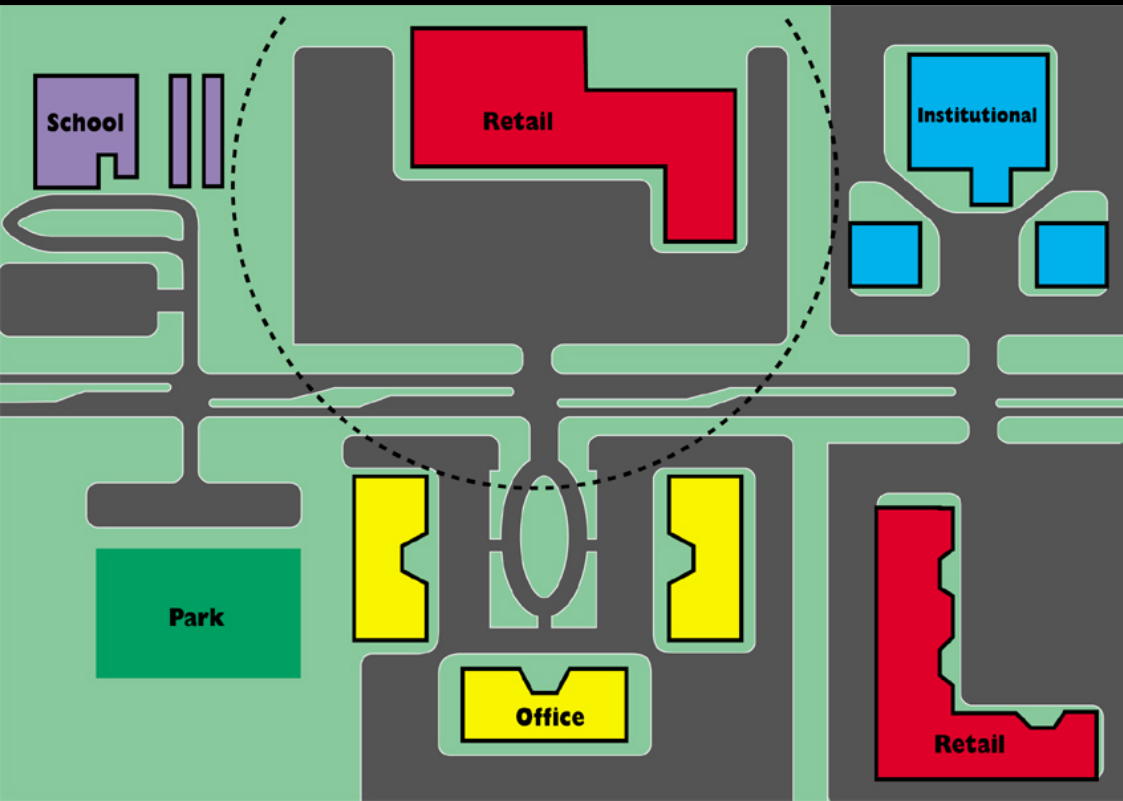
WRONG BONES



3D



e





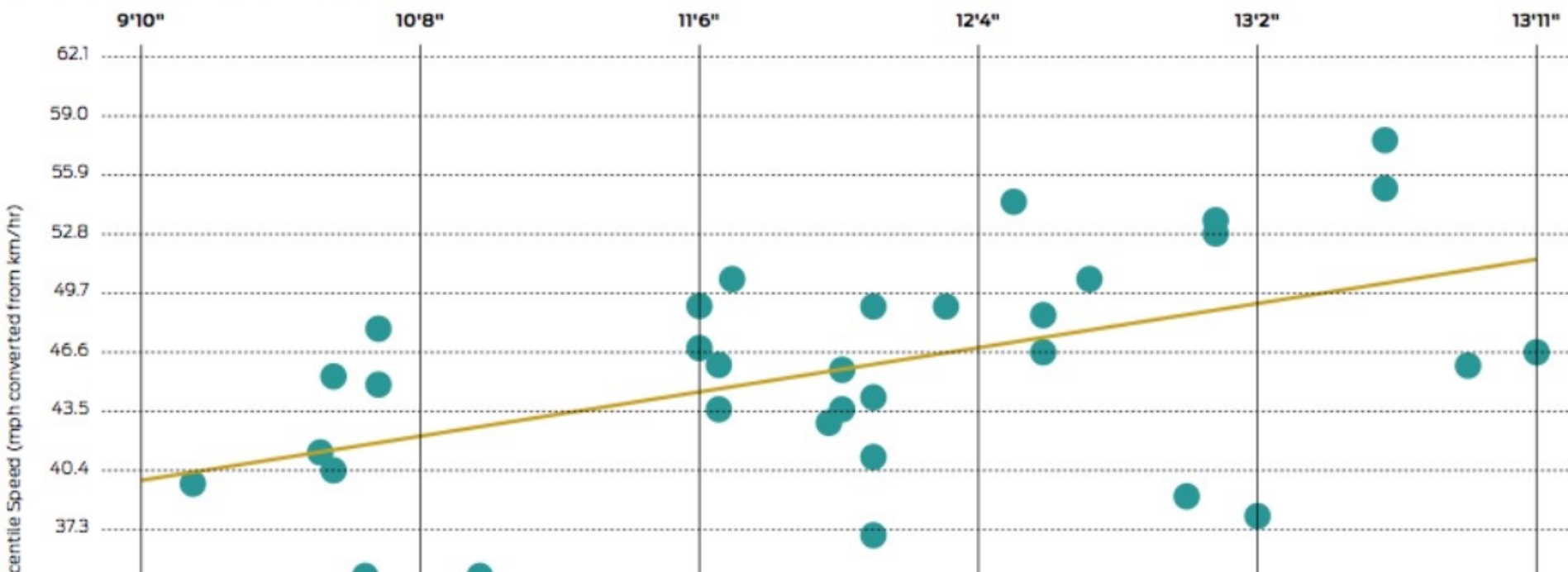






ZOOM ZOOM DR.

Average Lane Width (feet converted from meters)



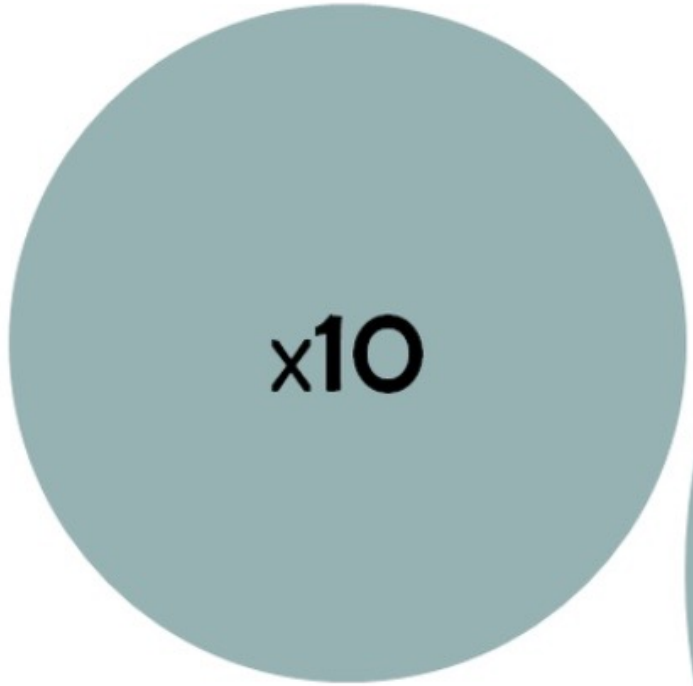
Severity Impact of Travel Lane Width



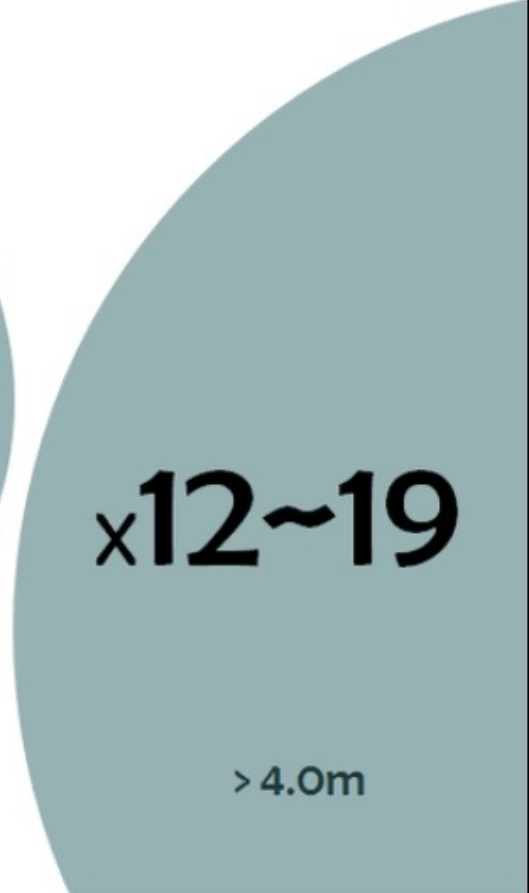
2.75m



3.1~3.15m



4.0m



> 4.0m

x3

1

x10

x12~19

“Increased lane widths are responsible for approximately 900 additional traffic fatalities per year.”

-- Robert Noland, “Traffic Fatalities and Injuries: The Effect of Changing Infrastructure and Other trends,” *Center for Transport Studies*, 2002.

Width of streets is narrowed by popular demand

BY HELEN NIEMIEC
STAFF WRITER

Complaints from residents about mandated street widths has resulted in an emerging street-width policy for improved roads in Birmingham.

The City Commission has narrowed the standard width for non-fire route streets and is expected to set a width for fire routes within a month.

"We need information and then we need to officially designate fire routes," said city commissioner Archie Damman III.

The city's engineering and public services department will present a report on street widths concerning fire routes at today's city commission meeting.

The new policy is that non-fire route streets can be 20-foot wide with parking on one side of the street or 26-foot wide with parking on both sides of the street.

Nine residents attended the Jan. 18 long-range planning session where the street width policy changed. Susan Gienapp, who has endorsed narrower streets, had given the commission a report from Portland, Oregon that showed how it had narrowed streets.

The idea of "traffic calming" and residential streets that had more of a small town flavor came up a number of times during the Downtown Master Plan study.

The policy affects the approximately half of Birmingham's roadways that still don't have curbs, gutters and storm sewers and currently are classified as unimproved roads. The city has 45 miles of improved streets; 25 miles of unimproved streets without curbs or gutters; and 20 miles of unimproved streets with curbs.

The petition of three streets in

BIRMINGHAM

the neighborhood immediately south of the downtown prompted the commission to rethink its policy which was reaffirmed last year as 29-foot wide. On citizen petitions to pave and improve the streets, the city engineering department had specified that improved streets would be done at 29-foot widths.

"I support this concept," said city commissioner Eleanor Siewert of the new widths. "We could handle something with options. I was very influenced by reading the Portland report. After the master plan, I've become more aware of what our streets look like."

City Manager Thomas Markus still has reservations about narrower streets. Portland, he noted, has a public transit system where Birmingham residents are reliant upon their cars and need more parking space.

Additionally, Markus expects that the narrower streets will become less used for cut-through traffic.

"When we downsize one neighborhood street, that will force traffic on the wider streets," Markus said.

Birmingham went with a 29-foot street width to allow safety vehicles, such as fire trucks and ambulances, to pass if cars are parked on both sides of a street. The large fire trucks are 8-foot, 10-inches wide. The street width policy last year was reaffirmed by a 4-3 city commission vote, though the topic of street width surfaced at every commission meeting where road improvements were discussed.

WHAT ARE SKINNY STREETS?

The City of Portland requires most newly constructed residential streets to be 30 or 26 feet wide, depending on neighborhood on-street parking needs. In the past, residential streets were required to be as wide as 38 feet. To achieve the benefits described below, the City reduced residential street widths.

Why create skinny streets in neighborhoods?

Allowing newly-paved residential streets to be narrower provides many benefits to area residents. Skinny streets help preserve neighborhood livability, while improving access to homes. Some benefits are:

Maintain neighborhood character.

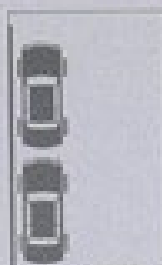
Construction of a wide paved street to replace a narrow unimproved road can change a neighborhood's atmosphere. Skinny streets reduce the impact on slopes and contours, on yards and on neighborhood self-image.

Lower construction costs.

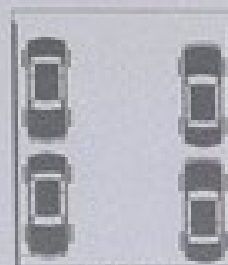
Construction of narrower streets costs less. This means that residents who want to improve existing streets are able to do so for less money and developers can create new neighborhood streets less expensively.

Save vegetation & trees.

In existing neighborhoods, narrower paving widths reduce the need to cut trees and shrubs along the street.



— 30 feet —



— 26 feet —

Reduce stormwater runoff.

Paved streets are a major source of stormwater runoff. Pollutants from autos, as well as fertilizers, pesticides and other contaminants, are collected in stormwater, which flows into storm sewers. Eventually, this dirty water reaches our streams and rivers. Reducing pavement reduces stormwater runoff and allows more water to soak directly into the ground.

Encourage traffic safety.

Narrower streets discourages non-neighborhood traffic and force drivers to slow down.

Encourage better land-use.

As stewards of our natural resources, we know that streets aren't the best use of existing undeveloped land. With skinny streets, in new developments we have more room to house our growing population while reducing the amount of land reserved for traffic use.

Who decides on a street's width?

If you live on an unimproved street, you may be considering forming a Local Improvement District (LID) to complete your street. With an LID, you and the other property owners on your street would pay for improvements, and the City would be responsible for future maintenance.

In that case, you and other participating property owners can help design what your street will look like. Collectively, you can decide if you want parking on one or both sides of the street. This will determine how wide the street will be.

In new neighborhoods, developers will select the street width they believe to be most appropriate within the city guidelines.

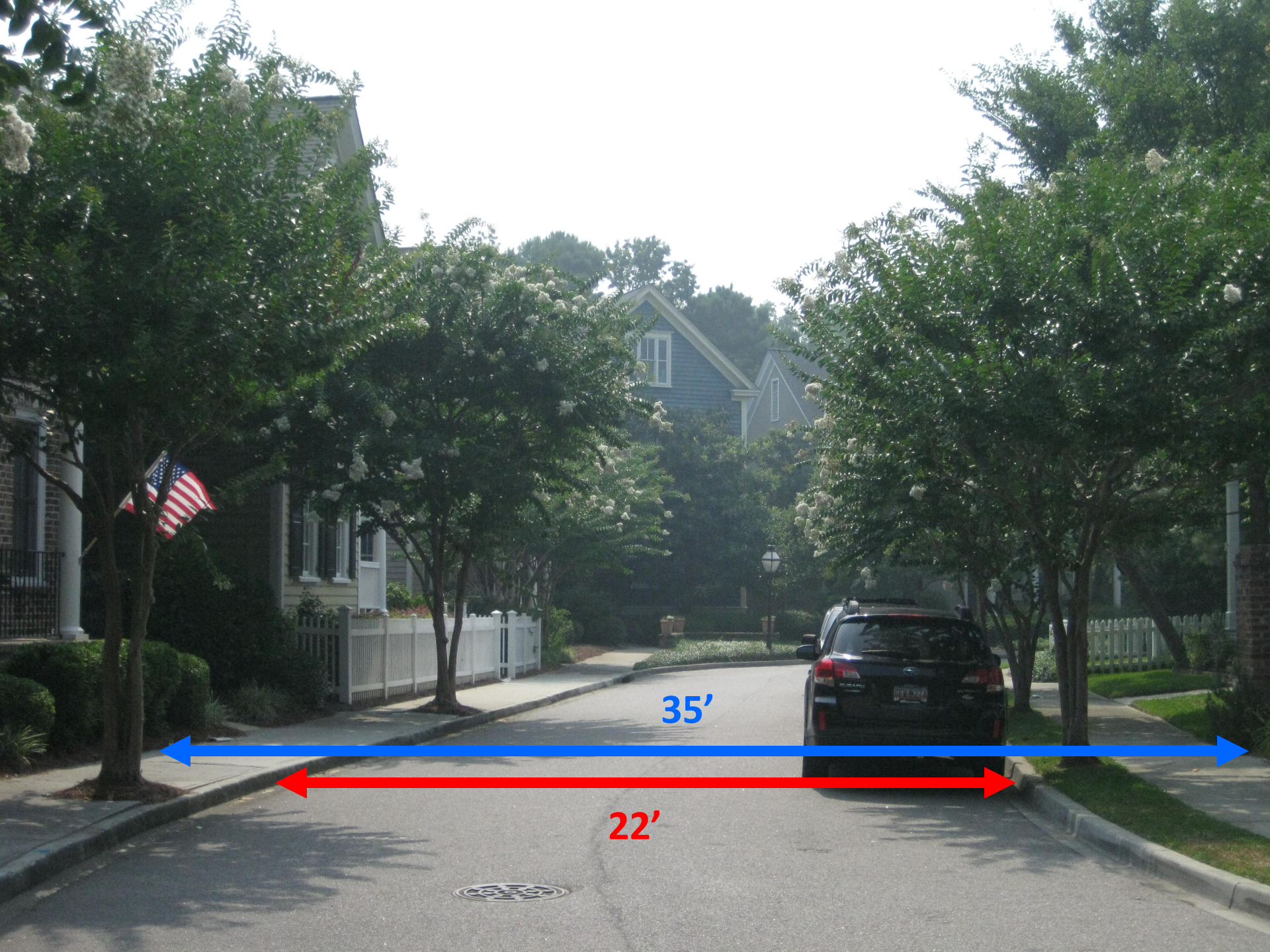
Can emergency vehicles reach my home?

The Fire Bureau participated in exercises in older neighborhoods with narrow streets. The Bureau found that street widths based on skinny street guidelines will provide adequate access for emergency vehicles.

How Can I Learn More About SKINNY STREETS?

The City of Portland's Office of Transportation has set up the Local Streets Outreach Program. If you would like more information, or if you're interested in a presentation about skinny streets, please contact

(503) 823-7046

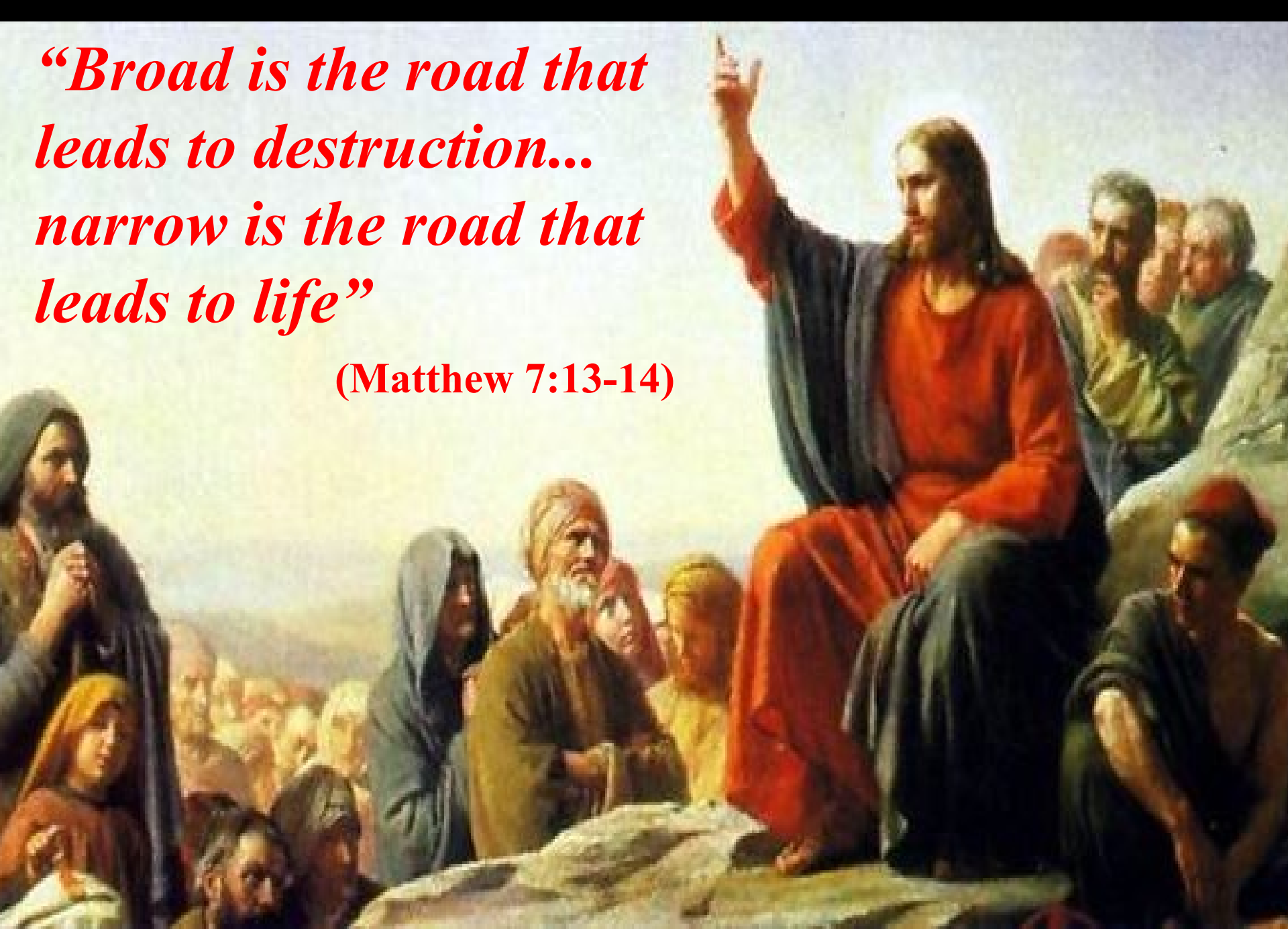


35'

22'

*“Broad is the road that
leads to destruction...
narrow is the road that
leads to life”*

(Matthew 7:13-14)



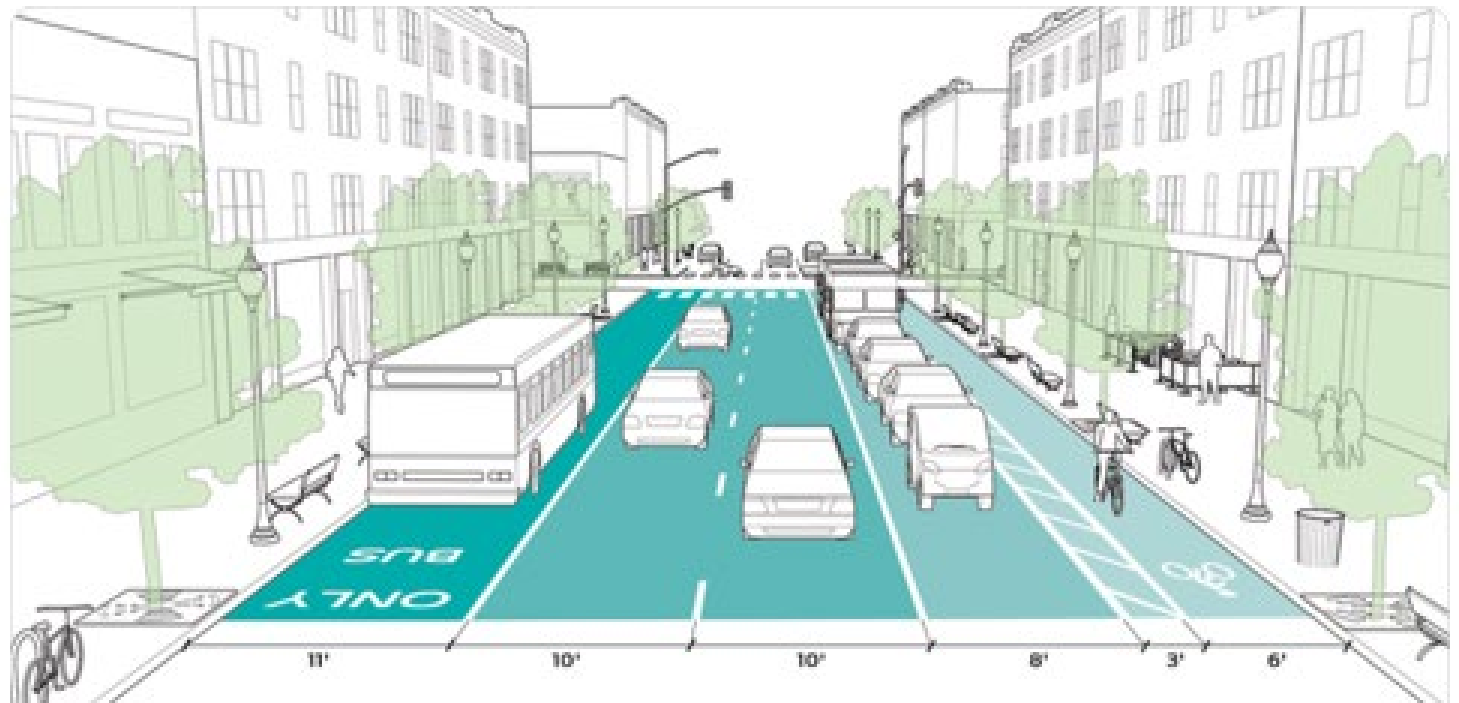


NACTO @NACTO · 3d



Lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street's safety.

nacto.org/publication/ur...





BIG CHEESE
BY CHEESE CONNOISSEURS
EVERY FRIDAY

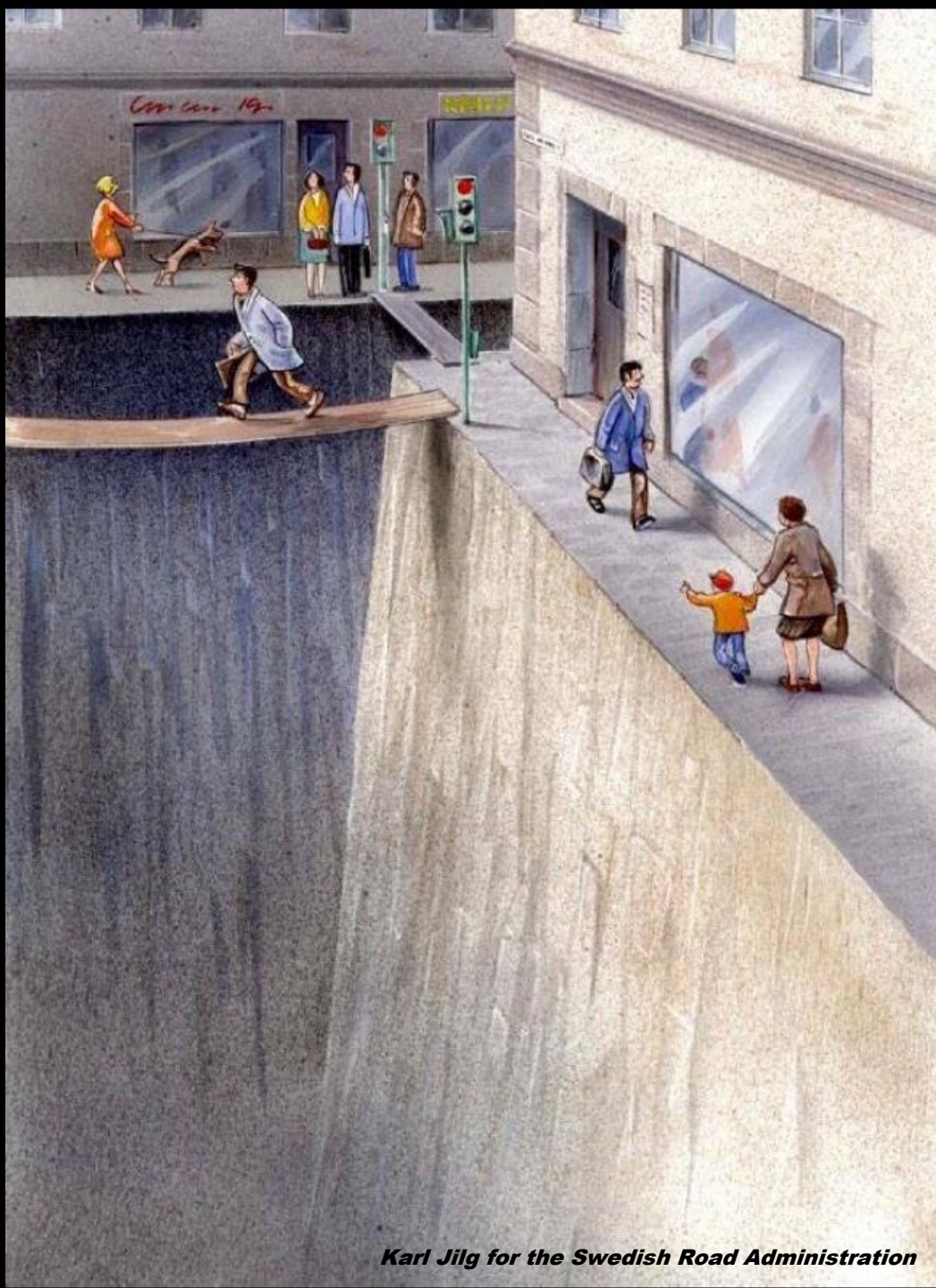
TRAINING & MORE

El Mirador
TECATE









Karl Jilg for the Swedish Road Administration





SPEED
30

SPEED
30

TRUCKS
BUSES
KEEP
RIGHT



STEEL
GRID
DECK



STOP

STOP

STOP











City looks to more protected bike lanes to deal with traffic

By [Marcel Honoré](#) · Sept. 1, 2015



Cindy Ellen Russell / Dec. 6
Cyclists crossed Piikoi Street on the new King Street cycle track in December as part of a “Ride Aloha” event held by the City and County of Honolulu. The city spends about \$2 million a year on bike projects

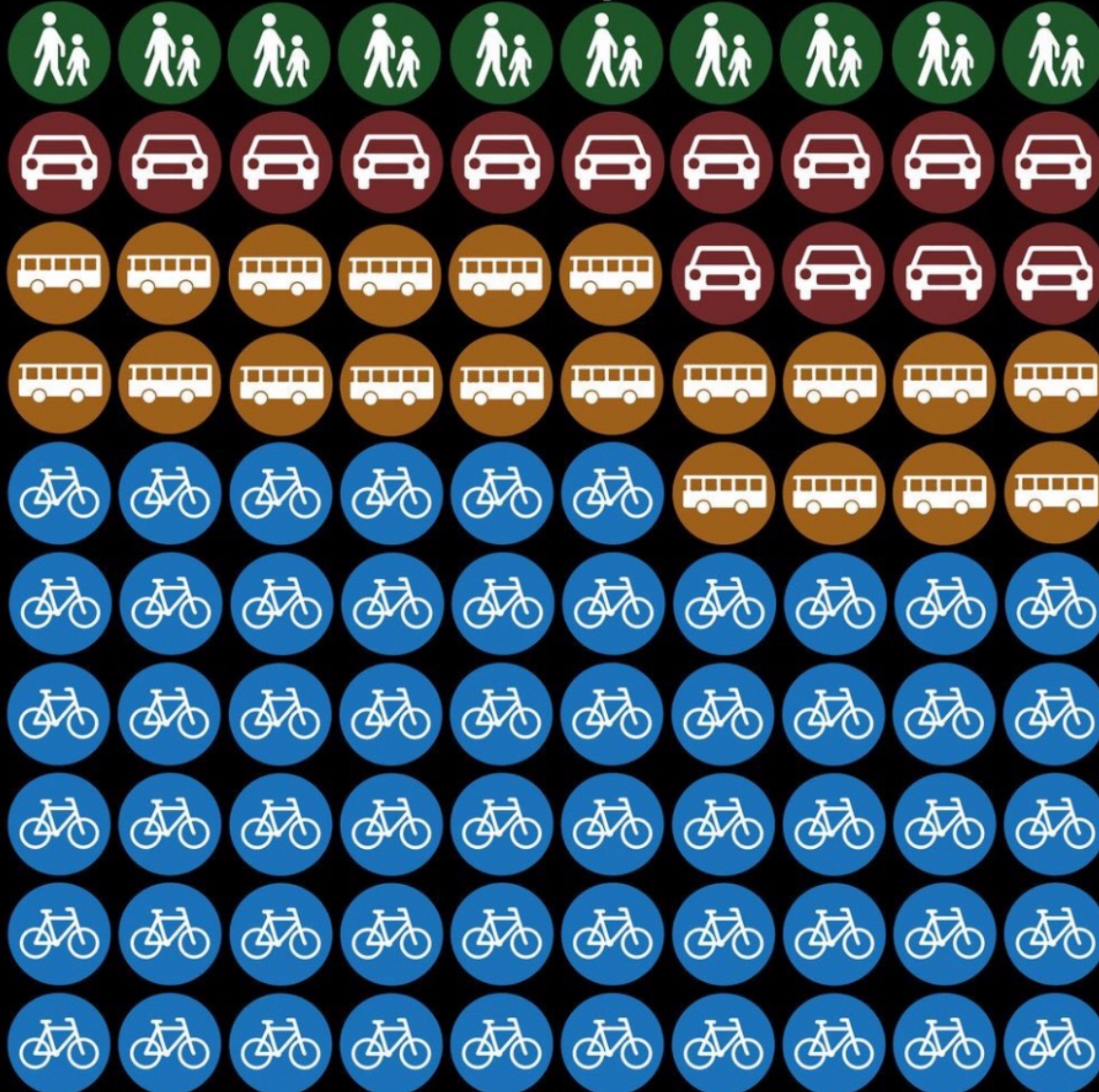






GIVE
CYCLISTS
SPACE

How citizens in the City of Copenhagen travel to work or education each day



Source: City of Copenhagen







Design challenges leave passers-by passing CityCenter by



STEVE MARCUS

Some say the entrance to CityCenter is not inviting to pedestrians.





ROUTE 66

LINDY'S
Coca-Cola
DINED

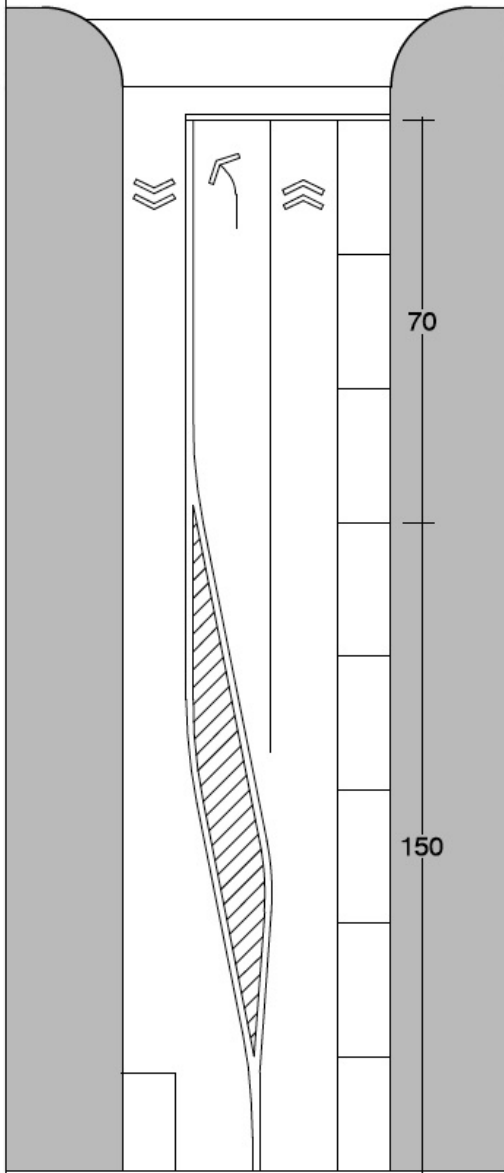
ROUTE 66

CENTRAL

NO
PARKING
ANY

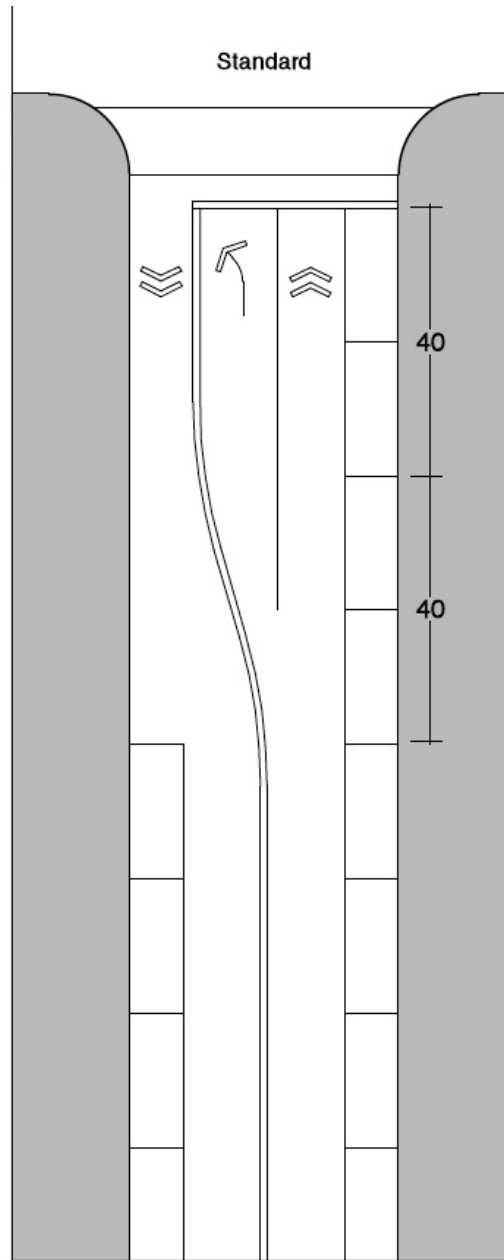


LEFT-HAND TURN LANES



High-Speed

Standard





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HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**

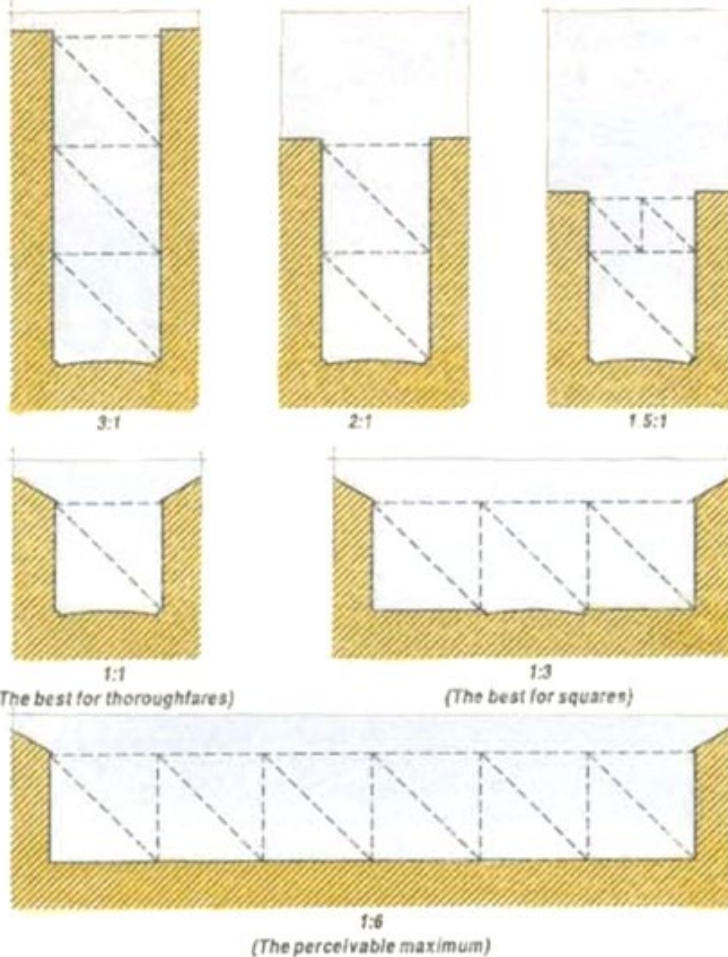
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- **A SAFE WALK**
- **A COMFORTABLE WALK**

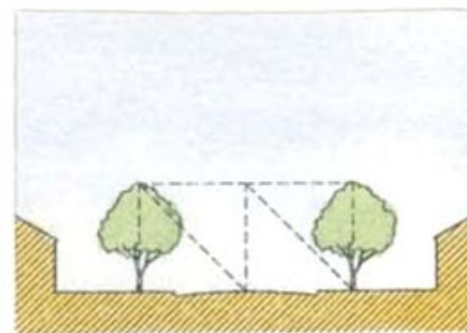


SPATIAL DEFINITION BY HEIGHT-TO-WIDTH RATIO

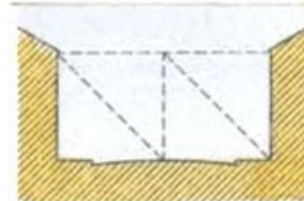


- **Spatial Definition:** the fabric achieved when enfronting facades are aligned in a coherent manner, and the defined space does not exceed a certain height-to-width ratio.
- **Height-to-Width Ratio:** the proportion of spatial enclosure related to the physiology of the human eye. If the width of space is such that the cone of vision encompasses less street wall than open sky, the degree of spatial enclosure is slight. As a general rule, the tighter the ratio, the stronger the sense of place and, often, the higher the real estate value. See: **Sense of Place**

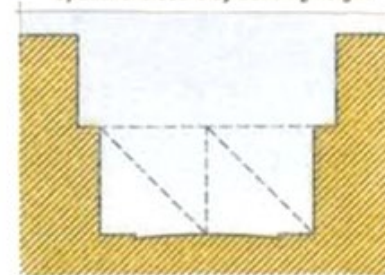
SPATIAL DEFINITION IN SECTION



Spatial enclosure by tree canopy



Spatial enclosure by building height



Spatial enclosure by recess line

- **Spatial Enclosure:** the defining elements of a public space provided by facades with disciplined tree planting as an alternative. Trees aligned for spatial enclosure are necessary on thoroughfares that exceed the maximum height-to-width ratios.
- **Enclosure:** a physical attribute of thoroughfares and open spaces, contributing to a sense of place. Enclosure of the public realm involves the definition of the public spaces by frontages as a room is defined by its walls. Controlling the degree of enclosure is one of the principal variables in the creation of an urban-to-rural transect. Enclosure is adjusted through the selection of frontage types or by a build-to line specifying the minimum building frontage and the minimum building height.







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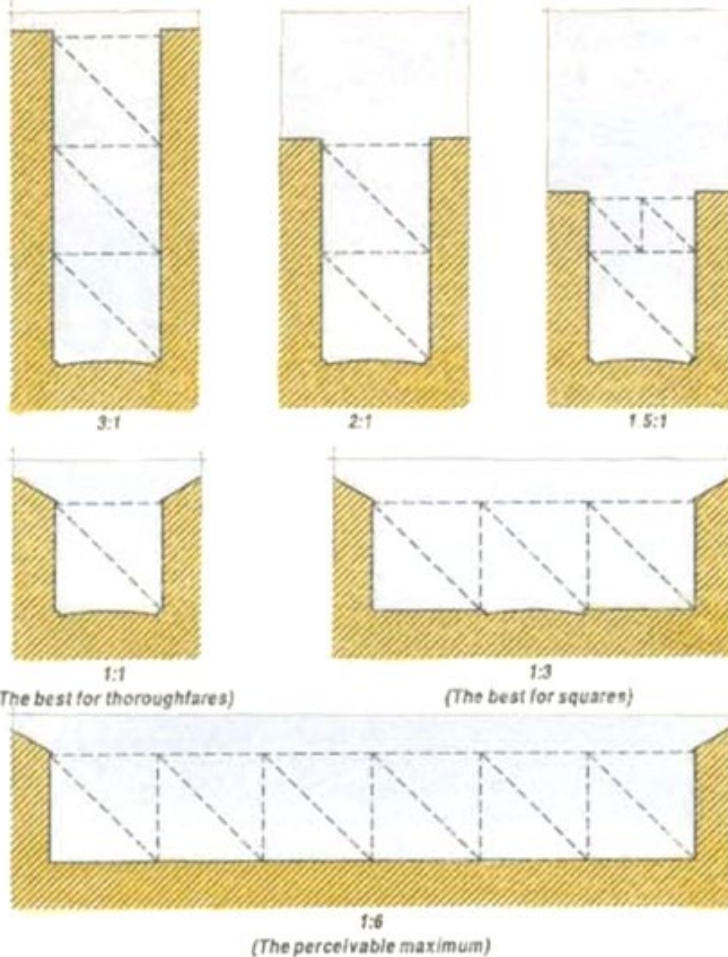
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HOW DO YOU GET PEOPLE TO WALK?

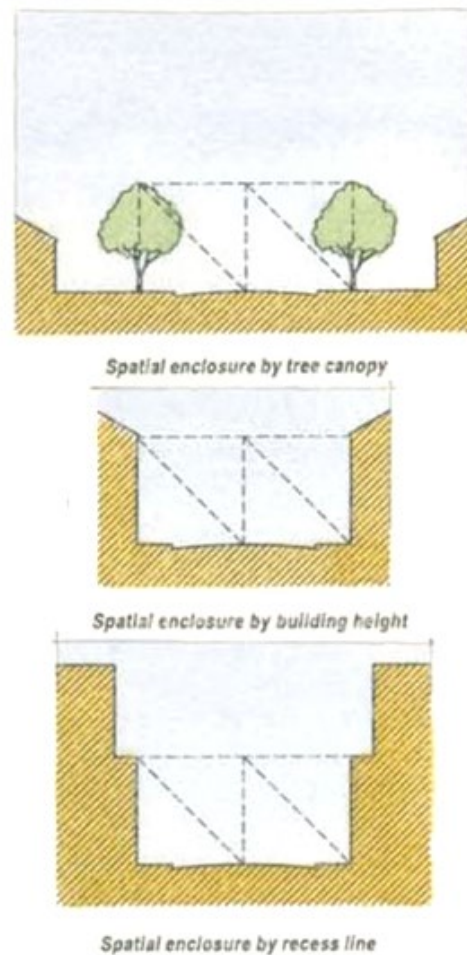
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- **AN INTERESTING WALK**

SPATIAL DEFINITION BY HEIGHT-TO-WIDTH RATIO



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SPATIAL DEFINITION IN SECTION



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7 STREET

WELCOME TO MIAMI BEACH
VISIT MIAMI BEACH
VISIT MIAMI BEACH

MIAMI COLLEGE OF ARTS & DESIGN











Civic Center Station



Civic Center Station



COOPERATIVE EFFORT

A joint development agreement between **Keauhou Lane** and neighboring **Keauhou Place** resulted in efficiency in parking and an overall enriched pedestrian experience, nestling all parking inside neighbor building in exchange for condo tower access at pedestrian concourse. This can **ONLY** happen with early and engaged discussion with **ALL** parties.

HOW DO YOU GET PEOPLE TO WALK?

- **A REASON TO WALK**
- **A SAFE WALK**
- **A COMFORTABLE WALK**
- **AN INTERESTING WALK**

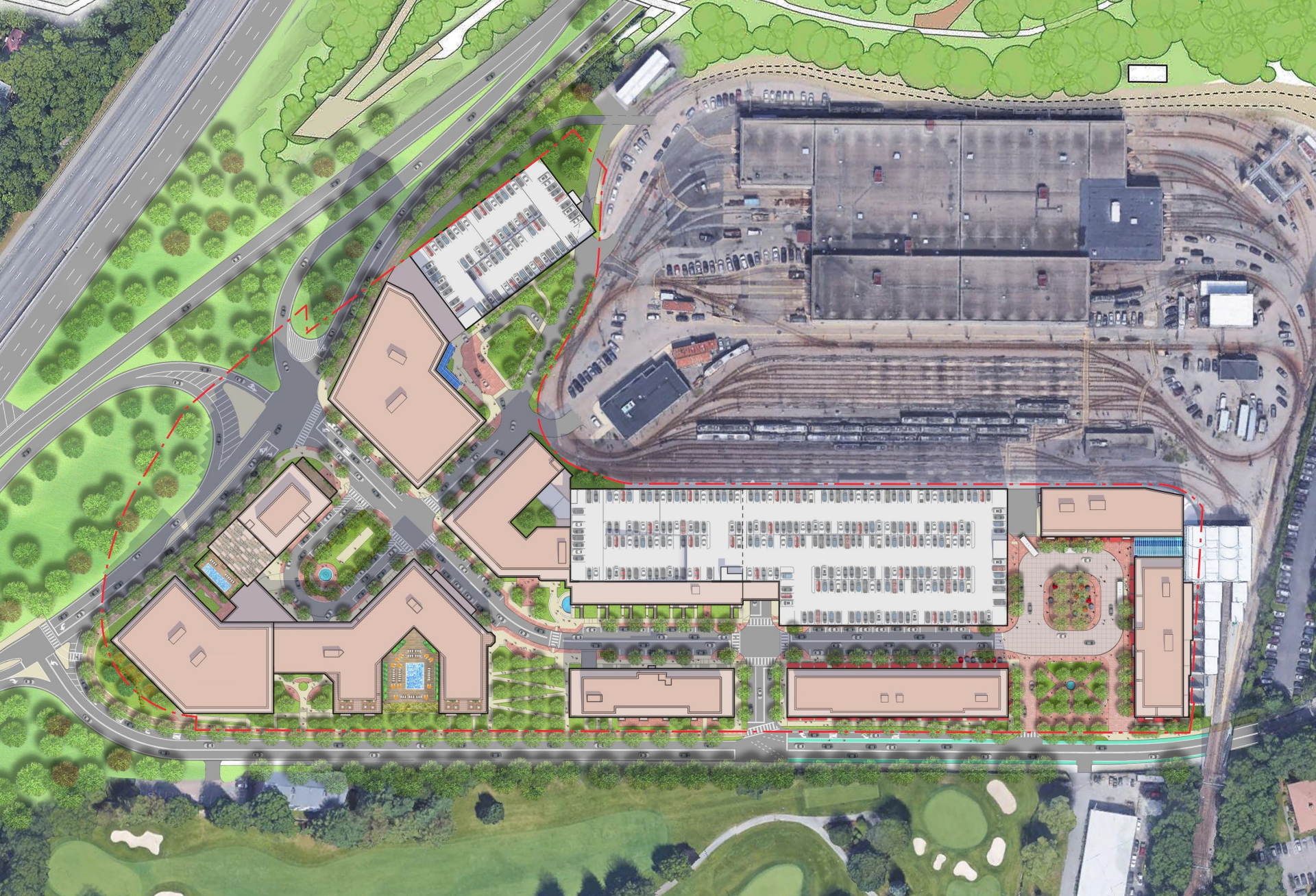


Wyandanch Rising

📍 WYANDANCH, NEW YORK







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VIDEO**



WHAT HAPPENS WHEN I GET OFF THE TRAIN?

PUTTING THE T.O.D. IN D.O.T.

SEPTEMBER 10, 2019

JEFF SPECK AICP CNU-A LEED-ND Hon. ASLA

RESOURCES

An aerial photograph of a city street featuring a prominent white-striped crosswalk. Several pedestrians are walking across the crosswalk, including a person with a blue umbrella, a person on a bicycle, and a person pushing a stroller. A yellow taxi is partially visible in the top right corner. The scene is brightly lit, casting long shadows from the people and the taxi.

WALKABLE CITY

HOW DOWNTOWN
CAN SAVE AMERICA,
ONE STEP AT A TIME

JEFF SPECK

COAUTHOR OF *SUBURBAN NATION*

An aerial photograph of a city street scene. A wide crosswalk with white stripes crosses a dark asphalt road. Several people are walking across the crosswalk. To the left of the road is a sidewalk with a decorative pattern of circular mosaics and palm trees. To the right is a green lawn with a white bicycle symbol and a person walking on a sidewalk. The title 'WALKABLE CITY RULES' is printed in large white letters across the top of the road.

WALKABLE CITY RULES

101 STEPS TO
MAKING BETTER
PLACES

JEFF

SPECK



JEFF SPECK

4 ways to make a city more walkable

▶ 18:38 🔊 🗨️ ⚙️ ↗️

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13 languages
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Freedom from cars, freedom from sprawl, freedom to walk your city! City planner Jeff Speck shares his "general theory of walkability" -- four planning principles to transform sprawling cities of six-lane highways and 600-foot blocks into safe, walkable oases full of bike lanes and tree-lined streets.

1,383,910 views

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October 2013 at

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Jeff Speck:

The walkable city

TEDCity2.0 · 16:56 · Filmed Sep 2013

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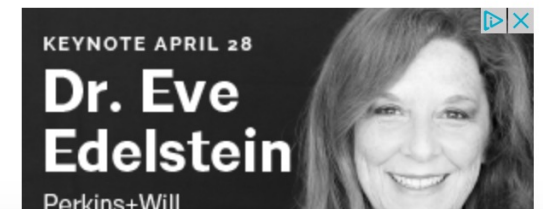


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How do we solve the problem of the suburbs? Urbanist Jeff Speck shows how we can free ourselves from dependence on the car — which he calls "a gas-belching, time-wasting, life-threatening prosthetic device" — by making our cities more walkable and more pleasant for more people.

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