

# TRANSPORTATION IN THE NEXT AMERICAN CITY



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**STRONG  
TOWNS**

**THE MISSION OF STRONG TOWNS IS TO SUPPORT A MODEL OF GROWTH THAT ALLOWS AMERICA'S CITIES, TOWNS AND NEIGHBORHOODS TO BECOME FINANCIALLY STRONG AND RESILIENT.**



**STRONG  
TOWNS**

# Too many needs....

**REPAIRS**



**CONGESTION**



**SAFETY**



**GROWTH**



....and not enough money.

Too many demands....



....and not enough money.

Too many additional things to do....



**RAIL INVESTMENTS**



**BUS INVESTMENTS**



**BIKE LANES**



**PEDESTRIAN IMPROVEMENTS**

....and not enough money.



**We need more money.**

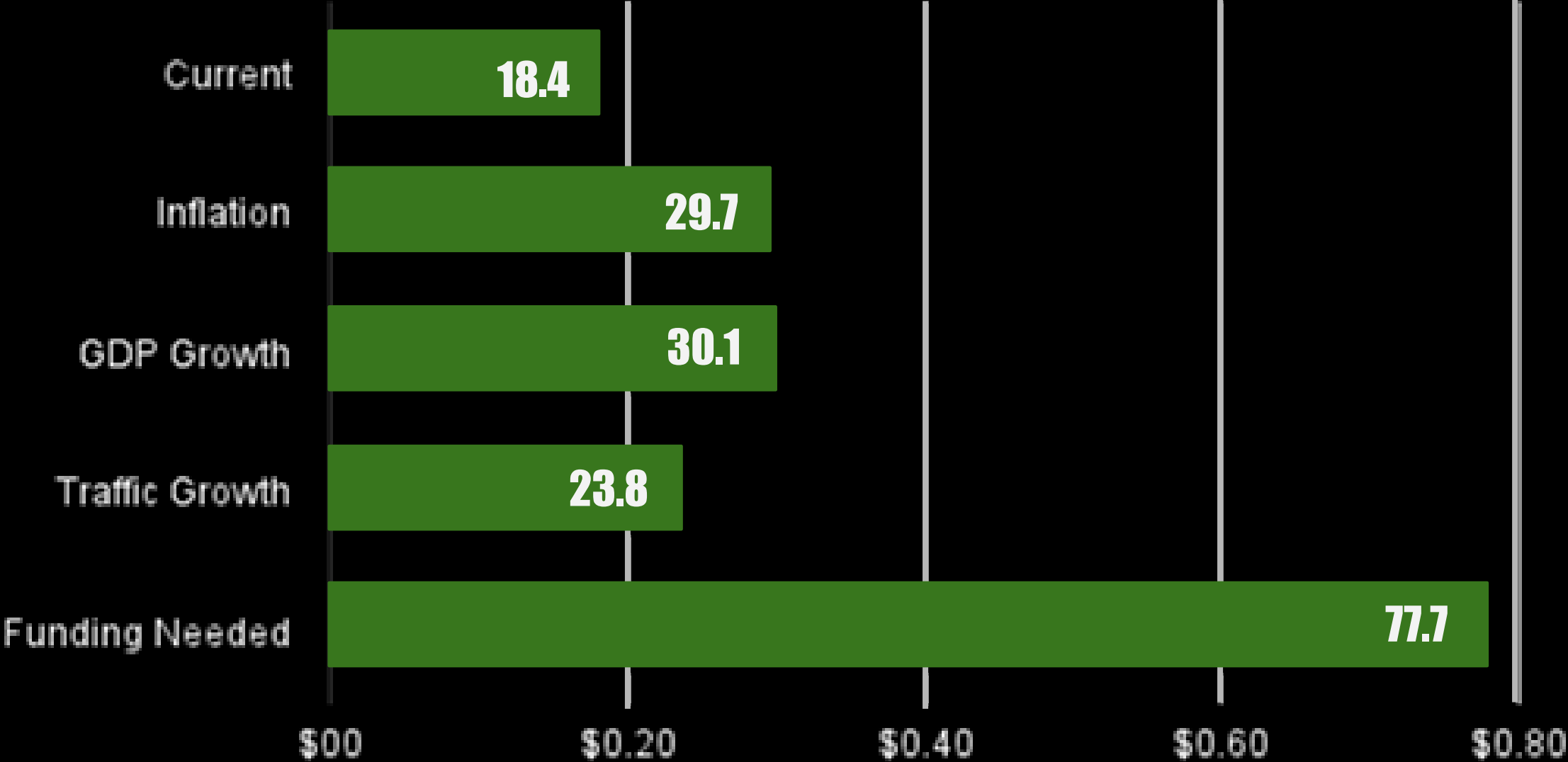


# Transportation Funding Gap

**\$94 Billion/Year**

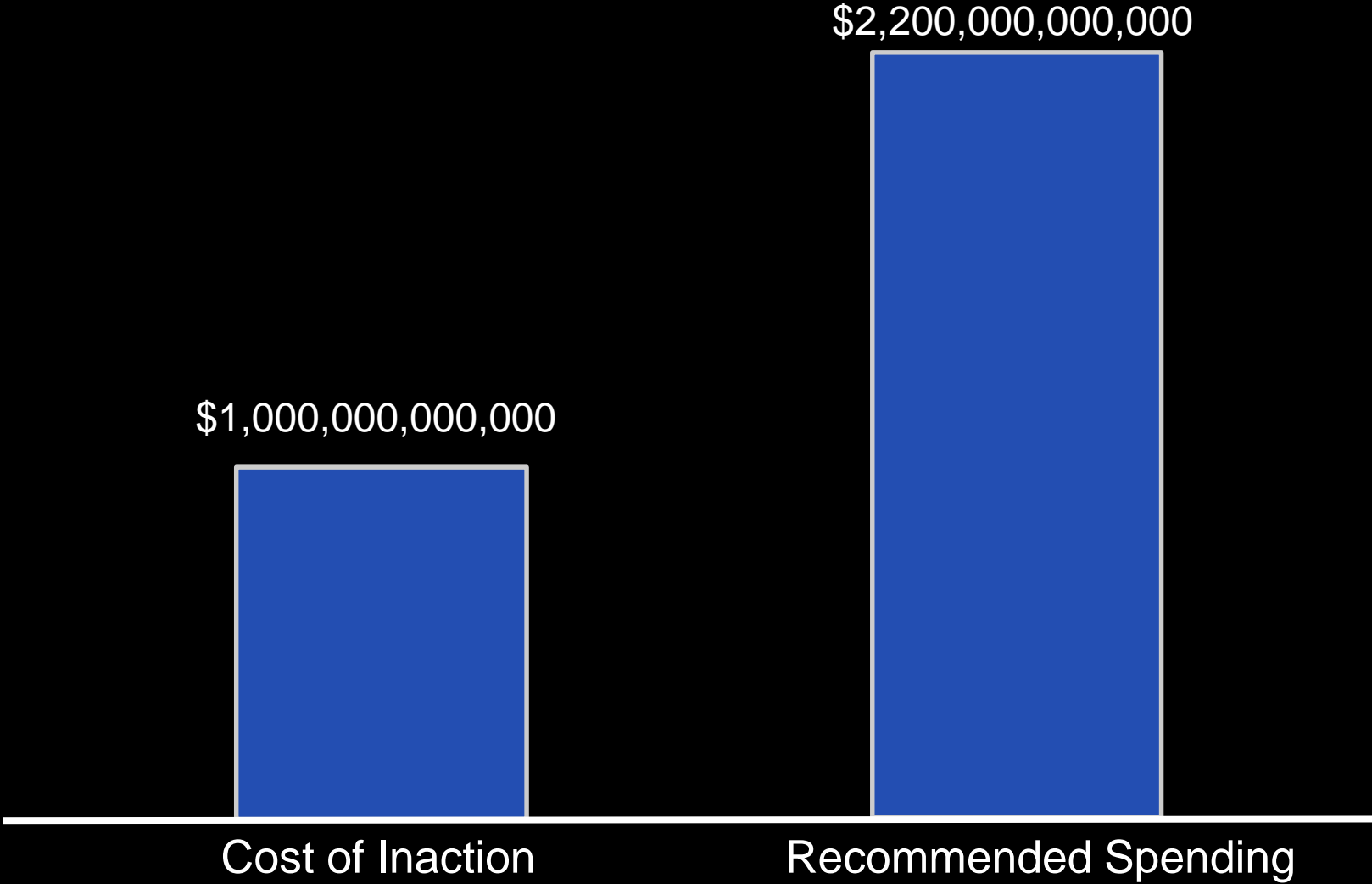


# Federal Gas Tax

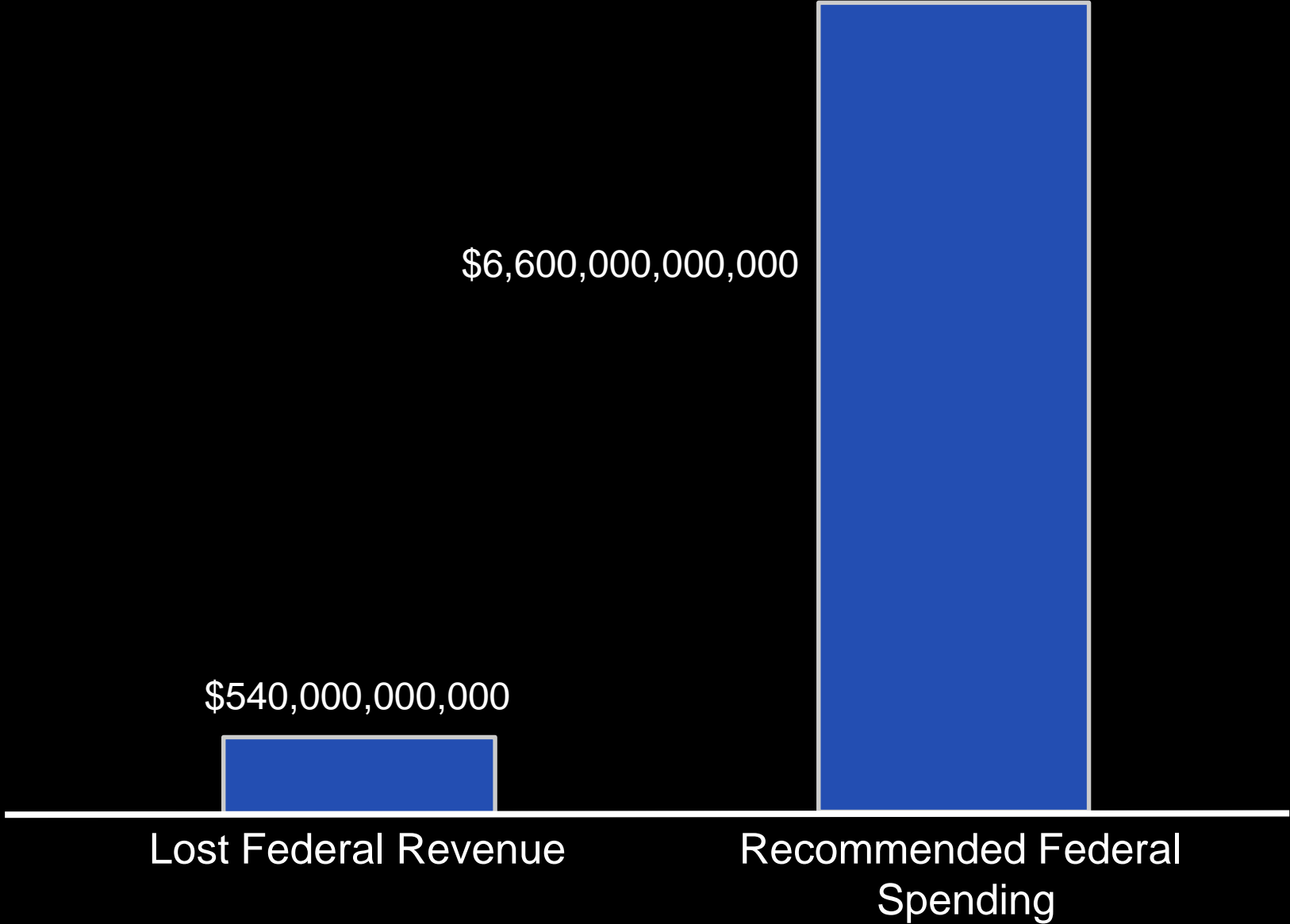




# ASCE Estimates, 2012-2020



# ASCE Estimates, 2012-2040



# Highway 91, California

An aerial photograph of a multi-lane highway, likely Highway 91 in California, showing heavy traffic. The road curves through a hilly, semi-arid landscape. The traffic is dense, with many cars and several large trucks. The highway has multiple lanes in both directions, separated by a median. The surrounding hills are covered in sparse vegetation, and the sky is clear.

“[The project] will give some relief to drivers in the regular lanes, raising their average rush-hour speeds from 8 mph to 9.4 mph, despite an expected 50 percent increase in traffic by 2035, according to project documents.”

-Orange County Register

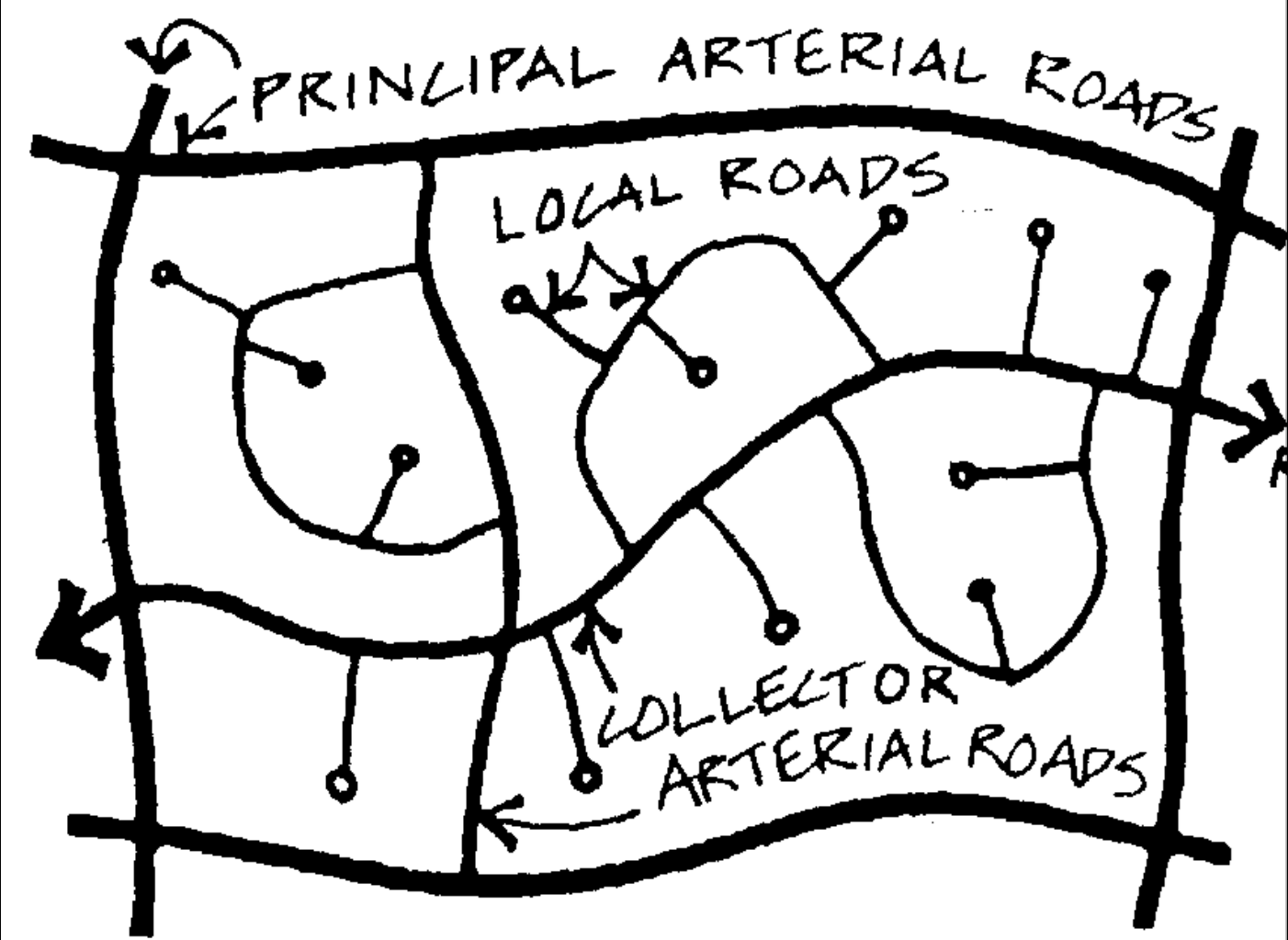


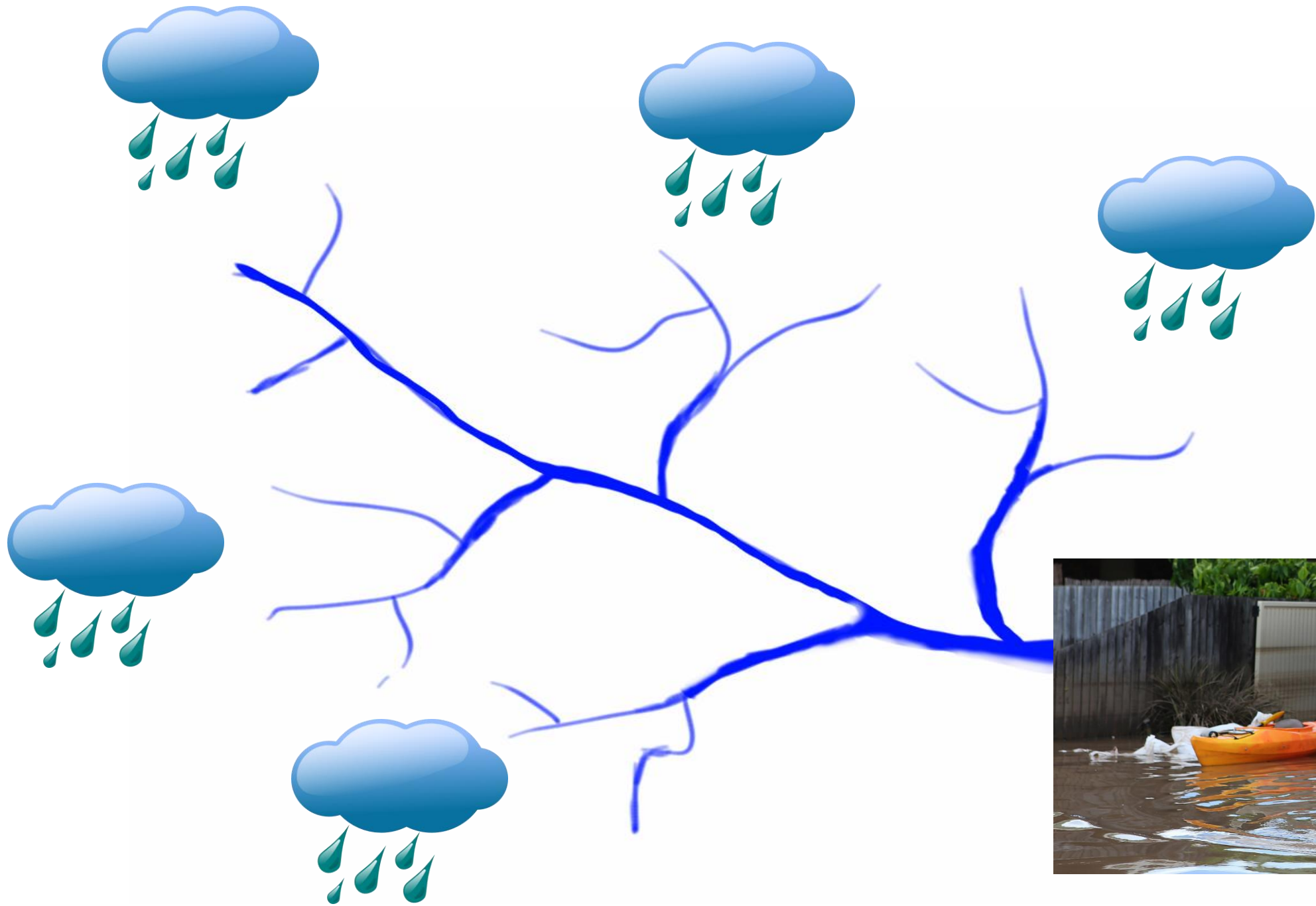
**We need more money.**



If we don't have the money,  
what then?

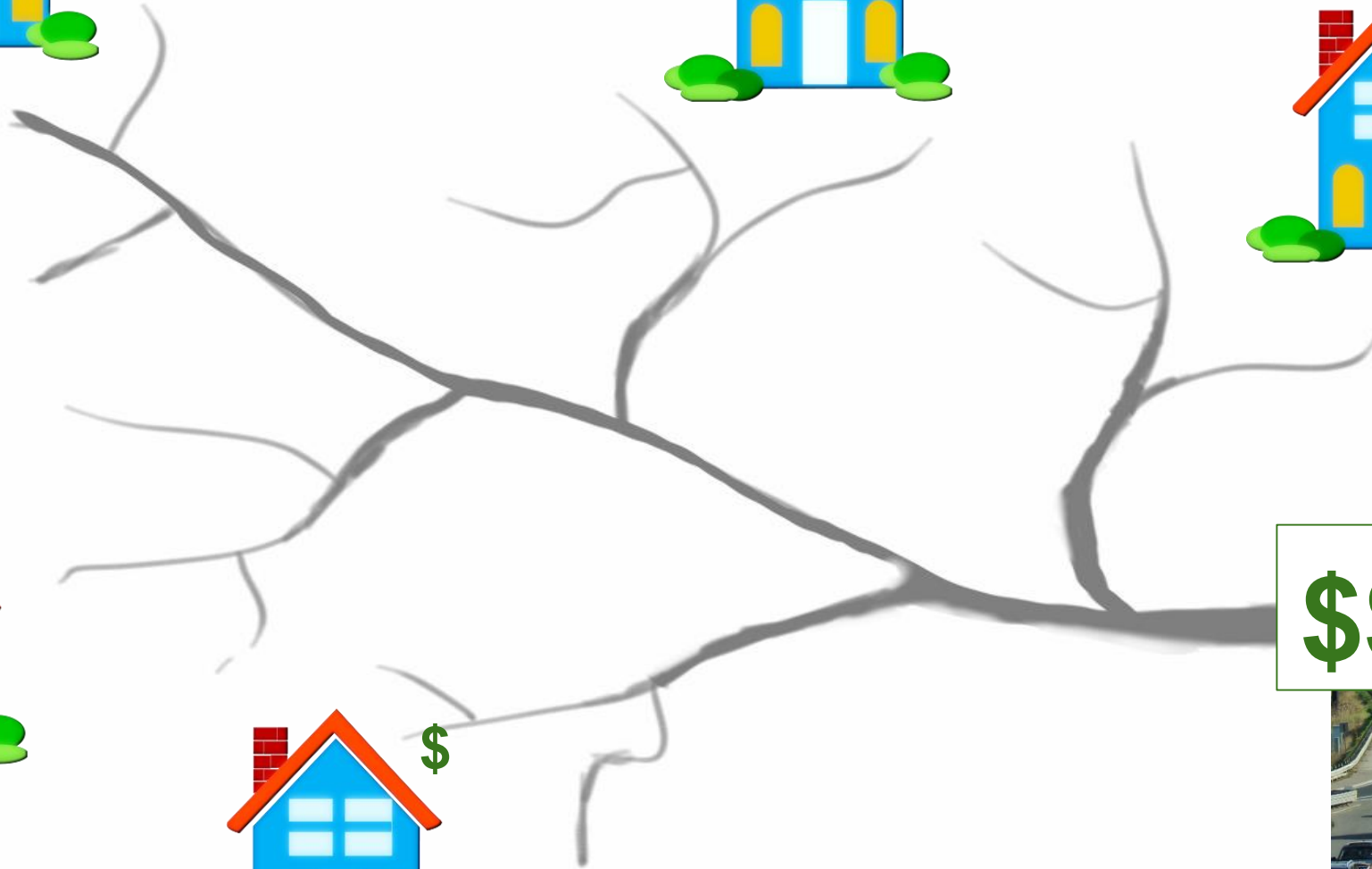






GETTY IMAGES

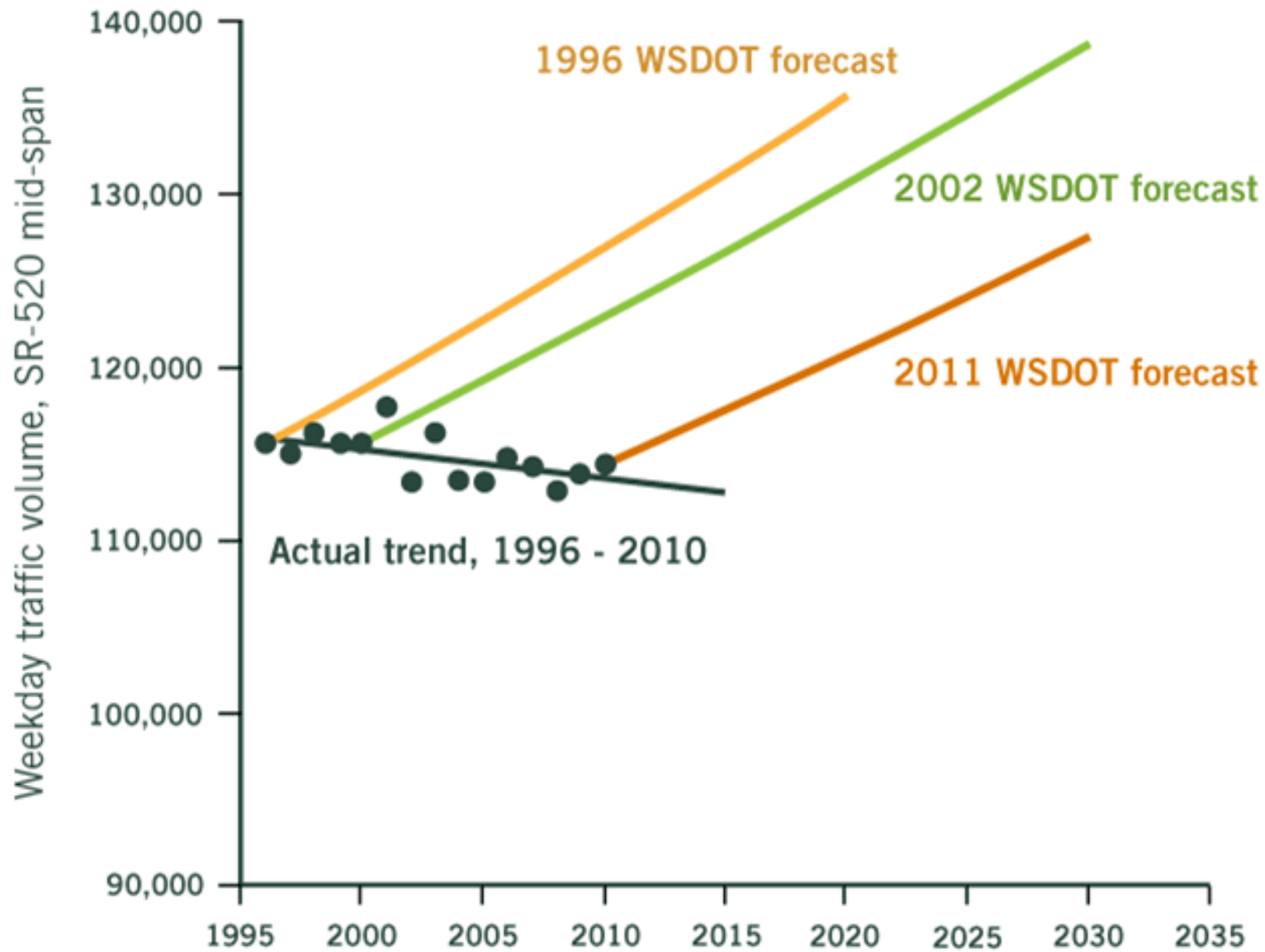




\$\$\$\$



Actual weekday traffic on SR-520 vs. WSDOT forecasts.







# Rush Hour



# PEAK EFFICIENCY



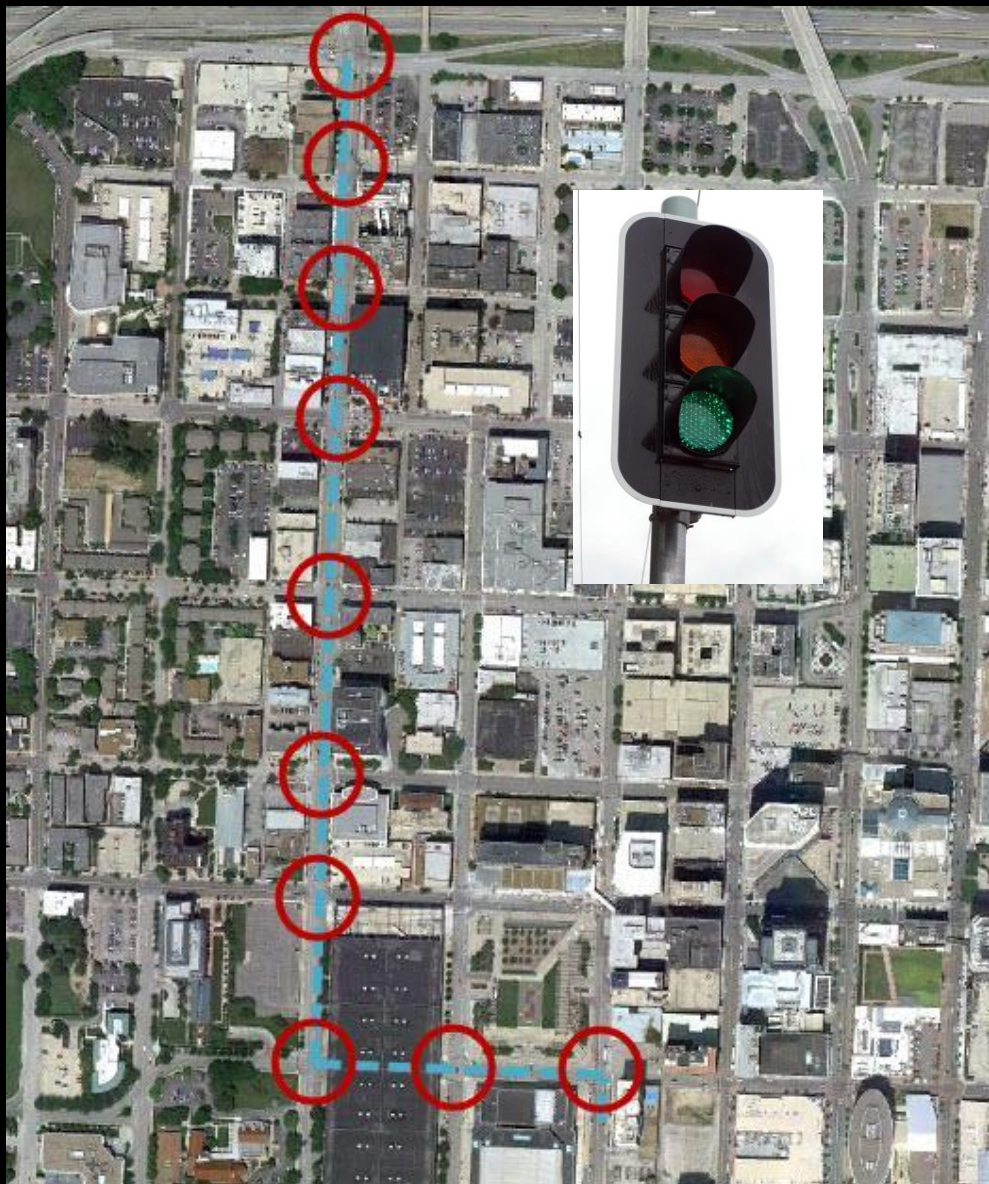
# 3,700 ft travel distance

Traveling 30 mph.....

Signals	Time
0	1:24
1	2:09
2	2:54
4	3:39

Traveling 15 mph.....

2:48





“Being a good American that I am and thinking we fought a war with Europe over some things, this is one of those things that seems to me to be European.”

- Paul Thiede  
Crow Wing County Commissioner





# Forgiving Design



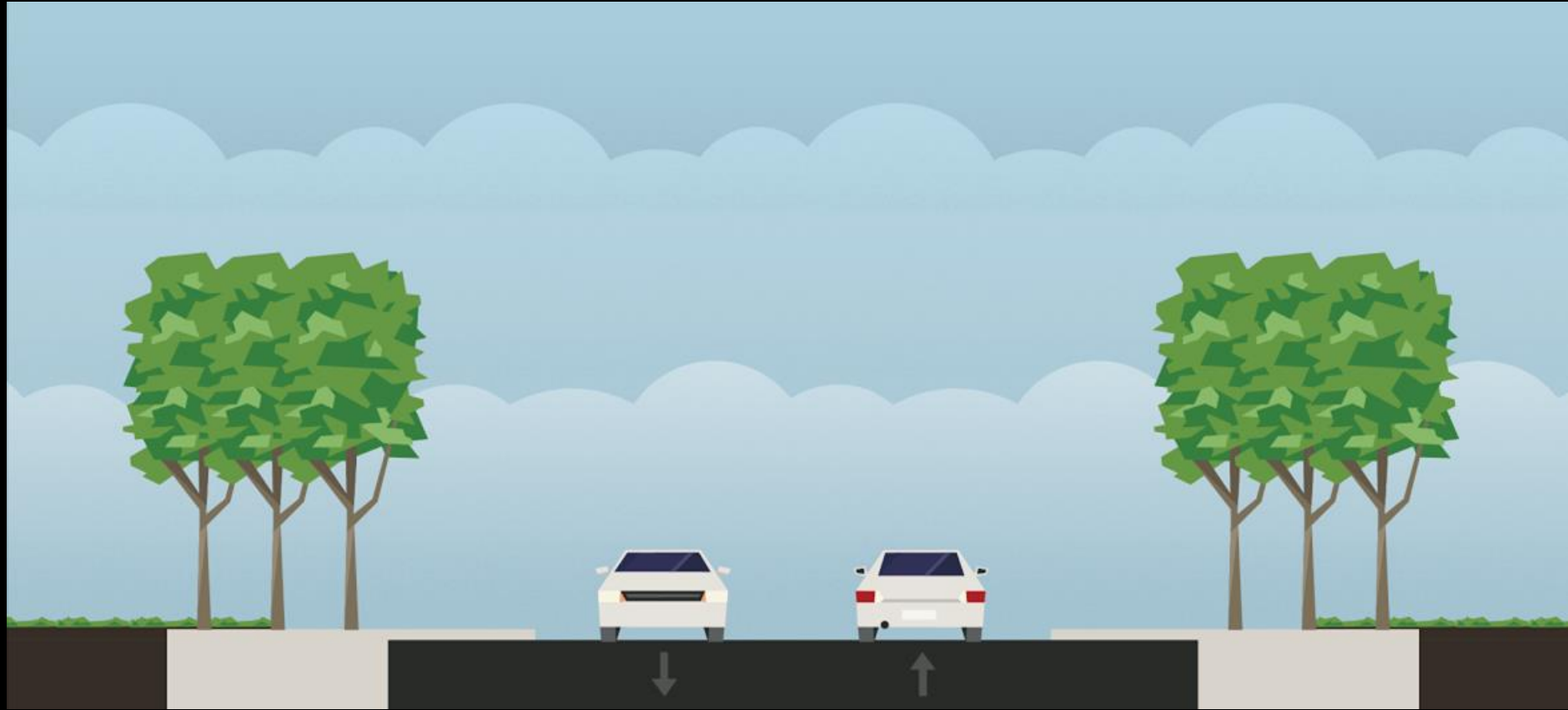
# Forgiving Design



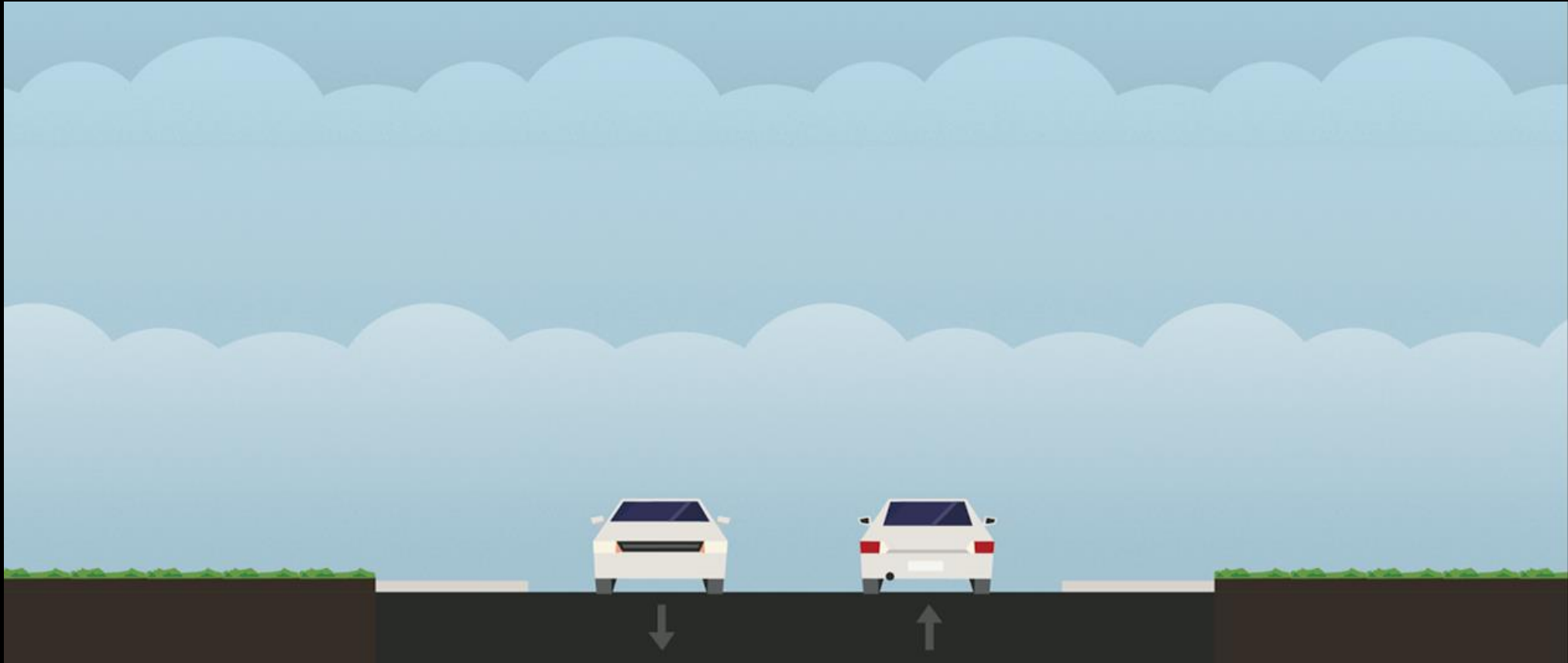
# Forgiving Design



# Forgiving Design



# Forgiving Design



# Forgiving Design



**If you need a sign to tell people to slow down....**

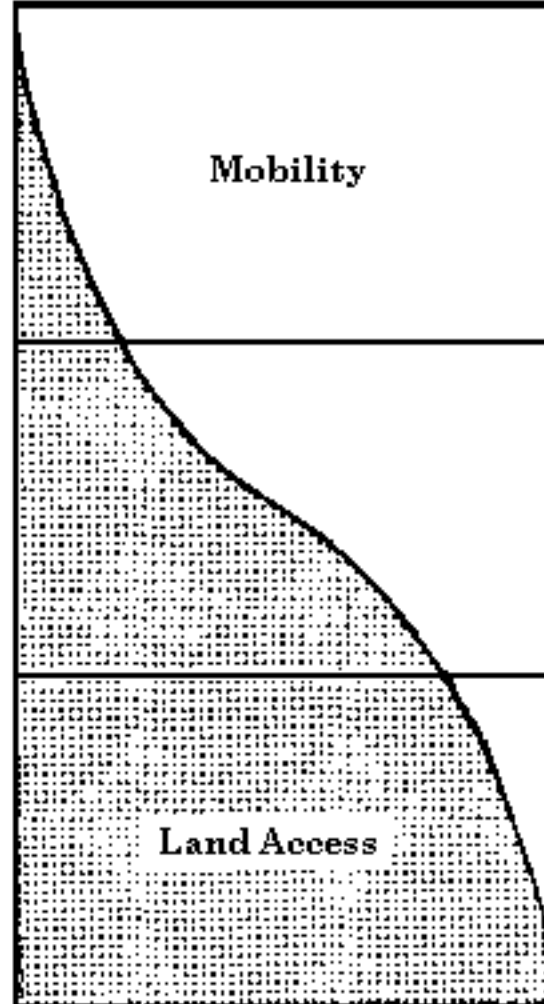


**....you designed your street wrong.**

Figure II-4

Relationship of functionally Classified Systems  
in Serving Traffic Mobility and Land Access

Proportion of Service



Arterials

Collectors

Locals

+\$\$\$\$

-\$\$\$\$

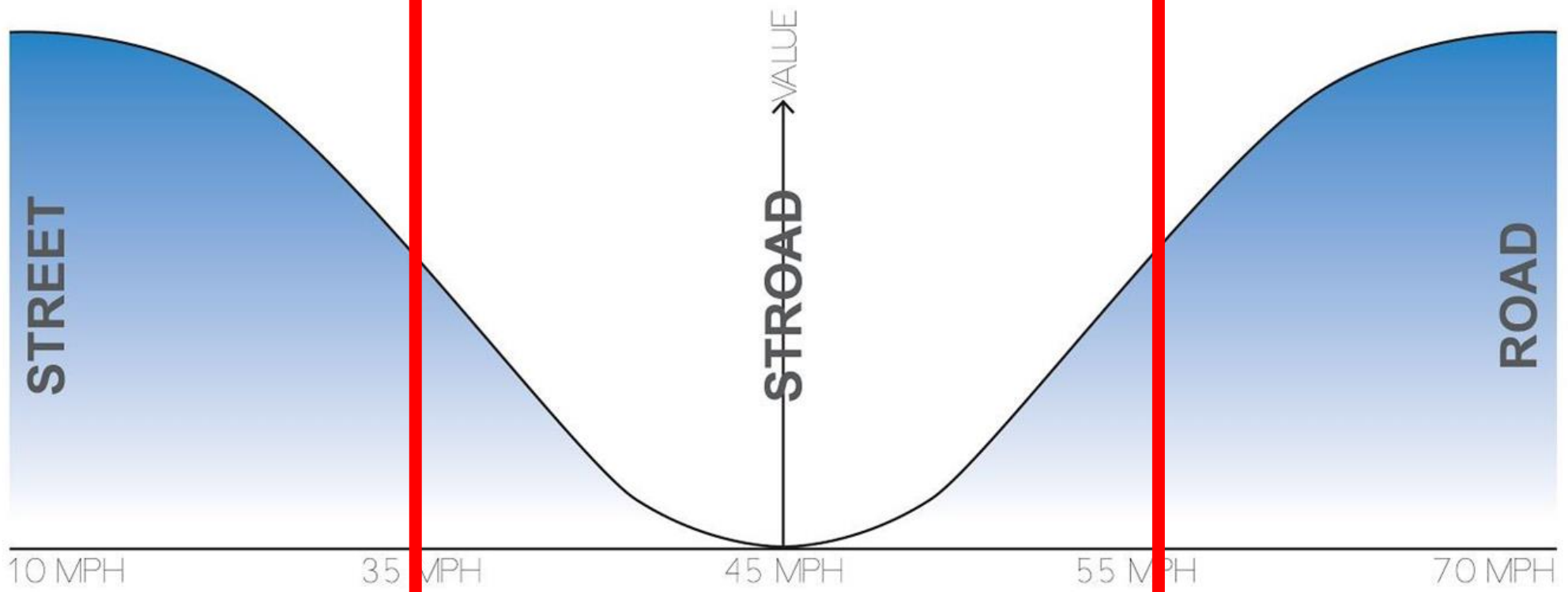
+\$\$\$\$

SAFE

DANGEROUS

SAFE







MOIE GALLERY

KBMW  
A Friend You Can Count On.

POP SNACKS

Wendy's

BOB'S

MH

[Blurred sign]

elltel

LAWRY

jityube

LEFT TURN  
YIELD  
ON GREEN

ONLY

ONLY



- Connecting productive places
- High speed
- Low accessibility
- Simple design
- Not adaptive



- Creating wealth
- Low speed
- High accessibility
- Complex design
- Highly adaptive

# STROAD



## STREET

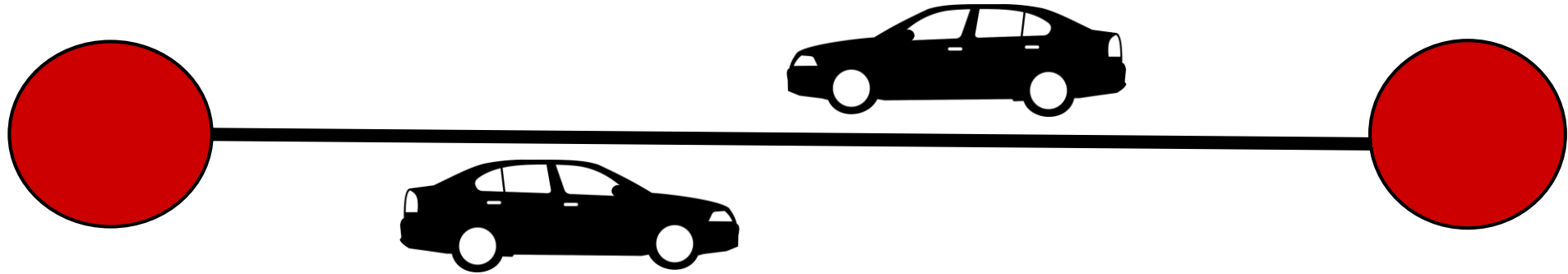
1. Slow traffic
2. Prioritize pedestrians, bikers, transit over automobiles
3. Intensify adjacent land use
4. Embrace complexity



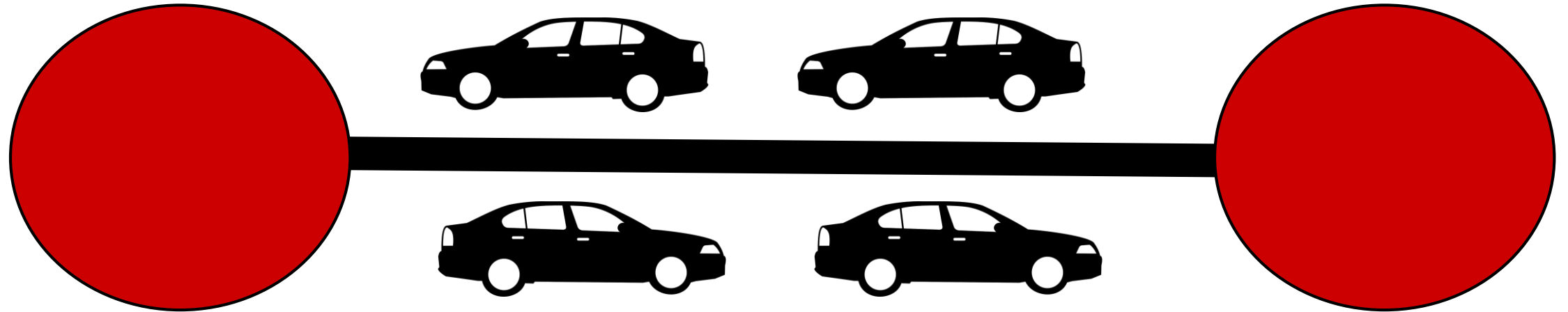
## ROAD

1. Limit access
2. Segregate automobiles from other modes
3. Do not allow adjacent land use to degrade capacity
4. Simplify

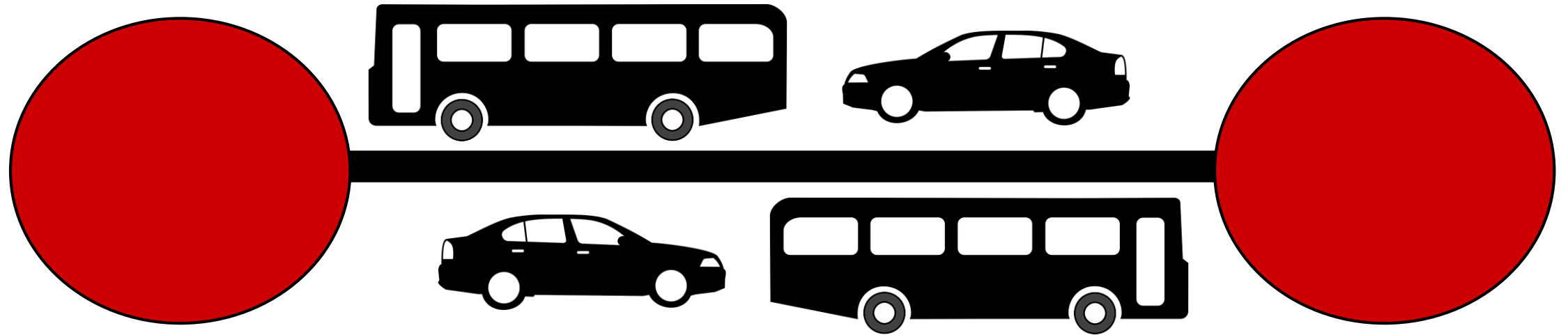
# Quality Roads



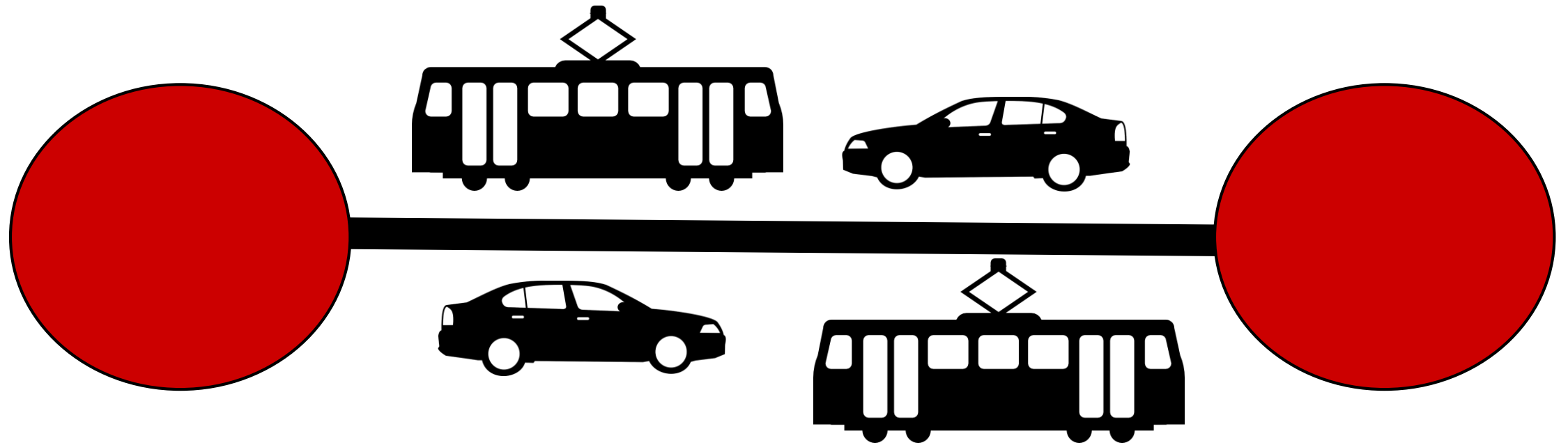
# Quality Roads



# Quality Roads



# Quality Roads











**Building financially productive places is more art....**



**...than science.**



*West Front Street, Brainerd, Minn.*







# High Return Investments



**\$1,136,500**



**\$803,200**





~~\$1,136,500~~

**\$1,104,500**

**\$803,200**





**-3%**

~~\$1,136,500~~

**\$1,104,500**

**\$618,500**

~~\$803,200~~

**-23%**





**Auto Oriented \$0.6  
million/acre**



**Traditional Pattern  
\$1.1 million/acre**

**High Return Investments**

# Buffalo 3-D Model

Connecting Urban Design to Economics

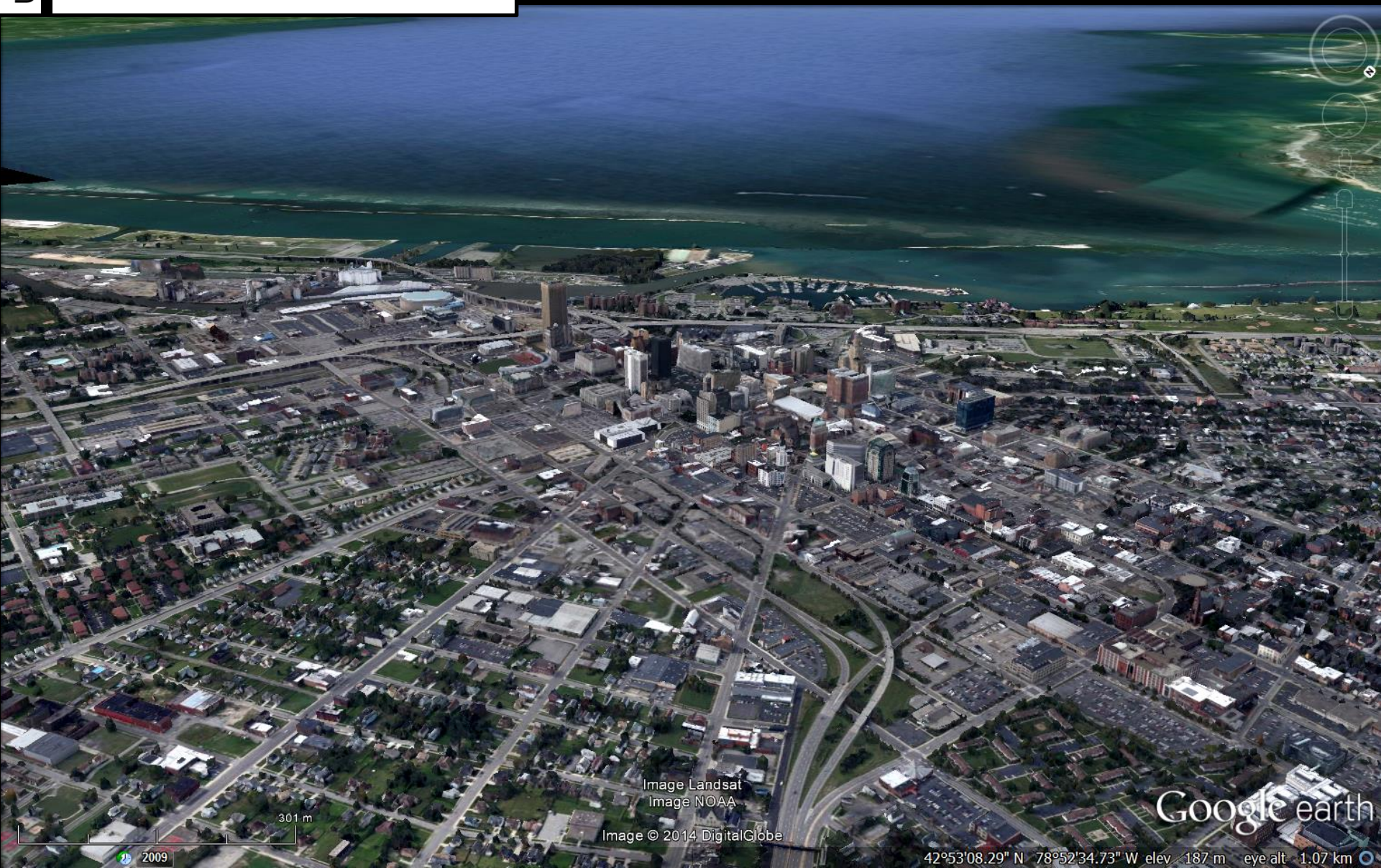


Image Landsat  
Image NOAA

Image © 2014 DigitalGlobe

Google earth

2009

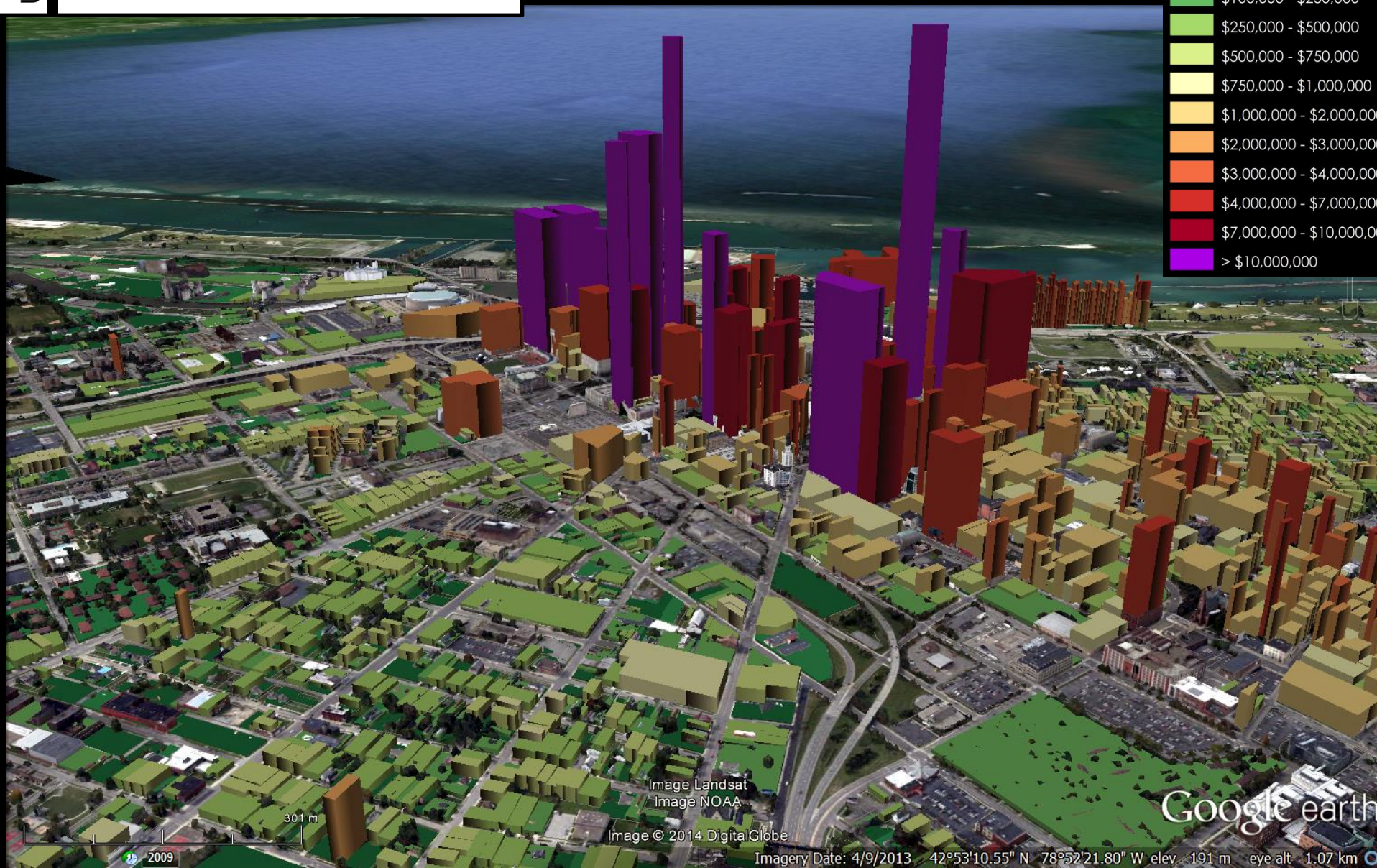
42°53'08.29" N 78°52'34.73" W elev 187 m eye alt 1.07 km

# Buffalo 3-D Model

Connecting Urban Design to Economics

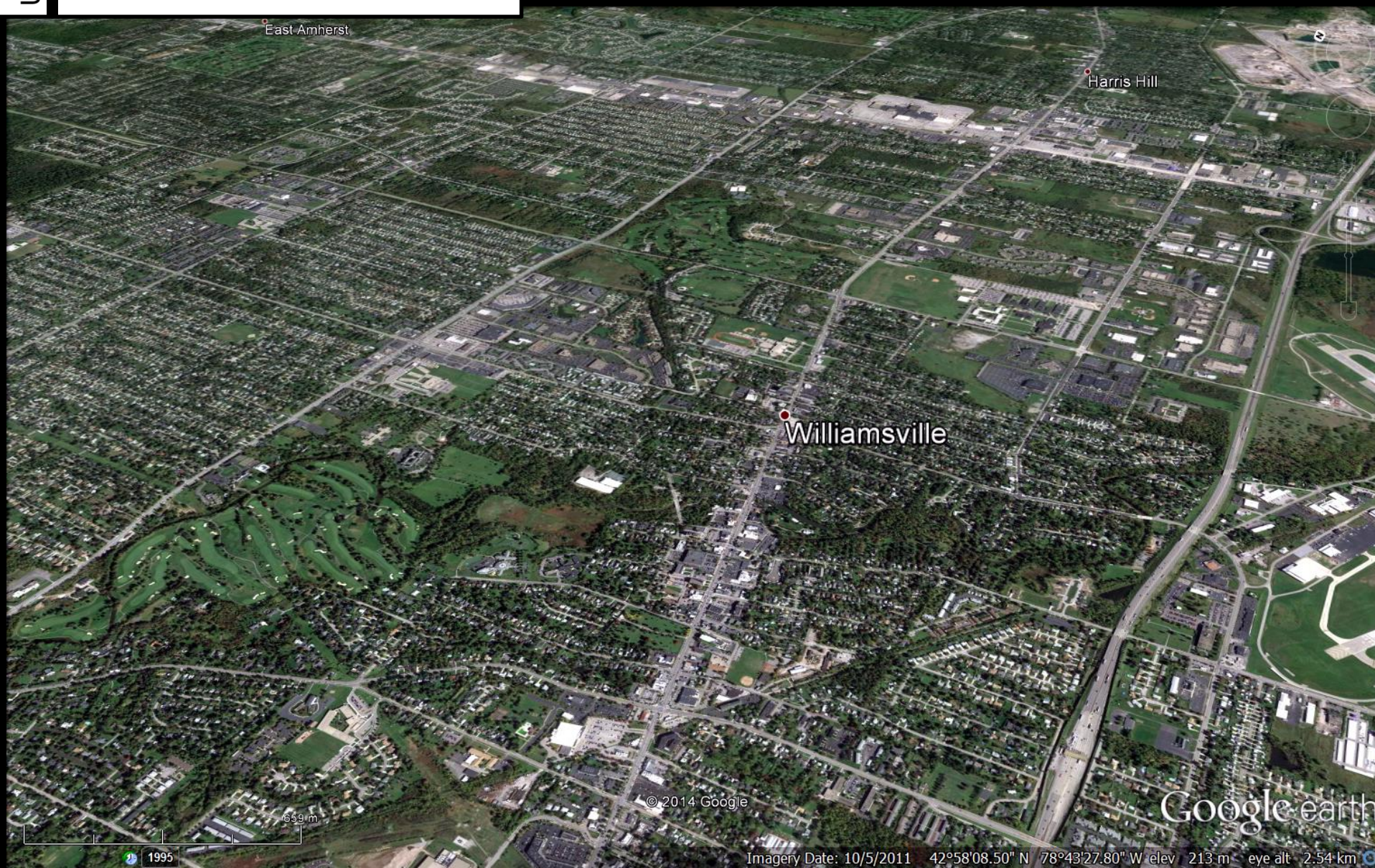
parcel total value

Taxvalue



# Williamsville 3-D Model

Connecting Urban Design to Economics



639 m

1995

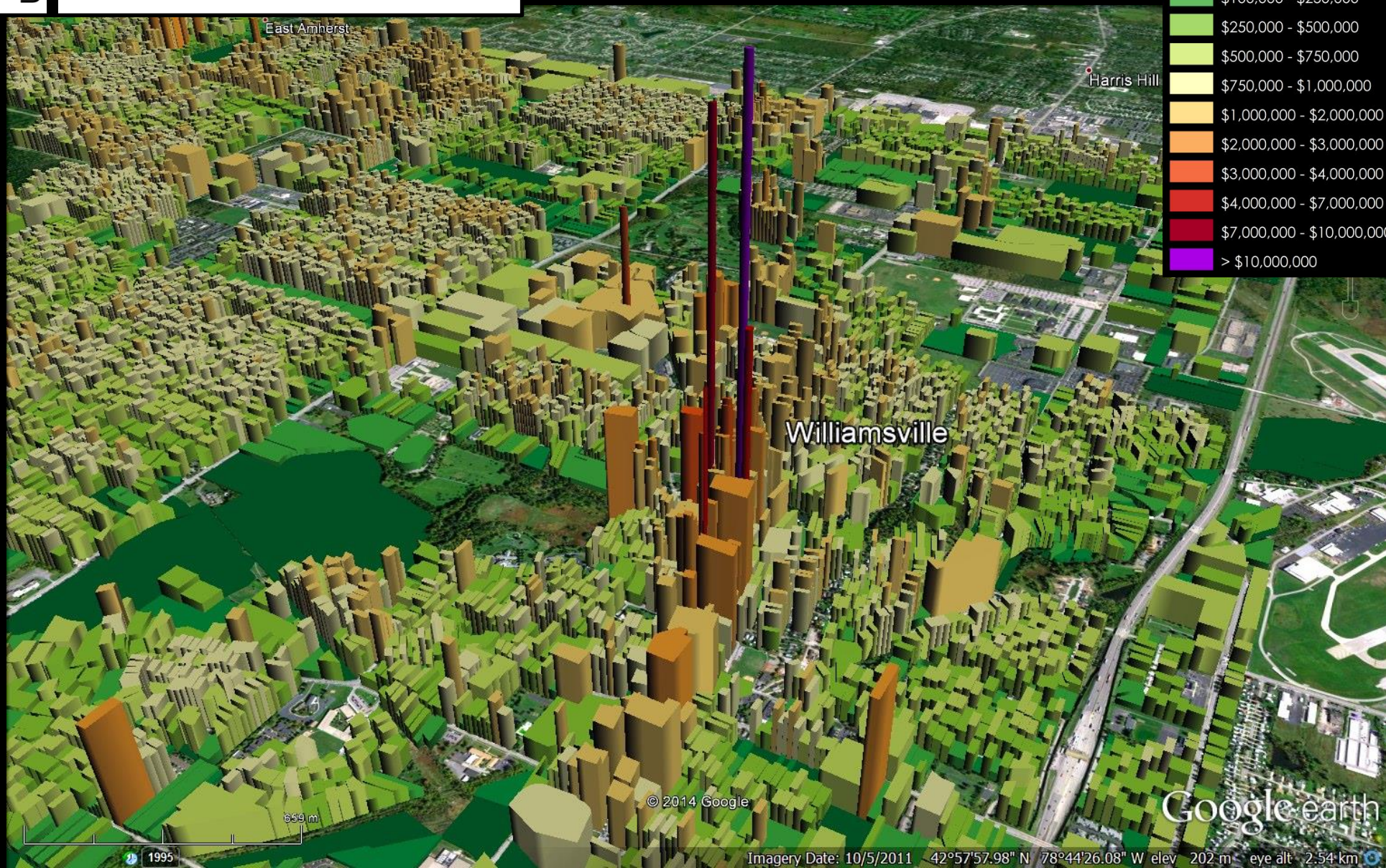
© 2014 Google

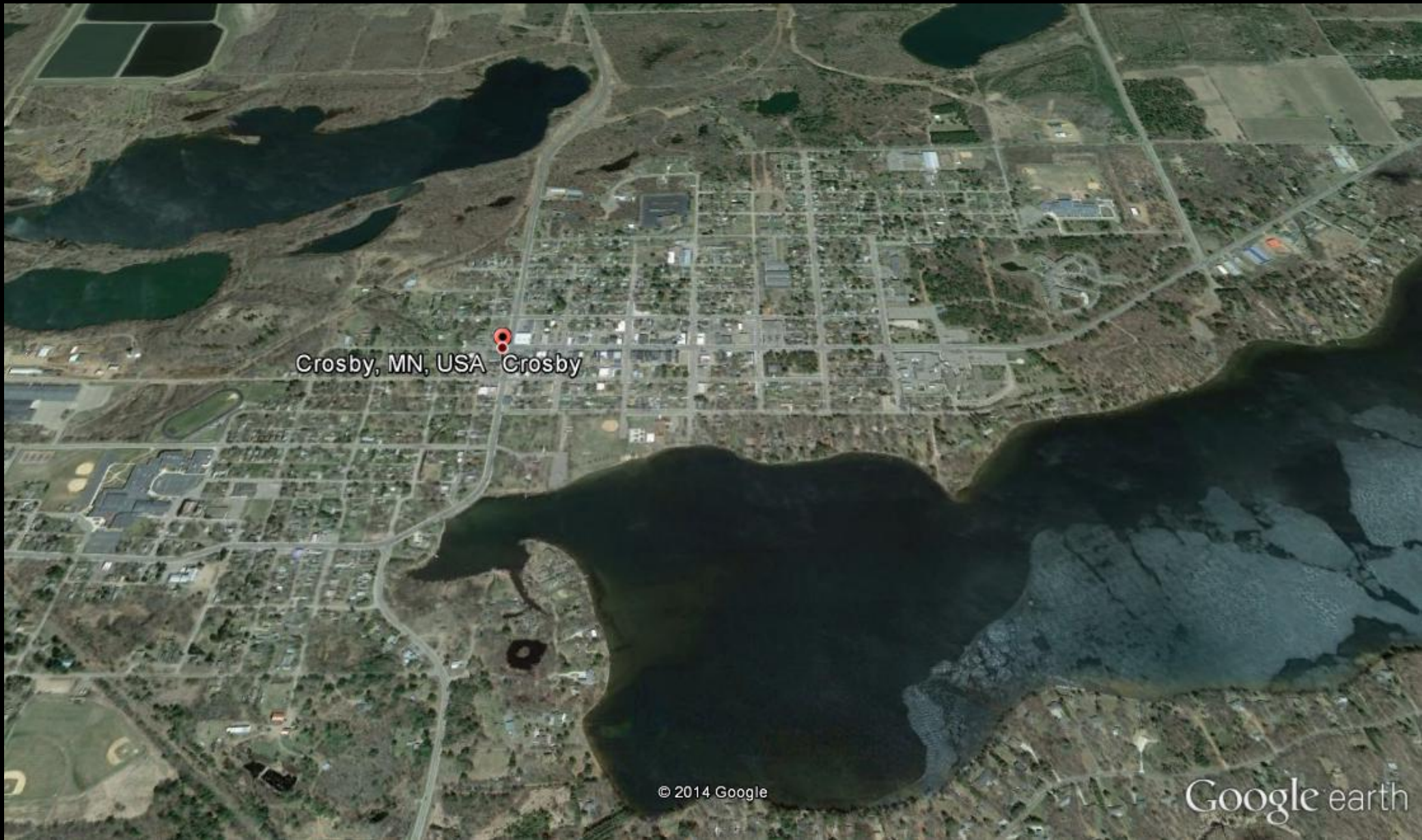
Google earth

Imagery Date: 10/5/2011 42°58'08.50" N 78°43'27.80" W elev 213 m eye alt 2.54 km

# Williamsville 3-D Model

Connecting Urban Design to Economics









Crosby, MN, USA Crosby

© 2014 Google

Google earth





NO PARKING  
ANYTIME

WAY

LOCAL VETERIES

W 11 ST

ONEWAY

METROEN CO. DESIGN BUILD  
INSTALLATIONS LLC  
SPRING SCAFFOLDING  
28 28 BOARD AVE.  
S.C. NY 11101  
PHONE: 718-352-4821

NO STANDING  
ANY TIME

**DOWLING  
HOUSE**  
← OPEN TO THE PUBLIC

DIAGONAL ST

OPEN

SPECIALTY GIFTS

RAZZLE  
DAZZLE

NO PARKING  
LOADING UNLOADING  
BACK TO  
COURT  
MON-FRI  
9AM-5PM  
SAT 9AM-4PM  
SUN 10AM-4PM

GALENA  
GALLERY  
ELECTRIC  
ART

SHOPPING  
AND  
DINING  
CONVENES

INN





# What are the values we apply?

## Engineer's Approach

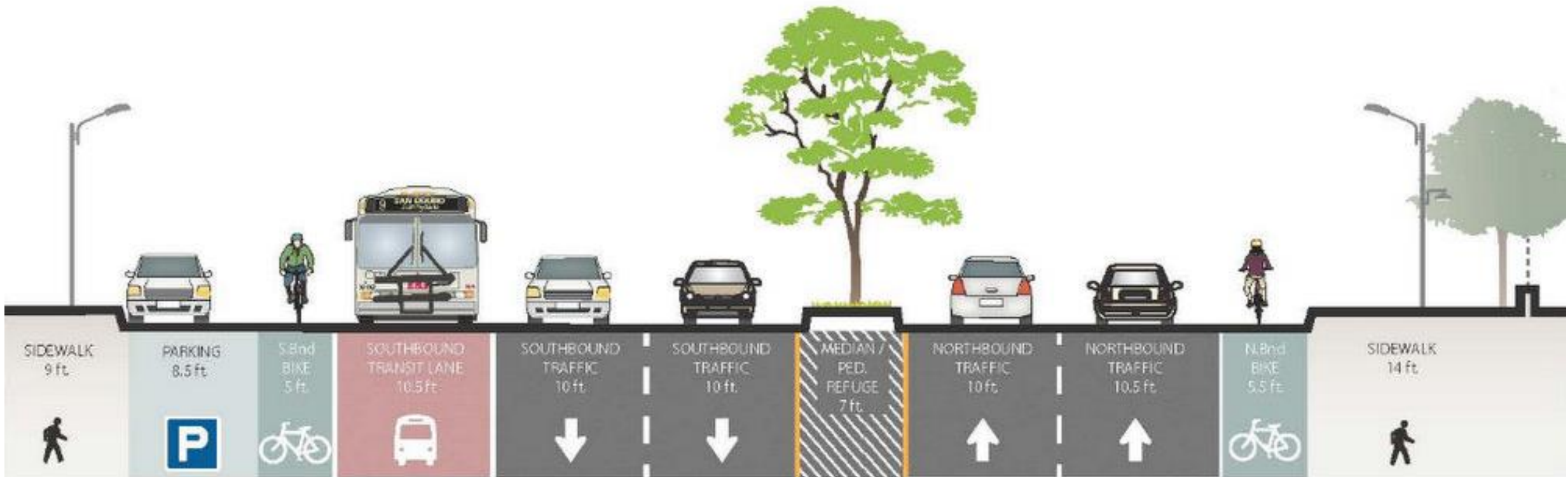
- Traffic Speed
- Traffic Volume
- Safety
- Cost

## Public's Approach

- Safety
- Cost
- Traffic Volume
- Traffic Speed



# Complete Streets accommodate pedestrians within an auto-dominated environment.



**Productive Places accommodate automobiles  
within an environment dominated by people.**







“Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius, and a lot of courage, to move in the opposite direction.”

**STRONG  
TOWNS**

*-E.F. Schumacher*



[www.StrongTowns.org/chat](http://www.StrongTowns.org/chat)

**STRONG  
TOWNS**

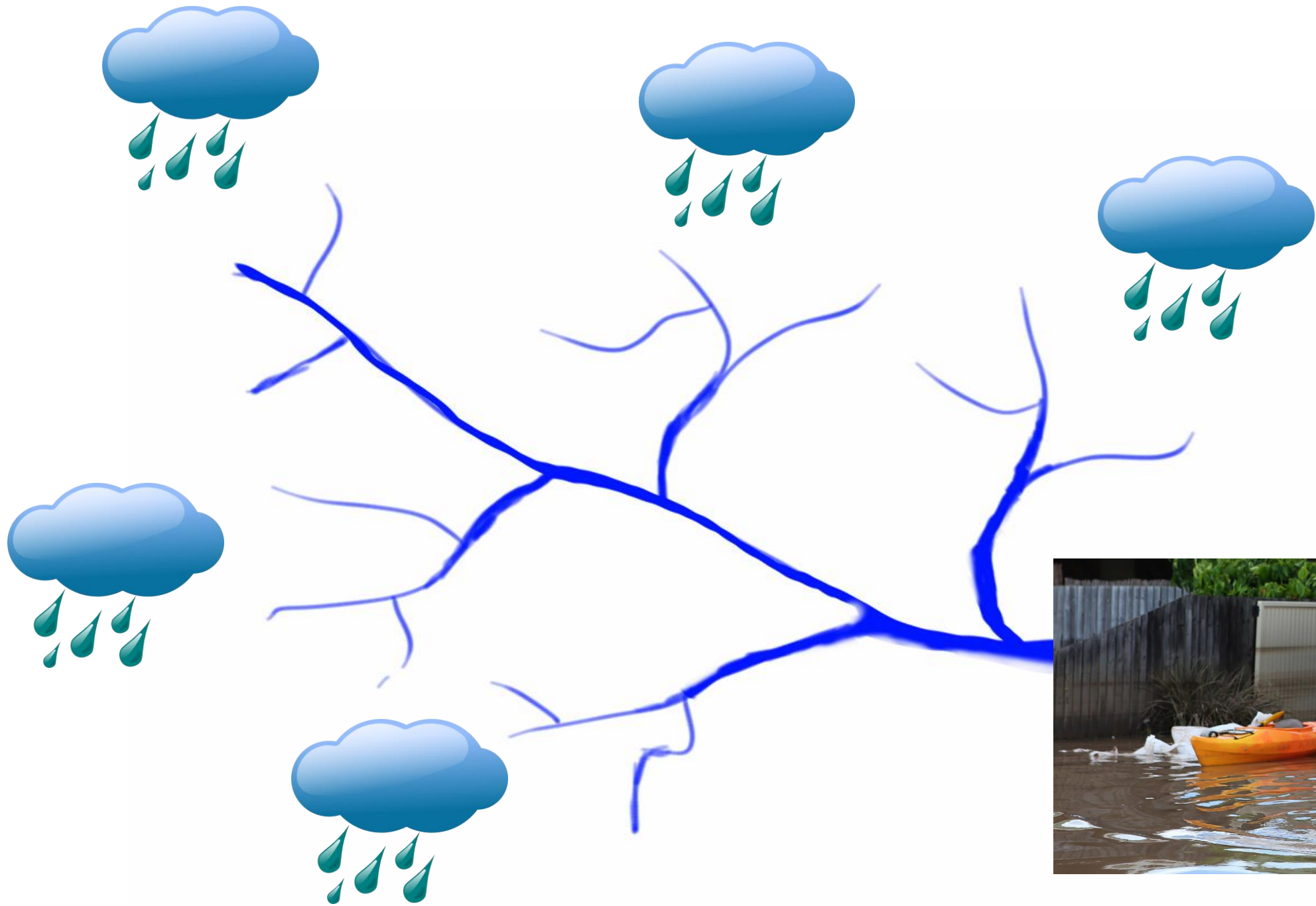


# Congested Road - Increase Capacity



# Congested Street - Intensify Land Use









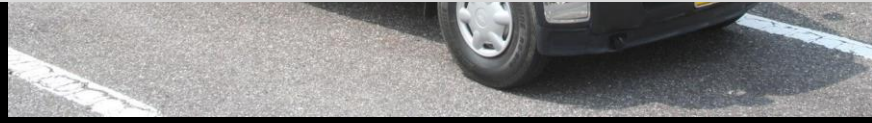




**Do we build our city for the equipment we want...**



**....or do we choose our equipment for the city we want?**

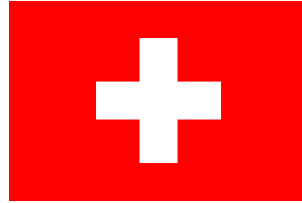
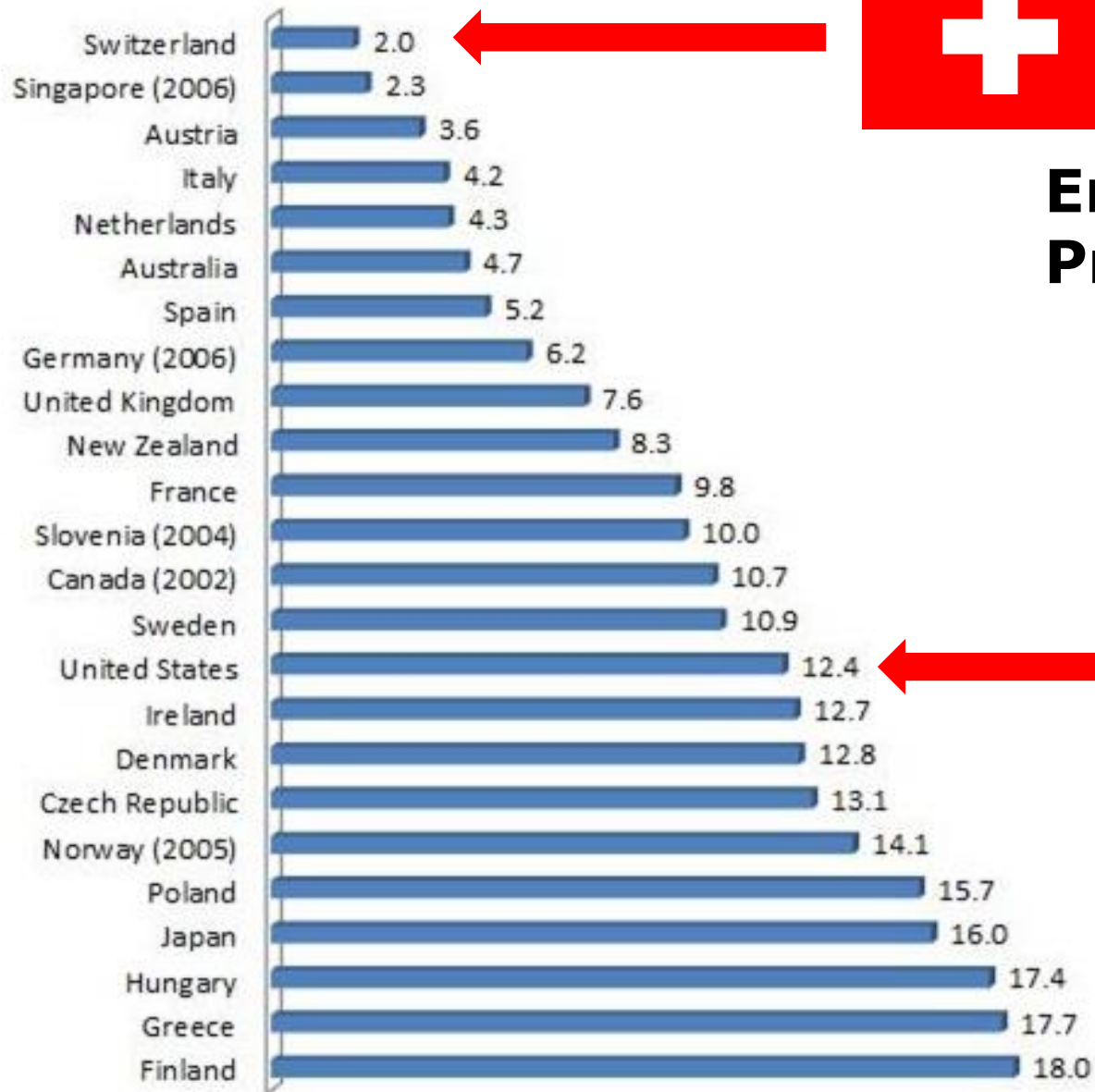


# Where are you more likely to die from fire?



# Deaths from Fires, Per Million Pop.

2007 or latest year

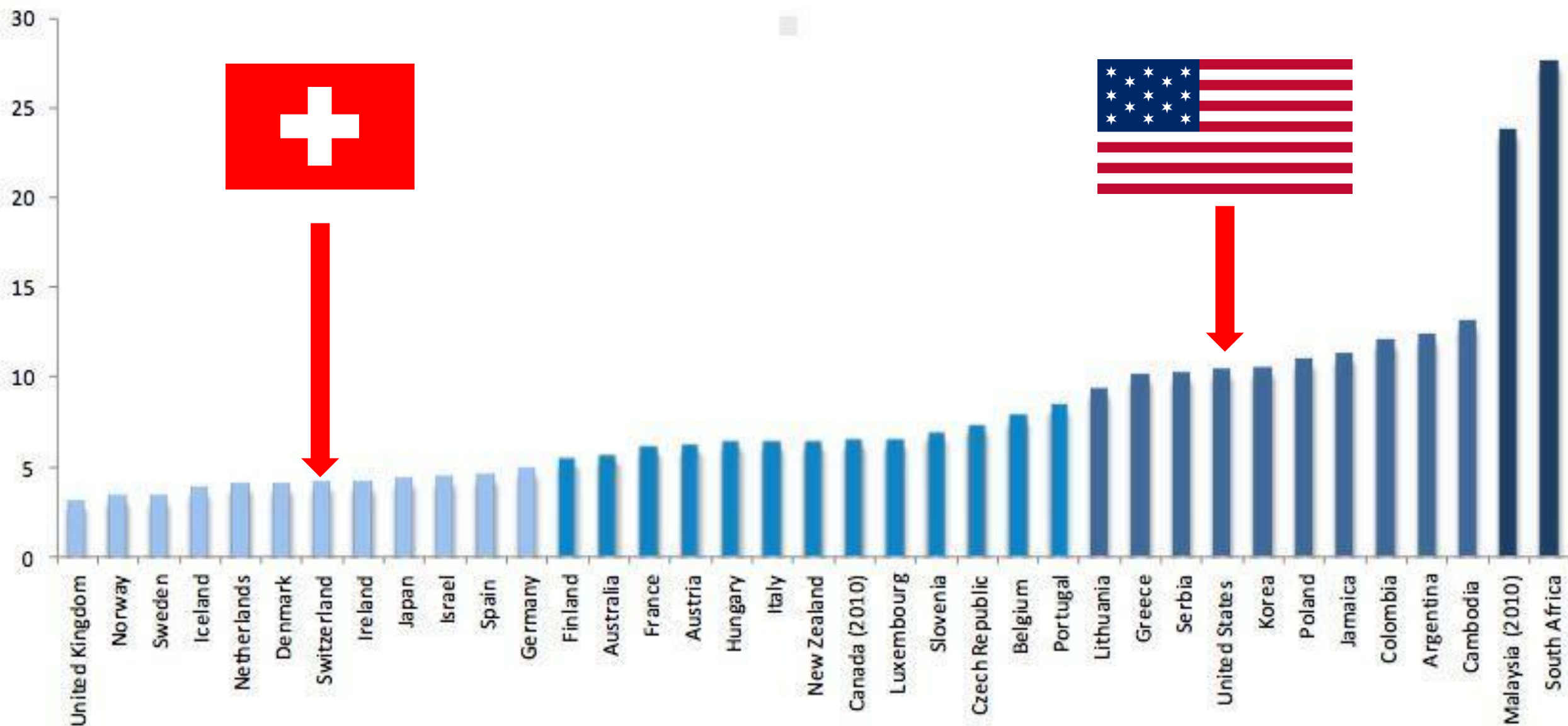


**Emphasis:  
Prevention**



**Emphasis:  
Suppression**

Figure 6. Road fatalities per 100 000 population in 2011



# A Tragic Irony



**Our wide streets allow us to quickly respond to the collisions caused by our wide streets.**

**Our transportation system is focused on maximizing the amount you *can* travel, not minimizing the amount you *have* to travel.**



[www.StrongTowns.org](http://www.StrongTowns.org)