

HEALTHY LAKES WORKSHOP STEVENS POINT, WI



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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.



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.

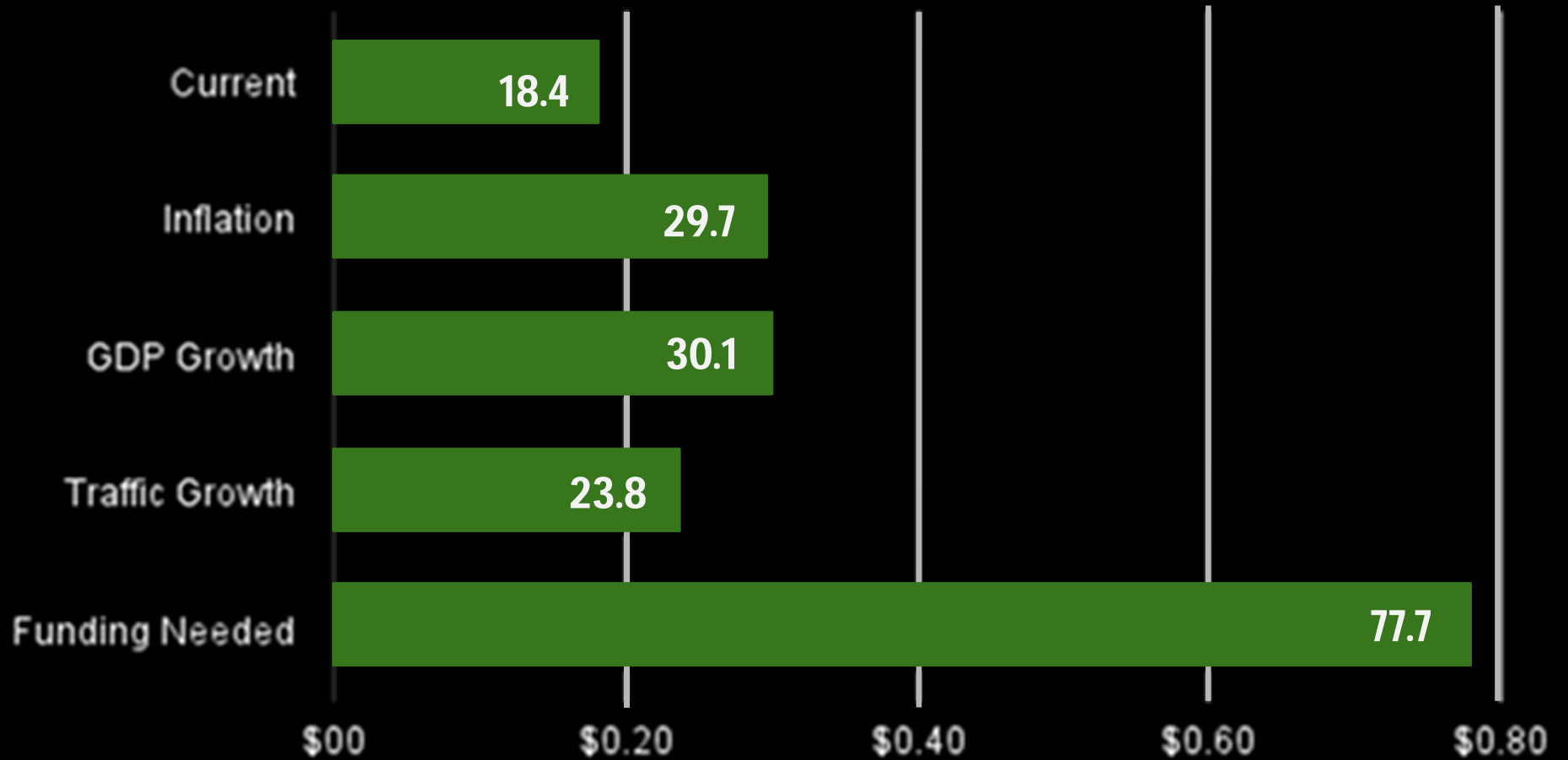


Transportation Funding Gap

\$94 Billion/Year



Federal Gas Tax



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

The Industrial City

- Smoke
- Soot
- Overcrowding
- Disease
- Poverty
- Exploitation



"In other periods of depression, it has always been possible to see some things which were solid and upon which you could base hope... but as I look around about, I now see nothing to give ground to hope."

- Former President Calvin Coolidge, 1932



"Were the war to end suddenly within the next six months...then there would be ushered in the greatest period of unemployment and industrial dislocation which any economy has ever faced."

- Paul Samuelson, Nobel Prize Economist, 1943





When we focus our efforts, we can accomplish a lot in a very short period of time.



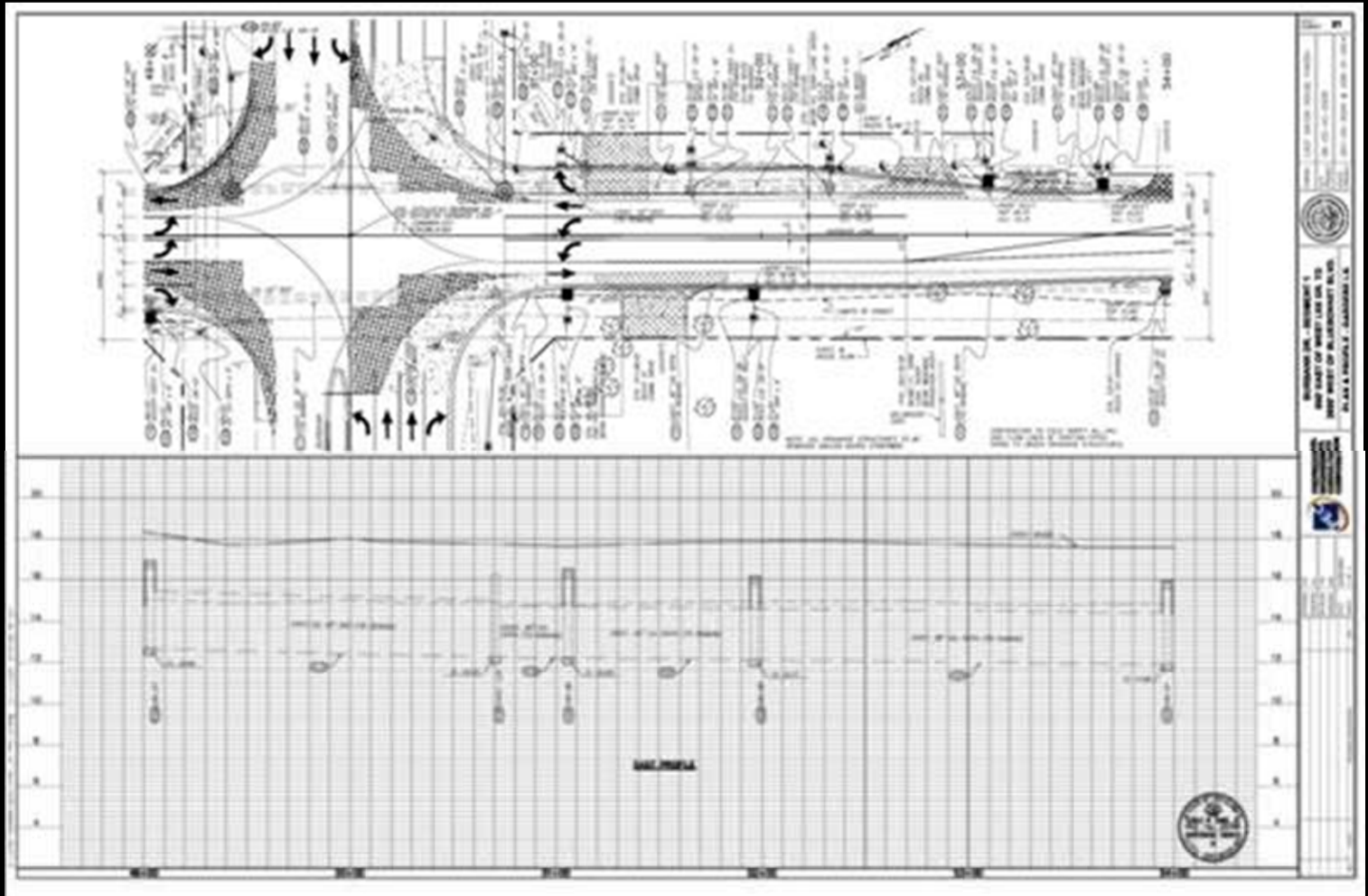
Expand Opportunity- Economic Growth- Jobs



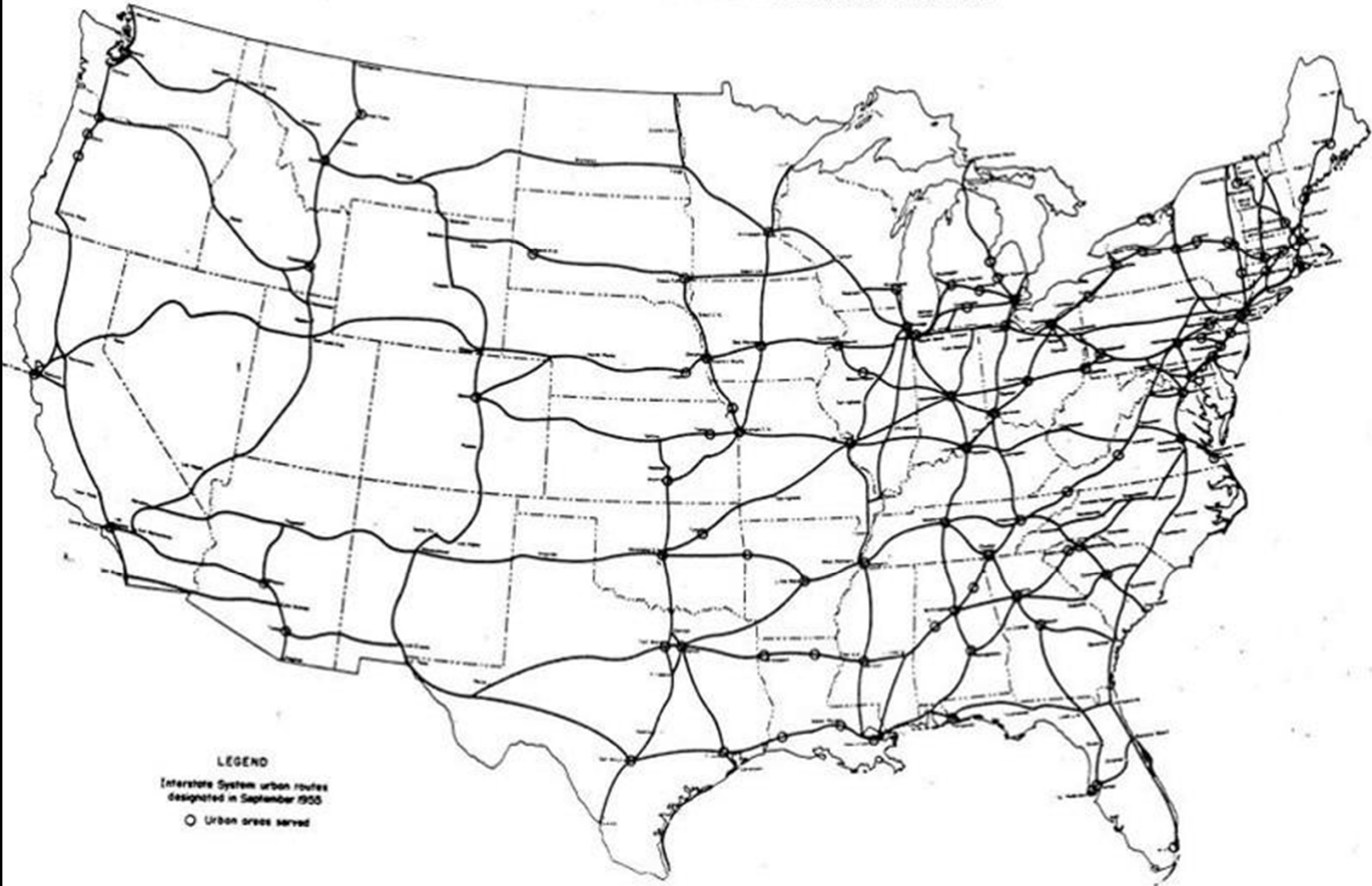
EFFICIENCY

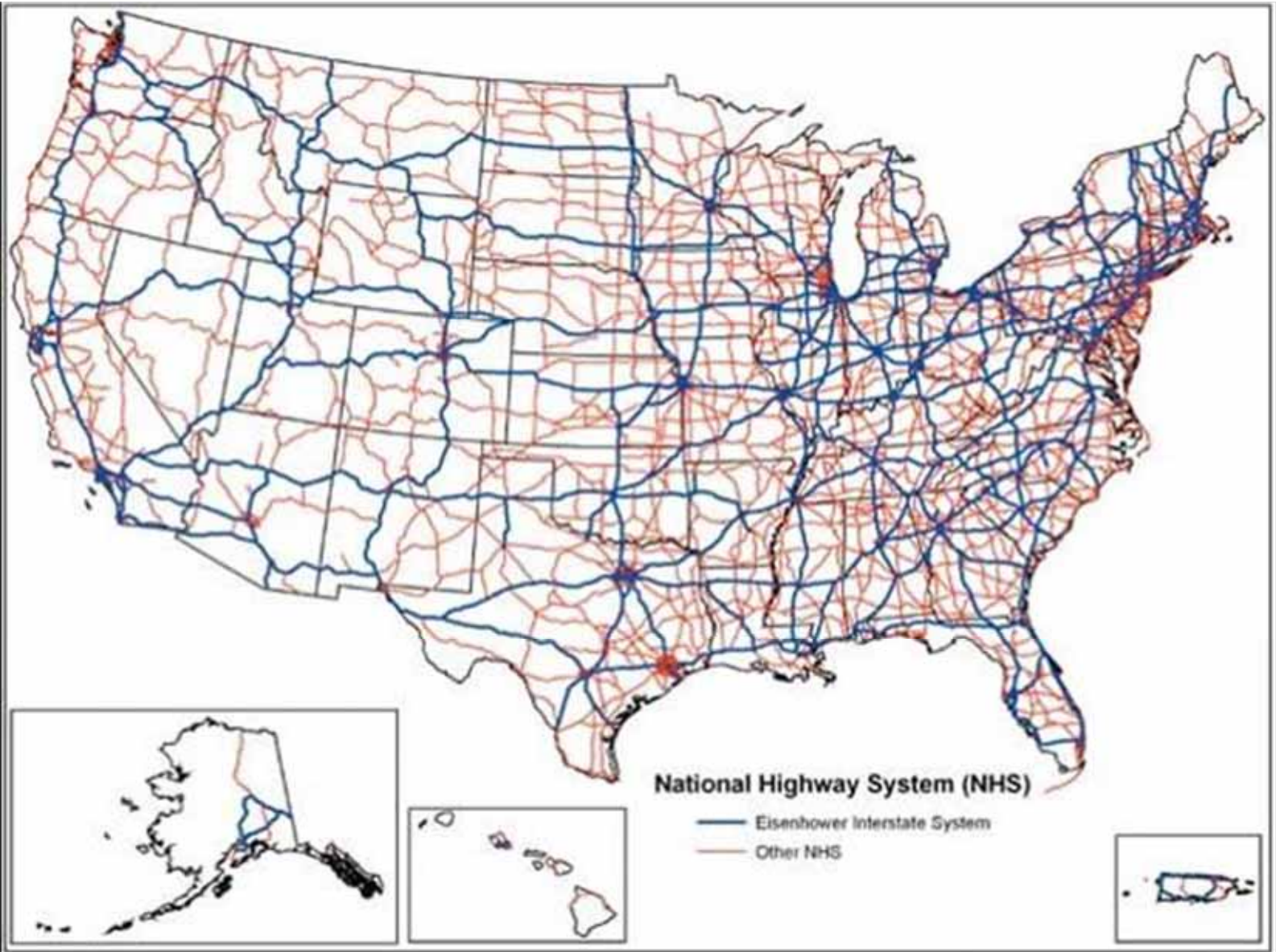


- Lane Width
- Shoulder Width
- Vertical Curves
- Horizontal Curves
- Clear Area
- Curb Radius
- Sign Spacing
- Speed
- MPO system

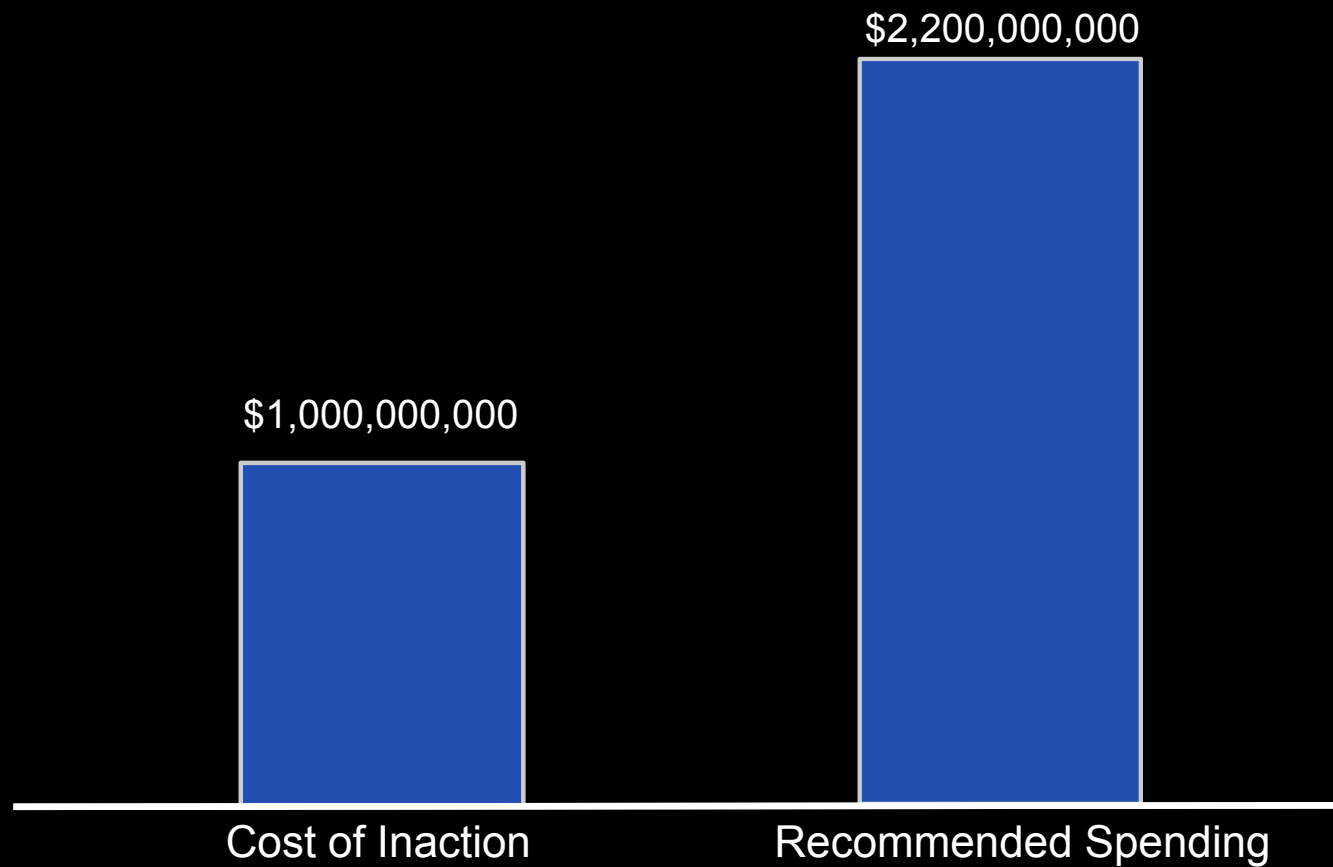


NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS

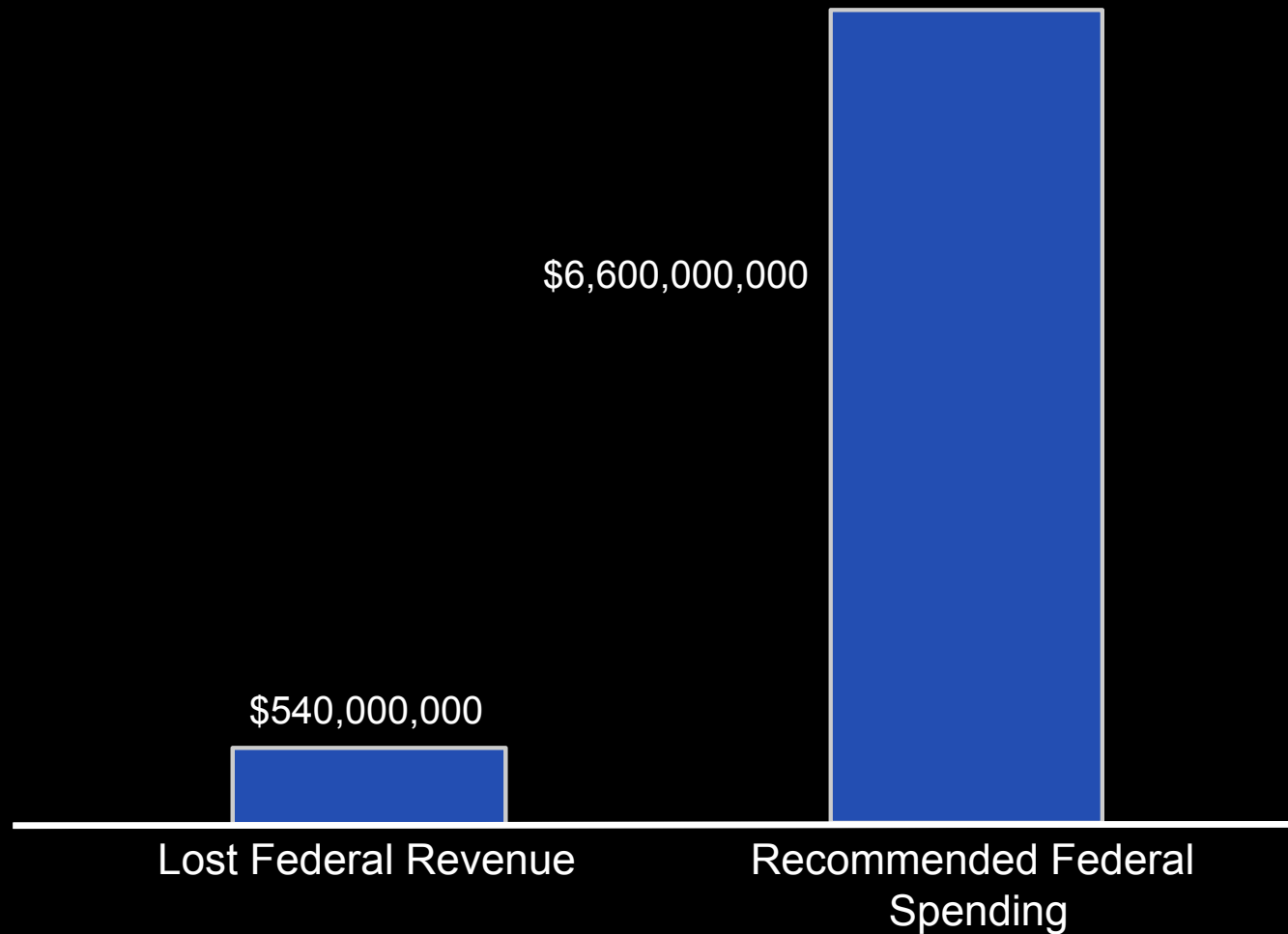




ASCE Estimates, 2012-2020



ASCE Estimates, 2012-2040



Highway 91, California

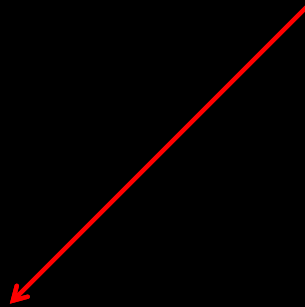


“[The project] will give some relief to drivers in the regular lanes, raising their average rush-hour speeds from 8 mph to 9.4 mph, despite an expected 50 percent increase in traffic by 2035, according to project documents.”

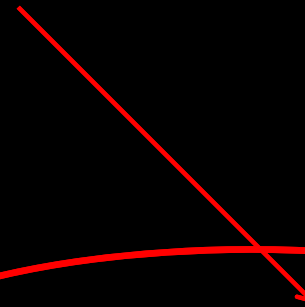
-Orange County Register

IN AN AFFLUENT SOCIETY

URGENT PROBLEM



Rethink assumptions &
explore alternatives



\$\$ Spend Money \$\$

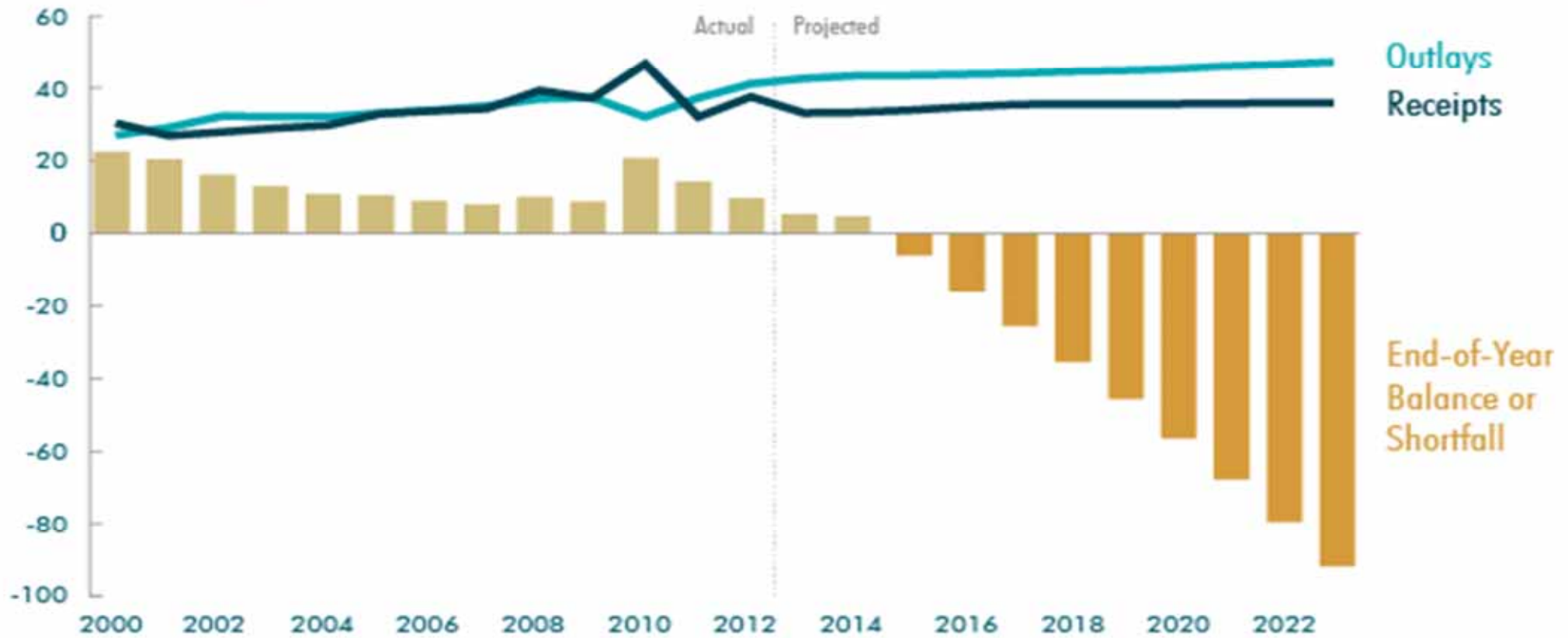


We need more money.



Cash Flow of the Highway Account of the Highway Trust Fund

Billions of Dollars, by Fiscal Year

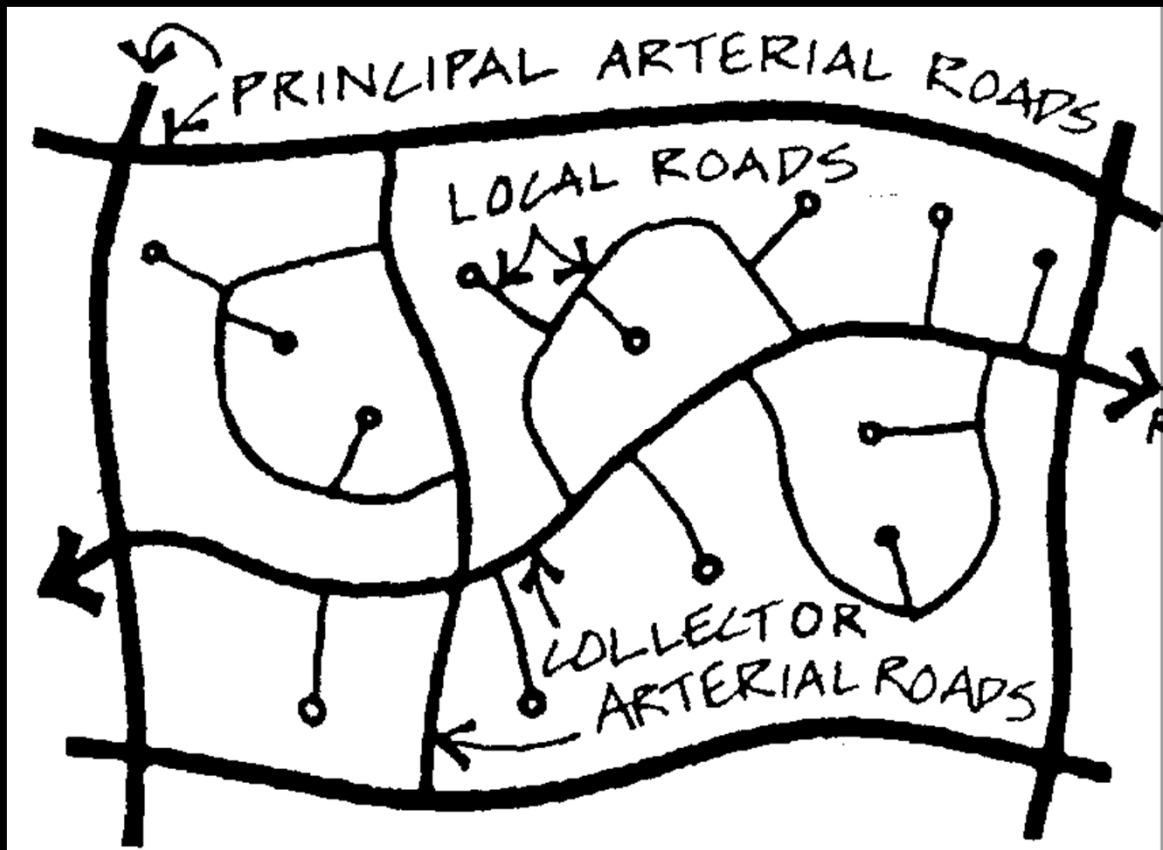


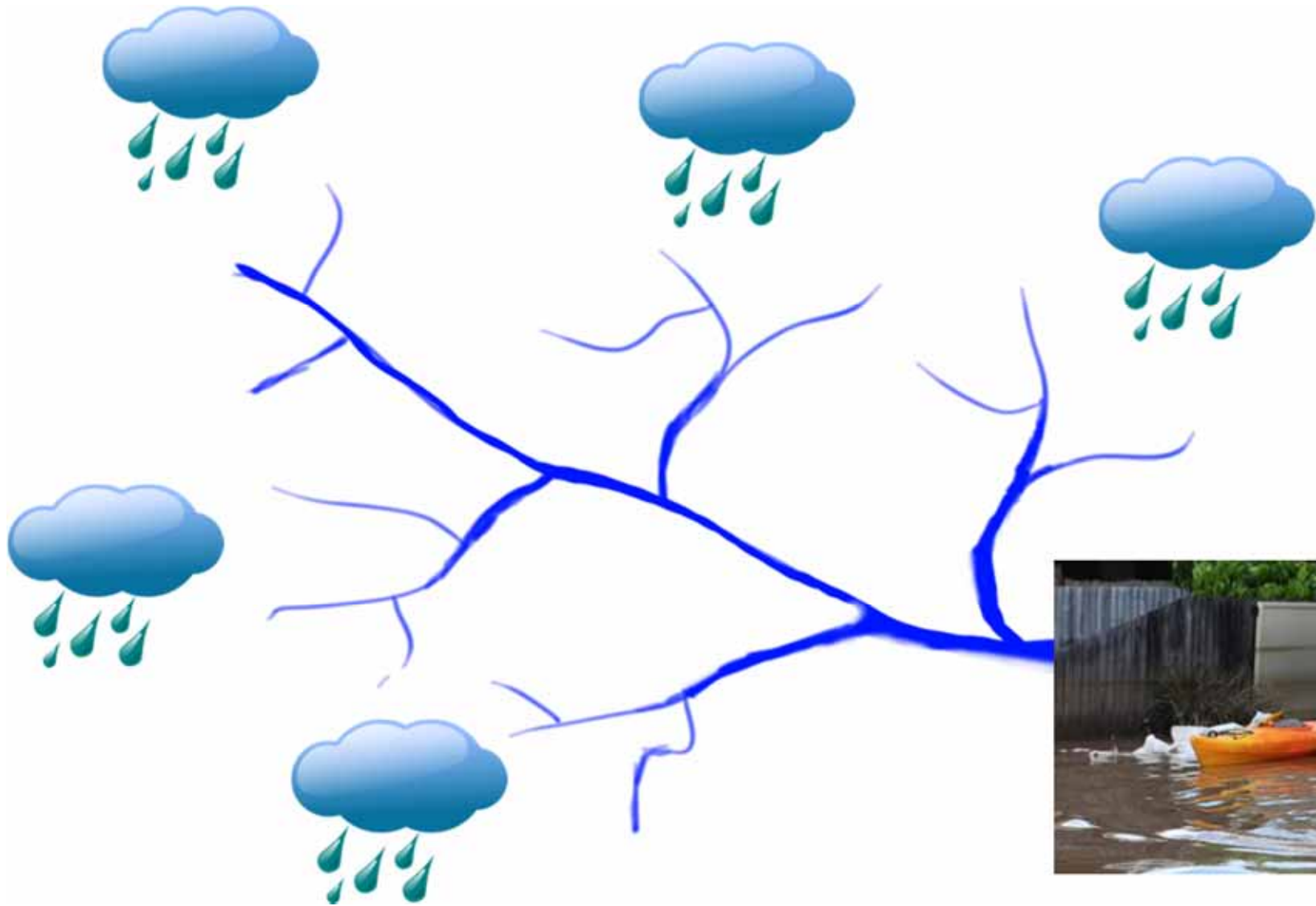


"We have run out of money. It's time to start thinking."

-Ernest Rutherford

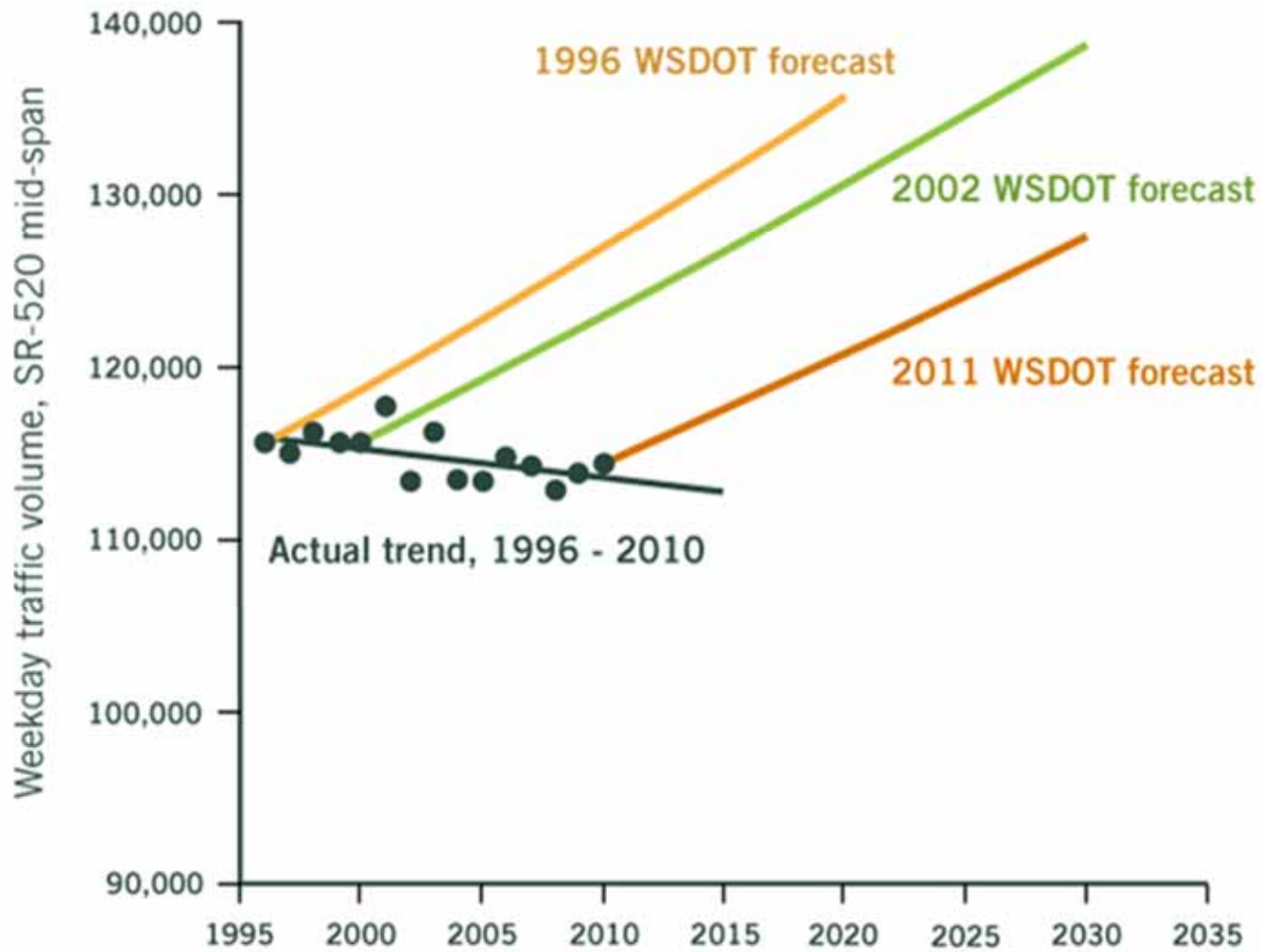








Actual weekday traffic on SR-520 vs. WSDOT forecasts.





Rush Hour



PEAK EFFICIENCY



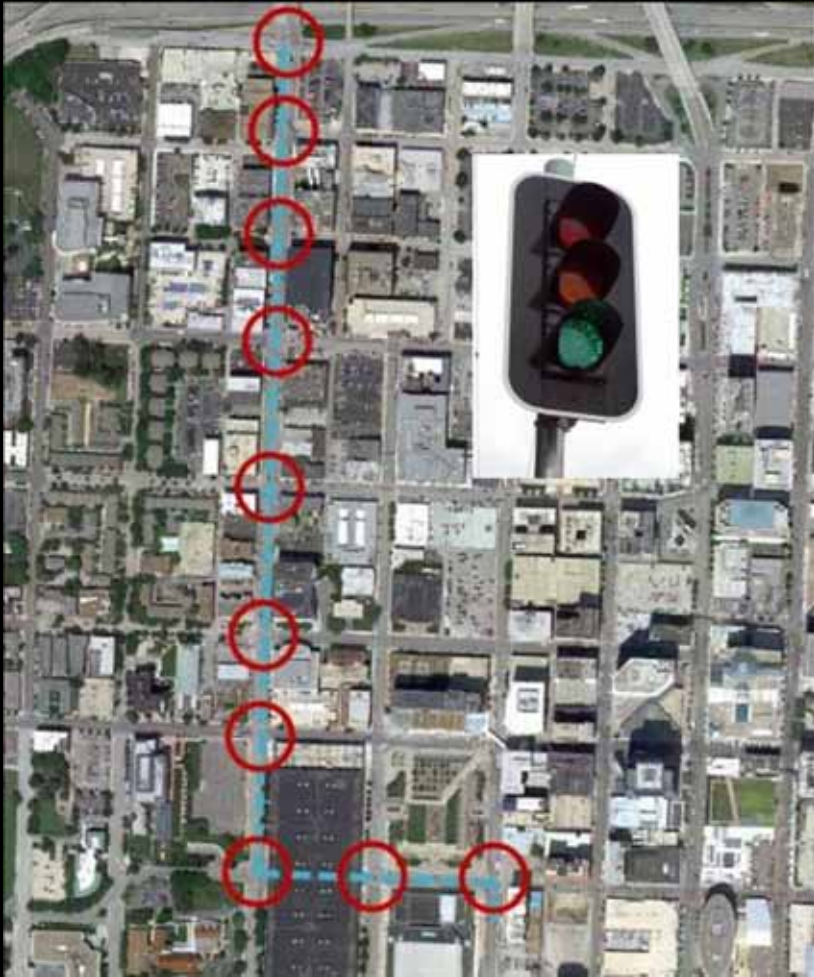
3,700 ft travel distance

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

FREE SOUP
&



Hurricane Katrina....



**....great for GDP growth and
unemployment.**



A disaster for the community's wealth.





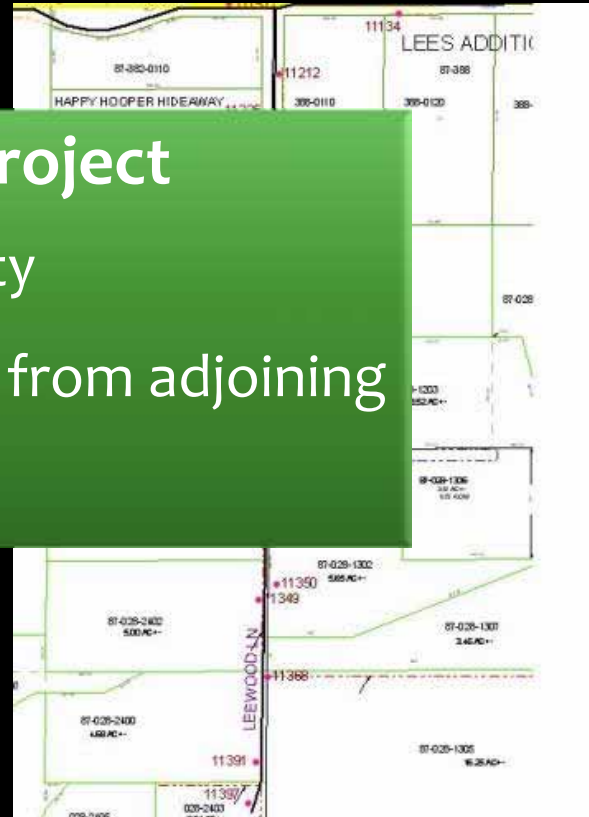
JOBS & GROWTH





Road Improvement Project

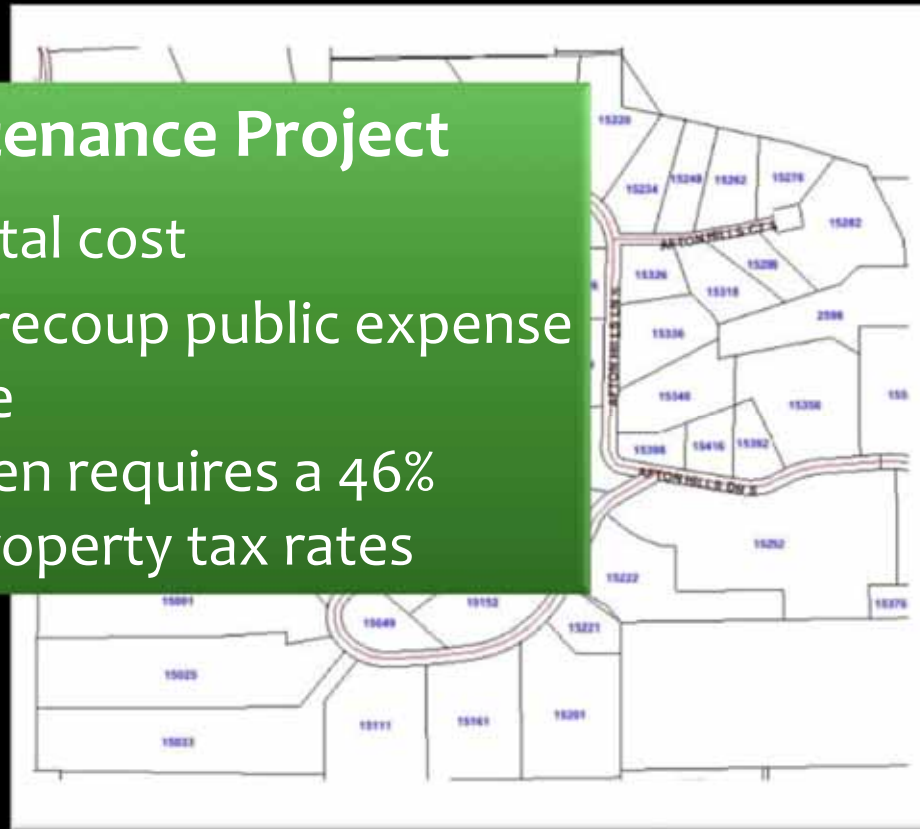
- \$6,600 cost per property
- 74 years to recoup cost from adjoining tax base



Local Street Project

Road Maintenance Project

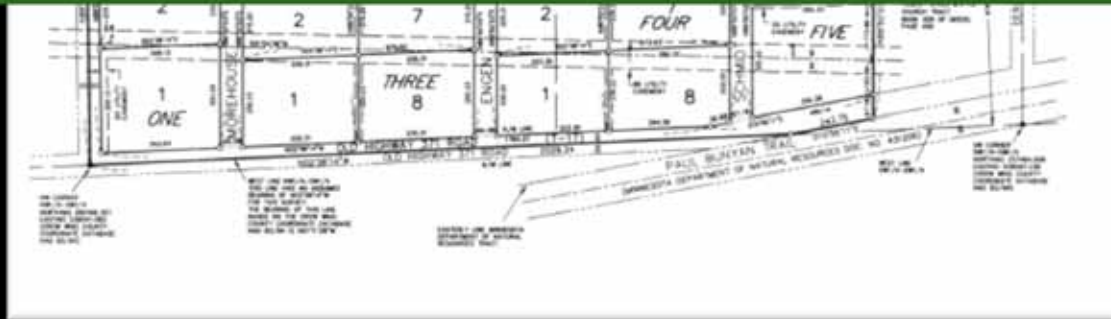
- \$354,000 total cost
- 79 years to recoup public expense from tax base
- To break even requires a 46% increase in property tax rates



Local Road Rehabilitation

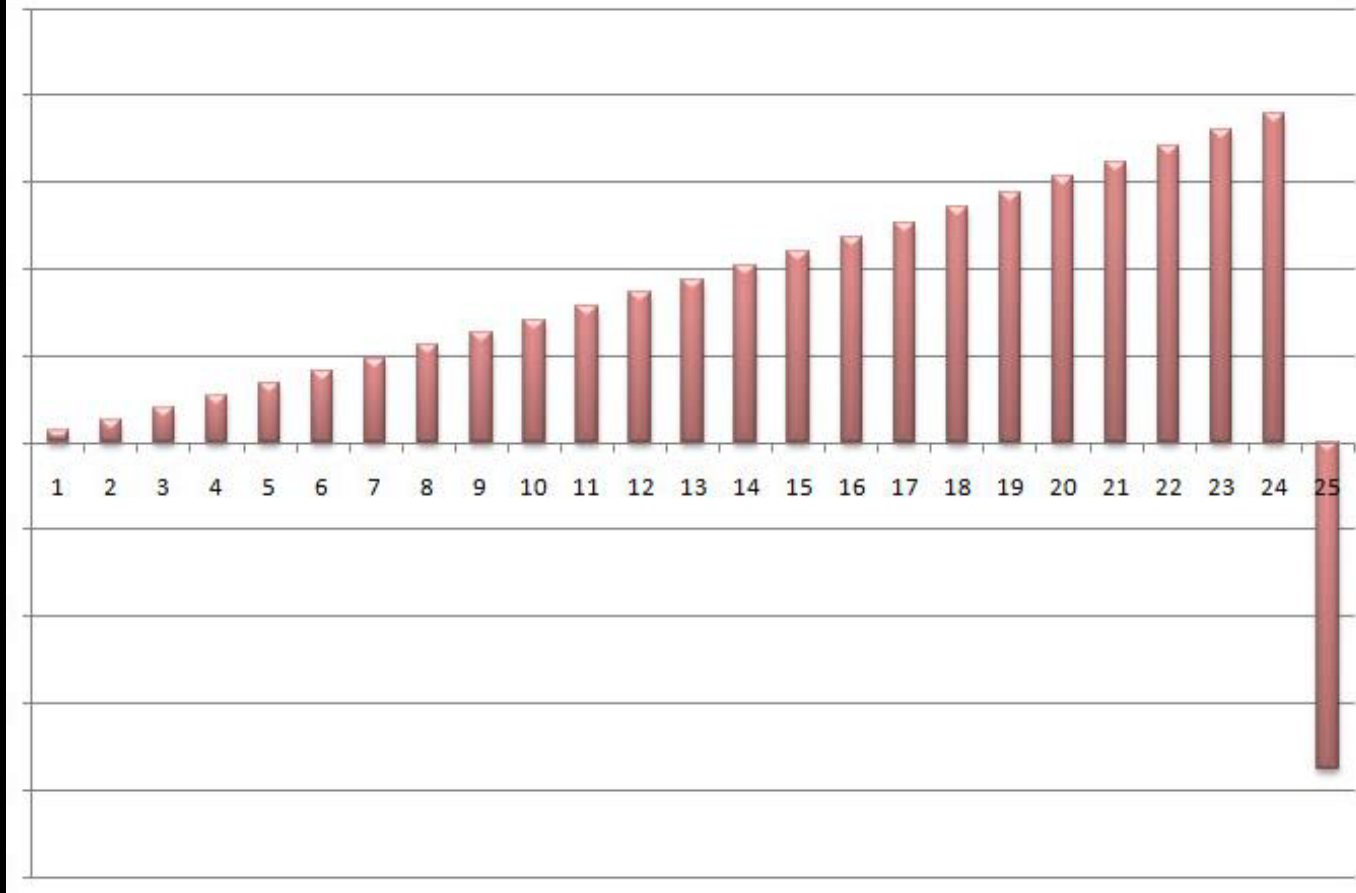
Industrial Park Development

- \$2.1 million inflation-adjusted total cost
- \$6.6 million in improvements induced
- Payback from current conditions happens in 29 years if all revenue devoted only to debt

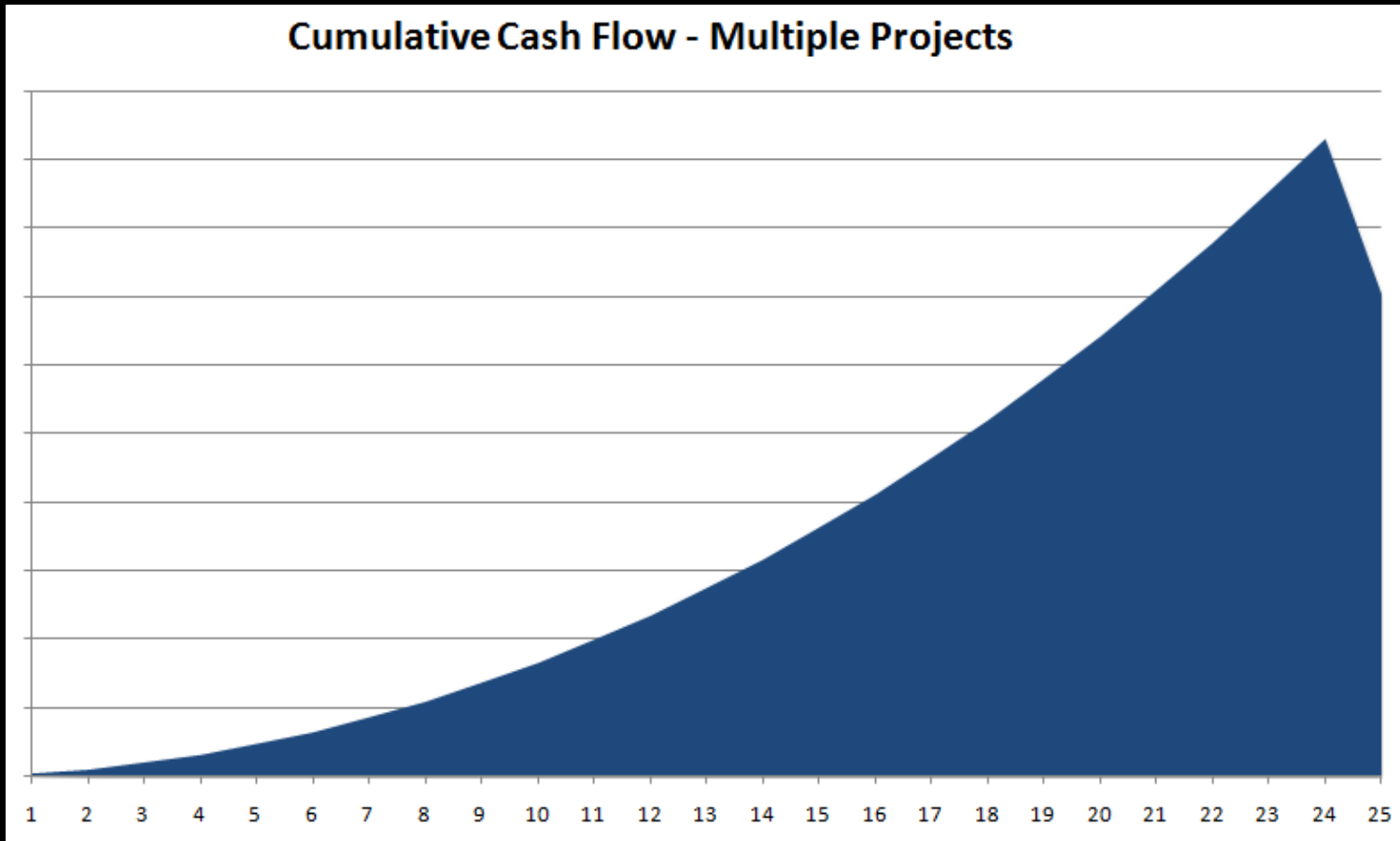


Industrial Development

Cumulative Cash Flow - One Life Cycle

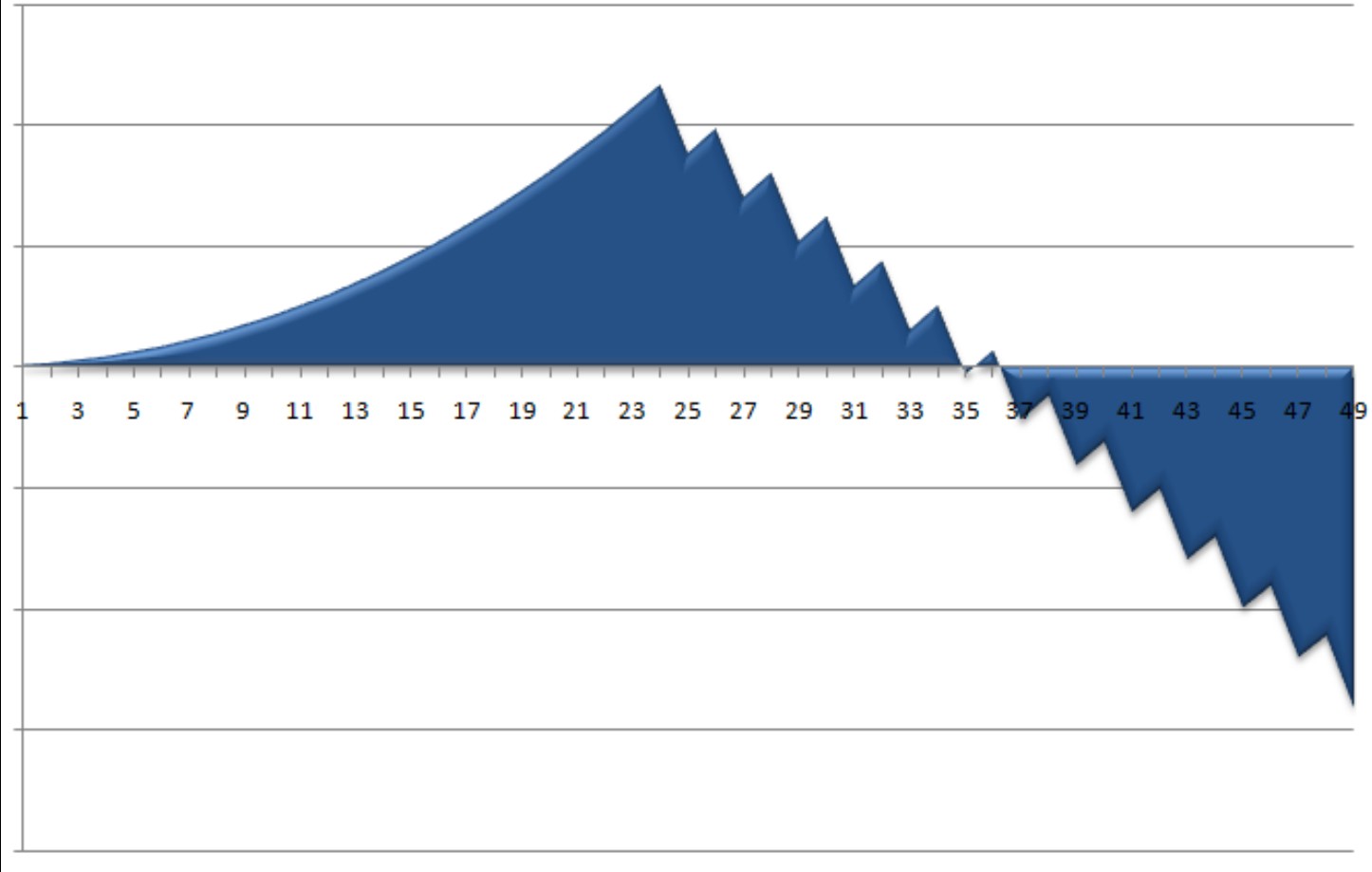


Growth Ponzi Scheme



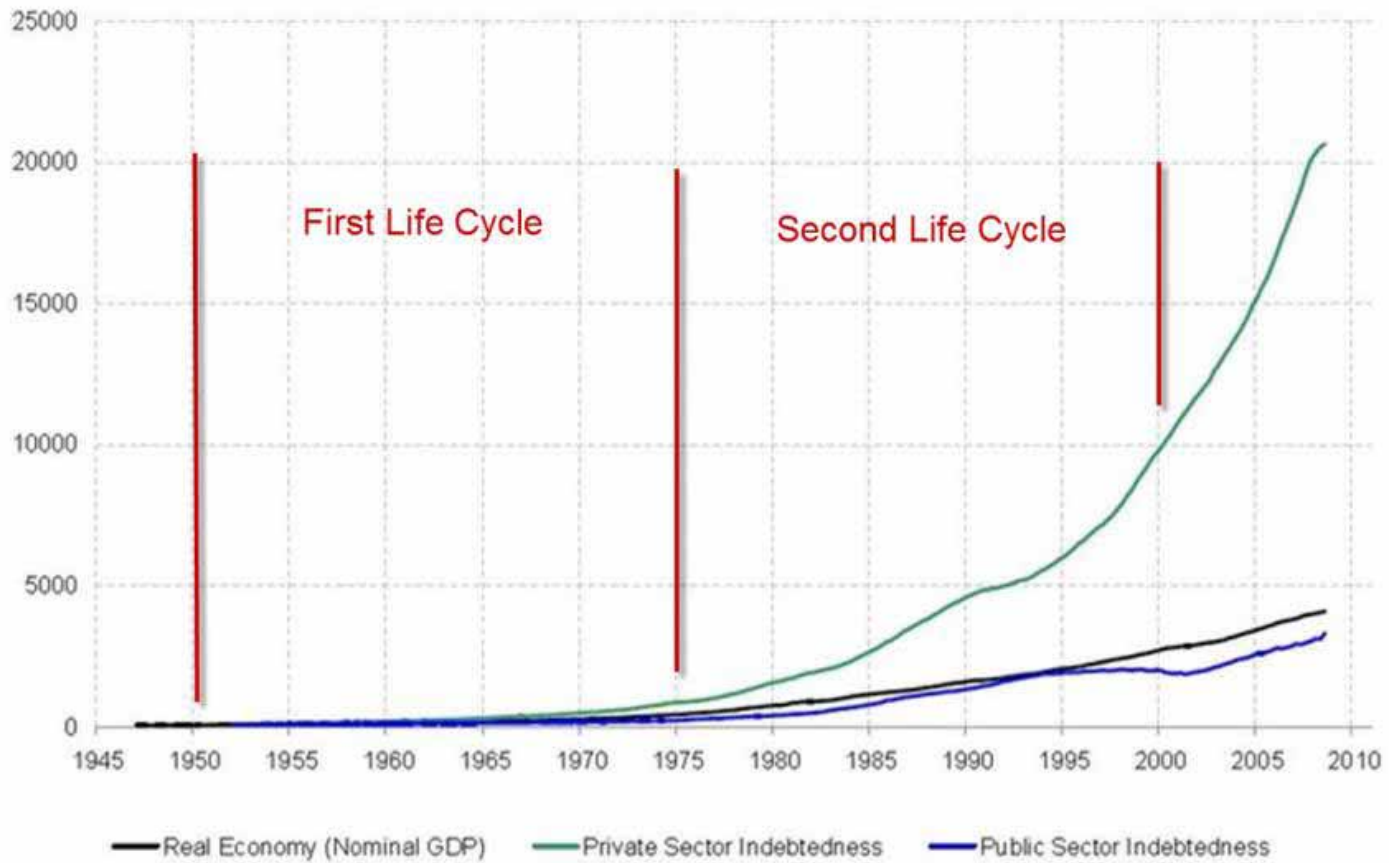
Growth Ponzi Scheme

Cumulative Cash Flow - Two Life Cycles



Growth Ponzi Scheme

UNITED STATES: REAL ECONOMY AND FINANCIAL SECTOR
INDEX BASE 1952 = 100



Serious implications for the future

- The ways we have become accustomed to financing growth are waning.
- Local governments are going to be forced to absorb the costs of the current development pattern.
- This can't be done in the current pattern of development without **large tax increases** and/or **large cuts in services**.

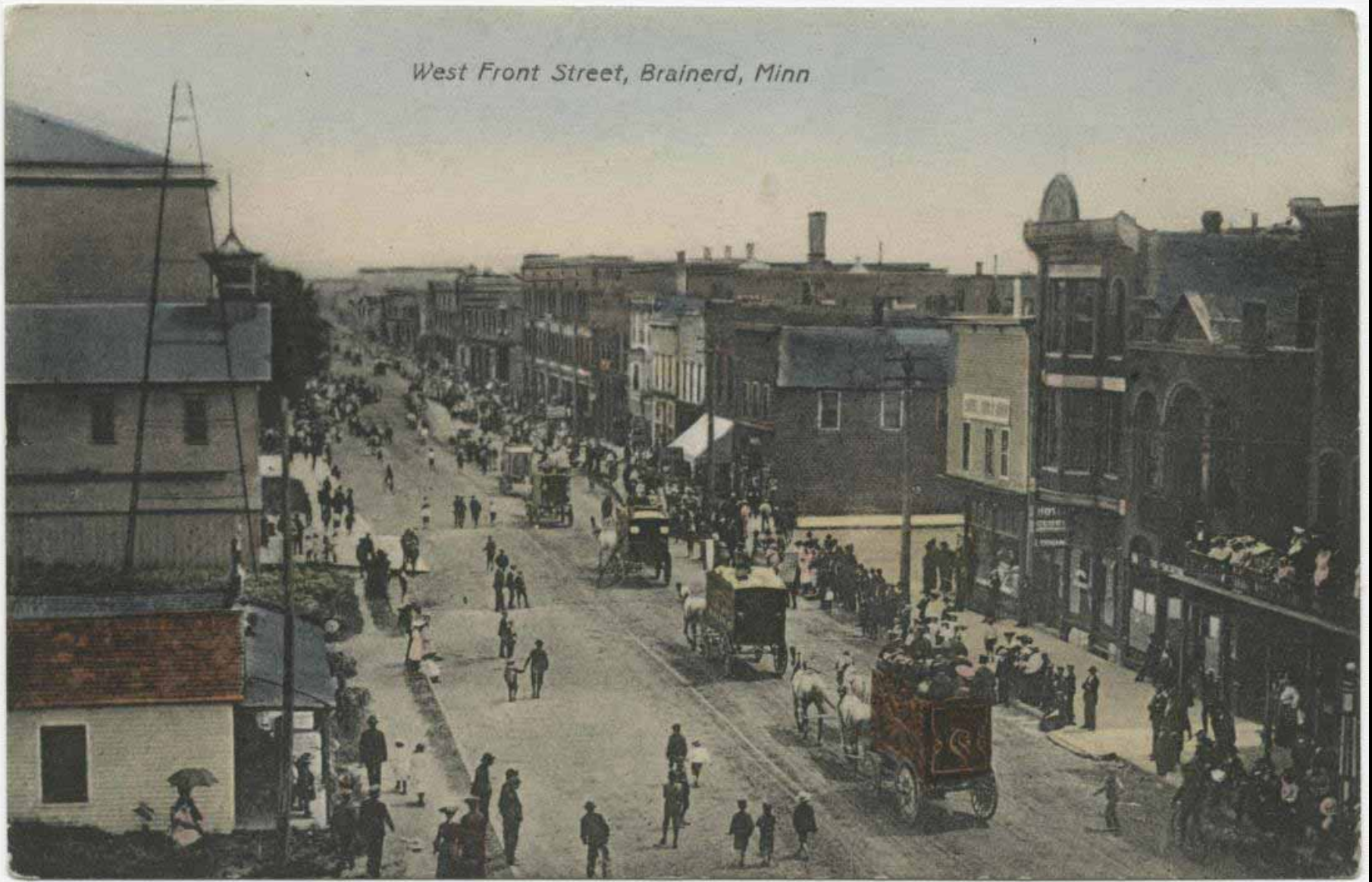
Implications



What's the solution?



West Front Street, Brainerd, Minn









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

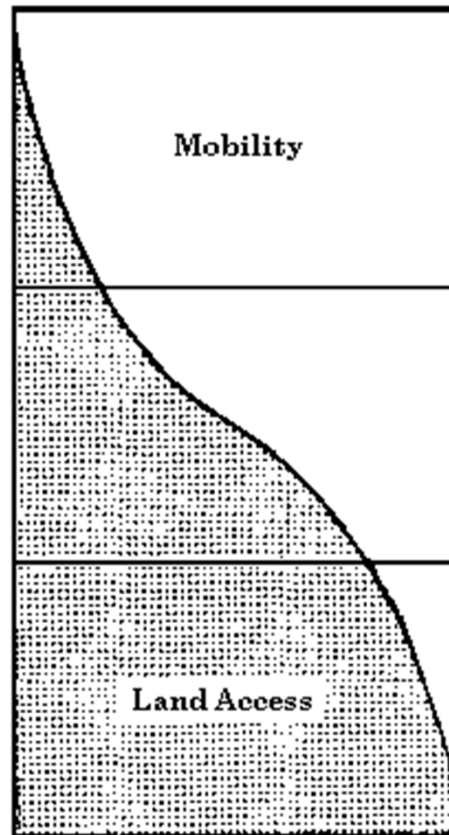


- Creating wealth
- Low speed
- High accessibility
- Complex design
- Highly adaptive

Figure II-4

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

Proportion of Service



Arterials

Collectors

Locals

+\$\$\$\$

-\$\$\$\$

+\$\$\$\$

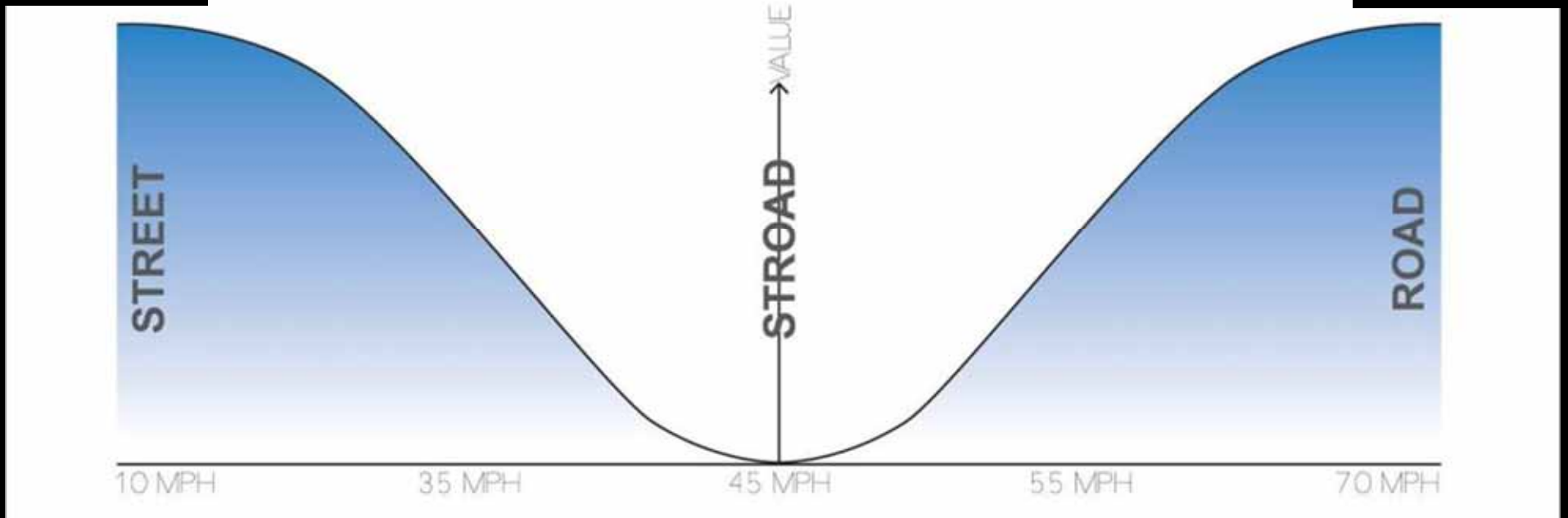
SAFE

DANGEROUS

SAFE

+\$\$\$\$

+\$\$\$\$

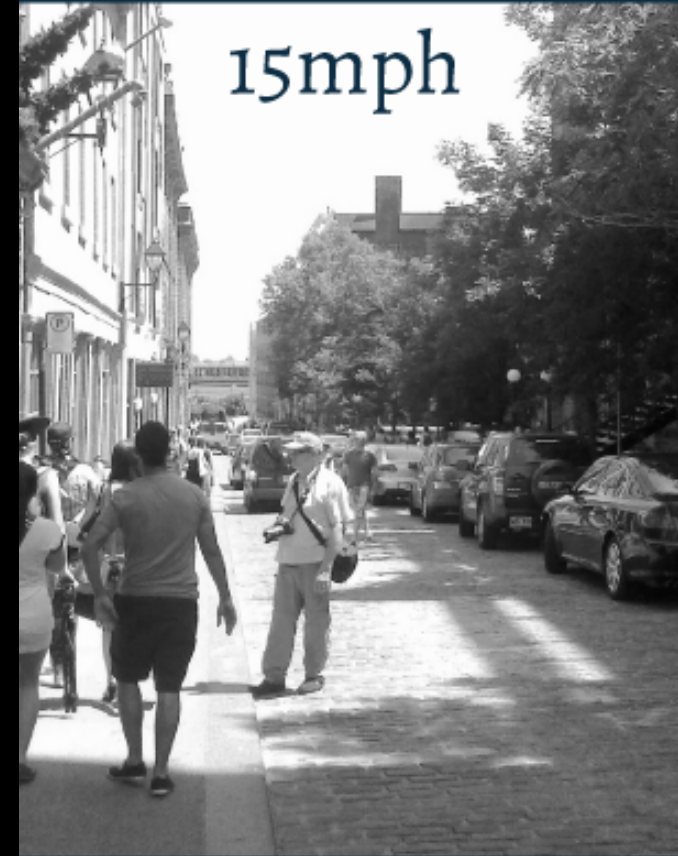


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DESIGN MATTERS

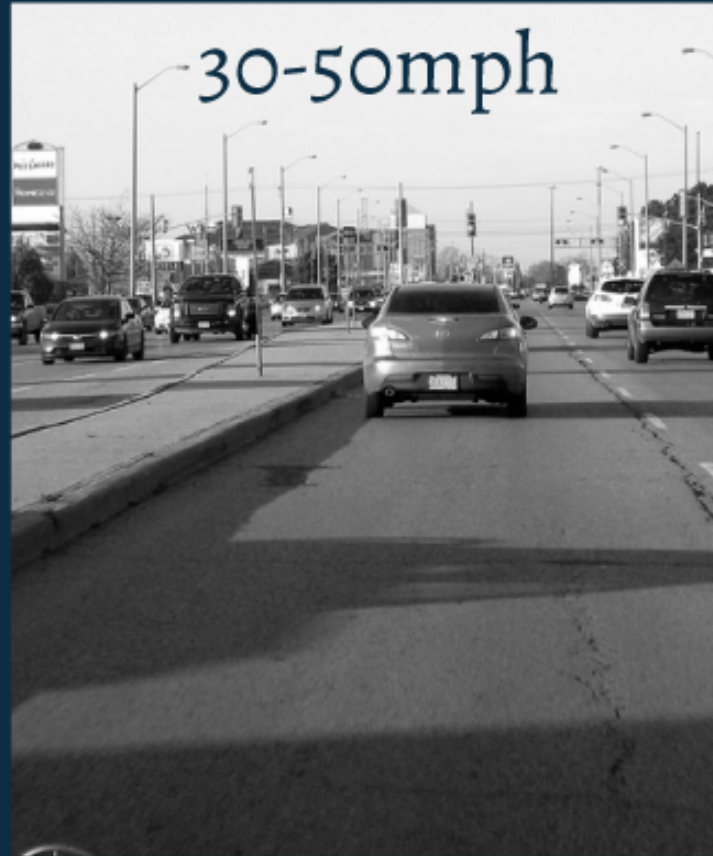
STRONG
TOWNS

15mph



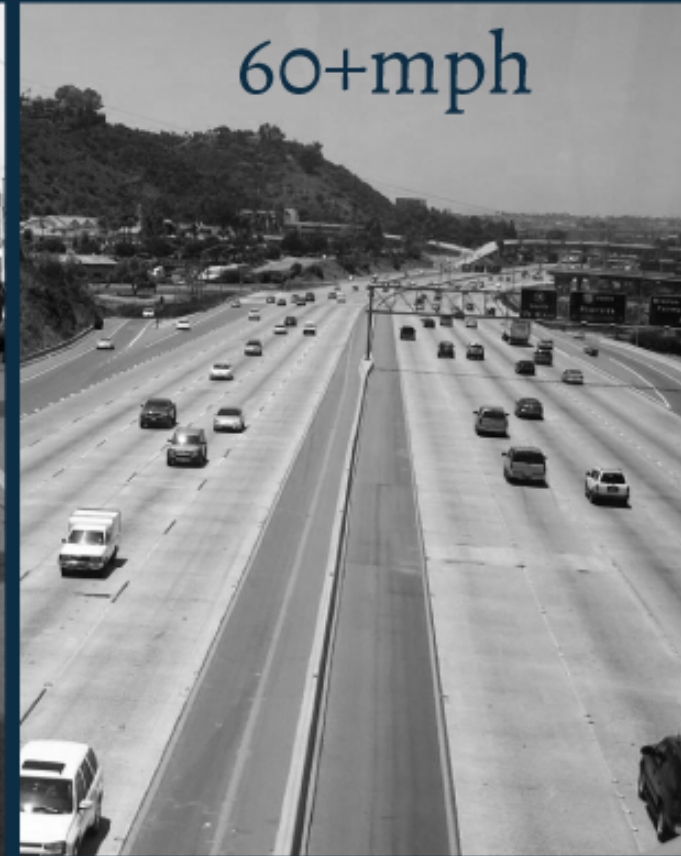
Safe

30-50mph



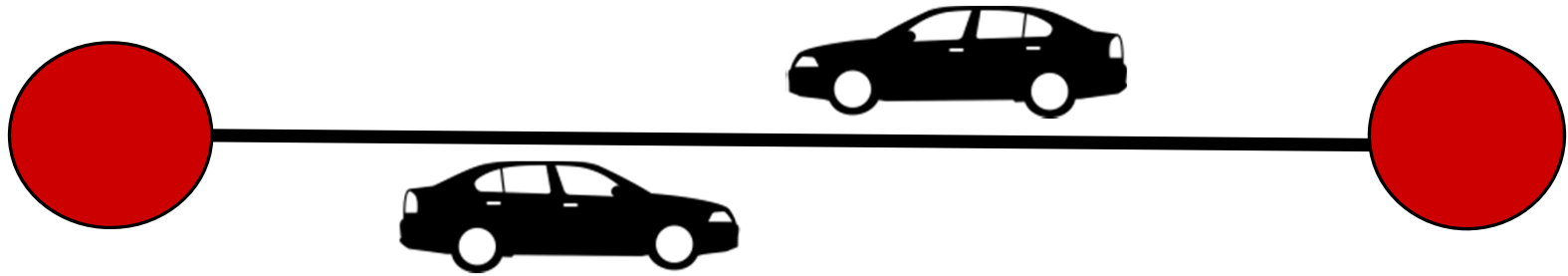
Deadly

60+mph

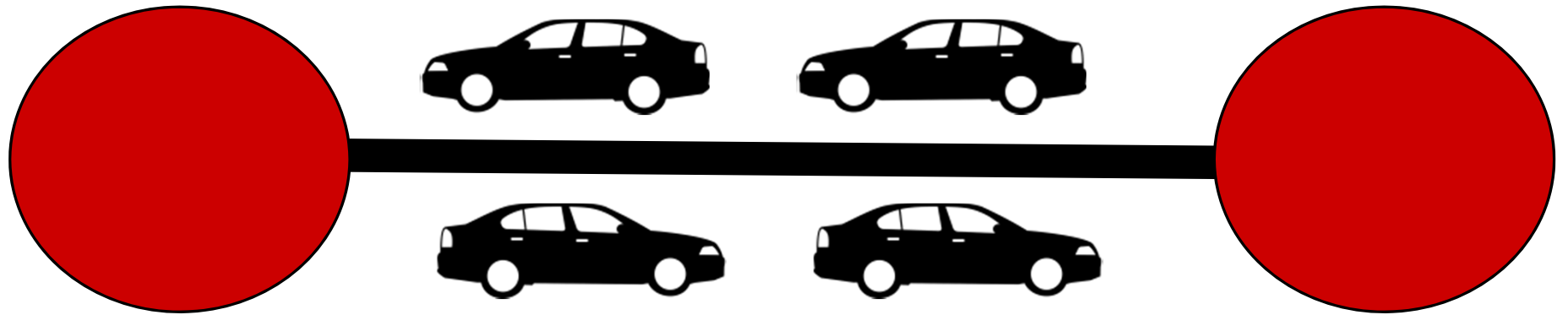


Safe

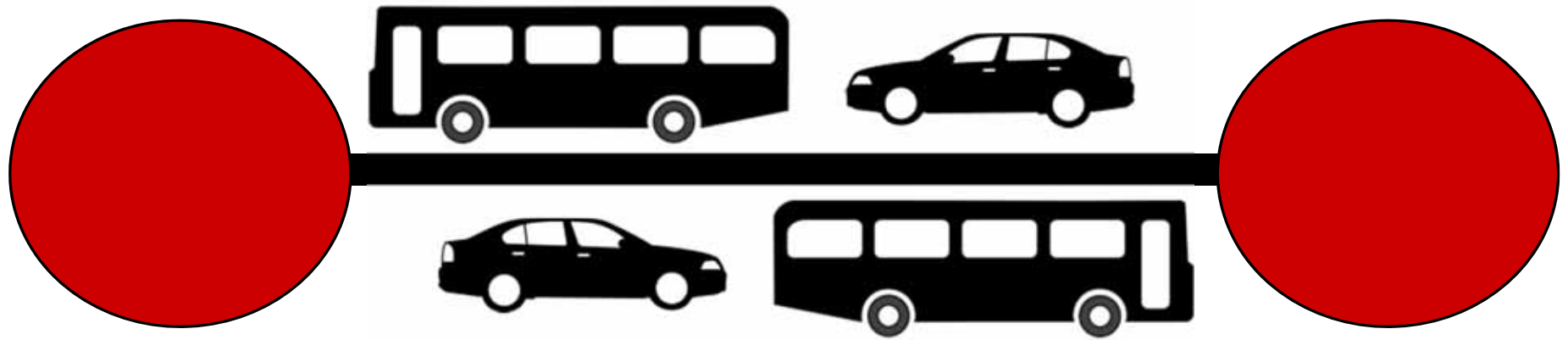
Quality Roads



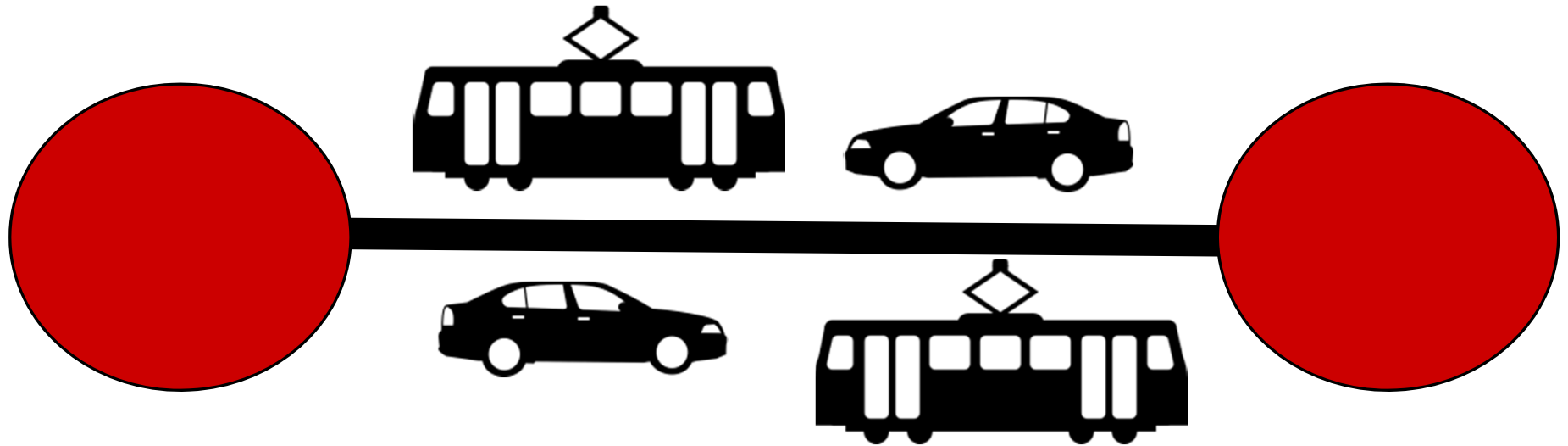
Quality Roads



Quality Roads



Quality Roads









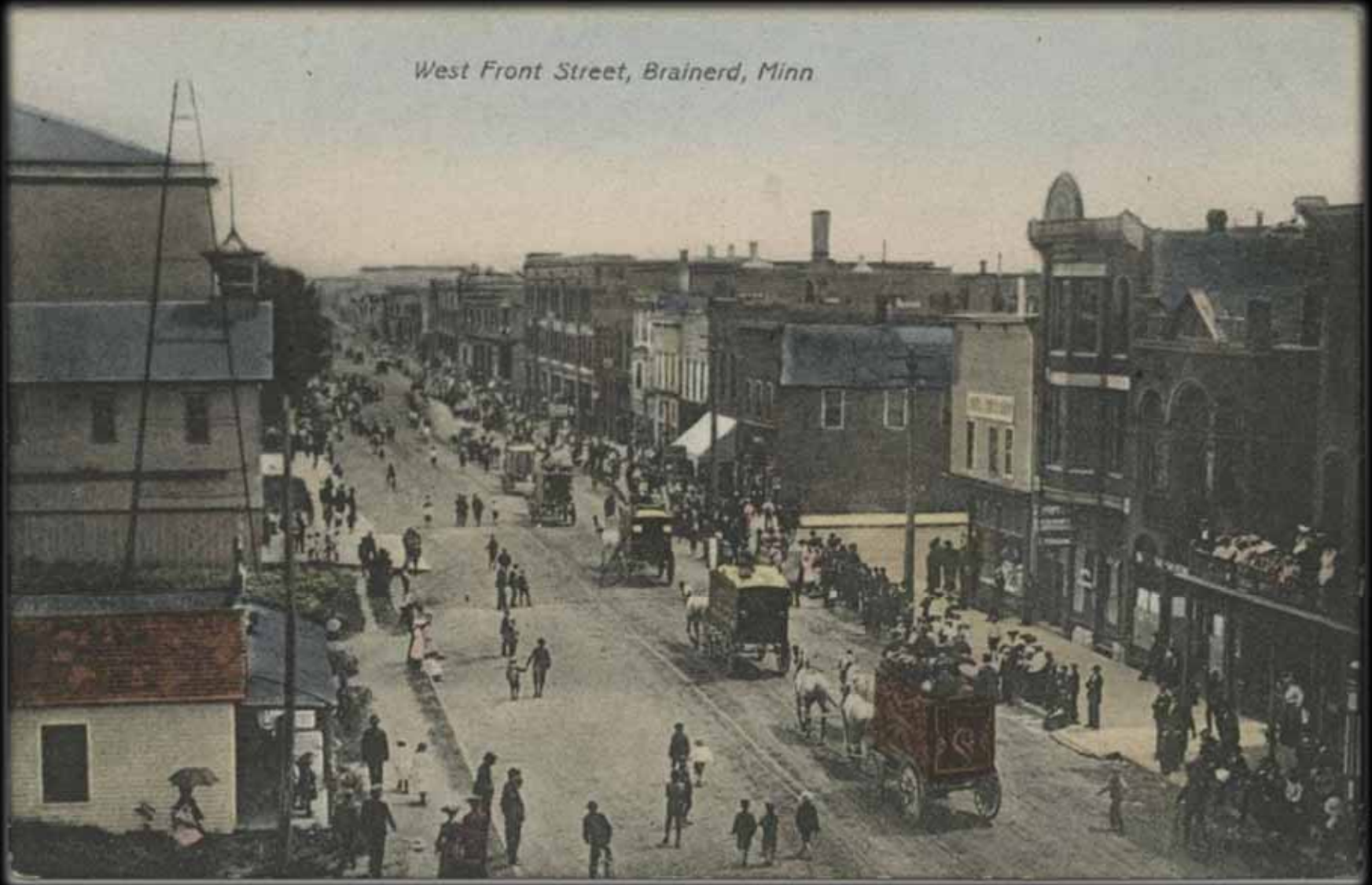
Building financially productive places is more art....



...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

Urban3

Buffalo 3-D Model

Connecting Urban Design to Economics



Buffalo 3-D Model

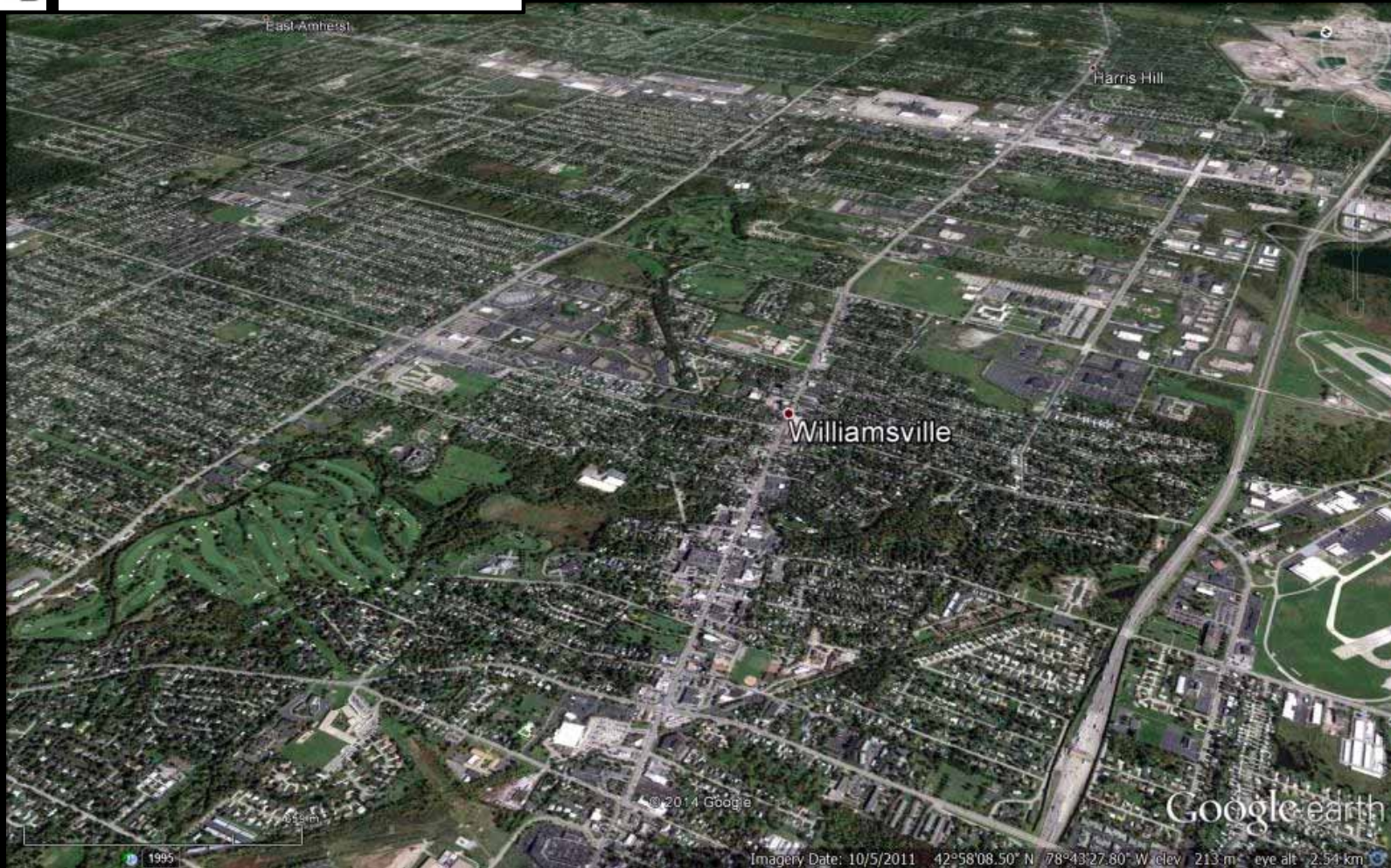
Connecting Urban Design to Economics



Urban3

Williamsville 3-D Model

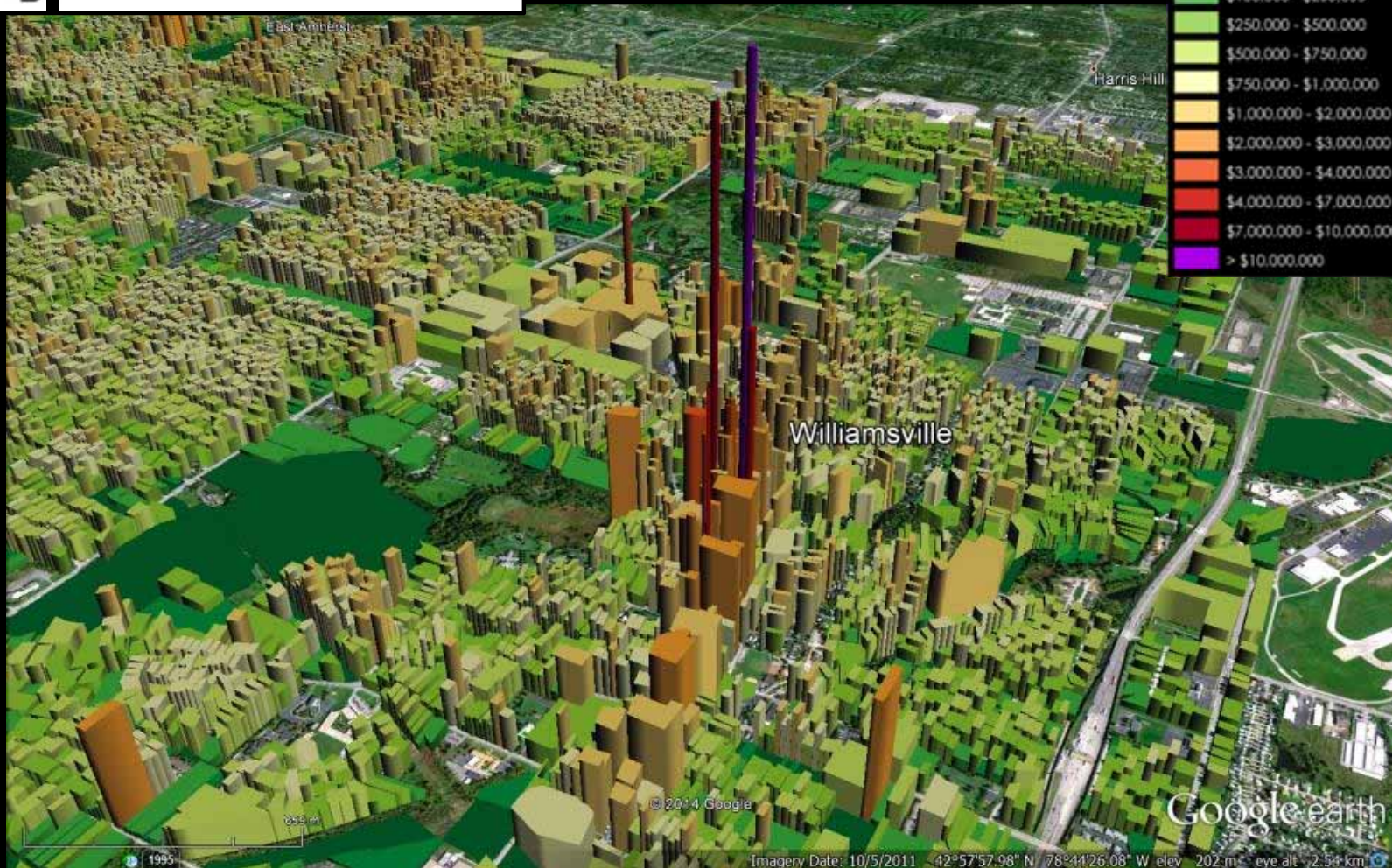
Connecting Urban Design to Economics

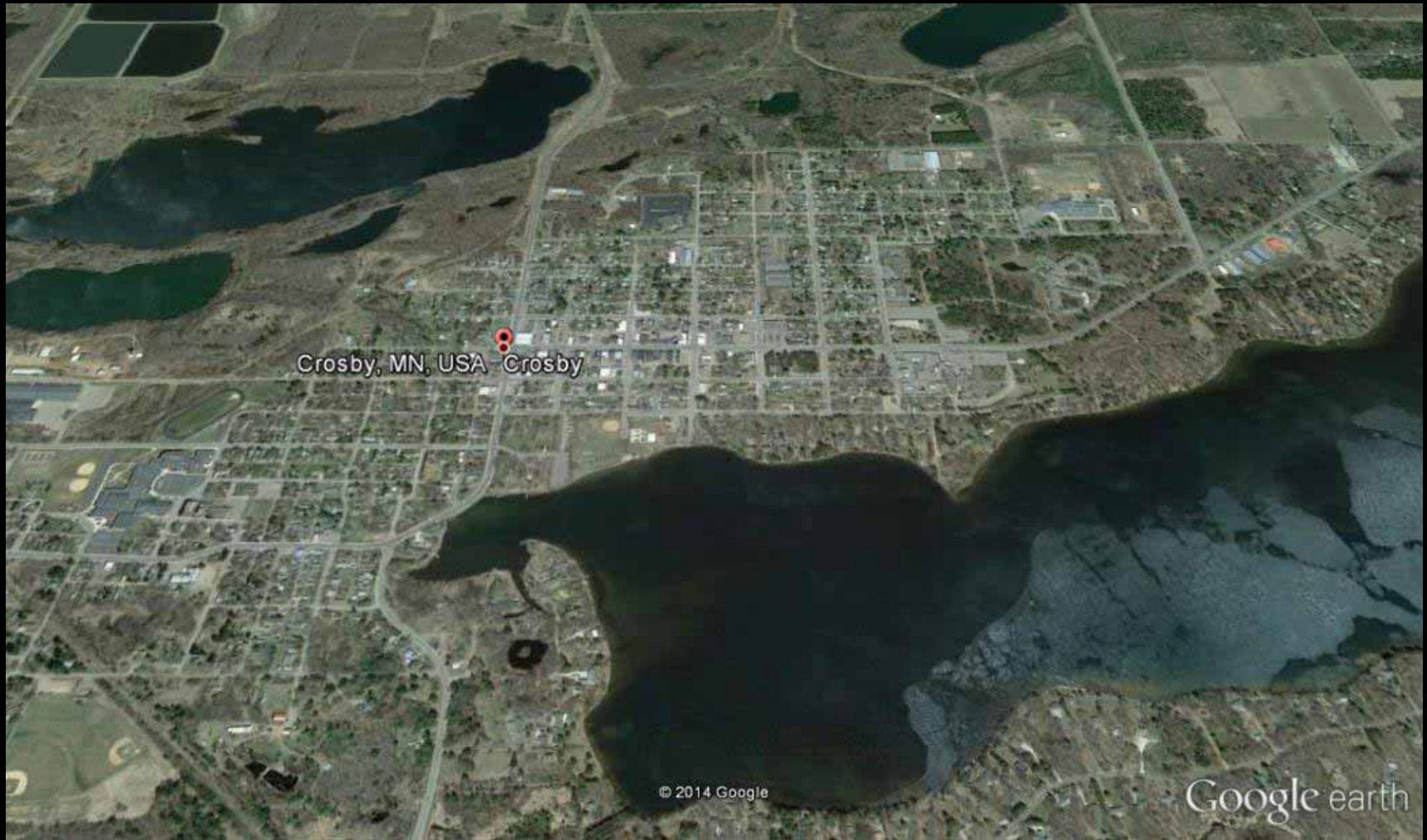




Williamsville 3-D Model

Connecting Urban Design to Economics





Crosby, MN, USA Crosby

© 2014 Google

Google earth



Crosby, MN, USA Crosby

© 2014 Google

Google earth



Kmart
\$384,849/acre



Walmart
\$967,552/acre

String & Splinter Club
\$5,028,450/acre



203 N. Main St.
\$3,452,560/acre







What are the values we apply?

Engineer's Approach

- Traffic Speed
- Traffic Volume
- Safety
- Cost



Public's Approach

- Safety
- Cost
- Traffic Volume
- Traffic Speed



Forgiving Design



Forgiving Design



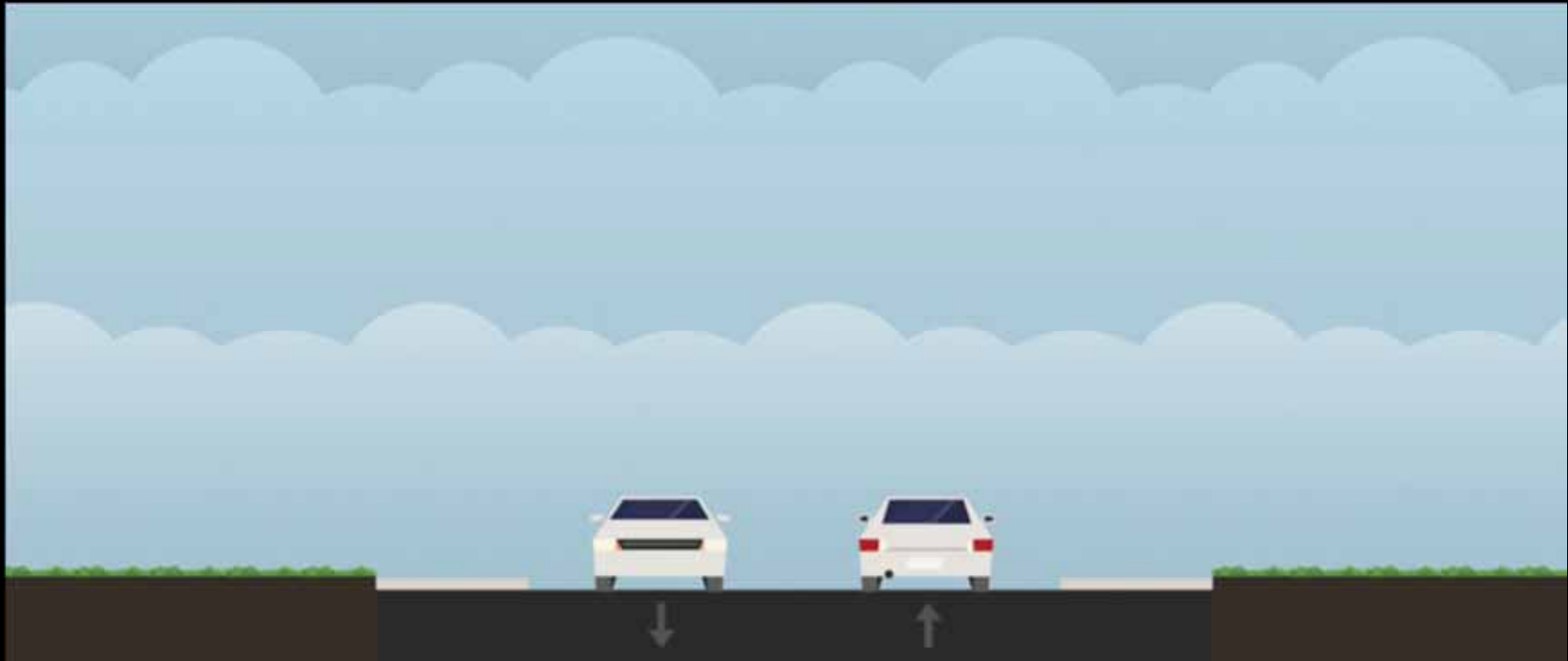
Forgiving Design



Forgiving Design



Forgiving Design



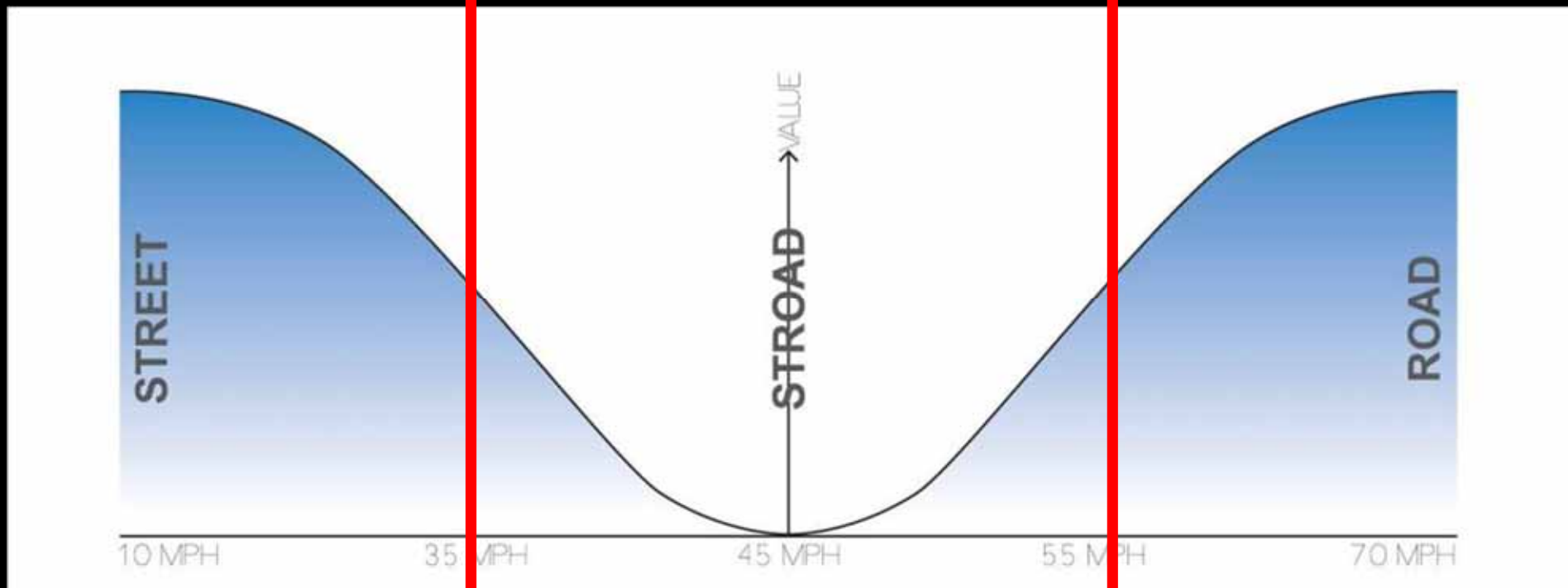
Forgiving Design

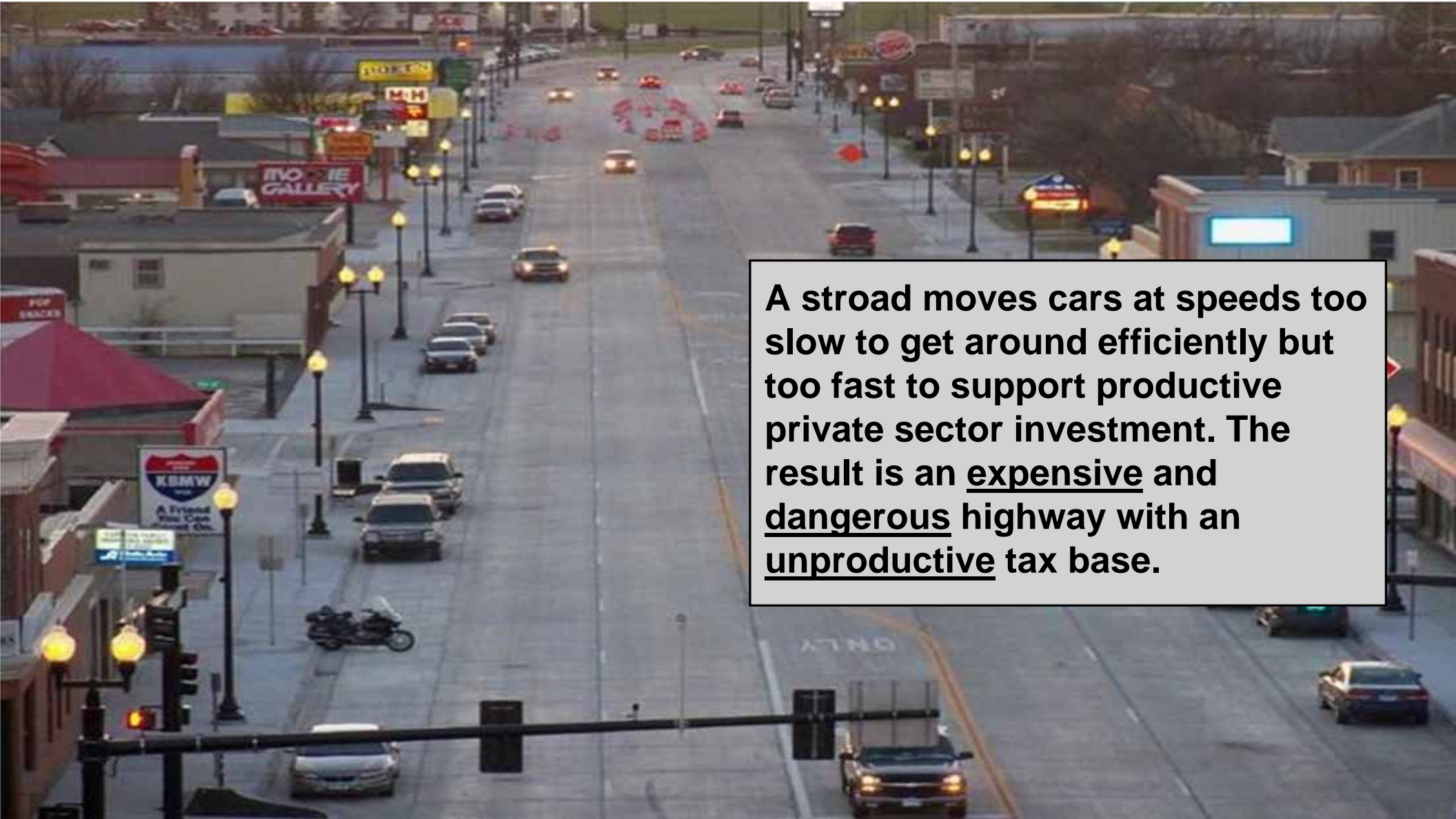


If you need a sign to tell people to slow down....



....you designed your street wrong.





A road moves cars at speeds too slow to get around efficiently but too fast to support productive private sector investment. The result is an expensive and dangerous highway with an unproductive tax base.

STROAD



STROAD



STREET

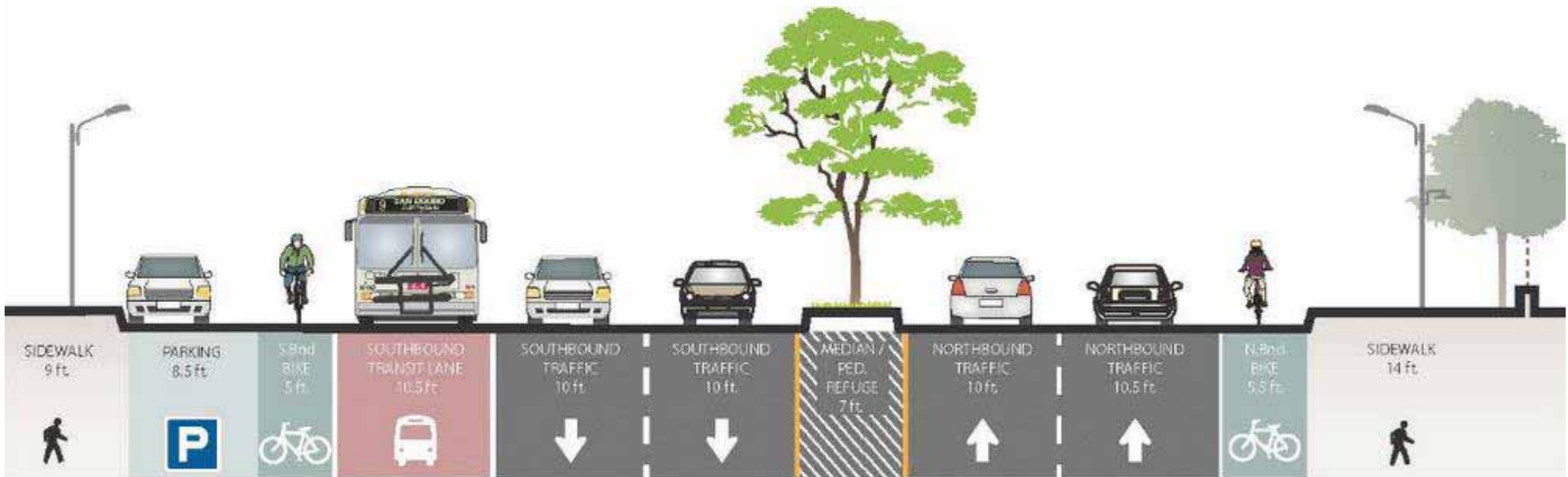
1. Slow traffic
2. Prioritize pedestrians, bikers, transit over automobiles
3. Intensify adjacent land use
4. Embrace complexity



ROAD

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

Complete Streets accommodate pedestrians within an auto-dominated environment.



Productive Places accommodate automobiles within an environment dominated by people.





Congested Road - Increase Capacity



Congested Street - Intensify Land Use













Neighborhoods First

A low risk, high return strategy for a better Brainerd.



2014 Neighborhood Improvements Northeast Brainerd

**STRONG
TOWNS**

prepared by

A Better Brainerd

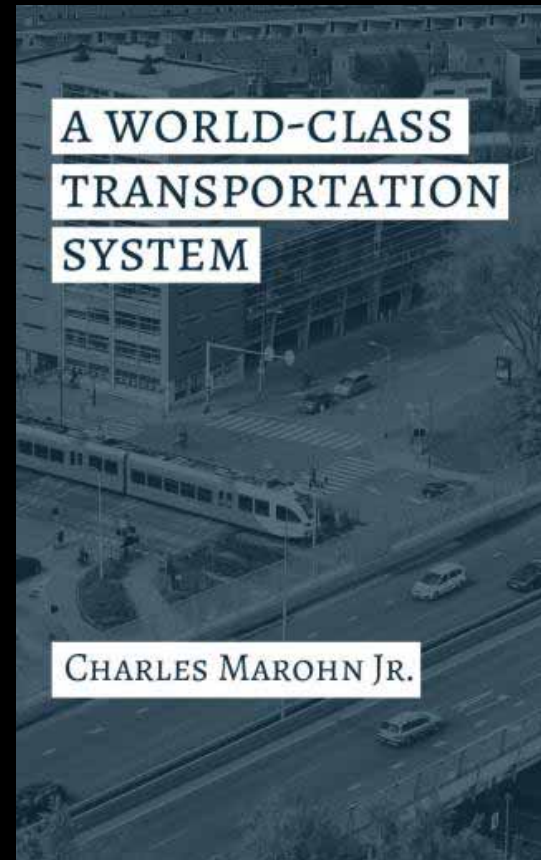
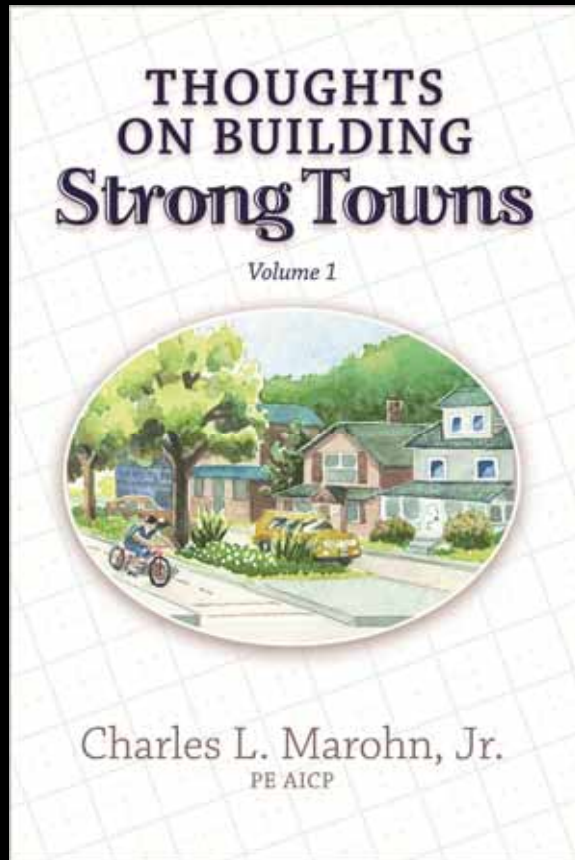




“Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius, and a lot of courage, to move in the opposite direction.”

**STRONG
TOWNS**

-E.F. Schumacher



www.StrongTowns.org







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



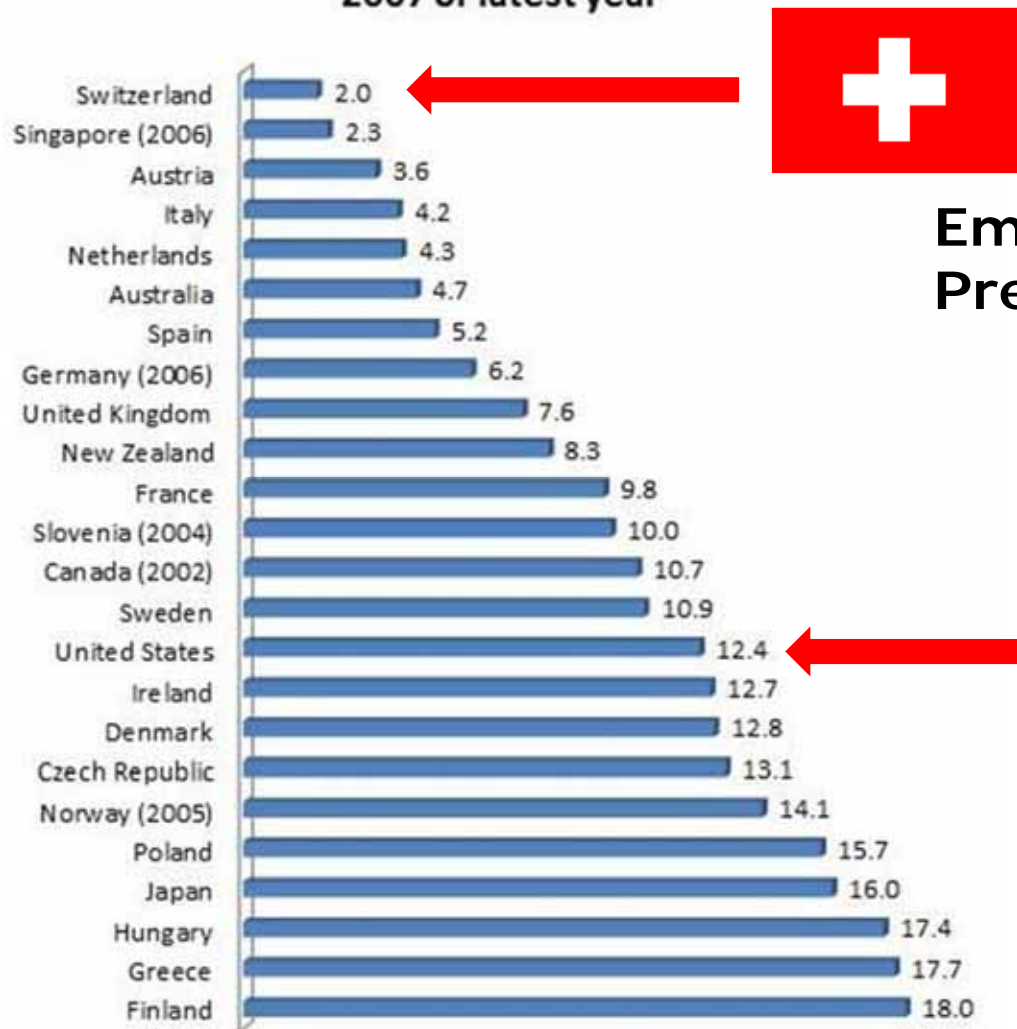
....or do we choose our equipment for the city we want?



Where are you more likely to die from fire?



Deaths from Fires, Per Million Pop. 2007 or latest year

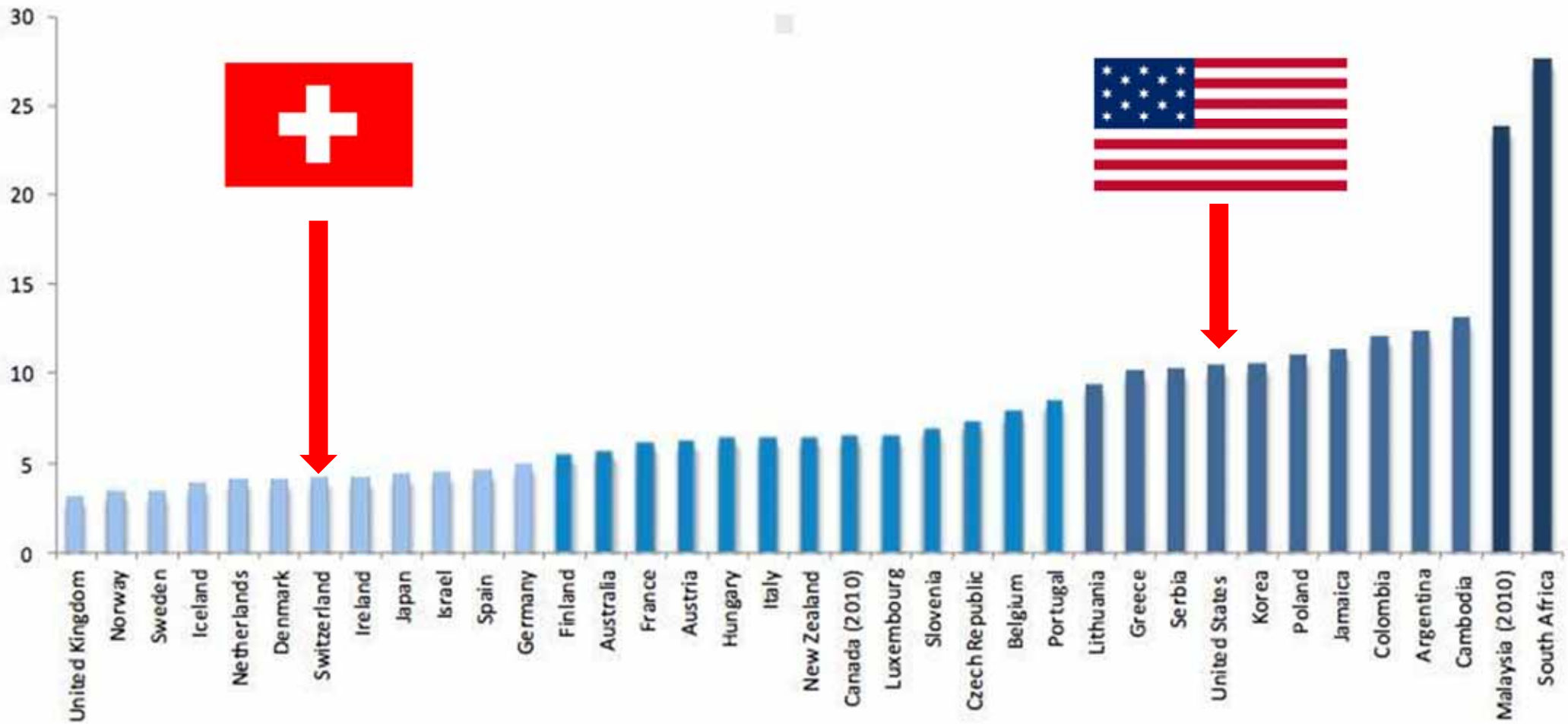


**Emphasis:
Prevention**



**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