# DATE IN AND A STATUTE OF CHOOLS

The Experiential Side of Transportation



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#### **Cindy Zerger** AICP, ASLA Urban Designer Planning + Landscape Architecture

Passionate about creating memorable public realm experiences. Doubles as a mom who loves landscapes, soccer, trail running, and cycling.





#### lan Lockwood PE

Livable Transportation Engineer



#### I enjoy helping paths to become places

cartooning



and cycling

teaching

photography

### Work together...





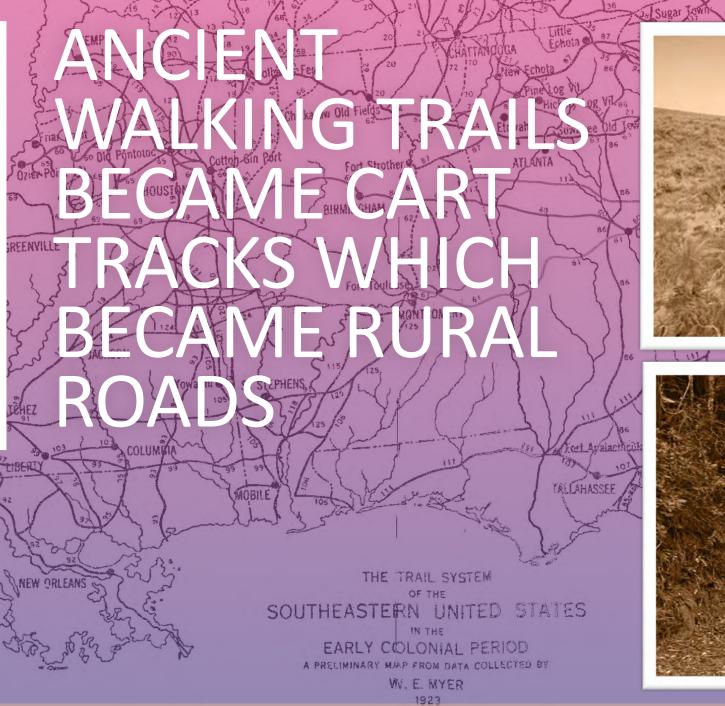
### Work together...



### HUMAN NATURE: SAFETY AND MOVEMENT.

# SHELTER WE COULD MOVE WITH US ON THE HUNT, TO GET PEOPLE TO FOOD.

### AGRICULTURE LED TO PERMANENT SHELTER LED TO BETTER PATHS TO GET FOOD TO PEOPLE.





Trans

Cheray

## PAVEMENT. BECAUSE BIKES.

ПП

## CARS. BECAUSE INNOVATION.

Photo source | muppet.wikia.com/wiki/Couldn%27t\_We\_Ride

## TRAFFIC. BECAUSE PAVEMENT.

## MORE TRAFFIC. BECAUSE MORE PAVEMENT.

### CHAOS. BECAUSE TRAFFIC.

Photo source | https://www.itdp.org/wp-content/uploads/2015/02/Before-intervention1.jpg

### WE CREATED CITIES FOR THE PURPOSE OF EXCHANGE.

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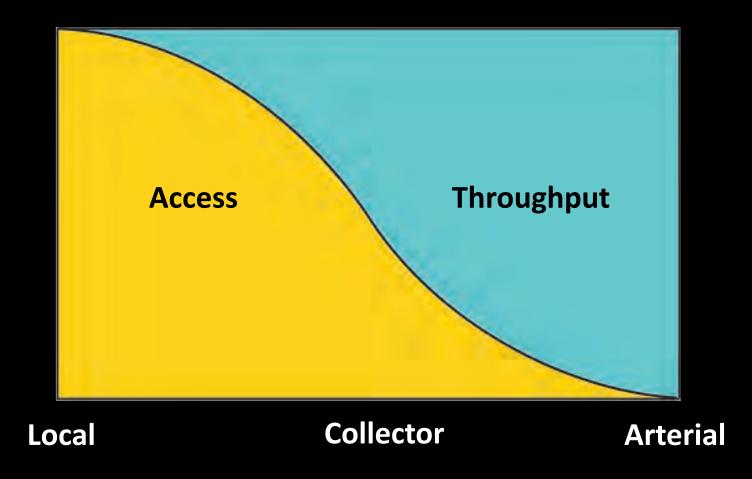
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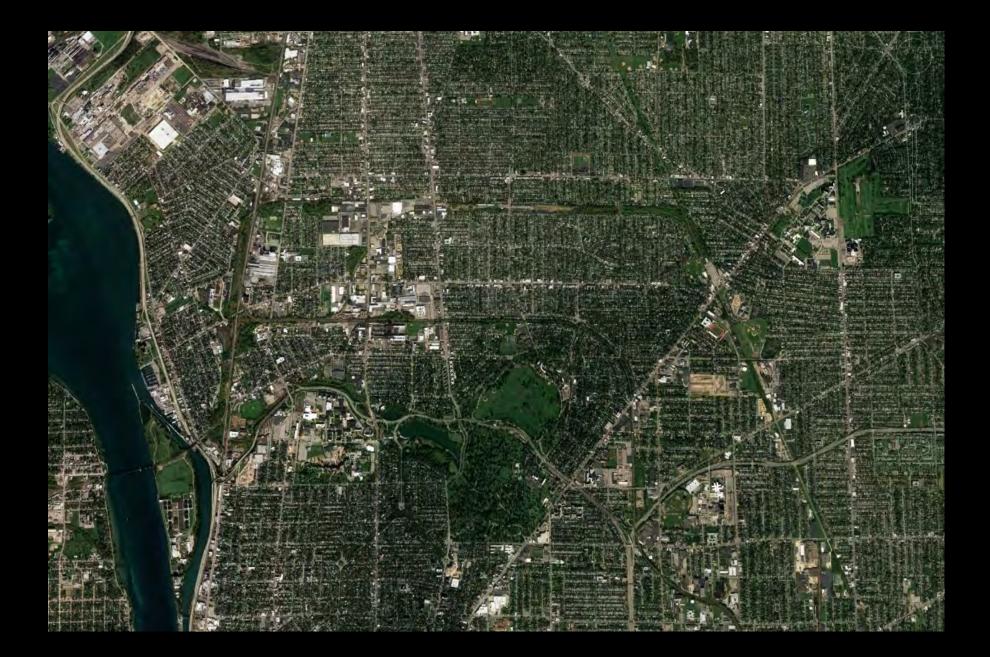
The purpose cities: to concentrate and arrange the components for civic life within a *place* to foster efficient & effective exchange (i.e., social, economic, and cultural exchange)

(e.g., exchange of labor, social contact, entertainment, services, justice, education, goods, ideas, accommodations,...)

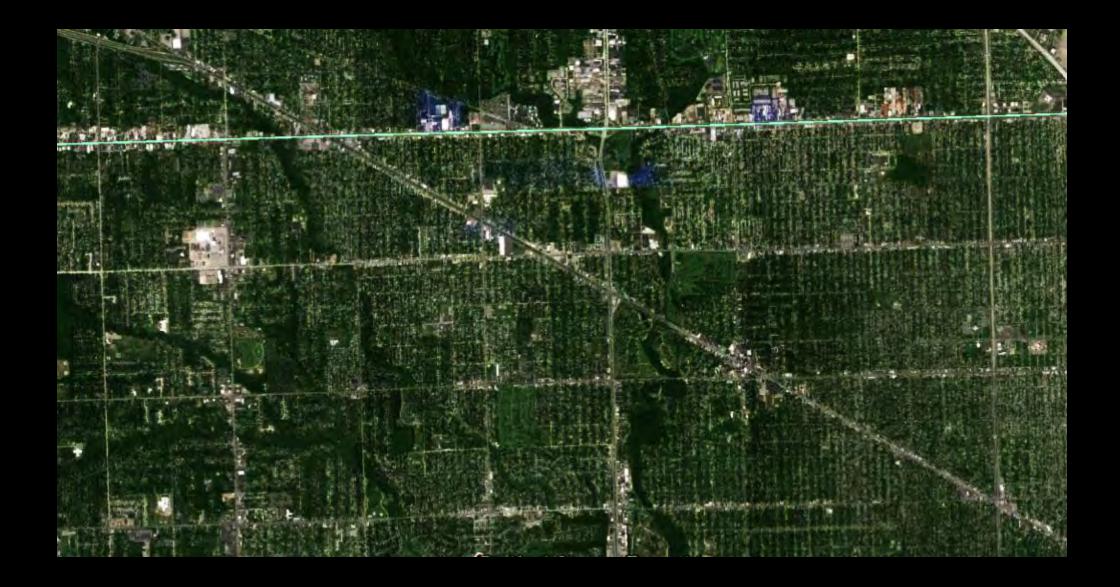
### STREETS AS A PLACE OF EXCHANGE

#### **Modern Conception of the Purpose of Streets**

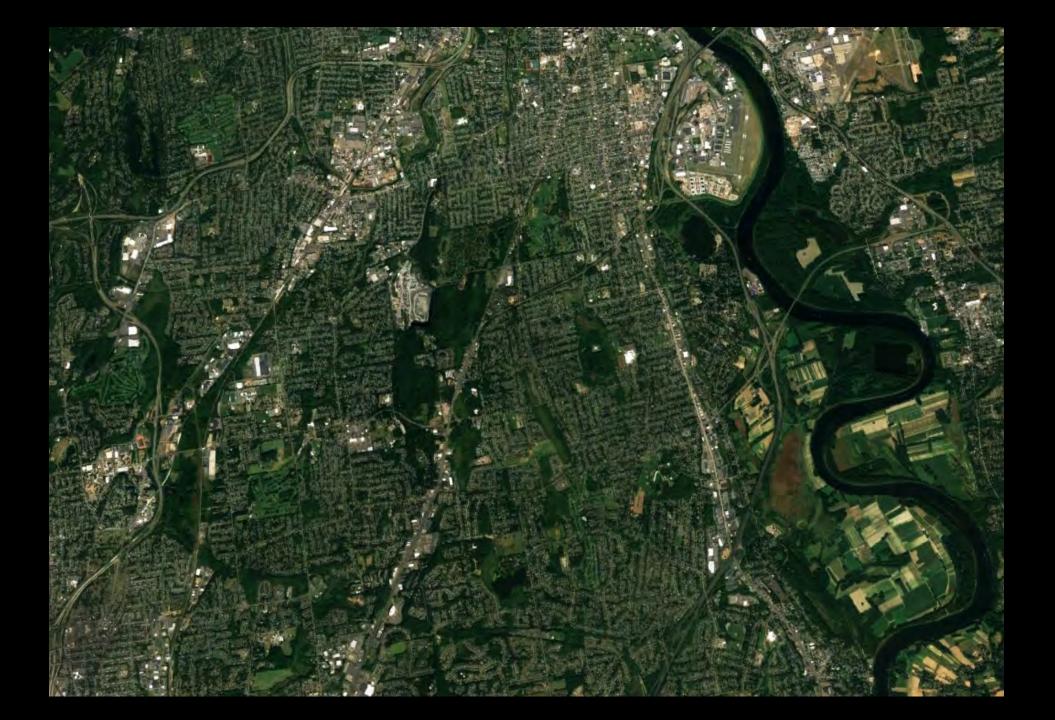




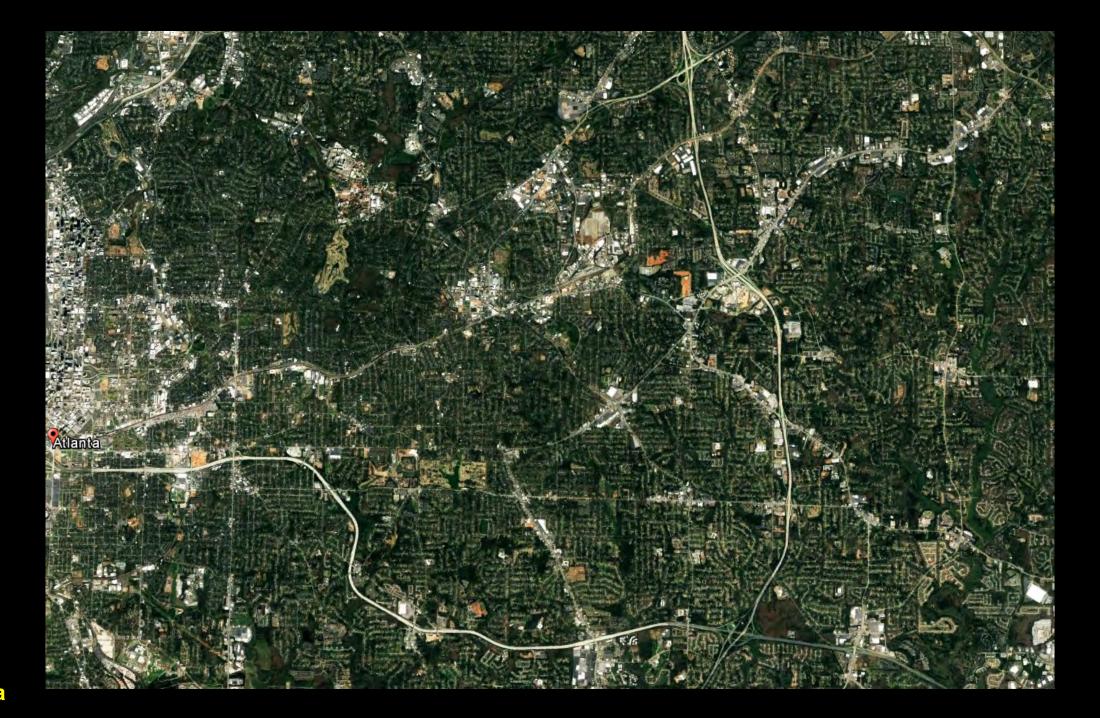
**Buffalo** 



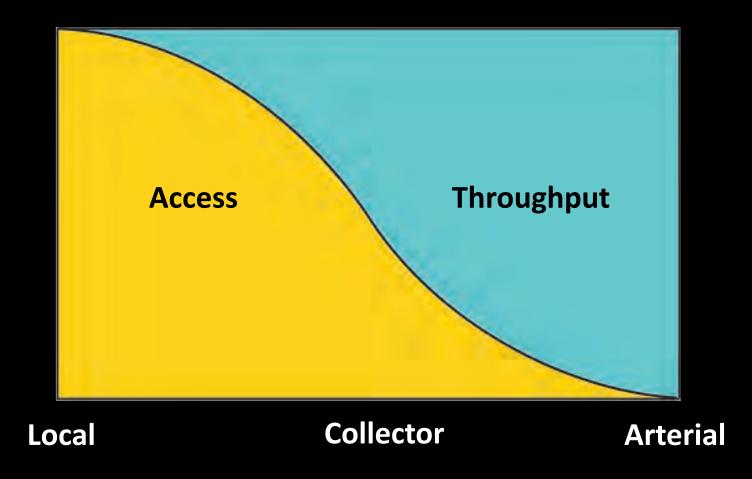
#### Detroit



Hartford

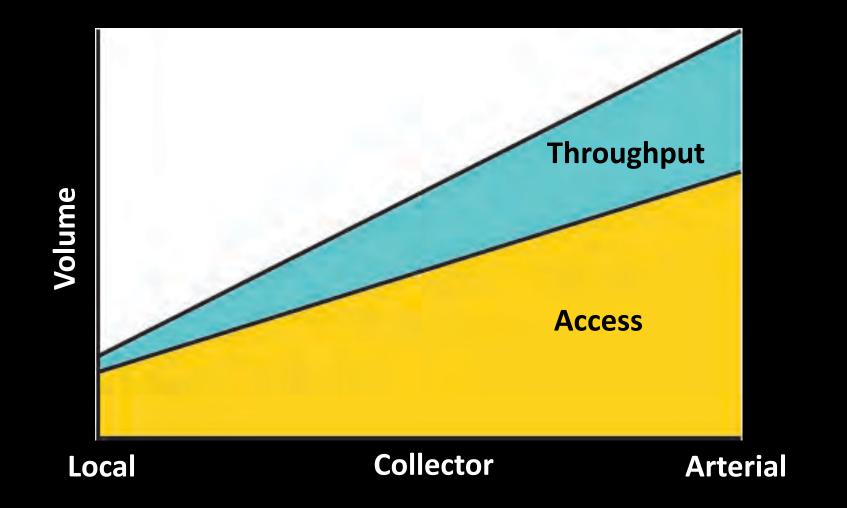


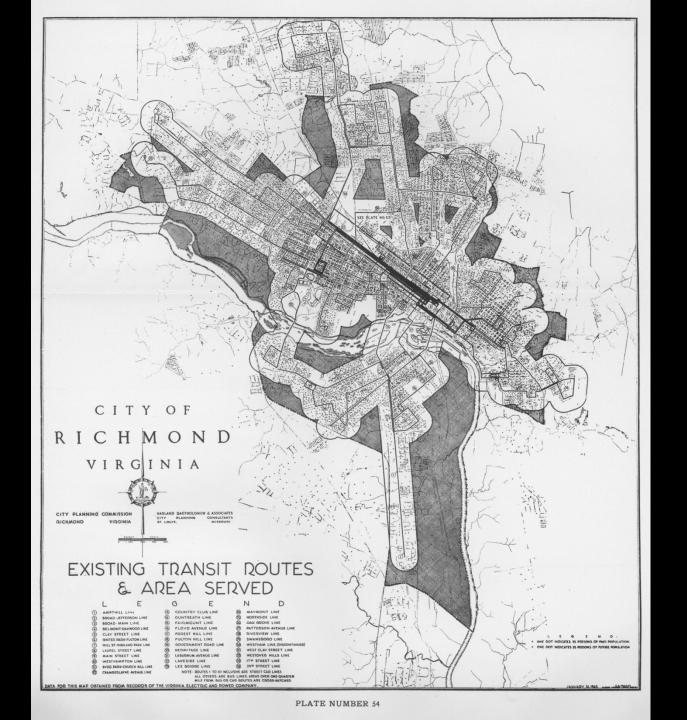
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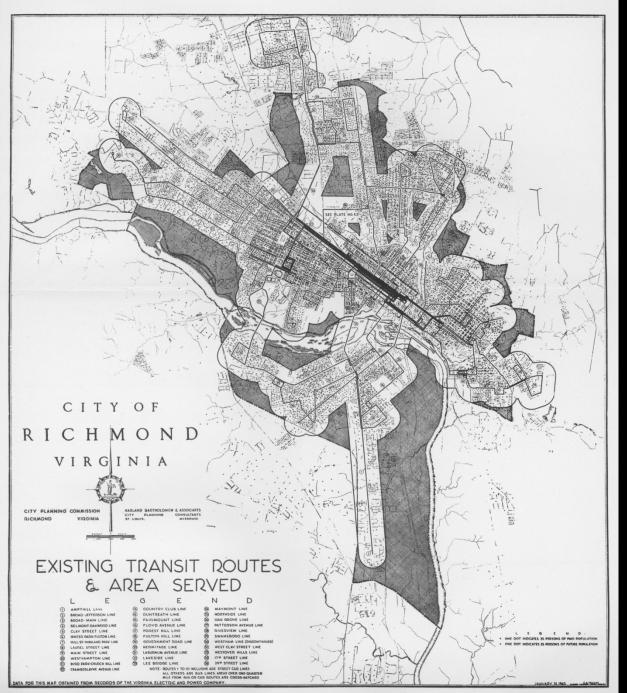




#### **Traditional Conception of Access & Throughput**









1943

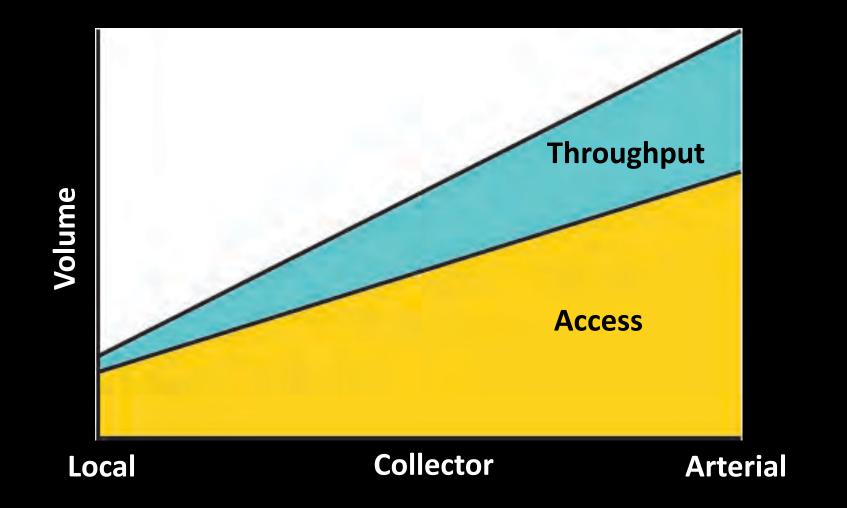
PLATE NUMBER 54





· William

#### **Traditional Conception of Access & Throughput**





The populations' capabilities and strategies to move in order to access what they need to live within the city.

people who have disabilities, have different income levels, and/or are young, elderly, millennials, pedestrians, cyclists, transit users, students...

# Which street provides more mobility?





What happened to the original intent? (i.e., mobility and place)

# Which street is a better place?

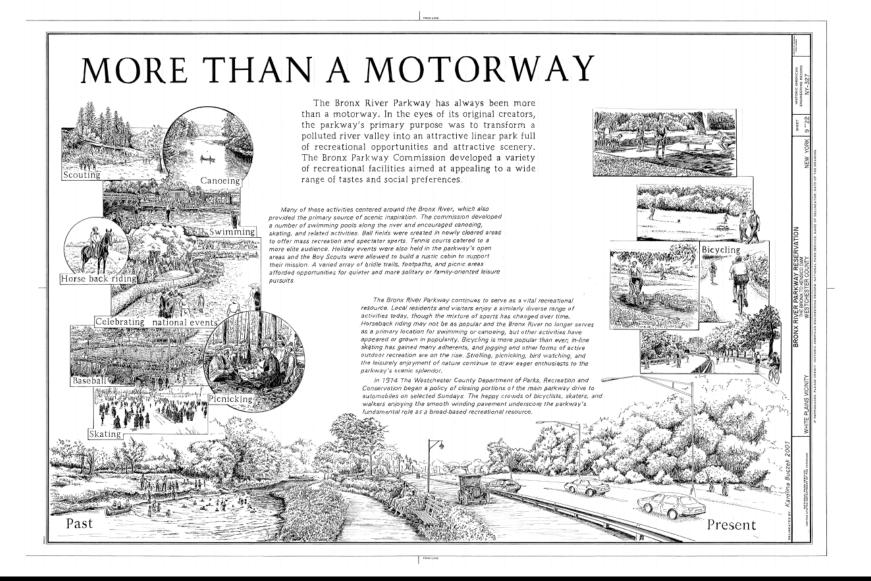


#### **PARKWAYS** Not just a road, a park that contains a road

Photo source | minneapolisparkhistory.com/2014/04/

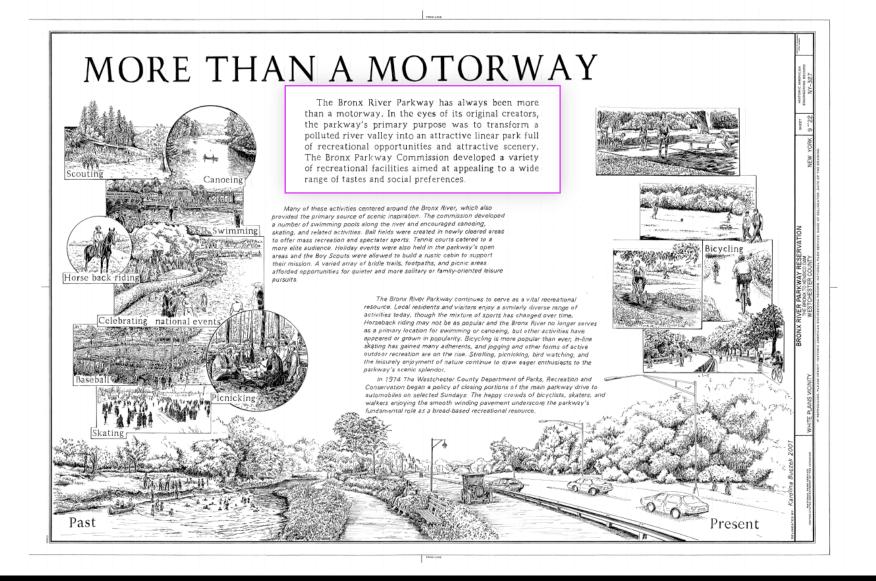


**Bronx River Parkway** 



#### **Bronx River Parkway**

More than a motorway. The parkway's primary purpose was to transform a polluted river valley into an attractive linear park full of recreational opportunities and attractive scenery.



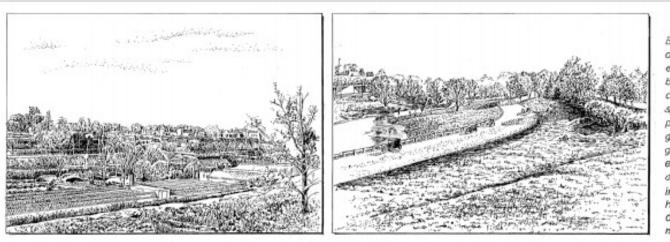
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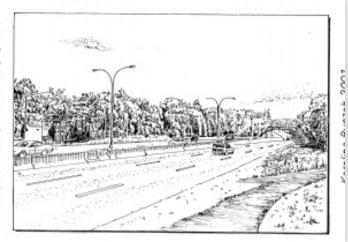


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The cheap, flood-prone land along the lower Bronx River valley had developed into a mixture of loosely regulated commercial and industrial enterprises, tenements, and small homes served by a confusing artay of local streets. Parkway construction transformed this haphazard urban sprawl into a comprehensively designed linear park. The free-flowing parkway drive wound in graceful S-curves through a broad expanse of greenery, providing an attractive and restful experience for commuters and recreational drivers. The roadway was significantly changed in the 1950s-60s to accommodate increasingly heavy traffic. New lanes were added and portions of the roadway were significantly straightened, making it more efficient but less park-like.



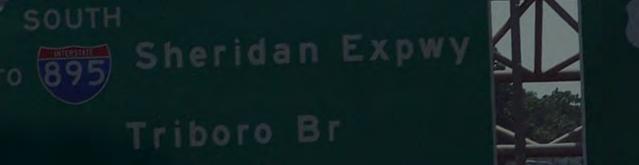
#### **Bronx River Parkway**

The roadway was significantly changed in the 1950s-60s to accommodate increasingly heavy traffic. New lanes were added and portions of the roadway were significantly straightened.



#### Bronx River "Parkway"

The term "parkway" was co-opted: A parkway is a broad landscaped highway (Merriam-Webster).



# What happened to the original intent?

**Boston Rd** 

Bronx Zoo

Bronx River "Parkway"

The term "parkway" was co-opted: A parkway is a broad landscaped highway (Merriam-Webster).

#### HIGHWAYS A road originally intended to link but not intrude into cities

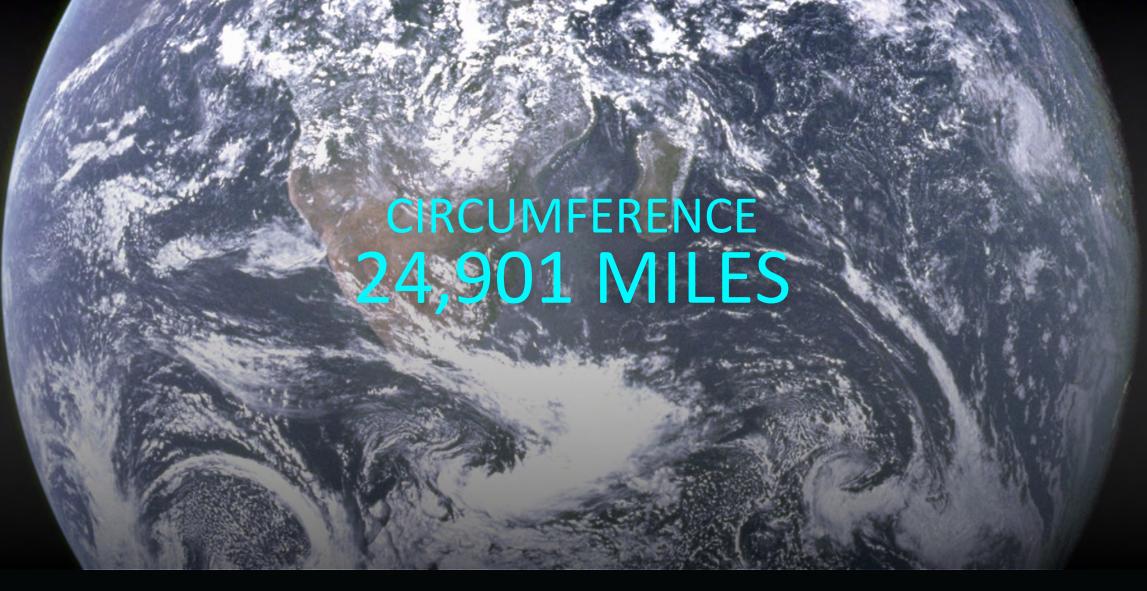
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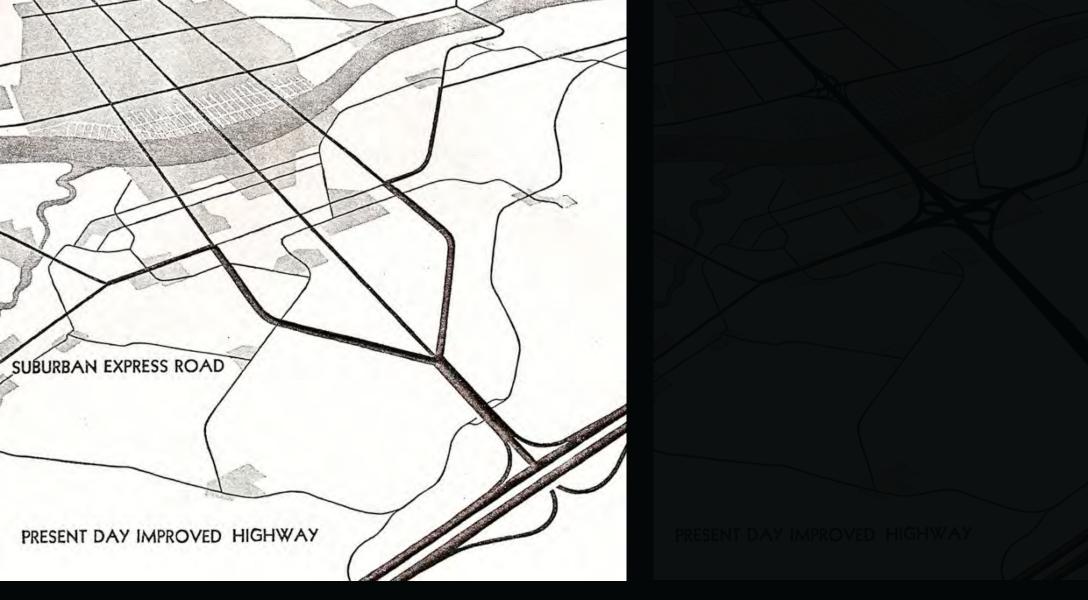
#### Interstate highway system

We built 26 thousand miles of highways in 15 years.



#### Interstate highway system

We built 26 thousand miles of highways in 15 years. Circumference of the Earth + 2901 miles.



#### Highways as intended

It is an important system to be sure.



#### Highways as implemented

It is an important system to be sure. But implementation deviated from its initial intent.

# WHAT DOES THAT LOOK LIKE TO THE NEIGHBORHOOD?



#### What happened?

President Eisenhower went on to say that the matter of running Interstate routes through the congested parts of the cities was entirely against his original concept and wishes.

Source: Memorandum of a 1960 meeting in the Oval Office.



Interstate highway system

# What happened to the original intent?

Interstate highway system

## IT'S TIME TO RETHINK TRANSPORTATION FOR THE 21<sup>ST</sup> CENTURY



### Mobility (in the past)

The movement of people & goods.

Assumption: faster, farther, and in greater numbers means progress for society.

### Mobility (now and in the future)

The populations' capabilities and strategies to move in order to access what they need to live within the city.

Many Populations: people who have disabilities, have different income levels, and/or are young, elderly, millennials, pedestrians, cyclists, transit users, students...

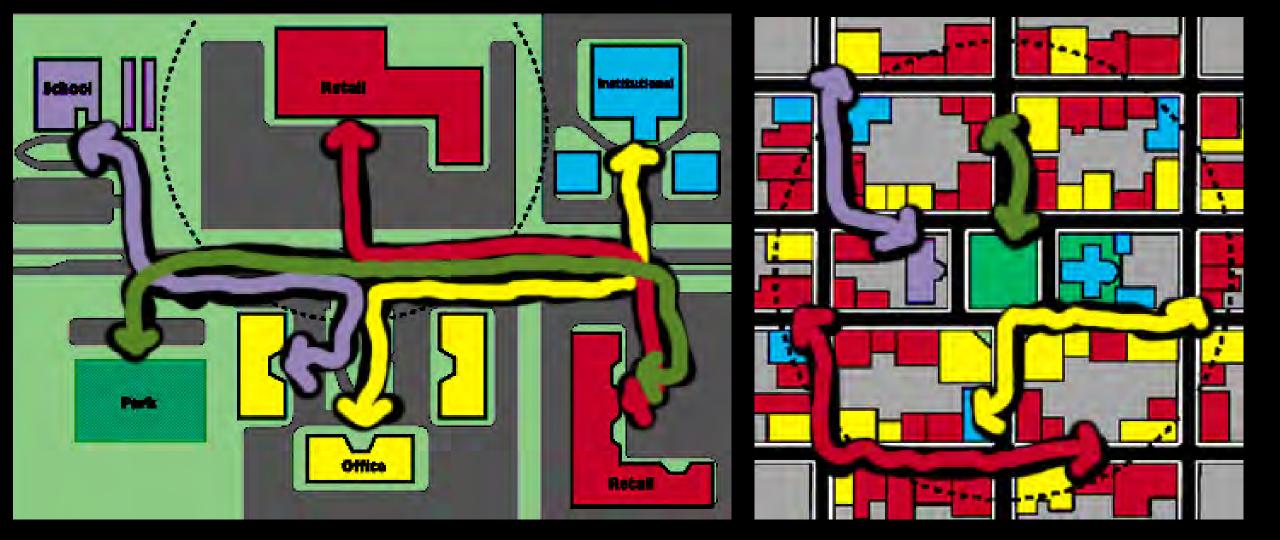
### Mobility (now and in the future)

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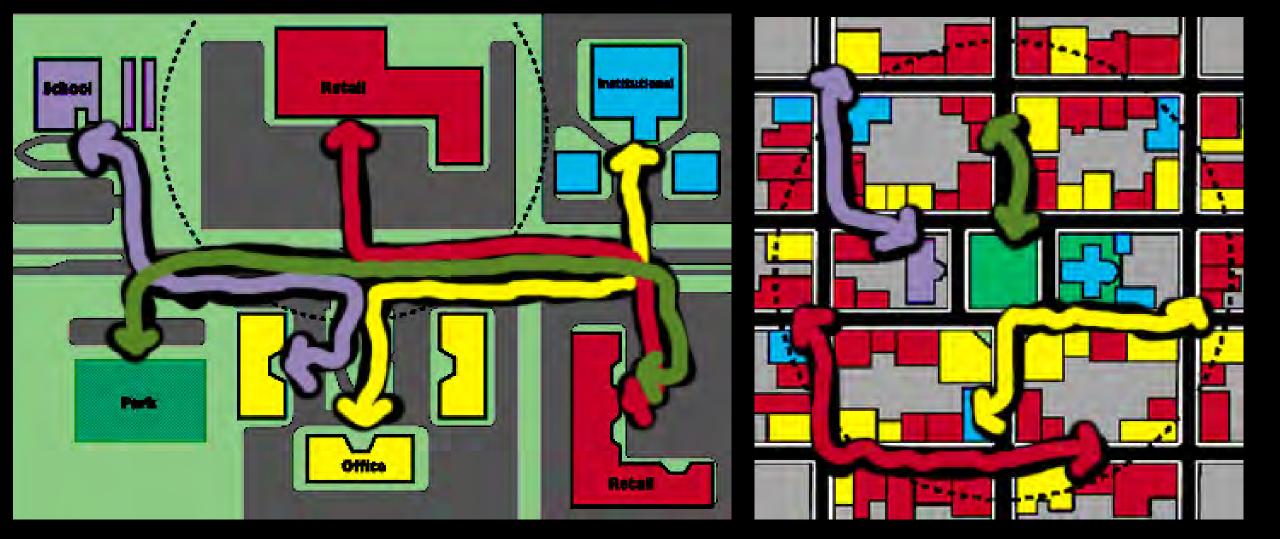
The movement is purposeful:

<u>Trip Type</u>	<u>%</u>
work	18.0
work-related	2.6
shopping	20.2
doctor/dentist	1.5
family/personal	24.2
church/school	8.8
social/recreational	24.5
other	0.2





Which street network and land use pattern provides more mobility?



Which street network and land use pattern provides more mobility? Which streets have the highest potential to be nice places?



### Vision

A consensus on what the *place* ought to be like in the future.

(Place: village, town, city, district, downtown, park, countryside, main street, boulevard, parkway...)

### Somerville, MA:

"To become an exceptional *place* to live, work, play, and raise a family."

#### **Energy Corridor, Houston TX:**

"To become internationally recognized as a high-quality place in which to work, live, and invest."

### **Downtown Knoxville, TN:**

"...will be the economic and cultural heart of the region, a vibrant, walkable *place* where people congregate to live, work, shop and play."

#### **Charlottesville, NC:**

"A great *place* to live for all of our citizens."

### **PATH AS PLACE** Balancing getting somewhere with being somewhere.

Path: a road, street, way, trail, track, highway, route...essentially linear features









Path: a road, street, way, trail, track, highway, route...essentially linear features

**as:** through design and composition is all of or part of









Path: a road, street, way, trail, track, highway, route...essentially linear features

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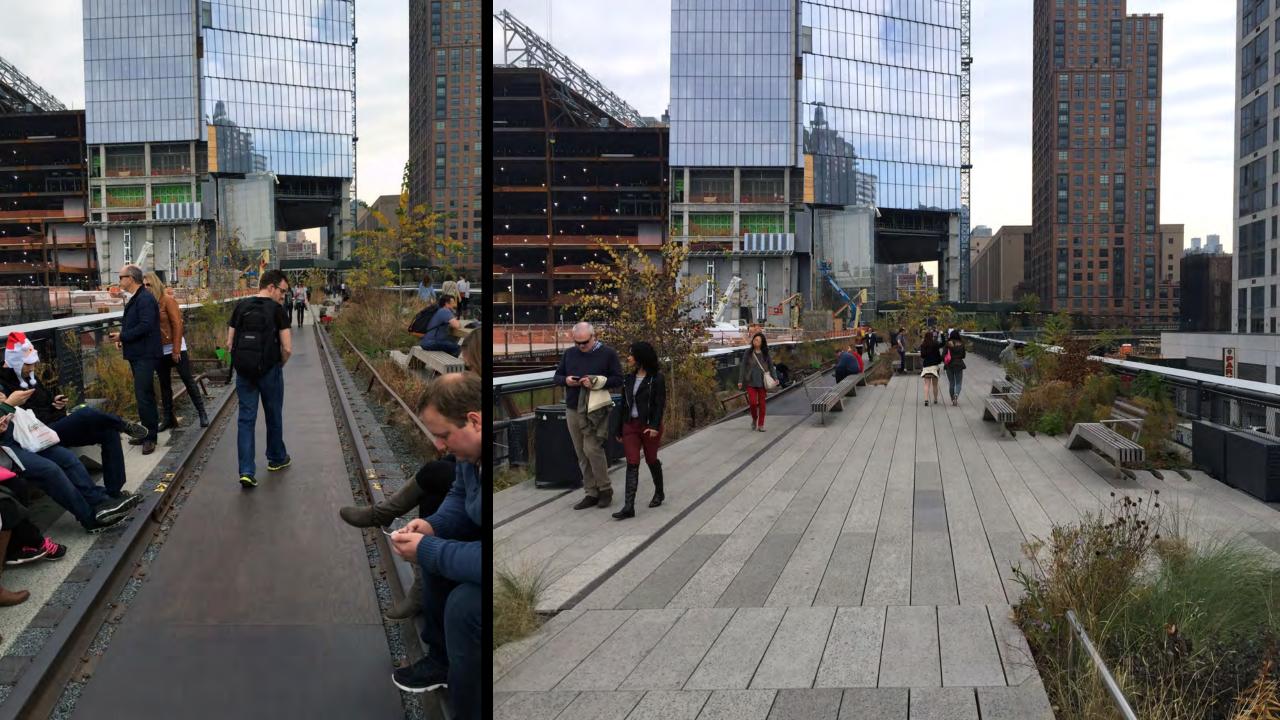
**Place:** a defined area, location, or space within the built and/or natural environments.









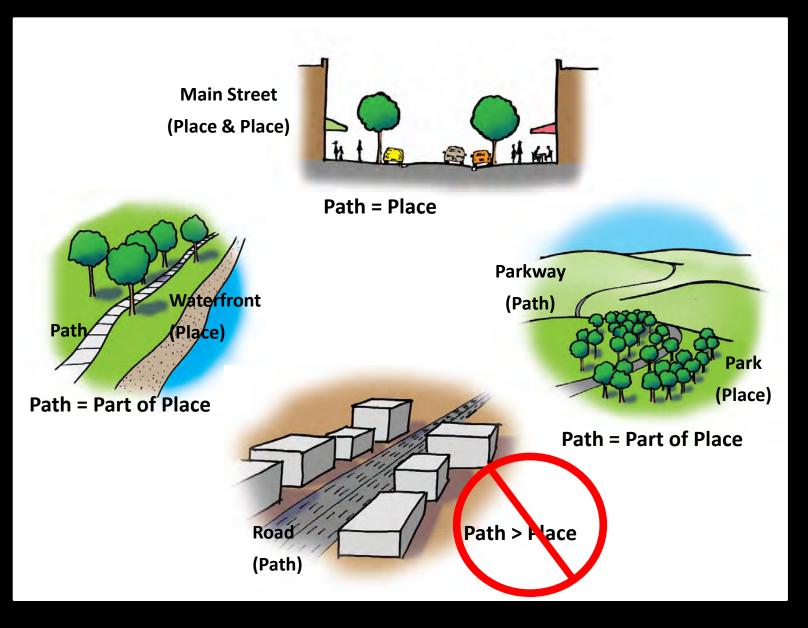






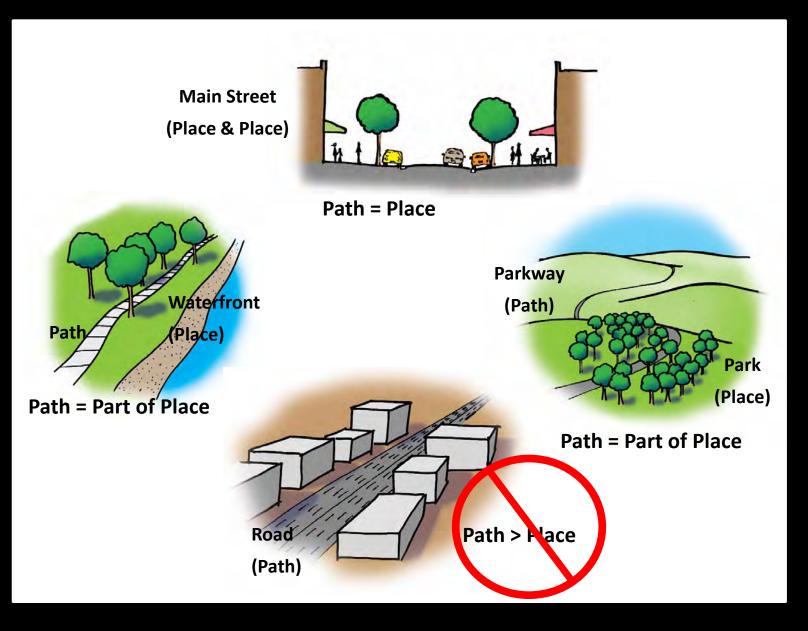


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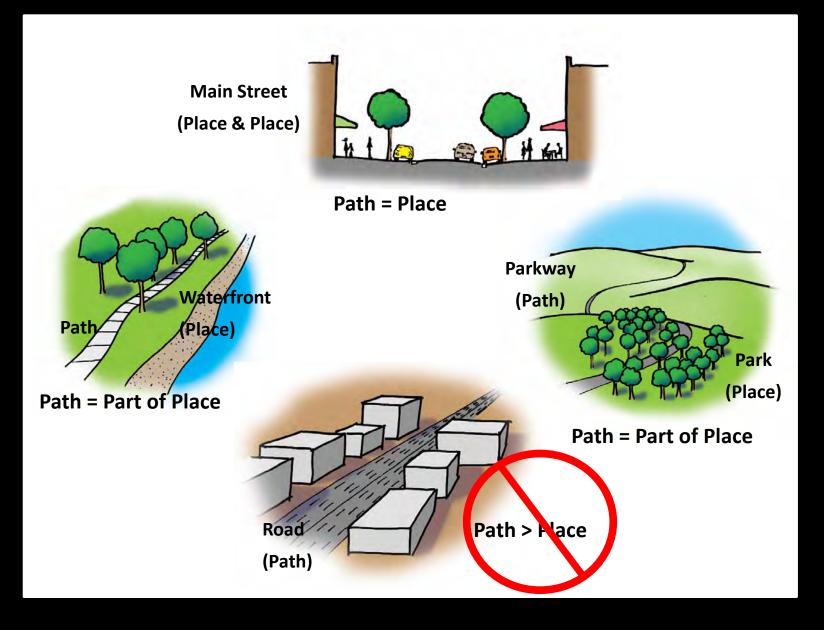
Sometimes the path and the place are the same (e.g., a Main Street).



Our experience of path and place is inextricably linked.

Sometimes the path and the place are the same (e.g., a Main Street).

Sometimes a path contributes to and supports its place (e.g., a street in a downtown, a parkway in park).

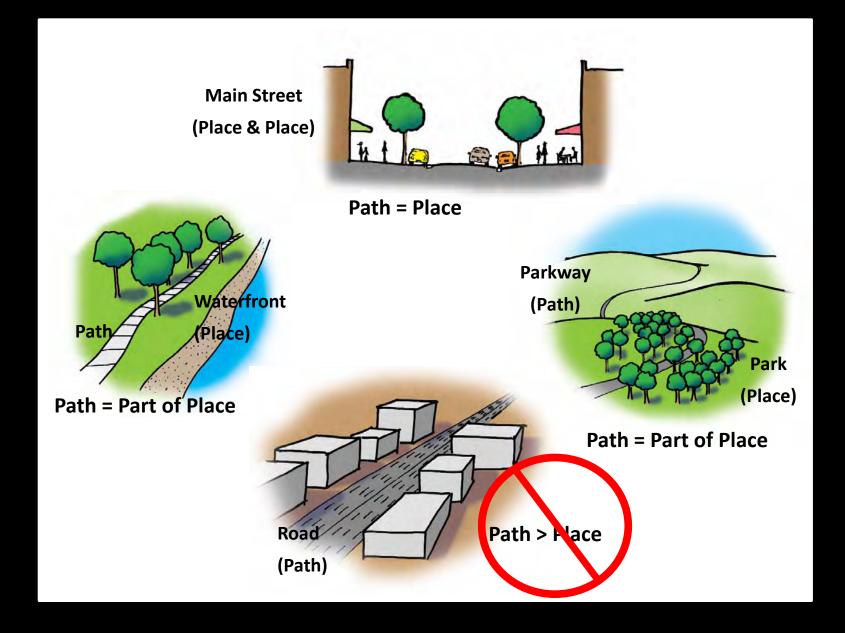


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A path can be equal to but is never more important that its place.



#### Path as Place

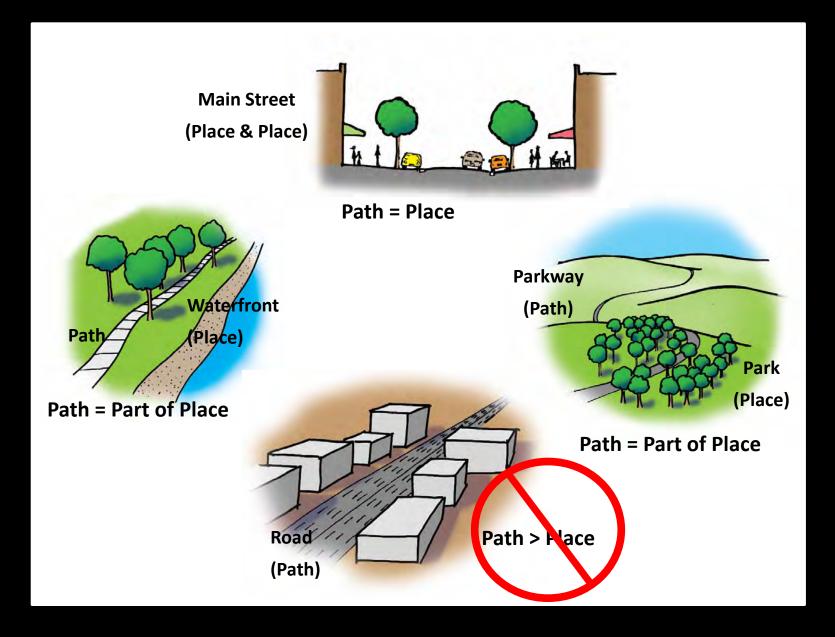
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Paths should never dominate their places.



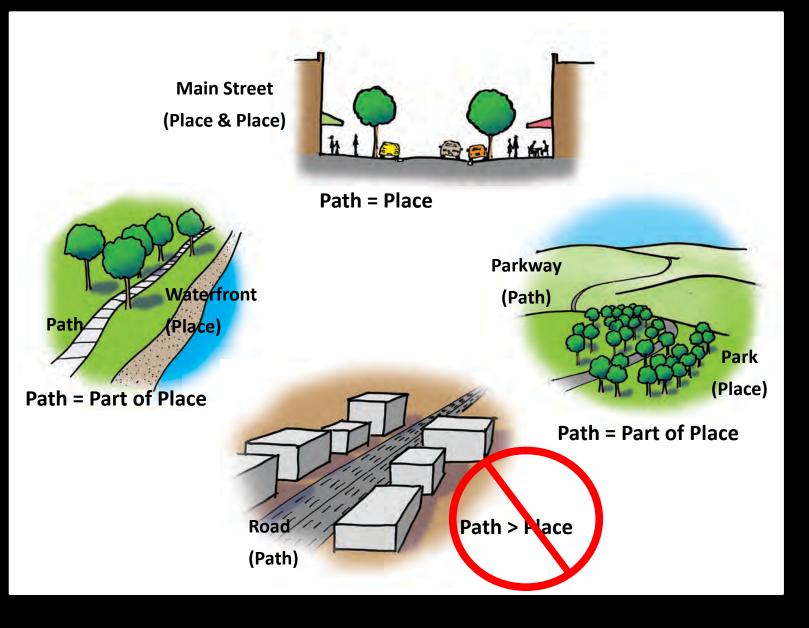
#### applicable to every context



<b>C1</b>	<b>C2</b>	C2T	C3R	C3C	<b>C4</b>	<b>C5</b>	<b>C6</b>
Natural	Rural	Rural Town	Suburban Residential	Suburban Commercial	Urban General	Urban Center	Urban Core

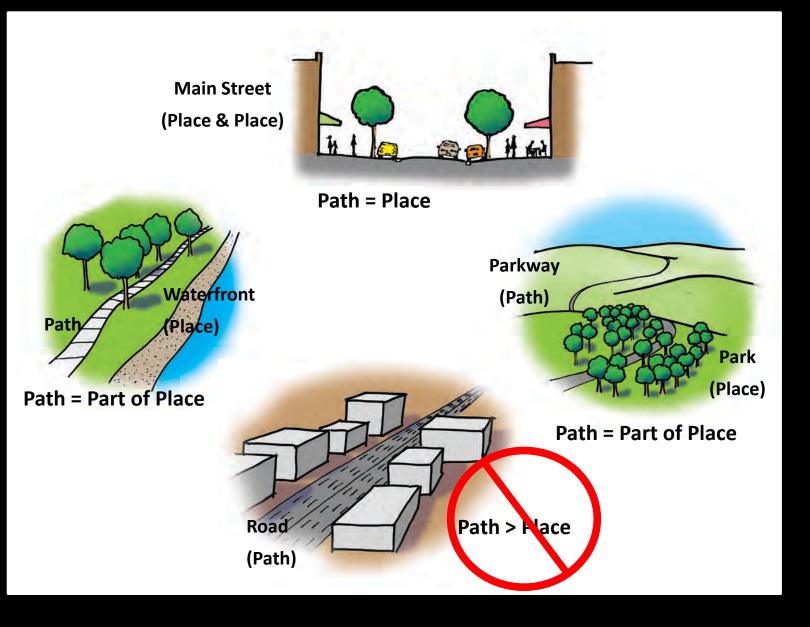
Fills current void:

- Gives **legitimacy** to the idea that the **street is a public space**.



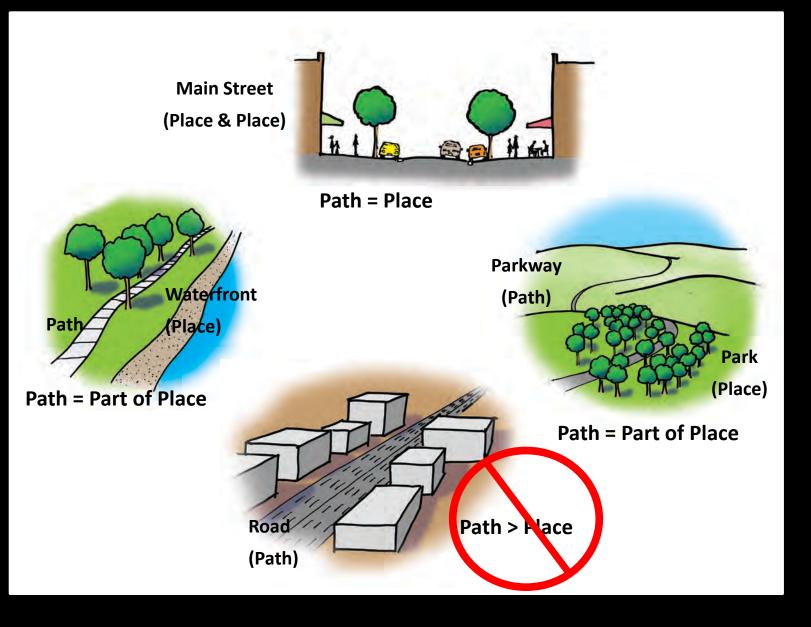
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- Gives standing to the "static users" of the path, the importance of the fabric of the place, the relationships across streets, and reframes the idea of "edges."



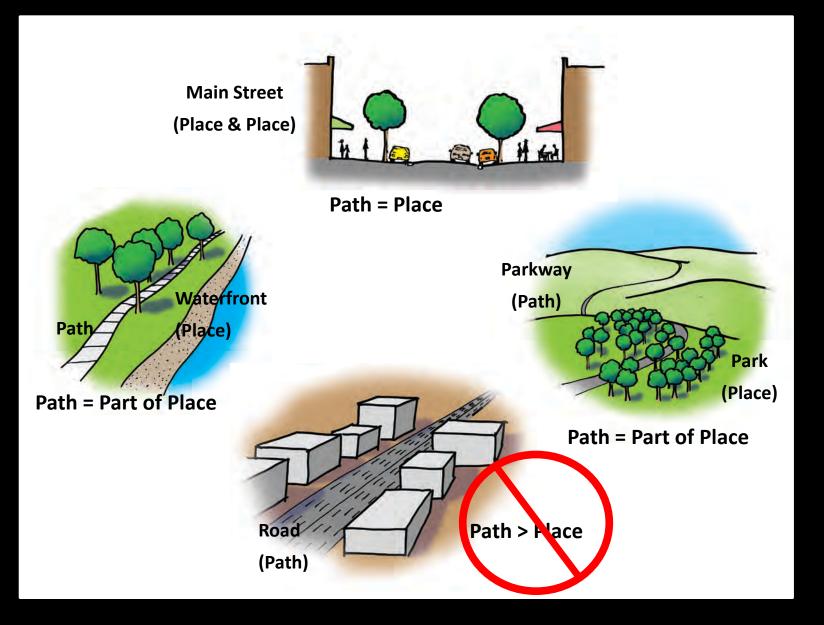
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  - arterial as a barrier or as a seam



Fills current void:

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  - curb vs building façade
  - arterial as a barrier or as a seam
- Provides a priority and rigor for design and people involved where the path cannot diminish the place.



Three important elements to get us there

### **EMPATHY** People's lived experiences must inform our work.

# LOVE YOUR NEIGHBOUR

# Empathy is the capacity to see, hear, and feel what another person is experiencing, from within their frame of reference.

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More than pity or sympathy, which can disconnect us from people, empathy fuels a better connection with the people we serve.

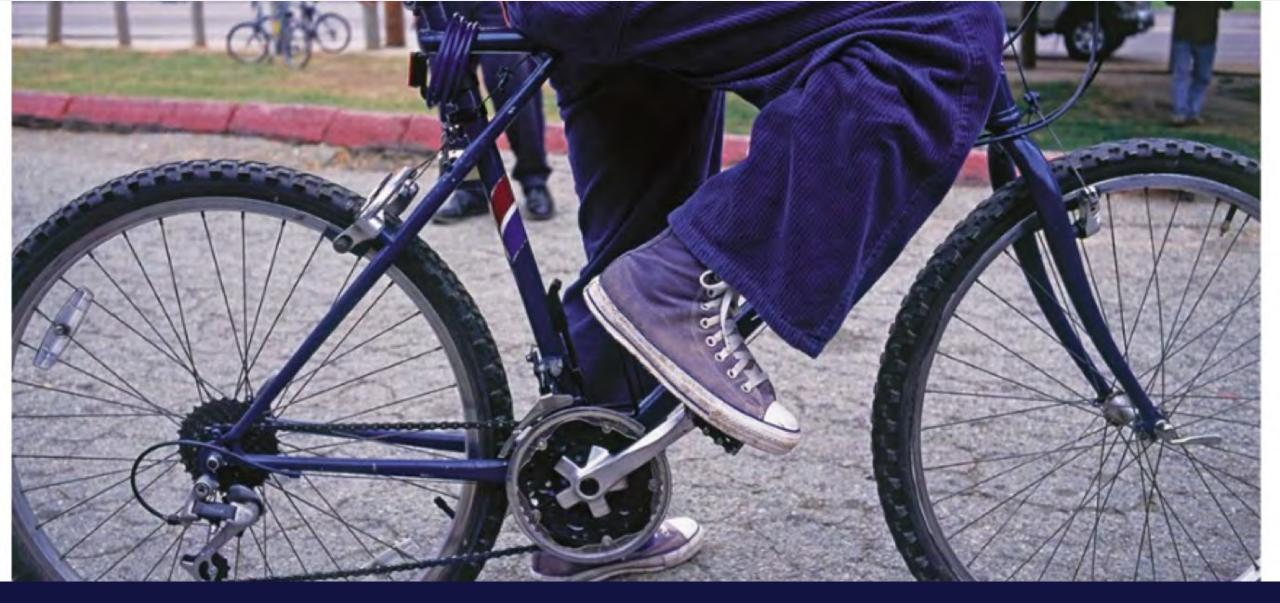
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More than pity or sympathy, which can disconnect us from people, empathy fuels a better connection with the people we serve.

This connection is what inspires the creation of creative, positive, and community-focused solutions.



13% of people 16+ do not drive. In addition, 21% of pop is under 15. That means more than 1/3 of the population do not drive.



"For the Invisible riders, two wheeled transit has nothing to do with style or making a political statement." - David Butow

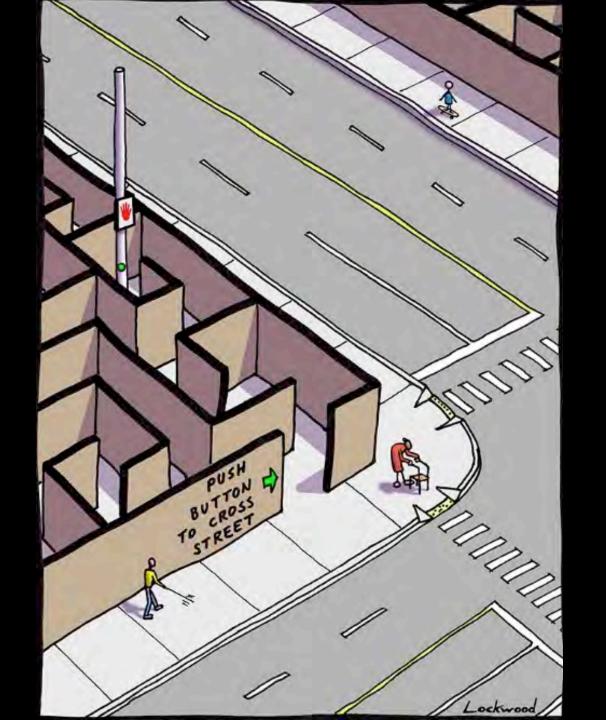


We are all pedestrians at some point in the day.



We need to go beyond just ADA compliance.

#### We need to design for the human experience first.







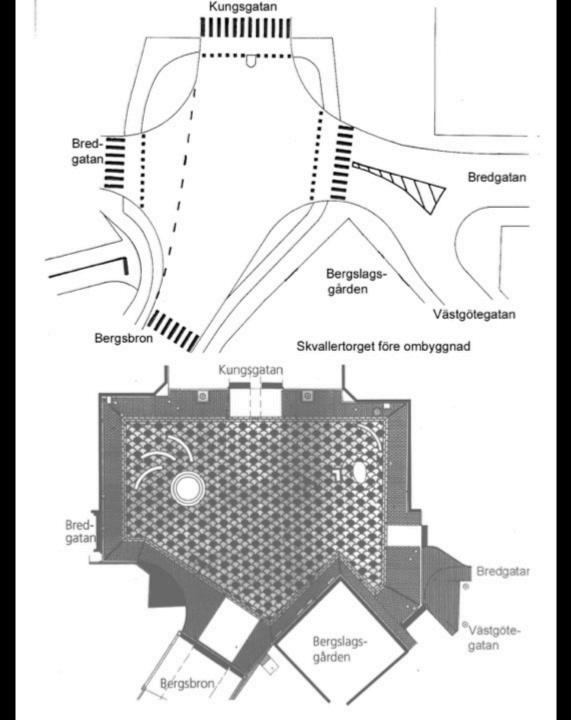








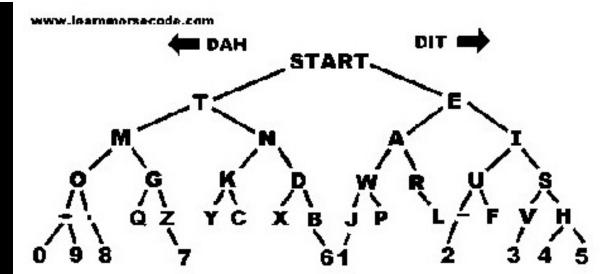












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# Disability becomes a handicap only when we encounter barriers.

(George Covington and Bruce Hannah, Access by Design)

# INTERDISCIPLINARY COLLABORATION

We need to bring our unique skills together to serve a shared vision.

## The walls between art and engineering exist

only in our minds. - Theo Jansen, Visual Artist

Source | metalocus.es/en/news/sculptural-species-strandbeest-dream-machines-theo-jansen

Bran Ferren:

# To create for the ages, let's combine art and engineering

TED2014 · 20:12 · Filmed Mar 2014

🖭 26 subtitle languages 🚱

Tiew interactive transcript

The worlds of **art and design** are not, in fact, incompatible with **science and engineering** contrary to what we learn in school [and sometimes feel reinforced in the professional world]. When combined, we can **create things that are amazing** and couldn't be created in either domain alone. How do projects of unprecedented creative vision and technical complexity actually happen?

How do projects of unprecedented creative vision and technical complexity actually happen?

1. A brilliant creative vision

How do projects of unprecedented creative vision and technical complexity actually happen?

- 1. A brilliant creative vision
- 2. Story telling and leadership

How do projects of unprecedented creative vision and technical complexity actually happen?

- 1. A brilliant creative vision
- 2. Story telling and leadership
- 3. A mastery of science and technology that pushes existing innovations even farther



#### Interdisciplinary collaboration

From the beginning to the end of a project.

### LANGUAGE REFORM

0)5/

Use language that help both professionals and public understand

Words. The clothes that thoughts wear. " Samuel Beckett

Source | johnminihan.blogspot.com/p/samuel-beckett.html

"

#### WORDS

Improvement

Upgrade

**Traffic Demand** 

Efficient

Accidents

Capacity

Level of Service

A, B, C, D, E, and F

Reliability

**Functional Classification** 

**Right-of-Way Preservation** 

Mass Transit

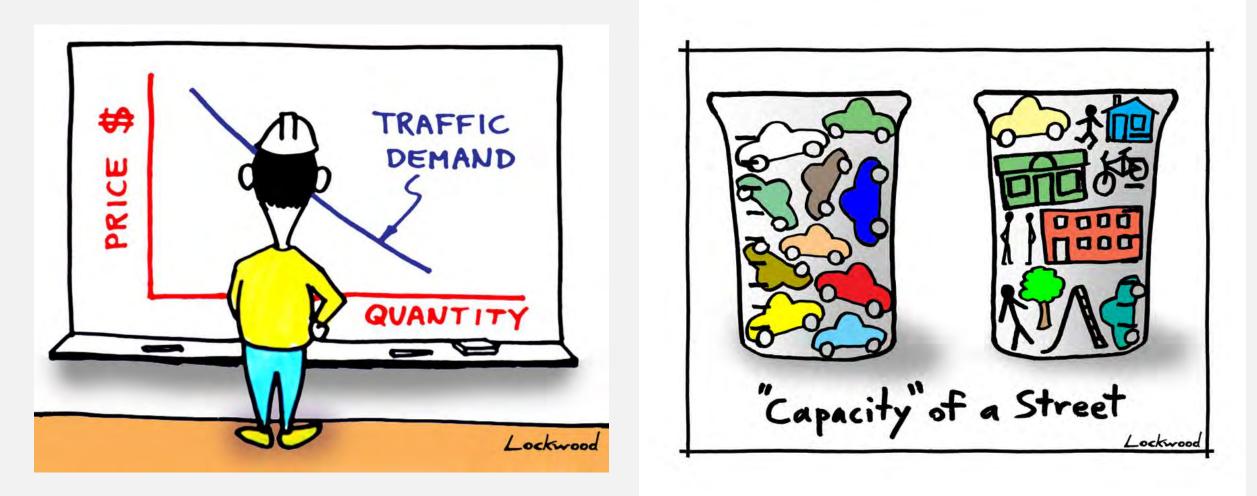
Freeway

Capacity Deficiencies

**Conflict Points** 

Access Management ...





#### Language controls conversation

The terminology we use is causing confusion.

Improvement Upgrade **Traffic Demand** Efficient Accidents Capacity Level of Service Delay Reliability

Functional Classification Right-of-Way Preservation Freeway Capacity Deficiencies Conflict Points Access Management

 $\bullet \bullet \bullet$ 

Words solidify ideas

dans.

11.00

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-

Words set priorities

FORD

#### Words have consequences

6 🐨

#### From

Accident

Alternative Transportation

Improvement

Demand

Efficient

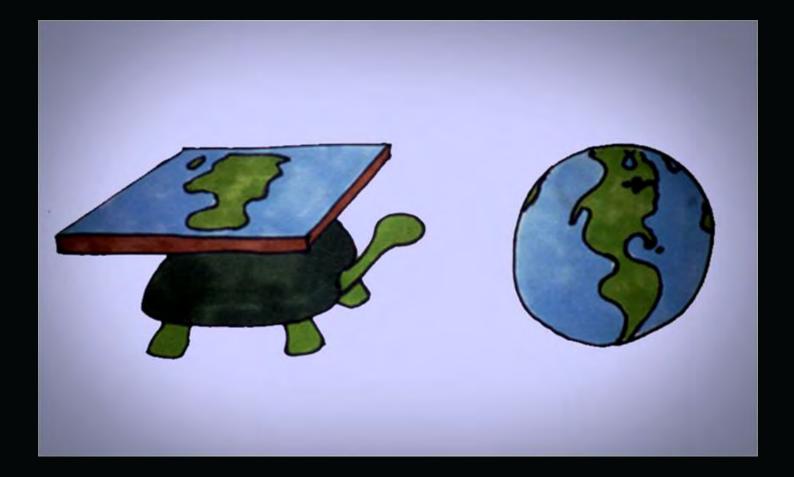
Upgrade

#### То

Collision or Crash Walking, Biking, Transit (be specific) Modification or Change Motor Vehicle Use or Expected use Increase Speeds or Faster Widening or Reconstruction

#### WORDS

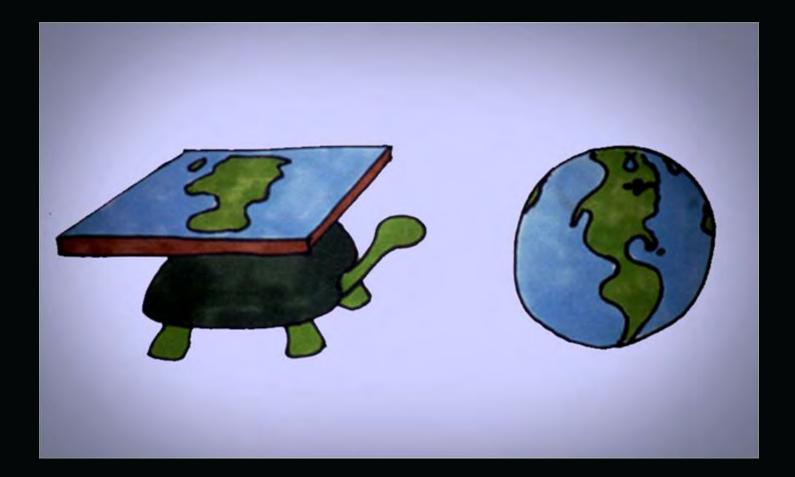
Traffic Calming Context-Sensitive Design Context-Sensitive Solutions Traditional Neighborhood Design Smart Growth Road Diets Safe Routes to School Complete Streets Shared Spaces Vision Zero



Bottom Line: To help change the paradigm, we need to coin & popularize more words & phrases that capture & advance our ideas.

#### WORDS

**Traffic Calming** Context-Sensitive Design **Context-Sensitive Solutions** Traditional Neighborhood Design Smart Growth **Road Diets** Safe Routes to School Complete Streets Shared Spaces Vision Zero **Path-as-Place** 



Bottom Line: To help change the paradigm, we need to coin & popularize more words & phrases that capture & advance our ideas.

### PATH AS PLACE EXAMPLES

### WINTER GARDEN

Softening a Hard Place















#### Hard

#### Soft





#### Hard

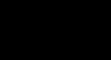
## Experience



Hard



# Maintenance





## Experience

Hard





# Maintenance

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Maintenance

Hard

Soft

## Experience



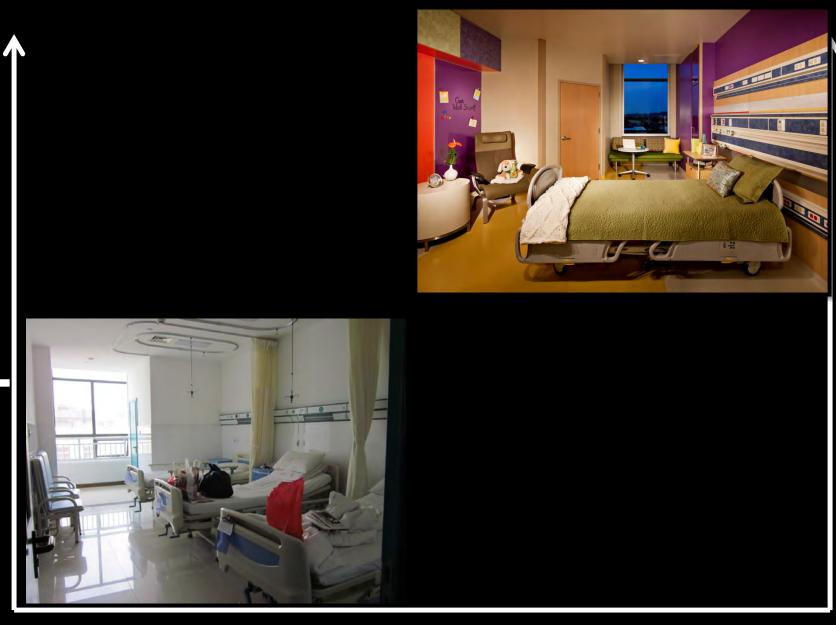
#### Hard



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Maintenance

## Experience



Maintenance

Hard





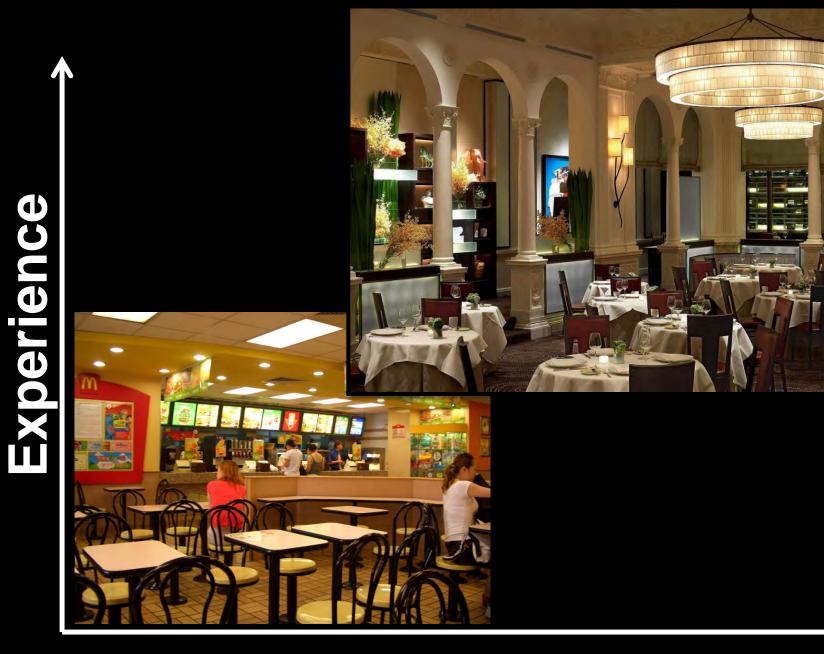




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Hard





Maintenance

Hard



### Experience

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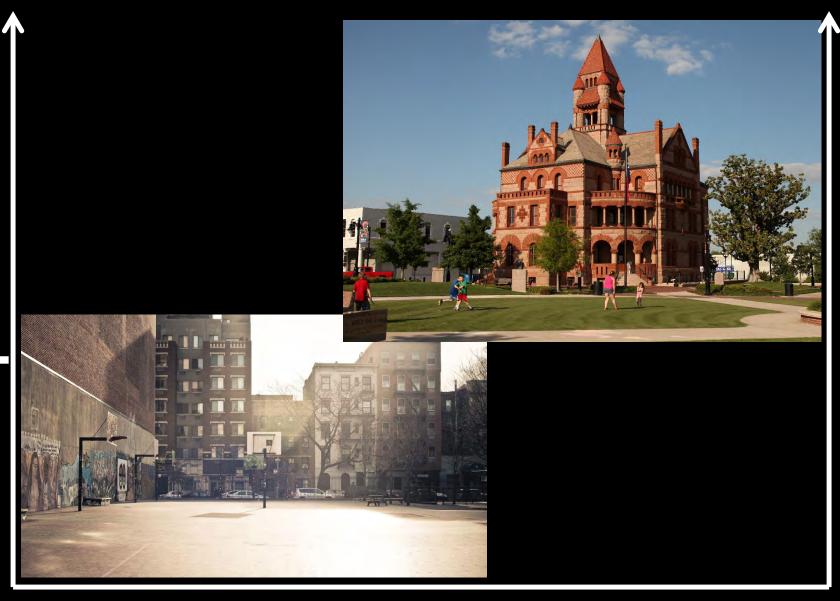
Hard





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Maintenance

Hard

Soft



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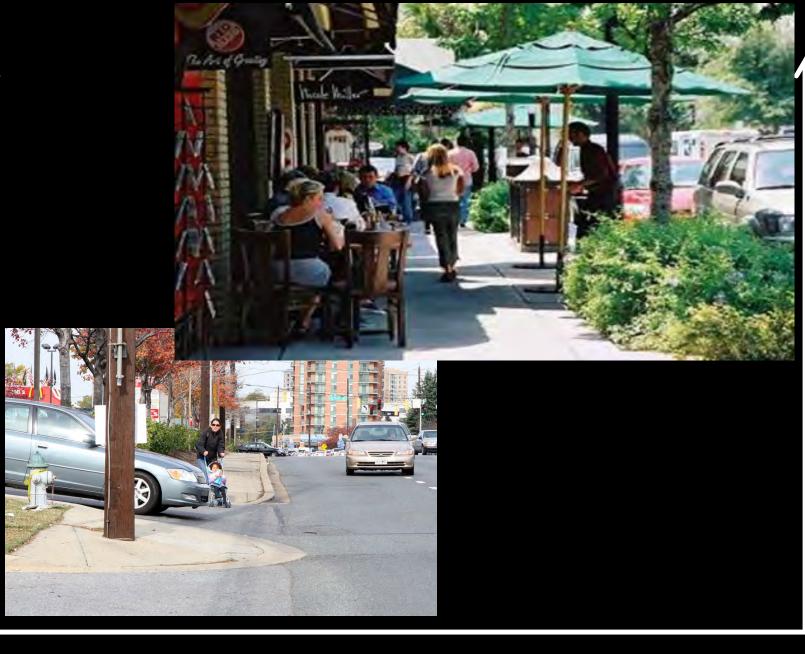


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Hard

Soft

# Maintenance



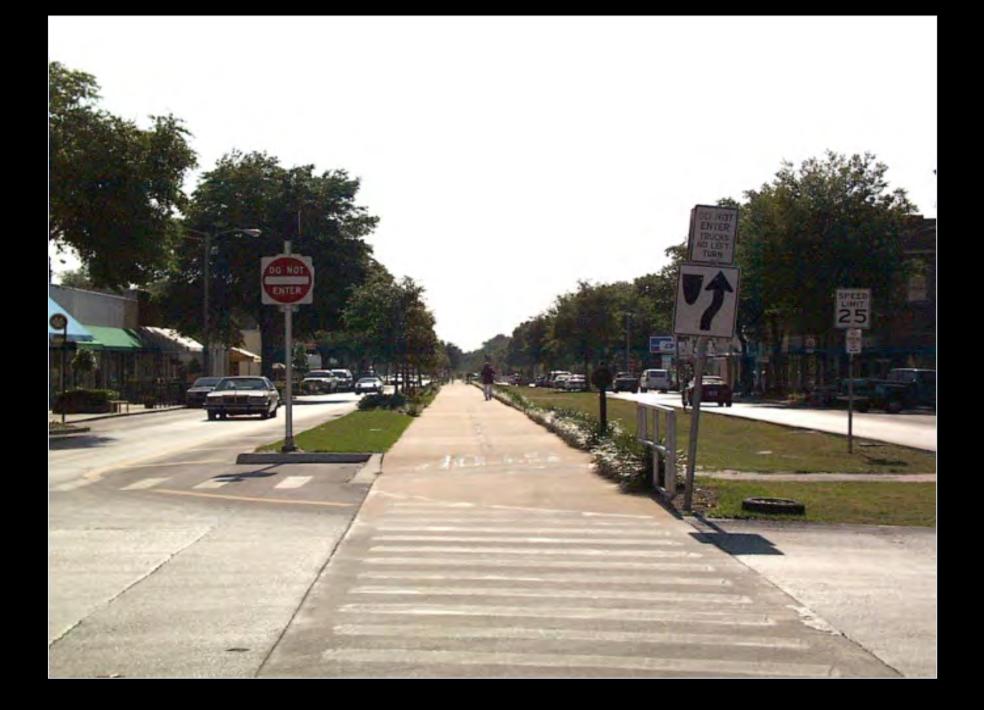


Value



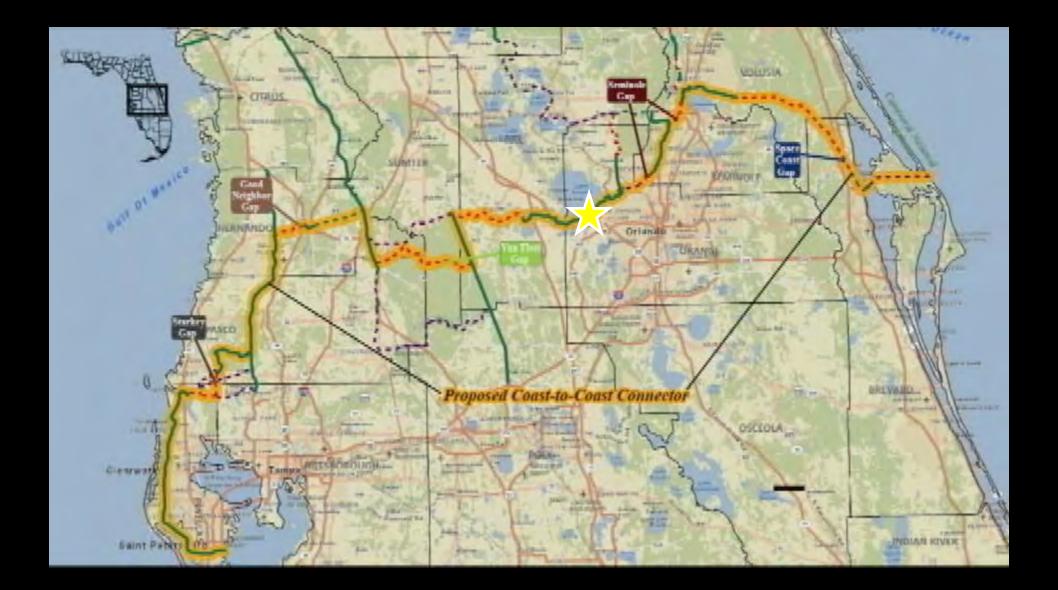




















# SULPHUR SPRINGS

Creating Place and Inclusivity

MAIN













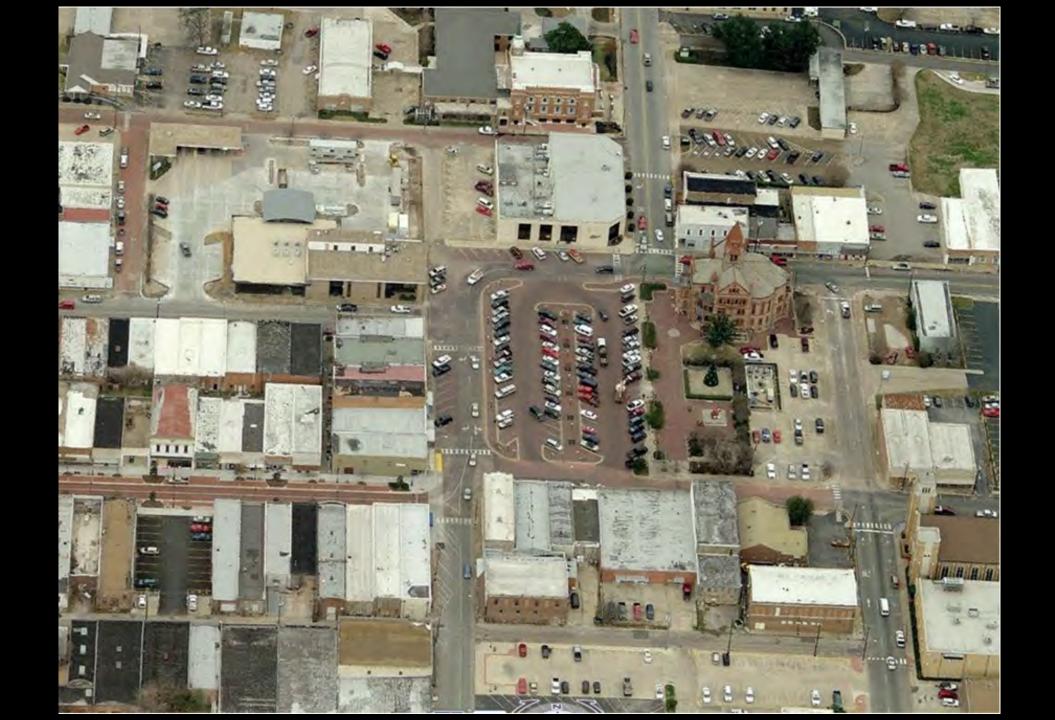




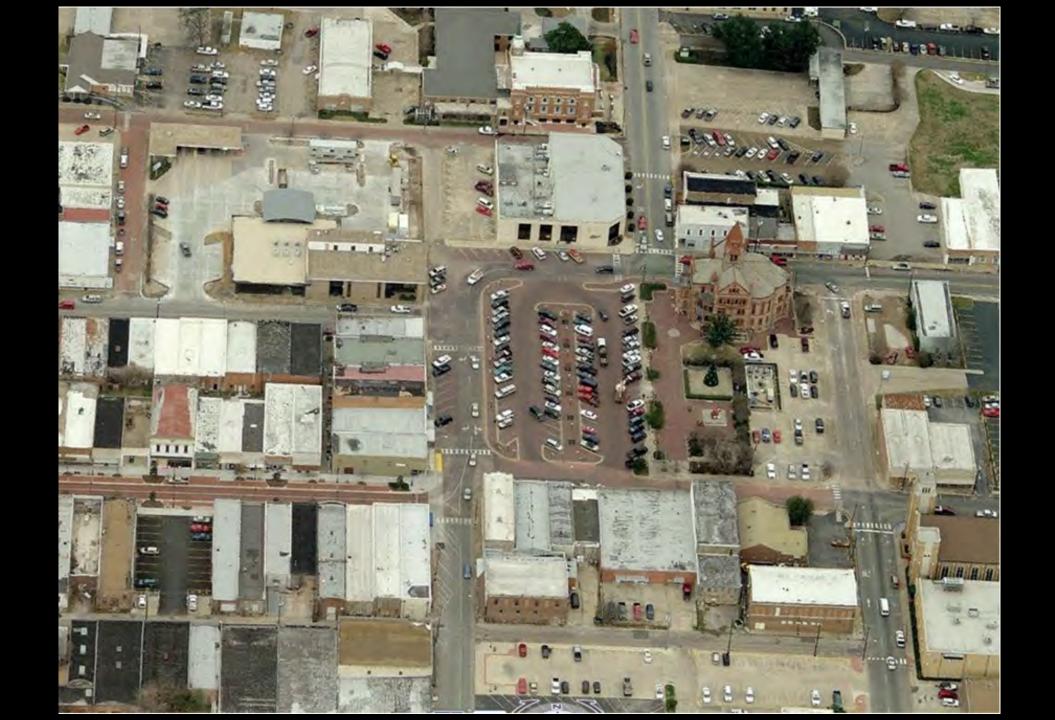




















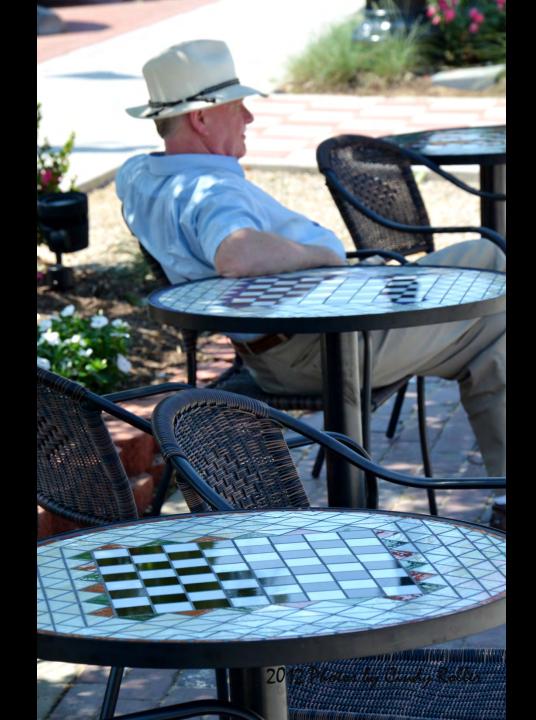














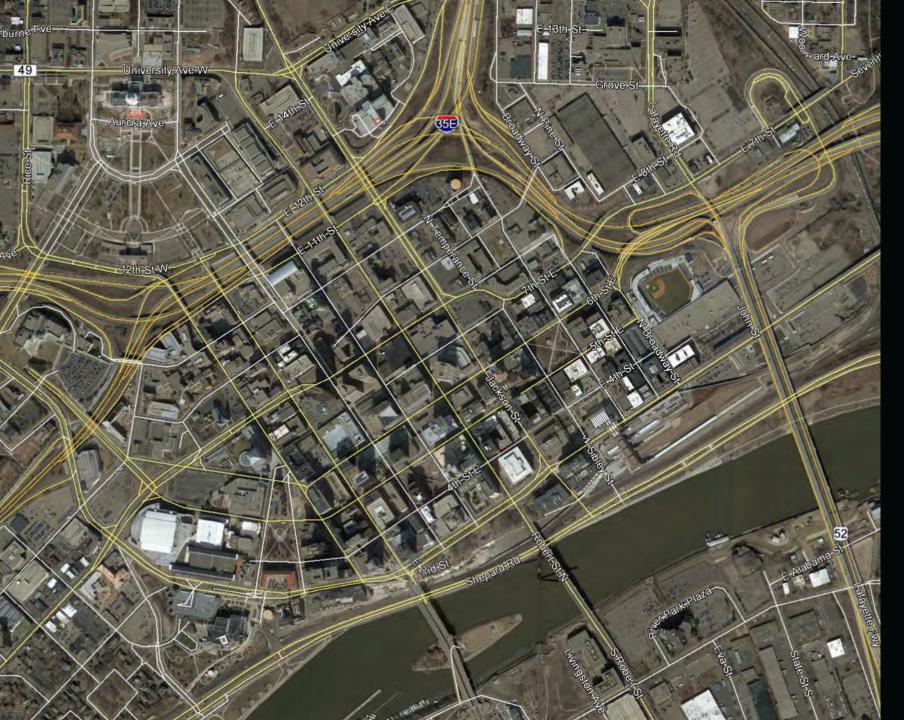






# CAPITAL CITY BIKEWAY

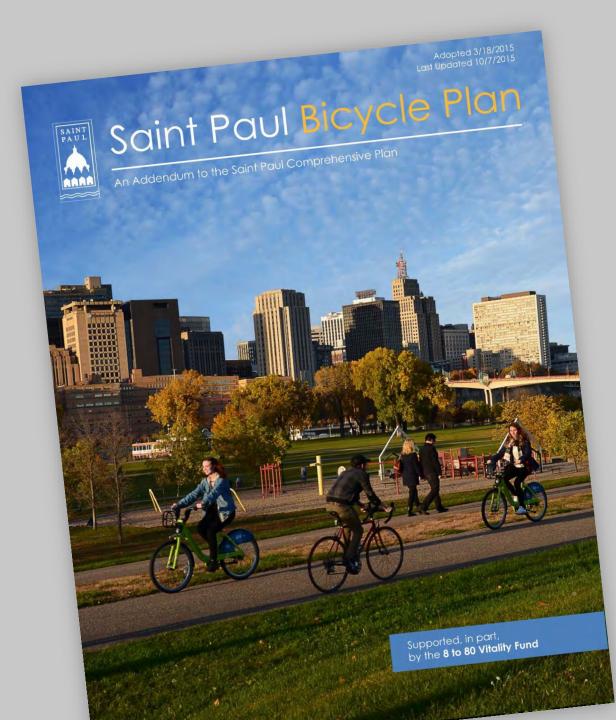
Ushering in a New Era of Streets



## Context

Capital city of Minnesota

### 8 80 Initiative

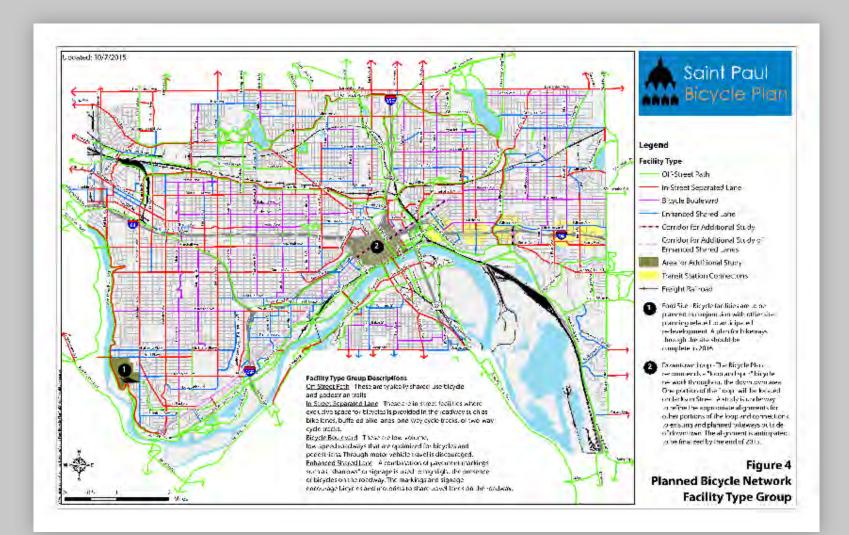


#### Context

Capital city of Minnesota

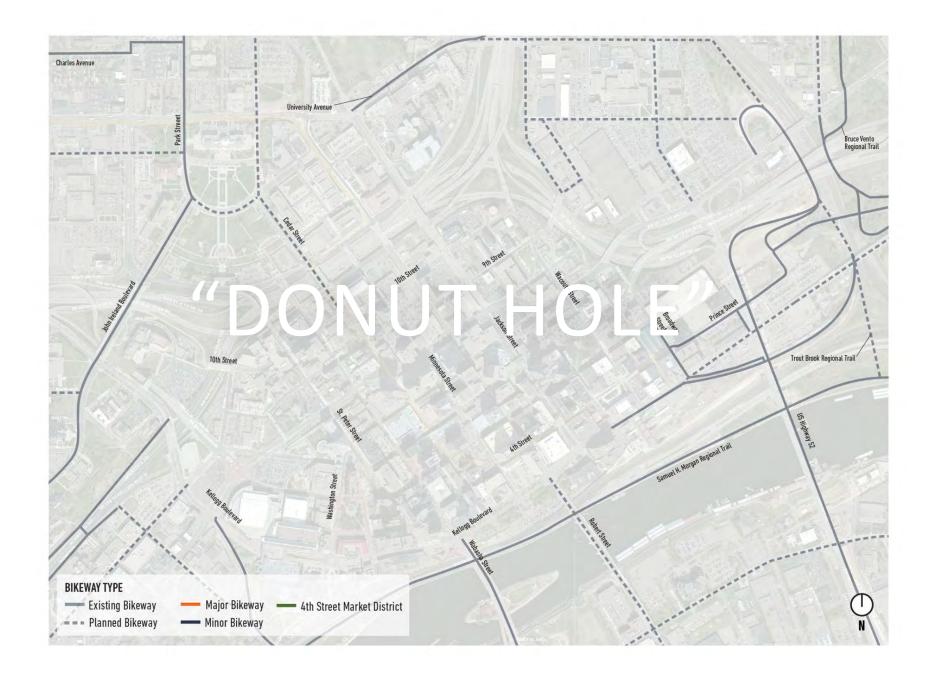
8 80 Initiative

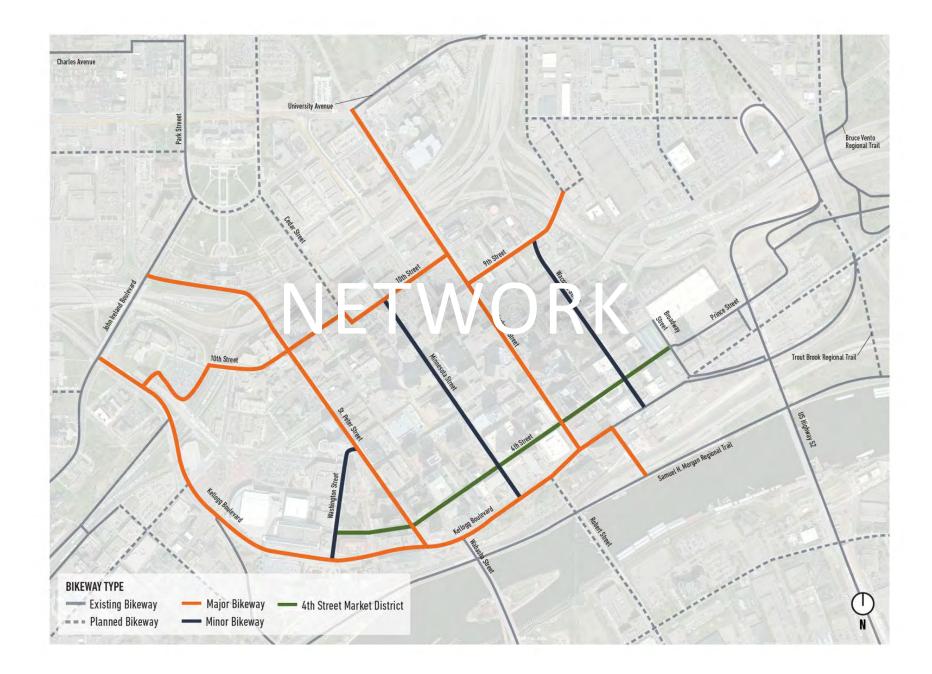
City adopted Bicycle Plan



#### Context

Capital city of Minnesota 8 80 Initiative City adopted Bicycle Plan Downtown Loop - "area for additional study" Sidewalk level bike facility planned









#### 2, 1-week charrettes



#### 2, 1-week charrettes

3 advisory committees



2, 1-week charrettes

3 advisory committees

Individual meetings with property owners



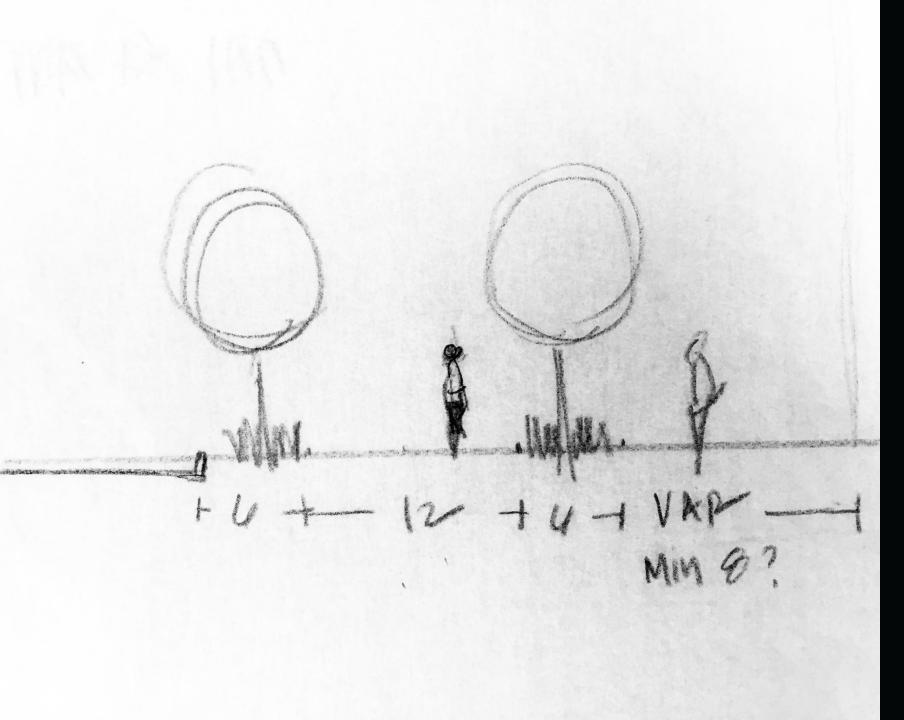
2, 1-week charrettes
3 advisory committees
Individual meetings with property owners
Open house
Pop Up Meetings



2, 1-week charrettes 3 advisory committees Individual meetings with property owners Open house Pop Up Meetings Weekly construction meetings



2, 1-week charrettes 3 advisory committees Individual meetings with property owners Open house Pop Up Meetings Weekly construction meetings



#### **Design Process**

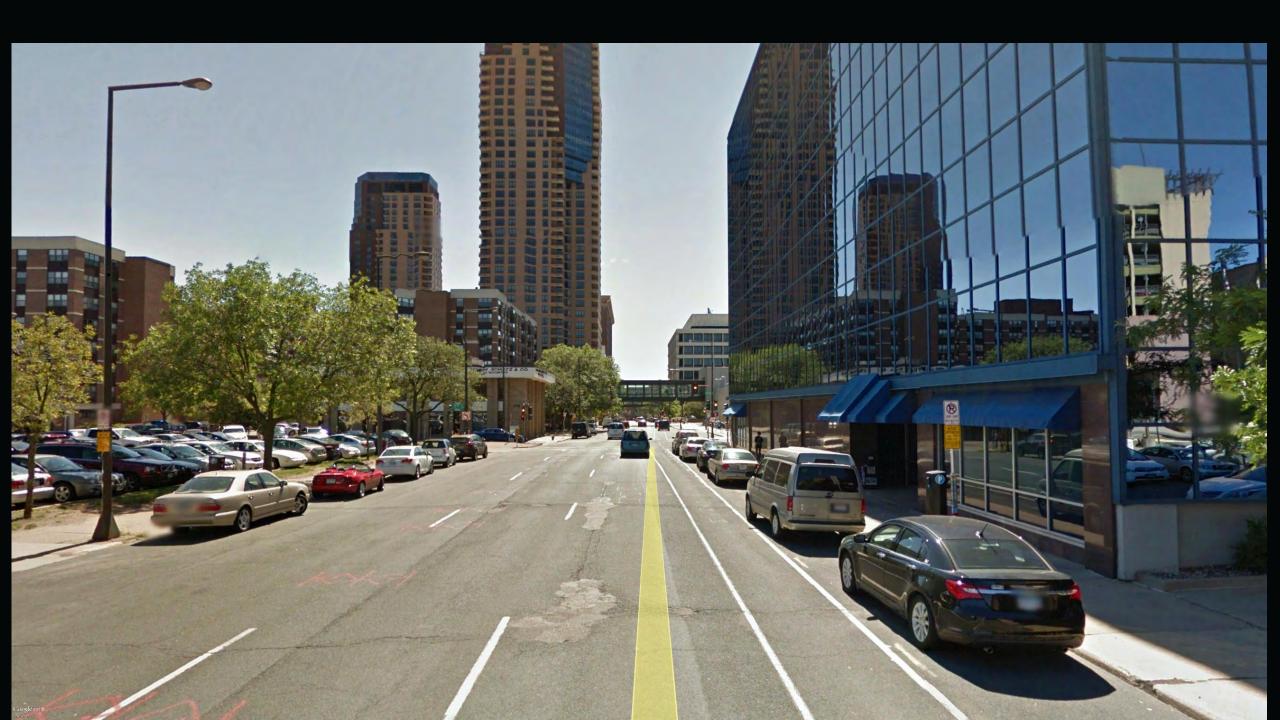
"Ideal" typical section

Collaboration of planners, urban designers, landscape architects, and engineers

Outside In









## **100%** OVERLAP

Planning concurrent with final design

9 months

0% to final design of Jackson Street in 9 months 3 committees

Community, Technical, and Policy Advisory committees



Mayor wanted the first segment fully constructed before leaving office



Fully City funded project (8 80)



Economic development driving factor

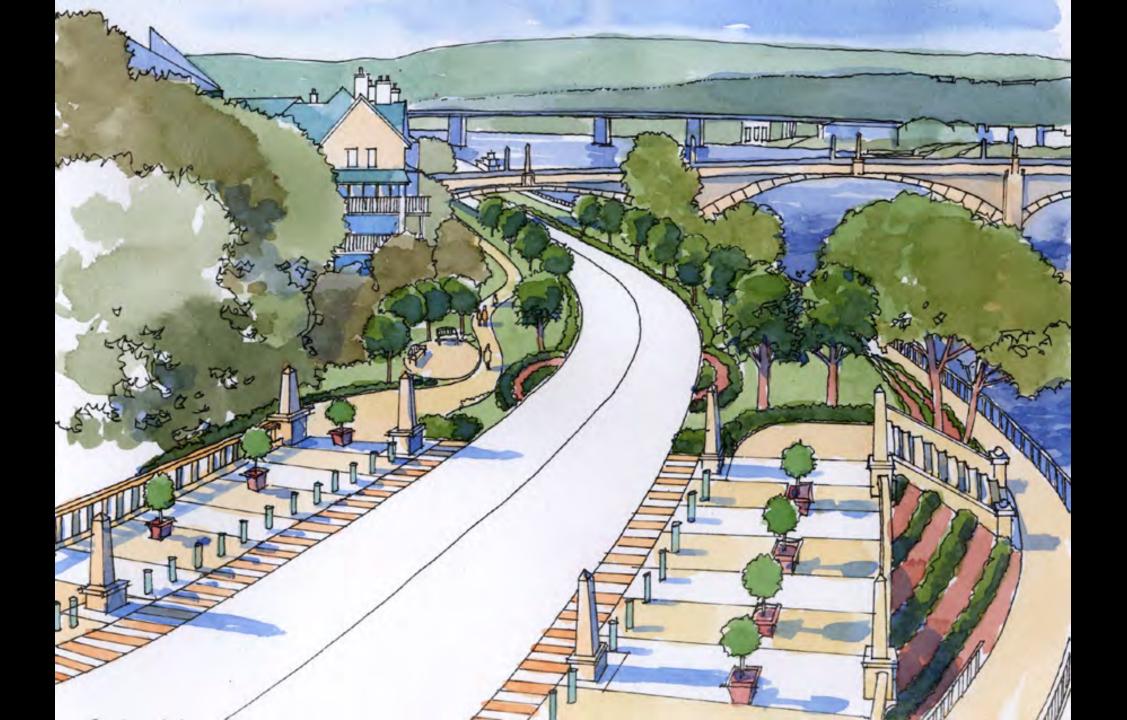
# Vision

Together we have crafted a world-class standard for bikeway design that will usher in a new era of streets – streets that accommodate all users of the system, no matter their mode, age or ability. – Mayor Coleman

# CHATTANOOGA

Repairing the Relationship





### With 2020 hindsight, you decide the truth:

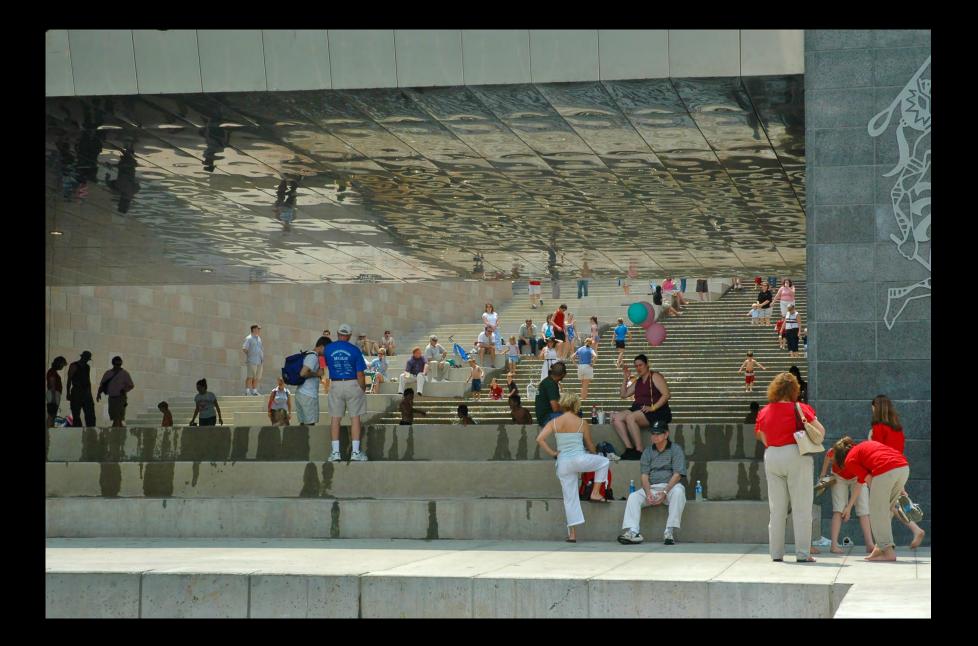
**Option A:** "The City's lifeblood is the highway. The mobility it provides is vital for economic health and the convenience of the motoring public. If anything, the highway should be expanded to fight congestion. Removing it is simply anti-progress."

**Option B:** "Walkability and access to the waterfront, parks, trails, and other places in the downtown is key to the economic and social health of the City. The highway has contributed to the woes of the City and needs to be replaced with something that contributes to an urban context."













# THANK YOU

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