

EVIDENCE-BASED CITYMAKING TO FOSTER JUST, THRIVING COMMUNITIES

**How Data & Predictive Analytics Can Equitably Optimize the Social,
Health, Environmental, & Economic Value of Places**

@STATEOFPLACE
@CITYFOODLOVER



STATE OF PLACE

MARIELA ALFONZO, PH.D.
FOUNDER/CEO



KODAK PORTA 400

2



Google

▶

2

KODAK PORTA 400

2



Google

▶

2

2



Google

KODAK PORTA 400

2

2

KODAK PORTA 400



Google

2







THE COST OF SPATIAL INEQUITY

\$7.2T

VEHICLE COLLISIONS

\$871B



\$87B AIR POLLUTION



CHRONIC DISEASE

\$2.9T



\$117B OBESITY



CRIME & VIOLENCE

\$450B



\$2T



CLIMATE CHANGE

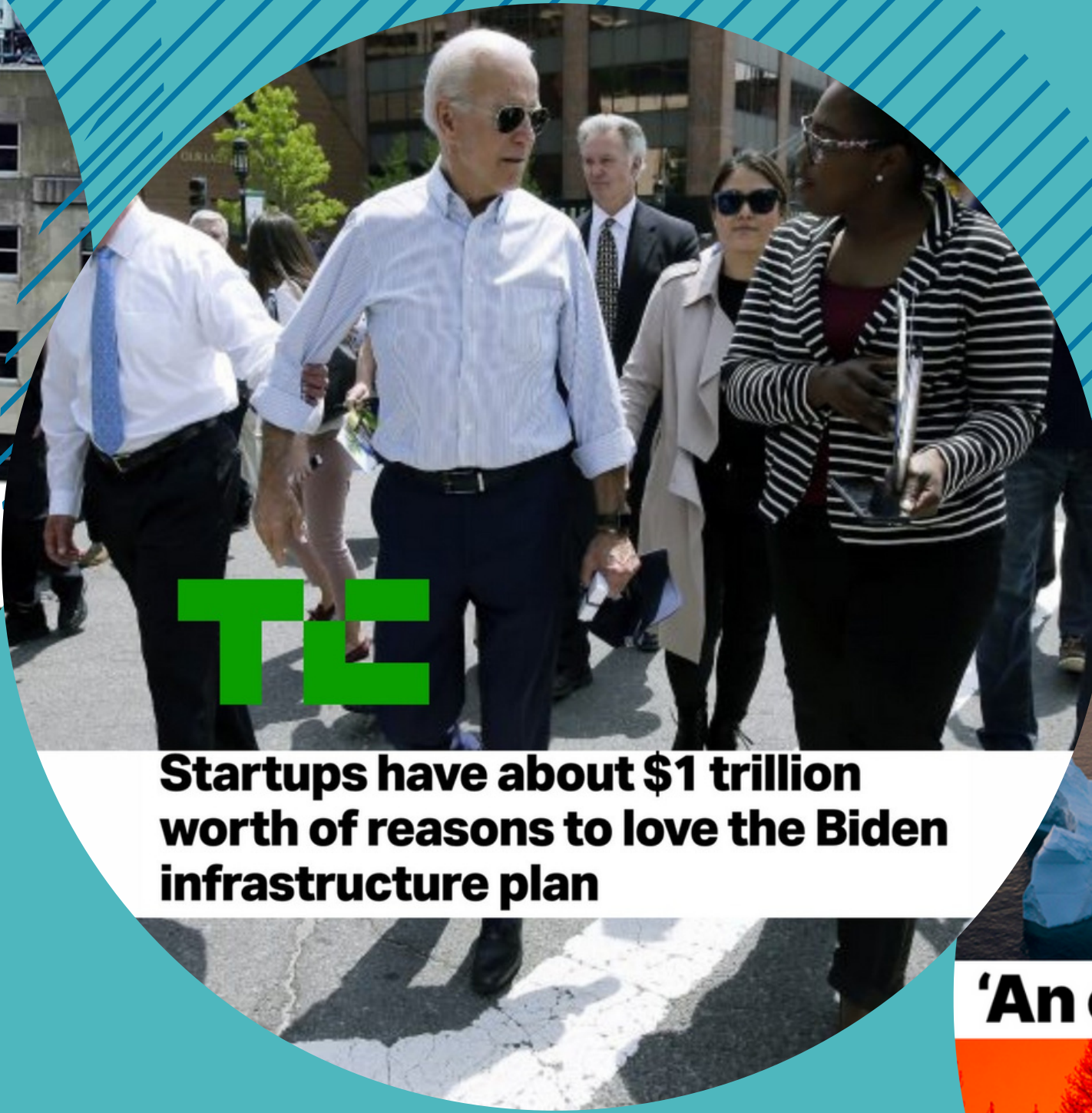
\$763B

ECONOMIC OPPORTUNITY



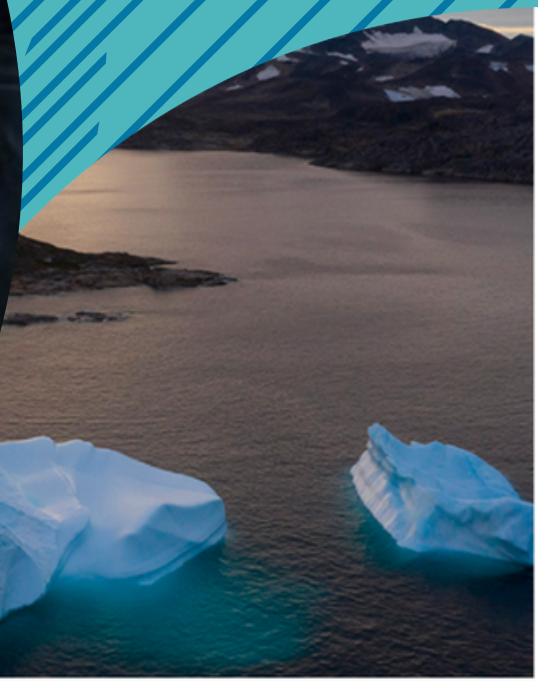


Biden's Executive Orders Inject Racial Equity into Regulatory Review



TE

Startups have about \$1 trillion worth of reasons to love the Biden infrastructure plan



'An extreme record-breaking year':





Limited
Resources



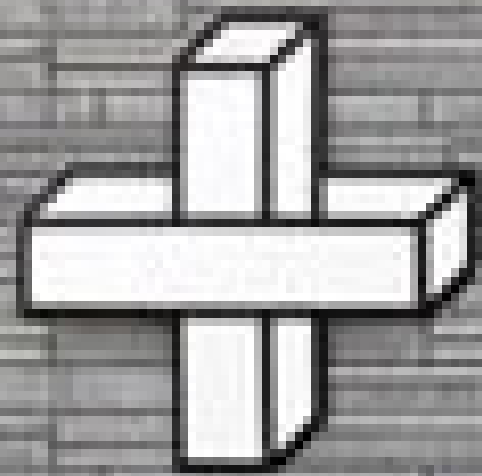
High Levels
of Mistrust



Hard to Get to
YES



Lack of
Coordination



HOW TO
OPTIMIZE VALUE



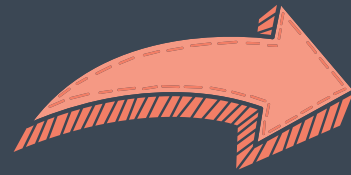
HOW TO CONVINC
PEOPLE OF THAT VALUE



**URBAN
DESIGN**

**BEHAVIORS &
PERCEPTIONS**

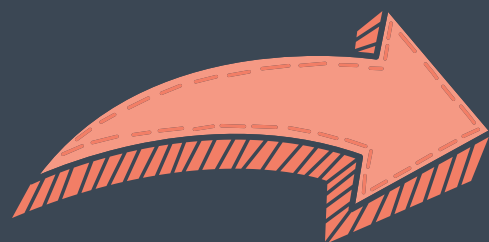
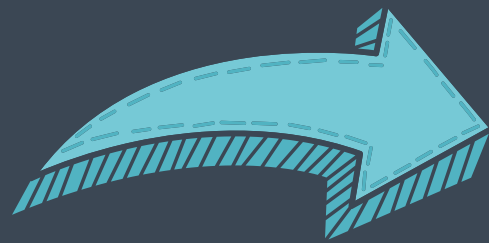
QUALITY OF LIFE

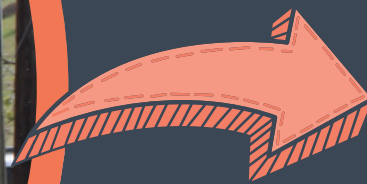
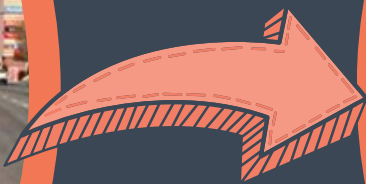
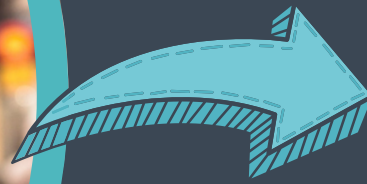
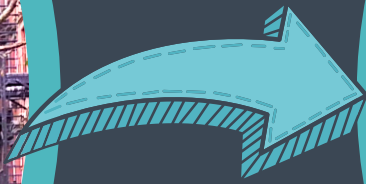


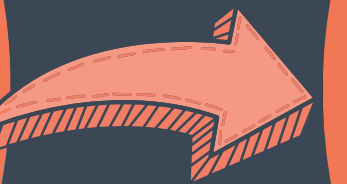
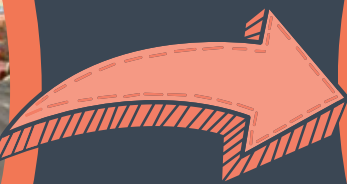
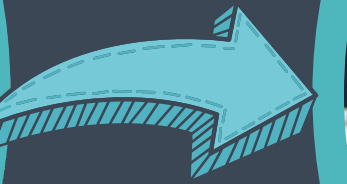
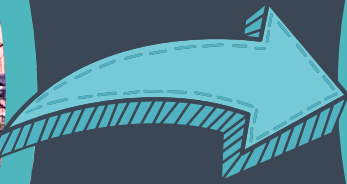
STATE OF PLACE

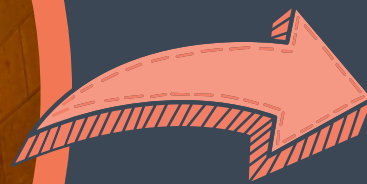
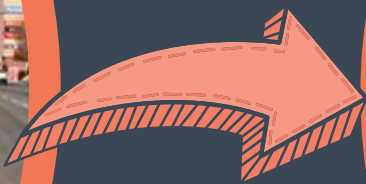
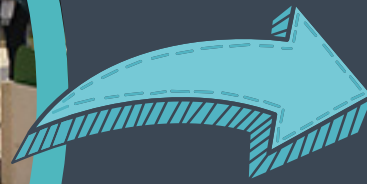
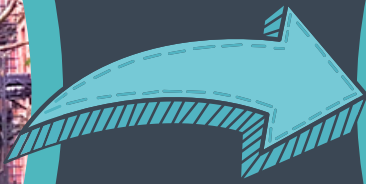
Spatial Justice









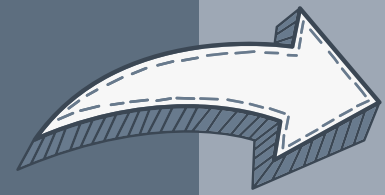




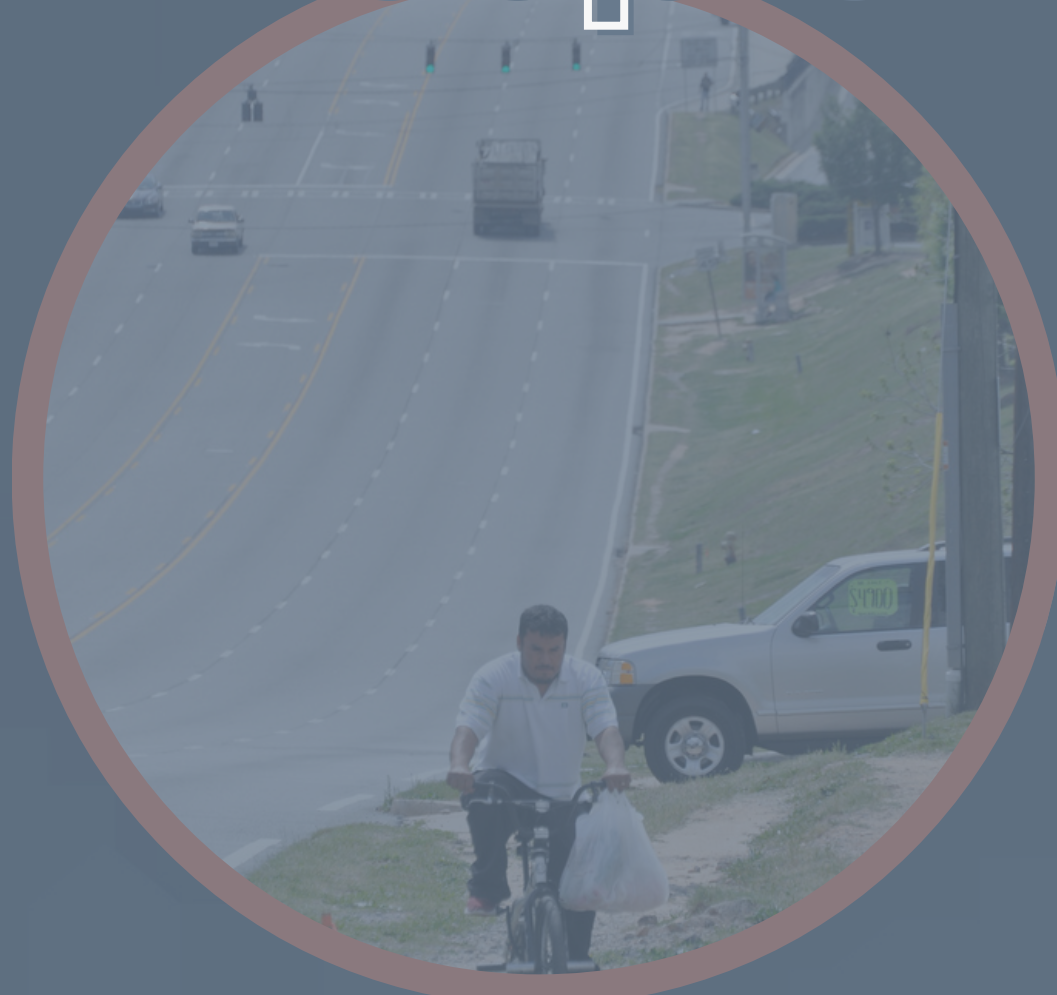
Place



People



**Quality
of Life**

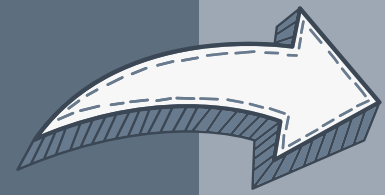




Infrastructure

Behaviors

KPIs



&

&

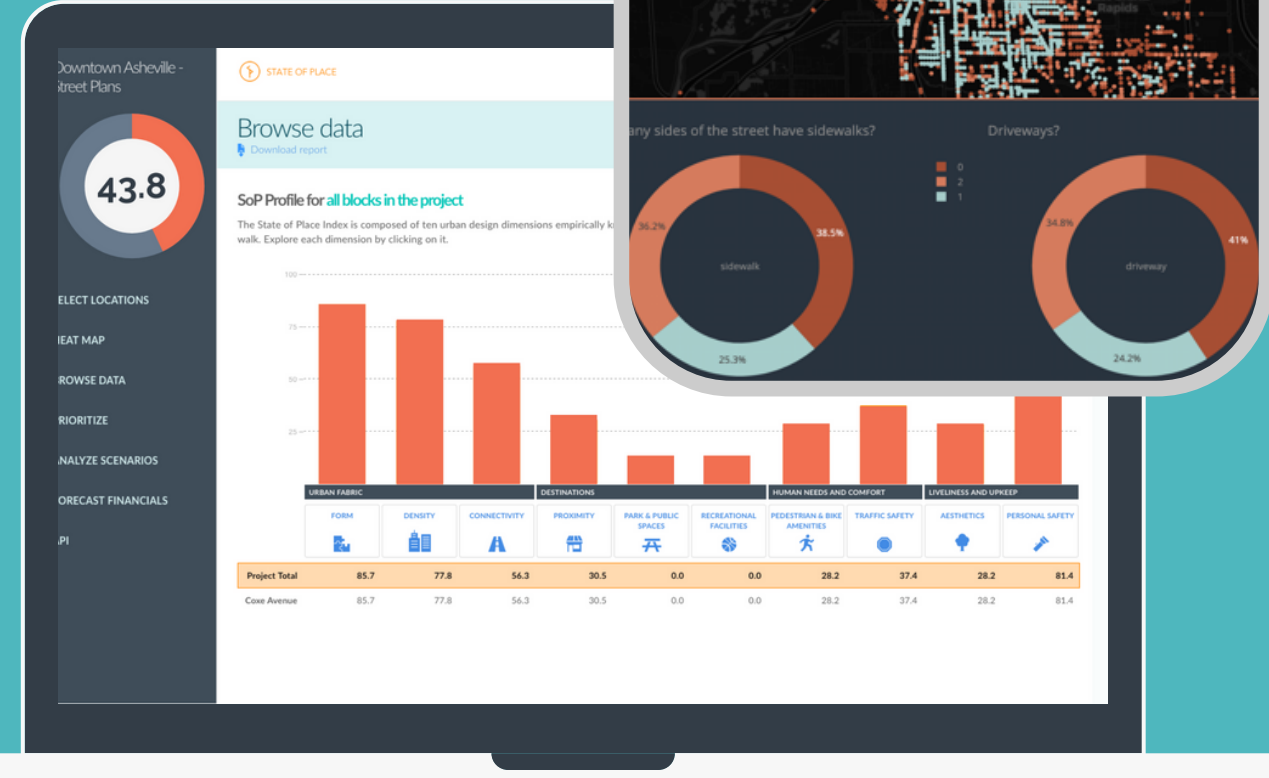
Perceptions

ROI





STATE OF PLACE



125+
TOTAL!

...

...

...

15

14

13

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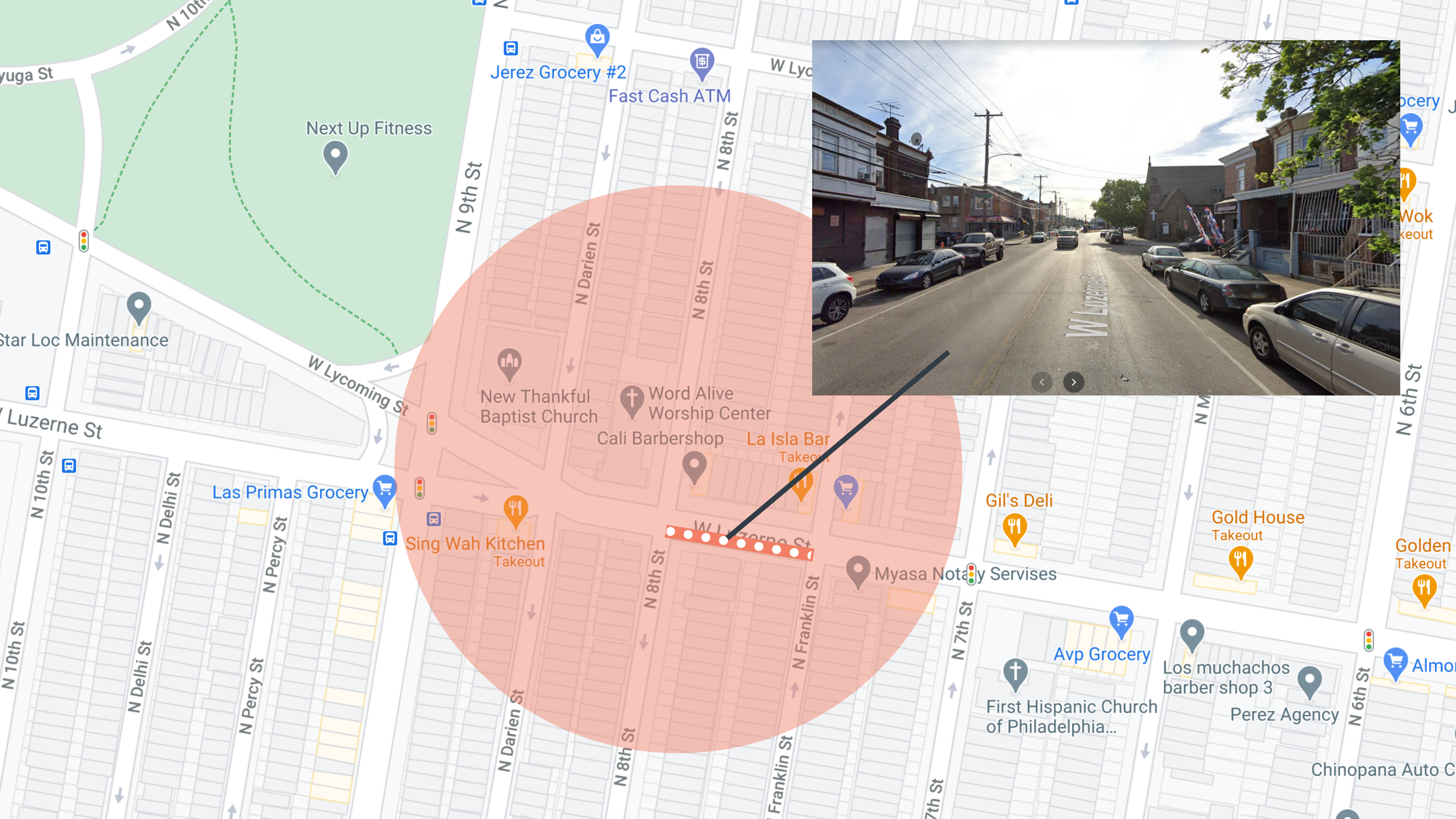
9

7

4

1





Jerez Grocery #2

Fast Cash ATM

Next Up Fitness

Star Loc Maintenance

Luzerne St

New Thankful Baptist Church

Word Alive Worship Center

Cali Barbershop

La Isla Bar Takeout

Las Primas Grocery

Sing Wah Kitchen Takeout

Gil's Deli

Gold House Takeout

Myasa Notary Services

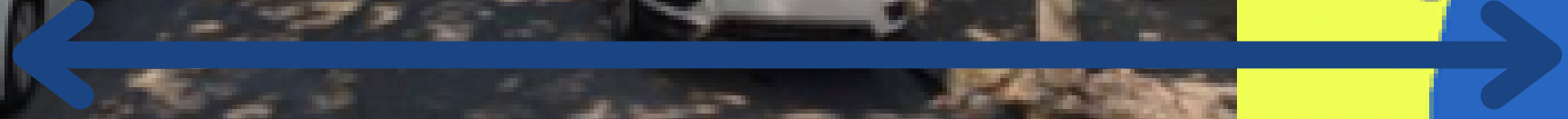
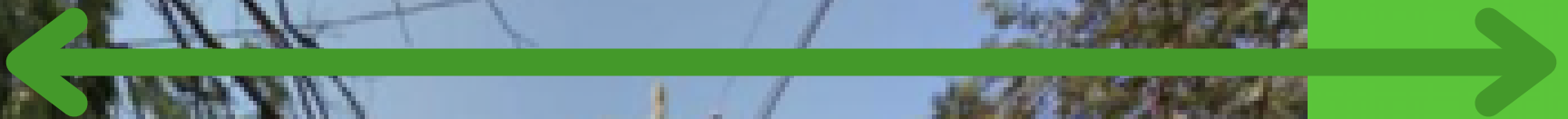
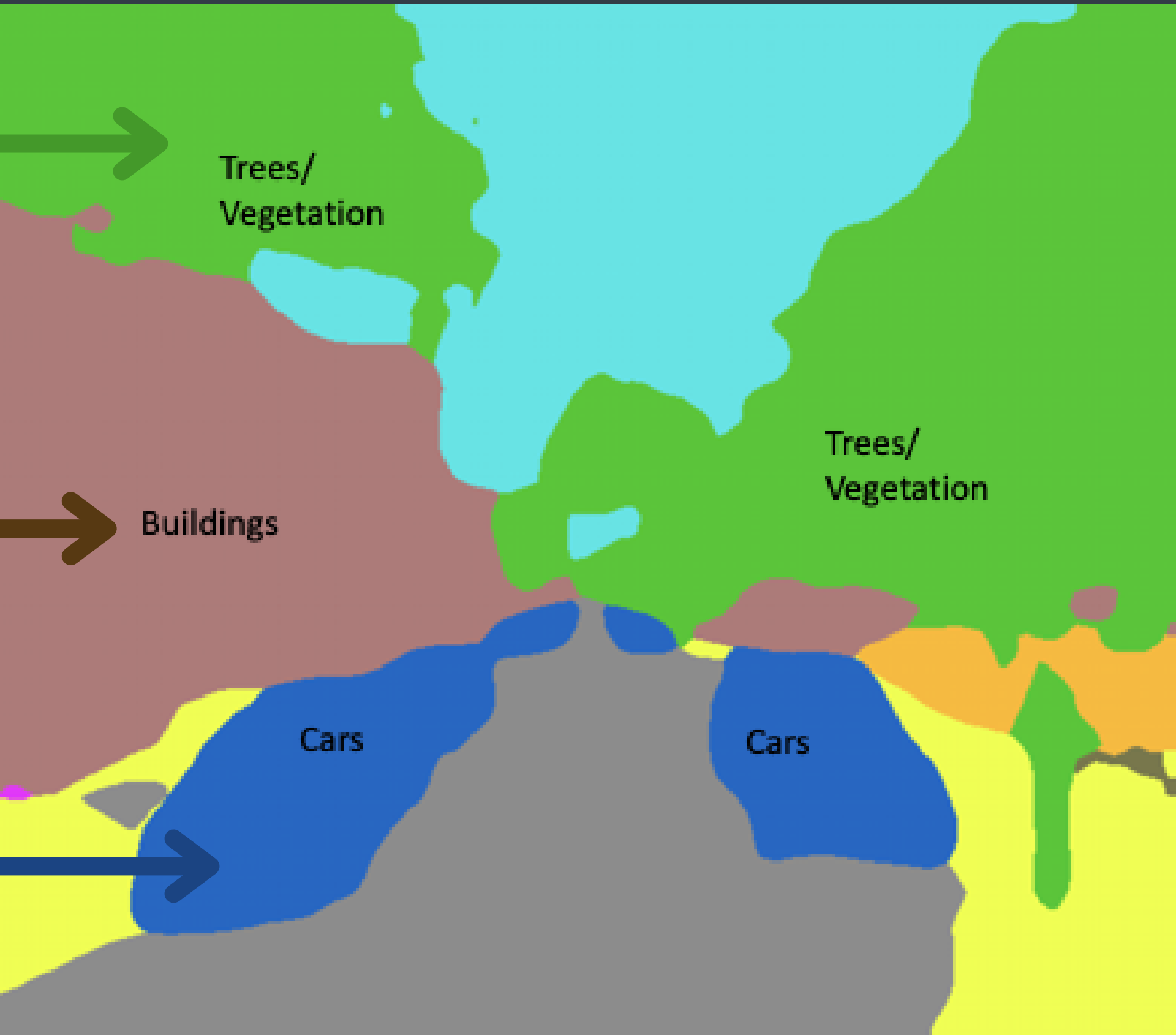
Avp Grocery

First Hispanic Church of Philadelphia...

Los muchachos barber shop 3

Perez Agency

Chinopana Auto C





15

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1



BUILT ENVIRONMENT DATA: STATE OF PLACE INDEX & 10 DIMENSIONS



Density

Building Compactness
& Height



Form

Streetscape Continuity
& Enclosure



Connectivity

Ease of Access; Lack of
Pedestrian/Bike barriers



Proximity

Access to Non-
Residential Destinations
& Diversity of Land Use



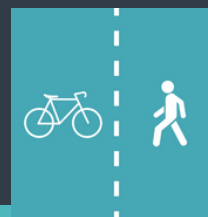
Public Spaces

Presence, Quality, &
Access to Hard & Soft
Scape Public Spaces



Rec. Facilities

Presence of Outdoor &
Indoor Physical Activity
Facilities



Ped/Bike Amenities

Features that Make it
Comfortable for
Pedestrians & Bicyclists



Traffic Safety

Quality & Safety of the
Intersection; Traffic
Calming Features



Aesthetics

Urban Design Features
that Make Places
Dynamic & Inviting



Personal Safety

Features that Influence
Perceptions of Personal
Safety



SELECT LOCATIONS

HEAT MAP

BROWSE DATA

PRIORITIZE

ANALYZE SCENARIOS

FORECAST FINANCIALS

API

Browse data

Download report

VIEW DATA FOR

All blocks in the project

SoP Profile for all blocks in the project

The State of Place Index is composed of ten urban design dimensions empirically known to impact people's decisions to walk. Explore each dimension by clicking on it.



Downtown Asheville -
Street Plans



SELECT LOCATIONS

HEAT MAP

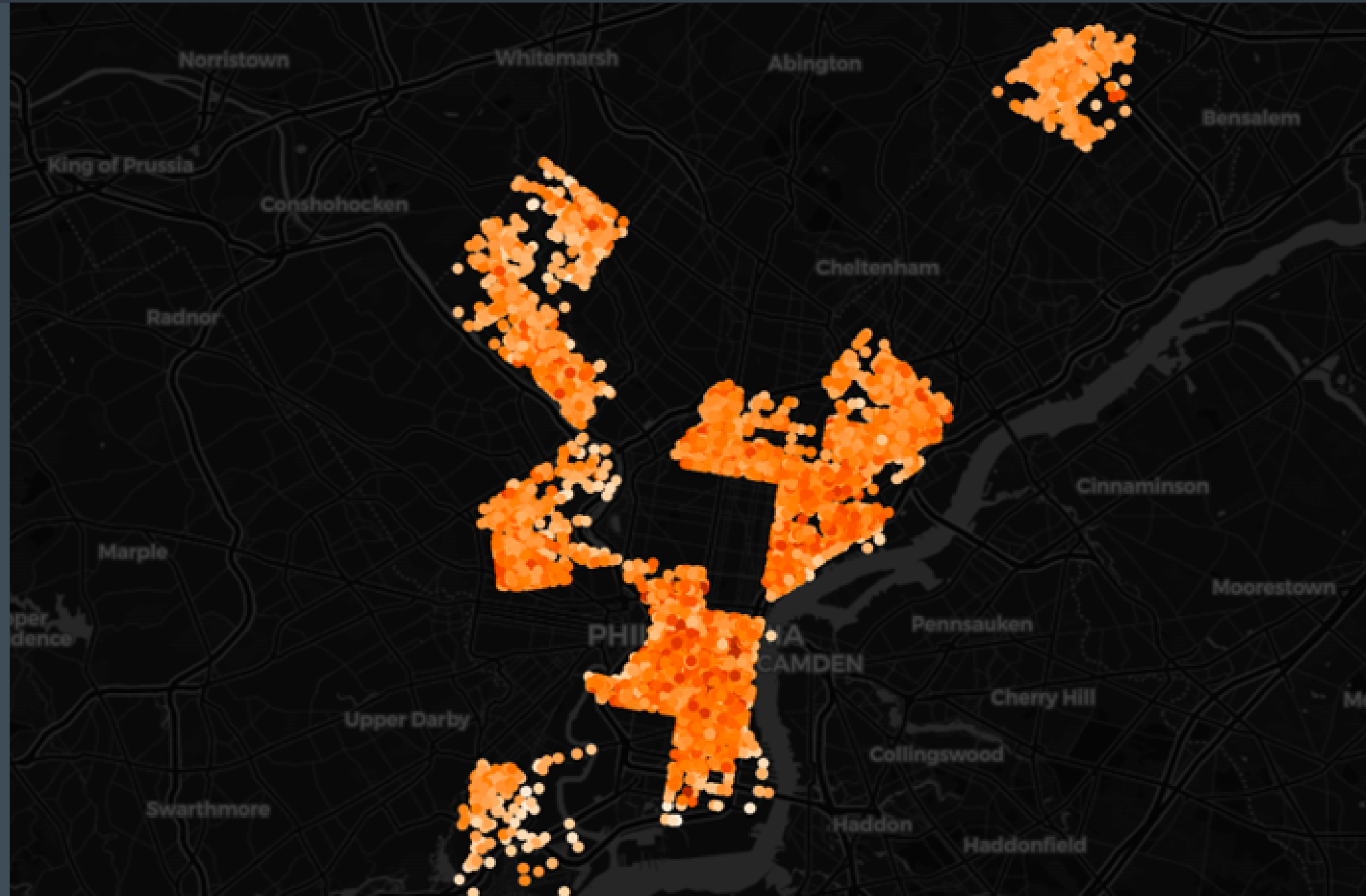
BROWSE DATA

PRIORITIZE

ANALYZE SCENARIOS

FORECAST FINANCIALS

API



**URBAN
DESIGN**

**BEHAVIORS &
PERCEPTIONS**

QUALITY OF LIFE



STATE OF PLACE



Spatial Justice

Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C.

Christopher B. Leinberger and Mariela Alfonzo*

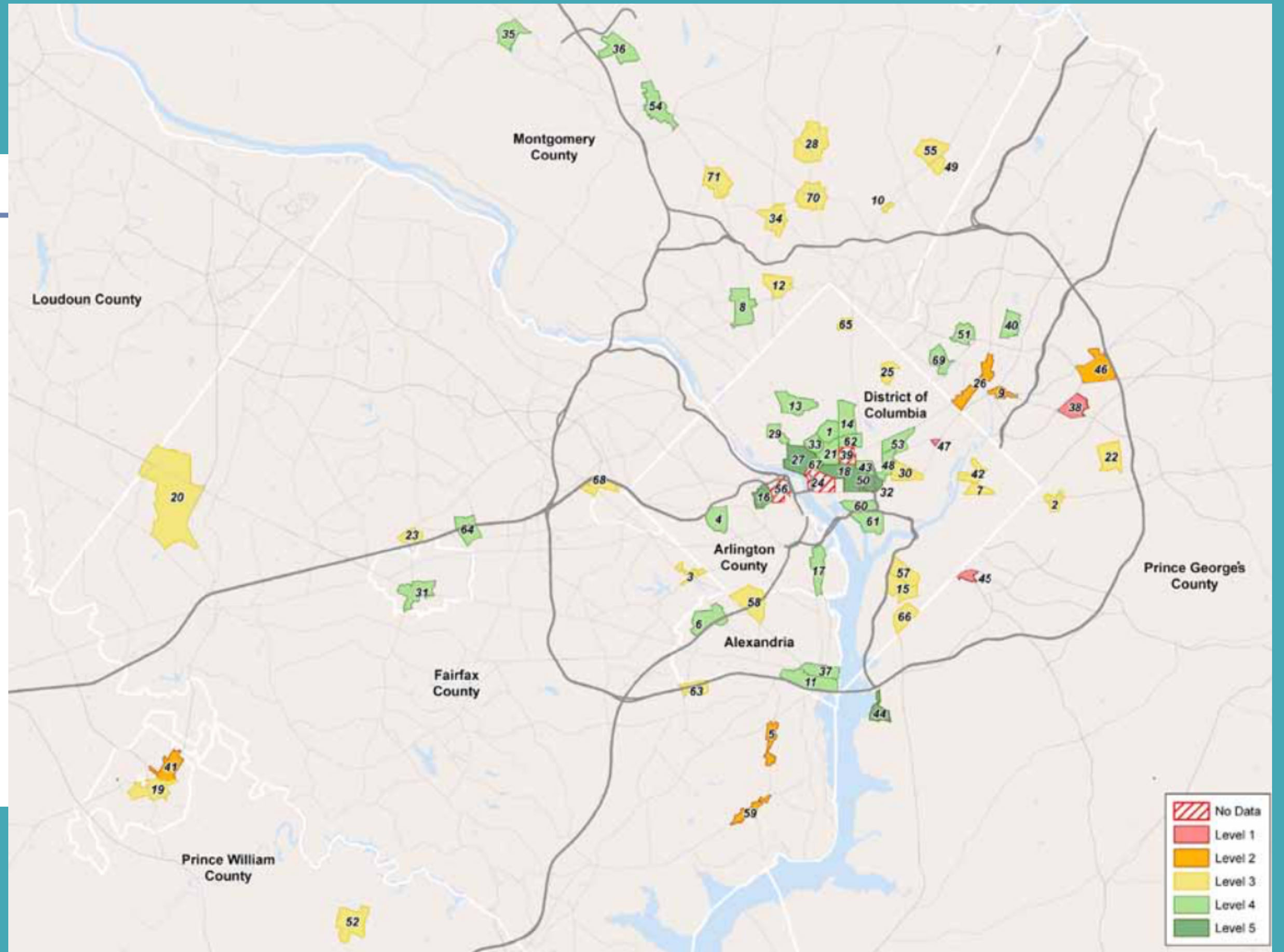
Findings

An economic analysis of a sample of neighborhoods in the Washington, D.C. metropolitan area using walkability measures finds that:

- **More walkable places perform better economically.** For neighborhoods within metropolitan Washington, as the number of environmental features that facilitate walkability and attract pedestrians increase, so do office, residential, and retail rents, retail revenues, and for-sale residential values.
- **Walkable places benefit from being near other walkable places.** On average, walkable neighborhoods in metropolitan Washington that cluster and form walkable districts exhibit higher rents and home values than stand-alone walkable places.
- **Residents of more walkable places have lower transportation costs and higher transit access, but also higher housing costs.** Residents of more walkable neighborhoods in metropolitan Washington generally spend around 12 percent of their income on transportation and 30 percent on housing. In comparison, residents of places with fewer environmental features that encourage walkability spend around 15 percent on transportation and 18 percent on housing.
- **Residents of places with poor walkability are generally less affluent and have lower educational attainment than places with good walkability.** Places with more walkability features have also become more gentrified over the past decade. However, there is no significant difference in terms of transit access to jobs between poor and good walkable places.

The findings of this study offer useful insights for a diverse set of interests. Lenders, for example, should find cause to integrate walkability into their underwriting standards. Developers and investors should consider walkability when assessing prospects for the region and acquiring property. Local and regional planning agencies should incorporate assessments of walkability into their strategic economic development plans and eliminate barriers to walkable development. Finally, private foundations and government agencies that provide funding to further sustainability practices should consider walkability (especially as it relates to social equity) when allocating funds and incorporate such measures into their accountability standards.

“Emerging evidence points to a preference for mixed-use, compact, amenity-rich, transit-accessible neighborhoods or walkable places.”



EACH **20+** INCREASE
IN THE STATE OF PLACE
INDEX WAS TIED TO:



RENTS

+\$9/SF



+\$7/SF



+\$300/UNIT



REVENUES

+80%/SF



HOME VALUES

+\$81/SF





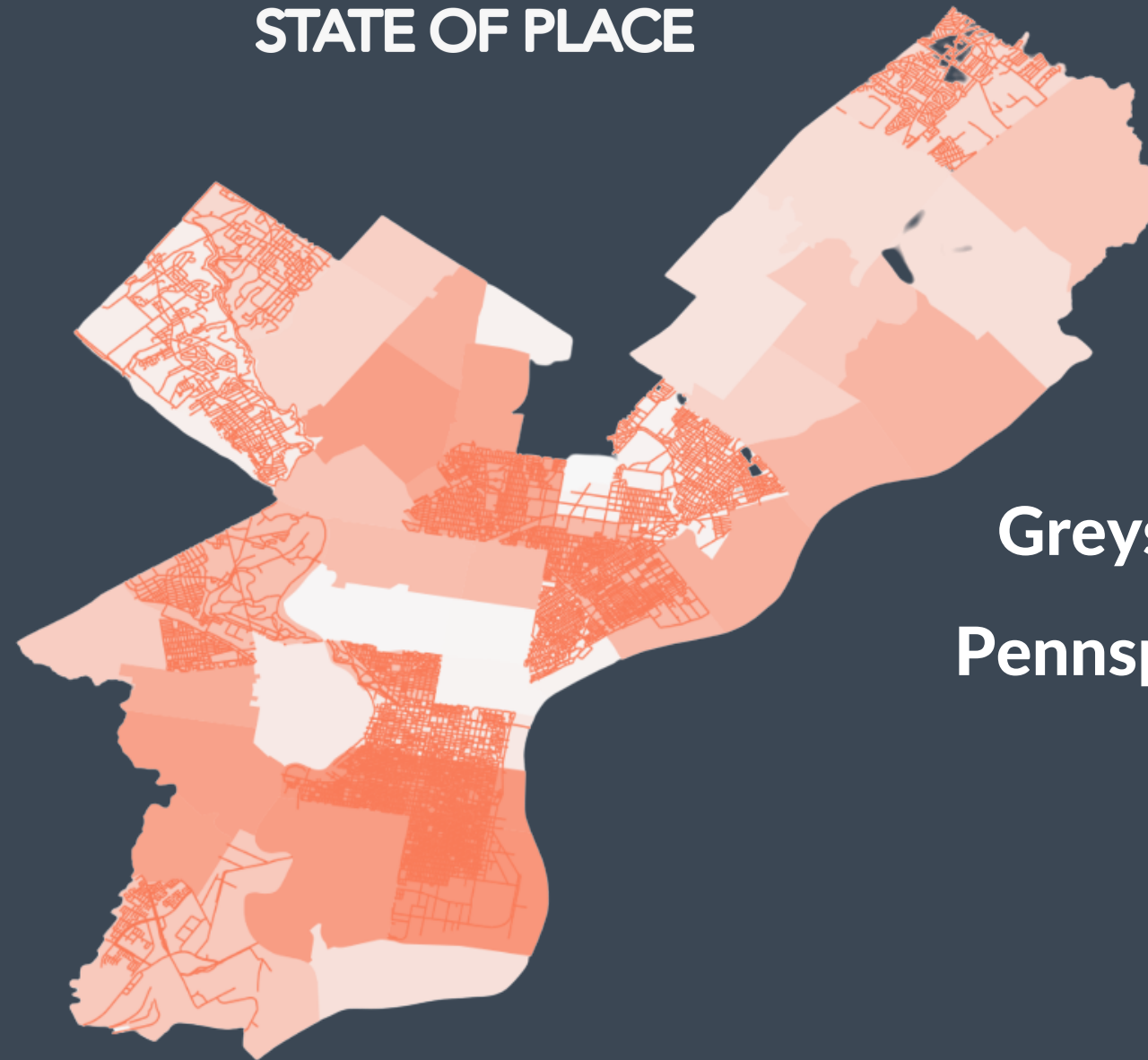
STATE OF PLACE

High Vulnerability

- 19116 Somerton
- 19124 Juanita, Frankford
- 19131 Parkside
- 19140 Hunting Park
- 19153 Southwest
- 19134 Kensington, Port Richmond

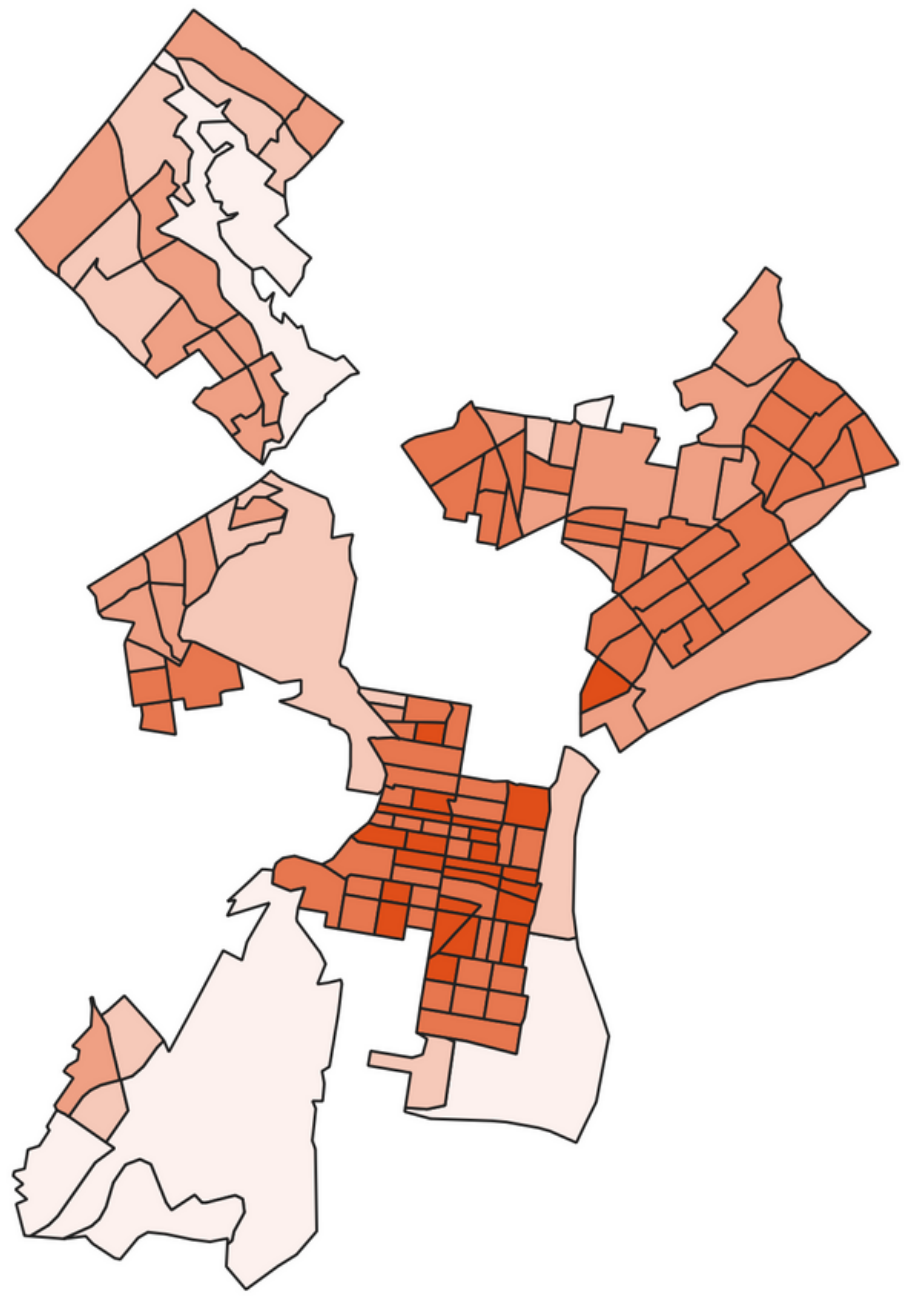
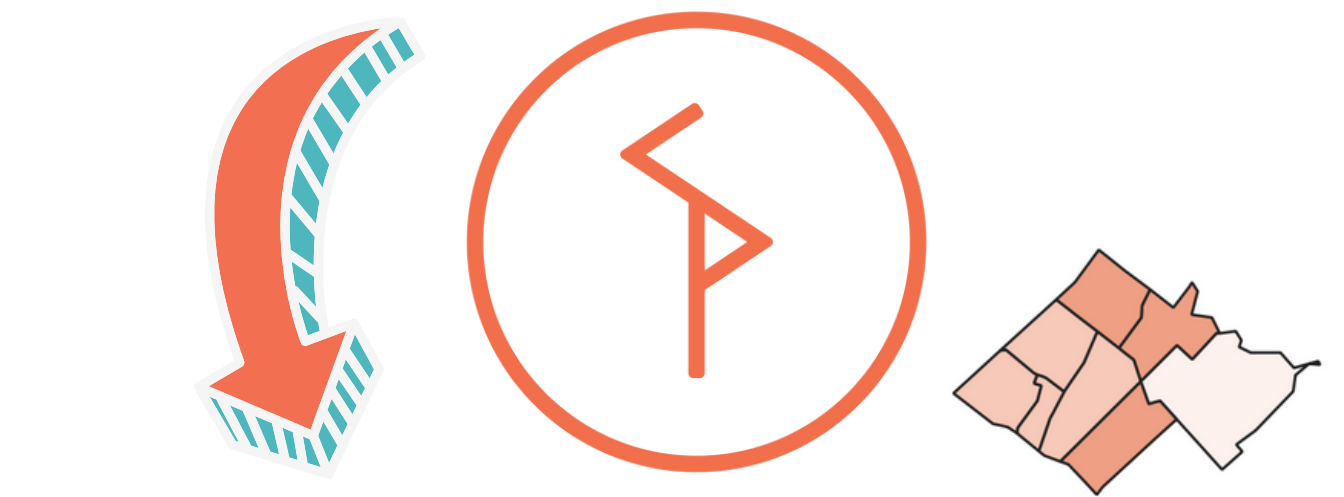
Mixed Vulnerability

- Roxborough 19128
- Greys Ferry/Forgotten Bottom 19146
- Pennsport/Lower Moyamensing 19148
- Fishtown 19125



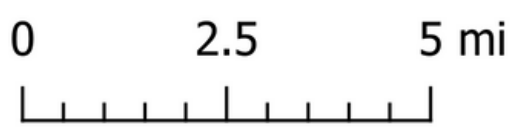
Low Vulnerability

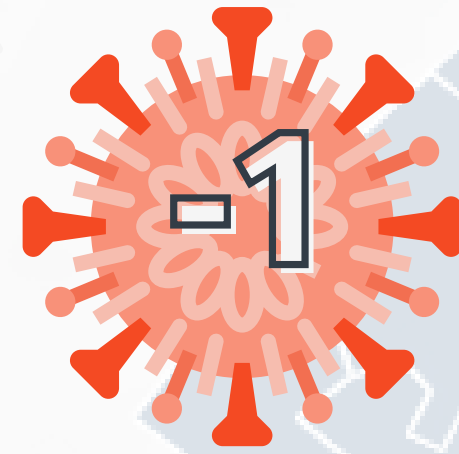
- 19102, 19103, 19106, 19107 Center City
- 19130 Fairmount
- 19147 Queen Village/ Bella Vista/ Passyunk Square
- 19118 Chestnut Hill



Census Tracts
State of Place Index

	0 - 17
	17 - 38
	38 - 59
	59 - 80
	80 - 100





Deaths



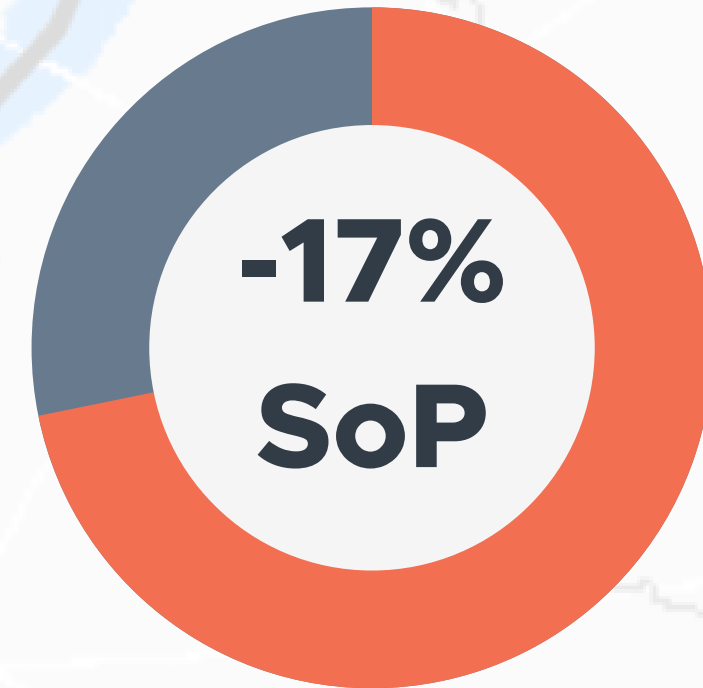
Hospitalizations



Positivity Rate



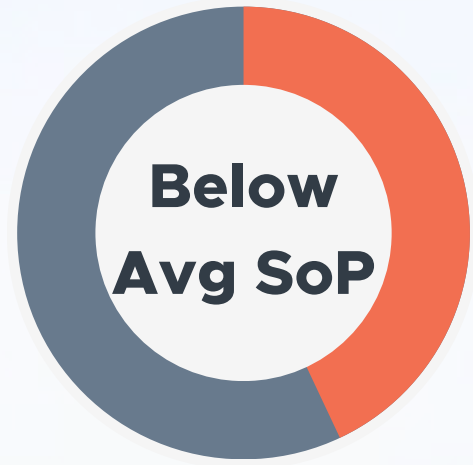
Flood Plain





Parks & Public
Spaces

Heat Diff



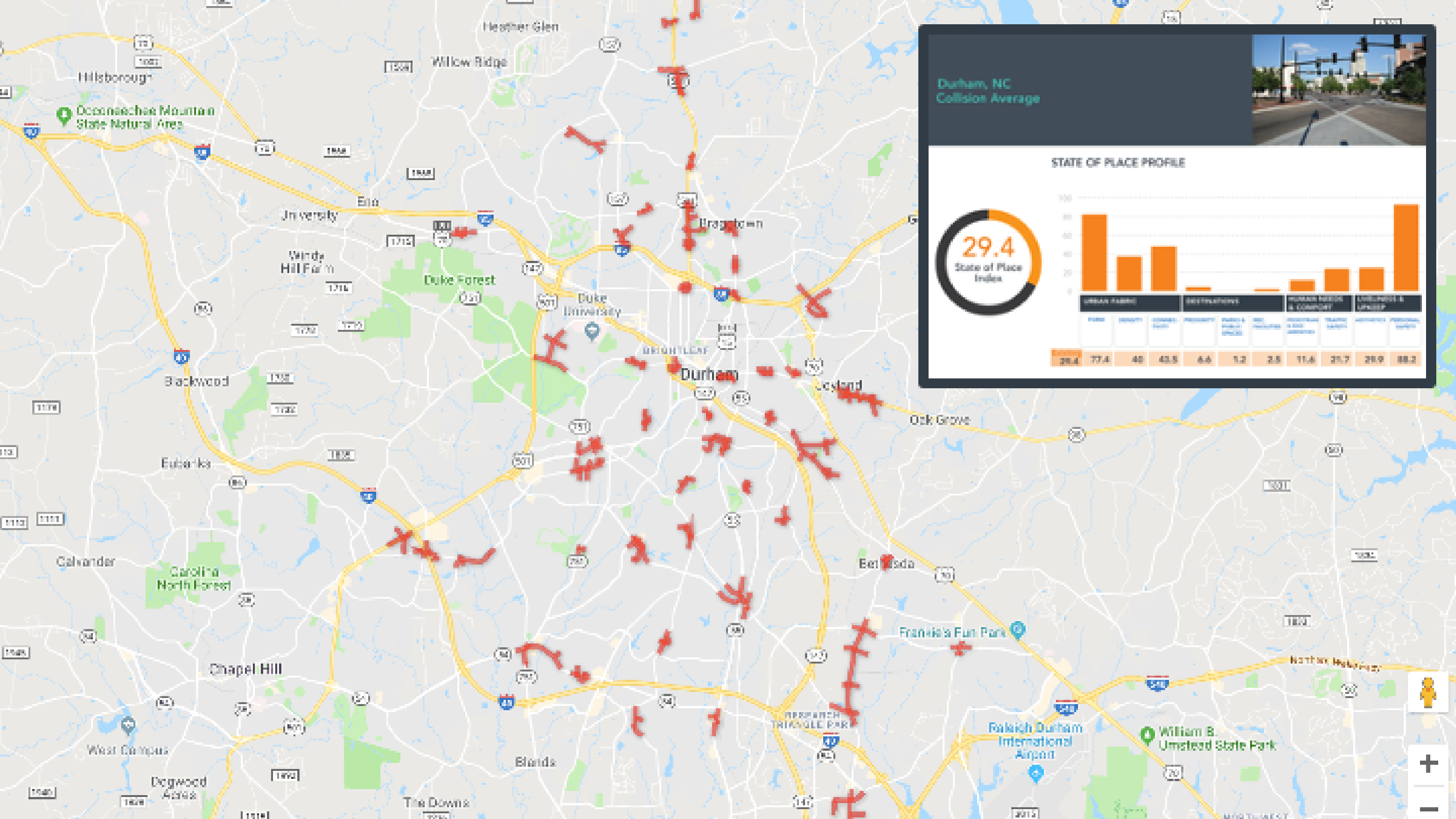
VS



8.7X



Fewer
Homicides



Durham, NC
Collision Average



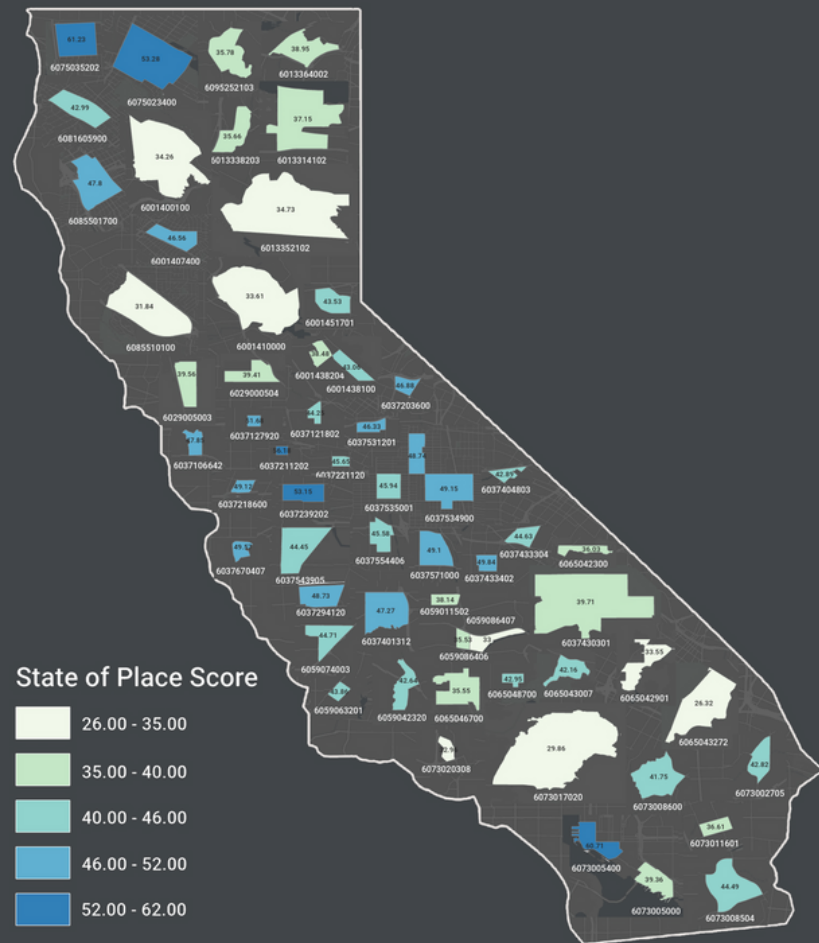
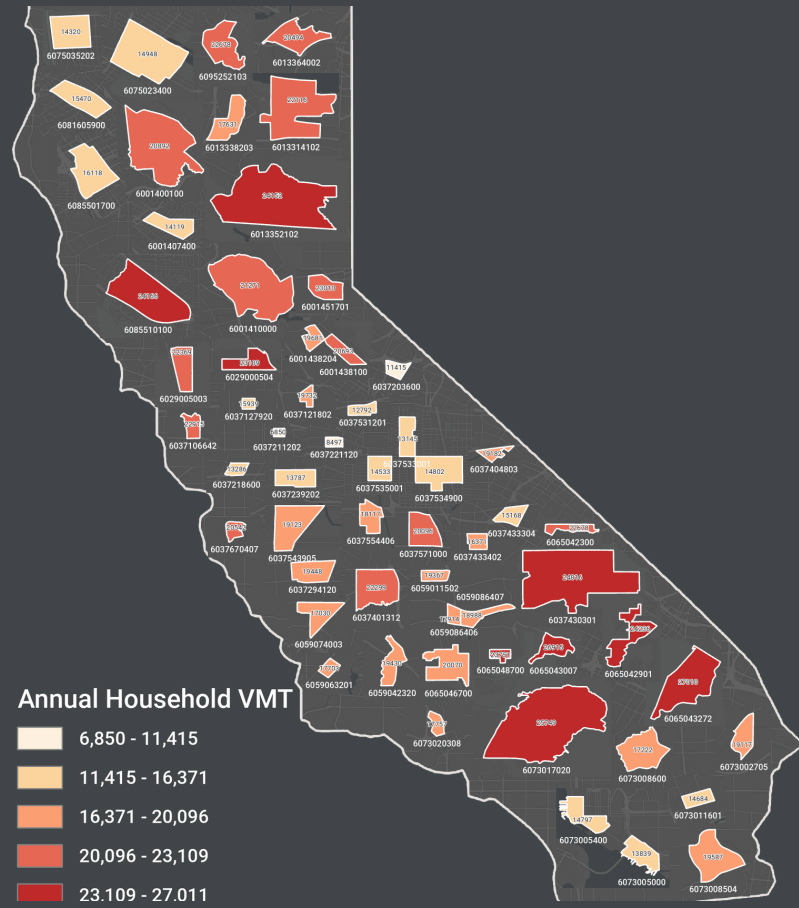
STATE OF PLACE PROFILE

29.4
State of Place Index

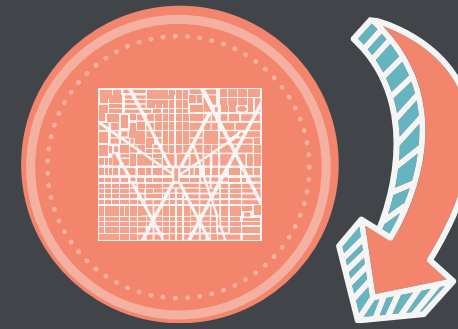


Category	Value
URBAN FORM	77.4
DENSITY	48
MEDIUM DENSITY & CORRIDOR	43.5
DISTRIBUTION	6.6
WALKABILITY	1.2
SAFETY	2.5
MOBILITY	11.6
TRANSIT	21.7
LIVABILITY & LIFESTYLE	29.0
TOTAL	88.2

FOR EVERY **1** POINT INCREASE IN THE
STATE OF PLACE INDEX
THE ODDS OF A COLLISION DECREASE BY
12.3% ON AVERAGE



SPRAWL INDEX



STATE OF PLACE



TRANSIT ACCESS



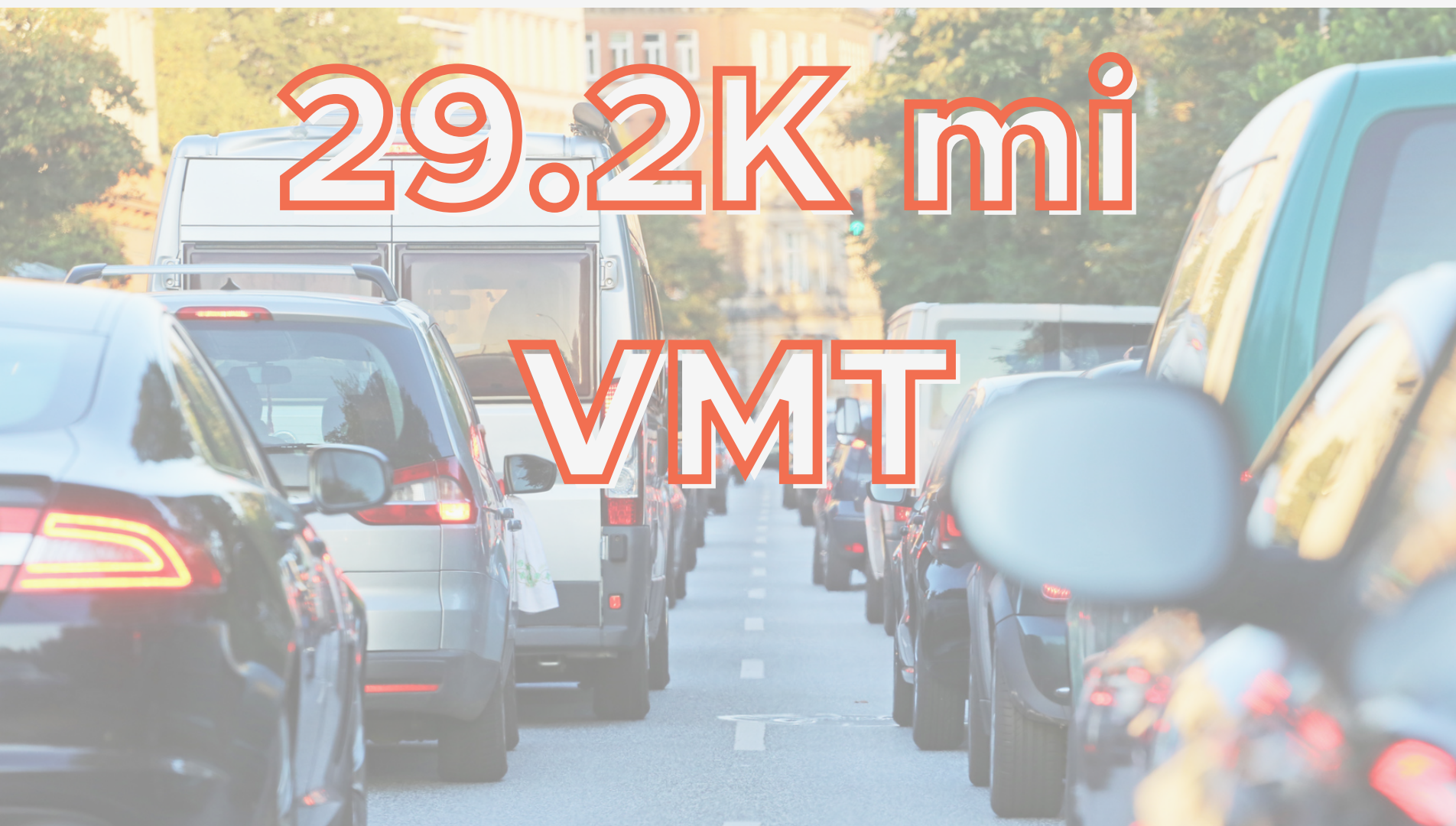
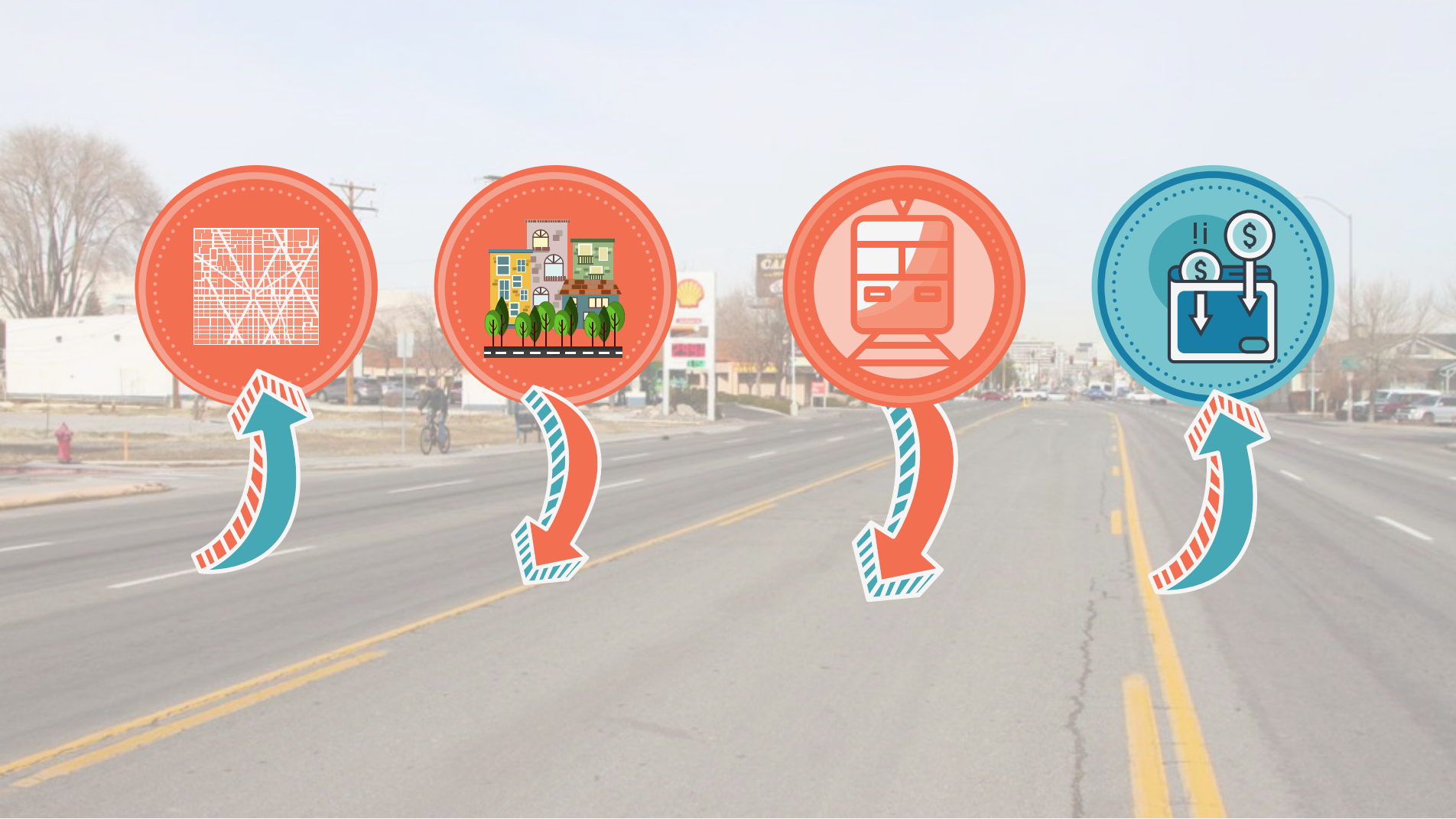
HOUSEHOLD INCOME



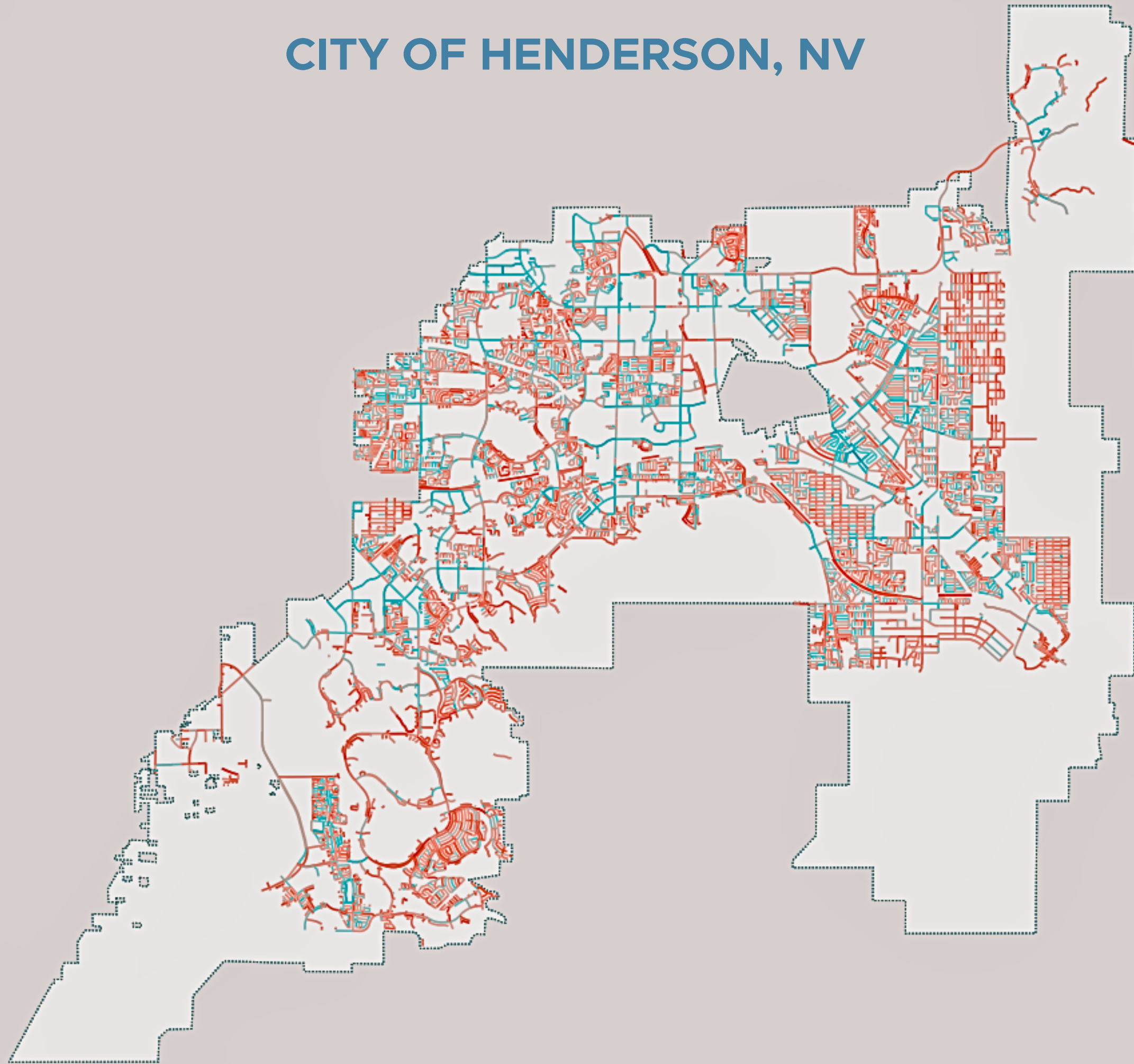
VEHICLE ACCESS



CAL-ENVIRO SCREEN



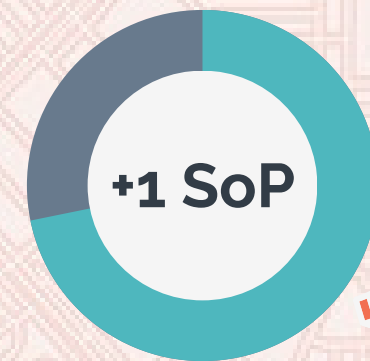
CITY OF HENDERSON, NV



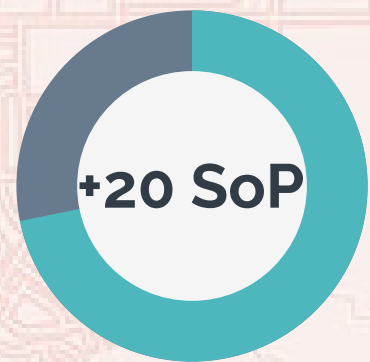
State of Place & Assessment Value



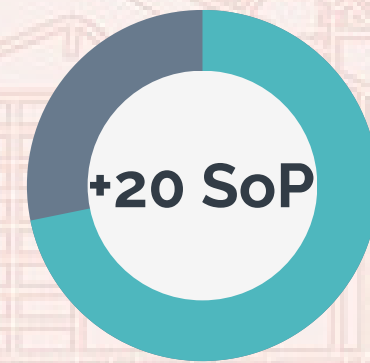
+1.1%



+1.1%



+23.3%



+24.7%

Prioritize Goals

[Download report](#)

VIEW DATA FOR

All blocks in the project ▾



SELECT LOCATION

ASSESS

PRIORITIZE

IMAGINE

OPTIMIZE

What are this project's most important goals?

- Walkability
- Office Rents
- Retail Rents
- Retail Revenues
- Commercial Property Values
- Job Creation
- Visitor Satisfaction
- Visits
- Chronic Disease Reduction
- Vehicle Collision Mitigation
- Vehicle Miles Traveled
- Flood Mitigation

Relative importance of each dimension

All blocks in the project

- 1. Pedestrian & Bike Amenities
- 2. Proximity
- 3. Park & Public Spaces
- 4. Traffic Safety
- 5. Density
- 6. Aesthetics
- 7. Recreational Facilities
- 8. Connectivity
- 9. Form
- 10. Personal Safety



Relative importance of each dimension

State of Place prioritization identifies which urban design dimensions should be emphasized, considering three key factors:

- The project area's current performance across the ten dimensions (SoP Index)
- Predicted impact on key goals
- The feasibility (level of difficulty) in improving each of the ten dimensions

ADJUST FEASIBILITY

ADD



MODIFY





- SELECT LOCATION
- ASSESS
- PRIORITIZE
- IMAGINE
- OPTIMIZE

STATE OF PLACE My projects Feedback Help Account

Analyze Scenarios

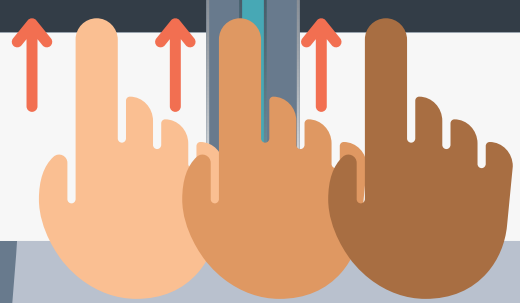
[Download report](#) **CREATE NEW SCENARIO** OR **DVRC New**

SoP Profile for DVRC New

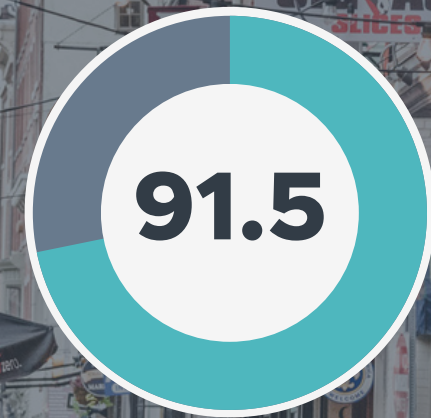
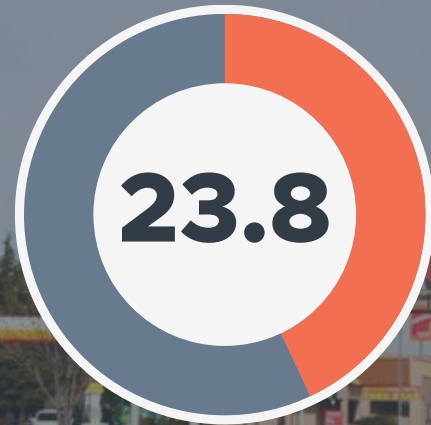
Created: August 18th 2020, 05:06:39, Last updated: September 4th 2020, 01:42:33 [Edit Scenario](#)

The graph below describes the State of Place indices for the DVRC New scenario, broken down into the ten urban designs dimensions.

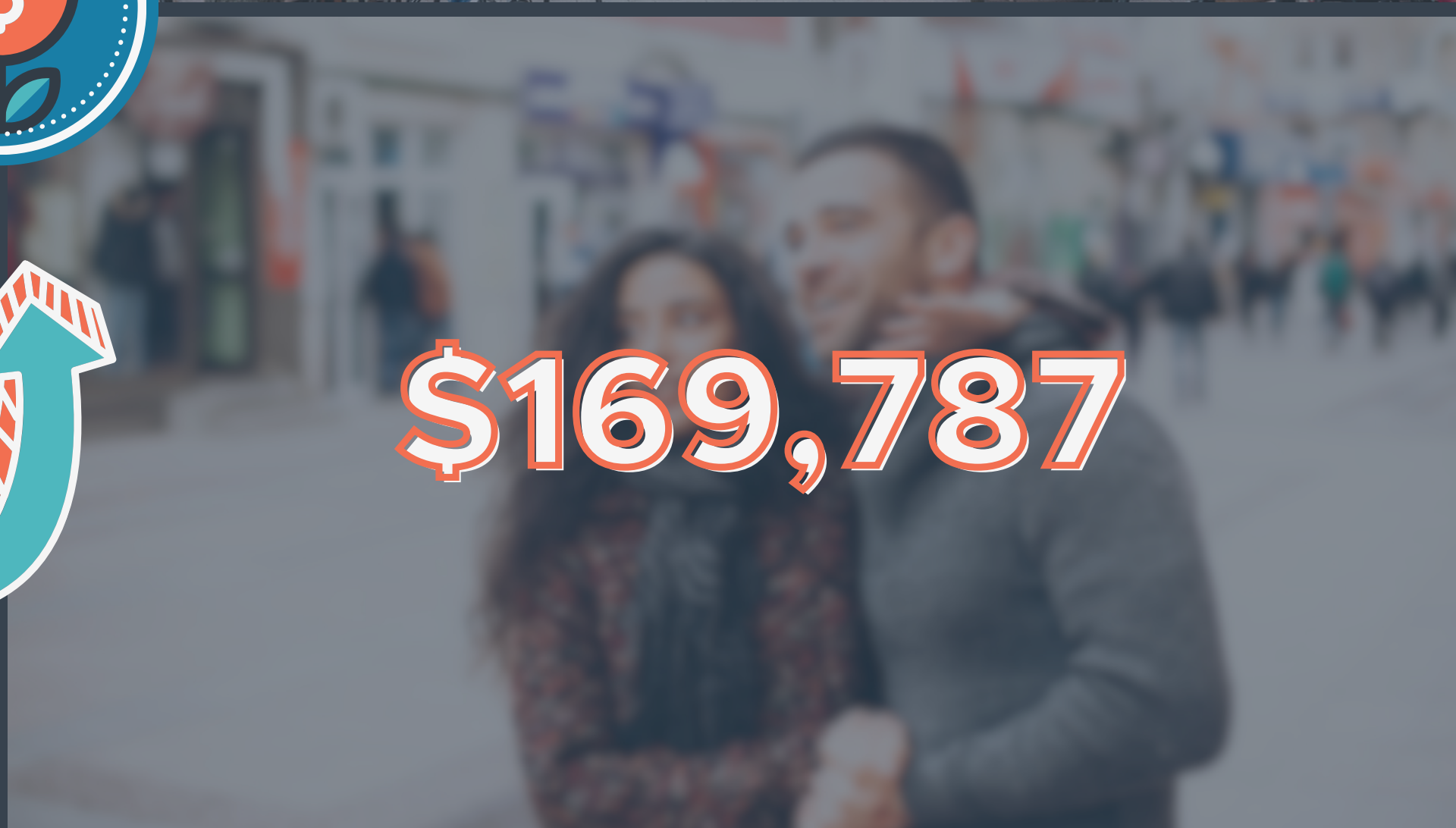
Category	Dimension	Index (approx.)
URBAN FABRIC	FORM	80
	DENSITY	85
	CONNECTIVITY	75
HUMAN NEEDS AND COMFORT	PARK & PUBLIC SPACES	25
	RECREATIONAL FACILITIES	35
	PEDESTRIAN & BIKE AMENITIES	40
	TRAFFIC SAFETY	60
LIVELINESS AND UPKEEP	AESTHETICS	65
	PERSONAL SAFETY	90
	PERSONAL SAFETY	95



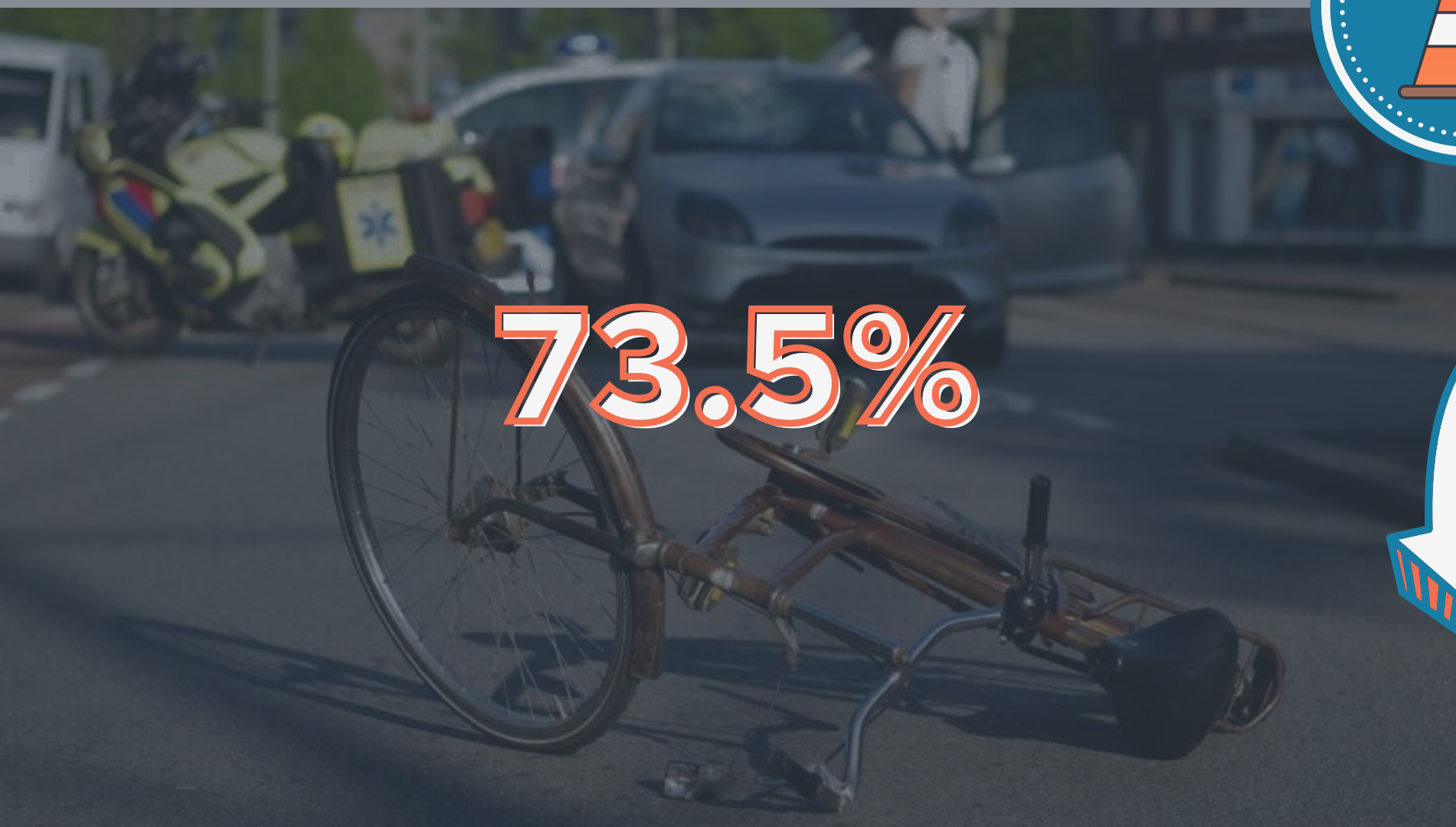


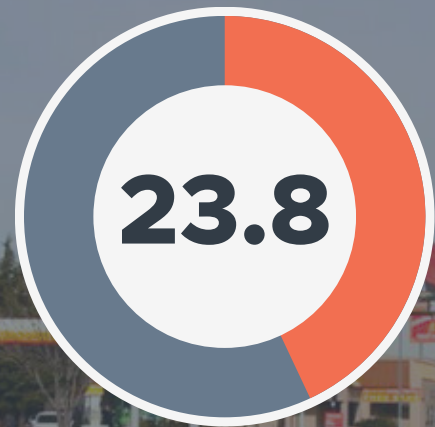


\$833,651



\$169,787

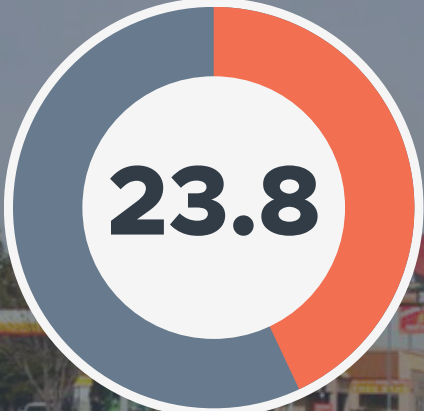




13.2%
Chronic Disease



7.8%



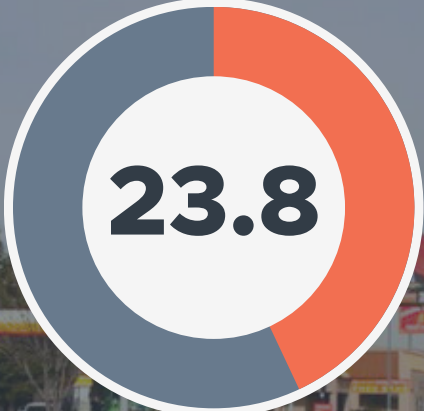
813/Year

Violent Crime Rate



41%

Decrease



**20,000/Year
Avg VMT**



**75%
Decrease**



Philly(+42.1)

SELECT LOCATIONS

HEAT MAP

BROWSE DATA

PRIORITIZE

ANALYZE SCENARIOS

FORECAST FINANCIALS

3. Financial Forecast for Philly

Total value captured

\$377,401,453.40

ROI (Total Value/Dollar)

\$3.77

Office Rent

STATE OF PLACE PREMIUM

\$11.51/sq. foot

\$2.52 Additional transit premium

VALUE CAPTURED

\$22,059,550.35

\$23,820,307.98 Additional transit premium

Retail Rent

STATE OF PLACE PREMIUM

\$8.76/sq. foot

\$7.30 Additional transit premium

VALUE CAPTURED

\$8,054,060.17

\$10,096,746.09 Additional transit premium

Retail Revenues

STATE OF PLACE PREMIUM

\$185.24/sq. foot

\$101.04 Additional transit premium

VALUE CAPTURED

\$134,834,000.00

\$170,198,000.00 Additional transit premium

Residential Rent

STATE OF PLACE PREMIUM

\$409.37/unit

\$10.10 Additional transit premium

VALUE CAPTURED

\$986,560.75

\$11,923,603.80 Additional transit premium

Residential For Sale

STATE OF PLACE PREMIUM

\$610.48/sq. foot

\$53.39 Additional transit premium

VALUE CAPTURED

\$211,467,282.13

\$218,942,084.28 Additional transit premium



Philly(+42.1)

SELECT LOCATIONS

HEAT MAP

BROWSE DATA

PRIORITIZE

ANALYZE SCENARIOS

FORECAST FINANCIALS

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\$101.04 Additional transit premium

VALUE CAPTURED

\$134,834,000.00

\$170,198,000.00 Additional transit premium

Residential Rent

STATE OF PLACE PREMIUM

\$409.37/unit

\$10.10 Additional transit premium

VALUE CAPTURED

\$986,560.75

\$11,923,603.80 Additional transit premium

Residential For Sale

STATE OF PLACE PREMIUM

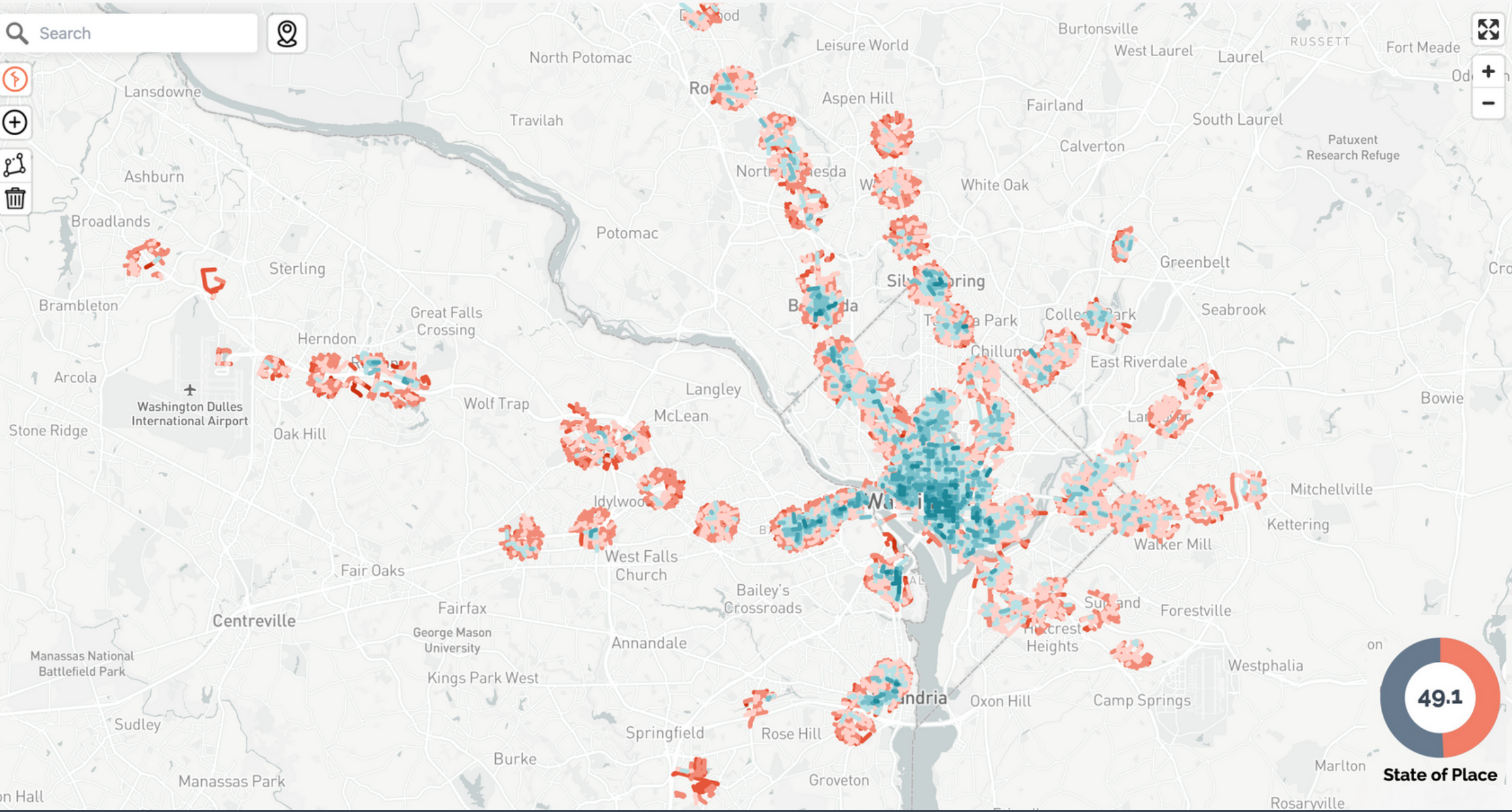
\$610.48/sq. foot

\$53.39 Additional transit premium

VALUE CAPTURED

\$211,467,282.13

\$218,942,084.28 Additional transit premium

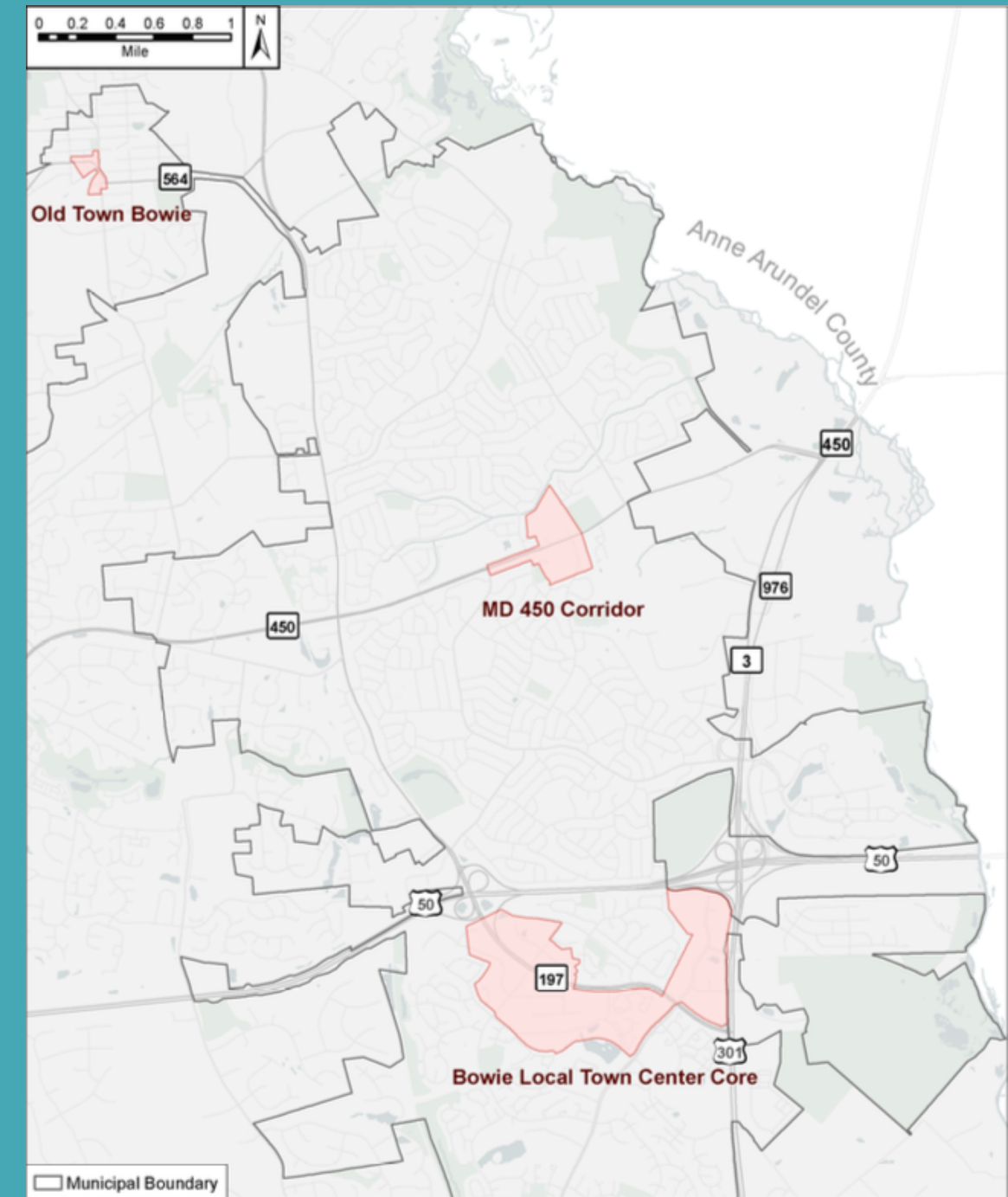
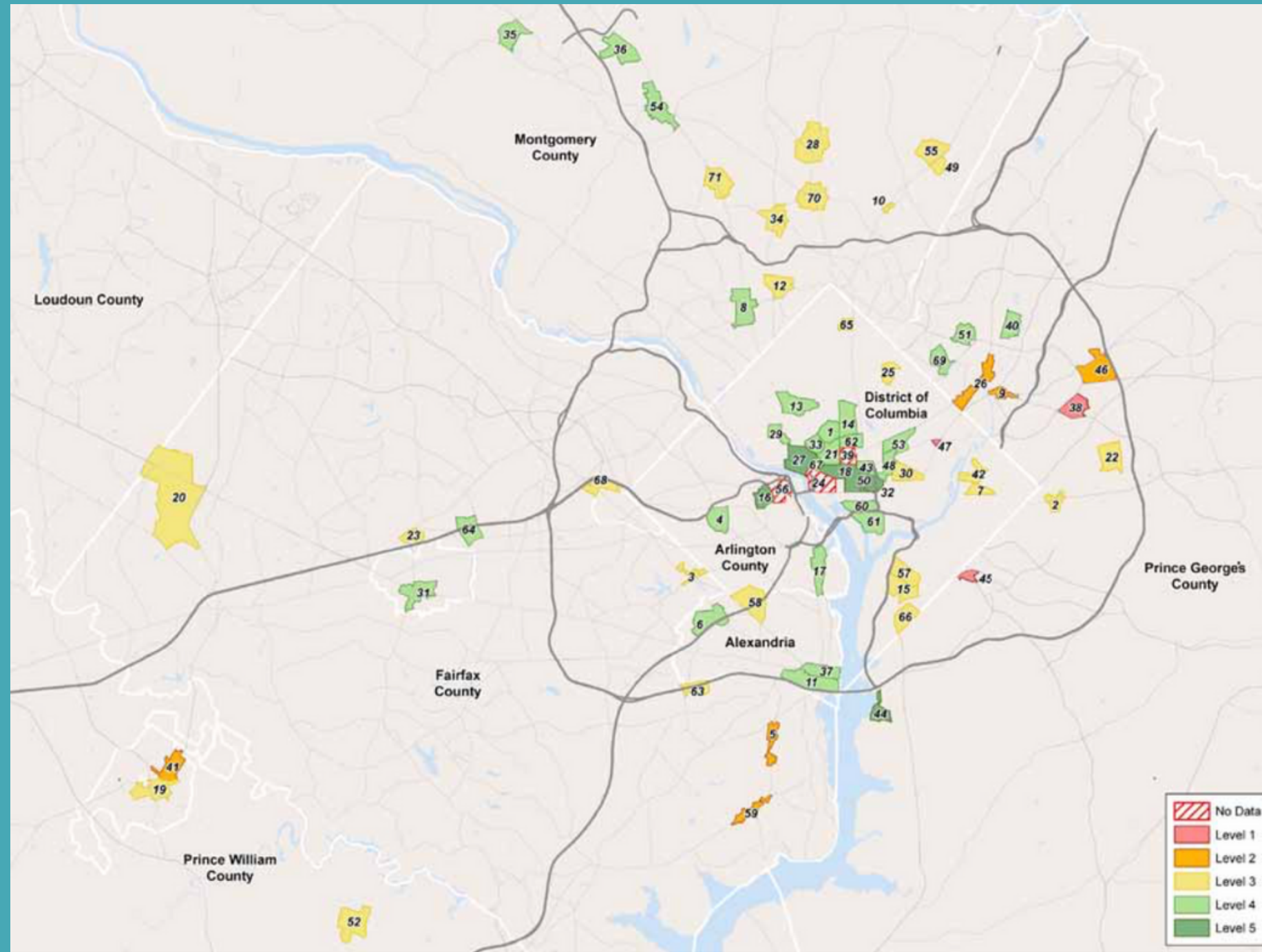


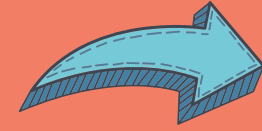
2012



2023

Bowie, MD





DECISION-MAKING

- 1 TARGET INVESTMENTS WHERE NEEDED MOST
- 2 PRIORITIZE MOST EFFECTIVE INTERVENTIONS
- 3 FACILITATE TRANSPARENT, INCLUSIVE PROCESS
- 4 OPTIMIZE VALUE, EQUITABLY
- 5 CROSS-CUTTING, COST-EFFICIENT

COMMUNICATION/CO-CREATION

- 6 OUTCOME-FOCUSED
- 7 EMPATHY-DRIVEN
- 8 BUILD TRUST
- 9 GET TO YES
- 10 COLLABORATIVE

THANK YOU!



STATE OF PLACE



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