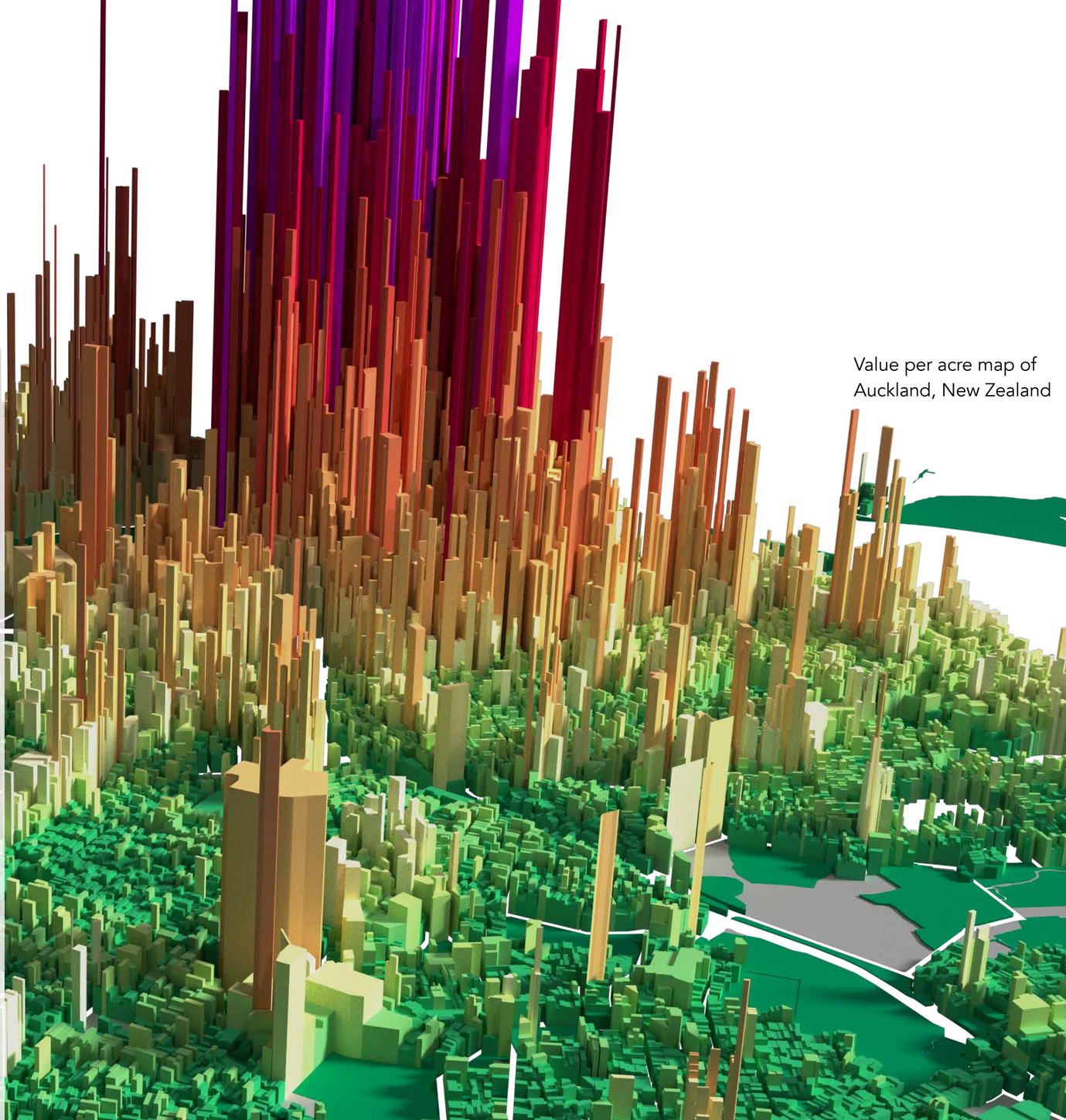
URBAN3

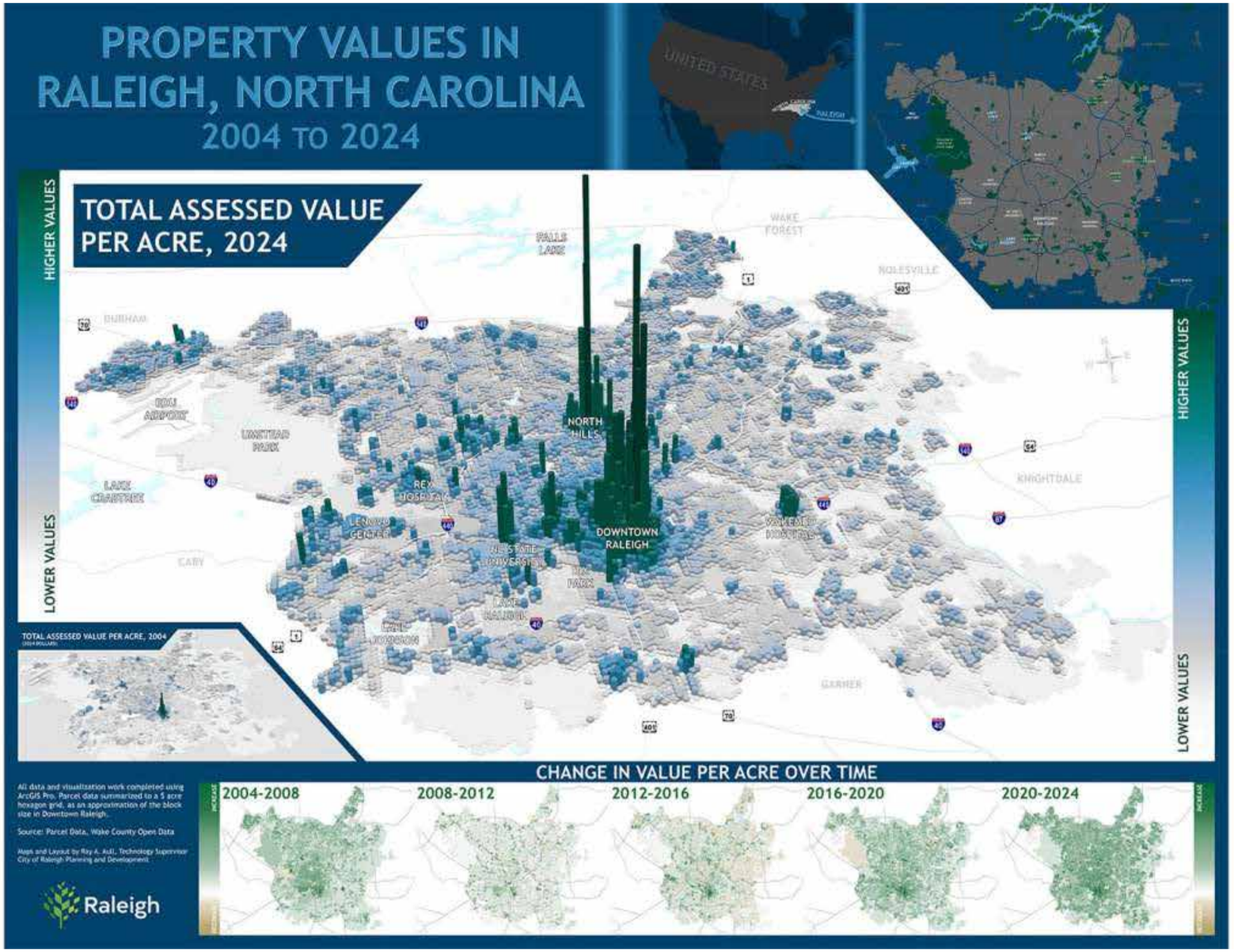
The Dollars and $ense of City Economics.

Joe Minicozzi, CNU-A, AICP



Value per acre map of Auckland, New Zealand

Professional category winner: Ray Aull

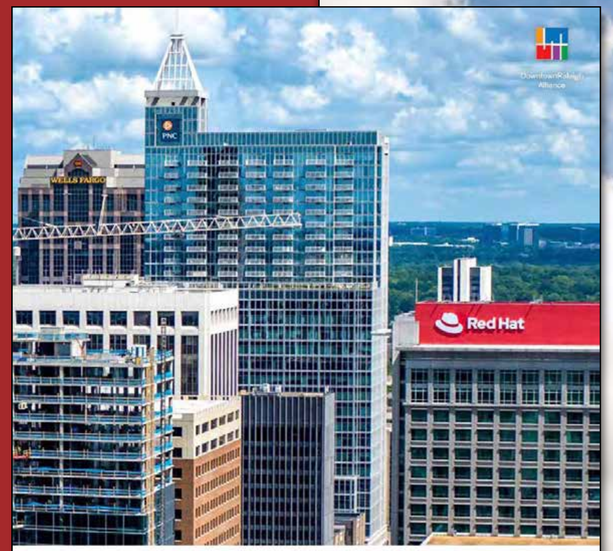


Raleigh Planning
December 9, 2024 ·

🏆 Congratulations to GIS Day Professional Map Category winner, Ray Aull! Ray is recognized for exceptional work in map design and data visualization for the Property Value GIS map. This award highlights innovation, creativity, and excellence in professional mapping. Read more: https://bit.ly/3ZqUg6k

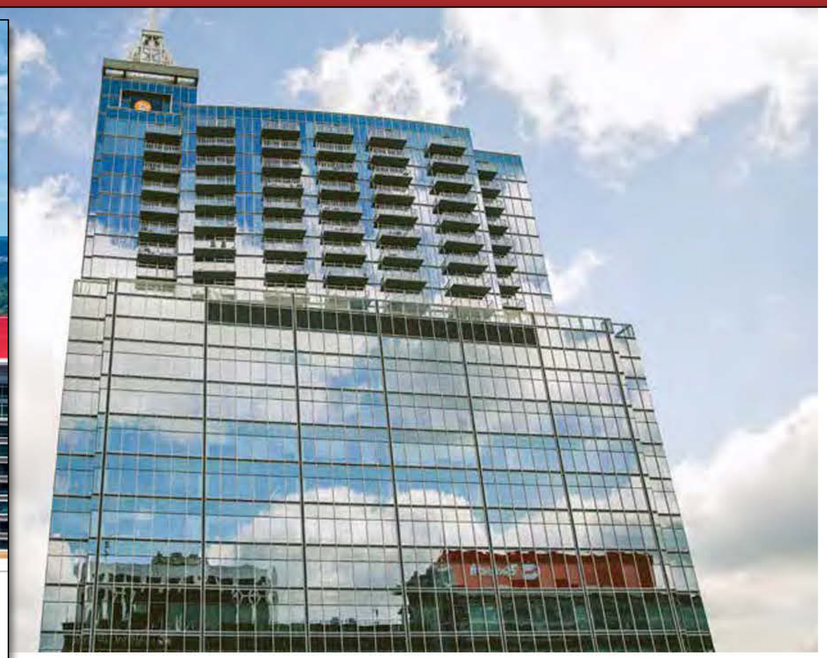
21 3 1

Like Comment



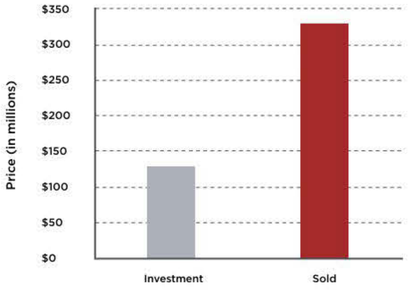
STATE OF DOWNTOWN
RALEIGH

2019 | DOWNTOWN RALEIGH ALLIANCE



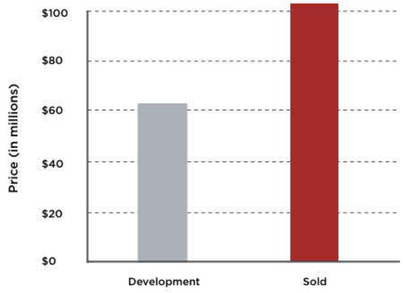
INVESTMENTS IN DOWNTOWN ARE YIELDING BIG PROFITS FOR DEVELOPERS ACROSS ASSET CLASSES, INCLUDING OFFICE AND RESIDENTIAL PROPERTIES.

WELLS FARGO CAPITOL CENTER: 13% return on investment



Source: Triangle Business Journal

SKYHOUSE: Sets record for multi-family property sale in the Triangle at $320,000 per unit



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BLE AND RISING

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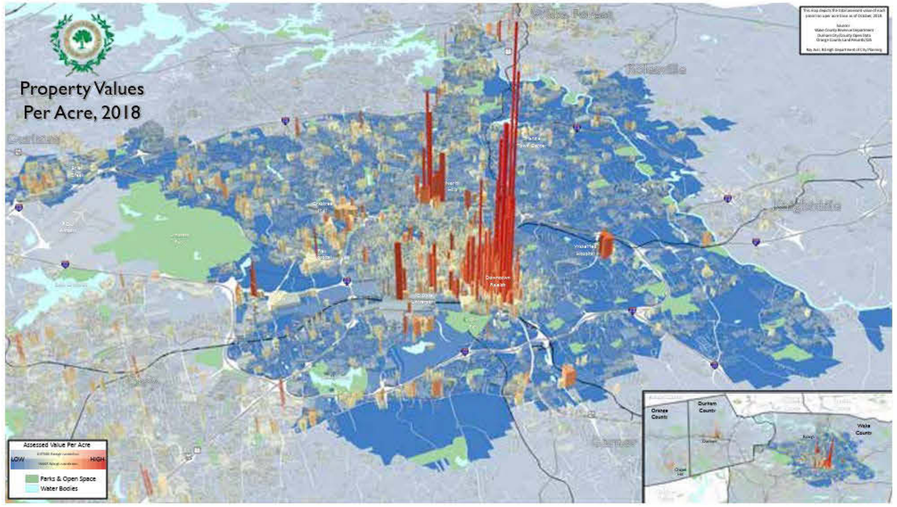

Source: City of Raleigh Planning Department, Ray Aull

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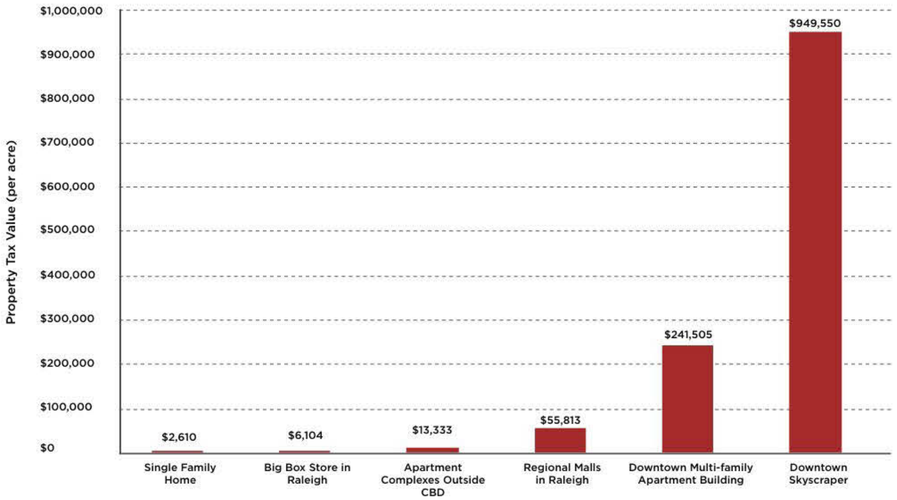
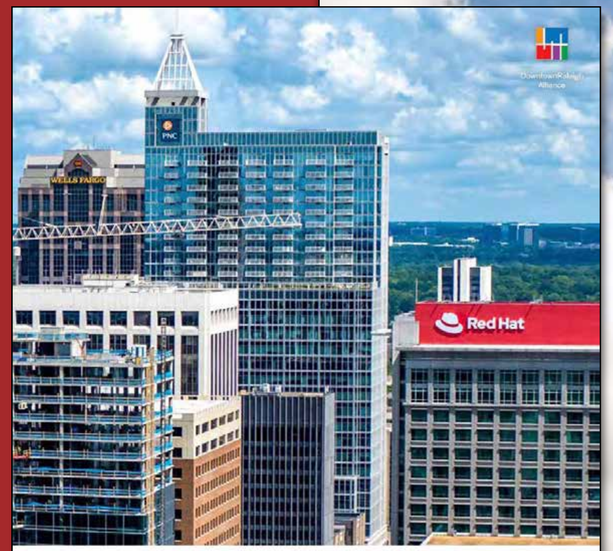
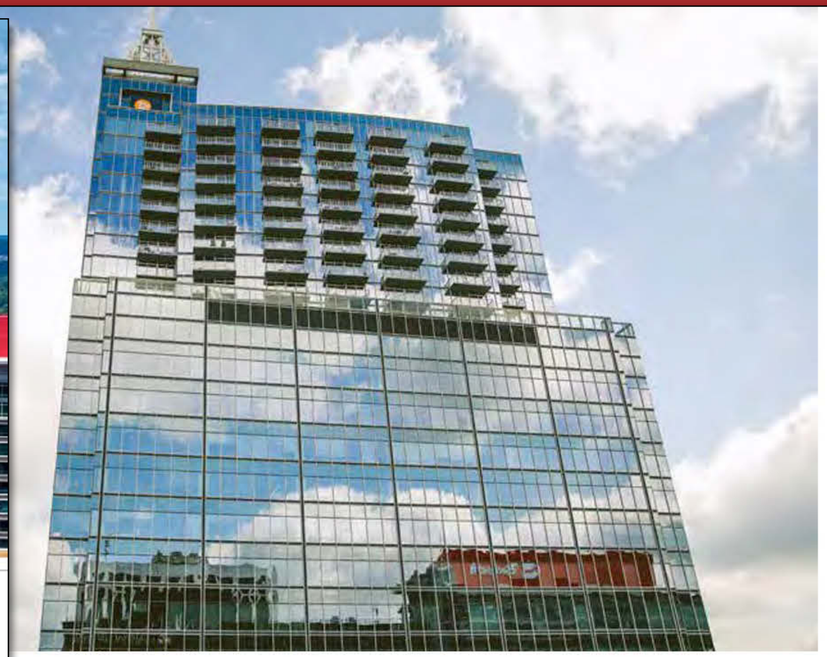
Denser development in downtown results in higher value per acre than low-rise commercial development. For example, a downtown office tower pays an average of **$949,550** in property taxes per acre, per year, while a big box retailer in Raleigh pays an average of $6,104 per acre annually. Downtown multi-family apartment buildings also yield efficient tax revenue per acre, as they average **$241,505** per acre in property taxes to the city and county governments.



Source: Wake County Tax Assessor





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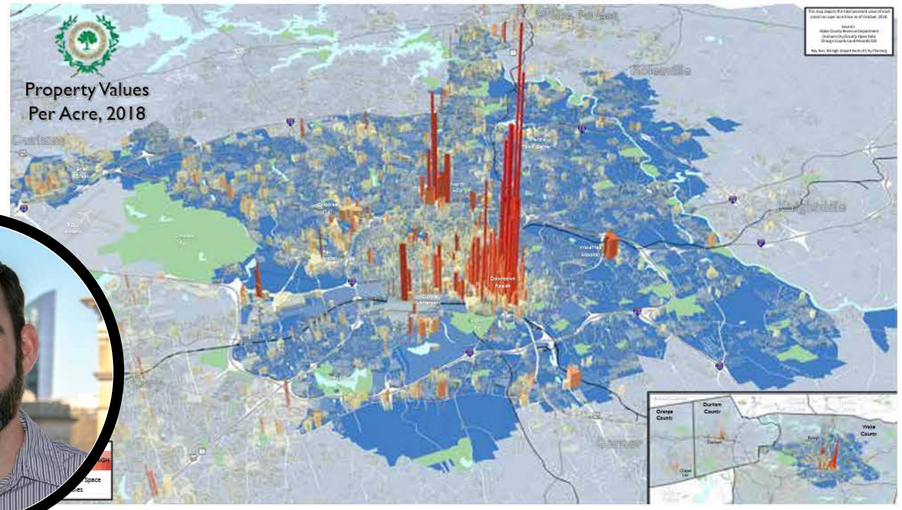

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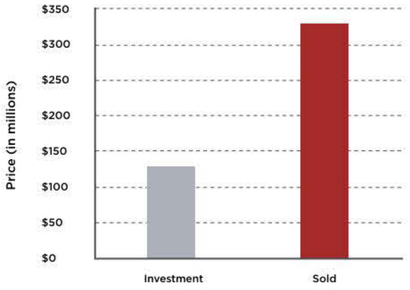

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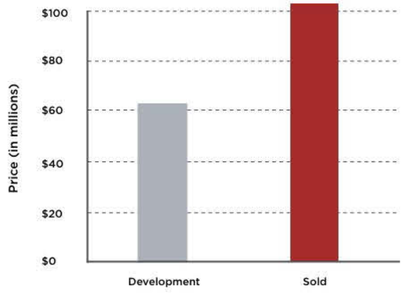

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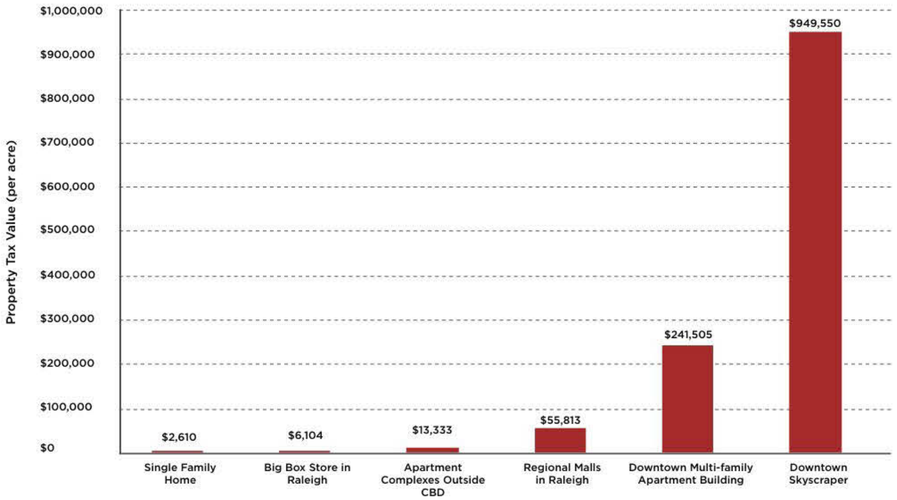

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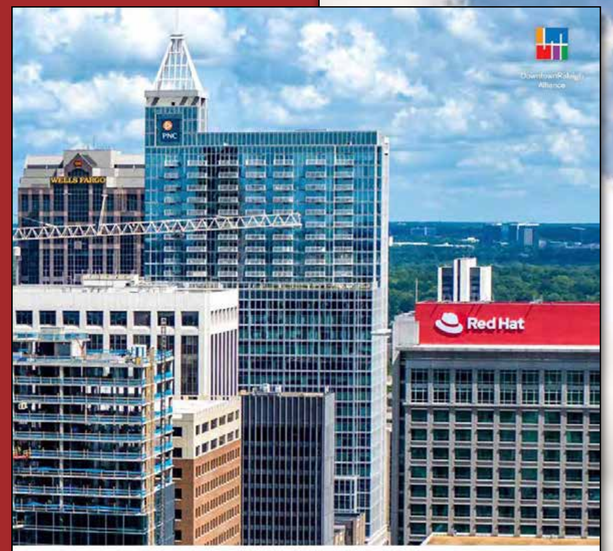

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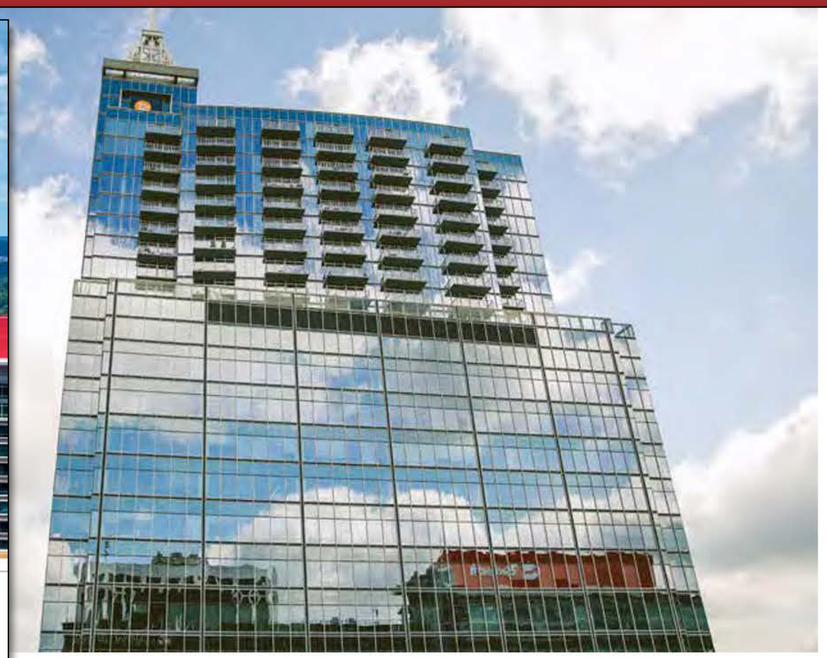

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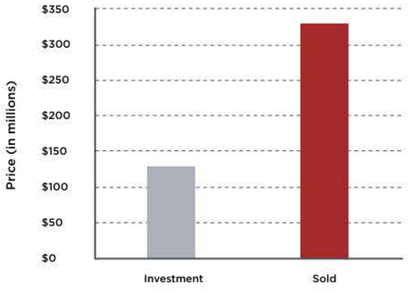

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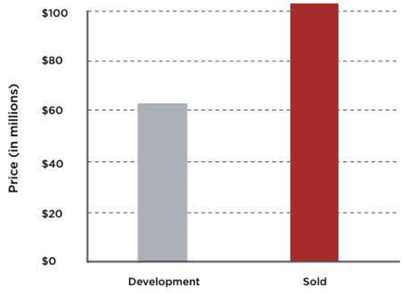

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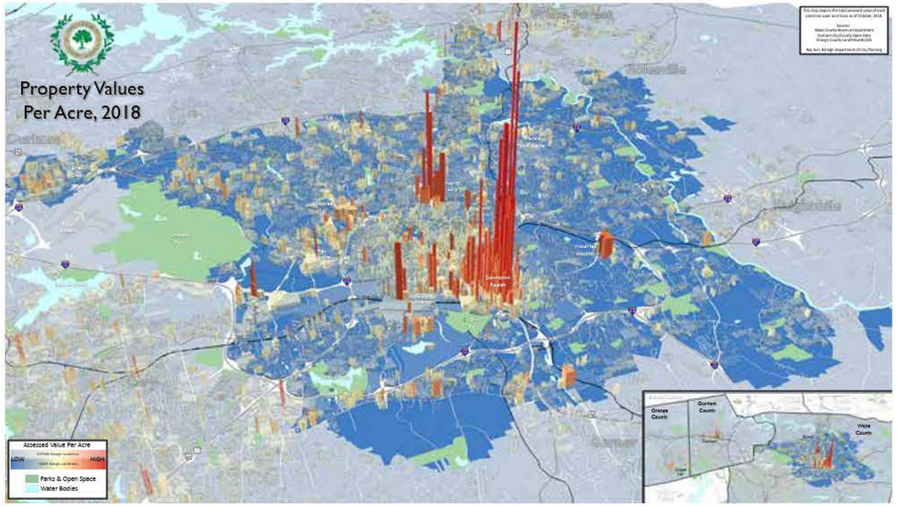

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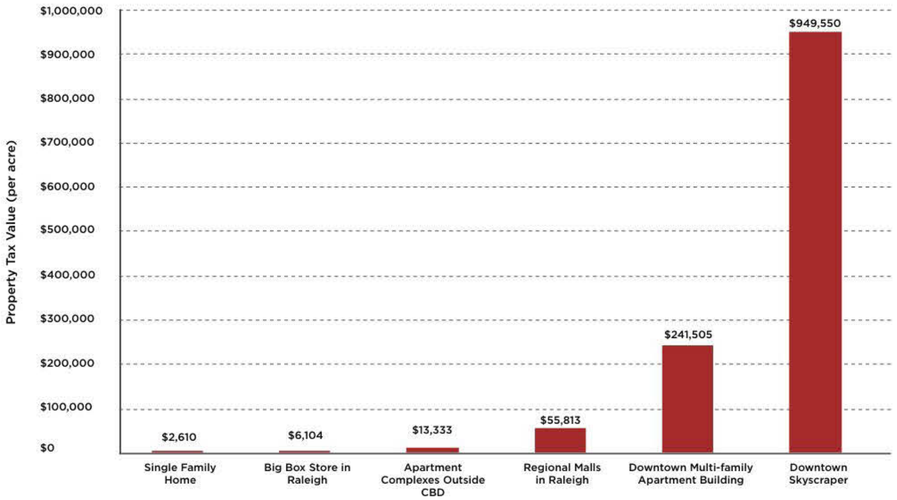

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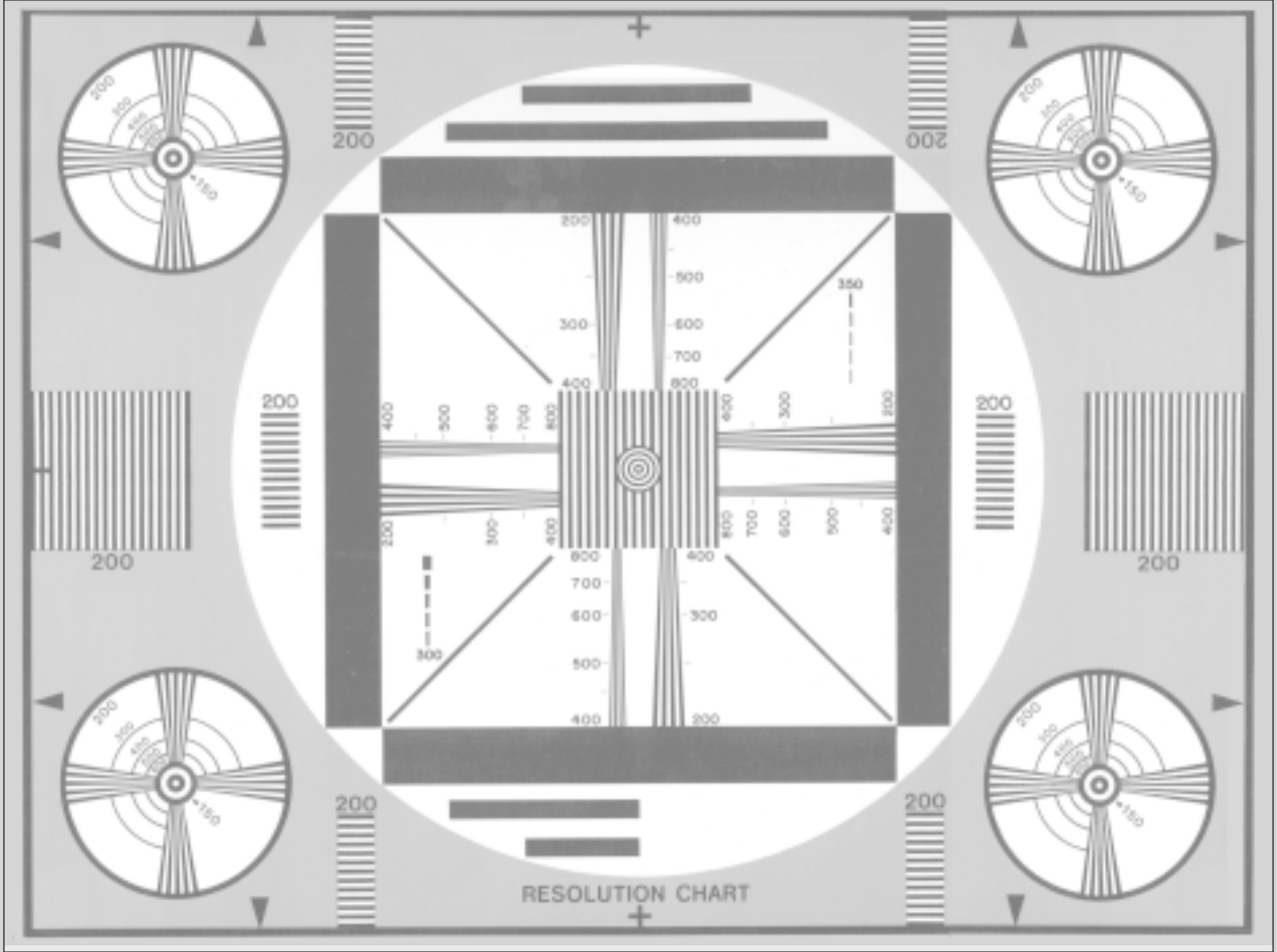
What Joe learned:

You're doing Great! What can I teach you? You're good!

Seriously:

I’m kidding.

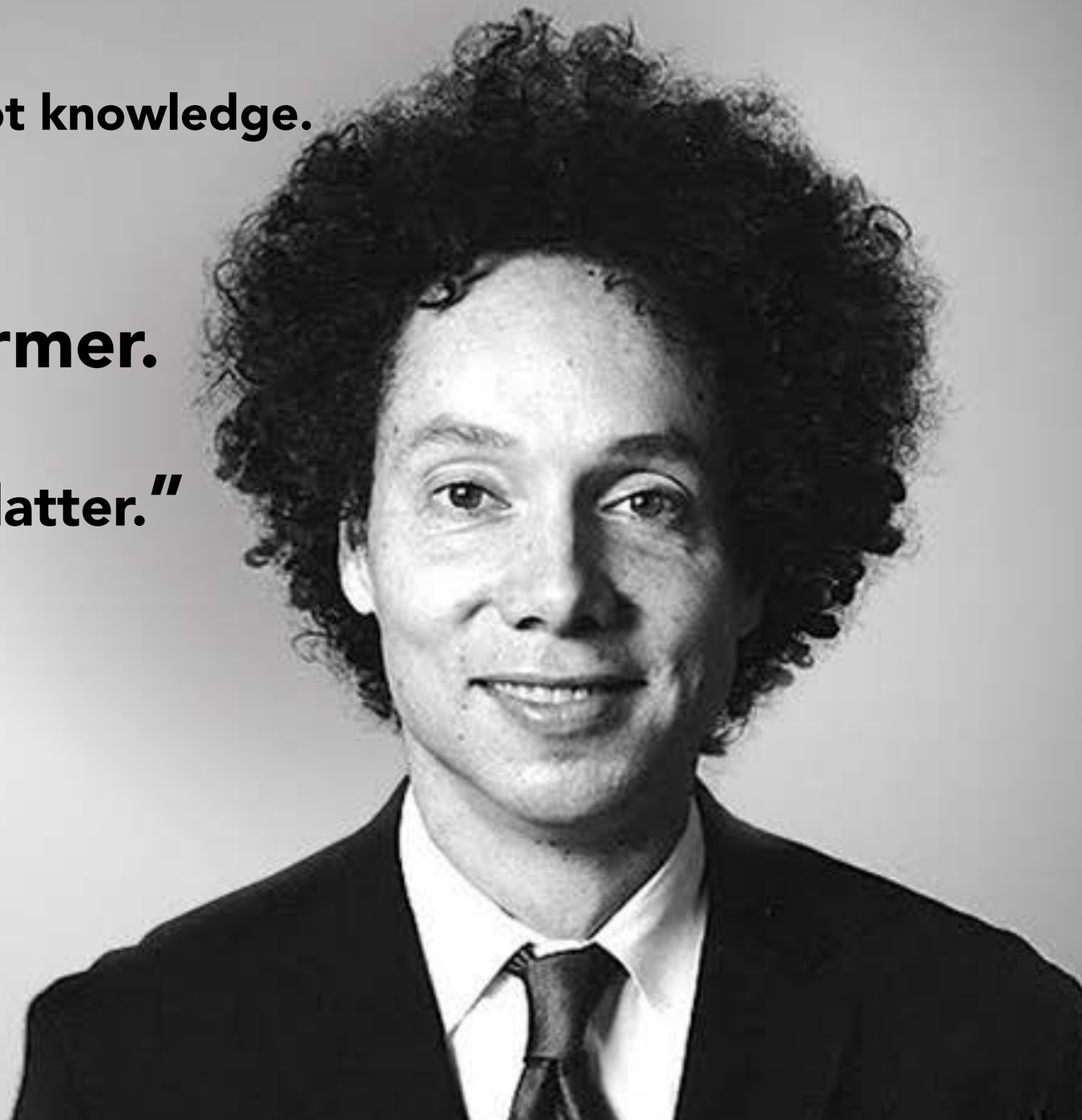

RESOLUTION CHART

Cognitive Test by Tal Ben-Shahar

"The key to good decision making is not knowledge.
It is understanding.

We are swimming in the former.

We are desperately lacking in the latter."



Malcolm Gladwell

Observation:

Growing a city.

Instagram

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Raleigh, North Carolina

raltoday 18w
Raleigh has ranked as the No. 1 city for economic growth according to economic think tank Milken Institute's 2025 report. Raleigh has ranked in the top 20 for the last 12 years and overtook Austin, Texas for the gold medal. 🥇

If you haven't noticed, Raleigh is booming with new biz, jobs, and residents, including growth in the tech sector and a strong workforce thanks to our excellent nearby colleges + universities, according to Milken.

Raleigh also ranked highly across all categories, making Oak City well-rounded for its economic success, but our high-tech growth falls behind some other cities.

#RALtoday // 📸: @raltoday

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January 15

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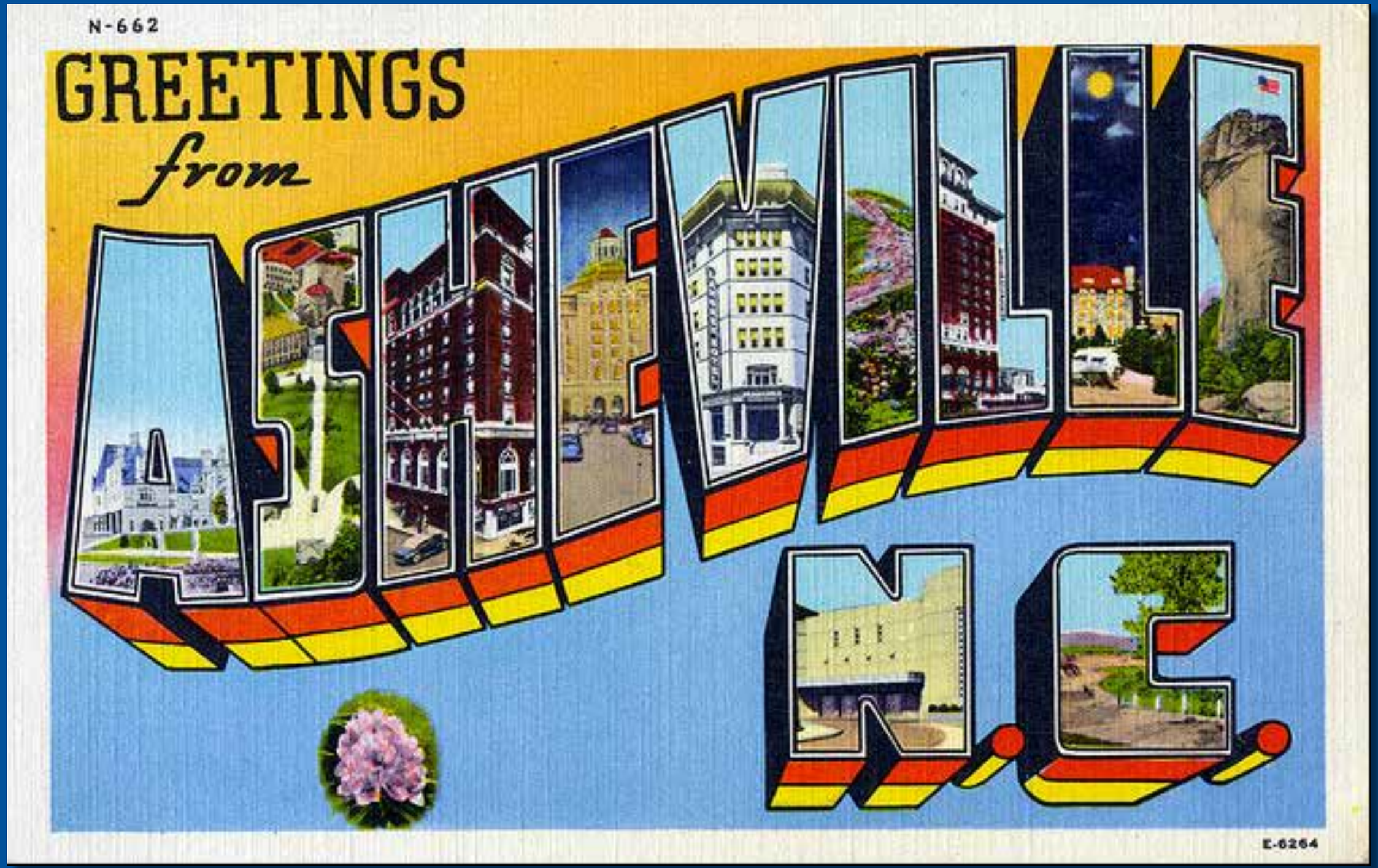
N-662
GREETINGS
from
ASHEVILLE
N.C.
E-6264

New York City
Kansas City
Asheville
Memphis
Charlotte
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Charlotte

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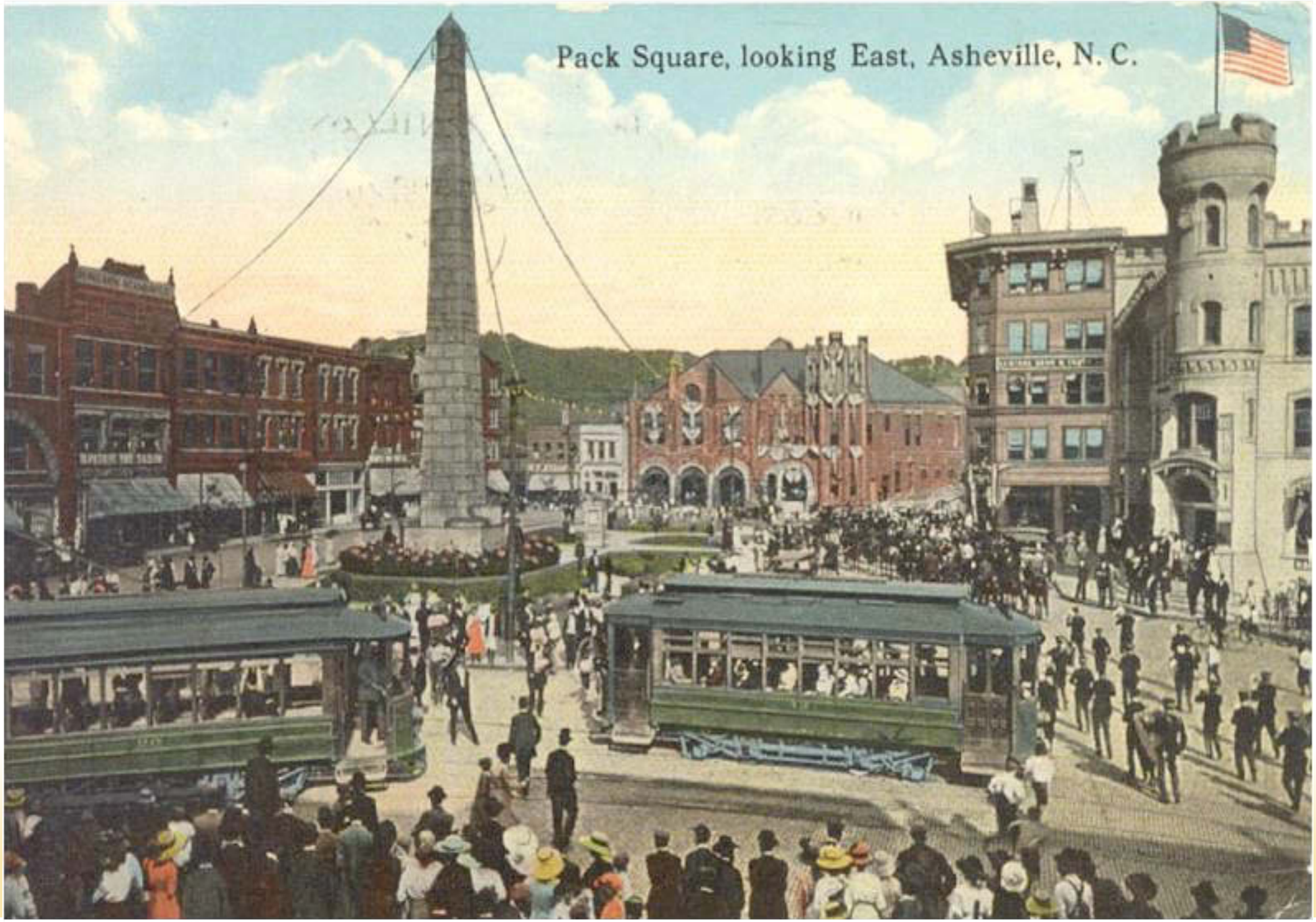
Things Change…

The 3 T's – Trains, Tourism, & Tuberculosis


Pack Square, looking East, Asheville, N. C.

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- 3 days after the elected officials were indicted, the Mayor committed suicide

Thomas Wolfe

Author (1900-1938)

You Can’t Go Home Again

Asheville has squandered fabulous sums.
They've flung away the earnings of a lifetime.
They've mortgaged those of a generation to come.
They have ruined a city,
and in doing so,
have ruined themselves, their children, and their children's children.

Thomas Wolfe
Author (1900-1938)
You Can't Go Home Again

Support QUALITY 76

THE ASHEVILLE CITIZEN

Dedicated to the Upbuilding of Western North Carolina

107th Year . No. 184 | 15c Daily | Asheville, N. C. 28802, Friday, July 2, 1976 | AP, AP Wirephoto | 32 Pages

WEATHER
Sunny and warm today. Map, data on Page 2.

Fifth Victim Of McDowell County Prison Unit Fire Dies

By BARBARA BLAKE
Citizen Staff Writer

Wednesday night's fire at the McDowell County prison unit claimed its fifth victim Thursday afternoon with the death of Gary Lowe of Hildebrand, who died of massive burns at about 1 p.m. in Memorial Mission Hospital.

Four other inmates who died in the fire Wednesday night were identified as David Rice, 19, and Clyde Brazil, 20, both of Asheville; Robert Denton, 18, of Hendersonville, and Lonnie Potter, 18, of Todd.

The fire, which sent 24 prisoners to Asheville hospitals for emergency treatment, apparently began with a protest by inmates over the confiscation of a radio by prison guards.

W. L. Kautzky, assistant director of prisons, said Thursday the incident started about 7:30 p.m. Wednesday when a guard tried to confiscate two radios because the inmates had been playing them without earphones the night before.

The guard took one radio, Kautzky said, and the other was smashed by the inmate. The guard threatened disciplinary action.

After dinner, Kautzky said, the 33 inmates in dormitory "B" met and began protesting. At about 8:15 p.m., he said, they started a fire on a picnic table inside the dormitory with paper, then stacked four mattresses on top.

Lt. Mack Wilson, shift officer on duty at the time, said the fire was first noticed when Sgt. Elmer Macogone went to the dormitory and saw the mattresses smouldering on the table.

Kautzky said Thursday he understood that three of the mattresses were removed from the fire, but one inmate pushed a mattress into the smouldering fire, then other inmates added their mattresses.

"Those mattresses have all the elements of a Molotov Cocktail," Kautzky said. "I don't think the inmates knew the seriousness of what they were doing."

The inmates at the McDowell unit are those with misdemeanors who had previously escaped or who were considered management problems.

The seriousness of the situation, Kautzky said, was partly because of a shortage of personnel (five staff members were on duty Wednesday night) and the volatility of the mattresses.

"We knew these types of mattresses could be a problem if heated sufficiently," he said, adding that requests for new mattresses have been made since 1973.

The mattresses are made of polyethylene, Kautzky said, and once their flame retardants wear out, they are highly flammable.

The second problem, that of understaffing, has also grown worse because of insufficient funding, Kautzky said.

"The requests have gone unheeded, for whatever reason, legitimate or not," he said. "I'm afraid we're paying the price of years of dereliction in our prison system."

Kautzky said the McDowell facility is not overcrowded. The prison can hold 75 inmates but more staff is needed to handle

—Turn To Page Three

Open Cut Answers Avoided

(Related Story On Page 17)

By JODY MEACHAM
Citizen Staff Writer

Asheville City Council declined Thursday to clarify its June 17 resolution opposing the Beaucatcher Mountain open cut at the request of a local civic group.

"I think it's clarified as we know it," said Mayor Eugene C. Ochsenreiter Jr. "If the Department of Transportation needs any more interpretations, they can call us."

The clarification was requested by Manly E. Wright, president of the Greater Asheville Council, because he said the DOT may delay highway construction as a result of Council's action.

"There apparently was a great deal of confusion around the resolution on Beaucatcher Mountain," Wright said. "We are asking you to clarify the confusion in the minds of the citizens of Asheville."

Councilman Otis Michael, who introduced the resolution, said it represents the opinion of a four-member majority of Council but is not an official Council action.

In Dr. Michael's words, as recorded in Council's official minutes, the resolution states: "that City Council adopt a policy that they are opposed to the open cut and would like to have twin tunnels."

Saying Thursday that "I've been misquoted by the media many times," Dr. Michael said his resolution is the same as previous ones passed by Council on the tunnel-open cut issue except that it stated a tunnel preference.

"I prefer twin tunnels and I object to the open cut," he said. "What I said in City Council was nothing more than what has been stated previously. I still prefer tunnels to an open cut."

He said last week's meeting with DOT administrator Billy Rose would not have been necessary if his resolution had

—Turn To Page Two

After 40 Years, The Bonds Are Burned

Prominent participants at the Thursday night Bond Burning Ceremony at the Civic Center were (L-R) Jerry Thomas, Under Secretary of State who was the speaker, and Julian A. Woodcock, chairman of the Buncombe County Sinking Fund Commission; R. Curtis Ratcliff, chairman of the Buncombe County Commission; Eugene C. Ochsenreiter, mayor of Asheville, and Cindi Drake, Miss Asheville. (Staff Photos by Gary Fields)

$56 Million Debt Is Officially Paid

By JODY MEACHAM
Citizen Staff Writer

"I now declare the refunding bonds are burned and the debt repaid."

So went the pronouncement of Julian A. Woodcock Jr., chairman of the Buncombe County Sinking Fund Commission, at Thursday night's bond burning at Thomas Wolfe Auditorium.

The burning of a $1,000 bond marked the repayment, after 40 years, of a $56 million debt accumulated in the 1920s and '30s by Buncombe County and the city of Asheville.

"Actually, the burning of the bond was almost as difficult as paying off the debt.

Possibly it was due to the poor, Depression-era paper but the bond held by Cindy Drake, Miss Asheville, went out as soon as Woodcock drew the lighter away.

A second ignition started the paper to smolder, an occasional flame here and there.

But the task was accomplished and Woodcock didn't wait for the paper to be consumed before he announced that the city and county had paid back what they owed.

Hardly any of the speakers, beginning with the Rev. Billy Graham who appeared on film, could resist the temptation to compare the financial situation of local government here to that of New York City.

Under Secretary of the Treasury Jerry Thomas announced at the ceremony that the federal government extended another half billion dollars in aid to New York earlier in the day.

Thomas, who was keynote speaker at the event, criticized federal deficit spending and the increasing role of government in the national economy.

"The biggest competitor we have in America today is government itself," he told the crowd.

Of Congress, he said: "We don't know what they're doing for us or to-us. Thank heaven we don't get all the government we pay for."

The national debt, he said, increases at the rate of $1 billion a week and the interest on that debt accrues at the rate of $1 billion every nine days.

"What we need is a

Congress Under Budget

WASHINGTON (AP) — Congress spent $332.6 billion on the federal budget in the fiscal year that just ended — $2.4 billion less than it had set as a target.

Leaders in the new congressional budget-making process hailed the record as a quiet revolution that could lead to a balanced federal budget by 1980.

They told reporters Thursday that the congressional budget-making policies must be given credit for bringing the nation out of recession.

Midnight Wednesday closed out fiscal 1976, the first year for the new budget procedures aimed at:

—Giving Congress more control over federal spending by requiring lawmakers to look at the budget as a key factor influencing the economy, rather than just a series of unrelated appropriation bills.

—Providing Congress a

More Pretty Weather Due

The beautiful weather which mostly sunny and warm, with expected to be only slightly less

Court Strikes Consent Rule In Abortions

By W. DALE NELSON

WASHINGTON (AP) — The Supreme Court ruled Thursday that neither husband nor parent can be given veto power over a woman's decision to have an abortion.

The court struck down provisions of a Missouri law which require the consent of the husband of a married woman and the consent of at least one parent of a single woman under 18. The vote was 6 to 3 on the issue of requiring the husband's consent, with Chief Justice Warren E. Burger and Justices Byron R. White and William H. Rehnquist dissenting.

Justice John Paul Stevens joined Burger, White and Rehnquist in maintaining that the parental consent requirement should have been upheld.

The decision appeared to leave the way open for states to impose some provisions for parental consent, at least at some ages, as long as they did not amount to "parental veto."

"Our holding . . . does not suggest that every minor, regardless of age or maturity, may give effective consent for termination of her pregnancy," Justice Harry A. Blackmun said for the court.

It was the court's first major abortion decision since the justices ruled in 1973 that states may not regulate abortion in the first three months of pregnancy.

That decision, which was also written by Blackmun, held that the state could not prohibit abortions until after the stage at which the fetus would be able to live on its own.

Ilse Darling, national director of the Religious Coalition for Abortion Rights, predicted that Thursday's decision would "de-escalate the abortion controversy."

The National Abortion Rights Action League said 12 states require the consent of husbands and 14 states impose parental consent requirements of some kind.

In a separate decision the court suggested that a parental consent law adopted by Massachusetts might be constitutional.

That law calls for consent of both parents but permits a judge to override their decision.

A three-judge federal court ruled the law unconstitutional.

Massachusetts officials appealed, arguing that the law would permit a pregnant teenager to get a court order for an abortion even without consulting her parents.

Today's Chuckle

Summer is the time of year when you should study the travel folders to find a place you can't afford to go.

Coming Sunday

American Faces For The Fourth

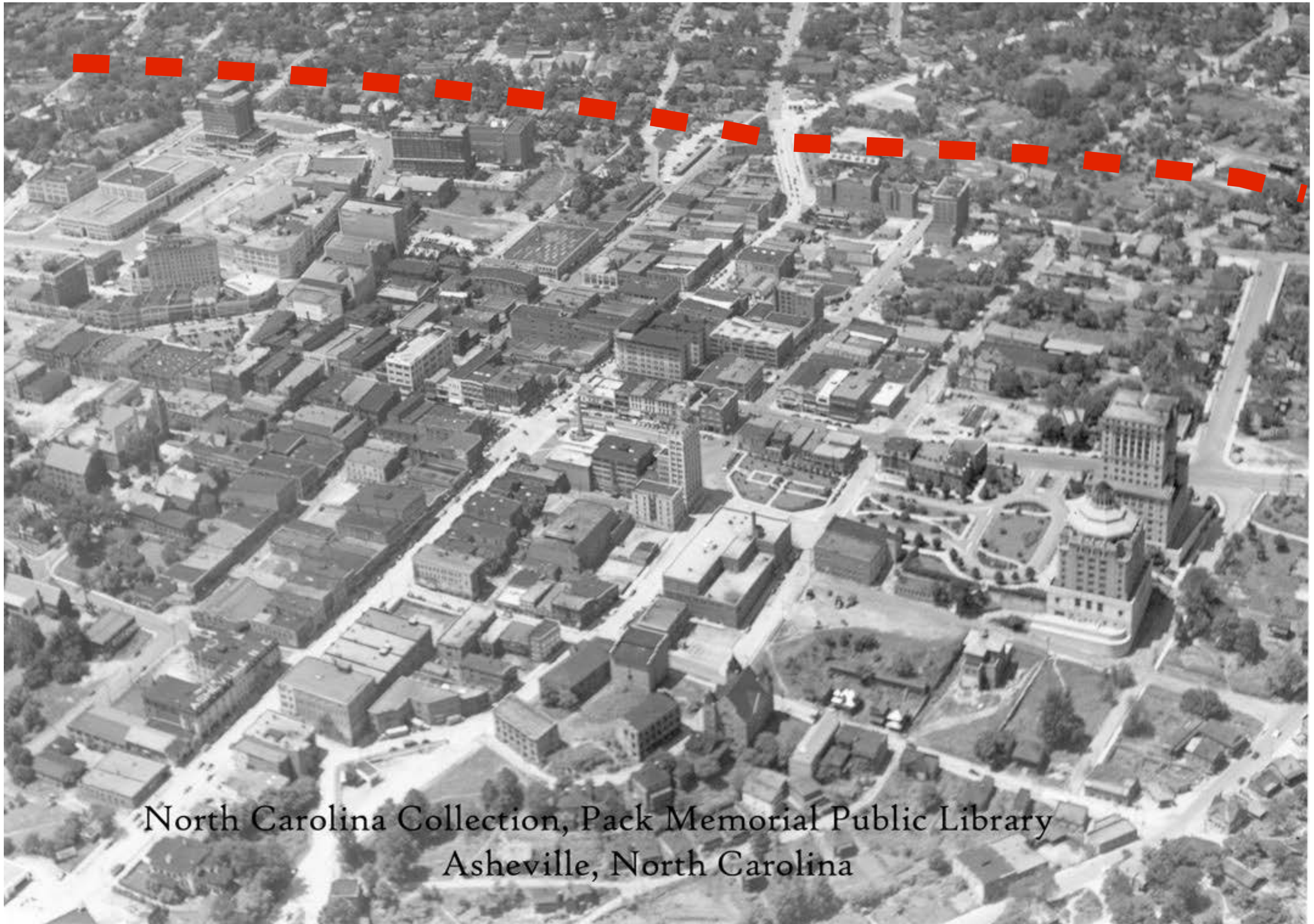
The Community Life section celebrates the Fourth of July with a brotherhood message and a page full of American faces in the Sunday Citizen-Times.

Other Highlights

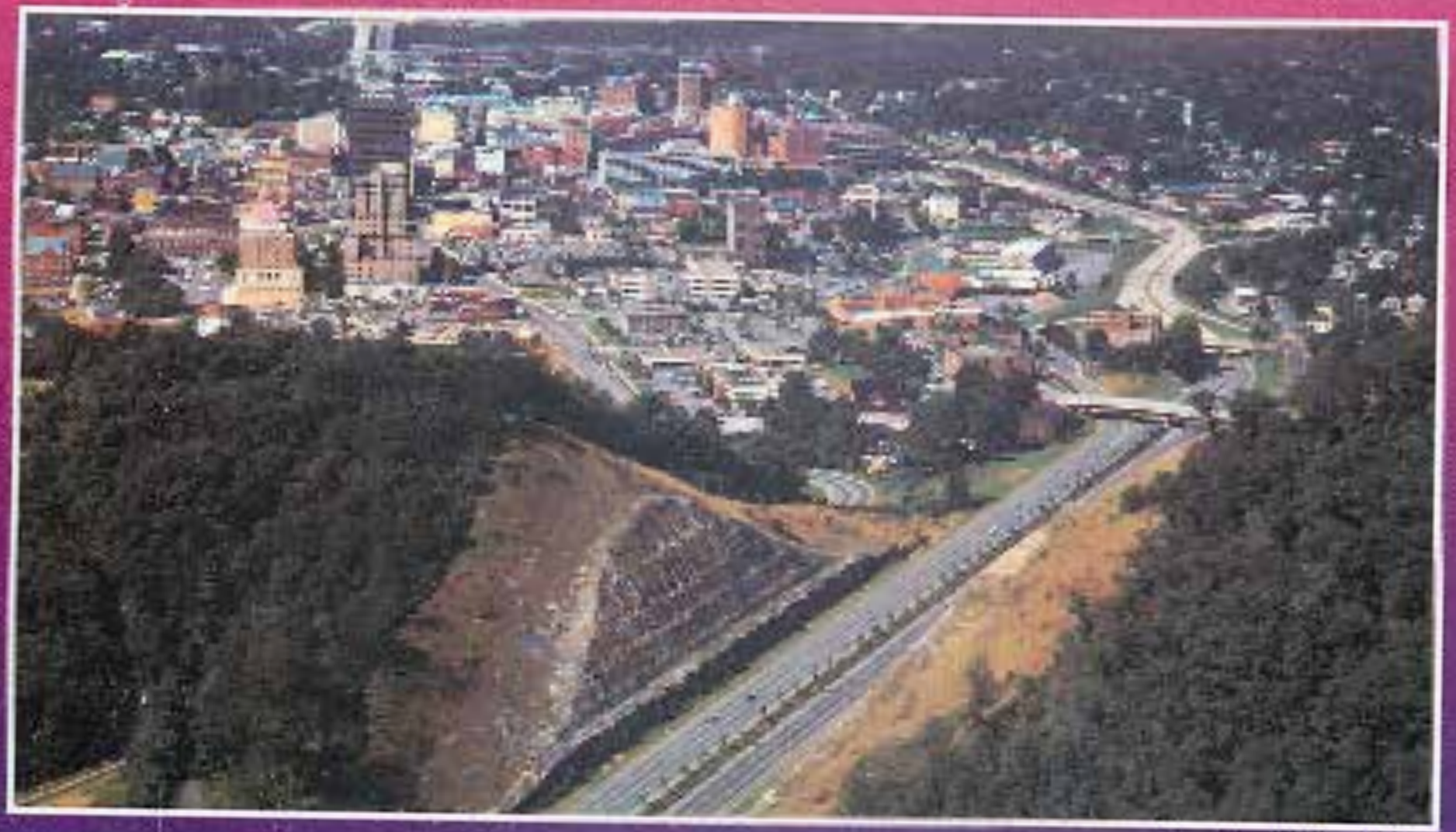
How do the original Americans — the American Indians — feel about Independence Day and the Bicentennial? John Crowe, chief of the Eastern Band of Cherokee Indians, answers these questions in an exclusive interview with Bob Terrell, the first formal interview Crowe has granted a reporter since the 1950s.

Plus ... Walter Scott's Personality Parade, color comics, jumbo crossword puzzle, Letter From the Farm and dozens of other regular features.

North Carolina Collection, Pack Memorial Public Library
Asheville, North Carolina



North Carolina Collection, Pack Memorial Public Library
Asheville, North Carolina

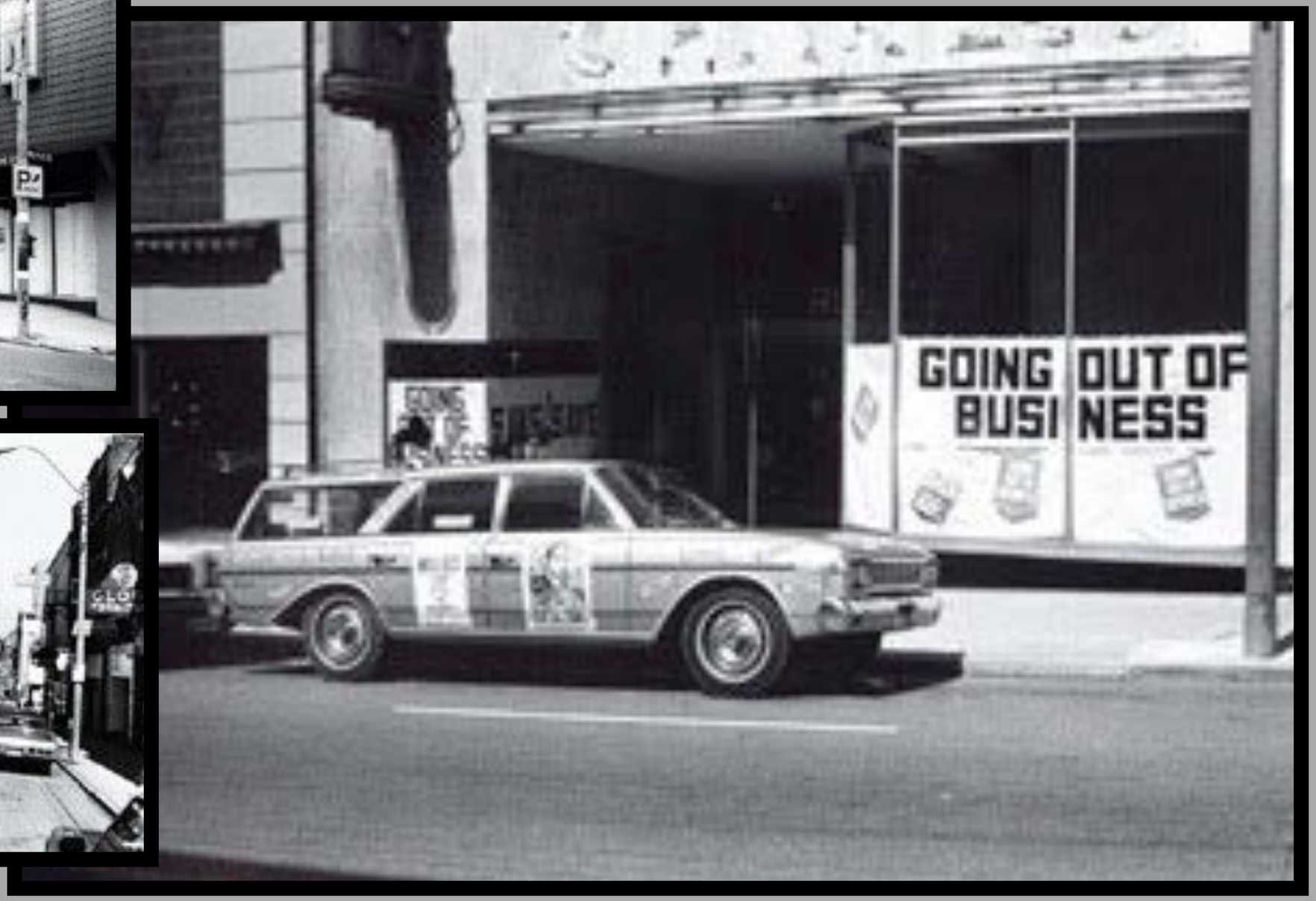


Land of the Sky

Asheville, N.C.

The
73
acre
Asheville
Mall

In the 70’s and 80’s our downtown died



URBAN3

URBAN3

Asheville's de facto motto was:

"That will never work here - don't even try."

URBAN3

Public Interest Projects

Julian Price

1941 - 11/19/2001

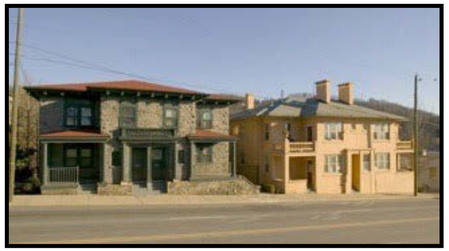
Salsa's & Zambras

City Seeds

URBAN3

51 Biltmore

Downtown benches



The Mountain Xpress

the Alternative Reading Room

the Dogwood Fund

YWCA

The Public Service Building

The Laughing Seed

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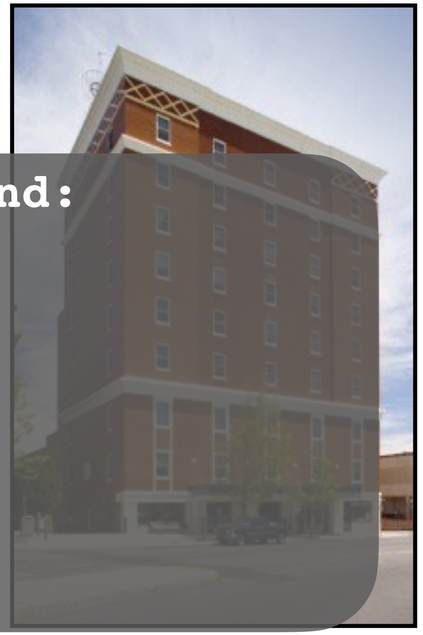
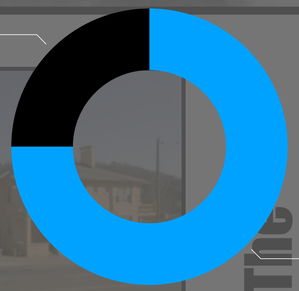


$15M Revolving Fund:

1941 - 11/19/2001



Capital

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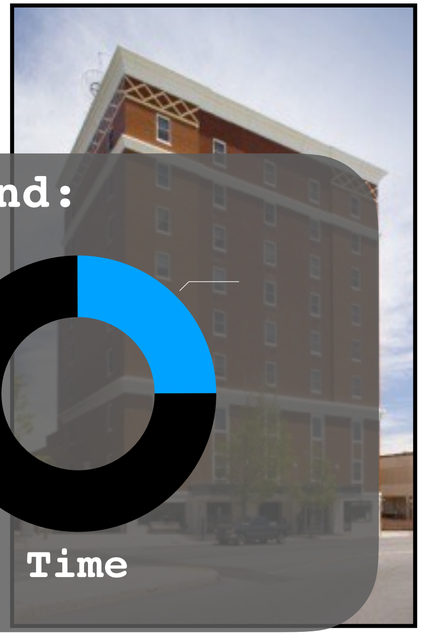

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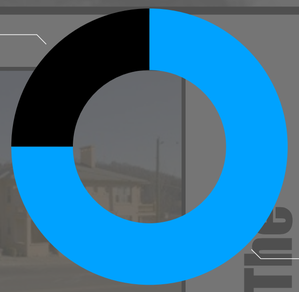
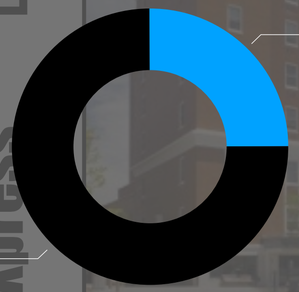




Business start-up

Buildings

The Mountain Xpress

the Alternative Reading Room

the Dogwood Fund

YWCA

The Public Service Building

The Laughing Seed

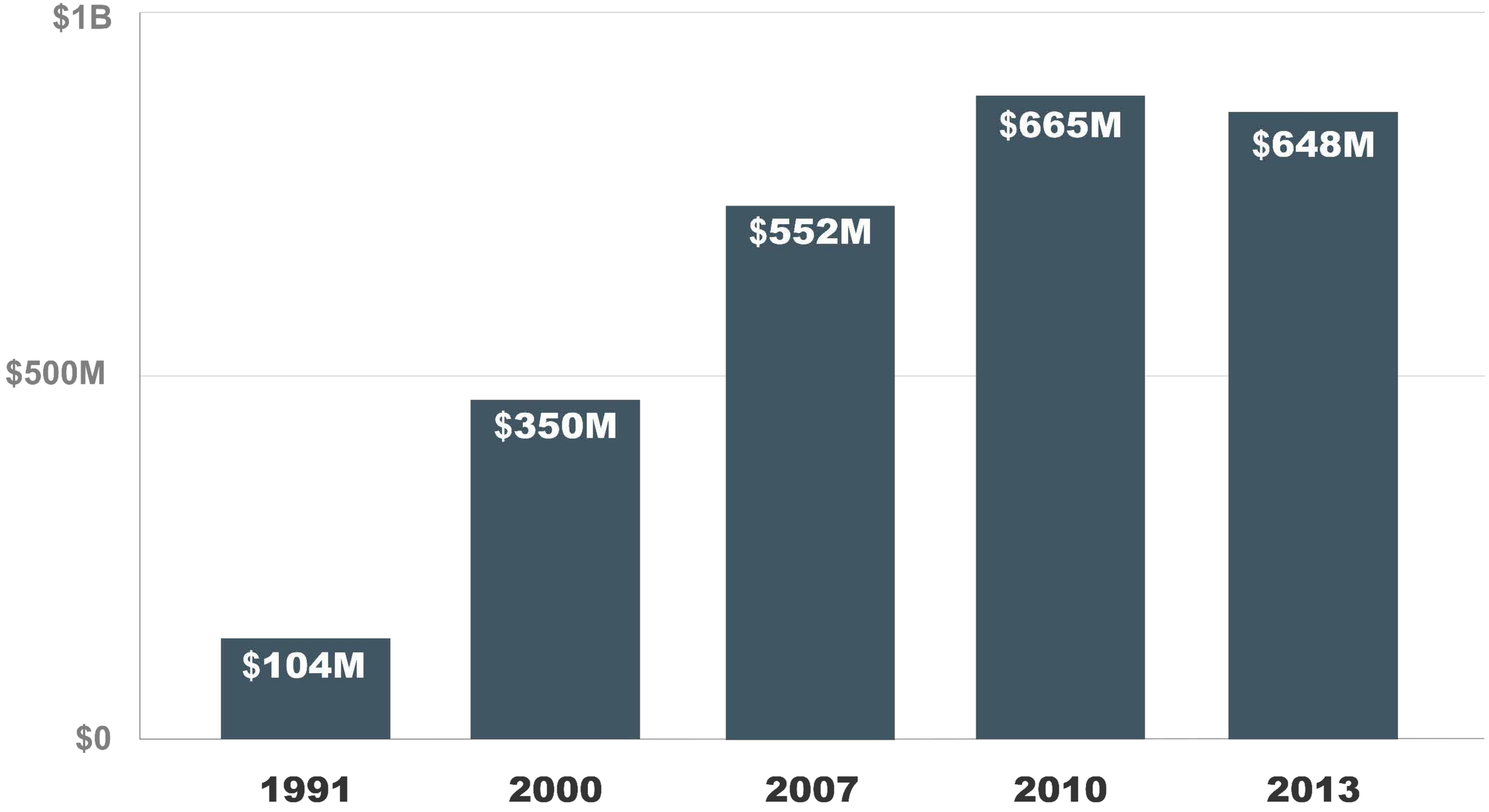
JACK SCHULMAN
53
BUYERS MARKET

TOYOTA

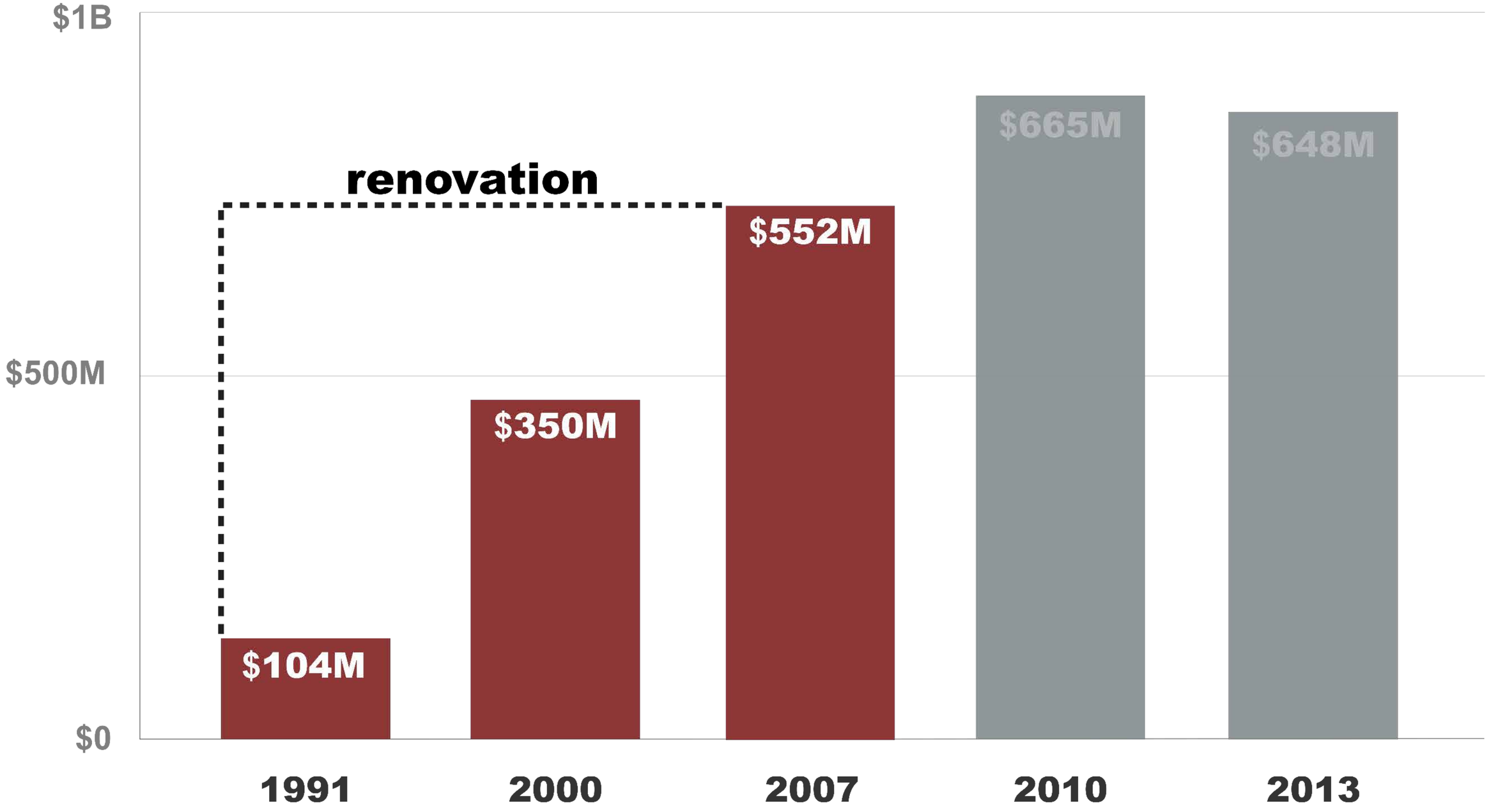
In God we trust; everyone else, bring data.

Mayor Michael Bloomberg

Asheville CBD Taxable Value



Asheville CBD Taxable Value



WELCOME TO ASHEVILLE

THE BURDENS OF POOR DECISIONS ARE BECOMING UNBEARABLE!

■ Parking Garages	4.5 Million & Climbing
■ Pack Square Projects	10.0 Million & Climbing
■ Wall Street Project	1.8 Million & Standing Empty
■ New Garage for Garbage Trucks	5 Million Plus
■ City Hall Beautification Project	~~4.8 Million~~
	26.1 Million & Climbing

In 1990 Asheville City taxes were raised by

2 Million Dollars

to help pay for these projects for
Downtown Dignitaries.

These are just a few of the failed policy decisions supported by the **Old** Council. The taxpayers can no longer afford the policies of the 80's.

Here are your choices on November 5TH

You May Vote For Six

- Gene Ellison - 2 year Incumbent
- Chris Peterson - Fresh New Ideas
- Charles Worley - Fresh New Ideas
- Bill Moore - 2 year Incumbent
- Carr Swicegood - Fresh New Ideas
- Barbara Field - Fresh New Ideas

Norma Price - **14 years** Incumbent

SHOW YOUR SUPPORT FOR A NEW CITY COUNCIL.
DISPLAY THIS POSTER IN YOUR CAR, YOUR WINDOW, OR YOUR YARD.

PAID FOR BY: CITIZENS FOR A NEW CITY GOVERNMENT, DOROTHY F. WORLEY, TREASURER

BLUEPRINT OF CITY HALL

THE INCUMBENTS: WHY SHOULD WE VOTE AGAINST THEM?

The decade of the 80's was controlled by the incumbents Bratton, Frank, Price, and Michalove.

During their tenure, we have witnessed the following:

1. Personal income has decreased.
2. Property taxes are at an all time high. In 1990 these four council members voted for a 16% increase in personal property taxes.
3. In 1981 water was at the top of their list of priorities. In 1991 water remains at the top of their list.
4. Increased crime rate. Inadequate police protection due to massive annexation during the past 10 years.
5. Downtown development for bureaucrats instead of water, sewer, and streets for our citizens.
6. Fewer jobs for our residents. We have lost good sound industries such as Burlington, Sayles, Kellwood, Girmes and Stencil, not to mention 3000 jobs at Enka.
7. Enormous waste of city tax dollar and manpower within the fire department (i.e.: fire trucks being routed to fender benders, etc.).
8. Downtown parking fiasco. Millions of dollars wasted on unused parking decks.
9. Turmoil in the City School System. The only voice city residents have is through our vote for Asheville City Council.
10. Community favoritism. Certain communities have been ignored far too long while others have been given the royal treatment. This cannot be tolerated. All city areas are entitled to all city services.

VOTE OUT THE POLICY MAKERS OF THE 80'S.

THEY'VE BEEN IN CHARGE TOO LONG!

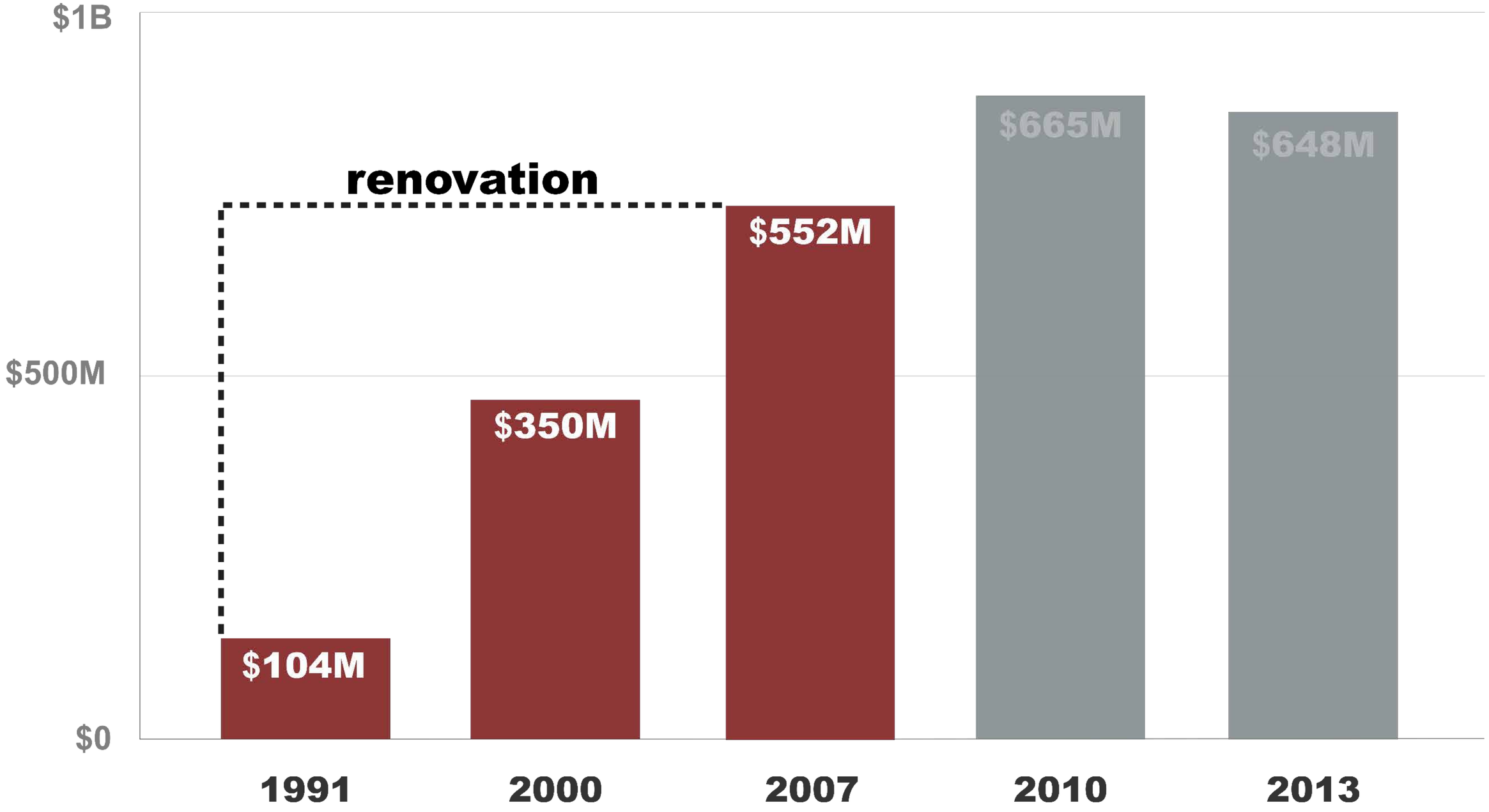
BRATTON OUT	FRANK OUT	PRICE OUT	MICHALOVE OUT

PAID FOR BY THE CITIZENS TO ELECT A NEW CITY GOVERNMENT

Asheville's de facto motto was:

"That will never work here - don't even try."

Asheville CBD Taxable Value

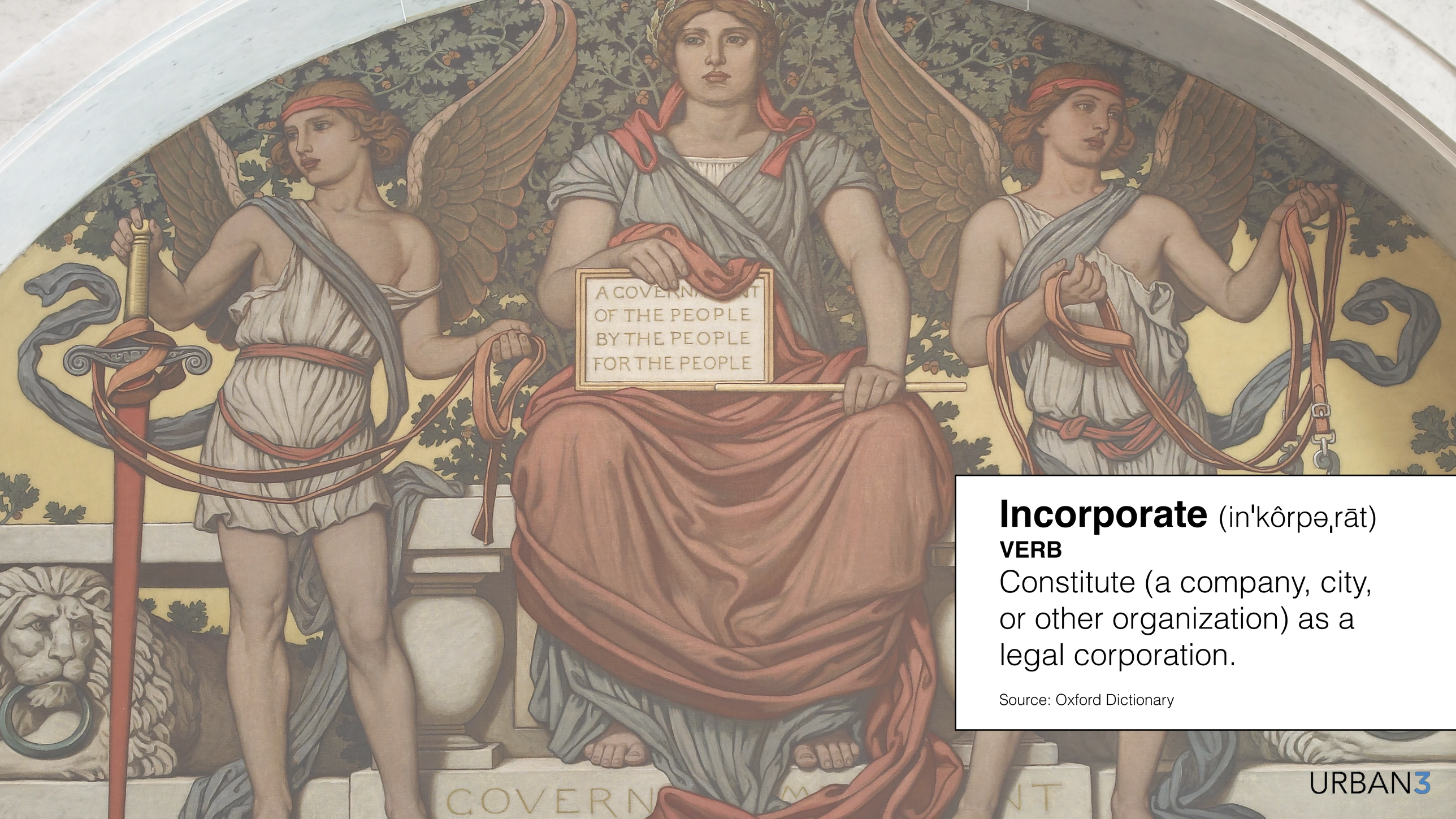


DON'T TRUST THIS GROUP OF *LYING POLITICIANS!*

THE GREAT RIVER GRAB HAS BEGUN!
DON'T BE FOOLED BY THESE *CHARLETANS!*

THIS CORRUPT GROUP NEEDS TO RESIGN ALONG WITH THEIR AARRC RIVER COMMITTEE

HELP US FIGHT!
AshevilleRiverGate.com



Incorporate (inˈkôrpəˌrāt)

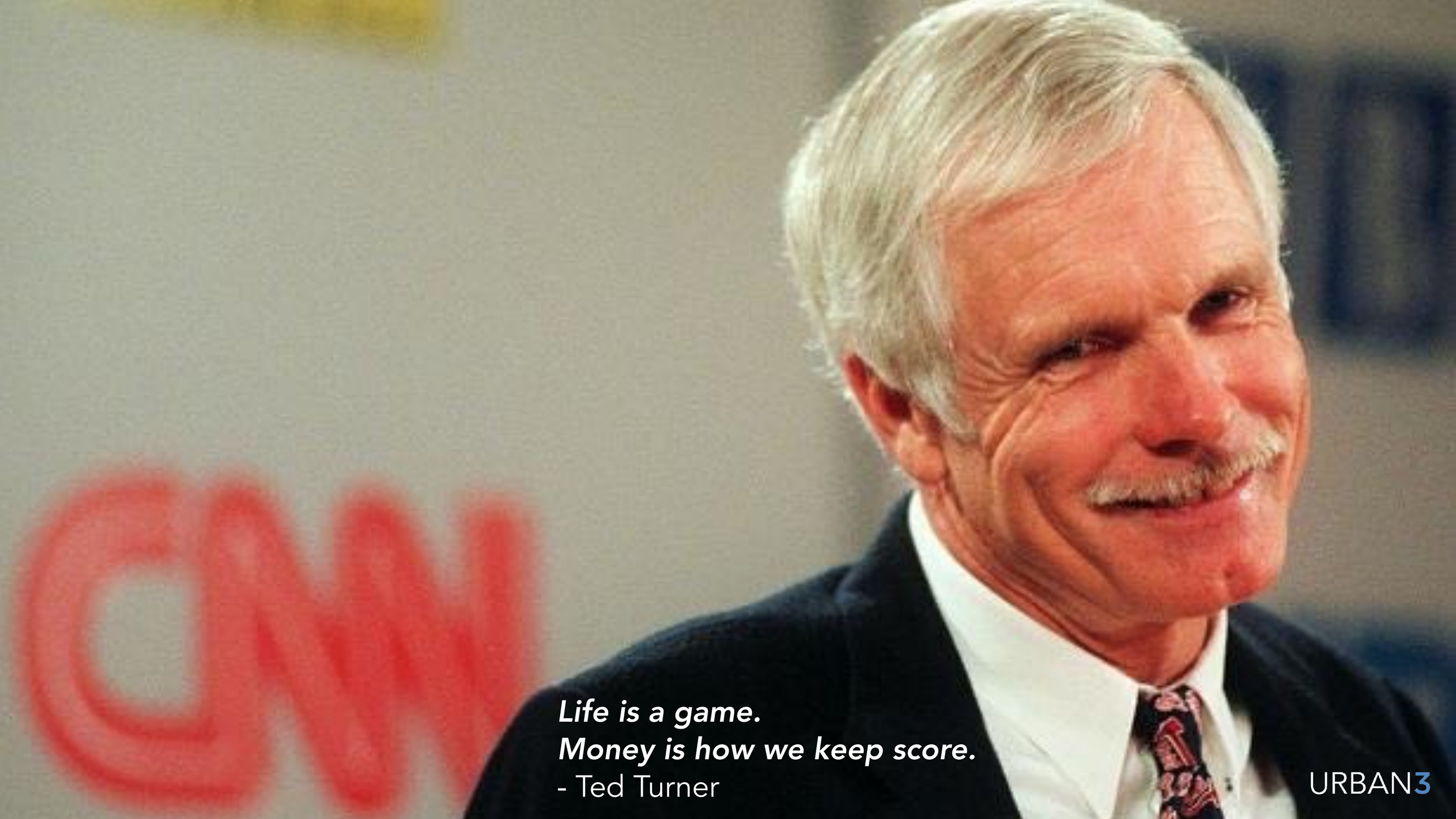
VERB

Constitute (a company, city, or other organization) as a legal corporation.

Source: Oxford Dictionary

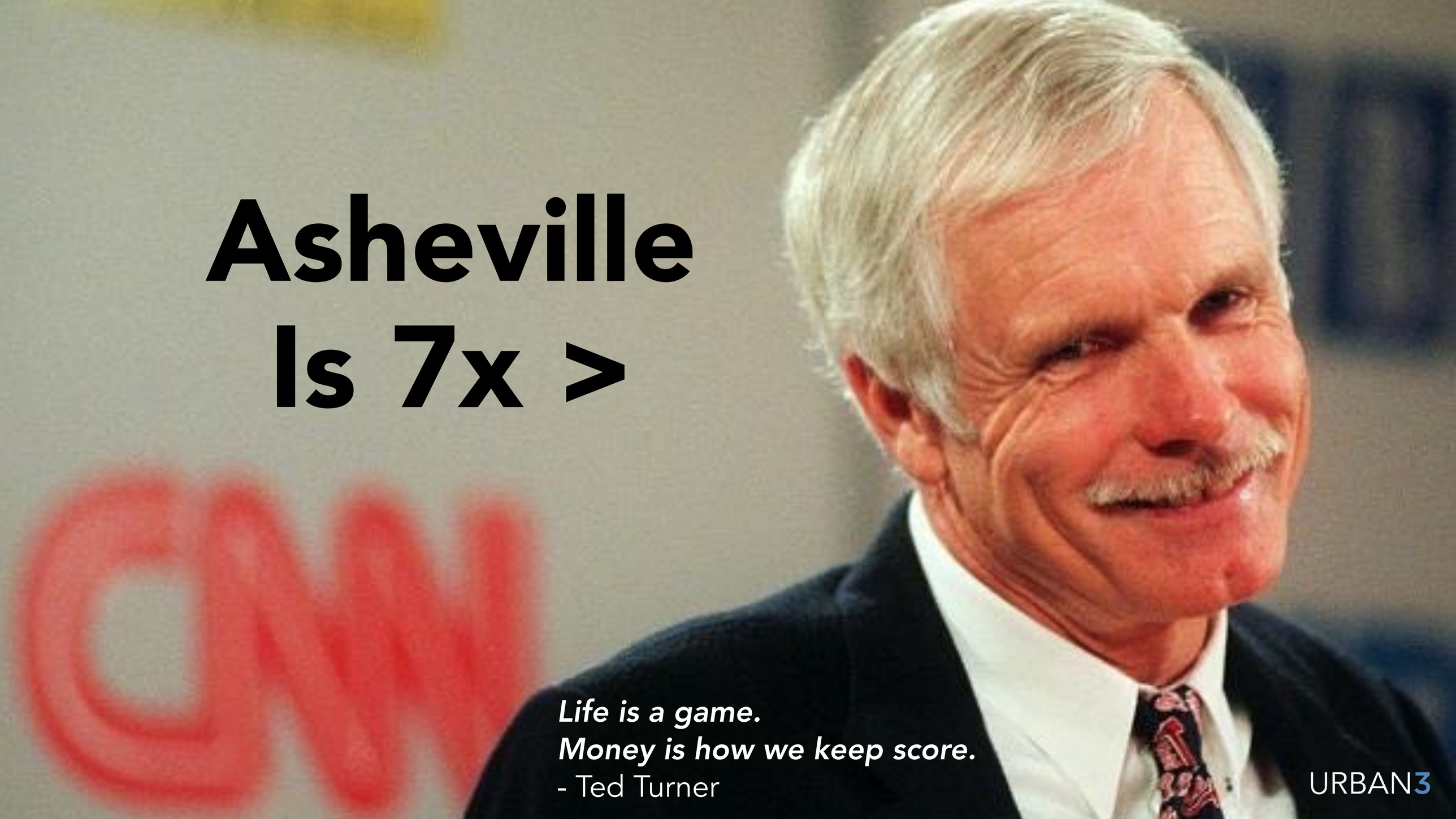
URBAN3

Source: U.S. Code Title 28: Part VI, Chapter 176, Subchapter A: §302(15)A



Life is a game.
Money is how we keep score.
- Ted Turner

URBAN3


Asheville
Is 7x >
CNN
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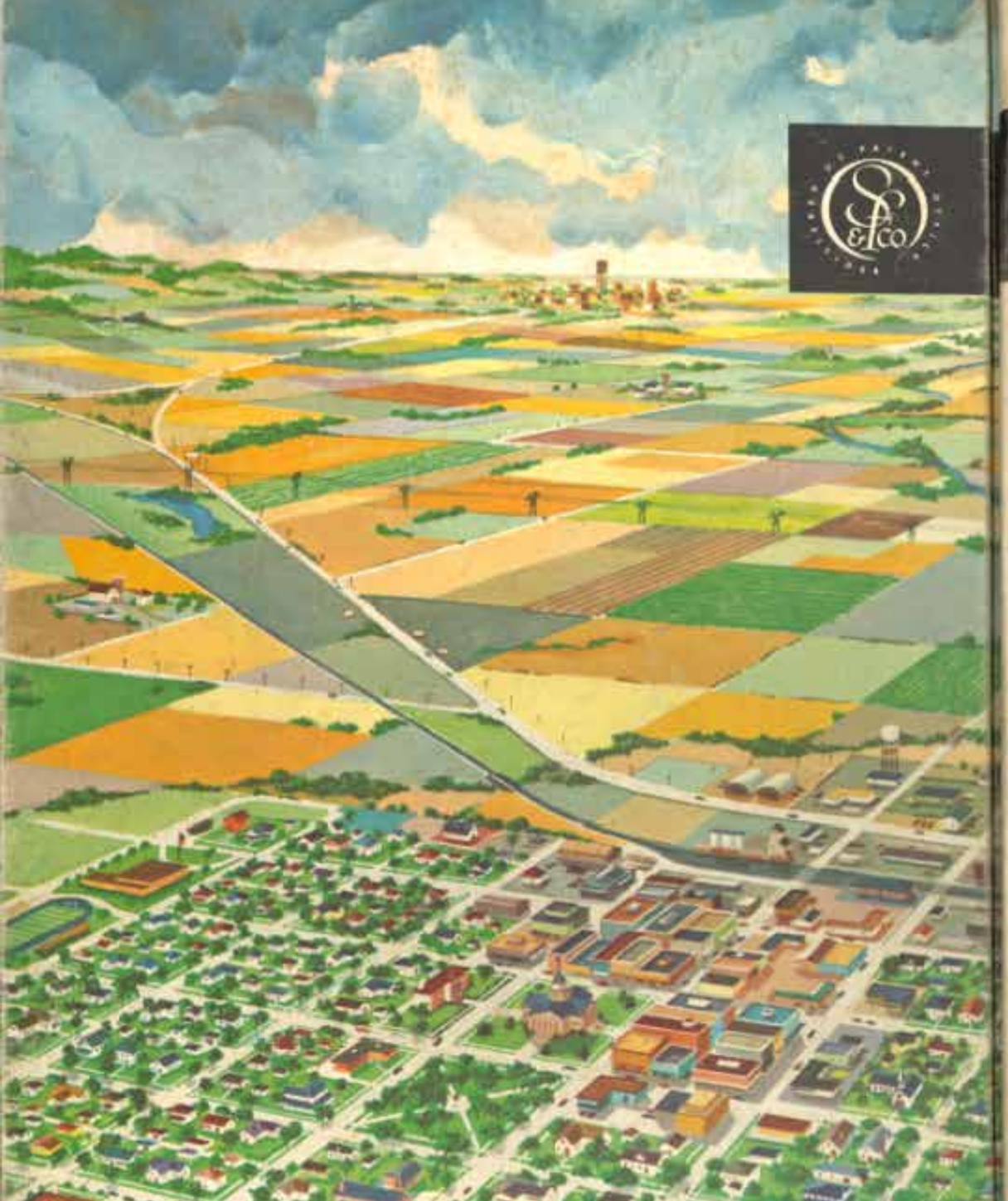
URBAN3

Question:

What is civic knowledge?

URBAN3



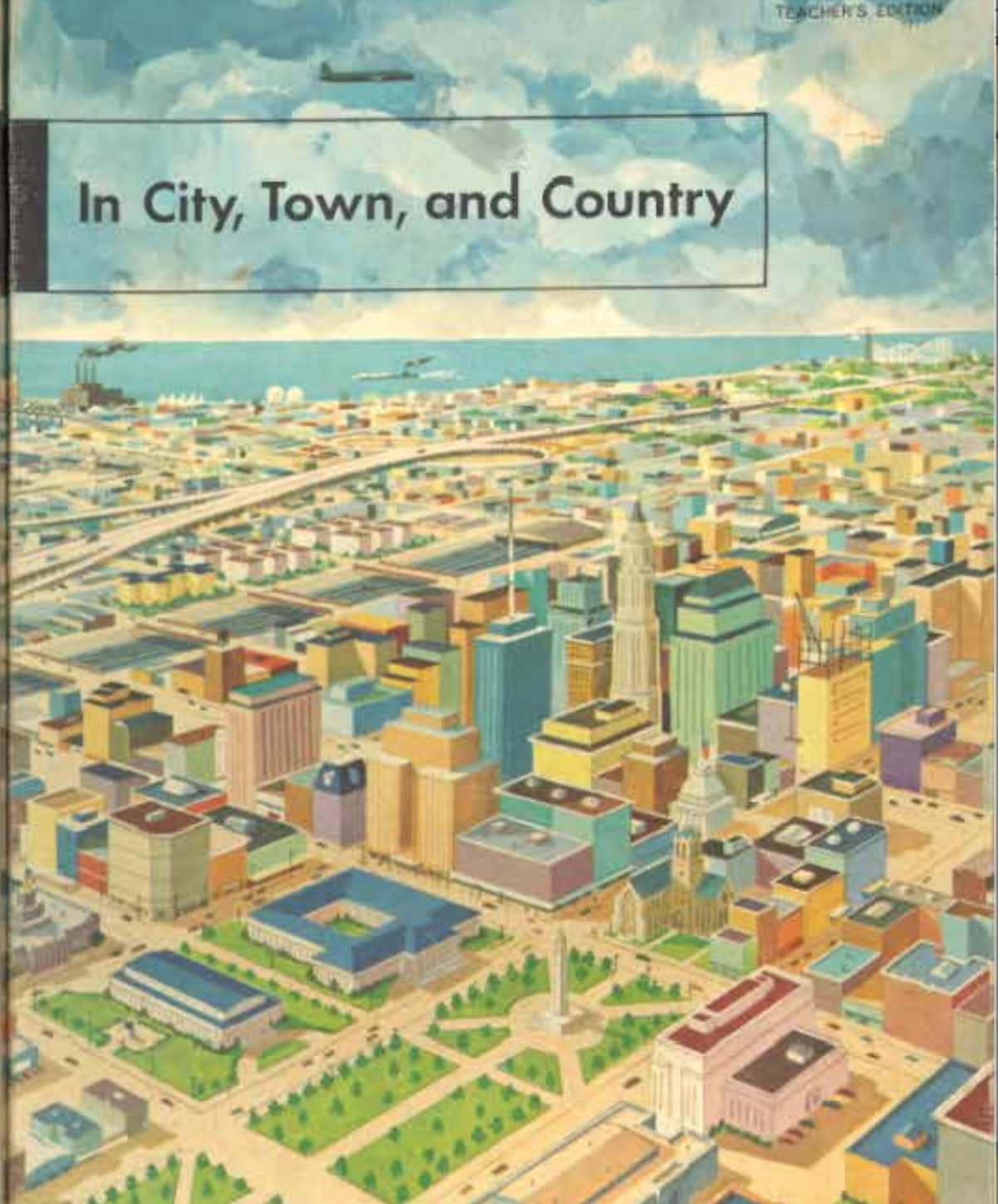
T

IN CITY, TOWN, AND COUNTRY

THE BASIC SOCIAL STUDIES PROGRAM

TEACHER'S EDITION

In City, Town, and Country



THE BASIC SOCIAL STUDIES PROGRAM

CURRICULUM FOUNDATION SERIES
REG. U.S. PAT. OFF.

At Home (Primer)
The family community

At School
The school community

In the Neighborhood
The neighborhood community

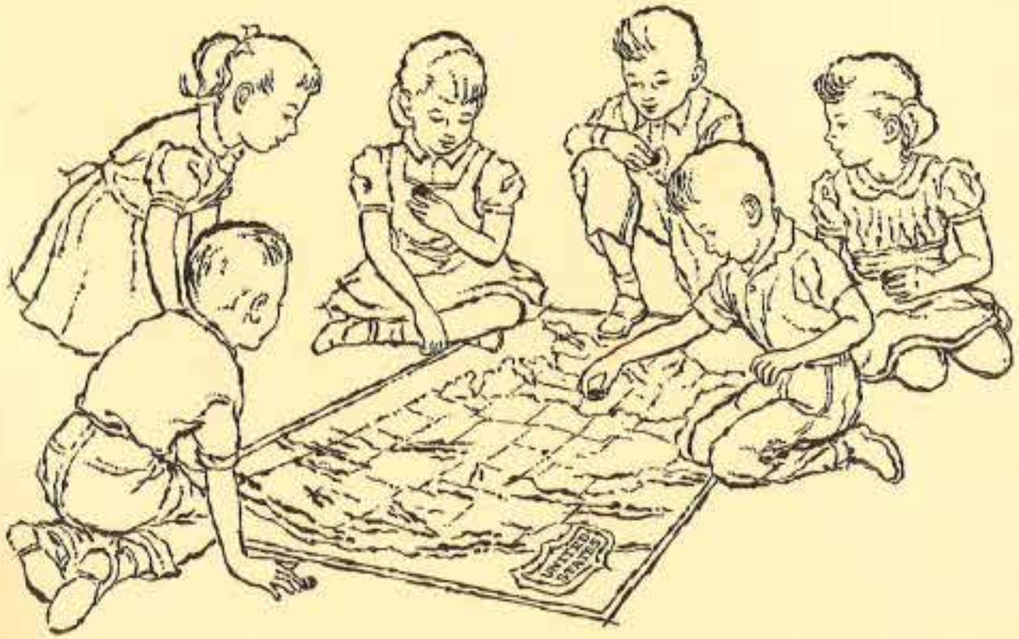
In City, Town, and Country
The local, metropolitan area, and county communities

In All Our States
The state community and regions of states

In the Americas
The national and inter-American communities

Beyond the Americas
Nations and regions of nations across the Atlantic and across the Pacific

Living and Learning in Third Grade
and
Guidebook to accompany IN CITY, TOWN, AND COUNTRY



by Paul R. Hanna, Genevieve Anderson Hoyt,
and Clyde F. Kohn

William S. Gray, *Reading Advisor*

Scott, Foresman and Company *Chicago, Atlanta, Dallas, Palo Alto, Fair Lawn, N.J.*

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Every county has a courthouse located in the county seat. Among the government responsibilities carried on by all counties, one finds provision for election machinery, the assessment and collection of taxes, the administration of justice through the courts, the protection of persons and property through law-enforcement agents, and the recording and custody of such legal documents as deeds and birth certificates.

While the pattern varies from state to state, counties are usually responsible to some degree for educational, library, health, and welfare services; for agricultural and conservation services; for the construction and maintenance of county roads and bridges; for the establishment and maintenance of county parks; and for land zoning.

In studying the functions performed by your county, you will no doubt find that there is a duplication of services, an overlapping of jurisdictions, and a lack of coördination between the county and the local communities within the county in the performance of certain functions. Throughout our nation, these are problems to which attention is being given by many groups.

You will need to learn all that you can about the functioning of your own county so that you can help your third-graders:

Perceive the spatial relationship of the community in which they live to the county community of which it is a part.

Know and appreciate the services provided by their county government which contribute to the welfare of their local community.

Understand and appreciate the specific ways in which the functions of the county are related to their own lives and to the lives of other members of their families.

Know and understand the functions of private business, professional, and welfare organizations that have *county* as part of the name.

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YOUR SOCIAL STUDIES PROGRAM

The selected and directed teaching-learning experiences that you provide in social studies this year will emphasize the city, town, or village of which your neighborhood (school district) is a part and the larger county community of which your local community is a part. As the children learn how living goes on in these communities, their attitudes will change and so will their behavior. And at the same time, as members of their family, their school, and their neighborhood communities, they will continue to add experiences to those which they have already accumulated. So, before you begin planning your year's program for which *In City, Town, and Country* provides the springboard, you will want to acquaint yourself with the social-studies experiences your children have had during their two or three previous years in school.

GLANCING BACK

From birth, your boys and girls have been learning to live with others in a family group. Upon starting school, they began learning to live with others in a school group. Last year, they began going alone to the store, library, playground, and other places in the neighborhood; thus, they began to assume simple responsibilities as members of their neighborhood community. These groups are the first groups to which children belong and to which, with or without guidance, they must learn to adjust. Moreover, children's problems in learning to adjust loyalties and behavior to the demands of these three groups are complicated. For these reasons, The Basic Social Studies Program of the Curriculum Foundation Series for Grades One and Two took as its emphasis the universal centers of home, school, and neighborhood.

COMMUNITIES EMPHASIZED

For the first few months in first grade, as described in *Between Two Worlds*,[8] the social-studies program was based on those experiences which normally occur in the first-grade classroom.

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During the latter part of the school year, the teaching-learning experiences concerned with living in the school community constituted the social-studies program for your boys and girls. *At School*[10] and the events occurring in the children's own school formed the content for the school community emphasis. From both sources, the children acquired understandings, attitudes, values, and behavior traits that contributed to responsible citizenship. At the same time, readiness was established for a better understanding of the neighborhood community of which the children's homes and school are a part.

[8] Hanna, Paul R., and Hoyt, Genevieve Anderson. Between Two Worlds in Teacher's Edition of At Home. Chicago: Scott, Foresman and Company, 1956.

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Establish purpose for reading.
"How would you feel if you were one of the children in the picture?"

Getting a New School

There were many children in Middletown. Every year, there were more and more children in the schools.

When the new factory was built, many new families moved to Middletown and built homes near the factory. Then there were even more children to go to school.

In some schools, there were too many children in each room. In one school, some of the children went to school only in the morning, and others went only in the afternoon. Some children went to school in rooms in churches. Some went to school in rooms over one of the stores.

Middletown needed a new school.

"Give four good reasons for building a new school."

"Why would people have to pay higher taxes if a new school were built?"
"Why were some people against paying higher taxes?"

Many people thought that Middletown should build a new school. But others thought that it would cost too much to build another school.

Mr. Canfield lived next door to the Allens. He did not want to build a new school. He said, "Our taxes are too high now. If we build a new school, we will need more teachers and more of everything it takes to run the schools. Then we will have to pay still higher taxes."

But many of the people did not feel this way. They wanted a new school, and they wanted more teachers even if they had to pay higher taxes.

The people on the Middletown school board thought that a new school had to be built.

At a board meeting, they talked about how much a new school would cost. They talked about how much higher taxes would have to be.

Then they said, "All the people in Middletown must know these things. They must know what a new school would do for the community, too. Then, the people must tell us what to do."

"What three things did the Middletown school board think people should know before they decided about building the school?"

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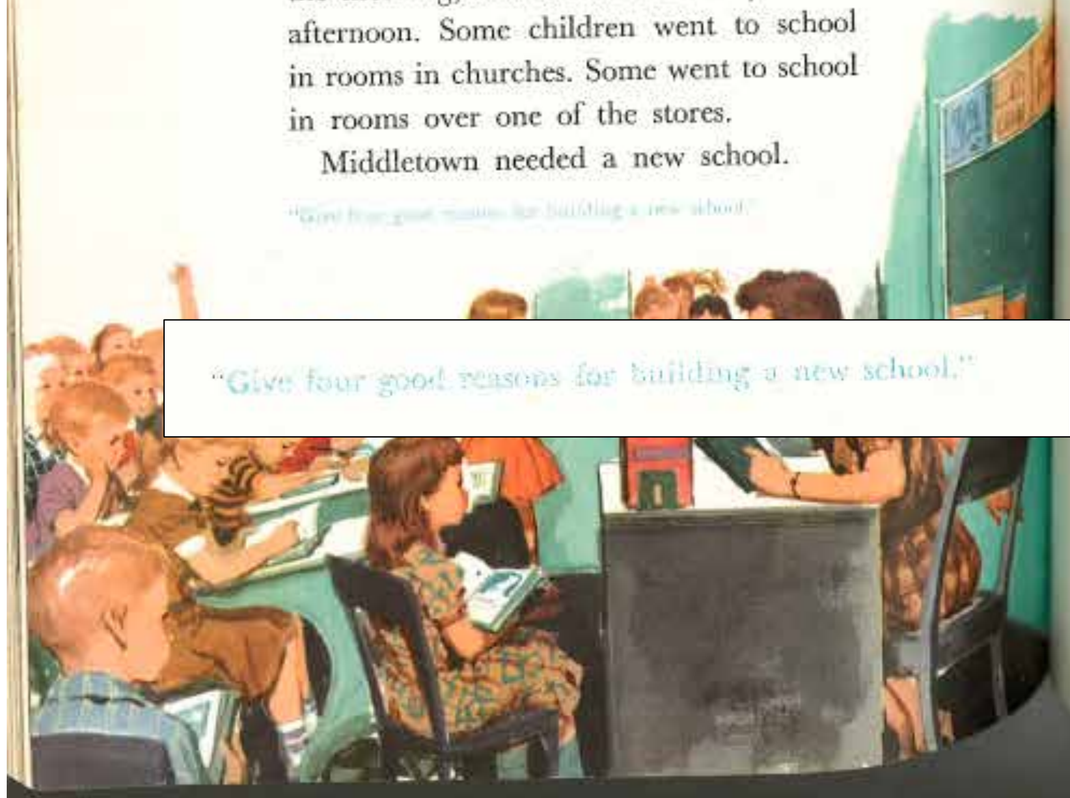

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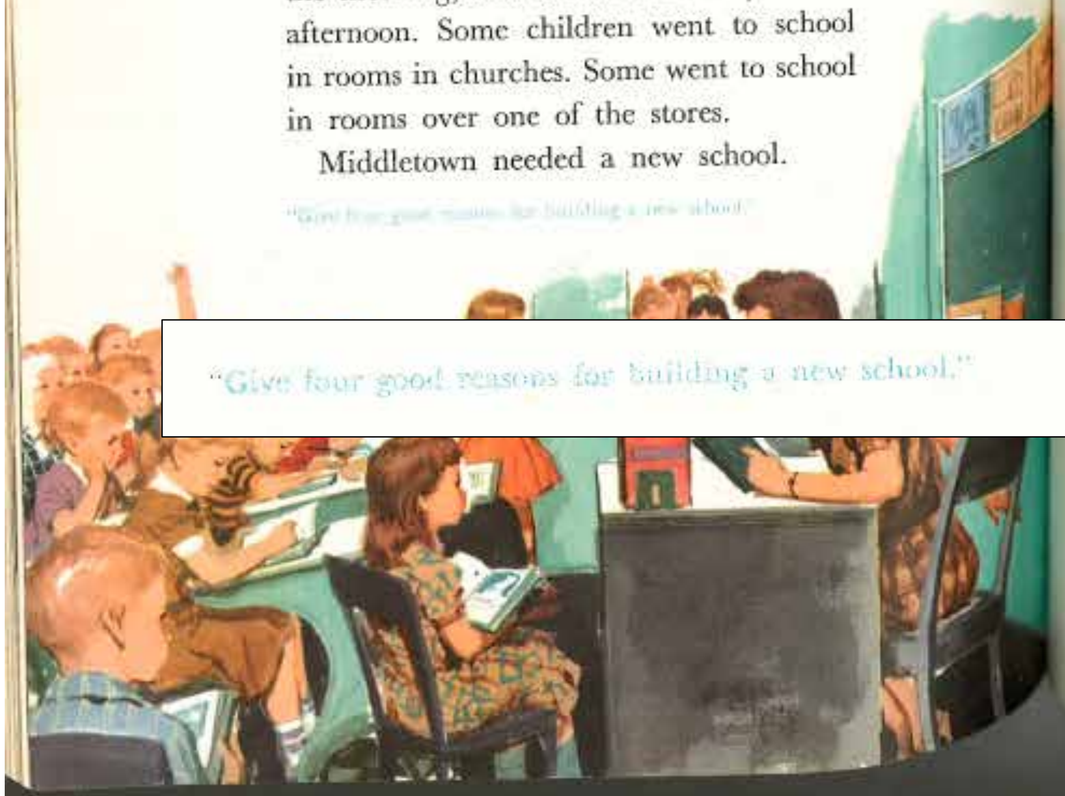

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At a board meeting, they talked about how much a new school would cost. They talked about how much higher taxes would have to be.

Then they said, "All the people in Middletown must know these things. They must know what a new school would do for the community, too. Then, the people must tell us what to do."

"What three things did the Middletown school board think people should know before they decided about building the school?"

that differ from those of the families of children in your third grade, you will want to make every effort to understand their attitudes, language habits, and behavior patterns. You may be justified in trying to change some of these values and behavior traits, but the essential dignity and worth of each child must be recognized. No child should feel rejected because he is growing up in a home environment different from yours.

Remember, too, that many children whether urban or rural, and regardless of region, are tragically limited in their knowledge of the world and that their world is largely that of the space in which they live and operate. So capitalize upon the experiences which they have had even as you try to broaden the children's understandings and guide their behavior.

These are some of the significant ways in which environmental factors influence the experiences of boys and girls, causing them to feel and act as they do, and so to differ. *In your particular third grade, each youngster will respond to every teaching-learning experience centering around* for learning?"

The attractiveness of your classroom—the plants in the window, gay touches of color, bright pictures, and other evidences of an inviting room—is part of your children's learning environment.

The social climate of your classroom—the way children are welcomed and helped to get acquainted, the way daily routines are carried on, the way you develop standards and teach observation of rules, and the way children's basic needs are met—is a part of your children's learning environment.

Whether you are in a new building or an old one, your task is to create an environment that invites learning. You begin the year with a recently cleaned, but bare, room. There is nothing on the walls, on the window sills, on the bookshelves, or in the corners. What you do to transform this room into an inviting learning environment depends on your skill and resources. The results reflect your teaching personality. If you set up interest centers, display books, hang gay pictures, and set flowerpots in the windows, then

tragically limited in their knowledge of the world

What is a City?

URBAN3

Photo Source: James Harrison

What is a City?

URBAN3

Luminous Earth Grid by Stuart Williams 1993

Land Production

URBAN3

For 40 years this building remained vacant…… its tax value in 1991 was just over

$300,000

Today the building is valued at over

$11,000,000

URBAN3

For 40 years this building remained vacant…… its tax value in 1991 was just over

$300,000

Today the building is valued at over

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URBAN3

For 40 years this building remained vacant…… its tax value in 1991 was just over

$300,000

Today the building is valued at over

$11,000,000

An increase > **3500%**

in **15 years**

The lot is less than **1/5 acre**

URBAN3

Asheville Walmart

Downtown Building

Total Tax Value:

$11M

URBAN3

Asheville Walmart

Total Tax Value:

$20M

Downtown Building

Total Tax Value:

$11M

URBAN3

Asheville Walmart

Total Tax Value:

$20M

Downtown Building

Total Tax Value:

$11M

Land Consumed (Acres)

URBAN3

Asheville Walmart

Total Tax Value:

$20M

Downtown Building

Total Tax Value:

$11M

Land Consumed (Acres)

Total Property Taxes Per Acre

URBAN3

Asheville Walmart

Total Tax Value:

$20M

Downtown Building

Total Tax Value:

$11M

Land Consumed (Acres)

Total Property Taxes Per Acre

City Sales Taxes Per Acre

URBAN3

Asheville Walmart

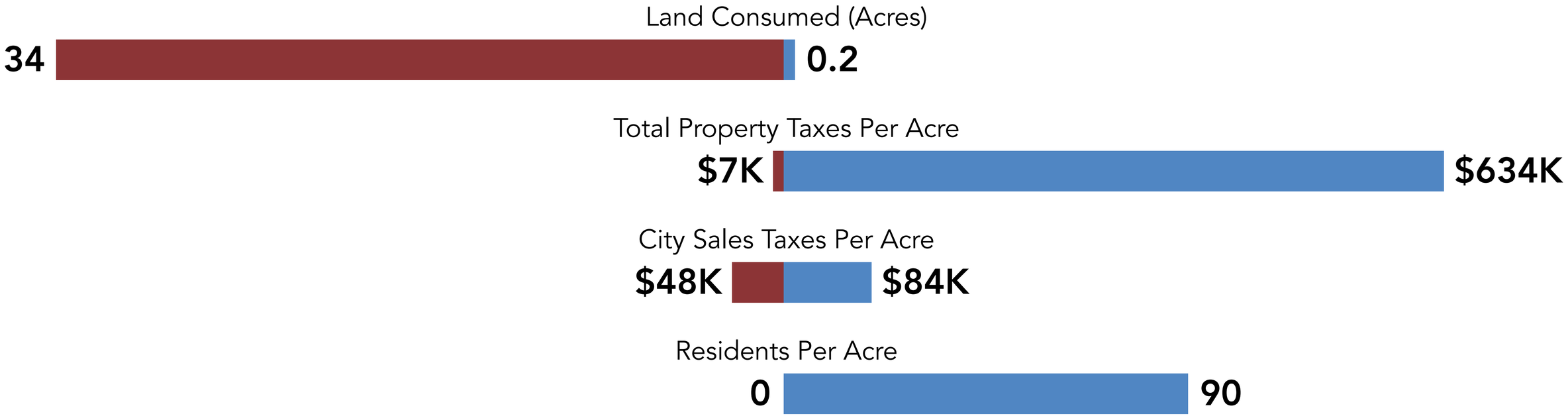
Total Tax Value:

$20M

Downtown Building

Total Tax Value:

$11M



URBAN3

Asheville Walmart

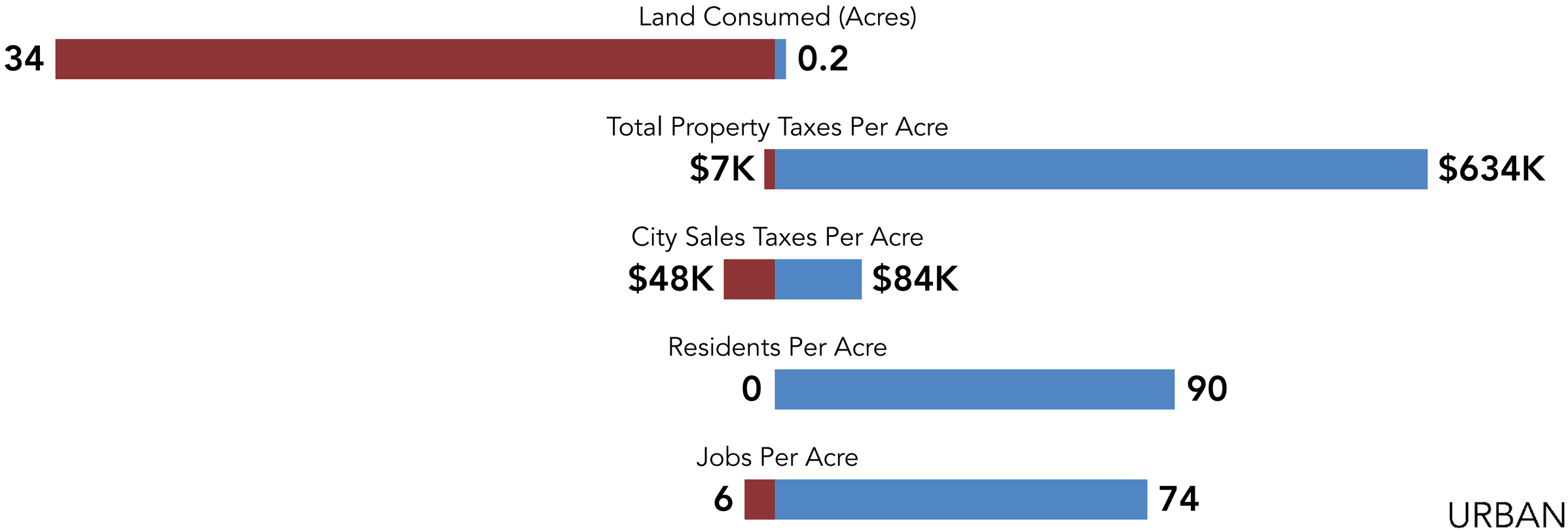
Total Tax Value:

$20M

Downtown Building

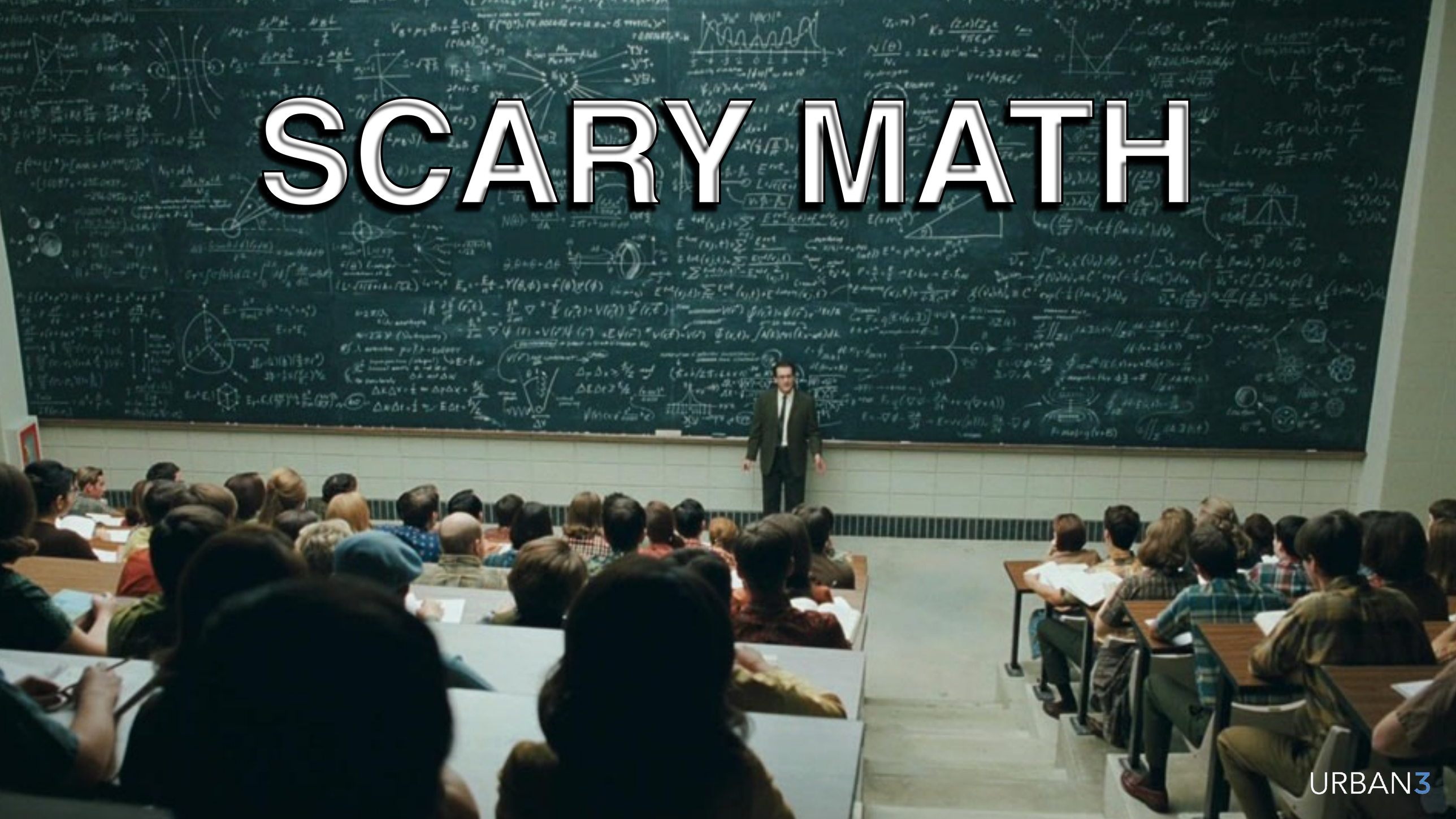
Total Tax Value:

$11M



URBAN3

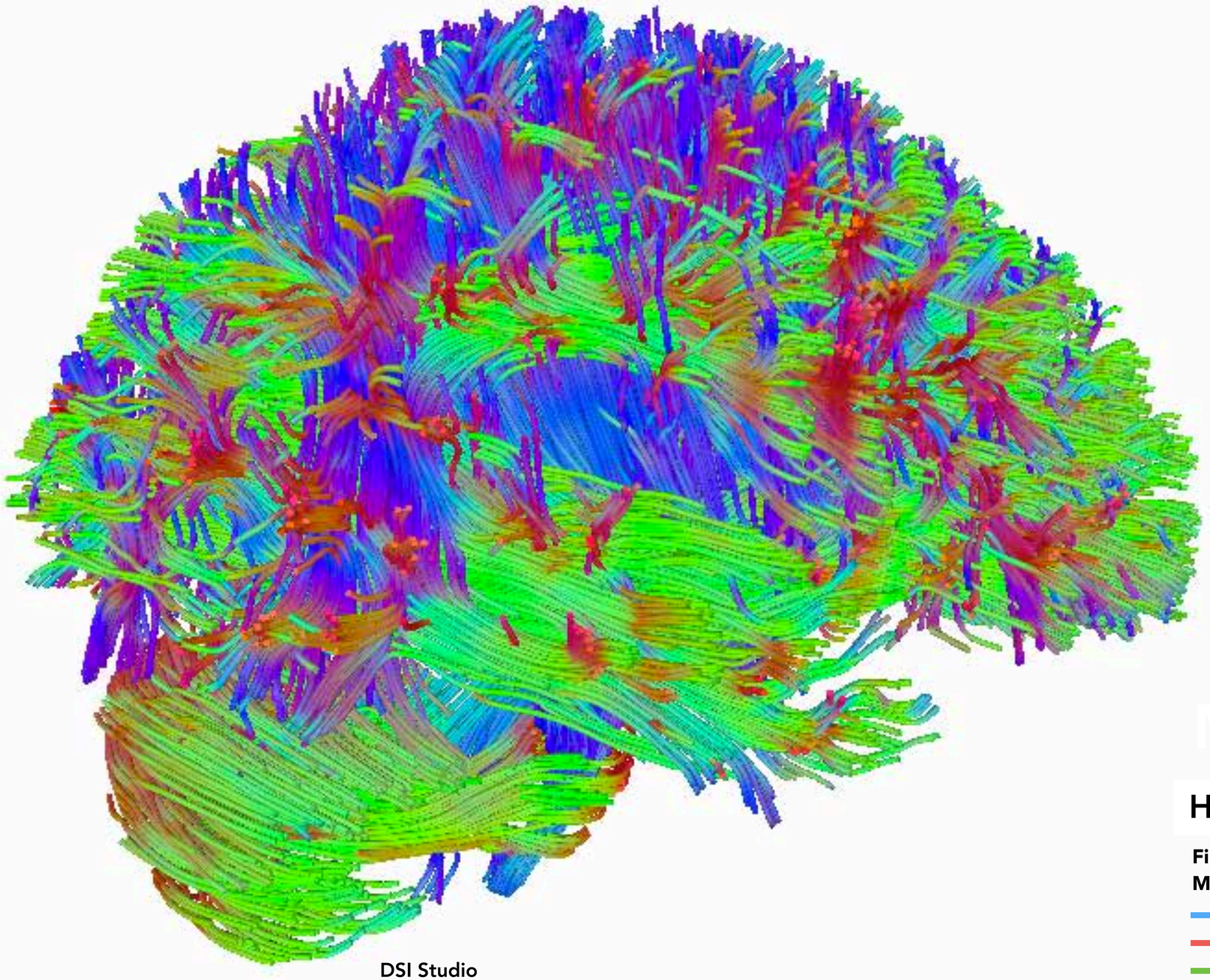
SCARY MATH



URBAN3

Question:

But why don’t people see that?

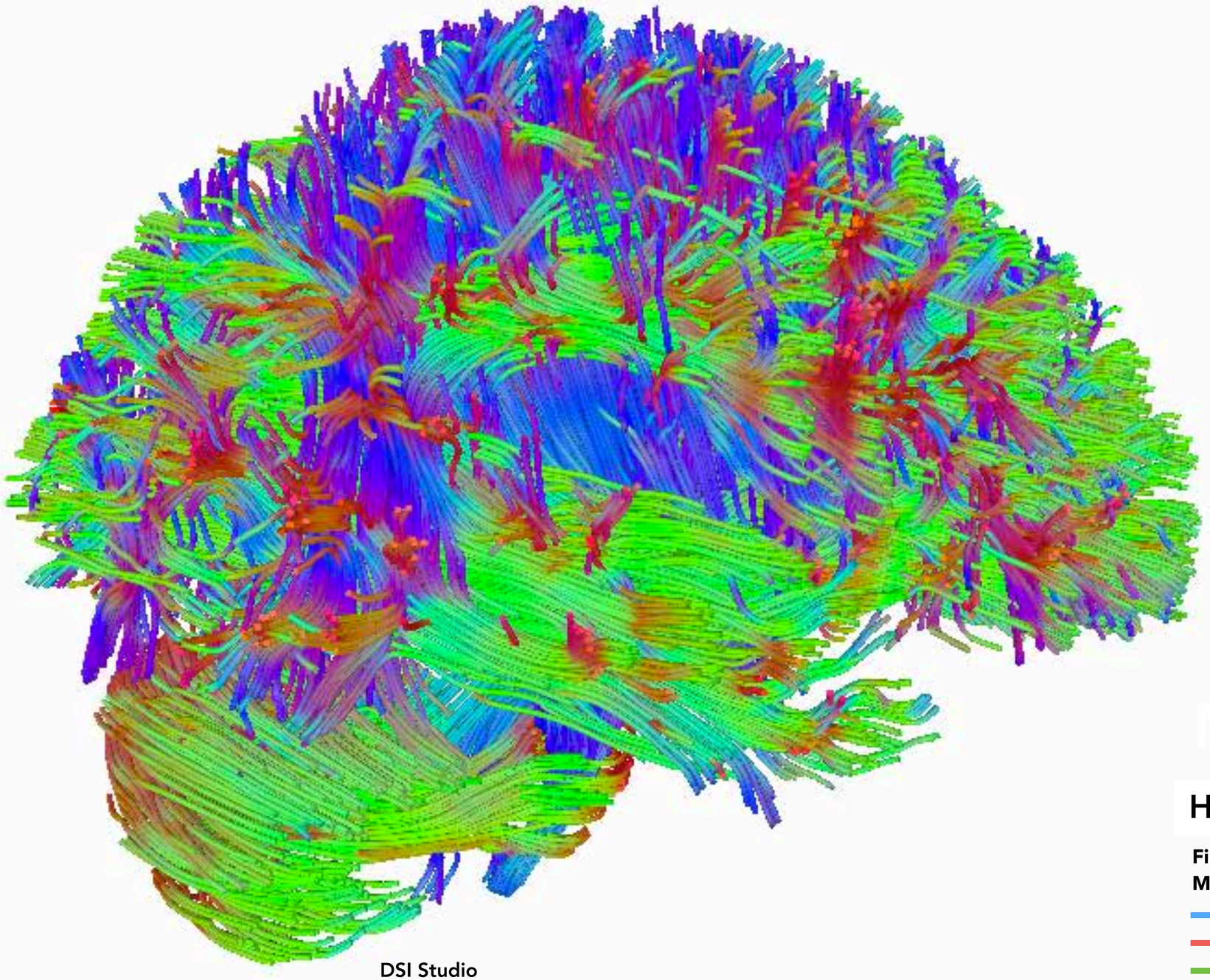


DSI Studio

Human Connectome Project

Fiber architecture of the brain.
Measured from diffusion spectral imaging (DSI).

- up-down
- left-right
- anterior-posterior



DSI Studio

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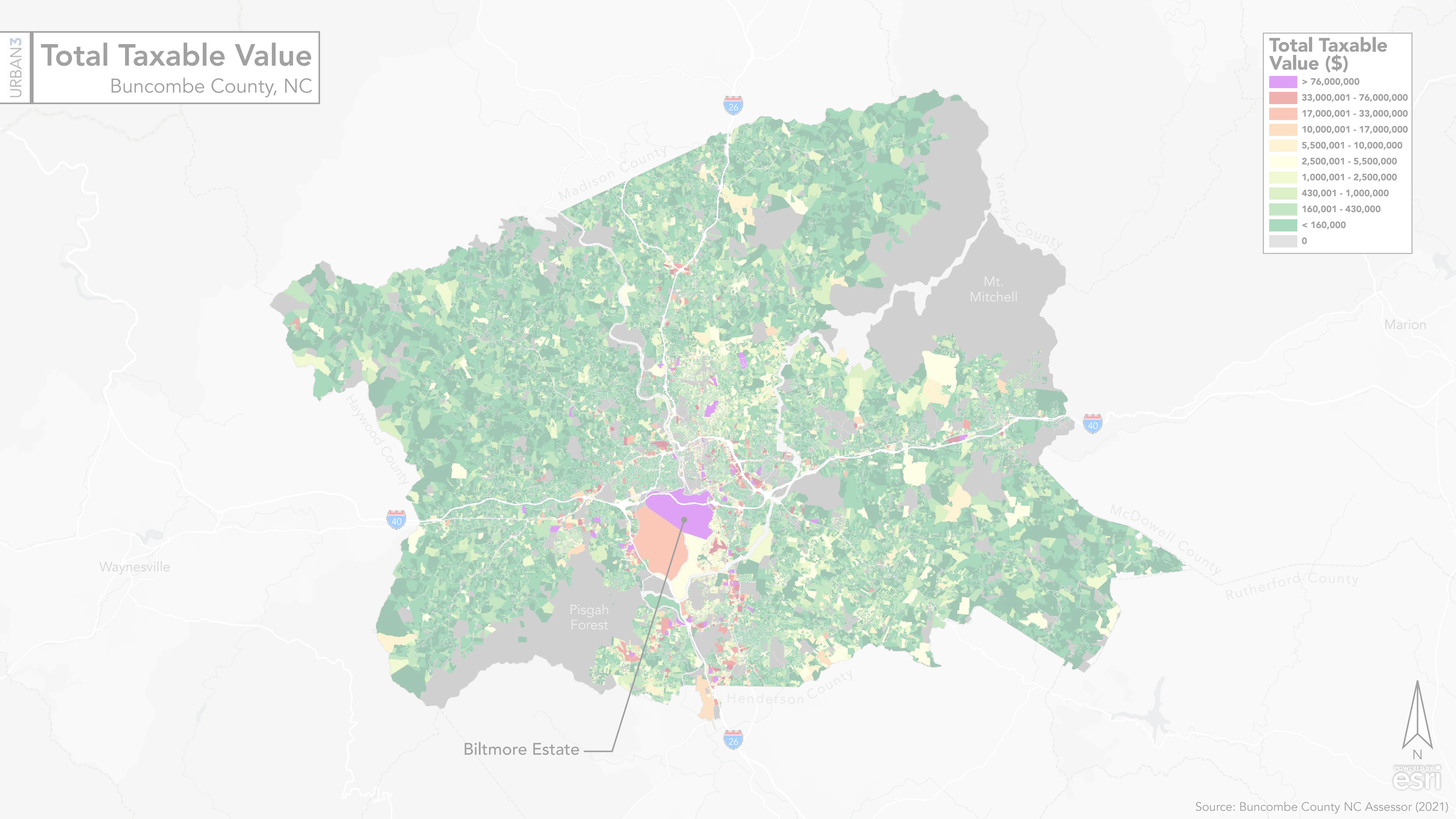
URBAN3

Total Taxable Value

Buncombe County, NC

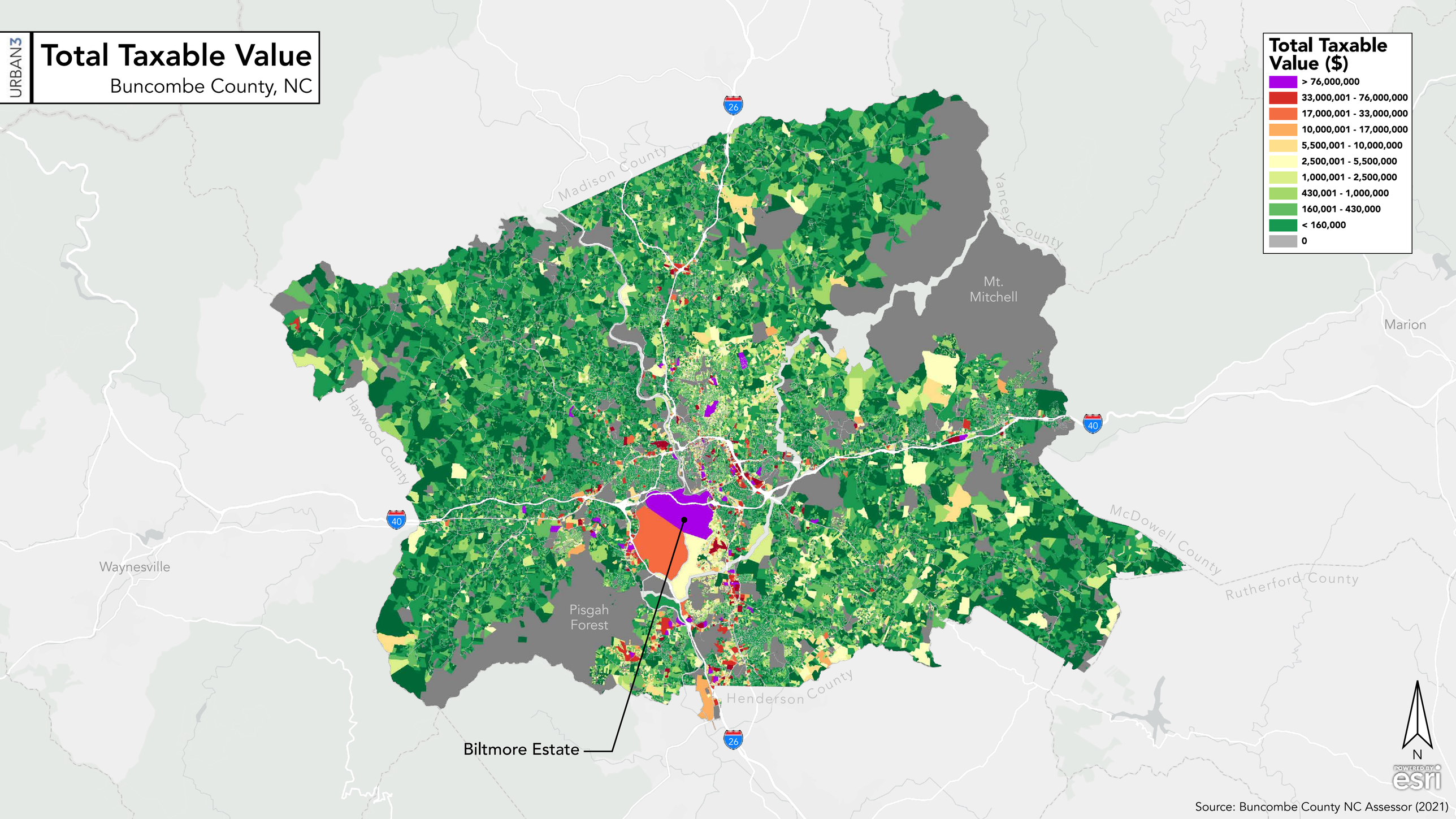


Source: Buncombe County NC Assessor (2021)

URBAN3

Total Taxable Value

Buncombe County, NC

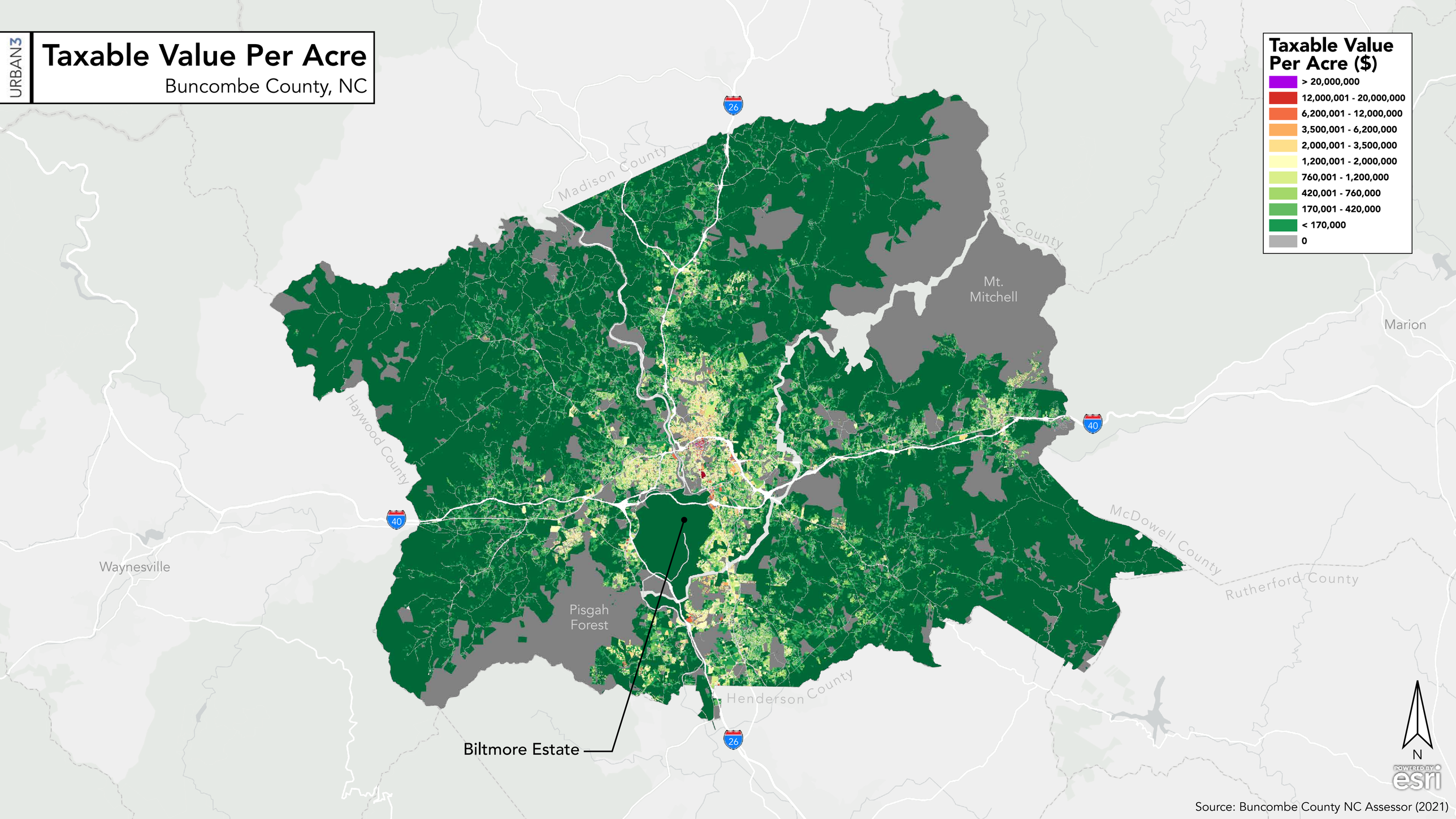


Source: Buncombe County NC Assessor (2021)

URBAN3

Taxable Value Per Acre

Buncombe County, NC

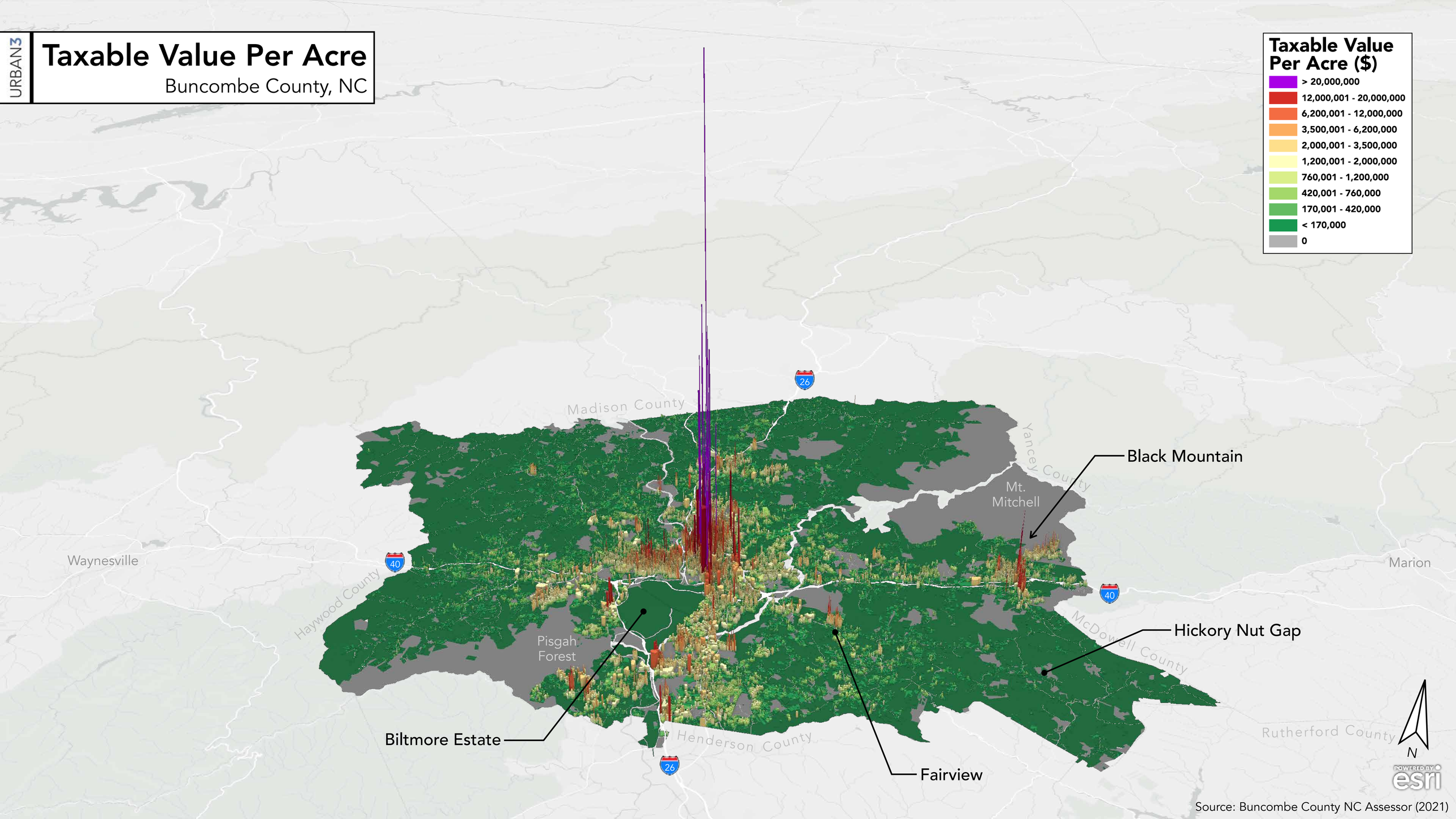


Source: Buncombe County NC Assessor (2021)

URBAN3

Taxable Value Per Acre

Buncombe County, NC



Source: Buncombe County NC Assessor (2021)

URBAN3

Taxable Value Per Acre

Buncombe County, NC

show. don't tell.

Source: Buncombe County NC Assessor (2021)

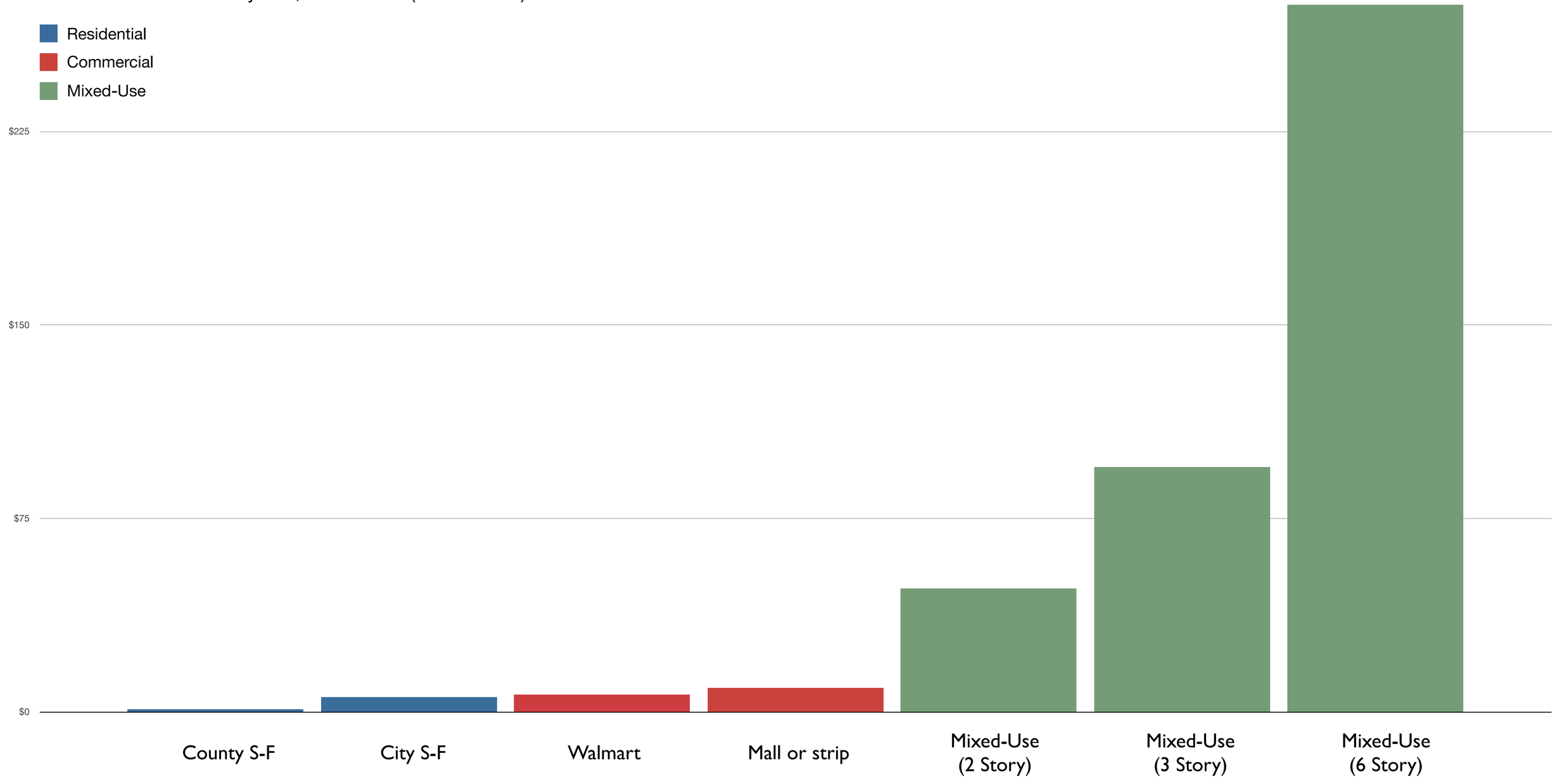
Observation:

Taxes drive design.

County Property Taxes/Acre

URBAN3
Joseph Minicozzi, AICP

Ratio Difference of 60 City Set, in 21 States (+ a Province)



International Association of Assessing Officers

80th International Conference

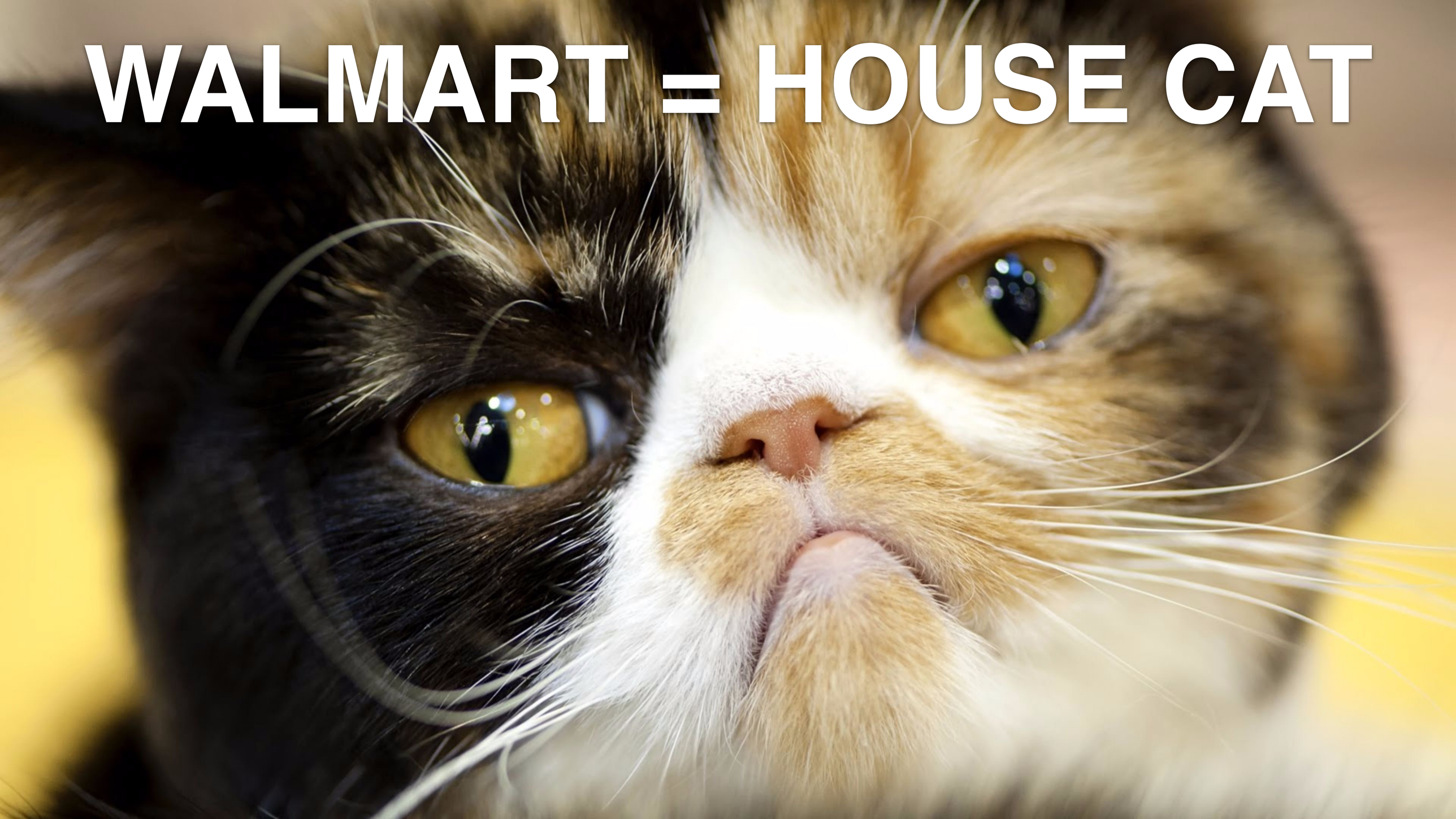
Sacramento, CA

August 26, 2014

Charles Terrell, CMI

Director of Property Tax

WALMART = HOUSE CAT



Observation:

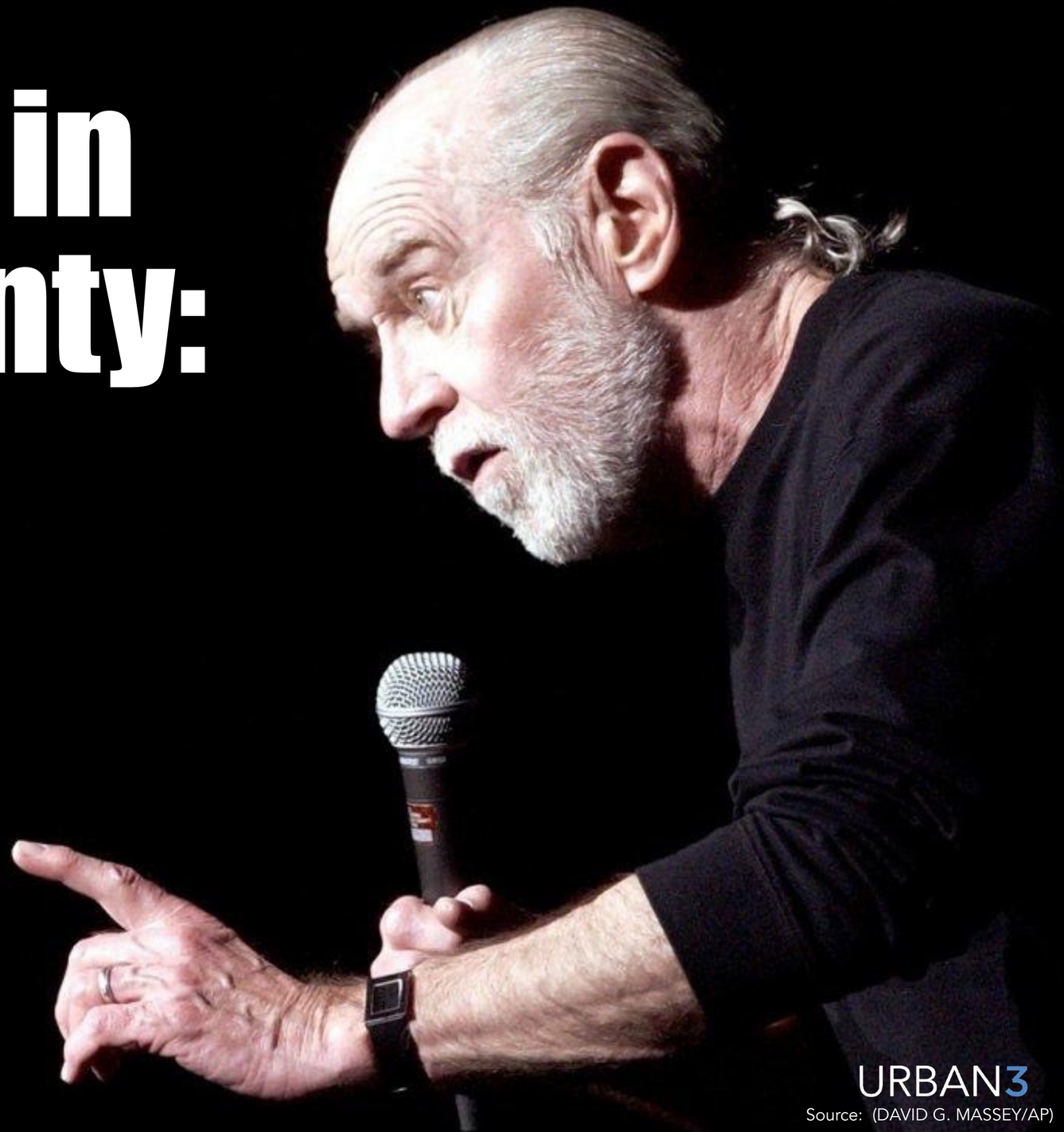
But people don’t want density!

What are the numbers for Gwinnett County?

URBAN3

Source: oldplaces.org

4 Dirty Words in Gwinnett County:

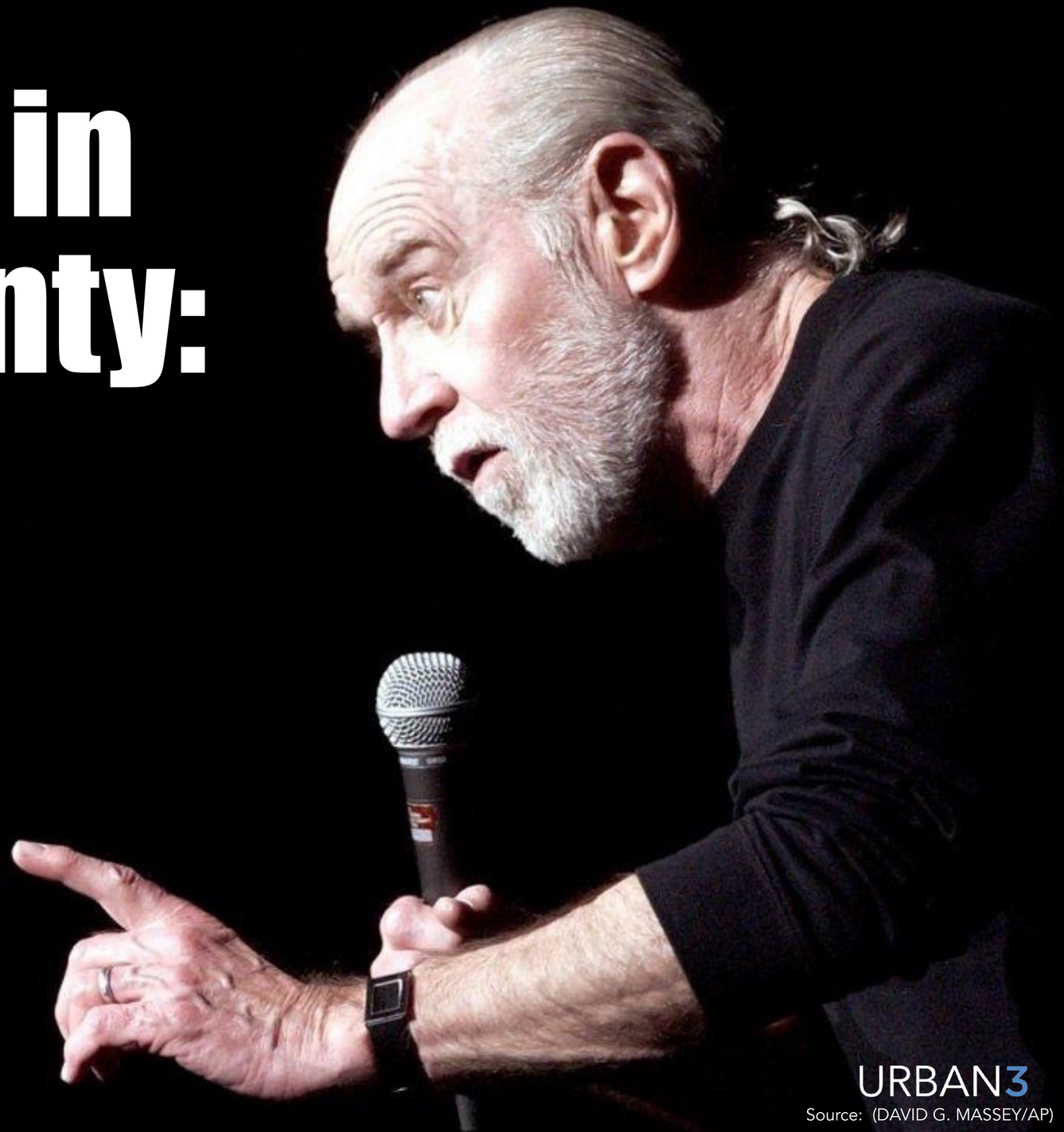


URBAN3

Source: (DAVID G. MASSEY/AP)

4 Dirty Words in Gwinnett County:

1. Urban



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Source: (DAVID G. MASSEY/AP)

4 Dirty Words in Gwinnett County:

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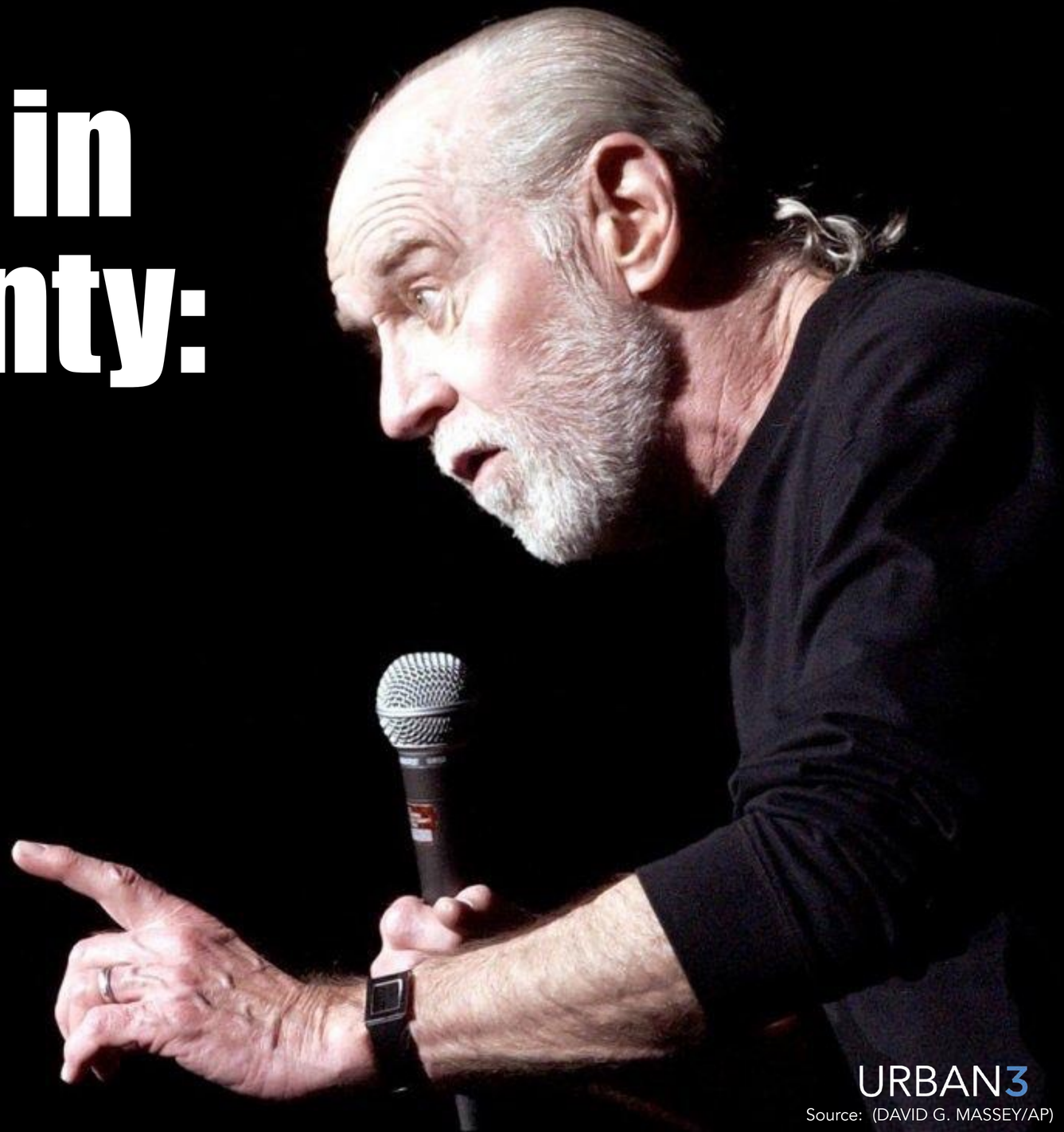
2. City

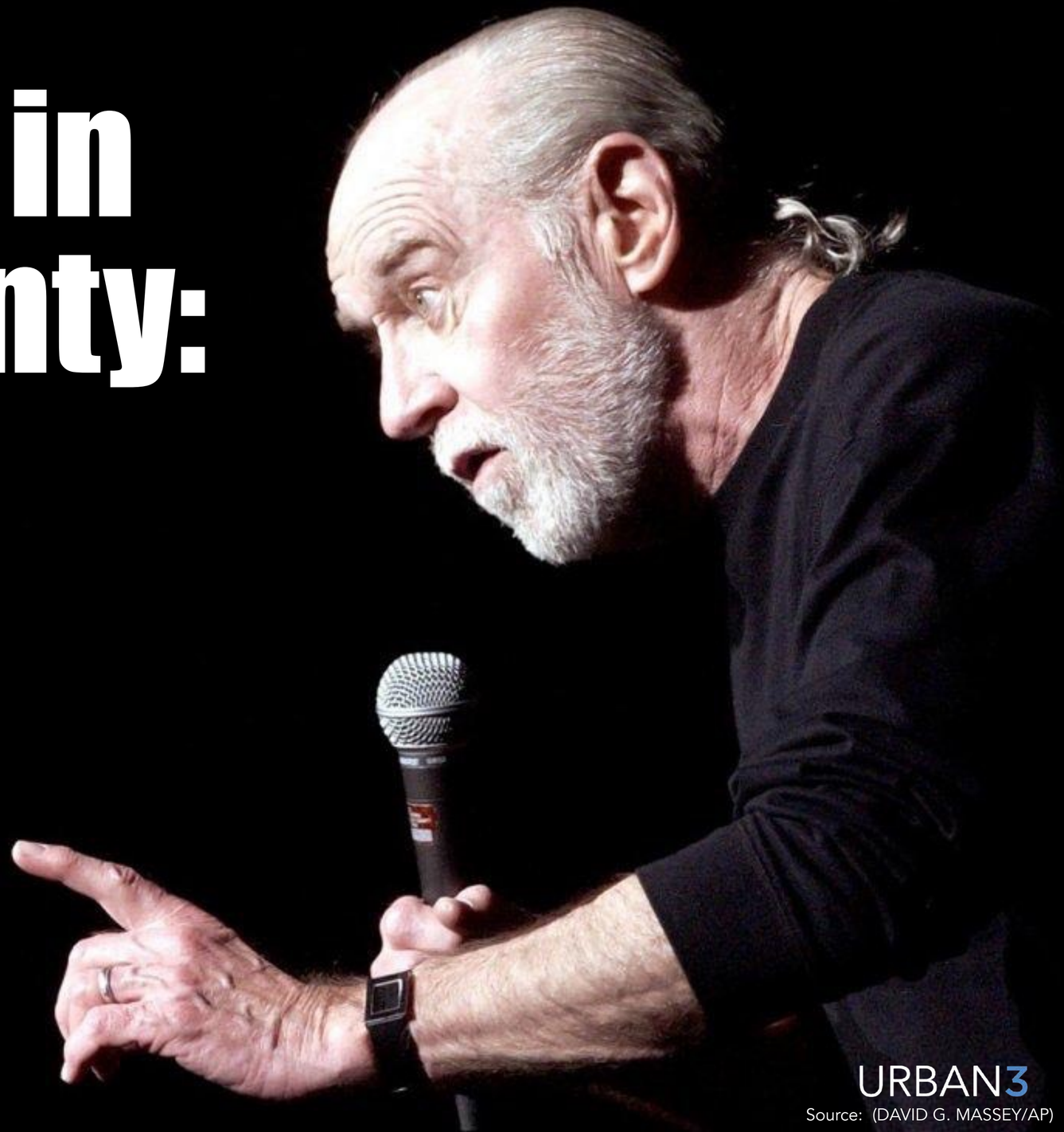


URBAN3

Source: (DAVID G. MASSEY/AP)

4 Dirty Words in Gwinnett County:

1. Urban
2. City
3. Town

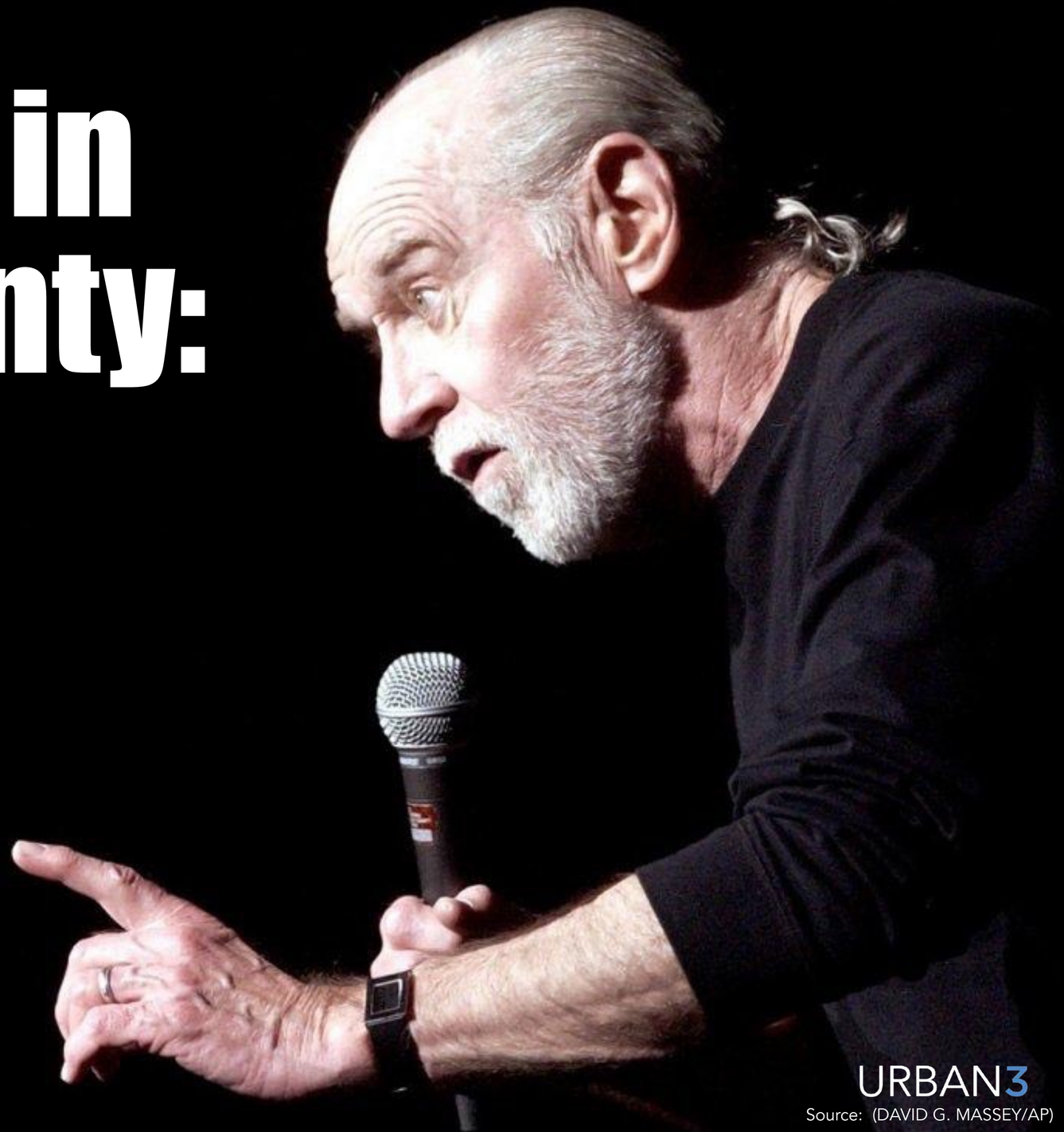


URBAN3

Source: (DAVID G. MASSEY/AP)

4 Dirty Words in Gwinnett County:

1. Urban
2. City
3. Town
4. Municipal



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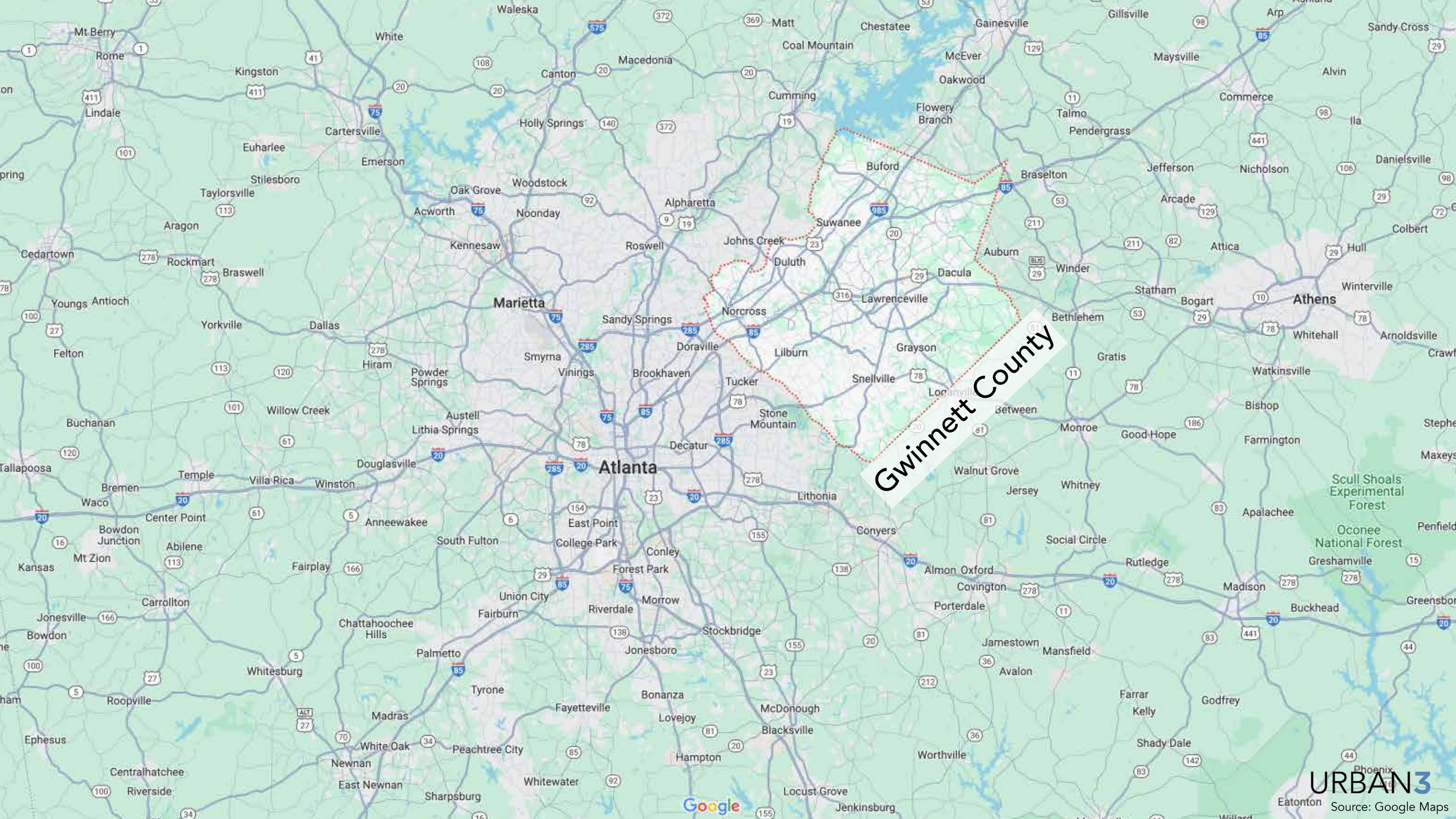
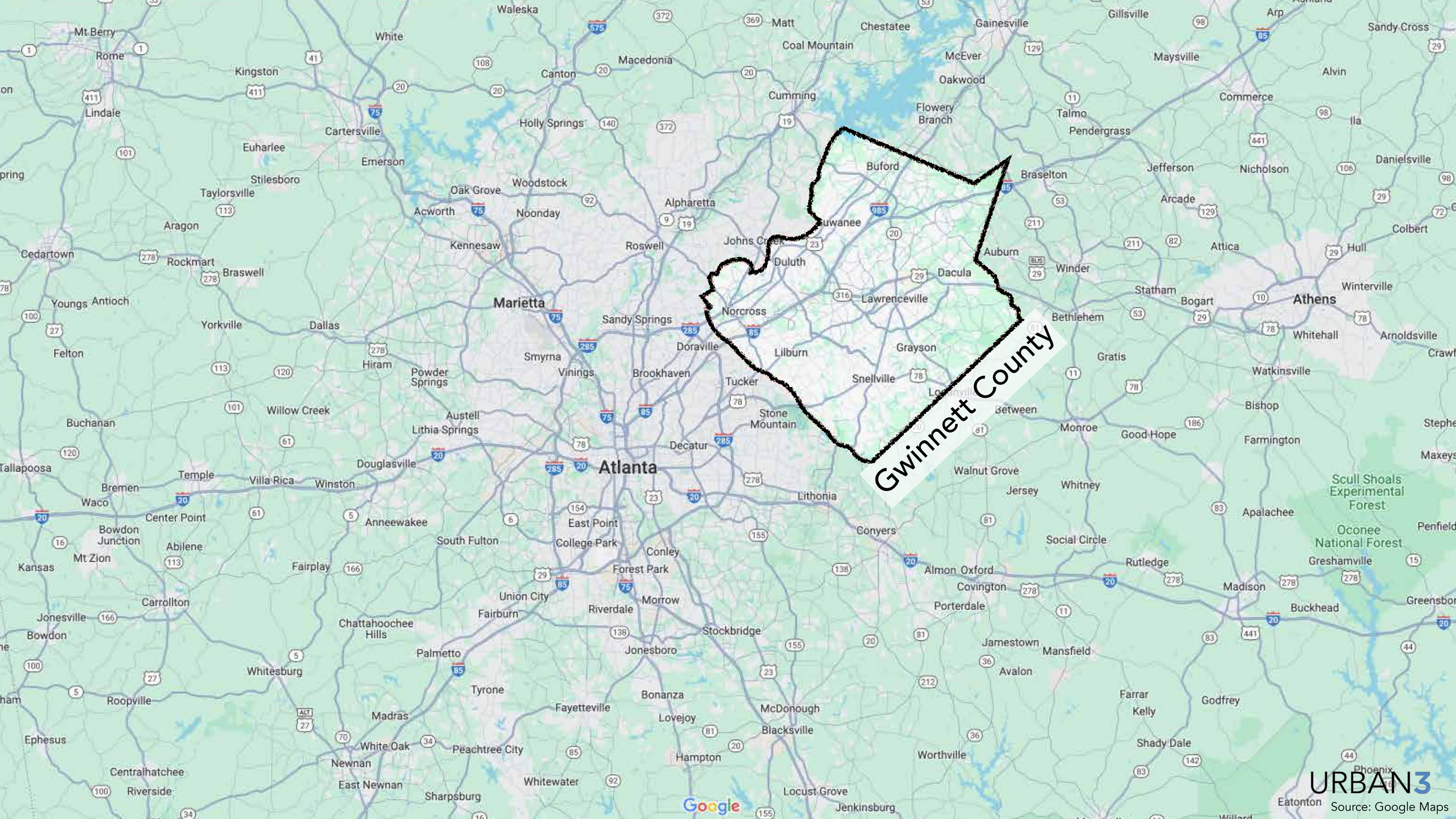
URBAN3

URBAN3



URBAN3
Source: Google Maps



URBAN3
Source: Google Maps

URBAN3

People Per Square Mile

U.S. Counties

= 100 people

Gwinnett County, GA

1,871 people per sq. mi

Source: U.S. Census

URBAN3

People Per Square Mile

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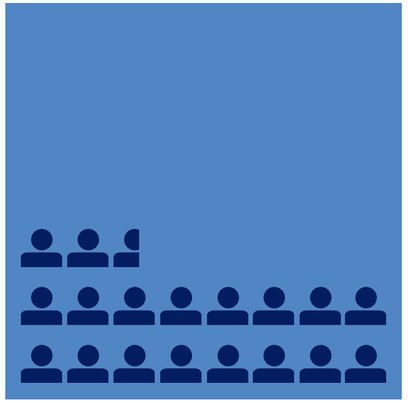
= 100 people



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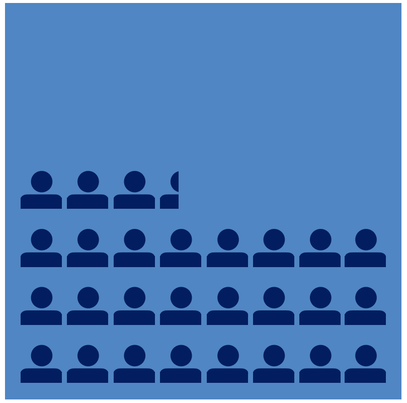
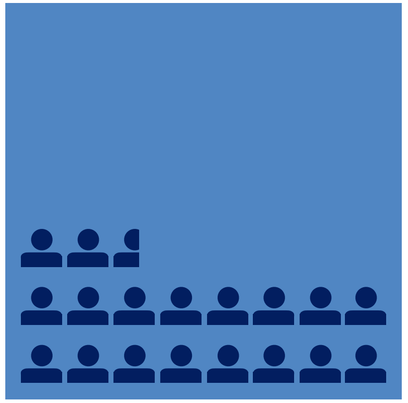


DeKalb County, GA

2,740 people per sq. mi



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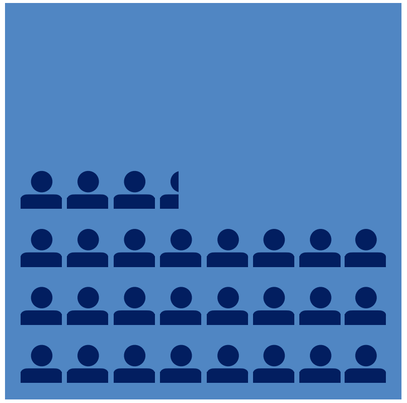

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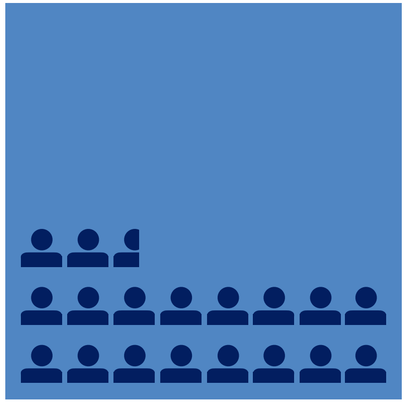

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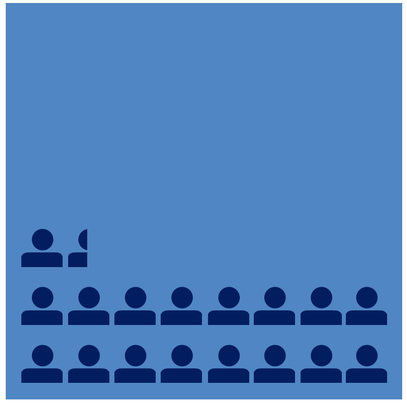
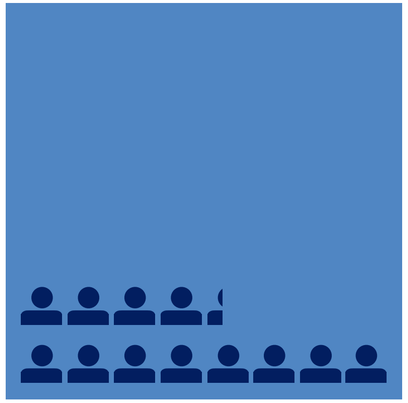


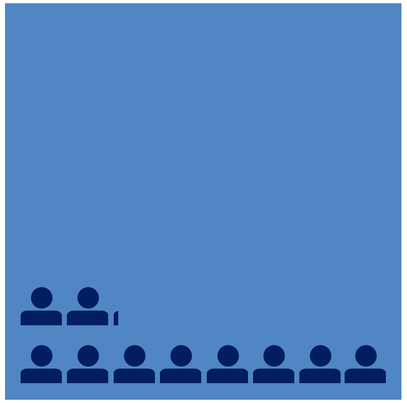
Mecklenburg County, NC

1,756 people per sq. mi



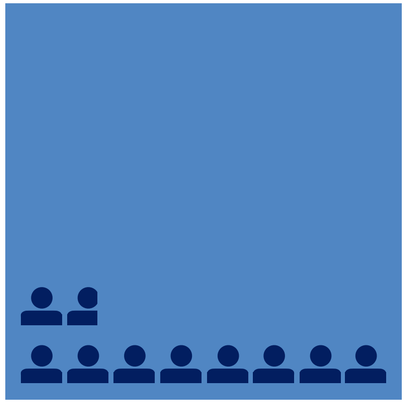
Davidson County, TN

1,243 people per sq. mi



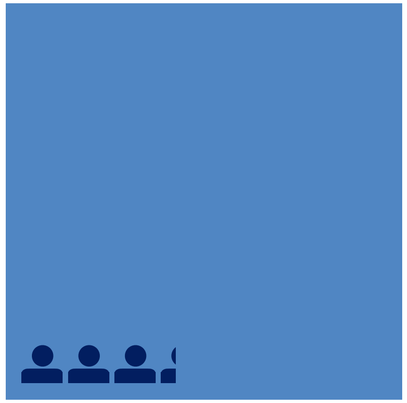
Travis County, TX

1,034 people per sq. mi



Wake County, NC

992 people per sq. mi



Buncombe County, NC

344 people per sq. mi

Orange County, NC

313 people per sq. mi

Source: U.S. Census

URBAN3

People Per Square Mile

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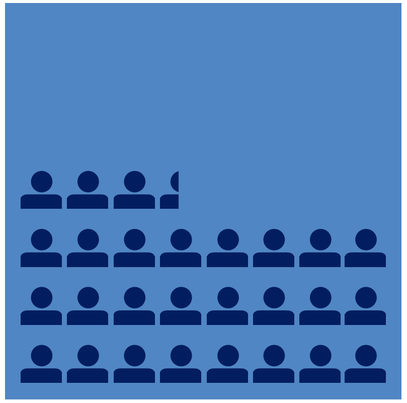
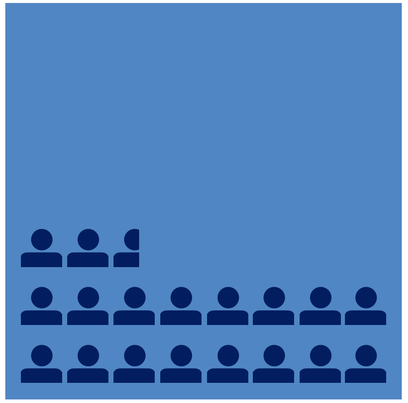
= 100 people



DeKalb County, GA

2,740 people per sq. mi



Gwinnett County, GA

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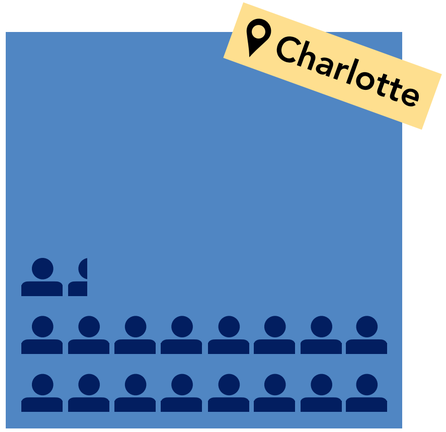

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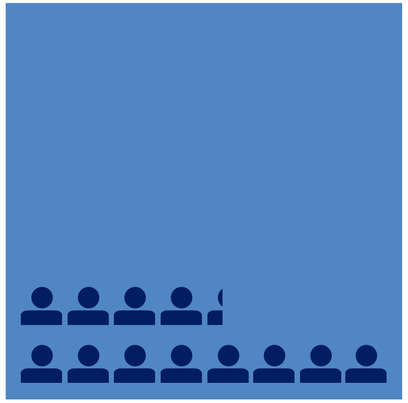

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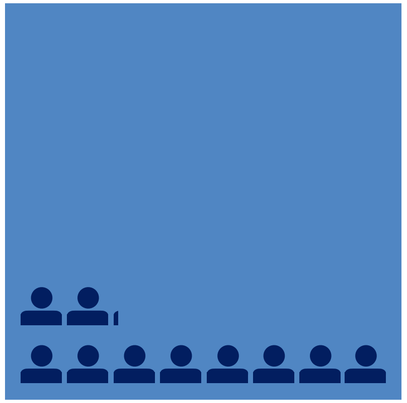

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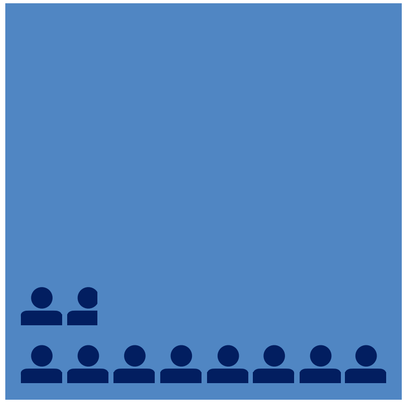

Wake County, NC

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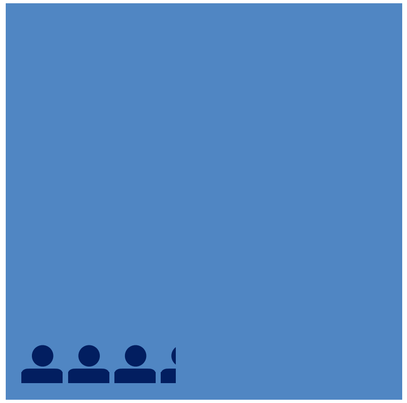

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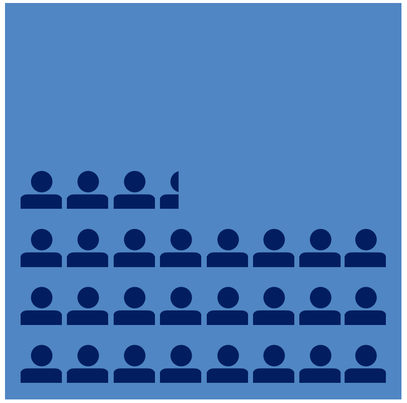

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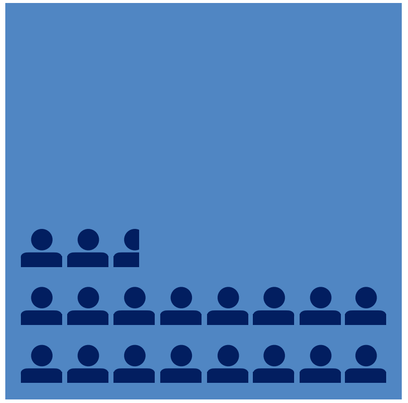

Gwinnett County, GA

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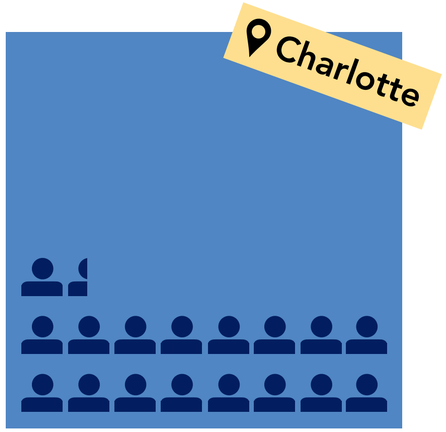

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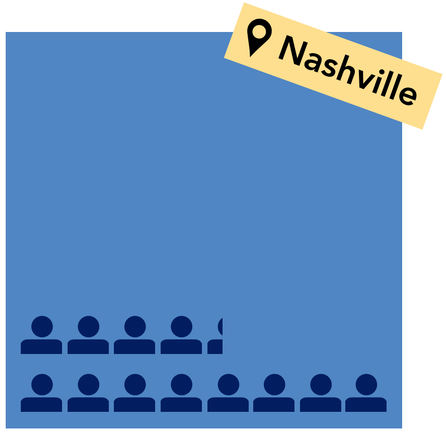

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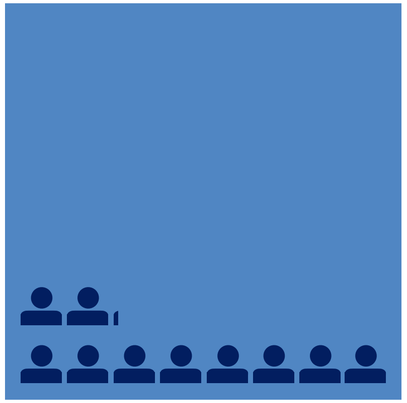
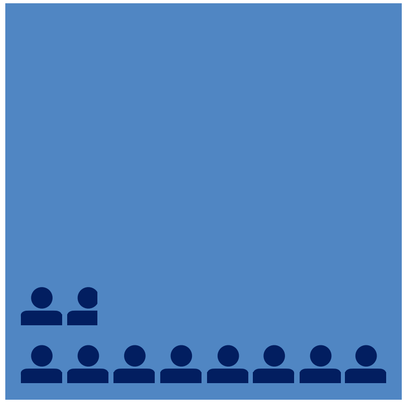


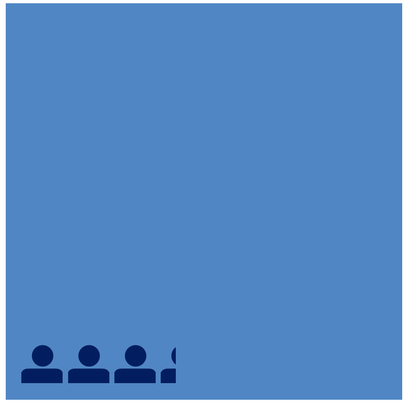
Travis County, TX

1,034 people per sq. mi



Wake County, NC

992 people per sq. mi



Buncombe County, NC

344 people per sq. mi

Orange County, NC

313 people per sq. mi

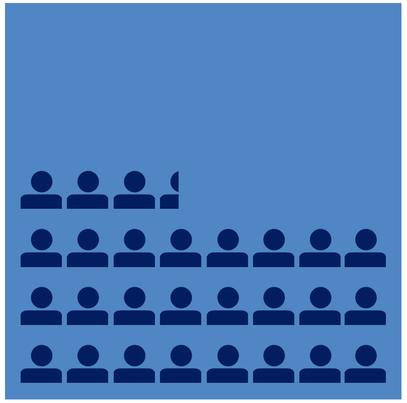
Source: U.S. Census

URBAN3

People Per Square Mile

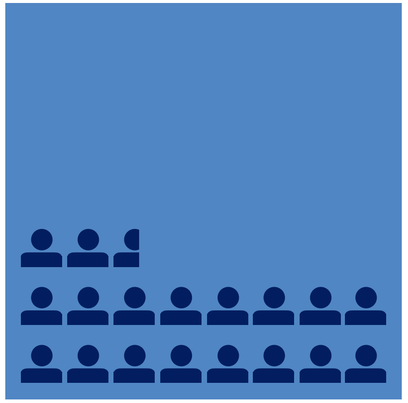
U.S. Counties

= 100 people



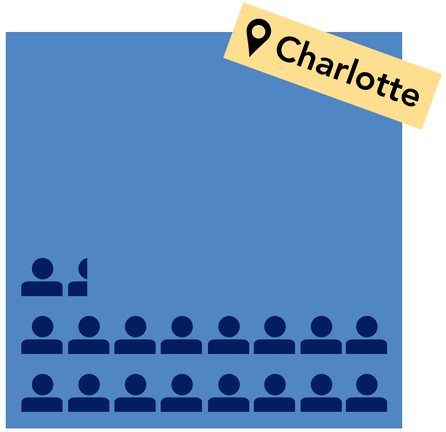
DeKalb County, GA

2,740 people per sq. mi



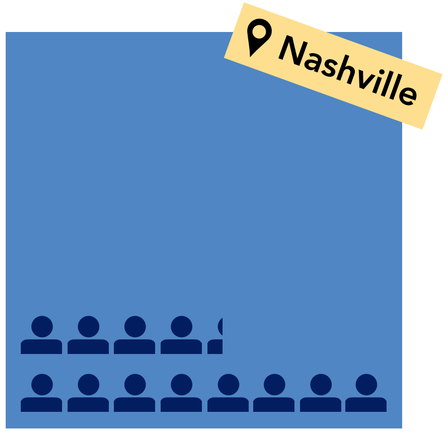
Gwinnett County, GA

1,871 people per sq. mi



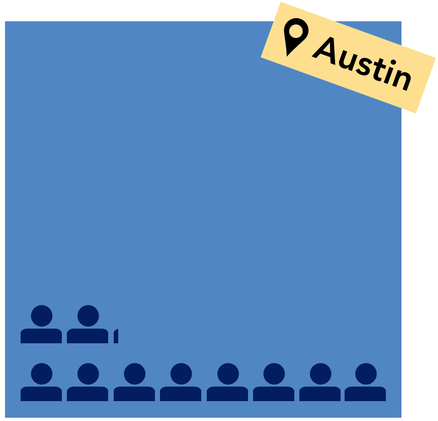
Mecklenburg County, NC

1,756 people per sq. mi



Davidson County, TN

1,243 people per sq. mi

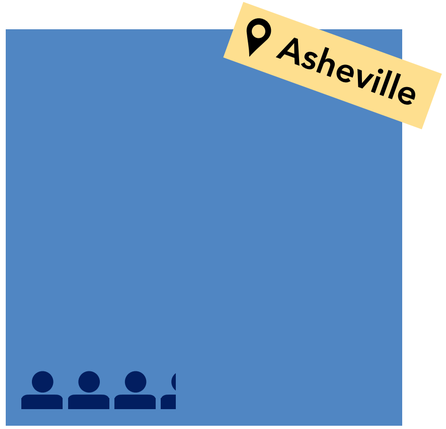


Travis County, TX

1,034 people per sq. mi

Wake County, NC

992 people per sq. mi



Buncombe County, NC

344 people per sq. mi

Orange County, NC

313 people per sq. mi

Source: U.S. Census

URBAN3

Tax Value Per Acre

Gwinnett County, GA

Tax Value Per Acre ($)

- > 4,000,000
- 3,000,001 - 4,000,000
- 2,000,001 - 3,000,000
- 1,500,001 - 2,000,000
- 1,000,001 - 1,500,000
- 750,001 - 1,000,000
- 500,001 - 750,000
- 250,001 - 500,000
- 50,001 - 250,000
- > 50,000
- 0

N

POWERED BY esri

Source: Gwinnett County Assessor (2014)

URBAN3

Tax Value Per Acre

Gwinnett County, GA

Tax Value Per Acre ($)

- > 4,000,000
- 3,000,001 - 4,000,000
- 2,000,001 - 3,000,000
- 1,500,001 - 2,000,000
- 1,000,001 - 1,500,000
- 750,001 - 1,000,000
- 500,001 - 750,000
- 250,001 - 500,000
- 50,001 - 250,000
- > 50,000
- 0

N

Source: Gwinnett County Assessor (2014)

URBAN3

Tax Value Per Acre

Gwinnett County, GA

Tax Value Per Acre ($)

- > 4,000,000
- 3,000,001 - 4,000,000
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- 1,000,001 - 1,500,000
- 750,001 - 1,000,000
- 500,001 - 750,000
- 250,001 - 500,000
- 50,001 - 250,000
- > 50,000
- 0

N

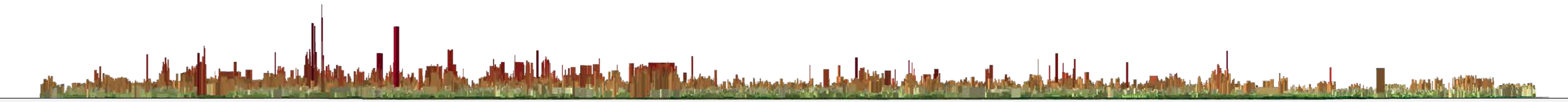
POWERED BY esri

Source: Gwinnett County Assessor (2014)

URBAN3

Tax Value Per Acre

Gwinnett County, GA



Tax Value Per Acre ($)

Highest

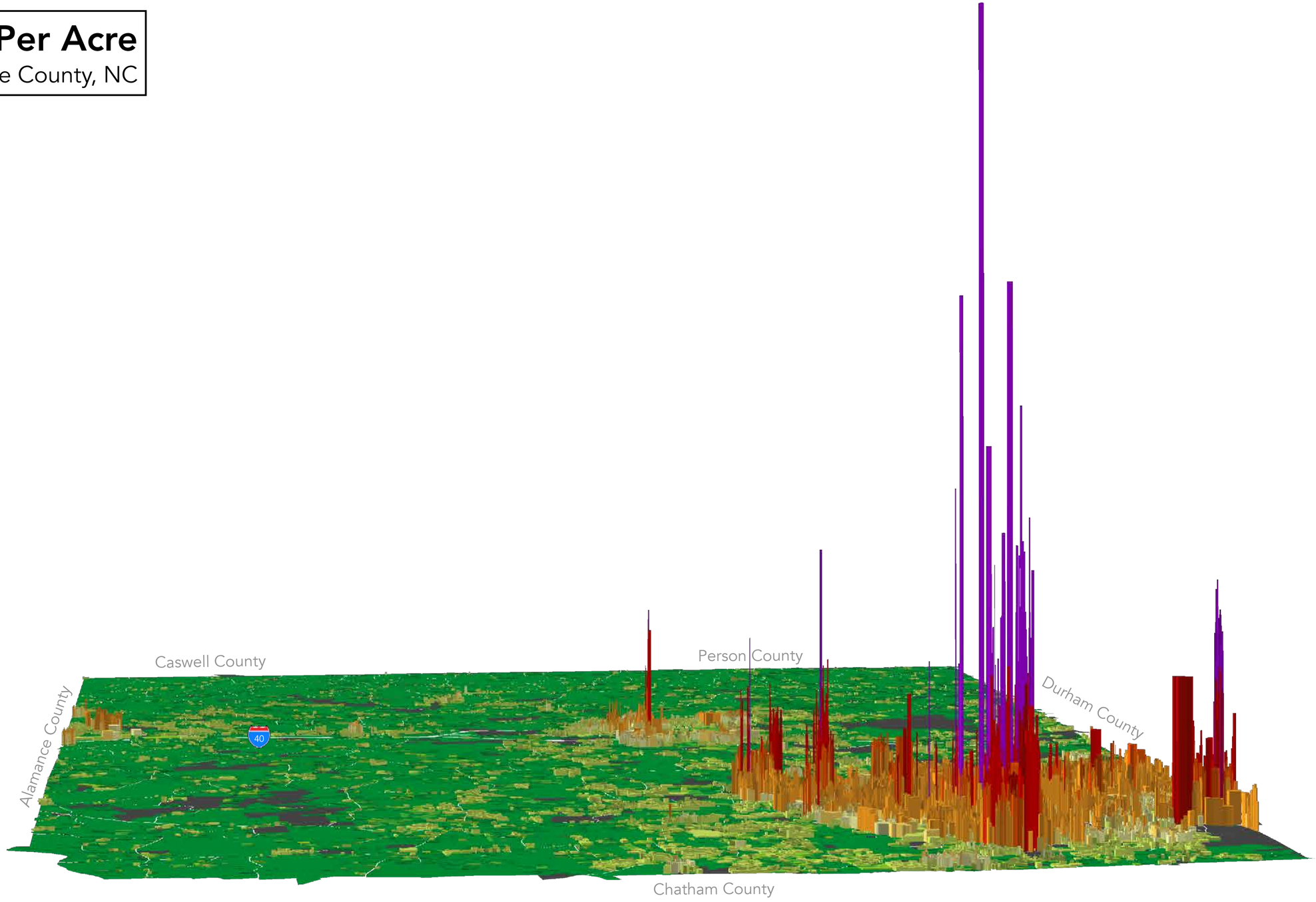
Lowest

Source: Gwinnett County Assessor (2014)

URBAN3

Tax Value Per Acre

Orange County, NC



Tax Value Per Acre ($)

Highest

Lowest

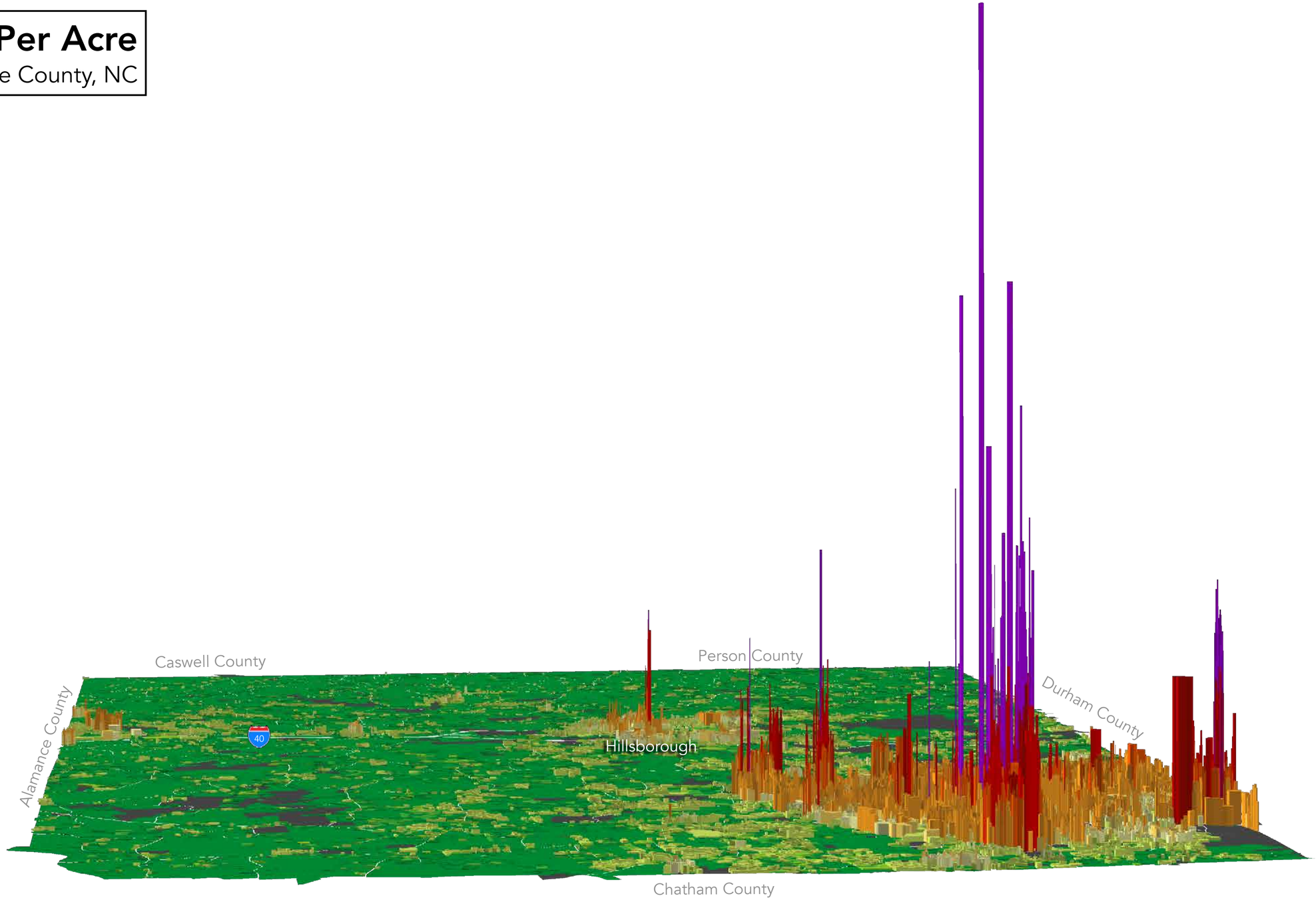
N

Source: Orange County Assessor (2014)

URBAN3

Tax Value Per Acre

Orange County, NC



Tax Value Per Acre ($)

Highest

Lowest

N

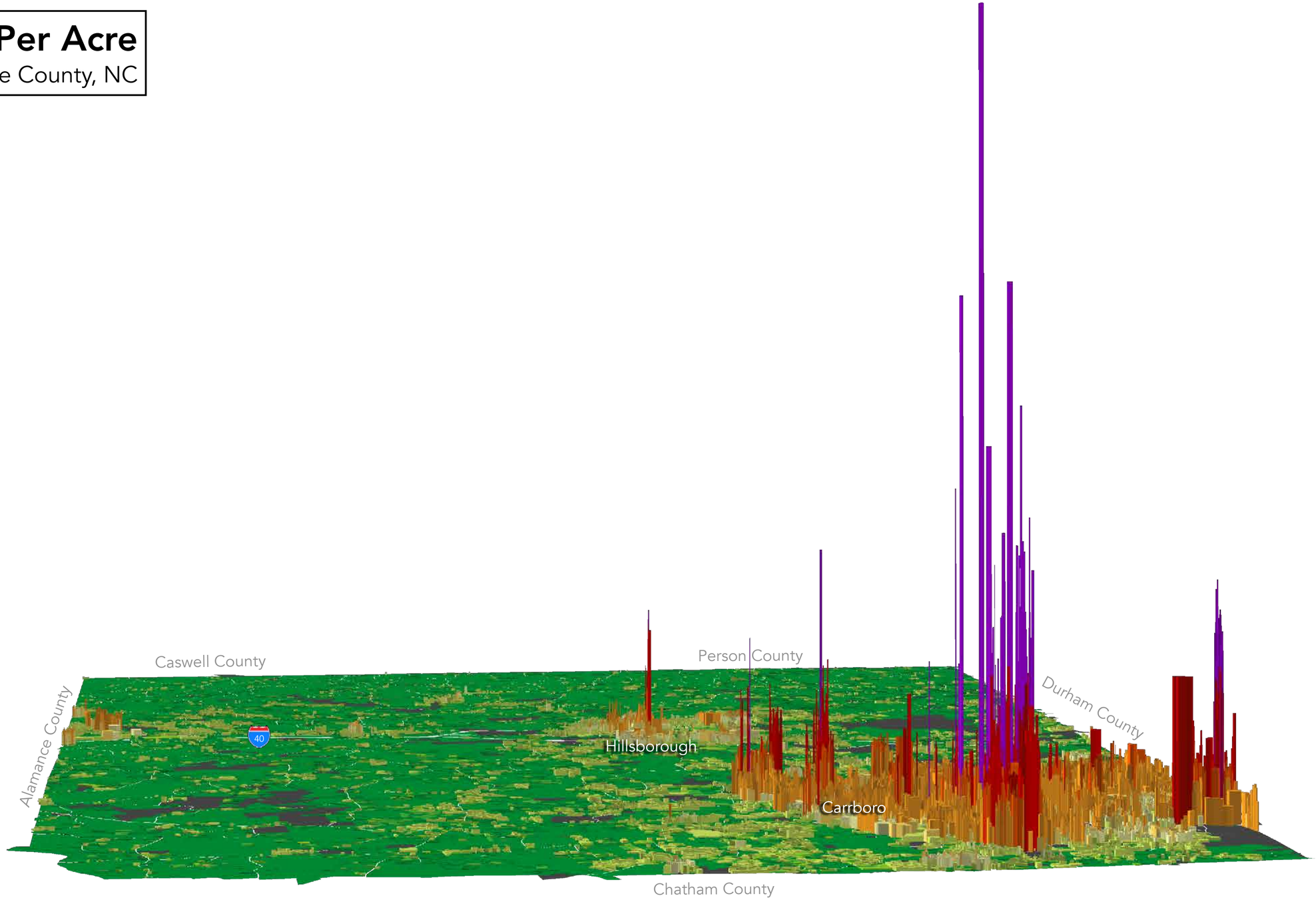
POWERED BY esri

Source: Orange County Assessor (2014)

URBAN3

Tax Value Per Acre

Orange County, NC



Tax Value Per Acre ($)

Highest

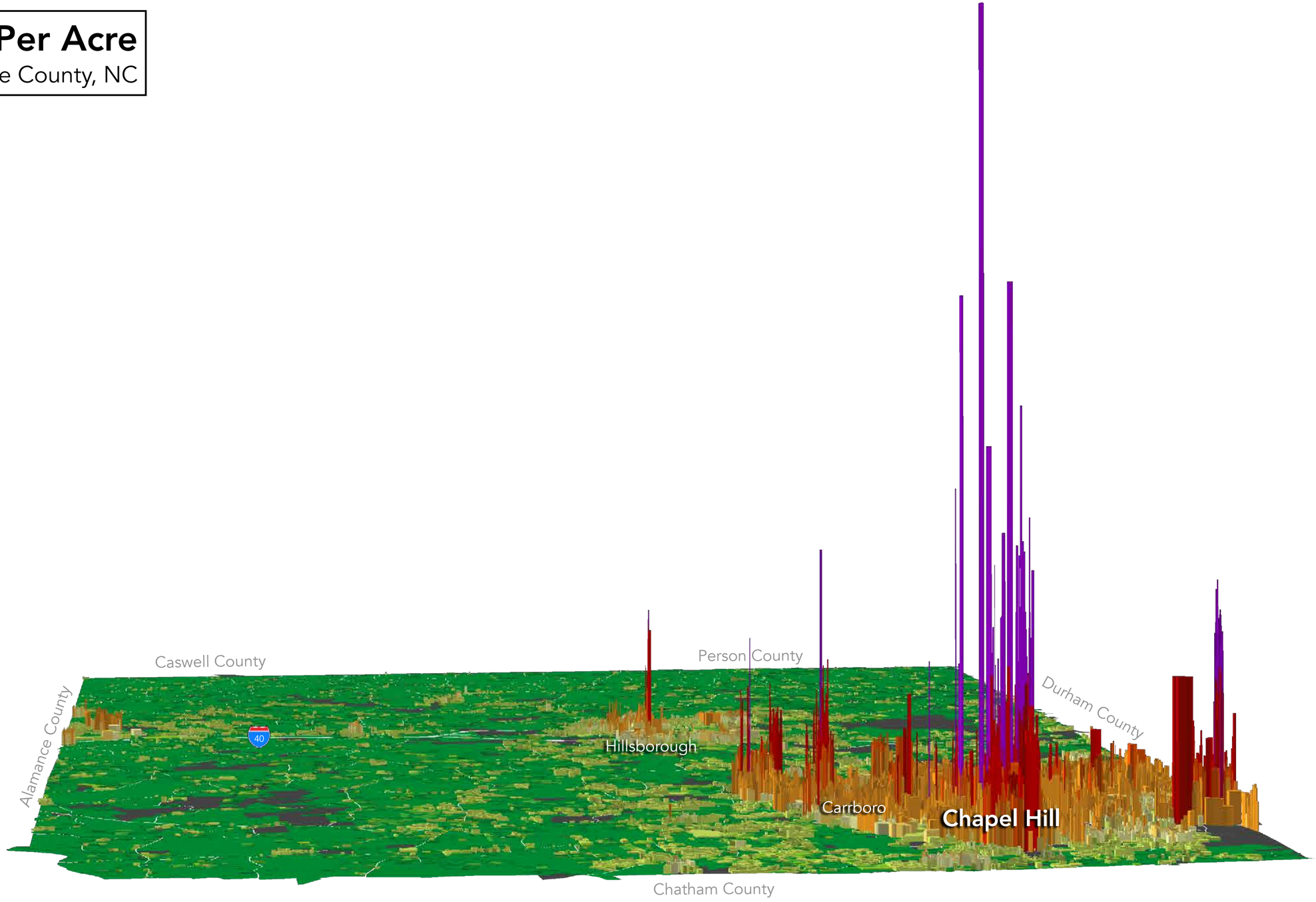
Lowest

Source: Orange County Assessor (2014)

URBAN3

Tax Value Per Acre

Orange County, NC



Tax Value Per Acre ($)

Highest

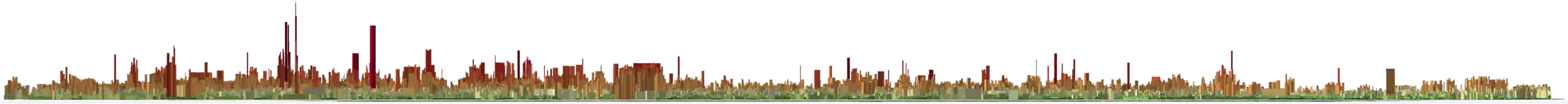
Lowest

Source: Orange County Assessor (2014)

URBAN3

Tax Value Per Acre

Gwinnett County, GA



Tax Value Per Acre ($)

Highest

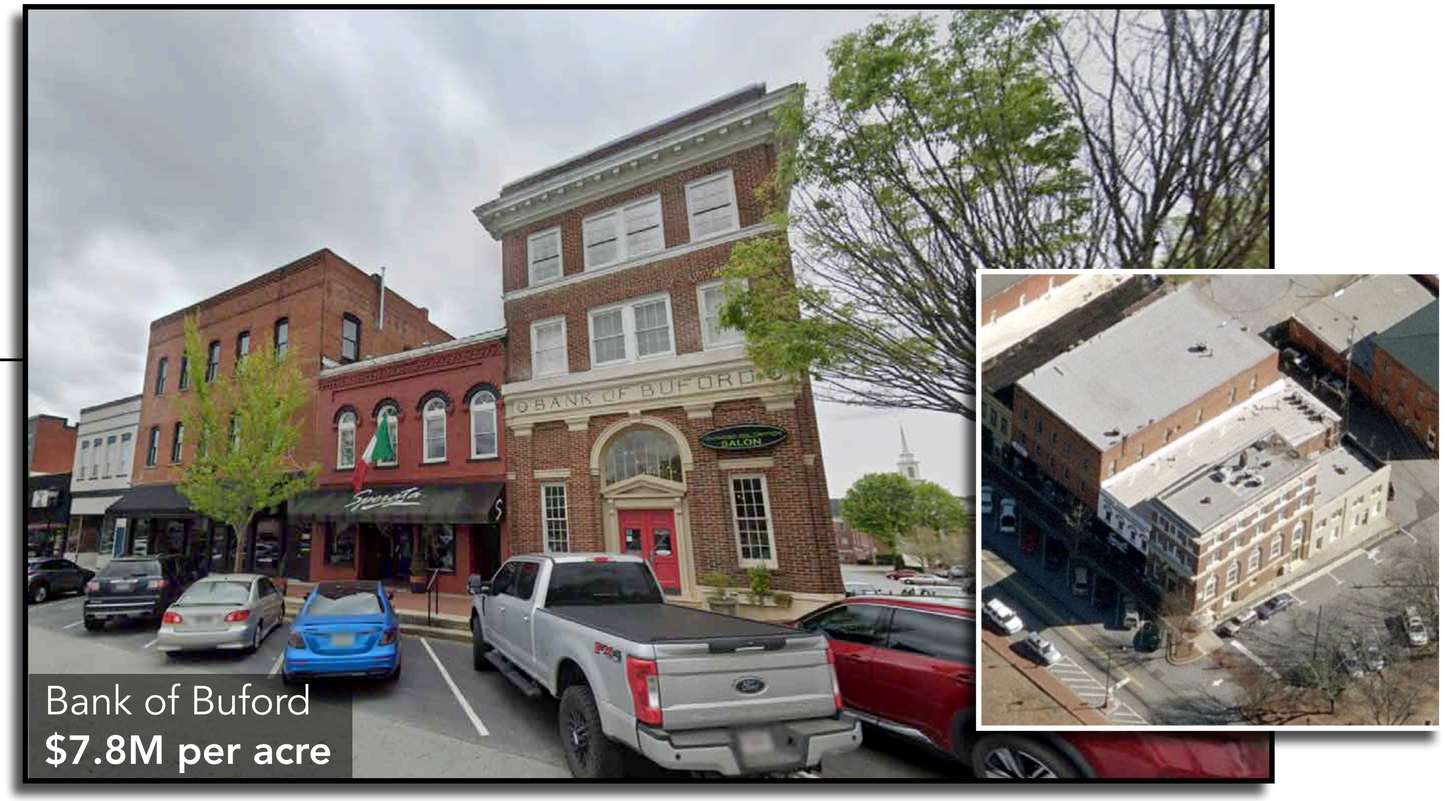
Lowest

Source: Gwinnett County Assessor (2014)

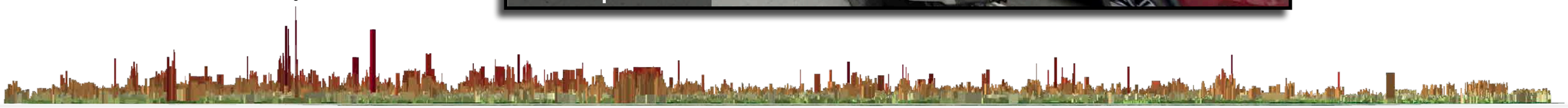
URBAN3

Tax Value Per Acre

Gwinnett County, GA



Bank of Buford
$7.8M per acre



Tax Value Per Acre ($)

Highest

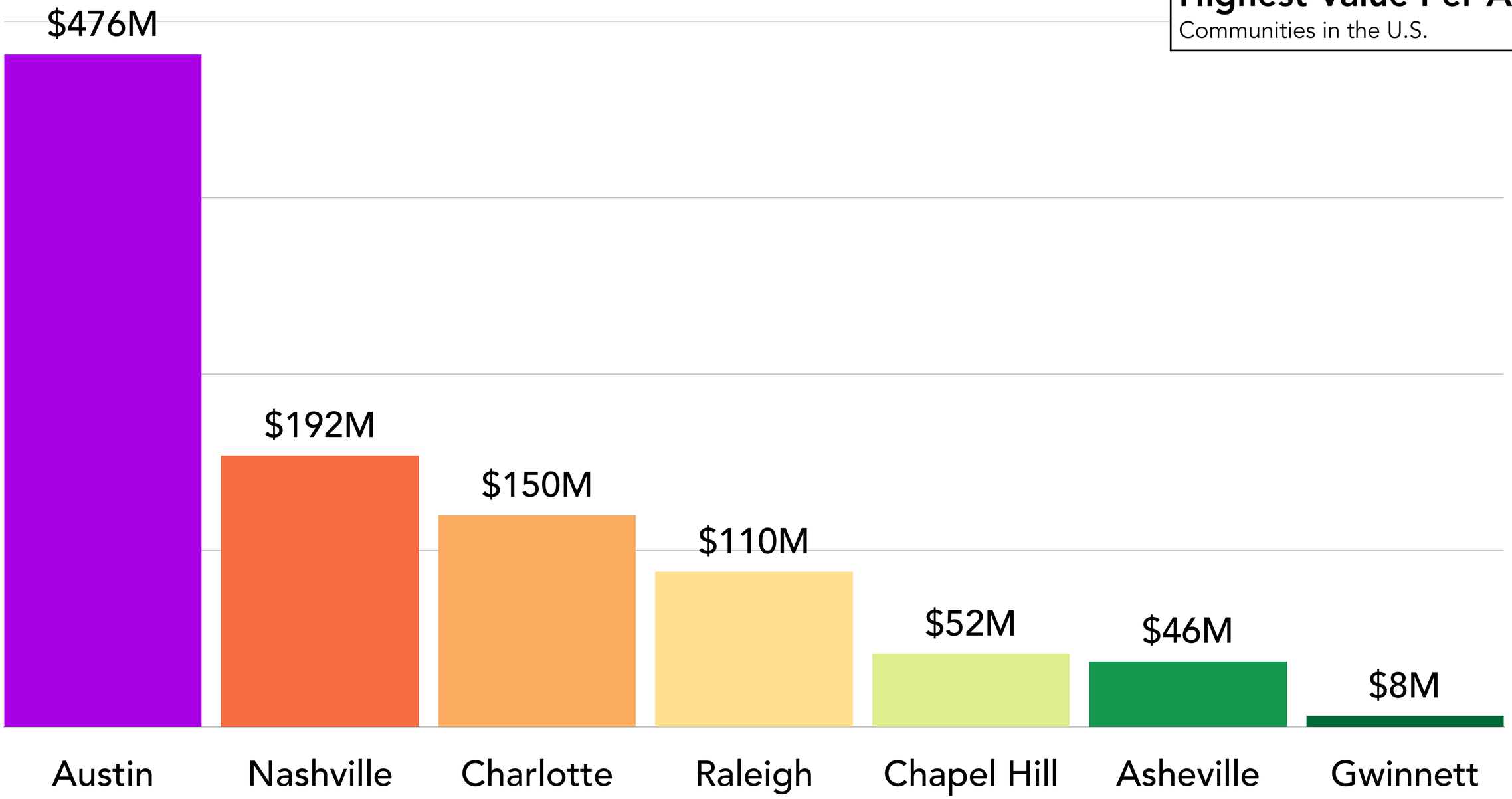
Lowest

Source: Gwinnett County Assessor (2014)

Highest Value Per Acre

Communities in the U.S.

URBAN3



URBAN3

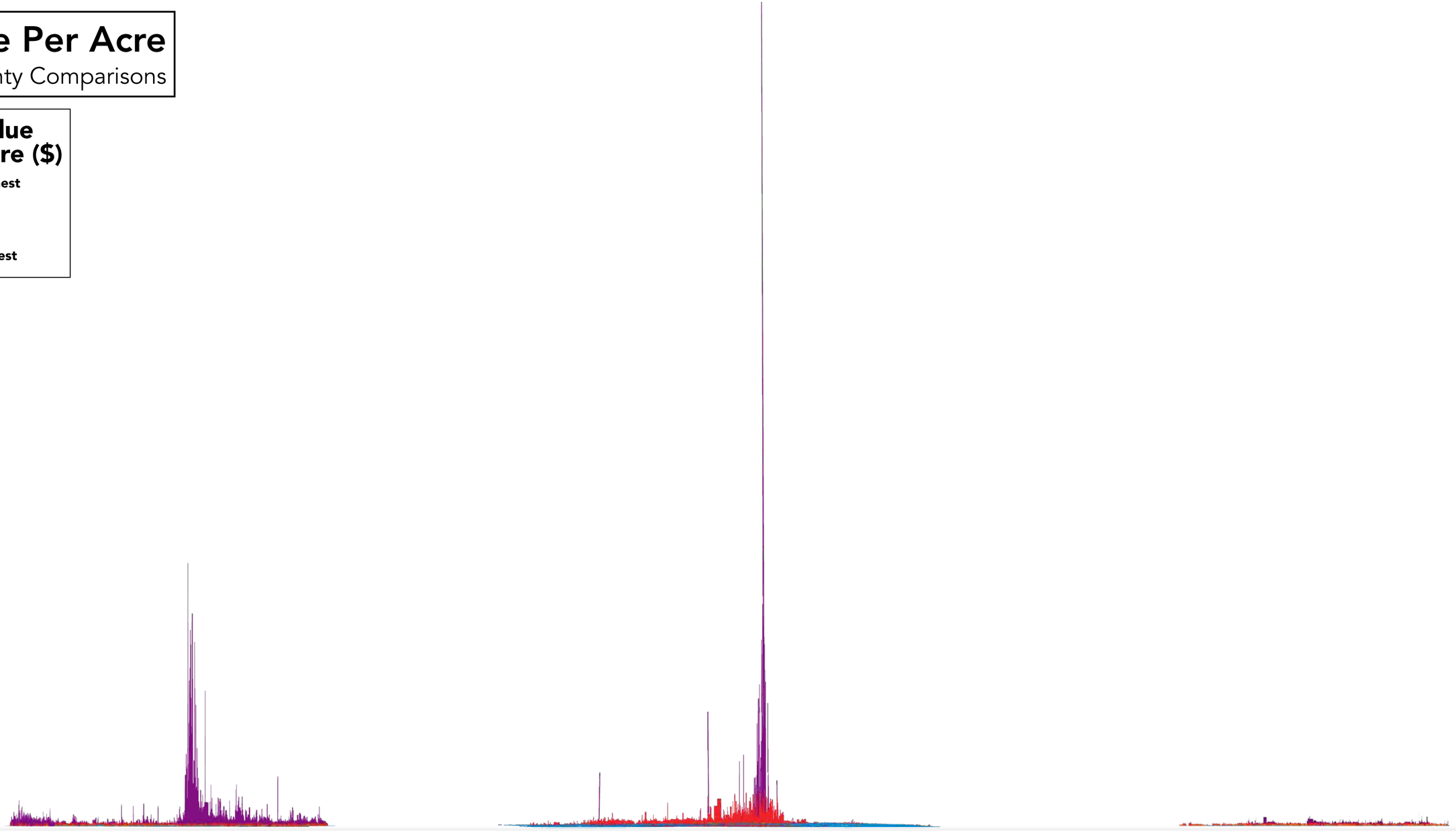
Value Per Acre

County Comparisons

Tax Value Per Acre ($)

Highest

Lowest



Nashville

(Davidson County, TN)

Austin

(Travis County, TX)

Lawrenceville

(Gwinnett County, GA)

Source: Davidson County, Travis County, and Gwinnett County Assessors (2014)

URBAN3

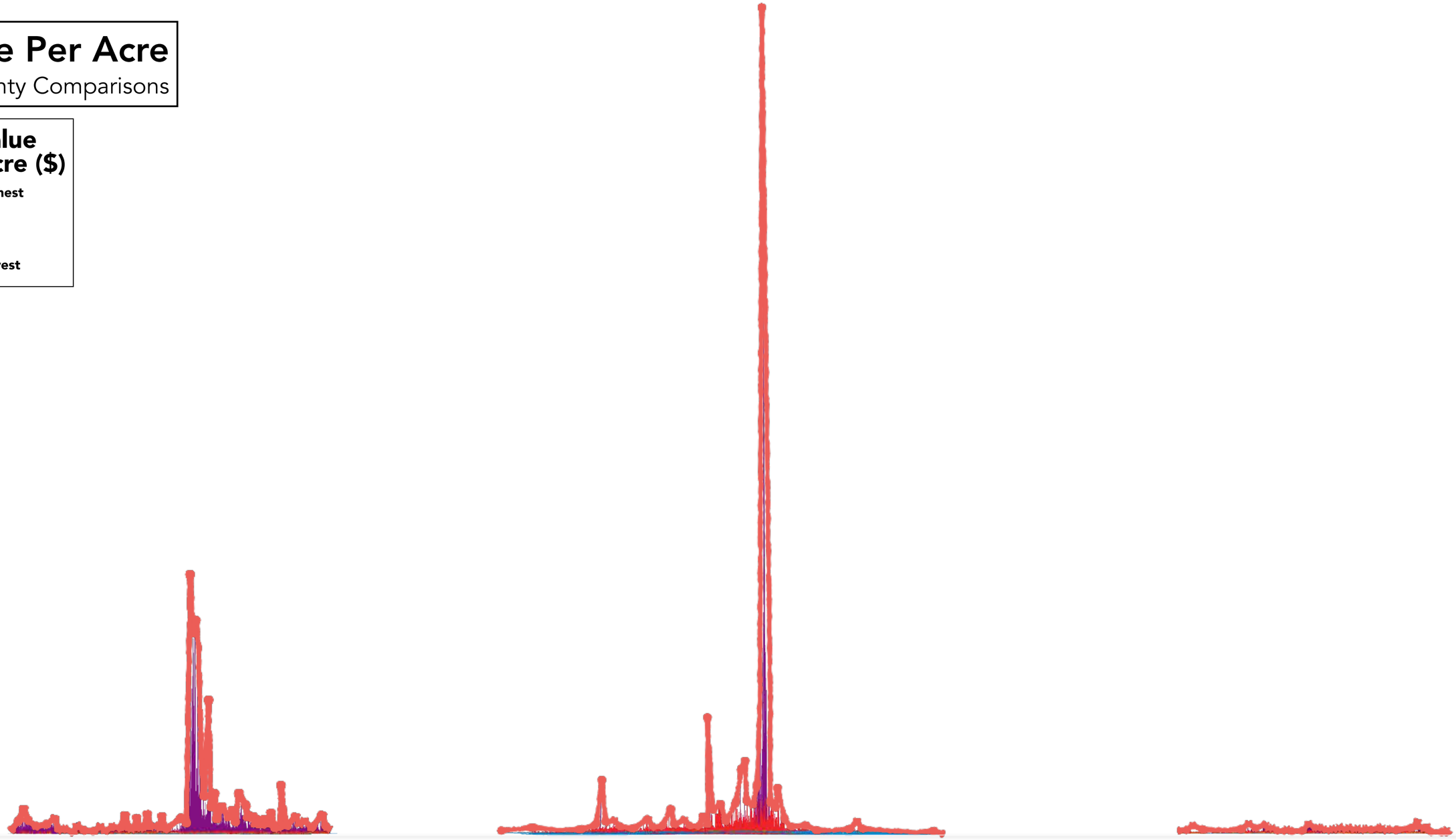
Value Per Acre

County Comparisons

Tax Value Per Acre ($)

Highest

Lowest



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Lawrenceville

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Source: Davidson County, Travis County, and Gwinnett County Assessors (2014)

URBAN3

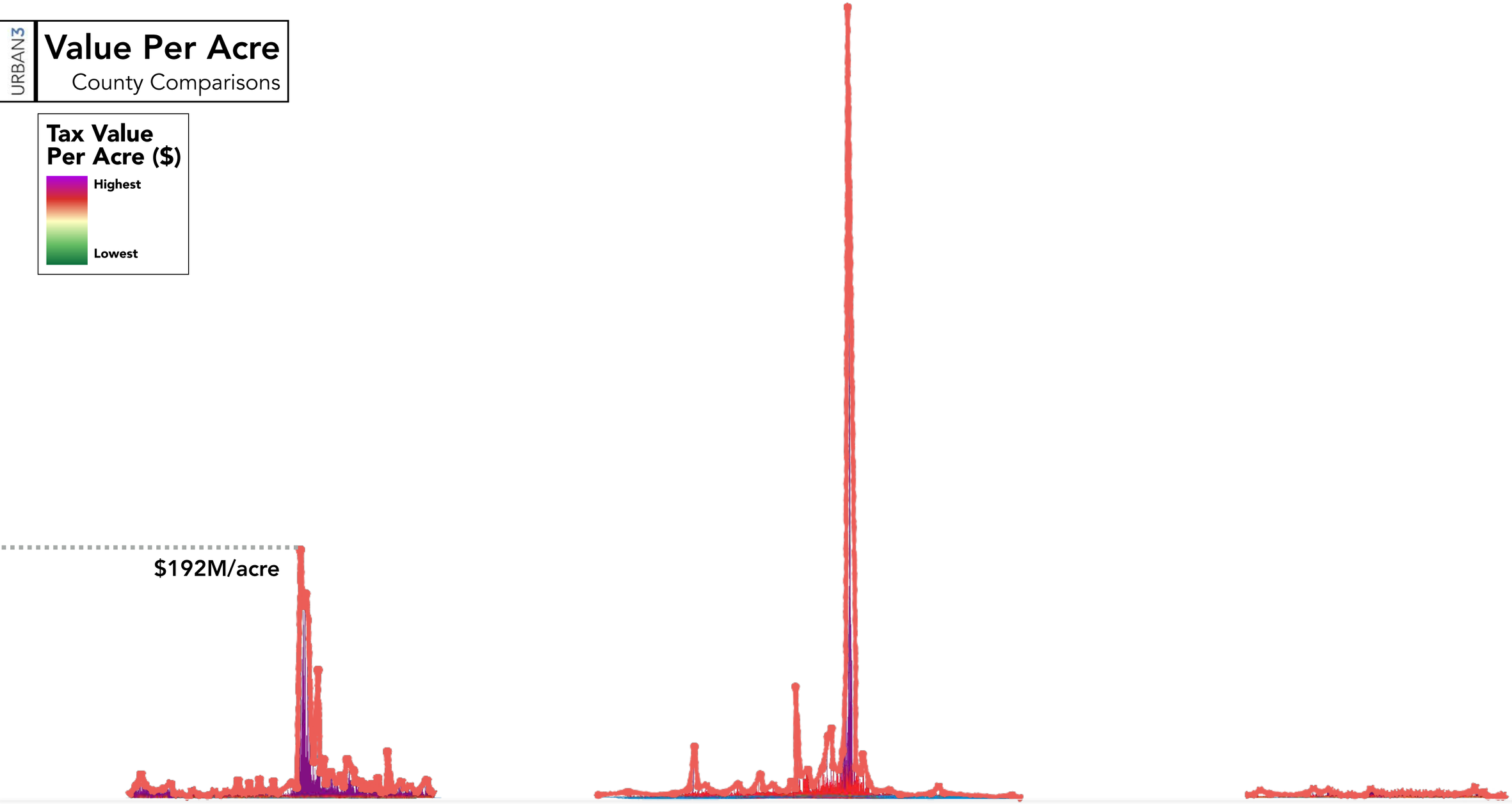
Value Per Acre

County Comparisons

Tax Value Per Acre ($)

Highest

Lowest



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(Davidson County, TN)

Austin
(Travis County, TX)

Lawrenceville
(Gwinnett County, GA)

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URBAN3

Value Per Acre

County Comparisons

Tax Value Per Acre ($)

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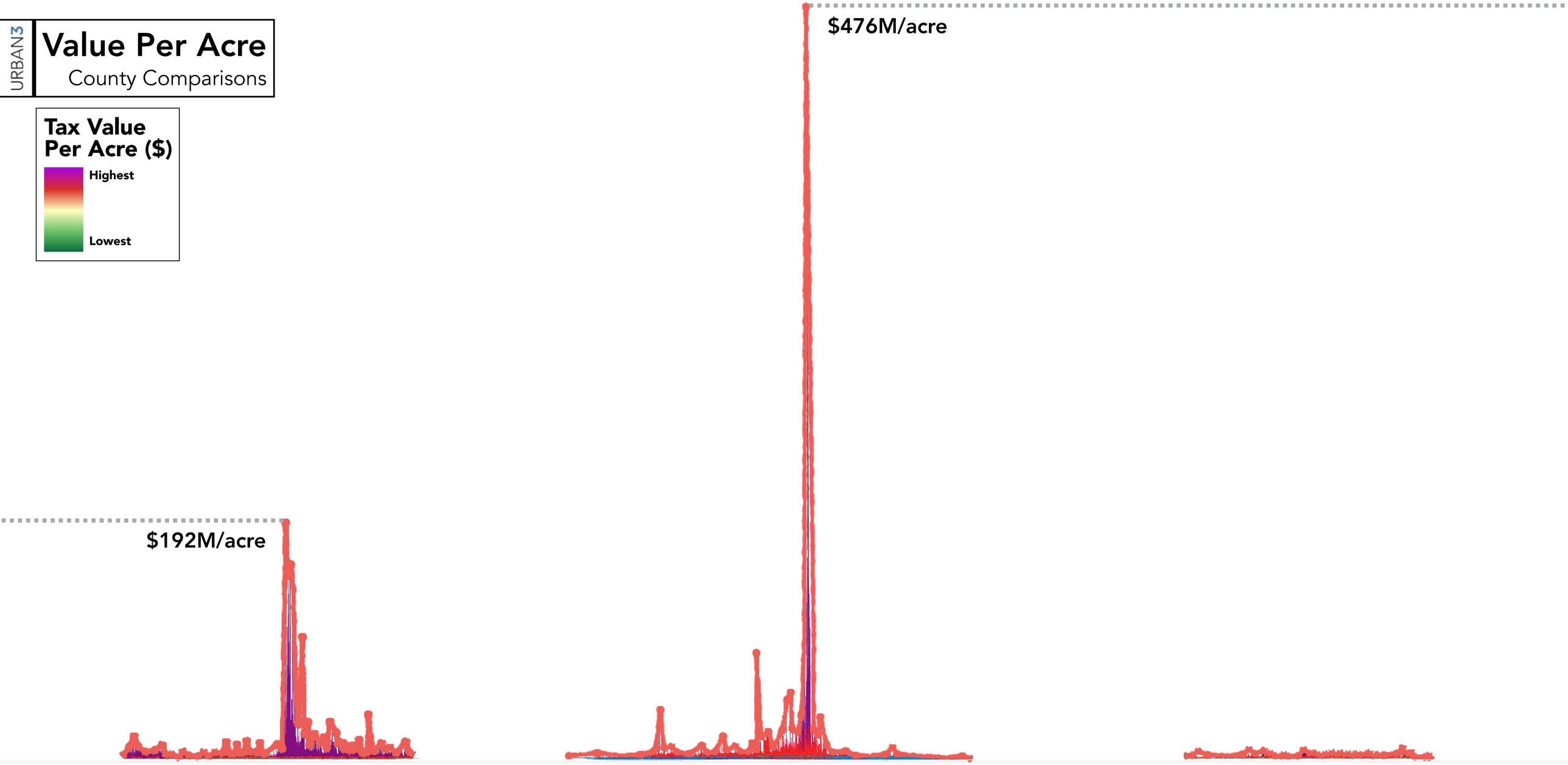
Lowest



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URBAN3

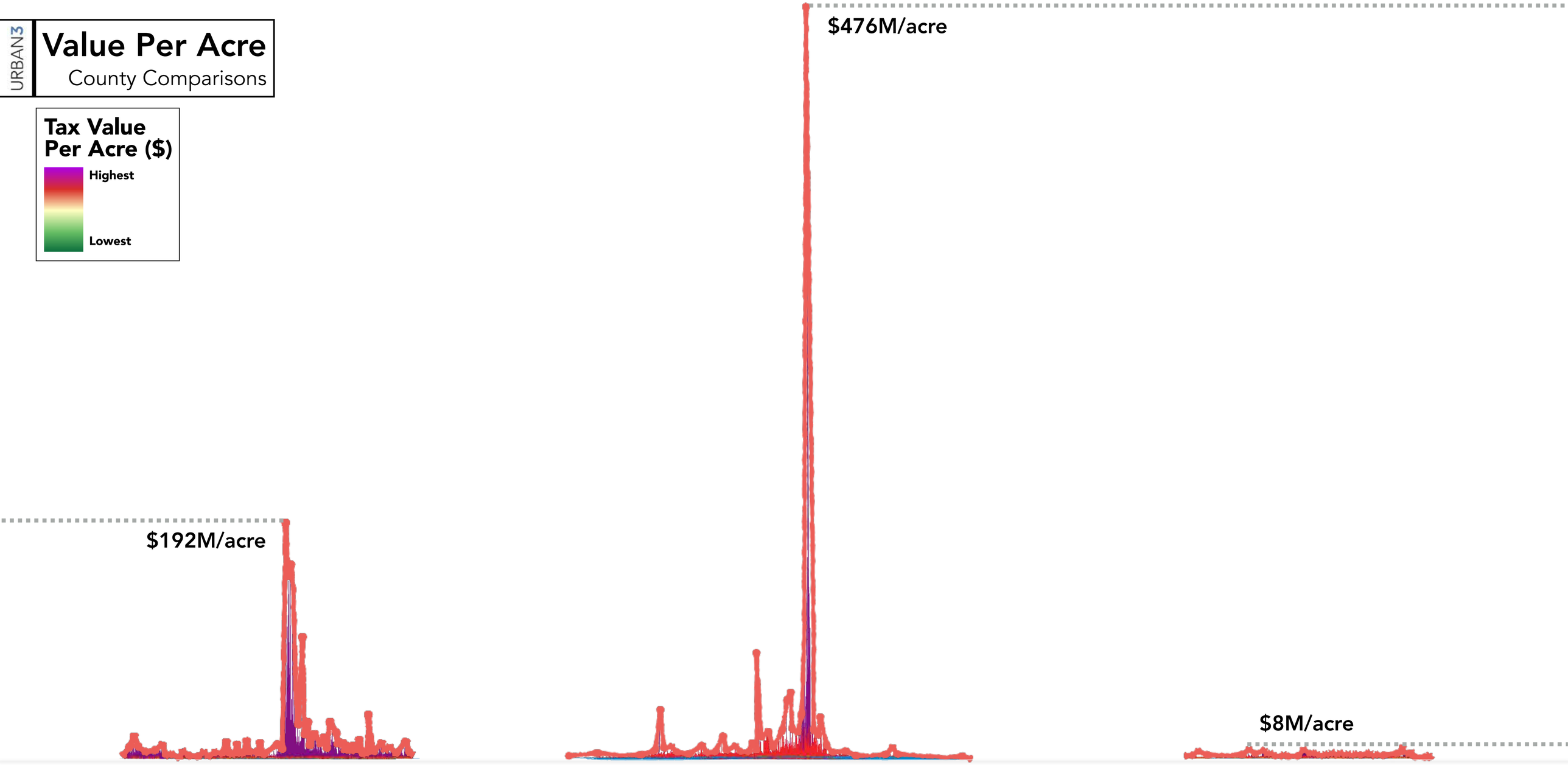
Value Per Acre

County Comparisons

Tax Value Per Acre ($)

Highest

Lowest



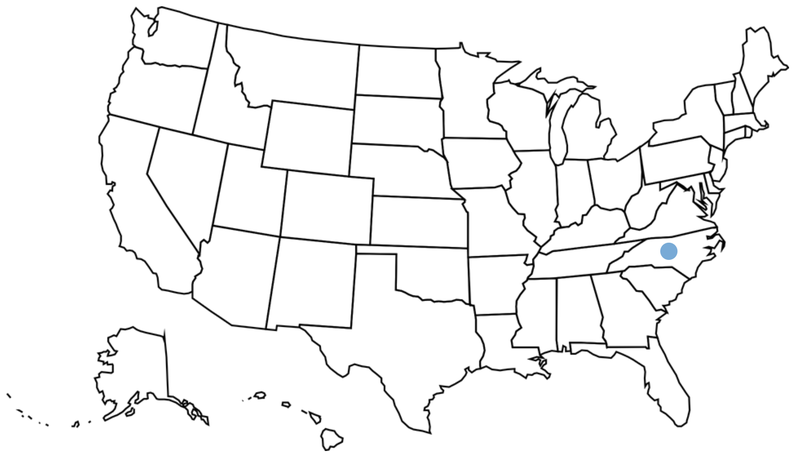
Nashville
(Davidson County, TN)

Austin
(Travis County, TX)

Lawrenceville
(Gwinnett County, GA)

Source: Davidson County, Travis County, and Gwinnett County Assessors (2014)

WELL
ISN'T THAT SPATIAL



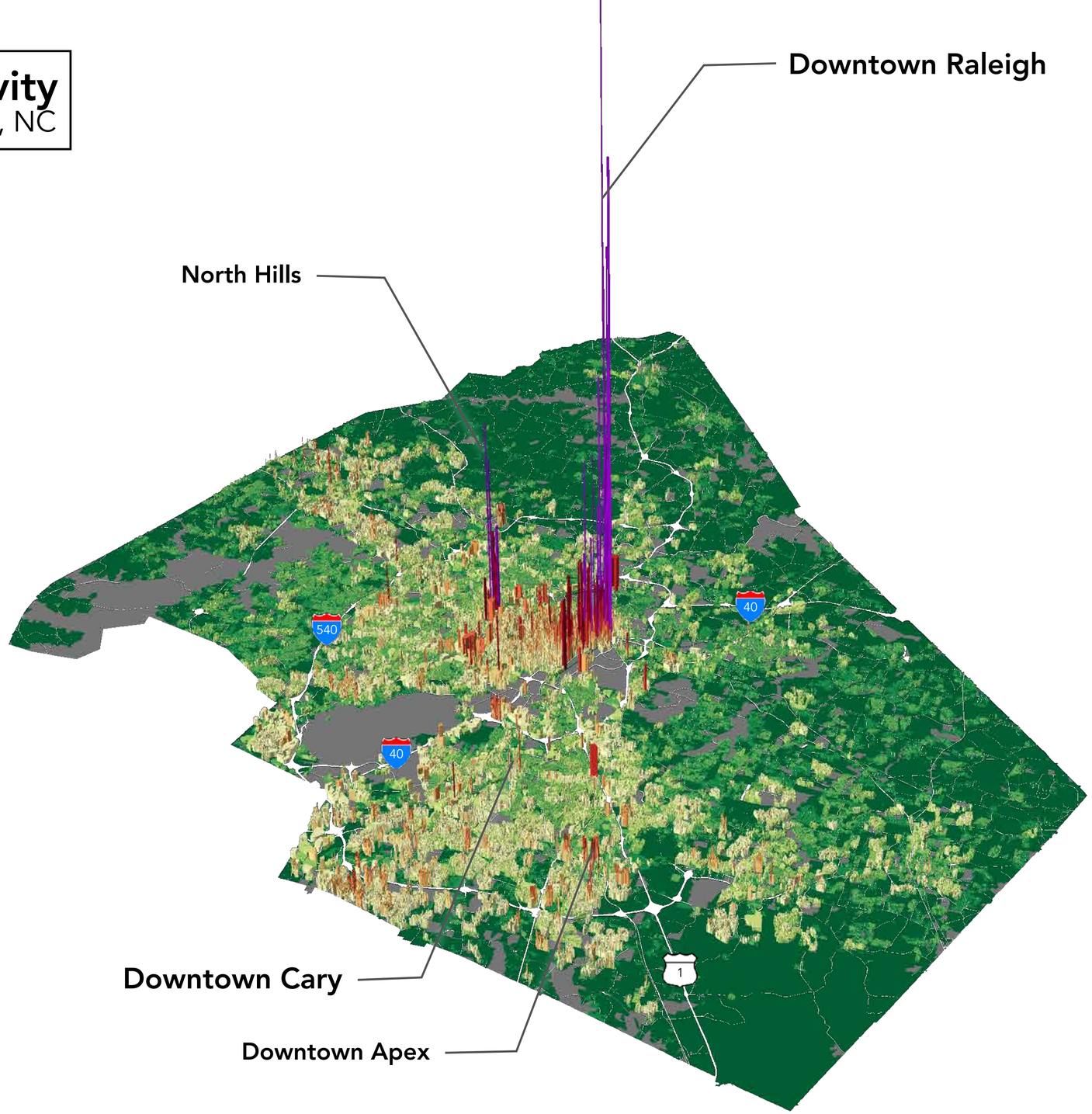
Case Study: Economic MRI®
2019

Cary, North Carolina

URBAN3

URBAN3

Value Productivity
Wake County, NC



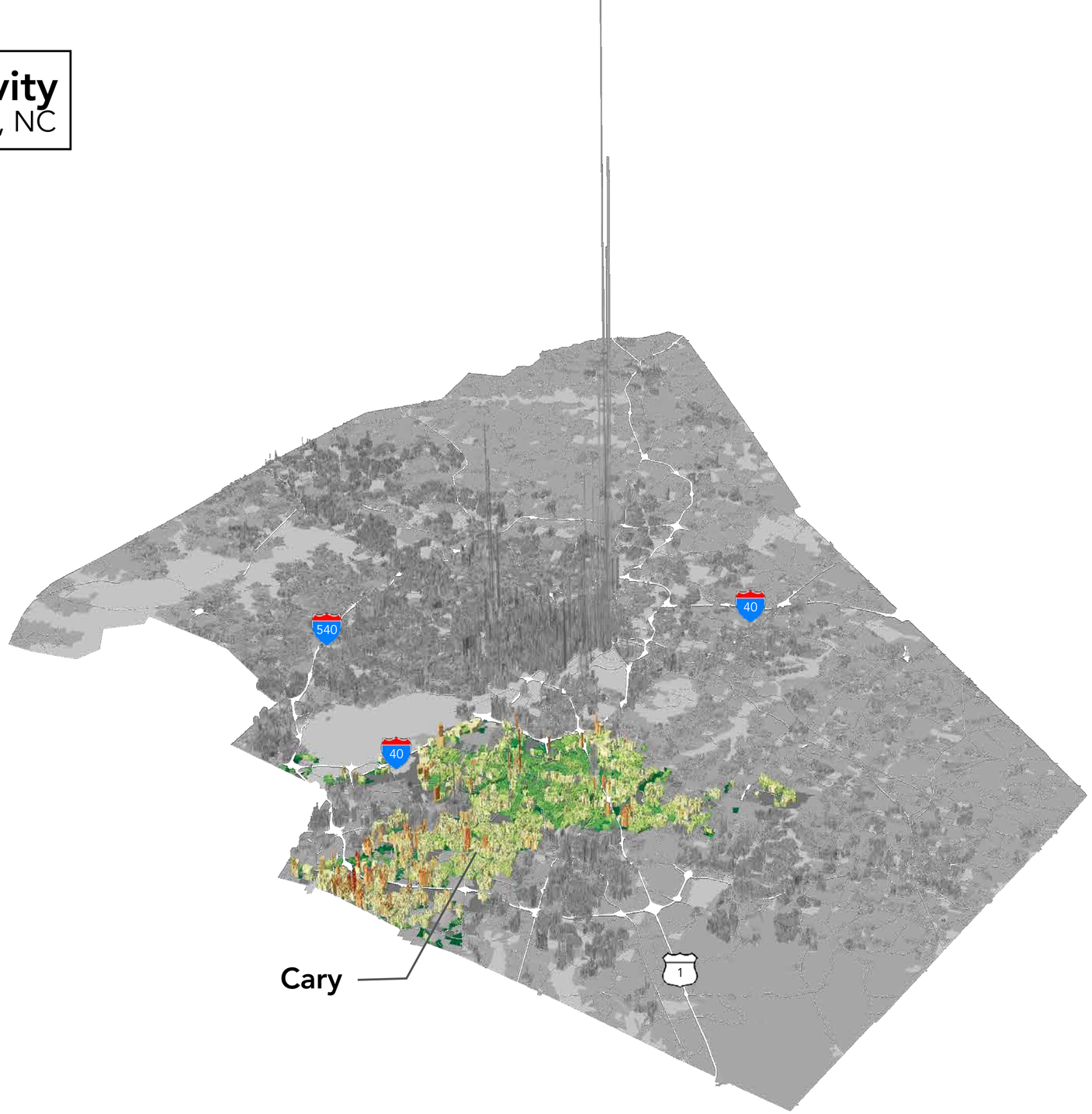
Taxable Value per Acre ($)

- 0
- < 100,000
- 100,001 - 300,000
- 300,001 - 750,000
- 750,001 - 1,000,000
- 1,000,001 - 1,500,000
- 1,500,001 - 2,750,000
- 2,750,001 - 4,000,000
- 4,000,001 - 6,000,000
- 6,000,001 - 8,000,000
- 8,000,001 - 15,000,000
- 15,000,001 - 30,000,000
- > 30,000,001

URBAN3

Value Productivity

Cary, NC



N

Taxable Value per Acre ($)

- 0
- < 100,000
- 100,001 - 300,000
- 300,001 - 750,000
- 750,001 - 1,000,000
- 1,000,001 - 1,500,000
- 1,500,001 - 2,750,000
- 2,750,001 - 4,000,000
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- 6,000,001 - 8,000,000
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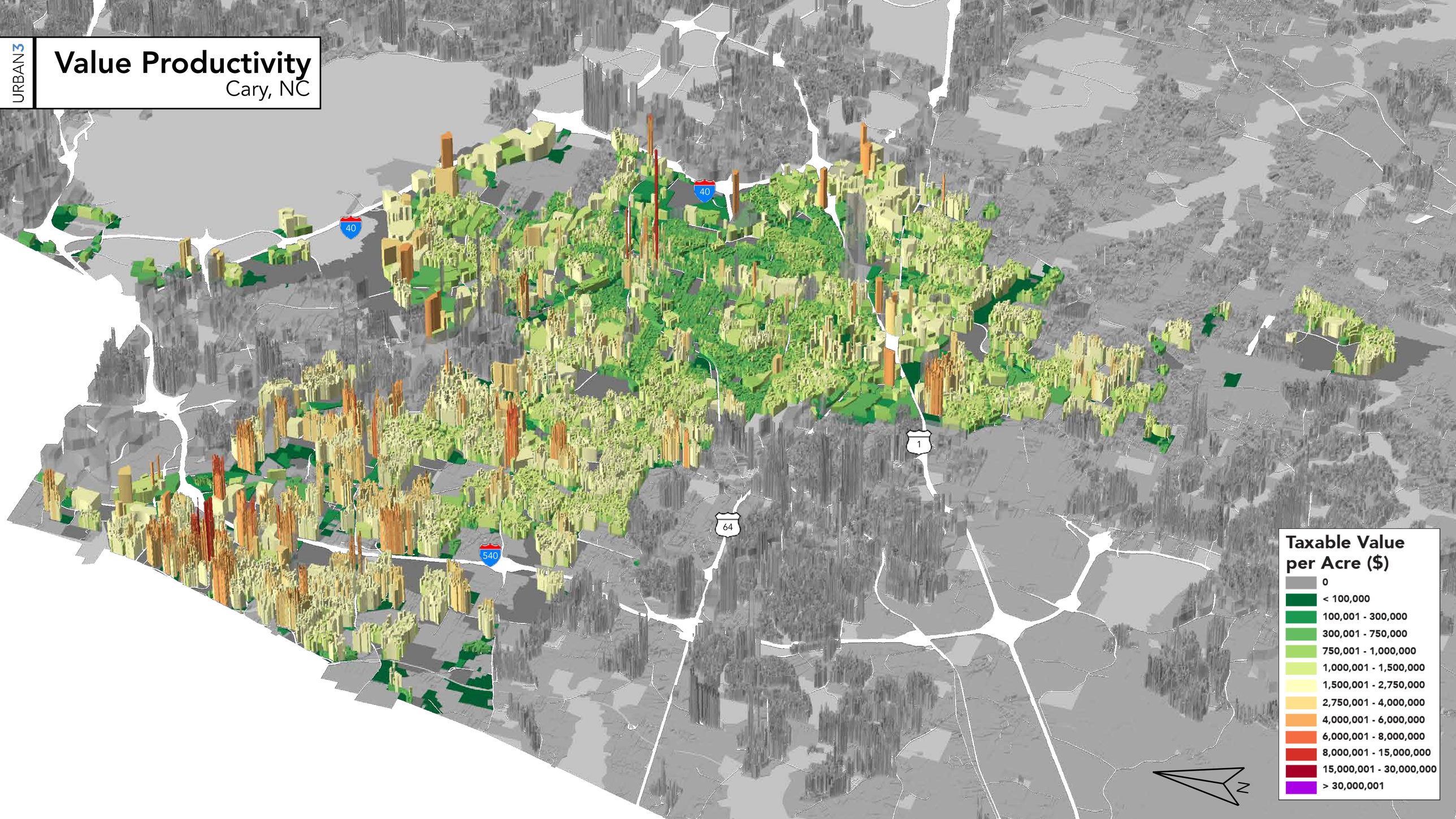
URBAN3

Value Productivity

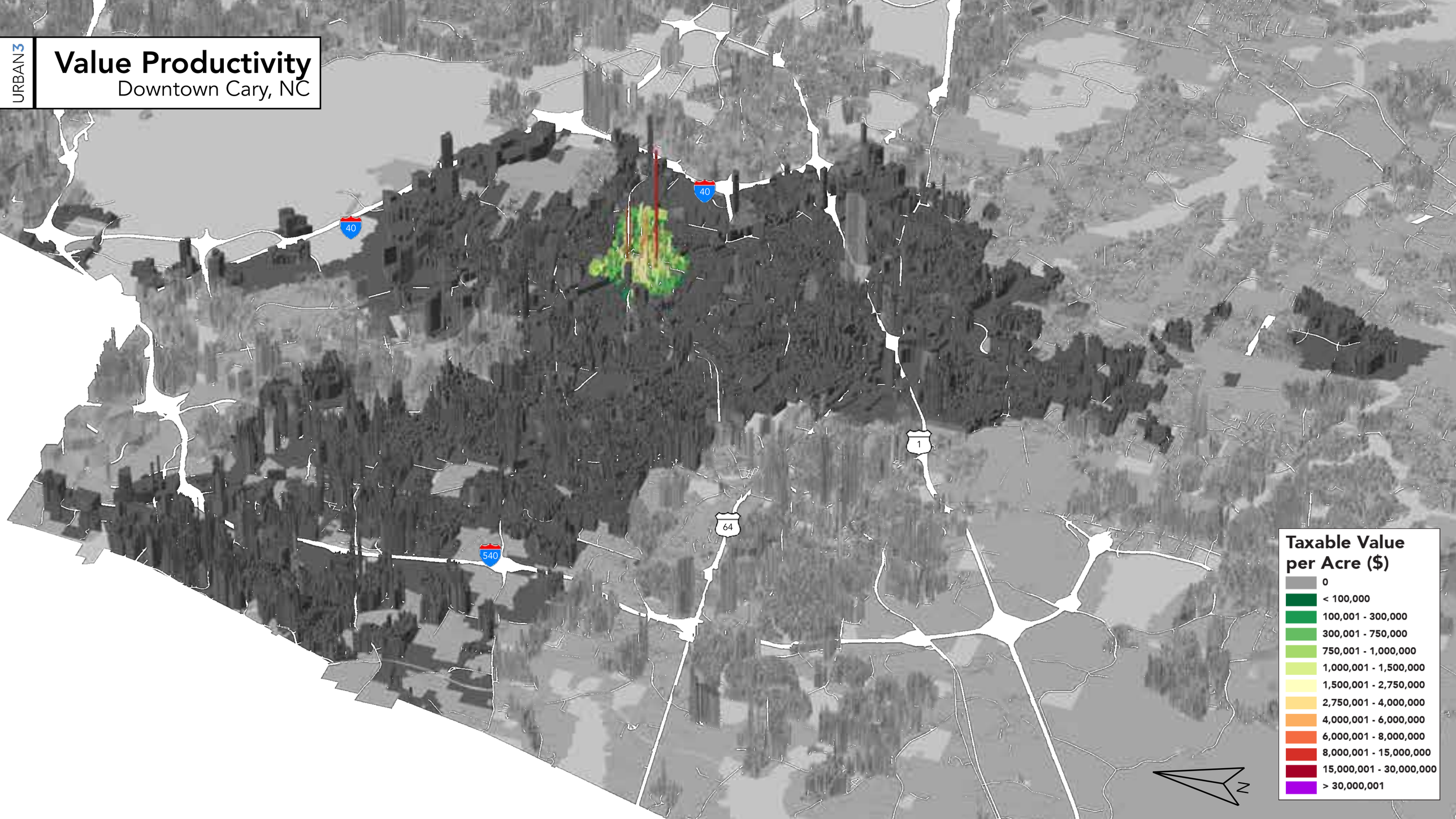
Cary, NC



URBAN3

Value Productivity

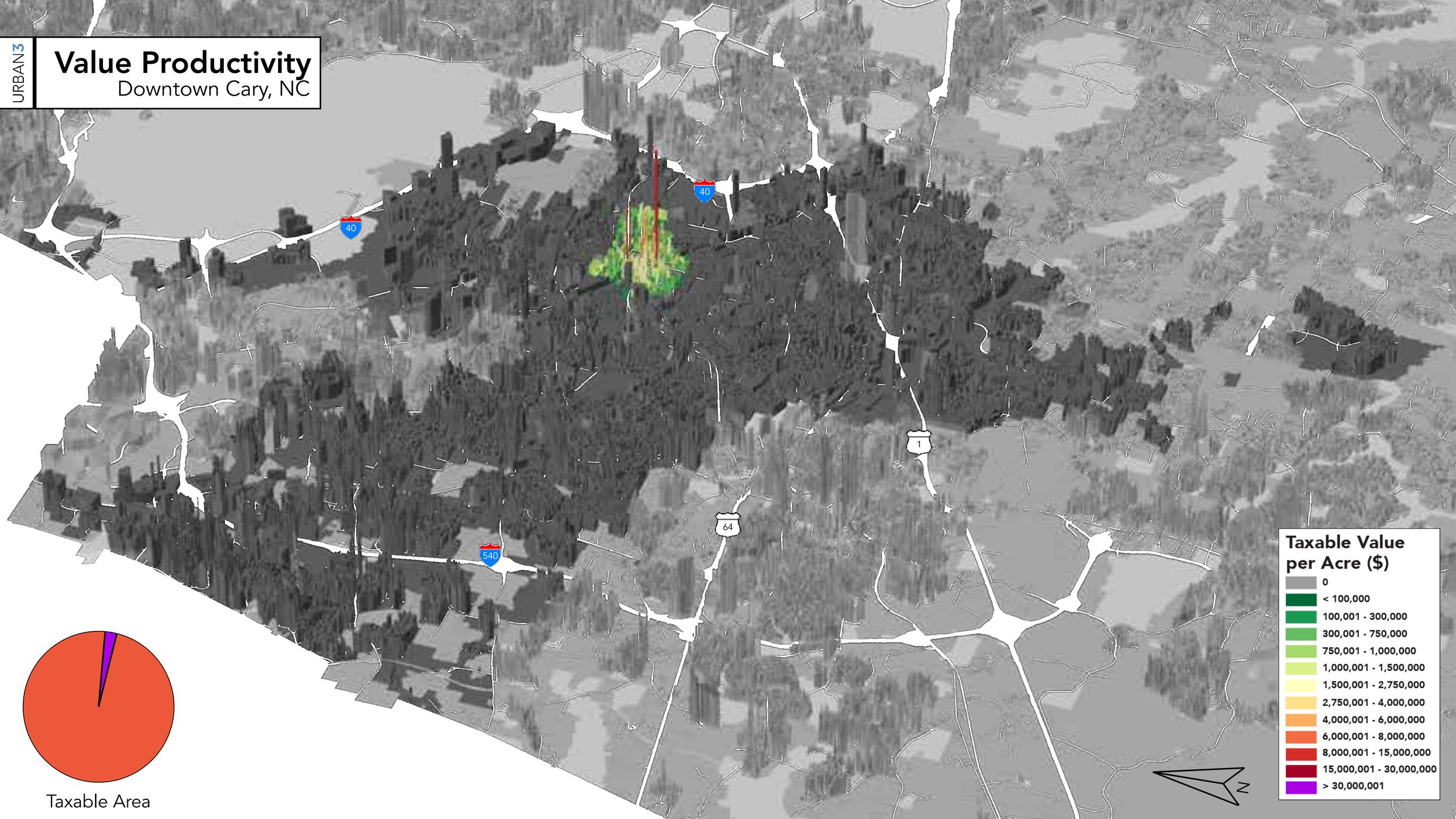
Downtown Cary, NC



URBAN3

Value Productivity

Downtown Cary, NC



URBAN3

Value Productivity

Downtown Cary, NC

URBAN3

Value Productivity

Downtown Cary, NC

1:0.6

FUTURE FISCAL CHALLENGES

In Cary, new development drives the growth of public revenues that have supported the Town's ability to provide high quality community amenities and services. On average, 80% of new revenue growth comes from new tax base to the Town. As growth slows due to limited land for development, new revenue generation models will be needed to maintain the level of service residents have come to expect.

URBAN3

Growth Over Time

Cary, NC

City Area

Building Area / Lot Area

- No Data
- 0.075 - 0.10
- 0.10 - 0.15
- 0.15 - 0.20
- 0.20 - 0.25
- 0.25 - 0.30
- 0.30 - 0.4
- 0.4 & Above

*Based on available year built data from Wake County Assesor file

URBAN3

Growth Over Time

Cary, NC

City Area

Building Area / Lot Area

- No Data
- 0.075 - 0.10
- 0.10 - 0.15
- 0.15 - 0.20
- 0.20 - 0.25
- 0.25 - 0.30
- 0.30 - 0.4
- 0.4 & Above

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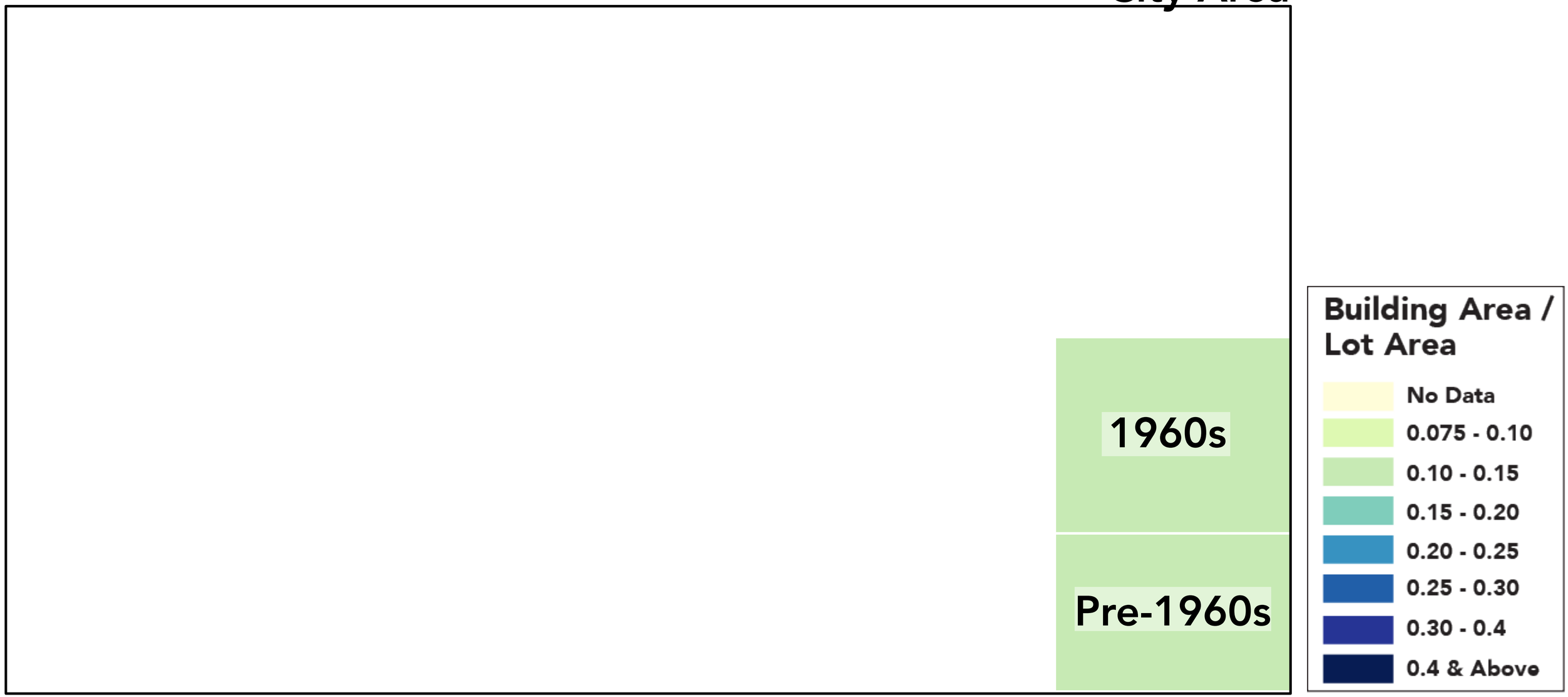
URBAN3

Growth Over Time

Cary, NC

City Area



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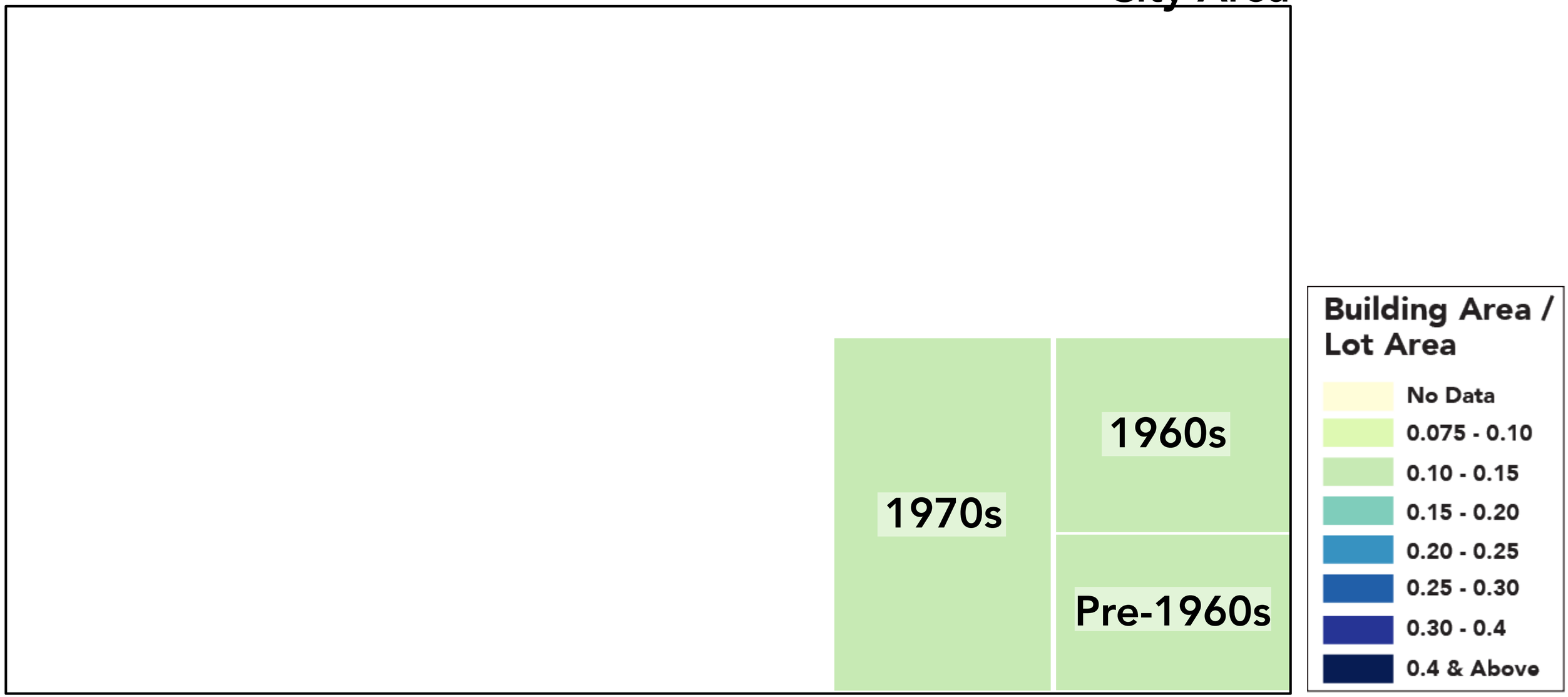
URBAN3

Growth Over Time

Cary, NC

City Area



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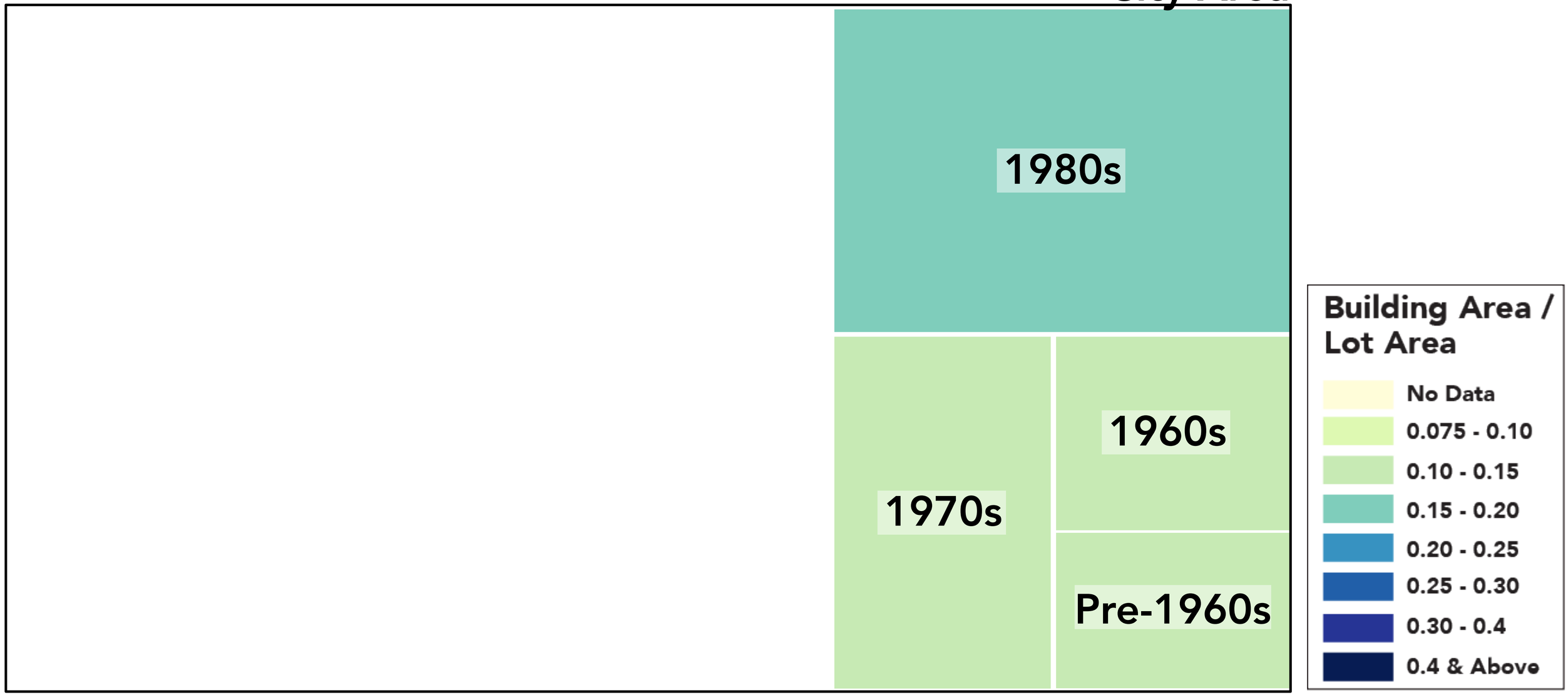
URBAN3

Growth Over Time

Cary, NC

City Area



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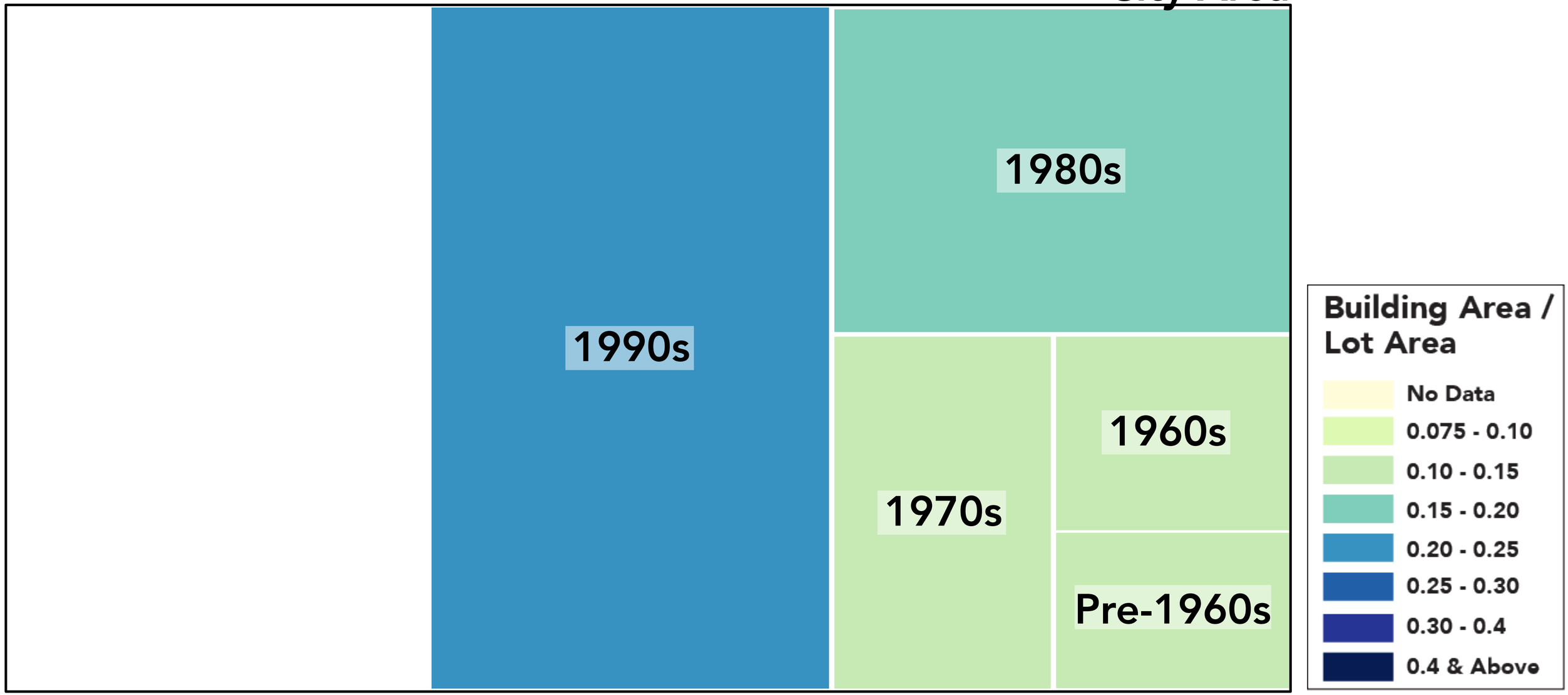
URBAN3

Growth Over Time

Cary, NC

City Area



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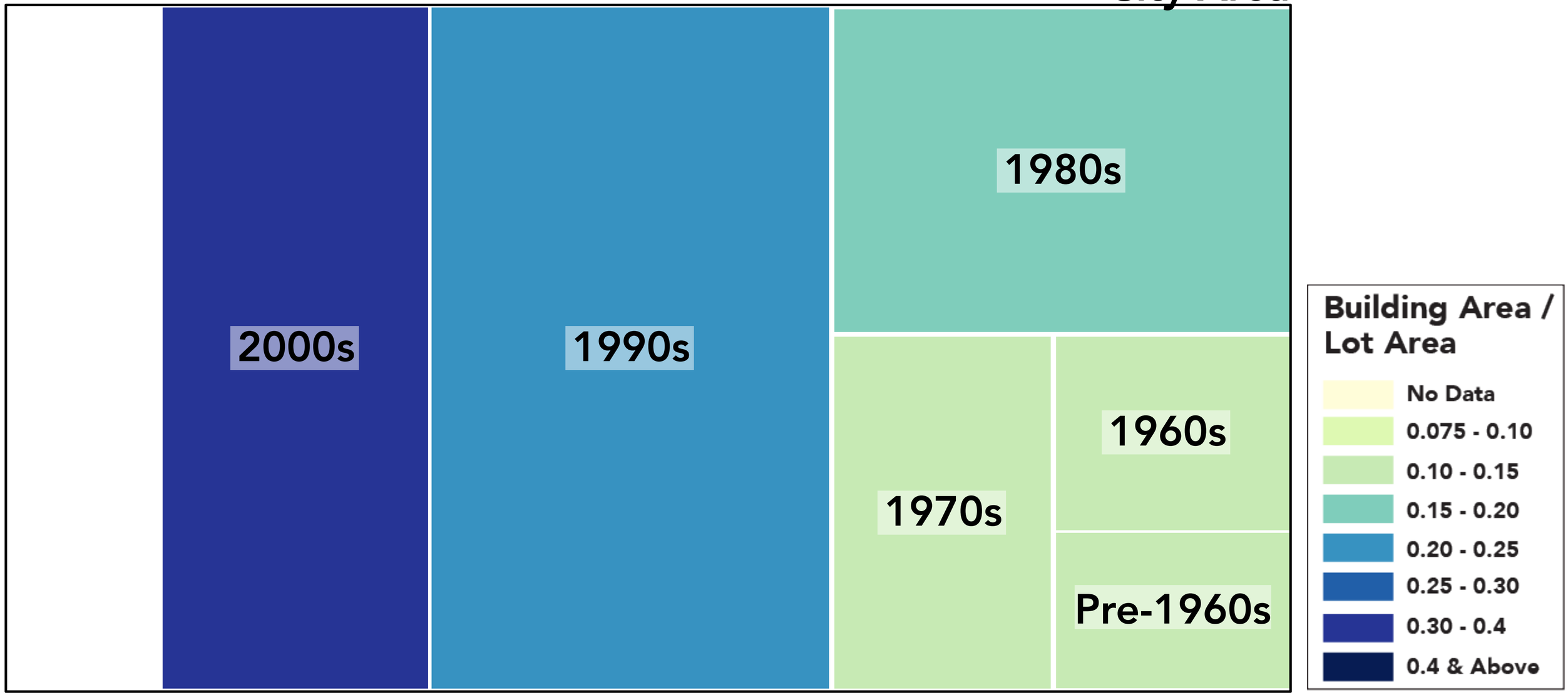
URBAN3

Growth Over Time

Cary, NC

City Area



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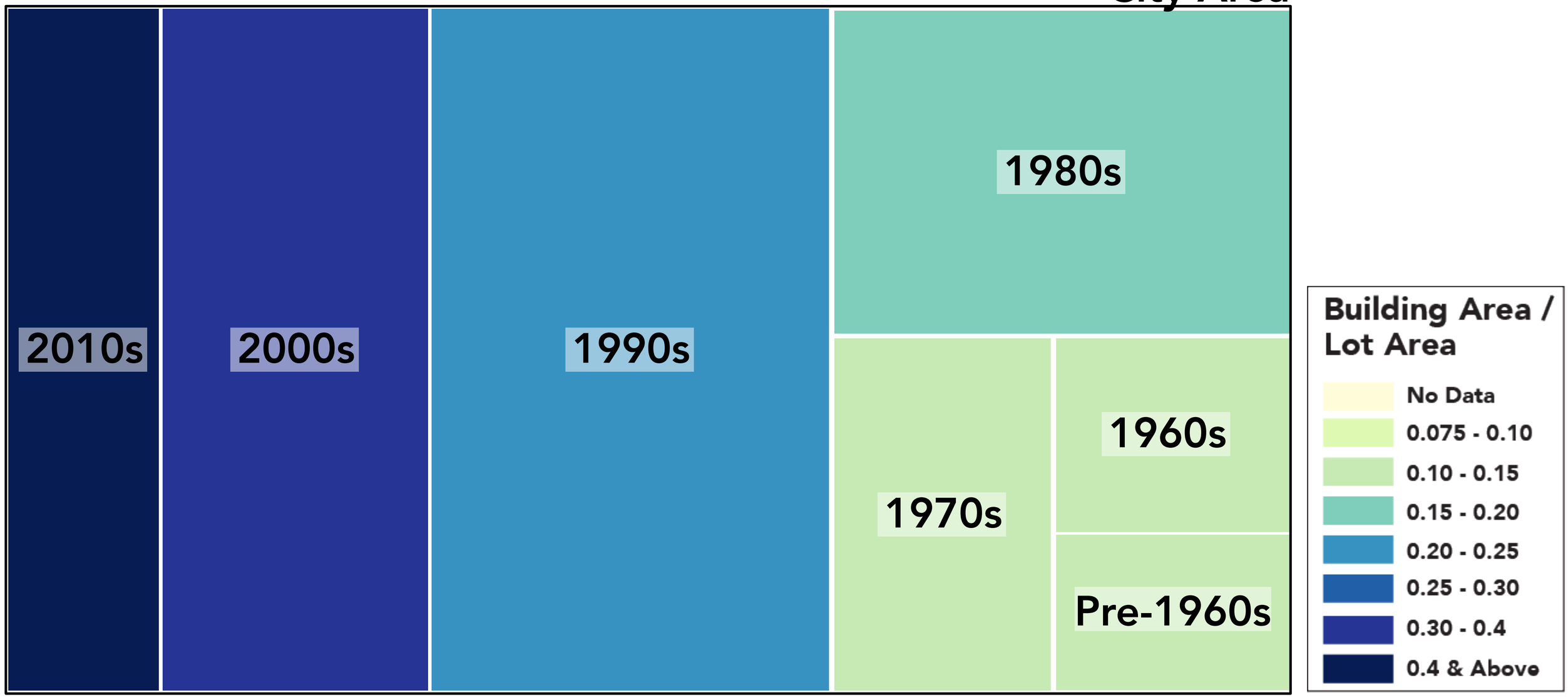
URBAN3

Growth Over Time

Cary, NC

City Area



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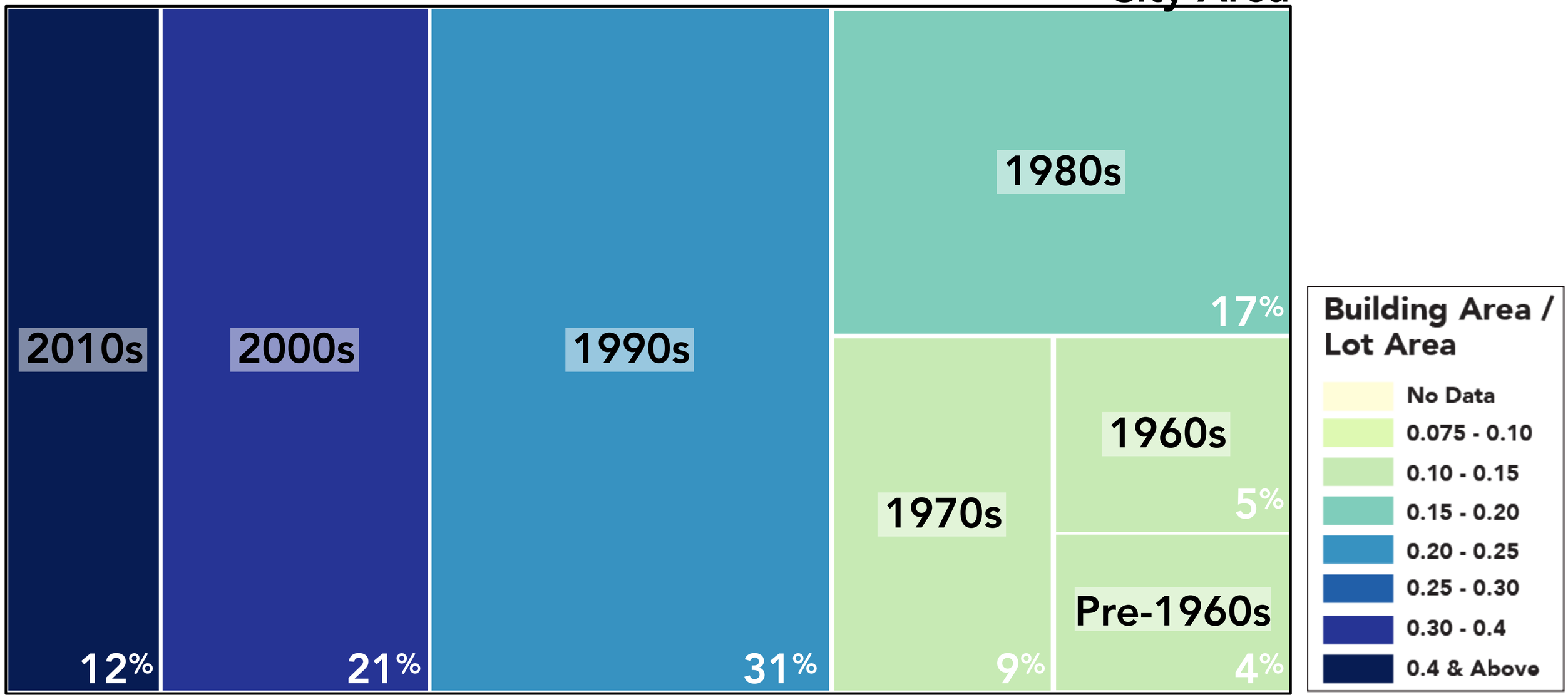
URBAN3

Growth Over Time

Cary, NC

City Area



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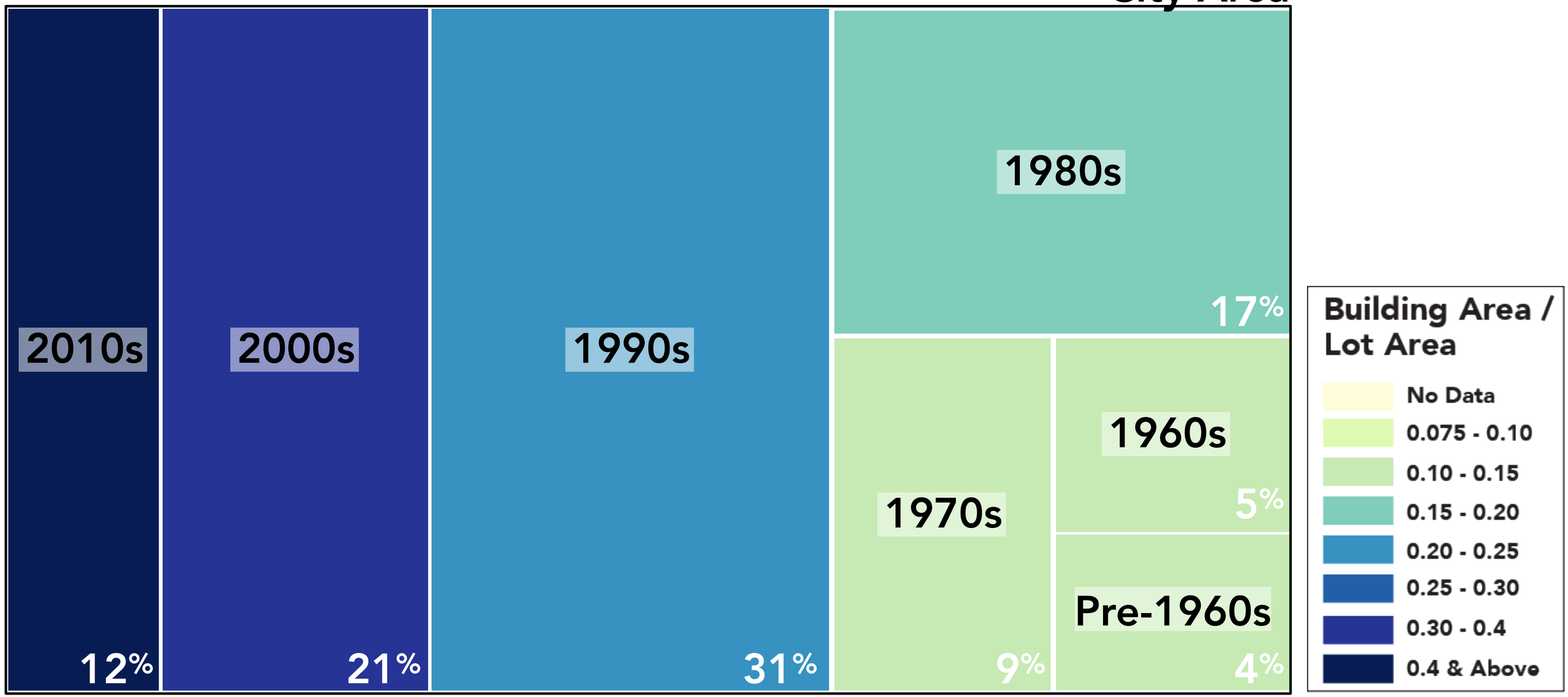
URBAN3

Growth Over Time

Cary, NC

City Area



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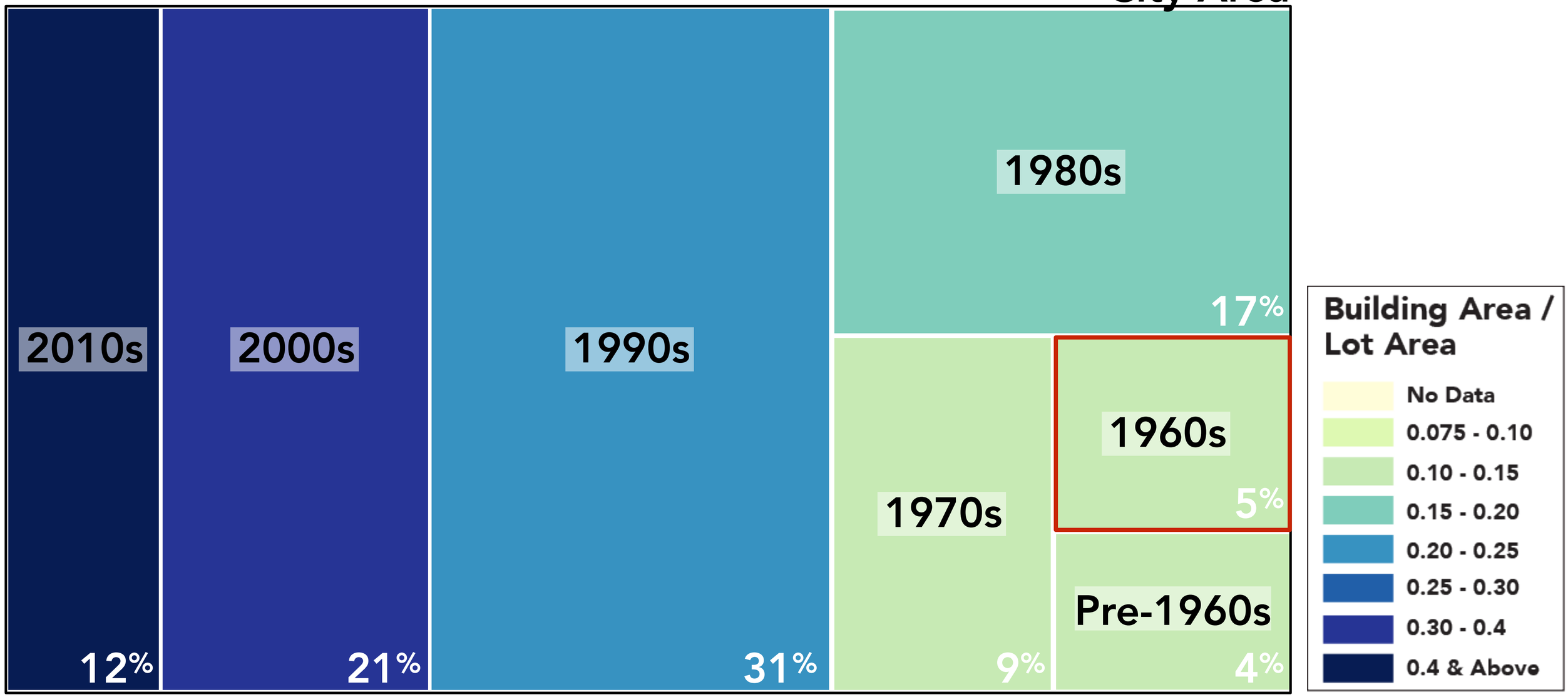
Growth Over Time

Cary, NC

City Area



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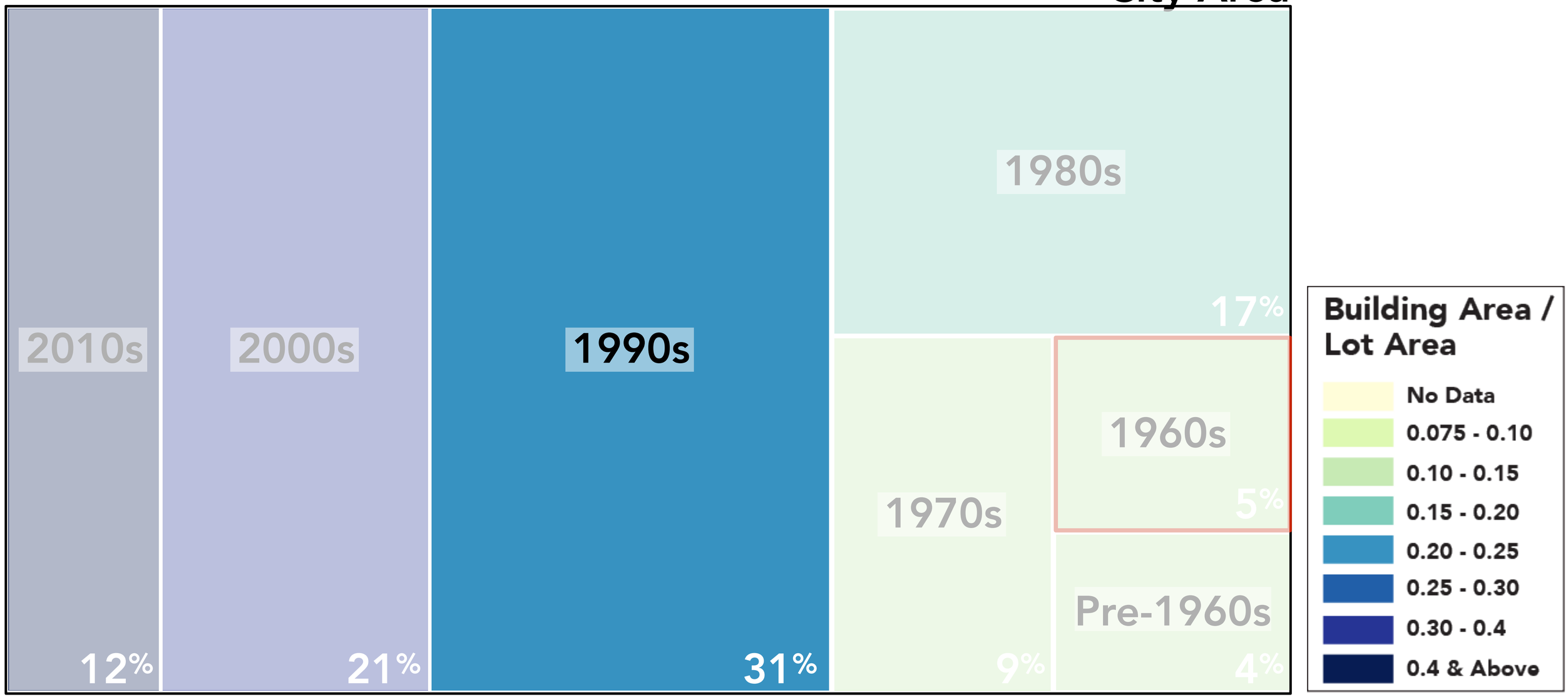
URBAN3

Growth Over Time

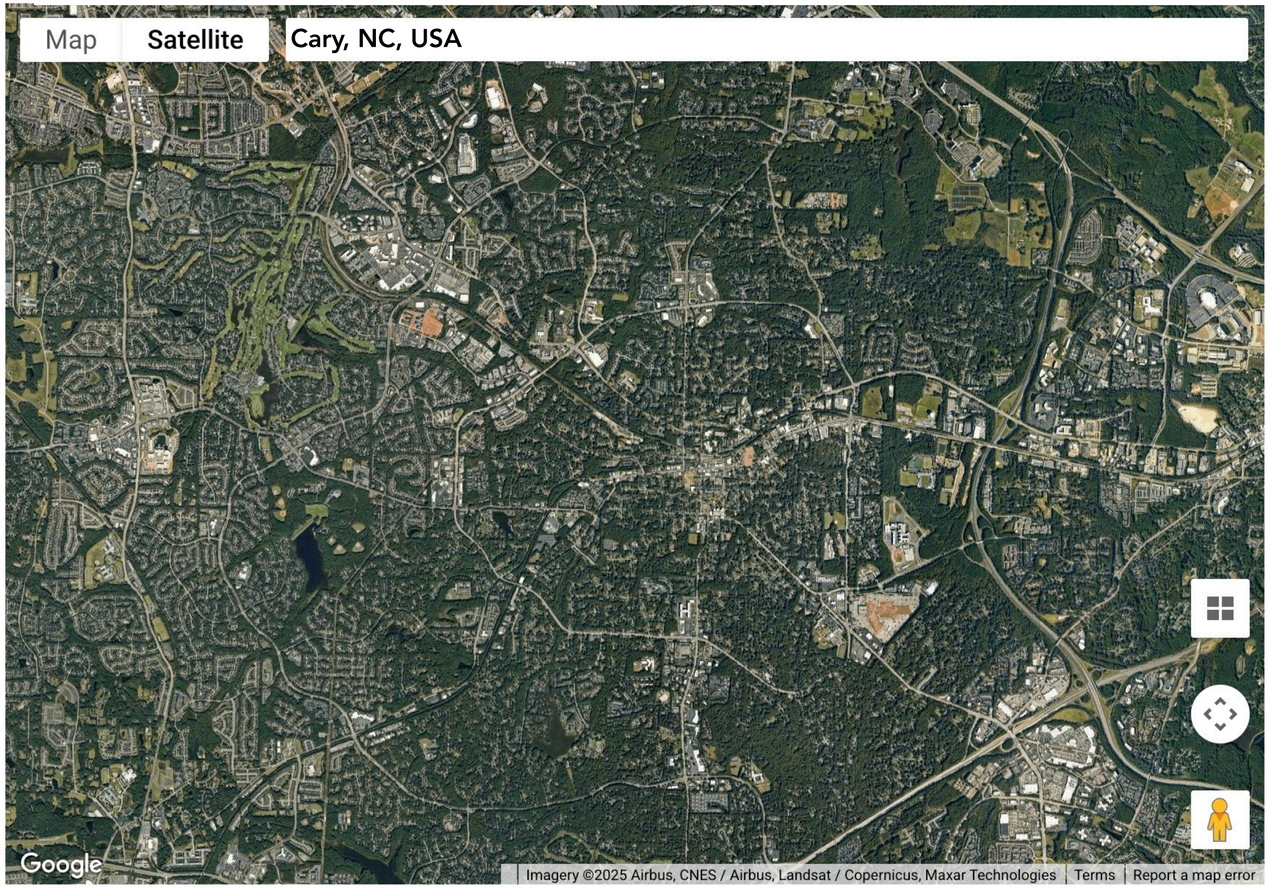
Cary, NC

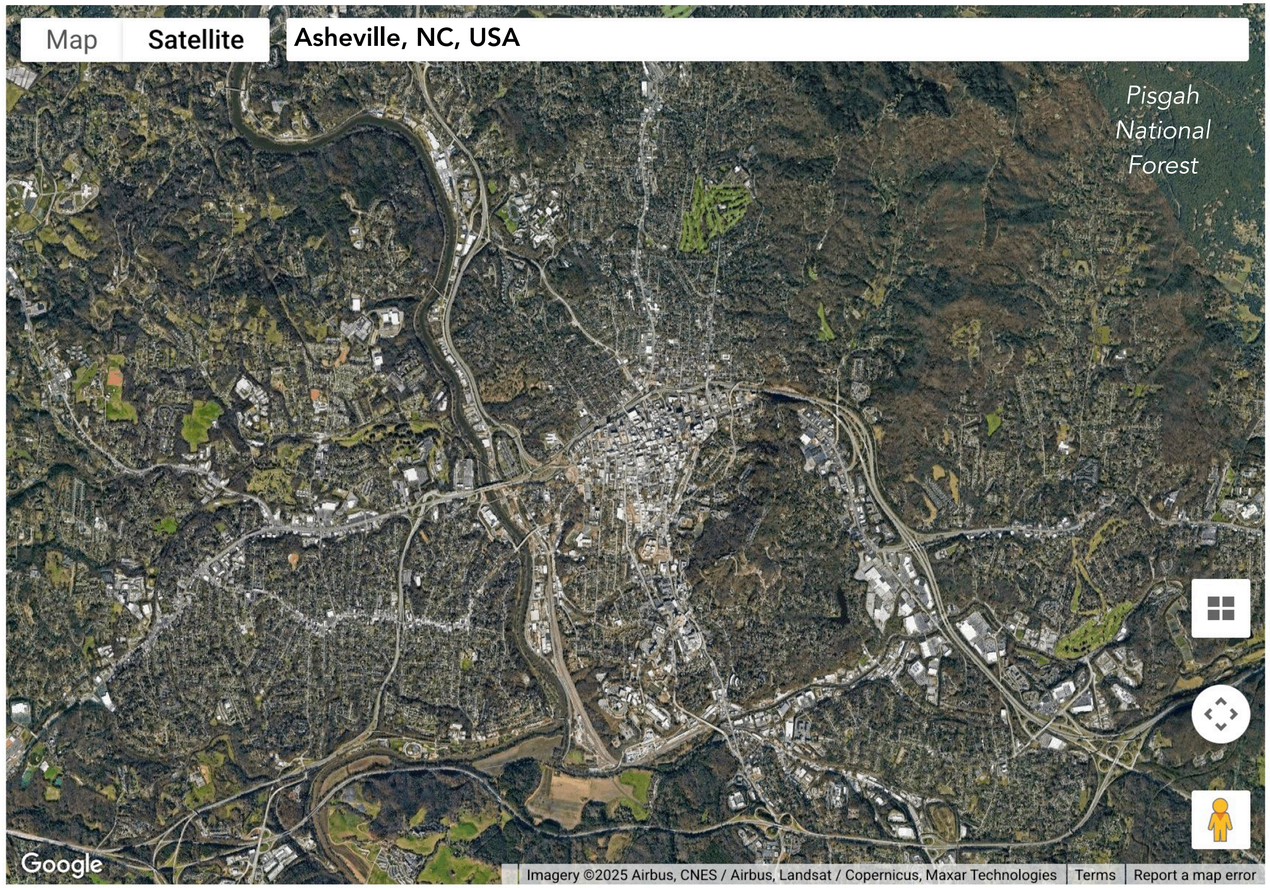
City Area



*Based on available year built data from Wake County Assesor file

Urban Mirror

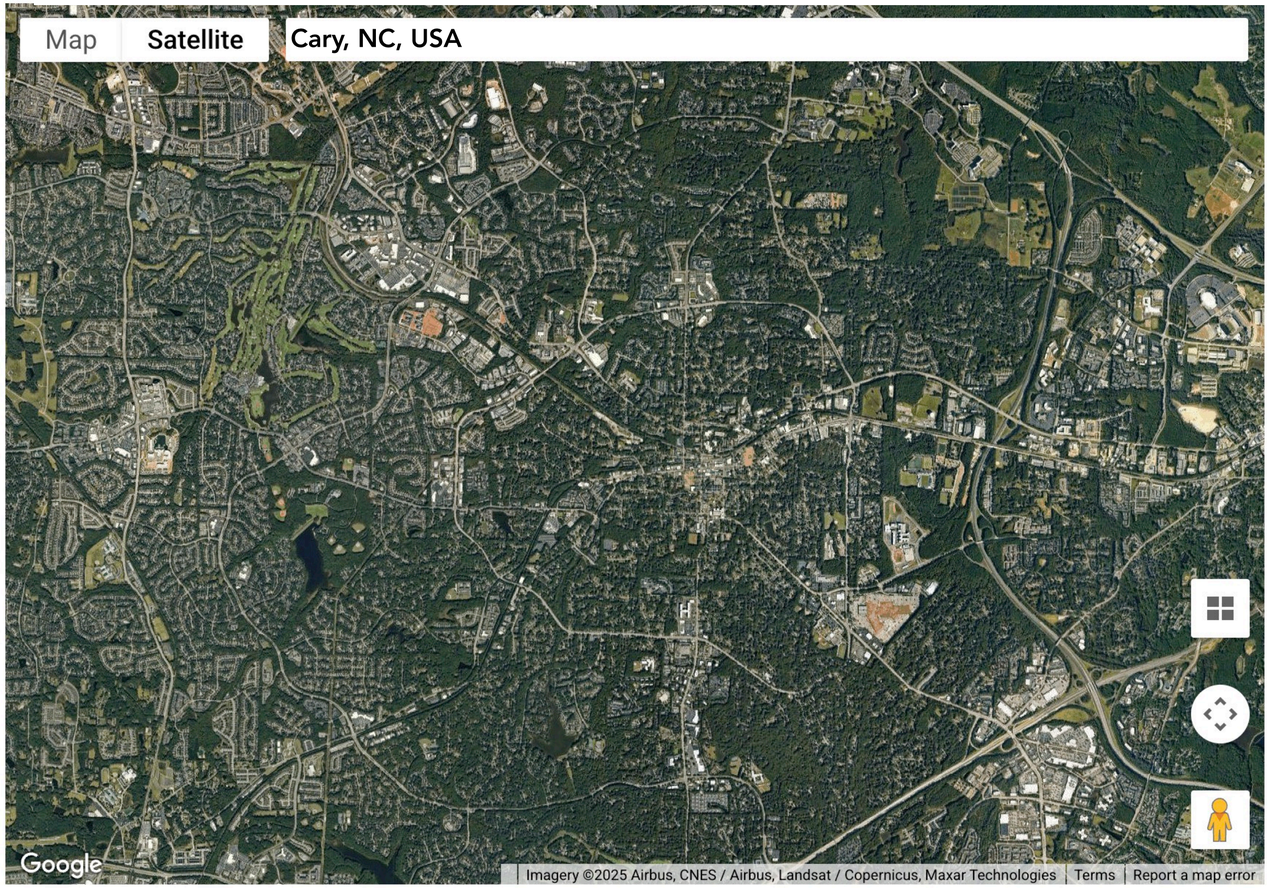


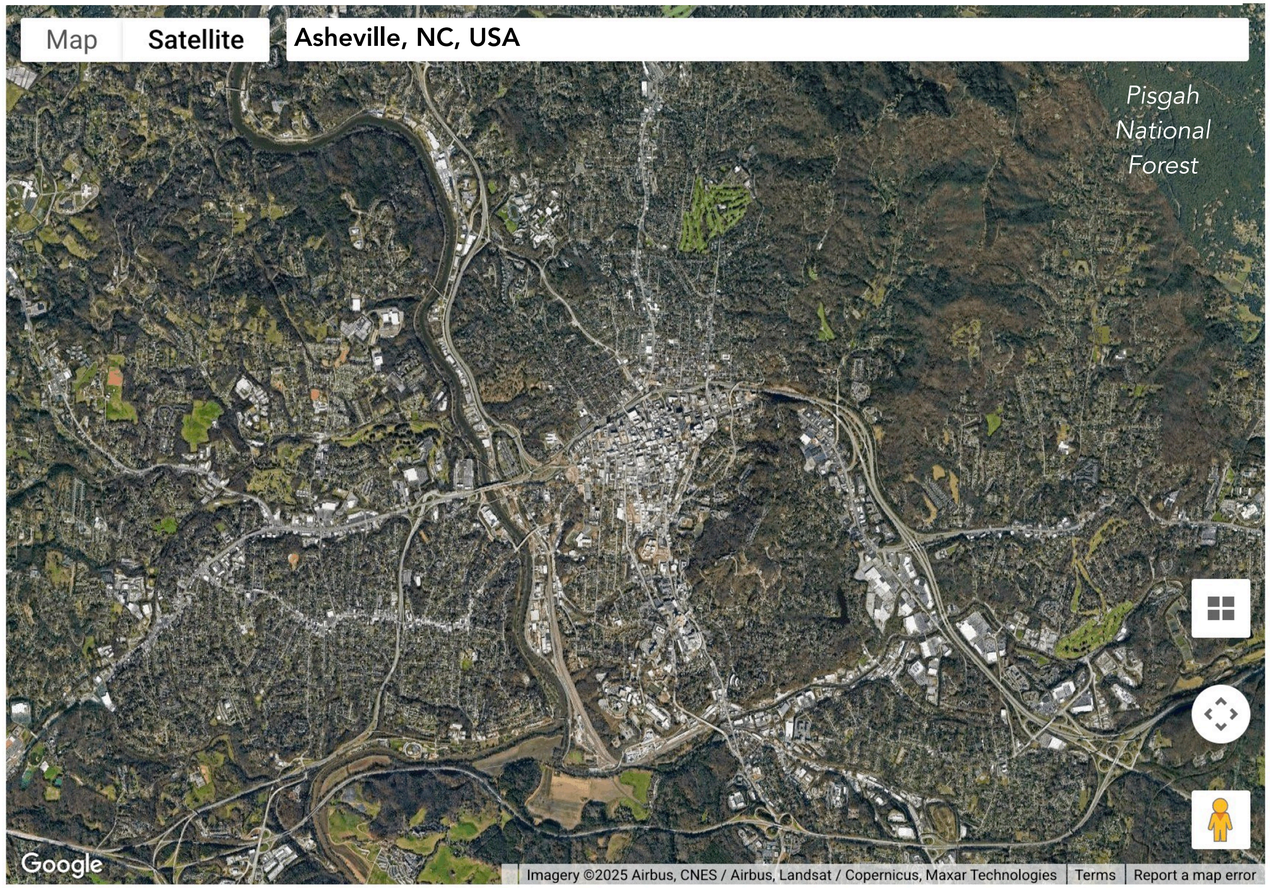


Population:
Land Area:
Density:
Total Value:
Value Per Capita
Peak Productivity:

Source: 2019 data, Urban3, Wikipedia

Urban Mirror

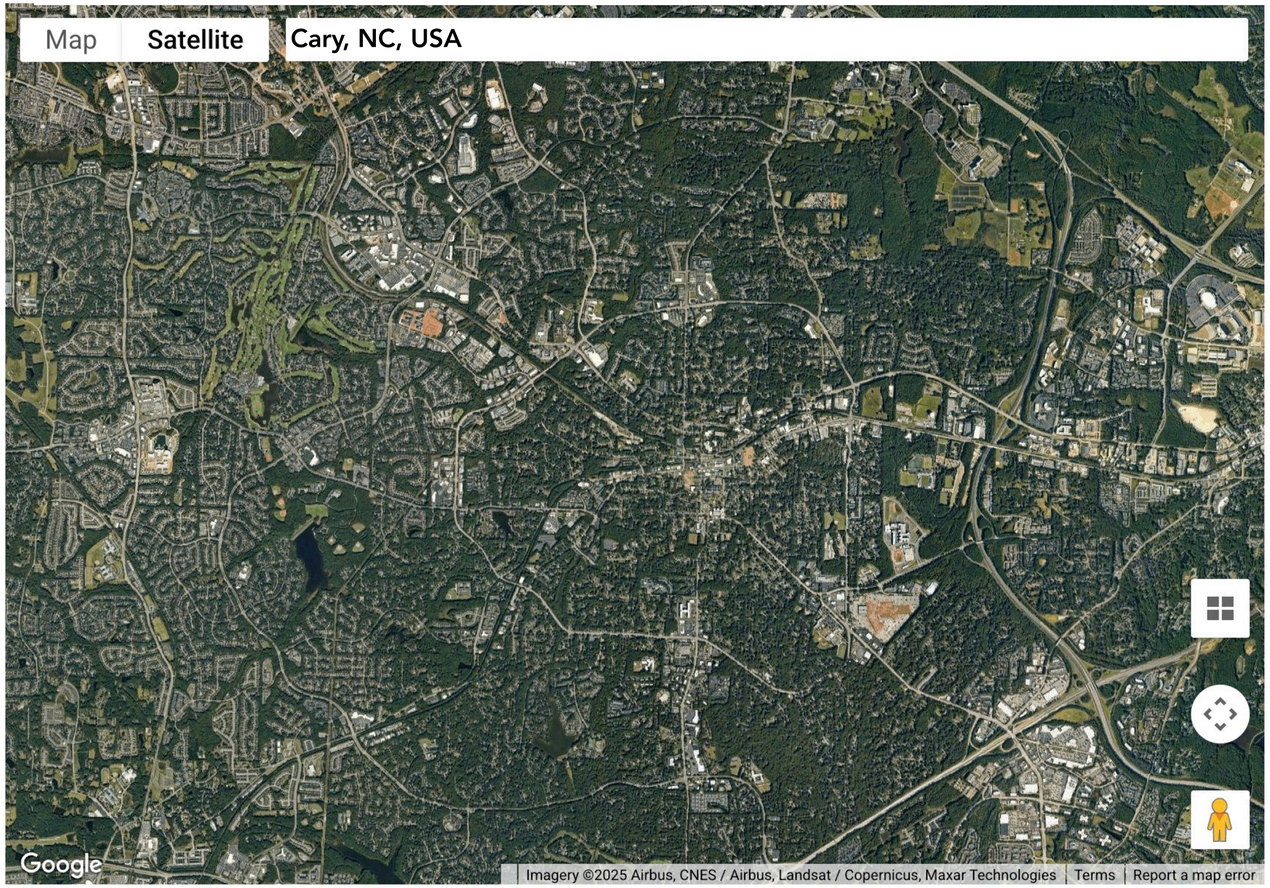


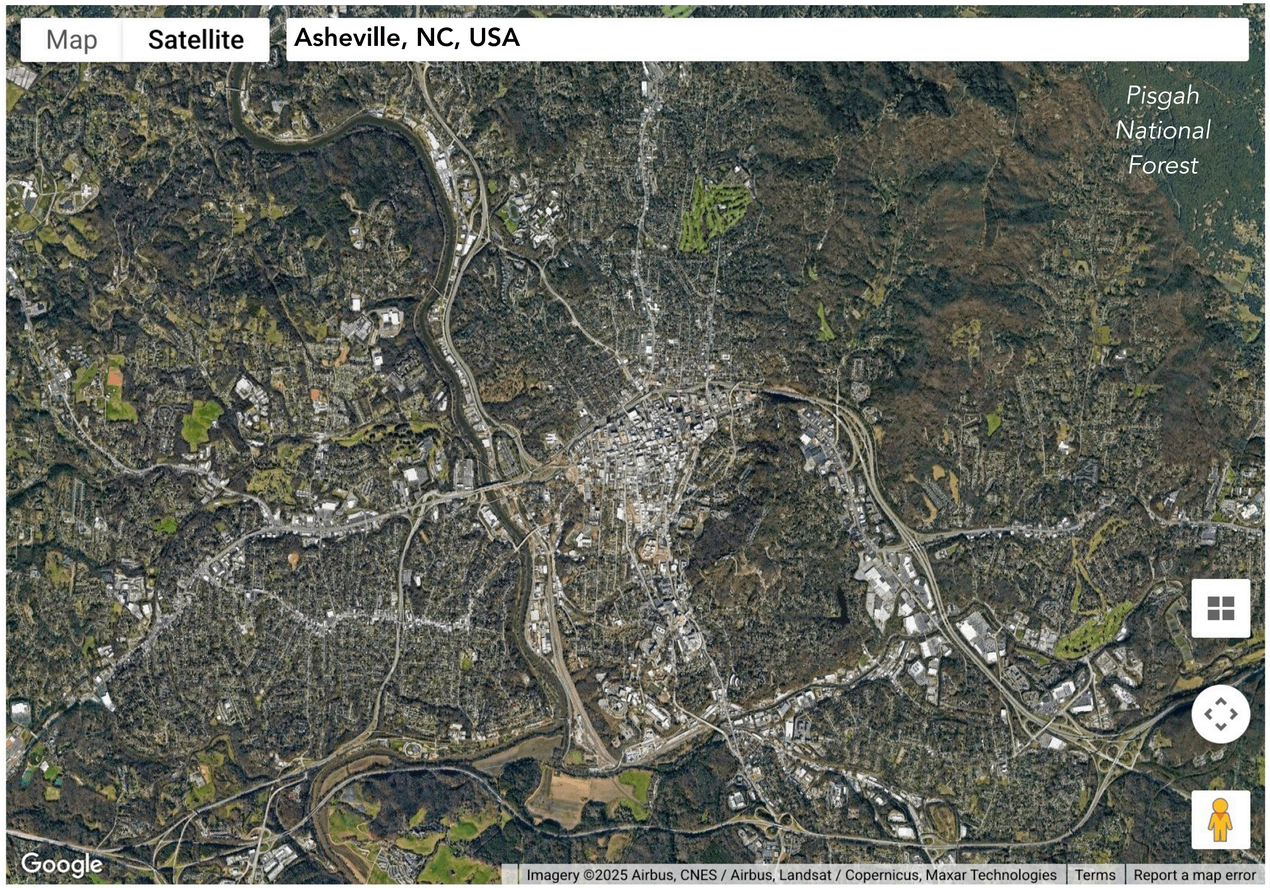


Population:	**174,000**	**94,500**
Land Area:		
Density:		
Total Value:		
Value Per Capita		
Peak Productivity:		

Source: 2019 data, Urban3, Wikipedia

Urban Mirror

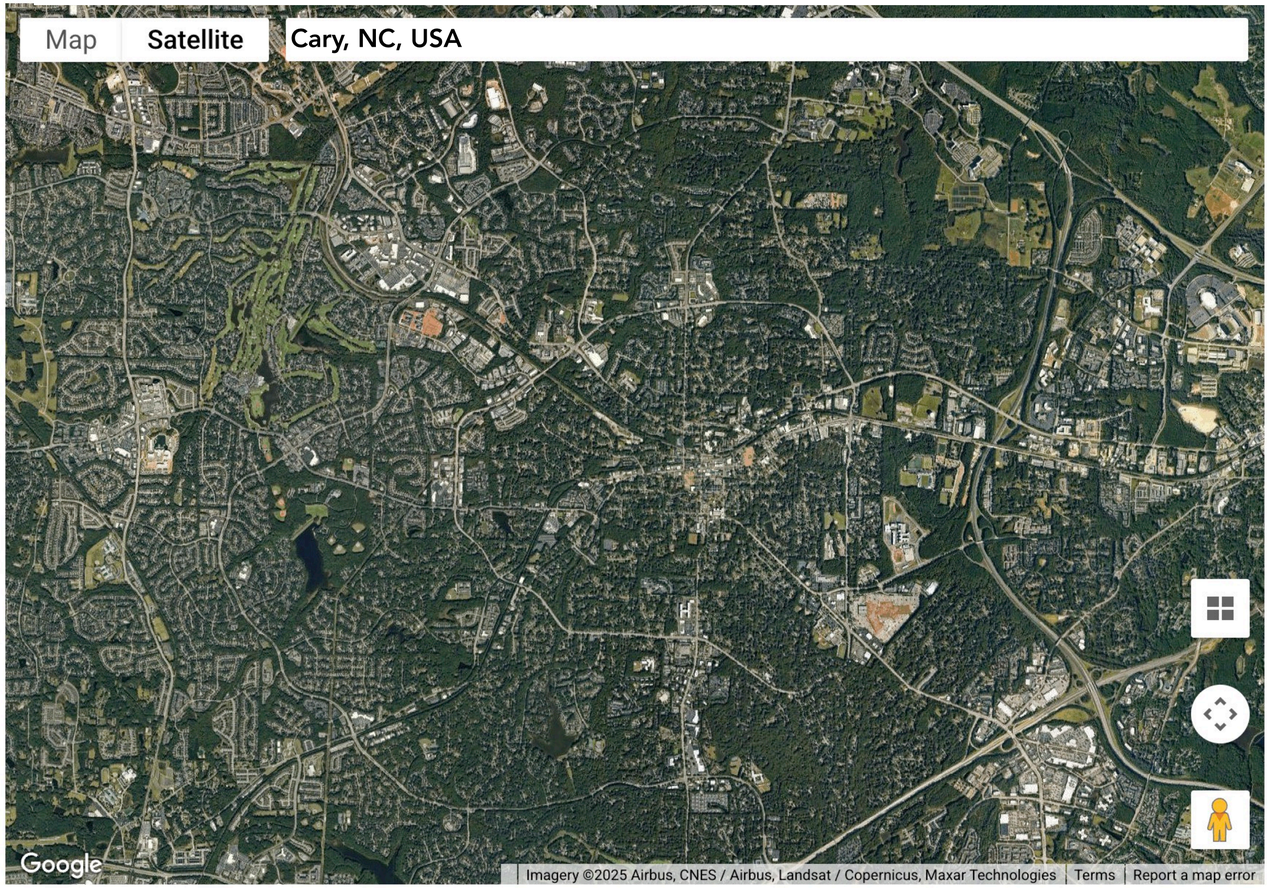


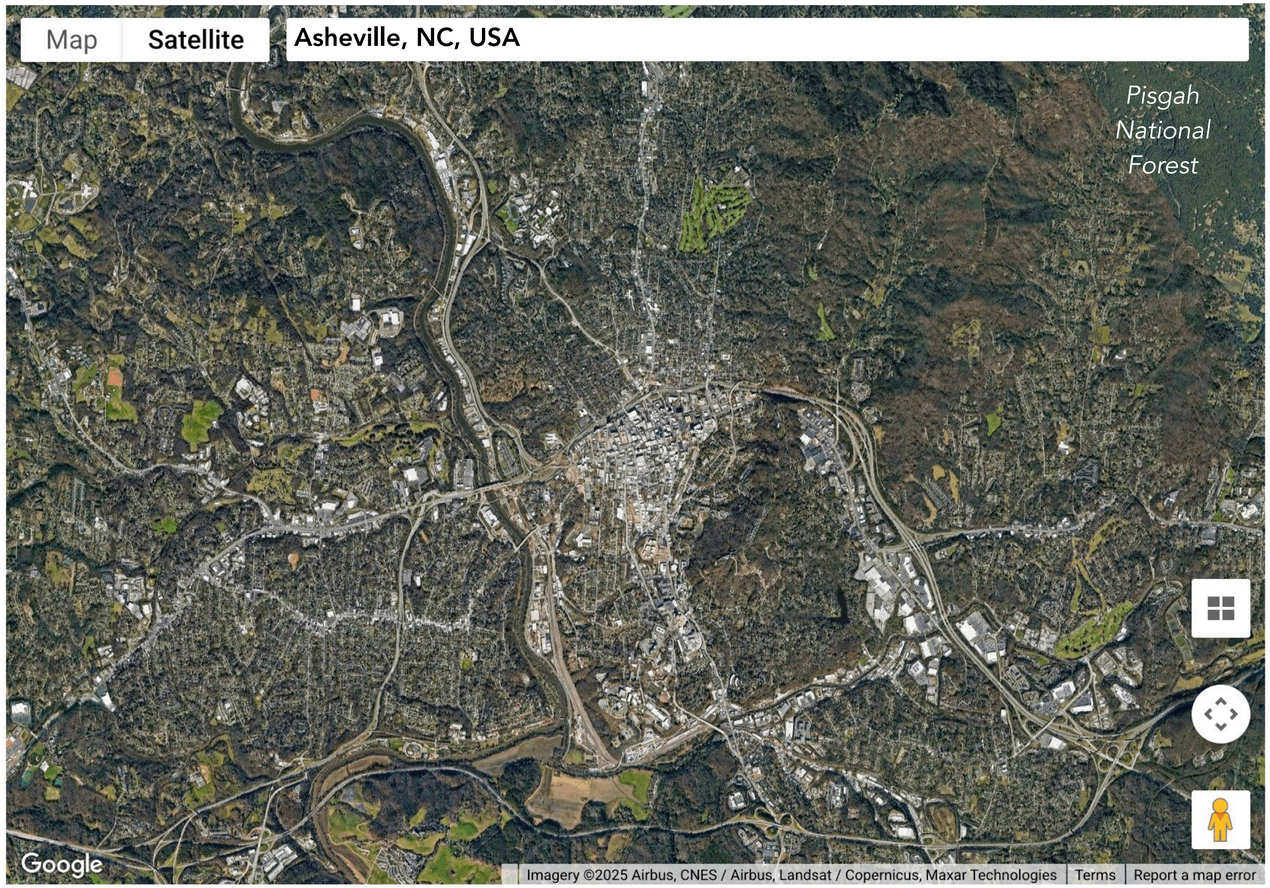


Population:	**174,000**	**94,500**
Land Area:	**60** sq.mi.	**45** sq.mi.
Density:		
Total Value:		
Value Per Capita		
Peak Productivity:		

Source: 2019 data, Urban3, Wikipedia

Urban Mirror

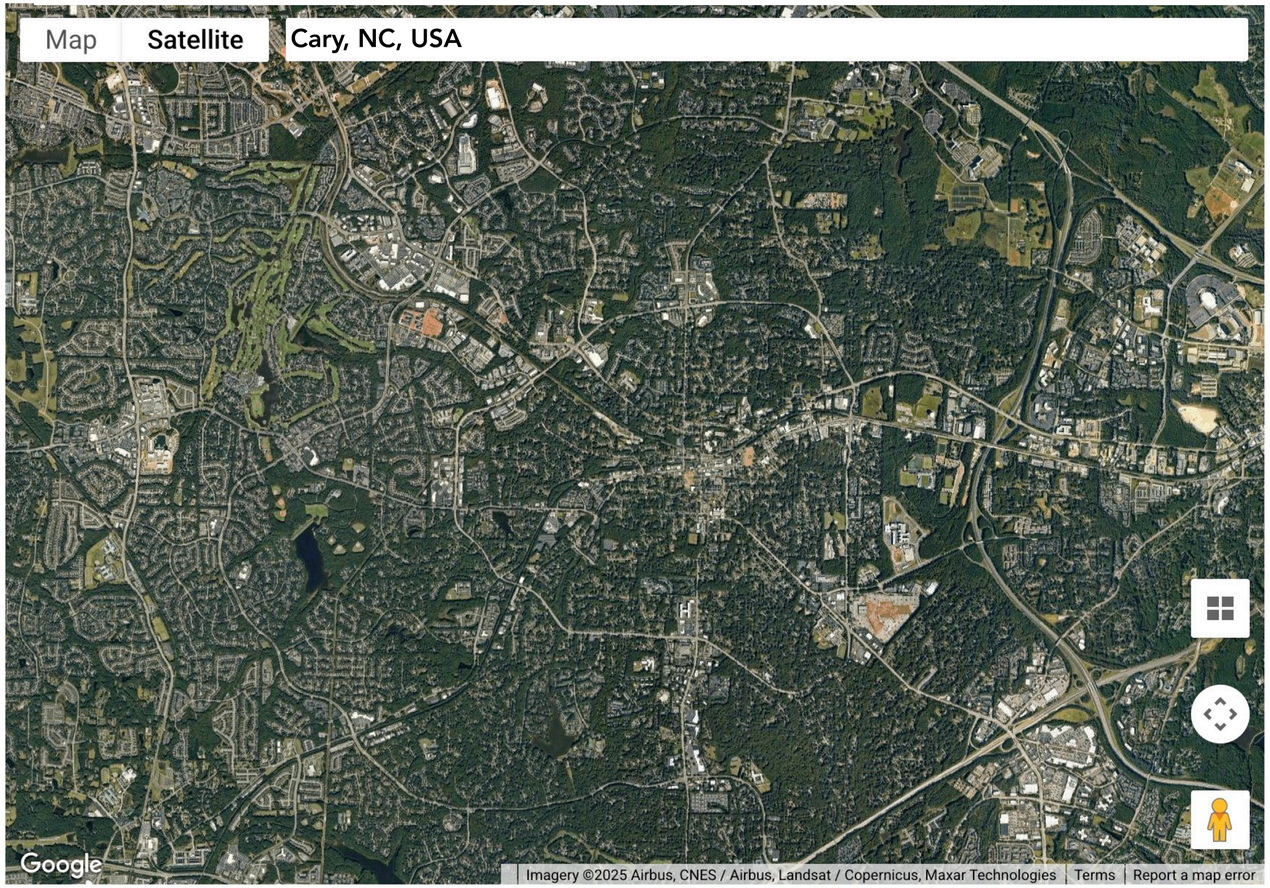


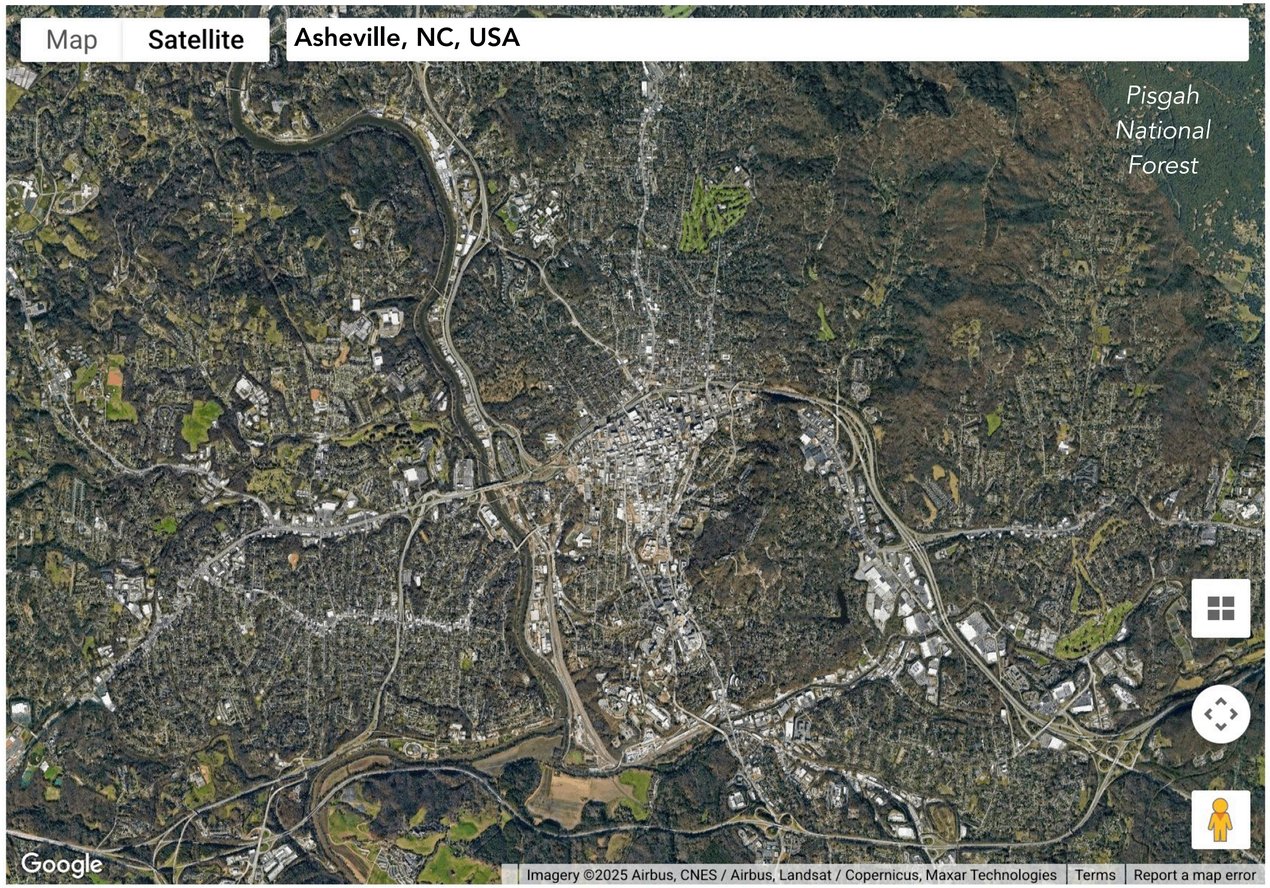


Population:	**174,000**	**94,500**
Land Area:	**60** sq.mi.	**45** sq.mi.
Density:	**2,915** people/sq.mi	**2,080** people/sq.mi
Total Value:		
Value Per Capita		
Peak Productivity:		

Source: 2019 data, Urban3, Wikipedia

Urban Mirror





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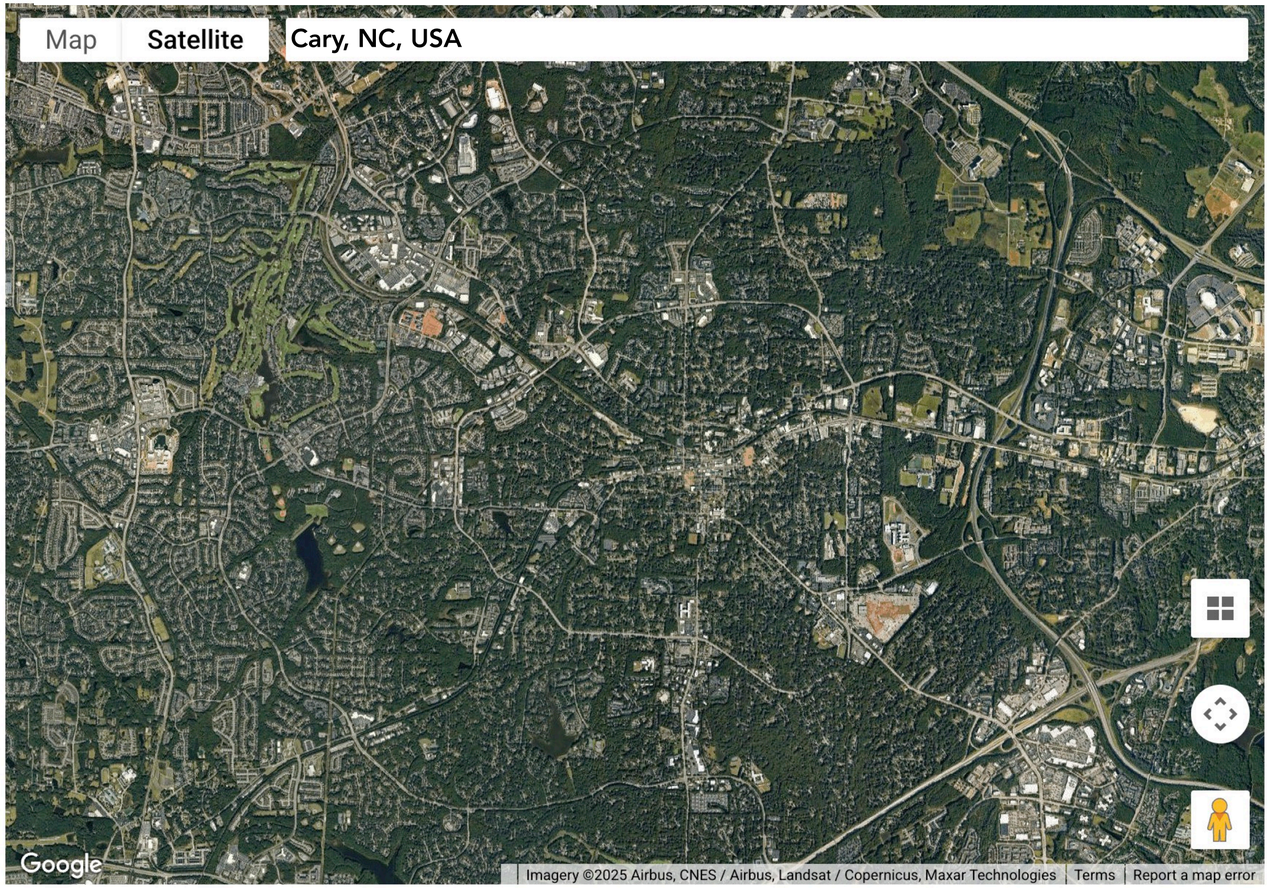
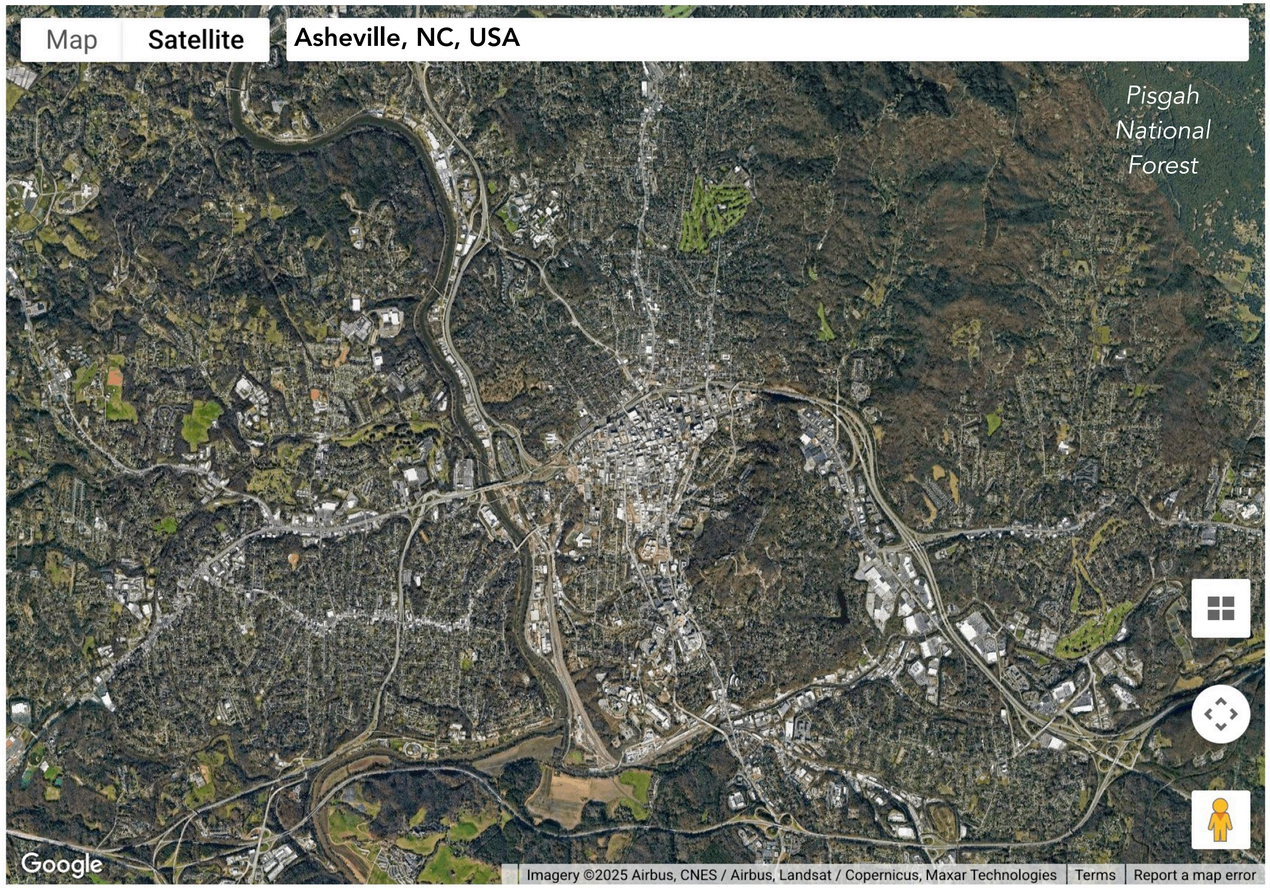
Land Area:	**60** sq.mi.	**45** sq.mi.
Density:	**2,915** people/sq.mi	**2,080** people/sq.mi
Total Value:	**$23B**	**15B**
Value Per Capita		
Peak Productivity:		

Source: 2019 data, Urban3, Wikipedia

Urban Mirror





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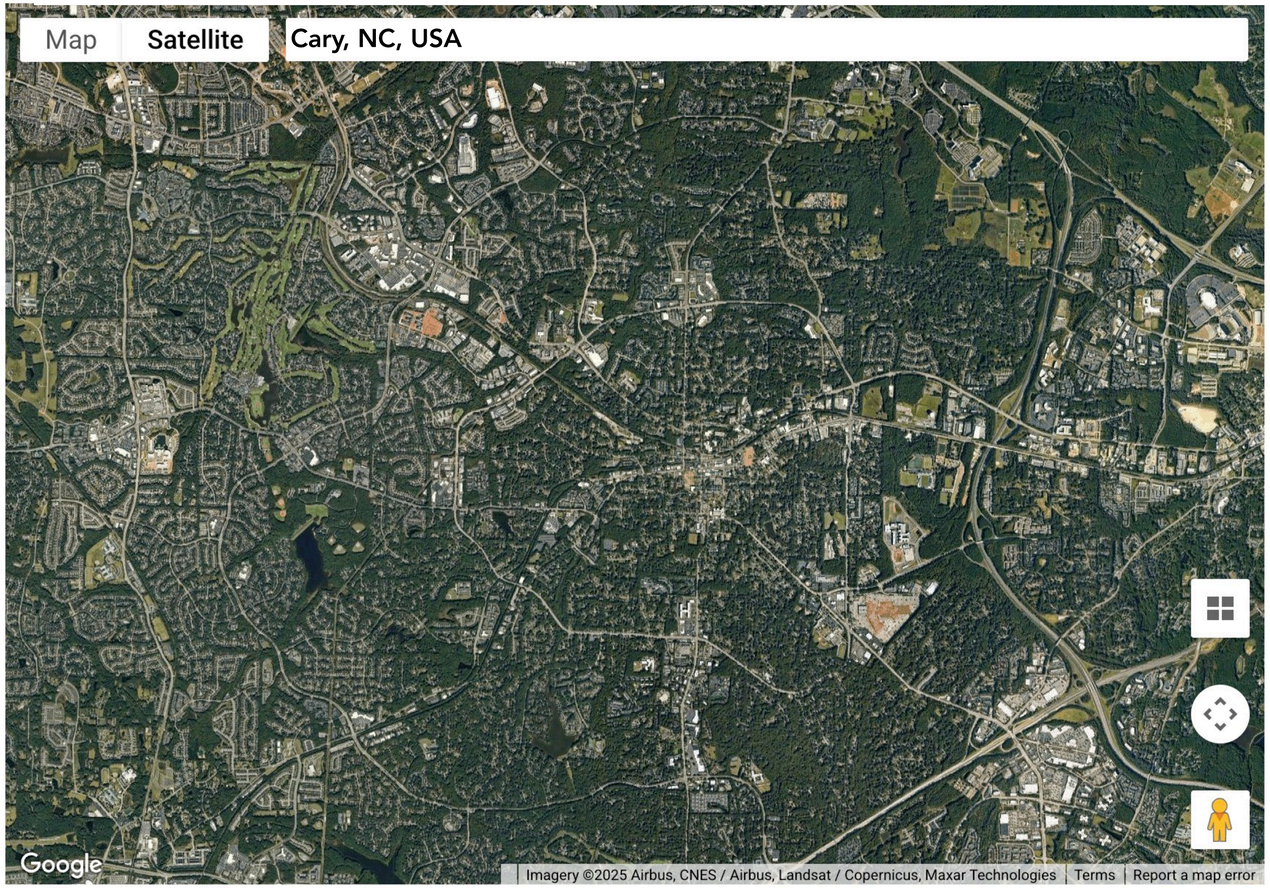
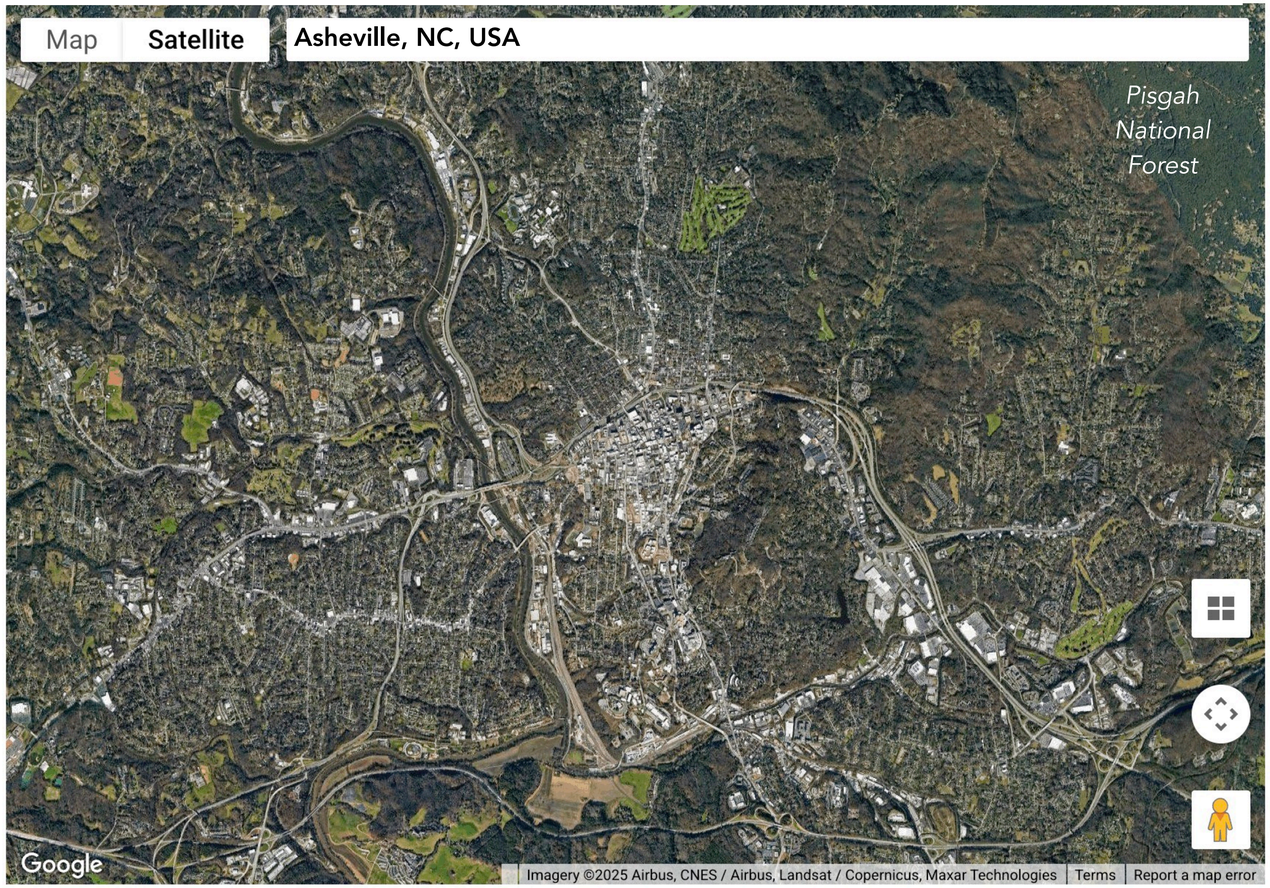
Density:	**2,915** people/sq.mi	**2,080** people/sq.mi
Total Value:	**$23B**	**15B**
Value Per Capita	**$13M** value/100 people	**$16M** value/100 people
Peak Productivity:		

Source: 2019 data, Urban3, Wikipedia

Urban Mirror





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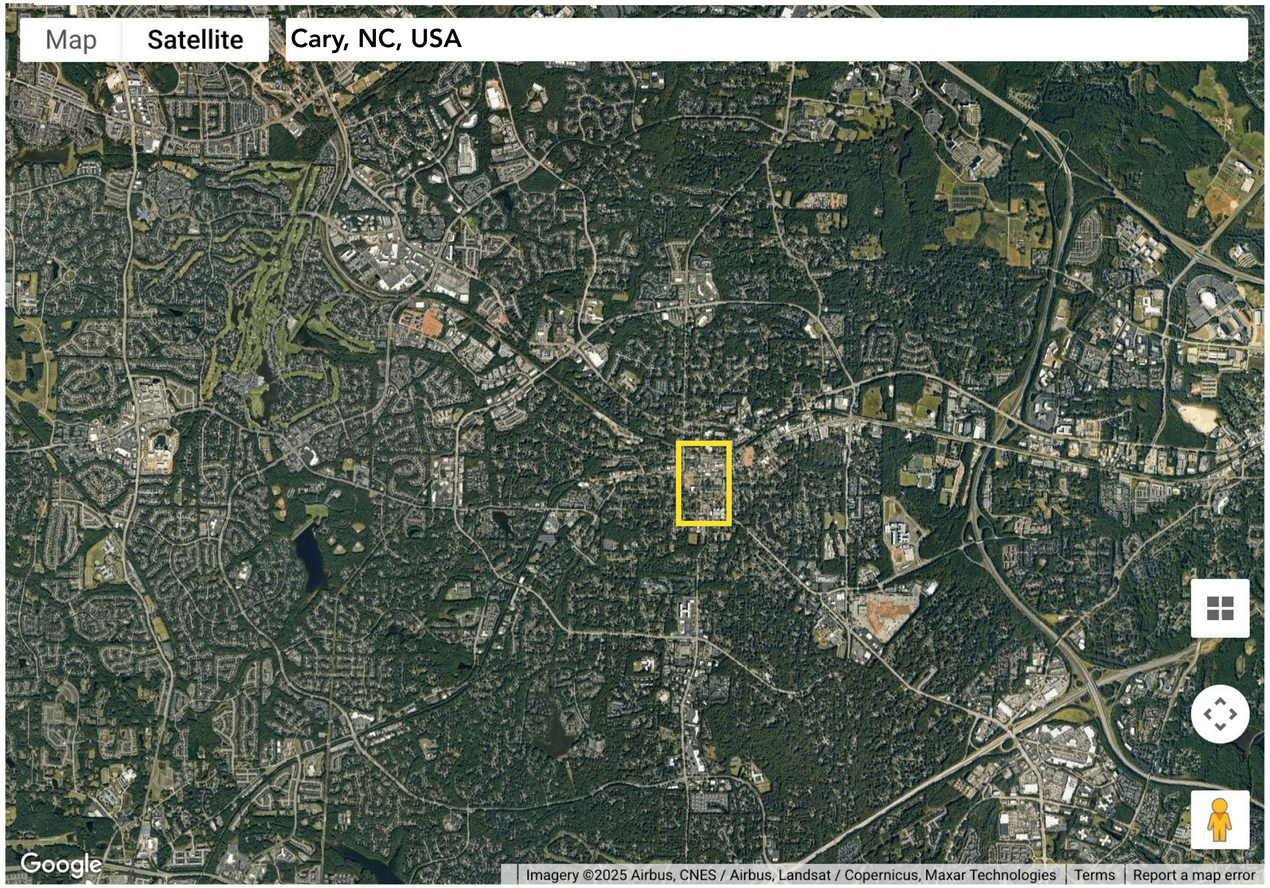
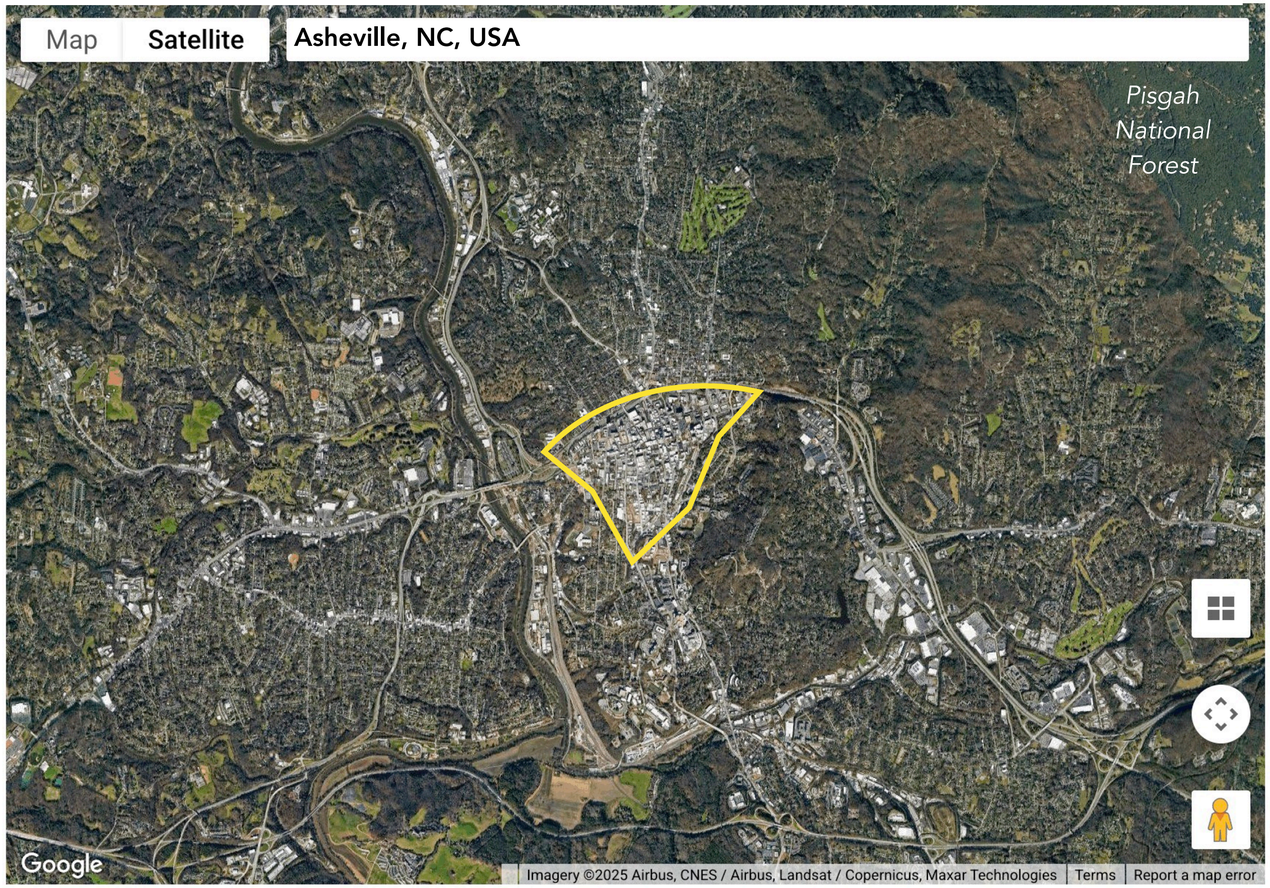
Peak Productivity:	**$14.5** value/acre (Mayton Inn)	**$187M** value/acre (Arras Hotel)

Source: 2019 data, Urban3, Wikipedia

Urban Mirror





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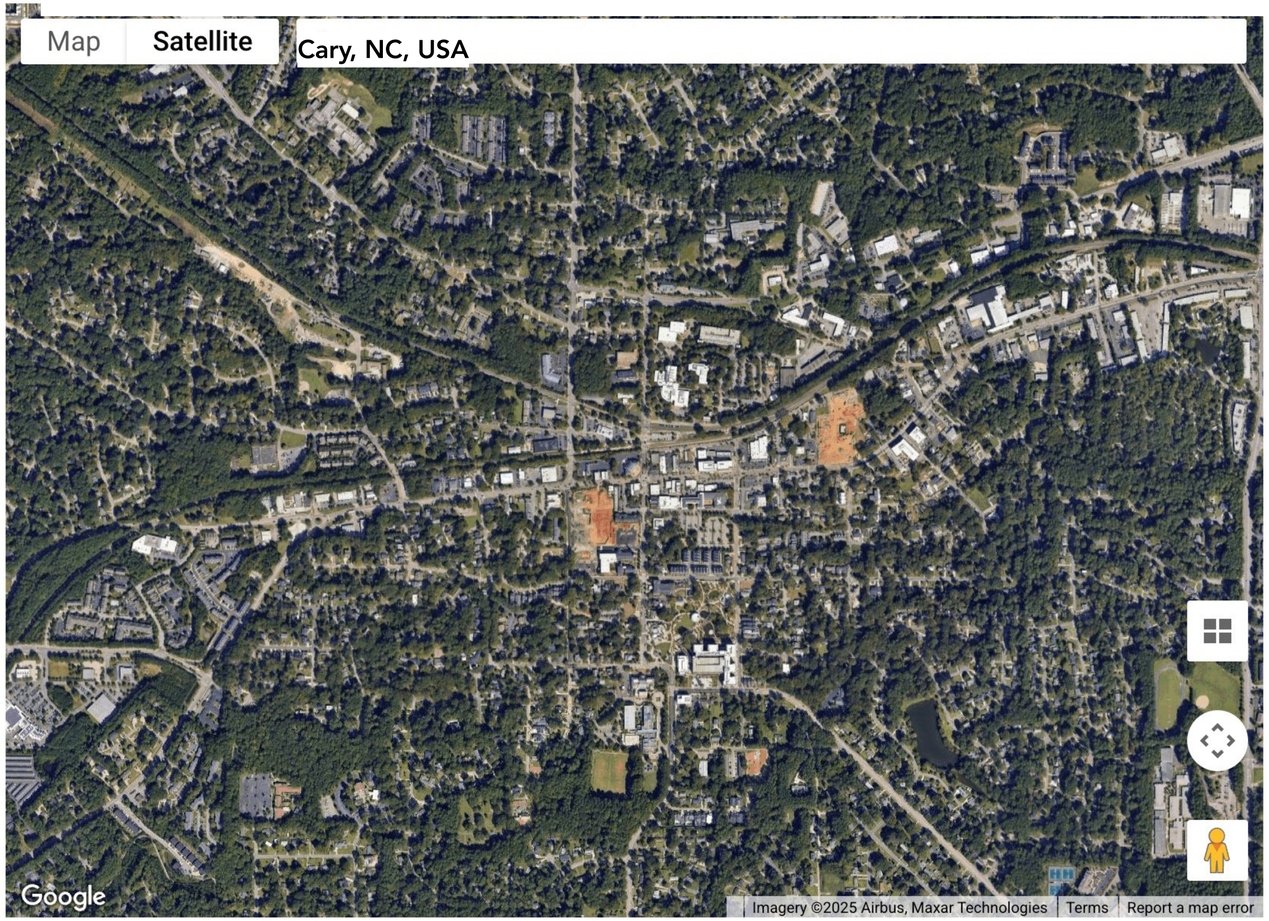

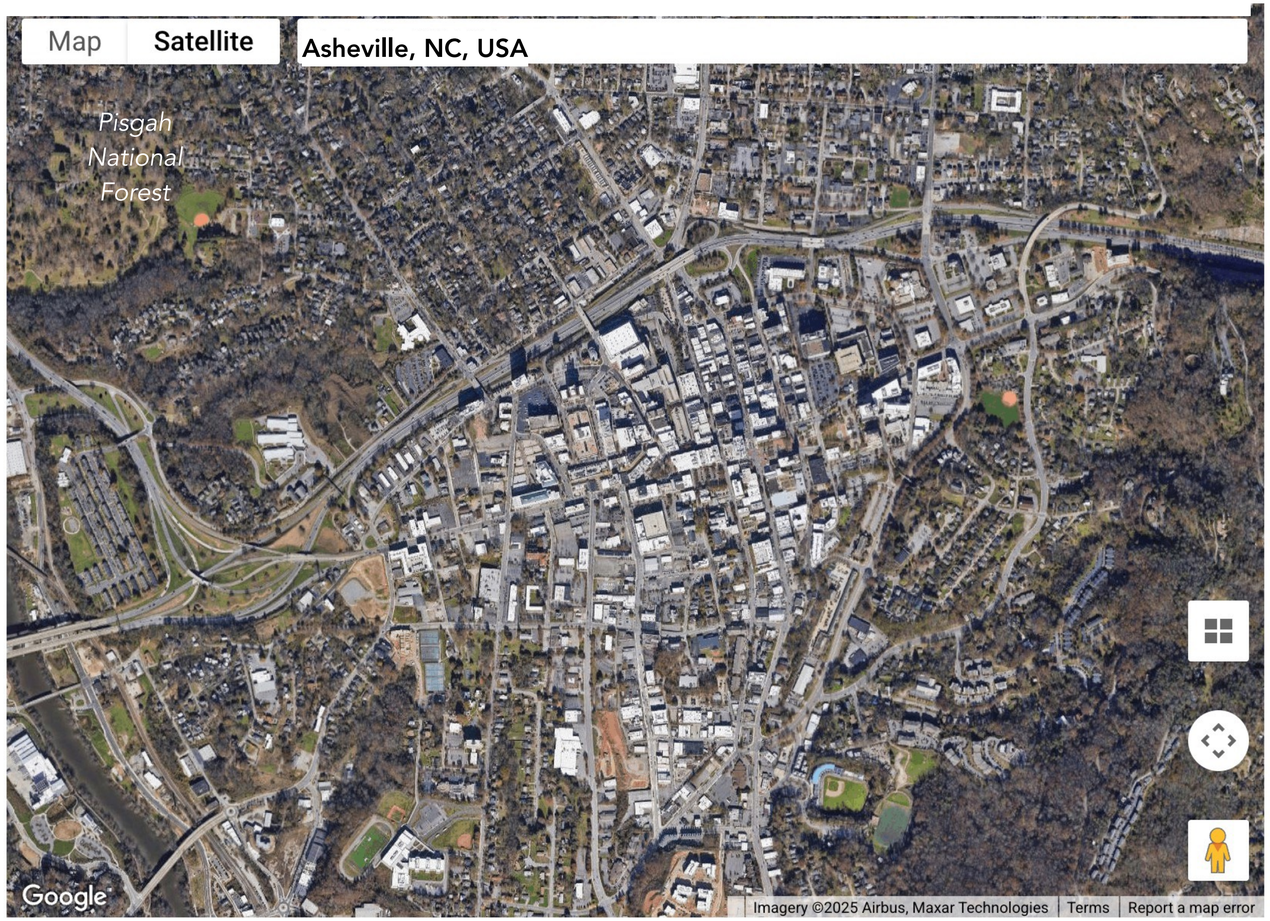

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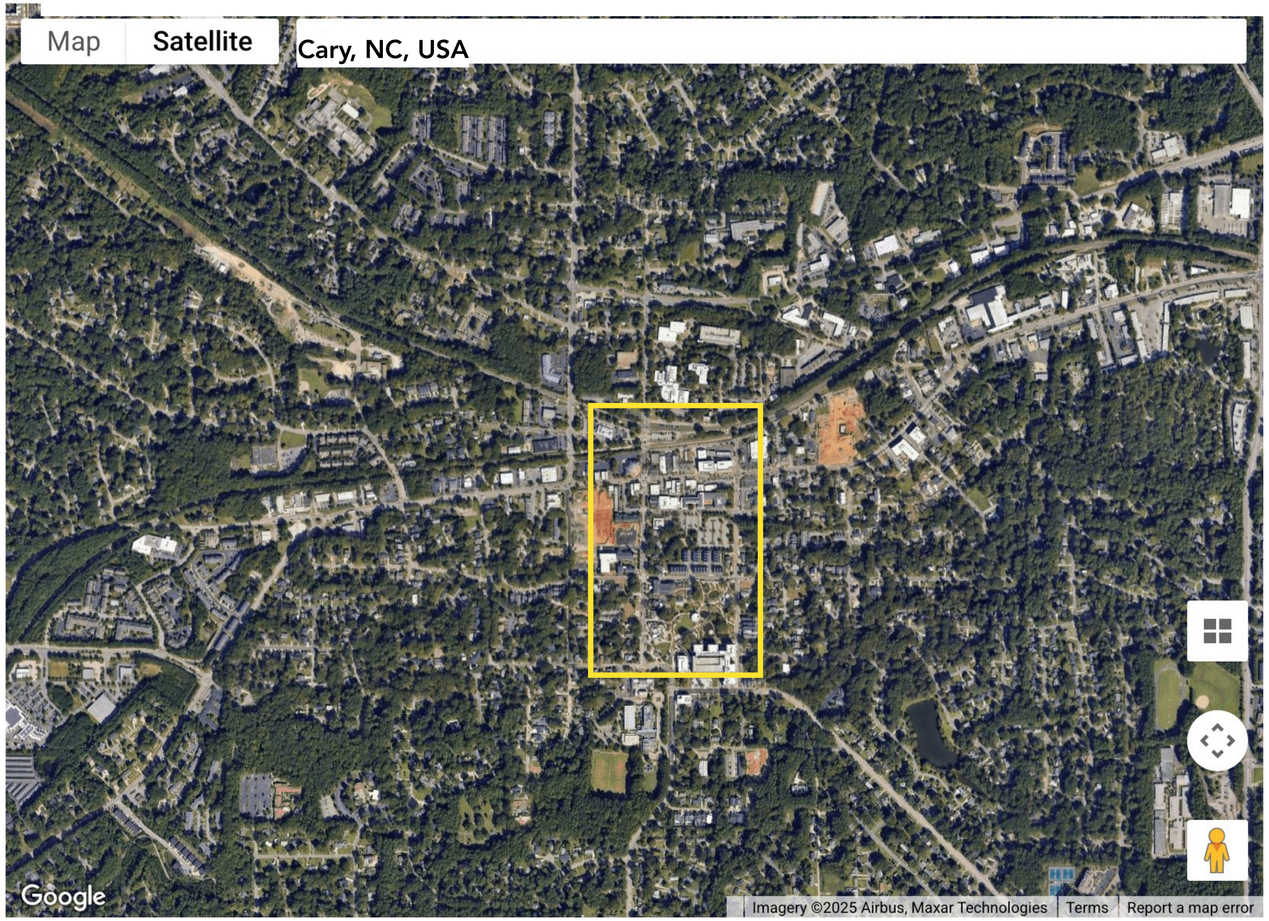

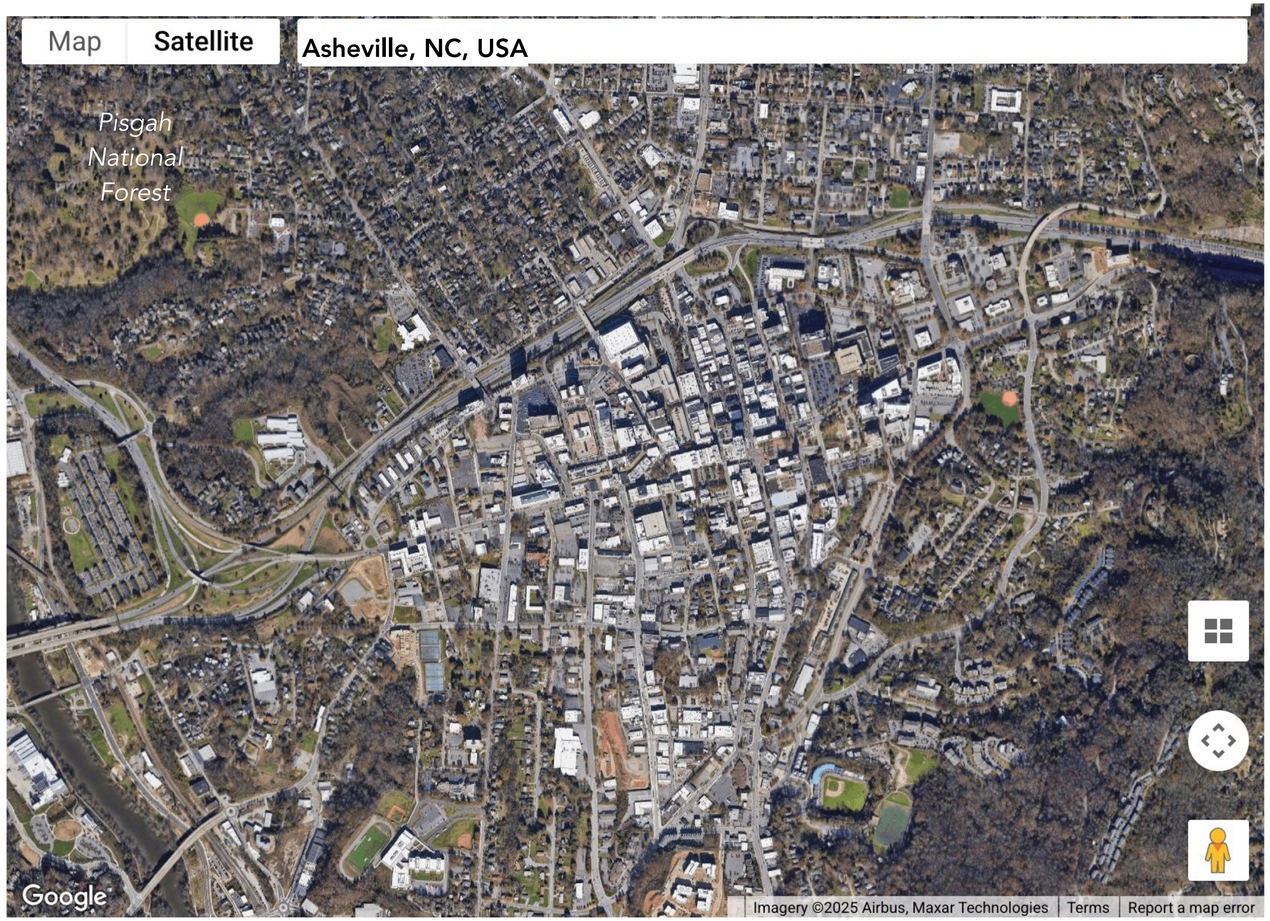

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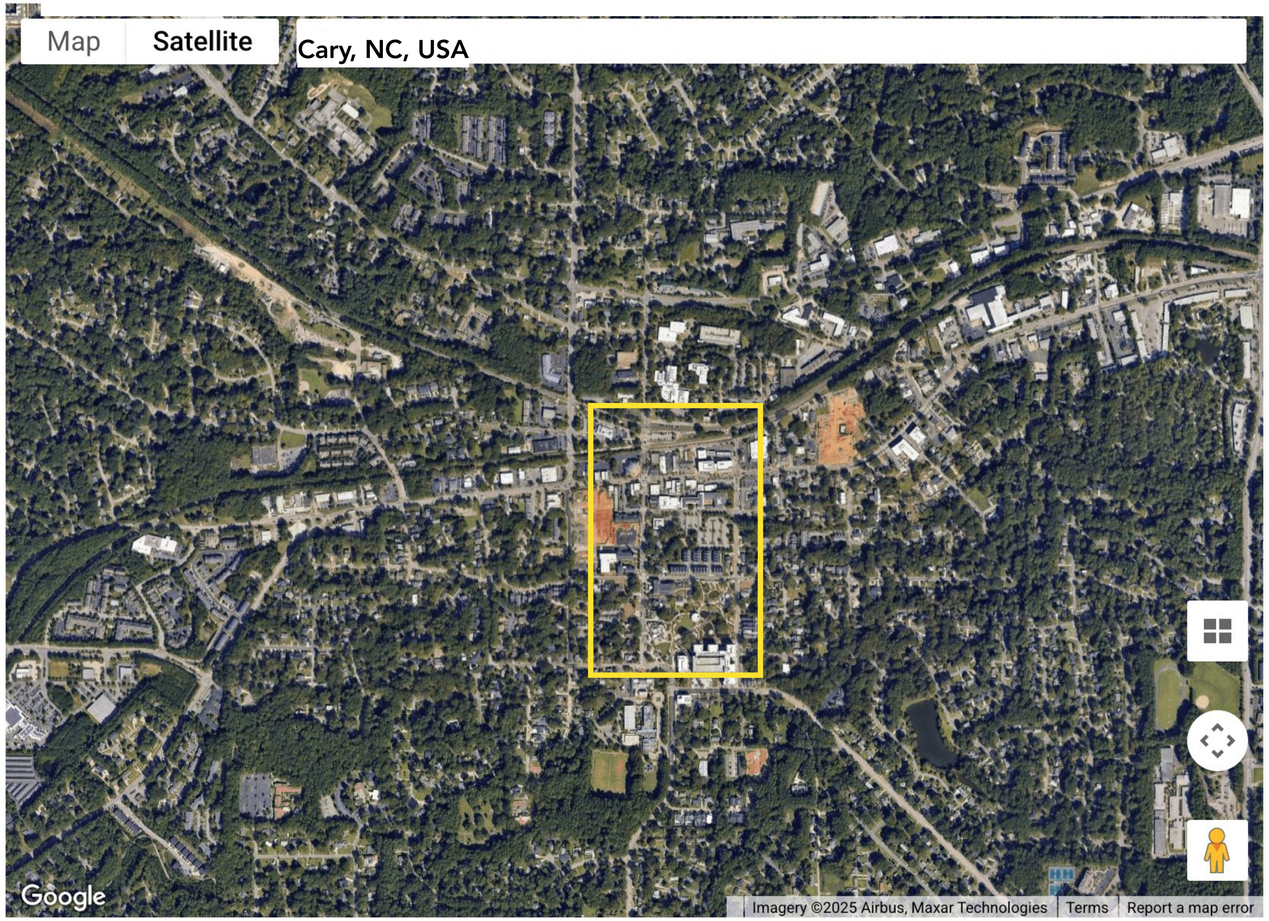

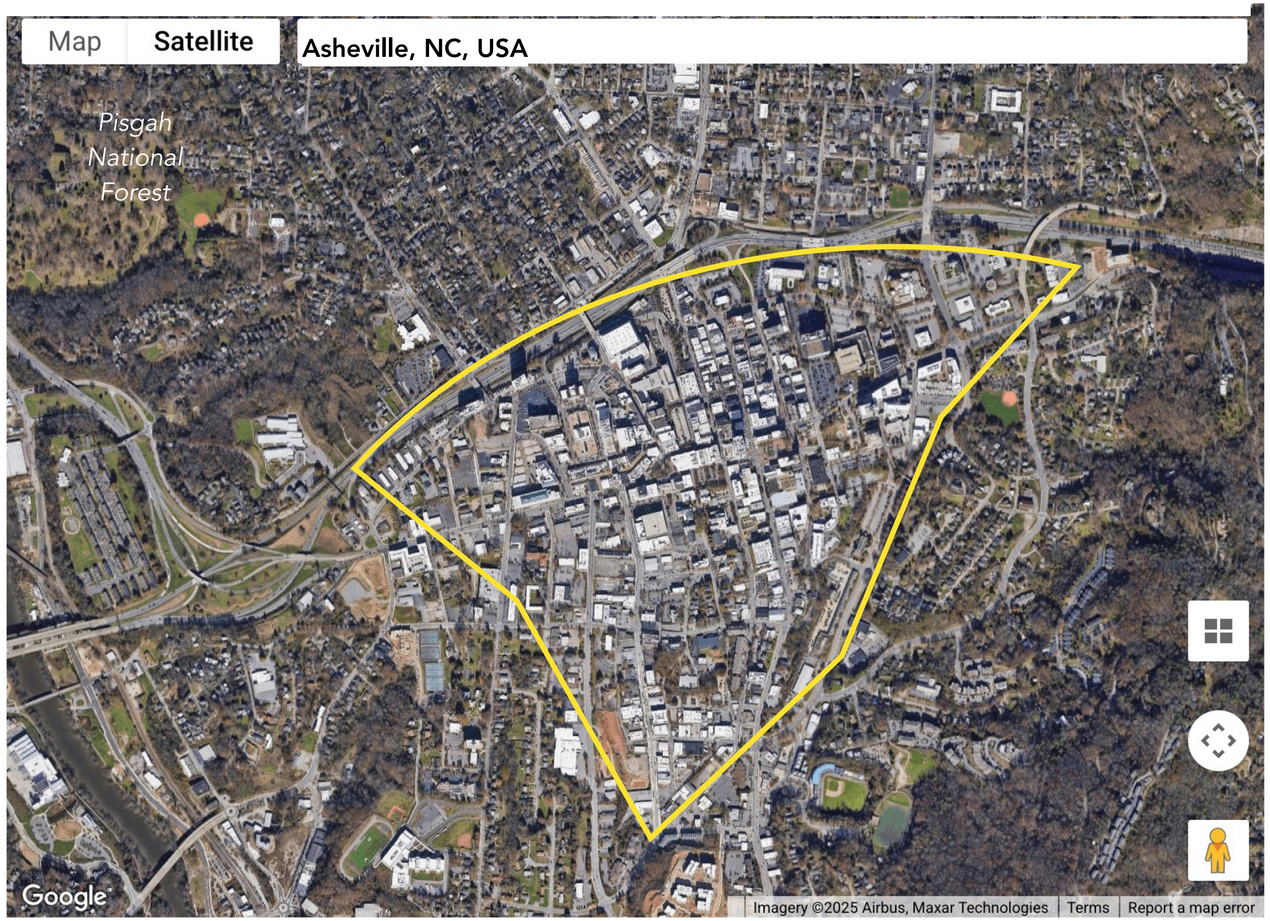

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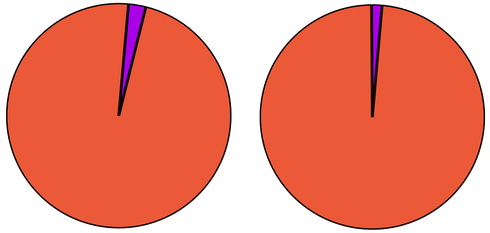
URBAN3

Downtown Ratio Benchmark

Sample examples from Urban3

Cary, NC

168k pop



Taxable Area

Taxable Value

1:0.6

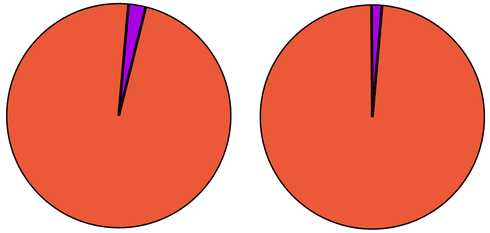
URBAN3

Downtown Ratio Benchmark

Sample examples from Urban3

Cary, NC

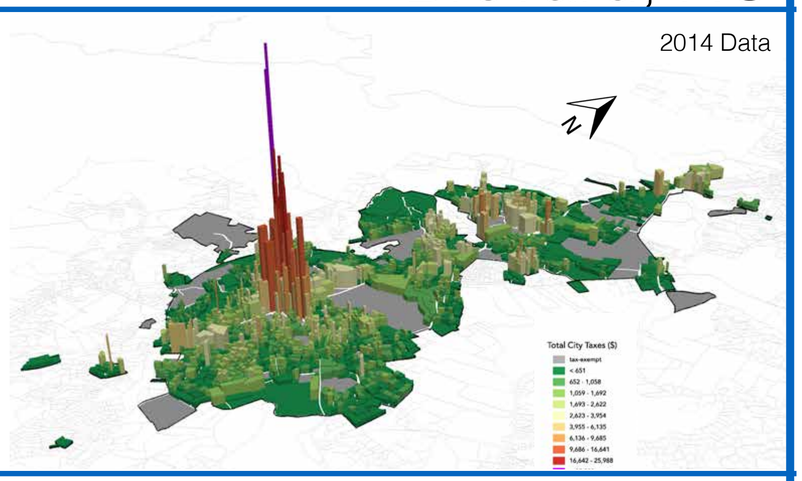
168k pop



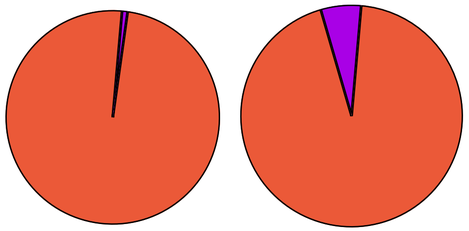
Taxable Area Taxable Value

1:0.6

Brevard, NC



8k pop



Taxable Area Taxable Value

1:6.7

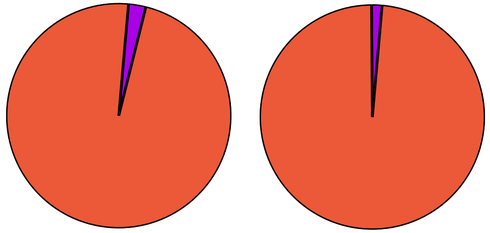
URBAN3

Downtown Ratio Benchmark

Sample examples from Urban3

Cary, NC

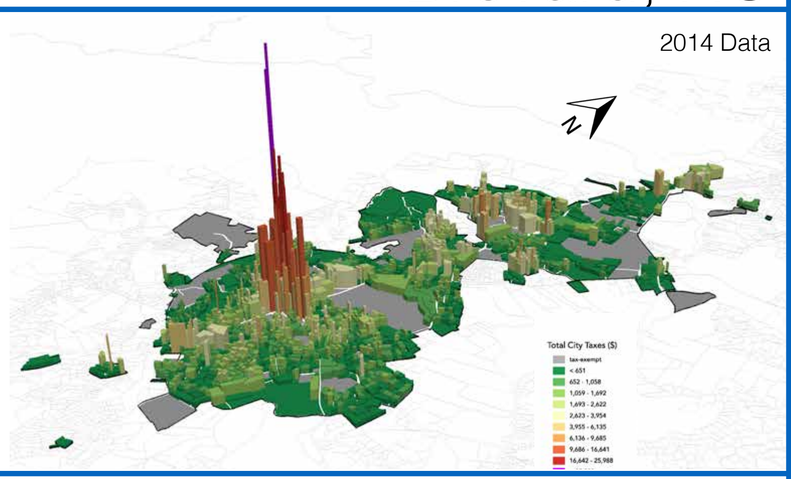
168k pop



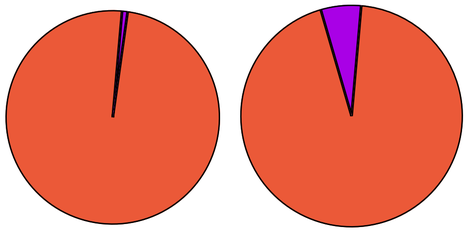
Taxable Area Taxable Value

1:0.6

Brevard, NC



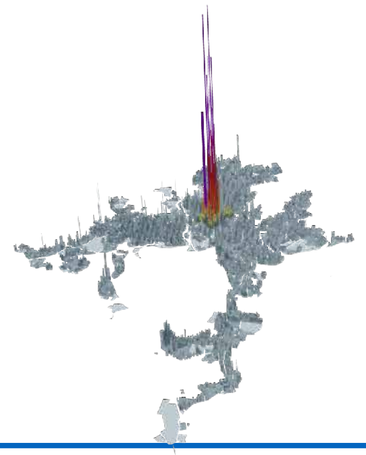
8k pop



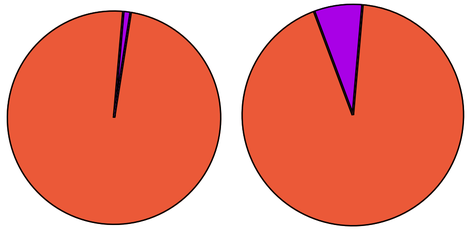
Taxable Area Taxable Value

1:6.7

Asheville, NC



92k pop



Taxable Area Taxable Value

1:6

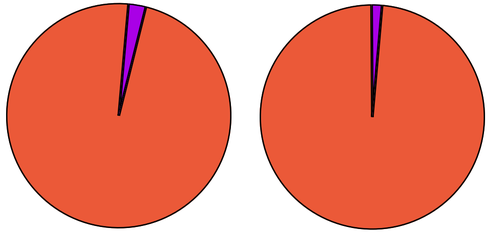
URBAN3

Downtown Ratio Benchmark

Sample examples from Urban3

Cary, NC

168k pop



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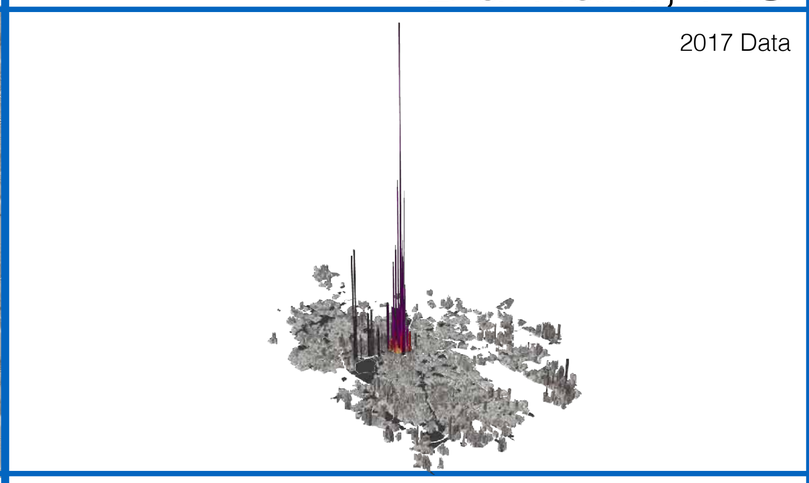
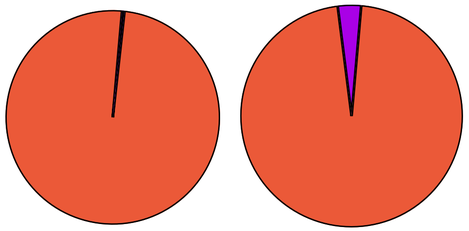
Durham, NC



263k



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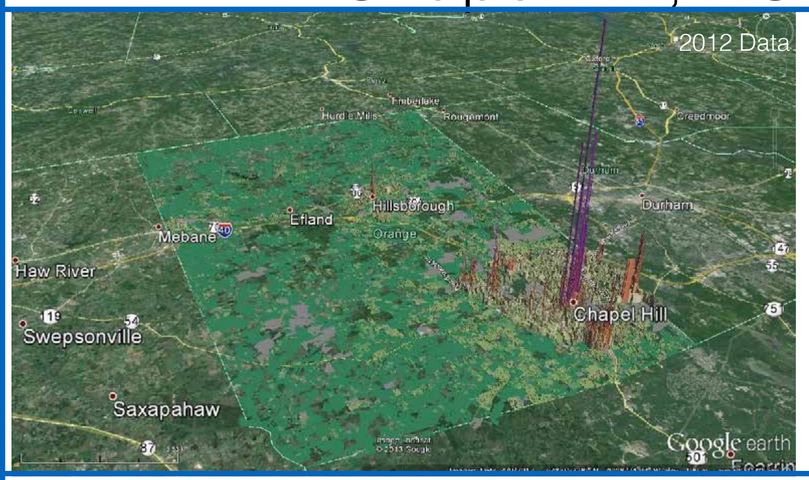
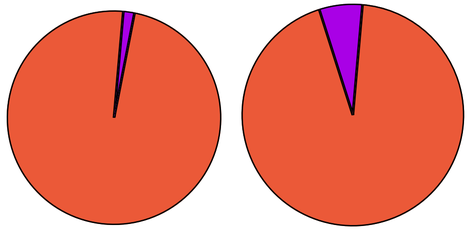
Chapel Hill, NC



60k pop



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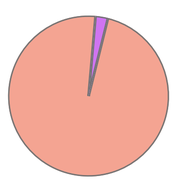
URBAN3

Projected VPA
Cary, NC

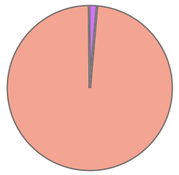
Original Value:

$102M

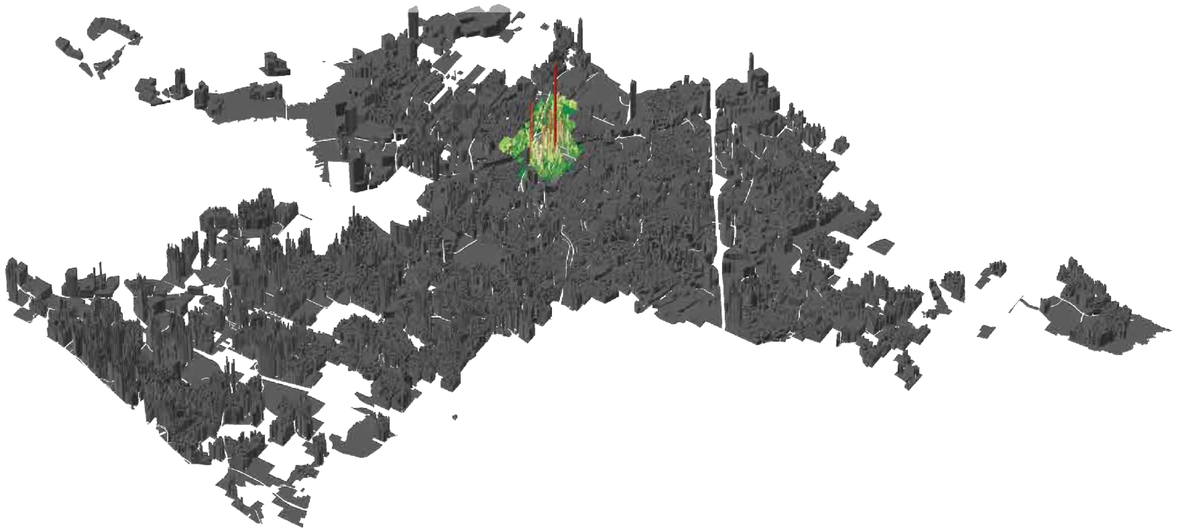
1:0.6



Taxable Area



Taxable Value

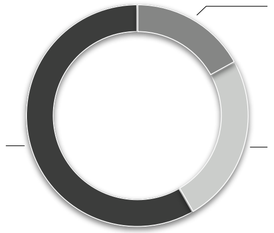


Taxable Value per Acre ($)

- 0
- < 100,000
- 100,001 - 300,000
- 300,001 - 750,000
- 750,001 - 1,000,000
- 1,000,001 - 1,500,000
- 1,500,001 - 2,750,000
- 2,750,001 - 4,000,000
- 4,000,001 - 6,000,000
- 6,000,001 - 8,000,000
- 8,000,001 - 15,000,000
- 15,000,001 - 30,000,000
- > 30,000,001

Downtown

Key Map:



Key Development Statistics:

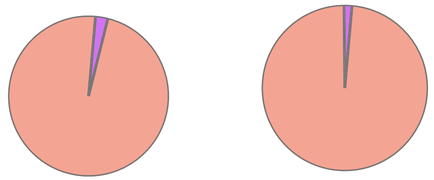
- 3,431,909 sq. ft. Office
- 4,987,204 sq. ft. Commercial
- 11,783,168 sq ft. Residential

URBAN3

Projected VPA
Cary, NC

Original Value:

$102M



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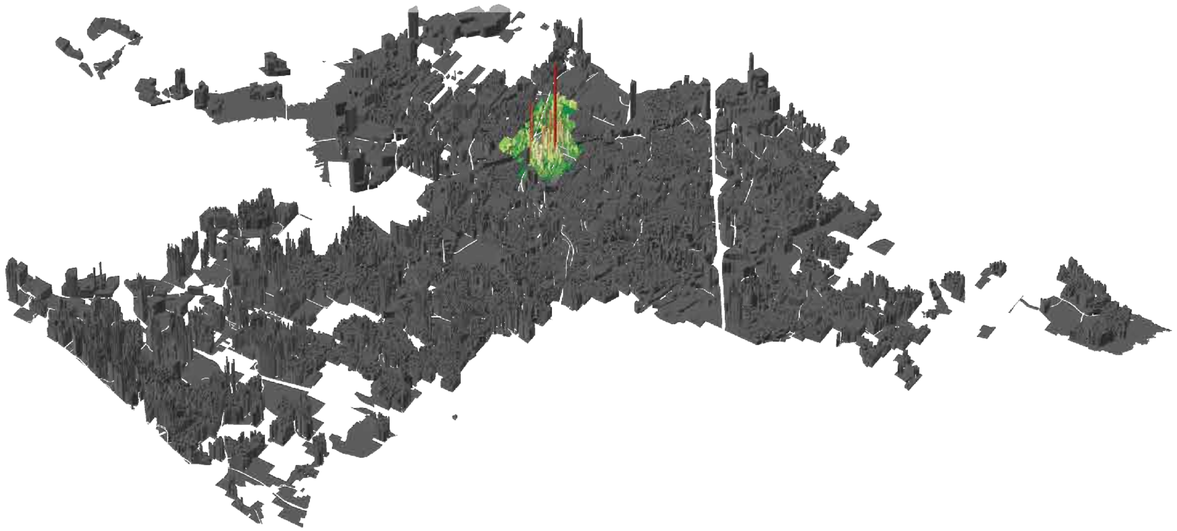
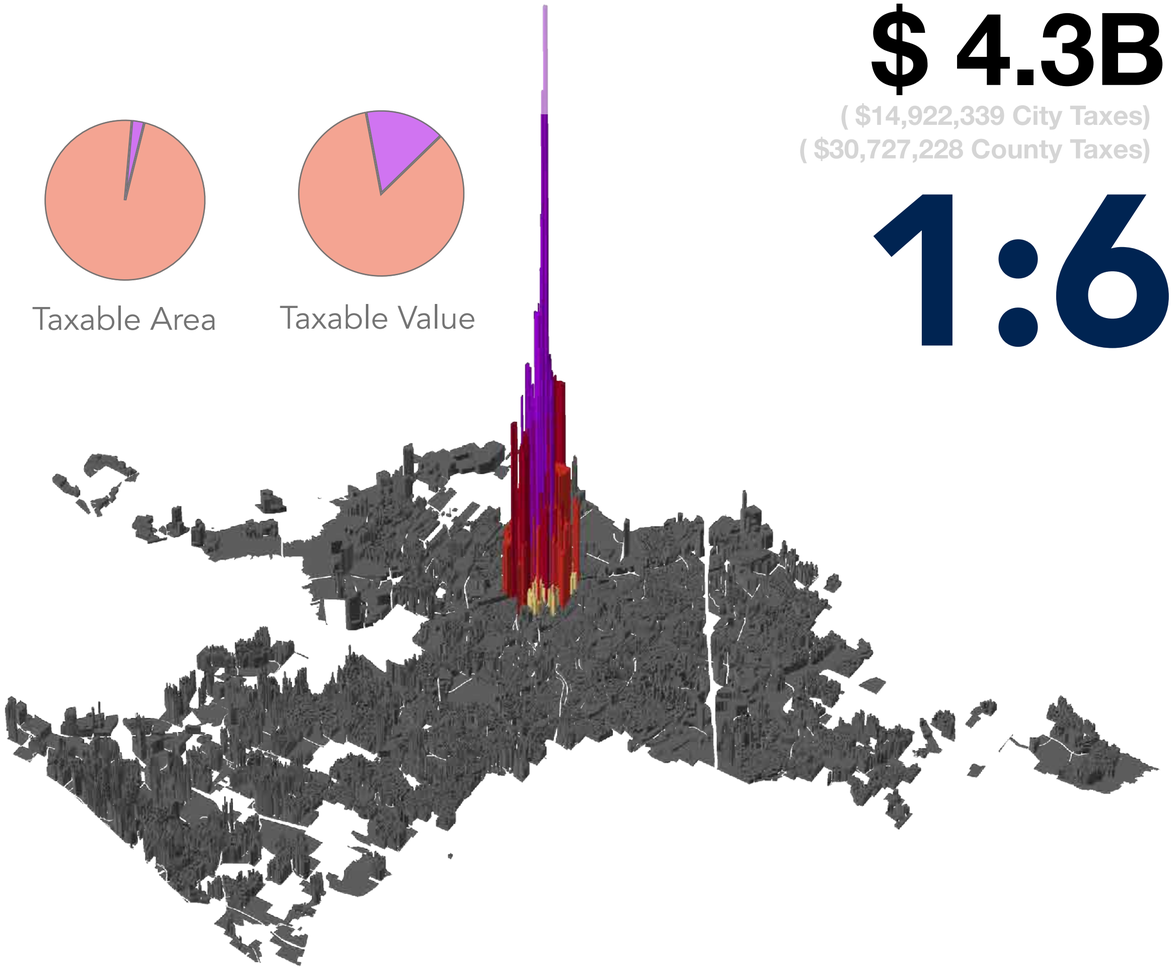


New Value:

$ 4.3B

($14,922,339 City Taxes)
($30,727,228 County Taxes)

1:6



Taxable Value per Acre ($)

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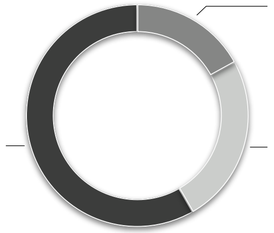
- < 100,000
- 100,001 - 300,000
- 300,001 - 750,000
- 750,001 - 1,000,000
- 1,000,001 - 1,500,000
- 1,500,001 - 2,750,000
- 2,750,001 - 4,000,000
- 4,000,001 - 6,000,000
- 6,000,001 - 8,000,000
- 8,000,001 - 15,000,000
- 15,000,001 - 30,000,000
- > 30,000,001

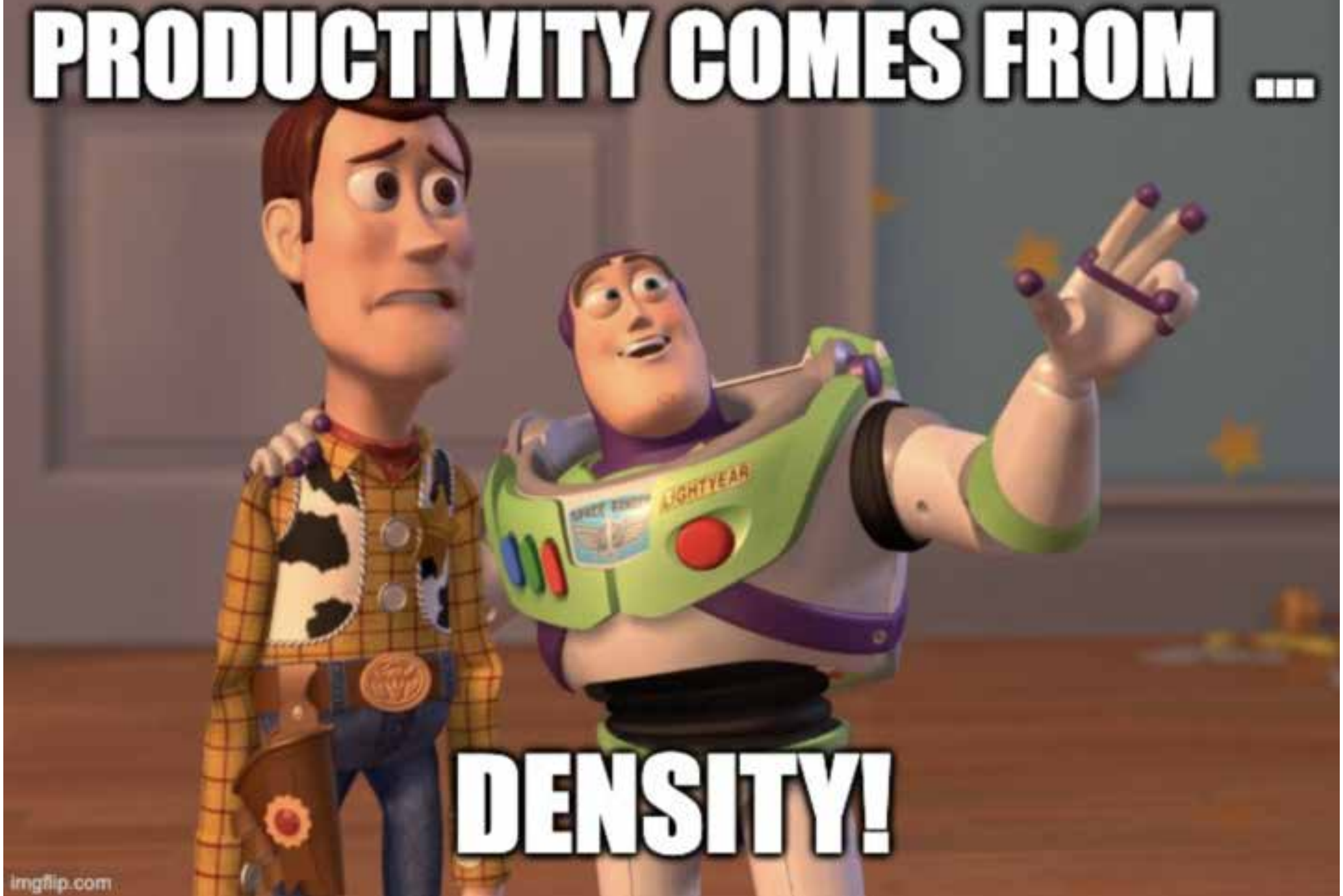
Downtown

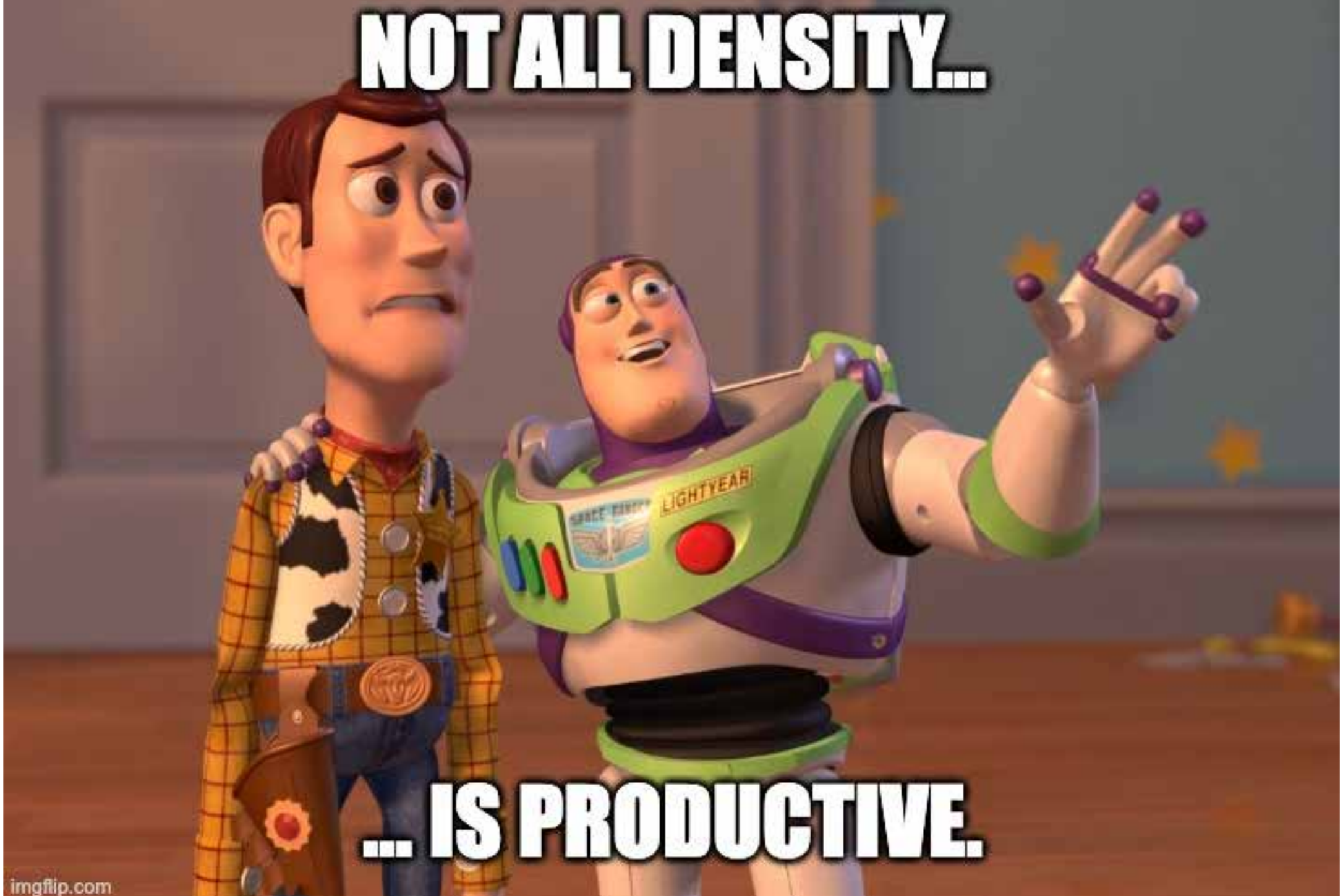
Key Map:



Key Development Statistics:

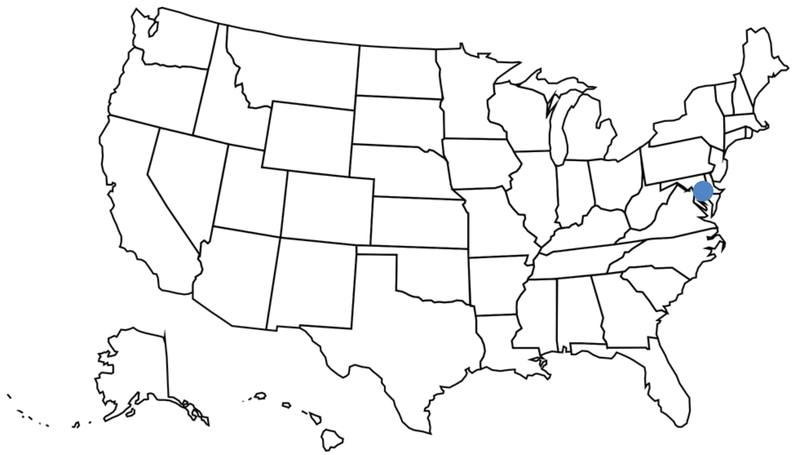
- 3,431,909 sq. ft. Office
- 4,987,204 sq. ft. Commercial
- 11,783,168 sq ft. Residential


PRODUCTIVITY COMES FROM ...
DENSITY!
LIGHTYEAR
imgflip.com


NOT ALL DENSITY...
... IS PRODUCTIVE.
LIGHTYEAR
imgflip.com

Question:

What about the cost of development patterns?



Case Study: Economic MRI®

Annapolis, Maryland

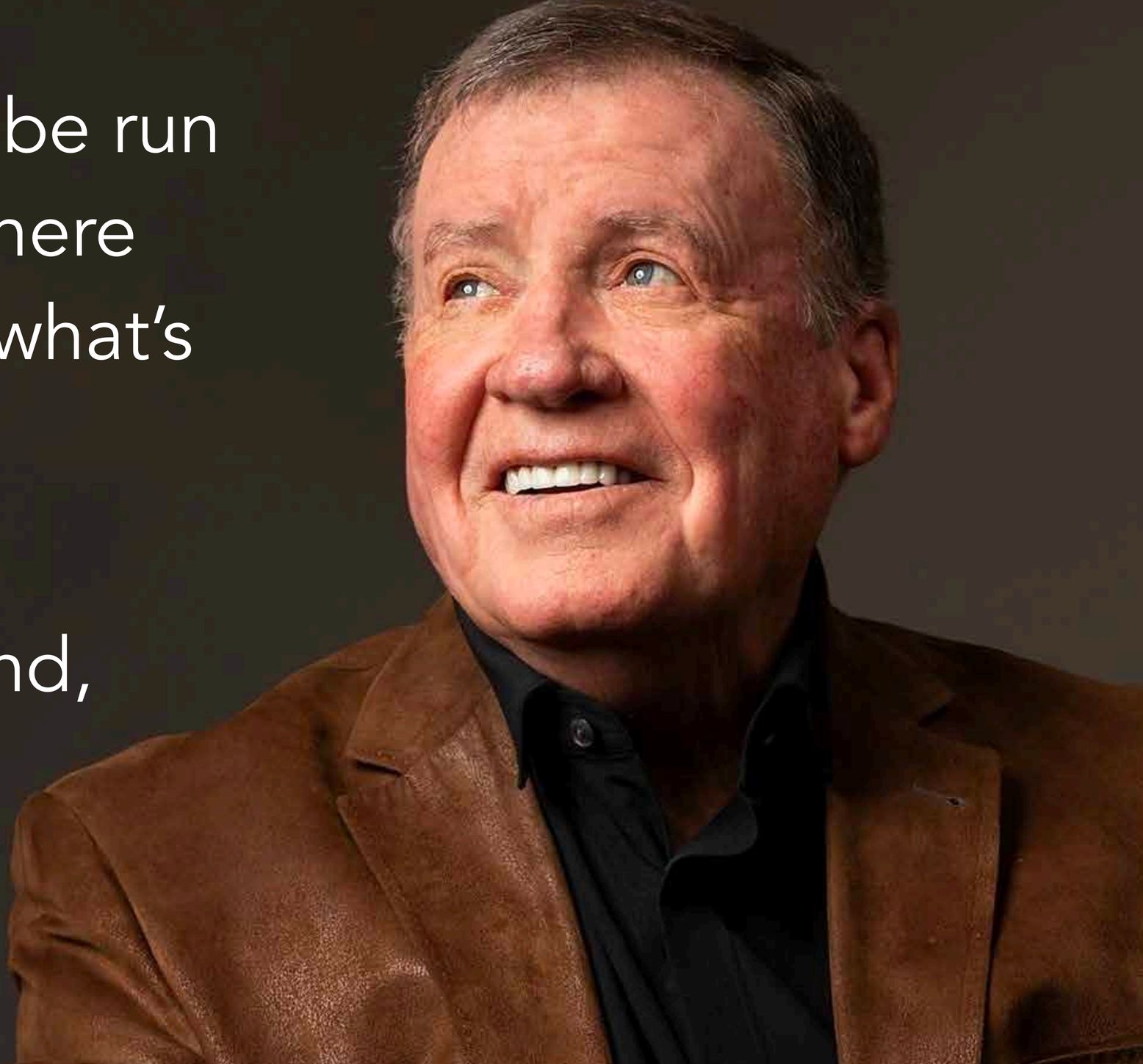
URBAN3

“A business should be run like an aquarium, where everybody can see what’s going on —
what’s going in,
what’s moving around,
what’s coming out.”

Jack Stack

SRC Holdings

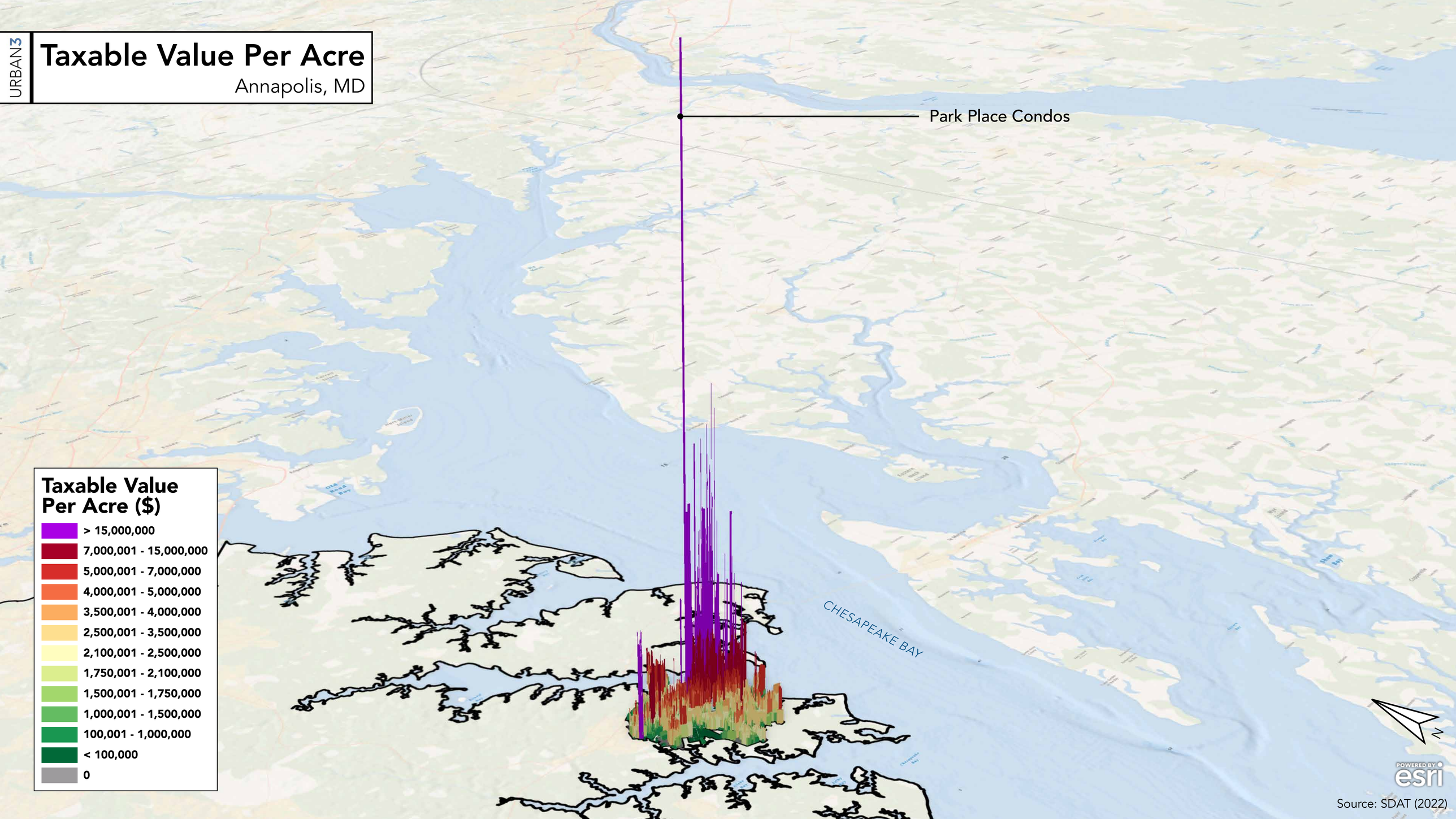
Author, The Great Game of Business.



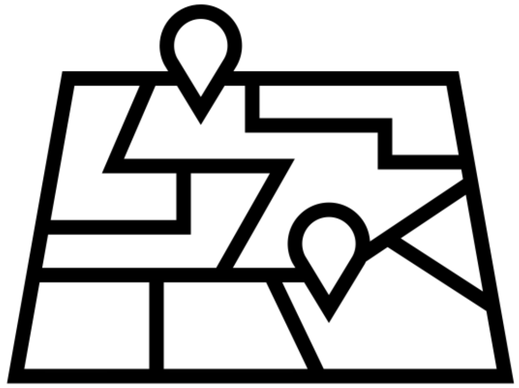
URBAN3

Taxable Value Per Acre

Annapolis, MD



Source: SDAT (2022)



Annexation History

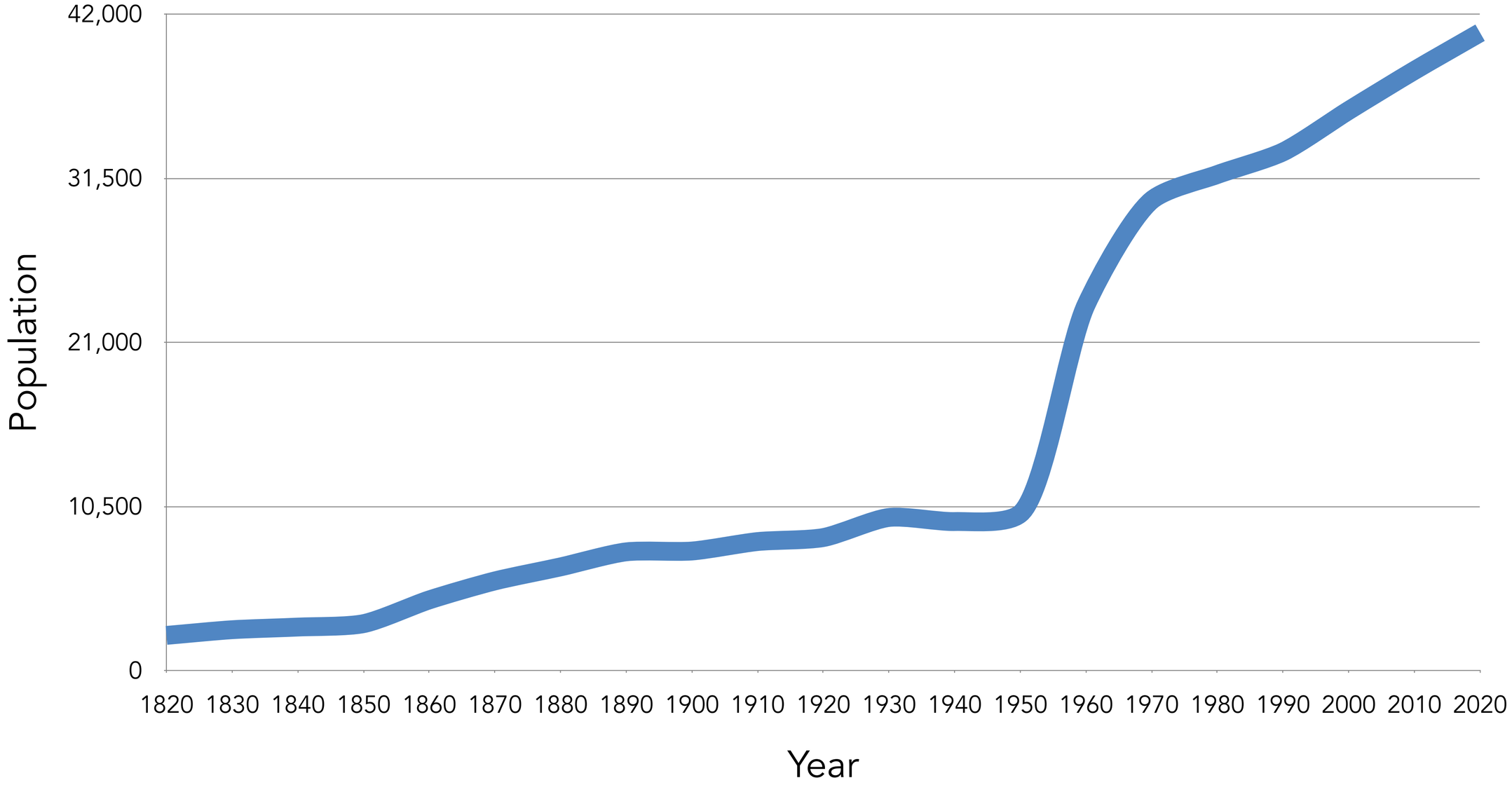
Comparative Spatial Modeling of Economic Change

URBAN3

URBAN3

Population: 1820 - 2020

Annapolis, MD

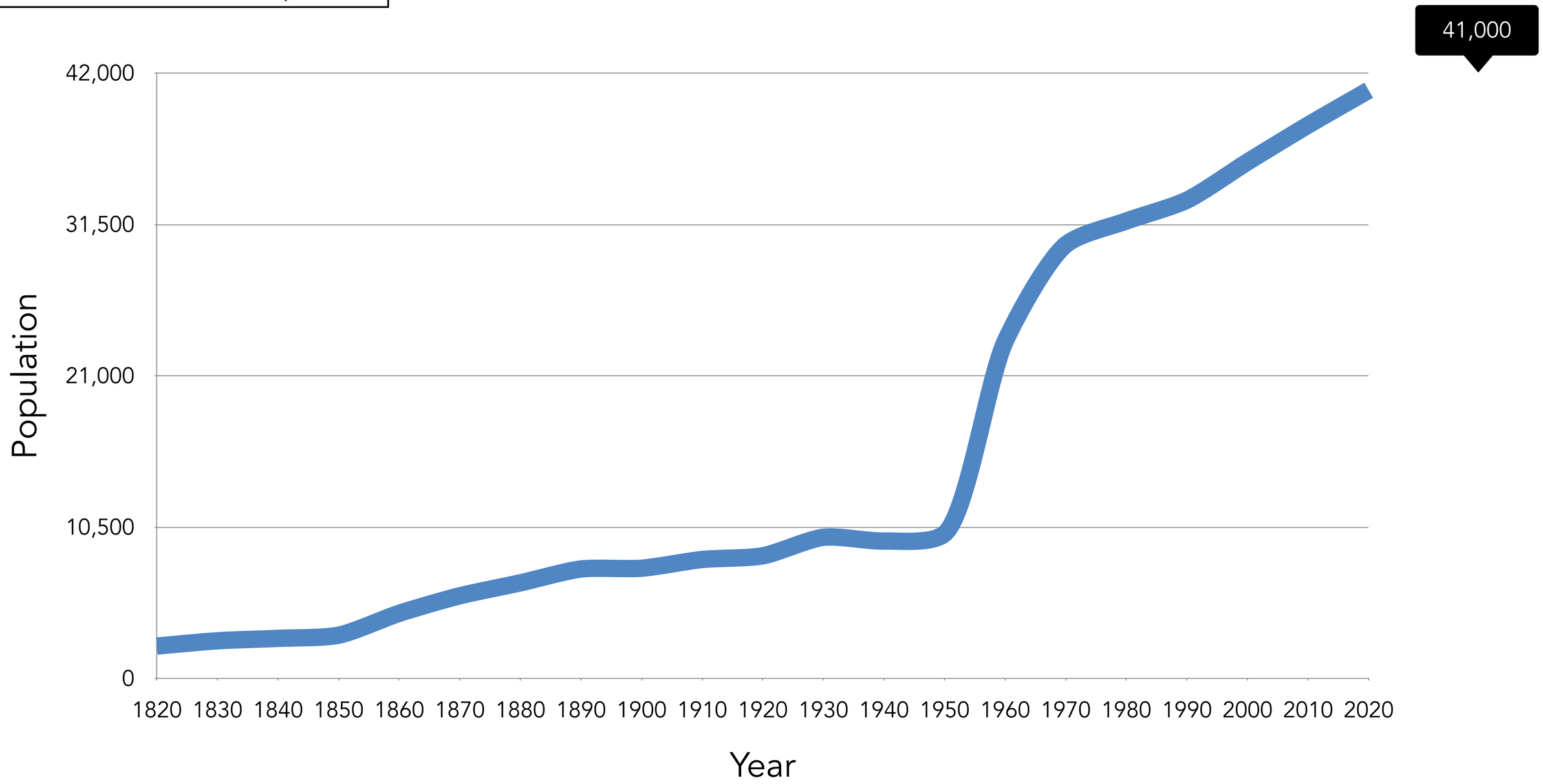


Source: Wikipedia

URBAN3

Population: 1820 - 2020

Annapolis, MD

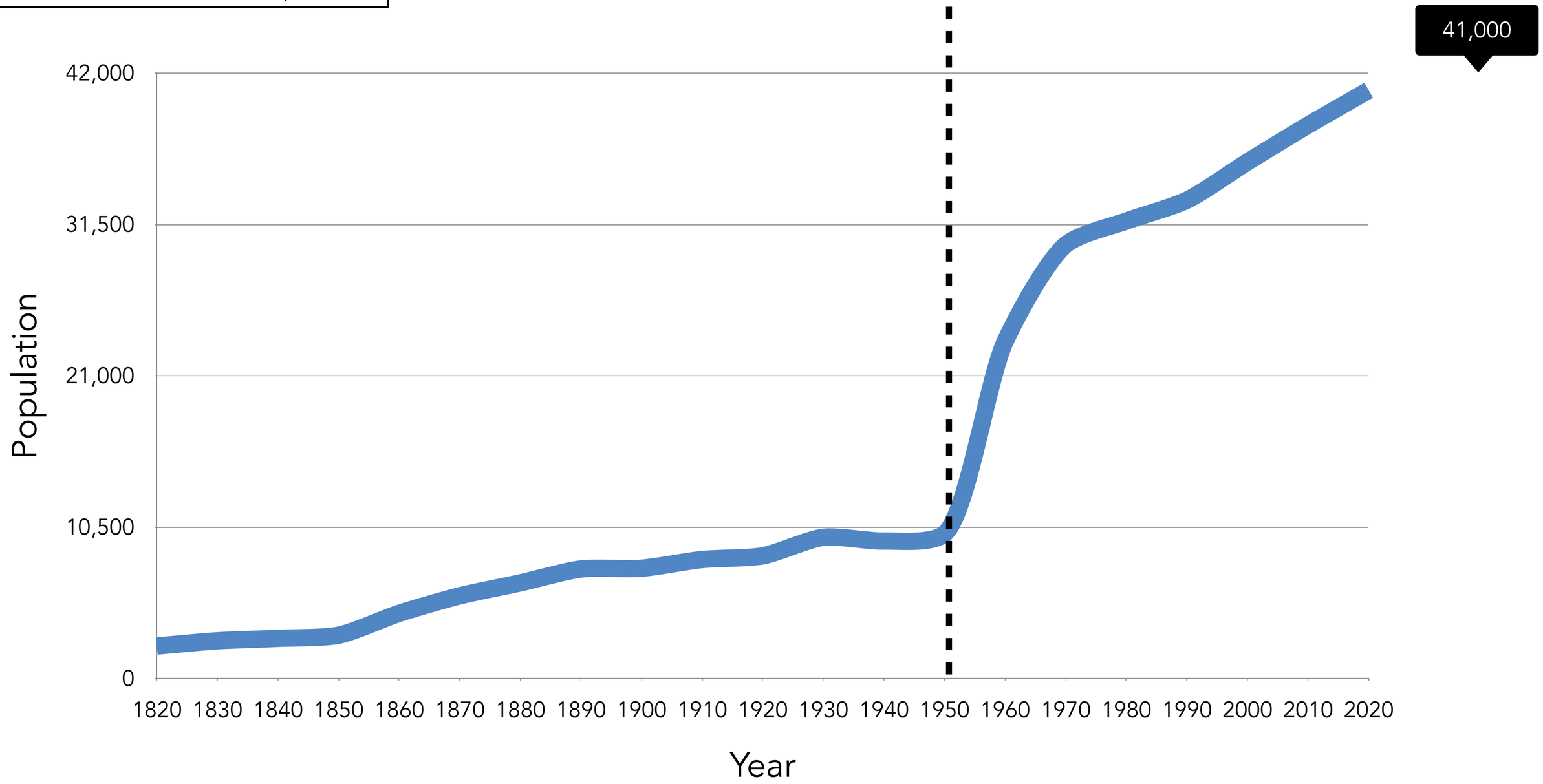


Source: Wikipedia

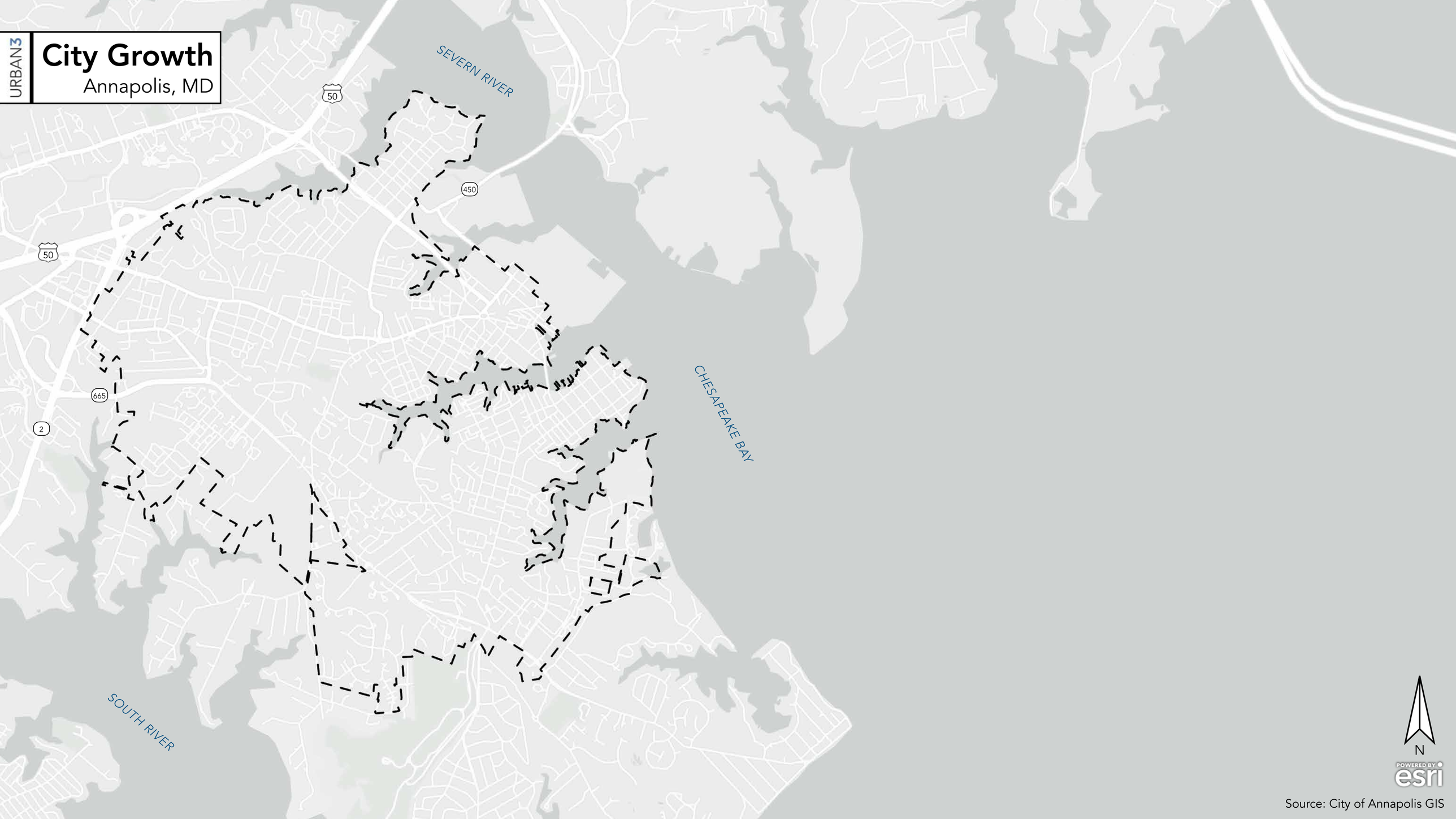
URBAN3

Population: 1820 - 2020

Annapolis, MD



Source: Wikipedia

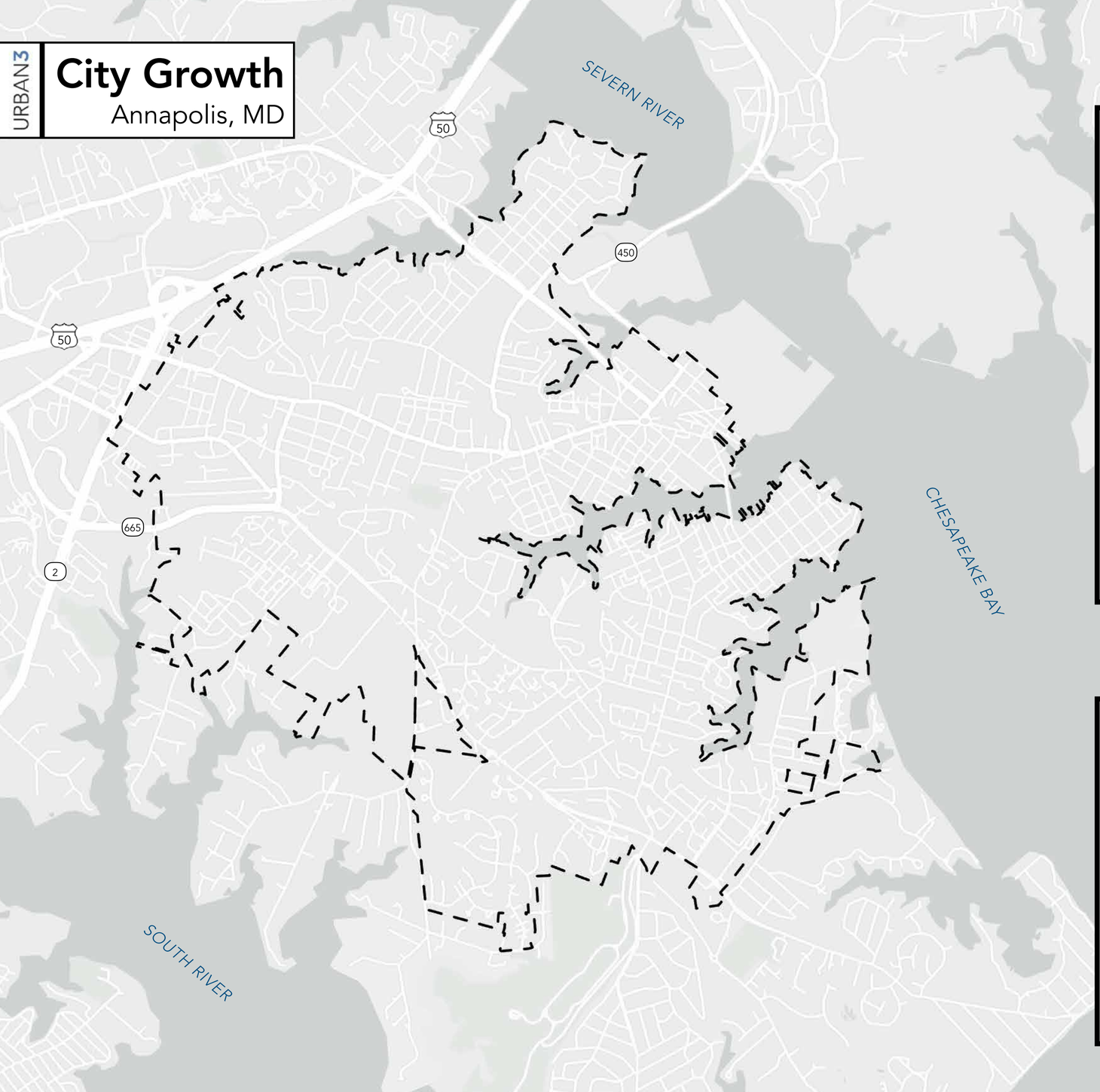


Source: City of Annapolis GIS

URBAN3

City Growth

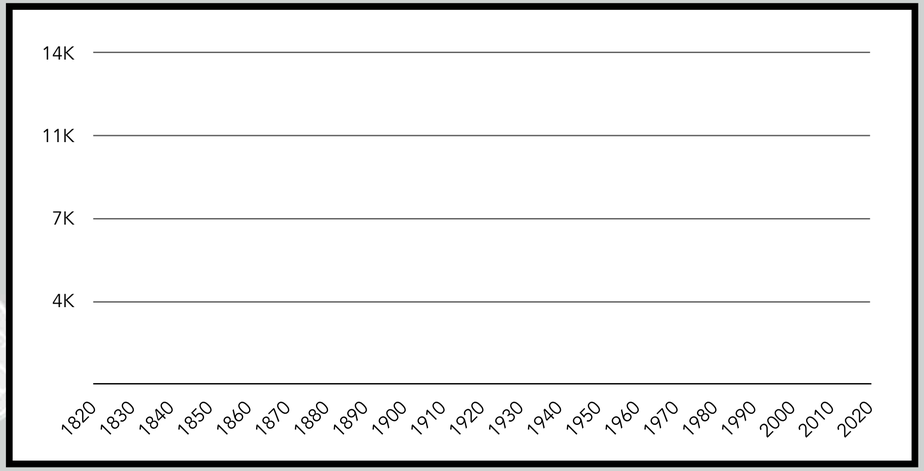
Annapolis, MD



Area

Population Density

(people per sq. mi)



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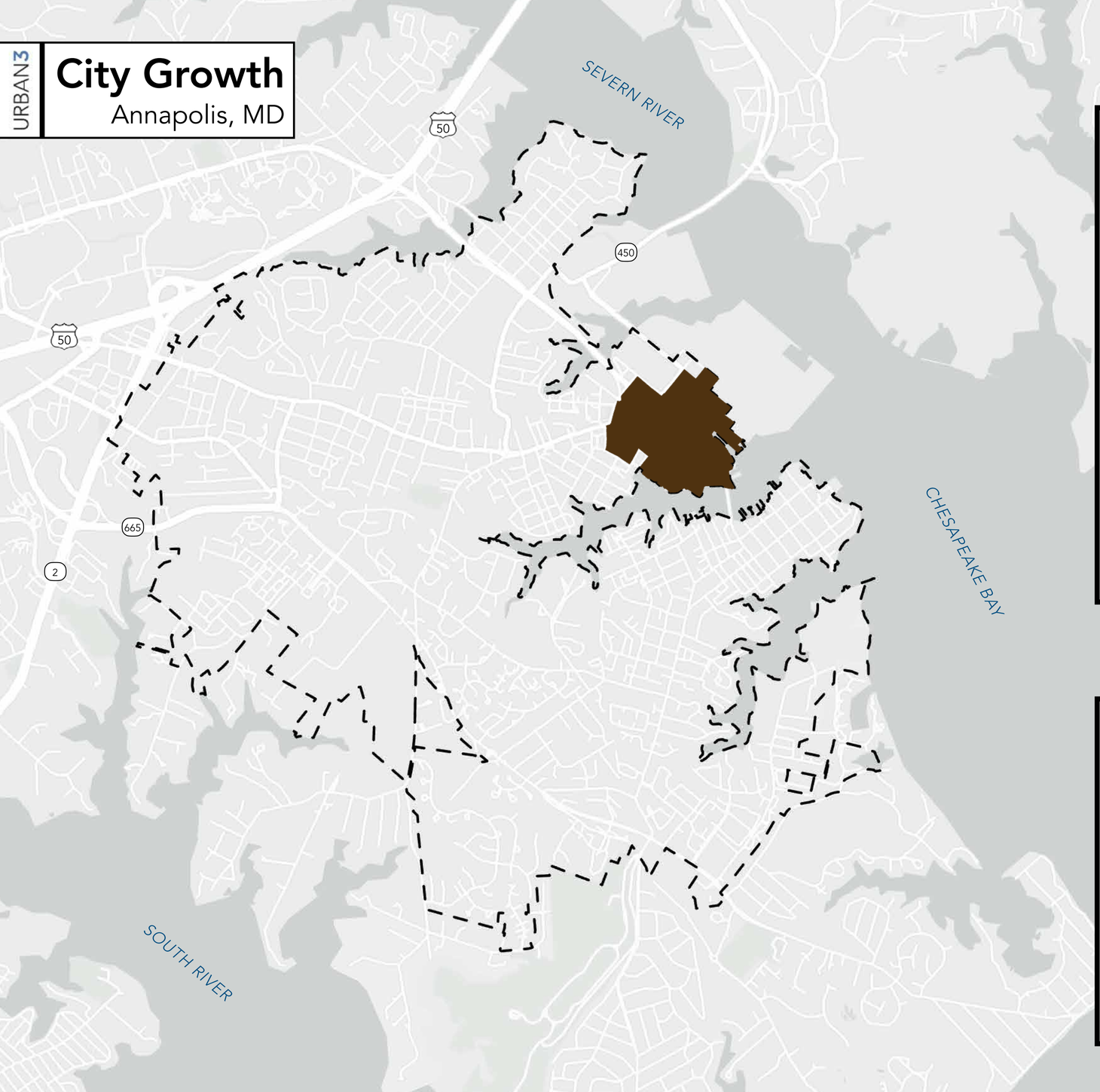
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

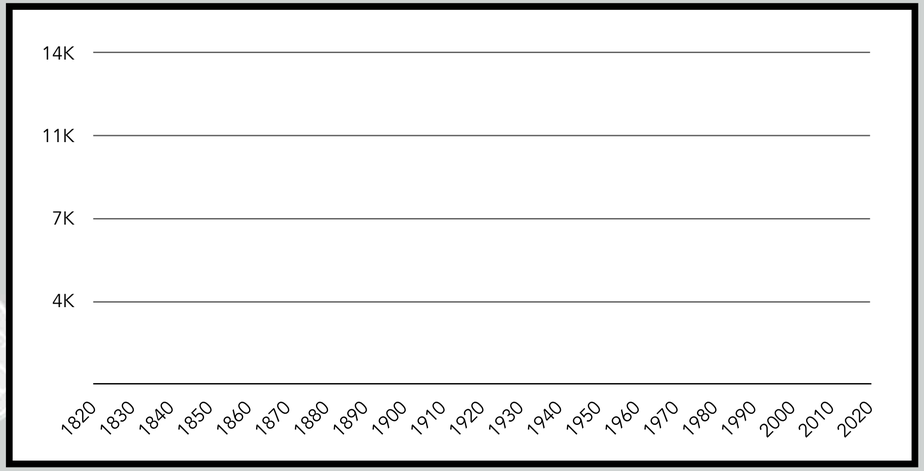
Annapolis, MD



Area

Population Density

(people per sq. mi)



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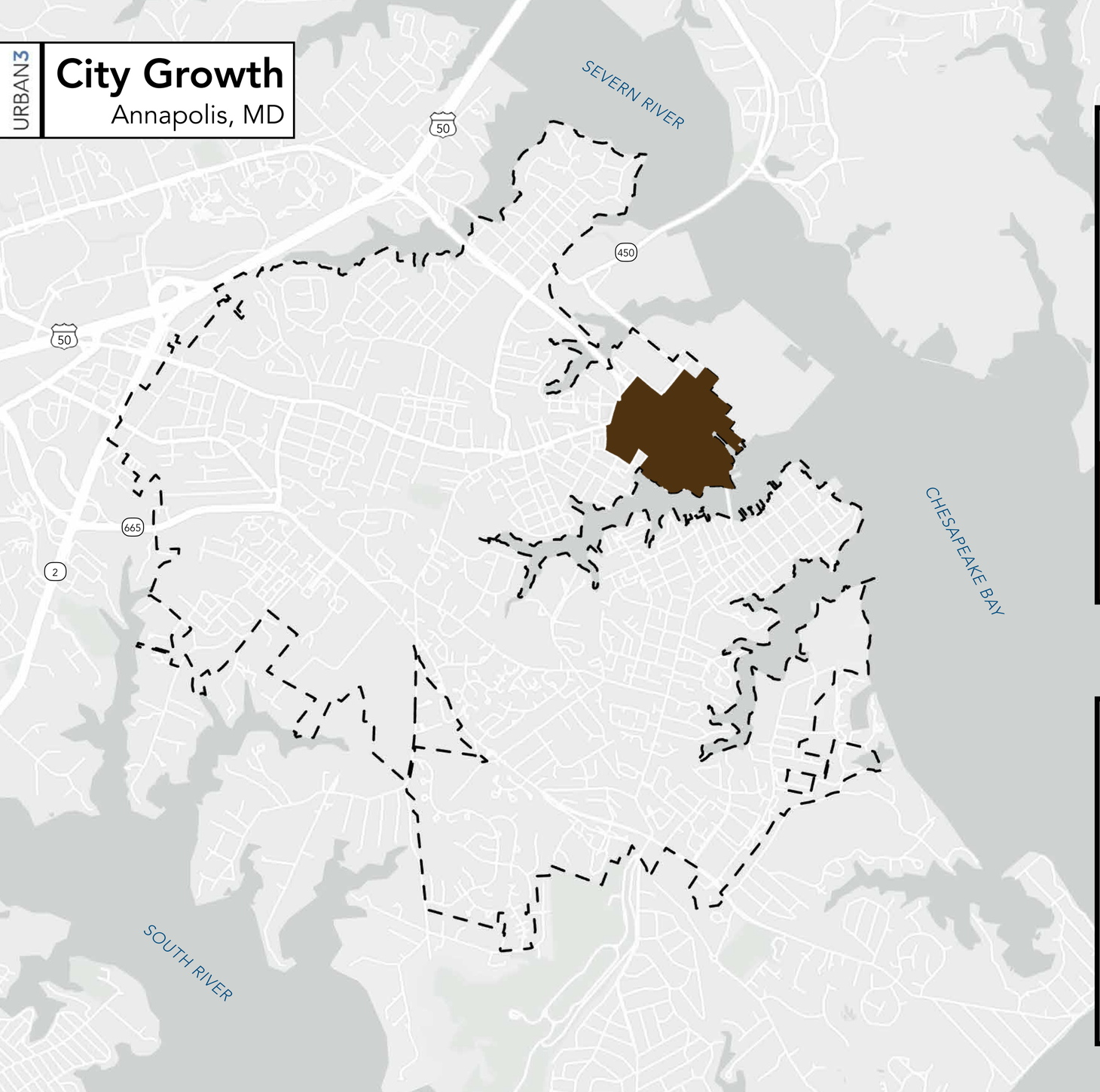
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

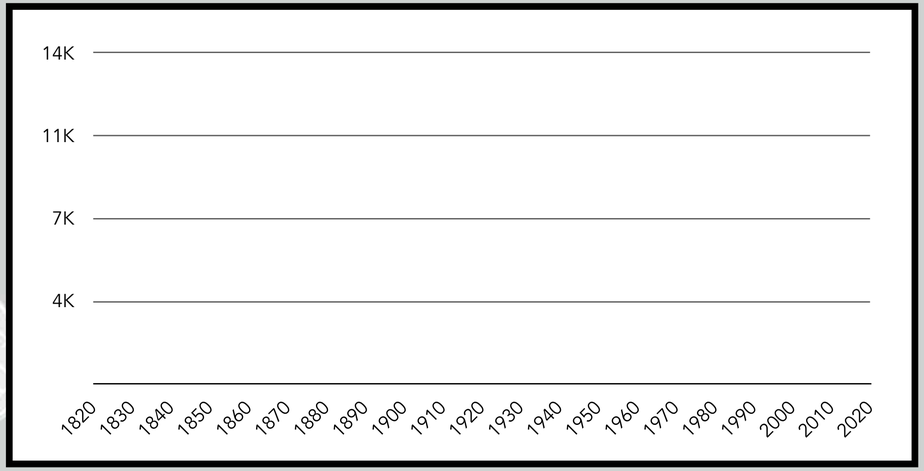
Annapolis, MD



Area

Population Density

(people per sq. mi)



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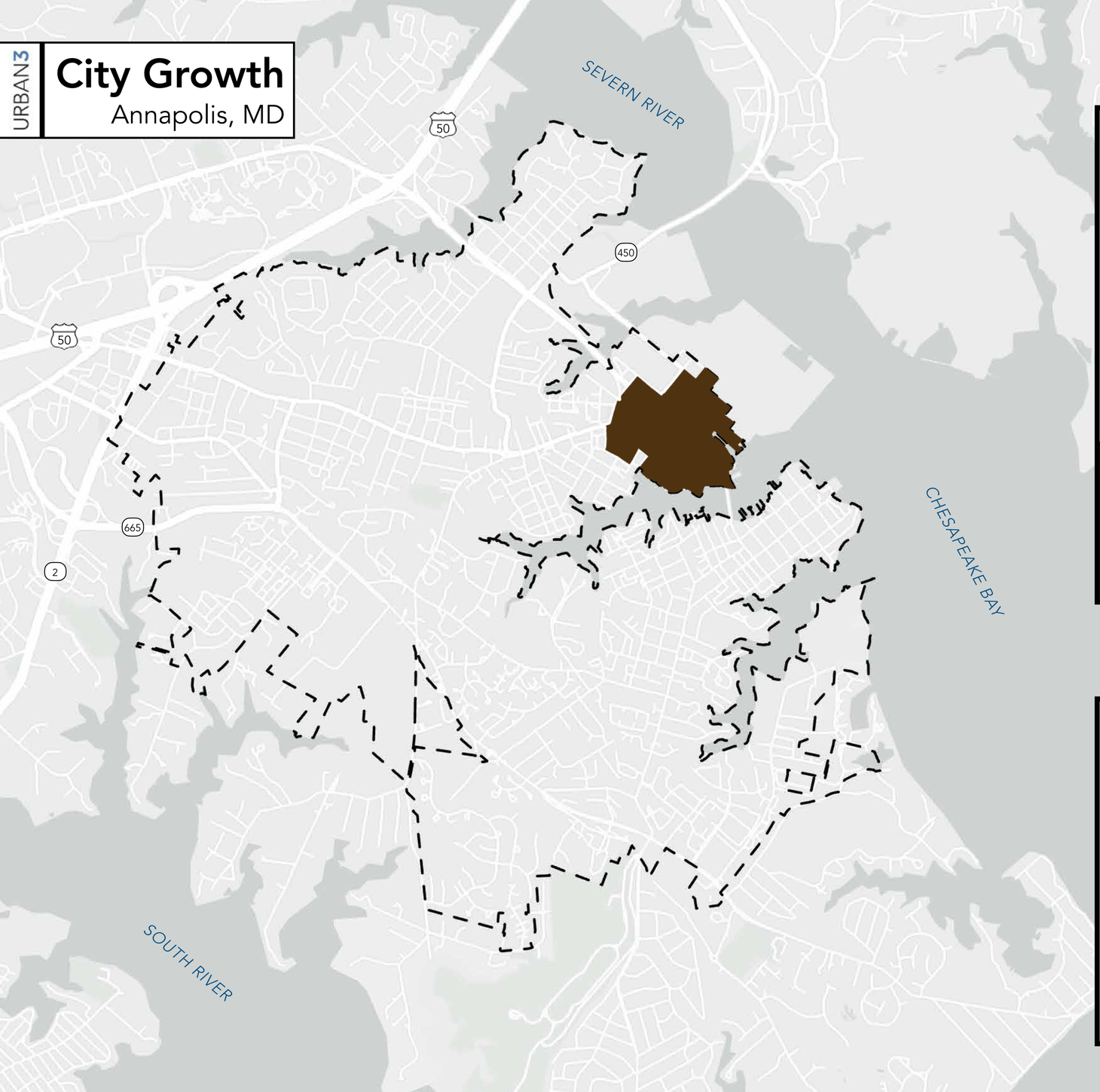
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

Annapolis, MD

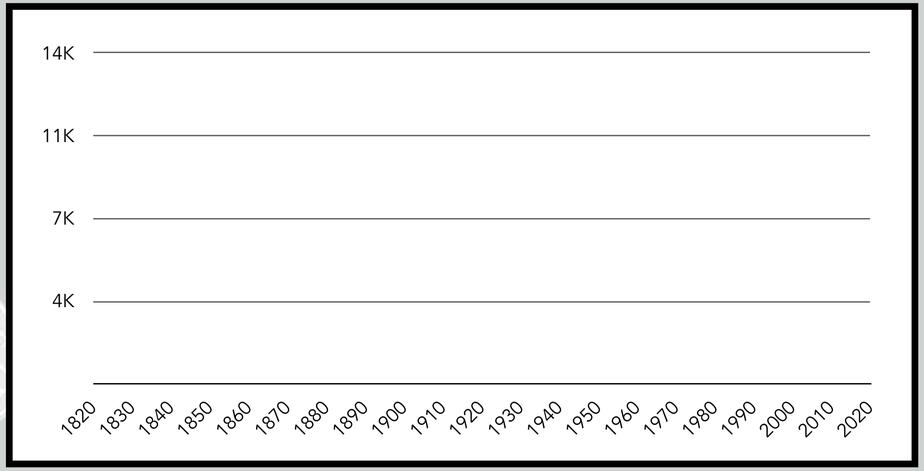


Area

0.3 sq. mi

Population Density

(people per sq. mi)



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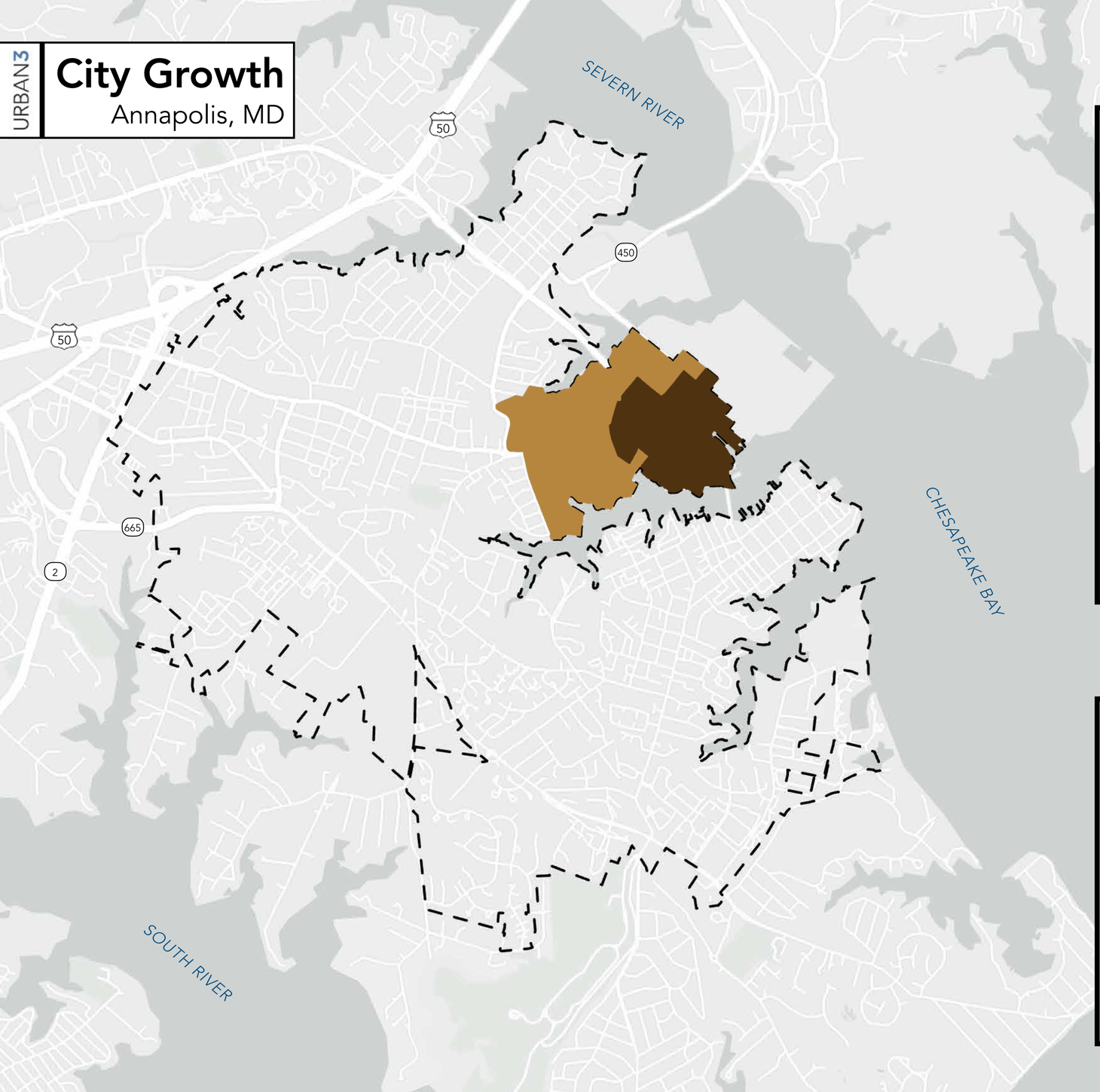
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

Annapolis, MD

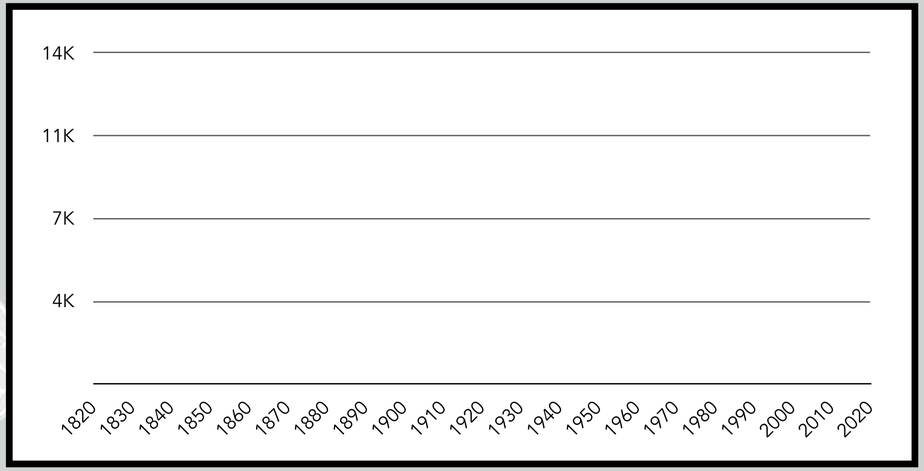


Area

0.6 sq. mi

Population Density

(people per sq. mi)



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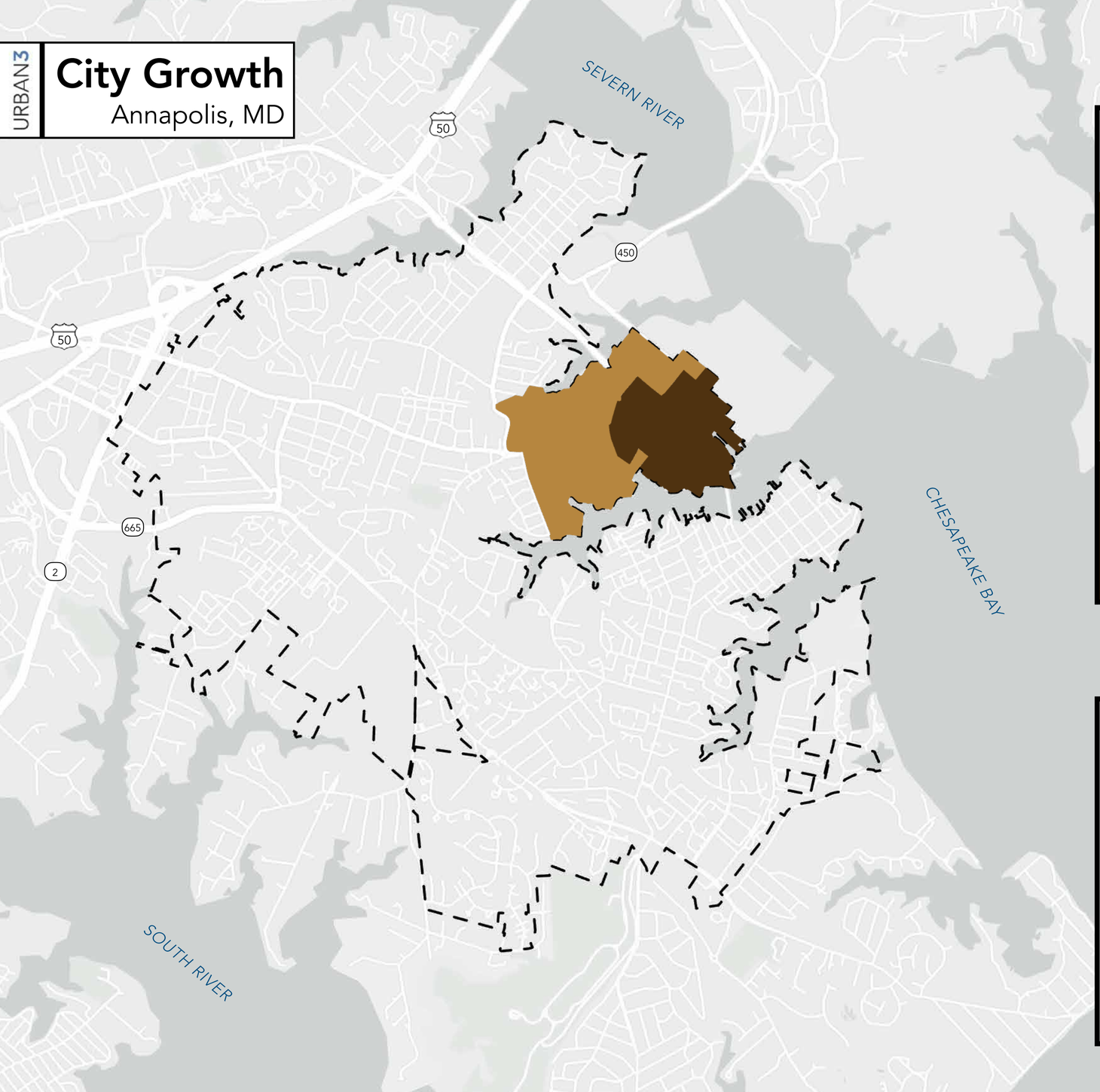
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

Annapolis, MD

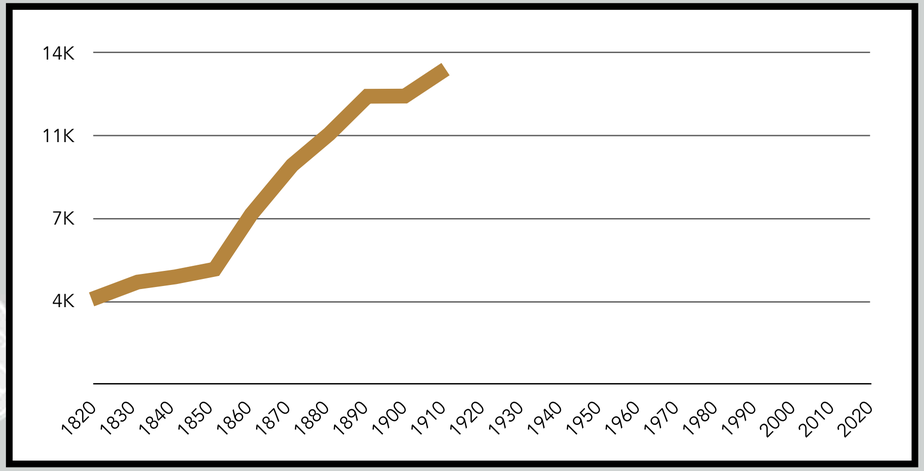


Area

0.6 sq. mi

Population Density

(people per sq. mi)



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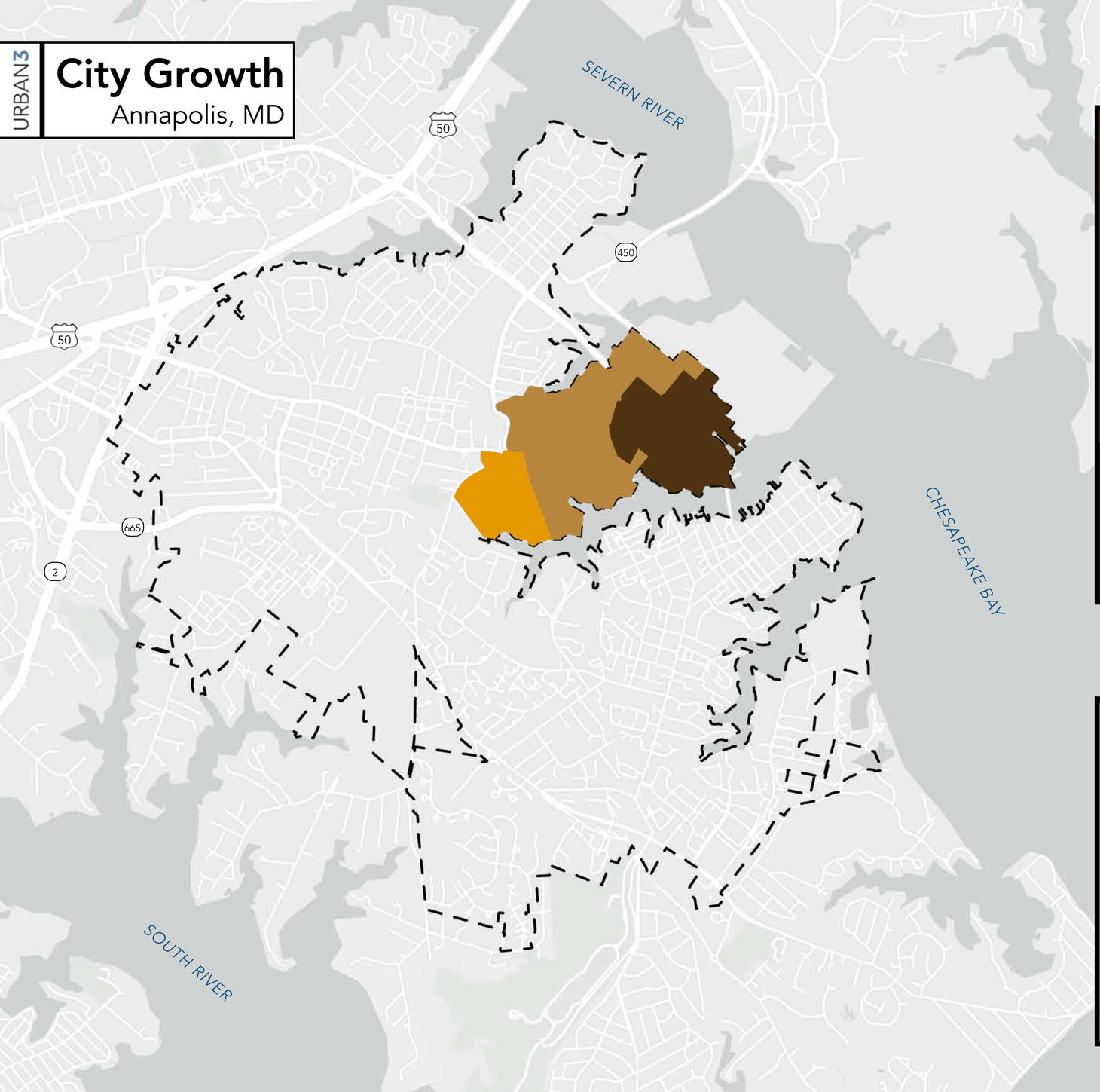
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

Annapolis, MD



Area

0.8 sq. mi

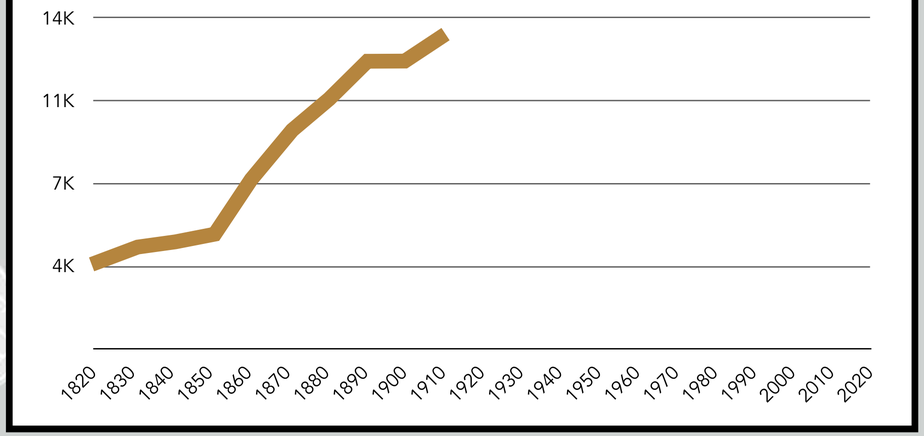
1920 - 1950
0.1 sq. mi, 2%

1800 - 1920
0.4 sq. mi, 5%

1700 - 1800
0.3 sq. mi, 4%

Population Density

(people per sq. mi)



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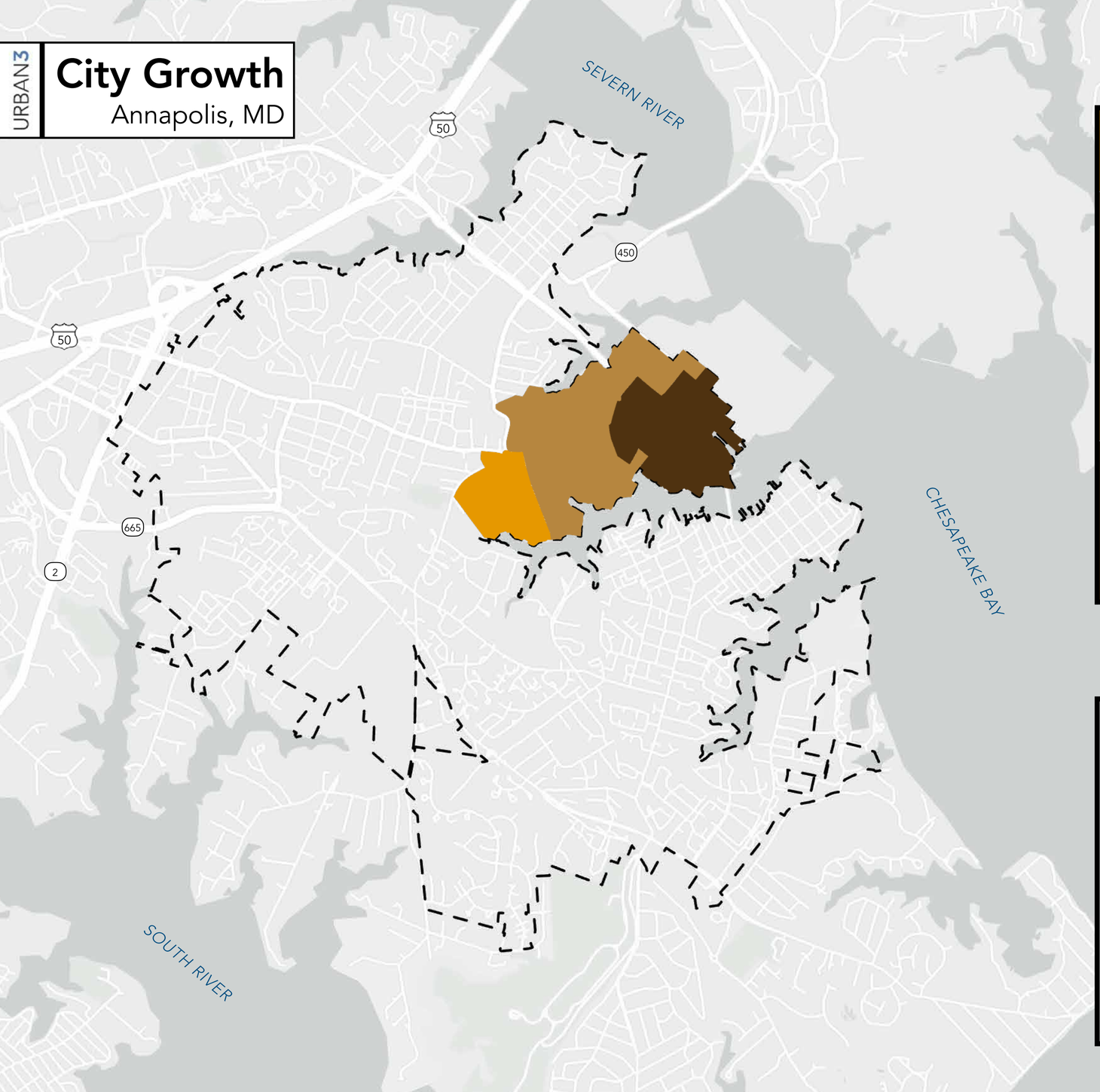
Source: City of Annapolis GIS, Wikipedia

URBAN3

City Growth

Annapolis, MD

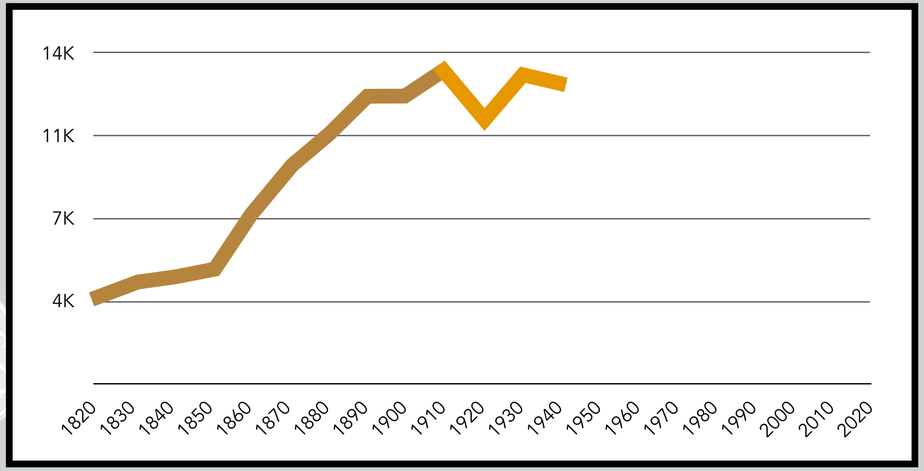


Area

0.8 sq. mi

Population Density

(people per sq. mi)



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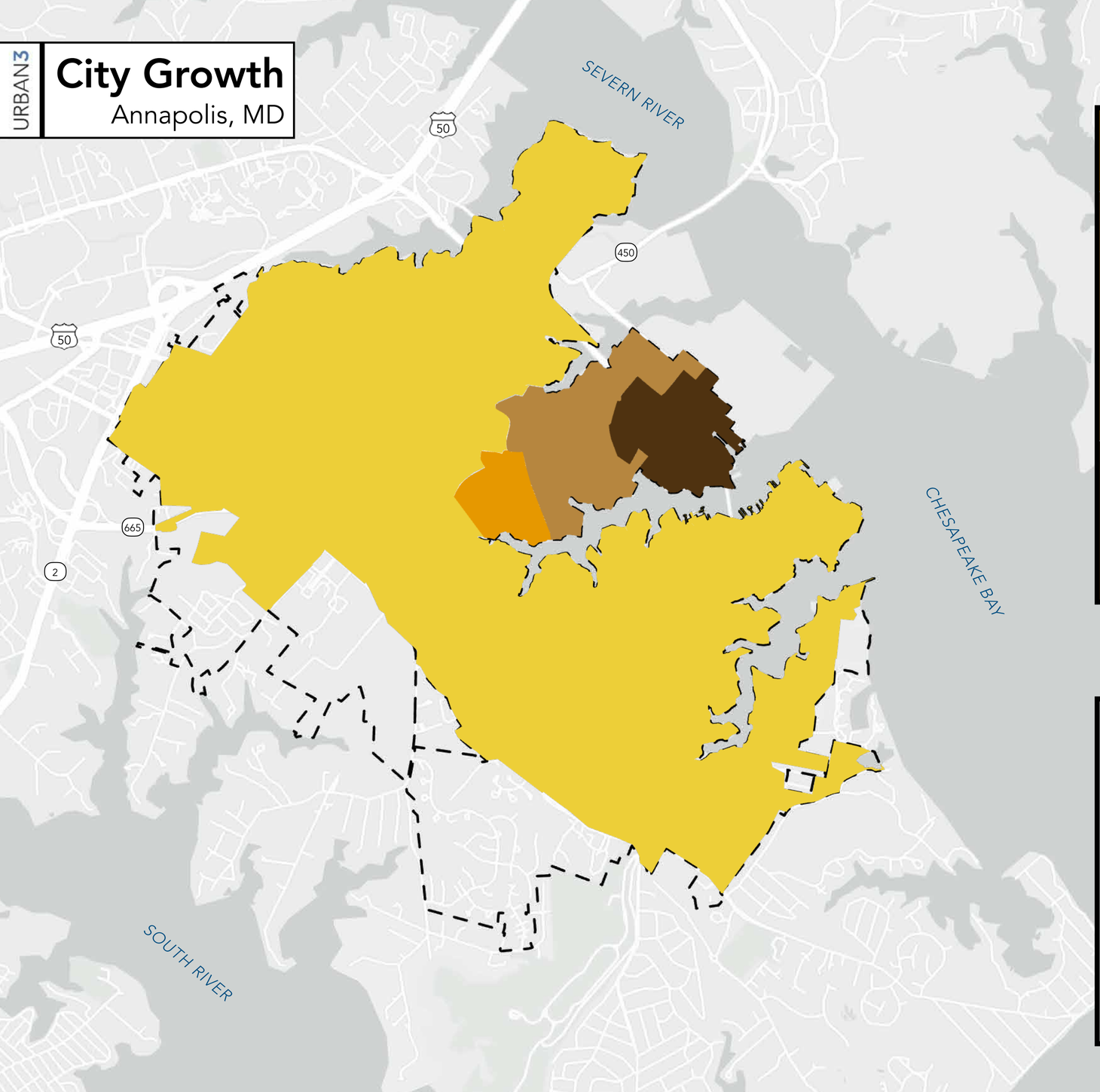
Source: City of Annapolis GIS, Wikipedia

URBAN3

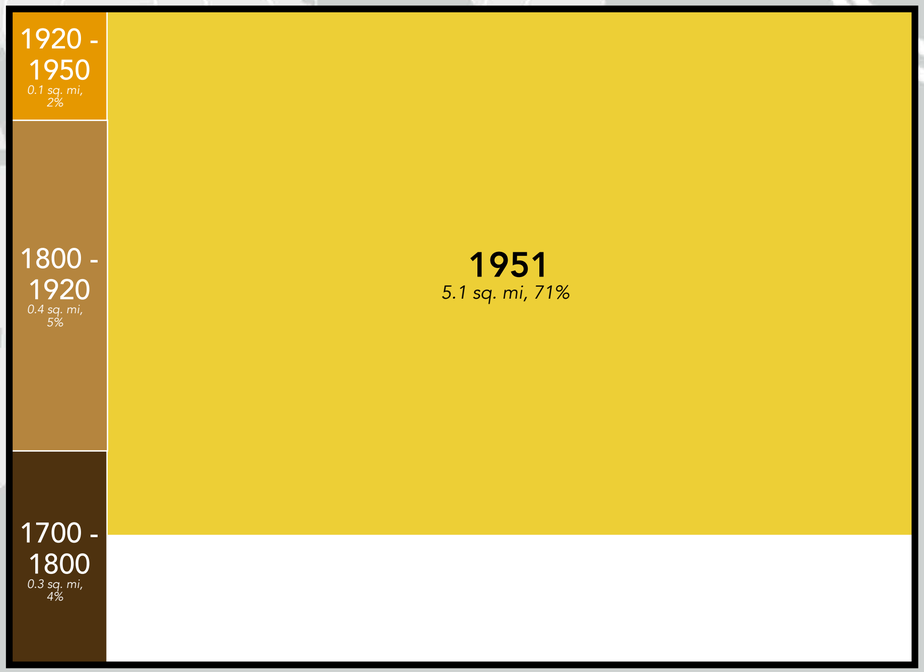
City Growth

Annapolis, MD



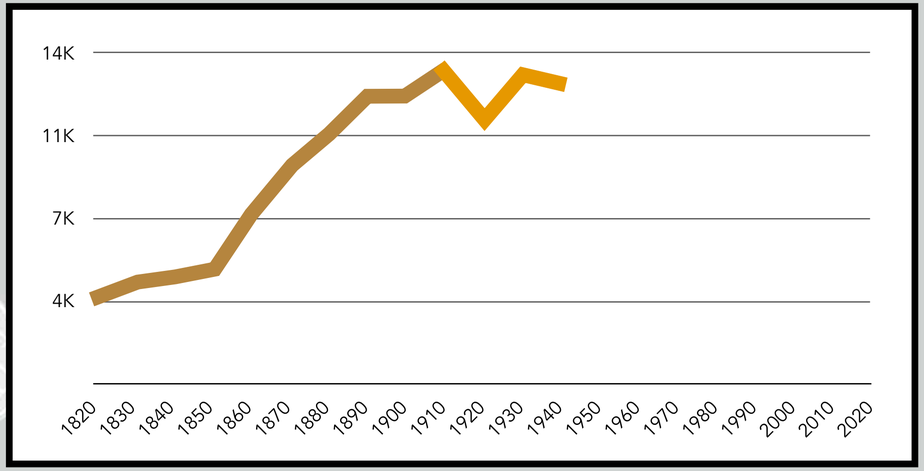
Area

5.8 sq. mi



Population Density

(people per sq. mi)



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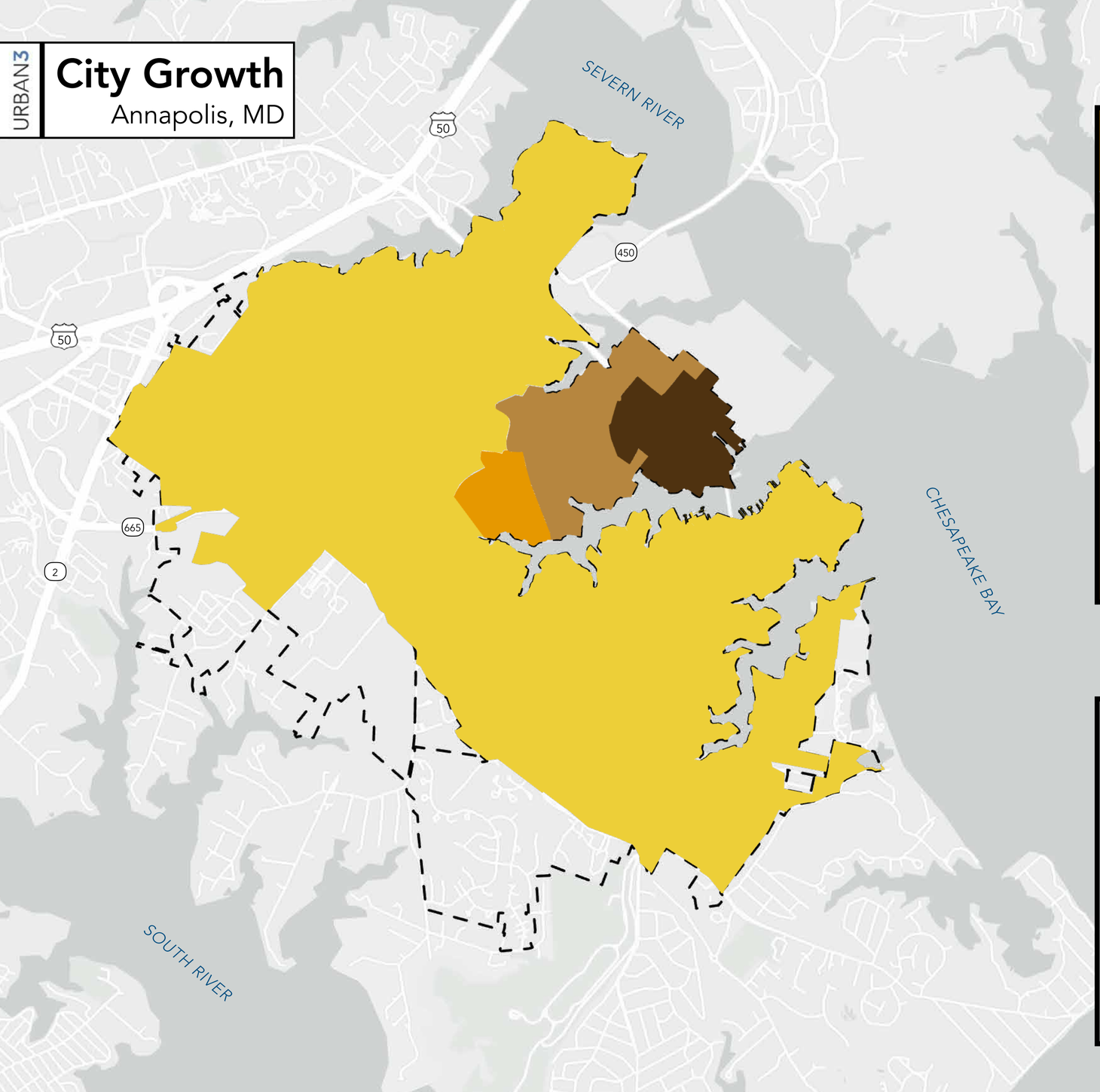
POWERED BY esri

Source: City of Annapolis GIS, Wikipedia

URBAN3

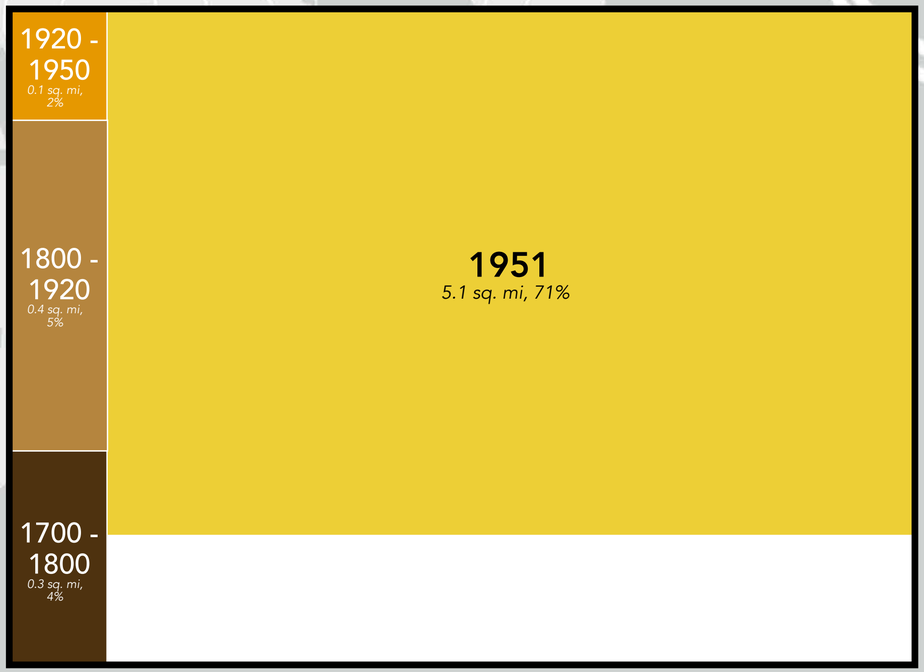
City Growth

Annapolis, MD



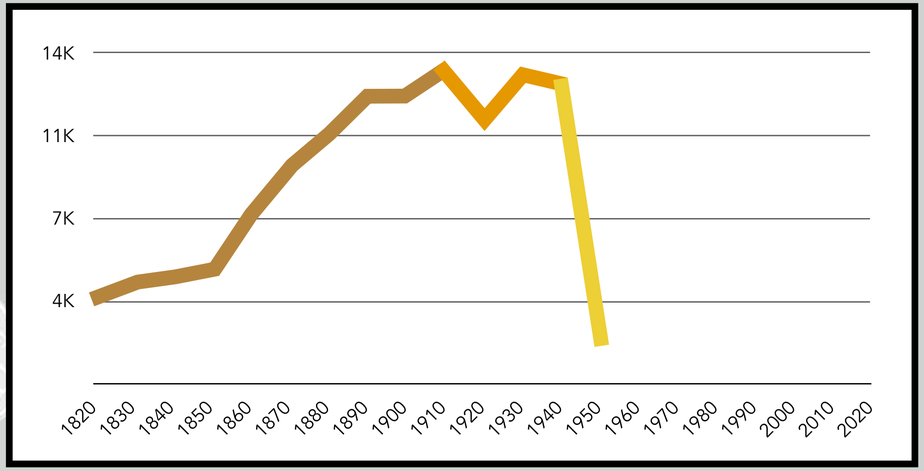
Area

5.8 sq. mi



Population Density

(people per sq. mi)



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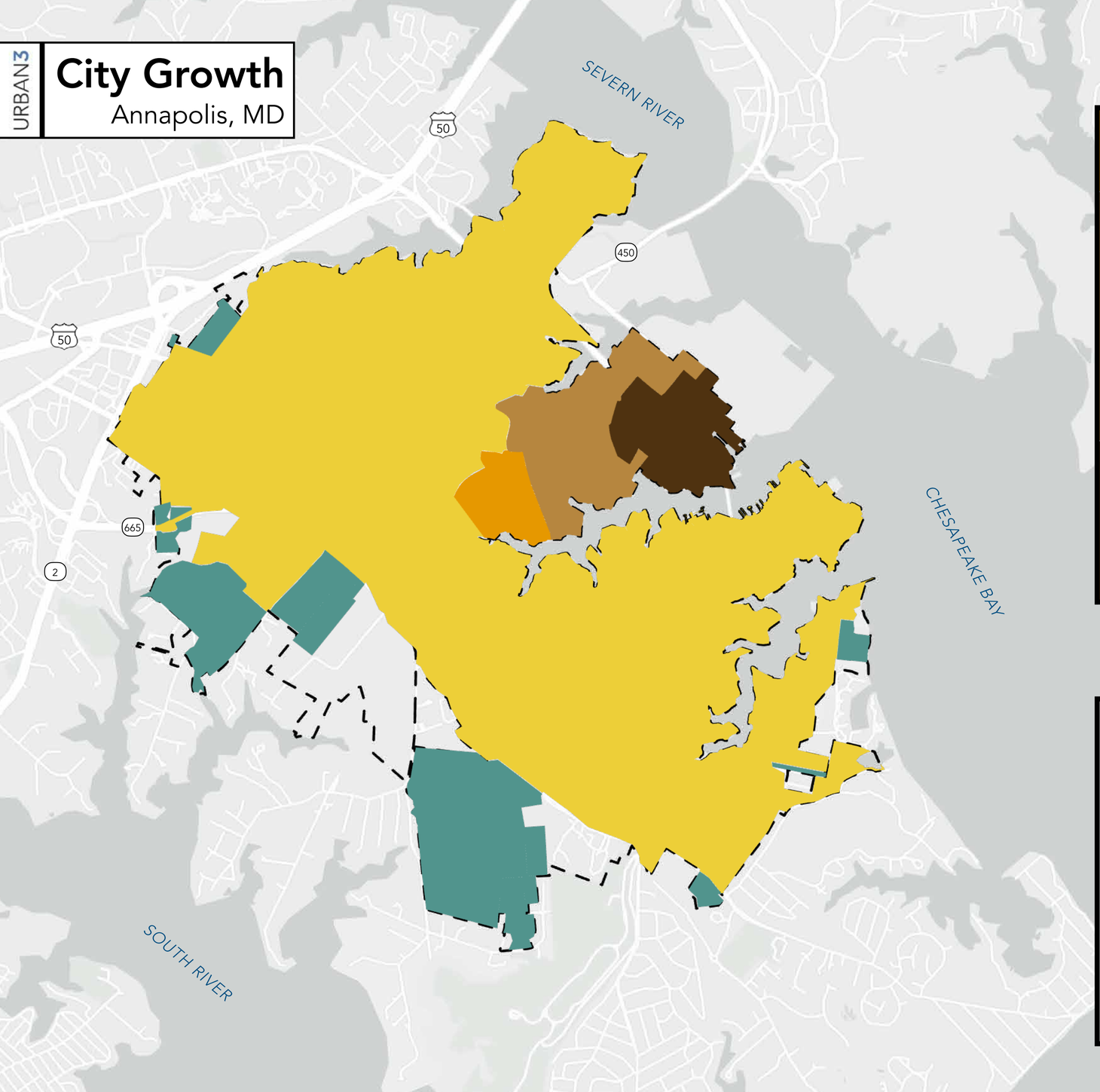
Source: City of Annapolis GIS, Wikipedia

URBAN3

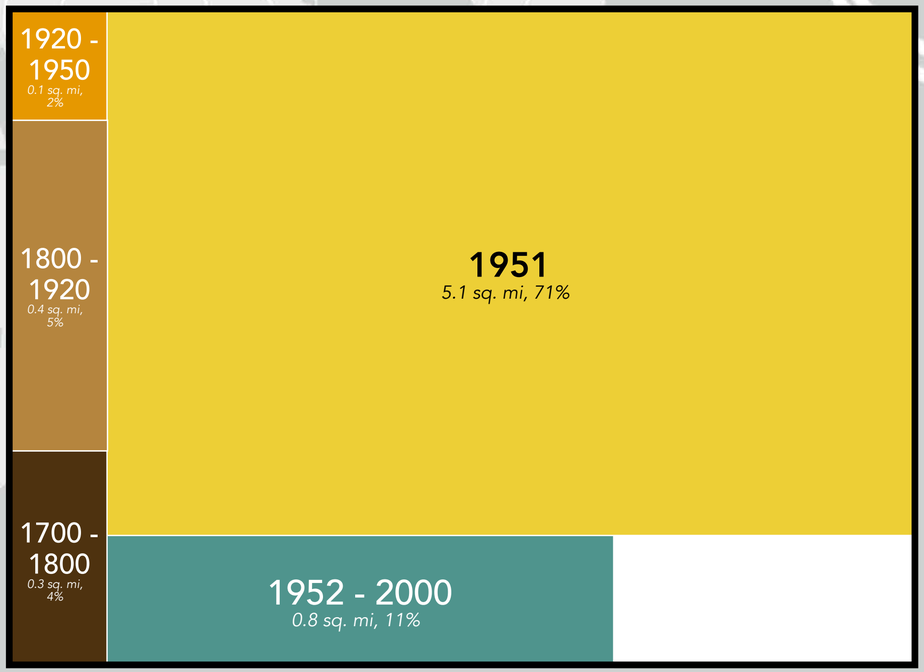
City Growth

Annapolis, MD



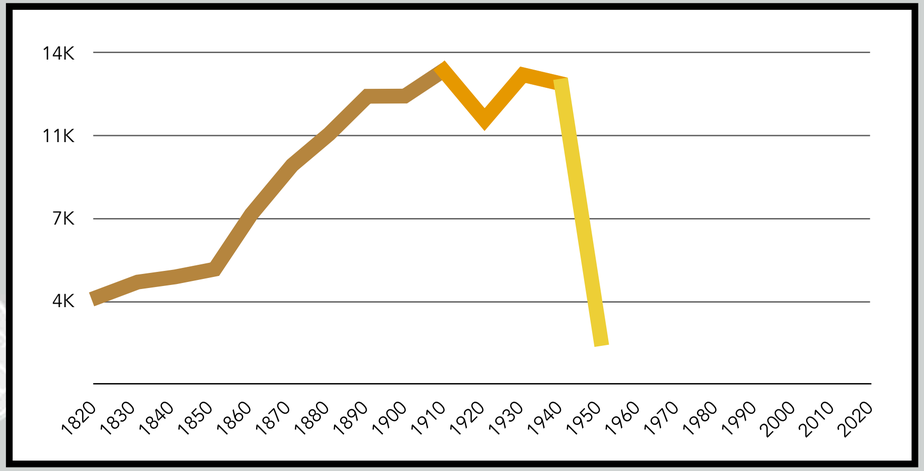
Area

6.6 sq. mi



Population Density

(people per sq. mi)



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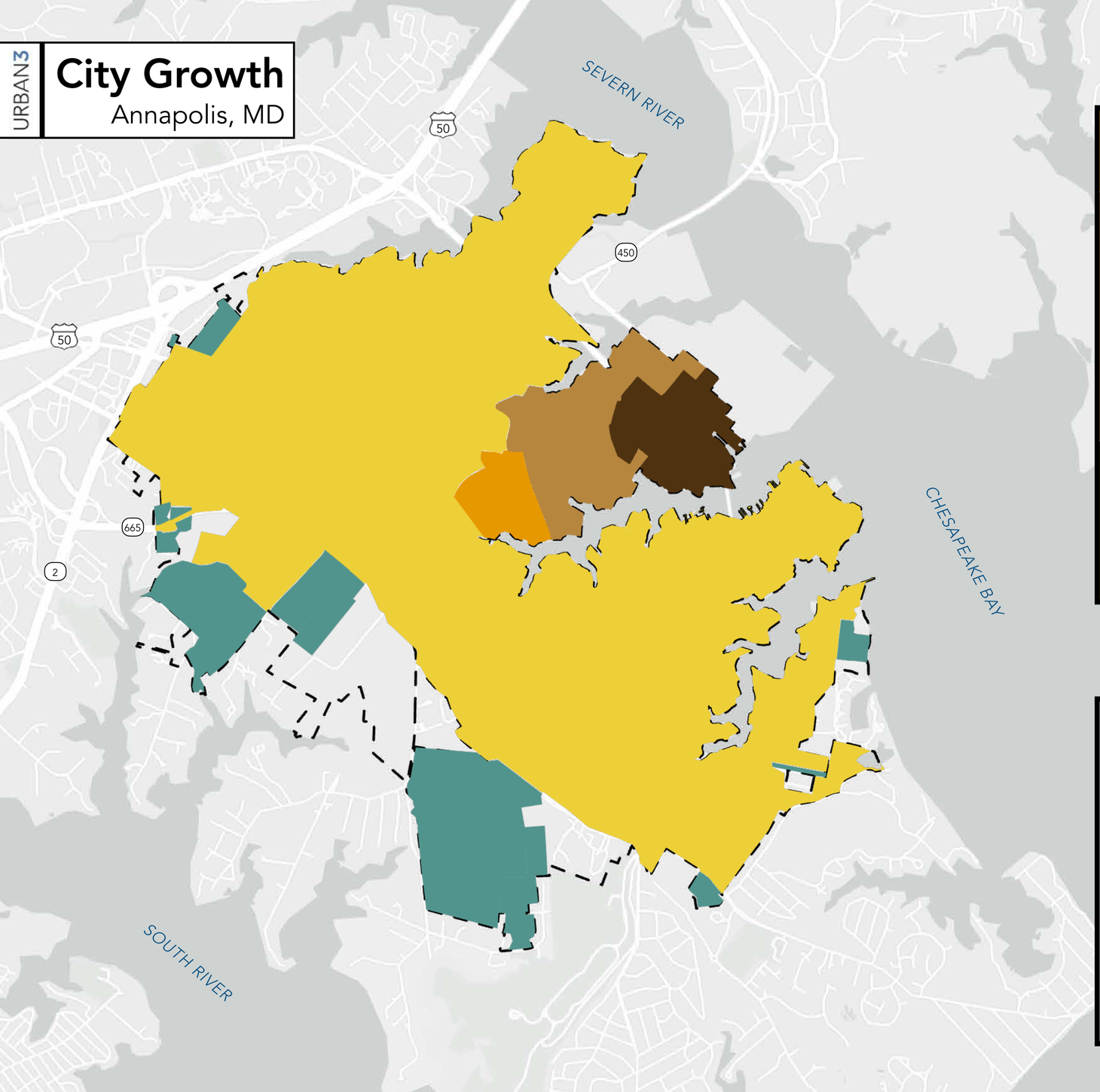
Source: City of Annapolis GIS, Wikipedia

URBAN3

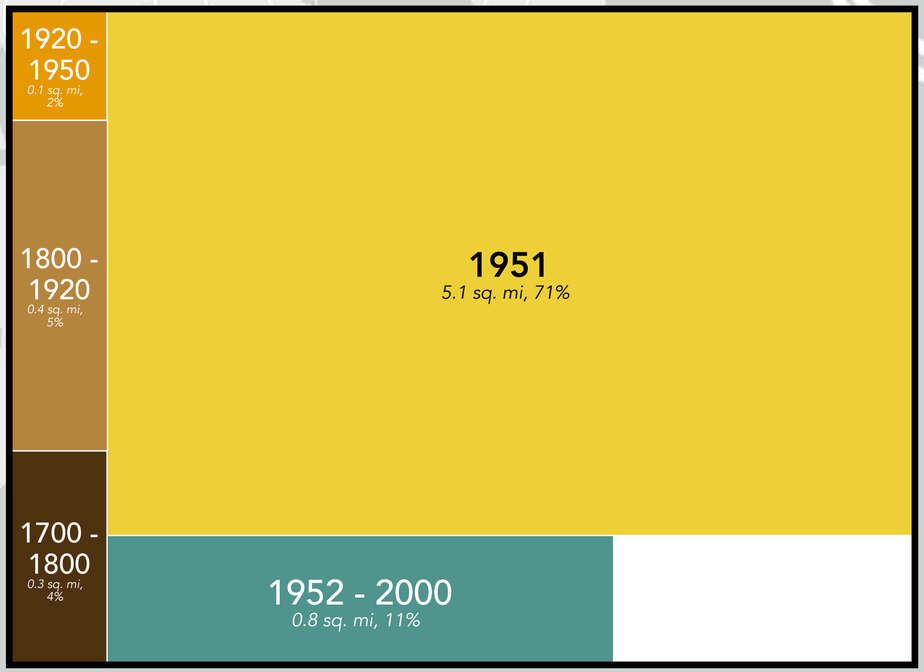
City Growth

Annapolis, MD



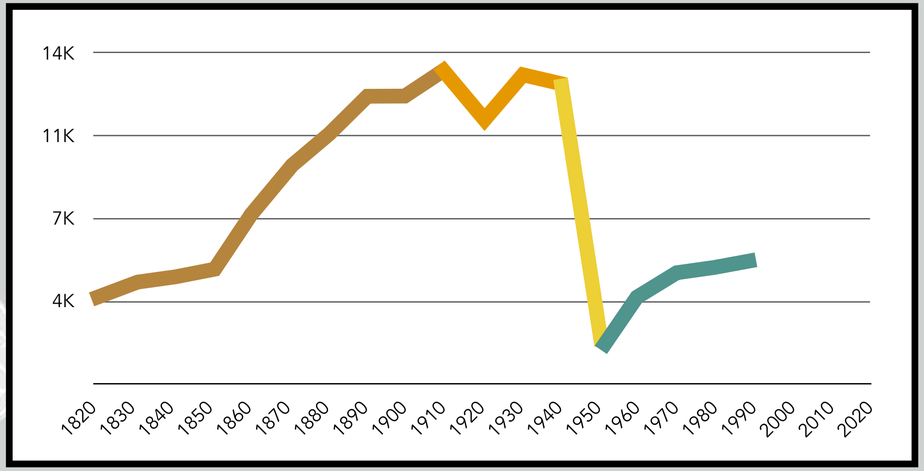
Area

6.6 sq. mi



Population Density

(people per sq. mi)



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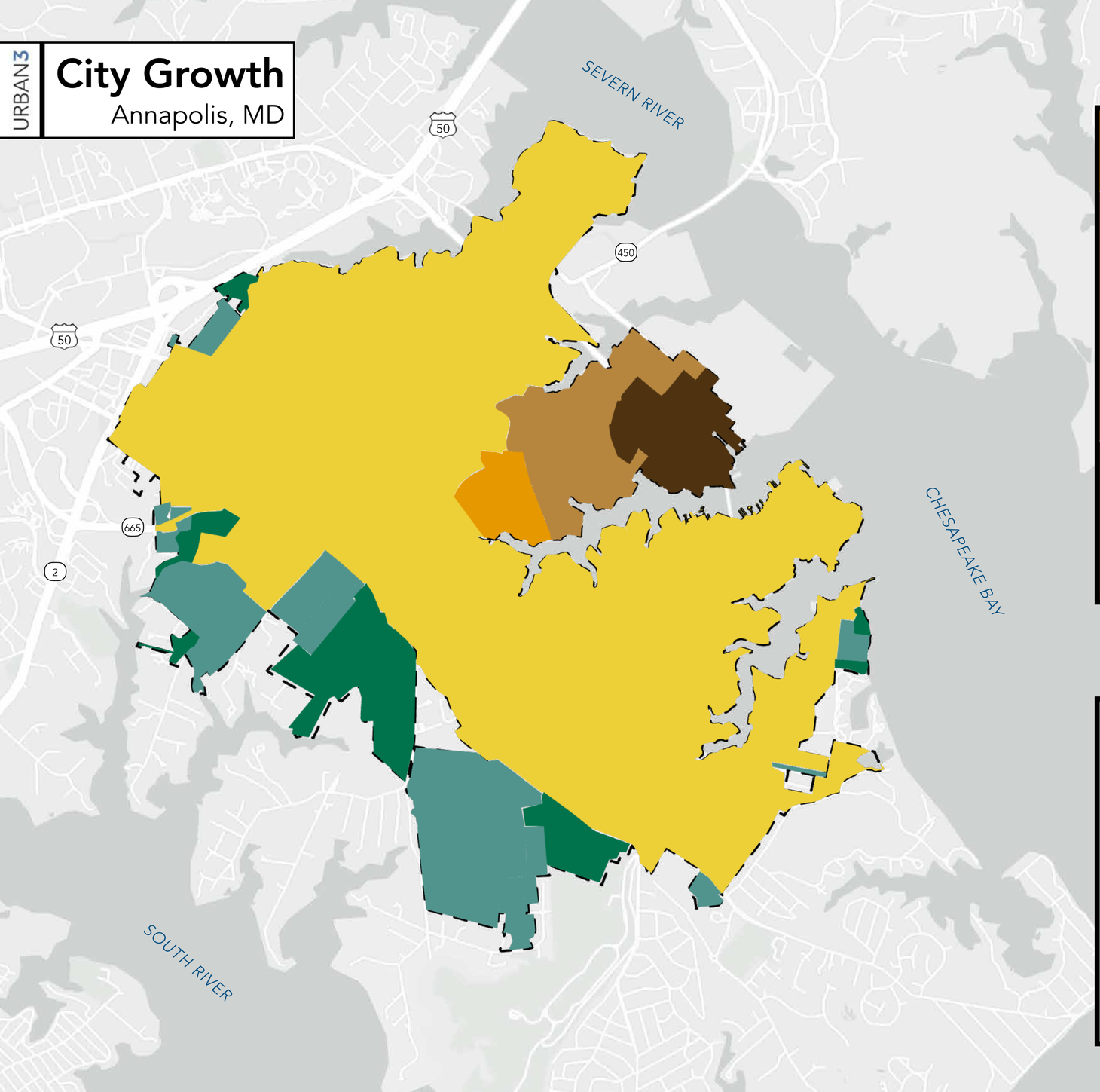
POWERED BY esri

Source: City of Annapolis GIS, Wikipedia

URBAN3

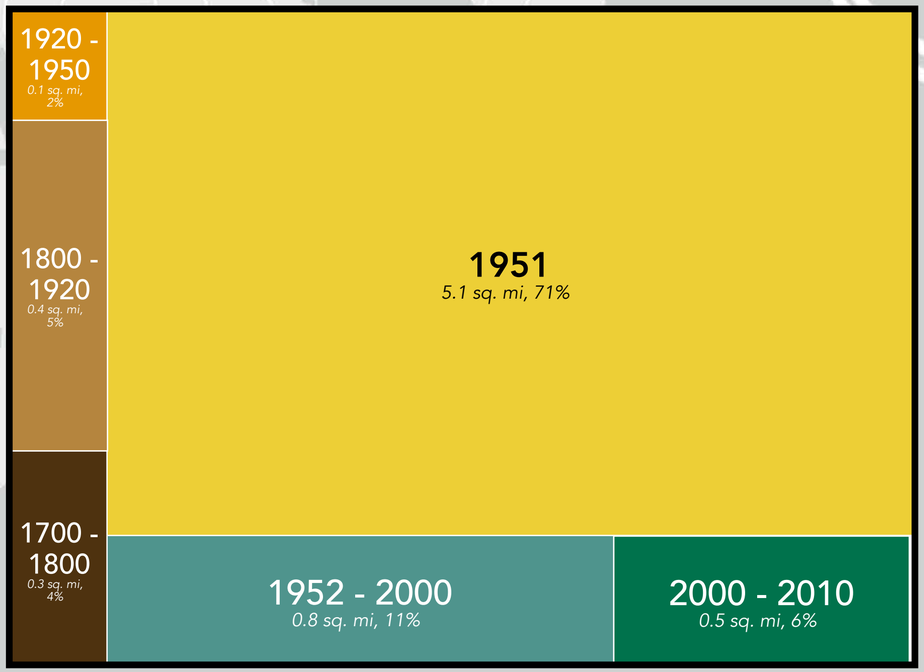
City Growth

Annapolis, MD



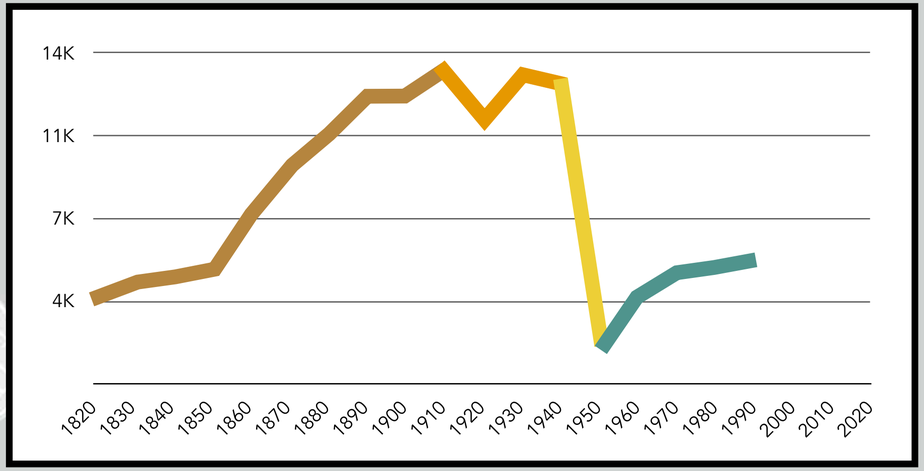
Area

7.1 sq. mi



Population Density

(people per sq. mi)



N

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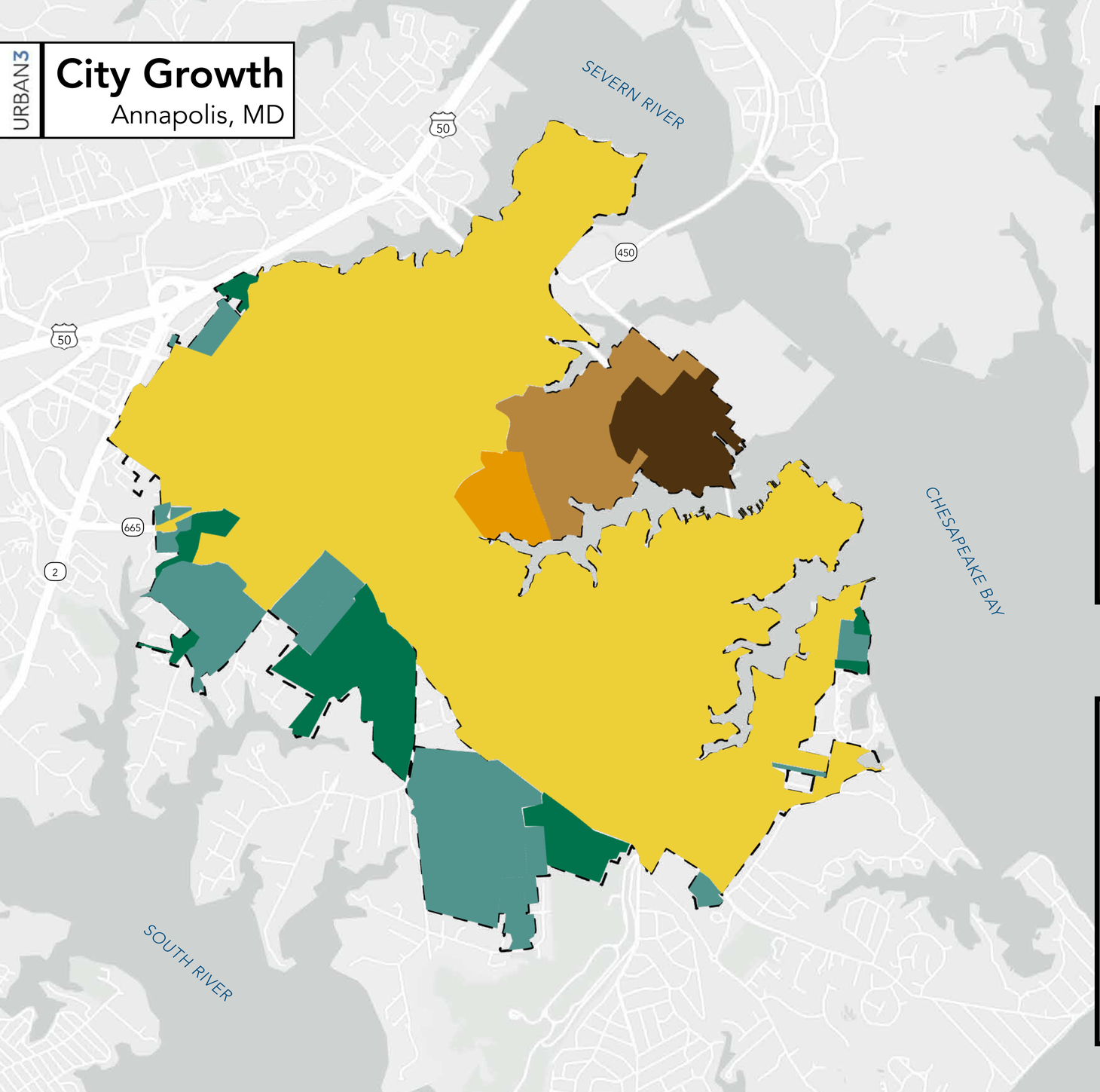
URBAN3

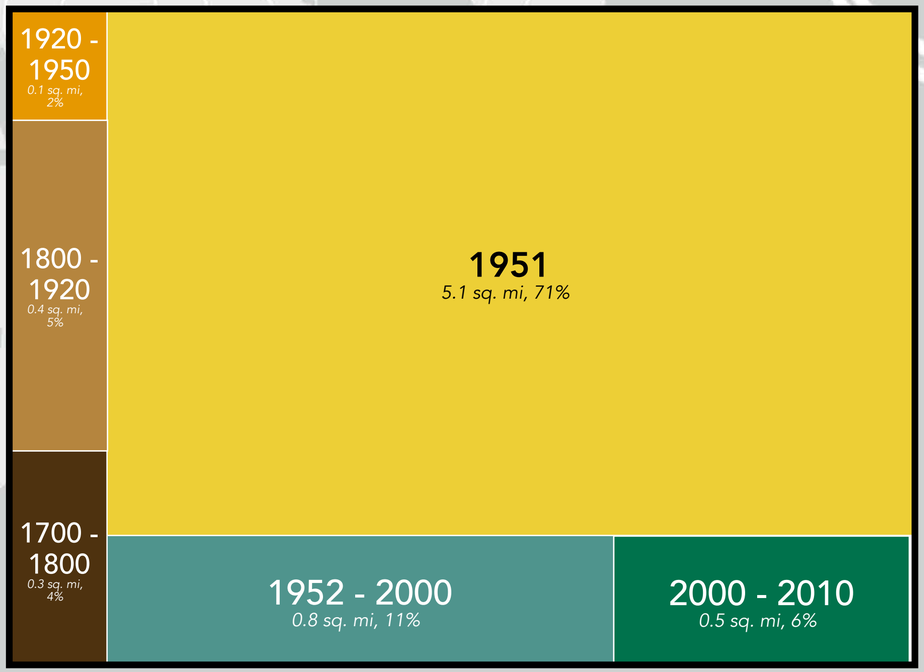
City Growth

Annapolis, MD



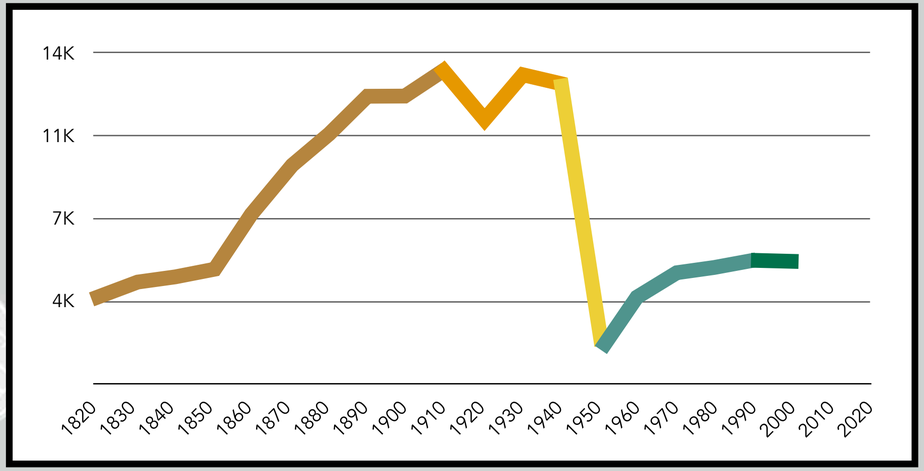
Area

7.1 sq. mi



Population Density

(people per sq. mi)



N

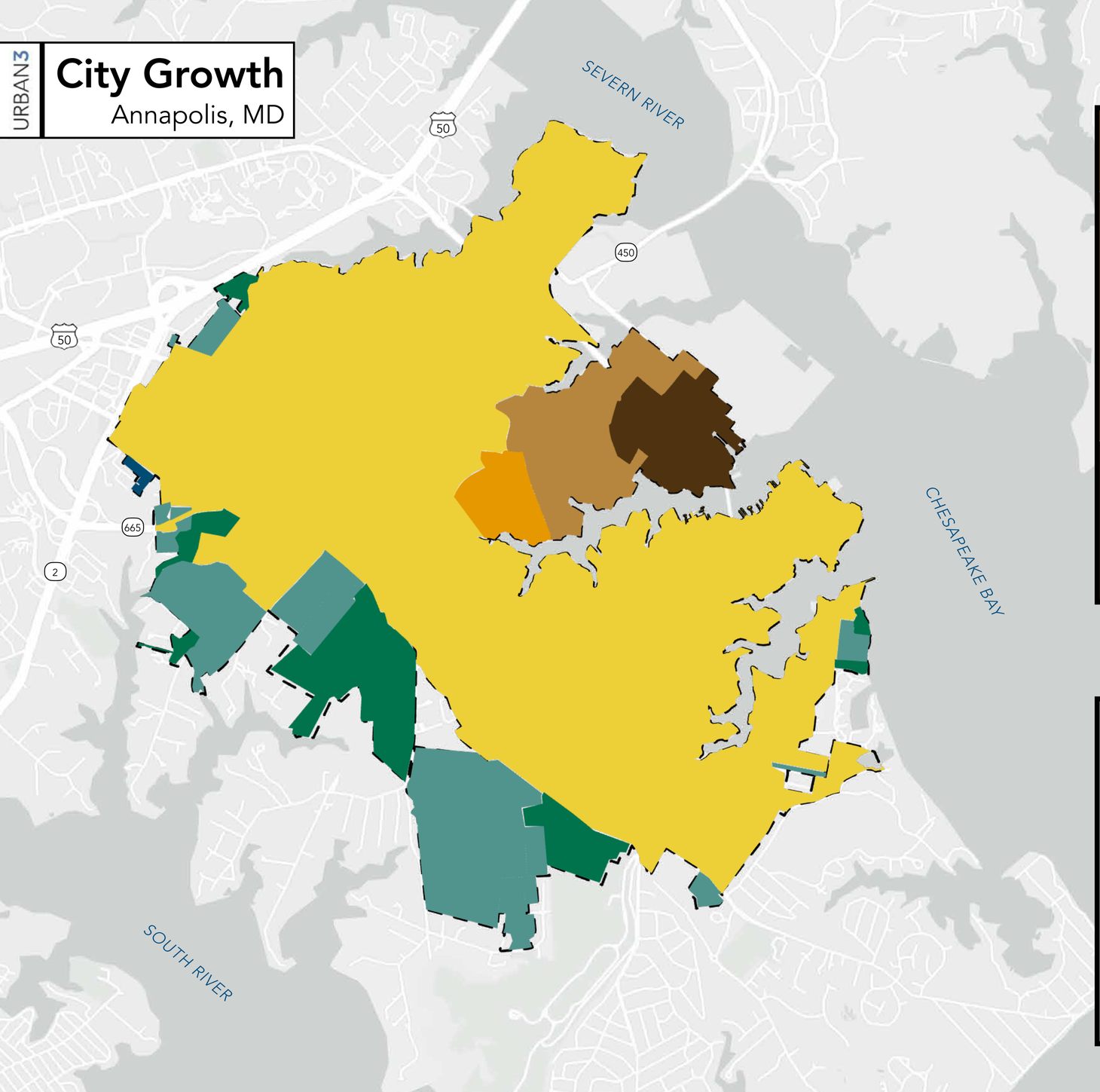
POWERED BY esri

Source: City of Annapolis GIS, Wikipedia

URBAN3

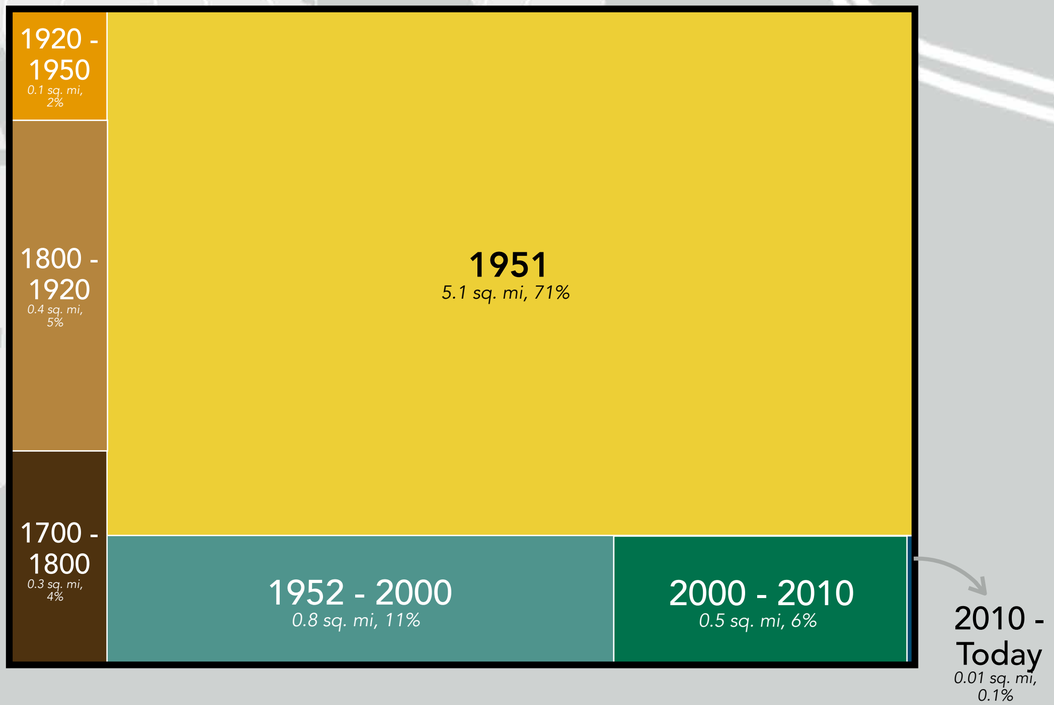
City Growth

Annapolis, MD



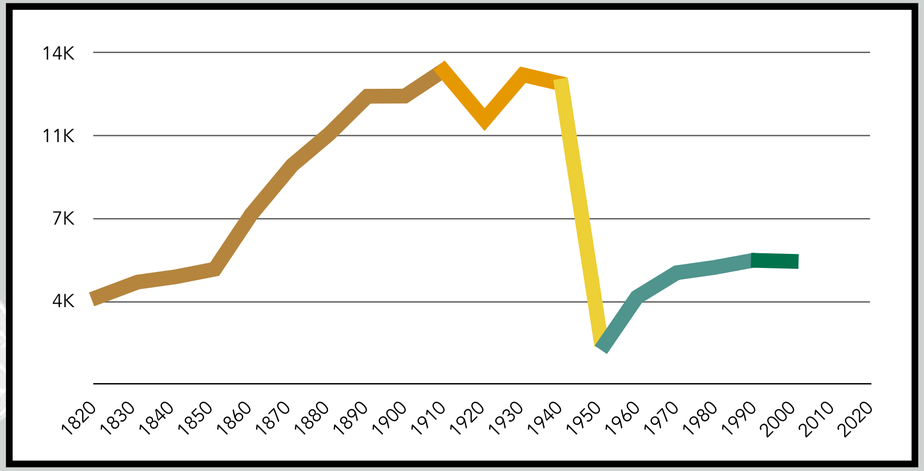
Area

7.1 sq. mi



Population Density

(people per sq. mi)



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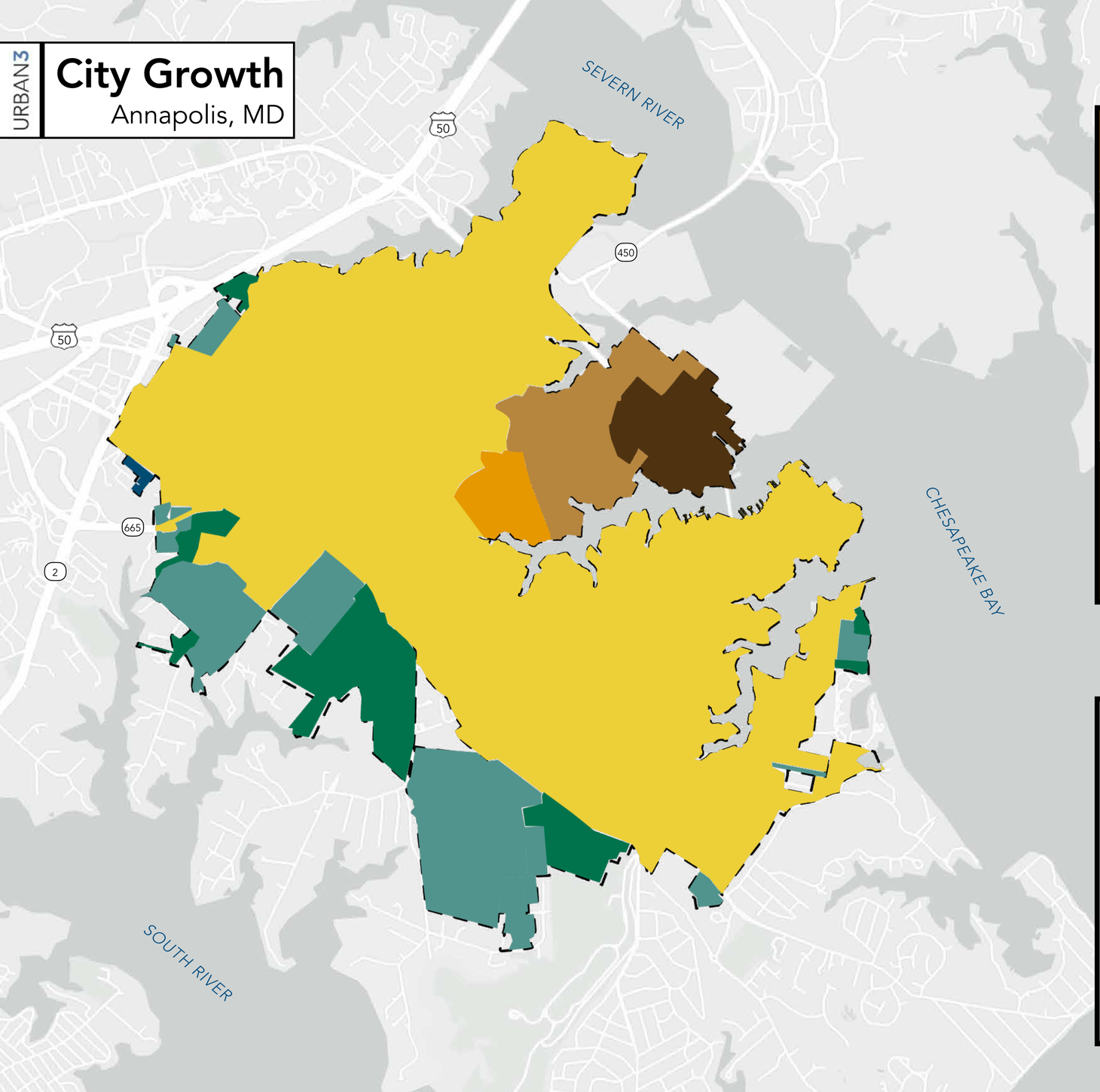
POWERED BY esri

Source: City of Annapolis GIS, Wikipedia

URBAN3

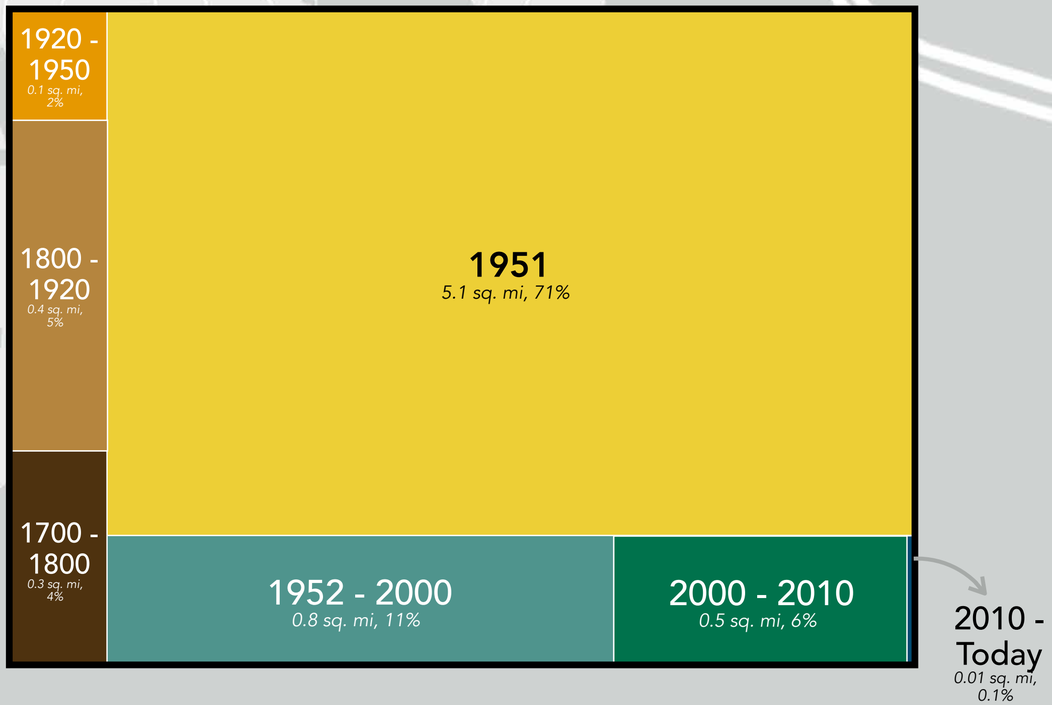
City Growth

Annapolis, MD



Area

7.1 sq. mi



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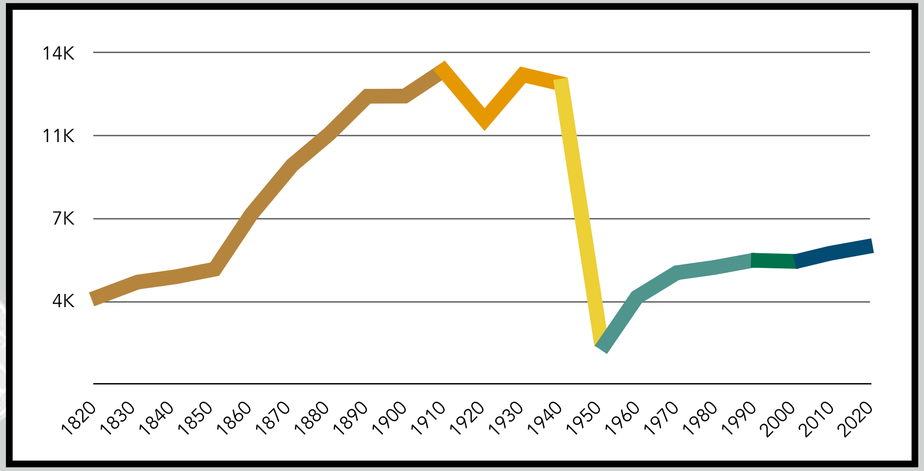

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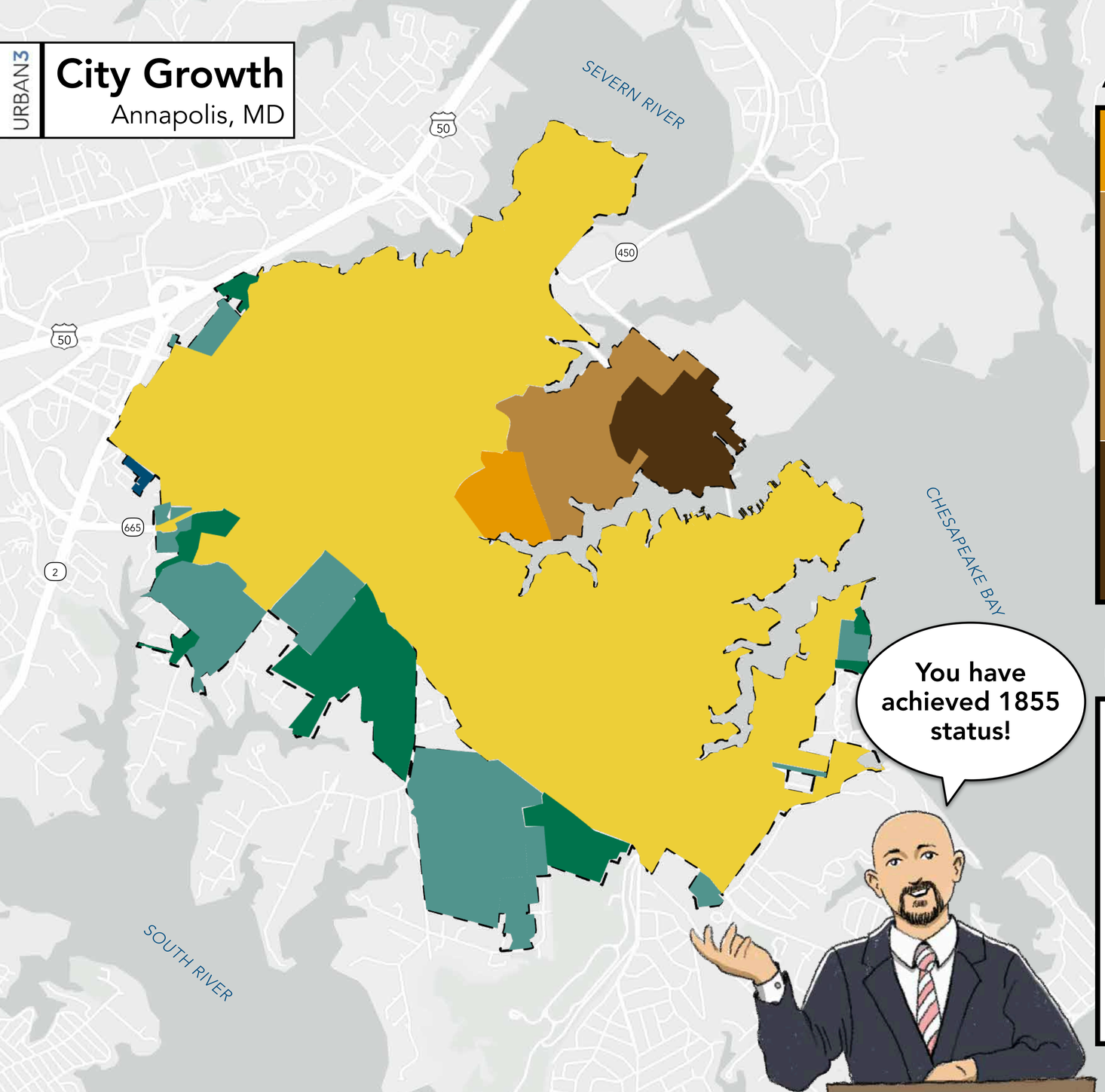
URBAN3

City Growth

Annapolis, MD



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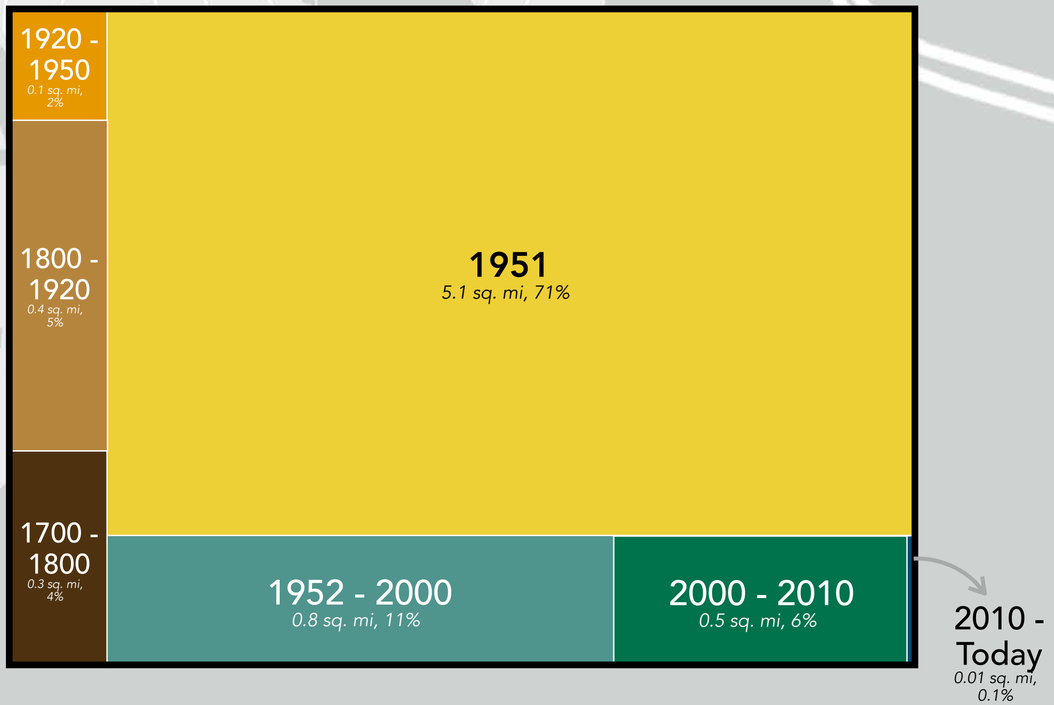

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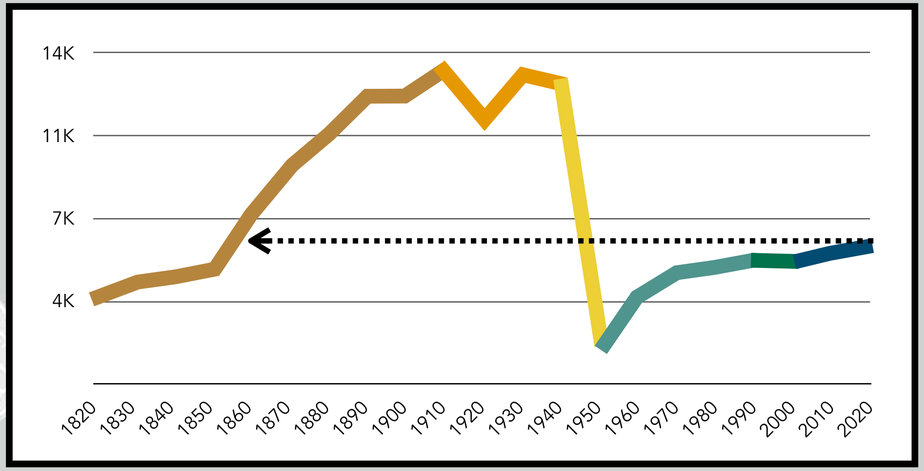

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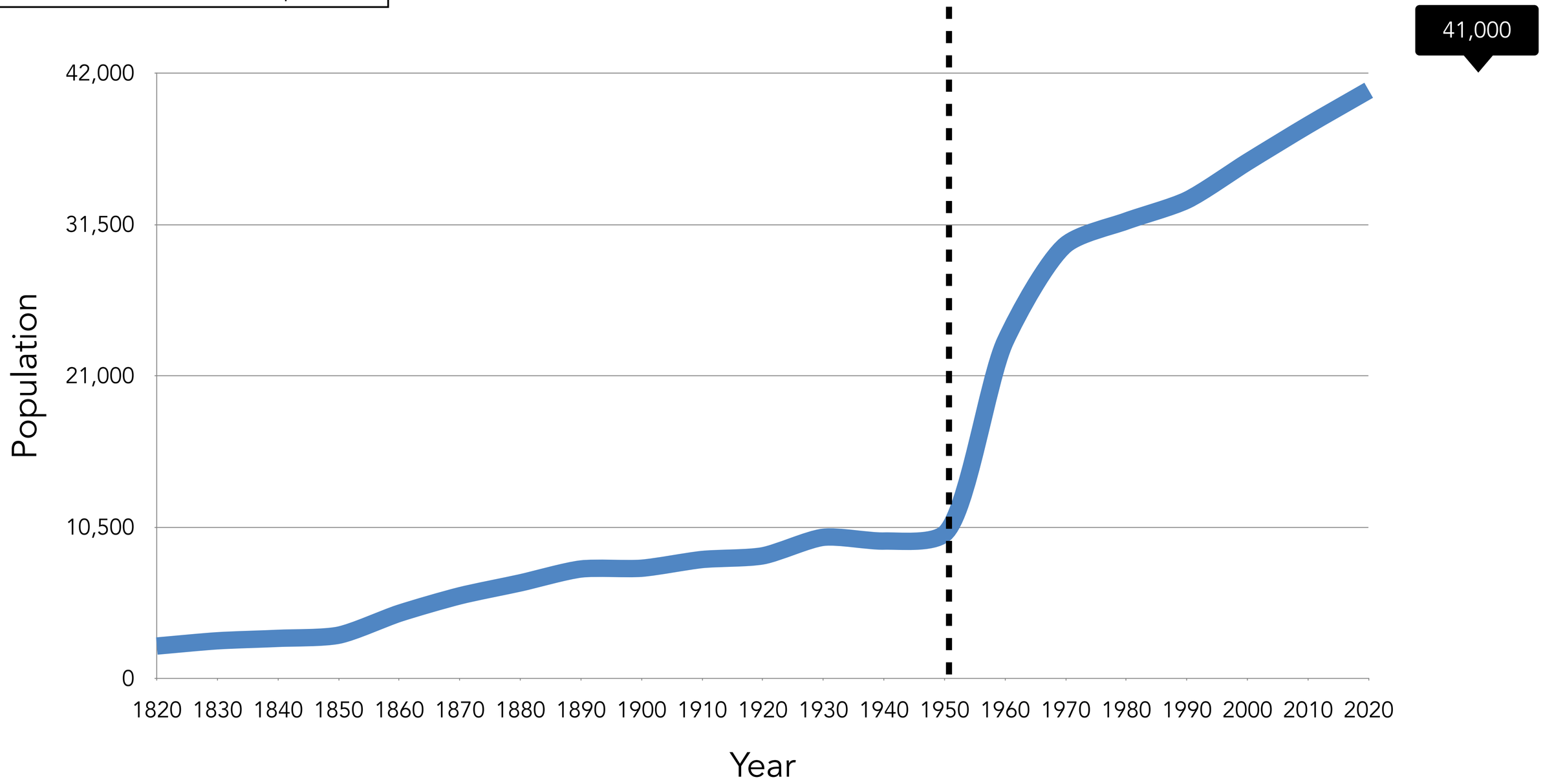
Source: City of Annapolis GIS, Wikipedia

URBAN3

Population: 1820 - 2020

Annapolis, MD



Source: Wikipedia

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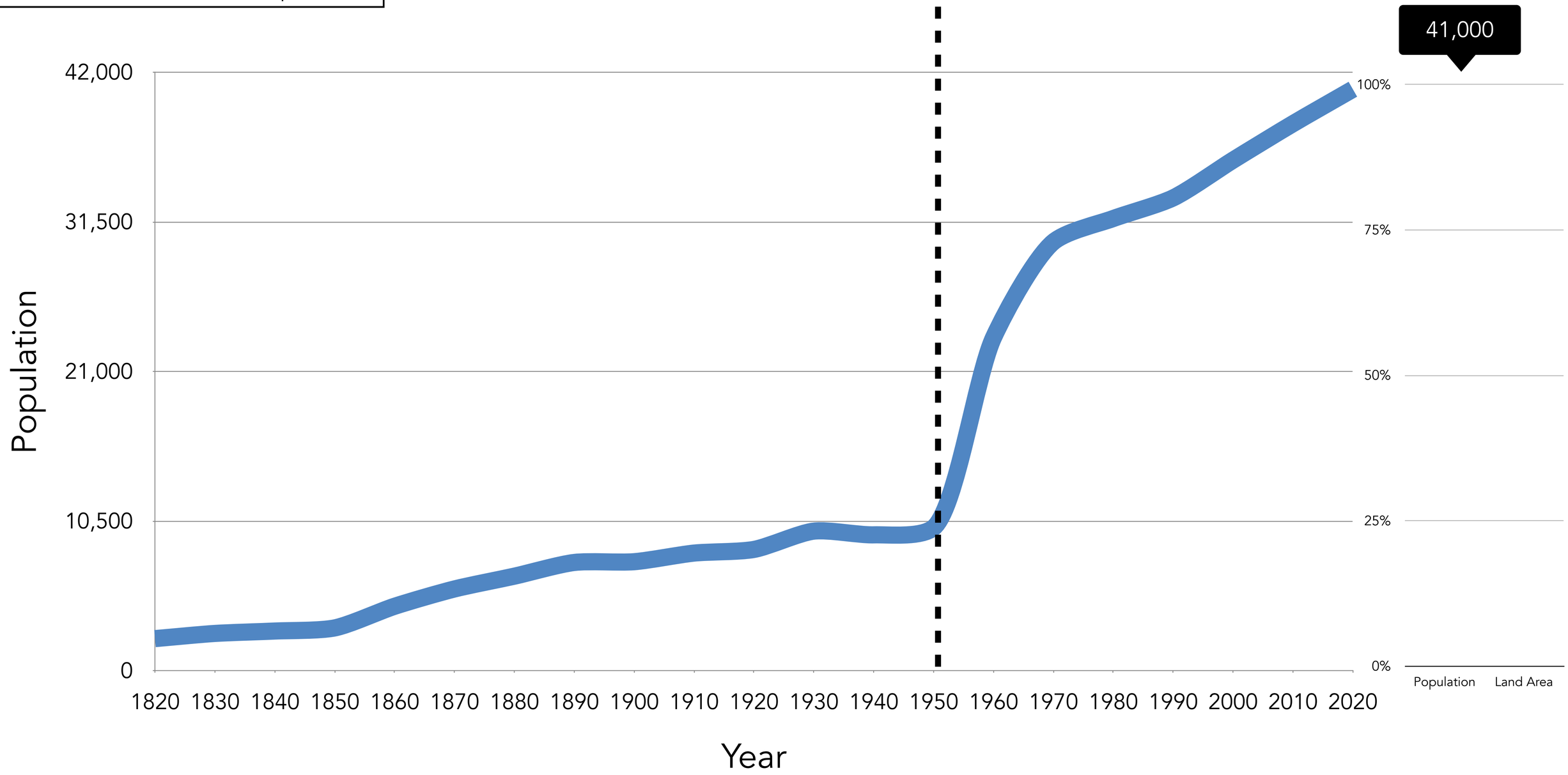
Annapolis, MD



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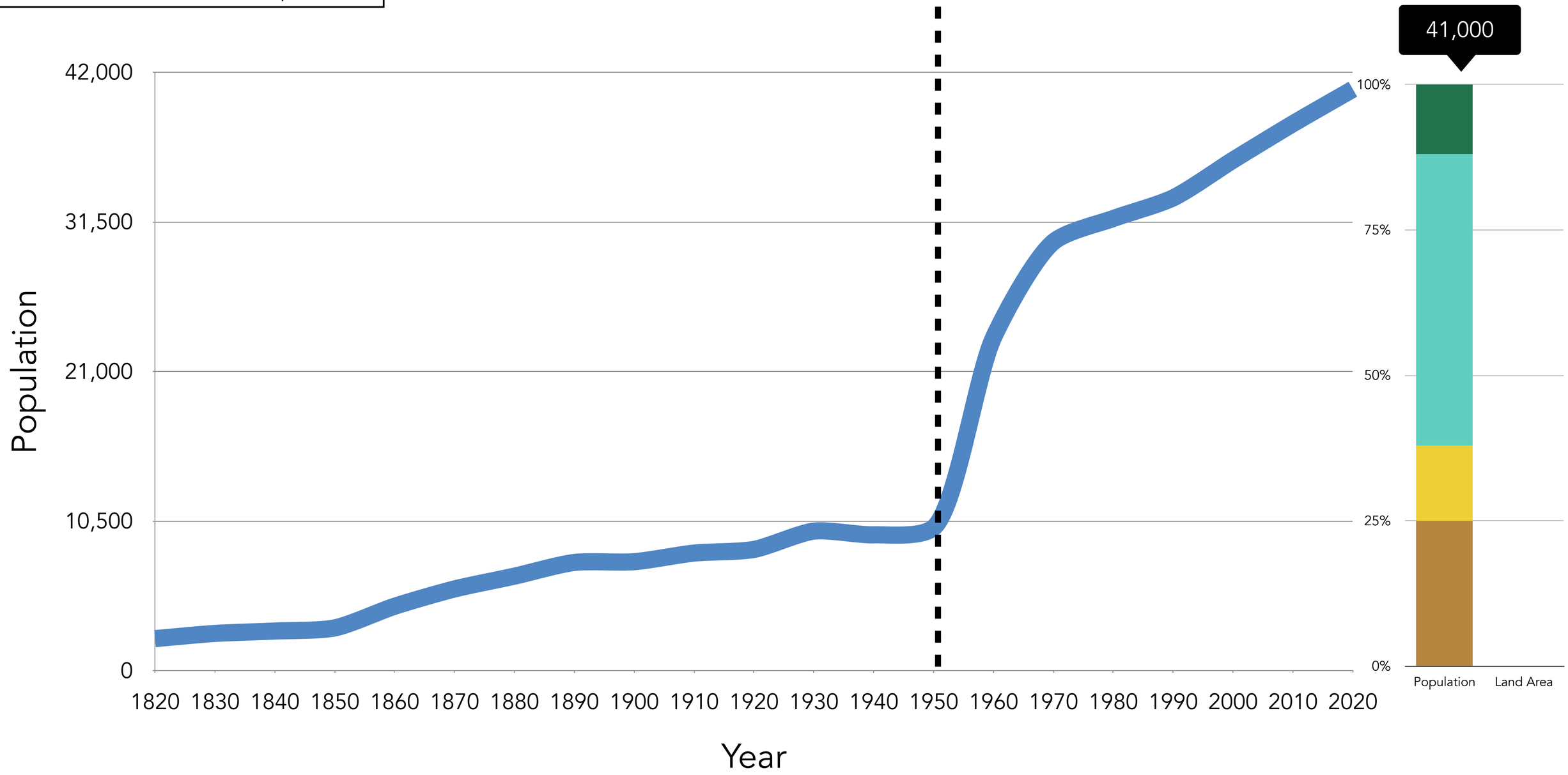
Annapolis, MD



Source: Wikipedia

URBAN3

Population: 1820 - 2020

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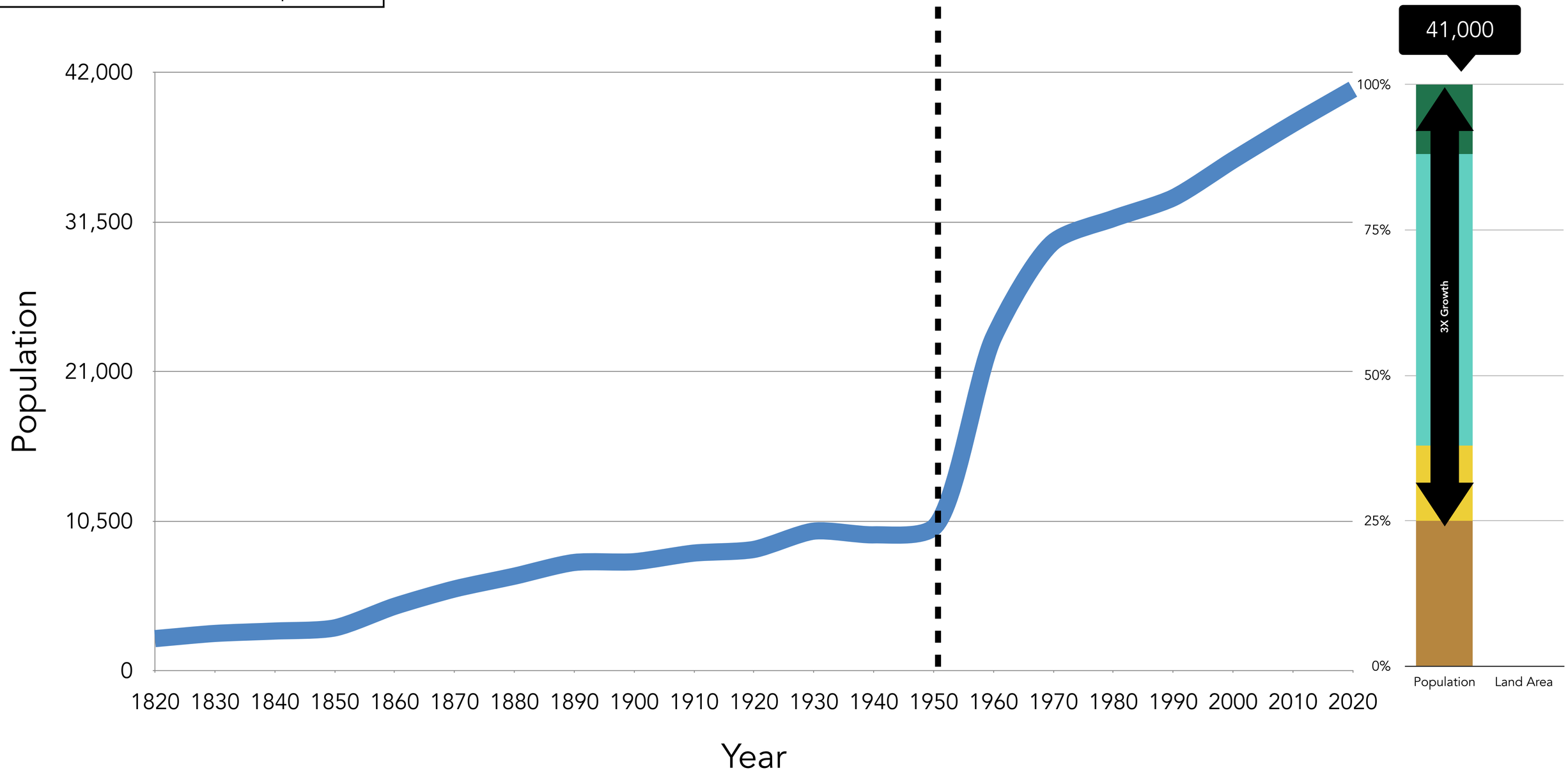
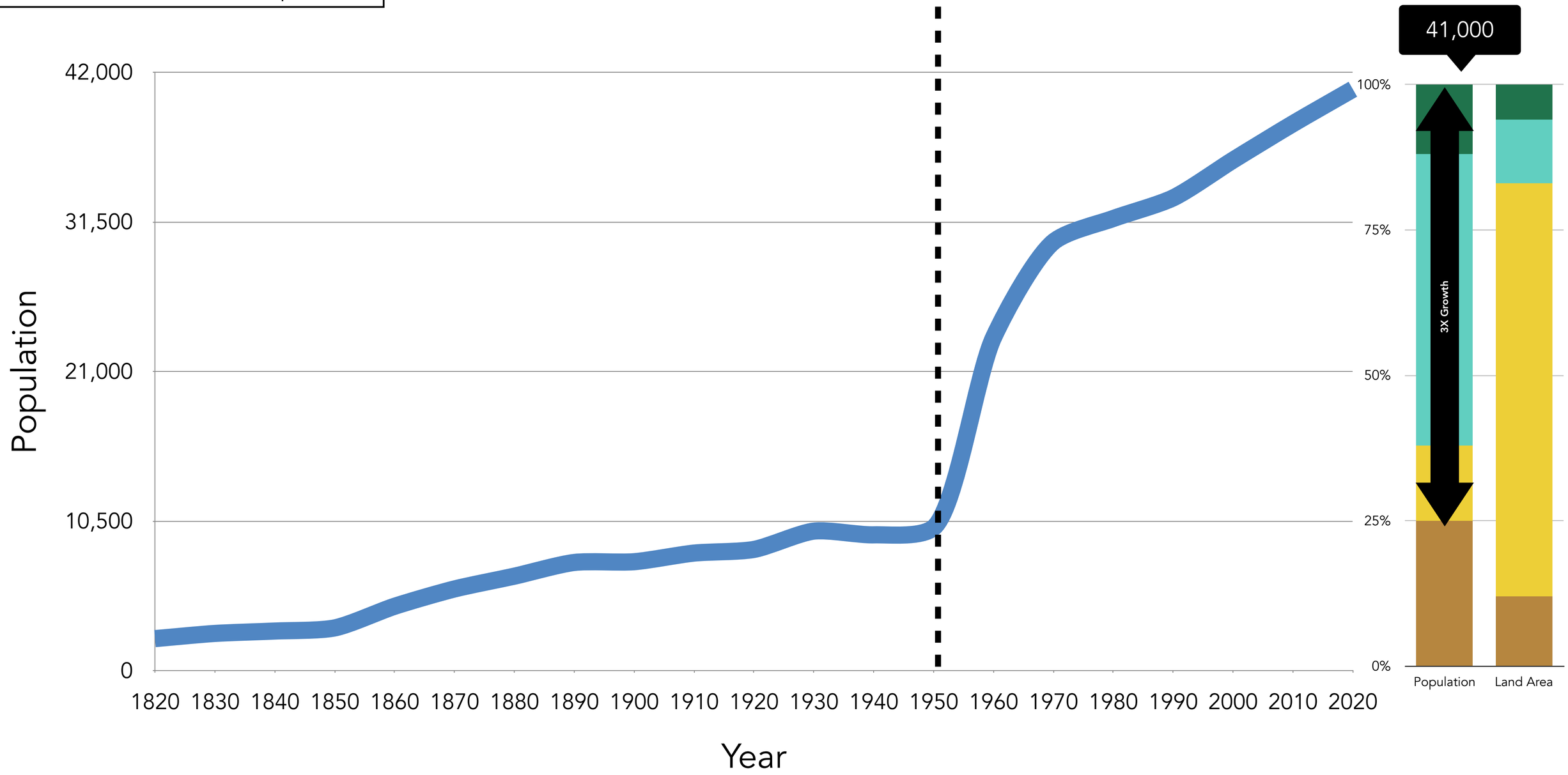


Source: Wikipedia

URBAN3

Population: 1820 - 2020

Annapolis, MD



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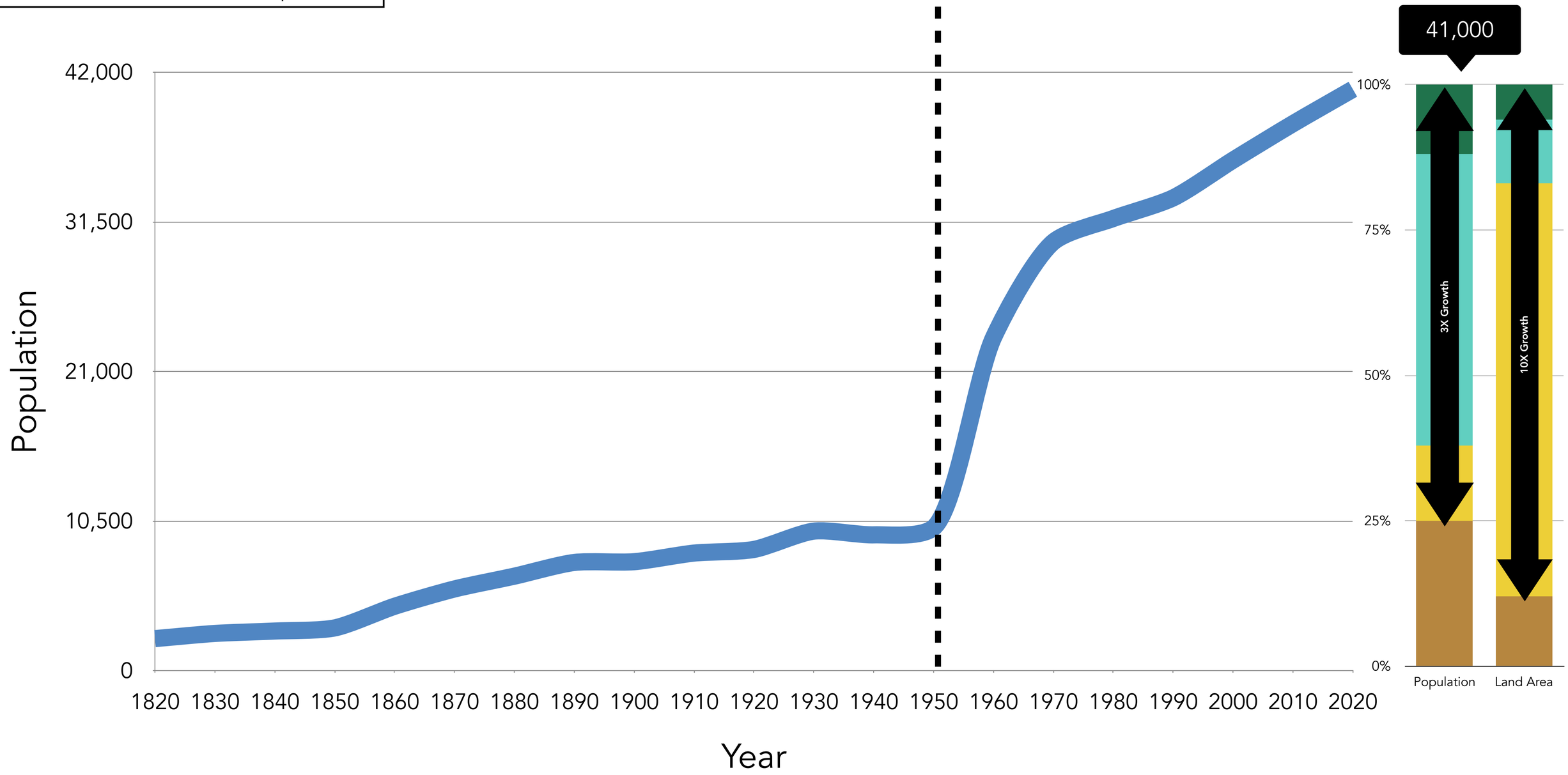
Annapolis, MD

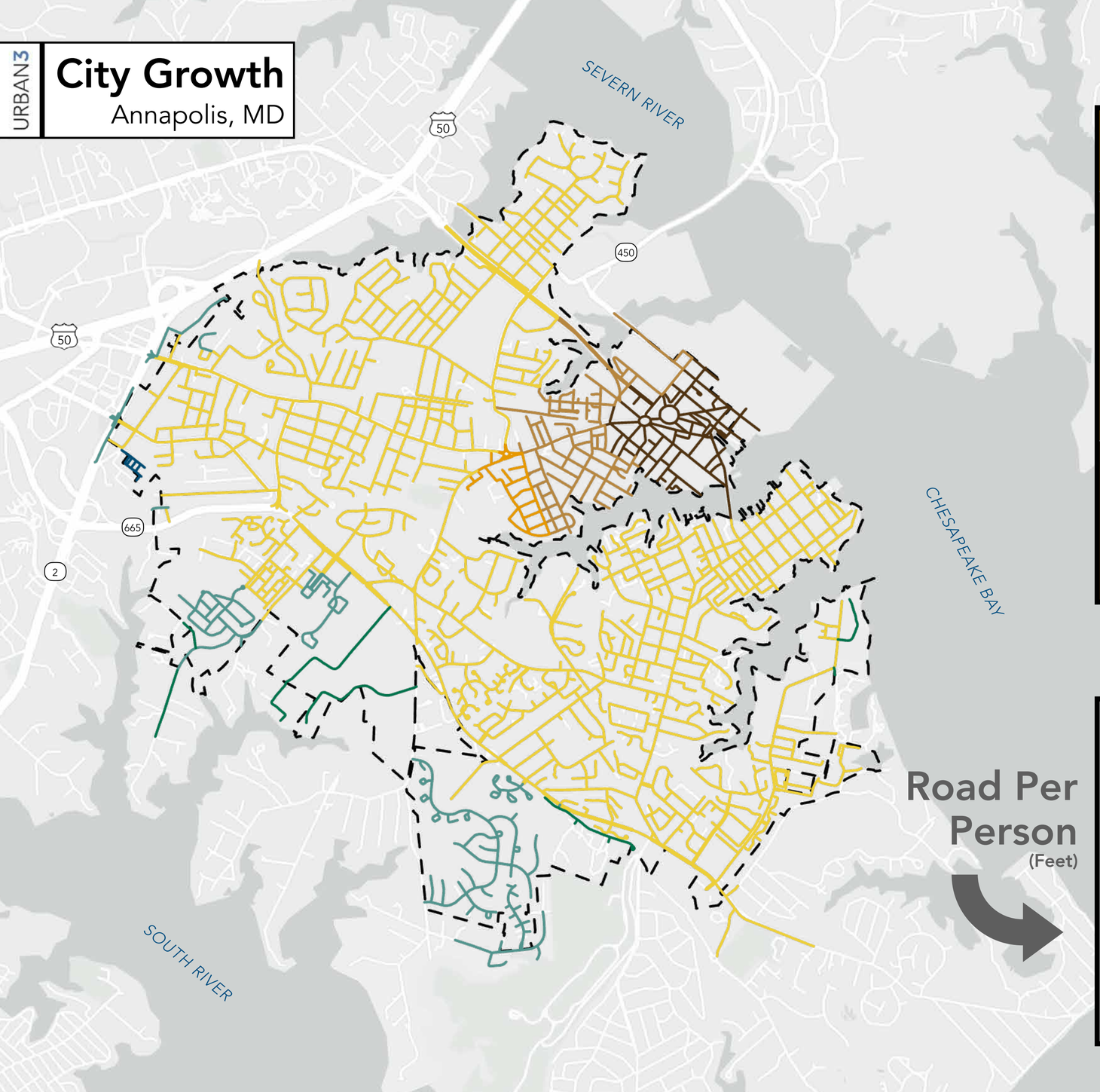


Source: Wikipedia

URBAN3

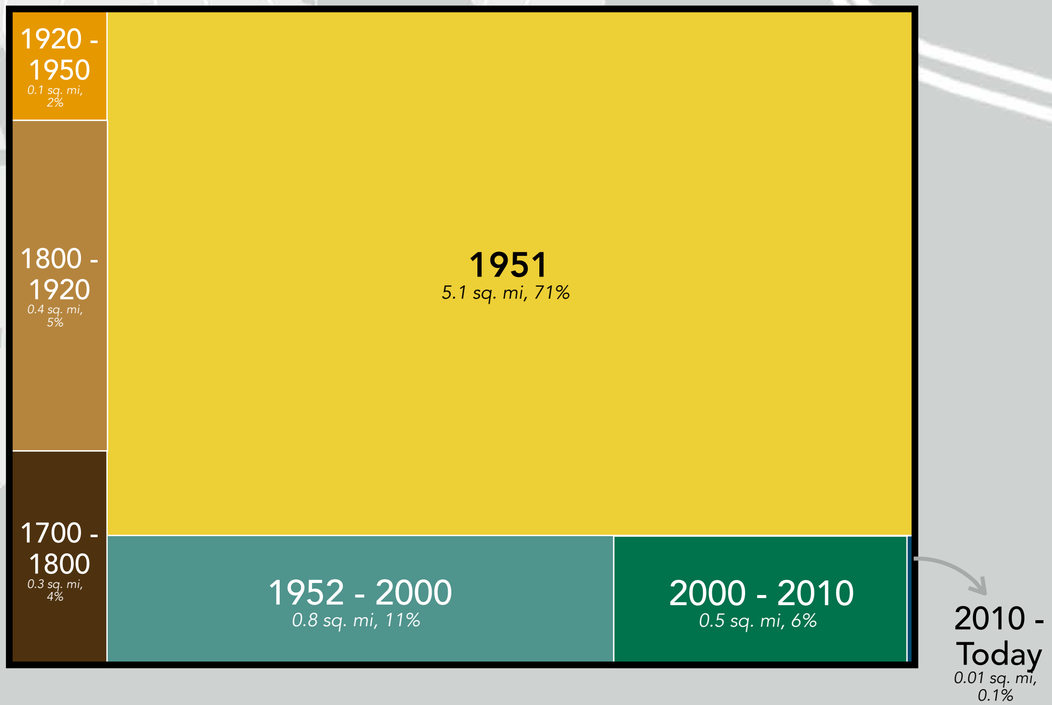
City Growth

Annapolis, MD



Area

7.1 sq. mi

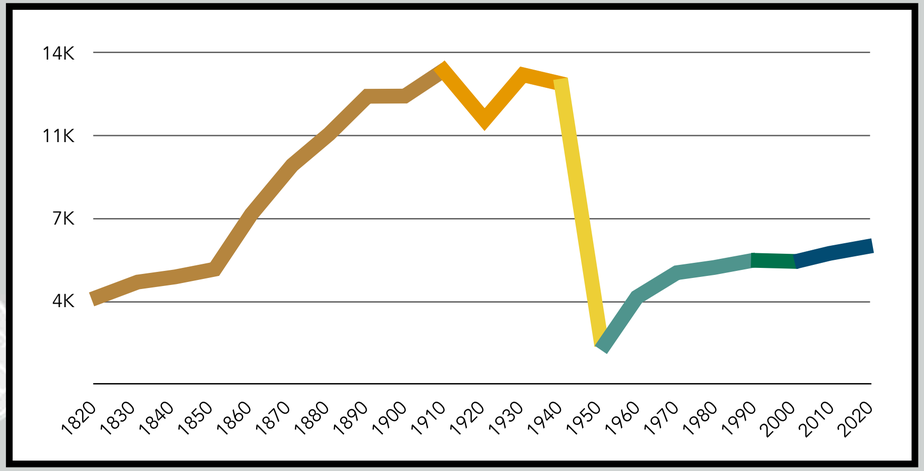


Road Per Person

(Feet)

Population Density

(people per sq. mi)



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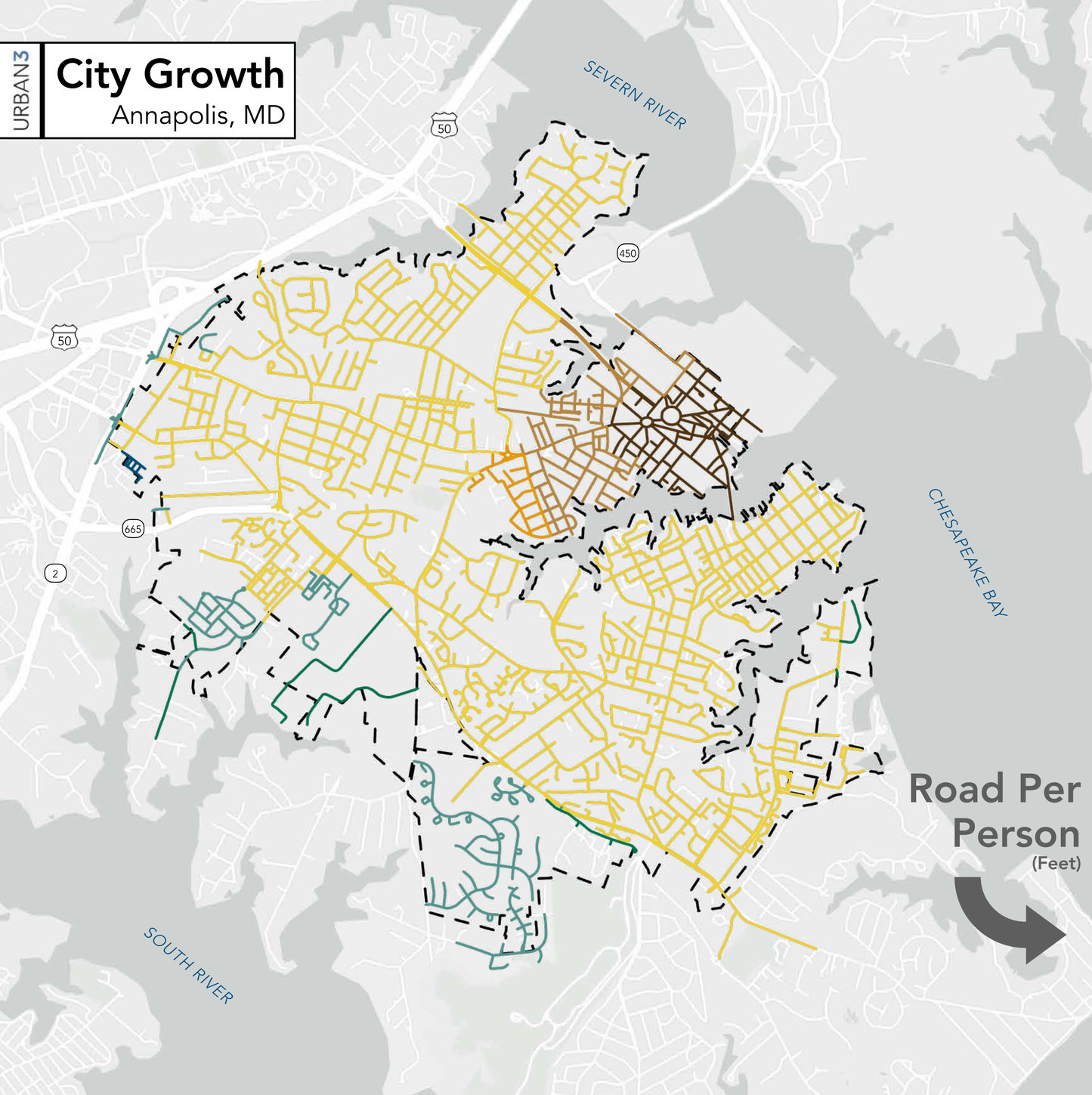
URBAN3

City Growth

Annapolis, MD



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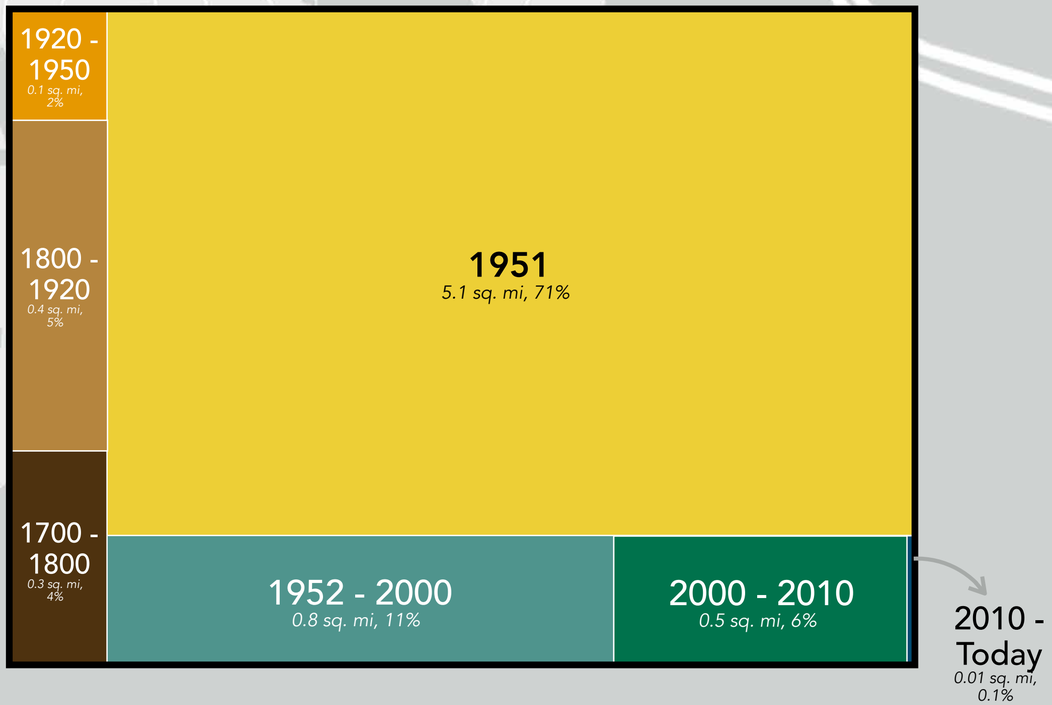

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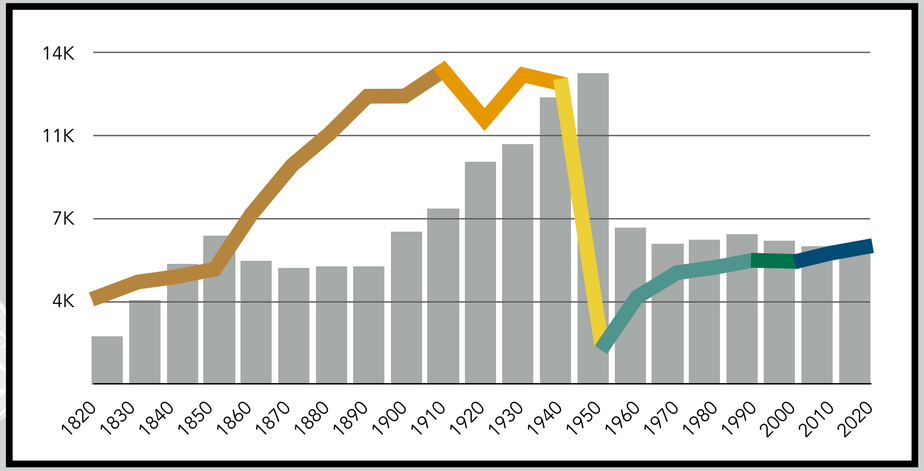


N

POWERED BY esri

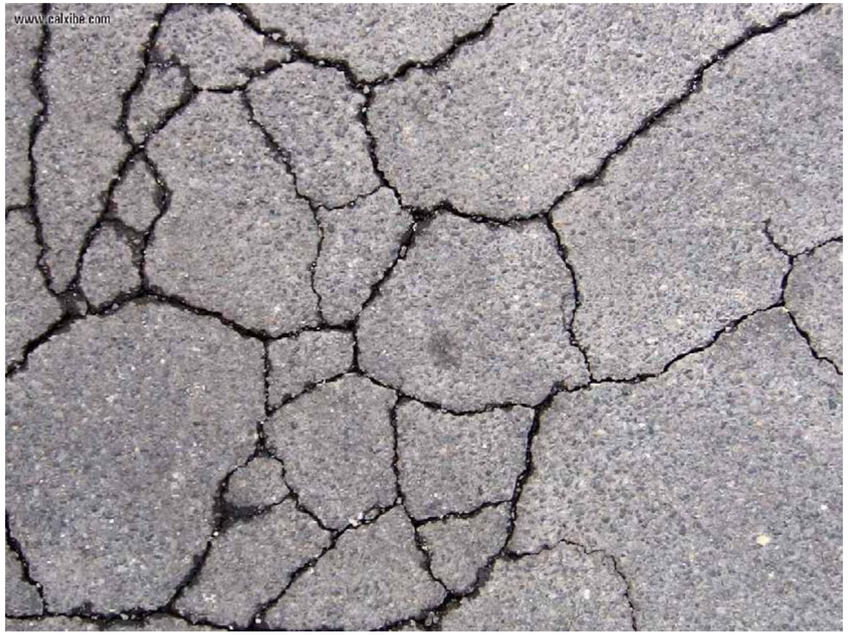
Source: City of Annapolis GIS, Wikipedia

Assets*

* According to the Municipal Finance Standards

URBAN3

Assets*



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URBAN3

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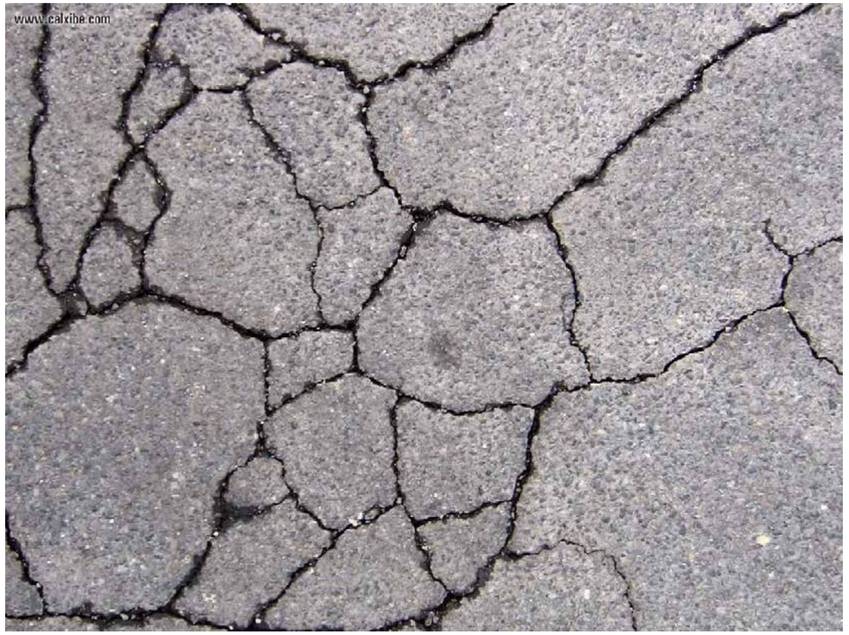

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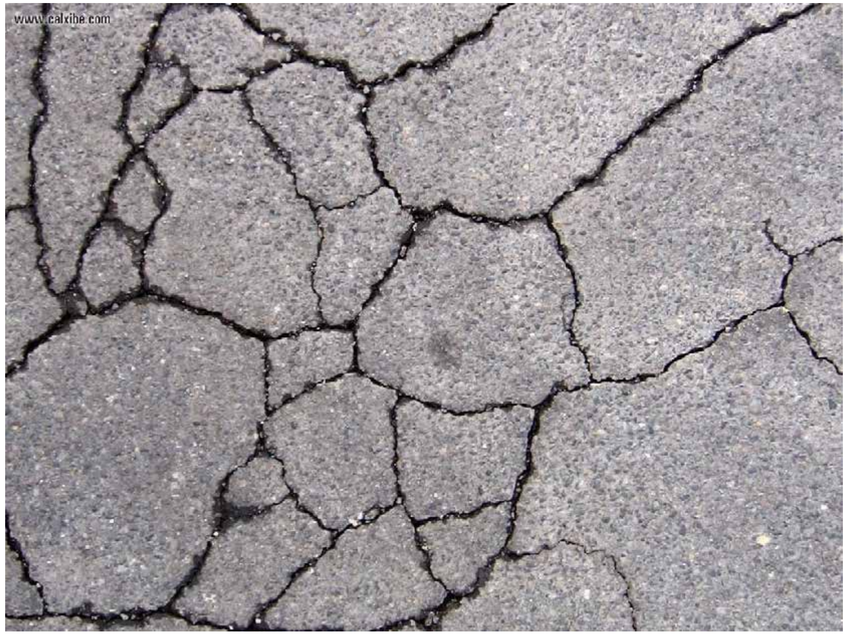


* According to the Municipal Finance Standards

URBAN3

Assets*

* According to the Municipal Finance Standards

URBAN3

URBAN3

Road Maintenance Load and Rebuild Schedule*

Annapolis, MD

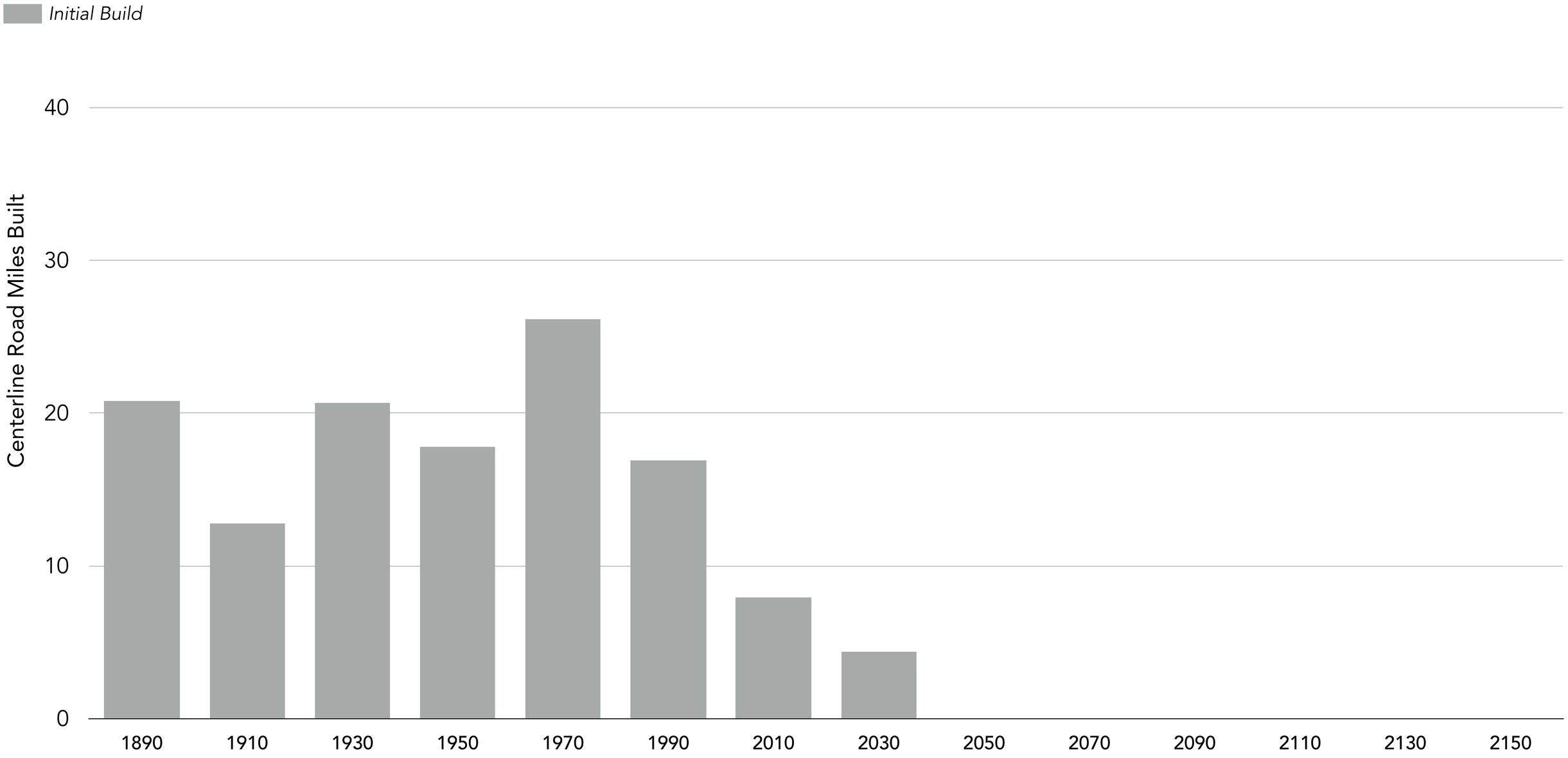
*Conceptualized chart

Source: City of Annapolis, Urban3 Estimates

URBAN3

Road Maintenance Load and Rebuild Schedule*

Annapolis, MD



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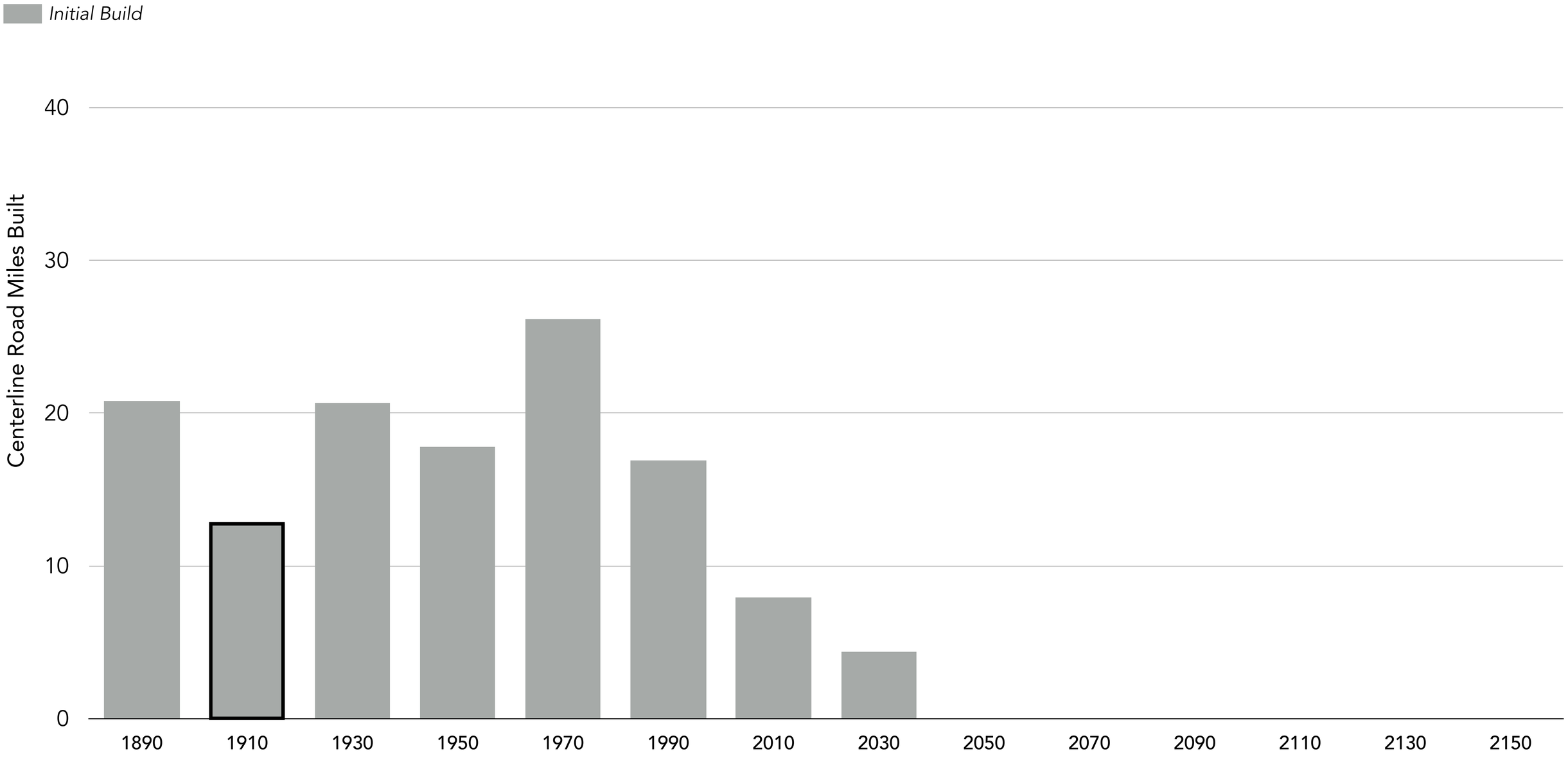
Road Maintenance Load and Rebuild Schedule*

Annapolis, MD



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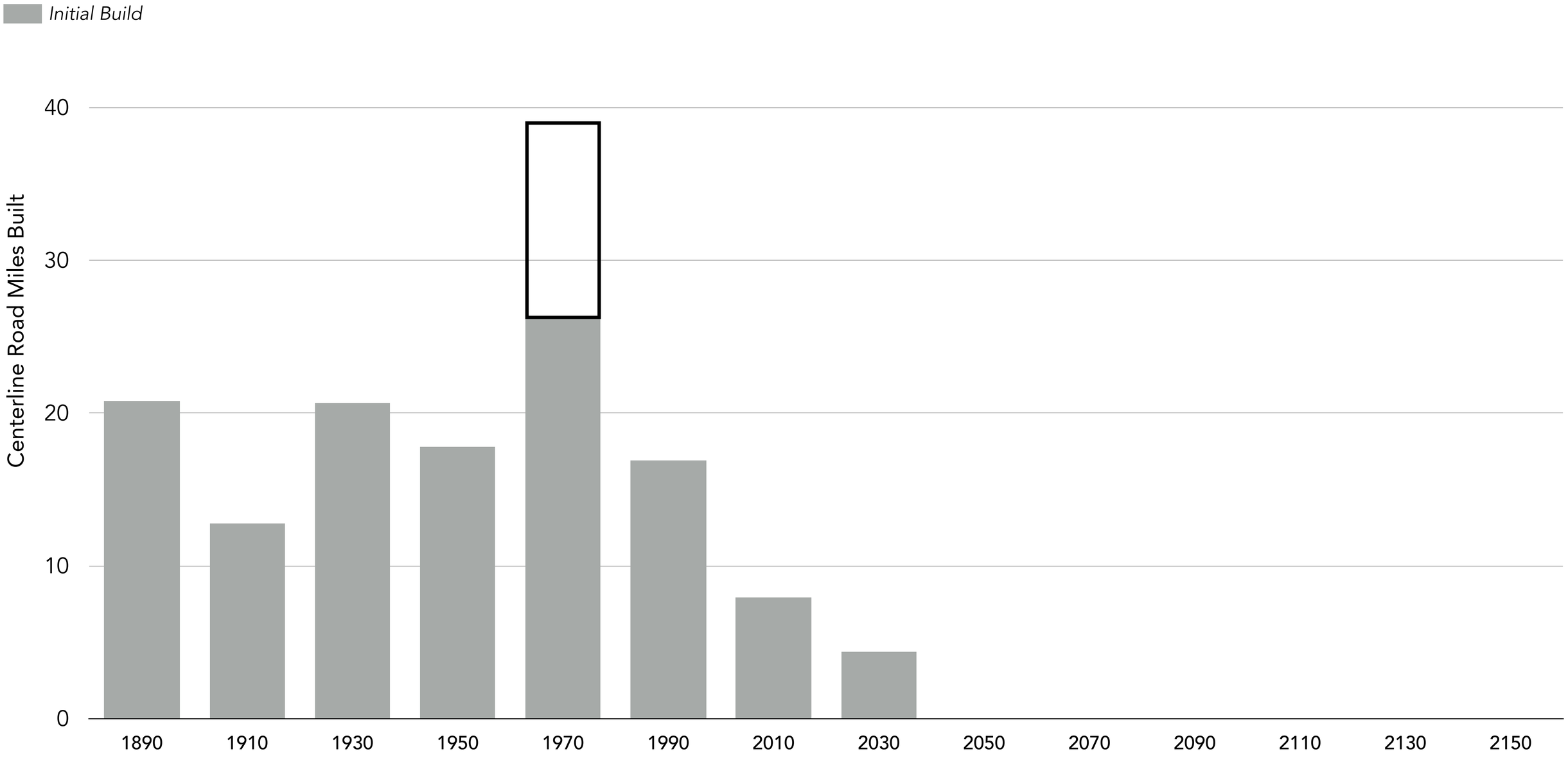

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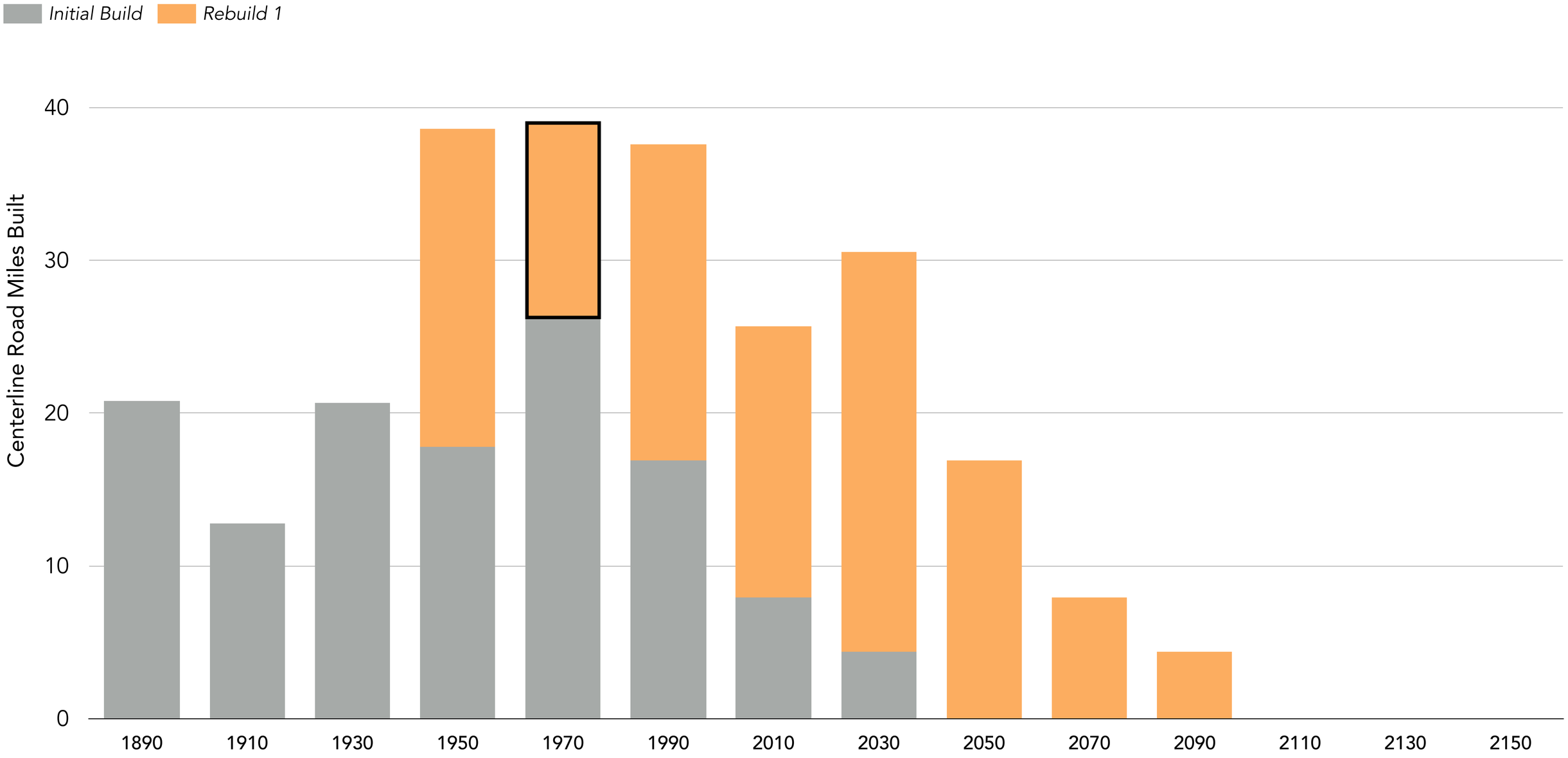

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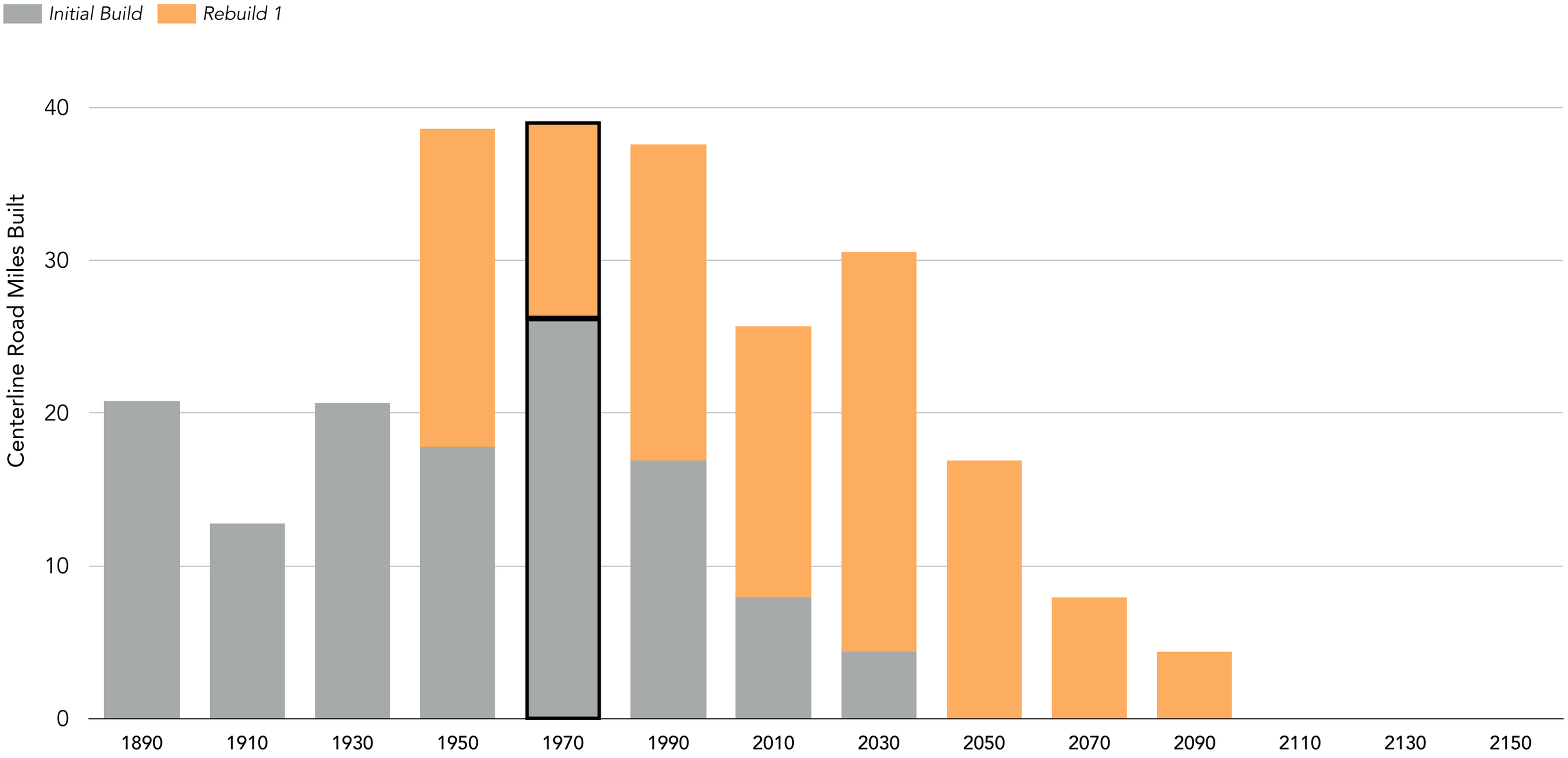

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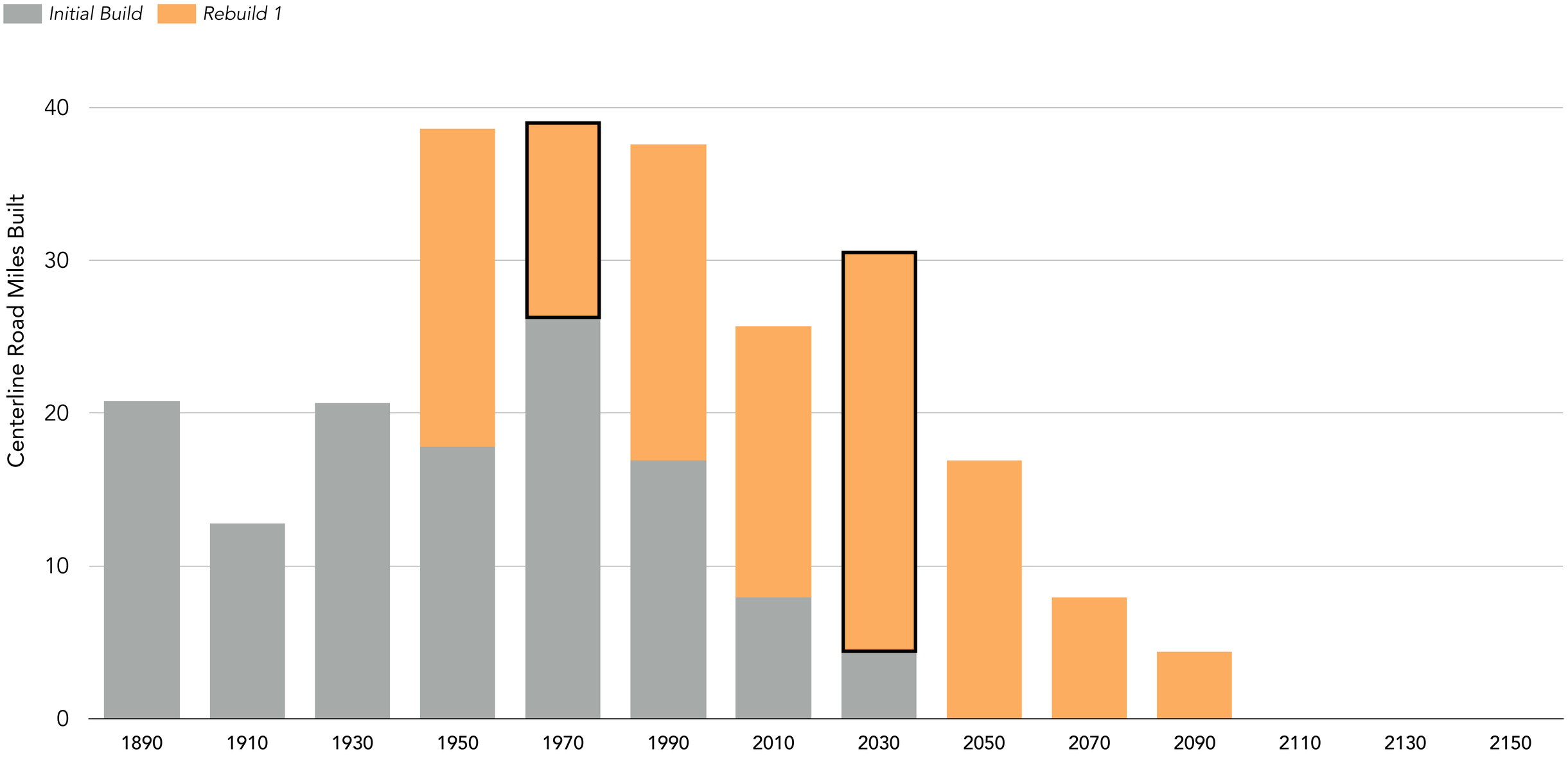

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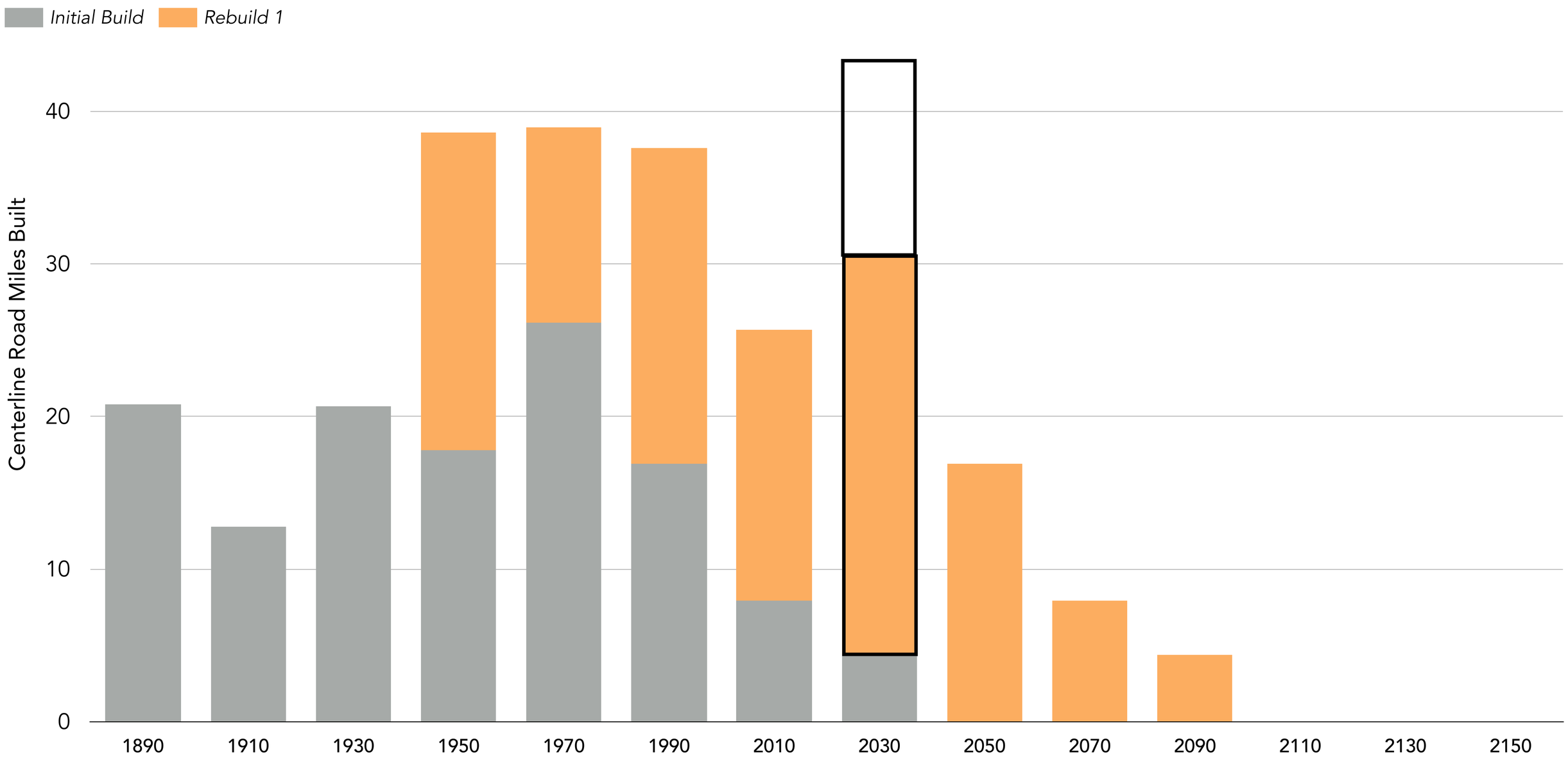

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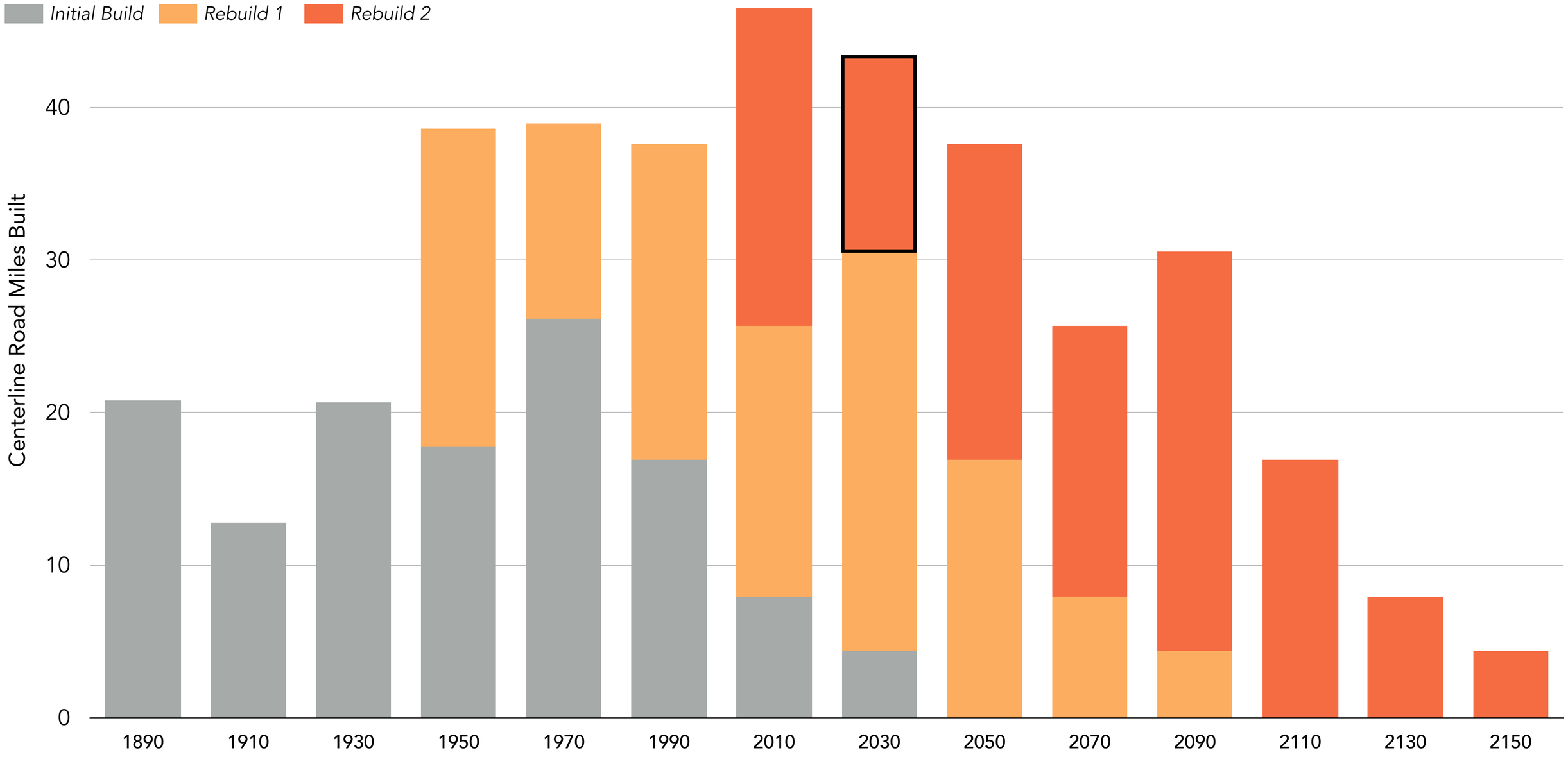

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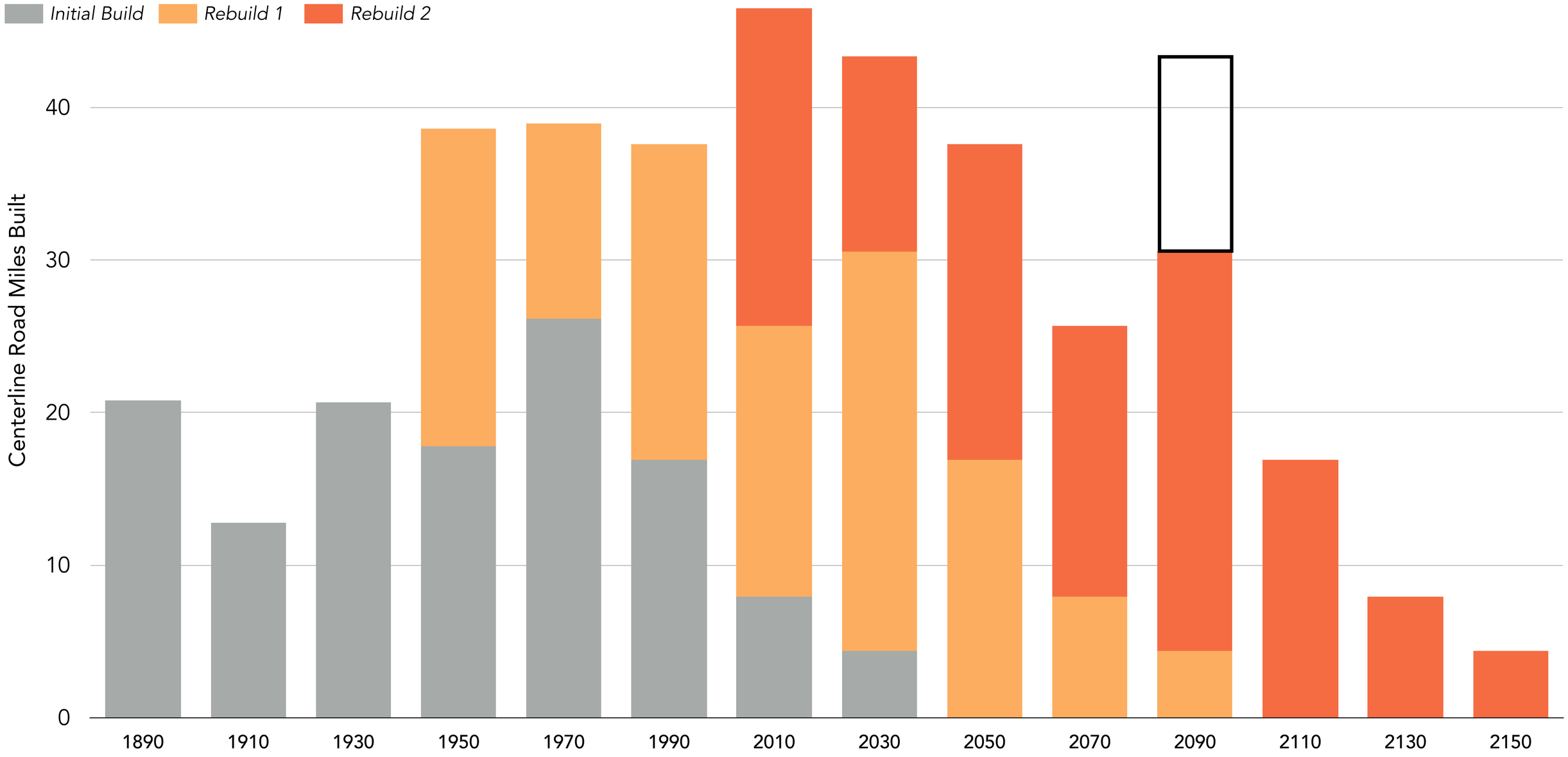

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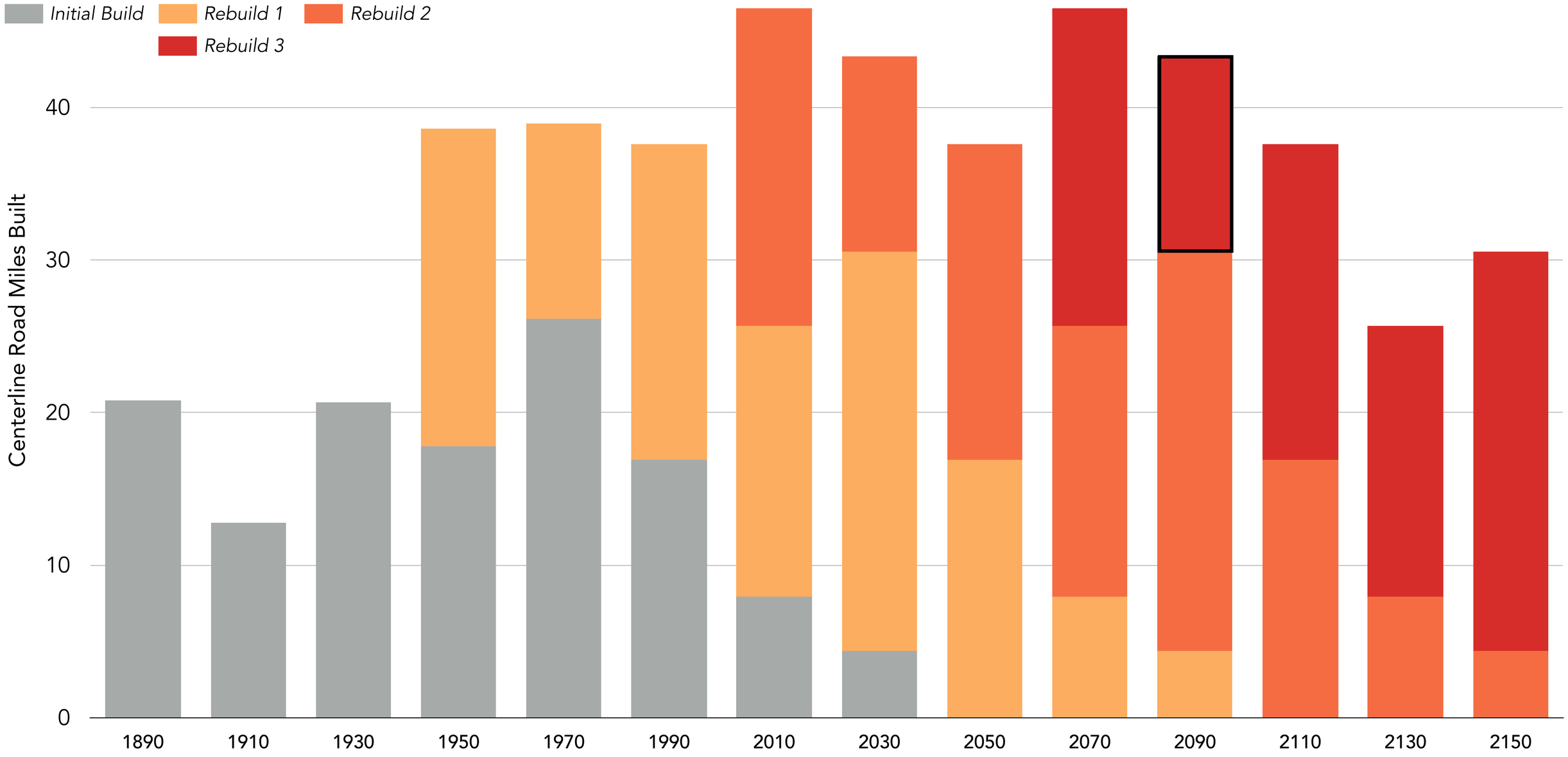

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Road Maintenance Load and Rebuild Schedule*

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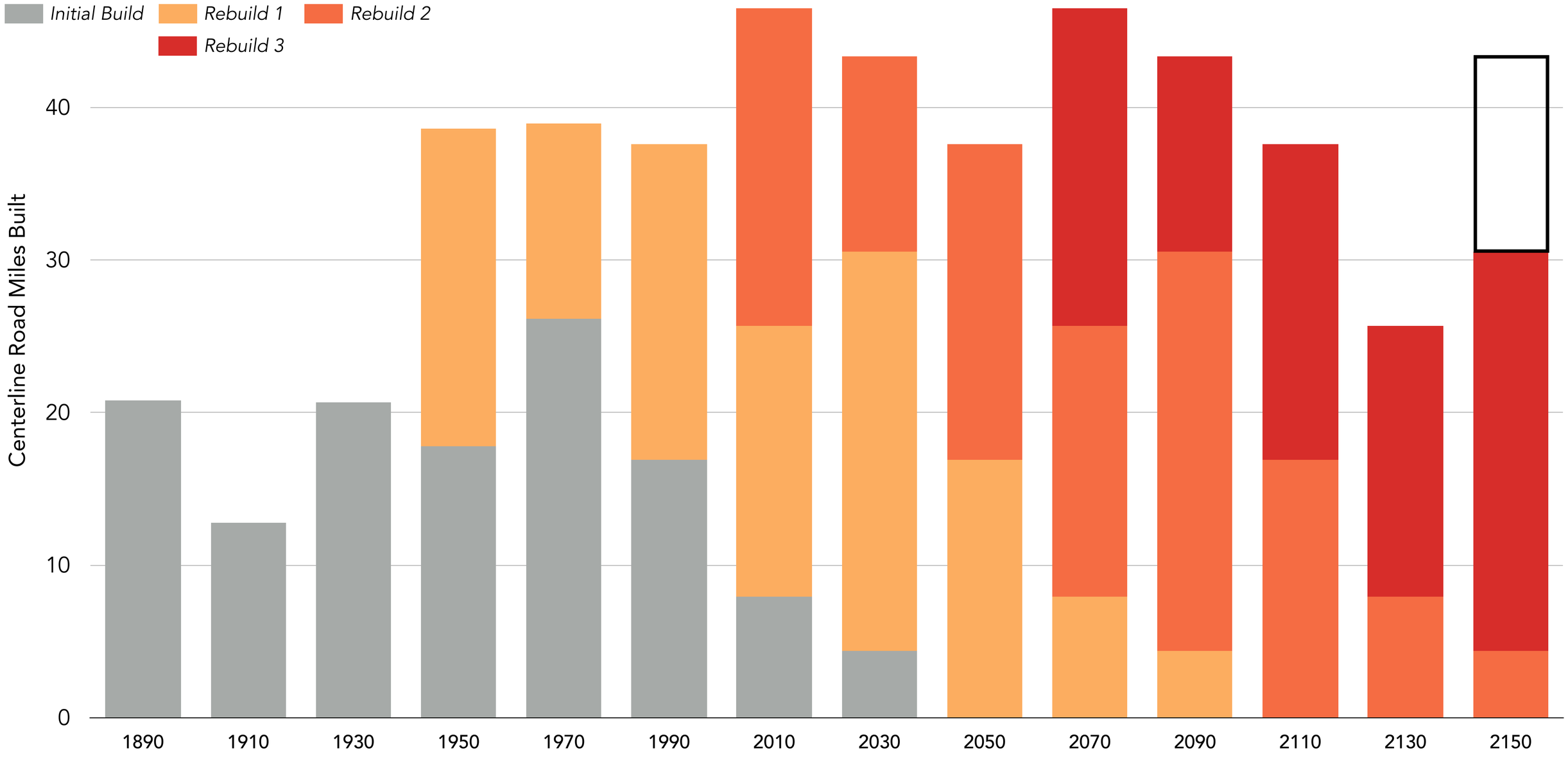

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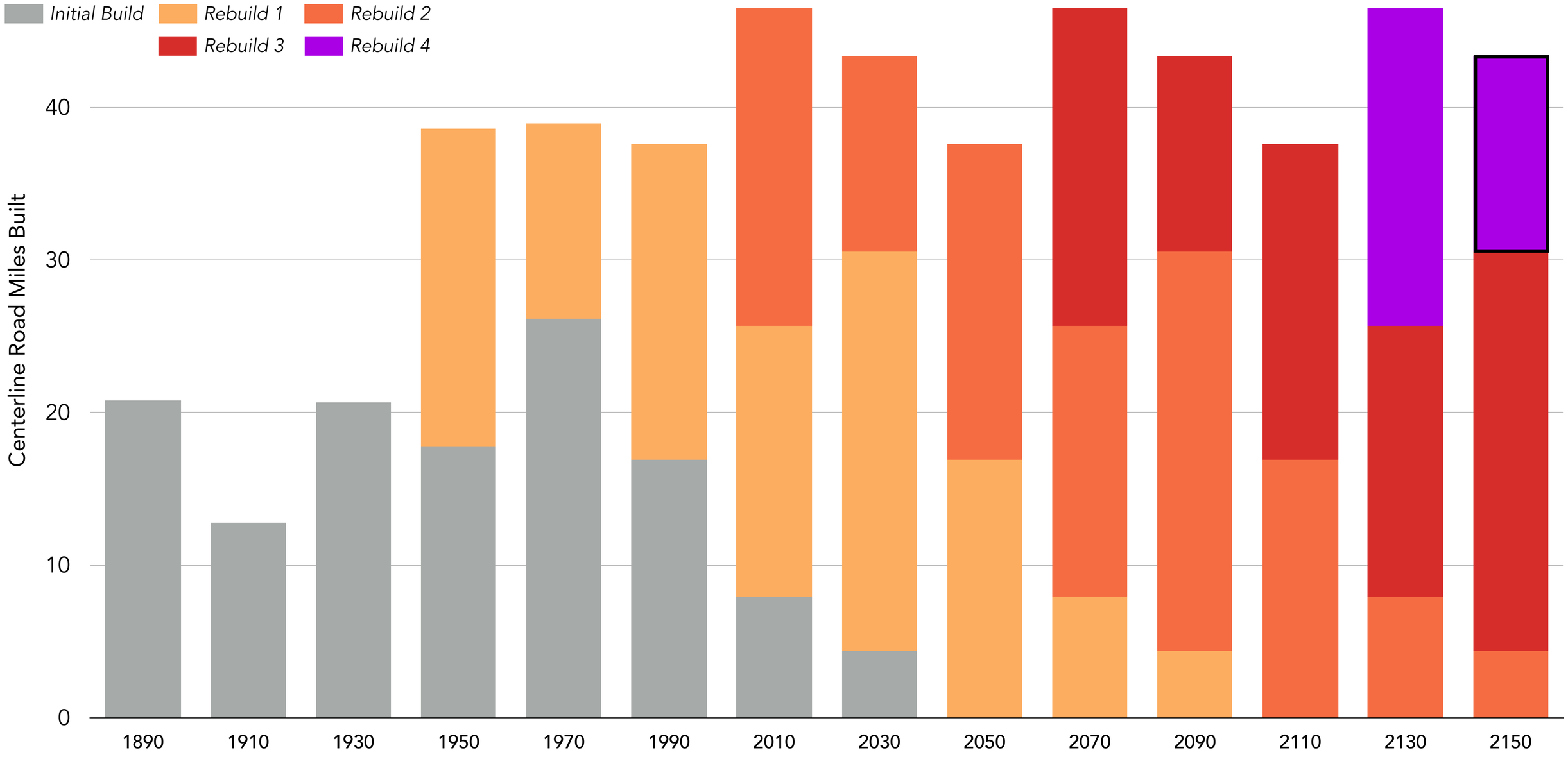

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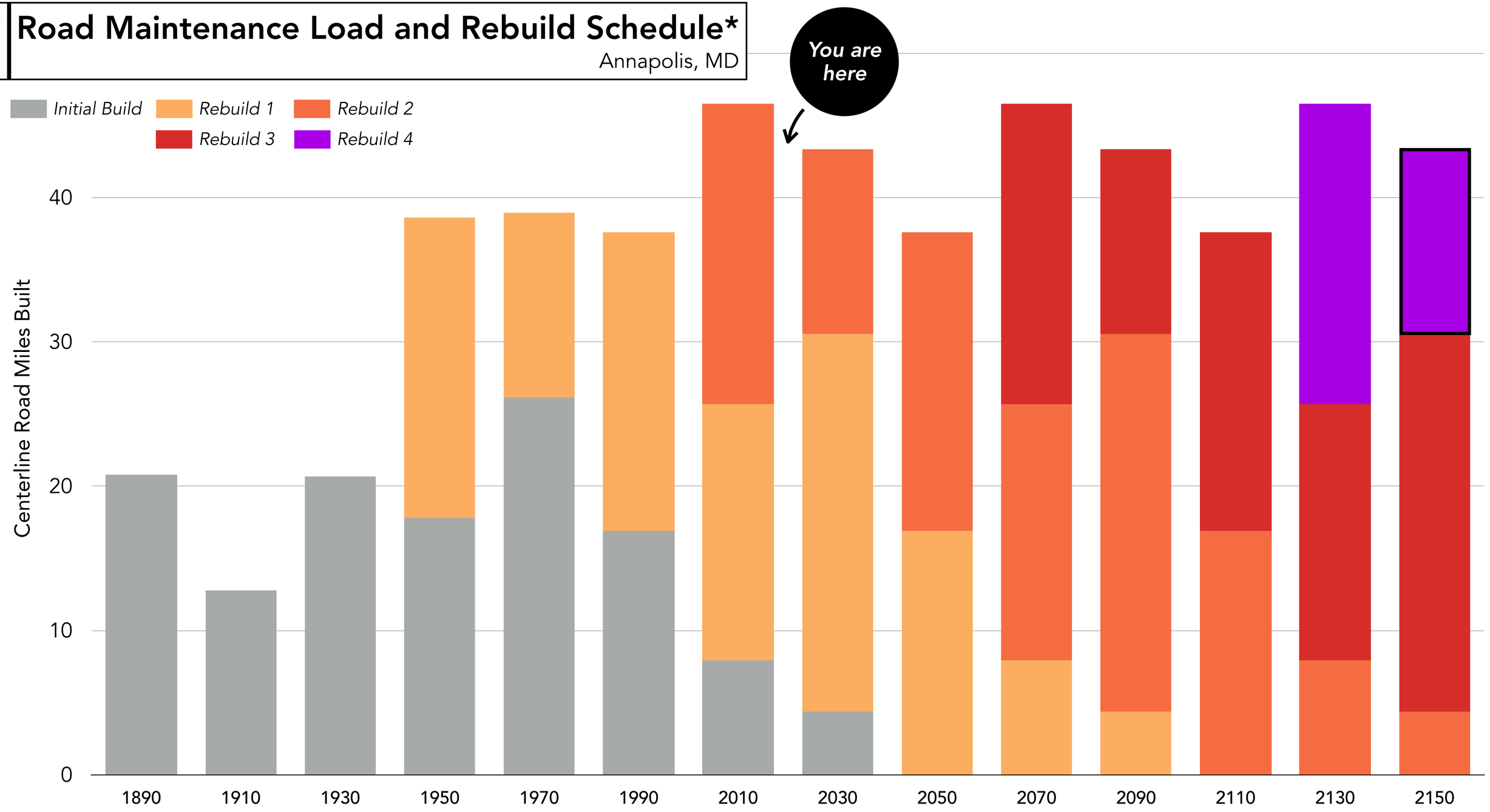

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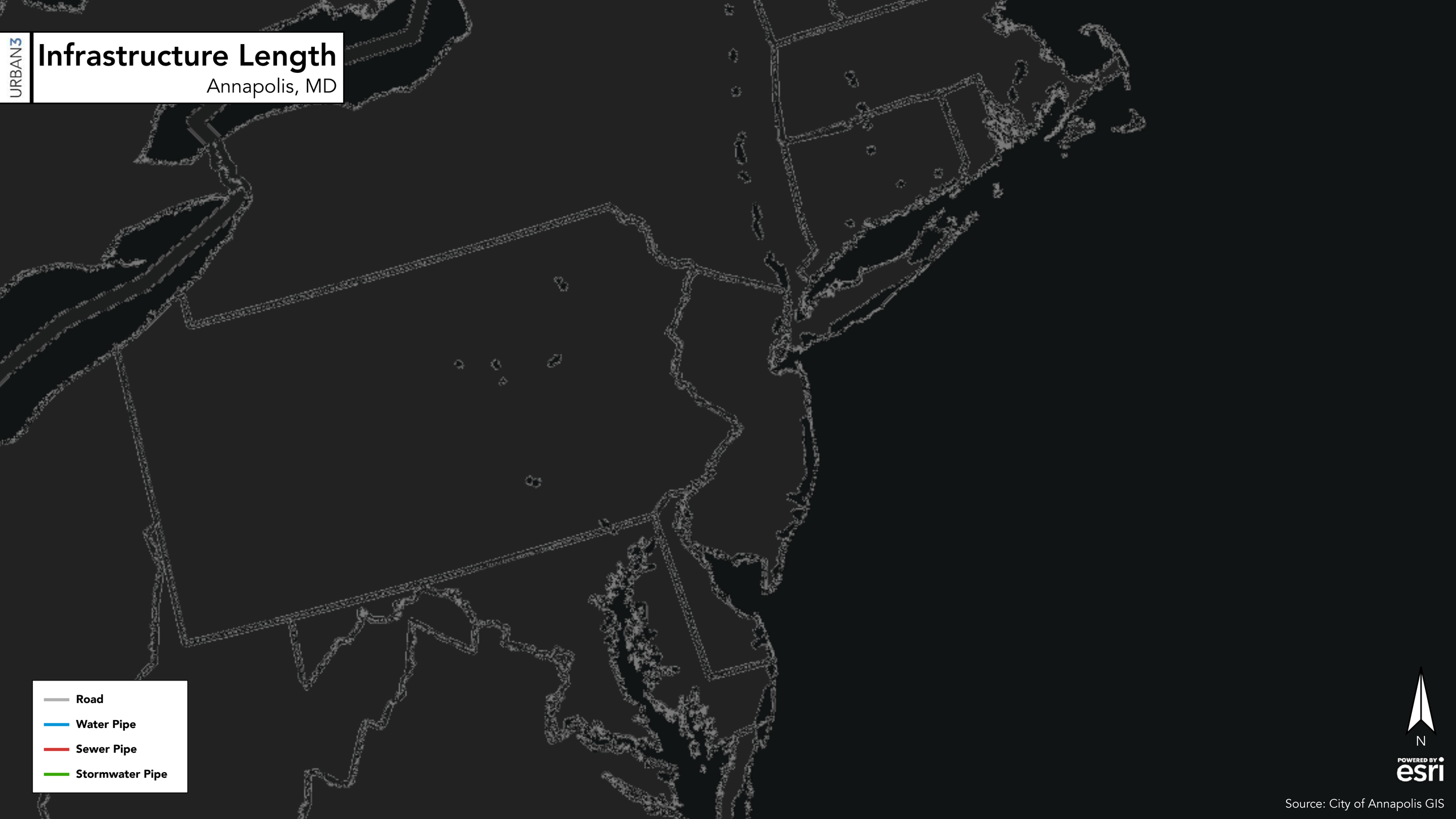
A ROAD IS FOREVER

URBAN3

Infrastructure Length

Annapolis, MD

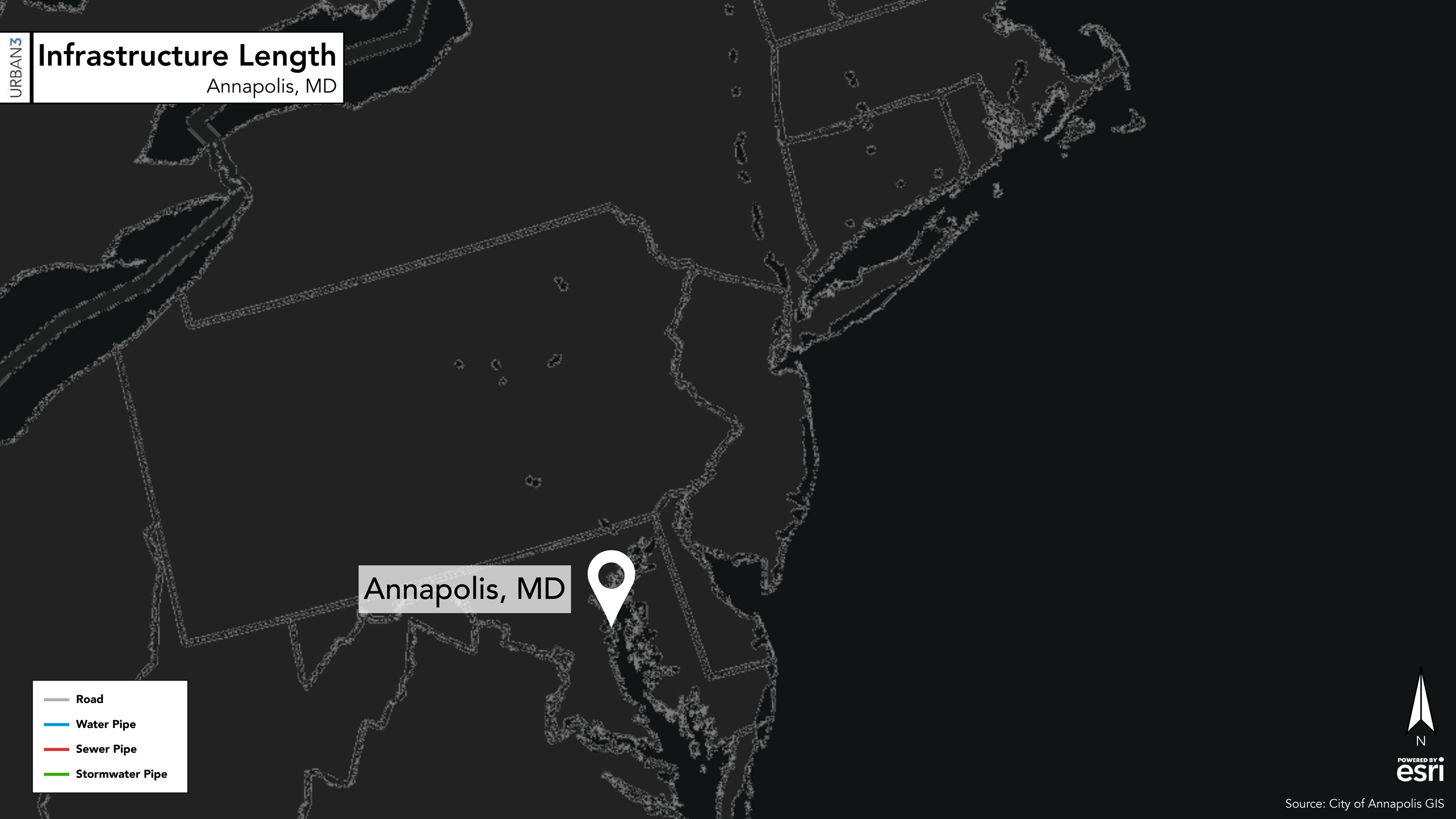


Source: City of Annapolis GIS

URBAN3

Infrastructure Length

Annapolis, MD



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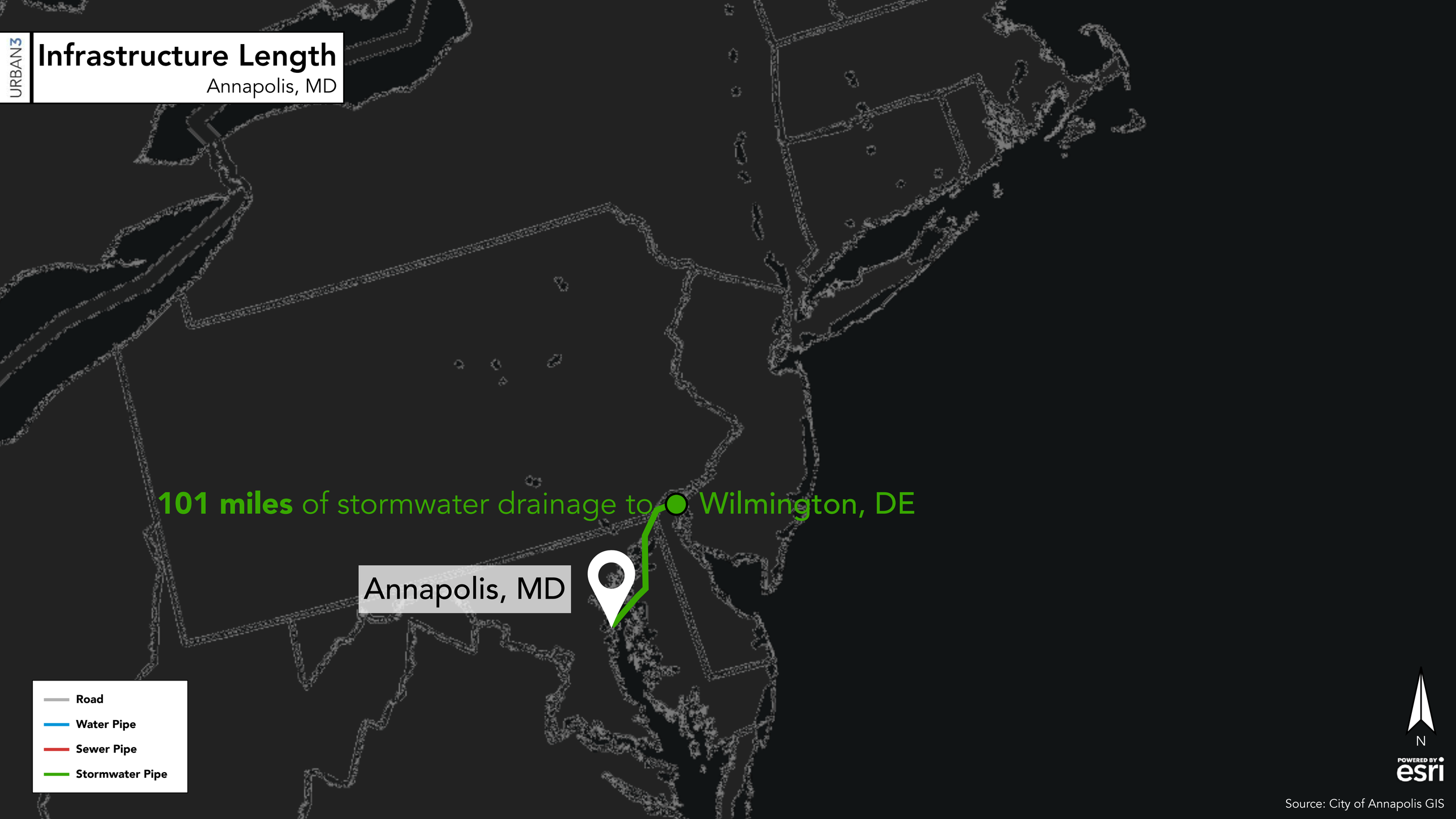
Infrastructure Length

Annapolis, MD



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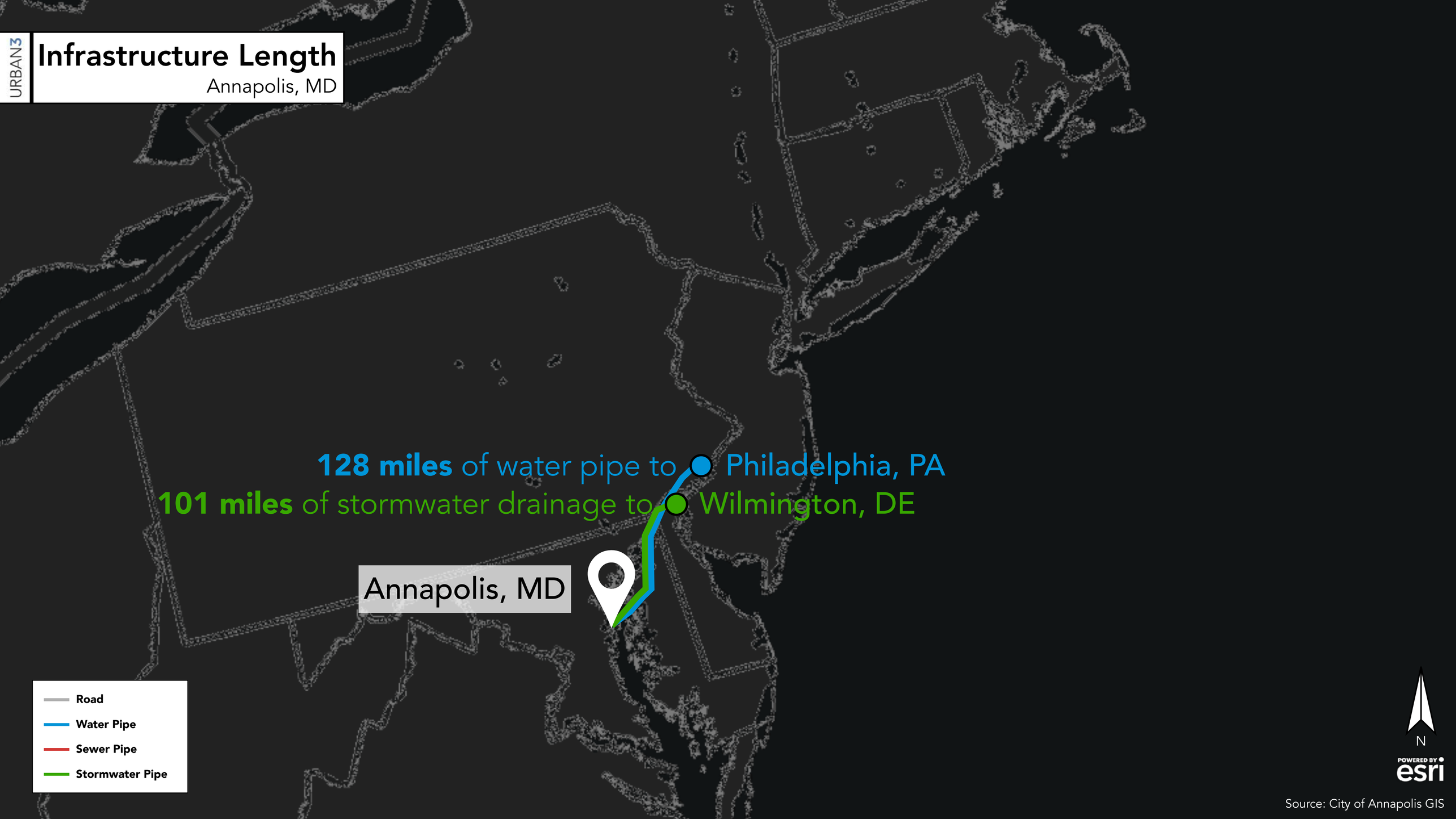
Infrastructure Length

Annapolis, MD



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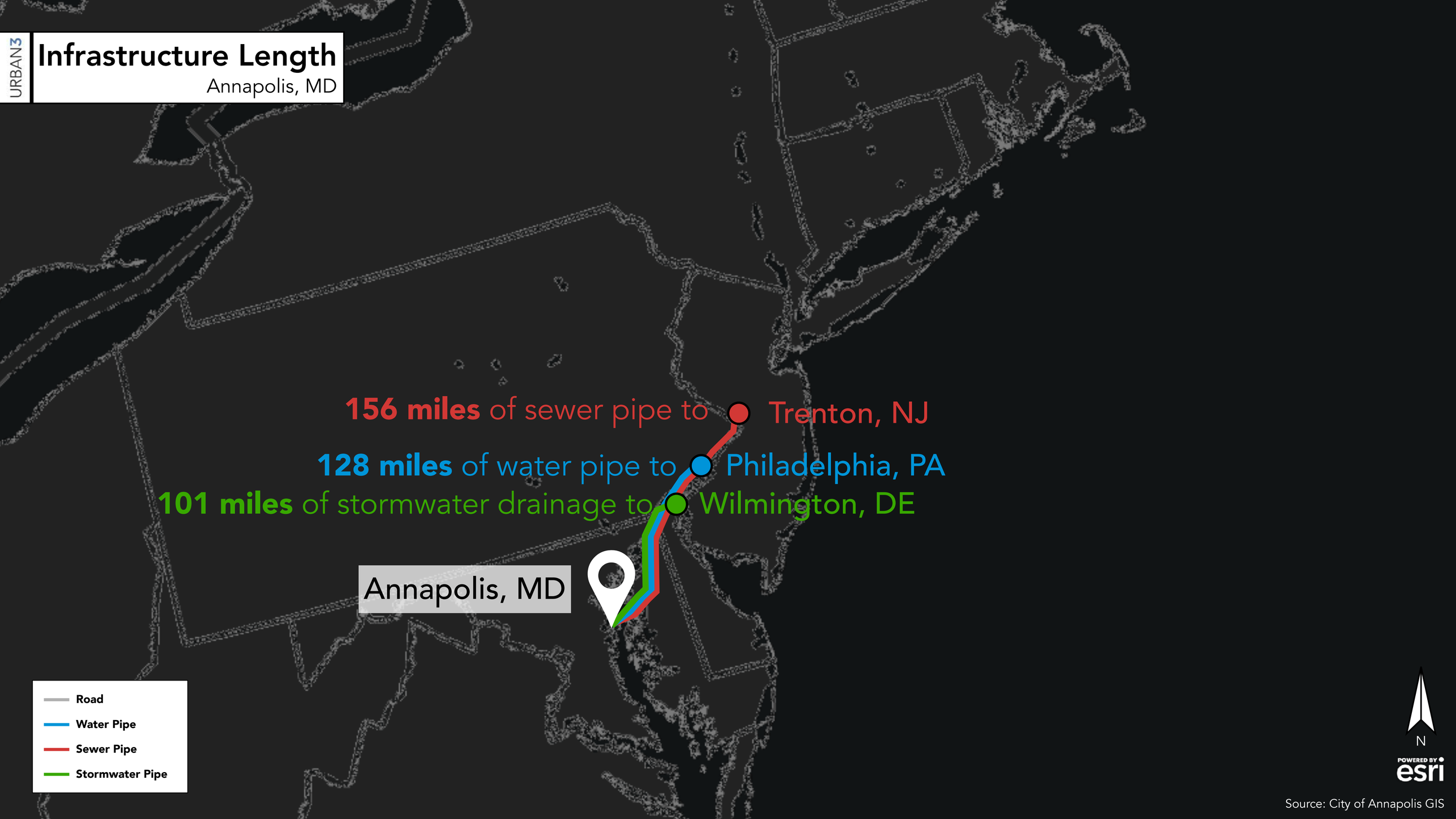
URBAN3

Infrastructure Length

Annapolis, MD



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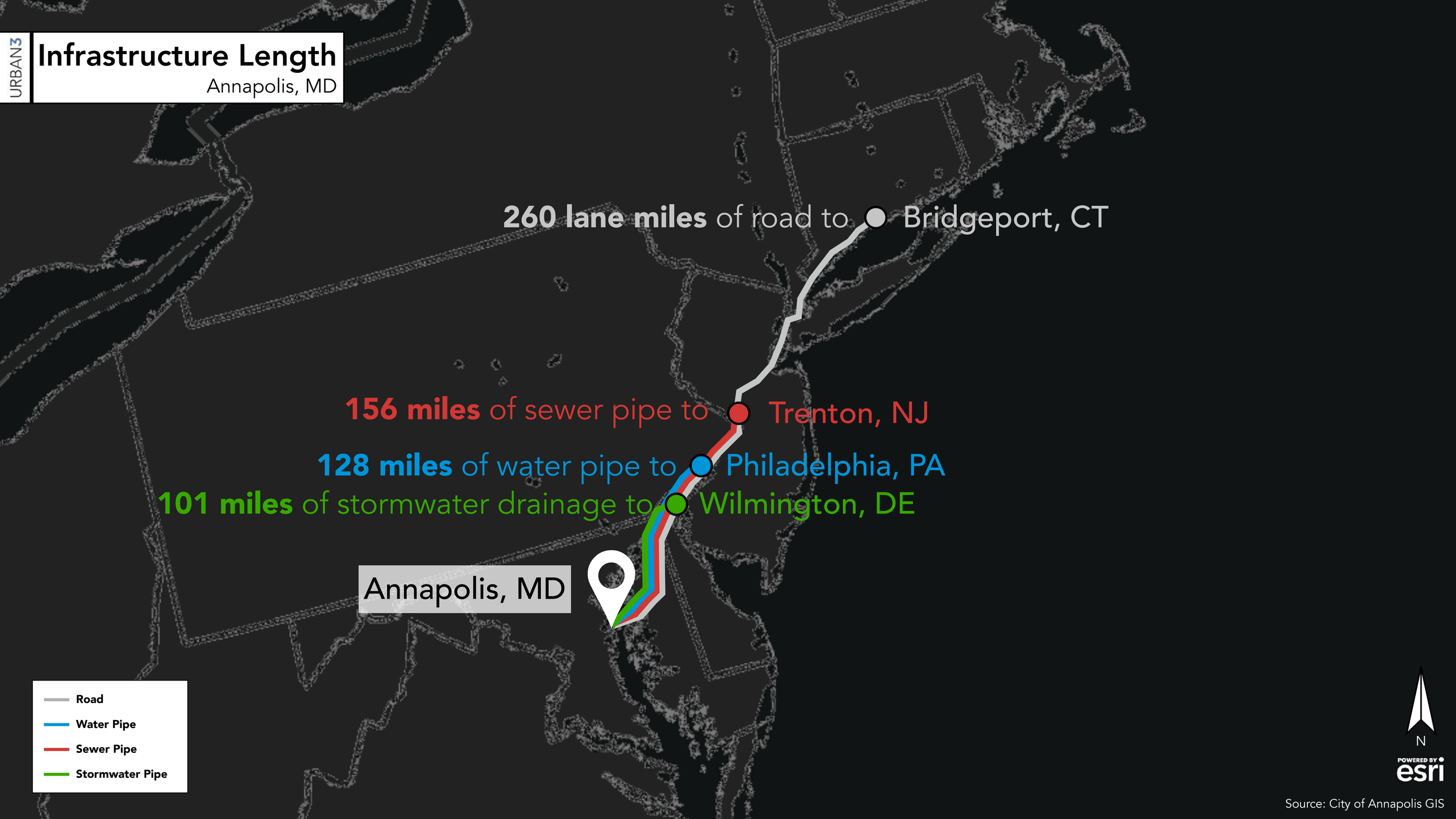
Infrastructure Length

Annapolis, MD



Source: City of Annapolis GIS

URBAN3

Infrastructure System Costs

Annapolis, MD

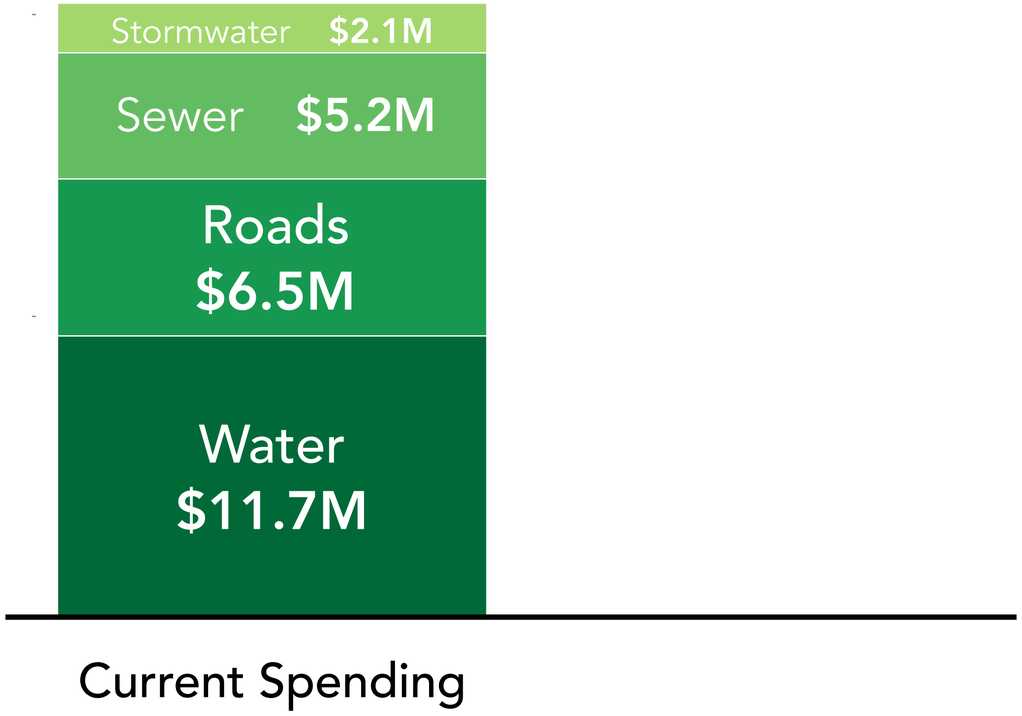
*Also known as Lifecycle Cost

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Infrastructure System Costs

Annapolis, MD



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Source: FY 2024 Adopted Budget, Urban3 Estimates

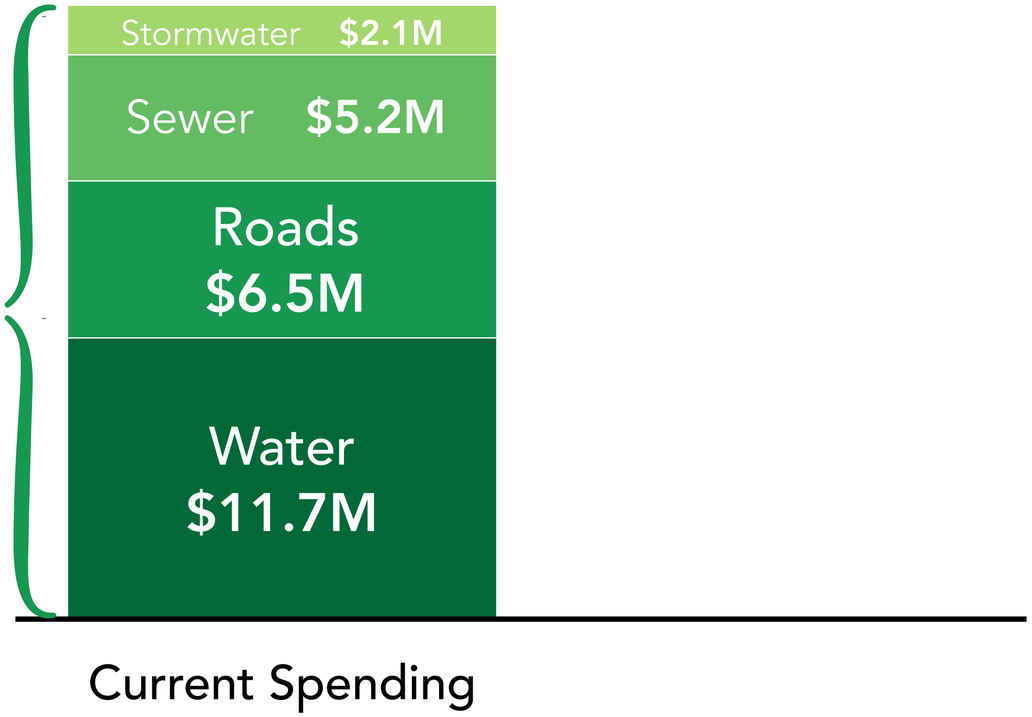
URBAN3

Infrastructure System Costs

Annapolis, MD

$25M

annually



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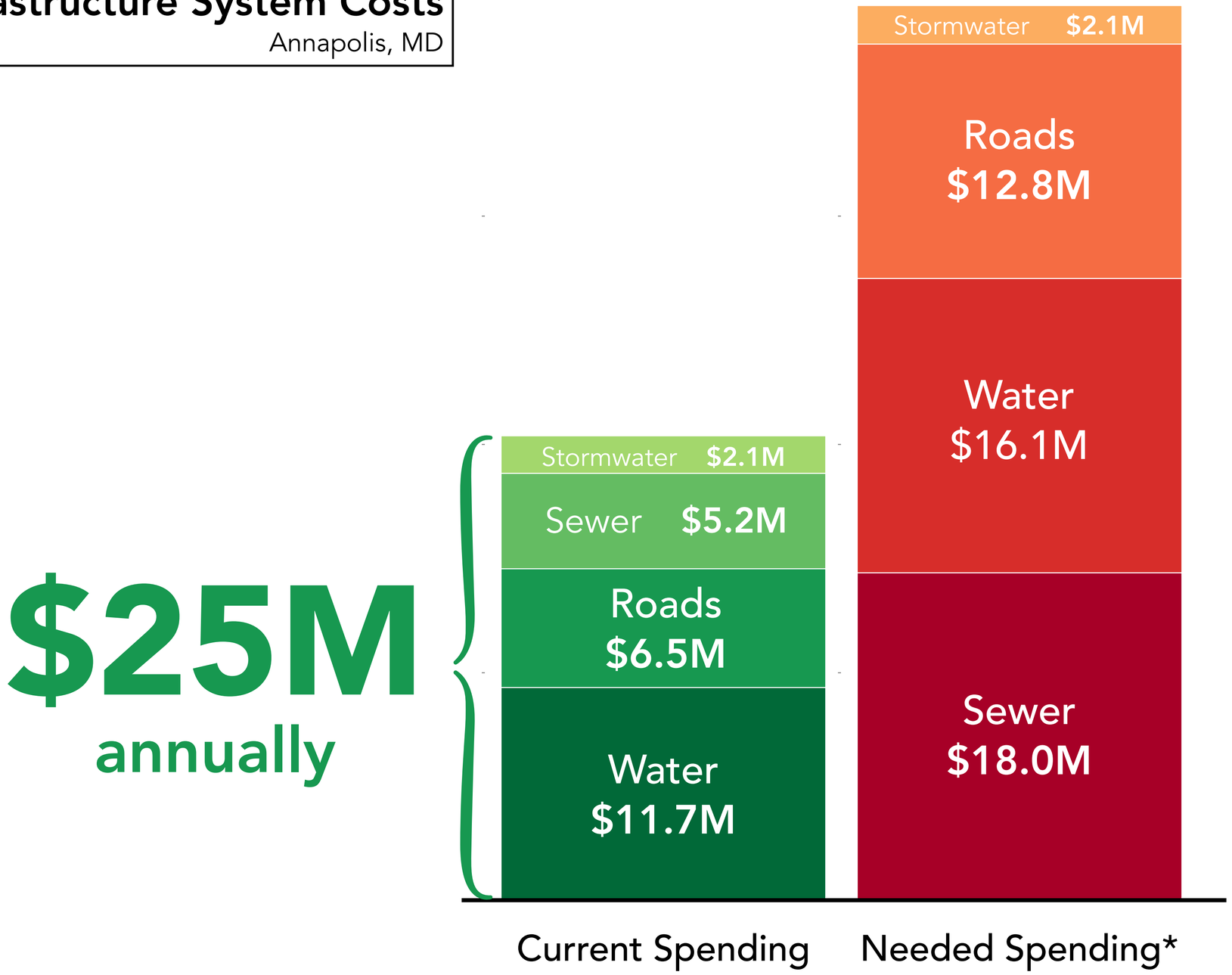
URBAN3

Infrastructure System Costs

Annapolis, MD



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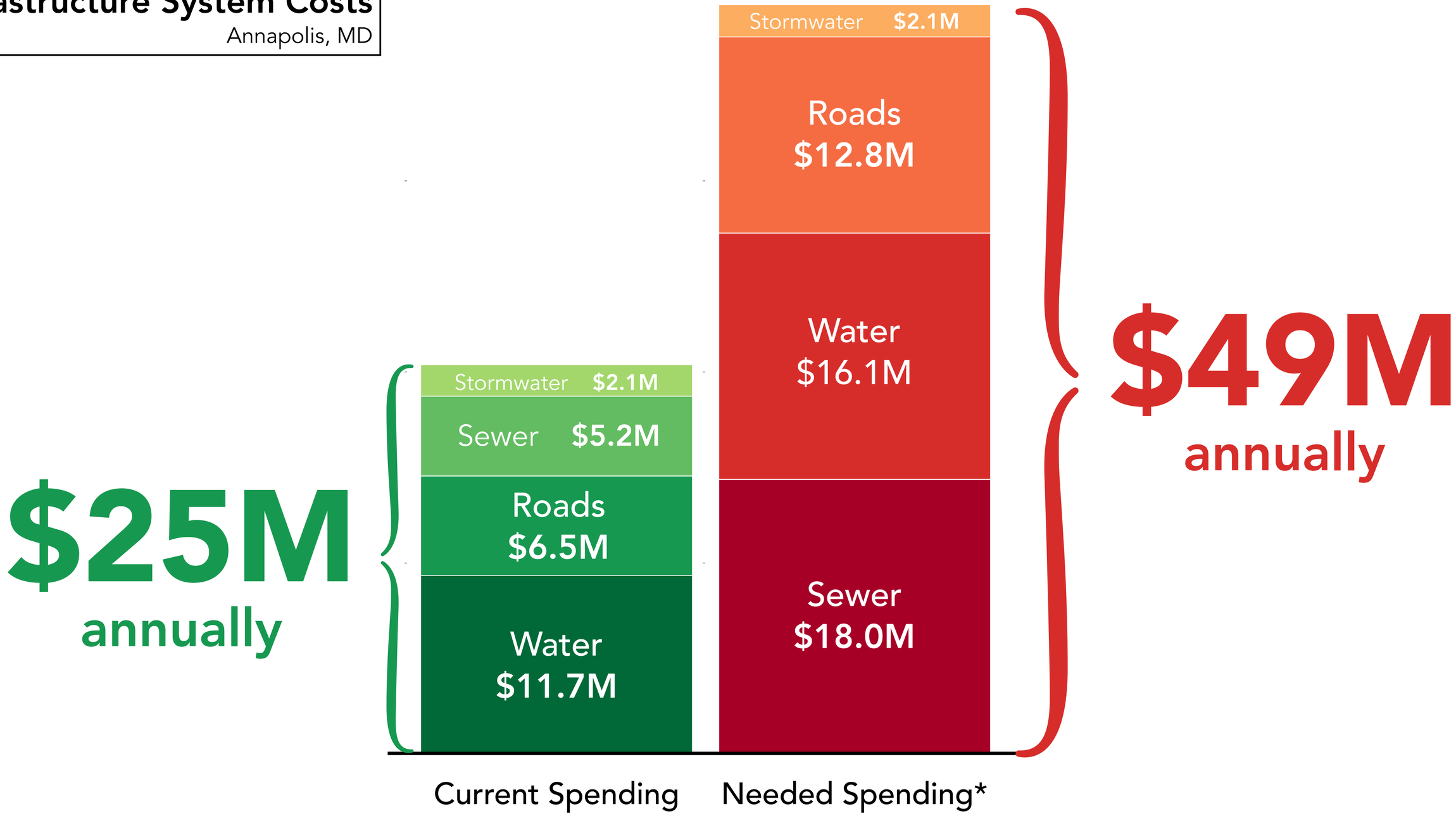
URBAN3

Infrastructure System Costs

Annapolis, MD



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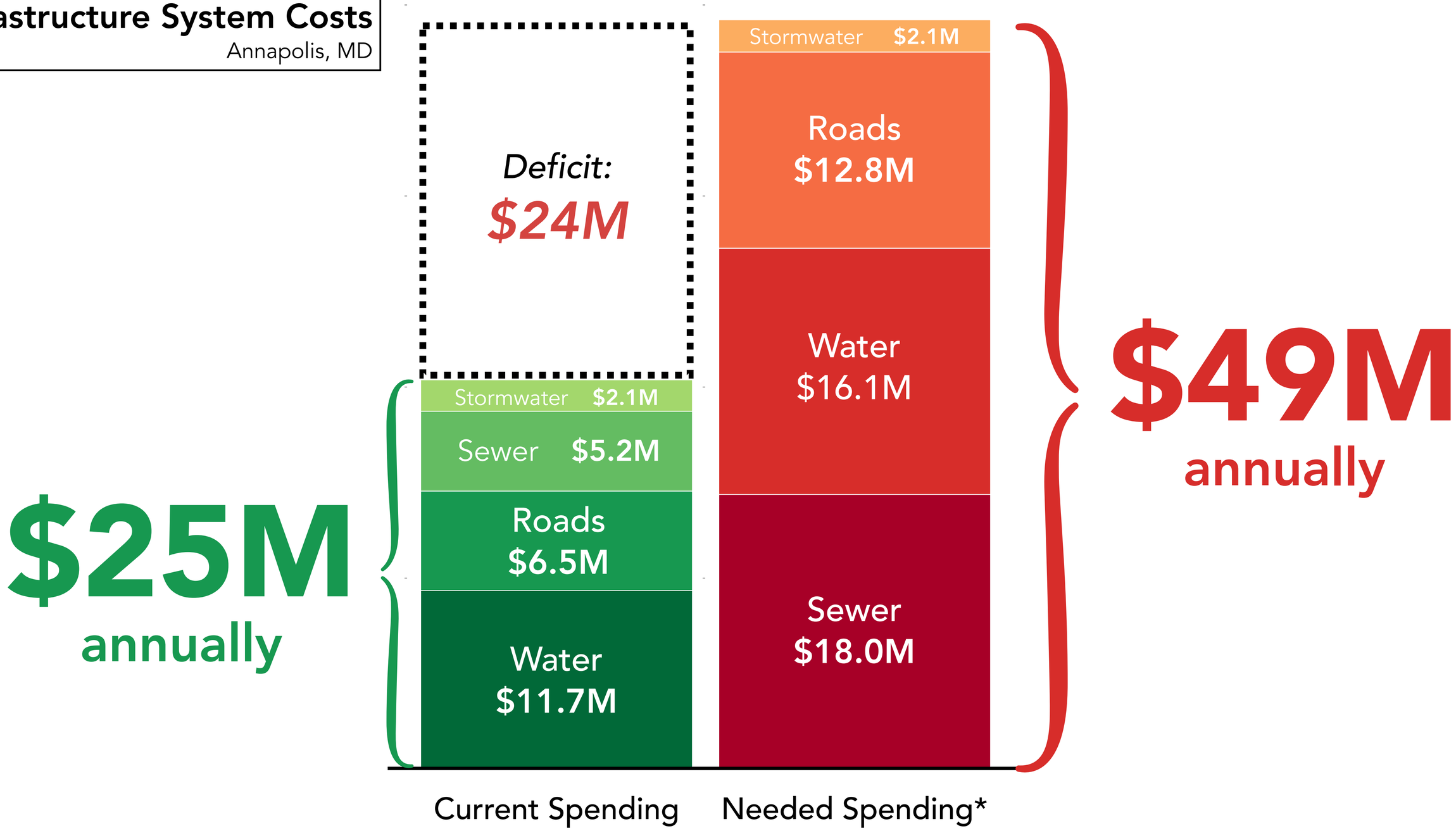
Infrastructure System Costs

Annapolis, MD



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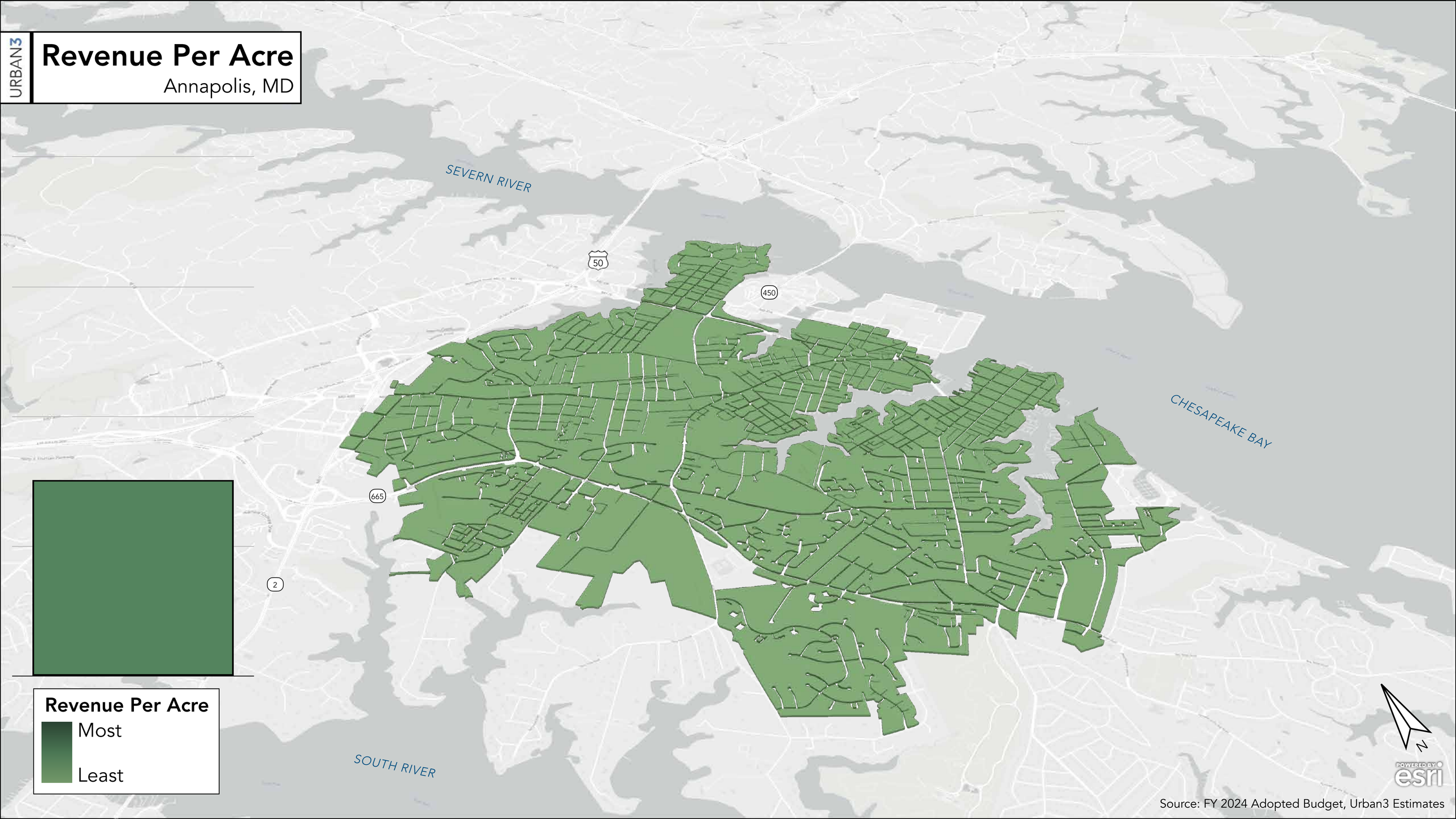
Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenue Per Acre

Annapolis, MD

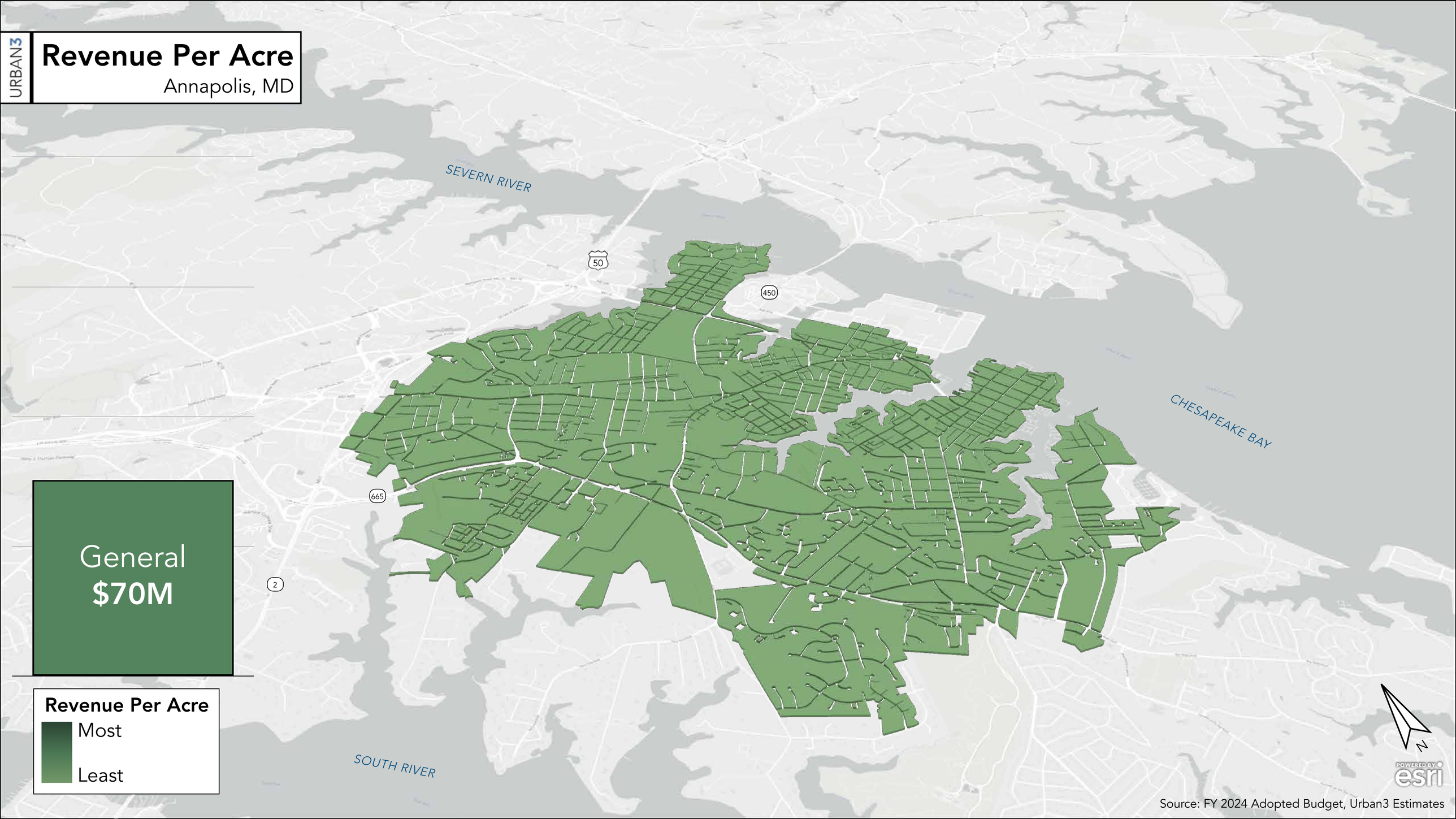


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenue Per Acre

Annapolis, MD



General
$70M

Revenue Per Acre

Most

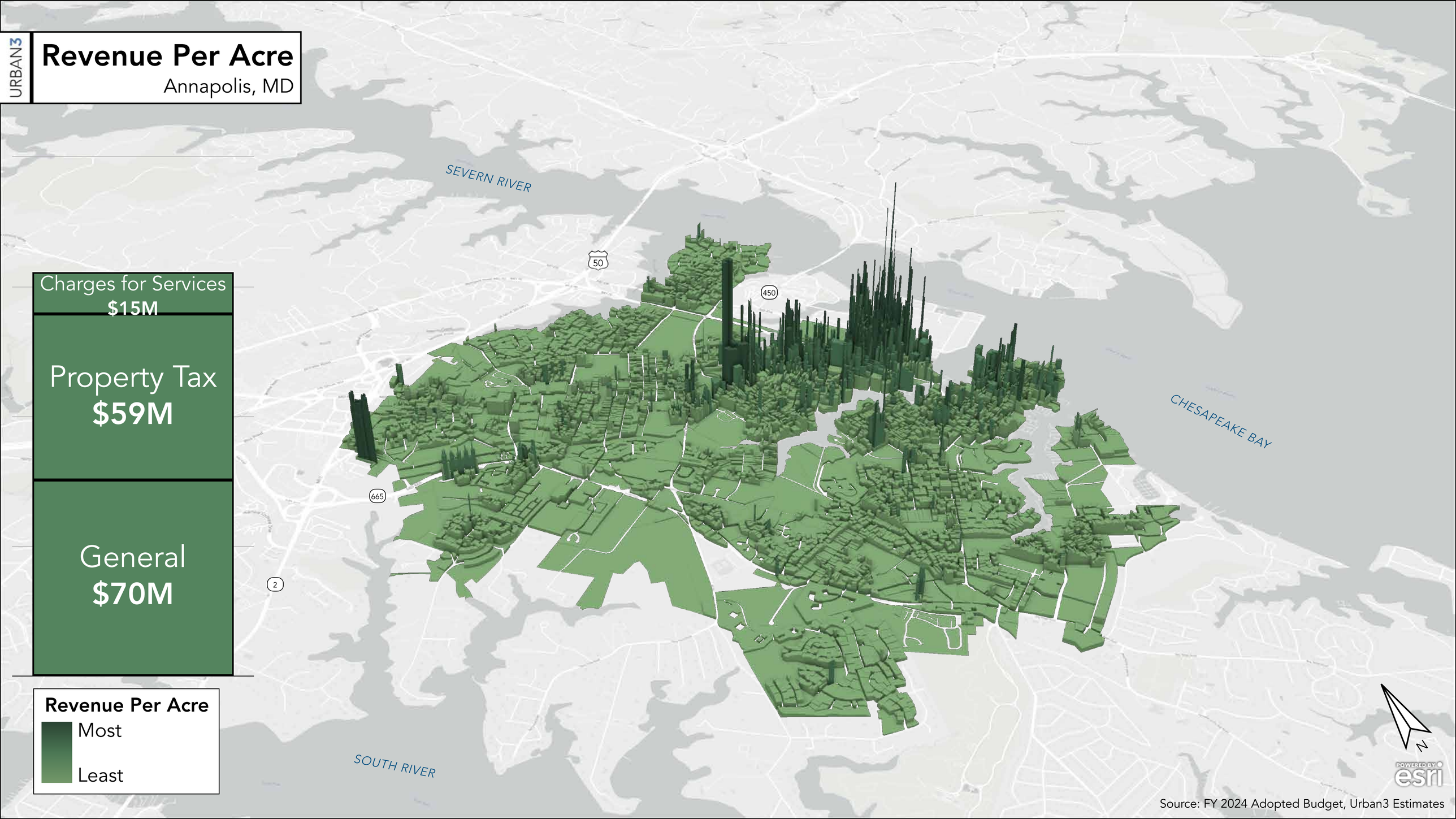
Least

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenue Per Acre

Annapolis, MD

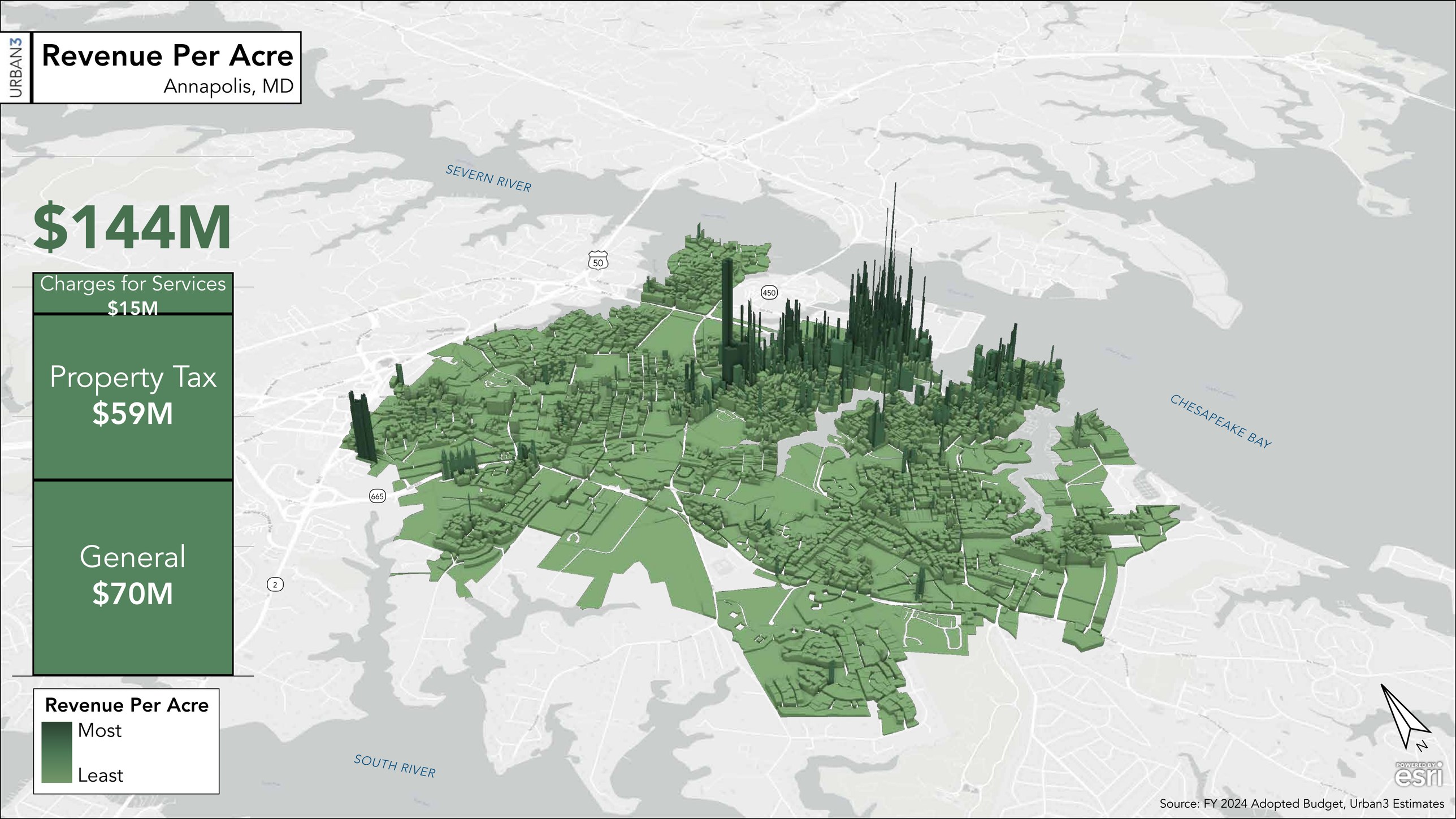


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenue Per Acre

Annapolis, MD



$144M

Charges for Services
$15M
Property Tax
$59M
General
$70M

Revenue Per Acre

Most

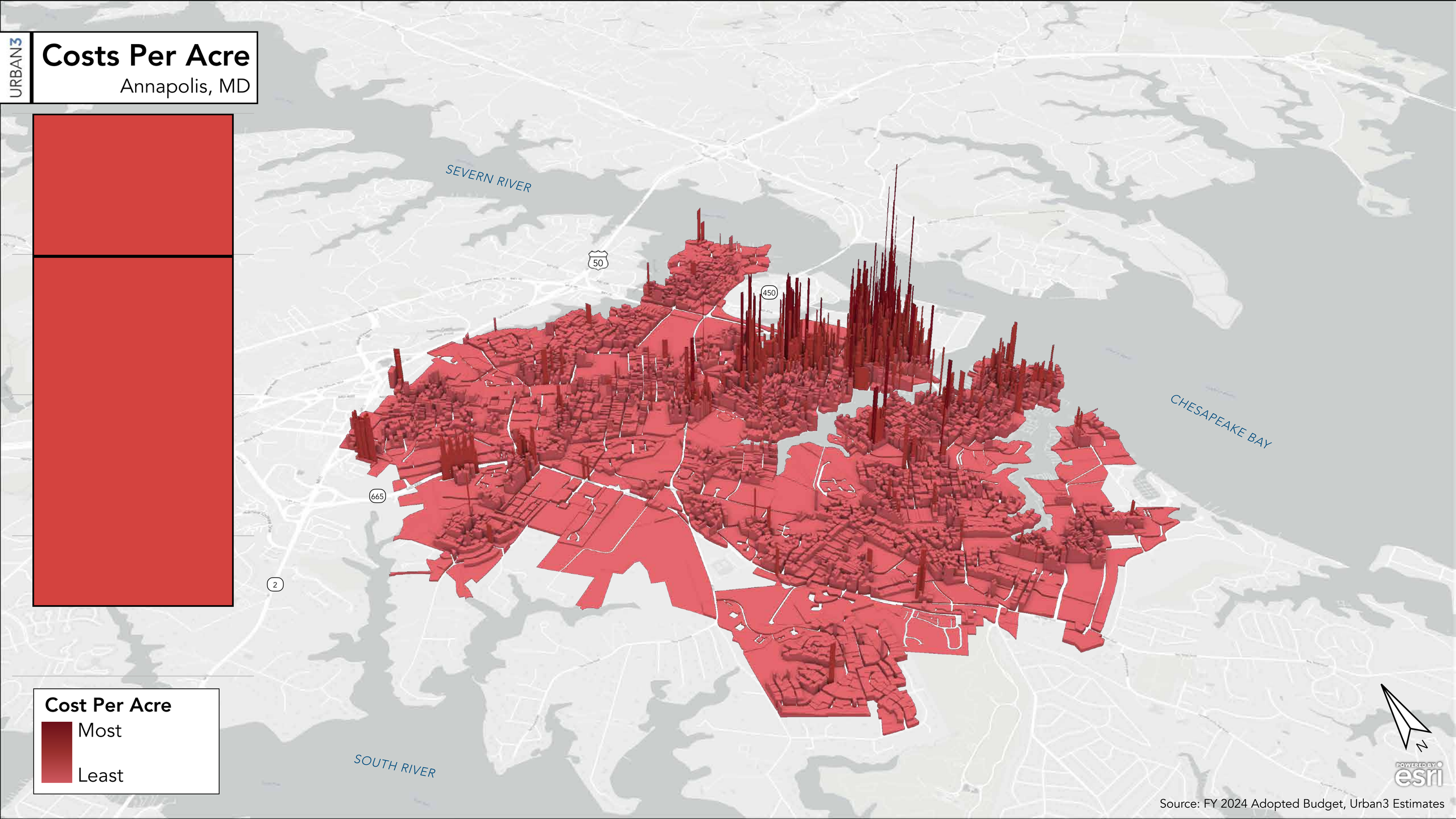
Least

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Costs Per Acre

Annapolis, MD



Source: FY 2024 Adopted Budget, Urban3 Estimates

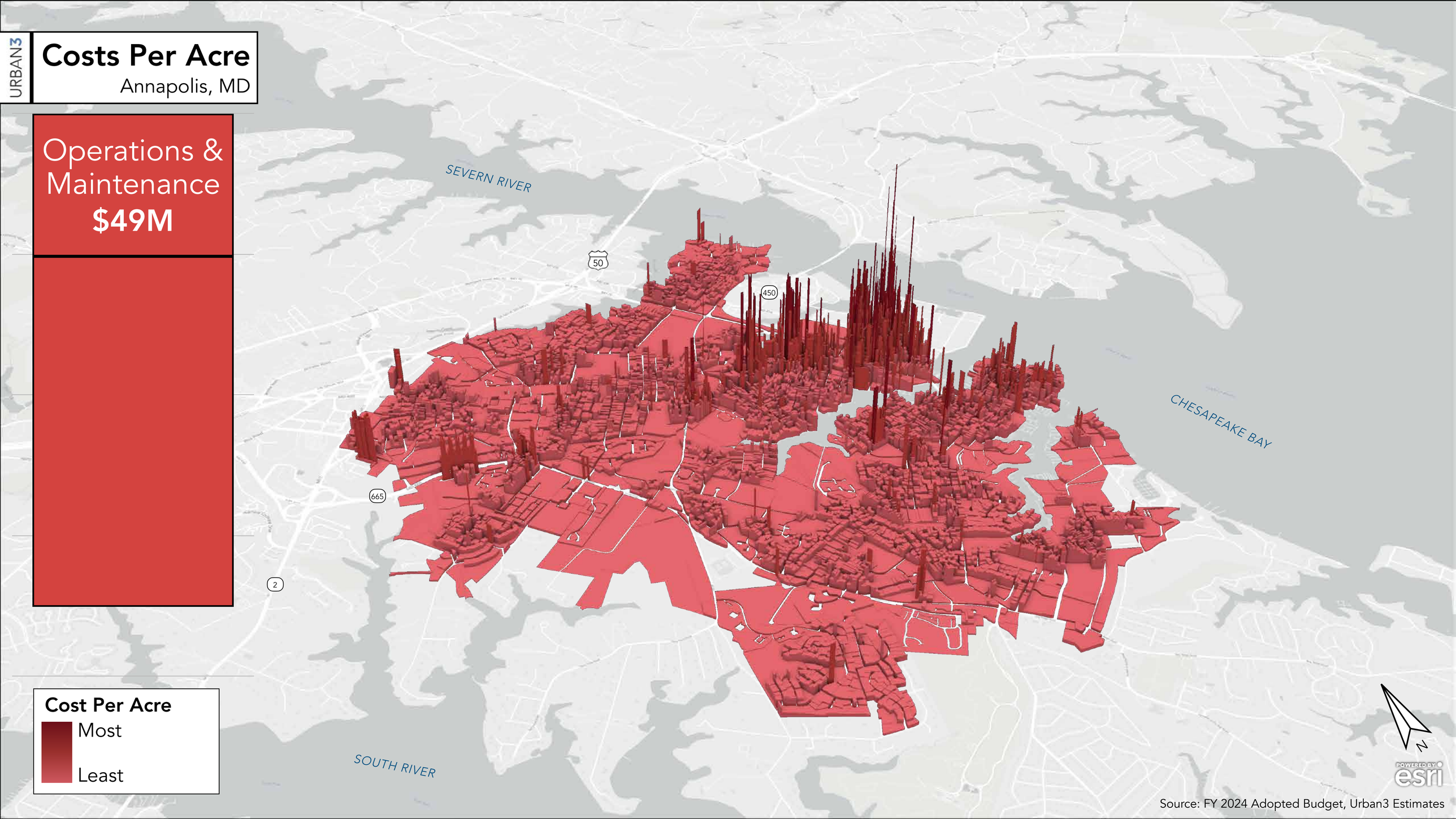
URBAN3

Costs Per Acre

Annapolis, MD

Operations & Maintenance

$49M



Source: FY 2024 Adopted Budget, Urban3 Estimates

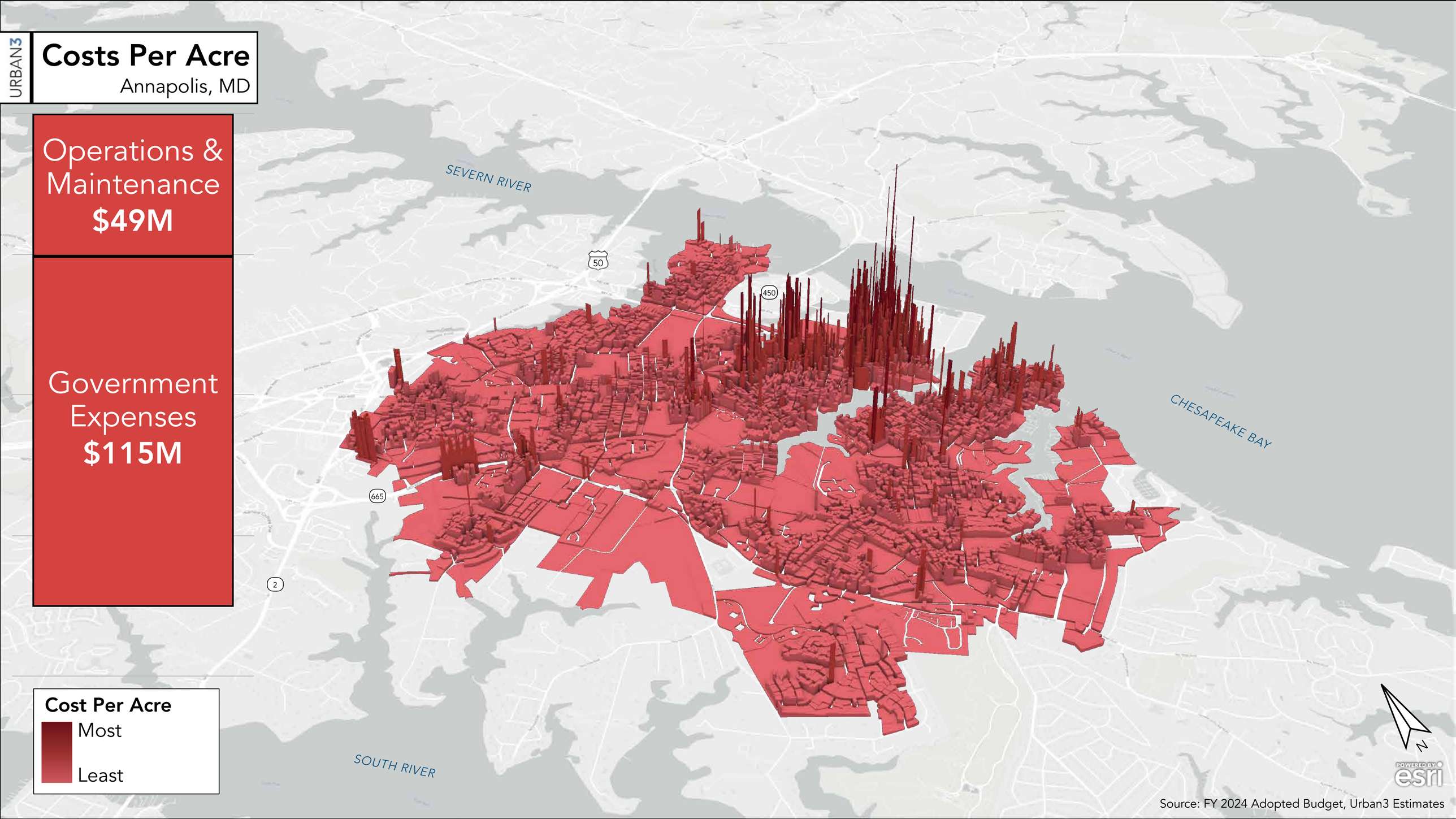
URBAN3

Costs Per Acre

Annapolis, MD

Operations & Maintenance
$49M

Government Expenses
$115M



Cost Per Acre

Most

Least

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

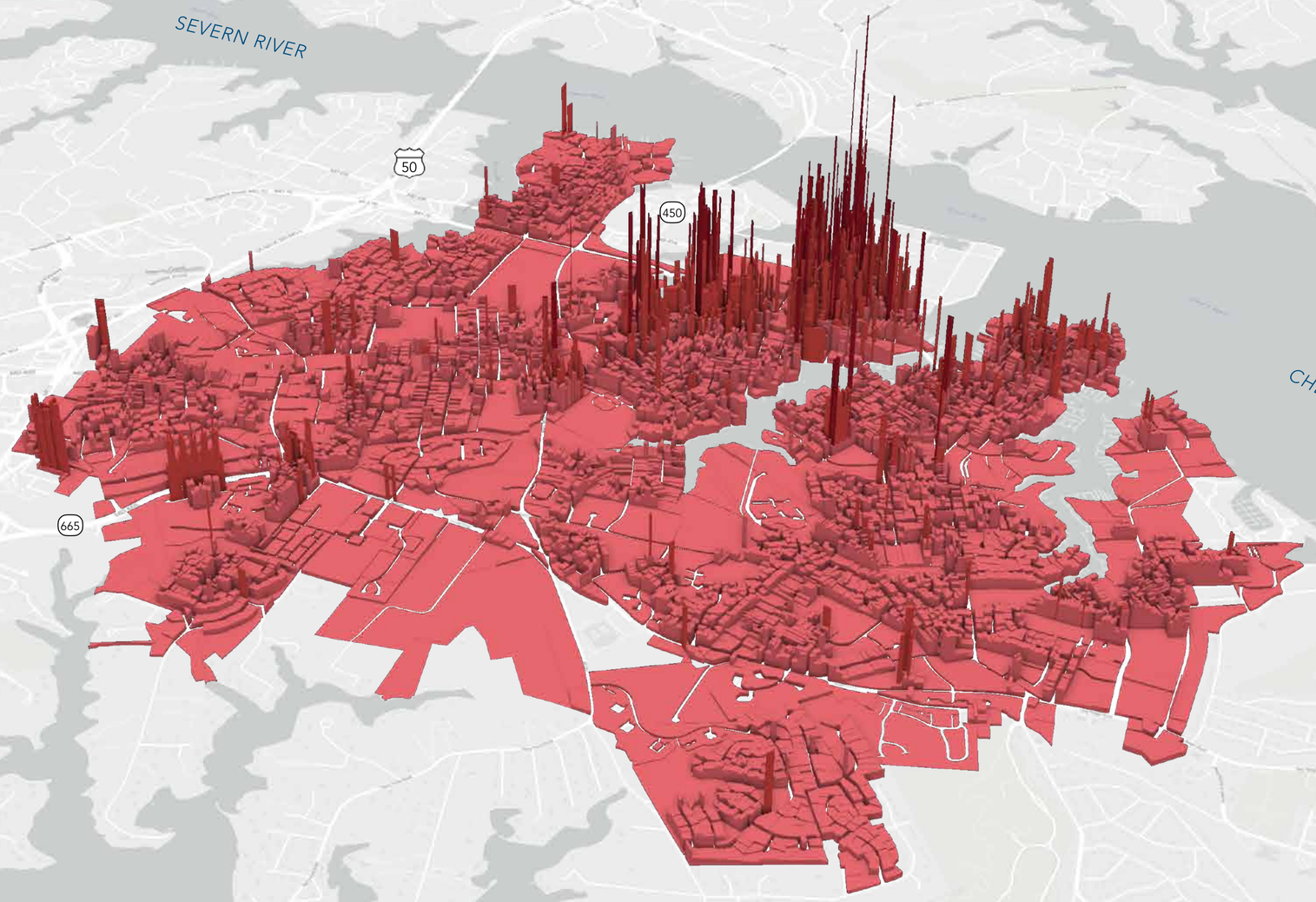
Costs Per Acre

Annapolis, MD

Operations & Maintenance
$49M

Government Expenses
$115M

$164M



Cost Per Acre

Most

Least

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

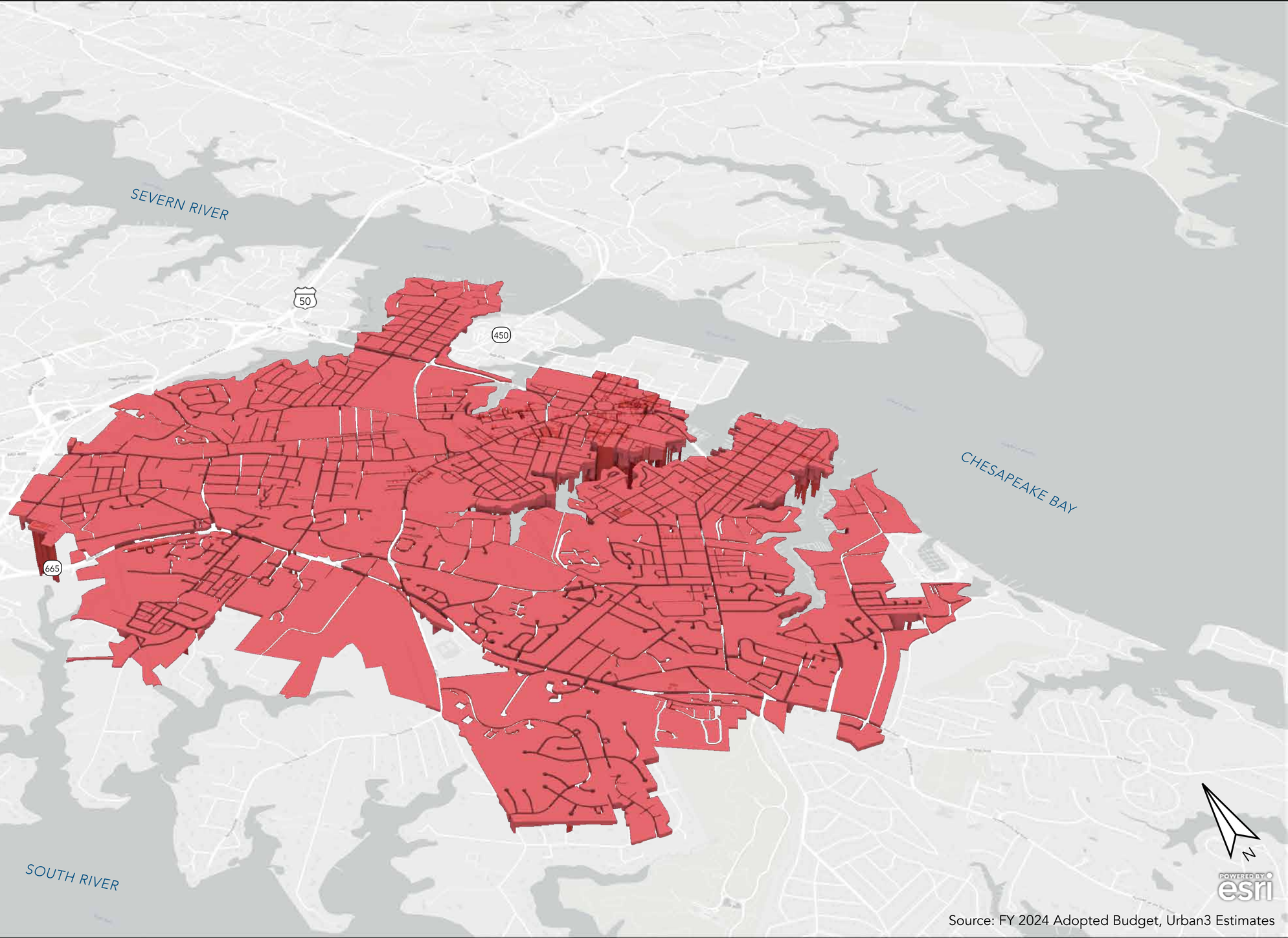
Costs Per Acre

Annapolis, MD

Operations & Maintenance
$49M

Government Expenses
$115M

$164M



Cost Per Acre

Least

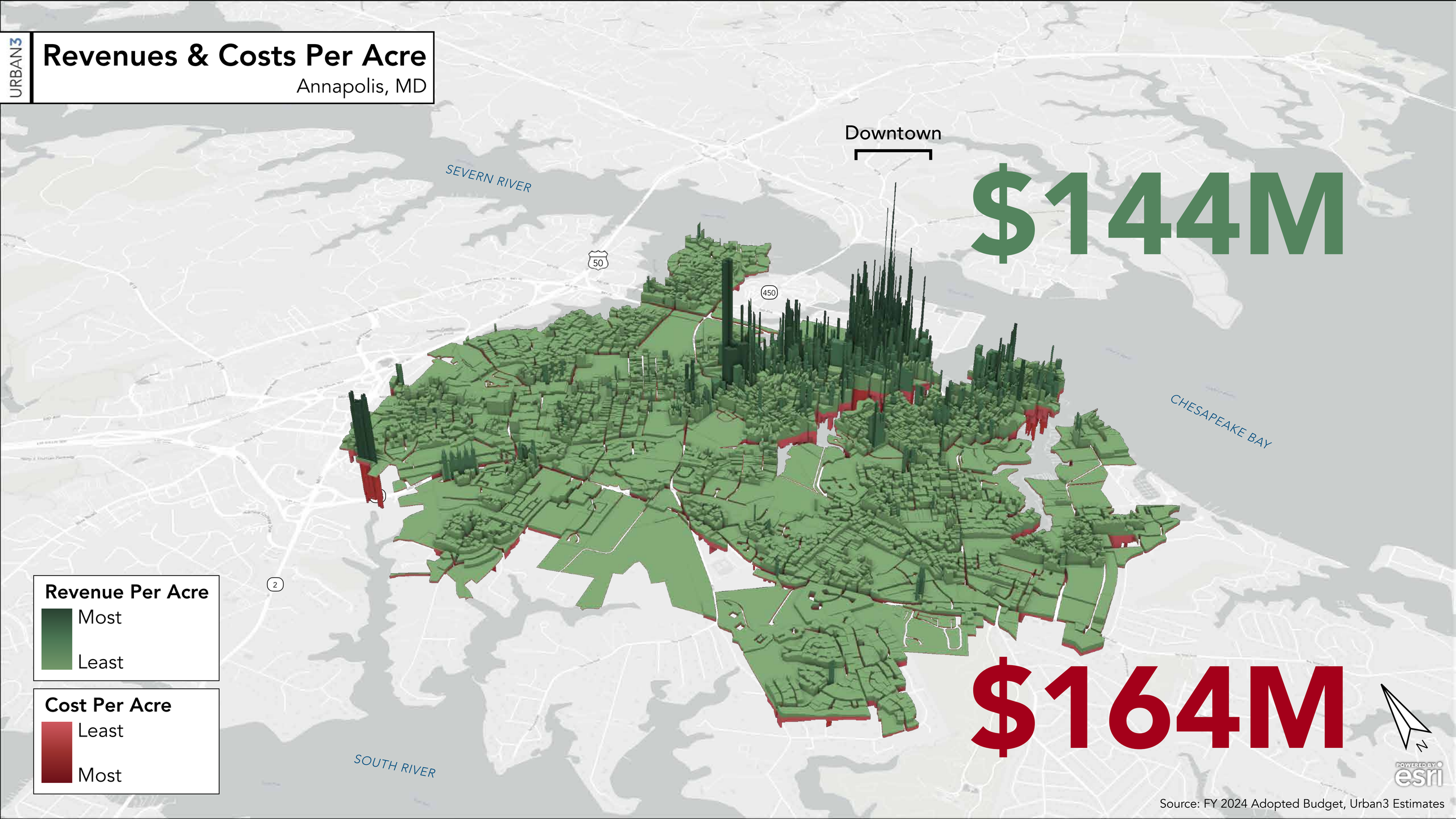
Most

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

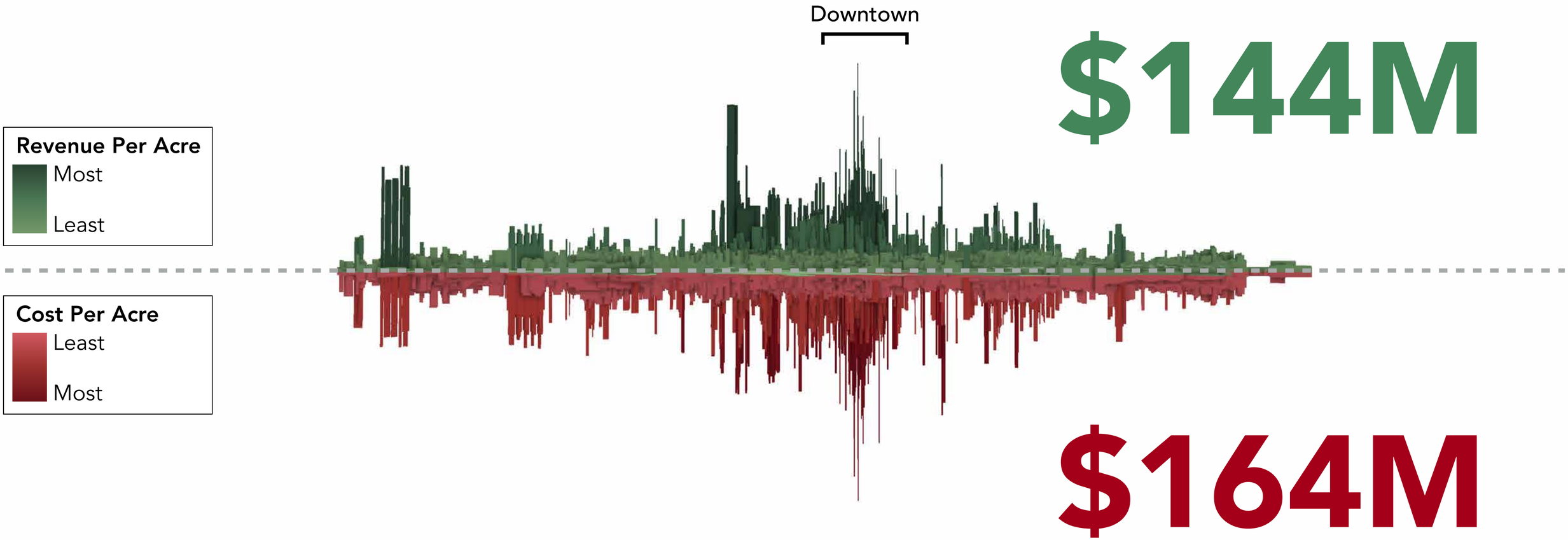


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

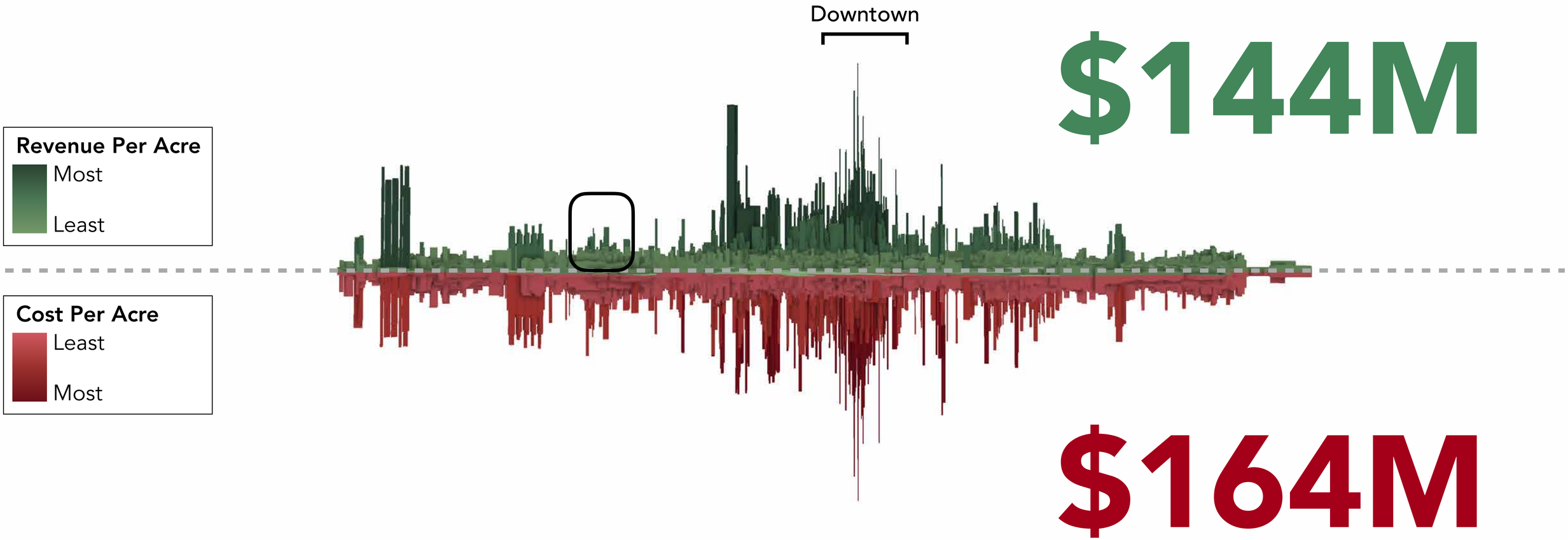


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

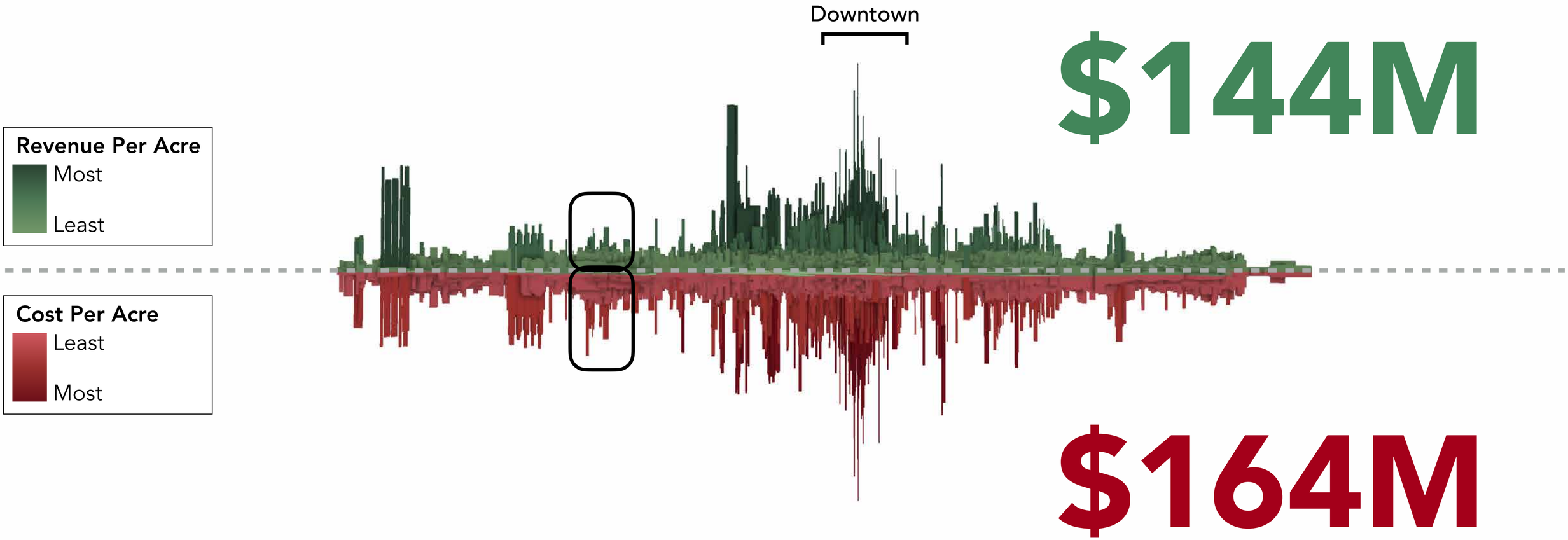


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

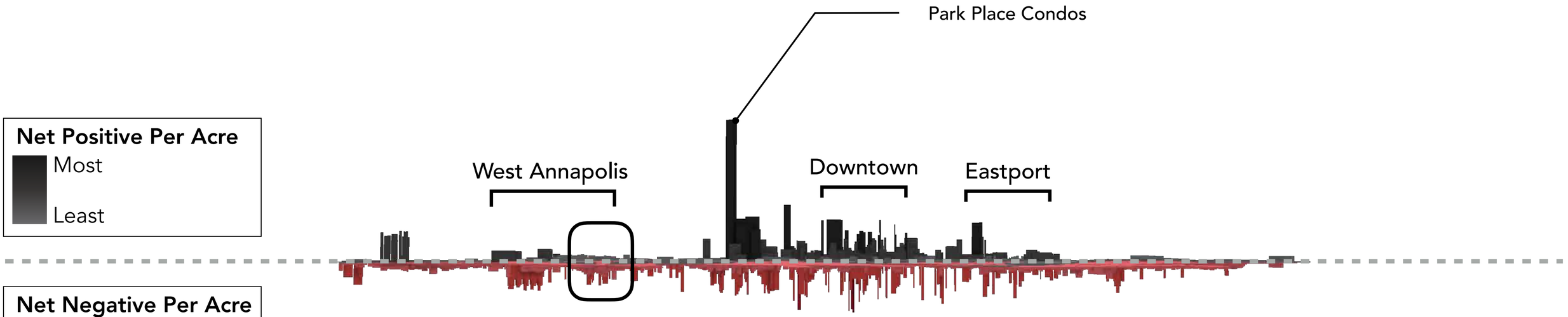


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD



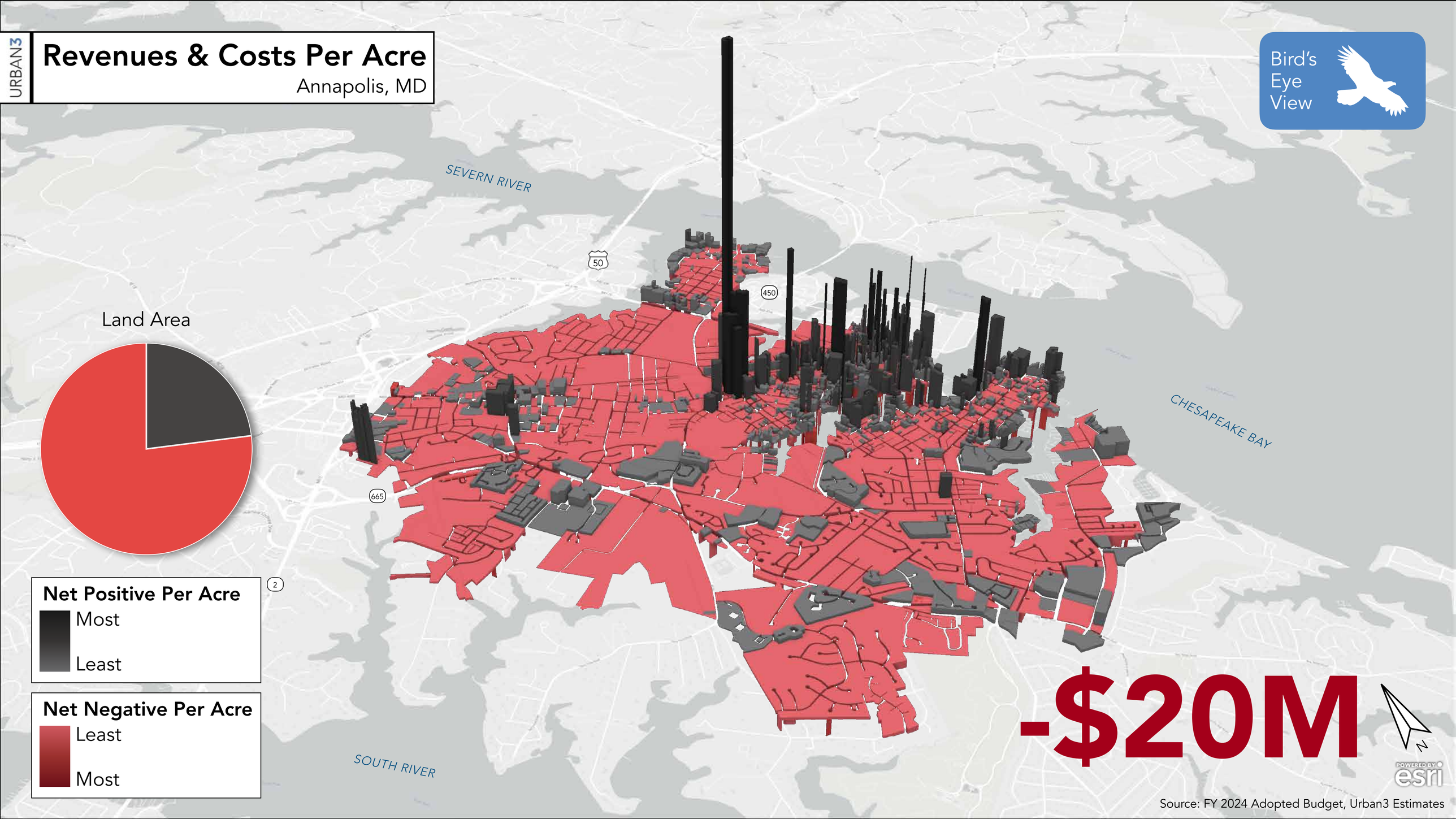
-$20M

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD



Source: FY 2024 Adopted Budget, Urban3 Estimates

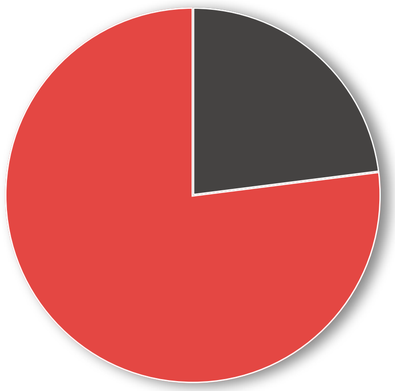
URBAN3

Revenues & Costs Per Acre

Annapolis, MD

Worm's Eye View

Land Area



Net Positive Per Acre

Most

Least

Net Negative Per Acre

Least

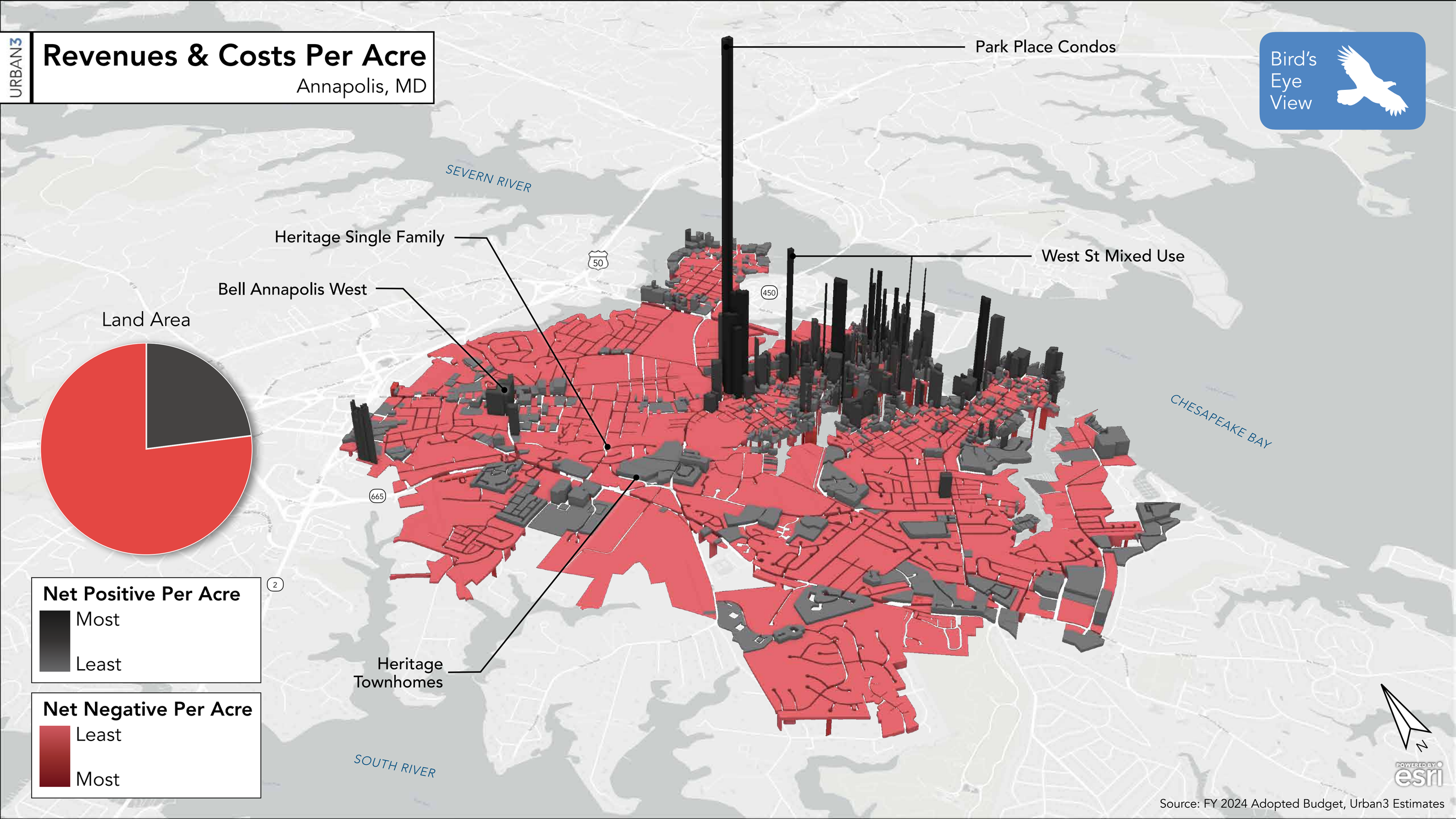
Most

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

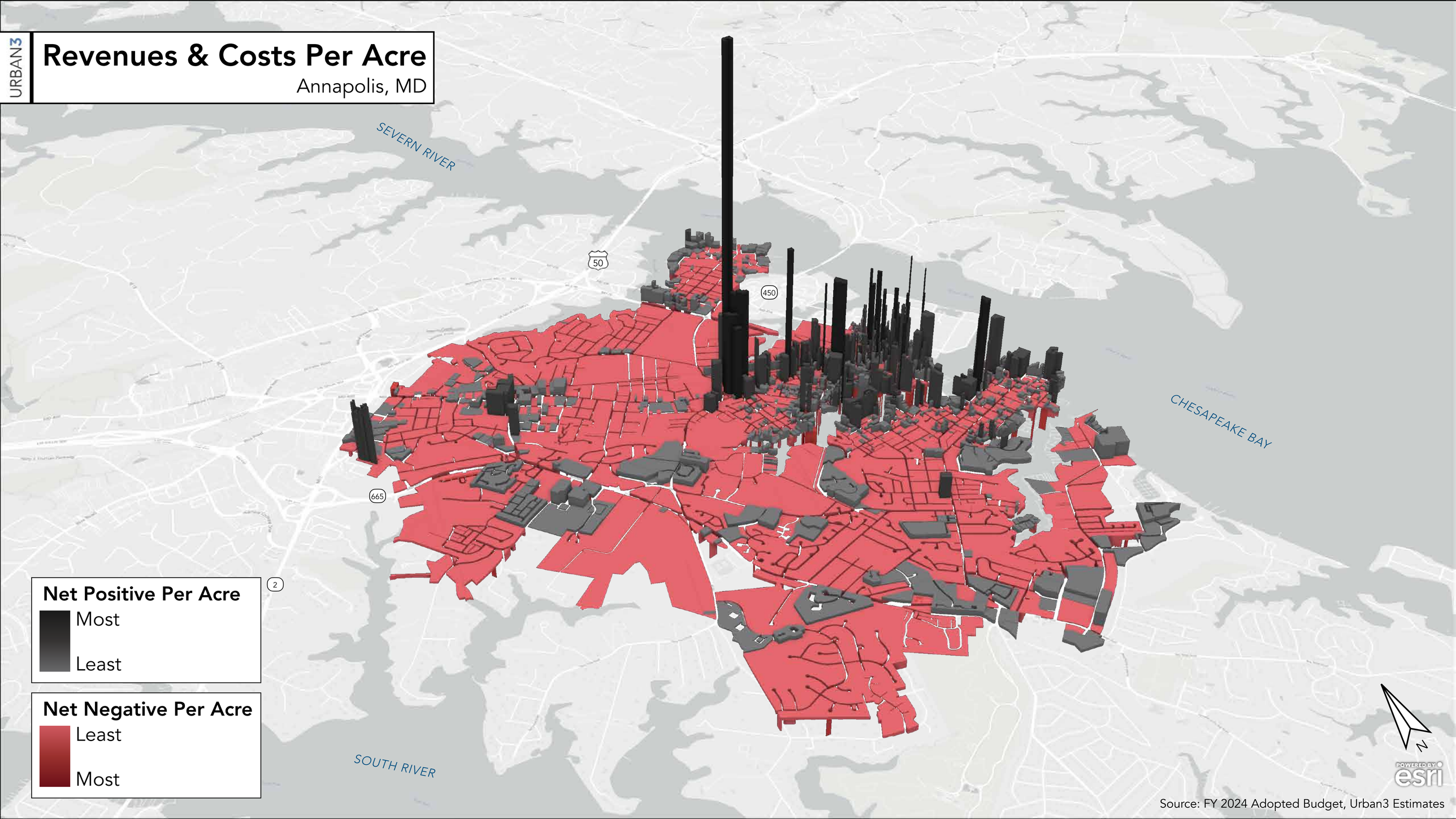


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

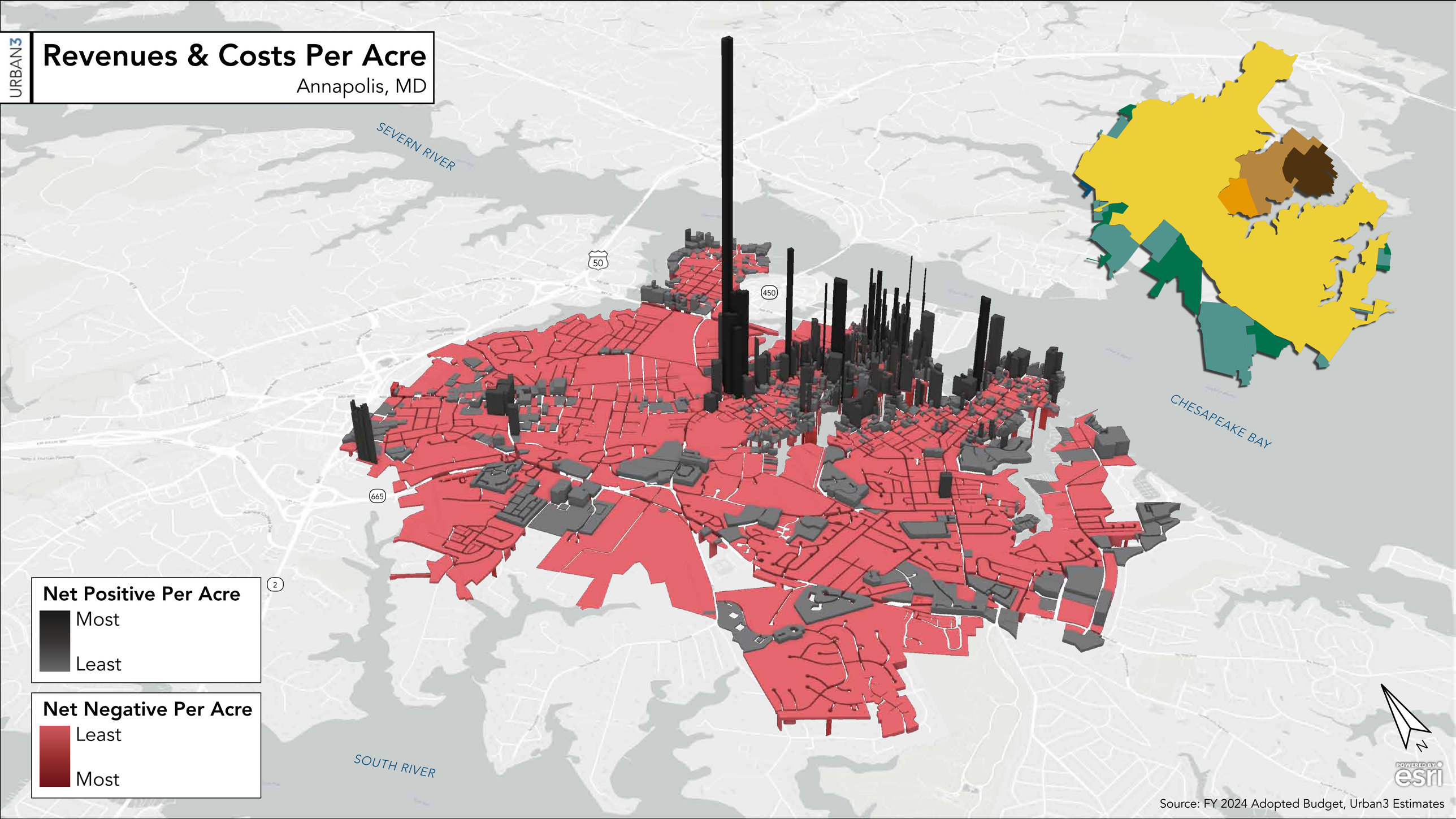


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

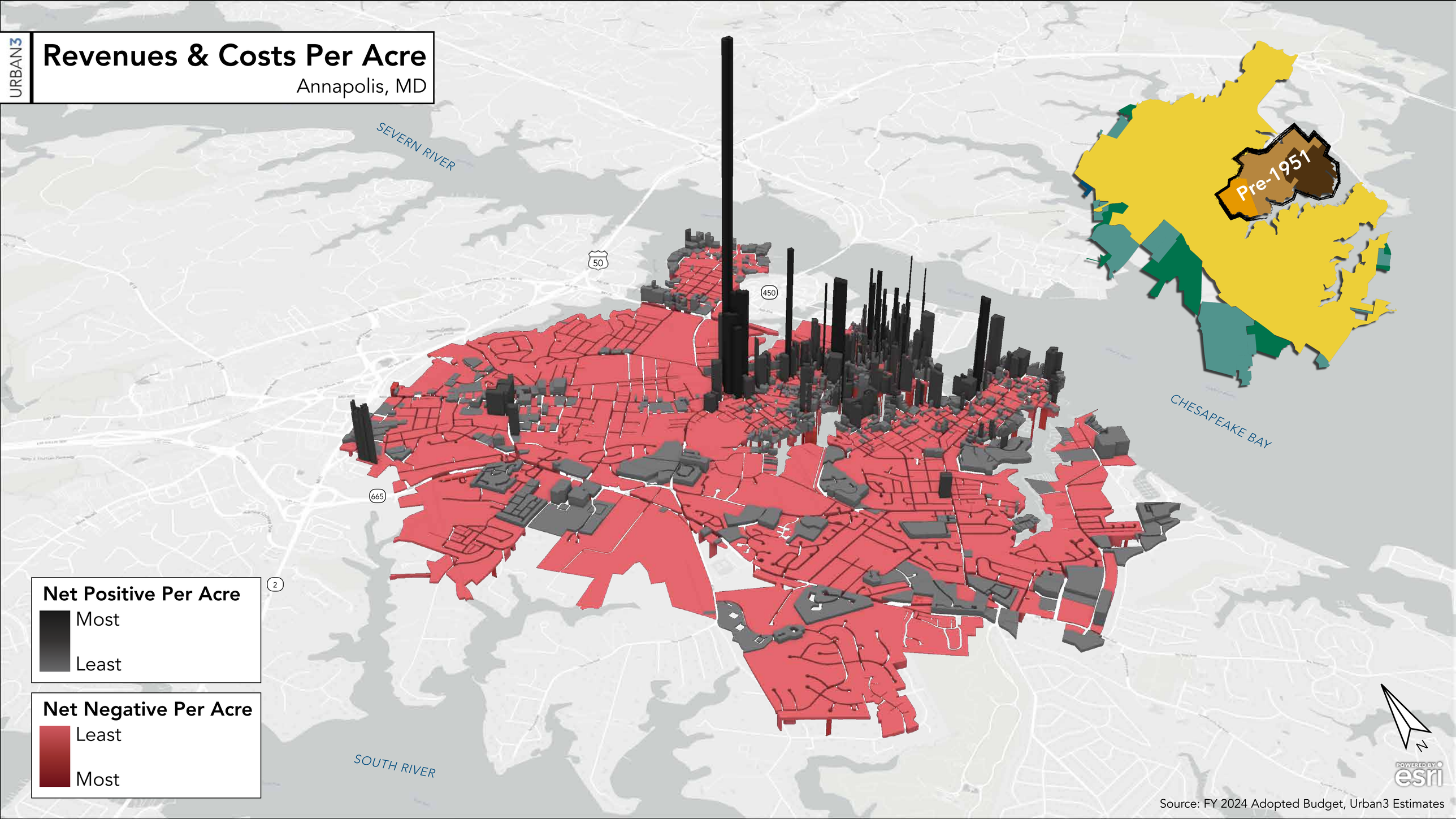


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

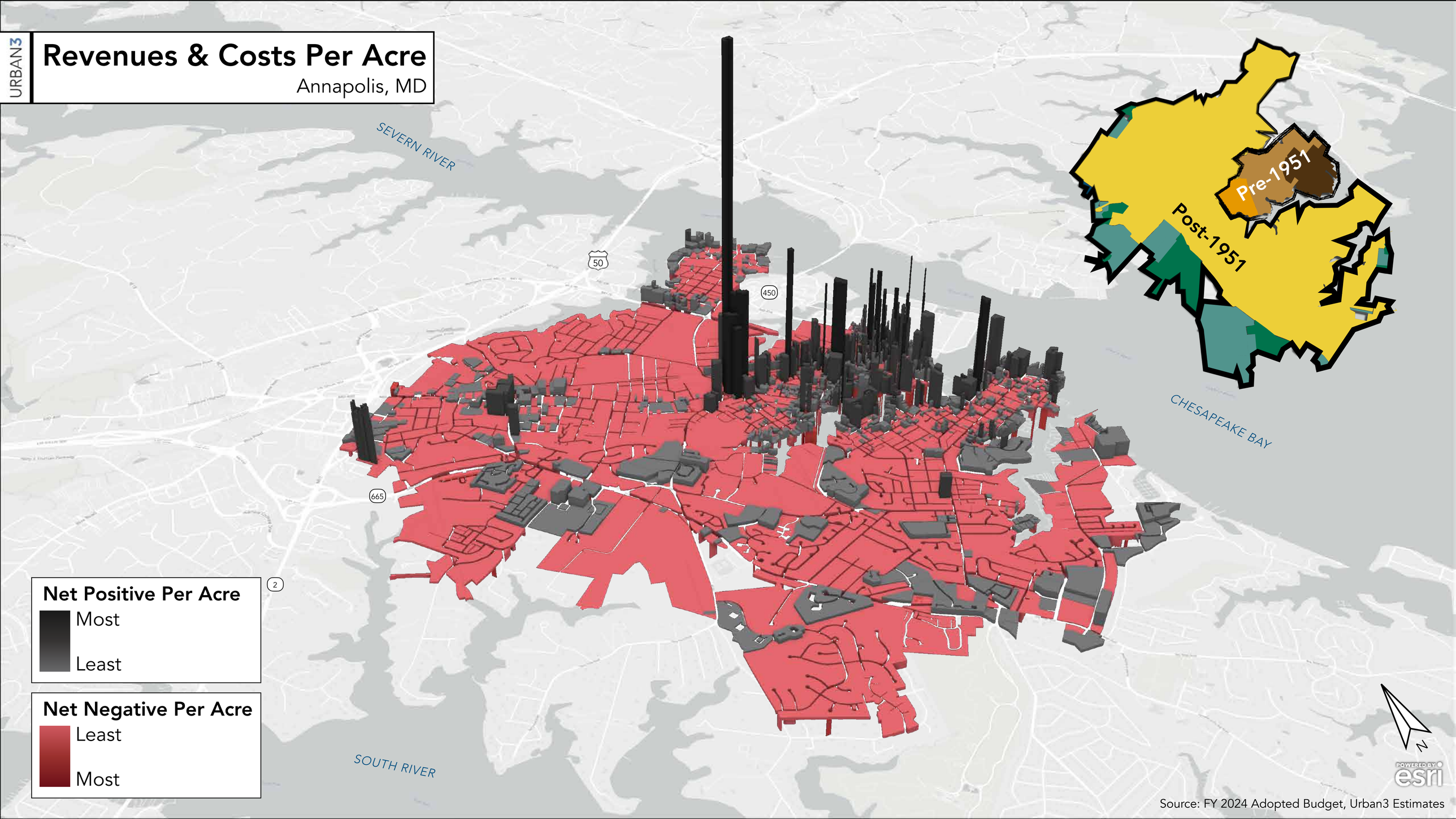


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD

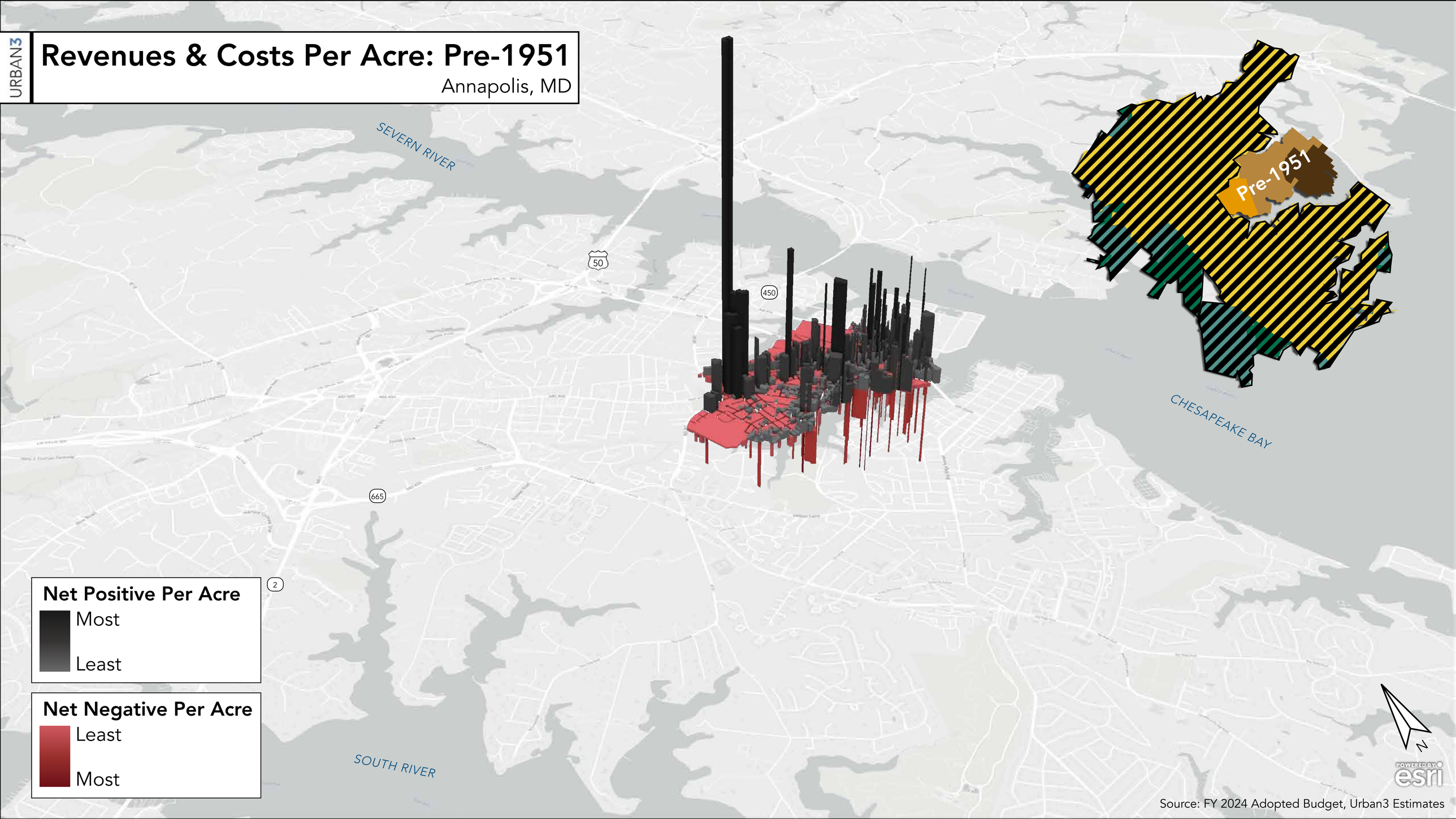


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre: Pre-1951

Annapolis, MD

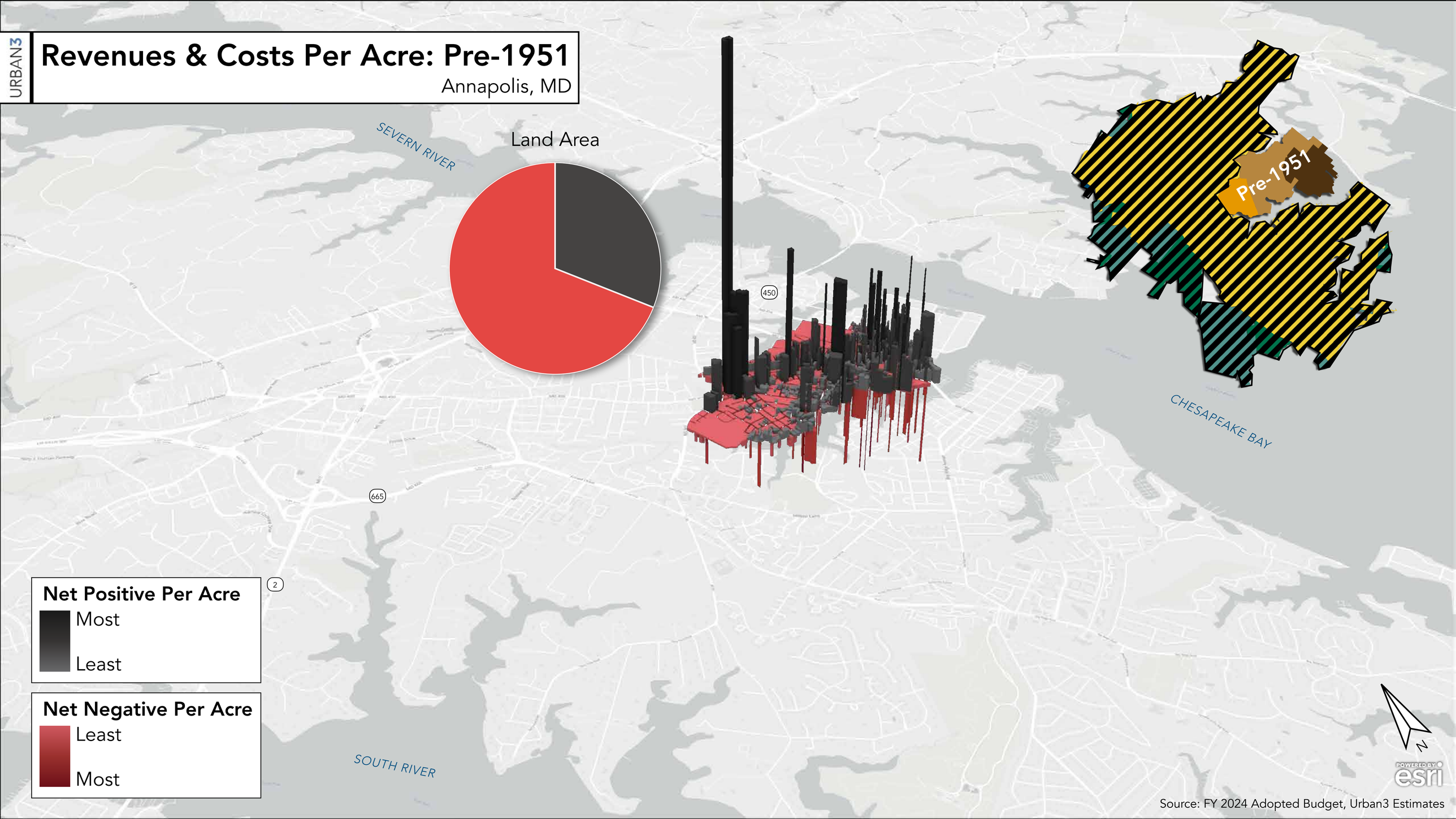


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre: Pre-1951

Annapolis, MD

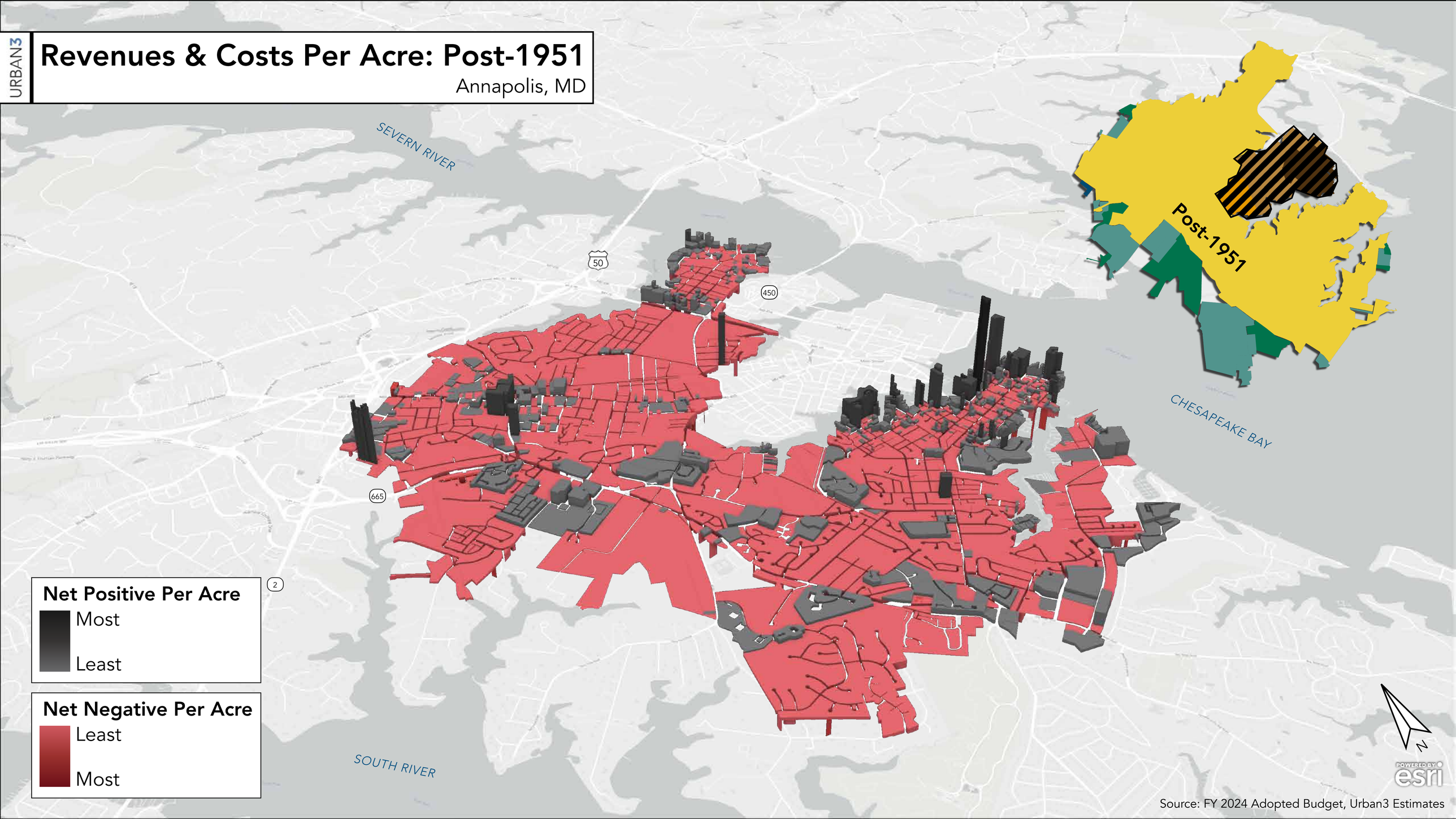


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre: Post-1951

Annapolis, MD

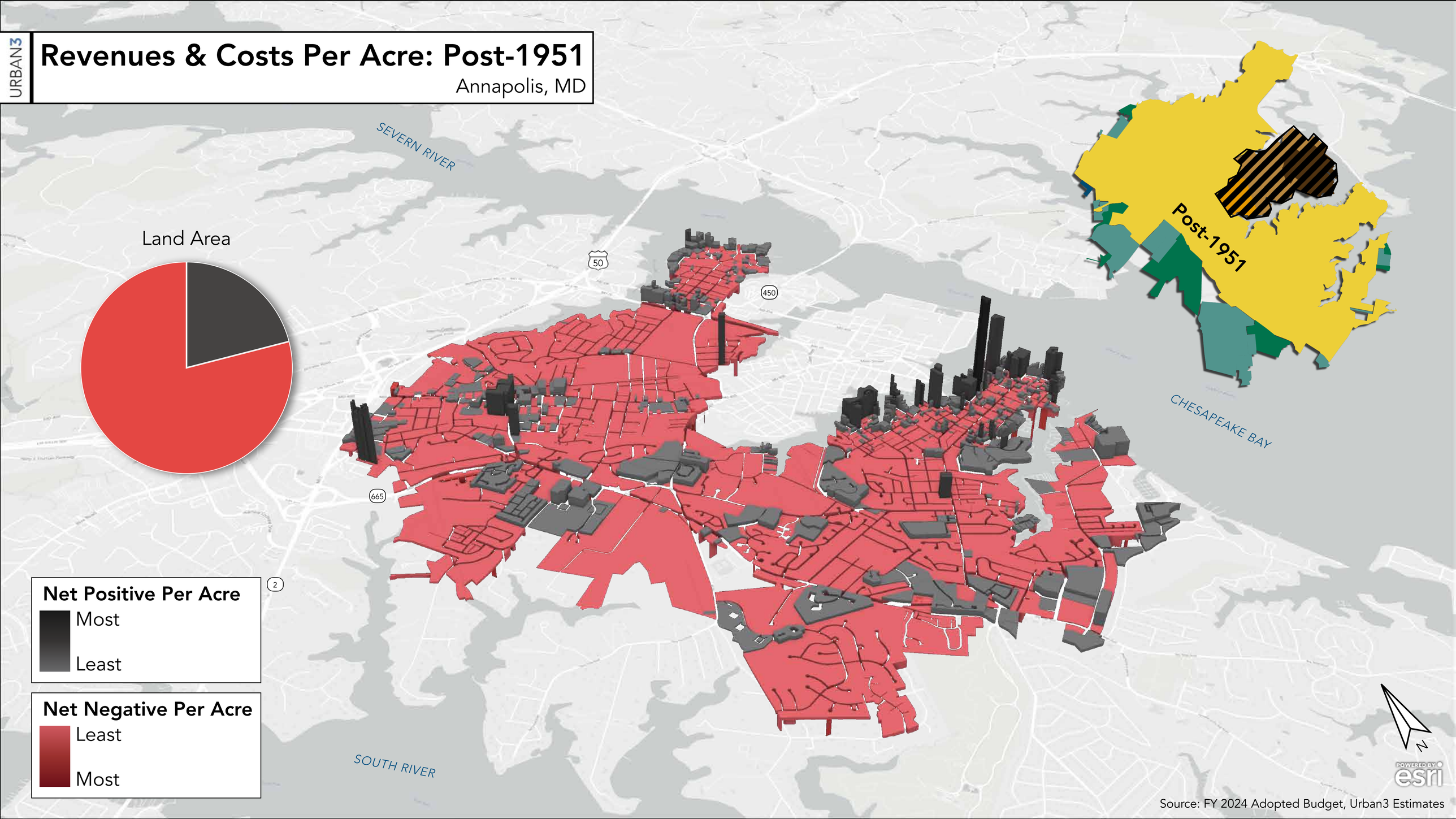


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre: Post-1951

Annapolis, MD

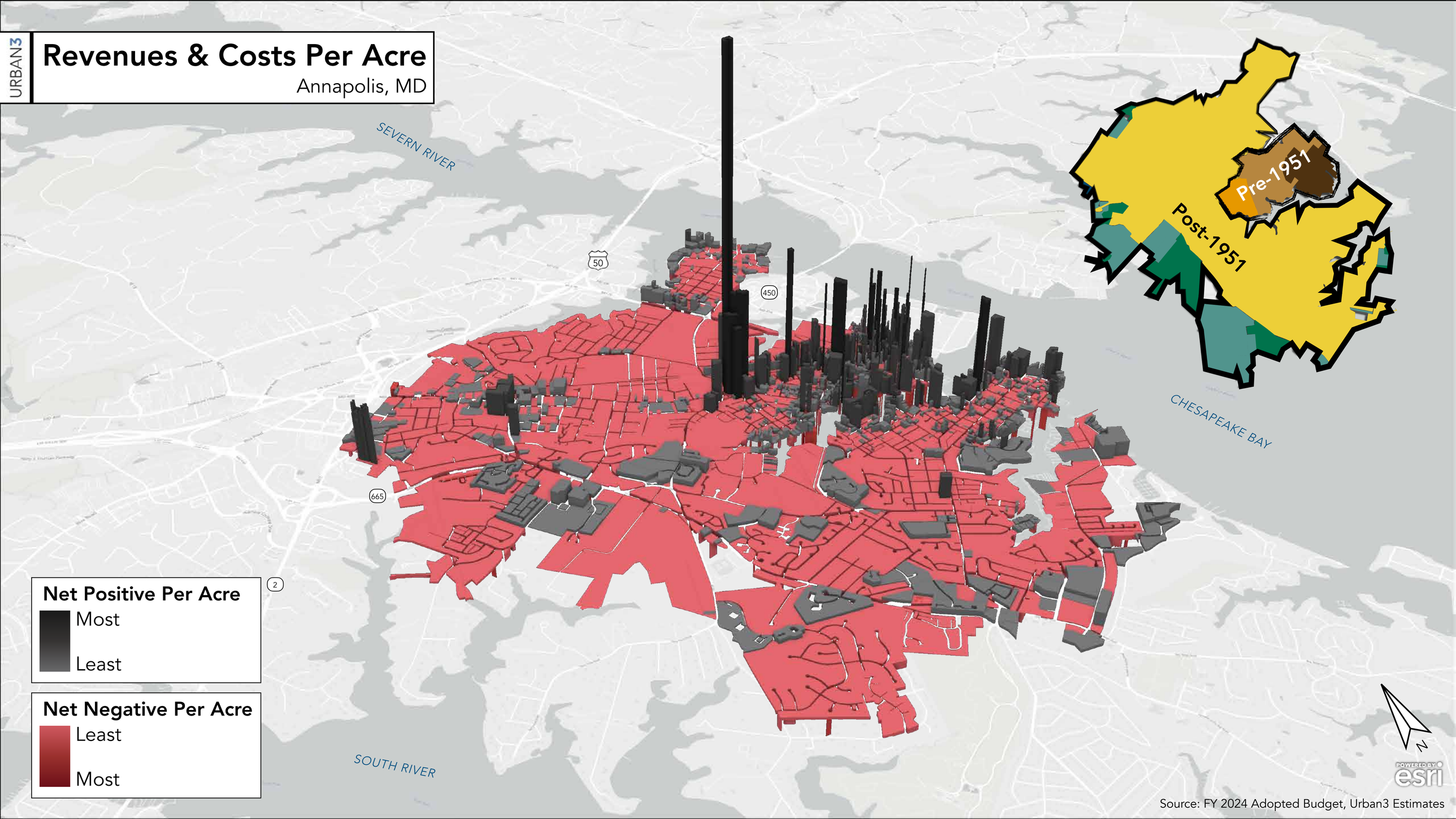


Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

Annapolis, MD



Source: FY 2024 Adopted Budget, Urban3 Estimates

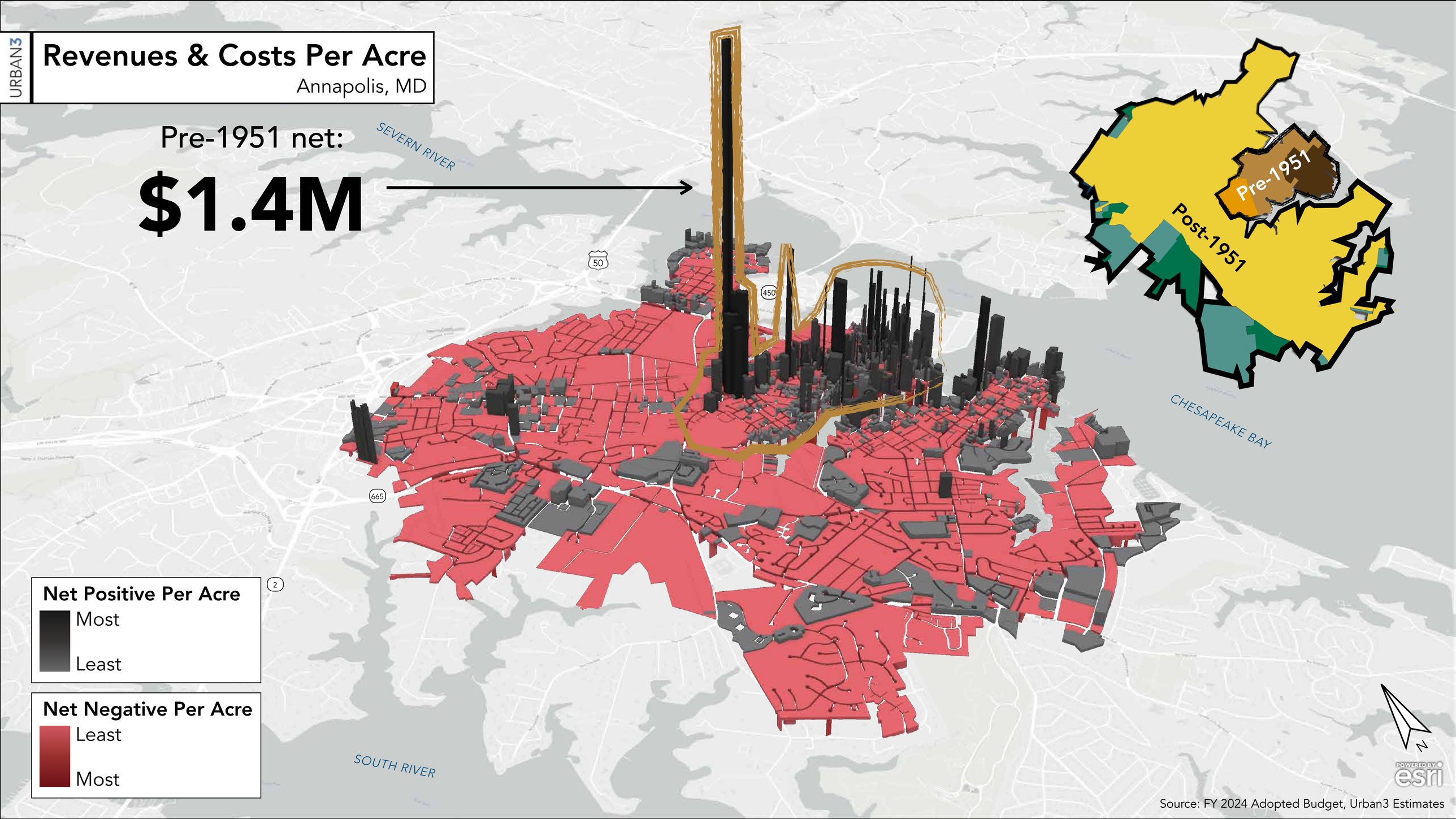
URBAN3

Revenues & Costs Per Acre

Annapolis, MD

Pre-1951 net:

$1.4M



Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

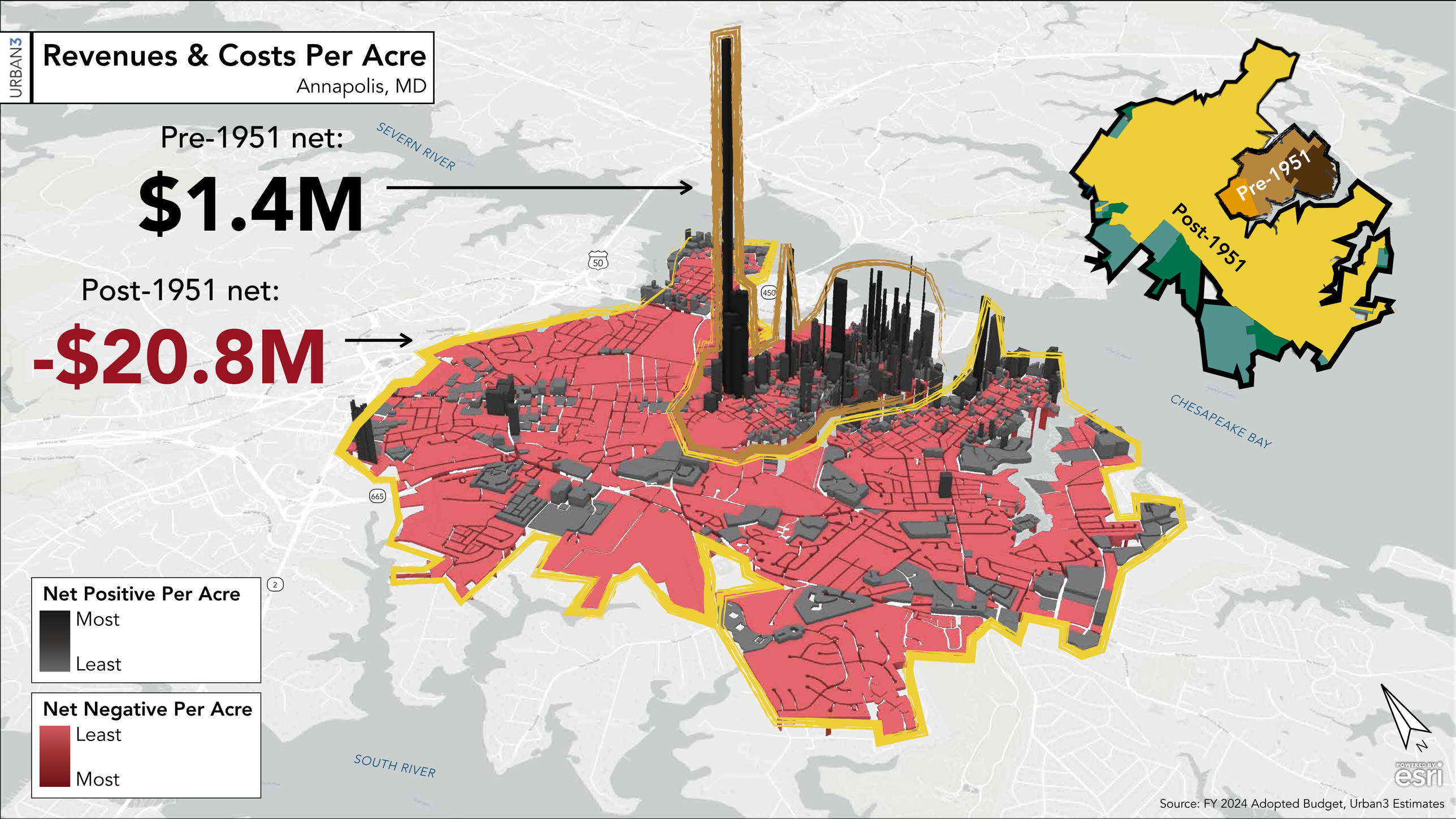
Annapolis, MD

Pre-1951 net:

$1.4M

Post-1951 net:

-$20.8M



Net Positive Per Acre

Most

Least

Net Negative Per Acre

Least

Most

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

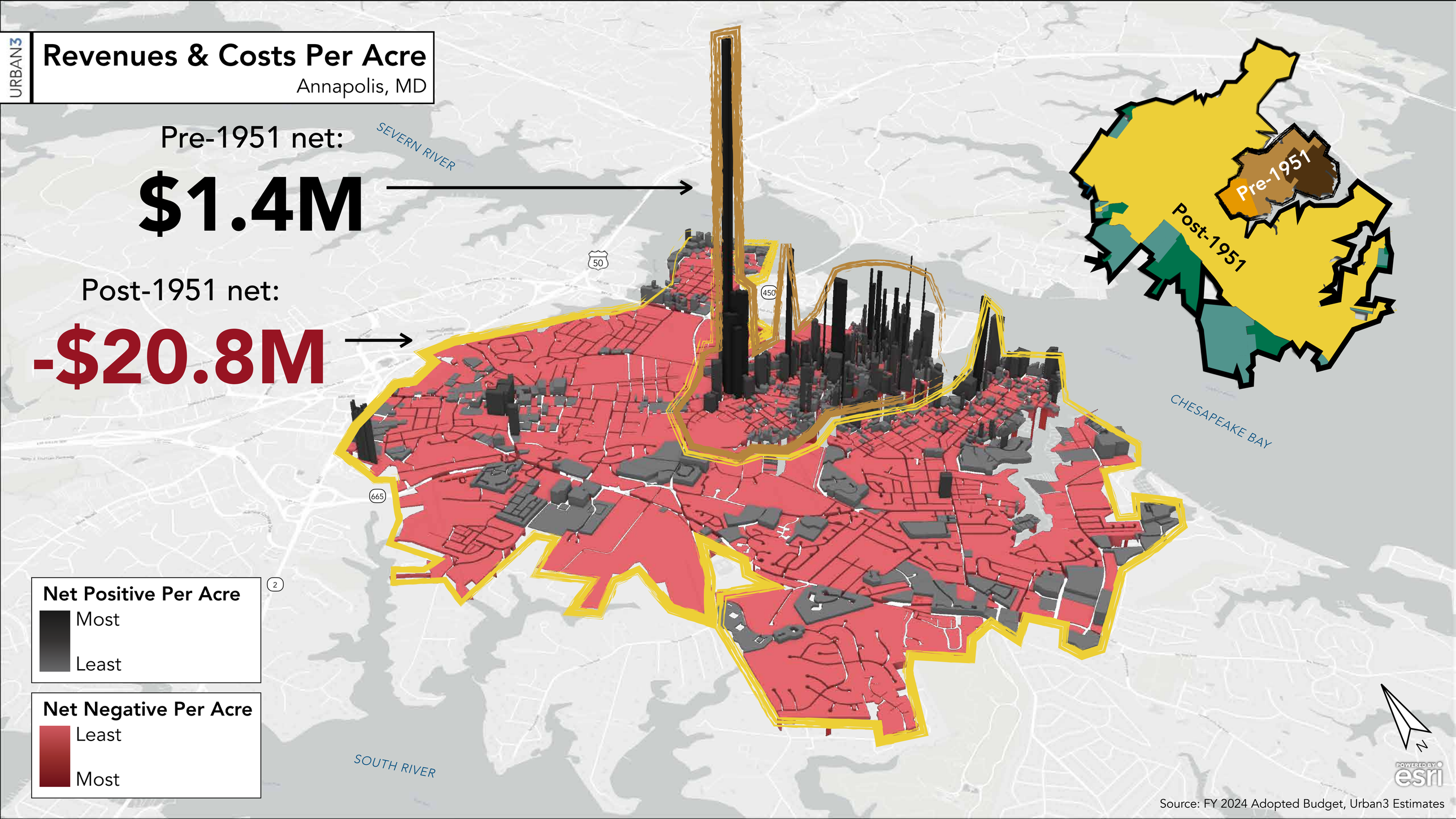
Annapolis, MD

Pre-1951 net:

$1.4M

Post-1951 net:

-$20.8M



Net Positive Per Acre

Most

Least

Net Negative Per Acre

Least

Most

Source: FY 2024 Adopted Budget, Urban3 Estimates

URBAN3

Revenues & Costs Per Acre

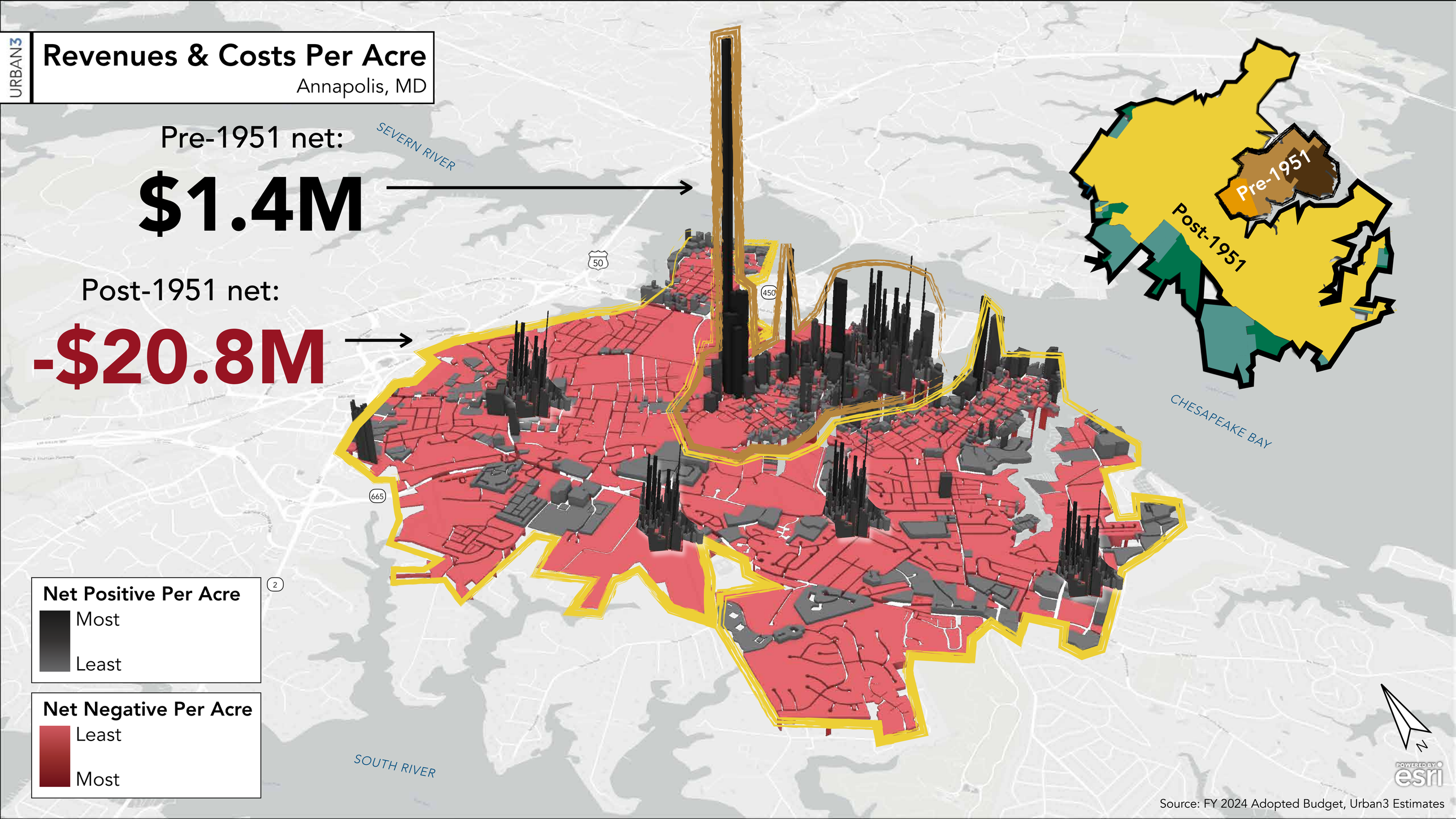
Annapolis, MD

Pre-1951 net:

$1.4M

Post-1951 net:

-$20.8M



Net Positive Per Acre

Most

Least

Net Negative Per Acre

Least

Most

Source: FY 2024 Adopted Budget, Urban3 Estimates

SELKIRK
INVIKTA
CONTROL
VANGUARD
MIDWEIGHT
USA

Question:

What are the leaks in the system? (pun intended)

URBAN3

Case Study: Economic MRI®

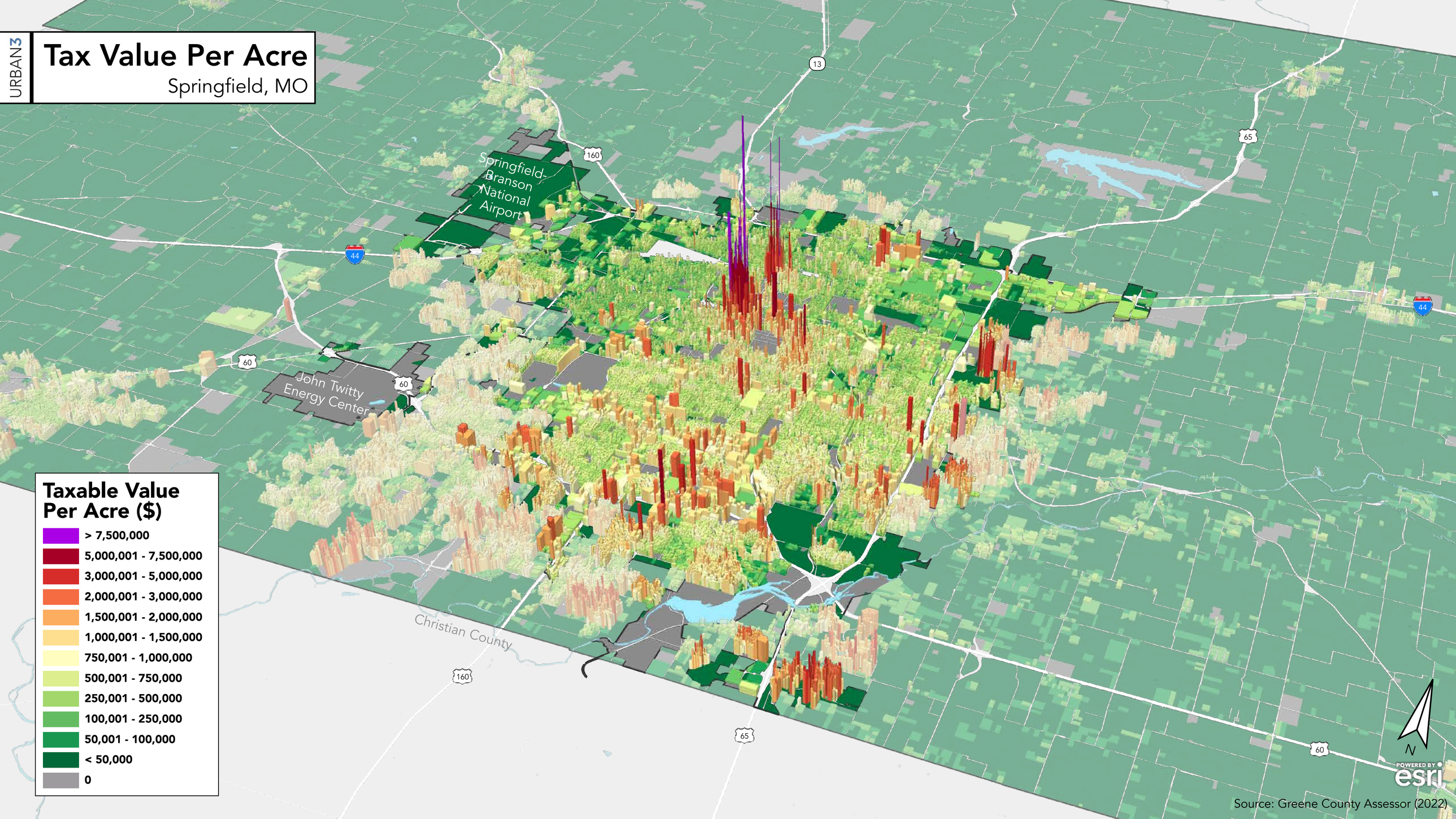
Springfield, Missouri

URBAN3

URBAN3

Tax Value Per Acre

Springfield, MO



Taxable Value Per Acre ($)

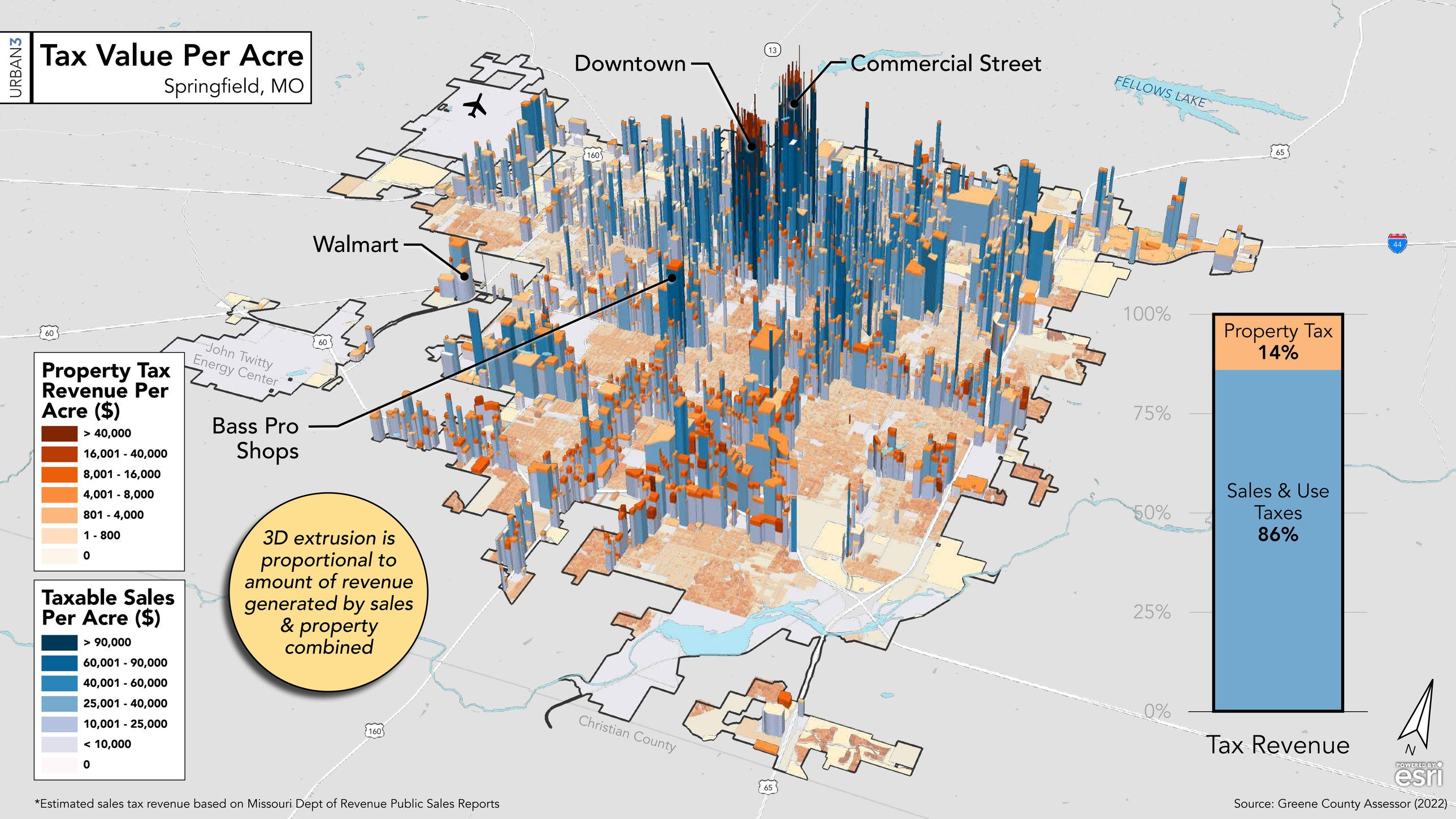
- > 7,500,000
- 5,000,001 - 7,500,000
- 3,000,001 - 5,000,000
- 2,000,001 - 3,000,000
- 1,500,001 - 2,000,000
- 1,000,001 - 1,500,000
- 750,001 - 1,000,000
- 500,001 - 750,000
- 250,001 - 500,000
- 100,001 - 250,000
- 50,001 - 100,000
- < 50,000
- 0

Source: Greene County Assessor (2022)

URBAN3

Tax Value Per Acre

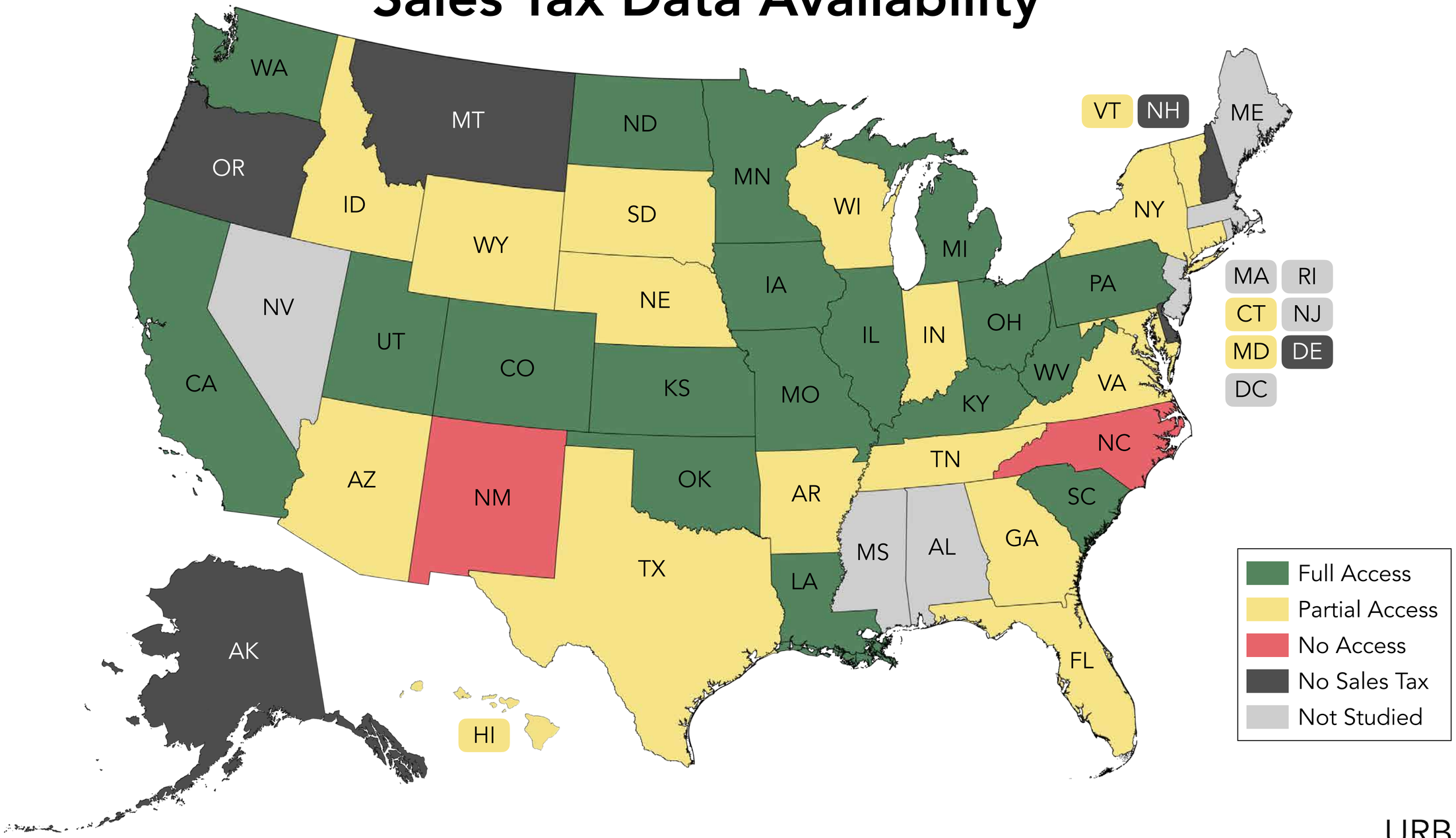
Springfield, MO



*Estimated sales tax revenue based on Missouri Dept of Revenue Public Sales Reports

Source: Greene County Assessor (2022)

Sales Tax Data Availability



URBAN3

Source: States' Department of Revenue (Data year: 2025)

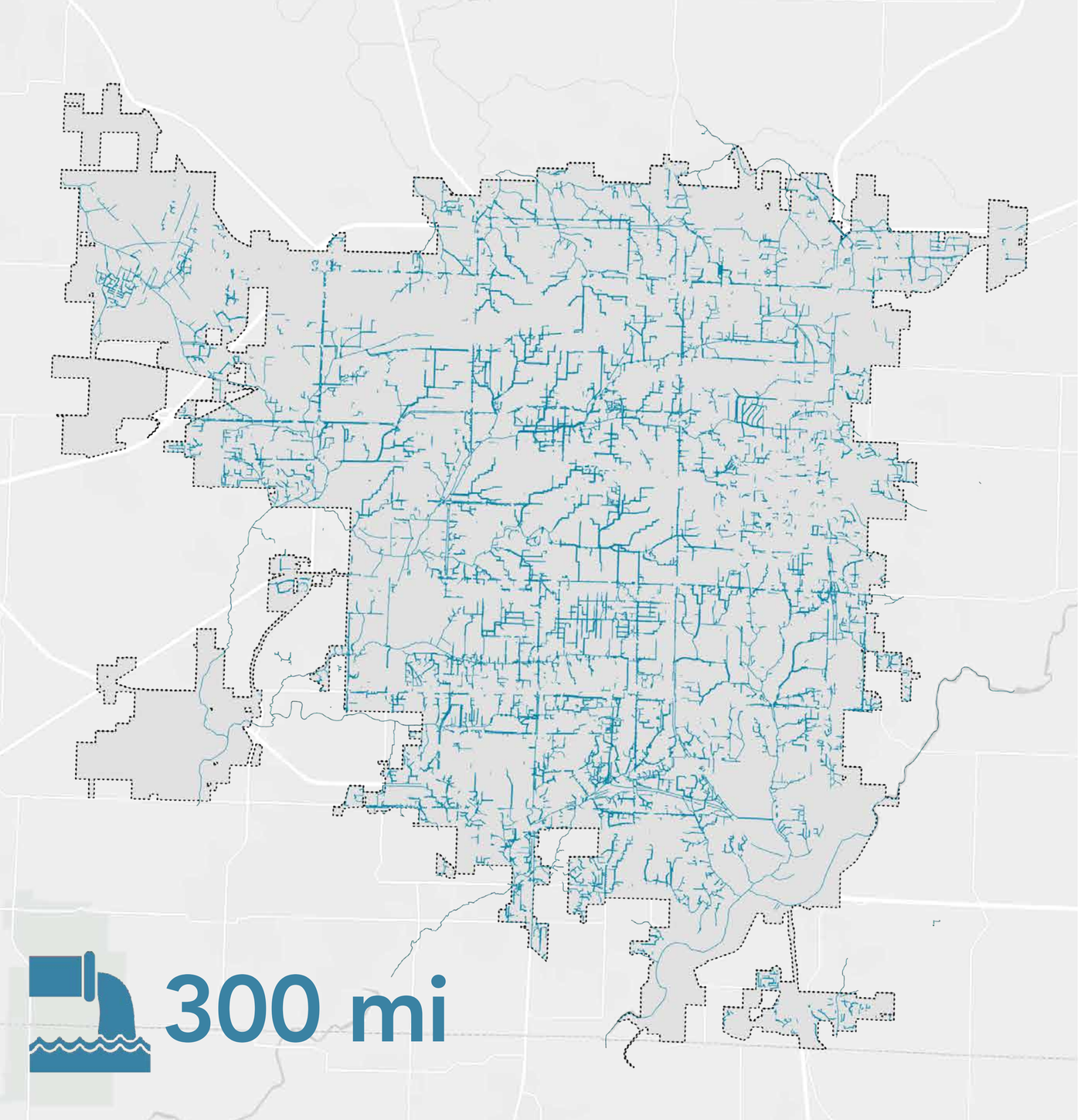
A NIGHTMARE
ON ELM STREET

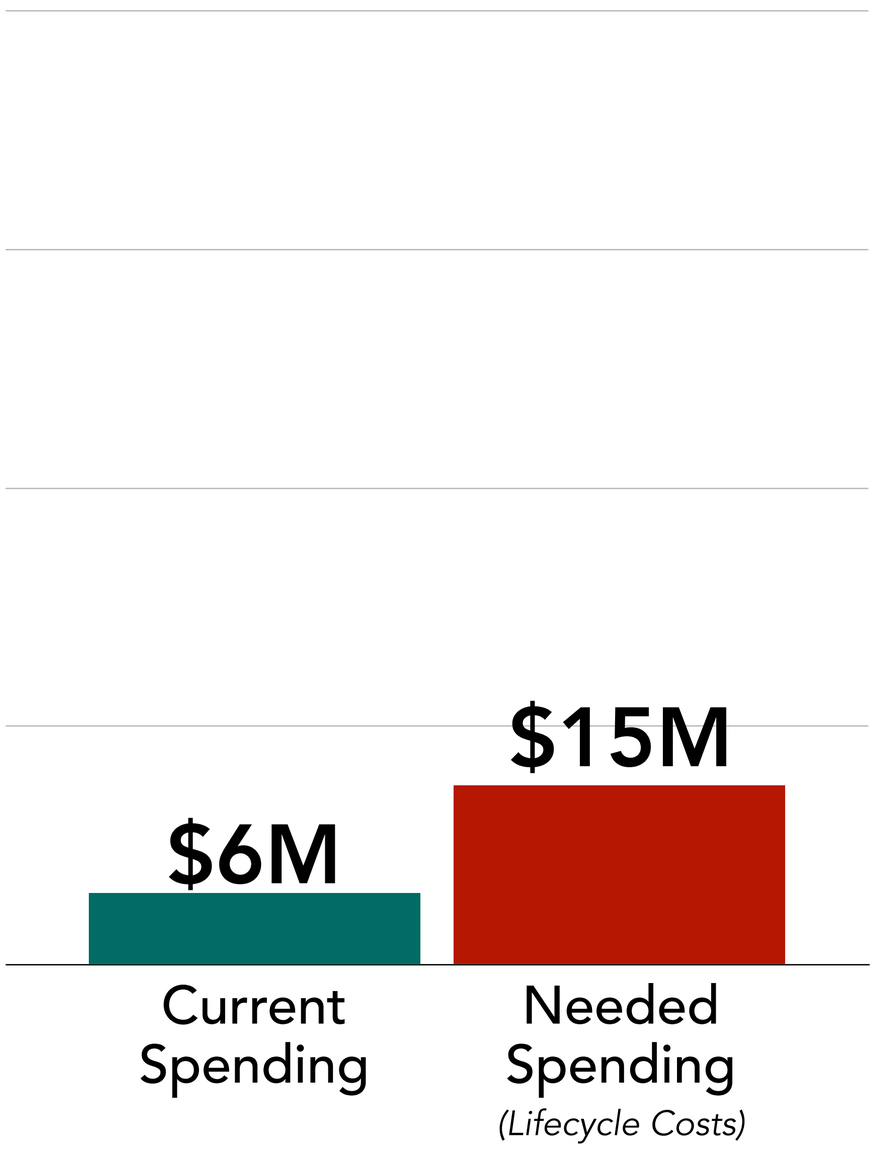
A NIGHTMARE
ON ELM STREET

Annual Costs: Stormwater

Springfield, MO

URBAN3





N

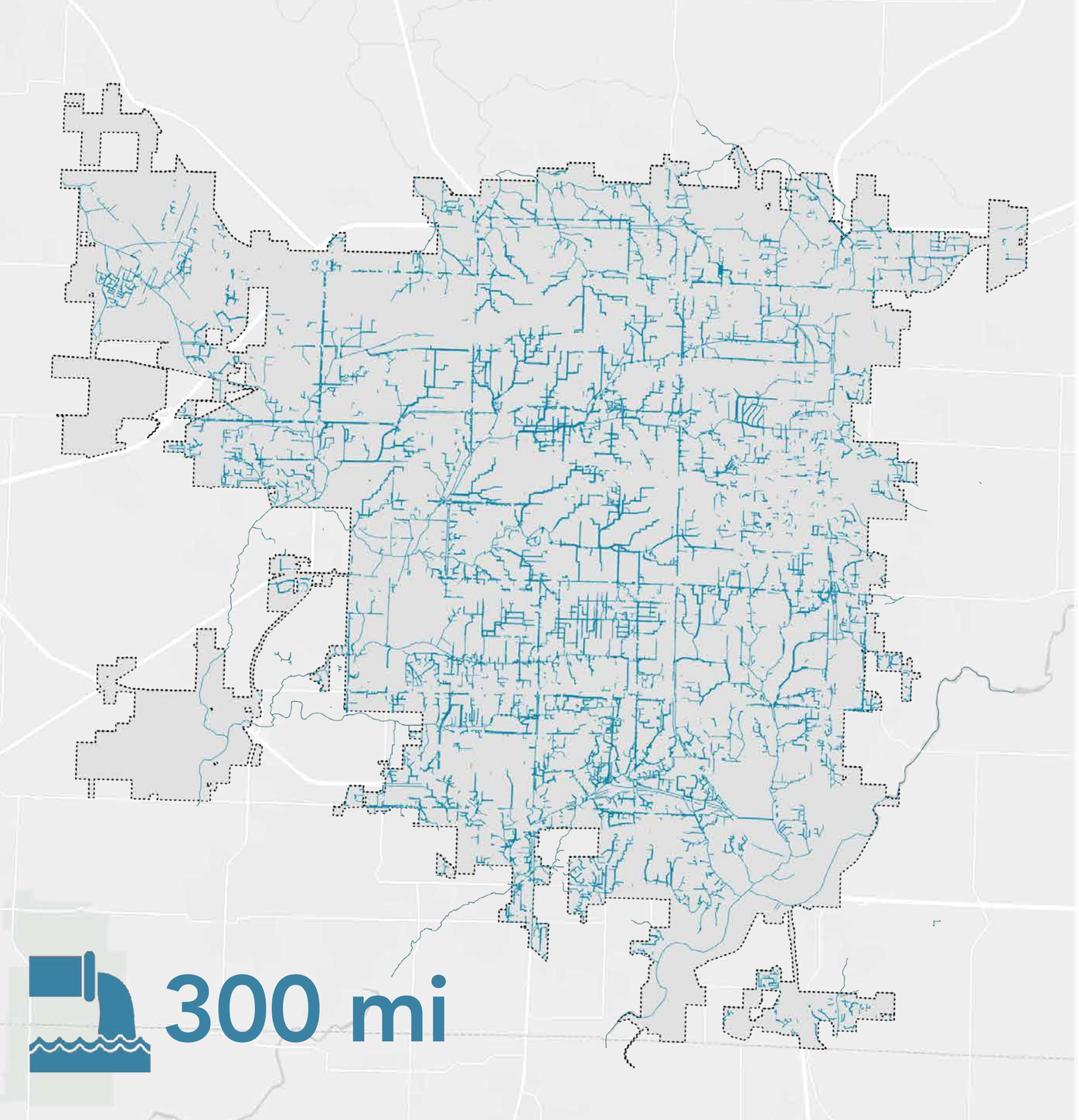
POWERED BY esri

Source: City of Springfield, MO FY 2023-2024 Adopted Budget, Springfield, MO GIS (2022)

Annual Costs: Stormwater

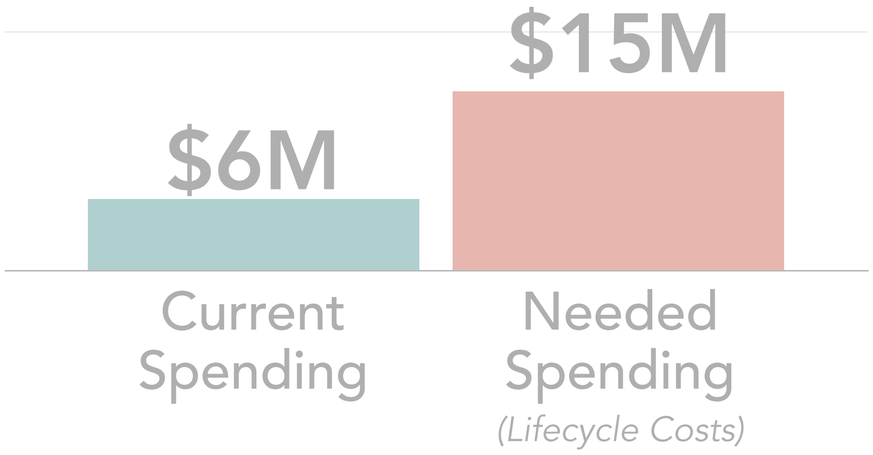
Springfield, MO

URBAN3



Full System Cost:

~$661M



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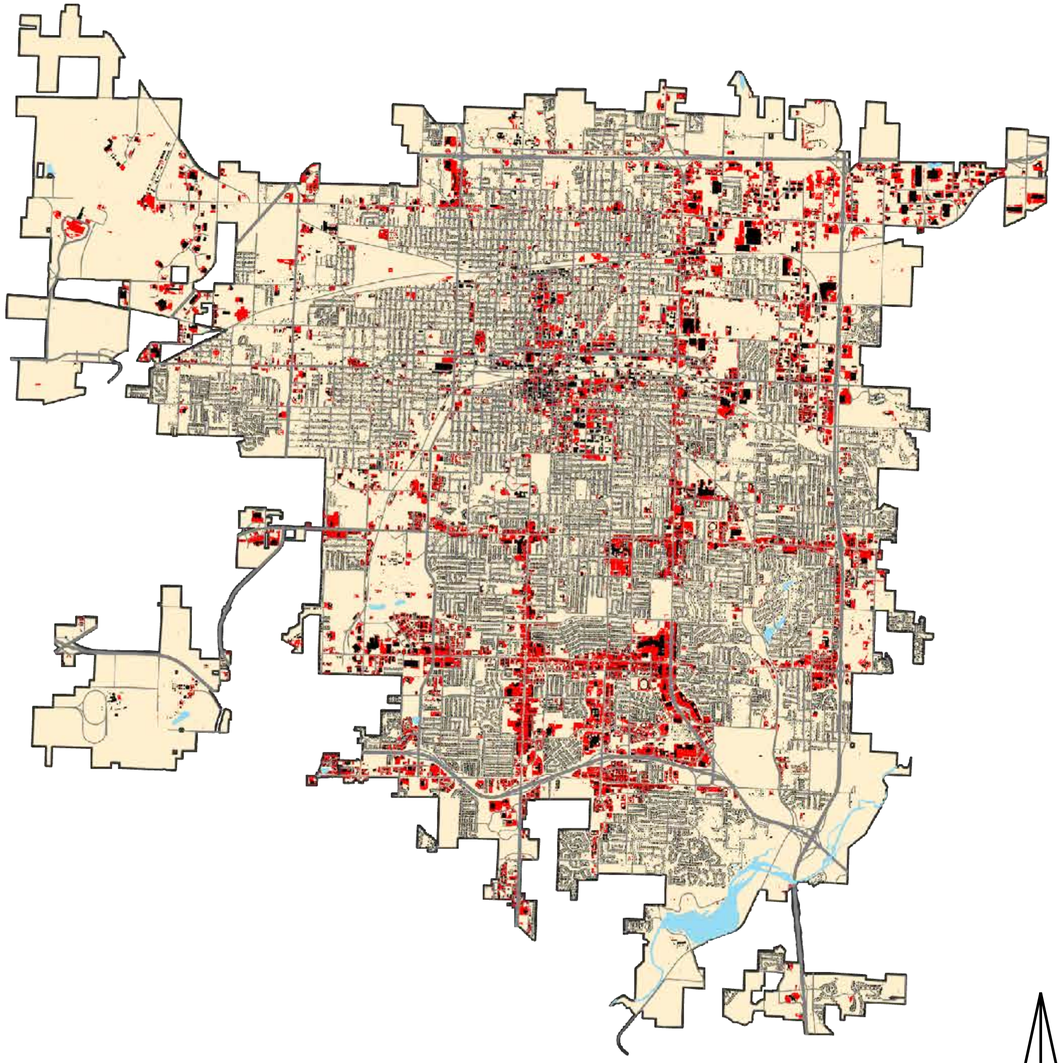
Source: City of Springfield, MO FY 2023-2024 Adopted Budget, Springfield, MO GIS (2022)

URBAN3

Impact of Trees on Stormwater System

Springfield, MO



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*Estimate from satellite imagery

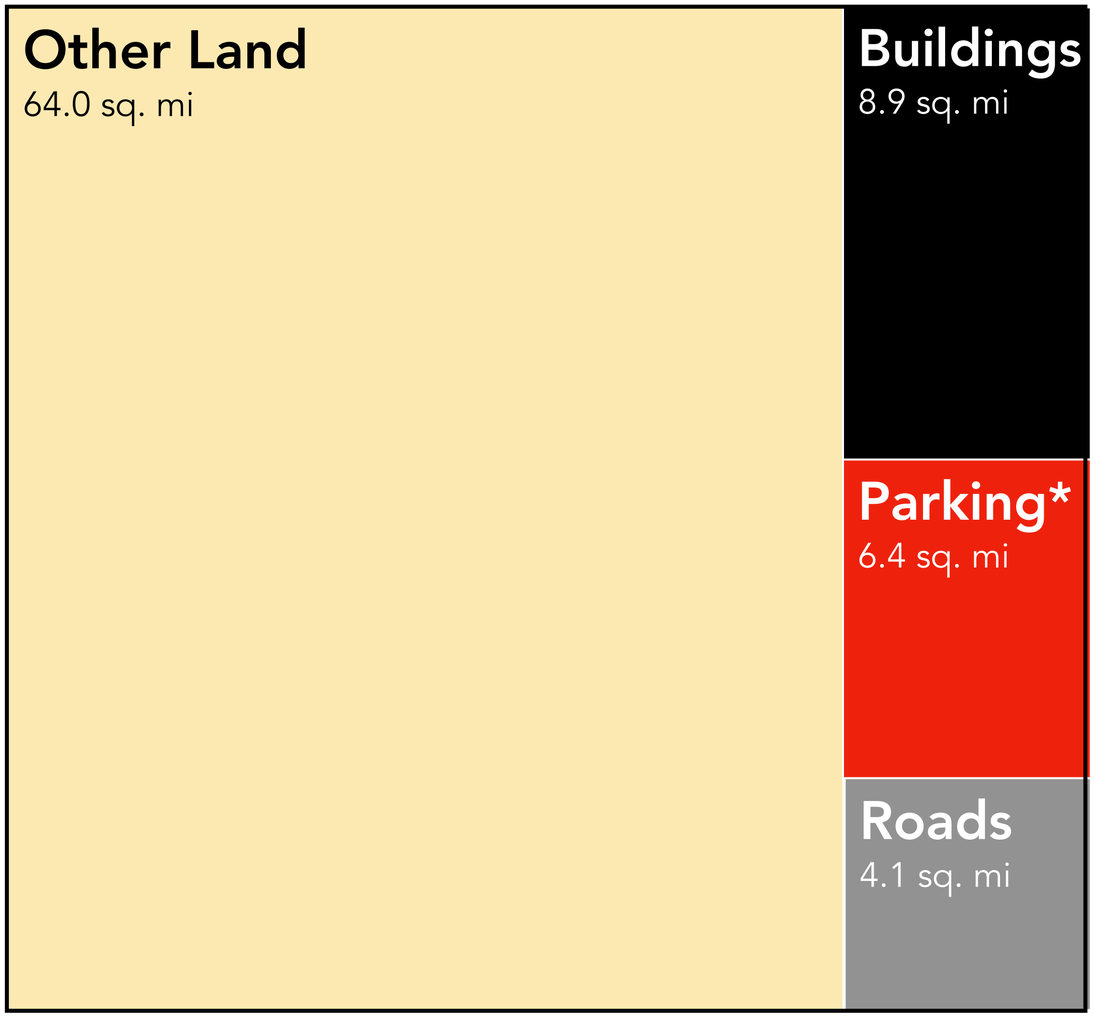
Source: City of Springfield MO (2022)

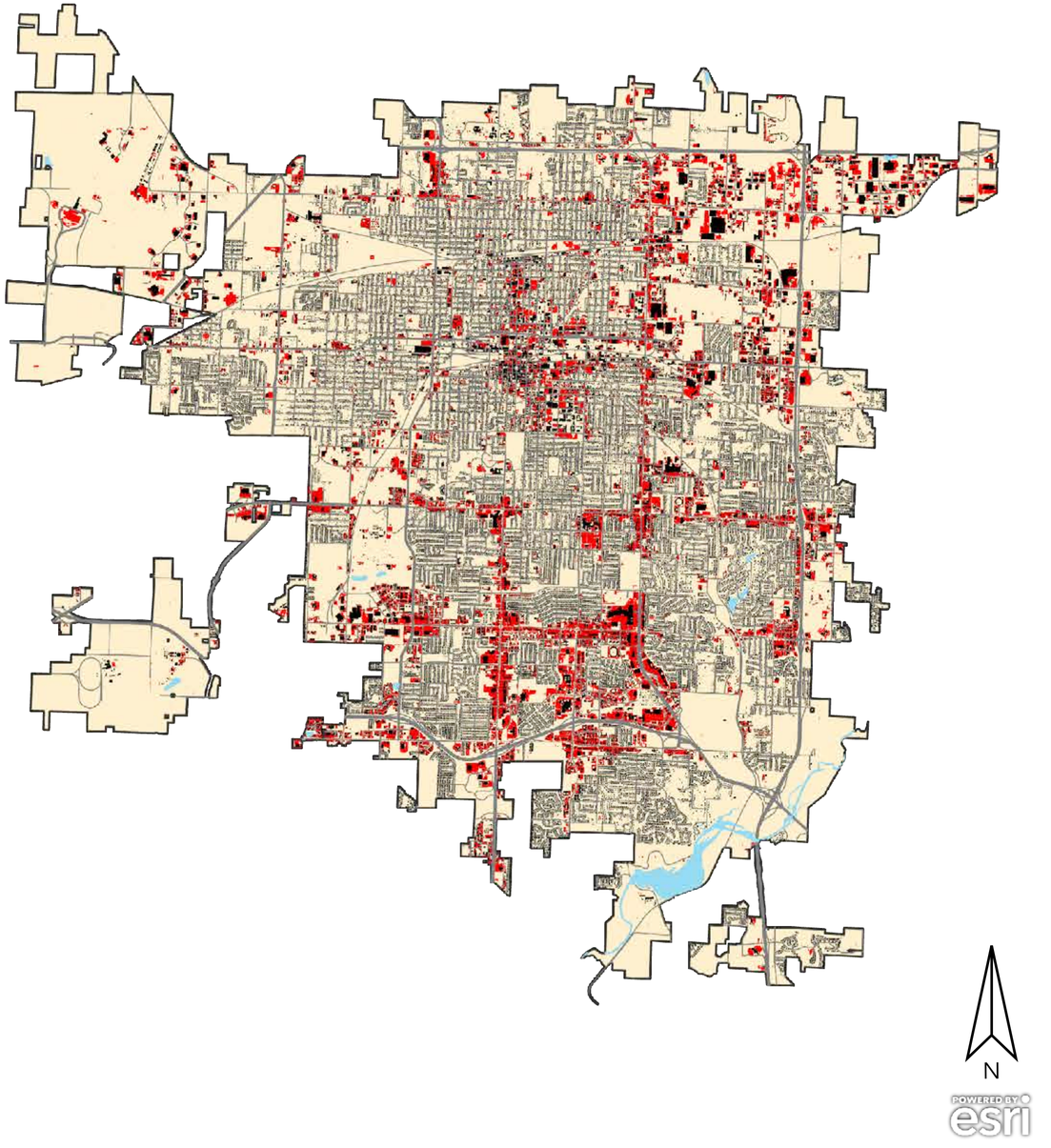
URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Area





*Estimate from satellite imagery

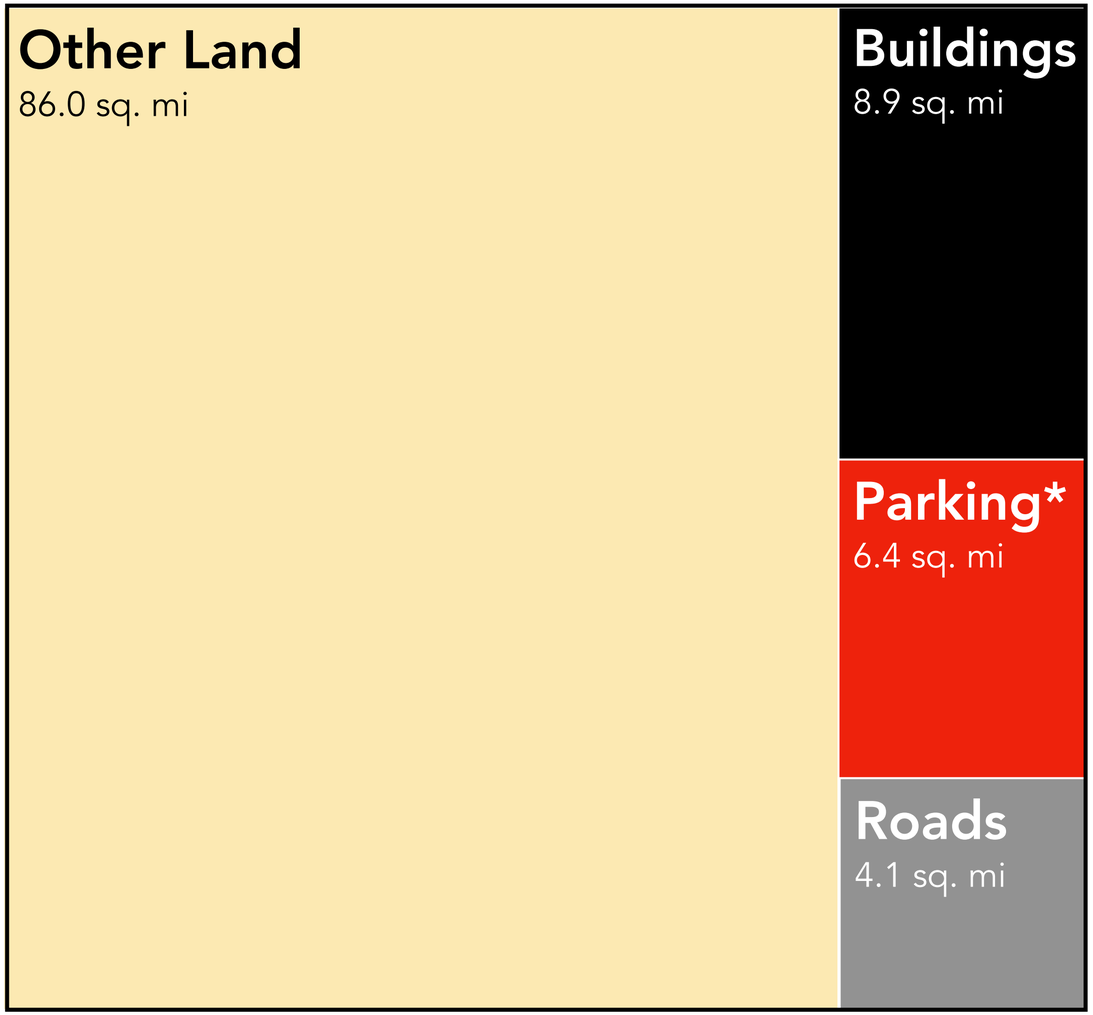
Source: City of Springfield MO (2022)

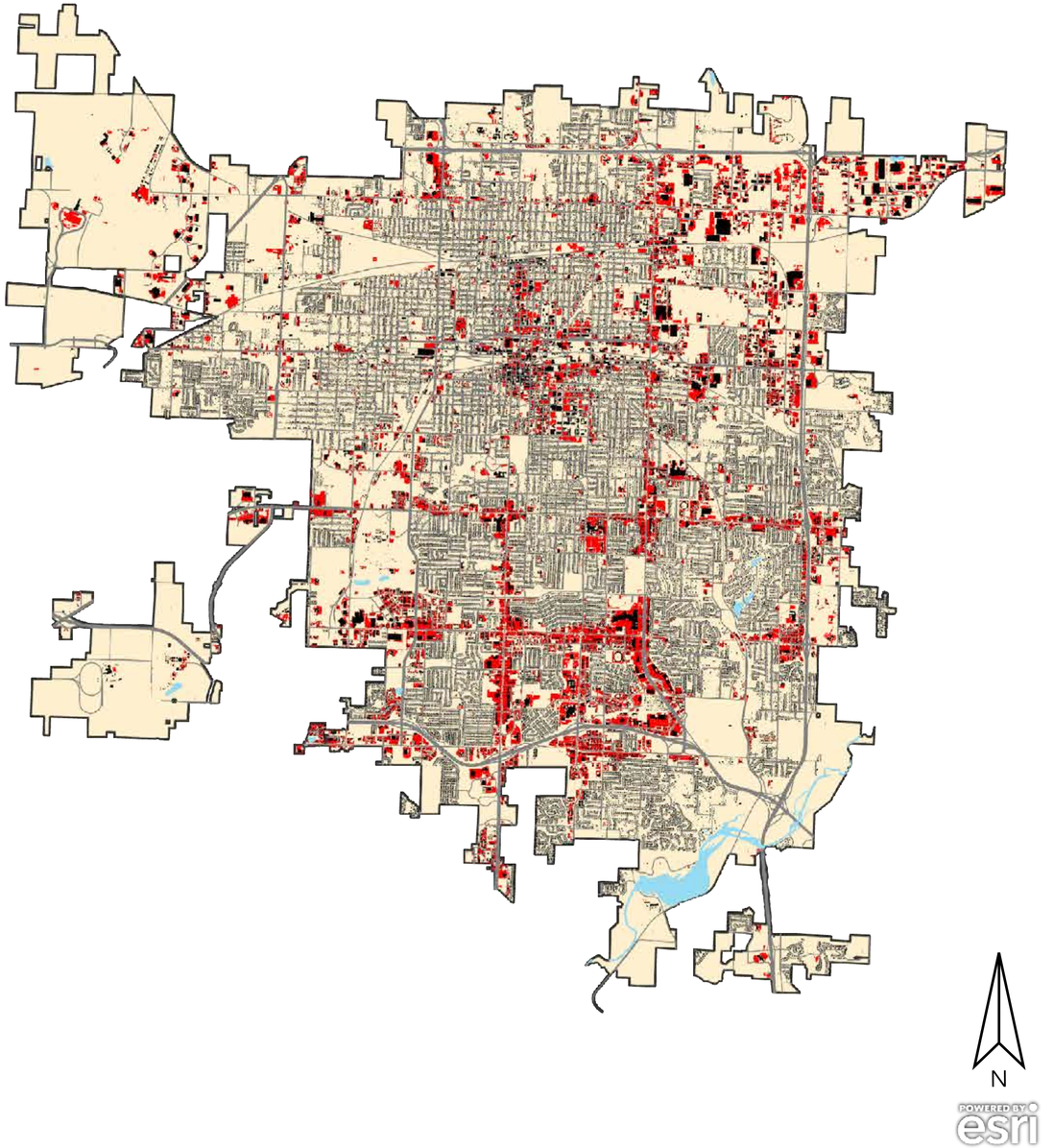
URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Area





*Estimate from satellite imagery

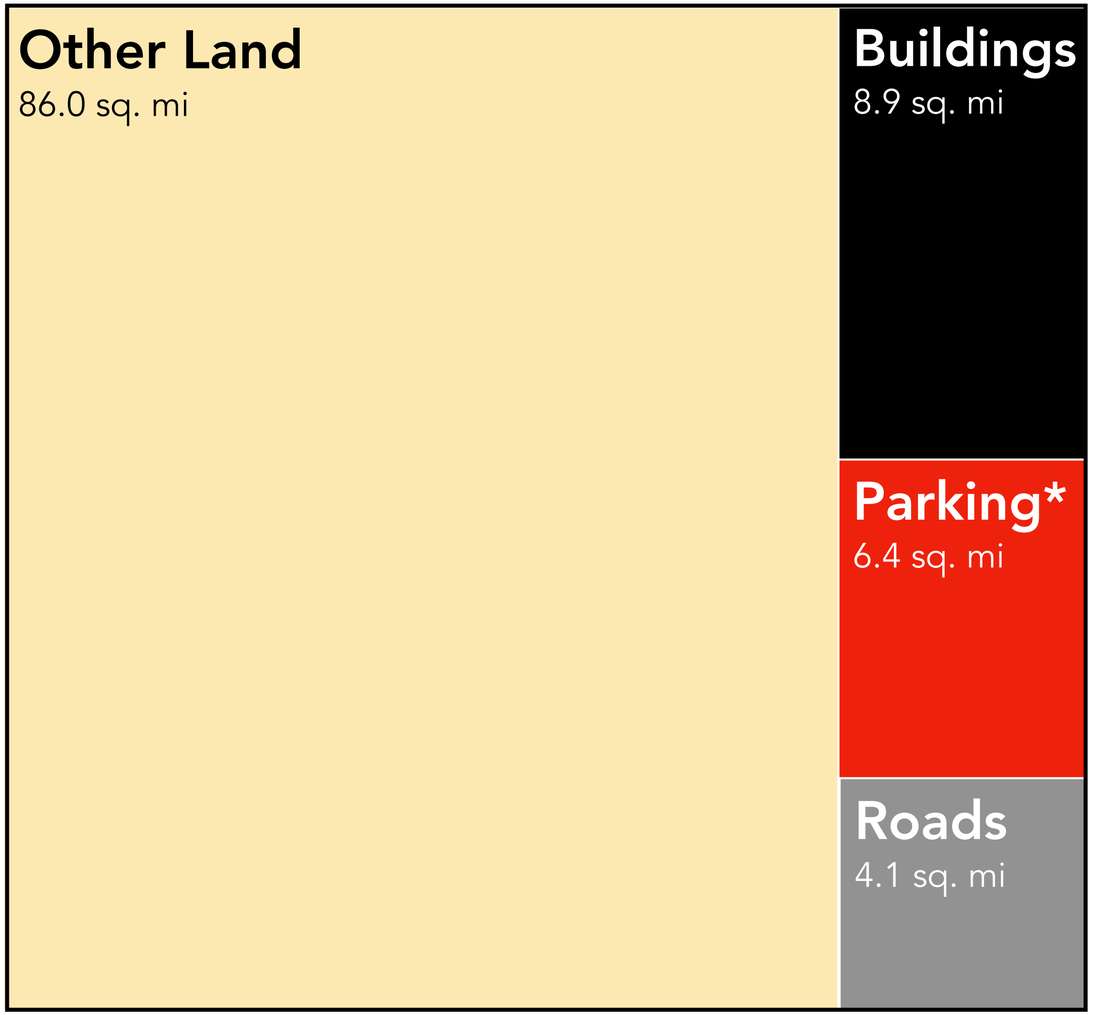
Source: City of Springfield MO (2022), agnr.osu.edu

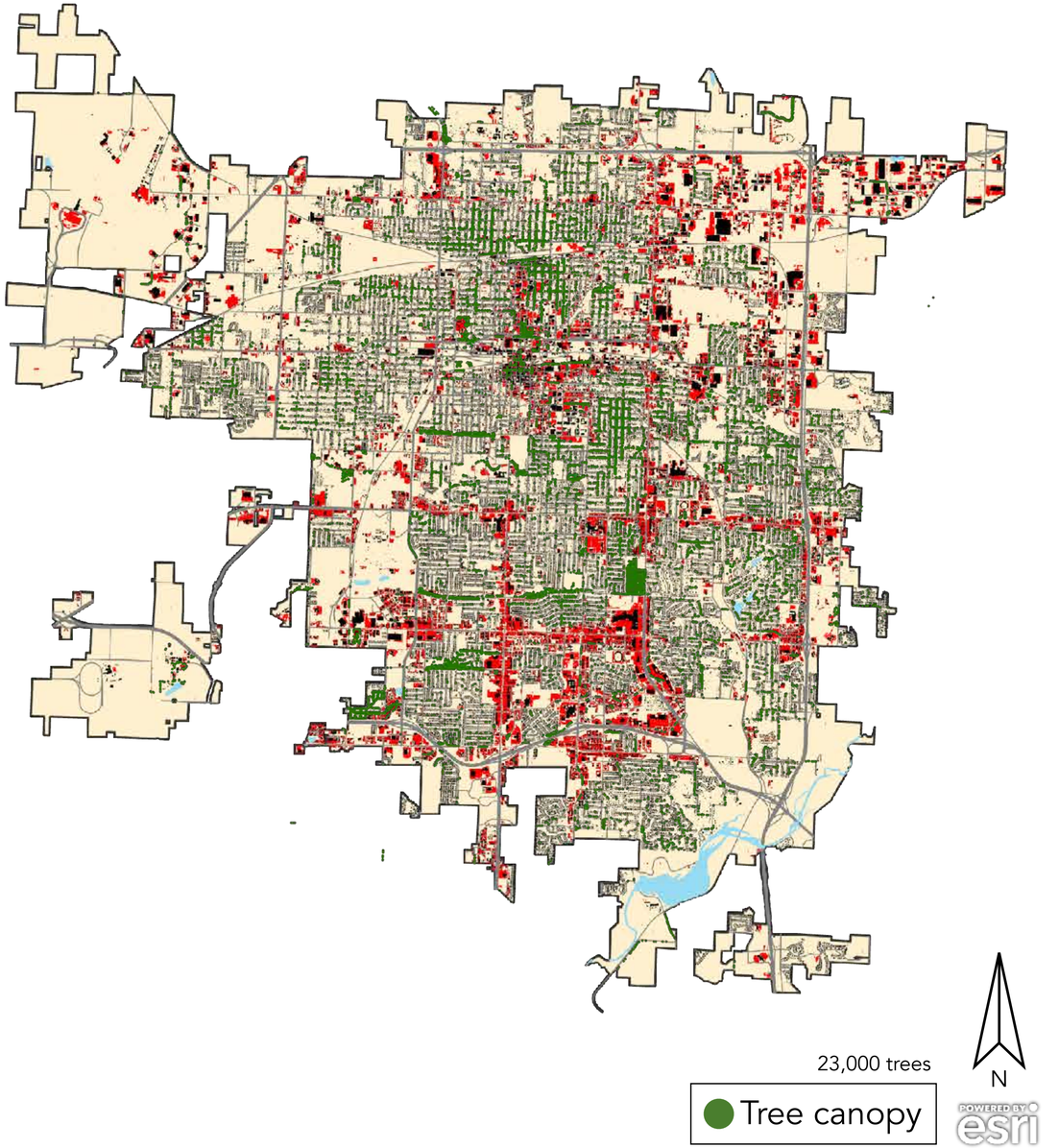
URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Area





*Estimate from satellite imagery

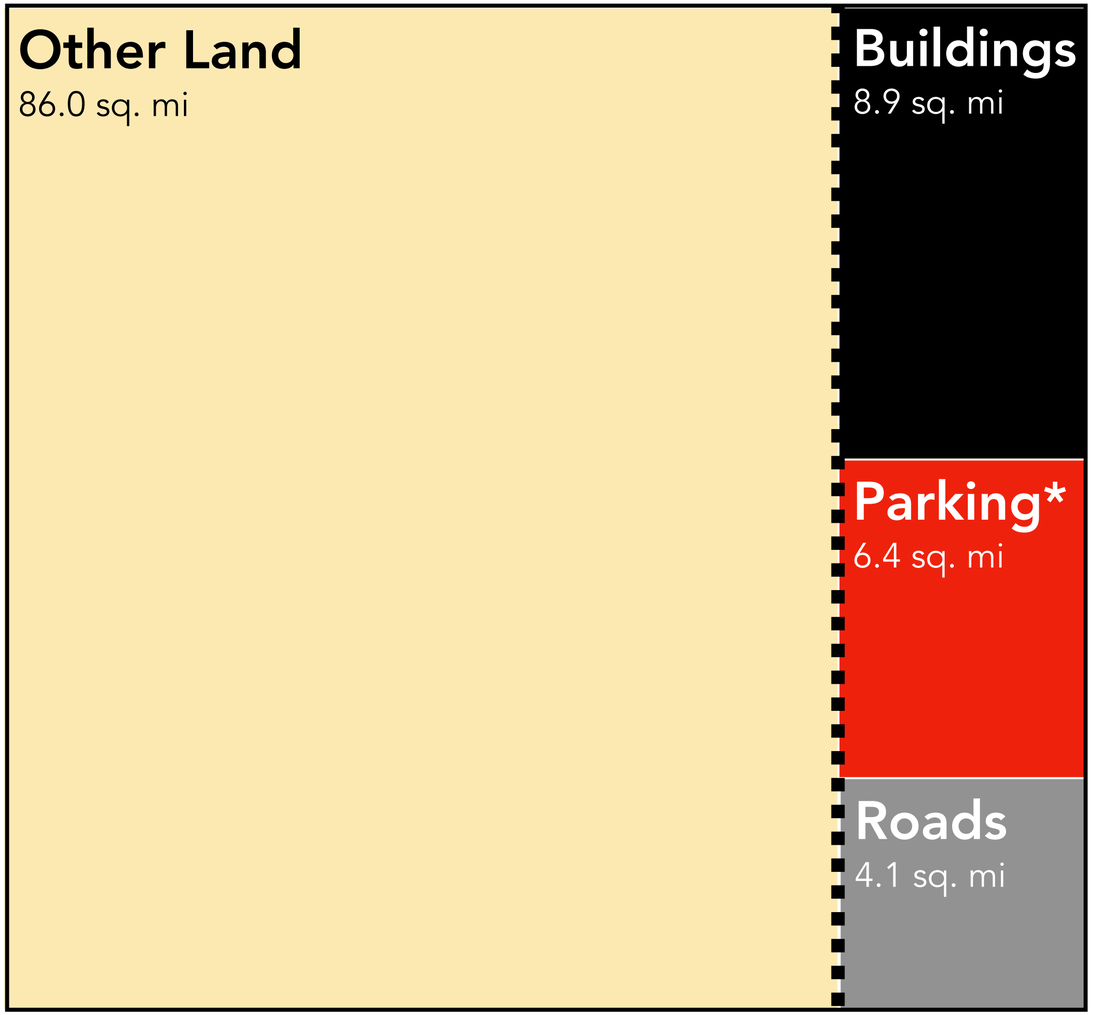
Source: City of Springfield MO (2022), agnr.osu.edu

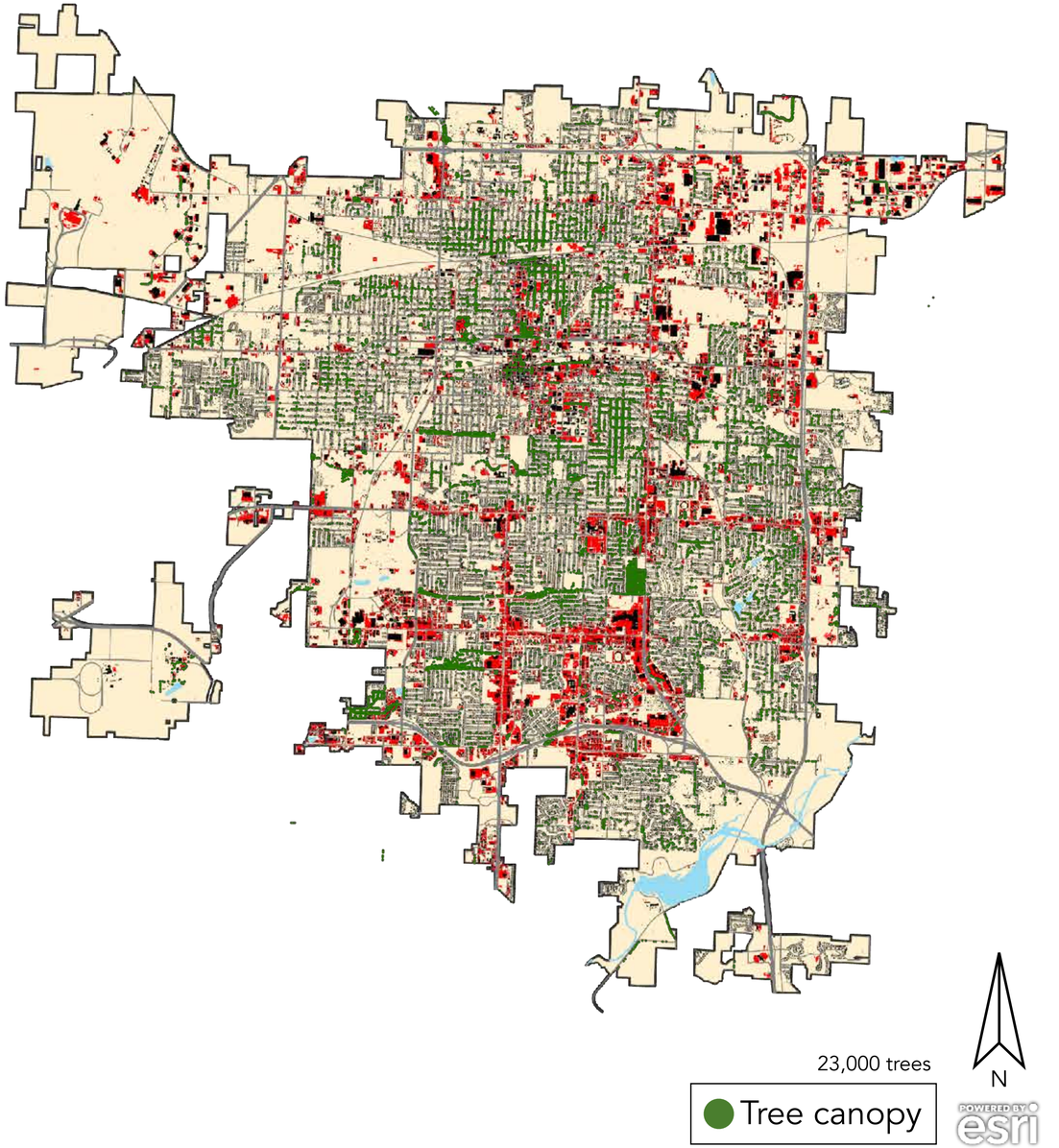
URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Area





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URBAN3

Impact of Trees on Stormwater System

Springfield, MO

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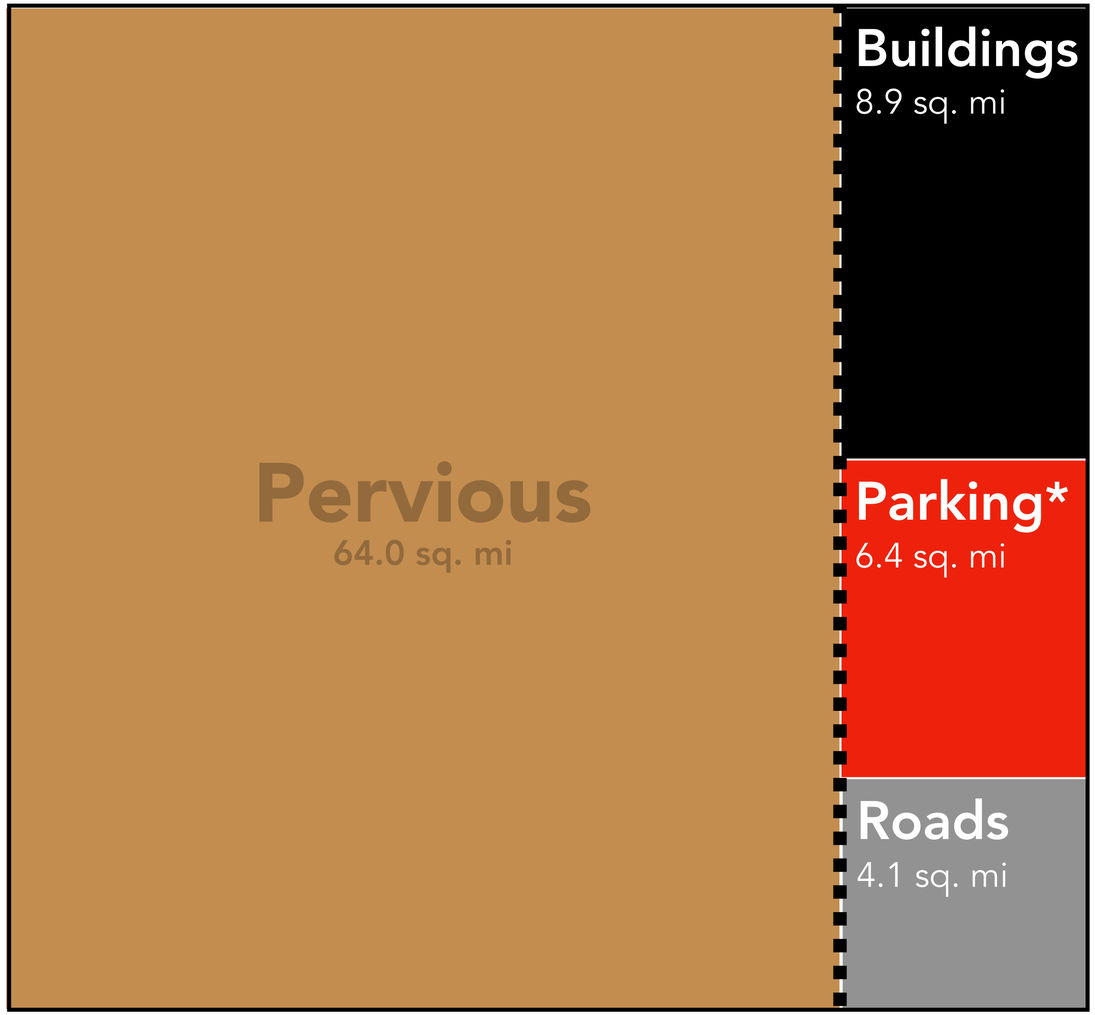

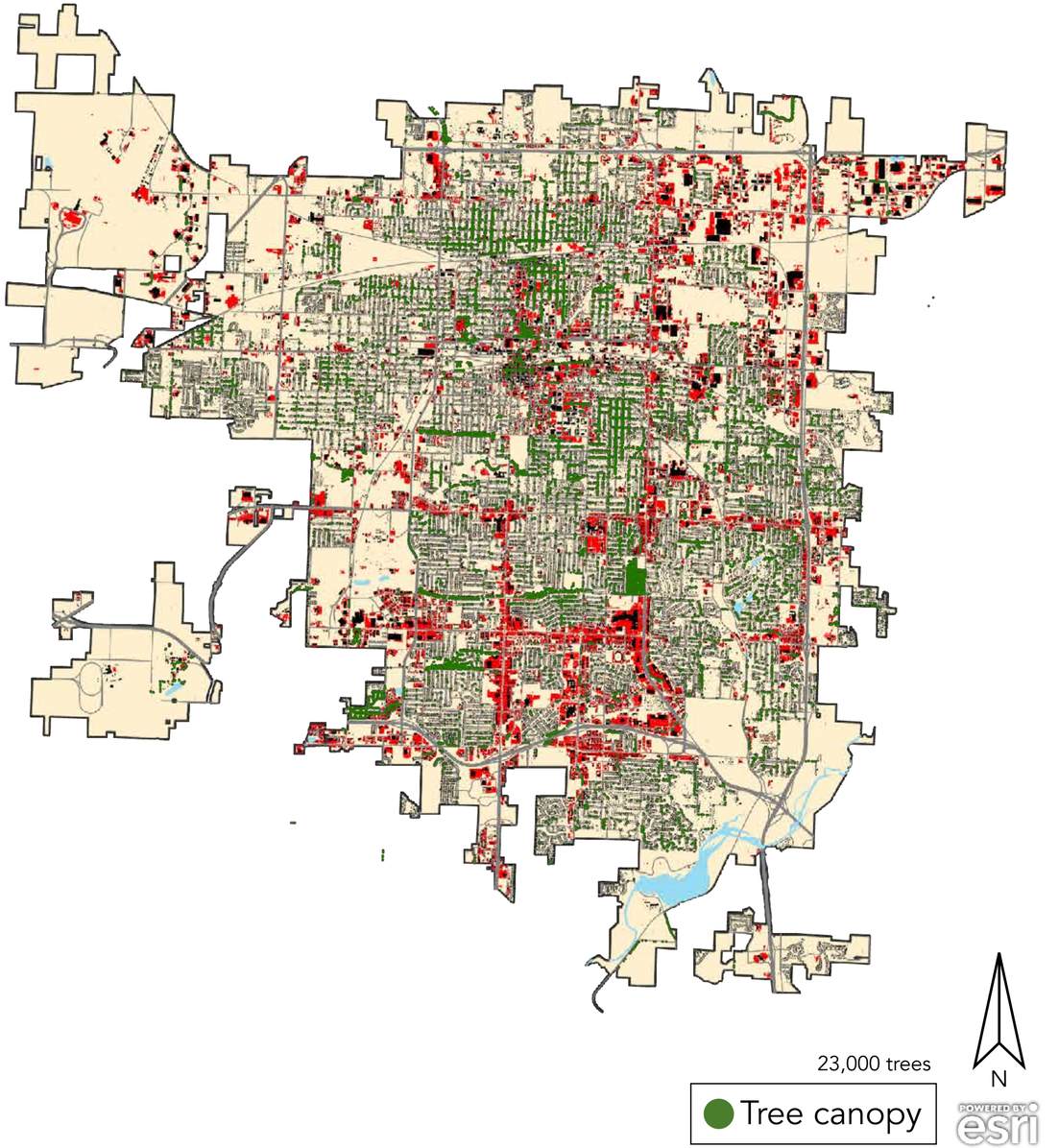

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Impact of Trees on Stormwater System

Springfield, MO

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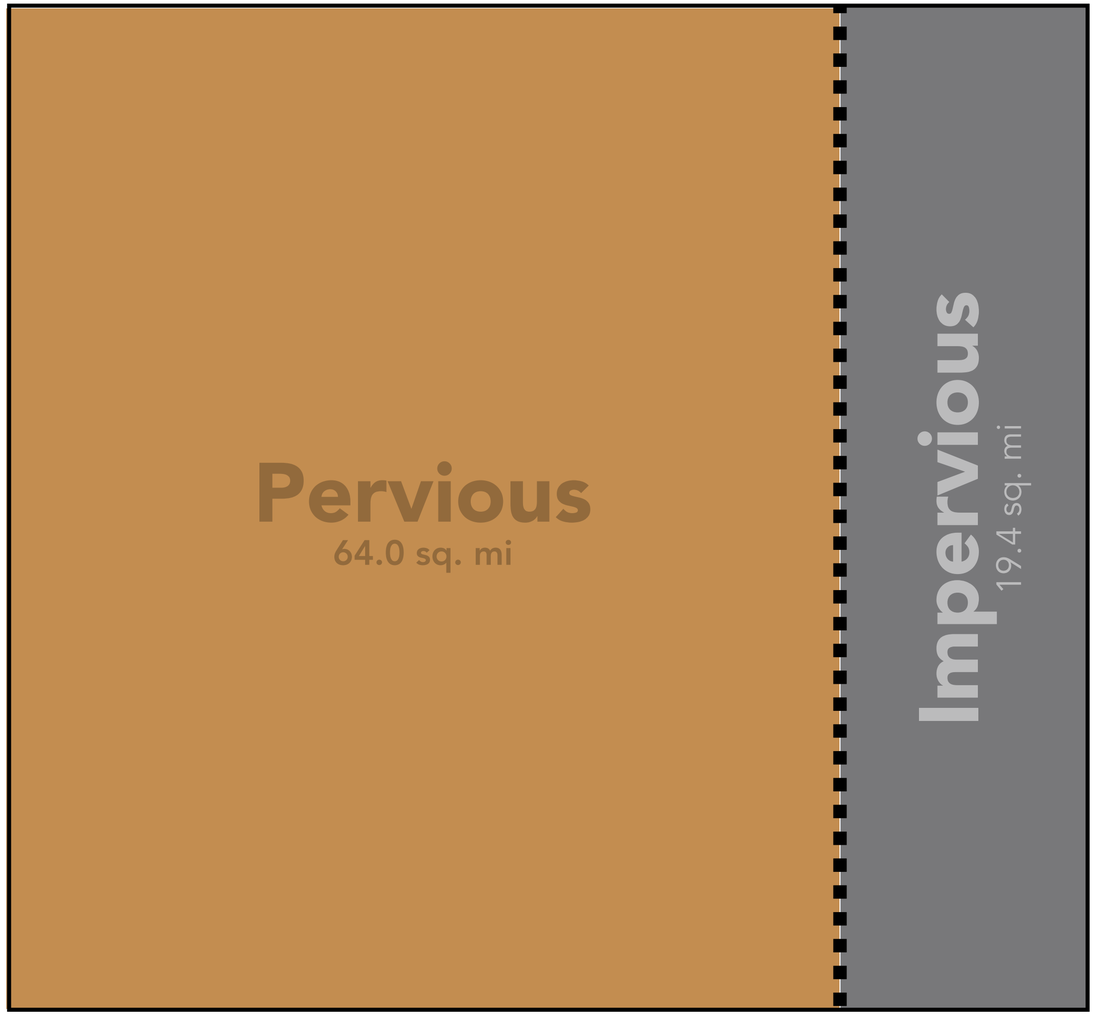
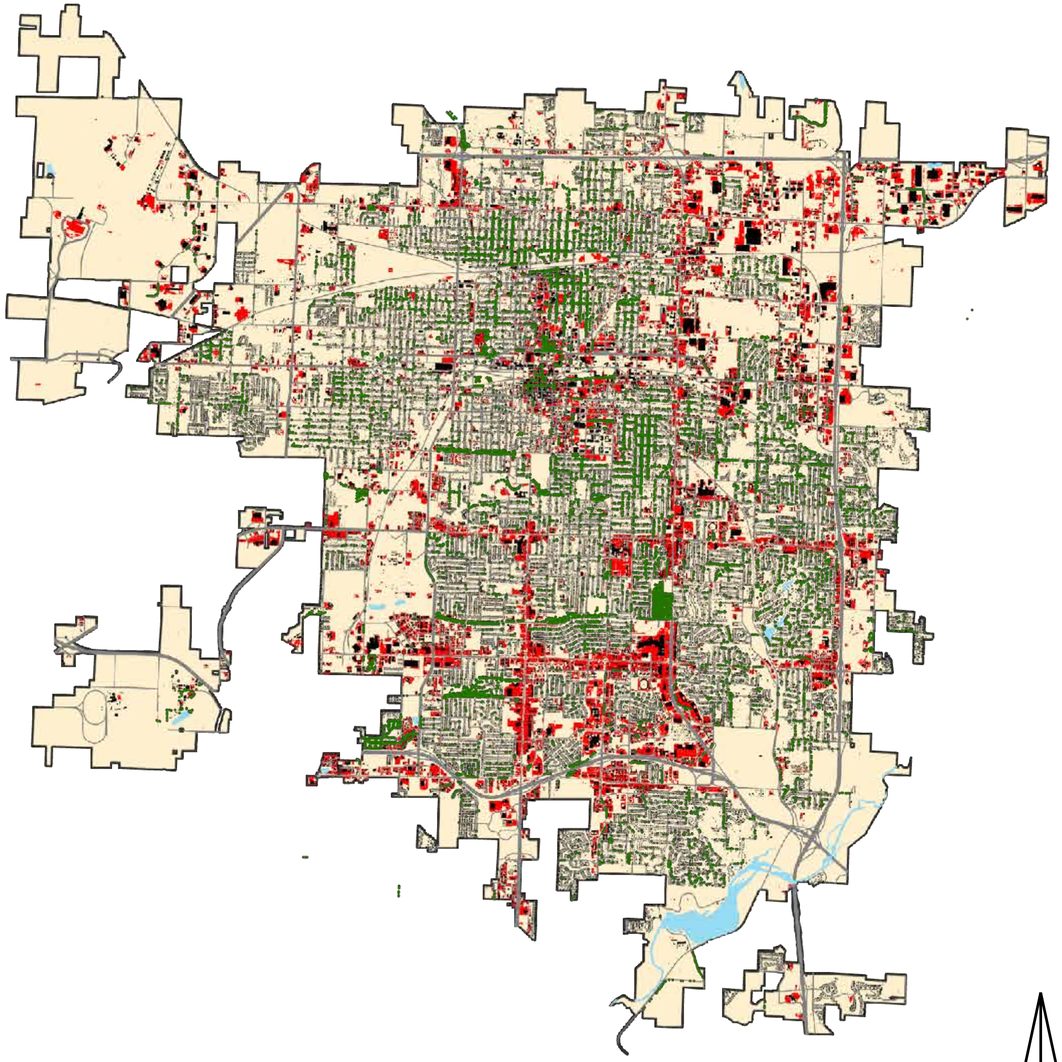




23,000 trees

Tree canopy

N

*Estimate from satellite imagery

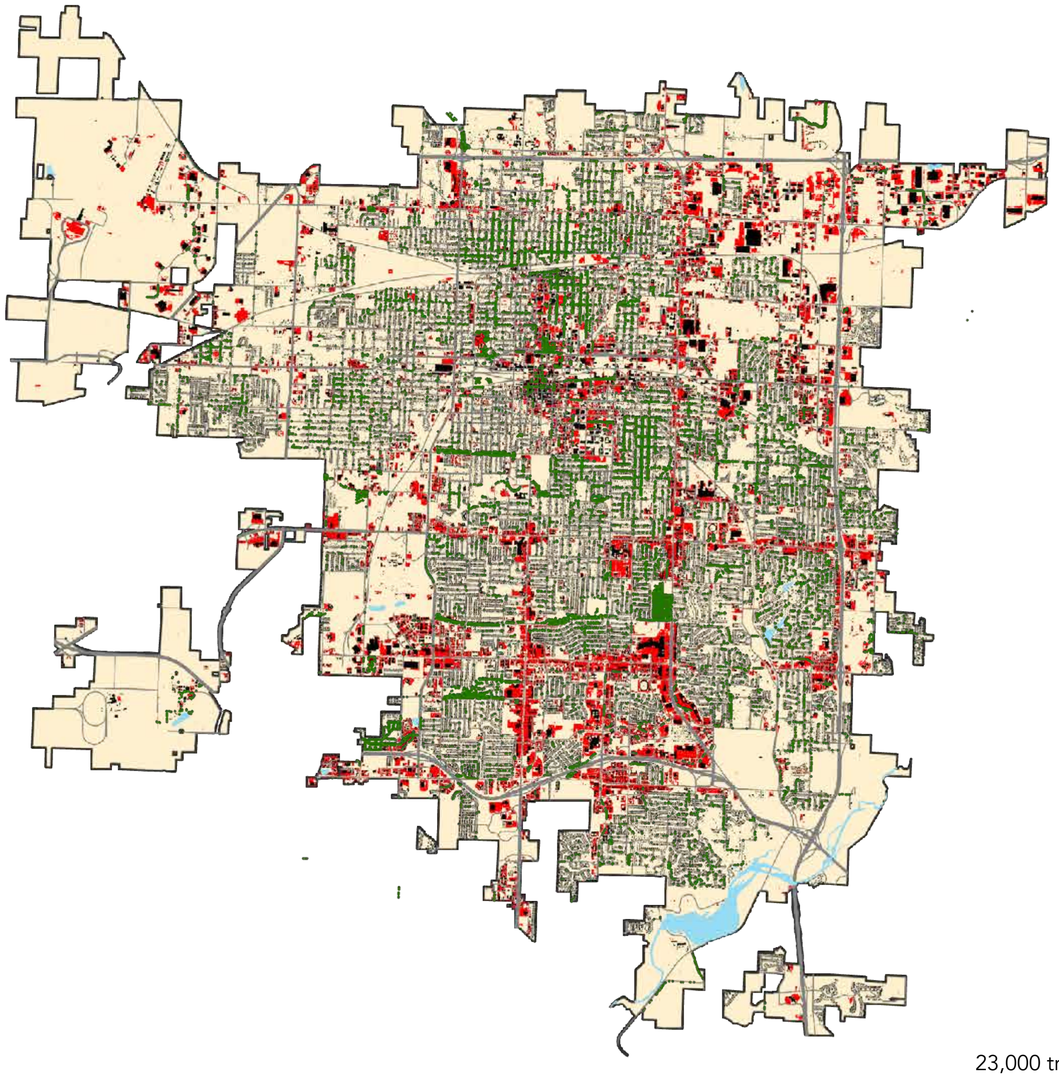
Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Impervious
19.4 sq. mi



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Tree canopy

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Source: City of Springfield MO (2022), agnr.osu.edu

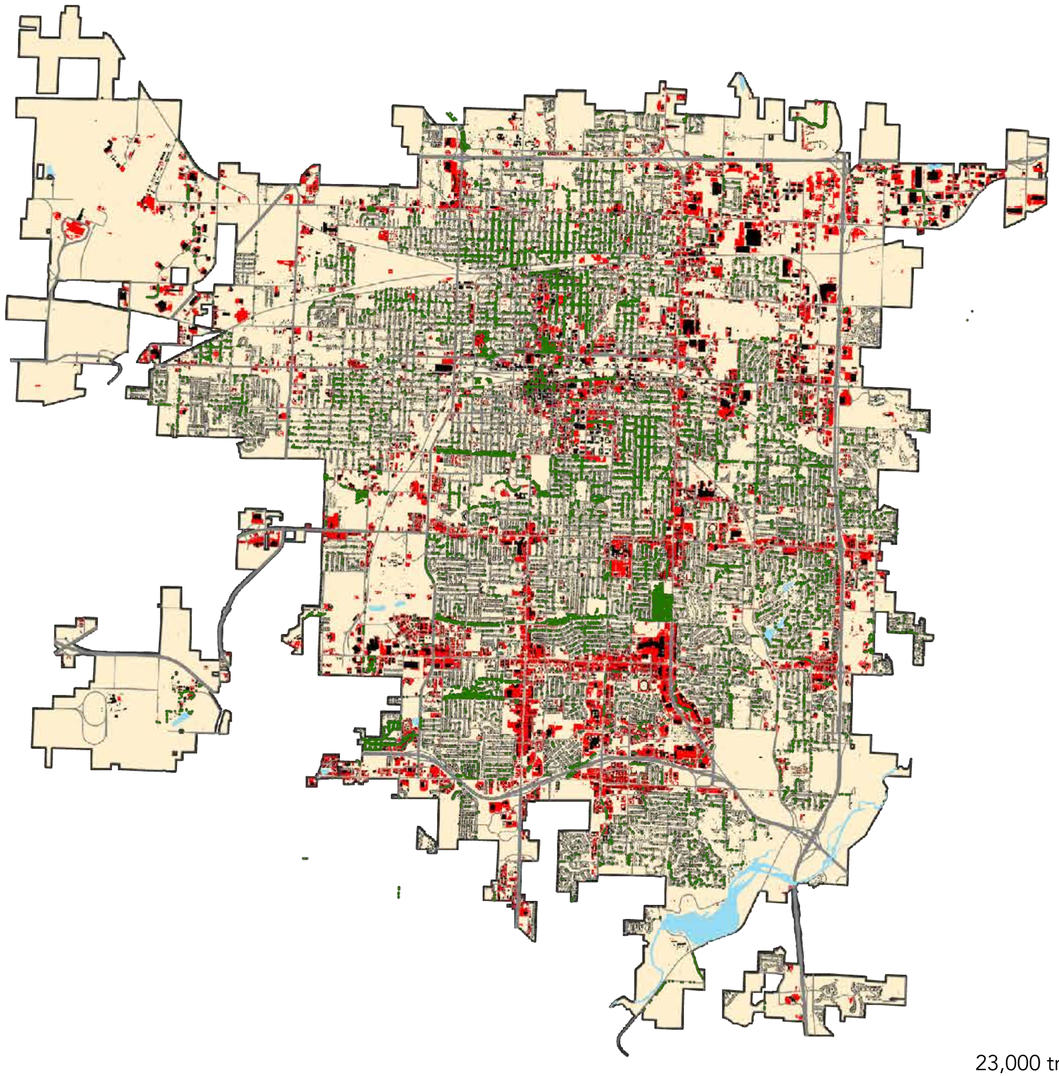
URBAN3

Impact of Trees on Stormwater System

Springfield, MO

Impervious
19.4 sq. mi

To scale!



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Impact of Trees on Stormwater System

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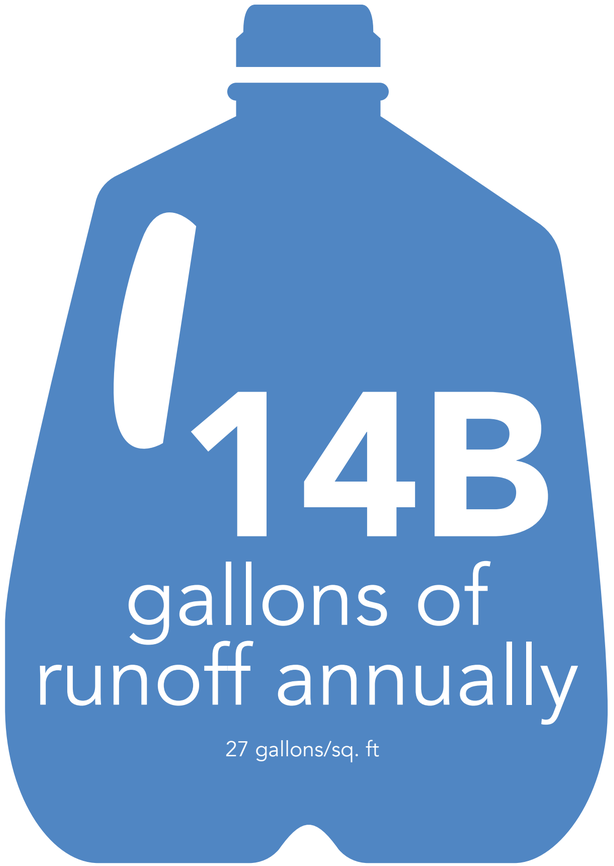

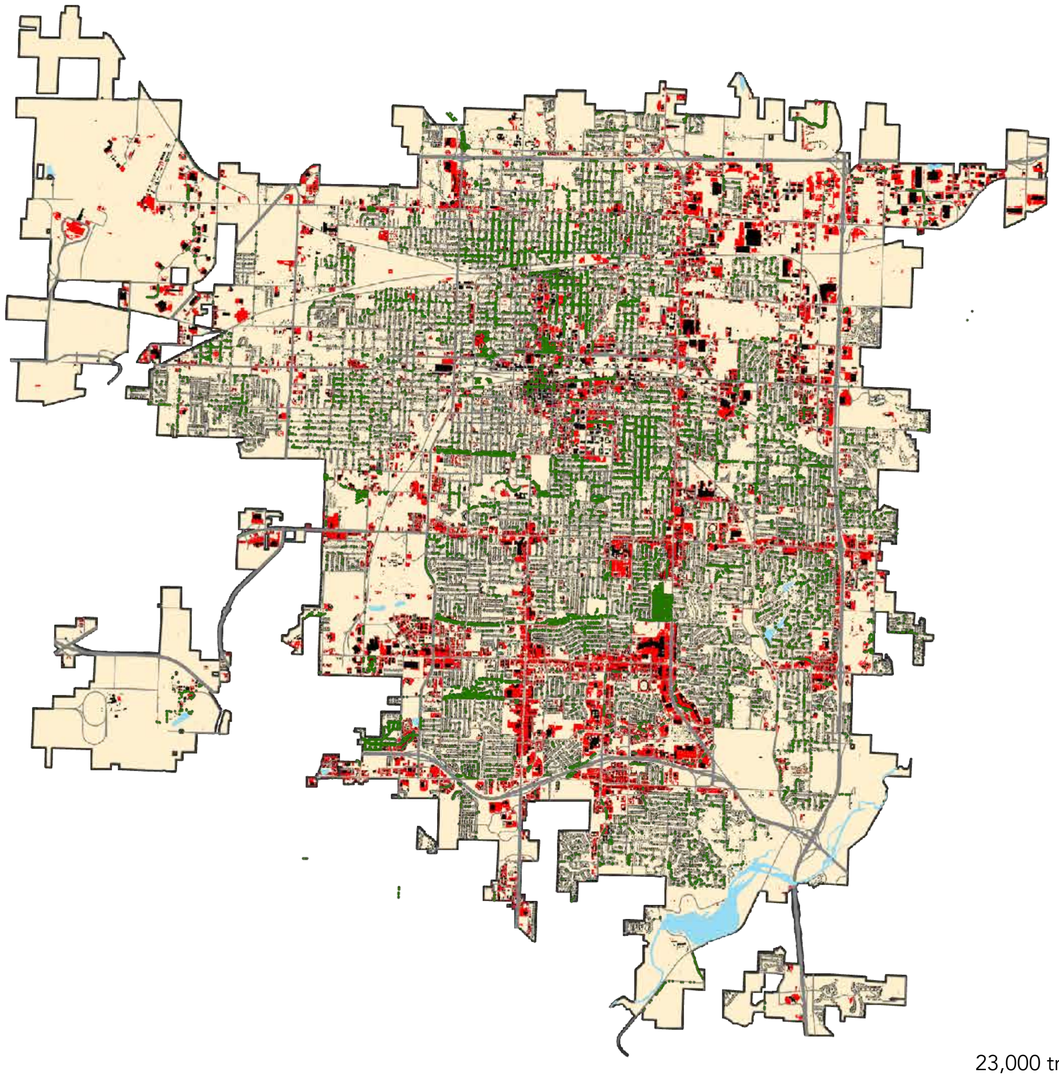

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URBAN3

Impact of Trees on Stormwater System

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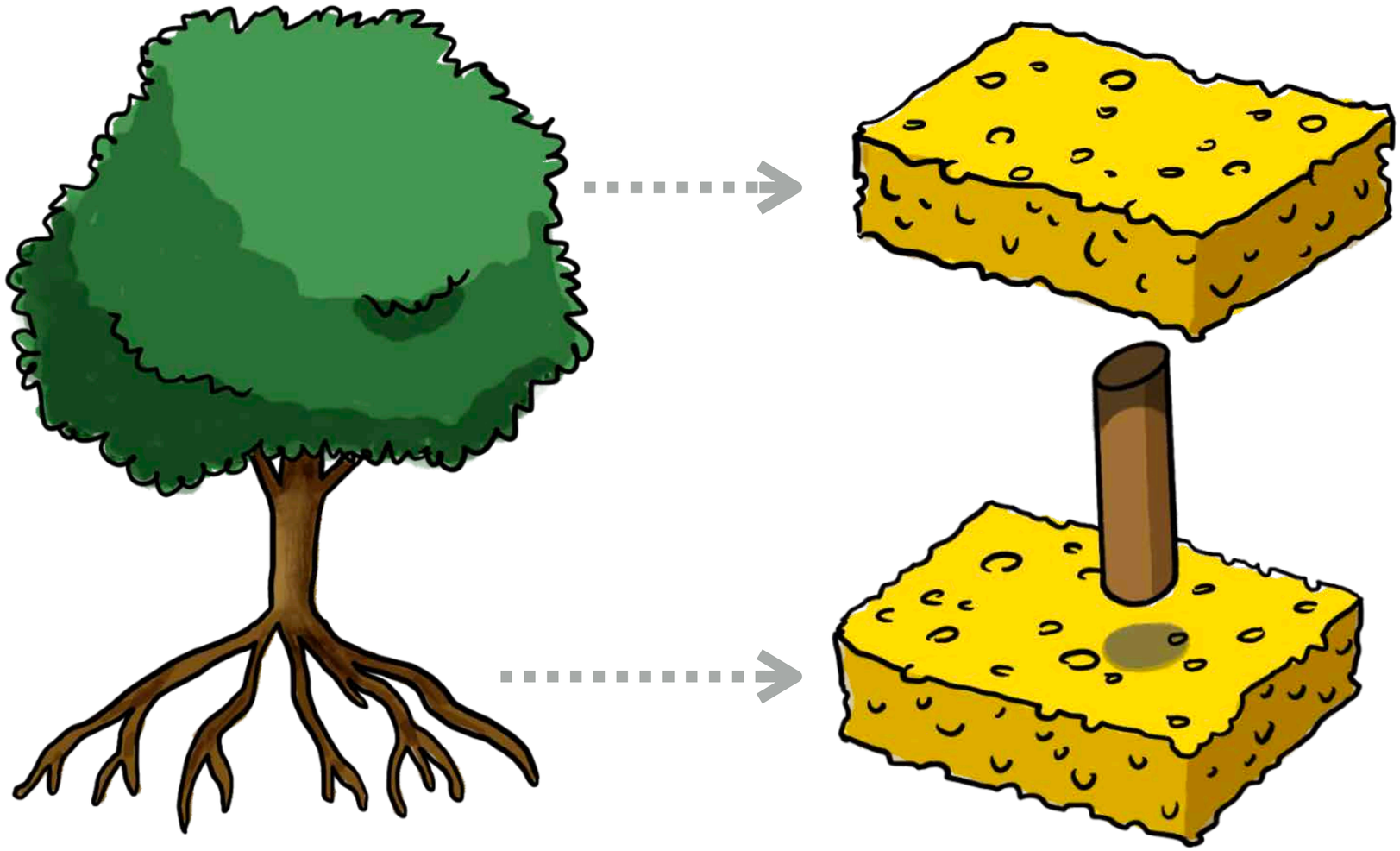
Impact of Trees on Stormwater System

Springfield, MO



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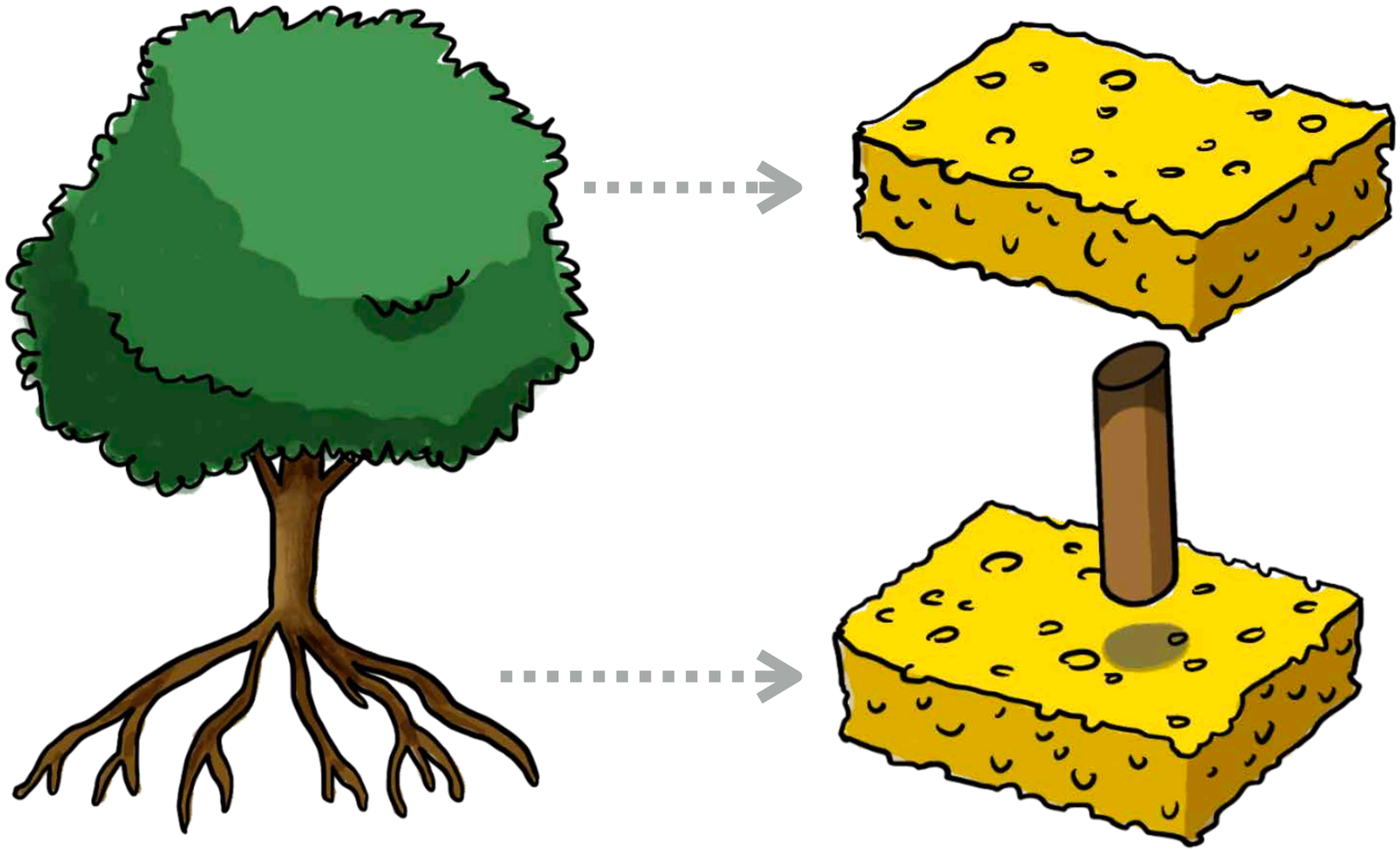
URBAN3

Impact of Trees on Stormwater System

Springfield, MO



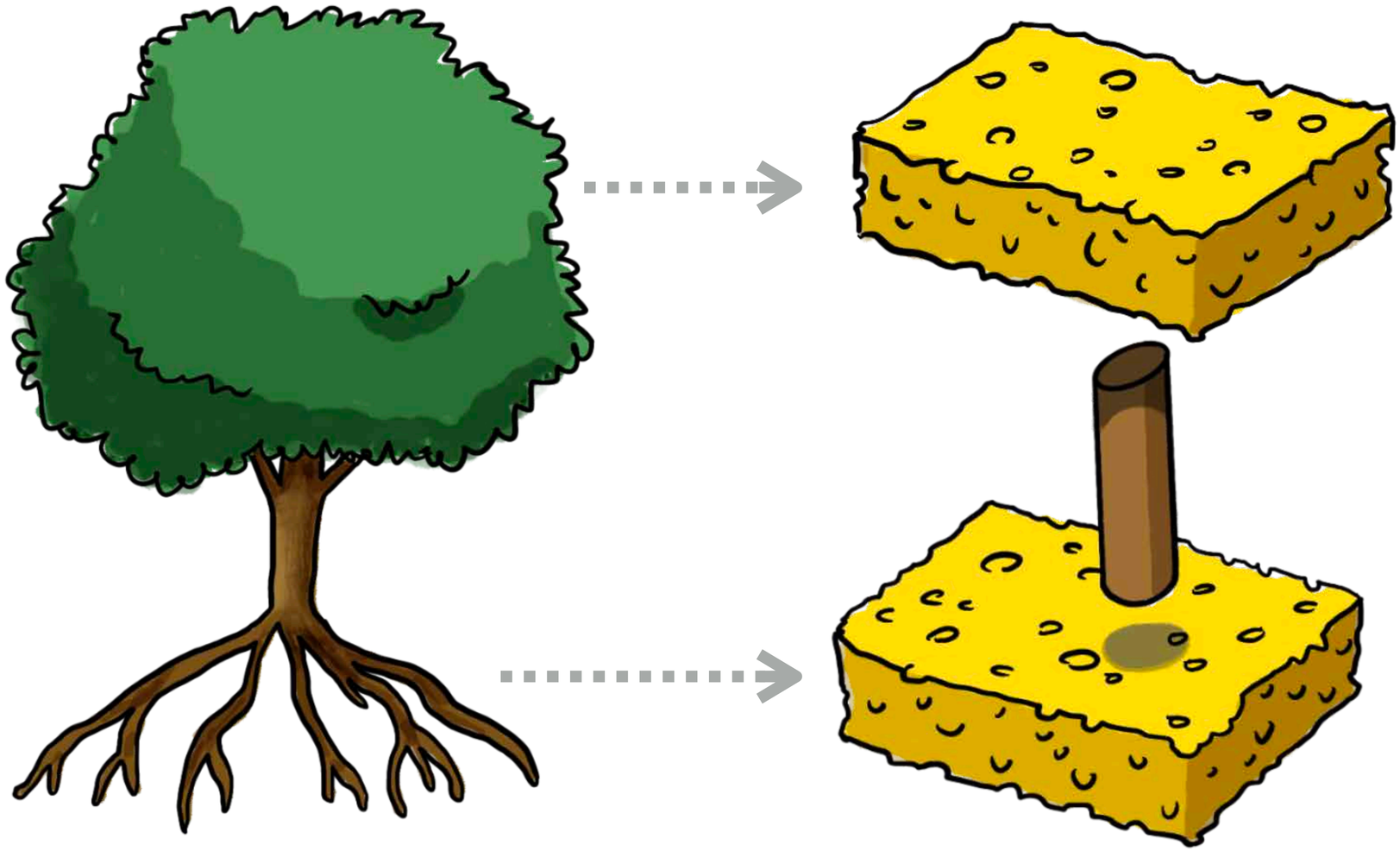
Water interception

Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Impact of Trees on Stormwater System

Springfield, MO



Water interception

Water absorption

Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Annual Impacts of a Single Tree

Springfield, MO

Intercepts 770 gallons rainfall

Absorbs 1,500 gallons stormwater

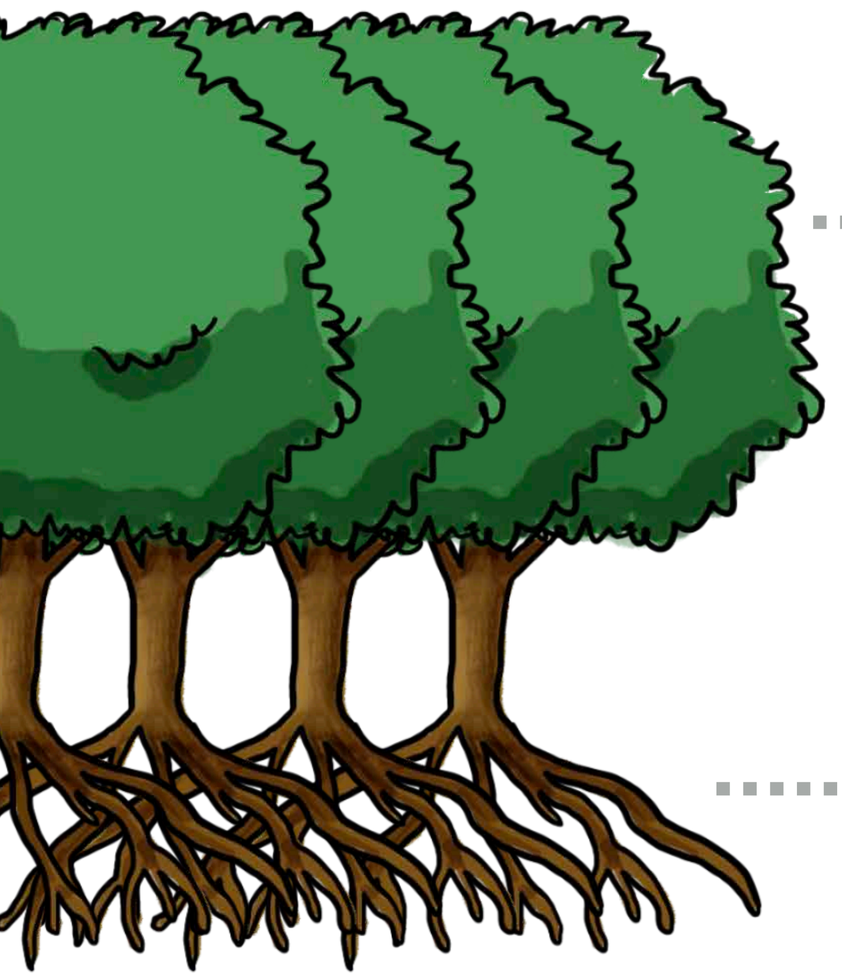
100 gallons

Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Annual Impacts of Total Tree Canopy

Springfield, MO



Intercepts 13M gallons rainfall

Absorbs 35M gallons stormwater

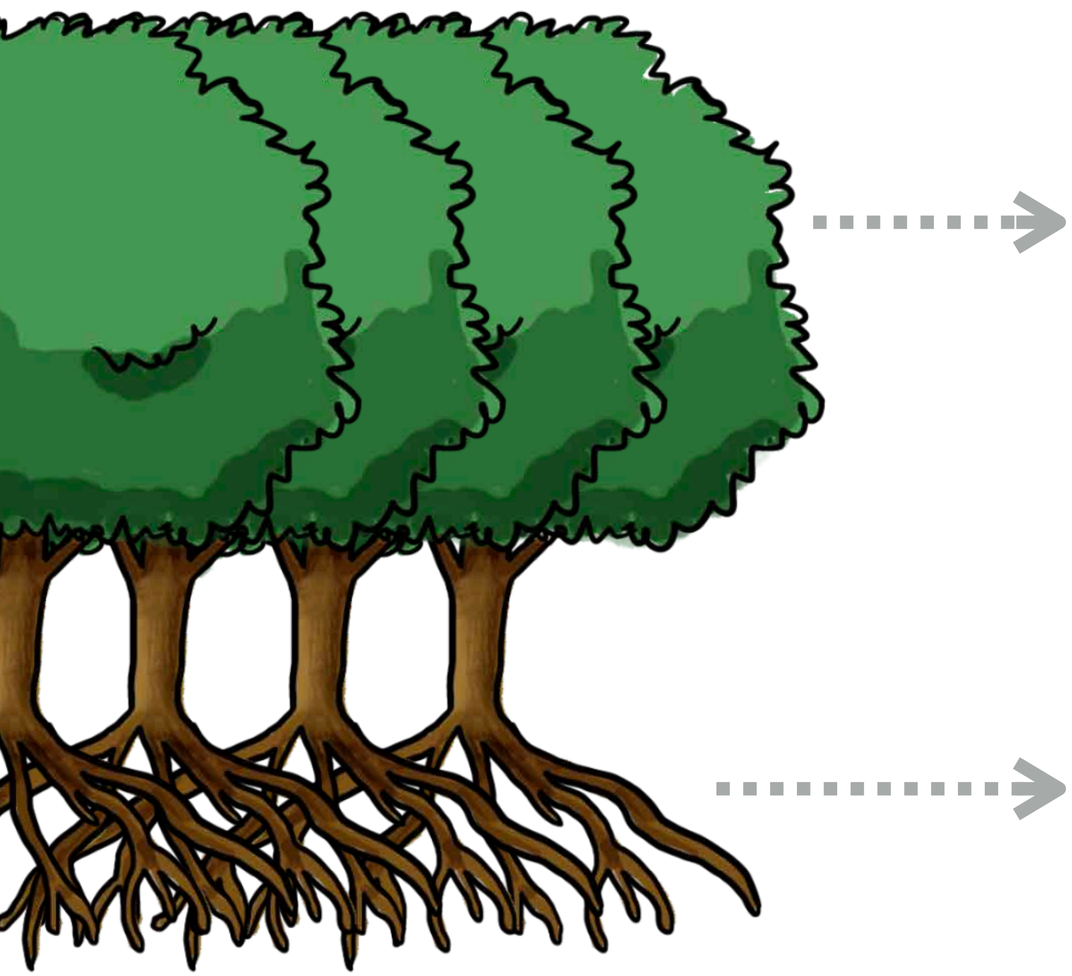
1,000,000 gallons

Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Annual Impacts of Total Tree Canopy

Springfield, MO



Reduces stormwater system cost by

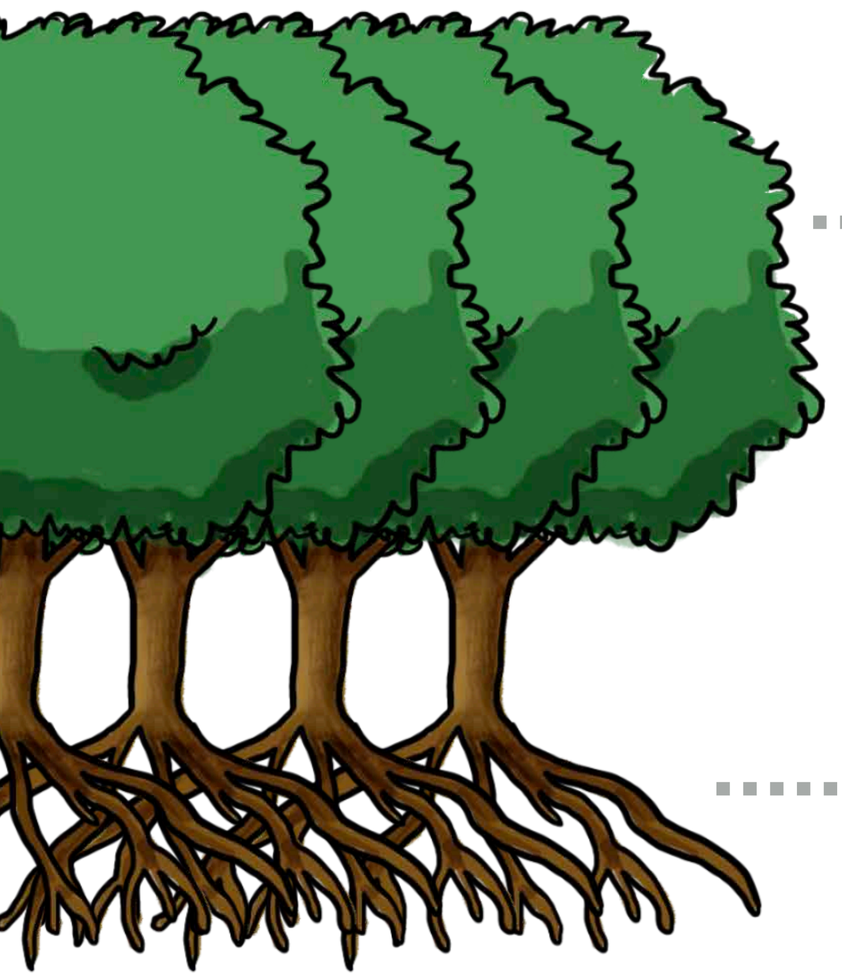
Source: City of Springfield MO (2022), agnr.osu.edu

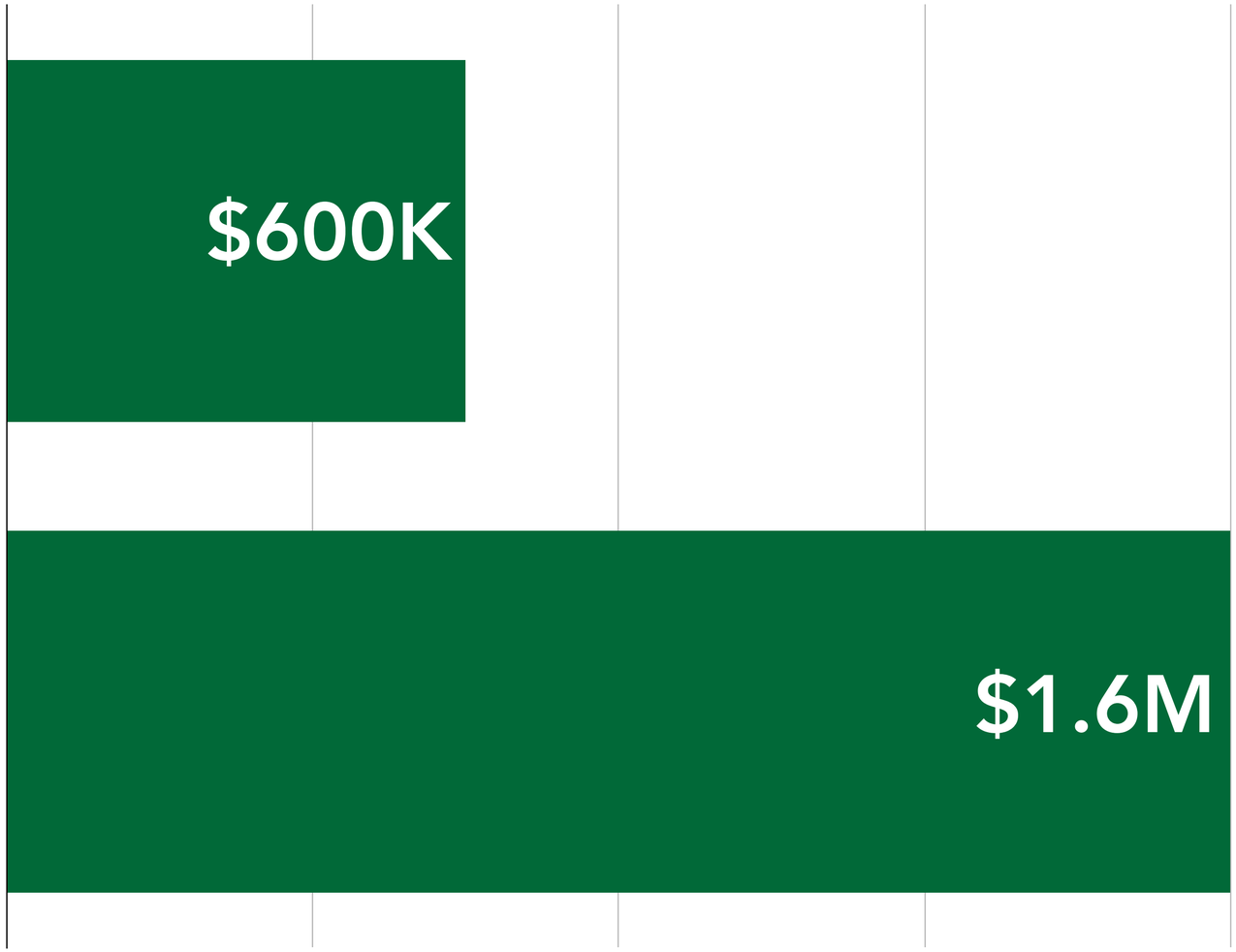
URBAN3

Annual Impacts of Total Tree Canopy

Springfield, MO

Reduces stormwater system cost by





Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

But Joe, trees cost money!!

URBAN3

But Joe, trees cost money!!

URBAN3

Annual Impacts of a Single Tree

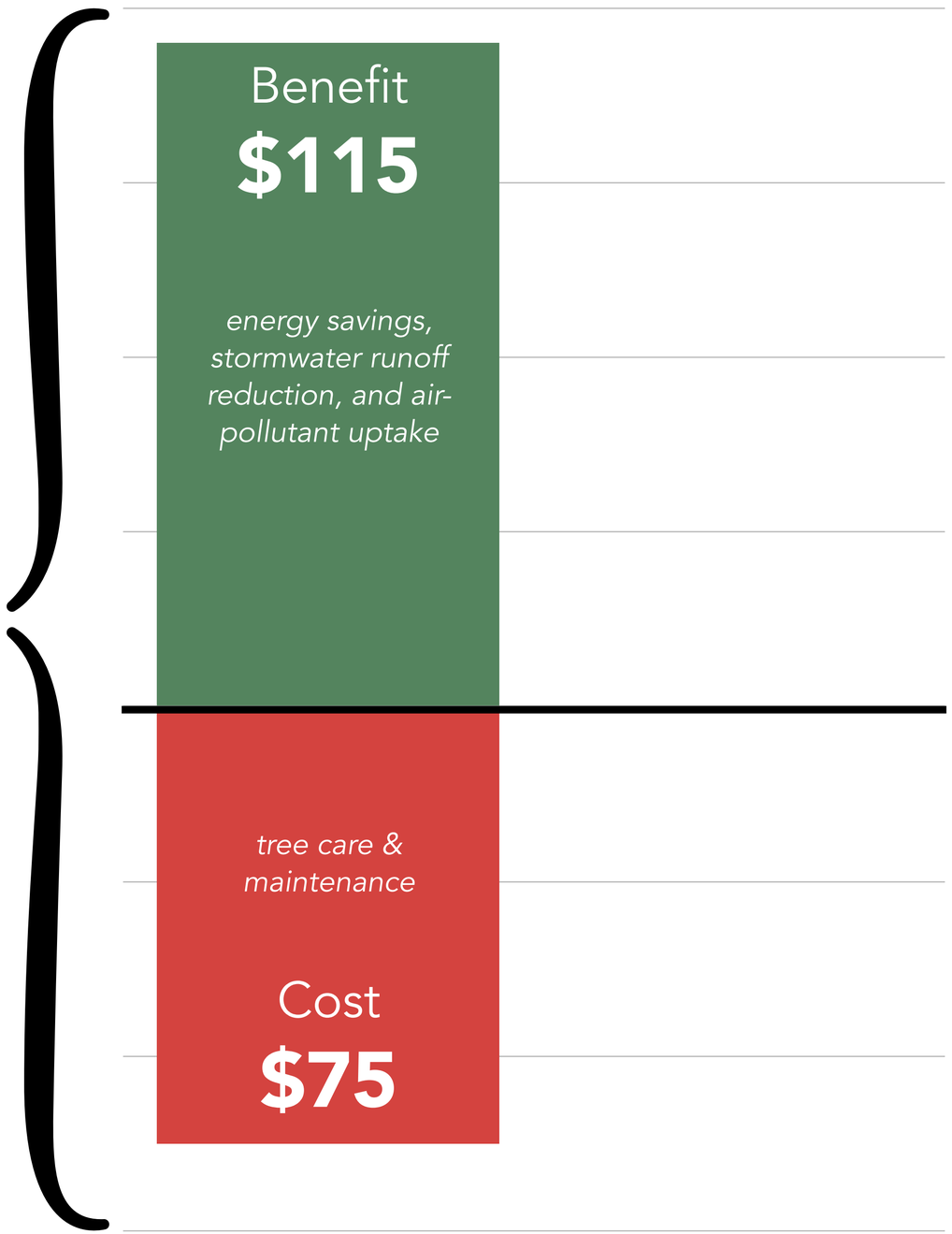
Springfield, MO

Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Annual Impacts of a Single Tree

Springfield, MO



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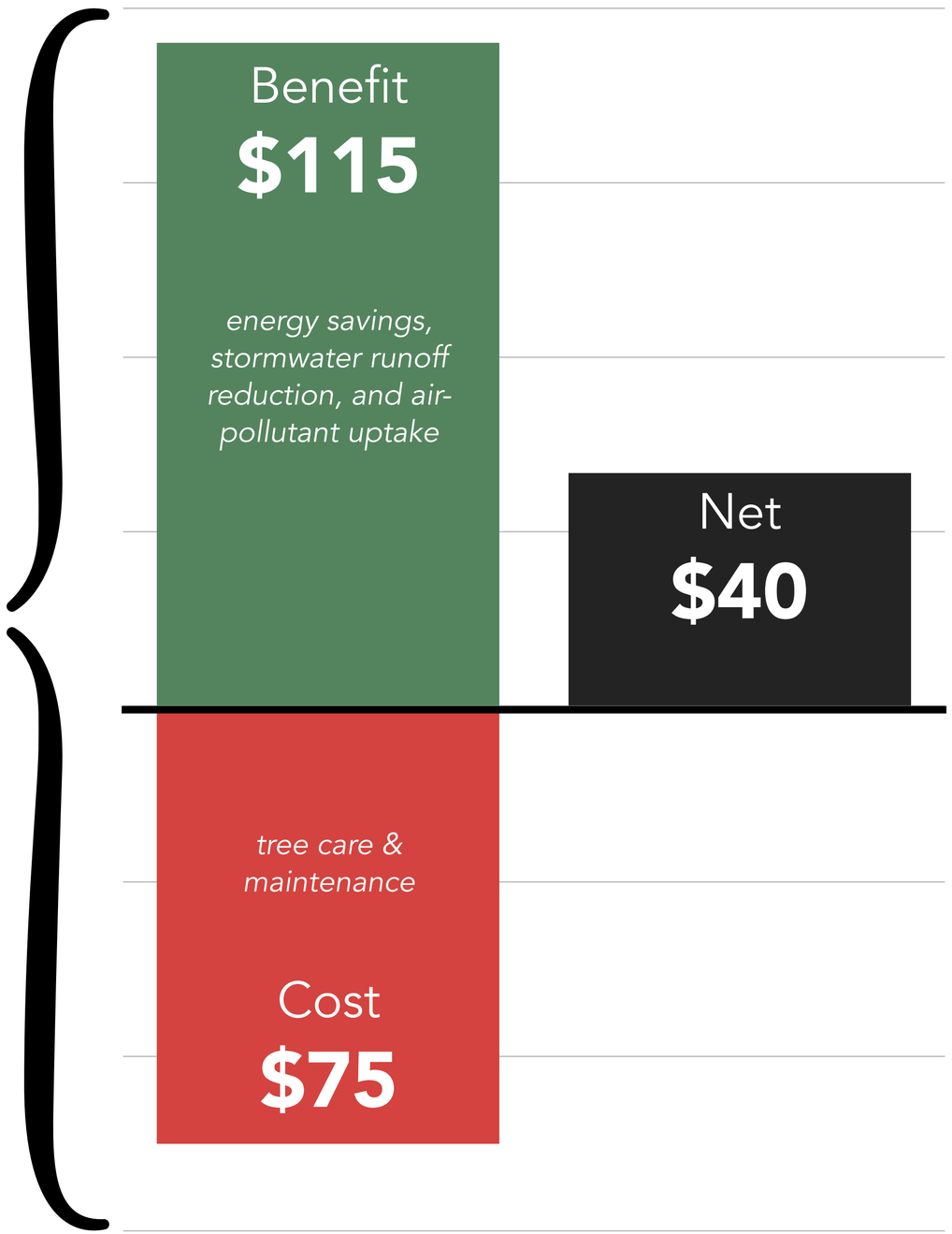
URBAN3

Annual Impacts of a Single Tree

Springfield, MO

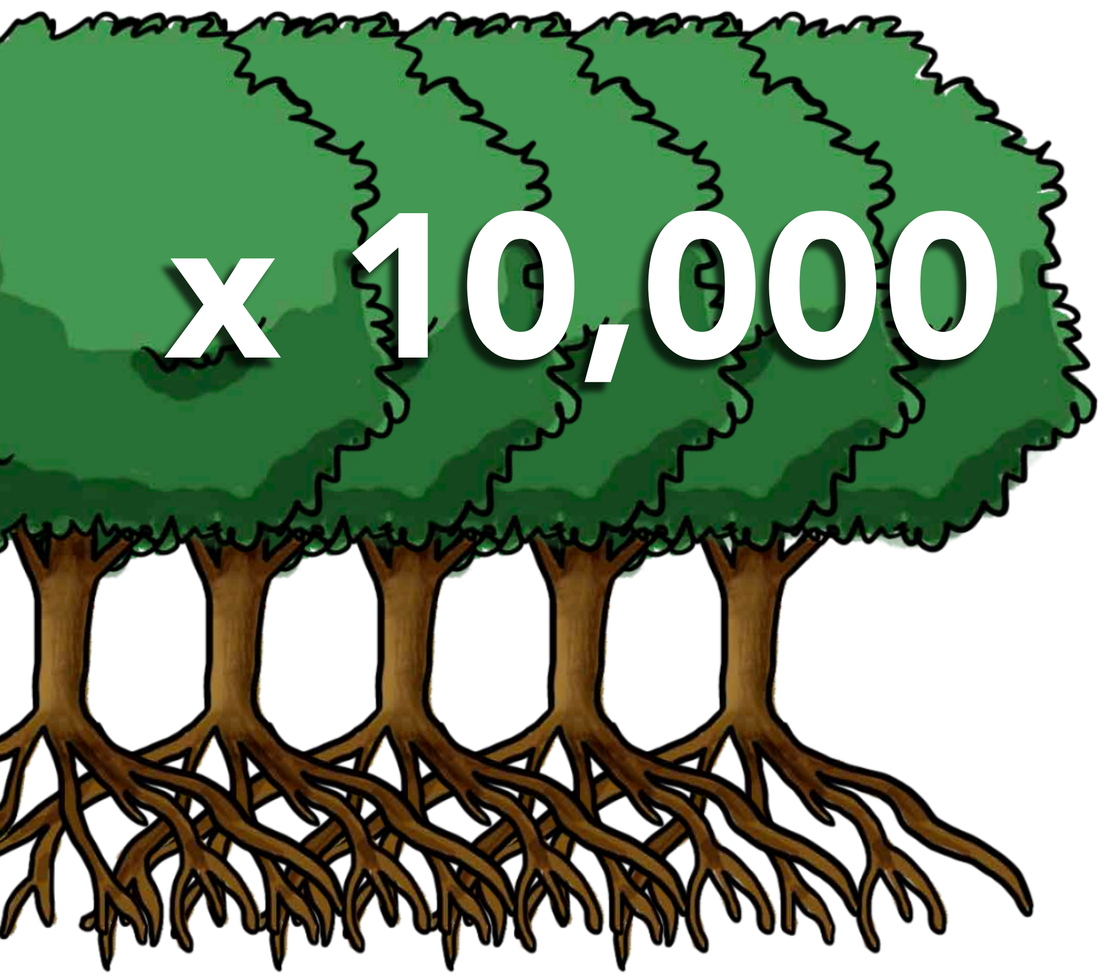


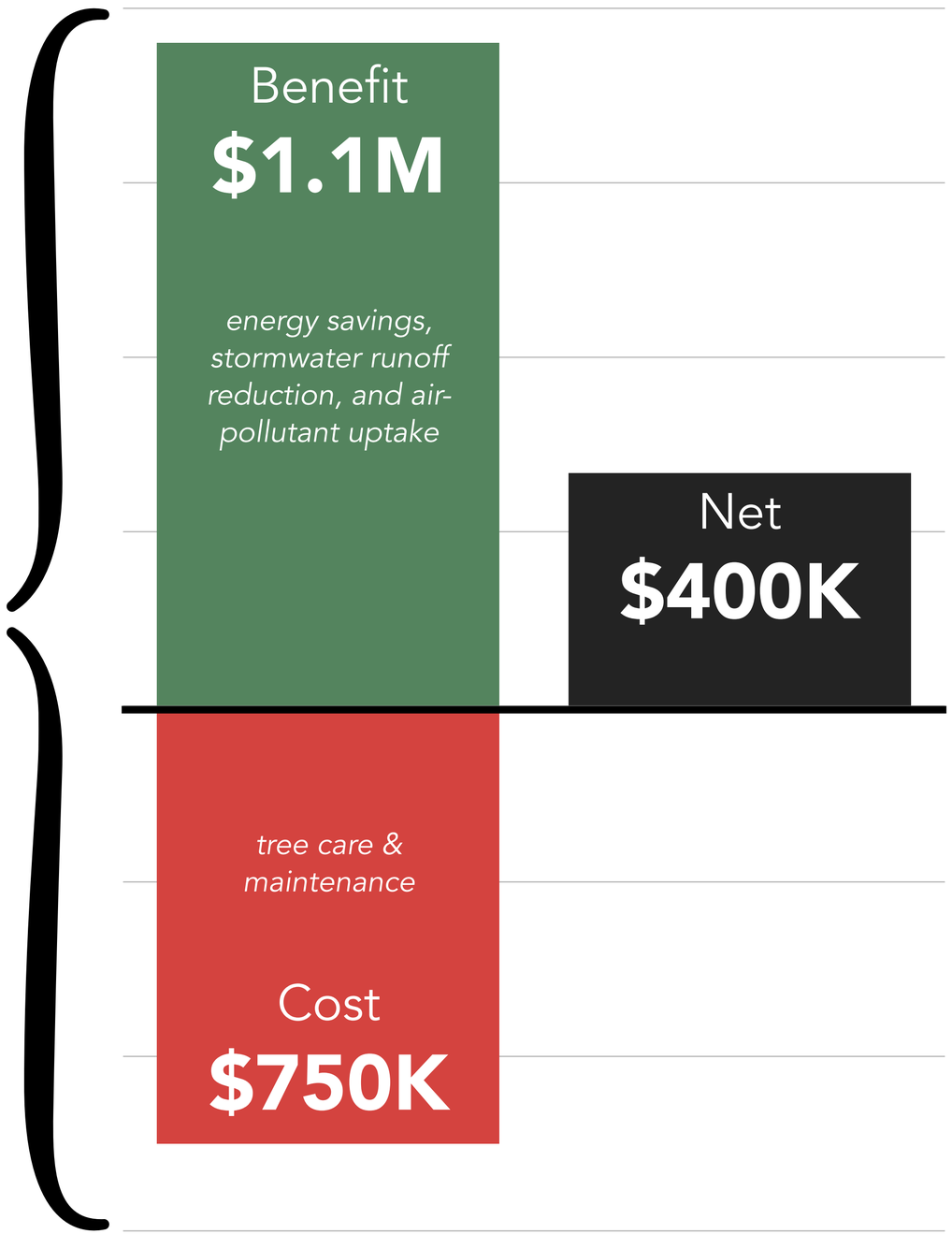
Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

Annual Impacts of 10,000 Trees

Springfield, MO





Source: City of Springfield MO (2022), agnr.osu.edu

URBAN3

City Comparison

Eugene, OR and Springfield, MO

Source: City of Eugene OR (2018), City of Springfield MO (2022)

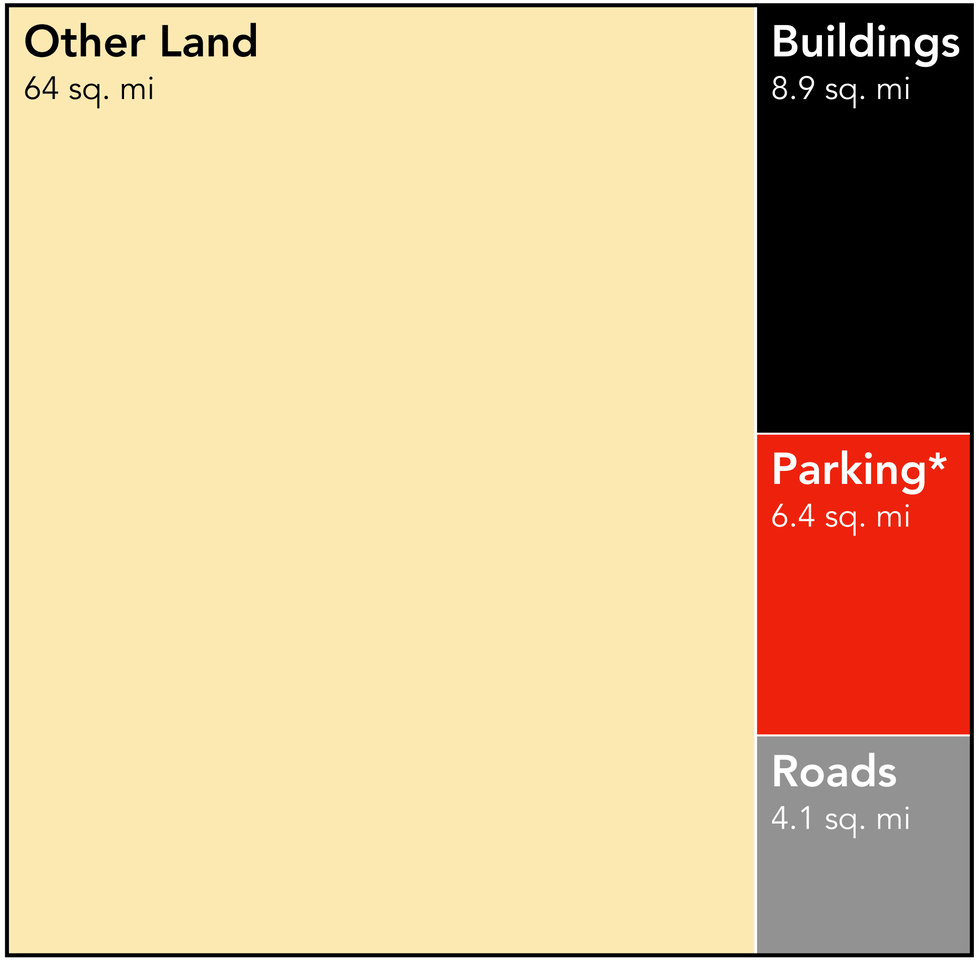
URBAN3

City Comparison

Eugene, OR and Springfield, MO

Springfield, MO

83 sq. mi



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URBAN3

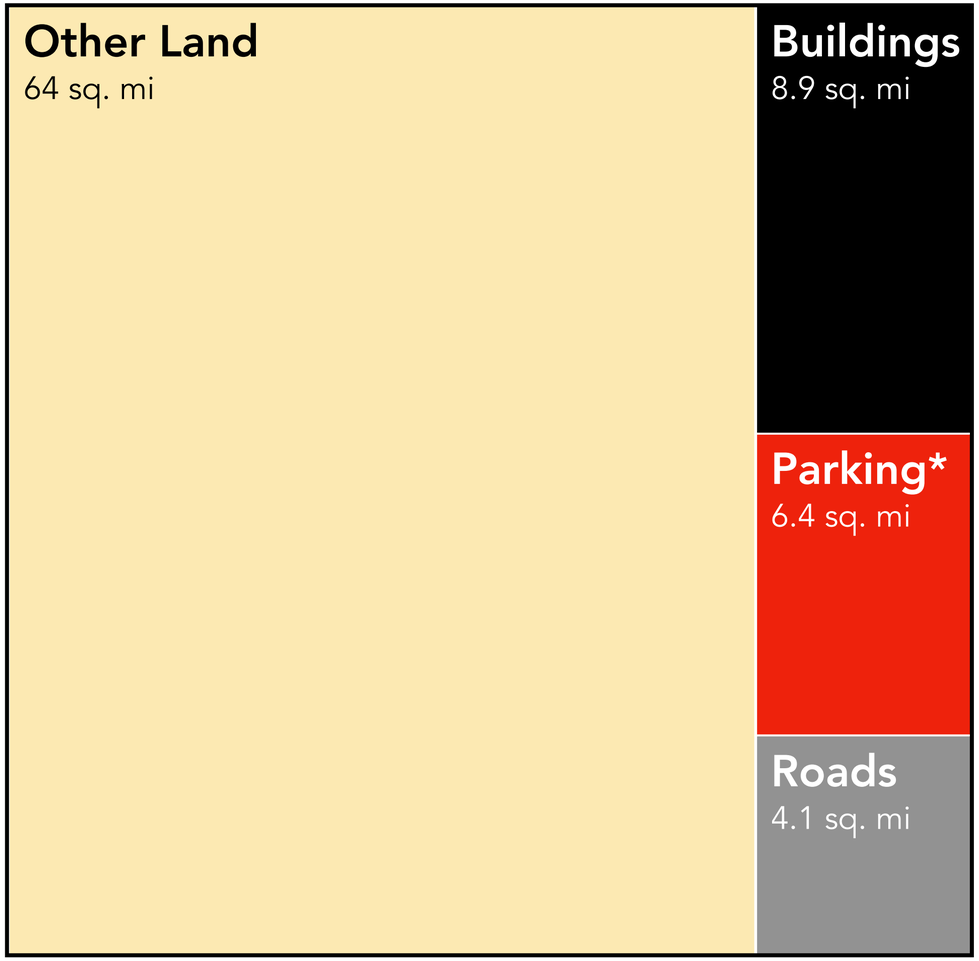
City Comparison

Eugene, OR and Springfield, MO

Springfield, MO

170K

83 sq. mi



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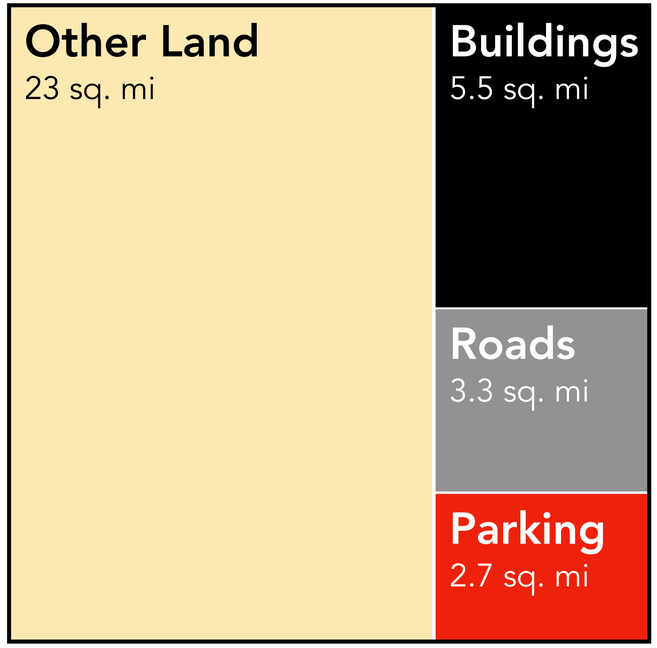
URBAN3

City Comparison

Eugene, OR and Springfield, MO

Eugene, OR

35 sq. mi



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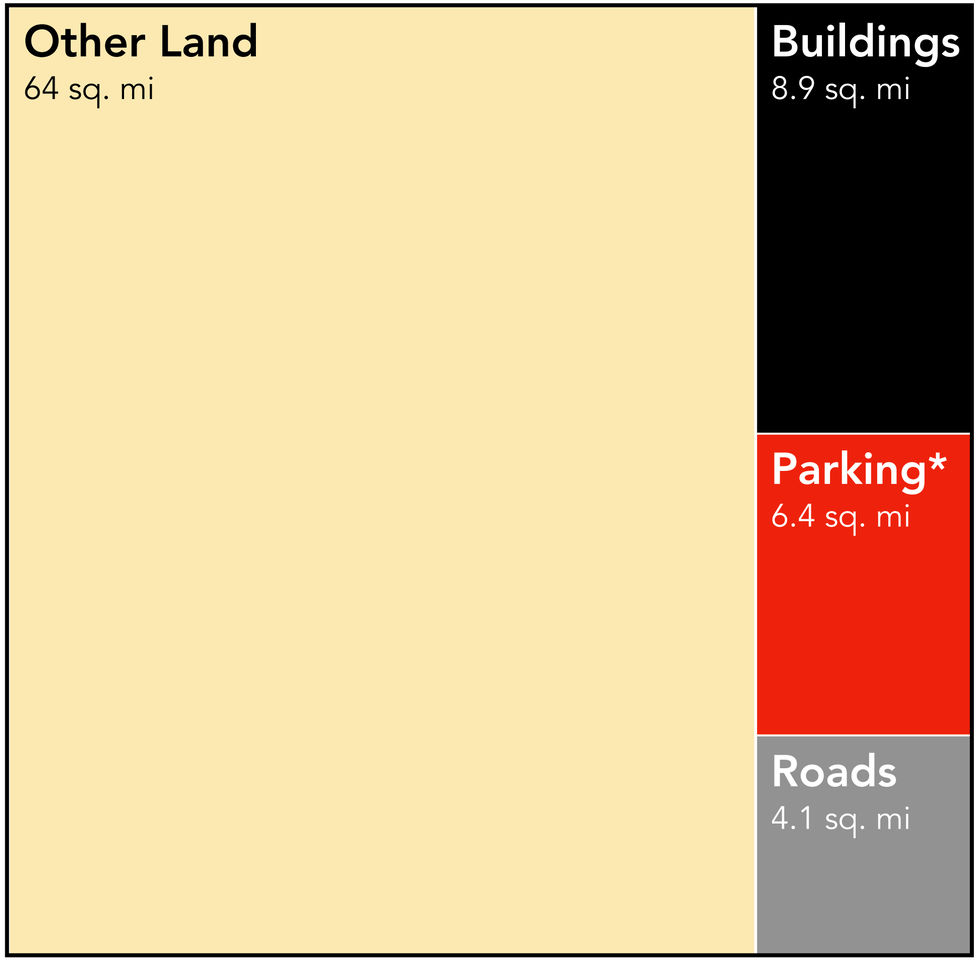

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URBAN3

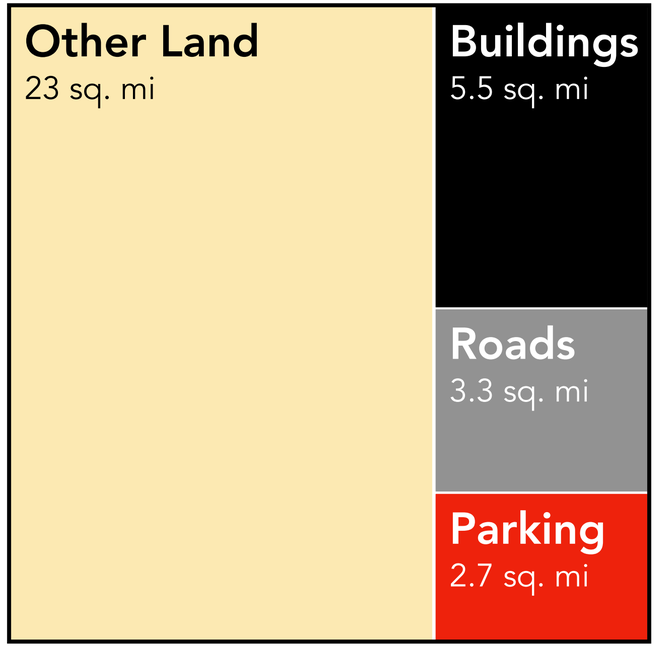
City Comparison

Eugene, OR and Springfield, MO

Eugene, OR

175K

35 sq. mi



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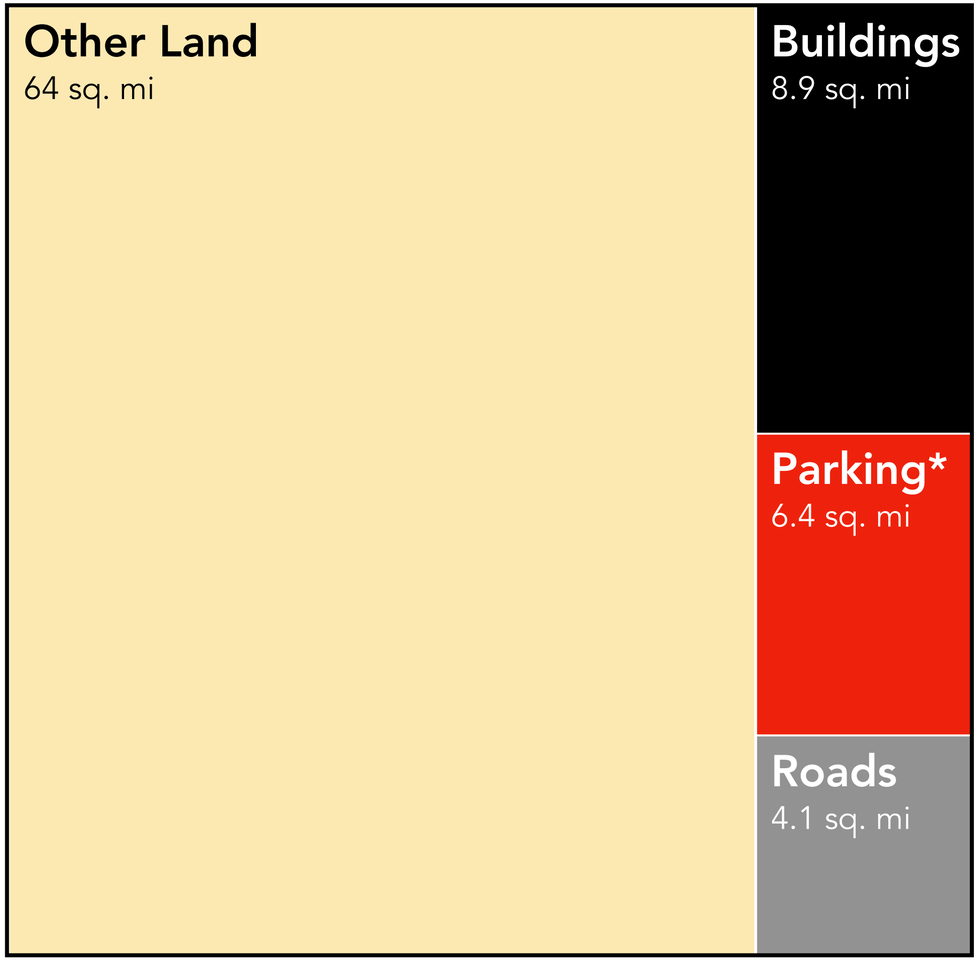

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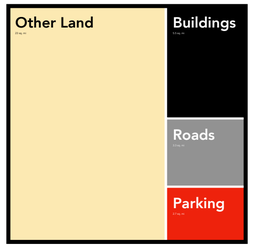

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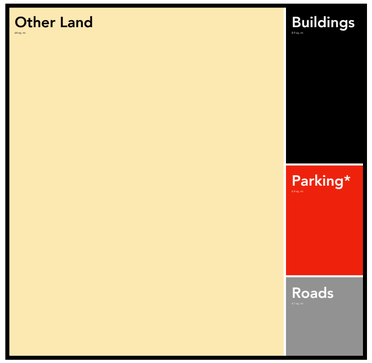

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City Comparison

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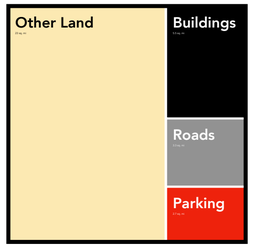

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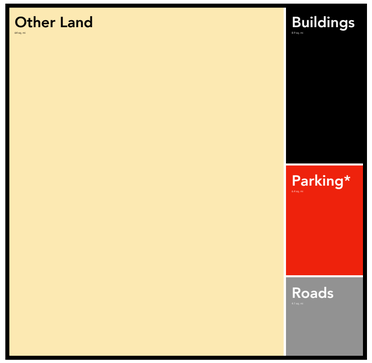

83 sq. mi

Land Area Per Person *(Sq. Ft)*

6,000 — 14,000

2.4x

Source: City of Eugene OR (2018), City of Springfield MO (2022)

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City Comparison

Eugene, OR and Springfield, MO

Eugene, OR

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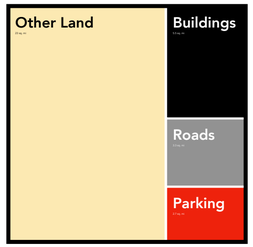

Springfield, MO

170K

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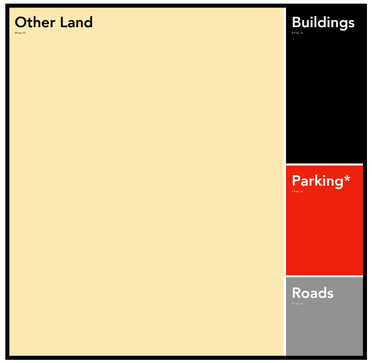

Land Area Per Person *(Sq. Ft)*

Building Area Per Person *(Sq. Ft)*

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City Comparison

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Eugene, OR

175K

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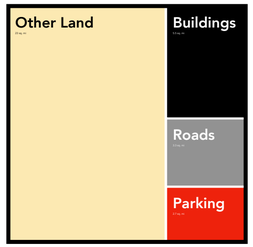

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170K

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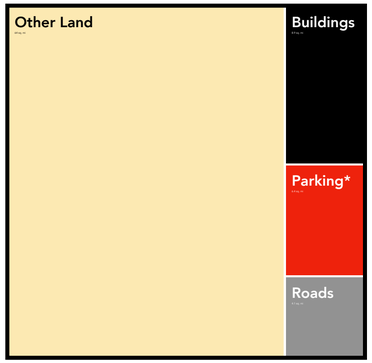

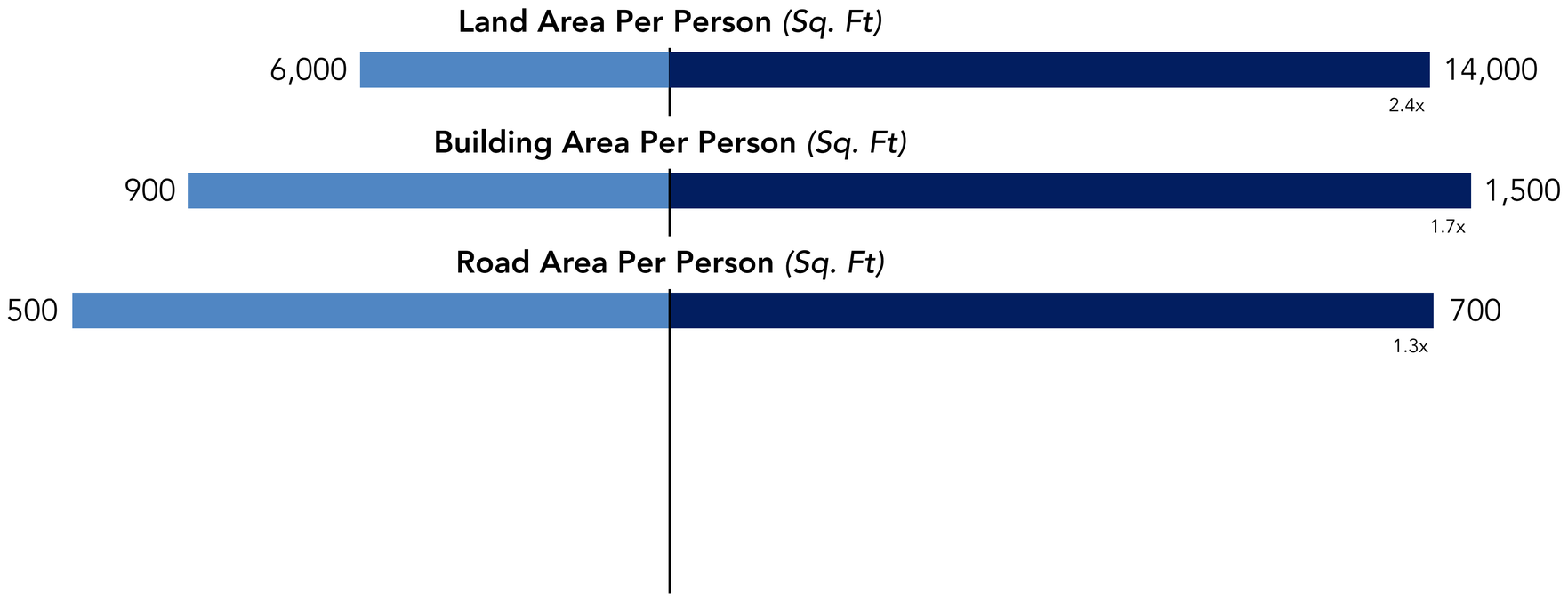

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City Comparison

Eugene, OR and Springfield, MO

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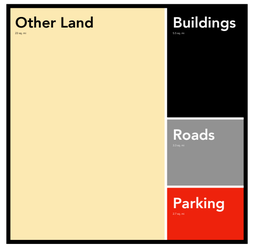

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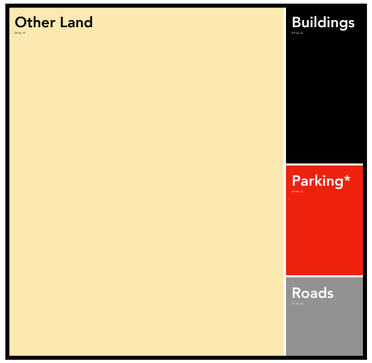

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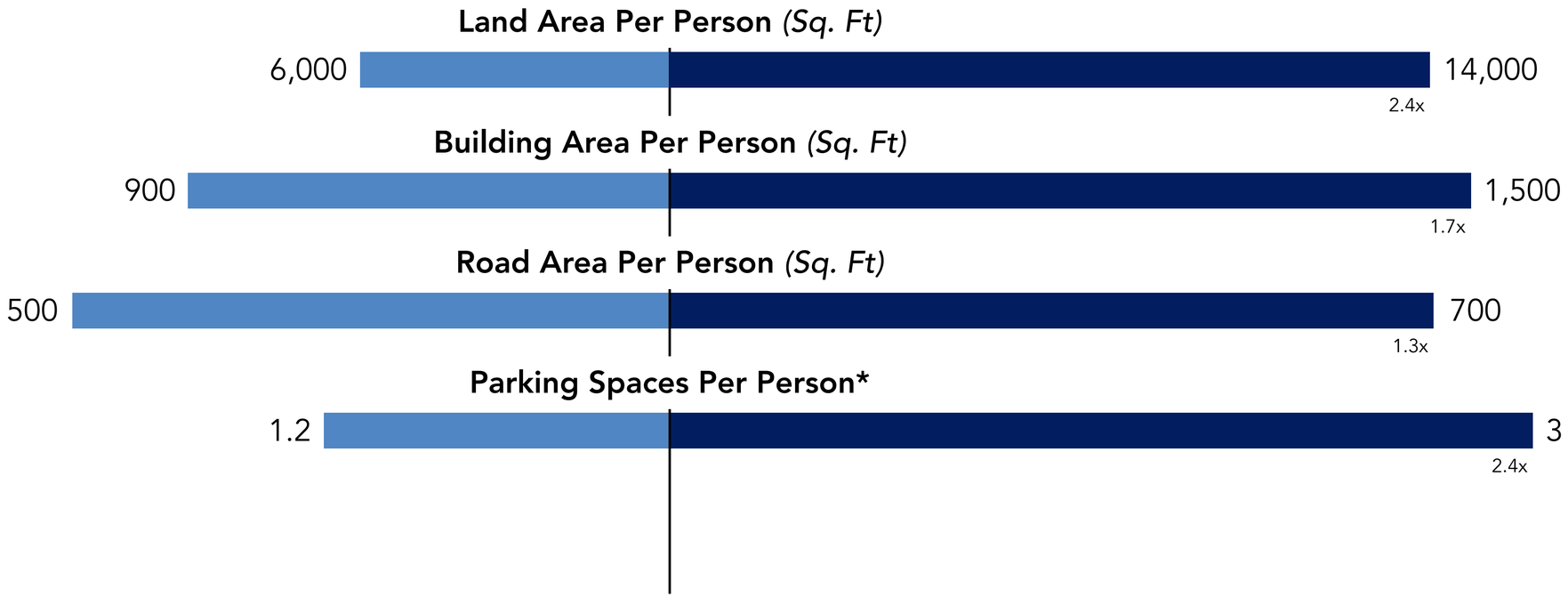

*1 parking space = 350 sq. ft

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URBAN3

City Comparison

Eugene, OR and Springfield, MO

Eugene, OR

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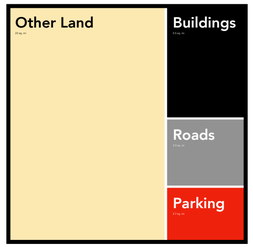

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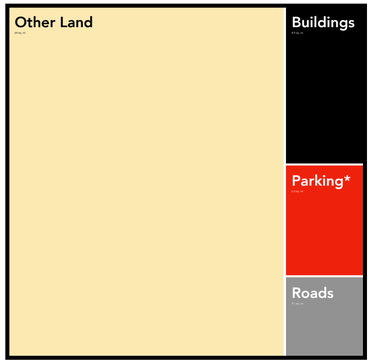

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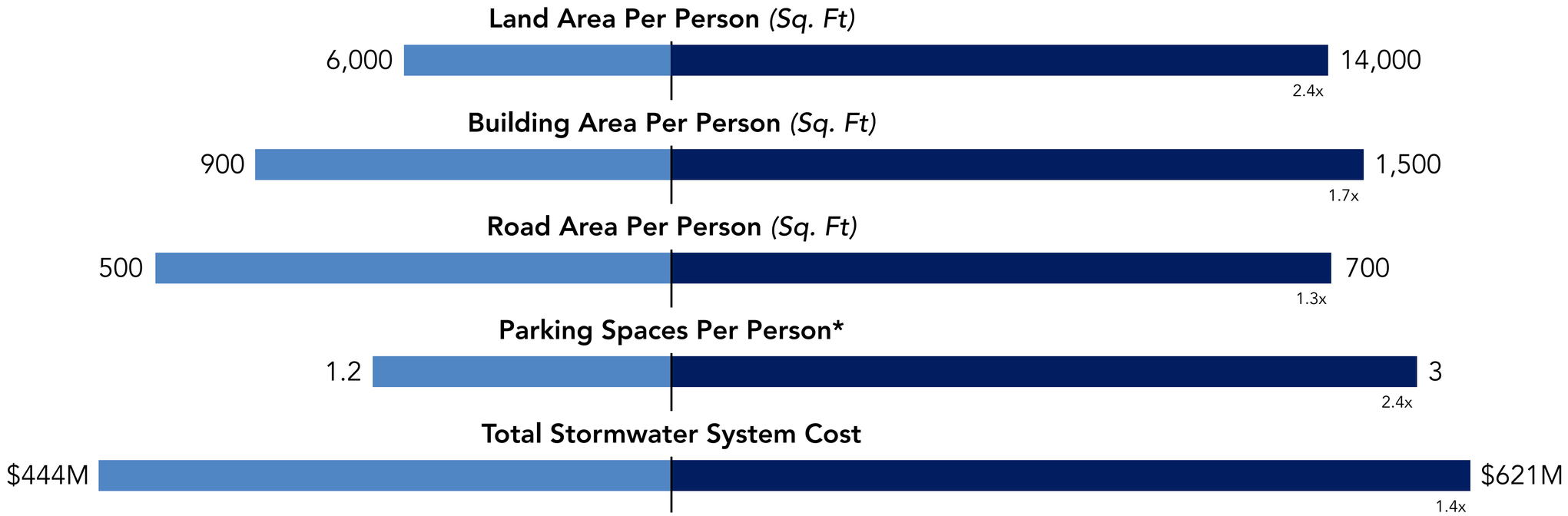

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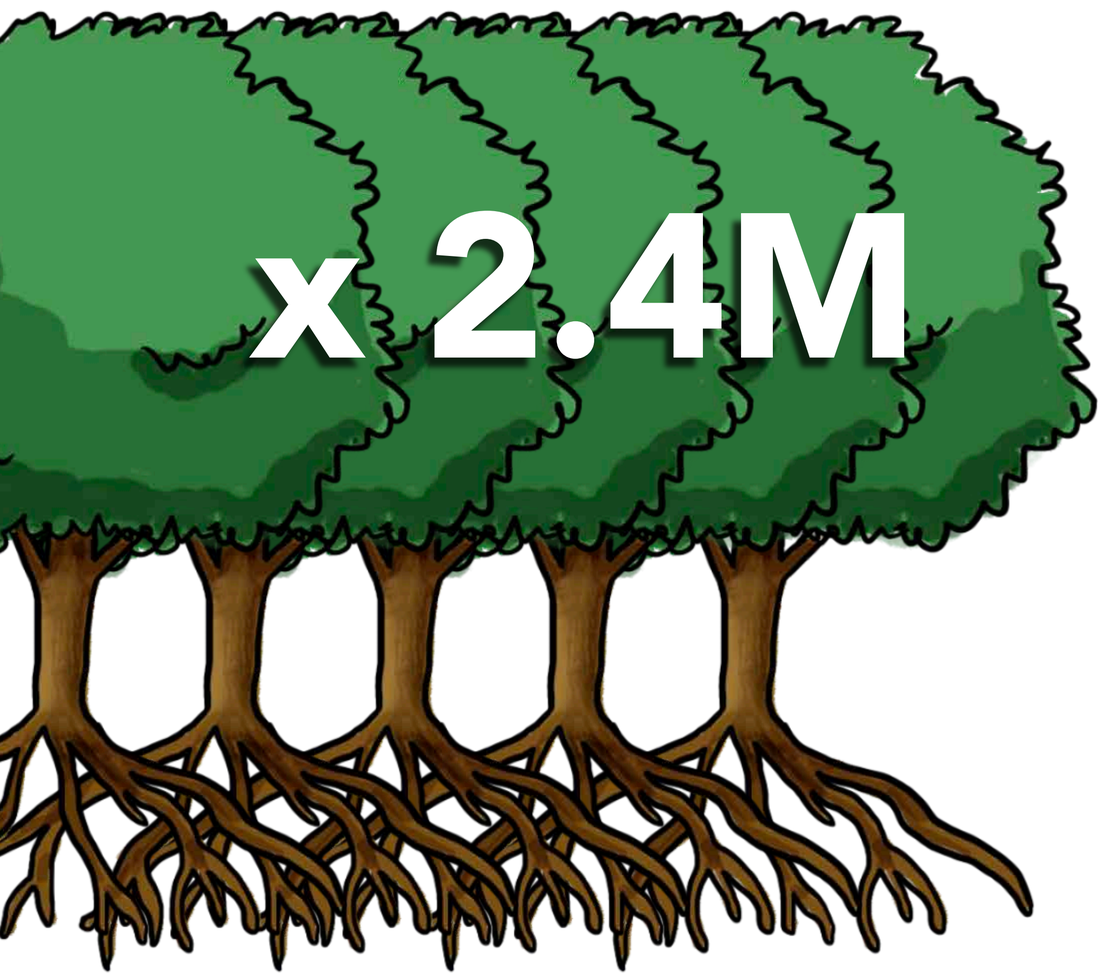
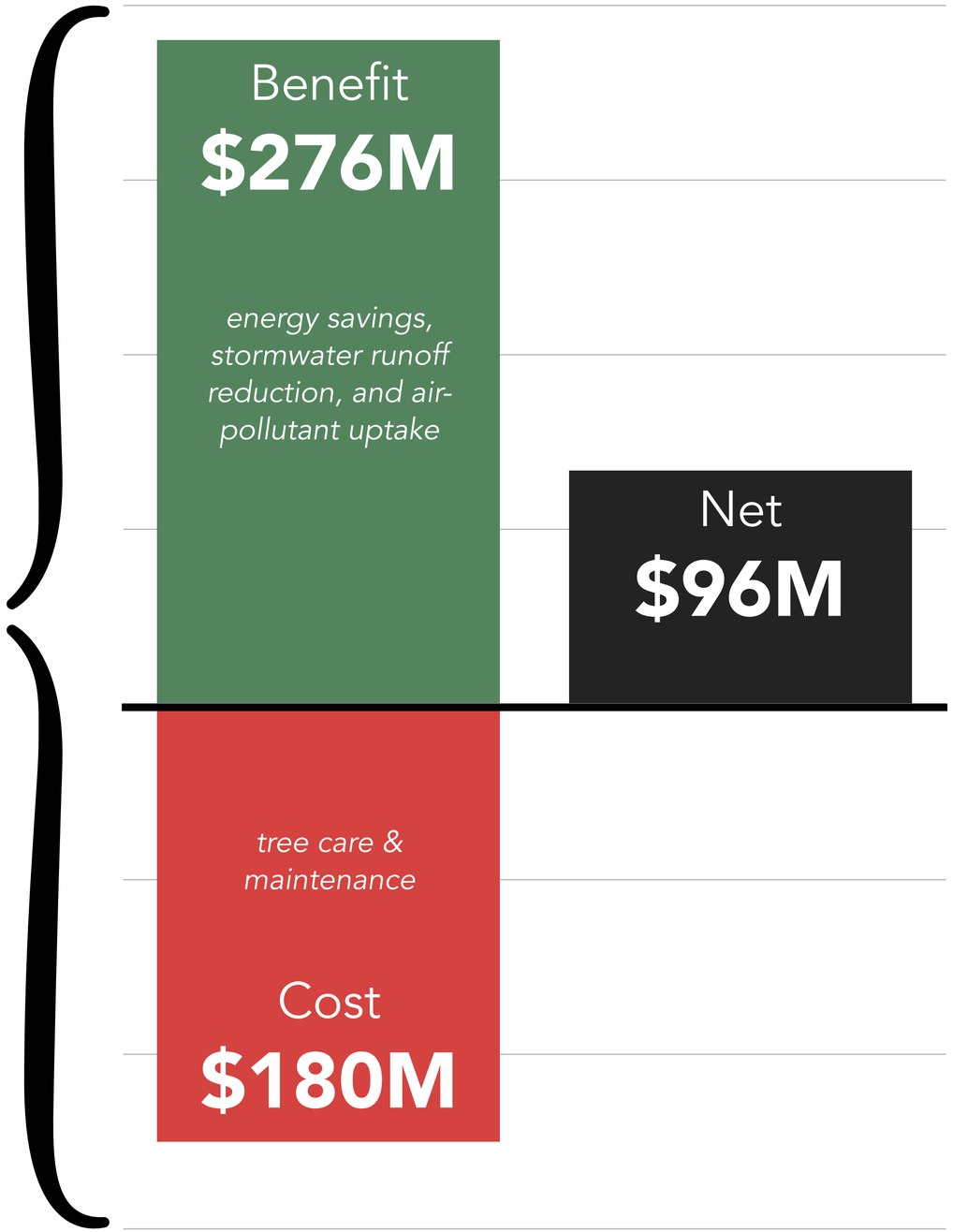
URBAN3

Annual Impacts of 10,000 Trees

Springfield, MO





Source: City of Springfield MO (2022), agnr.osu.edu

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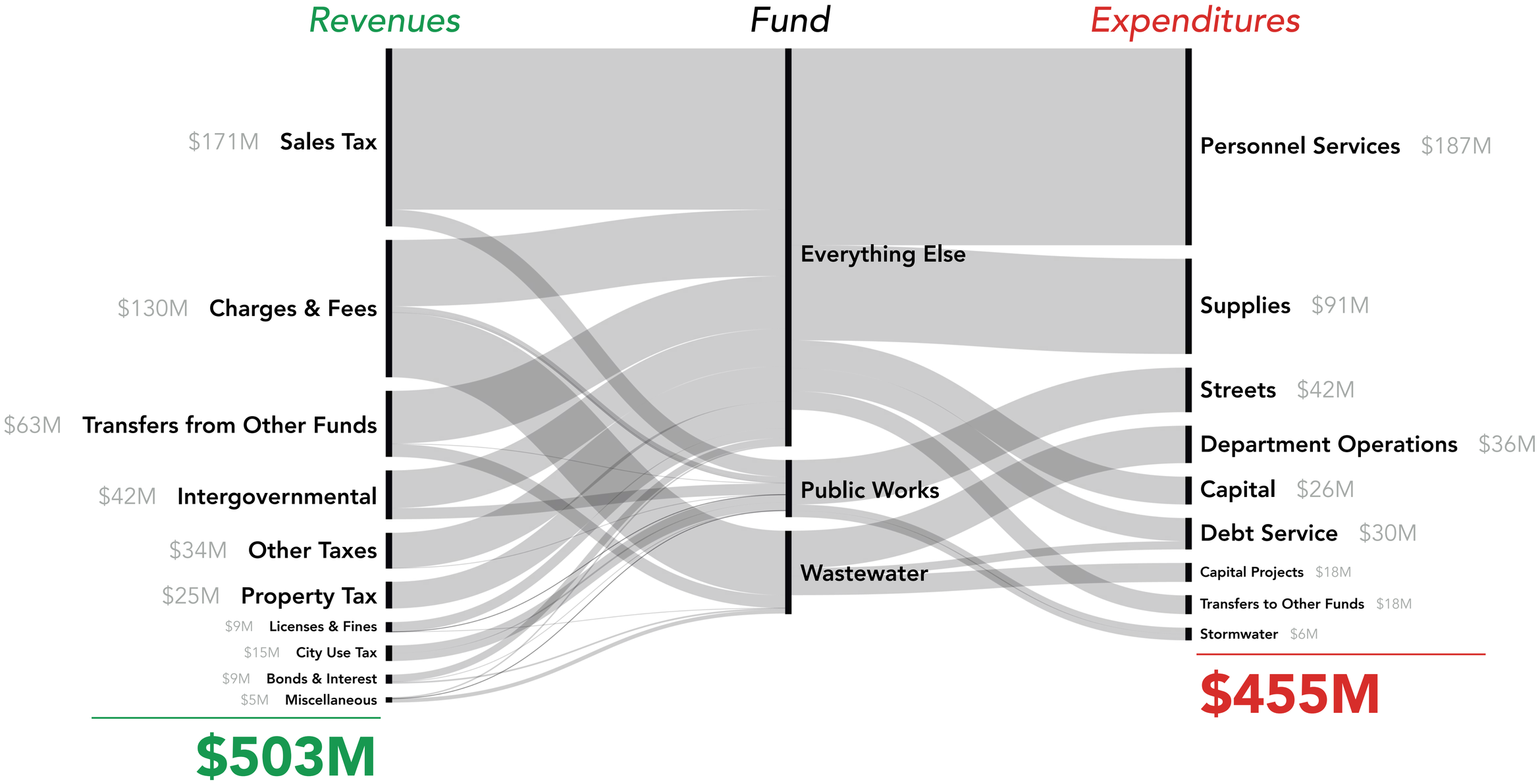
Financial Flow Diagram: Capital Spending

Springfield, MO

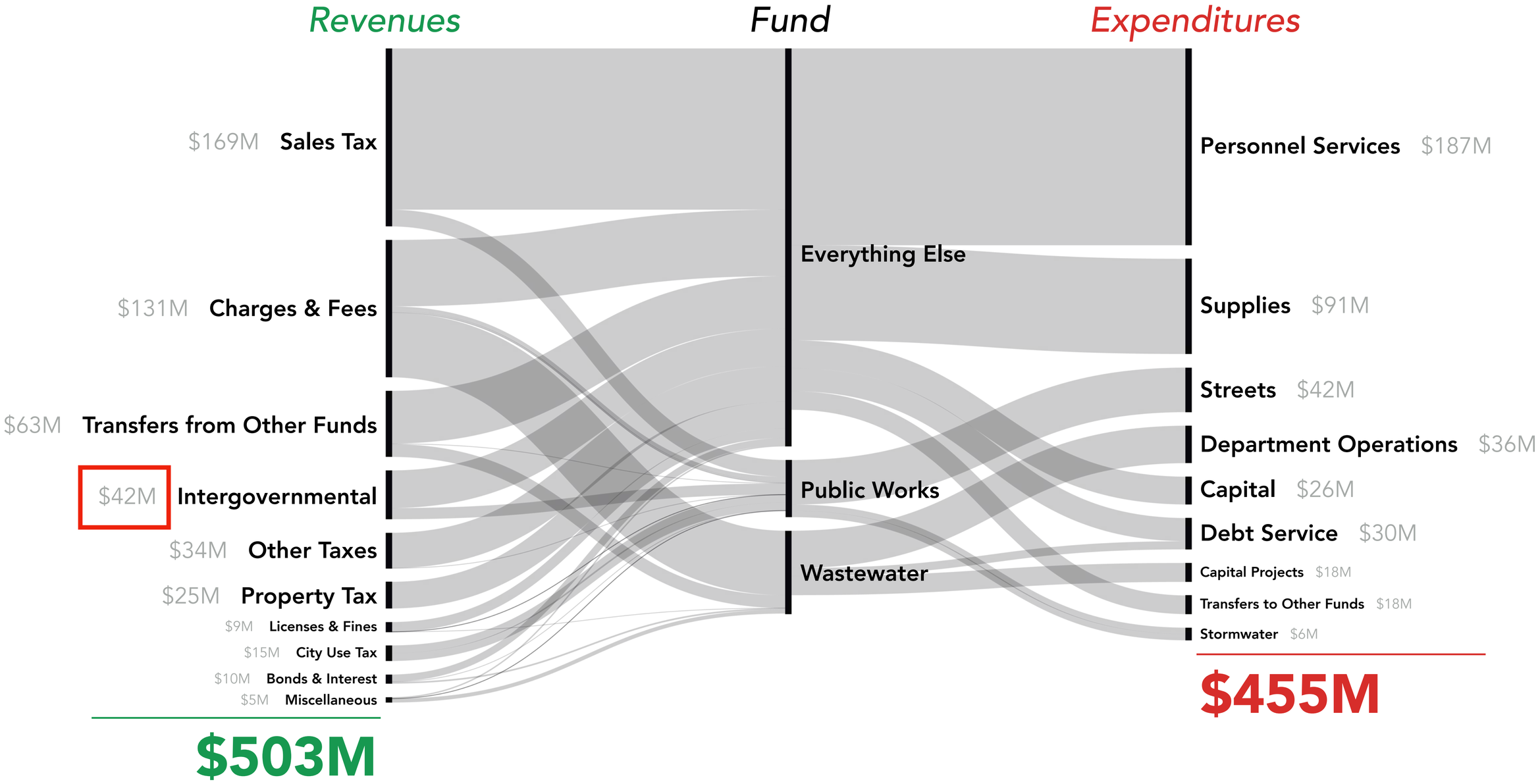


Source: City of Springfield, MO FY 2023-2024 Adopted Budget

URBAN3

Financial Flow Diagram: Capital Spending

Springfield, MO

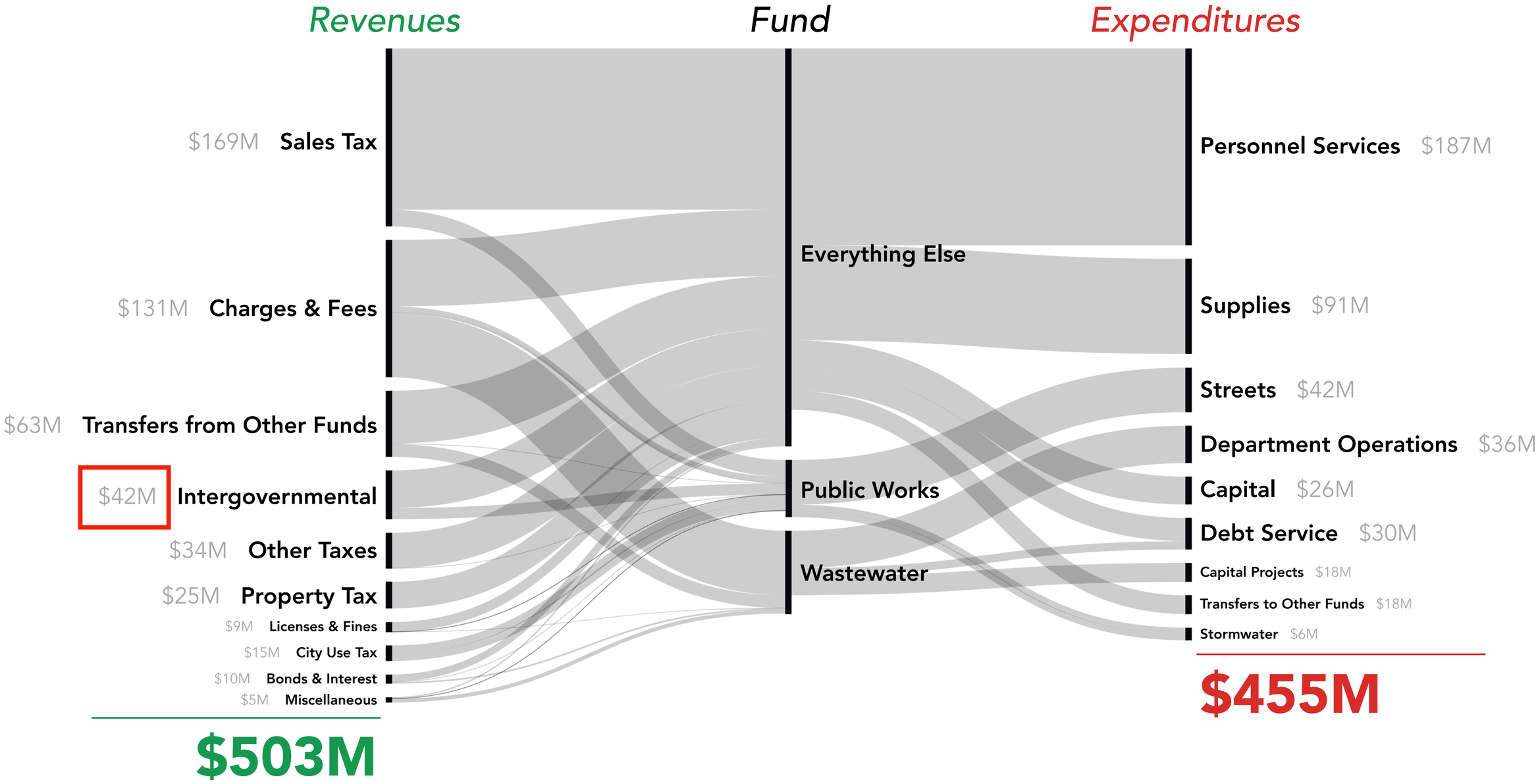


Source: City of Springfield, MO FY 2023-2024 Adopted Budget

URBAN3

Financial Flow Diagram: Capital Spending

Springfield, MO

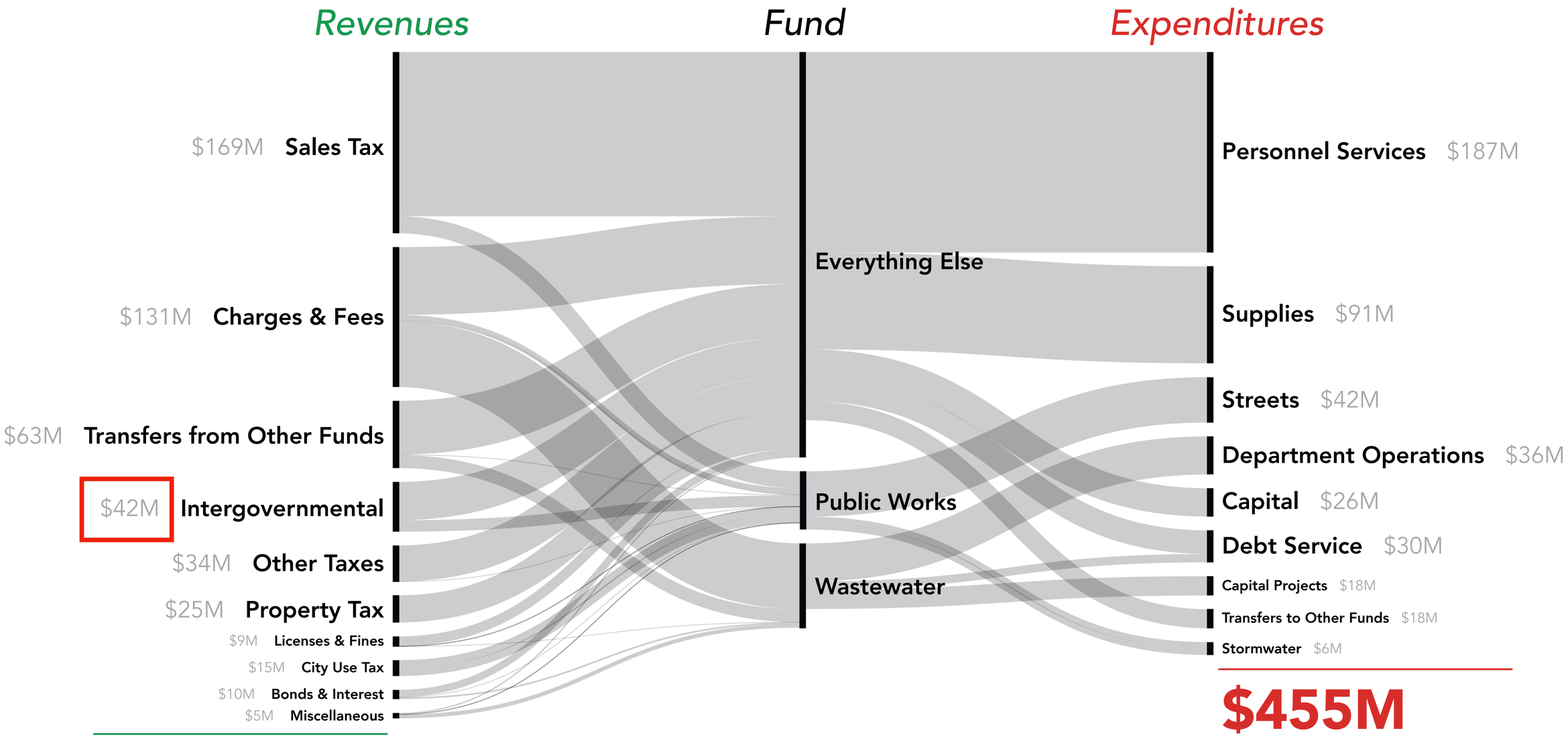


Source: City of Springfield, MO FY 2023-2024 Adopted Budget

URBAN3

Financial Flow Diagram: Capital Spending

Springfield, MO



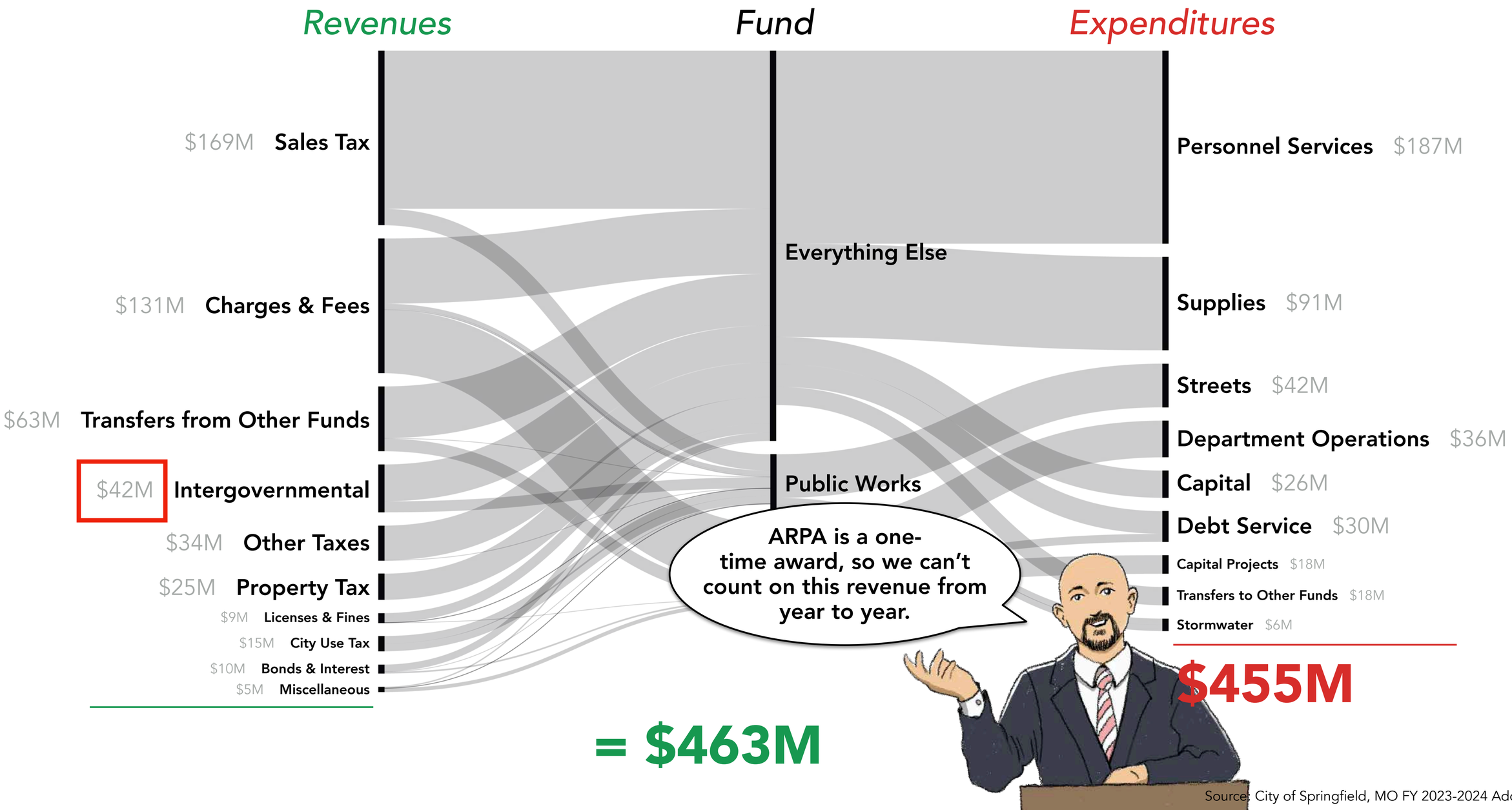
= $463M

Source: City of Springfield, MO FY 2023-2024 Adopted Budget

URBAN3

Financial Flow Diagram: Capital Spending

Springfield, MO



Source: City of Springfield, MO FY 2023-2024 Adopted Budget

How government is set up.

URBAN3

How government is set up.

How we operate in cities.

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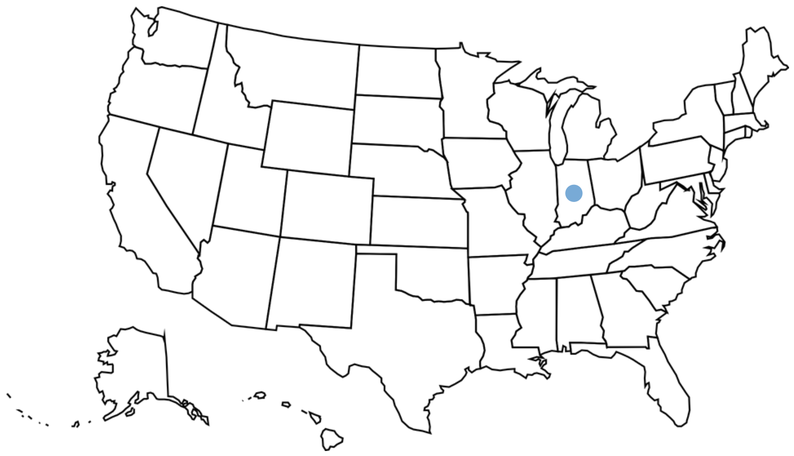
Lesson:

Use data for infill decisions and interrogate bias.



Case Study: Economic MRI®
2019

Indianapolis, Indiana

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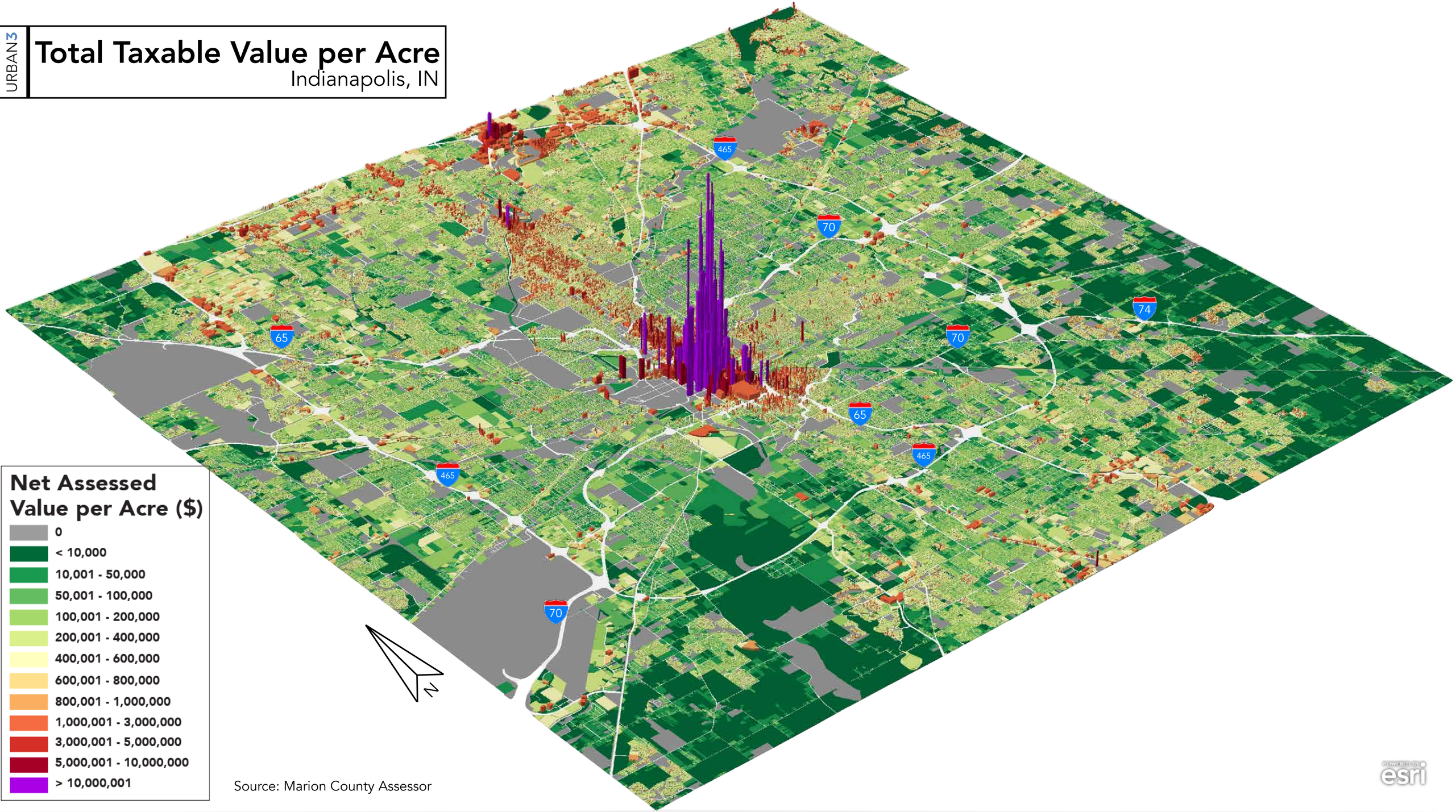
Total Taxable Value per Acre

Indianapolis, IN



Net Assessed Value per Acre ($)

- 0
- < 10,000
- 10,001 - 50,000
- 50,001 - 100,000
- 100,001 - 200,000
- 200,001 - 400,000
- 400,001 - 600,000
- 600,001 - 800,000
- 800,001 - 1,000,000
- 1,000,001 - 3,000,000
- 3,000,001 - 5,000,000
- 5,000,001 - 10,000,000
- > 10,000,001

Source: Marion County Assessor

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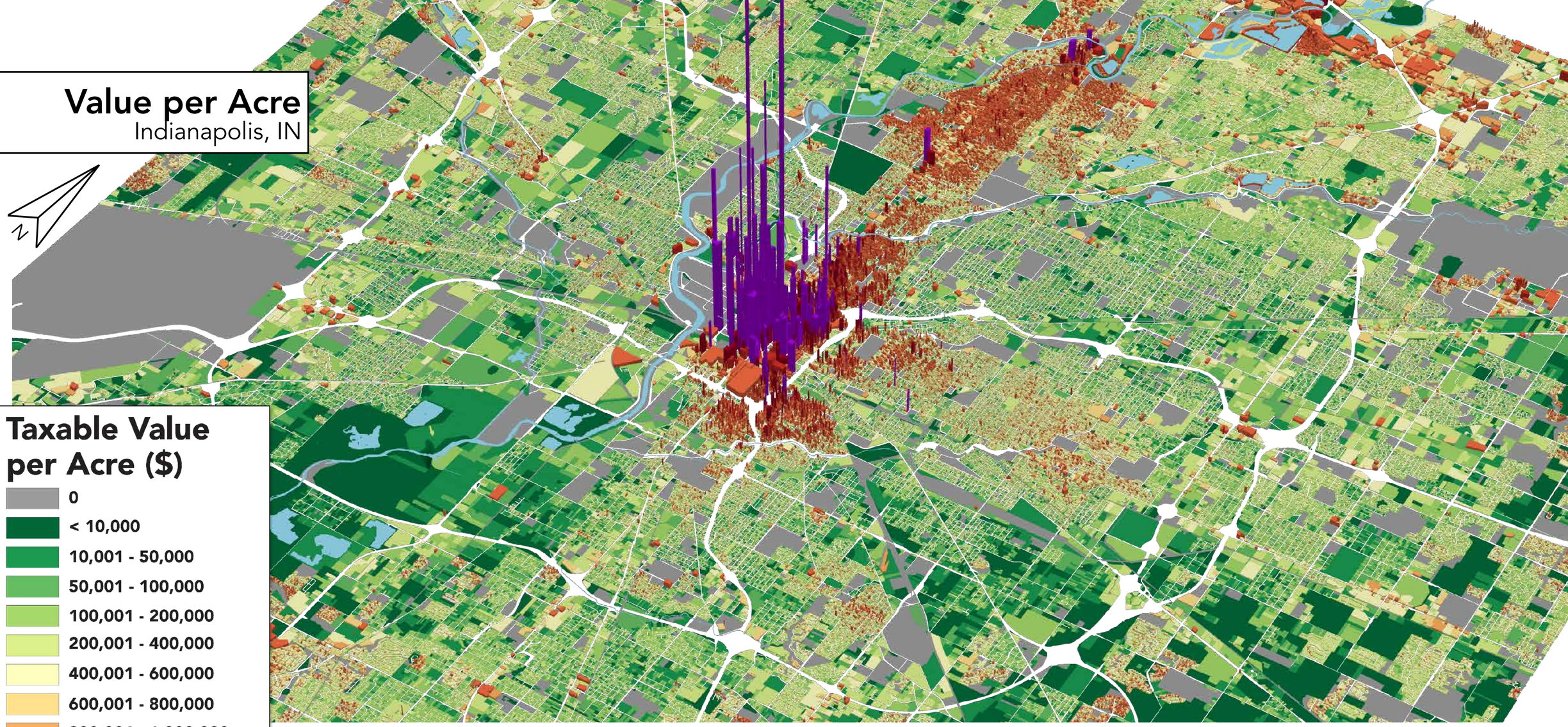
Value per Acre

Indianapolis, IN



Taxable Value per Acre ($)

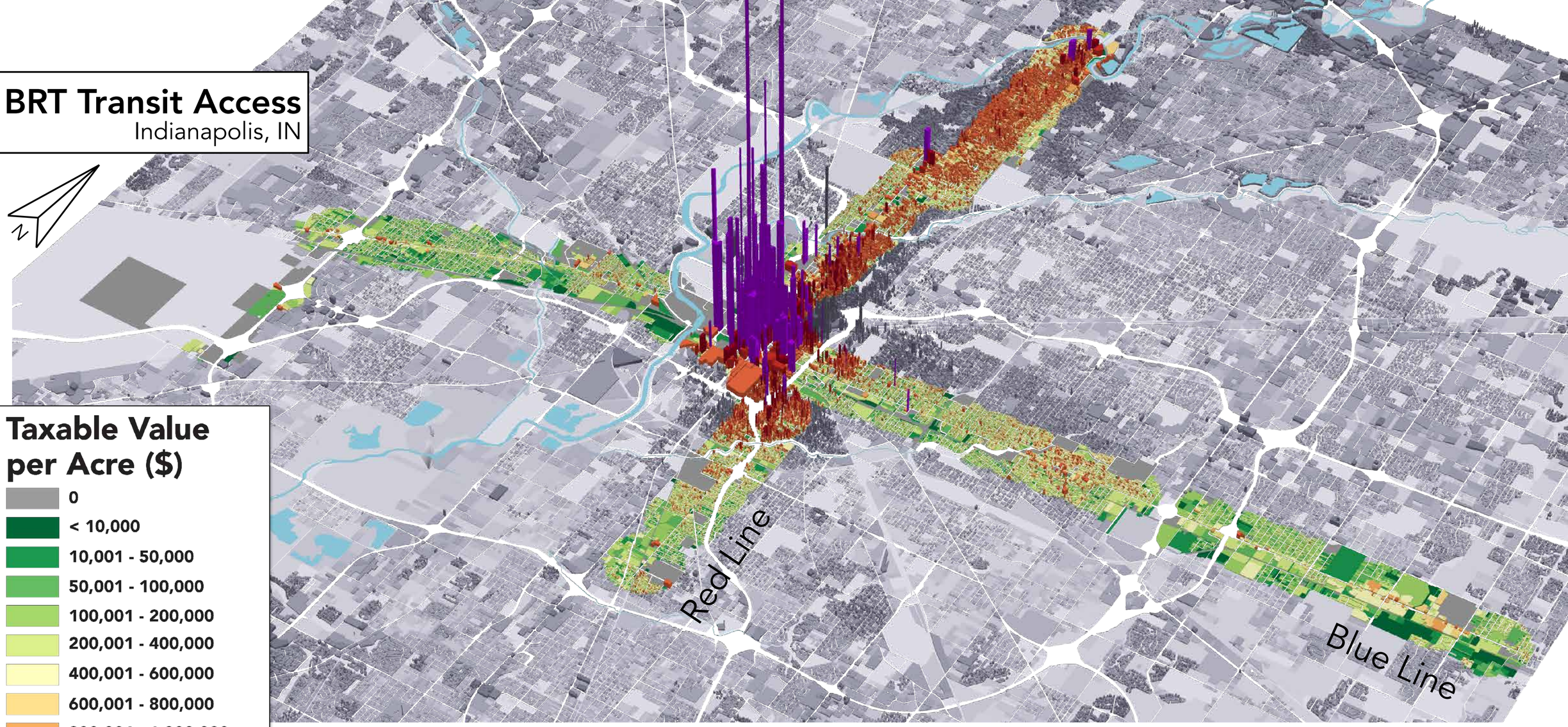
- 0
- < 10,000
- 10,001 - 50,000
- 50,001 - 100,000
- 100,001 - 200,000
- 200,001 - 400,000
- 400,001 - 600,000
- 600,001 - 800,000
- 800,001 - 1,000,000
- 1,000,001 - 3,000,000
- 3,000,001 - 5,000,000
- 5,000,001 - 10,000,000
- > 10,000,001

Source: Marion County Assessor

URBAN3

BRT Transit Access

Indianapolis, IN



Taxable Value per Acre ($)

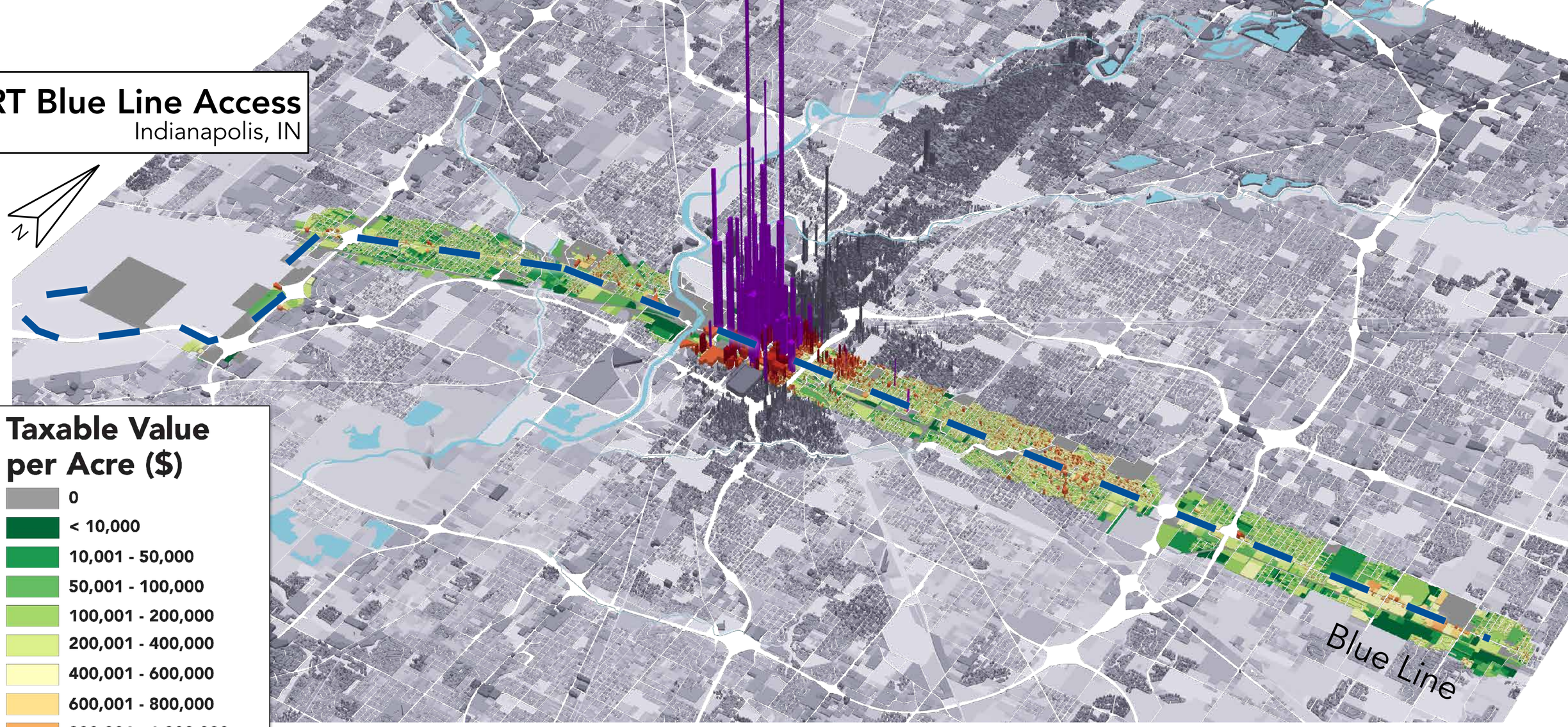
- 0
- < 10,000
- 10,001 - 50,000
- 50,001 - 100,000
- 100,001 - 200,000
- 200,001 - 400,000
- 400,001 - 600,000
- 600,001 - 800,000
- 800,001 - 1,000,000
- 1,000,001 - 3,000,000
- 3,000,001 - 5,000,000
- 5,000,001 - 10,000,000
- > 10,000,001

Source: Marion County Assessor

URBAN3

BRT Blue Line Access

Indianapolis, IN



Taxable Value per Acre ($)

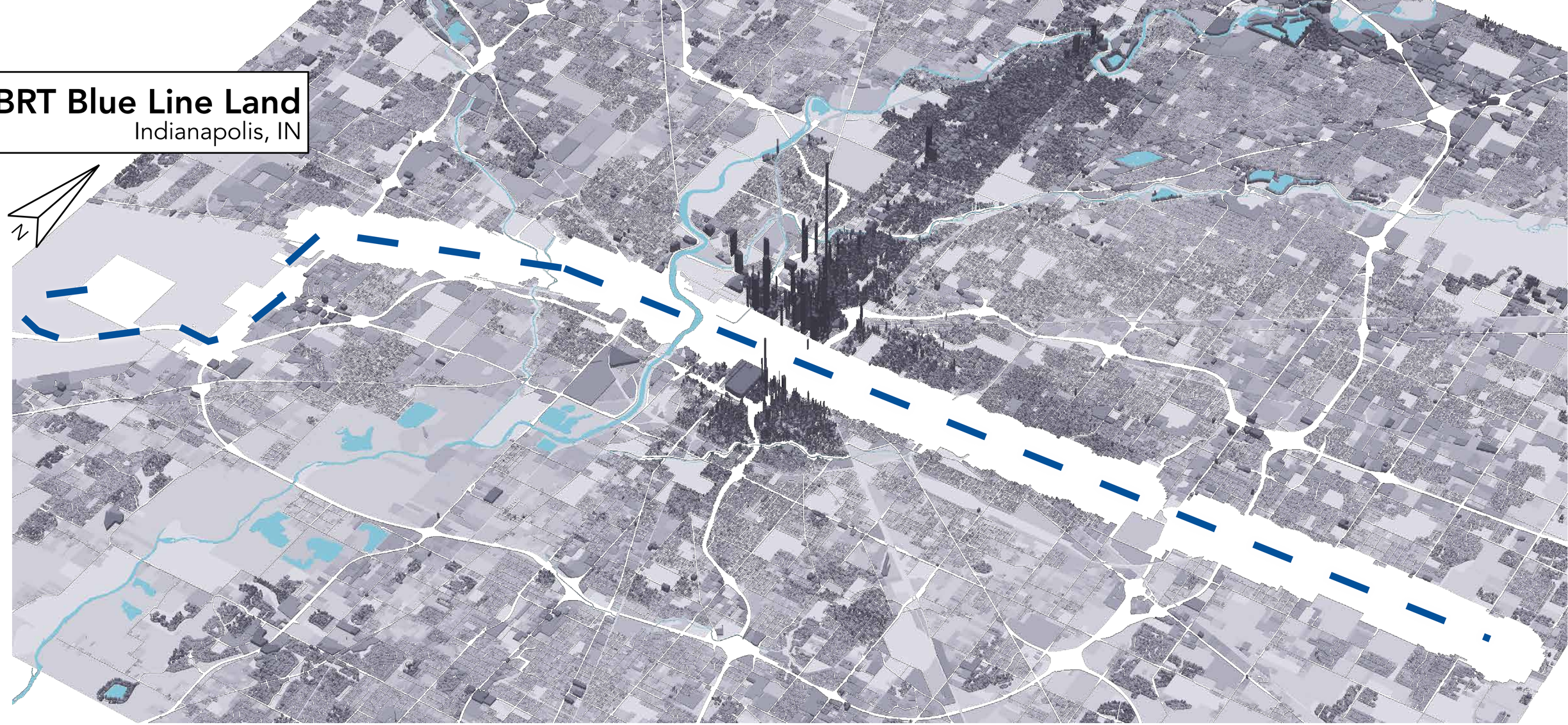
- 0
- < 10,000
- 10,001 - 50,000
- 50,001 - 100,000
- 100,001 - 200,000
- 200,001 - 400,000
- 400,001 - 600,000
- 600,001 - 800,000
- 800,001 - 1,000,000
- 1,000,001 - 3,000,000
- 3,000,001 - 5,000,000
- 5,000,001 - 10,000,000
- > 10,000,001

Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN



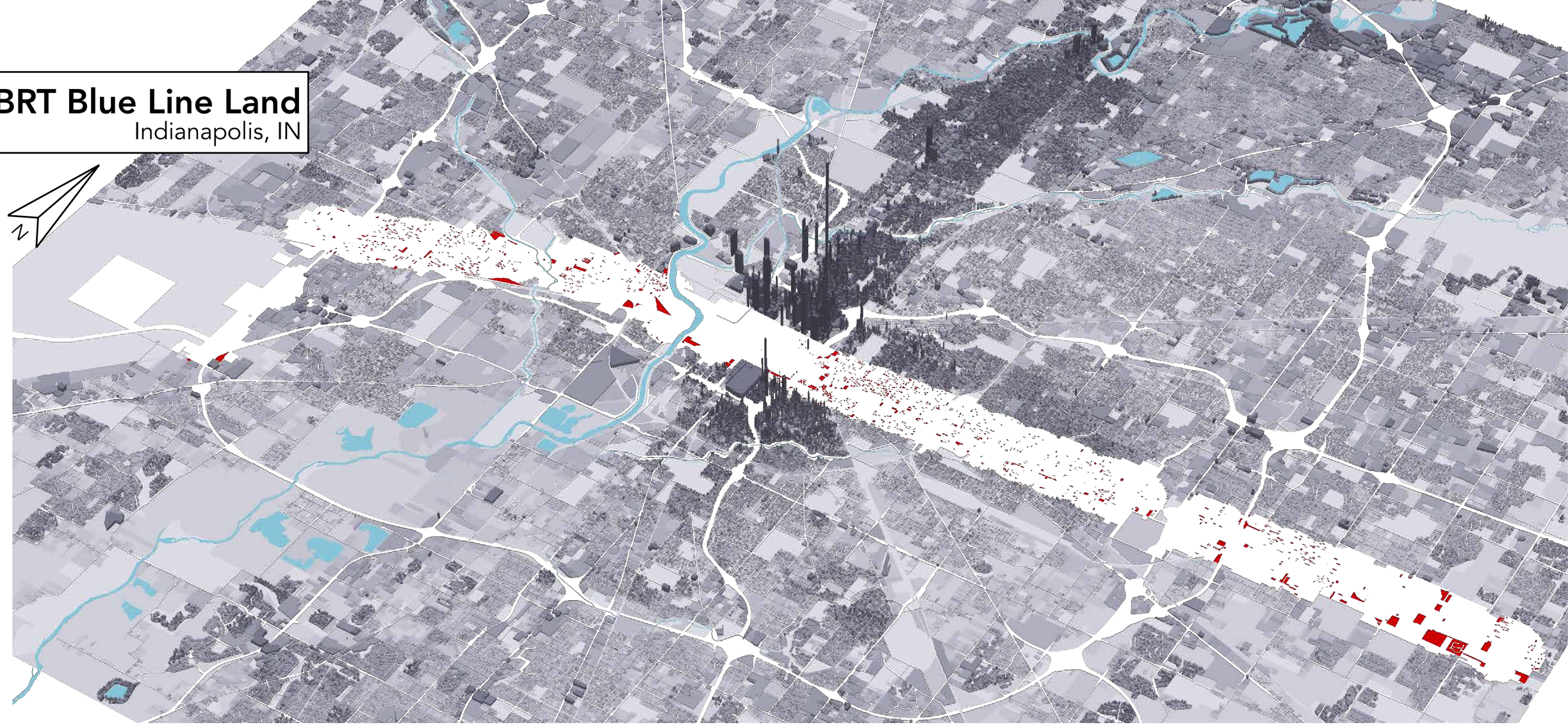
9,738
Acres

Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN



5%

9,738 Acres

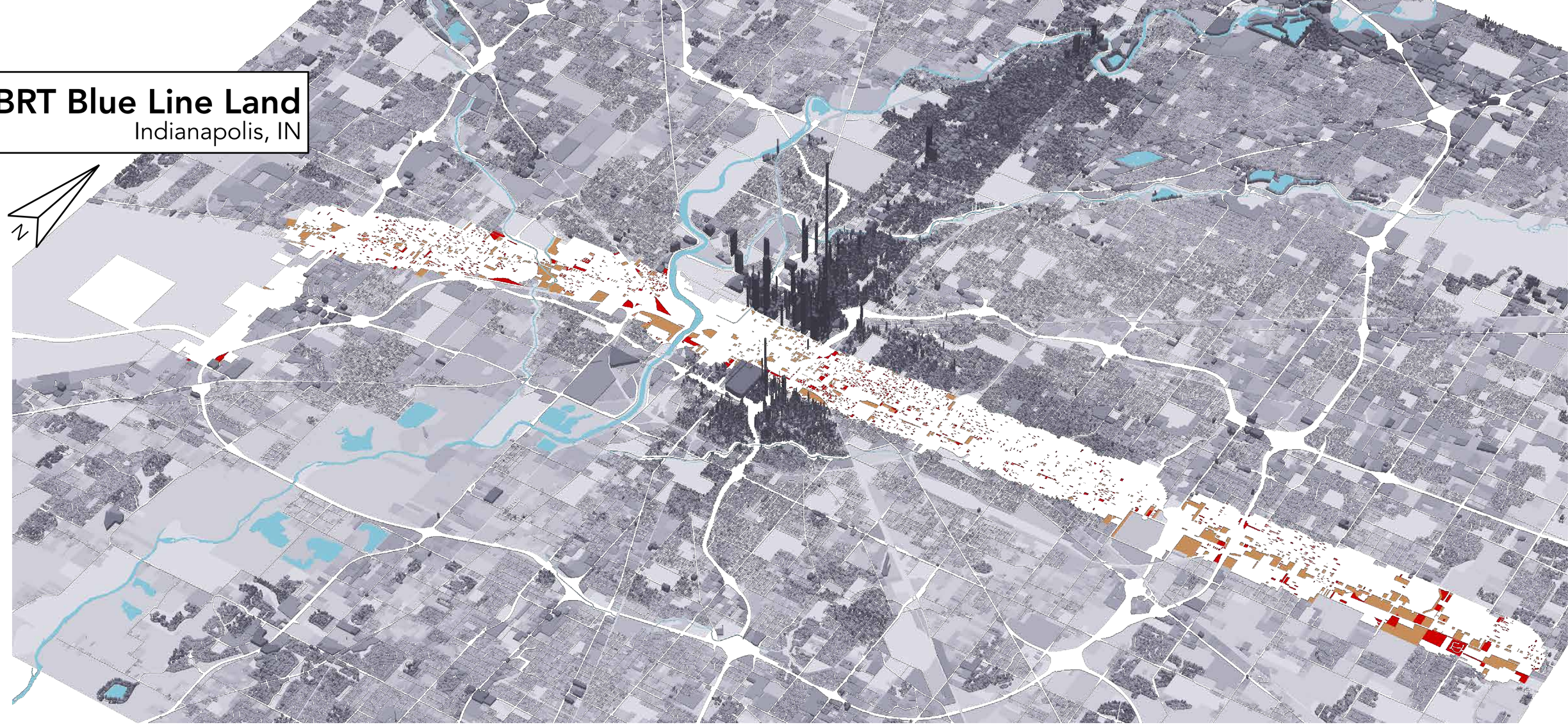
Vacant

Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN

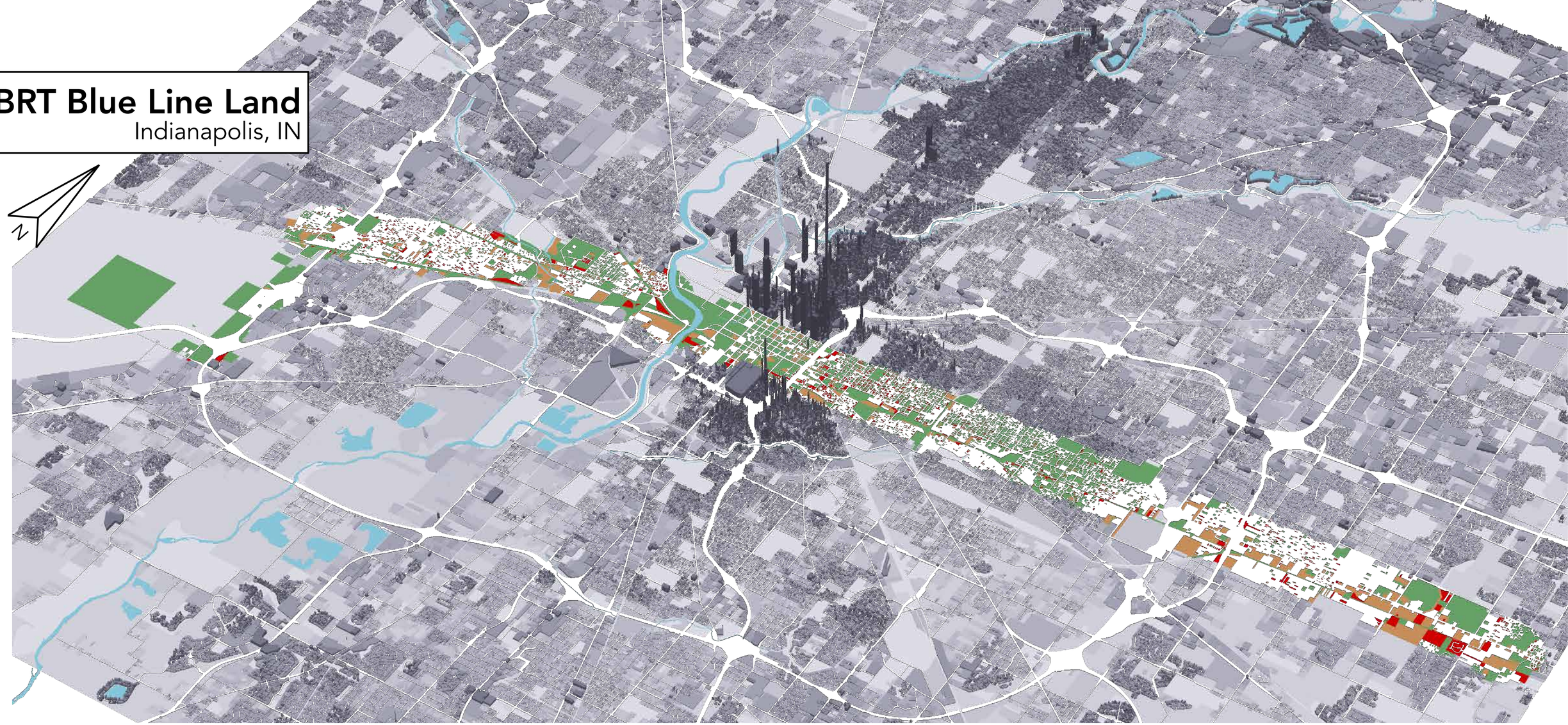


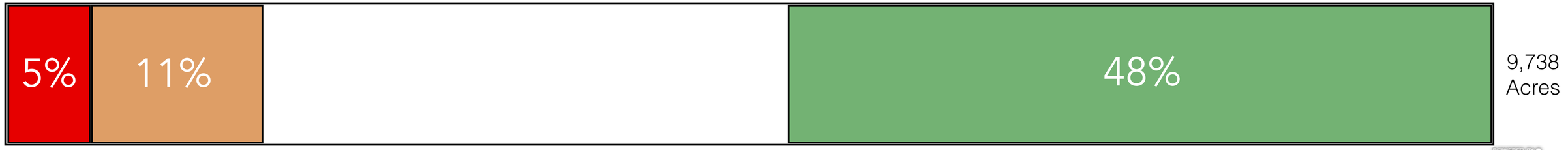
Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN



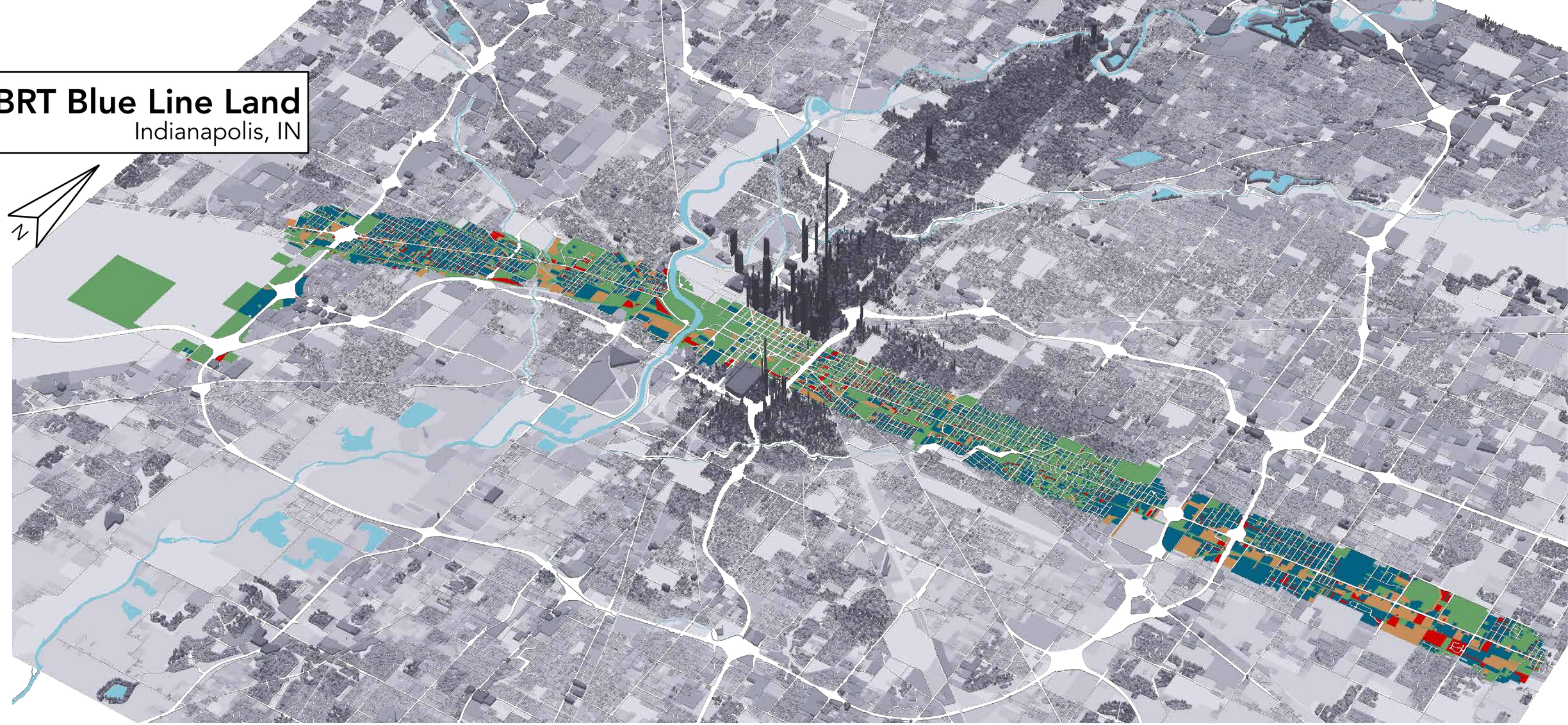


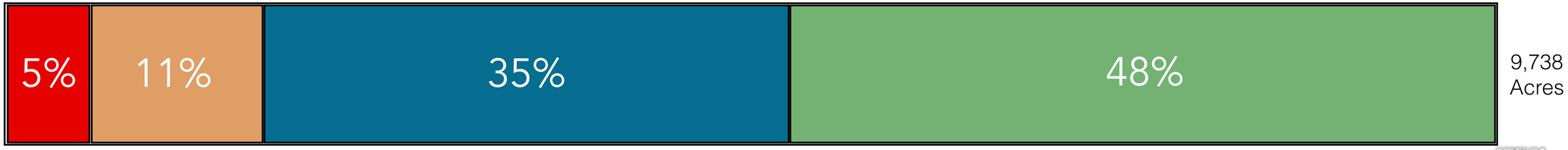
Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN



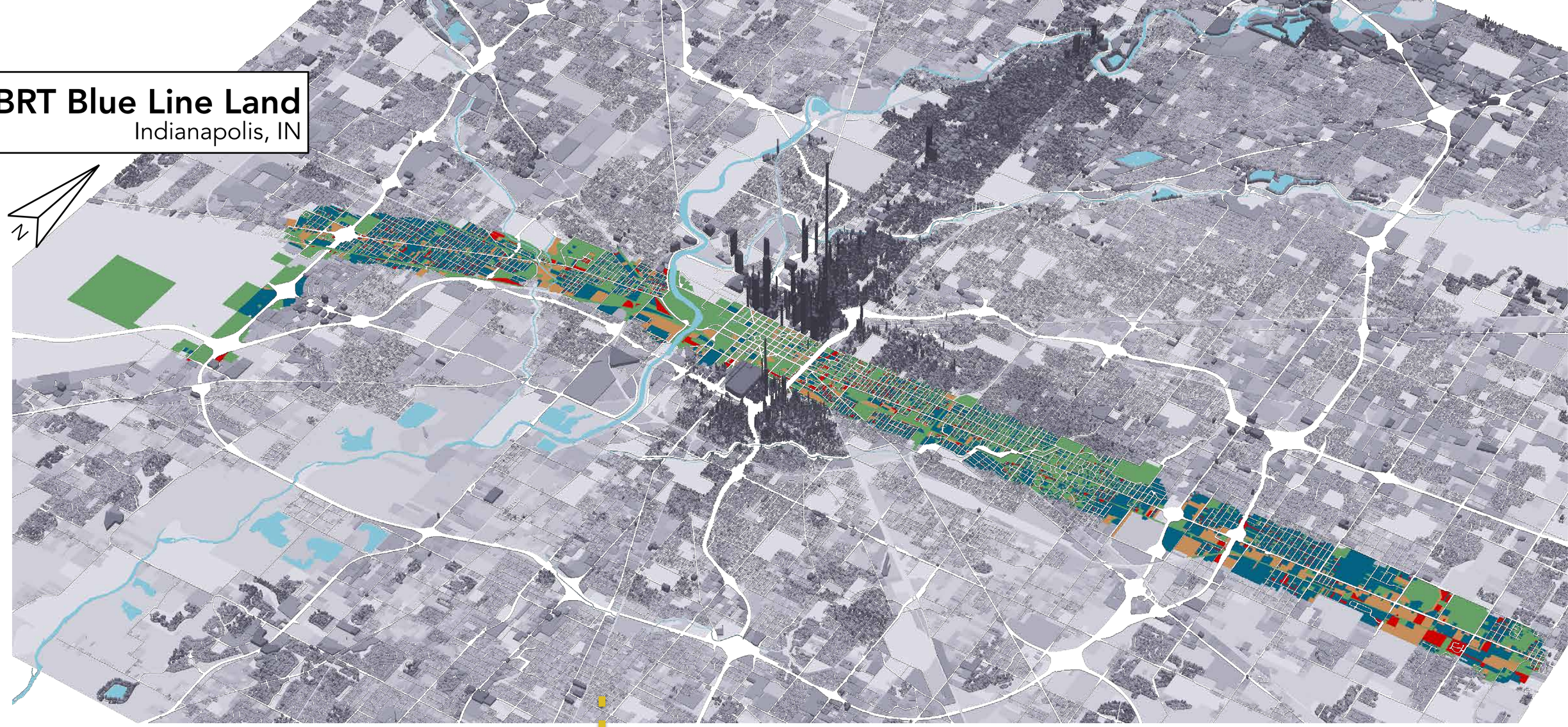


Source: Marion County Assessor

URBAN3

BRT Blue Line Land

Indianapolis, IN

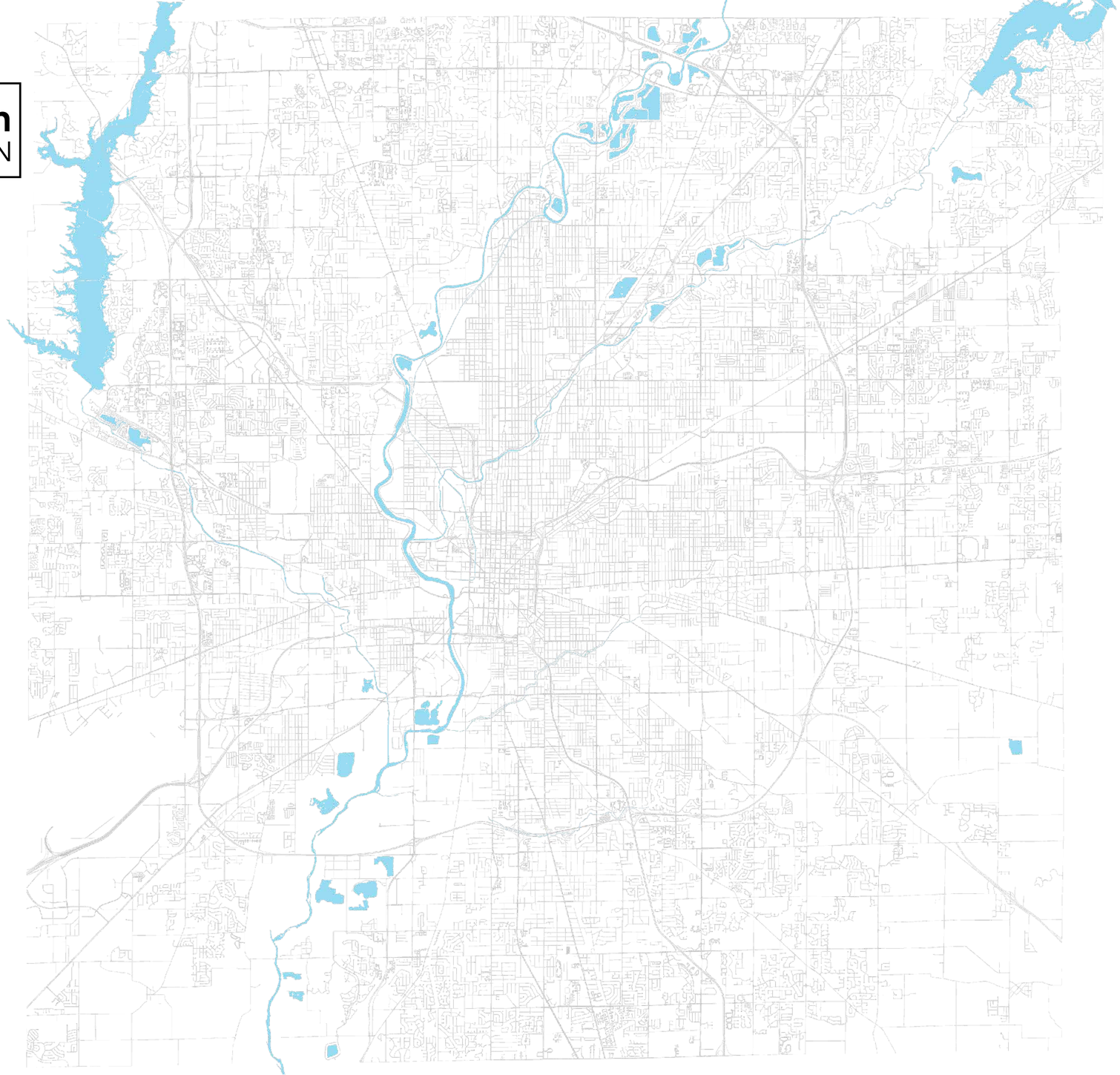


Source: Marion County Assessor

URBAN3

Land Consumption

Indianapolis, IN



LAND USE TYPES

LEGEND

- Roads
- Buildings
- Parking

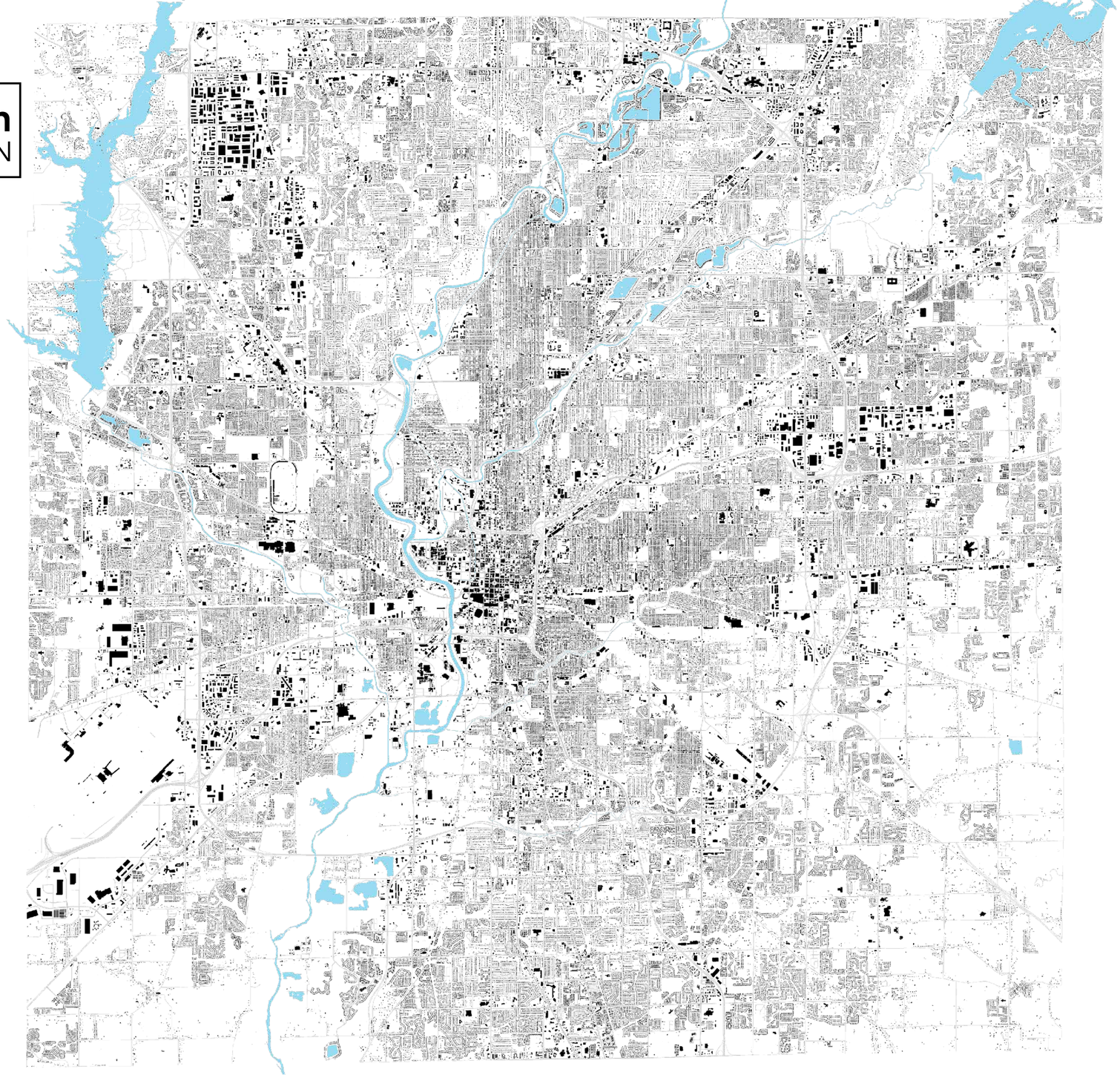
N

Source: Marion County Assessor

URBAN3

Land Consumption

Indianapolis, IN



LAND USE TYPES

LEGEND

- Roads
- Buildings
- Parking

N

Source: Marion County Assessor

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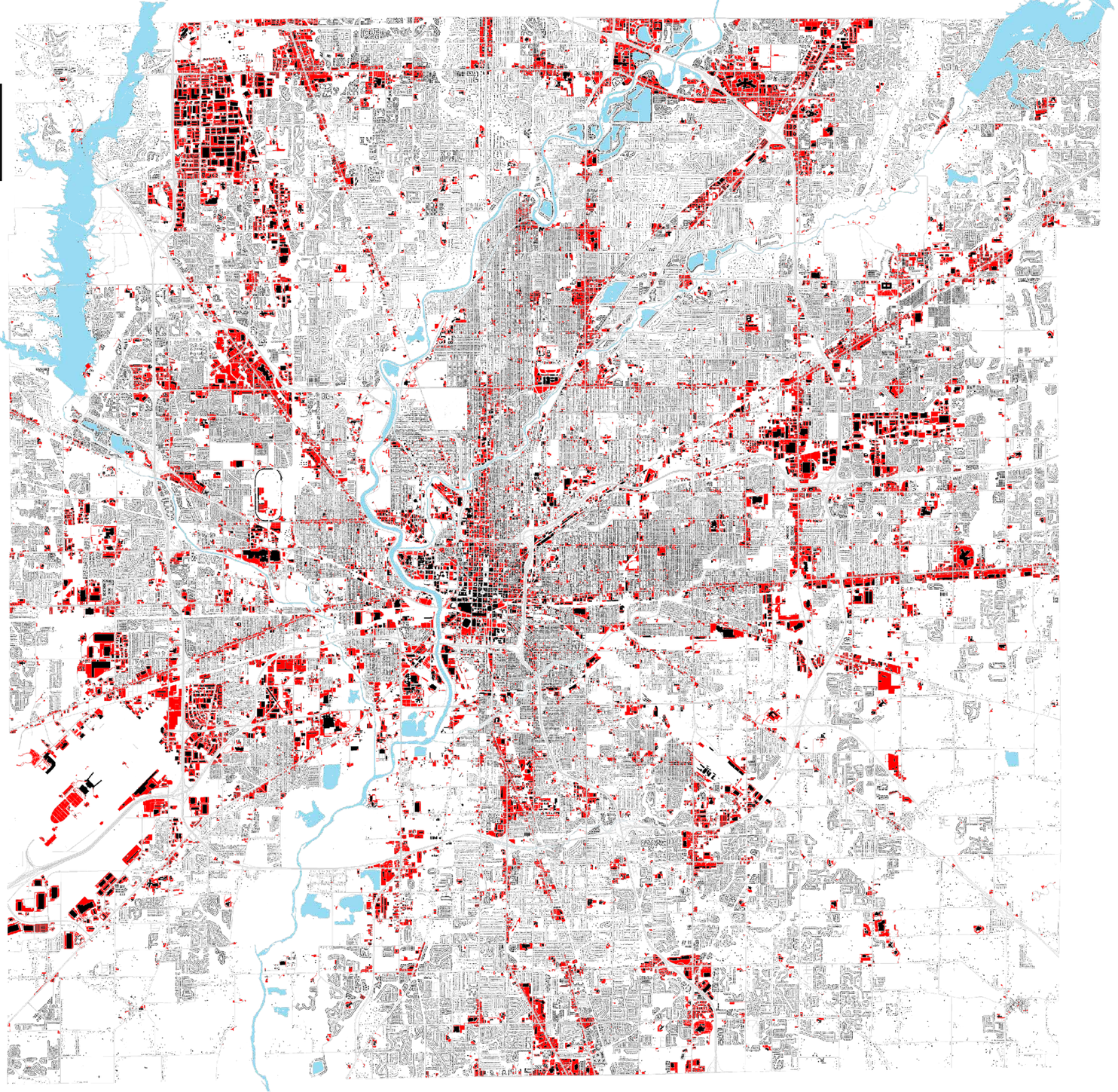
URBAN3

Land Consumption

Indianapolis, IN



LAND USE TYPES

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Source: Marion County Assessor

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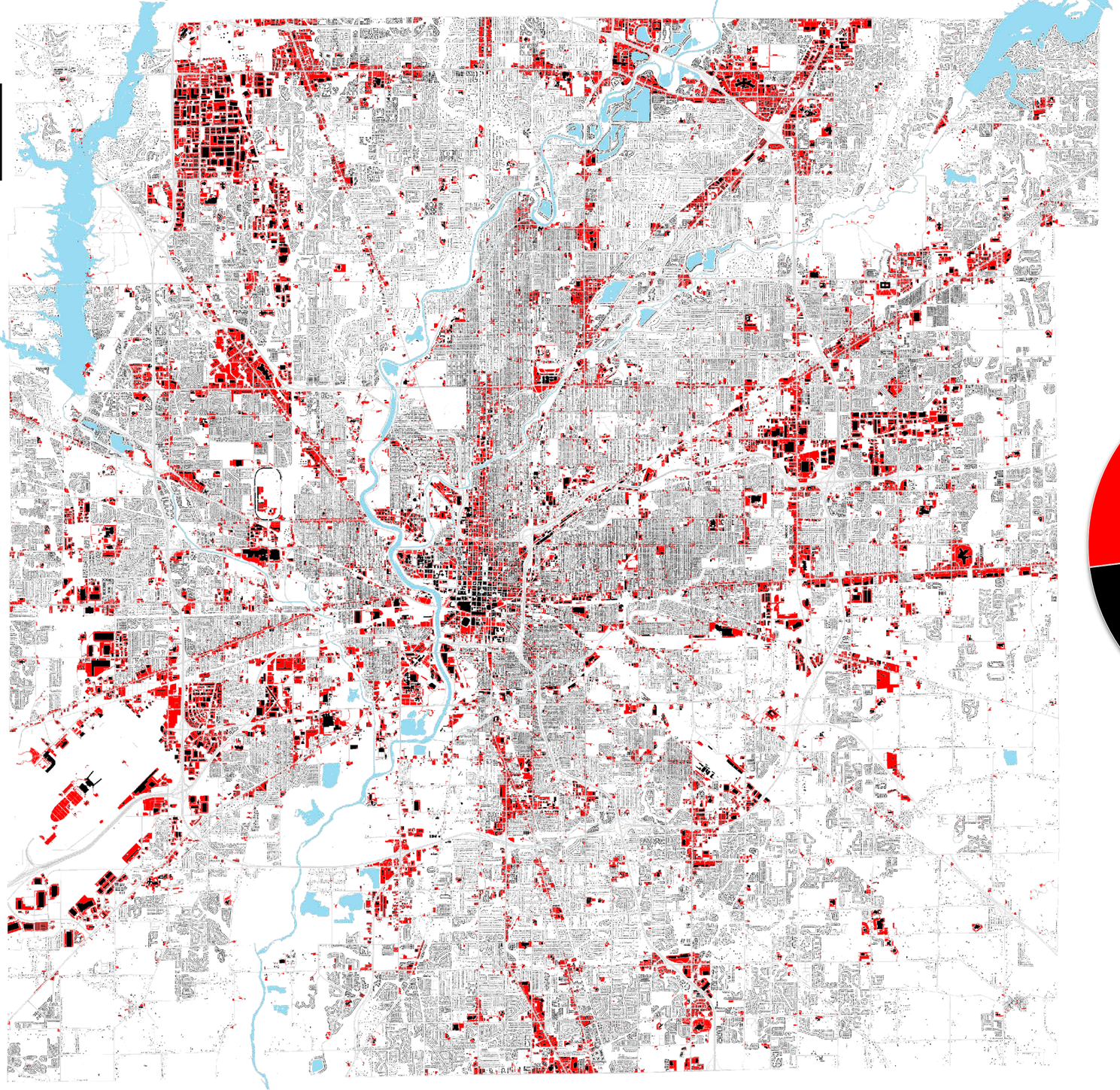
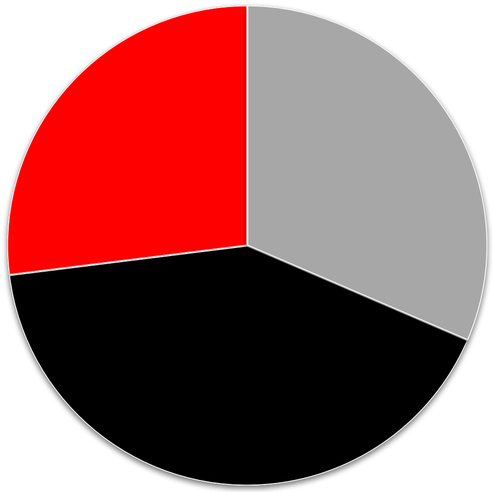
Land Consumption

Indianapolis, IN





LAND USE TYPES

LEGEND

- Roads
- Buildings
- Parking

N

Source: Marion County Assessor

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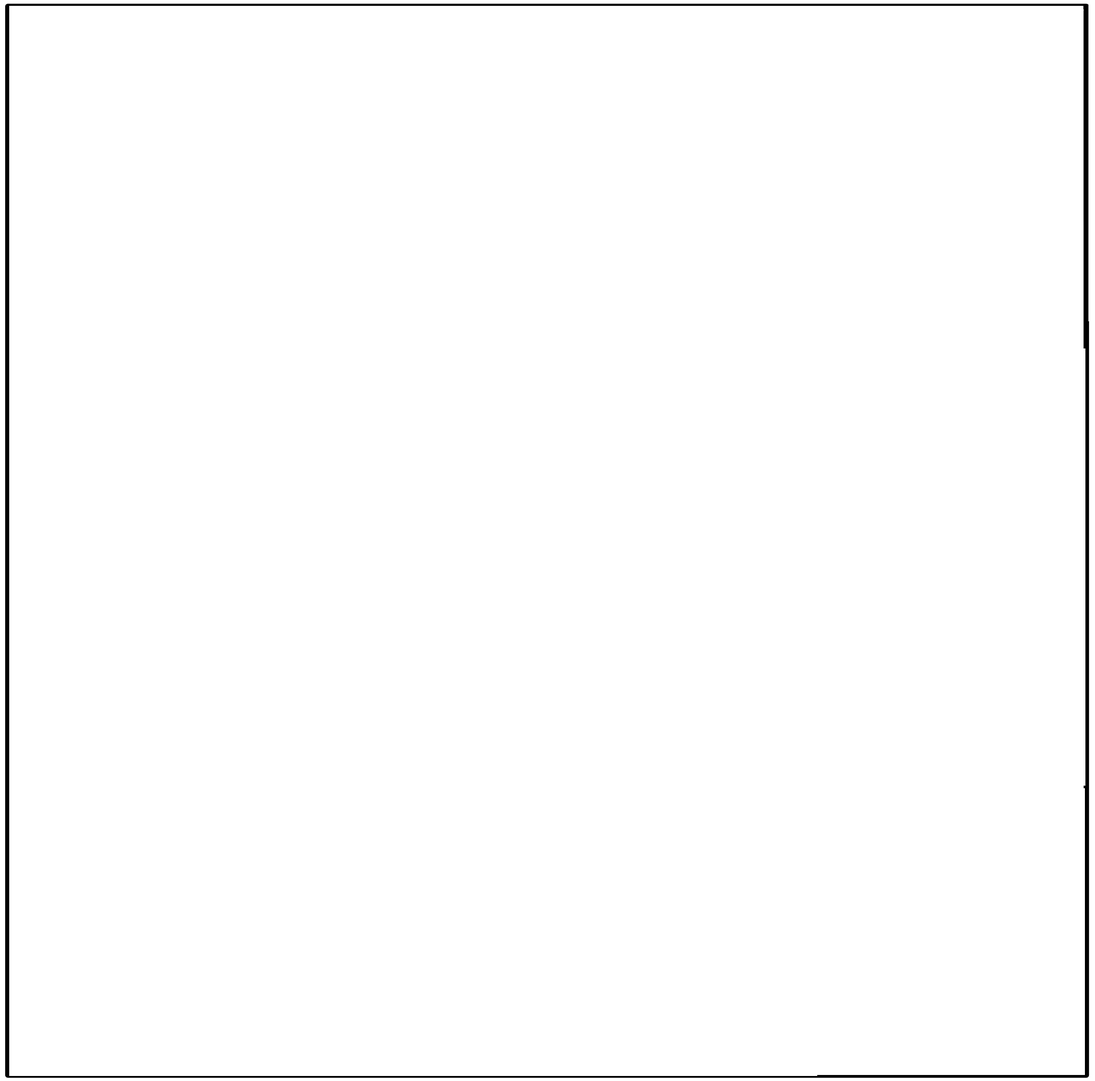
URBAN3

Land Consumption

Indianapolis, IN

Land Area (Mi^2)



Source: Marion County

URBAN3

Land Consumption

Indianapolis, IN

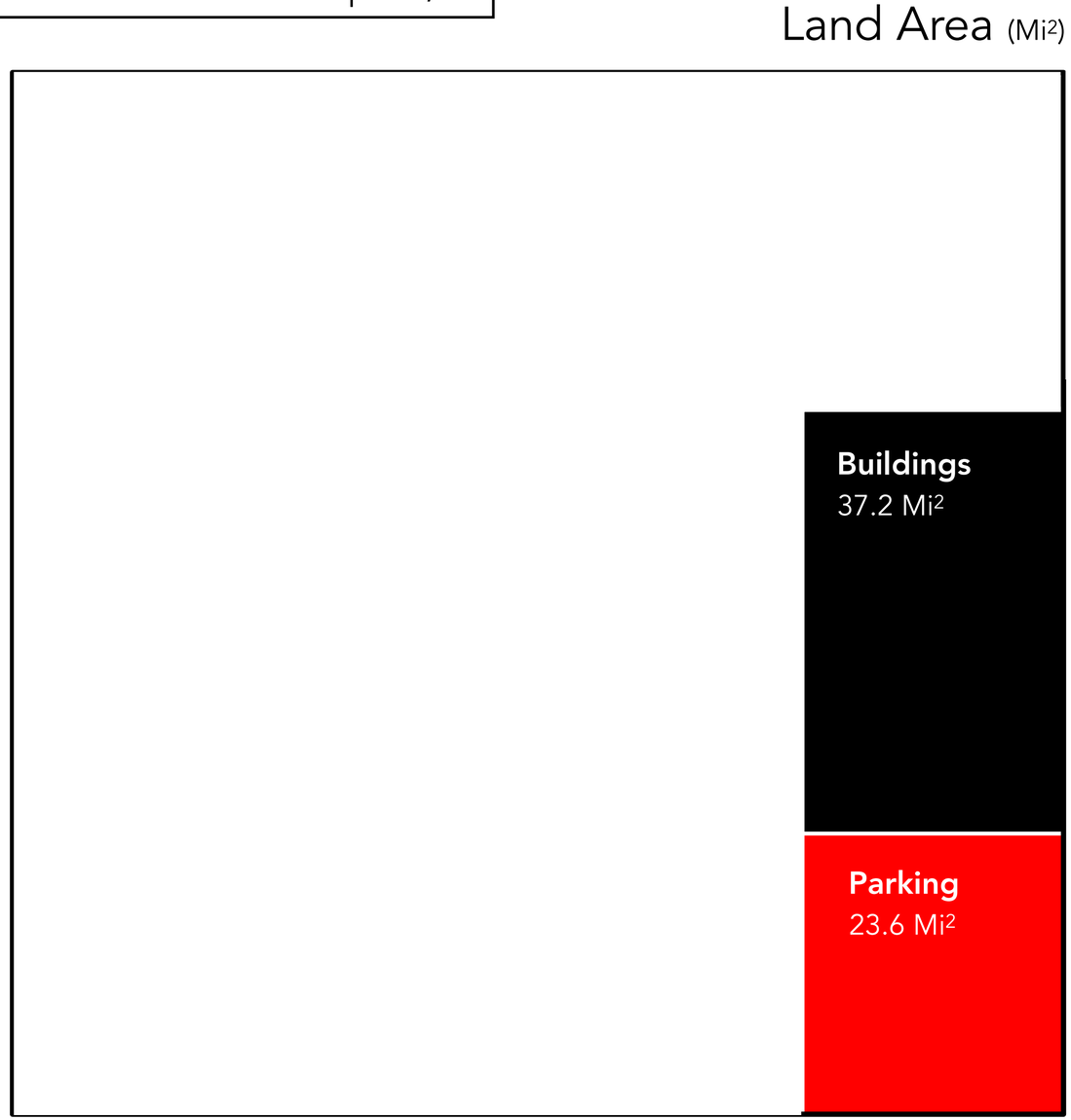
Land Area (Mi^2)

Source: Marion County

URBAN3

Land Consumption

Indianapolis, IN

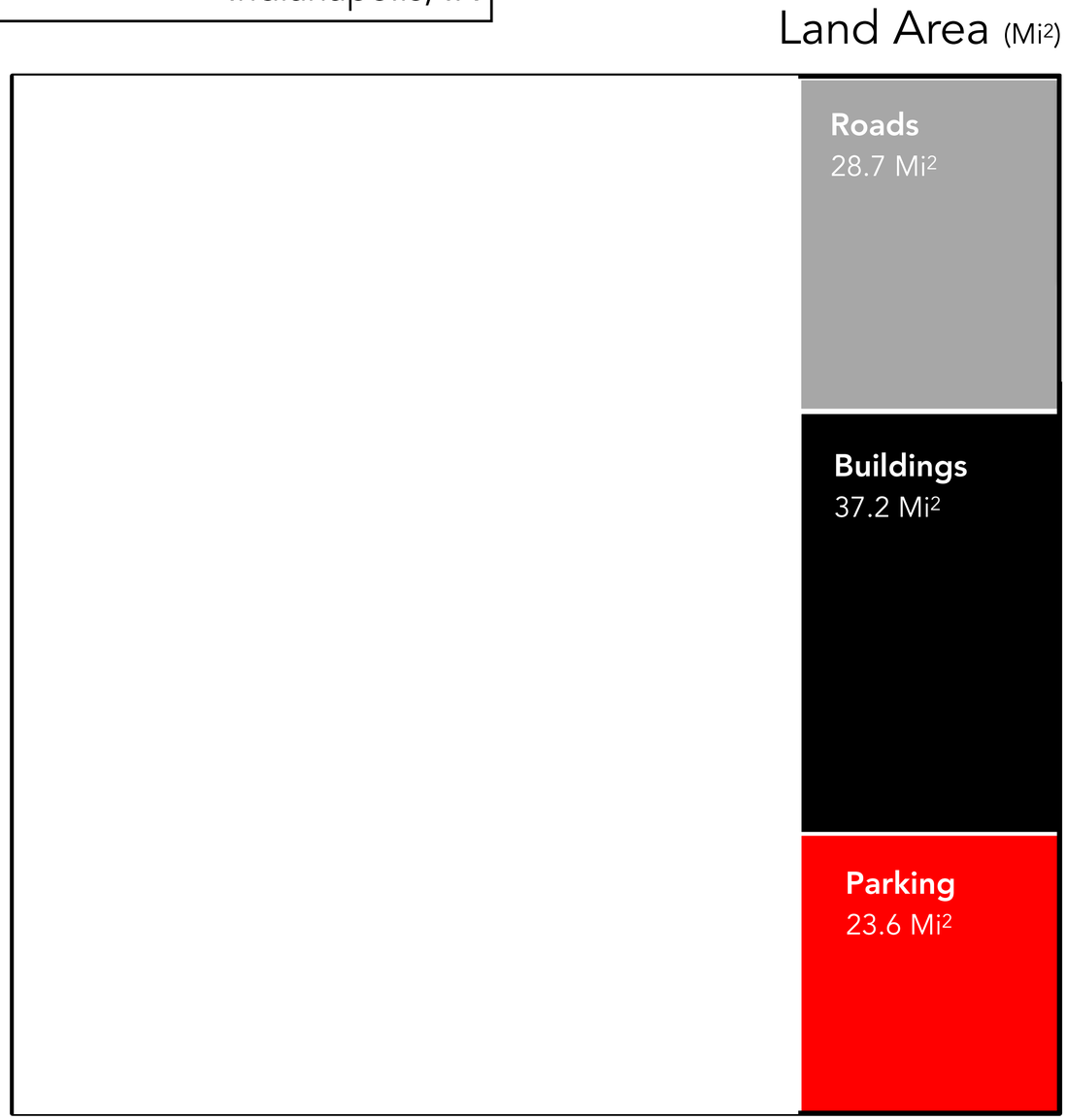


Source: Marion County

URBAN3

Land Consumption

Indianapolis, IN



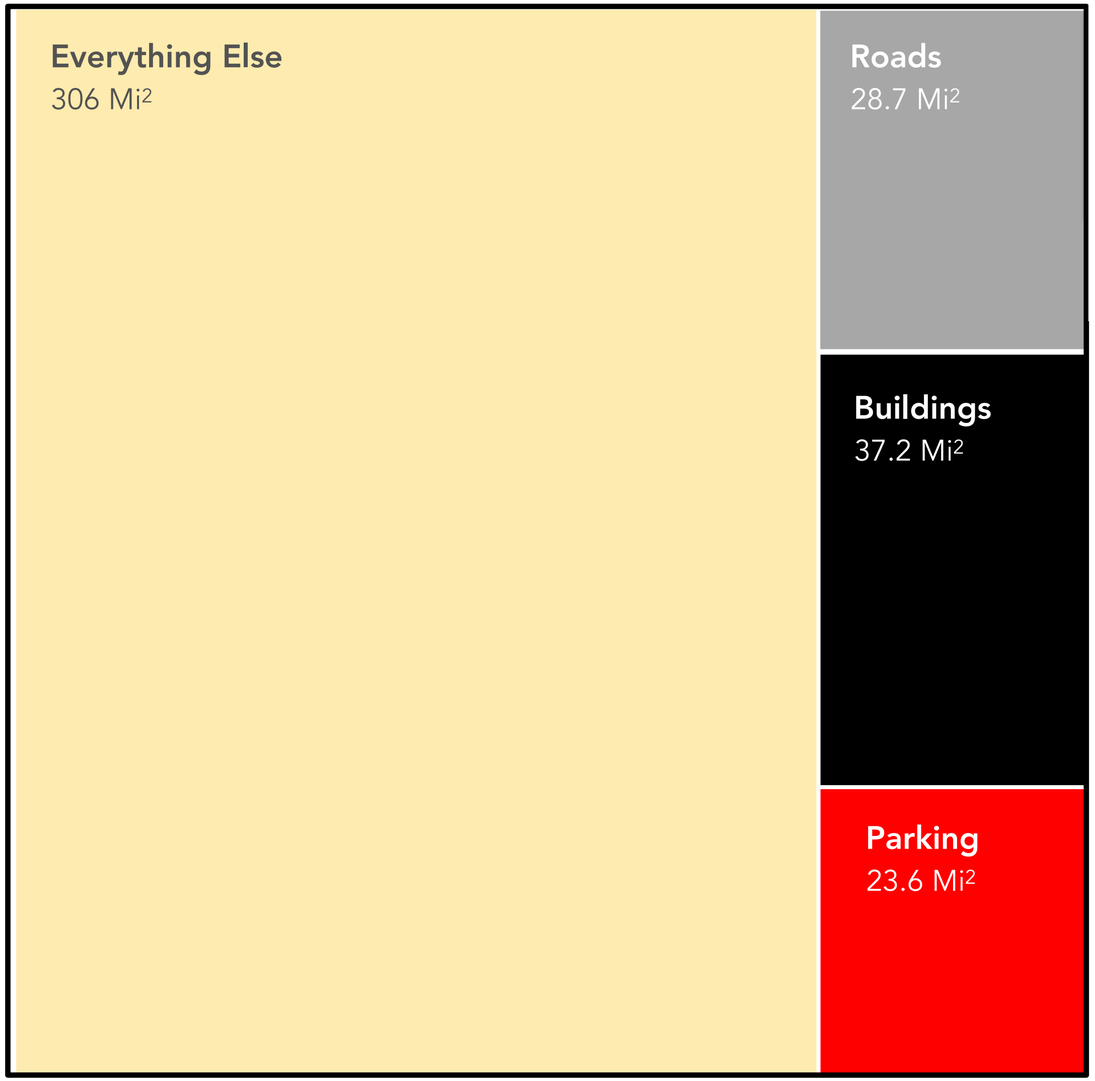
Source: Marion County

URBAN3

Land Consumption

Indianapolis, IN

Land Area (Mi²)

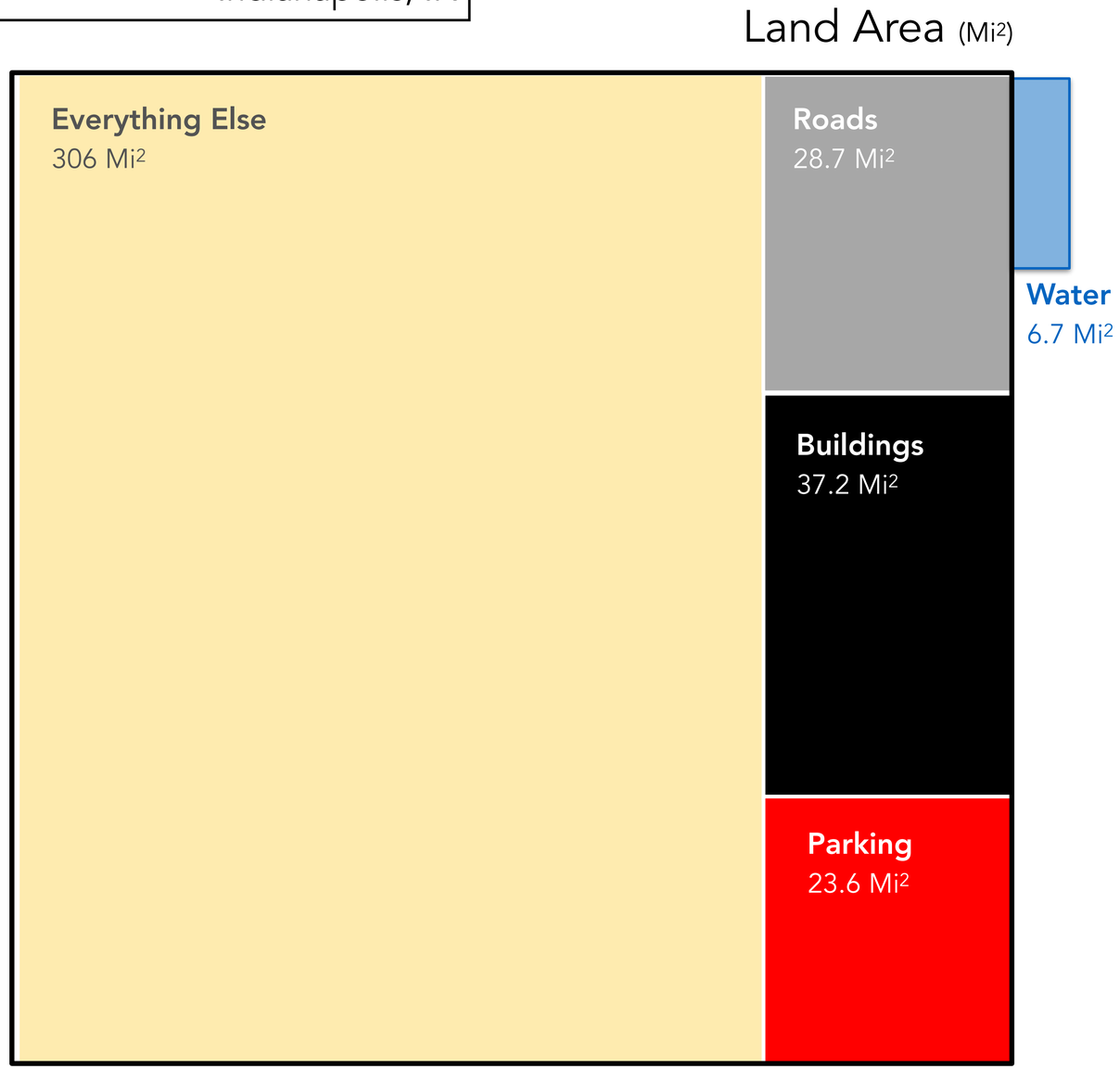


Source: Marion County

URBAN3

Land Consumption

Indianapolis, IN

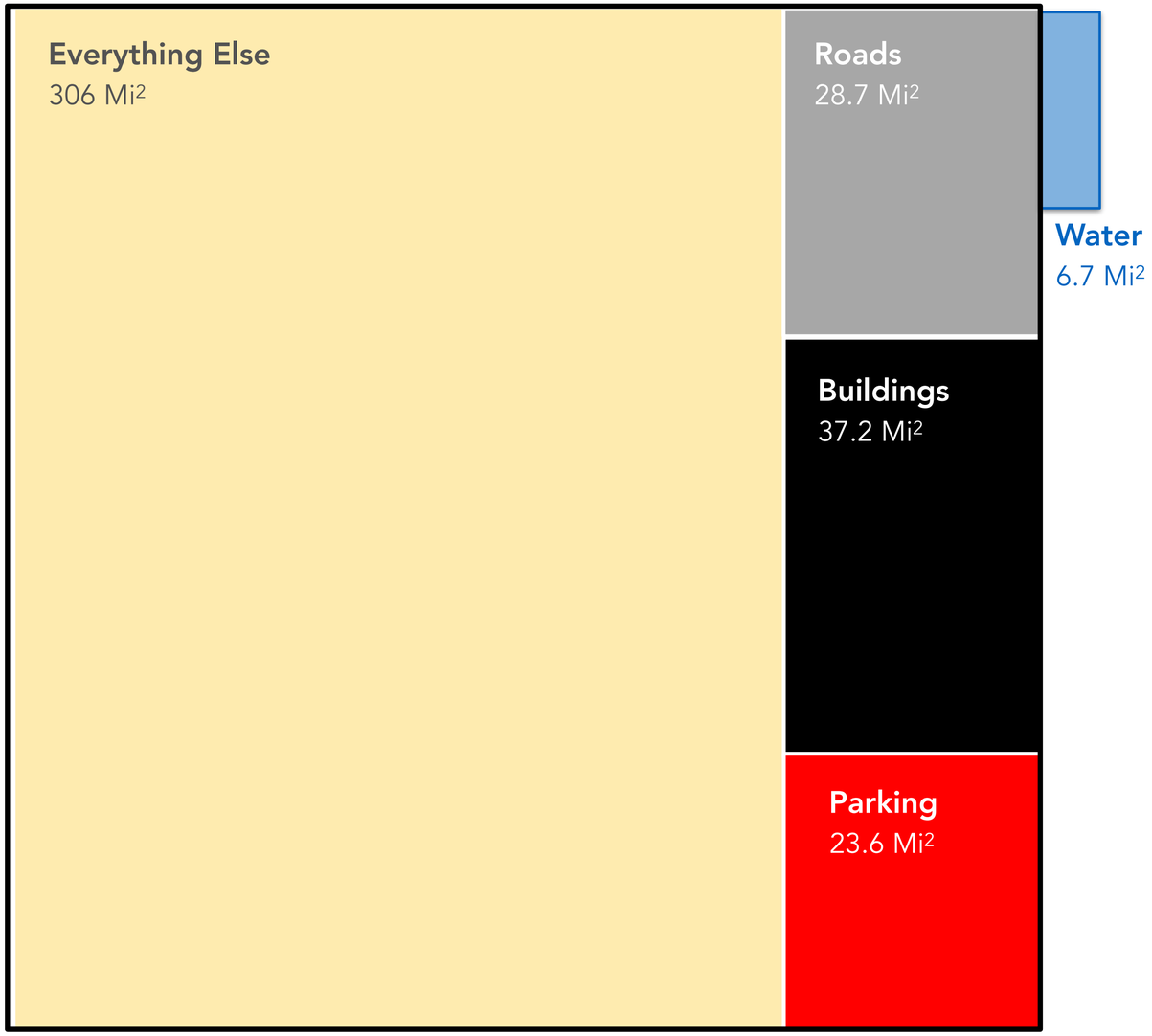


Source: Marion County

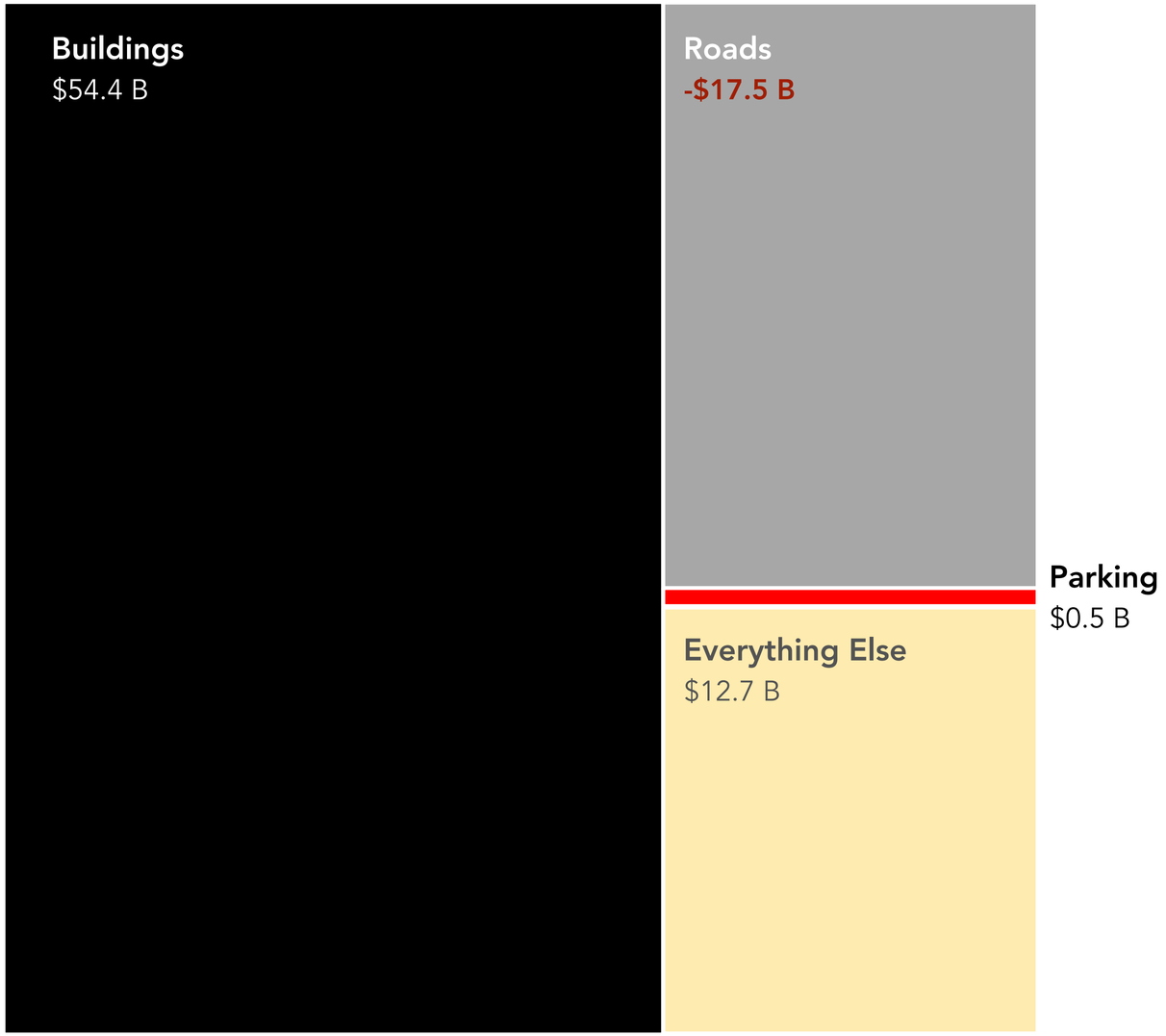
URBAN3

Land Consumption
Indianapolis, IN

Land Area (Mi²)



Value ($ Billions)



Source: Marion County

URBAN3

Blue Line Land Consumption

Indianapolis, IN

N

LAND USE TYPES

- Roads
- Buildings
- Parking

Source: Marion County Assessor

URBAN3

Blue Line Land Consumption

Indianapolis, IN

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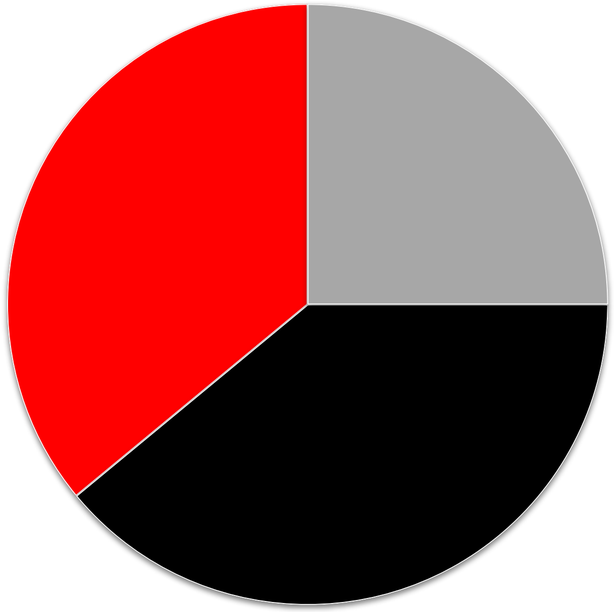
Source: Marion County Assessor

URBAN3

Blue Line Land Consumption

Indianapolis, IN



LAND USE TYPES

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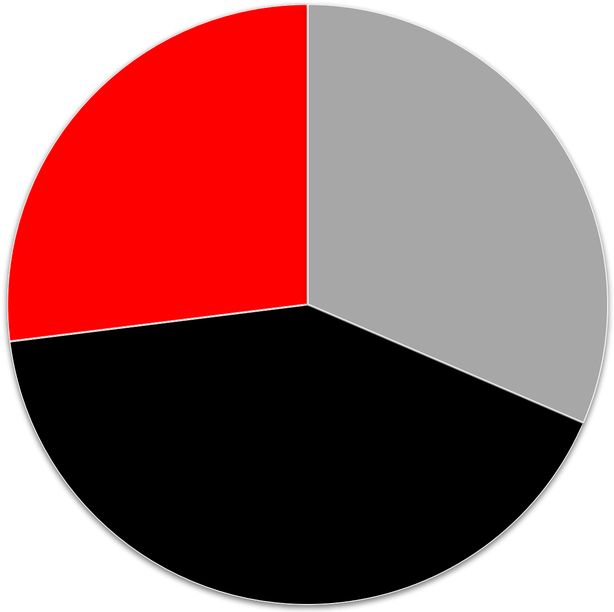
Source: Marion County Assessor

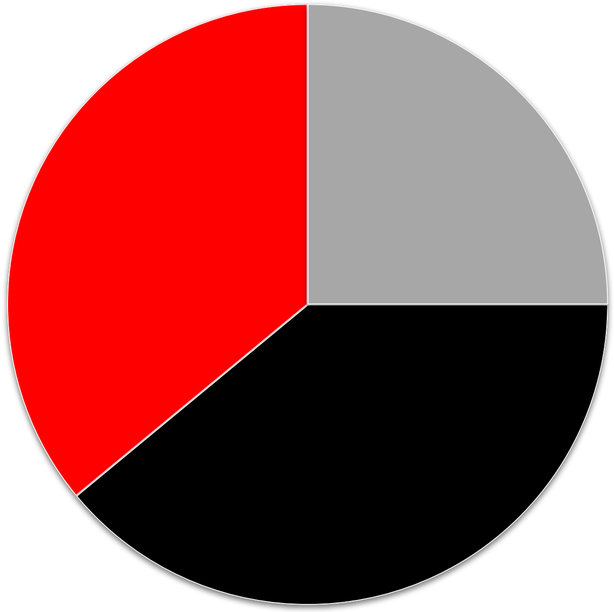
URBAN3

Blue Line Land Consumption

Indianapolis, IN



Countywide



Blue Line

LAND USE TYPES

- Roads
- Buildings
- Parking

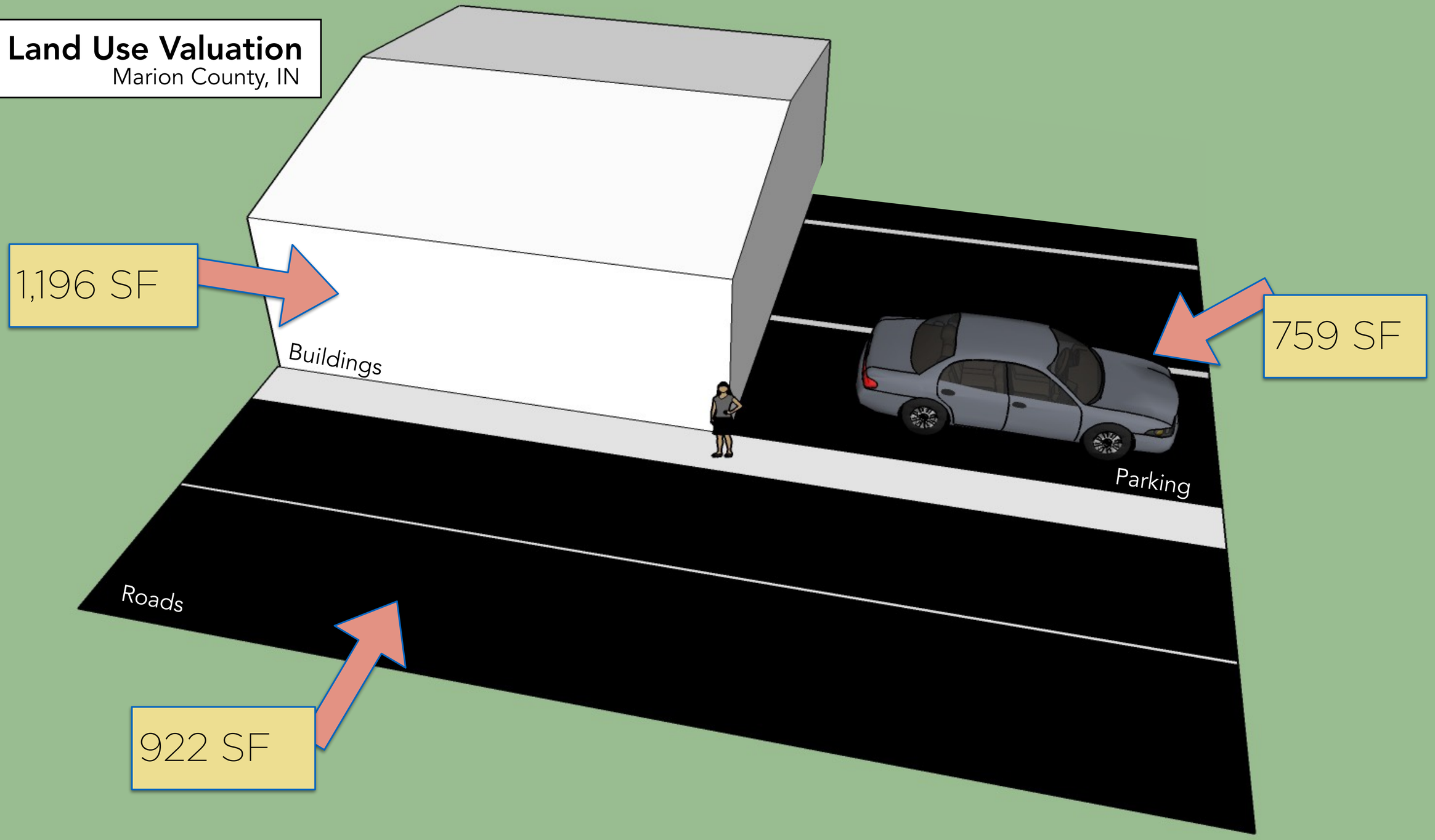
N

Source: Marion County Assessor

URBAN3

Land Use Valuation

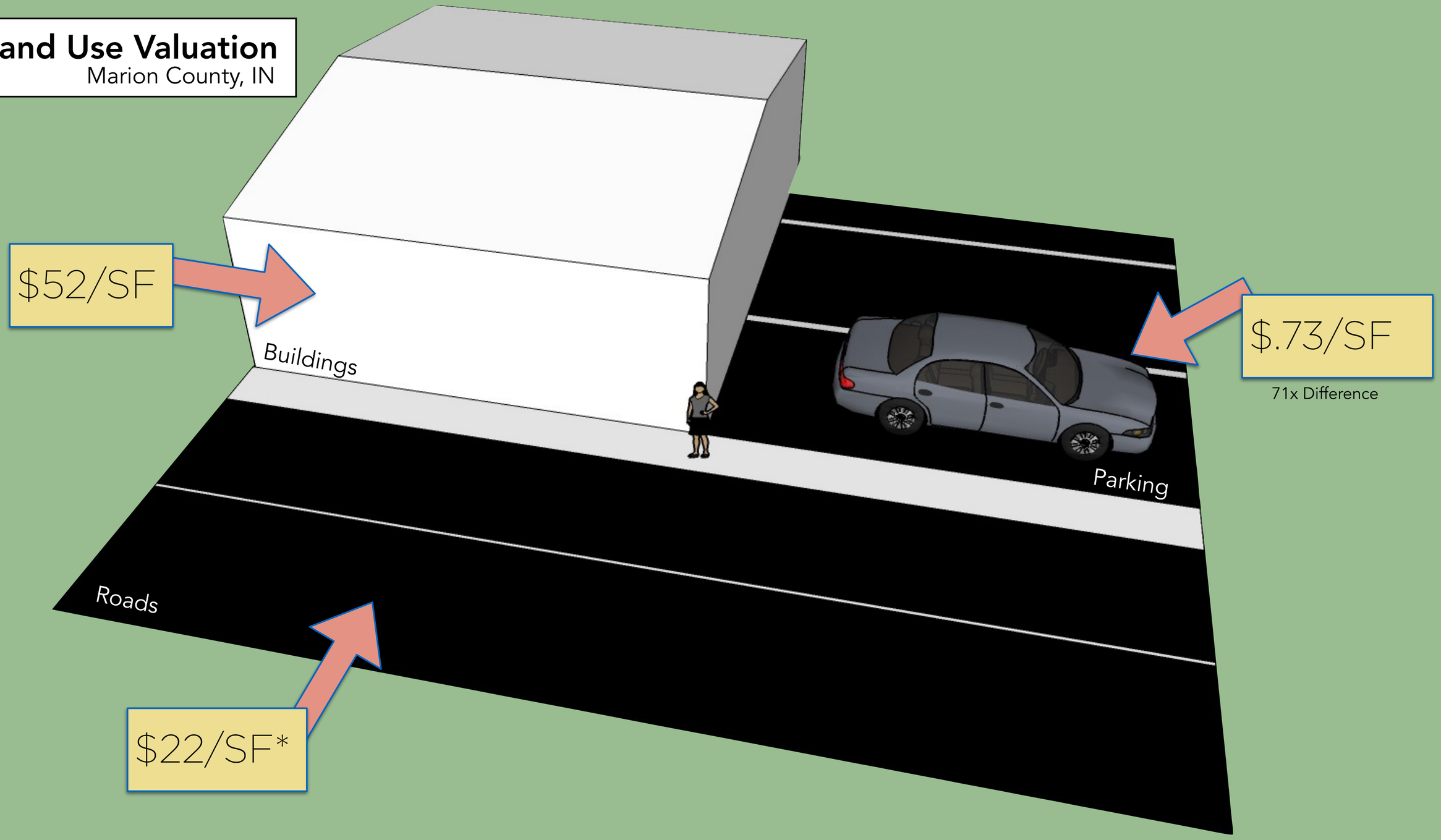
Marion County, IN



URBAN3

Land Use Valuation

Marion County, IN

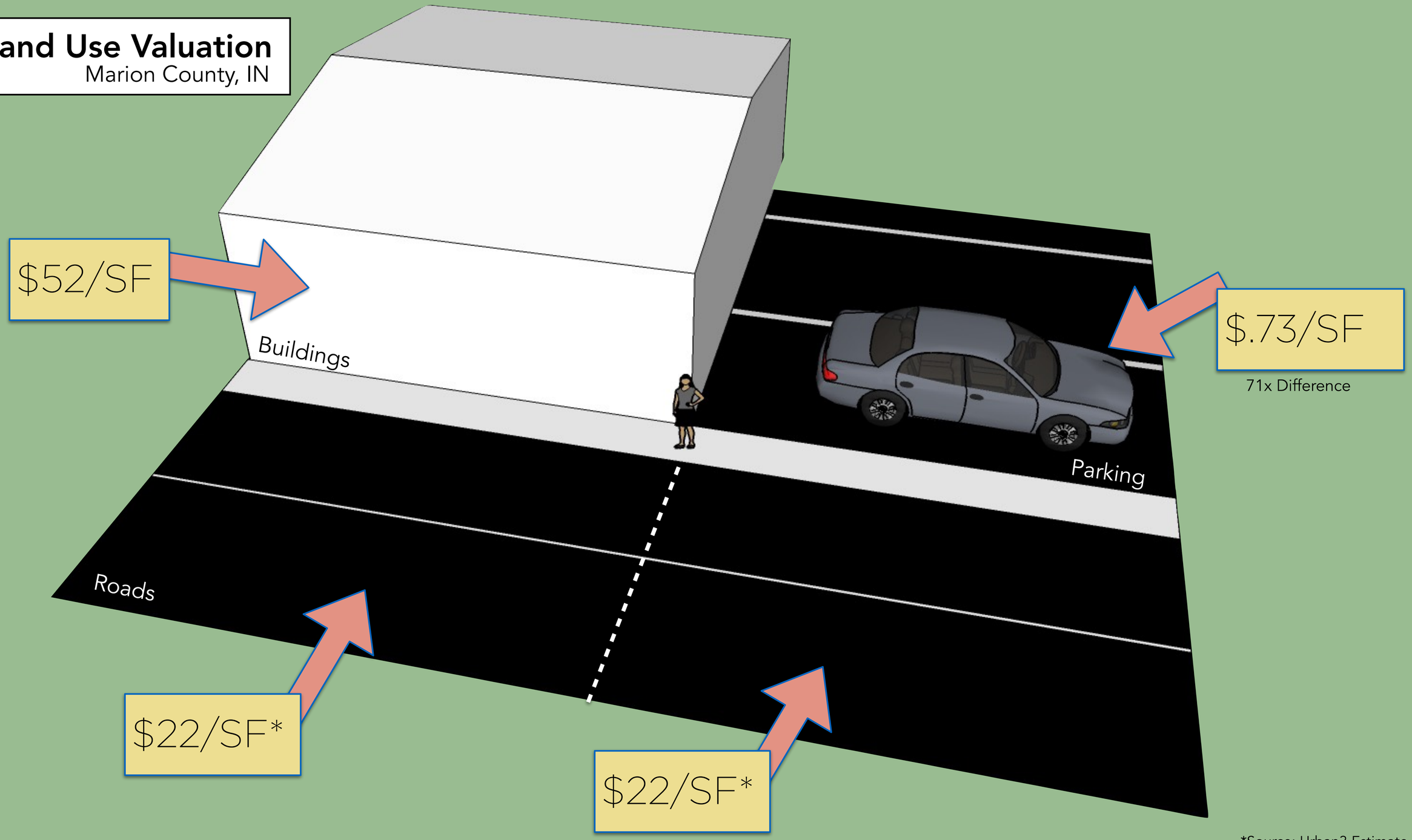


*Source: Urban3 Estimate

URBAN3

Land Use Valuation

Marion County, IN



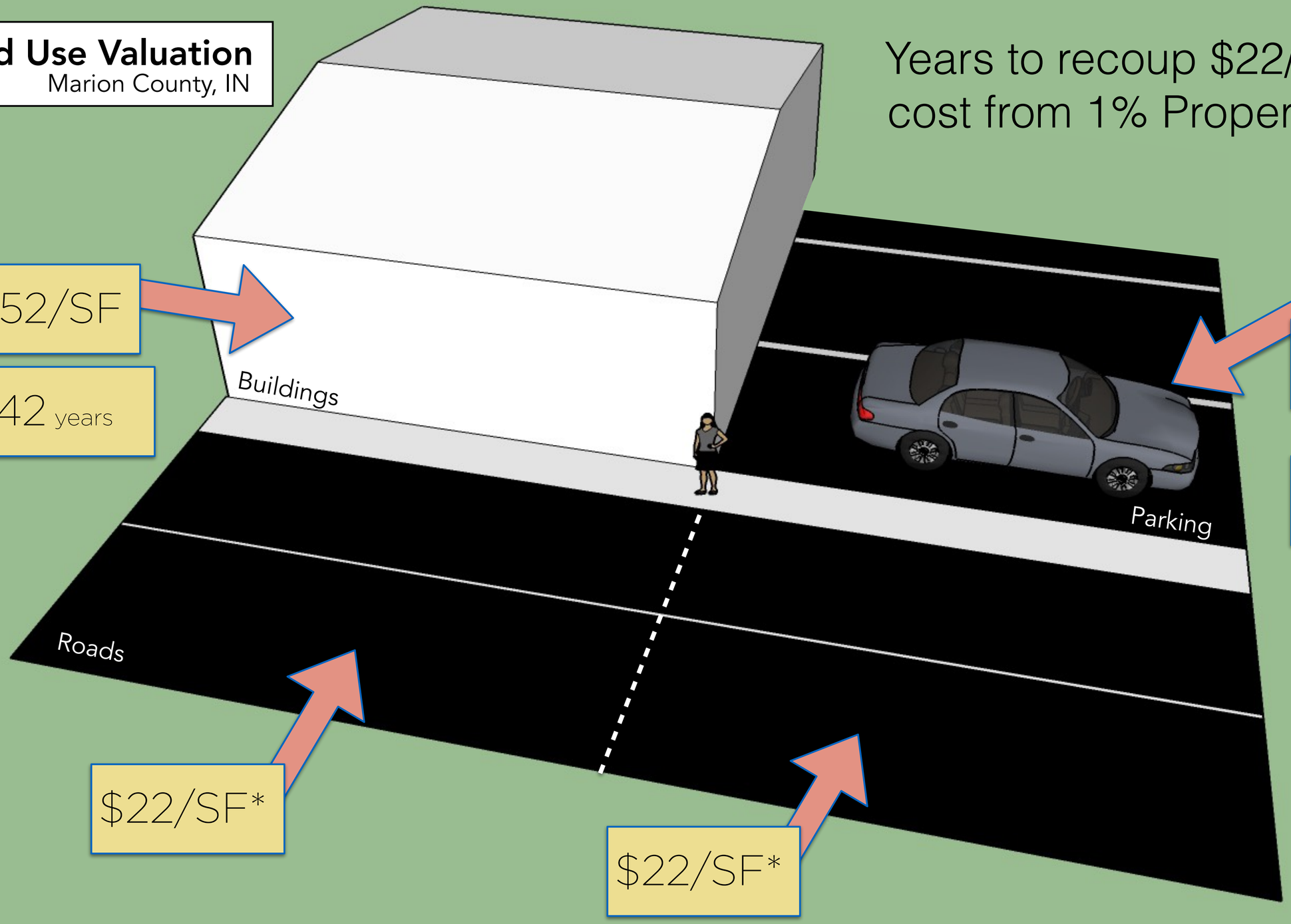
*Source: Urban3 Estimate

URBAN3

Land Use Valuation

Marion County, IN

Years to recoup $22/s.f. road cost from 1% Property Taxes



$52/SF

42 years

$.73/SF

71x Difference

3,014 years

$22/SF*

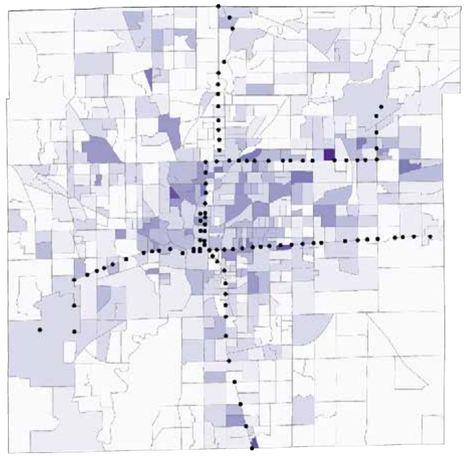
$22/SF*

*Source: Urban3 Estimate

URBAN3

Car Ownership by Block Group

Indianapolis, IN



Households with no vehicles.

Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
- 30.1% - 40%
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

N

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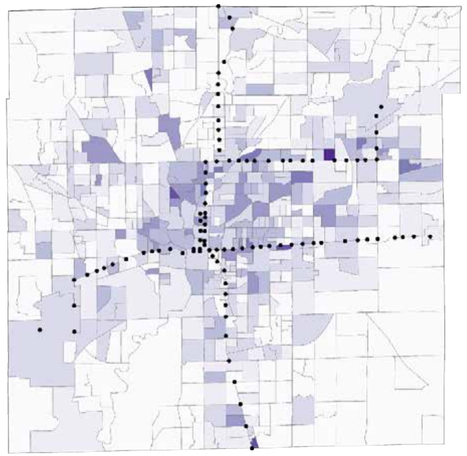
* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

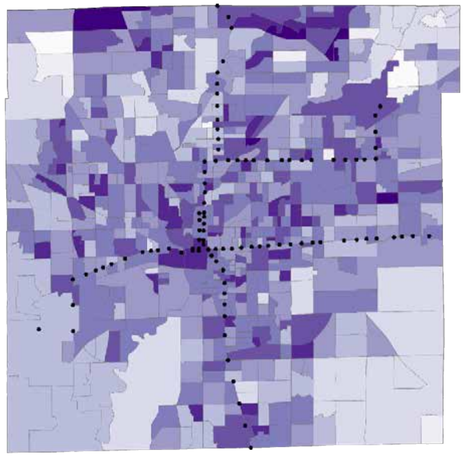
URBAN3

Car Ownership by Block Group

Indianapolis, IN



Households with no vehicles.



Households with 1 vehicle

Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
- 30.1% - 40%
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

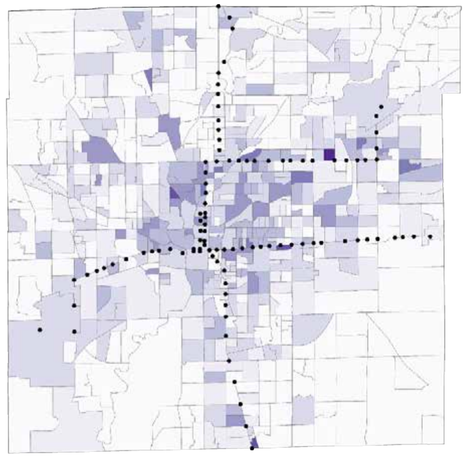
* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

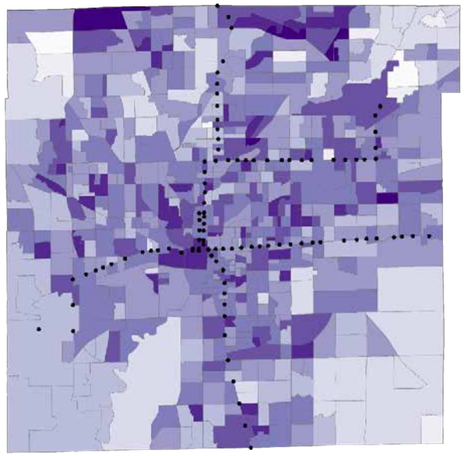
URBAN3

Car Ownership by Block Group

Indianapolis, IN



Households with no vehicles.



Households with 1 vehicle

Households with 2 vehicles

Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
- 30.1% - 40%
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

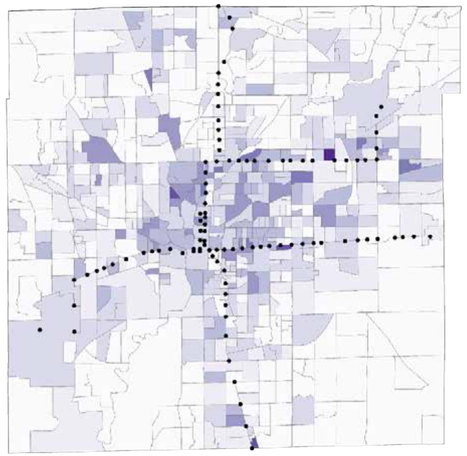
* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

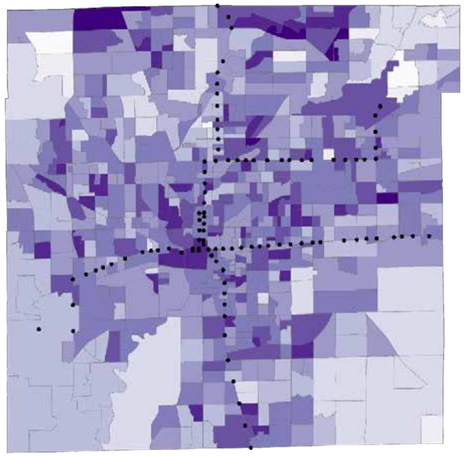
URBAN3

Car Ownership by Block Group

Indianapolis, IN

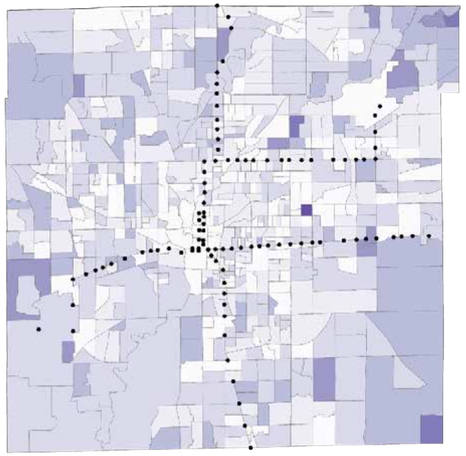


Households with no vehicles.



Households with 1 vehicle

Households with 2 vehicles



Households with 3 vehicles

N

POWERED BY esri

Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
- 30.1% - 40%
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

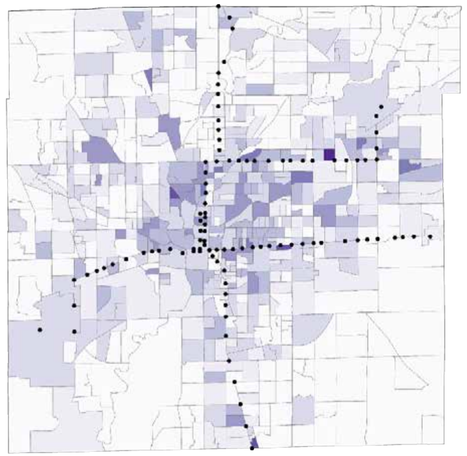
* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

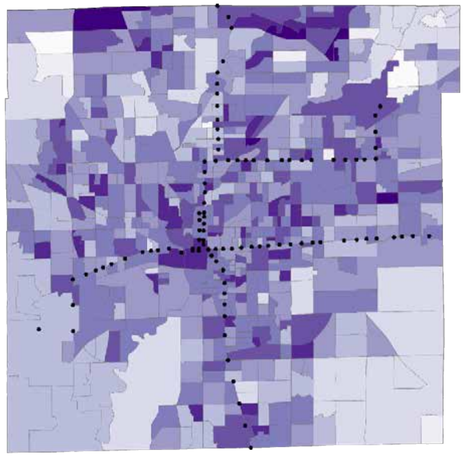
URBAN3

Car Ownership by Block Group

Indianapolis, IN

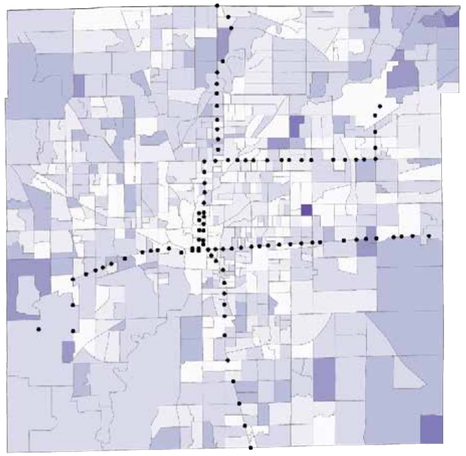


Households with no vehicles.



Households with 1 vehicle

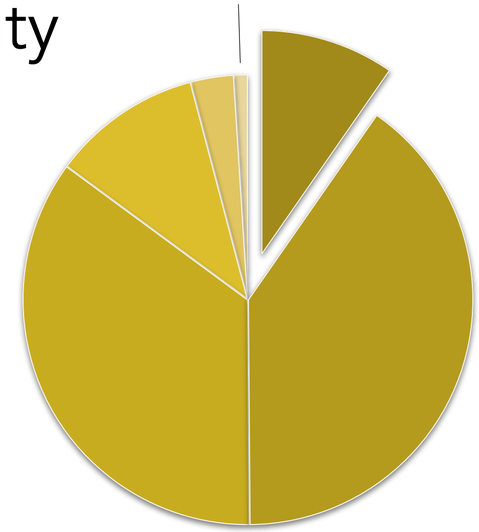
Households with 2 vehicles



Households with 3 vehicles

N

Marion County



Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
- 30.1% - 40%
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

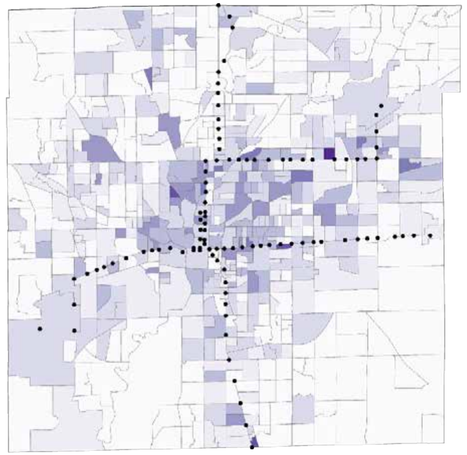
* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

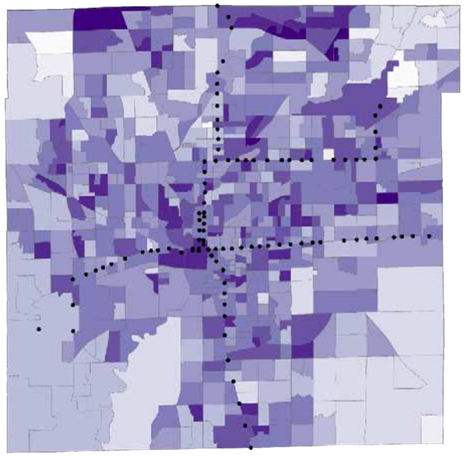
URBAN3

Car Ownership by Block Group

Indianapolis, IN

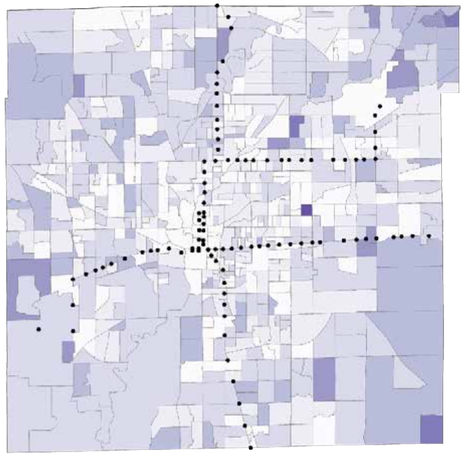


Households with no vehicles.



Households with 1 vehicle

Households with 2 vehicles

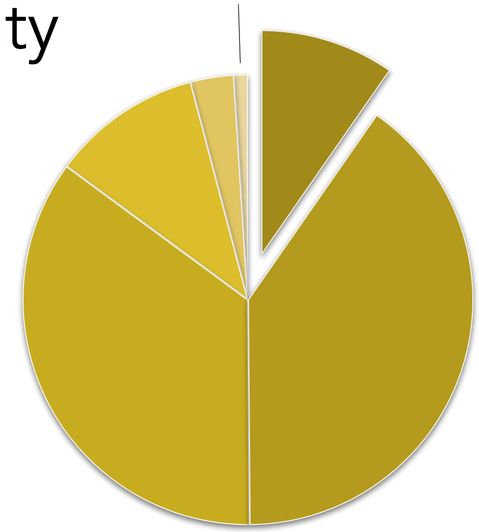


Households with 3 vehicles

N

POWERED BY esri

Marion County



Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
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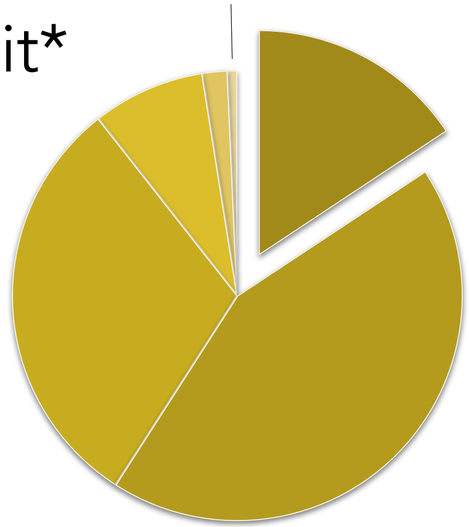
- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

Near Transit*



* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

URBAN3

Car Ownership by Block Group

Indianapolis, IN

Bias Buster:

Not everyone has a car.

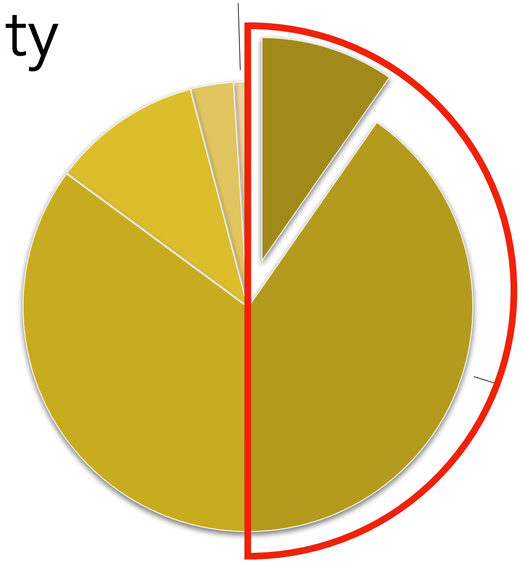
Households with no vehicles.

Households with 1 vehicle

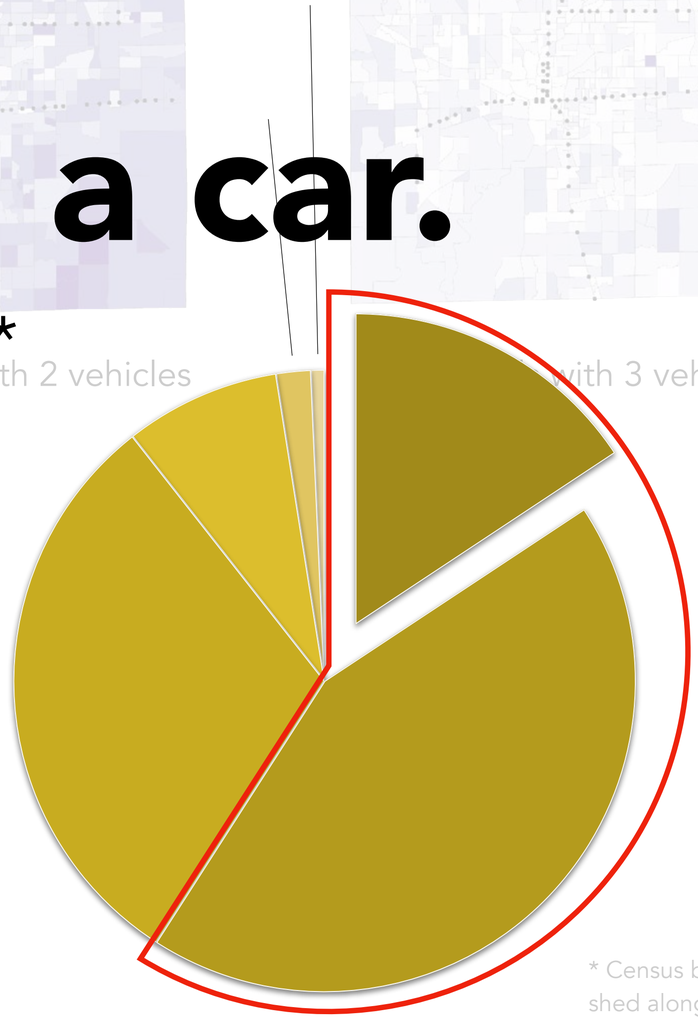
Households with 2 vehicles

with 3 vehicles

Marion County



Near Transit*



Households with Vehicles (%)

- < 5%
- 5.1% - 10%
- 10.1% - 20%
- 20.1% - 30%
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- 40.1% - 50%
- 50.1% - 60%
- 60.1% - 70%
- > 70.1%

* Census blocks within pedestrian shed along transit corridors.

Source: Marion County Assessor

PARKING ....
LIGHTYEAR
REDUCES PRODUCTIVITY!
imgflip.com

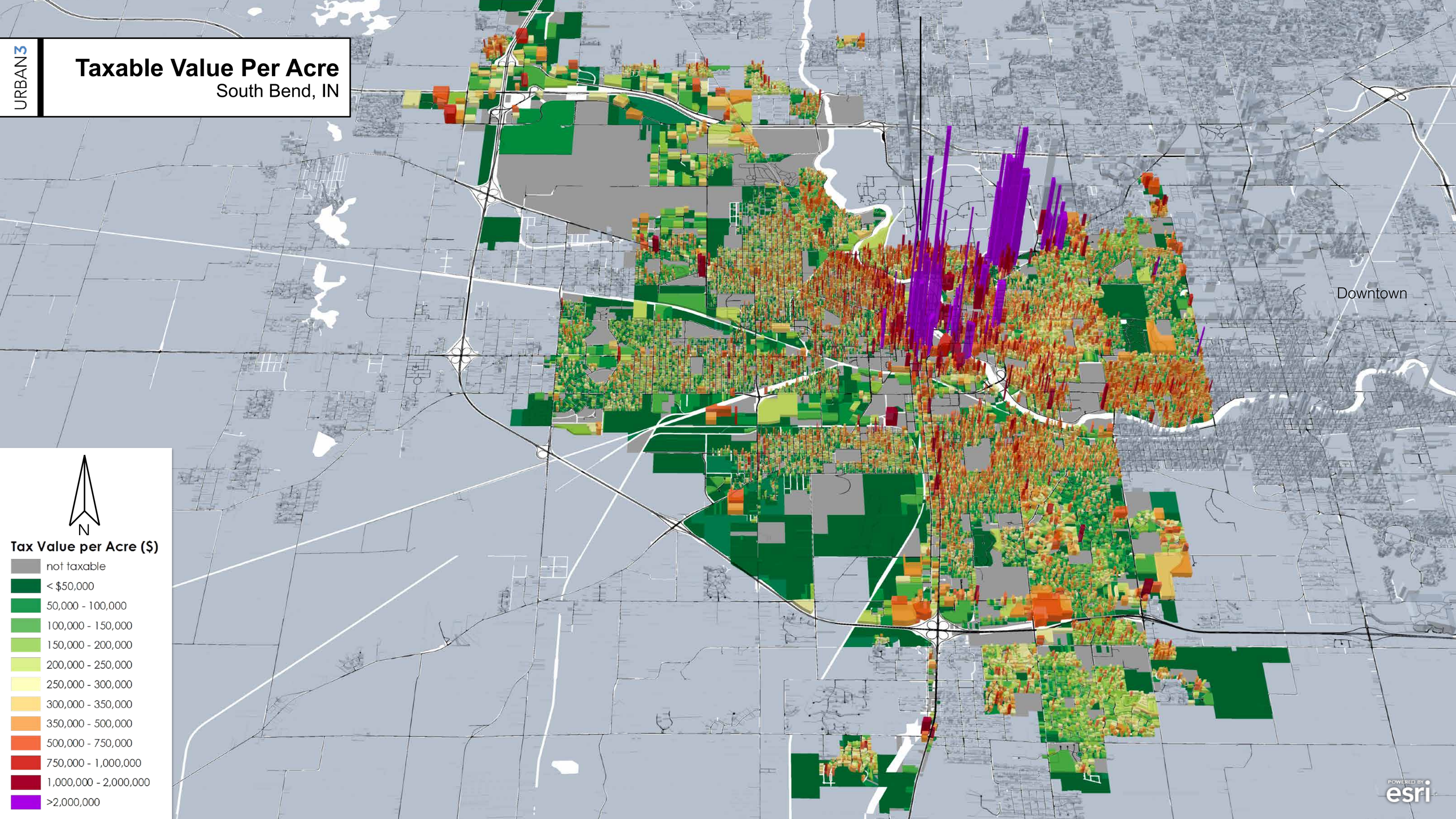
Observation:

Design affects productivity.

Case Study: Economic MRI® & Fiscal ROI®
2017 & 2020

South Bend, Indiana

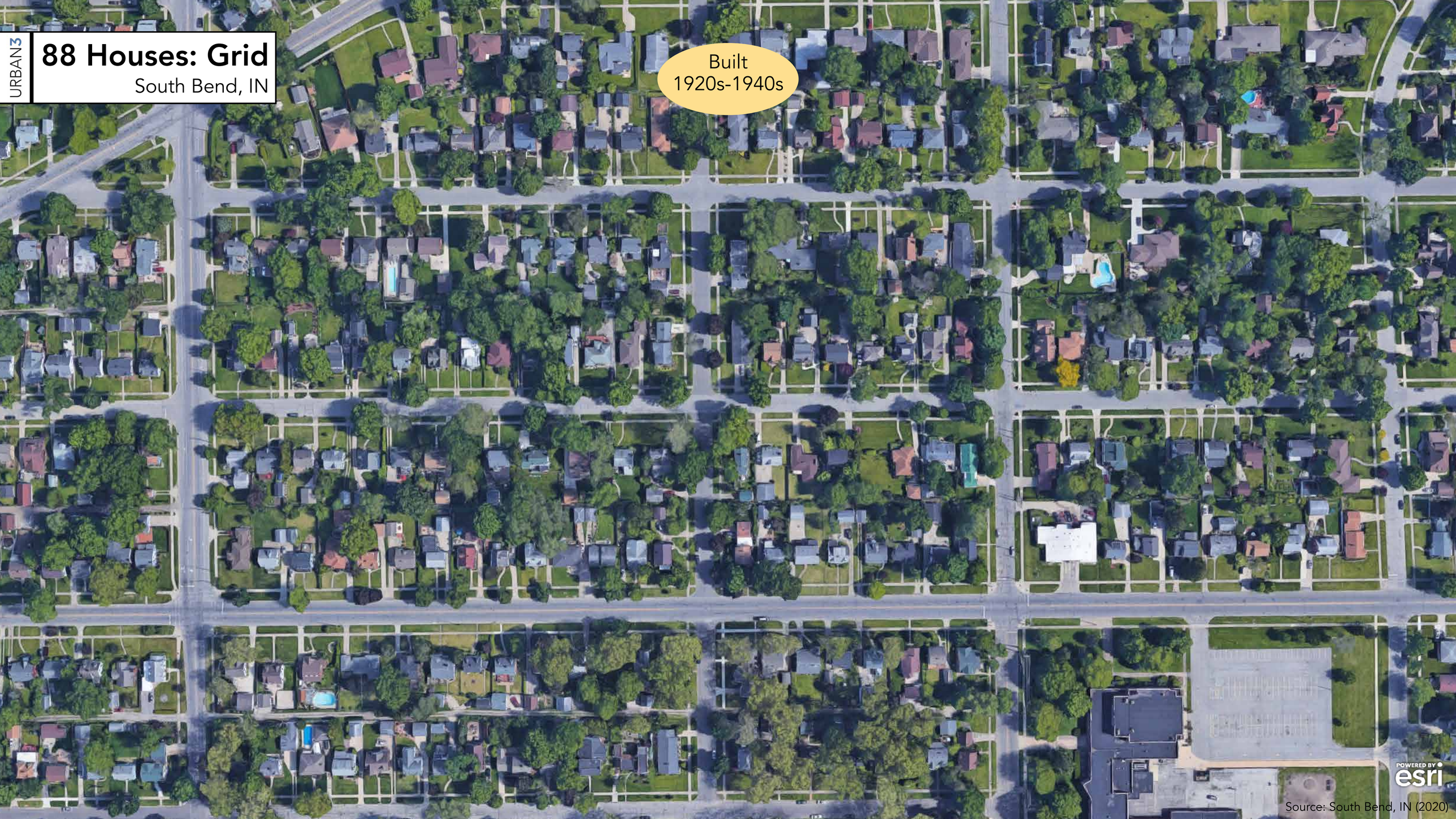
URBAN3


URBAN3
Taxable Value Per Acre
South Bend, IN
Downtown
N
Tax Value per Acre ($)
not taxable
< $50,000
50,000 - 100,000
100,000 - 150,000
150,000 - 200,000
200,000 - 250,000
250,000 - 300,000
300,000 - 350,000
350,000 - 500,000
500,000 - 750,000
750,000 - 1,000,000
1,000,000 - 2,000,000
>2,000,000
POWERED BY
esri

URBAN3

88 Houses: Grid

South Bend, IN

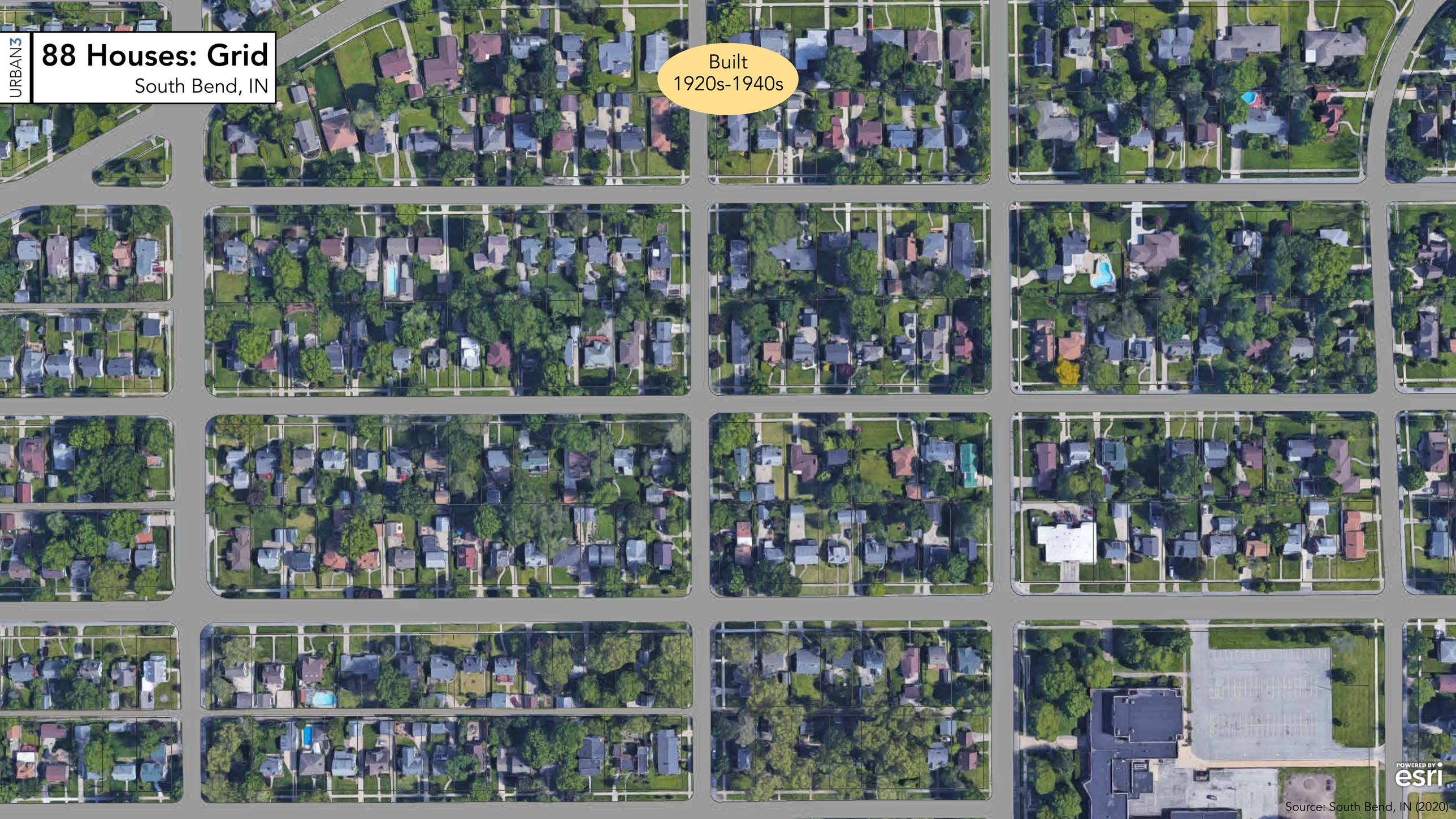


Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

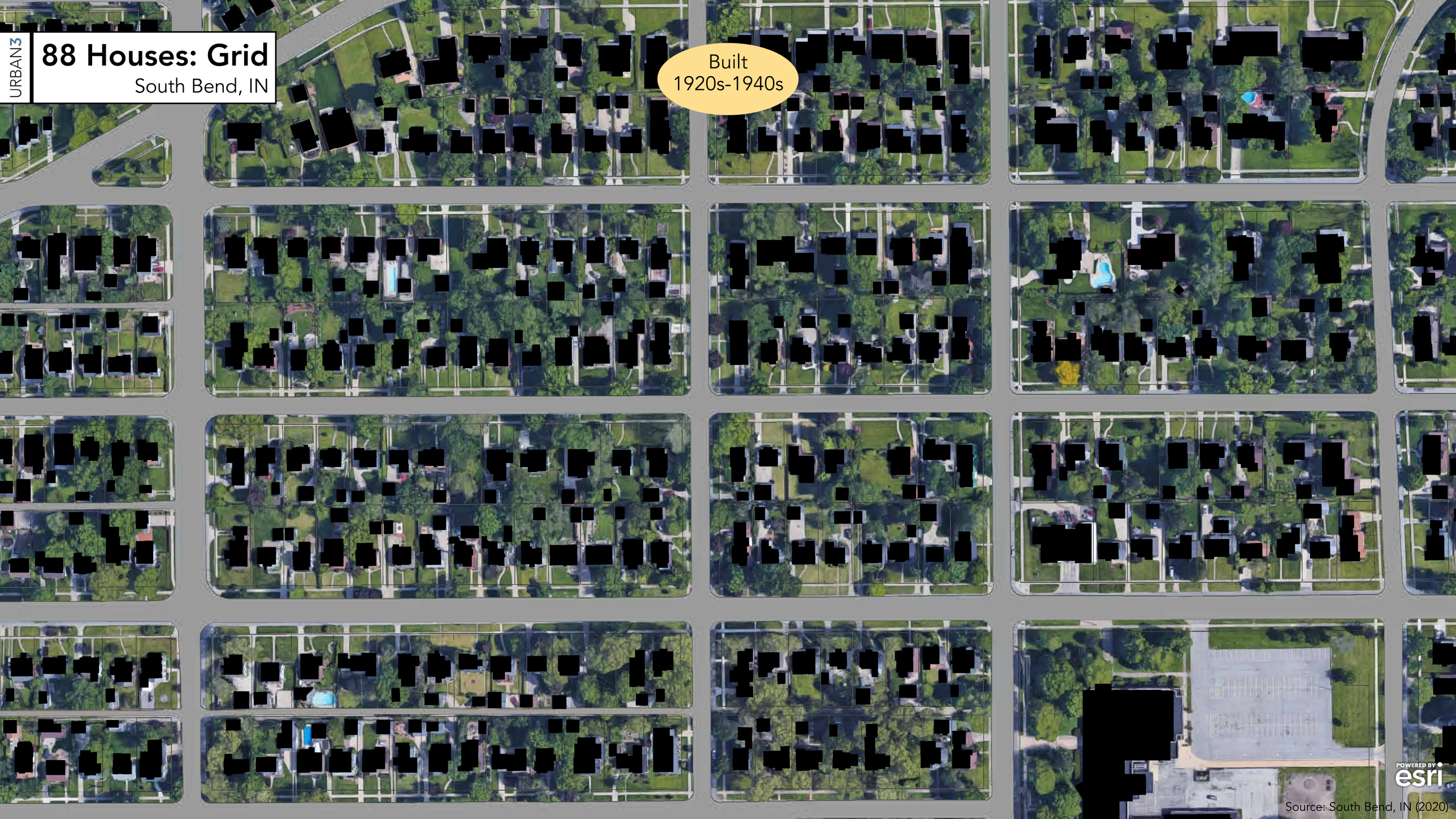


Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN



Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

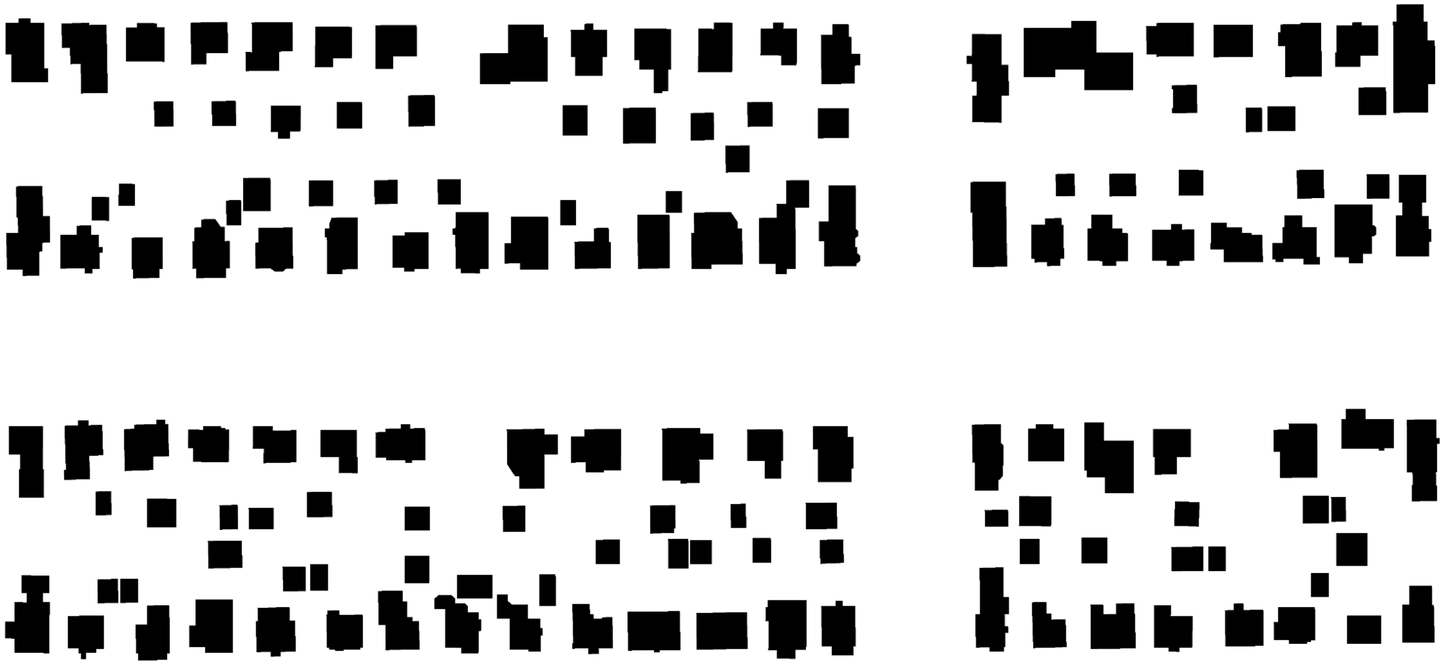
Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s



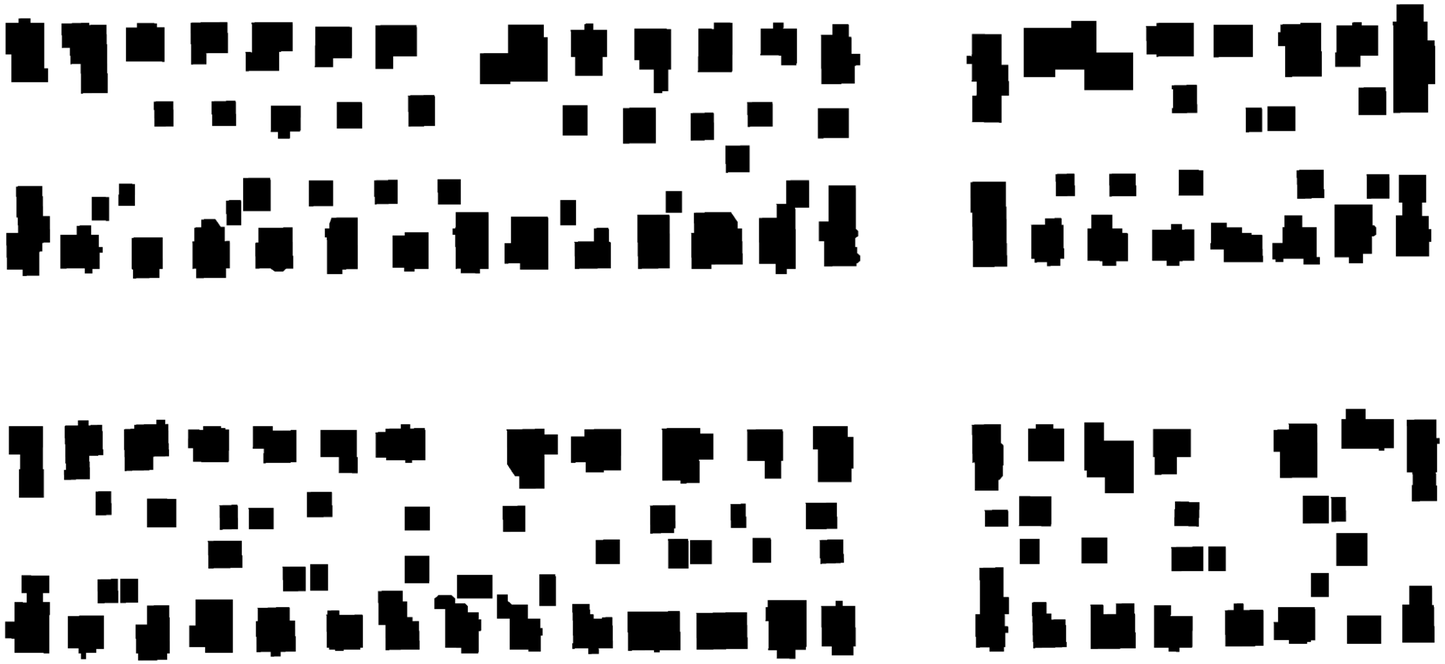
Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s



Annual Cost

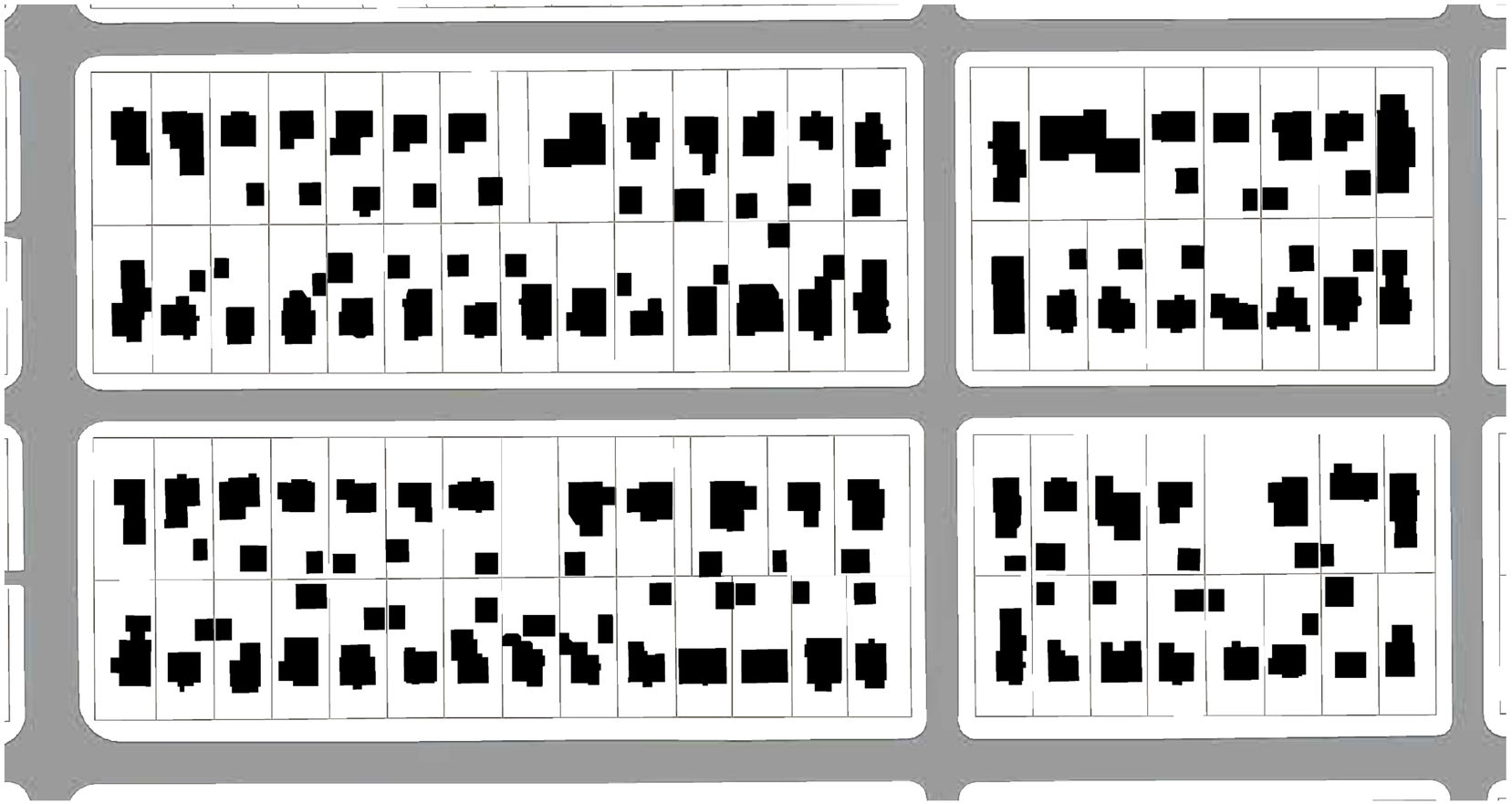
Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s



	Roads
Annual Cost	**$38K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s

	Roads	Storm & Sewer Pipes
Annual Cost	**$38K**	**$28K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s

	Roads	Storm & Sewer Pipes	Water Pipes
Annual Cost	**$38K**	**$28K**	**$12K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid

South Bend, IN

Built
1920s-1940s

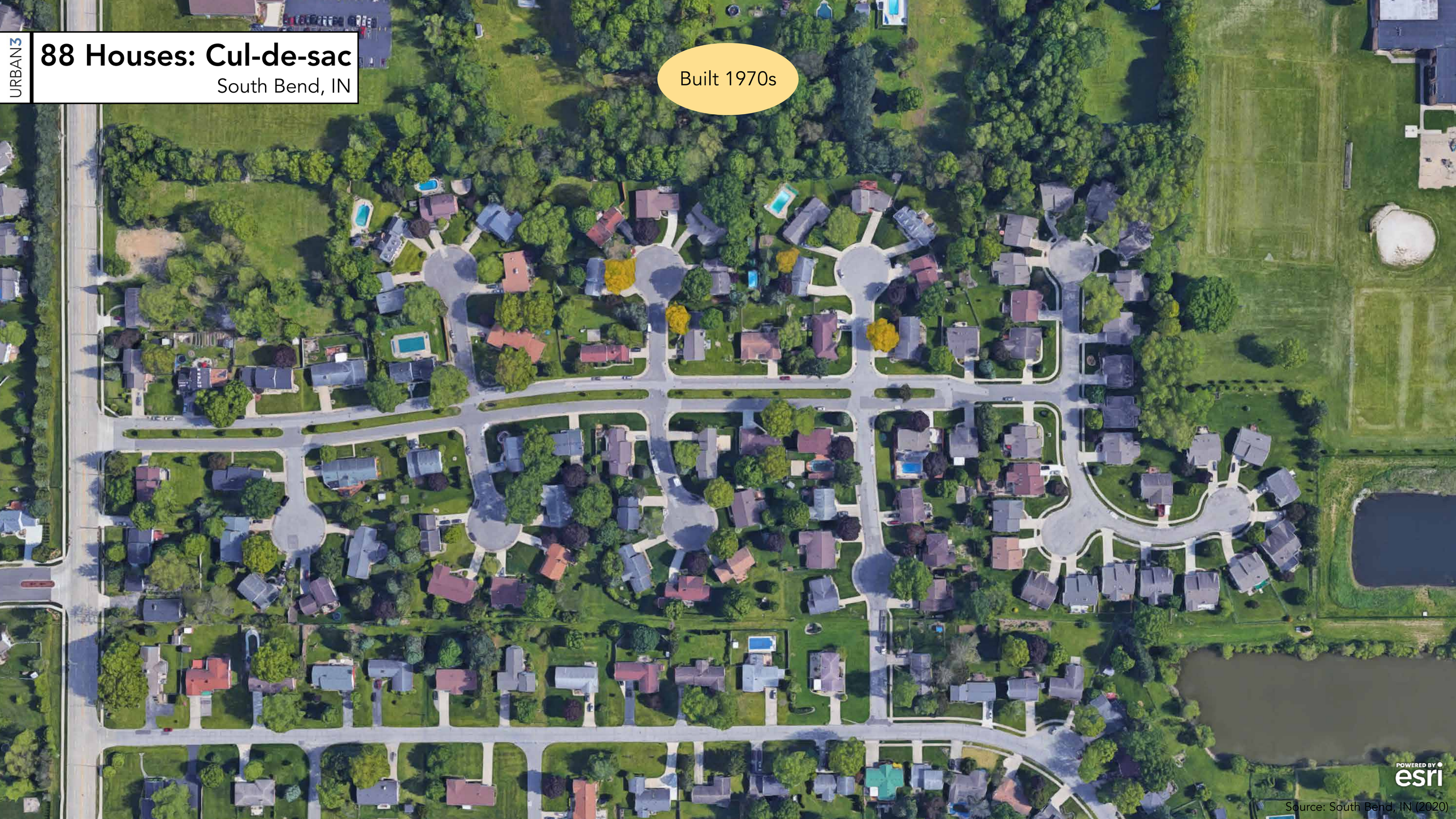
	Roads	Storm & Sewer Pipes	Water Pipes	Total
Annual Cost	**$38K**	**$28K**	**$12K**	**$122K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

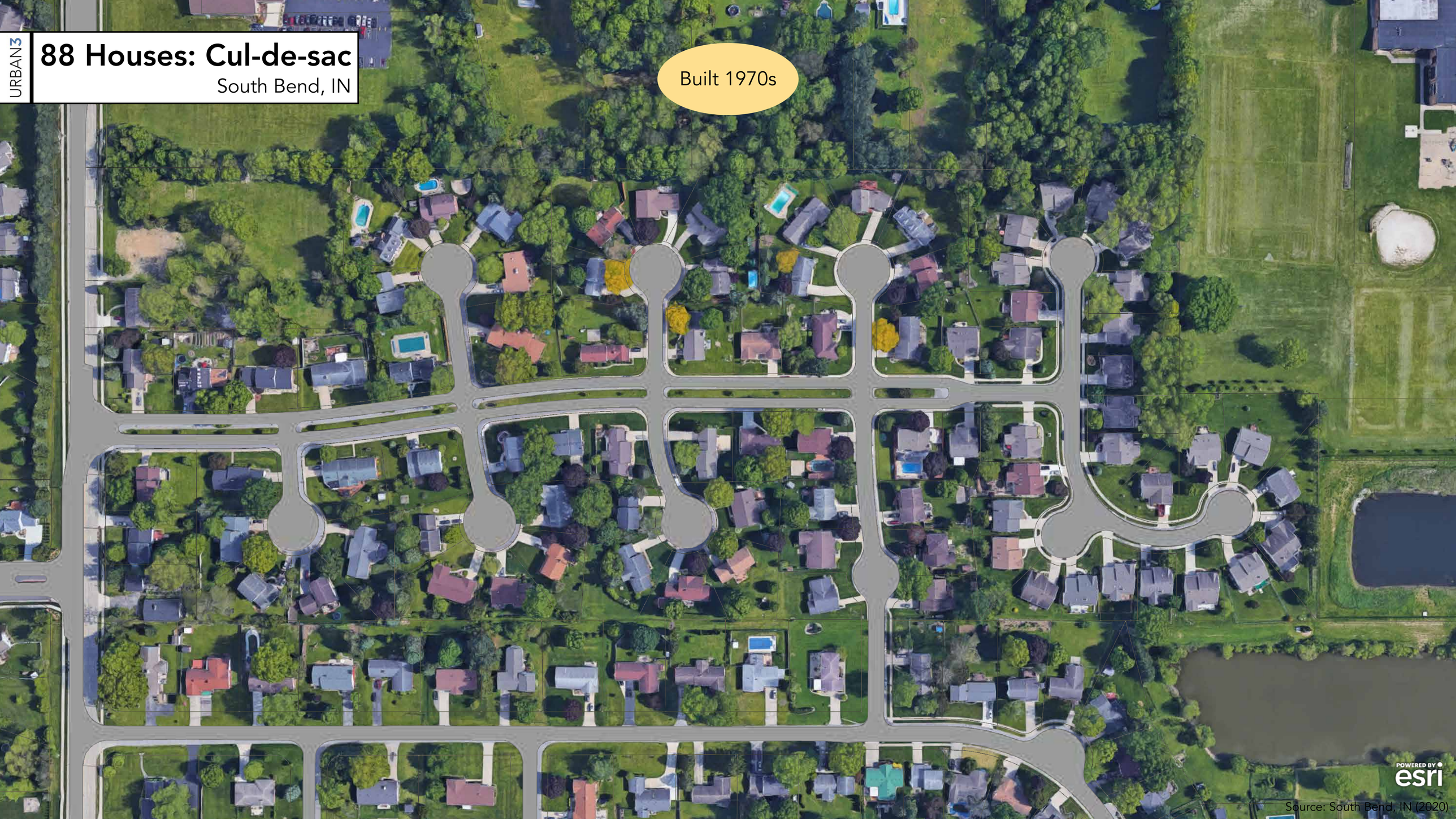


Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

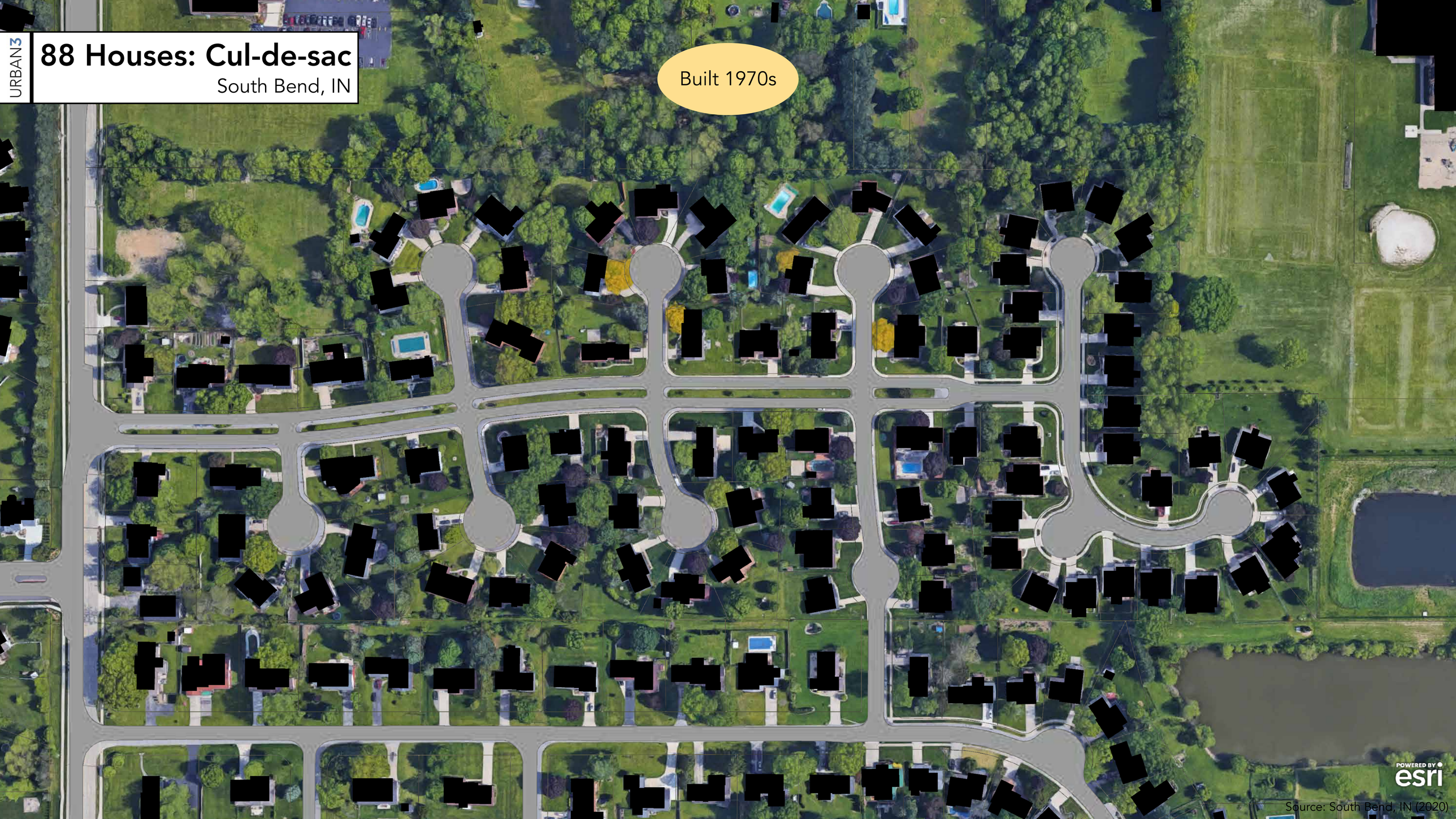


Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN



Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

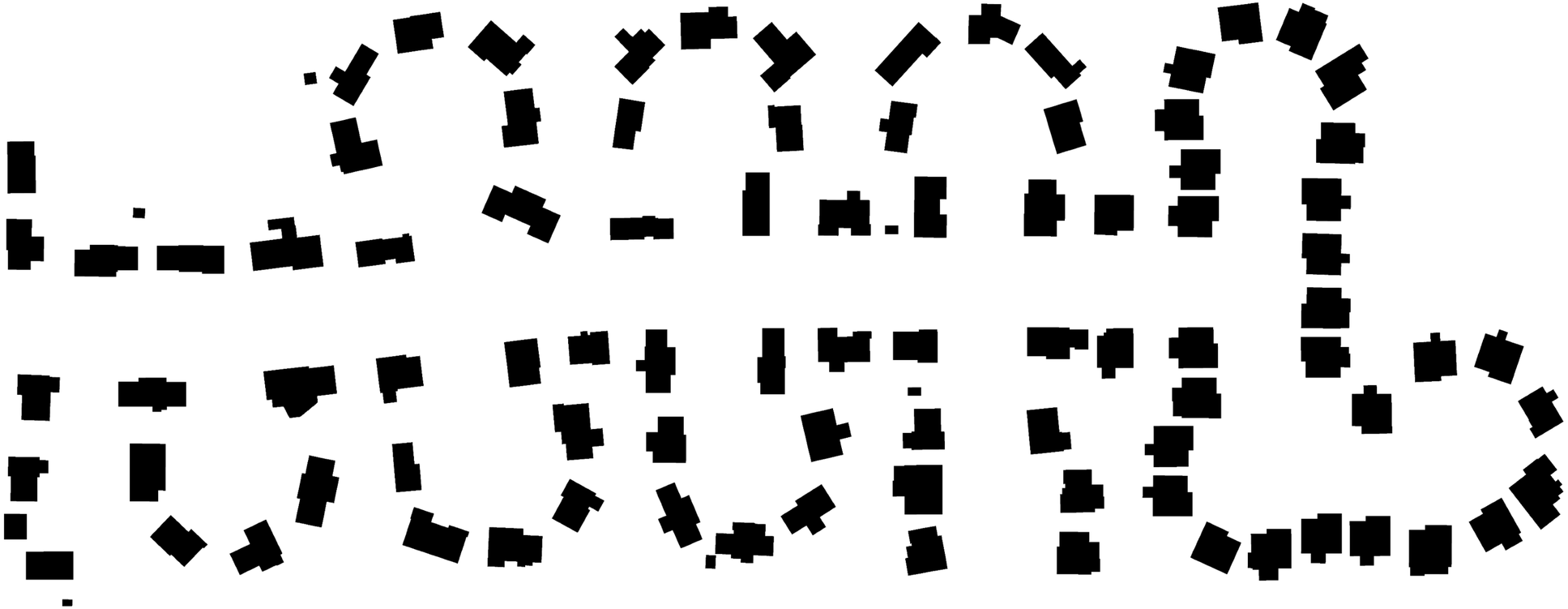
Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s



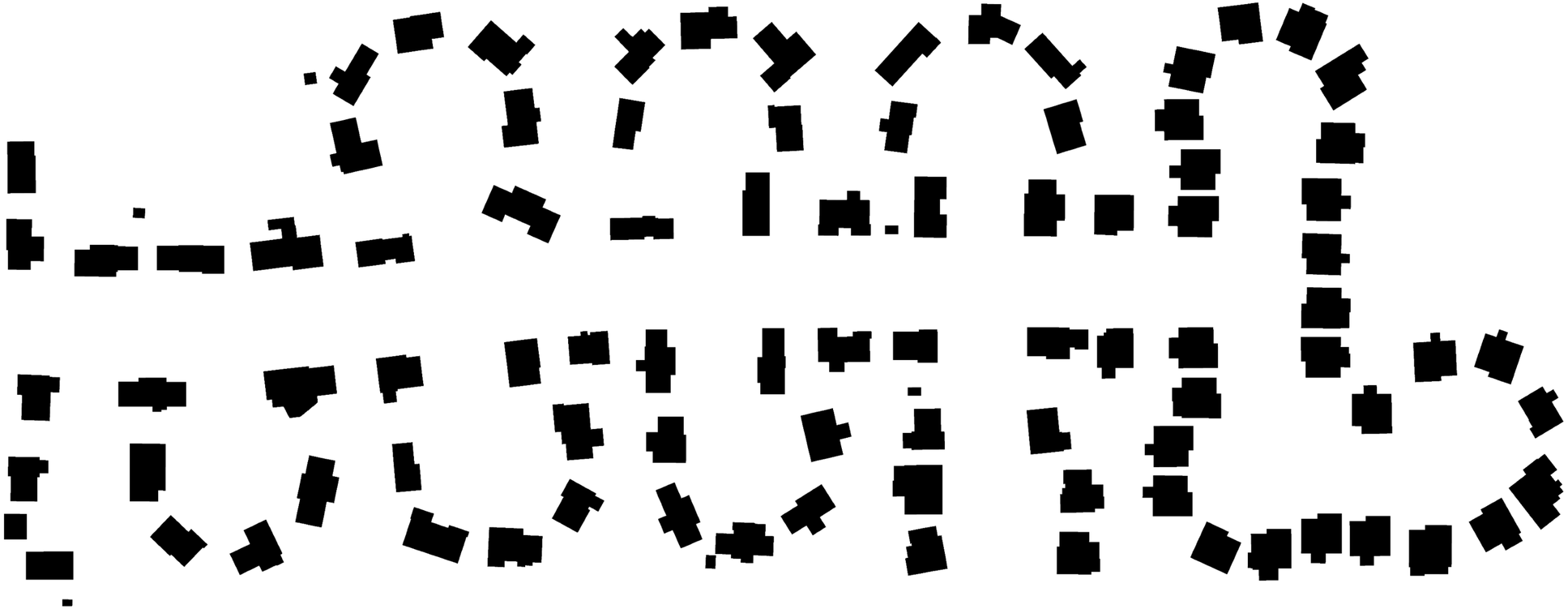
Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s



Annual Cost

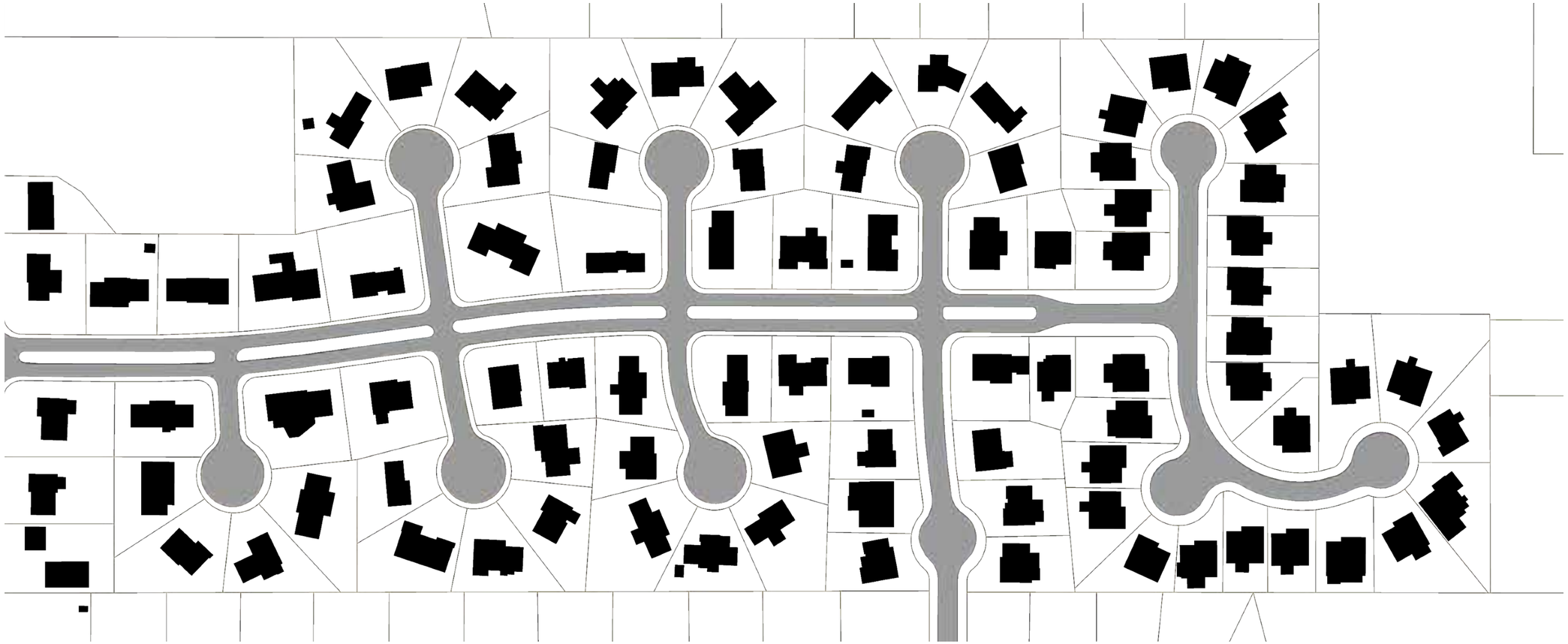
Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s



	Roads
Annual Cost	**$78K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s

	Roads	Storm & Sewer Pipes
Annual Cost	**$78K**	**$35K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s

	Roads	Storm & Sewer Pipes	Water Pipes
Annual Cost	**$78K**	**$35K**	**$12K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Cul-de-sac

South Bend, IN

Built 1970s

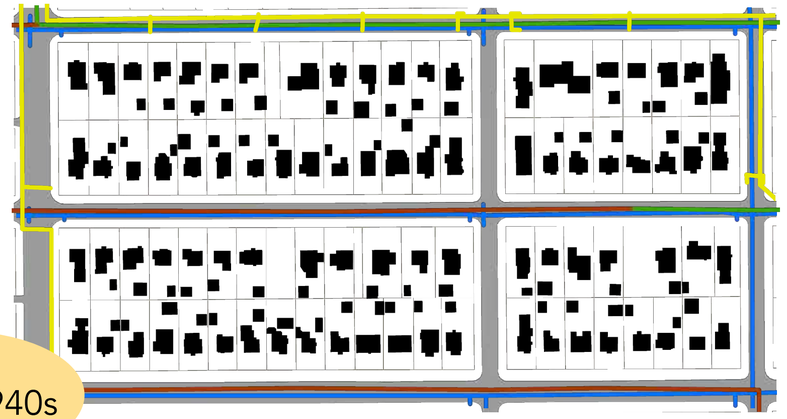
	Roads	Storm & Sewer Pipes	Water Pipes	Total
Annual Cost	**$78K**	**$35K**	**$12K**	**$122K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

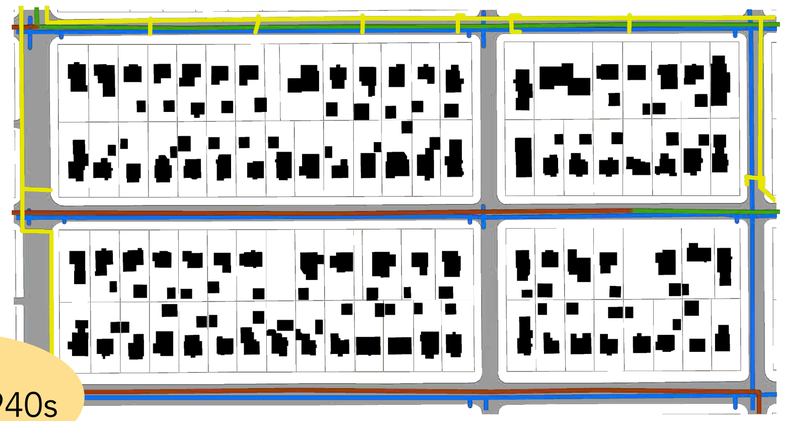
Built 1970s

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

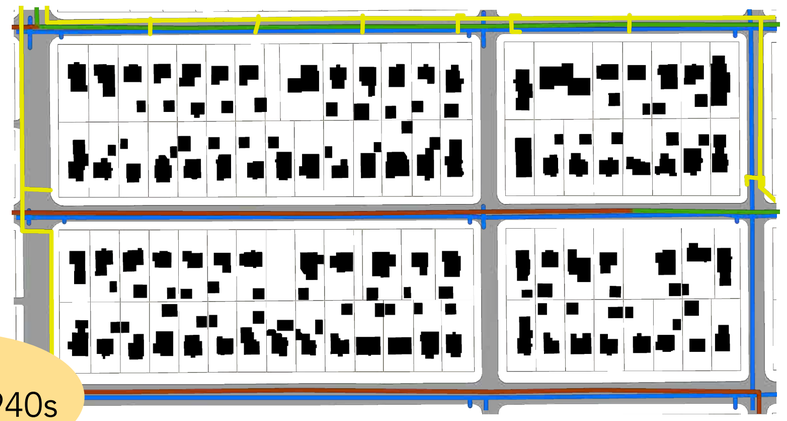
Water Pipe Costs

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Water Pipe Costs

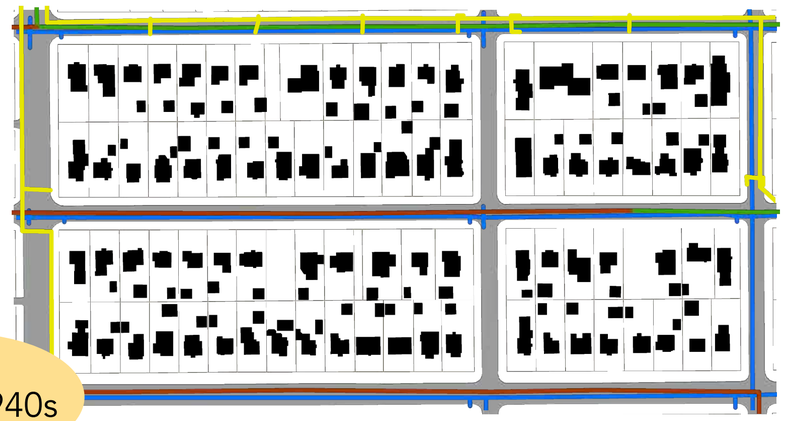
$12K **$12K**

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Water Pipe Costs

$12K = **$12K**

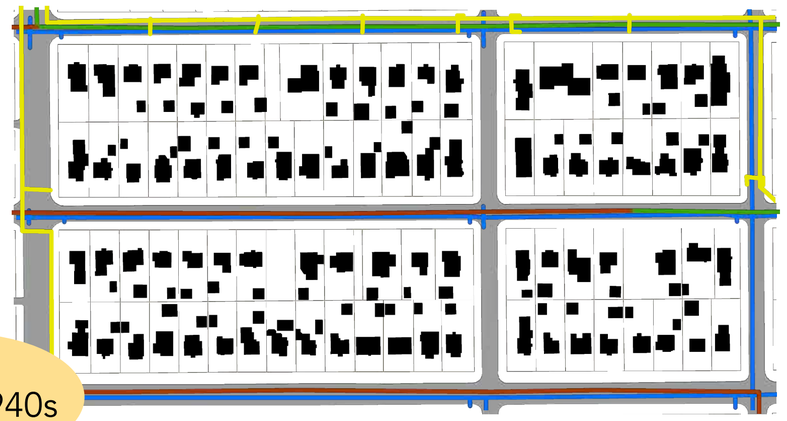
Storm & Sewer Pipe Costs

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Water Pipe Costs

$12K $12K

Storm & Sewer Pipe Costs

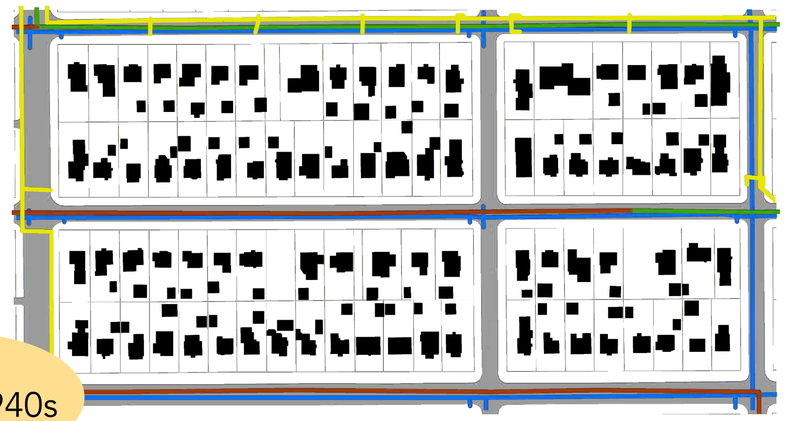
$28K $35K

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Water Pipe Costs

$12K $12K

Storm & Sewer Pipe Costs

$28K $35K

1.2x

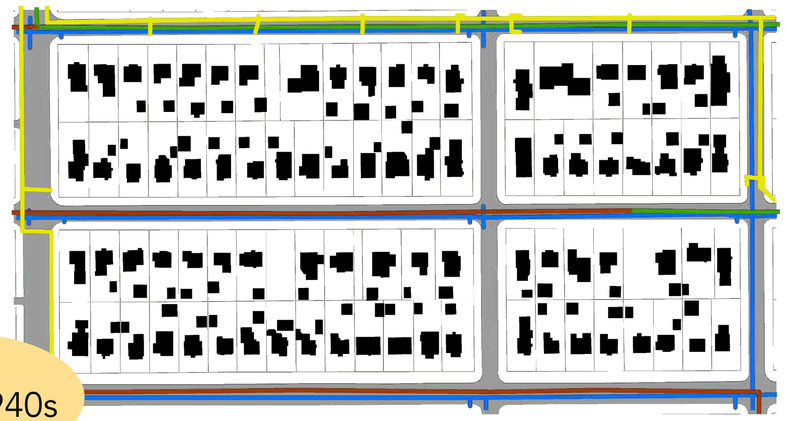
Road Cost

Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Water Pipe Costs

Storm & Sewer Pipe Costs

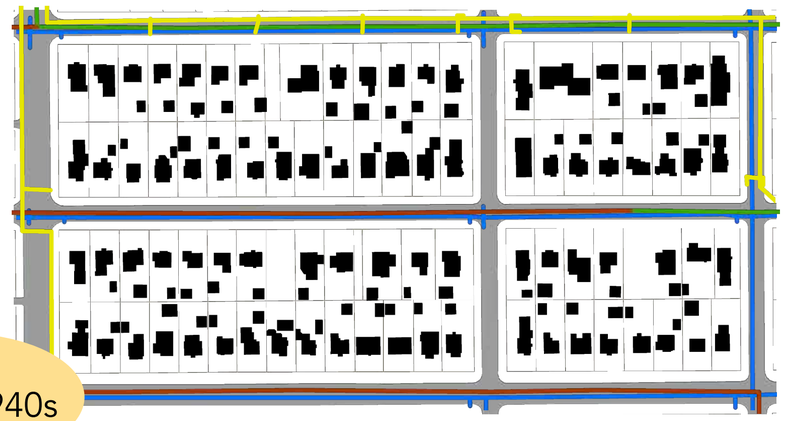
Road Cost

Source: South Bend, IN (2020)

URBAN3

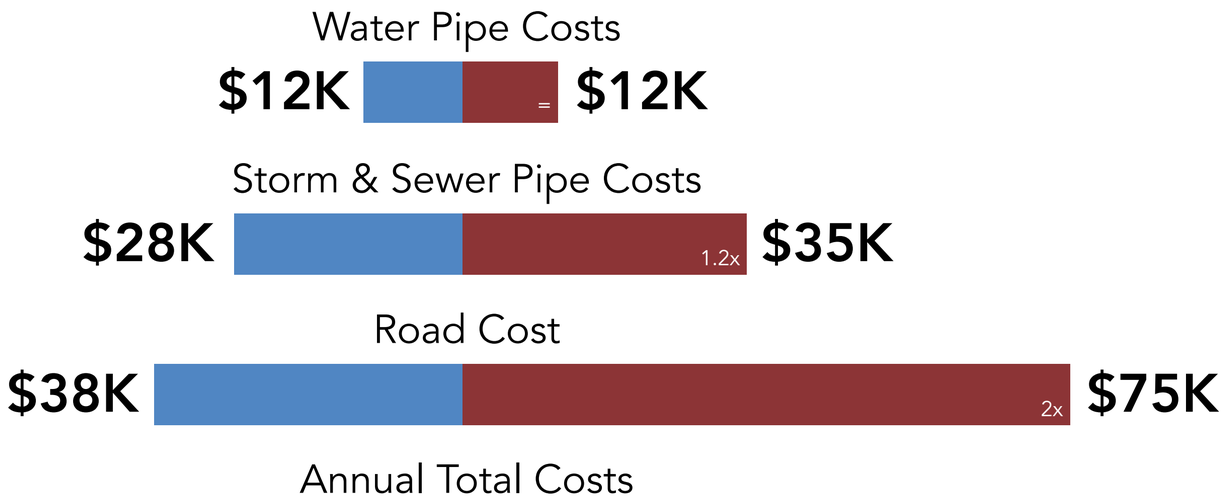
88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

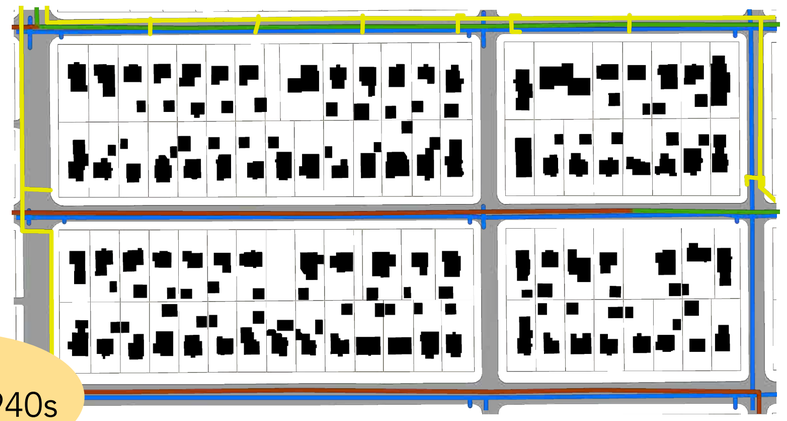


Source: South Bend, IN (2020)

URBAN3

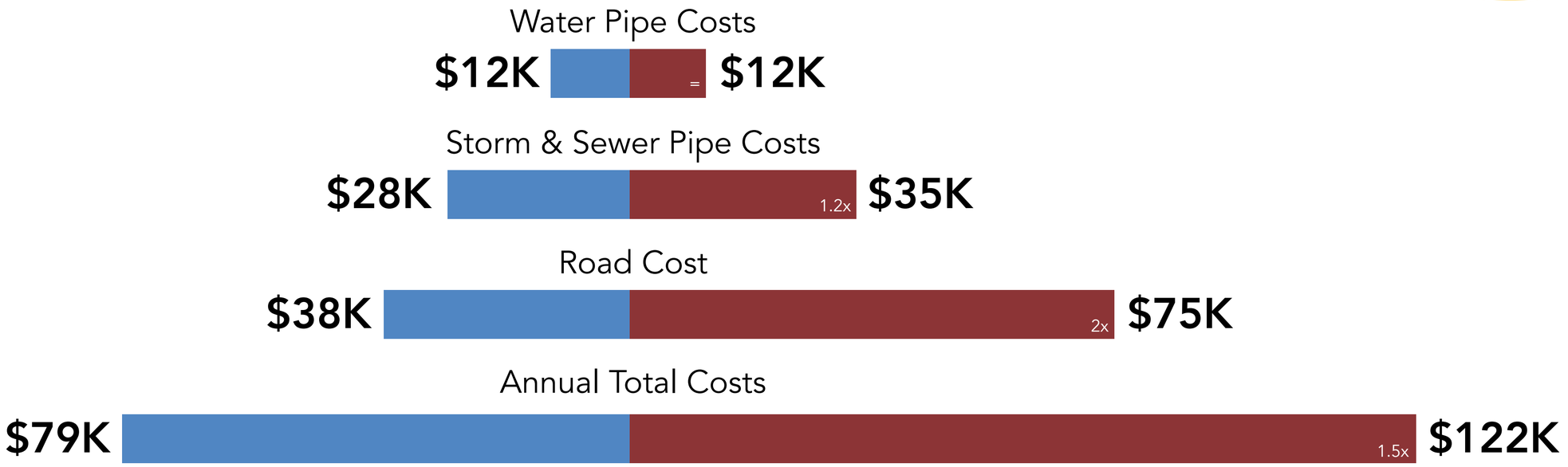
88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

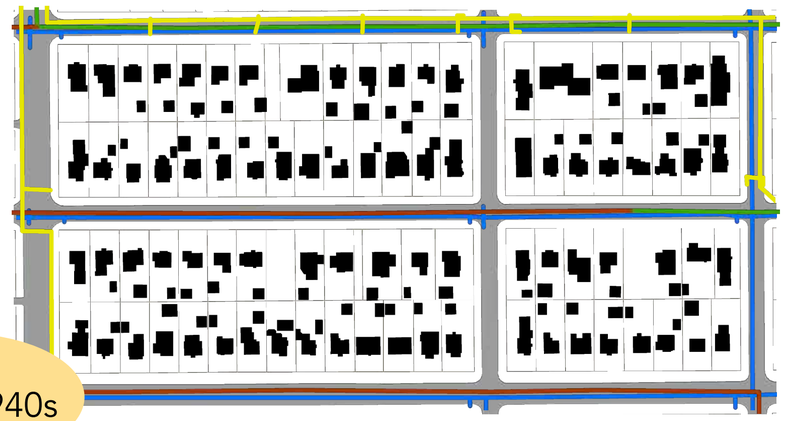


Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

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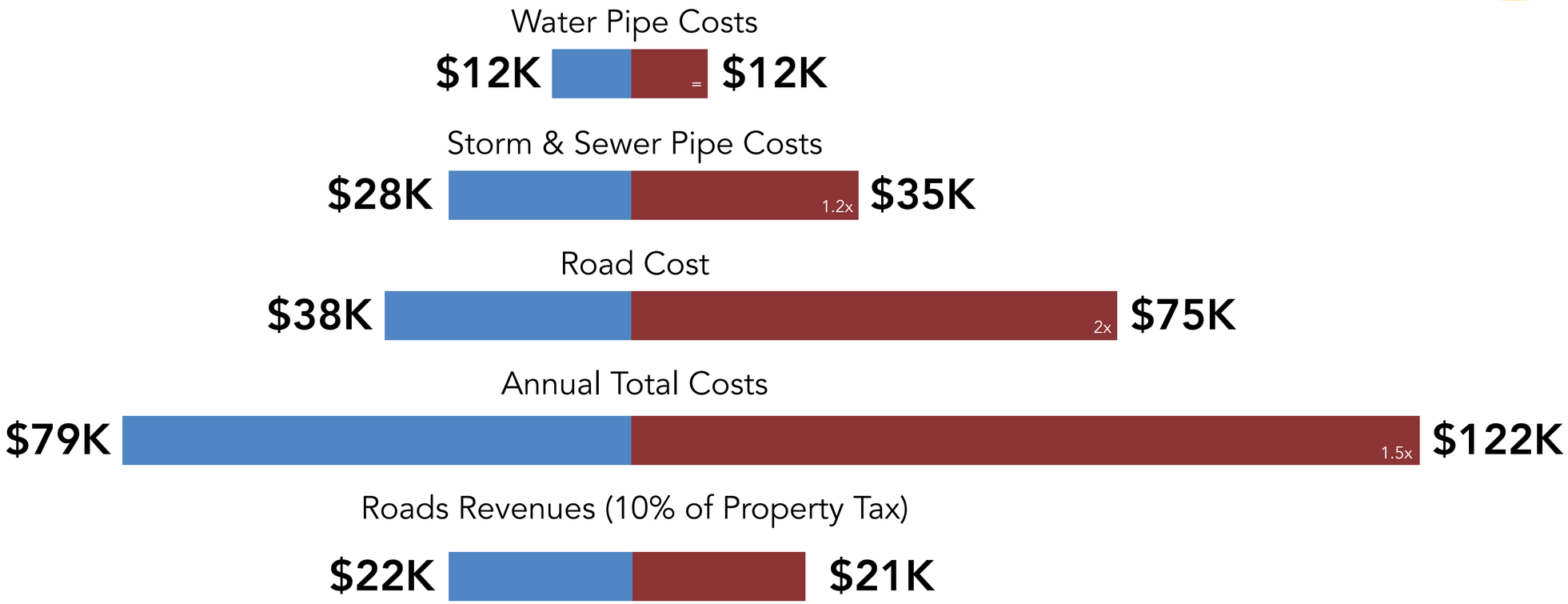

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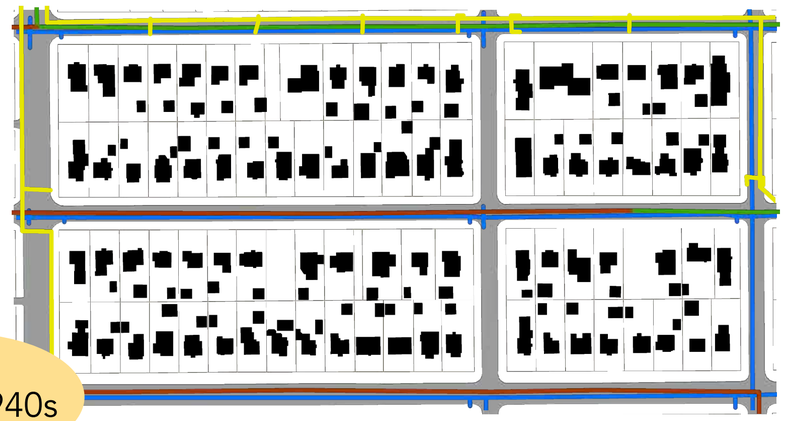
URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN

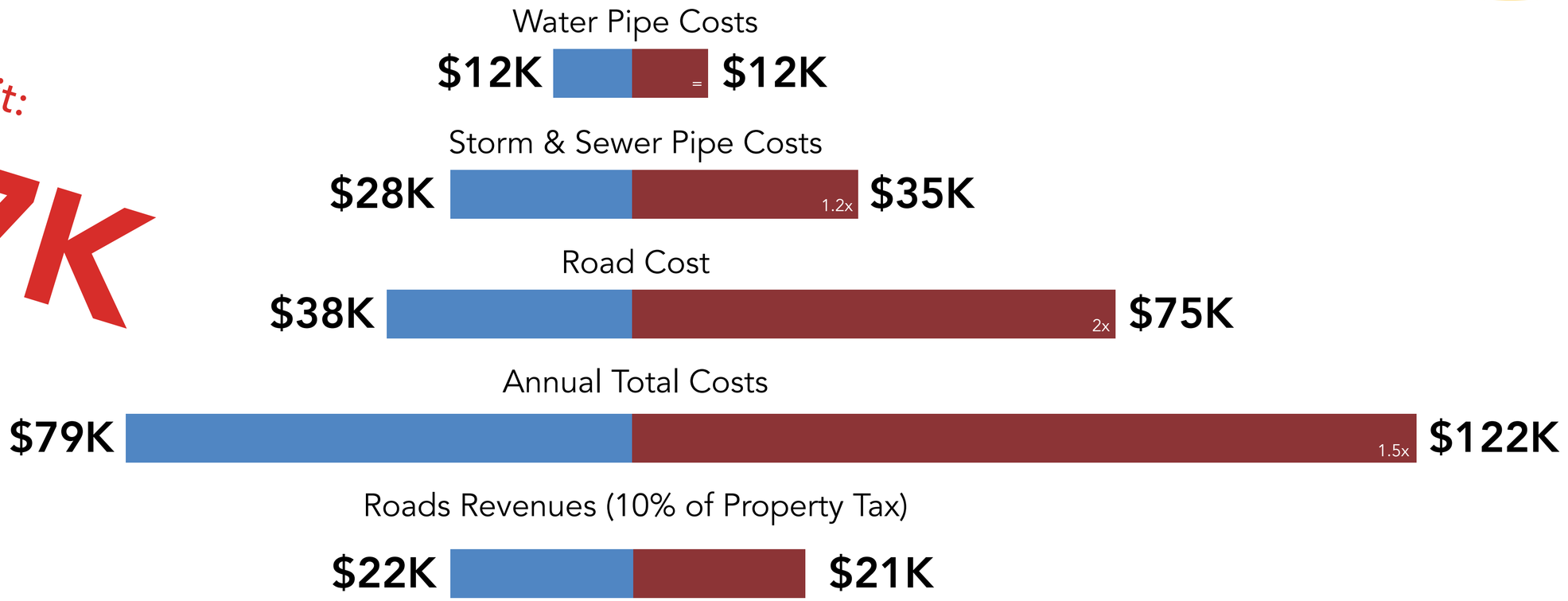


Built 1920s-1940s

Built 1970s

Deficit:

-$57K

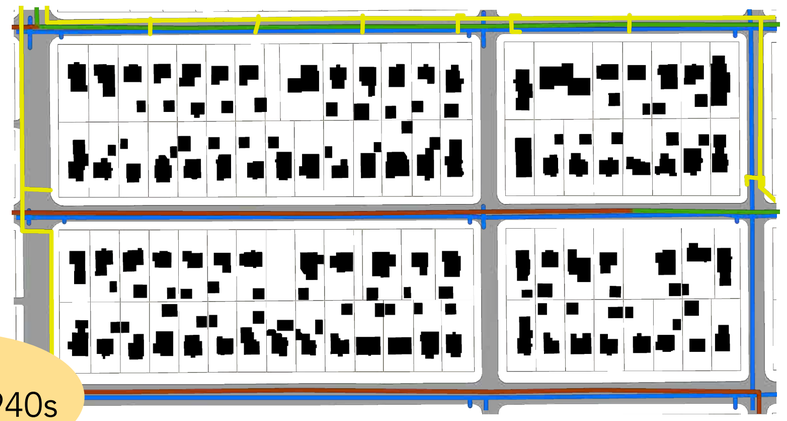


Source: South Bend, IN (2020)

URBAN3

88 Houses: Grid vs. Cul-de-sac

South Bend, IN



Built 1920s-1940s

Built 1970s

Deficit: -$57K

Deficit: -$101K

Water Pipe Costs

$12K = $12K

Storm & Sewer Pipe Costs

$28K 1.2x $35K

Road Cost

$38K 2x $75K

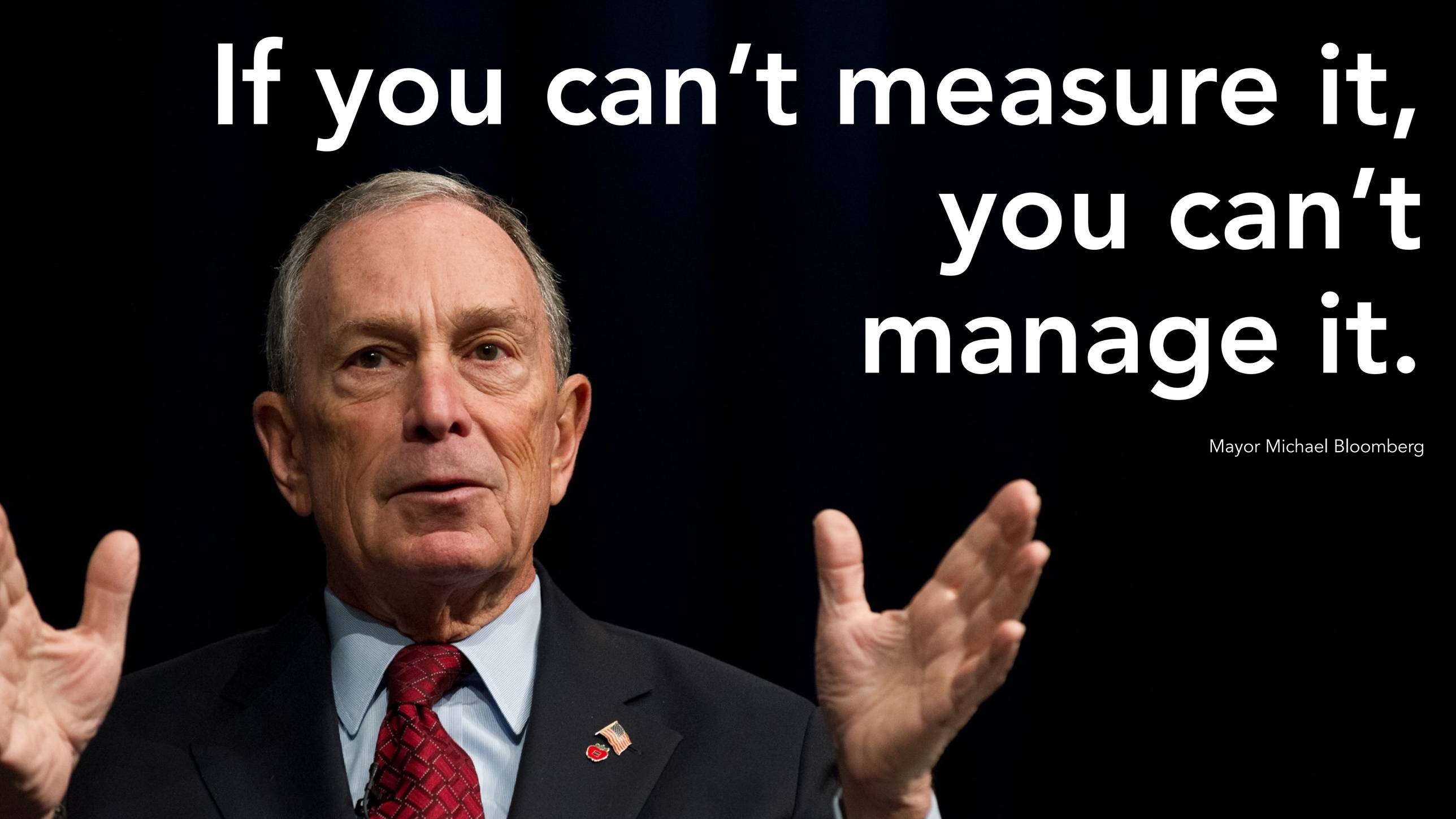
Annual Total Costs

$79K 1.5x $122K

Roads Revenues (10% of Property Tax)

$22K $21K

Source: South Bend, IN (2020)


If you can’t measure it,
you can’t
manage it.
Mayor Michael Bloomberg

Observation:

Are we aware of assessment policy quirks?

Dell Avenue
Urban3
Analyst:
Derek Sanders
Map:
Neil Thomas
Resource Data, Inc.
0
0.25
0.5
Miles
Legend
Study Area
Tax Exempt
N
LAND Assessment
Assessed Value Per Acre
$0.00 - $5,000.00
$5,000.01 - $10,000.00
$10,000.01 - $15,000.00
$15,000.01 - $20,000.00
$20,000.01 - $25,000.00
$25,000.01 - $30,000.00
$30,000.01 - $35,000.00
$35,000.01 - $40,000.00
$40,000.01 - $45,000.00
$45,000.01 +

Dell Avenue
FAIR+EQUITABLE
AUGUST 2019 | VOLUME 17 | NUMBER 7
A publication of IAAO on appraisal and appraisal management, within the property assessment industry.
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TEGoVA extends Highest and Best Use value to encompass Hope Value | 28
Sanders
Thomas
ource Data, Inc.
0
0.5
Miles
Legend
Study Area
Tax Exempt
N
LAND Assessment
Assessed Value Per Acre
$0.00 - $5,000.00
$5,000.01 - $10,000.00
$10,000.01 - $15,000.00
$15,000.01 - $20,000.00
$20,000.01 - $25,000.00
$25,000.01 - $30,000.00
$30,000.01 - $35,000.00
$35,000.01 - $40,000.00
$40,000.01 - $45,000.00
$45,000.01 +

Tax
Code

URBAN3

International Association of Assessing Officers

Curriculum Training

IAAO

Photo Source: Urban3

URBAN3

International Association of Assessing Officers

Curriculum Training

IAAO

Photo Source: Urban3

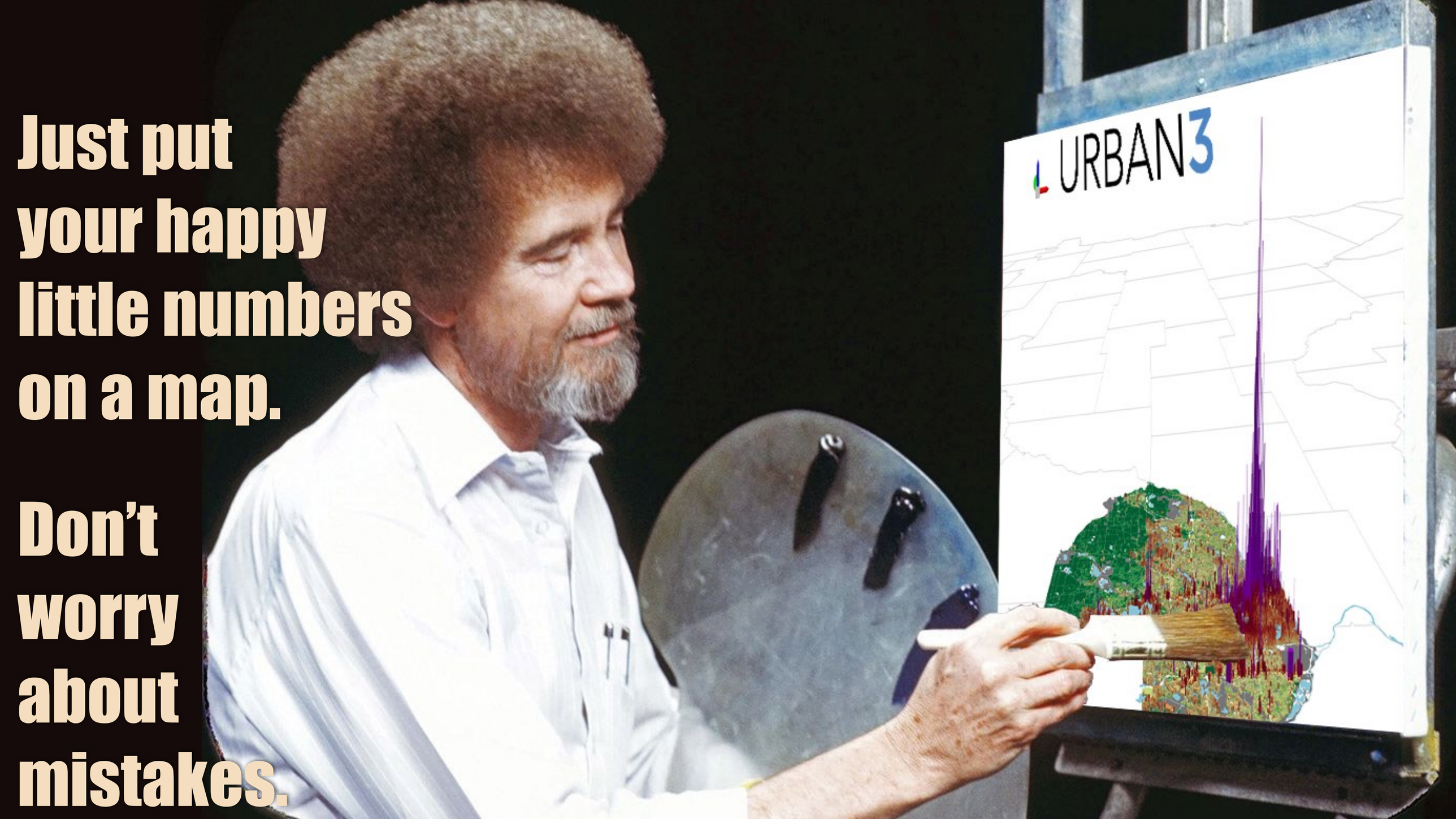
MARKET FORCES

Question:

OK Joe. What do we do with this?

Professional category winner: Ray Aull

Do more Ray stuff!



Just put your happy little numbers on a map.

Don’t worry about mistakes.

Tom Dondon : Logan Stankoven

Source: © Bruce Bennett/Getty Images

Tom Dondon : Logan Stankoven

URBAN3

Source: © Bruce Bennett/Getty Images

URBAN3

Source: usnews.com, https://newhomeinc.com/blog/top-suburbs-of-raleigh-nc-to-buy-a-new-home/, espn.com

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Raleigh

$188B

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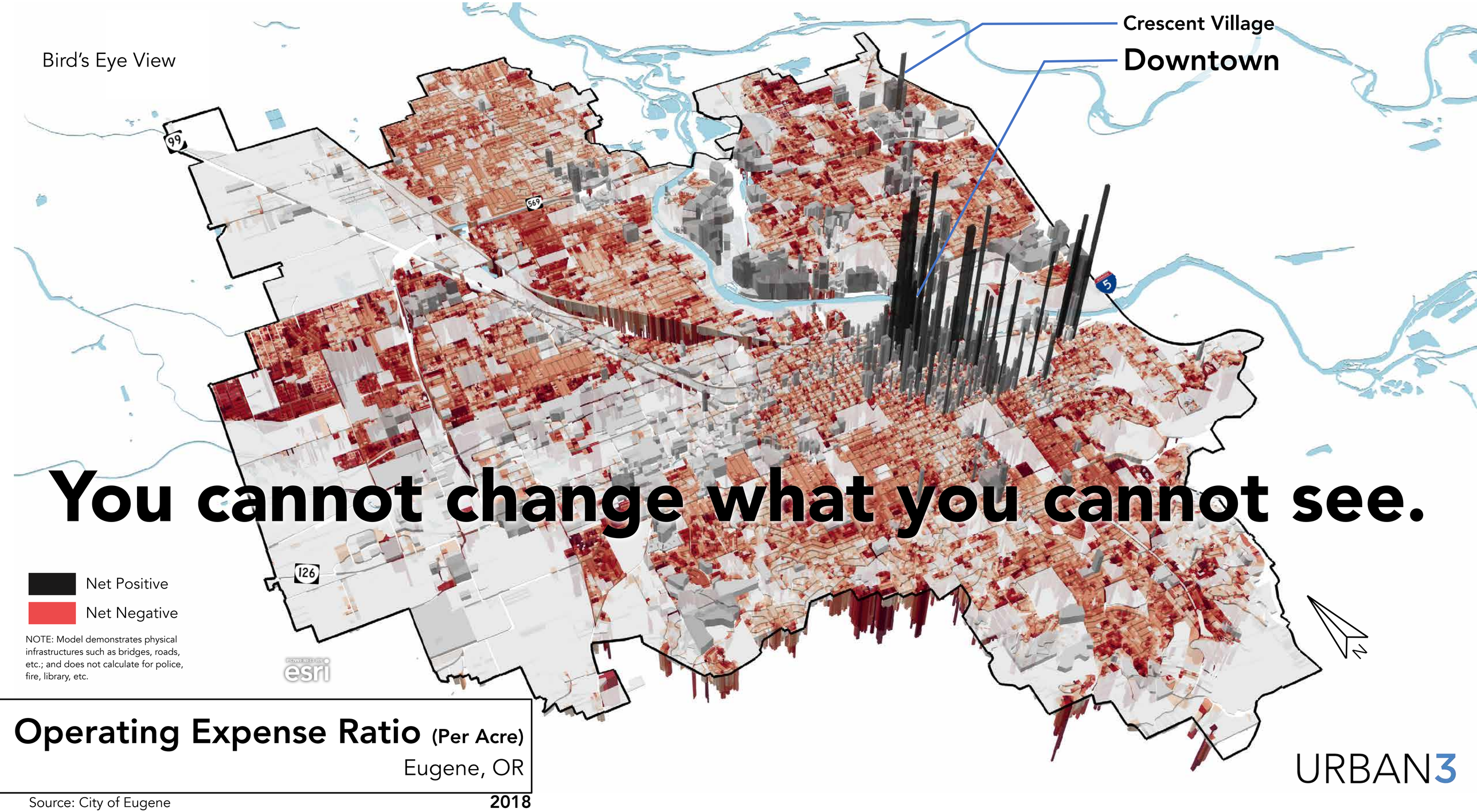
$1.25B

150.4

URBAN3

Source: usnews.com, https://newhomeinc.com/blog/top-suburbs-of-raleigh-nc-to-buy-a-new-home/, espn.com



Operating Expense Ratio (Per Acre)

Eugene, OR

Source: City of Eugene

2018

DO THE
MATH