

# ENGR 399

- Try opening the quiz now, so its ready when its time to take the quiz.  
Quiz access code = cold
- Asynchronous assignment 1 is posted, and is due by Sunday midnight.  
There are two options... do ONLY ONE of the two options

# This lecture... what we will cover

1. Do engineers act objectively and distanced from personal beliefs and politics?
2. Is government response to community outcry always ethical?
3. Ethical balancing of safety, environment and property rights
4. Ethics of projects with disproportionate impacts on certain groups

# How did MLK get his start as a civil rights leader?



It started in Montgomery, AL in December 1955



Dec. 1, 1955

Rosa Parks arrested for not giving up  
her seat on the city bus

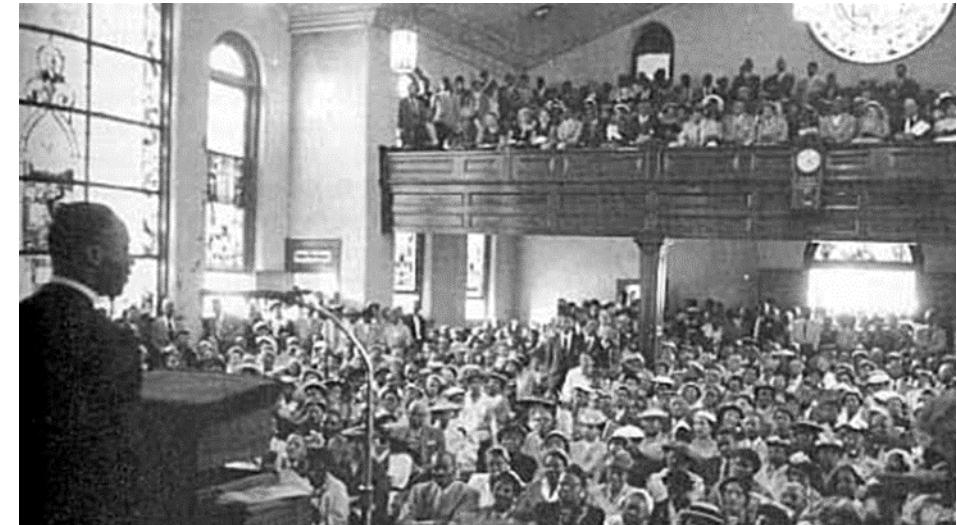


3 pm Dec. 5, 1955. AME Zion Church

MLK elected President of the Montgomery Improvement Association



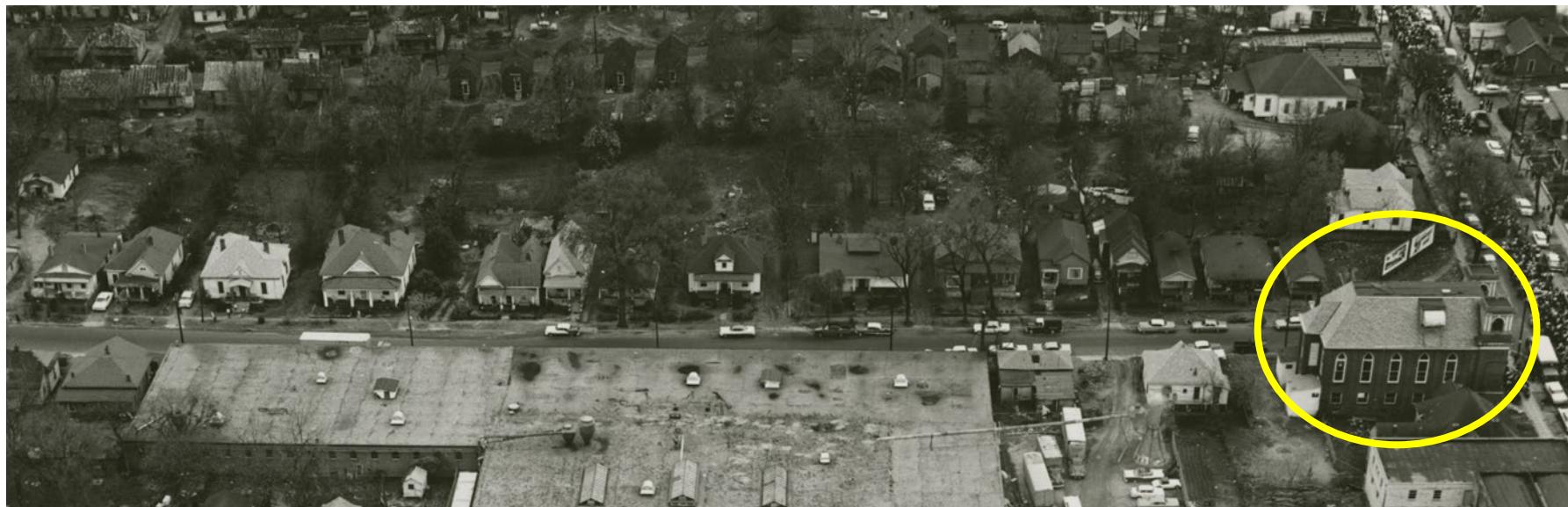
7 pm Dec. 5, 1955. Holt St Church  
MLK gives first major speech, launching Montgomery Bus Boycott



*Dr. King delivered an address that he had quickly composed before the meeting. He later recalled the questions in his mind as he considered what to say: ... "What could I say to keep them courageous and prepared for positive action and yet devoid of hate and resentment?"*

<https://kinginstitute.stanford.edu/king-papers/documents/mia-mass-meeting-holt-street-baptist-church>

# 1965: MLK leads the Selma to Montgomery march



The march passed near the AME Zion Church, where MLK was elected to his first civil rights leadership role 10 years earlier

# The neighborhood where the US Civil Rights Movement started

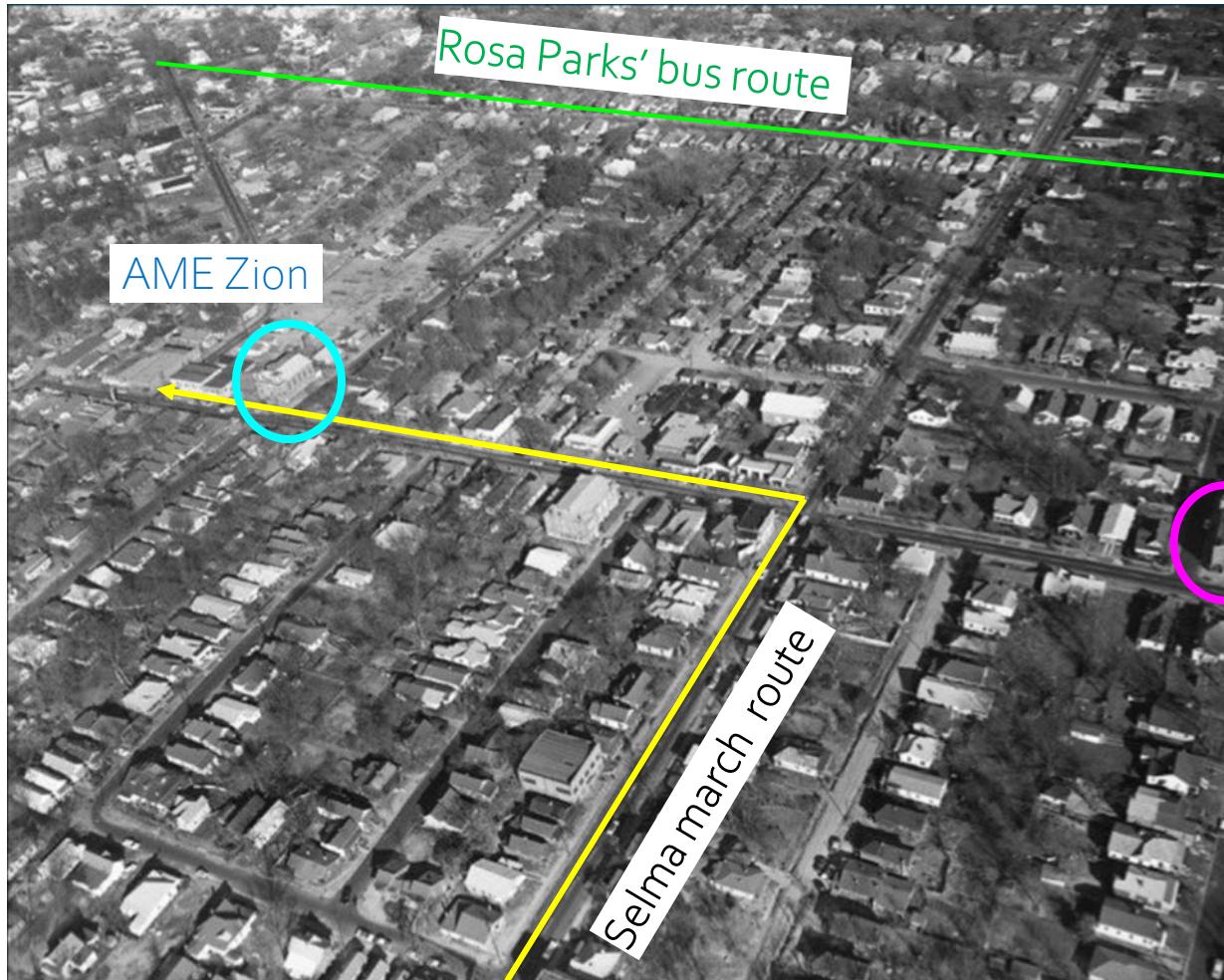
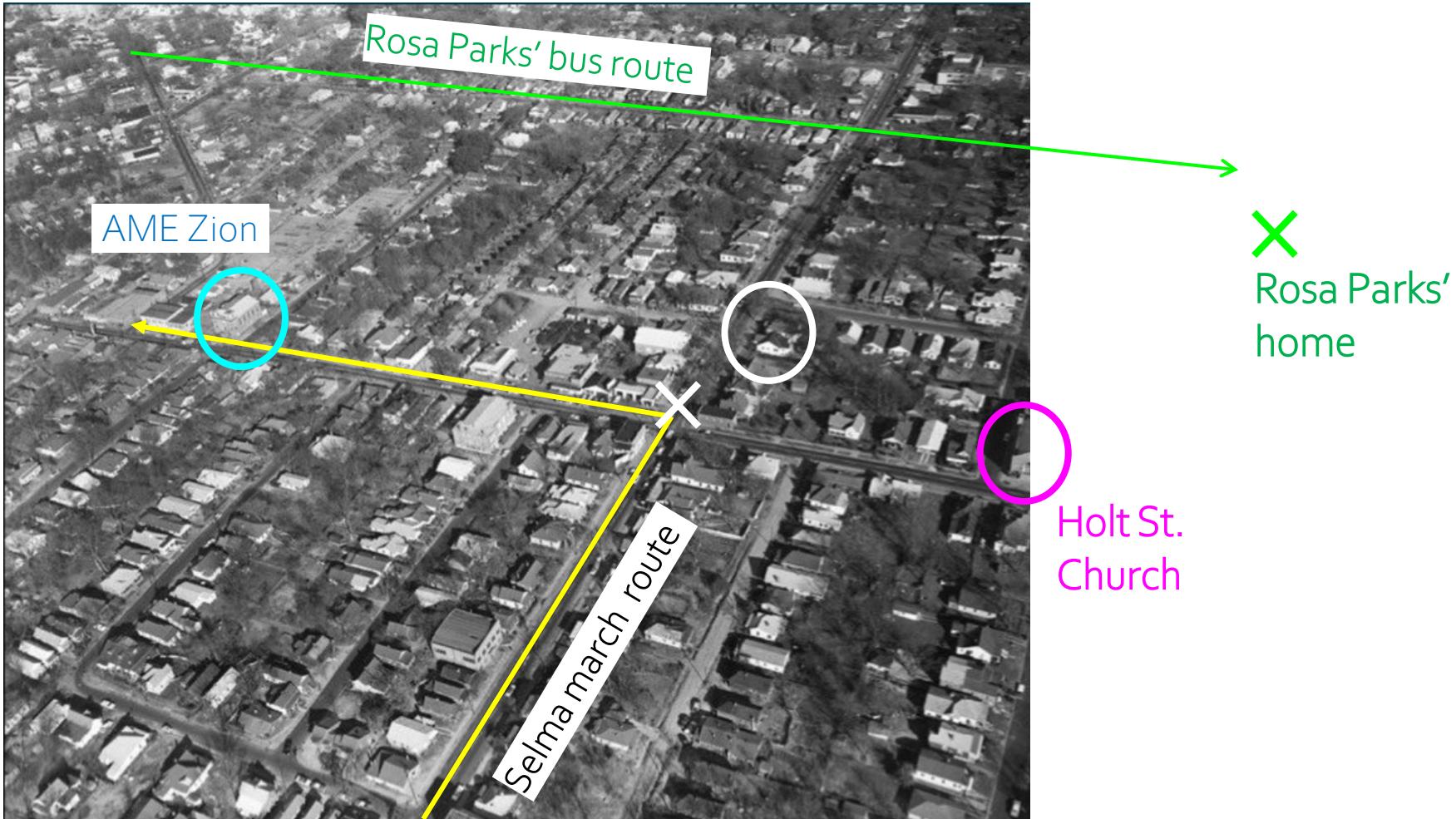


Photo from 1965

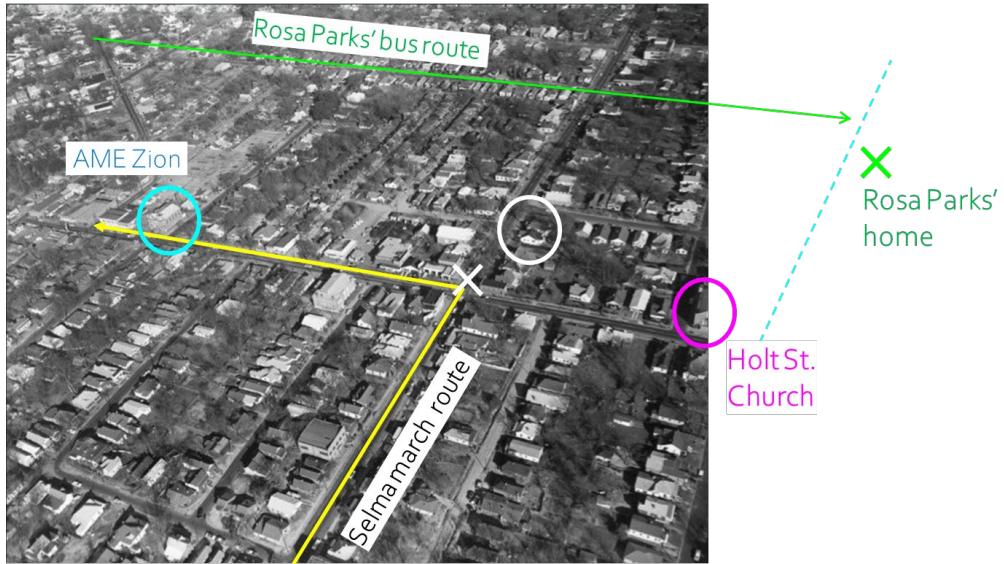
<https://digital.archives.alabama.gov/digital/collection/photo/id/28423/rec/4>



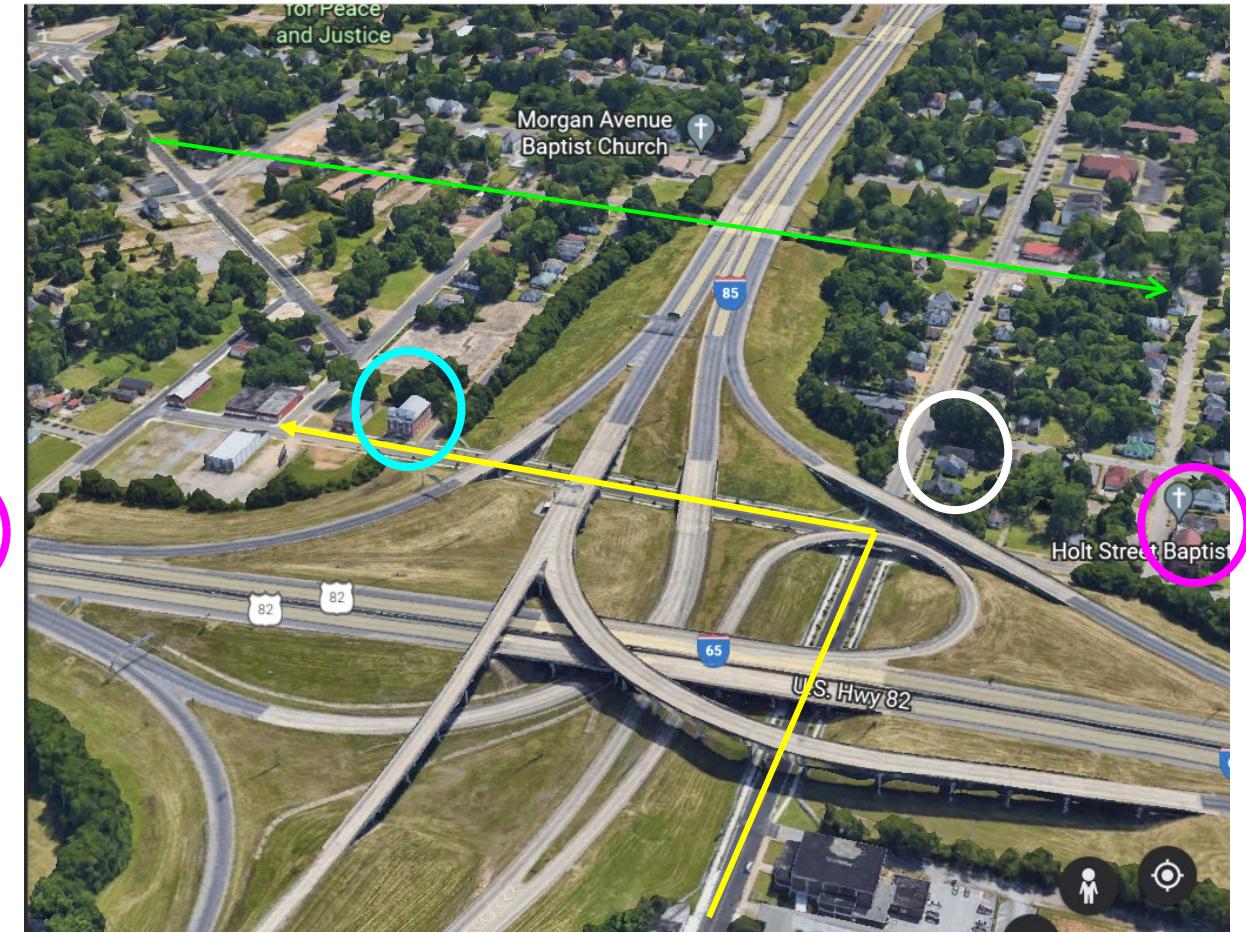
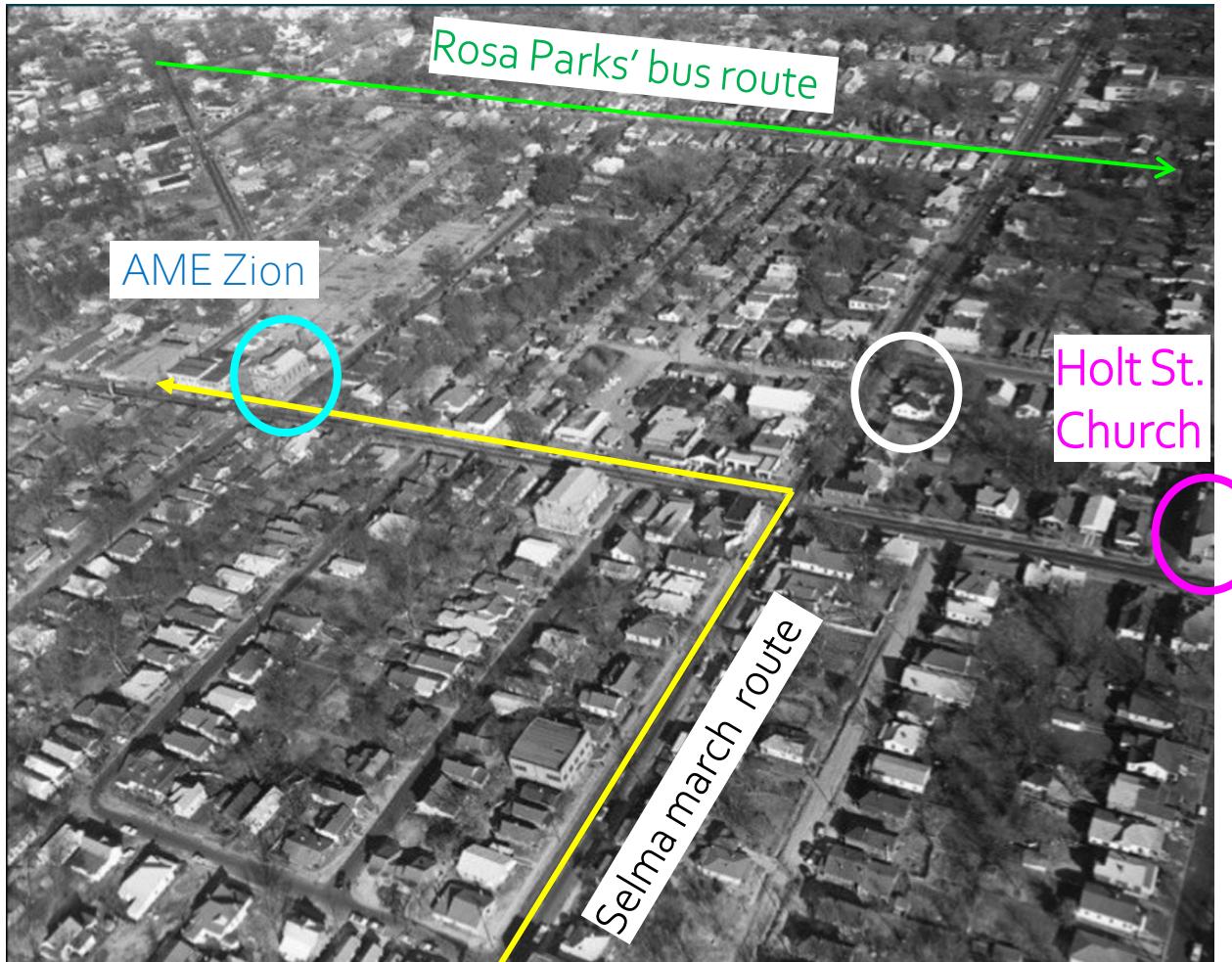
# The neighborhood where the US Civil Rights Movement started



# What does this neighborhood look like today?

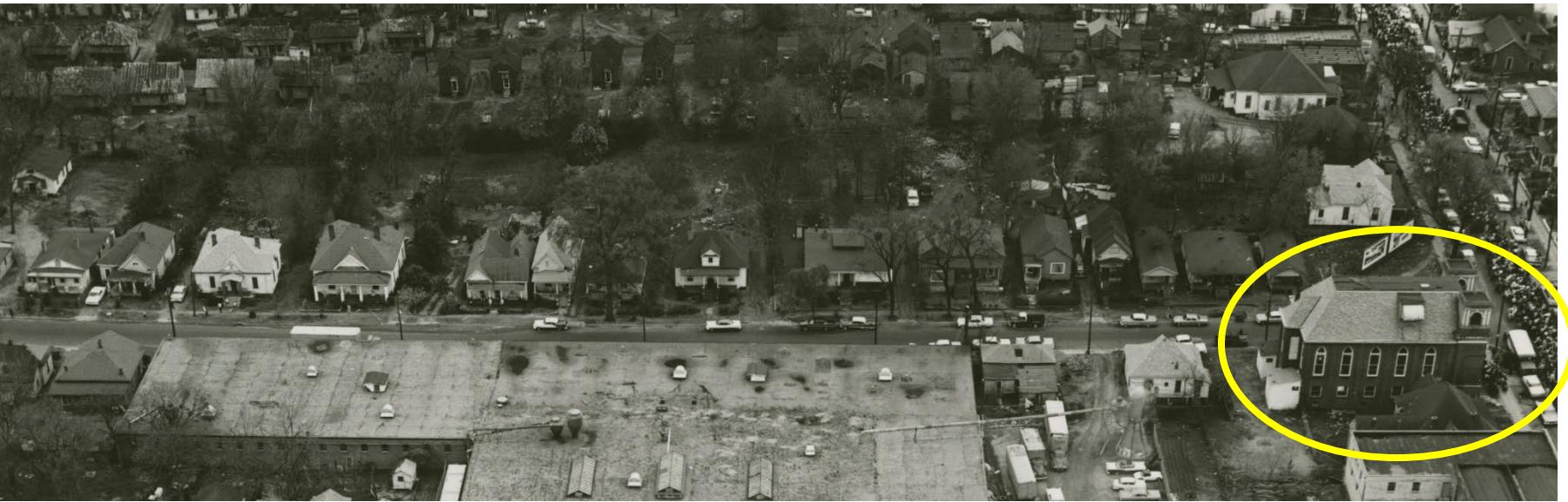


# The neighborhood where the US Civil Rights Movement started

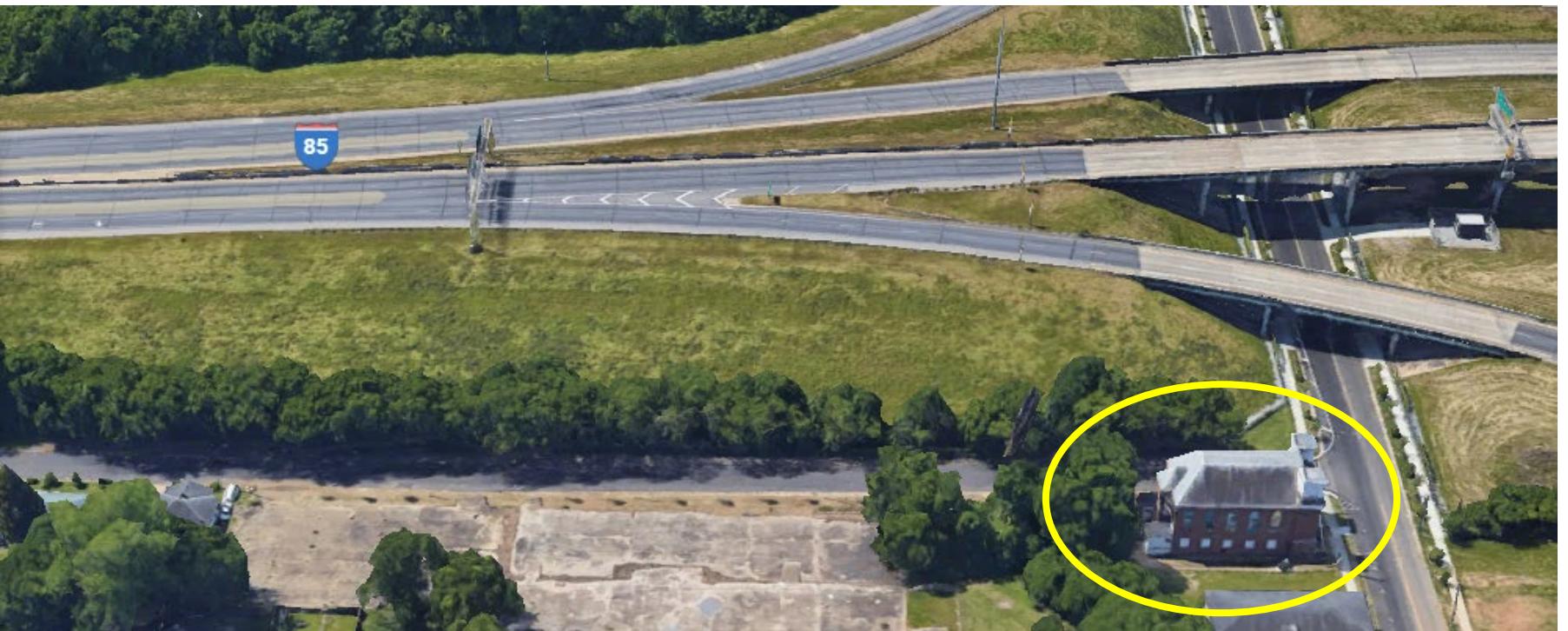


What happened to all these homes?!?!!? What happened to the neighborhood?!?!!?

1965



2023



# What was reason given for this?



Many residents of West Montgomery lived in areas without paved roads, with no indoor water and with outhouses instead of indoor bathrooms

“the highway department selects a route that would disturb as little improved property as possible. Whenever possible . . . the route goes through areas where housing is substandard.”

– R. D. Jordan  
Chief Engineer, Alabama Highway Department

# Ribbon cutting ceremony for I-65 in Montgomery



From left:

- R. D. Jordan, Chief Engineer Alabama Highway Department
- Sam Engelhardt, Director of the Alabama Highway Department
- Sister of Governor John Patterson's wife

SAM ENGELHARDT, JR.

Your Senatorial Race  
In the 26th District  
Is the Most Important  
Since the Days of  
**RECONSTRUCTION**

Again may I say: I have simply stated my position---  
**I Stand for White Supremacy  
and Segregation**

VOTE FOR  
**Sam Engelhardt, Jr.**  
Candidate For  
**State Senate**

(PAID POLITICAL ADVERTISING BY SAM ENGELHARDT, JR., SHORTER ALA.)

MONTGOMERY, Ala., Jan. 19—This is the text of John Patterson's inaugural address today:

## ROADS AND HIGHWAYS

If we are to keep pace with progress and get our fair share of the industrial growth and expansion of our nation, the development of our highways is of prime importance. Urban areas are critically in need of relief from traffic congestion. Many areas of Alabama offer complex highway problems that will command ingenuity, boldness and money to resolve.

## EDUCATION

AS YOUR GOVERNOR, I will preserve and promote the cause of public education in Alabama. I want to see every child in this state afforded the best education possible irrespective of race or color. The well-being of this state and our nation depends on the education of our children. Our children must come first.

The white and Negro pupils should have equal school facilities, but they must be segregated. I will oppose with every ounce of energy I possess and will use every power at my command to prevent any mixing of the white and Negro races in the classrooms of this state. I dedicate every capacity to preserving segregation in the schools.

There can be no compromise in this fight. There is no such thing as a "little integration."

"In designing the system, highway engineers projected an image of themselves as scientific experts, distancing themselves from politics.

Engineers claimed, therefore, that interstate locations were decided based on the distribution of the urban and rural population, motor vehicle ownership, service to cities of manufacturing importance, strategic interregional connections, traffic, and defense."

*Do you think, in general, that engineers act objectively — i.e., that they are able to separate their personal beliefs and political persuasions from the decisions they make as engineers?*

*To what extent do you think it's possible for engineers—or, really, anyone—to be truly “objective,” or free of any bias whatsoever?*

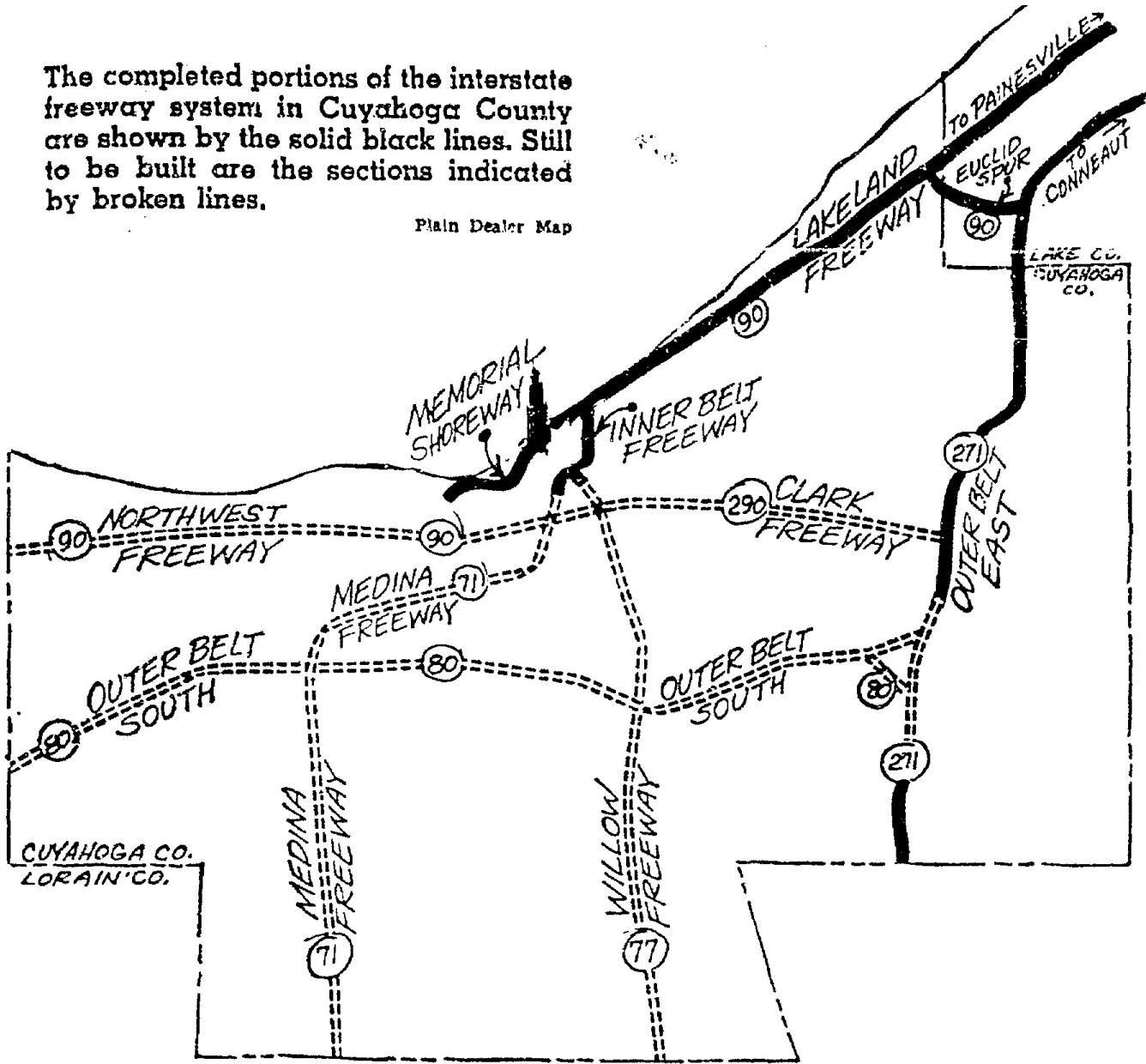
That was far away, in Alabama.

Let's look at a case in Ohio...

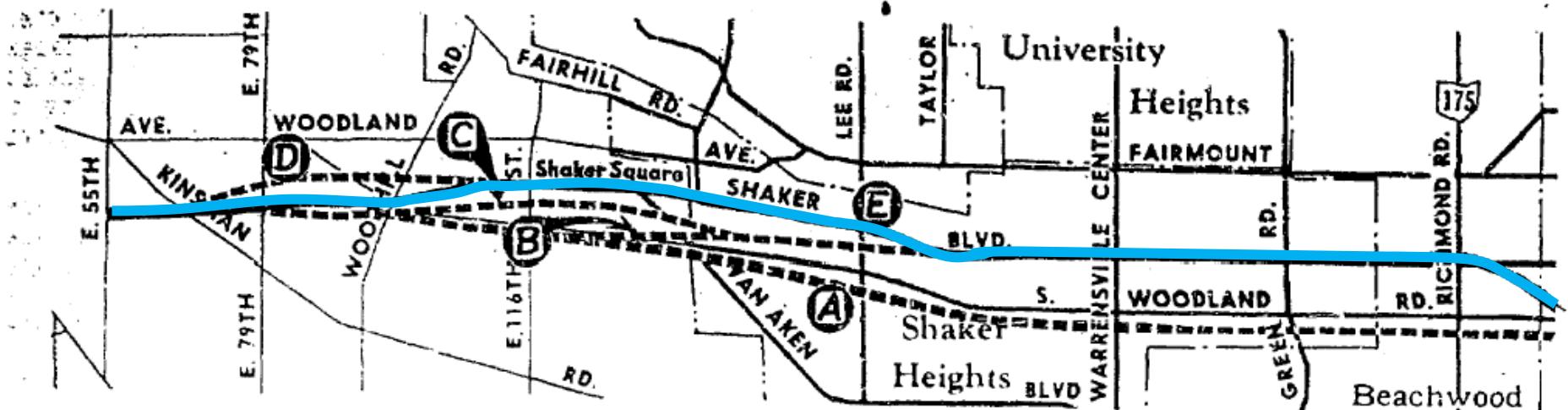
Cleveland Plain Dealer  
June 28, 1964

The completed portions of the interstate freeway system in Cuyahoga County are shown by the solid black lines. Still to be built are the sections indicated by broken lines.

Plain Dealer Map



THE PLAIN DEALER, SATU



Of five routes studied for the Clark Freeway extension, Alternate E has been recommended.

Plain Dealer Map

#### FOUR ALTERNATES REJECTED

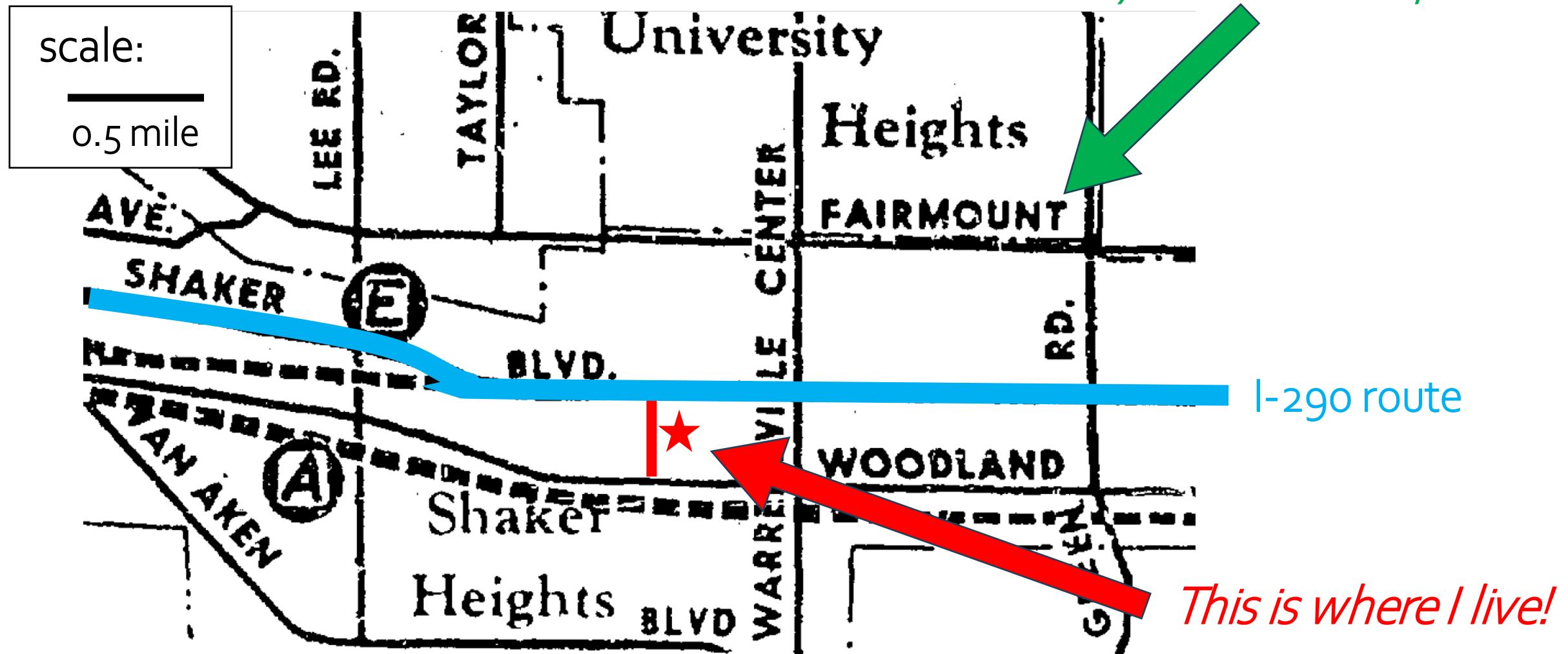
# Here's How Clark Route Was Picked

(Clark Freeway is I-290)

Cleveland Plain Dealer  
Dec 14, 1963

Let's zoom in on the I-290 route...

*Note Fairmount takes you close to campus*



Why build the freeway?

THE PLAIN DEALER,

## Cult of the Auto—Curse or Blessing?

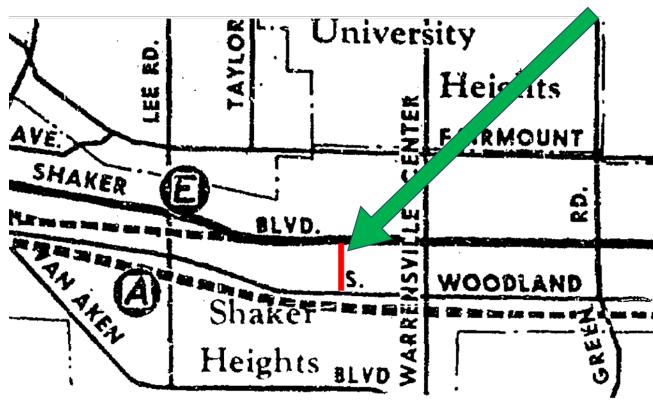
BUT THERE IS another side to this coin and it has a forceful, if not downright angry exponent in Cuyahoga County Engineer Albert S. Porter.

"If the freeway is not built," says Porter, "the traffic situation out there will become chaotic. Suppose you live on Fairmount Boulevard. It will take you half an hour to get out of your driveway. And each time you stop for a light, it will take you another half an hour to get moving again."

June 26, 1964

# What does the I-290 route look like today?

*Let's see what  
things look like here!*



# 650 Applaud Critic of Shaker Freeway

Shaker Heights' resistance to the proposed route of the Clark Freeway is "a symbol of a community's resistance to its own destruction," the suburb's law director said last night at a crowded public meeting.

More than 650 persons crowded into the Woodbury Junior High School auditorium to hear a panel discussion sponsored by the Shaker Heights Democratic Club.

The panelists were the law director, Walter C. Kelley Jr., and two proponents of the freeway route—Robert Vannice, design engineer for the county engineer's office, and Walter D. Munn, of the consulting engineering firm of Howard, Needles, Tamman & Bergendoff.

**VANNICE,** WHO represented County Engineer Albert S.

Porter, said the proposed route would take the fewest Shaker Heights homes (80) and decrease the tax duplicate by only 1.2%. His words were greeted with some boos.

To applause and shouts of "Hear! Hear!", Kelly said: "For the sake of a few minutes travel time to downtown, a community is to be sacrificed. They say we're supposed to accept this. Well, we don't."

Kelly intimated that the Shaker Heights case would be taken to the U.S. Supreme Court, if necessary.

Munn told the audience the proposed route was the most feasible because it provided enough room for an interchange with the proposed Lee Freeway, which eventually will bisect Shaker Heights from north to south.

Cleveland Plain Dealer, Jan 16, 1964

# Shaker Hts. I-290 Route Is Dead, Rhodes Declares

By JOHN CLARK

The plan to route Interstate 290 (Clark Freeway) through Shaker Heights and other eastern suburbs is dead, according to Gov. James A. Rhodes.

The governor yesterday bowed to opponents of the Shaker route and said it was possible I-290 would be abandoned altogether.

Rhodes, who last week suggested the highway be built over the Shaker Rapid Transit right-of-way, told a news conference in the Hotel Sheraton-Cleveland that he will not impose the will of the state upon the people."

HE WAS referring to opposition to the freeway in Shaker Heights, Cleveland, East Cleveland and Pepper Pike. His statement followed a breakfast meeting with representatives of these cities and Beachwood.

**RHODES, IN FACT,** did not say flatly that I-290 would never be built. He speculated a route may be

While Rhodes' decision pleased foes of the Clark Freeway, it provoked a sharp attack from the office of Albert S. Porter, county engineer, including an allegation that Rhodes had acted with an eye to his bid for the Republican nomination for U.S. Senate.

Porter was not invited to yesterday's meeting and his department, according to the statement, learned of Rhodes' "regrettable action second-hand."

"It is our opinion that the governor has broken faith with the vast majority of residents of Cuyahoga County," the statement said. "He has reversed his previous policies on freeway construction in Cuyahoga County."

found that would not stir opposition. Yet he also suggested I-290 may be taken out of the interstate system with a request that the \$100 million earmarked for the project be reallocated within Ohio, especially to projects in Cuyahoga County.

But William E. Reed, division engineer for the U.S. Bureau of Public Roads in Columbus, told The Plain Dealer if Ohio asks to drop I-290 from the system, the federal money will be lost by the state.

"There are plenty of places in this country that could use the money," he said.

Rhodes' decision was interpreted by some freeway opponents as an indication he wishes to abandon I-290 altogether. Among them were Mayor Paul K. Jones of Shaker Heights and Richard A. Stoddard, Cleveland Heights councilman.

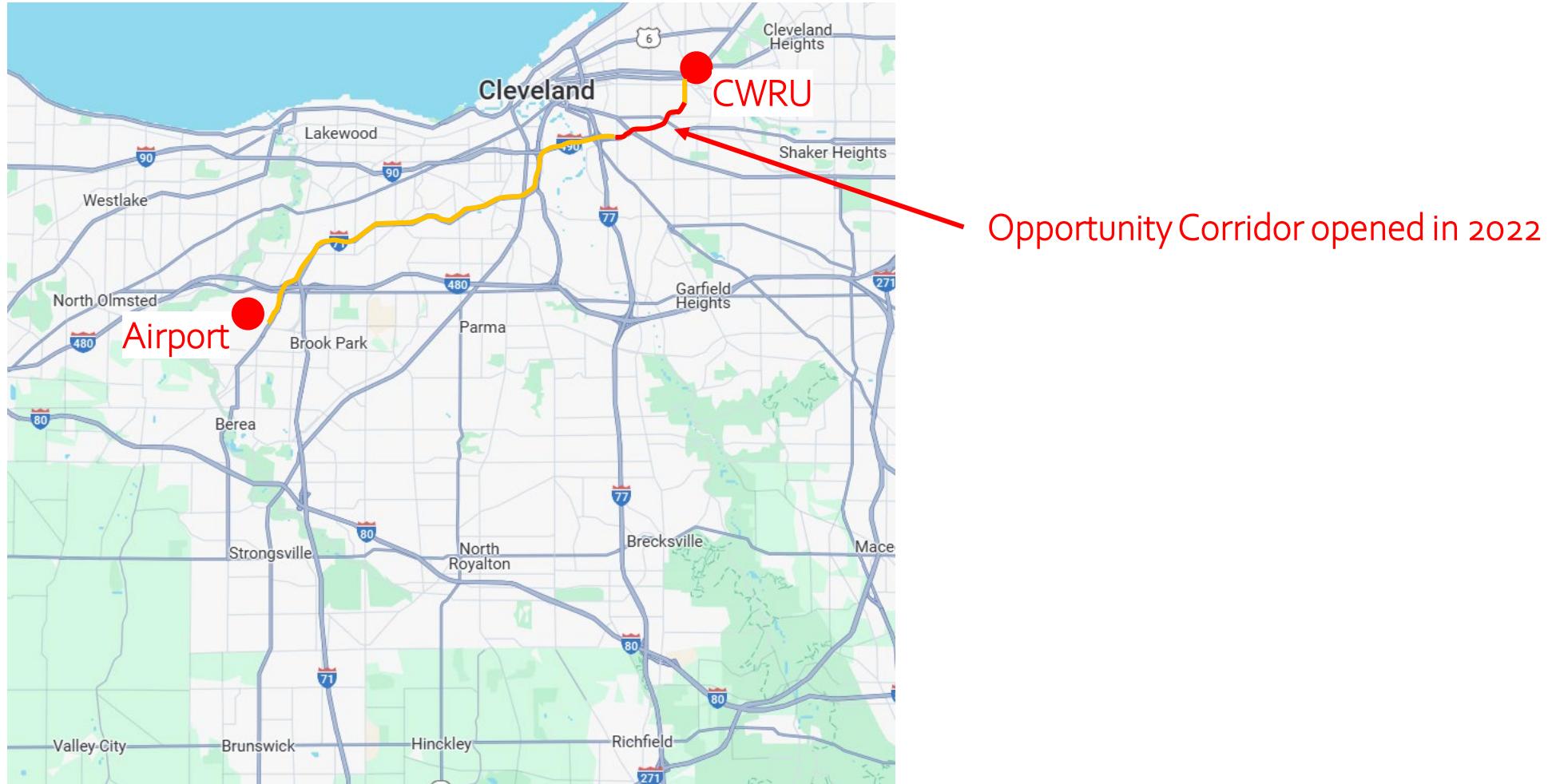
Cleveland Plain Dealer, Feb 6, 1970

*Is it always beneficial for the government to be responsive to community outcry?*

*What if some communities have more power, privilege, and influence than other communities, and they use this advantage to shape government policies in ways that benefit them but harm others?*

*How might this potential problem be resolved?*

# How do you get from campus to the airport?





# Opportunity Corridor

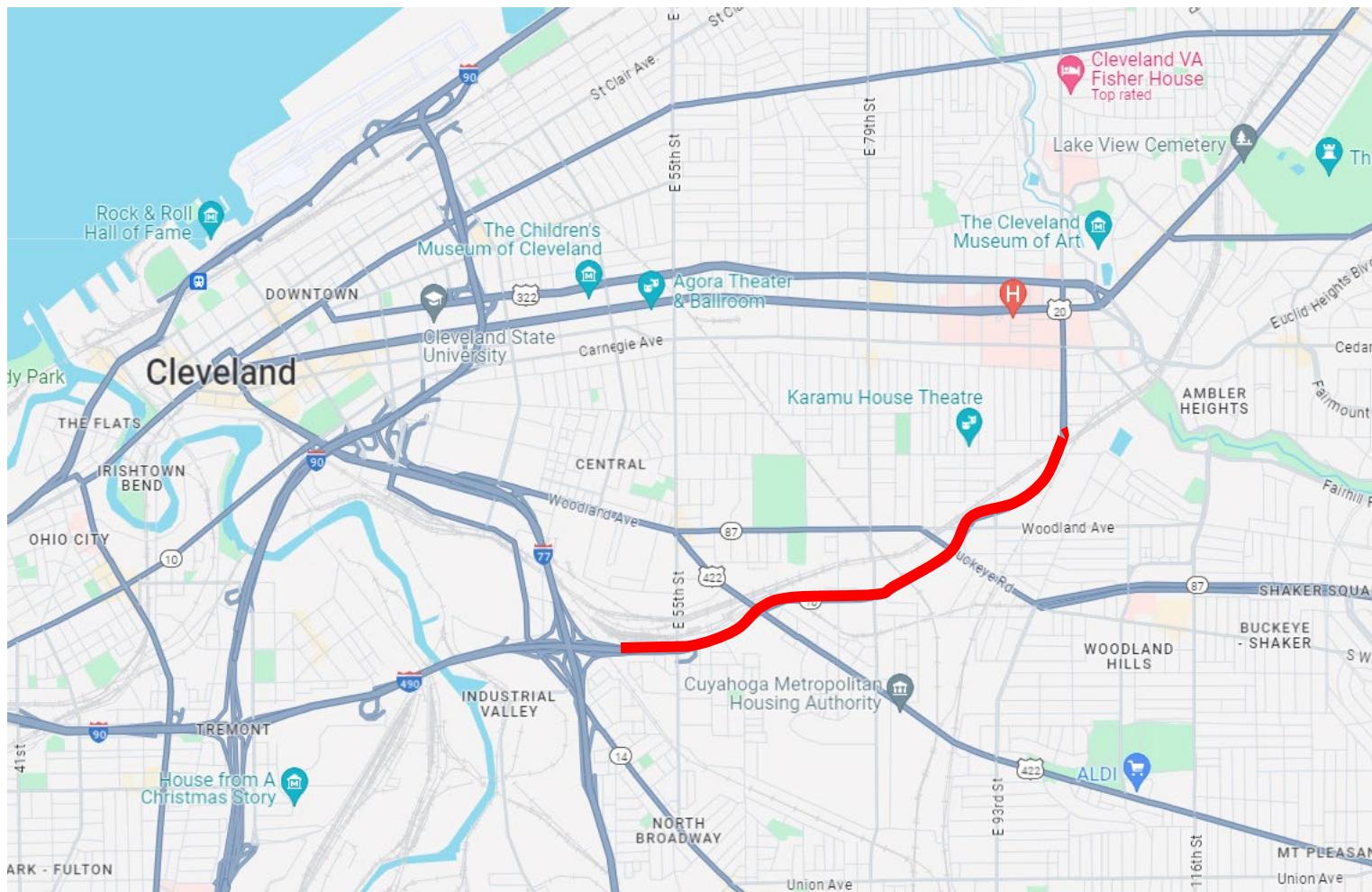
Cuyahoga

Project ID(s): 96832, 96833, 98695

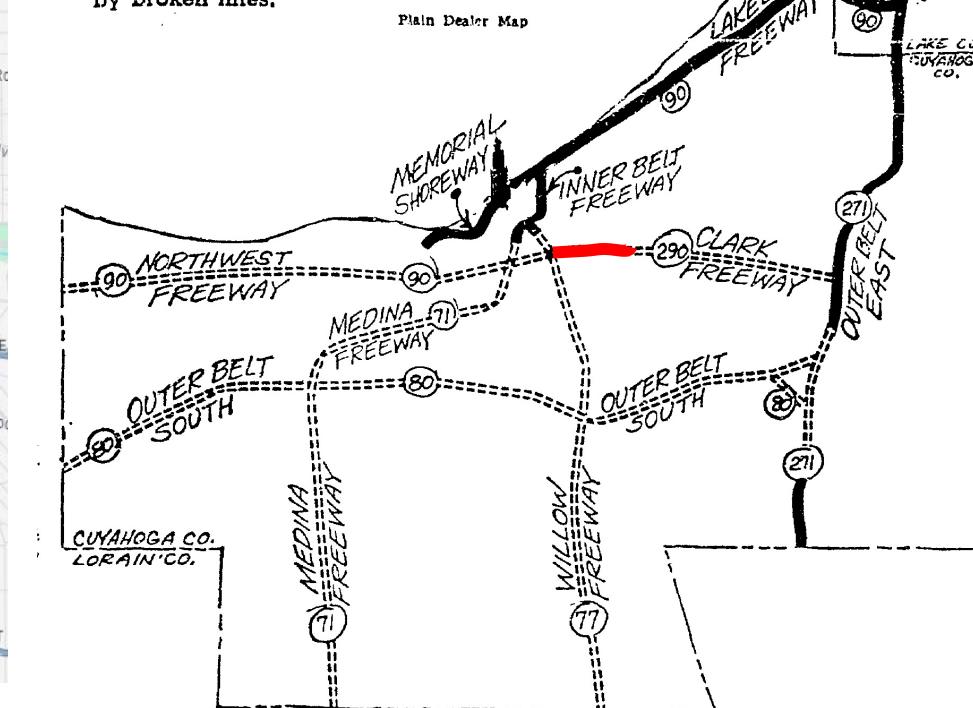
Work Category(s): New Roadway

Begin Construction: Spring 2015

End Construction: Summer 2022



The completed portions of the interstate freeway system in Cuyahoga County are shown by the solid black lines. Still to be built are the sections indicated by broken lines.



# From website of an engineering firm involved in Opportunity Corridor project

It's a project **designed to spur economic development for Cleveland's southeast neighborhoods that stand along the route** — an area locally known as the "forgotten triangle" due to the lack of connection and economic activity. By **creating an attractive, tree-lined boulevard bordered by businesses and homes**, rather than a freeway, state and city officials hope to draw attention, investment and jobs to this historically underserved area.

The boulevard is both **well-lit and aesthetically pleasing, accented by plantings, architectural treatments** on walls and bridges, and other **artistic elements inspired by the locale**. Pathways for pedestrians and bicycles have been added, bridges over rail lines and other roads have been built or rebuilt, and adjacent roadways have been improved.

## NE Ohio Elected Leaders: "Opportunity Corridor" Gets it Wrong

We, the undersigned, oppose the "Opportunity Corridor" project as it is currently envisioned. This \$331 million road project **will speed suburban commuters between I-490 and University Circle. But the benefits to the neighborhoods it bisects** -- Slavic Village, Kinsman, Central, Fairfax and lower Buckeye – are less clear.

It is unjust to devote \$331 million to a single **road project in neighborhoods where so many households cannot afford cars. The project provides no real transit benefits.** In addition, the design proposed by the Ohio Department of Transportation includes **wide, highway-width lanes that will encourage speeding and offer few safe pedestrian crossings. Increased traffic will worsen air pollution problems in the neighborhoods,** as well, where too many children already suffer from asthma. The plan also calls for **19 local roads to be dead-ended,** including Quincy Avenue, an important transit route.

**To make a path for drivers, 76 families will lose their homes and 16 businesses will be displaced.** The basis for negotiations with property owners, which will take place under the threat of eminent domain, will be "fair market value." This is not actually fair because the area's depressed values are the result of broad dynamics beyond the residents' control. Even the existence of this road plan, and the threat of demolition that has hung over these neighborhoods, has **discouraged investment and artificially depressed housing values.**



*Consider a particular project, such as building a highway through a city. Should the history of how past (unrelated) highway projects have affected certain groups of people be taken into consideration? Should the racial or ethnic identity of the communities most affected influence the decisions of engineers?*

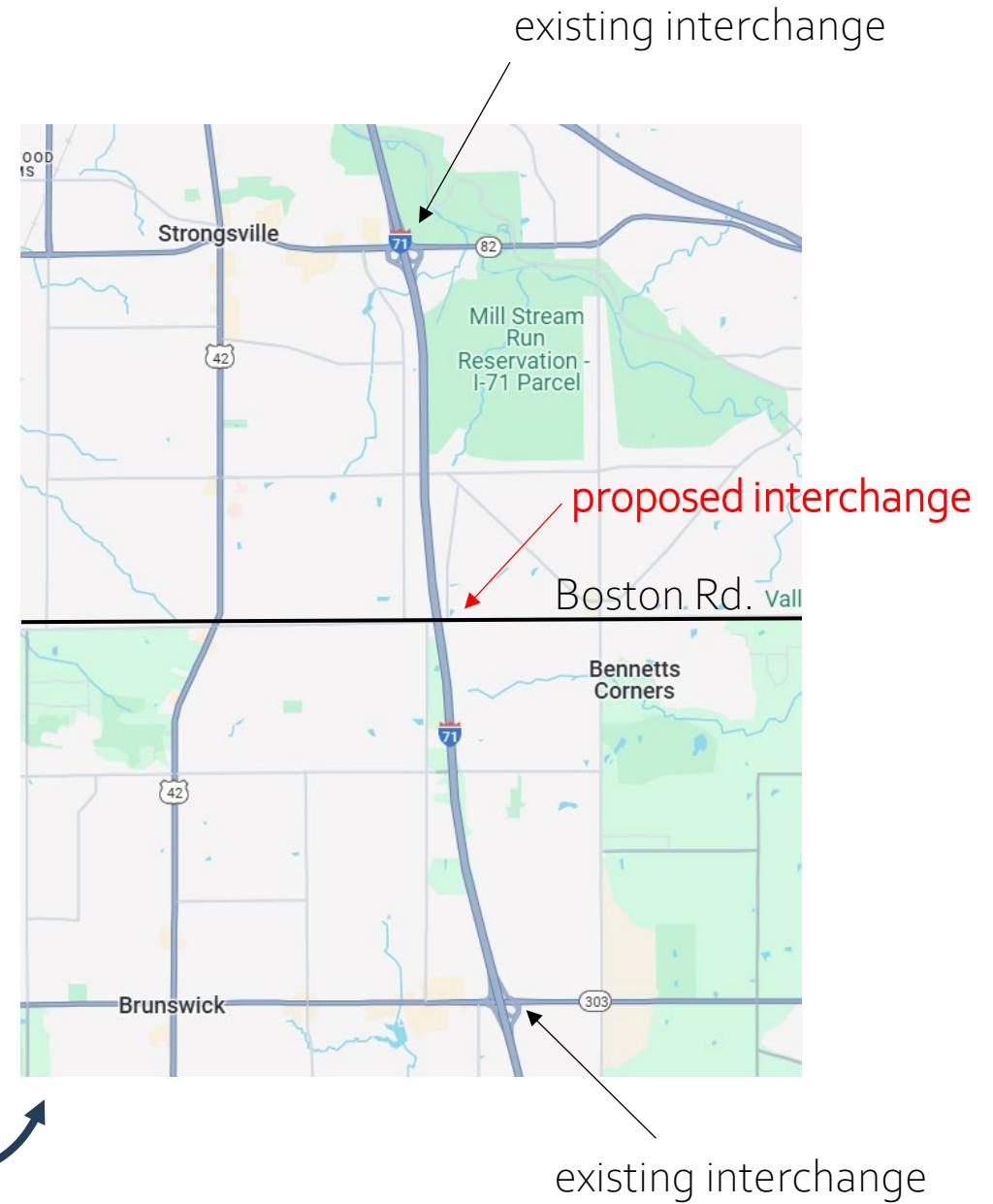
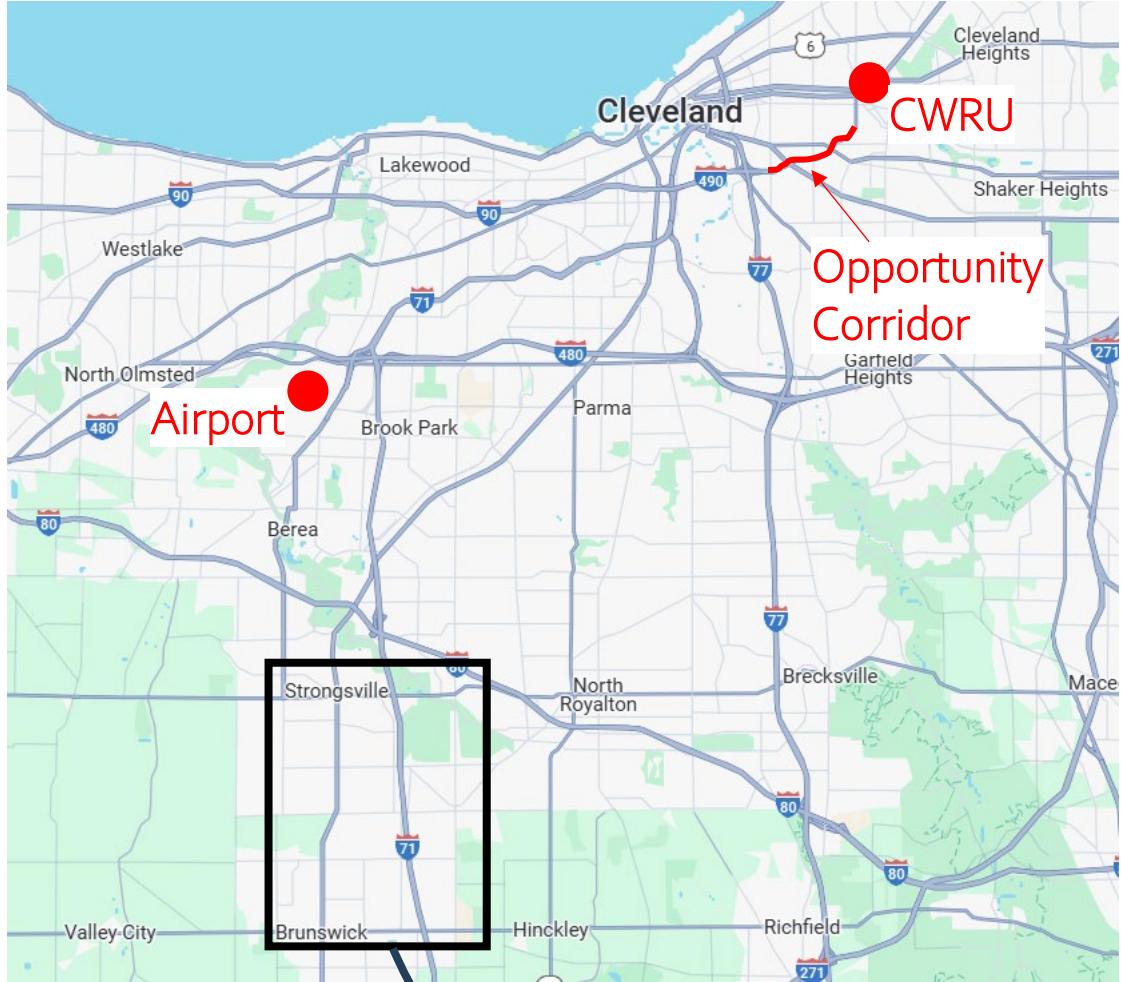
# Gov. Mike DeWine OKs controversial Strongsville-Brunswick highway interchange, but he hints at compromise

Updated: Mar. 31, 2023, 4:05 p.m. | Published: Mar. 31, 2023, 3:46 p.m.



The interchange requirement was inserted into the budget bill by state Rep. Tom Patton, a Strongsville Republican who argues that building it will help ease congestion along existing nearby exits and **make roads safer**.

However, city of Brunswick officials have denounced the idea, warning that connecting Interchange 71 with one of three roads – Drake Road in Strongsville, Grafton Road in Brunswick, or Boston Road between the two cities – **will lower nearby property values, destroy homes in the path of on- and off-ramps, and turn a residential country road into an unwanted commercial corridor**.





Boston Rd.



8235 Mohawk Dr, Cleveland, OH 44136  
www.euthenics-inc.com

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**PRELIMINARY FEASIBILITY STUDY**

**CUY/MED TRAFFIC STUDY**

**PID 116069**



**REPORT PREPARED ON:** JUNE 2, 2023

**REVISED ON:** AUGUST 28, 2023

**PREPARED FOR:**  
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**EUTHENICS**

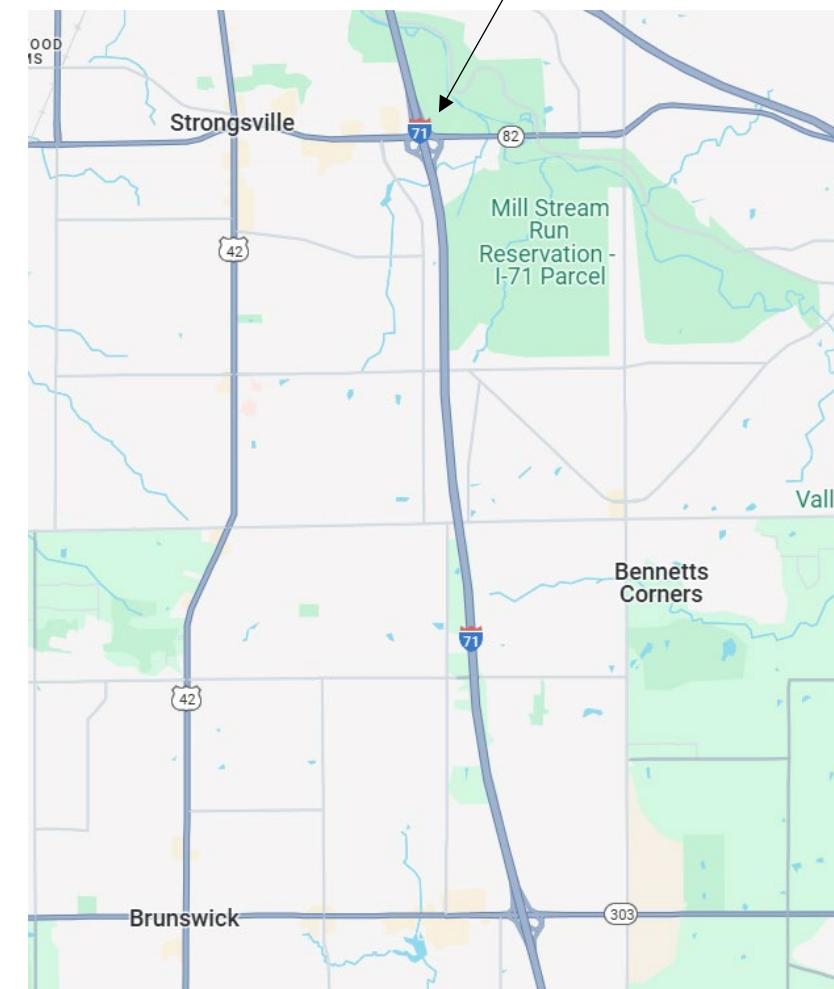
Congestion Photo 1 - SR 82 and I-71 Southbound Ramps, Looking West, Start of Southbound Green



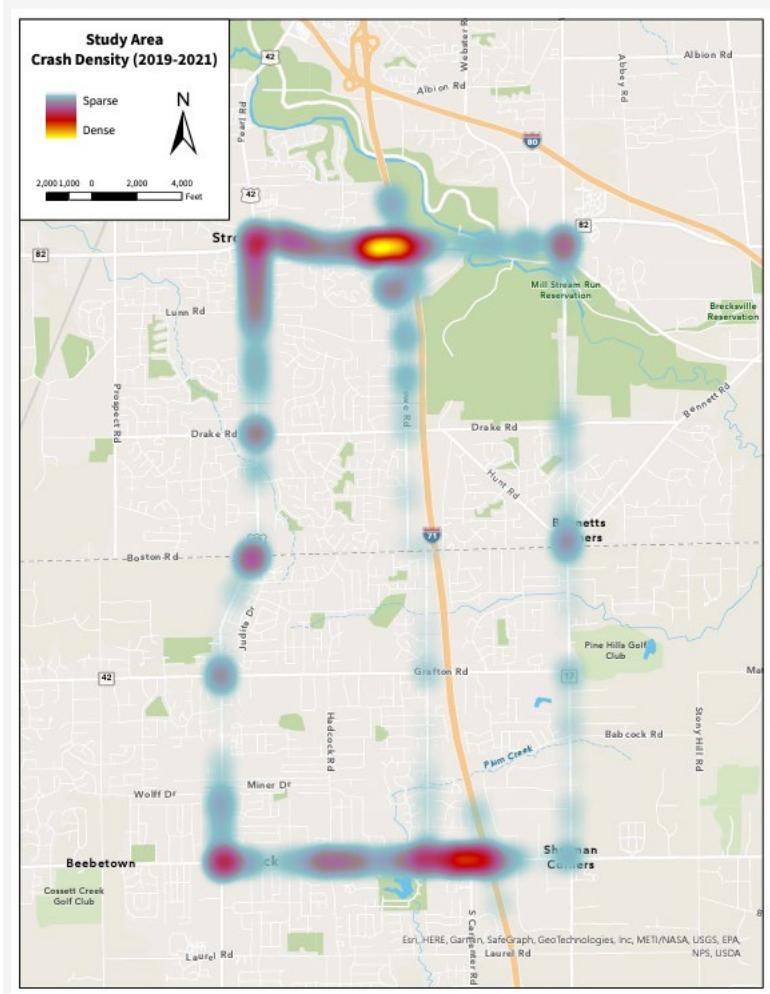
Congestion Photo 4 - I-71 Southbound at SR 82, Looking North



view of this interchange



# Crash History



Analysis of crash history 2019-2021 (ODOT TIMS database)

Heat map: crashes concentrated near I71 interchanges

1,531 crashes

- 4 crashes were fatalities
- 15 were serious injury
- 764 crashes were rear-end crashes (50% of crashes).
- Rear-end generally associated with congestion

# SCENE

NEWS & VIEWS ARTS & CULTURE MOVIE

CLEVELAND NEWS

## Ohio Senate Committee Hears Testimony Against Controversial I-71 Brunswick Interchange Proposal

"This was a premeditated move on the part of the city of Strongsville. I would like to believe that those who voted on House Bill 23 were not fully aware of the impact this would have,"

By Maria Elena Scott on Thu, Nov 16, 2023 at 8:12 am

SEND



"We don't want to lose our homes. The value of our homes have plummeted since this has taken place. If we wanted to sell our home, we'd probably have to take a 40% decrease in it," said resident Robert Hamm, whose house would be taken through eminent domain.



<https://www.strongtowns.org/journal/2023/8/9/state-overreach-of-power-demands-neighborhood-be-torn-down-for-new-interchange>

# and the latest on the story...



## Transportation planners vote to take a new look at if I-71 Brunswick-Strongsville interchange is needed

Updated: Sep. 13, 2024, 12:59 p.m. | Published: Sep. 13, 2024, 12:39 p.m.

By [Rich Exner, cleveland.com](#)

CLEVELAND, Ohio – At least four times over the last quarter-century, planners have studied the potential of a new Interstate 71 interchange southwest of Cleveland. Now they're going to look at whether there are alternatives to ease traffic in the Brunswick-Strongsville area.

The Northeast Ohio Area Coordinating Agency on Friday approved spending up to \$960,000 on a two-year study to identify options and solutions for the I-71 corridor from Pearl Road in Middleburg Heights south to Ohio 303 in Brunswick.



[Subscribe](#)



## Bill to kill Strongsville-Brunswick interchange requirement falters, potentially halting \$1M study

Updated: Dec. 13, 2024, 2:22 p.m. | Published: Dec. 13, 2024, 2:15 p.m.

By [Jeremy Pelzer, cleveland.com](#)

COLUMBUS, Ohio—Legislation that would repeal a state requirement to build a controversial highway interchange between Strongsville and Brunswick appears set to die in the Ohio House in the final days of the current legislative session, according to officials on both sides of the issue.

*How do you balance traffic safety and the displacement of people from their homes?  
E.g., can you quantify this in terms of number of crashes or fatalities vs. number of  
people displaced?*

*How might your answer change if you happen to live in one of the homes that will be  
demolished to build the highway? Do you think that people have a right not to be  
displaced, even if being displaced would save more lives?*

*Or: imagine that 1,000 people have to be displaced to — statistically — save 10 lives. Is  
that justified? Now imagine that 100 people have to be displaced to save 1,000 lives.  
What about now? Where do you draw the line? Where is the morally relevant threshold  
beyond which “utilitarian” calculations become clearly warranted?*

# Welcome to Bratislava!

Capital of Slovakia





Before 1969



<https://fineartamerica.com/featured/neolog-synagogue-in-bratislava-slovakia-1923-vintage-printery.html?product=acrylic-print>

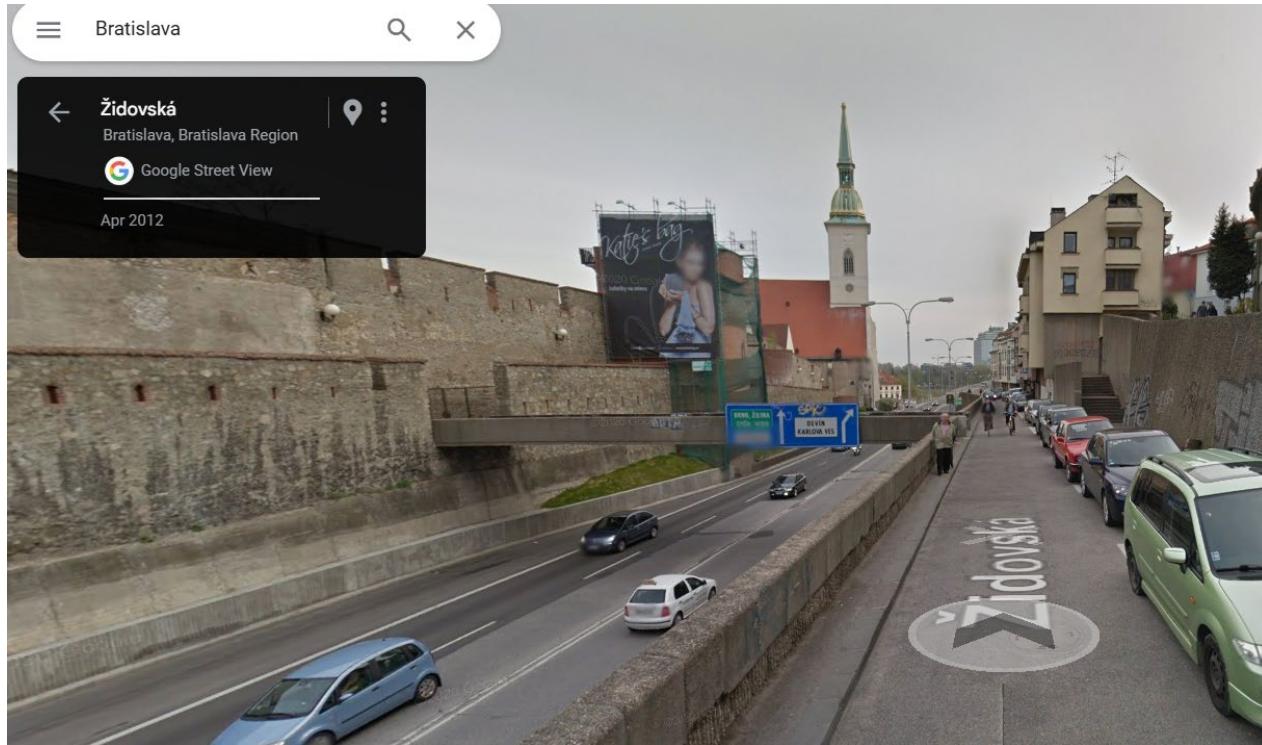
Today



(Google Street View)



# Today



(Google Street View)

# In the Plans...

Pedestrian park with greenery above highway  
218 metres long and 20 metres wide  
Will bring the Old Town together



<https://bratislava.sk/en/city-of-bratislava/projects/live-places/the-staromestska-plateau>

Q1: What was the intended lesson from the MLK story in today's lecture?

Q2: We discussed whether it is always beneficial for the government to be responsive to community outcry. What was a reason raised as to why the government should sometimes not be responsive?

Q3: We discussed a proposed highway interchange that would save lives but displace people from their homes. Do you think that people have a right not to be displaced from their homes, even if being displaced would save lives? Explain your reasoning AND whether it is consequentialist or deontological.

Q4: Opportunity Corridor, which opened in 2022, is part of the best route from CWRU to the airport. Why did some people oppose Opportunity Corridor?