FINANCING REGIONAL RAIL TRANSIT WITHOUT RAISING TAXES

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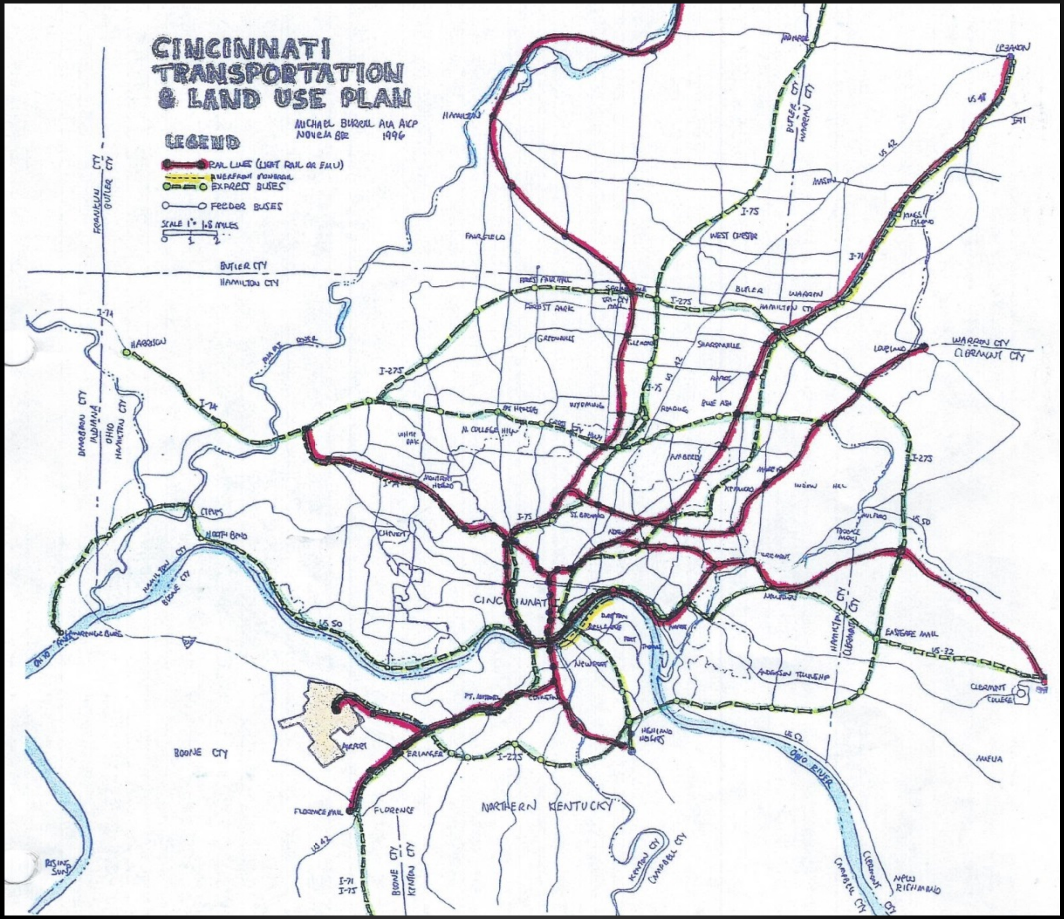
QUESTIONS THAT IMPACT TRANSIT PLANS

1. Do you think global warming is a real problem—made worse by burning fossil fuels at home and on the road?
2. Should we improve transit by simply putting more buses on the road?
3. Should taxpayers pay 70-75% of the transit operating costs for bus riders?
4. Do you think we will ever have rail transit lines serving the entire region?
5. Have you ever used transit regularly to get to work, school, or shopping?
6. Do you think you might someday be unable to drive a car?
7. Should public officials encourage private firms to come to their cities (or remain there) by offering tax breaks?

EASTERN CORRIDOR & REGIONAL PLANS (1993-6)



OKI CORRIDOR PLANS (1993-2004)

Eastern Corridor Commuter Rail (Oasis Line) 1993-5

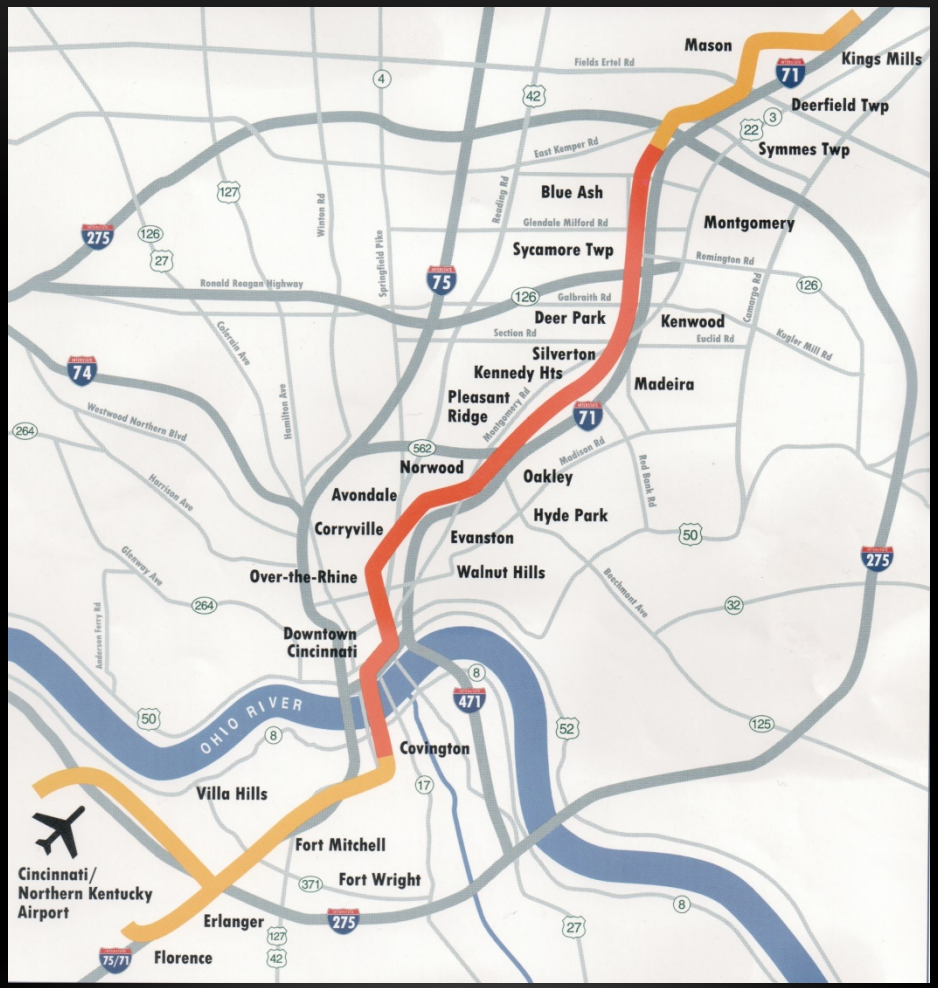
- 1993 University of Cincinnati Plan won National APA Award in 1994
- Low density = low ridership, infrequent service, high costs per rider
- Still seeking funds in 2017

I-71 Corridor Light Rail Line, 33 miles (1993-1998)

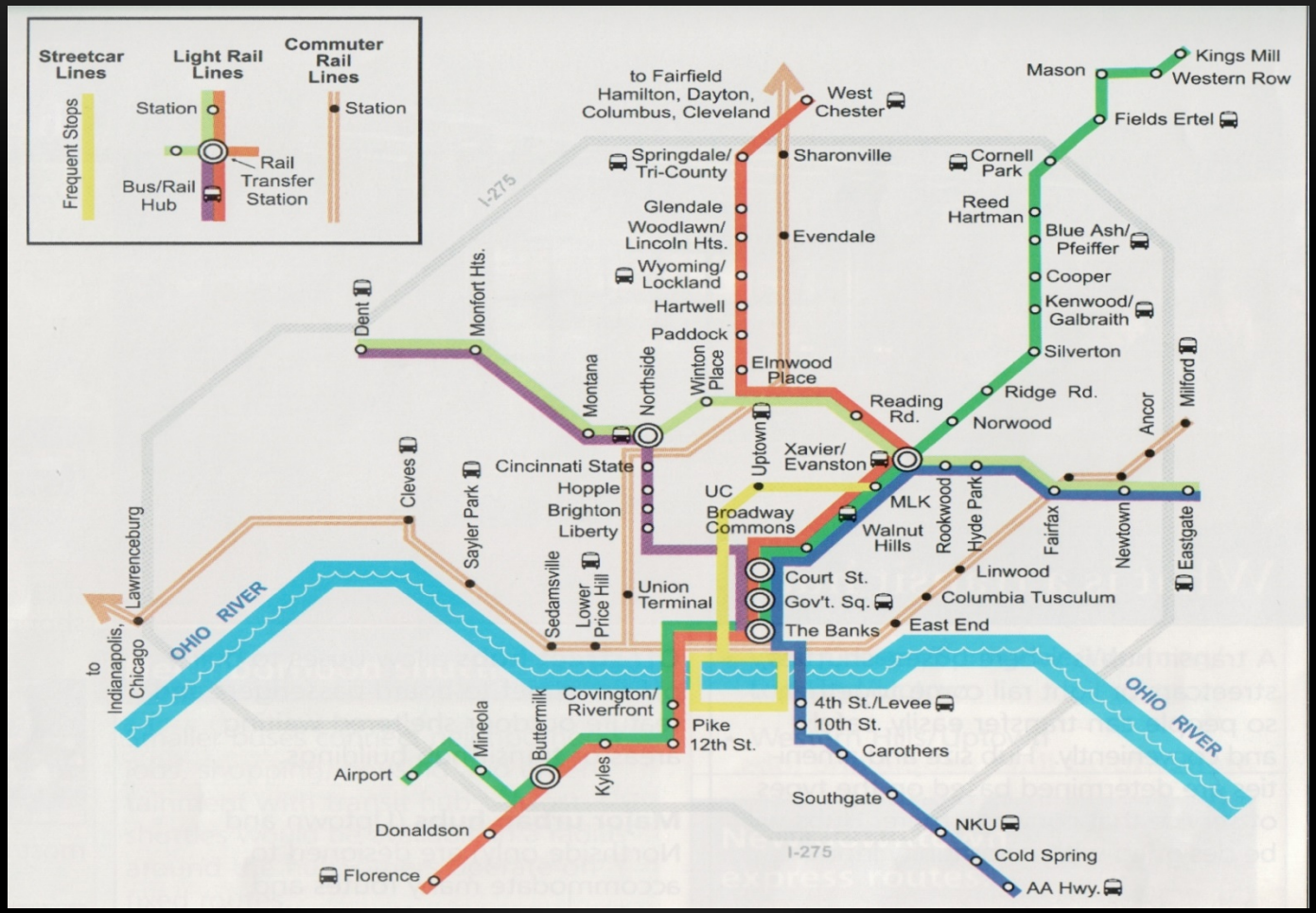
- King's Island to Airport and Florence via Mason/Uptown/Downtown
- Part of 2002 MetroMoves Plan with two major changes:
  - Tunnel providing direct link to Christ Hospital/Uptown deleted
  - Riders to Uptown would have to transfer to slower streetcars

I-75 Corridor Study completed in 2004

I-71 CORRIDOR LIGHT RAIL LINE



METROMOVES RAIL TRANSIT PLAN (2002)



METROMOVES RAIL TRANSIT PLAN (2002)

- 6 Light Rail lines (open 2013-2031)
- $3.8 billion in 2002 dollars (97 miles @ $39.4 million per mile)
- 116,000 weekday boardings (58,000 riders): $65,862/rider
- 3 Commuter Rail Lines (Eastern/Western Corridors, Middletown)
- $570 million in 2002 dollars (76 miles @ $7.9 million per mile)
- 1,500-6,000 boardings, 2 lines (750-3,000 riders): $115-$170,000/rider
- Uptown streetcar (Riverfront to MLK/I-71): 7 miles @ $17 million/mile
- Riverfront streetcar (Cincinnati-Kentucky): 9 miles @ $15 million/mile
- $4.6 billion for 11 Rail Lines (189 miles @ $24.6 million/mile)
- $9.9 billion in 2020 dollars + bus expansion costs

CITIZENS FOR CIVIC RENEWAL FORUM (2003)

- OKI overview, Eastern Corridor Plan, Transportation Mode Choices
- Attendees: Transit advocates (all modes) and one transit opponent
- Compared capital costs, pros and cons of all modes
- Attendees “voted” preferences after each group of slides
- Consensus: Cincinnati should plan modern streetcars (+walking/biking)
- Why? Lower capital costs than other modes, high ridership, flexibility
- In Europe, modern streetcars serve both urban and suburban areas
- Rail riders usually pay higher share of operating costs than bus riders

MODERN EUROPEAN STREETCARS (TRAMS)

- Low floors allow easy boarding and reduce capital costs
- 8-19 mph with stops on 35 lines (40-50 mph in dedicated corridors)
- 7,936 boardings per mile (HIGHER than U.S. light rail, commuter rail)
- $37 million per mile (10 lines, 2011 $), capital costs: $9,325 per rider

BUS RAPID TRANSIT (BRT)

Health Line, Cleveland, OH

- 6.8 miles (12 mph with stops)
- 1,117 boardings/mile (2012)
- 9.4 miles, $25 million/mile (2011 $)
- Capital cost per rider: $44,762

Orange Line, Los Angeles, CA

- 18 miles (17-20 mph with stops)
- 1,561 boardings/mile (2013)
- $39 million/mile (2011 $)
- Capital cost per rider: $50,000

DIESEL COMMUTER "LIGHT CAPACITY" RAIL

Austin & Dallas, TX; Oceanside CA

- 21-32 miles (25-33 mph with stops)
- 78-195 boardings per mile (2013)
- $3-25 million per mile
- Capital cost per rider: $76,923-370,370

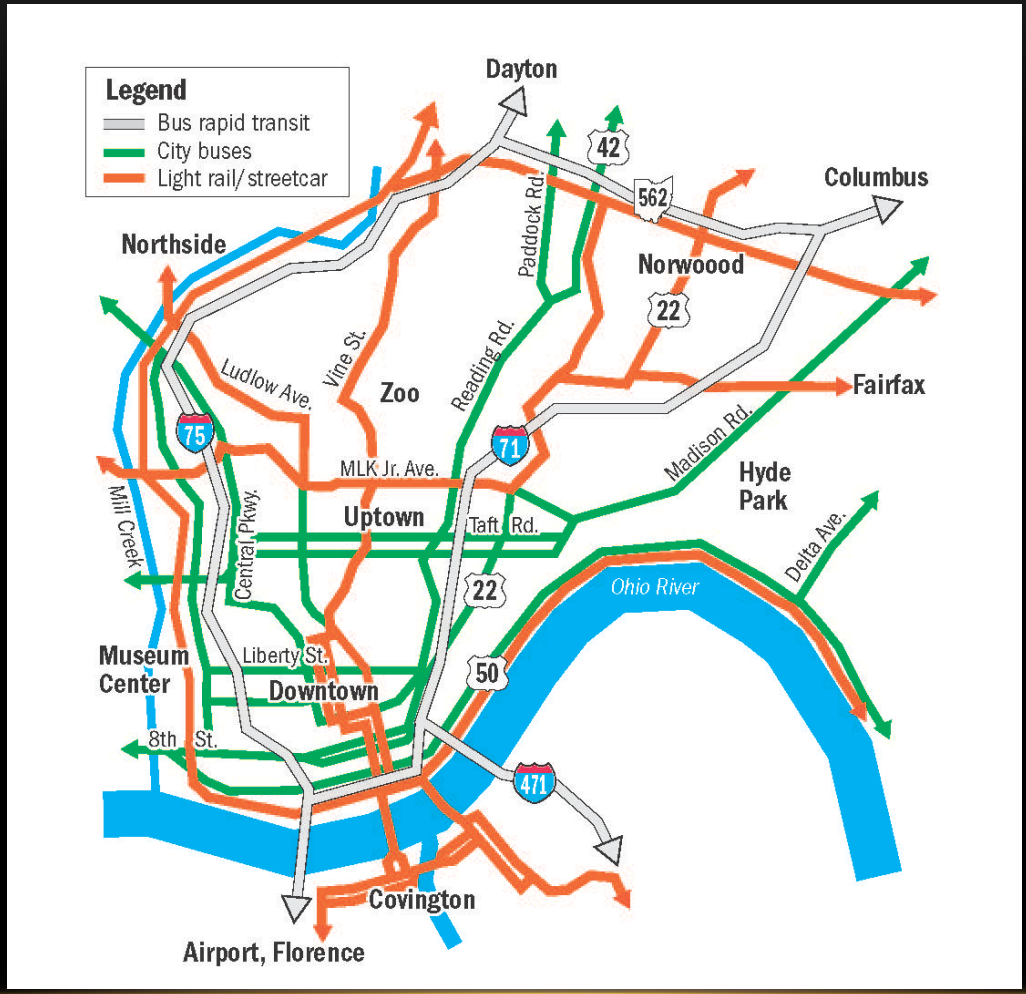
Ottawa, Canada

- 5 miles (25 mph with stops)
- 2,860 boardings per mile (2013)
- $7 million per mile (2011 $)
- Capital cost per rider: $4,895

Cincinnati Eastern Corridor:

- 17.2 miles (38.5 mph with 6 stops), 106 boardings per mile (2030)
- $13.4-18.8 million per mile (2013 $), Capital cost per rider: $133,888-187,527

2014 UPTOWN/REGIONAL TRANSIT PLAN



FUND REGIONAL TRANSIT SYSTEM BY 2020

- Capital costs double if cities wait 16 years for 50% Federal $ (4% inflation)
- Streetcar lines attract Transit-Oriented Development (TOD):
  - South Lake Union, Seattle (1.3 miles, 2008): $1.174 billion/mile
  - Atlanta Streetcar (1.3 miles, 2014): $1.0 billion/mile
  - Portland Streetcar (4.0 miles, 2001-7): $875 million/mile
  - Cincinnati downtown loop (1.8 miles, 2016): $389 million/mile
  - 20 lines in 11 cities (76.7 miles, 2001-23): $307 million/mile
- 30 years of income/property tax revenues (2% rates, $40,000/year):
  - $386.4 billion for a 460-mile regional system ($1 billion TOD/mile)
  - $33.6 billion for a 40-mile line ($1 billion TOD/mile)
  - $16.8 billion for a 40-mile line ($500 million TOD/mile)
- 30 years of other savings from growth near transit (region of 2 million):
  - $134.6 billion if all households own only one car
  - $88.5-108 billion from new housing with fewer school children
  - $25.5-30.7 billion from lower site development costs
  - $1.9 -6.2 billion if riders on new transit system pay all operating costs

65 TRANSIT LINES WITH HIGH LEVELS OF TRANSIT-ORIENTED DEVELOPMENT (TOD)

38 Rapid Transit/Subway Lines	$100 million to $5.9 billion per mile
10 Modern Streetcar Lines	$118 million to $1.2 billion per mile
13 Light Rail Lines	$138 million to $850 million per mile
3 Bus Rapid Transit (BRT) Lines	$457 million to $1 billion per mile
1 Commuter Rail Line	$127 million per mile

Source: Sustainable Transportation and Development, Chapter 6 and Table 8, Michael Burrill, 2014

ALTERNATIVE BUILDING FUNCTIONS AND PRIMARY BUILDING USERS, $100 MILLION TOD:

Functions	Cost/GSF	GSF	Primary Users	
Offices/Retail	$275	363,636	200 GSF/Adult	1,818 Adults
			300 GSF/Adult	1,216 Adults
408 Apartments	$175	571,429	1.5 Adults/unit	612 Adults
			0.2 Children/unit	82 Children
250 Townhouses	$200	500,000	2.0 Adults/unit	500 Adults
			0.6 Children/unit	150 Children
178 Single Family	$225	444,444	2.0 Adults/unit	356 Adults
			1.0 Children/unit	178 Children

Sources: Cost per GSF: R. S. Means 2017 Square Foot Construction Costs
Planning Factors per GSF/Dwelling Unit: Michael Burrill

PROJECTED TAX REVENUES IN MILLIONS

$1 BILLION OFFICE/COMMERCIAL TOD PER MILE

Tax Type	Tax Payers	Taxable Amount	Tax Rate	Annual Taxes	30 Years of Taxes
Property			2.0%	$20.0 Million	$600 Million
State Income	18,180	$62,018	2.64%	$29.8 Million	$893 Million
City Income	18,180	$62,018	2.1%	$23.7 Million	$710 Million
Total Revenues					$2,203 Million
Per Mile	18,180				$2.2 Billion
Per Mile	12,120				$1.7 Billion

Total tax revenues far exceed the capital cost per mile of all modes of “low carbon” public transportation.

Source of Tax Rates: www.2017 Tax-Rates.Org

Taxable income estimated at 90% of $68,909 medium income for Hamilton County, Ohio

PROJECTED TAX REVENUES IN MILLIONS

$1 BILLION TOD PER MILE – RESIDENTIAL MIX

Tax Type	Tax Payers	Taxable Amount	Tax Rate	Annual Taxes	30 Years of Taxes
Property			2.0%	$20.0 Million	$600 Million
State Income	4,000	$62,018	2.64%	$ 6.5 Million	$196 Million
City Income	4,000	$62,018	2.1%	$ 5.2 Million	$156 Million
State Sales Tax	4,000	$17,227	5.75%	$ 4.0 Million	$119 Million
City Sales Tax	4,000	$17,227	1.25%	$ 0.9 Million	$ 26 Million
Total Revenues					$1,097 Million
Per Mile					$1.1 Billion

Total tax revenues far exceed the capital cost per mile of all modes of “low carbon” public transportation.

Source of Tax Rates: www.2017 Tax-Rates.Org

Taxable income estimated at 90% of $68,909 medium income for Hamilton County, Ohio

Items subject to sales taxes estimated at 25% of median income.

HOW REGIONS CAN ENCOURAGE TRANSIT-ORIENTED SMART GROWTH

- Develop/Update Regional Rail and Bus Transit plans
- Clearly define TOD zones where higher-density growth is encouraged
- Reduce parking requirements in TOD Zones to save money/energy
- Select transit modes that will attract more riders per mile
- Plan fast, frequent service to all parts of the region, including suburbs
- Use some of the tax revenues from new property and taxpayers near new transit lines to pay off bonds used to build them
- Use tax revenues from existing residents/businesses for other functions
- Do not wait years for scarce federal transit funds – finance lines locally!
- Convince developers projects near transit lines do not need tax breaks!

10 BEST CITIES FOR RETIREMENT IN AMERICA

Source: www.bankrate.com/retirement, February 10, 2018

"Arlington manages to pack nearly everything a person could want into 26 square miles that offer the amenities and culture of a big city along with a small-town vibe. Its restaurants offer a range of cuisines, most within a few blocks of one another. When you live in Arlington, you don't need a car. Arlington is extremely walkable....it is served by Metro, the Washington, D.C.-area subway system."

No. 1: Arlington, Virginia

SOURCES / FEEDBACK:

Michael Burrill, *Sustainable Transportation and Development*, 2014

- Costs and performance of 630 operating/planned transit lines (all modes)
- North America, Europe, and Curitiba, Brazil
- Sustainable driving, biking, walking, transit-oriented growth
- International high-speed rail lines

Smart Growth Overview, June 2017

Copies of both are available on website: growsmartplanet.org

Encourage Transit-Oriented, Sustainable Smart Growth – Without Raising Taxes, August 2017