

# MOVING MILWAUKEE FORWARD

A Common Sense, Cutting Edge Transit Alternative:

TRANSIT-ON-DEMAND  
PREMIUM TRANSIT



Cheaper. Smarter. Faster. Greener.

Alderman Bob Donovan

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## A common-sense, cutting-edge transit alternative

*CHEAPER. SMARTER. FASTER. GREENER.*

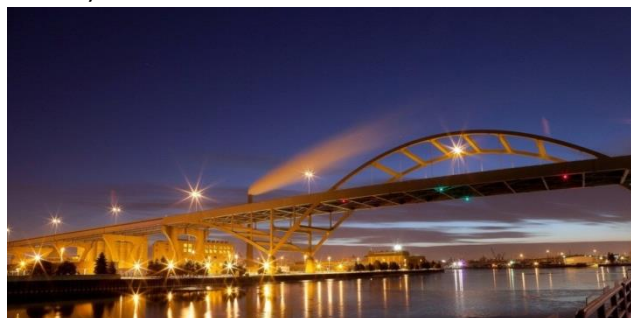
### INTRODUCTION

The current debate over mass transit in Milwaukee presents an opportunity for the city to embark on something bold and revolutionary. Instead of being a follower, the city could be a trendsetter, embracing new technologies and new ways of thinking about urban mobility. New forms of public transit could serve and support the high-tech, flexible and on-the-go lifestyle of today's young urban professionals. Milwaukee could introduce transit services and modes that set the pace for the nation.

However, Mayor Barrett's proposed downtown streetcar is none of these things and doesn't get Milwaukeeans where they want to go. Rather, the streetcar is a major public works blunder in the making. This project has an exorbitant price tag, is woefully behind schedule, does not serve any significant transit need, and lacks a secure, long-term funding source. Most significantly, there is very little support for this initiative among Milwaukee residents.

Therefore, I am calling for a reallocation of the federal streetcar funding for purposes that truly serve the transportation needs of Milwaukeeans. While difficult, reallocation of these funds – which has occurred in the past – is definitely possible. And what should these reallocated transit funds be used for? I would propose a two-pronged approach to improving public transit in and around downtown Milwaukee: a cutting-edge, technology-driven transit-on-demand service and a premium fixed-route transit service using green-energy vehicles. Together, the transit improvements would serve far more locations and potential users than the streetcar, at a fraction of the cost.

I urge you to read on to learn more about these innovative approaches to meeting Milwaukee's transit needs. But first, let's explore the problems with the current streetcar proposal – and they are many!



## ONE | THE MAYOR'S FLAWED PROPOSAL

Mayor Barrett recently unveiled his revised and greatly expanded plan for the Milwaukee Streetcar. He is now seeking rushed Common Council approval of this project, which has received minimal public scrutiny and input, and is to be financed by funding mechanisms that can be described as questionable, at best.

The total capital cost of Barrett's revised streetcar project, including the Lakefront spur, is now \$123.9 million, almost double the \$64.6 million price tag of the streetcar system approved by the Common Council in 2011. In addition, the annual operating and maintenance cost of the Milwaukee Streetcar has ballooned to \$3.38 million, compared to the \$2.65 million cost of the system previously approved. These outrageous cost increases are yet another reason why the Milwaukee Streetcar is a major public works boondoggle and should be cancelled immediately.

And let's not forget that all of these costs are only for the Mayor's "starter" streetcar system. The Milwaukee Streetcar's website shows 17.6 miles of potential future system expansion. Assuming the same per-mile cost of the starter system, this results in a total build-out cost for the full streetcar system of \$996 million! The annual operating and maintenance cost for the 20.1-mile system would be an unfathomable \$27.1 million.

### ADDITIONAL FATAL FLAWS

• **Minimal public support.** Even former ardent supporters of the streetcar have changed their positions on this issue. Few Milwaukee taxpayers would realize any benefit from a downtown-only streetcar line.

• **A nonsensical route.** The planned route follows a path that few Milwaukeeans ever take and is too short to make a difference in travel time or convenience for the intended ridership.









• **Woefully behind schedule.** At the time the project was presented to and approved by City leaders in 2011, track construction was to begin in the fall of 2012, vehicles were to be delivered in the summer of 2013, and the system was to begin operating in the fall of 2014. None of these events have occurred, much less been achieved on schedule.

• **Grant funds rejected.** In the fall of 2013, the U.S. Department of Transportation rejected the City's request for \$26.6 million in grant funds to expand the proposed system, ending any possibility that it might have a long enough route to serve a meaningful purpose.

• **Funding.** No definite, long-term funding source for the estimated \$3.38 million operating and maintenance cost has been identified. It would be an unconscionable burden on Milwaukeeans to recover this cost through their property tax bills.

## TWO | MODERN STREETCARS: A HISTORY OF FAILURE

Of course, to see all the problems of “modern” streetcars on vivid display, we need look no further than the streetcar systems that have been recently built or are currently under construction around the country. From Atlanta, Charlotte and Washington, DC, to Salt Lake City, Tucson and Portland, these new streetcars have been plagued by:

-  Major cost overruns, which often grow exponentially as projects are delayed (Cincinnati, Atlanta, Charlotte).
-  Lack of adequate funding to cover operating costs. Federal funds typically cover a portion of capital/construction costs, but once a system is up and running, additional federal funds are unavailable.
-  Ridership that is dismally low, sometimes leading to inflation of ridership figures by transit agencies (Salt Lake City, Portland).
-  Slow operating speeds (often slower than other vehicular traffic).
-  Failure to improve accessibility and mobility for local residents, in part because streetcar lines are so short and don't go where people want or need to travel.
-  Increased rate of crashes involving streetcars and motor vehicles (Atlanta).
-  Hazards posed to bicyclists by streetcar rails embedded in streets (Tucson).
-  Failure to spur new development along streetcar lines. Most development that has occurred has been government-subsidized.





### THREE | FUNDING REALLOCATION POSSIBLE

For all of these reasons, it is clear that the time has come to pull the plug on the Milwaukee Streetcar and seek reallocation of the \$54.9 million in federal funds earmarked for this project. Milwaukee has far more pressing needs than construction of an old-fashioned downtown streetcar.

Reallocation of the streetcar money is definitely possible. In fact, the precedent for reallocating federal funds designated for Milwaukee-area transit improvements has already been set – twice. In 1999, the federal government reallocated, through a 3-way agreement among the Governor, Mayor and County Executive, \$91.5 million of the \$289 million that had been allocated in 1991 for highway, bus transit and light rail projects in the Milwaukee region for construction of a “Downtown Connector” transit project. In 2009, Congress reallocated this \$91.5 million by assigning 60% (\$54.9 million) to the City of Milwaukee for a downtown Milwaukee fixed-rail circulator and 40% (\$36.6 million) to Milwaukee County to purchase energy-efficient buses.

*Precedent for reallocating federal funds designated for Milwaukee-area transit improvements has already been set – twice.*

***“...an act of Congress could change it...”***

- *Ald. Nik Kovac, referring to the possibility of reallocating the federal streetcar funding, Jan. 7, 2015, CBS 58 News. Even one of the strongest supporters of the old-fashioned streetcar acknowledge that the funds can be reallocated!*

## FOUR | A NEW VISION FOR 21<sup>ST</sup>-CENTURY MILWAUKEE

The purchasing power of the \$91.5 million originally earmarked for downtown Milwaukee transit improvements has been severely eroded by the passage of time, not to mention the loss of 40% of the funding to Milwaukee County. This makes maximizing the City's "bang for the buck" from the remaining \$54.9 million in federal funding all the more important.

I wholeheartedly support offering cost-effective, enhanced transit service in and around the Milwaukee's central business district. However, development of the Milwaukee Streetcar, at a capital cost of nearly \$50 million per route mile, is clearly not a cost-effective way of maximizing the transit service impacts of the \$54.9 million in federal dollars. As an alternative, I am proposing a two-part transit initiative consisting of a high-tech transit-on-demand service in and around downtown and a premium fixed-route transit service connecting major activity generators in the central Milwaukee. This initiative offers far more transit service than the Milwaukee Streetcar, at a fraction of the cost.

## FIVE | TRANSIT-ON-DEMAND

Streetcars, even those described as "modern," are an old-fashioned technology. Shouldn't Milwaukee be on the leading edge of transit technology, instead of just a follower who is "late to the game"? Ultimately, if Milwaukee is to be successful in attracting young professionals through transit improvements, it must offer options that appeal to tech-savvy Millennials – the generation of iphones, apps, Uber and Lyft.

For an excellent example of a cutting-edge approach to mass transit and mobility, we can look to Helsinki, Finland, where a new high-tech on-demand transit service is changing the way residents think about getting around the city. With this service, subscribers (riders) use their smartphones to "demand" and pay for rides on the city's new fleet of 9-passenger minibuses. These buses operate without fixed routes or timetables, although riders are required to

*With a blink of an eye, app-based transportation services such as Uber and Lyft have arisen to challenge Milwaukee's century-old taxi system. Why should Milwaukee spend hundreds of millions on another old-fashioned transit technology (streetcars) when it has the opportunity to embrace cutting-edge transit concepts like app-based transit-on-demand?*

use pre-designated stops throughout the city. Subscribers enter their locations and intended destinations in their smartphones, and a web-based service accessed through a phone app automatically dispatches the closest available bus, uses computer algorithms to select the most convenient origin and destination stops for the trip, and maps out a route. A ride on a Helsinki minibus may be shared along the way with other commuters requesting service, provided the original requester's estimated arrival time is not adversely affected.



Source: <http://liqvik-moquik.livejournal.com/>



Source: <http://www.liikenteensuunta.fi/>

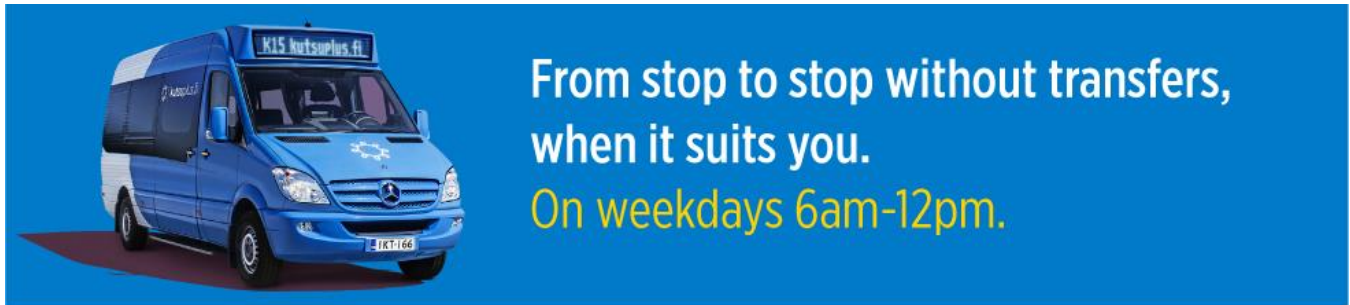
Rides on Helsinki's transit-on-demand service are priced higher than regular bus service, but lower than taxicabs. However, the goal is not to replace either of these modes of transportation, but, rather, to entice people out of their automobiles. For those who drive because using public transit involves too many transfers, Helsinki's transit-on-demand offers an attractive, point-to-point service at a fair price. In addition, minibus users can avoid the high cost of parking in downtown Helsinki.

Milwaukee should lead the way in introducing Helsinki's high-tech transit solution to North America. While the premium fixed-route service described below is essential to improving transit in and near Downtown Milwaukee, use of transit-on-demand can bring a whole new level of mobility to surrounding areas. Therefore, as part of *Moving Milwaukee Forward*, I am calling for the purchase of five minibuses and the establishment and operation of a transit-on-demand service within a six-mile radius of Downtown (see accompanying map).



Source: [www.ajelo.com](http://www.ajelo.com)





Source: Helsinki Regional Transit

The estimated capital cost of purchasing the five minibuses outfitted to carry 9-12 passengers each is \$300,000. The estimated annual operating cost of a Helsinki-like service using these minibuses is approximately \$2 million. This is based on the five buses making 60,833 trips per year (one-third of Helsinki's current trip volume) at a cost of \$31.25 per trip (the 2013 average per-trip cost for MCTS' para-transit service), rounded up about \$100,000 to reflect uncertainties.

Users of the proposed transit-on-demand service would pay a flat fee plus a distance-based surcharge. Pick-up and drop-off stops would be located throughout this area, including such major attractions and origin/destination points as:

Gen. Mitchell Intl. Airport	UW-Milwaukee
Miller Park	Marquette University
Potawatomi Bingo Casino	Alverno College
State Fair Park	St. Luke's Medical Center
Bronzeville	Mitchell Park Domes
Lake Park	Bay View
Zablocki VA Medical Center	Century City
Wisconsin Center	Eagles Club
Washington Park	The Brewery

## SIX | PREMIUM FIXED-ROUTE SERVICE

The second component of Moving Milwaukee Forward is the implementation of premium fixed-route transit service in key corridors in and near downtown Milwaukee. As shown on the accompanying map, the proposed premium transit service would consist of two routes: an east-west line running from the Milwaukee Intermodal Station to the Lakefront, and a north-south line connecting the Historic Third Ward and Brady and the Lower East Side. Together, these routes would provide service – either directly or within one block – to

almost all of downtown Milwaukee's major hotels, attractions and activity generators, including:

Hilton	Milwaukee Intermodal Station
Pfister	Milwaukee City Hall
Ramada	The Shops of Grand Avenue
DoubleTree	Milwaukee Public Market
Courtyard	Historic Third Ward shops and entertainment
Fairfield Inn	Water Street entertainment district
Hampton Inn	Brady Street shops and entertainment
Residence Inn	Marcus Center for the Performing Arts
Hilton Garden Inn	Pabst and Riverside Theaters
Hotel Metro	Henry Maier Festival Park
Marriott	Discovery World – Art Museum
InterContinental	Couture development (proposed)
Aloft Hotel	Old World Third Street shops and entertainment
Wisconsin Center	Milwaukee Street entertainment district

Downtown Milwaukee's new premium transit routes could be modeled after Metroway, a new transit service introduced in Arlington and Alexandria, Virginia, in August, 2014.

### CHARACTERISTICS OF ARLINGTON'S METROWAY INCLUDE:

- *5-mile route, including about 3 miles of dedicated, bus-only lanes (at build-out).*
- *Frequent service (6-minute intervals during rush hour) with limited stops.*
- *New stations with specially-designed passenger shelters.*
- *13 sleek, modern new buses with unique paint scheme, vaulted ceilings and large windows offering panoramic views (8 for revenue service, 5 spares).*
- *Off-board fare collection (to be implemented in 2015).*
- *All-door loading, to speed service (to be implemented in 2015).*
- *Bus-arrival-time screens at all stations (also in 2015).*

The total capital cost of the Metroway (infrastructure and new buses) is estimated to be \$40 million, or about \$8 million per mile. However, this figure includes the cost of constructing about 3 miles of separated bus-only lanes. Without the dedicated lanes, the cost is closer to \$4 million per mile. This compares quite favorably with the \$49.6 million

per-mile capital cost of the Milwaukee Streetcar. In fact, at \$4 million per mile, an enhanced fixed-route transit system serving the proposed initial 2.5-mile Milwaukee Streetcar route would cost just \$10 million – far less than the City's \$54.9 million federal transit allocation!

Using the cost figure of \$4 million per mile, the proposed downtown Milwaukee premium transit service – with a route length totaling 5.91 miles for both lines – would cost approximately \$23.6 million. This is approximately one-fifth the cost of the Milwaukee Streetcar starter system, even though the premium transit service has an additional 3.4 route-miles!

The proposed transit service could easily be extended an additional 1.52 miles to serve the Walker's Point entertainment district. As shown on the accompanying map, the extended Walker's Point-East Side (blue) line would come within one block of over 11,000 Milwaukee residents and hundreds of local businesses. An astounding number of Milwaukee entertainment and dining attractions would be located along this route. Here is just a sample of them:

The Iron Horse	Casablanca	Conejito's Place
La Perla	Cempazuchi	Steny's
Comedy Sportz	Balzac	O'Lydia's
Surg on the Water	Nomad World Pub	Rustico
Milwaukee Ale House	Izumi's	618 Live on Water
Joey Buona's	Von Trier	Kil@wat
Rodizio	Ma Fischer's	Bar Louie
Rumpus Room	Hooligan's	Red Rock Saloon
Water Street Brewery	Jalisco	Mimma's Café

Even with the extension of the premium transit service to the Walker's Point neighborhood, the capital cost of the premium transit system - \$29.7 million – is less than one-fourth the Milwaukee Streetcar. Annual operating and maintenance costs for the premium transit service, estimated at \$1.87 million, would also be lower than for the streetcar (estimate based on 17,214 annual revenue vehicle hours of service planned for Milwaukee Streetcar and SEWRPC-estimated 2012 local bus service cost of \$108.40 per revenue vehicle hour) .

Besides far lower capital costs, other advantages of a premium rubber-tired transit service over fixed-rail transit include the ability to quickly add or remove vehicles from service to meet demand peaks or serve special events, and the ease of adjusting routes to accommodate road construction projects. Also, temporary, entirely-new routes could be established to serve major sporting events, conventions and entertainment attractions (e.g., Brewers games, Triathlon USA, Harley-Davidson anniversary celebrations, Lakefront Festival of the Arts).

## SEVEN | BATTERY-POWERED TRANSIT

While the Arlington Metroway uses fairly conventional, although sleekly-styled, diesel buses to provide its premium bus service, Milwaukee could go one step farther and deploy a fleet of ultra-modern battery-powered (or perhaps electric/diesel hybrid) vehicles that look very similar to streetcars but do not rely on rails and overhead wires. These vehicles could provide the same appealing image as the Milwaukee Streetcar at a fraction of the cost, while at the same time bolstering the Milwaukee's reputation as a green and sustainable city. Battery-powered vehicles could also offer such streetcar-like characteristics as on-board ticketing capability, low-floor entry and exiting, a sleek appearance and smooth start/stop operations.



In addition to much lower capital costs, other advantages of battery-powered, rubber-tired vehicles over traditional streetcars include greater operational flexibility and ease of system expansion. Unlike a streetcar system dependent on rails and overhead wires for operation, a battery-powered, rubber-tired system can be easily and quickly expanded or altered in the future. This would allow the premium transit service to serve a variety of venues – the Bradley Center, Summerfest, Veterans Park, Potawatomi Casino, Miller Park, and so forth – as passenger demand dictates. Also, employing a cutting-edge battery-powered propulsion system presents opportunities for the City to partner with and grow Milwaukee-area technology businesses, such as Johnson Controls and Rockwell Automation.



Source: <http://en.wikipedia.org/wiki/Metz>

## EIGHT | SOLVING THE SPATIAL MISMATCH

The “spatial mismatch” in metro Milwaukee’s job market is well known: most available jobs are located in suburban areas not accessible by public transit, yet the unemployed city residents who could fill these positions often do not own automobiles, making it difficult or impossible to get to the jobs they so desperately need. As noted in a *Milwaukee Journal Sentinel* article covering a Public Policy Forum report on this subject, studies have shown that the Milwaukee region as a whole has gained more than 120,000 jobs since 1980, while the number of jobs in the city itself has fallen 14%. In addition, a report by the UWM Center for Economic Development found that as many as 40,000 Milwaukeeans lost access to jobs in the 2000s because of funding cuts to transit services.

So what can be done to address the mismatch between where Milwaukee’s available workers live and where job openings occur? The total cost of the two components of Moving Milwaukee Forward – capital costs plus 3 years of operating costs – is approximately \$41.6 million. This means that if the \$54.9 million in federal transit money currently earmarked for the Milwaukee Streetcar is reallocated for the Moving Milwaukee Forward initiative, about \$13 million would remain for other uses.

I am proposing that this \$13 million be directed towards the Milwaukee County Transit System bus service. Specifically, these funds should be used to extend existing MCTS routes, create new MCTS routes and increase MCTS service frequency – all with an eye toward connecting unemployed or underemployed Milwaukee residents with suburban job opportunities. By using a portion of the \$54.9 million in this manner, we are ensuring that expenditure of taxpayer dollars benefits the most people possible.

## CONCLUSION | LET’S MOVE MILWAUKEE FORWARD

The debate over the proposed Milwaukee Streetcar presents a unique opportunity to reconsider the way public transit is provided in Milwaukee. While Milwaukee County Transit System buses are likely to remain the backbone of the public transportation system for the foreseeable future, new types of transit service and technology are readily available and well-suited for Milwaukee’s mobility needs.

A high-quality, rubber-tired transit service similar to the Arlington Metroway has the potential to offer more rides to more places in Milwaukee than the proposed fixed-rail Milwaukee Streetcar – for a lot less money. Furthermore, if the vehicles used in this service were battery-powered, implementation of the new service could support the growth and development of various Milwaukee-based businesses.

But Milwaukee needs to go even further than this premium transit service and really think outside the box. An app-based transit-on-demand service similar to Helsinki’s should be established in conjunction with the new fixed-route service to truly take mobility for



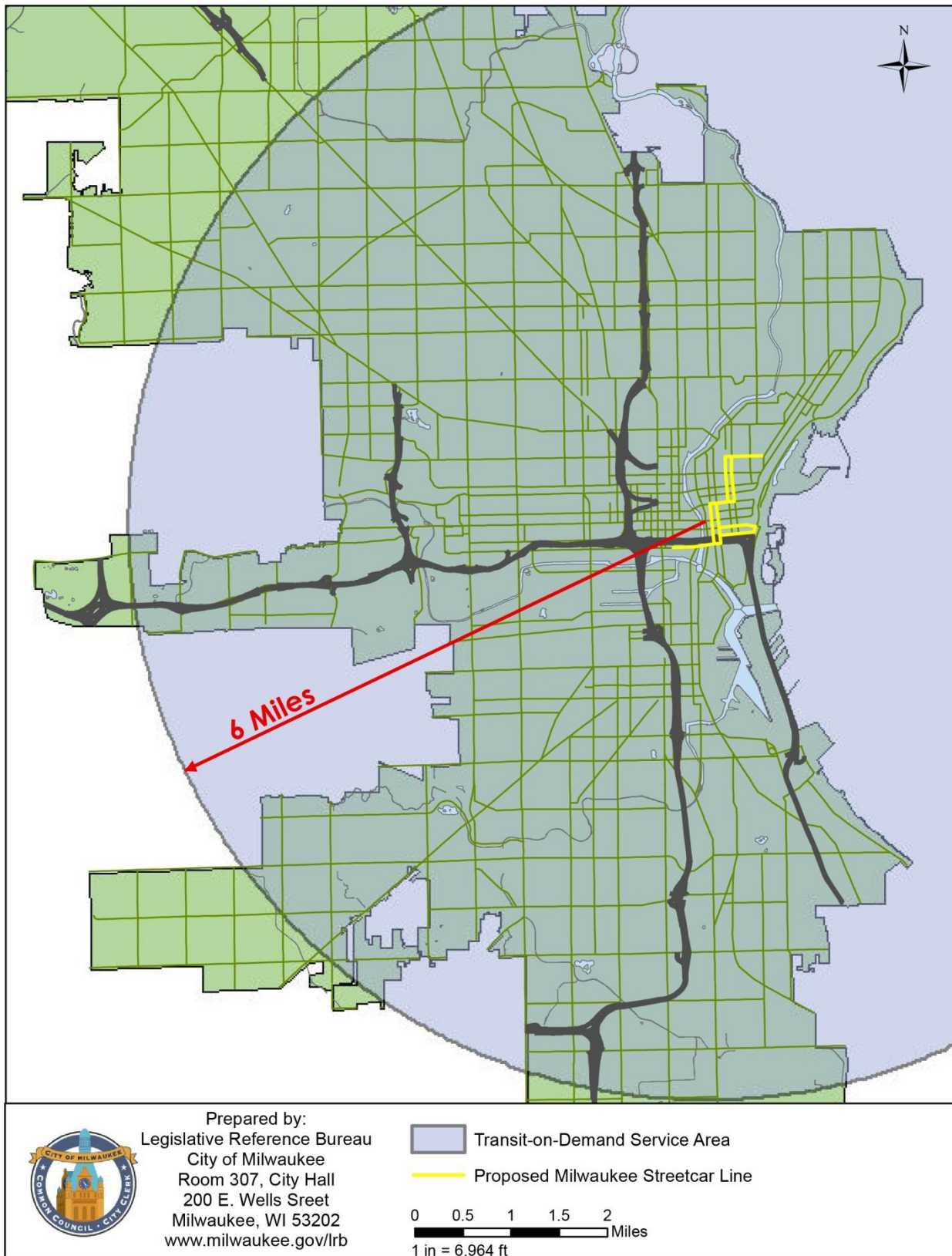
Milwaukee residents and visitors to levels never before experienced, and to make Milwaukee a national model for modern, green and effective public transit.

Finally, a portion of the reallocated streetcar funding should be redirected to the Milwaukee County Transit System to add and extend bus routes and increase service frequency. In this way, the funds will help Milwaukee tackle its longstanding need to connect city residents with available suburban jobs.

I urge my colleagues on the Common Council and all Milwaukeeans to get on board with these proposals, seek reallocation of the federal transit dollars for alternative transit modes and services, and push for rapid implementation of transit-on-demand and premium fixed-route service in this city. Let's move Milwaukee forward!



# Transit-On-Demand: Proposed Service Area





# Proposed Downtown Milwaukee Premium Fixed-Route Transit Service

