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PRESENTATION TO THE OMAHA CITY COUNCIL *re* THE PROPOSED OMAHA STREETCAR, December 6, 2022

INTRODUCTION

Mr. President, honorable Members of the City Council, thank you for the opportunity to address you today in regard to the proposed Omaha streetcar. Please feel free to comment or ask questions on my presentation at any time.

My name is Tom Rubin. My address is 2007 Bywood Drive, Oakland, California. I lived longest in Omaha at 1616 North 53rd Street.

So that my position is totally clear, I am ***not*** opposed to the proposed streetcar, or issuing debt to finance its construction, at this time; my position is that going forward with this decision should not be made until significantly more research has been done, specifically as to transportation options and the true drivers of development – and this research must be done by parties that do not have a financial interest in the approval of the proposed streetcar.

I certainly do believe that such an objective, unbiased review by an independent party has a strong possibility of finding major issues with this proposal.

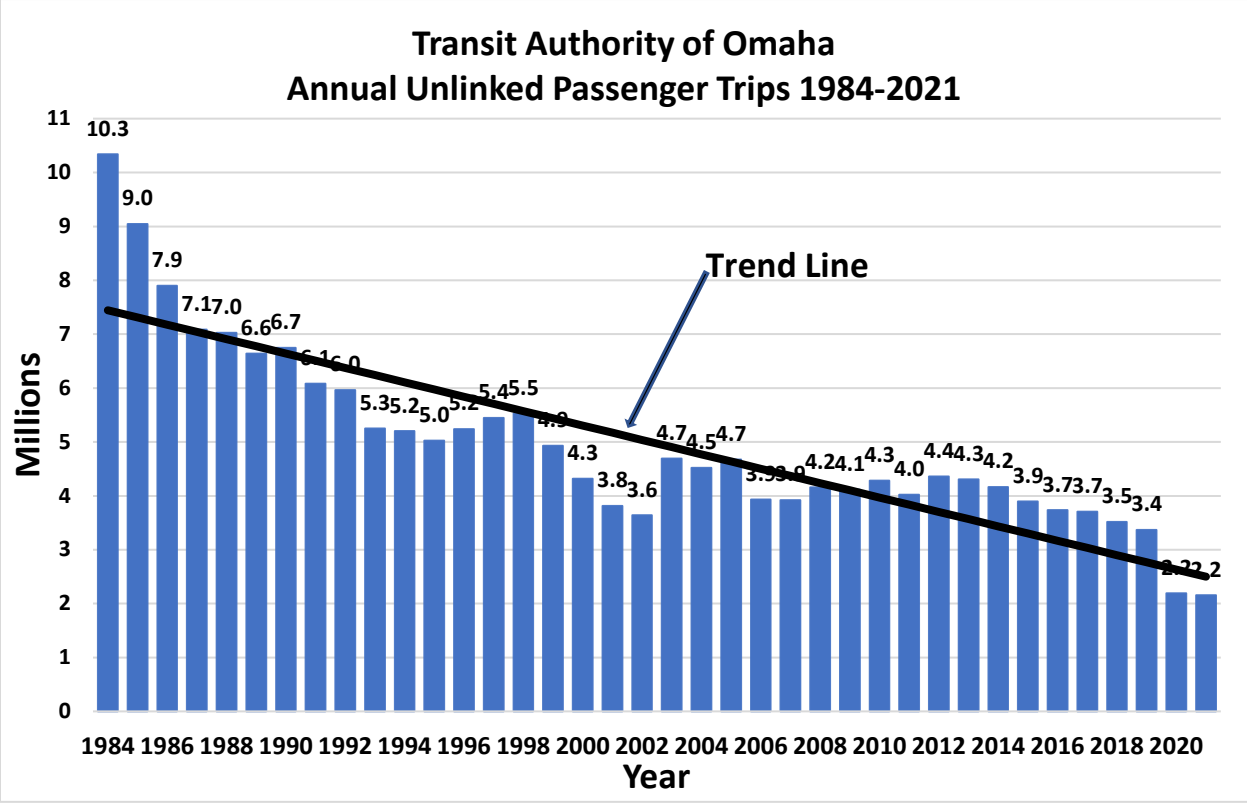
I was born and raised in Omaha. I graduated from Central High School and the University of Nebraska-Lincoln College of Business. I have over four decades of experience in public transit, surface transportation, and government finance including as the chief financial officer of two of the largest transit agencies in the U.S. I have been a consultant and auditor to well over 100 transit agencies, metropolitan planning organizations, the Federal and many state departments of transportation, transit labor unions, and transit industry suppliers.

TRANSIT IN GREATER OMAHA

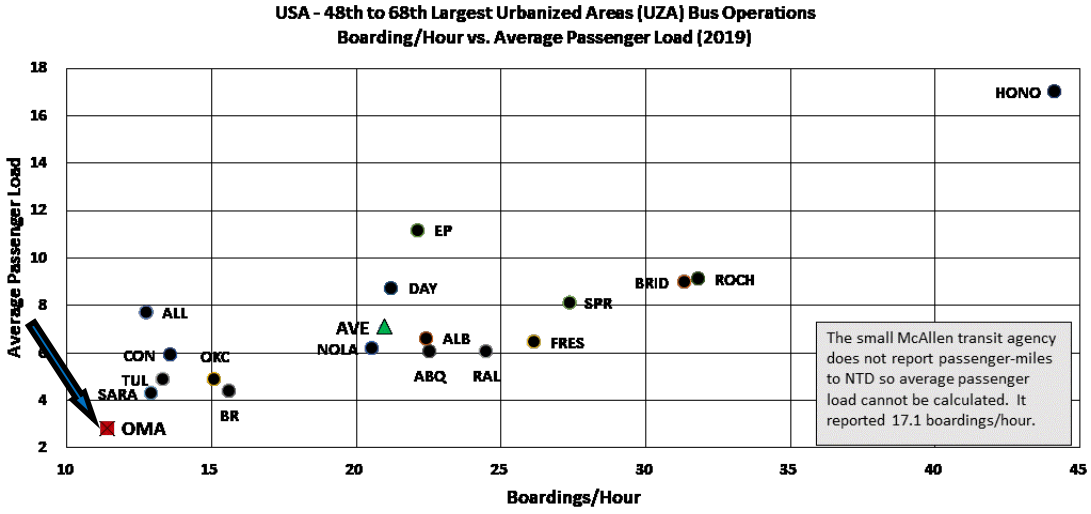
You have been continually hearing that the proposed Omaha streetcar is more than transit. I'll get to that, but let's first look at the proposed streetcar ***as*** transit, starting with the bigger picture of transit in the greater Omaha area.

I can personally attest that transit was an important component of greater Omaha surface transportation for many decades, but currently, it has shrunk almost to

insignificance – unlinked passenger trips down two-thirds from 1984 to 2019 (the last pre-COVID-19 full year of operations)[i], down over 80% on a trips *per capita* basis. While transit is still an important niche player for many without other transportation options and a very small number of other people for whom transit works well, Omahans take an average of well under two transit round-trips per year.



For peer analysis, I selected the ten next larger and ten next smaller urbanized areas (UZA) by population; see Appendix A for list.

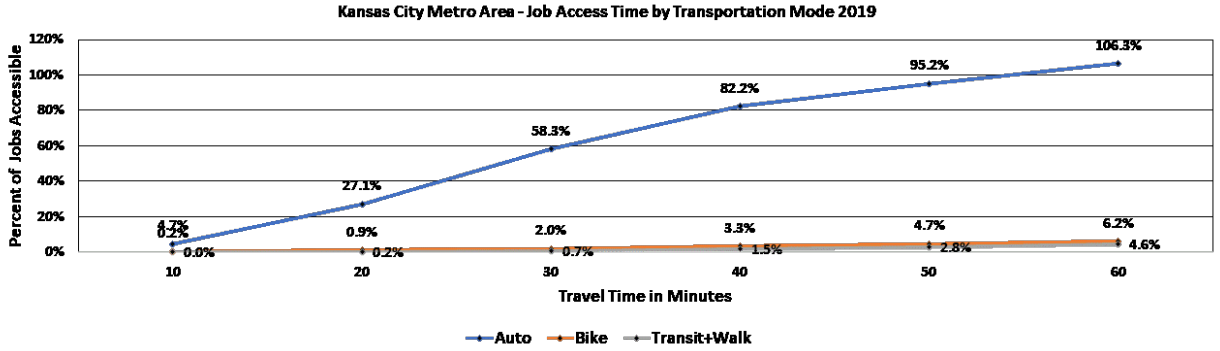


On the two standard measures of transit utilization, boardings per hour of revenue service and average passenger load, Omaha Metro's bus service was dead last of its 21-member peer group on both[ii].

Although almost everyone in the world "knows" they have a terrible commute, Omahans actually have some of the shortest, least congested, and best commutes in the world, 25% shorter than the U.S. average[iii].

Douglas County, Nebraska – Travel Time to Work (minutes) (2016-2020)			
	Douglas County	United States	Douglas Co/USA
Drive Alone	19.3	25.8	75%
Carpool	21.7	27.9	78%
Total Automobile	19.6	26.0	75%
Public Transportation (excluding taxicab)	37.3	50.3	74%
Walked	11.2	12.3	91%
Bicycle, Taxicab, Motorcycle, or Other Means	24.7	29.0	85%
Overall	19.7	26.9	73%

Why don't more people use transit in Omaha? The reason is simple – you just can't get where you want to go in any reasonable length of time. The University of Minnesota does a great series of reports that show how many jobs can be accessed by various surface transportation modes[iv]. Unfortunately, it doesn't report for Omaha, but Kansas City is a useful stand-in – and KC transit is superior to Omaha's.



In KC, you can drive to almost six times as many jobs[1] in 20 minutes as you can reach by transit in 60; in Omaha, transit likely does not do this well.

Why is this important? Because the current transit system simply will not allow very many potential riders that are not already in the proposed streetcar corridor decent connections to reach the proposed streetcar – and, for those that it does, ORBT already exists and is far superior for transportation purposes.

[1] Kansas City residents can reach more than 100% of the jobs in the urbanized area in 60 minutes because they can access jobs outside of the urbanized area boundary.

OMAHA'S UNIQUE APPROACH TO TRANSIT CORRIDOR PLANNING

In every UZA area I have ever visited – or even heard of – where there is more than one guideway transit line (such as streetcar, subway, bus rapid transit, light rail, etc.), the second guideway transit line orientation is at a significant angle to the first and serves a different portion of the UZA – ***BUT***, in Omaha, the second guideway, the proposed streetcar line, will be ***literally*** two blocks from the first guideway transit line, ORBT.

The ridership projection for ORBT was very low by any guideway transit standard, only 2,740/day, opening day[v]. ORBT is still far short of even this level, 21 months after it began service. While the world-wide reduction in transit utilization due to COVID makes it improper to draw any conclusions of failure yet, it would certainly be very incorrect to call ORBT a success based on performance, or even performance expectations, to date.

Yet, ORBT is superior to the proposed streetcar line on almost all standard transportation measures: going over three times as far West to serve more potential riders and destinations, faster operating speed, and more trips/day – and at a far lower cost ***that does not require hundreds of millions of dollars of additional taxpayer capital***. If ORBT is not proving attractive to transit riders, how could the proposed streetcar be expected to be?

The only currently available ridership projection for the proposed streetcar is 820-1,060 boardings/day[vi] – which is very low – from the March 2018 ACE report. The midpoint would be the equivalent of 470 daily round-trip riders. Worse, although I cannot tell for sure from the available documents, it appears that this projection may have been made ***without*** considering that ORBT, a superior transportation option, would be operating in the same corridor – which would mean that the streetcar ridership will be lower.

The only real clear advantage that the proposed streetcar would have is the free fare. While making the proposed streetcar free-fare is understandable – it is highly unlikely that any streetcar fare revenues would even cover the costs of fare collection equipment (likely over $2 million[vii]) and the costs of fare collection operations – the "free fare" ridership is not about streetcar, it is about that it would not be worth trying

to charge people to ride it. If the idea is to increase ridership, then run ORBT, or the entire transit system, fare-free again.

As it stands, it appears that much of the ridership of the proposed fare-free streetcar would be those that would have been happy to pay to ride ORBT.

STREETCAR IS TERRIBLE AS A PARKING SHUTTLE

One of the justifications for the proposed streetcar is that it would enable the "Park Once District[viii]." The concept implies that people will park – once – in an area from approximately Saddle Creek Road East almost to the River, and from approximately Davenport South to Jones, and then use transit and/or non-motorized/micro-mobility options to access their destination(s).

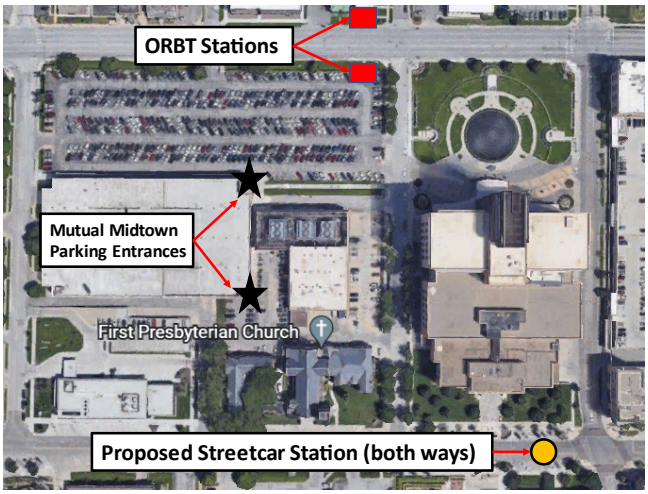
I'm not going to get into how well this concept might work, or not, in the real world, and for Omaha in particular and, instead, just show that the proposed streetcar would be a poor transportation modal choice to try to implement it. I will mention that, for the home-work commute, this concept could easily add 20 to 30 minutes, or more, to the daily time away from home compared to parking near the job site.

Some simple truths about parking and transfers:

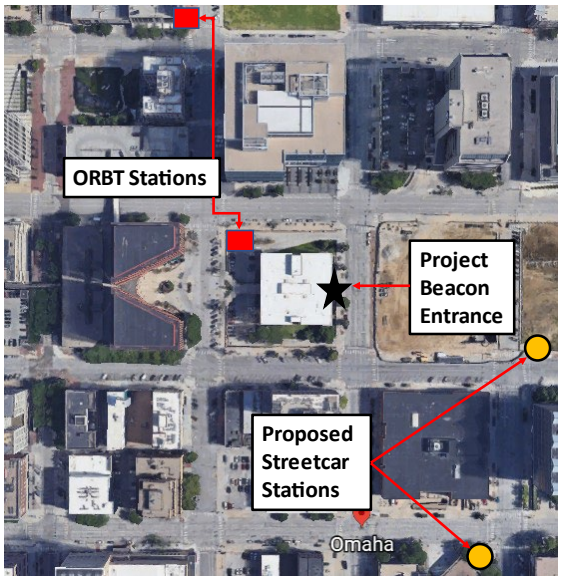
- People want to use the fewest number of modes, origin-destination, as few transfers from one transportation mode or vehicle to another
- They do not like to walk more than short distances, particularly when the weather is less than ideal and/or when carrying things
- They want short, preferable no, waits for transfers between transportation modes

To see how the proposed streetcar does on these criteria, let's look at how it compares on a "Park Once" round-trip between what may be the most prominent parking in the proposed streetcar corridor, Mutual Midtown, and the most prominent new jobs destination, the Mutual Project Beacon building.

Round-trip, Midtown parking to/from transit
ORBT: 975 feet; one street crossing
Streetcar: 1,750 feet; two street crossings



Round-trip, New Mutual Bldg to/from transit
ORBT: 900 feet, three street crossings
Streetcar:1,550 feet, four street crossings



For parking shuttles to work best, stops should be as close as possible to origination and destination points, street crossings minimized, service frequent, and hours of service long.

In this example, Mutual Midtown Parking-Project Beacon (round trip):

- ORBT: 1,875 feet walking, four street crossings
- Proposed Streetcar: 3,300 feet walking, six street crossings
- Dedicated parking shuttle bus: Much shorter, including door-to-door

Besides the longer walk distances and more street crossings, the proposed streetcar has the slowest travel speed and time and has less service than ORBT. Also:

- Streetcar can only serve parking lots near the 19 proposed stations – and it would be difficult, expensive, and time consuming to add service to any parking not near one of the original stations
- Fixed route bus stops are easy to change, streetcar stations aren't
- Rubber-tire parking shuttles are very flexible and can be added to or changed very quickly at minimal cost

Therefore, for purposes of trying to make the Park Once District actually work, the proposed streetcar is about the worst possible shuttle option.

STREETCAR AS AN URBAN DEVELOPMENT ENGINE

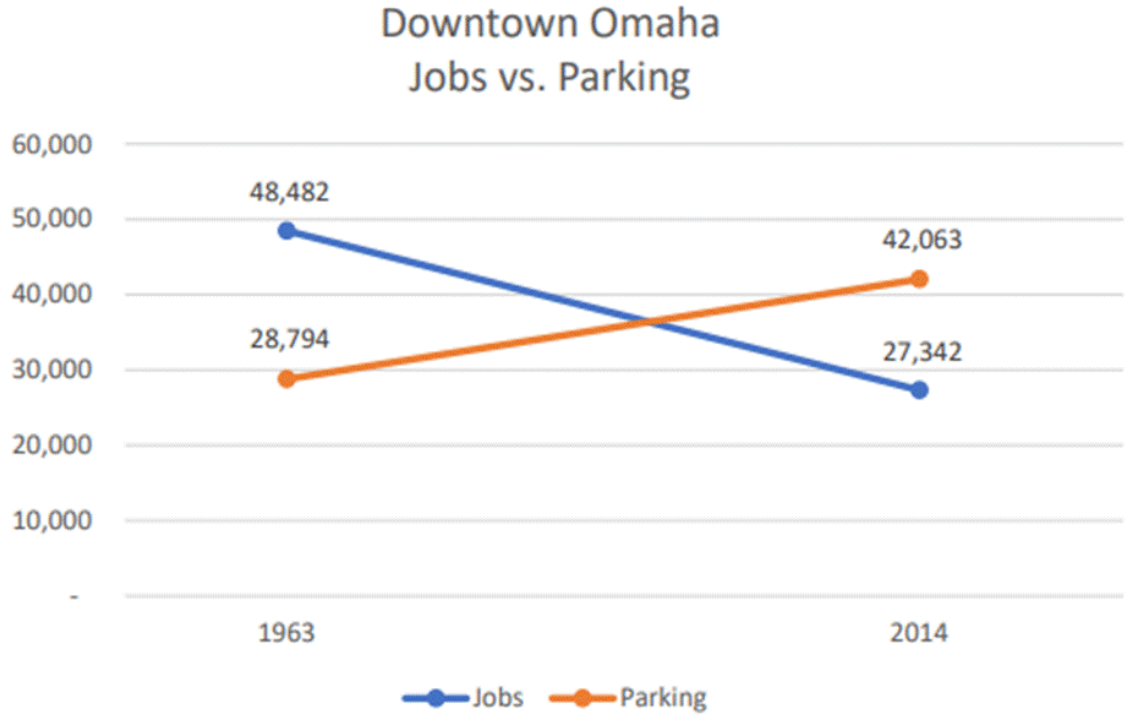
Let us now consider the main event – what impact on real estate development, job growth, and population growth, could the proposed streetcar actual have?

One of the main arguments of the proposed streetcars proponents is that it is vital to reverse the continued decline of jobs and development in the Omaha Central Business District (CBD).

But this claim is very questionable; it is based, on large part, on a significant misstatement in the *Urban Core Housing and Mobility Redevelopment Plan:*

> "Though downtown Omaha lost approximately 21,000 jobs in the last five decades, the area added 14,000 parking stalls."

These data appear to be taken from a graph in the Chamber's *Urban Core Strategic Plan*:



Graph: Jobs vs. Parking in Downtown Omaha

By stating that the change is "… in the last five decades, …" the clear implication is that the period of study is fifty years ending in, or close to, 2022, rather than 39 years ending in 2014, eight years ago.

I've tried, but haven't been able to obtain or duplicate the Chamber's values shown above, used by the City in the Streetcar Redevelopment Agreement agenda package presented to the City Council. ***BUT***, using U.S. Bureau of the Census job data for ZIP Code 68102 (approximately 24th Street East to the River, Leavenworth North to

approximately Nicholas), there was growth from 18,538 jobs in 2014 to 22,582 in 2020, over 4,000 added jobs, almost 22%, over six years, a compound average growth rate over 3.3%/*annum*.

Interestingly, if we take the 27,342 jobs in 2014 from the Chamber graphic as the start point in 2022, to add 30,000 jobs in 30 years as per the *Urban Core Strategic Plan*, the required compound annual growth rate would be 3.0% (given the post-2014 job growth, this growth rate is overstated).

I suggest that it would be best to base planning on data that is accurate, current – and not mistaken or misrepresented.

But, from the available data, an argument can easily be made that there is no need for any major change in what the City needs to do to promote faster growth, but to continue to do what it has been doing for at least the past several years. In other words, it appears that, if the ZIP Code 68102 growth rate from 2014 to 2020 were to be applied to the current population of downtown Omaha, as defined by the Chamber, for the next 30 years, the added jobs would far exceed the 30,000 objective – without the proposed streetcar.

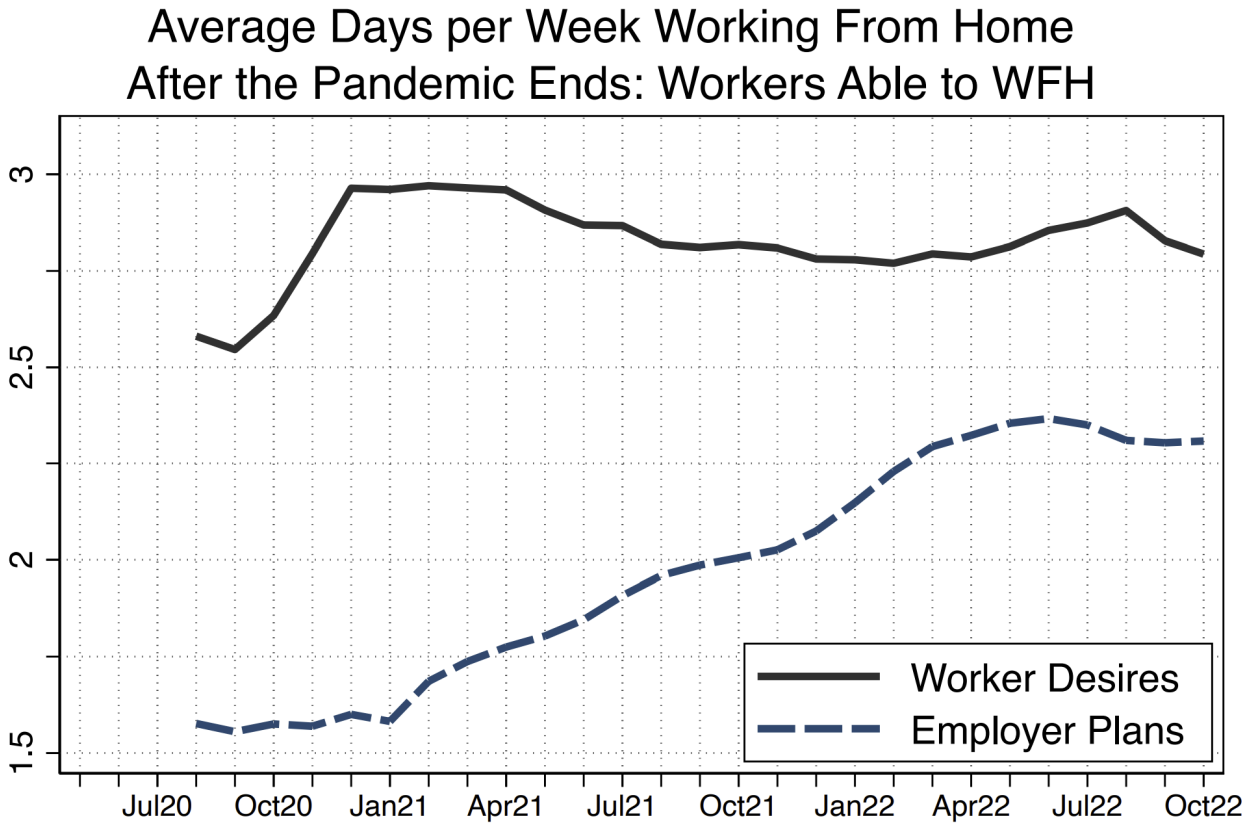
However, this would only be correct if one assumed that there was no significant change in underlying conditions, particularly in regard to where jobs will be located – and home-to-work transportation choices.

Douglas County – Means of Transportation to Work (2016-2020)		
Transportation Mode	**Douglas County**	**United States**
Drive Alone	79.9%	74.9%
Carpool	8.7%	8.9%
Total Automobile	88.6%	83.8%
Public Transportation	1.2%	4.6%
Walked	1.8%	2.6%
Bicycle	0.2%	0.5%
Taxi, Motorcycle, or Other	1.1%	1.3%
Worked from Home	7.0%	7.3%
Totals (does not sum to 100.0% due to rounding)	99.9%	100.1%
Source: American Community Survey, "Community Characteristics by Sex, 2020: 5-Year Estimates Subject Table		

For many decades, the only home-work transportation mode besides drive-alone that has been showing growth nationally is remote work, or work-from-home.

But, since 2020, remote work has jumped to over 20% overall – and far higher for those positions most viable for remote work, such as many professional, clerical, and information/communications/data jobs. Many experts believe that, post-COVID (whenever and whatever that may be), remote work will begin over 20% and increase steadily from there.

In major cities all over the U.S., major downtown employers are shifting from traditional offices to far smaller offices with major portions of the former headquarters staffs working hybrid – such as two or three days a week remote work, the others in the office – or total remote work, rarely accessing a "traditional" office. While this requires employers and executives to learn new ways of management and leadership, most are very happy to make the adjustment due to the huge savings in office costs. Besides, in the current labor market, employers don't have much choice as their desirable, and even their marginal, employees are very able to find a new employer that will be very happy to allow them to work from home – and employers are planning accordingly. This is borne out by the following survey[ix].



While the rate and importance of this change to remote work varies, it has been happening all over the U.S. and the world – and there is absolutely no reason to believe that it will not continue, both nationally and in Omaha.

While no one on this planet can now predict with perfect precision and reliability how downtowns will develop from now, ***any urban plan that does not pay significant attention to these and related once-in-a-lifetime changes in urban transportation, and their implications for future urban form and real estate development, should be tossed out and redone – and perhaps it would be best to hold off major new capital decisions until more information is available.***

HOW MUCH DOES STREETCAR ATTRACT DEVELOPMENT?

Streetcar proponents will point to many success stories where streetcars have been built and major development has followed. They can submit multiple refereed studies to support this position.

Opposing experts – including those without a financial interest in the construction of streetcar lines and real estate development – counter with studies showing little reason to directly attribute development to streetcars and, instead, attribute growth to other causes ranging from continuation of prior trends to significant tax abatements and cash and other subsidies to municipal provision of parking and reduction of in-structure parking requirements to zoning changes and floor-area-ratio bonuses.

Rather than setting up a battle of experts that will only produce confirmation bias results, with each side going with the experts and papers that support their position, I am going to instead simply go with a good old Midwest common sense argument.

For starters, if you review carefully the reports supporting the proposed Omaha streetcar, what you will ***not*** find is any claim that the proposed streetcar will actually ***cause*** major development to occur. Rather, what is in the documents is that there is the ***potential*** for development to occur in the proposed streetcar corridor ***without even attempting to specify what may or may not be the causes of such development***.

From City of Omaha, **Total Mobility System:**

- (Mutual of Omaha Pursuing Downtown Omaha Headquarters Tower): "A key element of the company's decision to pursue a downtown headquarters is the city's commitment to a modern streetcar line."
- "'A modern urban transportation system in the form of the planned streetcar line makes this project possible by providing convenient access to our planned headquarters tower and by allowing us to think creatively about many aspects of the project,' (Mutual of Omaha Chairman and CEO James) Blackledge said."

So, we have strong statements that it is the proposed Omaha streetcar that is driving the construction of the Mutual of Omaha headquarters building.

But, let us take a look at what else could be impacting this decision.

City of Omaha Cash Payments to Mutual of Omaha	
TIF Financing	$ 68,614,696
Purchase of Tower Garage	99,000,000
Purchase of Midtown Garages	44,800,000
City Paying for Library Demolition	1,070,897
Total City Quantifiable Cash Payments and Costs Incurred	**$213,485,593**
Difference in Value between Library and UPRR Plots	**$ 1,800,000**
Other Costs the City Will Incur – Not Currently Known:	
Sewer Relocation/Connection for New Mutual Headquarters	Unknown Cost
"Condominium" Costs of Parking Garage	Unknown Cost
Ending Responsibility of Turner Park Maintenance	Unknown Cost
Operations and Maintenance Costs of Midtown Garages	Unknown Cost
Operations and Maintenance of New Mutual Garage	Unknown Cost
Use of Park Frontage for Construction Staging	Unknown Cost
Loss of Property Tax Revenues from Midtown Garages	Unknown Cost
Loss of Property Tax Revenues from New Mutual Garage	Unknown Cost
Central Library Relocation Costs (to make way for Mutual)	$43,422,025

In total, the City of Omaha will be incurring up-front cash costs of $213.5 million, and will provide approximately $1.8 million more of value on the trade of property, directly for the benefit of Mutual and the developer of its new headquarters. In addition, the taxpayers will take on other responsibilities and risks for Mutual's benefit that will be several millions of dollars per year, perhaps even over ten million a year. The City has also committed to $43.4 million (to date) for the costs of relocation of the Central Library – and at least some of these costs would not have been necessary without the decision to allow Mutual to develop its headquarters on the central library site and the City's extreme speed in clearing the space so Mutual can proceed to construction as fast as possible.

Assuming that Mutual does not invoke its contractual ability to renegotiate the Parking Lease Agreement, the City can expect to receive from Mutual $2,112,000/year for at least ten years for parking at the new Mutual headquarters, plus unknown parking revenues from both garage complexes, and – by my calculations – approximately $45 million from Mutual spread over fifteen (or twenty) years for the streetcar TIF payments.

So, overall, I believe that the City will be providing direct cash benefits directly to Mutual that will have a net present value of at least $300 million – ***approximately half of the announced cost of the new Mutual headquarters building*** – which, I submit to you and all members of the general public that may be watching, had a great deal more to do with Mutual deciding to build its new headquarters building

on the downtown library site than a streetcar that, from the only currently available study, will likely be carrying fewer than 500 round trips riders a day.

So we are clear, I submit that the proposed Omaha streetcar will have far, ***FAR*** less impact on development in the proposed streetcar corridor than the extensive cash benefits to developers that the City has been very effectively offering for years – and, trust me, all developers know very well what is going on with all major real estate transactions with the City and, since you have already made these commitments to Mutual, you can count on every other developer asking for the same – or more.

To put it another way, yes, there are most certainly many cases where there have been streetcars built and there has been development along the streetcar route. However, while a rooster crows at dawn, do not assume that it is the rooster crowing that is the ***cause*** of the sun coming up – and, when you hear a streetcar proponent crowing about the development value of streetcars, ask for causation, not just correlation.

The real question is, how much development would exist without a streetcar and how much more – if any – would occur with the streetcar? While it would be very valid to undertake such an analysis, the conclusions could never be definitive – and, please, don't hire someone who has skin in the game for the streetcar going forward to do such an analysis.

Finally, when the City was considering what became ORBT, one of the major motivations for Bus Rapid Transit (BRT) was BRT's development potential. The following graphic was taken directly from the City's TIGER Grant application to fund OBRT, "Forecast of Development Impacts for BRT Extension," September 24, 2013 – by HDR Engineering, Inc., the same firm that prepared OSFA:

Table 9. Development Construction Cost Estimate for Alternatives 1-3

	Alternative 1 (BRT) 42nd to North Downtown		Alternative 2 (BRT) 42nd to North Downtown		Alternative 3 (Streetcar) 42nd to North Downtown	
Land Use	Forecast	Development Investment (Construction Cost)	Forecast	Development Investment (Construction Cost)	Forecast	Development Investment (Construction Cost)
Residential (units)	3,100	$ 651,000,000	2,900	$ 609,000,000	4,100	$ 861,000,000
Office	3,300,000	$ 693,000,000	3,300,000	$ 693,000,000	5,400,000	$ 1,134,000,000
Hotel (rooms)	1,100	$ 58,987,500	1,100	$ 58,987,500	1,100	$ 58,987,500
Retail/Service	341,000	$ 49,445,000	336,000	$ 48,720,000	490,000	$ 71,050,000
TOTAL		$ 1,452,432,500		$ 1,409,707,500		$ 2,125,037,500

The two 42nd Street to North Downtown BRT options (Alternatives 1 and 2) are close, but not exactly the same, and neither is the ORBT alignment that was actually

implemented; the streetcar option (Alternative 3) is very close to the original alignment studied for OSFA and not that far from the current one.

If we average the Development Investment for the two BRT Alternatives, producing $1,431,070,000, and compare that average to the $2,125,037,500 for the Streetcar Alternative, we have ORBT producing 67.3% – call it two-thirds – of the development that streetcar was projected to produce.

While I could argue that ORBT has greater development potential, compared to the proposed Omaha streetcar, than this analysis presents, because ORBT extends about two-and-one-times as far as the proposed streetcar (all the way to the Westroads vs. only to 42nd Street), is faster, and provides more and more frequent service, I'll save that discussion for another day.

Instead, I'll just accept that, according to HDR, the same firm that is prominently rendering reports showing the many advantages of streetcar and its feasibility, ORBT creates two-thirds of the development of the proposed Omaha streetcar.

And, since ORBT has already been implemented and is in operation, and has already had its capital costs paid for, the development potential of the proposed streetcar, which is mostly duplicating the ORBT route, is only one-third of what is presented in OSFA because, in contract bridge terms, you can't take the same trick twice.

Moreover, rather than paying well over $300 million for a three-mile route – approximately $100 million per mile – instead consider investing a far smaller amount in a second (and perhaps third, and fourth) ORBT-style BRT – at $5 million capital cost/mile[x]. If, for the sake of conservatism, we discount the 3:2 streetcar:BRT ratio above to 2:1, if we took $80 million (<27%) of the $300+ million projected streetcar cost for two new eight-mile ORBT clones, we'd be creating far more development than the streetcar because these would be primarily in brand new rapid transit corridors, rather than having streetcar almost totally duplicating the ORBT route that has already received the benefit of a rapid transit corridor.

And, of course, while it is too early to project ridership, it is impossible that the ridership of these two lines would ***not*** be a multiple of what the proposed streetcar would produce – and adding ridership is generally one of the primary objectives of transit improvements.

I'm certainly not saying this is a sure thing; anyone reading this far should have already picked up that there is great deal in the planning documents for the proposed streetcar that I am having trouble accepting. But, ***using the streetcar proponent's data and reports***, since ORBT looks so superior, at a minimum, the impact of BRT should be studied as an alternative to the proposed Omaha streetcar – and soon.

WHAT'S THE RUSH?

After streetcar being discussed in Omaha for at least eight years (2014 *Central Omaha Transit Alternatives Analysis*), what we are seeing is a rush to judgment, forcing a decision before many important factors are even considered, let alone fully and properly evaluated; these include:

- Going for non-Omaha taxpayer funding – Federal discretionary capital grants for streetcar systems will generally cover 25% to 50% of the capital costs. Assuming $300 million capital cost, that could be $75 to $150 million that would not have to come from Omaha taxpayer sources. Yes, going after Federal funding would almost certainly extend the time to start service; however: the City decides that the proposed streetcar project is worth doing, wouldn't saving a quarter to half the cost of this nine-figure project be worth the delay?
- If there was some important reason to get the proposed streetcar project in operations quickly, why didn't the City begin the process of liaison with the Federal Transit Administration years ago?
- The time to gain approval of Federal funding would not be entirely a delay factor as much of the necessary work to get approval of such would be necessary in any case.
- If the analysis winds up showing that the proposed streetcar is ***not*** justified, wouldn't it be preferable to know that ***before*** the Omaha taxpayers pay hundreds of millions for it to be built and are on the hook to operate it for who-knows-how-many years?

- **What are the transportation alternatives?** The plan for the proposed streetcar, as presented to the City Council, does not appear to include any transportation alternatives to the proposed streetcar, even though transportation alternatives analysis is a standard requirement in transportation planning (including applying for FTA discretionary capital grants).

  What is being proposed for Omaha is "modern streetcar," as opposed to the traditional types of streetcar services dating back to the late 19th century. Beginning in the 1970's, traditional streetcar has largely metamorphosed into "light rail" – which runs on long routes (often 10 to 20 miles or more) with generally exclusive rights-of-way, generally with two-car or longer trains with 90-foot or longer cars, each with carrying capacities well over 100, at operating speeds commonly approximately 15-25 mph, most commonly with station spacings of approximately one mile.

  Modern streetcars are also fixed route rail, generally operating as relatively small (compared to other rail modes, such as light rail), one-car trains through

dense urban areas at low speeds (rarely exceeding ten mph) with frequent stops over non-exclusive rights-of-way on city streets on general purpose traffic lanes. Streetcar routes are generally relatively short (usually under five miles end-to-end) and are often operated, in whole or in part, as one-way loops on a parallel street pair. Streetcar service is frequently run with a very low or no passenger fare.

As far as transportation modal alternatives to streetcar, the most obvious is standard local bus service, where service in the desired area, such as a central business district or entertainment area, is designed to provide the same type of mobility as a streetcar. However, the characteristics of longer bus routes may not match up well with the objectives for the streetcar – and intermixing two different types of service can be difficult in matters such as days and hours of service and fares.

Shuttle bus service, operated with smaller buses – such as 25- or 30-footers, rather than the 40-foot or longer buses commonly used in fixed-route bus service – is the most common transportation mode alternative to streetcar and has existed in hundreds of communities all across the USA for decades. While there are many commonalities, there are many differences, including[xi]:

2019 OPERATING AND COST DATA		
Characteristic	**U.S. Modern Streetcar**	**LA DASH**
Guideway Construction Costs/Mile	$25-50 million	None
Capital Cost/Vehicle	$2-6 million	$200-850,000
Vehicle Passenger Capacity	>125	~40
Operating Subsidy/Mile	$42.81	$11.68
Operating Subsidy/Hour	$249.53	$98.38
Operating Subsidy/Passenger	$5.31	$3.48
Operating Subsidy/Passenger-Mile	$4.22	$1.98
Average Operating Speed (mph)[xii]	5.8	8.4
Average Trip Length (miles)	1.3	1.8
Boardings/Revenue Hour	48.7	28.3
Average Passenger Load	5.8	5.9
Years from "go" decision to operations	4-8 Years	<Two Years
Scalability	Low	High
Risks	High	Low

As the table above shows, as transportation systems, shuttle buses can be superior to streetcar in every way. They can also can be implemented far faster, at far less cost and risk, than a streetcar – and, if desired, they can cover

a far larger area with far more routes and services carrying far more riders. If desired, there are even replica trolley buses available to provide an "old time" streetcar look.

For those that say that shuttle buses cannot produce the development impact of streetcar, I say, it is far from clear – and, if one of the objectives is to promote development, a shuttle bus system that carries two, three, or more times as many riders to and in and around the urban core as streetcars at far lower cost, and can be up and running much quicker, would appear to have very significant real estate development advantages.

The proper course of action is to study both streetcar ***and*** shuttle bus and see what each can offer – but, don't have the shuttle bus analysis done by the streetcar consultant; have it done by a separate team that will not have a significant monetary interest in seeing the streetcar being the approved outcome.

A major part of this comparative analysis should be the determination of the transportation requirements and the planning and modeling of the alternatives to satisfy these requirements, leading to ridership projections that drive the service requirements. This would likely require a more complex modeling process than the Simplified Trips-on-Project Software (STOPS) used for the ridership projections made in the 2018 ACE report.

- **There was not enough time and effort spent reviewing key documents before they were submitted to the City Council for approval** – I spent two hours reviewing two 100+-page documents, the Mutual of Omaha headquarters and the Omaha Streetcar redevelopment agreements – and found dozens of mistakes, including multiple major issues and some major errors in each. This type of document should be reviewed carefully by multiple experts and everything double-checked before being advanced to the Council for final approval – but these weren't.

  I'm just going to show one issue from the Streetcar Redevelopment Agreement (June 28, 2022 City Council Agenda, Agenda Item 71, Ord. 42990): "Redevelopment Agreement Between The City of Omaha, Nebraska, And the Omaha Streetcar Authority," page 4, Section 1 – Definitions:

  K. "**Redevelopment Plan Area**" or "**Plan Area**" shall mean the area shown in the Redevelopment Plan as the Plan Area, along with the public streets and rights-of-way and any adjacent property contemplated by the Redevelopment Plan, all as depicted on Exhibit "C-1."

The Redevelopment Plan Area, among other things, is the area subject to TIF allocations for funding the proposed streetcar. Let's look at Exhibit C-1:

The above is taken directly from the Agenda package for the June 28, 2022 Council meeting; this is what the City Council voted on and it is the final, enacted document. Obviously, there was a problem with copying and production of this page, resulting in a major segment of the intended area not appearing of the "official" map – namely, everything East of approximately 20th Street and many blocks on the South side of the intended Redevelopment Plan Area West of 20th Street.

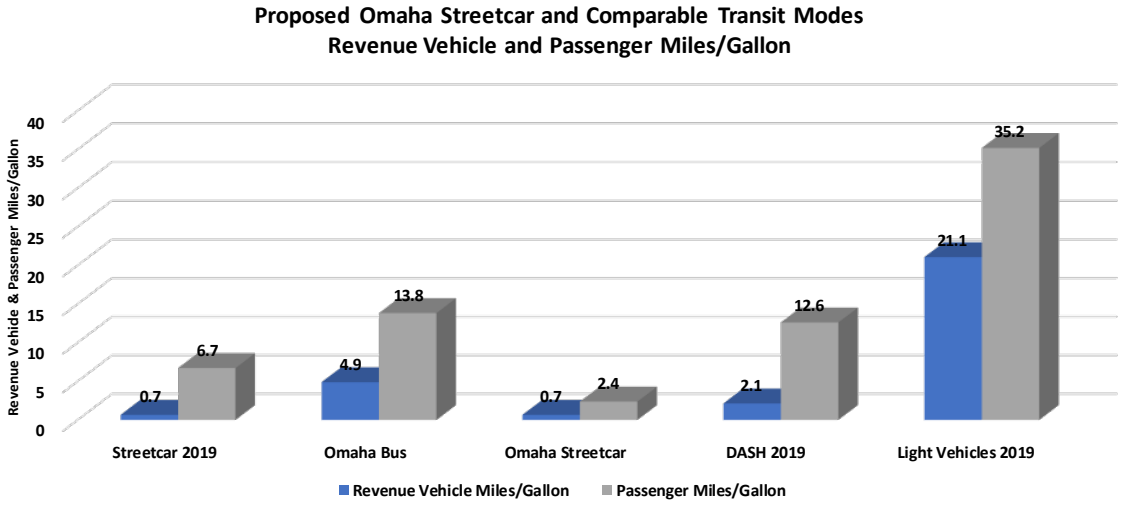
There are other Exhibits in the Agenda package, as well as narrative desciptions, showing what intended to be the full Plan Area, all the way East to the Missouri River, but, if this obvious error in the Ordinance is not corrected, it would be a open invitation for anyone who wants to do a development in the Plan Area and ***not*** pay the streetcar TIF fee to bring an action saying that ***their*** development is clearly not in the area shown in the official genesis document. I'm not an attorney, so I'm not going offer an opinion as to how successful the City might be in negotiating a settlement or in arguing to the court that the intention was clear, there was just an error in putting the document together – ***but***, my point is that it should never come to that, ***such errors must be found and corrected before they are put on the City Council Agenda for action***.

Again, this is only one of many such obvious errors I noted in my quick review, to say nothing of the large number of questionable statements (which I will be happy to discuss with City representatives). I suggest that:

a) Both of these documents be fully vetted and resubmitted to the City Council to correct the problems
b) The City engage an independent expert to, at a minimum, do a sampling of prior important documents submitted to the City Council for review to see how widespread these types of problems may be
c) The procedures for review of such documents be reviewed and improvements made as necessary

THE PROPOSED STREETCAR WILL BE *VERY* ENERGY-INEFFICIENT

While some transit modes, those like the New York City Subway system that have very high passenger loads, are very energy-efficient, all Omaha transit modes are not – and the proposed Omaha streetcar would be one of the worst in the nation.



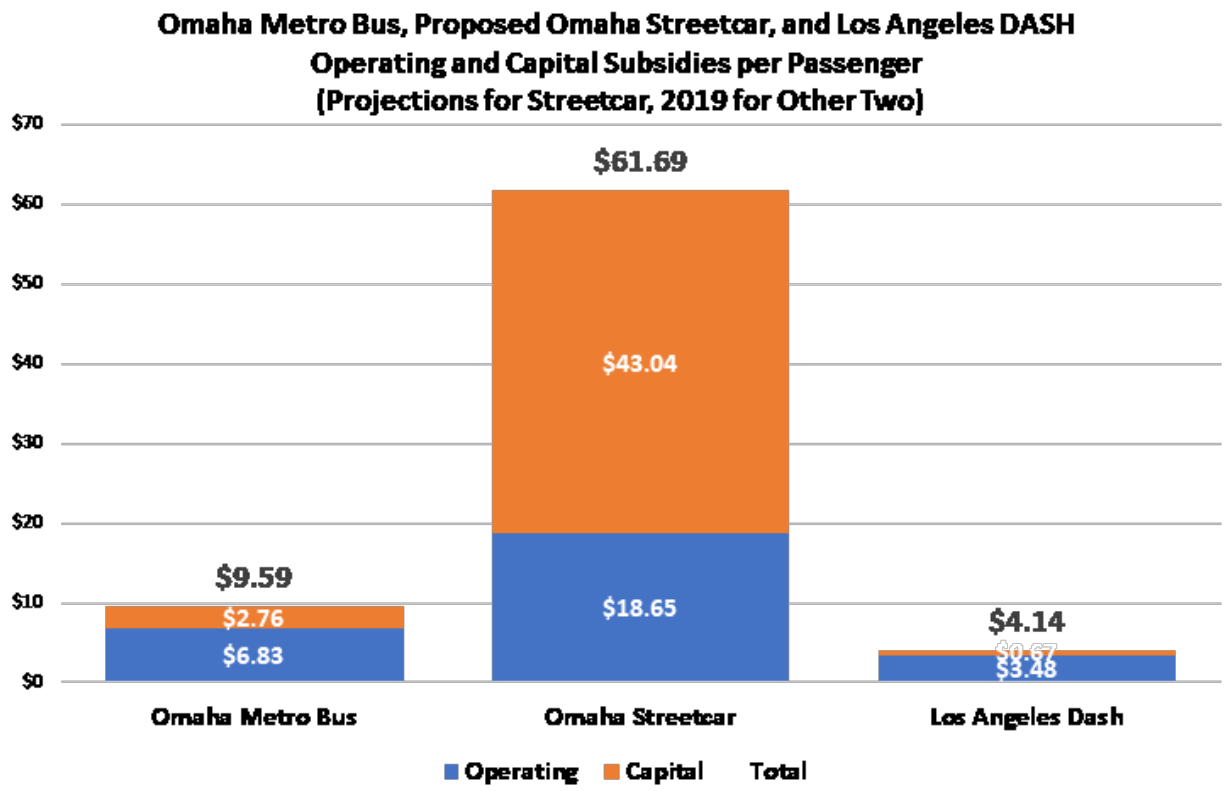
While both the Omaha bus system and DASH buses use three times as much energy per messenger-mile as the 2019 U.S. average for light vehicles (passenger cars and all but the largest vans, minivans, pickups, and SUVs), the proposed streetcar would use almost 15 times as much. The big problem is that Omaha's average transit passenger loads are so low, so the per passenger statistics come out terrible.

Generally, air quality impacts follow energy use. I haven't attempted to do the greenhouse gas and public health emissions, but, given that Nebraska has approximately 50% coal-fired electricity generation and the proposed streetcar would be a significant new peak load, there is little reason to believe anything other than the proposed streetcar being a major new source of emissions.

COSTS

I started my career as an accountant, so I left the dollars and cents for last.

Using the FTA's standard costing methodology for "new starts" guideway transportation projects, data from the FTA's National Transit Database for 2019 (the last pre-COVID-19 operating year), and the data for the proposed Omaha streetcar that was available to me, my calculations are that the streetcar would have one of the highest costs per passenger I have encountered in my going on half-a-century in the transit industry.



So, for a daily round-trip home-to-work commuter, the streetcar would have subsidies of:

- >$120/day
- >$600/week
- >$2,600/month
- >$31,000/year

These are preliminary values and would change with more detailed capital and operations costs and ridership projections. The ridership projection is particularly important in this case, which is why the failure to provide the City Council and the public with a ridership projection prior to going to the Council for a go/no-go decision is so unusual – in fact, in my professional experience, totally unprecedented.

(As I have explained previously, it should ***not*** be assumed that a newer ridership projection than the sole available 2018 ACE projection will show more streetcar trips. Also, streetcar trips that are created by attracting riders that would otherwise take ORBT by offering a free fare should ***not*** be used to help justify the proposed streetcar. I do not know if the streetcar ridership will be the same, higher, or lower than the 2018 ACE projection, and neither can anyone else – which is why it beyond my comprehension why decisions regarding the proposed streetcar are not being

held until a proper ridership projection can be made by a competent, unbiased professional.)

For the costs shown above, it would be far less expensive to lease each streetcar user a new car and pay for its registration, insurance, maintenance, fuel, and parking.

Conversely, the DASH system in Los Angeles provides riders similar to the users of the proposed streetcar very good service at a subsidy of approximately one-tenth of that of the proposed streetcar.

While it would be improper to assume that the subsidies for DASH would be the same as what would be possible in Omaha, it is inconceivable for me that any combination of circumstances would not result in a DASH-type system of shuttle buses providing far superior service to far more riders at a fraction of the cost of the proposed streetcar.

FINANCIAL PLAN FOR THE PROPOSED STREETCAR

I have been preparing to present this section for over six months, but, without the financial plan for the proposed Omaha streetcar – which was still not available as this document was prepared, eight days prior to public hearing – that is not currently possible. If and when the financial plan is available, I will attempt to review it and report on my findings and concerns.

What I have done is to prepare a list of questions and concerns, drawn primarily from the contents of two papers prepared by HDR (primarily the former):

- *Omaha Streetcar Financial Analysis – Final Report* (*OSFA*), March 2, 2022
- *Omaha Streetcar Advanced Conceptual Engineering* (*ACE*), March 7, 2018

Before I get into a detail analysis of these reports, I have two overriding general concerns:

- **Independence** – For a financial analysis to have credibility, it must be prepared by an entity that has creditable independence from the project and interested parties. While independence has several elements, one critical one is that the financial analysis preparer has no financial interest in the project. For many years, HDR has been one of the leading firms in the nation in the promotion, planning, design, and execution of streetcar projects. In this particular, if the proposed Omaha streetcar proceeds to construction, and then to possible extensions (which are already in preliminary planning), HDR could potentially receive additional fees well into the tens of millions of dollars. If the project does not proceed, there will be no such fees. In my opinion, this should be of major concern to those charged with making the go-no go decision on the proposed Omaha streetcar.

In reviewing these two documents, and others prepared by HDR concerning the proposed streetcar, in my opinion, what one tends to find is a preponderance of potential benefits over possible shortcomings, a tendency for assumptions to lean towards making the project look better, and for many issues that I believe should have been discussed being ignored. In my opinion, the HDR documents, taken as a body, appear more as promotional documents for the proposed streetcar than an independent balanced professional analysis and report.

- **Competence** – As will described in detail following, there are a number of matters, of both omission and commission, that, in my opinion, call into question the professional competence of HSR to perform financial analyses for projects such as this.

There are three different types of Tax Increment Financing (TIF) structures currently at work in Omaha: (a) the type that the City has been utilizing for many years to, in effect, reduce the net costs of development of new structures to the developers, hereinafter referred to as "Developer Cost Reduction TIF," and, in the specific case of the new Mutual of Omaha headquarters building on the former central library site, hereinafter "Mutual TIF;" (b) the TIF on new developments in the proposed streetcar district, hereinafter referred to as the "New Development Streetcar TIF," and (c) the TIF on existing property in the proposed streetcar district, hereinafter referred to as the "Existing Property Streetcar TIF."

My questions and concerns include:

1. OSFA, page 3, first bullet at bottom of page, "A financial pro forma model was developed to evaluate 30 years of projected revenues, costs, and net revenues associated with the implementation of the streetcar." Please provide this model along with supporting documentation and instructions for its use, at a minimum, in hard copy format; an electronic version would be preferable. Actual model runs are also requested.
2. Since OSFA was submitted, there appears to have been several developments that could have a significant impact on the costs and financial viability of the proposed project:
   a. The route alignment has changed and been lengthened approximately 12% from 5.5[xiii] to 6.16[xiv] directional route miles; will this increase the costs of construction and related activities and, if so, how much?
   b. The number of vehicles required to operate the system appears to have increased from five[xv] to six[xvi]. *OSFA*, page 10, shows a cost of $26,460,000 for "vehicles;" if we assume that this refers to the cost of the then-planned five vehicle procurement, the cost per vehicle would be

$5,292,000. (I have some concerns if six vehicles will be sufficient to operate the currently proposed alignment at ten-minute headways, but I will leave this evaluation until later when more of the data required to do the analysis is available[xvii].) Also, the vehicle illustrated in *OSFA* and other proposed streetcar material appears to be the CAF streetcar utilized in Kansas City, which, at 77.5 feet and a passenger capacity of 207 (six standees/square meter), is one of the larger streetcars available, designed to carry very large loads for streetcar systems (which the KC streetcar is known for). The "Omaha System & Vehicle Design Assumptions[xviii]" shows two versions, 82 and 96 feet. Given the very low passenger loads now anticipated, why is a smaller – and less expensive – vehicle not being considered?

c. Inflation, which, after years of historically low levels, is now the highest in recent decades. How will this impact the costs of implementation of the proposed Omaha streetcar?
d. Supply chain disruptions have been a major contributing factor to inflation, but they also have the potential to disrupt construction schedules if materials are not available when required.
e. The inflation increase is also tied to a significant increase in interest rates, including those involved in the debt to finance the project.
f. How have these factors been folded into the financial analysis of the proposed Omaha streetcar?

3. Does the City acquisition of the parking structure in the new Mutual headquarters building remove those portions of the costs of this structure from the New Development Streetcar TIF?
4. Does it remove it from the general property tax base for the City and other local governments?
5. Does the City acquisition of the parking structure in the new Mutual headquarters building remove those portions of the cost of this structure from the Mutual TIF?
6. Does the City acquisition of the parking at the existing Mutual of Omaha headquarters site and acquisition of the former Union Pacific headquarters site remove these from the Existing Property Streetcar TIF?
7. Does it remove them from the general property tax base for the City and other local governments?
8. What are the specific expected tax rates for each source of funding? If the rates are expected to change over time, please show the anticipated levels, year-by-year, to the extent this information is known.

9. OFST, page 3, states, "The financial pro forma assumed $4 billion in additional real estate development in the streetcar corridor over the next 15 years." Is this still considered viable?

   Specifically, the viability of the financial structure for the proposed Omaha streetcar is highly dependent upon the viability of the new development Streetcar TIF, which accounts for $305 million, or 52%, of the total revenues identified in OSFA (page 3). However, a variety of factors, most significantly the recent major change in home-to-work travel initially brought on by the COVID pandemic from in-office to totally remote and hybrid work, have brought on major downturns in construction of new construction and occupancy of existing commercial structures all over the world and this nation. It is not a question of when or if this is occurring, nor when or if it will happen in Omaha, it is now solely a question of how big this impact will be.

   Per the following:

   a. Project Beacon Tax Increment Financing Application, February 2022, page 4:

      Gross Office, SF (square feet) 800,000

   b. Page 8:

      "Upon completion (of the new headquarters building), Mutual of Omaha will relocate approximately 4,000 employees to the downtown urban core.

      "The Project will be wholly occupied by Mutual of Omaha."

   c. Josh Funk of the Associated Press, "New Offices For the Hybrid Era? Many Companies on Board[xix]:"

      "Mutual of Omaha plans to build a glassy new headquarters in its namesake Nebraska city that could wind up as Omaha's tallest building.

      "But the insurance company says the plans for its new building reflect its commitment to flexible work. The company has 4,000 employees in the Omaha metro area but is planning a building that can only accommodate between 2,200 and 2,500 people on any given day,' Mutual spokesman Jim Nolan said.

      "'The only way that works is by embracing remote and hybrid work,' he said."

   So, for the landmark structure that is so closely tied to the justification for the proposed Omaha streetcar, while the original plan was evidently to have most or all of Mutual's approximately 4,000 Omaha metro area employees in its

new 800,000 gross square foot headquarters building (an average of 200 gross square feet per employee, which is well within the normal range for such structures and businesses), has now decided that it will only need space for about 55-62.5% of them.

Not only has Mutual of Omaha, one of Omaha's top ten employers, seen a major reduction in its requirements for commercial office space from the above-described changes in in-office employee housing, but it is extremely likely that many other office-type employers, and the administrative functions within non-office-type employers, will see similar reductions in their commercial office space requirements.

Rather than calculating how the requirement for new commercial office space – and the support functions for their employees such as restaurants and retail shops – will be satisfied through new construction, a better question might be, how will the existing Omaha commercial office space landlords deal with the upcoming reductions in office space requirements?

Particularly since it appears that the construction of the new Mutual of Omaha downtown headquarters will be putting approximately 300,000 new square feet on the market and its move from its former headquarters site will release far more.

10. OSFA, page 9, states:

> **2.3.1.1 TIF ON EXISTING PROPERTIES:**
>
> As noted above, community redevelopment laws allow for the formation of a TIF district wherein project revenues are derived from the incremental increase over and above a base value of growth. For the streetcar this value capture approach comes through a bump in the growth of property values commonly referred to as the "Streetcar Effect."
>
> Within the City, property tax values have grown at a historical average of 2% year- over-year. A recent study by the Federal Transit Authority, which reviewed 5 federally funded and operational Streetcar Projects across the country, found that streetcar projects had an immediate positive effect on property values with a range of 5-28%.[1] For this study, it is assumed that the Streetcar will result in a one-time increase of 12% (conservative mid-point value of the range) in property values within the corridor. Given these assumptions, the net effect will be a value capture of 12% of property tax revenues from the corridor. The total revenue generated by the district over the analysis period would be $86 million.

This can only be read as saying that there will be a 12% increase in property values for all current property in the streetcar corridor and that higher tax revenues from this upward revaluation will be a major source of funding for the proposed streetcar. However, it is exceedingly difficult to be able to project the size of this increase in the *ad valorem* tax base in advance; indeed, for the reasons discussed above and others, it can be difficult to determine if there will be any increase at all. (Keep in mind that this is only for the value of existing

structures; increases due to new development or modernization of existing structures would be captured in the New Development Streetcar TIF – in fact, as existing structures are replaced by new or upgraded, the Existing Property Streetcar base will be reduced.)

There are three general methods for determining *ad valorem* values:

a. Sales of properties – when a parcel is sold, the market price paid is utilized not only to value the parcel being sold, but as a comparable to revalue similar properties.
b. Rental income – owner-occupied structures tend to turn over faster than rental properties and, by their nature, it is more difficult to find good comparables for larger-scale rental properties, including large multi-family residential rental and commercial structures. Therefore, rental properties are frequently valued for property tax purposes by rental income. This, in turn, has two main components, the rate paid per square foot and the occupancy rate. Note that these two tend to move together; when occupancy rates are high, the Law of Supply and Demand moves to increase rental prices, and, when occupancy is low, rental prices tend to decrease. Generally, for major rental properties, signing new long-term leases will trigger a revaluation of the parcel.
c. For parcels that do not have recent transactions as in a. and b. above, they are keyed to "comparable" parcels ("comps") and factors such as value/square foot for the "comps" applied to the parcel to be valued, along with other adjustments.

The uncertainty of the future demand for commercial development due to the factors discussed above make it difficult to be able to state, with any reasonable degree of certainty, that a 12% "Streetcar Effect" jump will actually occur.

While the cited study (Federal Transit Administration, *TIGER II Urban Circulator Impact* Assessment, August 2018, FTA Report no. 0122) appears to be useful – when properly utilized – the 12% factor proposed for Omaha does not appear to be strongly supported by the underlying facts for the table cited (Table ES-1, "Summary of Impacts by Type and Project Phase").

The table referred to in OSFA above comprehends five cities (Cincinnati, Charlotte, Tucson, Atlanta, and Salt Lake City) with recent streetcar lines for four types of properties (Single-Family, Condominium, Commercial, and Vacant) for three project phases (Announcement and Planning, Construction, and Opening) for a total of 60 potential individual data elements (5 x 4 x 3). However, no data is reported for 13 of these, so there are only 47 data points.

If the data points in these five cities are simply averaged, first by the four property types, and then the average of the four property types, the "impacts," by city, are:

Cincinnati:	9.4%
Charlotte:	10.7%
Tucson:	11.2%
Atlanta:	26.1%
Salt Lake City:	6.4%
Simple Average:	13.0%

Yes, it can be said that the 12.0% proposed factor for Omaha is "conservative" because it is lower than the 13.0% simple average of the five, but the Atlanta example, at 26.1%, is clearly an outlier, two-and-one-third times the next highest, Tucson at 11.2%. Four of the five cities in the paper had increases below the 12% recommended for Omaha. The simple average of the four non-Atlanta cities is 9.4%. This alone makes the 12% factor recommended for Omaha questionable.

Greatly simplifying, the study methodology is to track changes in real estate values for parcels within the streetcar influence areas (SIA) to parcels in control areas. From my review of the report, some of the "comp" parcels appear to be well matched to the SIA parcels in terms of residential demographics, but less so in terms of property characteristics. For example, for Atlanta (page 103):

> "Tables 6-3 and 6-4 show that SIA and control are similar in median housing age (87 for SIA vs. 86 years for control[2]), accessibility to nearby amenities (.68 vs. .78 Park within .25 mile), but they differ in terms of mean housing price ($198,629 vs. $151,377), building conditions (.32 vs. .16 Building condition good to excellent), and transport network (1,796 vs. 26,725 feet to nearest streetcar station; 2,484 vs. 26,725 feet to nearest Interstate highway)."

While the researchers have made a valiant effort to make the reports comparisons as valid as possible, as they describe in detail in the report, there are many, many limiting factors, such as those expressed above for the Atlanta Single-Family home comparisons – which reported the highest streetcar "value increase" for any property type for any city, 73.3% for Construction and 48.4% for Opening – or are these differences in change in value due to the SIA Single-

[2] Remarks in parenthesis are mine, using data from the report.

Family homes being larger, in better condition, and half a mile vs. five miles from the nearest Interstate highway – or is being a third of a mile from a streetcar station vs. five miles the dominant factor? Or is proximity to downtown Atlanta the major factor? Or special conditions that should not be expected to recur for Omaha?

While OSFA reports a range of "5-28%" for these 47 data points, the actual range is -13.1 to 73.3%. The mean value was 13.0%, but it was influenced by some unusual situations described in the report. The median value was 11.2% and, if the five largest and five smallest values are omitted, the mean becomes 11.1%.

Perhaps the best term to be described to the selection of the 12% is "arbitrary."

More important, there is significant variance by structure type. The simple average of the ten Single-family data points was 24.9%, the 13 Condominium points averaged 14.3%, the ten Vacant points 12.9%, and the 14 Commercial data points was 6.9%. Note – for reasons related to data non-availability – there is no consolidated data for a multi-family residential rental classification.

How, exactly, are the additional property taxes for the Existing Facility Streetcar TIF to be assessed? Will every non-exempt parcel in the SIA simply have its *ad valorum* valuation increased 12%? What will then happen when parcel owners determine that their taxes have been increased to pay for the costs of construction of the proposed Omaha streetcar, which the City is telling them is adding value to their properties – but, in fact, the value of their properties has not increased that quickly, not changed at all, or even decreased? Will they have grounds for appeal of this valuation?

Or will the City be required, under the terms of the Omaha Streetcar Redevelopment Agreement and the bond indenture implemented to sell the bonds, to enforce the collection of the stipulated funds, regardless of the promised valuation increase being actually accomplished, or not?

11. Will the new development streetcar TIF and the existing property streetcar TIF apply to all parcels and structures in the streetcar district (other than exempt ones such as government and eligible not-for-profit entities), specifically including single-family detached, multi-family residential rental, and condominiums?
12. If a parcel subject to the existing property streetcar TIF is developed and becomes subject to the new development streetcar TIF, is it still subject to the existing property streetcar TIF?
13. Will the TIF rates for the new development and existing property TIFs be fixed or floating? In other words, will a rate be established for the first year

that will not change over time, regardless of the status of funding available to meet the various obligations, or will it be adjusted each year (or otherwise) to generate the required amount of funding? For the new development TIF, this would mean that, if development is greater and/or faster than anticipated, the charges to each parcel could be reduced from the original projection, but if it is less or slower, the charges would be increased.

14. Will the proposed debt issues be submitted for bond ratings? If so, what ratings are anticipated – and what will the anticipated interest rates be?
15. If the proposed debt issues are not to be submitted for bond ratings, who is expected to buy these securities? How much would not submitting these for rating impact the expected interest rates? If the proposed debt issues are not rated, how would that impact their future salability?
16. Given that interest rates have increased significantly recently, are call protections being studied (if there were not to be call protection, then investors that purchased the longer-term debt expecting to receive a specific interest rate and cash flow for many years could find that their investments are paid off early so that the City debt can replace the original securities with lower-interest rate debt – lack of call protection would make the debt more difficult to sell and likely increase the interest rates necessary to find buyers)?
17. What revenue sources will be pledged to service the debt issued to implement the proposed streetcar? *OSFA* (page 3) shows seven sources (listed in declining order of projected amount of funding to be generated over 30 years):
    a. New development streetcar TIF: $305 million
    b. Housing and mobility influence area: 94 million
    c. Existing property streetcar TIF: 86 million
    d. Backend TIF: 50 million
    e. Surface (parking) stall fees: 21 million
    f. In-kind services: 15 million
    g. Payments in Lieu of taxes 14 million

    Are there any back-up funding sources anticipated? If so, what[xx]?

    If there are not sufficient funds available to meet the debt service, and there is no back-up funding, how would default impact the ability and costs of the City of Omaha (and other Nebraska municipalities and special districts and the State) to issue debt in the future?

    What is the priority of uses of funding if there is a shortfall? The usual standard in this type of municipal tax revenue-backed security is that debt service is the highest priority, but where would other necessary expenditures, including operations, maintenance, and capital renewal and replacement of the proposed streetcar and operations of the parking system be paid from?

18. What does "Surface stall fees" of $21 million above refer to? Does it include both the street parking and flat parking lots in the proposed streetcar district? Does it include fares from City-owned parking structures, such as those in the new Mutual headquarters building and those at the former Mutual headquarters mid-town (likely subject to any prior calls on such parking entities, such as debt service for the borrowings to buy these structures)? I assume that operating, maintenance, and capital renewal and replacement costs of these parking units will have first priority (if the parking units are not operated and maintained, there will be less, or no, parking revenues). Are parking ticket revenues included in the $21 million and how are these factored against the costs of parking enforcement?
19. Unlike some states, utilities in Nebraska with facilities in public infrastructure such as under or over streets, including electrical, natural gas, new and used water, telephone, data, cable, etc., are required to pay their own costs of utility relocations – such as would be necessary if a streetcar line were to be laid down on top of their underground utilities interfering with "manhole" access. But, OSFA, page 12, states,

> "The $306M cost estimate is an all-in project cost. Both public and private utility relocation costs are included. The streetcar route is within an area of very old gas and water lines owned by MUD that are part of a near term replacement program. Significant cost sharing could result wherein MUD would not need to cover the cost of opening the street and repaving if they time their replacements with the construction of the streetcar. Given the electrical consumption and revenue from the streetcar, it is anticipated that OPPD would partner with the City in service relocations and get the construction of substations and/or the overhead catenary system."

While this sounds promising, based on my own past experience with such utility relocations, I have the following questions:

a. Have these matters been discussed with the appropriate personnel at MUD, OPPD, and the other utilities that will be impacted? If so, what was the outcome of these discussions?
b. There is a $15 million dollar revenue line item for "in-kind services," which appears to be the estimate of the total cost of utility relocations that will ***not*** have to be paid by the Streetcar Authority because these portions of the utility relocation costs will be paid by the utilities. What is the anticipated total cost of utility relocations that this $15 million is expected to offset? Have discussions with the utilities proceeded to the point where dollar values are being

discussed? If not, when would such discussions commence; what level of completion of design and other work must be done before this can proceed?

c. As to, "… it is anticipated that OPPD would partner with the City in service relocations and get the construction of substations and/or the overhead catenary system," I read this the streetcar promoters will be exploring that OPPD could install, own, and be responsible for the propulsion power system for the proposed streetcar. (This appears to assume a conventional electrical propulsion power system, as opposed to the use of battery streetcars that do not recharge while in service or, alternatively, a system with battery recharging at end-of-trip layovers and/or stations.)
   This would appear to put the expenditures for these fixed assets by OPPD into its rate base, which means, in essence, that the proposed streetcar's electrical charge would include a return-on-investment on OPPD's capital costs:
   1. Has this been discussed with OPPD?
   2. What is OPPD allowed to charge for its return on investment for such assets, and how does this interest rate compare to the interest rate that the City expects to pay on the debt it incurs for construction of the proposed streetcar?
   3. What are the anticipated costs of such propulsion power stations and catenary? Are these included in the $306 million total cost?
   4. If OPPD owns these facilities, who will be responsible for their maintenance, servicing, repair, and replacement? Given that a malfunction, such as a catenary line coming down, can bring the entire streetcar system to a complete stop (as well as being a major public safety problem), can the public be assured that properly trained technicians will be available to respond on short call-out and that adequate repair inventories are maintained?

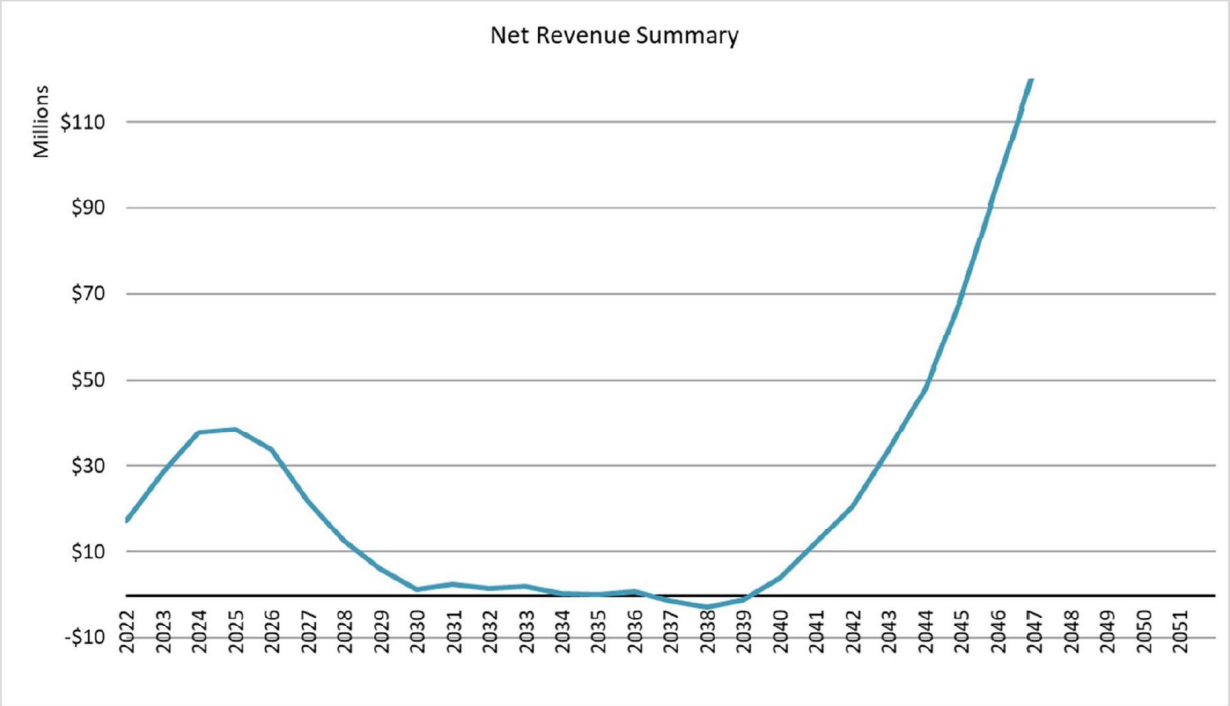
d. Utilities, both public and private, for very understandable reasons, virtually almost always insist on either doing all possible utility relocation work with their own personnel or with contractors under their direct control. This unfortunately, has led to major delays in construction when the utilities have not started or completed their work in accordance with the overall project schedule. Will there be an agreement and a process in place to minimize such conflicts, institute proper communications protocols and systems, provide for the timely performance of work, and for resolution of problems?

20. The following graphic and text are taken directly from pages 3 and 4 of OSFA:

The cumulative net revenue (capital; with annual operations and maintenance of the combined streetcar and city parking system) are shown in Figure 2. The figure shows that under the assumptions of this analysis it is generally plausible to fund the streetcar as well as the city parking system in parallel.

There are multiple years where expenditures exceed revenues but generally, cash reserves from previous years are sufficient to maintain the operating budget and positive cashflow. More refinement of the revenue sources and costs will be done as the project develops to ensure a net positive cashflow over the operational life of the project.

Figure 2: Comparison of Cumulative Net Revenue by Development Scenario



These raise several questions, some of which are disturbing:

a. The title of Figure 2 is "Comparison of Cumulative Net Revenue by Development Scenario – Net Revenue Summary," but what is presented appears to be something on the order of year-end cash balance, calculated as, (beginning cash balance) + (cash received) – (expenses and expenditures paid out) = (ending cash balance). This odd titling is, in and of itself, somewhat worrisome, as it indicates that the authors may not be familiar with standard practices and terms.

b. The title includes, "… by Development Scenario," which implies that there are multiple development scenarios that were considered and studied – but not included in the final version of OSFA. The February 18, 2022 "Draft

Report" version of OSFA, does, in fact, present three different scenarios on page 4, "Front loaded development," "Linear development," and "Back loaded development." What is presented above appears to be the "linear," or middle, scenario.

c. Note that the "middle" alternative shows a cash position very close to (less than approximately $3 million positive), or negative, from approximately 2030 through 2040; it is fair to interpret that the "back loaded" alternative will produce an even lower cash position (which, in fact, it does in the Draft Report version of the above).

d. ***When both the middle and low scenarios show a net negative cash position in such early analysis, this a matter for serious concern.***

e. Also troubling, it is not possible to find any acknowledgement of two important – and inescapable – requirements of long-term municipal financing such as is being proposed:

   1. Purchasers of such debt require reserve funds (or other acceptable guarantees) to be established throughout the period of outstanding debt, and held by the bond trustee, to insure that, at any point in time, at least the next few payments are secure. Perhaps this is comprehended by the very summarily level schedules, but I cannot confirm this from OSFA
   2. Purchasers of such debt require a "debt service coverage ratio" (DSCR), that is, a schedule showing that the anticipated revenues available to cover the debt service exceed the payments of principal and interest. The DSCR is extremely important in determining bond ratings and interest rates.

      The key here is that, with the cash balances this low, and even going below zero, this proposed financing would not meet any minimum requirements for SDCR – as presented, these bonds would be exceeding difficult, if not impossible, to sell.

f. Worse, the three scenarios in the Draft Report ***all assume that there will be very substantial new development in the streetcar corridor***, the only difference is timing of when it will occur, not the amount that will occur or even the time window. ***There is no analysis of what the impact would be if the assumed level of development does not occur.*** A proper sensitivity analysis would examine scenarios that included variations on other key assumptions, specifically including the level of new development – which could include, as for the timing of development, three options, low-middle-high. Other key factors that could also be subjected to such sensitivity analysis include interest rates, timing and size of the proposed streetcar capital and operating expenditures, among others. While adding additional sets of factors to be tested would appear to be

complex and require a lot of calculations (for example, if there were seven variables, each with three values to be evaluated, the number of runs would be $3^7 = 2{,}187$), but, "Monte Carlo" software capable of quickly and easily doing such calculations has been in wide use for many decades, which actually uses random assignment of values to each variable, not just a small number of preselected factors.

g. As to the statement, "The figure (Figure 2 above) shows that under the assumptions of this analysis it is generally plausible to fund the streetcar as well as the city parking system in parallel," in fact, in my opinion, Figure 2 clearly shows that, even under the assumptions presented, the proposed streetcar is ***not*** plausible – and, more important, the assumptions are strongly optimistic and the potential moderate, let alone negative, alternatives are not even discussed, let alone evaluated.

h. On OSFA, page 15, Figure 2 is again presented (this time as "Figure 5"), with the note, "The brief period of negative cashflow can be mitigated in multiple ways without raising City taxes to offset the shortfall. First, there appears to be a high probability that the shortfall will be significantly larger than shown, such as the "backloaded" development scenario presented in the Draft, let alone if the actual level of development is less than anticipated. Second, it is unclear if there is provision for the necessary reserve fund to protect bondholders and it appears very likely that, even with the middle, "linear" scenario, the required DSCR will not be met.

However, while we have above states that this problem "can be mitigated in multiple ways," one suspects that such mitigations have already been applied (for example, in HDR's *Omaha Streetcar Summary*, March 7, 2018, the annual operating cost is shown as $7.4 million for proposed streetcar first year of operations (page 4), but, in OSFA (page 8), it is represented as $6.4 million for 2026) – and, based on what was presented, they were unable to provide the desired "it-will-work" outcome. One wonders what these other mitigations might involve.

Moreover, the comment "… without raising City taxes to offset the shortfall" is troublesome; as this clearly implies that, if the seven proposed revenue sources listed above – which are, themselves, far from certain, both in achieving the dollar values and timing to produce the total revenues shown and even to exist at all – then additional City taxes may be required to cover the costs of the proposed streetcar. This is an obscure, but most interesting, place for such a statement – particularly in light of the statement in the "recitals" to the Omaha Streetcar Redevelopment Agreement,

> "WHEREAS, the Parties acknowledge and agree that the respective commitments set forth in this Agreement are conditioned and specifically contingent upon the City securing the financing and funding sources necessary for the Streetcar System, which will include revenues from the sale of bonds, ***and other revenues, that, its discretion, the City may identify and use for this purpose*** (***emphasis*** added); and, in the even the City is unable to secure the necessary funding for the Streetcar System, the Parties' obligations set forth herein shall terminate and neither Party shall have any further responsibility to the other under this Agreement,"

While the final phase in the above appears to provide the City an "out" if the financing for the project does not work out prior to project launch, the highlighted phase could potentially be interpreted to require the City to come up with new revenues to complete the project, or to pay the debt service on bond that had been sold, if, for example, the initial revenue projections for the TIFs turned out to be overly optimistic.

21. What provisions are there for capital renewal and replacement expenditures in the financial projections? All things that humans create eventually wear out and need replacement. So we are clear, these are capital expenditures, ***not*** routine expenses of servicing, maintenance, and/or repair, and these are for existing systems and ***not*** for new streetcar lines or extensions.

Selected U.S. Streetcar Systems Capital Renewal & Replacement and Operating Costs National Transit Database 2021 Reporting Year			
Location	**Capital R&R**	**Operating**	**Capital R&R as % of Operating**
Kansas City	$650,064	$5,615,679	11.6%
Memphis	1,973,236	4,921,809	40.1%
Washington, DC	2,167,907	10,523,261	20.6%

While such expenditures tend to increase as rail transit systems age, they begin almost immediately after such systems are put into service. These three systems first entered service in 2016, 1993, and 2016, respectively.

As the Controller-Treasurer of the Southern California Rapid Transit District, I was responsible for negotiating and running the benefit assessment district (BAD) that helped fund the first the Los Angeles subway – a funding mechanism that is very similar to the tax increment financing (TIF) district that would be the primary funding source for the proposed Omaha streetcar in that both call on parcel owners to pay the debt service costs of bonds issued to finance construction of urban rail

transit projects that are projected to increase the value and revenue generation of their properties.

Here is a comparison of these two urban rail transit projects:

Comparison of Los Angeles Subway to Proposed Omaha Streetcar		
Characteristic	**Los Angeles Subway**	**Omaha Streetcar**
Length of Line	16.4 miles	3 miles
Train Consist	Six-car Trains	One-car trains
Average Operating Speed	34 mph	10 mph
Headway	Five Minutes	Ten minutes
Weekday Ridership	298,000	940
Benefit Assessment District/ Tax Increment Financing Debt	$161 million	$356 million

Unlike the Omaha redevelopment area, the Los Angeles Subway benefits assessment district boundaries were one-half mile walking distance from the subway stations, ***not*** the distance to the route alignment.

Interestingly, the LA business community was so dissatisfied with being required to pay this charge that it went to Sacramento and got a bill passed that ensured that implementing a future BAD for transit improvements would be almost impossible.

If the LA property owners were that upset about paying for about half as much debt as their counterparts in Omaha are being asked to finance for a subway that is over five times as long as the proposed streetcar, that would operate twelve times as many cars in peak hour (72 vs. six) at over three times the speed, and carry over three hundred times as many passengers, one wonders how the property owners in Omaha might react.

* * * * * * *

While, at this time, I been unable to review the financial plan for the proposed streetcar, I believe that in the above I have set forth several solid reasons why it would be unwise to approve the financing plan and authorize the sale of debt to finance its construction. The proposed streetcar is proposed to be financed primarily by a TIF on new development caused by the streetcar – but, as shown above, the proposed streetcar will have little impact on development. Despite misleading statements that there have been recent major job losses in the Omaha CBD to justify the "need" for the streetcar, Omaha's CBD has actually had very strong job growth in recent years – which appears to be driven, in large part, by Omaha strong use of TIF funding for new development to reduce their costs to developers – and, if you believe the reports done by the same firm that has been promoting the proposed streetcar so strongly, by the growth caused by ORBT. Since – according to HDR –

ORBT has two-thirds of the growth development ability of the proposed streetcar in the development corridor under study, since ORBT was approved for implementation years ago and has been in operation for two years, most of the development potential has already been achieved.

Very respectfully,

Tom Rubin

Thomas A. Rubin

APPENDIX A
OMAHA PEER COMMUNITES
Omaha (UZA Population Rank 58) and Next Ten Larger and Next Ten Smaller UZAs

Abrev	Rank	Urbanized Area	State	Population
ABQ	56	Albuquerque	NM	741,318
ALB	67	Albany-Schenectady	NY	594,962
ALL	61	Allentown	PA	664,651
BIRM	55	Birmingham	AL	749,495
BR	68	Baton Rouge	LA	594,309
BRID	48	Bridgeport-Stamford	CT	923,311
CON	66	Concord	CA	615,968
DAY	59	Dayton	OH	724,091
EP	53	El Paso	TX	803,086
FRES	63	Fresno	CA	654,628
HONO	54	Honolulu	HI	802,459
McA	57	McAllen	TX	728,825
NOLA	49	New Orleans	LA	899,703
OKC	51	Oklahoma City	OK	861,505
OMA	**58**	**Omaha**	**NE**	**725,008**
RAL	50	Raleigh	NC	884,891
ROCH	60	Rochester	NY	720,572
SARA	64	Saratoga-Bradenton	FL	643,260
SPR	65	Springfield	MA-CT	621,300
TUC	52	Tucson	AZ	843,168
TUL	62	Tulsa	OK	655,479

[i] U.S. Department of Transportation, Federal Transit Administration, National Transit Database ("NTD").
[ii] NTD
[iii] U.S. Bureau of the Census, American Community Survey, "Commuting Characteristics by Sex, 2020: 5-Year Estimates Subject Table ACSSTSY2020.S.0801.
[iv] University of Minnesota Accessibility Observatory (2019 series): Accessibility Observatory | University of Minnesota (umn.edu)
[v] HDR, Appendix A: Benefit-Cost Analysis to 2014 TIGER (grant) Application for Central Omaha Bus Rapid Transit: Connecting the Dots, Appendix B, Ridership Forecast, "Metro BRT Tiger Application Input Based on MAPA Travel Demand Modeling,"
[vi] HDR, *Summary Report – Omaha Streetcar Advanced Conceptional Engineering* (ACE), March 7, 2018, page 16.
[vii] The Orange County streetcar recently contracted for $2,107,765 for ticket vending machines for 13-14 stations; the proposed Omaha streetcar system will likely have more stations and the procurement will not occur for some time, so costs are likely to increase due to inflation.
[viii] Redevelopment Agreement Between the City of Omaha, Nebraska and the Omaha Streetcar Authority, p. 2 and 4; HDR, *Omaha Streetcar Advanced Conceptual Engineering – Summary* (ACE), page 1; City of Omaha *Urban Core*

Housing and Mobility Redevelopment Plan, page 10 (adopted by the City Council on March 29, 2022, item 15.; *Downtown Omaha 2030* (master plan), pp. 9, 65, and 196

[ix] Jose Maria Barrero; Nicholas Bloom; and Steven J. Davis for WFH Research, Southwestern Anthropological Association, *SWAA November 2022 Updates*, 6 November 2022; specific graphic available at WFH Research | Survey of Working Arrangements and Attitudes

[x] The Transit Authority of the City of Omaha, "Central Omaha Bus Rapid Transit – Connecting the Dots" – 2014 TIGER Application, April 28, 2014, shows $30,583,680 total project cost (page 1) for the 7.98-mile corridor, or $3.83 million/mile in 2014 dollars. U.S. Bureau of Labor Statistics, CPI for All Urban Consumers, Chicago-Naperville-Elgin, IL-IN-WI, shows a 21.6% increase from October 2014 to October 2022. Applying this CPI factor to the $3.83 million in 2014 dollars produces $4.65 million in 2022 dollars. OSFA does not specify the year of the dollar figures presented, so I arbitrarily mark up the $4.65 million to $5 million/mile.

[xi] U.S. Modern Streetcar data is from U.S. Department of Transportation/Federal Transit Administration National Transit Database for the 2019 reporting year for all streetcar operators; excluding the "traditional" streetcar operations of Boston, Philadelphia, and San Francisco. NTD does not collect separate modal data for shuttle bus service; the DASH service operated by the City of Los Angeles, by far the largest such service in the U.S., is presented as representative.

From the available data on the proposed Omaha streetcar, it will have lower ridership and higher costs than the current national averages.

[xii] Average Operating Speed is calculated from NTD data by dividing vehicle revenue miles by vehicle revenue hours. Because vehicle revenue hours include layover/recovery time at the end of individual trips before the vehicle begins service in the opposite direction, the actual speed while the vehicle/train is in service to the public is higher. Because the layover/recovery time varies for each transit agency and even for individual trips on the same line, it is not possible to get the actual speed while in motion without detail analysis of each individual transit agency's service, so this methodology is the national standard for determining Average Operating Speed.

[xiii] *ACE*, page 4.

[xiv] Omaha Streetcar Authority (OSA), Board Meeting, September 19, 2022, item 5., Recommended Omaha Streetcar Alignment.

[xv] HDR, *Omaha Streetcar Summary*, page 1.

[xvi] OSA, Board Meeting, November 14, 2022, item 4., Interim Director's Report, OSA-Monthly-Report-10-2022.pdf (cityofomaha.org)

[xvii] HDR, ACE, page 15, states, "A travel time assumption was needed for the traffic and ridership analyses as part of the ACE phase. The Vissim 9 microsimulation analysis software used as part of the traffic evaluation determined the streetcar would take between 17.5 to 19 minutes from end to end depending upon traffic conditions. This is not the official travel time estimate, as that would be determined by the operating plan."

My own review of the route and comparisons to the operations of other streetcar systems led to a conclusion that this range is within the reason range for this alignment an assumed travel speed of approximately nine mph. I assumed that the Westbound leg would take 17 minutes and the Eastbound leg – which is two city blocks longer and requires two additional turns, one of which is a left turn, which tends to be slower than a right turn in most situations because it requires crossing traffic – would take 19 minutes of travel time, for a total of 36 minutes of total round-trip travel time. Add to this approximately three minutes for the streetcar operator, at the 42nd Street station, to shutdown and lock the Westbound control cab, walk the length of the train inspecting for issues such as potential safety problems, items left behind, graffiti and vandalism, then opening the Eastbound control cab and getting the vehicle ready to proceed, and six minutes at the 10th Street station to do change of control cabs and for layover time (to allow the operator to take care of vital personal matters) and we're up to 45 minutes. Add five minutes of recovery time (to help ensure that the next outbound trip will begin on schedule if the inbound train was running late) and we're at an even 50 minutes – which will require five vehicles to operate a 10-minute headway.

While driving the route in a passenger car, making allowances for station dwell times, etc., and making comparisons to streetcar schedules for other transit systems are useful for rough estimations, and software models such as used here can provide an extra degree of confidence, there are still many factors that are difficult to fully and properly evaluate at this stage – with perhaps the most important being long discussions with the City traffic engineers as to what may be possible for traffic signal progressions and preferences to minimize the time that streetcars are stopped at red lights. But, at this point, it appears reasonable to work from five vehicles being workable for operating ten-minute headways on a 5.5 directional route mile, there-and-back, streetcar route.

However, at its September 19th meeting, the Omaha Streetcar Authority lengthened the route to 6.16 miles – and the new alignment adds two turns, one of which is a left turn, which requires more time to make. A simple ramp-up of the new over the old route mile count, 6.16/5.5, produces a 1.12 factor – 1.12 x 36 minutes travel time for 5.5

miles = 40.3 minutes. Adding in the three minutes at 42nd Street station and the six minutes at 10th Street station and we're up to 49.3 minutes, which leaves only .7-minute recovery time, which makes being able to maintain a ten-minute headway with five vehicles right on the edge. (The "Streetcar Alignment Option" schedule in the Agenda for the September 19th meeting shows the ACE Revenue Track Length at 5.56 miles, rather than the 5.5 miles actually shown in the ACE report. If this distance is used for the above calculation, the factor changes to 6.16/5.56 = 1.108 x 36 = 39.9 minutes, .4 minute less, which increases the resulting recovery time to 1.1 minute. Variations this small are of no major import, but this is presented to be complete. Also, my own measurement of the ACE alignment came out as long as 5.81 miles, depending on how close the terminal stations were to the crosswalks.)

Assuming five vehicles will be needed to operate a ten-minute peak headway, there will be a need for at least one additional vehicle for a space in order so that vehicle maintenance and servicing can be performed while the system is in operation. Operating a five-vehicle peak pull-out with a total fleet of six vehicles can be challenging in the best of circumstances. Remember, if even one vehicle is hard down, such as not being operational due to a collision or required part not available, this can become impossible – which would be an argument for ordering an extra vehicle for the fleet. However, since streetcars can cost up to several million dollars each, determining the proper fleet size is not a simple problem, particularly since it would be extremely expensive and time consuming to attempt to buy one additional vehicle if the initial order does provide enough vehicles to operate the desired schedule (good reason to have an option provision in the vehicle contract).

While the above discussion is interesting, a lot more work will be required to fine-tune the operating assumptions and schedules before the size of the streetcar order should be finalized.

[xviii] OSA, Board Meeting, September 19, 2022, item 7., Proposed Vehicle Specifications.

[xix] Josh Funk, AP, "New Offices for the Hybrid Era? Many Companies on Board," *The Daily Record*, March 9, 2022, New Offices For The Hybrid Era? Many Companies On Board | Omaha Daily Record

[xx] Jessica Wade, "Pledge on Streetcar May Not Be Guaranteed," Omaha World-Herald, November 27, 2022, discusses the possibility of the City issuing $80 million in Lease-Purchase debt because the anticipated TIF and other revenues may not be sufficient to complete the proposed Omaha streetcar.

A Transportation Expert Who Grew Up in Omaha Looks at the Proposed Omaha Streetcar – A Presentation to the Omaha City Council

Thomas A. Rubin, CPA, CMA, CMC, CIA, CGFM, CFM

December 6, 2022

ORGANIZATION OF THIS PRESENTATION

- A bit about me …
- The history and the present of transit in Omaha
- Omaha's interesting approach to corridor transit planning
- Streetcar as transit
- Streetcar for generating development
- Transportation alternatives to streetcar
- Costs and Finance

(Disclaimer: As the available documentation for the proposed Omaha streetcar does not provide all data required for full analysis, certain assumptions were made based on national peer statistics, experience of streetcar systems in other cities, and the author's professional experience. Therefore, errors and/or omissions are possible; additions/corrections will be made as additional information becomes available.)

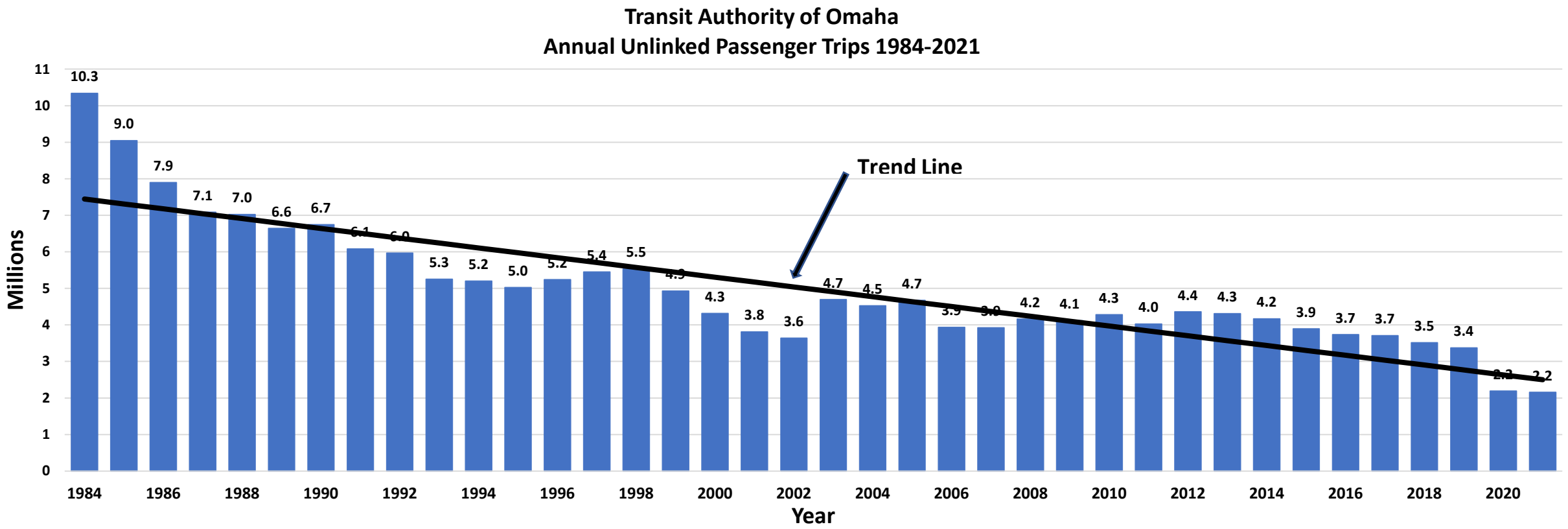
A BIT ABOUT ME …

- Born and raised in Omaha
  - Omaha Central High School
  - University of Nebraska-Lincoln Business School
- Rubin Distributing Co., the company of my father, uncle, and brother, at 1101 Harney – on the proposed Streetcar route (now apartments, restaurant, and retail)
- Over four decades in transit industry, government finance, and major capital project development/financing/construction
- Founded and led the U.S. transit practice of what is now Deloitte, LLP
- Former CFO of the third largest transit operator in the U.S., SCRTD in Los Angeles
- Consulting and audit clients include well over 100 transit operators, metropolitan planning organizations, U.S. Department of Transportation, state DOTs, and others
- Member, Institute of Transportation Engineers (I'm ***not*** a P.E., but do a lot of work in related fields)
- Hundreds of professional papers and conference/seminar presentations

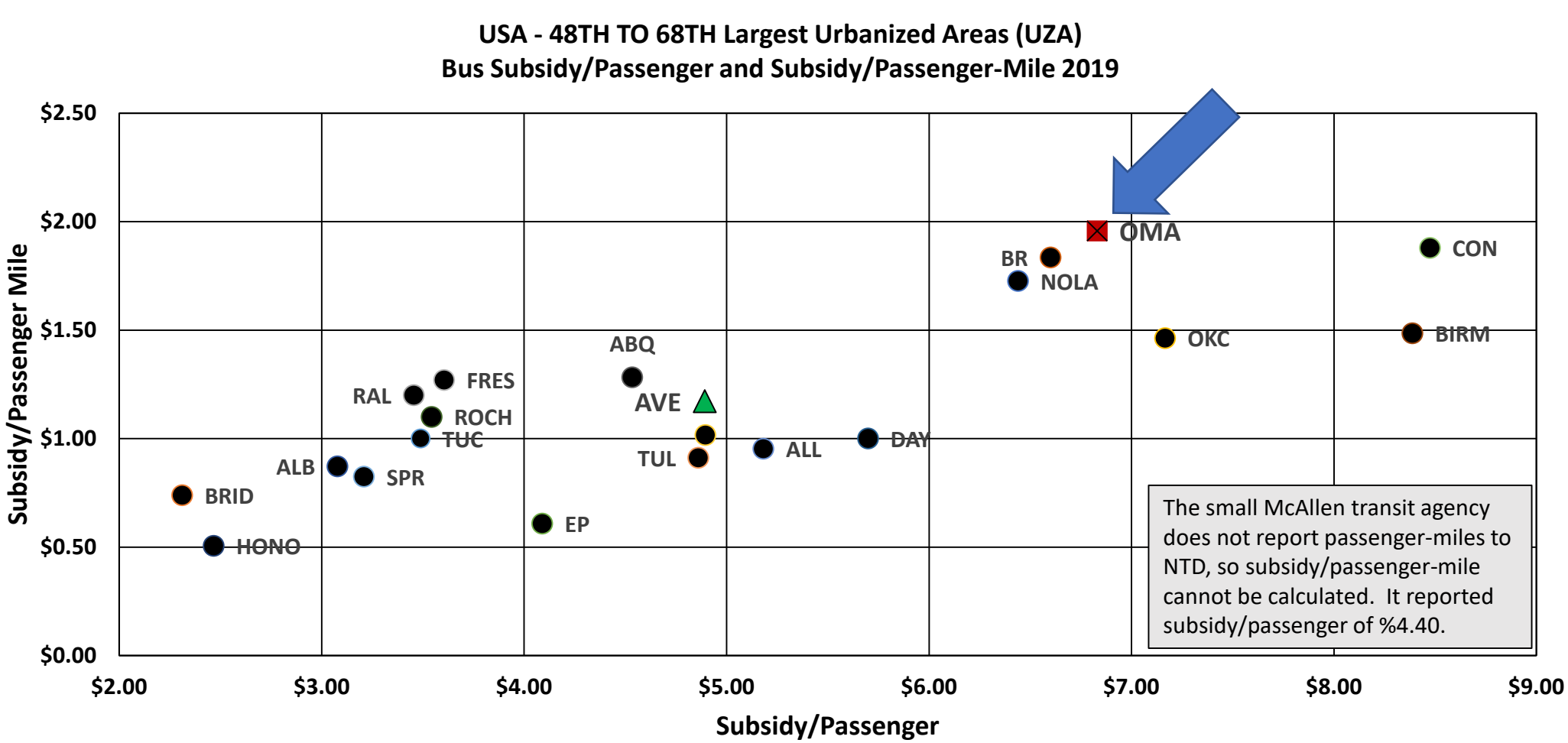
THE HISTORY AND THE PRESENT OF TRANSIT IN OMAHA

- Before we get into the proposed Omaha streetcar project, we first need a picture of public transit, history and present, in Omaha – and how it fits into the overall local urban transportation system
- Like almost all U.S. urban areas, Omaha used to have a streetcar system that covered most of the city – my oldest memory is taking a streetcar ride downtown the day before my third birthday (and I regularly took the 1-Dundee and 28-Blondo bus lines to Lewis & Clark Junior High School and Central High School)
- However, like all but a handful of urban areas, Omaha Streetcar died off long ago – ***not***, as *Who Framed Roger Rabbit?* fans would have you believe, due to some huge national conspiracy to kill transit or streetcars, but because streetcar's time had simply come … and gone; streetcar failed because it just wasn't working well for most people any more as the world changed and other transportation options worked much better for the overwhelming majority of former streetcar riders
- Transit utilization, particularly on a *per capita* basis, has been going down in most of the U.S. for decades, but far more so in Omaha

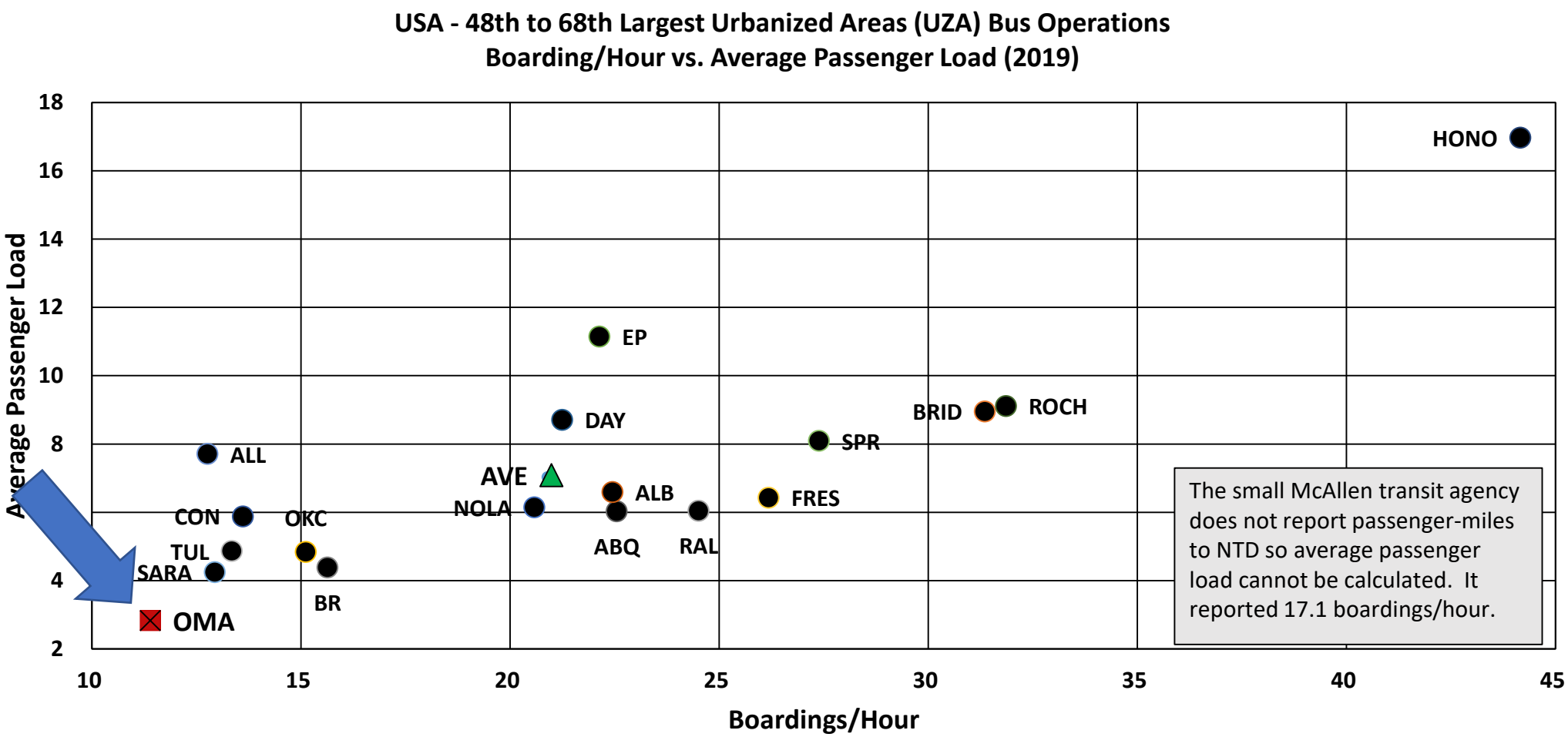
Omaha Ridership Trend Line is Down



- An “unlinked passenger trip” (UPT) is every time a passenger boards a transit vehicle
- From 1984 to 2019 (last full year pre-COVID), ridership is down two-thirds
- Last year with an ridership uptick was 2012
- Population was up >40% over this period, so unlinked transit trips/*capita* is down >80%



- The place to be is down and to the left; Omaha has the fourth highest subsidy per UPT and the highest subsidy per passenger mile of the peers
- Omaha taxpayers pay far more to move people than almost all of its peers
- Now let's look at how well the bus service is utilized



- On this one, best is up and to the right
- Omaha is the lowest (worst) on both; on average for the year, there were 17.0 passengers on a bus in Honolulu, which is over six times Omaha's 2.8 – the peer average of 7.1 is over two-and-one-half times Omaha's 2.8

How do people get to work here?

Douglas County, Nebraska – Means of Transportation to Work (2016-2020)		
	Douglas County	United States
Drive Alone	79.9%	74.9%
Carpool	8.7%	8.9%
Total Automobile	88.6%	83.8%
Public Transportation (excluding taxicab)	1.2%	4.6%
Walked	1.8%	2.6%
Bicycle	0.2%	0.5%
Taxicab, Motorcycle, or Other Means	1.1%	1.3%
Worked from Home	7.0%	7.3%
Total (do not sum to 100.0% due to rounding)	99.9%	100.1%

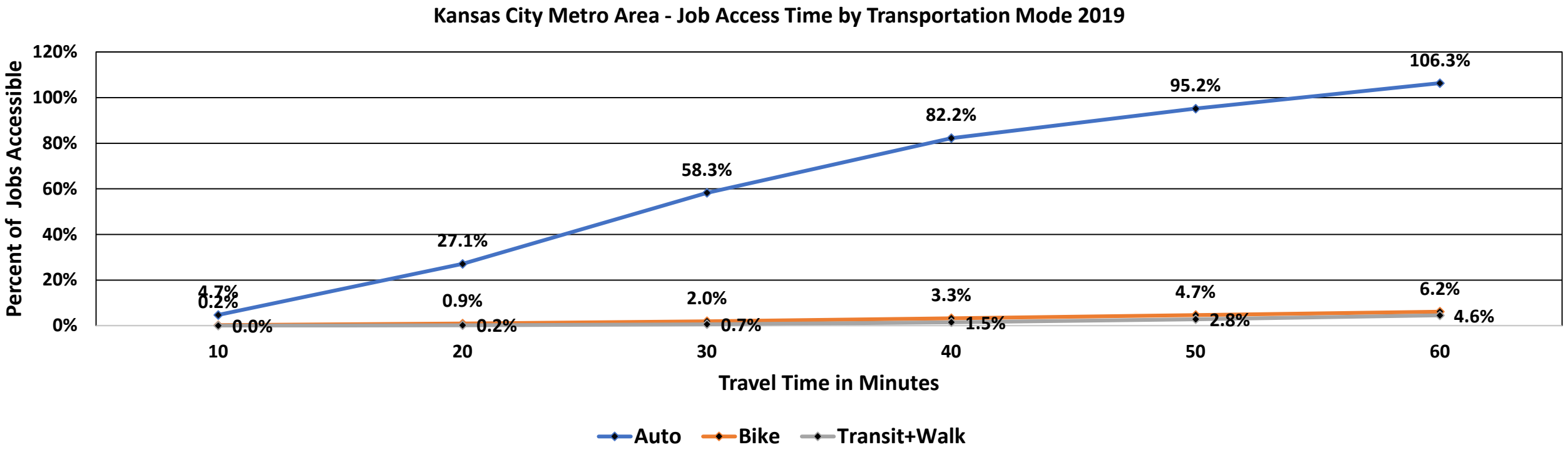
- Automobility is dominant in the U.S., but even more so in Omaha – and the Omaha transit modal split of 1.2% is only ~26% of the national statistic of 4.6%
- This will not be changing any time soon – if ever – and here's why

Omahans Have Quick Commutes

Douglas County, Nebraska – Travel Time to Work (minutes) (2016-2020)			
	Douglas County	United States	Douglas Co/USA
Drive Alone	19.3	25.8	75%
Carpool	21.7	27.9	78%
Total Automobile	19.6	26.0	75%
Public Transportation (excluding taxicab)	37.3	50.3	74%
Walked	11.2	12.3	91%
Bicycle, Taxicab, Motorcycle, or Other Means	24.7	29.0	85%
Overall	19.7	26.9	73%

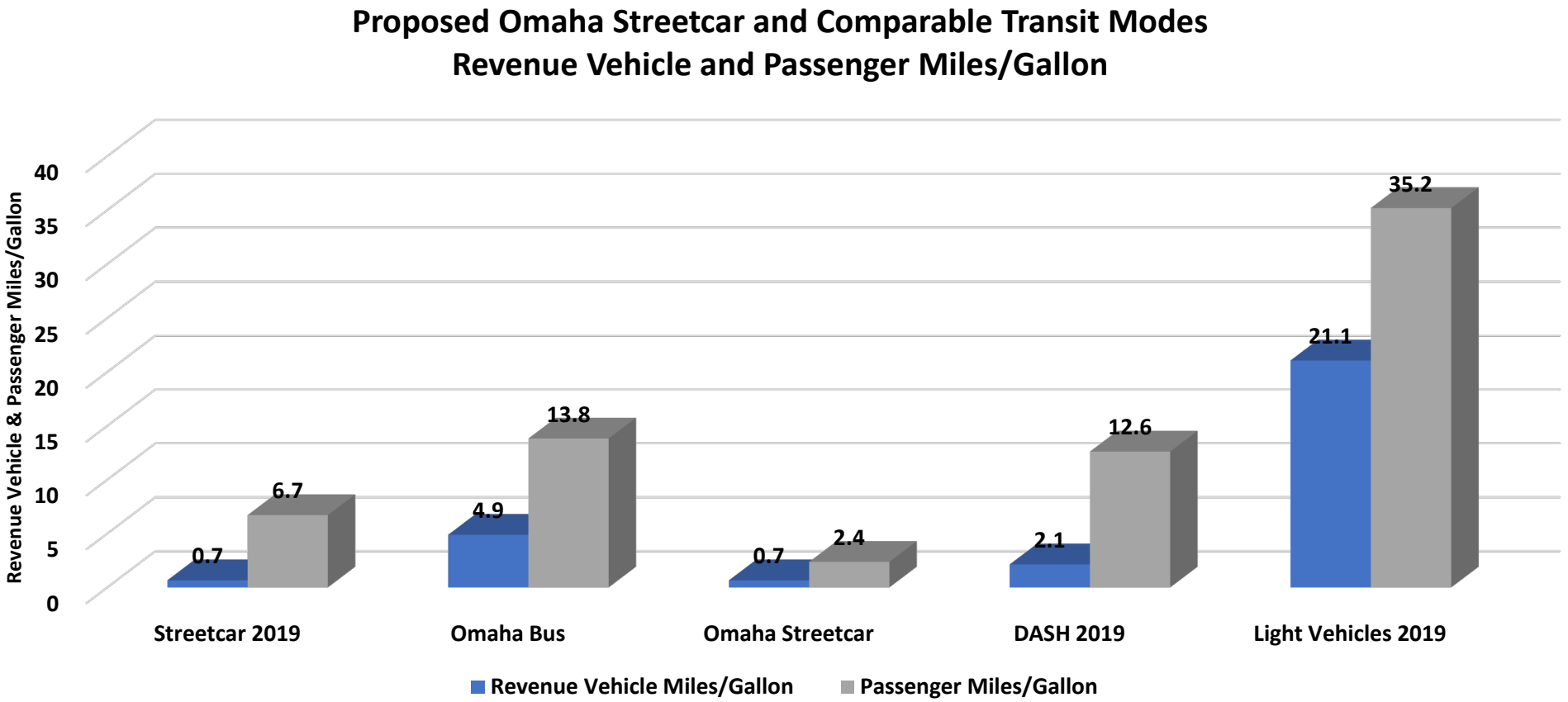
- Everyone in the world "knows" they have a terrible commute, but Omahans only spend about three-quarters as much time commuting as the national average
- Driving to work is both relatively quick and time-constant
- As a result, all other modes – particularly transit – just are not as competitive

The Transit Problem: You Can't Get There From Here



- The University of Minnesota does great reports on job access by mode of travel for major U.S. UZAs, but not for Omaha – so I picked KC as the closest match (KC UZA population is 210%, area 249%, transit UPT 439% of Omaha's – so, if anything, Omaha transit job access via transit would probably be less than KC's)
- You can drive to more almost six times the jobs in 20 minutes than to transit in 60; in 60 minutes, you can get to 23 times as many, including many out of area

Streetcar, Particularly in Omaha, Is *Not* Energy-Efficient



- All data is in diesel-equivalent gallons/mile; transit data from NTD 2019, converted using U.S. DoE values, Light Vehicles from DoE; used 2019 national average streetcar data for proposed Omaha streetcar vehicle miles/gallon.
- “Light vehicles” includes passenger cars, minivans, and all but the largest pickups, vans, and SUVs
- Because the proposed Omaha streetcar will have such low average passenger loads (3.6), even compared to the other modes shown, it scores very poorly

Conclusions?

- Transit is simply not a very important part of the overall local transportation system in Omaha – and its importance is on a long and consistent downward trend (It is an important mobility niche player for those without other options)
- Any expectation that this can be changed quickly is hard to justify; it is difficult to come up with reasons why transit utilization will not continue to decline
- I have seen great expectations for wonderful new transit systems fall far short of expectations far too many times over the last four decades, so I offer you this advice for any concept that Omaha transit will become important for local transportation any time in the foreseeable future:

Wishing will not make it so

- A focus on streetcar in Omaha is extremely unlikely to increase transit use

Omaha's Transit Corridor Transit Plan is Almost Unique

- In every city with guideway transit (rail, BRT) I have ever been in – or heard of – the second guideway transit line intersects with the first at a sharp angle
- BUT, in Omaha, the plan is for the second proposed corridor transit project to parallel the first, ***literally*** two blocks away – but the first, ORBT, appears to be a superior transit mode in almost every way:
  - The route is over two-and-one-half times as long
  - ORBT is faster
  - ORBT operates more and more frequent service

STREETCAR FOR GENERATING DEVELOPMENT

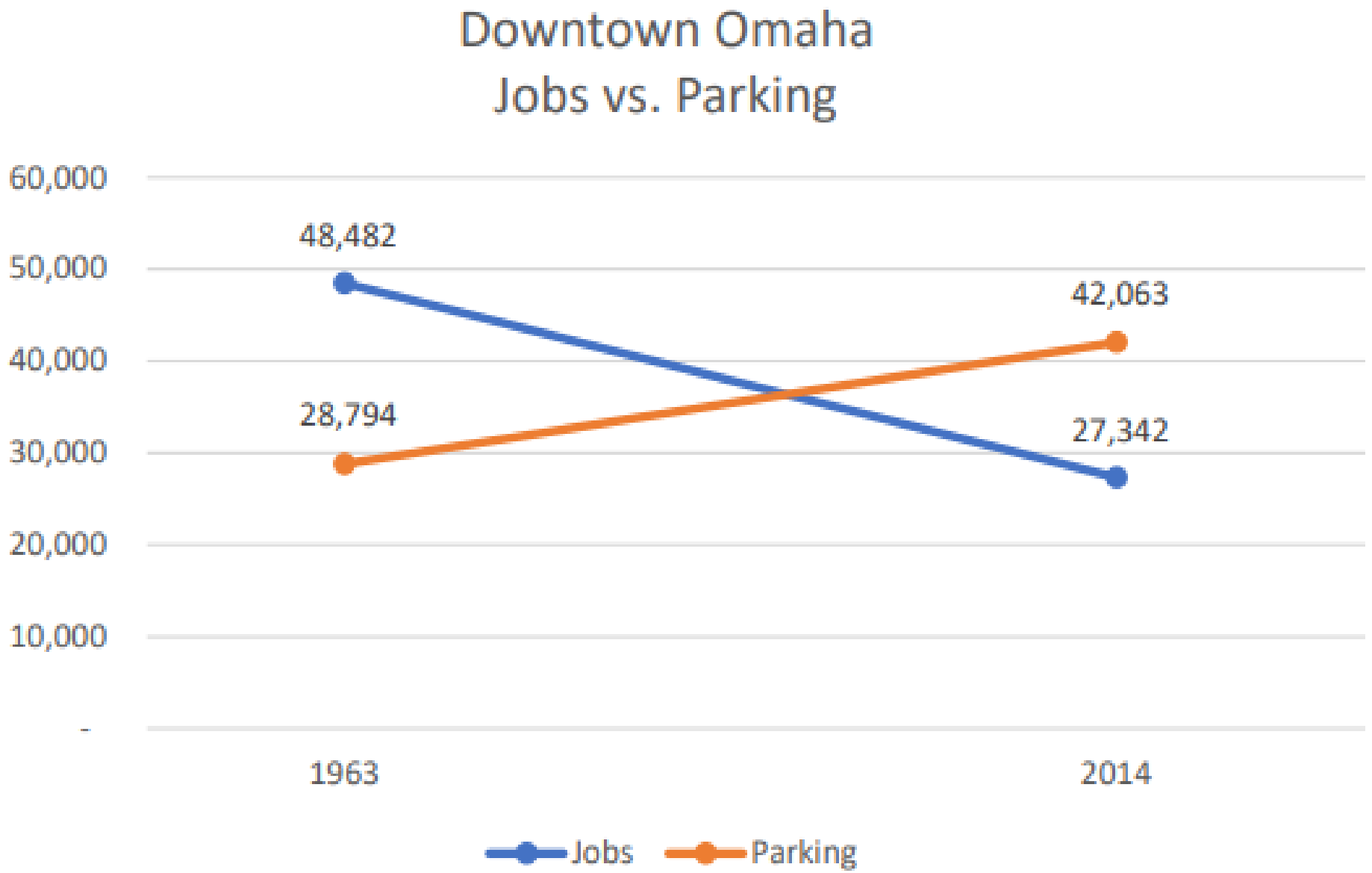
- As it is exceedingly difficult to make a believable case for the proposed Omaha streetcar as a meaningful transportation system component, …
- … then it must be about real estate development
- This is a frequent argument for streetcars, but it really doesn't stand up well to quantitative and logical analysis
- Transportation systems are about moving people (public transit doesn't move goods); therefore, the measure of a public transit system is how well it moves people – while being fair to the taxpayers and other stakeholders
- Yes, there are many secondary benefits of public transit, such as providing mobility for the mobility-challenged and, when done right, saving energy, reducing pollution, and economic and employment development
- However, the secondary benefits are largely dependent upon how many people that transit can move and how productively and cost-effectively it does so
- So, therefore, the best measure of the secondary benefits of public transit gets right back to, how well does the transit system move people?

The Myth that Omaha Downtown Is Shrinking

There is a misleading statement in the *Urban Core Housing and Mobility Redevelopment Plan*: "... Downtown Omaha lost of over 21,000 jobs in the past five decades, …"

The source for this appears to be a graph from the Chamber's *Urban Core Strategic Plan.*

BUT, the period only goes through 2014, not, as most readers would believe from the statement above, through close to the current day.



Graph: Jobs vs. Parking in Downtown Omaha

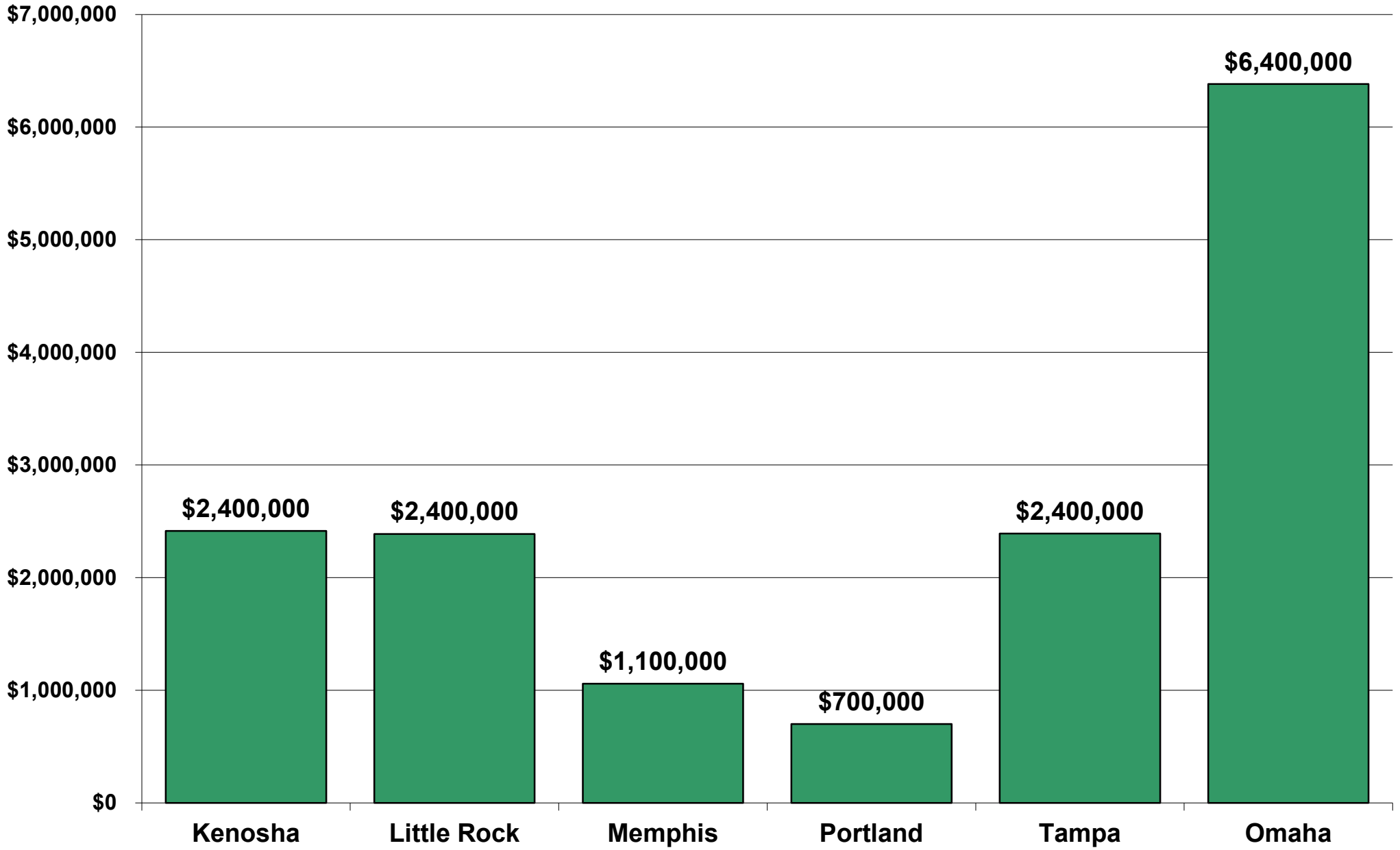
Omaha is Somewhat Rare in Having a *Growing* CBD

- The source of the 27,342 downtown jobs in 2014 is not known (believe me, I've tried), perhaps because the Chamber has its own definition of downtown
- But, for ZIP Code 68102 (approximately 24th Street East to the River, Leavenworth North to approximately Nicholas), Census Bureau reported 18,538 jobs in 2014, growing to 22,582 in 2020 – ***growth of 4,044, almost 22%, over six years***
- In general, in large- and mid-sized-cities in the U.S., the major job growth has been outside of the CBD – Omaha's high CBD growth over a relatively short period is remarkable
- It appears that the City of Omaha's existing programs to encourage CBD office construction and job growth – probably led by the major use of TIF financing – has been very successful in growing downtown jobs

Omaha Streetcar Will *NOT* Be Major Development Tool

- While there are several reports that emphasize a link between the proposed Omaha streetcar and real estate development, ***there is nothing in any of them that actually projects the described increases in development or parcel prices***
- What ***is*** presented is the ***potential*** development of all parcels in the proposed streetcar corridor, using what is known as "highest-and-best" use valuation:
  - This is ***possibilities – <u>not</u> projections that such development will occur***
  - Further, there is not even acknowledgement it these reports that development can be driven by other causes
- The claims made for streetcar-caused development all over this nation have been remarkable, given that, other than the "magic streetcar effect," the only actual development-causing impact is an increase in mobility, measured by added passengers – and the projections of the value of a daily added streetcar passenger in Omaha have reached a new high

DEVELOPMENT VALUE OF A DAILY STREETCAR PASSENGER



Any Bridge Players Out There?

- Here's a schedule from the ORBT TIGER Grant Application:

Table 9. Development Construction Cost Estimate for Alternatives 1-3

	Alternative 1 (BRT) 42nd to North Downtown		Alternative 2 (BRT) 42nd to North Downtown		Alternative 3 (Streetcar) 42nd to North Downtown	
Land Use	Forecast	Development Investment (Construction Cost)	Forecast	Development Investment (Construction Cost)	Forecast	Development Investment (Construction Cost)
Residential (units)	3,100	$ 651,000,000	2,900	$ 609,000,000	4,100	$ 861,000,000
Office	3,300,000	$ 693,000,000	3,300,000	$ 693,000,000	5,400,000	$ 1,134,000,000
Hotel (rooms)	1,100	$ 58,987,500	1,100	$ 58,987,500	1,100	$ 58,987,500
Retail/Service	341,000	$ 49,445,000	336,000	$ 48,720,000	490,000	$ 71,050,000
TOTAL		$ 1,452,432,500		$ 1,409,707,500		$ 2,125,037,500

- This shows the development from the two BRT alternatives and streetcar in the same corridor – and it compares the development impacts in a manner that makes it easy to make the comparison – and here's the calculation of BRTs' vs. streetcar's development potential:

$$((1,452,432,500 + 1,409,707,500)/2)/2,125,037,500 = 67.3\%$$

Most of the Transit-Caused Development is Done

- So, according to HRD – ***which did the economic development studies for both ORBT and the proposed streetcar*** – BRT has approximately two-thirds the development potential of streetcar ***in the proposed streetcar corridor***
- Since ORBT was pretty much a accomplished fact since the TIGER grant was approved in 2014, and since ORBT has been up and running for over two years, the development impact of guideway transit has been in effect in this corridor for many years – and ***two-thirds of the potential development impact of streetcar has already been realized through ORBT's construction and operations***
- To now claim that streetcar will have the "full" 100% impact is what is known in contract bridge as, "taking the same trick twice" – it just doesn't work that way
- I'm certainly not claiming that either the 2014 TIGER or the current streetcar development projections are correct, or will actually happen, BUT – ***the projections in these two cannot be separated; either both are correct and most of the development potential of streetcar has already been realized, or <u>both</u> have to be rejected*** – there is no other logical option, "pick-and-choose-what-you-want-to-believe" is totally unsupportable

So, What Else Drives Development?

- From City of Omaha, **Total Mobility System:**
  - March 2, 2022, lead paragraph: "The Omaha Planning Board has approved two initial and important steps for the development of the modern streetcar and Mutual of Omaha's planned downtown headquarters."
  - (Mutual of Omaha Pursuing Downtown Omaha Headquarters Tower): "A key element of the company's decision to pursue a downtown headquarters is the city's commitment to a modern streetcar line."
  - "'A modern urban transportation system in the form of the planned streetcar line makes this project possible by providing convenient access to our planned headquarters tower and by allowing us to think creatively about many aspects of the project,' (Mutual of Omaha Chairman and CEO James) Blackledge said."
  - So, it is the "Magic Streetcar Effect" –***Or, perhaps, could something else be more important?***

Which are the Most Important Factors?

- The City is offering Mutual of Omaha the following incentives (all 2022 $'s) and/or incurring additional costs:

• TIF Financing:	$68,614,696
• Purchase of Tower Garage	99,000,000
• Purchase of Midtown Garages	44,800,000
• City Paying for Library Demolition	1,070,897
• Difference in value between Library and UPRR plots	~1,800,000
• "Condominium" Costs of Parking Garage	unknown
• Operations & Maintenance of the Garages	unknown
• Ending responsibility for Turner Park maintenance	unknown
• Use of Park Frontage Block for Construction Staging	unknown
• Sewer Relocation and Connecting	unknown
Property taken off tax rolls due to City purchase	unknown
• Relocation of Central Library (costs to taxpayer to make way for Mutual)	$43,422,025

- Not counting Central Library relocation costs ($43.4 million), the known dollar value of City commitments to Mutual for its new headquarters building are **$213.5 million**, plus $1.8 million give-away in the parcel trade. Adding in the value of the "unknowns," the net present value of what the City is paying out for the benefit of Mutual of Omaha is likely well over half of the projected $600 million cost of the new headquarters

Omaha CBD is Growing – In Large Part due to TIFs

- The Omaha central business district has been ***growing***, not shrinking
- This appears to have been due, to a very large degree, to TIFs and other City benefits to developers
- The cash and other benefits to Mutual of Omaha for its new headquarters building have moved the level of taxpayer support of a development to a new high
- Trust me – developers are ***very*** well aware of what is in every development deal that the City makes …
- … and you can be assured that every future developer is going to ask for the same deal that Mutual got – or better
- The ability of streetcar to drive development pales in comparison to large amounts of cash on the table

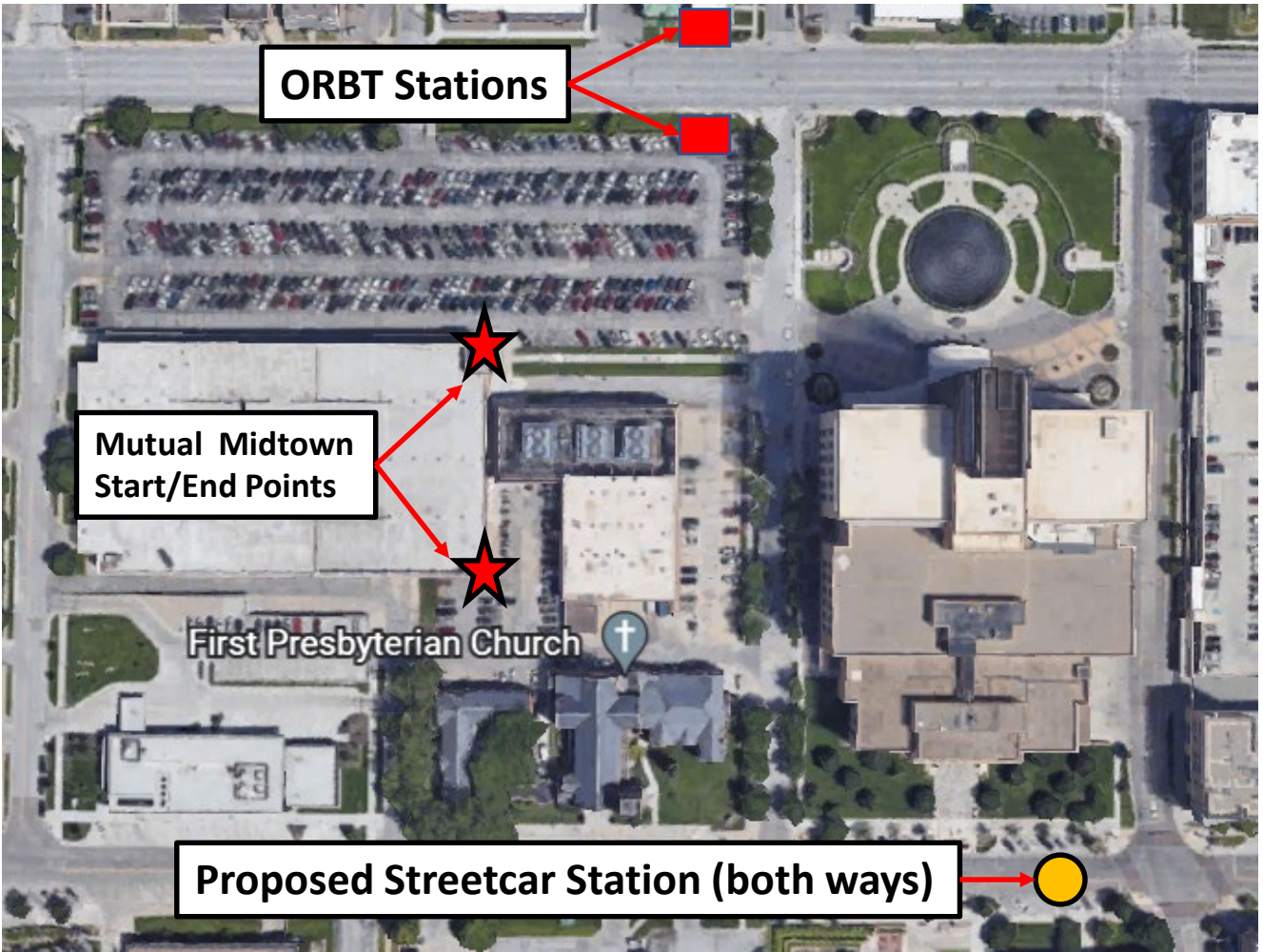
Park Once District

- This concept is not well defined, but perhaps the best explanation in the resolution is:
  - **“Park Once District"** shall mean the connective and coordinated plan for existing and new parking facilities within the area defined as the "Urban Core TIF District" in the Urban Core Redevelopment Plan in Exhibit 6 thereto, and as the "Streetcar District" herein."
- The name implies that people will park – once – in an area from approximately Saddle Creek East almost to the River and from approximately Davenport South to Jones and then use transit and/or non-motorized transportation to access their destination(s)
- Accepting, for the sake of argument that this concept is a good idea and can be made to work in Omaha, it must be understood that most people:
  - Like to take the minimum number of transportation modes from origin to destination, minimizing transfers from one transportation mode or vehicle to another
  - Do not like to walk more than short distances (and many cannot), particularly when the weather is less than ideal and when they may be carrying things
  - Want to have short or no waits for their next transportation mode to appear
  - Want to avoid this for many trips, particularly home-work, because it can easily add 20-30 minutes to travel time compared to driving and parking near the work location
- To see how the proposed streetcar does on these criteria, let’s look at how it compares on a “Park Once” trip between Mutual Midtown Parking and their new Mutual Project Beacon building

Round-trip, Midtown parking to/from transit

ORBT: 975 feet; one street crossing

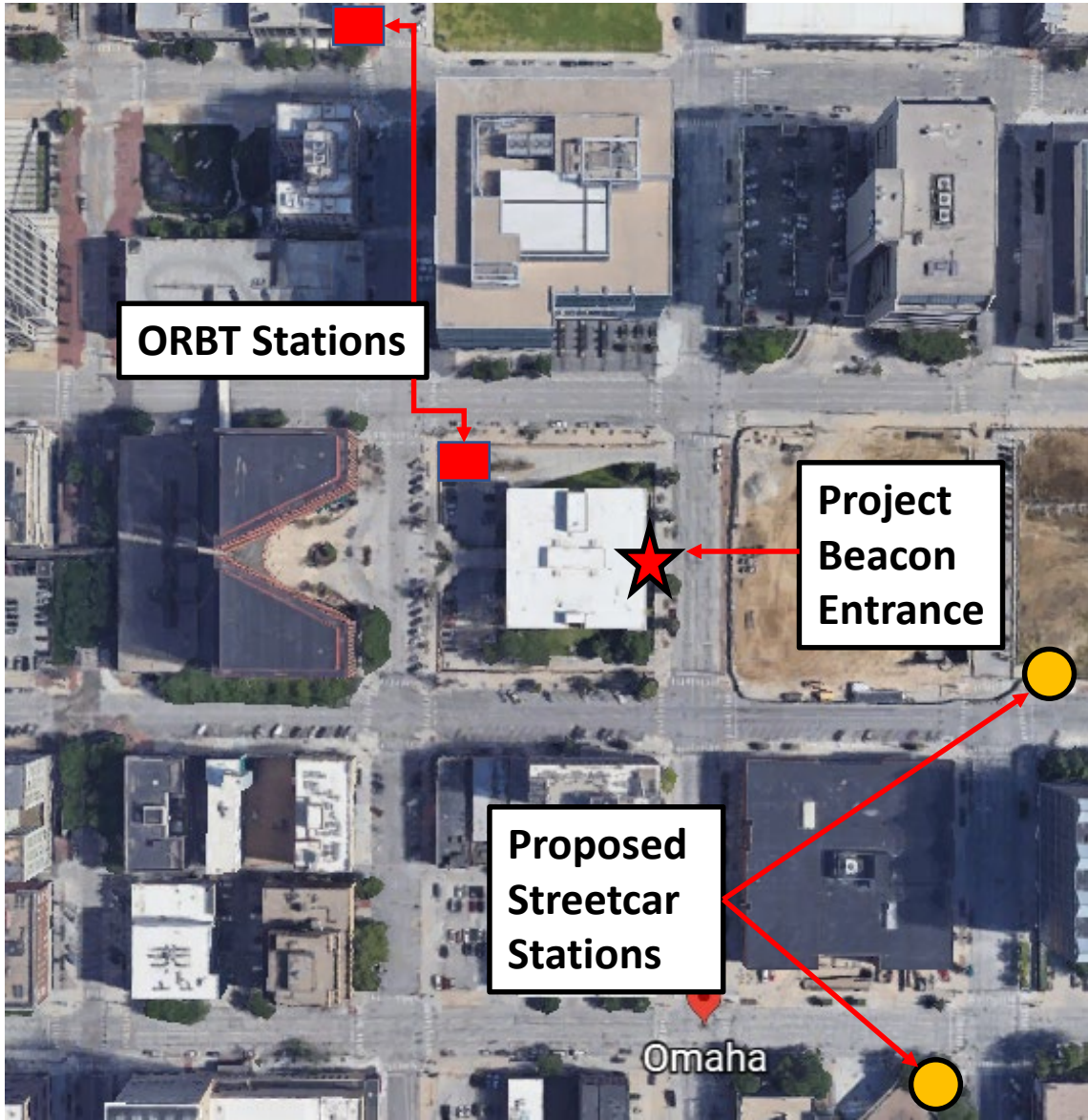
Streetcar: 1,750 feet; two street crossings



Round-trip, New Mutual Bldg to/from transit

ORBT: 900 feet, three street crossings

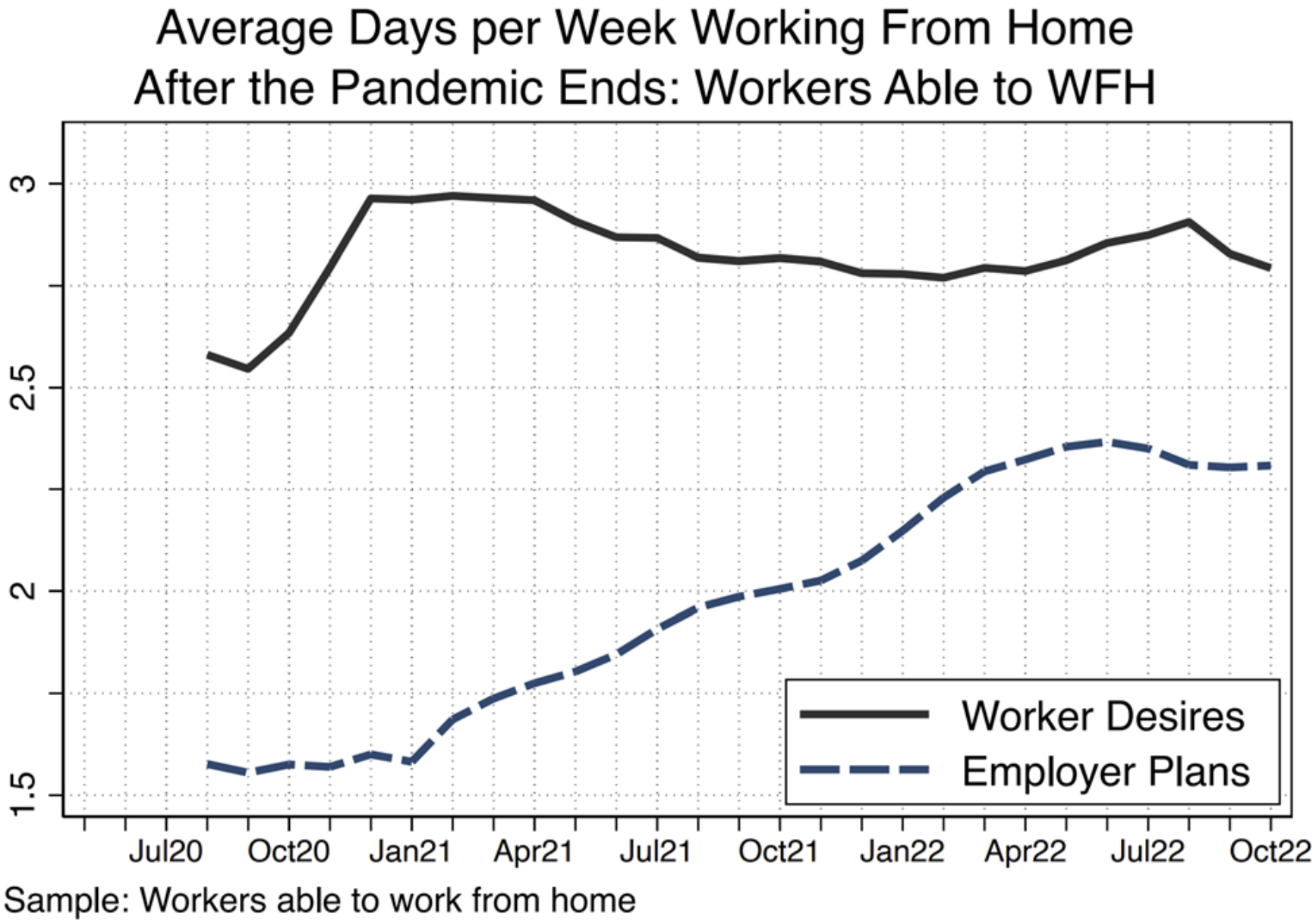
Streetcar:1,550 feet, four street crossings



Streetcar is a Poor Parking Shuttle

- For parking shuttles to work best, stops should be close to originations and destinations, street crossings minimized, service frequent, and hours long
- In our example, Mutual Midtown Parking Garage to Project Beacon (round trip):
  - ORBT: 1,875 feet walking, four street crossings
  - Proposed Streetcar: 3,300 feet walking, six street crossings
  - Dedicated parking shuttle bus: Much shorter, including door-to-door
- Streetcar is the slowest of the three in terms of travel time and has less service than ORBT
- Streetcar can only serve parking lots near the (approximately) 19 proposed stations – and it would be difficult, expensive, and time consuming to serve any parking not near one of the original stations
- Rubber-tire parking shuttles are very flexible and can be added or changed very quickly at minimal cost

The New Big Influence is Work-From-Home (WFH)



Just in Case You Think WFH Doesn't Applies to Omaha

- Project Beacon Tax Increment Financing Application, February 2022:
  - Page 4: Gross Office, SF (square feet) 800,000
  - Page 8: "Upon completion (of the new headquarters building), Mutual of Omaha will relocate approximately 4,000 employees to the downtown urban core." "The Project will be wholly occupied by Mutual of Omaha."
- Josh Funk, Associated Press, "New Offices For the Hybrid Era? Many Companies on Board:"
  - "Mutual of Omaha plans to build a glassy new headquarters in its namesake Nebraska city that could wind up as Omaha's tallest building." "But the insurance company says the plans for its new building reflect its commitment to flexible work. The company has 4,000 employees in the Omaha metro area but is planning a building that can only accommodate between 2,200 and 2,500 people on any given day,' Mutual spokesman Jim Nolan said." "'The only way that works is by embracing remote and hybrid work,' he said."
- For the landmark structure that is closely tied to the justification for the proposed Omaha streetcar:
  - The original plan was to have most or all of Mutual's approximately 4,000 Omaha metro area employees in its new 800,000 gross square foot headquarters building (an average of 200 gross square feet per employee, which is well within the normal range for such structures and businesses)
  - But now, the space need is only about 55-62.5% of these employees at any one time

What Are the Near-Term CBD Development Prospects

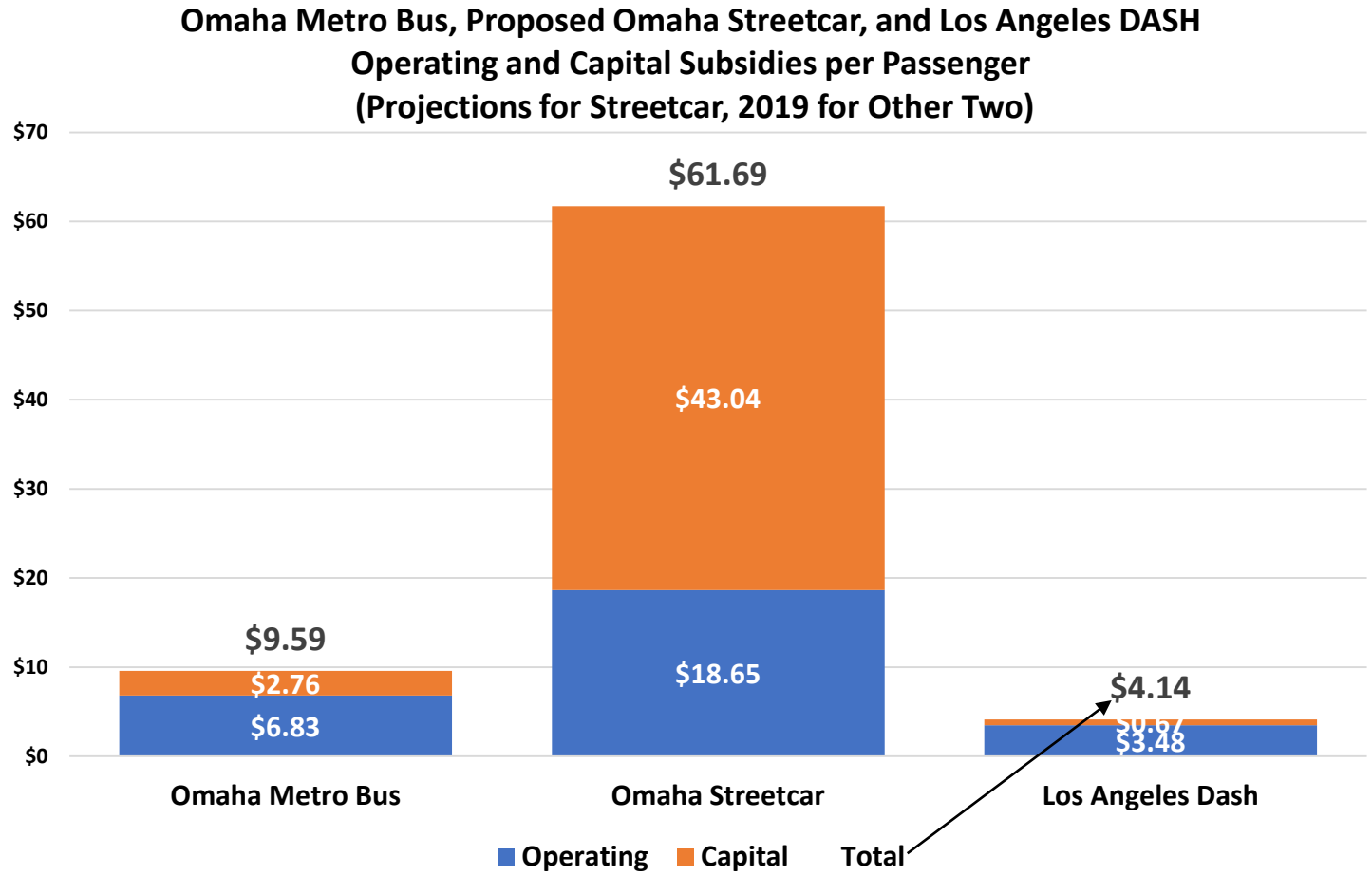
- Given the impacts of remote work, it may be a lot less of, where do we put all the new development than …
- How do existing landlords handle the downsizing and loss of existing clients
- Particularly with Mutual evidently putting ~200,000 new square feet of trophy-class commercial space on the market – and much more than that amount opening up when it leaves its old headquarters building
- If the anticipated significant new development in the streetcar corridor does not occur, or is less than what is assumed in the financial assumptions, this will have major implications on the ability of the proposed streetcar TIFs to provide the required financing

TRANSPORTATION ALTERNATIVES TO STREETCAR

- The logical – and well-proven – alternative to streetcar for a downtown distribution system is using smaller rubber-tire vehicles in a system of circulator buses – as has been used in hundreds of localities across the nation for decades
- Besides only requiring a small fraction of the initial capital investment, such systems are low risk and very scalable – rather than having to take years (or decades), and hundreds of millions of dollars, before there is any proof that it will work, circulator bus lines can be implemented in a few years at most, and can be started with contractors – and the contracts can be terminated if things don't work out as desired
- For the cost of a single streetcar line, several circulator bus lines can be placed in service – years earlier

A Good Alternative To Streetcar Is Often Small Buses

- On the left is a 25-foot, sixteen-seat, two-wheelchair bus operated by City of Lawrence Transit near the University of Kansas campus
- If you want to go for a historical theme, you can go for a replica trolley, designed to look like an old-fashioned streetcar (but with heating and air conditioning) -- this one is a (Contra Costa, CA) County Connection Gillig Replica Bus on a WAVE wireless charging pad at the Walnut Creek BART station
- New modern streetcars run about $2.5-5.5 million each, depending upon the specifications – these buses are about $250-900,000. The buses are smaller, and will generally last only about half as long as a streetcar (if that), but the cost per unit of capacity per year for a bus, vs. a streetcar, is well under half – and, since bus runs on the same roads that have been and will always be there, there is minimal new cost for tracks and other “in-ground” requirements.



- Data for Metro Bus and DASH are actual data; Omaha streetcar data are projections from data in available reports and peer system-based projections
- These require assumptions, which were made to make streetcar look ***better***
- BUT, if this calculation for streetcar is too high, and it is really "only" cost five times as much taxpayer money to carry a passenger than DASH, rather than 15 times – that makes a big difference in the decision?

A Comparison To the Los Angeles Subway BAD

- When I was the CFO of the Southern California Rapid Transit District in Los Angeles, I was the responsible executive for the Benefit Assessment District (BAD) financing that paid for the cost of subway stations using the same rationale as Omaha is using for the New Development and Existing Property TIFs – that these rail construction projects will increase the property values of nearby real estate and it is fair to ask the parcel owners to contribution to their construction

Comparison of Los Angeles Subway to Proposed Omaha Streetcar		
Characteristic	**Los Angeles Subway**	**Omaha Streetcar**
Length of Line	16.4 miles	3.1 miles
Train Consists	Six-Car Trains	One-Car Trains
Average Operating Speed	34 mph	10 mph
Peak Headway	Five Minutes	Ten Minutes
Weekday Ridership	298,000	940
BAD/TIF Debt Issuance	$161 Million	$356 Million

Los Angeles BAD Outcome

- Interestingly, the LA business community was so dissatisfied with being required to pay this charge that it went to Sacramento and got a bill passed that ensured that implementing a future BAD for transit improvements would be almost impossible
- If the LA property owners were that upset about paying for about half as much debt as their counterparts in Omaha are being asked to finance for a subway that:
  - Is over five times as long as the proposed streetcar
  - Would operate twelve times as many cars in peak hour (72 vs. six)
  - Operate at over three times the speed
  - Carry over three hundred times as many passengers

  One wonders how the property owners in Omaha might react

You Have a Very Serious Problem with Document Review

- Streetcar Redevelopment Agreement (June 28, 2022 City Council Agenda, Agenda Item 71, Ord. 42990): "Redevelopment Agreement Between The City of Omaha, Nebraska, And the Omaha Streetcar Authority," page 4, Section 1 – Definitions:

  K. "**Redevelopment Plan Area**" or "**Plan Area**" shall mean the area shown in the Redevelopment Plan as the Plan Area, along with the public streets and rights-of-way and any adjacent property contemplated by the Redevelopment Plan, all as depicted on Exhibit "C-1."

- The Redevelopment Plan Area, among other things, is the area subject to TIF allocations for funding the proposed streetcar. Exhibit C-1 is at right.
- The officially adopted Redevelopment Agreement omits all parcels East (to the top) of approximately 20th Street and several parcels South of approximately Woolworth Ave (right side) of the Redevelopment Area
- I do not know how this happened, but you may have opened up a legal action by any developer who wants to escape paying the TIF fees.
- I'll be happy to review with City staff the dozens of other errors and problems with both the Redevelopment Agreement and the Mututal Headquarters Building Redevelopment Agreement
- I suggest that you hire a contractor to review other documents and make changes to your review procedures before documents come to the Council