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Click [here](http://www.railmagazine.org) to watch Editor-in-Chief Scott Bogren and Editor Rich Sampson offer an overview of the feature articles and department pieces in this edition of RAIL.
Transit Has Record Ridership, People Are Driving Less, But Modal Share Declines. What Gives?

By Adron Hall

A common refrain among transit opponents is despite decades of investment in mobility options of all kinds, it has barely made a dent in the overall percentage of people who travel by automobile. Yet, advocates know that both Amtrak and America’s public transit systems have witnessed year after year of record ridership over the past decade. At the same time, numerous data suggest that Americans are driving less using any objective measure. So, how do we explain this paradox?

Here, Adron Hall – who dubs himself the Transit Sleuth – delves into this conundrum. While it focuses primarily on bicycle use in Portland, Ore., his explanation likewise applies to transit as we consider whether we’re looking at the right things in regards to modal split – ed.

Let’s talk numbers and the real world. I’m going to lay out a few things in this piece:

1) Why the way we measure auto versus cycling versus transit versus walking commutes in metropolitan areas is an absurd, myopic and broken way to set policy around roads and systems in which modes are used on those roadways.

2) Why the 6 percent bicycle commuting number is barely the tip of the iceberg of cycling in Portland.

3) Why measuring commutes for the entire metropolitan area is counter productive for the city of Portland the surrounding cities of Hillsboro, Gresham, Beaverton, Tigard, Milwaukie, and other places in the metro area.

#1 – Measuring The Commute for the Metropolitan Area

The way urban planners, traffic engineers, and others measure the daily commute is usually by modal splits. What that means is each mode is assigned the percentage of the trips taken with that particular mode.

Let me detail the current way this is measured with an example. There are 2,314,554 persons in the metropolitan area of Portland. At the current labor force participation rates in the Portland metropolitan area we can safely assume that about 50 percent of these persons would be commuting to work. That gives us about 1,157,277 persons traveling to a place of employment and back every day.

Based on the 1,157,277 daily commutes in the metropolitan area of Portland, at 6.1 percent the area has about 69,436 people cycling to work everyday. Just think about that for a minute, that’s a sizable number of people bicycling. But is this an honest measurement of Portland commuting as a city? Does the metropolitan area really represent the city? Does that 69k+ people represent cyclists in Portland?


Let’s dive in on what exactly the metropolitan area actually is, then we can look at how ridiculous this measurement really is. Here’s a map of the metropolitan area of Portland.

Do you see how big that red area is? That is the metropolitan area of Portland. Does this strike you as a bit odd? Based on what is included in that area, the 6 percent measurement is absolutely amazing. It’s super impressive when the area is, by a huge order, com-
pletely suburban and rural areas that happen to all fit inside of this giant metropolitan area. Wikipedia even has a completely stand alone page dedicated to Portland’s metropolitan area (as it does many other metropolitan areas). This is the normal area that many statistics are derived for policy and decision making at federal, state, county (parish), city and even at the neighborhood level sometimes.

The metropolitan area of Portland includes:

- Vancouver, Wash. @ 161,791 people
- Gresham, Ore. @ 105,594 people
- Hillsboro, Ore. @ 91,611 people
- Beaverton, Ore. @ 89,803 people
...and many others.

The 6% number is completely irrelevant, as are any modal splits, based on the metropolitan statistics for each of these cities. Including the city of Portland itself at 609,451 people. So why do we measure at the metropolitan level and then attempt to make quotes and other speculations or even decisions for our city this way? It’s a valid question considering how often many of the cities surrounding Portland and Portland itself make decisions based on these metropolitan measurements.

There is some use of these statistics that are valid, but time and again they’re brought up to say “the majority of people drive” and “nobody rides bikes” and “barely anybody walks” when that might be true for some auto-dependent neighborhood in Vancouver, Wash., but it is absolutely not true for the actual city of Portland. So why hold Portland to the condemnation of the metropolitan area’s statistics? It comes up all the time, people making pro- or anti-biking arguments based on the 6 percent number. Sometimes people even compare the 6 percent metropolitan number to the plan to get 25 percent mode share in Portland (the city) by 2030. Who’s kidding who, we aren’t getting anything positive out of the suburbs in this regard, they’re going to still be in their cars by the time Portland gets to 25 percent mode split.

One last reason to toss this whole metropolitan area focus, especially for the 6 percent cycling mode split, or the 81 percent automobile mode split, or whatever number you’re
comparing. Let’s get down to the business of the actual communities. Portland is not Gresham, Gresham is not Vancouver. They each have different metrics. But the city of Portland itself has a bicycling mode split for transit that is huge and one for cycling that is also much higher than the metropolitan area. The city of Portland also has a minority use of single occupancy vehicle trips. This might be painful, but give this report and good review. Yup, that’s 43.9 percent auto use for trips in the CBD. CBD stands for central business district. That’s down from 58.4 percent in 1994, a pretty damn good improvement. In the CBD transit usage is at 44.5 percent of trips, up from 33.6 percent in 1994. These are the types of numbers we actually need to look at to determine goals, not the misleading data of the metropolitan numbers.

#2 – Tip of the Iceberg of Bicycle Usage

I’ve talked about the absurdity of following metropolitan numbers in determining policy in Portland, now I’m going to take a stab at this 6 percent nonsense. The number is great for the metropolitan area, like I was saying, that’s an impressive achievement when you factor in the car-oriented areas where some of the riders come from. As anyone who rides regularly knows, a bike lane right beside 30 mph-plus traffic is tantamount to insanity. There is zero comfort when you know one motorist distracted by their cell phone swerves a little and your life is over. The vast majority of our roads and ways to get into and out of the city of Portland area are still these types of roads. There are very few dedicated paths or cycle-tracks that would encourage the mythic 60 percent interested population to jump on a bike and ride into town. Albeit among all of this frustration with the current 6 percent number being stagnant for several years now, there are a few trends that lead me to believe that this 6 percent isn’t all it’s cracked up to be. Here’s my list of why the 6 percent number is illegitimate at this point:

The first reason, goes back to the first thing I wrote about in this blog article – metropolitan numbers aren’t representative of the area we’re trying to measure, which notable is the city of Portland, not the metropolitan area. So let’s measure Portland, not Gresham and Hillsboro and the other areas. PBOT and the city have almost zero net impact on how those cities determine and act to improve cycling, so we really should focus more specifically on Portland’s numbers instead of the averaged
The simple observation is this. Something is happening within the biking movement in Portland, and it isn’t a decreasing bike share of commuters. There is instead a ground swell of advocacy, an increasing frustration with the speed infrastructure is being built and the kind, and there is a growing love of biking among many in the city. They may not be bike commuters yet, but there is a huge percentage of people out there biking in other ways, and the simple fact is we aren’t measuring them, even though they should indeed count!

#3 – Why measuring commutes is … not a good measurement!

I’ll dive straight into these reasons.

Commuting makes up a trip to work and a trip from work. That’s it, two trips. The average household makes 9 trips per day. Why is the measurement we use that dictates the vast majority of transportation policy dictated off of trips that only make up 2 our of 9 trips a day for a household? Fortunately in many cities, local entities take it upon themselves to determine what these other trips are and focus on them instead of just commutes. However much of US policy at a federal, state, and even many cities, is entirely focused on commutes first.

Commutes leave out everybody that’s not in the workforce, which in the Portland metro is hundreds of thousands of people, and even in the city limits of Portland itself is over a hundred thousand people. That means transportation policy dictated by commuting data leaves out an absolutely massive percentage of people. Are you a stay at home mom? Generally not included. How about a student in school? You’re not really included either. How about a retired person or someone looking for a job? Nope, you’re out too. That’s just absurd.

The ideal commute is not having a commute. We as a society often encourage remote worker situations, which completely removes someone from commuting. However a remote worker still makes the average number of trips based on household data. This means we’re pushing for people to work from home, remove themselves from the commute, but ideally we’d shift away from the daily commute dogma altogether. So why do we use it as the core policy planning and decision-making metric? If anything, we should take hold of the data from the other trips and work with that data, the seven instead of the two. One might say it’s because everybody commutes and it is the easiest and most problematic event of the day – being that it causes rush hour. But really, think about that for a minute and why do we still encourage rush hour with such zeal and gusto? If there’s a problem with the game, maybe we need to change the game!

**Summary**

Data is a fickle thing. There’s a reason the saying, “lies, damned lies, and statistics” exists. Numbers and data can be used to derive solid, intelligent, and wisely-built solutions to problems. But they can also be used to do the exact opposite. When we discuss things, we need to form real stories and cast out the absurd misinformation that is spread around by using single metrics. Stories need told with multiple measures identifying the full point of view of individuals in society. A single metric never produces an intelligent and well structured system of solutions, it just leaves us behind.

I’d like to see us move forward more in the United States. Understanding the systemic nature of measurements (the [Research Center OHAS 2011 summary](http://www.railmagazine.org) is a good starting point) and how they interact and work together will help us actually do that.
Bad Public Policy Hits Transit Riders The Hardest

By Christopher Hume

In many North American communities, transit systems — and, more importantly, the people who use them — are caught in a seemingly unending trap between need for greater investment and limited budgetary resources. This example in Toronto — as explained by the Toronto Star columnist Christopher Hume on January 22, 2015 — plays out nearly the same in places ranging from Washington, D.C. to Omaha, Neb., as it does in Toronto: there’s often public support from the mayor or a council member, but no real change in investment at the end of the day. Transit agencies — especially those operating at peak efficiency — have little choice but to work with the budgets they’re given. Hume gives voice to those who have little stay over the decisions that impact them — ed.

Transit users are an easy hit when governments need money. They are a safe target. Those affected may grumble when fares go up yet again, but mostly they suffer in silence. Besides, what choice do they have?

That’s why the cost of riding transit in Toronto is among the highest in the world. That’s also why the recent Toronto Transit Commission (TTC) fare hike only adds insult to injury, even moreso given the often mediocre service the commission provides.

When Mayor John Tory decided to break his promise not to raise fares, it was, he explained, because the previous administration had starved the TTC. That’s clearly true, but Tory’s solution is to demand the hungry make do by eating themselves.

The TTC already covers more of its costs through fares — upwards of 70 percent — than just about any transit system around. In other words, if it’s starving it’s because governments — in this case, municipal and provincial — do less to support public transit than just about any other jurisdiction in the world.

For example, the providence of Ontario once covered half the TTC’s operating costs. That ended in 1996 under former premier Mike Harris, who believed paying down the provincial deficit more important than providing adequate transit in Canada’s largest city.

Through it all, the federal government has been asleep at the switch. It helps out when political friends are involved, as was the case when late finance minister Jim Flaherty came to the aid of former mayor Rob Ford and his Scarborough subway.

In other words, transit is starving because governments allow it to starve. As a result of countless decisions made over the course of decades, we have a transit system that wouldn’t pass muster in an impoverished second-rung city in South America.

Tory is another in a long line of leaders who lack the capacity or imagination to figure any other way to fund transit than through fares. They cannot grasp the idea that transit deserves a bigger slice of the existing revenue pie; to them, others things — like keeping taxes low — are more important. So instead, they raise fares. If the system needs cash, make users pay.

Yet if a similar user-pay approach were implemented, say, in the case of vehicular traffic, we’d hear no end of it. The drivers’ basic argument is that they already own the roads and cover their costs through the taxes
they pay, thank you very much.

Transit, on the other hand, is not their concern. It belongs to someone else, namely those who use it, a large but discrete portion of the population that takes up too much room on the roads as it is and which belongs underground, where they and their subways are out of the way.

Tory would rather pluck out his own eyes than suggest, let alone implement, road tolls, congestion fees, parking levies or some sort of user-pay arrangement for drivers. Though his overriding concern is congestion, his underlying assumption is that, as important as transit may be, the car is essential.

Transit is great. No one approves more than Tory. But neither he nor his allies confuse public transit with the private automobile. The former is optional; the latter fundamental.

This sort of thinking is woefully outdated, but who cares? Toronto’s faith that all will be well on that happy day when congestion is eliminated may be pure fantasy, but it’s enough to keep us warm and smug even on the coldest winter’s day.
Guess The Station

While the rails that once led to this well-maintained station are long gone, it's lost none of its prairie-style charm. A number of states have communities that share this small city’s name. None, however, have as nicely-preserved piece of American history as this one.

Photos by Rich Sampson
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View the latest developments in passenger rail updated daily. Check back often for articles and analysis selected by RAIL Magazine’s editorial staff.

Here’s some of our most recent Tweets from The High Ball
Now Arriving...

**THE POTOMAC EXPRESS**

RAIL Magazine Editor Rich Sampson continues his Potomac Express blog. This venue bridges the gaps between our quarterly editions of RAIL and our electronic newsletter, Fast Mail for RAIL. Since this is a blog, the Potomac Express is presented in a less formal style and includes postings as news and developments occur in the passenger rail industry, or simply when there’s an idea to share or concept to discuss. This means sometimes there may be several posts in a week, and in other weeks, none. Some will be more substantive, and others more brief. Visit the Potomac Express at potomacexpress.blogspot.com.

In all, the Potomac Express represents another means to get you the latest happenings, trends and ideas in passenger rail, while also offering a new interactive medium for you to share your reactions and connect with other passenger rail leaders, experts, advocates and observers. As always, feel free to contact Rich at sampson@ctaa.org if you’d like to spread the word on any interesting news, resources or events.
Atlanta Marks New Era With Streetcar Opening

Just short of 15 years after the Metropolitan Atlanta Rapid Transit Authority (MARTA) opened its last extension to Sandy Springs, the Atlanta Streetcar inaugurated a new era in the city’s transit history with the debut of its 2.7-mile line on Dec. 30, 2014.

The route utilizes four Siemens S70 vehicles to serve the route’s 12 stations linking Centennial Olympic Park, downtown Atlanta and the Sweet Auburn historic and King Memorial historic districts. The streetcar connects with MARTA’s Red and Gold lines at the Peachtree Center station. More than 51,000 riders boarded the streetcar during its first full month of service.

On Feb. 4, Atlanta Mayor Kasim Reed announced plans for a .75 mile expansion of the system to connect with the city’s BeltLine, a collection of abandoned freight rail lines that is ultimately expected to host a 22-mile streetcar and light-rail loop through the city, as well as parks and pedestrian/biking trails already in place.

“It would be hard for me to be any happier than I am right now.” Reed on opening day.

“I’m really appreciative of President Obama for helping to make this possible through a $47.6 million grant. I think when people ride it they’re going to feel like it’s a very cool, efficient, and environmentally sensitive way to get around the City of Atlanta.”

(For more information on the Atlanta Streetcar, see “Engaging Atlanta’s History Via Streetcars” in our companion publication, DigitalCT – ed)

ARTIC: Orange County’s New Transit Center

Adding a new asset to Southern California’s burgeoning passenger rail network Orange County recently opened the Anaheim Regional Transportation Intermodal Center (ARTIC). The facility is the largest entirely new passenger rail station built in the United States since Amtrak opened its Albany-Rensselaer, N.Y., station in 2002.
Twenty years of planning and 188 million dollars made this 67,000-square-foot station a hub not just for Amtrak’s Surfliner and Metrolink commuter trains, buses, bicycles and more than 1,000 parking spaces, but also for commercial activity with two restaurants, retail space, and close proximity to popular amusement park DisneyLand, as well as the Honda Center and Angel Stadium.

Orange County officials plan for the transportation center to be the final destination of California’s proposed high-speed rail network, in addition to a stop on the planned countywide lightrail route, the creation of which is currently postponed.

“It’s planned to be a part of a vibrant community that’s going to grow up around it for a long time.” Curt Pringle, the former mayor of Anaheim and once board chairman of the California High-Speed Rail Authority told Emily Foxhall of the Los Angeles Times.

(For more information on Los Angeles’ Metrolink, see RAIL #4 and on California’s intercity rail network, see “California’s Railroad” in RAIL #11 – ed)

New Hampshire Study Recommends Rail Service to Nashua, Manchester

The results of a two-year study commissioned by the State of New Hampshire Department of Transportation recommends extending the existing Massachusetts Bay Transportation Authority (MBTA) commuter rail line from Lowell, Mass., through Nashua to Manchester, attracting 3,120 daily riders and creating 5,600 new jobs. The study also considered extending the route only to Nashua (2,000 riders and 1,200 jobs), as well as a more intercity-focused option to Concord and a bus-only shoulder lane on Interstate 94.

Daily rail service last operated on New Hampshire’s most densely-populated corridor in 1967. Capital costs for the extension to Manchester are estimated at $246 million, which likely would be derived from a mix of
federal, state and local funding, while annual operating expenses are pegged at $10.8 million. The MBTA already operates interstate commuter rail service under contract to Rhode Island.

“Improving access to the entire region and providing types of new transportation and housing opportunities that 21st century workers and families desire, rail will help keep more of our young people right here in the Granite State and spark economic growth for decades to come,” Governor Maggie Hassan said in a statement.

**Iowa Plans Passenger Rail to Chicago**

In December 2014, the Federal Rail Administration cleared the Iowa Department of Transportation to start the preliminary engineering and environmental assessment for the planned Amtrak route connecting Iowa City to Chicago.

Federal money will fund 80 percent of the project, while state and local money will cover the remaining 20 percent. Still, the deal between the FRA and IDOT only accounts for $53 million of the $72 million needed for Phase Two of the project, which will be completed by mid 2016.

“Most likely what we’re talking about is infrastructure dollars in different funds that could be appropriated to that,” Iowa State Senator and head of the Transportation Committee Tod Bowman told The Daily Iowan. “It would take the government and Legislature to work together to get it brewing.”

Construction has not yet begun, but once the route is running it will improve the Iowa City economy by bringing in customers from Chicago, and make travel between the two states safer during the winter months where snow and ice make driving difficult and dangerous.

*(For more information on Iowa’s rail legacy, see RAIL #14 – ed)*

**Austin, San Marcos Approve Operating Revenue Sources for Lone Star Rail**

The Lone Star Rail District was created in 2003 to solve the transpiration problems of central Texas, such as traffic congestion on Interstate 35. Now, in 2014, the group finally got their chance to address a gridlocked region when the Austin and San Marcos City Council approved their plan to build and operate a regional passenger rail line.

“This was a really big deal for us,” Lone Star Rail District Manager Joe Black told Eleanor Beck of KVUE. “We’ll be serving counties all the way from Williamson County to Bexar County.”

The project will need $1.8 billion in federal, state and local funding, some of which will derive from property taxes in the areas surrounding its stops. In order to move forward with the plan, Lone Star Rail will have to get approval from the counties, cities and communities that the route would serve, as well as approval from Union Pacific to use the tracks.

Receiving this approval is Lone Star Rail District’s goal for 2015. If not met by 2017, the Austin City Council may rescind its approval of the project.

**Will Franklin Square Reopen (Again)?**

Franklin Square Station in Philadelphia, Pa.,
originally opened in 1936 and was closed due to low ridership four times in a 40-year period that ended in 1976. The station was originally built by the Philadelphia Transportation Company as part of its route across the Delaware River Bridge to serve Camden, N.J. The Delaware River Port Authority (DRPA) acquired the route in 1968 in advance of the PATCO Speedline, which opened a year later.

Now, the DRPA is considering reopening the historic station for the fifth time after 35 years, allocating $500,000 to inspect the PATCO station to see its current condition and if it would be worth the $12 million projected cost to reopen.

“A revised cost estimate and a ridership study should be complete in the coming weeks,” Chief Engineer Mike Venuto told the Associated Press.

Oklahoma City and Tulsa to be Linked by Eastern Flyer.

In Spring 2015, a private passenger rail service, The Eastern Flyer, will cross the state of Oklahoma to connect its second largest city, Tulsa, with its capital, Oklahoma City.

The service is made possible by the acquisition of the Sooner Sub rail line by the short-line railroad, Stillwater Central from the state of Oklahoma last year. Iowa Pacific will lease the 98-mile line from the Stillwater Central to operate two daily roundtrips.

Though its current route map ends before it reaches the downtowns of either city, officials in both communities hope it will eventually extend into the downtown region.

“It will be a deterrent to a long-term success to not have it reach downtown,” Councilman Pete White told the Oklahoma Gazette. “There are solutions on this end to at least bring the train into Bricktown.”

Iowa Pacific and Stillwater Central previously collaborated to operate demonstration Eastern Flyer demonstration trips in early 2014. Iowa Pacific owns or operates scheduled and excursion passenger rail services on nine routes in the United States and the United Kingdom, including multiple daily roundtrips on the Saratoga & North Creek Railroad in upstate New York.

Amtrak’s Vermonter Changes Route; New Pioneer Valley Commuter Rail Moves Closer

On Dec. 29, 2014, Amtrak’s Vermonter route passenger rail route shifted to a new route through western Massachusetts, serving new stations in Holyoke, Northampton, and Greenfield. The updated routing allows the Vermonter to avoid a time-consuming back-up move in Palmer, Mass., shaving 25 minutes of travel time. Improvements to Pan Am Railways’ Connecticut River Line – which the train last used in 1987 due to deteriorating track conditions – were made possible with a $73 million federal investment through the American Recovery and Reinvestment Act (ARRA) of 2009 along with $10 million from Massachusetts.

Meanwhile, Springfield, Mass.’ Union Station is expected to complete an ongoing $82 million renovation in 2016, coinciding with a new commuter rail service between Springfield, Hartford and New Haven. The new
Soil Samples First Step for Massachusetts’ South Coast Rail Project

A project to extend commuter rail service from Boston to New Bedford and Fall River, as well as through Freetown, Lakeville, Berkley, Easton, Taunton and Raynham has begun. “We anticipate being at about 15 percent design by July 1,” MBTA Deputy Press Secretary Kelly Smith told The Enterprise.

Collecting soil samples from Easton, Lakeville, Raynham and Taunton to determine environmental factors that may affect the project marked the completion of the plan’s first step. The stretch of track through Easton will have to run underground so as not to disrupt the city’s historic downtown Main Street.

Construction for the project is on hold for the winter and will resume in March.

Mesa Prepares for Light Rail’s Full Impact

Although Valley Metro – the Phoenix region’s public transit network – brought its light-rail line to the western edge of Mesa in 2008, the city will more fully realize light rail as part of its identity with the system’s first extension set to open this spring. As Arizona’s third-largest city, local officials, business leaders and citizens are excited about the impact the service will have in the continued revitalization of Mesa’s downtown district.

“It’s this beautiful downtown that has incredible potential,” said David Crummey of the rail advocacy group RAILmesa. “I fell in love with it. And there’s a lot of people who live and work downtown who are investing time and money here because they fell in love, too.”

The 3.1-mile extension will add 4 new stations to the existing 20-mile, 28-station route. The system currently carries more than 45,000 daily riders and will open its second extension to the Northwest Valley in early 2015.
How to Realize Passenger Rail’s Potential

This edition of RAIL Magazine is unlike any of the previous 36 issues we’ve published. Rather than a look at the nuances of individual passenger rail services and projects or the exact policy and legislative mechanisms that frame how rail systems are built and maintained, we’re taking a broader look at some of the philosophic and cultural issues at play as a rail service is proposed, planned, designed, built and operated. These concepts are described in our collection of infographics beginning on page 41. Dr. Laura Hartman’s look at the moral and ethical constructs that underpin notions of complete streets and livable communities, our own discussion of the shifting role high-quality transit service plays in building vibrant places and Rip Rapson’s case study of the many dynamics in making Detroit’s M-1 Rail project a reality. In combination, these think pieces are intended to refocus the way we discuss and determine passenger rail priorities along the following key concepts:

1. Perspective – To many, the process of initiating a high-capacity transit service is relatively straightforward: decide what you want to do, obtain the necessary funding, build it and operate it. Of course, such a summation is over simplistic. Important cultural, economic and historical dynamics are at work in any single community, neighborhood or district, let alone the combination of communities that are connected by a rail project. There is no magic wand that just resolves these concerns quickly to the complete satisfaction of all involved. Rapson’s account of the numerous issues addressed by backers of the M-1 Rail project underscores the importance of a sustained outreach effort that seeks to understand and respond to community concerns and is perhaps the most essential element in any initiative’s timeline. It also helps to illustrate one of this industry’s most vexing challenges: why passenger rail projects cost so much, a topic we explored at length in RAIL #33. It simply takes a lot of time and energy to bring people together around a common goal. And nearly always time is measured in money.

2. Building Place – Another misconception of rail and transit projects is their purpose is solely to move people. That viewpoint confuses objectives with tactics. Stepping back, transit and rail – like any public program or effort – ranging from education to trash collection – is to strengthen communities and allow people to live more productive, enjoyable lives. For a rail or transit project, this means its ability to produce the conditions a given community determines essential to its identity or its sense of place – those things that make it unique, inviting and lasting. Dr. Hartman’s piece on justice, hospitality and power outlines the prerequisites necessary to ensure those community values are achieved.

Nonetheless, we would do well to remember that as inclusive and responsive a planning process might be to these concerns, there’s a larger apparatus of zoning and development decision-making to which even the most well-intentioned transportation leaders are denied access. Monumental public decisions on the locations of new commercial zones, medical facilities, housing developments, educational institutions and even military bases are usually made behind closed doors and with little consideration to how they impact existing communities and long-term mobility needs. Meanwhile, the determinations on land-use impact the direction of the places we live and work, other actors usually responsible for incentivizing behaviors and habits that make sustainable communities more difficult to achieve. Employee tax benefits prioritize easy auto commuting at the expense of affordable transit fares and wage and income policies perpetuate the spatial mismatch between jobs and housing. These are but two examples of systemic, societal problems that take much more than a great bus or train line to overcome. Those overseeing any kind of new infrastructure only have so much control
over what happens beyond the boundaries of their corridor or right-of-way, and often, too much blame is assigned by commentators to entities and leaders when dealing with forces beyond their jurisdiction or influence. You can’t fix bad public policy with transit.

Community Priorities – One of the foundational principles of this magazine from its inception was to tell the story of the American passenger rail renaissance using a different vocabulary. Instead of talking about what kind of locomotive is pulling a train, we talk about the impact of a train station on nearby land use. Rather than focusing on the nuances of bridges and trestles, RAIL looks at a corridor’s impact on job creation. We’ve maintained that focus because it’s very easy to get caught in the weeds of how a rail line operates rather than the results it achieves for the communities it serves. While detail-oriented experts are vital to making the trains run on-time in the real world, transit advocates must position new projects through the ways they will benefit people, whether they’ll ultimately use the new service or not. Our infographics section is infused with examples well-devised communications campaigns that explain what a rail or bus route will achieve, not how it will operate.

Modal Balance – So much of the dialogue on how rail transit projects fit within communities is tied to the precise mode being considered. And, to be sure, there are very real differences between these types of service that produce different cost factors and operational outcomes. These differences deserve open and honest assessments as part of the decision-making process. But there also seems to be very hostile lines of division between advocates of different modes, generating points of opposition that detractors of transit investment altogether use to turn public opinion against a project of any kind. When seeking communities with a strong sense of place and connections between such communities, balance is needed. A large rail transit network works best when accompanied by a robust system of frequent fixed-route bus service. Similarly, Bus Rapid Transit can set the stage for streetcar or light-rail service later or on a different corridor. This notion is at the heart of our exploration of dedicated transit infrastructure. Modes that are seen as complementary and not competitive with each other are the key to building lasting support for sustainable transit investment.

Making the Case for Investment – It’s easy to proclaim the need for balance between modes and a spirit of place-making in theoretical terms, but it’s no secret there’s a debilitating lack of long-term, dedicated investment streams for all kinds of transit at all levels of government. This reality means that communities have to make hard choices between a host of desperately-needed projects and also achieving the right balance between maintaining existing service levels through maintenance and overall while also preparing for the needs of the future with new or expanded options. It goes without saying that the public needs to put pressure on elected officials at the federal, state, regional and local levels to deliver adequate and predictable levels of investment, but it’s also incumbent on transit advocates to help identify new and creative funding mechanisms, such as the New Markets Tax Credits that were crucial in keeping Detroit’s M-1 Rail moving forward.
To any interested observer of the North American passenger rail renaissance, recent years have directed the passenger rail industry towards a frustrating and seemingly unsolvable paradox: more people than ever are taking advantage of rail and transit options to get where they need to go. Ridership numbers – from Amtrak to streetcars – bear this out. And yet, taking a passenger rail project from vision to reality has never seemed more difficult. Both Rail Yard pieces in this issue make this struggle plain.

Overcoming the inertia of political stalemates and conflicting community priorities, passenger rail advocates, leaders and planners need to make better and more consistent arguments. The next 19 pages of this magazine help make the case through data, charts and infographics. Reflecting the priorities for realizing passenger rail’s potential in our commentary section, we’ve organized these arguments into five topics:

1. Perspective
2. Building Place
3. Community Priorities
4. Modal Balance
5. Making the Case for Investment

It is our hope that this data set, the most expansive and detailed we’ve ever put together, will provide a road map – or, more appropriately, a rail map – for our readers to future opportunities and encourage community and public transit leaders and advocates to think differently. We encourage rail advocates and community leaders to use these visually appealing representations of complex ideas to make the case for mobility efforts they are championing. In many ways, this collected data shows that passenger rail has emerged from an era where its very existence was often questioned, to one where the key question becomes, what do you want to be?
Topic 1: Perspective

Rail Transit States

Left: 16 states currently do not offer rail transit service, which impacts federal transit investment sources for transit capital programs.

Right: Bus and demand-response trips remain the majority of transit trips in the US everyday, with varying forms of rail — subways (heavy rail), commuter rail and light rail combining for about 48 percent of total transit trips.

Percentage of Transit Trips By Mode

Below Left: Wide disparities exist between transit modes in the cost of providing a single trip.

Below Right: All transit modes are experiencing consistent growth in recent years, especially vanpooling and light rail.
How intercity passenger rail and rail transit got where it is today is difficult to summarize quickly. The graphic below contrasts the different paths high-speed rail has taken in the rest of the world versus the U.S.
Topic 1: Perspective

The chart at top right depicts the corporate genealogies that have led to the modern freight rail carries we know today, which oversees much of the network over which Amtrak operates today.

Source: Will Wyss
Although the number of streetcar systems in the U.S. is growing rapidly, the relative size of those systems are still small, especially in comparison to the largest such network in the Western Hemisphere: Toronto.
Transportation planners and engineers are increasingly designing travel networks to accommodate all types of users. This is also known as the “Complete Streets” approach.

Source: AARP
Topic 2: Building Place

Just as communities are comprised of diverse households with varying needs, the housing stock of a community should also provide an array of affordable and accessible housing options for people as they age.

Source: AARP
Commentators on transit projects, urbanism, smart growth and any other number of associated topics – both advocates and opponents – tend to discuss transit-oriented development (TOD) as if it’s a thing – a monolithic product that’s the same everywhere it’s deployed. In fact, as the Institute for Transportation & Development Policy (ITDP) points out in these graphics and its Principles for Transport in Urban Life on the following page, TOD is a strategy comprised by a collection of elements that a given community can tailor to fit its needs and identity.

**shift**
Adequate parking fees and a reduction in the overall supply of parking create incentives for the use of public transport, walking, and cycling.
- Replace minimum off-street parking requirements with parking maximums.
- Reduce the space used for motor vehicle traffic and parking to no more than 25 per cent of the total land area.
- Price on-street parking to manage demand.

**densify**
Intensification of residential and commercial uses around high-capacity rapid transit stations helps ensure that all residents and workers have access to high-quality public transport.
- Plan developments with a plot-level density of at least 25 dwelling units per hectare.
- Create high densities within a 3-minute walk of a high-capacity transit stop.

**mix**
A diverse mix of residential and non-residential land uses reduces the need to travel and ensures activation of public spaces at all hours.
- Ensure diversity through a variety of built forms.
- Provide a horizontal and vertical mix of uses.
- Ensure at least 50 per cent of residential floor area for affordable units.

**compact**
Redevelopment of existing urban fabric helps ensure that residents can live close to jobs, schools, services and other destinations, resulting in reduced travel times and emissions.
- Centre new developments around high-capacity rapid transit.
- Maintain commute times to employment centres at a maximum of 30 minutes by public transport.
- Reduce single-use office spaces and increase density.

**walk**
High quality, unobstructed pedestrian biotours provide basic mobility for all, disconnect, land-use elements, and active building edges transform walkways into vibrant public spaces.
- Leave at least 25 per cent of street space for non-motorized users accessible to all.
- Create continuous, physically segregated bicycle routes in areas where motor vehicle traffic is higher than their pedestrian.
- Two-speed traffic crossings to reduce motor vehicle speeds.

**cycle**
Street design ensures safety for cyclists by reducing roadway speeds or creating separate bike routes, greenways, dedicated paths, and other facilities. Adequate shielding elements, smooth surfaces, and secure cycle parking are essential.

**connect**
A dense network of walking and cycling routes results in short, well-connected, and direct connections that improve access to goods, services, and public transport.
- Reduce the size of the building footprint to no more than 50 per cent.
- Provide on-street connections that improve access to goods, services, and public transport.
- Improve bus service frequencies by including protected bus stops and bike lanes.

**public transport**
Frequent, fast, and reliable high-capacity rapid transit reduces dependence on personal motor vehicles.
- Create a high-quality network of rapid transit lines to ensure that the majority of the population has access to high-quality public transport.

**ITDP**
Institute for Transportation & Development Policy

Source: ITDP

Topic 2: Building Place
Principles for Transport in Urban Life: Better Together

Successful sustainable cities in the twenty-first century will prioritize people by integrating transport and urban development. Making this happen means putting the Our Cities Ourselves principles into practice to create vibrant, low-carbon cities where people want to live and work.

The Our Cities Ourselves principles show how the future of transport in urban life lies in reinforcing the complementary nature of sustainable urban transport and urban development. In the face of rapid urbanization and climate change, the future of transport in urban life will depend not only on these principles, but how they work together.

Compact
In a compact city, activities are located closer to one another, requiring less time and energy to connect. When all the principles are applied collectively, a thriving compact city is created.

Densify
By building up instead of out, cities absorb urban growth in a more compact way. Density supports a lively mix of activities and better transport services, but also requires that the transport systems can handle the increase in people.

Transit
Public transit connects and integrates more distant parts of the city. Transit corridors are the natural places where densification should begin. High-quality transit is critical to create a prosperous and equitable city that is easily accessible by all.

Connect
A city needs a tight network of streets and paths for pedestrians and cyclists as well as public transit. Creating highly permeable places allows for a variety of mobility options that make trips more direct.

Mix
A connected city becomes more animated when there is a mix of activities along the streets and paths. Different uses encourage shorter trips and more lively neighborhoods.

Cycle
Like mixed uses, cycling aktivates streets and provides people with an efficient and convenient way to travel for medium distances. Cycling increases a person’s access to a larger area, as well as increases the coverage of transit.

Shift
With the above principles in place, getting people out of their cars becomes easier but not enough. Pricing and traffic reduction tools encourage people to shift away from cars.

Walk
When all the principles come together, the results are most keenly felt by the pedestrian. Vibrant, active streets where people feel safe are fundamental to the successful twenty-first century city.

Source: ITDP
Transit agencies and observers do good work in detailing the direct impact of their service in terms of number of trips taken, the cost per ride and speed of travel. However, there are greater benefits to communities and society from robust mobility options for which transit receives too little credit. These complementary infographics from the advocacy group Transportation for Michigan (which has an even greater collection of graphics on its Facebook page) and The Atlantic’s CityLab blog attempt to chronicle some of these big picture transit-related outcomes.
The need for mobility options cuts across many aspects of society. As this map-style graphic from TransFORM KC demonstrates, transit service can impact public health, the environment and economies in profound ways.
Topic 3: Community Priorities

While local transit networks and regional planning efforts usually come to mind for concise, easy-to-understand infographics on the benefits of passenger rail, the intercity and high-speed rail arena also includes several good examples – including those promoting Amtrak’s Pacific Surfliner service (right), high-speed rail vehicle manufacturer Alstom promoting their trainsets’ low CO2 emissions (below) and the outcomes of the planned HS2 project in the United Kingdom (far below).
The most certain advantages passenger rail offers are its capacity, with one trainset moving people on a scale greater than any other mode while consuming less energy to do so as requiring fewer vehicle operators. These charts reflect the scope of rail transit's impact on moving large numbers of people.
No one transit mode perfectly checks every box in a community's checklist of attributes. Some are better at moving large numbers of riders in a rapid fashion. Others produce a greater impact on neighborhood or district place-making.
Topic 4: Modal Balance

The selection of a mode must be based on the priorities established in the planning and outreach process, with the benefits and limitations of each option clearly presented, as this set of infographics produced by transit advocates in Ottawa demonstrates.
The Highway Trust Fund cannot keep pace with growing demand from both the highway and transit programs. The current federal fuel tax level (18.4 cents per gallon), which has not been raised since 1993, is not enough. This is the key impediment to reauthorizing federal transportation legislation.
Successful State Plans to Raise Additional Transportation Revenues

Americans will vote to tax themselves — or to continue to tax themselves — in sufficient numbers to support community and public transportation programs.

Transit is Winning With Voters

<table>
<thead>
<tr>
<th>Year</th>
<th>#Measures</th>
<th>#States</th>
<th>Rate of Passage</th>
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<tr>
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<td>64</td>
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<tr>
<td>2012</td>
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<td>17</td>
<td>79%</td>
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<td>2013</td>
<td>15</td>
<td>8</td>
<td>73%</td>
</tr>
<tr>
<td>2014</td>
<td>59</td>
<td>18</td>
<td>71%</td>
</tr>
</tbody>
</table>

Source: Center for Transit Excellence

Increasingly, states are looking to invest in surface transportation infrastructure — including transit — as federal investment remains stagnant. State and local investment in transit now invest more than $1.40 for every federal transit dollar. That said, not all states and localities invest in transit.

State Gas Tax Levels Vary Widely

Source: American Petroleum Institute

Growth in State Transit Investment

Source: Transportation For America
### Topic 5: Making the Case for Investment

#### Relatively Taxing
Drivers in the U.S. pay about one-fourth of what many Europeans pay in gasoline taxes. Now, with prices low, some U.S. politicians are looking to raise the gas levy.

<table>
<thead>
<tr>
<th>Country</th>
<th>Dollars per gallon, excluding taxes</th>
<th>Dollars per gallon, including taxes</th>
</tr>
</thead>
<tbody>
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<td>Belgium</td>
<td>$2.47</td>
<td>$6.45</td>
</tr>
<tr>
<td>France</td>
<td>2.48</td>
<td>6.40</td>
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<tr>
<td>Germany</td>
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</tbody>
</table>

Note: Prices from Thursday. Source: U.S. Energy Information Administration

#### Transportation Infrastructure Investment as Percentage of Gross Domestic Product (GDP)

- **China:** 9%
- **Europe:** 5%
- **U.S.:** < 2%

Source: U.S. Senate Budget Committee

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Above: When voters have access to concise information on the direct benefits of voting for new revenues to support transit, they’re more likely to support greater investment.

Above Right: In relative terms, U.S. drivers pay the lowest gasoline taxes among peer nations.

Below Right: As a result of the lack of revenue sources to support transportation programs, U.S. investment in infrastructure pales in comparison to the rest of the world.
Few transit projects in recent memory have undergone as much public scrutiny as the currently under-construction Cincinnati Streetcar. Since it was first proposed in 2007, it faced two ballot initiatives to stop planning work, a withdrawal of state funding and another anti-streetcar ballot measure in 2011 and the election of streetcar opponent John Cranley as Mayor in 2013.

The graphic at left was created by Cincinnati transit advocates TransForum in 2011 to argue against the anti-streetcar ballot measure, which also produced a majority of streetcar supporters on the city council.
The chart above conveyed the arguments against halting construction in fiscal and economic terms as Mayor Cranley and the city council debated the system's future in 2013. A majority of the council agreed to continue construction of the streetcar on Dec. 19, 2013. The 3.6-mile system is scheduled to open on Sept. 15, 2016.

Source: Cincy Streetcar Blog
Justice, Ethics & Power: Ethical Ideas for Livable Communities

Passenger rail occupies a tricky space in the effort for equitable communities and neighborhoods. It can attract economic development like few other infrastructure investments but those gains can be offset by skyrocketing housing costs and loss of the very historic and cultural identities that made a community authentic in the first place. Bearing in mind that paradox – and the limitations of transit entities’ authority we describe in our commentary – Dr. Laura Hartman discusses the intersection of transit and ethical challenges in sustainable communities, as presented at the Pecha Kucha Slam at Rail~Volution 2014 in Minneapolis, Minn., and republished her with permission – ed.

By Laura M. Hartman, Ph.D.

Ethics is about right and wrong and the reasons why. Here’s what’s wrong: our car-centered cities.

I’m here from the world of academia. My specialty is ethics. So why is an ethicist crashing your rail magazine?

I’m not here to tell you how to avoid getting sued. My style is more to be a philosopher.

So here’s the deal: ethics is about right and wrong, and the reasons why.

As an ethicist, it’s my job to name what’s wrong and advocate for what’s right.

Here’s what’s wrong: our car-centered culture. You know that it’s bad for the climate. It’s bad for our health. It’s bad for land use. It’s bad for communities.

Well, here’s what’s right: your work. You create places and systems that encourage better, healthier ways to move around. You have a very real impact on human health, on the health of our communities, on the whole planet. Your work really matters. It influences whether people do what’s right or wrong.
So, you’re reading this article because you already know what’s right within transportation but it can be hard to express those ethical views. So I’m going to highlight three major ethical ideas that pretty much everyone from every cultural perspective is going to agree with.

The first one is justice. Cause nobody wants to be unjust. Now, justice means lots of different things. It can mean fairness – like a fair distribution of goods and pains in society. What we want is balance. We don't want anybody overburdened and we don't want anybody overprivileged. But ultimately what we want is completeness or wholeness.

There's some idea of a just society that includes everyone. The complete streets model has a kind of justice to it. Now, many of our streets are unjust. When there's no sidewalks, pedestrians are unfairly vulnerable to injury. The streets are public spaces, they’re owned by all of us. But not all the modes have equal access. There's an imbalance between modes and some are privileged over others.

That should set off the alarm bells that say injustice! Because the worst off – the poor – are excluded from mobility, and the young and the old. So, when you have a just streetscape, you’re closer to something like equality. You feel safe: there’s balance, there’s completeness. So, when we re-work the street in this way, we are committing justice, and to fail to do so is injustice.
Hospitality

Hospitality: concept number two. Every culture has a norm of hospitality, you welcome the stranger because we all want to be welcomed. It conveys respect for each person’s dignity. You need an ample welcome that communicates the value of the person being welcomed.

Now, the Americans With Disabilities Act requires accessibility but did you ever think about whether a transit system is more than just accessible but hospitable? We’ve all seen inhospitable systems where they have dangerously-placed bus stops, or grudging, sparse service that communicates that the users are not valuable. So what would transportation hospitality look like? Well, even something like shoveling snow is an act of hospitality to those using the sidewalks. And why do most cities plow their streets but not their sidewalks? But we know what hospitality would look like: gracious welcome for all users.
The final concept is power. Power is usually defined as the ability to do something, to have agency in a situation. But it also entails certain responsibilities. And that’s what I want to highlight, because power can be used well or it can be abused. And when there are power differences in a streetscape, we need to look at those with more power and whether they’re being responsible or whether they abuse their power.

You’ve seen this before: a pedestrian in an area clearly designed for cars. The only power that they can assert is the power to risk death in order to slow traffic. It doesn’t need to be this way. If we care about justice and hospitality, then we create streets and systems that are mutually empowering, leading not to a power clash but empowerment for everyone, so that even those who have disadvantages or disabilities can be empowered in their mobility. That’s the work you are doing: you are empowering people to have greater justice and greater hospitality.

I want to bring up a story that comes from religion – don’t be afraid of religious people; religious people are on your side. The Story of the Good Samaritan, many of you have heard this before: there’s a man who is beat up and left for dead by the side of the road. And only the Samaritan – who is himself a social outcast – really sees the problem and is willing to stop and help. The Samaritan takes the man to an inn and leaves money to provide for his care.

Now, Eric Jacobson observes that if someone were left for dead by the side of the road today, no one would even see him, because we’d be driving rather than walking. His point is if we’re going to create a society where we care for one and other, we have to get out of our insulated metal boxes on wheels and place ourselves on the streets and on the buses or trains where we see our neighbors.
We're maybe avoiding the streets because we want to avoid the need but that's not the way to solve these problems. We've got to find ways to use our power responsibly in service of hospitality and justice to create real, living communities. Sometimes it's hard to get people to see things this way, it's hard to get reluctant partners because they’re valuing convenience or they’re valuing money or they’re valuing their autonomy. It’s really hard to change things, the status quo is too deeply entrenched. Yes, change is hard.

But remember, every single religious and non-religious perspective in the foundation of our government values these things: justice, hospitality, responsible use of power and those outweigh money and convenience. Always. So, to appeal to those values can be a powerful bridge-building exercise, to realize we value the same things in the end.

The work that you do, it really does matter for ethics. The decisions you make, the plans you create, they can manifest justice, they can create gracious welcome, respect for dignity, they can moderate that power into responsible hospitality.

There's a lot more to be said about ethics and transportation, inclusion and exclusion; gender, safety, self-sacrifice, community-building. It’s your job to keep the conversation going.

Dr. Laura M. Hartman is an Associate Professor in Religion at Augustana College in Rock Island, Illinois.
DEDICATED: Why the Debate About Exclusive Lanes Misses the Point of Neighborhood-Based Transit

By Rich Sampson

There can be little doubt that a substantial portion of the American population desires communities more inclusive of sustainable, livable places, where every trip does not require a car and much of daily life can take place within a well-established, vibrant neighborhood. The data presented in our Infographics section demonstrates these shifting priorities. High-quality transit systems – ranging from subways and metros to high-frequency fixed route bus routes and bus rapid transit (BRT) lines – can serve a vital role in connecting people within and between these activity centers.

Despite these growing preferences towards robust neighborhoods and dynamic commercial districts, entrenched mindsets remain when decision points emerge on the path by which a planned transit service will travel between places. Over the past half century, higher-capacity rail modes – such as heavy rail metros, commuter rail and light rail – have experienced great success in utilizing abandoned rail corridors and highway medians, as well as entirely new alignments, to connect outlying communities with central business districts, a trend likely to continue in the years ahead. But urban planners and elected officials are seeking new ways to utilize transit to circulate traffic within both historic and emerging activity zones where an old railbed or a wide swath of highway aren’t available to segregate buses and trains from the traffic grid. City streets are needed to complete routes to and through these communities.

The past year has witnessed heated debates among transit advocates (see here and here, for example) along with very real decisions by public officials and voters at the ballot box where the presence of both streetcar and BRT...
vehicles on public thoroughfares has been hotly contested. Should a streetcar or BRT line operate in mixed traffic with other vehicles or are exclusive travel lanes required? Why is achieving dedicated transit infrastructure such a battle? Here, we’ll take a look at the issues and values that underpin these discussions and examine some strategies that might lead to a greater success rate in bringing these projects from plans to reality.

The Intersection of Short Memories and Long Timeframes

There’s a certain perception that public roads and streets have been the domain of private automobiles since time immemorial and that efforts to designate portions of those roadways to a transit vehicle is a recent fad. Of course, readers of this publication don’t need a retelling of the history of streetcars and trolleys in the development of North American cities. In a few instances – Boston, Philadelphia, New Orleans, San Francisco, Toronto – those systems never fully disappeared and remain a crucial element of their region’s vitality.

But no matter how compelling those legacies are conveyed by transit advocates, a nearly insurmountable opposition remains by otherwise reasonable citizens and the leaders they elect to returning transit routes to prominence on city streets. Everyone they know drives a car – at least with some regularity – and anything that might impede their quickest path to a destination is an unwanted encumbrance.

At the same time, few people can envision a future where automobiles are a less common feature of daily metropolitan life. Recent free-falls in gasoline prices make peak oil seem further away than ever and those prophesying about cities without cars is someone not sharing their vision of the places where they’ll live and work. In fact, for many Americans, tales of the wonder of car-free European and Asian metropolises are not only places they don’t visit, they’re places they never want their communities to become.

“Many people just don’t really care much about better transit,” says Washington, D.C.-region transit advocate David Alpert. “They might be okay with it in the abstract, but don’t want to spend much on it. A lot of people don’t want tax money to go to infrastructure they won’t use.”

It is at this intersection of constrained recent memories and the immediate future where high-capacity transit services on road infrastructure find their greatest opposition. To be sure, only the slimmest minorities are outright hostile to any kind of public investment in transit service. Even if most people aren’t daily transit riders, they’re willing to support basic bus routes in urban areas, efficient rail networks in bigger cities and community-based mobility options in rural communities, as countless surveys and local ballot measures confirm each year. The value of living, working and doing business close to transit stations has been continually affirmed as residents and companies pay premium prices for
proximity to good bus and rail service. It’s the impact of a new transit project on the routine motion of their community that puts people on guard.

**Progress: The Perfect Is Not The Enemy of the Good**

As conflicting opinions on the necessity of dedicated transit infrastructure have been raised, proponents of exclusive travel lanes have noted the numerous benefits of buses and trains operating free of other moving vehicles, parked delivery trucks and police cars, ambulances and fire trucks. Indeed, these attributes are self-evident: if a streetcar or BRT line has dedicated lanes, its vehicles will move faster, attract more riders, generate more economic development and be perceived as more successful by the community. These advocates argue that it would be better to not attempt projects that do not include exclusive infrastructure rather than risk opposition that would spill over to future projects and the existing transit network.

“Perfect transit is absolutely a goal, but the perfect must not be the enemy of the good,” Alpert wrote for *The Atlantic’s* CityLab. “There are plenty of reasons why a streetcar might be worth supporting, even if it isn’t as long, frequent, or speedy as we might like.”

This view – which is often co-opted by small, but very vocal numbers of transit opponents – is dependent on a vision that high-capacity transit should be oriented and evaluated based on only one fundamental purpose: moving the greatest number of people the greatest distance at the greatest speed. If it fails to achieve all three elements at the same time in the same manner, it’s destined for failure.

By suggesting that all transit service be foundational linear in intent and outcome, this line of reasoning limits out the circulatory benefits that modern transit can play in livable communities. This line of reasoning is why the recently-opened Silver Line in Northern Virginia was built almost entirely on elevated structures rather than in subway tunnels: the bridges and pylons arching through Tysons Corner move its 10,000+ daily riders just as fast as a subway tunnel would have. The problem is Tysons Corner is now saddled with more limited pedestrian accessibility and economic development options than would have been available with an underground line.

Using that same outdated measure, if a streetcar or BRT route isn’t moving scores of passengers in rapid fashion from their single family homes to an office skyscraper, it’s not a valuable asset to the area’s mobility network. That rigid, utilitarian calculus ignores these operations’ ability to connect an apartment dweller with dining or retail establishments under a half-mile away or a person with mobility limitations an easy, comfortable ride – with stations and vehicles that don’t require lifts or mechanized ramps – boarding a streetcar or enhanced bus instead of reserving a more costly paratransit trip. It’s a concept known as Place Mobility.

Place Mobility is not just a vague, airy con-
cept,” says Robert Steuteville, Editor of Better Cities & Towns. “It now can be measured with walkability. As an investment like a streetcar is installed, and new businesses and people move in, the walkability level rises. The values, activities, and efficiency in moving between these activities rise. That’s tangible evidence of Place Mobility – the notion that places can be designed corroboratively to make pedestrian mobility easy, enjoyable and meaningful for everyone. Place Mobility gets people where they need to go quickly and efficiently, but just not very fast.”

For these and other trip purposes, the average travel speed and distance traveled per passenger is immaterial. The presence of an upgraded transit service – whether that’s bus or rail – indicates a commitment to a neighborhood or district’s internal and external vibrancy, one as crucial to an area’s identity as the local high school sports teams or a beloved corner shop. In communities ranging from New Orleans’ Garden District to Portland’s Pearl District and Cleveland’s HealthLine corridor on Euclid Avenue, their respective streetcar and BRT lines become part and parcel to what it means to live, work and experience those places. That correlation is not derived from how fast they travel or the number of commuters they take to work, but their ongoing, permanent presence – an element more reflective of civic pride than rapid transit.

“The thing about the streetcar is it’s a more emotional attachment,” says Gabe Klein, former Director of both the Chicago and District of Columbia Departments of Transportation. “It’s about creating place. It’s not just about moving through the city as fast as possible.”

Recent cancellations of streetcar and BRT projects – for instance, those in Arlington, Va., and Nashville, Tenn., – stem from the inability of project advocates to frame proposed services in the context of these broader manifestations of sustainable communities as well as opposition based on a singular conception of mobility that doesn’t apply in every instance.

**We Need to Talk About The Frequency**

Inasmuch as a narrow, confining view of transit in contemporary communities saddles projects with irrelevant metrics of success, transit planners need to be more mindful of the level of service their proposed streetcar or BRT operation actually achieves. This is borne
out most immediately and impactfully in the frequency of service. While many residents moving within a neighborhood or to a nearby commercial district won’t base their travel decisions on a streetcar moving a bit slower than it would take to drive, they might prefer to walk or call a cab if the next vehicle doesn’t arrive for another 15 or 20 minutes.

A number of recent streetcar projects have debuted or are about to begin operations with a relatively small vehicle fleet, in some cases just two or three total streetcars to serve their entire routes. The recently-opened S Line Streetcar in Salt Lake City and Atlanta Streetcar, along with the forthcoming DC Streetcar in Washington, have all received criticism that their vehicles don’t or won’t operate often enough to present a reliable mobility option. And while it’s easy to sympathize with project managers under constant scrutiny to cut project costs wherever possible, an infrequently operating system undercuts the sizable public investment that made it possible.

“Providing new transit lines isn’t enough — service standards really matter when it comes to attracting people to use transit,” says The Transport Politic’s Yonah Freemark. “Frequency of service can be just as important as speed, since the frequency at which a vehicle on a line arrives determines how long most people have to wait — especially when they’re transferring between services. To create a transit system that is attractive enough to pull people out of their cars, high frequencies of service at all times of the day are essential.”

That pride of place engendered by both new and historic transit routes is made possible because they operate often enough that locals don’t even need a schedule. Miss a streetcar? No problem, another will be along in a few minutes. Grab a coffee at the corner shop while you wait. Running a little late for your regular BRT trip? Enjoy the comfortable, enclosed stop in the meantime and the info screen overhead will let you know when it’s time to board. This kind of reliable, ever-present transit service is how streetcar or bus becomes more than just a way to get somewhere, but an enriching part of daily life, one that area businesses and residents want to be near.

An Honest Assessment

Much of the fanfare regarding a new transit project centers around the means by which a given vehicle takes through a certain corridor. Too often, those issues cloud the more important discussion of the goals of such an effort, and when those discussions do occur, they’re often based on an outdated mindset of what transit is supposed to accomplish. It’s about finding the right balance between express and local, and both are needed for a comprehensive regional mobility network. More accurately, contemporary streetcar and BRT projects are intended to strengthen the vitality of existing neighborhoods and foster the dynamism of emerging districts, not hurtle far-flung travelers through them at great speeds. With those objectives in mind, there’s no question that service needs to be operated frequently and reliably. When those priorities come together with well-designed and executed service, the impact on communities can be profound.

“Millennials, empty nesters, and others want walkable, livable urban places. Unfortunately, there aren’t enough of those in the United States, which is why they’re increasingly expensive,” says Alpert. “There are plenty of places that could become more walkable and have more of a sense of place. To do that, they need better transit, more amenities, and more residents—which generally means more density. When such a place achieves greater walkability and urbanization, the factors making it so strengthen over time.”

New Orleans’ St. Charles Streetcars aren’t only iconic because of their historic vehicles or grass-covered trackbeds, but because they often very frequently, never more than five minutes apart, 24 hours a day.
How Did Detroit and Light Rail Appear in the Same Sentence? A Case Study and Some Implications

By Rip Rapson

The Kresge Foundation – a $3 billion private, national foundation headquartered in Metropolitan Detroit – is part of a collaborative effort planning and constructing Detroit’s M-1 Rail line, set to open in late 2016. Rip Rapson is CEO of the Kresge Foundation and delivered the following keynote address at the 2014 Rail~Volution Conference in Minneapolis, Minn. His remarks are excerpted here with permission – ed.

The city of Detroit is undertaking a grand adventure in creating a light-rail system. I propose to not only celebrate Detroit’s wisdom in joining the parade of transit-embracing cities, but also to explore issues that may provide a glimpse into some of challenges and opportunities facing municipal transit.

I’ll describe why light rail was important to the city, how we got started, what obstacles we encountered and where we find ourselves now. I’ll then extract a set of principles that I hope will have broader implications across America.

Light Rail in Detroit: The M-1 Project

If there was ever an environment resistant to mass transit, it’s been the birthplace of the automobile – Detroit and its surrounding counties. The region is inadequately covered by two separate bus systems – one city and one suburban – and has failed countless times to establish a Regional Transit Authority to build out a unified system. But over the last six or seven years, the unimaginable happened: philanthropy and the private sector put stakes in the ground to change that.

Shortly after I arrived at Kresge some seven years ago, I had lunch with Roger Penske – a legendary figure in car racing, the owner of...
the Penske Automotive empire and, without question, Michigan’s most respected civic leader. Having just overseen Detroit’s successful hosting of the Super Bowl, he was thinking about what his next civic project might be.

I suggested that the city desperately needed light rail along Woodward Avenue, an imposing state-controlled road running from the central business district to the outer suburbs – it is the region’s spinal cord. Roger and I discussed three major benefits of creating a light-rail line that would run from the Detroit River on the south terminus three and a half miles through Midtown and on to Detroit’s North End neighborhood.

First, it would create new connections among the scores of commercial, cultural, medical and educational institutions dispersed along the avenue.

Second, it would revitalize the local economy and resuscitate the tax base by encouraging dense patterns of land use, as housing, retail and other amenities began to populate the areas within walking distance of the stops.

Third, it would create the first leg of a regional transportation system. It would connect to an Amtrak line running west to Ann Arbor and Chicago and to a fixed-rail line to the northern job centers of Oakland County. And a mass-transit project in the ground in Southeast Michigan would satisfy essential preconditions for the region to compete for the federal New Starts mass-transit dollars necessary for the build-out of a truly regional transit system.

Roger took our conversation seriously. He convened a couple dozen civic leaders to discuss the feasibility of a privately financed line that would be turned over in due course to a public operating authority. It could be done. But the price tag would be about $100 million. Roger looked at me and said that if Kresge would be willing to invest the first $35 million, he would enlist others to secure the rest. At one level, it was a crazy idea – municipal governments, not foundations, build streetcars. But the audacity of the aspiration justified the risk, or so it seemed to me. I agreed, and we moved forward.

We quickly formed a philanthropic-private sector consortium named M-1 Rail, after Woodward’s route designation as Michigan’s first...
paved road. Roger indeed raised $39 million by convincing hospitals, businesses, universities and others to commit $3 million for the naming rights for stops. We secured a $25 million TIGER I (Transportation Investment Generating Economic Recovery) grant and locked in millions in New Market Tax Credit commitments. We put together a team with the requisite financial, engineering and project management sophistication.

Over the next six years, we navigated a seemingly endless cascade of obstacles – we expected engineering complexity and cost increases, but were taken aback by the fierceness of local and bureaucratic resistance. It took three forms.

First was the city of Detroit. When we began, Detroit Mayor Kwame Kilpatrick’s administration had a very different view of what should be done. They had secured a planning grant for a commuter rail line running eight miles from the river to the city limits. It would have eased the commute for suburbanites, but would not have connected Detroit residents to jobs or stimulated transit-oriented development at the scale we needed.

For the better part of two years, M-1 and the city mud-wrestled to clarify which of the two visions should be pursued. We finally forged a compromise: The portion from the river to Midtown would be designed according to the M-1 objectives of maximizing land use along 12 stops; the portion from Midtown to the city limits would be shaped by the city to maximize the number of commuters. It looked as if we had steered around the potentially fatal political and engineering shoals. We had little idea that we would almost run to ground because of Obstacle 2, the federal Department of Transportation.

Second was the federal Department of Transportation. Ray LaHood, then secretary of transportation, was deeply supportive at a meta level of the path-breaking private-philanthropic partnership at the heart of M-1 and its importance to the city’s revitalization.

But the front-line decision-maker was the Federal Transit Administration – and there, things become more complicated. The administrator, Peter Rogoff, was a no-nonsense guy who brought a healthy, and understandable, dose of skepticism. Where would accountability lie if this philanthropic-private sector coalition stepped into the shoes of a municipality? Who would ultimately run the railroad? Who would be responsible for revenue shortfalls?

These were legitimate questions, and we were confident that we could answer them. As the stakes grew higher, however, it became painfully clear that the city simply could not make available the capital necessary to execute the commuter-rail portion of the plan. They were unable to deliver their promised bonds. That completely upset the apple cart.

The feds were caught in an impossible position. They simply couldn’t move forward with the plan as it stood. Together with the governor and mayor, they accordingly announced a fallback plan to scuttle the M-1 project, as well as the longer line, in favor of a regional Bus Rapid Transit system. They also announced their decision to repurpose the TIGER grant to the BRT.

Our initial reaction was that after five years of work, we probably had to throw in the towel. The transportation secretary, governor and mayor were all moving in another direction.

But we threw a Hail Mary pass: one final mega-meeting, between the M-1 leadership team and Secretary LaHood, Administrator Rogoff, Gov. Rick Snyder and then-Mayor Dave Bing, as well as Sens. Carl Levin and Debbie Stabenow, the four House members representing Detroit, the Wayne County executive and more staff members than you could count.

The M-1 team made the case that before we left more than $100 million of private capital on the table – capital that would not be available for BRT – the consortium should be given 90 days to demonstrate the feasibility of the original plan – a streetcar project funded outside of the city’s bonding capacity.

Secretary LaHood listened carefully, made sure the governor was on board and then committed that if M-1 could meet every engi-
neering, financial, environmental and political requirement the FTA could identify, he would give us a chance.

In fact, he went a step further. He said that he would permit the state to retain the $25 million TIGER grant to start implementation of a regional BRT system, but would, if in fact M-1 could satisfy the FTA's conditions, find another $25 million for M-1 from somewhere in the federal Transportation Department’s budget.

His top adviser just about had a heart attack. “You aren’t able to make that commitment, Mr. Secretary,” she pleaded. You could have heard a pin drop. LaHood took a long look at her and then turned back to the M-1 representatives and said, “I commit to you that if you’re successful, I will find you the $25 million you need. You have 90 days.” If you ever wondered what leadership looks like, wonder no longer.

Although those 90 days actually became more like 120, the effort was successful. The small core team of M-1 was augmented by Laura Trudeau, the head of Kresge’s Detroit Program, and a team of legal, financial, engineering and other experts. We checked off each of 90 issues the federal government certified.

It became clear that the secretary and Administrator Rogoff deeply wanted the effort to succeed. They clarified regulatory requirements, worked with the governor to identify what state-level safeguards the feds would insist on and traveled to Michigan several times to advocate publicly for the creation of a regional transit governance authority. They extended our time to get even more questions answered.

Secretary LaHood returned to Detroit at the end of the period to announce the federal government’s complete support for the project – including making good on his commitment to free up $25 million from other sources within his department.

The third was the State of Michigan. Having surmounted the city and federal obstacles, we had one more: the state of Michigan.

The Michigan Department of Transportation had been among our staunchest allies. It agreed to bear the cost, and potential risks, of repaving the length of Woodward as part of the project. It assigned some of the department’s most talented personnel to provide technical assistance.

But all of that might have come to naught if we couldn’t secure a Regional Transit Authority.

One of the FTA’s conditions was the passage of legislation authorizing an RTA with the power to pursue county referenda approving expenditures for the regional system. Reasonable. The problem was that the Michigan Legislature had tried and failed 24 times in the last 45 years to pass this legislation. Not four times. Not 14 times. Twenty-four times.

We were able to get the legislation drafted and introduced. But it had stalled.

This is where our private-sector partners were beyond spectacular. Kresge couldn’t lobby, but they could. They joined with Gov. Snyder to create the kind of legislative strategy that could convince the Republican-controlled House and Senate to pass eight separate pieces of necessary legislation. And indeed, the legislators stepped up and passed them.

There have been, and will continue to be, other obstacles. Perhaps most vexingly, the political detours caused delays, which in turn raised the project cost to $175 million, required us to renegotiate the New Markets Tax Credits and generated widespread public skepticism that we would ever break ground. But we raised another $75 million, resecured the credits and broke through the political underbrush. M-1 broke ground last month and will welcome its first passenger in 2016.

**Six Principles**

It’s tempting to write off the Detroit experience as idiosyncratic – one city under particular duress struggling through unique challenges. But I’d like suggest a handful of principles that strike me as logical extensions of the Detroit and related experiences, principles that speak to the kind of transit our country will need in order to accommodate our changing demographics, growing economic uncertainties and shifting forms of urbanization.

1. **Place**

Transit should be as much about experiencing place as it is about efficiency and movement.

One of the biggest shifts in transportation policy and practice over the last decade has
been balancing efficiency and mobility with attention to how transit can enhance the identity and quality of a place.

Community development has always sought to improve the quality of life in distressed places. We attach to a place with an emotional energy and a sense of long-term commitment that often determines how a community works and to how group identity is forged.

We are witnessing countless examples across the country of how transit can contribute to that sense of place: from streets becoming destinations in and of themselves – think 16th Street in Denver and pedestrian corridors that redefine the public realm like the Nicollet Mall right outside our door – to rail-to-trail reclamations in places like Atlanta and Detroit.

Lest we take this for granted, let me offer an example from my time heading the McKnight Foundation in Minneapolis of just how difficult this integration of transit and community development can be.

The Repaving of Lake Street

About a decade ago, Hennepin County announced plans to repave a two-mile stretch of Lake Street, the city’s main artery running through some of its poorest neighborhoods. The proposed redesign had long been contemplated as an upgrade that could help revitalize the neighborhood.

But that stretch had become the hub of Somali, Ethiopian and Hispanic entrepreneurship, brimming with markets, restaurants, small businesses and community gathering spaces, virtually all on the razor’s edge of viability.

The collision of these two worlds was, in retrospect, inevitable. The engineers’ vision of improvement was to widen the street, carve out more turn lanes, eliminate street parking, narrow the sidewalks and otherwise facilitate moving more traffic faster.

That was all by the book. But it was potentially ruinous to the character of the place.

I got a call at the eleventh hour from a group of residents to ask if McKnight would help develop alternatives – to narrow and reconfigure the lanes for buses and bicycles, widen the sidewalks to...
promote street life, preserve on-street parking to encourage people to patronize the adjacent businesses and redesign the road architecture to create community focal points. In a word, to reallocate the space with a bias toward community livability.

The discussions we entered were difficult. County engineers brought out mind-numbingly complex, self-fulfilling computer traffic-flow models that posited faster car trips as an inviolable first principle. In response, our engineers constructed very different parking, transit, pedestrian and land-use models, all based the first principle of elevating the identity, function and integrity of a place.

We eventually found a middle ground that yielded a variety of benefits for the community. But it was nevertheless a vivid illustration that conventional transportation planning and contemporary community development imperatives are – or at least were at that time – alien cultures lacking a common vocabulary and ready mechanisms for cross-fertilization.

I would argue that we’ve moved light years from the Lake Street circumstance. The public, private and philanthropic sectors now view transit planning – whether for road reconstruction, light rail, bikeways or bus rapid transit – as an exercise in community development and placemaking, an opportunity to stack and align those elements of community that shape healthy, vital places.

2. Interdependent Systems

Because it has to recognize the primacy of place, transit can no longer be a self-contained exercise in mobility planning and engineering optimization, but must instead interweave with the multiple, mutually interdependent public systems that define a place.

Public agencies may organize vertically into silos of matter expertise – housing, economic development, health, transportation – but people live horizontally. A community member’s livelihood may depend on the convenience of travel between her home and her workplace. Her health may be compromised by the proximity of truck traffic routes servicing a railyard or may be improved by her access to affordable, high-quality community health care.

Transit is embedded in each of these systems. Expanded mobility connects individuals to opportunities – employment, commercial, recreational, cultural. But it also determines the arc of neighborhoods, cities and regions as a whole:
As a catalyst for economic development;
• As a magnet for the attraction and retention of talent;
• By stemming the trend toward job sprawl and the resultant housing-employment mismatches.

Transit can, in a word, be the foundation for cities that are competitive in a 21st-century world.

To do that, transit is increasingly being asked to help create and enhance the kind of communities people want to live in—walkable, dense, opportunity-rich, mixed-use places. And it can do that only by connecting a multiplicity of systems.

These connections have begun to erode the walls separating transportation professionals from community development professionals. That trend has been accentuated by national trade and advocacy groups—Smart Growth America, PolicyLink, the Urban Land Institute—and enlightened federal policy such as Housing and Urban Development’s Sustainable Communities program.

An Example: The Detroit Future City Plan

The M-1 system’s planning was nested within a community-based visioning effort called the Detroit Future City plan, a decision-making framework to bolster the city’s nodes of strength and to convert under-utilized land to more productive uses. Over three years, the Detroit Future City team coupled high-level technical analysis of economic, residential, infrastructure, transportation, municipal and natural systems with an intensive community-engagement process involving tens of thousands Detroit residents.

The plan recognized the multidimensional impact transit would play in the city’s future development:

• It would concentrate small business development at key nodes along the city’s corridors.
• It would combine with large-scale development such as a new hockey arena to create walkable mixed-used neighborhoods.
• It would dramatically improve access to health centers, schools and other institutions.
• It would create unprecedented connections between urban core residents and the region’s job centers.

Substitute Los Angeles or Salt Lake City or the Twin Cities or Baltimore, and you’ll get the same convergence.

3. An On-Ramp for Low-Income Opportunity

Transit decision-making should increasingly be shaped by engaging low-income communities.

If one’s frame of reference is regional competitiveness, it’s easy to conceive of the primary transit constituency as the business community. If that frame is urban vitality, it’s equally easy to focus on the hipster, millennial cohort. And if the frame is relieving congestion, it’s natural to zero in on suburbanites who make most of the cross-regional trips.

These frames aren’t mutually exclusive, of course. But the frame has to be broader still: to incorporate the centrality of transit in shaping opportunity for low-income people, a population disproportionately dependent on transit and for whom transit projects can have both salutary and deleterious impacts.

Let’s start with the negative side of the equation. Transit has had a checkered history of too frequently marginalizing—or outright harming—low-income communities. The examples are legion and painful: from freeways that sundered African American communities to Robert Moses’ notorious construction of Long Island Expressway bridges so low that buses couldn’t get to amenities like Jones Beach outside the city.

It’s a depressing litany. Nor is it limited to the last century. In the here and now, the same trends that make transit such a magnet can also push away low-income residents, as housing and commercial costs increase.

There’s been so much discussion about intended and unintended consequences of gentrification and displacement that I can’t pretend to add anything you haven’t already thought about. So let’s instead consider the mirror image: How future transit planning can benefit from the full inclusion of low-income communities’ wisdom and perspective.

Community engagement is mandated by all manner of federal, state and local regulations. But these processes too often skim across the
surface of the minimally required and un-yielding formulaic.

The Lake Street reconstruction example demonstrates the value of equipping the community with tools to engage seriously with decision-makers on issues that are often viewed as the exclusive province of the technically trained and bureaucratically invested.

Another example is transit hubs and stations. From vertical gardens and interactive art to pop-up libraries and skateboard ramps, there are innumerable wonderful and whimsical examples of local communities creating clever, imaginative design strategies and amenities for transit stations.

Let me suggest two other considerations that can help community engagement take on an even more layered, consequential role.

First, animating transit projects with a sensitivity to the needs and aspirations of low-income people can ensure that transit is a bridging tool, not a wedging tool. Transit is a powerful form of social connective tissue:

- It can draw a thread through distinct places, diverse communities of people, different economic, cultural, social and historical patrimonies.
- It can help defuse urban-suburban polarities.
- It invites us all to a fuller understanding of the “other.”

I love the example of Bolivia’s Teleferico, an aerial tramway that connects La Paz – located in a valley and the seat of government and old colonial money – and El Alto – sitting on the high plateau above and home to a poorer, younger and more ethnically indigenous population. This wondrous new aerial cable-car system has been described as a cross between a ski gondola and an elevated train. In its first two months of operation, it carried some 40,000 people per day. It aims to erode the physical and psychological barriers between the two places, enabling, in one local expert’s view, “a dialogue between the two cultures, a connection . . . that is going to break down borders.”

Second, a device for calling on community voice is the arts.

Community engagement matters not only because it ensures a voice for residents in shaping their future, but also because it can generate enduring informal networks of support that bond people one to another and that bridge across difference.

The centrality of arts and culture to social cohesion is insufficiently understood. One leading study found that the social and civic engagement associated with the arts in urban neighborhoods was positively correlated with lower rates of social distress, improvements in the local economy and declines in poverty.

Incorporating community-driven creative placemaking into transit projects accordingly has the potential to be more than embellishment. It promises to strengthen social cohesion and imbue a location with meaning and significance.

There isn’t any better example than what Springboard for the Arts has accomplished on the Green Line in Minneapolis-St. Paul. It trained some 600 artists to undertake 150 projects to drive traffic to the scores of small, largely immigrant- and minority-owned businesses during construction, hoping to build a loyalty that would permit the shops to thrive after the line opened. It’s happened. And beyond the business benefits, the effort promises an enduring sense of cultural identity.
4. Climate Resilience

Transit infrastructure has to increasingly serve on the front lines of the battle to mitigate and adapt to the effects of climate change.

Climate change has set in motion forces that will forever change the nature of life in America’s cities. Although it poses threats to us all, in almost every case those threats are borne disproportionately by those who are already most disadvantaged: low-income people, the elderly and the housebound.

We can enlist transit in facing down this threat. But it will have to do double duty. Transit will have to contribute to society’s attempts to avoid the unmanageable and manage the unavoidable: Avoiding the unmanageable through approaches that will reduce greenhouse gas emissions. Managing the unavoidable by anticipating and adapting to now-inevitable changes.

Much of transit policy and practice represents a powerful response to the first part of the question. Transit lines minimize society’s carbon footprint by getting people into vehicles of mass mobility and by encouraging denser, more energy-efficient development.

The second part of the question is trickier. As Wayne Gretzky famously advised, you have to skate to where the puck is going, not to where it is. How will transit design and operation anticipate and protect against the consequences of rises in sea level, the spike in heat islands and the ever-increasing frequency and severity of storms, to name a few?

We need to start considering seriously some really tough choices. For example, our responses to Katrina and Sandy have afforded a glimpse of how difficult it is to entertain whether to rebuild in harm’s way – whether housing, roads, hospitals or educational institutions. We have little choice but to invent mechanisms – including transit – that make it possible for individuals and communities to reimagine things they have come to take for granted.

5. Creative Finance

There is a need for next-frontier innovation in the financing of transit infrastructure and the development of transit corridors.

As federal sources of transit funding become more difficult to come by and as we continue to defer expenditures, capital innovation becomes essential.

The first dimension of this innovation is expanding the range of who pays.

Detroit’s mobilization of private finance for the M-1 project is certainly an example – it was the first time to my knowledge that a private foundation had invested directly in the hard infrastructure of a transit project. But we’re seeing other examples as well – such as such as the recently opened New York Avenue Metro station in Washington, D.C., where private developers contributed to the financing of a station that will raise the value of nearby real estate.

A second dimension is more creatively and cost-effectively connecting direct transit costs to expenditures for associated infrastructure. Infrastructure bundling has been key to
Detroit’s M-1 project. For example, as M-1 tears up the road, the Michigan Department of Transportation is bearing the cost of repaving it, repairing overpasses and replacing other key infrastructure. The local energy company is introducing state-of-the-art technology. The institutional sponsors of the transit stops are enhancing station designs.

A third dimension is extending financial innovation beyond the transit itself to the complexities of financing transit-corridor development.

We’ve seen a variety of innovative strategies move in this direction.

One such strategy is for the public sector to leverage the value of land owned by transit agencies or municipalities around transit stations and along transit lines. Using or disposing of that land strategically — to incorporate affordable housing, job centers that include low- and mid-skilled jobs, and community facilities like libraries or health care clinics — can yield more ridership and more long-term benefit to the community than simply selling land to the highest bidder.

A second strategy for financing transit corridors is for government and philanthropy to use their resources wisely to attract and leverage private investment.

We know that land near transit is highly desirable. Capturing a portion of the increased value that results from publicly funded infrastructure — whether through tax increment financing, business improvement districts or other devices — can help finance nonrevenue-generating amenities that contribute to quality of place — green space, bike lanes and public art.

Similarly, by skillfully crafting the rules that govern the use of its funding, government can multiply the dollars available for healthy, equitable and sustainable transit-oriented development, including subsidizing affordability to ensure that lower-income residents have the option to live in neighborhoods closest to transit.

For example, the San Francisco Bay Area’s regional planning organization, the MTC, has invested $10 million to create a $50 million Transit-Oriented Affordable Housing Fund that provides flexible financing to developers for the acquisition and development of affordable housing near transit stops across the region.

In a similar vein, the Healthy Neighborhoods Equity Fund in Massachusetts will bring together public, philanthropic and private capital to create a patient and flexible funding source for projects with significant community, health and environmental benefits.

6. New Actors and Partnerships

Transit decisions at all points of the life cycle will be driven by a broader spectrum of civic actors playing different roles than in the past.

Detroit is a remarkable example of how the philanthropic, private and nonprofit sectors can supplement the public sector in shaping a region’s transit trajectory. Looks like we may be onto something: the U.S. Bank Foundation is providing capital and operating support for the Cincinnati streetcar, as is Amazon in Seattle.

But let me offer another example of how this more distributive leadership model can take shape.

In 2003, the president of the University of Minnesota, Mark Yudoff, issued a challenge to the Twin Cities region. The region was becoming increasingly complacent, he argued, with no strategy for how it would keep the edge needed to compete in the 21st century.

The challenge provoked Larry Perlman, the head of the region’s leading technology company at the time, Control Data, to ask me — as the head of the McKnight Foundation — to convene the business leadership of the region to see what might be done.

I, in turn, formed a small working group to choreograph a process that could produce tangible, actionable strategies. We planned for nearly a year, using McKinsey to interview more than 100 corporate CEOs, reviewing municipal-planning documents and testing the interest of key participants.

Larry and I wrote a letter inviting 50 civic leaders to a meeting at the McKnight offices to review what, in effect, was a regional business plan. It was an ambitious invite list: the CEOs of companies like 3M, Best Buy, Medtronic and Northwest Airlines as well as the governor, the mayors of Minneapolis and St. Paul, the head of the Metropolitan Council and the president of the University of Minnesota.

Every single one of them showed up at that first meeting of what came to be called the Itasca Project — named for the Missis-
sippi headwaters park where, almost 50 years earlier, Minneapolis’ corporate leaders had begun holding annual planning retreats. And they kept coming – not their vice presidents of community affairs, but the principals – quarter after quarter. The Itasca Project is still meeting more than a decade later.

The first couple of meetings were memorable for a number of reasons.

First, the group endorsed four main priorities and committed its energies to attacking them.

McKinsey’s CEO survey had identified four main priorities:

- Creation of a regional transit system,
- Improvement of early childhood development opportunities,
- Augmented patent transfer and
- Reductions in health disparities.

This surprised and infuriated the state’s most powerful business organizations, for whom the beginning and end of a business agenda was reducing taxes and easing regulatory burdens.

But Itasca forged ahead, setting up working groups for each of the four areas. Each would be co-chaired by two CEOs and staffed by a combination of McKinsey, McKnight and topical experts from the nonprofit and academic communities. This was a pivotal decision because it inserted the nonprofit sector’s expertise and perspectives directly into the decision-making process.

The second memorable aspect of the early meetings was that Itasca chose to meet without an executive director, budget or formal governance structure.

McKinsey would continue to provide the quarter-by-quarter meeting support. McKnight would underwrite the incidental costs and continue to convene a small executive committee to choreograph the process. And the group handed the responsibilities of chair to Jim Campbell, head of Wells Fargo Bank in the Upper Midwest and perhaps the most respected corporate leader in town.

And, to bring this back into the realm of relevance for all of you, Itasca’s third key move was to elevate transit as its first all-in effort.

This decision changed the arc of Minnesota transit history.

One of the co-chairs of the transit work group was the brilliant and elegant Charlie
Zelle, the head of Jefferson Bus Lines. If that name sounds familiar, it’s because two years ago, Charlie would be named by Gov. Dayton as the head of the Minnesota Department of Transportation.

Charlie’s workgroup’s first step was to commission a former head of the Metropolitan Council, Curt Johnson, to distill from the wisdom of countless transit plans that had been floated over the last 20 years a comprehensive, up-to-the-moment plan susceptible to adoption by the legislature and governor.

The workgroup then launched one of the most sophisticated advocacy campaigns the state had seen – arranging visits of public officials to Denver and Seattle to see how transit could be launched, developing a far-reaching public relations campaign, hosting every single key legislator from both parties at a dinner with one of Itasca’s CEOs, creating unassailable case statements for each and every piece of the plan, and on and on.

The Itasca Project engineered the passage of a legislative package that essentially enshrined Curt Johnson’s blueprint and called for the set-aside of billions of dollars for its implementation. Gov. Tim Pawlenty vetoed the package. But in a testimonial to the Itasca members’ work, the Republican-controlled legislature overrode the veto of their party’s leader and the legislation became law.

You’ve heard all about some of the early fruits of that work: the Northstar Commuter Rail line from the north, the Green Line between the two downtowns, the planned extension of the Green Line to the southwest suburbs and others. All birthed from a unique private, public, philanthropic, nonprofit partnership.

Conclusion

The billions of dollars being invested across the country, as we speak, in new and expanded transit systems represents a once-in-a-life-time opportunity to reshape the built environment of our metropolitan areas in ways that can make communities more distinctive, more economically competitive, healthier, more equitable and more sustainable.

Realizing that potential will require new ways of thinking and new forms of practice rooted in integrating transit planning with other disciplines and forging partnerships that cross sectors. Very difficult stuff. But it’s from the cauldron of that kind of complexity that innovation is catalyzed – a new chemistry that contrives toward ingenuity and reconceived standards of excellence.

The Kresge Foundation is a $3 billion private, national foundation that works to expand opportunities in America’s cities through grantmaking and investing in arts and culture, education, environment, health, human services, community development and place-based efforts in Detroit.
Unrivaled Grandeur: Cincinnati Union Terminal

By Hannah Kebede

Rising like an enormous art-deco monument on the Ohio horizon, the Cincinnati Union Terminal’s semi-dome is the largest in the western hemisphere, smaller only than the Sydney Opera House in Australia. But just as the passage of time crumbles many a man-made edifice, it almost also leveled this historic train station; a true American architectural masterpiece. Almost.

So how did the Cincinnati Union Terminal survive the transition away from passenger trains as the preferred mode of transportation in the United States? How did it survive the recessions, abandonments, repurposings and attempts to tear it down?

To understand how the station weathered these most difficult storms, one must first know the successes of its heyday and the story of its birth.

In the 1800s, Cincinnati emerged as a rail-road hub, with its passenger train traffic split between five small stations scattered around the city, with flooding a constant concern in this city along a bend in the Ohio River. It took a few decades, but the seven railroad companies whose tracks crossed the city organized to solve this problem, choosing a location and commissioning the creation of the Union Terminal Company to build a new station that could handle all their trains and travelers on the city’s waterfront, and one that would not flood.

Construction began on the Cincinnati Union Terminal in the 1920s, and the station opened in 1933. Although the principle architects were veteran train station designers Alfred T. Fellheimer and Steward Wagner, it was consultant Paul Philippe Cret who added the Art Deco style, embodied by the arched and pil-lared entrance, that the building is known for – a signature that inspired the Hall of Justice in the 1970s cartoon, Super Friends.

“An enormous throng can be handled in the great rotunda without annoying a single passenger,” declared the Cincinnati Enquirer in 1933, describing the station as a, “Temple to Transportation.”

Few interior spaces in North America can match Union Terminal’s main hall, almost symphonic in its splendor.
A clocktower-sized analog clock on the center of the building’s arch keeps the time, while two façade stone carvings, one representing transportation and the other representing industry, stand guard from both sides of the Union Terminal entrance. A fountain in front of the building, across the street from its doors, springs skyward in the warm months.

The interior of the terminal is equally stylish – mosaics and murals by famed German artist Winold Reiss and French artist Pierre Bourdelle decorate its walls. A fantastical jungle of peacocks and monkeys guide the way to the woman’s restroom. A visual history of the Queen City spans the station’s rotunda.

Mosaic murals, based on photographs of real people, depict the fourteen biggest industries in the city at the time, such as soap-making, leather and steel. They reflected the life and livelihood of Cincinnati from the train concourse until they were moved to the Cincinnati/Northern Kentucky International Airport in 1973.

“Winold Reiss created the largest collection of nonreligious murals ever in one place,” states Gibson Yungblot, Union Terminal historian, in a video about the history of the station. “Instead of putting tile on the dome they painted it, and that gave it this...Art Deco appearance that you just don’t find in any other station.”

Currently, there are efforts to move nine of those murals to the Duke Energy Convention Center because the airport is set to tear down the section in which the murals were placed later this year. These murals have been saved by the Cincinnati Preservation Association’s Alfred Moore who added a special clause into their move from Union Terminal, requiring the airport to alert the six months in advance of any plans to destroy their home so that they can be moved.

“It takes many years for a work of art to be appreciated,” Moore told Cliff Radel of the Enquirer, explaining how he knew that the murals might have to be relocated yet again after they were transferred to the Cincinnati/Northern Kentucky Airport. “To many, they were just decorations.”

But truly, they are more than that; “Beautiful works of art that should be preserved for future generations to see,” says Moore, who chaired the 1970s efforts to Save the Union Terminal. He continued, “they show what
work was like in the 1930s. They make people aware of how hard our ancestors worked just to survive.”

The Cincinnati Preservation Association is accepting donations to help fund the $5-to-$7-million move, as the city government cannot afford to pay the entire cost.

At the height of its use as a train station, more than 200 daily trains passed in and out of Union Terminal, with a capacity of 17,000 passengers. Visitors also came to the terminal to shop. There was a bookstore, clothing stores for both men and women, and a toy store that mesmerized children into almost missing their trains.

Over the years, at least 18 trains and ten railroads made use of Union Terminal. Three of these trains, the Cincinnati Limited, the Cincinnati Mercury, and the Cincinnatian were namesakes of the city they served. Railroads ranging from the Louisville and Nashville to the New York Central had stops at the terminal, along with their competitors such Baltimore & Ohio and Pennsylvania. Amtrak also put down routes to the station, first the George Washington and the James Whitcomb Riley, and the Cardinal, which still serves Union Terminal today.

During World War Two, trains came through carrying soldiers from all over the country to their bases to be deployed, and back home again once the war ended. At the 1944 peak, there were 34,000 soldiers travelling through the terminal per day. It was after the war, in the 1950s, when Union Terminal started its inevitable and all-too-familiar decline.

By 1971, Cincinnati Union Terminal welcomed only two trains a day. By 1972, it was...
zero, as Amtrak had removed its service from the station.

This could have been the death of the Cincinnati Union Terminal, as it was for many of its brethren. Empty and abandoned by all its trains, passengers, shops, and even the Cincinnati Science Center that briefly existed in the building from 1968 to 1970, the great station faced, at best, an uncertain future.

In 1973, the Cincinnati City Council designated Union Terminal an historic landmark, rescuing it from ever being demolished.


Like before, the station was bustling life. But just like before, it was abandoned when the recession of the early 1980s forced the mall and the museum to close. For a second time, the high ceilings and semi-dome of the Cincinnati Union Terminal echoed with emptiness.

This, too, could have been the death of the historic station. But, again, it was not.

Hamilton County residents saved Cincinnati Union Terminal from destruction, in a 1986 vote to repurpose the building as the Cincinnati Museum Center. Former Cincinnati mayor and television personality Jerry Springer was involved in the effort to preserve the station, recording and singing a song titled Save the Union Terminal.

In 1990, the terminal became home to the Cincinnati History Museum, the Museum of Natural History & Science, the Robert D. Lindner Family Omnimax Theater, the Cincinnati Historical Society Library, and the Duke Energy Children’s Museum, as well as, the Cincinnati Railroad Club, stationed in Tower A overlooking the station. It was a new incarnation that’s lasted now for 25 years.

Today, the Cincinnati Museum Center averages more than 1.4 millions visitors per year. A virtual tour of the building is available online for those unable to visit in person.

The dome over Union Terminal’s main hall is intended to reflect a sense of motion – perfect for a train station!

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“The Museum Center has a goal of bringing in more experiences, modern-day science, modern-day exhibit activity,” Museum Center Vice President Elizabeth Peirce told the Huffington Post. “We’ve got one-stop shopping for cradle-to-grave educational experiences.”

Currently, mummies are one of the themes at the Museum Center. The Omnimax Theater is showing the IMAX movie Mummies: Secrets of the Pharaohs while the Natural History Museum is exhibiting Umi the Mummy as part of their Mummies of the World exhibition.

The Cincinnati History Museum displays more recent and local history. Guides teach Cincinnati history in full costume and completely in character of city residents from the late 1700s to the early 1900s. Learning is interactive in the history museum; visitors can help Ohio River boaters with their cargo and printing press owners with setting their type. A miniature model of the 20th century period with moving trains, as well as interactive computer stations, provides even more engaging education.

It is natural that the Cincinnati Union Terminal housed and continues to house so many museums, as its architecture is a time-capsule of the time in which it was built and the station itself is a living example of Cincinnati history, evolving along with the times instead of becoming obsolete and getting destroyed, or becoming a relic with historical significance but no practical use.

But even now, the Cincinnati Union Terminal is not just a museum. It has returned to its original and intended purpose: a train station.

Three times a week, Amtrak trains pass through on the Cardinal route from New York City to Chicago, and back. The return of Am-
trak makes Cincinnati Union Terminal one of the busiest train stations in the state of Ohio. Still, for a third time, the terminal faced long odds when National Trust for Historic Preservation listed the Cincinnati Union Terminal as one of the 11 most endangered historic sites in the country, due to deterioration. “Engineers are looking at the seven- to 10-year range until the disrepair becomes major,” Elizabeth Pierce, Vice President of Cincinnati Museum Center, told Grace Dobush of Wired. “If we don’t fix it now, the deterioration of the building will escalate from the current rate—and it becomes significantly more expensive to do than it is to do right now.”

Again, the voters of Hamilton County arrived to save it. With a 61 percent majority, residents voted to increase their sales tax in November 2014 in order to raise money for the restoration of the beloved station. “I am pleased to offer my hearty congratulations to the Cincinnati region for your support and passage of Issue 8 to save Union Terminal,” congratulated U.S. Veterans Affairs Secretary Bob McDonald in a statement released by his office. “This successful vote indicates what we’ve known for a very long time—that this community loves Union Terminal and values its future! So many people have been a part of making this effort a success tonight.”

McDonald was founding chairman of the Cultural Facilities Task Force that promoted the restoration of the Cincinnati Union Terminal, and was personally invested in the vote. Another McDonald personally invested in the rescue was, Doug McDonald, President and CEO of the Cincinnati Museum Center.

“We will be the generation that will restore this building and create the legacies and the memories of tomorrow by restoring this iconic building, Union Terminal,” McDonald told Lucy May and Greg Noble of WCPO Cincinnati.

Now that the Cincinnati Union Terminal has been rescued, it may be able to rescue another struggling service – neighboring Indiana’s Hoosier State line. Ever since the 2008 Passenger Rail Investment and Improvement Act mandated that state government must fund the intercity passenger routes of Amtrak within their states, Indiana has had trouble raising the money to support its section of the Hoosier Route, which runs from Chicago to Indianapolis.

Ridership on the daily Hoosier train decreased by 10 percent this year, compared to 2013, and the Indiana Department of Transportation is considering discontinuing the service. Nonprofit All Aboard Ohio has proposed a solution to the Hoosier’s budget issues. The organization suggests extending the route into Ohio, stopping in Cincinnati, at Union Terminal, as well as in Oxford so that Miami State University students can ride. Adding Ohio to the Hoosier Line would give Cincinnati a daily connection to Indianapolis and Chicago, as the Cardinal only runs three days a week.

Within Cincinnati, there is already a local rail transit under construction. The Cincinnati Streetcar is scheduled to begin operation in 2016, with 17 stations throughout the Queen City utilizing five modern streetcars. Following its debut, an extension proposed to serve Union Terminal, proving that the terminal’s revitalization as a station and Museum Center is attracting more new business and new visitors.

The Cincinnati Union Terminal has endured multiple flatlines of abandonment, attempts at demolition, and failed revivals in it’s more than 80 years of existence. But it also celebrated the triumphs of art, its architecture and murals, of history, its museums and preservation, and most importantly, of transportation, getting people where they want to go.

Although Amtrak’s footprint at Union Terminal is limited to a waiting area in the former barber shop for the thrice-weekly Cardinal between New York and Chicago, the space is in keeping with the building’s flow and design.
Most of the nation’s first rail and transit lines were privately funded. By the mid-20th century, proponents of new transit infrastructure – of which they’re weren’t many – developed the first transit advocacy campaigns, such as this one for Southern California in 1948. The Los Angeles County Metropolitan Transportation Authority (MTA) has achieved the full version of this plan here, which includes some of the same arguments used by transit supporters today to generate support for investment in mobility options.