Urban Expressway Removal in Buffalo: The Historical Context

Daniel Cadzow

Overview

Because our lives are only so long, it's difficult for most people to imagine Buffalo's landscape being much different than it is now. Relatively few are alive now who can remember Delaware Park before the Scajaquada Expressway cut it in two; what Humboldt Parkway was like before the Kensington Expressway destroyed it; or what the Waterfront was like before Interstate 190 severed it from numerous neighborhoods along Buffalo's west side. So there's a temptation to think of features like these (and the traffic patterns they've caused) as timeless and irrevocable. The goal of this brief is to provide a historic context for our transportation infrastructure, a sense of the impacts (good and bad) this infrastructure has had on our city, and some insights into the thinking that got us here as well as the thinking that can move us in the best direction forward. The hope is that through studying our history we can avoid repeating past mistakes and even repair some of the harms they have caused.

Buffalo Transportation History

As any Western New Yorker who managed to stay awake in high school history class recalls, securing the western terminus of the Erie Canal in 1825 is the reason Buffalo grew from a tiny, isolated frontier village to the Queen City that was, for a time, at the crossroads of the nation. The transshipment of goods between canal boats and Great Lakes ships meant we got a piece of everything that passed between the Breadbasket of America and the Eastern Seaboard. This unique transportation feature is why we have the City of Buffalo today and boast the world's largest collection of grain elevators.

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The policy brief summarizes the history of transportation infrastructure in Buffalo and some of the thinking behind its development. It sheds light on many of the negative impacts that urban expressways have had in Buffalo and provides suggestions for how our city should think about moving forward, avoid repeating the mistakes of the past, and repair some of the harms caused.

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PARTNERSHIP FOR THE PUBLIC GOOD

When railroads took preeminence over canals in the mid-nineteenth century, our location remained favorable for commerce. Railroads, like canals, have difficulties with sharp changes in elevation, and they naturally followed the path of the prosperous developments fostered by the canals. By 1900, railroad companies in Buffalo owned over 3,500 acres within the city, employed over 20,000 people, and even owned much of the Great Lakes shipping industry. At that time, Buffalo was the second largest rail center in the U.S.[1]

As time went on, many of the manufacturers that had set up shop near specific natural resources (coal, iron, copper, water power, etc.) began to relocate to transportation centers like Buffalo. They did so because that era's transportation infrastructure made it more efficient to combine raw materials and production at one central location with increasingly large and mutually-interdependent factories and power plants. Thus began Buffalo's great era of industrial manufacturing – when everything from Larkin Soap to Pierce Arrow automobiles was made here.

Buffalo's preeminence began to wane in the 1950s for many reasons. One was the opening up of the Welland Ship Canal and Saint Lawrence Seaway. The Upper and Lower Great Lakes were now directly connected to each other and to the Atlantic Ocean. Commerce between the Breadbasket of America and the East Coast no longer relied solely on the Erie Canal or the railroads. Great Lakes freighters began to sail right past Buffalo without so much as a nod. With that, the Erie Canal gradually became a historic footnote, used only for recreation.

At the same time, huge amounts of federal funds were pouring in to construct great roadways as the Eisenhower Interstate System was born. While much more polluting, less safe, and less efficient, freight by truck soon surpassed freight by train. This is thanks to the freedom that roads give, compared to rails, but also due to the fact that the roads were subsidized by tax dollars while the railroads were built and maintained by the railroads themselves. With that, Buffalo's advantage as a transportation mecca was all but gone.

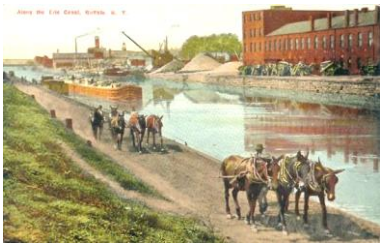

Figure 1: "Along the Erie Canal, Buffalo, N.Y." (No. M 71, Buffalo News Co., Buffalo, N.Y.)

Source: Postcard; not postmarked; approximately 1908.

Globalization was the final nail in Buffalo manufacturing's coffin. Lax environmental regulations, inexpensive international transportation, and a lack of workers' rights made it cheaper for corporations to manufacture their products overseas and ship them to various markets, including Buffalo. The federal subsidies for car-based travel accidentally made overseas trade affordable by stimulating the production of cheap fuel. High-sulfur "bunker oil" is a byproduct of refining crude oil into the gas we use in our cars. It is too dirty and polluting to burn at home, so it is used to power freighters on the unregulated open seas. Few on tight budgets could resist the cheaper products. Sadly, not even many of the people who were losing their jobs to foreign manufacturing could resist those "good deals." The city entered a period of decline that would culminate in the shuttering or downsizing of major steel mills, grain elevators, and numerous other industries.

Figure 2: Bird's Eye View of Buffalo in 1901 showing the interplay of railroads, waterways, and manufacturing.

Urban Sprawl and Decline

There were other grievous social consequences to the new car-based travel infrastructure. Many of those who could afford cars took advantage of the new expressways to enjoy newer houses and larger lawns in the rapidly expanding suburbs. In the second half of the twentieth century, the city's population would shrink from roughly 600,000 to only 260,000, while the suburban population would boom. This was also fostered by federal policy: for example, returning soldiers from WWII were given low interest loans for housing, but only for new builds. They were not allowed to purchase existing homes in the city. Sadly, federal redlining policies combined with restrictive deed covenants, zoning restrictions, racial steering, and other engines of segregation concentrated people of color in inner cities and whites in suburbs. The suburbs also offered lower taxes as they supported largely residential infrastructure, whereas cities also had to pay for the infrastructure required by large corporations, industry, and commuters who earn money in the city but spend it and pay taxes elsewhere.[2,3]

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In the 1960s, urban renewal projects attempted in the Masten and Ellicott neighborhoods of the city proved ineffective. In 1967, the Kensington Expressway opened and the State University at Buffalo began expanding in Amherst rather than Buffalo.[4] As the city's wealth increasingly relocated to the suburbs, the tax base declined, infrastructure eroded, and poverty became increasingly concentrated. Try as they might, schools could not compensate for the socioeconomic desolation of our urban culture.

These negative effects were felt even more intensely in the neighborhoods that were slashed apart by expressways and inflicted with their noise, light, and air pollution. This era is often referred to as "white flight" and treated as an event from the past. But unfortunately "white flight" is reenacted every business day around five o'clock, and urban sprawl continues to this day – even as the population of the region as a whole has declined from over 1.3 million to roughly 1.1 million.[5] That is to say: Buffalo is still suffering from the transportation choices made over a half century ago.

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Inspiration, Hope, and People

With the advent of expressways, every geographic and transportation advantage that propelled Buffalo to economic greatness was lost. In addition, large swaths of the city, including most of its waterfront and key sections of its Olmsted parks, were all but destroyed by expressways.[6] Buffalo appeared condemned to become like so many other American cities: a burnt-out core surrounded by a ring of withering suburbs. But hope was found in the form of inspiration from other cities that avoided this fate: places like Portland, Milwaukee, and Austin. While they were affected by many of the same historic processes as Buffalo, they were making comebacks because they woke up to the real natural resource that built every city that ever was great: ***people***.

Figure 3: Vacant lot and crumbling infrastructure along the once prominent Humboldt Parkway, now Kensington Expressway, at Northampton Street.

Source: Map data ©2015 Google.

If a modern, post-industrial, American city is to thrive, it needs to get past the antiquated thinking that prosperity is dependent on the availability of natural resources (copper, iron, coal, timber or oil), or geographic advantages (waterways and harbors), or transportation infrastructure (canals, railroads or highways). Today's cities thrive because of people. Buffalo's continued revitalization is dependent on the promotion of the aspects of cities that attract and support people: jobs, parks, recreational and economic access to waterways, history, architecture, cultural institutions, entertainment, clean air and water, public transportation, safe housing for all incomes, complete streets, complete and interconnected neighborhoods, functioning governments, equitable and diverse modes of education, affordable access to broadband, access to food and healthcare, and vibrant and distributed business districts.

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How to get there from here seems daunting, but Buffalo has already made great strides – thanks in part to investments made by New York State that have been enthusiastically met with private sector investments. Not ten years ago, Canalside was in ruinous condition; thriving restaurant and entertainment districts were small and dispersed; and outside of normal business hours, downtown Buffalo was a ghost town. While the list of people-centered improvements that have occurred since then is too long to include, we still have a long way to go. In recent years, Buffalo's population has not yet started to rebound, but it may have stabilized.

One of the big factors thwarting a population rebound is that large portions of the city are far from experiencing Buffalo's revitalization. The good news is we have some important projects that can be used to mitigate this inequity. Some are all but shovel ready, others need to be fast tracked, and others need to be placed plainly and firmly on the horizon. These include the redesign of the Scajaquada Corridor; the capping or full restoration of the remainder of Humboldt Parkway; and relocating I-190 away from the waterfront, redesigning it, or removing it altogether (successful examples from

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other cities include Lakeshore Drive in Chicago or Harbor Drive in Portland). Unfortunately, the recent decision to construct the new railroad station near Canalside makes it unlikely we will be able to remove the Amtrak line that largely parallels I-190. This blocks waterfront access and restricts the area available to eventually redesign or remove the expressway. Regardless, we need to make sure these once-in-a-lifetime projects are implemented with the state of the art knowledge of traffic engineers and urban planners to maximize the benefit for all involved: from the suburban commuter to the urban pedestrian.

Level of Service (LOS) Hurts Us

One critical step is to abandon the obsolete metric of roadway function known as Level of Service (LOS), which measures how much traffic a roadway can support. It became a guiding principle for traffic engineers back in the 1960's when the expressways were first built. The thinking was that the only cure for traffic congestion was to enlarge the roads to accommodate more cars. It completely ignored the amount of people and goods that can be moved by public transit, cycling, or pedestrian travel.[7] Furthermore, it ignored the transportation network's impacts on the distribution of goods and services and on the social fabric of communities.

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Reliance on this metric unwittingly ratcheted us further and further along the car-dominated transportation rut. Traffic engineers were given carte blanche in designing roadways. Concerned only with moving motorized traffic, they designed roads with their maximum capacities in mind. Their priority was to make sure traffic flowed freely during peak travel times like rush hour, major events like concerts or football games, and even hypothetical disasters.

However, we have learned from actual studies of roadway expansion projects that the reductions of congestion were small and temporary.[8,9] Drivers tolerate a certain level of congestion regardless of the road size. It is not just commuters; they make up

only about 18% of traffic volume.[10] Much of traffic volume is determined by what people are willing to put up with to go shopping, get coffee, go hiking, etc. As the LOS expanded, people were willing to drive further and further not just for work but also for other day-to-day needs. Congestion did not go away –like the LOS, it expanded like a fish that grows to the size of its tank. Under the LOS model, the only reductions to congestion were realized when the urban decay it caused destroyed the reasons for people to inhabit those places (as in large portions of Detroit).

As roads were widened and LOS increased, the degree to which they could accommodate pedestrians, cyclists, and public transit decreased. When roads were enlarged to become limited access expressways, pedestrian, cyclist, and public transportation accommodations were lost entirely. This of course generated an increased dependency on car-based travel, increased congestion, and a need to again increase the LOS. As the roads grew, so did the negative effects they had on the surrounding environs.

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This synergistic effect increased the distance between people and the goods and services that they rely on. Eventually the focus on LOS created landscapes where most people are literally addicted to their cars (as in Los Angeles). Those without cars are seriously handicapped in the carrying out of daily activities. Many are coerced by the built environment into buying a car – if they can afford one. Meanwhile, businesses aggregated in locations near large roadways on cheap land that could support large parking lots. And many of the neighborhoods in between became food, commerce, and job deserts. Perhaps most importantly, this kind of development increased congestion, crashes and the illnesses associated with traffic pollution that have such dramatic consequences on our health and finances.[11]

Focusing on LOS and grabbing at federal dollars that come attached to outdated and unenlightened conditions have caused too much blight and needless suffering across our city. This is true of

our midcentury expressways but also of more recent projects. The 2009 reconstruction of Main Street from South Campus to Humboldt Parkway was funded with 80% federal dollars. A requirement of receiving those federal dollars was that raised medians be incorporated because they were believed to calm traffic. As we sadly discovered, they also stop traffic dead in its tracks when unsuspecting drivers crash into them. Flashing caution lights and barrels of sand have been placed in front of some to protect motorists and medians from each other. The medians also gobbled up space that could have been used to accommodate bike lanes, which also calm traffic and improve our VMT (discussed below). In addition, their maintenance is costly and dangerous. Buffalo should not be forced to choose between maintaining the absurd and making things worse. We need to draw from the numerous examples of what works and use them to make things better.

Figure 4: Expressways and large roads isolate pedestrians and cyclists, even from adjacent neighborhoods, from shopping districts like this along Walden Avenue and Interstate 90.

Source: Map data ©2015 Google.

Moving Forward with Vehicle Miles Traveled (VMT):

As we determine the future of our roadways, Buffalo is fortunate in that we can learn from cities that have already begun digging out of the LOS rut.[12] A talk hosted by the Buffalo Olmsted Parks Conservancy in December 2017 made these brighter possibilities very clear. It featured traffic engineer Ian Lockwood, who has pioneered the abandonment of LOS for the more holistic roadway metric known as Vehicle Miles Traveled (VMT). VMT is simply the number of trips multiplied by the distance traveled. A lower VMT is better because it means people are successfully carrying out their day-to-day activities in ways that require less driving. That means less congestion, fewer crashes, more greenspace, less pollution, and more free time. The entire talk can be viewed online.[13]

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Mr. Lockwood presented numerous examples of places where urban expressways and major arterials were removed or put on road diets. Invariably what was lost in terms of LOS was gained by improved VMT. The landscapes that had suffered from the overbuilt infrastructure under the LOS model were restored to human scale,

with multimodal roads that were thoughtfully integrated with the surrounding network of streets. The recovered land, as well as the peripheral lands that had been damaged by traffic pollution, were allowed to heal and fill in with neighborhoods, green spaces and businesses. The distance between people and the things they rely upon decreased. People began accomplishing what they needed with less driving and were rewarded with more free time and a much more livable environment.

The recovery seems to happen very fast once the redesign and road diets are implemented. It is likely that the shocks construction causes to traffic patterns push drivers to rethink their habits. This sets the stage for a more optimal reorganization to the new traffic patterns once construction is finished. Traffic, after all, is inherently self-organizing both in terms of routes and modes of travel (i.e., car, car share, bus, bike, or foot). Often, it is our attempts to control, channelize, and over-regulate it that cause the most problems.

In slide after slide we were shown before-and-after photos of barren, concrete and blacktop streetscapes that were replaced with vegetation, businesses and people – not virtual people in artificial NYSDOT renderings, but the real, live people that make our cities great. These are real examples of expressway removals and road diets that were overwhelmingly successful.

The surrounding roads readily absorbed the multimodal traffic and prospered. That is because traffic is not good *or* bad; it is good *and* bad. In addition to being the source of congestion, collisions, and traffic pollution, traffic is the life blood of neighborhoods as well as cultural and business districts. Who can recall visiting any thriving urban environment where traffic was not an issue? The question is how to accommodate it: Do we channel all of traffic's harms into one area and deprive other areas of traffic's goods? Or do we integrate traffic at the human level to minimize the harms and maximize the goods everywhere?

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Project Specifics

The most recent designs proposed by NYSDOT for the Scajaquada Corridor were too deeply entrenched in the LOS rut.[14] Many of the intersections were ridiculously oversized and unsafe for pedestrians, cyclists, and motorists alike. The medians that were supposed to calm traffic would:

- prevent the redesign from returning acres of stolen parkland to the city;
- remove traffic's ability to self-organize in response to collisions, construction, and other unexpected events;
- hinder first responders;
- add to the dangers of oversized intersections, and
- create expensive and dangerous maintenance issues that are not even addressed in NYSDOT's proposal.[15]

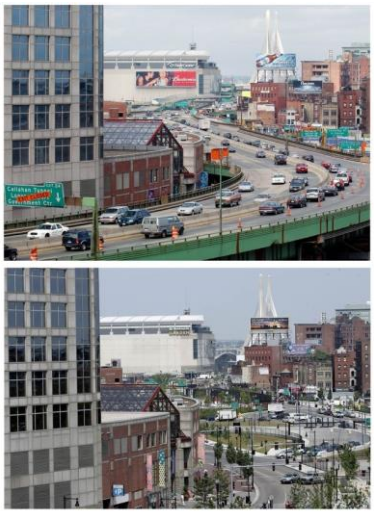

Figure 5: The Central Artery in Boston (top) was replaced by the Rose Kennedy Greenway (Bottom).

Thankfully, it appears that NYSDOT is now willing to shelve those designs and listen more to community voices. As NYSDOT rethinks the plan, it needs to make sure that the redesign addresses the entire corridor –not just an arbitrarily chosen section that hijacks a Fredrick Law Olmsted landscape to make an outdated and overbuilt road look less unattractive. At one end of the corridor there is a large expressway-induced food, commerce, and job desert, and at the other end there are several large grocery stores and business districts. The NYSDOT plans left large sections of the corridor incapable of accommodating public transit and unsafe for pedestrians and cyclists. As such, NYSDOT's plans completely failed to mitigate the harms caused to communities by the expressway construction where people were harmed the most.

There is no need for NYSDOT to prioritize LOS over VMT. In May of 2016, the Federal Highway Administration removed the requirement that state departments of transportation prioritize LOS as a condition for receiving federal funds. In addition, 11 of the 13

federal design requirements for urban roads were abandoned because they had minimal, if any, impacts to "safety or operation of urban streets." State and local municipalities were thereby granted the freedom to design roads around their particular communities and needs.[16, 17]

Despite the removal of these FHA requirements, NYSDOT pushed ahead with the LOS-driven designs. Strangely, NYSDOT Commissioner Matt Driscoll stated in an August 8, 2017 press release that NYSDOT was unable to gain Federal Support for the safer road design that community members and stakeholders have repeatedly called for.[18] This is difficult to understand because, in addition to easing its regulations on state DOTs, the Federal Highway Administration co-authored the 2005 Expanded Project Proposal for the Scajaquada Corridor that was widely supported by the community and did go further to improve safety.[19]

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Moving Ahead

As Buffalo picks up the pieces of the poorly handled Scajaquada redesign, we are concomitantly working on mitigating the ill effects the construction of the Kensington Expressway (NYS 33) has had on the neighborhoods surrounding the remainder of Humboldt Parkway. These studies need to ensure the same considerations are implemented to their fullest and that the same mistakes made by NYSDOT with the Scajaquada Corridor redesign are not repeated. Many of the current proposals are inadequate in that they treat only small sections of the Parkway—notably nearest the Medical Corridor that is experiencing an especially rapid and pronounced era of revitalization and, sadly, gentrification.[20]

The Erie Canal, Great Lakes commerce, railroads, and large-scale manufacturing are part of Buffalo's astonishing, tragic, and yet magnificent history. But they are not coming back as economic engines, outside of providing a rich historic landscape for today's residents and by promoting tourism. If Buffalo is to succeed in its

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continued revitalization, it will have to capitalize on its greatest resource, our people. We cannot have a healthy, fully revitalized city if we prefer the needs of some citizens and stakeholders over others. No amount of privilege can isolate any of us from the needless and pointless suffering of others. Buffalo will succeed or fail together as one city, and how we structure our transportation infrastructure is intimately interwoven with that outcome. We know this is true because, as we keep one eye on progress, we are keeping the other on history.

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