Imagine you have an antique coal-fired furnace sitting in your living room. You’d love nothing better than to trade it in for a central climate-control system, but the beast still works, after a fashion, belching heat and noxious smoke. And anyway, it’s so huge you’d have to chop up the dirty old thing — or knock down a wall — in order to get it out of the house. So you keep nursing it along, scavenging parts and welding patches over rust spots.
That is more or less the situation many American cities find themselves in when it comes to their highways. Elevated multilane interstates, built several generations ago to speed commuters and freight through dense metropolitan areas, have become clotted receptacles for vehicles that idle, inch forward, and brake. These roads work, after a fashion, even though the cars they carry foul the air and the structures themselves shed oily fluids and chunks of concrete. And so we keep fixing them up, clinging to outdated infrastructure because doing anything else would be too burdensome even to think about.

The most noisome furnace-in-the-living-room right now is the Brooklyn-Queens Expressway, or at least the ramshackle mile and a half that skirts Brooklyn Heights and Cobble Hill. The BQE is an anthology of coulda-shoulda-wouldas. Robert Moses could have tunneled it beneath Brooklyn. The Bloomberg administration should have dismantled and reassembled it before boxing it in with Brooklyn Bridge Park. The state transportation department was going to overhaul the most perilous stretch, but then scrapped the project in 2011, having suddenly decided that the highway was fine as it was.

Now it’s the city’s turn again to figure out what to do with a roadway that everybody hates but that 153,000 vehicles trundle across each day. It’s not as if the project has gotten any cheaper or easier. So far, the city’s DOT has floated two, more or less equally horrendous options: make piecemeal repairs, causing eight years of Munch’s Scream-level congestion, or commandeer the Brooklyn Heights Promenade as a temporary highway and tolerate a different kind of misery for a mere six years. The projected cost ranges from $3 billion to $4 billion, but it seems prudent to consider that time frame and budget as an attempt not to scare the kids. This is, after all, a city that can’t build a little branch library without spectacular delays and overruns.

I feel for transportation commissioner Polly Trottenberg. She works within a system that makes it virtually impossible to get out her bureaucrat binoculars and peer into the future of her field. Instead, she has a right-now dilemma of her own: kick the can down the potholed road again, or inflict suffering today so that in 2030 (or ’40) we can enjoy what may by then be an obsolete monster. Climate change, congestion, automated driving, and common sense will make personal cars in cities the cigarettes of the 21st century, offensive to most, beloved by some, and perennially hard to kick. One way to help usher in that future is to let the BQE expire of natural causes.
Catastrophe! the DOT cries. Brownstone Brooklyn will be clogged! Joralemon Street will transform into a parking lot. Maybe. It’s well known — except, it seems, among highway-happy politicians — that widening a congested road creates a wider, equally congested road. The more lanes you build, the more they fill up. The converse is true, too. A landmark 2002 article by a group of British researchers (Sally Cairns, Stephen Atkins, and Phil Goodwin), called “Disappearing Traffic: The Story So Far,” documented what happens when urban roads go away: so do drivers. That conclusion has been confirmed many times, and it’s not really a mystery. Traffic, like water, flows where it can, filling up available channels until it’s diverted into other routes or drivers decide they’d rather walk or take the subway. Government can manage the volume of vehicles with tools it has so far been reluctant to use, like congestion pricing, East River bridge tolls, and a less mortifying transit system. Or it can spend billions on roads.

City officials also have freight on their minds, because trucks make up about 11 percent of the BQE’s volume and the number could rise. Consumers who expect safety pins, soap, and lawn blowers to be teleported from website to doorstep forget that all those purchases translate into truck traffic on the city’s streets and roads. And as Industry City, the Brooklyn Army Terminal, and the Brooklyn Navy Yard become busier every day, they too are trucking ever-more components in and finished products out. But those are reasons to take a close, hard look at how we will be moving goods around an ever-denser region a few decades from now — maybe not by box truck and tractor trailer. The industrial waterfront relied on water-based transportation, for example; the postindustrial waterfront might do the same. In any case, committing to a multibillion-dollar replacement of a single troubled highway shouldn’t be step one.

But the BQE should not be killed off without acknowledging the utopian genius of its most brilliant mile. The idea goes back to Futurama, an exhibition for the 1939 World’s Fair in which the designer Norman Bel Geddes imagined that pedestrians would one day float above high-speed traffic on elevated sidewalks. Just over two decades later, they did, at least for half a mile of Brooklyn waterfront. The BQE was a thing of modern beauty then, looping past operatic views of lower Manhattan, then splitting into a triple-decker cantilever, with two levels of traffic holding up the Brooklyn Promenade on top. (The elegance of this arrangement is that the roadway gives birth to a pedestrian allée. The problem is that when the roadway crumbles, so does the pedestrian allée.)
It’s an innovation with venerable roots. The landscape architect Michael Rapuano, who designed the BQE along with his partner Gilmore Clarke, spent time in Rome, gazing at the urban vista from terraces just like this. Charles Birnbaum, the head of the Cultural Landscape Foundation, makes a persuasive case that the Promenade was Rapuano’s translation of Rome’s Pincio into Brooklynese. The architects Marion Weiss and Michael Manfredi have made the point that the BQE’s stacked design — “compact bunk-bed urbanism,” they call it — should inspire a new generation of infrastructure that incorporates parkland and public space.

The idea of layering infrastructure is ancient and new again. When Florence’s Old Bridge, the Ponte Vecchio, was destroyed and rebuilt in the 14th century, it was lined with shops. The Pont Notre-Dame in Paris supported a whole residential neighborhood of 60 grand houses, until they were demolished in the 18th century. When Grand Central Terminal was rebuilt and its tracks were decked over in the early 20th century, the project created Park Avenue, with a generous pedestrian median, and a complex of hotels and office towers called Terminal City. Later in the century, engineers threaded the FDR Drive between the East River and the city’s edge, which in some spots — at Sutton Place and the U.N., for instance — grew out over the highway.
More recently, architects have proposed growing entire villages on the structures of existing bridges and viaducts, emulating the way mollusks attach themselves to concrete piers. On a more modest and practical scale, Toronto has begun reclaiming the wasted acres beneath its Gardiner Expressway and turned them into the Bentway, an ice-skating trail that links outdoor markets, art, and performances.

The most thorough way to eke urban acreage from a space-hogging highway (short of deleting it completely) is to bury it. The DOT has rejected that solution for the BQE, on the grounds that it is cumbersome and expensive. And yet tunnels can perform miracles. Oslo rerouted a highway that ran through its heart, banishing it beneath the fjord and reclaiming the waterfront for foot traffic and, well, life. Boston's Big Dig, which buried a stretch of interstate, took 15 years, cost $24 billion, and caused astronomical levels of grousing, but it also freed up 300 acres and rejoined parts of the city that the elevated highway had sundered. To anyone who ever sat for hours, fumigated and immobilized, on the I-93 at rush hour, being able to stroll along the Rose Kennedy Greenway, which follows the same route, is a major urban gift.

And yet, despite all the creative thinking that history provides, the city remains stubbornly unwilling to think beyond a demolish-and-replace strategy for the BQE. “A technology of solving the physical problems had been perfected” in the mid-20th century, writes Robert Caro in *The Power Broker*, his landmark biography of Moses, “but not the methods and machinery for the creation of large-scale urban public works in a democratic society; the American system of government almost seemed designed to make such creation as difficult as possible.” That’s still true. As the nation’s roads and bridges tumble into obsolescence, the great generational challenge will be how to get the most livability out of their replacements. Unfortunately, a system in which politicians can toss thorny, expensive problems back and forth for decades is anathema to long-range thinking. Which is why we’re still speeding over 100-year-old bridges and through ancient tunnels with our fingers crossed.
Highway Removals

Reconnecting Cities through Urban Highway Removals

September 11, 2017

A few years ago I attended the “Re-Imaging Urban Highways” program in Philadelphia. Organized by Drexel University and The Next American City, the event was a who’s who of visionary planners at the top of their game discussing urban highway removals. The presentations focused on portions of the Interstate system that cut through cities and ways in which communities, planners, and local politicians can ameliorate the negative impacts of these highway segments.

The history of the Interstate System is long, and going into it here may squander the 10 readers I have left, but I’m willing to take that chance. The core decisions which led to the Interstate being built through cities were made by the U.S. Bureau of Public Roads, the highway lobby, and an array of other people at the state and local level in an effort to “renew” cities, sell cars, and move people as quickly as possible from their offices to suburban homes.

Highway promoters and builders envisioned the new interstate expressways as a means of clearing slum housing and blighted urban areas. These plans actually date to the late 1930s, but they were not fully implemented until the late 1950s and 1960s. Massive amounts of urban housing were destroyed in the process of building the urban sections of the interstate system.

By the 1960s, federal highway construction was demolishing 37,000 urban housing units each year; urban renewal and redevelopment programs were destroying an equal number of mostly-low-income housing units annually. The amount of disruption, a report of the U.S. House Committee on Public Works conceded in 1965, was astoundingly large. As planning scholar Alan A. Altshuler has noted, by the mid-1960s, when interstate construction was well
underway, it was generally believed that the new highway system would "displace a million people from their homes before it [was] completed." A large proportion of those dislocated were African Americans, and in most cities the expressways were routinely routed through black neighborhoods. Raymond A. Mohl, The Interstates and the Cities: Highways, Housing, and the Freeway Revolt

In the mid 20th century, traffic engineers viewed cities as traffic problems to be solved, and often times neighborhoods were destroyed in the name of moving traffic efficiently. As urban living and the reputation of cities have seen a resurgence during the last 20 years, these anachronistic viaducts have created more problems. Places like San Francisco, Portland, Providence, and Boston were left with blighted freeway ribbons through prime (sometimes waterfront) real estate. To paraphrase Peter Park, former Planning Director of Denver and Milwaukee and Loeb Fellow at Harvard: "We used billions of dollars of federal money to devalue some of the most valuable real estate in America." It's not just a real estate issue, either. California has issued warnings about building housing within 500 ft of freeways due to their known health impacts, which include increased risk of heart attacks, strokes, cancer, asthma, autism and dementia.

As much as urban highway removal is about getting rid of polluting structures which divide neighborhoods, it's also about economics. A comment made by the panel at "Re-Imaging Urban Highways" rang especially true: The land dedicated to urban freeways is an open faucet leaking money from the city. Instead of property tax revenue, new businesses and population growth, these highways consume land, depress land values, and give nothing back except a marginally shorter automobile trip for (usually non-resident) commuters.

Kansas City, before highway construction
But getting rid of urban highways sometimes takes an act of god, or god-like political will and community mobilization. To paraphrase Thomas Deller, Director of Planning + Development, City of Providence, many state DOTs don't care about cities – but they should. In Providence, where I-195 was torn down to create 20 acres of land which will be used to improve the social, economic and environmental health of the city core, requests by city officials for RIDOT to study highway removal alternatives were originally ignored. It took work by community groups which pushed the hand of the governor to demand that RIDOT study highway removal. Other removals, like the Embarcadero in San Francisco, were catalyzed by earthquakes, while proposals like the I-95 Philadelphia highway cap are piggybacking off of regularly scheduled highway repair/rebuilds. If hundreds of millions are being spent to repair infrastructure, why not make the city a better place for it?

Hearing about the successful highway removal in Providence reminded me of US 40 in West Baltimore and I-345 in Dallas. A recent study by TxDOT identified many of the deleterious issues associated with urban highways I’ve discussed here and proposed an array of design remedies, including tearing down I-345 in Downtown Dallas. If there’s some good that came out of urban highways, it’s that these structures serve as land banks which can spark imaginations and encourage planners and politicians to re-imagine what neighborhoods can be.

If you’d like a closer look at the real world results of urban highway removals, check out the Seattle Mobility Plan’s case studies for a rundown of projects all over the world. The Institute for Quality Communities at the University of Oklahoma also has before and after photos of urban highways. Finally, if you have an hour to spare, Congress for New Urbanism hosted a discussion about the traffic impacts of highway tear downs and how to sell these projects to politicians and the public.
Here Are the Urban Highways That Deserve to Die

CLAIRE TRAN  APRIL 3, 2019

The Congress for New Urbanism once again ranks the most-loathed urban freeways in North America—and makes the case for tearing them down.

On one side of Interstate 980 in Oakland rise the new glass skyscrapers of the city’s Uptown neighborhood, home to a bustling entertainment district and Silicon Valley’s spillover tech startups. On the other lies West Oakland, a “food desert” where two-thirds of residents live below the poverty line.

West Oakland residents should be able to benefit from the growing number of amenities available in Uptown, since they technically live in walking distance. But crossing the 560-foot-wide interstate and two frontage roads is a daunting task. It’s a prime example of one of America’s most divisive freeways—literally.
The 2019 edition of the latest Freeways Without Futures report, assembled semiannually by the Congress for New Urbanism, calls out North America’s 10 most ill-advised urban highways. These are the roadways urbanists love to hate: They isolate neighborhoods, subject residents to increased air and noise pollution, pummel property values, and sponge up resources that could be better used elsewhere. In an effort to speed their demise, every few years CNU gathers transportation and design experts to single out the worst offenders, ranking the freeways most ripe for removal based on alternative designs, traffic conditions, community and political support, and other factors.

Highway teardowns are a focus of growing attention, especially since many aging 1950s-era infrastructure projects have reached the end of their design lives and are due for refurbishment. Some cities are electing to remove rather than repair: So far, 16 North American cities have either demolished and replaced their freeways, and another nine have plans in the works.

San Francisco’s 1991 Embarcadero demolition is the poster child for this movement: Previously home to an elevated freeway, the site now features a walkable boulevard with shops and waterfront access. More recently, Seattle is currently aiming to pull off a similar transformation by removing its elevated Alaskan Way Viaduct for a street-level boulevard and waterfront space.

Foes of Oakland’s I-980 hope that this Bay Area interstate will soon meet the same fate. A short spur completed in 1985, I-980 is a repeat offender, having made CNU’s 2017 list, too. Its 18 lanes are excessive for current traffic loads (it’s at 53 percent of capacity), and plans to replace it with a surface boulevard have been around for years. But there’s fresh energy behind the idea these days, thanks to support from Oakland Mayor Libby Schaaf. A reworked design promoted by the nonprofit ConnectOAKLAND would shrink the road by 75 percent, gaining as many as 15 cross streets and reclaiming land that could be put toward affordable housing.

As the CNU list shows, communities of color are often targeted by freeway projects. In Dallas, I-345 tore a hole in the heart of the mostly African-American Deep Ellum neighborhood, leading many original businesses to close their doors. Tampa’s I-275 cuts off Ybor City, a National Historic Landmark District that’s home to a Cuban-American community. And the construction of Syracuse’s I-81 paved over homes in the city’s historic African-American 15th Ward; New York Governor Andrew Cuomo called that freeway “a classic planning blunder.”
Once built, urban highways can be hard to kill. Indeed, they often just get bigger.

New Orleans’ elevated Claiborne Expressway is a particularly stark case study in how highway construction can transform a neighborhood. Its arrival in the 1960s destroyed the grassy 100-foot median of Claiborne Boulevard, the oak-lined main artery of the largely African-American Tremé neighborhood. That green space once hosted everything from neighborhood games to Mardi Gras parades. When the expressway was planned in the 1960s, the community didn’t have enough political power to resist the project. Demolishing the freeway and restoring the wide boulevard would hand that space back to the community. Vacant lots currently adjacent to the highway could also be redeveloped, opening nearly 50 acres of land for new commercial development or affordable housing.

A rendering of a surface boulevard to replace the Claiborne Expressway in New Orleans. (Mac Ball, Waggoner & Ball Architects, for the Congress for the New Urbanism)

The dream of liberating prime real estate is also at play in Portland and Louisville, both of which have highways (I-5 and I-64, respectively) running along their waterfronts. Serial bad-highway offender Buffalo claims two more much-hated 1960s thoroughfares on the list: The Kensington Expressway replaced the wide elm-lined Olmsted-designed Humboldt Parkway with an asphalt trench; the Scajaquada Expressway routes traffic right through the city’s Delaware Park, forcing picnickers and joggers to run alongside traffic. A scheme to convert that highway into a lower-speed boulevard ran into fierce opposition and was scrapped last year.
That’s a familiar narrative, as political and practical considerations often trump demolition dreams. Once built, urban highways can be hard to kill. Indeed, they often just get bigger: Last August, Denver spent $1.2 billion to expand I-70, demolishing 56 private residences* and 17 businesses in the process, including one of the few neighborhood grocery stores and part of a nearby elementary school. But last December, Colorado’s Department of Transportation settled a lawsuit and agreed to sponsor an independent study on the health impacts of the expansion. That’s in line with recent political developments in the state. Newly elected Governor Jared Polis campaigned on cutting vehicle emissions and promoting public transit, and last November, voters rejected two propositions to spend billions on highway widening and expansion.

The massive interregional traffic on Austin’s I-35 makes complete removal impossible without serious delays, but there are other options, the CNU report says. Some community activists suggest putting the freeway below ground as a tunnel, and covering it with a narrower, pedestrian- and bike-friendly boulevard with walkable shops and dedicated transit lanes. Booming Austin is already dealing with increased gentrification, but burying the highway could open up about 30 acres of land which could help meet the demand for affordable housing.

Cities that do undertake freeway removal projects should develop strategies to combat displacement, or “the removal of the highway could simply exert a new generation of inequity for communities that have seen enough,” the report says. One example of how to do it right: Rochester’s Inner Loop East project. With the extra land gained by filling in the sunken expressway, the city created three mixed-use developments that include below-market-rate apartments. Another partnership is currently in the works to dedicate 20 units to a supportive housing program for formerly homeless residents.

Many residents, or their descendants, who were impacted by initial freeway construction will also be able to see it torn down within their lifetime. For them, demolition could represent an opportunity to right a historic wrong—“provided they will take part in the renaissance that results,” as the report says.