RETHINKING HIGHWAYS IN AMERICAN CITIES

JULY 2013

Peter J. Park

ABSTRACT: Since 2005, the Congress for the New Urbanism's Highways-to-Boulevards initiative has argued that replacing urban freeways with surface streets, boulevards and avenues is the most cost-effective, sustainable option for cities with aging grade separated roads. Since the West Side Highway was removed in 1977, CNU has tracked nearly 115 freeway candidates, more than 25 active removal campaigns, and ten successful removal efforts. The increase in removal candidates and active campaigns has repositioned urban freeway removal

not as an experiment, but as a growing trend for communities seeking solutions for aging infrastructure reaching the end of its design life. In “Rethinking Highways in American Cities: New Opportunities for Leadership”, Peter J. Park considers the obstacles that face urban freeway removal efforts. He documents the historical evolution of freeway construction and its devastating effects on urban neighborhoods. Park then considers the financial and political dynamics that made building or (re-building) highways in cities a de facto standard. Park also illustrates the opportunities to re-connect urban neighborhood transportation networks through technical improvements to the standard transportation planning process and a call for visionary leadership.

Rethinking Highways in American Cities

BY PETER J. PARK

Remove a Highway, Improve a City

Given a choice, most residents and local business owners in cities would not likely choose to have a highway run through their neighborhood. While U.S. interstate highways have served their intended economic purpose of connecting states and cities, they've also had significant physical, economic, environmental, and social impacts where they run through city neighborhoods.

Since the Federal-Aid Highway Act of 1956, America has spent billions of tax-dollars building and maintaining the National Highway System's 220,000 miles (after MAP-21) including 46,726 miles of Interstate Highways. But no urban neighborhood has been improved from these expenditures. Instead, highways that run through cities have divided neighborhoods, de-valued private property, reduced access to and efficiencies of local street networks, induced congestion, and facilitated suburban sprawl. Hindsight being 20/20, it's difficult to imagine that America would cut freeways through urban neighborhoods again.

No city has been harmed when a freeway was removed; every city that has removed a freeway has gotten stronger.

The freeway revolts of the late 1960's and early 1970's proved that such road designs are unacceptable to most urban communities. These aborted projects also proved that the proposed freeways were unnecessary in the first place. Cities (and neighborhoods) where local opposition stopped a freeway didn't suffer economically because the project was not completed. In fact, neighborhoods spared from demolition for freeways faired far better than those adjacent to completed ones. While Milwaukee's Lower East Side and Yankee Hill neighborhoods were initially impacted by demolition to make way for the Park East Freeway, these

neighborhoods recovered after completion of the freeway was aborted. However, just to the west, the Hillside, Haymarket, Kilbourn Town, and Juneau Town neighborhoods were devastated where the elevated highway segment was built and continued to struggle until the Park East freeway was removed.

Removing grade-separated highways from cities provides opportunities for reconnecting neighborhoods; improving transportation choices and access; and enhancing economic development in the form of new housing, jobs, and tax base. Where freeways have been removed, neighborhoods and cities have improved. It's that simple. No city has been harmed when a freeway was removed; every city that has removed a freeway has gotten stronger. In San Francisco, neighborhoods around the former Embarcadero and Central freeways have flourished since the elevated sections were removed. Their removal allowed the urban fabric to heal and become strong again; proving the strength and resilience of the urban form. The same has happened in Milwaukee, Wisconsin; Portland, Oregon; New York City, New York; Seoul, Korea; and many other cities in the U.S. and around the world.

While removing freeways from cities may seem more theoretical than practically possible, there are plenty of successful examples. The Congress for the New Urbanism's Highways to Boulevards Initiative chronicles cities the have successfully removed freeways as well as those seeking to remove them. In "The Life and Death of Urban Highways," the Institute for Transportation and Development Policy (ITDP) reports on five cities that improved after freeways were removed (or not built) and provides a global list of cities that have removed or are considering removing freeways.

It's More Political Than Technical

Metropolitan road infrastructure in the early 20th century was locally financed and managed through property taxes, bonds, and special assessment districts. Through local control (a hallmark of American governance) cities decided how funds would be deployed. This enabled cities to organize streets, land use, and development in ways that returned public and private benefits; fundamental value capture. However, the combined effects of declining tax revenues during the Depression and increasing automobile ownership in the 1930's created significant fiscal challenges for cities to keep up with increasing demand for roads. Believing that more roads would alleviate congestion, municipal leaders lobbied their states to use fuel tax revenues for new urban highways. At the time, rural representatives dominated most state legislatures and generally opposed funding urban projects. They were focused on converting rural roads to "mudless highways" and improving farm to market travel. However, by the late 1930's states began to support inter-city roads. Eventually, in

the mid 1950's, intra-city roads were included in state highway plans as growing federal funding programs (based on new fuel tax revenues) gave states greater oversight of urban highway projects. [1]

At the same time municipal governments were losing control over major roads in cities, a national highway campaign was launched in a cooperative effort between private industry and the national government. This campaign advocated for greater support for highway engineers with the belief that they could solve America's growing congestion problem. [2] Engineers rose in their domination of state and federal departments of transportation but with a narrow focus on maximizing traffic throughput. Politics continued to influence funding policies and highway design. For example, in order to generate enough traffic to justify inter-city systems that would benefit rural areas, states insisted freeways directly access city centers; which usually meant cutting through urban neighborhoods. Unfortunately, city officials and influential downtown business leaders not only accepted but often supported such proposals believing that additional federal and state money would help improve cities by clearing of older, declining areas. [3]

Focused on creating more demand for cars, Detroit automakers also advocated for freeways that connected growing suburbs directly to city centers. They worked with a broad range of industrial, commercial, and building trade associations and lobbyists and launched a national campaign in partnership with the federal government to promote highway building. Powerful messaging that drew upon patriotic themes promised greater freedom and prosperity for America through more and bigger highways. As more highways were built between and through cities, transit options dwindled. Cars and buses replaced robust rail and streetcar networks in every large city while downtown buildings were cleared for parking.

Transportation infrastructure in cities that enhances local access and economic opportunities for neighborhoods should be prioritized.

The influence of Progressive Era beliefs in scientific expertise combined with public pressures to build more roads led politicians to empower and rely on engineers to make important decisions regarding highways. For engineers, maximizing traffic flow using uniform design standards was more important than local land use or development concerns. Functional priorities that served higher traffic speed and congestion relief became the primary design criteria.

The weakening of local control over major urban roadways combined with the powerful national highway campaign shaped the sprawling American landscape in the second half of the 20th century. These political influences also shaped the policies, standards, and

[1] Jeffrey R. Brown, Eric A. Morris & Brian D. Taylor AICP (2009): Planning for Cars in Cities: Planners, Engineers, and Freeways in the 20th Century, Journal of the American Planning Association, 75:2, 161-177

[2] *Freedom of the American Road.* Ford Motor Company. MPO Production, Inc., 1955

[3] Brown, Morris & Taylor, Planning for Cars in Cities.

planning processes used in highway projects that, despite later legislation intended to provide remedies (e.g. National Environmental Policy Act; Transportation Equity Act for the 21st Century; Intermodal Surface Transportation Act; Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) still remain fundamentally unchanged as they relate to road design. While some modal balance has been achieved, the narrow set of design parameters focused on level of service, congestion relief, and operational safety of roads still rule standard practice. Consequently, limited-access highways and long trips for motorized vehicles continue to be prioritized over short local trips that could be accomplished by others means such as walking, transit, bicycling as well as driving.

In practice, limited access grade-separated highways remain the primary design solution in urban contexts. Herein lies the problem and it's a simple, but significant, design flaw. Highways that run through cities simply are not good for cities because they restrict *access* and *exchange* – the essential purpose of cities. They deny the basic economic, social, and cultural relationships that make vital urban places. Lewis Mumford warned against highways in cities and Jane Jacobs explained the value of a fine-grained, connected street networks. Even Dwight. D. Eisenhower, the president that championed and signed the Federal-Aid Highway Act of 1956 favored a system of ring roads around cities instead of running highways through them.[4] Conflicts occur where limited access designs meet robust local networks. This is why limited access highways fail to meet their mandate in cities; they actually attract traffic and create congestion rather than reduce it. During peak periods, drivers are held up by queues forming at few access/egress points rather than having multiple options to access destinations.

Narrow policies and technical criteria have dictated major road design in cities for more than five decades. From a technical perspective, the failure of limited access grade-separated highways in urban settings is well documented. Unfortunately, policies and standard practice have not adequately adjusted to this reality. For example, in a given corridor, highway funds have been geographically limited in where they can be applied. This has made enhancing local street networks with federal dollars difficult even if such improvements would reduce travel demand on the highway facility. Combined with typical perceptions that all traffic is undesirable and nearby neighborhoods would only be harmed by additional traffic, design options that improve local access and catalyze new development that could provide additional services and amenities in neighborhoods are rarely even considered.

The highway in the city is a failed experiment and there is evidence to prove it. The most obvious is that highways that run through urban neighborhoods have never improved local conditions; actually they've done just the opposite. But the most compelling and hopeful evidence is found in cases where highways were removed and replaced with connected urban street networks; mobility and access improved, walkable neighborhoods emerged, and new development investments delivered local economic prosperity.

[4] Reid, Robert L. "Paving America Coast to Coast" *Civil Engineering* (June2006): 37-43

There is no compelling technical reason for building (or re-building) highways in cities today but it will take a significant political shift for practice to change. America needs a new campaign and now is an opportune time for it to be heard.

New Design and Leadership Opportunities

In 2009, the American Society of Civil Engineers gave the nation's infrastructure a "D" grade and estimated $2.2 trillion was needed just to bring things up to minimum standard. As vehicle-miles traveled have trended downward[5] in recent years and cars are getting better gas mileage, fuel tax revenues have declined while costs for maintenance, especially of older infrastructure, has not. Federal and State governments struggle to find ways to pay for basic maintenance of existing infrastructure. Much of the original interstate infrastructure built in the 1950's and 1960's is nearing or past its projected useful life. Major investments will be needed to address these aging highways. With proof that these designs failed urban neighborhoods as well as proof that removal of highways in cities is not only possible but also beneficial, there is a significant opportunity to reconsider past approaches of highway replacements and expansions and the decision processes that create them.

For 21st century cities to be successful, failures of the second half of the 20th century can't be repeated. Instead of just focusing on how to raise more revenue to build old solutions, the priority of *what* gets built needs to change. Transportation infrastructure in cities that enhances local access and economic opportunities for neighborhoods should be prioritized.

It is important to recognize that no highway has been removed in a city as a result of a typical evaluation study; the process is just not designed for such outcomes. The scope of issues addressed and available options is simply too limited. The scope of "Purpose and Need" statements should be expanded to address implementation of local community goals and optimizing outcomes instead of just accommodating future projected traffic (improving level of service, reducing congestion, and improving safety) and mitigating impacts. While NEPA, EIS, and EA processes are well intended, they focus on mitigating harmful effects of highways (and usually assume highways are necessary) rather than maximizing opportunity to strengthen communities (and seriously consider alternatives to highways).

Furthermore, the study area boundary of highway projects in cities is often too small and the scope too limited. This hinders consideration of regional solutions and/or improvements to local street networks and transit even if they would provide better mobility. It often confines community discussions to choosing between alternative highway alignments versus economic development and enriching local access. As a result, the normal highway planning process simply won't yield a recommendation to replace a grade-

[5] Sundquist, Eric. "Per capita VMT ticks down for eighth straight year." State Smart Transportation Initiative. Web. 25 Feb. 2013. http://www.ssti.us/2013/02/per-capita-vmt-ticks-down-for-eighth-straight-year/

separated limited access highway in a city with an enhanced local street network and/or enhanced transit.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) can provide strong support to efforts in removing highways in cities and restoring neighborhoods around them. The expansion of Transportation Infrastructure Finance and Innovation Act (TIFIA) from the previous $122m/yr to $750m/yr in year one and $1b/yr in year two is significant not only because due to the increased money in the program but, more importantly, because it's built on a value capture model. Because these are federal loans, awarding of TIFIA dollars presumes a project will create added value that provides future revenue streams to pay back the loans. TIFIA loans can be augmented with local sources such as tax-increment financing (TIF). Expansion of TIFIA encourages communities to focus on partnerships and more sustainable and long-term investment strategies versus spending "free" federal money to build infrastructure in the short-term. Another important change that MAP-21 introduces is greater flexibility for states to transfer up to 50% of funds from any one program to another. While this could be viewed as a threat to metropolitan areas, it could also be very helpful in enhancing local street networks in cities in conjunction with highway removals. It could help define more sustainable, investment-based, and long-term perspectives for a state DOT. Strong arguments could be made in support of removing (or not rebuilding) highways and enhancing local mobility in urban areas because doing so would reduce future highway maintenance and replacement costs for the state and provide more funds for growing suburban and rural needs in the future.

Cities that have replaced freeways with enhanced access networks have three important common characteristics: 1) strong community support with extraordinary leadership and political will, 2) an urban vision for the city that is not dominated by the automobile, 3) decision processes driven by long-term community investment priorities versus spending federal allocations on projects within given timeframes. The following recommendations are intended to help facilitate removal of unnecessary freeways in cities in ways that benefit (in order of priority) neighborhoods, cities, regions, states, and the nation.

In urban neighborhoods where highways run through, cities should plan proactively to capture the local point of view about the neighborhood's future and options related to the highway. The plans should establish priorities for improved local access, economic development, and context sensitive design. Context Sensitive Solutions (CSS) should be incorporated into all planning efforts and should be tied to design outcomes. Having a clearly articulated future vision will prepare the city for engagement with state and federal DOTs. So rather than leaving local residents and property owners in a position to simply react to a DOT's proposed road alignments, the city's adopted plan would provide the criteria that alternative designs need to address and would frame the conversation on the local community's terms.

CSS is currently only an ITE "recommended practice." State and federal DOTs should require CSS in the evaluation of highways in cities and/or prioritize funding for projects that

use CSS and promote short trips over long trips. As described earlier, the typical planning process will never result in replacing grade-separated highways in cities with enriched networks that foster economic development and restoration of neighborhoods. CSS is the only evaluative method comprehensive enough to support thorough exploration of such alternatives.

State and federal DOTs should prioritize projects that reduce financial burdens in the future and use value-capture techniques. Promoting a long-term investment perspective versus a government spending view is critical to sustainability. We must move beyond simply accommodating future traffic and mitigating impacts and focus more on how transportation investments can optimize economic, environmental, and social outcomes.

Conclusion

America cannot continue to spend federal and state funds on outdated freeways in cities that suppress opportunities in urban neighborhoods. The nation cannot afford it, states cannot afford it, cities cannot afford it, and urban neighborhoods do not have to live with freeways in their backyards anymore. Compelling evidence of successful highway removals, national infrastructure and budget realities, consumer trends favoring urban locations, new leadership opportunities, and MAP-21 provide a supportive context for a new infrastructure campaign aimed at providing freedom from the American road.

This paper was commissioned by the Congress for the New Urbanism and made possible by a generous grant from the Ford Foundation.