Fix it First

Perfecting the Places We Live to Protect the Places We Don't

Idea Background

“Fix-it-First” is a concept with wide applicability. Simply put, Fix-it-First means making reinvestment in what already exists the top priority. Expansion, growth, and new purchases come only after existing infrastructure has been taken care of properly.

When it comes to roads and highways, Fix-it-First means making sure that maintenance and repair are adequately funded before funding expansion. Regular maintenance such as filling potholes, applying protective coatings, and snowplowing all ensure a longer lifespan for roads. Similarly, regular repair, more intensive resurfacing, reconditioning, or reconstruction of a roadway ensure that little problems that can be handled in a cost-effective manner are not neglected and allowed to become expensive major projects. Each year, the State of Wisconsin invests more than $1 billion in our state highways alone – it makes sense to take care of those investments.

Preservation

Well-maintained roads are essential for safe, efficient transportation, for both automobiles and public transit. Potholes, cracks in the roads, and frost heaves all contribute to less safe driving conditions and exact a significant financial toll on auto-users. (In neighboring Michigan it is estimated that motorists pay $300 million per year for car repair resulting from poor road conditions.)

A Fix-it-First road policy would ensure that we protect past investments in roads, which is the responsibility of the Wisconsin Department of Transportation (WisDOT.) It would also help reduce the long-term costs of repair by slowing the deterioration of existing roads.

One danger of not implementing a Fix-it-First policy is the ‘Concrete Triangle.’ Major repair is more expensive than minor repair, which is more expensive than maintenance. Yet, once the need arises, major repair on highway ‘A’ cannot be neglected because of safety concerns. Therefore, minor repair and maintenance on highway ‘B’ are then neglected because of a limited budget. This leads to the need for major repair on highway ‘B’ in the future. When the next budget cycle comes around, we are back in the situation we started with, except highway ‘B’ gets major repair and the maintenance and repair of highway ‘A’ is neglected.

The Concrete Triangle

Budget Shortfall

Neglect Maintenance and Minor Repair

Must Fund Expensive Major Repair

This cycle need not occur because the lifespans of roads and the schedules for maintenance and repair are well documented and predictable. Therefore, it should be easy to systematize funding so that there is always money available at the right time for scheduled repair. For example, Wisconsin Department of Transportation schedules indicate that the original pavement of a concrete road will last 24-30 years, followed by 10-15 years of ‘patching’ and ‘grinding,’ followed by 18 years of resurfacing.
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before a full reconstruction. (Similar figures are available for asphalt roads.)

Repair needs increase substantially as a road ages. However, if preventive maintenance measures, such as applying protective coatings and patching cracks and holes, are not taken, then water reaches the foundation of the road, weakening the structure, and shortening the time before more expensive repair or full reconstruction work is needed. Every $1.00 of early maintenance that is postponed leads to repairs that cost $4.00 to $5.00.

![Deferring Maintenance Costs More in the Long Term](image)

(Source: STPP Transportation Decoder #9; also Transportation Development Association of Wisconsin)

Wisconsin

As long as WisDOT knows when a road was built, or when the last repair was done, it can predict when the next stage of repair or reconstruction will be necessary. There is no excuse for not having the funding set aside to meet these anticipated repair schedules. Yet, a look at Wisconsin’s state highway spending over the last 15 years indicates this is just what is happening.

Before one can understand the numbers, however, WisDOT’s terminology needs to be explained. The Wisconsin Department of Transportation uses a vocabulary for classifying its spending on highway projects that is confusing.

The key terms are Maintenance, Major Highway Projects and Rehabilitation. Conceptually, highway work falls within a spectrum, ranging from Maintenance, which is generally the least complicated and least costly, to Major Highway Projects, which are the most complicated and most expensive.

Rehabilitation, which falls in middle of the spectrum, is sub-classified into the 3 R’s: Resurfacing, Reconditioning, and Reconstruction. Resurfacing projects are generally the least complicated and expensive, followed by Reconditioning projects, with Reconstruction projects the most complicated and expensive.

Spectrum of Highway Work

The major problem with WisDOT’s system of project classification is that it does not delineate clearly enough the difference between projects that involve maintenance and repair of existing roads and highways and those projects that involve road and highway expansion. It is important to note that the distinction between Reconstruction projects and Major Highway...
Projects is a combined fiscal and project length threshold – not repair versus expansion.

Even when taking WisDOT’s own language at face value, its spending over the last fifteen years has disproportionately focused on expansion projects. In 2003, WisDOT spent 28% of its budget on the Major Highway Projects program, which includes many of the most costly expansion projects, and debt service on revenue bonds to pay for Major Highway Projects.

In the period from 1988 to 2003, WisDOT spending on Major Highway Projects has increased 101%, and spending on debt service to pay for prior Major Highway Projects has increased 360%. Meanwhile, spending on Rehabilitation has increased 40% (less than both the State Highways Budget and WisDOT’s overall budget), and spending on Maintenance has actually decreased 3%. These spending patterns indicate that Wisconsin is caught in the concrete triangle – paying more and more for its road system because maintenance and repair are neglected.

Analysis of Federal Highway Administration data published in 2003 by the Surface Transportation Policy Project (STPP) indicates that in 1994, 59.1% of Wisconsin’s roads were not in ‘good’ condition. In 2001, that percentage was 42.5%. While this decrease signifies an improvement in road quality, it also means that more than 40% of our roads are still not in ‘good’ condition. The study also found that more than 75% of Wisconsin’s urban and suburban roads are not in ‘good’ condition.

Other States
Other states are already implementing Fix-it-First policies, notably Michigan, Massachusetts, and New Jersey. These advances have been made by Democratic and Republican governors.

With the poor condition of its roads a major public concern, in 1997 Michigan’s Department of Transportation pledged to bring 90% of all roads into ‘good or fair’ condition by 2007. Michigan has some of the worst road conditions in the entire country – as much as 65% of its roads were not in ‘good’ condition in 2001 – and the amount of roads not in ‘good’ condition actually increased between 1994 and 2001. (After making that pledge, however, the former administration and Michigan DOT dropped the word ‘fair’ and changed its definition of ‘good’ by diluting it and making the life expectancy of a ‘good’ road just 3 years – meaning that ‘good’ roads will actually be in need of repair soon after the deadline.)

With the inauguration of Governor Jennifer Granholm in 2003, Michigan appears poised to keep its promise on maintenance and repair needs. The Michigan DOT announced a ‘Preserve First’ program in April 2003. Governor Granholm remarked, “During these tight budgetary times, we must focus our efforts on fixing our existing infrastructure before we look at expanding our transportation system.” As a result of its ‘Preserve First’ focus, the Michigan DOT revised its 5 Year Road and Bridge Program and provided a detailed list of expansion projects that would be deferred until 90% of the state’s roads are in ‘good’ condition.

In January 2003, Massachusetts Governor Mitt Romney implemented a ‘Fix-it-First’ policy that gives priority to the repair of existing streets, roads and bridges. (This policy was coupled with a ‘Community-Friendly Solutions’ policy that focuses on community sensitive project design.) The stated purposes of the
policies are to: “prevent sprawl; recognize all the Commonwealth’s citizens and communities as its transportation agencies’ customers; avoid the costs associated with unnecessary road widenings and the conflicts they entail, and thereby use available funding to complete more projects in more communities and to produce more construction jobs; and, provide enhanced mobility for sustainable transportation modes (walking, bicycling, and public transportation.)”

In early 2003, New Jersey Governor James McGreevey also enacted a 'Fix-it-First' policy, citing the need to focus “on improving aging bridges and rehabilitating highways, rail and aviation systems first, instead of pursuing an expansion policy.”

Policy Options

A ‘Fix-it-First’ policy is fairly simple. The Legislature and Governor simply require the Department of Transportation to prioritize maintenance and repair work before funding expansion work so that all state roads are in good condition. Roads in good condition should have smooth, safe surfaces for automobiles and where applicable - accommodations for pedestrians and bicyclists, as well as sensitivity to the surrounding communities and natural environments.

A Fix-it-First policy would be complemented by several related policies. First, in addition to its current categorization of state highway projects, WisDOT should be required to specifically track projects based on maintenance, repair and new capacity criteria for all of its state highway projects. (This tracking could be used as a model for local governments, as well.) A second policy change related to this should be a review of WisDOT’s terminology for road projects – possibly resulting in a revision that makes the project classifications more accessible to the public.

It would also be useful to have a comprehensive review of all scheduled and/or planned highway projects that include widening or expansion to determine a cost-benefit priority list that analyzes the cost of expansion versus the potential repairs that are lost elsewhere.

References: