Page 1 of 15 Popular Mechanics

The 10 Pieces of U.S. Infrastructure We Must Fix Now

No one can predict what bridge, levee or water main will fail next. But some problems are widely known, and work is long overdue. As PM's new special report makes starkly clear, we need to begin rebuilding the nation's infrastructure somewhere. Here are 10 great places to start.

Have local infrastructure that needs fixing? Discuss how to rebuild your town in the comments below ... By Erik Sofge and The Editors of Popular Mechanics Published in the May 2008 issue.

Circle Interchange | Chicago



(Photograph by Associated Press)

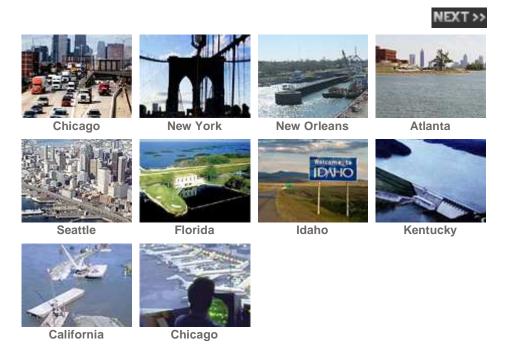
After years of being ranked two of the worst traffic bottlenecks in the country by groups like the American Highway Users Alliance, both the U.S. 101 at the I-405 Interchange in Los Angeles and the I-610 and I-10 Interchange in Houston are being revamped. But the third-worst spot for highway congestion, Chicago's Circle Interchange, is going nowhere. One parkway and three expressways meet here, and close to 300,000 vehicles a day are forced to reduce speed while navigating a network of tightly curved ramps. The result: an estimated 25 million hours in delays per year. A \$975 million expansion project might relieve traffic on one of the expressways, but no plans have been announced to address the congested interchange itself.

170 diggs

digg it

Popular Mechanics Page 2 of 15

CLICK FOR MORE: Infrastructure We Must Fix Now



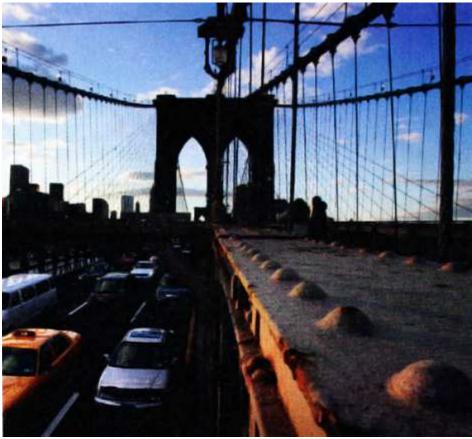
RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation



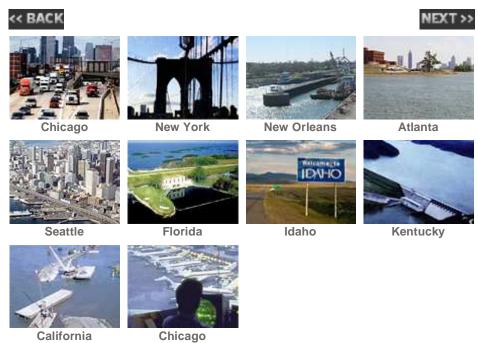
Brooklyn Bridge | New York

Popular Mechanics Page 3 of 15



(Photograph by Getty Images)

It's the oldest suspension bridge still being used in the United States, and it is considered "structurally deficient" under the federal rating system. Officials don't fear a collapse of the Brooklyn Bridge—the main span appears to be sound—but some of the approaches to the structure have been marred by rusting steel and deteriorating road decks for many years. Repairs aren't due to start until 2010. If the country wants to signal that it's serious about infrastructure, it has to take care of its national icons.



Popular Mechanics Page 4 of 15

RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Bridges to the Future

A SPECIAL PM SUMMIT WITH THE NSF

- + STREAMING VIDEO + EXPERT ANALYSIS
- + LIVE BLOGGING > APRIL 10, 2008

Canal Lock | New Orleans



The Industrial Canal Lock in New Orleans carries up to 20 million tons of cargo a year between the Mississippi River and the city's Industrial Canal, which leads to the Gulf Intracoastal Waterway. Supporting this commerce is critical to the economy of New Orleans and the entire country, yet the city's infrastructure is barely up to the task. The 87-year-old lock is undersized, and vessels can wait 36 hours to navigate it. Congress first authorized new locks in 1956. The Army Corps of Engineers finally began the work in 2002 but was held up when a judge ruled it had failed to prepare the proper environmental impact study. Construction is expected to take 12 years and cost nearly \$800 million—but 50 years after work could have begun, no completion date has been set.





Popular Mechanics Page 5 of 15



RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Bridges to the Future A SPECIAL PM SUMMIT WITH THE NSF + STREAMING VIDEO + EXPERT ANALYSIS + LIVE BLOGGING > APRIL 10, 2008

Water System | Atlanta

Popular Mechanics Page 6 of 15



Water shortages aren't limited to the Southwest. When Georgians faced drought last fall, residents of Atlanta pitched in to reduce their consumption, yet as much as 18 percent of the city's water was hemorrhaging through leaking pipes. A similar situation is found throughout the country. Municipal lines running beneath the streets lose massive volumes of water, as do privately owned pipes that carry water to houses and other buildings.

CLICK FOR MORE: Infrastructure We Must Fix Now



RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Popular Mechanics Page 7 of 15

Bridges to the Future

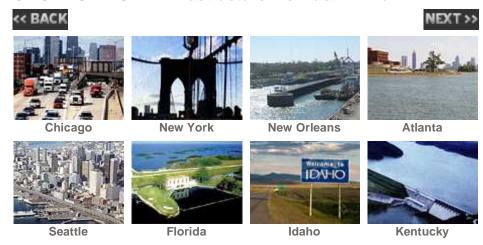
A SPECIAL PM SUMMIT WITH THE NSF

- + STREAMING VIDEO + EXPERT ANALYSIS
- + LIVE BLOGGING > APRIL 10, 2008

Alaskan Way Viaduct | Seattle



After an earthquake in 2001 damaged the Alaskan Way Viaduct, a traffic artery in Seattle, inspectors found that some supports had subsided 5 in., weakening the structure. Options included fixing the elevated roadway and replacing it with a tunnel or improved surface roads. There's still no decision. Meanwhile, as many as 110,000 vehicles travel on the compromised structure each day.



Popular Mechanics Page 8 of 15





California

Chicago

RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Bridges to the Future A SPECIAL PM SUMMIT WITH THE NSF

- + STREAMING VIDEO + EXPERT ANALYSIS
- + LIVE BLOGGING > APRIL 10, 2008

Lake Okeechobee | Florida



In 2006, engineering experts calculated that in any given year there is a 1-in-6 chance that the Herbert Hoover Dike will fail, releasing waters from Lake Okeechobee. If that happened, South Florida's water supply could be contaminated, and 40,000 lakeside residents could be threatened by flooding. The Army Corps of Engineers has been working on improvements, but funding is limited—for the 2009 budget year, the government alloted about half of the requested money. In February 2008, a 1000-ft.-long stretch of dangerously eroded land was found near state-owned floodgates north of the lake.





Popular Mechanics Page 9 of 15



RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Bridges to the Future A SPECIAL PM SUMMIT WITH THE NSF + STREAMING VIDEO + EXPERT ANALYSIS + LIVE BLOGGING > APRIL 10, 2008

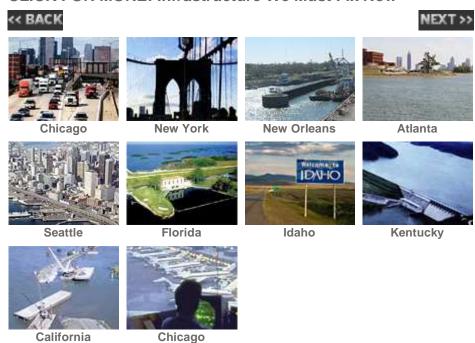
Dover Bridge | Bonner County, Idaho

Popular Mechanics Page 10 of 15



Idaho's Dover Bridge sees about 5000 vehicles per day, and we don't envy the drivers. The bridge scored an outrageously low "sufficiency rating" of 2 out of 100 in the National Bridge Inventory. Last year, a 30 x 30-in. piece of the deck was found hanging by its rebar. Replacing the bridge would cost \$25 million; the funds have not materialized.

CLICK FOR MORE: Infrastructure We Must Fix Now



RELATED STORIES

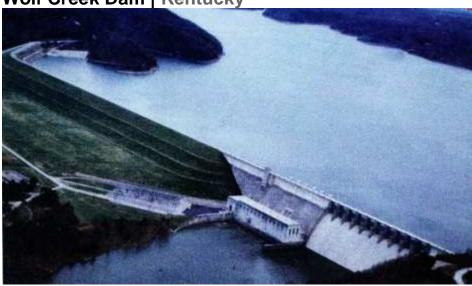
- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Popular Mechanics Page 11 of 15

Bridges to the Future

- + STREAMING VIDEO + EXPERT ANALYSIS
- + LIVE BLOGGING > APRIL 10, 2008

Wolf Creek Dam | Kentucky



Fixing the 5736-ft.-long Wolf Creek Dam in Kentucky is one of the highest priorities for the Army Corps of Engineers. Although every dam suffers a degree of seepage, Wolf Creek's limestone foundation has been dissolving at an alarming rate, a problem that was initially detected in 1968–16 years after construction was completed. When the problem was detected again in 2005, the Corps lowered Lake Cumberland and began an ambitious repair effort. But despite the ongoing construction work, the danger of collapse hasn't been significantly reduced, and probably won't be for years—the earliest possible completion date for the work is in 2012. Until then, downstream communities, including Nashville, Tenn. remain at risk.



Popular Mechanics Page 12 of 15

Idaho

Seattle Florida

California Chicago

Kentucky

RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Bridges to the Future A SPECIAL PM SUMMIT WITH THE NSF + STREAMING VIDEO + EXPERT ANALYSIS + LIVE BLOGGING > APRIL 10, 2008

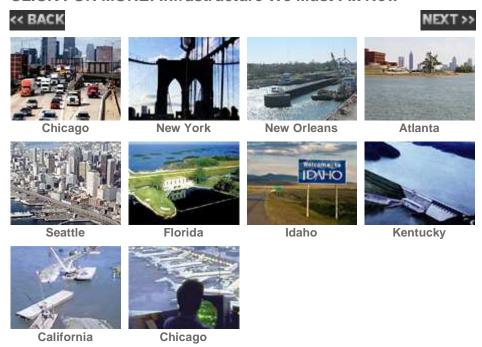
Sacramento River Levees | California



Last year, the Army Corps of Engineers declared 122 levees in the country "at risk of failure." Of these, 19 were on California's Sacramento River. To pick just one, if the Natomas Levee were to fail, floodwaters surging from the Sacramento River could endanger many of the 70,000 area residents—and put Sacramento International Airport and the ARCO Arena, home to the NBA's Sacramento Kings, under as much as 20 ft. of water. Ongoing efforts to investigate and repair the levees have been met with opposition from local officials, who question the Corps' analysis. Levees protecting the delta at the mouth of the river are in bad shape, too. A failure there could compromise freshwater supplies for two-thirds of the state's population.

Popular Mechanics Page 13 of 15

CLICK FOR MORE: Infrastructure We Must Fix Now



RELATED STORIES

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation



O'Hare International Airport | Chicago

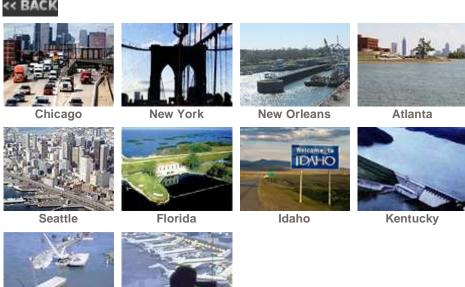
Page 14 of 15 Popular Mechanics



(Photograph by Getty Images)

It had the country's worst record of on-time departures in the first half of 2007 (fewer than 65 percent), according to the Bureau of Transportation Statistics. And Chicago's O'Hare International Airport is also among the worst in terms of nearmisses on the runway-the airport saw 68 runway incursions between 2001 and 2006, with three close calls in March 2006. New radar designed to help prevent such incursions has been criticized by air traffic controllers, who claim that the systems are blinded by snow and rain. Reconfiguring the multiple crossing runways could help.

CLICK FOR MORE: Infrastructure We Must Fix Now



RELATED STORIES

California

- REBUILDING AMERICA: Complete Multimedia Coverage of PM's Special Report
- ON SALE NOW: PM's Full Year-Long Investigation

Chicago

Popular Mechanics Page 15 of 15

