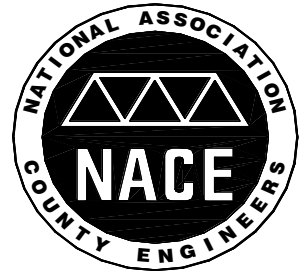


IOWA COUNTY ENGINEERS ASSOCIATION



NEWS RELEASE

Maintaining Iowa's rural bridges is a large scale operation

Posted on: 2017-01-09

Iowa's 89,637 miles county road system contains over 18,600 bridges. This means that, on average, any trip of five miles or more will likely cross a bridge before arriving at the destination. Thus the health and capacity of secondary road structures is very important to the rural economy.

With an average service lifetime of sixty years, roughly 310 bridges and culverts need to be renewed each year, just to maintain system conditions at a stable level. Ideally, each year's batch of newly 'aged out' bridges would be immediately renewed so that none would ever need weight limit postings. But budget limitations, network administration practicalities, and the fact that not all roads are arterials, forces counties to tolerate structurally deficient, (or "SD") bridges in their inventory on an ongoing basis.

There are about 4,400 such structures in the network, roughly one quarter of the total and representing a fourteen year backlog. To get down to a five year backlog would require renewing an additional 2,800 structures on a one time basis, in addition to the annual 310.

In fiscal year 2016, counties spent about \$120 Million to replace 319 structures, rehabilitate 71, and temporarily extend the lifetimes of 117 more. Some others were also closed, either permanently or temporarily. But this progress was offset by 281 others becoming structurally deficient in the same year.

The challenge of renewing and replacing bridges is increased by the fact that new structures must usually be both longer (to accommodate greater flood flows) and wider (for safety and to handle larger farm equipment). The result is that each new structure's deck area runs around 180 percent of the one being replaced. For example, a 24 feet wide by 40 feet long bridge's replacement will likely need to be 30 feet by 60 feet. At a typical cost of \$160 per square foot, a single bridge of that size will run from \$275,000 to \$300,000 when complete.

County engineers and the Iowa DOT continually research ways to improve designs, materials and methods to keep costs at a minimum. Additionally, Iowa pioneered in establishing reusable bridge standards years ago. These pre-approved plans can be used on many different sites and help avoid having to pay for a custom design at every location. A special Secondary Roads Research Engineer also works with the DOT and university researchers to translate field ideas into researched backed improvements to design and construction.

Depending on location and circumstance, some counties have low bridge needs, while others have extensive exposure. Emmet County has the least number of structures, 67, while Plymouth has 385.

More information on Iowa's county roads can be found at the following website: www.iowacountyroad.org , which also provides links to each county's secondary roads website – where details of each county's local road and bridge circumstances can be found.

#

Contact: News@iceasb.org