Report questions safety of southern Maine bridges

By David Harry on November 13, 2017 @DavidHarry8

PORTLAND — Bridging a gap between bridge safety and funding will be vital to Maine’s future economic growth, according to a report released earlier this month.

“Maine will need to maintain and modernize its bridges by repairing or replacing deficient bridges and providing needed maintenance on other bridges to ensure that they remain in good condition as long as possible,” said the report compiled by Washington, D.C.-based TRIP, a nonprofit, national transportation research group.

TRIP found the average age of Maine’s road bridges is 52 years, which is also “typically the intended design life for bridges built during this era.” It said 14 percent of the state’s bridges are considered “structurally deficient.”

“What it shows is a lack of funding,” TRIP spokeswoman Carolyn Bonifas Kelly said Nov. 10 of the study’s findings, which used data supplied by the Maine Department of Transportation.

Structural deficiency is measured by rating a bridge’s deck, superstructure and substructures on a scale of 0 to 9, with anything 4 and lower considered deficient.

Nationally, Maine is the ninth-worst state for its percentage of structurally deficient bridges. Rhode Island is worst, with 25 percent of its bridges structurally deficient. In Maine, Washington County ranked worst, with 26 percent, or 27 of 103 bridges, considered structurally deficient.

Cumberland County ranked better than the state average, with 32 of 334 of the county’s bridges considered structurally deficient. But half of those are used by at least 2,000 vehicles daily.

Travel on state roads is increasing, the report noted, with vehicle miles traveled increasing from 14.1 billion in 2013 to 15 billion in 2016. Mileage is expected to increase another 10 percent by 2030.

Structurally deficient bridges can lead to weight restrictions or even closures, reducing access for emergency vehicles, school buses, trucks and farm equipment.

Andrew Bickmore, MDOT director of results and information, said TRIP’s report was not news to the state.

“We did the inspections,” he said of the data used by TRIP.

The Cumberland County bridges listed are the responsibility of the MDOT, with the exception of Maine Turnpike bridges over the Stroudwater River in Portland and at Exit 63 in Gray. Those are maintained by the Maine Turnpike Authority, Bickmore said.

The bridges used most carry Interstate 295 over Lafayette Street, or Route 88, in Yarmouth. The southbound span averages more than 26,000 vehicles daily, the northbound about 25,000.

Third on the list is a concrete bridge in Portland, spanning the Stroudwater River just south of the intersection of Congress and Westbrook streets. The bridge carries almost 24,000 vehicles daily — almost 1,000 more than a Maine Turnpike bridge about a mile west.

A deficient score in one area will land a bridge on a list as structurally deficient; 17 of 22 Cumberland County bridges carrying a daily average of 500 vehicles or more were rated at 5 or higher in two of three areas inspected, and still listed as structurally deficient.

In Freeport, the U.S. Route 1 bridge over railroad tracks just north of the intersection with Desert Road was rated 4 for its deck and superstructure and 5 for its substructure. Built in 1936, the bridge carries an average of 13,000 vehicles daily.

None of the bridges received overall scores of 4 or lower, but the U.S. Route 1 railroad bridge had the lowest total score: 4.3. Bickmore said the designation can be overly broad.

“This is one view into the data,” he said. “‘Structurally deficient’ is not a perfect measurement by any means.”

Bridge length and potential remediation can vary greatly.

“It could be a small investment or a very large investment to correct the action,” Bickmore said.

In 2014, an MDOT report found it would cost $140 million annually to maintain state bridges in their current conditions. Meeting maintenance demands and construction and repair goals would require $80 million more each year. Current budgeting allocates $105 million annually, which is a reduction from the $112 million spent annually from 2009-2013.

On Nov. 7, Maine voters approved a $105 million bond for highways, bridges and other transportation infrastructure. Of that, $80 million will go directly to highway and bridges, and the overall bond will also leverage $137 million in federal funding.

Although Kelly said TRIP spoke with MDOT officials in late October to review its list, Bickmore noted at least six of the bridges listed in Cumberland County have or will be repaired, and more will be included on the work plan for 2020 that MDOT will release early in 2018.

In Gorham, the bridge over the Little River on Route 202 and Route 4 was rated at 4 for its deck and superstructure, and 6 for its substructure. It was replaced this summer.

In Falmouth, the Lambert Street bridge over the Presumpscot River, with a superstructure rated at 3, will be repaired next year.

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Of the 32 Cumberland County bridges considered structurally deficient, the U.S. Route 1 railroad overpass in Freeport was rated lowest at 4 for its deck and superstructure.

The Stroudwater River bridge on outer Congress Street in Portland has the third-highest volume of traffic for Cumberland County bridges considered structurally deficient.

Built in 1989, the deck on the Congress Street bridge over the Stroudwater River in Portland is considered structurally deficient because of its substructure.

Overpasses on I-295 spanning Lafayette Street in Yarmouth are the most traveled of 32 Cumberland County bridges considered structurally deficient.

The bridge spanning the Little River between Gorham and Windham on Routes 202 and 4 was considered structurally deficient for its deck and superstructure. It was replaced last summer.

The Lambert Street Bridge in Falmouth, considered structurally deficient, will be repaired in 2018.