



County Commission Communications

A Periodic Column Written by Ed Douglas, Presiding Commissioner

LIVINGSTON COUNTY BRIDGES

DECEMBER, 2021

Livingston County, like most every county in Missouri, has many streams and rivers, which consequently means we have a significant number of bridges. In fact, Livingston County has 120 bridges that are over 20 feet in length. Our bridges over 20 feet in length are inspected every two years by the Missouri Department of Transportation. They produce a report on the condition of these bridges for our use in maintaining these bridges and insuring they are safe for the public.

Historically, our county has been able to build almost one new bridge a year using a federal government program that is known as the BRO program. In this program, the federal government allocates funds to our county based in large part on our number of bridges. These funds can be used for up to 80% of the cost of a bridge, which along with 20% from our county funds have allowed us to build, on average, nearly one bridge per year at a cost of about \$300,000. In today's world, the average cost of a bridge is more like \$400,000, which means the funds provided by the BRO program will only allow us to build a new bridge about every 18 months. (In practice, our 20% match can be paid in cash, or we can pay for a bridge entirely by ourselves and then use a portion of the total cost each year for several years - called soft match - to meet the 20% match.) As an example, if our county spends \$400,000 of our county funds to build a bridge, then we have about five years of soft match available to match the federal funds coming to us. The main point to take away from this discussion is that replacing one bridge every year or now every 18 months is not nearly adequate with 120 bridges. That means a bridge needs to last 120 to 180 years for this to work, and they don't last that long.

Of these 120 bridges, we have 40 that have some level of deficiency. From discussions with MODot, this seems to be about average with other counties, which means many other counties are like us, i.e., not in the position we would like to be with bridge condition. A deficient bridge doesn't mean it is imminently going to crumble, but it does mean that if the deficient conditions are not addressed, at some point the bridge will be closed. Pilings underneath the bridge, backwalls supporting the underneath side of the bridge, and the deck on top of the bridge can all deteriorate and need fixing.

Additionally, we have probably 50 bridges and box culverts that are under 20 feet in length. These bridges are not inspected by MODot, and these can deteriorate too, so therefore can need fixing and replacing.

In May of this year, our county received \$1,400,000 of Federal Rescue Funds which can be used for in a variety of ways, one of which is infrastructure. We have an engineering firm that we have worked with for many years. As a result of these bridge needs and the opportunity to address at least a few of these needs with Rescue Funds, we hired our engineer to inspect more closely all of our 40 bridges over 20 feet that our deficient and all 50 of our bridges and box culverts under 20 feet that have not been inspected by MODot. This complete inspection, which took several months to complete, has resulted in reports provided to us by the engineering firm as to what needs to be done to address our deficiencies.

The reports recommend where we can fix a bridge without replacing it and also what bridges cannot be fixed and, therefore, need to be replaced. It should be mentioned that in the case of some bridges under 20 feet in length, many of these, but not all, can be replaced with a metal tube which is a less expensive solution rather than a new bridge. Based on the reports from our engineer, we estimate there is over \$10 million of needed repairs and replacements. Obviously, we don't have that kind of money. Therefore, in conjunction with our engineer, we have worked to develop a priority list of the biggest needs and most cost-efficient way to address these needs. Based on the Rescue Funds that we received, we are hoping to spend approximately \$1 million to address these most pressing bridge needs this next year. Our list includes about 10 different bridges that we believe can be repaired, which would take them off the deficient list and hopefully add 20 to 25 years to the life of these bridges. Additionally, out of a separate county fund, we will plan to build a new bridge with our own funds which would give us about five more years of soft match availability.

In total, we expect to bid out projects estimating \$1,400,000 in 2022 to address our most pressing bridge needs. This won't address all our needs, but it will improve dramatically many of our most crucial bridge needs.



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