Infrastructure supports our way of life. Our roads enable us to get to work, our aviation infrastructure allows us to take vacations, our freight infrastructure brings us our goods, and our drinking water infrastructure lets us lead healthy lives. For many years, we made investments to support these systems. Unfortunately in recent years, there has been a trend of underinvestment in infrastructure that threatens our competitive advantage and the health, safety, and welfare of our citizens. The time to prioritize our transportation and water infrastructure has come.

As civil engineers, our job is to plan, design, construct, and maintain our infrastructure networks. The 2018 Report Card for Missouri’s Infrastructure is designed to translate our expertise into a guide to help our fellow citizens understand the state of our infrastructure. The Report Card provides a snapshot for residents and policymakers to engage in conversation about where we are and where we need to be for continued economic success of the state. We hope that this information provides the insight needed to start that conversation and ignite action.

How You Can Get Involved

1. Get the full story behind this Report Card at www.infrastructurereportcard.org/missouri.
2. Find out the condition of the infrastructure near you on the Save America’s Infrastructure app available on iTunes and Google Play.
3. Ask your elected leaders what they’re doing to make sure your infrastructure is reliable for the future. Take action at www.infrastructurereportcard.org/get-involved/tell-your-legislators/.
Missouri is home to nearly 500 aviation facilities, including Kansas City International Airport (MCI) and St. Louis Lambert International Airport (STL). In 2017, MCI reported over 11.5 million passengers and was ranked the 39th busiest airport by enplanements and STL reported over 14.7 million passengers and was ranked the 32nd busiest airport by enplanements. MCI’s 2009-2025 Airport Master Plan estimated an annual growth rate of 2.8% and show the existing runway system should be fully capable of meeting demand during this period. STL’s airport passenger rate grew 5.5%, airline operations grew 3.1%, and air cargo grew 2.4% in 2017. Both airports have identified needed projects and are working to secure funds to make them a reality. For example, in 2007 the City of Kansas City, MO, voted to approve private financing for the construction of a modern, single terminal to replace the existing three terminals.

Missouri has the seventh largest number of bridges nationwide, yet must maintain its inventory with funding from just the fourth lowest gasoline tax in the country. Not surprisingly, the condition of the statewide inventory lags somewhat behind the national average. 12.5% of bridges in Missouri are structurally deficient, and people and property remain vulnerable to flooding. While Missouri’s roughly 3,400-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements. While Missouri’s roughly 3,400-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements.

The State of Missouri has over 1,050 miles of navigable waterways positioned on the Missouri, and the Upper Mississippi rivers, ranking it 10th in the nation in terms of mileage. Funding shortfalls to repair and replace locks and dams on the Mississippi River are common, and Congressional appropriations are inconsistent. This causes delays in maintenance dredging, often leads to an increase in unshipped delays at the locks, and frequently results in costly emergency funds serving as a stop-gap measure. The structures that are being inspected are in fair condition. However, there has been a piecemeal approach to capital improvements, with some districts is lacking, and people and property remain vulnerable to flooding. While Missouri’s roughly 3,400-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements.

Missouri is also a major player in the nation’s transportation network, and is a critical link to much of the state’s expansive freight corridors. Missouri’s roughly 34,000-mile highway network, the 7th largest in the country, plays a critical role in the state’s expansive freight network. Missouri’s 34,000-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements. While Missouri’s roughly 3,400-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements. While Missouri’s roughly 3,400-mile highway network, the 7th largest in the country, plays a critical role in the state’s economic growth, traveler efficiency, and the quality of life of its citizens. In recent years, MoDOT has been able to fund and deliver roadway improvement projects, improvements, and safety enhancements.

The State of Missouri has a good port system with connections to much of the state’s expansive freight network. MoDOT recently conducted an economic impact analysis, which showed that nearly 4.5 million tons of freight was shipped through the state’s public ports in 2016 alone, equating to a 78% increase since 2011. Ports in Missouri have sufficient capacity to accommodate this growth and access to the Interstate Highway System, Class I railroads, and major utility services. However, funding for capital projects and regular operation and maintenance continue to be a challenge. In recent years, funding for ports decreased from $6 million to $4 million. Alternate revenue streams, grants from federal programs, and innovative financing options continue to be pursued to prepare for the 29.5% increase in waterway freight that is anticipated by 2030.

Missouri’s approximately 5,529 dams help the state meet its agricultural, recreational, stormwater management, water supply, and commercial needs. As of July 2017, an estimated 4,624 of the dams, or 84% of all structures, were unregulated and their condition not reported to the state. Many of these unregulated structures are small agricultural dams and their failure would be of little consequence. However, due to legislative exemptions, an estimated 1,233 dams in Missouri earned a High Hazard Potential (HHP) or Significant Hazard Potential (SHP) rating and are unregulated and their physical condition unknown to the state. A HHP rating indicates that should the dam fail, there is the potential for significant loss of life and property, a SHP rating indicates a potential for significant loss of property. These 1,233 unregulated HHP/SHP dams account for 68% of the total HHP/SHP dams in the state. Because they are unregulated, the condition of these dams is unknown, raising serious safety concerns.

Wastewater and stormwater systems are made up of four components: collection, conveyance, treatment, and discharge. Regular investment in, and maintenance, of these systems is critical to protecting public health through prevention of untreated sewer overflows into Missouri’s surface waters. The average age of this infrastructure throughout large municipalities and small towns in Missouri is approaching the end of its expected life, resulting in increased frequency of leaks and failures within sewer systems. Fortunately, many municipalities are innovating and investing. The Metropolitan Sewer District of St. Louis is currently working to implement $4.7 billion in improvements over 23 years. In Kansas City, improvements totaling $2.5 billion will be completed over 25 years and the city is leading the nation in green infrastructure innovations. Missouri has also implemented a 2012 agreement by the Missouri Department of Natural Resources (MDCR) and the Environmental Protection Agency (EPA) estimated that $9.6 billion would be needed to address Missouri’s wastewater and stormwater infrastructure needs over the next 30 years.