



<p><b>ROADS</b> <b>D+</b></p>	<p>Arkansas has the 12<sup>th</sup> largest state highway system in the nation with 16,398 miles. While Arkansas has taken steps to improve road conditions, due to the lack of available funding the State has begun putting needed projects on hold as the federal Highway Trust Fund's long-term solvency is uncertain and no state revenue sources are identified to backfill the investment needed.</p>
<p><b>BRIDGES</b> <b>C+</b></p>	<p>Arkansas has 12,523 bridges. While progress has been made in improving the condition of Arkansas bridges, 32% of all Arkansas bridges have been in service for at least 50 years. In Arkansas, the average age of bridges in service is 38 years, while 21% of bridges are deficient by bridge deck surface area. The estimated cost to repair or replace all 2,658 structurally deficient bridges in Arkansas is \$1.14 billion. To put this need in perspective, in 2012, Arkansas spent approximately \$7.2 million on bridge maintenance.</p>
<p><b>TRANSIT</b> <b>D+</b></p>	<p>Residents in 60 of the 75 counties in Arkansas have access to some type of public transportation service, and ridership estimates imply that nearly half a million people are in need of public transportation at some time. Two urbanized areas in the State have established transit service on a fixed route—Little Rock and Fayetteville. Due to the location of the ridership, only 36% of the estimated potential 13 million transit trips in the State are being met. This need is projected to grow to 9.6 million trips and 560,000 people by 2020.</p>
<p><b>DRINKING WATER</b> <b>D+</b></p>	<p>Arkansas' public water supply accounts for approximately 404 million gallons per day to serve 2.6 million people. For the next 20 years, an estimated \$6.1 billion dollars of funding will be necessary to keep up with the State's growing drinking water needs. Arkansas' water transmission and distribution system, which consists mostly of buried pipes, represents 72% of the capital needs of drinking water facilities in the State. Of the 2,615 miles of water transmission and distribution lines that will require replacement or rehabilitation within the next 20 years, 14% of these projects need attention now. A state-wide 2014 Arkansas Water Plan is currently under development by the Arkansas Natural Resources Commission to evaluate the state's water needs until 2050.</p>
<p><b>WASTE-WATER</b> <b>C+</b></p>	<p>Wastewater infrastructure is important to all modern societies to keep the water unpolluted and able to naturally replenish. EPA's Clean Watersheds Needs Survey from 2008 and 2012 shows that the investment needs for wastewater facilities for the next 20 years in Arkansas have jumped from \$470 million to \$763 million. The 2012 Survey found that 214 wastewater treatment facilities in Arkansas needed facility upgrades and improvements over the next 20 years, and water treatment systems needed doubled the improvements compared to 2008. There was also a ten-fold increase for secondary treatment facilities from \$15M to \$126M. Although most of the facilities are currently reasonably maintained and normally operated below design capacities, the future needs of Arkansas' wastewater systems will need a significant amount of capital investment.</p>
<p><b>LEVEES</b> <b>D</b></p>	<p>Levee systems are built to prevent flooding by piling earth along rivers. In Arkansas, there are 106 levee systems, and of them, 90 are federal levees and 16 are non-federal levees. Less than 70% of the systems have adequate flood protection or added safety height to the levee design. Currently more than 50% of systems in Arkansas are 'inactive' in the USACE Rehabilitation and Inspection Program due to poor inspection ratings. Of the 13 major levees in Arkansas longer than 25 miles in length, inspection ratings show that no levee system was rated as acceptable; 4 out of the 13 systems are rated as minimally acceptable, and nine out of the 13 are rated as unacceptable.</p>
<p><b>DAMS</b> <b>D</b></p>	<p>Dams in Arkansas are designed and built primarily to provide flood risk management, water supply, recreation, hydropower, and transportation. Arkansas has 1,193 state regulated dams across the state, and approximately 1 in every 5 of these dams have either high-hazard or significant hazard potential. The number of high hazard dams is 144 or 12% of regulated dams, and the number of significant hazard dams is 92 or 8% of regulated dams. While on an upward trend previously, the 2013 State Dam Safety budget has declined. When the budget is compared in context of the number high hazard potential dams, Arkansas does not meet the national average.</p>

# Arkansas' Infrastructure Earns D+ Grade Overall

The condition of Arkansas' infrastructure impacts our families, our friends, and our businesses every day. While most of us don't think about infrastructure, there isn't an hour of the day where Arkansas' communities aren't using infrastructure. When you turn on the shower, drinking water pipes bring clean water to your house, and when you go to work, your car or bus uses roads and bridges to take you safely there. Our nation has benefited from reliable infrastructure for a long time, but over the last decade, our infrastructure assets have deteriorated with age, and the wear-and-tear from time is starting to show. To explain how Arkansas' infrastructure is doing, this inaugural **Report Card for Arkansas' Infrastructure** provides grades and facts that show the condition and needs facing Arkansas' infrastructure.

## Recommendations to Raise the Grades

Raising the grades in Arkansas will require targeted investments and modernization across each infrastructure sector. However, ASCE believes there are several key solutions to improve infrastructure conditions and drive economic growth in the state:

### 1. Increase Leadership in Infrastructure Renewal

Arkansas' infrastructure is a responsibility of local leaders, and leadership is needed to maintain and renew the infrastructure the generations before us have built. Bold leadership and a vision for how strategic infrastructure investment can help local communities are needed to reverse the current trends.

### 2. Promote Sustainability and Resilience

Today's infrastructure must meet the community's ongoing needs, and at the same time, protect and improve environmental quality. Sustainability, resiliency, and ongoing maintenance must be an integral part of improving the area's infrastructure. Today's transportation systems must be able to withstand both current and future challenges. Both structural and non-structural methods must be applied to meet challenges. Infrastructure systems must be designed to protect the natural environment and withstand both natural and man-made hazards, using sustainable practices, to ensure that future generations can use and enjoy what we build today, as we have benefited from past generations.

### 3. Develop and Fund Plans to Maintain and Enhance Arkansas' Infrastructure

Infrastructure investment must be increased at all levels, but it also should be prioritized and executed according to well-conceived plans that focus on the health and goals of the system. The goals should center on freight and passenger mobility, intermodality, and environmental stewardship, while encouraging resiliency and sustainability. The plans must reflect a better defined set of federal, state, local, and private sector roles and responsibilities and instill better discipline for setting priorities and focusing funding to solve the most pressing problems.

## About ASCE's Report Card

The American Society of Civil Engineers (ASCE) enhances the welfare of humanity by advancing the science and profession of civil engineering. Simply stated, civil engineers are creative, people-serving and problem-solving leaders who make our lives easier to live from one day to the next. Founded in 1852, the American Society of Civil Engineers represents more than 145,000 civil engineers worldwide and is America's oldest national engineering society.

Established in 1981, the Arkansas Section of the American Society of Civil Engineers has brought together the civil engineering community, and with the power of volunteers, we also help our community with programs to strengthen the growth of science and mathematics in Arkansas and raise awareness about issues that impact the community. A team of volunteers created this **Report Card for Arkansas' Infrastructure** to provide the public a clear indicator of the state's infrastructure needs. We are your neighbors across the state, and we believe there is no better time than now to build a better tomorrow.