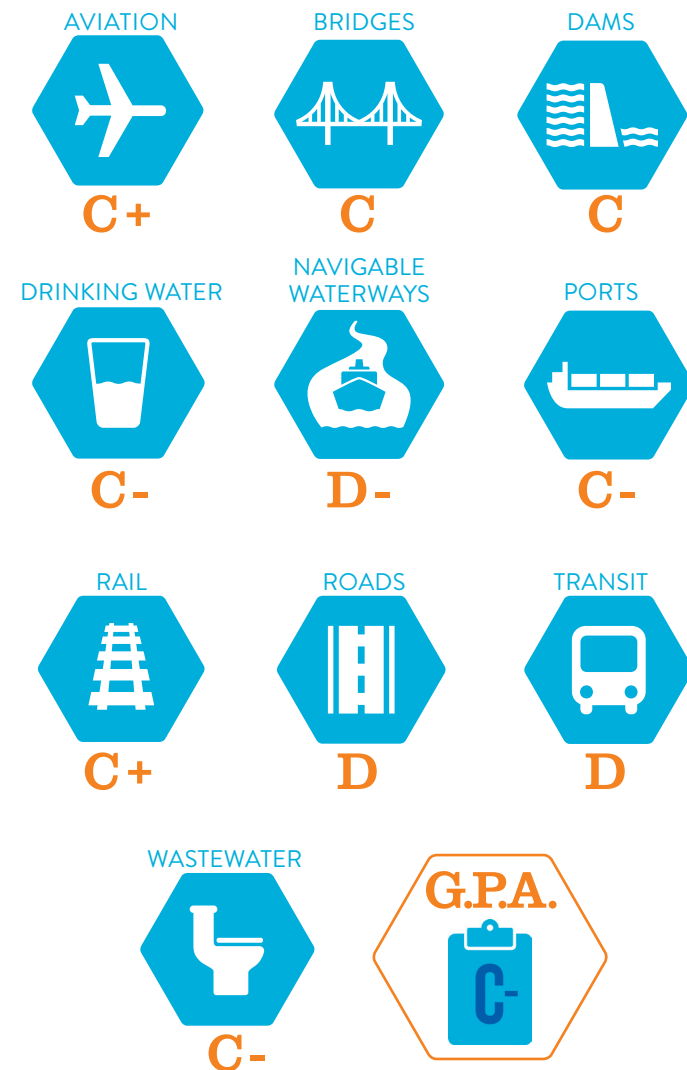
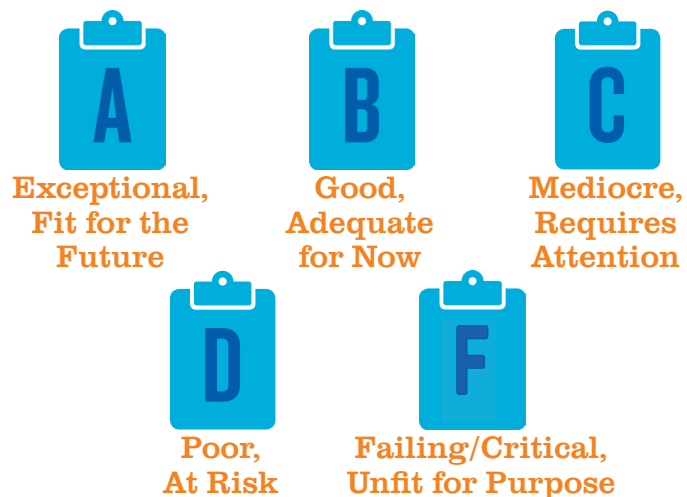


ILLINOIS GRADE SUMMARY



About the Grades

Infrastructure is graded based on eight criteria: **capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation.** ASCE grades on the following scale and defines these grades as:



5 STEPS WE CAN TAKE

- 1 Prioritize Infrastructure.** Illinois must make infrastructure a priority again. After the last four years of pension crises, unpaid bills and budget stalemates, infrastructure has fallen off the radar of our policymakers - and our citizens are paying the price.
- 2 Sustainable Funding.** Our leaders must consistently pass balanced budgets and develop new revenue sources that provide adequate long-term sustainable funding for infrastructure. Existing programs such as CREATE for passenger and freight rail, Public-Private Partnerships for roadways and bridges, and TFIA for transit must be fully utilized and leveraged.
- 3 Pass a Capital Plan.** The State needs to pass a Capital Plan to ensure we have a roadmap for the future. The previous Illinois Jobs Now program was passed in 2009 and has run its course. While a Capital Plan does not solve the need for sustainable long-term funding, it does provide desperately needed resources for the State's infrastructure after several years of reduced funding.
- 4 Capitalize on Advantages.** We must capitalize on our location at the crossroads of the nation. Our existing network of railways, roadways, inland waterways, and location on the Great Lakes gives our State a competitive economic advantage. However, without investment in these infrastructure systems, that advantage will be lost.
- 5 Forward Thinking.** The backbone of our State's infrastructure was built 50 to 100 years ago and upgrades are necessary for modernization, resiliency and to accommodate its changing users. We need to consider emerging technologies and shifting social and economic trends as we design our future infrastructure with clear economic, social, and environmental benefits in mind.

About ASCE-ILLINOIS

Civil engineering experts in their respective fields from the Illinois Section of ASCE, with assistance from the Central Illinois Section, Quad Cities Section, and the St. Louis Section, prepared The Report Card for Illinois' Infrastructure. The Report Card is created to educate and advise our elected officials and citizens on the condition of our State's infrastructure using sound engineering evaluation criteria and to provide recommendations on how to raise the grade. Since 1915, the Illinois Section has represented Civil Engineers in America's engineering hub and the organization recently celebrated its Centennial Anniversary. ASCE provides a platform for our members to mentor, learn and teach, which enables us to serve as stewards of infrastructure in our state, nation and throughout the world.

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REPORT CARD FOR ILLINOIS INFRASTRUCTURE

2018

"You cannot escape the responsibility of tomorrow by evading it today."
—Abraham Lincoln



Infrastructure Matters

Infrastructure is the backbone of our daily lives and communities. While we don't always acknowledge it, the condition of our infrastructure has a very real impact on every person and business. We all depend on roads and bridges to get us where we are going, water infrastructure that delivers clean water to our taps, and a system of inland waterways, ports, rail and transit to move goods and people that fuels our economy.

Illinois has a unique competitive economic advantage being at the crossroads of the country's rail, air, roadway and waterway systems. Historically, large investments were made in our infrastructure to capitalize on these advantages, which created and promoted growth and advantages for Illinois' economy and citizens. In recent years however, there has been a trend of underinvestment that threatens our competitive advantage and the health, safety and welfare of our citizens.

The Report Card was created to help Illinois understand the state of our infrastructure. As civil engineers, our job is to plan, design, construct, and maintain our infrastructure networks and this document allows us the opportunity to share that information with the public. The Report Card provides a snapshot for residents and policymakers to engage in conversation about where we are and where we want to be. 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/illinois.**
- 2 Find out the condition of the infrastructure near you on the Save America's Infrastructure app available on iTunes and GooglePlay.**
- 3 Ask your elected leaders what they're doing to make sure your infrastructure is reliable for the future. Use your zip code to find your list of elected officials at www.infrastructurereportcard.org/take-action.**

2018 ILLINOIS INFRASTRUCTURE REPORT CARD

The 2018 Report Card for Illinois' Infrastructure gave the state an overall GPA of C-. Illinois' civil engineers studied 10 infrastructure categories. Of those 10, seven infrastructure categories are in mediocre condition and three categories are in poor condition.

The good news is there are solutions to all these challenges, and we can raise Illinois' infrastructure grades. By learning more today about the conditions of the infrastructure you use every day, you too can help raise the grade.

AVIATION



Illinois airports are vital to the State's economy and play a critical role in linking pilots, passengers, and cargo to roadways, railways, and shipping routes. O'Hare and Midway Airports are the second and twenty-fourth busiest airports in the nation, respectively, and the two collectively accommodate more than 48.5 million enplaned passengers and 4.7 million tons of cargo annually. Illinois has continued to invest in airport infrastructure, including airfield, terminal, ground access, and cargo facilities, supported by the City of Chicago, Illinois Department of Transportation and Federal Aviation Administration funding. However, airport infrastructure needs have increased 32% since 2015 and Illinois has a projected funding need of more than \$5 billion over the next five years. With no anticipated growth in funding, the future of the State's national prominence in aviation is in doubt.

BRIDGES



Illinois is home to 26,775 bridges, the third largest bridge inventory in the nation. Of these bridges, 8.6% are classified as structurally deficient. There are an average of nine million trips across the 2,303 structurally deficient bridges in Illinois each day. While the percentage of structurally deficient bridges in Illinois has not increased, the rate of improvement has stalled, falling far below the national improvement rate over the past four years. The Illinois Department of Transportation multi-year program has identified \$2.6 billion in bridge maintenance funding to be spent over the next six years, far less than the estimated \$10 billion in present-day needed bridge repairs.

DAMS



There are 1,824 state-regulated dams in Illinois that have multiple potential functions, carry differing levels of risk, and are owned and operated by both the public and private sectors. Over 50% of the dams in the state are over 50 years old, and within four years, nearly 80% of Illinois dams will be over 50 years old. Many infrastructure components are nearing their design life and are expected to require significant maintenance in the near future. Publicly-owned dams are generally in satisfactory condition, but nearly 75% of the State's dams are privately-owned and have limited access to public funding mechanisms for major repairs. The Illinois Department of Natural Resources dam safety program continues to do as much as it can, but it is suffering from decreased funding and a reduction of staff.

DRINKING WATER



The state of Illinois has 1,740 Community Water Supply systems that supply drinking water to more than 12 million people. Many of those water systems were constructed in the first half of the 20th century. Since that time, the residential use of potable water has increased from five gallons to 100 gallons per day. This strain on aging infrastructure results in watermain breaks and leaks that lose as much as 30% of the treated water supply. The City of Chicago has replaced 526 miles of watermain as part of a 10-year plan to annually invest \$225 million to replace approximately 900 miles of aging pipes, but more investment throughout the State is needed. The required 20-year investment need has grown from \$17 billion in 2007 to \$21.5 billion in 2017.

NAVIGABLE WATERWAYS



Illinois has 1,118 miles of navigable waterways passing through or bordering the state, including the Illinois, Mississippi and Ohio Rivers. The confluence of these three waterways is a crucial hub in the nation's navigation system, propelling Illinois to eighth among the states in total tonnage of waterborne freight, and third in domestic tonnage. This competitive advantage is threatened by deferred maintenance on locks that have long exceeded their 50-year design life. Insufficient federal funding contributes to reduced system reliability as locks wear out faster than the U.S. Army Corps of Engineers (USACE) can afford to repair them. USACE is operating with a fix-as-fail strategy, making repairs when something breaks or fails. Such repairs take days, weeks or months, with no advance notice to shippers and carriers and can result in major financial consequences. Given the 94 million tons of freight shipped annually, failure of just one of the critical locks can cost more than \$1.5 billion annually in additional transport costs and the loss of more than \$2 billion in farm-based income.

PORTS



Illinois has 19 public port districts and over 350 private terminals located along the Illinois, Kaskaskia, Ohio, Mississippi and Wabash Rivers, as well as Lake Michigan. These ports promote economic development, including industrial, commercial and transportation activities, with a total revenue impact of \$6.4 billion while supporting over 48,000 jobs. Illinois ports and their respective industrial parks are responsible for moving more than \$81 billion of manufactured goods, \$37 billion of agricultural products and \$18 billion of chemical products. Unlike many other states, the ports within Illinois receive no funding from the State. Instead, they raise their own revenue for projects and compete for the limited federal grants or financing available to them.

RAIL



Illinois is home to one of the most important rail hubs in the country and rail is integral to the State's economy. The 7,000-mile-long track network is the second largest in the country, and Illinois is the only state in which all seven Class One freight railroads operate. 500 freight trains with 37,000 cars and 700 passenger and commuter trains carrying 329,000 passengers pass through Chicago every day. Nearly one quarter of the nation's rail-shipped goods and services move through Chicago, and more carloads of freight are carried through Illinois than any other state in the nation. Significant investments have been completed or are underway to expand capacity and improve the condition of publicly and privately-owned rail infrastructure, including well over \$3 billion by Class One railroads over the last eight years. However, over \$17.5 billion of substantial investments to the railroad infrastructure in Illinois are needed to accommodate the expected 30% future growth in freight rail traffic over the next three decades.

ROADS



Illinois has more than 145,700 miles of roadway and is third in the nation for total interstate miles. Despite its extensive network, the State's roadways were ranked third worst nationally for travel delay, excess fuel consumed, truck congestion cost, and total congestion cost. Despite the need for maintenance and repair, Illinois' 19 cent-per-gallon motor fuel tax has remained the same since 1991. Facing the realities of restricted revenue, the Illinois Department of Transportation (IDOT) Multi-Year Plan reduces available funding by over \$1 billion total from FY 2018-2023. Meanwhile, Illinois residents are still paying; driving on roads in need of repair costs Illinois motorists \$4.8 billion a year in extra vehicle repairs and operating costs, or \$566 per motorist. While several high profile projects have been completed by IDOT and the Illinois Tollway, long-term sustainable funding sources are required to meaningfully address the quality of the State's road system.

TRANSIT



96 out of Illinois' 102 counties offer transit service and 63 public transit operators and providers support an estimated 736 million annual trips. Transit systems in the State have suffered from age and lack of funding. Current multi-year capital needs for transit in the Chicagoland area require an annual funding level of between \$2 and \$3 billion to reach a state of good repair and undertake limited modernization, enhancement and expansion initiatives. The current capital funding plan provides less than half of what is needed and State funding is decreasing. The 10-year estimate of normal reinvestment added to the backlog of capital projects in the Chicago region has risen to \$37 billion in 2016, from \$30.9 billion in 2012 and \$26.1 billion in 2010. Chicago regional transit ridership has been growing since 2000 and younger residents are using transit at a higher rate than other age groups – but the State is not keeping up with other peer regions' levels of capital expenditure.

WASTEWATER



Illinois' 12.8 million residents are served by over 800 wastewater treatment facilities. Overall, the capacity and condition of these facilities have remained consistent over the past few years. Combined sewer overflows that discharge sewage directly into rivers and lakes during intense rain storms continue to be of concern for 108 municipalities in the state. The state needs \$6.5 billion to meet the water quality and water-related public health goals of the Clean Water Act, according to survey results published in 2016. Funding is especially needed for secondary wastewater treatment, combined sewer overflow correction, and conveyance system repair. Local governments looking to construct new wastewater facilities or rehabilitate existing systems can apply for financing through Illinois' Water Pollution Control Loan Program. Awards have more than tripled since 2016; an estimated \$1.4 billion will be approved this year. While this is a step in the right direction, additional dedicated and available funding is needed to comprehensively address the State's wastewater needs.