

# TWIN PORTS AREA GRADE



**B-**  
Aviation



**B-**  
Bridges



**D**  
Drinking Water



**C+**  
Ports



**D+**  
Roads



**C+**  
Solid Waste



**C+**  
Wastewater



**G.P.A.**

## 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:



**90–100**  
Exceptional



**80–89**  
Good



**70–79**  
Mediocre



**60–69**  
Poor



**50–59**  
Deteriorating

# 3 STEPS WE CAN TAKE

**1**

## RE-INVEST IN INFRASTRUCTURE

For decades, as a region and a nation we have been living off the depreciation of infrastructure investments made by our parents and grandparents. It is time for us to accept that the reality that we need to re-invest now to provide the same infrastructure stability to our own children and grandchildren. If we do not, our region will suffer economically, and our quality of life will diminish.

As a starting point, we encourage the Minnesota legislature support the City of Duluth's infrastructure sales tax initiative. We also recommend the State of Minnesota expand the Port Development Assistance Program to include grant access to private dock owners. Additionally, we urge decision-makers to identify funding sources for the Twin Ports Interchange and the replacement of the Blatnik Bridge.

**2**

## SHOW UP AND ADVOCATE

Everyone agrees our infrastructure is key to current economic stability and future prosperity. Talk to your city councilors and mayors about infrastructure. Write your legislators. E-mail your governor. Show up to town halls with your Senators and Congresswomen/Congressman. Talk about infrastructure and its impact on your business and community. At public town halls and public meetings relating to infrastructure, civil engineers and elected officials often show up to near-empty rooms. Public agencies, such as MNDOT and WIS DOT, hold public meetings to solicit input about what is important to the general public. Show up and be engaged! The political process belongs to those who choose to participate.

**3**

## SAY THANK YOU!

We have been blessed with several infrastructure success stories in our region in the last 10 years. Take a moment to thank your elected officials. Let them know that infrastructure matters to you. Relate a story about how improved infrastructure has had an impact on your family, your business and your community.

## About ASCE-Twin Ports Area

Established in 1917, the ASCE Duluth Section comprises 10 counties in northeast Minnesota (Koochiching, Saint Louis, Lake, Cook, Itasca, Cass, Crow Wing, Aitkin, Carlton and Pine) and six counties in northwest Wisconsin (Douglas, Bayfield, Ashland, Sawyer, Washburn and Burnett) surrounding the Twin Ports of Duluth and Superior. With over 300 members, the Duluth Section integrates engineering knowledge with public awareness. We share our expertise and excitement for the engineering profession by educating youth, engaging elected officials and informing the general public. We are leaders who build a better quality of life in the Twin Ports region. Our goal is to create a safe and healthy infrastructure in our communities both now and for another 100 years.

### CONTACT US

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## Infrastructure Matters

The infrastructure in the Twin Ports region merits an overall “C” grade. Our infrastructure is mediocre and requires increased attention.

An expert team of over 20 civil engineers and industry professionals from 16 organizations was assembled to evaluate seven infrastructure categories of the Twin Ports area. The results have been reviewed and scrutinized by ASCE's team of national experts, the Committee on America's Infrastructure.

As civil engineers, our job is to plan, design, build and maintain our infrastructure networks. We provide for safe modes of transportation at airports, bridges, ports and roads. We provide the public with safe drinking water and protect the public health by disposing of waste in a responsible manner. Without reliable infrastructure, forward looking maintenance programs and adequate funding sources from all levels of government, the Twin Ports region will lose its economic competitiveness.

We have recent success stories in the region: new airport terminals and runways, the Highway 53 relocation project in Virginia, the Port of Duluth Intermodal Project, the Greater Minnesota Transportation Sales Tax, and many others. However, if we assume that the job is complete based on these success stories, we will not be in position to meet the many infrastructure challenges that we still face as a region.

ASCE's Code of Ethics states that “Engineers shall issue public statements only in an objective and truthful manner” and that “Engineers shall hold paramount the safety, health and welfare of the public.” As such, we take the responsibility of our message in this inaugural Twin Ports Infrastructure Report Card seriously. We present this report card as a fulfillment of our public duty and to inform the public and our elected officials on the state of our region's infrastructure.

The overarching conclusion is that our region's infrastructure is currently slightly better than the national average, but backsliding will occur in the next 5-10 years if infrastructure funding issues do not continue to be pushed to the forefront.

## How You Can Get Involved

**1**

Get the full story behind this Report Card at [www.infrastructurereportcard.org/twinportsarea](http://www.infrastructurereportcard.org/twinportsarea).

**2**

Find out the condition of the infrastructure near you on the Save America's Infrastructure app available on iTunes and

**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](http://www.infrastructurereportcard.org/take-action).



# 2018 TWIN PORTS AREA'S INFRASTRUCTURE REPORT CARD

The 2018 Report Card on the Twin Ports area's Infrastructure gave the state an overall g.p.a. of C. The Twin Ports area's civil engineers studied 7 infrastructure categories. Of those 7, two infrastructure categories are in good condition, three categories are in mediocre condition, and two categories are in poor condition.

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



**Recent upgrades to pavement and commercial airport terminal buildings in Brainerd, Duluth International, Falls Regional and Range Regional Airports have resulted in infrastructure that is in new condition with increased capacity.** The condition will continue to improve in the next four years as some of the most poorly rated pavements in the region undergo scheduled upgrades. However, while sufficient funding has been identified to move forward with needed capital improvements at Duluth International Airport, many other airports in the region have needs that outpace available funding. Looking ahead, the uncertainty of the current local, state and federal funding programs is the greatest cause for future concern. Without continued advocacy for increased and dedicated aviation funding, recent gains in infrastructure condition in our region will be overtaken by ongoing infrastructure deterioration.



**Capacity on our area's bridges is sufficient and bridge condition is relatively uniform and high across all the city, county and state bridges.** Approximately 7% of all bridges in the Duluth Section were rated as "structurally deficient," compared to a national average of 9.1%. Recent local funding initiatives authorized through the Greater Minnesota Transportation Sales Tax program, which have been enacted recently by several counties in Minnesota, are a new funding mechanism to address infrastructure needs in the region. Public confidence in our region's bridges is high mainly due to recent highly-publicized infrastructure repairs to the Blatnik and Bong interstate bridges which connect Duluth, Minnesota to Superior, Wisconsin.



**While underground pipe capacity in the City of Duluth is more than adequate for demand, the infrastructure in many cases is beyond its useful service life and available funding does not keep up with repair and replacements costs.** For the City of Duluth to keep up with pipe replacement, 1% of the pipe system, or 4.33 miles of pipe per year, will need to be replaced annually, at a total cost of \$4.33 million. The current budget for pipe replacement is \$2.5 million per year, which is well short of the annual need. Some funding relief is on the way in the future as the City of Duluth will be enacting water rate increases of 4.7% per year for the next 6 years.

Statewide funding programs in Minnesota and Wisconsin are providing some relief to other municipalities for drinking water improvement programs, but funding falls short of projected need by a wide margin.



**Port infrastructure in the Twin Ports region includes commercial, private, and municipal/federal dock structures, facilities, shipping channels and slips in the Duluth-Superior Harbor.** The port is a major economic driver for the cities of Duluth and Superior, representing 11,500 jobs, \$1.5 billion annual business revenue and over \$500 million annual wages. Approximately 35 million tons of cargo move through the port annually—more than 20% of all tons moved by ship on the Great Lakes and St. Lawrence Seaway combined. While capacity in the region is sufficient, the ability of each facility to secure funding to improve the condition of its infrastructure is highly dependent on which state the dock is located. Other factors that influence the current and future condition of the port's infrastructure include public funding, corrosion of steel structures, dredging backlog and gentrification.



**The roads of the Twin Ports region have sufficient capacity and public safety is a high priority. However, condition of roadway pavement, particularly in the City of Duluth, are cause for concern.** Recent local funding initiatives authorized through the Greater Minnesota Transportation Sales Tax program, such as the recent Saint Louis County Transportation 0.5% sales tax, are an attempt to close the funding gap and are reasons for optimism. A similar initiative by the City of Duluth would help improve roadway conditions in the largest city in the Twin Ports area. However, available funding continues to be insufficient to comprehensively address the region's road needs.



**The primary solid waste management authorities within the Twin Ports region support an integrated solid waste management strategy.** Solid waste abatement programs and solid waste management facilities that support that strategy are adequately funded, in good condition and have capacity for current and projected demand. Even with continued growth of solid waste abatement through education, source reduction, recycling and reuse, landfill capacity will remain a necessary component of solid waste management in the region. Availability of that capacity is a concern beyond 2022.



**Wastewater infrastructure analyzed in the Duluth region includes nearly 500 miles of underground piping and the largest wastewater treatment plant.** While existing capacity is sufficient, the condition of wastewater infrastructure needs improvement, but is not at risk at this time. In the City of Duluth, between 30% and 40% of the 400 miles wastewater piping needs to be replaced as much of the piping is between 60 and 100 years old and has outlived its original design service life. The City of Duluth Public Works & Utilities department reports that nearly \$100 million has been invested in wastewater infrastructure in the City of Duluth in the last 10 years and the City is in sound financial shape currently. Western Lake Superior Sanitary District (WLSSD) has invested over \$100 million over the last 10 years and also reports good condition and stable funding.

Statewide funding programs in Minnesota and Wisconsin are providing some relief to other municipalities for wastewater improvement programs, but funding falls short of projected need.

## ACKNOWLEDGEMENTS

### MAIN COMMITTEE

Chair:	Craig W. Bursch, PE (MBJ)
Main Committee	Caroline Clement, PE (WLSSD)
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	Nick Patterson, PE (Marine Tech)
	Cindy Voigt, PE (City of Duluth)
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Carlton County Highway Department (JinYeene Neumann), PE  
City of Duluth (Cindy Voigt, PE)  
Cook County Highway Department (Jeff Cadwell, Administrator)  
Lake County Highway Department (Krysten Foster, PE)  
Minnesota Department of Transportation, District 1 (David Janish, PE, Ed Lutgen, PE; Lisa Hartfiel)  
Saint Louis County Highway Department (Matt Hemmilla, PE)

### DRINKING WATER

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