

2009 Tennessee Infrastructure Report Card



Tennessee Infrastructure 2009 Report Card

Infrastructure	TN	US
Aviation	B-	D
Bridges	B-	C
Navigable Waterways	C-	D-
Parks	D+	C-
Rail	C	C-
Roads	B-	D-
Schools	C+	D
Transit	D	D
Water/Wastewater	C	D-
Overall Grade	C	D

American Society of Civil Engineers
 www.ASCE.org
 Tennessee Section
 www.TNASCE.org

Executive Summary

Tennessee's infrastructure is deteriorating and is in critical need of maintenance and improvement to meet current and future demands. While the condition of Tennessee's roads, bridges and airports exceeds nationwide scores, Tennessee's schools and public park facilities lag behind the rest of the country.



The ASCE Tennessee Section 2009 Infrastructure Report Card is the first comprehensive assessment of the condition of the state's infrastructure. The Report Card presents an informed assessment made by the state's professional engineering community of the condition of the infrastructure critical to our quality of life in Tennessee.

Tennessee's infrastructure received an overall grade of **C** with individual grades in nine infrastructure categories. This report card offers guidance to Tennesseans and their leaders about where public works funds would be best spent to improve the overall quality of life.



Methodology for Development of the 2009 Infrastructure Report Card for Tennessee

In the development of Report Card grades, four fundamental components of infrastructure were considered including: condition of existing infrastructure, capacity for future services delivery, deferred maintenance, and public safety.

Tennessee's 2009 Infrastructure Report Card Committee is comprised of experienced professional engineers in the fields of water, wastewater, waterways, transportation, and aviation. Committee members evaluated the infrastructure in each subject area according to the four criteria and assigned a grade. Grades were assigned following the traditional letter grade scale.

A = 90 - 100%, B = 80 - 89%, C = 70 - 79%, D = 51 - 69%, F = 50% or lower

In general each subject area was evaluated using the following steps:

- Readily available, existing data sources were reviewed.
- Data were compiled and analyzed, resulting in the development of a summary report.
- A preliminary grade was assigned.
- The summary report and grade were peer reviewed and the final grade and assessment were determined.

2009 Tennessee Infrastructure Report Card

Compiled by the Tennessee Section of the American Society of Civil Engineers

Aviation

B- Overall, Tennessee's airport facilities are stable and relatively safe. However, investment of additional revenue sources would provide an optimum level of service and reap positive economic gains.

Bridges

B- Tennessee's bridges are in the top 25% in the nation for least number of deficiencies, but increasing age and increasing traffic volumes along with inadequate funding present major problems for the state.

Navigable Waterways

C- Navigable waterways are critical to Tennessee's transportation system. Aging infrastructure including the state's nine navigational locks and dams are in need of upgrade and repair to remain viable now and in the future.

Parks

D+ Tennessee's 53 state parks are an important recreational and cultural resource with some 30 million visitors annually and a history dating back to 1937. Although stable and safe for public use, shortfalls in funding have created nearly \$100 million in maintenance backlog.

Rail

C Tennessee's rail network provides limited service within and through the state. Improvements should focus on expansion of commuter lines in urban areas and short line freight service in rural areas to better serve residents and industries within the state.

Roads

B- Although Tennessee is known for its well maintained roads, recent and projected growth in vehicle miles of travel along with inadequate funding for future maintenance and expansion present major problems for the state.

Schools

C+ Tennessee's school systems have experienced rapid enrollment growth and must rely on portable classrooms. Estimated costs to upgrade all schools to adequate conditions are \$608 million.

Transit

D Areas serviced by public transit are somewhat limited in both urban and rural areas of Tennessee. In order to meet the projected 27% growth of urban ridership by 2025, additional investments above current levels are needed.

Water/Wastewater

C Approximately 92% of all Tennessee residents are served by regulated public water systems while wastewater is treated in less than 500 publicly owned treatment plants. Aging infrastructure causes leakage of potable water, overflows of raw wastewater, and difficulty meeting future regulatory challenges.

Infrastructure Report Card Initiative

A healthy infrastructure is the backbone of a healthy economy. In these challenging times, infrastructure is essential to reviving the nation's fortunes, and in maintaining our high quality of life. The American Society of Civil Engineers (ASCE) Infrastructure Report Card is an assessment by professional engineers of various categories of infrastructure. In January 2009, the national level of ASCE released an Infrastructure Report Card for the Nation. The result was a D average, unchanged from the version that was released in 2005. Beginning in the summer of 2008, the Tennessee Section of ASCE began diligently working to prepare a state Infrastructure Report Card; an initiative that had not been undertaken in Tennessee before. Using Tennessee's 2009 Infrastructure Report Card the Tennessee Section of ASCE hopes to bring the state of our local infrastructure to the attention of our elected officials here in Tennessee and in our Nation's capital.