

Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs

July 2012 through June 2017

EXECUTIVE SUMMARY

This report is the twelfth in a series on infrastructure that began in the late 1990s. These reports to the General Assembly present Tennessee's public infrastructure needs as reported by local officials, those compiled by the Tennessee Department of Transportation, and those submitted by other state departments and agencies as part of their budget requests to the Governor. This report provides two types of information collected during fiscal year 2012-13 and covering the five-year period of July 2012 through June 2017: (1) needed infrastructure improvements and (2) the condition of existing elementary and secondary public schools. Needs fall into six broad categories. See table 1.

Table 1. Summary of Reported Infrastructure Improvement Needs
*Five-year Period July 2012 through June 2017**

Category**	Five-year Reported Estimated Cost	
Transportation and Utilities	\$ 21,792,009,662	56.1%
Education***	7,652,898,721	19.7%
Health, Safety, and Welfare	5,883,470,673	15.1%
Recreation and Culture	1,702,200,925	4.4%
Economic Development	1,256,075,051	3.2%
General Government	554,828,960	1.4%
Grand Total	\$ 38,841,483,992	100.0%

*For a complete listing of all reported needs by county and by public school system, see appendixes D and E.

**A list of the types of projects included in the six general categories is shown in table 4. Descriptions of the project types are included in the Glossary of Terms at the end of this report.

***Includes improvement needs at existing schools. Number of projects includes the 1,769 schools for which needs were reported.

A number of conclusions may be drawn from the information compiled in the inventory:

- The total need for public infrastructure improvements is estimated at \$38.8 billion for 2012 through 2017. This total is \$1.3 billion more than the estimate in last year's report, an increase of 3.5%. See table 2.

The Tennessee General Assembly charged the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) with developing and maintaining an inventory of infrastructure needs "in order for the state, municipal, and county governments of Tennessee to develop goals, strategies, and programs that would

- improve the quality of life of its citizens,
- support livable communities, and
- enhance and encourage the overall economic development of the state."

[Public Chapter 817 Acts of 1996]

Table 2. Comparison of Estimated Cost of Infrastructure Improvement Needs
July 2011 Inventory vs. July 2012 Inventory

Category	Reported Cost		Difference	Percent Change
	July 2011 through June 2016	July 2012 through June 2017		
Transportation and Utilities	\$ 20,865,809,131	\$ 21,792,009,662	\$ 926,200,531	4.4%
Education	7,271,463,459	7,652,898,721	381,435,262	5.2%
Health, Safety, and Welfare	5,941,679,207	5,883,470,673	(58,208,534)	-1.0%
Recreation and Culture	1,704,816,699	1,702,200,925	(2,615,774)	-0.2%
Economic Development	1,232,847,959	1,256,075,051	23,227,092	1.9%
General Government	518,672,149	554,828,960	36,156,811	7.0%
Grand Total	\$ 37,535,288,604	\$ 38,841,483,992	\$ 1,306,195,388	3.5%

- Needs for Transportation and Utilities have increased \$926 million from last year. This category is, and always has been, the single largest category in the inventory. Comprising 55.5% of estimated costs for all infrastructure improvements, transportation alone dwarfs all other types of infrastructure needs and continues an upward trend with an increase of \$917 million—the largest increase of any type of infrastructure.. At the other end of the spectrum, reported needs for other utilities increased by just \$9.9 million (4.4%) and telecommunication needs decreased by \$600,000 (4.6%).
- Education, the second largest category of infrastructure needs, has been relatively flat for the past six inventory reports. There is no clear trend in needs for new schools, which includes new schools and replacement schools; the need for new public schools increased slightly by \$29 million (1.9%) in this inventory after decreasing \$75 million in the 2011 inventory report. The need for improvements at existing schools, which includes renovations, additions, technology and renovations caused by mandates, increased for the third year in a row with an increase of \$63 million, driven by an upward trend in general renovation needs that are slightly offset by a declining need for new technology. Reported post-secondary education and preschool needs, mainly higher education, increased significantly (\$302 million). A closer look at existing school infrastructure improvements shows:
 - The need for infrastructure improvements at existing schools increased by \$90 million (2.6%) overall in the current inventory, driven primarily by a \$99 million (7%) increase in renovations.
 - The number of schools rated good or excellent remains high at 93%, but local officials estimate the costs to renovate or replace schools or parts of schools at nearly \$2.1 billion.
- Health, Safety, and Welfare needs, the third largest category in the inventory, decreased by \$58 million (1%). Four of the seven types of infrastructure needs in this category had a net

decrease in total cost: water and wastewater, public health facilities, storm water, and housing. Water and wastewater needs decreased the most (\$104 million), followed by public health facilities (\$89 million), storm water (\$1.6 million), and housing (\$800,000). Law enforcement had a net increase of \$119 million, caused mainly by new needs, while solid waste needs increased \$2.7 million.

- The Recreation and Culture category decreased by 0.2% (\$2.6 million). This category includes three infrastructure types: recreation; community development; and libraries, museums, and historic sites. Since the last inventory, recreation needs increased by \$43 million (4.6%). This was offset by decreases in needs for community development (\$43 million) and libraries, museums, and historic sites (\$1.8 million).
- Needs in the Economic Development Category increased by 1.9% (\$23 million). Estimated costs increased for both types of infrastructure in this category. Business district development needs were up \$6 million (0.6%); excluding the cost of the convention center from the total, needs for this type increased 2.3%. Needs for industrial sites and parks increased by \$17 million (6.6%).
- General Government needs—the smallest inventory category—increased by \$36 million (7%) since last year. This category includes only two types of infrastructure: public buildings and other facilities. The estimated cost of public building improvements increased by \$18 million (4.3%) while need for other facilities such as storage and maintenance facilities was up \$18 million (19%).
- Infrastructure needs and the ability to meet them vary across the state. A locality's population and financial resources tend to determine the locality's need for infrastructure improvements and how successful it is at completing them. Increases in population are related to infrastructure needs and whether those needs get completed. However, the rate of population growth is weakly correlated to both needed and completed infrastructure.
- Local officials are confident in obtaining funding for only \$11.6 billion of the \$30.9 billion identified as local needs. (These figures do not include needs at existing schools or those in state agencies' capital budget requests, for which funding information is unavailable.) Most of that amount, \$11.3 billion, is fully-funded. That leaves another \$19.3 billion of needs for which funding is not yet available.
- The government that owns infrastructure typically funds the bulk of its cost. For example, local officials report that 86% of the funding for county-owned projects will come from county sources. The same is true of improvements reported in the 2007 inventory that have since been completed—counties paid 88% of the cost of meeting their infrastructure needs. Likewise, cities provided 68% of the funds necessary for improvements they needed in 2007 and have completed since then, and they also expect to provide 70% of the funds for current and future improvements. Special districts paid 82% of the cost of meeting their 2007 infrastructure needs and expect to fund 51% of their current and future costs.

- Infrastructure is built for many reasons: enhancing communities, accommodating population growth, improving public health and safety, supporting economic development, and meeting government mandates. Around two-thirds (65%) of improvements in this inventory are needed for public health and safety, 30% are needed for population growth, 21% are needed for community enhancement, and 20% are needed for economic development while state and federal mandates only account for 2%. These figures add to more than 100% because there may be more than one reason for any particular project. These percentages are comparable to those for projects completed since 2007: public health and safety (67%), population growth (28%), community enhancement (21%), and state and federal mandates (2%). Economic development is the exception with 11%.