

Building Tennessee's Tomorrow:

Anticipating the State's Infrastructure Needs

July 2012 through June 2017

INFRASTRUCTURE NEEDS STATEWIDE

The estimated cost of public infrastructure needed statewide increased slightly to \$38.8 billion.

State and local officials estimate the cost of public infrastructure improvements that should be started or completed sometime between July 1, 2012, and June 30, 2017, at \$38.8 billion, an increase of approximately \$1.3 billion (3.5%) from last year's report (see table 3).⁶ This amount is the largest ever reported, with transportation, water and wastewater, and post-secondary education and preschool infrastructure still dominating. Collectively, these types of infrastructure represent 76% of the total estimated costs reported (see figure 2). The cost of five types of infrastructure changed significantly since last year: transportation, law enforcement, post-secondary education and preschools, recreation, and water and wastewater.

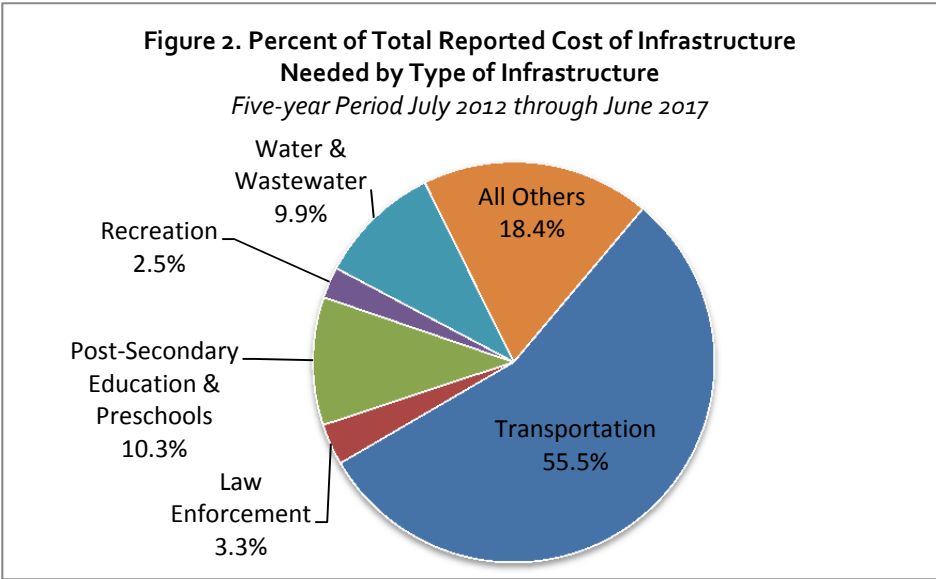
⁶ Totals for the July 2011 inventory have been adjusted because of on-going data quality control. For complete listings of all needs reported in the July 2012 inventory by county and by public school system, see appendixes D and E.

Table 3. Comparison of Estimated Cost of Needed Infrastructure Improvements
July 2011 Inventory vs. July 2012 Inventory

Category and Type of Need	July 2011 Inventory	July 2012 Inventory	Difference	Percent Change
Transportation and Utilities	\$ 20,865,809,131	\$ 21,792,009,662	\$ 926,200,531	4.4%
Transportation	20,626,268,422	21,543,213,953	916,945,531	4.4%
Other Utilities	226,440,709	236,295,709	9,855,000	4.4%
Telecommunications	13,100,000	12,500,000	(600,000)	-4.6%
Education	\$ 7,271,463,459	\$ 7,652,898,721	\$ 381,435,262	5.2%
Post-secondary Education & Preschools	3,710,190,100	4,011,894,855	301,704,755	8.1%
Existing School Improvements	2,008,889,753	2,071,904,106	63,014,353	3.1%
New Public Schools	1,489,138,606	1,517,678,760	28,540,154	1.9%
School System-wide	63,245,000	51,421,000	(11,824,000)	-18.7%
Health, Safety and Welfare	\$ 5,941,679,207	\$ 5,883,470,673	\$ (58,208,534)	-1.0%
Water and Wastewater	3,963,989,570	3,859,873,821	(104,115,749)	-2.6%
Law Enforcement	1,178,436,758	1,297,045,107	118,608,349	10.1%
Public Health Facilities	426,157,900	336,964,500	(89,193,400)	-20.9%
Storm Water	154,941,202	153,340,113	(1,601,089)	-1.0%
Fire Protection	169,835,678	186,075,132	16,239,454	9.6%
Solid Waste	33,518,099	36,172,000	2,653,901	7.9%
Housing	14,800,000	14,000,000	(800,000)	-5.4%
Recreation and Culture	\$ 1,704,816,699	\$ 1,702,200,925	\$ (2,615,774)	-0.2%
Recreation	932,706,629	975,235,657	42,529,028	4.6%
Community Development	455,741,259	412,358,334	(43,382,925)	-9.5%
Libraries, Museums, and Historic Sites	316,368,811	314,606,934	(1,761,877)	-0.6%
Economic Development	\$ 1,232,847,959	\$ 1,256,075,051	\$ 23,227,092	1.9%
Business District Development	975,460,620	981,788,620	6,328,000	0.6%
Industrial Sites and Parks	257,387,339	274,286,431	16,899,092	6.6%
General Government	\$ 518,672,149	\$ 554,828,960	\$ 36,156,811	7.0%
Public Buildings	424,174,200	442,438,106	18,263,906	4.3%
Other Facilities	94,497,949	112,390,854	17,892,905	18.9%
Grand Total	\$ 37,535,288,604	\$ 38,841,483,992	\$ 1,306,195,388	3.5%

Transportation improvements dominate all other types of infrastructure needs and continue to increase.

Equaling 55.5% of all estimated costs for infrastructure improvements, transportation dwarfs all other types of infrastructure needs. Transportation has comprised about half of all needed infrastructure in each report since the 2007 inventory. The need for transportation



infrastructure continues its upward trend, increasing by nearly \$917 million—the largest increase for any one type of infrastructure. It is so large that it more than offsets decreases elsewhere in the inventory.

The \$917 million net increase in transportation results from increases in project costs and new needs that are offset by completions, cancelations, projects that have decreased in cost, and postponements. The largest change was in the increased cost of existing needs—a \$2.4 billion increase spread across hundreds of projects. According to the Tennessee Department of Transportation (TDOT), increases are common because the cost of projects can change from year to year, tending to increase in cost the longer they remain unfinished. New projects totaling \$953 million and \$292 million for projects that have been in the inventory but not reported previously because their proposed start date was outside the five-year report range brought the total for all types of increases to \$3.7 billion. The two largest new infrastructure improvements are bridge rehabilitation projects: \$60 million in Hamilton County on Market Street over the Tennessee River and \$51 million in Jefferson County for a bridge on Interstate 40 over the French Broad River. Shelby County added a \$48 million road project for an interchange at Interstate 240 and Airways Boulevard.

This \$3.7 billion increase was partially offset by \$2.7 billion in decreases, including projects that were completed, canceled or postponed, or whose estimated cost was revised. Of this \$2.7 billion total, \$1.5 billion was for projects completed since the last inventory, including \$1.1 billion for roads, \$276 million for bridges, \$57 million for airports, \$36 million for sidewalks, and \$39 million for all other transportation types. Williamson County had the largest share, accounting for \$220

million in completions, mostly for State Route 840. Sumner County followed with \$102 million, most of which was for State Route 109 (\$69 million), and Hamilton County rounded out the top three with \$98 million spread over 35 projects ranging in cost from \$14 million to \$56,000; most of these projects were bridges.

Postponements, projects that are pushed outside the five-year report window, totaled \$358 million this year. The largest of these was Knox County's \$82 million James White Boulevard Bridge; its projected start date was postponed from 2015 to 2018. Several road-widening projects were also postponed—the largest two being the \$53 million widening of State Route 246 (postponed to 2020) and the \$32 million widening of US Highway 31 (postponed to 2018); both are in Williamson County. Changes in the scope or refinement of estimates caused a total decrease of \$572 million in projects already in the inventory. State and local officials reported cancelations this year totaling \$250 million. Two of the largest cancelations were for sections of State Route 840 in Dickson and Robertson counties.

Estimated costs increased \$377 million for other types, mostly for law enforcement and higher education infrastructure.

Since last year, the estimated cost of infrastructure improvements for law enforcement increased by \$119 million (10%); for post-secondary education and preschools, mainly higher education, by \$302 million (8%); and for recreation by \$43 million (5%). The estimated cost of water and wastewater improvements decreased \$104 million (3%).

Law enforcement needs increased for the first time since 2008 because a planned women's prison is now within the five-year reporting period.

Law enforcement infrastructure, including prisons, jails, justice centers, and police stations, changed the most after transportation, and now totals \$1.3 billion. Law enforcement infrastructure needs peaked in 2008 at \$1.9 billion and decreased in each of the last three inventories, but increased \$119 million this year, mainly because the five-year reporting period now includes the \$198 million women's prison in East Tennessee needed by 2017. Another \$162 million in new needs were added this year. The Tennessee Highway Patrol needs \$77 million for the second phase of their statewide communication system, and Greene County needs \$40 million for a new jail and justice center. State correctional officials canceled \$86 million in needs in the current inventory, including a \$22 million addition to the Charles Bass Correctional Complex Site 2, \$43 million for three transition centers across the state, a \$33 million project at Cockrill Bend, and an \$11.6 million minimum security prototype at Turney Center Industrial Prison. TDOC reported that these projects no longer fit in their current plans.

Infrastructure improvements for the state’s public colleges and universities increased for the first time since 2008 because of proposed new science facilities and energy upgrades.

The estimated cost of post-secondary education and preschool needs, comprised mainly of higher education facilities, increased \$302 million to \$4 billion. New projects totaling \$518 million were added. The University of Tennessee in Knoxville (UTK) is responsible for almost half of the new cost (\$255 million), including a \$90 million 200,000-square-foot multi-disciplinary science lab and a \$46 million 120,000-square-foot energy and environmental science and research center at the Institute of Agriculture in Knox County. The UT Health Science Center in Shelby County also needs \$45 million to renovate classrooms and labs, and UT Martin in Weakley County needs \$32 million to renovate and expand engineering classrooms. Tennessee State University needs \$38 million to modernize their long-term student housing. Estimated costs increased \$96 million, the largest increased estimate was UTK’s Strong Hall renovation project that increased from \$53 million to \$94 million. Completed post-secondary education and preschool improvements totaled \$139 million, including \$80 million at UTK for a \$25 million campus-wide energy performance project, a \$25 million building renovation at the Institute of Agriculture, \$23 million worth of renovations and additions to fraternity houses, and \$7 million for smaller projects.

Organized sports facilities represent almost half of new recreation needs.

Recreation needs total \$975 million, an increase of \$43 million. New recreation needs total \$143 million, 48% of which supports organized sports. The three largest of these are Gatlinburg’s Rocky Top Sports Arena (\$22 million), a new soccer complex in Clarksville (\$15 million), and East Tennessee State University’s proposed renovation of the multi-purpose Memorial Center Arena, also known as the “Mini-Dome” (\$12 million).

Completed recreation improvements totaled \$86 million. The largest of these was the \$14 million 1,000-acre Carroll County Lake impounded by the Reedy Creek Dam. The Carroll County Watershed Authority and the Carroll County Chamber of Commerce hope that this lake will become an economic development engine for their area by creating new jobs, attracting tourists, and spurring new residential and commercial development.¹¹ The \$12.5 million Wolf River Ecosystem Restoration project in Shelby County, which had been in the inventory since 2002, was also completed.

¹¹ “Thousand Acre Recreation Lake: West Tennessee’s Newest Attraction,” *Bulletin Times*, accessed Feb. 25, 2014 http://www.bulletintimesnews.com/index.php?option=com_content&view=article&id=4236:thousand-acre-recreation-lake-west-tennessees-newest-attraction&catid=31:local-news&Itemid=125

Water and wastewater infrastructure needs remain steady at just under \$4 billion.

The estimated cost of water and wastewater improvements has fluctuated between \$3.8 billion and \$4.2 billion since the 2007 inventory, decreasing only slightly from just under \$4 billion last year to \$3.9 billion in the current inventory. The total estimated cost of new projects increased \$344 million, and existing costs increased by \$190 million. The largest estimated cost was Clarksville's proposed \$71 million wastewater treatment plant to replace one severely damaged in the 2010 flood.

There were \$405 million in completed improvements, \$161 million in cost reductions, and \$104 million in cancelations. There were \$405 million in completions statewide, with \$138 million for improvements in Middle Tennessee, including \$25 million for a water treatment plant expansion in Shelbyville, and \$37 million for Phase II of the Murfreesboro water treatment plant. The Water and Wastewater Authority of Wilson County finished their ten-year, \$20 million water distribution system upgrade, which affected parts of Lebanon, Mt. Juliet, and Watertown. Water and wastewater improvements totaling \$51 million were completed in Sumner County alone, including \$30 million for Gallatin's sewer plant upgrade. Of the \$104 million in cancelations, \$58 million was in Clarksville where they updated their long-range plans.

Some infrastructure's primary purpose is to support other infrastructure.

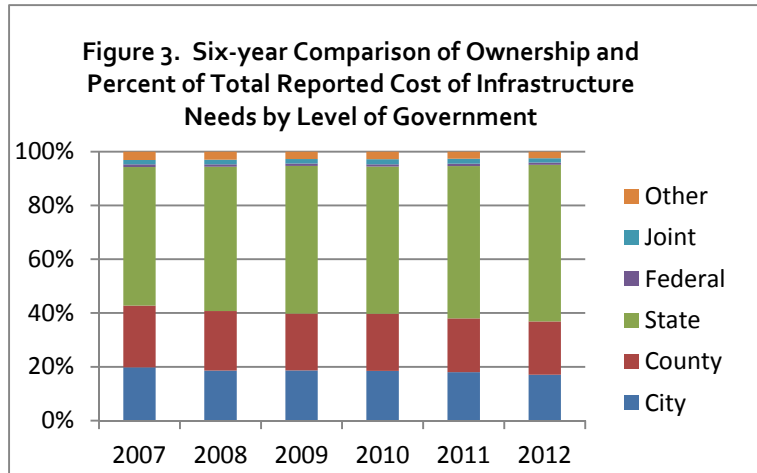
In addition to straightforward infrastructure types such as schools, public buildings, or fire protection, some public infrastructure improvements are necessary for other types of infrastructure to operate. What would roads be like without bridges or industrial parks without utilities and roads? Some transportation, water, and wastewater projects are needed to support other types of public infrastructure improvements. When that is the case, those costs are included with the infrastructure they support to show the full cost of that improvement. The same is true for all property acquisition and some storm water, telecommunications, and other utilities improvements. For example, if a rail spur is needed to create a new industrial site, then the rail spur is recorded in the inventory as an industrial site project with transportation as its secondary project type. Similarly, if a sewer line is needed for a new school, then the sewer line is recorded as new school construction with water and wastewater as its secondary type. This dual classification allows more flexibility in analyzing the costs of different types of infrastructure improvements. Those costs are included with the infrastructure they support in table 3 and throughout this report except where they are broken out in table 4.

Table 4. Comparison of Needs that Support Direct Service to Private Sector and Needs that Support Other Public Infrastructure
Five-year Period July 2012 through June 2017

	Provide Direct Service to Private Sector		Support Other Public Infrastructure		Project Type Total
Project Type	Est. Cost [in millions]		Est. Cost [in millions]		Est. Cost [in millions]
Transportation	\$ 21,543.2	99.2%	\$ 164.3	0.8%	\$ 21,707.5
Water and Wastewater	3,859.9	99.1%	36.8	0.9%	3,896.7
Other Utilities	236.3	99.1%	2.1	0.9%	238.4
Storm Water	153.3	85.9%	25.1	14.1%	178.4
Telecommunications	12.5	100.0%	0.0	0.0%	12.5
Property Acquisition	0.0	0.0%	275.7	100.0%	275.7
Grand Total	\$ 25,805.2	98.1%	\$ 504.0	1.9%	\$ 26,309.2

State infrastructure improvements continue to dominate overall, and county improvements continue to exceed those of cities.

Local officials identify more needs than state officials, but the state government owns more infrastructure than local governments. Many of the needs identified by local officials, such as state or federal improvements, may be owned or controlled by either federal or state agencies. State agencies own or will own more than half of all public infrastructure in the inventory (58.3%), continuing the



upward trend since the 2007 inventory report. The largest portion, six of the twenty-one types—transportation; post-secondary education and preschools; school system-wide needs; law enforcement; public health facilities; and libraries, museums, and historic sites—belong to the state. Slightly more than three-fourths (78%) of transportation infrastructure improvements are the responsibility of the state. Figure 3 illustrates that the distribution of infrastructure needs by level of government has remained about the same since the 2007 inventory.

Nearly all improvements needed for post-secondary education and preschool infrastructure (99.9%) belong to the state’s public colleges and universities. In fact, these improvements, combined with transportation, comprise the bulk of state-owned infrastructure in the inventory,

accounting for \$20.8 billion of the \$22.6 billion total reported for state government. The next largest areas of state responsibility are law enforcement and public health facilities. As shown in table 5, state needs exceed half of the totals for both of these types of infrastructure even though the dollar amounts are relatively small. The state's share of law enforcement costs are 66.3% (\$860.1 million) and 90.9% (\$306.3 million) for public health facilities. When transportation projects are excluded from total costs, ownership is more evenly distributed across cities (25.4%), counties (33.4%), and the state (33.7%), with 1.9% in joint ownership, 5.5% owned by other types of governmental entities such as utility districts , and only a tiny fraction (0.1%) in federal ownership.

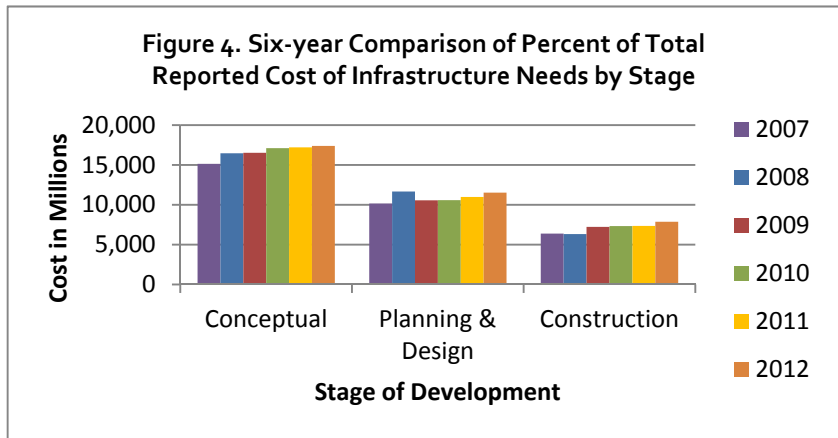
At the local level, infrastructure needed by counties slightly exceeds what is needed by cities overall. Counties' improvements make up over 83.6% of the Economic Development category because of the new convention center in Nashville. The convention center accounts for 71.7% of the estimated cost for business district development and 56% of the total for the entire Economic Development category.¹² The convention center is treated as a county need because it was reported by a metropolitan government. Metropolitan governments have the characteristics of incorporated places and remain administrative divisions of the state with all the responsibilities of counties. For that reason, they are treated as county governments in the inventory. Besides economic development, counties are also responsible for most of the new school construction (94.2%), solid waste (77.8%), and existing school improvements (73.3%).

On the other hand, cities need the most in the Recreation and Culture category (55.4%); the General Government category (44.4%); and the Health, Safety, and Welfare category (38.6%). Cities need most of the infrastructure in eight of the twenty-one project types in the inventory. Around half of the water and wastewater infrastructure (48.6%) in the inventory will belong to cities, as will most public housing (100%), storm water (92.8%), other facilities (70.9%), community development infrastructure (74.7%), fire protection (66.3%), and recreation (54.5%). Cities also need most of the other utilities infrastructure (66.8%), which includes such things as extensions to natural gas lines and power substations. Because cities are often the center of government it's no surprise that 37.7% of public building improvements are owned by cities.

¹² The Nashville convention center was completed in the spring of 2013 but this report only includes completions as of July 1, 2012.

The estimated cost of infrastructure improvements in all three stages of development continues to trend upward.

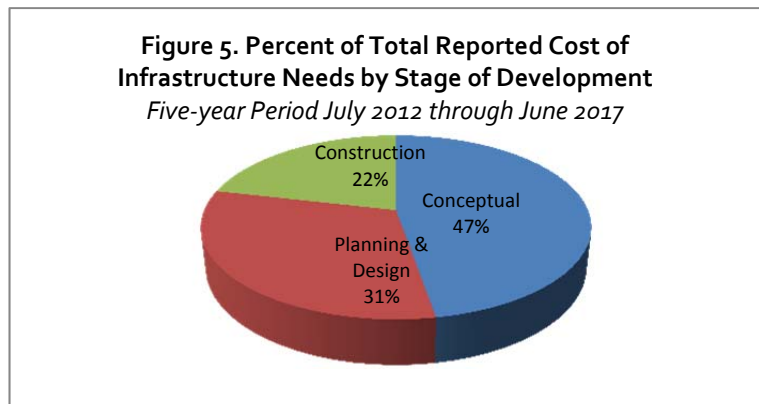
Infrastructure is also reported by stage of development, representing the various phases through which projects progress. These stages include conceptual, planning and design, and construction.



The overall distribution of infrastructure by stage has remained consistent over the past six years with upward trends in the estimated cost of infrastructure improvements in all three stages of development (see figure 4). The total estimated cost of conceptual improvements is nearly half

(47.3%) of all reported needs in this year’s inventory. Improvements in the planning and design phase increased only slightly (from \$11 billion to \$11.5 billion). Improvements under construction also increased by a small amount (from \$7.3 billion to nearly \$7.9 billion) (see figure 5). Even though the Nashville convention center has since been completed, it was still under construction in 2012 and therefore makes up most of the estimated cost of infrastructure in the construction phase in the Economic Development category. Infrastructure in the conceptual stage continues to dominate five of the six major categories except Economic Development. See table 6.

Infrastructure in the Education category remains mostly conceptual because some new and rather expensive needs offset the cost of projects moving forward into more advanced stages of development. The large increase in post-secondary education and preschool needs contributed to this shift. Last year, \$2 billion in projects were in the conceptual stage compared to \$2.3 billion this year, while the construction stage increased \$567 million since last year to a total of \$1.3 billion. See table 6.



**Table 5. Total Estimated Cost in Millions and Percent of Total of Needed Infrastructure Improvements
by Project Type and Level of Government
Five-year Period July 2012 through June 2017**

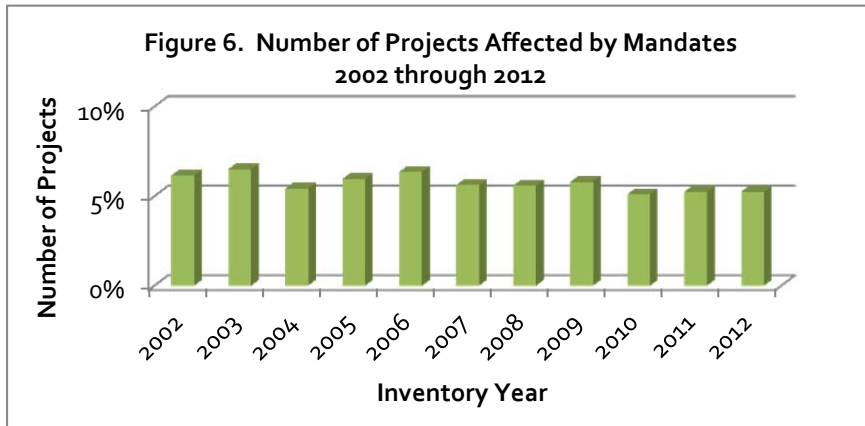
Category and Type of Need	City		County		State		Federal		Joint		Other		Total	
	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total	Estimated Cost [in millions]	Percent of Total
Transportation and Utilities	\$ 2,402.8	11.0%	\$ 1,930.7	8.9%	\$ 16,830.4	77.2%	\$ 300.0	1.4%	\$ 309.4	1.4%	\$ 18.6	0.1%	\$ 21,792.0	100.0%
Transportation	2,245.1	10.4%	1,896.4	8.8%	16,798.3	78.0%	300.0	1.4%	303.4	1.4%	0.0	0.0%	21,543.2	100.0%
Other Utilities	157.7	66.8%	21.8	9.2%	32.1	13.6%	0.0	0.0%	6.0	2.5%	18.6	7.9%	236.3	100.0%
Telecommunications	0.0	0.0%	12.5	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	12.5	100.0%
Education	\$ 151.1	2.0%	\$ 2,957.8	38.6%	\$ 4,050.8	52.9%	\$ 0.0	0.0%	\$ 0.0	0.0%	\$ 493.2	6.4%	\$ 7,652.9	100.0%
Post-secondary Education & Preschools	1.7	0.0%	5.0	0.1%	4,005.2	99.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4,011.9	100.0%
Existing School Improvements	61.7	3.0%	1,517.7	73.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	492.4	23.8%	2,071.9	100.0%
New Public Schools	87.5	5.8%	1,430.2	94.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,517.7	100.0%
School System-wide	0.2	0.4%	4.8	9.4%	45.6	88.7%	0.0	0.0%	0.0	0.0%	0.8	1.5%	51.4	100.0%
Health, Safety and Welfare	\$ 2,273.8	38.6%	\$ 1,327.9	22.6%	\$ 1,180.8	20.1%	\$ 0.0	0.0%	\$ 202.2	3.4%	\$ 898.8	15.3%	\$ 5,883.5	100.0%
Water and Wastewater	1,877.7	48.6%	894.4	23.2%	0.6	0.0%	0.0	0.0%	188.4	4.9%	898.8	23.3%	3,859.9	100.0%
Law Enforcement	107.3	8.3%	329.6	25.4%	860.1	66.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,297.0	100.0%
Public Health Facilities	1.6	0.5%	17.0	5.1%	306.3	90.9%	0.0	0.0%	12.0	3.6%	0.0	0.0%	337.0	100.0%
Storm Water	142.3	92.8%	9.1	5.9%	1.2	0.8%	0.0	0.0%	0.8	0.5%	0.0	0.0%	153.3	100.0%
Fire Protection	123.4	66.3%	49.7	26.7%	12.7	6.8%	0.0	0.0%	0.3	0.2%	0.0	0.0%	186.1	100.0%
Solid Waste	7.4	20.5%	28.1	77.8%	0.0	0.0%	0.0	0.0%	0.6	1.7%	0.0	0.0%	36.2	100.0%
Housing	14.0	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	14.0	100.0%
Recreation and Culture	\$ 943.8	55.4%	\$ 325.9	19.1%	\$ 370.8	21.8%	\$ 0.2	0.0%	\$ 60.0	3.5%	\$ 1.5	0.1%	\$ 1,702.2	100.0%
Recreation	531.1	54.5%	203.7	20.9%	198.3	20.3%	0.2	0.0%	40.4	4.1%	1.5	0.2%	975.2	100.0%
Community Development	308.2	74.7%	69.2	16.8%	22.3	5.4%	0.0	0.0%	12.7	3.1%	0.0	0.0%	412.4	100.0%
Libraries, Museums, and Historic Sites	104.5	33.2%	53.0	16.9%	150.2	47.7%	0.0	0.0%	6.9	2.2%	0.0	0.0%	314.6	100.0%
Economic Development	\$ 141.8	11.3%	\$ 1,049.9	83.6%	\$ 4.7	0.4%	\$ 0.0	0.0%	\$ 54.2	4.3%	\$ 5.5	0.4%	\$ 1,256.1	100.0%
Business District Development	81.3	8.3%	881.1	89.7%	0.0	0.0%	0.0	0.0%	19.4	2.0%	0.0	0.0%	981.8	100.0%
Industrial Sites and Parks	60.6	22.1%	168.7	61.5%	4.7	1.7%	0.0	0.0%	34.8	12.7%	5.5	2.0%	274.3	100.0%
General Government	\$ 246.3	44.4%	\$ 88.2	15.9%	\$ 198.7	35.8%	\$ 20.0	3.6%	\$ 1.6	0.3%	\$ -	0.0%	\$ 554.8	100.0%
Public Buildings	166.7	37.7%	68.3	15.4%	187.5	42.4%	20.0	4.5%	0.0	0.0%	0.0	0.0%	442.4	100.0%
Other Facilities	79.7	70.9%	19.9	17.7%	11.2	10.0%	0.0	0.0%	1.6	1.5%	0.0	0.0%	112.4	100.0%
Grand Total	\$ 6,159.6	15.9%	\$ 7,680.4	19.8%	\$ 22,636.2	58.3%	\$ 320.2	0.8%	\$ 627.5	1.6%	\$ 1,417.6	3.6%	\$ 38,841.5	100.0%

**Table 6. Needed Infrastructure Improvements in Millions and Percent of Total
by Category, Project Type, and Stage of Development
Five-year Period July 2012 through June 2017¹³**

Category and Type of Need	Conceptual				Planning & Design				Construction			
	Number		Cost		Number		Cost		Number		Cost	
Transportation and Utilities	2,988	70.7%	\$ 9,731.8	44.7%	765	18.1%	\$ 8,382.1	38.5%	472	11.2%	\$ 3,678.1	16.9%
Transportation	2,945	71.0%	9,560.9	44.4%	743	17.9%	8,318.2	38.6%	461	11.1%	3,664.1	17.0%
Other Utilities	40	55.6%	159.1	67.3%	22	30.6%	63.9	27.0%	10	13.9%	13.3	5.6%
Telecommunications	3	75.0%	11.8	94.4%	0	0.0%	0.0	0.0%	1	25.0%	0.7	5.6%
Education	393	63.6%	\$ 3,392.3	60.8%	106	17.2%	\$ 693.4	12.4%	119	19.3%	\$ 1,495.3	26.8%
Post-secondary Education & Preschools	321	62.2%	2,254.7	56.2%	91	17.6%	438.6	10.9%	104	20.2%	1,318.6	32.9%
New Public Schools	55	73.3%	1,097.1	72.3%	11	14.7%	248.4	16.4%	9	12.0%	172.2	11.3%
School System-wide	17	63.0%	40.4	78.7%	4	14.8%	6.5	12.5%	6	22.2%	4.5	8.8%
Health, Safety and Welfare	971	59.5%	\$ 2,874.6	48.9%	384	23.5%	\$ 1,691.8	28.8%	278	17.0%	\$ 1,317.1	22.4%
Water and Wastewater	701	58.7%	1,700.1	44.0%	278	23.3%	1,142.5	29.6%	216	18.1%	1,017.3	26.4%
Law Enforcement	99	56.9%	810.5	62.5%	48	27.6%	379.8	29.3%	27	15.5%	106.7	8.2%
Public Health Facilities	38	74.5%	207.2	61.5%	5	9.8%	59.3	17.6%	8	15.7%	70.5	20.9%
Storm Water	32	51.6%	53.2	34.7%	16	25.8%	21.7	14.1%	14	22.6%	78.5	51.2%
Fire Protection	81	71.1%	81.1	43.6%	25	21.9%	80.0	43.0%	8	7.0%	25.0	13.4%
Solid Waste	20	55.6%	22.5	62.3%	12	33.3%	8.6	23.8%	4	11.1%	5.0	13.9%
Housing	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%	1	100.0%	14.0	100.0%
Recreation and Culture	466	58.4%	\$ 840.4	49.4%	222	27.8%	\$ 545.8	32.1%	110	13.8%	\$ 316.1	18.6%
Recreation	363	58.5%	451.7	46.3%	171	27.6%	318.6	32.7%	86	13.9%	205.0	21.0%
Community Development	51	60.7%	159.5	38.7%	22	26.2%	158.3	38.4%	11	13.1%	94.6	22.9%
Libraries, Museums, and Historic Sites	52	55.3%	229.1	72.8%	29	30.9%	68.9	21.9%	13	13.8%	16.6	5.3%
Economic Development	81	57.4%	\$ 244.6	19.5%	37	26.2%	\$ 58.1	4.6%	23	16.3%	\$ 953.4	75.9%
Business District Development	12	34.3%	34.1	3.5%	12	34.3%	29.8	3.0%	11	31.4%	918.0	93.5%
Industrial Sites and Parks	69	65.1%	210.5	76.8%	25	23.6%	28.3	10.3%	12	11.3%	35.5	12.9%
General Government	145	63.3%	\$ 300.9	54.2%	48	21.0%	\$ 145.0	26.1%	36	15.7%	\$ 109.0	19.6%
Public Buildings	110	62.5%	218.0	49.3%	34	19.3%	118.4	26.8%	32	18.2%	106.0	24.0%
Other Facilities	35	66.0%	82.8	73.7%	14	26.4%	26.6	23.7%	4	7.5%	3.0	2.7%
Grand Total	5,044	66.0%	\$ 17,384.5	47.3%	1,562	20.4%	\$ 11,516.1	31.3%	1,038	13.6%	\$ 7,869.1	21.4%

¹³ For complete listings of costs by project type, stage of development, and county, see appendix D.

State and federal mandates affect 5.3% of all projects.



Commission staff do not ask local or state officials to identify costs related to state and federal mandates—except for infrastructure at existing schools—because officials reporting their needs often do not have the detailed information

necessary to separate that out of total project costs (e.g., the cost of ramps and lowered water fountains required by the Americans with Disabilities Act or ADA). They are asked, however, to indicate whether the costs of any projects are affected by mandates. While it is impossible to determine how much of the estimated total costs are associated with state and federal mandates, it is possible to determine the overall number of projects affected by mandates. It is a relatively small portion (5.3%) of the total in this inventory and only slightly higher than the percentage reported in last year’s inventory (5.2%). The long-term trend in the number of projects affected by mandates has been flat since the 2002 inventory (see figure 6). Existing school improvements alone account for nearly two-thirds (61.1%) of the total number of projects affected by mandates. Decreasing by 19 projects since the last inventory, existing schools are far more likely to be affected by mandates than any other type of project. See table 7.

Table 7. Percent of Projects Affected by Mandates
Five-year Period July 2012 through June 2017

Type of Need	Number of Projects or Schools Reported	Projects or Schools Affected by Mandates	
		Number	Percent
Existing School Improvements	1,273	287	22.5%
School System-wide	27	1	3.7%
Public Health Facilities	51	6	11.8%
Post-secondary Education & Preschools	516	49	9.5%
Law Enforcement	174	7	4.0%
Solid Waste	36	1	2.8%
Recreation	620	31	5.0%
Public Buildings	176	7	4.0%
New Public Schools	75	2	2.7%
Storm Water	62	1	1.6%
Water and Wastewater	1,195	22	1.8%
Libraries, Museums, and Historic Sites	94	3	3.2%
Community Development	84	3	3.6%
Transportation	4,149	42	1.0%
Fire Protection	114	7	6.1%
Housing	1	0	0.0%
Business District Development	35	0	0.0%
Industrial Sites and Parks	106	0	0.0%
Other Facilities	53	0	0.0%
Other Utilities	72	0	0.0%
Telecommunications	4	0	0.0%
Grand Total	8,917	469	5.3%