

# **STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM for FY 2017-2020**

## **I. Introduction**

The current Transportation Act, “Fixing America’s Surface Transportation Act” (FAST Act), was signed into law December 4, 2015 by President Barack Obama. This Act replaces the previous Act, Moving Ahead for Progress in the 21st Century Act (MAP-21). It is the first long-term surface transportation authorization enacted in a decade that provides long-term funding certainty for surface transportation.

The FAST Act funds surface transportation programs, including, but not limited to, federal-aid highways at over \$305 billion over fiscal years 2016 through 2020. This Act also establishes a National Multimodal Freight Policy that includes national goals to guide decision-making and establishes a National Highway Freight Program that provides \$6.3 billion in formula funds over five years for states to invest in freight projects on the National Highway Freight Network. Up to 10 percent of these funds may be used for intermodal projects.

Section 1201 “Metropolitan Transportation Planning,” Section 1202 “Statewide and Nonmetropolitan Transportation Planning,” Section 134 “Metropolitan Transportation Planning” and Section 135 “Statewide and Nonmetropolitan Transportation Planning” of Title 23, United States Code was amended. The amended language includes specific details pertaining to the development of the Long Range Statewide Transportation Plan (LRSTP), Statewide Transportation Improvement Program (STIP), and the development of Metropolitan Transportation Plans (MTPs) and Transportation Improvement Programs (TIPs) within areas served by Metropolitan Planning Organizations (MPOs), which perform transportation planning functions in urbanized areas with a population of 50,000 or greater.

The FAST Act states that “each State is required to carry out a continuing, cooperative, and comprehensive performance-based statewide multimodal transportation planning process, including the development of a long-range statewide transportation plan and STIP, that facilitates the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity bus facilities and commuter van pool providers) and that fosters economic growth and development within and between states and urbanized areas, and take into consideration resiliency needs while minimizing transportation-related fuel consumption and air pollution in all areas of the state, including those areas subject to the metropolitan transportation planning requirements of 23 U.S.C. 134 and 49 U.S.C. 5303. This Act also states: 1) the transportation planning process is to improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; 2) enhance travel and tourism; 3) integrate into the statewide transportation planning process, directly or by reference, the goals, objectives, performance measures, and targets per 23 CFR 450.206(c), in other State transportation plans and transportation processes, as well as any plans developed pursuant to chapter 53 of title 49 by providers of public transportation in areas not represented by an MPO required as part of a performance-based program.

As required by Title 23, United States Code, section 135, paragraph (g) (1): Each state shall develop a statewide transportation improvement program for all areas of the state. Such program shall cover a period of 4 years and be updated every 4 years or more frequently if the Governor elects to update more frequently. The STIP is to be developed for all areas of the state in cooperation with MPOs and local officials, shall be deemed consistent with the applicable State Implementation Plan developed pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.), shall contain primarily those project phases for which funding can reasonably be expected, and shall reflect the statewide priorities for programming and funds expenditure. The STIP is to be a truly multimodal plan, and the public must be afforded the opportunity to comment on the proposed program. FHWA and FTA reviews the STIP and issues a Planning Finding in accordance with 23 CFR 450.220 as per the requirements of 23 USC 134 and 135 of 49 USC 5303-5305.

It should be noted that Kentucky's transportation programs are developed and implemented under strict legislative oversight at the state level. In particular, the highway program is governed by a section of state law that requires multiple considerations in highway program development. It also requires in-depth reporting to the state legislature of many program events such as monthly program authorizations, bid tabulations, construction project awards, change orders, and cost overruns. The KYTC's Highway Plan is updated biennially under these guidelines, and the first two years of the Plan, the "biennial element," is line-itemed into the state's enacted biennial budget. The STIP covers a period of four years (FY 2017-2020) and contains federally-funded projects. Regionally significant state-funded projects are also included in order to meet air quality conformity requirements.

Kentucky submitted its first formal STIP document in 1992. Since that time, the KYTC has been working with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), MPOs, Area Development Districts (ADDs), and local governmental units to define and strengthen the cooperative processes put into practice by each Transportation Act. Requirements pertaining to management system implementation, public involvement in strategic planning, environmental justice, and statewide and metropolitan planning have all been carefully reviewed and processes identified to facilitate future transportation program development in Kentucky. These processes continue to evolve. This document demonstrates Kentucky's commitment to the development of a continuing planning process.

As noted, the FY 2017-2020 STIP contains all the federally-funded scheduled projects in Kentucky, including projects located within the metropolitan planning areas for the following urbanized areas: Bowling Green, Cincinnati-Northern Kentucky, Clarksville-Oak Grove, Evansville-Henderson, Huntington-Ashland-Ironton, Lexington, Louisville, Owensboro, and Radcliff-Elizabethtown. A project located within these metropolitan planning areas must be included in the appropriate MPO's TIP before it can be included in the STIP and before funding can be authorized. Each TIP must be approved by the MPO's Policy Board.

The following TIPs are incorporated by reference into this document:

- Bowling Green FY 2016-2020 TIP; approved September 2015
- Cincinnati-Northern Kentucky FY 2016-2019 TIP; approved April 2015
- Clarksville-Oak Grove FY 2014-2017 TIP; approved October 2013

- Evansville-Henderson FY 2016-2019 TIP; approved May 2015
- Huntington-Ashland-Ironton FY 2016-2019 TIP; approved April 2015
- Lexington FY 2013-2016 TIP; approved April 2013
- Louisville FY 2015-2018 TIP; approved August 2014
- Owensboro FY 2014-2019 TIP; approved October 2014
- Radcliff-Elizabethtown FY 2013-2018 TIP; approved October 2013

When new TIPs are finalized or existing TIPs are amended, changes will be incorporated into the STIP document through the STIP amendment process by reference. The KYTC recognizes the role of the MPOs in regional planning and fully supports STIP contributions resulting from MPO decision-making processes.

The Planning and Research Annual Work Program is in compliance with the provisions of 23 CFR 420.111, and includes programs and operations for planning activities in the KYTC and the Kentucky Cooperative Transportation Research Program (KCTRP). The Division of Planning is responsible for recommending, advising, and assisting the chief administrators of the KYTC in the development of the overall goals, policies, project priorities, and procedures relating to the total transportation program. The KCTRP is concerned with the development and conduct of a comprehensive research program in cooperation with the U.S. Department of Transportation, Federal Highway Administration (FHWA) and is administered through the KYTC State Highway Engineer's Office.

In addition to research developed in cooperation with FHWA, the KCTRP performs other services for the KYTC. The scope of these services includes activities such as research studies and special investigations of various engineering and operation activities. The Research Program and Implementation Advisory Committee (RPIAC), headed by the State Highway Engineer and coordinated through the Research Coordinator, gives direction to the research program.

## **II. STIP Development**

Section 135 of Title 23, United States Code, includes a number of elements which must be considered within a state's continuous transportation planning process. These elements were identified as factors which, when properly addressed, would ensure connectivity between transportation, land use, environmental issues, investment strategies, national energy goals, and other "big picture" components of a comprehensive planning process. The KYTC recognizes the planning process requirements outlined in Sections 135 (d) and (e), and is developing mechanisms for evaluating these items as it strives to implement Kentucky's transportation planning process.

Appendix A, Exhibit A-1, contains the state's certification letters, including a self-certification statement which certifies that Kentucky's transportation planning process is being carried out in accordance with all applicable federal requirements. Copies of policies and acknowledgments regarding the following are on file in the Highway District Offices and the Central Office of Human Resource Management:

1. Political Activities
2. Conflict of Interest
3. Code of Ethics
4. Smoking
5. Drug-Free Workplace
6. Americans with Disabilities (ADA)
7. Workplace Violence
8. Work Performed Off the Rights-of-Way of State Maintained Roads and Highways
9. Anti-harassment/Anti-discrimination
10. Employee Dress
11. Internet and Electronic Mail Acceptable Use
12. Memo of Holidays for State Personnel
13. Kentucky Employee Assistance Program (KEAP)
14. Confidential and Sensitive Information

## **A. Planning Process Considerations**

### **A-1. Agreements**

To ensure that the statewide transportation planning process is carried out in coordination with other state and federal agency requirements, the KYTC has formalized agreements with the various transportation and resource agencies. These agreements have defined the roles of these agencies and governments, and yield a stronger platform from which future STIPs will be developed. The KYTC hereby affirms its commitment to these agreements for the purpose of stabilizing the statewide planning process. Copies of the MPO agreements for the urban planning processes are included in the MPOs Unified Planning Work Programs submitted to FHWA annually. Copies of the agreements with the ADDs for the non-urban transportation planning process are maintained by the KYTC and available upon request.

### **A-2. Public Involvement Process**

The KYTC works with the ADDs and MPOs to ensure that public involvement processes are utilized that provide opportunities for public review and comments at key decision points. See Exhibit A-2 for a complete detail description of the public involvement process.

### **A-3. Air Quality Considerations**

#### **Conformity**

Projects contained in the FY 2017-2020 STIP and located in areas designated “nonattainment” or “maintenance” for air quality standards must be consistent with Kentucky’s State Implementation Plan (SIP) developed by the Kentucky Energy and Environment Cabinet’s Division for Air Quality (DAQ) pursuant to the Federal Clean Air Act. In the absence of a SIP, transportation conformity requirements still apply. Transportation plans involving areas designated as “nonattainment” and “maintenance” are subject to a conformity analysis to ensure that planned projects will neither create nor

contribute to violations of the National Ambient Air Quality Standards (NAAQS) and to ensure that the area will be able to meet the NAAQS in future years.

In urbanized areas, the transportation conformity analysis is performed during the development and amendment processes of the urbanized area's MTP. If acceptable, the project list of the shorter-range metropolitan area TIP must also be determined to be consistent with the MTP and in conformance with the SIP. STIP projects for rural "nonattainment" and "maintenance" areas must also be evaluated to demonstrate transportation conformity. All plans, TIPs, and projects are evaluated as required for transportation conformity in each area. Once conformity has been evaluated, USDOT will make a conformity finding for each area and, ultimately, approve the STIP. Additionally, project level conformity must be demonstrated (where "as needed" or "as required") to ensure that the project does not create, or contribute to, an air quality standard violation.

### **Designations**

The Kentucky counties of Boone, Kenton, and Campbell have partial portions of their county designated as "nonattainment" for the 2008 8-hour Ozone standard based on EPA airsheds. The 2008 8-Hour Ozone designations took effect July 20, 2012. The previous 1997 8-Hour Ozone standard was partially revoked, for conformity only. The planning requirement is still in effect.

The 1997 fine particulate matter (PM<sub>2.5</sub>) NAAQS standard has been partially revoked with the implementation of the new 2012 standard. So, only the conformity portion of the 1997 standard is still required. The Kentucky counties of Boone, Boyd, Campbell, Kenton, and a portion of Lawrence County have been re-designated by the EPA as "attainment with a maintenance plan" for the PM<sub>2.5</sub> standard. Currently, Bullitt and Jefferson Counties are designated as "nonattainment" for the 1997 fine particulate matter (PM<sub>2.5</sub>) NAAQS. Huntington-Ashland (Boyd and a portion of Lawrence County) is not required to calculate regional emissions for the transportation conformity report due to an "insignificance" finding.

Muhlenberg County and a portion of Boyd County are designated as "attainment with a maintenance plan" for SO<sub>2</sub> standard. No regional transportation conformity is required; however, project level analysis is needed.

As required, regional conformity for ozone and PM<sub>2.5</sub> has been demonstrated as required for the metropolitan planning areas of Louisville (Bullitt and Jefferson Counties), Huntington-Ashland (Boyd and a portion of Lawrence County), and Cincinnati-Hamilton (Boone, Campbell, and Kenton Counties). The KYTC has shown conformity for these areas as required for the current 8-hour Ozone standard and for the existing PM<sub>2.5</sub> standard, and through subsequent MPO TIP/MTP amendments and updates.

### **Responsibilities**

A conformity determination is required for the transportation plans for each of these designated areas prior to the authorization of any federally-funded projects to ensure that air

quality will not be adversely affected for the criteria pollutants (i.e., no increase in particulate matter (PM)). For “nonattainment” or “maintenance” areas within or including an MPO area, the MPO is responsible for the conformity analysis. Currently, all areas in Kentucky have a conforming transportation plan. The Louisville Metro Air Pollution Control District (LMAPCD) performs the conformity analysis for the Louisville MPO’s MTP. The Ohio-Kentucky-Indiana (OKI) Regional Council of Governments performs the conformity analysis for the Cincinnati-Hamilton MPO’s MTP. The Kentucky-Ohio-Virginia (KYOVA) Interstate Planning Commission performs the conformity analysis for the Huntington-Ashland MPO’s MTP. The Division for Air Quality (DAQ) and U.S. Environmental Protection Agency (EPA) evaluates each conformity analysis and the U.S. Department of Transportation makes the conformity determination. SIP conformity documentation is incorporated by reference into the STIP as the individual TIP updates are amended into the STIP. (See Appendix A, Exhibit A-4 for air quality conformity letters). Project level conformity is the responsibility of the KYTC’s Division of Environmental Analysis (DEA).

#### **A-4. Congestion Mitigation and Air Quality Improvement Program**

The FY 2017-2020 STIP has been developed in full recognition of Title 23, which establishes a distinct funding source to address Congestion Mitigation and Air Quality (CMAQ) issues. FHWA and the FTA have set aside funds for CMAQ. The funds are made available for projects within the identified designated air quality areas for the purpose of reducing traffic congestion and improving air quality. Funding for these projects is awarded through an application process and must be transportation related, must reduce emissions, and must be in an air quality nonattainment or maintenance area. Formerly designated areas are still eligible to apply for CMAQ funding. If the proposed project is located within an urbanized area, the sponsor submits applications to the MPO for their prioritization which then forwards the applications and rankings to the KYTC’s Office of Local Programs. The Governor selects eligible CMAQ projects to be funded as the federal CMAQ funding is available. FHWA makes an eligibility determination and the KYTC is responsible for the disbursement and management of the CMAQ funds. Application cycles may vary depending upon the availability of federal CMAQ funding. CMAQ projects are listed in Appendix A, Exhibit A-8.

#### **A-5. Fiscal Constraint**

In accordance with 23 CFR 450.216(a)(5), the STIP is required to be financially constrained by year, include sufficient financial information to demonstrate which projects are to be implemented using current revenues, and which projects are to be implemented using proposed revenue sources, while the system as a whole is being adequately operated and maintained. In addition, with the passage of the enabling legislation by the Kentucky General Assembly to use "Grant Anticipation Revenue Vehicles (GARVEEs)" bond funds, the fiscal constraint calculations include the debt service payments for GARVEE bonds (Table 1, page 12). The FY 2017-2020 STIP Fiscal Balance Worksheets show anticipated funding levels (apportionments) and compares them against planned outlays (obligations) for each of the next four fiscal years (FY 2017 through FY 2020). The anticipated federal-aid highway funding and anticipated federal transit funding apportionments for FY 2017-2020 are shown in Table 2 on page 13. The anticipated federal-aid highway funding and

anticipated federal transit funding obligations for FY 2017-2020 are shown in Table 3 on page 14. And, the rolled up totals for each of the FAST Act federal-aid highway funding categories for “Anticipated Apportionments” vs “Planned Obligations” and “Projected End of Fiscal Year Advance Construction” are shown in Table 4 on page 15.

The planned federal obligations are based upon the estimated project phase costs in projected “Year of Expenditure” dollars by using the “Cost in Today’s Dollars” and using a 4 percent yearly inflation factor for design, utility, and construction phases and using a 5 percent yearly inflation factor for the right-of-way phase. The FY 2017-2020 STIP federal funding level forecasts are based on the current Transportation Act, “FAST Act,” which was enacted by the United States Congress. The FAST Act was signed into law by President Barack Obama on December 4, 2015 to provide over \$305 billion for fiscal years FY 2016 through FY 2020.

For the purposes of this edition of the FY 2017-2020 STIP, the funding levels for FY 2017 through FY 2020 are in accordance with the summary of estimated apportionments under the conference report for H.R. 22 (FAST Act) provided to state DOTs. These state-specific levels of funding are broken down into individual program funding categories as determined by FAST Act application to Federal Highway Trust Fund formulas.

Kentucky’s federal highway program will be largely matched with “toll credits” through FY 2020. Toll credits are attributed to Kentucky by federal highway law in accordance with calculations that consider past levels of state fund investment, such as state-sponsored toll roads, in the federal highway system. Toll credits do not generate cash and cannot be accounted as such; however, they do permit the KYTC the flexibility to use 100% federal funding on federal-aid projects. By doing so, the KYTC can allocate more of its own state funding for state-funded projects, yielding increased cash management controls.

The federal funding target amounts used to fiscally balance the FY 2017-2020 STIP, based upon projected estimated apportionments of category-by-category federal funding expectations of total federal-aid dollars available during Fiscal Years 2017 through 2020, is anticipated to be approximately \$2.77 billion. Adding the carry-over federal funding from FY 2016, the total revenue expectation that supports projects in this edition of the STIP is approximately \$3.35 billion. The total of the scheduled federal-aid funding obligations for the FY 2017-2020 STIP is approximately \$3.37 billion. The ratio of the scheduled federal-aid obligations to the scheduled federal-aid apportionments is 1.01 for the planned projects listed in the FY 2017-2020 STIP. Thus, the FY 2017-2020 STIP is fiscally constrained.

It is possible that the final federal appropriation for any given year may change these estimates slightly, but these changes should not substantially alter the ability of the KYTC to deliver planned federal-aid highway projects. The anticipated apportionments scheduled in FY 2020, have been reduced by \$128 million as per the projected Congressional rescissions outlined in the FAST Act for FY 2020. As to planned obligations, the listing of project phases contains some construction phases listed as an “Illustrative Project” in the event that additional federal-aid highway funding becomes available beyond the anticipated planned apportionments. Those projects may be moved into the fiscal constraint calculation in accordance with the process of the KYTC receiving new additional federal-aid highway

funding. In August prior to the end of the federal-aid highway funding fiscal year, the KYTC conducts a “fiscal constraint” recalculation overview within each of the STIP funding programs to compare the federal funding obligations to the planned obligations for the current fiscal year, to assure that the federal program is “fiscally-constrained.”

It is important to note that Kentucky oftentimes utilizes federal pre-financing provisions in programming federal funding through FHWA, defined as “Advance Construction” (AC). The federal pre-financing AC process is defined as “Advance Construction of Federal-aid Projects,” whereby the state may request and receive approval from FHWA that the requested project phase meets federal-aid regulations as being eligible for federal-aid funding for reimbursement of project expenditures, but the state elects to defer the use of the current available federal-aid apportionments and obligation authority to a future time period based upon actual project expenditures. By using the AC funding mechanism, this provides Kentucky the ability to maximize the use of federal-aid funding, while at the same time accelerating many federal highway projects.

The KYTC’s Cash Flow Management Process for using the federal AC pre-financing process outlines that the goal of KYTC is keep the federal-aid highway program “Earned Unbilled” to less than \$50 million. The “Earned Unbilled” federal-aid highway funding amount is the amount of state dollars that have been used to pay expenditures on federal AC pre-financed project phases that eventually will be converted to current federal-aid highway funding apportionments and obligation authority, and then a request will be sent to FHWA for reimbursement of eligible project expenditures. Kentucky’s current AC total is approximately \$274 million, and the current “Earned Unbilled” total for those projects, is under \$30 million.

The projected end of fiscal year “advance construction” is \$367 million for FY 2017; \$421 million for FY 2018; \$384 million for FY 2019; and \$367 million for FY 2020. However, the amount of “advance construction” will depend upon several factors including the timing of the actual congressional release of yearly federal-aid highway funding obligation authority and the programming of federal-aid highway funded projects near the end of each federal fiscal year.

The KYTC continually monitors the “net cash balance” of these federal AC pre-financed projects, and these results are included within the month-to-month consideration of the federal-aid highway funding program’s flexibility in the overall cash flow management procedures of the state and federally-funded programs. Through the “Cash Flow Management” procedures, using state funding from the state “Road Fund” cash balance until the federal share of these costs can be billed to the federal government, the KYTC can maximize the usage of both state road funds and federal-aid highway funding to deliver the overall state and federal funded transportation program.

It is also important to note that the KYTC utilizes innovative financing options permitted under federal transportation law. In particular, during the 2004 General Assembly’s legislative session, House Bill 418 was passed, enabling the KYTC to pursue a specific group of interstate widening projects through an innovative financing technique known as “Grant Anticipation Revenue Vehicles (GARVEEs).” The General Assembly’s



enactment of House Bill 267 (Appropriations Bill) during the 2005 legislative session, provided to the KYTC, approval of \$150 million in appropriation authority in Fiscal Years 2004-2005 for GARVEE bond funds. In addition, during the 2006 General Assembly's legislative session the General Assembly provided within House Bill 380 approval to the KYTC an additional \$290 million in appropriation of authority in Fiscal Years 2006-2008 for GARVEE bond funds. The 2008 General Assembly made available the ability to use \$231 million of GARVEE bond funds to support the Louisville Bridges project within House Bill 410. Also, during the 2010 Extraordinary Session, the General Assembly made available the option to use an additional \$105 million of GARVEE bond funds to support the Louisville Bridges project within House Bill 3. In addition, the option to use \$330 million of GARVEE bond funds to support the construction of the two US 68/KY 80 bridges over Kentucky Lake and Lake Barkley was made available within House Bill 3. Therefore, the Kentucky General Assembly has provided the KYTC the ability to use \$1.1 billion in GARVEE bond funds, along with the approval of usage of federal-aid highway funding to provide debt service payments on the GARVEE bonds.

The GARVEE financing technique is permitted by federal law and involves the commitment of future federal-aid appropriations as leveraging for current year highway improvements. The primary benefit of such an arrangement is that major highway improvements can be purchased at today's prices and paid for with interest over a multi-year timeframe. The application of the GARVEE principle is very similar to home mortgage financing, but is used to purchase major highway investments when "pay-as-you-go" is not the desirable course.

With the passage of the enabling legislation by the Kentucky General Assembly to use GARVEE bond funds, the KYTC has begun activities on the corresponding approved projects. The breakdown of the required federal-aid highway funding to cover the corresponding debt service for each of the GARVEE bond funded projects is shown under the "ZVarious" County item numbers as shown on Table 1, on page 12.

Each of these projects constitutes a necessary investment in Kentucky's future. The need to accommodate both people movement and freight movement is critical to Kentucky's economy in the years ahead. Without the GARVEE bond program, these highway projects would continue to be piecemealed over time, and likely not completed until beyond 2025. The innovative idea of GARVEE bonds, along with determined state leadership, will yield the kind of realistic solution necessary to reverse the "always behind" mentality of the past and help restore hope to Kentucky's transportation program.

The federal funding for the construction phases identified within the GARVEE bond program will be programmed through FHWA as Advance Construct (AC) projects. Again, as explained previously, the AC process is defined as "Advance Construction of Federal-Aid Projects," whereby the state may request and receive approval to construct federal-aid projects in advance of the apportionment of authorized federal-aid funds. The AC conversion of the federal funding for the GARVEE bond program will be distributed over a period of fourteen years, and will be in accordance with the GARVEE bond program Memorandum of Agreement (MOA). At the beginning of each federal fiscal year, federal programming documents for GARVEE bond projects AC conversions will be submitted to

FHWA to use current federal-aid highway funding apportionments and current formula funding obligation authority. The total amount of the AC conversions will be the amount of federal funding required to cover the yearly debt service (principal, interest, and other costs incidental to the sale of eligible bond issue) as outlined within each of the approved GARVEE bond programs. The required NHPP and STP funding to cover the yearly debt service amount for the GARVEE bonds will be included in the end-of-year “Fiscal Constraint” determination, and will be included within the preparation of future STIPs and fiscal constraint calculations. The KYTC is setting aside the required amount of “toll credits” for the matching funds for the federal-aid highway funding to cover the GARVEE bond debt service payments through 2027.

As noted, the list of projects within the FY 2017-2020 STIP includes federally-funded projects and only the state-funded projects that are regionally significant to meet transportation air quality conformity requirements, including the projects within the MPO areas. The projects located within each of the MPO areas included within the STIP are subject to approval and inclusion within the respective MPO’s TIP and subsequent amendments for each of these MPO areas. In addition, like the FY 2017-2020 STIP, in accordance with 23 CFR 450.326(g) each MPO TIP is required to be financially constrained by year and include a financial plan that demonstrates which projects can be implemented using current revenues, and which projects are to be implemented using proposed revenue sources, while the existing transportation system is being adequately operated and maintained. Each of the MPO’s TIP financial plans are developed in cooperation with the KYTC and the transit operators, based upon projected estimates of available federal and state funds within the MPO areas. Based upon the financial plan, the MPOs’ TIPs contain only project phases that funding can be reasonably expected to be available for each of the project’s identified phase, funding source, fiscal year schedule, and the estimated cost.

Kentucky has several transportation “Mega Projects” (projects having a total estimated cost of greater than \$500 million as identified within Section 10) underway throughout the Commonwealth of Kentucky. As required by federal regulations, each of the “Mega Projects” require the preparation of financial plans on projects funded with federal funding, and the financial plans for the “Mega Projects” must be updated each year. The updates to the financial plans outlines current project expenditures, updates current cost estimates in year of expenditure dollars for each remaining project phase, and outlines the required remaining funding to complete the “Mega Project.” As the “Mega Projects” financial plans are updated, changes in estimated costs and required funding for future project phases will be addressed through the STIP and MTP/TIP amendment or administrative modification processes, as necessary.

As evidenced by Table 3, Kentucky’s STIP is fiscally-constrained for the next four years. For informational purposes, the STIP also contains several state-funded projects, shown in Appendix A, Exhibit A-5 C, which are critical for SIP compliance and conformity determinations. Each of these state-funded projects will be considered in the prioritization process as future allocations of state road fund highway program funding becomes available.

The authorization and programming of all state and federal funding for the transportation program will be accommodated through the KYTC’s cash flow management program. When the planned obligations exceed estimated apportionments by program

category, unobligated previous apportionments will be used, or moneys will be transferred between categories, or flexible funding such as “Minimum Guarantee” will be used to close the program-specific funding gap to the extent that air quality conformity for the region is not jeopardized.

To reiterate, the KYTC’s goal is to fund the federal-aid highway program as outlined in the 2016 Enacted Highway Plan as approved by the 2016 Kentucky General Assembly, unless Congress and FHWA direct otherwise. The project phases listed in no way constitute an effort to denigrate the importance of any project to the community or region it serves. The KYTC will work diligently to implement all STIP projects as quickly as funding limitations will permit.

Shifting projects between fiscal years of the STIP may be conducted when determined essential to the effective use of federal-aid highway program dollars. It is expected that such changes would normally be “minor,” for example; advancing a non-controversial project to replace a project not able to meet the assigned schedule, with respect to STIP activity. If such adjustments involve actions determined by the KYTC to be “major” in nature (e.g., acceleration of a controversial project), then a formal STIP amendment would be pursued.

The operation and maintenance of existing transportation facilities within the state is a primary concern among Kentucky citizens, and included within the FY 2017-2020 STIP are federally-funded system preservation projects. In addition to the federally-funded system preservation projects, Table 2 contains a line-item outlining the FY 2017-2020 scheduled state and local funding for none “Toll Credits” matching funds and for the KYTC’s operations and maintenance program.

Included within each MPO’s TIP is a financial plan that demonstrates how the TIP can be implemented, identifies funding resources from public and private sources, and identifies innovative financing techniques to finance projects and programs. The development of the projected estimates of funding resources is developed through cooperative efforts of the MPO, the KYTC, and Public Transportation Agencies. Also included within the financial plan are grouped project line-items for projected funding and obligations for operations and maintenance activities for existing facilities. Again, the projected funding resources were prepared through cooperative efforts of the MPO, the KYTC, and Public Transportation Agencies by utilizing expenditures data from the KYTC Fiscal Year Audit Reports for actual operations and maintenance expenditures within the MPO areas. (See Appendix B-Metropolitan Planning Organization (MPO) Financial Plans).

**TABLE 1**

<b>PROJECTED DEBT SERVICE</b> <b>(in millions)</b>					
<b>GARVEE PROJECT</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>TOTAL</b>
Interstate 65, Interstate 75, and Interstate 64 Widening ZVarious 99-9050 Series	44	45	45	0	134
Louisville Bridges Project ZVarious 99-9659 Series	34	34	34	63	165
US 68/KY 80 Lake Barkley and Kentucky Lake Bridges ZVarious 99-9068 Series	18	18	18	18	72
<b>TOTALS</b>	<b>96</b>	<b>97</b>	<b>97</b>	<b>81</b>	<b>371</b>

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM FISCAL BALANCE SHEET  
 FY 2017 - 2020 PLANNED FEDERAL-AID PROGRAM  
 APPORTIONMENTS VERSUS PLANNED OBLIGATIONS

FAST ACT FUNDING PROGRAMS	FAST ACT FUNDING PROGRAMS SUBALLOCATED BY KENTUCKY GENERAL ASSEMBLY	2016 AVAILABLE APPORTIONMENTS (SEE NOTE 1)	2016 CARRYOVER OBLIGATION AUTHORITY	ESTIMATED APPORTIONMENTS (MILLIONS)							TOTAL STIP APPORTIONMENTS			
				FY 2017 PLUS CARRYOVER	FY 2017 PLUS CARRYOVER (SEE NOTE 2)	FY 2017 PLUS CARRYOVER	FY 2018 PLUS CARRYOVER	FY 2018 PLUS CARRYOVER	FY 2019 PLUS CARRYOVER	FY 2019 PLUS CARRYOVER		FY 2020 PLUS CARRYOVER	FY 2020 PLUS CARRYOVER	
<b>I. HIGHWAY FEDERAL FUNDS</b>														
NHPP	NHPP - BRIDGE REPLACEMENT (BRO)	0	0	57	0	57	0	58	0	56	0	52	0.00	224
STP	STP - BRIDGE REPLACEMENT (BRX)	2	0	10	0	12	0	10	0	15	0	10	0.00	46
STP	STP - BRIDGE REPLACEMENT (BRZ)	0	0	12	0	12	0	12	0	12	0	11	0.00	48
CM	CONGESTION MITIGATION (CM)	45	0	14	24	59	24	38	48	63	97	112	137.75	102
SFR (Statewide)	PLANNING (SFR/PL)	15	0	10	15	25	15	25	31	41	62	72	123.20	55
PL (Metro)	METRO PLANNING (PL)	6	0	2	6	8	6	8	12	24	24	26	48.80	14
NHPP	NHPP - INTERSTATE/INTERSTATE MAINTENANCE (IM)	1	0	113	0	114	0	113	0	124	0	83	0.00	434
NHPP	NHPP - NATIONAL HIGHWAYS (NH)	120	0	215	0	334	0	222	0	222	0	210	0.00	969
HSIP	HSIP - SAFETY (SAF) PROGRAM	39	0	26	24	64	24	49	7	53	15	62	17.00	182
STP	STP - SURFACE TRANSPORTATION (Includes Statewide STP, (SEE NOTE 3))	123	0	155	0	278	0	168	0	132	0	101	0.00	668
STP (SHN Dedicated to Henderson MPO Area)	Dedicated STP SHN funding within Henderson MPO Area.	3	0	1	1	4	1	2	3	3	5	6	10.85	6
STP (SLO Dedicated to Louisville MPO Area)	Dedicated STP SLO funding within Louisville MPO Area.	68	0	18	0	85	0	18	0	18	0	19	0.00	140
STP (SLX Dedicated to Lexington MPO Area)	Dedicated STP SLX funding within Lexington MPO Area.	7	0	6	0	13	0	6	0	8	0	7	0.00	33
STP (SNK Dedicated to Northern Kentucky MPO Area)	Dedicated STP SNK funding within Northern Kentucky MPO Area.	31	0	7	0	38	0	7	0	9	1	8	1.27	62
STP (SAH Dedicated to Ashland MPO Area)	Dedicated STP SAH funding within Ashland MPO Area.	4	0	1	1	5	3	4	6	8	13	14	26.62	9
TAP	Dedicated TAP funding within Henderson MPO Area.	0.0	0.0	0.15	0	0.15	0	0.19	0	0.34	1	1	1.20	0
TAP	Dedicated TAP funding within Louisville MPO Area.	2	0	1	0	3	4	6	9	10	18	19	35.20	7
TAP	Dedicated TAP funding within Lexington MPO Area.	1	0	0.40	2	1.40	2	2.00	3	3.60	6	7	12.80	2
TAP	Dedicated TAP funding within Northern Kentucky MPO Area.	1	0	0.45	2	1.45	2	2.18	3	3.91	7	7	13.84	2
TAP	Dedicated TAP SAH funding within Ashland MPO Area.	0.15	0.0	0.08	0	0.23	0	0.38	1	0.68	1	1	2.40	0
TAP	TRANSPORTATION ALTERNATIVES (TAP) Statewide	14	0	12	26	11	23	21	21	33	41	53	84.31	62
TE & BRTS (Carryover from SAFETEA-LU)	TRANSPORTATION ENHANCEMENT (TE) Statewide	29	0	0	29	13	13	13	12	12	24	24	47.20	29
HPP (Carryover from SAFETEA-LU)	FEDERAL DEMONSTRATION PROJECTS (STATEWIDE HPP)	38	38	0	38	3	3	3	3	3	6	6	11.60	38
KYD (Carryover from SAFETEA-LU)	FEDERAL DISCRETIONARY PROJECTS (KYD)	30	30	0	30	0	0	0	0	0	0	0	0.00	30
FH	FOREST HIGHWAY/PUBLIC LANDS (FH)	2.0	0.0	1.6	0	3.6	0	2	1	2	1	3	2.40	8
NHPP APD (and carryover from SAFETEA-LU)	NHPP - APPALACHIAN DEVELOPMENT (APD)	2	2	40	0	41	0	41	0	42	0	33	0.00	157
<b>SUBTOTALS "HIGHWAY FEDERAL FUNDS"</b>		<b>582</b>	<b>70</b>	<b>700</b>	<b>110</b>	<b>1,282</b>	<b>110</b>	<b>825</b>	<b>161</b>	<b>881</b>	<b>321</b>	<b>945</b>	<b>635</b>	<b>3,349</b>
<b>II. STATE GARVEE FUNDS</b>														
<b>II. GARVEE BONDS (JMB)</b>														
<b>II. GARVEE BONDS (JMB)</b>														
<b>SUBTOTALS GARVEE BONDS</b>														
<b>SUBTOTALS GARVEE BONDS</b>														
<b>III. STATE AND LOCAL FUNDS</b>														
<b>LOCAL FUNDING FOR MATCHING FUNDS</b>														
<b>STATE CONSTRUCTION FUNDS (SPP or BONDS)</b>														
<b>STATE MATCHING FUNDS (SEE NOTE 4)</b>														
<b>STATE FUNDED OPERATIONS AND MAINTENANCE PROGRAM</b>														
<b>SUBTOTALS STATE FUNDS TOTALS</b>		<b>0</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>1,388</b>
<b>HIGHWAY FUNDING TOTALS</b>		<b>582</b>	<b>700</b>	<b>1,624</b>	<b>110</b>	<b>1,282</b>	<b>110</b>	<b>825</b>	<b>161</b>	<b>881</b>	<b>321</b>	<b>945</b>	<b>635</b>	<b>3,349</b>
<b>IV. PAST ACT FEDERAL TRANSIT/STATE ASSISTANCE</b>														
<b>SECTION 5311 RURAL TRANSPORTATION</b>														
<b>SECTION 5310 SPECIALIZED PROGRAMS</b>														
<b>KENTUCKY SECTION 5307</b>														
<b>KENTUCKY SECTION 5303 &amp; 5304</b>														
<b>PUBLIC TRANSIT CAPITAL 5338</b>														
<b>SUBTOTALS "TRANSIT FEDERAL FUNDS"</b>		<b>57.49</b>	<b>57.49</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>60.22</b>	<b>255.69</b>
<b>SECTION 5311 (STATE FUNDING)</b>														
<b>SECTION 5311 (LOCAL FUNDING)</b>														
<b>SECTION 5311 (CONREV &amp; FAREBOX FUNDING)</b>														
<b>SECTION 5310 (STATE FUNDING)</b>														
<b>SECTION 5307 (LOCAL FUNDING)</b>														
<b>SECTION 5303 &amp; 5304 (LOCAL FUNDING)</b>														
<b>PUBLIC TRANSIT CAPITAL 5338 (STATE MATCH)</b>														
<b>SUBTOTALS "NON FEDERAL TRANSIT FUNDS"</b>		<b>110.85</b>	<b>110.85</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>111.17</b>	<b>447.30</b>
<b>TRANSIT FUNDING TOTALS</b>		<b>168.48</b>	<b>168.34</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>171.39</b>	<b>682.69</b>

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM FISCAL BALANCE SHEET  
 FY 2017 - 2020 PLANNED FEDERAL-AID PROGRAM  
 APPORTIONMENTS VERSUS PLANNED OBLIGATIONS

TABLE 3

PROGRAM	PROJECTED END OF FY 2016 ADVANCE CONSTRUCTION PROJECTS (SEE NOTE 6)	PLANNED OBLIGATIONS (IN MILLIONS)										COMBINED APPOINTMENTS AVAILABLE FOR AC CONVERSION FY 2016 THRU FY 2020	END OF FY 2020 PROJECTED AC	RATIO OF OBLIGATIONS TO APPOINTMENTS	
		FY 2017 PLANNED OBLIGATIONS	END OF FY 2017 PROJECTED AC	FY 2018 PLANNED OBLIGATIONS	END OF FY 2018 PROJECTED AC	FY 2019 PLANNED OBLIGATIONS	END OF FY 2019 PROJECTED AC	FY 2020 PLANNED OBLIGATIONS	END OF FY 2020 PROJECTED AC	COMBINED AC TOTALS FY 2016 THRU FY 2020	PROJECTED AC TOTALS AT END OF FY 2020				PLANNED STIP OBLIGATIONS
<b>I. HIGHWAY FEDERAL FUNDS</b>															
NHPP - BRIDGE REPLACEMENT (BR)	0	101	(43)	74	(89)	26	(29)	25	(2)	(133)	131	(2)	226	1.01	
STP - BRIDGE REPLACEMENT (BR)	-4.6	15	(7)	17	(14)	7	(6)	10	(6)	(38)	32	(6)	48	1.03	
STP - BRIDGE REPLACEMENT (BZ)	-0.25	19	(13)	(8)	(9)	12	(8)	13	(10)	(34)	24	(10)	57	1.21	
CONGESTION MITIGATION (CM)	-7.7	27	0	14	0	14	0	11	0	(8)	8	0	66	0.65	
PLANNING (BFRPL)	0	10	0	10	0	10	0	10	0	0	0	0	40	0.72	
METRO PLANNING (PL)	0	2	0	2	0	2	0	2	0	0	0	0	8	0.57	
NHPP - INTERSTATE INTERSTATE MAINTENANCE (IM)	-3.19	165	(65)	(69)	(69)	72	(7)	116	75	1	123	124	429	0.99	
NHPP - NATIONAL HIGHWAYS (NH)	-110.97	297	(74)	298	(150)	199	(126)	91	(8)	(468)	461	(8)	886	0.90	
HSP - SAFETY (SAF) PROGRAM	-4.3	40	0	42	0	42	0	42	0	(4)	4	0	170	0.93	
STP - SURFACE TRANSPORTATION (includes Statewide STP; (SEE NOTE 3))	-134.14	293	(106)	142	(80)	271	(229)	200	(323)	(888)	559	(623)	884	1.29	
Dedicated STP SHM funding within Henderson MPO Area	2	2	0	1	0	1	0	1	0	0	0	0	4	0.72	
Dedicated STP SLO funding within Louisville MPO Area	-0.9	90	(6)	18	(16)	18	(6)	19	(6)	(23)	18	(6)	145	1.03	
Dedicated STP SLX funding within Lexington MPO Area	-3.8	16	(8)	4	(5)	6	(3)	7	(3)	(23)	20	(3)	33	0.99	
Dedicated STP SNK funding within Northern Kentucky MPO Area	-0.5	37	0	8	(11)	7	0	7	0	(2)	2	0	60	0.98	
Dedicated STP Ssh funding within Ashland MPO Area	0	2	0	1	0	1	0	1	0	0	0	0	6	0.65	
Dedicated STP funding within Henderson MPO Area	0	0	0	0	0	0	0	0	0	0	(0)	0	0	0.84	
Dedicated TAP funding within Louisville MPO Area	0	1	0	1	0	1	0	1	0	0	0	0	5	0.65	
Dedicated TAP funding within Lexington MPO Area	0	0	0	0	0	0	0	0	0	0	0	0	2	0.80	
Dedicated TAP funding within Northern Kentucky MPO Area	0	0	0	0	0	0	0	0	0	0	0	0	2	0.90	
Dedicated TAP SAH funding within Ashland MPO Area	0	0	0	0	0	0	0	0	0	0	(0)	0	0	0.68	
TRANSPORTATION ALTERNATIVES (TAP) Statewide	-2.6	12	0	14	0	14	19	9	0	17	(17)	0	49	0.78	
TRANSPORTATION ENHANCEMENT (TE) Statewide	-1.1	15	0	14	(1)	14	0	11	0	8	(8)	0	29	1.01	
FEDERAL DEMONSTRATION PROJECTS (STATEWIDE HPP)	0	35	0	3	0	3	0	3	0	3	(3)	0	38	1.00	
FEDERAL DISCRETIONARY PROJECTS (KYD)	0	30	0	0	0	0	0	0	0	0	0	0	30	1.00	
FOREST HIGHWAY/PUBLIC LANDS (FH)	0	3	0	2	0	2	1	2	0	1	(1)	0	8	0.95	
NHPP - APPALACHIAN DEVELOPMENT (APD)	0	103	(62)	8	(28)	17	(3)	34	(4)	(86)	94	(4)	161	1.03	
<b>SUBTOTALS "HIGHWAY FEDERAL FUNDS"</b>	<b>(274)</b>	<b>1,275</b>	<b>(387)</b>	<b>302</b>	<b>(421)</b>	<b>724</b>	<b>(834)</b>	<b>565</b>	<b>(387)</b>	<b>(1,813)</b>	<b>1,447</b>	<b>(867)</b>	<b>3,386</b>	<b>1.01</b>	
<b>II. GARVEE BONDS (LMS &amp; J22)</b>															
GARVEE BONDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>SUBTOTALS GARVEE BONDS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>III. STATE AND LOCAL FUNDING</b>															
LOCAL FUNDING FOR MATCHING FUNDS	0	62.4	0	12.2	0	12.4	0	11.5	0	0	0	0	99	1.00	
NON-EXEMPT STATE FUNDED PROJECTS	0	0	0	50	0	160	0	120	0	0	0	0	370	1.00	
STATE MATCHING FUNDS	0	0	0	0	0	0	0	40	0	0	0	0	40	1.00	
STATE FUNDED OPERATIONS AND MAINTENANCE PROGRAM	0	342	0	342	0	342	0	342	0	0	0	0	1,368	1.00	
<b>SUBTOTALS "STATE FUNDS"</b>	<b>0</b>	<b>342</b>	<b>0</b>	<b>382</b>	<b>0</b>	<b>502</b>	<b>0</b>	<b>542</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,778</b>	<b>1.00</b>	
<b>HIGHWAY FUNDING OBLIGATION TOTALS</b>	<b>(274)</b>	<b>1,617</b>	<b>1,184</b>	<b>1,184</b>	<b>1,226</b>	<b>1,107</b>	<b>1,107</b>	<b>5,144</b>	<b>1,107</b>	<b>5,144</b>	<b>1,107</b>	<b>5,144</b>	<b>5,144</b>	<b>1.00</b>	

PROGRAM	PLANNED OBLIGATIONS (IN MILLIONS)										COMBINED APPOINTMENTS AVAILABLE FOR AC CONVERSION FY 2016 THRU FY 2020	END OF FY 2020 PROJECTED AC	RATIO OF OBLIGATIONS TO APPOINTMENTS		
	FY 2017 PLANNED OBLIGATIONS	END OF FY 2017 PROJECTED AC	FY 2018 PLANNED OBLIGATIONS	END OF FY 2018 PROJECTED AC	FY 2019 PLANNED OBLIGATIONS	END OF FY 2019 PROJECTED AC	FY 2020 PLANNED OBLIGATIONS	END OF FY 2020 PROJECTED AC	COMBINED AC TOTALS FY 2016 THRU FY 2020	PROJECTED AC TOTALS AT END OF FY 2020				PLANNED STIP OBLIGATIONS	
<b>IV. FAST ACT FEDERAL TRANSIT/STATE ASSISTANCE</b>															
SECTION 5311 RURAL TRANSPORTATION	18.96	19.53	19.53	20.73	21.58	21.58	21.58	21.58	21.58	21.58	21.58	21.58	21.58	1.00	
SECTION 5301 SPECIALIZED PROGRAMS	5.09	5.34	5.34	5.61	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	5.89	1.00	
KENTUCKY SECTION 5307	25.05	26.3	26.3	27.62	29	29	29	29	29	29	29	29	29	1.00	
KENTUCKY SECTION 5303 & 5304	0.87	0.91	0.91	0.95	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.00	
PUBLIC TRANSIT CAPITAL 5339	4.82	5.06	5.06	5.31	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	5.58	1.00	
<b>SUBTOTALS "TRANSIT FEDERAL FUNDING OBLIGATIONS"</b>	<b>54.79</b>	<b>57.44</b>	<b>57.44</b>	<b>60.22</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>63.14</b>	<b>1.00</b>	
SECTION 5311 (STATE FUNDING)	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.00	
SECTION 5311 (LOCAL FUNDING)	18.2	18.5	18.5	19	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	1.00	
SECTION 5311 (CONVEY & FAREBOX FUNDING)	84	80	80	79	78	78	78	78	78	78	78	78	78	1.00	
SECTION 5310 (STATE FUNDING)	0.635	0.685	0.685	0.7	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.00	
SECTION 5310 (LOCAL FUNDING)	0.635	0.665	0.665	0.7	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.00	
SECTION 5307 (LOCAL FUNDING)	9.08	9.58	9.58	10.02	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	10.52	1.00	
SECTION 5303 & 5304 (LOCAL FUNDING)	0.21	0.22	0.22	0.23	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	1.00	
PUBLIC TRANSIT CAPITAL 5338 (STATE MATCH)	0.6	0.63	0.63	0.66	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	1.00	
PUBLIC TRANSIT CAPITAL 5338 (LOCAL MATCH)	0.6	0.63	0.63	0.66	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	1.00	
<b>SUBTOTALS "NON FEDERAL TRANSIT FUNDING OBLIGATIONS"</b>	<b>113.36</b>	<b>110.85</b>	<b>110.85</b>	<b>111.37</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>111.82</b>	<b>447.3</b>	<b>1.00</b>	
<b>SUBTOTALS "NON FEDERAL TRANSIT FUNDING OBLIGATIONS"</b>	<b>168.75</b>	<b>168.29</b>	<b>168.29</b>	<b>171.39</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>174.46</b>	<b>682.89</b>	<b>1.00</b>	

TABLE 4

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM FISCAL BALANCE SHEET  
 FY 2017 - 2020 PLANNED FEDERAL-AID PROGRAM  
 APPORTIONMENTS VERSUS PLANNED OBLIGATIONS

TYPE OF FUNDING	2017 ANTICIPATED FISCAL YEAR APPORTIONMENTS	FY 2017 PLANNED OBLIGATIONS AND AC CONVERSIONS	END OF FY 2017 AC AMOUNT	FY 2018 PLANNED OBLIGATIONS AND AC CONVERSIONS	END OF FY 2018 AC AMOUNT	FY 2019 PLANNED OBLIGATIONS AND AC CONVERSIONS	END OF FY 2019 AC AMOUNT	FY 2020 PLANNED OBLIGATIONS AND AC CONVERSIONS	END OF FY 2020 AC AMOUNT
NHPP	425	780	(234)	730	(256)	610	(165)	391	(13)
STP	177	423	(121)	293	(112)	402	(243)	466	(345)
CH	14	35	0	14	0	14	0	11	0
SPR (Statewide)	10	10	0	10	0	10	0	10	0
PL (Metro)	2	2	0	2	0	2	0	2	0
HSIP	25	44	0	42	0	42	0	45	0
STP (SHN Dedicated to Henderson MPO Area)	1	2	0	1	0	1	0	1	0
STP (SLO Dedicated to Louisville MPO Area)	18	91	(6)	24	(6)	24	(6)	24	(6)
STP (SLX Dedicated to Lexington MPO Area)	6	20	(8)	11	(5)	11	(3)	10	(3)
STP (SNK Dedicated to Northern Kentucky MPO Area)	7	38	0	8	(1)	8	0	7	0
STP (SAH Dedicated to Ashland MPO Area)	1	2	0	1	0	1	0	1	0
TAP Dedicated to Henderson MPO Area	0	0	0	0	0	(0)	0	0	0
TAP Dedicated to Louisville MPO Area	1	1	0	1	0	1	0	1	0
TAP Dedicated to Lexington MPO Area	0	0	0	0	0	0	0	0	0
TAP Dedicated to Northern Kentucky MPO Area	0	0	0	0	0	0	0	0	0
TAP Dedicated to Ashland MPO Area	0	0	0	(0)	0	0	0	0	0
TAP	12	15	0	14	0	14	19	(10)	0
TE (Carryover from SAFETEA-LU)	0	16	0	14	(1)	1	11	(11)	0
HPP (Carryover from SAFETEA-LU)	0	35	0	3	0	0	3	(3)	0
KYD (Carryover from SAFETEA-LU)	0	30	0	0	0	0	0	0	0
FH	2	3	0	1	0	2	1	1	0
<b>COMBINED TOTAL</b>	<b>700</b>	<b>1549</b>	<b>(367)</b>	<b>1169</b>	<b>(421)</b>	<b>1145</b>	<b>(384)</b>	<b>949</b>	<b>(367)</b>

NOTES FOR ITEMS WITHIN FY 2017 - 2020 STP FISCAL BALANCE SHEET

- (1) THE APPORTIONMENT BALANCES USED TO BEGIN THE FISCAL CONSTRAINT CALCULATIONS AND THE APPORTIONMENT BALANCES SHOWN ARE AS OF JUNE 8, 2016.
- (2) FEDERAL FUNDS FOR FY 2017, FY 2018, FY 2019, AND FY 2020 ARE BASED ON THE 2016 FAST ACT TRANSPORTATION BILL ANTICIPATED APPORTIONMENT TABLES FOR FY 2016 - FY 2020.
- (3) SURFACE TRANSPORTATION PROGRAM BALANCES INCLUDE MINIMUM GUARANTEE AND EQUITY BONUS LIMITATION ADJUSTMENT FUNDING. THE DEDICATED STP FUNDING FOR SHN, SLO, SLX, AND SNK FUNDING CATEGORIES, ALONG WITH OTHER FEDERALLY FUNDED PROJECTS WITHIN THE MPO AREA ARE FISCALLY CONSTRAINED WITHIN EACH OF THE CORRESPONDING MPO TIP'S FINANCIAL PLAN.
- (4) TOLL CREDITS WILL BE USED FOR REQUIRED MATCHING FUNDS FOR FY 2017 THROUGH FY 2020 FUNDING FOR APD, BRO, BRX, BRZ, IA, NH, STP, HPP, AND KYD. IN FY 2020 KYTC ANTICIPATES HAVING TO USE \$40 MILLION STATE FUNDS IN ADDITION TO AVAILABLE TOLL CREDITS FOR MATCHING FUNDS FOR APD, BRO, BRX, BRZ, IA, NH, STP, HPP, AND KYD FUNDING. LOCAL MATCHING FUNDS WILL BE REQUIRED FOR CM, TAP, AND DEDICATED STP FUNDS IN THE MPO AREAS FOR FY 2017 THRU FY 2020.
- (5) IF PLANNED OBLIGATIONS ARE GREATER THAN THE ANNUAL APPORTIONMENTS IN A GIVEN FISCAL YEAR, THE DIFFERENCE WILL BE MANAGED USING THE FEDERAL "ADVANCE CONSTRUCTION" MECHANISM. THE GOAL OF THE KYTC IS TO MANAGE THE YEARLY TOTAL OF "ADVANCE CONSTRUCTION" THROUGH THE KYTC CASH MANAGEMENT PROCESS. THE PROJECTED END OF FISCAL YEAR "ADVANCE CONSTRUCTION" IS \$274 MILLION FOR FY 2016, \$367 MILLION FOR FY 2017, \$421 MILLION FOR FY 2018, AND \$384 MILLION FOR FY 2019. AND \$367 FOR FY 2020. HOWEVER, THE AMOUNT OF "ADVANCE CONSTRUCTION" WILL DEPEND UPON SEVERAL FACTORS INCLUDING THE TIMING OF THE ACTUAL CONGRESSIONAL RELEASE OF YEARLY FEDERAL-AID HIGHWAY FUNDING OBLIGATION AUTHORITY AND THE PROGRAMMING OF FEDERAL-AID HIGHWAY FUNDED PROJECTS NEAR THE END OF EACH FEDERAL FISCAL YEAR.

## **A-6. Revisions to the LRSTP or STIP**

On various occasions revisions may be required to the LRSTP or STIP. Revisions to a LRSTP or STIP may involve a minor revision or may involve a major revision. On a case-by-case basis, the KYTC, FHWA, and/or FTA determines whether the revision is minor or major as per definition of “Administrative Modification” and the definition of “Amendment” outlined in 23 CFR 450.104. The KYTC, FHWA, and FTA will utilize applicable requirements and classifications of projects that are not considered to be of appropriate scale for individual identification a given program year as outlined in 23 CFR 771.117 (c) and (d) and/or 40 CFR part 93.126 “Exempt Projects” and 93.127 “Projects Exempt from Regional Emissions Analysis.” These appropriately identified projects may be grouped by function, work type, and/or geographic area into the ZVarious programs and other program placeholders to determine if a STIP revision is required.

### **Administrative Modifications to STIP**

Administrative modifications are minor revisions to the STIP that include minor changes to:

- Projects/project phase costs.
- Funding sources of previously included projects.
- Project phase initiation dates.
- The delineation of projects in program placeholders which include:
  - Congestion Mitigation and Air Quality (CMAQ) projects
  - Transportation Alternatives (TA) projects
  - High Cost Safety Improvement (HSIP-HCS) projects

An administrative modification is a revision that does not require:

- Public review and comment.
- Re-demonstration of fiscal constraint.
- A conformity determination (in air quality conformity nonattainment and maintenance areas).

For administrative modifications to the STIP, the official STIP mailing list will be utilized to distribute information pertaining to the revision. As STIP administrative modifications are made, each administrative modification will be posted on the KYTC web site. Each of these documents will be provided in an electronically accessible format with the means to search and print as appropriate.

### **Amendments to the STIP**

Amendments are revisions to the STIP that include major changes to a project included in the STIP. This includes a major change in:

- Project cost.
- Project/project phase initiation dates.



- Design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects).
- The addition or deletion of projects, except those types of projects not considered to be of appropriate scale for individual identification as outlined in 23 CFR 771.117 (c) and (d) and/or 40 CFR part 93.126 “Exempt Projects” and 93.127 “Projects Exempt from Regional Emissions Analysis,” which are the grouped projects listed in the ZVarious programs and other program placeholders such as the Transportation Alternatives (TA) and Congestion Mitigation and Air Quality (CMAQ).

An amendment is a revision that requires:

- Public review and comment.
- Redemonstration of fiscal constraint.
- A conformity determination (in air quality nonattainment and maintenance areas).

For STIP amendments that have not undergone public involvement through the MPO process or the Highway Plan process, a 15-day public review period will be provided and public notice advertisements will be placed in statewide, significant regional, and demographically targeted newspapers. Selected newspapers will be identified through assistance from the corresponding ADDs and MPOs. In addition, other possible public outreach efforts targeted to the specific region of the state directly affected by the proposed STIP amendment may be required and will be determined on a case-by-case basis.

The proposed amendment will be displayed at the KYTC Central Office as well as the appropriate Highway District, ADD, and MPO offices for public review and comment. KYTC will make available to the public the description of project, location of project, proposed project phases, proposed type of funding, and scheduled fiscal year of each phase that KYTC wants to amend into the STIP. Also, KYTC will revise the “Fiscal Constraint” tables outlined in the STIP to reflect the required funding for the proposed new project vs. available funding. KYTC will provide hard copies of the information and the information will be made available on the KYTC STIP web site. The public will be provided the means to submit written and electronic review comments on proposed STIP amendment.

At the conclusion of the 15-day review period, public comments will be addressed, additional public outreach may be conducted as necessary, and the final STIP amendment will be provided to FHWA and FTA for approval. For amendments to the STIP from areas within MPO boundaries, the public involvement process conducted for the respective MPO TIP will suffice as the required public involvement for the STIP.

As STIP amendments are approved, each amendment will be posted on the KYTC web site. Each of these documents will be provided in an electronically accessible format with the means to search and print as appropriate.

## **B. STIP Projects**

The FAST Act advocates that transportation planning processes be broadened to include the intermodal aspects of the nation's transportation system. Each state is to establish a statewide transportation planning process that enhances the integration and connectivity of the transportation system, across and between modes throughout the state, for people and freight. The KYTC has incorporated an intermodal planning process through the statewide and regional transportation planning process that identifies and assesses intermodal facilities and systems and highway access to these facilities on a continuous basis. The KYTC hopes to further develop its processes to use performance criteria and relevant data to determine the efficiency and effectiveness of these facilities and systems, and identify projects and strategies to improve the intermodal movement of people and freight.

Specific activities that the KYTC has undertaken to develop this intermodal planning process included integrating freight movement and modal access tasks into the Annual Work Program of the ADDs, identifying and discussing intermodal issues through the statewide transportation planning meetings, the identification of intermodal access projects and the dedication of specific staff to the freight movement issues. Improvement projects and strategies resulting from the studies and prioritization process based on selected criteria, as well as the other pertinent data, will be considered for inclusion in the statewide transportation plan for future implementation. The FAST Act further required that (1) the plans and programs for each state provide for development of integrated management and operation of transportation systems that will function as an intermodal transportation system for the state, and an integral part of an intermodal transportation system for the United States, and (2) the process shall provide for consideration of all modes and be continuing, cooperative, and comprehensive.

The FAST Act requires that each State shall carry out a continuing, cooperative, and comprehensive statewide transportation planning process that provides for consideration and implementation of projects, strategies, and services that will support the economic vitality of the United States, the states, metropolitan areas, and nonmetropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.

In accordance with the FAST Act requirements, the KYTC mission is "to provide a safe, secure, and reliable highway system that ensures the efficient mobility of people and freight, thereby enhancing both the quality of life and economic vitality of the Commonwealth." Simply stated, the KYTC's goal is to provide "safe and reliable roads, roads that lead to jobs," and the 2016 Enacted Highway Plan and FY 2017-2020 STIP have been developed to support that goal.

### **B-1. Planned Highway Improvements**

In developing the highway element of the FY 2017-2020 STIP, the KYTC relied heavily upon its ongoing project identification and scheduling mechanisms, particularly the long-range planning process. The KYTC projected federal and state funding levels were used in the development of the Recommended FY 2016-2022 Highway Plan submitted to the Kentucky General Assembly in January 2016. The Kentucky General Assembly by law has the right to remove, add to, or edit projects contained in the Recommended Highway Plan. The 2016 General Assembly approved Kentucky's 2016 Highway Plan (FY 2016-

2022) in April 2016. The 2016 Highway Plan is the primary basis for the federal-aid highway element of the FY 2017-2020 STIP. Included within the 2016 Highway Plan are projects shown as having HPP funding and KYD funding. These are projects that have been earmarked by Congress to be funded with special high priority (HPP) funding, or have been earmarked by Congress to receive federal discretionary (KYD) funding. Also, included within the 2016 Highway Plan are projects that are scheduled to use GARVEE bond funding as described within STIP Development; Section 5: Fiscal Constraint.

To help achieve these goals, the identification of highway needs has been accomplished through in-house evaluations of highway performance and adequacy, meshed with input received from state legislators, local officials, MPO and ADD transportation committees, the general public, and from within our own agency's Central Office and District Offices. Each of these sources yielded valuable input for consideration in the development of the state's Long-Range Transportation Plan and the Highway Plan.

The KYTC considered technical data on the ability of candidate projects to improve safety, increase system reliability, and contribute toward enhancing regional economic attractiveness. Unfortunately, the needs of our highway system far outweigh available resources. The KYTC is working to improve the evaluation process for active and potential projects to ensure that every dollar we spend is used to address the most critical and cost effective improvements. In doing so, the KYTC can concentrate available funds on those projects that truly result in safer roadway conditions, better pavements and bridges, and improved local economies.

As the Highway Plan was developed, projects were selected from the KYTC's District Transportation Plans and from the MPOs MTPs within reasonably anticipated funding. By following this continuing process, the Cabinet's long-range planning efforts have served to maintain a stream of prioritized candidate projects for inclusion and advancement in Kentucky's Highway Plan. As the federally-required long-range planning process matures, the Highway Plan and STIP documents will be strengthened by the focus on longer-range program management considerations. It is expected that future editions of Kentucky's STIP will reflect a strategy for implementation resulting from more clearly defined longer-range transportation goals.

As outlined within the STIP Introduction, the FY 2017-2020 STIP is a planning document that covers a period of four years, and is updated every two years upon approval of the KYTC's Highway Plan by the Kentucky General Assembly. With the STIP being a planning document, the projects, schedules, and estimated costs identified within the FY 2017-2020 STIP are based upon the most current project information at the time of preparing the Highway Plan and STIP. As work progresses within each phase of the projects, the project team refines the project scope, schedules, and estimated costs to complete the project. The programming of project funding for project refinements will follow the STIP amendments/revisions process as described within STIP Development; Section 6: Revisions to the LRSTP or STIP, along with the STIP end of fiscal year "fiscal constraint" recalculations.

The listing of FY 2017-2020 STIP projects is contained in Appendix A, Exhibit A-5. The KYTC will administer each of the projects listed unless clearly indicated in the project description as being handled otherwise. Included as part of the listing of projects, is the “Priority” column which is a quick reference for project priority of the corresponding project. The project priority is listed as Safety, Reliability, New Routes, or Economic Development as defined by the following definitions:

Safety: Providing for the safety and security of motorized and non-motorized users who travel Kentucky’s highways is the KYTC’s highest priority. The FY 2017-2020 STIP includes several programs of projects that serve to address the safety needs on Kentucky’s highways. In accordance with the FAST Act, Kentucky has developed a Strategic Highway Safety Plan (SHSP) that combines all statewide enforcement, engineering, education, and emergency response issues into a single coherent plan. The “engineering” element of the SHSP is primarily addressed through the Highway Safety Improvement Program (HSIP) which funds infrastructure-related safety improvements. The “educational” and “enforcement” elements of the SHSP are addressed in the Highway Safety Plan (HSP) which funds behavioral-related safety improvements.

Reliability: The condition of roads and highways in the state is a primary concern among Kentucky’s citizens. Poor pavements detract from the driving experience, and road maintenance and resurfacing are the top transportation investment needs in our state. These issues certainly resonate with the KYTC, as we too see the value in protecting the infrastructure in which the public has entrusted to us.

New Routes: This is for the development of a roadway that does not currently exist.

Economic Development: This is for the reconstruction of major interchanges.

In an effort to provide a consistent, ongoing set of performance measurements for the maintenance condition of Kentucky’s state-maintained highway system, the KYTC has developed a Maintenance Rating Program (MRP). The purpose of the MRP is to assess maintenance activities as they relate to customer expectations, provide data to support needed performance improvements, ensure that the KYTC system preservation strategies are working, and to meet federal asset management requirements. Through the MRP, the KYTC has proposed some budgetary adjustments for the FY 2017-2020 STIP to increase funding for the maintenance and resurfacing programs in an effort to improve conditions on Kentucky’s roadways. There has also been a concerted effort to include essential, major pavement reconstruction projects in the FY 2017-2020 STIP. The KYTC’s desire is to improve overall pavement conditions and meet the public expectation that Kentucky’s roads will be kept in the best possible shape.

According to the KYTC inventory data, approximately 73% of Kentucky’s bridges are performing the function that they were designed to fulfill without presenting any particular problems. Of the remainder, 7% are classified as “structurally deficient” and 20% are classified as “functionally obsolete.” The phrase “structurally deficient” implies that there is a structural problem that will eventually require attention. Many times, these structural problems are addressed by posting the bridge at a specific maximum loading to

prolong the life of the structure. The phrase “functionally obsolete” implies that a bridge is too narrow to accommodate the traffic it carries. While the KYTC is concerned that Kentucky’s bridges are functionally wide enough, our major emphasis is on those bridges that present structural condition issues. As the KYTC works to keep Kentucky’s bridges safe, the focus of the federal and state bridge replacement programs is first to repair or replace those bridges that carry relatively heavy traffic volumes and present the most severe structural problems.

Economic Development: Kentucky’s future economy and congestion concerns: Highway congestion and its impact on economic development in Kentucky is very much a “relative” issue. While Kentucky does not have the overly-oppressive highway congestion found in many of the nation’s very large cities, there are times when congestion in our urban centers is just as frustrating to Kentucky drivers. Morning and afternoon “rush hours” create traffic problems on many of our city streets, urban beltlines, and metro area interstate highway arteries. Additionally, “just in time” delivery schedules have created “rolling warehouses” on many of Kentucky’s rural interstates, resulting in truck percentages of 50% in some instances. Such heavy truck volumes reduce levels of service on our major roadways, and create safety issues and driver frustration. As traffic and freight volumes increase in the years ahead, our existing highway network will become more and more constrained and potentially impact Kentucky’s competitiveness in the global marketplace.

Each of the FY 2017-2020 STIP projects, whether identified with a purpose of safety, reliability, or economic development, truly has an effect on Kentucky’s future economy and congestion concerns.

## **B-2. Highway Safety Improvement Program (HSIP)**

The HSIP is a core Federal-aid highway program, the purpose of which is to achieve a significant reduction in fatalities and serious injuries on all public roads. The HSIP is a federally-funded, state administered program that is legislated under 23 U.S.C. 148, 23 U.S.C. 150, and 23 U.S.C. 130 and regulated by 23 CFR Parts 924 and 490.

23 CFR 924.5 states:

Each State shall develop, implement, and evaluate on an annual basis an HSIP that has the objective to significantly reduce fatalities and serious injuries resulting from crashes on all public roads. HSIP funds shall be used for highway safety improvement projects that are consistent with the State’s SHSP (Strategic Highway Safety Plan). HSIP funds should be used to maximize opportunities to advance highway safety improvement projects that have the greatest potential to reduce the state’s roadway fatalities and serious injuries.

To be eligible for HSIP funds, all highway safety improvement projects must:

1. Address Strategic Highway Safety Plan (SHSP) priority,
2. Be identified through a data-driven process, and
3. Contribute to a reduction in fatalities and serious injuries.

In addition, all highway safety improvement projects are subject to general requirements under title 23 of the United States Code.

In general, non-infrastructure projects that promote the awareness of the public and educate the public concerning highway safety matters or enforce highway safety laws are not eligible for HSIP funds. However, eligible non-infrastructure projects include road safety audits, improvements in the collection and analysis of data, or transportation safety planning activities.

Most projects are identified through emphasis area lists such as High Friction Surface, Cable Median Barrier, Guardrail Installation, Roadway Departure, Intersections, and Horizontal Alignment Signing. Systemic safety treatments are often implemented with the emphasis area projects but some systemic-only safety projects are implemented based on statewide trends observed in crash data.

Projects meeting the program's requirements listed above are submitted to FHWA for review and approval into the program. Upon approval of the identified projects, funding for the projects are initiated based upon statewide priorities for activities that are most likely to reduce the number of, or potential for, fatalities and serious injuries and upon available funding. An annual report is submitted to FHWA that describes the progress being made, assesses the effectiveness of the improvements, and describes the extent to which the improvements funded contribute to the safety goals.

As part of the HSIP report, the state must report annually on these categories:

- (1) Number of fatalities; (2) Rate of fatalities; (3) Number of serious injuries; (4) Rate of serious injuries; and (5) Number of non-motorized fatalities and non-motorized serious injuries.

Each safety performance measure is based on a 5-year rolling average that accounts in regression to the mean.

### **Railway-Highway Crossings Program**

This program funds safety improvements to reduce the number of fatalities, injuries, and crashes at public grade crossings. The railway-highway crossing program will be conducted in accordance with regulations as outlined in the corresponding section of the FAST Act, Section 1108; and 23 USC 130.

The railway-highway crossings program funding level determined for each state is set aside from the state's HSIP amount. Activities funded under this program are also eligible for funding under the broader HSIP eligibilities. The federal-aid highway funding anticipated apportionments and planned obligations for the Railway-Highway Crossings railroad protective devices (RRP) and the railroad separation (RRS) projects are included within the HSIP – Safety categories in the Fiscal Constraint tables.

### **Highway Safety Plan (HSP)**

The purpose of the Highway Safety Plan (HSP) is to identify problem areas of the state regarding the behavioral aspects of highway safety, develop performance goals and objectives, and establish programs and projects to reduce fatalities and serious injuries on Kentucky's highways. The federal funding is a combination from FHWA and the National

Highway Traffic Safety Administration (NHTSA). The HSP is an integral part of Kentucky's overall Strategic Highway Safety Plan (SHSP) as required by the FAST Act. Emphasis areas are as follows:

- a. Impaired Driving
- b. Occupant Protection
- c. Police Traffic Services
- d. Planning and Administration
- e. Motorcycle Safety
- f. Non-motorized transportation
- g. Crash Investigation
- h. Roadway Safety
- i. Traffic Records
- j. Data Incentives

### Grants Management

Grants are a significant part of the HSP for law enforcement, communities, research and data. It takes a cooperative effort by many agencies to reduce fatalities and serious injuries on our highways. Both FHWA and NHTSA provide federal funding that is dispersed to various agencies based upon the identified problem areas. Three national law enforcement mobilizations are conducted each year to specifically draw attention to safety belt usage and drunk driving. These are "Click It or Ticket," U Drive, U Text, U Pay," and "Drive Sober or Get Pulled Over." Our summer-driving state initiative is "Blue Lights Across the Bluegrass," which focuses on speeding but also encompasses other emphasis areas.

### Highway Safety Education Program

The Highway Safety Education Program (Education Branch) was created in 1994 as the educational arm of the Cabinet's Safety Corridor Program. The Education Branch is now one of the two branches under the Division of Highway Safety Programs. Funding for these programs has come primarily from FHWA. The Education Branch focuses heavily on schools and communities to target the newest and youngest drivers to get them started in the right direction. There are many programs, including simulators that focus attention on different problem areas regarding highway safety. Below is a listing of these.

- a. Monitoring FHWA grantees executing non-law enforcement grants
- b. Active in local highway safety committees
- c. Ghost Out
- d. Mock Crash
- e. Judgement Day
- f. Fatal Vision Goggles
- g. D2 Distracted Driving Simulator
- h. 3D Drunk and Drugged Driving Simulator
- i. Motorcycle Safety events
- j. Mature driving presentations

All of these programs focus on targeted areas of the state where there are unusually high fatalities and injuries, low safety belt usage, and high incidences of drunk or drugged driving.

### **B-3. Intelligent Transportation System (ITS)**

The KYTC has a variety of Intelligent Transportation System (ITS) programs both operational and under construction throughout Kentucky. The Cabinet has operational freeway traffic management systems in Northern Kentucky (Ohio TMC) and Metro Louisville (TRIMARC). The Cumberland Gap Tunnel (CGT) Center provides traffic management, as well as other tunnel-related services. The Cumberland Gap Tunnel Authority operates for KYTC, but is independent from the State Transportation Operations Center (TOC). The TOC in Frankfort provides support to those facilities, and also provides traffic management services to the rural areas of Kentucky.

The KYTC has implemented ITS projects in the Lexington, Elizabethtown, Bowling Green, Paducah, and Ft. Campbell areas. These projects include Dynamic Message Signs (DMS), cameras, and roadway sensors. Obsolete DMS and cameras are being replaced within the Northern Kentucky and Elizabethtown areas, and Speed Data services are available statewide. Our ITS Architecture was updated in 2015.

The TRIMARC system has been expanded within the Louisville Metro area as part of the Ohio River Bridges project. Other operational systems include the Road Weather Information Stations (RWIS) in 39 locations to provide Highway District Maintenance personnel, as well as others, with vital roadway weather information for critical purposes such as snow and ice maintenance.

On a statewide level, the KYTC has an operational Freeway Service Patrol (SAFE Patrol) which provides motorist assistance and Incident Management services on Kentucky's interstates and parkways. The KYTC has implemented the Condition Acquisition and Reporting System (CARS) and associated 511 systems. This allows data entered into the CARS database to be translated into a text-to-voice system with interactive voice recognition to provide automated, up-to-date traffic and road information by dialing the three digit telephone number 511. The KYTC has accomplished this in an efficient and cost-effective manner as a member of the CARS-511 multi-state consortium. This system provides the ability to gather and share with the traveling public the road and weather conditions along National Highway System routes. The partnership with the Cabinet's District Offices, the Transportation Operations Center in Frankfort, Division of Traffic Operations, Kentucky Vehicle Enforcement, WAZE, and the Kentucky State Police ensures the highest level of information provided to the traveling public through the use of the common software.



#### **B-4. Transportation Alternatives Program (TAP)**

Section 1122 of MAP-21 established TAP in 23 U.S.C. 213. The program was eliminated by the FAST Act in name only. The FAST Act replaced TAP with a set-aside of Surface Transportation Block Grant (STBG) funding. These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, conversion of abandoned rail corridors to trails, and community improvements such as historic preservation of transportation facilities, vegetation management, and environmental mitigation related to stormwater and habitat connectivity. The former Safe Routes to School Program (SRTS) activities are now eligible under this program, with the same 20% match requirement as other TAP awards.

Funding for a state's Recreational Trails Program is taken off the top of the state's TAP apportionment unless the Governor opts out. 50% of a state's TAP funds are sub-allocated to urbanized areas with populations over 200,000, urban areas with populations of 5,001 to 200,000, and areas with population of 5,000 or less. The remaining 50% may be used in any area of the state. The funding sub-allocated to areas with populations over 200,000 is awarded through an application process managed by the area's MPO. The MPO selects the projects, and the selected projects are administered through the Office of Local Programs (OLP). All TAP projects require a 20% match. Application cycles are typically held each year but are dependent on the availability of funds. As new project selections are made, the new projects will be incorporated into the STIP thru the STIP Administrative Modification process.

Transportation Alternatives Program (TAP) Projects are listed in Appendix A, Exhibit A-7.

#### **Transportation Enhancement (TE), National Scenic Byways and Highways (NSB), Transportation Community and System Preservation (TCSP), and Safe Routes to School (SRTS) Programs**

Dedicated funding for the following programs was eliminated with the passage of MAP-21:

- Transportation Enhancements (TE)
- National Scenic Byways and Highways (NSB)
- Transportation Community and System Preservation (TCSP)
- Safe Routes to School (SRTS)

States with balances of TE and SRTS funds are still allowed to spend the remaining dollars apportioned to their state. Since NSB and TCSP projects were awarded at a federal level, any state with an open NSB or TCSP project may finish out the project. However, no new federal funding will be provided for these programs.

Transportation Enhancements (TE) (see Appendix A, Exhibit A-7)  
Safe Routes to School (SRTS) (see Appendix A, Exhibit A-6)

## **B-5. Planned Public Transportation (Transit) Projects**

The Federal Transit Law (49 U.S.C. Chapter 53), is the basis for the federally-assisted public transportation programs. Program funds included for the rural portion of the state (Section 5311), for the small urban and urbanized portions of the state (Section 5307), for seniors and persons with disabilities in the state (Section 5310), for technical assistance and transit planning (Section 5303 & Section 5304), training for rural transit operators (RTAP), for capital bus and bus facilities (Section 5339) and have included discretionary capital (Section 5309) grants that include Veterans and Livability grants. Projects that go beyond the Americans with Disabilities Act (ADA) and that provide transportation for the low income to work and training are included under the Section 5311, 5307 and 5310 programs. Local coordinated plans are required.

Section 5311 program funds are used for planning, capital, and operating assistance by local public bodies, nonprofit organizations, and operators of public transportation services. These funds are used to give people access to health care, shopping, employment, education opportunities, public services, recreation, etc. Public transportation systems in rural areas assume the responsibility of meeting these needs. Kentucky utilizes 15% of these funds for provision of intercity bus services.

Section 5307 program funds are used by transit operators in urbanized areas. The KYTC has approval authority for operating, planning and capital funding for operators in areas of 50,000 to 200,000 populations. These funds do not flow through the Cabinet for all areas, but the allocation is done by the Governor. Areas larger than 200,000 are allocated a specific grant amount by the FTA.

Section 5303 program funds are used for planning purposes by the MPOs and the KYTC. MPO funds are formula allocated by the KYTC and are identified for use in urbanized area unified planning work programs. Statewide transit planning for the rural areas is also funded with Section 5304 funds.

Section 5309 has evolved into a formula capital program that provides capital for three primary activities: new fixed-guideways or extensions to fixed-guideways, bus rapid transit projects operating in mixed traffic, and projects that improve capacity on an existing fixed-guideway system.

Section 5310 program funds are used primarily for capital purposes. Vans and other equipment critical to providing transportation services for seniors and individuals with disabilities are purchased through this program. Up to 45% of these funds may also be used for public transportation projects that exceed the requirements of the ADA, that improved access to fixed-route services and decrease reliance on complementary paratransit, and/or utilize alternatives to public transportation that assist seniors and individuals with disabilities. This funding can be operating or capital.

The Section 5339 program is a formula capital program that replaces, rehabilitates, and purchases buses and related equipment and constructs bus-related facilities for rural or urbanized public transportation systems.

The Rural Transit Assistance Program (RTAP) is designed to provide training, technical assistance, research, and other related support services for rural transit operators.

In general, the KYTC receives applications from areas and agencies for the FTA program funds. These applications describe the needs for public transit funds (type of service needed, etc.), the funding required, and local matching sources. The KYTC allocates the money based on several factors including potential ridership, area to be served, availability of services, etc. Each agency is accountable to the Cabinet for the allocated funds. Required monthly report submissions, site visits and compliance reviews, vehicle inspections, drug and alcohol testing, timely invoicing, and audits are among the monitoring activities the Cabinet performs.

With regard to transit project identification, the KYTC advertises annually for competitive proposals for Sections 5310, 5311, 5303, 5304, 5307 (where KYTC is the designated recipient) and 5339, as well as relying heavily upon past experience to develop the transit element of the FY 2017-2020 STIP. Since the passage of MAP-21 and under the current authorization, Fixing America's Surface Transportation Act (FAST Act), the KYTC has been cognizant of the many opportunities for combining highway and transit funding for individual projects and programs, and fully expects to take advantage of these opportunities in the future. Kentucky's MPOs are seriously studying transit options for addressing metropolitan traffic issues, and are engaged in the project prioritization efforts which truly represent a multimodal approach to overcoming urban congestion.

Planned transit improvements are listed in Appendix A, Exhibit A-9.

## **B-6. Human Service Transportation Delivery Process**

Welfare reform legislation has greatly influenced changes in the Human Service Transportation Delivery (HSTD) process. This process/program utilized combined transportation resources of the Health and Family Services Cabinet and the Education Cabinet's Vocational Rehab and the Department of the Blind to provide a coordinated network of transportation providers to provide safe, efficient, and accessible transportation for Kentucky's health, human service, and workforce program clients.

Medicaid, Vocational Rehabilitation, and Department for the Blind funds will flow from the two human service Cabinets to the KYTC for operating funds for providers and administrative funds for the KYTC to manage the program.

The Commonwealth is divided into fifteen Human Service Transportation Delivery Regions. This division was based upon items such as operating authority, fleet sizes and capacities of existing providers, and historical transportation utilization.

Through the use of a financial consultant, the Cabinets developed a "capitated rate" payment system, essentially a flat rate (a fee paid per member, per month). This will reward providers for operating efficiency, discourages over utilization, and significantly reduces fraud and abuse. Some parts of the program will be paid on a fee-for-service basis.

There will be one broker per region who will be responsible for securing transportation from private and public transportation subcontractors in order to guarantee transportation to non-emergency medical services for eligible recipients. The Kentucky Finance Cabinet will secure and contract with the transportation brokers on behalf of all the programs. The KYTC will monitor all other service requirements of the brokers. A Coordinated Transportation Advisory Committee (CTAC) includes representatives of each of the different programs and will monitor the programs' interests in the network. The KYTC staff will monitor the brokers to make sure they operate as CTAC agrees. Details of each trip will be recorded by the broker and will be used to report program results to state and federal agencies.

In order to fully implement this program, two accomplishments were needed. One was getting legislation passed (HB 468 and HB 488) which requires brokers and subcontractors to meet safety standards, and the other was getting emergency regulations signed so this initiative could begin operation. This legislation has been passed and the emergency regulations are signed.

The KYTC's Office of Transportation Delivery receives funding from the Department of Medicaid to finance the transportation brokerage for Human Service Transportation Delivery non-emergency medical transportation. The Department of the Blind and Vocational Rehab reimburse the transportation broker at the local level, and funding does not flow through the Transportation Cabinet. Each funding stream meets the respective program requirements. Public Transit, Vocational Rehab, Department of the Blind, and non-emergency medical trips are coordinated at the transportation broker level. Non-Emergency Medical Transportation ridership is over \$3.6 million annually.

## **B-7. Planned Aviation Improvements**

The Airport Improvement Program (AIP) was established by the Airport and Airway Improvement Act of 1982 (Title V of the Tax Equity and Fiscal Responsibility Act of 1982, Public Law 97-248), and amended by the Airport and Airway Safety and Capacity Expansion Act of 1987, (Public Law 100-223), and the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century of 2000 (AIR-21). Current legislation supports and provides funding for the following: (1) airport planning, (2) noise compatibility planning, and (3) noise compatibility programs as set forth in the Aviation Safety and Noise Abatement Act of 1979, (Public Law 96-193).

The funds for the AIP are distributed in accordance with provisions contained in the 2000 Act, as amended. In grant parlance, funds distributed by formula for use at a specific airport or in a specific state or insular area are referred to as apportionment funds. The remaining funds are for use at the discretion of the Secretary of the U.S. Department of Transportation, and are known as discretionary funds.

The estimated federal apportionment level for Kentucky is \$2.8 million for FY 2016 and \$3.5 million for FY 2017. The location and amount of spending using the federal apportionment money in Kentucky is unknown at this time. This decision is made at the FAA district level and these projects are typically not identified until late in the federal fiscal

year. At present, there is no way to estimate the level of federal discretionary funding that may be made available during the upcoming biennium. Both federal apportionment and federal discretionary funding will be matched using a 90% federal, 5% state, 5% local ratio.

FY 2016 current projects are identified in Appendix A, Exhibit A-10.

## **B-8. Maintenance and Traffic Operations**

The KYTC is responsible for ensuring that the State Road System is maintained and operated in such a manner as to ensure the safest and most reliable roadways possible. The Cabinet's goal is to provide the highway user maximum safety and comfort with minimum travel interruptions. Table 2 contains a line-item outlining the FY 2017-2020 scheduled state funding for the KYTC's operations and maintenance program, and Appendix B contains the MPOs Financial Plans, which includes a line-item outlining the operations and maintenance program within each MPO area.

The annual state-funded Maintenance and Traffic Operations Programs are comprised of four major sub-programs: Roadway Maintenance, Bridge Maintenance, Rest Area and Weigh Station Maintenance, and Traffic Operations. The Roadway Maintenance unit is responsible for maintenance of the highways in the State Road System. This unit is responsible for routine upkeep such as pavement repairs, ditch cleaning, mowing, litter pickup, snow and ice removal, and maintenance relating to drainage, shoulders, signs, markings, delineation, and guardrails on the approximately 27,629 miles of highways in Kentucky.

The Bridge Maintenance Program performs activities on bridges such as inspections, load ratings, painting, deck repair, and structural work on the Commonwealth's 9,000 total state-maintained structures. The Rest Area Maintenance Program provides upkeep and janitorial services at 22 rest area facilities and 4 truck rest havens across the state, along with the maintenance and upkeep of the various truck weight stations located throughout the Commonwealth. All of these sites are maintained through contracts with private vendors.

The Traffic Operations Program is responsible for the installation and maintenance of traffic signals, flashing beacons, school flashers, roadway lighting, navigational lighting, and aviation obstruction lighting on state-maintained highways. This program includes the administration of the Highway Safety Improvement Program (HSIP). Traffic Operations is also responsible for the establishment and maintenance of coordinated traffic signal systems to support the efficient movement of traffic.

In addition to the ongoing highway maintenance and traffic operations programs, the KYTC also budgets annual funding to resurface roads on the state road system. These funds are in addition to the monies funneled through the Cabinet's Rural and Municipal-aid Programs for improvements to county roads, city streets, and the state rural-secondary road system. Each of the rural and municipal-aid program components is accomplished through an ongoing dialogue with Kentucky's city and county governmental entities.

## **B-9. Recreational Trails Program**

The Recreational Trails Program provides funds to develop and maintain recreational trails for motorized and non-motorized recreational trail users. Funds are apportioned under 23 U.S. Code 206 (d). Funds may be used to provide and maintain trails, trailside, and trailhead facilities, including provisions to facilitate access for people with disabilities. Funds may also be used to acquire easements or land for trails.

The Governor of a state designates an agency to administer the program, which may be an agency other than the State Department of Transportation. The Kentucky Recreational Trails Program is administered by the Governor's Office, Department for Local Government (DLG).

Planned Recreational Trails Projects are included in Appendix A, Exhibit A-11.

## **B-10. Kentucky's "Mega Projects"**

As the 2016 Highway Plan was developed, strong consideration was given to the funding needs associated with six (6) "Mega Projects" located in Kentucky. The six (6) "Mega Projects" in Kentucky are (1) the Louisville Bridges project, (2) the Interstate 71/75 Brent Spence Bridge congestion relief project in northern Kentucky, (3) the proposed Interstate 66 in southeastern Kentucky, (4) the proposed Interstate 69 in far western Kentucky, (5) proposed I-69 Spur; I-66/I-65 Spur; and I-67 Spur, and (6) the reconstruction of US 68/KY 80 Aurora, Kentucky to Cadiz, Kentucky. Each of these projects would be an expensive, but welcome, addition to Kentucky's highway system.

In addition, the FAST Act, Title 23, requires an annual financial plan for projects having a cost between \$100 million to \$500 million. For all new projects or projects that are currently underway, and the construction phase funding has not been authorized, the annual financial plan will be completed in accordance with Title 23 guidelines, outlining the project cost estimates, implementation plan, funding resources, cash flow, environmental, and legal status. The financial plan will not be required for a project in this category that is currently under construction.

Each of the six (6) "Mega Projects" is underway, with varying levels of progress achieved. The following information provides a description, an approximate total cost, and a brief report on the progress to-date for each project.

### **The Louisville Bridges**

The Louisville Bridges project is located in the Louisville metropolitan area and involves a two-part approach to resolving traffic congestion problems in the region. The existing highway network features a myriad of interstate highway facilities (Interstates 64, 65, and 71) that all meet in a tangled maze of ramps known locally as "Spaghetti Junction" in downtown Louisville. Immediately associated with Spaghetti Junction is the Interstate 65 Kennedy Bridge, which links downtown Louisville with Jeffersonville, Indiana. Since there are no true outer beltways linking the Kentucky and Indiana portions of the Greater

Louisville Area, virtually all north-south and east-west traffic is forced through Spaghetti Junction. This creates traffic delays of major proportions during peak morning and afternoon rush hours.

While Spaghetti Junction and the Kennedy Bridge certainly need to be modernized, transportation professionals understand that a major culprit in downtown Louisville's traffic congestion is the absence of a "relief valve." To truly accommodate future traffic in the Louisville area, it is essential to connect together the dangling ends of Interstate 265 east of Louisville. This can be accomplished by building a new bridge over the Ohio River in the vicinity of Prospect, Kentucky, and Utica, Indiana. This new "East End Bridge" would provide an alternative route to Spaghetti Junction and would work in concert with the "Downtown Bridge" to move traffic efficiently through the region.

In 2003, a Record of Decision (ROD) to meet the purpose and need of the project was signed, and the project cost was estimated to be \$2.49 billion. By 2009, the cost had risen to \$4.1 billion and there was a general acknowledgement that traditional federal-aid funding would not be sufficient to complete the project. In response, the 2009 General Assembly, in special session, provided for the creation of a bi-state authority whose purpose was to develop a reasonable funding concept for the Louisville Ohio River Bridges project. The bi-state authority was created under Kentucky Revised Statute (KRS) 175B.030 and on March 25, 2010, Kentucky Governor Steve Beshear signed into law Senate Joint Resolution 169, pursuant to which the Kentucky General Assembly ratified the formation of the bi-state authority. An Executive Order was issued by Indiana Governor Mitch Daniels for Indiana's participation in the bi-state authority for the Louisville Ohio River Bridges project.

Once approved in 2010, the Louisville and Southern Indiana Bridges Authority immediately began to complete two financial plans. One was a financial plan that would meet the requirements for fiscal constraint and allow the approval of the Louisville MPO's long range planning document. The other financial plan was the Metropolitan Transportation Plan (MTP), which included the project with updated costs. Without the approval of the MTP, the project could no longer use traditional federal-aid funds. Concurrently, the Authority began working on the major projects financial plan, which required details about funding sources beyond traditional federal-aid funding. Both financial plans that were developed relied on funding sources including traditional federal-aid funding, GARVEE bond funding, and user-fees through tolling scenarios.

In early 2011, Kentucky Governor Steve Beshear, Indiana Governor Mitch Daniels, and Louisville Mayor Greg Fischer jointly suggested changes that lowered the estimated cost by \$1.5 billion – to \$2.6 billion (\$1.3 billion for the Downtown Crossing and \$1.3 billion for the East End Crossing) from \$4.1 billion – and cut construction time in half. Their suggestions, embodied as the Modified Selected Alternative, had two major elements: rebuilding the Kennedy Interchange in place, rather than moving it southward, and scaling down the East End Bridge from a six-lane to a four-lane facility that could, with restriping, be expanded to six traffic lanes when the need finally arose.

On March 5, 2012, Governors Beshear of Kentucky and Daniels of Indiana announced an historic agreement on a jointly developed and updated financial plan for this project, and they signed a Memorandum of Understanding that outlined each state's terms

and responsibilities. Under the agreement, the two states would pursue separate and simultaneous procurements – Indiana for construction of the East End Crossing at an estimated cost of \$1.3 billion and Kentucky for construction of the Downtown Crossing at an estimated cost of \$1.3 billion, including the Kennedy Interchange – though it remained a single project. Under the financial plan, which was approved by both the Louisville and Southern Indiana Bridges Authority and the Kentucky Public Transportation Infrastructure Authority, the two states will use a combination of traditional transportation funding and toll revenues.

The Modified Selected Alternative received federal approval on June 20, 2012, when the revised ROD was signed. The financial plan was approved by FHWA on August 1, 2012, and the 2013 Annual Update to the Financial Plan was approved by FHWA on January 31, 2014. Both the East End Crossing, led by Indiana, and the Downtown Crossing, led by Kentucky, selected their teams to deliver their respective portions of the project. The KYTC selected a design-build team and awarded an \$860 million contract on December 28, 2012. Design work commenced in January 2013 and is complete. Construction began in July 2013 and is approximately 87% complete as of June 2016. The substantial completion date of the Downtown Crossing is December 9, 2016.

The 2016 General Assembly approved through 2017 the use of \$50 million per year of traditional federal-aid funding for the project. In July 2013, the Kentucky Asset Liability Commission issued \$236 million in GARVEE bonds. On December 12, 2013, the Kentucky Public Transportation Infrastructure Authority (KPTIA) closed on a \$452.2 million loan with the US Department of Transportation (US DOT) through the Transportation Infrastructure Finance and Innovation Act (TIFIA) program. On December 20, 2013, KPTIA sold approximately \$275.67 million in toll revenue bonds and \$452.2 million in bond anticipation notes (BANs) to complete Kentucky's LSIORB financing. The BANs will be retired on or before July 1, 2017, when the TIFIA loan proceeds will be drawn. The Major Project Management Plan and other detailed project information can be found on the web site: [www.kyinbridges.com](http://www.kyinbridges.com).

### **The Interstate 71/75 Brent Spence Bridge**

The Interstate 71/75 Brent Spence Bridge is the focal point for some of the heaviest traffic volumes in Kentucky as these two major north-south interstates cross the Ohio River between Covington, Kentucky, and Cincinnati, Ohio. This bridge not only serves traffic between two major urban centers, but it also connects the downtown areas with one of the world's busiest airports, the Greater Cincinnati/Northern Kentucky Airport, located in Boone County, Kentucky. In recent years, the existing double-deck bridge has been "restriped" to carry additional lanes of traffic and, although the bridge is still structurally strong as indicated by its sufficiency rating of 64.0 out of a possible 100 points, it is functionally outdated.

Recognizing the old bridge's inability to meet today's traffic demands, and knowing that the situation will only worsen in the years ahead; metropolitan transportation planners are working with the KYTC and the Ohio Department of Transportation (ODOT) to craft a reasonable solution. Design studies and evaluation of financial implementation are



currently underway to determine the most feasible and efficient way to deliver this project to construction in order to address the safety concerns and traffic problems at this location. There are environmental issues, downtown redevelopment concerns, and physical alignment constraints that work together to make this a very challenging project. Accordingly, one of the most challenging considerations will be the project cost, which is estimated at \$2.8 billion. Kentucky's share of the project cost is estimated to be approximately \$1.8 billion.

### **Proposed Interstate 66**

The Proposed Interstate 66 (TransAmerica) Corridor in southeastern Kentucky extends from Interstate 65 near Bowling Green along the Cumberland Parkway to west of Somerset, from which it departs and extends north and east around Somerset, then along KY 80 and south to Interstate 75 south of London. From Interstate 75, the Corridor extends eastward along the Hal Rogers Parkway to Hazard before heading east to US 23 south of Pikeville. From US 23 south of Pikeville, the Proposed Interstate 66 would extend across the rugged mountainous terrain of Pike County to the existing US 52 (Proposed Interstate 74 Corridor) near Matewan, West Virginia. Along this course, the Proposed Interstate 66 would pass through some of the most severely economically distressed counties in the Appalachia region.

At the present time, there are three independent segments of the Proposed Interstate 66 that have been involved in some degree of highway project development. The first of these segments is the Northern Bypass of Somerset, which will serve to provide a high-speed connection from the Cumberland Parkway to KY 80 east of Somerset. Preliminary engineering and environmental studies have been completed, with design and right-of-way activity underway. Construction of the Northern Somerset Bypass is complete from the Cumberland Parkway east to US 27 north of Somerset. Construction from US 27 north to KY 80 east of Somerset is expected to cost \$127 million in 2014 dollars.

The second active Proposed Interstate 66 project in southeastern Kentucky is the connector between KY 80 east of Somerset and Interstate 75 south of London. Preliminary engineering, environmental work, and the financial plan are currently on hold for this section, pending resolution of funding issues. There are many environmental issues associated with this project, including involvement with the Daniel Boone National Forest, a wild and scenic stretch of the Rockcastle River, and numerous cliffline, cave, and cultural/historic concerns. There has been, and will continue to be, considerable public involvement and coordination with resource agencies to minimize the environmental effects of this project. The total estimated cost of the Somerset to London section of the Proposed Interstate 66 is over \$500 million.

The third section of the Proposed Interstate 66 that was being developed is the portion of the route between US 23 south of Pikeville and US 52 (Proposed Interstate 74) in West Virginia. An Environmental Impact Statement for this segment of Interstate 66 has been completed, and the preliminary right-of-way plans have been completed for a 6-mile section in Pike County. While environmental issues have proven to be minimal in the Pike County area, the rugged terrain makes this one of the most expensive sections of the

Proposed Interstate 66 to build. It is expected that it will cost more than \$1 billion to complete this connection between US 23 and US 52. Due to funding concerns, this segment of I-66 is on hold at this time.

### **Proposed Interstate 69**

The Proposed Interstate 69 corridor is being pursued in some manner by every state it traverses, from south Texas to the Michigan border with Canada. The impetus for Interstate 69 is Latin American trade and the overland transportation need to link Latin America with Canada and the northeastern United States. The states involved in this project are Texas, Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, Indiana, and Michigan. An Environmental Impact Statement has been prepared for the entire route, with the “purpose and need” of the project focused squarely on freight movement.

In Kentucky, Interstate 69 follows the existing Purchase Parkway from the Tennessee State line to Interstate 24, then Interstate 24 to the Western Kentucky Parkway, then the Western Kentucky Parkway to the Pennyryle Parkway, then the Pennyryle Parkway north to Henderson. At Henderson, a new route (including a new Ohio River Bridge) will be required to connect to Interstate 64 in southern Indiana. Both Tennessee and Indiana are actively engaged in pursuing their own segments of Interstate 69, and each state has cooperated in studies to assess connections at the state lines.

As of June 2016, the KYTC has 95 miles under shield as I-69. This includes 17 miles of common route with I-24 from Calvert City to the interchange with the former Western Kentucky Parkway, 38 miles along the former Western Kentucky Parkway to the Pennyryle Parkway, and 40 miles of the former Pennyryle Parkway. Improvements are currently underway to reconstruct the Purchase Parkway/I-24 interchange in Calvert City and the Purchase Parkway/US 45 interchange in Mayfield. Once completed the Purchase Parkway from mile point 25 to I-24 will be re-signed as I-69. This work is anticipated to be finished in 2018. The KYTC estimates that it will cost a total of \$252 million to complete the I-69 corridor through Kentucky. This includes the connection with Tennessee but not the connection to Indiana. The KYTC has invested \$164 million on the improvements completed or currently under construction.

At Henderson, the new route and its new Ohio River Bridge will likely cost an estimated \$1 billion or more to complete. The KYTC is working with INDOT to initiate preliminary engineering and environmental work for the new Ohio River crossing at Henderson. Continuing work on the Interstate 69 connection between Kentucky and Indiana will depend upon the financial support that can be garnered for the project through bi-state funding cooperation and our continuing partnership with FHWA.

### **Proposed Interstate I-69 Spur; I-66/I-65 Spur; and I-67 Spur**

The KYTC has completed a strategic corridor planning study and high level overview of the proposed I-66/I-65 Spur, the I-67 Spur, and the I-69 Spur to evaluate the upgrades necessary for the Audubon Parkway between Henderson, Kentucky and Owensboro, Kentucky (I-69 Spur approximately 24 miles); the Natcher Parkway between

Bowling Green, Kentucky and Owensboro, Kentucky (I-66/I-65 Spur approximately 70 miles); the US 60 Wendell Ford Expressway from Audubon Parkway to Natcher Parkway in Owensboro, Kentucky (part of I-69 Spur approximately 7 miles); and the US 60 Wendell Ford Expressway from the Natcher Parkway to KY 54 Interchange with the new US 60 Bypass to US 60 to US 60/US 231 intersection near Maceo, Kentucky and following US 231 to the William H. Natcher Parkway Bridge over the Ohio River to Indiana (I-67 Spur approximately 14 miles). For these Interstate Spurs to become fully functional in Kentucky, it is expected that the existing parkway system will have to be upgraded.

These corridors are expected to improve traffic flow between Owensboro, Henderson, Madisonville, Bowling Green, and Indiana, and enhance economic development in this portion of western Kentucky. Preliminary estimates to provide the required upgrades is estimated to cost approximately \$412 million (I-69 Spur-\$87 million; I-66/I-65 Spur-\$148 million; and I-67 Spur \$177 million) or more to accomplish. Continuing work on Interstate 69 Spur, Interstate 66/65 Spur, and Interstate 67 Spur in Kentucky will depend upon the financial support that can be garnered for the project through federal reauthorization and appropriations processes. The 2016 Highway Plan identified funding to begin the conversion work necessary to upgrade the Natcher Parkway to interstate standards between Bowling Green and Owensboro.

### **Reconstruction of US 68/KY 80 Aurora, Kentucky to Cadiz, Kentucky**

The KYTC proposes to continue and complete the widening and improvements to the existing two-lane US 68/KY 80, from KY 94 at Aurora in Marshall County for approximately 17 miles to the western terminus of the Cadiz Bypass in Trigg County. US Highway 68 (US 68), also designated as Kentucky State Route 80 (KY 80), is the only east-west arterial in the region of southwestern Kentucky, and serves local, recreational, and through traffic. The project will pass easterly through Kenlake State Resort Park, cross Kentucky Lake (Tennessee River), traverse the Land Between the Lakes (LBL) National Recreation Area, over Lake Barkley (Cumberland River), and extend to the Cadiz Bypass. Portions of the roadway are proposed to be built on a new location while other portions will follow the existing roadway.

The western terminus of this project is the recently relocated and widened four-lane section of US 68 between Kenlake State Resort Park and the city of Mayfield. The eastern terminus of this project is the western terminus of the Cadiz Bypass. Outside of the two public recreation areas, the project corridor is comprised of a mixture of commercial, residential, and agricultural land. This project is consistent with the KYTC's plans to improve the alignment of US 68/KY 80 in western Kentucky.

The project from the Kentucky Lake Bridge extending easterly to the Cadiz Bypass is broken into the following four independent sections that do not rely on the other roadway portions for completion:

Section 1: Kentucky Lake Bridge

Section 2: Land Between the Lakes Design-Build Section

Section 3: Lake Barkley Bridge

Section 4: Reconstruction of US 68/KY 80 from Lake Barkley to Cadiz Bypass

With the Land Between the Lakes Design-Build section completed, the Initial Financial Plan focuses on the bridge replacements over Kentucky Lake and Lake Barkley, and the remaining reconstruction of US 68/KY 80 from Lake Barkley to the existing Cadiz Bypass.

The Kentucky Lake Bridge replacement project and the Lake Barkley Bridge replacement project has independent logical termini, and represent construction segments of proposed improvements to the overall corridor of US 68/KY 80 between Aurora and the Cadiz Bypass. On the eastern end, the project connects with the recently constructed Cadiz Bypass, a two-lane roadway that intersects with Interstate 24 east of Cadiz.

The US 68/KY 80 Corridor reconstruction is to correct numerous geometric deficiencies of the existing roadway and the two major bridges (Eggner's Ferry Bridge and Lawrence Memorial Bridge over Kentucky Lake and Lake Barkley, respectively). The correction of those deficiencies would provide a safer travel way for persons using US 68/KY 80. Also, this project is to enhance regional tourism and economic development by vastly upgrading this principal east-west highway which serves as the only highway into and through the Land Between the Lakes.

As per the October 2015 Financial Management Plan Update, the projected total costs in "Year of Expenditure" dollars of all project segments of the Selected Alternatives are estimated to cost \$512 million. The projected \$512 million total cost is less than the \$583 million as outlined in the FHWA's October 2011 "Cost Estimate Review Report" for the US 68/KY 80 Corridor from Aurora, Kentucky to Cadiz, Kentucky project. In October 2015, the expenditures to-date for all segments of the US 68/KY 80 Corridor from Aurora, Kentucky to Cadiz, Kentucky project was approximately \$247 million, thus, leaving approximately \$265 million future remaining project expenditures.

The KYTC has awarded a project for the construction of the Kentucky Lake Bridge. The project was awarded February 10, 2014, for approximately \$132 million. Work on the project began April 16, 2014, and as of June 2015, the project is 92 percent complete. Also, the KYTC has awarded a project for the construction of the Lake Barkley Bridge. The project was awarded February 6, 2015 for approximately \$128 million. Work began on the project March 26, 2015 and as of June 2016 the project is 51% complete. In addition, KYTC let to construction the reconstruction of US 68/KY 80 from the Lake Barkley Bridge to the Cadiz Bypass at Cadiz, Kentucky. The project was awarded December 4, 2015 and work began February 8, 2016. The project is approximately 3% complete.