I. Introduction: Factors Affecting the 2014 Highway Plan

In developing Kentucky's 2014 Highway Plan, a number of key concerns overshadowed the presentation of the list of projects that constitute the Plan. Each of these issues helped to substantially shape the final product and will likely continue to exert considerable influence on the day-to-day execution of the 2014-2020 Highway Plan, necessitating innovative funding solutions to meet Kentucky's specific highway needs. A brief overview of each concern is provided in the following paragraphs.

A. The National Economy and Revenue Concerns

For the past few years, the national economy showed danger signs as construction indices rose dramatically prior to 2008, then fell in equally dramatic fashion with the national economic downturn that began in late 2007. As gasoline prices skyrocketed, the housing "bubble" burst, unemployment jumped, and disposable household income dwindled, Americans used much less gasoline and bought fewer vehicles. Both the Federal Highway Trust Fund (HTF) and the Kentucky State Road Fund are heavily dependent on motor fuels tax revenues to fund basic highway programs. The State Road Fund is almost equally dependent on the taxes generated by vehicle sales, and the highway-related revenues have been unsteady at best.

As federal revenues into the HTF have declined, Congress has had to infuse a total of \$54.5 billion in cash into the HTF over the past five years just to keep it solvent. At the state level, the 2009 General Assembly "froze" the variable component of the state "gas tax" to keep revenues from "free-falling" by 4 cents per gallon in April 2009. As we approach the start of FY 2015 on July 1, 2014, the threat of "free-falling" revenues has returned as the floor frozen in 2009 is 10.0 cents per gallon less than the indexed tax rate. Congressional and state legislative actions to maintain highway program spending levels were much-appreciated. We still, however, have grave concerns about the future of fossil-fuel-based, "pay-as-you-go" highway tax systems. It is against this backdrop that the 2014 Highway Plan was developed.

B. Congressional Transportation Reauthorization

Federal transportation funding and the rules governing the use of those funds are traditionally set forth in a multi-year "authorization act" against which Congressional appropriations provide annual federal highway funding to the states through the HTF. The last Congressional authorization of transportation programs came in 2012 in the form of the "Moving Ahead for Progress in the 21st Century Act" (MAP-21). That act was crafted to expire on October 1, 2014, and was substantially designed as a five- or six-year act accompanied by only two years of authorized funding.

Congress is expected to take up the reauthorization of MAP-21 during the summer of 2014, and there will be considerable effort to educate the populace about the importance of transportation to our national economy and the critical nature of transportation to our daily lives as determinations are made about the levels of funding that can be made available in the future. During these discussions, it will be critical for transportation to be funded at long-term, sustainable levels if the states are to be able to effectively plan large-scale transportation programs. It is also critical that Congress begins to evaluate the stability of the HTF and encourage better mechanisms for long-term transportation funding in America.

C. State Road Fund Concerns

Kentucky's State Road Fund is statutorily established as the sole receptacle for dedicated revenues generated by state motor fuels taxes and vehicle sales. While this has somewhat insulated the Road Fund from most of the State General Fund revenue shortfalls, it has also required that the Road Fund absorb all revenue declines through direct budgetary reductions. The Cabinet continually visits and revisits state cash flow considerations and the operating adjustments that regularly must be made. Decisions about budget priorities, new project funding authorizations, and even active construction projects hang in the balance. The Cabinet's cash flow model routinely assesses income and outgo, and monthly adjustments are made on the basis of model projections. It is expected that the nature of today's revenue climate will continue to exert considerable pressure on the resulting priority decisions for use of Road Fund

D. Environmental Concerns

revenues into the future.

Recent changes in 401 KAR 10:030 Antidegradation Policy Implementation Methodology require that developing projects address protection of water resources. The regulation recognizes the General Assembly's authority for approval of projects in the Highway Plan. Projects are included in the Highway Plan only after a measured decision that the project enhances the quality of life, vitality of the Commonwealth and promotes the public good. The provisions of the amended regulation specify that inclusion of a project in the Highway Plan satisfies the requirements for conducting an antidegradation socioeconomic benefit demonstration. Inclusion of a project is an indication of the General Assembly's conclusion that the reduction in water quality that may occur as a result of the project is acceptable given the socioeconomic benefits to be derived. Citizens who may be concerned about the potential of a project to affect water quality should provide information to their legislator for consideration when evaluating projects for inclusion in the Highway Plan.

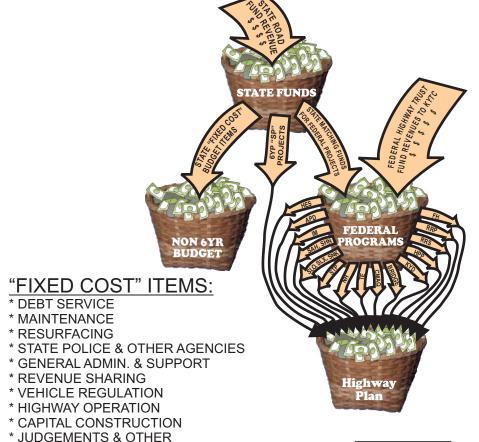


FIGURE 1

* SECRETARY'S CONTINGENCY

II. Revenue Estimates and Assumptions

One of the greatest challenges confronting the KYTC is "managing public expectations." Highway maintenance costs are far from routine when a major bridge can cost \$200 million to replace, a mile of interstate highway pavement can cost \$5 million to \$10 million to repair, and overall identified highway needs across the Commonwealth total more than \$50 billion. In the face of these overwhelming basic needs, the 2014 Highway Plan is predicated upon a number of assumptions about the revenue stream that is expected for future federal and state highway construction programs administered by the KYTC. An illustration of the funding process is shown as **Figure 1**, with the area of emphasis for this particular document being those funding elements that contribute directly to the Highway Plan. The discussion that follows is given as an overview of the scope and magnitude of these assumptions.

As shown in **Figure 2**, both federal and state Highway Plan revenue sources have been considered and projections made, based on the most reliable financial information available. The relative proportions of federal and state highway funds made available to the KYTC for major highway projects are displayed in **Figure 3**. Consistent with past trends and current forecasts, this edition of the Highway Plan is being developed on the basis of the most recent federal transportation authorization act, MAP-21, and state revenue estimates consistent with projections made by the Consensus Forecast Group (CFG). The CFG is a committee of specially designated experts whose revenue forecasts are used by the Executive Branch and the General Assembly to craft the biennial state budget.

It is important to note that the ability of the Cabinet to undertake major new state-funded projects is a function of available Road Fund cash and the careful management of Road Fund expenses "on the margin." The Cabinet is committed to managing cash to a "floor" of \$100 million. The cash management process currently yields daily cash balances for internal use and provides information for monthly meetings where estimated future cash outlays can be updated and project funding decisions can be refreshed. As the KYTC has gained experience with this process, our confidence has grown in both the methodology and the resulting cash flow decisions.

A. Federal Revenue Projections

The 2015 - 2020 federal revenue forecasts are based on a straight-line projection of the 2014 apportionments from MAP-21, the most recent transportation reauthorization act. MAP-21 was enacted by Congress in 2012 and provided identified levels of funding dedicated to each state through 2014. These state-specific levels of funding were broken down into individual program funding categories as determined by MAP-21's application to Federal Highway Trust Fund formulas. For the purposes of this edition of the Highway Plan, fiscal years 2015 through 2020 were assumed to be equivalent to those for FY 2014. The 2012 Kentucky General Assembly also made available the option to use \$330 million of GARVEE (Grant Anticipated Revenue Vehicle) bond proceeds to support the Kentucky Lake and Lake Barkley Bridge Replacement Project on US 68/KY 80 in Western Kentucky (see Section II, Part C of this narrative).

2015-2020 HIGHWAY PROGRAM ANTICIPATED FUNDING LEVELS



TOTAL ESTIMATED 2015-2020 HIGHWAY PROGRAM = \$5.4 BILLION NOTE: FEDERAL-AID FUNDING LEVELS INCLUDE ANY PLANNED STATE MATCHING FUNDS.

FIGURE 2

FEDERAL AND STATE HIGHWAY FUNDING LEVELS AVAILABLE FOR OBLIGATION FROM 2014 THRU 2020

(as estimated by the Kentucky Transportation Cabinet)

\$9,600,000

\$465,000,000

\$1,015,400,000

(4)

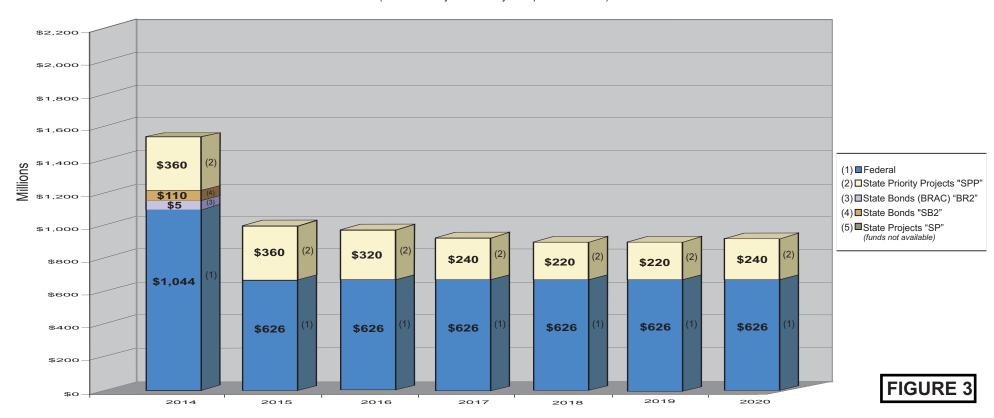


Figure 4 shows the final federal fund target amounts used to fiscally balance the 2014 Highway Plan. According to these estimates of category-by-category funding expectations, the total federal-aid dollars flowing to the Highway Plan in FY 2015 through FY 2020 is expected to be about \$3.8 billion. Combined with remaining federal FY 2014 apportioned funds, federal funding in this document totals about \$4.8 billion. It is possible that final federal appropriations may be altered significantly over the next few years if Congress fails to enact adjustments to the Federal HTF. The highway account balances are running below the amount needed to keep the program at current levels and could result in substantial cuts to future funding levels. In FY 2015 for instance, the HTF will

MAP-21 Federal Funding Category	FY-2014	FY-2015	FY-2016	FY-2017	FY-2018	FY-2019	FY-2020	2014-2020 TOTAL FUNDING
I. National Highway Performance Program								
Interstate Maintenance (IM) ²	148.4 *	133.9	133.9	133.9	133.9	133.9	133.9	951.8
 National Highways (NH)⁴ 	208.7 *	188.4	191.4	178.4	152.4	152.4	152.4	1224.1
Appalachian Development (APD) ¹	51.3 *	3.0	0.0	13.0	39.0	39.0	39.0	184.3
II. Surface Transportation Program								
Bridge Replacement On-System (BRO) ²	65.0 *	56.0	56.0	56.0	56.0	56.0	56.0	401.0
Bridge Replacement On/Off (BRX) ³	16.5 *	9.9	9.9	9.9	9.9	9.9	9.9	75.9
Bridge Replacement Off (BRZ) ³	25.8 *	11.6	11.6	11.6	11.6	11.6	11.6	95.4
Surface Transportation (STP) ⁴	205.6 *	123.2	123.2	123.2	123.2	123.2	123.2	944.8
STP-Henderson (SHN)	4.1	0.6	0.6	0.6	0.6	0.6	0.6	7.7
STP-Louisville (SLO)	68.2	18.0	18.0	18.0	18.0	18.0	18.0	176.2
STP-Lexington (SLX)	18.7	6.3	6.3	6.3	6.3	6.3	6.3	56.5
STP-Northern Kentucky (SNK)	14.3	7.1	7.1	7.1	7.1	7.1	7.1	56.9
STP-Huntington/Ashland (SAH)	2.4	1.2	1.2	1.2	1.2	1.2	1.2	9.6
III. Highway Safety Improvement Program								
 Highway Safety/High Risk Rural Road (SAF)⁴ 	54.0	38.5	38.5	38.5	38.5	38.5	38.5	285.0
Rail Protective Devices (RRP)	11.8	1.8	1.8	1.8	1.8	1.8	1.8	22.6
Rail Separation (RRS)	7.2	1.8	1.8	1.8	1.8	1.8	1.8	18.0
lV. Other								
Transportation Enhancement (TE) ⁵	30.4	9.6	9.6	9.6	9.6	9.6	9.6	88.0
 Congestion Mitigation (CMAQ)⁴ 	26.2	13.1	13.1	13.1	13.1	13.1	13.1	104.8
Forest Highways (FH)	3.3	1.6	1.6	1.6	1.6	1.6	1.6	12.9
High Priority Projects (HPP) ⁶	68.8	0.0	0.0	0.0	0.0	0.0	0.0	68.8
Kentucky Appropriations Earmarks (KYD) ⁶	13.6	0.0	0.0	0.0	0.0	0.0	0.0	13.6
Subtotal Federal Program	\$ 1,044.3	\$ 625.6	\$ 625.6	\$ 625.6	\$ 625.6	\$ 625.6	\$ 625.6	\$4,797.9

FIGURE

only contain enough money to cover projects already committed to and would be unable to support any new project authorizations at all in that fiscal year. As a result, federally funded highway projects scheduled in the document for "FY 2015" would have to be postponed at least one year without a Congressional fix for the HTF. The HTF revenues would not rebound to current levels until beyond 2020. It should be understood that all of the federal programs outlined in this edition of the Highway Plan are predicated upon the assumption that Congress will address the Federal Highway Trust Fund problem, as the failure to do so would lead to potentially catastrophic results to the nation's highway system.

Kentucky's federal highway program will be largely matched with "toll credits" through FY 2020. These credits are attributed to Kentucky by federal highway law in accordance with calculations that consider past levels of state fund investments (such as state-

^{*}Includes estimated FY-2014 year-end pre-financed amounts

¹APD at 100% federal funds, suballocated from National Highway Performance Program (NHPP)

²Suballocated from National Highway Performance Program (NHPP)

³Suballocated from Surface Transportation Program (STP)

^⁴Reflects 2% takedown for SPR

⁵Reflects carryover TE and SRTS funds, and FY 2014 – FY 2020 Transportation Alternatives (TAP) funds

⁶No projected allocations of future Congressional HPP or KYD earmark funding

sponsored toll roads) in the federal highway system. Toll credits do not generate cash and cannot be counted as real cash. They do, however, 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 funding for state projects under complete state control and supervision, as defined below in "Section II, Part B."

B. State Project Funding Projections

A forecast of \$1.6 billion in state Road Fund cash is expected to be available to support new state-funded project obligations between 2015 and 2020. This amount is based on a number of assumptions about project cost payouts, revenues accruing to the Road Fund, non-Six-Year Plan costs, state matching fund payouts, unexpected cost increases, and project change orders. It would be too exhaustive to attempt to describe each of these issues in detail and, for the purposes of this document, it is important to underline that any state-funded obligation targets derived through this model are only targets. Actual decisions about when to obligate state project dollars and how much state project work can be afforded at any point will be made by the Secretary of Transportation and based on monthly cash management evaluations he receives from the KYTC's "Authorization Review Team (ART)."

The ART consists of the Cabinet's Secretary, the State Highway Engineer and his deputies, and the KYTC Budget Director. These individuals meet monthly to carefully evaluate actual expenditures for the prior month and planned expenditures for upcoming months relative to future fiscal capacity calculated from ongoing project and program cost projections. Every planned, state-funded project funding decision undergoes a rigorous two-part assessment in which the following questions are asked: (1) Is the project ready to move forward from the project development standpoint? (2) Can we afford to move the project forward considering the cash flow implications of doing so? Only a satisfactory response to both questions permits a project to move forward in the funding process.

During the past year, the ART has permitted the authorization of \$1 billion in federal and state construction awards, as well as millions of dollars more in preconstruction, maintenance, and other highway program activities. The ART is taking the necessary steps to reassess all planned program outlays and will determine how best to ensure that appropriate levels of cash are maintained. Necessary actions may include de-obligation of active projects, expedited closing of old, completed projects, or stretching out payments for some of the larger projects being constructed. Our goal is to continually manage the overall program cash balance toward the \$100 million baseline.

In summary, all of the KYTC's best projections of revenues and program costs indicate that state project obligations are as follows:

Total	\$1.9 billion
2020	\$240 million
2019	\$220 million
2018	\$220 million
2017	\$240 million
2016	\$320 million
2015	\$360 million
2014	\$360 million (carry forward)

In addition to the state project funds contained in this Highway Plan, the 2009 General Assembly authorized \$400 million of state bond projects to be financed in FY 2009 and FY 2010. The projects to be funded are identified by the acronym "SPB" and were over-programmed by the General Assembly by approximately 25% to allow for projects whose schedules may slip. The 2008 General Assembly also authorized the sale of \$50 million in state bonds for use on Fort Knox area highway projects. Recognizing that federal programs are unstable due to the national economy, the 2010 Enacted Biennial Highway Plan included an additional \$400 million of highway bonds to ensure that needed highway improvements can be pursued while the future of the federal highway program is resolved. impact of this additional \$400 million in state bonds on the KYTC's debt service budget is shown on Figure 5. To complete the road improvements planned for Fort Knox, the 2010 General Assembly also authorized another \$112 million in state bonds for this purpose.

C. Federal and State Fund Interaction

Federal and state highway project funding for FY 2015 through FY 2020 totals \$5.3 billion. If we add the carry-over state and federal funding from FY 2014, the total revenue expectation that supports projects in this edition of the Highway Plan is \$6.7

ROAD FUND DEBT SERVICE Based on HB 236 of the 2014 General Assembly April 2014 (millions)

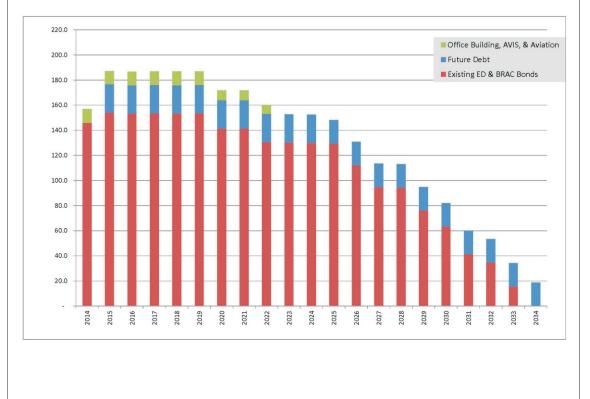


FIGURE 5

billion. It is important to note that Kentucky has utilized federal pre-financing provisions heavily and continues to roll a consistent level of these carry-forward obligations from year to year. At the end of FY 2013, Kentucky had pre-financed some \$183 million in federally funded projects, supporting the associated project billings from State Road Fund cash until the federal share of these costs can be billed to the federal government the following year. By using this funding mechanism, Kentucky has maximized its ability to return federal dollars to the state more quickly, while at the same time accelerating many federal highway projects. Federal pre-financing requires that the Road Fund keep approximately \$60 million on hand to cover the advance state fund outlays in support of the federal program acceleration. The Cabinet must continually monitor the "net cash balance" which results from month-to-month consideration of this federal program flexibility.

It is also important to note that the KYTC will explore all opportunities to use innovative financing options permitted under federal transportation law. In particular, we will seek to continue the use of GARVEEs to accelerate federal funding of major projects, buying essential improvements we could not otherwise immediately afford. GARVEEs use the principle of guaranteed future federal-aid highway revenues as a mechanism to support the sale of revenue bonds for specific projects. The status of \$440 million of GARVEE projects authorized by the 2005 General Assembly is outlined in Appendix A of this document. As we look forward, it is the KYTC's goal to continue to exercise this program when prudent, such as our recent decision to use \$236 million in GARVEEs to support the Louisville Bridges Project. In FY 2014 and 2015, previously approved GARVEE bonds will be needed to help finance the \$330 million necessary to fund the US 68/KY 80 bridges over Kentucky Lake and Lake Barkley. GARVEE bond debt service amounts are contained in the 2014 Highway Plan and represent commitments of future federal and state revenues to support them. These commitments allowed the "advance purchase" of projects like the Louisville Bridges and are automatic "take-downs" from annual revenues.

Appendix B of this document contains a report on the status of Road Fund bonds authorized by the 2009 and 2010 General Assemblies. This \$800 million in road bonds was authorized for the expressed purpose of funding state priority projects, many of which had been presented in previous Highway Plans. These funds have not yet been fully obligated to projects, and the bonds are being sold as the specific project billings accrue sufficiently to avoid arbitrage.

Appendix C of the 2014 Highway Plan contains a status report for "Mega-Projects" that the KYTC is involved with at this time. These "Mega-Projects" are (1) the Louisville Bridges, (2) the I-75/71 Brent Spence Bridge in Northern Kentucky, (3) the proposed routing of I-66 through Kentucky, and (4) the proposed I-69 improvements through western Kentucky. A discussion of the funding and project development parameters for each "Mega-Project" is provided in Appendix C.

A roadway that has received considerable recent attention as the effects of a declining coal economy are becoming evident in Eastern Kentucky is the Mountain Parkway (KY 9009) and its extension, KY 114. Of particular concern is the two-lane portion of the parkway and KY 114 between Campton and Prestonsburg. For many years, this two-lane road has served as the principal arterial connection between Lexington and the Eastern Kentucky mountains. As Eastern Kentucky embraces transformational changes necessary to become more self-reliant, the Mountain Parkway is considered to be the region's "interstate highway." By four-laning all of the Mountain Parkway, Eastern Kentuckians will have the same basic four-lane access afforded to other regions of the Commonwealth.

Recognizing that enhanced accessibility through a four-lane Mountain Parkway/KY 114 is critical to the creation of a more diverse Eastern Kentucky economy, Governor Beshear worked to place within the 2014 Recommended Highway Plan projects to complete the four-laning of the Mountain Parkway and KY 114 by the end of the Year 2020. The 2014 General Assembly chose to embrace the concept of upgrading the Mountain Parkway, but decided to stretch the project's implementation over a longer period of time.

Anticipated highway plan outlays for the project are as follows:

Mountain Parkway Projected Outlays (\$ Millions)											
TRADITIONAL FUNDS	2014	2015	2016	2017	2018	2019	2020	TOTAL			
National Highways (NH)	7.6	23.5	36.1	25.1	11.0	15.0	15.0	133.3			
Surface Transportation (STP)	4.3	2.0	20.8	3.2	35.0	43.4	25.0	133.6			
State Priority Project (SPP)	3.5	20.5	5.0	15.0	0.0	0.0	0.0	44.0			
State Construction (SP)	0.0	0.0	0.0	10.2	29.0	11.5	20.0	70.7			
GRAND TOTAL ALL SOURCES	15.4	46.0	61.9	53.5	75.0	69.9	60.0	381.7			

FIGURE 6

The "SP" projects in this edition of the Plan carry forward all previously enacted projects as the "SP priorities of record" to manage future revenues against. During the 2009 Legislative Session, the General Assembly prioritized over \$400 million of "SP" projects to be paid for with new state bond proceeds. These projects are listed with the fund source "SPB." Even with the addition of two new years worth of state and federal funding, the revenue gap is still a huge problem and must be recognized as state and federal cost accountability issues are considered. To this end, the 2010 Enacted Biennial Highway Plan was developed with the decision to recommend an additional \$400 million of state bond sales. Projects prioritized under this heading are noted by the acronym "SB2." The 2010 and 2012 General Assemblies also identified priorities for available remaining state funds in the biennium by using the acronym "SPP," which stands for "State Priority Project." Approximately \$2.4 billion of "SPP" projects are prioritized in the FY 2014 - FY 2020 timeframe. The "SP" funding category remains "unfunded" in the amount of \$2.1 billion from FY 2014 to FY 2020.

Of particular concern on the federal program side is the application of "fiscal constraint" to the federal-aid highway element of the Highway Plan. The federal portion of the Plan is required by federal law to be fiscally balanced. Immediately upon completion of the state legislative process, the KYTC will seek to incorporate the subset of federal projects from the 2014 Highway Plan into a new Statewide Transportation Improvement Program (STIP) and present those to the Federal Highway Administration (FHWA) for approval. Fiscal constraint is an increasingly important consideration for federal agencies, and the STIP is the document through which fiscal constraint is measured. Any state legislative efforts that result in over-programming of the federal element of the Highway Plan cannot be accommodated by the federal rules governing the STIP process. Failure to gain FHWA approval would result in the suspension of the annual federal-aid program and its approximately \$650 million annual budget to Kentucky.

III. The 2014 Highway Plan

As mentioned throughout this narrative, development of the 2014 Highway Plan requires the recognition of many factors which threaten both the fiscal balance of the document and the delicate balance that must be struck to maintain the condition of Kentucky's highways. In these financially difficult times, it is hard to define "reason," whether looking to fund mega-projects or simply trying to determine a reasonable expectation for funding traditional types of projects. To achieve a highway program that has the potential to continue moving Kentucky forward, we have sought to consider the following concepts.

A. Maximizing Reasonable Opportunity

We simply do not know whether Congress will pass a MAP-21 reauthorization bill in 2014 that lives up to, or even exceeds, the funding provisions of the current MAP-21. The only certainty is that nothing is "absolute" about the federal highway program at this moment. Accordingly, Kentucky has estimated that the federal program will hold constant as Congress sorts out a number of issues arising from current national economic concerns.

As we seek to maximize reasonable opportunities for the 2014 Highway Plan, we are busily developing the projects contained in previous authorizations to ensure that construction program funding levels can be maintained through the upcoming biennium. Kentucky and Indiana are also building the Louisville Bridges Project, working together to construct the Downtown and East End portions of the project while jointly developing the tolling implementation timetable essential to satisfying the financial commitments of the project. We are working closely with Ohio to develop a means for building needed improvements to the I-75/I-71 Brent Spence Bridge Corridor at Covington and Cincinnati, again using tolls and innovative financing as the keys to successful delivery of this project. The 2014 Highway Plan is about maintaining highway program delivery during extraordinarily difficult times, while enabling maximum opportunity for success with less traditional, more innovative revenue options.

B. Program Sustainability: An Eye to the Future

Over the past several years, the KYTC has worked to "even out" construction program delivery. As **Figure 7** shows, the dollar volume of highway construction project awards increased dramatically in 2006 to \$1.0 billion, topped \$1.5 billion in 2007, and then plummeted to \$410 million in 2008. Although it is incredibly difficult to achieve, it is imperative for adequate industry competition and for competitive construction prices that the KYTC work to establish a sustainable level of construction awards into the future. It is true that materials prices fluctuate and that buying power has decreased dramatically over time, but the industry needs to know that "feast or famine" is not our preferred course. The people of Kentucky deserve a highway construction industry that is capable of surviving economic downturns, and a consistent, coherent highway program is the best assurance that our highway infrastructure will be adequately maintained and improved into the next decade. Our goal is to target regular annual lettings to provide not only for the current year but succeeding years as well, working toward \$1 billion in regular annual construction lettings over a sustained period of time. Through this strategy, we can sustain jobs and help keep this sector of Kentucky's economy healthy.

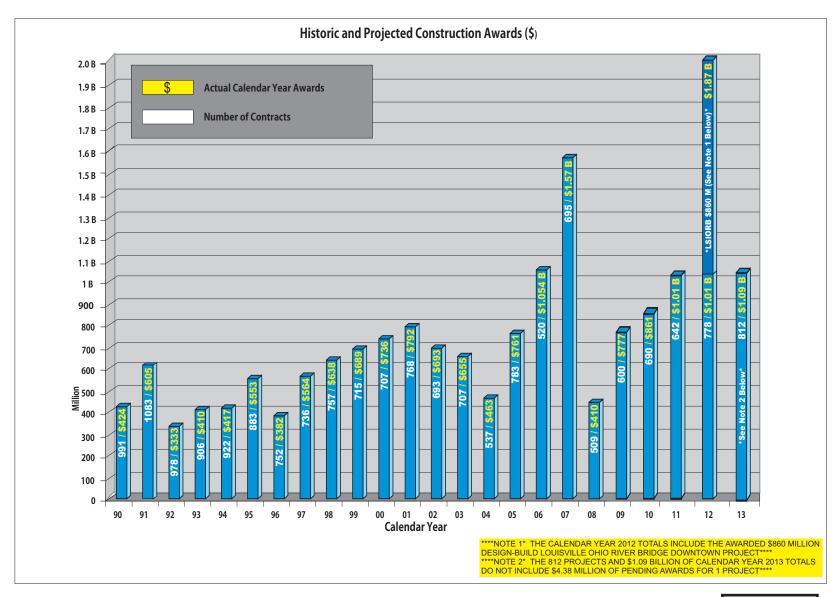


FIGURE 7

APPENDICES

Appendix A: "GARVEE" Status

Appendix B: State Bond (SPB and SB2) Program Project Status Appendix C: Kentucky's "Mega-Projects"