

American Recovery and Reinvestment Act of 2009

Transportation Investment Generating Economic Recovery Discretionary Grant Program

Highway 71 - Bella Vista Bypass

Project Type: Highway
Project Location: Benton County, Arkansas (3rd Congressional District)
 McDonald County, Missouri (7th Congressional District)
Area Type: Rural
Grant Amount Requested: See Below

		Percentage of Total Project Cost	
Arkansas Segment			
Preliminary Engineering	\$6.8 million		
Right of Way and Utilities	\$23.0 million		
Roadway and Bridge Construction	\$199.0 million		
Toll Plaza and Customer Center Construction	\$12.7 million		
Construction Engineering	\$20.0 million		
Project Financing Costs	\$6.9 million		
TOTAL	\$268.4 million		
Innovative Strategies			
Incentive Bidding	\$10.0 million		
Safety Surface	\$3.5 million		
Green Vehicle Credit	\$4.6 million		
ITS Technologies	\$1.8 million		
Elderly Driver Credit	\$3.2 million		
Low-Income Credit	\$0.3 million		
INNOVATIVE STRATEGIES TOTAL	\$23.4 million		
ARKANSAS TOTAL COST		\$291.8 million	81%
Missouri Segment			
Preliminary Engineering	N/A		
Right of Way and Utilities	\$6.6 million		
Construction	\$55.4 million		
Construction Engineering	\$4.3 million		
MISSOURI TOTAL COST		\$66.3 million	19%
TOTAL PROJECT COST		\$358.1 million	100%
Project Financing Plan			
Arkansas Federal-aid and State Match	\$48.6 million		
Anticipated Toll Revenue Bonds	\$20.0 million		
Anticipated TIGER TIFIA Loan Proceeds	\$77.8 million		
Missouri Federal-aid and State Match	\$66.3 million		
PRELIMINARY FINANCING PLAN TOTAL		\$212.7 million	59%
TOTAL TIGER GRANT FUNDS REQUESTED		\$145.4 million	41%
ARRA TIGER GRANT REQUEST – Construction	\$122.0 million		
ARRA TIGER GRANT REQUEST – Innovation	\$23.4 million		
TOTAL PROJECT COST		\$358.1 million	100%



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I. INTRODUCTION

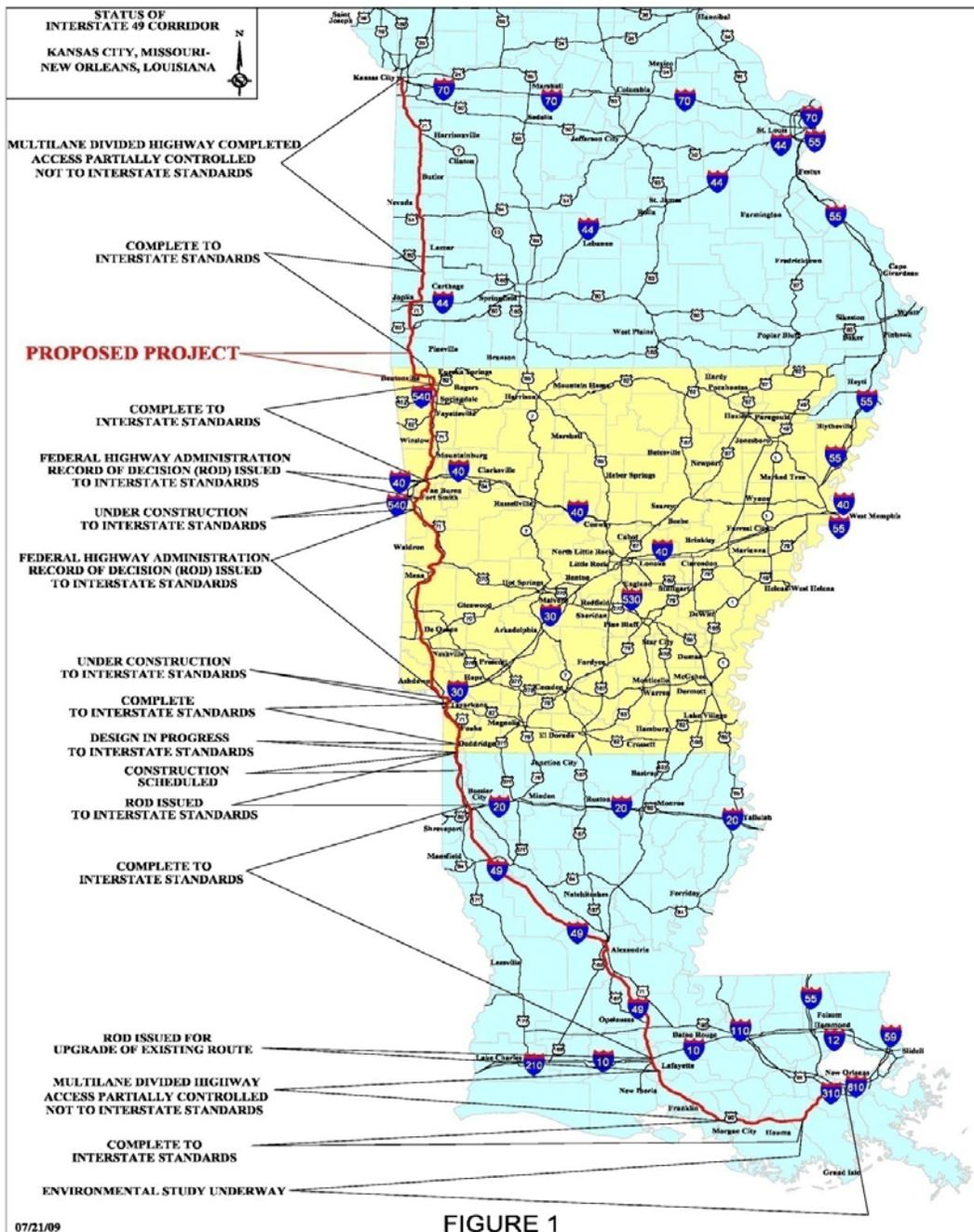
The proposed 18.9-mile, Highway 71 Bella Vista Bypass (the Bypass) project consists of constructing a new, four-lane, Interstate-type facility from the Highway 71/Highway 71 Business interchange south of Bella Vista, Arkansas to Highway 71 south of Pineville, Missouri. This project will complete a critical link in the Future Interstate 49 corridor connecting the Port of New Orleans, Interstates 10, 20, 30, 40, 44, and 70, thereby allowing seamless movement of people and goods from the Gulf of Mexico to the Great Lakes area and Winnipeg, Canada. Upon completion of the Bypass, the Highway 71 corridor from I-40 to I-44 will be constructed to Interstate standards which will allow this segment of the corridor to ultimately be designated as Future I-49. Additionally, this project will help improve safety and reduce congestion, fuel use, and CO₂ and VOC emissions thereby greatly enhancing the sustainability of the region’s transportation system, the livability for residents along the corridor, and improve the economic competitiveness of communities and businesses along the entire international corridor.

The section of the Bypass in Arkansas is proposed to be constructed as a toll facility, while the Missouri portion of the Bypass will be constructed as a free route. It is understood that the tolled portion of the Bypass in Arkansas must be signed as Future I-49 until the tolls are removed and the route is open to traffic as a free facility. After the tolls are removed, the route will be signed as I-49.

The Bella Vista Bypass is a Key Link in Congressionally-Designated High Priority Corridors 1 and 72

Highway 71 has been identified as Congressionally-designated High-Priority Corridors 1 and 72 (Future I-49) from Kansas City, Missouri to Shreveport, Louisiana, connecting the Gulf of Mexico to the Midwest. This facility was identified as a highway corridor of national significance that is essential to the economic growth of the central part of the country.

In February 2003, a Congressional caucus was formed to promote the completion of I-49 from New Orleans, Louisiana to Kansas City, Missouri. In March 2003, the state transportation agencies of Arkansas, Missouri, and Louisiana formed the I-49 Coordinating Committee to better implement I-49 development activities. The Bella Vista Bypass and the status of development of the Future I-49 corridor are shown in Figure 1.



The Bella Vista Bypass Will Enhance Economic Competitiveness

The business sectors in northern and western Arkansas and southern and western Missouri are closely linked. This highway connection will further strengthen these important relationships. Tyson Foods, Wal-Mart, JB Hunt Transportation, John Q. Hammons Hotels, Inc., the University of Arkansas, the professional sports teams in Kansas City, and Proctor & Gamble are just a few of the entities located in the region and in need of improved north-south Interstate access in this corridor. The ability to provide a more efficient transportation system is an integral benefit of the Bypass. Highway 71 in northwest Arkansas and southwest Missouri serves as the primary north-south highway for both commercial freight movements and private travelers. Joplin, Fayetteville, Springdale, Rogers, Bentonville, and Fort Smith have industries that transport a large portion of their commerce through the I-49 corridor.

Nearly 4,000 trucks per day use existing Highway 71 for shipping goods and materials across the nation as well as making deliveries locally. As companies within the region and throughout the nation continue to grow, and as the local communities grow by association, traffic operating conditions along the existing corridor will continue to deteriorate.

The construction of the Bella Vista Bypass will complete the Future I-49 Corridor between I-40 and I-44, providing the final link of the 130-mile corridor. This connection will improve shipping efficiencies for all national freight movements and provide a key portion of the north-south shipping corridor.

The Bella Vista Bypass Will Improve the Environment

Currently the nine signalized intersections between the Highway 71/71B interchange south of Bella Vista and Pineville, Missouri force vehicles to slow and accelerate, and often come to a complete stop. Estimates of fuel efficiency show that commercial vehicles traveling along the existing Highway 71 corridor are expected to achieve 3.6 miles per gallon (MPG) due to these stop-and-go conditions. On the free-flowing Bypass, these same commercial vehicles are expected to achieve 6.0 MPG, nearly a two-thirds increase in fuel efficiency.

Redirecting many of the 4,000 commercial vehicles that currently travel Highway 71 away from downtown Bella Vista to the Bypass will result in significant environmental benefits. As a controlled-access facility, the Bella Vista Bypass will allow for the free-flow of commercial vehicles by avoiding nine signalized and numerous other at-grade intersections. The free-flow travel and reduction in the braking-acceleration cycles will reduce fuel consumption and CO₂ emissions.

Over the course of a year, commercial vehicles would save almost one million gallons of diesel fuel if they were able to travel the free-flowing Bella Vista Bypass. This reduction in diesel consumption would have a ripple effect on the economy. Likewise, annual Volatile Organic Compound (VOC) emissions will be reduced by 3.5 tons/year or 5% for the entire fleet of commercial and passenger vehicles. These reductions will create a cost savings for the shipping community, savings for non-commercial drivers, increased economic competitiveness for the industry, reduced emissions, and an overall reduction in the dependence on oil.

The Bella Vista Bypass Will Create and Retain Jobs in the Region

The construction of the Bypass will improve the economy of the region through employment opportunities and improved household incomes. Initial investment in the region will come in the form of construction jobs and related employment followed by secondary investments and resulting employment opportunities through the development of retail and service establishments along the proposed route and the improved access to existing employment opportunities in Northwest Arkansas.

It is estimated the initial construction of the Bypass will help maintain or create over 8,900 jobs in the region. This is more than the current working population of economically-depressed McDonald County, Missouri at the northern end of the Bypass.

The Bella Vista Bypass Will Create More Livable Communities

During the early stages of the development of this community, there was ease of access into and within the community. That ease of access and community cohesion has since decayed with the increase in freight trucking volume through the region related to trade activities spurred by the North American Free Trade Agreement. The result being Bella Vista is no longer a place or community but part of an international shipping corridor.

The Bella Vista community was originally a private, planned community development for the Midwestern United States with many residents locating here to take advantage of the moderate climate and small town atmosphere. Residents have long depended on existing Highway 71 for direct access to Bella Vista and points beyond for health care, shopping, and education. Bella Vista also has six recreational lakes in close proximity to the route and other recreational activities adjacent to the route which means traveling Highway 71 for some may be unavoidable.

In addition to this project's national significance as a Future Interstate route, the Bypass is of vital importance to the region. More than 3.3 million people live in Metropolitan Statistical Areas (MSAs) along the Future I-49 corridor between Fort Smith, Arkansas and Kansas City, Missouri. Since 2000, the MSA surrounding the Bella Vista Bypass has grown by 27.9%. Since 1990 the population has nearly doubled to 450,000. The nearby Kansas City, Joplin and Springfield, Missouri and Fort Smith, Arkansas MSAs that will all directly benefit from the completion of this project have grown by nearly 10% since 2000.

The population of Bentonville, Arkansas (immediately south of the Bella Vista Bypass), doubles during the work day. Travel time studies conducted in May 2009 showed that it can take up to thirty-three minutes to travel the 16-mile corridor in a typical morning peak hour. Additionally, as shown on Figure A-1 in the Appendix (see www.arkansashighways.com/BVB/A1.pdf), severe recurrent delay is experienced between the intersections of Dartmoor Road and West McNelly Road. At the Highway 71 intersection with West McNelly Road, southbound queues of one mile are common during the morning commute. This represents about a ten-minute travel delay compared to free-flow conditions. As traffic increases along the corridor, travel times will increase as well. Additionally, congestion associated with the morning and evening commuter traffic and daily commercial traffic results in many local Bella Vista residents avoiding the main north-south corridor during several hours each weekday.

The Bella Vista Bypass is “Shovel Ready”

The Bypass project consists of 14.1 miles in Arkansas and 4.8 miles in Missouri which will provide a high service facility that links rural McDonald County, Missouri to the industrial, cultural, and retail core of the region in Washington and Benton Counties, Arkansas, and eliminates the bottleneck through Bella Vista. The people living in the region are very supportive of this project. It will create a bypass route of their community, allowing the area to function as a village community once again.

This project has been in the planning and development stage for many years. As early as 1991, the Department adopted the Kansas City, Missouri to Shreveport, Louisiana Highway Feasibility Corridor Study (see www.arkansashighways.com/BVB/1991CorridorStudy.pdf) that indicated a need to improve the Highway 71 corridor in the three states. The Arkansas State Highway and Transportation Department (AHTD) and the Missouri Department of Transportation (MoDOT) reported jointly in 1999 that a bypass of the Bella Vista community was needed to alleviate congestion along Highway 71, to improve safety, and to reestablish a sense of community (see www.arkansashighways.com/BVB/EIS.pdf). Since that time, both the AHTD and MoDOT have taken steps to secure funding and proceed with development of the Bella Vista Bypass in an effort to provide safe and efficient transportation services balanced by an aesthetically pleasing, environmentally sound intermodal transportation system for all road users.

The Bella Vista Bypass Will Improve Safety Conditions for Travel Within the Region

Bella Vista estimates its population has grown from a village of 18,000 to more than 26,000 in less than a decade. With rapid commercial and residential growth along the Highway 71 corridor, there has been an increase in the number of access points along existing Highway 71 in Bella Vista. Prior to 1999, traffic traveling through the region on this corridor encountered no signalized intersections.

Today, there are nine signals along the Highway 71 corridor with the anticipation of at least five more that may be needed in the near future if traffic continues to grow at the current rate.

Traffic increases have caused congestion through this area to increase and resulted in the need to implement safety projects such as intersection improvements and the installation of traffic signals along the corridor. Increases in traffic within the corridor, along with the increased opportunity for motor vehicle crashes, has heightened the need for improvements along Highway 71 to separate high-speed, through trips from the lower-speed, local trips.

The proposed bypass will provide a safer driving environment since Bella Vista has a substantial number of elderly drivers, 42% of whom are 65 years of age or older. With a median age of 61, Bella Vista has the oldest median age in the State. In contrast, Benton County's median age is 35. Two of Benton County's 27 census tracts make up the majority of Bella Vista. They contain 32% of the county's residents over the age of 65 and 23% of those over the age of 85.

Typically, elderly drivers have slower reaction times than the average driver and tend to be involved in a higher proportion of crashes. Moreover, the crash risks increase when the elderly driver is interspersed with truck traffic, as in the case in Bella Vista. Based on statistics compiled by the Fatality Analysis Reporting System, "American drivers over the age of 65 are over fifty percent more likely to be involved in fatal heavy truck crashes than younger drivers." Removal of a portion of the 4,000 trucks per day and removal of through traffic with a desire to travel at higher speeds will make the existing route safer for the entire community.

The Bella Vista Bypass Will Use Innovative Practices in All Phases of Implementation

Full funding of this application for ARRA TIGER Discretionary Grant Program funds will supplement Federal-aid and State funds and toll revenue for the Arkansas portion of the Bypass. This, combined with funding for the Missouri portion of the Bypass would complete the financing package for this project and allow the tolled portion of the Bypass to be constructed as a technologically-advanced roadway to serve motorists well into the twenty-first century. If adequate ARRA funds are made available, the Arkansas portion of the project will include construction of a low-spray, highly skid resistant wearing surface course and installation of Intelligent Transportation System (ITS). ITS technologies will be used to alert motorists of hazardous traveling conditions, incidents, adverse weather conditions, and other possible lane closures.

Full ARRA TIGER Discretionary Grant Program funding will also allow for price incentives to encourage the use of green vehicles as defined in accordance with EPA standards, provide travel subsidies for low-income drivers, and maximize the Bypass usage and toll savings for national fleets, as part of the toll facility in Arkansas. This information will be used for consideration of tolling discounts.

II. LEAD AGENCY and PROJECT PARTNERS

This application for the ARRA Discretionary Grant program is a joint application for a multi-state project. In a demonstration of the importance of the Bella Vista Bypass to the Highway 71 and Future I-49 corridors, many business and civic organizations representing Arkansas, Missouri, and Oklahoma have formed a coalition to support the application for funding for the I-49/Bella Vista Bypass project. The Arkansas State Highway Commission and the Missouri Highway Commission met jointly in August 2009 to endorse this joint application.

The completion of the Bella Vista Bypass along the Future I-49 corridor is a project that is supported by many jurisdictions, entities, and communities along the corridor as shown on the following list. Letters of support, resolutions, and a full list of Project Partners can be found at Northwest Arkansas Regional Council's Project Website <http://i49bellavista.com>.

Lead Agency -	Arkansas State Highway and Transportation Department
Supporting Agency -	Missouri Department of Transportation
Project Partners -	City of Bella Vista, Arkansas Bentonville/Bella Vista Chamber of Commerce Bi-State Area Transportation Study (Fort Smith MPO) Rogers-Lowell Area Chamber of Commerce Kansas City SmartPort, Inc. McDonald County Chamber of Commerce Northwest Arkansas Council Northwest Arkansas Regional Planning Commission Southwest Missouri Development Alliance Northwest Arkansas Regional Airport Authority Texarkana Urbanized Transportation Study (Texarkana MPO) Arkansas State Representative Steve Harrelson

III. PUBLIC INVOLVEMENT

The environmental documentation for the project alignment is completed. As the project has developed, tolling has arisen as a component of the overall funding package. To complete analyses on the justification of tolling the facility, a reassessment of the Environmental Impact Statement was required to inform the public of the possibility of tolling and to address any environmental justice concerns that may exist.

Two Public Involvement Sessions were held in August 2009. Nearly 350 people attended the two meetings. The first meeting was conducted in Bella Vista and the second in Gravette, Arkansas, near the western alignment of the proposed facility. There was a general consensus among many of the attendees that the Bypass will have a positive impact on Bella Vista, it will remove heavy commercial traffic from Highway 71 in downtown Bella Vista, and it will be good for businesses located in downtown Bella Vista or along the existing Highway 71. Comment forms from the two meetings may be found at www.arkansashighways.com/BVB/Comments.pdf.

IV. PROJECT DETAILS

Physical Description

The Bella Vista Bypass consists of constructing a new, four-lane, fully-controlled access (Interstate-type) facility from the Highway 71/Highway 71 Business interchange south of Bella Vista, Arkansas to Highway 71 south of Pineville, Missouri (See Figure 2). The new location project will consist of two travel lanes in each direction separated by a 60-foot depressed median. Paved four-foot inside and 10-foot outside shoulders will be provided on each side of the traveled way. The length of the Bella Vista Bypass in Arkansas is 14.1 miles, measured from the Highway 71/Highway 71 Business interchange to the Arkansas-Missouri State Line. The length of the Bypass in Missouri is 4.8 miles, measured from the Arkansas-Missouri State Line to Highway 71 south of Pineville, Missouri.

This facility is proposed as a toll road with appropriate toll plaza facilities for the electronic and manual collection of tolls from the Highway 71/Highway 71B interchange to the Arkansas-Missouri State Line affording the opportunity to pay tolls by cash or transponder. The Northwest Arkansas Regional Planning Commission, in cooperation with AHTD, will be responsible for marketing transponders to motorists in the area.

The Bella Vista Bypass is included in the City of Bella Vista's Master Street Plan, the Northwest Arkansas Regional Transportation Study (NARTS) Federal Fiscal Year (FFY) 2007-2010 Transportation Improvement Program, the NARTS 2030 Regional Transportation Plan, the AHTD's

FFY 2007-2010 Statewide Transportation Improvement Program (STIP), MoDOT's FFY 2009-2013 STIP, AHTD's 2006 Highway Needs Study and Highway Improvement Plan, and MoDOT's Long-Range Transportation Plan. The AHTD's 2007-2010 STIP can be found at <http://web/stip/FINAL%20STIP%20INTRODUCTION%2007-10%20WEB.pdf>. MoDOT's Long-Range Transportation Plan can be found at www.arkansashighways.com/BVB/MODOT_STIP.pdf.

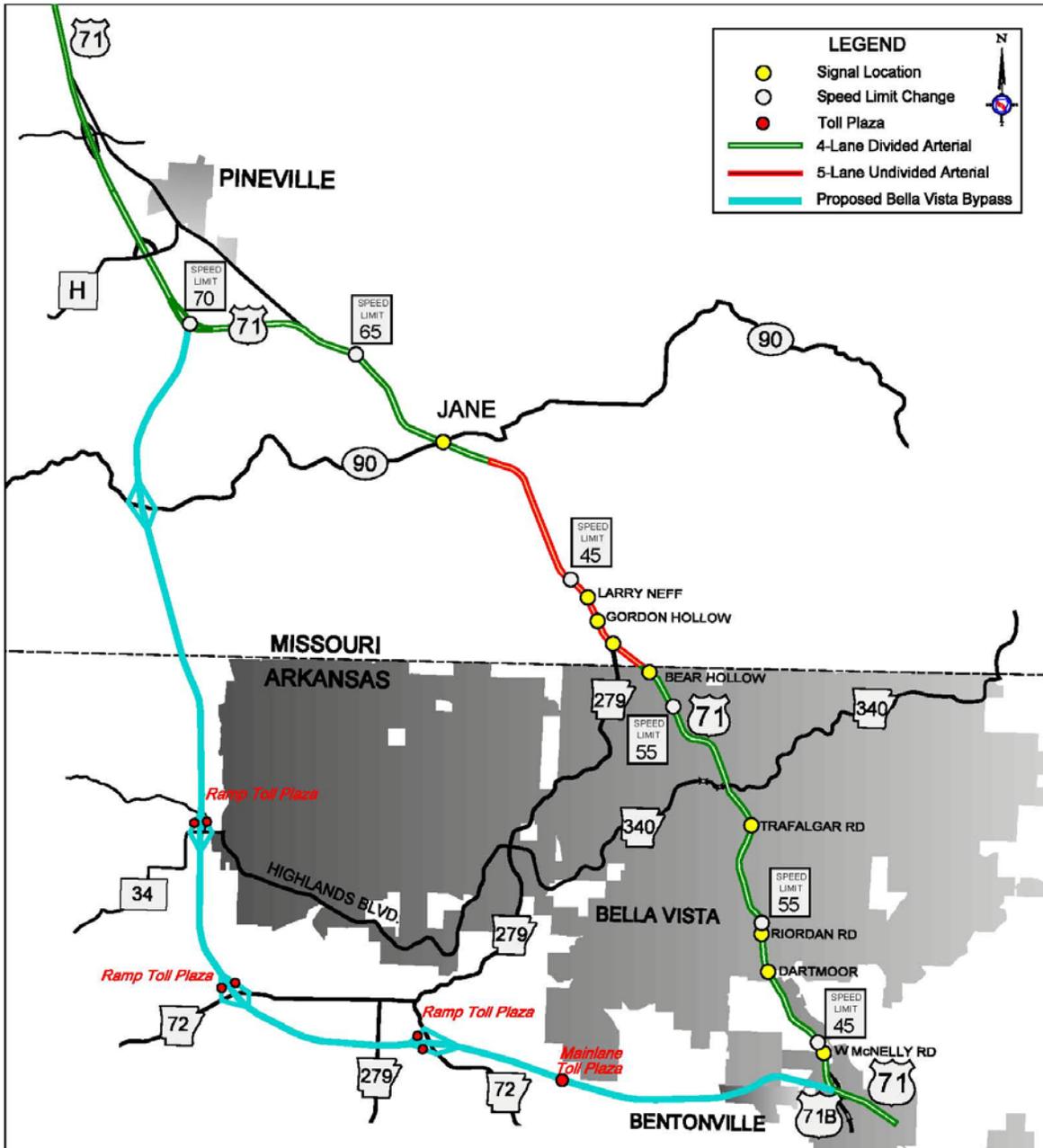


Figure 2

As mentioned previously, the Highway 71 corridor between Kansas City, Missouri and Shreveport, Louisiana is also known as Congressionally-designated High Priority Corridor 1 as named in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Subsequently, the Future Interstate 49 Corridor (Kansas City, Missouri to Shreveport, Louisiana) was also named as Congressionally-designated High Priority Corridor 72 in the Safe Accountable Flexible Efficient

Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Construction of this project is critical to the completion of these two High Priority Corridors.

When completed, Interstate 49 will be an Interstate-type facility approximately 500 miles in length traversing Missouri, Arkansas, Texas, and Louisiana. Interstate 49 is intended to complement the existing Interstate system, integrate regions of the country, facilitate safer and more efficient travel between Mexico and Canada, improve safety and efficiency of travel and commerce, and promote economic development. It will also improve intra-regional accessibility to alternative education and training, employment, recreation and medical facilities.

Many segments of Congressionally-designated High Priority Corridors 1 and 72 have been improved to provide an Interstate-type facility for long-distance travel, answering the need and increased demand created by global shipping throughout the corridor (See Figure 1). The congested facility through Bella Vista with the nine signalized intersections will continue to create a bottleneck to the entire corridor, hampering future economic opportunities for the entire Midwest. It should also be noted that these nine signalized intersections in the Bella Vista area are the only signalized intersections in this corridor between the Fort Smith, Arkansas and Kansas City, Missouri metropolitan areas.

Innovative Strategies

The funds requested in this application include an additional \$23.4 million for implementation of innovative strategies for the Bypass. However, the availability of ARRA funds to implement these strategies is a unique opportunity to showcase state-of-the-art technologies to provide the most efficient and safe facility. These strategies would not be considered without the use of the ARRA funds.

Construction Methods

The normal time to complete construction for this project as a turnkey project exceeds 4.5 years. However, full funding of this grant request would allow the AHTD to employ Alternative Constructing Methods (ACMs) to accelerate the project completion without sacrificing quality. Cost plus time (A+B) bidding and incentive/disincentive (I/D) clauses as well as "no excuse" incentives will be used to reduce the construction time by over 20% to approximately 3.5 years. The use of these bidding and construction acceleration methods is estimated to cost approximately \$10.0 million dollars (4% of total cost). Details of the proposed use of ACMs are available at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_379.pdf.

Safety Strategies

In keeping with the Federal Highway Administration's primary objective of reducing crashes and improving safety, this grant application includes funds to implement strategies that create one of the most modern and safe roadways in the nation. These strategies include a safety pavement wearing course (hydroplane and spray resistant surface), ITS, and Smart Bridge technology.

The wearing surface of the Arkansas portion of the project for the Bella Vista Bypass will use an open-graded wearing course over a polymer-modified membrane to cover either a concrete or asphalt pavement. The main performance benefits associated with using a safety pavement wearing course are improved skid resistance, reduced traffic noise, increased ride quality and spray reduction. This type of wearing surface will provide the Bella Vista Bypass with the safest surface available with an estimated replacement period of ten years. This replacement period and cost is included in the pavement life-cycle cost analysis. The estimated cost for the construction of the safety pavement wearing course is \$3.5 million. Details of this low-spray, highly skid resistant wearing course may be found at www.arkansashighways.com/BVB/Safety_Pavement.pdf.

Intelligent Transportation Systems

According to the U. S. Department of Transportation, Intelligent Transportation Systems (ITS) “improve transportation safety and mobility and enhance American productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. ITS encompass a broad range of wireless and wire line communications-based information and electronics technologies.” Full funding of this ARRA TIGER Discretionary Grant Program request will allow the Department to deploy ITS operations in this region. With the construction of the Bypass as a new location facility, it presents an excellent opportunity to provide fiber optic connectivity to the corridor. Installation of fiber optic technologies will also allow for electronic tolling of the facility and expansion of this technology for future highway use.

Due to the location of the Bypass on the Ozark Plateau, winter weather is an issue for driver safety. The Smart Bridge System offers ways to eliminate some of the unknowns in determining the condition of bridges during winter weather. Remote weather stations will be installed within the corridor. The information from the weather stations that indicate an immediate risk to motorists will be displayed on variable message boards. These message boards will also be used to display communications that are important to motorists including incident management situations and Amber Alerts. The estimated cost for the ITS strategies is \$1.8 million. Details of these technologies may be found at www.arkansashighways.com/BVB/ITS_Details.pdf.

Toll Pricing

Innovations in toll technology will minimize crash rates. Electronic toll collection (ETC) is one of the technological improvements that will be used on the Bypass. During the peak operating times, it has been shown that as the number of ETC users increases, the crash rate decreases. It is anticipated with a successful implementation of tolling along the Bella Vista Bypass, ETC capabilities will be enhanced. Strategies have been considered to reduce the economic impact on the population of this region. There will be a “free-use” period for all users the first month the Bypass is open to traffic. This will give motorists a feel for the time savings and reduced stress that will be realized by using the Bypass. Details of the toll pricing incentives may be found at www.arkansashighways.com/BVB/Toll_Pricing.pdf.

There are other discount programs that are planned to be implemented to provide a lower toll rate for some motorists. These programs include discounted toll rates for motorists who are considered low income, or who are over the age of 65. It is estimated that the present value for the reduced toll collection for low-income motorists is \$0.31 million. For elderly drivers, the cumulative savings that may be accrued over the life of the toll operation is \$3.9 million. The present value for a reduced toll rate for older drivers is \$3.2 million.

The Green Pass discount plan will provide a discount for customers that drive vehicles that are considered “green” as defined by the Environmental Protection Agency (EPA). Seventeen percent of the passenger vehicles currently traveling along the existing Highway 71 are considered green. It is estimated that if a significant percentage of green vehicles apply for this discount and pay the reduced toll, \$5.5 million will be saved by these environmentally conscious motorists over the life of the toll program. The present value of these savings is estimated to be \$4.6 million.

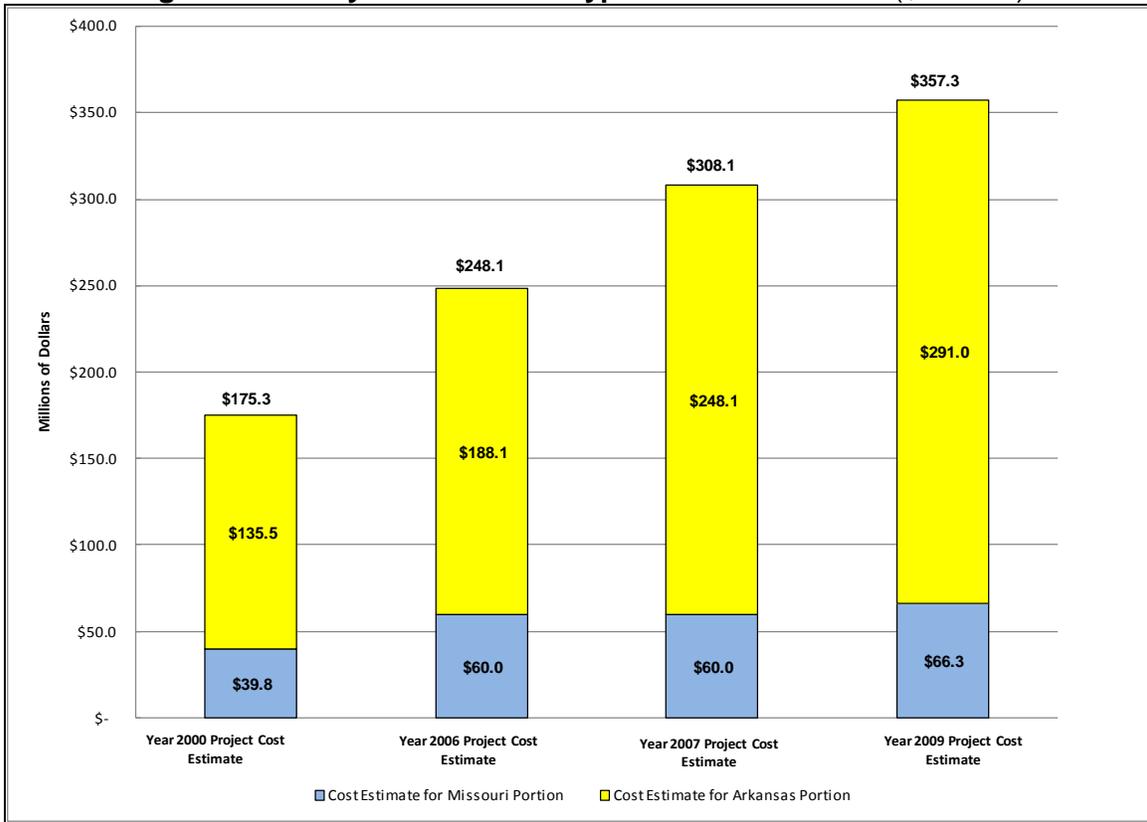
On a rural Interstate facility, the average truck volume is a little over 1,600 vehicles per day. Along existing Highway 71 within the region, that number is close to 4,000 – nearly 2.5 times the national average. To encourage support of these businesses, a fleet credit may be negotiated for the mutual benefit of the business, the trucking industry, and the state highway agencies.

Cost Estimate

In 2000, as a part of the Bella Vista Bypass Environmental Impact Statement (see www.arkansashighways.com/BVB/EIS.pdf), the cost for the approved location of the Bella Vista

Bypass was estimated between \$172.4 and \$178.2 million. Current cost estimates for the project are \$357.3 million, including right-of-way, utilities, engineering, construction, and financing. Of that, Arkansas' portion is \$291.8 million for 14.1 miles. Missouri's portion is the remaining \$66.3 million for 4.8 miles. These estimates include the costs associated with the safety and innovative strategies. The following chart displays the original Year 2000 Cost Estimate for the project as well as subsequent estimates in 2006, 2007, and 2009.

Figure 3: History of Bella Vista Bypass Cost Estimates (\$millions)



The cost of having to delay this project previously is the difference between the current cost estimate and what was estimated in 2000. The cost of delay is nearly \$160 million or nearly half of the current cost estimate. Projects of this magnitude rarely can be financed immediately or with ease. Each previous attempt to fund and complete the Bypass has met with a funding shortfall. In 2007, extensive analyses were completed to determine the most effective and efficient way to fund the project. At that time, the funding plan for the project included the use of existing Federal-aid funds, tolling (and bonds to allow for construction), and the use of a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan. There remained a funding shortfall of \$100-120 million and the project did not advance.

Under current funding constraints, if ARRA TIGER Discretionary Grant Program funds are not received and if the Bypass is funded as a Pay-As-You-Go project, there is no timeline for completing the Bypass. The project will continue to be coordinated between Arkansas and Missouri. Construction will likely occur in many phases, and the resulting cost of completing this critical link in Future I-49 will continue to escalate.

Within the corridor, both MoDOT and AHTD have worked to make incremental improvements. MoDOT has completed the Pineville Bypass to Interstate standards. Previous work in Arkansas includes the environmental handling for the entire length of the project. The AHTD has been fortunate to receive Congressionally-designated discretionary funding for this project that allowed for toll studies

and the acquisition of right-of-way. Arkansas has obligated \$45.3 million for preliminary engineering, right-of-way acquisition, and utilities. With the ARRA TIGER Discretionary Grant Program, there is now the opportunity to help bridge the funding shortfall and allow this project to proceed. MoDOT is prepared to initiate their portion of the project as soon as the AHTD is able to move forward.

V. IMPLEMENTATION PLAN

The following status statements are provided to indicate the critical path items that must be in place for the project to receive funding.

Project Schedule: Currently, the project is on track and key interim deadlines have been met. It is anticipated that with funding in place, the AHTD is prepared to begin construction in July 2010. It is anticipated MoDOT will let their portion of the project to contract shortly thereafter.

Environmental Approvals: As stated previously, the entire project alignment has been approved. It is anticipated that the Environmental Reassessment, required due to the use of tolling as a financing mechanism for the Arkansas portion, will be submitted to FHWA in September 2009.

Legislative Approvals: The Arkansas State Highway Commission (AHC) has the statutory authority to apply for Federal-aid funds and to charge tolls. The AHC has the statutory authority to submit this application, and construct and maintain facilities with revenue sources as outlined in this application. The Constitutionally-independent AHC acts through the AHTD in submitting Federal-aid assistance applications such as this one.

State and Local Planning: As stated previously, this project is included in all pertinent and necessary metropolitan and statewide planning documents.

Technical Feasibility: Preliminary Engineering activities including detailed design have been completed on this project.

Financial Feasibility: Additional information regarding the financial viability of this project is provided below. Full funding of the ARRA TIGER Discretionary Grant Program application will provide a key funding tool along with the anticipated TIFIA Loan and Bond Proceeds and existing sources of Federal-aid and State revenue.

All documentation regarding the status statements may be found at www.arkansashighways.com/BVB.

Other key developments in the progress of this project include the submittal of a TIFIA Letter of Interest for a portion of funding. The TIFIA loan is part of the overall financing package for this project as shown on Table 1, and expands the diverse financing sources for this project. If any of the proposed financing mechanisms is not successful, the project will not move forward as it is currently planned and proposed.

Critical to the successful financing of this project through the TIFIA program is the establishment of the creditworthiness of the project. This determination is used to define the terms of financing for the project such as the interest rates charged to the Department and the coverage ratios required of the Department. If the TIFIA loan is approved for the requested \$77.8 million amount, \$7.7 million of budget authority will be used assuming a scenario that requires a 10:1 risk assumption ratio. This is 3.85% of the \$200 million budget authority available under the TIGER TIFIA program.

Likewise, services have been retained for a variety of the activities related to the project funding including consultants Jacobs Engineering as the Toll Facility Advisor, Public Financial Management, Inc. as Financial Advisors, and Williams and Anderson, PLC and Hawkins Delafield and Wood, LLP as Bond Counsel.

Construction Financing and Revenues

The following table reflects the most viable option for financing the project with major expenses and anticipated revenues listed.

Table 1: Expenses and Revenues

EXPENSES		Percentage of Total Expenses
Preliminary Engineering (Arkansas Only)	\$ 6.8 million	2%
Construction – Arkansas Segment	\$199.0 million	56%
Construction – Missouri Segment	\$ 55.4 million	15%
Toll Plaza and Customer Service Center	\$12.7 million	3%
Right of Way Acquisition and Utilities		
Arkansas	\$23.0 million	6%
Missouri	\$6.6 million	2%
Construction Engineering – Arkansas and Missouri	\$24.3 million	7%
Financing Costs	\$6.9 million	2%
Incentive Bidding	\$10.0 million	3%
Innovative Strategies (ITS, Safety, Subsidies and Discounts)	\$13.4 million	4%
TOTAL EXPENSES	\$358.1 million	100%
REVENUES		
Anticipated Toll Revenue Bonds	\$20.0 million	5%
Anticipated TIGER TIFIA Loan Proceeds	\$77.8 million	21%
Existing Federal-aid and State match committed to the project		
Missouri	\$ 66.3 million	18%
Arkansas	\$48.6 million	14%
TOTAL REVENUES	\$212.7 million	59%
SHORTFALL		
Anticipated ARRA TIGER Grant (Construction)	\$122.0 million	34%
Anticipated ARRA TIGER Grant (Innovations and Incentives)	\$23.4 million	7%
TOTAL TIGER GRANT APPLICATION	\$145.4 million	41%

To enhance the economic impact and job creation portion of the project, the AHTD will work to create opportunities for Disadvantaged Business Enterprises (DBE). For projects of this magnitude, a goal of 4-6% of the project is targeted for DBE entities. MoDOT's FY 2010 DBE goal for the Highway section is 13.58%.

A full discussion of the methodologies and assumptions including a Summary of the Toll Road Financing Analysis, Financing Assumptions, and Financial Analysis can be found at www.arkansashighways.com/BVB/Traffic_Revenue09.pdf.

VI. EXPECTED OUTCOMES

Short-Term Outcomes

Employment Opportunities

Investment in this project will support numerous jobs. A 2007 analysis by the Federal Highway Administration found that every \$1 billion invested in highway construction would support approximately 27,800 jobs, including approximately 9,500 in the construction sector, approximately 4,300 jobs in industries supporting the construction sector, and approximately 14,000 other jobs induced in non-construction related sectors of the economy.

When the project moves forward, the investment of \$145.4 million from ARRA funds, \$77.8 million from the TIGER TIFIA loan, \$18.8 million from Arkansas Federal-aid and State match, \$66.3 million in Federal-aid and State match from MoDOT, and \$20 million from Toll Revenue Bonds

will maintain over 8,900 immediate jobs. It should be noted this figure is greater than the entire working population of McDonald County, which is on the northern end of the proposed project.

Because much of the project will be funded with Federal-aid funds, all guidance, regulations, and requirements will be followed regarding hiring practices and prevailing Federal wage rates. A certification statement from the AHTD is included in this document and in the Appendix (A-2, see www.arkansashighways.com/BVB/A2.pdf) to this application.

Safety Improvements

In addition to providing more efficient travel within the corridor and along the Highway 71 corridor, the Bypass will improve safety conditions for all drivers within the corridor. By separating through traffic and local traffic, the potential for crashes will be reduced. By reducing the volume of heavy trucks through Bella Vista, the existing route will become more attractive to other transportation users such as pedestrians and cyclists.

A simple comparison of the annual crash rates for different types of roadway facilities reveals the improvement in safety that will be provided by the Bypass. In 2006, the average crash rate on a four-lane divided facility similar to Highway 71 through Bella Vista was 2.37 crashes per million vehicle miles (MVM) traveled. By diverting the through traffic to the Bypass, those vehicles and drivers will travel on a facility of a type that averages only 0.37 crashes per MVM statewide. Improvements along the existing alignment will also improve as less traffic will be traveling on the facility with the higher crash rate.

The following table displays the number and severity of crashes that have occurred along existing Highway 71 within the project corridor (Highway 71/71B Interchange south of Bella Vista – Pineville, Missouri). While no price can be placed on a life, FHWA has assigned an estimated financial impact to society that is related to crashes. This equates to a 2006 cost of \$26.5 million and a 2007 cost to society of \$19.6 million with an average of \$23.1 million.

Over the two-year period from 2006 to 2007, 76% of crashes along Highway 71 between Highway 71B and the Missouri State Line were comprised of rear-end and angle crashes (A-3 in the Appendix, see www.arkansashighways.com/BVB/A3.pdf). These types of crashes typically occur in congested, stop-and-go driving conditions, which could be alleviated by separating through and local traffic.

Finally, by removing the majority of the heavy trucks from the downtown Bella Vista area, drivers, cyclists, and pedestrians will feel more comfortable in their travels on foot and on the road. Many large, slow to accelerate, high emission vehicles will also be removed from the local roadway. Additional details regarding the crash calculations are located at www.arkansashighways.com/BVB/Safety.pdf.

Table 2: Crash Data

	Arkansas		Missouri		TOTAL	
	2006 Crashes	2007 Crashes	2006 Crashes	2007 Crashes	2006 Crashes	2007 Crashes
Fatality	2	0	2	3	4	3
Injury	47	39	21	27	68	66
<i>Number of Injuries</i>	108	68	89	52	197	120
Property Damage Only	44	61	42	47	86	108
TOTAL	93	100	65	77	158	177

Congestion Relief

Current traffic volumes and travel time studies indicate congestion during the morning and evening peak hours due to the number of drivers commuting along this corridor. Figure A-4 in the Appendix

(see www.arkansashighways.com/BVB/A4.pdf) shows the Annual Average Daily Traffic for 2009 and the current truck percentages. These traffic volumes can be translated into a Level of Service (LOS) definition that describes the ease of movement within the traffic stream with “A” being the least congested and “F” being the most congested. Figure A-5 in the Appendix (see www.arkansashighways.com/BVB/A5.pdf) shows the estimated LOS of Highway 71 in the Bella Vista area. Based on these traffic volumes during the peak periods, Highway 71 through Bella Vista is operating at LOS F (total breakdown of traffic movement) immediately north of the Highway 71/71B Interchange and improving to LOS E (operations are at capacity) until crossing Highway 340. From that point north to the Missouri State Line, the LOS improves to “C”.

The amount and duration of delay corresponds to the amount of traffic and the level of service. Figure A-1 in the Appendix (see www.arkansashighways.com/BVB/A1.pdf) shows an example of the peak hour delay that occurs within the corridor in both the northbound and southbound directions. All of these factors worsen safety conditions and increase driver frustration for both the through drivers and those desiring to access the route from side streets. These conditions can, in turn, lead to increased road rage and additional safety risks and hazards.

Traffic volumes within the corridor have increased steadily over the past 20 years and have actually outpaced the average growth experienced by traffic in the rest of Arkansas. This growth has had a major impact on the driving conditions in Bella Vista. As mentioned previously, with the growth in through traffic along Highway 71, the local road users have come to experience more and more large trucks along their daily travels. These large, long-distance travelers have to contend with numerous signalized intersections, slower posted speeds, and locally-oriented drivers.

These indicators reinforce the need for the proposed facility. Figure A-6 in the Appendix (see www.arkansashighways.com/BVB/A6.pdf) shows the Bypass in place and the reduced traffic along the existing route providing needed congestion relief in the twenty-year planning period assuming there is no toll assessed.

It is anticipated that with the Bypass in place there will be an immediate benefit to the commuting population through two channels. Those drivers choosing to use the proposed facility will experience 8-15 minutes of savings. When applied to the Arkansas-related commuting population of McDonald County, this can be translated into over 7,000 hours of commuting time saved annually. Another benefit will be the reduction in congestion along the existing route when diverted traffic is moved to the new route. Those drivers with destinations within Bella Vista will find an improved driving experience with less delay, less idling, and reduced crash exposure.

It should be noted that all of the estimates related to the tolling impacts (financial, driver impact, driver savings, etc.) are based on a very conservative estimate of the number of drivers choosing to access the toll facility. Figure A-7 in the Appendix (see www.arkansashighways.com/BVB/A7.pdf) reflects the traffic volumes used to determine the financing and incentives for the tolled facility.

Driver Expectation

Drivers entering the area from both the north and south arrive in Bella Vista along an Interstate-type facility. However, through this area (between the Highway 71/71B Interchange south of Bella Vista and Pineville, Missouri) drivers encounter nine traffic signals, many cross streets, and numerous driveways. These numerous at-grade intersections lead to opportunities for driver conflict, which increases the safety concerns for both long-distance through travelers as well as local residents accessing Highway 71 for short trips.

When constructed, the Bella Vista Bypass will complete the improvements to the Future I-49 corridor between I-40 near Fort Smith, Arkansas and I-44 near Joplin, Missouri. These improvements,

coupled with other improvements made to Highway 71 in Missouri will provide an Interstate-type facility to the Kansas City area.

VII. PRIMARY SELECTION CRITERIA

Long-Term Outcomes

Anticipated employment benefits have been discussed with an expected additional 8,900 jobs sustained in the region considered as short-term benefits. However, due to the scale and magnitude of the project, which might be considered short-term, employment benefits may be converted to long-term benefits with longer-term sustained employment opportunities.

State of Good Repair

The proposed Bypass will route through traffic away from the existing section of Highway 71 thereby alleviating congestion in the Bella Vista community. The facility is designed as an Interstate-type route with a length of 18.9 miles. This project will become a part of the National Highway System (NHS) when completed. Furthermore, this completed segment will result in the Highway 71 (Future I-49) corridor being constructed to Interstate standards from I-40 in Arkansas to I-44 in Missouri allowing the states to request designation of this segment as I-49, with the portion of the Bypass in Arkansas being signed as Future I-49 until the tolls are removed and this portion is open to traffic as a free route.

The AHTD and MoDOT maintain routes on the NHS at a high level of performance. In general, NHS routes are rated good for ride quality, rutting, and cracking for both states. The percent of good NHS routes in Arkansas is 58%, and for Missouri 68%.

A life-cycle cost analysis was conducted on this route to determine the facility's optimum life-cycle cost, factoring in the system's performance and long-term cost structure. As a result, the project was designed with an eleven-inch Portland Concrete Cement Pavement surface and a six-inch Cement stabilized crushed stone base course. The life-cycle cost analysis is shown on the website www.arkansashighways.com/BVB/Lifecycle_Cost.pdf.

The existing section of Highway 71 that extends from just south of Bella Vista, Arkansas to Pineville, Missouri is a hot-mix asphalt pavement. The pavement has performed well structurally with in-situ mechanistic pavement analysis indicating that it will be structurally adequate for another 20 years. However, average rut depths in several locations and low-to-moderate longitudinal, transverse, and fatigue cracking throughout its length at its forecasted rate of deterioration show the need for a maintenance overlay in the year 2018. Currently, the section has an overall International Roughness Index (IRI) of 65 inches per mile (indicating a smooth pavement). Preventive maintenance activities such as crack sealing and selective milling will extend the life of the pavement to 2018. Preventive maintenance activities beyond 2018 will extend the pavement life beyond 20 years at the anticipated reduced traffic level. Current performance data can be found at www.arkansashighways.com/BVB/Performance_Data.pdf.

Economic Competitiveness

Regionally this corridor is the primary artery that provides access to northwest Arkansas from the north and south. Major employers that have contributed to the growth in northwest Arkansas include Wal-Mart, JB Hunt Transportation, Tyson Foods, the University of Arkansas, and six major hospitals, all located along a 35-mile segment of I-540 (Future I-49) in Washington and Benton Counties, Arkansas. These major employers are dependent upon a transportation system that can accommodate the efficient and reliable movement of goods and services.

The construction of the Bella Vista Bypass will help ensure the economic vitality of these important regional employment centers and the ease of access for employees to reach their places of work. The reduction in congestion will maintain the efficiency and competitiveness of these facilities. Also,

by constructing the Bella Vista Bypass, commuters and other road users will be able to travel between Highway 71 and Highway 71B to Pineville without having to travel through the nine signalized intersections along the existing route.

The aforementioned economic entities make northwest Arkansas a labor shed for Benton, Washington, Madison, Berry and Carroll Counties in Arkansas as well as McDonald, Barry, and Newton Counties in Missouri and Delaware and Adair Counties in Oklahoma, which are all economically distressed. Furthermore, according to the Arkansas Economic Development Commission, daily commuters also drive to northwest Arkansas from economically distressed areas in southeast Kansas.

The Bella Vista Bypass will provide faster, easier and safer commuter access to jobs in northwest Arkansas by improving commuting and travel efficiencies as well as leading to shipping and transporting cost savings. These benefits work to help keep jobs located in the United States and, more specifically, within this region.

Livability

Northwest Arkansas is an attractive location for retail business (Wal-Mart Corporate Headquarters, warehousing, transportation, and distribution), transportation (JB Hunt and several other major interstate trucking firms), food production (Tyson Foods Headquarters, George's Chicken, Simmons Foods, and Allen Canning Company), the University of Arkansas main campus in Fayetteville, and the health care industry. Low property taxes and the scenic beauty of the Ozark Plateau lure business owners, investors, and entrepreneurs to the region. However, successful commercial development may manifest itself though increase congestion, lengthened commutes and more hazardous driving conditions.

One-fourth of the McDonald County's work-force commutes to jobs in Benton and Washington Counties, Arkansas and to points further south. It is anticipated that the Bella Vista Bypass will reduce commute times in the region between eight and 15 minutes. These savings can be multiplied by the amount of traffic expected to use the proposed bypass to determine a total anticipated savings of over 7,000 hours of commuting time in one year. Other commuters in Missouri, Kansas, and Oklahoma will benefit from the time savings of the proposed Bypass as they travel from home to their place of work. As congestion along the existing route worsens, and additional drivers choose to use the toll facility, the commuting time savings will increase. Additionally, completion of this project in southwest McDonald County will provide more opportunities for businesses to develop in this economically distressed area.

For rural McDonald County, the construction of this proposed project would better connect the county's people, businesses and products to the growing area of northwest Arkansas. The population of the county would enjoy the advantages of a modest cost of living whether in the countryside or in one of the many small communities and be easily linked to the shopping, recreation, and cultural activities in northwest Arkansas.

No other group will be more positively impacted from this project than the low income residents of McDonald County. Statistics show that personal income in McDonald County is more than 30% less than the average for the state of Missouri. Approximately 20% of the population lived in poverty in 2000, virtually unchanged from 1990. Nearly 60% of students in McDonald County were enrolled in the free/reduced lunch program in 2007, compared to 39.2% of Missouri students as a whole.

Bella Vista's existing median household income is \$53,442 according to its community leaders. According to the United States Census Bureau, the median household income in McDonald County, Missouri, immediately north of Bella Vista is nearly \$20,000 less at \$33,448 (2008). There are communities in the immediate area that will benefit from the project such as Gravette, Arkansas

(\$29,881) and Pineville, Missouri (\$24,886) with even lower median household incomes. This and other economic data can be found at www.arkansashighways.com/BVB/Economic_Map.pdf.

The McDonald County, Missouri and the Bentonville, Rogers, Springdale and Fayetteville, Arkansas School districts provide quality education in modern facilities. Northwest Arkansas Community College (NWACC) in Bentonville, the University of Arkansas in Fayetteville, John Brown University in Siloam Springs, Crowder College in Neosho, Missouri, Missouri Southern State University in Joplin, and several other proprietary colleges and universities provide higher education and workforce development at affordable rates.

The unique blend of arts, entertainment, retail shopping and the major industries in the region makes it imperative to have the transportation infrastructure in place to move travelers, truckers, commuters, and residents safely throughout the multi-state region. Construction of the Bypass will have a very positive impact on this region. The existing route would return to its original functionality as an arterial route. The motorists in this region will no longer face congestion or the stress of traveling on a through route with a large volume of trucks.

The AHTD, in coordination with the Bentonville/Bella Vista Trailblazers Association, has made provisions for the Northwest Arkansas Heritage Trail in the design of the proposed Bella Vista Bypass. Construction of this link of trail system will provide a regional network of bicycle and pedestrian facilities that connect Northwest Arkansas citizens and visitors to the region's heritage, the region's recreational and cultural assets, a healthier lifestyle, and to each other.

The improvement of accessibility to more resources in education, employment, recreational and cultural opportunities, and medical care will be of benefit to the region's residents as well as visitors to the area. The segment of Future I-49 that links Northwest Arkansas to the Kansas City metropolitan area will provide an invaluable connection that will be the potential for a much more prosperous and livable environment for the residents and visitors of McDonald County. It is vital to the future success of the region surrounding Bella Vista.

Sustainability

Because the Bella Vista Bypass will allow for the uninterrupted flow of commercial vehicles, their fuel efficiency will be greatly enhanced. As a result, the diversion of even a portion of the 4,000 commercial vehicles that currently travel along Highway 71 through Bella Vista to the Bella Vista Bypass will achieve significant environmental benefits.

Estimates of fuel efficiency show that commercial vehicles traveling through the existing Highway 71 corridor are expected to achieve only around 3.6 miles per gallon (MPG). On a free-flowing Bella Vista Bypass, those same commercial vehicles are estimated to achieve 6.0 MPG, nearly a two-thirds increase in fuel efficiency due predominantly to the avoidance of braking and accelerating at the signalized intersections.

For every 1,000 commercial vehicles diverted from the existing route to the Bella Vista Bypass, there will be a savings of nearly 1,000 gallons of diesel fuel daily. Over the course of one year, that savings is nearly 350,000 gallons of diesel fuel.

In addition to simply providing a reduction in fuel consumption, these fuel savings translate into environmental benefits as well. Each gallon of diesel fuel burned produces 22.4 pounds of CO₂. For every 1,000 trucks diverting to the Bella Vista Bypass, CO₂ emissions will be reduced by 9.5 metric tons per day and nearly 3,500 metric tons annually. This reduction in CO₂ has the same environmental impact as removing 790 passenger vehicles from the roadway.

In addition to the fuel consumption reductions due to the diversion of commercial vehicles, there are other emission-related impacts attributable to the project. A basic analysis of Nitrogen Oxide (NOx) and Volatile Organic Compounds (VOC) was conducted using MOBILE6.0. The analysis is based on existing and projected vehicle miles traveled, truck percentage, and average speed. The following table displays the estimated emissions from the existing and proposed project. Construction of the Bella Vista Bypass will result in the reduction of VOC emissions of nearly 3.5 tons/year (5%) and a slight increase of NOx of 2.0 tons/year (5%). Details of this analysis can be found at www.arkansashighways.com/BVB/Emissions_Calculations.pdf.

Table 3: Projected VOC and NOx Emissions

Scenario	POLLUTANT	
	Volatile Organic Compounds	Nitrogen Oxide
Existing (No-Build)	68.5 tons/year	45.4 tons/year
Bella Vista Bypass	65.0 tons/year	47.4 tons/year
Reduction/(Increase)	3.5 tons/year	(2.0) tons/year

There are also other factors that influence the sustainability of a community or region. One of these factors is an active and engaged transportation and land-use planning process. The City of Bella Vista was incorporated in 2007. Also in 2007, the City published the first Land Use Plan to be followed in 2009 with a Master Street Plan update. Well before the incorporation of Bella Vista, the Bypass was considered in planning documents prepared for the region. The alignment of the Bypass was retained and endorsed again with the official publication of the Master Street Plan.

Safety Impacts

Short-term impacts have been previously quantified. In the long-term, construction of the new facility will greatly improve the quality of life and safety of drivers in the corridor. It has been shown that the current median age of drivers in the area is 61. Because of the anticipated increase in median age of the driving population, these safety improvements will reap immeasurable benefits in future years.

Construction of the proposed facility will allow a separation of the locally-oriented road-user from the long-distance traveler. This is expected to reduce crashes along the corridor to 60% of their expected future rates. The result will be safer driving conditions due to more similar travel characteristics and less congestion along the existing route.

Job Creation and Economic Stimulus

The ability to provide jobs and economic stimulus through the construction of the Bella Vista Bypass has been shown. The AHTD is committed to providing the most technologically-advanced roadway possible through the full funding of this application. Regional partners indicate a wide base of support for the project and the anticipated benefits. With right of way acquisition and design activities substantially complete the project is shovel ready once funding is received to complete the financing package.

The following estimates are provided to demonstrate the economic impact of the construction activities in the area. These estimates are based on the AHTD's and MoDOT's ability to move quickly with this project.

The AHTD and MoDOT support training to develop a qualified work-force for the construction industry. As a part of this project, on-the-job training will be provided to at least 40 female, minority, or disadvantaged individuals with training in the highway industry. It is anticipated these individuals will then be able to obtain long-term employment skills and positions in the industry.

Table 4: Job Creation Impacts

Quarter/Calendar Year	Construction Jobs	Supporting Industry Jobs	Non-Construction Jobs	TOTAL Employment
3/2010	151	68	222	441
4/2010	151	68	222	441
1/2011	151	68	222	441
2/2011	226	102	333	661
3/2011	226	102	333	661
4/2011	226	102	333	661
1/2012	329	149	485	963
2/2012	555	251	818	1,624
3/2012	103	47	152	302
4/2012	155	70	228	453
1/2013	155	70	228	453
2/2013	155	70	228	453
3/2013	155	70	228	453
4/2013	310	140	456	906
PROJECT TOTAL	3,046	1,379	4,488	8,913

Research conducted by the AHTD has shown that there is substantial economic impact associated with interstate connectivity. The AHTD studied the economic performance of Louisiana, Texas, Mississippi, and Arkansas by county/parish area and related economic indicators to interstate access. It was found that the Per Capita Income and Unemployment rate of counties/parishes with direct interstate access were much improved over counties that had no access to facilities and counties with four-lane facilities linking to interstate-like facilities. Per capita income was found to be improved by 32% and unemployment rate was improved by 1.09%. This information is shown in detail in the reference for the Toll Pricing consideration for low income drivers at www.arkansashighways.com/BVB/Toll_Pricing.pdf.

VIII. BENEFIT COST ANALYSIS

The Benefit Cost Analysis (BCA) was performed in accordance with the ARRA guidance provided in the Federal Register. The purpose of the BCA was to systematically compare the benefits and cost of the Bypass and evaluate the effects of an aggressive funding schedule. The BCA compared the Bypass as an Interstate-type toll facility with the existing Highway 71 facility using the following factors for evaluation:

- Roadway Geometry
- Forecast Traffic
- Travel Speeds and Congestion
- Historic Crash Data
- Vehicle Miles Traveled
- Traffic Distribution by Vehicle Type
- Benefit of Emission Reduction
- Construction Cost
- Project Financing Costs

These benefits and costs were quantified in accordance with the Federal Register (Volume 74, Number 115) (see edocket.access.gpo.gov/2009/pdf/E9-14262.pdf) and Circulars A-4 and A-94 (see www.whitehouse.gov/omb/circulars/).

The BCA Value of Time analysis quantifies the impact of an improvement to road user savings in terms of travel time by first determining travel time savings, then assigning a dollar value to time. This includes differentiating time valuations by trip type. The Operating Cost analysis quantified the cost of owning and operating a vehicle, and compared the Road User Operating Costs for alternatives both with and without the Bypass. With the tolled Bypass, the existing route will also see benefits by reduced traffic volumes, reduced truck traffic, and lower levels of congestion. The Crash Cost analysis calculates statistical cost savings that can be attributed to driving on a higher type cross-section facility (four-lane arterial compared to four-lane Interstate type facility). As specified in the

guidance, a 7% discount rate was used to bring future benefits and costs to present value. The results of the BCA are shown in Table 5.

Table 5: Benefit Cost Analysis Results

Bella Vista Bypass Benefit Cost Evaluation Summary ¹	2009 Present Worth		2009 Present Worth Construction, O&M Costs
	No-Build	Build with Tolls	
Arkansas		\$ 261,500,000.00	\$ 261,500,000.00
Arkansas - Toll O&M Costs		\$ 85,300,000.00	\$ 85,300,000.00
Missouri		\$ 66,000,000.00	\$ 66,000,000.00
			\$ 412,800,000.00
Road User Cost			Road User Cost Savings
Value of Time	\$ 1,621,366,000.00	\$ 1,280,987,000.00	\$ 340,379,000.00
Value of Operating Costs	\$ 3,082,087,000.00	\$ 3,083,559,000.00	\$ (1,472,000.00)
Value of Greenhouse Gases			\$ 4,538,000.00
Value of Safety Improvements	\$ 599,300,000.00	\$ 359,580,000.00	\$ 239,720,000.00
Cost of Tolls to Drivers	\$ -	\$ (62,300,000.00)	\$ (62,300,000.00)
Total			\$ 520,865,000.00
1. Costs in 2009 dollars include Construction of Grading, Structures, Pavement, Special Features, Toll Facility, Purchase of Right-of-Way, Engineering, and Contingencies.			
Benefit Cost Ratio =		1.26	

The total benefit of the Bypass as a toll facility, when compared to the No-Build Alternative, would be a cost savings of \$108.1 million over the next 20 years for road users in the area. Detailed information on the BCA can be found at www.arkansashighways.com/BVB/BenefitCost_Analysis.pdf.

IX. PROJECT SCHEDULE

The ARRA TIGER Discretionary Grant Program guidance has specified a very aggressive financing, bidding, and construction process to ensure the timely economic impacts of the program.

The Bypass has been in development for some time which has enabled the AHTD and MoDOT to fast-track this project through this process. Listed below are key dates in the history of the project development as well as key dates that must be met for the successful implementation of this project. All of the following documentation can be found at www.arkansashighways.com/BVB in the historical document area.

- September 1991: Minute Order 91-462 approved by the Arkansas Highway Commission adopted the Kansas City, Missouri to Shreveport, Louisiana Highway Feasibility Corridor Study as a guide for improvements within the Highway 71 Corridor.
- November 1992: Minute Order 92-497 approved by the Arkansas Highway Commission authorized a planning study for Highway 71 between McKissick Creek and the Missouri State Line.
- August 1995: HNTB retained to conduct the Bella Vista Bypass Study.
- April 19, 2000: FHWA issued a Record of Decision approving the location of the Bella Vista Bypass.
- 2001: The Arkansas State Highway and Transportation Department conducted the Arkansas Statewide Preliminary Toll Road Feasibility Study. The US 71

- Bella Vista Bypass was included as one of the candidate improvement corridors within the study. The results of the planning-level assessment for the project indicated that it was feasible for tolling.
- June 2001: Minute Order 2001-017 approved by the Arkansas Highway Commission to engage a consultant for design services for the Bella Vista Bypass.
 - 2003: Act 296 passed to allow the Arkansas Highway Commission to become a toll authority and issue bonds for construction of toll projects.
 - 2004: The Bella Vista Bypass Traffic, Revenue and Toll Feasibility Study considered the feasibility of constructing the US 71 Bella Vista Bypass using toll financing as an investment-grade toll study for the purpose of determining the potential toll financing feasibility of the project.
 - November 2004: Missouri voters approved Amendment 3 for the *Smoother, Safer, Sooner* program which allowed funding for the Missouri portion of the Bella Vista Bypass.
 - 2006: The Bella Vista Bypass is included in the MoDOT STIP.
 - April 2006: The Bella Vista Bypass Toll Study Update was initiated to update the findings of the 2004 Bella Vista Bypass Traffic, Revenue and Toll Feasibility Study.
 - September 2006: Retained Toll Facility Advisor, Financial Advisor, Toll Counsel, and Bond Counsel.
 - 2007: The Bella Vista Bypass is included in the AHTD 2007-2010 STIP as a toll facility and in the MoDOT STIP.
 - January 2007: Universal Field Services retained for right of way acquisition services.
 - September 2007: Received findings of Toll Facility Advisor and Financial Advisor regarding a funding shortfall with tolling, TIFIA, and existing Federal-aid being used.
 - 2008: The Bella Vista Bypass is included in the MoDOT STIP.
 - 2009: The Bella Vista Bypass is included in the MoDOT STIP.
 - February 2009: ARRA TIGER Discretionary Grant Program announced.
 - August 2009: TIFIA Letter of Interest submitted.
Arkansas Highway Commission and Missouri Highway Commission conduct joint meeting in Bella Vista to endorse the ARRA TIGER Discretionary Grant application.
Draft Bella Vista Bypass Traffic and Revenue Report Submitted (see at www.arkansashighways.com/BVB/Traffic_Revenue09.pdf).
 - September 2009: Final environmental documentation submitted to FHWA (see at www.arkansashighways.com/BVB/EIS_Reassessment09.pdf).
Submit TIGER Grant application.
 - January 2010: Notification of Grant Award by USDOT.
 - July 2010: Financing in place for toll facility in Arkansas; project let to contract in Arkansas and Missouri.
 - Mid to Late 2013: Project substantially complete and open to traffic.
 - 2048: Retire Financing Bonds (*tentative*).

X. SUMMARY

The TIGER Discretionary Grant Program under the American Recovery and Reinvestment Act of 2009 gives the state highway agencies of Arkansas and Missouri a unique opportunity to complete 18.9 miles Congressionally-designated High Priority Corridors 1 and 72 (Future I-49). This will allow for the Highway 71 Corridor from I-40 near Fort Smith, Arkansas to I-44 at Joplin, Missouri to be connected by an Interstate facility. The benefits of this connection are significant for the nation, by completing 129.6 miles of Future I-49. For the region, completion of the Bypass will reduce traffic along the existing route and provide needed congestion relief. Locally, the Bella Vista Bypass will provide faster, easier, and safer commuter access to jobs in northwest Arkansas by improving commuting and travel efficiencies. These improved efficiencies will allow low-income commuters in

rural Missouri and Arkansas to continue to live in rural communities and reduce the need to move closer to work.

The importance of the Bypass to the community can be demonstrated by the local interest of this project and the partnership that has developed between local entities and the two state highway agencies. Comments received from the Public Involvement Meeting held in August of 2009 showed the overwhelming support of over 350 attendees at these two meetings.

The Bella Vista Bypass is a “shovel ready” project. The Bypass has been in development for many years which has enabled the AHTD and MoDOT to fast-track this project through this process. A Record of Decision for the Bypass was issued in 2000, and all right of way has been purchased. Final environmental documentation addressing tolling as a funding mechanism is due to be submitted to FHWA in September 2009.

In 2003, Arkansas state legislation was passed to give the Arkansas Highway Commission authority to issue tolls and set toll rates. MoDOT has committed sufficient funds for their portion of the Bypass. The AHTD’s latest attempt to finance their portion of the facility occurred in September 2007. At that time the financial consultant determined that the project was not feasible with the financial plan that included tolling, TIFIA, and existing Federal-aid and State funding. An award from the ARRA TIGER Discretionary Grant Program would allow the AHTD to complete their financing package and move forward to construction. Once AHTD moves forward with construction, MoDOT will begin work on its 4.8 miles of the Bypass.

This application has a well developed analysis of the expected benefits and costs, including a calculation of net benefits and a description of input data and methodological standards used for this analysis. The Benefit Cost Analysis was performed in accordance with the Federal Register (Volume 74, Number 115) and Circulars A-4 and A-94.

Full funding of this ARRA TIGER Discretionary Grant Program will allow construction of an ITS network throughout the corridor and implementation of a hydroplane and spray resistant surface on the Arkansas portion of the Bypass. ARRA TIGER Discretionary Grant Program funds are also proposed to provide an innovative solution to meet key outcomes of the application regarding the encouragement of fuel efficiency and low vehicle emissions, and a cost savings for low income and elderly motorists. These funds are isolated in the application to allow for individual consideration. If adequate ARRA TIGER Discretionary Grant funds are not available for these items totaling \$13.4 million, the project could move forward, but without these innovative strategies.

As proposed, the ARRA TIGER Discretionary Grant funds will complete an overall financing package that includes toll revenues, toll revenue bonds, TIGER TIFIA Loan, Federal-aid and State highway funds from AHTD, and MoDOT funds.

CERTIFICATIONS

All certification statements necessary for ARRA TIGER Discretionary Grant Program funding may be found at <http://www.arkansashighways.com/ARRA/arra2009.aspx>.

Notice of Nondiscrimination

The Arkansas State Highway and Transportation Department (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibited discrimination in programs and activities receiving federal financial assistance. Therefore, the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to James B. Moore, Jr., Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: james.moore@arkansashighways.com. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

ARKANSAS STATE HIGHWAY COMMISSION

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CHAIRMAN
LITTLE ROCK

R. MADISON MURPHY
VICE CHAIRMAN
EL DORADO

JOHN ED REGENOLD
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DICK TRAMMEL
ROGERS

DAN FLOWERS
DIRECTOR OF
HIGHWAYS AND TRANSPORTATION

Pursuant to section 1606 of the American Recovery and Reinvestment Act of 2009 (Pub. L 111-5 (Feb. 17, 2009)) ("ARRA"), I, Dan Flowers, Director of Highways and Transportation for the State of Arkansas, hereby certify that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the federal government pursuant to the Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code, the Davis-Bacon Act.

I understand that the Arkansas State Highway and Transportation Department may not receive ARRA infrastructure investment funding unless this certification is made and posted.

A handwritten signature in cursive script that reads "Dan Flowers".

Dan Flowers
Director of Highways and Transportation

9-14-09

Date