

FY 2017/2018 INFRA GRANT APPLICATION

INTERSTATE 69 (MONTICELLO BYPASS – HIGHWAY 65)

FY 2017/2018 INFRA Grant Application

Project Name	Interstate 69 (Monticello Bypass – Highway 65)
Was a INFRA application for this project submitted previously?	Yes. This application has been updated to reflect new program objectives and necessary changes in project scope.
If yes, what was the name of the project in the previous application?	Interstate 69: Monticello Bypass – Highway 65
<i>Previously Incurred Project Cost</i>	\$37.66 million
<i>Future Eligible Project Cost</i>	\$81.70 million
Total Project Cost	\$119.36 million
INFRA Request	\$20.0 million
Total Federal Funding (including INFRA)	\$65.36 million
Are matching funds restricted to a specific project component? If so, which one.	No
Is the project or a portion of the project currently located on the National Highway Freight Network	Yes, upon completion of I-69
<ul style="list-style-type: none"> • Is the project or a portion of the project located on the National Highway System? • Does the project add capacity to the Interstate system? • Is the project in a national scenic area? 	<ul style="list-style-type: none"> • NHS – Yes • Interstate Capacity – Yes, upon completion of I-69 • Scenic – No
Do the project components include a railway-highway grade crossing or grade separation project?	No
Do the project components include an intermodal or freight rail project, or freight project within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	No
If answered yes to either of the two component questions above, how much of the requested INFRA funds will be spent on each of these project components?	N/A
State(s) in which project is located	Arkansas
Small or Large Project	Large
Urbanized Area in which project is located, if applicable	Not applicable
Population of Urbanized Area	Not applicable
Is the project currently programmed in the: <ul style="list-style-type: none"> • TIP • STIP • MPO Long Range Transportation Plan • State Long Range Transportation Plan • State Freight Plan 	<ul style="list-style-type: none"> • TIP – Not applicable • STIP – Yes • MPO LRTP – Not applicable • State LRTP – The Arkansas LRITP is not project specific. • SFP – Yes.
If selected, would you be interested in participating in a new environmental review and permitting approach?	<ul style="list-style-type: none"> • Yes

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APPENDICES¹

- Appendix A – Project Benefits
- Appendix B – Benefit-Cost Analysis Spreadsheet

¹ Supporting materials for this application are available at: <http://www.ardot.gov/INFRA/INFRA2017.aspx>.

I. PROJECT DESCRIPTION

Interstate 69 is a nationally significant corridor for the movement of freight throughout the United States. The corridor spans Texas, Louisiana, Arkansas, Mississippi, Tennessee, Kentucky, Indiana, and Michigan as shown in **Figure 1**. In addition to serving as a major trade corridor in the United States, Interstate 69 is part of High Priority Corridor 18, identified in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), connecting Laredo, Texas with Port Huron, Michigan.



INFRA grant funding will continue the development of the Delta Region's essential connection to the nation and the world.

Interstate 69 is important not only to the national economy but to the Delta region that has been economically depressed in recent decades. The proposed project (Project) will complete the construction of a portion of Interstate 69 known as the Monticello Bypass in Drew County Arkansas, and will complete the project development and construction along a portion of the corridor between Monticello and U.S. Highway 65, moving Arkansas one step closer to the goal of completing High Priority Corridor 18. **Figure 2** shows the 34.7-mile proposed Project within the greater Interstate 69 corridor in Arkansas.

Figure 2: Interstate 69 Corridor in Drew and Desha Counties, Arkansas



The ultimate completion of Interstate 69 will support and encourage multistate transportation development throughout the Delta region, forming vital social and economic connections to connect people to jobs, health care, and education. Completion of Interstate 69 will enhance quality of life; contribute to the regional economic growth and development, by connecting businesses to customers, goods to markets, and tourists to destinations. It will enhance the movement of commodities from the Delta region to urban areas where they are consumed, processed, or sent out of the state or country. When completed, the Project will support economic vitality at the national and regional level by:

1. Ensuring Good condition of Infrastructure to Support Commerce and Economic Growth

- According to the U.S. Department of Transportation, the national freight system now moves 55 million tons of goods, worth more than \$49 billion each day. Freight is expected to grow by 42 percent between 2013 and 2040.
- Due to the lack of high quality transcontinental freight corridors in this region, freight traffic generally traverses through highly congested and growing urban areas utilizing Interstates 30 and 40 that also experience high crash rates.
- As Interstate 69 becomes a reality, those states that do not have an adequate Interstate-type facility in place will suffer the consequences of additional freight bottlenecks. The existing facilities have not been designed to handle freight movement of this magnitude.

Completing Interstate 69 will allow the freight system to accommodate the growth, keep the existing freight system in a good service condition, and thus allow the nation to compete globally.

2. Advancing National and Regional Economic Development in Areas of Need

- As with many of the counties in the Delta region, Drew and Desha Counties are both considered to be economically depressed regions by the Delta Regional Authority. This designation is based on having either an unemployment rate one percent higher (7.2 percent) than the national average (6.2 percent) for the most recent 24-month period, or having a per capita income of 80 percent or less of the national per capita income.
- In 2015, Desha County recorded 30.9 percent of its population living at or below the poverty level. In the same period of time, Drew County reported 21.2 percent of its population living at or below the poverty level. By comparison, the poverty level for Arkansas was 18.7 percent of the population.
- With high unemployment rate and population living at or below the poverty level, life in the Delta is tremendously challenging. With limited economic opportunities, this region has been experiencing loss of population (31,517 in 2000 to 30,527 in 2016).
- Improving transportation infrastructure is one of the key investment strategies for this region to improve economic condition and quality of life. Other initiatives the region has been pursuing include growing small businesses, developing workforce, improving health services, cultivating innovative partnerships, and promoting tourism and cultural economy. Advancing the Project would provide better access to jobs and human and health services as well as support a better economic environment. The multifaceted investment strategy is aimed to encourage population retention and growth in southern Arkansas.

In addition to supporting national and regional economic vitality, the Project will meet other key objectives of the U.S. Department of Transportation (USDOT) by:

1. Leveraging Federal funds with non-Federal funds.

- Under the proposed funding matrix, approximately \$16.3 million of future eligible project costs would be accounted for by non-Federal funds, accounting for 20 percent of the total future eligible project cost.

2. Utilizing innovative approaches to project delivery and safety.

- Although a portion of the Project is shovel-ready, the portion from Monticello to U.S. Highway 65 is under development. Therefore, opportunity exists for incorporating innovative environmental review and permitting into this Project such as eNEPA.

Project History

The earliest efforts to provide an Interstate-type facility through the Mississippi Delta began with the Intermodal Surface Transportation Act of 1991 that designated Corridor 18 from Indianapolis

to Memphis and Corridor 20 from Laredo, Texas to Texarkana, Arkansas. In 1995, the National Highway Designation Act extended Corridor 19 to the Lower Rio Grande Valley by way of Mississippi and Arkansas. Finally, the Transportation Equity Act for the 21st Century (TEA-21) combined Corridors 18 and 20, added connections to Chicago, Illinois and Pine Bluff, Arkansas, and officially designated the route as Interstate 69 as shown in **Figure 1**.

As of 2009, the total length of Interstate 69, including all proposed connectors and the existing route in Indiana and Michigan, was approximately 2,730 miles with an estimated cost to complete between \$28 and \$30 billion. Every state where Interstate 69 passes through has portions completed except for Arkansas, where four Segments of Independent Utility (SIU) have been identified:

- SIU 12 from the Mississippi River to Highway 65;
- SIU 13 from Highway 65 to Highway 82 west of El Dorado;
- SIU 14 from Highway 82 west of El Dorado to the Louisiana State Line; and
- SIU 28 from Interstate 530 in Pine Bluff to the Monticello Bypass/SIU 13.

The cost to complete all four of the Arkansas segments is estimated to be \$3.6 billion. To date, \$2.8 million has been expended for location and environmental studies on SIU 13, where the Project is located, leading to a preferred alignment and Record of Decision on May 2, 2006. Portions of the Monticello Bypass have been let to contract for a total of \$37.66 million to construct two-lanes of an ultimate four-lane facility.

The Infrastructure for Rebuilding America (INFRA) funds requested herein, combined with State matching funds and other Federal-aid funding, will allow completion of the Monticello Bypass and begin project development activities that include design, right-of-way acquisition, and construction of the segment between Monticello and U.S. Highway 65.

The Arkansas Department of Transportation's (ARDOT) commitment to the completion of Interstate 69 is shown in the 2016-2020 Statewide Transportation Improvement Program (STIP), which includes funding for completion of the Monticello Bypass (Jobs 020470/020611) and for project development for the segment between Monticello and U.S. Highway 65 (Job 020678) using \$45.36 million in Federal-aid highway funds with a state match of \$11.34 million for a total commitment of \$56.7 million. If fully funded through this application, the STIP will be amended to reflect an additional \$25 million including \$20 million in INFRA funding.

II. PROJECT LOCATION

This Project is located in the southeast corner of the State of Arkansas in Drew and Desha Counties. The segments of the Interstate 69 corridor for which funding is being requested begins at the intersection of the Interstate 69 corridor and Highway 278 west of Monticello, Arkansas (33°36'43.65"N, 91°58'32.51"W) and continues to the intersection with U.S. Highway 65 in Desha County (33°40'39.30"N, 91°25'38.05"W) as shown in **Figure 3**.

Figure 3: Interstate 69 Corridor (Monticello to U.S. Highway 65)



III. PROJECT PARTIES

The Arkansas Department of Transportation is the Project sponsor and would be the grant recipient.

IV. GRANT FUNDS, SOURCES, and USES OF ALL PROJECT FUNDING

The proposed funding matrix for the Project is shown in **Table 1**, which identifies the sources and categories of funds anticipated to be used for the Project: under construction, committed, and for which funding is requested. As the designated recipient for Federal-aid funding, ARDOT is confident in the stability and reliability of the Federal-aid funds committed to these improvements. The State matching funds for the Federal-aid funds committed to this corridor and the requested grant funds will be derived from the state motor fuels tax revenues. This funding source is considered stable and reliable.

Table 1: Sources and Uses of Funds (x \$1,000)

Monticello Bypass and Interstate 69 Development and Construction	Cost Estimate (x \$1,000)	Federal-aid Funding		State Match
		Non-INFRA	INFRA	
Under Construction				
Job 020471: Highway 425 – Highway 278 East (Grading and Structures)	\$19,843	\$15,874		\$3,969
Job 020484: Highway 425 – Highway 278 East (Base and Surfacing)	\$17,817	\$14,254		\$3,563
TOTAL PREVIOUSLY INCURRED COST	\$37,660	\$30,128		\$7,532
Funding Request				
I-69 Project Development and Construction (Proposed INFRA)	\$81,700	\$45,360	\$20,000	\$16,340
<u>Committed in 2016-2020 STIP</u> <ul style="list-style-type: none"> • <i>Jobs 020470/020611</i> <i>Highway 278 West – Highway 425 (construction)</i> • <i>Job 020678</i> <i>Highway 278 - Highway 65 (PE and ROW purchase only)</i> 	\$56,700	\$45,360		\$11,340
TOTAL FUTURE CORRIDOR FUNDING	\$81,700	\$45,360	\$20,000	\$16,340
		\$65,360 (80%)		\$16,340 (20%)

If INFRA funds are awarded, the total future Federal-aid funding for the Project will be \$65.36 million or 80 percent of the total future project. The non-Federal-aid (State) portion of the Project funding will be \$16.34 million or 20 percent of the Project. If this grant request is not awarded, the development of the proposed Interstate 69 in Arkansas will be delayed, which will lead to an increase in construction cost due to inflation.

ARDOT is the designated recipient of nearly \$550 million from Federal-aid programs each year and has significant experience in managing Federal grants. ARDOT is fully compliant with the financial planning provisions of 23 U.S.C. § 135 and has adopted the fiscally-constrained, STIP.

Funds allocated to Jobs 020470/020611 were received through a Congressional earmark and as such are not subject to lapses in obligation deadlines. Job 020678 is currently funded with National Highway Freight Program funds and matched with state motor fuels tax revenues. Again, this funding source is considered stable and reliable.

V. MERIT CRITERIA

As discussed below, the Project satisfies each of USDOT's key objectives: supporting economic vitality, leveraging Federal funding, utilizing innovative approaches, and achieving accountability.

A. SUPPORTING ECONOMIC VITALITY

The Project is expected to generate significant benefits to the region and the nation, including:

- Ensuring good condition of infrastructure to support commerce and economic growth, and
- Advancing national and regional economic development in areas of need.

Each of these points is discussed at length below.

1. Economic Outcomes

In the course of developing the Arkansas State Freight Plan (SFP), freight data from the American Transportation Research Institute (ATRI), Transearch, and the U.S. Census Bureau were analyzed. This data indicates that Arkansas' economy is heavily dependent upon freight, both for the movement of raw goods to manufacturers and processors and for the delivery of finished goods to market. Sectors of the economy that are most dependent upon freight are depicted in **Figure 4** and **Figure 5**.

This Project will have a positive impact on both the immediate region and the nation as a whole. It is estimated that the short-term impact of the construction spending will lead to an additional 2,527 jobs. In the long term, the Project will increase the overall competitiveness of the region, translating into an additional 125 jobs, \$5.9 million in labor income, and \$17.7 million in Gross State Product (GSP), annually. Across Arkansas, movement of freight is a critical component to the economy. Of the total \$119 billion in economic output, 43 percent or \$51 billion is dependent on freight movement.

Likewise, nearly 781,000 jobs or half of the total employment in Arkansas is dependent on freight movement either as a resource for manufacturing or for delivery of finished goods for retail sales. Of course, agriculture is very heavily dependent on freight movement as both a sector of the economy as well as a major employer with over 259,000 jobs attributed to it.

More than 40 percent of Arkansas' total economic output depends either directly or indirectly on freight, as well as nearly half of all employment. Agriculture and manufacturing, in particular, make significant contributions to Arkansas' economy. Without a safe and efficient system of Interstate highways such as Interstate 69, Arkansas would not be able to compete in national and international markets. As illustrated in **Figure 6**, Arkansas' top trading partners include Texas, Missouri, Tennessee and Louisiana.

Figure 4: Freight Contribution to Productivity in Arkansas

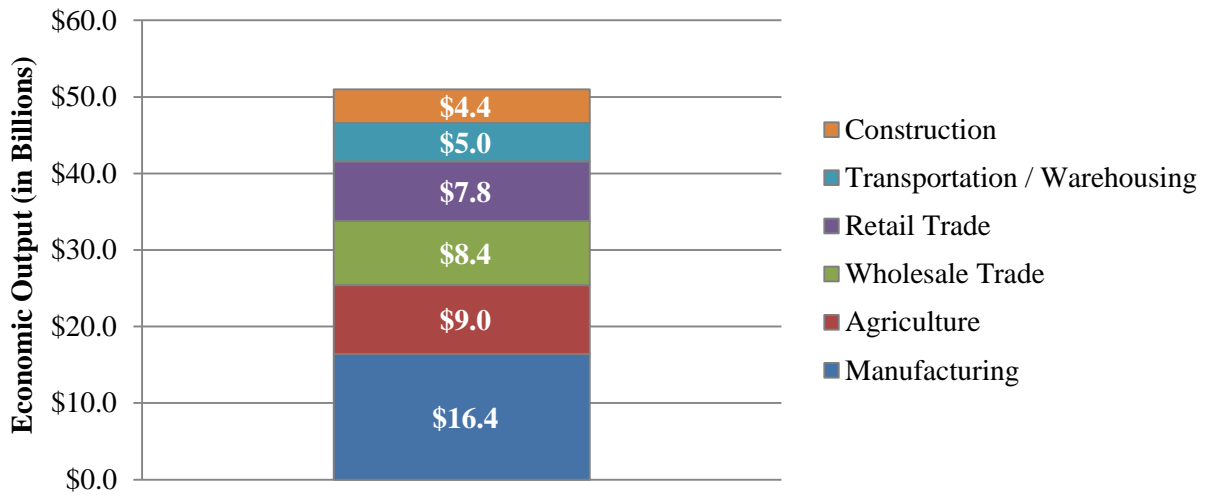
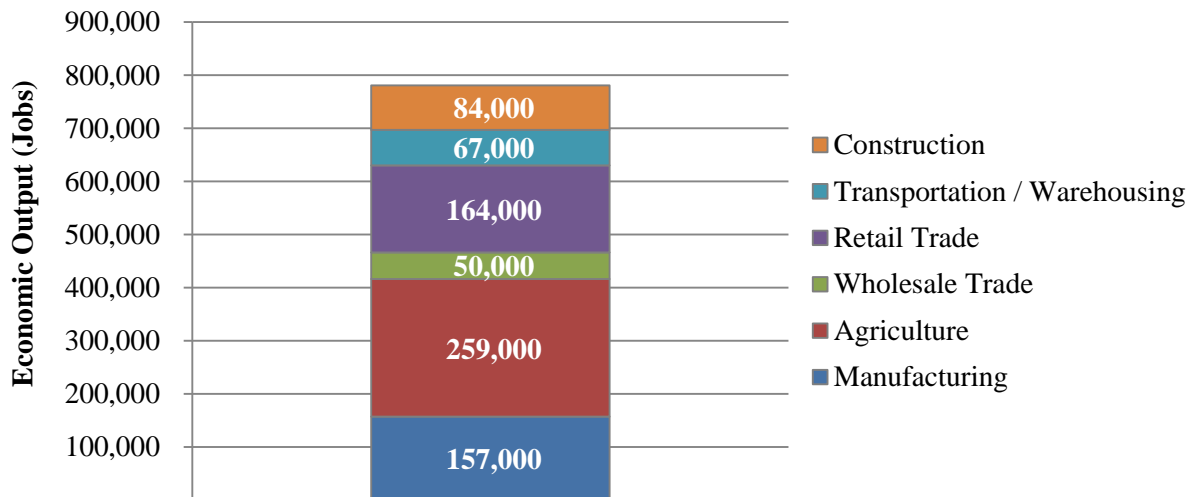


Figure 5: Freight Contribution to Employment in Arkansas



Over the past 20 years, there has been a steady increase in international shipments with both Mexico and Canada. The annual average increase in the value of shipments to Mexico and Canada is 5.1 percent, illustrated in **Figure 7**. Freight traffic forecasts indicate the tonnage of freight shipped to, from, and within Arkansas will nearly double between 2012 and 2040 from 299 million tons to over 439 million tons. This will result in additional commercial vehicles on the system, additional employees to handle the freight, and additional passenger traffic associated with the employees, their families, and the goods and services they require.

The Interstate 69 ultimately realized by projects like this will yield significant economic benefits to the region and the nation by improving transportation options for freight movements across all of North America. Likewise, investments in this region help to enhance the local and regional economy by direct and indirect economic impacts related to construction.

Figure 6: Trading Partners by Truck Tonnage

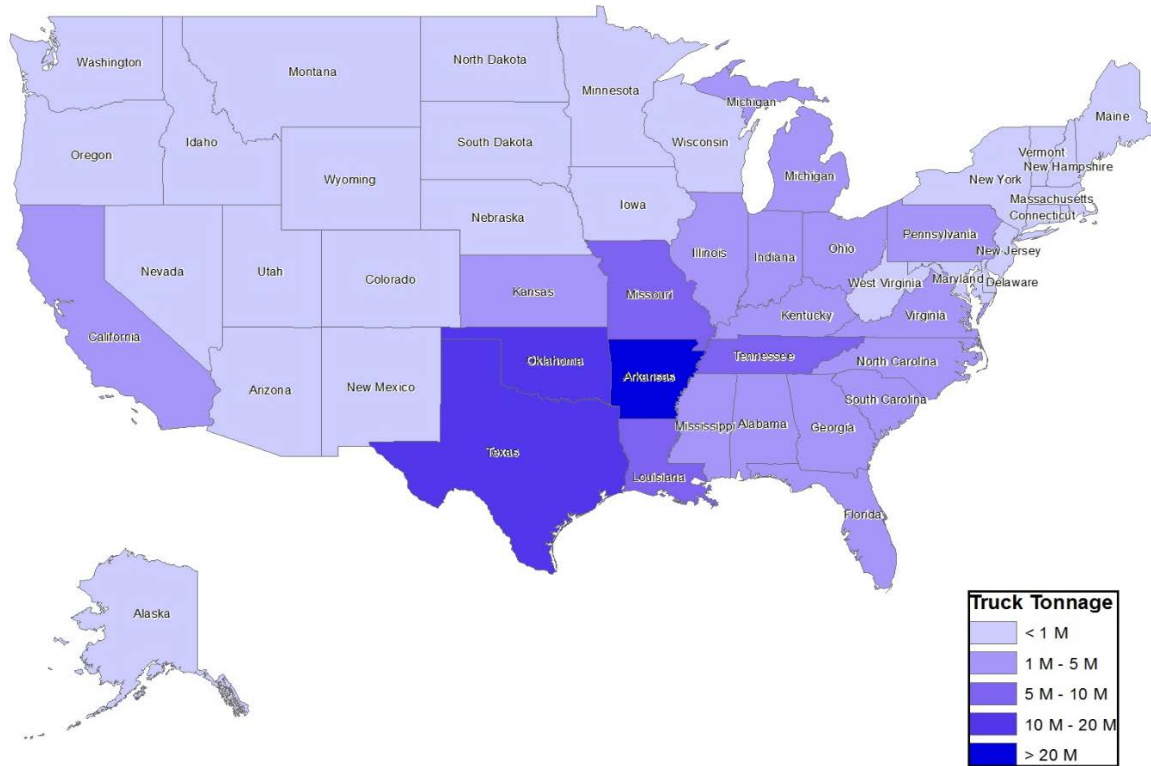
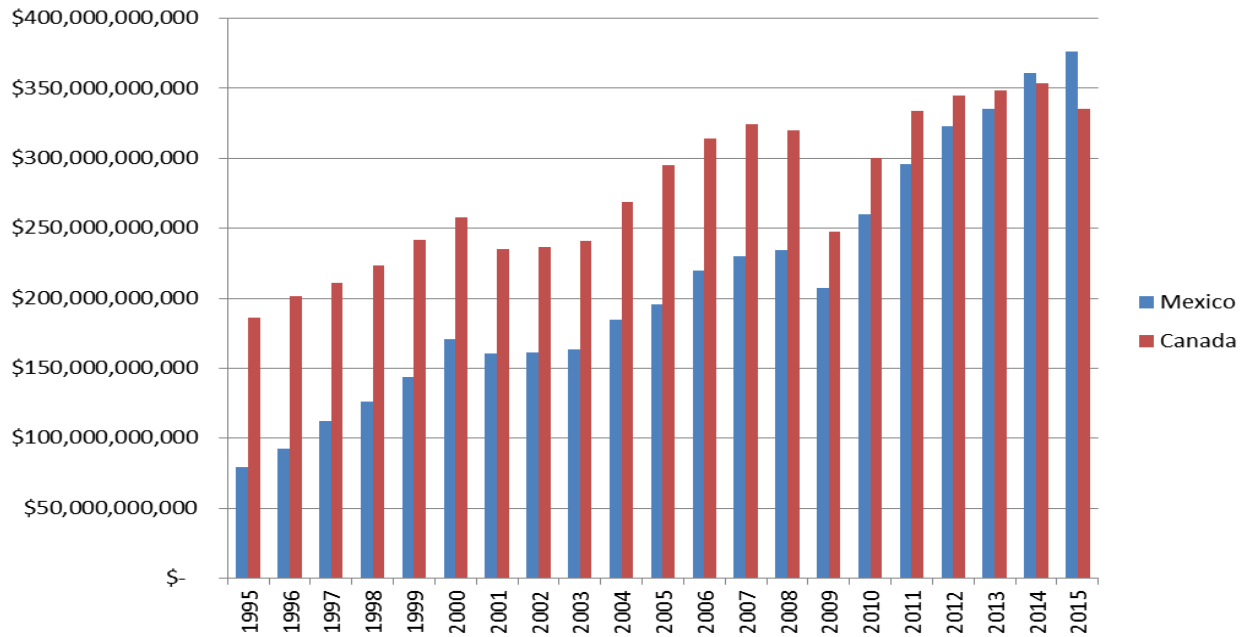


Figure 7: U.S. Trade with Canada and Mexico



Source: http://transborder.bts.gov/programs/international/transborder/TBDR_QA.html

2. Safety Outcomes

The safety performance of Interstate 69 is expected to be better than the existing parallel Interstate freight corridor of I-30 and I-40 in Arkansas (Texarkana to West Memphis). Recent five years of crash data (2011-2015) show that this existing 274-mile corridor experienced a crash rate of 0.61 crashes per million vehicle miles (mvm). This existing corridor also experienced a fatal plus serious injury rate of 4.03 crashes per 100 million vehicle miles (100mvm) over the same time period. These rates are about 45 percent and 15 percent higher, respectively, than the average crash rates for rural freeways in Arkansas – which would be comparable to Interstate 69 (0.42 crashes per mvm and 3.56 crashes per 100mvm, respectively) over the same time period.

The relatively high crash rates along the existing I-30/I-40 corridor in Arkansas can be attributed to several factors.

- The existing I-30/I-40 corridor travels through three urbanized areas in Arkansas - Texarkana, Little Rock-North Little Rock, and West Memphis - which contributes to the high number of total crashes.
- The large number of trucks in the existing corridor results in the need for frequent system preservation projects to maintain the pavement in an acceptable state of good repair, resulting in increased crashes. For instance, there was a major construction work zone between Little Rock and West Memphis in this time period, which resulted in a higher number of crashes than in previous years. This construction activity involved reconstruction of existing pavement which, without an adequate alternative route for freight traffic, resulted in a number of rear-end collisions due to congestion as a consequence of the lane reductions.
- The large number of trucks in this existing corridor helped contribute to the high number of fatal and serious injury crashes. Of the 164 fatal crashes in this corridor from 2011 through 2015, 88 (51 percent) involved a large truck. A large truck collision with a passenger car at freeway speeds increases the likelihood of a fatal or serious injury crash.

Interstate 69, when completed, will provide a safer facility for not only freight movements but passenger vehicles as well. It bypasses urbanized areas that typically have higher traffic volumes and more interchanges, which lead to greater conflicts and decision points and thus higher risks of crashes

3. Mobility Outcomes

Based on the proposed alignment of the Interstate 69 corridor versus the use of existing routes, travelers along the entire length of the Interstate 69 corridor will realize nearly a 25 percent reduction in travel time, or nearly one day when traveling between Laredo, Texas and Port Huron, Michigan. The total mileage along the Interstate 69 corridor is approximately 1,660 miles, the average speed along the corridor is 65 miles per hour, and travel time along the entire route is expected to be 26 hours. The average speed along the existing highways is 54 miles per hour with approximately 1,900 miles which puts the travel time around 35 hours. **Table 2** details

the expected time savings with the three different southern termini for the entire Interstate 69 corridor.

Table 2: Travel Time (in hours): Existing Routes vs. Interstate 69 Proposed Corridor

Location	Google Search ⁽¹⁾	Proposed Corridor ⁽²⁾	Time Saved
Brownsville, TX to Port Huron, MI	34	27	7
Laredo, TX to Port Huron, MI	35	27	8
McAllen, TX to Port Huron, MI	35	28	7

(1) Google Search is taken from Google Maps on existing highways.

(2) Proposed Corridor defined by The National Interstate 69 Steering Committee Study.

U.S. goods and services trade with Canada totaled an estimated \$627.8 billion in 2016, up from \$409.7 billion in 2000. According to the Department of Commerce, U.S. exports of goods and services to Canada supported an estimated 1.6 million jobs in 2015. Mexico is currently the third largest trading partner with the U.S. In 2000, the total number of exports and imports was \$247.2 billion. In 2016, U.S.-Mexico trade grew to \$579.7 billion. With Interstate 69, trade will be easier between the border countries. Interstate 69 from Indianapolis to Port Huron, Michigan and Laredo, Texas and the Lower Rio Grande Valley will establish an international trade route to serve these and other important economic functions.

Population is a factor in the growth of freight transportation as well as total transportation. Freight ton-miles in the U.S. have grown faster than the U.S. population. From 1970 to 2002, U.S. per capita ton-miles grew 23 percent, from nearly 11,000 to 14,000. Looking ahead, the Nation's freight tonnage is projected to increase nearly 70 percent by 2020 (USDOT-FAF, FHWA 2003). General cargo tonnage is projected to more than double, and some gateways may see a tripling in freight volumes between 1998 and 2020. As the demand for freight transportation grows, so will its overall contribution to the nation's economy. The expected growth in freight movements will result in increased congestion and environmental challenges.

It is projected that Interstate 69, once complete, will carry 52 percent of U.S. truck-borne trade with Mexico and 33 percent of truck-borne trade with Canada. The efficiency along the corridor will enable products to be shipped in a timely manner.

Although the Project is on new location, previous analyses for innovative financing have estimated the traffic volumes along this segment of Interstate 69. The traffic volumes for 2040 and the accompanying forecast Levels of Service (LOS) are shown in **Table 3**. These figures reflect traffic that will be diverted from the congested Interstate 30 and 40 corridors in Arkansas if the Project is funded and constructed. Upon completion of the entire corridor, these diversions from congested urban areas will improve the travel time reliability of cross-country freight movements.

Locally, construction of this portion of Interstate 69 will remove heavy vehicle traffic through Monticello, which creates local congestion, safety, and accessibility issues. Regionally, it will reduce congestion, delay, and indirection for through movements along two-lane rural roads. These improvements will enhance safety and increase transportation reliability in the Delta.

**Table 3: Summary of Preliminary Analysis
2040 Non-Tolled Traffic Volumes and Projected LOS**

Segment of Independent Utility	Existing Facility	Preliminary 2040 Traffic (AADT)	2040 LOS
12 – Highway 82 (El Dorado) – Highway 65 (McGehee)	New Location	9,000	A

Source: Interstate 69 Innovative Financing Study – Final Findings

4. Other Outcomes

This Project enhances personal and freight mobility while minimizing adverse effects on the built and natural environment.

5. Cost Effectiveness

A detailed benefit-cost analysis (BCA) was conducted for the Project in accordance with *Benefit-Cost Analysis Guidance for TIGER and INFRA Applications* and related guidance. Detailed technical documentation supporting the BCA is included as *Appendix A* and *Appendix B*.

The benefits of the Project are expected to derive from travel time savings, safety improvements, reduction in vehicle operating costs, emissions reductions, maintenance savings, and the residual value of new structures. **Table 4** summarizes the findings of the Benefit Cost Analysis which yields a robust Benefit Cost Ratio of 4.0 for current year and between 2.4 and 3.1 (assuming discount ratios of seven percent and three percent, respectively).

Table 4: Summary of Benefit Cost Analysis

Benefits	2016\$	7% discount	3% discount
Reduction in Value of Time Costs	\$799,407,474	\$363,440,414	\$556,135,327
Reduction in Non-Fuel Vehicle Operating Costs	\$3,317,586	\$1,732,838	\$2,468,619
Reduction in Fuel Vehicle Operating Costs	\$2,716,527	\$1,418,893	\$2,021,370
Reduction in Safety Costs	\$1,619,817	\$846,061	\$1,205,307
Reduction in Emissions Costs	\$2,076,006	\$1,076,203	\$1,539,372
Reduction in Repair Costs	\$2,271,908	\$1,186,660	\$1,690,529
Total Benefits	\$811,409,317	\$369,701,068	\$565,060,524
Costs			
Construction Costs	\$194,360,000	\$153,817,378	\$175,353,215
Maintenance and Operations Costs	\$7,254,071	\$2,813,486	\$4,717,374
Total Costs	\$201,614,071	\$156,630,865	\$180,171,589
Benefits vs. Costs			
Net Benefits	\$609,795,247	\$213,070,203	\$384,989,935
Benefit-Cost Ratio	4.0	2.4	3.1

The Interstate 69 Corridor Project (Monticello Bypass – Highway 65) is estimated to provide significant benefit to the State of Arkansas as well as the nation as a whole. The construction of the Monticello Bypass as the next step in the Interstate 69 corridor in Arkansas will facilitate trade and lead to over 435,000 fewer hours of travel for trucks in 2040. Improved mobility and reliability resulting from the Project will support reduced air pollution and ensure the region and the state’s economy grows bigger and faster. The Gross State Product (GSP), a measure of the size of the state’s economy, is projected to grow by about \$17 million more per year with the Project than without it. The expansion in GSP translates into an additional 125 permanent jobs per year and nearly \$6 million in additional personal income per year for residents throughout the State.

It should be noted that **Table 1** refers to the total future corridor funding (\$81.7 million) for construction of the first two lanes of an ultimate four-lane facility. For the Benefit Cost Analysis the total investment included construction of the improvements as a four-lane cross-section to determine total savings and benefits. A total construction cost estimate of nearly \$200 million was used to adequately account for the construction of the Monticello Bypass.

B. LEVERAGING FEDERAL FUNDING

1. Cost Sharing

If the proposed INFRA award is received, approximately 20% of future eligible Project costs will be financed by State funds, and approximately 80% of future eligible Project costs will be financed by Federal funds.

2. Accounting for Life-Cycle Costs

ARDOT is committed to sound financial planning for operations and maintenance activities on the entire system. As illustrated by the significant investments in the I-69 corridor over the years and other investments in the transportation system, ARDOT recognizes the need to proactively invest in its assets. Additionally, ARDOT is in the process of developing a Transportation Asset Management Plan (TAMP) to provide strategic direction for operating and maintaining the State’s multimodal infrastructure.

C. INNOVATION

1. Environmental Review and Permitting

Although a portion of the Project is shovel-ready, the portion from Monticello to U.S. Highway 65 is under development. Therefore, opportunity exists for incorporating innovative environmental review and permitting into this Project such as eNEPA.

2. Use of Experimental Delivery Authorities

This Project will be contracted using A+C bidding, which is a method of rewarding a contractor for completing a project as quickly as possible. By providing a cost for each working day, the contract

combines the cost to perform the work (A component) with the cost of the impact to the public (C component) to provide the lowest cost to the public. A+C bidding had been proven to be effective in minimizing impacts to the traveling public due to a section of roadway being under construction for an extended period of time.

3. Safety and Technology

ARDOT intends to deploy a suite of tools to maintain a safe work zone and keep the public informed about traffic conditions in the project area during construction. The ARDOT traveler information portal – www.IDriveArkansas.com – will be used in combination with aggressive public outreach to inform motorists of construction progress.

D. PERFORMANCE AND ACCOUNTABILITY

ARDOT is proposing to condition INFRA funding as follows: ARDOT plans to obligate INFRA funds in 2018 for I-69 development and complete a portion of the Monticello Bypass by 2023. If construction is not completed by the end of 2023, ARDOT will charge disincentives to the contractor.

VI. PROJECT READINESS

Within Arkansas, the Interstate 69 Corridor has received a Record of Decision (ROD) for both segments of independent utility within the State (**Table 5**). This indicates environmental handling is proceeding as planned and scheduled.

Table 5: Environmental Clearance Status

Corridor Segment	Date	Environmental Clearance Status
SIU 14: Louisiana State Line to Highway 82	April 2012	Record of Decision Approved
SIU 13: Highway 82 to Highway 65 (McGehee)	May 2006	Record of Decision Approved

In the time since the RODs were issued, there have been few changes within the project corridor segments in terms of population, employment, or other demographic factors. However, appropriate efforts will be taken to ensure these documents are still pertinent. There are no anticipated or expected delays impacting the ability to let to contract the proposed corridor projects. There are no legislative actions required to proceed with these improvements. Construction projects will be let to contract when construction funding commitments can be met.

Interstate 69 and the Monticello Bypass

Location and environmental studies for the El Dorado, Arkansas and McGehee, Arkansas segment of Interstate 69 are complete. The Draft EIS, which evaluated five alternative

alignments within a 2-mile wide “preferred corridor”, was signed in May 2004. Location Public Hearings were held in June 2004. In August 2004, ARDOT’s Interdisciplinary Staff selected the preferred alignment, to be located south of Monticello, Arkansas. The Final EIS was approved by FHWA in August 2005 and a ROD was issued in May 2006.

In September 2011, a contract was awarded to construct the grading and structures for the Monticello Bypass from Highway 425 to Highway 278 East, a distance of 8.5 miles. In August, 2017, a second contact was awarded to provide the base and surfacing of the Monticello Bypass along this same segment. These two contracts will complete two lanes of the ultimate four-lane facility. Plan development is also underway for the section from Highway 278 West to Highway 425, including a connection to the Interstate 69 Connector near Wilmar. This section will also construct two lanes of the ultimate four-lane facility. This work is included in the 2016-2020 Statewide Transportation Improvement Program.

A. TECHNICAL FEASIBILITY

Technical feasibility of the Project is demonstrated by the following table. The major phases of project development are shown with their completion status at the time of this application.

Table 6: Technical Feasibility

Job Number	Job Name	Design Survey	Roadway Design	Environmental	Right of Way	Utilities
020470/020611	Hwy. 278 West – Hwy. 425	100%	50%	90%	20%	45%
020678	I-69 Corridor Development and Construction (Phase I) (Proposed INFRA)	10%	5%	75%	0%	0%

B. PROJECT SCHEDULE

A schedule of the various milestones for the proposed Project segments is provided in **Figure 8**. The Project will be ready for obligation when INFRA awards are announced in 2018. Matching funds are available from the dedicated motor fuel tax revenues. If full funding is received, these dates will be accelerated to ensure that all INFRA funds are obligated well in advance of September 2021. Property and right-of-way acquisition activities are being performed in accordance with 49 CFR Part 24 and other applicable legal requirements.

Figure 8: Project Schedule (Jobs 020470, 020611, and 020678)

Activity	Before	2017				2018				2019				2020				2021				2022				2023			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
State and Local Planning Approvals	Complete																												
Surveys																													
Environmental and Permitting																													
Design																													
Right-of-Way Acquisition																													
Utility Relocation																													
Obligation of INFRA Funds																													
Construction																													

C. REQUIRED APPROVALS AND PUBLIC INVOLVEMENT

The majority of environmental handling has been completed for Jobs 020478/020611 construction project as shown in **Table 6**. Public Hearings were held for the western half of the Monticello Bypass in 2015 and for the eastern half in 2009. No additional environmental handling is required for construction of the western portion of the Monticello Bypass. However, normal permitting activities are anticipated as a part of project delivery. Project development activities for the segment from Monticello to the east will include project-specific public hearings as right-of-way and construction plans are prepared as well as all necessary permitting activities.

The Arkansas State Long Range Intermodal Transportation Plan (LRITP) has been adopted, and while the LRITP does address freight needs, that plan is not project specific. The Arkansas SFP has also been adopted. The SFP identifies freight needs for all modes, as well high-priority freight projects. Construction of I-69 is among the high priority highway projects in the SFP, and the SFP identifies NHFP funds as a possible funding source for this Project.

D. ASSESSMENT OF PROJECT RISKS AND MITIGATION STRATEGIES

Risk management is an on-going activity with all projects. There are risks with NOT moving forward with the proposed projects, as displayed in **Table 7**.

Table 7: Risk Register

Functional Area	Potential Risks	Scope (Impact/Likelihood)	Schedule (Impact/Likelihood)	Estimate (Impact/Likelihood)	Overall Risk (High, Med, Low)	Outcomes and Mitigation Activities
Construction Impacts						
Planning, Environmental, and Permitting	No Permitting anticipated	Low/Low	Medium/Medium	Low/Low	Medium	Update environmental documentation, as needed.
Roadway Design	N/A	N/A	N/A	N/A	N/A	N/A
Bridge Design	N/A	N/A	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A	N/A	N/A
Other Project Impacts						
Right of Way	N/A	N/A	N/A	N/A	N/A	N/A
Utilities	N/A	N/A	N/A	N/A	N/A	N/A
Railroad	N/A	N/A	N/A	N/A	N/A	N/A
Other (Funding Availability and Inflation)	Directly related to funding availability	High/High	High/High	Medium/High	High	Pursue all opportunities to secure funding of improvements.

VII. LARGE/SMALL PROJECT REQUIREMENTS

The Project satisfies each of the requirements for eligibility as a large project, as summarized below and discussed at length elsewhere.

1. Does the project generate national or regional economic, mobility or safety benefits?

Yes. By continuing investments to complete this critical corridor there will be economic benefits related to reduced transportation costs for manufacturers and shippers as well as improved mobility for other road users. See Section V for more information.

2. Is the project cost effective?

Yes. The benefit-cost ratio for the Project in current dollars is 4.0. Using a seven percent discount rate, the benefit-cost ratio is 2.4 and 3.1 using a three percent discount rate. For more information, see Section V and Appendices A and B.

3. Does the project contribute to one or more of the Goals listed under 23 USC 150?

Yes. The Project will help prevent congestion and will improve safety along parallel routes as referenced in Section V. Implementation of the Project will improve freight movement not only in the region and state but also within the nation. Subsequently, there will be an increase in the economic vitality of the region.

The implementation of the Project will also improve the reliability of the whole system by providing a more direct, safer, and less congested route than is in place. Finally, an INFRA grant will allow the timely and coordinated implementation of the Project, reducing project delivery delays. Specifically, the Project will:

- Improve **freight movement** and promote **economic vitality** by preventing congestion along a busy freight corridor; and
- Expedite **project delivery** by using A+C bidding.

4. Is the project based on the results of preliminary engineering?

Yes. The environmental review process is complete. The Federal Highway Administration issued a Record of Decision for these projects through SIUs 13 and 14. For more information, see Section VI.

5a. With respect to non-federal financial commitments, does the project have one or more stable and dependable funding sources to construct, maintain, and operate the project?

In addition to the requested Federal funds, the Project will also be funded with non-Federal funds originating primarily from the state motor fuel tax revenues. This is a stable and dependable funding source that is used to match Federal-aid and to maintain our transportation system. For more information, see Section IV.

5b. Are contingency amounts available to cover unanticipated cost increases?

Yes. Appropriate contingency amounts are included in line item budget figures in lieu of a separate cost classification.

6. Is it the case that the project cannot be easily and efficiently completed without other federal funding or financial assistance available to the project sponsor?

Yes. In the event this grant request is not fully funded, these improvements cannot be completed in a timely manner. This will cause an increase in road-user costs related to delayed safety improvements, congestion reduction, and wear and tear on vehicles. It will also result in the anticipated economic benefits being delayed.

7. Is the project reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project?

Yes. The Project referenced in this application is included in the STIP. Construction for a portion of the Project will commence within 18 months after the obligation of funds in 2018. For more information, see Section VI.B.