Department of Transportation's National Infrastructure Investments under the Consolidated Appropriations Act, 2015

#### **TIGER VII Discretionary Grant Program**

## **Notice of Revision**

The following application has been revised:

Project Name: <u>Highway 265 Widening and Relocation</u>
Randall Wobbe Lane to Highway 264

Project Location: Springdale and Bethel Heights, Arkansas
Washington and Benton Counties
Unites States Congressional District 3

Location Type: **<u>Urban</u>** 

**Revision types:** Cost & Description

**Reason for revision:** The design for the proposed roadway realignment was revised after the pre-app was submitted. This revision resulted in a cost change and description change.

	Pre-app Amount	<b>Corrected Amount</b>
Total Funds Requested:	20,240,000	<b>\$16,600,000</b>
Other Federal Funds:		<u>\$3,000,000</u>
State/Local Match:	5,060,000	<u>\$4,900,000</u>
Total Project Cost:	25,300,000	<b>\$24,500,000</b>

<u>Pre-App Project Description:</u> A project to improve and extend Arkansas Highway 265 from Randall Wobbe Road to Highway 264 in Northwest Arkansas near Springdale. The project includes 0.45 miles of new four-lanes with painted median roads, 1.58 miles of new urban curb and gutter, 7,096 square feet of box culvert structures, 1.58 miles of four-foot bike lanes, and 0.28 miles for the Randall Wobbe connection.

**Revised Project Description:** A project to improve and extend Arkansas Highway 265 from Randall Wobbe Road to Highway 264 in Northwest Arkansas near Springdale. The project includes 0.45 miles of new four-lanes with painted median roads, **1.825** miles of new urban curb and gutter, 7,096 square feet of box culvert structures, **1.825** miles of four-foot bike lanes, and 0.28 miles for the Randall Wobbe connection.

Department of Transportation's National Infrastructure Investments under the Consolidated Appropriations Act, 2015

#### **TIGER VII Discretionary Grant Program**

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Project Location: Springdale and Bethel Heights, Arkansas
Washington and Benton Counties
Unites States Congressional District 3

Location Type: **<u>Urban</u>** 

Total Funds Requested: \$16,600,000

Other Federal Funds: \$3,000,000

State/Local Match: \$4,900,000

Total Project Cost: **\$24,500,000** 



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June 2015

Department of Transportation's National Infrastructure Investments under the Consolidated Appropriations Act, 2015

TIGER VII Discretionary Grant Program

# Highway 265 Widening and Relocation Randall Wobbe Lane to Highway 264

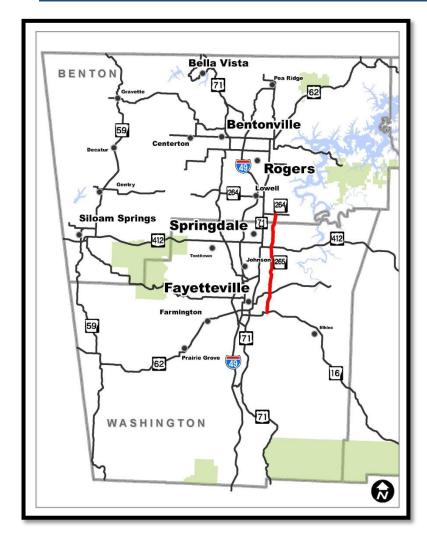
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## **Project**

### **Project Description**

The Arkansas State Highway and Transportation Department (AHTD) is requesting funds to widen and relocate 2.28 miles of Highway 265 from Randall Wobbe Lane in Springdale to north of Highway 264 in Bethel Heights. The project is located in Washington and Benton counties in northwest Arkansas. AHTD is requesting \$16.6 million in TIGER funds for this project. The Northwest Arkansas Regional Planning Commission (NWARPC), the Metropolitan Planning Organization (MPO) for this area, has dedicated \$3.75 million, and the balance will be paid for with State funds. Continued growth and development in the region is generating an additional demand for north-south arterial facilities. The project need is based on high traffic volumes along Highway 265. The major objective of the project is to provide additional capacity to serve traffic needs in the region, create opportunities for utilization of public transportation, and safe bicycle and pedestrian facilities.





#### Overview

Although not one of Arkansas' original state highways, the path that Highway 265 follows is one of the State's oldest. Originally a Native American trace named the Great Osage Trail, the route was first used as a military road from St. Louis to Fort Smith, and later as the Trail of Tears. The Butterfield Overland Mail Route was active from 1857 to 1861 on the route. The route carried United States mail from St. Louis, Missouri to San Francisco, California. This same route also carried telegraph lines west. Portions of the route are named Old Wire Road (also Old Missouri Road in Fayetteville) paying homage to the telegraph route.

Today, Highway 265 is one of three north-south principal arterials connecting Bethel Heights in Benton county, and Fayetteville in Washington County. Highway 265

is an important route, but it currently ends at State Highway 264 in Bethel Heights. Other north-south arterials are Interstate 49 (I-49) and U.S. Highway 71. Highway 264 connects Highway 265 to Highway 71B which continues into Missouri. Currently, Highway 265 does not connect directly to I-49, but can be reached via Highway 264 and 71B. Despite its current segmented condition, Highway 265 is vital in terms of north/south movement for the area. More than 72,000 vehicles pass through Springdale each day on I-49 with another 33,000 passing through on U.S. Highway 412. Downtown Springdale hosts 32,000 vehicles a day on Highway 71B, which connects each major city in the region.

Substantial economic and population growth has occurred in the region during the past 15 years. This growth is expected to continue over the next 20 years. Improvements to Highway 265 will assist in providing the infrastructure needed to serve this expansion, thus contributing to the economic health of the area. The economic benefits from the project would include gains in overall efficiency, enhanced movement of goods and people, and increased access to the main industrial area in eastern Springdale, in accordance with the Ladders of Opportunity Initiative. Access to businesses, transit stops, employers, and educational facilities will be improved by the addition of mass transit opportunities, and the inclusion of safe bicycle and pedestrian access.

### **Communities Served**

Because Highway 265 serves an area much larger that Springdale, and the lines dividing the city limits for these municipalities, it is only prudent that the population of this area be considered as a whole. The Fayetteville, Springdale, and Rogers Metropolitan Statistical Area (MSA), is referred to as Northwest Arkansas. The United States Census Bureau (Census Bureau) defines this MSA as a four-county area including three Arkansas counties and one in Missouri. The MSA is anchored by the Arkansas cities of Fayetteville, Springdale, Rogers, and Bentonville — the state's third, fourth, eighth, and tenth largest cities, respectively. The total MSA population in United States Census 2010 was 465,776 people. The Census Bureau estimated the population of the MSA to be 491,966 in 2013. From 1990–2000 the Fayetteville-Springdale-Rogers MSA was the sixth fastest growing area in the nation. In April 2014, the Census Bureau released a report that stated Northwest Arkansas is growing by at least 23 people each day, and the area is expected to exceed 510,000 by the end of 2015. Over the past decade or more, Northwest Arkansas has been one of the fastest growing regions in the south.

As of the census of 2010, there were 463,204 people, 463,204 households, and 118,032 families residing within the MSA. The racial makeup of the MSA was 81.9% White, 1.9% African American, 1.5% Native American, 2.4% Asian, 1.1% Pacific Islander, 8.4% from other races, and 2.7% from two or more races. Hispanic or Latino of any race was 14.9% of the population. 4,121 Marshallese reside in this region, which is the second largest population of Marshallese beyond the Marshall Islands following Hawaii.

The median income for a household in the MSA was \$32,469, and the median income for a family was \$38,118. Males had a median income of \$27,025 versus \$20,295 for females. The per capita income for the MSA was \$16,159.

City and	County	populations,	U.S.	Census	Bureau

City or County	1990	2000	2010	2035*			
Cities							
Fayetteville	42,099	58,047	73,580	112,931			
Springdale	29,941	45,798	69,797	119,617			
Bethel Heights	281	714	2,372	4,986			
Bella Vista	9,083	15,452	26,461	40,000			
Lowell	1,224	5,013	7,327	14,956			
Rogers	24,692	38,829	55,964	95,054			
Bentonville	11,257	19,730	35,301	65,356			
Counties							
Washington County	113,409	157,715	203,065	315,135			
Benton County	97,499	153,406	221,339	376,139			

<sup>\*</sup>Based on the NWARPC 2035 Metropolitan Transportation Plan Totals

#### *Fayetteville*

Fayetteville is a city in Washington County, and home to the University of Arkansas. As of the 2010 census, the city had a total population of 73,580. The city is the third most populous in

Arkansas and serves as the county seat of Washington County. It's also known for Dickson Street, perhaps the most prominent entertainment district in the state of Arkansas, which itself contains the Walton Arts Center. Blocks from Dickson Street is the Fayetteville Historic Square, which hosts the nation's number one ranked Fayetteville Farmer's Market. Fayetteville was ranked 8th on Forbes Magazine's Top 10 Best Places in America for Business and Careers in 2007.



#### Springdale



Springdale is located in Washington and Benton Counties. According to the 2010 census, the population of the city is 69,797. Springdale is currently Arkansas's fourth-largest city, behind Little Rock, Fort Smith, and Fayetteville. Springdale's metropolitan area ranks as one of the nation's most affordable areas to live with a cost of living well below the national average. The 2013 year-end report ranked this region as the 31st most affordable metro area in the United States of the nation's 308 largest urban areas. The headquarters of Tyson Foods Inc.,

the largest meat producing company in the world is located in Springdale. The city has been dubbed the "Chicken Capital of the World" by several publications. In 2008, the Wichita Wranglers of AA minor league baseball's Texas League moved to Springdale and play in Arvest Ballpark as the Northwest Arkansas Naturals.

#### Rogers

Rogers is a city in Benton County. As of the 2010 census, the city is the eighth most populous in the state, with a total population of 55,964. Rogers is famous as the location of the first Walmart store. In June 2007, BusinessWeek Magazine ranked Rogers as 18th in the 25 best affordable suburbs in the South. In 2010, CNN money magazine ranked Rogers as 10th Best Place to Live in the United States.



#### Bentonville

Bentonville is located in Benton County. At the 2010 census, the population was 35,301, up from 20,308 in 2000 ranking it as the state's 10th largest city. Bentonville is the county seat of Benton County. It is home to the headquarters of Walmart Stores, the largest retailer in the world. Bentonville is also the home of the Crystal Bridges Museum of American Art.

#### Cultural



The Crystal Bridges Museum of American Art in Bentonville was opened in November 2011. The museum, funded by Walmart founder Sam Walton's daughter, Alice Walton, and designed by world-renowned architect Moshe Safdie, is home to some of America's finest works of art and has immediately become one of the nation's premier art museums.

The Walton Arts Center is Arkansas' largest performing arts center. It is located in Fayetteville near the campus of the University

of Arkansas and serves as a cultural center for the Northwest Arkansas area. The building was opened in 1992 in large part because of funds donated by the Sam Walton family. The center is host to many musicals, plays, and other artistic and educational events throughout the year. The Walton Arts Center is also home to the Symphony of Northwest Arkansas, currently under the direction of Paul Haas.

### **Business and Industry**

The metropolitan area is the home of Walmart and Tyson Foods — global leaders in retail and meat and poultry processing, respectively. J.B. Hunt Transport Services, Inc., North America's second largest publicly owned transportation and logistics company, is also based in the area. Over 1,300 Walmart vendors have added corporate branches or offices in the area as well, including: Coca-Cola, Procter and Gamble, Unilever, Motorola, Nestlé, Dell, General Mills, Kellogg Company, and PepsiCo.

Booming prosperity accompanying a tremendous increase in the area's population has made Northwest Arkansas a recognized economic success. Many migrants come from Northeast













Arkansas, South-Central Arkansas, and North Central Arkansas, to work in this booming area. The state's population grew 13.7 percent between 1990 and 2000, but the two-county metropolitan statistical area accounted for one-third of that growth. Benton and Washington counties grew 47 percent between 1990 and 2000.

The majority of the people who moved to Benton and Washington counties between 1990 and 2000 came from California, Oklahoma, Missouri, Kansas, Texas and other parts of Arkansas. Even during national economic turmoil, Northwest Arkansas has experienced 8.2 percent job growth. According to the Bureau of Labor Statistics, in February 2008 the Northwest Arkansas region as a whole had an unemployment rate of 4.1 percent. This unemployment rate gave Northwest Arkansas a rank of 41 out of 369 metropolitan areas in the United States. Per capita income in Northwest Arkansas is \$31,191, according to the most recent figures from the United States Census Bureau. This is approximately \$7,000 below the national average per capita income.

The Springdale Technology Park is the next evolution in the region's ongoing effort to anticipate the demands of the coming decade's economic expansion in technology. The Park is the ideal solution for knowledge-based industry in search of the perfect venue for affordable and sustainable growth. A 34-acre development on Springdale's east side, the Springdale Technology Park is the region's premier site for successful knowledge-based companies in search of the perfect combination of affordability, ease of development, ready availability of all utilities, and central location in the northwest Arkansas metro area.

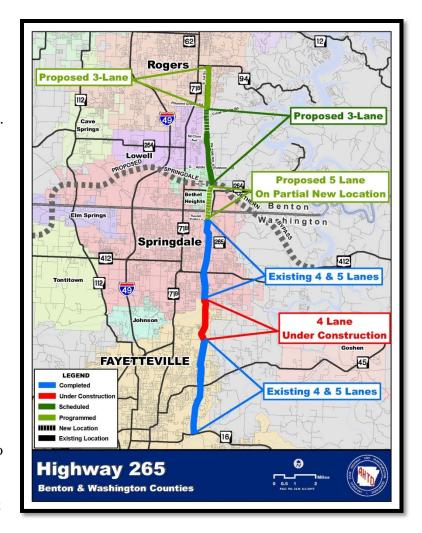
#### Major Northwest Arkansas Employers

Company Name	Product	Employment
Tyson Foods, Inc.	Protein Processing	4,300
George's, Inc.	Poultry Processing	2,500
Springdale Schools	Education	2,235
Cargill, Inc.	Poultry Processing	1,200
Northwest Medical	Healthcare	900
Rockline Industries	Moist Wipes	535
A.E.R.T.	Recycled Materials	500
Harps Food Stores	Grocery Retail	495
Kawneer	Aluminum Extrusion	465
Multi-Craft Contractors	Fabrication, Machining	400
APEX Tool Group	Small Hand Tools	290
Brunner & Lay	Carbide Drilling Tools	250
JV Manufacturing	Cardboard Compactors	220
Dayco Products	Auto Tensioning Devices	200
Ball Corporation	Metal Cans	180
Newly Weds Foods	Batter Coatings	175
Pratt & Whitney, PSD	Jet Engine Repair	170

### Upgrades to Highway 265

From Highway 16 in southern Fayetteville to Highway 412, 6.5 miles of Highway 265 has been widened to four and five lanes, and 1.9 miles is currently under construction for widening. These improvements have a construction cost of \$27.5 million. The cities of Fayetteville and Springdale have partnered with the Arkansas State Highway and Transportation Department and provided \$8.6 million of this cost.

The next 2.6 miles, from Highway 412 north, has been four-lanes for over 20 years. From Highway 264 north to Rogers, \$25 million is included in Arkansas' 2013-2016 Statewide Transportation Improvement Program (STIP) to build a wider roadway. Ultimately, the route will utilize First Street in Rogers to connect with Highway 94.



This leaves 2.28 miles of two-lane roadway with no shoulders from Randall Wobbe Lane to Highway 264 at Bethel Heights, a small community that lacks the financial capacity to contribute additional funding. The roadway is too narrow to allow for any vehicles other than passenger vehicles. This TIGER Grant application is requesting funds to finance improvements for this section of Highway 265. The project will include widening, some new location, curbs and gutters, bike lanes, and sidewalks. The public transit provider for the area, Ozark Regional Transit, has shown strong interest in providing public transit through the area, provided it is brought up to the same standards as the rest of Highway 265.

The criteria used for designating the new alignment of this area of Highway 265 included cost effectiveness, the overall impacts, and public input. The purpose of the proposed project is to improve north-south connectivity, provide opportunities for other modes of transportation, and enhance mobility for travelers in the Northwest Arkansas metro area. Data gathered for the

Environmental Assessment supports the need for the project given both existing conditions and those projected for 2028.

### **Future Plans**

Highway 265 will be extended further north from Highway 264 to Highway 94 using a combination of improvements to existing routes and construction on new location. It will begin at Highway 264 and continue in a northerly direction along Old Wire Road. At Frisco Cemetery Road, the alignment will continue north on new location until it connects with South First Street. The alignment will then continue north along South First Street and end at Highway 94 in Rogers.

Highway 265 is part of the Northwest Arkansas 2035 Regional Long Range Transportation Plan, and has been chosen for inclusion in the Northwest Arkansas 2040 Regional Long Range Transportation Plan, currently in development. Highway 265, Randall Wobbe to Highway 264 is included on the Transportation Improvement Program (TIP) Constrained Project List, and considered a high regional priority.

The pedestrian and bicycle lanes included in this project are included in the NWA Heritage Trail Plan, and the Northwest Arkansas Regional Bicycle and Pedestrian Master Plan. The NWA Heritage Trail Plan is part of a regional network for proposed bicycle and pedestrian facilities within the two counties of Northwest Arkansas. This regional system is designed to connect the emerging master trail plans of the region's cities. By tying into the regional and local trail plans, the NWA Heritage Trail plan provides linkage to work centers, schools, parks, museums, and retail shopping. Maps for each of these plans, as well as other planning documents, can be found at <a href="http://nwarpc.org/transportation/2035-plan/">http://nwarpc.org/transportation/2035-plan/</a>.

## **Project Parties**

The primary party in this project is the AHTD has partnered with the MPO for the region, NWARPC. NWARPC has included the improvement and extension of Highway 265 in their Metropolitan Transportation Plans since the early 1970's. Much of their planned work has been completed, and the present project will bring them closer to the completion of the goals for this area. They are committed to the success of this regionally significant project.

In addition to NWARPC, letters of support included in this application include those from Springdale Public Facility Board, Ozark regional Transit, the city of Springdale, Springdale Chamber of Commerce, the Northwest Arkansas Council, and United States Congress Member Steve Womack.

## **Grant Funds and Sources/ Uses of Project Funds**

NWARPC and the cities of Fayetteville and Springdale concur on the need to improve Highway 265 between Highway 45 in Fayetteville and Highway 265 in Springdale. Designated by the governor as the MPO for this region, NWARPC is responsible for the preparation of the TIP and the Metropolitan Transportation Plan. The TIP contains all short-term commitments for state and federal transportation funding in the metropolitan area. The TIP includes improvements for Highway 265 between Randall Wobbe Lane and Highway 264.

In addition to participating in the preparation of the TIP and Metropolitan Transportation Plan, the cities of Fayetteville and Springdale have worked with the AHTD to identify the need for improvements to Highway 265 and have determined that the improvements are a high priority. AHTD is requesting \$16.6 million in TIGER VII funds for this project. NWARPC has dedicated \$3.75 million of federal funds and local match to begin right-of-way acquisition. The balance will be paid for through the Arkansas State Fuel Tax.

### **Selection Criteria**

#### Primary Selection Criteria

#### Economic Competitiveness

Numerous factories and other businesses on the northeast side of Springdale employ large amounts of people and ship vast amounts of freight. According to 2012 Info USA data, approximately 5,000 people are employed in a four-square mile area served by this segment of Highway 265. Most of these jobs are in the manufacturing, industrial, and poultry processing sectors. This type of commerce requires immense amounts of freight in and out of the area. The current constraint of the two-lane Highway 265 facility from Randall Wobbe Road to Highway 264 will continue to choke the efficient movement of people and goods if not improved to four or five lanes.

#### Quality of Life

Many residential communities have sprung up along Highway 265 as Northwest Arkansas has expanded. The ability of residents to reach their places of employment and schools safely and efficiently would be increased with the addition of bus service provided by Ozark Regional Transport. Additional modes of transportation would be available with the addition of bike lanes and sidewalks. In addition, the entire community, and those outside the community travelling in to enjoy all the region has to offer, would benefit by easy access to sporting events, cultural attractions, historical sites, or just to enjoy the scenery of the Ozarks.

Air quality would be improved in the surrounding areas including I-49 and Highway 71, as these are currently congested due to being the only north-south multiple-lane routes in the area.

## **Results of Benefit-Cost Analysis**

The Benefit Cost Analysis (BCA) (<a href="http://www.arkansashighways.com/TIGER/T7/t7.aspx">http://www.arkansashighways.com/TIGER/T7/t7.aspx</a>) was performed in accordance with the ARRA guidance provided in the Federal Register. These benefits and costs were quantified in accordance with Notice of Funding Availability, 79 Fed. Reg. 18,283-18,292 (2015)

The purpose of the BCA is to systematically compare the benefits and costs of constructing a proposed new location route in Springdale for Highway 265 between Randall Wobbe Lane and Highway 264 in Washington and Benton Counties, Arkansas. The BCA compared the cost of constructing the new location route to the cost of not doing anything outside of routine maintenance. The analysis considers the construction phase followed by a 20-year project life beyond the proposed opening date (2015 through 2038) for purposes of the BCA.

The analysis considered typical roadway construction and maintenance costs in Arkansas. Table 1 summarizes the findings of the BCA analysis using both a three percent discount rate and a seven percent discount rate. Road user benefits that were considered include the value of travel time savings provided by the improved facility, vehicle operating cost benefits, and the value to society of enhancing the safety within the improved highway network.

Table 1: Benefit Cost Analysis Results

Year	Construction Costs		Turnel Time Devention		Vahiala (			Cofety Day of th				
Teal	Non-Disc.	Disc (3%)	Disc. (7%)	Non-Disc. Disc (3%) Disc. (7%)		Vehicle Operation Cost Benefit   Non-Disc.   Disc (3%)   Disc. (7%)		Non-Disc. Disc (3%) Disc. (7%)				
2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2016	\$2.352.000	\$2.283.495	\$2.198.131	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017	\$4.620.000	\$4,354,793	\$4.035.287	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018	\$9,240,000	\$8,455,909	\$7.542.592	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	\$4,620,000	\$4,104,810	\$3,524,576	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$0	\$0	\$482,147	\$415,904	\$343,764	\$0	\$0	\$0	\$687,829	\$593,327	\$490,412
2021	\$0	\$0	\$0	\$490,062	\$410,419	\$326,549	\$0	\$0	\$0	\$699,119	\$585,502	\$465,853
2022	\$0	\$0	\$0	\$497,976	\$404,900	\$310,115	\$0	\$0	\$0	\$710,410	\$577,629	\$442,408
2023	\$0	\$0	\$0	\$505,891	\$399,355	\$294,433	\$0	\$0	\$0	\$721,701	\$569,718	\$420,037
2024	\$0	\$0	\$0	\$513,805	\$393,789	\$279,476	\$0	\$0	\$0	\$732,992	\$561,777	\$398,699
2025	\$0	\$0	\$0	\$521,720	\$388,209	\$265,216	\$0	\$0	\$0	\$744,283	\$553,816	\$378,356
2026	\$0	\$0	\$0	\$529,634	\$382,619	\$251,626	\$0	\$0	\$0	\$755,574	\$545,843	\$358,968
2027	\$0	\$0	\$0	\$537,549	\$377,026	\$238,678	\$0	\$0	\$0	\$766,865	\$537,864	\$340,497
2028	\$0	\$0	\$0	\$545,464	\$371,434	\$226,348	\$0	\$0	\$0	\$778,156	\$529,886	\$322,907
2029	\$0	\$0	\$0	\$553,378	\$365,848	\$214,610	\$0	\$0	\$0	\$789,447	\$521,917	\$306,161
2030	\$0	\$0	\$0	\$561,293	\$360,272	\$203,438	\$0	\$0	\$0	\$800,737	\$513,963	\$290,224
2031	\$0	\$0	\$0	\$569,207	\$354,711	\$192,810	\$0	\$0	\$0	\$812,028	\$506,029	\$275,062
2032	\$0	\$0	\$0	\$577,122	\$349,168	\$182,702	\$0	\$0	\$0	\$823,319	\$498,122	\$260,642
2033	\$0	\$0	\$0	\$585,036	\$343,647	\$173,091	\$0	\$0	\$0	\$834,610	\$490,245	\$246,931
2034	\$0	\$0	\$0	\$592,951	\$338,152	\$163,956	\$0	\$0	\$0	\$845,901	\$482,405	\$233,899
2035	\$0	\$0	\$0	\$600,866	\$332,685	\$155,275	\$0	\$0	\$0	\$857,192	\$474,606	\$221,515
2036	\$0	\$0	\$0	\$608,780	\$327,249	\$147,028	\$0	\$0	\$0	\$868,483	\$466,852	\$209,750
2037	\$0	\$0	\$0	\$616,695	\$321,848	\$139,196	\$0	\$0	\$0	\$879,774	\$459,147	\$198,576
2038	\$0	\$0	\$0	\$624,609	\$316,484	\$131,759	\$0	\$0	\$0	\$891,064	\$451,495	\$187,967
2039	\$0	\$0	\$0	\$632,524	\$311,160	\$124,700	\$0	\$0	\$0	\$902,355	\$443,899	\$177,896
TOTAL	\$20,832,000	\$19,199,007	\$17,300,586	\$11,146,710	\$7,264,881	\$4,364,771	\$0	\$0	\$0	\$15,901,839	\$10,364,043	\$6,226,759
							No Disc.	3% Disc.	7% Disc.			
						Costs	\$20,832,000	\$19,199,007	\$17,300,586			
						Benefits	\$27,048,549	\$17,628,924	\$10,591,530			
						B/C Ratio	1.30	0.92	0.61			

The economic benefits of providing additional access for communities along a major highway corridor, as well as providing a safe and efficient transportation network for the region can be estimated by studying the impact of construction activities and travel time savings. Providing an improved transportation network to the region makes an impact in terms of improving the per capita income in areas of the country that are below the national average which is a goal of the TIGER Discretionary Grant program.

The BCA was calculated using the following key factors for evaluation:

- Construction Costs
- Forecasted Traffic
- o Travel Speeds and Congestion
- Historic Crash Data
- Vehicle Miles Traveled (VMT)
- Vehicle Hours Traveled (VHT)
- o Traffic Distribution by Vehicle Type
- Value of Time

The construction cost estimate for the proposed new location route is \$16.8 million. Construction costs are spread across 2017, 2018, and 2019. The analysis also assumes 14 percent right-of-way costs and 10 percent preliminary and construction engineering costs. These costs reflect basic construction costs that would be incurred if the project were built using traditional construction methods and schedules. Assumed costs by year are shown in Attachment 4.

The BCA value of time analysis quantifies the road user impacts that the new location route would have in terms of travel time savings by first determining the amount of travel time saved and then assigning a dollar value for this time. Speeds were estimated under no-build and build conditions, and these speeds (in conjunction with volumes and distances) were used to estimate daily VHT. Under the build condition, ten percent of vehicles were assumed to use the existing route for local access. Linear interpolation was used to estimate VHT in years between those where traffic projections were available. Time values were calculated in Attachment 1 and assigned to the travel time saving, as shown in Attachment 5.

The impacts of the vehicle operating costs account for the actual cost to operate the vehicle, aside from the travel time costs. Operating costs per mile are calculated in Attachment 1. Volumes and roadway lengths were again used to estimate VMT, and linear interpolation was used between years when traffic projections were available. Due to the new location route and the old route being roughly the same length, the vehicle operating cost ultimately did not change. This process is documented in Attachments 3 and 6.

The value of safety improvements considers cost savings that can be attributed to the diversion of traffic to a facility with a lower crash rate. The statistical cost of a fatal and non-fatal crash was determined using TIGER guidance. The statewide average crash rates for a two-lane undivided urban highway with no access control was assumed for the existing route, and the statewide average crash rates for a four-lane divided urban highway with partial access control

was assumed for the new route. From this information, a crash cost per mile was calculated for traffic on the old and new route. This process is documented in Attachments 3 and 7.

When examined in the context of both the Washington and Benton County roadway networks, the proposed new location route exhibits a net positive economic impact of 1.30.

## **Project Readiness**

Despite the large amount of culturally and historically significant structures and sites in the area of Northwest Arkansas, a Phase I Cultural Resources Survey and evaluation revealed no historic properties within the proposed area that was available for investigation. Approximately 10 percent (approximately 1,200 linear feet of the proposed alignment) of the site was unavailable for survey due to denial of access by the owner; therefore a Programmatic Agreement has been prepared.

Representatives of five Native American tribes were presented with a report from the State Historic Preservation Officer (SHPO) containing the results of the area survey in August 2012. Thus far, only the Osage have responded that sites that might be of cultural or religious significance to their tribe may be present within the project area.

Upon their approval of the Environmental Assessment, a Finding of No Significant Impact (FONSI) was issued by the Federal Highway Administration on October 24, 2012. The FONSI states that there is sufficient evidence and analysis to determine that an environmental impact statement is not required, and that the Preferred Location will have no significant impact on the human environment and issued FONSI pursuant to 23 CFR 88.121(a).

#### **Project Readiness**

Task	Completion Date
Design Surveys	Complete
Roadway Design	December 2015
Environmental	August 2015
Right of Way	July 2016
Utilities	June 2017
Project Obligation	June 2017

# Project Schedule

Task	Completion Date
Award to Contract	June 2017
Mobilization of Project	July 2017
Project Substantially Complete	August 2019
Open to Traffic	August 2019