



US-69 Rural Safety & Economic Vitality Project in Atoka County

BUILD Grant 2026

Oklahoma Department of Transportation

Benefit Cost Analysis

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Executive Summary

The Oklahoma Department of Transportation (ODOT) is seeking Better Utilizing Investments to Leverage Development (BUILD) Grant funding to reconstruct a two-and-a-half-mile segment of US-69 in Tushka, Oklahoma. The US-69 Rural Safety & Economic Vitality Project in Atoka County (Project) will improve safety, enhance system efficiency, and bring the corridor into a state of good repair. This segment of US-69 functions as a bottleneck through the center of Tushka, where deteriorated pavement, a skewed major intersection, and heavy truck volumes create recurring delays and safety risks. The corridor also lacks sidewalks and crosswalks, forcing residents and students to walk in the roadway or rely solely on vehicles.

The Project plans to construct a 16-foot continuous two-way left-turn lane (TWLTL) resulting in a five-lane with two 12-foot through lanes to help with traffic flow and congestion. The intersection of Boggy Depot Road will be reconfigured to be a 90-degree intersection which will improve traffic flow, turning movements, and sight distance. Sidewalks, new crossing striping, and pedestrian crossing signals are also planned for this intersection along with new LED lighting along the entire length of the Project corridor providing a safe and accessible corridor.

The **\$29.0 million** total capital Project cost of the Project yields:

- Benefit-cost ratio (BCR) of 1.21
- Positive net present value (NPV) of \$7.4 million over 20 years

Over the life of the Project, these investments will produce the benefits shown in **Table 1**:

Table 1: Project Benefits Summary (in NPV)

Benefits	Total
Safety Savings (vehicle collisions)	\$14,870,295
Safety Savings (non-motorized collisions)	\$918,943
Travel Time Savings	\$20,640,323
Health and Amenity Benefit	\$319,618
Avoided Operation & Maintenance Costs	\$3,175,120
Total Benefits	\$39,924,299

Methodology

The Benefit Cost Analysis (BCA) was prepared in accordance with the U.S. Department of Transportation (USDOT) [BCA Guidance for Discretionary Grant Programs \(December 2025 Update\)](#) using total quantifiable Project costs and benefits that are adjusted for inflation and then discounted to reflect the time value of money. In summary, the BCA was created by:

1. Identifying the Project’s benefits and costs in terms of proposed improvements versus a baseline scenario;
2. Deriving current and forecasted use levels for the baseline and the “build case”;
3. Denominating all benefits and costs in constant 2024 dollars;
4. Assuming inflation based on the Implicit Price Deflators for Gross Domestic Product;

5. Setting an appropriate analysis period of 20 years for the Project's development, construction, and subsequent operational service. (Conservatively assumed 2029 is the start of first full year of benefits.)

Project Overview

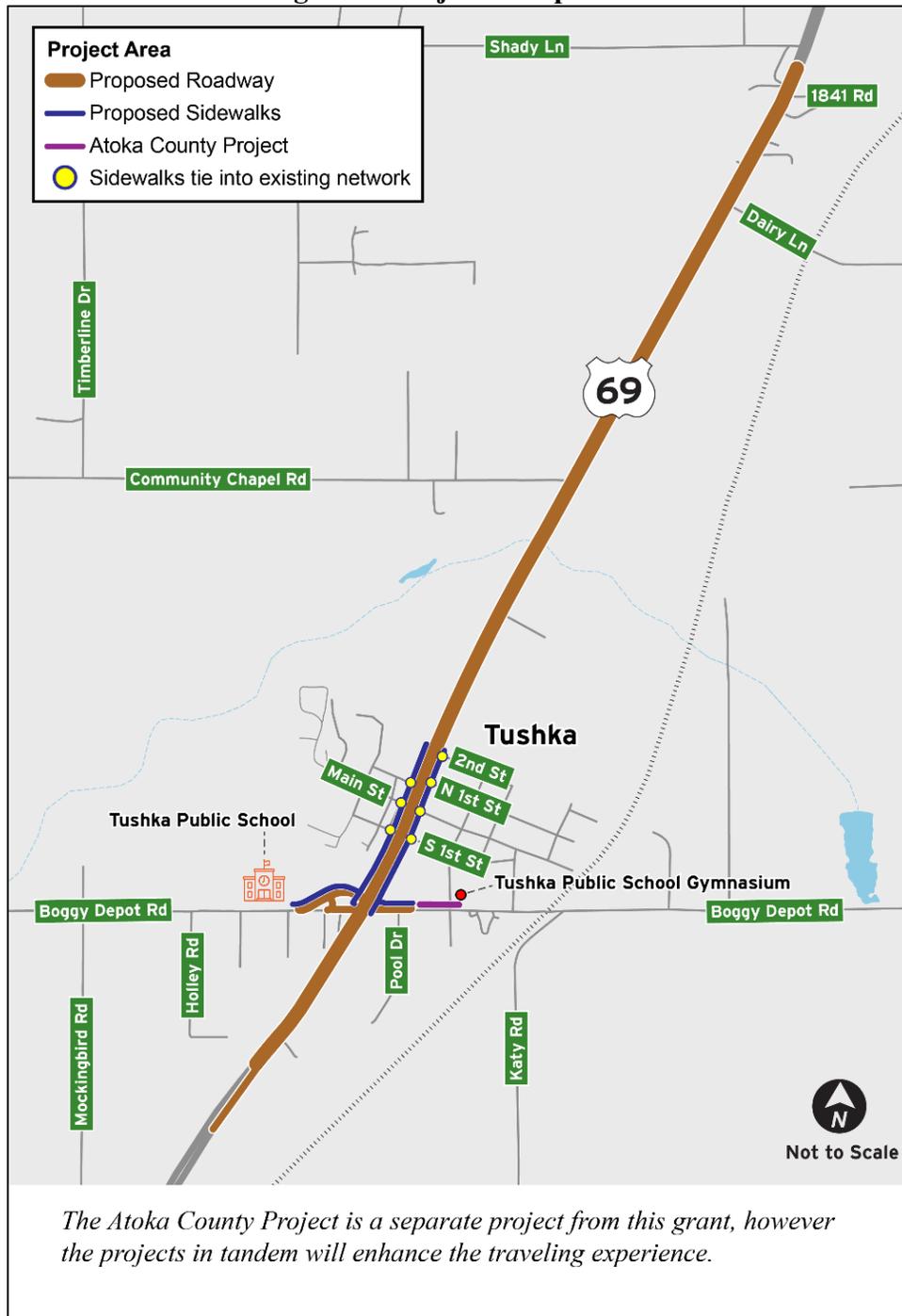
US-69 runs north-south through Tushka, Oklahoma, within Atoka County, a rural area in southeast Oklahoma. The Project coordinates are [34.3283, -96.1626](#). The north-south limits span US-69 from 0.4 miles south of Boggy Depot Road to just south of E1840 Road/Shady Lane. The Project Area covers two Census Tracts (5877 and 5878). Census Tract 5877 is a [Qualified Opportunity Zone](#) and designated as an [Area of Persistent Poverty](#).

US-69 is a nationally significant corridor part of the [Strategic Highway Network](#) (STRAHNET) and a key component of the local and regional economy. The US-69 corridor spans almost entirely across the United States north to south, from southern Texas to Minnesota. The highway connects to many Interstates in the United States including I-10, I-20, I-30, I-40, I-44, I-35, I-70, I-29, and I-80. This segment has an [average annual daily traffic](#) (AADT) of 23,000 with 56 percent truck traffic. While speeds along US-69 vary throughout the state, the speed limit within the Project Area will be 45 miles per hour (mph).

The Project consists of three primary elements, described below and shown in **Figure 1**:

- **US-69 Roadway:** The existing four-lane roadway will be widened and resurfaced to create a five-lane section with two 12-foot through lanes in each direction and a 16-foot continuous TWLTL. The limits span 2.5 miles from 0.4 miles south of Boggy Depot Road to just south of E1840 Road/Shady Lane.
- **Boggy Depot Road Intersection:** The existing intersection of [US-69 and Boggy Depot Road](#) is skewed, creating safety and operational challenges. The Project will reconstruct this intersection to a 90-degree intersection to improve traffic flow, turning movements, and sight distance, and to reduce pedestrian crossing distance. Enhancements will include ADA-accessible sidewalks, a designated school crossing, and pedestrian signal push buttons.
- **Non-Motorized Traveler Improvements:** Currently, no non-motorized traveler facilities exist along the corridor. The Project will construct new five-foot sidewalks on both sides of US-69 between Boggy Depot Road and North Second Street, along with LED lighting along the entire length of the Project, to provide safe and accessible accommodations for non-motorized travelers.

Figure 1: Project Components



Source: ODOT

Project Cost

The Project's **total capital cost will be \$29.0 million** in 2026 dollars. This estimate includes total Project delivery costs (construction, design, environmental analysis, and other project management costs). It also assumes construction from 2026 to 2028, with 2029 acting as the first

full year post-construction. The Project has already accumulated previously incurred costs totaling \$14.2 million in 2024 dollars. Annual Project costs are shown in **Table 2**, which includes its NPV based on a discount rate of 7.0 percent.

Table 2: Project Schedule & Cost

Capital Project Cost (2026\$)	\$29,029,000
Capital Project Cost (2024\$)	\$27,827,227
Previously Incurred Costs (2024\$)	\$14,211,241
Total Project Cost (2024\$)	\$42,038,468
Total Project Cost NPV (2024\$)	\$35,168,723

The Project components include assets that range in lifespan from 30 years to 75 years. It was conservatively assumed that the residual value would be 41 years. Only the Project construction cost was included in claiming residual value, equating to \$14.3 million in 2024 dollars (\$2.6 million NPV).

Project Beneficiaries

The Project will create significant regional and national benefits by:

- Providing better access to the corridor for non-motorized travelers in the rural town of Tushka, which is an Area of Persistent Poverty (APP);
- Connecting communities to areas of potential job opportunities which have long been disconnected; and
- Better serving the community by allowing for a more conducive free flow of traffic along the Project corridor with the inclusion of the TWLTL.

Project Benefits

The Project will provide substantial benefits by improving safety, decreasing travel time, reducing operating costs, and adding new non-motorized amenities and health benefits. These benefits are quantified in the following subsections. Benefits were calculated using traffic and safety data provided by ODOT and other sources cited in the **BCA Workbook** included with the grant application. It should be noted that this analysis does not include any induced traffic (vehicle or trucks) to the corridor. The Project does not change the route length along US-69. Due to maintaining route length, avoided operating costs were found to be *negligible*. Though improvements with widening and the intersection reconfiguration are proposed, this is not accounted for when calculating avoided operating costs.

Safety Benefit (Roadway and Non-Motorized)

The Project plans to improve safety with the new geometric configuration of the intersection at Boggy Depot Road which plans to reduce the number of turning conflict points. Currently, for the most recent and completed five-year data set from ODOT for 2017 to 2021, there were 111 reported crashes within the study area. Data from after 2021 has not yet been fully tabulated and is not an accurate representation of for the corridor. No high severity crashes were reported during this time period. However, a [crash resulting in two fatalities](#) was reported on Boggy Depot Road in 2025. This crash was used in the BCA calculations and was averaged over an eight-year analysis period. A crash modification factor (CMF) was also applied to show a reduction in crashes. The [CFM #7755 – Widen Shoulders](#) where the widening of the shoulders on the roadway reduces the number of crashes, allowing more room for self-correction during high congestion and allowing for safe travel should a vehicle need to pull over. This resulted in a total annual crash reduction of 7.63 crashes. These improvements resulted in a benefit of **\$14.9 million (NPV)** by reducing the number of collisions.

\$14.9M

SAFETY SAVINGS
(NPV) ROADWAY

In Atoka County, the [10-year Non-Motorist Collision Statistics](#) showed 2 pedestrian collisions and 1 pedalcyclist collision. With the anticipated attraction of travelers to Boggy Depot Road, the 10-year county statistics were used. The [CMF #11246 – Install Sidewalks](#) was utilized to show the reduction in collisions by 60 percent. does show a reduction in non-motorized crashes with the inclusion of sidewalks. This resulted in a total annual crash reduction of 0.1 crashes. These improvements resulted in a benefit of **\$0.9 million (NPV)**.

\$0.9M

SAFETY SAVINGS
(NPV) NON-
MOTORIZED

Travel Time Benefit

This Project does not create a new route for trucks or vehicles, however, it will include widening of US-69 and the addition of the TWLTL. The new turning lane plans to reduce congestion throughout the entire Project corridor, not only at the Boggy Depot Road intersection. The current travel time of the corridor is four minutes traveling at a speed of 36 mph, due to congestion. It is assumed that the inclusion of TWLTL will reduce travel time by 10 percent resulting in a corridor travel time of 3.6 minutes at an increased free-flow speed of 40 mph. This travel time savings with the inclusion of the TWLTL equates to total benefit of **\$20.6 million (NPV)**.

\$20.6M

TRAVEL TIME COST
(NPV)

Health and Amenity Benefits

The Project also includes the construction of new sidewalks along portions of the Project corridor, approximately 2.5 miles of new sidewalks. These amenity improvements will not only benefit existing travelers but attract and thus induce more non-motorized traffic to the Boggy Depot Road intersection and connections along US-69. This is significantly present at the Boggy Depot Road intersection where pedestrian crossing signals will be installed on all crossing legs of the intersection. New lighting is also planned to be installed at the intersection as well as the entire Project corridor. According to a study from the [USDOT - Bureau of Transportation Statistics](#), adding sidewalk increases non-motorized travelers by approximately two percent.

\$0.3M
HEALTH AND
AMENITY SAVINGS

Health benefits were also calculated using USDOT guidance. Increased fitness levels improve health of the non-motorized traveler, mostly within a certain active age-range. Amenity and Health benefits were calculated for existing and induced travelers. This was applied to the Project benefits along with the inclusion of the pedestrian crossing and new lighting resulting in a benefit of **\$0.3 million (NPV)** over 20 years.

Avoided Operations & Maintenance Costs

The Project is expected to greatly reduce the annual operation and maintenance (O&M) costs occurring along the corridor over the analysis period. The **BCA Workbook** identifies the baseline O&M costs to be an average of 488,065 and build O&M costs to be an average of 95,238 over the 20-year period. These costs include overlay and crack surface repairs. This significant reduction, of \$390,857 annually, creates an **O&M cost savings benefit of \$3.2million (NPV)** over the 20-year analysis period.

\$3.2M
O&M COST
SAVINGS (NPV)

Benefits Summary

The Project has a Benefit-Cost Ratio (BCR) of 1.21. This ratio was derived by dividing total discounted benefits by total discounted costs over a 20-year period. The results shown in **Table 3** and throughout this memo were derived based on [USDOT BCA Guidance for Discretionary Grant Programs \(December 2025 Update\)](#).

1.21
BENEFIT-COST
RATIO

Table 3: Project Benefits Summary

Total Benefits	Total	Total (\$M)
Safety Savings (vehicle collisions)	\$14,870,295	\$14.9
Safety Savings (non-motorized collisions)	\$918,943	\$0.9
Travel Time Savings	\$20,640,323	\$20.6
Health and Amenity Benefit	\$319,618	\$0.3
Avoided Operation & Maintenance Costs	\$3,175,120	\$3.2
Net Benefits	\$42,565,555	\$42.6
Total Costs	\$35,168,723	\$35.2
B/C Ratio	1.21	1.21
Net Present Value	\$7,396,831	\$7.4

Unquantifiable Benefits Summary

The Project has been conservatively evaluated using the methodology and assumptions described above. The cost effectiveness of the Project may be greater than indicated by the quantitative calculations because certain benefits that were not included in the BCA analysis.

Typically, operational costs would be calculated for vehicular traffic in addition to truck specific traffic. However, the Project does not create a new route and does not shorten the distance for the travelers of the corridor. Subsequently, the addition of the TWLTL is planned to reduce congestion concerns and allow for a better free flow of traffic through the Project area and the intersection at Boggy Depot Road. These improvements will positively impact the flow of vehicles and save drivers from wearing out vehicle breaks due to the stop-and-go mentality of the current congestion.

Improvements along the Project corridor include additional lighting improvements. The addition of street and sidewalk lights along with LED enhancements will provide improved safety measures for non-motorized visibility. In addition, the intersections along the corridor will be upgraded to meet ADA standards. Ramps, tactile warning strips, and other design components were not monetized in the **BCA Workbook**. These upgrades also enhance the safety for the students who walk to the school located on Boggy Depot Road, just west of the US-69 interchange. According to the Tushka Public School Superintendent, US-69 divides the school's campus which is currently causing unsafe transportation for the students. The intersection upgrades will greatly enhance this travel safety.