

Project Description

The Oklahoma Department of Transportation (ODOT) is seeking \$99,000,000 in funding from the U.S. Department of Transportation (USDOT)'s Multimodal Project Discretionary Grant (MPDG) program to construct the Roosevelt Memorial Bridge Investment Project (Roosevelt Bridge). The Roosevelt Bridge carries US-70 over Lake Texoma and provides a critical east-west connection across southern Oklahoma (**Figure 1**). The bridge is 4,943 feet long and carries two traffic lanes, one in each direction, on a 24-foot-wide deck with no shoulders. The bridge was constructed in 1942 and is composed of 87 spans, including a 250-foot-long Warren through-truss, and is eligible for inclusion in the National Register of Historic Places (NRHP). The bridge is functionally obsolete and at-risk of becoming structurally deficient. The bridge currently carries 8,500 vehicles per day (vpd). With major development underway, future traffic volumes are anticipated to exceed 27,000 vpd by 2050.



Figure 1: Roosevelt Memorial Bridge

The Roosevelt Bridge Project will construct a new multimodal bridge across Lake Texoma as Oklahoma's first Progressive Design Build (PDB) project. PDB is an innovative delivery method that promotes collaboration between the owner, designer, and contractor. While ODOT will provide the PDB team with preliminary plans, many of the details of the bridge type, construction method, and final alignment will be left to the PDB team to allow for maximum innovation. The Project will include a four-lane bridge with standard shoulders and bicycle/pedestrian accommodations to provide a safe, reliable crossing of Lake Texoma that meets today's design standards and accommodates future demand. The Project will widen US-70 between State Park Road and Willow Springs Road to a five-lane section (two driving lanes in each direction and center turn lane) to provide continuity with the sections to the east and west. Turn lanes will be provided where needed at intersections, and a traffic signal and crosswalk are anticipated at the State Park Road intersection to accommodate traffic from adjacent development.

The Project will significantly reduce fatalities and serious injuries, improve the efficiency and reliability of the movement of people and freight, increase resiliency to severe weather events, and provide affordable transportation options to a Historically Disadvantaged Community and Area of Persistent Poverty through accommodations for bicycles and pedestrians. More detail about the Project's safety, state of good repair, economic, resiliency, and equity/quality of life outcomes are presented in this application.

1.1 Project History

In 2020, ODOT initiated a Preliminary Engineering study to investigate alternatives to improve the Roosevelt Bridge. The study began with a detailed analysis of the existing bridge to assess the condition of its various components. Using the current Load and Resistance Factor Design (LRFD) Specifications as a baseline for comparison, the analysis showed that many of the existing bridge components do not meet the current expected levels of capacity or reliability. Because of the bridge's historic significance, ODOT performed an analysis of alternatives to correct the structural and geometric deficiencies of the existing bridge while preserving its historic integrity, as prescribed by Section 4(f) of the Department of Transportation Act. The Section 4(f) avoidance alternatives included rehabilitation of the existing structure to maintain vehicular traffic as well as preserving the existing bridge as one half of a one-way pair, a pedestrian facility, or as a monument.

As part of the Preliminary Engineering study, ODOT has completed topographic survey, hydrologic analysis, environmental studies including hazardous materials assessments, and traffic studies, and has completed an extensive alternatives analysis for both the Section 4(f) avoidance alternatives and replacement alternatives, in the event none of the Section 4(f) alternatives are found to be prudent and feasible. The alternatives analysis considered construction cost, user costs, right-of-way and utility impacts, constructability, and environmental impacts including loss of flood storage in Lake Texoma. Currently the design is approximately 15% complete. The complete Section 4(f) Design Analysis Report and Preliminary Engineering Report can be found at [ODOT Roosevelt Bridge](#). To date ODOT has expended roughly \$3,378,800 towards planning, preliminary engineering, and environmental studies.

To inform the purpose and need for the project and the alternatives analysis, ODOT has engaged with state and federal agencies, community organizations, and the public. The project area includes lands owned and managed by the U.S. Army Corps of Engineers (USACE), the Chickasaw Nation, and Oklahoma State Parks. There is also a billion-dollar multi-use development under construction on the west side of the bridge known as Pointe Vista that has provided data related to changes in land use and traffic demand. The Oklahoma State Historic Preservation Officer (SHPO) has been closely involved in the development and analysis of alternatives given the NRHP-eligible status of the bridge. ODOT has held two formal meetings with this stakeholder group in addition to stakeholder-specific coordination on certain topics. ODOT recently completed a public meeting with extensive opportunity for community input by multiple means.

1.2 Transportation Challenges

Challenges of the Roosevelt Bridge project are related to the critical safety concerns of the existing structure, rapidly increasing traffic demand, a lack of affordable multimodal transportation options, increasingly frequent flood events, and the extraordinary cost of replacing the bridge. These issues are summarized below; more detail on how the Project will address these challenges is presented in the Outcome Criteria section of this application.



Figure 2: Roosevelt Bridge Narrow Deck Width

Safety: The Roosevelt Bridge has a demonstrated history of high collision rates on and near the bridge, particularly severe collisions such as injuries and fatalities. Many of these fatal collisions were head-on or side swipe, likely due to the narrow bridge width and lack of separation between the two directions of traffic (**Figure 2**). The Roosevelt Bridge Project will improve safety by providing a four-lane bridge with sufficient lane and shoulder widths, as well as safety features such as lighting, median barrier, and rumble strips. These improvements are anticipated to significantly reduce fatalities and serious injuries, bringing them below the statewide average.

Structure Condition (State of Good Repair): Also related to safety, the Roosevelt Bridge is rated in fair condition and is at risk of becoming structurally deficient. There are extensive and serious deficiencies including deck spalling, corrosion and section loss of the floor beams, sheared bolts, and failed railing connections (**Figure 3**). Without major rehabilitation, the bridge would likely fall to poor condition and become structurally deficient in the near term (within three years). Left unaddressed, the potential for load posting and/or closure of the bridge would threaten the future transportation network efficiency, mobility of goods and people, and economic growth.



Figure 3: Existing Structural Deficiencies

Capacity: Traffic demand on US-70 over Lake Texoma is anticipated to increase substantially due to local and regional development. The existing two-lane facility is not sufficient to accommodate the anticipated future traffic growth. The Pointe Vista development (**Figure 4**) ([Pointe Vista | Premiere Master-Planned Community | United States](#)) is currently under construction at the west approach and is anticipated to more than double the traffic demand along US-70.



Figure 4: Pointe Vista Rendering (www.pointevista.com)

Without improvement, level of service (LOS) on the bridge would decline to LOS E, resulting in significant congestion. As a major freight corridor and the primary access to Lake Texoma State Park and the federal recreational lands managed by the USACE, the Roosevelt Bridge Project will eliminate a critical freight bottleneck and enhance recreational and tourism opportunities. Improving LOS will also reduce emissions related to congestion.

Multimodal Mobility: The existing Roosevelt Bridge is narrow and does not provide any pedestrian or bicycle accommodations. As a Historically Disadvantaged Community and Area of Persistent Poverty, these opportunities would directly benefit the population in the area. As a major camping, fishing, and hiking destination, multi-modal accommodations would also enhance the recreational offerings of Lake Texoma. The Project would provide a dedicated bicycle and pedestrian crossing of Lake Texoma.

Flooding and Resiliency: The entire Roosevelt Bridge project is located within a mapped floodplain (FEMA Zone A/AE). Flooding of Lake Texoma has become more commonplace and more frequently overtops the existing bridge and causeway. In 1990 and 2015 major flood events forced ODOT to close US-70 and the Roosevelt Bridge for several days (**Figure 5**). The new bridge will raise the profile approximately ten feet to provide additional clearance above high water, providing long-term resiliency to extreme weather events.



Figure 5: Roosevelt Bridge Flooding, 2015

Project Cost: The Roosevelt Bridge Project is anticipated to be the largest project ever let by ODOT. Less than 10% of the expected construction costs have currently been funded in ODOT's [8-Year Construction Work Plan](#) (CWP). However, the growing corridor traffic demand combined with the deteriorating Roosevelt Bridge conditions demand a near-term solution. Therefore, the project is in significant need of federal funding.

Project Location

The Roosevelt Bridge carries US-70 over Lake Texoma, which spans the Bryan and Marshall County lines in southeastern Oklahoma (**Figure 6**). US-70 is a major east-west connection across the southern portion of the state, providing a link between the major north-south freight routes of I-35, US-69 and US-75. The entire project area is within a Historically Disadvantaged Community

and the portion within Marshall County is an Area of Persistent Poverty (see **Table 1**). All of southeastern Oklahoma is considered rural, including the Project area. The Choctaw Nation Promise Zone is located approximately 6.75 miles east of the Roosevelt Bridge.

Table 1: Roosevelt Bridge Census Tract Designations

Census Tracts	Historically Disadvantaged Community	Area of Persistent Poverty
40095094805	Yes	Yes
40013796003	Yes	No
40013796004	Yes	No

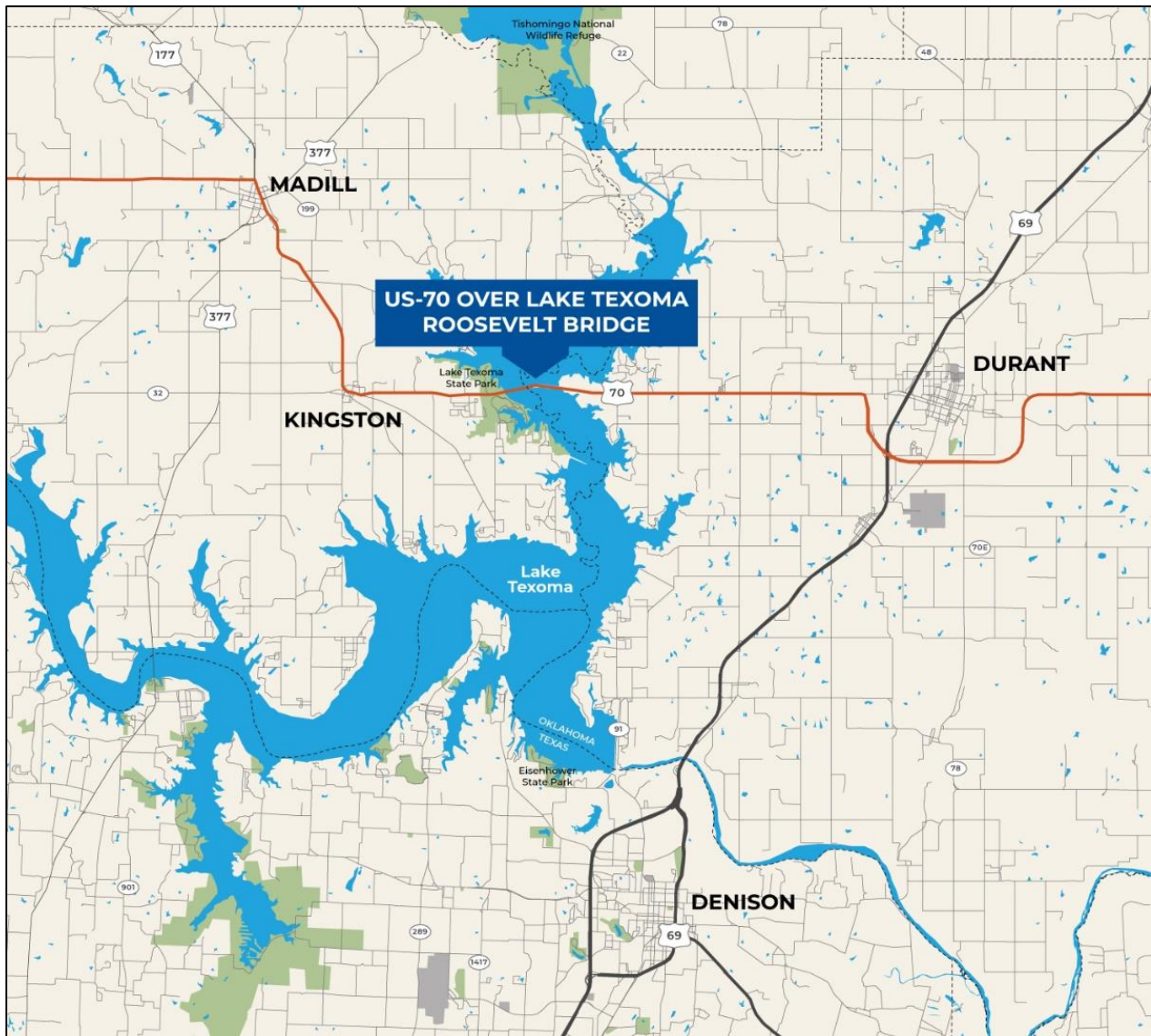


Figure 6: Roosevelt Bridge Location Map