

Multimodal Project Discretionary Grant Application

CROSSROADS-OF-AMERICA:

Replacing Bridges on I-35/I-240 in Oklahoma City

Project Requirements

Grant Request:	Total Project Cost:
\$61,250,000	\$122,500,000

Daniel Nguyen, P.E., MBA Director of Project Delivery dnguyen@odot.org





1. INFRA Project Requirements

1.1 The Project Will Generate National, or Regional Economic, Mobility, or Safety Benefits

Though I-35 is vitally important to the state of Oklahoma in many ways, its importance for freight traffic in particular cannot be overstated, and the I-35/I-240 bridge has been identified as a critical freight bottleneck in the ODOT Freight Plan. Congestion is so severe at this location that the estimated cost is \$10,000 to \$20,000 per day. I-35 carries the highest volume of truck traffic in the state, with more than 8,000 trucks traversing the interstate daily, linking Oklahoma to neighboring states Texas and Kansas and connecting Mexico to Canada. ODOT is actively updating programming to address future needs for this busy corridor, a key component in interstate mobility, economic development, and freight traffic in the central United States. If the I-240 bridge over I-35 shuts down for any reason, it would not only interrupt local and regional traffic in south Oklahoma City but also disrupt interstate and international commerce. Replacing the bridge before the poor condition worsens or becomes load-posted is crucial for the communities and economies of Oklahoma, the region, and the nation. The Project will remove these deterrents by meeting design standards. The Project is expected to decrease travel times for freight on I-35 through Oklahoma City, consequently facilitating smoother supply chain movement because of reduced congestion and more predictable travel times on this heavily-used corridor: in the opening year for the Project, about 5.7 million freight trips will use the Project area, as described in the BCA Narrative.

1.2 The Project Will Be Cost Effective

The total benefits generated from the project improvements within the analysis period are calculated to be \$177 million in discounted 2022 dollars. The total capital costs, including design, preliminary engineering, and construction, are calculated to be \$118 million in discounted 2022 dollars. The difference of the discounted benefits and costs equals a net present value of \$59 million in discounted 2022 dollars, resulting in a benefit-cost ratio (BCR) of 1.49. Table 1 below summarizes the results of the base analysis for the Project by benefit category.

BCA Metric	Monetized Value	
	Undiscounted	Discounted
Total Benefits	\$307,605,000	\$177,077,000
Auto and Truck Travel Time Savings	\$18,242,000	\$11,080,000
Vehicle Fuel Cost Savings	\$380,000	\$229,000
Vehicle Emissions Reduction	\$288,000	\$172,000
Reduction in Vehicle Crashes	\$205,446,000	\$126,078,000
Residual Value	\$76,960,000	\$34,797,000
O&M/R&R Cost Savings	\$6,288,000	\$4,723,000
Total Capital Costs	\$134,146,000	\$118,495,000
Net Present Value	\$173,459,000	\$58,583,000
Benefit-Cost Ratio	2.29	1.49
Internal Rate of Return	6%	

Table 1. BCA Summary Results (in 2022 dollars)

Please see the BCA Narrative for additional detail on the project's cost-effectiveness.





1.3 The Project Will Contribute To 1 Or More Of the National Goals Described Under Section 150

The Project contributes to all 7 of the national goals described under section 150 in the following ways:

(1) Safety: The Project includes substantial safety benefits by bringing an outdated interchange that currently sees an average of 0.7 collisions per day up to modern design standards. The upgraded interchange will remove the limitations known to contribute to collisions while simultaneously replacing a bridge listed as Structurally Deficient on the National Bridge Inventory (NBI), avoiding additional potential safety risks from disrepair. The Project is expected to avoid 4 fatalities, 712 injuries, and 2,170 instances of property damage resulting from vehicle collisions over the 20-year analysis period.

(2) Infrastructure condition: As of the 2022 inspection date, the overall bridge condition has been rated as "Poor" and was determined to be Structurally Deficient. The replacement bridge will bolster the structural and functional resiliency of this interchange for decades to come, with ODOT aiming for the newly constructed bridge to have a 75-year service life. The Project is expected to save over \$7 million in planned repair and rehabilitation work on the roadway and bridge.

(3) Congestion reduction: The bridge's current pier spacing limits mobility for both people and goods passing through this critical corridor for freight and access to opportunities. Congestion is so severe at this location that the estimated cost is \$10,000 to \$20,000 per day according to the Oklahoma State Freight Plan, which identifies this location as a critical freight bottleneck. The Project is expected to result in higher throughput speeds for vehicles from less congestion during peak hours, resulting in an average reduction in total travel time of over 47,000 vehicle-hours per year.

(4) System reliability: From 2012 to 2021, there were a total of 2,585 reported collisions in the Project area. Each of these crashes can cause traffic to back up or even come to a complete stop for extended periods of time. The reduction in collisions through the project will improve traffic flow and system reliability.

(5) Freight movement and economic vitality: The project will address a critical freight bottleneck and reduce congestion and idling vehicles on the roadway that has the highest volume of truck traffic in the state of Oklahoma. The project will also support the creation of high-quality jobs along with Disadvantaged Business Enterprise (DBE) and apprenticeship programs.

(6) Environmental sustainability: By rebuilding this outdated cloverleaf interchange to a safer, more efficient design, a significant reduction of collisions and an increase in vehicular flow are expected, which will help eliminate some of the negative environmental impacts to the surrounding communities caused by slow-moving and idling vehicles.

(7) Reduced project delivery delays: The Project presents a unique avenue for innovation by bundling various components of the bridge improvement (broken into Phases 2, 3, and 4). This innovative approach accelerates delivery, reduces costs, and increases efficiency by merging multiple project components into a single contract. Project bundling streamlines design, contracting, and construction, creating value for the agency, contractors, and public. By considering allowable administrative costs, bundling will result in a 15% overall cost savings each for Phases 2, 3, and 4 of the Project compared with not bundling.

1.4 The Project Is Based on the Results of Preliminary Engineering

NEPA has been completed for the Project; an EA was conducted in 2003, and a reevaluation was completed in December 2015 and is located <u>here</u>. Phases 2 and 3 of the project have completed final design, while Phase 4 is at 90% design with Final Design completion expected in August 2024.





1.5 With Respect to Related Non-Federal Financial Commitments, 1 or More Stable and Dependable Sources of Funding and Financing are Available to Construct, Maintain, and Operate the Project, and Contingency Amounts are Available to Cover Unanticipated Cost Increases

The local funding of \$30,625,000 (25%) of Project funding will come from a local match that ODOT will contribute using ROADS funds. The Project is included in relevant state and local transportation plans, including the ODOT FFY-2024 through FFY-2031 Construction Work Plan, as described in the State and Local Approvals section. In addition, the Project is listed in the FFY 2022-2025 Statewide Transportation Improvement Program (STIP; JP #903208, JP #903207, and JP #903206). Financial Commitment document is attached to this application.

The anticipated annual maintenance expenses for the Project are estimated at \$53,200 per year, and funding for the Project's maintenance costs will be allocated by ODOT through their dedicated maintenance fund. ODOT will align the maintenance of the constructed bridge with the organization's Transportation Asset Management Plan. ODOT's comprehensive \$500 million Asset Preservation Plan strategically targets issues pertaining to bridges, roadways, and accessibility.

A contingency of 20% has been included in the Project budget estimates to cover unanticipated cost increases.

1.6 The Project Cannot be Easily and Efficiently Completed Without Other Federal Funding or Financing Available to the Project Sponsor

Federal funding is essential to expeditiously complete the Project: the inclusion of MPDG funding is instrumental in advancing the Project's completion. Rather than waiting for funding in each phase, the MPDG funds enable simultaneous progress across all phases, enhancing overall Project efficiency and ensuring a more seamless and timely completion, as discussed in detail in Section 6: Innovation of the attached Outcome Criteria document. Federal funding will allow ODOT to bundle the three Project phases, resulting in a 15% cost savings per phase.

1.7 The Project is Reasonably Expected to Begin Construction Not Later than 18 Months After the Date of Obligation of Funds for the Project

ODOT will begin construction quickly after obligation of grant funds, with construction completion well in advance of the FY25/FY26 MPDG expenditure deadline of September 30, 2033. The grant agreement is expected in mid-2025; project letting will be in September 2025, and project construction will begin in January 2026 and will be complete in spring 2028. For additional detail on the Project schedule, please refer to the attached Project Readiness file.

2. Mega Project Requirements

2.1 The Project is Likely to Generate National or Regional Economic, Mobility, Safety Benefits

Though I-35 is vitally important to the state of Oklahoma in many ways, its importance for freight traffic in particular cannot be overstated, and the I-35/I-240 bridge has been identified as a critical freight bottleneck in the <u>ODOT Freight Plan</u>. Congestion is so severe at this location that the estimated cost is \$10,000 to \$20,000 per day. I-35 carries the highest volume of truck traffic in the state, with more than 8,000 trucks traversing the interstate daily, linking Oklahoma to neighboring states Texas and Kansas





and connecting Mexico to Canada. ODOT is actively updating <u>programming</u> to address future needs for this busy corridor, a key component in interstate mobility, economic development, and freight traffic in the central United States. If the I-240 bridge over I-35 shuts down for any reason, it would not only interrupt local and regional traffic in south Oklahoma City but also disrupt interstate and international commerce. Replacing the bridge before the poor condition worsens or becomes load-posted is crucial for the communities and economies of Oklahoma, the region, and the nation. The Project will remove these deterrents by meeting design standards. The Project is expected to decrease travel times for freight on I-35 through Oklahoma City, consequently facilitating smoother supply chain movement because of reduced congestion and more predictable travel times on this heavily-used corridor: in the opening year for the Project, about 5.7 million freight trips will use the Project area, as described in the <u>BCA Narrative</u>.

2.2 The Project Will be Cost Effective

The total benefits generated from the project improvements within the analysis period are calculated to be \$177 million in discounted 2022 dollars. The total capital costs, including design, preliminary engineering, and construction, are calculated to be \$118 million in discounted 2022 dollars. The difference of the discounted benefits and costs equals a net present value of \$59 million in discounted 2022 dollars, resulting in a benefit-cost ratio (BCR) of 1.49. Table 1 summarizes the results of the base analysis for the Project by benefit category.

Please see the <u>BCA Narrative</u> for additional detail on the project's cost-effectiveness.

2.3 With Respect to Non-Federal Financial Commitments, 1 or More Stable and Dependable Sources are Available to Construct, Operate, and Maintain the Project, and to Cover Cost Increases

The local funding of \$30,625,000 (25%) of Project funding will come from a local match that ODOT will contribute using ROADS funds. The Project is included in relevant state and local transportation plans, including the ODOT FFY-2024 through FFY-2031 Construction Work Plan, as described in the State and Local Approvals section. In addition, the Project is listed in the FFY 2022-2025 Statewide Transportation Improvement Program (STIP; JP #903208, JP #903207, and JP #903206). Financial Commitment document is attached to this application.

The anticipated annual maintenance expenses for the Project are estimated at \$53,200 per year, and funding for the Project's maintenance costs will be allocated by ODOT through their dedicated maintenance fund. ODOT will align the maintenance of the constructed bridge with the organization's Transportation Asset Management Plan. ODOT's comprehensive \$500 million Asset Preservation Plan strategically targets issues pertaining to bridges, roadways, and accessibility.

A contingency of 20% has been included in the Project budget estimates to cover unanticipated cost increases.

2.4 The Project is in Significant Need of Federal Funding

Federal funding is essential to expeditiously complete the Project: the inclusion of MPDG funding is instrumental in advancing the Project's completion. Rather than waiting for funding in each phase, the MPDG funds enable simultaneous progress across all phases, enhancing overall Project efficiency and ensuring a more seamless and timely completion, as discussed in detail in Section 6: Innovation of the attached Outcome Criteria document. Federal funding will allow ODOT to bundle the three Project phases, resulting in a 15% cost savings per phase.





2.5 The Applicant has, or Will Have, Sufficient Legal, Financial, and Technical Capacity to Carry Out the Project

As the Project sponsor, ODOT has the technical capacity to successfully deliver the Project, along with decades of experience with receipt and expenditure of federal transportation funds. ODOT has a successful track record collaborating with various entities, including local governments and tribal nations, to execute projects to construct, improve, and maintain Oklahoma's transportation infrastructure. ODOT aims to ensure a secure, cost-efficient, and reliable transportation system that serves the needs of Oklahoma's residents, businesses, and communities. ODOT is committed to improving transportation throughout Oklahoma in various areas, including roadway and bridge maintenance and preservation, construction management, and planning.

ODOT has received hundreds of millions of dollars in federal discretionary funding and has experience managing large and complex projects funded in part by USDOT, including projects funded through INFRA, Better Utilizing Investments to Leverage Development (BUILD), Competitive Highway Bridge Program (CHBP), Rebuilding American Infrastructure with Sustainability and Equity (RAISE), and Transportation Investment Generating Economic Recovery (TIGER) grants.

ODOT obligates all required construction funding prior to advertising a project for construction and again prior to awarding a contract for construction. In addition, ODOT has consistently seen a contract growth of less than 3%, which is covered by other formula federal funds or Oklahoma State Rebuilding Oklahoma Access and Driver Safety (ROADS) funds. Additionally, this Project will align with ODOT's progress to date of addressing safety and capacity improvements.

Furthermore, ODOT manages a large portfolio of federal funds programmed within the <u>FFY2024 through</u> <u>FFY-2031 Construction Work Plan</u>. This \$8.8 billion program, the largest construction workplan in state history, annually reprioritizes projects based on available state and federal appropriations and is currently 60% federally funded. ODOT has the technical expertise and resources dedicated to the Project to provide quality control throughout implementation, keep the public informed of the Project's progress, and ensure the Project meets all federal requirements.

2.6 The Application Includes a Plan for the Collection and Analysis of Data to Identify the Impacts of the Project and Accuracy of Forecasts Included in the Application

Please see the attached Mega Data Plan file, which describes the plan for the collection and analysis of data to identify the impacts of the project.

