

AMERICAN LEGION BRIDGE + 270

Project Budget

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

FY 2024 MPDG GRANT APPLICATION

Location: Montgomery County, Maryland
MDOT UEI: GASRKUGPZCC7

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PROJECT BUDGET

The project budget reflects analysis of the various components involved in the planning, development, design, and construction of I-495 from the George Washington Memorial Parkway to I-270 and I-270 from I-495 to north of Westlake Terrace. The project encompasses a range of capital expenses, which SHA has incurred to complete development work, right-of-way acquisition, tolling systems, and design-build work under separate contracts.

Through the FHWA Cost and Schedule Review Assessment (CSRA) process for major projects, SHA has considered the potential challenges, risks, and uncertainties associated with a complex project of this magnitude. Consequently, this budget section identifies the appropriate contingencies that have been assumed to address unforeseen circumstances, mitigate risks, and maintain project progress.

The commitment to transparency and accountability is reflected in the project budgeting process and SHA’s adherence to FHWA guidelines. SHA has also followed industry best practices throughout the project and the development of this budget. The project and the cost estimate efforts have included established robust financial management protocols, such as regular monitoring and reporting, to maintain financial discipline throughout the project lifecycle.

The project budget provides the financial details for the previously incurred costs, future eligible costs, and use and alignment of funds.

Previously Incurred Costs

The project has been under development since 2017 and SHA has incurred significant costs to develop the current project scope of work. Leading up to May 2024, SHA has incurred the development costs presented in Table 1.

Table 1. Project Development Costs Since 2017

Cost Category	Total Cost (\$ in millions)
Program Management	\$ 24.36
Technical Work / Advisors	\$ 81.96
Communications and Strategic Outreach	\$ 8.82
Opportunity MDOT (workforce development)	\$ 6.77
Solicitation Activities	\$ 4.15
Environmental and Permit Support	\$ 68.62
Legal Advisors	\$ 17.92
Financial Advisors	\$ 12.00
MDOT SHA Staff / Facility / Other	\$ 15.89
Total Previously Incurred Costs	\$ 240.49

The Program Management cost category consists of project delivery oversight, technical elements, tolling, communications, environmental oversight, agency coordination, and coordination with legal and financial advisors in the overall delivery of the project.

The Technical work includes conceptual design to a level of at least 30%, including:

- Horizontal and vertical roadway geometry;
- Multi-modal studies and concept design;
- Preliminary structures layout and conceptual design for bridges, retaining walls, noise barriers, and culverts;
- Geotechnical evaluations;
- Conceptual stormwater management, hydrology and hydraulic analyses;
- Noise studies and conceptual barrier layout; conceptual traffic/ITS engineering; conceptual tolling; and
- Conceptual utility design and coordination to support the environmental design and the design-build contract documents.

Work included the assessment of the overall feasibility of the project, phasing, risk, schedule, cost, operations and maintenance evaluation, and impacts (e.g., environmental resources, utilities, right-of-way, etc.). The technical work also included:

- Topographic and property surveys;
- Field investigations (e.g., utility designation and test pitting, soil borings, pavement testing, CCTV of drainage pipes, etc.);
- Design criteria and technical requirements development;
- Environmental permitting and agency coordination;
- Traffic forecasting and analyses; risk identification/tracking and mitigation;
- Constructability reviews and impact minimization;
- Cost estimating and scheduling; landscape and aesthetic guideline development; and
- Extensive project stakeholder coordination.

Key deliverables for this Technical work included:

- Project technical requirements;
- Existing conditions assessment for roadway, pavement, soils, structures, survey, right-of-way, utilities, environmental, hazardous materials, and other data collection;
- Roadway concept plans;
- Conceptual stormwater management;
- Tolling scenarios;
- Feasibility, phasing, operations, and maintenance plans;
- Traffic projections and analyses;
- Interstate access approval report; and
- Quality assurance and a quality control plan.

Communications and Strategic Outreach work included monitoring and responding to press coverage, media and communications strategies, writing press releases and public messaging, social media campaigns, website creation and updates, and presentations to stakeholders and industry groups.

Opportunity MDOT, SHA's program that focuses on DBE/Small Businesses, worked with SHA's Office of Equal Opportunity to organize outreach events, coordinate meetings with minority businesses and stakeholders, and develop a workforce planning manual/process, training manuals.

Solicitation activities included development of solicitation documents for contracts to support the project development work.

The Environmental and Permit Support focused on the I-495 & I-270 Managed Lanes Study, including reviewing and implementing the full suite of environmental studies; reviewing existing natural, cultural, and socio-economic data; assessing impacts; reducing impacts and limits of disturbance; and other activities related to preparation of environmental documents and permits. Key activities included public notices; public review/comment process; all draft and final environmental documents; coordination with federal, state, and local agencies; stream and wetland mitigation plans; and all US Army Corps of Engineers and Maryland Department of the Environment permits.

The Legal Advisors support the Office of the Attorney General and advise SHA on all legal matters relating to the program, including drafting contracts and agreements, managing reviews of all contracts and legal matters, and providing review and advice related to the development of the environmental documents.

The Financial Advisors are responsible for a range of activities including completing financial analysis of the program and advising SHA on all financial matters related to the program. This work includes financial structuring of the project, development of financial and commercial terms of the solicitation, and contract documents to align to Maryland's goals. The work included performing financial viability analyses to ensure value is being maximized to the State and performing additional financial analyses as needed for the Bi-State Agreement with Virginia.

The MDOT SHA Staff/Facility/Other costs included SHA staff responsible for leading the full project, SHA equipment, office supplies, and other miscellaneous costs.

Future Eligible Costs

As the project moves towards construction, SHA has developed comprehensive cost estimates for total costs. Table 2 presents the nominal (escalated) value of construction costs, assuming a construction timeframe from 2026-2033.

The cost estimate was developed in accordance with the FHWA CSRA process and includes a detailed risk analysis. The final design and construction costs were informed by market pricing information that the State receives from its project bids, including design-build contracts, inflation estimates that are regularly updated by SHA, and quantities based on a design of 30% or greater for the various technical design elements. These numbers include anticipated design-build contractor contingency and markup based on market precedent.

Table 2. Capital Cost Estimates

Category	Nominal (cost in millions YOY)
Preliminary	\$ 361
Grading & Drainage	\$ 474
Structures	\$ 1,436
Roadway, Pavement & Landscaping	\$ 193
ITS/Traffic/Signs/Electric	\$ 133
Utilities	\$ 133
NEPA ROD Commitments, including Transit	\$ 119
Tolling Back Office Infrastructure and Systems	\$ 31
MDOT Oversight	\$ 141
Design, Engineering and Quality Management	\$ 409
Right-of-Way	\$ 82
Owner's Contingency Risk (from CRSA)	\$ 520
Total Future Eligible Project Costs	\$ 4,032
Design and Advanced Construction (Separate from eligible costs)	\$ 3,430

Right-of-way acquisition costs include the estimated needs based on the limits of disturbance from the Final Environmental Impact Statement. They also include natural resource mitigation land. Additionally, the outcome of the CSRA process resulted in the Owner's Contingency Risk valued at \$520 million. These contingencies reflect a comprehensive figure intended to provide clarity on the potential risk exposure for unanticipated costs that would not be covered through design-build contracts.

Use and Alignment of Project Funds

SHA is currently developing a comprehensive financial plan for the American Legion Bridge + I-270 multimodal corridor that involves multiple sources of funding, such as federal grant programs, state transportation funding, and toll revenue-backed debt financing.

The total eligible cost estimate for this project is \$4,032 million, including the Owner's Contingency Risk, as shown Table 3.

Table 3. Total Future Eligible Costs

Cost Category	Total (\$ in millions)
Capital Costs	\$3,512
Owner's Contingency Risk (from CRSA)	\$ 520
Total Future Eligible Costs	\$4,032

Based on the \$4.032 billion cost estimate and applying for 57.14%, less than the maximum 60% Multimodal Project Discretionary Grant (MPDG) cost share, SHA is requesting \$2,304 million in grant funding. Table 4 shows the breakdown of funding sources anticipated for the project.

Table 4. Funding Sources

Funding Sources	Total Dollars (in millions)	Percentage
Federal MPDG/MEGA/INFRA Grant	\$ 2,304.0	57.14%
Other Federal Source(s)	\$ 864.0	21.43%
State Match	\$ 864.0	21.43%
Total Project Funding	\$ 4,032.0	100.00%

The funding plan for this project includes 57.14% from the federal MPDG program, 21.43% from other federal sources such as a federal Bridge Investment Program (BIP) grant, and 21.43% in a state match. In addition to the MPDG grant program, SHA submitted a grant application for the FHWA Bridge Investment Program for the replacement of the American Legion Bridge and the approaches to the bridge in Fall 2023 and supplemental information for the application in March 2024. If the additional information provided does not result in an award, a new application will be submitted in August 2024.

SHA is committed to meeting the 21.43% match for future eligible costs for the project, slightly more than the required minimum. The state match will be provided by toll revenue-backed debt financing, achieved through toll revenue bonds issued by the state. MDOT may seek a TIFIA loan as well, but the state match is not dependent on receipt of a TIFIA loan; a TIFIA loan would likely only increase the amount of debt raised from the toll revenues. MDOT and SHA are also exploring scenarios where additional federal funding may be needed to close potential funding gaps, which involves seeking state legislative authorization to issue grant anticipation revenue vehicles (GARVEEs) against future formula funding for this project. MDOT successfully issued \$750 million in GARVEE bonds on the Intercounty Connector, which have all been repaid, and MDOT currently has no outstanding GARVEE bonds.

SHA has undertaken a detailed risk analysis as part of the CSRA and an Owner's Contingency Risk of \$520 million is included in the project costs for this application as listed in Table 3. These contingencies reflect a comprehensive evaluation of potential risk exposure where the risks and unanticipated costs are best borne by SHA. SHA is also continuing design, permitting, utility coordination, and other due diligence activities targeted at reducing potential risk exposure.