



2025-2026 MPDG GRANT APPLICATION

Full Replacement of the I-195 Washington Bridge

Relieving Congestion after Emergency Shutdown

- Program Name:** Multimodal Project Discretionary Grant Opportunity (MPDG),
National Infrastructure Project Assistance Grants (MEGA)
- Project Sponsor:** Rhode Island Department of Transportation (RIDOT)
- Sponsor Address:** 2 Capitol Hill, Providence, RI 02903
- Date Submitted:** May 6, 2024
- Project Website:** <https://www.dot.ri.gov/projects/WashingtonBridgeClosure/index.php>

Dear Evaluation Team:

On Dec. 11, 2023, the westbound travel lanes of the Washington Bridge, which carries 90,000 vehicles a day, was shut down in an emergency closure, due to a critical failure of bridge components. The closure was made by Rhode Island Department of Transportation just as a Monday evening rush hour began. In the days that followed, commuters sat for hours in traffic, snarling side roads and the one alternative route across the Henderson Bridge between East Providence and Providence RI. This project will bolster the movement of goods to and from the Port of Providence, an important freight and trade distribution, along with other regional commercial and commuter links to Fall River and Cape Cod.

Working with Rhode Island's Governor's office, RIDOT has developed models to mitigate traffic, provide alternative modes of travel and ease the concerns of the people who travel I-195 and the businesses who count on the interstate for the safe movement of people and goods. Without a new westbound bridge, the area will never be back to its former efficiency. Maintaining a state of good repair, economic vitality and competitiveness, environmental sustainability, safety, and the quality of life for its travelers are among the state's highest priorities. With the support of the MDPG program, the project will be a mechanism to effectively, and efficiently, achieve these goals.


RIDOT requests \$220,980,000 to meet structural sufficiency, to improve traffic flows and safety by eliminating dangerous queuing and bottlenecks, and to promote economic development in the two cities it serves.

This project will bolster the movement of goods to and from the Port of Providence, an important freight and trade distribution hub. Supported by key stakeholders including the City of Providence, City of East Providence, the Port of Providence, and more, this project aligns with Multimodal Project Discretionary Grant program objectives.

The RhodeWorks program enacted into law in 2016 created a schedule and budget for projects across the state, to ensure that federal and state funds are put to the most efficient use to protect the safety of Rhode Island's traveling public. Notably, RIDOT has committed time and resources to making unprecedented and accelerated progress in repairing the state's infrastructure. This includes every step along the way, starting with project planning and all the way to breaking ground at the site.

RIDOT is a major proponent of RhodeWorks' goals of improving public safety and stimulating economic growth. This project goes one step further, aiming for big picture progress that will last long after the end of the slated ten years of the State Transportation Improvement Program (STIP). Our department continues to put shovels in the ground year after year, with plans to do more in the future across all transportation areas, including pavement, bridges, traffic safety, and transportation alternatives. The additional resources provided by this grant would help us continue rebuilding Rhode Island's roads and bridges, increasing our ability to deliver on-time and on-budget projects, and accelerating our progress towards restoring state of good repair and protecting the safety of the traveling public in Rhode Island.

Sincerely,



Peter Alviti Jr., PE
Director

Table of Contents

- 1 Project Description..... 1**
 - 1. Introduction..... 1
 - 2. Statement of Work 2
 - (a) Technical Design Summary 2
 - (b) Current Design Status of the Project..... 3
 - (c) Transportation Challenges to be Addressed 3
 - 3. History & Context 3
 - (a) Project History 3
 - (b) Transportation Network & Investment Context..... 4
 - 4. Project Location 4
- 2 Project Location File..... 1**
- 3 Project Budget..... 2**
 - 1. Project Overview..... 2
 - 2. Budget Overview 3
 - (a) Previously Incurred Costs 3
 - (b) Future Eligible Costs..... 4
 - (c) Cost Estimating and Contingencies 4
 - (d) Budget Allocation by Census Tracts, APP, HDC, and Urbanized Areas,..... 4
 - 3. How All Project Funds May Be Used..... 5
- 4 Outcome Criteria..... 6**
 - 1. Project Overview..... 6
 - (a) Safety 6
 - (b) State of Good Repair..... 6
 - (c) Economic Impacts, Freight Movement, & Job Creation 8
 - (d) Climate Change, Resiliency, & the Environment 11
 - (e) Equity, Multimodal Options, & Quality of Life 16



(f)	Innovation	18
5	Benefit-Cost Analysis.....	20
1.	Narrative Overview.....	20
6	Project Readiness	1
1.	Overview	1
(a)	Technical and Engineering Aspects of the Project.....	1
(b)	Environmental Risk.....	2
(c)	Technical Capacity	5
(d)	Financial Completeness Assessment	5
7	Project Requirements.....	1
1.	Statutory Selection Requirements	1
8	Mega Data Plan	4
1.	Narrative Overview	4
2.	Performance Measurement Approach.....	4
(a)	Reporting Timeline	5
3.	Performance Measure Overview.....	5
4.	Study Areas.....	6
5.	Data Collection and Analysis	7
(a)	Performance Measure #1: Crash Frequency and Rates by Severity	7
(b)	Performance Measure #2: Bridge Deck in Poor Condition.....	9
(c)	Performance Measure #3: Network Travel Time Delay	10
(d)	Performance Measure #4: Greenhouse Gas Emissions.....	12
(e)	Performance Measure #5: Project Duration.....	13

1 Project Description

1. Introduction

The Westbound span of the [Washington Bridge](#), a critical piece of highway infrastructure in Rhode Island, is closed and no longer serviceable due to safety concerns. Because this vital commuter and freight connector linking the City of Providence to Southern New England has not been open since December 11, 2023 traffic delays have compounded every aspect of travel in this part of the state and region. **That is why the Rhode Island Department of Transportation (RIDOT) is requesting \$220,980,000 in Multimodal Project Discretionary Grant support for the \$368,300,000 Full Replacement of the I-195 Washington Bridge project.**

The Rhode Island Department of Transportation (RIDOT) is advancing design and construction of a project to replace the existing Washington Bridge North (Washington Bridge No. 700). In 2022, a \$78 Million design-build contract for the [Washington Bridge Rehabilitation and Redevelopment Project](#) began construction. The project included expanding the capacity of the bridge, through eliminating conflicting weave movements that cause congestion, and installing a new off-ramp connecting I-195 to a waterfront land parcels in East Providence. The proposed improvements were intended to reduce congestion through the I-195 corridor, improve public safety, bring the Washington Bridge up to a state of good repair, and to incentivize revitalization of Waterfront Drive in East Providence.

However, in December of 2023, as part of the ongoing bridge rehabilitation activities, inspectors identified structural conditions in multiple locations requiring the immediate closure of the bridge. After further inspection and structural analysis, it was determined that rehabilitation of the bridge was not economically or structurally feasible, and complete replacement would be required. The Washington Bridge Rehabilitation and Redevelopment contract was subsequently suspended, and RIDOT is now proceeding with plans for full bridge replacement, including completion of the surrounding ancillary access, safety, and environmental improvements of the rehabilitation contract. Accordingly, the bridge replacement will achieve not only the original goals of the rehabilitation project but will provide a new bridge with an intended service life of 100 years. The resultant project will thereby continue the construction process to improve the functionality of the transportation network in the area by:

- › Providing a new Washington Bridge superstructure and substructure;
- › Resurfacing and restriping the I-195 mainline between Broadway in East Providence and the Washington Bridge to restore the bridge to its full capacity, eliminating the current lane drop and impacts from the emergency closure;
- › Replacing the Gano Street off-ramp in Providence, improving the geometry of I-195 Eastbound off- and on-ramp, and improving connectivity along between the Blackstone River Bikeway and the I-195 India Point Park Pedestrian Bridge; and
- › Adding an exit ramp connecting I-195 Westbound to Waterfront Drive in East Providence, a longtime priority for the local community.

The completion of the Washington bridge Replacement and Redevelopment project will advance the key objectives of both RIDOT and USDOT, improving a critical piece of highway infrastructure in the heart of Rhode Island.

Merit Criteria	Proposed Benefits
Safety	<ul style="list-style-type: none"> › Bring the bridge to a state of good repair › Mitigate the crash severity and the increase in crash volume due to the emergency closure › Reduce congestion and increase in travel time throughout the project area, and for emergency vehicles and services
State of Good Repair	<ul style="list-style-type: none"> › Primary purpose of this project is to bring an asset in poor condition to a state of good repair › Return the Washington Bridge I-195 corridor to full capacity
Economic Impacts, Freight Movement, and Job Creation	<ul style="list-style-type: none"> › Bring vital infrastructure on I-195 to a state of good repair and return to full capacity › Reduce travel times and congestion that are negatively impacting regional employers and freight commerce
Climate Change, Resilience, and the Environment	<ul style="list-style-type: none"> › Reduced greenhouse gas emissions through the project area › Use of resilient, modern, building materials and methods
Equity, Multimodal Options, and Quality of Life	<ul style="list-style-type: none"> › Improve air quality throughout the project area, and nearby residential neighborhoods by reducing congestion › Return I-195 to full capacity, reducing congestion and travel time delays that are negatively impacts the local economy, and tourism economy
Innovation Areas: Technology, Project Delivery, and Financing	<ul style="list-style-type: none"> › Design-Build procurement process › Incentivized contracts for on-time, or early, project completion › Innovative financing to ensure financial completeness and commitment to delivering a successful project

2. Statement of Work

(a) Technical Design Summary

The existing bridge components were thoroughly evaluated to develop a viable design to minimize environmental impacts, regulatory permitting complexity, and construction duration, while providing opportunities to provide aesthetics to complement the existing arches of the eastbound bridge. The existing superstructure will be completely demolished while portions of the existing

substructure may be retained to facilitate construction of the new foundations. The new substructure will fully support the new bridge and will consist of deep foundations such as driven piles, drilled micropiles, and/or drilled shaft foundations. Design and construction opportunities exist to contain substructure piles within the footprint of existing pier foundations, thereby eliminating the need for cofferdams or other channel disturbance that potentially would result in sedimentation, noise, and other impacts to aquatic resources. With respect to the superstructure, steel and concrete materials are viable methods of construction. Steel girders would offer the opportunity to reduce the number of required pier foundations by implementing longer spans.

(b) Current Design Status of the Project

RIDOT advertised the Washington Bridge Replacement Project for Best Value Design-Build Procurement on April 30, 2024, proposals for the project area due July 3, 2024 and RIDOT expects to award July 31, 2024.

(c) Transportation Challenges to be Addressed

(i) Replacing the Washington Bridge to a State of Good Repair

Rebuilding the Westbound portion of the Washington Bridge will contribute to a state of good repair by improving the condition and resilience of Rhode Island's bridges in compliance with the [RhodeWorks](#) legislation. This plan requires that 90% of Rhode Island's bridges are structurally sufficient within the first 10 years of the plan. Rebuilding the Washington Bridge would increase RIDOT's structural sufficiency rating by 1.75%, producing a 7.50% reduction in the state's total poor deck area on the NBI.

Since the beginning of the [RhodeWorks](#) program in 2016, RIDOT has reconstructed or replaced 306 bridges. In order to have complete accountability, the Department provides an [interactive map](#) that shows the condition of every bridge in the state, when it was built, and when it was last inspected.

(ii) Avoiding Disruptions during Construction

It is critical that these improvements be successfully implemented with as little disruption to the Washington Bridge approach roads/ramps and local traffic because of the high-profile and high-traffic nature of the area. To minimize the impact to eastbound traffic, the Transportation Management Plan (TMP) details seasonal and night-work scheduling and construction phasing.

3. History & Context

(a) Project History

Originally constructed in 1930 as a bascule bridge to connect Watchemoket Square in East Providence to the old Fox Point Boulevard in Providence, the Washington Bridge (Bridge No. 700) spans the Seekonk River to allow travel between the Providence Metropolitan area and all points East. The original bridge was altered in 1968, replaced by the twin-spanned bridge in need of repair today. The bridge is currently in a poor structural condition, and the current design of on- and off-ramps servicing the bridge creates a series of conflicting weaves that are dangerous and inefficient. The assets within the project area are in dire need of reconstruction to ensure the safety and functionality of I-195, one of the principal roadways connecting Southern New England. The

Washington Bridge also provides a critical link to the western limit of I-195, which connects to several major highways nearby including I-95, I-295, US-6, RI-10, and RI-146. A crucial segment of the interstate system, the Washington Bridge has operated well beyond the bounds of its anticipated capacity for decades. Repaired in 1996, the westbound span is now closed. Prior ADT for the westbound bridge was approximately 90,000 vehicles daily, making it one of the most congested points in Rhode Island. In February 2019, the American Trucking Research Institute identified the I-195 interchange with I-95 as the 35th most congested bottleneck in the nation, and the most problematic chokepoint in Rhode Island.

(b) Transportation Network & Investment Context

The [Washington Bridge](#) hosts an essential portion of I-195 and connects East Providence and neighboring states to Rhode Island's capital city. There are multiple congestion points and bottlenecks along the roadway, including at the Gano Street on/off ramps. There are approximately 90,000 daily drivers crossing the Washington Bridge daily, and due to the recent emergency closure of the westbound lanes, delays and impacts to travel time have dramatically increased in the last three months.

4. Project Location

The [Washington Bridge](#) (located at 41.819076°N, 71.386993°W) carries I-195, US-6, US-44, and US-1A over the Seekonk River, joining together the cities of Providence and East Providence, Rhode Island.

Owned and maintained by RIDOT, the 1,671-foot bridge is vital to highway travel in the Providence area and Southern New England. The bridge effectively is the most-traveled east-west route connecting the Providence metropolitan area to the rest of Southern New England. Part of a network carrying hundreds of thousands of daily travelers, The Washington Bridge provides an essential link to several cities in southeastern Massachusetts, including Taunton, Fall River, and New Bedford, as well as rural communities throughout Bristol County, Massachusetts and Newport County, Rhode Island. For westbound travelers and freight carriers, the bridge provides an essential connection to the City of Providence, as well as I-95. Beyond the Providence area, I-195 is also the principal link to Cape Cod and the South Shore of Massachusetts. Tourists and area residents frequently use both spans of the Washington Bridge to travel to and from the Cape, particularly during the summer months.

2 Project Location File

The Project Location Shapefile has been attached separately in the package of materials submitted through the Grants.gov grant submission portal.

3 Project Budget

1. Project Overview

The Rhode Island Department of Transportation (RIDOT) is requesting \$220,980,000 Million in Multimodal Project Discretionary Grant support for the \$368,300,000 Million Full Replacement of the [I-195 Washington Bridge](#) project. RIDOT will use this grant funding to advance design and construction of a project to replace the existing Washington Bridge North (Washington Bridge No. 700). The resultant project will thereby continue the construction process to improve the functionality of the transportation network in the area by:

- › Providing a new Washington Bridge superstructure and substructure;
- › Resurfacing and restriping the I-195 mainline between Broadway in East Providence and the Washington Bridge to restore the bridge to its full capacity, eliminating the current lane drop and impacts from the emergency closure;
- › Replacing the Gano Street off-ramp in Providence, improving the geometry of I-195 Eastbound off- and on-ramp, and improving connectivity along between the Blackstone River Bikeway and the I-195 India Point Park Pedestrian Bridge; and
- › Adding an exit ramp connecting I-195 Westbound to Waterfront Drive in East Providence, a longtime priority for the local community.

In addition, the project will improve the environmental and community by:

Merit Criteria	Proposed Benefits
Safety	<ul style="list-style-type: none"> › Bring the bridge to a state of good repair › Mitigate the crash severity and the increase in crash volume due to the emergency closure › Reduce congestion and increase in travel time throughout the project area, and for emergency vehicles and services
State of Good Repair	<ul style="list-style-type: none"> › Primary purpose of this project is to bring an asset in poor condition to a state of good repair › Return the Washington Bridge I-195 corridor to full capacity
Economic Impacts, Freight, and Job Creation	<ul style="list-style-type: none"> › Bring vital infrastructure on I-195 to a state of good repair and return to full capacity › Reduce travel times and congestion that are negatively impacting regional employers and freight commerce
Climate Change, Resilience, and the Environment	<ul style="list-style-type: none"> › Reduced greenhouse gas emissions through the project area, through improving traffic flow › Use of resilient, modern, building materials and methods
Equity, Multimodal Options, and Quality of Life	<ul style="list-style-type: none"> › Improve air quality throughout the project area, and nearby residential neighborhoods through reducing congestion › Return I-195 to full capacity, reducing congestion and travel time delays that are negatively impacts the local economy, and tourism economy
Innovation Areas: Technology, Project Delivery, and Financing	<ul style="list-style-type: none"> › Design-Build procurement process › Incentivized contracts for on-time, or early, project completion › Innovative financing to ensure financial completeness and commitment to delivering a successful project

Ultimately, the completion of the Washington bridge Replacement and Redevelopment project will advance the key objectives of both RIDOT and USDOT, improving a critical piece of highway infrastructure in the heart of Rhode Island.

2. Budget Overview

This project has an estimated future eligible cost of \$368,300,000, including design, construction, soft costs, incentives, and contingencies. Figure 3-1 shows how each source of funds will be spent for each major activity and the proposed share for non-federal, MPDG, and other federal funds.

3-1: Project Budget by Task and Funding Source

Task	Expected Cost (\$)	Contingency (\$)	Total Budget (\$)	Non-Federal Share (\$) 20%	MPDG Share (\$) 60%	Other Federal Share (\$) 20%
Design + Prelim. Eng.	\$45,000,000	\$5,000,000	\$50,000,000	\$10,000,000	-	\$40,000,000
Const. Y1	\$164,970,000	\$18,330,000	\$183,300,000	\$36,660,000	\$128,980,000	\$17,660,000
Const. Y2	\$103,500,000	\$11,500,000	\$115,000,000	\$23,000,000	\$92,000,000	-
Closeout	\$17,000,000	\$3,000,000	\$20,000,000	\$4,000,000	-	\$16,000,000
Total	\$330,470,000	\$37,830,000	\$368,300,000	\$73,660,000	\$220,980,000	\$73,660,000

(a) Previously Incurred Costs

The previously incurred costs associated with this project are detailed below in the following two tables: 3-2: Emergency Project, Incurred Costs and 3-3: Demolition Project, Incurred Costs.

Emergency Project	Cost (\$ millions)	Description
Design Build Team Construction	\$21.00	This includes the emergency repairs that are required to safely demolish the bridge
Bridge Inspections	\$11.00	This includes bridge inspections, sub structure analysis, and Forensic analysis
Municipal Reimbursements/State Police	\$5.00	This is an estimate, still working with municipalities to get costs
RIDOT Staff & Miscellaneous	\$7.00	Includes Maintenance, Project Management, Construction, materials, tow truck services, etc.
Ferry Service	\$2.4	3 Ferry companies ran through early January
Estimated Total Emergency Project Costs	\$46.4	

Table 3-2: Emergency Project, Incurred Costs

Demolition Project Task	Cost (\$ millions)	Description
Design Expenses	\$1.77	
Construction Expenses	\$31.00	This will be design build, so this line includes design and construction
Contingency Budget	\$4.65	
Other Expenses	\$3.10	Right-of-way, utility work, project oversight, and administrative expenses
Estimated Total Demolition Project Costs	\$40.52	

Table 3-3: Demolition Project, Incurred Costs

(b) Future Eligible Costs

This project has a future eligible cost of \$368,300,000, including design, construction, staff time, project closeout, contingencies, and incentives for construction. Other federal funds will be derived from the GARVEE funds, and 2022 Bridge THUD funds. Non-federal funds will come from a combination of State Fiscal Recovery Funds (SFRF) and Rhode Island Capital Plan Funds (RICAP).

Table 33-4 Project Budget by Funding Source

Funding Source	Federal / Non-Federal	Total Funding	% of Total Project Cost
MPDG Funds	Federal	\$220,980,000	60.00%
GARVEE	Federal	\$72,660,000	19.73%
2022 Bridge THUD	Federal	\$1,000,000	0.27%
SFRF	Non-Federal	\$20,000,000	5.43%
RICAP	Non-Federal	\$53,660,000	14.57%
Total Project Cost:		\$368,300,000	100%

(c) Cost Estimating and Contingencies

For this project, a contingency of 10% was applied to the cost estimate for each component, in alignment with AASHTO and FHWA industry standards for projects at the scoping design stage. This percentage is further substantiated by localized data from previous local projects, in part to account for potential cost increases attributed to inflation, and the expedited nature of this construction project.

This project will be delivered in a single contract, as such a single contingency amount is included to cover all components of the project. RIDOT is confident from recent experience with large-scale grant projects that this is a sufficient level of contingency funding for the current stage of design that the project has reached. Currently, design plans are at approximately a 10% level.

Task	FFY	Expected Cost	Contingency	Total
Design + Preliminary Engineering	2024	\$45,000,000	\$5,000,000	\$50,000,000
Construction Year 1	2025	\$164,970,000	\$18,330,000	\$183,300,000
Construction Year 2	2026	\$103,500,000	\$11,500,000	\$115,000,000
Closeout	2027	\$17,000,000	\$3,000,000	\$20,000,000
Total		\$330,470,000	\$37,830,000	\$368,300,000

Table 3-5: Cost Estimates and Contingencies

(d) Budget Allocation by Census Tracts, APP, HDC, and Urbanized Areas,

The table below reflects an estimate of the total project costs per census tract. Approximately 33.3% of the future eligible expenses for this project will be spent in Census Tract 104 in East Providence, which is an area of persistent poverty and historically disadvantaged community.

Census Tract	Project Cost by Tract	Urban Area	Area of Persistent Poverty	Hist. Disadvantaged Community
37	\$220,980,000	Yes	No	No
104	\$110,490,000	Yes	Yes	Yes
Subtotal	\$330,470,000	-	-	-
Contingency	\$37,830,000	-	-	-
Total	\$368,300,000	\$368,300,000 (100%)	\$110,490,000 (33.3%)	\$110,490,000 (33.3%)

Table 3-6: Budget by Census Tract

3. How All Project Funds May Be Used

Apart from the requested MPDG funding, no funding for this project requires satisfying any unique conditions. The expectation for this project is that RIDOT will continue its exemplary track record of delivering major grant projects on-time and on-budget. However, the Department understands that planning for unanticipated scenarios is an essential part of delivering projects effectively. Given RIDOT's familiarity with the project area, the amount of preliminary work completed to prepare this application, and the contingencies included in the budget shown above, RIDOT is confident that the budget information presented here will ensure that sufficient funding can be obtained to complete this project.

In the event RIDOT does not receive any MPDG Funding for this project, the Department is left with few alternatives. RIDOT would be required to transfer funds from other projects that have been prioritized in the 10-year State Transportation Improvement Plan, seek other funding sources in the form of a larger bond, or pursue other borrowing options.

If RIDOT receives a portion of the requested MPDG Funding for this project, the Department is committed to mobilizing any and all resources required to ensure that the project is delivered on-time and on-budget. That includes committing additional resources from a combination of state and federal funds to completely fund this project. The number of additional resources is constrained, and RIDOT would carefully analyze any offer from USDOT to accept lesser amounts of funding. However, at three separate instances in the past, RIDOT has accepted offers from USDOT for slightly less grant funding than the amounts requested, and all three times, RIDOT has committed state resources to close the funding gap and advance awarded projects on-time.

The funding requested for this project is expected to support all construction tasks listed in the project description. However, if RIDOT were to receive all requested MPDG funding but the budget escalates beyond the levels estimated in this application, RIDOT will deploy a three-step plan to address cost overruns:

- › Convene an Internal Value Engineering Committee – RIDOT's Planning, Project Management, and Construction staff include engineers with decades of experience. This analysis is a systemic process of review and analysis of the project by a multidisciplinary team or persons not involved in the project that provide recommendations on:
 - Providing the needed functions safely, reliably, efficiently, and lowest overall cost;
 - Improving the value and quality of the project; and
 - Reducing the time to complete the project.
- › Apply Proven Prioritization Processes – RIDOT's 2022 Transportation Asset Management Plan defines key processes for Risk Analysis, Project Prioritization, and Investment Strategies. RIDOT would apply these tools to re-prioritize the other investments in the Capital Program, once the additional financial needs are understood.
- › Pursue Opportunities for Additional Funding – In recent years, RIDOT has developed a tested strategy for securing additional funds for major projects. In the last 10 years, RIDOT has secured more than a dozen discretionary grants totaling more than \$360 million, issued GARVEE bonds, and secured State Revenue Bonds. In the event of a major cost overrun, RIDOT would deploy a combination of these tools to secure the required funding. The Department invites opportunities for innovative financing and would entertain all avenues to make the project whole and secure sufficient financing to proceed with construction.

4 Outcome Criteria

1. Project Overview

(a) Safety

(i) Reducing Fatalities and Serious Injuries

In the months since the emergency closure of the westbound travel lanes on December 15, 2023, [RIDOT's data show an 143% increase of crashes on I-195](#) based on preliminary data from RIDOT, not yet publicly available. Crash Data taken from December 15, 2023, to March 14, 2024, show a total of 277 crashes between I-95 and the Massachusetts state line. In the same time period the previous year, there were 114 total crashes. RIDOT has attributed the disproportionate increase in non-injury crashes to longer periods of congestion and to driver behaviors such as: inappropriate speed approaching the congestion, weaving, and changing lanes, aggressive driving, and driver inattention or distracted driving in congested areas tend to lead to low-speed property damage only crashes. Since these crashes are not severe, their detrimental impact on the network is increased congestion and delays. Through full replacement of this asset and bringing it to a state of good repair, RIDOT will be able to address the congestion challenges through this corridor, improving safety and the efficiency of the transportation network.

(ii) Protecting Vulnerable and Non-Motorized Users

This project will bring the Washington Bridge to a state of good repair through full replacement. RIDOT has applied for multiple grant programs in the last several months directed towards improving safety for non-motorized and vulnerable users through the project area. This included investment in a protected, dedicated shared use path along Waterfront Drive in East Providence, to connect the [East Bay Bike Path](#) as part of RIDOT's 2024 RAISE grant submission. RIDOT also applied for the [Congestion Relief Program](#) with project components aimed at reducing congestion through the Providence, RI – MA urbanized area.

During the period of emergency closure of the westbound travel lanes, RIDOT increased spending for operations and maintenance at the [George Redman Linear Park](#) in Providence which traverses the southbound lane of the Washington Bridge. This increased spending and attention will continue throughout the construction of the full replacement of the Washington Bridge, ensuring the safe and reliable movement for non-motorized and vulnerable users traveling east or west over the Seekonk River.

(b) State of Good Repair

(i) Restoring Infrastructure & Reducing Long-Term Maintenance Costs

The closure of the Washington Bridge westbound travel lanes has crippled the region's ability to move efficiently and reliably through the I-195 corridor. This project will construct and fully replace the existing infrastructure at the Washington Bridge in the I-195 corridor. The asset's

emergency closure has required monumental efforts from RIDOT staff to maintain the bridge's safety and efficiency. Since 2016, when [RhodeWorks](#) legislation was adopted into law, RIDOT established a [10-year improvement plan](#) with a major emphasis on bringing bridge assets to a state of good repair. The law, which received support and aid from many mayors and municipalities across the state, takes an asset management approach to maintenance and management of RIDOT assets. The approach to selecting projects is based on identified funding sources and the life cycle of the asset, removing politics, second-guessing from the prioritization process. Without funding from this grant opportunity for full replacement of the Washington Bridge, RIDOT will be at risk of pushing less critical, but highly prioritized projects to future repair and maintenance due to shortfalls in funding. This project will also present an opportunity for RIDOT to fortify transportation network, supporting the region's economy, through utilizing modern building materials, construction methods, and design. Through replacing this bridge completely, with support from the Multimodal Project Discretionary Grant opportunity, RIDOT will be able to continue repairing and maintaining critical assets at this location, and statewide, without delays from shortfalls in funding.

(ii) Addressing Current Vulnerabilities & Potential Transportation Network Threats

The abrupt closure of the Washington Bridge made it acutely obvious that the corridor is critical for the efficient movement of both people and goods that support the entire region's economy. The Washington Bridge is a lynchpin for accessing the East Bay and beyond to Massachusetts, a corridor that carries approximately 90,000 vehicles daily. This is the primary network to travel east and west through Rhode Island for all types of vehicle movement. As a result of the emergency closure, motorists avoiding the I-195 Washington Bridge are being forced into neighborhood streets and the Henderson Bridge to the north. While it is the nearest pathway over the Providence Harbor, the Henderson Bridge is not designed to carry the same level of capacity as the Washington Bridge. According to benefit cost analysis calculations, this project will conservatively save 300 million vehicle miles travelled by avoiding traffic slow-downs and detours around the bridge. The Washington Bridge's proximity to port infrastructure, Rhode Island's railways, and connections to the National Highway Network are vital to the regional economy, according to RIDOT data 13 to 18% of vehicles in this corridor are truck traffic. This project would directly address the most vulnerable piece of infrastructure under RIDOT's asset management, which if left unaddressed would threaten the economic viability of the state.

With the bridge closure being so recent, data on the economic impacts to Rhode Island businesses is in the process of being collected and analyzed, but there is anecdotal, survey evidence of businesses struggling. Revenue losses are already being felt in various industries, Hope & Main a culinary incubator stated [that 40% of the businesses that work out of the incubator have experienced significant losses in revenue](#) since the bridge closure. The state has begun to offer small business loans with low interest rates to the companies impacted by the bridge closure. Impacts on businesses are not beholden to only impacting revenue. In the case of many of these businesses, there has been a major impact on employees' ability to travel to their place of work if it requires movement through or around the Washington Bridge. The Rhode Island Governor's office is [proposing \\$1.3 million from the state budget to be allocated to small business owners impacted by the Washington Bridge closure](#). Both RI Commerce and RIDOT have invested in

media campaigns to encourage tourism and increased frequency in visits to East Providence businesses.

(c) Economic Impacts, Freight Movement, & Job Creation

(i) Freight

(1) Improving Freight and Multimodal Reliability and Efficiency

The project area is near the Port of Providence, the second-largest deep-water port in New England. More than \$9 billion flowed through the Port in 2018, fueled by 2,000 ships offloading nine million tons of cargo. Key local terminals include the [Sprague Energy Terminal](#) and the [Capital Terminal](#). The Sprague Energy Terminal, located on the northern end of Allens Avenue near the I-195 and I-95S interchange, handles primarily dry bulk cargo (i.e. road salt) and liquid bulk cargo. The natural gas transfer pipeline located on the premises is also responsible for supplying power to the Rhode Island Hospital and residential users in Providence. The Capital Terminal, located in East Providence north of I-195 along the Seekonk River, serves as a major petroleum off-loading point for diesel and home heating fuel.

The existing bottleneck on the Washington Bridge challenges Rhode Island's freight goal of operational efficiency, along with the improved benefits to vehicle miles traveled, successful completion of this project would reduce travel time by 38.2 million hours by avoiding traffic slow-downs and detours around the bridge. The completion of this project will considerably improve traffic flows throughout the area, allowing freight carriers to operate with improved efficiency and reliability when traveling to and from local freight destinations.

(2) Improving Multimodal Transportation Systems and Accessibility to Affordable Transportation

Congestion throughout the project location and adjacent transportation infrastructure has become a major concern for RIDOT during the time since the emergency closure of the Washington Bridge. To mitigate and address this congestion, RIDOT has also applied for the Congestion Relief Program, working closely with the [Rhode Island Public Transit Authority \(RIPTA\)](#) to program feasible and pragmatic solutions to combat congestion. This grant included increased bus service through the project location, with an emphasis on ensuring residents and employers safe and reliable transit. This project would have immediate benefits to the public transportation network and services in Rhode Island through bringing the Washington Bridge to a state of good repair.

(3) Support of Port Development and Addressing Supply Chain Disruption

The Washington Bridge and I-95 are critical to the efficient movement of goods and a key corridor in the national supply chain. Rhode Island is home to five ports and several port terminals, four of which are located on Narragansett Bay, including the Port of Providence in Providence Harbor, the Port of Davisville within the Quonset Business Park, the Tiverton Terminal Pier, and the Port of Newport. All ports on Narragansett Bay have direct access to the Block Island Sound and Atlantic Ocean. In closest proximity to the Washington Bridge, [ProvPort](#) is strategically located port anchored by a strong tenant base, each of which utilizes the port for a distribution center within the New England area, with reputable tenants; companies with long histories at the port and in general. Since the closure of the Francis Scott Key Bridge in Baltimore, both ProvPort and Quonset Development Corporation have stated that they are managing an increase of 20% in imported goods at both ports. The Washington Bridge is utilized by trucks and freight vehicles, as it is in proximity to the Exxon Mobil facility in East Providence, near Ponham Rocks. As a result of the bridge closure, congestion and delays in travel times have impacted the entire I-95 network at all times of the day. Until this asset can be brought to a state of good repair, the Washington Bridge in Rhode Island will continue to stymie the regions economy.



Since the closure of the Francis Scott Key Bridge in Baltimore, both ProvPort and Quonset Development Corporation have stated that they are managing an increase of 20% in imported goods at both ports. The Washington Bridge is utilized by trucks and freight vehicles, as it is in proximity to the Exxon Mobil facility in East Providence, near Ponham Rocks. As a result of the bridge closure, congestion and delays in travel times have impacted the entire I-95 network at all times of the day. Until this asset can be brought to a state of good repair, the Washington Bridge in Rhode Island will continue to stymie the regions economy.

(ii) Creating Good-Paying, High-Quality, and Long Term

Highway contractors need a highly skilled workforce to complete RIDOT projects on time and budget. Journey workers at local unions must be available for dispatch to accomplish these important projects. On-the-job training of registered apprentices is often the only way to produce new journey workers in these high-demand occupations, and to do so, qualified registered apprentice candidates are required. RIDOT has developed a relationship with [Building Futures RI](#) (BFRI), the only state-certified construction pre-apprenticeship training program, to establish a registered apprenticeship program (RAP) in the bridge maintenance division. Building Futures RI helps to prepare diverse, low-income men and women for success in employment as registered apprentices in the building trades. The program works with partners and stakeholders, such as RIDOT, to ensure that the construction projects provide employment opportunities for apprentices at the appropriate level to meet future demand for skilled labor.

RIDOT has a long relationship with Building Futures RI, a nonprofit committed to meeting employer and industry needs for skilled workers the Registered Apprenticeship system. Since inception in 2007, Building Futures RI designed and has implemented a construction pre-apprenticeship program that recruits, assesses, and trains underrepresented populations for placement into employment in the highway construction industry. This comprehensive five-week

construction pre-apprenticeship program (BF200) allows participants to engage in hands-on experiential learning and acquire much-needed “employability skills”. Participants develop an understanding of the various trades in a contextualized learning environment, while working to the norms of construction industry standards and practices. Hands-on training is supplemented with classroom instruction in a variety of topics to support success in the field, including anti-harassment knowledge and strategies, math instruction, and financial literacy.

RIDOT has also been working with the University of Rhode Island’s College of Engineering to help encourage students to pursue a career in the transportation sector. This project will provide access to good-paying jobs and registered apprenticeships for historically underserved communities. In addition, the majority of contractors that work on RIDOT projects are signatories to collective-bargaining agreements with the member unions of [the Rhode Island Building & Construction Trades Council \(RIBCTC\)](#).

(iii) Other Economic Impacts

(1) Addressing Transportation Costs and Improving Access to Employment Opportunities

In a recent survey by the Rhode Island Commerce after the Washington Bridge westbound closed, more than 150 businesses in that area self-reported a decline in revenues, some as high as 70 percent because of traffic snarls and a lack of foot traffic. RI Commerce has received more than 1,050 applications from businesses in that area that have submitted to the Small Business Administration (SBA) for relief. Retail establishments, restaurants, doctors’ offices, and other businesses all said they were losing clients from either side of the bridge. Transportation delivery companies also reported staff shortages because of the impact to delivery routes causing them not to show up for work. If the current no-build scenario holds, employment, business and overall transportation costs will continue to rise.

RIDOT has been working with the Rhode Island Public Transit Authority (RIPTA) to better understand the challenges and impacts that the emergency bridge closure has had on their ridership on bus service that utilize the Washington Bridge and I-195. According to RIPTA’s 2021 Onboard Rider Survey, 61% of RIPTA’s riders are racial/ethnic minorities, 50% do not own a vehicle, 64% do not possess a valid driver’s license, and 79% make less than \$50,000 annually. To address some of these challenges facing Rhode Island’s public transit, RIDOT requested funds through the Congestion Relief Grant Program to expand RIPTA services through this corridor. Several of RIPTA’s most ridden routes serve known areas of persistent poverty or historically disadvantaged communities, expansion of this network and services would help to address challenges with the reliability of the transportation network.

According to the [Rhode Island Department of Labor and Training](#), of the 30,421 unemployment claims filed in the state since the first week of December, 2023, 252 claimants attributed the closure of the Washington Bridge as the reason for their unemployment. Not all of those claims have been verified by the DLT.

(2) Enhancing Recreation and Tourism Opportunities

In its current condition, the Washington Bridge full closure of the westbound has dramatically impacted the state’s ability to adequately provide reliable movement throughout the state. Safety has been maintained throughout the bridge closure. However, an increased number of low-impact

crashes have been reported. Bringing this asset to a state of good repair would continue to encourage use and accessibility to recreation and tourism opportunities. In recent data collected by Tourism Economics, prepared for Rhode Island Commerce Corporation, visitor spending across the state has improved on pre-COVID-19 Pandemic figures. As recent as 2022, visitor spending expanded 17% from the previous year, reaching \$5.3 billion of visitor spending. The emergency closing of the westbound travel lanes of the Washington Bridge impact tourism opportunities for both visitors to the state, local businesses and employees across the state that are reliant on tourism for good-paying jobs. Along with the \$7.9 billion total visitor economy impact in Rhode Island in 2022, visitors to the state generated 84,386 total jobs and \$903 million in state and local taxes, per Tourism Economic, an Oxford Economic Company's June 2023 [The Economic Impact of Visitors in Rhode Island 2022](#) document prepared for Rhode Island Commerce Corporation.

Concurrent to this project, [Rhode Island Turnpike and Bridge Authority](#) (RITBA) is in the process of repairing and rehabilitating the Newport Pell Bridge, in Newport. This bridge links Aquidneck Island to the mainland of Rhode Island and impacts the same transportation network that the Washington Bridge affects. Southern Rhode Island is rich with coastal landscape that attract tens of thousands of tourists in the summer months.

(3) Impact on Future Land Use Productivity

Situated just north of [India Point Park](#), in Providence's [Fox Point](#) neighborhood, this project would bring the Washington Bridge to a state of good repair allowing for equitable and thoughtful land use development in the immediate surrounding area. Just south of the bridge on the Providence side, lies the India Point Park which sits on the confluence of the Seekonk River and Providence River. The areas surrounding the bridge on both sides of Providence and East Providence have both been the subject of planning and potential development with both municipalities eyeing potential for growth and mixed-use development to fill in the existing land use along the waterfront. To encourage and help to facilitate investment in this area, a related project will also evaluate and invest in multimodal connections in a protected, shared use path along Waterfront Drive in East Providence.

(d) Climate Change, Resiliency, & the Environment

By facilitating efficient traffic flows along the western portion of I-195 to reduce harmful emissions to the environment and to improve quality of life for the roadway's commuters, this project will promote environmental sustainability, reduce oil dependency, limit carbon emissions by improving traffic flows, and incentivize redevelopment of brownfield sites along the East Providence waterfront.

(i) Emissions Reductions

(1) Reducing Greenhouse Gas Emissions

Initial daily queues extended from the I-95 interchange along I-195 to the Massachusetts state line. Since the implementation of the 6-lane configuration backups have been reduced, but the danger remains that one crash can repeat the scenario. The completion of this project will eliminate the Westbound queue in its entirety. Eliminating queues will reduce congestion and increase traffic flow, helping promote environmental sustainability on the Rhode Island roadways through

emissions reductions. On average, over the life of the bridge, this project will generate more than \$48.1 million in total emission benefits.

In the current no-build scenario of this project, deterioration would continue on the Washington Bridge, which is already had an emergency closure of the westbound travel lanes. The deterioration, and emergency closure, has caused lane shifts and slight detouring to try and accommodate for the capacity reduction in a corridor that sees roughly 90,000 vehicles daily. Congestion and major impacts to travel time has plagued this corridor since December 11, 2023, with travel times increasing throughout the day, and significantly during peak travel times. For the last three months, vehicles and roadway users are suffering from slow travel times on I-195 or detouring through community and neighborhood streets increasing the traffic volume on residential streets.

The congestion and delays caused by the emergency closure of the Washington Bridge westbound travel lanes have a direct relationship to greenhouse gas emission and air quality throughout the project location. Information from the RIPTA show that buses in motion consume 4.5 gallons of diesel fuel per mile. Congestion, and other impacts to travel time, will cause more greenhouse gases emissions into the air. Through bringing this asset to a state of good repair and returning the bridge to full capacity will help to reduce congestion through the corridor, which will have a direct impact to greenhouse gas emissions compared to the current state of the bridge.

(2) Encouraging Modal Shift

In a corridor carrying roughly 90,000 vehicles daily, bringing the Washington Bridge to a state of good repair is the primary challenge of this project. Full Replacement of the Washington Bridge will include improved ramp geometry at on- and off-ramps in both Providence and East Providence. The improved geometries are not only to encourage safer driving for vehicles entering, or exiting, I-195, but will help to improve connection of the [Blackstone River Bikeway](#).

In the interim time since the emergency closure, RIDOT has worked with other state agencies and departments to address the congestion impacts and travel time delays through the project area. To combat the increasing congestion and delays to time travel, RIDOT has explored other resources and services that could provide passage through, or despite, this emergency closure. As previously mentioned in this application, RIDOT submitted a grant application to the Congestion Relief Program to support expanding public transit services through the urbanized area and leverage real-time data and improved signage at Park and Rides to encourage modal shift. During the winter months immediately after the emergency bridge closure, RIDOT quickly worked at providing out-of-season ferry service.

(3) Utilizing Transportation Demand Management Strategies

Through bringing this asset to a state of good repair, and completely replacing the Washington Bridge, this project will help to reduce the congestion throughout the corridor and throughout the surrounding areas of Providence and East Providence. The travel time delays in this area have been documented in the months since the bridge required emergency closure of the westbound travel lanes. By completing this project, RIDOT will ensure the safe, reliable, and efficient movement of vehicles that traverse this corridor daily. In the event of a no build scenario, or funding is not secured, this asset would continue to operate at a reduced capacity.

(4) Support and Alignment with Rhode Island Act on Climate + U.S. National Blueprint for Transportation Decarbonization

The primary purpose of this project is to bring a critical infrastructure asset to a state of good repair, which will have immediate impacts to safety, resilience, and economic benefits. A concerning problem with the current condition of the Washington Bridge, and emergency closure has been the increased congestion in the corridor. Traffic volumes have increased, and the capacity reduction has increased the stress on the environment and air quality from the continuous idling vehicles, greenhouse gas emission, and ongoing deterioration of the bridge. While not necessarily a performance measure that will be captured directly from this grant funding, data collection, monitoring, and analysis will be performed on this asset, and in this corridor with collaboration from other state agencies.

Detailed in the [Carbon Reduction Strategy](#), the state's [Congestion Management Plan](#) is a systematic process for identifying the causes and locations of roadway traffic congestion, developing monitoring processes to measure transportation system performance and reliability, and developing congestion management strategies and solutions. The Congestion Management Plan has included this location as one of the four most critical bottlenecks in the state, with several projects in Rhode Island's current 10-year STIP.

The Congestion Management Plan was developed by the [Division of Statewide Planning](#), in 2020, includes an action plan with steps to support efficient traffic operations, which will help to reduce carbon emissions by reducing inefficient driving in low-speeds and stop-and-go traffic. Throughout the lifecycle of this project, and beyond, RIDOT will continue to monitor and collect traffic volumes and travel times, and work collaboratively with other agencies, such as Statewide Planning, to evaluate implementation strategies and the performance of the asset from a resilience and climate sustainability standpoint.

While the primary purpose of this project is to replace a bridge that has fallen into poor condition, this project presents a major opportunity for more equitable and environmentally conscious transportation planning. While this bridge is critical to the movement of 90,000 vehicles daily, the scope of this project will help to improve non-motorized infrastructure, as RIDOT continues to connect Providence and the state of Rhode Island's non-vehicle, and multimodal transportation network. In 2016, the Washington Bridge South Pedestrian project was completed, adding a nonvehicle path on the bridge, affording bicyclists and pedestrians safe passage to each side of Rhode Island. The state's [Bicycle Mobility Plan](#) also details the bicycle facility network gaps, across the state, with the Providence capital being a critical location for developing these connections. This grant opportunity would make vital investments in the Washington Bridge, that will help to encourage modal shift in transportation users and will help realize new bicycle facilities and network connections.

(5) Applying Climate Conscious Materials and Construction Methods

RIDOT and the state of Rhode Island have taken serious measures to evaluate resilient, climate conscious, materials and methods that could be utilized in this project. With a deck area of over 145,000 square feet, the bridge is one of the largest structures in Rhode Island, employing innovative, and climate conscious building materials and construction methods will be critical to ensuring this asset will be reliable and useful for the future of its lifecycle.

Under the design-build contract for the project, RIDOT will encourage the use of lower-embodied carbon construction materials which could include steel, cement/concrete, asphalt and glass. This could include resilient and climate conscious materials such as recycled construction materials that meet or exceed the recycled content requirements under RCRA Section 6002, foamed glass aggregate which temporarily rebuilt the collapsed section of the I-95 corridor in Philadelphia, or renewable energy technology products.

(6) Promoting and Serving the Renewable Energy Supply Chain

In January of 2020, Rhode Island set the first-in-the-nation goal to meet 100% of the electricity demand with [renewable energy by 2030](#). Supporting such ambitious goals requires by-in and thoughtful planning from each state agency and department. The collaborative effort relies on RIDOT for the ability to maintain the transportation network to support the efficient movement of people and goods and thoughtful asset management utilizing resilient building materials, equipment, and/or construction methods.

(7) Protecting Environmental Destruction

Replacing the Washington Bridge I-195 westbound travel lanes will increase the accessibility of to both downtown Providence and the properties on both sides of the bridge. The improved access to the waterfront will help current local businesses thrive, while also enabling new businesses to emerge in a more bustling setting, thus making Providence a more versatile and competitive economic environment.

The Washington Bridge also promotes environmental sustainability as home to a section of the East Bay Bike Path. This bike path supports RIDOT's STIP through promoting and creating ecofriendly transportation alternatives. Improving the longevity and structural condition of the bridge will help maintain the [East Bay Bike Path](#), reducing emissions by providing an alternate mode of transportation for those commuting to work or biking recreationally.

(ii) Resilience and the Environment

(1) Advancing the National Climate Resilience Framework Objectives

Serving as a critical corridor of I-195, the Washington Bridge Full Replacement will be in alignment and help to advance, at the very least, Objectives 2, 5, and 6 of the [National Climate Resilience Framework](#) in the following manner:

Objective 2: Increase resilience of the built environment to both acute climate shocks and chronic stressors. The Washington Bridge spans over the Providence Harbor and Providence River, an area that is critical for maintaining the movement of people and goods through weather events and climate change impacts. Full Replacement of the bridge will help to fortify the asset for future weather events and help to mitigate and address growing challenges of managing the coastline and waterfront of Rhode Island.

Objective 5: Sustainably manage lands and waters to enhance resilience while providing numerous other benefits. As stated on page 11 of the National Climate Resilience Framework; “the built environment should be considered holistically with the natural environment, since people experience them together and the resilience of one affects the resilience of the other”. Due to its location, ensuring this asset is resilient and designed for the future of climate change is important

for designing the future of Providence and East Providence's waterfronts to be resilient to climate change impacts. Both cities have begun to reimagine the use of land parcels along each waterfront in the proximity of the Washington Bridge. Through this project, RIDOT has the opportunity to set the standard for resilient building practices and collaborate with both Providence and East Providence as both waterfronts are evaluated for future development and land use.

Objective 6: Help communities become not only more resilient, but also more safe, healthy, equitable, and economically strong. Detailed in the bulleted "Opportunities for Action", this project will ensure access to lifeline services remains stable through both acute and chronic climatic events. Currently, the reduced capacity and performance condition of the Washington Bridge have led to the interruption of safe, reliable, and efficient movement through the state. Bringing this asset to a state of good repair will help to maintain reliable access to health and emergency services in the event of acute or more chronic climate events or disruptions.

RIDOT has experience in planning for climate changes and have shown success utilizing Federal Discretionary Grant programs, such as RAISE and PROTECT, to mitigate climate change impacts, and prepare for weather-related disaster scenarios. RIDOT is currently in the process of developing its Resiliency Improvement Plan, this project will be in alignment with strategies outlined in the plan for advancing resilient infrastructure.

(2) Incorporating Nature-Based Solutions

A detailed list of the required environmental and local approvals has been included in the Project Readiness section of this grant application. These agencies and organizations will require careful attention, and project management, as the project relates to the surrounding environment, stormwater treatment, waste, disposal of hazardous materials, as well as soil and groundwater management. RIDOT will work closely with [RIDEM Office of Water Resources](#), which will include consultation with RIDEM Division of Fish and Wildlife to determine if additional minimization or mitigation measures are recommended to protect aquatic life.

(3) Reaching Communities Vulnerable to Climate Change Impacts

Climate change impacts are a challenge throughout the state of Rhode Island, mostly due to precipitation and sea-level rise, as the state has 400 miles of coastline. The website [Climate Check](#) rates the state as have an extreme level of risk due to heavy precipitation through 2050 and beyond. Specific to this project area, communities in both Providence and East Providence face extreme risk of storms, and a significant risk of floods. In addition, urban heat islands can exasperate extreme temperatures that in the summer can lead to more frequent heat waves, which are three or more days of temperatures 90 degrees or above.

(4) Improving Disaster Preparedness

The current condition and performance of the Washington Bridge, and I-195 corridor leave the state of Rhode Island, and region of Southeast New England vulnerable to climate change risks, weather events, or other disaster scenarios. At full capacity, the corridor carries roughly 90,000 vehicles daily, and is a vital corridor for emergency vehicles and reliable movement east and west through the region. The asset is located in a critical connection to I-95 north and south and is also a critical piece of infrastructure for navigating to the Eastern and Western regions of the state.

(e) Equity, Multimodal Options, & Quality of Life**(i) Multimodal Options and Quality of Life****(1) Increasing Affordable Transportation and Equitable Emergency Services**

Since the westbound Washington Bridge closed in December 2023, residents in the East Bay region of Rhode Island have had to navigate, with many delays, access to essential services cross the bridge in the Providence metropolitan area. That includes connectivity to jobs and health care centers such as [Rhode Island Hospital](#) (RIH), the state’s only Level 1 trauma center. One-third of the employees by [Lifespan](#), the owner of RIH, live in the East Bay region, according to the healthcare provider.

Many traditional community events have been put on hold this year, including the Providence Marathon, Portuguese Feast of the Holy Ghost, and there are concerns that the bridge closure will affect summer gatherings at [India Point Park](#) in Providence, the setting for many events including the City of Providence’s annual Fourth of July concert and fireworks display, [Cape Verdean Independence Day Festival](#), said to be the oldest in the nation, the [Rhode Island Seafood Festival in September](#), movie nights, poetry readings, concerts and more. On the other side of the bridge, [RI Waterfront Events](#) holds concerts and other activities at the Bold Point Park venue in East Providence RI that may be difficult for concertgoers to attend in light of the bridge closure.

(2) Supporting Mixed-Use, Mixed-Income, and Transit Oriented Development

In its current condition, the reduced capacity of the Washington Bridge has brought on major challenges for residents of the area. Burdened with time travel delays, increased traffic volume on residential streets, and increased air pollution throughout the area, this project will help to create safer and more desirable neighborhoods for residents as well as the potential for future investment and development. Currently, both Providence and East Providence are in the process of evaluation their waterfront areas for future mixed-use development. Housing stock and equitable housing has become an increasingly difficult challenge for Rhode Island to combat, through completing the replacement of the Washington Bridge, both Providence and East Providence will be able to move forward with creating new land use opportunities along Providence and East Providence’s waterfronts.

(3) Equitable Outreach and Inclusive Community Engagement

As part of the prior Washington Bridge Rehabilitation and Redevelopment Project, RIDOT provided multiple opportunities for the general public to comment on the project details as the project moved forward. In accordance with Federal Highway policy, as listed in 23 CFR 771.105(c), “Public involvement and a systematic interdisciplinary approach are essential parts of the development process.” RIDOT will continue public engagement for the bridge replacement with the support from FHWA and the relevant community stakeholders.

In addition, the enhancement of the entrance to the City of East Providence at Waterfront Drive at I-195, one element of this project, is included within the City’s Comprehensive Plan Update (2010-2015) as well as its Draft “Pathway to 2040” Update in development. Public meetings were held

during the development of these plan updates and community members were given the opportunity to discuss the proposals made in that document.

RIDOT has met with local officials from both the City of Providence and the City of East Providence to coordinate the planning and implementation of the bridge rehabilitation project and will continue this coordination as the project is redirected to a full bridge replacement. The Department will continue to engage with local stakeholders throughout the life of this project. While dialogue continues on the project, stakeholders can find letters of support, project summary information, and learn more about the project at [the project website](#).

(ii) Equity and barriers to opportunity:

(1) Addressing Barriers to Opportunity

RIDOT's Office of Civil Rights has completed a Title VI/Environmental Justice Analysis for this project, analyzing a 0.5-mile radius around the project area. The EJSscreen Community Report show that there are significant EJ populations within the 0.5-mile radius of the project limits with low-income population of 39%, well below the state average of 26%. While construction of the project will temporarily impact the EJ population, the Full Replacement of the Washington Bridge will continue to allow the EJ populations access to hospitals, schools, and businesses. Along with the benefits to accessibility in these communities, returning this corridor to full capacity will help to mitigate the increase in greenhouse gas emissions and degradation to air quality that have plagued the area since the December 2023 emergency closure.

(2) Mitigating Economic Displacement

Through bringing the Washington Bridge to a state of good repair, RIDOT will be able to support the regional economy, local and regional businesses, and tourism opportunities throughout the region. The I-195 corridor is responsible for the movement of people and goods into, and through the state of Rhode Island. Increased travel times throughout the corridor, and wider transportation network, have impacted many businesses and employees within the region. Bringing this asset to a state of good repair, returning the westbound travel lane to full capacity will help to eliminate congestion in the corridor allowing for reliable and safe travel through the state.

(3) Inclusionary Building Practices

As detailed above, in the "Economic Impacts, Freight Movement, & Job Creation" section, RIDOT has developed a relationship with BFRI, the only state-certified construction pre-apprenticeship training program, to establish a registered apprenticeship program in the bridge maintenance division. This project, and the hands-on training pre-apprenticeship program of Building Futures RI will help to create good-paying jobs, and opportunities for laborers in Rhode Island.

(4) Connecting Communities through Transportation Network Improvements

In the last decade, both the cities of [Providence](#) and [East Providence](#) have begun to reimagine the future of their waterfront areas, and the potential for innovative development opportunities to encourage new economic growth in the center of Rhode Island's urban core. To assist the state and municipalities to see these potential developments realized, RIDOT has served as a stakeholder and involved participant in these planning discussions. Collaborative efforts from several state

agencies can help to better plan and serve the current and future users of the region. The current condition and performance of the Washington Bridge and I-195 corridor put the potential for development and re-imagined land use at risk. Not only a vital transportation corridor in that area, the impacts of the bridge deterioration and increased congestion have negatively impacted the surrounding communities and neighborhoods. Along with the travel time impacts, and general disruptions for locals and residents of the area, fully replacing this asset will help to encourage future mixed-use or commercial development in the urban core of Rhode Island.

(5) Investment into Non-Vehicle Movement

Detailed in the “Safety” and “Climate Change, Resiliency, & the Environment” sections of the Outcome Criteria sections, this project while focused on full replacement of a bridge and highway infrastructure will help encourage further investment from RIDOT into making connections in the existing bicycle network. New ramp geometry will help to make critical north-south and east-west connections on Rhode Island’s system of bike paths and promote further investment in making those bicycle connections.

(6) Equitable Investment and Improvements to the Freight Corridor

The Washington Bridge is a key link of I-195 connecting the Western portion to the East and beyond to the Massachusetts border. With its proximity to local neighborhoods, businesses, and port infrastructure, reliable and efficient movement east and west is needed to support both the workforce of Rhode Island and freight for the region’s economy. The community directly south of the East Providence span of the Washington Bridge, Census Tract 104, is designated as a Historically Disadvantaged Community per the Climate and Economic Justice Screening Tool (CEJST), meeting one burden threshold and the associated socioeconomic threshold. While that is the only Historically Disadvantaged Community or Area of Persistent Poverty in immediate proximity to the Washington Bridge, the impact of this project will be felt in the surrounding neighborhoods and communities in Providence and East Providence. One of the major impacts caused by the emergency closure of the bridge has been the disruption and delays in travel time and growing congestion throughout the I-195 and I-95 corridor. Through repairing this asset, RIDOT will be able to mitigate congestion and the extended queues that have arrived as a result of this slow down. With many of Rhode Island’s Historically Disadvantaged Communities and Areas of Persistent Poverty located in the urban core of Rhode Island, in close proximity to the other highway and interstate network of Rhode Island, bringing this asset to a state of good repair, and reducing the air quality impacts of congestion, slowdowns, and extended queues approaching and the asset.

(f) Innovation

(i) Innovative Technology

While the Washington Bridge project is under way, it is essential to ensure that this highway stretch remain open for travel. The project will include innovative phasing techniques to minimize lane and ramp closures during construction. The Department is granting the relevant construction teams with the authority to make decisions as to how to properly utilize these technologies to keep the highway portion under construction moving as efficiently as possible, while also completing the project with effectiveness.

(ii) Innovative Project Delivery

This project is being completed through a “Design-Build” procurement process. RIDOT will issue a Request for Proposals (RFP) encouraging potential applicants to be as creative and innovative as possible in their proposals. This process will ensure the use of multiple innovative techniques.

This project will be completed through a “design-build” procurement process, using a single contract to support both design and construction work. One entity, contract, and unified flow of work from initial concept through completion has been a tried-and-true method for successfully delivering transportation projects with superior results. Recent successes of design-build project management include:

- › [Route 146 Reconstruction](#) (\$197M Budget, \$65M INFRA Grant Recipient)
- › [Providence Northbound Viaduct](#) (\$265M Budget, \$60M INFRA Grant Recipient, GARVEE Funded)
- › [Reconstruction of the Route 6/10 Interchange](#) (\$343M Budget, GARVEE Funded)

With concern and consideration for the current condition of the asset and emergency closure of the westbound travel lanes, RIDOT will issue a Request for Proposals encouraging potential applicants to be as creative and innovative as possible in their proposals. The Department will evaluate the feasibility for utilizing Accelerated Bridge Construction (ABC) methods for replacement of the Washington Bridge. While the project is under way, this gateway to Providence must be open for business and travel. The project will include innovative phasing techniques to minimize lane and ramp closures during construction and backups on the busy structure. The construction phasing and traffic conditions will be monitored via RIDOT’s Transportation Management Center (TMC), the state’s hub of Intelligent Transportation Systems (ITS) and communication resources. Under the TMC Rhodeways program, road-side cameras are utilized to identify incidents on the highways and variable message signs provide real-time drive-time information to motorists. As part of the project, all construction phasing will be monitored at the TMC, especially during seasonal and night-work schedules.

(iii) Innovative Financing

This project will deploy funds from a wide variety of sources to support one of the largest financial commitments in RIDOT history. In addition to the \$220,980,000 requested in this grant application, financing for this project will also include:

- › \$72,660,000 in GARVEE Bonds, secured through a 2020 issuance which anticipated the need for innovative financing and identified it as an eligible recipient of GARVEE support;
 - Debt service costs are already accounted for in RIDOT’s STIP and the State Budget
 - Deployment of GARVEE funds will avoid an overreliance of FHWA formula funds
- › \$20,000,000 in State Fiscal Recovery Funds will be used for a portion of the match
- › \$53,660,000 million in Rhode Island Capital Plan (RICAP)

5 Benefit-Cost Analysis

1. Narrative Overview

A benefit-cost analysis (BCA) was conducted for the Full Replacement of the I-195 Washington Bridge - Relieving Congestion after Emergency Shutdown for submission to the U.S. Department of Transportation (USDOT) as a requirement of a discretionary grant application for the Multimodal Project Discretionary Grant Opportunity (MPDG), National Infrastructure Project Assistance Grants (MEGA) Program. The analysis was conducted in accordance with the benefit-cost methodology as outlined by USDOT in the Benefit-Cost Analysis Guidance for Discretionary Grant Programs, released in December 2023. The period of analysis corresponds to 33 years and includes 3 years of investment and 30 years of benefits after operations (replacement bridge) begin in 2027.

The westbound span of the Washington Bridge, a critical piece of highway infrastructure in Rhode Island, is closed and no longer serviceable due to safety concerns. Because this vital commuter and freight connector linking the City of Providence to Southern New England has not been open since Dec. 11, traffic delays have compounded every aspect of travel in this part of the state and greatly impacted others.

That is why Rhode Island Department of Transportation (RIDOT) is requesting \$220.9 Million in MPDG support for the \$368.3 Million Full Replacement of the I-195 Washington Bridge project.

Key factors in the BCA include travel-time costs, both with the current eastbound span's 3-lane per direction configuration versus a fully rehabilitated structure that will properly restore westbound traffic to a new bridge. Delays, which conservatively begin at least a mile upstream of the now-closed bridge, are also analyzed along with volume considerations for the next 30 years. The results of the current short-term, no-build solution are extreme costs to both the traveling public and operation and maintenance.

The resulting benefit-cost ratio is 2.9-to-1 in this robust analysis.

6 Project Readiness

1. Overview

(a) Technical and Engineering Aspects of the Project

The Rhode Island Department of Transportation (RIDOT) is advancing design and construction of a project to replace the existing Washington Bridge North (Washington Bridge No. 700). This facility spans the Seekonk River and, until recently, carried Interstate Route 195 (I-195) Westbound from East Providence to Providence. Recently, critical deficiencies were identified in certain structural components that, in the interest of public health and safety, required that RIDOT close the bridge to all vehicular traffic. Temporary crossovers and lane shifts have been put in place to reroute I-195 westbound traffic to the adjacent Washington Bridge South (No. 200) which now carries bidirectional traffic in a reduced lane configuration.

Closure of the existing bridge has resulted in major impacts to highway operations and traffic flow along the interstate and connected facilities in the greater Providence area. These impacts have affected all users of the system, including commuters, schools, freight/commerce, and emergency response services. RIDOT is now seeking to restore this critical link in the surface transportation system to full functionality as expeditiously as possible.

Originally constructed in 1930 as a bascule bridge to connect Watchemocket Square in East Providence to the old Fox Point Boulevard in Providence, the Washington Bridge (Bridge No. 700) spans the Seekonk River to allow travel between the Providence Metropolitan area and all points East. The original bridge was altered in 1968 and replaced by a twin-spanned bridge. In 2022, a \$78 Million design-build project for the Washington Bridge Rehabilitation and Redevelopment Project began construction. The project included expanding the capacity of the bridge (in part by eliminating conflicting weave movements that cause congestion in the area) and installing a new off-ramp connecting I-195 to waterfront parcels in East Providence where the city is currently evaluating future land use. The proposed improvements were intended to reduce congestion through the I-195 corridor, improve public safety, bring the Washington Bridge up to a state of good repair, and to incentivize revitalization of Waterfront Drive in East Providence. However, in December of 2023, as part of the ongoing bridge rehabilitation activities, inspectors identified structural conditions in multiple locations requiring immediate closure of the bridge. After further inspection and structural analysis, it was determined that rehabilitation of the bridge was not economically or structurally feasible, and complete replacement would be required. The Washington Bridge Rehabilitation and Redevelopment contract was subsequently suspended, and RIDOT is now proceeding with plans for full bridge replacement, including completion of the surrounding ancillary access, safety, and environmental improvements of the rehabilitation contract. Accordingly, the bridge replacement will achieve not only the original goals of the rehabilitation project but will provide a new bridge with an intended service life of 100 years. The resultant project will thereby continue the construction process to improve the functionality of the transportation network in the area by:

- › Providing a new Washington Bridge superstructure and substructure;

- › Resurfacing and restriping the I-195 mainline between Broadway in East Providence and the Washington Bridge to restore the bridge to its full capacity, eliminating the current lane drop and impacts from the emergency closure;
- › Replacing the Gano Street off-ramp in Providence, improving the geometry of I-195 Eastbound off- and on-ramp, and improving connectivity along between the Blackstone River Bikeway and the I-195 India Point Park Pedestrian Bridge; and
- › Adding an exit ramp connecting I-195 Westbound to Waterfront Drive in East Providence, a longtime priority for the local community.

Ultimately, the completion of the Washington Bridge Replacement and Redevelopment project will advance the key objectives of both RIDOT and USDOT, improving a critical piece of highway infrastructure in the heart of Rhode Island.

(b) Environmental Risk

The environmental risk for this project is extremely low. The project previously received all required regulatory permits for the bridge rehabilitation and redevelopment project including all ancillary highway, roadway, and utility work. While the bridge replacement will require some new permits, permit modifications, and/or permit extensions, these are anticipated to be secured without issue. Any obstacle for risk for environmental approval would be directed solely toward construction of the new pier foundations. However, this risk can be readily mitigated by working within the confines of existing pier foundations.

(i) Detailed Project Schedule

Milestone	Start Date	Completion Date
Planning Approvals	April 19, 2024	April 30, 2024
Scoping & Preliminary Design	March 28, 2024	April 30, 2024
Base Technical Concept Development	March 28, 2024	April 30, 2024
MPDG Funding Award & Grant Agreement	September 2024 (anticipated)	December 2024 (anticipated)
Procurement of Design-Build Team	April 30, 2024	July 31, 2024
Design-Build NTP	July 31, 2024	July 31, 2024
NEPA Review	March 28, 2024	July 15, 2024
Construction (Design-Build)	August 1, 2024	August 30, 2026
Right-of-Way	N/A	N/A
Permitting	August 1, 2024	October 31, 2024
State & Local Approvals	August 1, 2024	October 31, 2024
Partnership Agreements	N/A	N/A
Punchlist & Closeout	October 1, 2026	June 30, 2027

(ii) Required Approvals

A. NEPA

RIDOT is in the process of completing the National Environmental Policy Act (NEPA) review process for this Project, which is currently being prepared as a documented Categorical Exclusion (CE) for review by the FHWA. A NEPA determination is expected to be issued by FHWA prior to RIDOT issuing a Notice to Proceed to the Design Build Entity for design and construction of the project by July 31, 2024.

B. Reviews, Permits, and Approvals from other agencies

The project will require reviews and permit approvals from several regulatory agencies. As previously noted, the project was previously reviewed and approved by these agencies as part of the cancelled rehabilitation project. As such, this will allow the regulatory process to be expedited as much of the information has already been presented, reviewed, and approved by these agencies. RIDOT has also already notified and coordinated with these agencies for the bridge replacement, and the agencies are fully aware of the urgency of the project. In summary the agencies requiring review and permit authorization include:

US Army Corps of Engineers (USACE): Section 404 General Permit 8 (Self-Verification or Pre-Construction Notification). The Project will include discharges of dredged or fill material to the Seekonk River incidental to bridge construction and as such the Project will require Section 404 authorization by the USACE under General Permit 8 of the USACE New England District's General Permits for the State of Rhode Island. Authorization under the General Permit will not be valid until the CRMC Category B Assent is granted. The USACE may exercise jurisdiction under Section 10 of the Rivers and Harbors Act (RHA) of 1899 as the Project will require minor excavation or fill within navigable waters. Section 10 authorization would be granted as part of the Section 404 review and authorization process. In addition, the USACE Navigation Section has indicated that there is a 16-foot deep by 150-foot wide Federal Navigation Project (FNP) that extends through the project from Providence Harbor north to the Henderson Bridge, and therefore the work may require approval under the RHA Section 408 process to alter a USACE civil works project area.

U.S. Coast Guard (USCG): Pursuant to Section 9 of the Rivers and Harbors Act of 1899 and the General Bridge Act of 1946, the project will require submission and approval of a Bridge Permit Application from the USCG First Coast Guard District. Projects that propose to construct, reconstruct, or modify a bridge or causeway across navigable waters of the United States are required to obtain USCG approval prior to commencing construction or modification work. The Design Build Entity, based upon the proposed replacement design, is responsible for securing authorization from the USCG for the Project. Application requirements are outlined in the 2016 Bridge Permit Application Guide issued by the USCG Office of Bridge Programs.

Coastal Resources Management Council (CRMC): As the state's Coastal Zone Management authority, the CRMC will review the project for consistency with the Coastal Resources Management Program "Red Book" (650-RICR-20-00-1) and Special Area Management Plans as a Category B Assent Application. A similar application to that submitted for the rehabilitation will be prepared by the Design Build Entity reflective of the reconstruction project scope and anticipated impacts.

RIDEM Office of Land Revitalization and Sustainable Materials Management (OLRSMM): In accordance with the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations, 250-RICR-140-30-1), the DB Entity will submit for approval a construction-phase Soil and Groundwater Management Plan (SGMP), including requirements and actions to be taken upon completion of the project.

RIDEM Office of Water Resources: Coverage under the Rhode Island Pollution Discharge Elimination System General Permit for Construction Activity (RIPDES CGP) and Water Quality Certification (WQC) will be obtained through the preparation and submission of an Application

for Stormwater Construction Permit and Water Quality Certification. WQC will include consultation with RIDEM Division of Fish and Wildlife to determine if additional minimization or mitigation measures are recommended to protect aquatic life.

C. Environmental Studies and Other Documents

As part of the prior Washington Bridge Rehabilitation and Redevelopment Project environmental studies were performed for the CE process. As such, these studies will be reviewed and updated for the NEPA process to determine any new impacts the bridge demolition, replacement and construction will have on both the land and water areas surrounding the Washington Bridge. The prior Air Quality Analysis determined the damage costs for pollutant emissions.

D. Discussions with DOT Field Offices Regarding Compliance

RIDOT will work closely with FHWA-RI throughout the NEPA development and review process to ensure that the project meets all federal requirements and proceeds on-schedule.

E. Right of Way

No right-of-way acquisition is expected to be required for this project; all right-of-way actions required for the project have been completed.

F. Public Engagement

As part of the prior Washington Bridge Rehabilitation and Redevelopment Project, RIDOT provided multiple opportunities for the general public to comment on the project details as the project moved forward. In accordance with Federal Highway policy, as listed in 23 CFR 771.105(c), “Public involvement and a systematic interdisciplinary approach are essential parts of the development process.” RIDOT will continue public engagement for the bridge replacement with the support from FHWA and the relevant community stakeholders.

In addition, the enhancement of the entrance to the City of East Providence at Waterfront Drive at I-195, one element of this project, is included within the City’s Comprehensive Plan Update (2010-2015) as well as its Draft “Pathway to 2040” Update in development. Public meetings were held during the development of these plan updates and community members were given the opportunity to discuss the proposals made in that document.

RIDOT has met with local officials from both the City of Providence and the City of East Providence to coordinate the planning and implementation of the bridge rehabilitation project and will continue this coordination as the project is redirected to a full bridge replacement. The Department will manage community outreach through weekly communication on-line in weekly emails, and a project page on its website for all major projects. RIDOT’s Director appears weekly in a radio broadcast program, taking calls from the public, and the Business Outreach team will communicate with local businesses and organizations as necessary throughout the life of the project. RIDOT’s project team coordinates on a regular basis with the surrounding cities and towns. The Department will continue to engage with local stakeholders throughout the life of this project. While dialogue continues on the project, stakeholders can find letters of support, project summary information, and learn more about the project at [the project website](#).

G. State and Local Approval

Aside from the permitting approvals listed in preceding sections, no additional planning approvals are required for this project at this time.

H. Federal Transportation Requirements Affecting State and Local Planning

As outlined throughout this application, the bridge closure, along with deficiencies in the design of the existing bridge and nearby on- and off-ramps, led RIDOT to prioritize the development of a design which rectifies the existing congestion and safety problems in the project area. Eliminating the lengthy traffic queue which frequently forms on the Westbound span of the bridge is a critical objective for commuters, freight carriers, and RIDOT alike. The basis of the design referenced and presented in this narrative is therefore clear: the preeminent concern in designing this project is immediate replacement of the bridge and correcting the problems with the design of the existing Washington Bridge in the most efficient and cost-effective manner.

(iii) Assessment of Project Risks and Mitigation Strategies

As the project transitions from an ongoing bridge rehabilitation/redevelopment project to an accelerated bridge replacement project, RIDOT will continue public outreach and provide continuous updates through its [webpage dedicated to the Washington Bridge](#). Bridge replacement under these circumstances presents certain inherent risks, both procedural (e.g., potential delays in approval of required authorizations) and technical (e.g., differing site and subsurface conditions from those upon which preliminary engineering has been based). Through work completed to date on the rehabilitation/redevelopment project, RIDOT's Office of Project Management has demonstrated that design and permitting can be completed on the aggressive schedule for the reopening of the facility. Mitigation of potential constructability risks will be first addressed through the best value design-build procurement process, as through which prospective Design Build Entities will provide a more robustly detailed technical approach for the Department's consideration, including any alternative/innovative technical concepts. With support from a separate Owner's Representative, RIDOT will work collaboratively with the selected Design Build Entity to ensure that the design issued for construction accounts for potential risks and includes contingencies for unforeseen events.

(c) Technical Capacity

All anticipated right-of-way required for the project has been completed. The project will comply with Buy America provisions, ADA regulations, Civil Rights requirements, Federal Motor Vehicle Safety Standards (FMVSS), and/or the Federal Motor Carrier Safety Regulations (FMCSR) in accordance with the requirements in the issued procurement documents.

(d) Financial Completeness Assessment

Please refer to the Project Budget section of this application to review Financial Completeness for this project and grant application.

7 Project Requirements

1. Statutory Selection Requirements

Table 3 Meeting Statutory Selection Requirements – Project wide,

23 U.S.C. 117 INFRA	49 U.S.C. 6701 Mega	Meeting Requirements
(1) The project will generate national, or regional economic, mobility, or safety benefits	(1) The project is likely to generate national or regional economic, mobility, safety benefits	Project: Yes, successful delivery of this project will help to address major impacts of limited capacity and congestion increases throughout the region. The Time Travel Savings alone will conservatively save approximately 300 million vehicle miles traveled and 38.2 million hours of avoiding traffic slow-downs and detours around the bridge.
2) The project will be cost effective	(2) The project will be cost effective	Project: Yes, per the Benefit Cost Analysis Narrative, included in this grant application, the project will be cost effective. The BCA results for this grant application show a conservative benefit cost ratio of 2.9:1 saving \$1,561.4 million in travel-related costs.
(3) The project will contribute to 1 or more of the national goals described under Section 150	No statutory requirement	Project: 23 U.S. Code § 150 - National goals and performance management measures U.S. Code US Law LII / Legal Information Institute (cornell.edu)
(4) The project is based on the results of preliminary engineering	No statutory requirement	Project: This project is based on preliminary engineering, VN report and analysis completed that determined the bridge should close.

<p>(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</p>	<p>(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</p>	<p>Project: State Funds will be used for non-federal financial commitments. The Project Budget section of the narrative details the source and use of the non-federal funds. In total, \$73,660,000 of non-federal funds will be used to support this project. Non-federal funds will come from a combination of State Fiscal Recovery Funds and Rhode Island Capital Plan Funds.</p>
<p>(6) The project cannot be easily and efficiently completed without other Federal funding or financing available to the project sponsor</p>	<p>(4) The project is in significant need of Federal funding</p>	<p>Project: Yes, due to the poor condition of the bridge and reduced capacity as a result of the emergency closure of the westbound lane this project is of the highest priority for RIDOT to complete. Coinciding with the state's 10-year State Transportation Improvement Program, if this project does not receive funding from the MPDG grant program, RIDOT would be forced to reprioritize future projects currently in the 10-year improvement plan.</p>
<p>(7) The project is reasonably expected to begin construction not later than 18 months after the date of obligation of funds for the project</p>	<p>No statutory requirement</p>	<p>Project: N/A</p>
<p>No statutory requirement</p>	<p>(5) The applicant has, or will have, sufficient legal, financial, and technical capacity to carry out the project.</p>	<p>Project: Yes, information detailing RIDOT's capacity to carry out and complete this project has been included in this full grant application.</p>

No statutory requirement

(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.

Project: Yes, the section titled “Mega Data Plan” includes information and the plan for the collection and analysis of data to identify the impacts of the project has been included in this grant application. The plan for performance includes data collection and analysis for crash frequency and rates by severity; total bridge deck in poor condition; network travel time delay, daily, annual; greenhouse gas emissions, annually; and project duration.

8 Mega Data Plan

1. Narrative Overview

The Data Collection Plan was developed to demonstrate the efficacy of *The Full Replacement of the I-195 Washington Bridge, Relieving Congestion after Emergency Shutdown* project. Submitted by RIDOT for funding under the 2025-2026 Multimodal Projects Discretionary Grant (MPDG) Notice of Funding Opportunity (NOFO), this plan for the collection and analysis of data will help RIDOT identify the impacts of the project and the accuracy of forecasts prepared during the grant application development phase of the project. This plan outlines the approach to measuring impacts of the proposed project on the identified outcome criteria. This approach builds on reporting methodologies employed to measure performance of prior awarded projects and leverages the best available state and federal resources.

2. Performance Measurement Approach

Pursuant to the requirements of 49 U.S.C. 6701, this plan proposes specific performance measures related to program goals. Performance indicators include measurable goals or targets that align with the estimated impacts to the outcome criteria or are stand-ins for outcome indicators described in the application.

To ensure that the requirements of 49 U.S.C. 6701 and the MPDG NOFO are satisfied, this plan establishes a reporting timeline for two milestones to evaluate project outcomes and consistency with proposed targets and detailed study area limits.

The approach to performance measurement in this plan includes the following details for each proposed performance measure:

Table 8-1: Proposed Performance Measures and Project Outcome Criteria

Proposed Performance Measure	Project Outcome Criteria
1. Crash Frequency and Rates by Severity	Lane widths return to 12 ft., wider shoulders built larger than original bridge, few congestion-related crashes due to the free flow of traffic. Expected annual crash reduction is 9.25 percent
2. Total Bridge Deck in Poor Condition	Full replacement: Current deck is 145,531.8, will increase to 168,000 sq. ft in good condition

3. Network Travel Time Delay, Daily, Annual	Travel-time decreases expected by 50 percent during daily peak times, decreasing both annual and daily tallies
4. Greenhouse Gas Emissions, Annual	30 percent decrease in GHG emissions annually
5. Project Duration	Closeout on-time in FFY 2027

(a) Reporting Timeline

Following award of this project and before the start of construction of the Mega project, RIDOT will submit a report providing baseline data for the purpose of analyzing the long-term impact of the project. Not later than six (6) years after the date of substantial completion of a project, RIDOT will submit a project outcomes report that compares the baseline data to quarterly project data for the duration of the fifth year of the project after substantial completion.

RIDOT proposes the following reporting milestones:

- › Baseline Report - upon grant award: Establishes the pre-construction baseline condition to which improvements will be compared and provides data to inform and finalize performance targets. This will be established after award of this project and before construction begins. Currently, this project is projected to have a 2024 baseline.

Project Outcomes Report – five years post-Substantial Completion: Illustrates the success of the project by comparing baseline measures to post-project measures. Currently, substantial completion is anticipated in 2026, five years following that time is approximately the year 2031.

3. Performance Measure Overview

Performance measures were identified to measure the efficacy of the Full Replacement of the I-195 Washington Bridge project. These measures are described in brief below. Additional information for each measure, including their alignment with project outcome criteria, technical definitions, and methodologies, are detailed in subsequent sections.

- › Crash Frequency and Rates by Severity – Assessment of the project’s impact on highway safety, in particular the frequency of high-severe crashes. The data to support this performance measure is collected and evaluated as part of RIDOT’s annual safety performance reporting process. This performance measure will specifically track the following for each project component:
 - Fatal Injury Crashes (K)
 - Fatal Injury Rate (K)
 - Injury Crashes (ABC)
 - Injury Crash Rate (ABC)
 - Injury Crash Rate (ABC)

- › Poor Condition Bridges – Total Bridge Deck Area in Poor Condition
 - Area of bridge deck in poor condition.
- › Network Travel Time – Evaluation of the overall adjustment in the network travel time, which was projected to improve as a result of the project’s proposed construction. Travel time savings were a key benefit driving the project’s cost effectiveness in the benefit-cost analysis. This performance measure will specifically track and evaluate changes in the following:
 - Total Peak Hour Travel Time on key routes
 - I-195
 - I-95
 - Average Travel Time per vehicle on key routes
 - I-195
 - I-95
- › Greenhouse Gas Emissions – Evaluation of greenhouse gas emissions associated with mobile source emissions in Rhode Island, specifically along the I-195 corridor in the study area. Rhode Island Department of Environmental Management leads Air Quality monitoring. RIDOT will work closely with them to ensure that mobile source monitoring in the study area is maintained in future years. Currently Doric Park and Roger Williams Park are used for mobile source monitoring to identify NAAQS status for EPA.
 - Annual Greenhouse Gas emission
- › Non-Motorized Travel Volume – Count of the number of non-motorized travelers in the study area for one week each quarter during the fifth year following substantial completion measuring the increase in motorized travel.
 - Total pedestrians and cyclists in the network
- › Project Duration – Total duration of the completed project relative to the proposed schedule measuring this project’s ability to reduce delivery schedule.
 - Total Project Duration

4. Study Areas

Please use the Project Location File included as an attachment for this application to supplement the information below. There will be slight variations in the study area for each performance measure to adequately capture the project outcomes. The specific study areas by performance measure will be:

- › Study Area for Performance Measure #1: Crash Frequency and Rates by Severity
- › Study Area for Performance Measure #2: Bridge Deck in Poor Condition
 - Project Location File
- › Study Area for Performance Measure #3: Network Travel Time Delay
 - I-195 from the Massachusetts state line to RI-6
- › Study Area for Performance Measure #4: Greenhouse Gas Emissions, Annual
 - Relevant mobile source data collection stations
- › Study Area for Performance Measure #5: Project Duration
 - Based on timely completion of the project

5. Data Collection and Analysis

(a) Performance Measure #1: Crash Frequency and Rates by Severity

(i) Technical Definition

This performance measure is intended to report the frequency and rate of crashes by severity in the study area. Severities have been selected to align with the KABCO system with K representing a fatality, A representing a serious injury, B representing an evident injury, C representing complaints of pain, and O representing property damage only. The proposed improvements are intended to reduce fatalities and serious injuries to improve safety. The proposed project does not expect to eliminate crashes, but rather, reduce their severity. Therefore, property damage only crashes are not included in this evaluation.

(ii) Responsible Parties

The Responsible Parties needed to develop this performance measure are expected to be:

- › RIDOT Office of Traffic Research – Crash Safety and Incident Reporting
- › RIDOT Division of Planning – Capital Project Planning and Development
- › RIDOT Office of Performance Management – Grant Reporting

(iii) Data Measurement Methodology

This performance measure will be evaluated over a 3-year period beginning with a baseline measurement aggregating crashes over the 3-year period prior to the beginning of construction and additionally five years post-completion a second 3-year look back will be completed. Traffic safety and crash history are traditionally evaluated on a five-year average to mitigate the random nature of crashes. In order to meet the required reporting deadline of five years post-construction, this plan proposes a 3-year crash lookback. Due to the nature of the proposed traffic pattern changes, a slight increase in crashes is possible in the year following substantial completion as drivers adapt to new patterns and operations.

Crash Data will be reviewed for the study area roadways, aggregated by severity, and normalized using traffic volumes to assess the magnitude of change in crash trends over time. Crash measurements will be summarized over 12-month periods and average for a 3-year average crash history.

The approach to evaluating crash trends within the study areas is to use the RIDOT crash database to summarize crash history over the recent 3-year period by severity then normalize that data using collected traffic volumes resulting in a rate of crashes per million vehicle miles traveled.

Crash Rates per Million Vehicle Miles Traveled (MVMT) will be calculated as:

$$\frac{\text{Crashes}}{\text{MVMT}} = \frac{\text{Crashes}}{(V \times 365 \times D)/1,000,000}$$

Where,

- › Crashes = number of crashes over a 12-month period
- › V = Volume of vehicles per day
- › D = Distance, total miles in the study area

(iv) Data Sources and Availability

The following data sources are needed to evaluate the change in crash trends in each study area. Following examples from prior performance reporting efforts on grant-eligible projects, the list below indicates the source, collectors and owners, validation strategies, and availability from each primary data source required.

- › **Source #1: Crash Data** – Annual crash incident data summarized from the Online System Crash Analysis & Reporting Database
 - **Collectors and Owners** - The crash database managed by RIDOT along the corridors referenced in the Study Area. Crash reports from the RI State Police and all municipal police departments are uploaded nightly to the system.
 - **Validation Strategies** - Crash safety data is subject to a rigorous collection, management, and validation process. The process is managed by the RIDOT Traffic Data Unit which has authored a series of validation protocols to maintain data quality.
 - **Availability** - This data is readily available on an annual basis. The most recently available data will be utilized to establish a baseline and set final targets in the Pre-Project Report.
- › **Source #2: Traffic Volume Data** – One week of traffic volumes collected at key RIDOT permanent count stations
 - **Collectors and Owners** - RIDOT owns and maintains the Statewide Traffic Counting System Continuous Count Stations that could provide data
 - **Validation Strategies** - Where not available, one week of traffic count data should be collected using newly installed field counters. This method has been used to obtain traffic counts to inform microsimulation modeling to develop grant applications.
 - **Availability** - This data should be readily available. If not, RIDOT will contract with an outside vendor to obtain it.

(v) Proposed Performance Targets and Future Reporting

The proposed project is intended to reduce the severity of crashes in the study area. The safety targets are intended to be met by five years post-completion due to anticipated changes in driver behavior through each study area as they adapt to the changes in the network.

The tables below are intended serve as a template for future reporting on each performance measure. For the purposes of this data plan, an initial target has been identified, but targets will be revised throughout the development of the Pre-Project Report to ensure all targets are developed from data collected at the same time.

Safety enhancements are expected to be driven by a reduction in traffic on local and arterial roads. The decline in surface road volumes will improve safety and is expected to decrease the existing high accident rates experienced at most of the project area.

Table 8-2: Safety Performance Measures and Targets (Data from 12-11-23 to 4-30-24)

Performance Measure	2024 Baseline (Pre-Construction)	Proposed Target*	2031 Five Years Post-Substantial Completion
Fatal Crashes (K)	0		
Fatal Crash Rate per MVMT	0		
Injury Crashes (ABC)^	66		
Injury Crash Rate per MVMT	1.03		

*RIDOT will revise these targets through the Pre-project report to align with the observed baseline.

**RIDOT will perform data collection and analysis on a calendar year basis

(b) Performance Measure #2: Bridge Deck in Poor Condition

(i) Technical Definition

This performance measure is intended to report the total bridge deck area of a bridge meeting the standard of Poor Condition. Given the robust proposed bridge treatments in the proposed project this value should be zero following project completion. Note bridges within the geographic study limits, however not included for treatment through this project will not be included in the measure.

(ii) Responsible Parties

The Primary Users and purposes of this data are expected to be:

- › RIDOT Office of Bridge Engineering – Bridge inspection reports
- › RIDOT Division of Planning – Capital Project Planning and Development
- › RIDOT Office of Performance Management – Grant Reporting

(iii) Data Measurement Methodology

Sum the total bridge area of any study area bridge denoted as being in Poor Condition.

(iv) Data Sources and Availability

- › Bridge Inspection Reports – Document bridge size and condition
 - Collectors and Owners: RIDOT
 - Validation Strategies: RIDOT validates all bridge inspection reports
 - Availability: RIDOT to provide

(v) Proposed Performance Targets and Future Reporting

The proposed project is intended to repair or replace study area bridges and restore, therefore addressing all poor condition bridges. The target is to have zero bridges in poor condition.

The tables below are intended to serve as a template for future reporting on the performance measure. For the purposes of this data plan, an initial target has been identified, but targets will be revised throughout the development of the Pre-Project Report to ensure all targets are developed from data collected at the same time.

Table 8-3: Bridges in Poor Condition Performance Measures and Targets

Performance Measure	Initial Target (annual avg)	2024 Baseline (Pre-Construction)	Proposed Target*	2031 Five Years Post-Substantial Completion
Total Bridge Deck Area for Bridges in poor condition	0	0	8^	7^

*RIDOT will revise targets through the Pre-project report to align with observed baseline.

**RIDOT will perform data collection and analysis on a calendar year basis

^Baseline NBI Ratings

(c) Performance Measure #3: Network Travel Time Delay

(i) Technical Definition

This performance measure is intended to report the peak hour network travel time delay on the corridor of the study area and report the average peak hour travel time delay. The study area corridors I-195 from the Massachusetts state line to RI-6 and I-95 interchange.

(ii) Responsible Parties

The Primary Users and purposes of this data are expected to be:

- › RIDOT Office of Traffic Research – Congestion Management Planning
- › RIDOT Traffic Management Center – Traffic Flow Monitoring and Evaluation
- › RIDOT Office of Performance Management – Grant Reporting

(iii) Data Measurement Methodology

Several data sources are needed to evaluate the travel time on each route identified. Following examples from prior performance reporting efforts on grant-eligible projects, the list below indicates the source, collectors and owners, validation strategies, and availability from each primary data source required.

- › Source 1: Peak Hour Travel Time Data – INRIX Roadway Analytics
 - Collectors and Owners: This data can be collected by RIDOT through the INRIX Roadway Analytics platform that the RIDOT has subscribed to providing access to XD data layers. RIDOT needs to maintain their subscription access to INRIX data in order to continue access to these data.

- Validation Strategies: Validate big data with real travel time observations during morning and evening peaks
- Availability: XD segments are available for the full study area provided in the attached project location file
- › Source #2: Traffic Volume Data – One week of traffic volumes collected at key RIDOT permanent count stations
 - Collectors and Owners: RIDOT currently owns and maintains the Statewide Traffic Counting System Continuous Count Stations that could provide data
 - Validation Strategies: Where not available, one week of traffic count data should be collected using newly installed field counters. This method has been used to obtain traffic counts to inform microsimulation modeling to develop grant applications
 - Availability: This data should be readily available. If not, RIDOT will contract with an outside vendor to obtain it.

(iv) Proposed Performance Targets and Future Reporting

Travel time performance will be measured on the key routes that are impacted by the proposed project. As shown in the table below.

Initial targets have been identified, but targets will be revised throughout the development of the Pre-Project Report to ensure all targets are developed from data collected at the same time. The travel time targets below are intended to be met by five years post-completion as drivers adapt to the changes in the network.

Table 8-4: Proposed Performance Targets and Future Reporting

Performance Measure	Initial Target (annual avg)	2024 Baseline (pre-Construct.)	Proposed Target*	2031 Five Years Post-Substantial Completion
I-195W: MA State Line to I-95				
Total Peak Hour Route Travel Time Delay	10% reduction in travel time delay	345 Hours		
Peak Hour Average Travel Time Delay per vehicle	10% reduction in travel time delay	4 minutes		
I-195E: I-95 to MA State Line				

Total Peak Hour Route Travel Time Delay	10% reduction in travel time delay	677 Hours		
Peak Hour Average Travel Time Delay per vehicle	10% reduction in travel time delay	9 minutes		

**RIDOT will perform data collection and analysis on a calendar year basis

(d) Performance Measure #4: Greenhouse Gas Emissions

(i) Technical Definition

A measure of greenhouse gas emissions along the I-195 corridor in the study area.

(ii) Responsible Parties

The Primary Users and purposes of this data are expected to be:

- › RIDEM Air Monitoring– mobile source emission station data
- › RIDOT Division of Planning – Capital Project Planning and Development
- › RIDOT Office of Performance Management – Grant Reporting

(iii) Data Measurement Methodology

Report on annual greenhouse gas emissions based on mobile source data collection stations.

(iv) Data Sources and Availability

- › Annual Air Quality Monitoring – Documents air quality monitoring results annually
 - Collectors and Owners: RIDEM
 - Validation Strategies: RIDEM validates all results
 - Availability: Requires coordination with RIDEM

(v) Proposed Performance Targets and Future Reporting

The proposed project is intended to reduce travel times which would reduce mobile source greenhouse gas emissions. External factors could impact results and be difficult to disaggregate. Travel Time improvements previously reported are a potential surrogate for these results.

The tables below are intended serve as a template for future reporting on the performance measure. For the purposes of this data plan, an initial target has been identified, but targets will be revised throughout the development of the Pre-Project Report to ensure all targets are developed from data collected at the same time.

Table 8-5: Greenhouse Gas Emissions Performance Measures and Targets

Performance Measure	Initial Target (annual avg)	2024 Baseline (Pre-Construct.)	Proposed Target*	2031 Five Years Post-Substantial Completion
Greenhouse Gas Emissions Annually	1% reduction	0	3% reduction	5% reduction

**RIDOT will perform data collection and analysis on a calendar year basis

(e) Performance Measure #5: Project Duration

(i) Technical Definition

This performance measure is intended to report the total duration of the project construction. The purpose of this measure is to highlight that the proposed bundled project can be constructed more efficiently than a severely fiscally constrained approach which would require breaking this project into approximately four smaller projects operating separately.

(ii) Responsible Parties

The Primary Users and purposes of this data are expected to be:

- › RIDOT Office of Project Management– Quarterly reporting
- › RIDOT Division of Planning – Capital Project Planning and Development
- › RIDOT Office of Performance Management – Grant Reporting

(iii) Data Measurement Methodology

Total duration of project construction.

(iv) Data Sources and Availability

- › Project Management Quarterly Reports – Document project status
 - Collectors and Owners: RIDOT
 - Validation Strategies: RIDOT validates all reports
 - Availability: RIDOT to provide

(v) Proposed Performance Targets and Future Reporting

The purpose of this measure is to highlight that the proposed project can be constructed more efficiently than a severely fiscally constrained approach. The table below is intended to serve as a template for future reporting on the performance measure. For the purposes of this data plan, an initial target has been identified, but targets will be revised throughout the development of the Pre-Project Report to ensure all targets are developed from data collected at the same time.

Table 8-5: Project Duration Performance Measures and Targets

Performance Measure	Initial Target (annual avg)	2024 Baseline (Pre-Construction)	Proposed Target*	2031 Five Years Post-Completion
Total Duration of Project Construction	3 years		2 years	N/A

*RIDOT will revise targets through the pre-project report to align with the observed baseline