

FY 2022 Bridge Investment Program (BIP) Bridge Projects

Application Template

Basic Project Information

The *U.S. Route 202/Interstate 95 Interchange Bridge Replacement and Pedestrian Safety Improvements Project* (“Project”) calls for replacing the Western Avenue Bridge that conveys U.S. 202/State Route 17 over Interstate 95 in Augusta, Maine. The Maine Department of Transportation (“Agency”) is the sole Project sponsor of this rural Project. It sets forth improvements to the condition (replacing a ‘fair’ structure very likely to become ‘poor’ shortly), safety (greatly reducing high-profile risks for drivers and active transportation users), geometry (increasing the vertical clearance to decrease the risk of even more trucks striking the bridge) and economy (maintaining connectivity and preventing costly Interstate and U.S. Highway closures) of the bridge and adjacent pedestrian pathways. It is in the National Bridge Inventory and the Project is consistent with BIP goals.

Project Name	U.S. Route 202/Interstate 95 Interchange Bridge Replacement and Pedestrian Safety Improvements Project
---------------------	---

Eligibility Criteria

This information, in narrative format, is located on **Page 1**.

Project Description (Replacement, Rehabilitation, Preservation, or Protection projects, including bridge bundling and NBIS culvert replacement and rehabilitation)	The bridge is located in the National Bridge Inventory under 23 U.S.C. 144(b).
BIP Request Amount (minimum grant award is \$2.5 million):	Exact amount in year-of-expenditure dollars: \$14,508,000 2023: \$3,627,000 2024: \$7,254,000 2025: \$3,627,000
Total Project Cost (total project cost cannot exceed \$100 million for Bridge Projects):	Estimate in year-of-expenditure dollars: \$19,385,000 2022: \$ 745,890 2023: \$5,037,860 2024: \$9,067,500 2025: \$4,533,750
Applicant:	Maine Department of Transportation: A special purpose authority with a transportation function

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Maintenance Commitment	Maine Department of Transportation has certified in Appendix F that the completed Project will be maintained in accordance with Federal guidelines
Bike and Pedestrian Accommodation required by 23 U.S.C. 217(e)	This Project includes safe accommodation for pedestrians and bicyclists. The new bridge will have ADA-compliant sidewalks and wide shoulders to accommodate bicyclists and pedestrians in continuity with sidewalks and shoulders leading to the bridge.

Additional Project Information

List State(s) in which the project is located:	Maine
Does the project serve an urban or rural community?	Rural community
List all Project Co-Applicants:	N/A
Identify the Lead Applicant (who will also be the applicant responsible for administration of BIP funds if application is selected, and the point of contact for the application)	Maine Department of Transportation
Was an application for USDOT discretionary grant funding for this project previously submitted?	No
Is the project located (entirely or partially) in Federal or USDOT designated areas?	Yes: Opportunity Zone: Yes, southern edge of 23011010300 Empowerment Zone: No Promise Zone: No Choice Neighborhoods: No

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

National Bridge Inventory Data

Identification

Item 1 – State Code & Name	23, Maine
Item 8 – Structure Number	5808
Item 5A – Record Type	1
Item 3 – County Code & Name	11, Kennebec
Item 6 – Feature Intersected	Interstate 95
Item 7 – Facility Carried	RTE 17 US202 ETC
Item 16 - Latitude	44185918
Item 17 – Longitude	69484158

Classification

Item 112 – NBIS Bridge Length	Y
Item 104 – Highway System of Inventory	0
Item 26 – Functional Classification	16
Item 110 – Designated National Network	0
Item 21 – Maintenance Responsibility	1
Item 22 – Owner	1

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Age and Service

Item 27 – Year Built	1955
Item 106 – Year Reconstructed	N/A
Item 42 – Type of Service	51
Item 28A – Lanes on the Structure	5 [actual number of lanes is six]
Item 29 – Average Daily Traffic	16934
Item 109 – Average Daily Truck Traffic	5
Item 19 – Bypass, Detour Length	0

Structure Type and Material

Item 43 – Structure Type, Main	402
--------------------------------	-----

Condition

Item 58 – Deck Condition	5
Item 59 – Superstructure Condition	6
Item 60 – Substructure Condition	5
Item 61 – Channel and Channel Protection	6
Item 62 – Culverts	N

Geometric Data

Item 49 – Structure Length	80.2 [actual total is 263 feet]
Item 50 – Curb of Sidewalk Widths	1.2 1.2 [actual is four feet each]

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Item 51 – Bridge Roadway Width, curb-to-curb	24.4 [act. is 38 ft. WB + 4 ft. median & 38 ft. EB = 80 ft
Item 52 – Deck Width, out-to-out	27.6 [actual is 91 feet]
Item 32 – Approach Roadway Width	24.4 [actual is 80 feet]
Item 47 – Inventory Route, Total Horizontal Clearance	11.6 [actual is 38 feet]
Item 53 – Minimum Vertical Clearance over Bridge Roadway	99.99 [actual is 328.05 inches]
Item 54 – Minimum Vertical Underclearance	H 4.5 [actual is 14.3 feet]
Item 55 – Minimum Lateral Underclearance on Right	H 3.4 [actual is 11.15 feet]
Item 56 – Minimum Lateral Underclearance on Left	1.5 [actual is 11.15 feet]

Load Rating and Posting

Item 70 – Bridge Posting	5
Item 41 – Structure Open, Posted, or Closed to Traffic	A

Appraisal

Item 113 – Scour Critical Bridges	N
-----------------------------------	---

Inspections

Item 90 – Inspection Date	0421
---------------------------	------

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Project Selection Criteria

<p>Criteria #1: State of Good Repair</p>	<p>This information, in narrative format, is located on Page 8.</p> <p>Are the bridge(s) on the project in Fair condition? Yes</p> <p>If yes, please describe why the bridge(s) are at risk of falling into poor condition within the next three (3) years.</p> <p>The previous inspection positioned the 1955 bridge on the fair/poor borderline; bridge was rated ‘5’ during the previous three inspections. Officials estimate a transition to ‘poor’ condition most likely by the next National Bridge Inventory (NBI) inspection, scheduled to occur April 2023. Bridge deck is currently rated ‘fair’ and will likely be the first component to fail. Bridge is low clearance and stands unprotected; overpass immediately south of bridge was struck in 2017 causing an emergency rebuild to that bridge. Imminent maintenance needs include costly repairs to steel beam spans, concrete deck and concrete piers and abutments. MaineDOT estimates the bridge will need to be removed from service in 2049.</p>
<p>Criteria #2: Safety</p>	<p>This information, in narrative format, is located on Page 10.</p>
<p>Criteria #3: Mobility and Economic Competitiveness</p>	<p>This information, in narrative format, is located on Page 13.</p>
<p>Criteria #4: Climate Change, Resiliency, and the Environment</p>	<p>This information, in narrative format, is located on Page 13.</p>
<p>Criteria #5: Equity, Partnership, and Quality of Life</p>	<p>This information, in narrative format, is located on Page 14.</p>
<p>Criteria #6: Innovation</p>	<p>This information, in narrative format, is located on Page 17.</p>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Project Costs

BIP Request Amount	Exact amount in year-of-expenditure dollars: \$14,508,000 2023: \$3,627,000 2024: \$7,254,000 2025: \$3,627,000
Estimated Total of Other Federal funding (excluding BIP Request)	Estimate in year-of-expenditure dollars: \$627,000 2023: \$156,750 2024: \$313,500 2025: \$156,750
Estimated Other Federal funding (excluding BIP) further detail	(List each Federal Program and identify Formula or Discretionary and the amount for each Federal Program Program: Highway INFRA Bridge IIA – Y110 Amount: \$627,000
Estimated non- Federal funding	Source: State General Obligation Bonds Amount: \$3,504,110 2023: \$1,254,110 2024: \$1,500,000 2025: \$ 750,000
Future Eligible Project Cost (Sum of BIP request, Other Federal Funds, and non-Federal Funds, above.	Estimate in year-of-expenditure dollars: \$18,639,110 2023: \$5,037,860 2024: \$9,067,500 2025: \$4,533,750
Previously incurred project costs (if applicable)	Estimate in year-of-expenditure dollars: \$745,890 2022: \$745,890
Total Project Cost (Sum of ‘previous incurred’ and ‘future eligible’	Estimate in year-of-expenditure dollars: \$19,385,000 2022: \$ 745,890 2023: \$5,037,860 2024: \$9,067,500 2025: \$4,533,750

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

If more than one bridge, will bridge bundling be used to deliver the Project?	N/A
If proposed project utilizes bundling, Cost of Unbundled Projects	N/A
Amount of Future Eligible Costs by Project Type	Bridge Replacement Str. 001: \$18,639,110 [\$N/A] Will request \$0 of the amounts awarded to the entity to pay subsidy and administrative costs necessary to provide to the entity Federal credit assistance under 23 U.S.C. chapter 6. ¹

Benefit-Cost Analysis

This information, in narrative format, is located on **Page 18**.

Benefit Cost Analysis— The BCA (detailed in Appendix A) estimates more than \$700 million in total benefits over the 30-year analysis period resulting from the \$19.4 million investment. On a discounted NPV basis (7% for all costs and benefits), the Project yields a very strong benefit-cost ratio of **9.43**. Benefits accrue due to avoidance of future bridge strikes to the current low bridge and the resultant costs of detours while repairs are made to the bridge. MaineDOT utilized their sophisticated reroute modeling tool to measure those impacts. The result was an average detour of 1.6 miles and 12 minutes. The savings are driven by nearly 30,000 average daily vehicles that are impacted. Over the 30-year period, the analysis assumes that the bridge is ‘posted’ twice—once to eventually prohibit common-weight trucks from use and later barring all trucks from use. There are operating, time and safety/crash savings as well as emissions savings associated with the detours and the incremental time and mileage they cause. The net 30-year maintenance costs in a build vs. no-build scenario are included (and detailed in the BCA file) as is the significant residual value from a 30-year analysis period and a new bridge built with a 100-year life. All in, a \$19.3 million investment yields more than \$160 million in discounted savings over the 30-year analysis period.

Project Readiness and Environmental Risk

This information, in narrative format, is located on **Page 19**.

Other Federal Funding and Non-Federal Funding Secured	Yes
---	-----

¹ Receipt of a BIP award does not guarantee that an applicant will receive TIFIA credit assistance, nor does it guarantee that any award of TIFIA credit assistance will be equal to 49% of eligible project costs. Receipt of TIFIA credit assistance is contingent on the applicant's ability to satisfy applicable creditworthiness standards and other Federal requirements.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

<p>NEPA Status – Indicate if the determination will likely be the result of a Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS)</p>	<p>The determination will likely result from a Programmatic Categorical Exclusion (CE) Actual Start of NEPA Date: March 13, 2016 Planned Completion of NEPA Date: December 2022 Current status of NEPA process: The Project is eligible for a Programmatic CE. The CE can be completed upon resolution of the Endangered Species Act Consultation for Northern Long-eared Bats, which is pending.</p>
<p>Is the project currently programmed in the:</p> <ul style="list-style-type: none"> • TIP • STIP • MPO Long Range Transportation Plan • State Long Range Transportation Plan 	<p>The Project is a MaineDOT priority. TIP: N/A STIP: Yes, 2022-2025, WIN 021672.00 MPO Plan: No Long Range Plan: Yes</p>
<p>Is right-of-way acquisition necessary?</p>	<p>Yes, minimal and temporary</p>
<p>Right-of way acquisition considerations.</p>	<p>Temporary to provide egress for active transportation users during construction only. Estimated cost: \$1,625</p>
<p>Design Status</p>	<p>Actual Start of Preliminary Design Date: January 31, 2018 Actual Completion of Preliminary Design Date: June 16, 2022 Actual Start of Final Design Date: June 16, 2022 Planned Completion of Final Design Date: May 3, 2023</p>
<p>Anticipated Construction Start Date:</p>	<p>Date: July 26, 2023</p>
<p>Anticipated Project Completion Date:</p>	<p>Date: June 30, 2025</p>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Project Readiness and Environmental Risk:

Technical Assessment – MaineDOT is an experienced partner able to deliver the Project with very little risk, as it has done with numerous high volume bridge Projects throughout the state that pass over roadways, waterways, railroads and a variety of other features. The agency is an experienced, thorough and responsible recipient of previous TIGER, FASTLANE, INFRA, CHBP, BUILD and RAISE grant funding.

Financial Completeness – The Project’s Federal and non-Federal sources are fully committed and MaineDOT assures funding is available to cover contingency and cost increases. USDOT can rely on the Department to fully fund and begin construction no later than 12 months, less than the 18-month requirement, after the date of obligation of BIP funds for the Project without risk.

Environmental Review and Permitting Risk – It is highly likely that the NEPA process will be complete by December 2022. The Project is eligible for a Programmatic CE which can be completed pending resolution of the Endangered Species Act Consultation for Northern Long-eared Bats.

Project Priority Considerations

This information, in narrative format, is located on **Page 24**.

Project Priority Considerations: The application supports the DOT Priority Considerations – Bridge Projects. The considerations it supports and how are described below.

This application supports the following priority considerations:

The Department alone will be unable to fund construction in the near term.

One: The Project will be ready to proceed through to final design and begin construction within 12 months of a CE determination, well within the 18-month requirement, because preliminary design is complete and final design work will not be challenging because a bridge like this mirrors dozens the Department has designed and constructed for decades. Only a very narrow strip of right-of-way is necessary to be temporarily acquired. Additional information is detailed in the Technical Feasibility section on page 20.

Two: MaineDOT is only applying for construction funding and will be ready to proceed with construction easily within 12 months of award. While a two-phased BIP funding approach is certainly feasible, MaineDOT plans to complete final design and proceed to construction within 12 months of initial award of FY 2022 BIP funds with relative ease, based upon FHWA approval of plans, specifications and estimates for the Project. Additional information is detailed in Section III, PROJECT COSTS – GRANT FUNDS, SOURCES, AND USES OF ALL PROJECT FUNDING, beginning on page 4.

Three: Without FY 2022 BIP grant funding, construction of the Project is unlikely to commence before September 30, 2025. The Project is in the current work plan, but not fully funded for construction. Additional information is detailed in the State of Good Repair section on page 8.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

TABLE OF CONTENTS

I	BASIC PROJECT INFORMATION – DESCRIPTION, LOCATION, AND PARTIES	1
II	NATIONAL BRIDGE INVENTORY DATA	4
III	PROJECT COSTS – GRANT FUNDS, SOURCES, AND USE OF ALL PROJECT FUNDING	4
IV	PROJECT OUTCOME CRITERIA	8
V	BENEFIT-COST ANALYSIS	18
VI	PROJECT READINESS AND ENVIRONMENTAL RISK	19
VII	PROJECT PRIORITY CONSIDERATIONS	24
	APPENDICES	27

PROJECT NARRATIVE

I. BASIC PROJECT INFORMATION – DESCRIPTION, LOCATION, AND PARTIES

The *U.S. Route 202/Interstate 95 Interchange Bridge Replacement and Pedestrian Safety Improvements Project* (“Project”) calls for replacing the Western Avenue Bridge that conveys U.S. Route 202/State Route 17 over Interstate 95 in Augusta, Maine. The Project will greatly improve the condition, safety, reliability, geometry, resiliency and economy of the bridge and adjacent sidewalks and is consistent with BIP goals. The 67-year-old, six-lane, four-span structure is a priority corridor risk due to numerous safety issues including insufficient vertical clearance for excess height vehicle movements on the Interstate below.

The bridge, on the National Bridge Inventory², is currently the southernmost on the non-Turnpike portion of I-95 in Maine requiring reconstruction to improve its safety condition and eliminate the risk of a major bridge outage. Trucks strike the bridge periodically due to its substandard 14.3-foot vertical clearance. Some of those collisions are reported to authorities while—perilously—many are not, only to be discovered at a later date during routine inspection. The preceding span just south of the overpass, previously the ruling northbound height restriction on I-95 in the region, was struck in 2017, forcing sudden interstate and offramp closures and emergency repairs. That created a huge inconvenience for drivers. That overpass’ clearance issue was eliminated during an

extensive and costly rebuild, leaving the Western Avenue Bridge now exposed to tremendous risk as the southernmost of the non-Turnpike bridges needing to be raised. On a larger scale, MaineDOT is investing funds to ensure a Federally- and state-mandated vertical



The Western Avenue Bridge in Augusta, Maine. Photo courtesy Google Maps.

clearance of 16 feet along the entirety of I-95 but the challenge is great because 61 remaining bridges (some under Maine Turnpike Authority control) are also too low. The Agency will not be able to finance the decade-long clearance project without receiving Federal discretionary funding.

The overpass’ rating was on the borderline of fair/poor following the last inspection and received a grade of ‘5’ during the three prior inspections. As a result, it is very likely the bridge will degrade to the ‘poor’ category during its 2023 inspection. With an Annual Average Daily Traffic (AADT) count of 28,593 and a six-lane bridge deck area of 23,775 sq. ft., the bridge is a critical

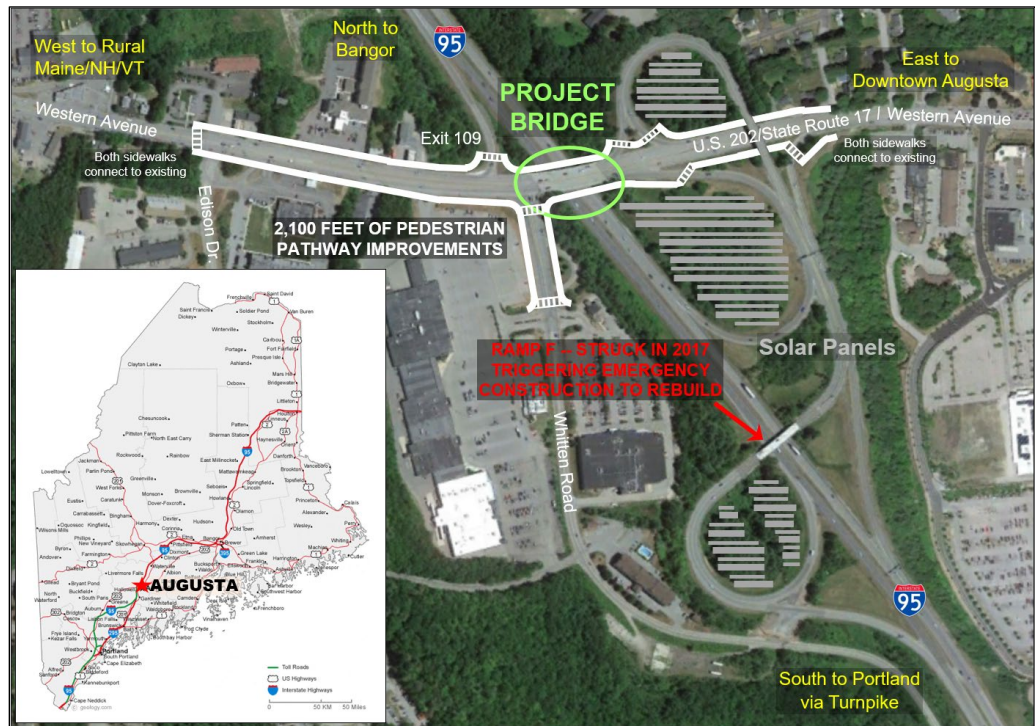
² <https://www.fhwa.dot.gov/bridge/nbi/disclaim.cfm?nbiYear=2022/delimited&nbiState=ME22>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

connection between Augusta and a large rural region to the west. Narrow shoulders, non-ADA compliant sidewalks that do not connect to the surrounding community, low bridge railings and decaying materials all contribute to bridge risk and challenges. Any attempt to improve the current structure will not change that.

The Whitten Road intersection adjacent to the overpass is unsafe for active transportation users. There are no designated crosswalks or crosswalk signals as well as no signage or pavement markings where sidewalks flow into the street. Despite the lack of protection, these areas are exercised by active transportation users to cross streets and move between communities surrounding the intersection.

MaineDOT has designed the new overpass to lie on the same footprint as the current one, although it will be adjusted to accommodate five 11-foot-wide travel lanes, a six-foot-wide outside shoulder westbound and a four-foot-wide outside shoulder eastbound.



There will be two median shoulders both two-foot-wide as well as a five-foot, one-inch-wide ADA-compliant sidewalk on both sides. Vertical clearance will be 16 feet—the FHWA and MaineDOT standard. ADA-compliant crosswalks will be installed at all interstate on/offramps along Western Avenue and at two locations on Whitten Road: at the Western Avenue intersection and at the main entrance to the neighborhood supermarket and mall. Whitten Road, which empties onto Western Avenue just west of the bridge, is heavily traveled because it provides access to many commercial establishments. Upgrades will be made to crosswalks at Western Avenue and Edison Drive west of the Project as well as Western Avenue and Senator Way east of the Project.

While not directly related to the Project, a 2.5-megawatt solar farm is currently being constructed adjacent to the bridge on the infields of the intersection ramps and will be in service prior to commencement of the Project. Utility officials estimate the solar farm will supply power to the grid by next summer.

Before and after Project renderings can be found in Appendix O.

Previously-incurred Costs

Previously incurred expenses as of September 2022 are \$457,827 and cover initial Project engineering of \$456,202 and right-of-way acquisition of \$1,625. Right-of-way acquisition simply includes a temporary narrow parcel of land needed to maintain active transportation access from the west to commercial establishments on Whitten Road during construction only.

Demographics

The Project is located in Augusta, the capital of Maine, in Kennebec County. GPS coordinates are: 44°18'59.18"N, 69°48'41.77"W. This is located in Maine's 1st Congressional District, held by Chellie Pingree (D-ME). The state is represented by U.S. Senators Susan Collins and Angus King. Additional demographics include:

- 1) *Census-Designated Urbanized Area*³: No
- 2) *Area of Persistent Poverty*⁴: County–No; Census tracts–Yes: 103.00, 104.00, 105.00
- 3) *Historically Disadvantaged Community*⁵: No
- 4) Federally-designated community development zones: *Opportunity Zone*⁶: Yes; *Empowerment Zone*: No; *Promise Zone*⁷: No; *Choice Neighborhoods*⁸: The Project bridge is on the dividing line between Census tract 103.00 with 10-20 percent poverty and Census tract 104.00 with 20-30 percent poverty.
- 5) State-designated community development zone: *Pine Tree Development Zone (PTDZ)*⁹: Yes

Economic Significance

The overpass, which handles 28,593 vehicles daily, supports the regional economy and is important to rural Maine. It acts as a conveyor belt for the region, carrying U.S. 202/State Route 17 over I-95. The thoroughfare is a parallel route to I-95 but also connects rural east-central Maine to Augusta and the central coastline. An estimated 59,000 Mainers¹⁰ living in Franklin County and parts of Oxford County rely on the overpass to reach their nearest commercial center—Augusta. The capital city is home to the Augusta State Airport, which last year served more than half-a-million passengers aboard American Airlines, Delta Air Lines and regional

³ https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/

⁴ <https://datahub.transportation.gov/stories/s/tsyd-k6ij>

⁵ <https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525b04c7ce748a3674a>

⁶ <https://opportunityzones.hud.gov/>

⁷ <https://www.hudexchange.info/programs/promise-zones/>

⁸ <https://www.huduser.gov/portal/maps/CN/home.html>

⁹ The Pine Tree Development Zone Program (PTDZ) offers eligible businesses the chance to greatly reduce, or virtually eliminate, state taxes for up to ten years when they create new, quality jobs in certain business sectors or move existing jobs in those sectors to Maine. <https://www.maine.gov/decd/business-development/tax-incentives-credit/pine-tree>

¹⁰ Calculation contains all of Franklin County and half of Oxford County:

<https://www.census.gov/quickfacts/fact/table/oxfordcountymaine/franklincountymaine/PST045221>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

carrier Cape Air.¹¹ Numerous retail and restaurant options, schools, hospitals and health care centers, parks and museums encompass the city, including a VA medical center. Two state government complexes employ more than 1,200 workers.¹² A mix of trucks, primarily transporting freight for local delivery, use the bridge. That number is greater than 750.

Agency Qualifications

MaineDOT is the state agency responsible for managing and funding all transportation modes statewide. Employing approximately 1,800 people, the Agency expends or disburses more than \$675 million annually, including Federal-aid highway program funds and state and local funds. MaineDOT performs extensive analysis to select projects for funding that have the most immediate need. The funding source of the Project match will be State General Obligation Bonds. In Maine, that comes from state bonds approved by the legislature and taxpayers in 2022. The Project is a MaineDOT priority. It is included in MaineDOT's *Statewide Transportation Improvement Plan (STIP) for 2022–2025*, listed as WIN 021672.00.¹³ It is consistent with MaineDOT's long-range plan.

The agency is an experienced, thorough, and responsible recipient of previous TIGER, FASTLANE, INFRA, CHBP, BUILD and RAISE grant funding. USDOT can rely on the Department to fully fund and begin construction no later than 12 months after the date of obligation of BIP funds for the Project without risk. There are no other public or private parties or funders involved in delivering the Project.

Project Goals

The Project yields a number of positive outcomes consistent with the intent of the BIP, including improving the safety, efficiency and reliability of people and freight moving over the bridge, reducing the number of bridges in fair condition that will, almost certainly, fall into poor condition within the next three years and decreasing the number of bridges that fail to meet the current geometric design standards of the regional transportation network. The Project greatly reduces risk. It also meets broader Federal government goals such as using Federal funding effectively, restoring a bridge to a state of good repair within its existing right-of-way, minimizing the need for relocations, reducing greenhouse gas emissions, increasing climate change resiliency, delivering equitable transportation options and access, ensuring the U.S. economy remains competitive and improving job opportunities. All aspects of preliminary engineering are complete. The final design stage will be complete by May 2023.

II. NATIONAL BRIDGE INVENTORY DATA

The data for the Project bridge is located in the National Bridge Inventory Data section of the application template found at the beginning of this document.

III. PROJECT COSTS – GRANT FUNDS, SOURCES, AND USES OF ALL PROJECT FUNDING

¹¹ <https://www.flyags.com/Resources/1739.pdf>

¹² <https://datausa.io/profile/geo/augusta-me/#about>

¹³ <https://www.maine.gov/mdot/stip/>, page 28

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

The Project is considered a BIP Bridge Project and the cost breakdown follows:

Previous Funding:	\$ 745,890 – 3.84% of Total Project Cost
Funds Requested:	\$14,508,000 – 74.84% of Total Project Cost
Other Federal Funds Matched:	\$ 627,000 – 3.23% of Total Project Cost
Non-Federal Funds Matched:	\$ 3,504,111 – 18.08% of Total Project Cost
Total Project Cost:	\$19,385,000 – 100% of Total Project Cost

- 1) Match funding includes 18.08 percent state funding committed by MaineDOT. The agency has these funds available and a funding commitment letter is included in Appendix F.
- 2) Previously incurred expenses as of September 1, 2022 are \$457,827 and cover initial Project engineering of \$453,805 and right-of-way acquisition of \$1,625.
- 3) The \$19,385,000 of total Project costs offers an estimated benefit of more than \$161,000,000 total over the 30-year analysis period.
- 4) The Project has a benefit-cost ratio of at least 9.43:1 based on an NPV at a 7% discount rate over 30 years.
- 5) Savings are realized from safety improvements that will reduce accidents and injuries, reduced maintenance costs, mobility improvements resulting from the bridge not being removed from service (and associated troublesome reroutes) and decreased traffic congestion.

Budget

Costs	MaineDOT	BIP	Other Fed	Totals
Previously Incurred Preliminary Engineering (PE)	\$457,826.94	-	-	\$457,826.94
Previously Incurred Right-of-Way (ROW)				
Preliminary Engineering	\$792,173.06	-	-	\$792,173.06
Right-of-Way (ROW)				
Construction Engineering (CE)	\$3,000,000.00	\$14,508,000.00	\$627,000.00	\$18,135,000.00
Construction				
Totals	\$3,792,173.06	\$14,508,000.00	\$627,000.00	\$19,385,000.00
Percentage of Project Totals (participating)	20%	75%	3%	100%

MaineDOT match is 20%, previously incurred costs are an additional 2% of total project costs.

The Project contains no funding based on a condition being satisfied or available during a fixed period of time.

Budget by Year

PROJECT ELEMENT BY YEAR	To Sept. 2022	Remainder of 2022	2023			2024			2025			Totals
			State	BIP	Other Federal	State	BIP	Other Federal	State	BIP	Other Federal	
Preliminary Engineering	\$457,827	\$288,063	\$504,110	-	-	-	-	-	-	-	-	\$1,250,000
Right-of-Way (ROW)												
Construction Engineering (CE)	-	-	\$750,000	\$3,627,000	\$156,750	\$1,500,000	\$7,254,000	\$313,500	\$750,000	\$3,627,000	\$156,750	\$18,135,000
Construction												
Totals	\$457,827	\$288,063	\$1,254,110	\$3,627,000	\$156,750	\$1,500,000	\$7,254,000	\$313,500	\$750,000	\$3,627,000	\$156,750	\$19,385,000

Contingency

Like all previous Federal transportation grants for which MaineDOT has applied, the organization has budgeted sufficient contingency amounts to cover unanticipated cost increases. MaineDOT carefully monitors construction-related inflation and is aware of current labor and material cost increases. No funding is contingent upon satisfying a condition or available for expenditure only during a fixed period. None of the funds are subject to Federal limits.

Maintenance Commitment

MaineDOT, the entity responsible for roadway bridge maintenance statewide, is committed to maintaining the new bridge. The agency estimates maintenance costs for the first 30 years of the new bridge to be \$224,000. Maintenance funding will be sourced from state funds.

Discretionary Funding Need

MaineDOT is unable to fully fund the Project on its own. The agency is working hard to improve bridges but the need is great and discretionary funding is a critical component of a comprehensive plan. According to the American Road & Transportation Builder's Association (ARTBA), which analyzed and ranked 2021 Federal Highway Administration (FHWA) National Bridge Inventory (NBI) data, Maine ranks 7th nationally for the number of structurally deficient bridges as a percentage of the state's bridge inventory.¹⁴ More than 300 bridges fall into this category yet each one is critically needed given Maine's unique topography and climate. The Pine Tree State's large number of mountain streams that flow into lakes and rivers and eventually empty into bays, inlets and narrows near the Atlantic shore require numerous bridges capable of withstanding a bitter cold climate.

Maine's segment of the population age 65 and older is expected to increase 37 percent between 2016 and 2026 as baby boomers age.¹⁵ As they do, the opportunity to grow gas tax receipts will continue to challenge state lawmakers as older people drive less and many reach an age where driving is no longer practical. The Infrastructure Investment and Jobs Act (IIJA), passed last year, will help. Under IIJA formula funding, Maine is to receive \$1.3 billion for federal-aid highway apportioned programs over five years.¹⁶ MaineDOT Commissioner Bruce Van Note sees *cautious* optimism ahead. "At least three developments indicate that we soon may be able to transition from "MacGyver" mode – which is MaineDOT's general approach, born of fiscal necessity, of doing the best we can with what we have – toward a more proactive approach." The IIJA provides formula funding, "...that MaineDOT can rely on to build the basic elements of its Work Plan. The increase in formula funding – although significant (28%) – will be largely offset by construction cost inflation fueled by tight labor and material markets." Discretionary funding would allow MaineDOT to help buffer inflation's effect.

In 2021 Maine's Legislature approved two General Fund initiatives providing nearly \$106 million to MaineDOT. This unprecedented level of General Fund support saved MaineDOT's capital transportation program. It offset a state Highway Fund revenue hole from pandemic-

¹⁴ <https://artbabridgereport.org/state/ranking>

¹⁵ <https://www.maine.gov/dafs/economist/sites/maine.gov.dafs.economist/files/inline-files/Maine%20Population%20Outlook%20to%202026.pdf>, page 1, 2

¹⁶ https://www.whitehouse.gov/wp-content/uploads/2021/08/MAINE_Infrastructure-Investment-and-Jobs-Act-State-Fact-Sheet.pdf

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

related fuel tax revenue decreases and high construction cost inflation. Additionally, in November 2021 more than 70% of voters approved a \$100-million transportation bond providing much-needed state funds to match federal funds for capital programs. But it won't be enough to significantly improve the state's ranking on the NBI list. A preliminary estimate of the cost to address all low-clearance MaineDOT bridges along I-95 is \$350,000,000 and the timeline covers approximately 10 years given available resources.

The spreadsheet in Appendix J contains overpasses that reach over Interstate 95/Maine Turnpike with a vertical clearance less than 16 feet. The Maine Turnpike Authority controls 45 of those with substandard vertical clearance. Only two of those bridges (#0543 and #0079) are scheduled in the Authority's current four-year work plan to have their vertical clearances increased. The Turnpike Authority relies on toll revenue to fund improvements and is not a recipient of Federal highway funds. The 75-year-old Authority also must make challenging decisions about how and where to spend on improvements. I-295 is the alternate and newer route around many low clearance Turnpike bridges. Opened in the mid-1970s, this 53-mile-long route contains only 8 low clearance bridges. It is a viable through-route for freight since it bypasses 31 of the Turnpike's low clearance bridges.

MaineDOT's portion of I-95 contains 16 overpasses with substandard vertical clearance. The Western Avenue Bridge is the southernmost. Since the potential for a lengthy and extremely inconvenient and costly bridge outage is so high, like that suffered by 'Ramp F' in 2017, the Department is determined to methodically remedy the problem. But it is unable to fund such an undertaking on its own with a price tag of \$350,000,000 and a timeline of a decade or longer.

'Ramp F' is located just south of the Western Avenue overpass and is the southernmost on the I-95 portion of the freeway north of the Turnpike. In 2017, it was struck by an excess height vehicle. The damage was not reported but discovered by MaineDOT a few days following the occurrence. The damage required the bridge to be rebuilt. The report of this occurrence is located in Appendix I.

Previous significant maintenance work has been performed on the Project overpass; however, it has been 17 years since the last heavy maintenance program:

1959 – Concrete slope paving construction

1984 – Wearing surface and joint replacement as well as bridge deck repair

2005 – Joint repair as well as concrete sidewalk and curb repair

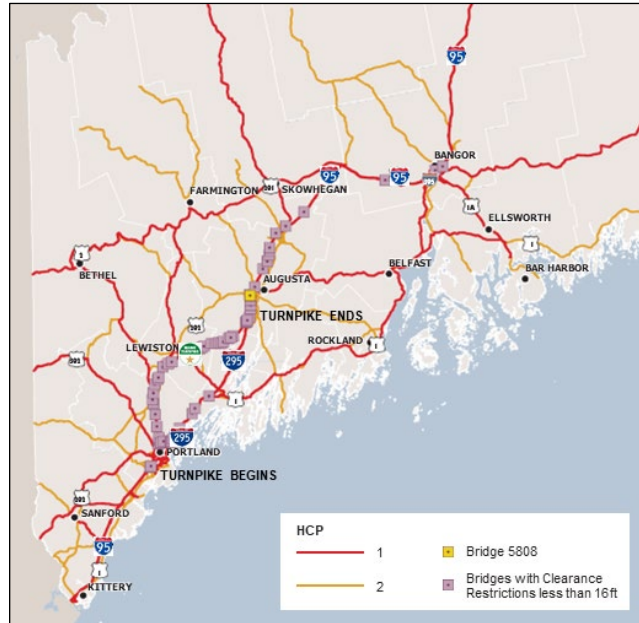
The average annual maintenance cost for the bridge during the previous six years is \$6,117. This cost includes annual cleaning, minor maintenance and a bi-annual NBI bridge inspection. Given



Ramp F following impact with an excess height vehicle in 2017.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

the estimated remaining service life until year 2049, maintenance costs will likely increase exponentially in the future as the structure continues to deteriorate. And that does not count potential emergency repairs due to bridge strikes from oversized traffic moving below. Maintenance tasks will shift from minor work to frequent and potentially emergency structural deck repair given the deck is rated 'fair' but expected to degrade to 'poor' shortly. Funding for such maintenance work comes from state sources. Federal dollars are utilized for bridge inspection activity while state funding covers maintenance and preservation.



Map shows low clearance bridges along Maine Turnpike and Interstate 95 systems.

IV. PROJECT OUTCOME CRITERIA

1. State of Good Repair

Maine is squeezing every dollar and spreading every coin thin to improve the condition of its inventory of 2,500 bridges. Yet the challenge is great. As outlined above in the Discretionary Funding Need section, ARTBA ranks Maine the seventh worst state for structurally deficient bridges. Nearly every 'poor' bridge that carries the 50 highest ADT counts has or will soon have capital improvements scheduled by MaineDOT. That will prevent additional bridges currently in 'poor' condition from degrading further. Yet the department is simply playing 'catch-up' as it tries to improve 'poor' bridges. MaineDOT is simultaneously taking a targeted approach to preventing 'fair' bridges from degrading to 'poor' condition. The Western Avenue Bridge is currently in 'fair' condition. While the agency realizes it is unable to fund the Project without Federal discretionary assistance, it has carefully selected this Project via a detailed review of the state's 'fair' and 'poor' bridges as well as the ability of the Department to break ground quickly. The review identified the overpass following a multi-factor process of elimination seen below as well as a focus on bridges with Preliminary Design complete. Of Maine's 'fair' bridges:

- 36 have a higher AADT than the Project bridge
- of those, 6 are controlled by the Maine Turnpike Authority, not MaineDOT
- of the remaining 30, only three are older than the Project bridge (1955)
- of those three, two have been reconstructed, the only bridge not reconstructed is one over a railroad, not the interstate
- that identifies the Project bridge as the oldest with the highest AADT under MaineDOT authority to not have been reconstructed that is above a roadway¹⁷

¹⁷ See Appendix K

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

The bridge is expected to decline to ‘poor’ condition within the next three years from the date of this application deadline, most likely by the next National Bridge Inventory (NBI) inspection scheduled to occur by April 2023. The Agency predicts the remaining service life to be 27 years based on existing conditions. MaineDOT also estimates the bridge will be in such poor shape that it will be restricted from use by trucks in 2039. Imminent maintenance needs for the 257-foot-long structure include repairs to four steel beam spans as well as the concrete deck and concrete piers and abutments. The deck, rated ‘fair’ but challenged, will likely be the first component to fail. Unsafe design conditions include dangerously narrow shoulders (2 feet, 6 inches) and sidewalks (4 feet) located on both sides of the bridge. Curb concrete is chipping and peeling and the curb height is below the MaineDOT standard. The bridge, built in 1955, lacks pedestrian- or bicycle-friendly paths and is not ADA compliant. Bridge railings measure below today’s height standards.



Above: Deterioration at center of east abutment.
Below: Scaling at base of east pier, north end.



The underside of the bridge deck suffers scattered cracks and several spalls of at least two square feet throughout; some show exposed corroded reinforcing steel. A few of the beam’s haunches have spalled off. The concrete surface has scattered cracks, patches and rutting. Sidewalks and curbs have cracks and display moderate to heavy spalling with exposed corroded reinforcing steel in some locations. Steel beams are in satisfactory condition with isolated areas of corrosion and paint decay. The northernmost stringer beam over the southbound I-95 lanes shows evidence of collision damage. Abutments are in fair to poor condition. Both have numerous moderate spalls with exposed rebar, scattered cracks and intermittent delamination. Spalls vary from one to four square feet with a maximum depth of 4 inches. The bearing seats have standing water in some locations. There is a severely spalled area in Abutment 2 near the vertical construction joint. It has several reinforcing bars exposed and no concrete remaining. The slope protection in front of Abutment 2 is also failing. Wingwalls have widespread cracks.



Deterioration at west abutment.

In addition to the numerous structural and cosmetic issues noted above, the bridge does not meet current geometric design standards for important reasons, including:

- the vertical clearance of 14.3 feet is below the Federal and MaineDOT standards of 16 feet. This

leads to costly and time-consuming excess height freight reroutes and contributes to the risk of freight loads periodically striking the bridge. The new bridge will have a FHWA-mandated 16-foot vertical clearance.

- guardrails currently not in compliance. The new bridge will have FHWA-mandated 42-inch-tall guardrails.
- outside shoulders currently measuring two feet, six inches wide. The new bridge will have six-foot-wide outside shoulders eastbound and four-foot-wide outside shoulders westbound.
- sidewalks not ADA compliant. New sidewalks will be.

Without a bridge replacement, the overpass will deteriorate to the point it threatens transportation network efficiency, including the movement of goods and people and the region’s economic growth. This is outlined further in the Mobility and Economic Competitiveness section forthcoming.

MaineDOT designs all new structures to be serviceable for 100 years, including new bridges, based on improving factors related to design, materials and maintenance. The new bridge will be a two-span superstructure with curved steel girders and a stainless steel-reinforced deck. The superelevation prevalent on the current bridge will not be required of the new bridge because stringers will be shallow and the footprint of the bridge will be raised. These design elements allow the bridge to comply with FHWA and MaineDOT 16-foot vertical clearance mandates. This will greatly lessen the threat of bridge stringers being struck by excess-height freight and potential resulting closures, time-consuming repairs and very frustrating inconveniences. MaineDOT considered other designs to increase vertical clearance, such as raising the profile of Western Avenue or lowering the profile of I-95; however, these were proven both too costly and too problematic for drivers.

2. Safety

Crash data

There are approximately 130 fatalities annually on Maine roads. The speed limit on the bridge is 35 mph and will not change once the new bridge is in service. That is deemed an appropriate speed given the number of intersections formed by the various on and offramps. That slow speed limit will help all Maine drivers negotiate the bridge safely.¹⁸

Following decades of decline in the wake of paper mill closures and resulting job losses, Maine’s population is increasing once again. A primary reason is because the state is working hard to attract employers suited towards

Crash Severity Code	Vehicle		Pedestrian Crashes	Bicyclist Crashes
	Crashes	Injuries		
Fatal (K)	0	0	0	0
Serious Injury (A)	2	2	0	0
Minor Injury (B)	22	22	0	0
Possible Injury (C)	81	109	1	0
Property Damage Only (PD)	385	0	0	0
Total	490	133	1	0

Maine Department of Transportation 10-year Crash Data (2012-2020)
Western Avenue & Interstate 95 intersection

¹⁸ Due to the geographic manner in which data is maintained, full crash data in Appendix L includes a fatality which was not located on or the result of the Western Avenue Bridge.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

younger workers. Employers utilizing the skilled trades is an example. Yet the age group increasing the most are those 65 and older. This is due to baby boomers aging but also because so many younger people had moved away in search of employment elsewhere. The following chart indicates a 29 percent increase in licensed drivers age 65 and older (2014 to 2021) as well as an increase in total crashes over that time. With so many drivers in this category, the Agency wants to ensure it is removing as much risk as possible from temporary detour scenarios during construction (in this case with use of a temporary bridge in virtually same location) as well as removing permanent risk by designing a safe Project for the long term.

Age 65 or older	2014	2015	2016	2017	2018	2019	2020	2021
Licensed Drivers	214,747	223,051	231,344	241,156	250,376	259,594	267,801	276,909
Fatalities	38	35	34	46	35	34	34	43
Serious Injuries	64	66	69	82	74	82	57	71
Total Crashes	5719	6149	6172	6836	6976	7200	5301	6224

Source: <https://www.maine.gov/sos/bmv/stats/index.html>

Target safety problems

Bridge replacement provides risk reduction and safety benefits for users of *two* key Federal thoroughfares. For U.S. 202/State Route 17 drivers, it creates a new overpass with a 100-year lifespan at a critical intersection with an interstate highway, eliminating the threat of the current bridge deteriorating to a state of disrepair. It also maintains a vital connection from the west for numerous rural communities. For I-95 drivers, it reduces the threat of extremely inconvenient closures and detours because the overpass will be constructed to FHWA and MaineDOT vertical clearance standards of 16 feet, preventing excess height freight from potentially striking bridge girders and causing an outage or worse. Other safety improvements include 11-foot-wide vehicle travel lanes, six-foot-wide outer shoulders safe for bicyclists during months of good weather and snow plow trucks during winter. MaineDOT prefers to include a safety barrier between vehicles and bicyclists wherever possible; however, snow plow activity on the bridge prevents this. It will also have two-foot-wide median shoulders and five-foot, one-inch-wide sidewalks adjacent to both outer shoulders.

MaineDOT actively incorporates safety into the planning, design and construction of all infrastructure projects. As the Agency responsible for transportation in the northernmost state in the eastern U.S., MaineDOT’s dedication to safety goes far beyond planning for average weather conditions. Maine receives the nation’s second-highest annual snowfall amount—an average of 77.28 inches—and experiences about 28 days of snowfall each year. Maine is also the 3rd coldest state in the country.¹⁹ Given these conditions, MaineDOT designs infrastructure by anticipating human error in order to reduce the impact of forces sustained in a crash and decrease crash severity. New guardrails will absorb the impact from a crash much better than current guardrails.

The new bridge will be built in the same footprint of the current bridge—a calming safety feature for all modes of transportation because this eliminates the need for long-term traffic pattern

¹⁹ <https://worldpopulationreview.com/state-rankings/average-snowfall-by-state>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

changes on the overpass, leading up to it, or on the road under it.

Protecting motorized and nonmotorized travelers from safety risks

ADA-compliant five-foot-wide sidewalks on both sides of the new bridge will be enhanced by extending them beyond the bridge on both sides to a long section of Western Avenue as well as Whitten Road, totaling almost 2,100 feet of upgraded sidewalk along the corridor. The Whitten Road intersection west of the overpass leads to the neighborhood supermarket and restaurants and retail.

The Agency finds sidewalk curbs deflect vehicles traveling up to 35 mph, the speed limit on the bridge; the sidewalk would be a protected area for people to walk. Wide sidewalks and shoulders adjacent to them provide additional comfort for walkers and drivers given the large buffer created between the edge of traveling vehicles and pedestrians. Wide ADA-compliant sidewalks also improve wheelchair access. Sidewalks at least five feet wide meet ADA standards, allowing individuals in wheelchairs to turn around and to pass one another.



Curb exhibiting exposed rebar unsatisfactory to stop a vehicle moving at 35 mph.

Shoulder width can have many effects on crash severity. While these can be situational to the type of road, type of crash, and urban or rural surroundings, a *Crash Modification Factors Clearinghouse* study measured how crashes change by severity when changing existing shoulder width.²⁰ The study reveals the shoulder width change on the Project bridge (from two feet to six feet) will reduce crash type/severity by the percentages noted in green. The study’s crash severity tool can be found in Appendix M:

How Shoulder Width Changes Vehicle/Bicycle Crash Type/Severity			
Applicable to urban roads with narrow shoulders			
Crash Type/Severity	CMF	Crash Reduction	CMF ID
Total Vehicle/Bicycle Crashes	0.764	23.6%	8715
Fatal/Injury Vehicle/Bicycle Crashes (possible injury or worse)	0.762	23.8%	8716
KAB Vehicle/Bicycle Crashes (minor injury or worse)	0.781	21.9%	8717
Proposed Shoulder Width (ft)	6		
Existing Shoulder Width (ft)	2		

The structure will include bridge railing on both sides at a three-foot, six-inch height, replacing the existing two-foot, eight-inch railing. Designated pedestrian crossings will be added at all interstate on/offramps to include crosswalk signage with Rectangular Rapid Flash Beacons (RRFB) and other features meeting today’s FHWA safety standards. The Agency wants to

²⁰ <http://www.cmfclearinghouse.org/detail.cfm?facid=8715>; <http://www.cmfclearinghouse.org/detail.cfm?facid=8716>;
<http://www.cmfclearinghouse.org/detail.cfm?facid=8717>

ensure motorists entering or exiting the interstate are aware of the impending pedestrian crosswalks. A *Crash Modification Factors Clearinghouse* study indicates installing an RRFB decreases vehicle/pedestrian crashes by 47.4 percent compared to a crosswalk without one.²¹ Pedestrian crossings that span Western Avenue and Whitten Road will be protected by traditional intersection stoplights, crosswalk indicators and/or signage.

3. Mobility and Economic Competitiveness

The current annual average daily traffic (AADT) count on the overpass is 28,593 vehicles. That number is projected to increase to 30,740 in 2032. Of those only a small portion, 762 and 799 respectively, is generated from trucks. Unlike other roads in Maine, trucks do not rely on U.S. 202 significantly the way they utilize I-95, which provides a parallel and faster route. AADT on I-95 under the overpass comprises 34,040 total vehicles.

The bridge is on the edge of a National Highway System (NHS) route. U.S. 202 east of the overpass is an NHS route but not west of it for the same reason there is not much truck traffic over it—because I-95 forms a parallel route southwest of Augusta. U.S. 202 is; however, a *Priority 1* corridor in Maine, carrying the same significance as the interstate highway system and principal arterial roads of the NHS. The 1,873 miles that comprise the state’s *Priority 1* roads represent eight percent of all Maine roads but carry 40 percent of all vehicle miles traveled in the Pine Tree State.

U.S. 202 is the primary route from the upstate New York region and central Vermont/New Hampshire to Maine’s central coastline and the famed Acadia National Park. The most recent pre-pandemic figures (2018) from the National Park Service (NPS) show the park contributed nearly \$390 million and more than 3.5 million visitors to the region. The NPS estimates the park creates 5,600 jobs and contributes a cumulative benefit to the Pine Tree State economy of \$521.5 million.²² In Maine, leisure and hospitality jobs grew 46 percent since 1990, while wood products-related work, once the primary employment activity in Maine, fell a staggering 36 percent during the same three decades.²³

The new bridge and adjacent intersection improvements will not affect any structures and only a small sliver of non-MaineDOT property will be temporarily acquired for pedestrian passage during construction only.

4. Climate Change, Resiliency, and the Environment

Reduction of air pollution or greenhouse gases

MaineDOT is focused on environmental solutions beyond roads and bridges. Maine's climate action plan, *Maine Won't Wait*, illustrates the Pine Tree State’s statutory goal to achieve carbon neutrality by 2045, reduce emissions 45 percent by 2030 and at least 80 percent by 2050 and transition to 80 percent renewable energy by 2030 with a goal of 100 percent by 2050.²⁴ That’s

²¹ <http://www.cmfclearinghouse.org/detail.cfm?facid=9024>

²² <https://www.nps.gov/acad/learn/news/acadia-benefits-local-economy-in-2018.htm#:~:text=BAR%20HARBOR%2C%20ME%20%E2%80%93%20A%20new,state%20economy%20of%20%24521.5%20milli>
[on](#)

²³ <https://www.maine.gov/labor/cwri/industryChange.html>

²⁴ https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf

why the department has decided to utilize the otherwise inaccessible acreage within the interchange to construct a solar electricity generating system. While not directly associated with bridge replacement, the solar project includes three parcels at the Project location: two on the eastern side of I-95 and one on the west. The system will generate approximately 4,500-megawatt-hours of solar energy annually—the equivalent of powering more than 300 homes and reducing GHG emissions by nearly 600 metric tons annually. Each site will feed power to the grid and be surrounded by pollinator-friendly vegetation—plants that provide shelter, nesting habitats and food sources for insects that support wildlife.²⁵ This project will reduce greenhouse gas emissions and yield a net present value savings of about \$4 million over the next 20 years. The state estimates the intersection’s generating system will power the equivalent of 25 percent of the Capitol Street Government Campus and the Augusta East Campus combined,²⁶ (together housing 26 government buildings).

As the BCA outlines in Section V, reconstructing the bridge avoids the threat of extra travel mileage and associated emissions costs resulting from a bridge detour and eventual closure as the current bridge continues to deteriorate.

Improved resiliency of at-risk infrastructure

The new bridge will be constructed to withstand harsh weather conditions that have become more prevalent as a result of the changing climate. Stainless steel reinforcing will be utilized to provide corrosion resistance within the structure. Structural steel beams will be analyzed for the potential use of protective coating systems that can increase the life of the steel. Drains will be able to intake water from extreme downpours and excessive snow melt.

Improved wildlife connectivity, especially for aquatic species

The Project is not located in an area that will affect waterways or wildlife habitats.

Addressing disproportionate negative environmental impacts on disadvantaged communities

Rural residents, often cut off from convenient locations providing food, shopping, education and health care, rely on infrastructure to bridge the gap. The rural residents living in remote areas north and west of Augusta will be able to continue relying on the bridge to access their closest regional service center. Regarding poverty statistics, the Project bridge is on the dividing line between Census tract 103.00 with 10-20 percent poverty and Census tract 104.00 with 20-30 percent poverty.

5. Equity, Partnership, and Quality of Life

The median age of Maine residents is the oldest of any state in the U.S. at 45.1 years; the national median age is 38.5 years. As a result, the state has witnessed a 29 percent increase in licensed drivers age 65 and older since 2014. Licensed drivers age 65 and older exceed 276,900, or 20 percent of the total state population of 1.37 million.²⁷ Given these statistics, MaineDOT considers *accessibility* for older individuals and those with disabilities very carefully when

²⁵ https://www.environment.fhwa.dot.gov/env_topics/ecosystems/pollinators.aspx

²⁶ <https://www.maine.gov/dps/cappolice/parking/documents/augusta-east-complex.pdf>

²⁷ <https://worldpopulationreview.com/state-rankings/median-age-by-state>

designing infrastructure for the long-term and planning mobility during construction.

Project communication throughout affected communities is important to MaineDOT. That's why the department has always engaged affected individuals by advertising and holding virtual meetings accessible to all, regardless of race, color, national origin, disability, age, and sex. MaineDOT communicates extensively with the community via virtual public involvement (VPI)—on-demand virtual meetings, video presentations and other documentation describing the Project—in place of in-person meetings. This format, utilized during the COVID-19 pandemic, allows a safe means for Mainers to attend meetings, review information, provide feedback and revisit previously archived meetings.²⁸ The link to the Project's most recent VPI meeting is available at: https://my.mainedotpima.com/public/event-registration/search?project_id=15367&pe_guid=fd4c8d27-9b1b-4d5a-b517-1b9a3785a4d1.

The City of Augusta voiced two primary concerns which MaineDOT has addressed: pedestrian access through the area during construction and following Project completion, and snow storage. The existing bridge contains very small shoulders thus preventing space to store snow following plowing operations. This issue is being addressed during design by including four-foot-wide shoulders at the median and four- and six-foot-wide shoulders to the outside of the travel lanes. These shoulders will allow snow storage during winter and bicycle access throughout the year. The pedestrian access concern is being addressed by ensuring sidewalks and crosswalks lead to all quadrants of the neighborhood.

To reduce the impact to vehicles *and pedestrians* during construction and avoid a cumbersome reroute scenario, MaineDOT will construct a temporary detour bridge immediately north of the current bridge to carry two westbound lanes and one eastbound lane of traffic, as well as a sidewalk, over I-95 for about two years.

As MaineDOT plans, develops and implements transportation investments, the Agency is careful to take into consideration feedback from *both* rural and urban communities. The Agency is mindful to ensure a project has the ability to lift *all* individuals from poverty and not create an obstacle that intensifies it.

How planning and engagement in design will mitigate/prevent physical and economic displacement

MaineDOT designed the new overpass on the footprint of the current one to eliminate the possibility of displacing individuals and real estate as well as preventing the need to acquire land leading to the bridge. This plan eliminates numerous concerns that could have risen if the bridge was relocated, even slightly. The Agency received comments through the VPI process, specific to accessing Whitten Road during construction. The Agency will be installing a significant amount of signage throughout the area to heighten awareness that the businesses on Whitten Road remain open and are accessible throughout construction. There will be significant public outreach to make it clear how to navigate through the construction zone to access the businesses.

²⁸ <https://www.maine.gov/mdot/vpi/>

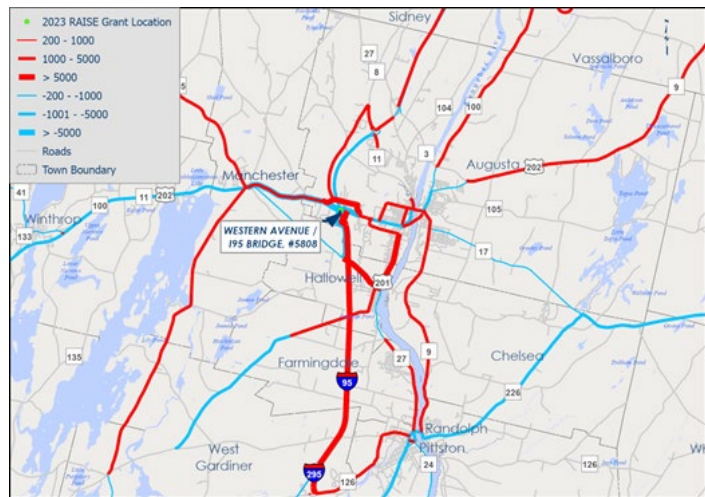
Incorporation of nonvehicular and/or public transportation into project and quantifiable benefits to quality of life

The Project design allows all forms of vehicular and nonvehicular transportation to safely reach all quadrants of the intersection, something challenging to currently achieve due to the lack of designated crosswalks, narrow sidewalks and those that abruptly end where the bridge does. The Project also calls for improvements to road shoulders and sidewalks. The Agency's construction of a temporary detour bridge immediately north of the current bridge to include a sidewalk allows pedestrians to continue moving throughout all quadrants of the Project area.

How the project may advance equitable access to housing and transportation

The bridge is the key connection between Augusta and vast rural land northwest of the city. Real estate prices in Augusta are around \$60,000 more than those of rural areas to the northwest.²⁹ Therefore, the bridge is a vital connection between affordable real estate in rural areas and commercial services and jobs in Augusta.

Southern Maine is believed to be on the cusp of another population increase and is already experiencing a housing shortage. The capital city's multi-unit residential investment is currently estimated at \$100 million and city-issued permits have increased from 33 in full-year 2019 to 49 in just the first half of 2022. Numerous affordable housing and senior housing buildings are in pre-development stages.³⁰ The owner of the largely vacant Turnpike Mall, adjacent to Western Avenue and Whitten Road, is considering residential redevelopment there although no specifics or timeline is being revealed. Otherwise, land in the vicinity of the bridge itself is largely built out. While the bridge is primarily used by personal vehicles, Augusta offers an on-demand public transportation choice for residents that utilizes the bridge as well.



MaineDOT's reroute tool calculates reroute miles traveled throughout the region given a specific road or bridge closure. It takes into account that trucks, for example, will utilize the same classification of road for their detour as their original route intended.

How the project provides congestion reduction and improved reliability with realistic estimates of improved travel time and traffic throughput

The Project reduces the high risk of increased traffic putting a strain on other regional roads and increasing travel time as a result of temporary bridge outages or permanent bridge closure. The agency employs a tool that calculates reroute miles traveled throughout the region. On average, considering overall regional detours, a bridge closure adds 1.62 miles per vehicle and 12.10 minutes per vehicle to a trip. The Project does not increase throughput via additional travel lanes

²⁹ <https://www.mainerealtors.com/wp-content/uploads/2022/07/MaineHousingReport-June22.pdf> Comparison of rolling three months for April, May, June 2022 median sale price for existing single-family homes sold in Kennebec County (includes Augusta) vs. Franklin County (vastly rural county northwest of Augusta).

³⁰ <https://www.mainebiz.biz/article/augusta-on-the-cusp-residential-development-gathers-momentum-in-maines-capital>

on the bridge or I-95. It will; however, provide minimal congestion reduction at locations where traffic turns from the I-95 offramps onto Western Avenue.

6. Innovation

Technique

MaineDOT received contractor input early on by utilizing the innovative *Contractor-in-Design* (CID) process. Concerns and recommendations were collected from several prequalified contractors at meetings held during the Summer of 2021. MaineDOT and contractors then implemented feedback and ideas into Project plans and design drawings.

To reduce the impact to drivers during construction and avoid a lengthy and cumbersome reroute scenario, MaineDOT will construct a temporary bridge immediately north of the current bridge with the ability to carry two westbound lanes and one eastbound lane over I-95 during bridge replacement. This will reduce the need for costly reroutes, saving drivers 1.62 miles per vehicle and 12.10 minutes per vehicle. The Project does not increase throughput via additional travel lanes. Active transportation is important to MaineDOT and Mainers; therefore, pedestrians and cyclists will have access to the temporary bridge as well. This innovative plan keeps U.S. 202/State Route 17 open during construction despite the complexity of the site, amount of traffic and critical need for connectivity between Augusta and rural areas to the west. It allows the new bridge to be built on the exact footprint of the current bridge. It also speeds construction by eliminating the complexity of removing half of the old bridge, building half of the new bridge, then removing the other old half, building the remaining new half, all while constantly shifting east and westbound traffic as work advances.

The parties involved in this grant application are applying an innovative means with respect to NEPA and permitting for this Project through Programmatic Agreements to ensure timely and consistent reviews and accelerate project delivery. MaineDOT and various other Maine and federal departments have executed agreements to expeditiously but thoroughly review environmental impacts from projects. MaineDOT will take advantage of the following agreements, where applicable, to streamline the environmental review and approval process:

1. Programmatic Agreement between the Federal Highway Administration, Maine Division and the Maine Department of Transportation Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects
2. Programmatic Agreement among Federal Highway Administration, Federal Transit Administration, the Advisory Council on Historic Preservation, the Maine State Historic Preservation Officer, and Maine Department of Transportation Regarding Implementation of the Federal Aid Highway and Federal Transit Programs in Maine
3. Cooperative Agreement between U.S. Department of the Interior Fish and Wildlife Service (USFWS), FHWA and the MaineDOT for State Transportation Reviews by the USFWS in Maine
4. Maine Atlantic Salmon Programmatic Consultation finalized January 23, 2017
5. Programmatic Agreement for the State of Maine concerning identification of listed and proposed species and designation of non-federal representative under the Federal Endangered

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Species Act between FHWA, Maine Division USACE, & MaineDOT

6. Memorandum of Agreement for Stormwater Management Between the MaineDOT, MTA and
Maine Department of Environmental Protection

Technology

This Project will utilize several innovative products to increase the lifespan of the new structure. Stainless steel reinforcing will be used to provide increased corrosion resistance within concrete components of the structure, such as the bridge deck and substructure. Structural steel beams will be analyzed for the potential use of protective coating systems that can increase the life of the steel, such as metalizing and galvanizing. Bridge design technology that MaineDOT knows to be reliable will be used to reduce costs, strengthen components and increase the life of the overpass.

Regarding Project delivery, MaineDOT will utilize Accelerated Bridge Construction (ABC) methods, where possible, to speed construction and reduce the impact it will have on U.S. Route 202/State Route 17 traffic. ABC methods include using precast bridge elements and preassembled bridge units (PBUs). The Agency has been able to complete more than 90 percent of projects within 30 days of agreed-upon schedule.

MaineDOT is constructing a solar electricity generating array within the intersection capable of generating approximately 4,500 megawatt hours annually — the equivalent of powering more than 300 homes and reducing GHG emissions by around 600 metric tons annually. While not part of the Project, this will reduce greenhouse gas emissions and yield a net present value savings of about \$4 million over the next 20 years.

Financing

The Project does not utilize innovative financing measures.

V. BENEFIT-COST ANALYSIS

The BCA (detailed in Appendix A) estimates more than \$700 million in total benefits over the 30-year analysis period resulting from the \$19.3 million investment. On a discounted NPV basis (7% for all costs and benefits),

7% NPV Summary over 30 Years		
	Costs	Benefits
CAPEX - Project Cost	\$17,074,967	
Maintenance (Net)		\$1,077,895
User Time, Operating & Crash Savings		\$157,858,717
Emissions Savings		\$292,555
Residual Value of the Project		\$1,782,586
TOTAL	\$ 17,074,967	\$161,011,753
Benefit-Cost Ratio		9.43

the Project yields a very strong benefit-cost ratio of **9.43**. Benefits accrue due to avoidance of future bridge strikes to the current low bridge and the resultant costs of detours while repairs are made to the bridge. MaineDOT utilized their sophisticated reroute modeling tool to measure those impacts. The result was an average detour of 1.6 miles and 12 minutes. The savings are driven by nearly 30,000 average daily vehicles that are impacted. Over the 30-year period, the analysis assumes that the bridge is ‘posted’ twice—once to eventually prohibit common-weight trucks from use and later barring all trucks from use. There are operating, time and safety/crash savings as well as emissions savings associated with the detours and the incremental time and

mileage they cause. The net 30-year maintenance costs in a build vs. no-build scenario are included (and detailed in the BCA file) as is the significant residual value from a 30-year analysis period and a new bridge built with a 100-year life. All in, a \$19.3 million investment yields more than \$160 million in discounted savings over the 30-year analysis period.

VI. PROJECT READINESS AND ENVIRONMENTAL RISK

Preliminary engineering for the Project is complete. The items below are covered extensively in the Preliminary Design Report (PDR), finalized in June 2022. An abbreviated version is included as Appendix H. The full 278-page PDR is available upon request.

- Environmental Assessments – Baseline data collection (desktop and field reviews) to identify natural resources and cultural resources is complete. This information will be used during design to avoid and minimize impacts and meet Project purpose and need.
- Topographic Surveys – Completed and available in the PDR. No issues.
- Metes and Bounds Surveys – Completed and available in the PDR. No issues.
- Geotechnical Investigations – Completed and available in the PDR. No issues.
- Hydrologic Analysis – N/A. No waterways nearby.
- Utility Engineering – Completed and available in the PDR. No significant changes from current utility positioning.
- Traffic Studies – Completed and available in the PDR. Traffic models generated and analyzed showed maintaining traffic via a temporary bridge as the most viable option.
- Financial Plans – Completed and available in Section III above. Reviewed by multiple MaineDOT departments to ensure cost-effective spend.
- Revenue Estimates – N/A
- Hazardous Materials Assessments – Review of Maine Department of Environmental Protection files and databases and field review are complete. Based on available data, there are no known areas of soil or water contamination within the Project area. A General Note has been drafted for inclusion in contract documents to instruct the Contractor should contaminated soil or groundwater be encountered during construction. The General Note is available in Appendix N.
- General estimates of the types and quantities of materials – Completed and available in the PDR.
- No additional work has been identified at this point to establish parameters for the final design.

Preliminary engineering examined deck replacement, superstructure replacement and full replacement alternatives. Requirements were reviewed; life cycle costs were generated and compared. When combined with the condition of the existing structure, result data recommended full bridge replacement (see Preliminary Design Report, Appendix H).

Since the overpass will be constructed on the existing alignment and the right-of-way land is broad, no permanent land impacts are expected and no buildings will be impacted. Only minor temporary rights will be required for a pedestrian easement along Whitten Road.

Technical Feasibility

MaineDOT has the technical experience to complete the Project, which is similar to dozens of others the Department has designed, financed, built and maintained statewide for decades. The full 278-page detailed PDR, available upon request, demonstrates the technical feasibility of the Project with engineering and design studies and activities.

Design Criteria

In designing the bridge and associated pedestrian improvements, the Agency wanted to ensure safe pathways for motorists and non-motorists, take into account snow removal procedures, construct a bridge of concrete and steel that will last 100 years and ensure the risk-prone low clearance issue is remedied all while constructing the bridge on the same footprint as the current bridge.

Cost Estimate and Contingency Levels

MaineDOT traditionally reviews the previous three years of costs to aid in estimating current costs. Given current inflation levels, the Agency has adjusted this measure to look back only the previous few months. The Agency has identified contingency levels by examining potential Project risks, such as performing work over an active and busy interstate and implementing a temporary bridge, and identifying a cost to mitigate such risks.

Scope, Schedule, and Budget Risk and Mitigation Measures

A Scope of Work that focuses on the technical and engineering aspects of the Project and describes in detail the Project is included as Appendix G. If selected for funding, MaineDOT looks forward to signing a comprehensive agreement with USDOT that includes this detailed Scope of Work outlining all parameters of the Project and the steps to follow for cost reimbursement. MaineDOT also welcomes the opportunity to create periodic construction and performance reports as required.

“In accordance with Title VI of the Civil Rights Act of 1964 and other authorities, MaineDOT is committed to ensuring that the fundamental principles of equal opportunity are upheld in all decisions involving our employees and contractors/consultants, and to ensuring that the public-at-large is afforded access to our programs and services. To that end, no person shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any MaineDOT program or activity on the grounds of race, color, or national origin. MaineDOT will work with staff, sub-recipients, contractors and service beneficiaries to promote awareness for the provisions of Title VI and the responsibilities associated with that Act.”³¹

Project Schedule

Construction can begin quickly because preliminary design work is complete. While the work site is complex and maintaining traffic during construction will be complicated and involve the use of a temporary bridge, the Agency can move quickly with construction. All necessary activities will be complete to allow BIP funds to be sufficiently obligated in advance of the statutory deadline and any unexpected delays will not put the funds at risk of expiring before

³¹ <https://www.maine.gov/mdot/civilrights/title-vi/>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

they are obligated. The Project can proceed to development within 12 months of the expected Categorical Exclusion determination. The Project can begin construction quickly upon obligation of grant funds, no later than 12 months after obligation—under the 18 months required by the BIP—and grant funds will be spent expeditiously once construction begins. No permanent property or right-of-way acquisition is necessary.

Task Name	Duration	Start	Finish
Initial Team Meeting	0 days	1/31/18	1/31/18
Preliminary Public Meeting	0 days	9/19/18	9/19/18
Preliminary Geotechnical work	15 wks	9/19/18	1/2/19
Preliminary Design and Detailing	191 wks	1/31/18	5/19/22
Draft PDR completed	0 days	5/19/22	5/19/22
PDR reviewed, amended & resubmitted	4 wks	5/19/22	6/16/22
Preliminary Design Report	0 days	6/16/22	6/16/22
Formal Public Meeting	0 days	7/29/22	7/29/22
Utility Coordination	12 wks	3/9/20	6/1/20
Approach Plans Completed	9 wks	7/29/22	9/30/22
Plan Impacts Complete	0 days	9/30/22	9/30/22
NEPA complete	0 days	11/7/22	11/7/22
Structural Design and Detailing Completed	46 wks	6/16/22	5/3/23
Utilities Certified	8 wks	3/11/21	5/3/23
ROW Coordination	31 wks	9/30/22	5/3/23
Environmental Approvals Complete	40 wks	7/29/22	5/3/23
PS&E package complete	0 days	5/3/23	5/3/23
Advertise	0 days	5/24/23	5/24/23
Bid Opening	0 days	6/28/23	6/28/23
Award	0 days	7/26/23	7/26/23
Begin Construction	0 days	7/26/23	7/26/23
Construction	101 wks	7/26/23	6/30/25
Construction Substantially Complete	0 days	11/29/24	11/29/24
End Construction	0 days	6/30/25	6/30/25

Environmental Permits and Reviews

MaineDOT and FHWA Maine Division have a Programmatic Agreement for processing actions classified as Categorical Exclusions (CEs). The agreement authorizes MaineDOT to determine on behalf of FHWA whether a project qualifies for a CE specifically listed in 23 CFR 771.117. In addition, it authorizes MaineDOT to approve a CE on behalf of FHWA as “*Programmatic CE*” pursuant to the agreement. No separate review or approval of the CE by FHWA is required. Project documentation is available to FHWA upon request. The agreement is posted on the MaineDOT website at this link:

https://www.maine.gov/mdot/env/NEPA/_assets/docs/2022/Maine%20Programmatic%20NEPA%20CE%20Agreement.Executed.020821.pdf. Based on baseline data collection and preliminary plans, the Project is expected to have minimal to no impacts on natural or cultural resources or the environment.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

1. **National Environmental Policy Act (NEPA):** The NEPA process will inform design efforts. Based on the Project scope, the Project will be classified as a Categorical Exclusion (CE) in accordance with 23 CFR 771.117(c) (28). MaineDOT is currently reviewing the Project and has prepared NEPA documentation in accordance with *Programmatic Agreement between the Federal Highway Administration, Maine Division and the Maine Department of Transportation Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects*. Public involvement has been completed in accordance with the MaineDOT Public Involvement Plan and the MaineDOT NEPA Public Involvement Plan. These plans can be found at this link: <https://www.maine.gov/mdot/env/NEPA/public/index.shtml>. The anticipated date for NEPA completion is December 2022.
2. **Historic and Archeological:** MaineDOT has completed the Section 106 process for the Project in accordance with the *Programmatic Agreement among the Federal Highway Administration, the Federal Transit Administration, the Federal Railroad Administration, the Maine State Historic Preservation Officer, the Advisory Council on Historic Preservation and Maine Department of Transportation Regarding Implementation of the Federal Aid Highway and Federal Transit Programs in Maine*. https://www.maine.gov/mdot/env/NEPA/assets/docs/2022/Section%20106%20Programmatic%20Agreement_2022.pdf.
The Project meets the criteria for exemption from further Section 106 review under Programmatic Exemption F for work on the interstate or other controlled access highways within existing interchanges, medians, and travel ways within previously constructed slope limits. MaineDOT and FHWA Maine Division have notified federally recognized Tribes of the project on August 27, 2020. No concerns have been identified to date.
3. **Section 4(f) of the Department of Transportation Act/Section 6(f) Land & Water Conservation Fund Areas:** The MaineDOT Cultural Coordinator has reviewed the Project area. No Section 4(f) or 6(f) properties or resources are located within or near the Project limits.
4. **Endangered Species Act (ESA):** The Project is located within the range of federally-listed Gulf of Maine Distinct Population Segment of Atlantic Salmon and its designated Critical Habitat. The Project does not include stream crossings or in-water work. MaineDOT has determined the Project will have No Effect to Atlantic Salmon or its critical habitat in accordance with the *Programmatic Agreement for the State of Maine concerning Identification of Listed and Proposed Species and Designation of Non-Federal Representative under the Federal Endangered Species Act between FHWA, Maine Division USACE, & MaineDOT*. The Project is located within the range of the federally threatened northern long-eared bat. MaineDOT anticipates that the Project may affect, but not adversely affect, the northern long-eared bat. The Project will be eligible for Streamlined Section 7 Consultation pursuant to the USFWS Northern Long-Eared Bat 4(d) Rule. If the NLEB are listed as endangered before the Project advertises, the Project will be processed via an Individual Information Consultation with USFWS or via the U.S. DOT and USFWS Range-wide Programmatic Consultation for Indiana Bat and Northern Long-Eared Bat.
5. **Essential Fisheries Habitat (EFH):** There are no streams in the Project area and the Project does not include in-water work. Effects to EFH are not anticipated.

6. **Section 404 Clean Water Act Permit (U.S. Army Corps of Engineers) & Natural Resources Protection Act (Maine Department of Environmental Protection):** There are no streams in the project area. No freshwater wetlands will be impacted by the project. Federal and State permits are not expected.
7. **Stormwater (Maine Department of Environmental Protection):** The Project will incorporate Best Management Practices for temporary and permanent management of soil erosion and sedimentation. Permanent measures for treatment of stormwater quantity and quality will be incorporated if required in accordance with Chapter 500 regulations and the *Memorandum of Agreement for Stormwater Management between the MaineDOT, MTA and Maine Department of Environmental Protection*.
8. **Floodway/Floodplains:** The Project is not located within designated floodplains or floodways.

Communication

MaineDOT has communicated extensively with the community via virtual public involvement (VPI)—on-demand virtual meetings, video presentations and other documentation describing the Project—in place of in-person meetings. This format allows a safe means for Mainers to attend meetings, review information, provide feedback and revisit previously archived meetings without pandemic-related concerns.³² The link to most recent virtual public meeting:

https://my.mainedotpima.com/public/event-registration/search?project_id=15367&pe_guid=fd4c8d27-9b1b-4d5a-b517-1b9a3785a4d1.

During construction there will be several points of contact at the Agency for the public to reach out to. A Project website will provide updates about construction activities as well as phone numbers and email addresses the public can reach out to for information. The main points of contact will be the Project Manager and the Project Resident assigned to the task. The Project Manager will be available for any questions and will be able to disseminate all questions and concerns to the appropriate source for answers.

Environmental Justice

MaineDOT utilizes the EPA EJSCREEN for all Federally-funded projects. According to U.S. Census Block Data, the percentage of the population below the poverty level ranges from 5-20 percent along Western Avenue within the Project. The Project area includes areas identified as Disadvantaged using the Climate and Economic Justice Screening Tool:

<https://screeningtool.geoplatform.gov/en/>. Areas in the Project vicinity exceed the Health Burden Threshold for heart disease and the Clean Energy & Energy Efficiency Thresholds for energy burden while exceeding the Low Income and Higher Education Non-Enrollment Thresholds. The Project will not require residential or commercial displacements. The Project will improve existing roads and infrastructure and will reduce safety risks for all users of the transportation system, including vehicles, pedestrians, and bicyclists. It will improve the safety and quality of access to shopping and employment. MaineDOT recently updated its Public Involvement Plans, which outline the Department's efforts to ensure disadvantaged populations are afforded meaningful opportunities for public involvement. The Plans are available at:

³² <https://www.maine.gov/mdot/vpi/>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

<https://www.maine.gov/mdot/env/NEPA/public/index.shtml>.

State and Local Approvals

The Project has received broad public support and is a MaineDOT priority. All phases of the Project are included in MaineDOT’s *Statewide Transportation Improvement Plan (STIP) for 2022 – 2025*, listed as WIN 021672.00 as approved by FHWA on April 10, 2022.³³ The Project is consistent with MaineDOT’s long-range plan.³⁴

No state environmental permits or approvals are anticipated. Public roads and bridges under the control of MaineDOT are not subject to local zoning controls pursuant to 30-A M.R.S.A. Section 4352.

Federal Transportation Requirements Affecting State and Local Planning

See section immediately above.

Assessment of Project Risks and Mitigation Strategies

Project Risks	Mitigations
<ul style="list-style-type: none"> • Final recommended design could lead to cost increases if additional required work is identified • Procurement delays • Community voices concerns about movement through Project territory • Temporary bridge is delayed 	<ul style="list-style-type: none"> • Work with potential contractors through CID process to eliminate risks • Will order materials early and with vendors who have previously exhibited timely delivery of materials. • Administer close coordination with City of Augusta and neighboring municipalities throughout construction • Work to provide contractor access early

VII. PROJECT PRIORITY CONSIDERATIONS

MaineDOT will be unable to fund construction on its own in the near term given additional pressing priorities. The Project yields a number of positive outcomes and supports the priority considerations consistent with BIP, including improving the safety, efficiency and reliability of people and freight moving over the bridge, reducing the number of bridges in fair condition that will, almost certainly, fall into poor condition within the next three years and decreasing the number of bridges that fail to meet the current geometric design standards of the regional transportation network. All aspects of preliminary engineering are complete. The final design stage will be complete by May 2023.

One: The Project will be ready to proceed through to final design and begin construction within 12 months, not 18 months, of a CE determination because preliminary design is complete and

³³ <https://www.maine.gov/mdot/stip/>, page 28

³⁴ <https://www1.maine.gov/mdot/longrangeplan/>

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

final design work will not be challenging because a bridge like this mirrors dozens the Agency has constructed for decades. No meaningful right-of-way acquisition is necessary.

Two: MaineDOT is only applying for construction funding and will be ready to proceed with construction easily within 12 months of award. While a two-phased BIP funding approach is certainly feasible, MaineDOT plans to complete final design (there is no right-of-way acquisition) and proceed to construction within 12 months of initial award of FY 2022 BIP funds with relative ease, based upon FHWA approval of plans, specifications and estimates for the Project or request for proposals.

Three: Without FY 2022 BIP grant funding, construction of the Project is unlikely to commence before September 30, 2025. The Project is in the current work plan but not fully funded for construction given numerous other pressing priorities.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

Grant Request Supporters*:

MaineDOT's grant request for BIP funds is supported by a diverse group of elected officials, and stakeholders due to the significant economic impact the Project will have on the region. The list of supporters includes:

Members of Congress: *(letters will be sent directly to the Secretary's office)*

U.S. Senator Susan Collins (R-ME)
U.S. Senator Angus King (I-ME)
U.S. Congresswoman Chellie Pingree (D-ME)

State Elected Officials/Offices:

Governor Janet Mills
State Senator Matthew Pouliot
State Representative Raegan F. LaRochelle

Other Organizations:

City of Augusta
Town of Manchester
Town of Winthrop *(letter will be sent directly to the Secretary's office)*
Maine Better Transportation Association *(letter will be sent directly to the Secretary's office)*
Maine Motor Transport Association
Maine State Chamber of Commerce *(letter will be sent directly to the Secretary's office)*

Please visit <http://www.mainedot.gov/mdot/grants/bip/>

* MaineDOT will post all received letters on our website noted above.

U.S. ROUTE 202/INTERSTATE 95 INTERCHANGE BRIDGE REPLACEMENT AND
PEDESTRIAN SAFETY IMPROVEMENTS PROJECT

APPENDICES

Benefit-Cost Analysis	A
Project Map	B
Cost Estimate/Project Budget	C
Project Schedule/Gantt Chart	D
Letters of Support	E
Funding Match Commitment Letter	F
Technical Feasibility-Scope of Work	G
Preliminary Design Report	H
Ramp F Damage Report	I
Maine Interstate-Turnpike Low Clearance Bridges	J
Data Pull Maine Bridges 'Fair'	K
Crash Data	L
Shoulder Width Changes in Vehicle-Bicycle Crashes	M
General Note Augusta – Western Ave & I-95	N
Before and After Project Renderings	O
Western Avenue Bridge Detailed Plan Drawing	P
Census Tract Reference Map Kennebec County	Q