

State of Maryland **Board of Public Works**

Wetlands Administration 80 Calvert Street, Room 117, Annapolis, Maryland 21401 410-260-7791 Wes Moore

Governor

Dereck E. Davis *Treasurer*

Brooke Lierman *Comptroller*

John T. Gontrum, Esq. *Executive Secretary*

WETLANDS LICENSE NO. 24-0757 MARYLAND TRANSPORTATION AUTHORITY

The Maryland Board of Public Works authorizes you to:

- I. Rebuild the Francis Scott Key Bridge within the same alignment within MDTA's existing right-of-way (ROW), extending approximately 1 mile over the Patapsco River. The bridge will be constructed to current design standards and consist of four 12-foot wide lanes, with two 10-foot wide outside shoulders and two-4-foot wide inside shoulders and will have an air draft of approximately 230 feet over the 800-foot-wide authorized Fort McHenry Navigation Channel and will result in 9.50 acres of coverage over the Patapsco, 12.71 acres of permanent impact to State Tidal Wetlands, and 9.19 acres of temporary construction impacts to State Tidal Wetlands. The 12.71 acres of permanent impacts include the following:
 - a. 8,736-square foot (0.2 acre) piers;
 - b. Three 5,600-square foot (0.13 acre) piers with six 4,418-square-foot (0.10 acre) associated dolphins;
 - c. Two 96,768-square foot (2.22 acres) piers with associated stone fill;
 - d. Two piers with associated fill totaling 264,560 square feet (6.07 acres) to support the 550-foot tall bridge towers and bridge span over the federal channel.

The 9.19 acres of temporary impact include the following:

- e. Approximately 400,000 square feet of temporary trestle on each shoreline that includes marine access piers on each shoreline and multiple finger piers along the trestle;
- f. 1,200 36-inch temporary trestle piles;
- g. 300 36-inch temporary mooring/template piles.

Patapsco River, Francis Scott Key Bridge, Baltimore City and Dundalk, Baltimore and Anne Arundel Counties, Maryland

Issuance of this Tidal Wetlands License constitutes the State's determination that the authorized activities are consistent with the Maryland Coastal Zone Management Program (CZMP), as required by Section 307 of the Federal Coastal Zone Management Act of 1972, as amended [16 U.S.C. §1456]. Accordingly, the State concurs with the Licensee's certification in the Joint Permit Application that the project complies with and will be conducted in a manner consistent with the Maryland CZMP.

THIS LICENSE AUTHORIZES YOU TO PERFORM THE WORK ONLY IF YOU COMPLY WITH THE FOLLOWING SPECIAL CONDITIONS:

A. To protect important aquatic species in tidal waters, pile driving activities are prohibited between February 15 and June 15 inclusive, of any year, unless specifically approved by the

- Tidal Wetlands Division (Division). If any in-water pile driving activities are requested during the restriction period, the Licensee shall coordinate with the Division and the Maryland Department of Natural Resources (DNR) for avoidance and minimization measures and shall receive approval from the Division prior to commencement of the activity.
- B. To minimize disturbance to the wintering and staging waterfowl areas in tidal waters as depicted on Attachment I, in-water work is prohibited from November 15 through March 1 inclusive, of any year, unless specifically approved by the Division. If any in-water work is requested during the restriction period, the Licensee shall coordinate with the Division and DNR for avoidance and minimization measures and shall receive approval from the Division prior to the commencement of the activity.
- C. If any mooring, pile driving, and in-water work overlap within the Fort Carroll Sensitive Species Project Review Area (SSPRA) as depicted in Attachment I, the Licensee shall coordinate with the Division and DNR's Environmental Review Program for minimization and avoidance measures and shall receive approval from the Division prior to commencement of the activity.
- D. To protect Natural Oyster Bars (NOBs), the Licensee shall not conduct in-water work within 1,500 feet (500 yards) of the edge of NOBs located within the Fort Carroll SSPRA as depicted in Attachment I during the periods of June 1 through September 30 and December 16 through March 14 inclusive, of any year, unless specifically approved by the Division. If any in-water work is required during the restriction period, the Licensee shall coordinate with the Division and DNR for avoidance and minimization measures and shall receive approval from the Division prior to the commencement of the activity.
- E. Avoidance and minimization of impacts to tidal wetlands shall be emphasized throughout the remainder of the design and construction process.
- F. Tidal In-Water Construction Plan (TIWC Plan): No activity that impacts regulated tidal resources shall commence prior to the Division's approval of a TIWC Plan. The TIWC Plan shall be submitted for review and approval at least 30 days prior to the commencement of any work authorized under this License. The Licensee shall implement and comply with the TIWC plan in accordance with the approved plan. The TIWC Plan shall ensure consistency with License conditions and water quality regulations. The TIWC Plan shall include detailed support for the implementation of appropriate practices to protect water quality, marine life, and estuarine habitat, and mitigation/recovery plans for unavoidable/unexpected impacts, and address the following at a minimum:
 - i. The use of best management practices to protect water quality, marine life, and habitat during and after construction such as bubble curtains and other applicable best management practices;
 - ii. Pile driving shall be performed in a manner that allows for a zone of passage to exist in the river at all times to allow migrating, resting, or foraging fish to continue their behaviors while the project is ongoing. Time of work restrictions developed in consultation with the Division and DNR;
 - iii. Hold Points:
 - 1. The TIWC Plan shall stipulate conditions leading to "hold points," which would stop pile driving, or other in-water work injurious to marine life until coordination has occurred with DNR's Environmental Review Program if any of the following is observed during or immediately (approximately 1 hour) after pile driving activity related to hammer activities:

- (a) Presence of dolphin, sea turtle, or sturgeon within the injury or behavioral modification zone- as shown in the approved TIWC Plan;
- (b) One stunned or dead sturgeon and/or dolphin;
- (c) Ten stunned or dead game fish or species considered to be in need of conservation per pile location, including all Striped Bass, Alewife, Blueback Herring, American Shad, and others as identified by DNR;
- (d) 40 stunned or dead non-game fish per pile location.
- 2. The TIWC Plan shall include detailed provisions for the required monitoring of the presence of dolphins, sea turtles, and sturgeon and for documenting and reporting injury or death in accordance with the above requirements. If any of the above are observed, the Licensee shall contact the DNR Environmental Review Program within 1 business day for agency coordination and adaptive management.
- 3. The Licensee shall submit a weekly report to the Division and DNR while in-water tidal construction activities are ongoing summarizing the work and documenting the total injured/killed fish, including species and size of all injured/killed fish, approximate location relative to where the pile driving or noise-generating activity was occurring, and time/date. A final report summarizing the fish kills associated with construction shall be submitted to the Division within 60 days of completion of the construction.
- 4. The TIWC Plan shall detail coordination and approval procedures for the release of hold points.
- iv. Noise management including provisions for a "zone of safe fish passage," and for the reduction of in-water noise;
- v. Construction plans for in-water work shall be submitted for review and receive approval from the Division prior to the start of construction for each plan set and shall follow the submittal requirements listed under Special Condition K;
- vi. The Licensee shall comply with all approved plans, best management practices, and avoidance measures, and the project shall comply with all relevant water quality standards listed in COMAR at all times;
- vii. The TIWC Plan can only be modified upon approval by the Division;
- viii. Process for submission, agency review, and approval of in-water construction plans, revisions, and, if necessary, permit modifications.
- G. The Licensee shall provide compensation for fish mortality. The Licensee shall provide payment into a Special Fund as designated by DNR. Monetary values associated with fish kills shall be evaluated in accordance with the Fish Mortality Mitigation Cost Table depicted in Attachment II.
- H. Water Quality Monitoring Plan (WQM Plan):
 - Ensure water quality standards are maintained in tidal waters during the duration of the Project.
 - a. No activity that impacts tidal regulated resources shall commence prior to the Division's approval of a WQM Plan. The WQM Plan shall be submitted at least 30 days prior to the commencement of any work authorized under this License. The Licensee shall implement and comply with the WQM plan in accordance with the approved plan. The WQM Plan shall ensure consistency with the conditions of this License.
 - b. The WQM Plan shall contain the water quality criteria and benchmarks for which the Project shall be monitored and documented to ensure consistency with the requirements of the Clean Water Act, COMAR 26.08.02, and conditions in this License, including, at minimum,

- applicable total suspended solids/turbidity, temperature, dissolved oxygen, conductivity, salinity, and pH criteria.
- c. The WQM Plan shall also contain monitoring methodology, monitoring locations, reporting schedule(s), quality assurance/quality control procedures, and corrective action plans.
- d. The WQM Plan can only be modified upon approval by the Division.
- I. Severe Weather and Flood Action Plan (SWFA Plan):

Ensure water quality standards are maintained during significant weather events.:

- a. No activity that impacts regulated resources shall commence prior to the Division's approval of a SWFA Plan. The SWFA Plan shall be submitted at least 30 days prior to the commencement of any work authorized under this License. The Licensee shall implement and comply with the SWFA plan in accordance with the approved plan. The SWFA Plan shall ensure consistency with these License conditions.
- b. The SWFA Plan shall include the following:
 - ix. Weather and the possibility of a rainfall/wind event shall be monitored on a daily basis, seven days a week through the National Oceanic and Atmospheric Administration. When a significant weather event is forecast, appropriate actions shall be taken to protect water quality including review and repair of erosion and sediment control measures, securing all equipment, addressing material storage and stockpile areas, and other sources of potential pollution. A significant weather event is a greater than 50 percent chance of 1 inch or more rainfall forecast during a 24-hour period within the watershed or probability of gale force winds.
 - x. Storm surges Identify and address areas susceptible to storm surge and make provisions to remove materials, equipment, and other potential contaminants prior to inundation.
 - xi. No equipment, construction materials, or hazardous materials, including fuel for equipment and pumps, shall be stored within the 100-year floodplain unless otherwise approved.
- c. The SWFA Plan can only be modified upon approval by the Division.
- J. Prior to the start of construction, the Licensee shall retain a minimum of one qualified full-time Independent Environmental Monitor (IEM) who is independent of the Licensee, design consultants, and construction contractors working on the project. The Licensee shall retain an IEM(s) to assess compliance with all conditions of this License and other applicable permits and environmental regulations. The Licensee shall develop a project-specific IEM Manual detailing all IEM responsibilities and procedures and submit the manual to the Division for review and approval prior to implementation. The Division shall be provided the opportunity to review the qualifications of the IEM(s) proposed by the Licensee and provide concurrence that the candidate is qualified to perform the IEM role. More than one IEM may be needed to adequately staff the project depending on schedule and construction phasing. The IEM(s) shall
 - Review design submittals and construction activities for compliance with all conditions of this License and other applicable permits and environmental regulations;
 - b. Report findings directly and concurrently to the Division and the USACE, notifying them and the Licensee immediately of any reported or observed violations or noncompliance issues within the terms or conditions of this License, or approved plans and specifications;
 - c. Assist with and verify the Licensee's monitoring of potential impacts on aquatic life resulting from construction activities.

- d. Document impacts to regulated resources by developing and maintaining a detailed tracking list of impacted resources;
- e. Assist with the identification of ongoing opportunities for further avoidance and minimization of impacts to regulated environmental resources and protection of water quality;
- f. Assist with the identification of any marine life injuries related to construction activities.

K. Construction Plans

Submit approved plans impacting tidal wetlands before construction. Each plan submission shall include a brief summary of avoidance and minimization efforts, or, for plans that have been previously reviewed by the Division, a summary of plan changes related to regulated resources.

- a. Stormwater Management (SWM) Plan: Submit the final SWM Plans to the Division prior to beginning SWM construction activities. The final stamped plans, and any proposed modifications to those plans, shall be submitted to the Division.
 - i. No SWM structures shall be placed in any tidal wetlands.
- b. Erosion and Sediment Control Plan: Submit the approved construction plans and subsequent modifications to the Division.
- c. Approved Plans: The Licensee shall develop and maintain a searchable database of approved plans (including all revisions) for use by the Division and other agencies. The database must segregate the latest approved plans from previous versions so that reviewing personnel can reliably determine the most current plans.
- L. A pre-construction meeting shall be held with the Division, MDE Compliance Program, the USACE, MDTA, the IEM, BPW Wetlands Administration other agency stakeholders as available, and MDTA's primary contractors and subcontractors to provide the opportunity for all to review and discuss the construction plans and license conditions. All meeting participants shall be notified of this meeting a minimum of 14 days prior to the date of the meeting.
- M. The Licensee shall install appropriate hazard notification, visibility, and safety requirements on all temporary pilings, temporary structures, or monitoring devices in tidal waters.
- N. The use of barges, trestles, or other structures and equipment by the Licensee shall not impede the free flow of navigation on the Patapsco River unless approved by the U.S. Coast Guard.
- O. The Licensee shall not allow debris or construction material to enter any tidal wetlands. The Licensee shall implement best management practices and measures such as suspended netting, skip pans, and containment barges to minimize the quantity of material entering these waterways. The Licensee shall immediately remove all debris inadvertently introduced into tidal wetlands as a result of any construction activity. Debris shall be disposed of at an approved upland disposal site and in a manner that does not adversely impact surface or subsurface flow into or out of tidal wetlands.
- P. The Licensee shall submit a General Discharge Permit application (Maryland General Permit No.15-MM) to the Water and Science Administration, Industrial Discharge Permits Division for review and approval, as determined necessary by MDE, prior to the commencement of work at the facility related to the use of any on-site concrete batch facility. The Licensee shall send confirmation of the determination to the Division by MDE's Industrial Discharge Permits Division.
- Q. The Licensee shall obtain approval from MDE for any proposed dredging activities prior to conducting any dredging by submitting a modification to the tidal wetlands license. When applying for authorization from MDE for dredging, the Licensee shall provide detailed

- information on any proposed dredging method and locations including dredge area, volume of material, and proposed depths, to MDE. The biological, chemical, and physical characteristics of proposed dredging material and sites shall be evaluated and submitted to MDE in a sampling plan for review and approval before starting dredging activities.
- R. Mitigation is required for impacts related to the permanent fill placed in State tidal wetlands in accordance with COMAR 26.24. The Licensee shall submit the proposed mitigation plan to MDE and BPW Wetlands Administration once the final design has been determined and the final permanent impacts have been identified for review and approval. The Licensee shall implement the mitigation plan in accordance with the approved plan and schedule.
- S. The Licensee shall remove all temporary structures from tidal wetlands, or cut at least two feet below the mean mudline, within 6 months following completion of construction.

THIS LICENSE AUTHORIZES YOU TO PERFORM THE WORK ONLY IF YOU COMPLY WITH THE FOLLOWING STANDARD CONDITIONS:

- 1. Licensee shall conduct the authorized work in accordance with the plans and drawings dated as accepted by MDE on November 4, 2024, which are hereby incorporated into this License.
- 2. Until the authorized work is complete, Licensee shall have available at the site a copy of this License including the plans and drawings.
- 3. This License constitutes Maryland's authorization to conduct the authorized work under the State Tidal Wetlands Law. This License does not bestow any other federal, State, or local government authorization.
- 4. Licensee shall have all proposed work above Mean High Water reviewed and authorized by the local county Department of Planning and Zoning or applicable agency.
- 5. Licensee shall notify MDE's Compliance Program by BOTH phone AND in writing of the following:
 - (a) start date at least five business days before beginning work; and
 - (b) completion date no more than five business days after project completion.
 - Central Division: 410-537-3510 1800 Washington Blvd, Baltimore, MD 21230
- 6. Licensee shall comply with any regulations, conditions, or instructions issued by MDE, including any Water Quality Certification issued with respect to the authorized work.
- 7. Licensee shall conduct the authorized work in accordance with Critical Area Commission requirements. This License does not authorize disturbance in the Buffer. If authorized work will disturb the Buffer, Licensee shall have a Commission-approved or locally approved Buffer Management Plan before beginning the authorized work.
 - "Buffer" means the 100-foot Critical Area Buffer and any expanded area that is immediately landward of the mean high-water line of the tidal waters or is immediately landward of tidal wetlands. The Buffer includes expanded contiguous area if the contiguous area includes steep slopes, hydric soil, or highly erodible soil, or otherwise meets the criteria of COMAR 27.01.09.01.E(7). "Disturbance" means any alteration or change to the land including any amount of clearing. Clearing includes vegetation removal, grading, and construction activity.
- 8. Licensee may not fill, dredge, or otherwise alter or destroy tidal marsh or its vegetation unless this License specifically authorizes the activity.
- 9. Licensee may not stockpile material in State tidal wetlands/State tidal waters of the U.S.
- 10. Licensee shall allow unfettered public use of State wetlands/State tidal waters of the U.S.
- 11. This License does not transfer a property interest of the State.

- 12. Licensee shall file a Miss Utility ticket for the proposed work at least 10 days before beginning work. *Miss Utility*: 800-257-7777
- 13. Licensee shall ensure that structures (for example, piers and piles) removed from the site are taken to an upland disposal facility approved by MDE's Compliance Program.
- 14. If the authorized work impacts more than 5,000 square feet or includes 100 or more cubic yards of fill, Licensee shall conduct the authorized work in accordance with a locally approved Soil Erosion and Sediment Control Plan.
- 15. If the authorized work is not performed by the property owner, all work performed under this Tidal Wetlands License shall be conducted by a marine contractor licensed by the Marine Contractors Licensing Board (MCLB) in accordance with Title 17 of the Environment Article of Annotated Code of Maryland. A list of licensed marine contactors may be obtained by contacting the MCLB at 410-537-3249, by email at MDE.MCLB@maryland.gov or by accessing the Maryland Department of the Environment, Environmental Boards webpage.
- 16. Licensee shall allow State officials and employees to make inspections at reasonable times and cooperate with those inspections.
- 17. This License is granted only to the Licensee. Licensee may transfer the license only with written approval from the Board of Public Works. If the Board of Public Works approves the transfer, the transferee is subject to all License terms and conditions.
- 18. Licensee shall indemnify, defend, and save harmless the State of Maryland, its officials, officers, and employees from and against any and all liability, suits, claims, and actions of whatever kind, caused by or arising from, the work this License authorizes.
- 19. The Board of Public Works or its Wetlands Administrator may modify, suspend, or revoke this License in its reasonable discretion. Licensee shall promptly comply upon notice of any such action.

 February 12, 2028.
- 20. This License expires

 If the authorized work is not completed by the expiration date, all activity must stop.

 Note: A three-year license may be renewed for one additional three-year term if the Licensee requests an extension before the expiration date and all other conditions are met. A six-year license may not be renewed; instead, Licensee must reapply to MDE for a new license. Contact the Board of Public Works to determine if this License may be extended.

 Board of Public Works: 410-260-7791
- 21. In conducting work authorized under this license, licensee may not cause injury to private property; invade the rights of others; or infringe any federal, state, or local laws or regulations.
- 22. Licensee shall maintain any authorize structure in good condition and perform the authorized activity in a workmanlike manner in accordance with this license.
- 23. In conducting work authorized under this license, licensee shall eliminate or minimize adverse effects on fish, wildlife, and the natural environment.

By the authority of the Board of Public Works:

William Morgante
William Morgante
Wetlands Administrator

Maryland Transportation Authority (MDTA)

WL#24-0757

February 12, 2025

Effective Date:

Approved as: Secretary's Agenda Item 9

Board of Public Works Meeting Date: January 29, 2025

I accept this License and all its conditions.

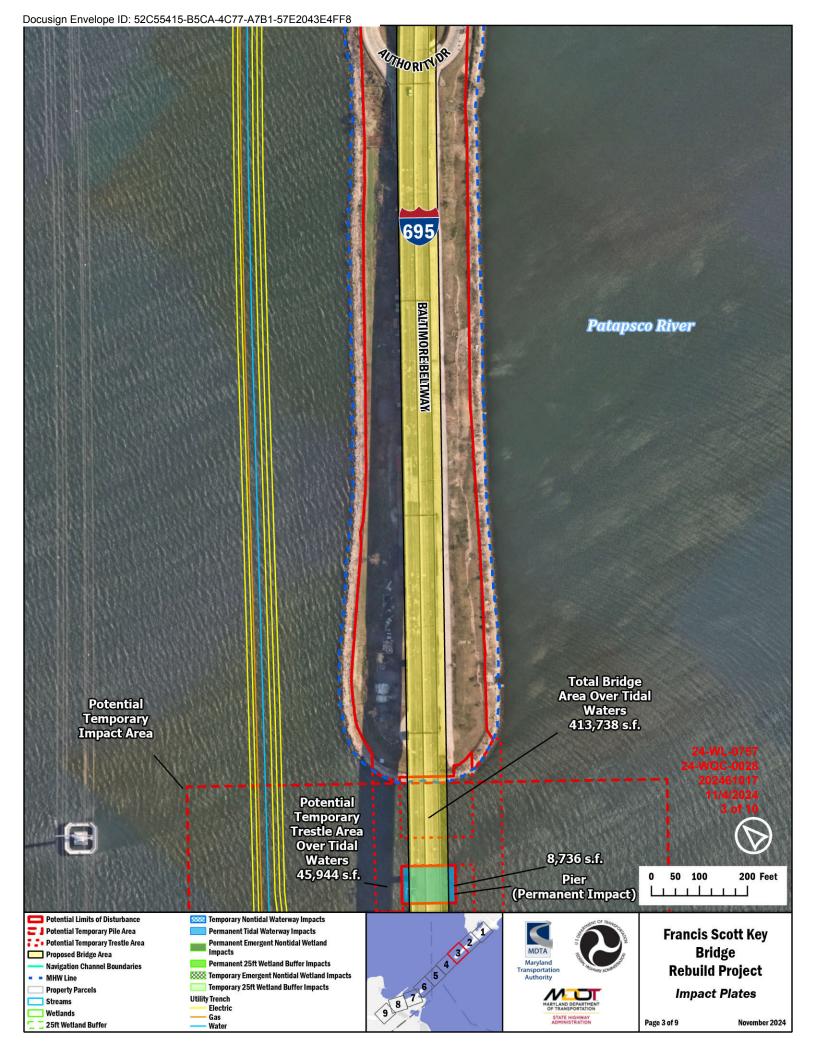
2/12/2025	Bigned by:
Date	Licensee (Signature) 63175F2A5AFA460
	Brian Wolfe
	Name (Printed)
	Director of Project Development
	Title
	bwolfe3@mdta.state.md.us
	Email (to receive completed license)

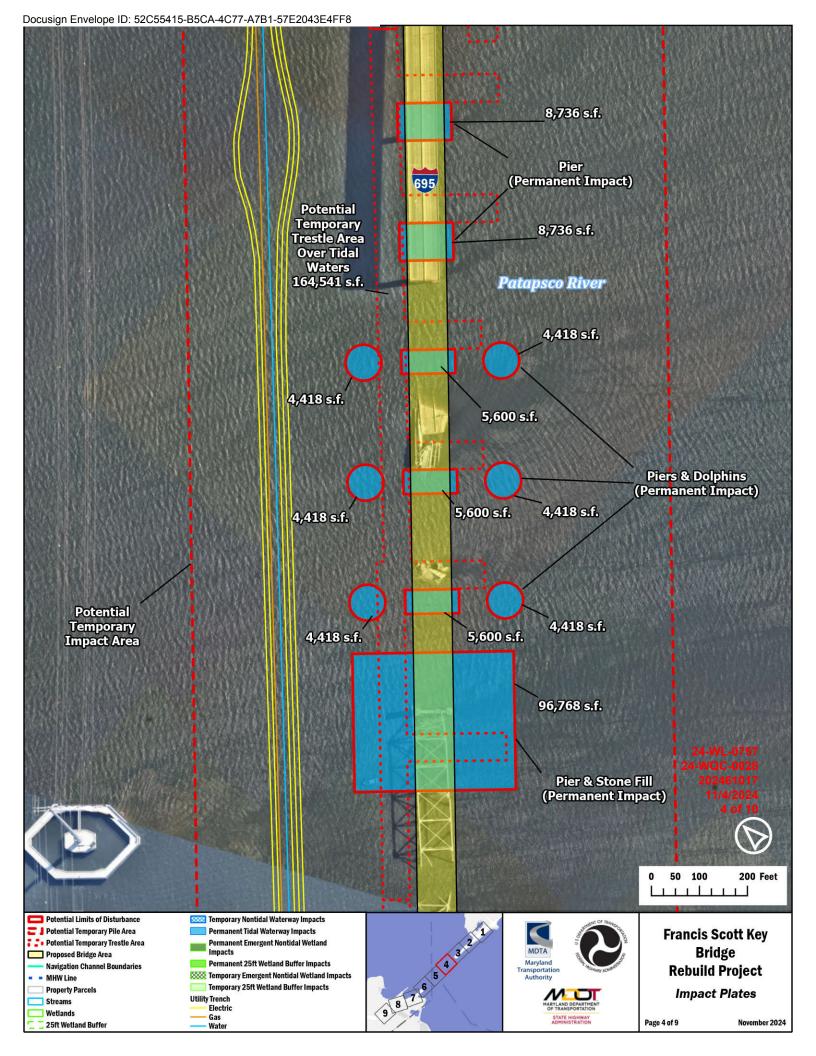
Attachment III

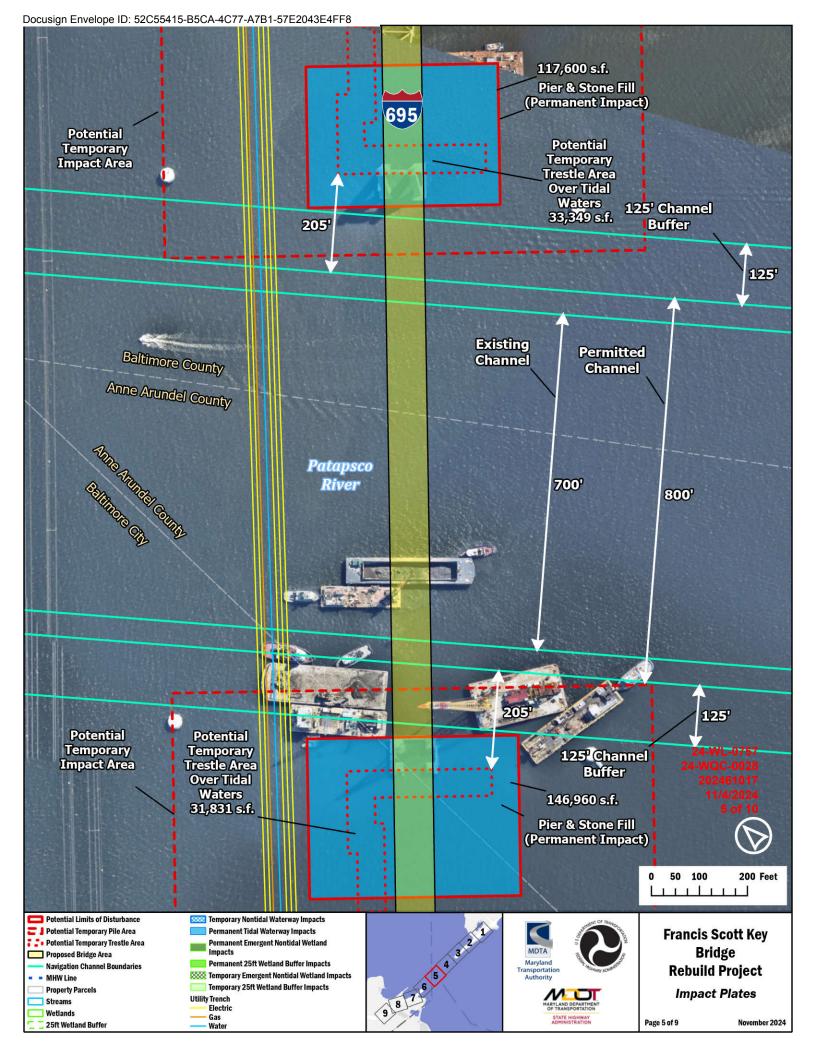
Project Location Map

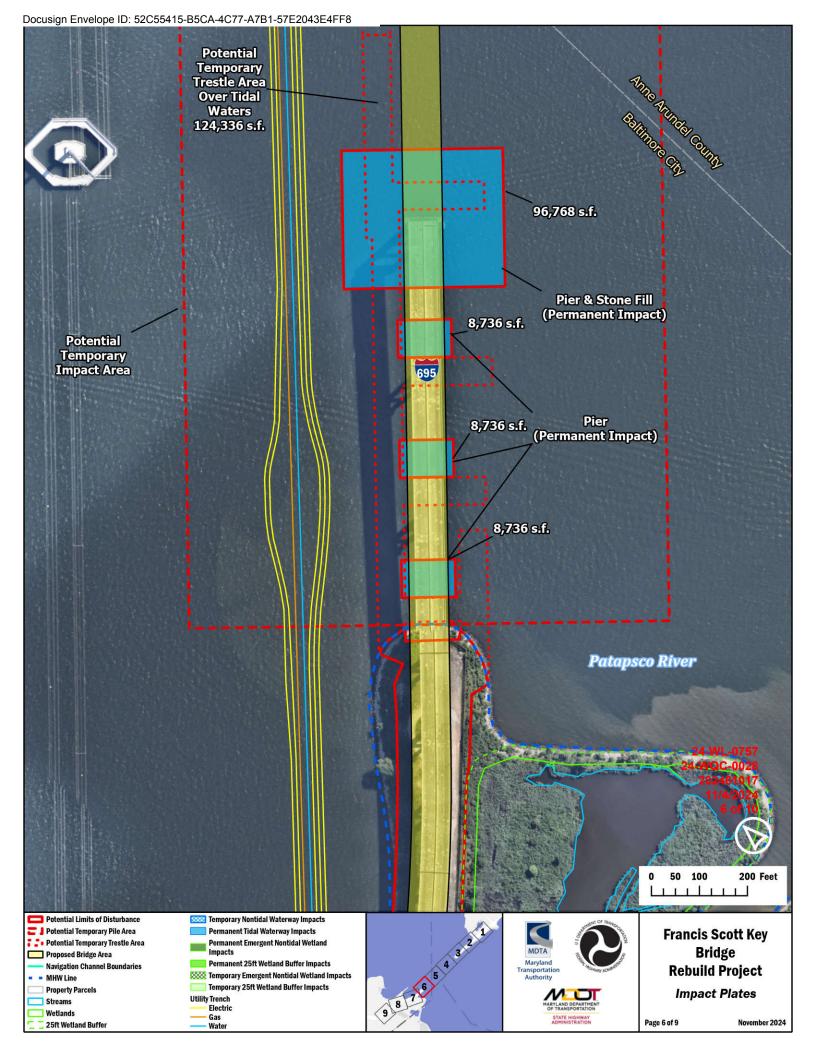


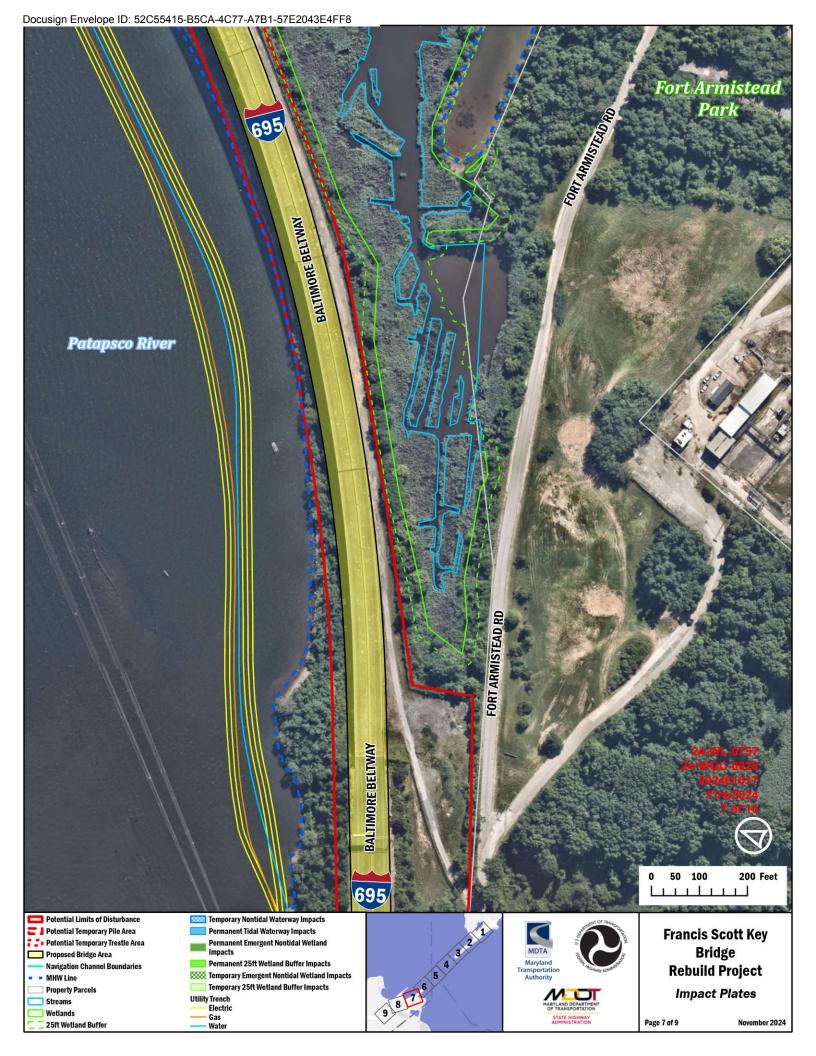


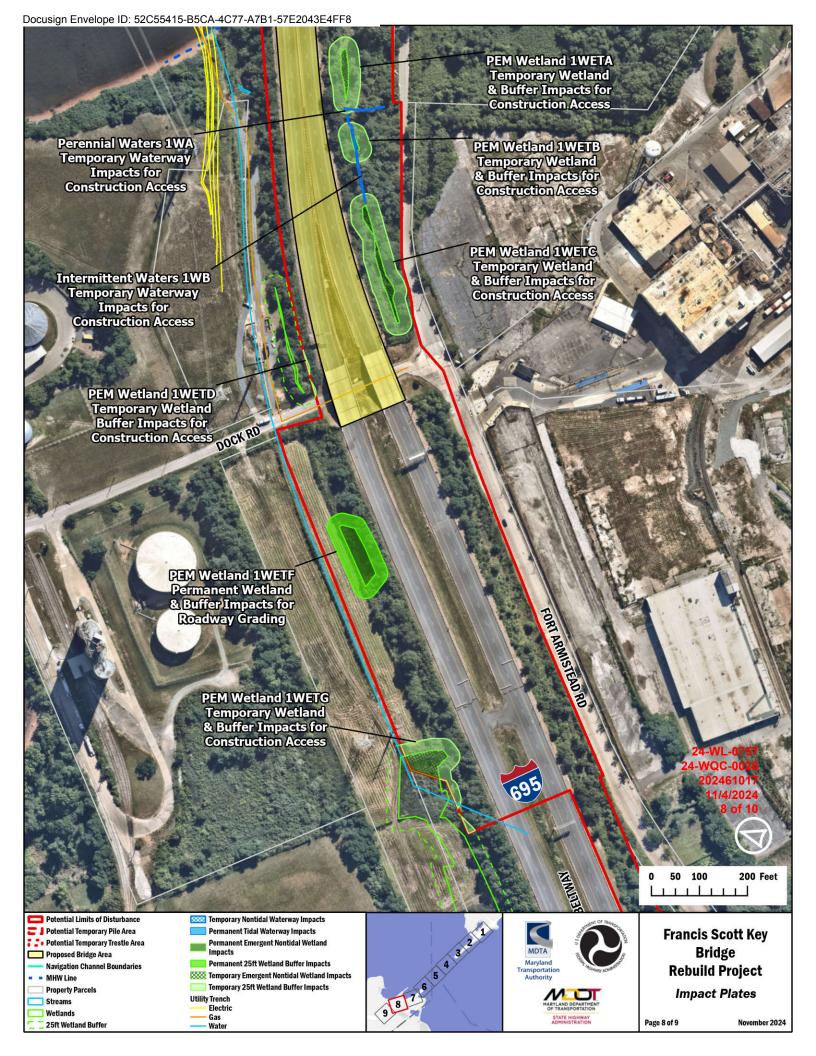


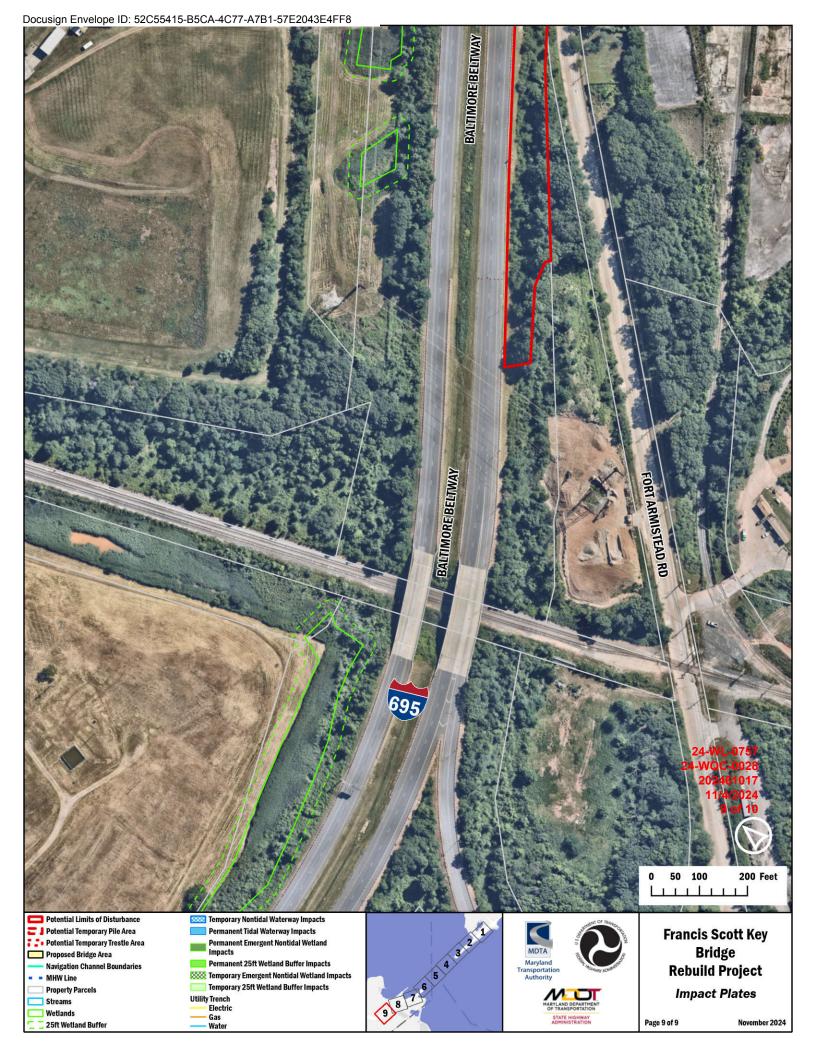




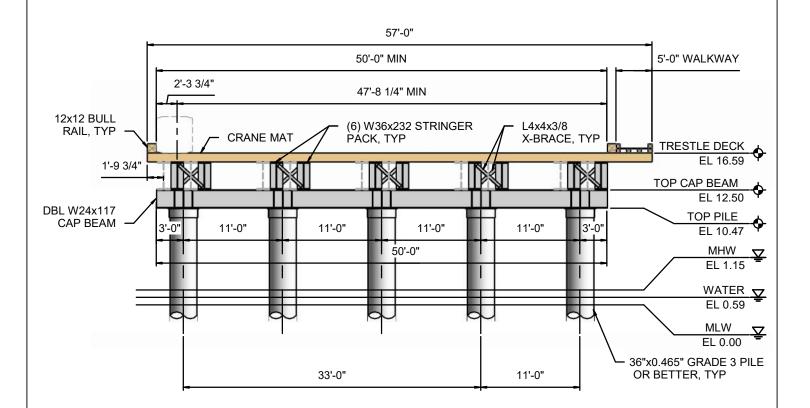








Proposed Temporary Trestle



TYPICAL SECTION

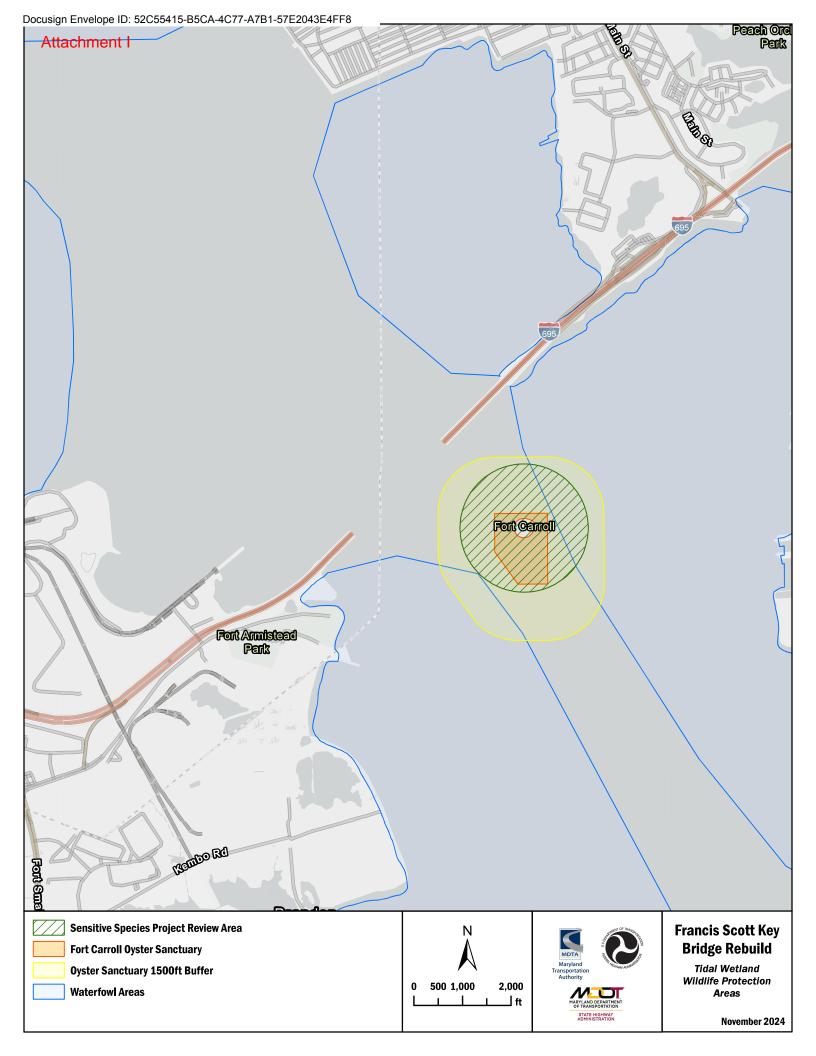
SCALE: 3/32" = 1'-0"

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Francis Scott Key Bridge Rebuild Project

Impact Plates November 2024



Attachment II
Fish Mortality Mitigation Cost Table

		Prices as	or march	f March 2022					P	rices in CO	MAK 08.02	02.09.01	
	Under 4"	4"-6"	6"-8"	8"-10"	10"-12"	12"+ price/lb		Under 4"	4"-6"	6"-8"	8"-10"	10"-12"	12"+ pric
Bass, Largemouth	1.75	2.45	3.85	5.60	7.00	8.75		0.50	0.70	1.10	1.60	2.00	2.50
Bass, Striped*	2.63	4.38	6.13	7.88	10.50	17.50		0.75	1.25	1.75	2.25	3.00	5.00
Bluefish	1.75	2.98	4.03	5.25	7.00	11.73		0.50	0.85	1.15	1.50	2.00	3.35
Catfish, Bullheads	0.35	0.70	1.05	1.40	1.75	1.75		0.10	0.20	0.30	0.40	0.50	0.50
Catfish, Channel, White	0.53	0.88	1.23	1.58	1.93	3.50		0.15	0.25	0.35	0.45	0.55	1.00
Catfish, Blue, Flathead			In	vasive				0.00	0.00	0.00	0.00	0.00	0.00
Crappie, Black, White	0.70	1.40	2.10	3.50	5.25	8.75		0.20	0.40	0.60	1.00	1.50	2.50
Croaker	0.53	1.05	1.58	2.10	2.63	2.63		0.15	0.30	0.45	0.60	0.75	0.75
Drum, Black, Red	1.75	2.98	4.03	5.25	7.00	11.73		0.50	0.85	1.15	1.50	2.00	3.35
Ee l , American	0.18	0.35	1.05	1.05	1.05	1.75		0.05	0.10	0.30	0.30	0.30	0.50
Herring*	0.35	0.70	1.05	1.75	2.63	1.75		0.10	0.20	0.30	0.50	0.75	0.50
Menhaden	0.35	0.70	1.05	1.75	2.63	1.75		0.10	0.20	0.30	0.50	0.75	0.50
Perch, White	0.53	0.88	1.23	1.58	1.93	2.28		0.15	0.25	0.35	0.45	0.55	0.65
Perch, Yellow	0.53	0.88	1.23	1.58	1.93	2.28		0.15	0.25	0.35	0.45	0.55	0.65
Seatrout, all species	0.88	1.58	2.28	3.15	3.85	5.25		0.25	0.45	0.65	0.90	1,10	1.50
Shad, American*	0.35	0.70	1.05	1.75	2.10	2.98		0.10	0.20	0.30	0.50	0.60	0.85
Shad, Hickory*	0.35	0.70	1.05	1.75	2.10	2.98		0.10	0.20	0.30	0.50	0.60	0.85
Shad, Gizzard	0.07	0.14	0.21	0.28	0.35	0.53		0.02	0.04	0.06	0.08	0.10	0.15
Snakehead			In	vasive				0.00	0.00	0.00	0.00	0.00	0.00
Spot	0.53	1.05	1.58	2,10	2.63	2,63		0,15	0.30	0.45	0,60	0.75	0.75
Sturgeon*						175.00							50.00
Sunfish, all species	0.70	1.23	3.50	6.13	10.50	10.50		0.20	0.35	1.00	1.75	3.00	3.00
	Under 4"		Over 4"					Under 4"		Over 4"			
Forego fish shipers doose		nousand	\$7/thousand					\$1/thousand		\$2/thousand			
silversides, andiovies, etc.													
	Und	Under 5"		Over 5"				Under 5"		Over 5"			
Blue Crabs, Hard*	.87/	each	1.74	/each				.25/6	each	.50/	each		
	Unde	Under 3.5" O		Over 3.5"				Under 3.5"		Over 3.5"			
Blue Crabs, Soft, Peeler*	.87/each		1.74/each				.25/each		.50/each				
Soft-shell Clams	\$70/6	ushel						\$20/b	ushel				
Hard-shell Clams		.70/each						.20/each					1
Dysters		/bushe						\$15/bushel					
Grass Shrimp		allon						\$4/gallon					
Diamondback Terrapins*	\$3,49/pound							\$1/pound					
	\$3.40/	pound						\$175					
Notes:													
COMAR values have been adjuste	ed to reflect the	cumulative	rate of infla	ation from 1	980 to Mar	ch 2022 which is	s just ui	nder 250%					