

April 11 2023

Mr. Lamin Williams  
Acting Division Administrator  
Attn: Dr. Azmat Hussain  
Federal Highway Administration  
Maryland Division  
George H. Fallon Federal Building  
31 Hopkins Plaza, Suite 1520  
Baltimore MD 21201

Ms. Terry Garcia Crews  
Regional Administrator  
Attn: Mr. Anthony Jreije  
Federal Transit Administration, Region III  
1835 Market Street, Suite 1910  
Philadelphia PA 19103-2968

Dear Mr. Williams and Ms. Crews:

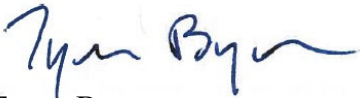
The Maryland Department of Transportation (MDOT) hereby amends the Fiscal Year (FY) 2022-2025 Maryland Statewide Transportation Improvement Program (STIP) to add one project on behalf of the MDOT State Highway Administration (MDOT SHA) and the MDOT Maryland Port Administration (MDOT MPA). The MDOT has designated it MDOT Control #22-70 for this modification to the STIP. The approval and supporting documentation are attached.

<b>Project Name</b>	<b>STIP #</b>	<b>Funding Source</b>	<b>FY22-FY25 Net Federal Change (in 000's)</b>
<b>Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments and Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects</b>	<b>AZ2691</b>	<b>RD-Y448</b>	<b>\$312</b>

Mr. Lamin Williams  
Ms. Terry Garcia Crews  
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The Maryland Statewide Transportation Improvement Program continues to be fiscally constrained. Should you have additional questions or concerns, please contact Mr. Dan Janousek at 410-865-1098, toll free 888-713-1414 or via e-mail at [djanousek@mdot.maryland.gov](mailto:djanousek@mdot.maryland.gov). Of course, please feel free to contact me directly.

Sincerely,

A handwritten signature in blue ink that reads "Tyson Byrne". The signature is fluid and cursive, with the first name "Tyson" and last name "Byrne" clearly legible.

Tyson Byrne  
Regional Planning Manager  
Office of Planning and Capital Programming

Attachment

cc: Mr. Dan Janousek, Regional Planner, OPCP, MDOT

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**MEMORANDUM**

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**TO:** OFFICE OF PLANNING AND CAPITAL PROGRAMMING (OPCP)  
DIRECTOR HEATHER MURPHY  
MARYLAND DEPARTMENT OF TRANSPORTATION (MDOT)

**ATTN:** OPCP REGIONAL PLANNING MANAGER TYSON BYRNE  
OPCP REGIONAL PLANNER DAN JANOUSEK

**FROM:** OFFICE OF PLANNING AND PRELIMINARY ENGINEERING  
DEPUTY DIRECTOR ERIC BECKETT *E. Beckett*

**SUBJECT:** REQUEST TO AMEND THE FY 2022-2025 MARYLAND STATEWIDE  
TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

**DATE:** MARCH 31, 2023

**RESPONSE  
REQUESTED BY:** N/A

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**PURPOSE OF MEMORANDUM**

To request the MDOT OPCP approve and forward to the Federal Highway Administration (FHWA) for its approval the following STIP amendment.

**SUMMARY**

The MDOT State Highway Administration (MDOT SHA) and MDOT Maryland Port Administration (MDOT MPA) hereby request amendment of the FY 2022-2025 Maryland STIP to reflect the following one action.

STIP	PROJECT	PHASE	NEW FUNDING
AZ2691	Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments and Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects	PP	\$449,003

**ANALYSIS**

*Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments and Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects* – This amendment reflects the addition to the FY 2022-2025 Maryland STIP of a new project, AZ2691, and the addition of \$449,000 in planning funding. The MDOT SHA/MDOT MPA requests this amendment to ensure the FY 2022-2025 Maryland STIP reflects MDOT SHA and MDOT MPA’s updated programmed project expenditures and project schedule. The MDOT SHA and MDOT MPA were awarded a FHWA Climate Challenge Program grant for these two efforts.

The MDOT SHA portion of the grant is for the Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects. The goal of this project is to develop lifecycle assessments (LCA) and environmental product declarations (EPD) by developing sustainable pavement practices, including pavement material and design selection, and contract specifications that optimize performance and asset life, while also contributing to reduced emissions and impacts in pavement practices at MDOT SHA. This will be achieved by determining MDOT SHA's readiness to implement a LCA on highway pavement projects around Green House Gas (GHG) emissions; determining industry readiness to provide EPDs to inform LCA with a focus on asphalt and concrete; and identifying and developing initiatives and processes that contribute to the achievement of GHG emissions performance targets established as part of the Federal Transportation Performance Management Program reporting requirements. This will align with the national policy established under Executive orders entitled "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis" and "Tackling the Climate Crisis at Home and Abroad" and at the Leaders Summit on Climate. The total cost is \$85,000 using \$68,000 in grant funds and \$17,000 in matching state funds.

The MDOT MPA portion of the grant is for the Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments project. The overall goal of the proposed work is to provide recommendations on dredged material (DM) and DM blends that can be used for vegetative berms (VEBs), also known as infiltration berms. This will involve creating and testing DM and DM blends with three specific criteria defining a successful blend: (1) appropriate geotechnical properties, (2) acceptable environmental properties, and (3) ability to rapidly establish vegetation in a berm setting. Blending materials under consideration include lime, recycled concrete aggregate, gypsum, and wheat straw. An optimized blend that best meets all VEB criteria will be thoroughly tested. The total cost is \$364,003 using \$244,003 in grant funds and \$120,000 in matching state funds.

The attached STIP report documents MDOT's requested amendment with respect to funding for the above projects. This requested action will not impact scheduling or funding availability for other projects in the current STIP, which remains fiscally constrained as this is new grant funding over and above the existing federal funds provided through the IJJA. The amended funding does not affect the portion of federal funding programmed for transit or allocations of state aid to local jurisdictions in lieu of federal aid.

In addition, the Maryland Transportation Trust Fund (TTF) remains fiscally constrained. The TTF supports State transportation system operation and maintenance, MDOT administration, debt service, and capital projects. Semiannually, MDOT updates revenues and expenditures using two national forecasting companies' latest economic estimates. The MDOT published funding details in the FY 2022-2027 Consolidated Transportation Program (<https://mdot.maryland.gov/tso/Pages/Index.aspx?PageId=27>) and FY 2022-2025 Maryland STIP (<https://mdot.maryland.gov/tso/pages/Index.aspx?PageId=117>).

Please amend the FY 2022-2025 Maryland STIP to reflect the funding information provided in the attachment. If you have any questions, please contact me at 410-545-5666 or via email at [ebeckett@mdot.maryland.gov](mailto:ebeckett@mdot.maryland.gov).

## **ATTACHMENTS**

- FY 2022-2025 Maryland STIP project AZ2691 report

Ms. Heather Murphy  
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cc: Ms. Sejal Barot, Director, Office of Materials Technology (OMT), MDOT SHA  
Praveen Desaraju, P.E., Assistant Division Chief, Pavement Management, OMT, MDOT SHA  
Tara Penders, AICP, Assistant Chief, Regional and Intermodal Planning Division (RIPD), MDOT  
SHA  
Mr. David Rodgers, Regional Planner, RIPD, MDOT SHA  
Mr. Dominic Scurti, Director, Office of Planning, MDOT MPA

# MARYLAND STATEWIDE TIP FY 2022-2025

MDOT STIP # AZ2691

**SUMMARY TABLE**

Project	Amendment Criteria	Conformity Status	Environmental Status	Current Funding Level (000s)		
				Federal	State/Local	Total
Climate Change Challenge Grant - Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments and Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects	A	n/a	PCE	\$ -	\$ -	\$ -
				Net Funding Change (000s)		
				Federal	State/Local	Total
				\$	312	137
				\$		449

**Description:** Geoenvironmental and Life Cycle Analysis of Highway Infiltration Berms Constructed with Dredged Sediments and Informed Emissions Reduction Strategies for Asphalt and Concrete Paving Projects

**Justification:** FHWA Climate Challenge program grant

**INDIVIDUAL REQUEST FORM**

STIP/TIP Amendment Criteria	Funding (000s)	FY 2022	FY 2023	FY 2024	FY 2025	Total	
		<input checked="" type="checkbox"/> A) Adds new individual projects to the current STIP	<b>Total</b>	\$ -	\$ -	\$ -	\$ -
<input type="checkbox"/> B) Increase/decrease, scope change, advance, delay, or phase change	Federal	\$ -	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/> C) Removes or deletes individual listed project from the STIP	State/Local	\$ -	\$ -	\$ -	\$ -	\$ -	
<input type="checkbox"/> D) Other	<b>Total</b>	\$ -	\$ 50	\$ 217	\$ 182	\$ 449	
	Proposed (000s)	Federal	\$ -	\$ 41	\$ 149	\$ 122	\$ 312
		State/Local	\$ -	\$ 9	\$ 68	\$ 60	\$ 137
	Change (000s)	<b>Total</b>	\$ -	\$ 50	\$ 217	\$ 182	\$ 449
		Federal	\$ -	\$ 41	\$ 149	\$ 122	\$ 312
	State/Local	\$ -	\$ 9	\$ 68	\$ 60	\$ 137	

**PHASE DETAIL**

Current Phase/Funding	FY 2022		FY 2023		FY 2024		FY 2025		TOTAL		
	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Total
PP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PE/FD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CO	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Proposed Phase/Funding	FY 2022		FY 2023		FY 2024		FY 2025		TOTAL		
	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Total
PP RD-Y448	\$ -	\$ -	\$ 41	\$ 9	\$ 149	\$ 68	\$ 122	\$ 60	\$ 312	\$ 137	\$ 449
PE/FD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CO	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ 41	\$ 9	\$ 149	\$ 68	\$ 122	\$ 60	\$ 312	\$ 137	\$ 449

Change Phase/Funding	FY 2022		FY 2023		FY 2024		FY 2025		TOTAL		
	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Federal	State/Local	Total
PP RD-Y448	\$ -	\$ -	\$ 41	\$ 9	\$ 149	\$ 68	\$ 122	\$ 60	\$ 312	\$ 137	\$ 449
PE/FD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CO	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	\$ -	\$ -	\$ 41	\$ 9	\$ 149	\$ 68	\$ 122	\$ 60	\$ 312	\$ 137	\$ 449

**TOTAL PROJECT COST**

Prior Cost (≤ FY 2021)		STIP Cost (FY 2022-2025)		Balance to Complete (≥ FY 2026)		Total Project Cost	
Federal	\$ -	Federal	\$ 312	Federal	\$ -	Federal	\$ 312
State/Local	\$ -	State/Local	\$ 137	State/Local	\$ -	State/Local	\$ 137
<b>Total</b>	\$ -	<b>Total</b>	\$ 449	<b>Total</b>	\$ -	<b>Total</b>	\$ 449