



June 3, 2020

# FY 2021–2024 Transportation Improvement Program (TIP)



**Staunton Augusta  
Waynesboro**  
Metropolitan Planning  
Organization

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**SAWMPO.org**

# FY 2021-2024 Transportation Improvement Program (TIP)

## Staunton-Augusta-Waynesboro Metropolitan Planning Organization (SAWMPO)

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### Policy Board as of June 3, 2020

#### Officers:

Chair, James Harrington, City of Staunton

Vice Chair, Bobby Henderson, City of Waynesboro

Secretary/Treasurer, Bonnie S. Riedesel - Central Shenandoah PDC (non-voting)

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Scott Seaton – Augusta County

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Jim Shaw – City of Waynesboro

Randy Kiser – Virginia Department of Transportation

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Steve Wilson – Virginia Regional Transit (non-voting)

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#### Officers:

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Luke Juday – City of Waynesboro

Don Komara – Virginia Department of Transportation

Wood Hudson – Virginia Department of Rail and Public Transportation

Steve Wilson – Virginia Regional Transit (non-voting)

Phil Thompson – Virginia Regional Transit (non-voting)



# FY 2021-2024 Transportation Improvement Program (TIP)

Mack Frost – Federal Highway Administration (non-voting)  
Michael Fulcher – Virginia Department of Transportation (non-voting)  
Terry Short – Virginia Department of Transportation (non-voting)

## Plan Documentation

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### Title:

FY 2021 – 2024 SAWMPO Transportation Improvement Program

### Authors:

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Zach Beard, SAWMPO Transportation Planner

### Plan Date:

June 3, 2020

# FY 2021-2024 Transportation Improvement Program (TIP)

## Disclaimer

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The Staunton-Augusta-Waynesboro Metropolitan Planning Organization (SAWMPO) Transportation Improvement Program (TIP) has been prepared in accordance with federal regulations [49 U.S.C. § 5303\(j\)](#) and [23 CFR 450.326](#), and the Virginia Association of Metropolitan Planning Organizations [TIP Development Guidelines](#); and in partnership with the Cities of Staunton and Waynesboro, the County of Augusta (member jurisdictions), the Virginia Department of Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The contents of this report reflect the views of the SAWMPO, which are responsible for the accuracy of the information and data presented herein.

## Self-Certification

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Submission of the SAWMPO TIP fulfills the federal self-certification requirements set forth by [23 CFR 450.336](#), confirming the SAWMPO's metropolitan transportation planning process is conducted in accord with all applicable federal and state regulations.

## Non-Discrimination Statement

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The SAWMPO ensures non-discrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you have questions or concerns about your civil rights regarding this document, or if you need special assistance for persons with disabilities or limited English proficiency, please contact the SAWMPO. For more information, or to obtain a Title VI Complaint Form, see <http://sawmpo.org/public-participation-title-vi> or call (540) 885-5174.

# FY 2021-2024 Transportation Improvement Program (TIP)

## RESOLUTION ADOPTING THE FISCAL YEARS 2021- 2024 STAUNTON- AUGUSTA-WAYNESBORO METROPOLITAN PLANNING ORGANIZATION TRANSPORTATION IMPROVEMENT PROGRAM

*WHEREAS*, The U.S. Department of Transportation requires that each urbanized area with a population of 50,000 develop a Transportation Improvement Program (TIP) as a condition to receive Federal transportation and transit funds, for the upcoming three or more years; and

*WHEREAS*, the Staunton–Augusta–Waynesboro Metropolitan Planning Organization (SAWMPO) is the region's designated Metropolitan Planning Organization (MPO) for the Staunton-Augusta-Waynesboro Urbanized Area; and

*WHEREAS*, the Virginia Department of Transportation (VDOT) and the Virginia Department of Rail and Public Transportation (DRPT) and the Cities of Staunton and Waynesboro and the County of Augusta have reviewed the Fiscal Year 2021-2024 (FY21-24) TIP; and

*WHEREAS*, the projects identified in the FY21-24 TIP are financially constrained and the TIP financial plan affirms that the funding identified in the TIP is available; and


*WHEREAS*, public participation has been sought and considered in accordance with the SAWMPO's Public Participation Plan adopted on October 8, 2015 and most recently amended on May 1, 2019; and

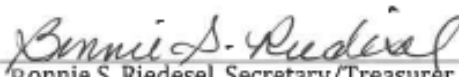
*WHEREAS*, the FY21-24 SAWMPO TIP is required for Virginia's State Transportation Improvement Program (STIP) process;

*NOW, THEREFORE BE IT RESOLVED* that the SAWMPO Policy Board does hereby approve the FY21 -24 TIP on this 3rd day of June 2020.

SIGNED:

ATTEST:

  
James Harrington, Chairman  
Staunton-Augusta-Waynesboro  
Metropolitan Planning Organization  
Policy Board

  
Bonnie S. Riedesel, Secretary/Treasurer  
Staunton-Augusta-Waynesboro  
Metropolitan Planning Organization  
Policy Board

# FY 2021-2024 Transportation Improvement Program (TIP)

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## Introduction

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### Purpose of this Document

Federal regulations [[49 U.S.C. § 5303\(j\)](#)] and [23 CFR 450.326](#)] require that all Metropolitan Planning Areas develop and maintain a Transportation Improvement Program (TIP) to coordinate regional transportation planning, maximize resources, provide transparency in the investment of federal transportation funds, and make progress towards achieving state and regional performance targets. Additionally, federal regulations require the TIP to be compatible with the SAWMPO's [Long-Range Transportation Plan](#) (LRTP), the State's TIP ([VDOT's Six-Year Improvement Program](#)), the [State's Transportation Improvement Plan](#) (STIP), and that it be updated a minimum of every 4-years. This TIP identifies the investment plans for Highway and Transit which are provided in the **TIP Financial Plan** on page 7.

### Public Participation

Public participation is vital in the TIP development process to ensure that transportation projects being advanced address needs identified by the community. Federal regulations require the SAWMPO to develop, implement, and maintain a [Public Participation Plan](#) (PPP) to provide a transparent and open planning process. The PPP identifies the various methods and ways the SAWMPO works to ensure that the public is properly notified of its activities, and that opportunities to participate in the SAWMPO's short- and long-range planning activities are available to all residents. The TIP is updated and amended according to the procedures provided in the PPP.

## The SAWMPO

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Established in 2012, the SAWMPO, is the federally designated agency responsible for leading transportation planning efforts for the Cities of Staunton and Waynesboro, and the urbanized areas of Augusta County. The MPO has 830 miles of roadway spanning across and area of 147 square miles. **Map 1** shows the SAWMPO planning area boundary.

As the regional transportation planning agency, the SAWMPO provides its members and partners an impartial venue to ensure that regional transportation planning and decision making are conducted transparently using the 3-C Planning Process. The 3-C Planning Process enables the SAWMPO to collaborate with its members and partners to develop a comprehensive picture of the region in its effort to identify potential issues, prioritize needs, provide solutions, identify funding opportunities, and make decisions to support, maintain and improve the region's transportation network.

### SAWMPO Policy Board

The SAWMPO's governing body is its Policy Board. The Policy Board leads the SAWMPO transportation decision making process in the SAWMPO region to ensure all possible solutions are examined and interests are addressed; decisions are made by following established MPO policies are in accord with federal and state regulations. The Policy Board is supported by SAWMPO staff, with guidance and technical assistance provided by the SAWMPO Technical Advisory Committee (TAC)

### Technical Advisory Committee (TAC)

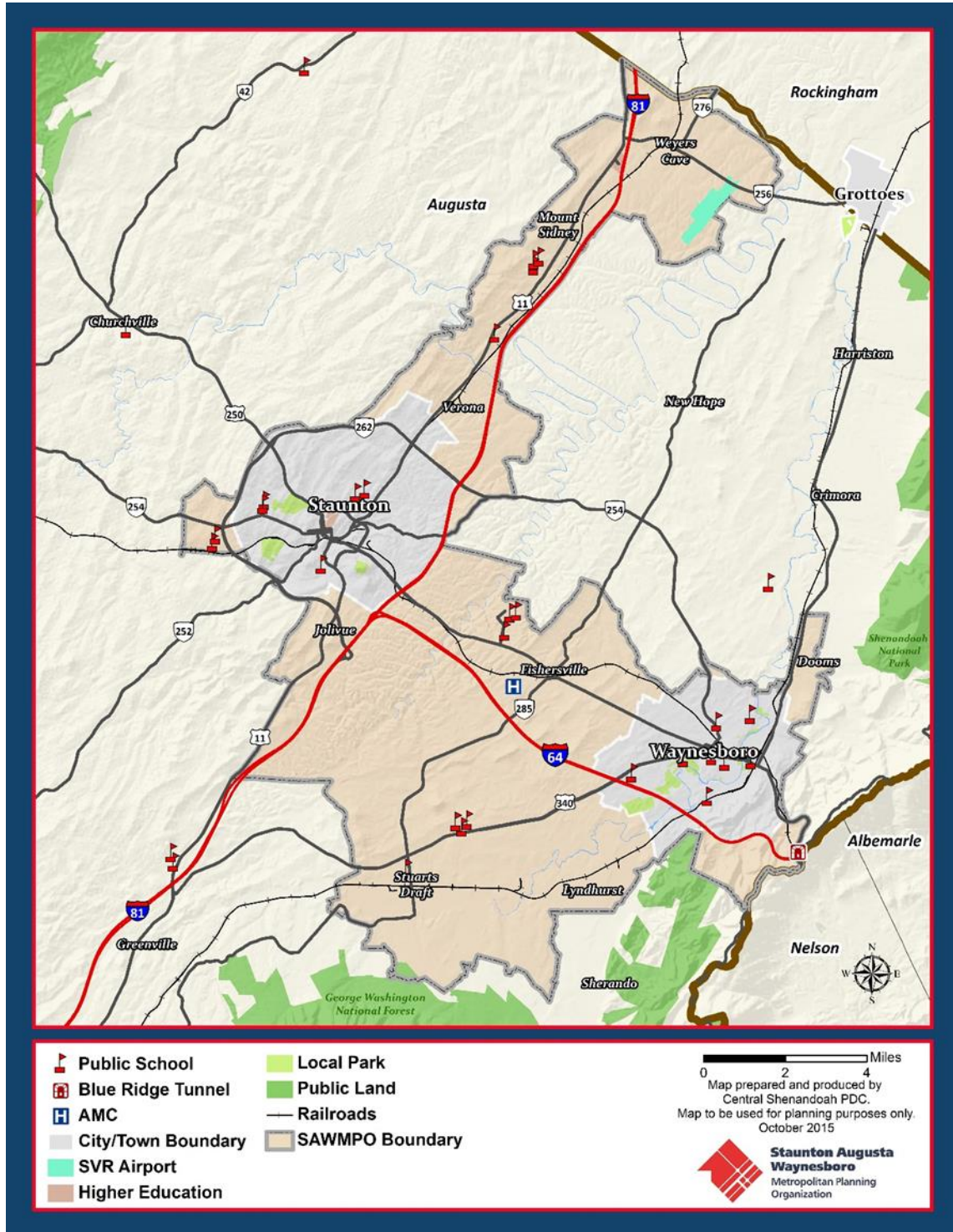
The TAC is comprised of staff from the SAWMPO's member jurisdictions, BRITE transit, and state and federal agencies. Through the TAC, member agencies and partners can collaborate and coordinate transportation planning efforts, and inform the Policy Board's decision-making process. With its members' knowledge of the region's transportation network and local transportation and transit needs, the TAC assists the SAWMPO in establishing regional transportation priorities and identify regional and local needs.



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# FY 2021-2024 Transportation Improvement Program (TIP)

Map 1 SAWMPO Planning Area



## The SAWMPO TIP

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The SAWMPO TIP is the region's fiscally constrained four-year program of all transportation and transit projects programmed in the SAWMPO region that:

- Are scheduled to receive federal transportation funds
- Require a federal action; or
- Are deemed regionally significant

Projects using only local or state funds are typically not included in the TIP unless they require a federal action or are considered regionally significant. The list of transportation and transit projects programmed in the SAWMPO FY 2021 – 2025 TIP can be found in the TIP Highway & Transit Financial Plans on page 7 of this document.

### Consistency With Other State and Regional Planning Documents

Federal regulations require the TIP to be consistent with other federal, state, and regional transportation planning documents. These documents include the Statewide Transportation Improvement Program (STIP), and Six Year Improvement Program (SYIP), and the SAWMPO LRTP.

Upon approval by the SAWMPO Policy Board, the SAWMPO TIP is submitted to VDOT and DRPT for approval and inclusion into the STIP, which is then forwarded to the FHA and FTA for federal approval.

### TIP Development

The TIP is developed in accordance with [23 CFR 450.326](#), the Virginia Association of MPOs (VAMPO) TIP Development Guidelines, and in partnership with member agencies, stakeholders, VDOT, DRPT, FHWA and FTA, from projects in the SAWMPO's Constrained Long Range Plan (CLRP), the VTrans 2045 Plan, and from member agency comprehensive plans. The TIP is updated at least every four years.

### TIP Financial Plans

#### Highway Financial Plan

The TIP Highway Financial Plan lists all transportation projects programmed in the SAWMPO region during the TIP 4-year life-cycle. The Financial Plan provides a project's details including the type of project to be implemented, its phase, scope, obligated funding source(s), project cost(s), and delivery schedule.

#### Transit Financial Plan

The Transit Financial Plan provided by DRPT identifies all transit projects programmed for implementation during the 4-year life cycle of the TIP. Project details shown in the Transit Financial Plan include a project's cost(s), funding allocation(s), funding source(s) and anticipated future funding. Since transit resources are allocated on an annual basis, transit projects and funds shown in the Financial Plan beyond FY 2021 are anticipated allocations.

# FY 2021-2024 Transportation Improvement Program (TIP)

## Grouped Projects

Projects in the TIP that are determined not to be regionally significant, or are considered by VDOT or DRPT not to be of an appropriate scale to be individually programmed are listed in grouped categories. Listing these projects in grouped categories provides programming flexibility and reduces the administrative process. Grouped category lists may be identified by function, work type, or geographic area per 23 CFR 771.117(c) and (d) and 40 CFR part 93. A grouped project list shows the total sum of funding obligated for the grouped category rather than individual project descriptions and obligated funding. Grouped project listings are provided in both financial plans.

## Amendments & Modifications

The TIP is periodically amended to add new projects or modify an existing project's scope, cost, and/or schedule when requested by VDOT, DRPT, or the project sponsor. TIP amendments and modifications for the Highway and Transit Financial Plans are in **Appendices A and B** of this document. Amendments and administrative modifications are defined below per [23 CFR Section 450.104 and pages 6 and 7 of the Virginia STIP Procedures Manual](#), and are made according to the amendment policy found in Section 4.5 of the [SAWMPO PPP](#).

## Amendments

Amendments are considered when a revision to a TIP involves a major change to an existing project programmed during the document's life-cycle. Major changes may include the addition or deletion of a project, or a major change to a project's cost, scope, or schedule (e.g., adding new funds to a project, changing a project's termini or revising the start and/or delivery date). Amendments require a public notice that includes a review and comment period. Once the review and comment period are complete the amendment is presented to the SAWMPO Policy Board, VDOT/DRPT, FHWA/FTA for approval. Any change to a TIP's financial plan(s) must continue to demonstrate fiscal constraint.

### Transit-FTA Project/Phase Cost Increase Thresholds for Amendments

Approved STIP Total Estimated Project Cost	Estimate Increase Requiring Amendment
Up to \$2,000,000	>100%
>\$2,000,000 to \$10,000,000	>50%
>\$10,000,000	>25%

### Highway-FHWA Project/Phase Cost Increase Thresholds for Amendments

Approved STIP Total Estimated Project Cost	Estimate Increase Requiring Amendment
Up to \$2,000,000	>100%
>\$2,000,000 to \$10,000,000	>50%
>\$10,000,000 to \$20,000,000	>25%
>\$20,000,000 to \$35,000,000	>15%
>\$35,000,000	>10%

# FY 2021-2024 Transportation Improvement Program (TIP)

## Administrative Modifications

Administrative Modifications are considered to be **minor revisions** to a TIP. This includes minor changes to an existing project's programmed phase, costs, funding source(s), and minor changes to a project's schedule/delivery date. An administrative modification only requires a staff-level review. Administrative modifications do not require a public notice of the change, public comment period, or re-demonstration of fiscal constrain.

## Performance Management Requirements

The SAWMPO is dedicated to improving the region's transportation network by working with its member agencies, VDOT, DRPT, FHWA, and FTA to implement regional performance measures that support and advance regional, state, and national transportation performance goals.

The FHWA defines [Transportation Performance Management](#) as a "strategic approach that uses system information to make investment and policy decisions to achieve national performance goals." With the passage of Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) in 2012 and the subsequent Fixing America's Surface Transportation (FAST) Act in 2016, the FHWA and FTA mandated that States and MPOs establish performance measures to integrate system-performance management into the transportation and transit planning process. In order to guide the integration of system performance measures into the planning process the FHWA and FTA identified the following seven national performance measures:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement & Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delay

Additionally, FTA established four performance measures to approximate the State of Good Repair (SGR) for four categories of capital assets, which include: rolling stock, equipment, facilities, and infrastructure. Calculating performance measures helps transit agencies to quantify the condition of their assets, which facilitates setting targets that support local funding prioritization.

Advancing the seven national performance goals, and the four FTA performance management measures, ensures that transportation networks continue to develop and operate in a safe and efficient manner. Implementation of these measures in the SAWMPO region ensures that transportation investments advance federal performance objectives, and that the SAWMPO TIP is consistent with statewide planning documents. The performance measures and implementation schedule provided in **Appendix D** satisfy the requirements of 23 CFR 450.218(q). SAWMPO concurred with the state's safety targets on February 5, 2020. Performance measures and their revisions are to be incorporated into the TIP via the administrative modification process as they are advanced by VDOT and DRPT and approved by the SAWMPO Policy Board.



## The TIP Financial Plan

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MAP-21 requires a financial plan be provided in the TIP ([23 CFR 450.324\(h\)](#)). The Financial Plan must demonstrate how the projects programmed can be implemented with existing obligations. TIP projects identified must be consistent with the SAWMPO Long-Range Transportation Plan, and must be fully funded to the extent of available funding obligations or funding that is reasonably expected to be available.

The SAWMPO and its partners have collaborated to develop financial forecasts for the Highway and Transit TIP based on the latest official planning assumptions, available or assumed revenue(s), and estimated project cost(s). The financial information provided is either project specific, or listed by a grouped funding category. All projects listed in the TIP are expected to be implemented during the four-year life cycle of the document. The TIP Financial Plan may contain projects that show \$0.00 for planned obligations. Possible reasons for this include:

- The project is complete and is awaiting final closeout
- Project phases extend beyond four years
- A Project type ID that has no allocated funding during the four-year period of the TIP

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# FY 2021-2024 Transportation Improvement Program (TIP)

## TIP Financial Plan – Highway

### Interstate Projects

UPC NO	115852	SCOPE	Traffic Management/Engineering			
SYSTEM	Interstate	JURISDICTION	Statewide	OVERSIGHT	NFO	
PROJECT	ITTF FY20 Micro Transit			ADMIN BY	DRPT	
DESCRIPTION	FROM: Various TO: Various					
ROUTE/STREET	9999			TOTAL COST	\$500,000	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
PE AC	Federal - AC OTHER	\$0	\$500,000	\$0	\$0	\$0

### Primary Projects

UPC NO	115715	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Primary	JURISDICTION	Augusta County	OVERSIGHT	NFO	
PROJECT	#SMART20 WOODROW WILSON COMPLEX SHORT TERM ACCESS			ADMIN BY	VDOT	
DESCRIPTION	FROM: Rte. 250 intersection TO: Through the Roundabout (0.4800 MI)					
ROUTE/STREET	WOODROW WILSON AVENUE (0358)			TOTAL COST	\$4,294,032	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
RW AC	Federal - AC OTHER	\$0	\$0	\$0	\$933,164	\$0
CN AC	Federal - AC OTHER	\$0	\$0	\$0	\$0	\$2,750,138

Federal funds include the use of soft match supported by approved toll credits unless otherwise indicated and/or matching funds are shown in the "Match" column. Non-federal fund sources are as noted in the "Program Note" and shown in the "Match" column, when applicable.

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Urban Projects

UPC NO	115135	SCOPE	Facilities for Pedestrians and Bicycles			
SYSTEM	Urban	JURISDICTION	Staunton	OVERSIGHT	NFO	
PROJECT	#SMART20 Edgewood Road Sidewalk Improvements			ADMIN BY	Locally	
DESCRIPTION	FROM: North Coalter Street TO: North Augusta Street (0.3500 MI)					
ROUTE/STREET	EDGEWOOD ROAD (U000)			TOTAL COST	\$1,098,071	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
PE AC	Federal - AC OTHER	\$0	\$0	\$0	\$0	\$141,102

UPC NO	115136	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Urban	JURISDICTION	Waynesboro	OVERSIGHT	NFO	
PROJECT	#SMART20 13th Street and Rosser Avenue Roundabout			ADMIN BY	Locally	
DESCRIPTION	FROM: Roundabout TO: Intersection Improvements (0.0700 MI)					
ROUTE/STREET	ROSSER AVENUE (U000)			TOTAL COST	\$578,937	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
PE AC	Federal - AC OTHER	\$0	\$0	\$0	\$0	\$93,156

UPC NO	105907	SCOPE	New Construction Roadway			
SYSTEM	Urban	JURISDICTION	Waynesboro	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 Constr. 2-Lane Roadway Connector			ADMIN BY	VDOT	
DESCRIPTION	FROM: End of Existing Shenandoah Village Drive TO: Int. of Rte. 624 (Delphine Ave) (1.6000 MI)					
ROUTE/STREET	SHENANDOAH VILLAGE DRIVE (0209)			TOTAL COST	\$18,268,980	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
CN	Other	\$0	\$0	\$13,228,644	\$0	\$0

Federal funds include the use of soft match supported by approved toll credits unless otherwise indicated and/or matching funds are shown in the "Match" column. Non-federal fund sources are as noted in the "Program Note" and shown in the "Match" column, when applicable.

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Miscellaneous Projects

UPC NO	111049	SCOPE	Other			
SYSTEM	Miscellaneous	JURISDICTION	Waynesboro	OVERSIGHT	NFO	
PROJECT	#SMART18 - (St) WAYNESBORO TOWNE CENTER PARK & RIDE			ADMIN BY	VDOT	
DESCRIPTION	FROM: Camden Coyner Lane TO: Shenandoah Village Drive					
PROGRAM NOTE	All obligations based on current allocations/estimate					
ROUTE/STREET	PKRD			TOTAL COST	\$2,197,261	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
		\$0	\$0	\$0	\$0	\$0

Federal funds include the use of soft match supported by approved toll credits unless otherwise indicated and/or matching funds are shown in the "Match" column. Non-federal fund sources are as noted in the "Program Note" and shown in the "Match" column, when applicable.

UPC NO	111229	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Miscellaneous	JURISDICTION	Augusta County	OVERSIGHT	NFO	
PROJECT	#SMART18 - (St) WILSON COMPLEX ROUNDABOUT			ADMIN BY	VDOT	
DESCRIPTION	FROM: Roundabout TO: At Int of Hornet and Vo Tech Roads (0.1000 MI)					
ROUTE/STREET	WOODROW WILSON DRIVE (0358)			TOTAL COST	\$1,727,222	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
PE	Other	\$0	\$296,517	\$0	\$0	\$0
RW	Other	\$0	\$0	\$0	\$0	\$398,845

Federal funds include the use of soft match supported by approved toll credits unless otherwise indicated and/or matching funds are shown in the "Match" column. Non-federal fund sources are as noted in the "Program Note" and shown in the "Match" column, when applicable.





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# FY 2021-2024 Transportation Improvement Program (TIP)

## Project Groupings

GROUPING		Construction : Bridge Rehabilitation/Replacement/Reconstruction						
ROUTE/STREET							TOTAL COST	\$1,827,178
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24		
		\$0	\$0	\$0	\$0	\$0	\$0	

GROUPING		Construction : Rail						
ROUTE/STREET							TOTAL COST	\$1,500,000
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24		
		\$0	\$0	\$0	\$0	\$0	\$0	

GROUPING		Construction : Safety/ITS/Operational Improvements						
ROUTE/STREET							TOTAL COST	\$343,408,524
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24		
PE	Federal - STP/STBG	\$93,774	\$0	\$375,095	\$0	\$0	\$0	
PE AC	Federal - AC OTHER	\$0	\$0	\$0	\$0	\$234,258		
RW	Federal - DEMO	(\$402,957)	(\$1,611,828)	\$0	\$0	\$0	\$0	
	Federal - STP/STBG	\$50,000	\$0	\$0	\$200,000	\$0	\$0	
<b>RW TOTAL</b>		<b>(\$352,957)</b>	<b>(\$1,611,828)</b>		<b>\$0</b>	<b>\$200,000</b>	<b>\$0</b>	
CN	Federal - DEMO	\$807,422	\$0	\$3,229,689	\$0	\$0	\$0	
	Federal - HSIP	\$55,582	\$0	\$500,234	\$0	\$0	\$0	
	Federal - NHS/NHPP	\$14,790	\$59,158	\$0	\$0	\$0	\$0	
	Federal - STP/STBG	\$481,626	\$0	\$1,926,503	\$0	\$0	\$0	
<b>CN TOTAL</b>		<b>\$1,359,419</b>	<b>\$59,158</b>	<b>\$5,656,426</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
CN AC	Federal - AC	\$1,915,146	\$352,843	\$7,618,604	\$0	\$0	\$0	

GROUPING		Construction : Transportation Enhancement/Byway/Non-Traditional						
ROUTE/STREET							TOTAL COST	\$9,208,484
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24		
RW	Federal - TAP/F	\$44,612	\$178,447	\$0	\$0	\$0	\$0	
RW AC	Federal - AC	\$32,718	\$130,871	\$0	\$0	\$0	\$0	
CN	Federal - HSIP	\$96,541	\$868,873	\$0	\$0	\$0	\$0	
	Federal - TAP/F	\$65,597	\$262,388	\$0	\$0	\$0	\$0	
<b>CN TOTAL</b>		<b>\$162,138</b>	<b>\$1,131,261</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
CN AC	Federal - AC	\$72,617	\$290,467	\$0	\$0	\$0	\$0	

GROUPING		Maintenance : Preventive Maintenance and System Preservation						
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.						
ROUTE/STREET							TOTAL COST	\$66,219,025
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24		
CN	Federal - NHS/NHPP	\$0	\$8,194,023	\$8,194,023	\$8,194,023	\$8,194,023	\$8,194,023	
	Federal - STP/STBG	\$0	\$5,386,115	\$7,523,629	\$6,178,315	\$14,354,874		
<b>CN TOTAL</b>		<b>\$0</b>	<b>\$13,580,138</b>	<b>\$15,717,652</b>	<b>\$14,372,338</b>	<b>\$22,548,897</b>		



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# FY 2021-2024 Transportation Improvement Program (TIP)

GROUPING		Maintenance : Preventive Maintenance for Bridges				
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.				
ROUTE/STREET					TOTAL COST	\$28,649,368
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
CN	Federal - NHS/NHPP	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
	Federal - STP/STBG	\$0	\$3,242,450	\$8,841,457	\$7,047,626	\$5,517,835
CN TOTAL		\$0	\$4,242,450	\$9,841,457	\$8,047,626	\$6,517,835

GROUPING		Maintenance : Traffic and Safety Operations				
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.				
ROUTE/STREET					TOTAL COST	\$8,635,843
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
CN	Federal - STP/STBG	\$0	\$2,284,245	\$1,780,824	\$2,419,830	\$2,150,944

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Projects by Grouping

### SAW MPO

#### Construction : Bridge Rehabilitation/Replacement/Reconstruction

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T19085	Staunton District-wide	0000		\$0
		BRIDGE REHABILITATION/REPLACEMENT			
Urban	111177	Waynesboro	FLORENCE AVENUE (5105)		\$1,827,178
		#SGR -Florence Ave Bridge Replacement over CSX RR(SGR Local)			
		FROM: 0.04 Miles S. of CSX RR TO: 0.03 Miles N. of CSX RR (0.0700 MI)			
Construction : Bridge Rehabilitation/Replacement/Reconstruction Total					\$1,827,178

#### Construction : Rail

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	112018	Statewide	HIGHWAY-RAIL SAFETY (0000)		\$700,000
		Highway-Rail Safety Inventory Section 130 PE Only			
		FROM: Statewide TO: Statewide			
Miscellaneous	112213	Statewide	HIGHWAY RAIL SAFETY (0000)		\$300,000
		Highway-Rail Section 130 Pre Scoping PE Only			
		FROM: Statewide TO: Statewide			
Miscellaneous	112497	Statewide	VARIOUS (0000)		\$500,000
		ENVIRONMENTAL EQ429 FORM PROCESSING CHARGES			
		FROM: FOR HIGHWAY/RAIL SAFETY PROJECTS WITHOUT PE NUMBERS TO: ASSIGNED			
Construction : Rail Total					\$1,500,000



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# FY 2021-2024 Transportation Improvement Program (TIP)

## Projects by Grouping

### SAW MPO

#### Construction : Safety/ITS/Operational Improvements

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	109377	Augusta County #HB2.FY17 I-81 Exit 220 and Exit 221 Decel/Accel Extensions FROM: Exit 220 NB Decel Lane TO: Exit 221 SB Accel Lane (1.4160 MI)	0081	\$4,251,481
Interstate	116269	Augusta County NB & SB I-81 MM 221 to 225, 3-LANE WIDENING (Study ID #61) FROM: MM 221.8 TO: MM 225.3 ( )	0081	\$140,209,650
Interstate	116277	Augusta County NB I-81 MM 233 to 237, WEYERS CAVE TCL (Study ID #44) FROM: MM 233.3 TO: MM 237.4 (4.1000 MI)	0081	\$100,798,170
Interstate	116278	Augusta County SB I-81 MM 234 to 236, WEYERS CAVE TCL (Study ID #55) FROM: MM 234.6 TO: MM 236.5 (2.1000 MI)	0081	\$29,581,960
Interstate	116279	Augusta County SB I-81 MM 221 to 220, AUXILIARY LANE (Study ID #58) FROM: MM 221.2 TO: MM 221.5 (0.3000 MI)	0081	\$14,326,755
Interstate	116039	Statewide I-81 DMS Installation FROM: Various TO: Various	0081	\$12,500,000
Interstate	107802	Statewide Incident Management Emergency Evacuation and Detour Plans FROM: Various TO: Various	9999	\$918,907
Interstate	110551	Statewide Traffic Video Expansion - Statewide FROM: Various TO: Various	9999	\$362,560
Interstate	110912	Statewide Statewide Truck Parking Management System - Phase 1 FROM: Various TO: Various	9999	\$813,019
Interstate	111613	Statewide Statewide Truck Parking Management System - Phase 2 FROM: Various TO: Various	9999	\$1,807,000
Interstate	111892	Statewide ATMS - Phase 1, 2, 3, 4 FROM: Various TO: Various	9999	\$0
Interstate	114400	Statewide Drone Technology Project FROM: Various TO: Various	9999	\$300,000
Interstate	115854	Statewide ITTF FY20 Arterial Operations Program Dashboard FROM: n/a TO: n/a	9999	\$1,250,000
Interstate	115855	Statewide ITTF FY20 High Speed Communications FROM: Various TO: Various	9999	\$4,700,000

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Projects by Grouping

### SAW MPC

#### Construction : Safety/ITS/Operational Improvements

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	105481	Statewide Implement iPeMS (Iteris Performance Measurement System) FROM: various TO: various	0000	\$1,400,000
Miscellaneous	T19081	Staunton District-wide CN: SAFETY/ITS/OPERATIONAL/IMPROVEMENTS	0000	\$0
Miscellaneous	114193	Statewide PEDESTRIAN IMPROVEMENTS AT PRIORITY CORRIDOR STATEWIDE FROM: VARIOUS TO: VARIOUS	VARIOUS (9999)	\$0



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# FY 2021-2024 Transportation Improvement Program (TIP)

## Projects by Grouping

### SAW MPO

#### Construction : Safety/ITS/Operational Improvements

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Primary	107021	Augusta County RTE 254 - SAFETY IMPROVEMENTS FROM: Rte 42 TO: Rte 612 (5.8400 MI)	0254	\$1,600,000
Primary	111055	Augusta County #SMART18 - (St) I-81 EXIT 235 ACCESS IMPROVEMENTS FROM: Int. Rte. 11 TO: 0.32 Mi. E. Int. Rte. 11 (0.3200 MI)	WEYERS CAVE ROAD (0256)	\$1,787,243
Primary	88663	Augusta County R-CUT intersection improvements at Rte 262 and Rte 613 FROM: 0.29 mi west of Rte 613 TO: 0.42 mi east of Rte 613 (0.7100 MI)	STAUNTON BYPASS (0262)	\$5,013,095
Primary	115738	Augusta County RTE 262 NORTH BOUND WIDENING SAFETY IMPROVEMENTS FROM: Intersection of Rte. 613 TO: Intersection of Rte. 252 (1.1800 MI)	0262	\$4,000,000
Secondary	111058	Augusta County #SMART18 - (ST) MILL PLACE PARKWAY IMPROVEMENTS FROM: 0.112 Mi. S. Int. Rte. 612 TO: Int. Rte. 612 (0.1120 MI)	MILL PLACE PARKWAY (0901)	\$1,789,041
Urban	111048	Staunton #SMART18 - (St) STAUNTON CROSSING STREET EXTENSION FROM: E. Int. Rte. 250 TO: Valley Center Drive (0.8500 MI)	CROSSING WAY (U000)	\$8,764,970
Urban	115135	Staunton #SMART20 Edgewood Road Sidewalk Improvements FROM: North Coalter Street TO: North Augusta Street (0.3500 MI)	EDGEWOOD ROAD (U000)	\$1,098,071
Urban	115140	Staunton #SMART20 North Augusta Sidewalk - Terry St. to Meadowbrook FROM: Terry Street TO: Meadowbrook Road (0.4600 MI)	NORTH AUGUSTA (U000)	\$1,058,211
Urban	115137	Staunton #SMART20 North Augusta Sidewalk FROM: Intersection of Lambert Street TO: Intersection of Terry Street (0.6200 MI)	NORTH AUGUSTA STREET (U000)	\$1,477,371
Urban	111051	Staunton #SMART18 - (St) RICHMOND AVE ROAD DIET AND ROUNDABOUT FROM: Int. Greenville Ave TO: 0.3 Mi. E. Int. Greenville Ave (0.3000 MI)	RICHMOND AVENUE (U000)	\$2,245,805
Urban	111047	Staunton RICHMOND AVE - STATLER BLVD INTERSECTION FROM: Intersection Improvements on Richmond Ave TO: and Statler Boulevard (0.1200 MI)	STATLER BOULEVARD (0250)	\$573,278
Urban	115086	Staunton #HSIP SSI - STAUNTON SYSTEMIC FLASHING YELLOW LT SIGNALS FROM: Various Locations TO: Throughout the City	U000	\$203,000
Urban	115136	Waynesboro #SMART20 13th Street and Rosser Avenue Roundabout FROM: Roundabout TO: Intersection Improvements (0.0700 MI)	ROSSER AVENUE	\$578,937
Construction : Safety/ITS/Operational Improvements Total				\$343,408,524

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# FY 2021-2024 Transportation Improvement Program (TIP)

## SAW MPO

### Construction : Transportation Enhancement/Byway/Non-Traditional

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Enhancement	80485 Staunton	N. CENTRAL AVE IMPROVE DOWNTOWN STAUNTON, VA, STREETSCAPE FROM: 0.0025 MI S of Frederick St TO: 0.278 MI N of Frederick Street (0.2805 MI)		\$2,269,114
Enhancement	107462 Augusta County	ROUND HILL DRIVE (EN08) SCHOLASTIC WAY SIDEWALKS - C502 FROM: Int. of Augusta Farms Road TO: Int. of Brittany Lane (0.3000 MI)		\$338,318
Enhancement	109024 Staunton	EN16 BESSIE WELLER ELEMENTARY SRTS Bessie Weller Elementary School		\$378,798
Enhancement	113687 Augusta County	EN18 VERONA PEDESTRIAN IMPROVEMENTS FROM: Various Ped Improvements TO: In Verona (1.0000 MI)		\$2,092,878
Enhancement	113684 Waynesboro	SOUTH RIVER GREENWAY (EN18) SOUTH RIVER GREENWAY PHASE 2B FROM: Riverside Drive TO: North Park (0.2500 MI)		\$787,826
Miscellaneous	T19075 Staunton District-wide	0000 CN: TRANSPORTATIONS ENHANCEMENT/BYWAY/OTHER NON-TRADITIONAL		\$0
Miscellaneous	111425 Waynesboro	SOUTH RIVER GREENWAY TRAIL (EN17) WAYNESBORO SOUTH RIVER GREENWAY TRAIL PHASE 3 FROM: Wayne Ave, Arch Ave TO: Rife Road, 16th Street (0.5000 MI)		\$1,091,563
Primary	115133 Waynesboro	MAIN STREET (U000) #SMART20 East Main Street FROM: Main Street Bridge TO: ECL Waynesboro (1.7000 MI)		\$2,249,987
Construction : Transportation Enhancement/Byway/Non-Traditional Total				\$9,208,484





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# FY 2021-2024 Transportation Improvement Program (TIP)

## SAW MPO

### Maintenance : Preventive Maintenance and System Preservation

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14725	Staunton District-wide	0000		\$66,219,025
			STIP-MN Staunton: Preventive MN and System Preservation		
Maintenance : Preventive Maintenance and System Preservation Total					\$66,219,025

### Maintenance : Preventive Maintenance for Bridges

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14724	Staunton District-wide	0000		\$28,649,368
			STIP-MN Staunton: Preventive MN for Bridges		
Maintenance : Preventive Maintenance for Bridges Total					\$28,649,368

### Maintenance : Traffic and Safety Operations

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14723	Staunton District-wide	0000		\$8,635,843
			STIP-MN Staunton: Traffic and Safety Operations		
Maintenance : Traffic and Safety Operations Total					\$8,635,843

## SAW MPO Total

\$457,771,414





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# FY 2021-2024 Transportation Improvement Program (TIP)

## TIP Financial Plan – Transit

Federal legislation 49 U.S.C. 5303 requires Metropolitan Planning Organizations (MPOs) to develop a Transportation Improvement Program (TIP) covering a period of at least four years. The TIP must be developed in coordination with the state and public transit providers. While the FY 2021-2024 TIP was developed in coordination with state and local transit partners, the public transit projects identified in the TIP were programmed prior to the COVID-19 pandemic and do not necessarily reflect current or anticipated transit funding levels.

Additionally, the Federal Transit Administration (FTA) issued a Notice of Concurrence with declarations of emergency issued by Governors that relate to COVID-19. Thus, FTA will permit Urbanized Area Formula Program (5307) and Formula Grants for Rural Areas Program (5311) funding to be used for COVID-19-related public transit capital or operating expenses at a 100-percent federal share. This provision provides public transit agencies with greater flexibility in using their 5307 and 5311 formula funds.

Accordingly, it should be acknowledged that the special circumstances and related federal provisions associated with COVID-19 limit the accuracy of the transit projects programmed in the FY21-24 TIP. As more information becomes available regarding the availability of funding for transit projects, the appropriate amendments and administrative modifications will be made to the FY21-FY24 TIP.

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# FY 2021-2024 Transportation Improvement Program (TIP)

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021 - 2024	
<b>STAUNTON-AUGUSTA-WAYNESBORO METROPOLITAN PLANNING ORGANIZATION</b>							
<b>TIP ID: CSPDC01 Title: Operating Assistance Recipient: Central Shenandoah PDC</b>							
FTA 5307		524	547	575	597	FTA 5307	2,243
FTA 5311		270	282	298	311	FTA 5311	1,161
State		377	384	392	400	State	1,553
Local		417	445	481	509	Local	1,852
Revenues		83	83	83	83	Revenues	332
<b>Year Total:</b>	-	<b>1,671</b>	<b>1,741</b>	<b>1,829</b>	<b>1,900</b>	<b>Total Funds:</b>	<b>7,141</b>
Description:							
<b>TIP ID: CSPDC02 Title: Capital Cost of Contracting Recipient: Central Shenandoah PDC</b>							
FTA 5307		608	624	642	662	FTA 5307	2,536
FTA 5311		272	279	287	296	FTA 5311	1,134
State		141	145	149	153	State	588
Local		36	37	38	39	Local	150
<b>Year Total:</b>	-	<b>1,057</b>	<b>1,085</b>	<b>1,116</b>		<b>Total Funds:</b>	<b>4,408</b>
Description:							
<b>TIP ID: CSPDC03 Title: Purchase Amenities Recipient: Central Shenandoah PDC</b>							
FTA 5307		-	8	8	8	FTA 5307	24
State				8		State	8
Local						Local	-
<b>Year Total:</b>	-	-	<b>8</b>	<b>16</b>	<b>8</b>	<b>Total Funds:</b>	<b>32</b>
Description:							
<b>TIP ID: CSPDC04 Title: Bike Racks, ITS or Misc Equipmen Recipient: Central Shenandoah PDC</b>							
FTA 5307		69	-	-	-	FTA 5307	69
FTA 5311		27				FTA 5311	27
State		19				State	19
Local		5				Local	5
<b>Year Total:</b>	-	<b>120</b>	-	-	-	<b>Total Funds:</b>	<b>120</b>
Description:							
<b>TIP ID: CSPDC05 Title: Bus Shelters Recipient: Central Shenandoah PDC</b>							
FTA 5307			-	-		FTA 5307	-
FTA 5311						FTA 5311	-
State						State	-
Local						Local	-
<b>Year Total:</b>	-	-	-	-	-	<b>Total Funds:</b>	-
Description:							
<b>TIP ID: CSPDC07 Title: Signage Recipient: Central Shenandoah PDC</b>							
Flexible STP		-	-	-	-	Flexible STP	-
State						State	-
Local						Local	-
<b>Year Total:</b>	-	-	-	-	-	<b>Total Funds:</b>	-
Description:							



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# FY 2021-2024 Transportation Improvement Program (TIP)

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021-2024
Description:						
TIP ID:	<b>CSPDC07</b>	Title: Signage		Recipient: <b>Central Shenandoah PDC</b>		
Flexible STP		-	-	-	-	Flexible STP -
State						State -
Local						Local -
<b>Year Total:</b>	-	-	-	-	-	<b>Total Funds: -</b>
Description:						
TIP ID:	<b>VCSB001</b>	Title: Paratransit Vans		Recipient: <b>Valley Community Services Board</b>		
FTA 5310	32	-	80	-	40	FTA 5310 <b>120</b>
State						State -
Local	8		20		10	Local <b>30</b>
<b>Year Total:</b>	<b>40</b>	-	<b>100</b>	-		<b>Total Funds: 150</b>
Description:						
TIP ID:	<b>VPA0001</b>	Title: Paratransit Vans		Recipient: <b>Valley Program for Aging Services</b>		
FTA 5310		9	52	52	36	FTA 5310 <b>149</b>
State		7				State <b>7</b>
Local		2	13	13	9	Local <b>37</b>
<b>Year Total:</b>	-	<b>18</b>	<b>65</b>	<b>65</b>	<b>45</b>	<b>Total Funds: 193</b>
Description:						
TIP ID:	<b>VPA0002</b>	Title: New Freedom Operating		Recipient: <b>Valley Program for Aging Services</b>		
FTA 5310						FTA 5310 -
State						State -
Local						Local -
Revenues	-					Revenues -
<b>Year Total:</b>	-	-	-	-	-	<b>Total Funds: -</b>
<b>Central Shenandoah</b>						
	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021-2024
FTA 5307	-	1,201	1,179	1,225	1,267	FTA 5307 4,872
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	-	-	-	-	-	FTA 5310 -
FTA 5311	-	569	561	585	607	FTA 5311 2,322
FTA 5317	-	-	-	-	-	FTA 5317 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	-	-	-	-	-	FTA 5339 -
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPF	-	-	-	-	-	FTA DPF -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	-	-	-	-	-	RSTP -
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	-	537	529	549	553	State 2,168
Local	-	458	482	519	548	Local 2,007
Revenues	-	83	83	83	83	Revenues 332
<b>Totals</b>	-	<b>2,848</b>	<b>2,834</b>	<b>2,961</b>	<b>3,058</b>	<b>11,701</b>



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# FY 2021-2024 Transportation Improvement Program (TIP)

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021- 2024
<b>Human Service Transportation Providers</b>						
	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021- 2024
FTA 5307	-	-	-	-	-	FTA 5307 -
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	32	9	132	52	76	FTA 5310 269
FTA 5311	-	-	-	-	-	FTA 5311 -
FTA 5314	-	-	-	-	-	FTA 5314 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	-	-	-	-	-	FTA 5339 -
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPP	-	-	-	-	-	FTA DPP -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	-	-	-	-	-	RSTP -
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	-	7	-	-	-	State 7
Local	8	2	33	13	19	Local 67
Revenues	-	-	-	-	-	Revenues -
<i>Totals</i>	40	18	165	65	95	343
<b>SAWMPD</b>						
	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021- 2024
FTA 5307	-	1,201	1,179	1,225	1,267	FTA 5307 4,872
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	32	9	132	52	76	FTA 5310 269
FTA 5311	-	569	561	585	607	FTA 5311 2,322
FTA 5317	-	-	-	-	-	FTA 5317 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	-	-	-	-	-	FTA 5339 -
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPP	-	-	-	-	-	FTA DPP -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	-	-	-	-	-	RSTP -
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	-	544	529	549	553	State 2,175
Local	8	460	515	532	567	Local 2,074
Revenues	-	63	63	63	63	Revenues 332
<i>Totals</i>	40	2,866	2,999	3,026	3,153	12,044



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# FY 2021-2024 Transportation Improvement Program (TIP)

## Appendix A: TIP Amendments and Administrative Modifications – Highway

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Appendix B: Transit TIP Amendments and Administrative Modifications

## Appendix C: Resource Guide

### Highway TIP User's Guide

This guide assists the reader in understanding project information for all projects in the Highway TIP. Information for each project appears in the chart format shown below.

Terms used to identify specific programming requirements are presented in the grey boxes, while project-specific details are presented in the white boxes to the right of, or below, each term. Definitions for the numbered terms appear in the corresponding **Glossary of Terms** table.

Figure 1: TIP Programming Table

UPC NO	77273	SCOPE	BRIDGE REPLACEMENT			
SYSTEM	Secondary	JURISDICTION	Albemarle County	OVERSIGHT	NFO	
PROJECT	RTE 743 - BRIDGE & APPROACHES OVER NORTH FORK RIVANNA			ADMIN BY	VDOT	
DESCRIPTION	FROM: 0.11 Mi. W Int. Rte. 641 TO: Int. Rte. 641 (0.1100 MI)					
ROUTE/STREET	0743	TOTAL COST	\$4,017,516			
FUND SOURCE	MATCH	FY09	FY10	FY11	FY12	
		\$0	\$0	\$0	\$0	\$0

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# FY 2021-2024 Transportation Improvement Program (TIP)

## Glossary of Terms

ID	Term	Definition
1	Universal Project Code (UPC) Number	Number assigned to each project at its conception, remaining with the project until completion.
2	Scope	Details work to be covered by the project
3	System	Indicates which system, program, or mode of transportation the project falls within. E.g. - Interstate, Primary, Secondary, Urban, Rail, Transportation Enhancements, or Miscellaneous
4	Jurisdiction	Identifies the project jurisdiction (Staunton, Augusta County, or Waynesboro
5	Federal Oversight Indicator (FO or NFO)	FO: Indicates Federal Oversight in the project construction, contracting, and management. NFO: Indicates No Federal Oversight in the construction, contracting, and management issues, and does not affect the standard environmental review process for transportation projects. All federally funded transportation projects must include the required environmental documents regardless of whether there is federal oversight required
6	Project/Project Phase	Name of the Project and Phase (i.e. PE: Preliminary Engineering - Preliminary field survey, utility location, environmental or historical studies, design drawings, final field inspections and public hearings will be done. This process can take several months to years to complete; RW: Right of Way - Negotiations with property owners take place, payments are made, and arrangements with utility companies are finalized to obtain the land necessary for the project; or CN: Construction - Project is advertised to prospective contractors for bids. Once the bids are opened and a contract awarded, construction can begin.)
7	Admin By	Identifies the entity responsible for the project
8	Description	Identifies the project's limits
9	Route/Street	Identifies local Route number or name of road/street
10	Total Cost	The total estimated cost (TO) reflecting the best overall estimate available at the time. Estimated costs begin as rough estimates, usually based on historical data, and are updated at critical stages (e.g. the final field inspection), as plans are more defined.
11	Fund Source	Identifies the FHWA or FTA funding source. Additional funding source information is provided in Appendix C
12	Match	Dollar amount matched to federally funded project. Most federal fund sources require a match of some sort; most often 20% of the total cost. The match is included in the obligations section for informational purposes. The match can come from local, state or other sources
13	Current and Future Obligations	The amount of funding which is obligated for the indicated phase of work. An obligation represents a commitment from the Federal government to reimburse the state for the Federal share (e.g. 80%) of a project's eligible cost. This commitment occurs when the project is approved and the Federal government executes the project agreement. The funding obligation listed is the dollar amount that a state may spend and expect reimbursement for during each Federal fiscal year.



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# FY 2021-2024 Transportation Improvement Program (TIP)

## Highway Funding Programs

### *Accelerated Incentive Deployment (AID):*

The [AID Demonstration program](#) provides funding as an incentive for eligible entities to accelerate the implementation and adoption of innovation in highway transportation. The AID Demonstration program is one initiative under the multi-faceted Technology and Innovation Deployment Program (TIDP) approach providing funding and other resources to offset the risk of trying an innovation. The new [Notice of Funding Opportunity \(NOFO\)](#) was published on September 1, 2016, continuing the AID Demonstration program under the [Fixing America's Surface Transportation \(FAST\) Act](#) (Pub. L. No. 114-94).

### *Bridge Rehabilitation and Replacement/Bridge Off-System Funds Program (BR/BROS):*

A former SAFETEA-LU program that provided funding for bridge improvements. Eligibility for funding was based on a rating of bridge condition by VDOT as a candidate for upgrading.

### *Interstate Maintenance (IM):*

A former SAFETEA-LU program that provided funding for resurfacing, restoring, rehabilitating and reconstructing (4R) most routes on the National System of Interstate and Defense Highways.

### *National Highway Performance Program (NHPP)*

MAP-21 eliminated the programs with dedicated funding for repair by consolidating the Interstate Maintenance and Highway Bridge Repair programs and shifting these funds to the new NHPP. The new NHPP is now the largest highway program, receiving 58 percent of all highway formula dollars. MAP-21 dramatically expanded the funding for the NHPP program (previously called the National Highway System program) and consolidates the other programs intended for bridge repair and Interstate maintenance.

Only projects located on the National Highway System (NHS) are eligible, which was expanded to include an additional 60,000 new lane miles and bridges. If a state fails to meet minimum Interstate pavement condition standards, they must set aside an additional amount of NHPP funds until the standard is met. If the total structurally deficient deck area of NHS bridges exceeds 10 percent of all NHS bridge deck area, then a state must set aside NHPP funds to the Highway Bridge Program until the standard is met. VDOT has consolidated funds into customized pots of money for the State of Good Repair (SGR) program, which seeks to meet the State's interstate and bridge repair needs.

### *Non-Federal:*

Any funding that does not come from federal sources is grouped into the nonfederal funding category.

### *Surface Transportation Program (STP):*

Under the former SAFETEA-LU and MAP-21 eras, this program provided flexible funding that could be used on any project located on a roadway that is classified higher than a minor collector. Projects that were eligible for funding under this program included construction, reconstruction, and rehabilitation, and bridge projects on any public road. Regional STP funds were designated as RSTP, and Local STP funds were designated as LSTP.

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# FY 2021-2024 Transportation Improvement Program (TIP)

## *Surface Transportation Block Grant Program (STBG):*

The FAST Act converts the long-standing Surface Transportation Program into the Surface Transportation *Block Grant Program* acknowledging that this program has the most flexible eligibilities among all Federal-aid highway programs and aligning the program's name with how FHWA has historically administered it. [FAST Act § 1109(a)]. The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.

VDOT has consolidated its STBG funds (after set asides for TA and planning/research) and National Highway Performance Program (NHPP) funds into customized pots of money for SMART SCALE, State of Good Repair (SGR), and other programs.

## *Safe Routes to School Program (SRTS):*

This is a competitive grant program to enable and encourage children to safely walk and bicycle to school. Funds can be used for infrastructure improvements and educational programs.

## *Transportation Alternatives Program (TAP):*

These funds are available for bicycle and pedestrian facilities through the Surface Transportation Program of MAP 21. A 10% set aside from each state's allocation of STP funds must be used for Transportation Enhancement activities.

## Transit Funding Programs (FTA)

### *FTA 5307:*

This is the FTA Urbanized Area Formula Program, Section 5307 provides funds for public transportation capital investments, and operating expenses in urbanized areas (UZAs). Pursuant to the FAST Act, job access and reverse commute projects that are located in urbanized areas are now eligible for funding under this program.

### *FTA 5310:*

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. Under the FAST Act, projects that were formerly eligible for funding under SAFETEA-LU's New Freedom, Section 5317 grant program are now eligible for Section 5310 funds.

### *FTA 5311:*

The FTA 5311 program is a non-urbanized area formula funding program for public transit capital and operating costs in non-urbanized areas with a population fewer than 50,000 as designated by the United States Census Bureau. Job access and reverse commute projects, which are located in non-urbanized areas, are now eligible for these funds under the FAST Act.

### *FTA 5339:*

This program provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Created under the FAST Act, this program replaces components of SAFETEA-LU's former Section 5309 Bus and Bus Facilities program.

# Appendix D: Highway Performance Based Planning

## Performance Measure Implementation Schedule



### Implementation Timeline

Final Rule	Effective Date	States Set Targets By	MPOs Set Targets By	LRSTP, MTP, STIP and TIP Inclusion
Safety Performance Measures (PM1)	April 14, 2016	Aug. 31, 2017	Up to 180 days after the State sets targets, but not later than Feb. 27, 2018	Updates or amendments on or after May 27, 2018
Pavement/Bridge Performance Measures (PM2)	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019
System Performance Measures (PM3)	May 20, 2017	May 20, 2018	No later than 180 days after the State(s) sets targets	Updates or amendments on or after May 20, 2019



### Performance Measures

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established safety performance objectives as published in Virginia’s 2017 – 2021 Strategic Highway Safety Plan (SHSP), and starting in 2017, annual targets in the Highway Safety Improvement Program (HSIP) Annual Report. The SHSP performance measure objectives are indicated in Table 1 below.

**Table 1: 2021 - 2025 SHSP Safety Performance Objectives**

	Performance Target	Reduction Per Year
1	Number of Fatalities	
2	Rate of Fatalities per 100-Million Vehicle Miles Traveled	

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# FY 2021-2024 Transportation Improvement Program (TIP)

3	Number of Serious Injuries	
4	Rate Serious Injury Million Vehicle Miles Traveled	
5	Number of Non-Motorized Fatalities & Non-Motorized Serious Injuries	

For safety performance measures 1, 2 and 3, annual targets are developed collaboratively by the Department of Motor Vehicles (DMV) Highway Safety Office (HSO) and VDOT HSIP staff. The DMV HSO includes these measures in their Highway Traffic Safety Administration (NHTSA) every June.

The Commonwealth Transportation Board (CTB) approves all five annual targets and VDOT includes these in the HISP Annual Report submitted to FHWA each August. Within 180 days of VDOT's annual report submission to FHWA, MPOs must indicate their support of the state targets or submit their own regional targets for one or more of the safety measures.

## Connection to Other Performance Based Planning Documents

The federally required SHSP, a five-year multi-agency comprehensive plan focused on reducing fatalities and serious injuries on all public roads serves as the coordinating document for other plans and programs that involve traffic safety. This coordination involves the long-range statewide transportation plan (LRSTP), the metropolitan transportation plans (MTP), and three plans that implement parts of the SHSP- the Highway Safety Plan (HSP), and the Commercial Vehicle Safety Plan (CVSP). This integration is important for improving overall safety coordination amongst various partners and leads to more comprehensive transportation safety planning.

The LRSTP, VTrans 2045, guides the state's investment decisions for transportation improvements. Safety and performance management is included in the VTrans 2040 Vision, Goals & Objectives, and Guiding Principles:

- **Guiding Principle 2:** Ensure Safety, Security, and Resiliency – Provide a transportation system that is safe for all users, responds immediately to short-term shocks such as weather events or security emergencies, and adapts effectively to long-term stressors such as sea level rise.
- **Guiding Principle 5:** Ensure Transparency and Accountability and Promote Performance Management – work openly with partners and engage stakeholders in project development and implementation; and establish performance targets that consider the needs of all communities, measure progress towards targets, and to adjust programs and policies as necessary to achieve the established targets.
- **Goal C:** Safety of All Users – Provide a safe transportation system for passengers and goods on all travel mode.
  - Objectives:
    - Reduce the number and rate of motorized fatalities and serious injuries.
    - Reduce the number of non-motorized fatalities and injuries.

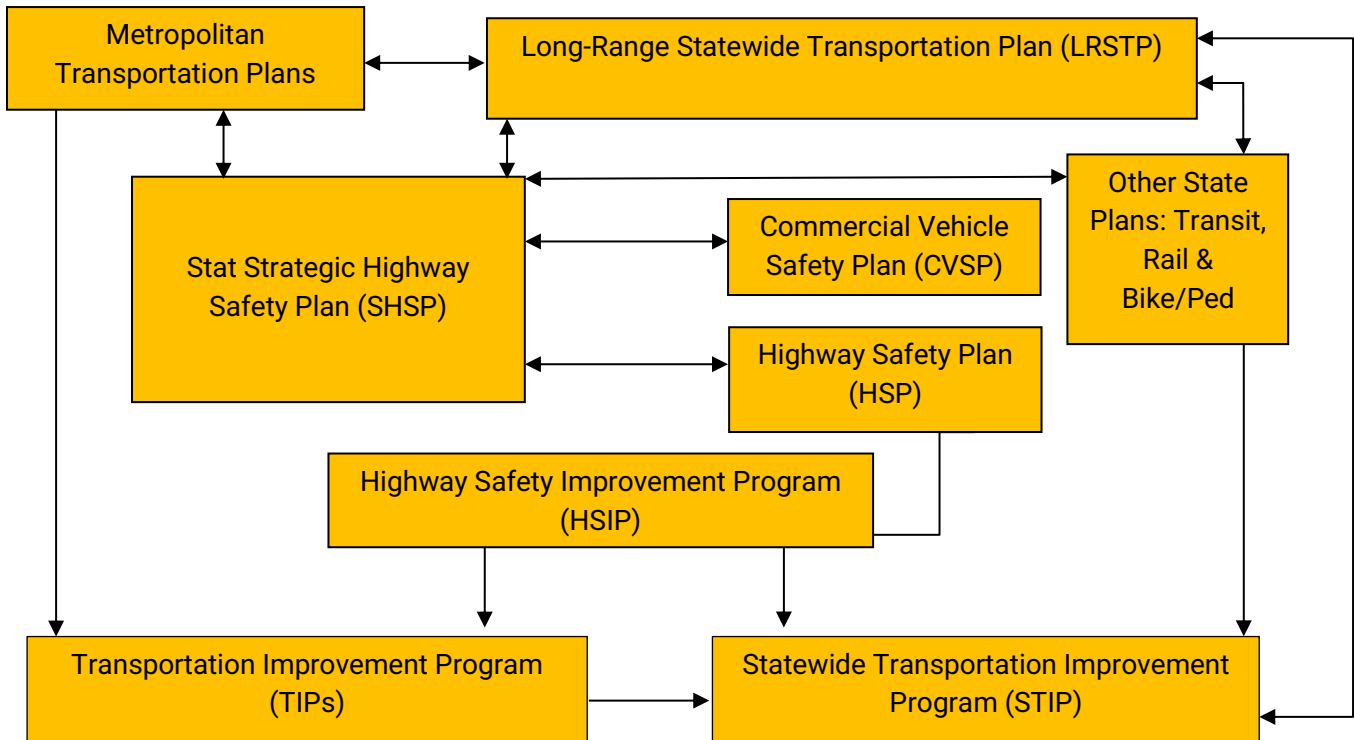
# FY 2021-2024 Transportation Improvement Program (TIP)

MTPs are similar to the LRSTP, however an MTP covers a specific metropolitan planning area. MTPs include goals and objectives for their respective areas/regions and identify strategies for advancing long-term transportation investments in a specific region.

The HSIP is an annual plan to address highway user behaviors that will improve safety through education and enforcement campaigns. The HSP and associated NHTSA grant are administered through the DMV’s HSO.

Furthermore, each year the Virginia State Police (VSP) submits a Commercial Vehicles Safety Plan (CVSP) to the Federal Motor Carrier Safety Administration as a requirement of obtaining related enforcement grants.

The relationship between the various plans and programs is shown below:



Projects in the STIP are directly linked to the safety objectives outlined in the SHSP through the strategies and actions that are priorities in Virginia.

### Funding for Safety Projects

Safety targeted improvements are implemented through HSIP projects. Each year Virginia is allocated \$55-Million for HSIP and \$5-Million for Railway Grade Crossing improvements. Virginia is also subject to a Penalty Transfer provision, Section 154 "Open Container", such that 2.5% of NHPP funds are reserved for either NHTSA Alcohol-Impaired Driving or HSIP projects. The State determines what proportion goes to each program. Of the

# FY 2021-2024 Transportation Improvement Program (TIP)

HSIP funds, about 10 percent is set aside for non-motorized safety projects and 20 percent of the remainder for improvements on locally-maintained roadways.

## How do Safety Projects get selected for Inclusion in the STIP?

The HSIP project planning and delivery follows these steps:

- Each year highway segment and intersection locations that have the highest potential for safety improvement are identified based on the previous five years of traffic crash and volume data. These above average crash locations are provided to the VDOT Districts to determine appropriate locations and countermeasures for HSIP funding. The potential for vehicle-train crashes at each at-grade railroad crossing is also distributed.
- HSIP project proposals are submitted through the SMART Portal for the appropriate safety program.
- VDOT and locality submitted HSIP proposals are reviewed and prioritized based on the number of targeted crashes and the benefit to cost ratio or the potential risk reduction for non-motorized and rail highway grade crossing improvements.
- Projects are selected and programmed for the last two or three years of the SYIP. At present there are over \$100 million of safety improvement proposals, with an expected benefit, that remain unfunded.

In recent years, programmed priority HSIP projects have shifted from being higher cost spot intersection and segment improvements to lower cost systemic improvements that target specific crash types and/or roadway characteristics that are factors in crashes across the network. Examples of systemic improvements include traffic signal devices and timing at intersections and curve signing, higher friction surfaces and rumble strips on segments.

Safety improvements are also included within projects funded with non-HSIP funds. The SMART SCALE scoring and prioritization process for inclusion of projects in the SYIP, considers safety benefits from improvements addressing travel of all modes. Many of the large SMART SCALE projects, upon completion, will have distinct impacts on safety performance in the Commonwealth. In addition, projects funded through other state and federal sources in the SYIP will also have crash reduction benefits that contribute to improved safety performance.

Thus, the funding to meet Virginia's safety objectives and targets is allocated to projects in the CTB approved SYIP and is consistent with VTrans 2040. Since the SYIP is the foundation for the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's safety performance objectives and target and is consistent with Virginia's SHSP and the HSIP.



# Appendix E: Performance Based Planning and Programming for Transit Asset Management

The two most recent federal transportation laws, MAP-21 and FAST Act, establish performance measure requirements to ensure states and metropolitan planning organizations (MPOs) are investing transportation funds in projects that collectively will contribute towards the achievement of national goals. The USDOT recently published new rules for states and MPOs to collect data and establish performance targets that will support performance and outcome-based investment decisions.

The new federal performance measurement requirement for transit agencies focuses on one area: transit asset management (TAM). The measures look specifically at the percentage of revenue vehicles that have exceeded their Useful Life Benchmark (ULB), the percentage of non-revenue and service vehicles that have exceeded their ULB, and percentage of facilities with a condition below 3.0 on the Federal Transit Administrator’s TERM Scale. All transit agencies receiving grants from the FTA are required to complete a TAM plan. The FTA has established two tiers of agencies based on size parameters.

A Tier I agency operates rail, OR has 101 vehicles or more all fixed route modes, OR has 101 vehicles or more in one non-fixed route mode. A Tier II agency is a subrecipient of FTA 5311 funds, OR is an American Indian Tribe, OR has 100 or less vehicles across all fixed route modes, OR has 100 vehicles or less in one non-fixed route mode.

The first completed TAM plan must be sent to the National Transit Database (NTD) by October 1, 2018. Other required deadlines are found in the table below.

Reporting Activity	Reporting Deadline
Complete compliant TAM Plan	October 2018
Report FY18 asset data to NTD Submit FY19 targets to NTD	October 2018
Report FY19 asset data to NTD Submit FY20 targets to NTD Submit narrative report to NTD	October 2019
Report FY20 asset data to NTD Submit FY21 targets to NTD Submit narrative report to NTD	October 2020
Complete updated TAM Plan	October 2022

Transit agency deadlines for TAM Rulemaking for June-July fiscal year

The Department of Rail and Public Transportation (DRPT) has opted to sponsor a group TAM plan for Tier II providers. Tier I providers are not eligible for group plans.

For Tier II providers under the DRPT Group Plan, any Transportation Improvement Program (TIP) document or Metropolitan Transportation Plan (MTP) adopted after October 1, 2018 will be in compliance with the TAM Plans developed by DRPT and adopted by the Tier II transit providers within the MPO as well as the regional performance measures adopted by the MPO as a whole.

The SAWMPO programs federal transportation funds for BRITE Transit Service. BRITE is a Tier II agency participating in the DRPT sponsored group TAM Plan. The MPO has integrated the goals measures and targets described in the [Federal Fiscal Year 2018 Group Transit Asset Management Plan and 2020 plan Addendum](#) into the MPO’s planning and programming process specific targets for the Tier II Group TAM Plan are included in the table below.

**Table 3: TAM Targets for rolling stock and facilities: Percentage of Revenue Vehicles that have met or exceeded their ULB by Asset Type.**

<b>Asset Category - Performance Measure</b>	<b>Asset Class</b>	<b>2020 Target*</b>
<b>Revenue Vehicles</b>		
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	AB - Articulated Bus	15%
	BU - Bus	10%
	CU - Cutaway	10%
	MB - Minibus	20%
	BR - Over-the-Road Bus	15%
	TB - Trolley Bus	10%
	VN - Van	25%
<b>Equipment</b>		
Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	Non-Revenue/Service Automobile	25%
	Trucks and other Rubber Tire Vehicles	25%
<b>Facilities</b>		
Condition - % of facilities with a condition rating below 3.0 on the FTA TERM Scale	Administrative and Maintenance Facility	10%
	Administrative Office	10%
	Maintenance Facility	10%
	Passenger Facilities	10%



# Appendix F: Performance Based Planning and Programming for Pavements and Bridges

## Performance Targets

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established pavement and bridge condition performance targets as reported in Virginia’s Baseline Performance Period Report for 2018-2021<sup>1</sup>. This report, submitted to FHWA in October 2018, satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1<sup>st</sup> of the first year in a performance period. Performance measures for pavement condition are required for the National Highway System (NHS), while bridge condition requirements relate to structures identified as part of the National Bridge Inventory on the NHS. The pavement condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 1 below.

*Table 1: Pavement Condition Measures and Performance Targets*

<b>Interstate Pavement Condition Measures<sup>2</sup></b>	<b>CY 2018-2019 Two Year Target</b>	<b>CY 2018-2021 Four Year Target</b>
Percentage of Pavements in Good Condition	N/A <sup>3</sup>	45.0%
Percentage of Pavements in Poor Condition	N/A <sup>3</sup>	3.0%
<b>Non-Interstate NHS Pavement Condition Measures<sup>4</sup></b>	<b>2018-2019 Two Year Target</b>	<b>2018-2021 Four Year Target</b>
Percentage of Non-Interstate Pavements in Good Condition	25.0%	25.0%
Percentage of Non-Interstate Pavements in Poor Condition	5%	5.0%

<sup>1</sup> Virginia’s Baseline Performance Period Report data is through December 2017.

<sup>2</sup> Interstate condition measures are based on four distresses: International Roughness Index (IRI), cracking, rutting, and faulting.

<sup>3</sup> During this first performance period, States are not required to establish 2-year targets for interstate pavements; however, Virginia has chosen to establish performance targets and are 45.0% and 3.0% for percentage of pavements in good and poor condition, respectively.

<sup>4</sup> During this first performance period, Federal requirements for Non-Interstate NHS pavement condition and performance targets are based on a single distress, IRI. However, Federal guidance outlined in a September 27, 2018 Memorandum on State DOT Targets for Non-Interstate NHS Pavement Measures allows for the use of full distress data when reporting Non-Interstate NHS performance targets. Given the availability of full distress data, Virginia has chosen this approach and reported performance targets for Non-Interstate NHS pavements based on all four distresses. This allows for consistency in assessing the condition and setting performance targets for both Interstate and Non-Interstate NHS pavements.

Bridge condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 2 below.

*Table 2: NHS Bridge Condition Measures and Performance Targets*

<b>NHS Bridge Condition Measures</b>	<b>CY 2018-2019</b>	<b>CY 2018-2021</b>
	<b>Two Year Target</b>	<b>Four Year Target</b>
Percentage of Deck Area of NBI Bridges on the NHS in Good Condition	33.5%	33.0%
Percentage of Deck Area of NBI Bridges on the NHS in Poor Condition	3.5%	3.0%

**Background/History**

Virginia’s history of monitoring asset conditions and utilizing performance information to determine investment strategies based on available funding levels spans over 10 years for pavements and bridges.

VDOT maintains a comprehensive inventory of all pavement and bridges on the state-maintained network. This inventory, which includes location, maintenance responsibility, ownership, and current condition or inspection information, serves as the foundation for life cycle planning, performance forecasting, maintenance and rehabilitation needs estimation, as well as prioritization of work to maximize asset life given available funding. Condition information is also important for communicating with external stakeholders, including the general public.

VDOT’s commitment to responsible Transportation Asset Management (TAM) practice is demonstrated through VDOT’s annual condition data collection programs and its establishment and publication of network level pavement and bridge performance goals. VDOT’s current condition measures and performance goals have been in place for many years and are fully integrated into VDOT’s budgeting process and investment strategies. The federal pavement and bridge performance measures apply to a limited portion of the network for which VDOT is responsible (less than 15% of all lane miles and 18% of the bridge inventory).

**Connection to Other Performance Based Planning Documents**

VTrans, the state’s long-range multimodal plan, provides the overarching vision and goals for transportation in the Commonwealth. The long-range plan provides a vision for Virginia’s future transportation system and defines goals, objectives, and guiding principles to achieve the vision. It also provides direction to state and regional transportation agencies on strategies and policies to be incorporated into their plans and programs. The most recent approved long-range multimodal plan is VTrans2040.

Performance management, specifically as it relates to pavements and bridges, is included in the VTrans2040 Vision, Goals & Objectives, and Guiding Principles as noted below:

- Guiding Principle 5: Ensure Transparency and Accountability, and Promote Performance Management - Work openly with partners and engage stakeholders in project development and implementation, and establish performance targets that consider the needs of all communities, measure progress towards targets, and to adjust programs and policies as necessary to achieve the established targets.
- Goal D: Proactive System Management - maintain the transportation system in good condition and leverage technology to optimize existing and new infrastructure.
  - Objectives:
    - Improve the condition of all bridges based on deck area.
    - Increase the lane miles of pavement in good or fair condition.

Virginia's federally required Transportation Asset Management Plan (TAMP) presents pavement and bridge inventory and conditions, along with the Commonwealth's performance objectives, measures, and associated risks as they relate to the federal requirements. Asset funding, investment strategies, forecasts, goals, and gaps are also included. The TAMP is specific to the NHS and provides the Commonwealth's Transportation Asset Management (TAM) processes and methodology to meet federal requirements. Pavement and bridge projects included in the STIP are consistent with Virginia's reported TAM processes and methodology.

The program of projects in the STIP are directly linked to the pavement and bridge objectives outlined in VTrans2040 and the TAMP through the strategies and actions that are priorities in Virginia.

### **Funding for Pavement and Bridge Projects**

There are two key funding sources for pavement and bridge projects, the Highway Maintenance and Operations Fund (HMOF) and State of Good Repair (SGR) program funds. The pavement and bridge funding is used for differing projects from routine maintenance to reconstructive work. Funds are allocated to pavement and bridge projects based on an annual needs assessment process supported by a data-driven prioritization and selection process. The prioritization process is the same for the various funding sources; however, the [State of Good Repair](#) program funds are designated for deteriorated pavements and structurally deficient bridges.

The SGR program requires funds be distributed proportionality between VDOT and localities, based on assessed needs. More details, including the requirements for pavements and bridges, and the SGR prioritization process methodology, can be found at: [State of Good Repair for Bridges](#) and [Local Assistance Funding Programs](#).

VDOT has developed a robust asset management program, placing maintenance of the transportation network at the forefront of VDOT's investment decisions. This commitment to responsible asset management practice is demonstrated through VDOT's annual collection of condition data on pavements and bridges along with its establishment and publication of network-level pavement and bridge performance targets. For more than a decade, VDOT has monitored pavement and bridge conditions using performance information (measures and targets) to determine investment strategies based on available funding levels.

In the annual needs assessment process, VDOT assesses 100% of the pavement network on Virginia's Interstate and Primary systems and approximately 20% of the Secondary system. In 2016, VDOT assessed 100% of the Secondary pavement network to create a condition baseline. The pavement condition data is compiled, analyzed and reviewed to report the optimized needs at a roadway system and district level. VDOT's pavement program selects resurfacing projects, in relation to needs, and optimizes the timing of projects through a data-driven pavement management system.

For bridges, VDOT follows national standards in performing safety inspections and determining general condition of the structures. Condition assessments are performed by certified safety inspection personnel. The inspection program requires a qualified inspector to complete a "hands-on" review of the structure or bridge during each inspection. By federal regulation, VDOT is required to conduct detailed inspections of NBI structures at intervals not to exceed 24 months. VDOT uses BrM software to store bridge condition and inventory data for each structure and to program, schedule, and track bridge and structure inspections. The data collected during inspections allows VDOT to use a proactive approach to maintenance. Preventive maintenance and timely intervention repairs are performed to avoid and slow deterioration that leads to greater rehabilitation or replacement cost. Virginia's bridge maintenance program is large and complex, so in order to direct its efforts more easily, performance targets have been developed.

VDOT uses a prioritization process when determining funding for the pavement and bridge programs and prioritizes work ranging from preventative maintenance to replacement. The prioritization processes take into account similar factors such as condition, cost effectiveness, maintenance history, and traffic volumes. While the systematic prioritization processes are a guide to assist in funding projects, districts direct the work performed as the local experts.

### **How do Pavement and Bridge Projects get selected for Inclusion in the STIP?**

As noted above, the funding to meet Virginia's pavement and bridge objectives and targets is allocated to projects in the CTB-approved SYIP and is consistent with VTrans2040. Each spring, the public is invited to comment on projects included in the draft SYIP prior to CTB approval. Since the SYIP is the foundation for the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's pavement and bridge performance objectives and targets and is consistent with Virginia's TAMP.

# Appendix G Performance Based Planning and Programming – Highway System Performance

## Performance Targets

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established performance targets for three reliability performance measures to assess the Highway System Performance. All three measures are included in Virginia’s Baseline Performance Period Report for 2018-2021 which was submitted to FHWA in October 2018. This report satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1<sup>st</sup> of the first year in a performance period and establishes baseline performance as of December 31, 2017.

Performance of the NHS is measured by the level of travel time reliability. The travel time reliability performance measures and performance targets for the 2018-2021 performance period are indicated in Table 1 below.

*Table 1: National Highway System Travel Time Reliability Performance Measures and Targets*

<b>NHS Travel Time Reliability Performance</b>	<b>CY 2018-2019</b>	<b>CY 2018-2021</b>
	<b>Two Year Target</b>	<b>Four Year Target</b>
Percent of Person Miles Traveled on the Interstate That Are Reliable	82.2%	82.0%
Percent of Person Miles Traveled on the Non-Interstate NHS That Are Reliable	N/A <sup>5</sup>	82.5%

The assessment for freight reliability is based on the truck travel time reliability index. The truck travel time reliability performance measure and performance targets for the 2018-2021 performance period are indicated in Table 2 below.

*Table 2: Freight Reliability Performance Measure and Targets*

<b>Truck Travel Time Reliability Performance</b>	<b>CY 2018-2019</b>	<b>CY 2018-2021</b>
	<b>Two Year Target</b>	<b>Four Year Target</b>
Truck Travel Time Reliability Index	1.53	1.56

The Commonwealth Transportation Board (CTB) approves the performance measures and targets developed for Virginia’s surface transportation network. Such targets, including those for Highway System Performance, are linked to the goals and objectives in Virginia’s long-range transportation plan, or VTrans.

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<sup>5</sup> During this first performance period, States are not required to establish 2-year targets for the Non-Interstate NHS reliability measure.

## **Connection to Other Performance Based Planning Documents**

VTrans, the state's long-range multimodal plan, provides the overarching vision and goals for transportation in the Commonwealth. The long-range plan provides a vision for Virginia's future transportation system and defines goals, objectives, and guiding principles to achieve the vision. It also provides direction to state and regional transportation agencies on strategies and policies to be incorporated into their plans and programs. The most recent approved long range multimodal plan is VTrans2040.

VTrans2040 identifies the most critical transportation needs in Virginia to ensure the overarching transportation goals in the long-range plan are achieved. The screening process was informed by a data-driven approach that considers highway system performance measures and targets in addition to other performance indicators.

Performance management, as it relates to the reliability of the NHS and freight, is included in the VTrans2040 Vision, Goals & Objectives, and Guiding Principles as noted below:

- Guiding Principle 4: Consider Operational Improvements and Demand Management First – Maximize capacity of the transportation network through increased use of technology and operational improvements as well as managing demand for the system before investing in major capacity expansions.
- Goal A – Economic Competitiveness and Prosperity: invest in a transportation system that supports a robust, diverse, and competitive economy.
  - Objectives:
    - Reduce the amount of travel that takes place in severe congestion.
    - Reduce the number and severity of freight bottlenecks.
    - Improve reliability on key corridors for all modes.
- Goal B – Accessible and Connected Places: increase the opportunities for people and businesses to efficiently access jobs, services, activity centers, and distribution hubs.
  - Objectives:
    - Reduce average peak-period travel times in metropolitan areas.
    - Reduce average daily trip lengths in metropolitan areas.
    - Increase the accessibility to jobs via transit, walking and driving in metropolitan areas.

Additionally, the Virginia Freight Element (VFE), a component of VTrans2040, discusses freight system trends, needs, and issues. The VFE also includes freight policies, strategies, and performance measures that guide Virginia's freight-related investment decisions.

Projects included in the STIP are directly linked to the Highway System Performance objectives outlined in VTrans2040 and associated needs analysis, and the VFE through the strategies and actions that are priorities in Virginia.

### **Funding for Highway System Performance Projects**

SMART SCALE, Virginia's data-driven prioritization process for funding transportation projects, considers the potential of a project to improve reliability. In order to be considered for SMART SCALE, a project must first meet a need identified in VTrans2040, thus strengthening the connection between the planning and programming processes. Congestion mitigation, safety, accessibility, economic development, environment, and land use are the factors used to score SMART SCALE projects. Freight considerations are included in the economic development factor.

The FAST Act established a National Highway Freight Program, including a freight-specific funding program to highlight the focus on freight transportation needs. Projects eligible for National Highway Freight Program (NHFP) funding must contribute to the efficient movement of freight on the National Highway Freight Network (NHFN) and be included in the VFE. VDOT uses NHFP funding to construct freight beneficial projects identified through the SMART SCALE process.

SMART SCALE screening and scoring results, along with public feedback and CTB guidance, are used to develop the SYIP.

Other projects selected for funding are subject to program specific prioritization processes approved by the CTB. All funding (federal, state, and other sources) for transportation projects are allocated to projects in the CTB approved SYIP.

### **How do Highway System Performance Projects Get Selected for Inclusion in the STIP?**

As noted above, the funding for all transportation projects, including funding for projects to meet Virginia's NHS system performance and freight movement targets is allocated to projects in the CTB approved SYIP, and is consistent with VTrans2040 and the VFE. Since the SYIP is the foundation of the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's NHS and Freight Reliability performance objectives and targets.