

GEORGIA DEPARTMENT OF TRANSPORTATION

2050 Statewide Transportation Plan

FY 2024-2027 Statewide Transportation Improvement Program

# System Performance Report



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## Background

Pursuant to the [Moving Ahead for Progress in the 21st Century Act \(MAP-21\) Act](#) enacted in 2012 and the [Fixing America's Surface Transportation Act \(FAST Act\)](#) enacted in 2015, state Departments of Transportation (DOT) and Metropolitan Planning Organizations (MPO) must apply a transportation performance management (TPM) approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

As such, the development of a System Performance Report (SPR) is required as part of any statewide or metropolitan transportation plan; this current SPR supports GDOT's 2050 Statewide Transportation Plan (SWTP)/2021 Statewide Strategic Transportation Plan (SSTP) and uses the 2024-27 Statewide Transportation Improvement Program (STIP) to monitor progress on the agency's TPM efforts. The relationship between these documents is illustrated in [Figure 1](#).

To help transportation agencies take the necessary steps toward achieving the national goals, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) promulgated a series of rulemakings between 2016 and 2019 that established performance measures (PM) for the federal-aid highway and transit programs. Part of that series of rulemakings was the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule)<sup>1</sup> issued on May 27, 2016, that implemented the transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

On November 15, 2021, President Joe Biden signed into law The Infrastructure Investment and Jobs Act (IIJA), also known as the [Bipartisan Infrastructure Law \(BIL\)](#). The BIL (or IIJA) delivers generational investments in our roads and bridges, promotes safety for all road users, helps combat the climate crisis, and advances equitable access to transportation. The TPM approach from MAP-21 and the FAST Act is carried forward to this current law.

In accordance with National Performance Management Measures<sup>2</sup>, the Planning Rule, as well as the Georgia Performance Management Agreement between Georgia DOT (GDOT) and the Georgia Association of Metropolitan Planning Organizations (GAMPO), GDOT and each Georgia MPO must include a description of federal transportation performance measures and targets and a system performance report (SPR) in their respective statewide and metropolitan transportation plans and programs. The SPR evaluates the condition and performance of the transportation system with respect to the federal performance targets, including progress achieved by GDOT and the MPOs in meeting those targets. Future system performance reports must also compare current performance with system performance recorded in previous reports.

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<sup>1</sup> [23 CFR Part 450, Subpart B and Subpart C](#)

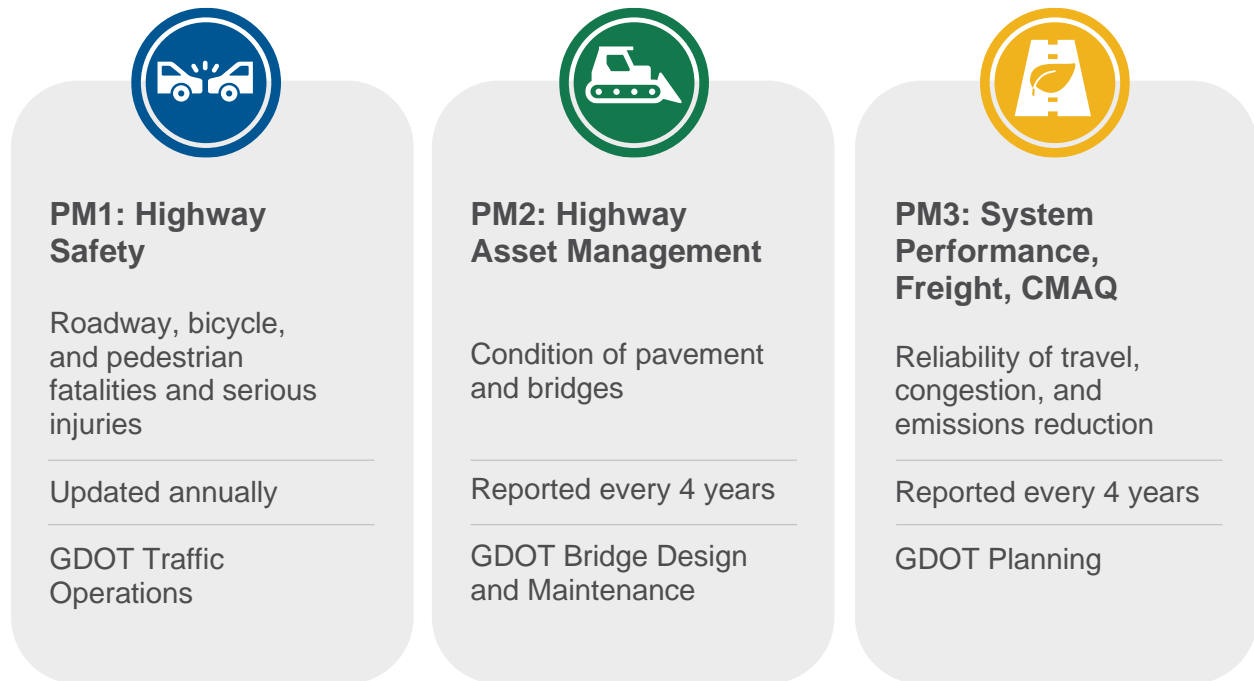
<sup>2</sup> [23 CFR 490.107](#)

**Figure 1: SPR Relationship to SWTP/SSTP and STIP**



The federal performance measure rules fall into five broad categories – highway safety, highway asset management, highway system performance, transit asset management, and public transportation safety. GDOT is responsible for tracking and reporting the highway performance measures: highway safety (PM1), highway asset management (PM2), and highway system performance (PM3). These PM categories are shown in **Figure 2**. The highway safety performance measures track roadway, bicycle, and pedestrian fatalities and serious injuries. The highway asset management performance measures track the condition of pavement and bridges, to assess how well these assets are being maintained. The highway system performance measures track the reliability of passenger and freight travel, as well as highway congestion and emissions in areas that are nonattainment or maintenance areas for national air quality standards.

**Figure 2: TPM Performance Measure Categories**



The SPR is required for the following:

- In any statewide or metropolitan transportation plan or program amended or adopted after May 27, 2018, for PM1 Highway Safety measures;
- In any statewide or metropolitan transportation plan or program amended or adopted after May 20, 2019, for PM2 Pavement and Bridge Condition and PM3 System Performance, Freight, and Congestion Mitigation and Air Quality;
- In any statewide or metropolitan transportation plan or program amended or adopted after October 1, 2018, for transit asset measures; and
- In any statewide or metropolitan transportation plan or program amended or adopted after July 20, 2021, for transit safety measures.

This SPR document supports GDOT's 2050 SWTP/2021 SSTP.

## 2050 SWTP/2021 SSTP

The SWTP/2021 SSTP combines GDOT’s strategic business case for transportation investment with the long-range, comprehensive transportation planning considerations under Federal law. The 2050 SWTP/2021 SSTP is organized into three investment categories, reflecting three major ways people and freight move in Georgia, to support Georgia’s investment strategies. The investment categories are as follows:



**Statewide freight and logistics** – Georgia’s transportation system moved a total of 597 million tons of goods valued at \$875 billion into, out of, and within Georgia in 2018. In addition, logistics-enabled facilities accounted for 84 percent of private investment by companies that chose to locate new or expanded economic development sites in Georgia in fiscal year 2020. Georgia’s freight system must prepare for a growing population and economy, diversifying supply chains and logistics patterns, rapid growth in e-commerce, changing urban and rural dynamics, and emerging technologies for freight vehicles, facilities, and supply chain management.



**People mobility in Metro Atlanta** – With just over six million residents, Metro Atlanta accounts for more than half of Georgia’s population and more than 3.8 million jobs. The major employers in the region include 30 Fortune 1000 companies, generating more than \$438 billion in aggregate revenues. Transportation connectivity is critical to strengthening Metro Atlanta’s role as a global business center, supporting a growing and diversifying population and economy, and improving rural Georgians’ access to the jobs, goods, and services available in Metro Atlanta.






**People mobility in emerging metros and rural Georgia** – Emerging metros such as Augusta, Columbus, Macon, and Savannah provide options for residents and businesses and serve as regional business centers. Rural areas account for most of Georgia’s land, host key industries such as agriculture and manufacturing, and provide affordable quality-of-life options for more than one out of every five Georgians. Additionally, nearly one-fourth of personal vehicle miles traveled in Georgia are on rural roadways, which includes urban residents traveling to destinations outside their home metro areas. Georgia’s transportation system supports a robust and resilient economy statewide including the large number of trips between Georgia’s regions.

The SWTP/SSTP identifies strategies to bring about Foundational, Catalytic, and Innovation investments, shown in [Error! Reference source not found.](#), for the above-mentioned categories, as shown in [Figure 4](#).<sup>3</sup>


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<sup>3</sup> [2021 Statewide Strategic Transportation Plan/2050 Statewide Transportation Plan](#)

**Figure 3: STIP Investment Strategies**

	<h3>Foundational</h3>	<p>Prioritizing programs/projects that improve travel time reliability, resulting in higher transportation system performance.</p>
	<h3>Catalytic</h3>	<p>Prioritizing programs/projects that spur economic impact through enhanced transportation connections and access.</p>
	<h3>Innovation</h3>	<p>Prioritizing programs/projects that address multiple agency goals/objectives in sync with emerging opportunities.</p>

**Figure 4: How Investment Strategies Support GDOT's Investment Categories**

	Statewide Freight and Logistics	People Mobility in Metro Atlanta	People Mobility in Emerging Metros and Rural Georgia
 <p><b>Foundational Investments</b> Taking care of our existing transportation system</p>	<ul style="list-style-type: none"> <li>» Commercial motor vehicle and rail safety</li> <li>» Asset management for key freight corridors including truck routes and GDOT-owned rail corridors</li> <li>» New Freight Operations Lump Sum Program</li> </ul>	<ul style="list-style-type: none"> <li>» Highway safety, including driver education, bicyclists and pedestrians, and work zones</li> <li>» Asset management with cost-effective maintenance of pavement and bridges</li> <li>» Intelligent Transportation Systems (ITS) including regional traffic operations and incident management</li> <li>» Multimodal connectivity options</li> </ul>	<ul style="list-style-type: none"> <li>» Highway and rail safety</li> <li>» Asset management, especially bridges in freight-intensive areas</li> <li>» ITS and regional traffic operations and incident management</li> <li>» New Rural Development Lump Sum Program</li> <li>» Emergency response, including evacuation routing</li> </ul>
 <p><b>Catalytic Investments</b> Strategic expansion to support economic development</p>	<ul style="list-style-type: none"> <li>» Major Mobility Investment Program, including truck only lanes in Central Georgia and Savannah area connections</li> <li>» Options to address freight bottlenecks</li> <li>» Intermodal connections based on freight demand</li> <li>» Connectivity to Georgia Ready for Accelerated Development (GRAD) sites and other industrial and agricultural sites</li> <li>» Rail capacity projects on GDOT-owned corridors</li> </ul>	<ul style="list-style-type: none"> <li>» Managed lanes, including Express Lanes as public-private partnerships</li> <li>» Other Major Mobility Investment Program projects</li> <li>» Other targeted efficiency and mobility improvements</li> </ul>	<ul style="list-style-type: none"> <li>» Strategic capital investments in rural corridors</li> <li>» Strategic capacity investments in emerging metro areas</li> <li>» Enhanced connectivity to GRAD sites and other industrial and agricultural sites</li> </ul>
 <p><b>Innovation Investments</b> Positioning Georgia's transportation system for the future</p>	<ul style="list-style-type: none"> <li>» Real-time information sharing</li> <li>» Freight vehicle technologies</li> <li>» Freight corridor technologies</li> <li>» Supply chain management systems</li> </ul>	<ul style="list-style-type: none"> <li>» Preparing for connected and automated vehicles</li> <li>» Integrated corridor management, including traffic signal priority for emergency response vehicles and public transit buses</li> </ul>	<ul style="list-style-type: none"> <li>» Rural broadband infrastructure for transportation technologies</li> <li>» Preparing for connected and automated vehicles</li> <li>» Integrated corridor management, to maximize use of existing rights-of-way</li> </ul>

The GDOT 2050 SWTP/2021 SSTP was approved by Governor Kemp on February 11, 2021, and by the State Transportation Board on February 18, 2021.

The FY 2024-2027 Statewide Transportation Improvement Program (STIP) is GDOT's four-year plan for transportation capital improvements. The STIP lists federally-funded projects statewide, including projects from highway, bridge, public transit, bike, pedestrian, railroad, and other





## System Performance Report

*2050 Statewide Transportation Plan (SWTP)*

*FY 2024-2027 Statewide Transportation Improvement Program (STIP)*

improvements. The STIP's development is guided by the SWTP/SSTP's programmatic and categorical investment strategies (Foundational, Catalytic, and Innovation)

In support of the SWTP/SSTP, GDOT developed this SPR. Using data from projects programmed in the 2024-27 STIP, this report documents the performance measures and targets required by federal law and describes how GDOT is making progress toward these targets.

## What is in the System Performance Report?

This system performance report addresses the federal performance measures and the statewide performance targets GDOT established for PM1, PM2, and PM3 measures. These include:

- **PM1:** Highway safety on all public roads
- **PM2:** Condition of pavement and bridges on Georgia's Interstates and non-Interstate National Highway System (NHS)
- **PM3:** Reliability of passenger vehicle and truck travel on the Interstate and non-Interstate NHS and congestion and emission reductions in air quality nonattainment and maintenance areas

There are also national performance measures required for the state of good repair for transit assets. These are described in detail in the separate [GDOT Transit System Performance Report](#).

## **PM1: Highway Safety**

FHWA established a performance-based Highway Safety Improvement Program (HSIP) through the establishment of the Safety Performance Management Measures (PM) Final Rule<sup>4</sup>. The Safety PM Final Rule appeared in the Federal Register on March 15, 2016, with an effective date of April 14, 2016. This Final Rule adds part 490 to Title 23 of the Code of Federal Regulations to implement the performance management requirements in 23 U.S.C. 150.

The Safety PM Final Rule requires DOTs and MPOs to establish targets for five safety performance measures. State DOTs also have the option to establish any number of urbanized area targets and one non-urbanized area target for any or all of the measures. These are the five performance measures reported annually in GDOT's HSIP Final Report<sup>5</sup>:

1. Number of fatalities (The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year).
2. Rate of fatalities per 100 million vehicle miles traveled (VMT) [The ratio of total number of fatalities to the number of VMT (expressed in 100 million VMT) in a calendar year].
3. Number of serious injuries (The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year).
4. Rate of serious injuries per 100 million VMT [The ratio of total number of fatalities to the number of VMT (expressed in 100 million VMT) in a calendar year].
5. Number of non-motorized fatalities and non-motorized serious injuries combined (The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year).

Georgia's statewide safety targets for the calendar year 2023 are presented in

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<sup>4</sup> [23 CFR Part 490, Subpart B](#)

<sup>5</sup> [https://safety.fhwa.dot.gov/hsip/spm/state\\_safety\\_targets/](https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/)

Table 1, along with statewide safety performance for the two most recent reporting periods<sup>6</sup>. Each

<b>Performance Measures</b>	<b>2021 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2017-2021)	<b>2022 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2018-2022)	<b>2023 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2019-2023)
Number of Fatalities	1,715	1,671	<b>1,680</b>
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.23	1.21	<b>1.36</b>
Number of Serious Injuries	6,407	8,443	<b>8,966</b>
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	4.422	4.610	<b>7.679</b>
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	686.5	793.0	<b>802.0</b>

MPO in Georgia can either agree to support the statewide targets or establish their own quantifiable targets for the MPO's planning area. As

<sup>6</sup> [https://safety.fhwa.dot.gov/hsip/spm/state\\_safety\\_targets/](https://safety.fhwa.dot.gov/hsip/spm/state_safety_targets/)

Table 1 shows, the five-year rolling average for each safety measure decreased between 2021

<b>Performance Measures</b>	<b>2021 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2017-2021)	<b>2022 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2018-2022)	<b>2023 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2019-2023)
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Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	4.422	4.610	<b>7.679</b>
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	686.5	793.0	<b>802.0</b>

and 2022.

**Table 1: PM1 Highway Safety Performance and Targets (Due August each year to FHWA)**

<b>Performance Measures</b>	<b>2021 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2017-2021)	<b>2022 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2018-2022)	<b>2023 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2019-2023)
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Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	686.5	793.0	<b>802.0</b>

*Note: Values come from GDOT's 2022 HSIP report; At the time of the development of this SPR, the 2023 HSIP report remains in development and review.*

**Table 2** below shows the historic five-year rolling averages for each safety measure over the last five years. Each measure is generally trending upward, peaking in 2021.

**Table 2: PM1 Highway Safety Performance Rolling Averages – Historic Values**

<b>Performance Measures (Five-Year Rolling Averages)</b>	<b>2018 Georgia Statewide Performance (2014-2018)</b>	<b>2019 Georgia Statewide Performance (2015-2019)</b>	<b>2020 Georgia Statewide Performance (2016-2020)</b>	<b>2021 Georgia Statewide Performance (2017-2021)</b>
Number of Fatalities	1,505	1,492	1,664	1,840
Rate of Fatalities per 100 Million Vehicle Miles Traveled	1.14	1.13	1.44	1.53
Number of Serious Injuries	6,401	7,308	7,625	8,654
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	4.86	5.52	6.59	7.17
Number of Combined Non-Motorized Fatalities and Non-Motorized Serious Injuries	630	701	793	833

*Note: Values come from GDOT's 2022 HSIP report; At the time of the development of this SPR.*

Beginning in April 2019, FHWA required all states to use a common definition for serious injury reporting. GDOT works with the Traffic Records Coordinating Committee (TRCC) and Crash Outcomes Data Evaluation System (CODES) task teams to evaluate the coding of “suspected serious injury” data recorded on the state’s crash reports. The team revised the ‘serious injury’ definition, and GDOT conducted training for law enforcement on how to properly report serious injuries. In addition, the team is developing a process for checking police-reported serious injuries

in the crash database by cross-referencing the queried values with Emergency Medical Services data and Hospital Records. Additionally, CODES is performing data linkages across all data sources to assess the quality of recent crash reports and to re-calibrate the values from serious injury values in previous years. In June 2020, the data subcommittee took the first step towards redefining and re-calibrating the "suspected serious injuries" from 2009 to 2019. The numbers in

Table 1 for serious injury, serious injury rate, and nonmotorized fatalities and serious injuries

<b>Performance Measures</b>	<b>2021 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2017-2021)	<b>2022 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2018-2022)	<b>2023 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2019-2023)
Number of Fatalities	1,715	1,671	<b>1,680</b>
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reflects the recalibrated of data from previous years, and the 2023 targets have been set accordingly.

Each year, FHWA completes an assessment of progress toward achieving previous safety targets. FHWA determines that a state made significant progress toward its safety targets when at least four of the five targets were met, or the actual outcome was better than the baseline performance. In 2020, FHWA assessed GDOT’s progress toward achieving its 2018 safety targets. Based on FHWA’s review, Georgia did not make significant progress toward achieving three of its safety targets in 2018: serious injury, serious injury rate, and nonmotorized fatalities and serious injuries. As a result, GDOT must comply with the provisions set forth in 23 U.S.C. 148(i) for the subsequent fiscal year. The State must: 1) use obligation authority equal to the HSIP apportionment for the year prior to the year for which the targets were not met or significant progress was not made, only for HSIP projects; and 2) submit an annual HSIP Implementation Plan that describes actions the State will take to meet or make significant progress toward meeting its subsequent targets. Under 23 U.S.C. 148(i)<sup>7</sup>, the HSIP Implementation Plan must:

- Identify roadway features that constitute a hazard to road users;
- Identify highway safety improvement projects on the basis of crash experience, crash potential, or other data-supported means;
- Describe how HSIP funds will be allocated, including projects, activities, and strategies to be implemented;

<sup>7</sup> <https://www.law.cornell.edu/uscode/text/23/148>



- Describe how the proposed projects, activities, and strategies funded under the State HSIP will allow the State to make progress toward achieving the safety performance targets; and
- Describe the actions the State will undertake to achieve the performance targets.

The 2018 targets for these three measures were established under the old definition of serious injuries. As discussed above, the task team recently recalibrated crash datasets from previous years to reflect the new serious injury definition. GDOT performed additional analysis that indicates significant progress toward the 2018 targets would be demonstrated with the recalibrated data. In addition, all safety targets were met in 2019<sup>8</sup> and 2020<sup>9</sup>, indicating the Department's progress towards improving safe travel on state roadways. The 2021 targets shown in

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<sup>8</sup> <https://highways.dot.gov/safety/hsip/hsip-state-reports-2018>

<sup>9</sup> <https://highways.dot.gov/safety/hsip/hsip-state-reports-2019>

Table 1 were established using the recalibrated trend data and new serious injury definition.










<b>Performance Measures</b>	<b>2021 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2017-2021)	<b>2022 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2018-2022)	<b>2023 Georgia Statewide Performance Target</b> (Five-Year Rolling Average 2019-2023)
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GDOT will establish new safety targets annually, and future SPRs will continue to present safety performance over time in relation to previous safety data and established targets.

## GDOT Investments Supporting PM1 Targets

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals as well as statewide and regional performance targets. As such, the long-range transportation planning process reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, the Georgia Strategic Highway Safety Plan (SHSP) and the Georgia HSIP. [Error! Reference source not found.](#) provides an extensive list of GDOT programs that support the achievement of PM1 targets.

**Table 3: Programs that support PM1 Highway Safety**


<b>Program</b>	<b>Supports PM1</b>
National Highway Performance Program (NHPP)	
Surface Transportation Block Grant (STBG)	
Highway Safety Improvement Program (HSIP)	
National Highway Freight Program (NHFP)	
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	
PROTECT	
Carbon Reduction Program	
National Electric Vehicle Formula Program	
Bridge Formula Program	

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Major Mobility Investment Program (MMIP)



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 = PM is primary program purpose

 = PM is secondary program purpose

### Georgia Strategic Highway Safety Plan

Developed by the Governor’s Office of Highway Safety, the Georgia SHSP<sup>10</sup> is intended to reduce the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in Georgia. Existing highway safety plans are aligned and coordinated with the SHSP, including the HSIP, the Highway Safety Plan, and MPO and local agency safety plans. The SHSP guides GDOT, the Georgia MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across Georgia. The SHSP defines emphasis areas including impaired driving, occupant protection, distracted driving, intersections, roadway departure, young adult drivers, older drivers, pedestrians, bicyclists, commercial motor vehicles, and motorcycles.

### Georgia Highway Safety Improvement Program

The GDOT HSIP<sup>11</sup> annual report provides for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The goal of the HSIP process is to reduce the number of crashes, injuries, and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.

### 2021 SSTP/2050 SWTP

Keeping the people of Georgia safe on its highways and rail crossings is a Foundational Investment Strategy in the 2021 SSTP/2050 SWTP<sup>12</sup>. GDOT’s investment scenario, identified in SWTP, plans to invest an average of \$310 million annually through 2050, 13 percent of its total budget. As shown in **Figure 5**, this includes \$200 million in its HSIP program and \$110 million in the rail grade crossing program. This increase in investment is intended to enable GDOT to invest more deeply into highway safety in rural Georgia, where the fatalities per capita are disproportionately high. GDOT will also invest in at-grade highway and railway crossings, focusing on innovative approaches to reducing conflicts between vehicles and trains through non-capacity investments.

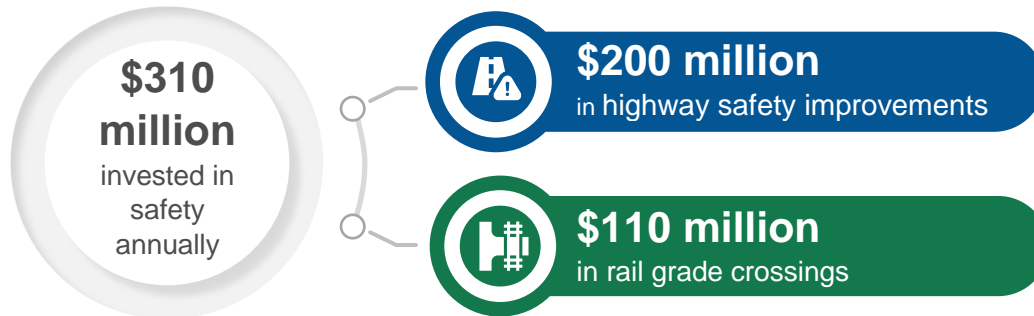
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<sup>10</sup> <https://www.gahighwaysafety.org/highway-safety-plan/>

<sup>11</sup> <https://highways.dot.gov/safety/hsip/2021-hsip-state-report-georgia>

<sup>12</sup> <https://www.dot.ga.gov/GDOT/Pages/SSTP.aspx>

**Figure 5: GDOT's Investment in Safety**



Source: [GDOT 2021 Statewide Strategic Transportation Plan: 2050 Statewide Transportation Plan](#)

### STIP FY 2024-2027 Investment Supporting PM1 Targets

To support progress towards approved statewide highway safety targets, the FY 2024-2027 STIP includes a number of key safety investments. A total of \$1,352,148,547 has been programmed in the FY 2024-2027 STIP to improve highway safety; averaging approximately \$338,037,137 per year.



A total of **\$1,352,148,546** has been programmed to **improve safety** on public roadways through 2027.

Below is a sample project that GDOT has programmed in the 2024-2027 STIP to support the achievement of PM1: Highway Safety.



#### *Highway Safety*

#### **State Route 19 from L Street to N. Williams Street**

Project Type: Complete Streets

Location: Jeff Davis County

Total Cost: \$1,080,000

This project will improve safety on State Route 19 by creating a complete street that will include R cuts, median turns, and improved pedestrian safety.

## **PM2: Pavement and Bridge Condition on Georgia’s Interstates and non-Interstate National Highway System**

Effective May 20, 2017, FHWA established performance measures to assess pavement conditions<sup>13</sup> and bridge conditions<sup>14</sup> for the National Highway Performance Program (NHPP). This second FHWA performance measure rule established six performance measures:

1. Percent of Interstate pavements in good condition
2. Percent of Interstate pavements in poor condition
3. Percent of non-Interstate National Highway System (NHS) pavements in good condition
4. Percent of non-Interstate NHS pavements in poor condition
5. Percent of NHS bridges by deck area classified as in good condition
6. Percent of NHS bridges by deck area classified as in poor condition

### **Pavement Condition Measures**

The pavement condition measures represent the percentage of lane-miles on the Interstate or non-Interstate NHS that are in good condition or poor condition. FHWA defines five metrics that are used to establish pavement condition: International Roughness Index (IRI), cracking percent, rutting, and faulting. Each metric has a numerical scale and a threshold for good, fair, and poor conditions. Each lane-mile of pavement on the Interstate system and non-Interstate NHS is assessed using one or more of these metrics, depending on the pavement type, and is then rated good, fair, or poor using the thresholds.

The pavement condition measures are expressed as the percentage of both Interstate and non-Interstate NHS roads in good or poor condition. Pavement in good condition suggests that no major investment is needed. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

### **Bridge Condition Measures**

The bridge condition rating represents the percentage of bridges, by deck area, on the NHS that are in good, fair, or poor condition. The condition of each bridge is evaluated by assessing three primary bridge components: deck, superstructure, and substructure. FHWA created a metric rating threshold for each component to establish good, fair, or poor condition. Every bridge on the NHS is evaluated using these components. If the lowest condition of the three metrics is greater than or equal to seven, the structure is classified as good. If the lowest condition is five or six, it is classified as fair, and if the lowest condition is less than or equal to four, the structure is

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<sup>13</sup> [23 CFR Part 490, Subpart C](#)

<sup>14</sup> [23 CFR Part 490, Subpart D](#)

classified as poor. Bridge culvert condition ratings follow the same metric, however the culvert itself is the only component rated.

To determine the percent of bridges in good or in poor condition, the sum of total deck area of good or poor NHS bridges is divided by the total deck area of bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width. Good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

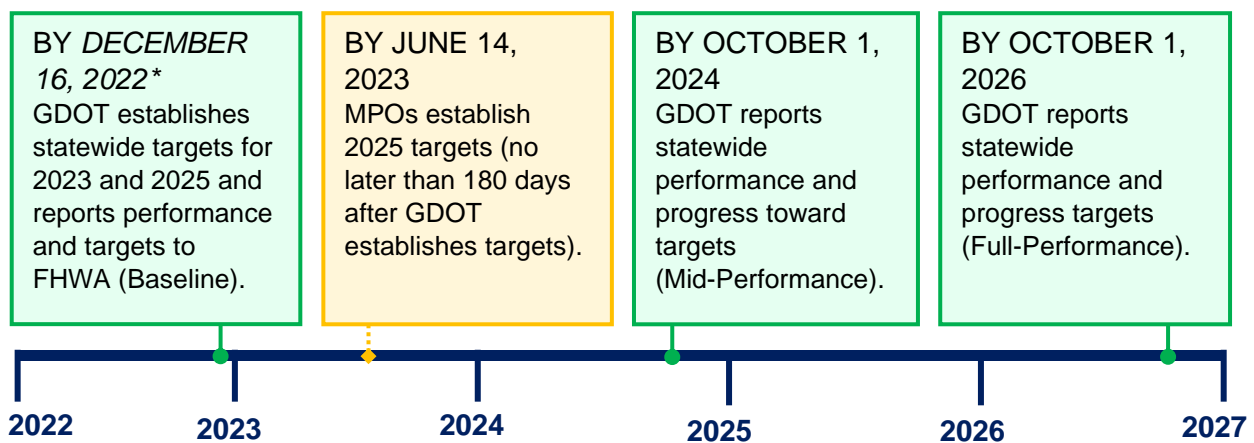
## Pavement and Bridge Targets

Pavement and bridge condition performance is assessed and reported over a four-year performance period defined by FHWA’s TPM regulations. At the beginning of each performance period, states and MPOs establish two-year and/or four-year performance targets for each measure. Two-year targets represent expected pavement and bridge condition at the mid-point of the performance period, while the four-year targets represent expected condition at the end of the performance period. States are required to report on pavement and bridge condition at the beginning (baseline), mid-point, and end of the performance period, as well as progress toward achieving targets.

The current (second) performance period began on January 1, 2022, and will end on December 31, 2025. This timeline is shown in **Figure 6**. The current two-year targets represent expected pavement and bridge condition at the end of calendar year 2023, while the current four-year targets represent expected condition at the end of calendar year 2025.

**Figure 6: Timeline for Second Performance Period**

January 1, 2022 – December 31, 2025



\* FHWA changed the due date from October 1, 2022, due to a technical issue with the reporting system.

Table 4 presents statewide pavement and bridge condition performance for the 2021 baseline

Performance Measures	Performance (Baseline 2021)	2-year Targets (2023)	4-year Targets (2025)
Percent of Interstate pavements in good condition	67.4%	50.0%	50.0%
Percent of Interstate pavements in poor condition	0.1%	5.0%	5.0%
Percent of non-Interstate NHS pavements in good condition	49.2%	40.0%	40.0%
Percent of non-Interstate NHS pavements in poor condition	0.6%	12.0%	12.0%
Percent of NHS bridges (by deck area) in good condition	79.1%	50.0%	60.0%
Percent of NHS bridges (by deck area) in poor condition	0.5%	10.0%	10.0%

year and the current two-year and four-year statewide targets established by GDOT. GDOT established these two-year and four-year targets on December 16, 2022. Each MPO in Georgia then agreed to program projects to support the state’s targets.

**Table 4: PM2 Pavement and Bridge Condition Performance and Targets**

Performance Measures	Performance (Baseline 2021)	2-year Targets (2023)	4-year Targets (2025)
Percent of Interstate pavements in good condition	67.4%	50.0%	50.0%
Percent of Interstate pavements in poor condition	0.1%	5.0%	5.0%
Percent of non-Interstate NHS pavements in good condition	49.2%	40.0%	40.0%
Percent of non-Interstate NHS pavements in poor condition	0.6%	12.0%	12.0%
Percent of NHS bridges (by deck area) in good condition	79.1%	50.0%	60.0%
Percent of NHS bridges (by deck area) in poor condition	0.5%	10.0%	10.0%

During the target setting process in 2022, GDOT reviewed historical pavement and bridge condition data and considered current performance trends when setting targets. GDOT adopted the federal minimum condition level of Interstate pavements in poor condition at 5 percent as a target for the Interstate pavement condition measure. GDOT elected to set pavement targets based on full distresses plus IRI metrics. Similarly, GDOT established the federal minimum bridge condition level of no more than 10 percent of total NHS bridge deck area in poor condition as the statewide target for bridges in poor condition.

In October 2024, GDOT will complete an assessment of pavement and bridge condition for 2022 and 2023 (the first two years of the current (second) performance period) for the mid performance period report to FHWA. **Table 5** below shows the historic values of the different measures under PM2.

As shown in **Table 5**, pavement condition generally improved from 2018/2019 to 2020, except for a small decline in the percent of Interstate pavements in good condition. Georgia met all two-year targets for pavement and bridge condition and is on track to meet the four-year targets.





## System Performance Report

*2050 Statewide Transportation Plan (SWTP)*

*FY 2024-2027 Statewide Transportation Improvement Program (STIP)*

In 2026, GDOT will report pavement and bridge condition performance for the last two years of the current (second) performance period and report to FHWA on progress in achieving the four-year targets.

**Table 5: PM2 Pavement and Bridge Condition Performance – Historic Values**

<b>Performance Measures</b>	<b>Baseline 2018/2019</b>	<b>2020</b>	<b>2021</b>
Percent of Interstate pavements in good condition	57	57	67.4
Percent of Interstate pavements in poor condition	0.3	0.3	0.1
Percent of non-Interstate NHS pavements in good condition	49.2	46.5	49.2
Percent of non-Interstate NHS pavements in poor condition	0.6	0.8	0.6
Percent of NHS bridges (by deck area) in good condition	52	67.5%	79.1
Percent of NHS bridges (by deck area) in poor condition	1.1%	0.8%	0.6

### **GDOT Investments Supporting PM2 Targets**

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals as well as statewide and regional performance targets. The Department’s planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, Georgia’s Transportation Asset Management Plan (TAMP), the Georgia Interstate Preservation Plan, and the 2050 SWTP/2021 SSTP.

### **Transportation Asset Management Plan**

MAP-21 required GDOT to develop a TAMP<sup>15</sup> for all NHS pavements and bridges within the state. GDOT’s TAMP includes investment strategies leading to a program of projects that would make progress toward the achievement of GDOT’s statewide pavement and bridge condition targets.

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<sup>15</sup> <https://www.dot.ga.gov/GDOT/Pages/TAM.aspx>

### Georgia Interstate Preservation Plan

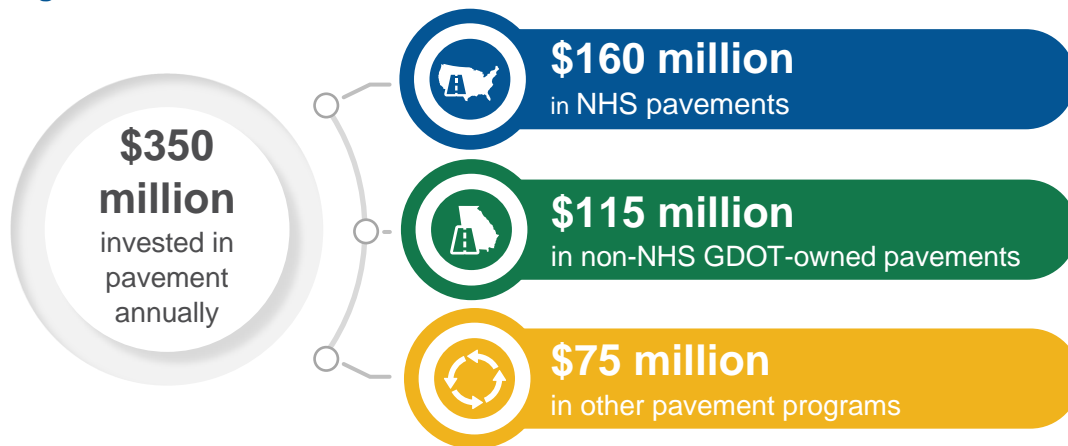
The Georgia Interstate Preservation Plan<sup>16</sup> applied a risk profile to identify and communicate Interstate preservation priorities; this process leveraged a combination of asset management techniques with risk management concepts to prioritize specific investment strategies for the Interstate system in Georgia.

### 2050 SWTP/2021 SSTP

Keeping assets in good condition is a Foundational Investment Strategy in the 2050 SWTP/2021 SSTP.<sup>17</sup> Taking care of the basics and maintaining GDOT's existing infrastructure in good condition by investing in right place at right time will allow GDOT to make investments to grow the economy.

GDOT's investment scenario developed as part of 2050 SWTP/2021 SSTP plans to invest an average of \$350 million annually through 2050 in pavement, 15 percent of its total budget. As shown in **Figure 7**, this includes \$160 million on NHS pavements, \$115 million on non-NHS GDOT-owned pavements, and \$75 million on other pavement programs. This investment scenario suggests shifting a portion of bridge and pavement investment levels over the 30-year period to the NHS from non-NHS GDOT-owned bridge and pavement assets. This shift recognizes the role of the NHS in providing statewide and national connectivity for moving both people and freight.

**Figure 7: GDOT's Investment in Pavement**



Source: *GDOT 2021 Statewide Strategic Transportation Plan: 2050 Statewide Transportation Plan*

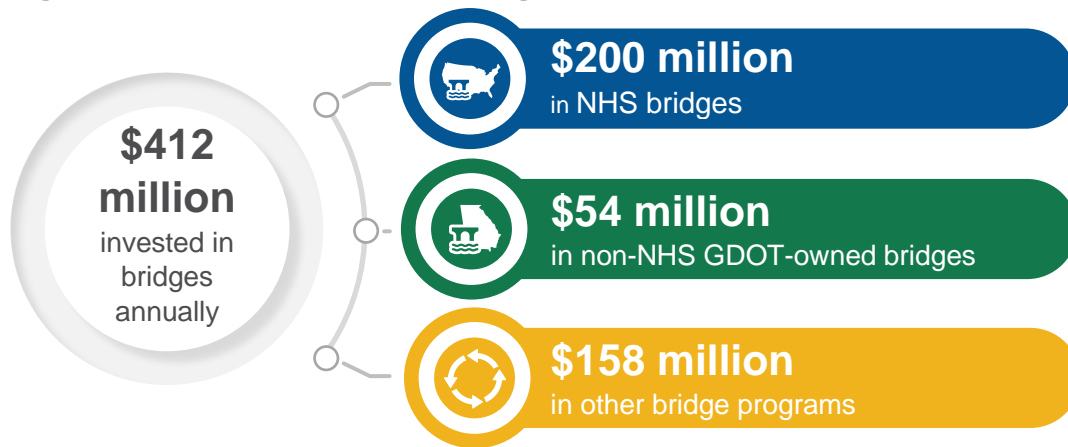
For bridges, GDOT's investment scenario plans to invest an average of \$412 million annually through 2050 in bridges, which is 17 percent of its total budget. As shown in **Figure 8**, the planning forecasts developed as part of 2050 SWTP/2021 SSTP includes \$200 million on NHS bridges, \$54 million on non-NHS GDOT-owned bridges, and \$158 million on other programs including

<sup>16</sup> <https://www.dot.ga.gov/BuildSmart/research/Documents/05-19b.pdf>

<sup>17</sup> <https://www.dot.ga.gov/GDOT/Pages/SSTP.aspx>

maintenance, rehabilitation, and preservation for all bridges, the Local Bridge Replacement Program, and the Low Impact Bridge Program.

**Figure 8: GDOT's Investment in Bridges**



Source: [GDOT 2021 Statewide Strategic Transportation Plan: 2050 Statewide Transportation Plan](#)

GDOT has several programs that help achieve the targets set in

Table 4. Below, [Error! Reference source not found.](#) shows how these programs help achieve the

Performance Measures	Performance (Baseline 2021)	2-year Targets (2023)	4-year Targets (2025)
Percent of Interstate pavements in good condition	67.4%	50.0%	50.0%
Percent of Interstate pavements in poor condition	0.1%	5.0%	5.0%
Percent of non-Interstate NHS pavements in good condition	49.2%	40.0%	40.0%
Percent of non-Interstate NHS pavements in poor condition	0.6%	12.0%	12.0%
Percent of NHS bridges (by deck area) in good condition	79.1%	50.0%	60.0%
Percent of NHS bridges (by deck area) in poor condition	0.5%	10.0%	10.0%

targets for PM2 measures.

**Table 6: Programs that support PM2 Pavement and Bridge Conditions**

Program	Supports PM2
National Highway Performance Program (NHPP)	✓
Surface Transportation Block Grant (STBG)	✓
Highway Safety Improvement Program (HSIP)	✓
National Highway Freight Program (NHFP)	✓
Congestion Mitigation and Air Quality Improvement Program (CMAQ)	✓
PROTECT	✓

Carbon Reduction Program	✔
National Electric Vehicle Formula Program	✔
Bridge Formula Program	✔
Major Mobility Investment Program (MMIP)	✔


✔ = PM is primary program purpose

✔ = PM is secondary program purpose


## STIP FY 2024-2027 Investment Supporting PM2 Targets

To support progress towards GDOT’s statewide PM2 targets, the FY 2024-2027 STIP devotes a significant number of resources to projects that will maintain pavement and bridge conditions. Investments include pavement replacement and reconstruction, bridge replacement and reconstruction, new bridge and pavement capacity, and system resiliency projects that improve NHS bridge components (e.g., upgrading culverts).

A total of \$1,590,869,325 for bridges has been programmed in the FY 2024-2027 STIP to improve bridge and pavement conditions; averaging approximately \$397,717,331 per year. A total of \$1,030,000,000 is available for NHS maintenance for pavement statewide; averaging approximately \$257,500,000 per year.



A total of **\$1,590,869,325** has been programmed to **improve bridge conditions** through 2027.



A total of **\$1,030,000,000** has been programmed to **improve pavement conditions** through 2027.

Below are sample projects that GDOT has programmed in the 2024-2027 STIP to support PM2: Pavement and Bridge Condition.



*Bridge Conditions*

**I-20 Eastbound and Westbound at Oconee River**

Project Type: Bridges

Location: Greene and Morgan Counties

Total Cost: \$26,674,994

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This project will replace four existing bridges on Interstate 20 over Oconee River and the river's overflow area in Greene and Morgan Counties. There are two eastbound bridges and two westbound bridges. It is anticipated that an onsite detour will be utilized during construction. The total duration of construction will be approximately 24 months to allow for staging and traffic management.



*Bridge Conditions*

**State Route 18 at Norfolk Southern #732712X in Gordon**

Project Type: Bridges

Location: Wilkinson County

Total Cost: \$5,400,000

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This project will replace the bridge on State Route 18 over Norfolk Southern Railroad in the City of Gordon.

## **PM3: System Performance, Freight, and Congestion Mitigation & Air Quality Improvement Program**

Effective May 20, 2017, FHWA established measures to assess performance of the National Highway System,<sup>18</sup> freight movement on the Interstate system,<sup>19</sup> and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.<sup>20</sup> This third FHWA performance measure rule (PM3) established six performance measures, described below.

### **National Highway System Performance**

1. Percent of person-miles on the Interstate system that are reliable
2. Percent of person-miles on the non-Interstate NHS that are reliable

### **Freight Movement on the Interstate**

3. Truck Travel Time Reliability Index (TTTR)

### **Congestion Mitigation and Air Quality Improvement (CMAQ) Program**

4. Annual hours of peak hour excessive delay per capita (PHED)
5. Percent of non-single occupant vehicle travel (Non-SOV)
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction)

## **National Highway System Performance Measures**

The two highway system performance measures assess the reliability of travel times on the Interstate and non-Interstate NHS systems. The Level of Travel Time Reliability (LOTTR) is the metric used to calculate reliability. LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over all applicable roads during four time periods (AM peak, mid-day, PM peak, and weekends) that cover the hours of 6 AM to 8 PM each day.

The LOTTR ratio is calculated for each segment of applicable roadway, essentially comparing the segment's longest travel times with its typical travel times. A segment is deemed to be reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The two measures are expressed as the percent of person-miles traveled on these Interstate or non-Interstate NHS system segments that are reliable. Person-miles consider the number of

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<sup>18</sup> [23 CFR Part 490, Subpart E](#)

<sup>19</sup> [23 CFR Part 490, Subpart F](#)

<sup>20</sup> [23 CFR Part 490, Subparts G and H](#)

people traveling in buses, cars, and trucks over these roads. A higher value means better performance, i.e., more person-miles of travel are reliable.

### Freight Movement Performance Measure

The freight movement performance measure assesses reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout all hours of weekdays and weekends (AM peak, mid-day, PM peak, weekend, and overnight). For each segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index. A lower TTTR value means better performance, i.e., more reliable truck travel.

### CMAQ Performance Measures

The PHED measure quantifies the hours of delay resulting from traffic congestion on the NHS during morning and afternoon weekday peak travel times. Peak travel hours are defined as 6 AM to 10 AM on weekday mornings, and either 3 PM to 7 PM or 4 PM to 8 PM on weekday afternoons. The threshold for excessive delay is based on the travel time at 20 miles per hour or 60 percent of the posted speed limit travel time, whichever is greater, and is measured in 15-minute intervals. Total excessive delay is weighted by vehicle volumes and occupancy and is expressed as the annual hours of excessive delay during the peak hours on a per capita basis. Thus, PHED is a measure of person-hours of delay, rather than vehicle-hours.

The non-SOV travel measure quantifies the percent of travel that occurs by any mode other than driving alone in a motorized vehicle. Non-SOV travel includes travel via carpool, vanpool, public transportation, commuter rail, walking, bicycling, or telecommuting.

The CMAQ emission reduction measure assesses performance of the CMAQ Program through measurement of total emission reductions of on-road mobile source emissions. Total emissions reduction is calculated by summing two-year and four-year totals of emission reductions of applicable pollutants, in kilograms per day, resulting from all CMAQ funded projects.

### Applicability of the CMAQ Measures

The PHED and non-SOV measures apply only within the boundaries of an urbanized area (UZA) that contains an NHS road, has a population of more than one million, and contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. States and MPOs with planning boundaries that are within any part of the applicable UZA must coordinate to set a single, unified four-year PHED target for the entire UZA, and single, unified two- and four-year targets for non-SOV travel.<sup>21</sup>

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<sup>21</sup> Beginning January 1, 2022, the UZA population threshold for this measure changes from one million to 200,000, and two-year and four-year targets must be set for both measures.



In Georgia, the PHED and non-SOV measures currently apply only to the Atlanta UZA. The Atlanta Regional Commission (ARC) and the Cartersville-Bartow MPO (CBMPO) have planning area boundaries that overlap with the UZA, thus GDOT and the two MPOs coordinate to establish single, unified PHED and non-SOV travel performance targets.

The CMAQ emission reduction measure is applicable to any state and MPO with projects financed with CMAQ funds whose boundary contains any part of a nonattainment or maintenance area for ozone, carbon monoxide or particulate matter. In Georgia, the CMAQ emission reduction measure applies statewide for GDOT as well as individually for ARC and CBMPO.

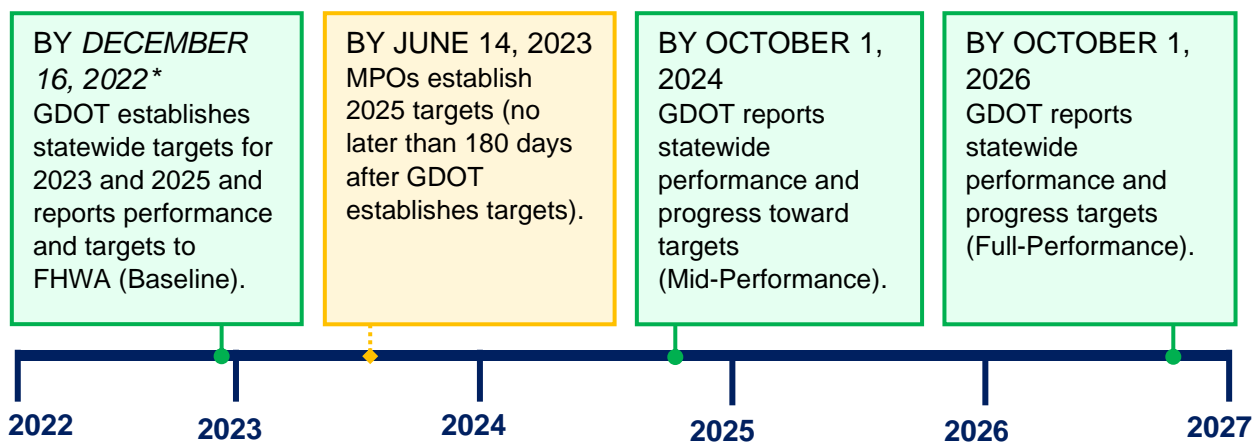
## System Performance, Freight, and CMAQ Performance Targets

Like PM<sub>2.5</sub>, performance for the PM<sub>3</sub> measures is assessed and reported over a four-year performance period. At the beginning of each performance period, states and MPOs establish two-year and/or four-year performance targets for each measure. Two-year targets represent expected performance at the mid-point of the performance period, while the four-year targets represent expected performance at the end of the four-year performance period. States report PM<sub>3</sub> performance and progress toward achieving targets at the beginning (baseline), mid-point, and end of the performance period.

For all PM<sub>3</sub> measures – except the CMAQ emission reduction measure – the current performance period runs from January 1, 2022, to December 31, 2025. Thus, the two-year targets represent expected reliability performance at the end of calendar year 2023, while the four-year targets represent expected performance at the end of calendar year 2025.

**Figure 9: Timeline for Second Performance Period**

January 1, 2022 – December 31, 2025



\* FHWA changed the due date from October 1, 2022, due to a technical issue with the reporting system.

For the CMAQ emission reduction measure, the current two-year and four-year targets represent cumulative volatile organic compound (VOC) and nitrogen oxides (NO<sub>x</sub>) emission reductions from

CMAQ-funded projects during the periods of October 1, 2022, to September 30, 2023 (for the two-year target) and October 1, 2022, to September 30, 2025 (for the four-year target).

**Table 7** presents performance for the PM3 measures for 2021 and the current two-year and four-year statewide targets established by GDOT.

GDOT established these two-year and four-year targets on December 16, 2022. Each MPO in Georgia then agreed to program projects to support the state’s targets.

**Table 7: PM3 System Performance, Freight, and CMAQ Performance and Targets**

Performance Measure	Performance (Baseline 2021)	2-year Target (2023)	4-year Target (2025)
Percent of person-miles on the Interstate system that are reliable	82.8%	73.9%	68.4%
Percent of person-miles on the non-Interstate NHS that are reliable	91.9%	87.3%	85.3%
Truck Travel Time Reliability Index	1.47	1.62	1.65
Annual hours of peak hour excessive delay per capita (PHED)	14.4 hours	23.7 hours	27.2 hours
Percent Non-SOV travel	25.7%	22.7%	22.7%
CMAQ VOC Cumulative Emission Reductions	365.006 kg/day*	157.200 kg/day	257.100 kg/day
CMAQ NOx Cumulative Emission Reductions	1,184.582 kg/day*	510.900 kg/day	904.200 kg/day

\* 4-year Cumulative Emission Reductions from 2018-2021

During the target setting process in 2022, GDOT considered several external factors and trends that influence performance of the PM3 measures. External factors are those influences that affect transportation system performance but are typically outside of the control (at least operationally) of GDOT. These external factors include:

- From 2013 to 2018, VMT in Georgia had been increasing at a rate of 6.2 percent annually on rural facilities and 2.9 percent on urban facilities. Those rates have changed to -2.4 percent and -3.8 percent, respectively, from 2018 to 2020 due to COVID impacts.
- Georgia’s population and households have experienced significant increase in the last decades. The growth rates slowed down slightly 2010-2020 but still maintained a 1% annual growth rate in recent years.

The above trends related to external factors indicate the state’s overall population and economic growth are resulting in increasing VMT and greater levels of travel on the state’s roadways in the future. The increase in VMT will affect the PM3 measures for system reliability, freight reliability and CMAQ measures.



## System Performance Report

*2050 Statewide Transportation Plan (SWTP)*

*FY 2024-2027 Statewide Transportation Improvement Program (STIP)*

In October 2022, GDOT completed an assessment of PM3 performance for 2020 and 2021 (the last two years of the first performance period) for the full performance period report to FHWA. As shown in

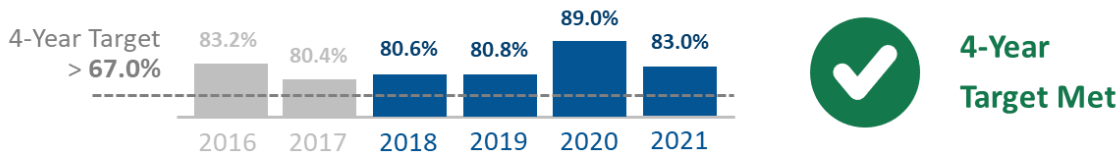
**Figure 10**, the percent of person-miles on both the Interstate and non-Interstate NHS that are reliable increased from 2017 to 2020, showing improved performance of the NHS system. These however, dipped from 2020 to 2021. During the time period from 2018 to 2021, truck travel time reliability increased to 1.47 from 1.43 in 2018 and 1.44 in 2017 (indicating poorer truck travel time reliability in 2021). Regardless, Georgia meets both the two-year and four-year targets for these measures.

Between the 2017 baseline and 2021, PHED decreased and the percent of non-SOV travel increased. Both trends represent improvement over the first four-year performance period.

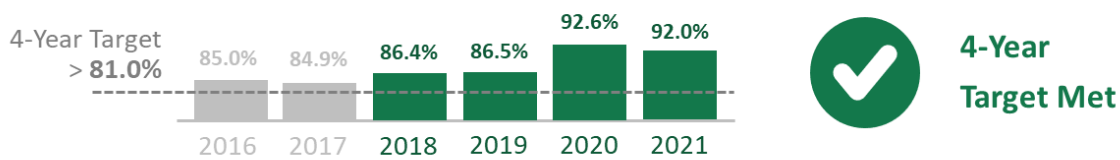
Georgia met the four-year target for both PHED and percent non-SOV travel. Total VOC and NOx emission reductions from CMAQ projects for 2021 are greater than the four-year target, which signifies that CMAQ projects implemented in the state are performing better than expected. Georgia met the four-year emission reductions targets for both pollutants.

**Figure 10: PM3 Over Every Year From 2017 to 2021**

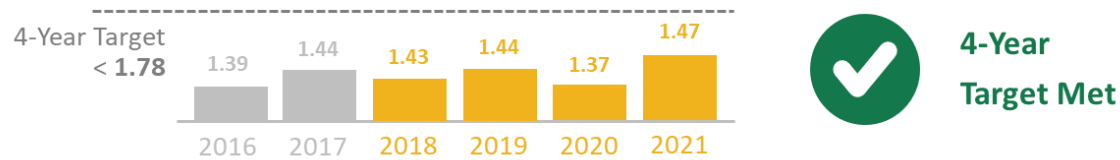
**Percent of Person-Miles Traveled on the Interstate that are Reliable**



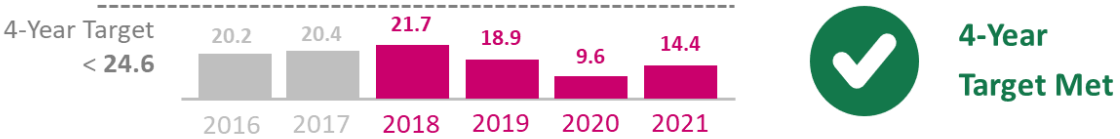
**Percent of Person-Miles Traveled on Non-Interstate NHS that are Reliable**



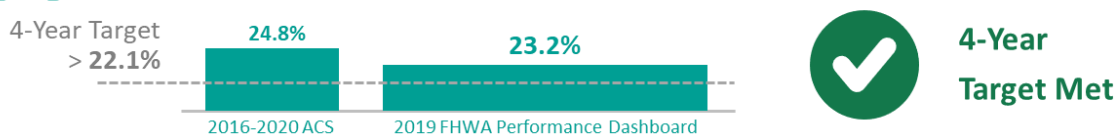
**Truck Travel Time Reliability (TTTR) Index**



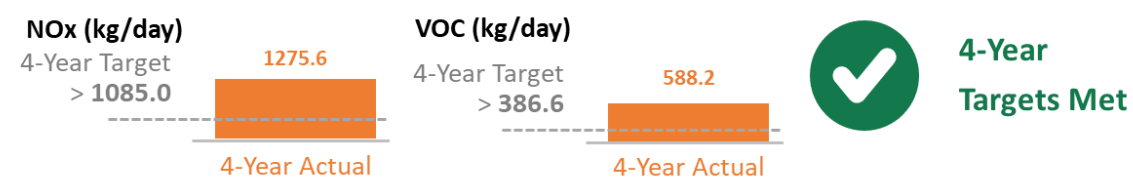
**Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita**



**Percent of Non-Single Occupancy Vehicle (SOV) Travel**



**Total Emissions Reductions**



## GDOT Investments Supporting PM3 Targets

GDOT recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals as well as statewide and regional performance targets. GDOT's planning process directly reflects the goals, objectives, performance measures, and targets as they are available and described in other state and public transportation plans and processes; specifically, the Georgia Statewide Freight and Logistics Action Plan and the 2050 SWTP/2021 SSTP.

### Georgia Freight Plan

The 2023 Georgia Freight Plan<sup>22</sup> documents freight planning activities and investments in the state, identifies and assesses current and future freight needs and challenges incorporating both technical analysis and stakeholder engagement, and guides freight-related transportation decisions and investments. The plan integrates policy positions and strategies from existing documents to help identify and prioritize freight investments critical to the state's economic growth and global competitiveness. The Georgia Freight Plan establishes specific goals for freight transportation and addresses freight issues that are not covered in other statewide planning documents.

### 2050 SWTP/2021 SSTP

The 2050 SWTP/2021 SSTP<sup>23</sup> emphasizes three investment categories: statewide freight and logistics, people mobility in metro Atlanta, and people mobility in emerging metros and rural Georgia. Within each category, the 2050 SWTP/2021 SSTP identifies three type of investment strategies: Foundational (taking care of our existing transportation system), Catalytic (strategic expansion to support economic development), and Innovation (position Georgia's transportation system for the future). The 2050 SWTP/2021 SSTP investment plan identifies the priorities described below.

### Operations

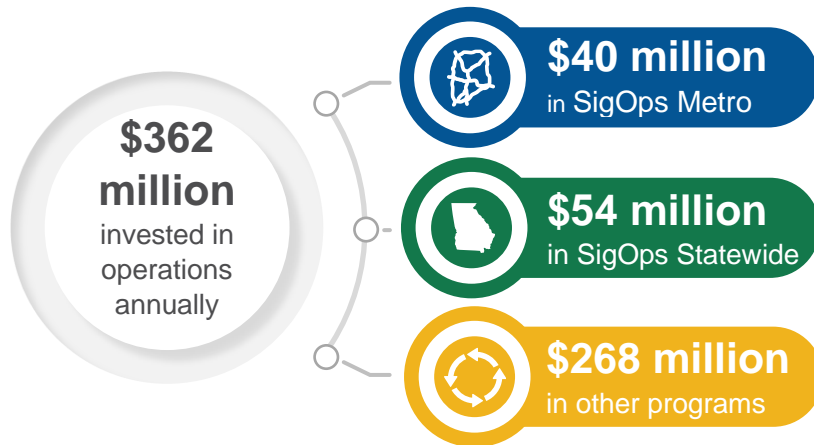
GDOT's investment scenario plans to invest in operations an average of \$362 million annually through 2050, which is more than 15 percent of its total budget. This includes \$40 million for SigOps Metro, \$54 million for SigOps Statewide, and \$268 million for other programs including SigOps maintenance, Highway Emergency Response Operators (HERO), Coordinated Highway Assistance and Maintenance Program (CHAMP), Transportation Management Center Floor Operations, and various ITS programs. These numbers are shown in **Figure 11**.

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<sup>22</sup> <https://www.dot.ga.gov/GDOT/Pages/Freight.aspx>

<sup>23</sup> <https://www.dot.ga.gov/GDOT/Pages/SSTP.aspx>

**Figure 11: GDOT's Investment in Operations**

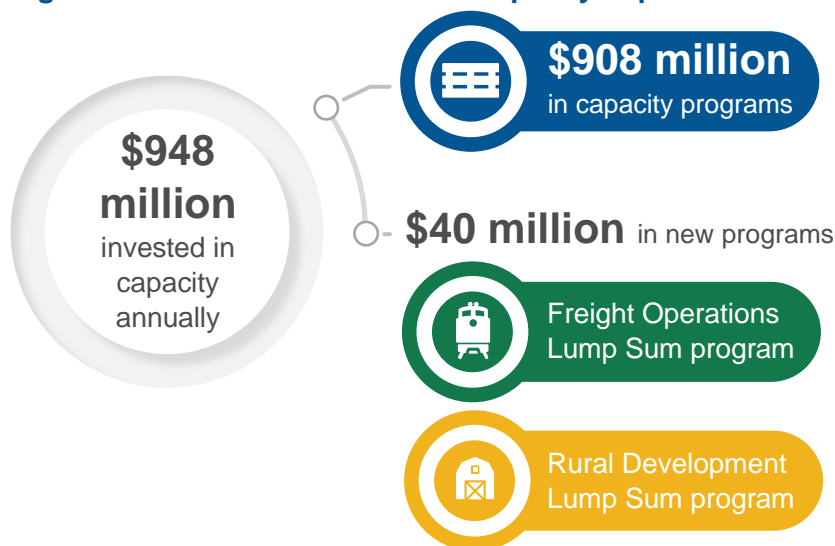


Source: GDOT 2021 Statewide Strategic Transportation Plan: 2050 Statewide Transportation Plan

**Capacity**

GDOT's investment scenario plans to invest in capacity improvements an average of \$948 million annually through 2050, 40 percent of its total budget (note: this total does not include previous commitments to the Major Mobility Investment Program). As shown in **Figure 12**, this includes \$908 million for capacity programs and \$40 million on two new programs: a Freight Operations Lump Sum program, which is intended to strategically address freight-oriented operational problems that are smaller scale yet cannot be readily solved by other existing improvement strategies; and a Rural Development Lump Sum program, which is intended to support focused, rural capital and operations projects related to safety, innovation, and broadband buildout for transportation purposes.

**Figure 12: GDOT's Investment in Capacity Improvements**



Source: GDOT 2021 Statewide Strategic Transportation Plan: 2050 Statewide Transportation Plan

The 2050 SWTP/2021 SSTP strategies focused on people mobility in metro Atlanta are expected to improve performance for the CMAQ congestion measures. In particular, the SigOps Metro improves traffic flow and reduces vehicle emissions through improved signal timing on Atlanta's busiest arterial roadways, and the HERO program provides roadside assistance to traffic-related incidents to clear roads so that normal traffic flow is restored. The 2050 SWTP/2021 SSTP also includes strategies related to promoting additional mobility choices and connections between modes to help manage growth in demand. GDOT will explore opportunities to coordinate park-and-ride lots and other connections between GDOT roads and local and regional transit. GDOT also will continue to partner with Georgia Commute Options and service providers to assist customers, employers, and schools in reducing the number of single-occupant vehicles on metro Atlanta's roads. Through the Major Mobility Investment Program, GDOT is investing in capacity and reliability improvements to Interstate highways and other major facilities, including developing express lanes on several roads in the metro Atlanta area.

8 shows how GDOT programs help achieve the targets for PM3 measures.

**Table 8: Programs that support PM3 System Performance, Freight, and CMAQ**

Program	Supports PM3 Measures		
	System Perf.	Freight	CMAQ
National Highway Performance Program (NHPP)	✔	✔	✔
Surface Transportation Block Grant (STBG)	✔	✔	✔
Highway Safety Improvement Program (HSIP)	✔	✔	✔
National Highway Freight Program (NHFP)	✔	✔	✔
Congestion Mitigation & Air Quality Improvement Program (CMAQ)	✔	✔	✔
PROTECT	✔	✔	✔
Carbon Reduction Program	✔	✔	✔
National Electric Vehicle Formula Program	✔	✔	✔
Bridge Formula Program	✔	✔	✔
Major Mobility Investment Program (MMIP)	✔	✔	✔

✔ = PM is primary program purpose

✔ = PM is secondary program purpose

## STIP FY 2024-2027 Investment Supporting PM3 Targets

To support progress towards GDOT's statewide PM3 targets, the FY 2024-2027 STIP devotes a significant amount of resources to projects that will address passenger and highway freight reliability and delay, reduce SOV travel, and reduce emissions.

A total of \$5,915,536,418 has been programmed in the FY 2024-2027 STIP to address system performance; averaging approximately \$1,478,884,104 per year.



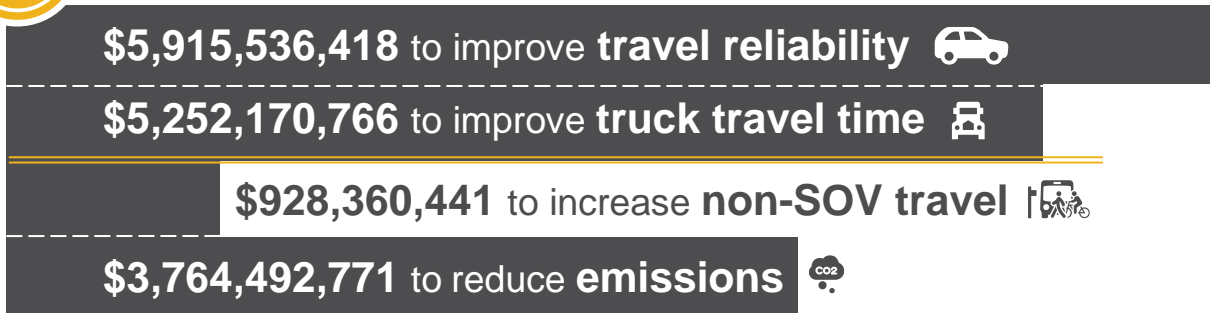
A total of \$5,252,170,766 has been programmed in the FY 2024-2027 STIP to address truck travel time reliability; averaging approximately \$1,313,042,691 per year.

A total of \$928,360,441 has been programmed in the FY 2024-2027 STIP to increase non-SOV travel; averaging approximately \$232,090,110 per year.

A total of \$3,764,492,771 has been programmed in the FY 2024-2027 STIP to address congestion mitigation and air quality; averaging approximately \$941,123,193 per year.



Through 2027, the following totals have been programmed toward achieving each PM3 measure:



Below are sample projects that GDOT has programmed in the 2024-2027 STIP to support PM3: System Performance, Freight, and CMAQ.



*System Performance, Truck Travel Time Reliability*  
**State Route 8 at County Road 329/Barber Creek Road**

Project Type: Interchange  
 Location: Barrow County  
 Total Cost: \$78,977,010

This project will remove the existing at-grade crossings at Barber Creek Road and Craft Road with US 29/SR8/SR 316 at both intersections and create a grade-separated diamond interchange at Barber Creek Road. A bridge over SR 316 is proposed along Barber Creek Road. Craft Road is proposed as a cul-de-sac on the south side of SR 316 and a new frontage road is proposed to



*System Performance, Truck Travel Time Reliability*

**SR 40 from SR 40 Connector to 0.36 Miles East of County Road 82**

Project Type: Widening

Location: Charlton County

Total Cost: \$11,745,729

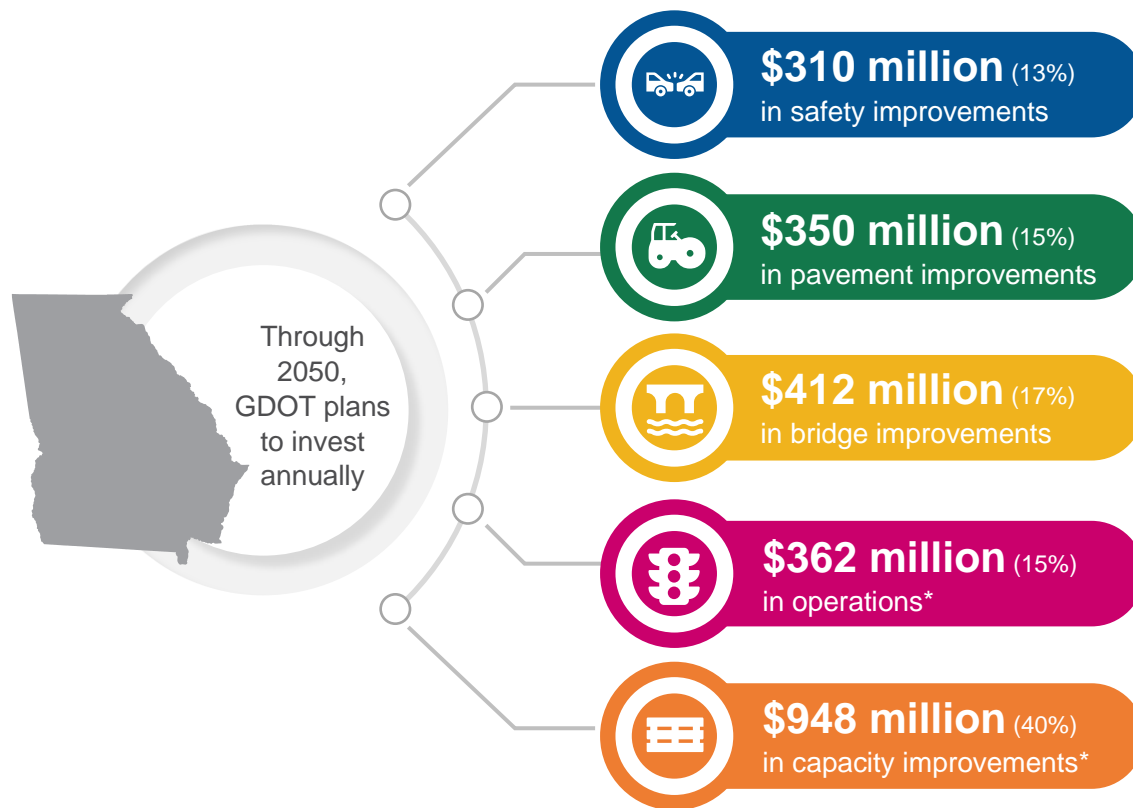
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State Route (SR 40) is a major east-west corridor in southeast Georgia, connecting Folkston on the west with Kingsland, Interstate 95, and St. Mary's on the east. At mile post 0.63 near the SR 40 Connector intersection with SR 40 the project would widen SR 40 from a two-lane to a five-lane rural section and then transition to a four-lane divided highway with a 24-foot raised median at mile post 1.51. The four-lane section would extend eastward to mile post 2.54 (northeast of County Road 82) in Charlton County for a total project length of 1.91 miles. One Box Bridge Culvert will be lengthened.

## Summary of Georgia's System Performance through the 2050 SWTP/2021 SSTP

GDOT establishes and measures progress towards targets for PM1, PM2, and PM3 measures. Numerous programs and projects implemented by GDOT help to achieve these targets. The 2050 SWTP/2021 SSTP plans for long-term investment towards achieving these measures, as illustrated in **Figure 13**.

**Figure 13: Summary of GDOT Investments in TPM Measures through the 2050 SWTP/2021 SSTP**



\* Contributes to the achievement of PM3 measures including System Reliability Truck Reliability measures, and CMAQ measures. .

## Appendix A: Project Types

Table 9: Projects That Support Each Performance Measure

Work Type	PM1	PM2		PM3				
	Safety	Bridges	Pavement	System Reliability	Truck Reliability	CMAQ*		
						PHED	Non-SOV	Emissions Reduction
Bicycle / Pedestrian Facilities	✓						✓	✓
Bridges		✓						
Drainage Improvements			✓					
Grade Separation	✓			✓		✓		
Interchange	✓			✓	✓	✓		
Intersection Improvement	✓			✓		✓		
ITS	✓			✓		✓		✓
Lighting	✓							
Managed Lanes	✓			✓	✓	✓		✓
Operational Improvement				✓	✓	✓		
Pavement Rehabilitation			✓					
Railroad Crossing	✓			✓				
Transit							✓	✓
Truck Lanes					✓			
Widening				✓		✓		

\* The CMAQ measures including PHED, Non-SOV, and Emission Reduction apply only within the boundaries of each U.S. Census Bureau-designated urbanized area (UZA) that contains an NHS road, has a population of more than 200 thousand, and contains any part of a nonattainment or maintenance area for ozone, carbon monoxide, or particulate matter. In



## System Performance Report

*2050 Statewide Transportation Plan (SWTP)*

*FY 2024-2027 Statewide Transportation Improvement Program (STIP)*

*Georgia, the CMAQ measures only apply to statewide for GDOT as well as individually for ARC and CBMPO.*

*Note: Above matrix is based on 2024-2027 STIP projects as general guidelines; In reality, individual projects may yield benefits to other PMs than shown here given specific project characteristics.*