Pathways to the Future
TRANSPORTATION

Technical Report M:
Federal Compliance Report

Long Range Transportation Plan 2050



Richmond Regional Transportation Planning Organization
POWERED BY PlanRVA



Federal Compliance Report

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ABSTRACT
The Richmond Regional Transportation Planning Organization (RRTPO) is in the process of updating the regional Long-Range Transportation Plan (LRTP) to the horizon year 2050. This LRTP has been branded Pathways to the Future: Transportation 2050. As part of this process and in keeping with federal regulations, RRTPO staff worked with the regional partners to address all required standards of Performance Based Planning and Programming (PBPP), including the development of performance measures to monitor the progress of overall goals and objectives, a prioritization process, and systematic performance review.

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ACKNOWLEDGEMENT

Pathways to the Future: Transportation 2050 was prepared in cooperation with the U.S. Department of Transportation, Federal Highway Administration, Virginia Department of Transportation, and the Virginia Department of Rail and Public Transportation. This report also represents the collective work of state, regional, local and special interest representatives of the RRTPO 2050 Long-Range Transportation Plan Advisory Workgroup.

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Introduction

Pathways to the Future 2050 represents the Richmond region's Long-Range Transportation Plan (LRTP) prepared by the RRTPO as a multi-modal blueprint for the transportation network. Pathways to the Future 2050 is a long-term transportation planning document with a horizon of 20 plus years, in contrast to the RRTPO's Transportation Improvement Program (TIP), which is a four-year programming document.

The Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) are responsible for implementing the Infrastructure Investment and Jobs Act (IIJA) (also known as the Bipartisan Infrastructure Act/BIL). The federal planning regulations governing implementation specify the development and content of the LRTP and require that the plan be reviewed and updated at least every four to five years as applicable. Based on the Code of Federal Regulation § 450.324 the following list includes federal requirements applicable to the RRTPO. This is not a comprehensive list of requirements for the Metropolitan Planning Process or the Long-Range Transportation Plan.

1. The long-range transportation plan ("plan") has no less than a 20-year planning horizon.
2. The plan includes both long-range and short-range strategies/actions that provide for the development of a safe and integrated multimodal transportation system to address current and future transportation demand.
3. The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the plan. The Plan shall use the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The Plan shall include current and projected transportation demand of persons and goods to the horizon year of the plan.
4. The MPO planning process shall provide for the implementation of projects and strategies that address the following planning factors:
    i. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
    ii. Increase the safety of the transportation system for motorized and non-motorized users;
    iii. Increase the security of the transportation system for motorized and non-motorized users;
    iv. Increase accessibility and mobility of people and freight;
    v. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;

vi. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
vii. Promote efficient system management and operation;
viii. Emphasize the preservation of the existing transportation system;
ix. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
x. Enhance travel and tourism

5. The plan shall include existing and proposed transportation facilities that serve important national and regional transportation functions over the period of the transportation plan.
6. The plan shall include a description of the performance measures and performance targets used in assessing the performance of the transportation system, and a report on progress achieved in meeting the performance targets.
7. The plan shall include operational and management strategies to improve the performance of existing transportation facilities to relieve congestion and maximize the safety and mobility.
8. The plan shall include consideration of the results of the congestion management process, including the identification of SOV projects.
9. The plan shall include an assessment of capital investment and other strategies to preserve the existing and future infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters.
10. The plan shall include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption.
11. The plan shall include a description of existing and proposed transportation facilities in sufficient detail and include cost estimates.
12. The plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.
13. The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate, a comparison of transportation plans with State conservation plans or maps, if available
14. The plan shall include a financial plan that demonstrates how the plan can be implemented and includes:

i. Cooperatively developed estimates of costs and revenue sources reasonably expected to be available to adequately operate and maintain the highways and public transit (in “year of expenditure dollars”)
ii. Recommendations on any additional financing strategies to fund projects and programs included in the plan.

15. The plan should integrate the priorities, goals and strategies in the State's Highway Safety plans and Improvement programs, and public transportation agency safety plans.
16. The plan shall demonstrate that stakeholders were given the opportunity to comment on the plan; in accordance to the RRTPO Public Engagement Plan.
17. The plan shall demonstrate consultation with agencies involved in a) tourism; b) natural disaster risk reduction.
18. The plan shall be made readily available for public review in electronically accessible formats.
19. Visualization techniques shall be used to describe the plan.
20. Air quality conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and EPA regulations

Purpose

This Technical Document M: Pathways to the Future: Transportation 2050 Federal Compliance documents and references how the RRTPO addressed and incorporated these Federal requirements during the LRTP planning process to prepare the Pathways to the Future: Transportation 2050 plan.

1. **The long-range transportation plan (“plan”) has no less than a 20-year planning horizon.**

   Pathways to the Future: 2050 has a 24-year planning horizon - 2026 to 2050. The plan was developed using the data for the Base Year 2022. The plan was adopted by the TPO Policy Board on September 10, 2026.

2. **The plan includes both long-range and short-range strategies/actions that provide for the development of a safe and integrated multimodal transportation system to address current and future transportation demand.**

   Pathways to the Future: Transportation 2050 includes both long-range and short-range strategies and actions to address multimodal transportation issues and deficiencies in the Richmond region. This is evident by the

aspirational Vision, Guiding Principles, Goals and Objectives of the plan as described in Chapter 4; The discussion of existing multimodal transportation conditions in Chapter 3 and Technical Report C: State of Transportation Report; the identification of transportation issues and needs leading to development of the Universe of Projects as documented in Chapter 5 and Technical Report F: Universe of projects development; and the Constrained List of Projects as listed in as listed in Chapter 6 and Technical Report I: Constrained Plan Development Report.

3. **The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the plan. The Plan shall use the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The Plan shall include current and projected transportation demand of persons and goods to the horizon year of the plan.**

   For the 2050 Long Range Transportation Plan (LRTP), 2050 socioeconomic inputs adopted in the RRTPO 2050 Socioeconomic Data Report were used for the RRTPO subarea. However, for the TCAMPO subarea, an interim 2050 proxy was generated using the fully validated 2045 dataset due to technical and data integrity issues in TCAMPO's adopted July 2023 forecast.

   Specifically, spatial disconnects existed between the TCAMPO report and the Richmond Tri-Cities (RTC) Model: TCAMPO evaluated 331 Traffic Analysis Zones (TAZs) while the model contains 328, resulting in four unmatched report zones and two unrepresented model zones. Without a spatial crosswalk or reconciliation methodology, direct integration was unfeasible. Furthermore, quality control reviews revealed significant data anomalies, including negative household population totals in base-year data and unresolvable zone geography. Using the validated 2045 proxy ensured model stability and data integrity for federal compliance.
   For more details see Technical Report A: Socioeconomic Data Report for the 2017 Base Year and 2050 Forecast Year; and Technical Report H: Modeling Assumptions & Interpretation

4. **The MPO planning process shall provide for the implementation of projects and strategies that address the following planning factors:**
   i. **Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;**

ii. **Increase the safety of the transportation Increase the safety of the transportation system for motorized and non-motorized users;**
iii. **Increase the security of the transportation system for motorized and non-motorized users;**
iv. **Increase accessibility and mobility of people and freight;**
v. **Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;**
vi. **Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;**
vii. **Promote efficient system management and operation;**
viii. **Emphasize the preservation of the existing transportation system;**
ix. **Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and**
x. **Enhance travel and tourism**

These planning factors are the foundation of Pathways to the Future Transportation 2050 and are addressed in various ways in the plan. The planning factors are first described in Chapter 2 under "Federal Guidance on Transportation Planning" and "Regional Transportation Planning". The planning factors were incorporated in the seven Guiding Principles of the plan which shaped the Vision, Goals and Objectives (VGO) as described in Chapter 4. Along with the VGO, 12 performance measures were developed for the plan that provided the technical means (data) for measuring the progress toward meeting the goal and objectives. Some of the performance measures directly evaluated the planning factors. These performance measures were used to evaluate, score and rank all the projects for inclusion in the constrained plan - see Technical Report G: Project Prioritization Methodology Report for details. In addition, Chapter 3 discusses planning factors related to safety, environmental mitigation, resiliency, economic development and tourism.

5. **The plan shall include existing and proposed transportation facilities that serve important national and regional transportation functions over the period of the transportation plan**

The existing multimodal transportation facilities are described in Chapter 3, including the Federal Highway Network, National Highway System, and the VDOT Highway System. The proposed

multimodal transportation facilities as described in Chapter 6.

6. **The plan shall include a description of the performance measures and performance targets used in assessing the performance of the transportation system, and a report on progress achieved in meeting the performance targets.**

   To meet federal requirements, the plan outlines the performance measures and targets used to evaluate the region's transportation system while detailing progress toward these goals by integrating several key chapters and technical references:

   - **Chapter 3** provides a high-level overview of current regional transportation network conditions and performance across all federal performance measures;
   - **Chapter 4** details how regional vision goals and objectives shaped the specific performance targets.
   - The practical application of these metrics is further detailed in **Chapter 6 and Technical Report G: Project Prioritization Methodology**, which explains how performance measures were calculated and applied during individual project evaluations
   - **Chapter 7 and Technical Report J: Constrained Plan Evaluation** cover their role in evaluating the overall Constrained Plan.

7. **The plan shall include operational and management strategies to improve the performance of existing transportation facilities to relieve congestion and maximize the safety and mobility.**

   Operational and management strategies can be found in Chapter 3 and Technical Report D: Congestion Management Process Report

8. **The plan shall include consideration of the results of the congestion management process, including the identification of SOV projects.**

   Technical Report D: Congestion Management Process Report tracks the system performance measures, outlines strategies to manage demand, and works to ensure the continued reliability of the regional multimodal transportation system in the Richmond region.

Exhibit 14 in Chapter 6 provides a breakdown by cost and number of projects within the 2050 constrained project list that will add capacity to the region's highway network. Any highway project under project types 'Capacity Change - LRTP Network", "Capacity Change/new alignment - Minor Arterial" "Capacity change/other improvements providing access to Interstate/ Freeways interchanges " " New interchanges/ interchange modifications" or "Realignment, extension, or relocation" will add capacity specifically for single-occupant vehicles.

The Air Quality Conformity Project Table in Appendix B of Technical Document I: Regional Air Quality Conformity Assessment Report provides greater detail on all new capacity being added to regionally significant roadway segments in the Richmond region.

9. **The plan shall include an assessment of capital investment and other strategies to preserve the existing and future infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters.**

Pathways to the Future Transportation 2050 accomplishes these requirements as follows:

- Chapter 6 demonstrates that the plan's primary focus is on preservation and maintenance of the existing transportation system. Exhibit 12 of Chapter 6 shows that more than 57% of the available financial resources (constrained budget) for the plan will be dedicated to highway maintenance and operations and State of Good Repair under "Programmatic Investments"
- Exhibit 14 in Chapter 6 demonstrates the Constrained project list by mode type and cost estimates. Projects that increase multimodal capacity (Capacity Change - LRTP Network, Capacity Change/new alignment - Minor Arterial, Capacity change/other improvements providing access to Interstate/ Freeways interchanges, New interchanges/ interchange modifications or Realignment, extension, or relocation, Bicycle infrastructure that serves regional travel needs, Multi-use trails that connect significant destinations, New Transit Hubs/Centers/Transfer Stations, New Bus Rapid Transit (BRT) Corridors, Expansion of Existing BRT Corridors) account for over 70% of available budget for new projects.
- Chapter 4 discusses regional priorities and needs.
- Chapter 3 has a discussion of the vulnerability of transportation infrastructure to natural disasters under "Environment and Resilience"

10. **The plan shall include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption**.

    See Exhibit 14 in Chapter 6 which lists the transportation and transit enhancement activities (constrained transit project list) in the plan.

11. **The plan shall include a description of existing and proposed transportation facilities in sufficient detail and include cost estimates.**
    A description of existing and proposed transportation facilities is found in Chapter 3 and Chapter 6, respectively. Pathways to the Future Transportation 2050's financial plan includes cost estimates for the existing and proposed transportation facilities which is summarized in Exhibit 14 of Chapter 6 and with full details in Appendix D of Technical Report I: Constrained Plan Development Report

12. **The plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.**

    Chapter 3 has a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities under the "Environment and Resilience" Section.

13. **The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as appropriate, a comparison of transportation plans with State conservation plans or maps, if available**

    To keep agencies aware of transportation projects in the Pathways to the Future Transportation 2050 plan, RRTPO staff maintained a list of agency and local jurisdiction contacts and has included them on all the public review and comment period announcements. Additionally, staff has maintained and consulted with a 2050 Long Range Transportation Plan Advisory Work Group, consisting of GRTC, VDOT, VDRTP, locality planning representatives, and community and environmental stakeholders.

14. The plan shall include a financial plan that demonstrates how the plan can be implemented and includes:

i. Cooperatively- developed estimates of costs and revenue sources reasonably expected to be available to adequately operate and maintain the highways and public transit (in "year of expenditure dollars")

The financial plan includes cooperatively developed costs and revenues in year of expenditures dollars reasonably expected to be available. The financial information is summarized in Chapter 6 and the details are in Technical Report I: Constrained Plan Development Report.

ii. Recommendations on any additional financing strategies to fund projects and programs included in the plan.

Recommendations can be found in Technical Report I: Constrained Plan Development Report

15. The plan should integrate the priorities, goals and strategies in the State's Highway Safety plans and Improvement programs, and public transportation agency safety plans.

RRTPO's planning process, including performance-based planning and programming target setting is closely coordinated with VDOT, DRPT and GRTC. Chapters 3,6, and 7 includes information on safety; Chapter 4 includes discussions regarding safety performance measures that reflect regional Vision Zero objectives and strategies.

16. The plan shall demonstrate that stakeholders were given the opportunity to comment on the plan in accordance with the RRTPO Public Engagement Plan.

Guided by RRTPO's Public Engagement Plan, stakeholders were given several opportunities to comment on the plan and be involved in plan development. Members of key stakeholder and community groups served officially on the Pathways to the Future Transportation 2050 Advisory Work Group and involved their constituents throughout the process. See Chapter 2, and the full accounting of public participation in Technical Report K: Public Participation and Outreach Summary.

17. **The plan shall demonstrate consultation with agencies involved in a) tourism; b) natural disaster risk reduction.**

    RRTPO staff maintained a list of agency contacts and included them on all the public review and comment period announcements. Chapter 3 has discussion about economic development and tourism, including transportation considerations in Richmond Region Tourism's tourism plan. Chapter 3 also discusses environmental and hazard mitigation planning.

18. **The plan shall be made readily available for public review in electronically accessible formats.**

    Transportation 2050 was made electronically accessible throughout the entirety of the planning process via a dedicated website, https://engage.planrva.org/LRTP.. The website was updated regularly with key documents and scheduled and past events.. Social medial was extensively used to provide information about key steps of the planning process and provide website links for all materials in electronically accessible formats. All Transportation 2050 plan documents, including one main document and thirteen technical reports, are available electronically.

19. **Visualization techniques shall be used to describe the plan.**

    Transportation 2050 employed a variety of visualization techniques to make the plan public-facing and understandable throughout its planning process. An interactive web based mapping platform "Mapbox" solicited public input asking users to point out areas where they experienced transportation issues. Additionally, the ArcGIS-based mapping platform was used for visualization, public review, and solicitation of comments for the Universe of Projects and the Constrained list of Projects.

20. **Air quality conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and EPA regulations.**

    On July 2, 2026, RRTPO Policy Board approved the Richmond Regional Conformity Assessment Report for the constrained list of projects in the 2050 Transportation Constrained Project plan along with the projects in the FY 27-30 TIP. The report was submitted to VDOT on July 7, 2026 and the conformity determination indicated that the determination meets the requirements of the Clean Air Act. Transportation 2050 is not anticipated to cause or

contribute to a violation of any air quality standards. For details see Technical Report J: Regional Air Quality Conformity Assessment.

Appendix A: Federal Performance Measure Report

Under MAP-21 and the FAST Act, Federal transportation law established performance measure requirements to ensure states and metropolitan planning organizations (MPOs) are investing transportation funds in projects that collectively will contribute to the achievement of national goals. The USDOT has published rules for states and MPOs that govern the type of data and requirements for establishing performance targets to support performance-based investment decisions. Specifically, this legislation requires MPOs to prepare and set targets for the following federally established performance measures:

- Roadway Safety
- Pavement Condition
- Bridge Condition
- Roadway Performance
- Freight Movement
- Transit Asset Management
- Transit Safety

An assessment of the targets selected and past performance monitoring by the RRTPO to comply with Federal guidance is included as follows:

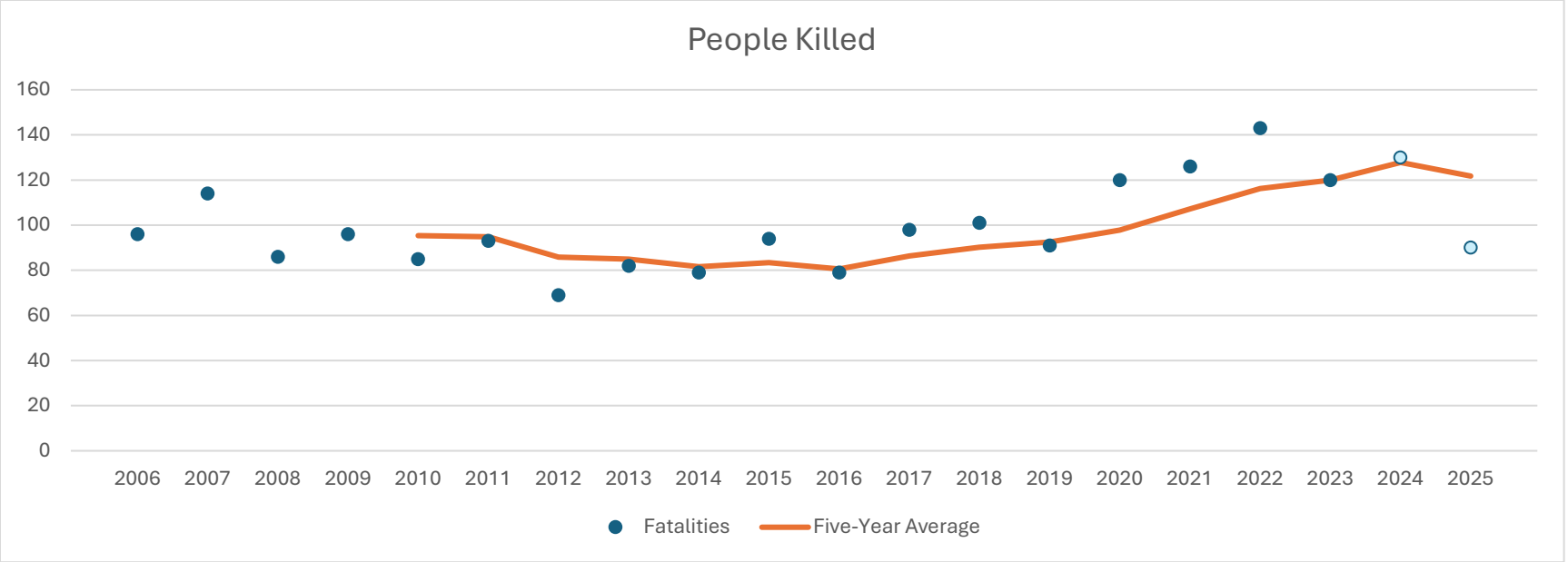
Roadway Safety

Safety has become the major focus of transportation planning efforts with a growing recognition that if people can't arrive at their destination unharmed, the benefits of faster trips or less traffic don't matter. Federal law establishes five (5) performance metrics related to roadway safety – fatalities, fatality rate, serious injuries, serious injury rate, and non-motorized fatalities and serious injuries. Safety targets are set annually and reflect rolling five-year averages. The RRTPO has generally set its own targets in recent years with a focus on returning to pre-COVID levels and continuing to focus on Vision Zero. Most historic data is provided from official target setting workbooks however, preliminary data for fatalities and serious injuries in 2024 and 2025 are taken from VDOT's Crash Analysis Tool. The safety targets are adopted each February.

Fatalities

Year	Target	Actual	
2022	91	116	✗
2023	103	120	✗
2024	107	128	✗
2025	107	122	✗

The RRTPO has adopted aggressive targets for fatalities reflecting a commitment to bringing the number of fatalities back down to pre-COVID levels. Like much of the country, the RRTPO has seen a spike in overall fatalities during COVID and a prolonged spike in pedestrian fatalities in recent years. Since 2021, the 5-year average has increased from 107 to an estimated peak of 128 in 2024. The RRTPO has held a level target of 107 since 2024. While the targets have not been hit, the region does appear to be turning a corner. Preliminary state data show a steep annual drop (~30%) in fatalities in 2025, resulting in the first downward movement in the 5-year average since 2016. Early 2026 data appear to be following the same lower trendline.



Fatality Rate

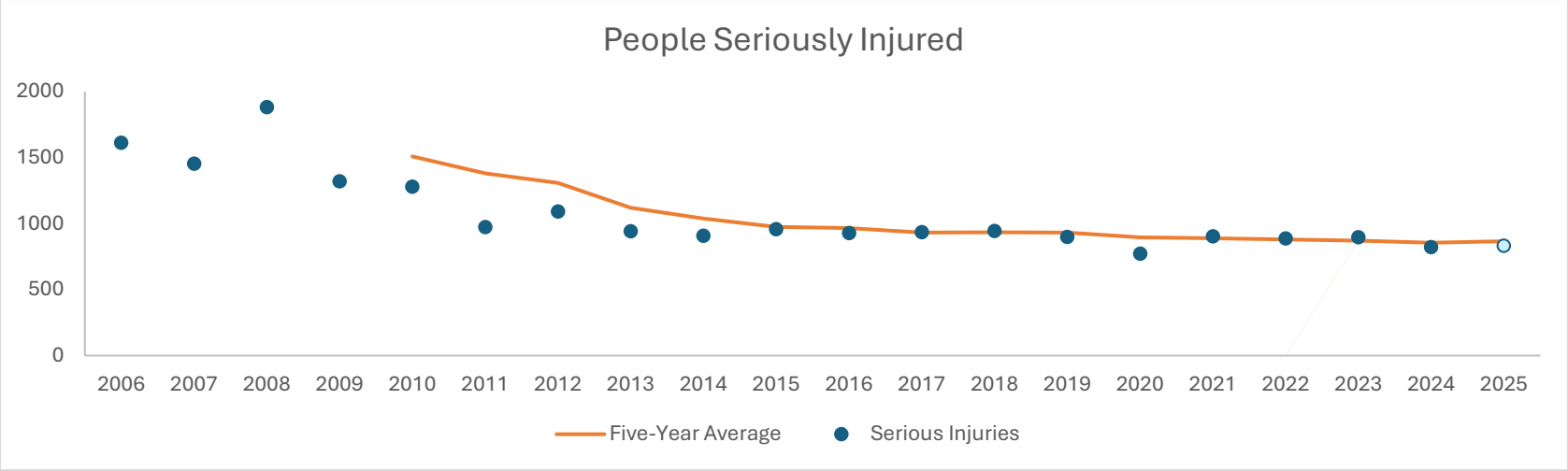
Year	Target	Actual
2022	0.88	1.172
2023	0.986	1.182
2024	1.05	1.225

The fatality rate is set by calculating the average number of fatalities per 100 million vehicle miles traveled. The RRTPO has set a target based on the fatality target and has missed the target over the past few years. Despite a post-COVID rebound in travel and corresponding increase in VMT, the rate has continued to trend higher as fatalities climbed. While the finalized 2025 VMT figures are not available, it is expected that the large drop in fatalities will contribute to a decrease in the fatality rate, even though the target is not likely to be met. As noted above, 2026 continues to trend in line with the much lower rate in 2025, with a lower number of fatalities through midyear compared to previous years.

Serious Injuries

Year	Target	Actual
2022	790	880.4
2023	886	870.8
2024	872	855.2
2025	843	866.8

The region has made significant progress on reducing serious injuries even as fatalities have climbed. Based on VDOT data, the past two years have been the lowest on record outside of 2020/COVID and the region continues to show momentum in this area into 2026. While preliminary data suggests that the target was missed in 2025, the adopted target was aggressive (843).



Serious Injury Rate

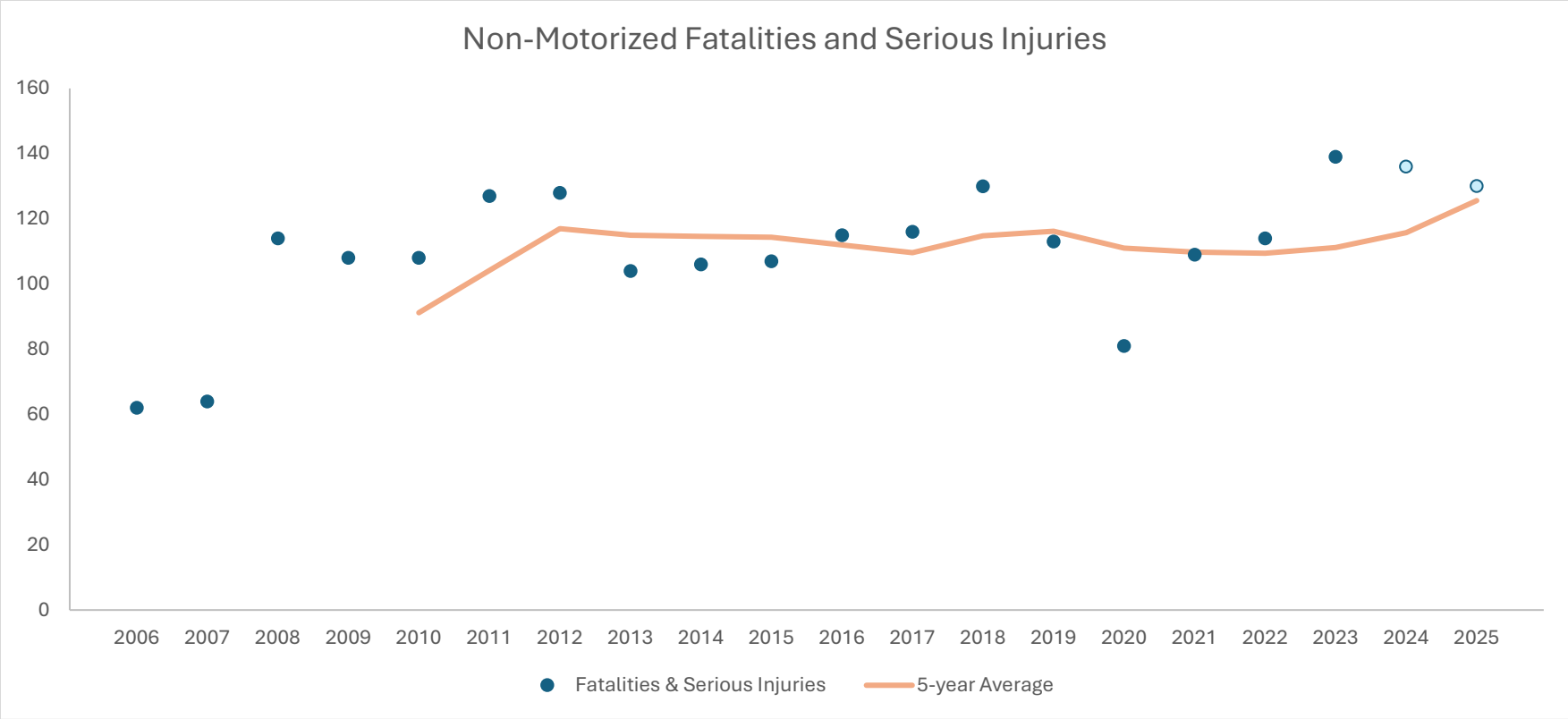
Year	Target	Actual
2022	7.654	8.894
2023	8.462	8.59
2024	8.543	8.178

The serious injury rate is set by calculating the average number of fatalities per 100 million vehicle miles traveled. As the number of serious injuries has continued to decline, the rate is also starting to show a drop. While the 2025 VMT is not finalized, the expectation is that the region will see relatively level performance year over year. As discussed above, 2026 continues the current trend and preliminary figures suggest sustained lower number of serious injuries.

Non-Motorized Fatalities and Serious Injuries

Year	Target	Actual
2022	107	109
2023	113	111
2024	110	116
2025	109	126

Safety for vulnerable road users is a major focus of current RRTPO planning and reflects a recent spike in pedestrian deaths in the region. The region saw little change for more than a decade, but recent years have seen a significant increase in pedestrian-related fatal and injury crashes, resulting in missed targets. The RRTPO is focusing heavily on improving these outcomes, including recent efforts to analyze sidewalk gaps around transit stops and a major emphasis on vulnerable road users in the 2026 safety action plan. In preliminary data years, pedestrian deaths have made up more than 1/3 of all roadway fatalities.



Pavement Condition

In adopting pavement condition targets, the RRTPO has followed the state target. VDOT is the largest owner and maintainer of highway assets in the region and the CTB has established targets statewide which reflect VDOT's plans for maintenance. Pavement condition targets include percentage of pavement in good and poor conditions on both the interstate and non-interstate portions of the National Highway System (NHS). All data on pavement conditions is provided by VDOT. These targets were adopted in March of 2023; new targets are scheduled to be adopted in the upcoming year.

Interstate Condition

Base Year Condition:

Year	Good	Poor
2021	57.3%	0.2%

Good Condition

Year	Target	Actual	
2022	45%	54.9%	✓
2023	45%	54.7%	✓
2024	45%	53.4%	✓
2025	45%	58.2%	✓

Poor Condition

Year	Target	Actual	
2022	5%	0.0%	✓
2023	5%	0.5%	✓
2024	5%	0.7%	✓
2025	5%	0.9%	✓

Overall, interstate conditions have continued to improve year over year with 2025 data showing strong continued improvement in the percentage of the interstates in good condition with minimal pavement in poor condition. While pavements in poor condition have increased slightly, they are still within planning targets. This increase is attributable, in part, to a shift away from “worst-first” programming to preventative maintenance.

Non-Interstate Condition

Base Year Condition:

Year	Good	Poor
2021	26.9%	1.0%

Good Condition

Year	Target	Actual	
2022	25%	26.1%	✓
2023	25%	24.8%	✗
2024	25%	22.4%	✗
2025	25%	21.0%	✗

Poor Condition

Year	Target	Actual	
2022	3%	0.8%	✓
2023	3%	0.6%	✓
2024	3%	0.7%	✓
2025	3%	0.8%	✓

Non-interstate pavement conditions continue to miss the target for good condition. In part, this is the result of a CTB policy shift that prioritized sustainability of the road system by focusing maintenance on preventative efforts. This policy shift is expected to slightly increase the pavements in poor conditions and reduce the percentage of pavements in good condition as efforts focus on maintaining fair condition and completing work before roads deteriorate too significantly which increases costs.

Bridge Condition

As with pavements, the RRTPO has followed the state targets for bridge condition. Bridge conditions are measured by the percentage of the deck area in good and poor condition for bridges in the National Bridge Inventory (NBI) on the National Highway System (NHS). New targets are scheduled to be adopted in the upcoming year. The data on bridge condition is provided by VDOT.

Base Year Condition:

Year	Good	Poor
2021	17.7%	4.1%

Good Condition

Year	Target	Actual
2022	25.1%	9.5%
2023	25.1%	7.0%
2024	25.1%	5.6%

Poor Condition

Year	Target	Actual
2022	3.6%	4.5%
2023	3.6%	4.1%
2024	3.6%	4.2%

Overall, bridge conditions follow a very similar story to pavement condition with many bridges in fair condition and few in good or poor condition under a preventative maintenance program. The Richmond Region has several major bridge projects underway, including the replacement of the Mayo Bridge, one of the largest in the region, which is expected to make a noticeable impact on both the poor and good condition ratings. Bridge condition data for 2025 is expected in October 2026.

Roadway Performance

The RRTPO has followed the Commonwealth in adopting reliability targets. The Federal performance measures track the person-miles traveled that are reliable on the interstate and non-interstate portions of the NHS. Travel time reliability is a comparison of the travel time in the worst conditions (80th percentile) compared to average conditions (50th percentile) on the roadways, with averaging based on the number of people using each corridor. This same data is used in developing the Congestion Management process. New targets are scheduled to be adopted in the upcoming year. Data on reliability is provided by VDOT.

Base Year Condition:

Year	Interstate	Non-Interstate
2021	96.9%	96.1%

Interstate

Year	Target	Actual
2022	85%	96.2%
2023	85%	94.9%
2024	85%	95.8%
2025	85%	94.7%

Non-Interstate

Year	Target	Actual
2022	88%	97.2%
2023	88%	96.7%
2024	88%	96.7%
2025	88%	95.1%

The Richmond region continues to experience high reliability on both the interstate and non-interstate systems. The region has seen very modest declines (1.5% - 2%) across the reporting period but still comfortably meets the adopted targets. As the region continues to grow, continued investment and monitoring are needed to ensure the high performance of regional roadways is maintained.

Freight Movement

Truck movement is critical for the shipment of goods across our region and nation. The freight performance measure is very similar to other reliability measures in comparing truck travel in the worst conditions relative to travel in normal conditions on interstates. The ratio is used as an index for reliability for truck travel. New targets are scheduled to be adopted in the upcoming year. The data for truck travel is provided by VDOT.

Base Year Condition:

Year	TTI
2021	1.34

Performance

Year	Target	Actual	
2022	1.64	1.39	✓
2023	1.64	1.39	✓
2024	1.64	1.52	✓
2025	1.64	1.48	✓

The Richmond region has met the adopted target every year of the performance period. Truck travel has become less reliable over the course of the 4-year period, but remains within the target. The region has experienced significant growth in population and major expansion of large industries over the past few years. Investments in highway capacity and interchange improvements underway or in development -- such as the I-64 widening or the Short Pump area improvements -- are expected to help alleviate some of these reliability issues which have led to these increases.

Transit Asset Management (TAM)

Asset management is planning for replacement of vehicles and assets based on their useful life and condition. Large transit operators, like GRTC, are responsible for developing agency targets for asset management. Smaller operators, like Bay Transit, generally adopt a state-developed Tier II target for asset management. Bay Transit is primarily located outside of the MPO region and does not provide detailed reporting to the RRTPO. The RRTPO has adopted the targets from the 2022 TAM plans; new targets are scheduled to be adopted in the upcoming year with the completion of updated TAM plans and targets this year.

Tier I (GRTC)

		Rolling Stock					
		Articulated Bus	Bus	Over the Road Bus	Cutaway	Minivan	Van
2022	Target	N/A	23.13%	50.00%	57.47%	N/A	N/A
	Actual	N/A	11.94%	**100.00%**	39.77%	N/A	N/A
2023	Target	N/A	20.00%	20.00%	35.00%	N/A	N/A
	Actual	N/A	10.74%	**100.00%**	**65.91%**	N/A	N/A
2024	Target	N/A	20.00%	100.00%	68.00%	N/A	N/A
	Actual	N/A	13.77%	100.00%	**69.31%**	N/A	N/A
2025	Target	N/A	14.00%	100.00%	54.00%	N/A	N/A
	Actual	N/A	9.93%	100.00%	**60.75%**	N/A	N/A

In terms of rolling stock, GRTC has continued to maintain a state of good repair for the bus fleet with less than 10% of buses beyond useful life. The over-the-road bus fleet is fully beyond useful life, in part due to the shift away from express routes in the post-COVID era. Similarly, cutaway buses have aged and are being replaced, but 6 in 10 cutaways are beyond expected useful life.

		Equipment		Facilities	
		Automobiles	Trucks & Other Rubber Tired Vehicles	Administrative & Maintenance Facilities	Passenger & Parking Facilities
2022	Target	100.00%	42.86%	0.00%	0.00%
	Actual	100.00%	**70.37%**	0.00%	**3.70%**
2023	Target	100.00%	72.00%	33.00%	10.00%
	Actual	100.00%	**81.48%**	0.00%	3.70%
2024	Target	100.00%	71.00%	0.00%	3.60%
	Actual	92.16%	68.35%	**3.70%**	0.00%
2025	Target	100.00%	62.00%	0.00%	3.60%
	Actual	96.43%	**62.38%**	0.00%	**25.00%**

In terms of support vehicles, GRTC continues to see nearly all automobiles maintained beyond useful life with moderate progress in replacing trucks and other support vehicles over the past 4 years. GRTC has been able to maintain all administrative and maintenance facilities in a state of good repair. The previous year saw a spike in passenger and parking facilities in a poor state of repair. GRTC is undertaking a major initiative to repave the employee and bus parking facilities at the agency headquarters and to replace the downtown transfer facility, which will improve these outcomes.

Transit Safety

Transit agencies are also required to adopt performance targets around safety. GRTC provides regular transit safety target updates to the RRTPO which incorporates the targets directly into MPO planning. Like roadway safety, transit safety is adjusted by GRTC annually and measured using multiyear rolling averages. RRTPO expects to adopt new regional targets in the upcoming year. GRTC reports on collisions and injuries on a monthly basis on their performance dashboard.