

A summary of the federal requirements for the MPO Planning Process, the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) are listed in the table below along with the associated approach and more information on how the requirement is addressed within the Roanoke Valley Transportation Plan (RVTP).

Federal Metropolitan Planning Requirements	RVTP
23 CFR 450.300 Metropolitan Planning Requirements – Purpose (overall MPO planning process)	
<p>The MPO must carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a MTP and TIP, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution.</p>	<p>The Public Participation Plan and Public Engagement Summary attachments to the RVTP describe the process RVTPO followed to ensure a continuing, cooperative, and comprehensive process. RVTPO coordinated regularly with the Transportation Technical Committee (TTC) and the Transportation Planning Organization (TPO) Policy Board on technical and policy topics, including establishing the plan vision, goals, and objectives, reviewing needs, and determining project priorities.</p>
23 CFR 450.306 Scope of the Planning Process (overall MPO planning process)	
<p>MPOs, in cooperation with the State and public transportation operators, must develop LRTPs and TIPs through a performance-driven, outcome-based approach to planning for the metropolitan area.</p>	<p>The RVTP was developed through the application of a performance-based planning and programming process developed in parallel to the planning process through a study led by RVTPO in coordination with a Growth and Accessibility Planning (GAP) technical assistance grant provided by the Office of Intermodal Planning and Investment. More information on the performance-based planning process is available on the Draft RVTP webpage.</p>

Federal Metropolitan Planning Requirements	RVTP
<p>Planning Factors: The MPO planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors:</p> <ol style="list-style-type: none"> (1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency; (2) Increase the safety of the transportation system for motorized and non-motorized users; (3) Increase the security of the transportation system for motorized and non-motorized users; (4) Increase accessibility and mobility of people and freight; (5) 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; (6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; (7) Promote efficient system management and operation; (8) Emphasize the preservation of the existing transportation system; (9) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and (10) Enhance travel and tourism. 	<p>Development of the RVTP goals and objectives explicitly considered USDOT goals and current planning factors. The RVTP goals include:</p> <ul style="list-style-type: none"> • Provide a safe and secure transportation system • Enable reliable mobility • Ensure convenient and affordable access to destinations • Foster environmental sustainability • Maintain and operate an efficient and resilient transportation system • Support economic vitality • Promote equitable transportation investments <p>These seven goals are supported by 17 objectives that identify tangible outcomes that RVTPO intends to track via performance measures throughout ongoing RVTP implementation and future updates.</p> <p>More information on the process to develop the vision, goals, objectives, and performance measures is available in the Goals, Objectives, and Performance Measures attachment to the RVTP.</p>
<p>Consideration of the planning factors shall be reflected, as appropriate, in the metropolitan transportation planning process. The degree of consideration and analysis of the factors should be based on the scale and complexity of many issues, including transportation system development, land use, employment, economic development, human and natural environment (including Section 4(f) properties as defined in 23 CFR 774.17), and housing and community development.</p>	<p>The planning factors were considered in the development of the RVTP goals and objectives, and also included in the needs assessment and the needs prioritization methodology. More information on both steps of the process is available in the RVTP Transportation Needs Assessment attachment and the Needs Prioritization Methodology attachment.</p>

Federal Metropolitan Planning Requirements	RVTP
<p>Performance-based approach: The MPO planning process must provide for the establishment and use of a performance-based approach to transportation decision making to support the national goals (highway) and the general purposes (public transportation). The MPO must establish performance targets, in coordination with the State and public transportation providers, for the federal performance measures to use in tracking progress toward attainment of critical outcomes for the MPO region.</p>	<p>RVTP developed performance measures associated with the RVTP goals and objectives and references these measures, including the required FHWA and FTA performance measures and targets within the RVTP System Performance Report attachment.</p>
<p>An MPO must integrate in the MPO planning process, directly or by reference, the goals, objectives, performance measures, and targets described in other State transportation plans and transportation processes, as well as any plans developed under 49 U.S.C. chapter 53 by providers of public transportation, required as part of a performance-based program including:</p> <ul style="list-style-type: none"> • The State asset management plan for the NHS and the Transit Asset Management Plan; • Applicable portions of the HSIP, including the SHSP; • The Public Transportation Agency Safety Plan; • Other safety and security planning and review processes, plans, and programs, as appropriate; • The CMAQ performance plan, as applicable; • Appropriate (metropolitan) portions of the State Freight Plan; • The congestion management process, if applicable; and • Other State transportation plans and transportation processes required as part of a performance-based program. 	<p>The development of RVTP goals and objectives referenced ongoing statewide planning efforts conducted in 2021 and 2022, including VTrans, VDOTs Transportation Asset Management Plan, the Strategic Highway Safety Plan, transit providers Transit Asset Management Plans and Public Transportation Agency Safety Plans, and the Roanoke Valley's most recent Congestion Management Process update. More references to these plans are included in Section 2 of the RVTP and the System Performance Report attachment.</p>
<p>An MPO must carry out the metropolitan transportation planning process in coordination with the statewide transportation planning process.</p>	<p>Multiple steps of the RVTP development process referenced VTrans, including specifically the RVTP needs assessment and development of RVTP goals and objectives.</p>
<p>The MPO planning process shall (to the maximum extent practicable) be consistent with the development of applicable regional intelligent transportation systems (ITS) architectures, as defined in 23 CFR part 940</p>	<p>The RVTP development process and the regional Congestion Management Process considers existing ITS networks within the needs assessment and the identification of solutions.</p>
<p>Preparation of the coordinated public transit-human services transportation plan, as required by 49 U.S.C. 5310, should be coordinated and consistent with the MPO planning process.</p>	<p>The RVTP development process includes coordination with regional transit providers through the Transportation Technical Committee and incorporates information from recent transit planning activities.</p>

Federal Metropolitan Planning Requirements	RVTP
23 CFR 450.324 Development and content of the metropolitan transportation plan (MTP)	
The LRTP must have no less than a 20-year planning horizon as of the effective date (in nonattainment and maintenance areas, the effective date of the LRTP is the date of a conformity determination issued by the FHWA and the FTA).	The RVTP has a planning horizon of 2045, representing a 22-year horizon consistent with anticipated plan adoption in 2023.
In formulating the LRTP, the MPO must consider the 10 planning factors described in §450.306.	The ten planning factors are incorporated within RVTP goals, objectives, performance measures, and the needs assessment.
The LRTP must include long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.	The RVTP includes funded projects for implementation within the next four years within the Transportation Improvement Program and unfunded, fiscally constrained projects within the next seven years (2028 – 2034) and the next ten years (2035 – 2045). These projects address identified multimodal needs consistent with the RVTP goals and objectives.
The MPO must review and update the LRTP at least every 4 years in nonattainment and maintenance areas and at least every 5 years in attainment areas.	The prior RVTP was last adopted in 2018.
The MPO must approve the LRTP and submit it for information purposes to the Governor. Copies of any updated or revised transportation plans must be provided to the FHWA and the FTA.	RVTPO intends to adopt the RVTP and provide final versions of the plan to the Governor's office and FHWA and FTA as requested.
In nonattainment areas for ozone or carbon monoxide, the MPO must coordinate the development of the LRTP with the process for developing transportation control measures (TCMs) in a State Implementation Plan (SIP).	Requirement not applicable to RVTPO.
The MPO, the State, and the public transportation operator(s) must validate data used in preparing other existing modal plans for providing input to the LRTP. The LRTP must be based on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO must approve LRTP contents and supporting analyses.	The RVTP was developed consistent with recent modal plans developed in the RVTPO region and the most recent cooperative population and employment forecasts developed by each locality in coordination with RVTPO staff. The RVTP also considered information available through use of the Roanoke Valley regional travel demand model, recently updated by VDOT and RVTPO for use in regional and corridor studies and analysis.
Must include the current and projected transportation demand of persons and goods in the planning area over the period of the LRTP.	The RVTP integrated data from the Roanoke Valley regional travel demand model within the review of future factors, the needs assessment and needs prioritization methodology.

Federal Metropolitan Planning Requirements	RVTP
<p>Must include existing and proposed transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multimodal and intermodal facilities, nonmotorized transportation facilities (e.g., pedestrian walkways and bicycle facilities), and intermodal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the LRTP.</p>	<p>The RVTP includes references to needs, solutions, and funded and unfunded projects and the full scope of the Roanoke Valley multimodal transportation system, including intermodal connectors and facilities, such as access to Roanoke-Blacksburg Regional Airport, the Roanoke Amtrak station and intercity bus stops.</p>
<p>Must include a description of the federal performance measures and performance targets used in assessing the performance of the transportation system.</p>	<p>Federal performance measures and targets are referenced within the RVTP in the discussion of RVTP goals and objectives.</p>
<p>Must include a system performance report evaluating the condition and performance of the transportation system with respect to the federal performance targets, including:</p> <ul style="list-style-type: none"> • Progress achieved by the MPO in meeting the performance targets; and • For MPOs that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the performance targets. 	<p>The System Performance Report attachment includes all required information consistent with metropolitan planning requirements.</p>
<p>Must include operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods.</p>	<p>The RVTP identifies specific roadway and transit operational needs and identifies solutions and projects to meet these specific needs.</p>
<p>Must include consideration of the results of the congestion management process in TMAs, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide.</p>	<p>The RVTP references the purpose and outcomes of the Congestion Management Process and how performance measures identifying regional reliability and congestion performance informed the development and prioritization of needs.</p>

Federal Metropolitan Planning Requirements	RVTP
<p>Must include an assessment of capital investment and other strategies to preserve the existing and projected future transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters.</p> <p>The LRTP <u>may</u> consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the transportation system.</p>	<p>Each funded and unfunded project within the RVTP is reviewed relative to the RVTP goals and objectives they are anticipated to support, and their ability to address identified priority gap needs. More information is availability in the Funded Projects and the Priority Projects to Pursue attachments. Note, this review considers alignment with each goal and objective, which considers vulnerability and transportation system efficiency.</p>
<p>Must include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems, including systems that are privately owned and operated, and including transportation alternatives, as defined in 23 U.S.C. 101(a), and associated transit improvements, as described in 49 U.S.C. 5302(a), as appropriate.</p>	<p>The RVTP includes funded and unfunded projects and potential and preferred solutions addressing transit and intercity passenger travel needs, including intercity buses and intercity passenger rail.</p>
<p>Must include design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment and maintenance areas for conformity determinations.</p> <p>In all areas (regardless of air quality designation), all proposed improvements must be described in sufficient detail to develop cost estimates</p>	<p>Funded and unfunded projects within the fiscally constrained RVTP include project scopes and cost estimates consistent with VDOT cost estimating procedures for project eligibility through SMART SCALE and other programs. Note, where project cost assumptions are pending, such as right-of-way acquisition, these details are acknowledged in project descriptions.</p>
<p>Must include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan.</p> <p>The discussion <u>may</u> focus on policies, programs, or strategies, rather than at the project level.</p> <p>The MPO must develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies.</p> <p>The MPO <u>may</u> establish reasonable timeframes for performing this consultation.</p>	<p>The RVTP highlights specific funded and unfunded projects that create potential environmental benefits (through reduced fuel consumption and emissions) as well as mitigate the impact on impervious surfaces within the region and prepare the region to be resilient to severe weather events.</p>

Federal Metropolitan Planning Requirements	RVTP
<p>Must include a financial plan that demonstrates how the adopted transportation plan can be implemented. For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain the Federal-aid highways and public transportation.</p>	<p>The RVTP Financial Plan attachment documents all financial assumptions and details impacting development of the TIP and fiscally constrained Metropolitan Transportation Plan unfunded projects through 2045.</p> <p>This documentation includes revenue forecasting assumptions by existing revenue sources and information on anticipated sources through I-81 corridor revenues. All cost estimates reflect year of expenditure dollars.</p>
<p>The MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support LRTP implementation. All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.</p>	
<p>The financial plan must include recommendations on any additional financing strategies to fund projects and programs included in the LRTP. In the case of new funding sources, strategies for ensuring their availability shall be identified. The financial plan <u>may</u> include an assessment of the appropriateness of innovative finance techniques (for example, tolling, pricing, bonding, public private partnerships, or other strategies) as revenue sources for projects in the plan.</p>	
<p>In developing the financial plan, the MPO must take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Revenue and cost estimates that support the LRTP must use an inflation rate(s) to reflect “year of expenditure dollars,” based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).</p>	
<p>For the outer years of the LRTP (i.e., beyond the first 10 years), the financial plan <u>may</u> reflect aggregate cost ranges/cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.</p>	
<p>For nonattainment and maintenance areas, the financial plan must address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.</p> <p>For illustrative purposes, the financial plan <u>may</u> include additional projects that would be included in the adopted LRTP if additional resources were to become available</p>	

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<p>The LRTP must include Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217.</p>	<p>The RVTP needs assessment and priority funded and unfunded projects to pursue identify pedestrian and bicycle needs and projects throughout the region, connecting to the region's existing and proposed future system of greenways.</p>
<p>The MPO must 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 LRTP. The consultation shall involve, as appropriate:</p> <ol style="list-style-type: none"> (1) Comparison of transportation plans with State conservation plans or maps, if available; or (2) Comparison of transportation plans to inventories of natural or historic resources, if available. 	<p>The RVTP incorporated the priorities identified in recent locality and regional comprehensive development plans, including the Livable Roanoke Valley Plan, with references to land management and natural and historic resource preservation goals and strategies.</p>
<p>The LRTP should integrate the priorities, goals, countermeasures, strategies, or projects for the planning area contained in the HSIP, including the SHSP, the Public Transportation Agency Safety Plan (PTASP) or an Interim Agency Safety Plan in effect until completion of the PTASP. The LRTP <u>may</u> incorporate or reference applicable emergency relief and disaster preparedness plans and strategies and policies that support homeland security, to safeguard the personal security of all motorized and non-motorized users.</p>	<p>The RVTP references the recent Roanoke Valley regional safety study within the needs assessment and Virginia's new Strategic Highway Safety Plan developed in 2022 to inform regional goals and objectives.</p>
<p>An MPO <u>may</u> voluntarily elect to develop multiple scenarios for consideration as part of the development of the LRTP. If it does this, the MPO is <u>encouraged to consider</u>:</p> <ul style="list-style-type: none"> • Potential regional investment strategies for the planning horizon; • Assumed distribution of population and employment; • A scenario that maintains baseline conditions for the federal performance areas; • A scenario that improves the baseline conditions for as many of the federal performance measures as possible; • Revenue constrained scenarios based on the total revenues expected to be available over the forecast period; and • Estimated costs and potential revenues available to support each scenario. 	<p>This RVTP did not develop scenarios, however, it did review five comprehensive future factors (see Future Factors attachment) including technology, social, economic, environmental, and funding that may impact the region and future transportation system performance and investment over the coming decades. The future factors are incorporated into both needs and project prioritization steps within the RVTP performance-based planning and programming process.</p>

Federal Metropolitan Planning Requirements	RVTP
<p>The MPO must provide the following with a reasonable opportunity to <u>comment on the transportation plan</u> using the participation plan developed under §450.316(a):</p> <p>Individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cash out program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties.</p>	<p>The RVTP was developed consistent with RVTPO’s Public Participation Plan and enable multiple cycles of public and stakeholder input as documented in the Public Engagement Summary attachment.</p>
<p>The MPO must publish or otherwise make readily available the LRTP for public review, including in electronically accessible formats and means.</p>	<p>RVTP materials are available through a variety of formats including documents posted via the RVTPO website, interactive information and maps also available on the website, online surveys to enable submitting comments, and hard copies of plan documents available upon request.</p>
<p>In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on the LRTP.</p>	<p>Requirement not applicable to RVTPO.</p>