

Example Practices for Performance-Driven Programming

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13. ABSTRACT (Maximum 200 words) This report highlights how State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) are implementing performance-driven programming processes and aligning transportation investment decisions with the Federal performance areas for safety, infrastructure condition, and system performance. The Federal Highway Administration (FHWA) is sharing these examples to help advance the state of the practice for performance-driven programming. The research included review of planning documents from four State DOTs and five MPOs, and agency discussions, to examine how agencies are using performance-driven programming processes to guide resource allocation to achieve goals, objectives, and performance targets. The findings do not constitute an inventory; instead, this report aims to characterize the approaches and investment strategies agencies are applying in their planning and programming processes to make progress toward performance target achievement.				
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Acronyms

Acronym	Term
SYTP	Five-Year Transportation Plan
AADT	Annual Average Daily Traffic
CAC	Citizens' Advisory Committee
CFP	Call for Projects
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CSLIPI	Complete Streets and Localized Initiatives Program
CSMP	Complete Streets Master Plan
DBA	Distress Box Area
DOT	Department of Transportation
EJ	Environmental Justice
ETC	Engineering and Technical Committee
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FY	Fiscal Year
GACIT	Governor's Advisory Commission on Intermodal Transportation
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HIP	Highway Infrastructure Program
HOV	High Occupancy Vehicle
HSIP	Highway Safety Improvement Program
INDOT	Indiana Department of Transportation
IRI	International Roughness Index
ITS	Intelligent Transportation System
LCC	Latent Class Cluster
LCF	Latent Class Factor
LEP	Limited English Proficiency
LOS	Level of Service
LRSTP	Long-Range Statewide Transportation Plan
LRTP	Long-Range Transportation Plan
MDOT	Michigan Department of Transportation
MM 2045	Michigan Mobility 2045
MMPL	Multimodal Priorities List
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission
MTP	Metropolitan Transportation Plan
NHDOT	New Hampshire Department of Transportation
NHPP	National Highway Performance Program
NHS	National Highway System
NOFA	Notice of Funding Availability
PAG	Pima Association of Governments
PBPP	Performance-Based Planning and Programming ¹

¹ See 23 CFR Part 450

Acronym	Term
PPFNH	Partnering for Performance New Hampshire
PMG	Program Management Group
PPP	Public Participation Plan
RITIS	Regional Integrated Transportation Information System
RMAP	Regional Mobility and Accessibility Plan
RPC	Rockingham Planning Commission
RPO	Regional Planning Organization
RTP	Regional Transportation Plan
RTPO	Regional Transportation Planning Organization
SHSP	Strategic Highway Safety Plan
SLRTP	State Long-Range Transportation Plan (in Michigan)
STBG	Surface Transportation Block Grant Program
STBG-S	Surface Transportation Block Grant Program—State
STC	State Transportation Commission
STIP	Statewide Transportation Improvement Program
STPD	Statewide Transportation Planning Division
TA	Transportation Alternatives Program
TA-S	Transportation Alternatives Program—State
TAC	Technical Advisory Committee
TAMP	Transportation Asset Management Plan ²
TDM	Travel Demand Management
TIF	Tax Increment Financing
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TPM	Transportation Performance Management ³
TSMO	Transportation Systems Management and Operations
U.S.C.	United States Code
WSDOT	Washington State Department of Transportation
WSTC	Washington State Transportation Commission
WTP	Washington Transportation Plan

² See 23 CFR Part 515

³ See 23 CFR Part 490

Executive Summary

Project Purpose and Approach

Performance-driven programming involves the use of performance measures, metrics, targets, and/or data to help inform or guide the development of a Statewide Transportation Improvement Program (STIP) or Transportation Improvement Program (TIP). This report highlights how State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) are implementing performance-driven programming processes and aligning transportation investment decisions with the Federal performance areas for safety, infrastructure condition, and system performance.⁴ The research findings do not constitute an inventory of performance-driven programming approaches across the country; instead, this research aims to characterize example approaches and investment strategies that a sample of State DOTs and MPOs are applying in their planning and programming processes to improve transportation system performance.

The Federal Highway Administration (FHWA) and Volpe National Transportation Systems Center researched examples of State DOT and MPO implementation of performance-driven programming to help document and advance the state of the practice. The collection of examples was drawn from performance-based planning and programming workshop discussions, previous case studies, and other coordination and selected as those that might be useful for other agencies as they work to implement performance-driven programming. This research involved a comprehensive desk review of STIPs from the State DOTs in Indiana, Michigan, New Hampshire, and Washington, and TIPs from the Broward MPO in Florida, Memphis Urban Area MPO in Tennessee and Mississippi, Metropolitan Transportation Commission in California, Pima Association of Governments in Arizona, and Rockingham Planning Commission in New Hampshire. The research team also facilitated discussions with each agency to fill knowledge gaps related to their programming process. The synthesis of these efforts informed the development of this report.

Summary of Performance-Driven Programming Processes

The overall performance-driven programming process generally involves (1) identifying candidate projects for inclusion in the STIP or TIP, (2) evaluating and prioritizing those investment strategies using specific criteria, and (3) aligning programming decisions with performance target achievement. State DOTs and MPOs have distinct roles in performance-driven programming due to the differences in their geographic responsibilities, planning processes, and authority to sponsor projects and allocate funding. The planning approaches that State DOTs and MPOs use are influenced by state-level planning requirements or strategic goals, legislative action, and the availability and eligibility of state/Federal funding programs. The research team observed the following themes in the State DOT and MPO programming processes:

Project Identification Process

- Many State DOTs and MPOs issue a call for projects or other solicitations to develop a list of candidate projects for inclusion in the STIP or TIP. Candidate projects often originate from:
 - Other transportation planning efforts such as Long-Range Statewide Transportation Plans (LRSTPs) and Metropolitan Transportation Plan (MTPs),

⁴ See 23 U.S.C. 150 and 23 CFR Part 490

- Other short-range transportation initiatives that are required by the state (e.g., five- or ten-year transportation plans), or
 - Other performance-based plans and programs (e.g., Strategic Highway Safety Plans, Transportation Asset Management Plans, asset management systems, local/regional transportation priorities etc.).
- Many State DOTs and MPOs provide project sponsors with a variety of tools and resources to help streamline and standardize the project identification process and help ensure that candidate projects support agency and/or statewide goals and priorities. These resources often include informational or guidance materials, project solicitation forms and applications, web-based project portals, and opportunities for preliminary project reviews and feedback.

Project Evaluation Process

- State DOTs and MPOs use a variety of performance-based project evaluation criteria and scoring systems to evaluate projects for inclusion in the STIP and TIP. Many State DOTs and MPOs rely on performance data, metrics, measures, and targets and a system of points and weightings to help decisionmakers review and evaluate candidate projects. Many agencies also consider project readiness, cost effectiveness, community support, and estimated performance impacts, among other considerations.
- Many State DOTs and MPOs continuously coordinate with each other on the development and refinement of their project evaluation criteria and scoring systems.

Project Prioritization Process

- Many State DOTs and MPOs develop prioritization processes for specific policy goals or funding programs that consider projects across modes, assets, and/or performance areas. These approaches can help agencies evaluate the trade-offs of multiple, potentially competing objectives.
- Many State DOTs and MPOs engage in extensive coordination with internal and external stakeholders to prioritize projects for inclusion in the STIP or TIP, including internal boards, technical advisory committees, interagency working groups, transit agencies, regional/district offices, local governments, and the general public.

Aligning Programming with Performance Target Achievement

- State DOTs and MPOs are using their STIPs and TIPs to document how their investment decisions align with the Federal performance areas for safety (i.e., highway safety), infrastructure condition (i.e., pavement condition, bridge condition), and system performance (i.e., travel time reliability, freight reliability, traffic congestion, on-road mobile source emissions).⁵
- Many State DOTs and MPOs develop methodologies, tools, and processes to help identify the projects and total funding amounts programmed in their STIPs and TIPs that support the Federal performance areas. Some agencies solicit performance information from project sponsors during the project identification process, while other agencies analyze potential performance impacts as the final STIP and TIP documents are developed.

⁵ See 23 U.S.C. 150 and 23 CFR Part 490

Overall, the research findings indicate a range of viable approaches in how State DOTs and MPOs are aligning transportation investment decisions with the Federal performance areas. The example practices sampled in this research highlight the importance of establishing strong communication channels when coordinating with Federal, State, regional, local agencies, and members of the public throughout the planning and programming process. The example practices demonstrate how State DOTs and MPOs commonly coordinate with stakeholders throughout their processes to provide opportunities for meaningful public involvement. The findings also emphasize the value of collaborating with peers and adapting existing tools and practices to refine agency-specific programming processes and further advance the state of the practice as a whole.

Introduction

Project Purpose

The purpose of this report is to share how State DOTs and MPOs are implementing performance-driven programming processes and aligning transportation investments with the Federal performance areas for safety, infrastructure condition, and system performance. FHWA is highlighting these examples to help advance the state of the practice for performance-driven programming. The research performed for this project does not constitute an inventory; instead, it aims to characterize the approaches and investment strategies State DOTs and MPOs are applying in their planning and programming processes to make progress toward performance target achievement. The practices noted in this report provide examples that State DOTs and MPOs have implemented that other agencies could adapt, as applicable.

Key Concepts for this Research Report

- **Programming** is the development and documentation of a STIP or TIP to prioritize and select investment strategies for Federal approval, Federal funding authorization, and project implementation.
- **Performance-driven programming** involves the use of performance measures, metrics, targets, and/or data to help inform or guide the development of a STIP or TIP.
- An **investment strategy** is a capital or non-capital transportation improvement or a planning activity that a State DOT or MPO includes in their STIP or TIP.
- The **project identification process** is how a State DOT or MPO identifies potential projects or investment strategies for inclusion in its STIP or TIP.
- A **project sponsor** is the agency that provides funding for a project and administers any construction or construction engineering/inspection activities for the project.
- **Project evaluation criteria** refers to a set of standards used to assess and score proposed transportation investments. State DOTs and MPOs use performance-based evaluation criteria and scoring systems (e.g., performance data, metrics, measures, and targets, points and weightings) to evaluate transportation projects for inclusion in their STIPs and TIPs.
- A **project prioritization process** is how a State DOT or MPO evaluates and ranks potential projects or investment strategies for inclusion in their STIP or TIP considering specific evaluation criteria, weightings, and scoring systems.
- A **project selection process** is how a State DOT or MPO decides which projects or investment strategies to include in their STIP or TIP considering the results of the project prioritization process and funding availability in a given fiscal year.

Project Approach

The development of this report relied on an in-depth review of existing performance-based plans and programs to identify example practices from State DOTs and MPOs. The research team reviewed STIPs from four State DOTs and TIPs from five MPOs, focusing on those that were published between 2018 and 2021 (Table 1; Figure 1). The document review concentrated on project identification, evaluation, and prioritization strategies for the STIP and TIP as well as examining how State DOTs and MPOs are using performance-based planning and programming (PBPP) strategies and priorities to guide the allocation of resources to achieve goals, objectives, and performance targets. The project team proceeded by facilitating discussions with each agency to fill knowledge gaps related to their performance-driven programming processes. The synthesis of these discussions and related findings informed the development of this report.

This report does not establish a standard, regulation, or agency guidance, and the inclusion of an example practice does not constitute a regulatory compliance determination. Except for the statutes and regulations cited, the contents of this report do not have the force and effect of law and are not meant to bind the public in any way. This report is intended only to provide information regarding existing requirements under the law or agency policies.

Table 1. Summary Table of State DOTs and MPOs Featured in the Report

#	Agency
1	New Hampshire Department of Transportation
2	Michigan Department of Transportation
3	Indiana Department of Transportation
4	Washington State Department of Transportation
5	Broward Metropolitan Planning Organization (Florida)
6	Memphis Urban Area Metropolitan Planning Organization (Tennessee and Mississippi)
7	Metropolitan Transportation Commission (California)
8	Pima Association of Governments (Arizona)
9	Rockingham Planning Commission (New Hampshire)

Document Organization

The intended audience for this report includes planning and programming staff from FHWA Division Offices, State DOTs, MPOs, and other relevant planning agencies. This report provides information to help these agencies and individuals support national performance goals, achieve desired performance outcomes, and implement PBPP and Transportation Performance Management (TPM). The report documents examples of State DOT and MPO programming processes for project identification, evaluation, and prioritization. Short agency writeups and descriptions are presented in text boxes throughout the report, and longer, more detailed narratives are available in the Appendices. State DOTs and MPOs may use these examples to inform the development of their own PBPP processes and to advance the state of the practice in the areas of performance-driven programming and investment decision-making. FHWA Division Offices may use the examples to support their recurring planning oversight and stewardship activities with their State DOTs and MPOs.

Figure 1. Map Showing the State DOTs and MPOs Featured in the Report



Source: John A. Volpe National Transportation Systems Center

Example Practices in Performance-Driven Programming

The overall performance-driven programming process involves identifying projects for inclusion in the STIP or TIP, evaluating investment strategies to program in the STIP or TIP using specific criteria and scoring systems, prioritizing investments based on their ability to meet desired outcomes, and aligning programming decisions with performance target achievement. The following sections describe some of the approaches and investment strategies that State DOTs and MPOs are applying to their planning and programming processes to support the Federal performance areas.

Overall Considerations

State DOTs and MPOs Have Distinct Roles

State DOTs and MPOs have distinct roles in performance-driven programming due to the differences in their geographic responsibilities, planning processes, and authority to sponsor projects and allocate funding. State DOTs are infrastructure owners and operators and direct recipients of Federal funding for capital and non-capital transportation improvements and planning and research activities. State DOTs develop LRSTPs and STIPs in coordination with stakeholders throughout their state, including MPOs, regional agencies, transit agencies, and the general public. LRSTPs cover at least a 20-year planning horizon, but not all plans include a fiscally constrained list of projects to implement as some LRSTPs are more policy focused. During STIP development, State DOTs typically sponsor projects for State-owned transportation assets and allocate funding for projects sponsored by other transportation agencies on assets not owned by the state. Depending on which entity is designated with the ultimate decision-making authority in the state, the final STIP programming decisions regarding project selections and funding allocations are often made by the State DOT, state legislature, state transportation commission, or Governor.

MPOs are responsible for coordinating and carrying out the transportation planning process in metropolitan regions. MPOs are subrecipients of Federal funding for transportation planning activities, but they typically do not own transportation assets (e.g., roads, bridges, traffic signals, transit vehicles) or sponsor projects involving construction, maintenance, or operations. MPOs develop MTPs and TIPs in coordination with stakeholders within their metropolitan planning area boundaries, collecting input from local governments, transit agencies, State DOTs, and the general public. MTPs cover at least a 20-year planning horizon and include a fiscally constrained list of projects to implement. During TIP development, MPOs generally serve as facilitators relaying information to the State DOT, local governments, transit agencies, and other planning stakeholders to help identify, evaluate, and prioritize projects based on their ability to achieve performance goals and targets, among other considerations. For the MPO TIPs, the final programming decisions regarding project prioritization, project selections, funding allocations, and timing are typically made by the agency or entity with the designated authority, such as the State DOT, state legislature, Governor, transit agency, or MPO Policy Board.

State-Level Requirements and Funding Factor Into Planning and Decision-Making Processes

State DOT and MPO programming processes are significantly influenced by state-level planning requirements or strategic goals, legislative action, and the availability and eligibility of state/Federal funding programs. State DOTs often serve as facilitators by providing information to MPOs, local governments, transit agencies, advisory committees, and decisionmakers and/or developing planning documents required by the state (e.g., five- or ten-year transportation plans). State DOTs often lead

implementation efforts by integrating these considerations into their statewide transportation planning processes, documents, and decisions. Likewise, MPOs often support their State DOTs by incorporating these considerations into their own metropolitan transportation planning processes, documents, and decisions.

Metropolitan Transportation Commission

In the San Francisco Bay region, the Metropolitan Transportation Commission's (MTC) programming process provides an example of how State planning requirements can impact regional investment decision-making. Senate Bill 375, which established a statewide greenhouse gas (GHG) emissions reduction target, directs MTC and other planning agencies throughout California to prioritize projects that will help to reduce GHG emissions. MTC integrated its goal for a reduction of GHG emissions into its MTP and made it a key factor in the development of the TIP to help the region contribute to the statewide target. Appendix **G** includes more information on MTC.

Indiana DOT

In Indiana, the State fuel tax places requirements on long-term planning goals and provides the Indiana Department of Transportation (INDOT) with additional funding to meet investment needs. The recent increase in the State fuel tax has generated significantly more revenue and enabled INDOT to improve the agency's ability to maintain and rehabilitate hard assets, such as pavements and bridges. Appendix **A** includes more information on INDOT.

Michigan DOT

The Michigan Department of Transportation (MDOT) is required to develop a Five-Year Transportation Plan (5YTP) at the direction of the state legislature. The 5YTP outlines planned investment strategies for all transportation modes, capturing MDOT's transportation priorities for highway programs sorted by MDOT region. The 5YTP includes available funding opportunities and an established timeline for project delivery. The STIP is drawn from the 5YTP as projects that are selected for the STIP reflect the needs identified in the 5YTP and LRSTP. Appendix **B** includes more information on MDOT.

Washington State DOT

The Washington State DOT (WSDOT) develops a LRSTP, known as the Washington Transportation Plan (WTP), in two phases: a policy plan first (WTP Phase 1) and an implementation plan second (WTP Phase 2). WTP Phase 1 is developed by the Washington State Transportation Commission (WSTC), which establishes the vision for the future of transportation in Washington State and provides policy recommendations to the state legislature. The WSTC is a seven-member group of citizens appointed by the Governor, and the WSDOT Secretary and a representative from the Governor's Office serve as ex-officio members. WTP Phase 2 is developed by WSDOT and provides the blueprint for implementing the vision established in WTP Phase 1. Appendix **D** includes more information on WSDOT.

Project Identification Process

The project identification process is how a State DOT or MPO identifies potential projects for inclusion in its STIP or TIP. Candidate projects often originate from other long-range planning efforts such as LRSTPs and MTPs, other short-range transportation initiatives that are required by the state (e.g., five- or ten-year transportation plans), or other performance-based plans and programs (e.g., Strategic Highway Safety Plans, Transportation Asset Management Plans, asset management systems, etc.). State DOTs and MPOs serve distinct roles in this process as summarized below.

The State DOT Role in Project Identification

For the funding programs State DOTs have discretion over, the State DOTs typically coordinate internally and externally to identify projects for potential inclusion in the STIP. For State-owned transportation assets, State DOTs typically identify projects internally from other transportation plans (e.g., LRSTPs, Transportation Asset Management Plans), systems (e.g., asset management systems), and work units (e.g., regional or district offices). For transportation assets owned by other agencies, State DOTs typically work with regional agencies, local governments, transit agencies, the public, and other stakeholders through a call for projects or other solicitations to identify projects. For the funding programs the State DOTs do not have discretion over, the State DOTs typically receive fiscally constrained project lists from the presiding entities (e.g., state legislatures, Federal land management agencies, Tribal governments) ready for inclusion in their STIPs.

The MPO Role in Project Identification

To identify projects for potential inclusion in the TIP, MPOs typically coordinate with State DOTs, local governments, transit agencies, the public, and other stakeholders through a call for projects or other solicitations. For MPOs, the project identification process is often multi-faceted and may originate with the agency's MTP (see the MTC example below). These agencies generally augment their MTP project identification process through the use of calls for projects, generating project lists for the TIP that are consistent with the MTP. Some agencies issue multiple calls for projects during the TIP development process to solicit project proposals, or applications, for those programs that the agency has discretion over, which may include the Surface Transportation Block Grant Program (STBG), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, or the Transportation Alternatives (TA). An emerging practice is the use of an online project portal for applicants to submit potential projects for funding (see the Pima Association of Governments example below). For the funding programs MPOs do not have discretion over, the MPOs typically receive fiscally constrained project lists from the presiding agency (e.g. State DOT, transit agency, Federal land management agency, Tribal government) ready for inclusion in their TIPs.

Metropolitan Transportation Commission

MTC uses its TIP to implement the goals and priorities identified in the MTP. MTC's regionally significant projects are identified in the MTP and projects in the TIP help to implement the goals in the plan. While MTC has limited discretionary and programming authority, this project identification process helps ensure that the MPO's goals and objectives are carried out in the agency's programs, initiatives, and projects. During the call for projects for the TIP, MTC asks project sponsors to submit a project solicitation form to identify how proposed projects align with the Federal performance areas. The project solicitation form encourages project sponsors to consider the Federal performance areas in their proposals, and MTC uses this information throughout the programming process to better understand

how investment decisions will impact target achievement. MTC also includes public outreach as a part of its call for projects allowing the public to directly submit projects for consideration in its plan. Appendix **G** includes more information on MTC.

Pima Association of Governments

The Pima Association of Governments (PAG), which covers the Tucson, AZ metropolitan area, developed a web-based portal that maps projects in a geographic information system (GIS) platform and provides project sponsors with data on system performance in the proposed project area. Project sponsors use the portal to perform a network screening of the existing performance of their facilities by delineating a proposed project extent and generating a performance report for the facilities indicated and adjacent areas. By providing this information during the project identification process, PAG is able to encourage performance considerations in project solicitations and provide project sponsors with a starting point for understanding baseline conditions in the selected project area. Appendix **H** includes more information on PAG.

New Hampshire DOT

The New Hampshire DOT (NHDOT) publishes a Ten-Year Transportation Improvement Plan (Ten Year Plan) every two years that proposes improvements to the State's transportation system. The purpose of the Ten Year Plan is to outline projects and programs funded with Federal and State transportation dollars. The Ten Year Plan is updated through extensive coordination with each of the nine regional planning commissions and input from the public, elected officials, transit operators, and state agencies. During the Ten Year Plan development, the regional planning commissions across the state lead processes to identify and prioritize transportation projects within their respective regions and established funding allotments. Each of these agencies develops a shortlist of projects for submission to NHDOT using the general criteria NHDOT established in coordination with all nine regional planning commissions. Appendix **C** includes more information on NHDOT.

Michigan DOT

The MDOT Highway Call for Projects (CFP) process is used to identify, select, and approve highway projects that align with the State Transportation Commission's policies, goals, and strategic direction. MDOT updates its 5YTP annually, and the CFP is a multi-stage process that begins with the identification of available revenues. The central MDOT office coordinates the CFP with the MDOT regional offices to identify projects based on their priorities for MDOT's highway programs (e.g., pavement, bridge, and transportation systems management and operations [TSMO]). MDOT regions submit preliminary project proposals for review and comment from the MDOT CFP subcommittees for each of the funding programs. The MDOT CFP subcommittees review candidate projects at a high level and provide initial feedback to help ensure the proposals meet program criteria and goals. The process provides MDOT regions with opportunities to modify proposed project submittals prior to final submission. The projects selected in the CFP are MDOT projects, but they go through the local transportation planning process with MPOs or rural agencies. Most MPOs in Michigan put out a call for projects at the beginning of the STIP development cycle following their own project identification and selection processes that involve MPO committees. MDOT participates in the MPO committees and overall TIP development processes. Appendix **B** includes more information on MDOT.

Washington State DOT

WSDOT develops the STIP annually through coordination and engagement with the MPOs, regional transportation planning organizations (RTPOs)⁶, and other stakeholders. The projects identified in the STIP are consistent with the WTP as some STIP projects are identified by legislative action through a line item list of projects, while other projects are identified through state, metropolitan, Tribal, and local planning processes. In Washington, cities, counties, and public transportation providers are required to develop and adopt six-year transportation programs, following their own processes to identify and fund projects. WSDOT participates in local and regional processes to provide input during project identification, and local agencies collaborate with their MPO or RTPO to include projects in their TIPs. Tribal governments work with their associated MPO and/or RTPO, or directly with WSDOT, to include Tribal projects in their TIPs or the STIP. To help streamline and standardize the project identification process for all agencies, WSDOT developed an electronic database for project sponsors to submit project proposals. Appendix D includes more information on WSDOT.

Project Evaluation Criteria

Project evaluation criteria are a set of standards used to assess and score proposed transportation investments. State DOTs and MPOs use performance-based project evaluation criteria and scoring systems (e.g., performance data, metrics, measures, and targets, points, and weightings) to evaluate transportation projects for inclusion in their STIPs and TIPs. These assessments can help determine whether proposed projects align with the Federal performance areas and agency-specific goals or priorities, providing decision makers with quantitative tools to support project prioritization. State DOTs and MPOs generally develop their own evaluation criteria using varied approaches, and many agencies coordinate with their planning partners and stakeholders throughout the project evaluation and scoring processes.

Broward MPO

The Broward MPO, which covers southeastern Florida, developed its project evaluation criteria based on the goals and objectives in the region's [Commitment 2045 Metropolitan Transportation Plan](#), and the Federal performance areas. The Broward MPO's Roadway, Systems Management/Safety, and Transit funding programs rely on six planning factors: (1) Accessibility, (2) Mobility, (3) Safety, (4) Equity, (5) Economic Vitality, and (6) Environmental Stewardship. Each criterion is given a weighted value based on its importance to the community. These weightings were determined through an interactive polling process with the Broward MPO's Board, Technical Advisory Committee, and Citizens' Advisory Committee. Appendix E includes more information on the Broward MPO.

New Hampshire DOT

NHDOT and the state's nine regional planning commissions developed a set of project evaluation criteria to prioritize projects for inclusion in the State's Ten Year Plan. Proposed projects submitted through the Ten Year planning process are evaluated across eight categories: (1) Economic Development; (2) Equity and Accessibility; (3) Mobility; (4) Natural Hazard Resiliency; (5) Network Significance; (6) Safety; (7) State of Repair; and (8) Support. Proposed projects are evaluated across each criterion for project need

⁶ The Washington state legislature passed the Growth Management Act in 1990, which in part authorized the state's Regional Transportation Planning Program and created regional transportation planning organizations in urban and rural regions of the state. <http://ruraltransportation.org/about-rtpos/rtpo-states/washington/>

and impact, and the regional planning commissions in the state have the flexibility to develop their own weightings for evaluating projects in their respective regions.

The regional planning commissions hosting the state's four MPOs also participate in the [Partnering for Performance New Hampshire \(PFPNH\) working group](#) to establish a performance-based planning framework that aligns with the state's transportation needs. The PFPNH working group fosters collaboration among the MPOs and NHDOT as these partners regularly convene to assess the landscape of performance-based planning and programming across the state and to establish a list of common regional performance measures. Appendix C includes more information on NHDOT.

Michigan DOT

MDOT coordinates with the STC to help ensure that the 5YTP project evaluation criteria support the STC's vision and priorities. As part of MDOT's Highway CFP process, the agency provides MDOT's regions with detailed program instructions to help ensure proposed projects are consistent with Statewide goals and policies. The CFP is driven by an interdepartmental approval committee and subcommittees for each of MDOT's highway programs, including pavement, bridge, and TSMO. Pavement and bridge projects must meet criteria related to condition, cost/benefit ratio, potential safety benefits, and more. The evaluation of pavement projects also factors programmed bridge work within the corridor, and bridge project evaluations consider whether the project is located in a highly congested area.

The TSMO program addresses Intelligent Transportation System (ITS) deployments, operations, safety, and traffic signal modernization projects. ITS projects are evaluated across seven focus areas: (1) Information Technology Processes; (2) TSMO Business Area Integration; (3) ITS/Signal Program Integration; (4) Emerging Technologies; (5) Partners and Outreach; (6) Workforce Development; and (7) Performance-Based Priorities. Operations projects must meet criteria related to user delay savings, reliability improvement, safety improvements, and/or travel time reduction. Safety projects must reduce serious and fatal injuries on the state trunkline system⁷ through cost effective improvements that align with the focus areas of the [Michigan 2019-2022 Strategic Highway Safety Plan](#). Appendix B includes more information on MDOT.

Indiana DOT

INDOT reviews candidate STIP projects for four primary investment categories: (1) Roadway/Pavement, (2) Bridge, (3) Traffic Safety, and (4) Traffic Mobility. Each investment category includes a defined set of scoring rules and guidelines that are aligned with the Federal performance areas. INDOT reviews roadway/pavement projects using criteria primarily based on pavement condition data and project cost effectiveness. INDOT reviews bridge projects using criteria based on bridge condition, cost effectiveness, functional classification priority, and traffic volumes.

Traffic safety projects are scored based on the condition of the location and cost effectiveness of the proposed countermeasure(s). The traffic safety scoring process is completed by the INDOT districts proposing the projects, documented in an engineering assessment report, and submitted to INDOT's central office for review and approval. INDOT developed scoring sheets to help maintain a consistent

⁷ The state trunkline in Michigan consists of all roads under MDOT jurisdiction, including all Interstate routes, US routes, state routes, Interstate business loops and spurs, US business routes, state business routes, connector routes, and unsigned state trunkline in Michigan. <https://www.michigan.gov/mdot/0,4616,7-151-9623-131251--,00.html>

scoring process, and the districts submit completed copies of their scoring sheet for each proposed safety project.

INDOT uses a Mobility Asset Scoring Tool for traffic mobility projects, evaluating projects based on eight factors: (1) Traffic Safety, (2) Current Congestion, (3) Cost-Effectiveness, (4) Roadway Class, (5) Public and Other Interests, (6) Route Continuity and Corridor Completion, (7) Connectivity and Accessibility, and (8) Business Economic Impact/Opportunity. Appendix A includes more information on INDOT.

Project Prioritization Process

The project prioritization process is how State DOTs and/or MPOs evaluate and rank potential investment strategies for inclusion in their STIPs or TIPs considering specific criteria and weightings. This is an important component of the performance-driven programming process and enables agencies to allocate limited resources based on need, agency priority, anticipated performance impacts, and cost effectiveness, among other considerations. It is common for agencies to develop prioritization processes for specific policy goals or funding programs. Many State DOTs and MPOs have established performance-based prioritization approaches that consider projects across modes, assets, and/or performance areas as these approaches can help agencies evaluate the trade-offs of multiple, potentially competing objectives. Agencies commonly present their draft prioritized project list to their board or a technical advisory committee for review and comment before inclusion in their STIPs and TIPs.

Rockingham Planning Commission

When prioritizing projects, the Rockingham Planning Commission in New Hampshire assigns projects to one of three groups: (1) Local Projects, (2) Regional Projects, or (3) Inter-Regional Projects. Local projects typically consist of small-scale improvements such as bicycle/pedestrian projects. Regional projects focus on creating connections between communities, and inter-regional projects typically involve connecting regions, often through investments in the Interstate System. The separation of projects into these three subgroups helps ensure that large regional projects that consistently receive a high score in the prioritization process will not always be prioritized over local-level projects. Appendix I includes more information on the Rockingham Planning Commission.

Broward MPO

The Broward MPO has developed a prioritization approach that considers projects across funding programs and Federal performance areas. The MPO uses a Multimodal Priority List (MMPL), which is developed in coordination with the Florida Department of Transportation (FDOT), to help establish funding priorities for the region. The MMPL uses the evaluations conducted in the MTP for each funding program to assign each project to a preferred funding source that is consistent with the MTP's cost feasible plan. The cost feasible plan helps ensure that projects are fiscally constrained and provides additional opportunity for public involvement. This plan is developed as part of the MTP based on a needs assessment, performance-based project prioritization process, forecast of available revenues for transportation, and comments from the public. The Broward MPO produced an interactive map of the cost feasible plan to collect public comments and refine project priorities. The projects in the MMPL are prioritized and ranked based upon a screening process that identifies projects that are most important or most significant. The MMPL also designates a preferred Federal, state, or local funding source for each project and emphasizes a "program ready" concept to only move projects forward if they include a clear scope of work, an approved resolution, and a cost estimate. This process helps ensure that the

prioritized projects will meet an existing need and are ready for implementation. Appendix E includes more information on the Broward MPO.

New Hampshire DOT

NHDOT provides the regional planning commissions across the state with resources to help standardize the regional project review process for the Ten Year Plan. The [NH Ten Year Plan Regional Project Review](#) criteria packet describes the regional evaluation considerations that should be factored when ranking and evaluating proposed projects. The criteria packet also lists potential resources and data sources that can be used to justify project rankings, such as Regional and Statewide Title VI and Environmental Justice Programs, sidewalk network maps, corridor studies, and more. This helps ensure that the regional planning commissions across the state have access to the necessary data and resources to standardize their prioritization process. Appendix C includes more information on NHDOT.

Indiana DOT

INDOT developed a cross-asset prioritization approach where multiple advisory groups review and evaluate proposed STIP projects. Asset Management Teams review candidate STIP projects according to their assigned project category, including: (1) Roadway/Pavement, (2) Bridge, (3) Traffic Safety, and (4) Traffic Mobility. The Program Management Group (PMG) then prioritizes proposed projects based on the recommendations from the Asset Management Teams. The PMG is comprised of senior managers and technical leaders that oversee the Asset Management Teams, and PMG voting members have an equal vote for each of the project categories. This process helps ensure that all project types are given adequate consideration and that there is objectivity in the overall prioritization approach. Appendix A includes more information on INDOT.

Michigan DOT

The MDOT Highway Call for Projects (CFP) is driven by an interdepartmental approval committee and subcommittees for each of MDOT's highway programs. The CFP process involves the seven MDOT regions and the central office. The regions are responsible for producing a prioritized project candidate list that fits within the funding limitations and program goals defined in the CFP process. MDOT evaluates investments that align with nine major investment categories including: (1) Road Rehabilitation and Reconstruction; (2) Road Capital Preventative Maintenance; (3) Trunkline Modernization (i.e., Interstate System, State Routes, and U.S. routes); (4) Bridge Program; (5) Traffic and Safety; (6) Routine Maintenance; (7) System Operations; (8) Transit – Rural Capital; and (9) Other Programs (e.g., State-Funded Required Programs, Program Development/Scoping, Training, Pump Stations, and more). MDOT uses forecasting tools to inform its investment strategies by integrating anticipated available funding, life cycle planning, performance gap analysis, and risk assessment results. MDOT then prioritizes the investments that provide the greatest benefits to the overall community and align with the STC's overall vision for the state transportation system. Appendix B includes more information on MDOT.

Washington State DOT

WSDOT prioritizes projects that address the Federal performance areas for safety, infrastructure condition, and system performance. To address safety, WSDOT prioritizes and programs projects consistent with the goals identified in the state's [2019 Target Zero Strategic Highway Safety Plan](#); the plan aims to achieve zero fatalities and serious injuries by 2030 and includes [performance-based goals](#) that influence WSDOT's safety performance targets. WSDOT and the MPOs coordinate to plan and

program projects that achieve progress towards the state safety targets. WSDOT’s investment approach to preserve and improve the condition of pavement and bridges is focused on lowest life-cycle cost strategies, priority project lists, and the backlog of unfunded projects. Pavement prioritization is shaped by three main principles: (1) Avoiding Future Liability, (2) Asset Use, and (3) Life-Cycle Cost. Bridge preservation strategies factor the condition and age of bridge components. Projects that address mobility are generally prioritized through the legislative process as the state legislature decides which mobility projects to include in the STIP. WSDOT helps the state legislature through this decision-making process by providing input for consideration and developing resources to inform decisions. Resources include statewide modal plans (e.g., ferries, highway, active transportation, public transportation, and rail) corridor plans, and other planning studies. Appendix D includes more information on WSDOT.

Aligning Programming with Performance Target Achievement

The approaches that State DOTs and MPOs use to develop and document the STIP or TIP play a key role in supporting the Federal performance areas for safety, infrastructure condition, and system performance. Aligning programming with the Federal performance areas involves evaluating and documenting the performance impacts of programming decisions in final STIP and TIP documents. As part of this process, State DOTs and MPOs often develop data-driven tools and processes to determine whether their programming decisions align with the Federal performance areas, the associated performance measures, or the agency-specific performance targets. State DOTs and MPOs commonly summarize how their STIP or TIP intends to make progress toward performance targets by identifying the projects or total funding amount allocated to each Federal performance area. Table 2 summarizes example project types that agencies have identified in their STIPs and TIPs as supporting progress toward target achievement for the Federal performance areas.

Table 2. Example Project Types Supporting Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Intersection improvements and construction, traffic signalization and modernization, signage and safety enhancements, safety improvement studies, bicycle and pedestrian improvements, street lighting, pedestrian hybrid beacons, road diets, Americans with Disabilities Act ramp improvements and construction, access management, improved access to public transportation, complete streets improvements, roadway realignment, traffic calming, median protection, and travel lane construction
Pavement Condition	Pavement preservation, roadway resurfacing or reconstruction, preventive maintenance, roadway widening, and new road construction
Bridge Condition	Bridge rehabilitation, reconstruction, replacement, preservation, and inspections
Travel Time Reliability	Roadway widening, interchange improvements, intersection improvements, Intelligent Transportation Systems (ITS), congestion relief projects, Transportation Systems Management and Operations (TSMO), managed lanes, Travel Demand Management (TDM) projects, park and ride lots, adaptive traffic control systems, high

Federal Performance Area	Example Project Types
	occupancy vehicle (HOV) lanes, 511 regional traveler information, and rest area modernization
Freight Reliability	Roadway resurfacing, grade separation, roadway widening, interchange improvements, bridge improvements along local and regional freight corridors, TDM projects, managed lanes, park and ride lots, TSMO, and adaptive traffic control systems
Traffic Congestion	Transit improvements, ITS, capacity improvements, roadway widening, intersection improvements, bicycle and pedestrian improvements, improved access to public transportation, congestion relief projects, TDM projects, TSMO, park and ride lots, adaptive traffic control systems, commuter train electrification, and light rail extension
On-Road Mobile Source Emissions	Traffic signalization and modernization, TDM projects, bicycle and pedestrian improvements, diesel emissions reduction strategies, ITS, and traffic management systems

Broward MPO

The Broward MPO established funding programs that enable the agency to allocate funding to projects that will make progress towards the Federal performance targets. The Broward MPO also developed a [Performance Scorecard](#) to document the targets for each performance area and to illustrate how the TIP supports target achievement. Appendix E includes more information on the Broward MPO.

Rockingham Planning Commission

The Rockingham Planning Commission's TIP includes baseline data and targets for the Federal performance measures and the status of target achievement. The TIP also summarizes the total number of projects and the total amount of funding programmed to support progress on performance targets. The Rockingham Planning Commission also identifies example project types that the MPO expects will contribute to future target achievement. Appendix I includes more information on the Rockingham Planning Commission.

Metropolitan Transportation Commission

MTC's TIP identifies example project types that the MPO expects will contribute to future target achievement. The TIP also summarizes the total number of projects and the total amount of funding MTC has programmed to support progress toward achieving the targets and the anticipated performance benefits. MTC uses the project solicitation forms from the project sponsors to better understand how these investment decisions will impact target achievement. Appendix G includes more information on MTC.

Memphis MPO

The Memphis MPO used its project evaluation criteria and scoring process to help link the locally-sponsored projects in the Fiscal Years (FY) 2020-2023 TIP with the Federal performance areas. Projects which scored 50 percent or more out of the possible points for a performance area category were considered to be supporting that particular performance area. In the TIP document itself, each project page displays an icon for the Federal performance area the project supports, if any, up to a maximum of two. Appendix F includes more information on the Memphis MPO.

Indiana DOT

INDOT uses a system of project work type categories to help align programming decisions with the Federal performance areas. Projects that are programmed in the STIP are assigned to an INDOT-specific project work type, a required field in their project tracking system, based on the project purpose and/or treatment. Since INDOT has mapped the project work type categories to the Federal performance area(s) that those work types support, the department is able to conduct a financial analysis to summarize how much funding has been programmed in the STIP to help support progress toward target achievement. Appendix **A** includes more information on INDOT.

Michigan DOT

The MDOT STIP includes a table that links the investment categories and associated funding amounts with the Federal performance areas. The table captures whether each investment category fully supports, partially supports, or does not support a Federal performance area. Some of MDOT's investment categories address multiple performance areas; for example, the road rehabilitation and reconstruction category is linked to the safety, pavement condition, reliability, and freight performance areas. Appendix **B** includes more information on MDOT.

New Hampshire DOT

NHDOT provides the State's regional planning commissions with [Ten Year Plan Regional Project Review guidance](#) that identifies the relevant Federal performance measures that align with each project evaluation criterion. NHDOT's [FY 2019-2022 STIP](#) includes a table that tracks the Federal performance area associated with each project, which was developed in collaboration with the PFPNH working group. The table is intended to help maintain consistency with the categorization of project types among NHDOT and the regional planning commissions. Appendix **C** includes more information on NHDOT.

Conclusion

The examples summarized in this report highlight a variety of viable approaches that State DOTs and MPOs are using to align transportation investment decisions with the Federal performance areas for safety, infrastructure condition, and system performance. Through the research for this report and associated discussions with agencies, some noteworthy practices emerged that can support other agencies' capacity for performance-driven programming. While there is no one-size-fits-all approach, these examples provide insights into how agencies identify, evaluate, and prioritize projects and document their investment decisions.

State DOTs and MPOs stressed the importance of establishing strong communication channels with internal and external stakeholders. With multiple stakeholders involved in the programming process, it is critical for agencies to work with their Federal, state, regional, and local agencies to collect and share data, communicate deadlines and processes, and provide public engagement opportunities. For example, NHDOT, FHWA, and the four MPOs in New Hampshire collaborated to create an interagency working group, *Partnering for Performance NH*. This working group met regularly during the development of the STIP and TIPs and the establishment of performance measures and targets. In Washington, WSDOT manages and regularly updates [TPM folios](#) that describe the Federal performance areas and associated timelines and responsibilities for target establishment and reporting. The TPM folios have been used throughout the state as well as on a national scale as they are educational tools that provide key information to policy boards, technical advisory committees, and other stakeholders.

Many State DOTs and MPOs also include opportunities for involvement from technical advisory committees throughout the programming process to help ensure that investment decisions not only support the Federal performance areas, but also meet regional and Statewide priorities. Technical advisory committees often serve a role in the project identification, evaluation, and/or prioritization processes. These practices, and the establishment of similar groups in other States, can help agencies facilitate interagency collaboration and improve their own planning and programming processes.

State DOTs and MPOs commonly coordinate with stakeholders throughout their planning processes to provide opportunities for meaningful public involvement. For example, MDOT developed a [SYTP Interactive Map](#) visualizing road and bridge projects by year of Federal funding obligation, and members of the public can submit project-specific comments directly on the map, or provide non-project specific comments through a [general comment form](#). MTC includes extensive public outreach as an aspect of its call for projects allowing the public to directly submit projects for consideration into its MTP. PAG coordinates a task force for the development of its MTP that consists of public and private sector representatives; the needs and priorities identified through the MTP process inform the development of the TIP.

State DOTs and MPOs also develop and maintain public participation plans (PPP) to inform their public engagement approaches and provide the public with information on involvement opportunities. For example, the Rockingham Planning Commission's PPP includes strategies to reach underrepresented populations (e.g., individuals with disabilities, elderly, low-income and minority residents and transit-dependent individuals) such as coordination and outreach to community organizations, advocate groups, local government staff and elected officials; targeted questionnaires; and adding a language translation application to the MPO website. Altogether, these example approaches demonstrate how State DOTs and MPOs can engage with the public to support meaningful involvement throughout their planning and programming processes.

State DOTs and MPOs also highlighted the value of using noteworthy practices and lessons learned from peer agencies to refine and improve their own programming processes. Communication and cooperation among peers can facilitate the exchange of information and resources that can be customized for an agency-specific context. For example, the Rockingham Planning Commission regularly coordinates with the Chattanooga-Hamilton County/North Georgia Transportation Planning Organization and adopted the agency's geographically scaled methodology for prioritizing projects (i.e., within a community, from a community to the region, and from region to region). This approach demonstrates how agencies can advance their own practices through collaboration with peers and a continual focus on self-improvement and growth.

Appendix A. Indiana Department of Transportation

This summary report highlights the [Indiana Department of Transportation's](#) (INDOT's) performance-driven programming process. INDOT maintains more than 29,800 lane miles of highways and over 5,700 bridges across Indiana. INDOT coordinates transportation planning activities with 14 MPOs in the state, which represent 39 counties. For transportation planning purposes, INDOT is divided into six regional districts, including Crawfordsville (West Central), Fort Wayne (Northeast), Greenfield (East Central), LaPorte (Northwest), Seymour (Southeast), and Vincennes (Southwest).

Project Identification Process

INDOT's performance-based planning and programming process is influenced by state and Federal planning responsibilities. The state fuel tax places requirements on long-term planning goals and provides INDOT with additional funding to meet investment needs. INDOT currently receives funding from several sources, with the primary source being Federal and state motor fuel taxes. The 2017 increase in the state fuel tax has generated significantly more revenue and enabled INDOT to improve the agency's ability to maintain and rehabilitate hard assets, like pavements and bridges.

INDOT's performance-based planning and programming process is coordinated by several planning documents and primarily driven by the [STIP](#) and the [2045 Long-Range Transportation Plan \(LRTP\)](#). The STIP is a five-year fiscally constrained planning document developed in coordination with the INDOT Five-Year Construction Plan. The LRTP establishes a policy framework that guides the development of the STIP.

[The current STIP covers FY 2020-2024](#) and INDOT is developing a new STIP for [2022-2026](#). Both the STIP and LRTP aim to preserve the existing state transportation network using asset management principles, implement projects that demonstrate readiness, and plan and build for the future. Updated every two years, the STIP is developed in coordination with local governments and planning stakeholders throughout the state, including MPOs and Regional Planning Organizations (RPOs). The 12 RPOs in the state conduct economic development planning and transportation planning as part of INDOT's Small Urban and Rural Transportation Planning Assistance Program. The STIP identifies Federal and state funded projects, including those designated as regionally significant.

To share information and gather feedback on the LRTP and STIP, INDOT's public involvement process generally includes public meetings, comment forms, stakeholder meetings, and website updates. As part of STIP development, INDOT district staff continuously engage local officials and MPOs to learn the transportation needs of local communities and regions, and to discuss questions regarding INDOT projects. The district staff then relay the information to the INDOT central office staff.

Each of the 14 MPOs identify projects for their respective metropolitan areas and develop TIPs, which directly inform projects listed in the STIP. INDOT requires projects located within an MPO's planning area to be listed in the TIP before they are included in the STIP, directly or by reference. The MPOs identify projects for the metropolitan areas following their own established project identification processes. MPOs then identify which projects are appropriate for Federal funding using their own criteria and categorization of projects. Once MPO projects are identified, INDOT and the MPOs coordinate to include them in the TIPs. For state-owned facilities within the MPOs' boundaries, INDOT

sends each MPO a fiscally constrained list of projects to include in their respective TIPs.⁸ INDOT does not allocate funding by MPO, but instead allocates funding by need or priority. This approach can cause variations in funding allocation across the state from year-to-year; however, the process is more objective and more directly aligned with the state's goals, performance measures, and targets.

INDOT identifies projects for jurisdictions outside of the MPO areas for inclusion in the STIP. INDOT leads the project identification process, including the review, refinement, and approval of these proposed projects. The [Program Management Group](#) (PMG) conducts the [call for projects](#). The PMG is comprised of senior managers and technical leaders that oversee the Asset Management Teams. Supported by the INDOT Commissioner and Executive Funds Team, the PMG plays a pivotal role by bringing together stakeholders from various INDOT divisions (e.g., asset management, strategic planning, and finance).

The PMG coordinates a call for proposed new projects on state facilities (e.g., interstates, U.S. Highways, and state roads) and a separate call for local Federal-aid projects. The proposed new projects on state facilities are prioritized at the district level first, then move on to INDOT's Central Office for final refinement and project identification. Projects proposed through the calls are not fiscally constrained; they are internally reviewed, adjusted as needed, and prioritized to ensure the state's transportation needs are addressed. The PMG establishes funding estimates and evaluates fiscal constraint versus asset performance. The PMG also reviews and recommends approval of program changes related to fiscal constraint and individual project changes. [Locally-sponsored projects](#) are scored by a group of INDOT subject matter experts including the District Local Program Director and staff, and members from INDOT's Pavement Engineering, Bridges and Highway Design and Technical Support offices. Once the team finishes scoring, an Executive Review Team evaluates all final scores and determines funding types and awards for the projects. After all projects are approved by INDOT leadership, they are programmed into a scheduling system and listed in the STIP based on four project categories.

The four primary project categories in the STIP are: (1) Roadway/Pavement, (2) Bridge, (3) Traffic Safety, and (4) Traffic Mobility. INDOT uses a process of continuous improvement for updating project scoring guidelines and business rules for each of the four categories. For the Roadway/Pavement category, INDOT analyzes the conditions of all state highways and local National Highway System (NHS) roads to determine pavement condition relative to INDOT's performance targets. INDOT uses a pavement modeling system to evaluate the road network, establishing the next program year of projects based on the Department's goals and business rules. Candidate projects are submitted based on the condition of the roadway and asset strategies. INDOT follows a similar process for the Bridge category, utilizing its bridge modeling system to support recommendation of projects for the next program year based on the Department's goals and business rules.

The Traffic Mobility category covers intersection improvements, capacity expansion, and projects that address congestion relief to enhance mobility, reliability, and connectivity, such as Intelligent Transportation System (ITS) improvements. Project evaluation and prioritization under the traffic safety category follows a process that is based on data-driven analysis and integration of proven countermeasures. The Traffic Safety call for projects requires submission of engineering assessment reports, which are key elements of the project prioritization process. This process produces a list of locations with high crash rates and crash severities, which is distributed to and later prioritized by INDOT's districts using available roadway network data. INDOT focuses safety investments on systemic safety improvements and individual hot spots.

⁸ INDOT Planning Roles, Responsibilities, & Cooperative Operation Manual (2014)

Project Evaluation Criteria

Each of the four project categories includes a defined set of project scoring rules and guidelines. The factors that INDOT uses to evaluate and prioritize projects are aligned with the Federal performance areas for safety, infrastructure condition, and system performance. For the Roadway/Pavement category, INDOT distributes the list of proposed projects to field engineers in the districts that review and coordinate with other stakeholders to select priority projects. INDOT inputs the priority projects into the pavement modeling system to help ensure the projects meet the agency's short- and long-term goals. INDOT's Roadway Asset Team reviews candidate projects using criteria primarily based on pavement condition data and project cost effectiveness. Table 3 provides an example of INDOT's scoring factors and weights for concrete pavement projects.

Table 3. INDOT's Scoring Factors and Weights for Concrete Projects⁹

Scoring Factor	Points
Asset Management Plan/Risk/Road Category	25
International Roughness Index (IRI)	25
Distress Box Area (DBA)	20
Trucks	15
Faulting	10
Cost Effectiveness	5
Total	100

INDOT scores bridge projects based on four main criteria: (1) Bridge Condition, (2) Cost Effectiveness, (3) Functional Classification Priority, and (4) Traffic Volumes. Table 4 displays INDOT's scoring factors and weights for bridge projects. INDOT distributes the listing of proposed bridge projects to external stakeholders and updates the bridge modeling system to help ensure that the selected projects meet the agency's short- and long-term goals.

Table 4. INDOT's Scoring Factors and Weights for the Bridge Program¹⁰

Scoring Factor Number (SF)	Bridge Scoring Factor Description	Score	Weights to Convert to 100 Point Scale (W)	Maximum Possible Weighted Score
#1	Condition	0-10	5	50
#2	Cost Effectiveness	0-10	3	30
#3	Functional Classification Priority	0-10	1	10
#4	Annual Average Daily Traffic (AADT) Impacts	0-10	1	10
Sub Total				100
Supplementary (S) Factor	Earmarks and Other Financial Contributions by External Means	0-5	7	35
Grand Total				135

⁹ INDOT Roadway Asset Team Business Policy (2020)

¹⁰ INDOT Engineering Office, Project Scoring Guidelines and Business Rules for Bridge and Large Culvert Asset Program (2018)

Similar to the Roadway/Pavement and Bridge categories, INDOT scores Traffic Safety projects based on the condition of the location and cost effectiveness of the proposed countermeasure(s). The Safety Asset Team has scoring procedures for four classes of proposed projects:

- Safety infrastructure improvements,
- Traffic signal modernizations,
- Raised pavement marker refurbishments, and
- Highway Safety Improvement Program (HSIP) eligible systemic safety improvements.

The Traffic Safety scoring process is completed by the INDOT districts proposing the projects, documented in an engineering assessment report, and submitted to INDOT's central office for review and approval. INDOT developed scoring sheets as a resource to help maintain a consistent scoring process, and the districts submit completed copies of their scoring sheet for each proposed safety project.

Traffic signal modernizations, raised pavement marker refurbishments, and HSIP eligible systemic safety improvements receive an automatic score of 100. Safety infrastructure projects are scored across nine factors for a total maximum score of 100 as described below in Table 5, which presents INDOT's scoring factors and weights for safety infrastructure projects. Factors 1 to 3 are core factors whereas factors 1 and 2 measure the relative safety of the project area and factor 3 compares the overall cost to the expected safety improvement. Factors 4 through 7 are complementary, and factors 8 and 9 are supplemental or bonus factors. The 100-point maximum can increase to 130 when external, non-INDOT funding is used to offset agency expenses. Resultant scores greater than 100 are reduced to 100.

Table 5. INDOT's Scoring Factors and Weights for Safety Infrastructure Projects¹¹

Factor Number	Factor	Points Possible
1	Crash Severity (Latent Class Cluster (LCC)-Based)	40
2	Crash Frequency (Latent Class Factor (LCF)-Based)	10
3	Benefit-Cost Ratio	35
4	Mobility Improvement	3
5	Public and Other Interests	5
6	Route Continuity and Corridor Completion	2
7	Multimodal Components	5
Supplemental Factor 8	Earmarks and External Contributions	25
Supplemental Factor 9	Coordination with Other Disciplines	5
Maximum Total		100

The Traffic Mobility category addresses congestion and network connectivity/accessibility needs. Candidate projects are scored based on eight core factors: (1) Traffic Safety, (2) Current Congestion, (3) Cost-Effectiveness, (4) Roadway Class, (5) Public and Other Interests, (6) Route Continuity and Corridor Completion, (7) Connectivity and Accessibility, and (8) Business Economic Impact/Opportunity. External financial contributions are a supplementary scoring factor that is used for projects with non-INDOT

¹¹ INDOT Office of Traffic Safety, Traffic Safety Asset Team Business Rules (2020)

funding. Each factor is assigned 0 to 5 points and the values are weighted by a multiplier ranging from 1 to 5. The 100-point maximum increases to 135 when external, non-INDOT funding is used to offset agency expenses. A higher composite score indicates greater project worth. Table 6 outlines the scoring factors and weights for candidate projects under the Traffic Mobility Capital Program. INDOT uses a spreadsheet-based Mobility Asset Scoring Tool to provide a standard format for scoring projects, support big data analysis, and help reduce chances of human error.

Table 6. INDOT's Scoring Factors and Weights for the Traffic Mobility Capital Program¹²

Core Scoring Factor Number	Scoring Factor Description	Weight to Convert to 100-Point Scale	Maximum Possible Weighted Score
1	Traffic Safety (Latent Class Cluster (LCC)-Based)	3	15
2	Current Congestion (Level of Service (LOS)-Based)	5	25
3	Cost-Effectiveness (Value)	4	20
4	Roadway Class	2	10
5	Public and Other Interests	1	5
6	Route Continuity and Corridor Completion	2	10
7	Connectivity and Accessibility	2	10
8	Business Economic Impact/Opportunity	1	5
Total		100	100

Project Prioritization Process

INDOT's project prioritization and decision-making process operates on three levels: Asset Management Teams, the PMG, and the Executive Funds Team.

INDOT assigns an Asset Management Team for each of the four primary project categories in the STIP. Asset Management Teams prioritize investment needs and consider issues related to the Roadway/Pavement, Bridge, Traffic Safety, and Traffic Mobility project categories. Each team consists of a committee chair, vice chair, and systems assessment managers or other representatives from each INDOT district. Districts submit a prioritized list of projects and brief report describing the selection process to each Asset Management Team. The Asset Management Teams meet regularly to review candidate projects, develop or refine scoring systems, establish statewide project rankings, and create statewide, prioritized lists of proposed projects. The INDOT central office notes that engagement with its district offices on project prioritization processes helps build ownership of goals across the state, creating a holistic process for prioritizing investments.

The PMG prioritizes proposed projects based on the recommendations from the Asset Management Teams. The process considers project need and agency priorities. The group provides guidance on the development of prioritized project lists, separates funding for the four project categories, and evaluates the performance impacts of funding decisions. The PMG voting members include representatives from the Executive Office, District Technical Services, Capital Funds, Planning, Bridge, Roadway, and Traffic Engineering; they represent the different asset categories and all have an equal vote for each of the four project categories, supporting cross-asset prioritization. The PMG non-voting members include

¹² INDOT Traffic Mobility Capital Program Project Scoring Guidelines (2018)

representatives and stakeholders of diverse backgrounds related to public involvement, maintenance and operations, environmental services, economic development, research, ITS, multimodal transportation, real estate, etc. The PMG also helps to identify the primary issues and concerns that will inform the priority investment areas. Once projects are prioritized, the PMG develops an internal, draft program update report summarizing the proposed projects and impacts on the program and budget. The INDOT central office notes that the PMG has provided a consistent structure and continuity that has been beneficial to the agency's performance-driven programming process.

The Executive Funds Team administers the funding, allocates funds by capital program, and approves final funding decisions. The Executive Funds Team includes the Deputy Commissioners of the Engineering and Asset Management, Capital Program Management, and Operations Business Units. The Deputy Commissioner of Engineering and Asset Management reviews the draft program update report, and the PMG coordinates revisions and produces a final report.

Once the program update report is finalized and entered in the scheduling system, the PMG provides Asset Management Teams with updated budget estimates of projected Federal and state funding for the next five fiscal years. Following this process, projects receive final approval and are programmed into the STIP.

Aligning Programming with Performance Target Achievement

The STIP development process directly reflects the goals, objectives, performance measures, and targets as described in other state planning documents, including the 2045 LRTP, Transportation Asset Management Plan (TAMP), State Freight Plan, Strategic Highway Safety Plan (SHSP), and Metropolitan Transportation Plans. To link investment priorities to the Federal performance areas, INDOT summarizes the total funding programmed to help support progress toward target achievement using a financial analysis based on project work type. When programmed in the STIP, projects are assigned an INDOT specific work type, which corresponds to related Federal performance measures. The work type is a required field in the project tracking system, which captures the project purpose or treatment. Projects often support multiple performance measures. For example, an intersection improvement work type may be addressing a safety issue and a congestion issue. In these cases, INDOT estimates which performance measure and target the work type most directly impacts and allocates funding toward the funding summary for that Federal performance measure. This is INDOT's first attempt with mapping and reporting alignment of investment priorities with performance targets in the STIP. Moving forward, the agency plans to reassess its approach to determine whether refinements are needed to the mapping and reporting. Table 7 summarizes some of the example project types that INDOT programs to help support progress toward target achievement for the Federal performance areas.

Table 7. INDOT's Example Project Types Supporting the Federal Performance Areas¹³

Federal Performance Area	Example Project Types
Highway Safety	Intersection improvement, new interchange construction, traffic signals modernization, added travel lanes, concrete pavement preservation, Americans with Disabilities Act sidewalk ramp construction
Pavement Condition	New road construction, pavement replacement, road reconstruction, preventative maintenance
Bridge Condition	Bridge replacement, bridge inspections, bridge maintenance and repair
System Performance	ITS Traffic Management Systems, bicycle/pedestrian facilities, rest area modernization

¹³ INDOT STIP 2022-2026, <https://www.in.gov/indot/4084.htm>

Appendix B. Michigan Department of Transportation

This summary report documents the Michigan Department of Transportation's (MDOT) performance-driven programming process. MDOT maintains more than 9,600 route miles of pavement and over 4,800 bridges across the state. There are 13 MPOs representing 83 counties; the MPOs coordinate transportation planning within metropolitan areas with a contiguous resident population of 50,000 persons or more. For transportation planning purposes, MDOT is divided into seven regional districts, including Bay Region, Grand Region, Metro Region, North Region, Southwest Region, Superior Region, and University Region.

Project Identification Process

MDOT's performance-based planning and programming process is coordinated among several integrated transportation planning products and led by the agency's Statewide Transportation Planning Division (STPD). MDOT's State Long-Range Transportation Plan (SLRTP), also known as the [Michigan Mobility Plan](#), is a fiscally constrained plan identifying current and emerging needs to improve the state's transportation system. The plan covers a 25-year period and is updated every five years through extensive public and stakeholder coordination. MDOT recently updated the plan and developed an integrated, performance-based SLRTP known as Michigan Mobility 2045 or MM2045. The new plan replaces the [2040 MI Transportation Plan](#) and streamlines the vision of the State's future across all modes of transportation by combining the [State Rail Plan](#), [State Freight Plan 2040](#), [State Active Transportation Plan 2019-2022](#), and [Statewide Transit Strategic Plan 2000-2020](#).¹⁴ The development of MM2045 was organized in two phases. Phase 1 included examining national and local practices in producing SLRTPs. Phase 2 included creating the plan itself and incorporating phase 1 considerations.¹⁵ The State Transportation Commission adopted the plan in November 2021.

The STIP is developed to be consistent with MM2045, listing all Federal-aid-eligible projects in a four-year time frame. The [current STIP extends through Fiscal Years \(FY\) 2020-2023](#) and incorporates TIPs prepared by each of the 13 MPOs. MDOT collaborates with the MPOs to help ensure the TIPs and associated project lists are integrated into the STIP. Projects that are selected for the STIP and TIPs reflect the needs and policies identified in MM2045 and the MDOT Five-Year Transportation Program (5YTP) as the STIP is drawn from the 5YTP.

The State Transportation Commission (STC) serves as the policy-making group for all transportation programs in Michigan, guiding the development and implementation of all comprehensive transportation plans in the state.¹⁶ The STC is made up of six board members appointed by the Governor, as advised by the State Senate; board members represent a cross-section of subject matter experts in transportation construction, bridges, trucking, real estate development, and the law. At the direction of the legislature, MDOT is required to develop a [5YTP](#), outlining planned investment strategies

¹⁴ The Official Guide to MDOT 2021,

https://www.michigan.gov/documents/mdot/mdot_Guide_MDOT2019_647486_7.pdf

¹⁵ MM2045 Purpose and Schedule, <http://michiganmobility.org/learn/default.aspx>

¹⁶ MI State Transportation Commission, https://www.michigan.gov/mdot/0,4616,7-151-9623_31969_31970-29364--,00.html

for all transportation modes. The [2022-2026 5YTP](#) captures MDOT's transportation priorities for highway programs sorted by MDOT region, including available funding opportunities, and an established timeline for project delivery. Investment strategies are centered around an asset management approach. The MDOT [Transportation Asset Management Plan \(TAMP\) 2019](#) details investment strategies for pavement and bridges aligning with the 5YTP development, STIP project selection, and MDOT Call for Projects process.¹⁷ The 5YTP is approved annually by the STC and submitted to the legislature.

The agency's Highway Call for Projects (CFP) process is used to identify, select, and approve highway projects that align with STC and MDOT policies, goals, and strategic direction.¹⁸ MDOT updates its 5YTP annually, and the CFP is a multi-stage process that begins with the identification of available revenues. Once the revenue estimates are defined, MDOT regions identify projects based on their priorities for the highway programs that MDOT delivers, including roads, bridges, transportation systems management and operations (TSMO), safety, and roadside facilities (e.g., carpool parking lots). The central MDOT office coordinates with its regions to identify highway projects submitted for approval through the CFP. The projects selected in the CFP are MDOT projects, but they go through the local transportation planning process with MPOs or rural agencies. MDOT regions submit project proposals for preliminary comment from the MDOT CFP subcommittees for each of the programs. The subcommittees review the quality of candidate projects at a high level and provide initial feedback to help ensure the proposals meet program criteria and goals. The process provides the MDOT regions with opportunities to modify proposed project submittals for final submission. The process concludes with approval of multiyear project selections for the highway programs included in the CFP. Projects approved through the CFP process are captured in MDOT's 5YTP annual update.

The 5YTP process is a key milestone in MDOT's public engagement process as it helps advance opportunities for early public and stakeholder engagement. MDOT aims to present the annual 5YTP as early as possible in the transportation planning process to streamline program delivery, support local coordination, and provide opportunities for meaningful public engagement. MDOT strives to coordinate with stakeholders throughout the 5YTP process to provide opportunities for meaningful public engagement. For example, MDOT developed a [5YTP Interactive Map](#) visualizing road and bridge projects by year of Federal funding obligation, and members of the public can submit project-specific comments directly on the map, or provide non-project specific comments through a [general comment form](#).

Project Evaluation Criteria

The STC establishes the policies, goals, and objectives that guide the decision-making process for transportation investments. MDOT works directly with the STC to help ensure project evaluation criteria support the STC's overall vision and priorities for the state. The CFP is driven by an interdepartmental approval committee and subcommittees for each of the highway programs. The subcommittees help ensure candidate projects meet state transportation policies, goals, and objectives and Federal pavement goals for asset management. The subcommittees review project applications submitted by MDOT regions and provide preliminary feedback to help ensure projects align with the STC's strategic

¹⁷ MDOT 2020-2023 STIP, https://www.michigan.gov/documents/mdot/2020-2023_STIP_Draft_660694_7.pdf

¹⁸ MDOT Highway Call for Projects General Information & Program Instructions Manual FY 2023-2027

direction. The subcommittees make recommendations on which projects to advance for funding with final agreement by the approval committee. Projects are assigned to the Federal funding programs once each project is selected.

As part of the CFP process, MDOT provides detailed program instructions and templates to help ensure proposed projects are consistent with statewide goals and policies and programs are constrained to available revenue. The templates are documented in the 5YTP which displays how funding is distributed by program category. Table 8 lists MDOT's investment categories, which are made up of smaller investment types or work types.

Table 8. MDOT Investment and Sub-Investment Categories¹⁹

Investment Category	Sub-Investment Category
Road Rehabilitation and Reconstruction (R&R)	Rehabilitation and Reconstruction, Freeway Reconstruction Program, Non-Freeway Resurfacing Program
Road Capital Preventative Maintenance (CPM)	Road Capital Preventative Maintenance
Trunkline Modernization (i.e., Interstate System, State Routes, and U.S. routes)	Reconstruction on Trunklines to Improve Safety, Traffic Flow, Pavement and Bridge Condition, Freight Mobility, Accessibility
Bridge Program	Bridge Replacement, Bridge Preservation, Bridge Special Needs, Big Bridge Program, Blue Water Bridge, Culverts-Capital
Traffic and Safety	Pavement Markings, Safety Programs, Signs, Traffic Signals, Delineators
Routine Maintenance	Routine Maintenance
System Operations	Intelligent Transportation Systems (ITS), Congestion Mitigation and Air Quality, Commercial Vehicle Enforcement
Transit – Rural Capital	Bus and Bus Facilities, Enhanced Mobility of Seniors, and Individuals with Disabilities
Other Programs	State-Funded Required Programs, Program Development/Scoping, Training, Pump Stations, Transportation Alternatives, Railroad Crossings Program, Freeway Lighting, Wetland Pre-Mitigation, Noise Abatement, Discretionary, Recreational Trails, Carpooling Parking Lot Program, Rest Areas, Economic Development, Capacity Improvement, New Roads

Pavement projects must meet criteria related to remaining service life, pavement condition, cost/benefit ratio (including ongoing maintenance costs), ride quality, longevity of fix, and currently

¹⁹ MDOT Transportation Performance Management

https://www.michigan.gov/documents/mdot/Transportation_Performance_Management_STIP_Updated_2.21_716682_7.pdf

programmed bridge work within the corridor. Bridge projects must meet criteria related to cost/benefit ratio, net reliability, and operational improvement (including overall benefit consistent with the program goals, strategies, and funding; incorporating into other funding sources or projects, etc.), degree of additional safety benefits provided by proposed project, and whether the project is located in a highly congested or unreliable area.

The TSMO program addresses ITS deployments, operations, safety, and traffic signal modernization projects. ITS projects are evaluated across seven focus areas: (1) Information Technology Processes; (2) TSMO Business Area Integration; (3) ITS/Signal Program Integration; (4) Emerging Technologies; (5) Partners and Outreach; (6) Workforce Development; and (7) Performance-Based Priorities. Operations projects must meet performance criteria related to user delay savings, reliability improvement, safety improvements, and/or travel time reduction. Safety projects must reduce serious and fatal injuries on the state trunkline system through cost effective improvements that align with the focus areas of the [State of Michigan 2019-2022 Strategic Highway Safety Plan](#) (SHSP), including high-risk behaviors, at-risk road users, engineering infrastructure, and system administration. As part of the CFP process, MDOT identifies high priority locations for needed safety improvements to support the SHSP key focus areas. Candidate safety projects must address one or more SHSP focus area(s) and provide a time of return (TOR) analysis (i.e., expected time of return based on project cost versus user delay cost). The traffic signalization modernization program reviews projects using criteria related to device age, operational needs, maintenance history, structural integrity, and system integration.

The MPOs follow a similar project selection process, incorporating asset management principles approved by the State Transportation Asset Management Council. Most MPOs put out a call for projects at the beginning of the STIP development cycle following their own evaluation criteria and scoring processes. MDOT participates in the MPO committees and the development of their scoring criteria and overall TIP development processes.

Project Prioritization Process

The CFP's project prioritization and selection process involves the seven MDOT regions and central office. The MDOT regions are responsible for producing a prioritized project candidate list that fits within the funding limitations and program goals defined in the CFP process, involving local stakeholders and the public in the process (e.g., MPOs, local governments). MDOT central office manages the interdepartmental approval committee and subcommittees for each of the highway programs.

In general, MDOT focuses on investments that provide the greatest benefits to the overall community and align with the STC's overall vision for the state transportation system. MDOT uses forecasting tools to inform its investment strategies by integrating anticipated available funding, life cycle planning, performance gap analysis, and risk assessment results.²⁰ As part of the annual CFP process, MDOT performs a life cycle analysis for pavement and bridge assets by analyzing funding availability and

²⁰ MDOT Transportation Performance Management

https://www.michigan.gov/documents/mdot/Transportation_Performance_Management_STIP_Updated_2.21_716682_7.pdf

estimated costs of future projects by work type. The analysis prioritizes investment strategies that address the following areas:

- Achieve and sustain a desired State of Good Repair;
- Improve or preserve the condition of the pavement and bridge assets;
- Achieve the Michigan performance targets for asset condition; and
- Achieve the national transportation goals.

Based on this analysis, MDOT identifies funding gaps and analyzes the associated risks for each strategy. Investment strategies are further evaluated to determine any impacts to STC's overall goals and objectives. This process results in the identification of transportation improvement projects, investment levels, and funding targets.

Aligning Programming with Performance Target Achievement

The [2020-2023 STIP](#) discusses the anticipated impact of the STIP in achieving the performance targets in identified program areas. Throughout the statewide planning process, MDOT collaborates with MPOs, regional planning agencies, county road associations, transit agencies, the public, and other local stakeholders to coordinate the investment strategies outlined above in Table 8. These stakeholders help MDOT to identify performance measures and targets, data and resources, and methodologies. MDOT works with these groups to establish statewide performance targets first, and then addresses MPO performance targets second.

The STIP includes a table identifying investment categories and associated funding amounts matched with the Federal performance areas. Table 9 shows the investment categories that fully or partially support the Federal performance areas involving safety, pavement condition, bridge condition, reliability and freight, congestion mitigation and air quality, and public transportation. Ultimately, progress toward performance targets shapes decision making related to funding allocations and project selection to be included in the STIP and TIPs. Table 10 lists example project types that MDOT programs to help support progress on the Federal performance areas.

Table 9. MDOT Investment Categories Linked to Federal Performance Areas²¹

MDOT Investment Categories	Federal Performance Area						
		Safety	Pavement Condition	Bridge Condition	Reliability and Freight	Congestion Mitigation and Air Quality	Public Transportation
	Road Rehabilitation and Reconstruction (R&R)	*	**		*		
	Road Capital Preventative Maintenance (CPM)	*	**				
	Trunkline Modernization	**	**	**	**	**	
	Bridge Program	*		**	*		*
	Traffic and Safety	**	*	*	*	*	*
	Routine Maintenance	**			**		*
	System Operations	**			**	**	**
	Transit – Rural Capital	*	*			*	
	Other Programs	**			**	*	
** = Investment category fully supports a performance area							
* = Investment category that partially supports a performance area							

²¹ MDOT Transportation Performance Management

https://www.michigan.gov/documents/mdot/Transportation_Performance_Management_STIP_Updated_2.21_716682_7.pdf

Table 10. MDOT's Example Project Types Supporting the Federal Performance Areas^{22,23}

Federal Performance Area	Example Project Types
Highway Safety	Pavement markings, signs, traffic signals, delineators, intersection improvements, center left turn lanes, right turn lanes, median protection, low-cost safety improvements
Pavement Condition	Road rehabilitation and reconstruction, road capital preventative maintenance, routine maintenance, minor/major widening
Bridge Condition	Bridge replacement, bridge preservation, joint replacement, substructure patching, deck replacement
System Performance	Reconstruction on trunklines to improve safety, traffic flow, freight mobility, accessibility, left or right turn lanes, indirect-left-turns, roundabouts, interchange improvements, ramp metering, auxiliary lanes, flex routes, ITS strategies, safety improvements, active traffic management strategies

²² MDOT Draft Five-Year Transportation Program 2022-2026

https://www.michigan.gov/documents/mdot/Draft_MDOT5YearPlan2022-2026_STCJuly2021_730990_7.pdf

²³ MDOT Highway Call for Projects General Information & Program Instructions Manual FY 2023-2027

Appendix C. New Hampshire Department of Transportation

This summary report highlights the [New Hampshire Department of Transportation's](#) (NHDOT's) performance-driven programming process. NHDOT maintains 3,460 miles of roadways and 3,850 bridges across New Hampshire. There are nine regional planning commissions in the state, which represent ten counties. In addition to the regional planning commissions, four metropolitan planning organizations (MPOs) coordinate transportation planning within metropolitan areas with a contiguous resident population of 50,000 persons or more. In New Hampshire, the four MPOs are hosted by the Nashua Regional Planning Commission, Rockingham Planning Commission, Southern New Hampshire Planning Commission, and Strafford Regional Planning Commission. For transportation planning and highway maintenance purposes, NHDOT is divided into six regional districts.

Project Identification Process

NHDOT's performance-based planning and programming process is coordinated among several integrated transportation planning products with the New Hampshire Ten Year Transportation Improvement Plan ("Ten Year Plan") driving the overall process. The purpose of the Ten Year Plan is to develop and implement a plan allowing New Hampshire to fully participate in federally supported transportation improvement projects as well as to outline projects and programs funded with state transportation dollars. NHDOT coordinates the Ten Year Plan with stakeholders across the state, and the plan allocates approximately 25 percent of Federal funding from FHWA to the nine regional planning commissions based on population and mileage of Federal-aid eligible roads. The Ten Year Plan is fiscally constrained and currently covers Fiscal Years (FY) [2021-2030](#).

NHDOT updates the Ten Year Plan every two years through extensive coordination with each of the nine regional planning commissions and input from the public, elected officials, transit operators, state agencies, and MPOs. The Ten Year Plan's robust public comment process consists of public hearings held throughout the state.

During the Ten Year Plan development, the nine regional planning commissions lead processes to identify and prioritize transportation projects in their respective regions and within their established funding allotments. The regional planning commissions identify projects in their respective areas, including those on state-owned facilities, then develop a shortlist of projects for submission to NHDOT using criteria as described in the next section on Project Evaluation Criteria. The shortlist of projects does not reflect a final set of regional priorities, but a listing of candidate projects that the regions are considering for the Ten Year Plan update. NHDOT reviews candidate projects as submitted by the regional planning commissions; however, the Ten Year Plan is subject to the state's legislative process.

Projects that are eligible for consideration in the Ten Year Plan include asset management projects (e.g., bridge rehabilitation/replacement), bicycle and pedestrian improvements (e.g., sidewalks, bicycle paths, multi-use paths), infrastructure-related travel demand management projects (e.g., park and ride lots, priority signalization, bus shelters), planning studies, and roadway improvements (e.g., operational improvements, access management, intelligent transportation systems, widening, technology operation improvements).

NHDOT develops the Ten Year Plan to be consistent with both the [LRSTP](#) and the [STIP](#). The LRSTP and STIP, as well as the MPOs' MTPs and TIPs, have been incorporated into the Ten Year Plan's update cycle to merge the state, metropolitan, and Federal planning processes. NHDOT and the MPOs draw project

priorities from their respective long-range plans to feed into the Ten Year Plan, and the first four years of the most recently approved Ten Year Plan serve as the basis from which the STIP and TIPs are constructed. The current STIP update extends from FY [2021-2024](#).

Project Evaluation Criteria

NHDOT and the nine regional planning commissions developed a set of project evaluation criteria to prioritize projects for inclusion in the Ten Year Plan.²⁴ Projects are evaluated across eight categories: (1) Economic Development; (2) Equity and Accessibility; (3) Mobility; (4) Natural Hazard Resiliency; (5) Network Significance; (6) Safety; (7) State of Repair; and (8) Support.

Table 11 describes how the eight criteria and sub-criteria are defined, which helps the regional planning commissions evaluate and prioritize projects in their respective regions. Proposed projects are evaluated across each criterion for project need and impact. For example, evaluating the history of crashes at a location helps determine the need for a safety improvement project, while looking at the Crash Modification Factors of the proposed countermeasures helps identify the impact that the proposed project will have on traveler safety. All eight of the criteria must be addressed when scoring a project. A score between 0 and 10 is assigned for each criterion, which is then multiplied by the criteria weights established by each regional planning commission. The weighted scores are totaled for the final project score. The regional planning commissions make reasonable attempts to assign a defensible score to each project for each criterion. If a criterion is irrelevant to the project, a score of 1 out of 10 is assigned for that category. If agencies are unable to develop a defensible score for a particular criterion due to limitations in data or information, they use their best judgement to assign a score and document the gaps.

Table 11. NHDOT Ten Year Plan Project Evaluation Criteria²⁵

Category	Definition	How Will Projects Be Assessed?
Economic Development	The degree to which a project supports economic development needs and opportunities at the local and regional level; and the degree to which the project impacts the movement of goods	- Will the project improve access to a regional activity center (employment center, tourist destination, etc.)? - Will the project address a freight bottleneck?
Equity & Accessibility	The degree to which a project promotes access to the transportation network, benefits traditionally underserved populations and helps ensure accessibility by all potential users	- Will the project expand transportation choices or enhance alternative modes, particularly for historically underserved populations? - Will the project remove or reduce barriers to access?
Mobility	The degree to which a project improves the mobility performance of a location for all modes relative to congestion or delay	- The functional classification of the roadway and status as a local, regional, or statewide connection - The mobility benefits of the project

²⁴ NHDOT Ten Year Plan, Regional Project Review, https://www.therpc.org/application/files/2415/9475/6279/TYP_Criteria_final.pdf

²⁵ Adapted from NHDOT Ten Year Plan, Regional Project Review; Rockingham Planning Commission, Ten Year Plan Project Solicitation & Selection, <https://www.therpc.org/transportation/transportation-plan/project-solicitation>

Category	Definition	How Will Projects Be Assessed?
Natural Hazards Resiliency	The exposure of a location to risk of damage from natural hazards and the project approach to mitigating that risk	- Is the project in a location with identified natural hazards risks? - How will the project mitigate or eliminate the likelihood of damage from natural hazards?
Network Significance	The importance of the service or facility to the communities, region, and larger transportation system of the state	- The volume of traffic at the location - How critical is the location to the transportation network?
Safety	The degree to which the project impacts traveler safety in relation to safety performance and the project's expected safety benefits	- The crash history at the location (5 years) - The expected safety improvement from the proposed project
State of Repair	The extent to which the project improves infrastructure condition in the project area and the degree to which the project impacts NHDOT and/or municipal maintenance requirements	- The current condition of the infrastructure at the project location - Will the project reduce maintenance requirements or add significant maintenance liabilities?
Support	The degree of support for the project at the local, regional, and statewide level	- Does the project support goals and objectives of local, regional, and/or statewide plans? - Does the project address an emergent need(s) that could have significant regional impacts if not addressed? - Has there been recent public discussion or input opportunities regarding this project? - Do recent public input/discussions show support for the project?

Project Prioritization Process

Each of the nine regional planning commissions identifies, evaluates, and prioritizes projects locally using the established project evaluation criteria, but each agency establishes its own criteria weights and may also factor other data points when determining final regional priorities, such as project costs and timelines. The regional planning commissions evaluate each proposed project against the project evaluation criteria and establish a draft priority listing. For each proposed project, a score is assigned for each criterion in order to develop an overall project score. The overall project scores inform the regional project prioritization process, and once all projects have been scored, the top regional priorities are consolidated into a shortlist of candidate projects, constrained to available funds, for evaluation by NHDOT.

After NHDOT receives the initial priority listing from the regional planning commissions, an internal review committee reviews all of the proposed projects and provides comments related to scope elements, project costs, phase/budget considerations, and project timing. NHDOT provides comments to all nine regional planning commissions and coordinates individual meetings with each agency to discuss the comments and to further inform regional discussions. Each regional planning commission then considers those comments – particularly as they pertain to the project cost – as part of the final discussions regarding regional project priorities and develops and submits a final, fiscally constrained list

of priorities to NHDOT for inclusion in the draft Ten Year Plan. NHDOT does not conduct any additional prioritization of the projects before including them in the draft Ten Year Plan, which is then presented to the Governor’s Advisory Commission on Intermodal Transportation (GACIT) for consideration. After a series of statewide public hearings, the GACIT forwards the Ten Year Plan to the Governor for review, potential revision, and approval. Finally, the Governor’s version of the draft Ten Year Plan is submitted to the NH legislature for review and approval by the House and Senate as part of the legislative process, before being signed into law.

NHDOT provides the regional planning commissions with resources to help standardize the regional project review process for the Ten Year Plan. The [NH Ten Year Plan Regional Project Review](#) criteria packet describes the regional evaluation considerations that should be factored when ranking and evaluating proposed projects. The criteria packet also lists potential resources and data sources that can be used to justify project rankings, such as Regional and Statewide Title VI and Environmental Justice Programs, sidewalk network maps, corridor studies, and more. In cases where data sources are not available for a project, the regional planning commissions decide which sources to include in the review process.

[Aligning Programming with Performance Target Achievement](#)

NHDOT’s programming process is governed primarily by the Ten Year Plan and utilizes project evaluation criteria to support the Federal performance areas for safety, infrastructure condition, and system performance. The Ten Year Plan Regional Project Review guidance identifies the relevant Federal performance measures that align with each criterion. Table 12 summarizes the relevant Federal performance measures that are reflected in the Ten Year Plan’s project evaluation criteria.

Table 12. NHDOT Ten Year Plan Criteria Linkages with Federal Performance Measures²⁶

Ten Year Plan Criteria	Federal Performance Measures Addressed
Economic Development	Truck time travel reliability on the Interstate System
Equity and Accessibility	On-road mobile source emissions reduction
Mobility	- Reliable person-miles traveled on the Interstate System - Reliable person-miles traveled on the non-Interstate National Highway System (NHS)
Safety	- Number of fatalities - Rate of fatalities - Number of serious injuries - Rate of serious injuries - Number of non-motorized fatalities and non-motorized serious injuries
State of Repair	- Percentage of pavements of the Interstate System in good condition - Percentage of pavements of the Interstate System in poor condition - Percentage of pavements of the non-Interstate NHS in good condition - Percentage of pavements of the non-Interstate NHS in poor condition - Percentage of NHS bridges classified as in good condition - Percentage of NHS bridges classified as in poor condition

NHDOT's [FY 2019-2022 STIP](#) includes a table that tracks the Federal performance area associated with each project. NHDOT and the [Partnering for Performance New Hampshire \(PFPNH\)](#) working group developed the table in an effort to link investment priorities to Federal performance targets. The table is intended to help maintain consistency with the categorization of project types between NHDOT and the regional planning commissions. All projects support at least one Federal performance area, but projects are not always quantified for every performance area (e.g., a pavement restoration project may have perceived safety benefits, but the project is generally categorized as a pavement project only). Table 13 summarizes example project types that NHDOT programs to help support progress toward target achievement for the Federal performance areas.

²⁶ NHDOT Ten Year Plan, Regional Project Review, https://www.therpc.org/application/files/2415/9475/6279/TYP_Criteria_final.pdf

Table 13. NHDOT's Example Project Types Supporting the Federal Performance Areas²⁷

Federal Performance Area	Example Project Types
Highway Safety	Sidewalk reconstruction, roadway widening, intersection improvement
Pavement Condition	Roadway resurfacing and reconstruction
Bridge Condition	Bridge rehabilitation or replacement
System Performance	TSMO, ITS technologies, traffic signalization, reconstruction of crossings and signals, transit facility improvements

In addition to the Federal performance measures, the state's four MPOs coordinated with NHDOT through the PFPNH working group to establish the following performance measures that address local and regional needs on the state's transportation system:

- Motorcycle fatalities,
- Transportation-related greenhouse gas emissions per capita,
- Remaining useful life for transit fleet,
- Major employers served by transit,
- Fixed route transit ridership,
- Transit fleet using alternative fuels, and
- General and low-income people served by transit.

These performance measures address local and regional goals related to safety, mobility, infrastructure, livability, economic vitality, congestion mitigation, and environment. These performance measures also correspond to applied uses or ways in which the measures are factored into local or regional planning processes, such as through project selection, MPO plans, technical assistance efforts, and corridor studies. The [PFPNH website](#) describes each measure and identifies the goal areas that they support, related databases and sources used to perform the data analysis, types of projects and outreach used to promote the measure, alignment with the Federal performance measures, and the measures' applied uses in regional planning processes. PFPNH continues to convene regularly to share data sources, identify regionally significant performance measures, and develop strategies for investment decisions to support progress toward target achievement for both the Federal and non-Federal performance measures.

²⁷ NHDOT 2019-2022 STIP, <https://www.nh.gov/dot/org/projectdevelopment/planning/stip/documents/final-amend-4-full-report-website.pdf>

Appendix D. Washington State Department of Transportation

This summary report highlights the [Washington State Department of Transportation's](#) (WSDOT's) performance-driven programming process. WSDOT maintains approximately 18,600 lane miles of roadways and 3,300 bridges across the state. WSDOT coordinates transportation planning activities with 12 metropolitan planning organizations (MPOs), including four bi-state MPOs, and 17 regional transportation planning organizations (RTPOs). WSDOT is divided into six regions, including Eastern, North Central, Northwest, Olympic, South Central, and Southwest.

Project Identification Process

WSDOT's performance-based planning and programming process is informed by legislative action and state planning requirements and coordinated through the Long-Range Statewide Transportation Plan (LRSTP) and Statewide Transportation Improvement Program (STIP). The [Washington Transportation Plan](#) (WTP) is carried out through two phases: policy (WTP Phase 1) and implementation (WTP Phase 2). WTP Phase 1 outlines a long-term vision for the state transportation system over a 20-year period and addresses local and regional needs. Policy issues are identified through public and stakeholder involvement, including consultations with the WTP Steering Committee, WTP Advisory Group, and WSDOT staff. The [current WTP](#) Phase 1 extends through 2040. The [Washington State Transportation Commission](#) (WSTC) develops and updates WTP Phase 1 every four years to provide policy recommendations to the state legislature. The WSTC is a seven-member group of citizens appointed by the Governor. The WSDOT Secretary and a representative from the Governor's Office serve as ex-officio members. WTP Phase 2 implements key policy recommendations for the development of the state's multimodal transportation system through four focus areas and 11 action items. Both phases of the WTP are guided by Steering Committees comprised of WSDOT, WSTC, and MPO representatives.

WTP Phase 1 recommends policies and strategies to the state legislature that support the six transportation system policy goals established in state statute: (1) Preservation, (2) Safety, (3) Stewardship, (4) Mobility, (5) Economic Vitality, and (6) Environment. WSDOT is responsible for implementing the six statutory goals and other state legislative direction.

The STIP is a four-year fiscally constrained transportation program covering prioritized investments across all modes. WSDOT develops the STIP annually through coordination and engagement with the MPOs, RTPOs, and stakeholders including the general public. The projects identified in the STIP are consistent with the WTP. Some STIP projects are identified by legislative action through a line item list of projects, while other projects are identified through state, metropolitan, Tribal, and local planning processes. In Washington, cities, counties, and public transportation providers are required to develop and adopt six-year transportation programs, following their own planning and public processes to identify and fund projects. WSDOT participates in local and regional processes to provide input during project identification, and local agencies collaborate with their MPO or RTPO to include projects in their Transportation Improvement Programs (TIPs). Tribal governments work with their MPO and/or RTPO, or directly with WSDOT, to include Tribal projects in their TIPs or the STIP. To help streamline and standardize the project identification process for all agencies, WSDOT developed an electronic database for project sponsors to submit project proposals. WSDOT also published a [STIP Training Manual](#) with guidance on how to navigate the online system, enter or modify project information, export data, and produce reports. Projects with secured funding are included in the final STIP. The [current STIP](#) extends through Fiscal Years (FY) 2022-2025.

Project Evaluation Criteria

The MPOs serving the four Transportation Management Areas (TMAs) in the state each select projects in consultation with WSDOT, and the other MPOs and RTPOs outside of the four TMAs select projects in coordination with WSDOT. WSDOT suballocates Surface Transportation Block Grant (STBG) and Transportation Alternatives (TA) funding annually to MPOs, RTPOs, and county lead agencies; projects under these programs are evaluated and prioritized in cooperation with WSDOT. MPOs receive Congestion Mitigation and Air Quality Improvement (CMAQ) Program funding and develop their own project evaluation criteria; WSDOT does not play a direct role in selecting CMAQ projects for funding.

For Bridge, National Highway Performance Program, and Highway Safety Improvement Program funds, WSDOT uses evaluation criteria related to asset performance condition (e.g., pavement and bridge) and safety (e.g., Target Zero priorities for zero deaths and fatal crashes by 2030) to evaluate, prioritize, and select projects.

Project Prioritization Process

WSDOT prioritizes projects that address Federal performance measures related to highway safety, pavement condition, bridge condition, travel time reliability, freight reliability, traffic congestion, and on-road mobile source emissions.

To address safety, WSDOT prioritizes and programs projects consistent with the goals identified in the state's [2019 Target Zero Strategic Highway Safety Plan](#); the plan aims to achieve zero fatalities and serious injuries by 2030 and includes [performance-based goals](#) that influence WSDOT's safety performance targets. WSDOT and the MPOs coordinate to plan and program projects that achieve progress towards the state safety targets.

WSDOT's investment approach to preserve and improve the condition of pavement and bridges is focused on lowest life-cycle cost strategies, priority project lists, and the backlog of unfunded projects. WSDOT performs life-cycle planning to estimate the cost of managing assets, evaluates available revenues and financial strategies, and analyzes performance scenarios to inform its pavement and bridge investments strategies.²⁸ Pavement prioritization is shaped by three main principles: (1) Avoiding Future Liability, (2) Asset Use, and (3) Life-Cycle Cost. Bridge preservation strategies factor the condition and age of bridge components. The results from these data analyses are incorporated into the prioritization of state-maintained pavement and bridge projects.

Projects that address mobility in Washington State are generally prioritized through the legislative process as the state legislature decides which mobility projects to include in the STIP. WSDOT helps the state legislature through this decision-making process by providing input for consideration and developing resources to inform decisions. Resources include statewide modal plans (e.g., ferries, highway, active transportation, public transportation, and rail), corridor plans, and other planning studies.

WSDOT is currently working with the MPOs and RTPOs on an approach to collaboratively identify, evaluate, and prioritize transportation investments and provide the legislature with critical information needed to make funding decisions that most effectively achieve the transportation policy goals for all

²⁸ WSDOT Transportation Asset Management Plan 2019
https://wsdot.wa.gov/sites/default/files/filefield_paths/WSDOT_TAMP_2019_Web.pdf

system users. That work is expected to be completed in 2024. WSDOT is also developing a [Practical Solutions Performance Framework](#) that is intended to outline a consistent agency approach to achieving the state's six transportation policy goals, informed by stakeholder engagement. The framework will include measures and metrics for each of the six state transportation policy goals (the Mobility and Economic Vitality policy goals are the current focus), helping WSDOT make decisions that advance the goals and align with community needs. Additionally, WSDOT and the MPOs evaluate system performance, freight, and CMAQ targets by using data tools such as the [Regional Integrated Transportation Information System](#) (RITIS), which allows the agencies to analyze transportation-related data, assess performance measures and targets, and provide findings to support other decision-making processes.

Aligning Programming with Performance Target Achievement

WSDOT established a collaborative target setting framework process with the MPOs so they could continually work together to improve coordination and collaboration.²⁹ The target setting framework process is facilitated through a Target Setting Framework Group and Target Setting Technical Teams, which are each tasked with different functions and responsibilities.

The Target Setting Framework Group is comprised of WSDOT representatives and MPO directors, serving as the major decision-making group. The group meets to address issues related to decisions involving the process, the data, and target setting. Process decisions determine how early and how often WSDOT, MPOs, and public transportation providers engage each other. Data decisions reflect the types of data used and the approaches to data collection, performance analysis, and progress reporting. Target setting decisions provide WSDOT with overall advisory support as the group submits recommendations to the MPOs and WSDOT's Executive Leadership Team and the State Secretary of Transportation. If needed, the State Secretary may coordinate with the Governor's office to make sure targets support the Governor's strategic direction before the final targets are adopted.

WSDOT has separate Target Setting Technical Teams for each of the performance measures. Target Setting Technical Teams include WSDOT and MPO subject matter experts that are involved with analyzing system performance and establishing targets. WSDOT technical team members provide initial recommendations for state targets and the entire technical team is tasked with reviewing and evaluating the feasibility of recommendations, fiscal and resource impacts, and information gaps. The team also provides regional data to the MPOs to inform their target setting processes. To date, all of the MPOs have elected to support the statewide targets for the Federal performance measures. The Technical Team's findings are presented to the Framework Group for further discussion and consensus, and Technical Team members also report to their MPO or WSDOT office and collaborate with local agencies and other stakeholders to collect input based on their resources and expertise.

WSDOT also manages and regularly updates [TPM folios](#) that describe the Federal performance areas and associated timelines and responsibilities for target establishment and reporting. The TPM folios have been used throughout the state as well as on a national scale as they are educational tools that provide key information to policy boards, technical advisory committees, and other stakeholders. Table 14

²⁹ WSDOT 2021-2024 STIP, <https://wsdot.wa.gov/sites/default/files/2009/01/24/LP-STIP-Documents.pdf#page=7>

summarizes example project types that WSDOT programs to support progress toward target achievement for the Federal performance areas.

Table 14. WSDOT's Example Project Types Supporting the Federal Performance Areas^{30,31}

Federal Performance Area	Example Project Types
Highway Safety	Guard rails, rumble strips, multimodal safety improvements, signage
Pavement Condition	Roadway resurfacing and reconstruction
Bridge Condition	Bridge rehabilitation or replacement
System Performance	Interchange improvements, new road alignment, Intelligent Transportation Systems technologies, active transportation improvements, transportation demand management strategies, traffic signalization, freight modeling, and capital planning

³⁰ WSDOT STIP Training Manual, Appendix A: Improvement Type Codes, <https://wsdot.wa.gov/sites/default/files/2009/01/14/STIPTrainingManual.pdf>

³¹ WSDOT STIP Project Search, <https://www.wsdot.wa.gov/LocalPrograms/Projects/Reports/ProjectSearch.aspx>

Appendix E. Broward Metropolitan Planning Organization

This summary report highlights the [Broward MPO's](#) performance-driven programming process. The Broward MPO serves the communities in and around Fort Lauderdale in southeastern Florida. The MPO covers a population of approximately 1.7 million people and serves 31 municipalities across Broward County.

Project Identification Process

The Broward MPO's project identification process begins with the development of the MTP, which the MPO updates every five years. The MPO establishes a process for evaluating and prioritizing transportation needs and issues a call for projects to the Florida Department of Transportation (FDOT) and other local agencies. The MPO uses its travel demand model and a scenario planning analysis to identify additional projects to include in its candidate project listing. The MPO also reviews relevant planning studies and previous MTPs to supplement its initial project listing. The MPO developed a [public participation plan](#) that guides public involvement activities for the MTP, which generally include stakeholder discussions with a steering committee, the public, government officials, community organizations, and others; as well as public open houses, workshops, forums, surveys, MPO newsletter articles, website updates, emails, real-time polling, and interactive maps.

After the candidate projects are evaluated and prioritized, the MPO adopts the MTP and uses its cost feasible plan to annually update the Federal and state funding priorities in the MPO's Multimodal Priority List (MMPL), FDOT's Five Year Work Program, and the MPO's [TIP](#). Staff at the Broward MPO review the TIP for consistency with the priorities in the MMPL and MTP. The cost feasible plan helps ensure that projects are fiscally constrained and provides additional opportunity for public involvement. This plan is developed as part of the MTP based on a needs assessment, performance-based project prioritization process, forecast of available revenues for transportation, and public comments. The Broward MPO produced an interactive map of the cost feasible plan to collect public comments and refine project priorities.

In order to balance investments among transportation modes, the MTP uses six funding programs: (1) Roadway, (2) Transit, (3) Systems Management/Safety, (4) Complete Streets and Localized Initiatives Program (CSLIP), (5) Mobility Hubs, and (6) Complete Streets Master Plan (CSMP). These funding allocations only apply to the MPO's Surface Transportation Block Grant Program funds, which are directly under the control of the MPO. Table 15 shows a breakdown of the funding allocations among the six programs.

Table 15. Broward MPO's MTP Funding Allocation by Program Area

Program Area	Program Description	Funding Allocation
Roadway	Projects that increase roadway capacity, including the studies, design, and preliminary engineering that support such projects	20%
Systems Management / Safety	Transportation systems management and operation (TSMO) projects, which are based on the active management of the multimodal transportation network, performance measurement, streamlining and improving the existing system, promoting effective cooperation/collaboration, and delivering positive safety and mobility outcomes to the traveling public	15%
Transit	Transit capital investments and roadway improvements designed to serve as exclusive lanes for transit services	10%
Complete Streets and Localized Initiatives Program (CSLIP)	Small local transportation projects that will improve safety and mobility for all transportation users; projects funded through this program are generally less than \$2 million	20%
Mobility Hubs	Transit access points with frequent transit service, high development potential, and a critical point for travel demand or transfers within the transit system	10%
Complete Streets Master Plan (CSMP)	Projects that emphasize the safe and efficient movement of people regardless of mode; projects are generally more than \$2 million	25%

Project Evaluation Criteria

The MPO's current project evaluation criteria are based on the goals and objectives in the [Commitment 2045 MTP](#) and were developed to consider the Federal performance areas for safety, infrastructure condition, and system performance. The Roadway, Systems Management/Safety, and Transit funding programs rely on six planning factors: (1) Accessibility, (2) Mobility, (3) Safety, (4) Equity, (5) Economic Vitality, and (6) Environmental Stewardship. The Broward MPO gives each criteria a weighted value based on its importance to the community. These weightings were determined through an interactive polling process with the MPO's Board, Technical Advisory Committee (TAC), and Citizens' Advisory Committee (CAC) and are summarized in Table 16. These values are designed to be flexible and can be adjusted to reflect changes in agency, statewide, or Federal priorities over time.

Table 16. Broward MPO Planning Factor Weighted Values for the Roadway, Transit, and Systems Management / Safety Programs

Planning Factors	Weighting
Accessibility	20.8%
Mobility	20.5%
Safety	18.7%
Equity	14.3%
Economic Vitality	13.0%
Environmental Stewardship	12.8%

The MPO has several exceptions to this evaluation process for certain types of projects. For example, projects involving Complete Streets, bicycle/pedestrian improvements, and mobility hubs rely on unique methodologies for prioritization. CSLIP uses an objective tool to score projects with criteria weights of 30 percent for safety, 24 percent for economic development, 23 percent for connectivity, and 23 percent for mobility. CSMP uses a slightly modified formula that assigns projects points based on a set of criteria that fit into the four categories of (1) Connectivity, (2) Mobility, (3) Safety, and (4) Economic Development. For the Mobility Hub Program, the MPO prioritizes projects using five primary criteria: (1) Critical Connections, (2) Existing Developed Areas, (3) Local Request/Support of Other Plan Designation, (4) Public-Private Partnership Opportunities, (5) Tax Increment Financing Opportunities. Table 17 outlines the evaluation and scoring framework used to prioritize projects within the Mobility Hub Program.

Table 17. Evaluation and Scoring Framework for Projects Within the Mobility Hub Program

Evaluation Criteria	Performance Measure	Score
Critical Connections	Number of transit corridors and type of service – high capacity routes received one point each.	0 to 3
Existing Developed Area	Total number of jobs and population within one-half mile of the intersection of connecting routes. Points were assigned based on ranking of the population size within quartiles. Locations that fell within the relative size of over 76 percent of all locations received three points; between 51-75 percent - two points, and between 26-50 - one point. Jobs plus population totaling below 26 percent of the normalized data size was given no points.	0 to 3
Local Request/Support or Other Plan Designation	An area with existing or future plan or study received three points. All others received one point.	1 or 3
Public-Private Partnership Opportunities	Project status/initiative as defined by presence of a Community Redevelopment Authority (three points) or locally defined mixed-use land use designation (two points). Locations with neither were assigned no points	0 to 3
Tax Increment Financing (TIF) Opportunities	Land use status – determined by the MPO for a high score of three points. Those locations determined to not likely support TIF received no points.	0 to 3
Total Possible Score		1 – 15

Furthermore, FDOT prioritizes and selects TSMO projects on the state highway system, and the MPO prioritizes safety improvement studies and projects off the state highway system using the agency's severity index. The severity index is a measure that looks at total crashes and crash severity and uses a weighted average to rank locations based on their importance for future safety analysis and improvements.

Project Prioritization Process

During the development of the MTP, the Broward MPO evaluates proposed projects using the established criteria, ranks projects according to evaluation scores, and then allocates projects to the appropriate funding program based on eligibility and priority. Projects are evaluated regardless of their mode; however, the MPO does not evaluate projects from the FDOT as those projects have already identified funding outside of the MTP funding programs.

The MPO uses the MMPL, which is developed in coordination with FDOT, to help set funding priorities for Federal and state funds in the region. The MMPL serves as a bridge between the MTP and the TIP and is used by FDOT to develop the Five Year Work Program. The MMPL uses the evaluations conducted for each funding program in the MTP to assign each project to a preferred funding source that is consistent with the MTP's cost feasible plan. The projects in the MMPL are prioritized and ranked based upon a screening process that identifies projects that are most important or most significant. The MMPL

also designates a preferred Federal, state, or local funding source for each project and emphasizes a “program ready” concept to only move projects forward if they include a clear scope of work, an approved resolution, and a cost estimate, and demonstrate collaboration with stakeholders.

MPO staff review the project rankings with the TAC and CAC before providing their final recommendations to the MPO Board. Upon Board approval, FDOT uses the prioritized list of projects to make funding available in the Five Year Work Program and the Broward MPO’s TIP. This [report](#) provides additional details on the MPO’s project prioritization process.

Aligning Programming with Performance Target Achievement

The MPO’s TIP includes baseline data and targets for the FHWA performance measures and summarizes the total number of projects and total amount of funding the MPO has programmed to support progress toward achieving those targets. The MPO’s establishment of six funding programs enables the agency to allocate funding to projects that will make progress towards the Federal performance targets. For example, the agency developed its safety program in direct response to Federal performance measures on highway safety to help ensure that the MPO was making consistent progress toward achieving its safety targets. The MPO also uses a [Performance Scorecard](#) to indicate the targets for each performance area and to illustrate how the TIP is making progress toward target achievement. Table 18 summarizes example project types in the MPO’s TIP that help support progress toward target achievement for the Federal performance areas.

Table 18. Broward MPO’s Example Project Types Supporting the Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Bike lane/sidewalk, lighting, traffic control devices/system, safety projects, push button, corridor improvements, add turning lanes, signing and pavement markings, bicycle and pedestrian safety action plan, complete streets initiative
Pavement Condition	Roadway resurfacing or reconstruction
Bridge Condition	Bridge repair, rehabilitation, or replacement
Travel Time Reliability	Intersection improvements, congestion relief projects, freight projects, Travel Demand Management (TDM) projects, managed lanes, TSMO, park and ride lots, adaptive traffic control systems
Freight Reliability	Intersection improvements, congestion relief projects, freight projects, TDM projects, managed lanes, TSMO, park and ride lots, adaptive traffic control systems
Traffic Congestion	Intersection improvements, congestion relief projects, freight projects, TDM projects, managed lanes, TSMO, park and ride lots, adaptive traffic control systems

Appendix F. Memphis Urban Area Metropolitan Planning Organization

This summary report highlights the [Memphis Urban Area MPO's](#) performance-driven programming process. The Memphis Urban Area MPO is the bi-state transportation planning body covering the Memphis metropolitan area. The MPO serves a population of over one million people spread across the counties of Shelby and Fayette, Tennessee, and DeSoto and Marshall Counties, Mississippi.

Project Identification Process

The Memphis MPO's regional transportation plan (RTP) identifies project needs, which are refined for the TIP. The MPO begins its project identification process with a call for projects issued to county, city, and agency stakeholders every three years. Project sponsors are responsible for filling out a project application to provide the MPO with a description of the project. The proposed projects form the basis of the MPO's fiscally constrained list of projects. The MPO supplements this list by reviewing past TIPs and relevant planning studies to identify additional projects. The MPO developed a [public participation plan](#) to inform its public engagement and outreach strategies, ensuring public involvement in the planning, review, and implementation of transportation projects and programs. These activities generally include stakeholder discussions, public meetings, and collecting public comments.

Project Evaluation Criteria

The MPO evaluates projects for inclusion in its TIP based on their potential contributions to short- and long-term transportation goals and objectives, as defined in the MPO's [Livability 2050 RTP](#). MPO staff score and rank all projects received for the TIP in order to develop the fiscally constrained project list. For [Fiscal Years \(FY\) 2020-2023 TIP](#), the MPO established project evaluation criteria around these goals to help link the TIP with the national, state, and regional transportation priorities and to assist in the achievement of the MPO's targets for the Federal performance measures. The nine goals from Livability 2050, are listed below.

1. Improve multimodal access to residential, community, and employment resources
2. Support a fully integrated multimodal network that advances the concept of complete streets
3. Ensure the region is well positioned to remain a leader in global logistics and freight movement
4. Enhance travel and tourism
5. Increase the safety and security of the transportation system for all users
6. Advance corridor and community redevelopment opportunities to improve economic development, public health, and quality of life
7. Minimize adverse impacts of transportation investment on the (social, natural, historic) environment
8. Reduce travel delay for people and goods
9. Maintain existing transportation assets and infrastructure

Table 19 highlights the project evaluation criteria used for the FY2020-2023 TIP, the goals in the Livability 2050 RTP, and the national goal areas from FHWA.

Table 19. Planning to Programming Link Between Memphis MPO's TIP Criteria, RTP Goals, and National Goal Areas

FY 2020-2023 TIP Criteria	Livability 2050 RTP Goals	National Goal Areas
System Preservation	Maintenance, Reduce Travel Delay	Infrastructure Condition, System Reliability
Connections & Choices	Multimodal Access, Integrated Multimodal Network	Congestion Reduction
Sustainable Growth	Minimize Adverse Impacts, Quality of Life	Environmental Sustainability
Economic Vitality	Freight Movement, Travel & Tourism	Freight Movement & Economic Vitality
Safety & Security	Safety & Security	Safety
Project Delivery	N/A	Reduced Project Delivery Delay

The Memphis MPO is responsible for selecting and programming projects under the Surface Transportation Block Grant (STBG) Program (funding suballocated to the Memphis region as an urbanized area with a population over 200,000) and the Transportation Alternatives (TA) Program. The Tennessee DOT and Mississippi DOT are responsible for the selection and programming of projects funded by the National Highway Performance Program (NHPP), Highway Safety Improvement Program (HSIP), Surface Transportation Block Grant Program—State (STBG-S), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Infrastructure Program (HIP), and Transportation Alternatives Program—State (TA-S). Table 20 outlines the Federal funding sources used for individual project types.

Table 20. Memphis MPO's Project Types by Funding Source

Project Type	STBG/STBG-S	CMAQ	NHPP	HIP	TA/TA-S	HSIP
Preliminary engineering/ environmental studies/ Right-of-way acquisition	X	X	X		X	X
Road maintenance/ widening/ new road construction/ rehabilitation	X		X	X		
Interchange construction/ modification	X	X	X			
Intersection Improvements	X	X	X	X	X	X
Signalization	X	X	X		X	X
Bicycle/Pedestrian	X	X			X	X
Resurfacing	X		X			X
Traffic Calming	X	X	X		X	X
Bridge repair/ rehabilitation/ seismic retrofit	X		X	X		
Transportation plans/ studies	X				X	

The MPO proceeds by using its evaluation criteria to score and rank projects that fit under the STBG and TA programs. The agency uses separate criteria for projects within each funding program. The agency factors the Federal performance areas into its evaluation criteria, which are categorized into six planning

themes: (1) System Preservation, (2) Safety and Security, (3) Connection and Choices, (4) Sustainable Growth, (5) Economic Vitality, and (6) Project Delivery. The criteria assign a distinct number of potential points to each category. For the STBG road ranking criteria, system preservation is assigned 25 points, safety and security is assigned 20 points, connections and choices is assigned 17 points, sustainable growth is assigned 13 points, economic vitality is assigned 13 points, and project delivery is assigned 12 points. Table 21 shows the MPO's STBG road ranking system preservation criteria from its FY 2020-2023 TIP. Additional scoring criteria are available in [Appendix D](#) of the MPO's TIP.

Table 21. Memphis MPO's STBG Road Ranking System Preservation Criteria.

Criteria	Points
System Preservation	Total Maximum of 25
Project Maintains or Upgrades an Existing Roadway or Transit Service	3
Project Integrates Intelligent Transportation Systems (ITS) Technology Identified in the MPO's Regional ITS Architecture and Deployment Plan	3
Existing Level of Service (LOS) is E or F	3
Existing Average Daily Traffic (ADT):	Maximum of 4
25,000 or more	4
10,000 to 24,999	3
5,000 to 9,999	2
4,999 or less	1
Existing Volume to Capacity Ratio (V/C):	Maximum of 3
More than 0.80	3
0.60 to 0.79	2
0.59 or less	1
Travel time Delay Reduction:	Maximum of 4
Delay reduction more than 2.0 min	4
Delay reduction 1.51 to 2.0 min	3
Delay reduction 1.01 to 1.51 min	2
Delay reduction 0.20 to 1.0 min	1
Delay reduction less than 0.20 min or new roadway project	0
Utilizes Strategies identified in the MPO's Congestion Management Process (1 point for each strategy utilized)	Maximum of 5

The agency's project selection process also includes an equity analysis of the benefits and environmental effects of potential projects on diverse communities within the Memphis metropolitan area. This analysis considers communities in which Environmental Justice (EJ) issues may be present, including minority communities, low-income communities, and Limited English Proficiency (LEP) communities. The agency also evaluates projects regarding whether they provide improvements in line with the Americans with Disabilities Act of 1990. The MPO awards or subtracts points to individual projects based on their anticipated outcomes and potential benefits or burdens to EJ populations and people with disabilities.

Project Prioritization Process

The Memphis MPO uses the results of this scoring process to develop its preliminary project ranking. The MPO has refined its scoring criteria over time to help ensure that both qualitative and quantitative factors are considered in the analysis.

The MPO staff presents a preliminary project ranking and a list of potential funding options to the Tennessee and Mississippi members of the Engineering and Technical Committee (ETC) for their review. MPO staff incorporate feedback from this process into the project ranking before proceeding to submit the final list of prioritized projects to the ETC and Transportation Policy Board for their approvals.

Aligning Programming with Performance Target Achievement

The MPO develops its TIPs with the intent of linking the MPO's investment priorities to the regional goals and objectives established in the RTP and the Federal performance measures. By incorporating these performance measures and goals into the TIP's project evaluation criteria, the MPO helps ensure that the projects selected for funding will support the achievement of the MPO's adopted performance targets. To align with regional priorities, the project evaluation criteria provides more points to projects that prioritize safety and security, system preservation, and improving multimodal access. Table 22 summarizes example project types in the MPO's [FY 2017-2020 TIP](#) and [FY 2020-2023 TIP](#) that help support progress toward target achievement for the Federal performance areas.

Table 22. Memphis MPO's Example Project Types Supporting the Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Safety improvement studies, bicycle and pedestrian improvements, traffic signalization, access management, road diets, improved access to public transportation
Pavement Condition	Roadway resurfacing, preventative maintenance, reconstruction
Bridge Condition	Bridge repair, rehabilitation, preservation, replacement
Travel Time Reliability	Roadway widenings, interchange improvements, intersection improvements, ITS, traffic signalization
Freight Reliability	Roadway widenings, interchange improvements, roadway resurfacing, and bridge improvements along local regional freight corridors
Traffic Congestion	Roadway widenings, intersection improvements, bicycle and pedestrian improvements, improved access to public transportation
On-Road Mobile Source Emissions	Traffic signalization and modernization, Travel Demand Management activities, bicycle and pedestrian improvements, diesel emissions reduction strategies

To further link programming with the Federal performance measures, each locally-sponsored project in the FY 2020-2023 TIP was matched with the Federal performance area it supported. Projects which

score 50 percent or more out of the possible points for that performance area category are considered to be furthering the goals of that performance area. In the TIP document itself, each project page displays an icon for the Federal performance area the project supports, if any, up to a maximum of two.

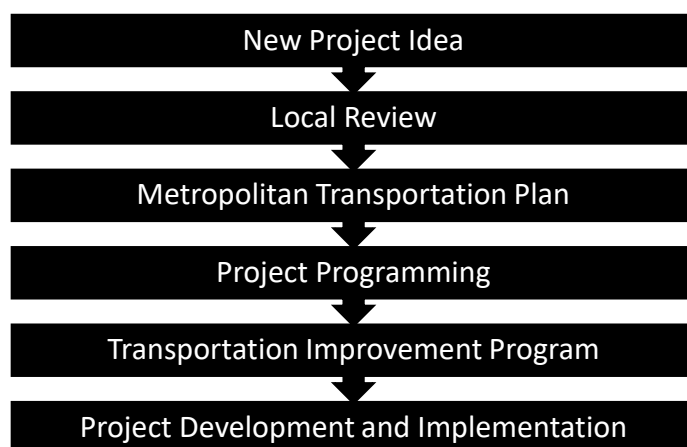
Appendix G. Metropolitan Transportation Commission

This summary report highlights the [Metropolitan Transportation Commission's](#) (MTC's) performance-driven programming process. MTC is the MPO serving the San Francisco Bay Area in Northern California. MTC covers a population of over seven million people spread across nine counties and 101 cities and is responsible for planning, financing, and coordinating a transportation system of nearly 43,000 lane-miles of local streets and roads across the region. The agency has an annual operating budget of over \$1.3 billion, which is derived from Federal, state, and local sources as well as toll revenue.

Project Identification Process

MTC's project identification process originates with the agency's MTP, [Plan Bay Area 2050](#). Regionally significant projects are identified in the MTP and projects in the [TIP](#) help to implement the goals in the plan. MTC uses the investments in its MTP to develop a short-term program of improvements, which are used to develop the agency's TIP. The [current TIP extends through FY 2021-2024](#). Figure 2 demonstrates how MTC's MTP and TIP fit into the agency's overall planning and programming process.

Figure 2. Summary of MTC's Project Identification and Selection Process



To identify potential projects, MTC first issues a call for projects for the MTP to Bay Area jurisdictions, transit agencies, and other local public entities. MTC includes extensive public outreach as part of its call for projects allowing the public to directly submit projects for consideration into its plan. Projects that are prioritized for inclusion in the MTP must still secure funding for implementation. When developing the TIP, MTC proceeds to issue calls for projects to distribute funds for those programs that the agency has discretion over, which include: (1) Surface Transportation Block Grant Program (funding suballocated to the Bay Area as an urbanized area with a population over 200,000), (2) Congestion Mitigation and Air Quality Improvement Program, (3) Transportation Alternatives Program, and (4) Federal Transit Administration funding.

Non-Federal goals and performance areas play an important role in MTC's planning process. The MTP lays out a number of goals surrounding accessibility across transportation modes, the proximity of jobs and housing to transit, the Vision Zero strategy to eliminate all traffic fatalities and serious injuries, and climate change. Statewide mandates and programs also play an important role in MTC's planning process. California State Senate Bill 375, which established a statewide greenhouse gas (GHG) emissions

reduction target, directs MTC and other planning agencies throughout California to prioritize projects that will help to reduce GHG emissions. MTC integrated its goal for a reduction of GHG emissions into its MTP and made it a key factor in the project prioritization process to help the agency contribute to the statewide target. The use of these goals and objectives allows MTC to advocate for certain programs, initiatives, and projects despite the agency's limited discretionary and programming authority.

Project Evaluation Criteria

MTC's project evaluation criteria are dependent upon the type of project and funding source. Instead of using one uniform set of evaluation criteria for all investment decisions, MTC has an array of program-specific processes and resolutions that inform the project evaluation process. As indicated above, many of these subprograms have individual calls for projects and scoring panels that evaluate the extent to which each project meets the programmatic goals. Projects are reviewed separately within each funding area based on the program's purpose and eligible activities. The [One Bay Area Grant Program](#) guides how MTC distributes Federal transportation funding from the Federal Highway Administration throughout the Bay Area. The full listing of project evaluation and programming resolutions used by MTC is available for review [here](#).

Project Prioritization Process

MTC uses the information provided by project sponsors to evaluate the proposed projects and determine the extent to which they meet program goals. The majority of projects in the TIP are identified as "fix it first" projects, which target the operation, maintenance, and management of the region's existing transportation system. Most of the MPO's funding programs are targeted toward this goal, though there are additional opportunities for other work types focused on transit, mobility, and bicycle/pedestrian projects, among others. MTC uses the findings from this evaluation process, along with the data collected from project sponsors, to work with the California Department of Transportation (Caltrans) to finalize the investment decisions in their TIP. Caltrans uses its own prioritization processes for projects funded through the National Highway Performance Program, Surface Transportation Block Grant Program, or state-funded maintenance program, and Caltrans provides those projects to MTC for inclusion in the TIP.

Once projects have been selected for funding, all project sponsors, including Caltrans, submit a supplemental project information form to MTC. This form provides additional information on the project's anticipated performance impacts as well as background information on the project's purpose and total cost. For example, the form asks respondents to estimate the effect that the project will have on fatalities and serious injuries from roadway crashes for users of all modes, with responses ranging from a significant reduction to an adverse impact. While the data is self-reported, this information allows MTC to evaluate the entire TIP on a programmatic level and assess the effect that projects will have on individual performance areas. The data collected from this form also helps to inform subsequent calls for projects, evaluations, and project selections.

Aligning Programming with Performance Target Achievement

MTC has a history of integrating performance-based planning and programming into its regional transportation planning processes, plans, and programs. The recent establishment of Federal performance areas has enabled MTC to develop clear performance measures and targets from previously institutionalized practices. The TIP includes baseline data and targets for the FHWA

performance measures and identifies example project types that MTC expects will contribute to future target achievement. The TIP also summarizes the total number of projects and the total amount of funding MTC has programmed to support the Federal performance areas. MTC relies on self-reported data from project sponsors, which results in some inconsistencies; however, this data helps the MPO identify the projects and funding amounts that support individual performance areas and the anticipated performance benefits for the region. Table 23 summarizes example project types in MTC's TIP that help support progress toward target achievement for the Federal performance areas.

Table 23. MTC's Example Project Types Supporting the Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Interchange reconstruction, High Occupancy Vehicle (HOV) lanes, congestion reduction, roundabouts, operational improvements
Pavement Condition	Roadway resurfacing or reconstruction, pavement preservation, pavement rehabilitation
Bridge Condition	Bridge rehabilitation, bridge reconstruction
Travel Time Reliability	HOV lanes, roadway widening, 511 regional traveler information, interchange improvements
Freight Reliability	Grade separation, Freight Intelligent Transportation Systems, interchange reconstruction, interchange improvements
Traffic Congestion	Commuter train electrification, managed lanes, light rail extension, HOV lanes, investments in bicycle, pedestrian, or transit travel, pavement preservation/rehabilitation projects that add sidewalks, bicycle facilities, transit stop improvements

Appendix H. Pima Association of Governments

This summary report highlights the [Pima Association of Governments](#)' (PAG) performance-driven programming process. PAG is the transportation planning body covering the Tucson, Arizona metropolitan area. The MPO serves a population of approximately one million people and is led by a nine-member regional council that has representatives from Pima County, five municipalities, the Pascua Yaqui and Tohono O'odham Tribal governments, and the Arizona State Transportation Board.

Project Identification Process

The TIP is the mechanism through which PAG implements its long-range transportation plan, [2045 Regional Mobility and Accessibility Plan \(RMAP\)](#), in a manner that is consistent with regional needs and priorities. The development of the 2045 RMAP is informed by feedback collected through a public involvement process with the general public, jurisdiction staff, and elected officials. The public participated in the development of the 2045 RMAP through a survey, online engagement, workshops, and open houses, as well as involvement on a 2045 RMAP Task Force that consists of public and private sector representatives. All projects listed in RMAP are consistent with the TIP. To initiate the TIP development process, PAG releases a Notice of Funding Availability (NOFA), which defines the parameters for the TIP by highlighting the regional policies and priorities that will be relevant to the project selection process. The NOFA identifies how much funding from individual funding sources will be available for the TIP and outlines the process for jurisdictional representatives to apply for funding.

Project sponsors and jurisdictions submit new projects for funding through PAG's web portal. The portal maps projects in a GIS platform and provides project sponsors with data on system performance in the proposed project area. Project sponsors can perform a network screening of the existing performance of their facilities and delineate a proposed project extent, which generates a performance report for the facilities indicated and adjacent areas. The performance report, and entire portal, provides applicants with a starting point to understand the congestion, safety, pavement, and bridge conditions in the proposed project area along with other relevant information related to traffic volumes, environmentally sensitive areas, and bicycle/pedestrian counts. Supplemental questions are used to clarify which performance areas are anticipated to be affected by the proposed project allowing PAG to conduct regional comparisons of similar project types and evaluate their respective benefits or potential negative consequences to the region.

Through the development of the project portal, PAG has emerged as a critical source for regional performance data. This helps to promote greater equity in the project identification process by ensuring that all project sponsors have access to the necessary performance data. By providing jurisdictional practitioners with performance data, PAG is able to help project sponsors understand the performance of the regional network and establish more ownership in the project evaluation and programming processes. This process helps ensure that the MPO selects projects that align with the region's transportation needs and priorities.

PAG developed a public participation plan specifically for the TIP, which was informed by the MPO's public involvement policy. Public involvement activities for the TIP generally include virtual open houses and a public comment period to collect input on candidate projects.

Project Evaluation Criteria

PAG staff begin the project evaluation process by developing a matrix showing project applications submitted in response to the NOFA and their corresponding impacts on the performance measures and congestion management process. This information is collected using the project performance reports created with the project portal. This process gives PAG an indication of how projects support regional priorities and the Federal performance measures, helping the agency to align programming with performance target achievement. The agency proceeds to evaluate projects using the competitive selection criteria that is developed by PAG based on the Federal performance areas and the regional priorities defined by the PAG Regional Council.

The factors considered in this evaluation include regional priorities, safety, system preservation, the number of users to benefit from the project, congestion relief, environmental impacts, accessibility, system continuity, and regional significance. Following this evaluation, additional consideration is given to a variety of other factors, such as previous public comments and project readiness. Final project selections are based on the blending of these considerations while project schedules are based on readiness and resource availability. Projects not consistent with these priorities are returned to the sponsoring agency and are not considered in the programming process.

Project Prioritization Process

PAG uses the performance reports developed through the project portal to further evaluate projects and assess the extent to which they make progress toward the Federal and regional targets established in RMAP and the TIP. PAG also reviews the results of its congestion management process to evaluate whether congestion mitigation strategies are being considered for capacity-increasing projects. PAG staff use network data to develop individual project scores and rank projects through a prioritization process. However, PAG staff closely review these results and infuse additional data sources as needed to help ensure that the evaluation scores are not the sole determining factor in the process. PAG is constantly working to update and improve its project prioritization process by incorporating new performance measures and evaluation criteria. Currently, PAG is working to integrate greater equity considerations into this process to help ensure that funds are properly targeted to investment needs in underserved communities.

PAG presents the findings from this process to the Transportation Planning Committee and relevant subcommittees to review the project performance data and project recommendations. The [FY 2022-2026 TIP](#) development process involved using an application form combined with working group evaluations and discussions to achieve financial constraint for the recommended project list.

Throughout this process, only those projects that comply with the NOFA and Regional Council policies are advanced for programming. This entire process is facilitated by PAG's project portal, which allows for an objective and consistent evaluation of the system performance impacts of the proposed projects.

Aligning Programming with Performance Target Achievement

The Federal and non-Federal performance measures in 2045 RMAP are directly reflected in the project evaluation and prioritization process used for the TIP. PAG's TIP includes baseline data and targets for the FHWA performance measures and additional non-Federal performance measures on system maintenance, multimodal choices, freight and economic growth, land use and transportation, and environmental stewardship. The TIP also summarizes the total number of projects PAG has programmed to support progress toward achieving the targets and identifies example project types that PAG expects will contribute to future target achievement. The development of PAG's project portal has played a critical role in allowing PAG to determine the anticipated impacts from projects submitted for TIP consideration. The agency also publishes a progress report in its TIP to demonstrate current trends and progress toward achieving targets. Table 24 summarizes example project types in the MPO's TIP that help support progress toward target achievement for the Federal performance areas.

Table 24. PAG's Example Project Types Supporting Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Intersection improvements, signage and safety enhancements, street lighting, pedestrian hybrid beacons, Americans with Disabilities Act improvements
Pavement Condition	Pavement preservation, roadway resurfacing or reconstruction
Bridge Condition	Bridge rehabilitation, bridge reconstruction
Travel Time Reliability	Roadway widening, interchange improvements
Freight Reliability	Grade separation, roadway widening
Traffic Congestion	Bus pullouts, Intelligent Transportation Systems, capacity improvements, bicycle and pedestrian facilities

Appendix I. Rockingham Planning Commission

This summary report highlights the [Rockingham Planning Commission's](#) (RPC's) performance-driven programming process. RPC is a small MPO serving 27 cities and towns in southeastern New Hampshire. RPC is home to nearly 200,000 people and covers the urbanized job centers of Portsmouth, Exeter, and Salem, NH as well as the tourist destinations along the seacoast, which host over six million visitors each year.

Project Identification Process

RPC provides a prioritized and fiscally constrained list of projects to the New Hampshire Department of Transportation (NHDOT) every two years for consideration for the New Hampshire Ten Year Transportation Improvement Plan (Ten Year Plan). In order to arrive at the prioritized list of projects, RPC begins by reviewing projects in its Metropolitan Transportation Plan (MTP). The agency continues with a call for projects and a review of recent corridor studies conducted in the region to identify additional projects. RPC reviews the universe of projects and conducts an initial review to confirm eligibility for Federal funding and general feasibility.

RPC developed a [public participation plan](#) that outlines its public participation policy and goals, as well as opportunities for public participation. RPC's public participation process generally includes public meetings, focus group meetings for key populations, surveys, social media engagement, website updates, public comment periods, and other activities. The plan includes strategies to reach underrepresented populations (e.g., individuals with disabilities, elderly, low-income and minority residents and transit-dependent individuals) such as coordination and outreach to community organizations, advocate groups, local government staff and elected officials; targeted questionnaires; and adding a language translation application to the MPO website.

Project Evaluation Criteria

Projects are scored and prioritized using the project evaluation criteria agreed upon by NHDOT and the other MPOs and rural regional planning commissions across the state. The eight criteria include: (1) Economic Development, (2) Equity and Accessibility, (3) Mobility, (4) Natural Hazards Resiliency, (5) Network Significance, (6) Safety, (7) State of Repair, and (8) Support.

While the project evaluation and prioritization process largely occurs internally, RPC participates in the Partnering for Performance New Hampshire (PFPNH) working group, which was developed to foster collaboration between the four New Hampshire MPOs and NHDOT to assess the landscape of performance-based planning and programming (PBPP) across the state and to establish a list of common regional performance measures and targets. PFPNH used an extensive and iterative process to create seven additional non-Federal performance measures and continues to meet regularly to support improvements to the state's processes for PBPP and project prioritization. This engagement allows RPC to refine its internal processes and help ensure that it links its TIP to the Federal performance areas.

Project Prioritization Process

RPC evaluates and prioritizes projects through an interactive process involving the MTP, TIP, and State's Ten Year Plan. The [2045 Long Range Transportation Plan \(LRTP\)](#) forms the blueprint for transportation planning in the region by establishing regional goals, policies, and priorities. The TIP, which serves as the short-range program of regional projects scheduled for construction or implementation over a four-year

period, is incorporated into the LRTP as the short-range, project-specific component. Lastly, the State Ten Year Plan lays out the committed projects for the State of New Hampshire and is updated every two years by NHDOT through extensive coordination with the MPOs across the state.

For prioritization purposes, RPC divides projects into three groups: (1) Local Projects, (2) Regional Projects, and (3) Inter-Regional Projects.³² Local projects typically consist of small-scale improvements such as bicycle/pedestrian projects. Regional projects focus on creating connections between communities, and inter-regional projects typically involve connecting regions, often through investments in the Interstate System. The division of projects into these three subgroups helps ensure that large regional projects that consistently receive a high score in the prioritization process will not always be prioritized over local-level projects. RPC typically sets a goal of funding one project from each subgroup.

As a small MPO, RPC has limited programming authority and must work closely with NHDOT to help ensure that regional priorities are addressed. RPC uses the eight project evaluation criteria to develop a prioritized list of five projects in each subgroup. The MPO's advisory committee reviews the project listing and recommends a financially constrained candidate list to submit to NHDOT for scope and cost estimate review. Once NHDOT's review of the candidate projects is complete and the scopes and costs are adjusted, as appropriate, a final set of recommendations is put forward by the MPO for integration into the Ten Year Plan. The first four years of the Ten Year Plan operate as the STIP and feed directly into RPC's TIP.

Aligning Programming with Performance Target Achievement

The Federal and non-Federal performance measures in the LRTP are directly reflected in the project prioritization process used for the TIP. RPC uses separate regional measures to address performance areas, including bicycle/pedestrian network connectivity and resilience, and is working to develop measures for transit access. The MPO's [FY 2019-2022 TIP](#) includes baseline data and targets for the Federal performance measures and the status of target achievement. The TIP also summarizes the total number of projects and the total amount of funding programmed to support progress toward achieving the targets and identifies example project types that RPC expects will contribute to future target achievement. Table 25 summarizes example project types in RPC's TIP that help support progress toward target achievement for the Federal performance areas.

³² RPC adopted this methodology from the Chattanooga-Hamilton County/North Georgia Transportation Planning Organization for their 2045 Regional Transportation Plan (Section 4.2 – A Balanced Vision for Transportation Investment).

Table 25. RPC's Example Project Types Supporting the Federal Performance Areas

Federal Performance Area	Example Project Types
Highway Safety	Multi-use paths for bicycles and pedestrians, sidewalks, striped bicycle shoulders, roadway realignment, shoulder widening, traffic calming, complete streets improvements
Pavement Condition	Roadway resurfacing or reconstruction
Bridge Condition	Bridge rehabilitation or replacement
Travel Time Reliability	Interchange reconstruction, highway widening and capacity improvements, intersection improvements, corridor service patrol, transit, Transportation Systems Management and Operations, Intelligent Transportation Systems

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