



Appendix A

Glossary

This appendix provides definitions and examples of concepts and terms related to the transportation planning process.

American Community Survey (ACS): A nationwide survey conducted by the U.S. Census Bureau that collects and produces information on social, economic, housing and demographic characteristics about our nation's population every year. This information provides an important tool for communities to use to see how they are changing.

Americans with Disabilities Act (ADA): Legislation enacted in 1991 to address the needs of disabled individuals in public settings. Sets standards and provides guidelines for accessibility with regard to public facilities (such as buildings and transit vehicles) and public rights-of-way (such as sidewalks, crosswalks and curb ramps).

Average Daily Traffic (ADT): The average number of vehicles passing a fixed point in a 24-hour time frame. Can be used as a performance metric to evaluate capital projects.

Baltimore Metropolitan Council (BMC): Non-profit organization established to identify regional interests and to develop collaborative strategies, plans and programs to improve the quality of life and economic vitality of the Baltimore region. BMC employs a paid, professional planning staff, which serves as technical staff to the Baltimore Regional Transportation Board (BRTB). Included in the

functions of BMC staff are transportation planning and modeling, air quality conformity analysis, demographic analysis, GIS mapping, maintenance of the regional building permit database, administration of a rideshare program, coordination of the local cooperative purchasing program, regional emergency preparedness, regional fair housing planning and regional workforce development data analysis and initiatives.

Baltimore Regional Transportation Board (BRTB): The federally designated metropolitan planning organization (MPO) for the Baltimore region. The BRTB is a 13-member policy board consisting of Annapolis and Baltimore cities, Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's counties, the Maryland Department of Transportation (MDOT), the Maryland Department of the Environment (MDE), the Maryland Department of Planning (MDP), the Maryland Transit Administration (MDOT MTA) and a representative of public transportation. As the region's MPO, the BRTB is responsible for the planning and coordination of federally funded transportation programs in the region and related short- and long-range planning.

Bus Rapid Transit (BRT): Enhanced bus system that generally operates in dedicated bus lanes or other transitways. Intent is to combine the flexibility of buses with the efficiency of rail.

Complete Streets: An approach to planning, designing and operating roadways so they are safe and comfortable to use and support the access and mobility of users of all ages and

abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists or public transportation riders.

Conformity: Refers to the region's conformity to air quality standards. Conformity means that the projects in the regional transportation plan and the Transportation Improvement Program (TIP) will not cause or contribute to new air quality violations, worsen existing violations or delay timely attainment of air quality standards.

Congestion Management Process (CMP): Federal transportation legislation (IIJA) requires each urbanized area with a population of more than 200,000 (known as a Transportation Management Area or TMA; see definition) to manage traffic congestion through a process. This process uses a number of analytic tools to define and identify congestion within a region, corridor, activity center or project area. The process also involves developing and selecting appropriate operational and travel demand reduction strategies to reduce congestion or to mitigate the effects of congestion.

Connected and Automated Vehicles (CV/AV/CAV): CVs incorporate communications technology that enables them to share data with other vehicles and roadside infrastructure or obtain data from the cloud. AVs are vehicles in which at least some aspect of a safety-critical control function (such as steering, throttle or braking) occurs without direct driver input. CAVs combine the two technologies to wirelessly communicate with each other and with vehicles around them,

traffic infrastructure and other travelers and/or automate some or all of the driving functions.

Consolidated Transportation Program (CTP): The six-year capital budget for transportation projects in the state of Maryland. Includes projects for the Maryland Department of Transportation and its modal agencies (Maryland Aviation Administration, Maryland Port Administration, Maryland State Highway Administration, Maryland Transit Administration and Motor Vehicle Administration), as well as related authorities within the department (Maryland Transportation Authority, Washington Metropolitan Area Transit Authority).

Environmental Justice (EJ): Concept established in 1994 through Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Intent is to ascertain that federally funded transportation projects do not adversely affect minority and low-income populations.

Environmental Protection Agency, U.S. (EPA): Federal agency charged with protecting natural and human environmental resources. Responsible for developing and enforcing standards and regulations to maintain air and water quality, including relevant standards and regulations affecting transportation facilities and programs.

Fixing America's Surface Transportation (FAST) Act: Legislation enacted by the U.S. Congress reauthorizing funding and planning for highway and transit programs. The

FAST Act preserved the commitment to the metropolitan transportation planning process established in previous federal legislation. It was signed into law on December 4, 2015. Superseded by the IIJA.

Federal Highway Administration (FHWA): Division of the U.S. Department of Transportation that administers and funds highway planning and programs.

Federal Highway Trust Fund: Federal funding for highway and transit systems and facilities is available through this fund (the fund includes a separate Mass Transit Account). Consists of revenues from federal motor fuel taxes and federal excise taxes on such items as tires. In the past, Congress has supplemented the Highway Trust Fund with general funds as needed to meet obligations.

Federal Transit Administration (FTA): Division of the U.S. Department of Transportation that administers and funds transit planning and programs.

Fiscal Constraint: A requirement for both the Regional Long-Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP). For the LRTP, fiscal constraint means the total estimated year of expenditure costs of projects and programs cannot exceed forecasted funding levels. For the TIP, fiscal constraint means providing (1) budgets showing committed funding and funding sources for each project and (2) realistic implementation schedules based on when these funds will be available.

Fiscal Year (FY), Federal: Begins October 1 of the preceding year and ends September 30 of the next calendar year. For example, federal FY 2024 begins on October 1, 2023 and ends September 30, 2024.

Fiscal Year (FY), State: Begins July 1 of the preceding year and ends June 30 of the next calendar year. For example, state FY 2024 begins on July 1, 2023 and ends June 30, 2024.

Goal: Broad aspiration or guiding principle for the region (such as “Improve system safety”).

Greenhouse Gas (GHG) Emissions: GHG emissions trap heat in the atmosphere. A surplus of these emissions resulting from human activity contributes to an observed increase in average global temperature. Global warming is a result of an enhanced greenhouse effect, which is a naturally occurring process by which heat from the sun is radiated off the Earth’s surface and is then trapped in the Earth’s atmosphere by greenhouse gases, whereby the Earth’s surface temperature increases. Carbon dioxide is a key greenhouse gas.

Highway: Term applies to roads, streets and parkways, and also includes rights-of-way, bridges, railroad crossings, tunnels, drainage structures, signs, guard rails and protective structures in connection with highways.

High-Occupancy Vehicle (HOV) Lanes: HOV lanes are one or more lanes of a roadway that have restrictions on use to encourage ridesharing and can reduce vehicle miles traveled (VMT).

Illustrative Projects: Projects included in a metropolitan transportation plan for illustrative purposes, as specified by MAP-21 and federal regulations. These are projects that could be included in the adopted transportation plan if additional financial resources beyond those identified in the plan were to become available. There is no requirement to select any project from an illustrative list of projects in an adopted plan at some future date, when funding might become available.

Infrastructure Investment and Jobs Act (IIJA): The most recent federal transportation legislation, signed into law on November 15, 2021. The IIJA authorizes the largest federal investment in public transportation in the nation's history, providing \$550 billion over fiscal years 2022 through 2026 in new federal investment in infrastructure, including roads, bridges and mass transit, as well as water infrastructure, resilience and broadband. Creates more than a dozen new highway programs and also creates more opportunities for local governments and other entities. It is the primary source of funding for federal surface transportation projects. Establishes requirements for projects receiving such funding.

Intelligent Transportation System (ITS): A system that enables the transfer of information relating to traffic and transit system operations and conditions to state and local operations staff and to roadway and transit users. Elements can include dynamic message signs to alert users to changing conditions, closed-circuit television systems that alert state or local operations staff to changing conditions,

incident detection and management systems, transit security-related systems and state or local transportation management centers.

Level of Traffic Stress (LTS): An approach that quantifies the amount of discomfort that people feel when they bicycle close to traffic based on attributes such as traffic speed, traffic volume, number of lanes, frequency of parking turnover and ease of intersection crossings.

Locally Operated Transit Systems (LOTS): Transit service from a local provider, offered by some of the jurisdictions in the region. Supplements service provided by the Maryland Transit Administration.

Maryland Rail Commuter (MARC) Service: Maryland's commuter rail operation, managed by the Maryland Transit Administration. MARC provides service on three lines, all of which have a terminus at Union Station in Washington, DC. The Camden Line runs to Camden Station in Baltimore City. The Penn Line runs to Penn Station in Baltimore City and on to Perryville in Cecil County. The Brunswick Line runs to Brunswick in Frederick County and on to Martinsburg, West Virginia, with a spur serving Frederick, Maryland.

Maryland Department of Transportation (MDOT): The department charged by Maryland state law with the responsibility for various transportation-related functions. These include construction, operation and maintenance of highway facilities (through the Maryland State Highway

Administration), transit facilities (through the Maryland Transit Administration), port facilities (through the Maryland Port Administration) and aviation facilities (through the Maryland Aviation Administration). The Motor Vehicle Administration, the state agency responsible for administering vehicle licensing and registration, is also under the jurisdiction of MDOT.

Maryland Department of the Environment (MDE): The state environmental protection agency that monitors and enforces the regulations pertaining to air and water quality. Also responsible for developing the State Implementation Plan and motor vehicle air pollutant budgets and for monitoring how transportation affects air quality.

Maryland Department of Planning (MDP): The state agency charged with developing and coordinating implementation of statewide growth management policies.

Maryland Port Administration (MDOT MPA): The agency in the Maryland Department of Transportation responsible for increasing waterborne commerce through Maryland ports for the benefit of the citizens of the state.

Maryland State Highway Administration (MDOT SHA): The agency in the Maryland Department of Transportation responsible for construction, operation and maintenance of most federal and state highway facilities. Primary recipient of surface transportation funds through the Federal Highway Administration.

Maryland Transit Administration (MDOT MTA): The agency in the Maryland Department of Transportation responsible for construction, operation and maintenance of transit facilities. Federally designated recipient of Federal Transit Administration funds for the Baltimore region.

Maryland Transportation Authority (MDTA): The agency responsible for constructing, operating and maintaining the State's toll facilities, as well as for financing new revenue producing transportation projects. The MDTA owns eight toll facilities, two turnpikes, two tunnels and four bridges. All of the MDTA's projects and services are funded through tolls paid by the customers who use the MDTA's facilities.

Maryland Transportation Trust Fund (TTF): Provides the state's portion of funding for constructing, operating and maintaining state highway, transit, aviation and port systems and facilities. Consists of revenues from motor fuel taxes, titling taxes and fees, operating revenues, bond proceeds, fund transfers and funding from the Federal Highway Trust Fund.

Metropolitan Planning Organization (MPO): An organization designated by law with lead responsibility for developing transportation plans and programs in urbanized areas of 50,000 or more in population. The Baltimore Regional Transportation Board (BRTB) is the MPO for the Baltimore region.

Metropolitan Transportation Plan (MTP): Also referred to as the Long-Range Transportation Plan (LRTP), the MTP is one of the documents an MPO is legally mandated to produce. *Resilience 2050* is the current MTP for the Baltimore region. The plan establishes the region's broad transportation goals and strategies and contains a list of the major surface transportation projects the region expects to implement over the next 20-25 years. Another major component is the financial plan, which shows the revenues (federal, state, local, other) the region expects to have available for these projects and the estimated costs of these projects. By law, this document must be air quality constrained as well as fiscally constrained.

Moving Ahead for Progress in the 21st Century (MAP-21):

Transportation legislation enacted by the U.S. Congress reauthorizing and restructuring funding and planning for highway and transit programs. MAP-21 emphasized performance-based planning and programming. It was signed into law on July 6, 2012. Superseded by the FAST Act.

National Ambient Air Quality Standards (NAAQS): To protect public health, the U.S. Environmental Protection Agency (EPA) sets the NAAQS for certain "criteria pollutants." The EPA then determines the areas that do not meet these standards. The Baltimore region is designated as a nonattainment area with regard to the 8-hour ozone standard.

National Highway System (NHS): This system consists of roadways important to the nation's economy, defense and mobility. Examples of NHS roadways include interstate highways (such as I-95 and I-695), other principal arterials (US routes such as US 1), highways in the Strategic Highway Network (such as highways that are important to the US's strategic defense policy and that provide defense access, continuity and emergency capabilities for defense purposes), major Strategic Highway Network Connectors (highways that provide access between major military installations and highways that are part of the Strategic Highway Network) and intermodal connectors (highways that provide access between major intermodal facilities and the other four NHS subsystems). A specific route can be on more than one subsystem.

Nonattainment: The EPA sets NAAQS for certain air pollutants, called "criteria pollutants," to protect public health. The EPA then determines the areas of the country that do not meet the NAAQS. These are designated as nonattainment areas. The EPA has determined that the Baltimore region is a nonattainment area since it does not meet the NAAQS for ground-level ozone pollution.

Ozone: One of the "criteria pollutants" for which the EPA sets NAAQS. Ozone forms at ground level when nitrogen oxides (NO_x) and volatile organic compounds (VOCs) undergo a chemical reaction under heat and sunlight. Reductions in NO_x and VOCs are necessary for reducing ozone pollution. NO_x

and VOCs come from a variety of sources, some of which are emissions from cars and trucks. The Baltimore region has been found to be in moderate nonattainment with respect to the standards for ground-level ozone.

Performance-Based Planning and Programming

(PBPP): PBPP refers to the application of performance management principles within transportation agencies to achieve desired performance outcomes for the multimodal transportation system. Provides a link between long-range decisions and investment decisions that affect the performance of the region's transportation system. PBPP took on a greater significance with the passage of MAP-21 and subsequent transportation legislation. Federal rulemaking specifies 25 performance measures and targets that MPOs must adopt in coordination with the state and public transportation providers.

Performance Measures / Performance Targets: Performance measures are specific metrics used to assess progress toward achieving goals (such as “Decrease number of highway fatalities”). Performance targets are specific levels to be achieved within certain time frames (such as “Decrease number of highway fatalities to 202 by 2030”).

Preferred Alternative: The term used for the fiscally constrained list of projects and programs included in *Resilience 2050*.

Priority Funding Area (PFA): Concept introduced by the Smart Growth and Neighborhood Conservation - Smart Growth Areas Act, enacted by Maryland in 1997. The 1997 legislation directs state funding for growth-related infrastructure to PFAs, thereby focusing growth in already developed areas. PFAs include municipalities (as they existed on January 1, 1997), Baltimore City, areas inside of the beltways, neighborhoods designated for revitalization by the Department of Housing and Urban Development, Enterprise and Empowerment Zones and certified heritage areas within county-designated growth areas. Jurisdictions are also able, though not required, to designate additional PFAs, known as locally designated PFAs, based on criteria established by the legislation.

Public Participation Plan: MPOs are required to develop a public participation plan that defines a process for providing the public and interested parties with reasonable opportunities to be involved in the metropolitan planning process. The public participation plan must consider the needs of people and groups traditionally underserved by transportation systems, including low-income and minority households.

Ridesharing: A program intended to match commuters so that they might share rides to work, thereby reducing the number of cars on the road. MDOT administers the rideshare program in the Baltimore region and provides funding support to local rideshare coordinators.

Round 10 Socioeconomic Forecasts: A set of population, household and employment estimates and forecasts at the regional, jurisdiction and small area levels of geography extending through 2050. Used for transportation planning purposes and serve as key inputs to the region's travel demand model. The Round 10 forecasts are developed by the BRTB Cooperative Forecasting Group.

Safe System Approach (SSA): A systemic approach focused on reducing roadway fatalities and serious injuries to zero by taking a holistic view of the road transportation system. Under the SSA, road safety is a shared responsibility among everyone, including those that design, build, operate and use the road system.

Single-Occupancy Vehicle (SOV): Refers to a vehicle with no passengers that may be prohibited from using a facility for vehicles with two or more individuals.

State Implementation Plan (SIP): A required air quality planning document prepared by states and submitted to EPA for approval. SIPs identify state actions and programs to implement designated responsibilities under the Clean Air Act. In Maryland, the Maryland Department of the Environment (MDE) develops the SIP.

Strategic Highway Safety Plan (SHSP): A federally required statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. An SHSP identifies

a State's key safety needs and guides investment decisions towards strategies and countermeasures with the most potential to save lives and prevent injuries. In addition, all jurisdictions in the Baltimore region have a local SHSP, with six being implemented.

Strategy: Specific approach or policy to help the region make progress toward a broad goal (such as "Eliminate hazardous or substandard conditions in high-crash locations and corridors").

Sustainable Communities: A shared geographic designation established by the Sustainable Communities Act of 2010 to promote efficient use of state resources based on local sustainability and revitalization strategies. The Sustainable Communities program consolidated geographically targeted resources for historic preservation, housing and economic development under a single designation. The designation places special emphasis on infrastructure improvements, multimodal transportation and development that strengthens existing communities.

Teleworking: Working from a remote location, usually a home office. Also known as telecommuting.

Transit Economic Requirements Model (TERM): The Federal Transit Administration uses the TERM to develop values to determine its transit state of good repair backlog. The TERM condition ratings scale for facilities has the following values: 5 – Excellent, 4 – Good, 3 – Adequate, 2 – Marginal, 1 – Poor.

Title VI: Title VI of the Civil Rights Act of 1964 states that no person in the U.S. shall, on the basis of race, color or national origin, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving federal financial assistance. Because the BRTB receives federal funding in carrying out the metropolitan planning process, its products (for example, the LRTP and the TIP) and programs must comply with Title VI.

Transit Asset Management (TAM): Business model that prioritizes funding based on condition and performance to achieve and maintain a state of good repair for public transportation assets, such as vehicles, equipment and facilities.

Transit Signal Priority (TSP): General term for a set of operational improvements that use technology to reduce dwell time at traffic signals for transit vehicles by holding green lights longer or shortening red lights.

Transportation Analysis Zone (TAZ): Basic unit of geography used to predict travel behavior in the travel demand model. Constructed using census block information.

Transportation Demand Management (TDM): Strategies intended to reduce travel demand (particularly that of single-occupancy private vehicles) or to redistribute this demand. TDM strategies can help relieve traffic congestion and reduce vehicle emissions. Examples include congestion pricing, incentives to use transit, rideshare programs and flexible work hour programs.

Transportation Emission Reduction Measures (TERMs):

Projects or policies intended to reduce air pollutant emissions from the transportation sector. These could include strategies to reduce travel demand (particularly from single-occupancy private vehicles) or to reduce per-mile emissions.

Transportation Improvement Program (TIP): One of the documents an MPO is legally mandated to produce. This document lists all surface transportation projects with committed funding that are programmed for implementation over the next four years. Generally updated every year in the Baltimore region. Before a project can receive federal funding, it must appear in the TIP. By law, this document must be fiscally constrained.

Transportation Management Area (TMA): An urbanized area with a population of more than 200,000. Within a TMA, all transportation plans and programs must be based on a continuing, cooperative and comprehensive planning process carried out by the MPO in cooperation with states and transit operators. In addition, all TMAs must have a Congestion Management Process in place.

Transportation Network Company (TNC): A company that matches passengers with drivers through mobile apps and websites (such as Lyft and Uber). Also called ride-hailing services.

Transportation System Management and Operations (TSMO): Integrated program of strategies intended to optimize the

performance of existing infrastructure. Through such a program, an agency can implement systems, services and projects designed to preserve capacity and improve security, safety and reliability of the transportation system. Similar to TDM strategies, TSMO strategies can help relieve traffic congestion and reduce vehicle emissions. Examples of TSMO strategies include bottleneck elimination through channelization, signal system upgrades and coordination, freeway ramp metering, transit scheduling and dispatching improvements and relocation of bus stops.

Travel Demand Model: Software used to predict where people travel (such as to work, to home, to other destinations) and how they travel (such as by driving, by taking transit, by bicycling, by walking). Uses population and employment forecasts as well as land use data to predict this travel behavior at a regional scale.

Vehicle Miles Traveled (VMT): A standard measure of travel activity. The U.S. Department of Transportation definition is “One vehicle mile traveled is the movement of one privately operated vehicle for one mile, regardless of the number of people in the vehicle.”

Vehicle Revenue Miles (VRM): The miles traveled when the vehicle is in revenue service (in other words, the time when a vehicle is available to the general public and there is an expectation of carrying passengers).

