



# Appendix A:

## Glossary





Brooks Robinson was born in Little Rock, Arkansas, but he became Baltimore's hometown hero. Arriving here in September 1955 at the age of 18, he went on to spend all or part of 23 seasons with the Baltimore Orioles, along the way becoming the heart and soul of the franchise.

The all-time third baseman played in 18 All-Star games, won 16 Gold Glove Awards, and was the 1964 American League MVP, the 1966 All-Star MVP, and the 1970 World Series MVP. He was named Most Valuable Player in 1960, '62, '64 and was co-winner with Frank Robinson in 1971.

Baseball's "Human Vacuum Cleaner" set 10 major league fielding records, and three American League records for third basemen, including highest lifetime fielding percentage (.971). He was voted into the National Baseball Hall of Fame in 1983.





# GLOSSARY

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



**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 (e.g., buildings, transit vehicles) and public rights-of-way (e.g., sidewalks, crosswalks, curb ramps).

**Autonomous Vehicles (AVs) / Connected Vehicles (CVs):** AVs use technologies such as sensors, cameras, and GPS to operate independently. Autonomous vehicles do not share data with other vehicles. CVs incorporate communications technology that enables them to share data with other vehicles and roadside infrastructure. A related term is “automated vehicles,” which use both connected and autonomous technologies to enable operation with limited or no human involvement.

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



CVs incorporate communications technology that enables them to share data with other vehicles and roadside infrastructure.

**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. The BMC employs a paid, professional planning staff, which serves as technical staff to the Baltimore Regional Transportation Board (BRTB). Included in the functions of the BMC staff are transportation planning and modeling, air quality conformity analysis and modeling, demographic analysis, GIS mapping, maintenance of the regional building permit database, coordination of the local cooperative purchasing program, administration of the regional rideshare program, and administration of the Regional Information Center in cooperation with the Enoch Pratt Library system.

**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 (MTA); and a representative of public transportation. As the 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.

**CHART:** The Coordinated Highways Action Response Team (CHART) is an areawide congestion management program operated by the Maryland Department of Transportation and the Maryland State Police. It focuses on addressing nonrecurring congestion, such as crashes. Through the Statewide Operations Center and satellite operations centers in the region, roadways are surveyed to identify incidents.



**Complete Streets:** An approach to roadway design that seeks to provide facilities that are safe and accessible for all users: drivers, transit vehicles and riders, bicyclists, and pedestrians of all ages and abilities.

**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):** The FAST Act 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.

**Consolidated Transportation Program (CTP):** The 6-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).

**Context Sensitive Solutions (CSS):** An approach to creating public works projects that meet the needs of users, neighboring communities, and the environment. This approach integrates projects into the setting through careful planning, consideration of different perspectives, and tailoring of designs to particular project circumstances.

**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:** The most recent federal transportation legislative program, signed into law on December 4, 2015. The FAST Act preserves the commitment to the metropolitan transportation planning process established in previous federal legislation. Primary source of funding for federal surface transportation projects. Establishes requirements for projects receiving such funding.



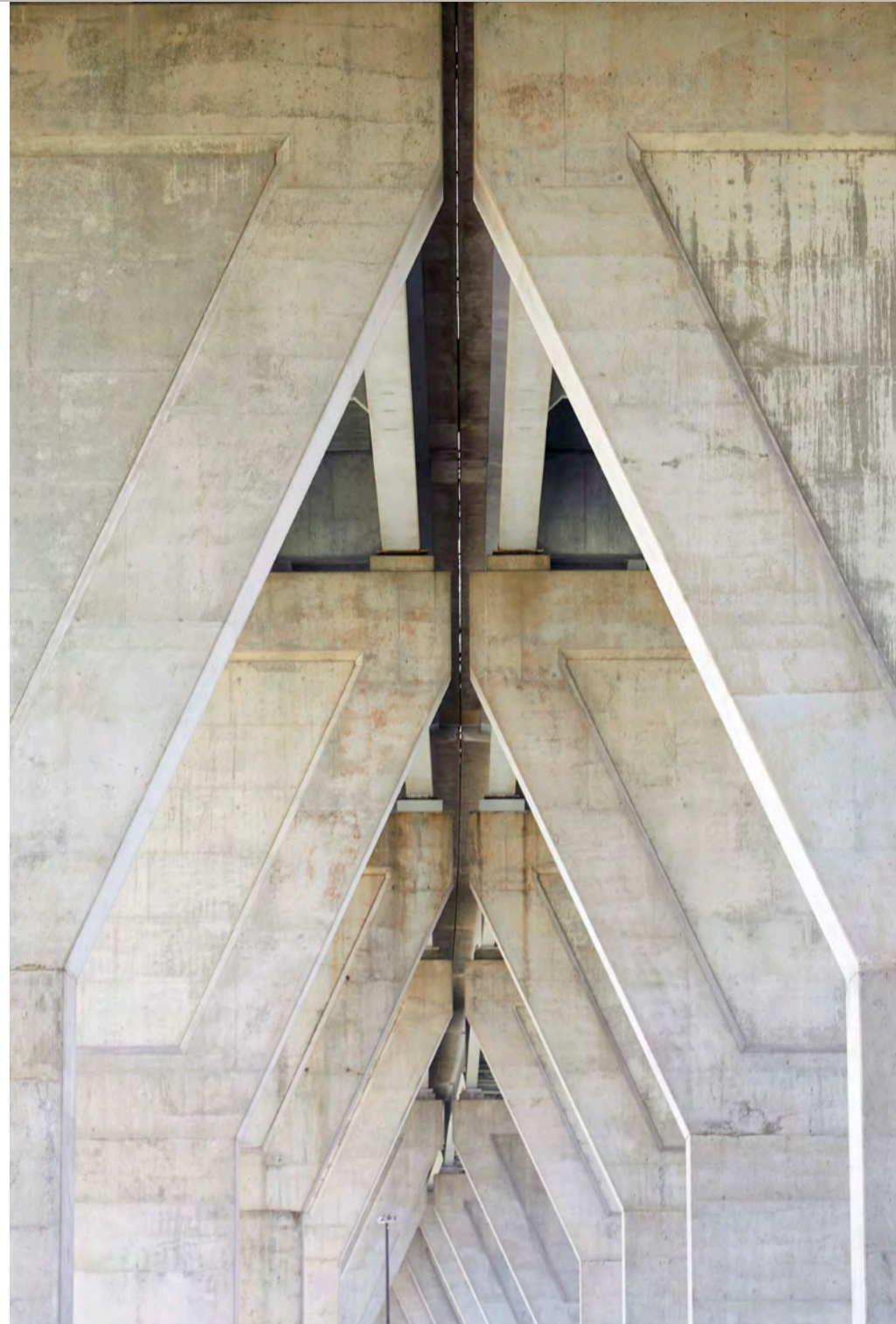
**Federal Highway Administration (FHWA):** Division of the U.S. Department of Transportation that administers and funds highway planning and programs.

**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 (e.g., on gasoline and diesel fuel) 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.

**Fine Particulate Matter:** One of the “criteria pollutants” for which the U.S. Environmental Protection Agency (EPA) sets national ambient air quality standards (NAAQS). Also referred to as PM<sub>2.5</sub>, indicating a size of 2.5 micrometers or smaller. Consists of tiny airborne particles that result from particulate emissions; condensation of sulfates, nitrates, and organics from the gas phase; and coagulation of smaller particles. Fine particulate matter can cause serious health problems at levels near the federal standard. The Baltimore region is now maintaining levels of PM<sub>2.5</sub> below the federal limit.

**Fiscal Constraint:** A requirement for both the Regional Transportation Plan and the Transportation Improvement Program (TIP). For the regional plan, fiscal constraint means the total estimated 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 2020 begins on October 1, 2019 and ends September 30, 2020.

**Fiscal Year (FY), State:** Begins July 1 of the preceding year and ends June 30 of the next calendar year.

**Goal:** Broad aspiration or guiding principle for the region (e.g., “Improve system safety”).

**Greenhouse Gas Emissions:** Greenhouse gas emissions trap heat in the atmosphere. A surplus of these emissions resulting from human activity is believed to contribute 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 then is trapped in the earth’s atmosphere by greenhouse gases, whereby the Earth’s surface temperature increases. A key greenhouse gas is carbon dioxide.

**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.

**HOV:** High-occupancy vehicle, referring to a facility for vehicles with high occupancy.

**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 resources beyond the reasonable financial resources 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.

*Photo courtesy of Harford Transit*

**Intelligent Transportation System (ITS):** 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 Service (LOS):** Measure of the quality of flow of a transportation facility. Level of service definitions generally describe traffic conditions in terms of speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. It is characterized by a letter from A to F, with LOS A being the best operating condition and LOS F being the worst.

**Locally Operated Transit Service (LOTS):** Transit service from a local provider, offered by some of the counties 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, 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 State Highway Administration (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 (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 state agency charged with operating and maintaining the state's toll facilities (highways, bridges, and tunnels).



**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):** The 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 metropolitan planning organization for this area,



**Metropolitan Transportation Plan (MTP):** One of the documents an MPO is legally mandated to produce. *Maximize2045* is the 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 fiscally constrained.

**Moving Ahead for Progress in the 21st Century (MAP-21):** 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 the FAST Act.

**National Air Quality Standards (NAAQS):** To protect public health, the U.S. Environmental Protection Agency (EPA) sets the national ambient air quality standards (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.

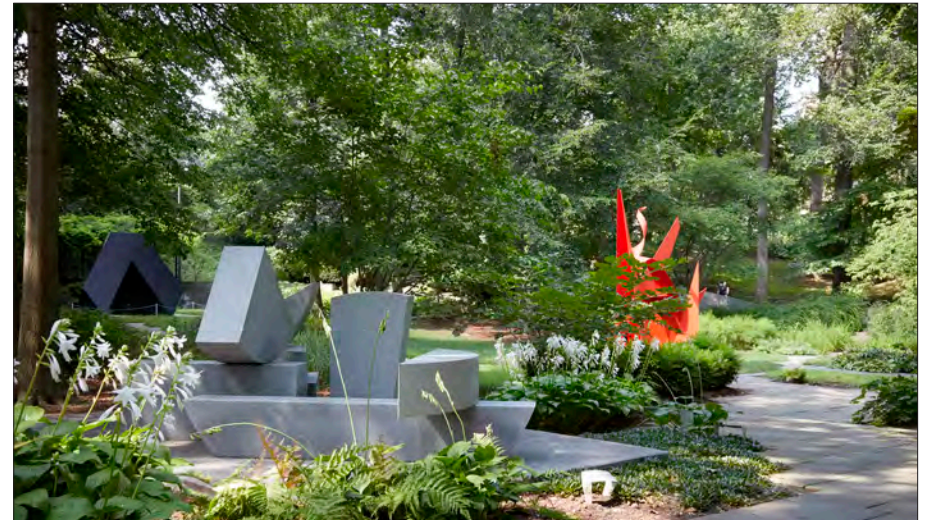
**National Highway System (NHS):** The National Highway System consists of roadways important to the nation's economy, defense, and mobility. Examples of NHS roadways include interstate highways (e.g., I-95, I-695, etc.), other principal arterials (e.g., U.S. routes such as U.S. 1), highways in the Strategic Highway Network (i.e., highways that are important to the U.S.'s strategic defense policy and that provide defense access, continuity, and emergency capabilities for defense purposes), major Strategic Highway Network Connectors (i.e., highways that provide access between major military installations and highways that are part of the Strategic Highway Network), and intermodal connectors (i.e., 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 U.S. Environmental Protection Agency (EPA) sets national ambient air quality standards, or 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 U.S. EPA sets national ambient air quality standards (NAAQS). Ozone forms at ground level when nitrogen oxides (NOx) and volatile organic compounds (VOCs) undergo a chemical reaction under heat and sunlight. Reductions in NOx and VOCs are necessary for reducing ozone pollution. NOx 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 Measures / Performance Targets:** Performance measures are specific metrics used to assess progress toward achieving goals (e.g., “Decrease number of highway fatalities”). Performance targets are specific levels to be achieved within certain time frames (e.g., “Decrease number of highway fatalities to 121 by 2030”).

**Priority Funding Area (PFA):** Concept introduced by the Smart Growth and Neighborhood Conservation – Smart Growth Areas Act, enacted in 1997. The 1997 legislation directs state funding for growth-related infrastructure to Priority Funding Areas, 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. Counties 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. MTA administers the rideshare program in the Baltimore region and provides funding support to local rideshare coordinators.

**SOV:** Single-occupancy vehicle, referring to a vehicle with no passengers that may be prohibited from using an HOV facility.

**State Implementation Plan (SIP):** A required air quality planning document prepared by states and submitted to U.S. 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 develops the SIP.



**Strategy:** Specific approach or policy to help the region make progress toward a broad goal (e.g., “Eliminate hazardous or substandard conditions in high-crash locations and corridors”).

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

**TERM:** The Federal Transit Administration uses the Transit Economic Requirements Model (TERM) to develop values to determine its transit state of good repair (SGR) 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 (e.g., the regional transportation plan and the TIP) and programs must comply with Title VI.

**Traffic 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, flexible work hour programs, etc.





**Transportation Emissions 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. The region has set aside \$285 million in funding to support TERMS.

**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 and comprehensive planning process carried out by the Metropolitan Planning Organization 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 (e.g., 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, relocation of bus stops, etc.

**Travel Demand Model:** Software used to predict where people travel (e.g., to work, to home, to other destinations) and how they travel (e.g., 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 of Travel (VMT):** A standard measure of travel activity. The U.S. Department of Transportation definition is “One vehicle mile of travel is the movement of one privately operated vehicle for one mile, regardless of the number of people in the vehicle.”

**Vehicle Occupancy Rate (VOR):** Persons per passenger vehicle.

