

**BALTIMORE METROPOLITAN PLANNING ORGANIZATION  
BALTIMORE REGIONAL TRANSPORTATION BOARD**

**RESOLUTION #19-11  
ADOPTING SYSTEM PERFORMANCE TARGETS RELATED TO  
LEVEL OF TRAVEL TIME RELIABILITY AND TRUCK TRAVEL TIME RELIABILITY**

**WHEREAS**, the Baltimore Regional Transportation Board (BRTB) is the designated metropolitan planning organization (MPO) for the Baltimore region, encompassing the Baltimore Urbanized Area, and includes official representatives of the cities of Annapolis and Baltimore, the counties of Anne Arundel, Baltimore, Carroll, Harford, Howard, and Queen Anne's, as well as representatives of the Maryland Department of Transportation, the Maryland Department of the Environment, the Maryland Department of Planning, the Maryland Transit Administration, and Harford Transit; and

**WHEREAS**, the BRTB, as the MPO for the Baltimore region, has the responsibility under the provisions of the Fixing America's Surface Transportation Act (FAST Act) for developing and carrying out a continuing, cooperative and comprehensive transportation planning process for the metropolitan area; and

**WHEREAS**, the FAST Act continued the implementation of performance-based planning and programming to achieve desired performance outcomes for the multimodal transportation system, including setting targets for future performance by states, providers of public transportation, and MPOs; and

**WHEREAS**, the Federal Highway Administration (FHWA) issued a final rule establishing performance measures for state departments of transportation (DOTs) and MPOs to use to assess the performance of the National Highway System (NHS) under the National Highway Performance Program (NHPP). These include two measures related to Level of Travel Time Reliability (LOTTR)—(1) percent of person-miles traveled on the Interstate System that are reliable and (2) percent of person-miles traveled on the Non-Interstate NHS that are reliable—as well as a Truck Travel Time Reliability (TTTR) Index: ratio of Interstate System mileage indicating reliable truck travel times; and

**WHEREAS**, the Maryland Department of Transportation (MDOT) has coordinated with the Baltimore Regional Transportation Board and Baltimore Metropolitan Council staff on a method for developing 2-year and 4-year targets for the Baltimore region (see Attachment 1); and

**WHEREAS**, MDOT developed information and targets toward compliance with the law and regulations by the May 20, 2018 due date established for these performance targets and will communicate the relevant information and targets to the FHWA.

**NOW, THEREFORE BE IT RESOLVED** that the Baltimore Regional Transportation Board as the Metropolitan Planning Organization for the Baltimore region adopts these system performance targets related to travel time reliability for the Baltimore region, as described in Attachment 1.

**I HEREBY CERTIFY** that the Baltimore Regional Transportation Board as the Metropolitan Planning Organization for the Baltimore region approved the aforementioned resolution at its October 23, 2018 meeting.

10-23-18

Date



Michelle Pourciau, Chair

Baltimore Regional Transportation Board

### System Performance Targets Related to Travel Time Reliability for the Baltimore Region

Performance Measure	2-Year Targets (2019)	4-Year Targets (2021)
LOTTR (Interstate) measure: Percent of person-miles traveled on the Interstate System that are reliable	72.1%	72.1%
LOTTR (non-Interstate) measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable	Not applicable	81.7%
TTTR Index: Ratio of Interstate System mileage indicating reliable truck travel times	1.87	1.88

#### About Level of Travel Time Reliability (LOTTR) Targets:

**WHO:** State DOTs, as well as MPOs with Interstate and/or non-Interstate NHS within their metropolitan planning area.

**WHY:** Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including performance on the Interstate and non-Interstate NHS.

**WHEN:** Implementation differs for the Interstate and non-Interstate NHS measures for the first performance period. State DOTs must establish 2- and 4-year targets for the Interstate, but only a 4-year target for the non-Interstate NHS, by **May 20, 2018**. Those targets will be reported in the State's baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid-performance period progress report, due **October 1, 2020**. For the first performance period only, there is no requirement for States to report baseline condition/performance or 2-year targets for the non-Interstate NHS before the mid performance period progress report. This will allow State DOTs to consider more complete data. The process will align for both Interstate and non-Interstate measures with the beginning of the second performance period on **January 1, 2022**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment [*i.e., in the case of the BRTB, by November 16, 2018*].

**HOW:** Level of Travel Time Reliability (LOTTR) is defined as the ratio of the longer travel times (80<sup>th</sup> percentile) to a "normal" travel time (50<sup>th</sup> percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent. Data are collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person-miles take into account the users of the NHS. Data to reflect the users can include bus, auto, and truck occupancy levels.

## **About Truck Travel Time Reliability (TTTR) Targets:**

The TTTR index is a ratio comparing the time it takes trucks to travel segments of the NHS in congested conditions (as shown by the 95<sup>th</sup> percentile time) relative to the time it takes to make a trip in “normal” conditions (as shown by the 50<sup>th</sup> percentile time). For example, say a truck takes 56 minutes to travel a segment of the NHS that normally takes 30 minutes. This translates into a ratio of 56 minutes / 30 minutes, or 1.87. This is what a TTTR index of 1.87 means.

Federal regulations require the use of the 95<sup>th</sup> percentile time as the indicator of congested conditions for truck travel (as opposed to the 80<sup>th</sup> percentile time used in the LOTTR measures). Here is the FHWA’s rationale for using the 95<sup>th</sup> percentile time for truck travel (from the final rule on travel time reliability):

“FHWA believes that the 95th percentile travel time needs to be considered in the freight measure to account for the events that could impact on-time delivery as shippers, carriers, and receivers desire on-time/just-in-time delivery of goods and plan their trips by building in enough time to meet delivery requirements. For these reasons, FHWA elected to maintain the 95th percentile in the truck reliability calculation.”

**WHO:** State DOTs and MPOs.

**WHY:** Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including freight movement on the Interstate. The measure considers factors that are unique to this industry, such as the use of the system during all hours of the day and the need to consider more extreme impacts to the system in planning for on-time arrivals.

**WHEN:** State DOTs must establish 2- and 4-year targets by **May 20, 2018**. Those targets will be reported in the State’s baseline performance period report due by **October 1, 2018**. The State DOTs have the option to adjust 4-year targets in their mid-performance period progress report, due **October 1, 2020**.

MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment [*i.e., in the case of the BRTB, by November 16, 2018*].

**HOW:** Freight movement will be assessed by the TTTR Index. Reporting is divided into five periods: morning peak (6-10 a.m.), midday (10 a.m. - 4 p.m.) and afternoon peak (4-8 p.m.) Mondays through Fridays; weekends (6 a.m. - 8 p.m.); and overnights for all days (8 p.m. - 6 a.m.). The TTTR ratio will be generated by dividing the 95<sup>th</sup> percentile time by the normal time (50<sup>th</sup> percentile) for each segment. The TTTR Index will be generated by multiplying each segment’s largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.

State DOTs and MPOs will have the data they need in FHWA’s National Performance Management Research Data Set (NPMRDS) as the data set includes truck travel times for the full Interstate System. State DOTs and MPOs may use an equivalent data set if they prefer.

*Source: FHWA Fact Sheet*