

MEMORANDUM

TO: Planning Committee Members & Alternates
FROM: James Stack, Executive Director JS
DATE: May 11, 2023
SUBJECT: Recommendation to the GTC Board concerning amending the *National Performance Measures Report for the Genesee-Finger Lakes Region* and the *FFYs 2023-2027 Transportation Improvement Program* by revising the Pavement and Bridge Condition, System Performance, Freight Performance, and Transit Asset Management Performance Targets / Proposed Council Resolution 23-15

Pavement and Bridge Condition

NYSDOT recently reported the 2022 Full Performance Period (i.e., the first full four-year performance period) to FHWA for pavement and bridge performance for the last two years of the four-year performance period, as well as progress toward achieving the four-year targets. NYSDOT also reported the new two-year and four-year targets for the next performance period, 2023 and 2025 respectively, as shown in the table below.

Pavement

The pavement condition measures represent the percentage of lane-miles on the Interstate and non-Interstate National Highway System (NHS) that are in good or poor condition. FHWA established five pavement condition metrics: International Roughness Index (IRI); cracking percent; rutting; faulting; and Present Serviceability Rating (PSR). FHWA set a threshold for each metric to establish good, fair, or poor condition. Each section of pavement is classified as being in good condition or poor condition based upon the ratings of the metrics applicable to that pavement type. Pavement sections that are not good or poor condition are classified as fair. Good condition assumes that no major investment is needed, while poor condition assumes that major investment is needed.

The State DOT is required to set statewide two- and four-year targets for all pavement condition measures. The MPO is only required to take action on the four-year target. The State must establish targets for the entire NHS, even if they do not own the facility. Only the mainline of the highway is evaluated, not ramps, shoulders, etc.

Bridge

The bridge condition measures represent the percentage of bridges, by deck area, on the Interstate and non-Interstate National Highway System (NHS) that are in good condition or poor condition. The condition of each bridge is evaluated by assessing four bridge components: deck, superstructure, substructure, and culverts. The Final Rule created a metric rating threshold for each component to establish good, fair, or poor condition. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

NYSDOT is required to set two- and four-year targets for the bridge condition measures. Again, the MPO is only required to take action on the four-year target. The measure requires that State DOTs maintain bridges so that the percentage of the deck area of bridges classified as Poor does not exceed 10 percent for three or more consecutive years.

Table 1 – Pavement and Bridge Condition Targets

	2017	2018	2019	2020	2021	2022	2023	2024	2025
Period 1	Baseline		Target		Target				
Period 2					Baseline		Target		Target
Percentage of Pavements of the Interstate System in Good Condition									
Annual	-	53.0	51.1	45.5	45.3				
Target	-				47.3		53.2		54.3
Percentage of Pavements of the Interstate System in Poor Condition									
Annual		1.2	1.1	0.7	1.1				
Target					4.0		1.4		1.7
Percentage of Pavements of the Non- Interstate NHS in Good Condition									
Annual			13.4	18.3	18.9				
Target			14.6		14.7		22.3		20.7
Percentage of Pavements of the Non- Interstate NHS in Poor Condition									
Annual			7.5	7.3	7.6				
Target			12.0		14.3		9.3		10.9
Percentage of NHS Bridges Classified as in Good Condition									
Annual	22.8	24.4	26.0	25.3	25.3				
Target			23.0		24.0		24.1		21.1
Percentage of NHS Bridges Classified as in Poor Condition									
Annual	10.6	10.2	9.6	10.9	11.3				
Target			11.6		11.7		12.5		12.8

System Performance and Freight

NYSDOT recently reported the 2022 Full Performance Period (i.e., the first full four-year performance period) to FHWA for System Performance and Freight Performance for the last two years of the four-year performance period, as well as progress toward achieving the four-year targets. NYSDOT also reported the new two-year and four-year targets for the next performance period, 2023 and 2025 respectively, as shown in the table below.

System Performance

There are two NHS performance measures that represent the reliability of travel times for all vehicles on the Interstate and non-Interstate NHS. FHWA established the Level of Travel Time Reliability (LOTTR) metric to calculate reliability on both the Interstate and non-Interstate NHS. LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) during four time periods from the hours of 6 AM to 8 PM each day (AM peak, midday, and PM peak on Mondays through Fridays and weekends). The LOTTR ratio is calculated for each segment of applicable roadway. A segment is reliable if its LOTTR is less than 1.5 during all time periods. If one or more time periods has a LOTTR of 1.5 or above, that

segment is unreliable. The measures are expressed as the percentage of person-miles traveled on the Interstate and non-Interstate NHS that are reliable.

Freight

The single freight movement performance measure represents the reliability of travel times for trucks on the Interstate system. FHWA established the Truck Travel Time Reliability (TTTR) Index, which is defined as the ratio of longer truck travel times (95th percentile) to a normal truck travel time (50th percentile). The TTTR Index is calculated for each segment of the Interstate system over five time periods from all hours of each day (AM peak, midday, and PM peak on Mondays through Fridays, overnights for all days, and weekends). The highest TTTR Index value among the five time periods is multiplied by the length of the segment, and the sum of all length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

Table 2 – System Performance and Freight Performance Targets

	2017	2018	2019	2020	2021	2022	2023	2024	2025
Period 1	Baseline		Target		Target				
Period 2					Baseline		Target		Target
Percent of Person-Miles Traveled on the Interstate that are Reliable									
Annual	83.2	80.7	78.8	86.9	81.6*				
Target			73.1		73.0		75.0		75.0
Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable									
Annual			80.3	86.8	85.7				
Target					63.4		70.0		70.0
Interstate Highway Truck Travel Time Reliability Index									
Annual	1.39	1.43	1.47	1.33	1.39*				
Target			2.00		2.11		2.00		2.00

*as adjusted by FHWA per NYSDOT

Transit Assets

GTC includes the Rochester-Genesee Regional Transportation Authority (Tier 1) operating in the planning area. RGRTA’s initial Transit Asset Management (TAM) Plan was adopted on September 30, 2018 and is updated on an annual basis. The TAM Plan reports on projected targets for the next fiscal year; condition assessments and performance results; and a narrative report on changes in transit system conditions and the progress toward achieving previous performance targets.

The transit asset management performance measures assess the condition in which a transit capital asset can operate at a full level of performance. A capital asset is in a state of good repair when that asset can perform its designed function; does not pose a known unacceptable safety risk; and its lifecycle investments have been met or recovered. Targets are provided for rolling stock, equipment, and facilities.

Table 3 – Transit Asset Targets

Asset Category - Performance Measure	Asset Class	Useful Life Benchmark	2023 Target
Rolling Stock			
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	40' Bus	12	7%
	60' Articulated Bus	12	0%
	Paratransit IA	4	15%
	Regional Type III	5	15%
	Regional Type IV	7	15%
Equipment			
Age - % of non-revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	Non Revenue Cars	7	24%
	Maintenance Vehicles	Various	58%
Facilities			
Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	Passenger/Parking	n/a	20%
	Administration/Maintenance	n/a	20%

As part of this update, GTC staff will make editorial changes to the *2023-2027 TIP* where there are references to Resolution and/or dates of GTC Board action related to Performance Measures.

The following items are included for your consideration:

1. [**Proposed Resolution 23-15**](#) (Amending the *National Performance Measures Report for the Genesee-Finger Lakes Region* and the *2023-2027 Transportation Improvement Program* by revising the Pavement and Bridge Condition, System Performance, Freight Performance, and Transit Asset Management Performance Targets

Recommended Action:

Recommend action by GTC Board on proposed Council Resolution 23-15, amending the National Performance Measures Report for the Genesee-Finger Lakes Region and the 2023-2027 Transportation Improvement Program.