

Agenda Item Summary

To: Policy Board

From: Devon Lechtenberg, Senior Transportation Planner

CC: Matt Hart, Executive Director; Rob Aloise, Director of Planning; Cara Radzins, Transportation Deputy; Roger Krahn, Principal Transportation Engineer

Meeting Date: February 22, 2023

Subject: Endorsement of FHWA Infrastructure and System Reliability Performance Targets Established by CTDOT

Background: In accordance with Federal Highway Administration (FHWA) requirements, the Connecticut Department of Transportation (CTDOT) has established twelve infrastructure (PM2s) and system reliability (PM3s) performance targets for the four-year period of 2022-2025. Additionally, CTDOT and CRCOG wish to acknowledge two congestion related targets for the Springfield urbanized area set by the Massachusetts Department of Transportation (MassDOT) and the Pioneer Valley Planning Commission (PVPC). **Historically, CRCOG has supported CTDOT's targets**, considering setting its own targets would require substantial data collection and analysis efforts.

Benefit to Member Towns/CRCOG: Support for PM2 and PM3 targets shows CRCOG's collaboration with CTDOT to ensure a highway transportation system that is characterized by maintained infrastructure and safe, reliable traffic operations.

Financial/Operational Impact: Support for 4-year targets is required by FHWA, which provides funding for all programs in CRCOG's Unified Planning Work Program.

Project Schedule: Although the deadline to endorse PM2 and PM3 targets is June 13, 2023, CRCOG staff is requesting endorsement of these targets now so that they can be incorporated into the updated Metropolitan Transportation Plan, which will be brought to the Policy Board for action at the meeting in April 2023.

Recommendation: The CRCOG Transportation Committee recommended approval of the attached FHWA Performance Targets Resolution at their meeting on February 14, 2023.

Attachments:

- Memo: FHWA Performance Targets and FTA Transit Asset Management Targets
- Resolution: Endorsement of FHWA Infrastructure and System Reliability Performance Targets Established by CTDOT

To: CRCOG Transportation Committee, CRCOG Policy Board
From: Devon Lechtenberg, Senior Transportation Planner
Roger Krahn, Principal Transportation Engineer
Ryan Faulkner, Transportation Planner
Date: February 3, 2023
Subject: FHWA Performance Targets and FTA Transit Asset Management Targets

As the designated Metropolitan Planning Organization (MPO) for the Hartford area, CRCOG is required to establish certain transportation performance targets mandated by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) by either adopting targets set by the Connecticut Department of Transportation (CTDOT) or electing to set its own. As setting its own targets would require significant resources both in data monitoring as well as allocations made for meeting said targets, CRCOG has traditionally adopted CTDOT targets. CRCOG has played an important role in collaborating with CTDOT and improving our understanding of performance measure practice. The targets presented below will be incorporated into the updated CRCOG Metropolitan Transportation Plan (MTP), where they will be described in more detail.

FHWA Performance Targets

The FHWA Performance Targets are mandated by 23 CFR Part 490 Subparts A-H. The areas covered by these targets include safety (PM1s), infrastructure (PM2s), and system performance (PM3s). Safety targets are set and approved annually (CRCOG adopted the most recent ones in January 2023) and as such are not included in this memo. Infrastructure (PM2s) and system performance (PM3s) are approved on a four-year schedule, with targets subject to updating at a two-year midpoint. These targets were first set in 2018 and adopted/endorsed by CRCOG in the fall of 2018 in a series of memoranda and resolutions.

Infrastructure targets (PM2s) include highway pavement and bridge conditions. Pavement conditions reporting the proportion of pavement (0.1 mile) sections in either good or poor condition are included for both interstate and non-interstate US highways. Although not a mandated measure, a third condition type is designated by “fair” and can be calculated as the remainder of pavement after the proportions “good” and “poor” condition have been subtracted from 100% (or 1). Generally speaking, state-level targets have become more aggressive in 2022 as compared to 2018. CRCOG has seen an expansion of pavement in “fair condition” over the same period as sections of pavement have naturally cycled out of “good” condition but have not yet deteriorated into “poor” condition. Bridges on the National Highway System (NHS) are also measured in terms of “good”, “fair”, and “poor”, again with only “good” and “poor” constituting mandated targets. Here too, the trend at both the state and CRCOG level has been for the expansion of the “fair” category due in part to the normal life cycle of bridge components of substructure, superstructure, and deck. Reflecting this reality, CTDOT has set a lower target for “good” condition and a slightly higher target for “poor” condition in 2022 as compared to 2018.

System reliability targets (PM3s) are comprised of travel time reliability indicators for general traffic and freight movement on trucks as well as congestion mitigation and air quality (CMAQ) measures. CMAQ measures include concentration measurements of specified pollutants (e.g. VOC, NOx, PM2.5, PM10, and CO) for areas with non-attainment status determined for each pollutant, percentage of non-single occupancy vehicles (Non-SOV), and peak hour excessive delay (PHED). Three pollutant measures – VOC, NOx, and PM2.5 – are of concern to CRCOG due to current non-attainment status. Non-SOV and PHED measures only became applicable to Connecticut and CRCOG in 2022 and are set for urbanized areas (UZAs) instead of by MPO boundaries. Since CRCOG covers parts of both the Hartford and Springfield, MA UZAs, targets are adopted for both. In the case of the Springfield UZA, this was done in cooperation with CTDOT, the Massachusetts Department of Transportation (MassDOT), and the Pioneer Valley Planning Commission (PVPC). Neither CTDOT nor CRCOG is directly responsible for meeting targets set by MassDOT and PVPC for the Springfield UZA.

Current and previous state-level targets set by CTDOT, as well as CRCOG measures of performance, are shown in Table 1 below. **Current state-level targets for endorsement are shaded in blue.**

Table 1: Summary of Previous and Current FHWA Performance Targets.

FHWA Category	Performance Area	Performance Measure	First Round (Targets set in 2018 for 2022)		Second Round (Targets set in 2022 for 2026)	
			State Targets	CRCOG Actual 2017	State Targets	CRCOG Actual 2021
PM2-Infrastructure	Pavement Condition	% IS Pavements in Good Condition	64.4%	73.3%	70.0%	67.5%
		% IS Pavements in Poor Condition	2.6%	0.1%	1.3%	0.1%
		% Non-IS Pavements in Good Condition	31.9%	37.3%	35.0%	38.5%
		% Non-IS Pavements in Poor Condition	7.6%	3.5%	3.5%	2.7%
	Bridge Condition	% NHS Bridge Deck Area in Good Condition	26.9%	13.6%	14.2%	10.7%
		% NHS Bridge Deck Area in Poor Condition	5.7%	15.7%	6.0%	3.0%
PM3-System Reliability	Performance of NHS	% Reliable Person-Miles on IS NHS	72.1%	86.8%	78.6%	95.0%
		% Reliable Person-Miles on Non-IS NHS	76.4%	84.7%	84.9%	90.4%
	Freight	TTTR on IS	1.83	1.83	2.02	1.416
		On-Road Mobile Source Emissions Reduction: VOC	30.14	---	87.346	---
	Env Sustainability (CMAQ)	On-Road Mobile Source Emissions Reduction: NOx	102.37	---	81.978	---
		On-Road Mobile Source Emissions Reduction: PM2.5	2.674	---	6.290	---
		On-Road Mobile Source Emissions Reduction: PM10	---	---	---	---
		On-Road Mobile Source Emissions Reduction: CO	---	---	---	---
	Non-SOV (Hartford UZA)	% Non-Single Occupancy Vehicle	Not Applicable for CT/ CRCOG in 2018		20.20%	---
	Non-SOV (Springfield UZA)	% Non-Single Occupancy Vehicle			22.24%	---
	PHED (Hartford UZA)	Peak Hour Excessive Delay per Capita			9.8	---
	PHED (Springfield UZA)	Peak Hour Excessive Delay per Capita			6.0	---

* “---” indicates that the target is either not applicable or that CRCOG currently does not compute the measure for itself.

FTA Transit Asset Management (TAM) Targets

TAM targets are mandated by 49 CFR Part 625 Subparts A-E and include measures that indicate what proportion of vehicles, facilities (buildings), and infrastructure of various transit providers are in satisfactory condition. The useful life benchmark (ULB) is determined for each vehicle type and marks the point at which a vehicle is no longer considered viable to

maintain within a transit agency's fleet. Facilities are measures by the TERM scale and infrastructure by performance restrictions. It should be noted that CRCOG does not directly control transit operations within its region, unlike the MPOs of some much larger cities around the country. Rather, CRCOG takes on a coordination and advocacy function with respect to the transit providers in its area. Collectively, these transit providers and CTDOT set appropriate targets. **The targets originally set in 2019 have been kept in 2022** as they are considered stable, long-term, and attainable. They are provided in the Table 2 below.

Table 2: FTA Transit Asset Management (TAM) Targets for 2022.

FTA Goals for Transit Asset Management (TAM)	Rolling Stock/Equipment		Facilities	Infrastructure
	FY2022 Target Percentage of Vehicles Meeting or Exceeding Useful Life Benchmark (ULB)	State Target	Rated below 3 on TERM Scale in Passenger/Parking and Maintenance Facilities	
TAMP Tier II*	Bus	14.0%		
	Cutaway, Minivan/Van, Automobiles, Sports Utility vehicles	17.0%		
	Trucks/Rubber Tire vehicles	7.0%	0.0%	N/A
CTDOT**	Over the Road Bus	14.0%		
	Commuter Locomotive, Passenger coach and self-propelled passenger rail car	17.0%		2.00 % Commuter rail segments w/ performance restrictions
	Steel Wheel Vehicles	0.0%	0.0%	
CTtransit New Britain	Bus	14.0%		
	Cutaway, Minivan/Van, Automobiles, Sports Utility vehicles	17.0%		
	Trucks/Rubber Tire vehicles	7.0%	0.0%	N/A
CTtransit NB, DATTCO	Over the Road Bus	14.0%		
	Bus	14.0%	0.0%	N/A
CTtransit Hartford Division (HFTD)	Articulated Bus, Over-the-Road Bus, Bus	14.0%		
	Automobiles	17.0%		
	Trucks/Rubber Tire vehicles	7.0%	0.0%	N/A
Greater Hartford Transit District (GHTD)	Cutaway	17.0%		
	Automobiles, SUVs	20.0%		
	Trucks/Rubber Tire vehicles	7.0%	0.0%	N/A

Recommended Action

CRCOG staff have prepared two resolutions for consideration and endorsement at the Transportation Committee meeting on February 14, 2023: one for the FHWA performance targets and one for the FTA TAM targets. Following Transportation Committee endorsement, these resolutions will be submitted to the CRCOG Policy Board for adoption at their meeting on February 22, 2023. ***Staff recommends endorsement by the Transportation Committee and adoption by the Policy Board of the FHWA performance targets and FTA TAM targets via two separate motions.***

CRCOG will continue to stay current with transportation trends related to these performance targets by doing the following:

- Continue to monitor targets using available data resources, tools, and methods.
- Analyze data for important trends, communicating these to the transportation committee and the public.
- Advocate for greater resources for improving performance in these target areas.
- Collaborate with CTDOT staff as well as other COG partners in advancing performance management practice in transportation.

RESOLUTION

ENDORSEMENT OF FHWA INFRASTRUCTURE AND SYSTEM RELIABILITY PERFORMANCE TARGETS ESTABLISHED BY CTDOT

WHEREAS, the Capitol Region Council of Governments (CRCOG) has been designated by the Governor of the State of Connecticut as the Metropolitan Planning Organization (MPO) responsible, together with the State, for the comprehensive, continuing, and cooperative transportation planning process for the Capitol Region; and

WHEREAS, the National Performance Management Measures final rule (23 CFR Part 490) requires States to set targets for the areas of infrastructure and system performances; and

WHEREAS, the Connecticut Department of Transportation (CTDOT) has established 2022 targets for:

- (1) Percentage of Pavements on the Interstate System in Good condition
- (2) Percentage of Pavements on the Interstate System in Poor condition
- (3) Percentage of Pavements on the non-Interstate NHS in Good condition
- (4) Percentage of Pavements on the non-Interstate NHS in Poor condition
- (5) Percentage of NHS Bridges classified as in Good Condition (by deck area)
- (6) Percentage of NHS Bridges classified as in Poor Condition (by deck area)
- (7) Percentage of Person-miles traveled on the Interstate System that are reliable
- (8) Percentage of Person-miles traveled on the non-Interstate System that are reliable
- (9) Truck Travel Time Reliability Index on the Interstate System
- (10) Total Emissions Reduction for Volatile Organic Compounds (VOC), Nitrous Oxides (NOx), and Particulate Matter (PM2.5)
- (11) Percentage of Non-Single Occupancy Vehicle Use (Non-SOV) for the Hartford Urbanized Area (UZA)
- (12) Peak Hour Excessive Delay per Capita for the Hartford UZA; and

WHEREAS, CTDOT and CRCOG, having been duly consulted by the Massachusetts Department of Transportation and the Pioneer Valley Planning Commission in establishing targets for the Springfield UZA, acknowledge the following targets:

- (1) Percentage of Non-Single Occupancy Vehicle Use (Non-SOV) for the Springfield UZA,
- (2) Peak Hour Excessive Delay per Capita for the Springfield UZA; and

WHEREAS, CTDOT generally discussed performance measures with the eight MPOs in Connecticut at various meetings in 2022;

NOW THEREFORE, BE IT RESOLVED, that the CRCOG Policy Board has agreed to support CTDOT's 2022 targets for the above performance measures; and

BE IT FURTHER RESOLVED, that CRCOG will plan and program projects that contribute to the accomplishment of said targets.

CERTIFICATE

I certify the above is a true copy of a resolution adopted by the Policy Board at its meeting held on February 22, 2023.

BY: _____
Jason Bowsza, Secretary

DATE: _____